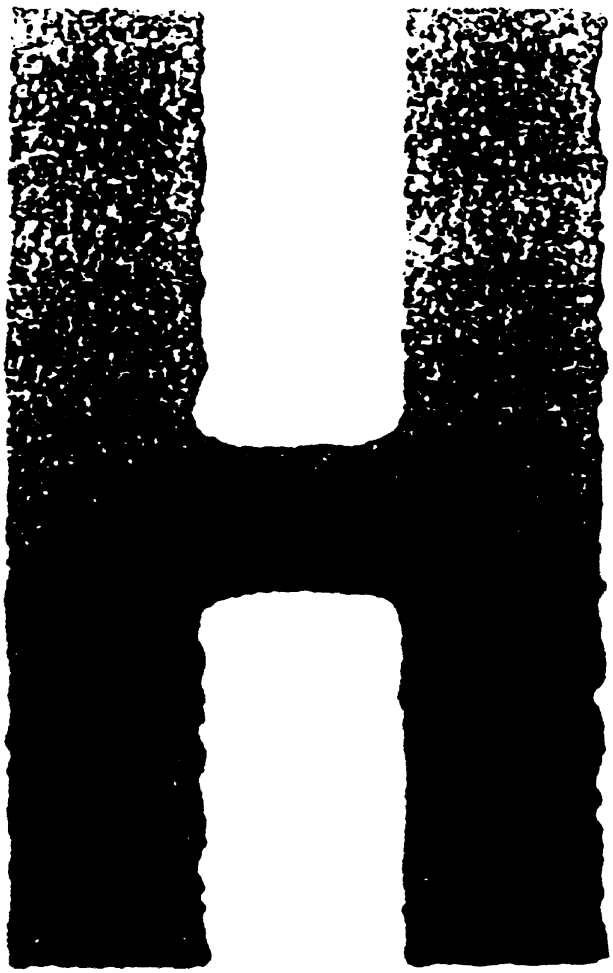
TOSHIBA

Leading Innovation

SERVICE HANDBOOK

MULTIFUNCTIONAL DIGITAL SYSTEMS

e-STUDIO200L/230/230L/280
e-STUDIO202L/232/282
e-STUDIO203L/233/283



Model: DP-2020/2050/2320/2330/2340/2820/2830/2840
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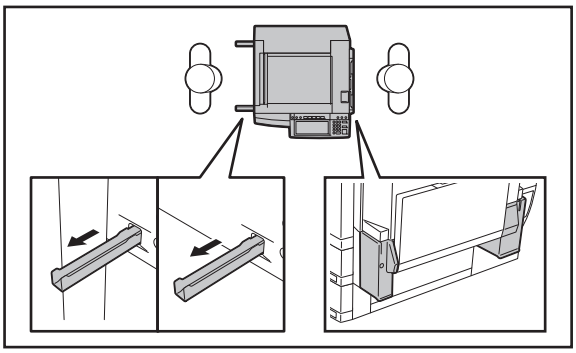
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GENERAL PRECAUTIONS REGARDING THE SERVICE FOR e-STUDIO200L/202L/203L/230/230L/232/233/280/282/283 SERIES

The installation and service should be done by a qualified service technician.

1) **Transportation/Installation**
   - When transporting/installing the equipment, employ two persons and be sure to hold the positions as shown in the figure.
     The equipment is quite heavy and weighs approximately 75 kg (165.34 lb.) therefore pay full attention when handling it.



   - Be sure not to hold the movable parts or units (e.g. the control panel, ADU or RADF) when transporting the equipment.
   - Be sure to use a dedicated outlet with AC 110 V / 13.2 A, 115 V or 127 V / 12 A, 220-240 V or 240 V / 8 A for its power source.
   - The equipment must be grounded for safety.
   - Select a suitable place for installation. Avoid excessive heat, high humidity, dust, vibration and direct sunlight.
   - Provide proper ventilation since the equipment emits a slight amount of ozone.
   - To insure adequate working space for the copying operation, keep a minimum clearance of 80 cm (32”) on the left, 80 cm (32”) on the right and 10 cm (4”) on the rear.
   - The equipment shall be installed near the socket outlet and shall be accessible.
   - Be sure to fix and plug in the power cable securely after the installation so that no one trips over it.

2) **General Precautions at Service**

- Be sure to turn the power OFF and unplug the power cable during service (except for the service should be done with the power turned ON).
- Unplug the power cable and clean the area around the prongs of the plug and socket outlet once a year or more. A fire may occur when dust lies on this area.
- When the parts are disassembled, reassembly is the reverse of disassembly unless otherwise noted in this manual or other related documents. Be careful not to install small parts such as screws, washers, pins, E-rings, star washers in the wrong places.
- Basically, the equipment should not be operated with any parts removed or disassembled.
- The PC board must be stored in an anti-electrostatic bag and handled carefully using a wristband since the ICs on it may be damaged due to static electricity.

  Caution: Before using the wristband, unplug the power cable of the equipment and make sure that there are no charged objects which are not insulated in the vicinity.

- Avoid expose to laser beam during service. This equipment uses a laser diode. Be sure not to expose your eyes to the laser beam. Do not insert reflecting parts or tools such as a screwdriver on the laser beam path. Remove all reflecting metals such as watches, rings, etc. before starting service.
- Be sure not to touch high-temperature sections such as the exposure lamp, fuser unit, damp heater and areas around them.
- Be sure not to touch high-voltage sections such as the chargers, developer, high-voltage transformer, exposure lamp control inverter, inverter for the LCD backlight and power supply unit. Especially, the board of these components should not be touched since the electric charge may remain in the capacitors, etc. on them even after the power is turned OFF.
- Make sure that the equipment will not operate before touching potentially dangerous places (e.g. rotating/operating sections such as gears, belts pulleys, fans and laser beam exit of the laser optical unit).
- Be careful when removing the covers since there might be the parts with very sharp edges underneath.
- When servicing the equipment with the power turned ON, be sure not to touch live sections and rotating/operating sections. Avoid exposing your eyes to laser beam.
- Use designated jigs and tools.
- Use recommended measuring instruments or equivalents.
- Return the equipment to the original state and check the operation when the service is finished.
- Be very careful to treat the touch panel gently and never hit it. Breaking the surface could cause malfunctions.

3) **Important Service Parts for Safety**

- The breaker, door switch, fuse, thermostat, thermofuse, thermistor, batteries, IC-RAMs including lithium batteries, etc. are particularly important for safety. Be sure to handle/install them properly. If these parts are short-circuited and their functions become ineffective, they may result in fatal accidents such as burnout. Do not allow a short-circuit or do not use the parts not recommended by Toshiba TEC Corporation.

4) **Cautionary Labels**

- During servicing, be sure to check the rating plate and cautionary labels such as “Unplug the power cable during service”, “CAUTION. HOT”, “CAUTION. HIGH VOLTAGE”, “CAUTION. LASER BEAM”, etc. to see if there is any dirt on their surface and if they are properly stuck to the equipment.

5) **Disposal of the Equipment, Supplies, Packing Materials, Used Batteries and IC-RAMs**

- Regarding the recovery and disposal of the equipment, supplies, packing materials, used batteries and IC-RAMs including lithium batteries, follow the relevant local regulations or rules.

Caution:
Dispose of used batteries and IC-RAMs including lithium batteries according to this manual.
Attention:
Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.
Vorsicht:
Entsorgung der gebrauchten Batterien und IC-RAMs (inclusive der Lithium-Batterie) nach diesem Handbuch.

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1. SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES

2. ERROR CODE AND SELF-DIAGNOSTIC MODE

3. ADJUSTMENT

4. PREVENTIVE MAINTENANCE (PM)

5. TROUBLESHOOTING

6. FIRMWARE UPDATING

7. POWER SUPPLY UNIT

8. REMOTE SERVICE

9. DATA CLONING with USB STORAGE DEVICE (e-STUDIO202L/203L/232/233/282/283)

10. WIRE HARNESS CONNECTION DIAGRAMS

1. SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES

1.1 Specifications

Values in { } are for e-STUDIO200L/202L/203L and values in [ ] are for e- STUDIO280/280S/282/282S/283/283S in case that the specification is different among e-STUDIO200L/202L/203L, e-STUDIO230/230L/232/232S/233 and e-STUDIO280/280S/282/282S/283/283S.

- •Copy process: Indirect electrophotographic process (dry)
- •Type: Desktop type (console type: when paper feed pedestal (PFP) and large capacity feeder (LCF) are installed)
- •Original table: Fixed type (the left rear corner used as guide to place originals)
- •Accepted originals: Sheet, book and 3-dimensional object. The reversing automatic document feeder (RADF) only accepts paper which are not pasted or stapled. Carbon paper are not acceptable either.
  Maximum size: A3/LD

	Single - sided original	Double - sided original
MR-3016	50 ~ 127 g/m^2 (13 lb. Bond - 34 lb. Bond)	50 ~ 105 g/m^2 (13 lb. Bond - 28 lb. Bond)
MR-3018	35 ~ 157 g/m^2 (9.3 lb. Bond - 58 lb. Cover)	50 ~ 157 g/m^2 (13 lb. Bond - 58 lb. Cover)

•Copy speed (Copies/min.)

e-STUDIO200L/202L/203L

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	20	20	16	20	20
A4-R, B5-R, LT-R	19	19	16	19	–
B4, LG	18	18	16	18	–
A3, LD	16	16	16	16	–

e-STUDIO230/230L/232/232S/233

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	23	23	16	23	23
A4-R, B5-R, LT-R	21.5	21.5	16	21.5	–
B4, LG	18	18	16	18	–
A3, LD	16	16	16	16	–

e-STUDIO280/280S/282/282S/283/283S

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	28	28	16	28	28
A4-R, B5-R, LT-R	21.5	21.5	16	21.5	–
B4, LG	18	18	16	18	–
A3, LD	16	16	16	16	–

* "–" means "Not acceptable".

* The copy speed in the above table are available when originals are manually placed for single side, multiple copying.

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* When the RADF is used, the copy speed of {20}23[28] sheets per minute is only available under the following conditions:
  - Original/Mode: Single side original/A4/LT size. APS/automatic density are not selected.
  - Number of sheets: {20}23[28] or more.
  - Reproduction ratio: 100%

Copy speed for thick paper (Copies/min.)
e-STUDIO200L/202L/203L/230/230L/232/233/280/282/283 series

Thick 1 (81 g/m^2 to 105 g/m^2, 21.3 lb. Bond to 28 lb. Bond)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	{20} 23 [27]	{20} 23 [27]	{15} 16 [16]	{20} 23 [27]	{20} 23 [27]
A4-R, B5-R, LT-R	{19} 21 [21]	{19} 21 [21]	{15} 16 [16]	{19} 21 [21]	{-} - [-]
B4, LG	{18} 18 [18]	{18} 18 [18]	{15} 16 [16]	{18} 18 [18]	{-} - [-]
A3, LD	{15} 16 [16]	{15} 16 [16]	{15} 16 [16]	{15} 16 [16]	{-} - [-]

Thick 2 (106 g/m^2 to 163 g/m^2, 28 lb. Bond to 90 lb. Index)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	{-} - [-]	{20} 23 [27]	{15} 16 [16]	{-} - [-]	{-} - [-]
A4-R, B5-R, LT-R	{-} - [-]	{19} 21 [21]	{15} 16 [16]	{-} - [-]	{-} - [-]
B4, LG	{-} - [-]	{18} 18 [18]	{15} 16 [16]	{-} - [-]	{-} - [-]
A3, LD	{-} - [-]	{15} 16 [16]	{15} 16 [16]	{-} - [-]	{-} - [-]

Thick 3 (164 g/m^2 to 209 g/m^2, 90 lb. Index to 115.7 lb. Index)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	{-} - [-]	{20} 23 [27]	{15} 16 [16]	{-} - [-]	{-} - [-]
A4-R, B5-R, LT-R	{-} - [-]	{19} 21 [21]	{15} 16 [16]	{-} - [-]	{-} - [-]
B4, LG	{-} - [-]	{18} 18 [18]	{15} 16 [16]	{-} - [-]	{-} - [-]
A3, LD	{-} - [-]	{15} 16 [16]	{15} 16 [16]	{-} - [-]	{-} - [-]

* Only A4/LT size is available for the LCF.
* The tolerance is within ±2.

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* System copy speed

Copy mode		Sec.		
		e-STUDIO200L/202/ 203L	e-STUDIO230/230L/ 232/232S/233	e-STUDIO280/280S/ 282/282S/283/283S
Single-sided originals ↓ Single-sided copies	1 set	34.18	31.5	27.6
	3 sets	95.53	84.8	72.2
	5 sets	154.28	136.2	114.0
Single-sided originals ↓ Double-sided copies	1 set	37.44	34.5	31.6
	3 sets	96.81	85.9	73.4
	5 sets	155.54	137.4	116.4
Double-sided originals ↓ Double-sided copies	1 set	70.26	64.8	58.9
	3 sets	188.48	167.7	143.8
	5 sets	306.64	270.6	228.5
Double-sided originals ↓ Single-sided copies	1 set	64.65	57.8	50.5
	3 sets	184.73	163.1	137.3
	5 sets	302.58	266.1	222.1

* The system copy speed, including scanning time, is available when 10 sheets of A4/LT size original are set on RADF and one of the copy modes in the above table is selected. The period of time from pressing [START] to the paper exit completely out of the equipment based on the actually measured value.
* Upper drawer is selected and copying is at the non-sort mode.
* Automatic copy density, APS/AMS are turned off.
* Finisher is not installed.

•Copy paper

	Drawer	ADU	PFP	LCF	Bypass copy	Remarks
Size	A3 to A5-R, LD to ST-R, FOLIO, COMPUTER, 13"LG, 8.5" x 8.5", 8K, 16K, 16K-R			A4, LT	A3 to A5-R, LD to ST-R, FOLIO, COMPUTER, 13"LG, 8.5" x 8.5", 8K, 16K, 16K-R (Non-standard or user-specified sizes can be set.)	
Weight	64 to 105 g/m^2 17 to 28 lb. Bond				64 to 209 g/m^2, 17 lb. Bond to 110 lb. Index (Continuous feeding) 50 to 209 g/m^2, 13 lb. Bond to 110 lb. Index (Single paper feeding)	
Special paper	–				Tracing paper, labels, OHP film (thickness: 80 µm or thicker), tab paper, envelope (COM10, Monarch, DL, CHO-3, YOU-4)	These special papers recommended by Toshiba Tec CHO-3: 92 mm x 235 mm YOU-4: 105 mm x 235 mm

•First copy time ..... Approx. 5.4 sec. or less
(A4/LT, upper drawer, 100%, original placed manually)

•Warming-up time ..... Approx. 25 sec. (temperature: 20°C)

•Multiple copying..... Up to 999 copies; Key in set numbers

•Reproduction ratio ..... Actual ratio: 100±0.5%
Zooming: 25 to 400% in increments of 1%
(25 to 200% when using RADF)

•Resolution/Gradation..... Scanning: 600 dpi x 600 dpi
Printing: Equivalent to 2400 dpi x 600 dpi
Gradation: 256 steps

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•Eliminated portion..... Leading edges: 3.0±2.0 mm, Side/trailing edges: 2.0±2.0 mm (copy)
Leading / trailing edges: 5.0±2.0 mm, Side edges: 5.0±2.0 mm (print)

•Paper feeding ..... Standard drawers:
1 or 2 drawers (stack height 60.5 mm, equivalent to 550 sheets; 64 to 80 g/m^2 (17 to 22 lb. Bond)): Depends on destinations or versions.

PFP:
Option (One drawer or two: stack height 60.5 mm, equivalent to 550 sheets; 64 to 80 g/m^2 (17 to 22 lb. Bond))

LCF:
Option (Stack height 137.5 mm x 2: equivalent to 2500 sheets; 64 to 80 g/m^2 (17 to 22 lb. Bond))

Bypass feeding:
Stack height 11 mm: equivalent to 100 sheets; 64 to 80 g/m^2 (17 to 22 lb. Bond)

•Capacity of originals in the reversing automatic document feeder (Option)
..... A3 to A5-R, LD to ST-R:
100 sheets / 80 g/m^2 (Stack height 16 mm or less)

•Automatic duplexing unit (ADU is available as standard equipment for some destinations or versions.)
..... Stackless, Switchback type

•Toner supply ..... Automatic toner density detection/supply
Toner cartridge replacing method (There is a recovered toner supply mechanism.)

•Density control..... Automatic density mode and manual density mode selectable in 11 steps

•Weight ..... Approximately 75 kg (165.34 lb.): e-STUDIO200L/230/230L/280/280S
Approximately 77 kg (169.75 lb.): e-STUDIO202L/203L/232/233/232S/282/282S/283 (include the developer material and drum) (The ADU and Drawer module are installed.)

•Power requirements ..... AC 110 V / 13.2 A, 115 V or 127 V / 12 A
220-240 V or 240 V / 8 A (50/60 Hz)

* The acceptable value of each voltage is ±10%.

•Power consumption..... 1.5 kW or less (115 V series, 200 V series)

* The electric power is supplied to the RADF, (ADU), Finisher, Job Separator, Offset Tray, PFP and LCF through the equipment.

•Total counter..... Electronical counter

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•Dimensions of the equipment..... See the figure below (W 637 x D 719 x H 739 (mm))

* When the tilt angle of the control panel is 45 degrees.

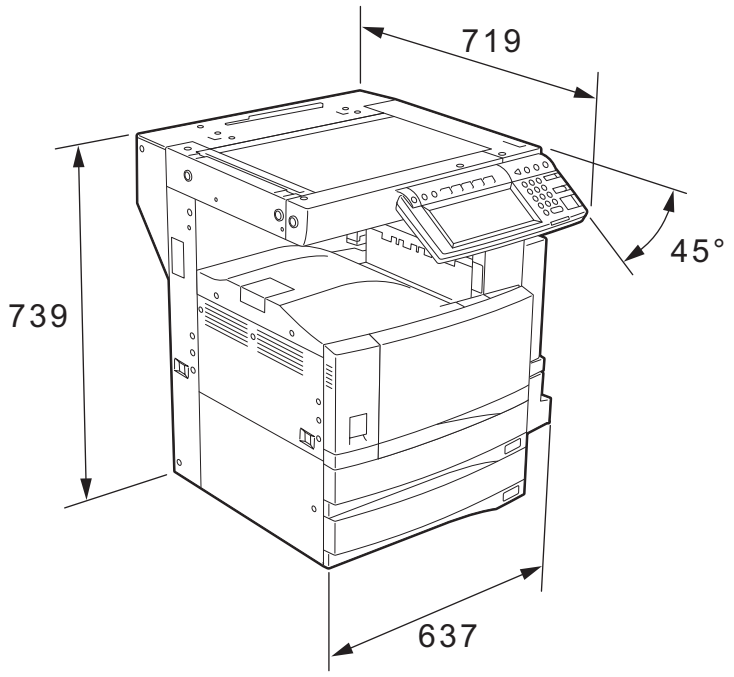


Fig. 1-1

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1.2 Accessories

Unpacking/setup instruction	1 set
Operator's manual	3 pcs. (except for MJD)
Operator's manual pocket	1 pc.
Power cable	1 pc.
Warranty sheet	1 pc. (for NAD)
Setup report	1 set (for NAD and MJD)
Customer satisfaction card	1 pc. (for MJD)
Drum (installed inside of the equipment)	1 pc.
Toner cartridge	1 pc. (except for NAD, MJD)
Developer material	1 pc. (except for NAD, MJD)
Control panel stopper	1 pc.
Blind seal	1 pc.
Rubber plug	5 pcs.
CD-ROM	4 pcs. *2
Transfer charger wire cleaner (installed inside of the transfer cover)	1 pc.
Paper stopper *1	1 pc.
Stopper bracket *1	1 pc.

Machine version

NAD:	North America
ARD:	Argentina
ASD:	Central and South America / Hong Kong
AUD:	Australia
MJD:	Europe
ASU:	Asia
SAD:	Saudi Arabia
IRD:	Iran
CND:	China
TWD:	Taiwan
JPD:	Japan
KRD:	Korea

*1: e-STUDIO200L/230/230L/280/280S only

*2: In e-STUDIO202L/203L/232/232S/233/282/282S/283, 2 discs are included.

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1.3 Options

1.3.1 e-STUDIO200L/230/230L/280/280S

Platen Cover	KA-3511 PC/PC-C
Reversing Automatic Document Feeder (RADF)	MR-3016
Drawer Module	MY-1021/-C
Paper Feed Pedestal (PFP)	KD-1011/-C
Large Capacity Feeder (LCF)	KD-1012 A4/LT/A4-C
Finisher (Hanging type)	MJ-1022/-C
Saddle stitch Finisher	MJ-1025/-C
Hole Punch Unit	MJ-6005 N/E/F/S *1
Staple Cartridge	STAPLE-1600 (for MJ-1022) STAPLE-2000 (for MJ-1025)
Bridge Kit	KN-3520/-C
Job Separator	MJ-5004/-C
Offset Tray	MJ-5005/-C
Key copy Counter, Key copy counter socket	MU-8, MU-10
Work Tray	KK-3511
Damp Heater	MF-2320 U/E
Fax Board	GD-1150 NA/AU/EU/TW/C/AS
2nd Line for Fax Board	GD-1160 NA/EU/TW/C
Wireless LAN Adapter	GN-1010
PCI Slot	GO-1040/C
Scrambler Board	GP-1030
Printer Kit	GM-1020/GM-1030
Printer/Scanner Kit	GM-2020/GM-2030
Scanner upgrade Kit	GM-3020/GM-3030
Parallel interface kit	GF-1140
Desk	MH-1700
Harness kit for coin controller	GQ-1020
Automatic Duplexing Unit (ADU)	MD-0102
Slot cover	KE-2330
NIC board	GF-1150
Data overwrite kit	GP-1050

* 1) N: North America E: Europe F: France S: Sweden

Notes:

- The bridge unit (KN-3520) is necessary for installation of the finisher (MJ-1022, MJ-1025).
- The finisher (MJ-1025) is necessary for installation of the hole punch unit (MJ-6005N/E/F/S).
- The PCI slot (GO-1040) is necessary for installation of the scrambler board (GP-1030) and parallel interface kit (GF-1140).
- GM-1030/GM-2030/GM-3030 are exclusive for e-STUDIO200L.
  They do not operate with e-STUDIO230/230L/280/280S.

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1.3.2 e-STUDIO202L/203L/232/232S/233/282/282S/283/283S

Platen Cover	KA-3511PC/-C
Reversing Automatic Document Feeder (RADF)	MR-3020
Automatic Duplexing Unit (ADU)	MD-0102
Drawer module	MY-1021/-C
Slot cover	KE-2330
Paper Feed Pedestal (PFP)	KD-1011/-C
Large Capacity Feeder (LCF)	KD-1012LT/A4/A4-C
Finisher (Hanging type)	MJ-1022/-C
Finisher (Console saddle stitcher type)	MJ-1025
Hole punch unit (for MJ-1025)	MJ-6005N/E/F/S *1
Staple cartridge	STAPLE-1600 (for MJ-1022) STAPLE-2000 (for MJ-1025)
Bridge kit	KN-3520/-C
Job separator	MJ-5004/-C
Offset tray	MJ-5005/-C
Work tray	KK-3511/-C
Damp heater	MF-2320U/E
Fax board	GD-1150NA/EU/AU/AS/C/TW GD-1151NA/EU/AU/AS/C/TW
2nd line for fax board	GD-1160NA/EU-N/C/TW GD-1260NA/EU/C/TW
Printer kit	GM-1070/1071/1080U/1081U
Printer/Scanner kit	GM-2070/2071/2080U/2081U
Scanner kit	GM-4070/GM-4080U
Printer ELK	GM-1130 (e-STUDIO232/232S/233/282/282S/283/283S) GM-1140U (e-STUDIO202L/203L)
Printer/Scanner ELK	GM-2130 (e-STUDIO232/232S/233/282/282S/283/283S) GM-2140U (e-STUDIO202L/203L)
Scanner ELK	GM-4130 (e-STUDIO232/232S/233/282/282S/283/283S) GM-4140U (e-STUDIO202L/203L)
Memory	GC-1230
Scrambler board	GP-1040
Wireless LAN module	GN-1041
Bluetooth module	GN-2010
Antenna	GN-3010
Data overwrite kit	GP-1060
PCI slot	GO-1060
e-BRIDGE ID Gate (HID iClass)	KP-2004
e-BRIDGE ID Gate (MIFARE)	KP-2005
Desk	MH-1700
Harness kit for coin controller	GQ-1020

* 1) N: North America E: Europe F: France S: Sweden

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Notes:

- The bridge kit (KN-3520) is necessary for installation of the finisher (MJ-1022 or MJ-1025).
- The saddle stitch finisher (MJ-1025) is necessary for installation of the hole punch unit (MJ-6005N/E/F/S).
- The PCI slot (GO-1060) is necessary for installation of the scrambler board (GP-1040).
- The antenna (GN-3010) is necessary to enable the wireless LAN module (GN-1041) and Bluetooth module (GN-2010).
- When the wireless LAN module (GN-1041) and the Bluetooth module (GN-2010) are installed, only 1 antenna (GN-3010) can be connected to each.
- GM-1080U / GM-2080U / GM-4080U are exclusive to e-STUDIO202L. They do not operate with e-STUDIO232/232S/282/282S.
- GM-1081U / GM-2081U / GM-4080U are exclusive to e-STUDIO202L/203L. They do not operate with e-STUDIO232/232S/233/282/282S/283.
- The Printer kit (GM-1070/1080U) or Printer/Scanner kit (GM-2070/2080U) does not have a function for printing an XPS file.
- To enable an XPS file to be printed by the Printer kit (GM-1071/1081U) or Printer/Scanner kit (GM-2071/1081U), the Memory (GC-1230) is required to be installed.
- To enable an XPS file to be printed by the Printer ELK (GM-1130/1140U) or Printer/Scanner ELK (GM-2130/2140U), the Memory (GC-1230) is required to be installed.

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1.4 Supplies

1.4.1 e-STUDIO200L/230/230L/280/280S

Drum	OD-1600
Toner cartridge	PS-ZT2320 /T/D/C/E *1
Developer	D-2320 /C

* 1) T: Taiwan D: Asia C: China E: Europe NONE: North America

1.4.2 e-STUDIO202L/232/232S/282/282S

Drum	OD-1600
Toner cartridge	PS-ZT2340 /T/D/C/E *1
Developer	D-2340 /C

* 1) T: Taiwan D: Asia C: China E: Europe NONE: North America

1.4.3 STUDIO203L/233/283/283S

Drum	OD-1600
Toner cartridge	PS-ZT2840 /E *1 PS-ZT2340C *1
Developer	D-2340 /C

* 1) C: China E: Europe NONE: North America

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1.5 System List

1.5.1 e-STUDIO200L/230/230L/280/280S

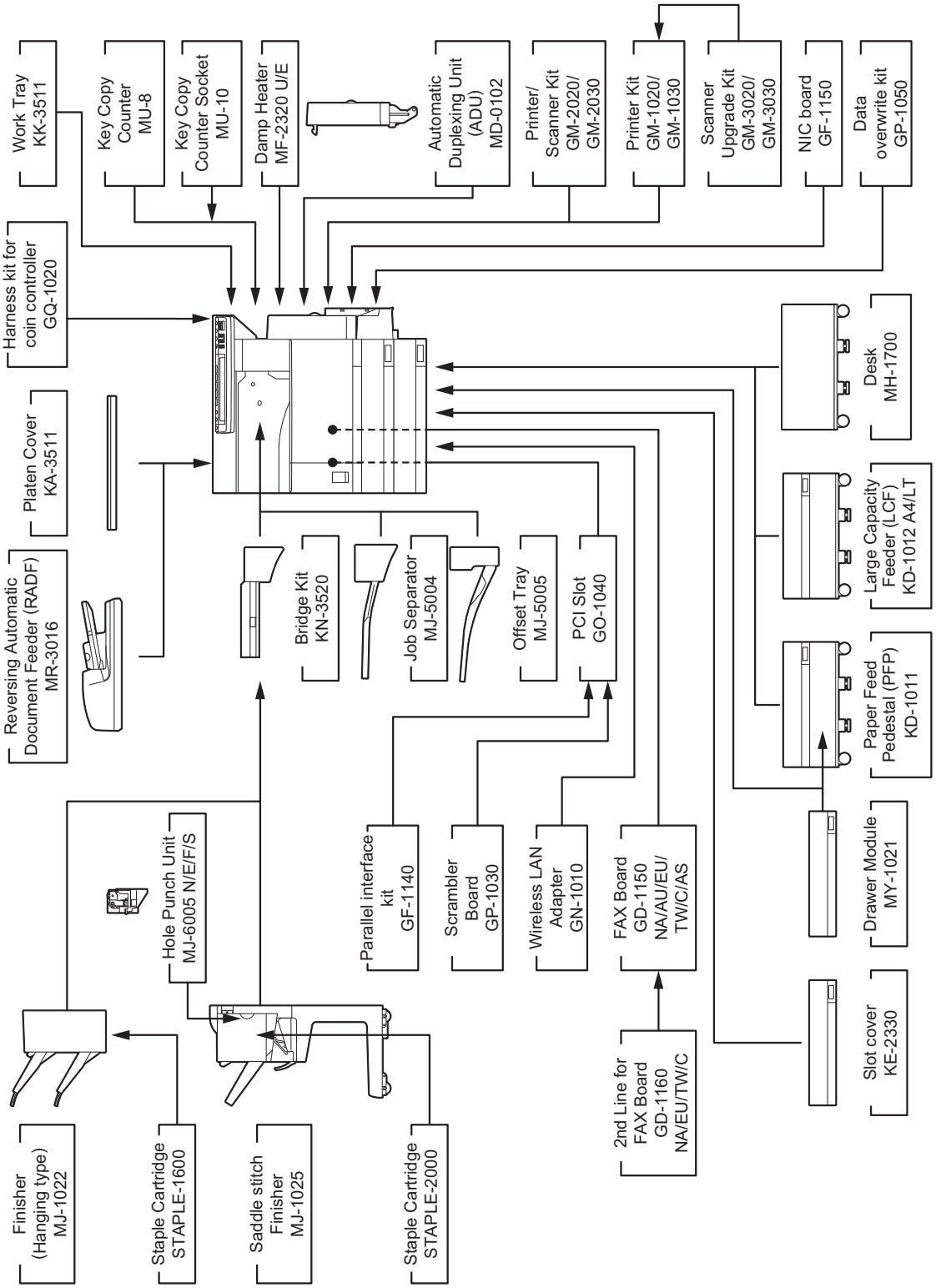


Fig. 1-2

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e-STUDIO280/280S

Area	North America	Central and South America/ Hong Kong	Australia	Europe	Asia
Machine version (destination)	NAD (115V)	ASD (220-240V)	AUD (220-240V)	MJD (220-240V)	ASU (220-240V)
Model name	e-STUDIO280	e-STUDIO280	e-STUDIO280	e-STUDIO280	e-STUDIO280
Platen cover	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC
RADF	MR-3016	MR-3016	MR-3016	MR-3016	MR-3016
Drawer module (for Equipment)	Standard	MY-1021	Standard	Standard	MY-1021
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	-	Standard	-	-	KE-2330
ADU	Standard	MD-0102	Standard	Standard	MD-0102
PFP	KD-1011	KD-1011	KD-1011	KD-1011	KD-1011
LCF	KD-1012LT	KD-1012A4	KD-1012A4	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E	MJ-6005E	MJ-6005E/F/S	MJ-6005E
Bridge kit	KN-3520	KN-3520	KN-3520	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005	MJ-5005	MJ-5005
Key copy counter	MU-8	MU-8	MU-8	MU-8	MU-8
Key copy counter socket	MU-10	MU-10	MU-10	MU-10	MU-10
Work tray	KK-3511	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	MF-2320U	Standard	Standard	MF-2320E	Standard
Fax board	GD-1150NA	GD-1150AS	GD-1150AU	GD-1150EU	GD-1150AS
2nd line for Fax board	GD-1160NA	GD-1160EU	GD-1160EU	GD-1160EU	GD-1160EU
Wireless LAN adapter	GN-1010	GN-1010	GN-1010	GN-1010	GN-1010
PCI slot	GO-1040	GO-1040	GO-1040	GO-1040	GO-1040
Scrambler board	GP-1030	GP-1030	GP-1030	GP-1030	GP-1030
Parallel interface kit	GF-1140	GF-1140	GF-1140	GF-1140	GF-1140
NIC board	Standard	GF-1150	Standard	Standard	GF-1150
Printer/Scanner kit	GM-2020	GM-2020	GM-2020	GM-2020	GM-2020
Printer kit	GM-1020	GM-1020	GM-1020	GM-1020	GM-1020
Scanner upgrade kit	GM-3020	GM-3020	GM-3020	GM-3020	GM-3020
Desk	MH-1700	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Saudi Arabia	Iran	China		Taiwan
Machine version (destination)	SAD (127V)	IRD (220-240V)	CND (220-240V)		TWD (110V)
Model name	e-STUDIO280	e-STUDIO280	e-STUDIO280S	e-STUDIO280	e-STUDIO280
Platen cover	KA-3511PC	KA-3511PC	Standard	Standard	KA-3511PC
RADF	MR-3016	MR-3016	MR-3016	MR-3016	MR-3016
Drawer module (for Equipment)	MY-1021	Standard	Standard	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	KE-2330	-	-	-	-
ADU	MD-0102	Standard	MD-0102	Standard	MD-0102
PFP	KD-1011	KD-1011	KD-1011	KD-1011	KD-1011
LCF	KD-1012A4	KD-1012A4	KD-1012-C	KD-1012-C	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022-C	MJ-1022-C	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520	KN-3520-C	KN-3520-C	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004-C	MJ-5004-C	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005-C	MJ-5005-C	MJ-5005
Key copy counter	MU-8	MU-8	MU-8	MU-8	MU-8
Key copy counter socket	MU-10	MU-10	MU-10	MU-10	MU-10
Work tray	KK-3511	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	Standard	Standard	Standard	Standard	Standard
Fax board	GD-1150NA	N/A	GD-1150C	GD-1150C	GD-1150TW
2nd line for Fax board	GD-1160NA	N/A	GD-1160C	GD-1160C	GD-1160TW
Wireless LAN adapter	GN-1010	GN-1010	GN-1010	GN-1010	GN-1010
PCI slot	GO-1040	GO-1040	GO-1040C	GO-1040C	GO-1040
Scrambler board	GP-1030	GP-1030	GP-1030	GP-1030	GP-1030
Parallel interface kit	GF-1140	GF-1140	GF-1140	GF-1140	GF-1140
NIC board	GF-1150	Standard	GF-1150	Standard	Standard
Printer/Scanner kit	GM-2020	Standard	GM-2020	Standard	GM-2020
Printer kit	GM-1020	GM-1020	GM-1020	GM-1020	GM-1020
Scanner upgrade kit	GM-3020	GM-3020	GM-3020	GM-3020	GM-3020
Desk	MH-1700	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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e-STUDIO230/230L

Area	North America	Central and South America/ Hong Kong	Australia	Europe	
Machine version (destination)	NAD (115V)	ASD (220-240V)	AUD (220-240V)	MJD (220-240V)	
Model name	e-STUDIO230	e-STUDIO230	e-STUDIO230	e-STUDIO230	e-STUDIO230L
Platen cover	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC
RADF	MR-3016	MR-3016	MR-3016	MR-3016	MR-3016
Drawer module (for Equipment)	Standard	MY-1021	Standard	Standard	MY-1021
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	-	Standard	-	-	Standard
ADU	Standard	MD-0102	Standard	Standard	MD-0102
PFP	KD-1011	KD-1011	KD-1011	KD-1011	KD-1011
LCF	KD-1012LT	KD-1012A4	KD-1012A4	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E	MJ-6005E	MJ-6005E/F/S	MJ-6005E
Bridge kit	KN-3520	KN-3520E	KN-3520	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005	MJ-5005	MJ-5005
Key copy counter	MU-8	MU-8	MU-8	MU-8	MU-8
Key copy counter socket	MU-10	MU-10	MU-10	MU-10	MU-10
Work tray	KK-3511	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	MF-2320U	Standard	Standard	MF-2320E	MF-2320E
Fax board	GD-1150NA	GD-1150AS	GD-1150AU	GD-1150EU	GD-1150EU
2nd line for Fax board	GD-1160NA	GD-1160EU	GD-1160EU	GD-1160EU	GD-1160EU
Wireless LAN adapter	GN-1010	GN-1010	GN-1010	GN-1010	GN-1010
PCI slot	GO-1040	GO-1040	GO-1040	GO-1040	GO-1040
Scrambler board	GP-1030	GP-1030	GP-1030	GP-1030	GP-1030
Parallel interface kit	GF-1140	GF-1140	GF-1140	GF-1140	GF-1140
NIC board	Standard	GF-1150	Standard	Standard	GF-1150
Printer/Scanner kit	GM-2020	GM-2020	GM-2020	GM-2020	GM-2020
Printer kit	GM-1020	GM-1020	GM-1020	GM-1020	GM-1020
Scanner upgrade kit	GM-3020	GM-3020	GM-3020	GM-3020	GM-3020
Desk	MH-1700	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Asia	Saudi Arabia	China	Taiwan
Machine version (destination)	ASU (220-240V)	SAD (127V)	CND (220-240V)	TWD (110V)
Model name	e-STUDIO230	e-STUDIO230	e-STUDIO230	e-STUDIO230
Platen cover	KA-3511PC	KA-3511PC	Standard	KA-3511PC
RADF	MR-3016	MR-3016	MR-3016	MR-3016
Drawer module (for Equipment)	MY-1021	MY-1021	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	KE-2330	KE-2330	-	-
ADU	MD-0102	MD-0102	Standard	MD-0102
PFP	KD-1011	KD-1011	KD-1011	KD-1011
LCF	KD-1012A4	KD-1012A4	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022-C	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520	KN-3520-C	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004-C	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005-C	MJ-5005
Key copy counter	MU-8	MU-8	MU-8	MU-8
Key copy counter socket	MU-10	MU-10	MU-10	MU-10
Work tray	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	Standard	Standard	Standard	Standard
Fax board	GD-1150AS	GD-1150NA	GD-1150C	GD-1150TW
2nd line for Fax board	GD-1160EU	GD-1160NA	GD-1160C	GD-1160TW
Wireless LAN adapter	GN-1010	GN-1010	GN-1010	GN-1010
PCI slot	GO-1040	GO-1040	GO-1040C	GO-1040
Scrambler board	GP-1030	GP-1030	GP-1030	GP-1030
Parallel interface kit	GF-1140	GF-1140	GF-1140	GF-1140
NIC board	GF-1150	GF-1150	Standard	Standard
Printer/Scanner kit	GM-2020	GM-2020	Standard	GM-2020
Printer kit	GM-1020	GM-1020	GM-1020	GM-1020
Scanner upgrade kit	GM-3020	GM-3020	GM-3020	GM-3020
Desk	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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e-STUDIO200L

Area	North America	Central and South America
Machine version (destination)	NAD (115V)	ASD (220-240V)
Model name	e-STUDIO200L	e-STUDIO200L
Platen cover	KA-3511PC	KA-3511PC
RADF	MR-3016	MR-3016
Drawer module (for Equipment)	MY-1021	MY-1021
Drawer module (for PFP)	MY-1021	MY-1021
Slot cover	Standard	Standard
ADU	MD-0102	MD-0102
PFP	KD-1011	KD-1011
LCF	KD-1012LT	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E
Bridge kit	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005
Key copy counter	MU-8	MU-8
Key copy counter socket	MU-10	MU-10
Work tray	KK-3511	KK-3511
Damp heater	MF-2320	Standard
Fax board	GD-1150NA	GD-1150AS
2nd line for Fax board	GD-1160NA	GD-1160EU
Wireless LAN adapter	GN-1010	GN-1010
PCI slot	GO-1040	GO-1040
Scrambler board	GP-1030	GP-1030
Parallel interface kit	GF-1140	GF-1140
NIC board	GF-1150	GF-1150
Printer/Scanner kit	GM-2030	GM-2030
Printer kit	GM-1030	GM-1030
Scanner upgrade kit	GM-3030	GM-3030
Desk	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020

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1.5.2 e-STUDIO202L/203L/232/232S/233/282/282S/283/283S

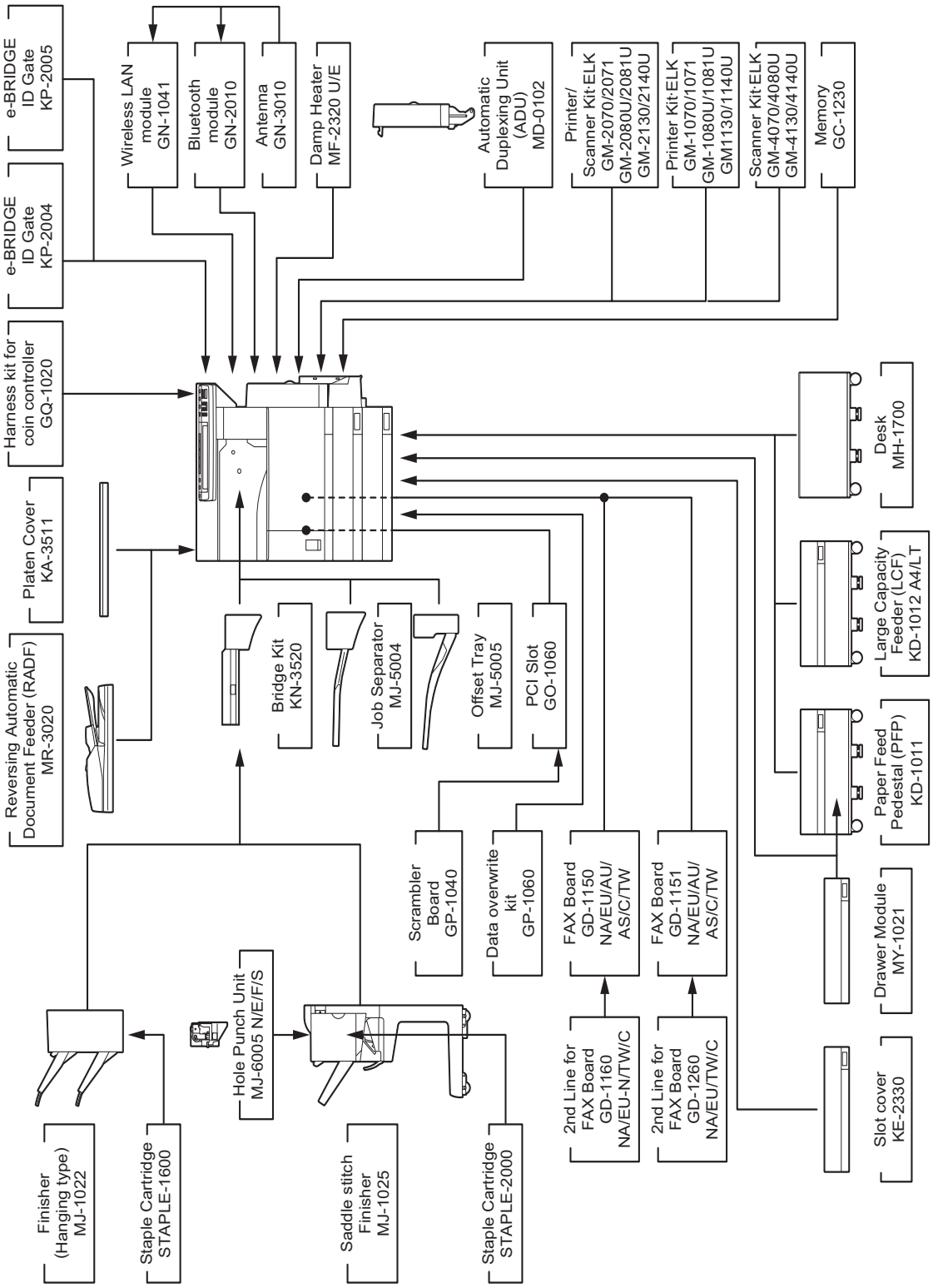


Fig. 1-3

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e-STUDIO282/282S/283/283S

Area	North America	Central and South America/Hong Kong	Argentina	Australia	Europe
Machine version (destination)	NAD (115V)	ASD (220-240V)	ARD (220-240V)	AUD (220-240V)	MJD (220-240V)
Model name	e-STUDIO 282/283	e-STUDIO282	e-STUDIO 282/283	e-STUDIO282	e-STUDIO 282/283
Platen cover	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC
RADF	MR-3020	MR-3020	MR-3020	MR-3020	MR-3020
Drawer module (for Equipment)	Standard	MY-1021	MY-1021	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	-	Standard	Standard	-	-
ADU	Standard	MD-0102	MD-0102	Standard	Standard
PFP	KD-1011	KD-1011-N	KD-1011	KD-1011	KD-1011
LCF	KD-1012LT	KD-1012A4	KD-1012A4	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E/F/S
Bridge kit	KN-3520	KN-3520	KN-3520	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005	MJ-5005	MJ-5005
Work tray	KK-3511	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	MF-2320U	Standard	Standard	Standard	MF-2320E
Fax board	GD-1150NA GD-1151NA	GD-1150AS GD-1151AS	GD-1150AS GD-1151AS	GD-1150AU GD-1151AU	GD-1150EU GD-1151EU
2nd line for Fax board	GD-1160NA GD-1260NA	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU
Wireless LAN module	GN-1041	GN-1041	GN-1041	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010	GN-2010	GN-2010	GN-2010
Antenna	GN-3010	GN-3010	GN-3010	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060	GO-1060	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040	GP-1040	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071	GM-1070/1071	GM-1070/1071	GM-1070/1071
Printer/Scanner kit	GM-2070/2071	GM-2070/2071	GM-2070/2071	GM-2070/2071	GM-2070/2071
Scanner kit	GM-4070	GM-4070	GM-4070	GM-4070	GM-4070
Data overwrite kit	GP-1060	GP-1060	GP-1060	GP-1060	GP-1060
Desk	MH-1700	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Asia	Saudi Arabia	China	
Machine version (destination)	ASU (220-240V)	SAD (127V)	CND (220-240V)	
Model name	e-STUDIO282	e-STUDIO282	e-STUDIO 282/283	e-STUDIO 282S/283S
Platen cover	KA-3511PC	KA-3511PC	Standard	Standard
RADF	MR-3020	MR-3020	MR-3020	MR-3020
Drawer module (for Equipment)	MY-1021	MY-1021	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021-C	MY-1021-C
Slot cover	KE-2330	KE-2330	-	-
ADU	MD-0102	MD-0102	Standard	MD-0102-C
PFP	KD-1011	KD-1011	KD-1011-C	KD-1011-C
LCF	KD-1012	KD-1012A4	KD-1012A4-C	KD-1012A4-C
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022-C	MJ-1022-C
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520	KN-3520-C	KN-3520-C
Job separator	MJ-5004	MJ-5004	MJ-5004-C	MJ-5004-C
Offset tray	MJ-5005	MJ-5005	MJ-5005-C	MJ-5005-C
Work tray	KK-3511	KK-3511	KK-3511-C	KK-3511-C
Damp heater	Standard	Standard	Standard	Standard
Fax board	GD-1150AS GD-1151AS	GD-1150NA GD-1151NA	GD-1150C GD-1151C	GD-1150C GD-1151C
2nd line for Fax board	GD-1160EU-N GD-1260EU	GD-1160NA GD-1260NA	GD-1160C GD-1260C	GD-1160C GD-1260C
Wireless LAN module	GN-1041	GN-1041	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010	GN-2010	GN-2010
Antenna	GN-3010	GN-3010	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071	GM-1070/1071	-
Printer/Scanner kit	GM-2070/2071	GM-2070/2071	Standard	-
Scanner kit	GM-4070	GM-4070	GM-4070	-
Data overwrite kit	GP-1060	GP-1060	GP-1060	GP-1060
Desk	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Taiwan	Korea
Machine version (destination)	TWD (110V)	KRD (220-240V)
Model name	e-STUDIO282	e-STUDIO282
Platen cover	KA-3511PC	Standard
RADF	MR-3020	MR-3020
Drawer module (for Equipment)	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021
Slot cover	-	-
ADU	MD-0102	MD-0102
PFP	KD-1011	KD-1011
LCF	KD-1012A4	KD-1012A
Finisher (Hanging type)	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005
Work tray	KK-3511	KK-3511
Damp heater	Standard	Standard
Fax board	GD-1150TW GD-1151TW	GD-1150AS GD-1151AS
2nd line for Fax board	GD-1160TW GD-1260TW	GD-1160EU-N GD-1260EU
Wireless LAN module	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010
Antenna	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071
Printer/Scanner kit	GM-2070/2071	GM-2070/2071
Scanner kit	GM-4070	GM-4070
Data overwrite kit	GP-1060	GP-1060
Desk	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020

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e-STUDIO232/232S/233

Area	North America	Central and South America/Hong Kong	Argentina	Australia	Europe
Machine version (destination)	NAD (115V)	ASD (220-240V)	ARD (220-240V)	AUD (220-240V)	MJD (220-240V)
Model name	e-STUDIO 232/233	e-STUDIO232	e-STUDIO 232/233	e-STUDIO232	e-STUDIO 232/233
Platen cover	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC	KA-3511PC
RADF	MR-3020	MR-3020	MR-3020	MR-3020	MR-3020
Drawer module (for Equipment)	Standard	MY-1021	MY-1021	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021	MY-1021	MY-1021
Slot cover	-	Standard	Standard	-	-
ADU	Standard	MD-0102	MD-0102	Standard	Standard
PFP	KD-1011	KD-1011-N	KD-1011	KD-1011	KD-1011
LCF	KD-1012LT	KD-1012A4	KD-1012A4	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E/F/S
Bridge kit	KN-3520	KN-3520	KN-3520	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004	MJ-5004	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005	MJ-5005	MJ-5005	MJ-5005
Work tray	KK-3511	KK-3511	KK-3511	KK-3511	KK-3511
Damp heater	MF-2320U	Standard	Standard	Standard	MF-2320E
Fax board	GD-1150NA GD-1151NA	GD-1150AS GD-1151AS	GD-1150AS GD-1151AS	GD-1150AU GD-1151AU	GD-1150EU GD-1151EU
2nd line for Fax board	GD-1160NA GD-1260NA	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU	GD-1160EU-N GD-1260EU
Wireless LAN module	GN-1041	GN-1041	GN-1041	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010	GN-2010	GN-2010	GN-2010
Antenna	GN-3010	GN-3010	GN-3010	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060	GO-1060	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040	GP-1040	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071	GM-1070/1071	GM-1070/1071	GM-1070/1071
Printer/Scanner kit	GM-2070/2071	GM-2070/2071	GM-2070/2071	GM-2070/2071	GM-2070/2071
Scanner kit	GM-4070	GM-4070	GM-4070	GM-4070	GM-4070
Data overwrite kit	GP-1060	GP-1060	GP-1060	GP-1060	GP-1060
Desk	MH-1700	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Asia	Saudi Arabia	China	
Machine version (destination)	ASU (220-240V)	SAD (127V)	CND (220-240V)	
Model name	e-STUDIO232	e-STUDIO232	e-STUDIO 232/233	e-STUDIO232S
Platen cover	KA-3511PC	KA-3511PC	Standard	Standard
RADF	MR-3020	MR-3020	MR-3020	MR-3020
Drawer module (for Equipment)	MY-1021	MY-1021	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021	MY-1021-C	MY-1021-C
Slot cover	KE-2330	KE-2330	-	-
ADU	MD-0102	MD-0102	Standard	MD-0102-C
PFP	KD-1011	KD-1011	KD-1011-C	KD-1011-C
LCF	KD-1012	KD-1012A4	KD-1012A4-C	KD-1012A4-C
Finisher (Hanging type)	MJ-1022	MJ-1022	MJ-1022-C	MJ-1022-C
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520	KN-3520-C	KN-3520-C
Job separator	MJ-5004	MJ-5004	MJ-5004-C	MJ-5004-C
Offset tray	MJ-5005	MJ-5005	MJ-5005-C	MJ-5005-C
Work tray	KK-3511	KK-3511	KK-3511-C	KK-3511-C
Damp heater	Standard	Standard	Standard	Standard
Fax board	GD-1150AS GD-1151AS	GD-1150NA GD-1151NA	GD-1150C GD-1151C	GD-1150C GD-1151C
2nd line for Fax board	GD-1160EU-N GD-1260EU	GD-1160NA GD-1260NA	GD-1160C GD-1260C	GD-1160C GD-1260C
Wireless LAN module	GN-1041	GN-1041	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010	GN-2010	GN-2010
Antenna	GN-3010	GN-3010	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071	GM-1070/1071	-
Printer/Scanner kit	GM-2070/2071	GM-2070/2071	Standard	-
Scanner kit	GM-4070	GM-4070	GM-4070	-
Data overwrite kit	GP-1060	GP-1060	GP-1060	GP-1060
Desk	MH-1700	MH-1700	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020	GQ-1020	GQ-1020

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Area	Taiwan	Korea
Machine version (destination)	TWD (110V)	KRD (220-240V)
Model name	e-STUDIO232	e-STUDIO232
Platen cover	KA-3511PC	Standard
RADF	MR-3020	MR-3020
Drawer module (for Equipment)	Standard	Standard
Drawer module (for PFP)	MY-1021	MY-1021
Slot cover	-	-
ADU	MD-0102	MD-0102
PFP	KD-1011-TW	KD-1011
LCF	KD-1012A4	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005E	MJ-6005E
Bridge kit	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005
Work tray	KK-3511	KK-3511
Damp heater	Standard	Standard
Fax board	GD-1150TW GD-1151TW	GD-1150AS GD-1151AS
2nd line for Fax board	GD-1160TW GD-1260TW	GD-1160EU-N GD-1260EU
Wireless LAN module	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010
Antenna	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040
Printer kit	GM-1070/1071	GM-1070/1071
Printer/Scanner kit	GM-2070/2071	GM-2070/2071
Scanner kit	GM-4070	GM-4070
Data overwrite kit	GP-1060	GP-1060
Desk	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020

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e-STUDIO202L/203L

Area	North America	Argentina
Machine version (destination)	NAD (115V)	ARD (220-240V)
Model name	e-STUDIO 202L/203L	e-STUDIO 202L/203L
Platen cover	KA-3511PC	KA-3511PC
RADF	MR-3020	MR-3020
Drawer module (for Equipment)	MY-1021	MY-1021
Drawer module (for PFP)	MY-1021	MY-1021
Slot cover	Standard	Standard
ADU	MD-0102	MD-0102
PFP	KD-1011	KD-1011-N
LCF	KD-1012LT	KD-1012A4
Finisher (Hanging type)	MJ-1022	MJ-1022
Staple cartridge (for MJ-1022)	STAPLE-1600	STAPLE-1600
Saddle stitch finisher	MJ-1025	MJ-1025
Staple cartridge (for MJ-1025)	STAPLE-2000	STAPLE-2000
Hole punch unit	MJ-6005N	MJ-6005E
Bridge kit	KN-3520	KN-3520
Job separator	MJ-5004	MJ-5004
Offset tray	MJ-5005	MJ-5005
Work tray	KK-3511	KK-3511
Damp heater	MF-2320U	Standard
Fax board	GD-1150NA GD-1151NA	GD-1150AS GD-1151AS
2nd line for Fax board	GD-1160NA GD-1260NA	GD-1160EU-N GD-1260EU
Wireless LAN module	GN-1041	GN-1041
Bluetooth module	GN-2010	GN-2010
Antenna	GN-3010	GN-3010
PCI slot	GO-1060	GO-1060
Scrambler board	GP-1040	GP-1040
Printer kit	GM-1080U/ 1081U	GM-1080U/ 1081U
Printer/Scanner kit	GM-2080U/ 2081U	GM-2080U/ 2081U
Scanner kit	GM-4080U	GM-4080U
Data overwrite kit	GP-1060	GP-1060
Desk	MH-1700	MH-1700
Harness kit for coin controller	GQ-1020	GQ-1020

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2. ERROR CODE AND SELF-DIAGNOSTIC MODE

2.1 Error Code List

One of the following error codes is displayed at the upper right of the screen while pressing the [CLEAR] button and the digital key [8] simultaneously when the “CLEAR PAPER” or “CALL SERVICE” symbol is blinking.

2.1.1 Jam

Error code	Classification	Contents	Troubleshooting
E010	Paper exit jam	Jam not reaching the exit sensor: The paper which has passed through the fuser unit does not reach the exit sensor.	P. 5-1
E020		Stop jam at the exit sensor: The trailing edge of the paper does not pass the exit sensor after its leading edge has reached this sensor.	P. 5-1
E030	Other paper jam	Power-ON jam: The paper is remaining on the paper transport path when power is turned ON.	P. 5-2
E061		Incorrect paper size setting for upper drawer: The size of paper in the 1st drawer differs from size setting of the equipment.	P. 5-2
E062		Incorrect paper size setting for lower drawer: The size of paper in the 2nd drawer differs from size setting of the equipment.	P. 5-2
E063		Incorrect paper size setting for PFP upper drawer: The size of paper in the 3rd drawer differs from size setting of the equipment.	P. 5-2
E064		Incorrect paper size setting for PFP lower drawer: The size of paper in the 4th drawer differs from size setting of the equipment.	P. 5-2
E065		Incorrect paper size setting for bypass tray: The size of paper in the bypass tray differs from size setting of the equipment.	P. 5-2
E090		HDD abnormality causes jam: Image data to be printed cannot be prepared.	P. 5-3
E110	Paper misfeeding	ADU misfeeding (Paper not reaching the 1st transport sensor): The paper which has passed through ADU does not reach the 1st transport sensor during duplex printing.	P. 5-15
E120		Bypass misfeeding (Paper not reaching the 1st transport sensor): The paper fed from the bypass tray does not reach the 1st transport sensor.	P. 5-16
E130		Upper drawer misfeeding (Paper not reaching the 1st transport sensor): The paper fed from the upper drawer does not reach the 1st transport sensor.	P. 5-17
E140		Lower drawer misfeeding (Paper not reaching the 2nd transport sensor): The paper fed from the lower drawer does not reach the 2nd transport sensor.	P. 5-18
E150		PFP upper drawer misfeeding (Paper not reaching the PFP upper drawer feed sensor): The paper fed from the PFP upper drawer does not reach the PFP upper drawer feed sensor.	P. 5-19

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Error code	Classification	Contents	Troubleshooting
E160	Paper misfeeding	PFP lower drawer misfeeding (Paper not reaching the PFP lower drawer feed sensor): The paper fed from the PFP lower drawer does not reach the PFP lower drawer feed sensor.	P. 5-20
E190		LCF misfeeding (Paper not reaching the LCF feed sensor): The paper fed from the LCF does not reach the LCF feed sensor.	P. 5-21
E200	Paper transport jam	Upper drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-3
E210		Lower drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-3
E220		Lower drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the lower drawer feed sensor.	P. 5-4
E270		Bypass transport jam (paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-5
E280		ADU transport jam (paper not reaching the registration sensor): The paper which has passed through ADU and the 1st transport sensor does not reach the registration sensor during duplex printing.	P. 5-5
E300		PFP upper drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-3
E310		PFP upper drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the 2nd transport sensor.	P. 5-4
E320		PFP upper drawer transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the PFP upper drawer feed sensor.	P. 5-6
E330		PFP lower drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-3
E340		PFP lower drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the PFP lower drawer feed sensor.	P. 5-4
E350		PFP lower drawer transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the PFP upper drawer feed sensor.	P. 5-6
E360		PFP lower drawer transport jam (Paper not reaching the PFP upper drawer feed sensor): The paper does not reach the PFP upper drawer feed sensor after it has passed the PFP lower drawer feed sensor.	P. 5-7

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Error code	Classification	Contents	Troubleshooting
E3C0	Paper transport jam	LCF transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 5-3
E3D0		LCF transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the 2nd transport sensor.	P. 5-4
E3E0		LCF transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the LCF feed sensor.	P. 5-6
E400	Cover open jam	Transfer cover open jam: The transfer cover has opened during printing.	P. 5-22
E410		Front cover open jam: The front cover has opened during printing.	P. 5-23
E420		PFP side cover open jam: The PFP side cover has opened during printing.	P. 5-24
E430		ADU open jam: The ADU has opened during printing.	P. 5-25
E440		Side cover open jam: The side cover has opened during printing.	P. 5-25
E450		LCF side cover open jam: The LCF side cover has opened during printing.	P. 5-26
E480		Bridge unit open jam: The bridge unit has opened during printing.	P. 5-26
E490		Job separator cover open jam: The job separator cover has opened during printing.	P. 5-27
E491		Offset tray cover open jam: The offset tray cover has opened during printing.	P. 5-27
E510	Paper transport jam (ADU section)	Stop jam in the ADU: The paper does not reach the ADU exit sensor after it has passed the ADU entrance sensor.	P. 5-8
E520		Jam not reaching the ADU entrance sensor: The paper does not reach the ADU entrance sensor after it is switchbacked in the exit section.	P. 5-9
E550	Other paper jam	Paper remaining jam on the transport path: The paper is remaining on the transport path when printing is finished (caused by a multiple paper feeding).	P. 5-10

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Error code	Classification	Contents	Troubleshooting
E711	RADF jam	Jam not reaching the original length sensor: The original fed from the original feeding tray does not reach the original length sensor.	P. 5-28
E712		Jam not reaching the registration sensor: The original fed from the original feeding tray does not reach the registration sensor.	P. 5-28
E713		Stop jam at the original length sensor: The trailing edge of the original does not pass the original length sensor after its leading edge has reached this sensor.	P. 5-28
E714		Feed signal reception jam: The feed signal is received even no original exists on the original feeding tray.	P. 5-29
E721		Jam not reaching the read sensor: The original does not reach the read sensor after it has passed the registration sensor (when scanning obverse side) or the reverse sensor (when scanning reverse side).	P. 5-29
E722		Jam not reaching the exit sensor (during scanning): The original which passed the read sensor does not reach the exit sensor when it is transported from the scanning section to exit section.	P. 5-30
E723		Jam not reaching the reverse sensor (during scanning): The original which passed the read sensor does not reach the reverse sensor when it is transported from the scanning section to reverse section.	P. 5-30
E724		Stop jam at the registration sensor: The trailing edge of the original does not pass the registration sensor after its leading edge has reached this sensor.	P. 5-30
E725		Stop jam at the read sensor: The trailing edge of the original does not pass the read sensor after its leading edge has reached this sensor.	P. 5-31
E726		Transport/exit signal reception jam: RADF receives the transport/exit reception signal from the equipment when no original is at the exposure waiting position.	P. 5-31
E731		Stop jam at the exit sensor: The trailing edge of the original does not pass the exit sensor after its leading edge has reached this sensor.	P. 5-32
E741		Stop jam at the reverse sensor: The trailing edge of the original does not pass the reversal sensor after its leading edge has reached this sensor.	P. 5-32
E742		Jam not reaching the reverse sensor (during reverse feeding): The leading edge of the original does not reach the reverse sensor when original is fed from the reverse section.	P. 5-33
E743		Jam not reaching the exit sensor (during reverse feeding): The original does not reach the exit sensor after it has passed the reverse sensor when the original is exited from the reverse section.	P. 5-33
E860		RADF jam access cover open: The RADF jam access cover has opened during RADF operation.	P. 5-34
E870		RADF open jam: RADF has opened during RADF operation.	P. 5-34

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Error code	Classification	Contents	Troubleshooting
E910	Finisher jam (Bridge unit)	Jam at the bridge unit transport sensor-1: The paper does not reach the bridge unit transport sensor-1 after it has passed the exit sensor.	P. 5-35
E920		Stop jam at the bridge unit transport sensor-1: The trailing edge of the paper does not pass the bridge unit transport sensor-1 after its leading edge has reached the sensor.	P. 5-35
E930		Jam at the bridge unit transport sensor-2: The trailing edge of the paper does not reach the bridge unit transport sensor-2 after its leading edge has reached the bridge unit transport sensor-1.	P. 5-35
E940		Stop jam at the bridge unit transport sensor-2: The trailing edge of the paper does not reach the bridge unit transport sensor-2 after its leading edge has reached the bridge unit transport sensor-2.	P. 5-35
E950	Job separator jam	Jam not reaching the job separator transport sensor: The paper has passed through the exit sensor does not reach the job separator transport sensor.	P. 5-11
E951		Stop jam at the job separator transport sensor: The trailing edge of the paper does not pass the job separator transport sensor.	P. 5-11
E960	Offset tray jam	Jam not reaching the offset tray transport sensor: The paper has passed through the exit sensor does not reach the offset tray transport sensor.	P. 5-11
E961		Stop jam at the offset tray transport sensor: The trailing edge of the paper does not pass the offset tray transport sensor.	P. 5-11
E9F0	Finisher jam (Puncher unit)	Punching jam: Punching is not performed properly. [MJ-1025 (When MJ-6005 is installed)]	P. 5-36
EA10	Finisher jam (Finisher unit)	Paper transport delay jam: The paper which has passed the bridge unit does not reach the inlet sensor. [MJ-1022/1025]	P. 5-37
EA20		Paper transport stop jam: The paper does not pass through the inlet sensor. [MJ-1022/1025]	P. 5-38
EA30		Power-ON jam: Paper exists at the inlet sensor when power is turned ON. [MJ-1022/1025]	P. 5-39
EA40		Door open jam: The finisher has been released from the equipment during printing. [MJ-1022/1025]	P. 5-40
EA50		Stapling jam: Stapling is not performed properly. [MJ-1022/1025]	P. 5-41
EA60		Early arrival jam: The inlet sensor detects the paper earlier than a specified timing. [MJ-1022]	P. 5-42
EA70		Stack delivery jam: It cannot deliver the stack of paper on the intermediary process tray to the stack tray. [MJ-1022/1025]	P. 5-43
EAB0	Finisher jam (Saddle Stitcher section)	Saddle paper transport stop jam: The paper which passed through the inlet sensor does not reach or pass through the folding position sensor. [MJ-1025]	P. 5-45
EAC0		Saddle transport delay jam: The paper which has reached the inlet sensor does not pass through this sensor. [MJ-1025]	P. 5-45
EAD0	Other paper jam	Print end command time-out jam: The printing has not finished normally because of the communication error between the SYS board and LGC board at the end of printing.	P. 5-46

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Error code	Classification	Contents	Troubleshooting
EAE0	Finisher jam	Receiving time time-out jam: The printing has been interrupted because of the communication error between the equipment and finisher when the paper is transported from the equipment to the finisher.	P. 5-46
EAF0	Finisher jam (Finisher unit)	Stack return jam: It cannot load the paper which passed through the delivery roller on the intermediary process tray. [MJ-1022]	P. 5-44
EB30	Finisher jam	Ready time time-out jam: The equipment judges that the paper transport to the finisher is disabled because of the communication error between the equipment and finisher at the start of printing.	P. 5-46
EB50	Paper transport jam	Paper remaining on the transport path: The multiple feeding of preceding paper caused the misfeeding of upcoming paper.	P. 5-12
EB60		Paper remaining on the transport path: The multiple feeding of preceding paper caused the misfeeding of upcoming paper (redetection after no jam is detected at [EB50]).	P. 5-14

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2.1.2 Service call

Error code	Classification	Contents	Troubleshooting
C010	Drive system related service call	Main motor abnormality: The main motor is not rotating normally.	P. 5-47
C040	Paper feeding system related service call	PFP motor abnormality: The PFP motor is not rotating normally.	P. 5-48
C130		Upper drawer tray abnormality: The upper drawer tray motor is not rotating or the upper drawer tray is not moving normally.	P. 5-49
C140		Lower drawer tray abnormality: The lower drawer tray motor is not rotating or the lower drawer tray is not moving normally.	P. 5-49
C150		PFP upper drawer tray abnormality: The PFP upper drawer tray motor is not rotating or the PFP upper drawer tray is not moving normally.	P. 5-50
C160		PFP lower drawer tray abnormality: The PFP lower drawer tray motor is not rotating or the PFP lower drawer tray is not moving normally.	P. 5-50
C180		LCF tray-up motor abnormality: The LCF tray-up motor is not rotating or the LCF tray is not moving normally.	P. 5-51
C1A0		LCF end fence motor abnormality: The LCF end fence motor is not rotating or the LCF end fence is not moving normally.	P. 5-52
C1B0		LCF transport motor abnormality: The LCF transport motor is not rotating normally.	P. 5-53
C260	Scanning system related service call	Peak detection error: Lighting of the exposure lamp (white reference) is not detected when power is turned ON.	P. 5-54
C270		Carriage home position sensor not turning OFF within a specified period of time: The carriage does not shift from its home position in a specified period of time.	P. 5-55
C280		Carriage home position sensor not turning ON within a specified period of time: The carriage does not reach to its home position in a specified period of time.	P. 5-55
C410	Fuser unit related service call	Thermistor or heater abnormality at power-ON: Abnormality of service call the thermistor is detected when power is turned ON or the temperature of the fuser roller does not rise in a specified period of time after power is turned ON.	P. 5-56
C430		Thermistor abnormality after abnormality judgment: Abnormality of the thermistor is detected after a specified period of time has passed from power-ON (including ready state).	P. 5-57
C440		Heater abnormality after abnormality judgment: The temperature of the fuser roller has exceeded the range of control (in this case, the main switch turns OFF automatically) or does not even reach the range.	P. 5-57
C450		Thermistor abnormality during printing: Abnormality of the thermistor is detected during printing.	P. 5-57
C550 (C780)	Optional communication related service call	RADF I/F error: Communication error has occurred between the RADF and the scanner.	P. 5-58
C570		Communication error between Engine-CPU and IPC board	P. 5-58
C580		Communication error between IPC board and finisher	P. 5-58

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Error code	Classification	Contents	Troubleshooting
C730	RADF related service call	EEPROM initialization error: EEPROM is not initialized normally when performing the code 05-356.	P. 5-59
C740		Reverse sensor adjustment error	P. 5-59
C810		Fan motor abnormality: The fan motor is not rotating normally.	P. 5-59
C820		Read sensor adjustment error: The read sensor cannot be adjusted normally when performing the code 05-356.	P. 5-59
C830		Original length sensor adjustment error: The original length sensor cannot be adjusted normally when performing the code 05-356.	P. 5-59
C940	Circuit related service call	Engine-CPU abnormality	P. 5-76
C970	Process related service call	High-voltage transformer abnormality: Leakage of the main charger is detected.	P. 5-76
CA10	Laser optical unit related service call	Polygonal motor abnormality: The polygonal motor is not rotating normally.	P. 5-60
CA20		H-Sync detection error: H-Sync detection PC board cannot detect laser beams.	P. 5-60
CB10	Finisher related service call	Transport motor abnormality: The transport motor or stack transport roller is not rotating normally. [MJ-1025]	P. 5-61
CB20		Delivery motor abnormality: Delivery motor or delivery roller is not rotating normally. [MJ-1022/1025]	P. 5-62
CB30		Tray lift motor abnormality: The tray lift motor is not rotating normally or the delivery tray is not moving normally. [MJ-1025]	P. 5-63
CB50		Staple motor (staple/fold) abnormality: The staple motor is not rotating normally or the stapler is not moving normally. [MJ-1025]	P. 5-64
CB60		Stapler unit shift motor abnormality: The stapler unit shift motor is not rotating normally or the Stapler Unit is not moving normally. [MJ-1025]	P. 5-66
CB80		Backup RAM data abnormality: 1) Abnormality of checksum value on finisher controller board is detected when the power is turned on. [MJ-1025] 2) Abnormality of checksum value on punch controller board is detected when the power is turned on. [MJ-1025 (when MJ-6005 is installed)]	P. 5-67
CC30		Stack processing motor abnormality: The stack processing motor is not rotating normally or the stack delivery belt is not moving normally. [MJ-1022] Paddle motor abnormality: The paddle motor is not rotating normally or the swing guide is not moving normally. [MJ-1025]	P. 5-67
CC50		Horizontal registration motor abnormality: The horizontal registration motor is not rotating normally or the puncher is not moving normally. [MJ-1025 (when MJ-6005 is installed)]	P. 5-69
CC60		Punch motor abnormality: The punch motor is not rotating normally or the puncher is not moving normally. [MJ-1025 (when MJ-6005 is installed)]	P. 5-69
CC80		Front jogging motor abnormality: Front jogging motor is not rotating normally or the front alignment plate is not moving normally. [MJ-1022] Alignment motor (front) abnormality: The alignment motor (front) is not rotating normally or the front alignment plate is not moving normally. [MJ-1025]	P. 5-70
CC90		Upper stack tray lift motor abnormality: The upper stack tray lift motor is not rotating or the upper stack tray is not moving normally. [MJ-1022]	P. 5-71

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Error code	Classification	Contents	Troubleshooting
CCA0	Finisher related service call	Lower stack tray lift motor abnormality: The lower stack tray lift motor is not rotating or the lower stack tray is not moving normally. [MJ-1022]	P. 5-72
CCB0		Rear jogging motor abnormality: Rear jogging motor is not rotating normally or the rear alignment plate is not moving normally. [MJ-1022] Alignment motor (rear) abnormality: The alignment motor (rear) is not rotating normally or the rear alignment plate is not moving normally. [MJ-1025]	P. 5-73
CDC0		Punch power failure abnormality: 24 V is not applied to the punch controller board. [MJ-1025 (when MJ-6005 is installed)]	P. 5-74
CDD0		Folding position sensor abnormality: Automatic adjustment of the folding position sensor can not be performed properly. [MJ-1025]	P. 5-74
CDE0		Paddle motor abnormality: The paddle motor does not rotate properly. [MJ-1025]	P. 5-75
CDF0	Offset tray related service call	Initialization error of the offset tray: The home position of the separator cannot be detected when the power is turned ON.	P. 5-76
CE00	Finisher related service call	Communication error between finisher unit and puncher unit: Communication error between the finisher controller PC board and punch controller PC board. [MJ-1025 (when MJ-6005 is installed)]	P. 5-75
CF60	Other service call	Toner for recycle transport area lock	P. 5-76
F070	Communication related service call	Communication error between System-CPU and Engine-CPU	P. 5-58
F090	Other service call	SRAM abnormality on the SYS board	P. 5-76
F091		NVRAM abnormality on the SYS board	P. 5-77
F092		SRAM and NVRAM abnormality on the SYS board	P. 5-78
F100		HDD format error: HDD cannot be initialized normally.	P. 5-79
F101		HDD unmounted: Connection of HDD cannot be detected.	P. 5-79
F102		HDD start error: HDD cannot become ‘Ready’ state.	P. 5-79
F103		HDD transfer time-out: Reading/writing cannot be performed in the specified period of time.	P. 5-79
F104		HDD data error: Abnormality is detected in the data of HDD.	P. 5-79
F105		HDD other error	P. 5-79
F106		Point and Print partition damage	P. 5-79
F107		/SHR partition damage	P. 5-79
F108		/SHA partition damage	P. 5-79
F110	Communication related service call	Communication error between System-CPU and Scanner-CPU	P. 5-58
F111		Scanner response abnormality	P. 5-58
F120	Other service call	Database abnormality: Database is not operating normally.	P. 5-79
F130		Invaid MAC address	P. 5-79
F200		Data overwrite kit (GP-1050/1060) is taken off	P. 5-80

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2.1.3 Error in Internet FAX / Scanning Function

1) Internet FAX related error
(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Contents	Troubleshooting
1C10	System access abnormality	P. 5-81
1C11	Insufficient memory	P. 5-81
1C12	Message reception error	P. 5-81
1C13	Message transmission error	P. 5-81
1C14	Invalid parameter	P. 5-81
1C15	Exceeding file capacity	P. 5-81
1C20	System management module access abnormality	P. 5-81
1C21	Job control module access abnormality	P. 5-81
1C22	Job control module access abnormality	P. 5-81
1C30	Directory creation failure	P. 5-82
1C31	File creation failure	P. 5-82
1C32	File deletion failure	P. 5-81
1C33	File access failure	P. 5-82
1C40	Image conversion abnormality	P. 5-82
1C60	HDD full failure during processing	P. 5-82
1C61	Address Book reading failure	P. 5-82
1C62	Memory acquiring failure	P. 5-82
1C63	Terminal IP address unset	P. 5-82
1C64	Terminal mail address unset	P. 5-82
1C65	SMTP address unset	P. 5-82
1C66	Server time time-out error	P. 5-82
1C67	NIC time time-out error	P. 5-82
1C68	NIC access error	P. 5-82
1C69	SMTP server connection error	P. 5-83
1C6A	HOST NAME error	P. 5-83
1C6B	Terminal mail address error	P. 5-83
1C6C	Destination mail address error	P. 5-83
1C6D	System error	P. 5-82
1C70	SMTP client OFF	P. 5-83
1C71	SMTP authentication error	P. 5-83
1C72	POP before SMTP error	P. 5-83
1C80	Internet FAX transmission failure when processing E-mail job received	P. 5-83
1C81	Onramp Gateway transmission failure	P. 5-83
1C82	Internet FAX transmission failure when processing FAX job received	P. 5-83
1CC0	Job canceling	-
1CC1	Power failure	P. 5-83

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2) RFC related error
(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2500	Syntax error, command unrecognized	HOST NAME error (RFC: 500) Destination mail address error (RFC: 500) Terminal mail address error (RFC: 500)	P. 5-84
2501	Syntax error in parameters or arguments	HOST NAME error (RFC: 501) Destination mail address error (RFC: 501) Terminal mail address error (RFC: 501)	P. 5-84
2503	Bad sequence of commands	Destination mail address error (RFC: 503)	P. 5-84
2504	Command parameter not implemented	HOST NAME error (RFC: 504)	P. 5-84
2550	Mailbox unavailable	Destination mail address error (RFC: 550)	P. 5-84
2551	User not local	Destination mail address error (RFC: 551)	P. 5-84
2552	Insufficient system storage	Terminal/Destination mail address error (RFC: 552)	P. 5-84
2553	Mailbox name not allowed	Destination mail address error (RFC: 553)	P. 5-84

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3) Electronic Filing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2B10	There was no applicable job.	No applicable job error in job control module	P. 5-85
2B11	Job status failed.	JOB status abnormality	P. 5-85
2B20	Failed to access file.	File library function error	P. 5-85
2B21	Message size exceeded limit or maximum size	Exceeding file capacity	P. 5-85
2B30	Insufficient disk space.	Insufficient disk space in /SHR partition	P. 5-85
2B31	Failed to access Electronic Filing.	Status of specified Electronic Filing or folder is undefined or being created/ deleted	P. 5-85
2B32	Failed to print Electronic Filing document.	Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.).	P. 5-85
2B50	Failed to process image.	Image library error	P. 5-85
2B51	Failed to process print image.	List library error	P. 5-85
2B60	The folder was renamed. A folder of the same name already existed.	A folder with the same name exists in the box.	-
2B70	The document was renamed. A document of the same name already existed.	A document with the same name exists in the box or folder.	-
2B71	Document(s) expire(s) in a few days	Documents expiring in a few days exist	-
2B80	Hard Disk space for Electronic Filing nearly full.	Hard disk space in /SHR partition is nearly full (90%).	-
2B90	Insufficient Memory.	Insufficient memory capacity	P. 5-85
2BA0	Invalid Box password specified.	Invalid Box password	P. 5-86
2BA1	Incorrect paper size	A Paper size not supported in the Electronic Filing function is being selected.	P. 5-86
2BB0	Job canceled	Job canceling	-
2BB1	Power failure occurred	Power failure	P. 5-86
2BC0	System fatal error.	Fatal failure occurred.	P. 5-85
2BC1	Failed to acquire resource.	System management module resource acquiring failure	P. 5-85
2BD0	Power failure occurred during e-Filing restoring.	Power failure occurred during restoring of Electronic Filing	P. 5-86
2BE0	Failed to get machine parameter.	Machine parameter reading failure	P. 5-86
2BF0	Maximum number of pages has been exceeded (list Maximum)	Exceeding maximum number of pages	P. 5-86
2BF1	Maximum number of documents has been exceeded (list Maximum)	Exceeding maximum number of documents	P. 5-86
2BF2	Maximum number of folders has been exceeded (list Maximum)	Exceeding maximum number of folders	P. 5-86

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4) E-mail related error
(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2C10	Illegal Job status	System access abnormality	P. 5-87
2C11	Not enough memory	Insufficient memory	P. 5-87
2C12	Illegal Job status	Message reception error	P. 5-87
2C13	Illegal Job status	Message transmission error	P. 5-87
2C14	Invalid parameter specified	Invalid parameter	P. 5-87
2C15	Message size exceeded limit or maximum size	Exceeding file capacity	P. 5-87
2C20	Illegal Job status	System management module access abnormality	P. 5-87
2C21	Illegal Job status	Job control module access abnormality	P. 5-87
2C22	Illegal Job status	Job control module access abnormality	P. 5-87
2C30	Failed to create directory	Directory creation failure	P. 5-87
2C31	Failed to create file	File creation failure	P. 5-87
2C32	Failed to delete file	File deletion failure	P. 5-87
2C33	Failed to create file	File access failure	P. 5-87
2C40	Failed to convert image file format	Image conversion abnormality	P. 5-87
2C43	Encryption error. Failed to create file.	Encryption error	P. 5-88
2C44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 5-88
2C60	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 5-88
2C61	Failed to read AddressBook	Address Book reading failure	P. 5-88
2C62	Not enough memory	Memory acquiring failure	P. 5-87
2C63	Invalid Domain Address	Terminal IP address unset	P. 5-88
2C64	Invalid Domain Address	Terminal mail address unset	P. 5-88
2C65	Failed to connect to SMTP server	SMTP address unset	P. 5-88
2C66	Failed to connect to SMTP server	Server time time-out error	P. 5-88
2C67	Failed to send E-Mail message	NIC time time-out error	P. 5-88
2C68	Failed to send E-Mail message	NIC access error	P. 5-88
2C69	Failed to connect to SMTP server	SMTP server connection error	P. 5-88
2C6A	Failed to send E-Mail message	HOST NAME error (No RFC error)	P. 5-88
2C6B	Invalid address specified in From: field	Terminal mail address error	P. 5-89
2C6C	Invalid address specified in To: field	Destination mail address error (No RFC error)	P. 5-89
2C6D	NIC system error	System error	P. 5-88
2C70	SMTP service is not available	SMTP client OFF	P. 5-89
2C71	Failed SMTP Authentication	SMTP authentication error	P. 5-89
2C72	POP Before SMTP Authentication Failed	POP before SMTP error	P. 5-89
2C80	Failed to process received E-mail job	E-mail transmission failure when processing E-mail job received	P. 5-89
2C81	Failed to process received Fax job	Process failure of FAX job received	P. 5-89
2CC0	Job canceled	Job canceling	-
2CC1	Power failure occurred	Power failure	P. 5-89

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5) File sharing related error
(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2D10	Illegal Job status	System access abnormality	P. 5-90
2D11	Not enough memory	Insufficient memory	P. 5-90
2D12	Illegal Job status	Message reception error	P. 5-90
2D13	Illegal Job status	Message transmission error	P. 5-90
2D14	Invalid parameter specified	Invalid parameter	P. 5-90
2D15	There are too many documents in the folder. Failed in creating new document.	Exceeding document number	P. 5-90
2D20	Illegal Job status	System management module access abnormality	P. 5-90
2D21	Illegal Job status	Job control module access abnormality	P. 5-90
2D22	Illegal Job status	Job control module access abnormality	P. 5-90
2D30	Failed to create directory	Directory creation failure	P. 5-90
2D31	Failed to create file	File creation failure	P. 5-90
2D32	Failed to delete file	File deletion failure	P. 5-90
2D33	Failed to create file	File access failure	P. 5-90
2D40	Failed to convert image file format	Image conversion abnormality	P. 5-91
2D43	Encryption error. Failed to create file.	Encryption error	P. 5-91
2D44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 5-91
2D60	Failed to copy file	File library access abnormality	P. 5-90
2D61	Invalid parameter specified	Invalid parameter	P. 5-90
2D62	Failed to connect to network destination. Check destination path	File server connection error	P. 5-91
2D63	Specified network path is invalid. Check destination path	Invalid network path	P. 5-91
2D64	Logon to file server failed. Check username and password	Login failure	P. 5-91
2D65	There are too many documents in the folder. Failed in creating new document.	Exceeding documents in folder: Creating new document is failed.	P. 5-91
2D66	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 5-91
2D67	FTP service is not available	FTP service not available	P. 5-91
2D68	File Sharing service is not available	File sharing service not available	P. 5-91
2DA0	Expired scan documents deleted from share folder.	Periodical deletion of scanned documents completed properly.	-
2DA1	Expired Sent Fax documents deleted from shared folder.	Periodical deletion of transmitted FAX documents completed properly.	-
2DA2	Expired Received Fax documents deleted from shared folder.	Periodical deletion of received FAX documents completed properly.	-
2DA3	Scanned documents in shared folder deleted upon user's request.	Manual deletion of scanned documents completed properly.	-

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2DA4	Sent Fax Documents in shared folder deleted upon user's request.	Manual deletion of transmitted FAX documents completed properly.	-
2DA5	Received Fax Documents in shared folder deleted upon user's request.	Manual deletion of received FAX documents completed properly.	-
2DA6	Failed to delete file.	File deletion failure	P. 5-90
2DA7	Failed to acquire resource.	Resource acquiring failure	P. 5-90
2DA8	The HDD is running out of capacity for the shared folder.	Hard disk space in /SHA partition is nearly full (90%).	-
2DC0	Job canceled	Job canceling	-
2DC1	Power failure occurred	Power failure	P. 5-91

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6) E-mail reception related error
(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3A10	MIME Error has been detected in the received mail.	E-mail MIME error	P. 5-92
3A11	MIME Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-92
3A12	MIME Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-92
3A20	Analyze Error has been detected in the received mail.	E-mail analysis error	P. 5-92
3A21	Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-92
3A22	Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-92
3A30	Whole partial mails were not reached by timeout.	Partial mail time-out error	P. 5-92
3A40	Partial Mail Error has been detected in the received mail.	Partial mail related error	P. 5-92
3A50	HDD Full Error has been occurred in this mail.	Insufficient HDD capacity error	P. 5-92
3A51	HDD Full Error has been occurred in this mail. This mail has been transferred to the administrator.		P. 5-92
3A52	HDD Full Error has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-92
3A60	HDD Full Warning has been occurred in this mail.	Warning of insufficient HDD capacity	P. 5-92
3A61	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-92
3A62	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-92
3A70	Receiving partial mail was aborted since the partial mail setting has been changed to Disable.	Warning of partial mail interruption	P. 5-92

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3A80	Partial mail was received during the partial mail setting is disabled.	Partial mail reception setting OFF	P. 5-92
3A81	Partial mail was received during the partial mail setting is disabled. This mail has been transferred to the administrator.		P. 5-92
3A82	Partial mail was received during the partial mail setting is disabled. This mail could not be transferred to the administrator.		P. 5-92
3B10	Format Error has been detected in the received mail.	E-mail format error	P. 5-92
3B11	Format Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-92
3B12	Format Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-92
3B20	Content-Type Error has been detected in the received mail.	Content-Type error	P. 5-92
3B21	Content-Type Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-92
3B22	Content-Type Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-92
3B30	Charset Error has been detected in the received mail.	Charset error	P. 5-93
3B31	Charset Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3B32	Charset Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3B40	Decode Error has been detected in the received mail.	E-mail decode error	P. 5-92
3B41	Decode Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-92
3B42	Decode Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-92

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3C10	Tiff Analyze Error has been detected in the received mail.	TIFF analysis error	P. 5-93
3C11	Tiff Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C12	Tiff Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3C13	Tiff Analyze Error has been detected in the received mail.		P. 5-93
3C20	Tiff Compression Error has been detected in the received mail.	TIFF compression error	P. 5-93
3C21	Tiff Compression Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C22	Tiff Compression Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3C30	Tiff Resolution Error has been detected in the received mail.	TIFF resolution error	P. 5-93
3C31	Tiff Resolution Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C32	Tiff Resolution Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3C40	Tiff Paper Size Error has been detected in the received mail.	TIFF paper size error	P. 5-93
3C41	Tiff Paper Size Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C42	Tiff Paper Size Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3C50	Offramp Destination Error has been detected in the received mail.	Offramp destination error	P. 5-93
3C51	Offramp Destination Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C52	Offramp Destination Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3C60	Offramp Security Error has been detected in the received mail.	Offramp security error	P. 5-93
3C61	Offramp Security Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-93
3C62	Offramp Security Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-93
3C70	Power Failure has been occurred in E-mail receiving.	Power failure error	P. 5-93
3D10	SMTP Destination Error has been detected in the received mail. This mail was deleted.	Destination address error	P. 5-93
3D20	Offramp Destination limitation Error has been detected in the received mail.	Offramp destination limitation error	P. 5-93
3D30	Fax Board Error has been occurred in the received mail.	FAX board error	P. 5-94
3E10	POP3 Connection Error has been occurred in the received mail.	POP3 server connection error	P. 5-94
3E20	POP3 Connection Timeout Error has been occurred in the received mail.	POP3 server connection time-out error	P. 5-94
3E30	POP3 Login Error has been occurred in the received mail.	POP3 login error	P. 5-94
3E40	POP3 Login Error occurred in received mail.	POP3 login method error	P. 5-94
3F00	File I/O Error has been occurred in this mail. The mail could not be received until File I/O is recovered.	File I/O error	P. 5-94
3F10			P. 5-94
3F20			P. 5-94
3F30			P. 5-94
3F40			P. 5-94

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2.1.4 Printer function error

Following codes are displayed at the end of the user name on the print job log screen (when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

Error code	Contents	Troubleshooting
4030	No Printer Kit / Printer Kit function disabled: The Printer Kit (GM-1010) or the Printer/Scanner Kit (GM-2010) is not installed. Or network printing of an XPS file is performed without the Expansion Memory (GC-1230), or network printing is performed after the termination of a trial period..	P. 5-94
4031	HDD full during print: Large quantity image data by private print or invalid network print are saved in HDD.	P. 5-94
4032	Private-print-only error: Jobs other than Private print jobs cannot be performed.	P. 5-94
4033	Printing data storing limitation error: Printing with its data being stored to the HDD temporarily (Proof print, Private print, Scheduled print, etc.) cannot be performed.	P. 5-94
4034	e-Filing storing limitation error: Printing with its data being stored to the HDD (print and e-Filing, print to e-Filing, etc.) cannot be performed.	P. 5-94
4035	Local file storing limitation error: Network FAX or Internet FAX cannot be sent when "Local" is selected for the destination of the file to save.	P. 5-94
4036	User authentication error: The user who intended to print a document is not registered as a user.	P. 5-94
4037	Hardcopy security printing error: hardcopy security printing job is performed when the function is restricted.	P. 5-95
A221	Print job cancellation: Print job (copy, list print, network print) is deleted from the print job screen.	P. 5-95
A222	Print job power failure: The power of the equipment is turned OFF during print job (copy, list print, network print).	P. 5-95
A290	Limit over error: The numbers of output pages have exceeded those specified with both of the department code and the user code at the same time.	P. 5-95
A291	Limit over error: The number of output pages has exceeded the one specified with the user code.	P. 5-95
A292	Limit over error: The number of output pages has exceeded the one specified with the department code.	P. 5-95

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<<Error history: e-STUDIO200L/230/230L/280>>
In the setting mode (08-253), the latest twenty groups of error data will be displayed.
Display example

EA10	04 07 11 17 57 32	064	064	23621000000
Error code	YY MM DD HH MM SS	MMM	NNN	ABCDEFHIJLO
4 digits	12 digits (Year is indicated with its last two digits.)	3 digits	3 digits	11 digits

A	Paper source
	0: Not selected 1: Bypass feed 2: LCF 3: PFP upper drawer 4: Unused 5: PFP lower drawer 6: Unused 7: Upper drawer 8: Lower drawer
B	Paper size code
	0: A5/ST 1: A5-R 2: ST-R 3: LT 4: A4 5: B5-R 6: LT-R 7: A4-R 8: OTHER/UNIV 9: B5 A: FOLIO/COMP B: LG C: B4 D: LD E: A3 F: 13" LG G: Unused H: A6-R I: Postcard J: 8.5SQ K: Unused L: Unused M: 8K N: 16K-R O: 16K P: COM10 (Envelope) Q: DL (Envelope) R: Monarch (Envelope) S: CHO-3 (Envelope) T: YOU-4 (Envelope) Z: Not selected
C	Sort mode/staple mode
	0: Non-sort/Non-staple 1: Group 2: Sort 7: Front staple 8: Double staple 9: Rear staple A: Saddle stitch
D	ADF mode
	0: Unused 1: AUTO FEED (SADF) 2: STACK FEED
E	APS/AMS mode
	0: Not selected 1: APS 2: AMS
F	Duplex mode
	0: Not selected 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying 8: Single-sided/Duplex copying
G	Unused
H	Image shift
	0: Unused 1: Book 2: Left 4: Right
I	Editing
	0: Unused 1: Masking 2: Trimming 3: Mirror image 4: Negative/Positive Reversal
J	Edge erase/Dual-page
	0: Unused 1: Edge erase 2: Dual-page 3: Edge erase & Dual-page
K	Unused
L	Function
	0: Unused 1: Copying 2: FAX/Internet FAX transmission 3: FAX/Internet FAX/E-mail reception printing 4: Unused 5: Printing/List print 6: Scan/E-mail transmission
MMM	Primary scanning reproduction ratio (Display in hexadecimal)
	(Mx256)+(Mx16)+M
NNN	Secondary scanning reproduction ratio (Display in hexadecimal)
	(Nx256)+(Nx16)+N
O	Mode
	0: Unused 1: Unused 2: Black

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<<Error history: e-STUDIO202L/203L/232/233/282/283>>
In the setting mode (08-253), the latest twenty groups of error data will be displayed.
Display example

EA10	99999999	04 07 11 17 57 32	064	064	23621000000
Error code	Total counter	YY MM DD HH MM SS	MMM	NNN	ABCDEFHIJLO
4 digits	8 digits	12 digits (Year is indicated with its last two digits.)	3 digits	3 digits	11 digits

A	Paper source
	0: Not selected 1: Bypass feed 2: LCF 3: Upper drawer 4: Lower drawer 5: PFP upper drawer 6: PFP lower drawer 7: Unused 8: Unused
B	Paper size code
	0: A5/ST 1: A5-R 2: ST-R 3: LT 4: A4 5: B5-R 6: LT-R 7: A4-R 8: OTHER/UNIV 9: B5 A: FOLIO/COMP B: LG C: B4 D: LD E: A3 F: 13” LG G: Unused H: A6-R I: Postcard J: 8.5SQ K: Unused L: Unused M: 8K N: 16K-R O: 16K P: COM10 (Envelope) Q: DL (Envelope) R: Monarch (Envelope) S: CHO-3 (Envelope) T: YOU-4 (Envelope) Z: Not selected
C	Sort mode/staple mode
	0: Non-sort/Non-staple 1: Group 2: Sort 7: Front staple 8: Double staple 9: Rear staple A: Saddle stitch
D	ADF mode
	0: Unused 1: AUTO FEED (SADF) 2: STACK FEED
E	APS/AMS mode
	0: Not selected 1: APS 2: AMS
F	Duplex mode
	0: Not selected 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying 8: Single-sided/Duplex copying
G	Unused
H	Image shift
	0: Unused 1: Book 2: Left 4: Right
I	Editing
	0: Unused 1: Masking 2: Trimming 3: Mirror image 4: Negative/Positive Reversal
J	Edge erase/Dual-page
	0: Unused 1: Edge erase 2: Dual-page 3: Edge erase & Dual-page
K	Unused
L	Function
	0: Unused 1: Copying 2: FAX/Internet FAX transmission 3: FAX/Internet FAX/E-mail reception printing 4: Unused 5: Printing/List print 6: Scan/E-mail transmission
MMM	Primary scanning reproduction ratio (Display in hexadecimal)
	(Mx256)+(Mx16)+M
NNN	Secondary scanning reproduction ratio (Display in hexadecimal)
	(Nx256)+(Nx16)+N
O	Mode
	0: Unused 1: Unused 2: Black

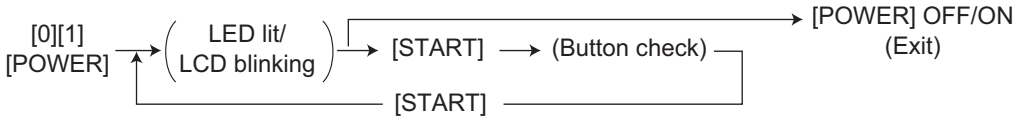
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2.2 Self-diagnosis Modes

Mode	For start	Contents	For exit	Display
Control panel check mode	[0]+[1]+ [POWER]	All LEDs on the control panel are lit, and all the LCD pixels blink.	[POWER] OFF/ON	-
Test mode	[0]+[3]+ [POWER]	Checks the status of input/output signals.	[POWER] OFF/ON	100% C A4 TEST MODE
Test print mode	[0]+[4]+ [POWER]	Outputs the test patterns.	[POWER] OFF/ON	100% P A4 TEST PRINT
Adjustment mode	[0]+[5]+ [POWER]	Adjusts various items.	[POWER] OFF/ON	100% A A4 TEST MODE
Setting mode	[0]+[8]+ [POWER]	Sets various items.	[POWER] OFF/ON	100% D TEST MOD
List print mode	[9]+[START] +[POWER]	Prints out the data lists of the codes 05 and 08, PM support mode and pixel counter.	[POWER] OFF/ON	100% UA A4 LIST PRINT
PM support mode	[6]+[START] +[POWER]	Clears each counter.	[POWER] OFF/ON	100% K TEST MODE
Firmware update mode	[8]+[9]+ [POWER]	Performs updating of the system firmware.	[POWER] OFF/ON	-

Notes:
1. To enter the desired mode, turn ON the power while two digital keys designated to each mode (e.g. [0] and [5]) are pressed simultaneously.
2. When the optional FAX unit is installed, Faxes received automatically during the self-diagnosis mode may not be printed out. Be sure to disconnect the modular code from the line connectors (LINE1, LINE2) of the equipment before starting the self-diagnosis mode. Also, be sure to finish the self-diagnosis mode by turning the power OFF and back ON before connecting the modular code.

<Operation procedure>
- Control panel check mode (01):



Notes:
1. A mode can be canceled by [POWER] OFF/ON when the LED is lit and the LCD is blinking.
2. Button Check
   - Buttons with LED (Press to turn OFF the LED.)
   - Buttons without LED (Press to display the message on the control panel.)
   - Button on touch panel (Press to display the screen on the control panel at power-ON.)

- Test mode (03): Refer to P. 2-25 "2.2.1 Input check (Test mode 03) (e-STUDIO200L/230/230L/280)"/P. 2-32 "2.2.2 Input check (Test mode 03) (e-STUDIO202L/203L/232/233/282/283)" and P. 2-40 "2.2.3 Output check (test mode 03)".

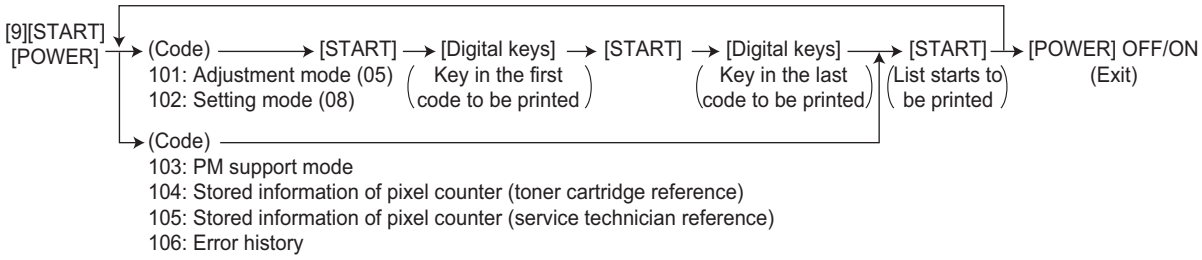
- Test print mode (04): Refer to P. 2-43 "2.2.4 Test print mode (test mode 04)".

- Adjustment mode (05): Refer to P. 2-44 "2.2.5 Adjustment mode (05) (e-STUDIO200L/230/230L/280)"/P. 2-64 "2.2.6 Adjustment mode (05) (e-STUDIO202L/203L/232/233/282/283)".

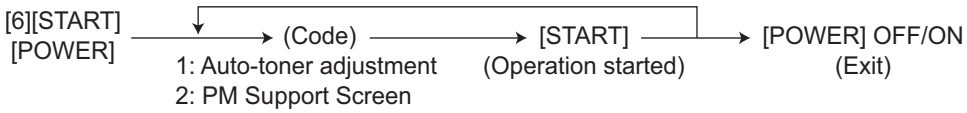
- Setting mode (08): Refer to P. 2-84 "2.2.7 Setting mode (08) (e-STUDIO200L/230/230L/280)"/P. 2-153 "2.2.8 Setting mode (08) (e-STUDIO202L/203L/232/233/282/283)".

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- List print mode (9S): The procedure varies depending on the code.



- PM support mode (6S):



- Firmware update mode (89): Refer to “6. FIRMWARE UPDATING”.

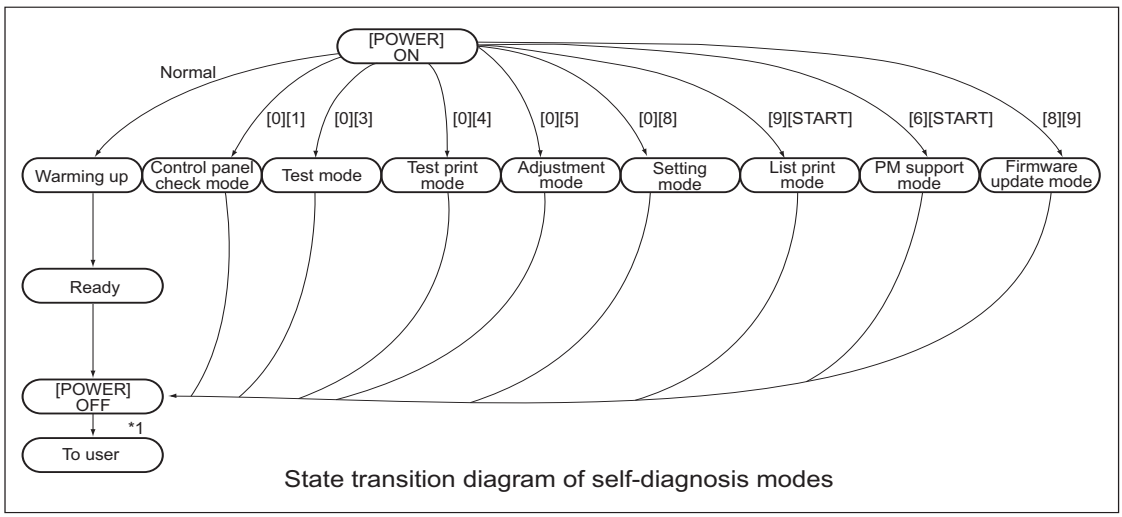


Fig. 2-1

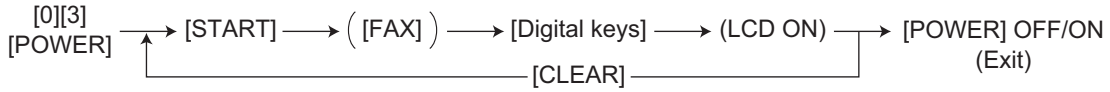
*1 Turn OFF the power after using the self-diagnosis modes, and leave the equipment to the user.

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2.2.1 Input check (Test mode 03) (e-STUDIO200L/230/230L/280)

The status of each input signal can be checked by pressing the [FAX] button, and the digital keys in the test mode (03).

<Operation procedure>



Note:
Initialization is performed before the equipment enters the test mode.



Fig. 2-2 Example of display during input check

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed in the following pages.

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[FAX] button: OFF ([FAX] LED: OFF)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	-	-	-
	B	LCF connection	Not connected	Connected
	C	Bypass unit connection	Not connected	Connected
	D	Bypass paper sensor	No paper	Paper present
	E	ADU connection	Not connected	Connected
	F	ADU opening/closing switch	ADU opened	ADU closed
	G	ADU exit sensor	Paper present	No paper
	H	ADU entrance sensor	Paper present	No paper
[2]	A	PFP upper drawer detection switch	Drawer not installed	Drawer present
	B	-	-	-
	C	PFP upper drawer paper stock sensor	Paper almost empty	Paper present
	D	PFP upper drawer feed sensor	Paper present	No paper
	E	PFP connection	Not connected	Connected
	F	PFP side cover opening/closing switch	Cover opened	Cover closed
	G	PFP upper drawer empty sensor	No paper	Paper present
	H	PFP upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[3]	A	LCF tray bottom sensor	Tray at bottom position	Other than bottom position
	B	LCF standby side paper mis-stacking sensor	Correct stacking	Incorrect stacking
	C	-	-	-
	D	-	-	-
	E	LCF drawer detection switch	Drawer not installed	Drawer present
	F	-	-	-
	G	-	-	-
	H	LCF feed side paper stock sensor	Paper almost empty	Paper present
[4]	A	PFP lower drawer detection sensor	Drawer not installed	Drawer present
	B	-	-	-
	C	PFP lower drawer paper stock sensor	Paper almost empty	Paper present
	D	PFP lower drawer feed sensor	Paper present	No paper
	E	PFP motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	F	-	-	-
	G	PFP lower drawer empty sensor	No paper	Paper present
	H	PFP lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[5]	A	LCF end fence home position sensor	Fence home position	Other than home position
	B	LCF end fence stop position sensor	Fence stop position	Other than stop position
	C	LCF standby side empty sensor	No paper	Paper present
	D	LCF side cover opening/closing switch	Cover closed	Cover opened
	E	LCF motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	F	LCF tray-up sensor	Tray at upper limit position	Other than upper limit position
	G	LCF feed sensor	No paper	Paper present
	H	LCF feed side empty sensor	Paper present	No paper
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	1st transport sensor	Paper present	No paper
	F	-	-	-
	G	Upper drawer empty sensor	No paper	Paper present
	H	Upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[7]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	2nd transport sensor	Paper present	No paper
	F	-	-	-
	G	Lower drawer empty sensor	No paper	Paper present
	H	Lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[8]	A	-	-	-
	B	Bypass feed paper width sensor-2	Refer to table 1	
	C	Bypass feed paper width sensor-1	Refer to table 1	
	D	Bypass feed paper width sensor-0	Refer to table 1	
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Upper drawer detection switch	Drawer not installed	Drawer present
	E	Upper drawer paper stock sensor	Paper almost empty	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Lower drawer detection switch	Drawer not installed	Drawer present
	E	Lower drawer paper stock sensor	Paper almost empty	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 1. Relation between the status of the bypass paper width sensor and paper size (width).

Bypass paper-width sensor			Paper-width size
2	1	0	
1	1	1	A3/A4
1	1	0	B5-R
1	0	1	A5-R
1	0	0	A3/A4
0	1	1	Card size
0	1	0	A4-R/A5
0	0	1	B6-R
0	0	0	B4-R/B5

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[FAX] button: ON ([FAX] LED: ON)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	-	-	-
	B	-	-	-
	C	24 V power supply	Power ON	Power OFF
	D	IPC board connection	Not connected	Connected
	E	-	-	-
	F	Polygonal motor rotation status (Motor is rotating at Output Mode (03))	Abnormal rotation	Normal rotation
	G	Auger lock switch	Lock	Unlock
	H	Toner cartridge installation switch	OFF	ON
[2]	A	Registration sensor	Paper present	No paper
	B	Exit sensor	Paper present	No paper
	C	Auto-toner sensor connection	Not connected	Connected
	D	Front cover opening/closing switch	Cover opened	Cover closed
	E	-	-	-
	F	Side cover opening/closing sensor	Cover opened	Cover closed
	G	Transfer cover opening/closing switch	Cover opened	Cover closed
	H	Main motor rotation status (Motor is rotating at Output Mode (03))	Abnormal rotation	Normal rotation
[3]	A	-	-	-
	B	Key copy counter connection	Not connected	Connected
	C	Job Separator upper stack sensor (When Job Separator is installed)	Paper full	Paper not full
		Offset Tray separate sensor (When Offset Tray is installed)	Separator at home position	Other than home position
	D	Fuser unit connection	Fuser unit installed	Fuser unit not installed
	E	Bridge unit transport sensor-2 (When bridge unit is installed)	No paper	Paper present
	F	Bridge unit cover opening/closing detection switch (When Bridge unit is installed)	Cover opened	Cover closed
		Job Separator cover switch (When Job Separator is installed)	Cover opened	Cover closed
		Offset Tray cover switch (When Offset Tray is installed)	Cover opened	Cover closed
	G	Bridge unit paper full detection sensor (When bridge unit is installed)	Paper not full	Paper full
		Job Separator lower stack sensor (When Job Separator is installed)	Paper full	Paper not full
		Offset Tray stack sensor (When Offset Tray is installed)	Paper full	Paper not full
	H	Bridge unit transport sensor-1 (When bridge unit is installed)	No paper	Paper present
		Job Separator feed sensor (When Job Separator is installed)	Paper present	No paper
		Offset Tray feed sensor (When Offset Tray is installed)	Paper present	No paper
[4]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	Bypass feed sensor	No paper	Paper present
	G	-	-	-
	H	High-voltage power supply abnormality (shutdown) detection	Normal	Abnormal

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[5]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	RADF connection	RADF connected	Not connected
	G	Platen sensor	Platen cover opened	Platen cover closed
	H	Carriage home position sensor	Carriage at home position	Other than home position
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	APS sensor (APS-R)	No original	Original present
	E	APS sensor (APS-C)	No original	Original present
	F	APS sensor (APS-3)	No original	Original present
	G	APS sensor (APS-2)	No original	Original present
	H	APS sensor (APS-1)	No original	Original present
[7]	A	RADF tray sensor	Original present	No original
	B	RADF empty sensor	Original present	No original
	C	RADF jam access cover switch	Cover opened	Cover closed
	D	RADF opening/closing sensor	RADF opened	RADF closed
	E	RADF exit sensor	Original present	No original
	F	RADF reverse sensor	Original present	No original
	G	RADF read sensor	Original present	No original
	H	RADF registration sensor	Original present	No original
[8]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	RADF original length sensor	Original present	No original
	F	RADF original width sensor-1	Original present	No original
	G	RADF original width sensor-2	Original present	No original
	H	RADF original width sensor-3	Original present	No original

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[9]	A	Bridge unit/Job Separator/Offset Tray connection detection-3	Refer to table 2	
	B	Bridge unit/Job Separator/Offset Tray connection detection-2	Refer to table 2	
	C	Bridge unit/Job Separator/Offset Tray connection detection-1	Refer to table 2	
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[0]	A	Dongle (for Printer/Scanner kit (GM-2020 or 2030))	Connectable	Not connectable
	B	Dongle (for Printer kit (GM-1020 or 1030))	Connectable	Not connectable
	C	Dongle (for Scanner upgrade kit (GM-3020 or 3030))	Connectable	Not connectable
	D	Dongles for other equipments/Other USB devices	Connectable	Not connectable
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 2. Connecting status of additional options at inner area of the equipment

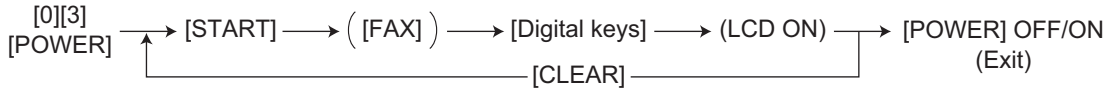
	Bridge unit	Job Separator	Offset Tray	None
Bridge unit/Job Separator/Offset Tray connection detection-3	Normal display	Highlighting display	Highlighting display	Highlighting display
Bridge unit/Job Separator/Offset Tray connection detection-2	Highlighting display	Highlighting display	Normal display	Highlighting display
Bridge unit/Job Separator/Offset Tray connection detection-1	Normal display	Normal display	Normal display	Highlighting display

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2.2.2 Input check (Test mode 03) (e-STUDIO202L/203L/232/233/282/283)

The status of each input signal can be checked by pressing the [FAX] button, and the digital keys in the test mode (03).

<Operation procedure>



Note:
Initialization is performed before the equipment enters the test mode.



Fig. 2-3 Example of display during input check

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed in the following pages.

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[FAX] button: OFF ([FAX] LED: OFF)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	-	-	-
	B	LCF connection	Not connected	Connected
	C	Bypass unit connection	Not connected	Connected
	D	Bypass paper sensor	No paper	Paper present
	E	ADU connection	Not connected	Connected
	F	ADU opening/closing switch	ADU opened	ADU closed
	G	ADU exit sensor	Paper present	No paper
	H	ADU entrance sensor	Paper present	No paper
[2]	A	PFP upper drawer detection switch	Drawer not installed	Drawer present
	B	-	-	-
	C	PFP upper drawer paper stock sensor	Paper almost empty	Paper present
	D	PFP upper drawer feed sensor	Paper present	No paper
	E	PFP connection	Not connected	Connected
	F	PFP side cover opening/closing switch	Cover opened	Cover closed
	G	PFP upper drawer empty sensor	No paper	Paper present
	H	PFP upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[3]	A	LCF tray bottom sensor	Tray at bottom position	Other than bottom position
	B	LCF standby side paper mis-stacking sensor	Correct stacking	Incorrect stacking
	C	-	-	-
	D	-	-	-
	E	LCF drawer detection switch	Drawer not installed	Drawer present
	F	-	-	-
	G	-	-	-
	H	LCF feed side paper stock sensor	Paper almost empty	Paper present
[4]	A	PFP lower drawer detection sensor	Drawer not installed	Drawer present
	B	-	-	-
	C	PFP lower drawer paper stock sensor	Paper almost empty	Paper present
	D	PFP lower drawer feed sensor	Paper present	No paper
	E	PFP motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	F	-	-	-
	G	PFP lower drawer empty sensor	No paper	Paper present
	H	PFP lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[5]	A	LCF end fence home position sensor	Fence home position	Other than home position
	B	LCF end fence stop position sensor	Fence stop position	Other than stop position
	C	LCF standby side empty sensor	No paper	Paper present
	D	LCF side cover opening/closing switch	Cover closed	Cover opened
	E	LCF motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	F	LCF tray-up sensor	Tray at upper limit position	Other than upper limit position
	G	LCF feed sensor	No paper	Paper present
	H	LCF feed side empty sensor	Paper present	No paper
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	1st transport sensor	Paper present	No paper
	F	-	-	-
	G	Upper drawer empty sensor	No paper	Paper present
	H	Upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[7]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	2nd transport sensor	Paper present	No paper
	F	-	-	-
	G	Lower drawer empty sensor	No paper	Paper present
	H	Lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
[8]	A	-	-	-
	B	Bypass feed paper width sensor-2	Refer to table 1	
	C	Bypass feed paper width sensor-1	Refer to table 1	
	D	Bypass feed paper width sensor-0	Refer to table 1	
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Upper drawer detection switch	Drawer not installed	Drawer present
	E	Upper drawer paper stock sensor	Paper almost empty	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Lower drawer detection switch	Drawer not installed	Drawer present
	E	Lower drawer paper stock sensor	Paper almost empty	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 1. Relation between the status of the bypass paper width sensor and paper size (width).

Bypass paper-width sensor			Paper-width size
2	1	0	
1	1	1	A3/A4
1	1	0	B5-R
1	0	1	A5-R
1	0	0	A3/A4
0	1	1	Card size
0	1	0	A4-R/A5
0	0	1	B6-R
0	0	0	B4-R/B5

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[FAX] button: ON ([FAX] LED: ON)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	-	-	-
	B	-	-	-
	C	24 V power supply	Power ON	Power OFF
	D	IPC board connection	Not connected	Connected
	E	-	-	-
	F	Polygonal motor rotation status (Motor is rotating at Output Mode (03))	Abnormal rotation	Normal rotation
	G	Auger lock switch	Lock	Unlock
	H	Toner cartridge installation switch	OFF	ON
[2]	A	Registration sensor	Paper present	No paper
	B	Exit sensor	Paper present	No paper
	C	Auto-toner sensor connection	Not connected	Connected
	D	Front cover opening/closing switch	Cover opened	Cover closed
	E	-	-	-
	F	Side cover opening/closing sensor	Cover opened	Cover closed
	G	Transfer cover opening/closing switch	Cover opened	Cover closed
	H	Main motor rotation status (Motor is rotating at Output Mode (03))	Abnormal rotation	Normal rotation
[3]	A	-	-	-
	B	Key copy counter connection	Not connected	Connected
	C	Job Separator upper stack sensor (When Job Separator is installed)	Paper full	Paper not full
		Offset Tray separate sensor (When Offset Tray is installed)	Separator at home position	Other than home position
	D	Fuser unit connection	Fuser unit installed	Fuser unit not installed
	E	Bridge unit transport sensor-2 (When bridge unit is installed)	No paper	Paper present
	F	Bridge unit cover opening/closing detection switch (When Bridge unit is installed)	Cover opened	Cover closed
		Job Separator cover switch (When Job Separator is installed)	Cover opened	Cover closed
		Offset Tray cover switch (When Offset Tray is installed)	Cover opened	Cover closed
	G	Bridge unit paper full detection sensor (When bridge unit is installed)	Paper not full	Paper full
		Job Separator lower stack sensor (When Job Separator is installed)	Paper full	Paper not full
		Offset Tray stack sensor (When Offset Tray is installed)	Paper full	Paper not full
	H	Bridge unit transport sensor-1 (When bridge unit is installed)	No paper	Paper present
		Job Separator feed sensor (When Job Separator is installed)	Paper present	No paper
		Offset Tray feed sensor (When Offset Tray is installed)	Paper present	No paper
[4]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	Bypass feed sensor	No paper	Paper present
	G	-	-	-
	H	High-voltage power supply abnormality (shutdown) detection	Normal	Abnormal

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[5]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	RADF connection	RADF connected	Not connected
	G	Platen sensor	Platen cover opened	Platen cover closed
	H	Carriage home position sensor	Carriage at home position	Other than home position
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	APS sensor (APS-R)	No original	Original present
	E	APS sensor (APS-C)	No original	Original present
	F	APS sensor (APS-3)	No original	Original present
	G	APS sensor (APS-2)	No original	Original present
	H	APS sensor (APS-1)	No original	Original present
[7]	A	[RADF] Original tray sensor	Original present	No original
	B	[RADF] Original empty sensor	Original present	No original
	C	[RADF] Jam access cover sensor	Cover opened	Cover closed
	D	[RADF] RADF opening/closing sensor	RADF opened	RADF closed
	E	[RADF] Original exit/reverse sensor	Original present	No original
	F	[RADF] Original intermediate transport sensor	Original present	No original
	G	[RADF] Read sensor	Original present	No original
	H	[RADF] Original registration sensor	Original present	No original
[8]	A	[RADF] Original tray width sensor (TWID0S) (Refer to table3)	OFF (H)	ON (L)
	B	[RADF] Original tray width sensor (TWID1S) (Refer to table3)	OFF (H)	ON (L)
	C	[RADF] Original tray width sensor (TWID2S) (Refer to table3)	OFF (H)	ON (L)
	D	-	-	-
	E	[RADF] Original length detection sensor	Original present	No original
	F	[RADF] Original width detection sensor-1	Original present	No original
	G	[RADF] Original width detection sensor-2	Original present	No original
	H	-	-	-

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Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[9]	A	Bridge unit/Job Separator/Offset Tray connection detection-3	Refer to table 2	
	B	Bridge unit/Job Separator/Offset Tray connection detection-2	Refer to table 2	
	C	Bridge unit/Job Separator/Offset Tray connection detection-1	Refer to table 2	
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[0]	A	Dongle (for Printer/Scanner kit (GM-2020 or 2030))	Connectable	Not connectable
	B	Dongle (for Printer kit (GM-1020 or 1030))	Connectable	Not connectable
	C	Dongle (for Scanner upgrade kit (GM-3020 or 3030))	Connectable	Not connectable
	D	Dongles for other equipments/Other USB devices	Connectable	Not connectable
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 2. Connecting status of additional options at inner area of the equipment

	Bridge unit	Job Separator	Offset Tray	None
Bridge unit/Job Separator/Offset Tray connection detection-3	Normal display	Highlighting display	Highlighting display	Highlighting display
Bridge unit/Job Separator/Offset Tray connection detection-2	Highlighting display	Highlighting display	Normal display	Highlighting display
Bridge unit/Job Separator/Offset Tray connection detection-1	Normal display	Normal display	Normal display	Highlighting display

Table 3. Relation between the status of the original tray width sensor and paper size (width).

Original tray width sensor			Paper width size (LT series)	Paper width size (A4 series)
TWID2S	TWID1S	TWID0S		
H	H	H	LD/LT	A3/A4
H	H	L	-	B5-R
H	L	H	ST-R	A5-R
L	H	H	LD/LT	A3/A4
L	H	L	-	-
L	L	H	8.5" x 8.5" / LT-R / LG / 13" LG	A4-R/FOLIO
L	L	L	COMPUTER	B4/B5

H (= high level): Open L (= low level): Short

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[FAX] button: OFF/ [COPY] button: ON ([FAX] LED: OFF/ [COPY] LED: ON)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[0]	A	Dongle (for Printer/Scanner kit (GM-2070 or 2080U)) Connected	Connectable	Not connectable
	B	Dongle (for Printer kit (GM-1070, 1071, 1080U or 1081U)) Connected	Connectable	Not connectable
	C	Dongle (for Scanner kit (GM-4070 or 4080U)) Connected	Connectable	Not connectable
	D	Dongles for other equipments/Other USB devices Connected	Connectable	Not connectable
	E	Judgement for acceptable USB storage device (*1)	Acceptable	Not acceptable
	F	-	-	-
	G	-	-	-
	H	-	-	-

*1

- Be sure to install the USB storage device to the equipment and check if the device can be used with this code.
- Be sure to turn OFF the write protection (the function to prevent data from erasure by the accidental recording or deleting) of the USB storage device before performing the check, otherwise this code cannot be used.
- It may take some time (2 sec. to 10 sec.) before this check is completed depending on the USB storage device.

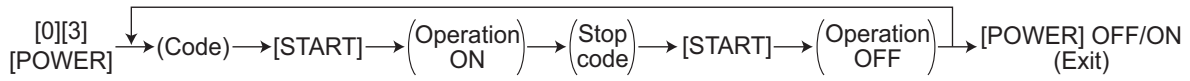
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2.2.3 Output check (test mode 03)

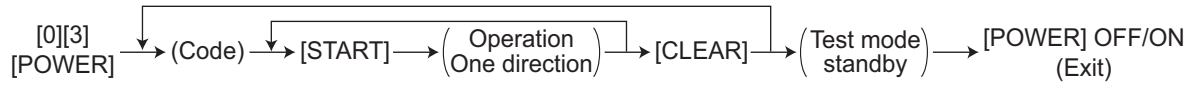
Status of the output signals can be checked by keying in the following codes in the test mode 03.

<Operation procedure>

Procedure 1



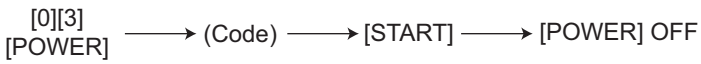
Procedure 2



Procedure 3



Procedure 4



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Code	Function	Code	Function	Procedure
101	Main motor ON (operational without developer unit)	151	Code No. 101 function OFF	1
102	Toner motor ON (normal rotation)	152	Code No. 102 function OFF	1
103	Polygonal motor ON (600 dpi)	153	Code No. 103 function OFF	1
108	Registration clutch ON	158	Code No. 108 function OFF	1
109	PFP motor ON	159	Code No. 109 function OFF	1
110	ADU motor ON (low speed)	160	Code No. 110 function OFF	1
118	Laser ON	168	Code No. 118 function OFF	1
120	Exit motor ON (normal rotation)	170	Code No. 120 function OFF	1
121	Exit motor ON (reverse rotation)	171	Code No. 121 function OFF	1
122	LCF motor ON	172	Code No. 122 function OFF	1
177	Offset Tray motor ON (reciprocating movement)			2
201	Upper drawer feed clutch ON/OFF			3
202	Lower drawer feed clutch ON/OFF			3
203	Upper transport clutch ON/OFF			3
204	Bypass feed clutch ON/OFF			3
205	Middle transport clutch ON/OFF			3
206	LCF pickup solenoid ON/OFF			3
207	LCF end fence reciprocating movement			2
208	LCF end fence motor ON/OFF			3
209	LCF feed clutch ON/OFF			3
210	LCF transport clutch ON/OFF			3
217	Lower transport clutch ON/OFF			3
218	Key copy counter count up			2
222	ADU clutch ON/OFF			3
225	PFP transport clutch ON/OFF			3
226	PFP upper drawer feed clutch ON/OFF			3
228	PFP lower drawer feed clutch ON/OFF			3
232	Bridge unit gate solenoid ON/OFF			3
234	Bypass pickup solenoid ON/OFF			3
235	Discharge LED ON/OFF			3
236	Exhaust fan ON/OFF (low speed)			3
237	Exhaust fan ON/OFF (high speed)			3
242	Upper drawer tray-up motor ON (tray up)			2
243	Lower drawer tray-up motor ON (tray up)			2
248	Developer bias [+DC] ON/OFF			3
249	Developer bias [-DC] ON/OFF			3
252	Main charger ON/OFF			3
253	Separation bias ON/OFF			3
255	Transfer guide bias ON/OFF			3
256	Transfer transformer ON/OFF			3
261	Scan motor ON (Automatically stops at limit position; speed can be changed with the [ZOOM] button			2
264	SLG board cooling fan 1 ON/OFF			3
265	SLG board cooling fan 2 ON/OFF			3
267	Scanner exposure lamp ON/OFF			3

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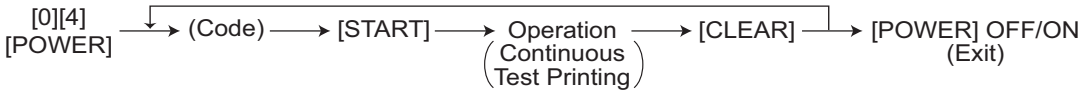
Code	Function	Procedure
271	LCF tray-up motor (up/down)	2
278	PFP upper drawer tray-up motor ON (tray up)	2
280	PFP lower drawer tray-up motor ON (tray up)	2
281	RADF feed motor ON/OFF (normal rotation) : MR-3016 RADF original feed motor ON/OFF (normal rotation) : MR-3020	3
282	RADF feed motor ON/OFF (reverse rotation) : MR-3016 RADF original feed motor ON/OFF (reverse rotation) : MR-3020	3
283	RADF read motor ON/OFF (normal rotation)	3
284	RADF reverse motor ON/OFF (normal rotation) : MR-3016 RADF original exit/reverse motor ON/OFF (normal rotation) : MR-3020	3
285	RADF reverse motor ON/OFF (reverse rotation) : MR-3016 RADF original exit/reverse motor ON/OFF (reverse rotation) : MR-3020	3
289	Internal cooling fan 1 ON/OFF (high speed)	3
290	Internal cooling fan 1 ON/OFF (low speed)	3
294	RADF reverse solenoid ON/OFF : MR-3016 RADF gate solenoid ON/OFF : MR-3020	3
295	Power OFF mode (for 200 V series)	4
297	RADF fan motor ON/OFF	3
410	Internal cooling fan 2 ON/OFF (low speed)	3
411	Internal cooling fan 2 ON/OFF (high speed)	3

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2.2.4 Test print mode (test mode 04)

The embedded test pattern can be printed out by keying in the following codes in the test print mode (04).

<Operation procedure>



Notes:

1. When an error occurs, it is indicated on the panel, but the recovery operation is not performed. Turn OFF the power and then back ON to clear the error.
2. During test printing, the [CLEAR] button is disabled when “Wait adding toner” is displayed.

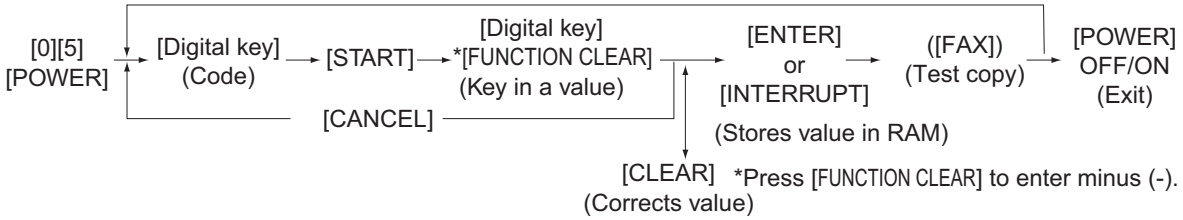
Code	Types of test pattern	Remarks
111	Primary scanning direction 33 gradation steps	Error diffusion
113	Secondary scanning direction 33 gradation steps	Error diffusion
142	Grid pattern	Pattern width: 2 dots, Pitch: 10 mm

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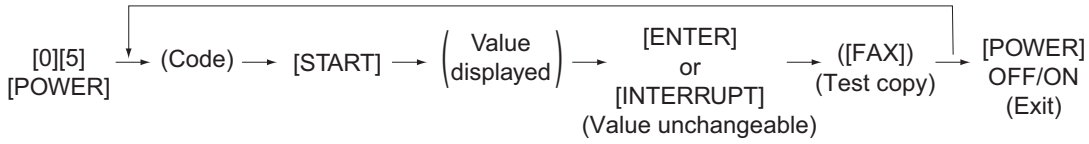
2.2.5 Adjustment mode (05) (e-STUDIO200L/230/230L/280)

Items in the adjustment mode list in the following pages can be corrected or changed in the adjustment mode (05). Turn ON the power with pressing the digital keys [0] and [5] simultaneously in order to enter this mode.

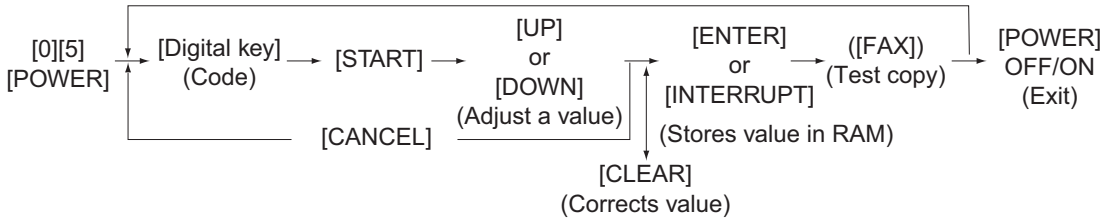
Procedure 1



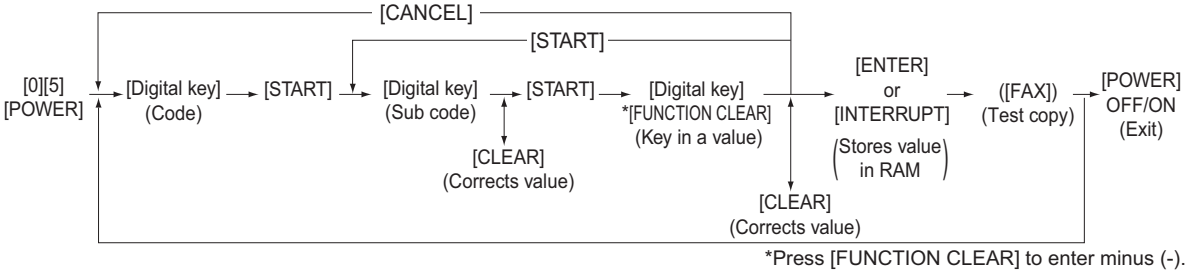
Procedure 2



Procedure 3

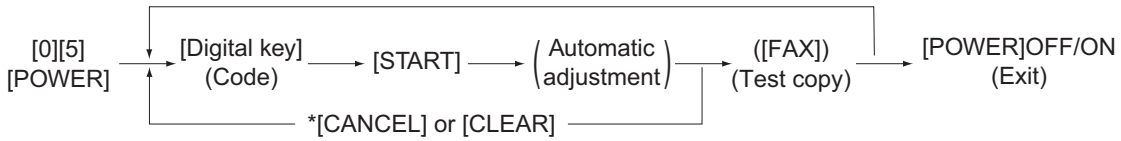


Procedure 4



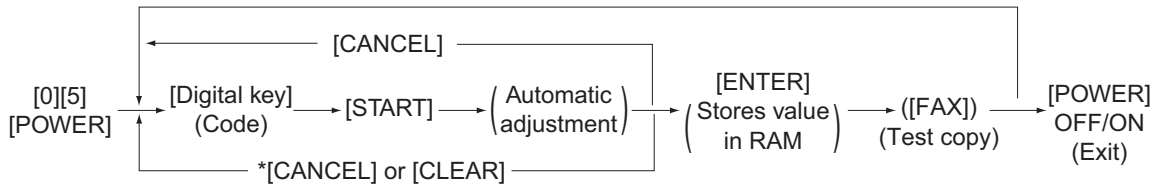
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Procedure 6



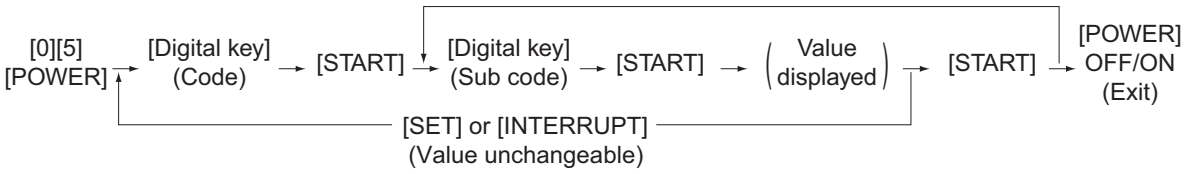
* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 7

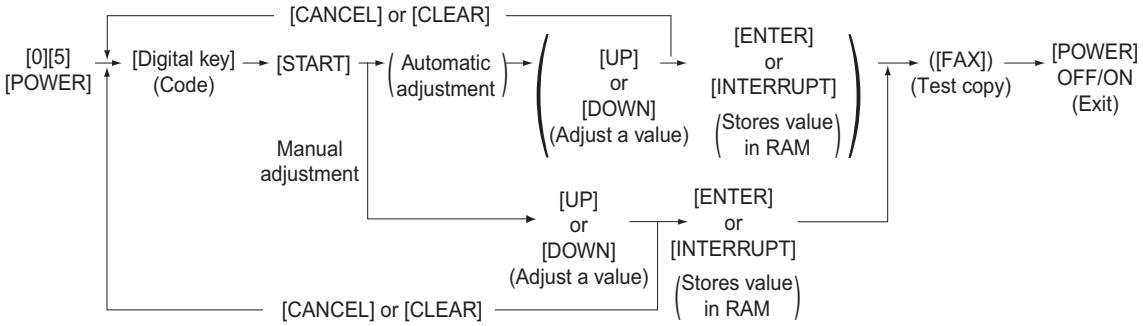


* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 10



Procedure 17



* When the “storing is not performed within 2 minutes after pressing the [START] button at the manual adjustment, the “automatic adjustment” starts automatically.

Note:

The fuser roller temperature control at the adjustment mode is different from that at the normal state.

Therefore, the problem of fusing efficiency may be occurred in the test copy at the adjustment mode. In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again.

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Test print pattern in Adjustment Mode (05)

Operation: One test print is printed out when the [FAX] button is pressed after the code is keyed in at Standby Screen.

Code	Types of test pattern	Remarks
1	Grid pattern	Refer to 3.2.3 Printer related adjustment
3	Grid pattern (Duplex printing)	Refer to 3.2.3 Printer related adjustment

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Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In “RAM”, the NVRAM of the board in which the data of each code is stored is indicated. “M” stands for the LGC board and “SYS” stands for the SYS board.

Adjustment mode (05) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
200	Developer	Automatic adjustment of auto-toner sensor (Fuser heater ON)	ALL	-	-	As the value increases, the sensor output increases correspondingly. The value starts changing approx. 2 minutes after this adjustment was started and is automatically set in the range of 2.35 to 2.45 V. * Selection is disable when developer unit is not installed. (Chap. 3.1)	17
201	Developer	Correction of auto-toner sensor (Fuser heater ON)	ALL	164 <0-255>	M	Corrects the control value of the auto-toner sensor setup in 05-200. * Selection is disable when developer unit is not installed.	3
205	Developer	Developer bias DC output adjustment	ALL	135 <0-255>	M	As the value increases, the transformer output increases correspondingly. Remove the developer unit and install the adjustment jig to make adjustment. (Chap. 3.6)	3
210	Charger	Main charger grid bias output adjustment	ALL	90 <0-255>	M		3
220	Transfer	Transfer transformer DC output adjustment (H)	ALL	165 <0-255>	M		3
221	Transfer	Transfer transformer DC output adjustment (C)	ALL	179 <0-255>	M		3
222	Transfer	Transfer transformer DC output adjustment (L)	ALL	126 <0-255>	M		3
233	Separation	Separation transformer DC output adjustment (H)	ALL	64 <0-255>	M		3
234	Separation	Separation transformer DC output adjustment (C)	ALL	65 <0-255>	M		3
235	Separation	Separation transformer DC output adjustment (L)	ALL	46 <0-255>	M		3
280	Process	Forced performing of idling for toner recycle	ALL	-	M	Perform this adjustment before the replacement of the developer material. (The toner is forcibly removed from the cleaner.)	6
286	Laser	Laser power adjustment	ALL	63 <0-255>	M	When the value increases, the laser output increases correspondingly.	3
305	Scanner	Image location adjustment of secondary scanning direction (scanner section)	ALL	125 <92-164>	SYS	When the value increases by “1”, the image shifts by approx. 0.137 mm toward the trailing edge of the paper.	1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
306	Scanner	Image location adjustment of primary scanning direction (scanner section)		ALL	156 <0-255>	SYS	When the value increases by “1”, the image shifts by approx. 0.0846 mm toward the front side of the paper.	1
308	Scanner	Distortion mode		ALL	-	-	Moves carriages to the adjusting position. (Chap. 3.2.4)	6
340	Scanner	Reproduction ratio adjustment of secondary scanning direction (scanner section)		ALL	129 <0-255>	SYS	When the value increases by “1”, the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.223%.	1
354	RADF	Adjustment of RADF paper alignment	for single - sided original	ALL	10 <0-20>	SYS	When the value increases by “1”, the aligning amount increases by approx. 0.5 mm.	1
355			for double sided original	ALL	10 <0-20>	SYS		1
356	RADF	Automatic adjustment of RADF sensor and EEPROM initialization		ALL	-	SYS	Performs the adjustment and initialization when the RADF board or RADF sensor is replaced.	6
357	RADF	Fine adjustment of RADF transport speed		ALL	50 <0-100>	SYS	When the value increases by “1”, the reproduction ratio of the secondary scanning direction when using the RADF increases by approx. 0.1%.	1
358	RADF	RADF sideways deviation adjustment		ALL	128 <0-255>	SYS	When the value increases by “1”, the image of original fed from the RADF shifts toward the rear side of paper by approx. 0.0846 mm.	1
359	Scanner	Carriage position adjustment during scanning from RADF		ALL	128 <0-255>	SYS	When the value increases by “1”, the carriage position when using the RADF shifts by approx. 0.1 mm toward the original feeding side.	1
365	RADF	RADF leading edge position adjustment	for single - sided original	ALL	50 <0-100>	SYS	When the value increases by “1”, the copied image of original fed from the RADF shifts toward the trailing edge of paper by approx. 0.1 mm.	1
366			for double sided original	ALL	50 <0-100>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>							
Code	**Classi-fication**	**Items**	**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
367	RADF	RADF original guide width adjustment (Minimum)	ALL	-	-	Stores the current width of RADF original guide by keying in this code with the guide set at the minimum width. Perform this adjustment when the RADF board or volume is replaced, or when the code (05-356) is performed.	6
368	RADF	RADF original guide width adjustment (Maximum)	ALL	-	-	Stores the current width of RADF original guide by keying in this code with the guide set at the maximum width. Perform this adjustment when the RADF board or volume is replaced, or when the code (05-356) is performed.	6
401	Laser	Fine adjustment of polygonal motor rotation speed (adjustment of primary scanning direction reproduction ratio)	PRT	136 <0-255>	M	When the value increases by “1”, the reproduction ratio of primary scanning direction increases by approx. 0.07%. (approx. 0.1 mm/step)	1
405			PPC	134 <0-255>	M		1
410	Laser	Adjustment of primary scanning laser writing start position.	PPC	128 <0-255>	M	When the value increases by “1”, the writing start position shifts to the front side by approx. 0.0423 mm.	1
411			PRT	153 <0-255>	M		1
421	Drive	Adjustment of secondary scanning direction reproduction ratio (fine adjustment of main motor speed)	PPC/ PRT	129 <0-255>	M	When the value increases by “1”, the reproduction ratio of secondary scanning direction increases by approx. 0.04%.	1
422			FAX	139 <0-255>	M		1
424	Drive	Fine adjustment of exit motor speed	PPC/ PRT	160 <0-255>	M	When the value increases by “1”, the rotation becomes faster by approx. 0.05%.	1
425			FAX	121 <0-255>	M		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
430	Image	Top margin adjustment (blank area at the leading edge of the paper)		PPC	0 <0-255>	M	When the value increases by “1”, the blank area becomes wider by approx. 0.0423 mm.	1
431	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
432	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
433	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PPC	0 <0-255>	M		1
434-0	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)/ Reverse side at duplexing		PPC/ PRT	29 <0-255>	M		4
434-1	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)/Reverse side at duplexing		PPC/ PRT	29 <0-255>	M		4
435	Image	Top margin adjustment (blank area at the leading edge of the paper)		PRT	24 <0-255>	M		1
436	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PRT	0 <0-255>	M		1
437	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PRT	0 <0-255>	M		1
438	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PRT	0 <0-255>	M		1
440	Laser	Adjustment of secondary scanning laser writing start position	Upper drawer	ALL	8 <Refer to content>	M	When the value increases by “1”, the image shifts toward the leading edge of the paper by approx. 0.2 mm. <Acceptable value> e-STUDIO230, e-STUDIO280: 0-15 e-STUDIO200L, e-STUDIO230L/S, e-STUDIO280S: 0-40	1
441			Lower drawer	ALL	21 <0-40>	M		1
442			Bypass feeding	ALL	8 <0-15>	M		1
443			LCF	ALL	8 <0-15>	M		1
444			PFP	ALL	8 <0-15>	M		1
445			Duplex feeding	ALL	8 <0-15>	M		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
448-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/Plain paper)	Long size	ALL	10 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
448-1			Middle size	ALL	10 <0-63>	M		4
448-2			Short size	ALL	8 <0-63>	M		4
449-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/Plain paper)	Long size	ALL	10 <0-63>	M		4
449-1			Middle size	ALL	10 <0-63>	M		4
449-2			Short size	ALL	8 <0-63>	M		4
450-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer/Plain paper)	Long size	ALL	17 <0-63>	M		4
450-1			Middle size	ALL	17 <0-63>	M		4
450-2			Short size	ALL	17 <0-63>	M		4
452-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/Plain paper)	Long size	ALL	12 <0-63>	M		4
452-1			Middle size	ALL	10 <0-63>	M		4
452-2			Short size	ALL	10 <0-63>	M		4
455-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Plain paper)	Long size	ALL	20 <0-63>	M		4
455-1			Middle size	ALL	20 <0-63>	M		4
455-2			Short size	ALL	30 <0-63>	M		4
457	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Plain paper)		ALL	8 <0-63>	M		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
458-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Plain paper)	Long size	ALL	26 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter * Postcard is supported only for JPN model.	4
458-1			Middle size	ALL	26 <0-63>	M		4
458-2			Short size	ALL	25 <0-63>	M		4
460-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 1)	Long size	ALL	26 <0-63>	M		4
460-1			Middle size	ALL	26 <0-63>	M		4
460-2			Short size	ALL	26 <0-63>	M		4
461-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 2)	Long size	ALL	17 <0-63>	M		4
461-1			Middle size	ALL	17 <0-63>	M		4
461-2			Short size	ALL	17 <0-63>	M		4
462-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 3)	Long size	ALL	17 <0-63>	M		4
462-1			Middle size	ALL	17 <0-63>	M		4
462-2			Short size	ALL	17 <0-63>	M		4
462-3			Postcard	ALL	14 <0-63>	M		4
463-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/OHP film)	Long size	ALL	26 <0-63>	M		4
463-1			Middle size	ALL	26 <0-63>	M		4
463-2			Short size	ALL	26 <0-63>	M		4
464-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding /Envelope)	Long size	ALL	26 <0-63>	M		4
464-1			Middle size	ALL	26 <0-63>	M		4
464-2			Short size	ALL	26 <0-63>	M		4

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
466-0	Paper feeding	Adjustment of paper pushing amount/ Bypass feeding	Plain paper	ALL	0 <0-255>	M	When the value increases by “1”, the driving speed of bypass feed roller increases by approx. 0.2 ms when the paper transport is started from the registration section. * Postcard is supported only for JPN model.	4
466-1			Postcard	ALL	0 <0-255>	M		4
466-3			Envelope	ALL	0 <0-255>	M		4
466-4			Thick paper 1	ALL	0 <0-255>	M		4
466-5			Thick paper 2	ALL	0 <0-255>	M		4
466-6			Thick paper 3	ALL	0 <0-255>	M		4
466-7			OHP film	ALL	0 <0-255>	M		4
468-0	Finisher	Fine adjustment of binding position/ folding position	A4-R/LT-R	ALL	0 <-14-14>	M	When the value increases by “1”, the binding/folding position shifts toward the right page by 0.25 mm.	4
468-1			B4	ALL	0 <-14-14>	M		4
468-2			A3/LD	ALL	0 <-14-14>	M		4
469-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer)	Thick paper 1 Long size	ALL	20 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
469-1			Thick paper 1 Middle size	ALL	20 <0-63>	M		4
469-2			Thick paper 1 Short size	ALL	20 <0-63>	M		4
469-3			Thick paper 2 Long size	ALL	20 <0-63>	M		4
469-4			Thick paper 2 Middle size	ALL	22 <0-63>	M		4
469-5			Thick paper 2 Short size	ALL	19 <0-63>	M		4
470-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M		4
470-1			Middle size	ALL	22 <0-63>	M		4
470-2			Short size	ALL	19 <0-63>	M		4
471-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M		4
471-1			Middle size	ALL	22 <0-63>	M		4
471-2			Short size	ALL	19 <0-63>	M		4

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
472-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
472-1			Middle size	ALL	22 <0-63>	M		4
472-2			Short size	ALL	19 <0-63>	M		4
473	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Thick paper 1)		ALL	8 <0-63>	M		1
474-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Thick paper 1)	Long size	ALL	24 <0-63>	M		4
474-1			Middle size	ALL	24 <0-63>	M		4
474-2			Short size	ALL	33 <0-63>	M		4
497-0	Laser	Adjustment of drawer sideways deviation	Upper drawer	ALL	128 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
497-1			Lower drawer	ALL	128 <0-255>	M		4
497-2			PFP upper drawer	ALL	128 <0-255>	M		4
497-3			PFP lower drawer	ALL	128 <0-255>	M		4
497-4			LCF	ALL	128 <0-255>	M		4
497-5			Bypass feeding	ALL	128 <0-255>	M		4
498-0	Laser	Adjustment of primary scanning laser writing start position at duplex feeding	Long size	ALL	148 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
498-1			Short size (A4/LT or smaller)	ALL	148 <0-255>	M		4
501	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Photo	PPC	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
503			Text/Photo	PPC	128 <0-255>	SYS		1
504			Text	PPC	128 <0-255>	SYS		1
505	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Text/Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
506			Photo	PPC	20 <0-255>	SYS		1
507			Text	PPC	20 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
508	Image	Density adjustment Fine adjustment of "manual density"/ Dark step value	Text/Photo	PPC	EUR:20 UC:20 JPN:30 <0-255>	SYS	When the value increases, the image of the "dark" steps becomes darker.	1
509			Photo	PPC	EUR:24 UC:24 JPN:24 <0-255>	SYS		1
510			Text	PPC	EUR:20 UC:20 JPN:27 <0-255>	SYS		1
512	Image	Density adjustment Fine adjustment of "automatic density"	Photo	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
514			Text/Photo	PPC	128 <0-255>	SYS		1
515			Text	PPC	128 <0-255>	SYS		1
532	Image	Range correction/Background peak adjustment	Text/Photo	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
533			Photo	PPC	16 <0-255>	SYS		1
534			Text	PPC	64 <0-255>	SYS		1
570	Image	Range correction on original manually set on the original glass	Text/Photo	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
571			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
572			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
593	Image	Gamma data slope adjust-ment	Text/Photo	PPC	0 <0-99>	SYS	One's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.) Ten's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of low density (The smaller the value is, the darker the background becomes.) 00: Use default value	1
594	Image		Photo	PPC	0 <0-99>	SYS		1
595	Image		Text	PPC	0 <0-99>	SYS		1
620	Image	Sharpness adjustment	Text/Photo	PPC	EUR: 1 UC: 1 JPN: 0 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-620 is "1", 05-621 is "2", 05-622 is "5") Ten's place: Adjustable from 0 to 9 regarding the default value as the standard (The larger the value is, the sharper the image becomes.) * When entering "0" on the ten's place, this value is not displayed on the entry screen.	1
621			Photo	PPC	2 <0-99>	SYS		1
622			Text	PPC	EUR: 45 UC: 45 JPN: 45 <0-99>	SYS		1
653	Image	Adjustment of smudged/faint text	Text/Photo	PPC	EUR: 208 UC: 208 JPN: 216 <0-255>	SYS	Adjusts the level of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1
654	Image	Adjustment of smudged/faint text	PS	PRT	5 <0-9>	M	Adjustment of the smudged/faint text. With decreasing the value, the faint text is suppressed, and with increasing it, the smudged text is suppressed.	1
655			PCL	PRT	5 <0-9>	M		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
667-0	Image	Density adjustment of copied image		PPC	0 <0-10>	M	Adjusts the density level of copied image. When the value decreases, the text becomes lighter.	4
667-1				PPC	4 <0-10>	M		4
667-2				PPC	5 <0-10>	M		4
667-3				PPC	6 <0-10>	M		4
667-4				PPC	10 <0-10>	M		4
672-0	Image	Adjustment of printer image density	Normal	PRT	0 <0-10>	M	Adjustment of the image density. With decreasing the value, the text becomes lighter.	4
672-1				PRT	4 <0-10>	M		4
672-2				PRT	5 <0-10>	M		4
672-3				PRT	6 <0-10>	M		4
672-4				PRT	10 <0-10>	M		4
676-0			Toner saving	PRT	0 <0-10>	M		4
676-1				PRT	2 <0-10>	M		4
676-2				PRT	3 <0-10>	M		4
676-3				PRT	4 <0-10>	M		4
676-4				PRT	5 <0-10>	M		4
693	Image	Range correction on original set on the RADF	Text/Photo	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
694			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
695			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
700	Image	Adjustment of binarized threshold (Text)	Center value	FAX	120 <0-255>	SYS	When the value increases, the image at the center step becomes lighter.	1
701			Light step value	FAX	20 <0-255>	SYS	When the value increases, the image of “light” side becomes lighter.	1
702			Dark step value	FAX	20 <0-255>	SYS	When the value increases, the image of “dark” side becomes darker.	1
710	Image	Density adjustment Fine adjust-ment of “man-ual density”/ Center value	Photo	FAX	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
714			Text/Photo	FAX	128 <0-255>	SYS		1
715	Image	Density adjustment Fine adjust-ment of “man-ual density”/ Light step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
719			Text/Photo	FAX	20 <0-255>	SYS		1
720	Image	Density adjustment Fine adjust-ment of “man-ual density”/ Dark step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
724			Text/Photo	FAX	20 <0-255>	SYS		1
725	Image	Density adjustment Fine adjust-ment of “auto-matic density”	Photo	FAX	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
729			Text/Photo	FAX	128 <0-255>	SYS		1
820	Image	Range correc-tion/Text peak adjustment	Text/Photo	SCN	224 <0-255>	SYS	When the value decreases, the text becomes darker.	1
821			Text	SCN	224 <0-255>	SYS		1
822			Photo	SCN	239 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
825	Image	Range correction on original manually set on the original glass	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
826			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
827			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
830	Image	Range correction on original set on the RADF	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the value of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
831			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
832			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
835	Image	Range correction/Background peak adjustment	Text/Photo	SCN	48 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
836			Text	SCN	48 <0-255>	SYS		1
837			Photo	SCN	40 <0-255>	SYS		1
845	Image	Density adjustment Fine adjustment of "manual density"/ Center value	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
846			Text	SCN	128 <0-255>	SYS		1
847			Photo	SCN	128 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
850	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
851			Text	SCN	20 <0-255>	SYS		1
852			Photo	SCN	20 <0-255>	SYS		1
855	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
856			Text	SCN	20 <0-255>	SYS		1
857			Photo	SCN	20 <0-255>	SYS		1
860	Image	Density adjustment Fine adjustment of “automatic density”	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
861			Text	SCN	128 <0-255>	SYS		1
862			Photo	SCN	128 <0-255>	SYS		1
865-0	Image	Sharpness adjustment (Text/Photo)	Reproduction ratio 40% or smaller	SCN	1 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-865 is “1”, 05-866 is “2”, 05-867 is “5”) Ten's place: Sharpness intensity (0: Use default value, 1-9: Filter intensity)	4
865-1			Reproduction ratio 41-80%	SCN	1 <0-99>	SYS		4
865-2			Reproduction ratio 81% or larger	SCN	1 <0-99>	SYS		4
866-0	Image	Sharpness adjustment (Text)	Reproduction ratio 40% or smaller	SCN	2 <0-99>	SYS		4
866-1			Reproduction ratio 41-80%	SCN	2 <0-99>	SYS		4
866-2			Reproduction ratio 81% or larger	SCN	2 <0-99>	SYS		4
867-0	Image	Sharpness adjustment (Photo)	Reproduction ratio 40% or smaller	SCN	5 <0-99>	SYS		4
867-1			Reproduction ratio 41-80%	SCN	5 <0-99>	SYS		4
867-2			Reproduction ratio 81% or larger	SCN	5 <0-99>	SYS		4

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
913	Image	Range correction on original manually set on the original glass	Custom Mode 1	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
914			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1
915			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
916	Image	Range correction on original set on the RADF	Custom Mode 1	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
917			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1
918			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
919	Image	Range correction Background peak adjustment	Custom Mode 1	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
920			Custom Mode 2	PPC	64 <0-255>	SYS		1
921			Custom Mode 3	PPC	16 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
922	Image	Sharpness adjustment	Custom Mode 1	PPC	1 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-922 is “1”, 05-923 is “5”, 05-924 is “2”) Ten’s place: Adjustable from 0 to 9 regarding the default value as the standard (The larger the value is, the sharper the image becomes.) * When entering “0” on the ten's place, this value is not displayed on the entry screen.	1
923			Custom Mode 2	PPC	EUR:45 UC:45 JPN:45 <0-99>	SYS		1
924			Custom Mode 3	PPC	2 <0-99>	SYS		1
928	Image	Adjustment of smudged/faint text	Custom Mode 1	PPC	208 <0-255>	SYS	Adjustment of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1
931	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image of the center step becomes darker.	1
932			Custom Mode 2	PPC	128 <0-255>	SYS		1
933			Custom Mode 3	PPC	128 <0-255>	SYS		1
934	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” step density becomes lighter.	1
935			Custom Mode 2	PPC	20 <0-255>	SYS		1
936			Custom Mode 3	PPC	20 <0-255>	SYS		1
937	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “dark” step density becomes darker.	1
938			Custom Mode 2	PPC	20 <0-255>	SYS		1
939			Custom Mode 3	PPC	20 <0-255>	SYS		1
940	Image	Density adjustment Fine adjustment of “automatic density”	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
941			Custom Mode 2	PPC	128 <0-255>	SYS		1
942			Custom Mode 3	PPC	128 <0-255>	SYS		1

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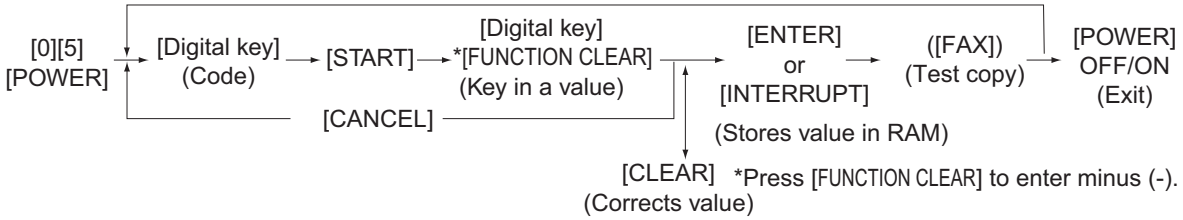
Adjustment mode (05) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
943	Image	Gamma data slope adjustment	Custom Mode 1	PPC	0 <0-99>	SYS	One's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.) Ten's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of low density (The smaller the value is, the darker the background becomes.) 00: Use default value	1
944			Custom Mode 2	PPC	0 <0-99>	SYS		1
945			Custom Mode 3	PPC	0 <0-99>	SYS		1
976	Maintenance	Equipment number (serial number) entry		ALL	-	SYS	When this adjustment is performed with this code, the setting code (08-995) is also performed automatically (10 digits).	1

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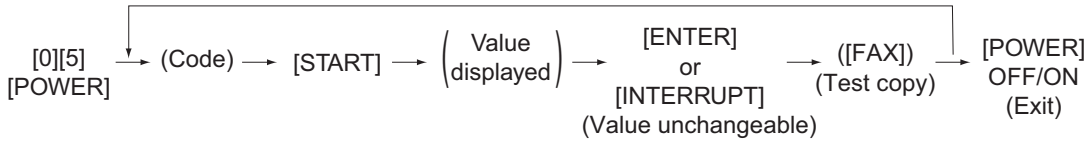
2.2.6 Adjustment mode (05) (e-STUDIO202L/203L/232/233/282/283)

Items in the adjustment mode list in the following pages can be corrected or changed in the adjustment mode (05). Turn ON the power with pressing the digital keys [0] and [5] simultaneously in order to enter this mode.

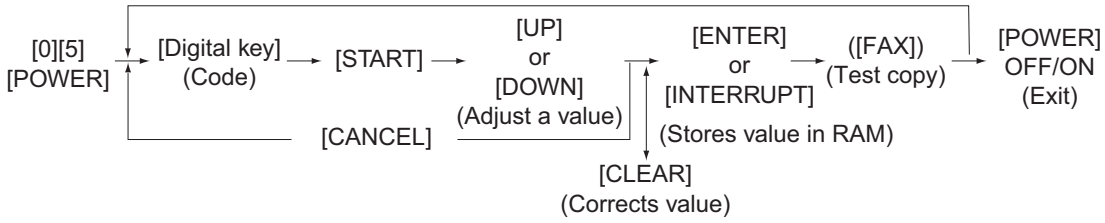
Procedure 1



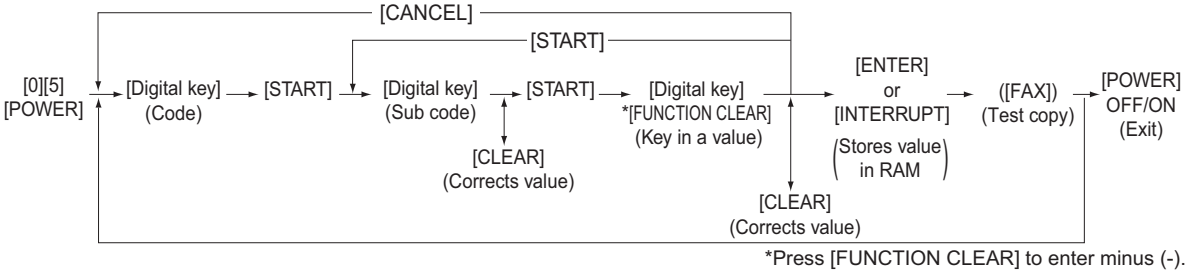
Procedure 2



Procedure 3

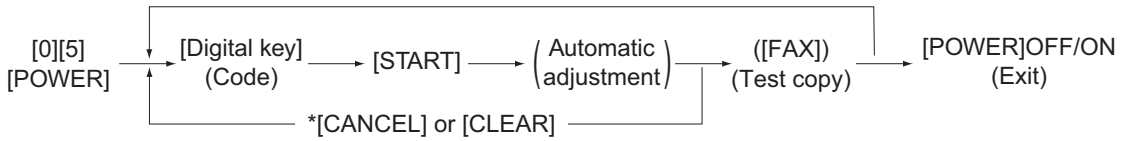


Procedure 4



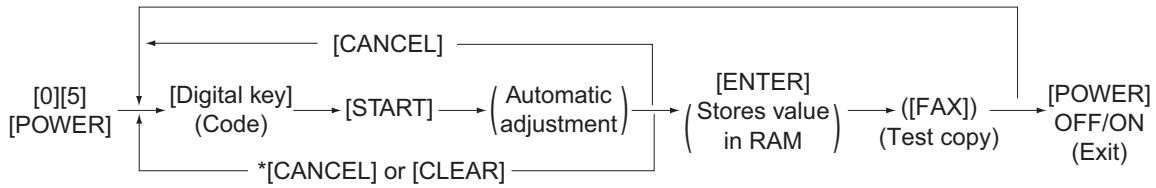
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Procedure 6



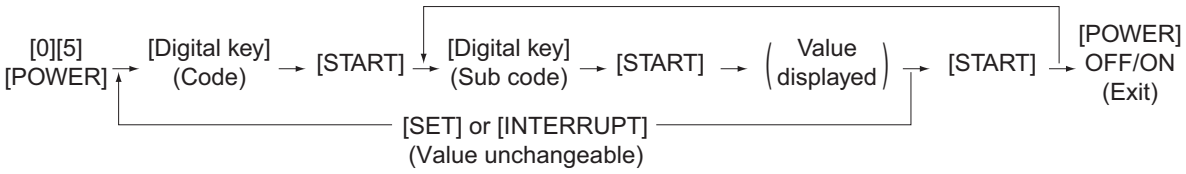
* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 7

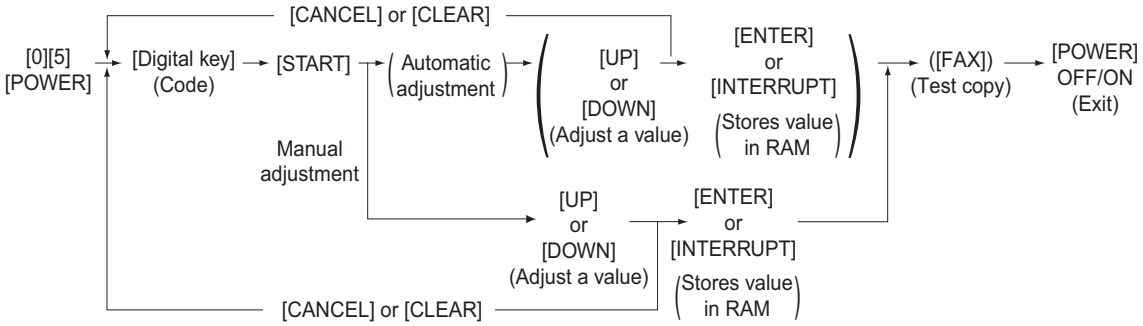


* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 10



Procedure 17



* When the “storing is not performed within 2 minutes after pressing the [START] button at the manual adjustment, the “automatic adjustment” starts automatically.

Note:

The fuser roller temperature control at the adjustment mode is different from that at the normal state.

Therefore, the problem of fusing efficiency may be occurred in the test copy at the adjustment mode. In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again.

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Test print pattern in Adjustment Mode (05)

Operation: One test print is printed out when the [FAX] button is pressed after the code is keyed in at Standby Screen.

Code	Types of test pattern	Remarks
1	Grid pattern	Refer to 3.2.3 Printer related adjustment
3	Grid pattern (Duplex printing)	Refer to 3.2.3 Printer related adjustment

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Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In “RAM”, the NVRAM of the board in which the data of each code is stored is indicated. “M” stands for the LGC board and “SYS” stands for the SYS board.

Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
200	Developer	Automatic adjustment of auto-toner sensor (Fuser heater ON)	ALL	-	-	As the value increases, the sensor output increases correspondingly. The value starts changing approx. 2 minutes after this adjustment was started and is automatically set in the range of 2.35 to 2.45 V. * Selection is disable when developer unit is not installed. (Chap. 3.1)	17
201	Developer	Correction of auto-toner sensor (Fuser heater ON)	ALL	164 <0-255>	M	Corrects the control value of the auto-toner sensor setup in 05-200. * Selection is disable when developer unit is not installed.	3
205	Developer	Developer bias DC output adjustment	ALL	135 <0-255>	M	As the value increases, the transformer output increases correspondingly. Remove the developer unit and install the adjustment jig to make adjustment. (Chap. 3.6)	3
210	Charger	Main charger grid bias output adjustment	ALL	90 <0-255>	M		3
220	Transfer	Transfer transformer DC output adjustment (H)	ALL	165 <0-255>	M		3
221	Transfer	Transfer transformer DC output adjustment (C)	ALL	179 <0-255>	M		3
222	Transfer	Transfer transformer DC output adjustment (L)	ALL	126 <0-255>	M		3
233	Separation	Separation transformer DC output adjustment (H)	ALL	64 <0-255>	M		3
234	Separation	Separation transformer DC output adjustment (C)	ALL	65 <0-255>	M		3
235	Separation	Separation transformer DC output adjustment (L)	ALL	46 <0-255>	M		3
280	Process	Forced performing of idling for toner recycle	ALL	-	M	Perform this adjustment before the replacement of the developer material. (The toner is forcibly removed from the cleaner.)	6
286	Laser	Laser power adjustment	ALL	63 <0-255>	M	When the value increases, the laser output increases correspondingly.	3
305	Scanner	Image location adjustment of secondary scanning direction (scanner section)	ALL	125 <92-164>	SYS	When the value increases by “1”, the image shifts by approx. 0.137 mm toward the trailing edge of the paper.	1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
306	Scanner	Image location adjustment of primary scanning direction (scanner section)		ALL	156 <0-255>	SYS	When the value increases by “1”, the image shifts by approx. 0.0846 mm toward the front side of the paper.	1
308	Scanner	Distortion mode		ALL	-	-	Moves carriages to the adjusting position. (Chap. 3.2.4)	6
340	Scanner	Reproduction ratio adjustment of secondary scanning direction (scanner section)		ALL	129 <0-255>	SYS	When the value increases by “1”, the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.223%.	1
350	Scanner	Shading position adjustment	Original glass	ALL	128 <118-138>	SYS	0.1369 mm/step	1
351			RADF	ALL	128 <118-138>	SYS		1
354	RADF	Adjustment of RADF paper alignment	for single - sided original	ALL	10 <0-20>	SYS	When the value increases by “1”, the aligning amount increases by approx. 0.5 mm.	1
355			for double sided original	ALL	10 <0-20>	SYS		1
357	RADF	Fine adjustment of RADF transport speed		ALL	50 <0-100>	SYS	When the value increases by “1”, the reproduction ratio of the secondary scanning direction when using the RADF increases by approx. 0.1%.	1
358	RADF	RADF sideways deviation adjustment		ALL	128 <0-255>	SYS	When the value increases by “1”, the image of original fed from the RADF shifts toward the rear side of paper by approx. 0.0846 mm.	1
359	Scanner	Carriage position adjustment during scanning from RADF		ALL	128 <0-255>	SYS	When the value increases by “1”, the carriage position when using the RADF shifts by approx. 0.1 mm toward the original feeding side.	1
365	RADF	RADF leading edge position adjustment	for single - sided original	ALL	50 <0-100>	SYS	When the value increases by “1”, the copied image of original fed from the RADF shifts toward the trailing edge of paper by approx. 0.1 mm.	1
366			for double sided original	ALL	50 <0-100>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classi-fication**	**Items**	**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
401	Laser	Fine adjustment of polygo-nal motor rotation speed (adjustment of primary scanning direction repro-duction ratio)	PRT	136 <0-255>	M	When the value increases by “1”, the reproduction ratio of pri-mary scanning direction increases by approx. 0.07%. (approx. 0.1 mm/ step)	1
405			PPC	134 <0-255>	M		1
410	Laser	Adjustment of primary scanning laser writing start position.	PPC	128 <0-255>	M	When the value increases by “1”, the writ-ing start position shifts to the front side by approx. 0.0423 mm.	1
411			PRT	153 <0-255>	M		1
421	Drive	Adjustment of secondary scanning direction repro-duction ratio (fine adjustment of main motor speed)	PPC/ PRT	129 <0-255>	M	When the value increases by “1”, the reproduction ratio of sec-ondary scanning direc-tion increases by approx. 0.04%.	1
422			FAX	139 <0-255>	M		1
424	Drive	Fine adjustment of exit motor speed	PPC/ PRT	160 <0-255>	M	When the value increases by “1”, the rotation becomes faster by approx. 0.05%.	1
425			FAX	121 <0-255>	M		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
430	Image	Top margin adjustment (blank area at the leading edge of the paper)		PPC	0 <0-255>	M	When the value increases by “1”, the blank area becomes wider by approx. 0.0423 mm.	1
431	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
432	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
433	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PPC	0 <0-255>	M		1
434-0	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)/ Reverse side at duplexing		PPC/ PRT	29 <0-255>	M		4
434-1	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)/Reverse side at duplexing		PPC/ PRT	29 <0-255>	M		4
435	Image	Top margin adjustment (blank area at the leading edge of the paper)		PRT	24 <0-255>	M		1
436	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PRT	0 <0-255>	M		1
437	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PRT	0 <0-255>	M		1
438	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PRT	0 <0-255>	M		1
440	Laser	Adjustment of secondary scanning laser writing start position	Upper drawer	ALL	8 <Refer to content>	M	When the value increases by “1”, the image shifts toward the leading edge of the paper by approx. 0.2 mm. <Acceptable value> e-STUDIO232/233/282/283: 0-15 e-STUDIO202L/203L: 0-40	1
441			Lower drawer	ALL	21 <0-40>	M		1
442			Bypass feeding	ALL	8 <0-15>	M		1
443			LCF	ALL	8 <0-15>	M		1
444			PFP	ALL	8 <0-15>	M		1
445			Duplex feeding	ALL	8 <0-15>	M		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
448-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/Plain paper)	Long size	ALL	10 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
448-1			Middle size	ALL	10 <0-63>	M		4
448-2			Short size	ALL	8 <0-63>	M		4
449-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/Plain paper)	Long size	ALL	10 <0-63>	M		4
449-1			Middle size	ALL	10 <0-63>	M		4
449-2			Short size	ALL	8 <0-63>	M		4
450-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer/Plain paper)	Long size	ALL	17 <0-63>	M		4
450-1			Middle size	ALL	17 <0-63>	M		4
450-2			Short size	ALL	17 <0-63>	M		4
452-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/Plain paper)	Long size	ALL	12 <0-63>	M		4
452-1			Middle size	ALL	10 <0-63>	M		4
452-2			Short size	ALL	10 <0-63>	M		4
455-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Plain paper)	Long size	ALL	20 <0-63>	M		4
455-1			Middle size	ALL	20 <0-63>	M		4
455-2			Short size	ALL	30 <0-63>	M		4
457	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Plain paper)		ALL	8 <0-63>	M		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
458-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Plain paper)	Long size	ALL	26 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter * Postcard is supported only for JPN model.	4
458-1			Middle size	ALL	26 <0-63>	M		4
458-2			Short size	ALL	25 <0-63>	M		4
460-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 1)	Long size	ALL	26 <0-63>	M		4
460-1			Middle size	ALL	26 <0-63>	M		4
460-2			Short size	ALL	26 <0-63>	M		4
461-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 2)	Long size	ALL	17 <0-63>	M		4
461-1			Middle size	ALL	17 <0-63>	M		4
461-2			Short size	ALL	17 <0-63>	M		4
462-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 3)	Long size	ALL	17 <0-63>	M		4
462-1			Middle size	ALL	17 <0-63>	M		4
462-2			Short size	ALL	17 <0-63>	M		4
462-3			Postcard	ALL	14 <0-63>	M		4
463-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/OHP film)	Long size	ALL	26 <0-63>	M		4
463-1			Middle size	ALL	26 <0-63>	M		4
463-2			Short size	ALL	26 <0-63>	M		4
464-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding /Envelope)	Long size	ALL	26 <0-63>	M		4
464-1			Middle size	ALL	26 <0-63>	M		4
464-2			Short size	ALL	26 <0-63>	M		4

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
466-0	Paper feeding	Adjustment of paper pushing amount/ Bypass feeding	Plain paper	ALL	0 <0-255>	M	When the value increases by “1”, the driving speed of bypass feed roller increases by approx. 0.2 ms when the paper transport is started from the registration section. * Postcard is supported only for JPN model.	4
466-1			Postcard	ALL	0 <0-255>	M		4
466-3			Envelope	ALL	0 <0-255>	M		4
466-4			Thick paper 1	ALL	0 <0-255>	M		4
466-5			Thick paper 2	ALL	0 <0-255>	M		4
466-6			Thick paper 3	ALL	0 <0-255>	M		4
466-7			OHP film	ALL	0 <0-255>	M		4
468-0	Finisher	Fine adjustment of binding position/ folding position	A4-R/LT-R	ALL	0 <-14-14>	M	When the value increases by “1”, the binding/folding position shifts toward the right page by 0.25 mm.	4
468-1			B4	ALL	0 <-14-14>	M		4
468-2			A3/LD	ALL	0 <-14-14>	M		4
469-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer)	Thick paper 1 Long size	ALL	20 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
469-1			Thick paper 1 Middle size	ALL	20 <0-63>	M		4
469-2			Thick paper 1 Short size	ALL	20 <0-63>	M		4
469-3			Thick paper 2 Long size	ALL	20 <0-63>	M		4
469-4			Thick paper 2 Middle size	ALL	22 <0-63>	M		4
469-5			Thick paper 2 Short size	ALL	19 <0-63>	M		4
470-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M		4
470-1			Middle size	ALL	22 <0-63>	M		4
470-2			Short size	ALL	19 <0-63>	M		4
471-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M		4
471-1			Middle size	ALL	22 <0-63>	M		4
471-2			Short size	ALL	19 <0-63>	M		4

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
472-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/Thick paper 1)	Long size	ALL	20 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
472-1			Middle size	ALL	22 <0-63>	M		4
472-2			Short size	ALL	19 <0-63>	M		4
473	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Thick paper 1)		ALL	8 <0-63>	M		1
474-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Thick paper 1)	Long size	ALL	24 <0-63>	M		4
474-1			Middle size	ALL	24 <0-63>	M		4
474-2			Short size	ALL	33 <0-63>	M		4
497-0	Laser	Adjustment of drawer sideways deviation	Upper drawer	ALL	128 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
497-1			Lower drawer	ALL	128 <0-255>	M		4
497-2			PFP upper drawer	ALL	128 <0-255>	M		4
497-3			PFP lower drawer	ALL	128 <0-255>	M		4
497-4			LCF	ALL	128 <0-255>	M		4
497-5			Bypass feeding	ALL	128 <0-255>	M		4
498-0	Laser	Adjustment of primary scanning laser writing start position at duplex feeding	Long size	ALL	148 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
498-1			Short size (A4/LT or smaller)	ALL	148 <0-255>	M		4
501	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Photo	PPC	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
503			Text/Photo	PPC	128 <0-255>	SYS		1
504			Text	PPC	128 <0-255>	SYS		1
505	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Text/Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
506			Photo	PPC	20 <0-255>	SYS		1
507			Text	PPC	20 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
508	Image	Density adjustment Fine adjustment of "manual density"/ Dark step value	Text/Photo	PPC	EUR:20 UC:20 JPN:30 <0-255>	SYS	When the value increases, the image of the "dark" steps becomes darker.	1
509			Photo	PPC	EUR:24 UC:24 JPN:24 <0-255>	SYS		1
510			Text	PPC	EUR:20 UC:20 JPN:27 <0-255>	SYS		1
512	Image	Density adjustment Fine adjustment of "automatic density"	Photo	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
514			Text/Photo	PPC	128 <0-255>	SYS		1
515			Text	PPC	128 <0-255>	SYS		1
532	Image	Range correction/Background peak adjustment	Text/Photo	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
533			Photo	PPC	16 <0-255>	SYS		1
534			Text	PPC	64 <0-255>	SYS		1
570	Image	Range correction on original manually set on the original glass	Text/Photo	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
571			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
572			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
593	Image	Gamma data slope adjust-ment	Text/Photo	PPC	0 <0-99>	SYS	One's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.) Ten's place: 0: Equivalent to the set value 5 1 to 9: Select the slope of low density (The smaller the value is, the darker the background becomes.) 00: Use default value	1
594	Image		Photo	PPC	0 <0-99>	SYS		1
595	Image		Text	PPC	0 <0-99>	SYS		1
596-0	Image	Gamma bal-ance adjust-ment (PS/Photo)	Low density	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher.	4
596-1	Image		Medium density	PRT	128 <0-255>	SYS		4
596-2	Image		High density	PRT	128 <0-255>	SYS		4
597-0	Image	Gamma bal-ance adjust-ment (PS/Text)	Low density	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher.	4
597-1	Image		Medium density	PRT	128 <0-255>	SYS		4
597-2	Image		High density	PRT	128 <0-255>	SYS		4
598-0	Image	Gamma bal-ance adjust-ment (PCL/Photo)	Low density	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher.	4
598-1	Image		Medium density	PRT	128 <0-255>	SYS		4
598-2	Image		High density	PRT	128 <0-255>	SYS		4
599-0	Image	Adjustment of gamma bal-ance (PCL/Detail)	Low density	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher.	4
599-1	Image		Medium density	PRT	128 <0-255>	SYS		4
599-2	Image		High density	PRT	128 <0-255>	SYS		4

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
620	Image	Sharpness adjustment	Text/Photo	PPC	EUR: 1 UC: 1 JPN: 0 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-620 is "1", 05-621 is "2", 05-622 is "5") Ten's place: Adjustable from 0 to 9 regarding the default value as the standard (The larger the value is, the sharper the image becomes.) * When entering "0" on the ten's place, this value is not displayed on the entry screen.	1
621			Photo	PPC	2 <0-99>	SYS		1
622			Text	PPC	EUR: 45 UC: 45 JPN: 45 <0-99>	SYS		1
648	Image	Adjustment of smudged/faint text	Text/Photo	PPC	2 <0-4>	SYS	Adjusts the level of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1
654	Image	Adjustment of smudged/faint text	PS	PRT	5 <0-9>	M	Adjustment of the smudged/faint text. With decreasing the value, the faint text is suppressed, and with increasing it, the smudged text is suppressed.	1
655			PCL	PRT	5 <0-9>	M		1
667-0	Image	Density adjustment of copied image		PPC	0 <0-10>	M	Adjusts the density level of copied image. When the value decreases, the text becomes lighter.	4
667-1				PPC	4 <0-10>	M		4
667-2				PPC	5 <0-10>	M		4
667-3				PPC	6 <0-10>	M		4
667-4				PPC	10 <0-10>	M		4

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
672-0	Image	Adjustment of printer image density	Normal	PRT	0 <0-10>	M	Adjustment of the image density. With decreasing the value, the text becomes lighter.	4
672-1				PRT	4 <0-10>	M		4
672-2				PRT	5 <0-10>	M		4
672-3				PRT	6 <0-10>	M		4
672-4				PRT	10 <0-10>	M		4
676-0			Toner saving	PRT	0 <0-10>	M		4
676-1				PRT	2 <0-10>	M		4
676-2				PRT	3 <0-10>	M		4
676-3				PRT	4 <0-10>	M		4
676-4				PRT	5 <0-10>	M		4
693	Image	Range correction on original set on the RADF	Text/Photo	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
694			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
695			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1
700	Image	Adjustment of binarized threshold (Text)	Center value	FAX	120 <0-255>	SYS	When the value increases, the image at the center step becomes lighter.	1
701			Light step value	FAX	20 <0-255>	SYS	When the value increases, the image of "light" side becomes lighter.	1
702			Dark step value	FAX	20 <0-255>	SYS	When the value increases, the image of "dark" side becomes darker.	1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
710	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Photo	FAX	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
714			Text/Photo	FAX	128 <0-255>	SYS		1
715	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
719			Text/Photo	FAX	20 <0-255>	SYS		1
720	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
724			Text/Photo	FAX	20 <0-255>	SYS		1
725	Image	Density adjustment Fine adjustment of “automatic density”	Photo	FAX	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
729			Text/Photo	FAX	128 <0-255>	SYS		1
820	Image	Range correction/Text peak adjustment	Text/Photo	SCN	224 <0-255>	SYS	When the value decreases, the text becomes darker.	1
821			Text	SCN	224 <0-255>	SYS		1
822			Photo	SCN	239 <0-255>	SYS		1
825	Image	Range correction on original manually set on the original glass	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One’s place is an adjustment for “automatic density” and ten’s place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
826			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
827			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
830	Image	Range correction on original set on the RADF	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the value of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
831			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
832			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
835	Image	Range correction/Background peak adjustment	Text/Photo	SCN	48 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
836			Text	SCN	48 <0-255>	SYS		1
837			Photo	SCN	40 <0-255>	SYS		1
845	Image	Density adjustment Fine adjustment of "manual density"/ Center value	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
846			Text	SCN	128 <0-255>	SYS		1
847			Photo	SCN	128 <0-255>	SYS		1
850	Image	Density adjustment Fine adjustment of "manual density"/ Light step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the "light" steps becomes lighter.	1
851			Text	SCN	20 <0-255>	SYS		1
852			Photo	SCN	20 <0-255>	SYS		1
855	Image	Density adjustment Fine adjustment of "manual density"/ Dark step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the "dark" steps becomes darker.	1
856			Text	SCN	20 <0-255>	SYS		1
857			Photo	SCN	20 <0-255>	SYS		1
860	Image	Density adjustment Fine adjustment of "automatic density"	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
861			Text	SCN	128 <0-255>	SYS		1
862			Photo	SCN	128 <0-255>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classi-fication**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
865-0	Image	Sharpness adjustment (Text/Photo)	Reproduc-tion ratio 40% or smaller	SCN	1 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-865 is “1”, 05-866 is “2”, 05-867 is “5”) Ten's place: Sharpness intensity (0: Use default value, 1-9: Filter inten-sity)	4
865-1			Reproduc-tion ratio 41-80%	SCN	1 <0-99>	SYS		4
865-2			Reproduc-tion ratio 81% or larger	SCN	1 <0-99>	SYS		4
866-0	Image	Sharpness adjustment (Text)	Reproduc-tion ratio 40% or smaller	SCN	2 <0-99>	SYS		4
866-1			Reproduc-tion ratio 41-80%	SCN	2 <0-99>	SYS		4
866-2			Reproduc-tion ratio 81% or larger	SCN	2 <0-99>	SYS		4
867-0	Image	Sharpness adjustment (Photo)	Reproduc-tion ratio 40% or smaller	SCN	5 <0-99>	SYS		4
867-1			Reproduc-tion ratio 41-80%	SCN	5 <0-99>	SYS		4
867-2			Reproduc-tion ratio 81% or larger	SCN	5 <0-99>	SYS		4
913	Image	Range correc-tion on origi-nal manually set on the original glass	Custom Mode 1	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “auto-matic density” and ten's place is for “manual den-sity”. Once they are fixed, the range correc-tion is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
914			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1
915			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1

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Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
916	Image	Range correction on original set on the RADF	Custom Mode 1	PPC	EUR:12 UC:12 JPN:22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
917			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS		1
918			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
919	Image	Range correction Background peak adjustment	Custom Mode 1	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
920			Custom Mode 2	PPC	64 <0-255>	SYS		1
921			Custom Mode 3	PPC	16 <0-255>	SYS		1
922	Image	Sharpness adjustment	Custom Mode 1	PPC	1 <0-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes. One's place: Fixed value (05-922 is “1”, 05-923 is “5”, 05-924 is “2”) Ten’s place: Adjustable from 0 to 9 regarding the default value as the standard (The larger the value is, the sharper the image becomes.) * When entering “0” on the ten's place, this value is not displayed on the entry screen.	1
923			Custom Mode 2	PPC	EUR:45 UC:45 JPN:45 <0-99>	SYS		1
924			Custom Mode 3	PPC	2 <0-99>	SYS		1
928	Image	Adjustment of smudged/faint text	Custom Mode 1	PPC	2 <0-4>	SYS	Adjustment of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1

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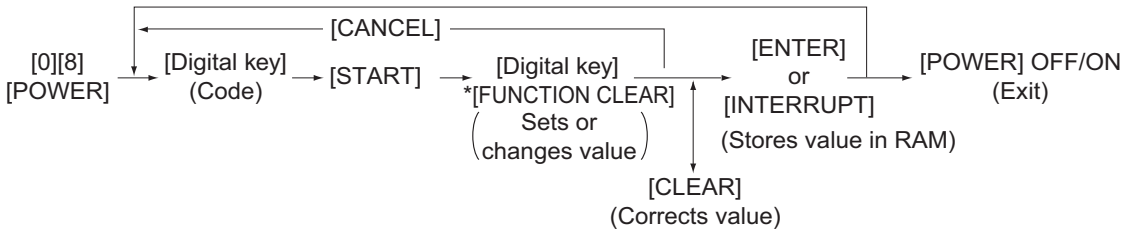
Adjustment mode (05) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
931	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image of the center step becomes darker.	1
932			Custom Mode 2	PPC	128 <0-255>	SYS		1
933			Custom Mode 3	PPC	128 <0-255>	SYS		1
934	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” step density becomes lighter.	1
935			Custom Mode 2	PPC	20 <0-255>	SYS		1
936			Custom Mode 3	PPC	20 <0-255>	SYS		1
937	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “dark” step density becomes darker.	1
938			Custom Mode 2	PPC	20 <0-255>	SYS		1
939			Custom Mode 3	PPC	20 <0-255>	SYS		1
940	Image	Density adjustment Fine adjustment of “automatic density”	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
941			Custom Mode 2	PPC	128 <0-255>	SYS		1
942			Custom Mode 3	PPC	128 <0-255>	SYS		1
943	Image	Gamma data slope adjustment	Custom Mode 1	PPC	0 <0-99>	SYS	One’s place: 0: Equivalent to the set value 5 1 to 9: Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.) Ten’s place: 0: Equivalent to the set value 5 1 to 9: Select the slope of low density (The smaller the value is, the darker the background becomes.) 00: Use default value	1
944			Custom Mode 2	PPC	0 <0-99>	SYS		1
945			Custom Mode 3	PPC	0 <0-99>	SYS		1
976	Maintenance	Equipment number (serial number) entry		ALL	-	SYS	When this adjustment is performed with this code, the setting code (08-995) is also performed automatically (10 digits).	1

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2.2.7 Setting mode (08) (e-STUDIO200L/230/230L/280)

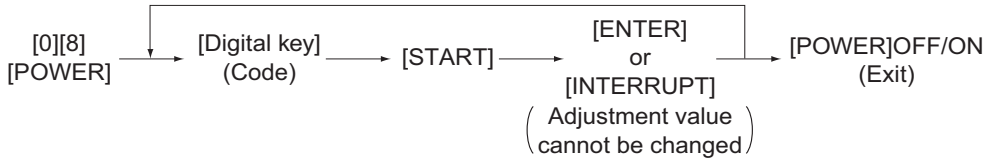
The items in the setting code list can be set or changed in this setting mode (08).

Procedure 1

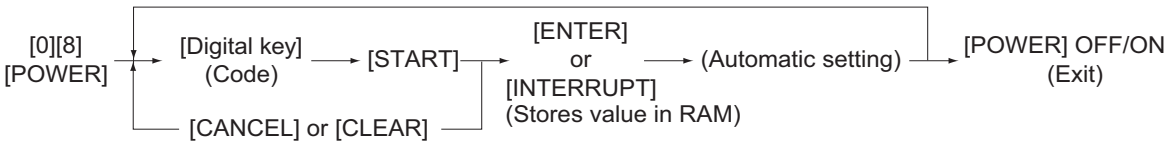


* Press [FUNCTION CLEAR] to enter minus (-).

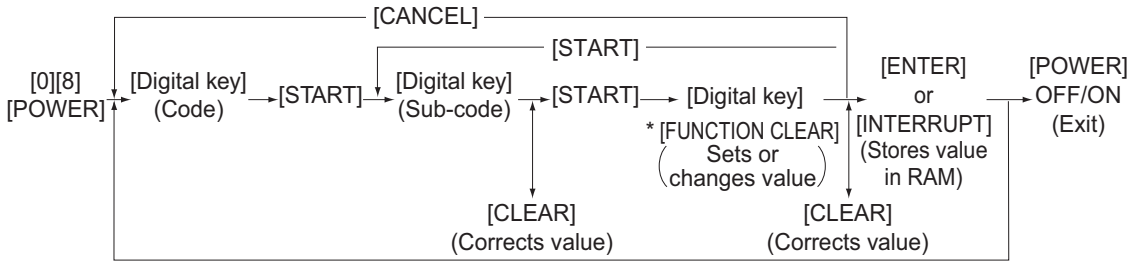
Procedure 2



Procedure 3

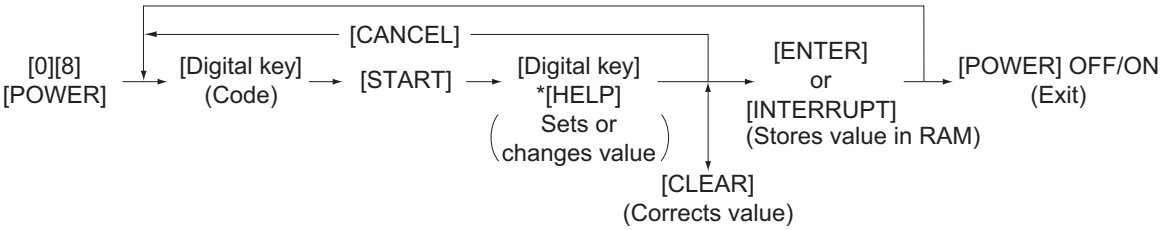


Procedure 4



* Press [FUNCTION CLEAR] to enter minus (-).

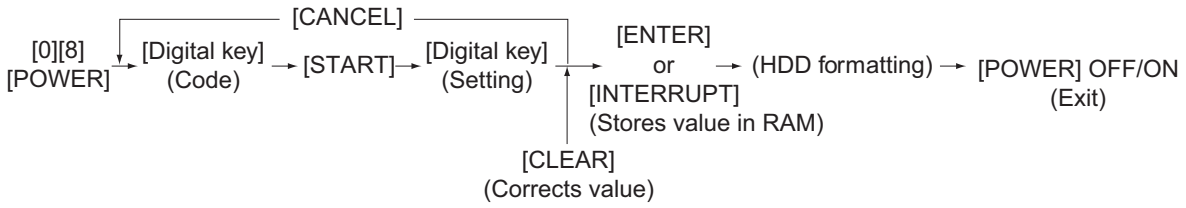
Procedure 5



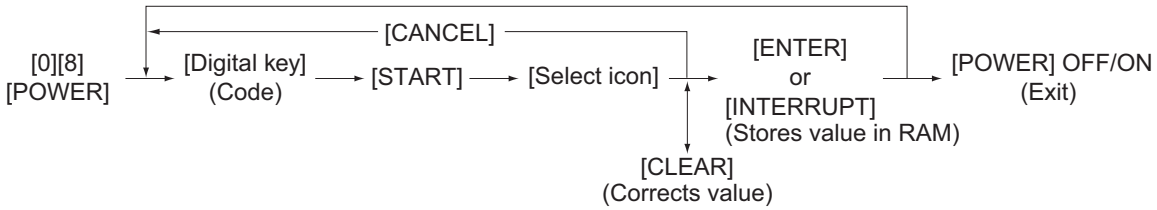
* Press [HELP] to enter "-".

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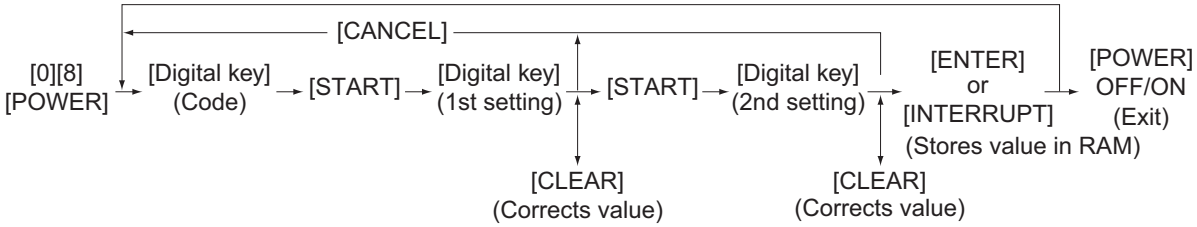
Procedure 7



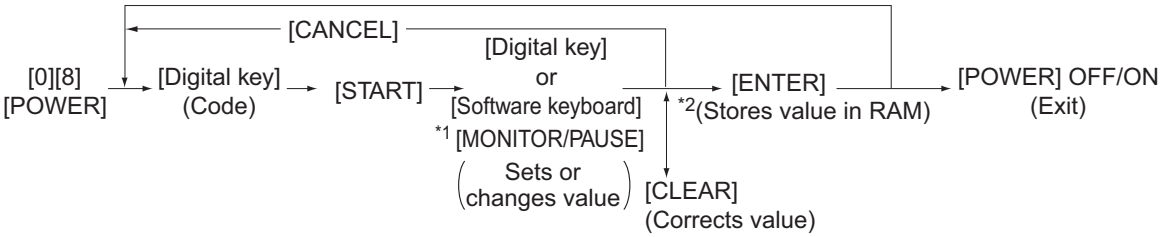
Procedure 9



Procedure 10

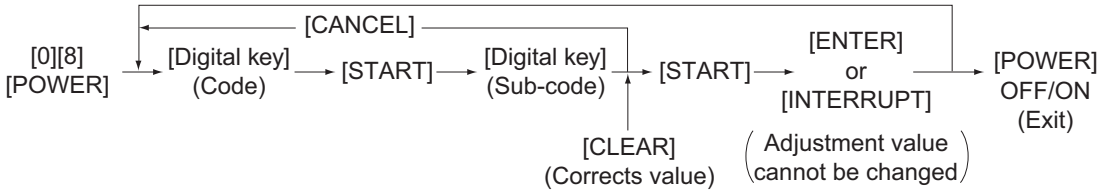


Procedure 11 and 12



*1. Press [MONITOR/PAUSE] to enter "-", when entering telephone number.
*2. The data are stored in SYS-RAM in procedure 11 and stored in NIC-RAM in procedure 12.

Procedure 14



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Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- e-STUDIO200L/230/230L/280:In “RAM”, the NVRAM of the board in which the data of each code is stored is indicated. “M” stands for the LGC board, “SYS” and “UTY” stands for the SYS board and “NIC” stands for the NIC board.

Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
200	General	Date and time setting	ALL	- <13 digits>	-	Year/month/date/day/ hour/minute/second Example: 03 07 0 13 13 27 48 “Day” - “0” is for “Sunday”. Proceeds Monday through Saturday from “1” to “6”.	5
201	General	Destination selection	ALL	EUR: 0 UC: 1 JPN: 2 <0-2>	M	0: EUR 1: UC 2: JPN	1
202	User interface	Counter installed externally	ALL	0 <0-3>	M	0: No external counter 1: Coin controller 2: Copy key card (This value is valid only when “2” is set to 08-201.) 3: Key copy counter	1
203	General	Line adjustment mode	ALL	0 <0-1>	M	0: For factory shipment 1: For line * Field: “0” must be selected	1
204	User interface	Auto-clear timer setting	ALL	3 <0-10>	SYS	Timer to return the equipment to the default settings when the [START] button is not pressed after the function and the mode are set 0: Not cleared 1 to 10:Set number x 15 sec.	1
205	User interface	Auto power save mode timer setting	ALL	EUR: 11 UC: 11 JPN: 6 Others: 11 <0, 6-15>	SYS	Timer to automatically switch to the Auto power save mode when the equipment has not been used 0: Invalid 6: 3min. 7: 4min. 8: 5min. 9: 7min. 10: 10min. 11: 15min. 12: 20min. 13: 30min. 14: 45min. 15: 60min.	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
206	User interface	Auto Shut Off Mode timer setting (Auto Shut Off Mode/Sleep Mode)	ALL	Refer to content <0-20>	SYS	Timer to turn OFF the power or to enter the Sleep Mode automatically when the equipment has not been used (Refer to 08-601) 0: 3min. 1: 5min. 2: 10min. 3: 15min. 4: 20min. 5: 25min. 6: 30min. 7: 40min. 8: 50min. 9: 60min. 10: 70min. 11: 80min. 12: 90min. 13: 100min. 14: 110min. 15: 120min. 16: 150min. 17: 180min. 18: 210min. 19: 240min. 20: Not used <Default value> The models except e-STUDIO200L: EUR: 7 UC: 9 JPN: 0 Others: 9 e-STUDIO200L: EUR: 7 UC: 6 JPN: 0 Others: 6	1
207	User interface	Highlighting display on LCD	ALL	0 <0-1>	SYS	0: Black letter on white background 1: White letter on black background	1
209	User interface	Default setting of filing format when E-mailing	ALL	0 <0-1>	SYS	0: TIFF (Multi) 1: PDF	1
210	Paper feeding	Paper size (A6-R) feeding/ widthwise direction	PRT	148/105 <148-432/105-297>	M		10
219	User interface	Default setting of filing format when storing files	SCN	0 <0-3>	SYS	0: TIFF (Multi) 1: PDF 2: Not used 3: TIFF (Single)	1
220	User interface	Language displayed at power-ON	ALL	EUR: 0 UC: 0 JPN: 5 <0-6>	SYS	0: Language 1 1: Language 2 2: Language 3 3: Language 4 4: Language 5 5: Language 6 6: Language 7	1
221	User interface	Language selection in UI data at Web power ON	ALL	EUR: 0 UC: 0 JPN: 5 <0-6>	SYS	0: Language 1 1: Language 2 2: Language 3 3: Language 4 4: Language 5 5: Language 6 6: Language 7	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
224	Paper feeding	Paper size for bypass feed	PPC	UNDEF	SYS	Press the button on the LCD to select the size.	9
225	Paper feeding	Paper size for upper drawer	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9
226	Paper feeding	Paper size for lower drawer	ALL	EUR: A3 UC: LD JPN: A3	M	Press the button on the LCD to select the size.	9
227	Paper feeding	Paper size for PFP upper drawer	ALL	EUR: A4-R UC: LT-R JPN: A4-R	M	Press the button on the LCD to select the size.	9
228	Paper feeding	Paper size for PFP lower drawer	ALL	EUR: A4 UC: LG JPN: B4	M	Press the button on the LCD to select the size.	9
229	Paper feeding	Paper size (A3) feeding/ widthwise direction	ALL	420/297 <182-432/140-297>	M		10
230	Paper feeding	Paper size (A4-R) feeding/ widthwise direction	ALL	297/210 <182-432/140-297>	M		10
231	Paper feeding	Paper size (A5-R) feeding/ widthwise direction	ALL	210/148 <182-432/140-297>	M		10
232	Paper feeding	Paper size (B4) feeding/ widthwise direction	ALL	364/257 <182-432/140-297>	M		10
233	Paper feeding	Paper size (B5-R) feeding/ widthwise direction	ALL	257/182 <182-432/140-297>	M		10
234	Paper feeding	Paper size (LT-R) feeding/ widthwise direction	ALL	279/216 <182-432/140-297>	M		10
235	Paper feeding	Paper size (LD) feeding/ widthwise direction	ALL	432/279 <182-432/140-297>	M		10
236	Paper feeding	Paper size (LG) feeding/ widthwise direction	ALL	356/216 <182-432/140-297>	M		10
237	Paper feeding	Paper size (ST-R) feeding/ widthwise direction	ALL	216/140 <182-432/140-297>	M		10
238	Paper feeding	Paper size (COMPUTER) feeding/widthwise direction	ALL	356/257 <182-432/140-297>	M		10

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
239	Paper feeding	Paper size (FOLIO) feeding/widthwise direction	ALL	330/210 <182-432/140-297>	M		10
240	Paper feeding	Paper size (13” LG) feeding/widthwise direction	ALL	330/216 <182-432/140-297>	M		10
241	Paper feeding	Paper size (8.5”X8.5”) feeding/widthwise direction	ALL	216/216 <182-432/140-297>	M		10
242	Paper feeding	Paper size (Non-standard) feeding/widthwise direction	ALL	432/279 <148-432/105-297>	SYS		10
243	Paper feeding	Memory 1 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 1].	10
244	Paper feeding	Paper size (8K) feeding/ widthwise direction	ALL	390/270 <182-432/140-297>	M		10
245	Paper feeding	Paper size (16K-R) feeding/widthwise direction	ALL	270/195 <182-432/140-297>	M		10
247	Paper feeding	Memory 2 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2].	10
248	Paper feeding	Memory 3 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3].	10
249	Paper feeding	Memory 4 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4].	10
250	Maintenance	Service technician telephone number	ALL	0 <32 digits>	SYS	A telephone number can be entered up to 32 digits. Use the [Monitor/ Pause] button to enter a hyphen (-).	11
251	Maintenance	Setting value of PM sheet counter	ALL	Refer to content <8 digits>	M	<Default> e-STUDIO200L: UC, EUR: 64,000 JPN: 0 e-STUDIO 230/230L: UC, EUR: 74,000 JPN: 0 e-STUDIO 280: UC, EUR: 90,000 JPN: 0	1
252	Maintenance	Current value of PM driving counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
253	Maintenance	Error history display	ALL	-	SYS	Displaying of the latest 20 errors data	2
254	Paper feeding	LT <-> A4/LD <-> A3	PRT	0 <0-1>	SYS	Sets whether the data is printed on the different but similar size paper or not when the paper of corresponding size is not available. 0: Valid (The data is printed on A4/A3 when LT/LD is selected or vice versa.) 1: Invalid (The message to use the selected paper size is displayed.)	1
255	Paper feeding	PFP/LCF installation	ALL	0 <0-4>	M	0: Automatic 1: PFP single-drawer type installed 2: PFP dual-drawer type installed 3: LCF installed 4: Not installed	1
256	Paper feeding	Paper size setting /LCF	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9
257	Counter	Counter copy	ALL	- <1-2>	-	1) Electrical counter → Backup counter 2) Backup counter → Electrical counter (P. 2-151 "Fig. 2-4")	-
258	Maintenance	FSMS acceptance	ALL	1 <0-2>	SYS	Sets whether the FSMS connection is accepted or not. 0: Prohibited 1: Accepted (USB normal connection) 2: Accepted (USB forcible connection)	1
259	Network	Storage period trial and private	PRT	14 <0-30>	SYS	0: No limits 1 to 30: 1 to 30 days	1
260	Network	Web data retention period	SCN	10 <3 digits>	SYS	When a certain period of time has passed without operation after accessing TopAccess, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)	1
263	User interface	Administrator's password (Maximum 10 digits)	ALL	123456 <10 digits>	-	The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.	11
264	Network	File retention period	SCN	30 <0-999>	SYS	0: No limits 1 to 999: 1 to 999 days	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
265	Network	Maximum data capacity at E-mailing	SCN	30 <2-30>	SYS	2 to 30 M bytes	1
266	Network	Maximum data capacity at Internet FAX	ALL	30 <2-30>	SYS	2 to 30 M bytes	1
267	Electronic Filing	Full guarantee of documents in Electronic Filing when HDD is full	ALL	0 <0-1>	SYS	Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when “1” is set.	1
270	Electronic Filing	Default value for user box retention period	ALL	0 <0-999>	SYS	Sets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)	1
271	General	Warning display of the HDD capacity to be filled	ALL	90 <0-100>	SYS	Sets the percentage of the HDD capacity filled which warning is displayed 0 to 100: 0 to 100%	1
272	Scanning	Notification setting of E-mail saving time limit	ALL	3 <0-99>	SYS	Sets the days left the notification of E-mail saving time limit appears 0 to 99: 0 to 99 days	1
273	Scanning	Default setting of partial size when transmitting E-mail	ALL	0 <0-6>	SYS	Sets the default value for the partial size of E-mail to be transmitted when creating a template. 0: Not divided 1: 64 2: 128 3: 256 4: 512 5: 1024 6: 2048 (Unit: KB)	1
274	FAX	Default setting of page by page when transmitting Internet FAX	FAX	0 <0-4>	SYS	Sets the default value for the page by page of Internet FAX to be transmitted when creating a template. 0: Not divide 1: 128 2: 512 3: 1024 4: 2048 (Unit: KB)	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
276	User interface	Default setting for density adjustment	SCN	0 <0-11>	SYS	0: Automatic density 1: Step -5 2: Step -4 3: Step -3 4: Step -2 5: Step -1 6: Step 0 (center) 7: Step +1 8: Step +2 9: Step +3 10: Step +4 11: Step +5 (1 to 11: Manual density)	1
281	User interface	Default setting of resolution	SCN	1 <0-4>	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi 3: 400dpi 4: 600 dpi	1
283	User interface	Default setting of original mode	SCN	0 <0-2>	SYS	0: Text 1: Text/Photo 2: Photo	1
284	User interface	Default setting of scanning mode	SCN	0 <0-2>	SYS	0: Single 1: Book 2: Tablet	1
285	User interface	Default setting of rotation angle of original	SCN	0 <0-3>	SYS	0: 0 degree 1: 90 degrees 2: 180 degrees 3: 270 degrees	1
286	User interface	Default setting of original paper size	SCN	0 <0-22>	SYS	0: Automatic 1: A3 2: A4 3: LD 4: LT 5: A4-R 6: A5-R 7: LT-R 8: LG 9: B4 10: B5 11: ST-R 12: COMP 13: B5-R 14: FOLIO 15: 13”LG 16: 8.5” x 8.5” 18: A6-R 19: Size mixed 20: 8K 21: 16K 22: 16K-R	1
288	General	Searching interval of deleting expired flies	ALL	12 <1-24>	SYS	Sets the search interval of expired files. Deletes if expired file is found. (Unit: Hour)	1
290	Network	Raw printing job (Duplex)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
291	Network	Raw printing job (Paper size)	PRT	EUR: 6 UC: 2 JPN: 6 <0 -13>	SYS	0: LD 1: LG 2: LT 3: COMP 4: ST 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: FOLIO 12: 13”LG 13: 8.5” x 8.5”	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
292	Network	Raw printing job (Paper type)	PRT	0 <0-4>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 4: OHP film	1
293	Network	Raw printing job (Paper direction)	PRT	0 <0-1>	SYS	0: Portrait 1: Landscape	1
294	Network	Raw printing job (Staple)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
295	Network	Raw printing job (receiving tray)	PRT	0 <0-5>	SYS	0: Inner tray 1: Finisher tray 1 2: Finisher tray 2 3: Not used 4: Job Separator upper tray 5: Job Separator lower tray * The settings 4 and 5 are effective only when the Job Separator (MJ-5004) is installed.	1
296	Network	Raw printing job (Number of form lines)	PRT	1200 <500-12800>	SYS	Sets the number of form lines from 5 to 128. (A hundredfold of the number of form lines is defined as the setting value.)	1
297	Network	Raw printing job (PCL font pitch)	PRT	1000 <44-9999>	SYS	Sets the font pitch from 0.44 to 99.99. (A hundredfold of the font pitch is defined as the setting value.)	1
298	Network	Raw printing job (PCL font size)	PRT	1200 <400-99975>	SYS	Sets the font size from 4 to 999.75. (A hundredfold of the font size is defined as the setting value.)	1
299	Network	Raw printing job (PCL font number)	PRT	0 <0-79>	SYS	Sets the PCL font number.	1
300	User interface	Maximum number of copy volume (MAX9)	PPC	0 <0-2>	SYS	0: 999 1: 99 2: 9	1
302	User interface	Original counter display	ALL	EUR: 2 UC: 0 JPN: 0 <0,2>	SYS	Sets whether the original counter is displayed or not. 0: Not displayed 2: Displayed	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
305-0	Counter	Number of output pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the output pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
305-1			A4					
305-2			A5					
305-3			A6					
305-4			B4					
305-5			B5					
305-6			FOLIO					
305-7			LD					
305-8			LG					
305-9			LT					
305-10			ST					
305-11			COMP					
305-12			13”LG					
305-13			8.5” x 8.5”					
305-14			16K					
305-15			8K					
305-16			Others					
306-0	Counter	Number of output pages in printer function	A3	PRT	0 <8 digits>	SYS	Counts the output pages in the printer function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
306-1			A4					
306-2			A5					
306-3			A6					
306-4			B4					
306-5			B5					
306-6			FOLIO					
306-7			LD					
306-8			LG					
306-9			LT					
306-10			ST					
306-11			COMP					
306-12			13”LG					
306-13			8.5” x 8.5”					
306-14			16K					
306-15			8K					
306-16			Others					

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
307-0	Counter	Number of output pages at list print mode	A3	PRT	0 <8 digits>	SYS	Counts the output pages at the list print mode for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
307-1			A4					
307-2			A5					
307-3			A6					
307-4			B4					
307-5			B5					
307-6			FOLIO					
307-7			LD					
307-8			LG					
307-9			LT					
307-10			ST					
307-11			COMP					
307-12			13”LG					
307-13			8.5” x 8.5”					
307-14			16K					
307-15			8K					
307-16			Others					
308-0	Counter	Number of output pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the output pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
308-1			A4					
308-2			A5					
308-3			A6					
308-4			B4					
308-5			B5					
308-6			FOLIO					
308-7			LD					
308-8			LG					
308-9			LT					
308-10			ST					
308-11			COMP					
308-12			13”LG					
308-13			8.5” x 8.5”					
308-14			16K					
308-15			8K					
308-16			Others					

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
312-0	Counter	Number of scanning pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the scanning pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
312-1			A4					
312-2			A5					
312-3			A6					
312-4			B4					
312-5			B5					
312-6			FOLIO					
312-7			LD					
312-8			LG					
312-9			LT					
312-10			ST					
312-11			COMP					
312-12			13”LG					
312-13			8.5” x 8.5”					
312-14			16K					
312-15			8K					
312-16			Others					
313-0	Counter	Number of scanning pages in scanning function	A3	SCN	0 <8 digits>	SYS	Counts the scanning pages in the scanning function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
313-1			A4					
313-2			A5					
313-3			A6					
313-4			B4					
313-5			B5					
313-6			FOLIO					
313-7			LD					
313-8			LG					
313-9			LT					
313-10			ST					
313-11			COMP					
313-12			13”LG					
313-13			8.5” x 8.5”					
313-14			16K					
313-15			8K					
313-16			Others					

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
314-0	Counter	Number of scanning pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the scanning pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
314-1			A4					
314-2			A5					
314-3			A6					
314-4			B4					
314-5			B5					
314-6			FOLIO					
314-7			LD					
314-8			LG					
314-9			LT					
314-10			ST					
314-11			COMP					
314-12			13”LG					
314-13			8.5” x 8.5”					
314-14			16K					
314-15			8K					
314-16			Others					
315-0	Counter	Number of transmitted pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the transmitted pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
315-1			A4					
315-2			A5					
315-3			A6					
315-4			B4					
315-5			B5					
315-6			FOLIO					
315-7			LD					
315-8			LG					
315-9			LT					
315-10			ST					
315-11			COMP					
315-12			13”LG					
315-13			8.5” x 8.5”					
315-14			16K					
315-15			8K					
315-16			Others					

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
316-0	Counter	Number of received pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the received pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
316-1			A4					
316-2			A5					
316-3			A6					
316-4			B4					
316-5			B5					
316-6			FOLIO					
316-7			LD					
316-8			LG					
316-9			LT					
316-10			ST					
316-11			COMP					
316-12			13”LG					
316-13			8.5” x 8.5”					
316-14			16K					
316-15			8K					
316-16			Others					
320-0	Counter	Display of number of output pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of output pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
320-1	Counter		Small	PPC	0 <8 digits>	SYS		14
320-2	Counter		Total	PPC	0 <8 digits>	SYS		14
321-0	Counter	Display of number of output pages in printer function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the Printer Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
321-1	Counter		Small	PRT	0 <8 digits>	SYS		14
321-2	Counter		Total	PRT	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
322-0	Counter	Display of number of output pages at list print mode	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages at the List Print Mode Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
322-1	Counter		Small	PRT	0 <8 digits>	SYS		14
322-2	Counter		Total	PRT	0 <8 digits>	SYS		14
323-0	Counter	Display of number of output pages in FAX function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
323-1	Counter		Small	PRT	0 <8 digits>	SYS		14
323-2	Counter		Total	PRT	0 <8 digits>	SYS		14
327-0	Counter	Display of number of scanning pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of scanning pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
327-1	Counter		Small	PPC	0 <8 digits>	SYS		14
327-2	Counter		Total	PPC	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
328-0	Counter	Display of number of scanning pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of scanning pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
328-1	Counter		Small	FAX	0 <8 digits>	SYS		14
328-2	Counter		Total	FAX	0 <8 digits>	SYS		14
329-0	Counter	Display of number of scanning pages in scanning function	Large	SCN	0 <8 digits>	SYS	Counts the number of scanning pages in the Scanning Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
329-1	Counter		Small	SCN	0 <8 digits>	SYS		14
329-2	Counter		Total	SCN	0 <8 digits>	SYS		14
330-0	Counter	Display of number of transmitted pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of transmitted pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
330-1	Counter		Small	FAX	0 <8 digits>	SYS		14
330-2	Counter		Total	FAX	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
331	User interface	Default setting of screen		ALL	0 <0-3>	SYS	Sets the screen to be displayed after the auto-clear time has passed or it has recovered from the energy saving mode or sleep mode. 0: Copier 1: Fax 2: Scan 3: Box	1
332-0	Counter	Display of number of received pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of received pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
332-1	Counter		Small	FAX	0 <8 digits>	SYS		14
332-2	Counter		Total	FAX	0 <8 digits>	SYS		14
335-0	Counter	Display of total number of pages	Large	ALL	0 <8 digits>	SYS	Displays the total number of pages in the copier/printer/scanning/FAX functions.	14
335-1	Counter		Small	ALL	0 <8 digits>	SYS		14
335-2	Counter		Total	ALL	0 <8 digits>	SYS		14
337	Paper feeding	Paper size (#10-R) feeding/widthwise direction		ALL	241/105 <148-432/105-297>	M		10
338	Paper feeding	Paper size (DL-R) feeding/widthwise direction		ALL	220/110 <148-432/105-297>	M		10
339	Paper feeding	Paper size (Envelope: Monarch-R) feeding/widthwise direction		ALL	191/98 <148-432/98-297>	M		10
340	Paper feeding	Paper size (Envelope: CHO-3-R) feeding/widthwise direction		ALL	235/120 <148-432/105-297>	M		10
341	Paper feeding	Paper size (Envelope: YOU-4-R) feeding/widthwise direction		ALL	235/105 <148-432/105-297>	M		10
345	Counter	Count setting of envelope (PM)		ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
346	Counter	Count setting of large-sized paper (PM)		ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
347	Counter	Definition setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP	1
348	Counter	Count setting of thick paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
349	Counter	Count setting of OHP film (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
352	Counter	Count setting of large-sized paper (Fee charging system counter)	ALL	JPN: 0 OTHER: 1 <0-2>	M	0: Counted as 1 1: Counted as 2 2: Counted as 1 (Mechanical counter is double counter)	1
353	Counter	Definition setting of large-sized paper (Fee charging system counter)	ALL	0 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP/8K	1
356	Counter	Counter for upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from upper drawer	2
357	Counter	Counter for lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from lower drawer	2
358	Counter	Counter for bypass feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from bypass feed	2
359	Counter	Counter for LCF feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from LCF	2
360	Counter	Counter for PFP upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP upper drawer	2
370	Counter	Counter for PFP lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP lower drawer	2
372	Counter	Counter for ADU	ALL	0 <8 digits>	M	Counts the number of output pages of duplex printing.	2
374	Counter	Counter for RADF	ALL	0 <8 digits>	SYS	Counts the number of originals fed from RADF	2
381	Counter	Setting for counter installed externally	ALL	1 <0-7>	M	Selects the job to count up for the external counter. 0: Not selected 1: Copier 2: FAX 3: Copier/FAX 4: Printer 5: Copier/Printer 6: Printer/FAX 7: Copier/Printer/FAX	1
390	Counter	Number of errors in HDD (Copier)	PPC	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
391	Counter	Number of errors in HDD (FAX)	FAX	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
392	Counter	Number of errors in HDD (Scanning)	SCN	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
393	Counter	Number of errors in HDD (Printer)		PRT	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
398	Laser	Number of polygonal motor rotational speed switching		ALL	0 <8 digits>	M	Counts the number of time the polygonal motor has switched its rotational speed between normal rotation and standby rotation.	2
399	Laser	Accumulated time of polygonal motor at normal rotation		ALL	0 <8 digits>	M	Accumulates the time the polygonal motor has rotated at normal rotation.	2
400	Fuser	Fuser unit error status counter		ALL	0 <0-19>	M	0: No error 1: C410 (Once) 2: C410 (consecutively occurred) 3: - 4: C430 5: C440 6: C450 7: C440 8: C450 9: C440 10: C470 11: C470 12: C480 13: C490 14: C470 15: C480 16: C490 17: C470 18: C480 19: C490	1
404-0	Fuser	Temperature drop setting in ready status (Center thermistor)	The first drop	ALL	1 <0-10>	M	This code is valid only when “20” is set to 08-886. Setting value x -5°C: from 0°C to -50°C	4
404-1			The second drop	ALL	1 <0-10>	M		4
404-2			The third drop	ALL	1 <0-10>	M		4
404-3			The fourth drop	ALL	1 <0-10>	M		4
405-0	Fuser	Temperature drop setting in ready status (Side thermistor)	The first drop	ALL	4 <0-10>	M		4
405-1			The second drop	ALL	4 <0-10>	M		4
405-2			The third drop	ALL	4 <0-10>	M		4
405-3			The fourth drop	ALL	4 <0-10>	M		4
407	Fuser	Fuser roller temperature in ready status (Side thermistor)		ALL	8 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classifi-cation**	**Items**	**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
409	Fuser	Fuser roller temperature at energy saver mode (Center thermistor)	ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
410	Fuser	Fuser roller temperature during printing (Center thermistor/Plain paper)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
411	Fuser	Fuser roller temperature on standby (Center thermistor)	ALL	8 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1
412	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 3)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
413	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 1)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
414	Developer	Toner density life correction switching		ALL	0 <0-7>	M	0: Unchanged (Default) 1: Approx. 0.3 wt% higher 2: Approx. 0.6 wt% higher 3: Approx. 0.9 wt% higher 4: Approx. 0.2 wt% lower 5: Approx. 0.4 wt% lower 6: Approx. 0.6 wt% lower 7: Approx. 0.9 wt% lower	1
417	Fuser	Pre-running time for first printing (Thick paper 3)		ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
424-0	Fuser	Temperature drop switching time setting in ready status (Center thermistor)	The first drop	ALL	15 <2-60>	M	This code is valid only when “20” is set to 08-886. Setting value x 1 min.: from 2 to 60 min. later	4
424-1			The second drop	ALL	15 <2-60>	M		4
424-2			The third drop	ALL	15 <2-60>	M		4
424-3			The fourth drop	ALL	15 <2-60>	M		4
425-0	Fuser	Temperature drop switching time setting in ready status (Side thermistor)	The first drop	ALL	15 <2-60>	M		4
425-1			The second drop	ALL	15 <2-60>	M		4
425-2			The third drop	ALL	15 <2-60>	M		4
425-3			The fourth drop	ALL	15 <2-60>	M		4
433-0	Fuser	Temperature control lower limit (Plain paper/ at ordinary temperature)	Center thermistor	ALL	7 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
433-1			Side thermistor	ALL	5 <0-12>	M		4

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classifi-cation**	**Items**	**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
437	Fuser	Fuser roller temperature during printing (Center thermistor /Thick paper 2)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
438	Fuser	Fuser roller temperature during printing (Center thermistor/OHP film)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
439	Fuser	Pre-running time for first printing (Thick paper 2)	ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
440	Fuser	Pre-running time for first printing (Plain paper)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
441	Fuser	Pre-running time for first printing (Thick paper 1)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
448	Fuser	Fuser roller temperature in Energy Saving Mode (Side thermistor)	ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
450	Fuser	Fuser roller temperature during printing (Side thermistor/Plain paper)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
451	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 1)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
452	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 2)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
453	Fuser	Fuser roller temperature during printing (Side thermistor/OHP film)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
455	Image processing	Toner supply amount correction/Toner motor control	ALL	0 <0-5>	M	Corrects the supply amount of the fresh toner (driving period of the toner motor) into the developer unit. 0: x1.0 1: x0.75 2: x0.5 3: x0.3 4: x2.0 5: x1.5	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
462	RADF	Setting for switchback operation to copy mixed-sized original on RADF		ALL	0 <0-1>	SYS	Sets whether or not detecting the original length by transporting without scanning in reverse when finding A4-R/FOLIO paper. 0: Invalid- Judges as A4-R without transporting in reverse with no scanning. 1: Valid- Judges whether it is A4-R or FOLIO size by transporting in reverse with no scanning. * The original is transported in reverse with no scanning when detecting LT-LG size-paper in LT, regardless of this setting.	1
463-0	Paper feeding	Feeding retry number setting (upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the upper drawer.	4
463-1			Others	ALL	5 <0-5>	M		4
464-0	Paper feeding	Feeding retry number setting (lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the lower drawer.	4
464-1			Others	ALL	5 <0-5>	M		4
465-0	Paper feeding	Feeding retry number setting (PFP upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP upper drawer.	4
465-1			Others	ALL	5 <0-5>	M		4
466-0	Paper feeding	Feeding retry number setting (PFP lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP lower drawer.	4
466-1			Others	ALL	5 <0-5>	M		4
467-0	Paper feeding	Feeding retry number setting (bypass feed)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the bypass tray.	4
467-1			Others	ALL	5 <0-5>	M		4
468-0	Paper feeding	Feeding retry number setting (LCF)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the LCF.	4
468-1			Others	ALL	5 <0-5>	M		4
471	Paper feeding	Paper size (Postcard) feeding/widthwise direction		ALL	148/100 <148-432/100-297>	M	* Postcard is supported only for JPN model.	10

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
477	General	Machine identification information	ALL	Refer to content <0-1>	M	<Default value> Lower drawer reference: 0 Upper drawer reference: 1	2
478	Laser	Judged number of polygonal motor rotation error (Normal rotation)	ALL	0 <0-1>	M	Displays the error [CA10] when the set number of rotation error has been detected. 0: 2 times 1: 12 times	1
479	Laser	Judged number of polygonal motor rotation error (At acceleration/deceleration)	ALL	0 <0-1>	M	0: Waiting time for polygonal motor rotation overshooting 0.6 sec. 1: Waiting time for polygonal motor rotation overshooting 2.2 sec.	1
480	Paper feeding	Default setting of paper source	PPC	0 <0-5>	SYS	0: A4/LT 1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
481	Paper feeding	Automatic change of paper source	PPC	1 <0-2>	SYS	Sets whether or not changing the drawer automatically to the other drawer with the paper of the same size when paper in the selected drawer has run out. 0: OFF 1: ON (Changes to the drawer with the same paper direction and size: ex. A4 to A4) 2: ON (Changes to the drawer with the same paper size. Paper with the different direction is acceptable as long as the size is the same: ex., A4 to A4-R, LT-R to LT. “1” is applied when the staple/hole-punch is specified.)	1
482	Paper feeding	Feeding retry setting	ALL	0 <0-1>	M	0: ON 1: OFF	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
483	Laser	Pre-running rotation of polygonal motor	ALL	0 <0-2>	SYS	Sets whether or not switching the polygonal motor from the standby rotation to the normal rotation when the original is set on the RADF or the platen cover is opened. 0: Valid (when using RADF and the original is set manually) 1: Invalid 2: Valid (when using RADF only)	1
484	Laser	Polygonal motor rotational status switching at the Auto Clear Mode	ALL	0 <0-1>	SYS	Sets whether or not switching the polygonal motor from the normal rotation to the standby rotation at the Auto Clear Mode. 0: Valid 1: Invalid	1
485	Laser	Rotational status of polygonal motor on standby	ALL	JPN: 1 Others: 0 <0-1>	SYS	Sets the rotational status of polygonal motor on standby. 0: Rotated (The rotational speed is set at 08-490.) 1: Stopped	1
486	Laser	Timing of auto-clearing of polygonal motor pre-running rotation	ALL	0 <0-2>	SYS	Switches the polygonal motor to the standby rotation when a certain period of time has passed from the pre-running. At this code, the period to switch the status to the standby rotation is set. 0: 15 sec.1: 30 sec. 2: 45 sec. * This setting is effective when “0” or “2” is set at 08-483.	1
488	Laser	Setting of polygonal motor type	ALL	0 <0-3>	M	Set the type of polygonal motor. 0: 2-clock type 1: 3-clock type 2: 4-clock type 3: 4-clock type	1
489	Laser	Polygonal motor rotation number on standby	ALL	5 <0-5>	M	0: 38,090.55 rpm 1: 35,000 rpm 2: 30,000 rpm 3: 25,000 rpm 4: 20,000 rpm 5: 10,000 rpm	1
490	Laser	Polygonal motor rotation in the energy saving mode	ALL	0 <0-1>	M	0: Stopped 1: 10,000 rpm	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
491	Transfer	Transfer charger bias correction (H) at duplexing	ALL	149 <0-255>	M	Corrects the transfer charger bias output value of the leading edge area of paper at duplexing.	1
492	Transfer	Transfer charger bias correction (C) at duplexing	ALL	139 <0-255>	M	Corrects the transfer charger bias output value of the center area of paper at duplexing.	1
493	Transfer	Transfer charger bias correction (L) at duplexing	ALL	128 <0-255>	M	Corrects the transfer charger bias output value of the trailing edge area of paper at duplexing.	1
502	Image	Error diffusion and dither setting at photo mode	PPC	1 <0-1>	SYS	Sets the image reproduction method at photo mode. 0: Error diffusion 1: Dither	1
503	User interface	Default setting of density adjustment	PPC	0 <0-1>	SYS	0: Automatic 1: Manual (Center)	1
508	Image	Custom Mode setting	PPC	0 <0-3>	SYS	0: Not used 1: Custom Mode 1 when Text/Photo is set as a base 2: Custom Mode 2 when Text is set as a base 3: Custom Mode 3 when Photo is set as a base	1
509	Image	Error diffusion and dither setting at a photo mode (Custom Mode)	PPC	1 <0-1>	SYS	Switches the image processing method when Custom Mode 3 is set. 0: Error diffusion 1: Dither	1
515	Fuser	Temperature setting of warming-up (Center thermistor)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
516	Fuser	Temperature setting of warming-up (Side thermistor)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
518	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 3)		ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
520	Fuser	Fuser roller temperature during printing (Center thermistor/Envelope)		ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
521	Fuser	Fuser roller temperature during printing (Side thermistor/Envelope)		ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
523	Fuser	Pre-running time for first printing (Envelope)		ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
525-0	Fuser	Temperature drop switching time setting during printing (Center thermistor)	The first drop	ALL	20 <0-200>	M	This code is valid only when “20” is set to 08-535. Setting value x 5 sec.: from 0 to 1,000 sec. later	4
525-1			The second drop	ALL	38 <0-200>	M		4
525-2			The third drop	ALL	75 <0-200>	M		4
525-3			The fourth drop	ALL	75 <0-200>	M		4

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
526	Fuser	Pre-running time for first printing (OHP film)		ALL	0 <0-15>	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
527-0	Fuser	Temperature drop switching time setting during printing (Side thermistor)	The first drop	ALL	20 <0-200>	M	This code is valid only when “20” is set to 08-535. Setting value x 5 sec.: from 0 to 1,000 sec. later	4
527-1			The second drop	ALL	30 <0-200>	M		4
527-2			The third drop	ALL	48 <0-200>	M		4
527-3			The fourth drop	ALL	75 <0-200>	M		4
535	Fuser	Temperature drop control setting during printing (Temperature/Time)		ALL	2 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	1
536-0	Fuser	Temperature drop setting during printing (Center thermistor)	The first drop	ALL	1 <0-10>	M	This code is valid only when “20” is set to 08-535. Setting value x -5°C: from 0°C to -50°C	4
536-1			The second drop	ALL	2 <0-10>	M		4
536-2			The third drop	ALL	3 <0-10>	M		4
536-3			The fourth drop	ALL	3 <0-10>	M		4
537-0	Fuser	Temperature drop setting during printing (Side thermistor)	The first drop	ALL	1 <0-10>	M		4
537-1			The second drop	ALL	2 <0-10>	M		4
537-2			The third drop	ALL	3 <0-10>	M		4
537-3			The fourth drop	ALL	5 <0-10>	M		4

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
550	Image	Default setting of original mode	PPC	0 <0-3>	SYS	0: Text/Photo 1: Photo 2: Text 3: Custom Mode	1
601	User interface	Setting for the Energy Saving Mode	ALL	0 <0-1>	SYS	0: Auto Shut Off Mode 1: Sleep Mode	1
602	User interface	Screen setting for Auto power Save Mode and Auto Shut OFF Mode	ALL	EUR: 0 UC: 1 JPN: 1 <0-1>	SYS	0: OFF 1: ON	1
603	User interface	Setting for automatic duplexing mode	PPC	0 <0-3>	SYS	0: Invalid 1: Single-sided to duplex copying 2: Double-sided to duplex copying 3: User selection	1
604	User interface	Default setting for APS/AMS	PPC	0 <0-2>	SYS	0: APS (Automatic Paper Selection) 1: AMS (Automatic Magnification Selection) 2: Not selected	1
605	User interface	Centering printing of primary/secondary direction at AMS	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
607	User interface	Default setting of RADF mode	PPC	0 <0-1>	SYS	0: Continuous feeding (by pressing the [START] button) 1: Single feeding (by setting original on the tray)	1
610	User interface	Key touch sound of control panel	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
611	User interface	Book type original priority	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
612	General	Summer time mode	ALL	0 <0-1>	SYS	0: Not summer time 1: Summer time	1
613	User interface	Paper size selection for [OTHER] button	PPC	EUR: FOLIO UC: COMP JPN: A5-R	SYS	Press the button on the LCD to select the size.	9
614	Network	Local I/F time-out period	PRT	6 <1-50>	SYS	Sets the period of time when the job is judged as completed in local I/F printing (USB or parallel). 1: 1.0 sec. 2: 1.5 sec. -50: 25.5 sec. (in increments of 0.5 sec.)	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
615	General	Size information of main memory and page memory	ALL	-	SYS	Displays the sizes of the main memory and page memory. Enables to check if each memory is properly recognized.	2
617	User interface	Print setting without department code	ALL	0 <0-1>	SYS	0: Printed 1: Not printed	1
618	User interface	Default setting when mixed size originals are set on RADF	PPC	0 <0-1>	SYS	0: Scanned as all in same size 1: Scanned as each original size	1
619	Paper feeding	Time lag before Auto Job Start of bypass feeding	ALL	4 <0-10>	SYS	Sets the time taken to add paper feeding when paper in the bypass tray has run out during the bypass feed copying. 0: No delay 1-10: Setting value x 0.5 sec.	1
620	User interface	Department management setting (Copier)	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
621	User interface	Department management setting (FAX)	FAX	1 <0-1>	SYS	0: Invalid 1: Valid	1
622	User interface	Department management setting (Printer)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
623	User interface	Department management setting (Scanner)	SCN	1 <0-1>	SYS	0: Invalid 1: Valid	1
624	User interface	Department management setting (List print)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
625	User interface	Blank copying prevention mode during RADF jamming	PPC	0 <0-1>	SYS	0: OFF 1: ON (Start printing when the scanning of each page is finished)	1
627	User interface	Rotation printing at the non-sorting	ALL	0 <0-1>	SYS	0: Not rotating 1: Rotating	1
628	User interface	Direction priority of original image	PPC	0 <0-1>	SYS	0: Automatic 1: Portrait	1
629	User interface	Department management setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
633	Data overwrite kit	Releasing F200 service call	ALL	0 <0-2>	SYS	0: Not used 1: Board installed (GP-1050) 2: Service call	1
634	User interface	Inner receiving tray priority at Non-sort Mode	ALL	0 <0-1>	SYS	0: Normal 1: Inner receiving tray	1
636	User interface	Width setting for image shift copying (linkage of front side and back side)	PPC	0 <0-1>	SYS	0: ON 1: OFF	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
638	General	Time differences	ALL	EUR: 24 UC: 40 JPN: 6 <0-47>	SYS	0: +12.0h 1: +11.5h 2: +11.0h 3: +10.5h 4: +10.0h 5: +9.5h 6: +9.0h 7: +8.5h 8: +8.0h 9: +7.5h 10: +7.0h 11: +6.5h 12: +6.0h 13: +5.5h 14: +5.0h 15: +4.5h 16: +4.0h 17: +3.5h 18: +3.0h 19: +2.5h 20: +2.0h 21: +1.5h 22: +1.0h 23: +0.5h 24: 0.0h 25: -0.5h 26: -1.0h 27: -1.5h 28: -2.0h 29: -2.5h 30: -3.0h 31: -3.5h 32: -4.0h 33: -4.5h 34: -5.0h 35: -5.5h 36: -6.0h 37: -6.5h 38: -7.0h 39: -7.5h 40: -8.0h 41: -8.5h 42: -9.0h 43: -9.5h 44: -10.0h 45: -10.5h 46: -11.0h 47: -11.5h	1
640	User interface	Date display format	ALL	EUR: 1 UC: 2 JPN: 0 <0-2>	SYS	0: YYYY.MM.DD. 1: DD.MM.YYYY 2: MM.DD.YYYY	1
641	User interface	Automatic Sorting Mode setting (RADF)	PPC	2 <0-4>	SYS	0: Invalid 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
642	User interface	Default setting of Sorter Mode	PPC	0 <0-4>	SYS	0: NON-SORT 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
645	User interface	Correction of reproduction ratio in editing copy	PPC	10 <0-10>	SYS	Sets the reproduction ratio for the “X in 1” printing (including magazine sort) to the “Reproduction ratio x Correction ratio”. 0: 90% 1: 91% 2: 92% 3: 93% 4: 94% 5: 95% 6: 96% 7: 97% 8: 98% 9: 99% 10: 100%	1
646	User interface	Image position in editing	PPC	0 <0-1>	SYS	Sets the page pasted position for “X in 1” to the upper left corner/ center. 0: Cornering 1: Centering	1
647	User interface	Rotation of paper direction for BOX printing	ALL	1 <0-1>	SYS	0: Rotation OFF 1: Rotation ON	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
648	User interface	Returning finisher tray when printing is finished	ALL	0 <0-1>	SYS	Sets whether or not returning the finisher tray to the bin 1 when printing is finished. 0: Not returned 1: Returned	1
649	User interface	Magazine sort setting	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
650	User interface	2 in 1/4 in 1 page allocating order setting	PPC	0 <0-1>	SYS	0: Horizontal 1: Vertical	1
651	User interface	Printing format setting for Time stamp and Page Number	PPC	2 <0-3>	SYS	Hyphen (with page number) /Dropout (with date, time and page number) 0: OFF/OFF 1: ON/OFF 2: OFF/ON 3: ON/ON **Note:** Hyphen printing format ON: -1- OFF: 1	1
652	User interface	Cascade operation setting	PPC	0 <0-1>	SYS	0: OFF 1: ON	1
653	User interface	Cascade operation setting	PRT	0 <0-1>	SYS	0: OFF 1: ON	1
657	User interface	Direction priority for date and time stamp printing	PPC	0 <0-1>	SYS	0: Short edge 1: Long edge	1
658	User interface	Auto Job Start setting for bypass feed printing	PRT	0 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
659	User interface	Auto Job start setting for bypass feed printing	PPC	1 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
660	Network	Auto-forwarding setting of received FAX	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
661	Network	Auto-forwarding setting of received E-mail	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
662	General	Clearing of SMS partition	ALL	-	SYS	Clears SMS partition. (Performs when the service call [F106] has occurred.)	3
666	General	/SHR partition clearing	ALL	-	SYS	Initializes the Electronic Filing.	3
667	General	/SHA partition clearing	ALL	-	SYS	Initializes the shared folder.	3
670	General	HDD diagnostic menu display	ALL	-	SYS	Display the HDD information	2
671	User interface	Size indicator	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
672	General	Initialization of department management information	-	-	SYS	Initializing of the department management information * Key in the code and press the [INITIALIZE] button to perform the initialization. If the area storing the department management information is destroyed for some reason, “Enter Department Code” is displayed on the control panel even if the department management function is not set on. In this case, initialize the area with this code. This area is normally initialized at the factory.	3
673	General	Trial period setting	PRT/ SCN	254 <1-60>	SYS	Sets the trial period from 1 to 60 days. This setting is effective only when the default value is “254”. Once the default value is set, this value is only used for a reference.	1
678	General	Setting of banner advertising display	ALL	0 <0-1>	SYS	Sets whether or not displaying the banner advertising. The setting contents of 08-679 and 08-680 are displayed at the time display section on the right top of the screen. When both are set, each content is displayed alternately. 0: Not displayed 1: Displayed	1
679	General	Banner advertising display 1	ALL	-	SYS	Maximum 27 letters (one-byte character)	11

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
680	General	Banner advertising display 2	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
681	General	Display of [BANNER MESSAGE] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed * This button enables the entry of “Banner advertising display 1 (08-679)” and “Banner advertising display 2 (08-680)” on the control panel.	1
682	User interface	Offsetting between jobs	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
683	General	Duplex printing setting when coin controller is used	ALL	1 <0-1>	SYS	When the duplex printing is short paid with a coin controller, reverse side of the original is not printed and is considered as a defect (printing job may be cleared). To solve this problem, the selection of printing method is enabled with this setting. 0: Invalid (Both sides printed) 1: Valid (Only one side printed)	1
684	General	Rebuilding all databases	ALL	-	SYS	Rebuilds all databases.	3
685	General	Rebuilding all databases related to address book	ALL	-	SYS	Rebuilds all databases related to the Address Book.	3
686	General	Rebuilding all databases related to log	ALL	-	SYS	Rebuilds all databases related to the log.	3
689	FAX	Adaptation of paper source priority selection	FAX	0 <0-1>	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1
690	General	HDD formatting	ALL	- <2>	SYS	2: Normal formatting	7
691	General	HDD type display	ALL	- <0-2>	SYS	0: Not formatted 1: Not used 2: Normal format	7
692	Maintenance	Performing panel calibration	ALL	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 2 reference positions after this code is started up.	1
693	General	Initialization of NIC information	ALL	-	SYS	Returns the value to the factory shipping default value.	3
694	General	Performing HDD testing	ALL	-	SYS	Checks the bad sector.	3

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
695	General	Notifying condition of trial period end	PRT/ SCN	3 <0-59>	SYS	Sets when the end of trial period is notified. 0: On the day it ends 1 to 59: n days before	1
696	Scrambler board	Installation of scrambler board (Option)	ALL	0 <0-1>	-	0: Not installed 1: Installed	2
697	Paper feeding	Paper type priority	PPC	1 <1-2>	SYS	Sets the paper type priority during copying. 1: Plain paper 2: Thick paper 1	1
698	Scrambler board	Entering the key code for scrambler board	ALL	-	-	Start up this code and have the user enter the key code. Once the key code has been set, this code cannot be set again on security grounds.	5
699	Scrambler board	Erasing all data in HDD	ALL	-	-	This setting is effective only when the scrambler board is installed.	3
701	FAX	Destination setting for FAX	FAX	EUR: 5 UC: 4 JPN: 0 Other: 1 <0-25>	SYS	0: Japan 1: Asia 2: Australia 3: Hong Kong 4: U.S.A./Canada 5: Germany 6: U.K. 7: Italy 8: Belgium 9: Netherlands 10: Finland 11: Spain 12: Austria 13: Switzerland 14: Sweden 15: Denmark 16: Norway 17: Portugal 18: France 19: Greece 20: Poland 21: Hungary 22: Czech 23: Turkey 24: South Africa 25: Taiwan	1
702	Maintenance	Remote-controlled service function	ALL	2 <0-2>	SYS	0: Valid (Remote-controlled server) 1: Valid (L2) 2: Invalid	1
703	Maintenance	Remote-controlled service HTTP server URL setting	ALL	-	SYS	Maximum 256 Bytes	11

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
707	Maintenance	Remote-controlled service HTTP initially-registered server URL setting	ALL	https://device.mfp-support.com:443/device/firstregist.ashx	SYS	Maximum 256 Bytes	11
710	Maintenance (Remote)	Short time interval setting of recovery from Emergency Mode	ALL	24 <1-48>	SYS	Sets the time interval to recover from the Emergency Mode to the Normal Mode. (Unit: Hour)	1
711	Maintenance (Remote)	Short time interval setting of Emergency Mode	ALL	60 <30-360>	SYS	Unit: Minute	1
715	Maintenance	Remote-controlled service periodical polling timing (Hour/Hour/Minute/Minute)	ALL	1230	SYS	0 (0:00) to 2359 (23:59)	1
716	Maintenance	Remote-controlled service Writing data of self-diagnostic code	ALL	0 <0-1>	SYS	0: Prohibited 1: Accepted	1
717	Maintenance	Remote-controlled service response waiting time (Timeout)	ALL	3 <1-30>	SYS	Unit: Minute	1
718	Maintenance	Remote-controlled service initial registration	ALL	0 <0-2>	SYS	0: OFF 1: Start 2: Only certification is scanned	1
719	Maintenance	Remote-controlled service tentative password	ALL	-	SYS	Maximum 10 letters	11
720	Maintenance	Status of remote-controlled service initial registration (Display only)	ALL	0 <0-1>	SYS	0: Not registered 1: Registered	2
721	Maintenance	Service center call function	ALL	2 <0-2>	SYS	0: OFF 1: Notifies all service calls 2: Notifies all but paper jams	1
723	Maintenance	Service center call HTTP server URL setting	ALL	-	SYS	Maximum 256 letters	11
726	Maintenance	HTTP proxy setting	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
727	Maintenance	HTTP proxy IP address setting	ALL	-	SYS	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	11
728	Maintenance	HTTP proxy port number setting	ALL	0 <0-65535>	SYS		1
729	Maintenance	HTTP proxy ID setting	ALL	-	SYS	Maximum 30 letters	11
730	Maintenance	HTTP proxy password setting	ALL	-	SYS	Maximum 30 letters	11
731	Maintenance	HTTP proxy panel display	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
732	Maintenance (Remote)	Automatic ordering function of supplies	ALL	3 <0-3>	SYS	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF	1
733	Maintenance (Remote)	Automatic ordering function of supplies FAX number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
734	Maintenance (Remote)	Automatic ordering function of supplies E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
738	Maintenance (Remote)	Automatic ordering function of supplies User's name	ALL	-	SYS	Maximum 50 letters	11
739	Maintenance (Remote)	Automatic ordering function of supplies User's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
740	Maintenance (Remote)	Automatic ordering function of supplies User's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
741	Maintenance (Remote)	Automatic ordering function of supplies User's address	ALL	-	SYS	Maximum 100 letters	11
742	Maintenance (Remote)	Automatic ordering function of supplies Service number	ALL	0 <5 digits>	SYS	Maximum 5 digits	11
743	Maintenance (Remote)	Automatic ordering function of supplies Service technician's name	ALL	-	SYS	Maximum 50 letters	11
744	Maintenance (Remote)	Automatic ordering function of supplies Service technician's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
745	Maintenance (Remote)	Automatic ordering function of supplies Service technician's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
746	Maintenance (Remote)	Automatic ordering function of supplies Supplier's name	ALL	-	SYS	Maximum 50 letters	11
747	Maintenance (Remote)	Automatic ordering function of supplies Supplier's address	ALL	-	SYS	Maximum 100 letters	11
748	Maintenance (Remote)	Automatic ordering function of supplies Notes	ALL	-	SYS	Maximum 128 letters	11
758	Maintenance (Remote)	Information about supplies Part number of toner cartridge	ALL	-	SYS	Maximum 20 digits	11
759	Maintenance (Remote)	Information about supplies Order quantity of toner cartridge	ALL	1 <1-99>	SYS		1
760	Maintenance (Remote)	Information about supplies Condition number of toner cartridge	ALL	1 <1-99>	SYS		1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
765	Maintenance (Remote)	Automatic ordering supplies Display	ALL	2 <0-2>	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid	1
767	Maintenance (Remote)	Service Notification setting	ALL	0 <0-2>	SYS	Enables to set up to 3 E-mail addresses to be sent.(08-768, 777, 778) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1
768	Maintenance (Remote)	Destination E-mail address	ALL	-	SYS	Maximum 192 letters	11
769	Maintenance (Remote)	Total counter information transmission setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
770	Maintenance (Remote)	Total counter transmission date setting	ALL	1 <1-31>	SYS	1 to 31	1
771	Maintenance (Remote)	PM counter notification setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
772	Maintenance	Dealer's name	ALL	-	SYS	Maximum 100 letters Needed at initial registration	11
773	Maintenance	Login name	ALL	-	SYS	Maximum 20 letters Needed at initial registration	11
774	Maintenance (Remote)	Display setting of [Service Notification] button	ALL	0 <0-1>	SYS	0: Not displayed 1: displayed	1
775	Maintenance (Remote)	Sending error contents of equipment	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
776	Maintenance (Remote)	Setting total counter transmission interval (Hour/Hour/Minute/Minute)	ALL	-	SYS		1
777	Maintenance (Remote)	Destination E-mail address 2	ALL	-	SYS	Maximum 192 letters	11
778	Maintenance (Remote)	Destination E-mail address 3	ALL	-	SYS	Maximum 192 letters	11
779	Maintenance (Remote)	Notification format selection	ALL	0 <0-1>	SYS	0: Text 1: Text + XML data	1
780	Maintenance	Remote-controlled service polling day selection Day-1	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
781	Maintenance	Remote-controlled service polling day selection Day-2	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
782	Maintenance	Remote-controlled service polling day selection Day-3	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
783	Maintenance	Remote-controlled service polling day selection Day-4		ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
784	Maintenance	Remote-controlled service polling day selection Sunday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
785	Maintenance	Remote-controlled service polling day selection Monday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
786	Maintenance	Remote-controlled service polling day selection Tuesday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
787	Maintenance	Remote-controlled service polling day selection Wednesday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
788	Maintenance	Remote-controlled service polling day selection Thursday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
789	Maintenance	Remote-controlled service polling day selection Friday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
790	Maintenance	Remote-controlled service polling day selection Saturday		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
794	Maintenance	Information of supplies setting of toner cartridge		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
796	Maintenance	Remote-controlled service lengthened interval polling (End of month)		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
797	Maintenance	Firmware download		ALL	0 <0-1>	SYS	0: Accepted 1: Prohibited	1
798	General	Notifying address of trial period end		PRT/ SCN	3 <0-3>	SYS	Sets where the end of the trial period is to be notified. 0: OFF 1: User 2: Service center 3: User and service center	1
799	General	Forcible end of trial period		PRT/ SCN	-	SYS	[CANCEL]: Cancel [EXECUTION]: Forcible end When the “Forcible end of trial period” is performed, “0” is set in the code (08-673) to end up the trial period forcibly.	3
800-0	Fuser	Temperature control lower limit (OHP film)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
800-1			Side themistor	ALL	6 <0-12>	M		4

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
801-0	Fuser	Temperature control lower limit (Thick paper 1)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
801-1			Side thermistor	ALL	6 <0-12>	M		4
802-0	Fuser	Temperature control lower limit (Thick paper 2)	Center thermistor	ALL	8 <0-12>	M		4
802-1			Side thermistor	ALL	9 <0-12>	M		4
803-0	Fuser	Temperature control lower limit (Thick paper 3)	Center thermistor	ALL	8 <0-12>	M		4
803-1			Side thermistor	ALL	10 <0-12>	M		4
804-0	Fuser	Temperature control lower limit (Envelope)	Center thermistor	ALL	8 <0-12>	M		4
804-1			Side thermistor	ALL	10 <0-12>	M		4
805	Charger	Main charger bias correction (Text/Photo/OHP film)		PRT	98 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
806	Charger	Main charger bias correction (Toner Saving Mode/OHP film)		PRT	98 <0-255>	M		1
807	Charger	Main charger bias correction (Text/Photo/OHP film)		PPC	98 <0-255>	M		1
808	Charger	Main charger bias correction (Text/OHP film)		PPC	98 <0-255>	M		1
809	Charger	Main charger bias correction (Photo/OHP film)		PPC	98 <0-255>	M		1
826	Charger	Main charger bias correction (Toner saving mode)		PRT	128 <0-255>	M		1
830	Transfer	Transfer transformer DC correction (C)		ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-221).	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
831	Separation	Separation transformer DC correction (C)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-234).	1
833	Developer	Developer bias DC correction (Text/Photo/OHP film)	PRT	108 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
834	Developer	Developer bias DC correction (Toner Saving Mode/OHP film)	PRT	108 <0-255>	M		1
835	Developer	Developer bias DC correction (Text/Photo/OHP film)	PPC	108 <0-255>	M		1
836	Developer	Developer bias DC correction (Text/OHP film)	PPC	108 <0-255>	M		1
837	Developer	Developer bias DC correction (Photo/OHP film)	PPC	108 <0-255>	M		1
838	Image processing	Switching of recycled toner saving control	ALL	0 <0-1>	M	0: Switched 1: Not switched	1
839	Image processing	Correction by temperature/humidity	ALL	0 <0-3>	M	Sets the correction by temperature/humidity. 0: All valid 1: All invalid 2: Valid only in auto-toner sensor 3: All valid except transfer and separation	1
849	General	Power source setting for destination	ALL	SAD: 1 Others: 0 <0-1>	M	0: Other than SAD 1: SAD	1
859	Developer	Developer bias DC correction (Toner saving mode)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
860	Developer	Developer bias DC correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
861	Developer	Developer bias DC correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
862	Developer	Developer bias DC correction (Text)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
863	Developer	Developer bias DC correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
864	Charger	Main charger bias correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
865	Charger	Main charger bias correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
866	Charger	Main charger bias correction (Text)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
867	Charger	Main charger bias correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
868	Transfer	Transfer transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-220).	1
869	Transfer	Transfer transformer DC correction (L)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-222).	1
870	Separation	Separation transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-233).	1
871	Separation	Separation transformer DC correction (L)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-235).	1
872	Laser	Laser power correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
873	Laser	Laser power correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
875	Laser	Laser power correction (Toner saving mode)	PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
876	Laser	Laser power correction (Text)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
877	Laser	Laser power correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
886	Fuser	Temperature drop control setting in ready status (Temperature/Time)		ALL	2 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	1
896-0	Fuser	Temperature control lower limit (Plain paper/ Low temperature)	Center thermistor	ALL	7 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
896-1			Side thermistor	ALL	5 <0-12>	M		4
900	Version	System firmware ROM version		ALL	-	-	JPN: T371SY0JXXX UC: T371SY0UXXX EUR: T371SY0EXXX Others: T371SY0XXXX	2
903	Version	Engine ROM version		ALL	-	-	371M-XXX	2
905	Version	Scanner ROM version		ALL	-	-	371S-XXX	2
907	Version	RADF ROM version		ALL	-	-	DF-XXXX	2
908	Version	Finisher ROM version		ALL	-	-	SDL-XX FIN-XX	2
915	Version	Fax board ROM version		FAX	-	-	F562-XXX	2
916	Version	NIC board ROM version		ALL	-	-	X.XXX	2
920	Version	FROM basic section software version		ALL	-	-	VX.XX/X.XX	2
921	Version	FROM internal program		ALL	-	-	VXXX.XXX X	2
922	Version	UI data fixed section version		ALL	-	-	VXXX.XXX X	2
923	Version	UI data common section version		ALL	-	-	VXXX.XXX X	2
924	Version	Version of UI data language 1 in HDD		ALL	-	-	VXXX.XXX X	2
925	Version	Version of UI data language 2 in HDD		ALL	-	-	VXXX.XXX X	2
926	Version	Version of UI data language 3 in HDD		ALL	-	-	VXXX.XXX X	2
927	Version	Version of UI data language 4 in HDD		ALL	-	-	VXXX.XXX X	2
928	Version	Version of UI data language 5 in HDD		ALL	-	-	VXXX.XXX X	2

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
929	Version	Version of UI data language 6 in HDD	ALL	-	-	VXXX.XXX X	2
930	Version	Version of UI data in FROM displayed at power-ON	ALL	-	-	VXXX.XXX X	2
931	Version	Version of UI data language 7 in HDD	ALL	-	-	VXXX.XXX X	2
933	Version	Web data whole version	ALL	-	-	VXXX.XXX X	2
934	Version	Web UI data in HDD Version: Language 1	ALL	-	-	VXXX.XXX X	2
935	Version	Web UI data in HDD Version: Language 2	ALL	-	-	VXXX.XXX X	2
936	Version	Web UI data in HDD Version: Language 3	ALL	-	-	VXXX.XXX X	2
937	Version	Web UI data in HDD Version: Language 4	ALL	-	-	VXXX.XXX X	2
938	Version	Web UI data in HDD Version: Language 5	ALL	-	-	VXXX.XXX X	2
939	Version	Web UI data in HDD Version: Language 6	ALL	-	-	VXXX.XXX X	2
944	Version	HD version	ALL	-	-	JPN: T371HD0JXXX UC: T371HD0UXXX EUR: T371HD0EXXX Others: T371HD0XXXX	2
945	Network	Two-way setting of RawPort 9100	ALL	1 <1-2>	UTY	1: Valid 2: Invalid	12
947	General	Initialization after software version upgrade	ALL	-	-	Perform this code when the software in this equipment has been upgraded.	3
948	General	Mode setting by pressing [Energy Saver] button for a while	ALL	0 <0-1>	SYS	Sets the mode to enter when the [Energy Saver] button is pressed for a while. 0: Sleep Mode 1: Auto Shut Off Mode	1
949	General	Automatic interruption page setting during printing	ALL	0 <0-100>	SYS	Sets the number of pages to interrupt the printing automatically. 0-100: 0 to 100 pages	1
950	Electronic Filing	Start-up method of Electronic Filing	ALL	0 <0-2>	SYS	Sets the start-up method of the Electronic Filing. 0: Standard 1: Forced start-up (Not recovered) 2: Forced start-up (Recovered)	1
953	User interface	Access code entry for Electronic Filing printing	ALL	0 <0-1>	SYS	0: Renewed automatically 1: Enter every time	1
954	User interface	Clearing timing for files and Electronic Filing Agent	ALL	1 <0-1>	SYS	0: Immediately after the completion of scanning 1: Cleared by Auto Clear	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
969	User interface	Error sound	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
970	User interface	Sound setting when switching to Energy Saving Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
973	Network	PCL line feed code setting	PRT	0 <0-3>	SYS	Sets the PCL line feed code. 0: Automatic setting 1: CR=CR, LF=LF 2: CR=CR+LF, LF=LF 3: CR=CR, LF=CR+LF	1
975	General	Job handling when printing is short paid with coin controller	ALL	1 <0-1>	SYS	Sets whether pause or stop the printing job when it is short paid using a coin controller. 0: Pause the job 1: Stop the job	1
976	Electronic Filing	Equipment name setting to a folder when saving files	ALL	0 <0-1>	SYS	Sets whether or not adding the equipment name to the folder when saving files. 0: Not add 1: Add	1
977	Network	Switching of extended ASCII code in catFs file-system	ALL	0 <0-1>	SYS	0: ISO8859-1 1: ISO8859-2	1
978	Network	Raw printing job (Paper feeding drawer)	PRT	0 <0-5>	SYS	0: AUTO 1: Upper drawer 2: Lower drawer 3: PFP upper drawer 4: PFP lower drawer 5: LCF	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
979	Network	Raw printing job (PCL symbol set)	PRT	0 <0-39>	SYS	0: Roman-8 1: ISO 8859/1 Latin 1 2: ISO 8859/2 Latin 2 3: ISO 8859/9 Latin 5 4: PC-8,Code Page 437 5: PC-8 D/N, Danish/ Norwegian 6: PC-850,Multilingual 7: PC-852, Latin2 8: PC-8 Turkish 9: Windows 3.1 Latin 1 10: Windows 3.1 Latin 2 11: Windows 3.1 Latin 5 12: DeskTop 13: PS Text 14: Ventura International 15: Ventura US 16: Microsoft Publishing 17: Math-8 18: PS Math 19: Ventura Math 20: Pi Font 21: Legal 22: ISO 4: United Kingdom 23: ISO 6: ASCII 24: ISO 11 25: ISO 15: Italian 26: ISO 17 27: ISO 21: German 28: ISO 60: Danish/Norwegian 29: ISO 69: French 30: Windows 3.0 Latin 1 31: MC Text 32: PC Cyrillic 33: ITC Zapf Dingbats 34: ISO 8859/10 Latin 6 35: PC-775 36: PC-1004 37: Symbol 38: Windows Baltic 39: Wingdings	1
980	Electronic Filing	Electronic Filing data retention period when NIC board is not installed (Public Box)	ALL	0 <0-999>	SYS	0: Retention OFF 1 to 999: 1 to 999 days	1
981	Electronic Filing	Electronic Filing data retention period when NIC board is not installed (User Box)	ALL	0 <0-999>	SYS	0: Retention OFF 1 to 999: 1 to 999 days	1
985	Electronic Filing	Print mode setting of mixed input source of Electronic Filing	ALL	0 <0-1>	SYS	0: Image quality priority mode 1: Function priority mode	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
986	General	Copy function setting	PPC	0 <0-1>	SYS	Sets the copy function to be invalid. 0: Valid 1: Invalid	1
988	Paper feeding	Setting of paper size switching to 13” LG	ALL	0 <0-2>	SYS	0: Not switched 1: LG →13”LG 2: FOLIO →13”LG	1
995	Version	Equipment number (serial number) display	ALL	0 <10 digits>	SYS	This code can be also keyed in from the adjustment mode (05-976). 10 digits	11
999	Maintenance	FSMS total counter	ALL	0 <8 digits>	SYS	Refers to values of total counter	1
1001	Maintenance	Reset of NIC board	ALL	3 <1-3>	NIC	1: Cold 2: Warm 3: Not reset	12
1002	Network	Selection of NIC board status information	ALL	1 <1-2>	NIC	1: Not printed out when the equipment is restarted 2: Printed out when the equipment is restarted	12
1003	Network	Speed setting of Ethernet	ALL	3 <1-3>	NIC	1: 10 MBPS 2: 100 MBPS 3: Automatic	12
1004	Network	NIC Web password	ALL	-	NIC	Writing only (Current setting is not displayed.) Maximum 31 letters	12
1005	Network	Availability of IP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1006	Network	Address Mode	ALL	2 <1-5>	NIC	1: Fixed IP address 2: Dynamic IP address 3: Dynamic IP address without AutoIP 4: Dynamic IP address without BOOTP 5: Dynamic IP address without DHCP	12
1007	Network	Domain name	ALL	-	NIC	Maximum 96 letters	12
1008	Network	IP address	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1009	Network	Subnet mask	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1010	Network	Gateway	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1011	Network	Availability of IPX	ALL	1 <1-2>	NIC	1: Available 2: Not available	12

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1012	Network	Network frame type	ALL	1 <1-5>	NIC	1: Automatic 2: IEEE802.3 3: Ethernet II 4: IEEE802.3SNAP 5: IEEE802.2	12
1013	Network	Availability of NCP Burst	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1014	Network	Availability of AppleTalk	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1015	Network	Zone setting of AppleTalk	ALL	*	NIC	Maximum 32 letters *: Wildcard character	12
1016	Network	Availability of LDAP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1017	Network	Availability of DNS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1018	Network	IP address to DNS server (Primary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1019	Network	IP address to DNS server (Secondary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1020	Network	DDNS Desired level	ALL	1 <1-5>	NIC	1: Invalid 2: Via DHCP 3: Insecure DDNS 4: Secure DDNS 5: Multi-secure DDNS	12
1021	Network	Availability of SLP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1023	Network	NetBios name	ALL	-	UTY	Maximum 15 letters	12
1024	Network	Name of WINS server or IP address (Primary)	ALL	-	UTY	Maximum 128 letters	12
1025	Network	Name of WINS server or IP address (Secondary)	ALL	-	UTY	Maximum 128 letters	12
1026	Network	Availability of Bindery	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1027	Network	Availability of NDS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1028	Network	Directory service context	ALL	-	NIC	Maximum 127 letters	12
1029	Network	Directory service tree	ALL	-	NIC	Maximum 47 letters	12
1030	Network	Availability of HTTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1031	Network	Port number to NIC HTTP server	ALL	80 <1-65535>	NIC		12
1032	Network	Port number to system HTTP server	ALL	8080 <1-65535>	SYS		1
1033	Network	Availability of NIC HTTP client	ALL	2 <1-2>	NIC	1: Available 2: Not available	12
1034	Network	TCP port number to Controller HTTP client	ALL	80 <1-65535>	UTY		12

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1035	Network	IP address to HTTP server (Primary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1037	Network	Availability of SMTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1038	Network	FQDN or IP address to SMTP server	ALL	-	NIC	Maximum 128 Bytes	12
1039	Network	TCP port number of SMTP client	ALL	25 <1-65535>	NIC		12
1040	Network	Availability of SMTP server	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1041	Network	TCP port number of SMTP server	ALL	25 <1-65535>	UTY		12
1042	Network	E-mail box name to SMTP server	ALL	-	UTY	Maximum 192 letters	12
1043	Network	Availability of Offramp	ALL	2 <1-2>	UTY	1: Available 2: Not available	12
1044	Network	Offramp security	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1045	Network	Printing at Offramp	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1046	Network	Availability of POP3 clients	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1047	Network	FQDN or IP address to POP3 server	ALL	-	NIC	Maximum 128 Bytes	12
1048	Network	Types of POP3 server	ALL	1 <1-3>	NIC	1: Automatic 2: POP3 3: APOP	12
1049	Network	Login name to POP3 server	ALL	-	NIC	Maximum 96 letters	12
1050	Network	Login password to POP3	ALL	-	NIC	Maximum 96 letters	12
1051	Network	E-mail reception interval (Unit: Minute)	ALL	5 <0-4096>	NIC		12
1052	Network	TCP port number of POP3 client	ALL	110 <1-65535>	NIC		12
1053	Network	Availability of FTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1054	Network	FQDN or IP address to FTP server	ALL	-	NIC	Maximum 128 letters	12
1055	Network	TCP port number of FTP client	ALL	21 <1-65535>	UTY		12
1056	Network	Data port number of FTP client	ALL	0 <0-65535>	UTY		12
1057	Network	Login name to FTP server	ALL	-	SYS	Maximum 31 letters	11
1058	Network	Login password to FTP server	ALL	-	SYS	Maximum 31 letters	11
1059	Network	Availability of FTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1060	Network	TCP port number of FTP server	ALL	21 <1-65535>	UTY		12
1061	Network	Login name to FTP client	ALL	-	SYS	Maximum 31 letters	11
1062	Network	Login password to FTP client	ALL	-	SYS	Maximum 31 letters	11
1063	Network	MIB function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1065	Network	Setting of read Community	ALL	public	NIC	Maximum 31 letters	12
1066	Network	Setting of read/Write Community	ALL	private	NIC	Maximum 31 letters	12
1067	Network	Authentication TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1068	Network	ALERTS TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1069	Network	TRAP destination IP address	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1070	Network	Community setting of TRAP (via IP)	ALL	public	NIC	Maximum 31 letters	12
1073	Network	Availability of Raw/TCP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1074	Network	TCP port number of Raw	ALL	9100 <1-65535>	NIC		12
1075	Network	Availability of LPD client	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1076	Network	TCP port number of LPD	ALL	515 <1-65535>	NIC		12
1077	Network	LPD queue name	ALL	-	NIC	Maximum 31 letters	12
1078	Network	Availability of IPP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1079	Network	Availability of IPP port number “80”	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1080	Network	TCP port number of IPP	ALL	631 <1-65535>	NIC		12
1081	Network	IPP printer name	ALL	-	NIC	Maximum 127 letters	12
1082	Network	IPP printer location	ALL	-	NIC	Maximum 127 letters	12
1083	Network	IPP printer information	ALL	-	NIC	Maximum 127 letters	12
1084	Network	IPP printer information (more)	ALL	-	NIC	Maximum 127 letters	12
1085	Network	Installer of IPP printer driver	ALL	-	NIC	Maximum 127 letters	12
1086	Network	IPP printer “Make and Model”	ALL	-	NIC	Maximum 127 letters	12
1087	Network	IPP printer information (more) MFGR	ALL	-	NIC	Maximum 127 letters	12
1088	Network	IPP message from operator	ALL	-	NIC	Maximum 127 letters	12
1089	Network	Availability of FTP print	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1090	Network	Printer user name of FTP	ALL	print	NIC	Maximum 31 letters	12

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1091	Network	Printer user password of FTP	ALL	-	NIC	Maximum 31 letters	12
1092	Network	TCP port number to FTP print server	ALL	21 <1-65535>	NIC		12
1093	Network	Login name to Novell print server	ALL	-	NIC	Maximum 47 letters	12
1094	Network	Login password to Novell print server	ALL	-	NIC	Maximum 31 letters	12
1095	Network	Name of SearchRoot server	ALL	-	NIC	Maximum 31 letters	12
1096	Network	Scan rate setting of print queue	ALL	5 <1-255>	NIC	Unit: Second	12
1097	Network	Page number limitation for printing text of received E-mail	ALL	5 <1-99>	UTY		12
1098	Network	MDN return mail setting when receiving E-mail	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
1099	Network	Trap destination of IPX	ALL	-	UTY	Maximum 24 letters (Valid from 0 to 9 and from A to F)	12
1100	Network	Method of SMTP server authentication	ALL	5 <1-5>	NIC	1: Plain 2: Login 3: Cram-MD5 4: Digest MD5 5: Disable	12
1101	Network	Login name for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1102	Network	Login password for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1103	Network	Rendezvous setting	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1104	Network	Link local host name	ALL	MFP_serial	NIC	Maximum 127 letters	12
1105	Network	Service name setting	ALL	Refer to content	NIC	Maximum 63 letters <Default value> e-STUDIO230: TOSHIBA e-STUDIO230 e-STUDIO280: TOSHIBA e-STUDIO280	12
1112	Network	Host name	ALL	MFP_serial	NIC	Maximum 63 letters	12
1114	Network	Sending mail text of InternetFAX	ALL	1 <0-1>	SYS	0: Invalid (Not sending the mail text) 1: Valid (Sending the mail text)	1
1117	Network	SMB time-out period	ALL	300 <1-9999>	SYS	Unit: Second	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1120	Network	Backup/Restore of NIC setting information	ALL	0 <0-1>	SYS	0: Read (Reads all of the setting information in NIC and create a file NAM1B (no extension) in USB) 1: Write (Writes all of the setting information read from a file NAM1B (no extension) in USB)	1
1124	Network	Workgroup name	ALL	work-group	UTY	Maximum 15 letters	12
1126	Counter	Validity of interrupt copying when external counters are installed	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1130	User interface	Job Build Function	ALL	1 <0-1>	SYS	Sets the Job Build Function. 0: Invalid 1: Valid	1
1131	User interface	Maximum number of time job build performed	ALL	1000 <5-1000>	SYS	Sets the maximum number of time a job build has been performed. 5-1000: 5 to 1000 times	1
1132	General	Default screen selection of the User Function menu	ALL	1 <0-1>	SYS	Selects the default screen when entering the User Function menu by pressing the [USER FUNCTIONS] button. 0: ADDRESS 1: COUNTER	1
1133	Paper feeding	Feeding direction setting of envelope	ALL	0 <0-1>	SYS	Sets the feeding direction of envelopes. 0: Envelope flap comes on its trailing edge (front side of the equipment) 1: Envelope flap comes on its leading edge (rear side of the equipment)	1
1135	Paper feeding	Default setting of drawers (Printer/BOX)	PRT	1 <1-5>	SYS	1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
1136	Network	Number of lines simultaneously connectable when using SMB	ALL	8 <0-16>	SYS		1
1137	Network	Memory partition size when using Samba	ALL	12 <8-20>	SYS	8-20 M bytes	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1138	Network	LDAP search method setting	ALL	0 <0-3>	SYS	Sets the search method when performing a LDAP search. 0: Partial match 1: Prefix match 2: Suffix match 3: Full match	1
1139	Network	LDAP authentication setting	ALL	0 <0-1>	SYS	0: Not authenticated 1: Authenticated	1
1140	User interface	Restriction of the template function with the administrator privilege	ALL	0 <0-1>	SYS	Selects the restriction of the template function usage setting. 0: No restriction 1: Only available with the administrator privilege.	1
1145	Maintenance (Remote)	Counter notification Remote FAX setting	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [MONITOR/PAUSE] button.	11
1372	Counter	Heater and energizing time accumulating counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when power of the equipment is ON) but does not count at the Sleep Mode. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1
1376	Counter	Toner cartridge drive counter	ALL	0 <8 digits>	M	Counts the rotation number of the toner cartridge.	1
1378	Counter	Counter for period of time fuser unit is at ready temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is at ready status). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1380	Counter	Counter for period of time fuser unit is at printing temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (during printing). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1382	Counter	Counter for period of time fuser unit is at energy saving temperature/Counter reset	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is in the Energy Saving Mode). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1385	Image processing	Number of output pages (Thick paper 1)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1
1386	Image processing	Number of output pages (Thick paper 2)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1387	Image processing	Number of output pages (Thick paper 3)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1388	Image processing	Number of output pages (OHP film)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1390	Paper feeding	Feeding retry counter (upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the upper drawer.	1
1391	Paper feeding	Feeding retry counter (lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the lower drawer.	1
1392	Paper feeding	Feeding retry counter (PFP upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP upper drawer.	1
1393	Paper feeding	Feeding retry counter (PFP lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP lower drawer.	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1394	Paper feeding	Feeding retry counter (bypass feed)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the bypass tray.	1
1395	Paper feeding	Feeding retry counter (LCF)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the LCF.	1
1396	Paper feeding	Feeding retry counter upper limit value (Upper drawer)	ALL	0 <8 digits>	M	When the number of feeding retry (08-1390 to 08-1395) exceeds the setting value, the feeding retry will not be performed subsequently. In case “0” is set as a setting value, however, the feeding retry continues regardless of the counter setting value.	1
1397	Paper feeding	Feeding retry counter upper limit value (Lower drawer)	ALL	0 <8 digits>	M		1
1398	Paper feeding	Feeding retry counter upper limit value (PFP upper drawer)	ALL	0 <8 digits>	M		1
1399	Paper feeding	Feeding retry counter upper limit value (PFP lower drawer)	ALL	0 <8 digits>	M		1
1400	Paper feeding	Feeding retry counter upper limit value (Bypass feed)	ALL	0 <8 digits>	M		1
1401	Paper feeding	Feeding retry counter upper limit value (LCF)	ALL	0 <8 digits>	M		1
1410	Counter	Counter for period of toner cartridge rotation time	ALL	0 <8 digits>	M	Counts up the period of rotation time of the toner cartridge.	1
1411	Counter	Counter for envelope	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is reset, this counter is reset in sync at the PM support mode.	1
1422	Data overwrite kit	HDD data overwriting type setting	ALL	3 <0-4>	SYS	HDD data is cleared by overwriting the type of value set in this code. (This setting is enabled only when the GP-1050 is installed.) 0: "00" overwriting only 1: "FF" overwriting only 2: Random number overwriting only 3: "00" + "FF" + random number overwriting (validation ON) 4: "00" + "FF" + random number overwriting (validation OFF)	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1424	Data overwrite kit	HDD data clearing type setting (forcible clearing)	ALL	3 <0-4>	SYS	HDD data is cleared by overwriting the type of value set in this code. (This setting is enabled only when the GP-1050 is installed.) 0: "00" overwriting only 1: "FF" overwriting only 2: Random number overwriting only 3: "00" + "FF" + random number overwriting (validation ON) 4: "00" + "FF" + random number overwriting (validation OFF)	1
1426	Data overwrite kit	Forcible HDD data clearing	ALL	-	-	HDD data is cleared in the procedure set in 08-1424. * This setting is enabled only when the GP-1050 is installed.	3
1427	Data overwrite kit	Forcible NVRAM data all clearing	ALL	-	-	When this code is performed, the equipment cannot be started up. * This setting is enabled only when the GP-1050 is installed.	3
1428	Data overwrite kit	Forcible SRAM backup data all clearing	ALL	-	-	When this code is performed, the equipment cannot be started up. * This setting is enabled only when the GP-1050 is installed.	3
1432	Network	Mode only for Private Print	ALL	0 <0-1>	SYS	0: Normal mode 1: Mode for Private Print	1
1433	Network	"Disable e-Filing" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1
1434	Network	"Disable local file save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1

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Setting mode (08) <e-STUDIO200L/230/230L/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1484	Network	Authentication method of "Scan to Email"	ALL	0 <0-2>	SYS	0: Disable 1: SMTP authentication 2: LDAP authentication	1
1485	Network	Setting whether use of Internet FAX is permitted or not when it is given an authentication	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1486	Network	Server setting for LDAP user authentication	ALL	0 <0-4294967295>	SYS		2
1487	Network	"From" address assignment method when it is given an authentication	ALL	0 <0-2>	SYS	0: "User name" + @ + "Domain name" 1: LDAP search 2: Use the address registered in "From" field of E-mail setting	1
1488	Network	ID setting of LDAP server for "From" address assignment	ALL	0 <0-4294967295>	SYS		2
1489	Network	Setting for "From" address edit at "Scan to Email"	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1491	Network	E-mail domain name	ALL	-	SYS	96+2 (delimiter) character ASCII sequence only	11

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<<Pixel counter related code>> (Chap. 2.2.9)

Setting mode (08) <e-STUDIO200L/230/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1500	Pixel counter	Standard paper size setting	ALL	EUR: 0 UC: 1 JPN: 0	SYS	Selects the standard paper size to convert it into the pixel count (%). 0: A4 1: LT	1
1501	Pixel counter	Pixel counter all clearing	ALL	-	SYS	Clears all information related to the pixel counter.	3
1502	Pixel counter	Service technician reference counter clearing	ALL	-	SYS	Clears all information related to the service technician reference pixel counter.	3
1503	Pixel counter	Toner cartridge reference counter clearing	ALL	-	SYS	Clears all information related to the toner cartridge reference pixel counter.	3
1504	Pixel counter	Pixel counter display setting	ALL	1 <0-1>	SYS	Selects whether or not to display the pixel counter on the LCD screen. 0: Displayed 1: Not displayed	1
1505	Pixel counter	Displayed reference setting	ALL	0 <0-1>	SYS	Selects the reference when displaying the pixel counter on the LCD screen. 0: Service technician reference 1: Toner cartridge reference	1
1506	Pixel counter	Toner empty determination counter setting	ALL	0 <0-1>	SYS	Selects the counter to determine toner empty. 0: Output pages 1: Pixel counter	1
1507	Pixel counter	Threshold setting for toner empty determination (Output pages)	ALL	800 <0-999>	SYS	Sets the number of output pages to determine toner empty. This setting is valid when “0” is set at 08-1506.	1
1508	Pixel counter	Threshold setting for toner empty determination (Pixel count)	ALL	35100 <0-60000>	SYS	Sets the pixel count to determine the toner empty status. This setting is valid when "1" is set at 08-1506.	1
1509	Pixel counter	Pixel counter clear flag/ Service technician reference	ALL	0 <0-1>	SYS	Becomes “1” when 08-1502 is performed.	2
1510	Pixel counter	Service technician reference cleared date	ALL	-	SYS	Displays the date on which 08-1502 was performed.	2
1514	Pixel counter	Toner cartridge reference cleared date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1518	Pixel counter	Toner cartridge reference count started date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2

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Setting mode (08) <e-STUDIO200L/230/280>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1548	Pixel counter	Number of output pages (Service technician reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and service technician reference. [Unit. page]	2
1550	Pixel counter	Number of output pages (Service technician reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and service technician reference. [Unit. page]	2
1551	Pixel counter	Number of output pages (Service technician reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and service technician reference. [Unit. page]	2
1553	Pixel counter	Number of output pages (Toner cartridge reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and toner cartridge reference. [Unit. page]	2
1555	Pixel counter	Number of output pages (Toner cartridge reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and toner cartridge reference. [Unit. page]	2
1556	Pixel counter	Number of output pages (Toner cartridge reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and toner cartridge reference. [Unit. page]	2
1566	Pixel counter	Toner cartridge replacement counter	ALL	<3 digits>	SYS	Counts the number of time of the toner cartridge replacement.	2
1592	Pixel counter	Average pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1593	Pixel counter	Average pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function and service technician reference. [Unit: 0.01%]	2

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Setting mode (08) <e-STUDIO200L/230/280>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1594	Pixel counter	Average pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1595	Pixel counter	Average pixel count (Service technician reference)	PPC/PRT/FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and service technician reference. [Unit: 0.01%]	2
1606	Pixel counter	Latest pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1607	Pixel counter	Latest pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1608	Pixel counter	Latest pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1613	Pixel counter	Average pixel count (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1619	Pixel counter	Average pixel count (Toner cartridge reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function, and toner cartridge reference. [Unit: 0.01%]	2
1624	Pixel counter	Average pixel count (Toner cartridge reference)	PPC/PRT/FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and toner cartridge reference. [Unit: 0.01%]	2
1625	Pixel counter	Average pixel count (Toner cartridge reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1634	Pixel counter	Latest pixel count (Toner cartridge reference)	FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1639	Pixel counter	Latest pixel count (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2

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Setting mode (08) <e-STUDIO200L/230/280>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1640	Pixel counter	Latest pixel count (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and toner cartridge reference. [Unit: 0.01%]	2
1649-0	Pixel counter	Pixel count distribution	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function are displayed. [Unit: page]	14
1649-1			5.1-10%	PPC	<8 digits>	SYS		14
1649-2			10.1-15%	PPC	<8 digits>	SYS		14
1649-3			15.1-20%	PPC	<8 digits>	SYS		14
1649-4			20.1-25%	PPC	<8 digits>	SYS		14
1649-5			25.1-30%	PPC	<8 digits>	SYS		14
1649-6			30.1-40%	PPC	<8 digits>	SYS		14
1649-7			40.1-60%	PPC	<8 digits>	SYS		14
1649-8			60.1-80%	PPC	<8 digits>	SYS		14
1649-9			80.1-100%	PPC	<8 digits>	SYS		14
1650-0	Pixel counter	Pixel count distribution	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function are displayed. [Unit: page]	14
1650-1			5.1-10%	PRT	<8 digits>	SYS		14
1650-2			10.1-15%	PRT	<8 digits>	SYS		14
1650-3			15.1-20%	PRT	<8 digits>	SYS		14
1650-4			20.1-25%	PRT	<8 digits>	SYS		14
1650-5			25.1-30%	PRT	<8 digits>	SYS		14
1650-6			30.1-40%	PRT	<8 digits>	SYS		14
1650-7			40.1-60%	PRT	<8 digits>	SYS		14
1650-8			60.1-80%	PRT	<8 digits>	SYS		14
1650-9			80.1-100%	PRT	<8 digits>	SYS		14
1651-0	Pixel counter	Pixel count distribution	0-5%	FAX	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function are displayed. [Unit: page]	14
1651-1			5.1-10%	FAX	<8 digits>	SYS		14
1651-2			10.1-15%	FAX	<8 digits>	SYS		14
1651-3			15.1-20%	FAX	<8 digits>	SYS		14
1651-4			20.1-25%	FAX	<8 digits>	SYS		14
1651-5			25.1-30%	FAX	<8 digits>	SYS		14
1651-6			30.1-40%	FAX	<8 digits>	SYS		14
1651-7			40.1-60%	FAX	<8 digits>	SYS		14
1651-8			60.1-80%	FAX	<8 digits>	SYS		14
1651-9			80.1-100%	FAX	<8 digits>	SYS		14

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<<PM support mode related code>>

- The management items at PM support mode can also be operated at setting mode (08).
  The following items are displayed or set by using sub-codes at PM management setting in the table below.

<Sub-codes>

0: Present number of output pages
   - Means the present number of output pages.
1: Recommended number of output pages for replacement
   - Means the recommended number of output pages for replacement.
2: Number of output pages at the last replacement
   - Means the number of output pages at the last replacement.
3: Present driving counts
   - Means the present drive counts (1 count = 2 seconds).
4: Recommended driving counts to be replaced
   - Means the recommended drive counts for replacement (1 count = 2 seconds).
5: Driving counts at the last replacement
   - Means the drive counts at the last replacement.
6: Present output pages for control
   - Means the present number of output pages for controlling.
7: Present driving counts for control
   - Means the present drive counts for controlling (1 count = 2 seconds).
8: Number of times replaced
   - Counts up when clearing the counter of each unit in the PM Support Mode Screen.

Notes:

- Sub-code 3 is equivalent to sub-code 7.
- When the value of sub-code 3 is changed, the value of sub-code 7 is also updated and vice versa.
- When “0” is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to “0”.

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Photoconductive drum	1150-0 to 8	1151	<Default values of code 1150 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Drum cleaning blade	1158-0 to 8	1159	<Default values of code 1158 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Drum separation finger	1172-0 to 8	1173	<Default values of code 1172 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Main charger grid	1174-0 to 8	1175	<Default values of code 1174 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Needle electrode	1182-0 to 8	1183	<Default values of code 1182 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Ozone filter	1198-0 to 8	1199	<Default values of code 1198 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Developer material	1200-0 to 8	1201	<Default values of code 1200 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Transfer charger wire	1214-0 to 8	1215	<Default values of code 1214 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Separation charger wire	1224-0 to 8	1225	<Default values of code 1224 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Fuser roller	1246-0 to 8	1247	<Default values of code 1246 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Pressure roller	1250-0 to 8	1251	<Default values of code 1250 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Cleaning roller	1266-0 to 8	1267	<Default values of code 1266 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Fuser roller separation finger	1268-0 to 8	1269	<Default values of code 1268 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Pickup roller (RADF)	1282-0,1,2,8	1283	<Default values of code 1282 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Feed roller (RADF)	1284-0,1,2,8	1285	<Default values of code 1284 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Separation roller (RADF)	1286-0,1,2,8	1287	<Default values of code 1286 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Pickup roller (Upper drawer)	1290-0,1,2,8	1291	<Default values of code 1290 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (Lower drawer)	1292-0,1,2,8	1293	<Default values of code 1292 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (LCF)	1294-0,1,2,8	1295	<Default values of code 1294 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Feed roller (Upper drawer)	1298-0,1,2,8	1299	<Default values of code 1298 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (Lower drawer)	1300-0,1,2,8	1301	<Default values of code 1300 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (LCF)	1302-0,1,2,8	1303	<Default values of code 1302 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Separation roller (Upper drawer)	1306-0,1,2,8	1307	<Default values of code 1306 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (Lower drawer)	1308-0,1,2,8	1309	<Default values of code 1308 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Separation roller (LCF)	1310-0,1,2,8	1311	<Default values of code 1310 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Separation roller (PFP upper drawer)	1312-0,1,2,8	1313	<Default values of code 1312 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (PFP lower drawer)	1314-0,1,2,8	1315	<Default values of code 1314 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (Bypass unit)	1316-0,1,2,8	1317	<Default values of code 1316 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (PFP upper drawer)	1320-0,1,2,8	1321	<Default values of code 1320 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (PFP lower drawer)	1322-0,1,2,8	1323	<Default values of code 1322 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (Bypass unit)	1324-0,1,2,8	1325	<Default values of code 1324 (e-STUDIO200L/230/230L/280> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (PFP upper drawer)	1328-0,1,2,8	1329	<Default values of code 1328 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (PFP lower drawer)	1330-0,1,2,8	1331	<Default values of code 1330 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (Bypass unit)	1332-0,1,2,8	1333	<Default values of code 1332 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Recovery blade	1336-0 to 8	1337	<Default values of code 1336 (e-STUDIO200L/230/230L/280)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000

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<<Procedure to copy the total counter value (08-257)>>

(1) Turn ON the power while [0] and [8] are pressed simultaneously.
(2) Key in the code “257” with the digital keys and press the [START] button (the following is displayed).

Note:
Before performing the following operations, note the current counter values.

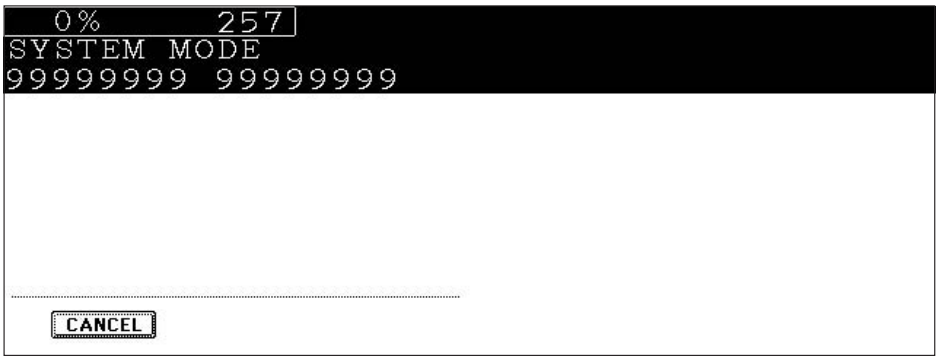


Fig. 2-4

(3) Key in the value “1” or “2” with the digital key and press the [START] button.
The value entered is displayed on the left of the “%”, and the [ENTER] button is displayed.

Note:
The value can be erased by pressing the [CLEAR] button to change as long as the [START] button is not pressed. (The value on the left of the “%” is reset to “0” by pressing the [CLEAR] button.)

- Key in “1” to copy the value of the total counter (LGC board) (A) onto the value of the backup counter (SYS board) (B).

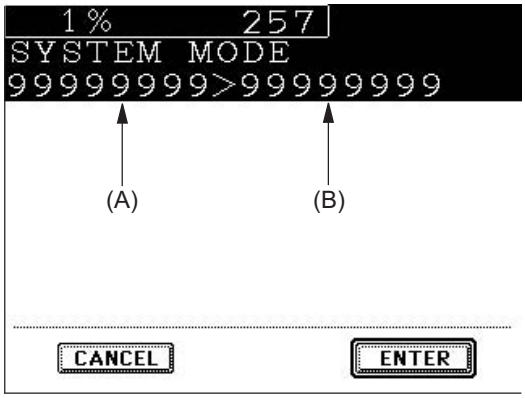


Fig. 2-5

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- Key in “2” to copy the value of the backup counter (SYS board) (B) onto the value of the total counter (LGC board) (A).

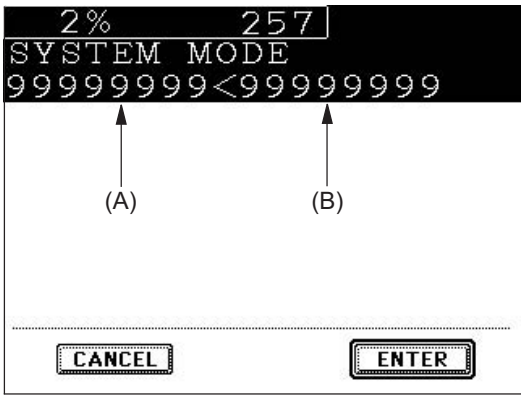


Fig. 2-6

(4) Press the [ENTER] button to complete overwriting of the counter value.

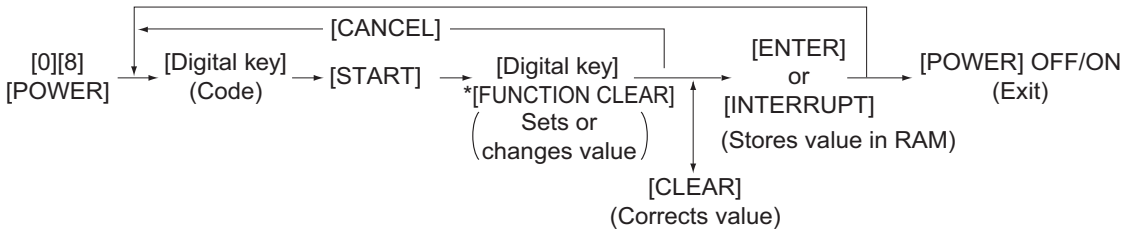
Note:
The screen returns to the code entry screen without copying (overwriting) the value when the [CANCEL] button is pressed.

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2.2.8 Setting mode (08) (e-STUDIO202L/203L/232/233/282/283)

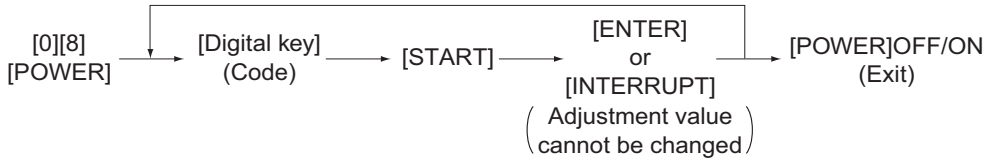
The items in the setting code list can be set or changed in this setting mode (08).

Procedure 1

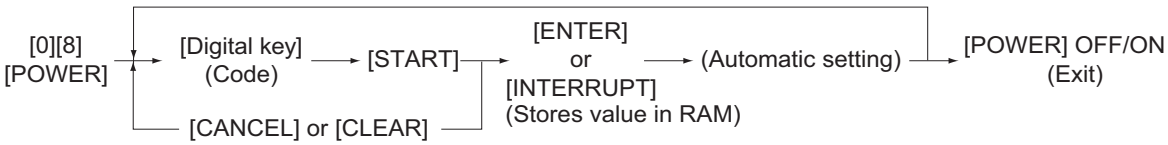


* Press [FUNCTION CLEAR] to enter minus (-).

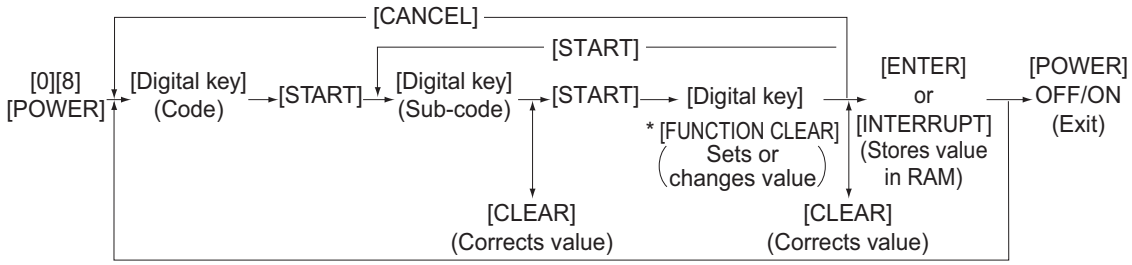
Procedure 2



Procedure 3

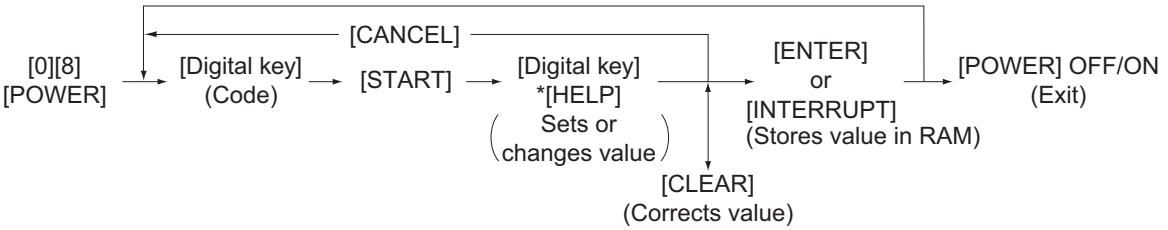


Procedure 4



* Press [FUNCTION CLEAR] to enter minus (-).

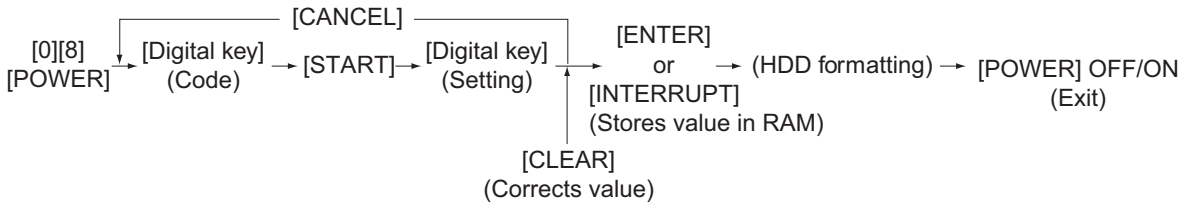
Procedure 5



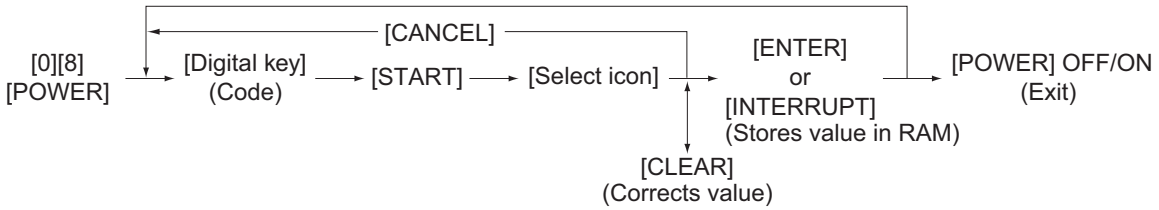
* Press [HELP] to enter "-".

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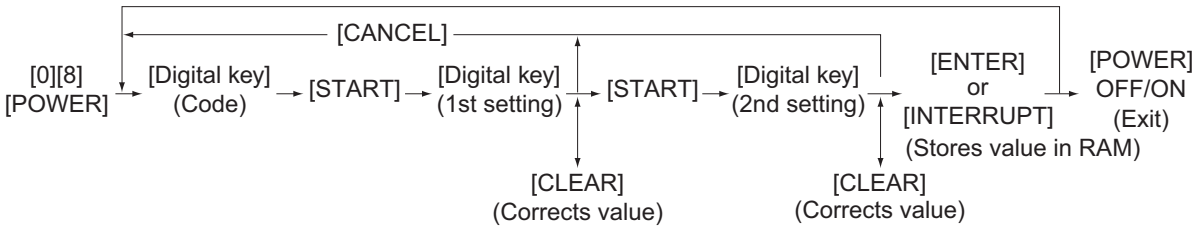
Procedure 7



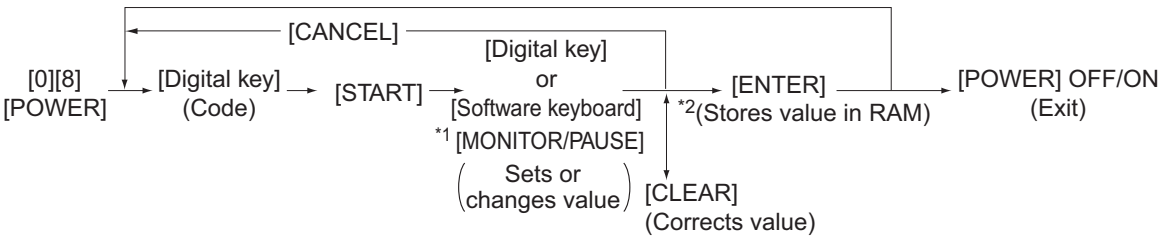
Procedure 9



Procedure 10

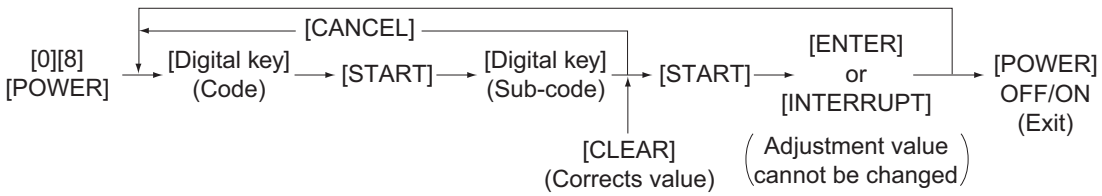


Procedure 11 and 12



*1. Press [MONITOR/PAUSE] to enter "-", when entering telephone number.
*2. The data are stored in SYS-RAM in procedure 11 and stored in NIC-RAM in procedure 12.

Procedure 14



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Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- e-STUDIO202L/203L/232/233/282/283: In “RAM”, the NVRAM of the board in which the dataof each code is stored is indicated. “M” stands for the LGC board, “SYS”, “NIC” and “UTY” stands for the SYS board.

Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
200	General	Date and time setting	ALL	- <13 digits>	-	Year/month/date/day/ hour/minute/second Example: 03 07 0 13 13 27 48 “Day” - “0” is for “Sunday”. Proceeds Monday through Saturday from “1” to “6”.	5
201	General	Destination selection	ALL	EUR: 0 UC: 1 JPN: 2 <0-2>	M	0: EUR 1: UC 2: JPN	1
202	User interface	Counter installed externally	ALL	0 <0-3>	M	0: No external counter 1: Coin controller 2: Copy key card (This value is valid only when “2” is set to 08-201.) 3: Key copy counter	1
203	General	Line adjustment mode	ALL	0 <0-1>	M	0: For factory shipment 1: For line * Field: “0” must be selected	1
204	User interface	Auto-clear timer setting	ALL	3 <0-10>	SYS	Timer to return the equipment to the default settings when the [START] button is not pressed after the function and the mode are set 0: Not cleared 1 to 10:Set number x 15 sec.	1
205	User interface	Auto power save mode timer setting	ALL	EUR: 11 UC: 11 JPN: 6 Others: 11 <0, 6-15>	SYS	Timer to automatically switch to the Auto power save mode when the equipment has not been used 0: Invalid 6: 3min. 7: 4min. 8: 5min. 9: 7min. 10: 10min. 11: 15min. 12: 20min. 13: 30min. 14: 45min. 15: 60min.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
206	User interface	Auto Shut Off Mode timer setting (Auto Shut Off Mode/Sleep Mode)	ALL	Refer to content <0-20>	SYS	Timer to turn OFF the power or to enter the Sleep Mode automatically when the equipment has not been used (Refer to 08-601) 0: 3min. 1: 5min. 2: 10min. 3: 15min. 4: 20min. 5: 25min. 6: 30min. 7: 40min. 8: 50min. 9: 60min. 10: 70min. 11: 80min. 12: 90min. 13: 100min. 14: 110min. 15: 120min. 16: 150min. 17: 180min. 18: 210min. 19: 240min. 20: Not used <Default value> e-STUDIO232/233/282/283: TWD/KRD: 9 Others: 0 e-STUDIO202L/203L: TWD/KRD: 6 Others: 0	1
207	User interface	Highlighting display on LCD	ALL	0 <0-1>	SYS	0: Black letter on white background 1: White letter on black background	1
209	User interface	Default setting of filing format when E-mailing	ALL	0 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1
210	Paper feeding	Paper size (A6-R) feeding/widthwise direction	PRT	148/105 <148-432/105-297>	M		10
213	User interface	Display of [REVERSE ORDER] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed	1
219	User interface	Default setting of filing format when storing files	SCN	0 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classifi-cation	Items	Func-tion	Default <Accept-able value>	RAM	Contents	Proce-dure
220	User interface	Language displayed at power-ON	ALL	EUR: 0 UC: 0 JPN: 5 <0-6>	SYS	0: Language 1 1: Language 2 2: Language 3 3: Language 4 4: Language 5 5: Language 6 6: Language 7	1
221	User interface	Language selection in UI data at Web power ON	ALL	EUR: 0 UC: 0 JPN: 5 <0-6>	SYS	0: Language 1 1: Language 2 2: Language 3 3: Language 4 4: Language 5 5: Language 6 6: Language 7	1
224	Paper feeding	Paper size for bypass feed	PPC	UNDEF	SYS	Press the button on the LCD to select the size.	9
225	Paper feeding	Paper size for upper drawer	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9
226	Paper feeding	Paper size for lower drawer	ALL	EUR: A3 UC: LD JPN: A3	M	Press the button on the LCD to select the size.	9
227	Paper feeding	Paper size for PFP upper drawer	ALL	EUR: A4-R UC: LT-R JPN: A4-R	M	Press the button on the LCD to select the size.	9
228	Paper feeding	Paper size for PFP lower drawer	ALL	EUR: A4 UC: LG JPN: B4	M	Press the button on the LCD to select the size.	9
229	Paper feeding	Paper size (A3) feeding/ widthwise direction	ALL	420/297 <182-432/140-297>	M		10
230	Paper feeding	Paper size (A4-R) feeding/ widthwise direction	ALL	297/210 <182-432/140-297>	M		10
231	Paper feeding	Paper size (A5-R) feeding/ widthwise direction	ALL	210/148 <182-432/140-297>	M		10
232	Paper feeding	Paper size (B4) feeding/ widthwise direction	ALL	364/257 <182-432/140-297>	M		10
233	Paper feeding	Paper size (B5-R) feeding/ widthwise direction	ALL	257/182 <182-432/140-297>	M		10
234	Paper feeding	Paper size (LT-R) feeding/ widthwise direction	ALL	279/216 <182-432/140-297>	M		10

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
235	Paper feeding	Paper size (LD) feeding/ widthwise direction	ALL	432/279 <182-432/140-297>	M		10
236	Paper feeding	Paper size (LG) feeding/ widthwise direction	ALL	356/216 <182-432/140-297>	M		10
237	Paper feeding	Paper size (ST-R) feeding/ widthwise direction	ALL	216/140 <182-432/140-297>	M		10
238	Paper feeding	Paper size (COMPUTER) feeding/widthwise direction	ALL	356/257 <182-432/140-297>	M		10
239	Paper feeding	Paper size (FOLIO) feeding/widthwise direction	ALL	330/210 <182-432/140-297>	M		10
240	Paper feeding	Paper size (13” LG) feeding/widthwise direction	ALL	330/216 <182-432/140-297>	M		10
241	Paper feeding	Paper size (8.5”X8.5”) feeding/widthwise direction	ALL	216/216 <182-432/140-297>	M		10
242	Paper feeding	Paper size (Non-standard) feeding/widthwise direction	ALL	432/279 <148-432/105-297>	SYS		10
243	Paper feeding	Memory 1 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 1].	10
244	Paper feeding	Paper size (8K) feeding/ widthwise direction	ALL	390/270 <182-432/140-297>	M		10
245	Paper feeding	Paper size (16K-R) feeding/widthwise direction	ALL	270/195 <182-432/140-297>	M		10
247	Paper feeding	Memory 2 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2].	10
248	Paper feeding	Memory 3 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3].	10
249	Paper feeding	Memory 4 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4].	10

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
250	Maintenance	Service technician telephone number	ALL	0 <32 digits>	SYS	A telephone number can be entered up to 32 digits. Use the [Monitor/Pause] button to enter a hyphen (-).	11
251	Maintenance	Setting value of PM sheet counter	ALL	Refer to content <8 digits>	M	<Default> e-STUDIO200L UC, EUR: 64,000 JPN: 0 e-STUDIO 230 UC, EUR: 74,000 JPN: 0 e-STUDIO 280 UC, EUR: 90,000 JPN: 0	1
252	Maintenance	Current value of PM driving counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1
253	Maintenance	Error history display	ALL	-	SYS	Displaying of the latest 20 errors data	2
254	Paper feeding	LT <-> A4/LD <-> A3	PRT	0 <0-1>	SYS	Sets whether the data is printed on the different but similar size paper or not when the paper of corresponding size is not available. 0: Valid (The data is printed on A4/A3 when LT/LD is selected or vice versa.) 1: Invalid (The message to use the selected paper size is displayed.)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
255	Paper feeding	PFP/LCF installation	ALL	0 <0-4, 16-20, 32-36>	M	Sets the installation status of the PFP or LCF, and also disables its functions and the lower drawer of the equipment. When "0" is set at 08-477, specify the value from 1 to 4 or 16 to 20, and when "1" is set at 08-477, specify the value only from 32 to 36. 0: Auto When only the upper drawer is installed as the paper feeder of the equipment. 1: PFP upper-drawer type installed 2: PFP upper-drawer and lower-drawer type installed 3: LCF installed 4: Disables PFP or LCF When the upper and lower drawers are installed as the paper feeder of the equipment. 16: PFP and LCF not installed 17: PFP upper-drawer type installed 18: PFP upper-drawer and lower-drawer type installed 19: LCF installed 20: Disables functions of PFP or LCF Disables the lower drawer when the upper and lower drawers are installed as the paper feeder of the equipment. 32: PFP and LCF not installed 33: PFP upper-drawer type installed 34: PFP upper-drawer and lower-drawer type installed 35: LCF installed 36: Disables functions of PFP or LCF	1
256	Paper feeding	Paper size setting /LCF	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
257	Counter	Counter copy	ALL	- <1-2>	-	1) Electrical counter →Backup counter (NVRAM →SRAM) 2) Backup counter → Electrical counter (SRAM →NVRAM) (P. 2-262 "Fig. 2-7")	-
258	Maintenance	FSMS acceptance	ALL	1 <0-2>	SYS	Sets whether the FSMS connection is accepted or not. 0: Prohibited 1: Accepted (USB normal connection) 2: Accepted (USB forcible connection)	1
259	Network	Storage period trial and private	PRT	14 <0-35>	SYS	0: No limits 1 to 30: 1 to 30 days 31: 1hour 32: 2hours 33: 4hours 34: 8hours 35: 12hours	1
260	Network	Web data retention period	SCN	10 <3 digits>	SYS	When a certain period of time has passed without operation after accessing TopAccess, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)	1
263	User interface	Administrator's password (Maximum 10 digits)	ALL	123456 <10 digits>	-	The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.	11
264	Network	File retention period	SCN	30 <0-999>	SYS	0: No limits 1 to 999: 1 to 999 days	1
265	Network	Maximum data capacity at E-mailing	SCN	30 <2-30>	SYS	2 to 30 M bytes	1
266	Network	Maximum data capacity at Internet FAX	ALL	30 <2-30>	SYS	2 to 30 M bytes	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
267	Electronic Filing	Full guarantee of documents in Electronic Filing when HDD is full	ALL	1 <0-1>	SYS	Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when “1” is set.	1
270	Electronic Filing	Default value for user box retention period	ALL	0 <0-999>	SYS	Sets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)	1
271	General	Warning notification of the File Share and e-Filling partitions are filled	ALL	90 <0-100>	SYS	Sets the percentage of HDD partition filled when warning notification is sent. 0 to 100: 0 to 100% * Related code 08-288	1
272	Scanning	Notification setting of E-mail saving time limit	ALL	3 <0-99>	SYS	Sets the days left the notification of E-mail saving time limit appears 0 to 99: 0 to 99 days	1
273	Scanning	Default setting of partial size when transmitting E-mail	ALL	0 <0-6>	SYS	Sets the default value for the partial size of E-mail to be transmitted when creating a template. 0: Not divided 1: 64 2: 128 3: 256 4: 512 5: 1024 6: 2048 (Unit: KB)	1
274	FAX	Default setting of page by page when transmitting Internet FAX	FAX	0 <0-4>	SYS	Sets the default value for the page by page of Internet FAX to be transmitted when creating a template. 0: Not divide 1: 128 2: 512 3: 1024 4: 2048 (Unit: KB)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
276	User interface	Default setting for density adjustment	SCN	0 <0-11>	SYS	0: Automatic density 1: Step -5 2: Step -4 3: Step -3 4: Step -2 5: Step -1 6: Step 0 (center) 7: Step +1 8: Step +2 9: Step +3 10: Step +4 11: Step +5 (1 to 11: Manual density)	1
281	User interface	Default setting of resolution	SCN	1 <0-4>	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi 3: 400dpi 4: 600 dpi	1
283	User interface	Default setting of original mode	SCN	0 <0-2>	SYS	0: Text 1: Text/Photo 2: Photo	1
284	User interface	Default setting of scanning mode	SCN	0 <0-2>	SYS	0: Single 1: Book 2: Tablet	1
285	User interface	Default setting of rotation angle of original	SCN	0 <0-3>	SYS	0: 0 degree 1: 90 degrees 2: 180 degrees 3: 270 degrees	1
286	User interface	Default setting of original paper size	SCN	0 <0-22>	SYS	0: Automatic 1: A3 2: A4 3: LD 4: LT 5: A4-R 6: A5-R 7: LT-R 8: LG 9: B4 10: B5 11: ST-R 12: COMP 13: B5-R 14: FOLIO 15: 13”LG 16: 8.5” x 8.5” 18: A6-R 19: Size mixed 20: 8K 21: 16K 22: 16K-R	1
288	General	Searching interval of deleting expired flies and checking capacity of HDD partitions	ALL	12 <1-24>	SYS	Sets the search interval of deleting expired files and checking capacity of HDD partition. (Unit: Hour) * Related code 08-271	1
290	Network	Raw printing job (Duplex)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
291	Network	Raw printing job (Paper size)	PRT	EUR: 6 UC: 2 JPN: 6 <0 -13>	SYS	0: LD 1: LG 2: LT 3: COMP 4: ST 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: FOLIO 12: 13”LG 13: 8.5” x 8.5”	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
292	Network	Raw printing job (Paper type)	PRT	0 <0-5>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 4: OHP film 5: Tab paper	1
293	Network	Raw printing job (Paper direction)	PRT	0 <0-1>	SYS	0: Portrait 1: Landscape	1
294	Network	Raw printing job (Staple)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
295	Network	Raw printing job (receiving tray)	PRT	0 <0-5>	SYS	0: Inner tray 1: Finisher tray 1 2: Finisher tray 2 3: Not used 4: Job Separator upper tray 5: Job Separator lower tray * The settings 4 and 5 are effective only when the Job Separator (MJ-5004) is installed.	1
296	Network	Raw printing job (Number of form lines)	PRT	1200 <500-12800>	SYS	Sets the number of form lines from 5 to 128. (A hundredfold of the number of form lines is defined as the setting value.)	1
297	Network	Raw printing job (PCL font pitch)	PRT	1000 <44-9999>	SYS	Sets the font pitch from 0.44 to 99.99. (A hundredfold of the font pitch is defined as the setting value.)	1
298	Network	Raw printing job (PCL font size)	PRT	1200 <400-99975>	SYS	Sets the font size from 4 to 999.75. (A hundredfold of the font size is defined as the setting value.)	1
299	Network	Raw printing job (PCL font number)	PRT	0 <0-79>	SYS	Sets the PCL font number.	1
300	User interface	Maximum number of copy volume (MAX9)	PPC	0 <0-2>	SYS	0: 999 1: 99 2: 9	1
302	User interface	Original counter display	ALL	EUR: 2 UC: 0 JPN: 0 <0,2,4>	SYS	Sets whether the original counter is displayed or not. 0: Not displayed 2: Displayed 4: Displayed (Double-sized original is counted as 2.)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
305-0	Counter	Number of output pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the output pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
305-1			A4					
305-2			A5					
305-3			A6					
305-4			B4					
305-5			B5					
305-6			FOLIO					
305-7			LD					
305-8			LG					
305-9			LT					
305-10			ST					
305-11			COMP					
305-12			13”LG					
305-13			8.5” x 8.5”					
305-14			16K					
305-15			8K					
305-16			Others					
306-0	Counter	Number of output pages in printer function	A3	PRT	0 <8 digits>	SYS	Counts the output pages in the printer function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
306-1			A4					
306-2			A5					
306-3			A6					
306-4			B4					
306-5			B5					
306-6			FOLIO					
306-7			LD					
306-8			LG					
306-9			LT					
306-10			ST					
306-11			COMP					
306-12			13”LG					
306-13			8.5” x 8.5”					
306-14			16K					
306-15			8K					
306-16			Others					

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
307-0	Counter	Number of output pages at list print mode	A3	PRT	0 <8 digits>	SYS	Counts the output pages at the list print mode for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
307-1			A4					
307-2			A5					
307-3			A6					
307-4			B4					
307-5			B5					
307-6			FOLIO					
307-7			LD					
307-8			LG					
307-9			LT					
307-10			ST					
307-11			COMP					
307-12			13”LG					
307-13			8.5” x 8.5”					
307-14			16K					
307-15			8K					
307-16			Others					
308-0	Counter	Number of output pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the output pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
308-1			A4					
308-2			A5					
308-3			A6					
308-4			B4					
308-5			B5					
308-6			FOLIO					
308-7			LD					
308-8			LG					
308-9			LT					
308-10			ST					
308-11			COMP					
308-12			13”LG					
308-13			8.5” x 8.5”					
308-14			16K					
308-15			8K					
308-16			Others					

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
312-0	Counter	Number of scanning pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the scanning pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
312-1			A4					
312-2			A5					
312-3			A6					
312-4			B4					
312-5			B5					
312-6			FOLIO					
312-7			LD					
312-8			LG					
312-9			LT					
312-10			ST					
312-11			COMP					
312-12			13”LG					
312-13			8.5” x 8.5”					
312-14			16K					
312-15			8K					
312-16			Others					
313-0	Counter	Number of scanning pages in scanning function	A3	SCN	0 <8 digits>	SYS	Counts the scanning pages in the scanning function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
313-1			A4					
313-2			A5					
313-3			A6					
313-4			B4					
313-5			B5					
313-6			FOLIO					
313-7			LD					
313-8			LG					
313-9			LT					
313-10			ST					
313-11			COMP					
313-12			13”LG					
313-13			8.5” x 8.5”					
313-14			16K					
313-15			8K					
313-16			Others					

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
314-0	Counter	Number of scanning pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the scanning pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
314-1			A4					
314-2			A5					
314-3			A6					
314-4			B4					
314-5			B5					
314-6			FOLIO					
314-7			LD					
314-8			LG					
314-9			LT					
314-10			ST					
314-11			COMP					
314-12			13”LG					
314-13			8.5” x 8.5”					
314-14			16K					
314-15			8K					
314-16			Others					
315-0	Counter	Number of transmitted pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the transmitted pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
315-1			A4					
315-2			A5					
315-3			A6					
315-4			B4					
315-5			B5					
315-6			FOLIO					
315-7			LD					
315-8			LG					
315-9			LT					
315-10			ST					
315-11			COMP					
315-12			13”LG					
315-13			8.5” x 8.5”					
315-14			16K					
315-15			8K					
315-16			Others					

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
316-0	Counter	Number of received pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the received pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353).	4
316-1			A4					
316-2			A5					
316-3			A6					
316-4			B4					
316-5			B5					
316-6			FOLIO					
316-7			LD					
316-8			LG					
316-9			LT					
316-10			ST					
316-11			COMP					
316-12			13”LG					
316-13			8.5” x 8.5”					
316-14			16K					
316-15			8K					
316-16			Others					
320-0	Counter	Display of number of output pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of output pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
320-1	Counter		Small	PPC	0 <8 digits>	SYS		14
320-2	Counter		Total	PPC	0 <8 digits>	SYS		14
321-0	Counter	Display of number of output pages in printer function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the Printer Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
321-1	Counter		Small	PRT	0 <8 digits>	SYS		14
321-2	Counter		Total	PRT	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
322-0	Counter	Display of number of output pages at list print mode	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages at the List Print Mode Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
322-1	Counter		Small	PRT	0 <8 digits>	SYS		14
322-2	Counter		Total	PRT	0 <8 digits>	SYS		14
323-0	Counter	Display of number of output pages in FAX function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
323-1	Counter		Small	PRT	0 <8 digits>	SYS		14
323-2	Counter		Total	PRT	0 <8 digits>	SYS		14
327-0	Counter	Display of number of scanning pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of scanning pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
327-1	Counter		Small	PPC	0 <8 digits>	SYS		14
327-2	Counter		Total	PPC	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
328-0	Counter	Display of number of scanning pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of scanning pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
328-1	Counter		Small	FAX	0 <8 digits>	SYS		14
328-2	Counter		Total	FAX	0 <8 digits>	SYS		14
329-0	Counter	Display of number of scanning pages in scanning function	Large	SCN	0 <8 digits>	SYS	Counts the number of scanning pages in the Scanning Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
329-1	Counter		Small	SCN	0 <8 digits>	SYS		14
329-2	Counter		Total	SCN	0 <8 digits>	SYS		14
330-0	Counter	Display of number of transmitted pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of transmitted pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
330-1	Counter		Small	FAX	0 <8 digits>	SYS		14
330-2	Counter		Total	FAX	0 <8 digits>	SYS		14

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
331	User interface	Default setting of screen		ALL	0 <0-5>	SYS	Sets the screen to be displayed after the auto-clear time has passed or it has recovered from the energy saving mode or sleep mode. 0: Copier 1: Fax 2: Scan 3: Box 4: Job Status 5: Template	1
332-0	Counter	Display of number of received pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of received pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
332-1	Counter		Small	FAX	0 <8 digits>	SYS		14
332-2	Counter		Total	FAX	0 <8 digits>	SYS		14
335-0	Counter	Display of total number of pages	Large	ALL	0 <8 digits>	SYS	Displays the total number of pages in the copier/printer/scanning/FAX functions.	14
335-1	Counter		Small	ALL	0 <8 digits>	SYS		14
335-2	Counter		Total	ALL	0 <8 digits>	SYS		14
337	Paper feeding	Paper size (#10-R) feeding/widthwise direction		ALL	241/105 <148-432/105-297>	M		10
338	Paper feeding	Paper size (DL-R) feeding/widthwise direction		ALL	220/110 <148-432/105-297>	M		10
339	Paper feeding	Paper size (Envelope: Monarch-R) feeding/widthwise direction		ALL	191/98 <148-432/98-297>	M		10
340	Paper feeding	Paper size (Envelope: CHO-3-R) feeding/widthwise direction		ALL	235/120 <148-432/105-297>	M		10
341	Paper feeding	Paper size (Envelope: YOU-4-R) feeding/widthwise direction		ALL	235/105 <148-432/105-297>	M		10

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
342	User interface	Displaying number of original pages placed on original glass	PPC	0 <0-1>	SYS	This setting is whether the number of pages of originals placed on the original glass is displayed or not. 0: Not displayed 1: Displayed	1
345	Counter	Count setting of envelope (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
346	Counter	Count setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
347	Counter	Definition setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP	1
348	Counter	Count setting of thick paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
349	Counter	Count setting of OHP film (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
352	Counter	Count setting of large-sized paper (Fee charging system counter)	ALL	JPN: 0 OTHER: 1 <0-2>	M	0: Counted as 1 1: Counted as 2 2: Counted as 1 (Mechanical counter is double counter)	1
353	Counter	Definition setting of large-sized paper (Fee charging system counter)	ALL	0 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP/8K	1
356	Counter	Counter for upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from upper drawer	2
357	Counter	Counter for lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from lower drawer	2
358	Counter	Counter for bypass feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from bypass feed	2
359	Counter	Counter for LCF feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from LCF	2
360	Counter	Counter for PFP upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP upper drawer	2
370	Counter	Counter for PFP lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP lower drawer	2
372	Counter	Counter for ADU	ALL	0 <8 digits>	M	Counts the number of output pages of duplex printing.	2
374	Counter	Counter for RADF	ALL	0 <8 digits>	SYS	Counts the number of originals fed from RADF	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
381	Counter	Setting for counter installed externally	ALL	1 <0-7>	M	Selects the job to count up for the external counter. 0: Not selected 1: Copier 2: FAX 3: Copier/FAX 4: Printer 5: Copier/Printer 6: Printer/FAX 7: Copier/Printer/FAX	1
390	Counter	Number of errors in HDD (Copier)	PPC	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
391	Counter	Number of errors in HDD (FAX)	FAX	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
392	Counter	Number of errors in HDD (Scanning)	SCN	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
393	Counter	Number of errors in HDD (Printer)	PRT	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
398	Laser	Number of polygonal motor rotational speed switching	ALL	0 <8 digits>	M	Counts the number of time the polygonal motor has switched its rotational speed between normal rotation and standby rotation.	2
399	Laser	Accumulated time of polygonal motor at normal rotation	ALL	0 <8 digits>	M	Accumulates the time the polygonal motor has rotated at normal rotation.	2
400	Fuser	Fuser unit error status counter	ALL	0 <0-19>	M	0: No error 1: C410 (Once) 2: C410 (consecutively occurred) 3: - 4: C430 5: C440 6: C450 7: C440 8: C450 9: C440 10: C470 11: C470 12: C480 13: C490 14: C470 15: C480 16: C490 17: C470 18: C480 19: C490	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
404-0	Fuser	Temperature drop setting in ready status (Center thermistor)	The first drop	ALL	1 <0-10>	M	This code is valid only when “20” is set to 08-886. Setting value x -5°C: from 0°C to -50°C	4
404-1			The second drop	ALL	1 <0-10>	M		4
404-2			The third drop	ALL	1 <0-10>	M		4
404-3			The fourth drop	ALL	1 <0-10>	M		4
405-0	Fuser	Temperature drop setting in ready status (Side thermistor)	The first drop	ALL	4 <0-10>	M		4
405-1			The second drop	ALL	4 <0-10>	M		4
405-2			The third drop	ALL	4 <0-10>	M		4
405-3			The fourth drop	ALL	4 <0-10>	M		4
407	Fuser	Fuser roller temperature in ready status (Side thermistor)		ALL	8 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1
409	Fuser	Fuser roller temperature at energy saver mode (Center thermistor)		ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
410	Fuser	Fuser roller temperature during printing (Center thermistor/Plain paper)		ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
411	Fuser	Fuser roller temperature on standby (Center thermistor)		ALL	8 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
412	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 3)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
413	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 1)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
414	Developer	Toner density life correction switching	ALL	0 <0-7>	M	0: Unchanged (Default) 1: Approx. 0.3 wt% higher 2: Approx. 0.6 wt% higher 3: Approx. 0.9 wt% higher 4: Approx. 0.2 wt% lower 5: Approx. 0.4 wt% lower 6: Approx. 0.6 wt% lower 7: Approx. 0.9 wt% lower	1
417	Fuser	Pre-running time for first printing (Thick paper 3)	ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
424-0	Fuser	Temperature drop switching time setting in ready status (Center thermistor)	The first drop	ALL	15 <2-60>	M	This code is valid only when “20” is set to 08-886. Setting value x 1 min.: from 2 to 60 min. later	4
424-1			The second drop	ALL	15 <2-60>	M		4
424-2			The third drop	ALL	15 <2-60>	M		4
424-3			The fourth drop	ALL	15 <2-60>	M		4
425-0	Fuser	Temperature drop switching time setting in ready status (Side thermistor)	The first drop	ALL	15 <2-60>	M		4
425-1			The second drop	ALL	15 <2-60>	M		4
425-2			The third drop	ALL	15 <2-60>	M		4
425-3			The fourth drop	ALL	15 <2-60>	M		4
433-0	Fuser	Temperature control lower limit (Plain paper/ at ordinary temperature)	Center thermistor	ALL	7 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
433-1			Side thermistor	ALL	5 <0-12>	M		4
437	Fuser	Fuser roller temperature during printing (Center thermistor /Thick paper 2)		ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
438	Fuser	Fuser roller temperature during printing (Center thermistor/OHP film)		ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
439	Fuser	Pre-running time for first printing (Thick paper 2)		ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
440	Fuser	Pre-running time for first printing (Plain paper)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
441	Fuser	Pre-running time for first printing (Thick paper 1)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
448	Fuser	Fuser roller temperature in Energy Saving Mode (Side thermistor)	ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
449	Paper feeding	Incorrect paper size jam detection switching	ALL	0 <0-1>	M	0: Enabled 1: Disabled	1
450	Fuser	Fuser roller temperature during printing (Side thermistor/Plain paper)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
451	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 1)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
452	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 2)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
453	Fuser	Fuser roller temperature during printing (Side thermistor/OHP film)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
455	Image processing	Toner supply amount correction/Toner motor control	ALL	0 <0-5>	M	Corrects the supply amount of the fresh toner (driving period of the toner motor) into the developer unit. 0: x1.0 1: x0.75 2: x0.5 3: x0.3 4: x2.0 5: x1.5	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
462	RADF	Setting for switchback operation in mixed-size copying using RADF		ALL	0 <0-2>	M	This setting is whether the original length is detected or not by transporting without scanning in reverse when A4-R/FOLIO paper or LT-R/LG paper is detected in a mixed-size copying. 0: Disabled - AMS: A series - Judges as A4-R without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG by its length without transporting in reverse with no scanning. APS: A series - Judges whether it is A4-R or FOLIO without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG without transporting in reverse with no scanning. 1: Enable 1 AMS: A series - Judges whether it is A4-R or FOLIO by transporting without scanning in reverse to detect its length. LT series - Judges whether it is LT-R or LG by transporting without scanning in reverse to detect its length. APS: The same as that of APS in 0: Disabled. 2: Enable 2 AMS/APS: The same as that of AMS in 1: Enable 1.	1
463-0	Paper feeding	Feeding retry number setting (upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the upper drawer.	4
463-1			Others	ALL	5 <0-5>	M		4

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
464-0	Paper feeding	Feeding retry number setting (lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the lower drawer.	4
464-1			Others	ALL	5 <0-5>	M		4
465-0	Paper feeding	Feeding retry number setting (PFP upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP upper drawer.	4
465-1			Others	ALL	5 <0-5>	M		4
466-0	Paper feeding	Feeding retry number setting (PFP lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP lower drawer.	4
466-1			Others	ALL	5 <0-5>	M		4
467-0	Paper feeding	Feeding retry number setting (bypass feed)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the bypass tray.	4
467-1			Others	ALL	5 <0-5>	M		4
468-0	Paper feeding	Feeding retry number setting (LCF)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the LCF.	4
468-1			Others	ALL	5 <0-5>	M		4
471	Paper feeding	Paper size (Postcard) feeding/widthwise direction		ALL	148/100 <148-432/100-297>	M	* Postcard is supported only for JPN model.	10
477	General	Machine identification information		ALL	Refer to content <0-1>	M	<Default value> Lower drawer model: 0 Upper drawer model: 1	2
478	Laser	Judged number of polygonal motor rotation error (Normal rotation)		ALL	0 <0-1>	M	Displays the error [CA10] when the set number of rotation error has been detected. 0: 2 times 1: 12 times	1
479	Laser	Judged number of polygonal motor rotation error (At acceleration/deceleration)		ALL	0 <0-1>	M	0: Waiting time for polygonal motor rotation overshooting 0.6 sec. 1: Waiting time for polygonal motor rotation overshooting 2.2 sec.	1
480	Paper feeding	Default setting of paper source		PPC	0 <0-5>	SYS	0: A4/LT 1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
481	Paper feeding	Automatic change of paper source	PPC	1 <0-2>	SYS	Sets whether or not changing the drawer automatically to the other drawer with the paper of the same size when paper in the selected drawer has run out. 0: OFF 1: ON (Changes to the drawer with the same paper direction and size: ex. A4 to A4) 2: ON (Changes to the drawer with the same paper size. Paper with the different direction is acceptable as long as the size is the same: ex., A4 to A4-R, LT-R to LT. “1” is applied when the staple/hole-punch is specified.)	1
482	Paper feeding	Feeding retry setting	ALL	0 <0-1>	M	0: ON 1: OFF	1
483	Laser	Pre-running rotation of polygonal motor	ALL	0 <0-2>	SYS	Sets whether or not switching the polygonal motor from the standby rotation to the normal rotation when the original is set on the RADF or the platen cover is opened. 0: Valid (when using RADF and the original is set manually) 1: Invalid 2: Valid (when using RADF only)	1
484	Laser	Polygonal motor rotational status switching at the Auto Clear Mode	ALL	0 <0-1>	SYS	Sets whether or not switching the polygonal motor from the normal rotation to the standby rotation at the Auto Clear Mode. 0: Valid 1: Invalid	1
485	Laser	Rotational status of polygonal motor on standby	ALL	1 <0-1>	SYS	Sets the rotational status of polygonal motor on standby. 0: Rotated (The rotational speed is set at 08-490.) 1: Stopped	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
486	Laser	Timing of auto-clearing of polygonal motor pre-running rotation	ALL	0 <0-2>	SYS	Switches the polygonal motor to the standby rotation when a certain period of time has passed from the pre-running. At this code, the period to switch the status to the standby rotation is set. 0: 15 sec.1: 30 sec. 2: 45 sec. * This setting is effective when “0” or “2” is set at 08-483.	1
488	Laser	Setting of polygonal motor type	ALL	0 <0-3>	M	Set the type of polygonal motor. 0: 2-clock type 1: 3-clock type 2: 4-clock type 3: 4-clock type	1
489	Laser	Polygonal motor rotation number on standby	ALL	5 <0-5>	M	0: 38,090.55 rpm 1: 35,000 rpm 2: 30,000 rpm 3: 25,000 rpm 4: 20,000 rpm 5: 10,000 rpm	1
490	Laser	Polygonal motor rotation in the energy saving mode	ALL	0 <0-1>	M	0: Stopped 1: 10,000 rpm	1
491	Transfer	Transfer charger bias correction (H) at duplexing	ALL	149 <0-255>	M	Corrects the transfer charger bias output value of the leading edge area of paper at duplexing.	1
492	Transfer	Transfer charger bias correction (C) at duplexing	ALL	139 <0-255>	M	Corrects the transfer charger bias output value of the center area of paper at duplexing.	1
493	Transfer	Transfer charger bias correction (L) at duplexing	ALL	128 <0-255>	M	Corrects the transfer charger bias output value of the trailing edge area of paper at duplexing.	1
502	Image	Error diffusion and dither setting at photo mode	PPC	1 <0-1>	SYS	Sets the image reproduction method at photo mode. 0: Error diffusion 1: Dither	1
503	User interface	Default setting of density adjustment	PPC	0 <0-1>	SYS	0: Automatic 1: Manual (Center)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
508	Image	Custom Mode setting	PPC	0 <0-3>	SYS	0: Not used 1: Custom Mode 1 when Text/Photo is set as a base 2: Custom Mode 2 when Text is set as a base 3: Custom Mode 3 when Photo is set as a base	1
509	Image	Error diffusion and dither setting at a photo mode (Custom Mode)	PPC	1 <0-1>	SYS	Switches the image processing method when Custom Mode 3 is set. 0: Error diffusion 1: Dither	1
515	Fuser	Temperature setting of warming-up (Center thermistor)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
516	Fuser	Temperature setting of warming-up (Side thermistor)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
518	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 3)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
520	Fuser	Fuser roller temperature during printing (Center thermistor/Envelope)	ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
521	Fuser	Fuser roller temperature during printing (Side thermistor/Envelope)		ALL	9 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
523	Fuser	Pre-running time for first printing (Envelope)		ALL	10 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
525-0	Fuser	Temperature drop switching time setting during printing (Center thermistor)	The first drop	ALL	20 <0-200>	M	This code is valid only when “20” is set to 08-535. Setting value x 5 sec.: from 0 to 1,000 sec. later	4
525-1			The second drop	ALL	38 <0-200>	M		4
525-2			The third drop	ALL	75 <0-200>	M		4
525-3			The fourth drop	ALL	75 <0-200>	M		4
526	Fuser	Pre-running time for first printing (OHP film)		ALL	0 <0-15>	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
527-0	Fuser	Temperature drop switching time setting during printing (Side thermistor)	The first drop	ALL	20 <0-200>	M	This code is valid only when “20” is set to 08-535. Setting value x 5 sec.: from 0 to 1,000 sec. later	4
527-1			The second drop	ALL	30 <0-200>	M		4
527-2			The third drop	ALL	48 <0-200>	M		4
527-3			The fourth drop	ALL	75 <0-200>	M		4

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
535	Fuser	Temperature drop control setting during printing (Temperature/Time)		ALL	2 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	1
536-0	Fuser	Temperature drop setting during printing (Center thermistor)	The first drop	ALL	1 <0-10>	M	This code is valid only when “20” is set to 08-535. Setting value x -5°C: from 0°C to -50°C	4
536-1			The second drop	ALL	2 <0-10>	M		4
536-2			The third drop	ALL	3 <0-10>	M		4
536-3			The fourth drop	ALL	3 <0-10>	M		4
537-0	Fuser	Temperature drop setting during printing (Side thermistor)	The first drop	ALL	1 <0-10>	M		4
537-1			The second drop	ALL	2 <0-10>	M		4
537-2			The third drop	ALL	3 <0-10>	M		4
537-3			The fourth drop	ALL	5 <0-10>	M		4
550	Image	Default setting of original mode		PPC	0 <0-3>	SYS	0: Text/Photo 1: Photo 2: Text 3: Custom Mode	1
601	User interface	Setting for the Energy Saving Mode		ALL	0 <0-1>	SYS	0: Auto Shut Off Mode 1: Sleep Mode	1
602	User interface	Screen setting for Auto power Save Mode and Auto Shut OFF Mode		ALL	EUR: 0 UC: 1 JPN: 1 <0-1>	SYS	0: OFF 1: ON	1
603	User interface	Setting for automatic duplexing mode		PPC	0 <0-3>	SYS	0: Invalid 1: Single-sided to duplex copying 2: Double-sided to duplex copying 3: User selection	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
604	User interface	Default setting for APS/AMS	PPC	0 <0-2>	SYS	0: APS (Automatic Paper Selection) 1: AMS (Automatic Magnification Selection) 2: Not selected	1
605	User interface	Centering printing of primary/secondary direction at AMS	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
607	User interface	Default setting of RADF mode	PPC	0 <0-1>	SYS	0: Continuous feeding (by pressing the [START] button) 1: Single feeding (by setting original on the tray)	1
610	User interface	Key touch sound of control panel	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
611	User interface	Book type original priority	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
612	General	Summer time mode	ALL	0 <0-1>	SYS	0: Not summer time 1: Summer time	1
613	User interface	Paper size selection for [OTHER] button	PPC	EUR: FOLIO UC: COMP JPN: A5-R	SYS	Press the button on the LCD to select the size.	9
614	Network	Local I/F time-out period	PRT	6 <1-50>	SYS	Sets the period of time when the job is judged as completed in local I/F printing (USB or parallel). 1: 1.0 sec. 2: 1.5 sec. -50: 25.5 sec. (in increments of 0.5 sec.)	1
615	General	Size information of main memory and page memory	ALL	-	SYS	Displays the sizes of the main memory and page memory. Enables to check if each memory is properly recognized.	2
617	User interface	Print setting without department code	ALL	1 <0-2>	SYS	0: Printed 1: Not printed (pooled in the invalid queue) 2: Deleted forcibly	1
618	User interface	Default setting when mixed size originals are set on RADF	PPC	0 <0-1>	SYS	0: Scanned as all in same size 1: Scanned as each original size	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
619	Paper feeding	Time lag before Auto Job Start of bypass feeding	ALL	4 <0-10>	SYS	Sets the time taken to add paper feeding when paper in the bypass tray has run out during the bypass feed copying. 0: No delay 1-10: Setting value x 0.5 sec.	1
620	User interface	Department management setting (Copier)	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
621	User interface	Department management setting (FAX)	FAX	1 <0-1>	SYS	0: Invalid 1: Valid	1
622	User interface	Department management setting (Printer)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
623	User interface	Department management setting (Scanner)	SCN	1 <0-1>	SYS	0: Invalid 1: Valid	1
624	User interface	Department management setting (List print)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
625	User interface	Blank copying prevention mode during RADF jamming	PPC	0 <0-1>	SYS	0: OFF 1: ON (Start printing when the scanning of each page is finished)	1
627	User interface	Rotation printing at the non-sorting	ALL	0 <0-1>	SYS	0: Not rotating 1: Rotating	1
628	User interface	Direction priority of original image	PPC	0 <0-1>	SYS	0: Automatic 1: Portrait	1
629	User interface	Department management setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
633	Data overwrite kit	Releasing F200 service call (System ROM version: earlier than T377SY0*329)	ALL	0 <0-2>	SYS	0: Not used 1: Board installed (GP-1060) 2: Service call	1
634	User interface	Inner receiving tray priority at Non-sort Mode	ALL	0 <0-1>	SYS	0: Normal 1: Inner receiving tray	1
636	User interface	Width setting for image shift copying (linkage of front side and back side)	PPC	0 <0-1>	SYS	0: ON 1: OFF	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
638	General	Time differences	ALL	EUR: 24 UC: 40 JPN: 6 <0-47>	SYS	0: +12.0h 1: +11.5h 2: +11.0h 3: +10.5h 4: +10.0h 5: +9.5h 6: +9.0h 7: +8.5h 8: +8.0h 9: +7.5h 10: +7.0h 11: +6.5h 12: +6.0h 13: +5.5h 14: +5.0h 15: +4.5h 16: +4.0h 17: +3.5h 18: +3.0h 19: +2.5h 20: +2.0h 21: +1.5h 22: +1.0h 23: +0.5h 24: 0.0h 25: -0.5h 26: -1.0h 27: -1.5h 28: -2.0h 29: -2.5h 30: -3.0h 31: -3.5h 32: -4.0h 33: -4.5h 34: -5.0h 35: -5.5h 36: -6.0h 37: -6.5h 38: -7.0h 39: -7.5h 40: -8.0h 41: -8.5h 42: -9.0h 43: -9.5h 44: -10.0h 45: -10.5h 46: -11.0h 47: -11.5h	1
640	User interface	Date display format	ALL	EUR: 1 UC: 2 JPN: 0 <0-2>	SYS	0: YYYY.MM.DD. 1: DD.MM.YYYY 2: MM.DD.YYYY	1
641	User interface	Automatic Sorting Mode setting (RADF)	PPC	2 <0-4>	SYS	0: Invalid 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
642	User interface	Default setting of Sorter Mode	PPC	0 <0-4>	SYS	0: NON-SORT 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
645	User interface	Correction of reproduction ratio in editing copy	PPC	10 <0-10>	SYS	Sets the reproduction ratio for the “X in 1” printing (including magazine sort) to the “Reproduction ratio x Correction ratio”. 0: 90% 1: 91% 2: 92% 3: 93% 4: 94% 5: 95% 6: 96% 7: 97% 8: 98% 9: 99% 10: 100%	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
646	User interface	Image position in editing	PPC	2 <0-3>	SYS	Sets the page pasted position for “X in 1” to the upper left corner/ center. 0: PPC:Cornering/ PRT:Cornering 1: PPC:Centering/ PRT:Cornering 2: PPC:Cornering/ PRT:Centering 3: PPC:Centering/ PRT:Centering	1
648	User interface	Returning finisher tray when printing is finished	ALL	0 <0-1>	SYS	Sets whether or not returning the finisher tray to the bin 1 when printing is finished. 0: Not returned 1: Returned	1
649	User interface	Magazine sort setting	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
650	User interface	2 in 1/4 in 1 page allocating order setting	PPC	0 <0-1>	SYS	0: Horizontal 1: Vertical	1
651	User interface	Printing format setting for Time stamp and Page Number	PPC	2 <0-3>	SYS	Hyphen (with page number) /Dropout (with date, time and page number) 0: OFF/OFF 1: ON/OFF 2: OFF/ON 3: ON/ON **Note:** Hyphen printing format ON: -1- OFF: 1	1
652	User interface	Cascade operation setting	PPC	0 <0-1>	SYS	0: OFF 1: ON	1
653	User interface	Cascade operation setting	PRT	0 <0-1>	SYS	0: OFF 1: ON	1
657	User interface	Direction priority for date and time stamp printing	PPC	0 <0-1>	SYS	0: Short edge 1: Long edge	1
658	User interface	Auto Job Start setting for bypass feed printing	PRT	0 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
659	User interface	Auto Job start setting for bypass feed printing	PPC	1 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
660	Network	Auto-forwarding setting of received FAX	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
661	Network	Auto-forwarding setting of received E-mail	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
662	General	Clearing of SMS partition	ALL	-	SYS	Clears SMS partition. (Performs when the service call [F106] has occurred.)	3
666	General	/SHR partition clearing	ALL	-	SYS	Initializes the Electronic Filing.	3
667	General	/SHA partition clearing	ALL	-	SYS	Initializes the shared folder.	3
670	General	HDD diagnostic menu display	ALL	-	SYS	Display the HDD information	2
671	User interface	Size indicator	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
672	General	Initialization of department management information	-	-	SYS	Initializing of the department management information * Key in the code and press the [INITIALIZE] button to perform the initialization. If the area storing the department management information is destroyed for some reason, “Enter Department Code” is displayed on the control panel even if the department management function is not set on. In this case, initialize the area with this code. This area is normally initialized at the factory.	3
673	General	Trial period setting	PRT/ SCN	254 <1-60>	SYS	Sets the trial period from 1 to 60 days. This setting is effective only when the default value is “254”. Once the default value is set, this value is only used for a reference.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
678	General	Setting of banner advertising display	ALL	0 <0-1>	SYS	Sets whether or not displaying the banner advertising. The setting contents of 08-679 and 08-680 are displayed at the time display section on the right top of the screen. When both are set, each content is displayed alternately. 0: Not displayed 1: Displayed	1
679	General	Banner advertising display 1	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
680	General	Banner advertising display 2	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
681	General	Display of [BANNER MESSAGE] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed * This button enables the entry of “Banner advertising display 1 (08-679)” and “Banner advertising display 2 (08-680)” on the control panel.	1
682	User interface	Offsetting between jobs	ALL	1 <0-1>	SYS	0: Invalid 1: Valid	1
683	General	Duplex printing setting when coin controller is used	ALL	1 <0-1>	SYS	When the duplex printing is short paid with a coin controller, reverse side of the original is not printed and is considered as a defect (printing job may be cleared). To solve this problem, the selection of printing method is enabled with this setting. 0: Invalid (Both sides printed) 1: Valid (Only one side printed)	1
684	General	Rebuilding all databases	ALL	-	SYS	Rebuilds all databases.	3
685	General	Rebuilding all databases related to address book	ALL	-	SYS	Rebuilds all databases related to the Address Book.	3
686	General	Rebuilding all databases related to log	ALL	-	SYS	Rebuilds all databases related to the log.	3
689	FAX	Adaptation of paper source priority selection	FAX	0 <0-1>	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1
690	General	HDD formatting	ALL	- <2>	SYS	2: Normal formatting	7
691	General	HDD type display	ALL	- <0-2>	SYS	0: Not formatted 1: Not used 2: Normal format	7

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
692	Maintenance	Performing panel calibration	ALL	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 2 reference positions after this code is started up.	1
693	General	Initialization of NIC information	ALL	-	SYS	Returns the value to the factory shipping default value.	3
694	General	Performing HDD testing	ALL	-	SYS	Checks the bad sector.	3
695	General	Notifying condition of trial period end	PRT/ SCN	3 <0-59>	SYS	Sets when the end of trial period is notified. 0: On the day it ends 1 to 59: n days before	1
696	Scrambler board	Installation of scrambler board (Option)	ALL	0 <0-1>	-	0: Not installed 1: Installed	2
697	Paper feeding	Paper type priority	PPC	1 <1-2>	SYS	Sets the paper type priority during copying. 1: Plain paper 2: Thick paper 1	1
698	Scrambler board	Entering the key code for scrambler board	ALL	-	-	Start up this code and have the user enter the key code. Once the key code has been set, this code cannot be set again on security grounds.	5
699	Scrambler board	Erasing all data in HDD	ALL	-	-	This setting is effective only when the scrambler board is installed.	3
701	FAX	Destination setting for FAX	FAX	EUR: 5 UC: 4 JPN: 0 Other: 1 <0-25>	SYS	0: Japan 1: Asia 2: Australia 3: Hong Kong 4: U.S.A./Canada 5: Germany 6: U.K. 7: Italy 8: Belgium 9: Netherlands 10: Finland 11: Spain 12: Austria 13: Switzerland 14: Sweden 15: Denmark 16: Norway 17: Portugal 18: France 19: Greece 20: Poland 21: Hungary 22: Czech 23: Turkey 24: South Africa 25: Taiwan	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
702	Maintenance	Remote-controlled service function		ALL	2 <0-2>	SYS	0: Valid (Remote-controlled server) 1: Valid (L2) 2: Invalid	1
703	Maintenance	Remote-controlled service HTTP server URL setting		ALL	-	SYS	Maximum 256 Bytes	11
704-0	User interface	Interruption of stapling operation (no staple)	Copying	ALL	1 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	4
704-1			Printing / BOX printing	ALL	1 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	4
707	Maintenance	Remote-controlled service HTTP initially-registered server URL setting		ALL	https://device.mfp-support.com:443/device/firstregist.ashx	SYS	Maximum 256 Bytes	11
710	Maintenance (Remote)	Short time interval setting of recovery from Emergency Mode		ALL	24 <1-48>	SYS	Sets the time interval to recover from the Emergency Mode to the Normal Mode. (Unit: Hour)	1
711	Maintenance (Remote)	Short time interval setting of Emergency Mode		ALL	60 <30-360>	SYS	Unit: Minute	1
715	Maintenance	Remote-controlled service periodical polling timing (Hour/Hour/Minute/Minute)		ALL	1230	SYS	0 (0:00) to 2359 (23:59)	1
716	Maintenance	Remote-controlled service Writing data of self-diagnostic code		ALL	0 <0-1>	SYS	0: Prohibited 1: Accepted	1
717	Maintenance	Remote-controlled service response waiting time (Timeout)		ALL	3 <1-30>	SYS	Unit: Minute	1
718	Maintenance	Remote-controlled service initial registration		ALL	0 <0-3>	SYS	0: OFF 1: Start 2: Only certification is scanned 3: Satellite communiction starts	1
719	Maintenance	Remote-controlled service tentative password		ALL	-	SYS	Maximum 10 letters	11
720	Maintenance	Status of remote-controlled service initial registration (Display only)		ALL	0 <0-1>	SYS	0: Not registered 1: Registered	2
721	Maintenance	Service center call function		ALL	2 <0-2>	SYS	0: OFF 1: Notifies all service calls 2: Notifies all but paper jams	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
723	Maintenance	Service center call HTTP server URL setting	ALL	-	SYS	Maximum 256 letters	11
726	Maintenance	HTTP proxy setting	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
727	Maintenance	HTTP proxy IP address setting	ALL	-	SYS	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	11
728	Maintenance	HTTP proxy port number setting	ALL	0 <0-65535>	SYS		1
729	Maintenance	HTTP proxy ID setting	ALL	-	SYS	Maximum 30 letters	11
730	Maintenance	HTTP proxy password setting	ALL	-	SYS	Maximum 30 letters	11
731	Maintenance	HTTP proxy panel display	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
732	Maintenance (Remote)	Automatic ordering function of supplies	ALL	3 <0-3>	SYS	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF	1
733	Maintenance (Remote)	Automatic ordering function of supplies FAX number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
734	Maintenance (Remote)	Automatic ordering function of supplies E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
738	Maintenance (Remote)	Automatic ordering function of supplies User's name	ALL	-	SYS	Maximum 50 letters	11
739	Maintenance (Remote)	Automatic ordering function of supplies User's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
740	Maintenance (Remote)	Automatic ordering function of supplies User's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
741	Maintenance (Remote)	Automatic ordering function of supplies User's address	ALL	-	SYS	Maximum 100 letters	11
742	Maintenance (Remote)	Automatic ordering function of supplies Service number	ALL	0 <5 digits>	SYS	Maximum 5 digits	11
743	Maintenance (Remote)	Automatic ordering function of supplies Service technician's name	ALL	-	SYS	Maximum 50 letters	11
744	Maintenance (Remote)	Automatic ordering function of supplies Service technician's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11
745	Maintenance (Remote)	Automatic ordering function of supplies Service technician's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
746	Maintenance (Remote)	Automatic ordering function of supplies Supplier's name	ALL	-	SYS	Maximum 50 letters	11

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
747	Maintenance (Remote)	Automatic ordering function of supplies Supplier's address	ALL	-	SYS	Maximum 100 letters	11
748	Maintenance (Remote)	Automatic ordering function of supplies Notes	ALL	-	SYS	Maximum 128 letters	11
758	Maintenance (Remote)	Information about supplies Part number of toner cartridge	ALL	-	SYS	Maximum 20 digits	11
759	Maintenance (Remote)	Information about supplies Order quantity of toner cartridge	ALL	1 <1-99>	SYS		1
760	Maintenance (Remote)	Information about supplies Condition number of toner cartridge	ALL	1 <1-99>	SYS		1
765	Maintenance (Remote)	Automatic ordering supplies Display	ALL	EUR: 2 UC: 0 JPN: 2 <0-2>	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid	1
767	Maintenance (Remote)	Service Notification setting	ALL	0 <0-2>	SYS	Enables to set up to 3 E-mail addresses to be sent.(08-768, 777, 778) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1
768	Maintenance (Remote)	Destination E-mail address	ALL	-	SYS	Maximum 192 letters	11
769	Maintenance (Remote)	Total counter information transmission setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
770	Maintenance (Remote)	Total counter transmission date setting	ALL	0 <0-31>	SYS	0 to 31	1
771	Maintenance (Remote)	PM counter notification setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
772	Maintenance	Dealer's name	ALL	-	SYS	Maximum 100 letters Needed at initial registration	11
773	Maintenance	Login name	ALL	-	SYS	Maximum 20 letters Needed at initial registration	11
774	Maintenance (Remote)	Display setting of [Service Notification] button	ALL	EUR: 0 UC: 1 JPN: 0 <0-1>	SYS	0: Not displayed 1: displayed	1
775	Maintenance (Remote)	Sending error contents of equipment	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
776	Maintenance (Remote)	Setting total counter transmission interval (Hour/Hour/Minute/Minute)	ALL	-	SYS		1
777	Maintenance (Remote)	Destination E-mail address 2	ALL	-	SYS	Maximum 192 letters	11

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
778	Maintenance (Remote)	Destination E-mail address 3	ALL	-	SYS	Maximum 192 letters	11
780	Maintenance	Remote-controlled service polling day selection Day-1	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
781	Maintenance	Remote-controlled service polling day selection Day-2	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
782	Maintenance	Remote-controlled service polling day selection Day-3	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
783	Maintenance	Remote-controlled service polling day selection Day-4	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
784	Maintenance	Remote-controlled service polling day selection Sunday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
785	Maintenance	Remote-controlled service polling day selection Monday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
786	Maintenance	Remote-controlled service polling day selection Tuesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
787	Maintenance	Remote-controlled service polling day selection Wednesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
788	Maintenance	Remote-controlled service polling day selection Thursday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
789	Maintenance	Remote-controlled service polling day selection Friday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
790	Maintenance	Remote-controlled service polling day selection Saturday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
794	Maintenance	Information of supplies setting of toner cartridge	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
796	Maintenance	Remote-controlled service lengthened interval polling (End of month)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
797	Maintenance	Firmware download	ALL	0 <0-1>	SYS	0: Accepted 1: Prohibited	1
798	General	Notifying address of trial period end	PRT/ SCN	3 <0-3>	SYS	Sets where the end of the trial period is to be notified. 0: OFF 1: User 2: Service center 3: User and service center	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
799	General	Forcible end of trial period		PRT/ SCN	-	SYS	[CANCEL]: Cancel [EXECUTION]: Forcible end When the “Forcible end of trial period” is performed, “0” is set in the code (08-673) to end up the trial period forcibly.	3
800-0	Fuser	Temperature control lower limit (OHP film)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
800-1			Side thermistor	ALL	6 <0-12>	M		4
801-0	Fuser	Temperature control lower limit (Thick paper 1)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
801-1			Side thermistor	ALL	6 <0-12>	M		4
802-0	Fuser	Temperature control lower limit (Thick paper 2)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
802-1			Side thermistor	ALL	9 <0-12>	M		4
803-0	Fuser	Temperature control lower limit (Thick paper 3)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
803-1			Side thermistor	ALL	10 <0-12>	M		4
804-0	Fuser	Temperature control lower limit (Envelope)	Center thermistor	ALL	8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
804-1			Side thermistor	ALL	10 <0-12>	M		4

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
805	Charger	Main charger bias correction (Text/Photo/OHP film)	PRT	98 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
806	Charger	Main charger bias correction (Toner Saving Mode/OHP film)	PRT	98 <0-255>	M		1
807	Charger	Main charger bias correction (Text/Photo/OHP film)	PPC	98 <0-255>	M		1
808	Charger	Main charger bias correction (Text/OHP film)	PPC	98 <0-255>	M		1
809	Charger	Main charger bias correction (Photo/OHP film)	PPC	98 <0-255>	M		1
826	Charger	Main charger bias correction (Toner saving mode)	PRT	128 <0-255>	M		1
830	Transfer	Transfer transformer DC correction (C)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-221).	1
831	Separation	Separation transformer DC correction (C)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-234).	1
833	Developer	Developer bias DC correction (Text/Photo/OHP film)	PRT	108 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
834	Developer	Developer bias DC correction (Toner Saving Mode/OHP film)	PRT	108 <0-255>	M		1
835	Developer	Developer bias DC correction (Text/Photo/OHP film)	PPC	108 <0-255>	M		1
836	Developer	Developer bias DC correction (Text/OHP film)	PPC	108 <0-255>	M		1
837	Developer	Developer bias DC correction (Photo/OHP film)	PPC	108 <0-255>	M		1
838	Image processing	Switching of recycled toner saving control	ALL	0 <0-1>	M	0: Switched 1: Not switched	1
839	Image processing	Correction by temperature/humidity	ALL	0 <0-3>	M	Sets the correction by temperature/humidity. 0: All valid 1: All invalid 2: Valid only in auto-toner sensor 3: All valid except transfer and separation	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
849	General	Power source setting for destination	ALL	SAD: 1 Others: 0 <0-1>	M	0: Other than SAD 1: SAD	1
859	Developer	Developer bias DC correction (Toner saving mode)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
860	Developer	Developer bias DC correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
861	Developer	Developer bias DC correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
862	Developer	Developer bias DC correction (Text)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
863	Developer	Developer bias DC correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
864	Charger	Main charger bias correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
865	Charger	Main charger bias correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
866	Charger	Main charger bias correction (Text)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
867	Charger	Main charger bias correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
868	Transfer	Transfer transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-220).	1
869	Transfer	Transfer transformer DC correction (L)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-222).	1
870	Separation	Separation transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-233).	1
871	Separation	Separation transformer DC correction (L)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-235).	1
872	Laser	Laser power correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
873	Laser	Laser power correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
875	Laser	Laser power correction (Toner saving mode)		PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
876	Laser	Laser power correction (Text)		PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
877	Laser	Laser power correction (Photo)		PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
886	Fuser	Temperature drop control setting in ready status (Temperature/Time)		ALL	2 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	1
896-0	Fuser	Temperature control lower limit (Plain paper/ Low temperature)	Center themistor	ALL	7 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
896-1			Side themistor	ALL	5 <0-12>	M		4
900	Version	System firmware ROM version		ALL	-	-	JPN: T377SY0JXXX UC: T377SY0UXXX EUR: T377SY0EXXX Others: T377SY0XXXX	2
903	Version	Engine ROM version		ALL	-	-	377M-XXX	2
905	Version	Scanner ROM version		ALL	-	-	377S-XXX	2
907	Version	RADF ROM version		ALL	-	-	DF-XXXX	2
908	Version	Finisher ROM version		ALL	-	-	SDL-XX FIN-XX	2
915	Version	Fax board ROM version		FAX	-	-	F562-XXX	2
920	Version	FROM basic section software version		ALL	-	-	VX.XX/X.XX	2
921	Version	FROM internal program		ALL	-	-	VXXX.XXX X	2
922	Version	UI data fixed section version		ALL	-	-	VXXX.XXX X	2
923	Version	UI data common section version		ALL	-	-	VXXX.XXX X	2
924	Version	Version of UI data language 1 in HDD		ALL	-	-	VXXX.XXX X	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
925	Version	Version of UI data language 2 in HDD	ALL	-	-	VXXX.XXX X	2
926	Version	Version of UI data language 3 in HDD	ALL	-	-	VXXX.XXX X	2
927	Version	Version of UI data language 4 in HDD	ALL	-	-	VXXX.XXX X	2
928	Version	Version of UI data language 5 in HDD	ALL	-	-	VXXX.XXX X	2
929	Version	Version of UI data language 6 in HDD	ALL	-	-	VXXX.XXX X	2
930	Version	Version of UI data in FROM displayed at power-ON	ALL	-	-	VXXX.XXX X	2
931	Version	Version of UI data language 7 in HDD	ALL	-	-	VXXX.XXX X	2
933	Version	Web data whole version	ALL	-	-	VXXX.XXX X	2
934	Version	Web UI data in HDD Version: Language 1	ALL	-	-	VXXX.XXX X	2
935	Version	Web UI data in HDD Version: Language 2	ALL	-	-	VXXX.XXX X	2
936	Version	Web UI data in HDD Version: Language 3	ALL	-	-	VXXX.XXX X	2
937	Version	Web UI data in HDD Version: Language 4	ALL	-	-	VXXX.XXX X	2
938	Version	Web UI data in HDD Version: Language 5	ALL	-	-	VXXX.XXX X	2
939	Version	Web UI data in HDD Version: Language 6	ALL	-	-	VXXX.XXX X	2
944	Version	HD version	ALL	-	-	JPN: T377HD0JXXX UC: T377HD0UXXX EUR: T377HD0EXXX Others: T377HD0XXXX	2
945	Network	Two-way setting of RawPort 9100	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
947	General	Initialization after software version upgrade	ALL	-	-	Perform this code when the software in this equipment has been upgraded.	3
949	General	Automatic interruption page setting during printing	ALL	0 <0-100>	SYS	Sets the number of pages to interrupt the printing automatically. 0-100: 0 to 100 pages	1
950	Electronic Filing	Start-up method of Electronic Filing	ALL	0 <0-2>	SYS	Sets the start-up method of the Electronic Filing. 0: Standard 1: Forced start-up (Not recovered) 2: Forced start-up (Recovered)	1
953	User interface	Access code entry for Electronic Filing printing	ALL	0 <0-1>	SYS	0: Renewed automatically 1: Enter every time	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
954	User interface	Clearing timing for files and Electronic Filing Agent	ALL	1 <0-1>	SYS	0: Immediately after the completion of scanning 1: Cleared by Auto Clear	1
969	User interface	Error sound	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
970	User interface	Sound setting when switching to Energy Saving Mode	ALL	JPN: 0 Other: 1 <0-1>	SYS	0: OFF 1: ON	1
972	User interface	Enables/disables the display that the toner is nearly empty	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
973	Network	PCL line feed code setting	PRT	0 <0-3>	SYS	Sets the PCL line feed code. 0: Automatic setting 1: CR=CR, LF=LF 2: CR=CR+LF, LF=LF 3: CR=CR, LF=CR+LF	1
975	General	Job handling when printing is short paid with coin controller	ALL	1 <0-1>	SYS	Sets whether pause or stop the printing job when it is short paid using a coin controller. 0: Pause the job 1: Stop the job	1
976	Electronic Filing	Equipment name and user name setting to a folder when saving files	ALL	0 <0-2>	SYS	Sets whether or not adding the equipment name and user name to the folder when saving files. 0: Not add 1: Add the equipment name 2: Add the user name	1
977	Network	Switching of extended ASCII code in catFs file-system	ALL	0 <0-1>	SYS	0: ISO8859-1 1: ISO8859-2	1
978	Network	Raw printing job (Paper feeding drawer)	PRT	0 <0-5>	SYS	0: AUTO 1: Upper drawer 2: Lower drawer 3: PFP upper drawer 4: PFP lower drawer 5: LCF	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
979	Network	Raw printing job (PCL symbol set)	PRT	0 <0-39>	SYS	0: Roman-8 1: ISO 8859/1 Latin 1 2: ISO 8859/2 Latin 2 3: ISO 8859/9 Latin 5 4: PC-8,Code Page 437 5: PC-8 D/N, Danish/ Norwegian 6: PC-850,Multilingual 7: PC-852, Latin2 8: PC-8 Turkish 9: Windows 3.1 Latin 1 10: Windows 3.1 Latin 2 11: Windows 3.1 Latin 5 12: DeskTop 13: PS Text 14: Ventura International 15: Ventura US 16: Microsoft Publishing 17: Math-8 18: PS Math 19: Ventura Math 20: Pi Font 21: Legal 22: ISO 4: United Kingdom 23: ISO 6: ASCII 24: ISO 11 25: ISO 15: Italian 26: ISO 17 27: ISO 21: German 28: ISO 60: Danish/Norwegian 29: ISO 69: French 30: Windows 3.0 Latin 1 31: MC Text 32: PC Cyrillic 33: ITC Zapf Dingbats 34: ISO 8859/10 Latin 6 35: PC-775 36: PC-1004 37: Symbol 38: Windows Baltic 39: Wingdings	1
980	Electronic Filing	Electronic Filing data retention period when NIC board is not installed (Public Box)	ALL	0 <0-999>	SYS	0: Retention OFF 1 to 999: 1 to 999 days	1
981	Electronic Filing	Electronic Filing data retention period when NIC board is not installed (User Box)	ALL	0 <0-999>	SYS	0: Retention OFF 1 to 999: 1 to 999 days	1
983	User interface	JOB STATUS initial screen setting	ALL	0 <0-1>	SYS	0: Print 1: Private	1
985	Electronic Filing	Print mode setting of mixed input source of Electronic Filing	ALL	0 <0-1>	SYS	0: Image quality priority mode 1: Function priority mode	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
986	General	Copy function setting	PPC	0 <0-1>	SYS	Sets the copy function to be invalid. 0: Valid 1: Invalid	1
988	Paper feeding	Setting of paper size switching to 13" LG	ALL	0 <0-2>	SYS	0: Not switched 1: LG →13"LG 2: FOLIO →13"LG	1
995	Version	Equipment number (serial number) display	ALL	0 <10 digits>	SYS	This code can be also keyed in from the adjustment mode (05-976). 10 digits	11
999	Maintenance	FSMS total counter	ALL	0 <8 digits>	SYS	Refers to values of total counter	1
1002	Network	Selection of NIC board status information	ALL	1 <1-2>	NIC	1: Not printed out when the equipment is restarted 2: Printed out when the equipment is restarted	12
1003	Network	Communication speed and settings of Ethernet	ALL	1 <1-5>	NIC	1: Auto 2: 10MBPS Half Duplex 3: 10MBPS Full Duplex 4: 100MBPS Half Duplex 5: 100MBPS Full Duplex	12
1006	Network	Address Mode	ALL	2 <1-3>	NIC	1: Fixed IP address 2: Dynamic IP address (DHCP) 3: Dynamic IP address (DHCP) without AutoIP	12
1007	Network	Domain name	ALL	-	NIC	Maximum 96 letters	12
1008	Network	IP address	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1009	Network	Subnet mask	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1010	Network	Gateway	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1011	Network	Availability of IPX	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1012	Network	Network frame type	ALL	1 <1-5>	NIC	1: Automatic 2: IEEE802.3 3: Ethernet II 4: IEEE802.3SNAP 5: IEEE802.2	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classifi-cation**	**Items**	**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
1013	Network	Availability of NCP Burst	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1014	Network	Availability of AppleTalk	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1015	Network	Zone setting of AppleTalk	ALL	*	NIC	Maximum 32 letters *: Wildcard character	12
1016	Network	Availability of LDAP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1017	Network	Availability of DNS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1018	Network	IP address to DNS server (Primary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1019	Network	IP address to DNS server (Secondary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1020	Network	DDNS Desired level	ALL	1 <1-5>	NIC	1: Invalid 2: Via DHCP 3: Insecure DDNS 4: Secure DDNS 5: Multi-secure DDNS	12
1023	Network	NetBios name	ALL	MFP_ serial	UTY	Maximum 15 letters The Network-related serial number of the equipment appears at “serial“	12
1024	Network	Name of WINS server or IP address (Primary)	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1025	Network	Name of WINS server or IP address (Secondary)	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1026	Network	Availability of Bindery	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1027	Network	Availability of NDS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1028	Network	Directory service context	ALL	-	NIC	Maximum 127 letters	12
1029	Network	Directory service tree	ALL	-	NIC	Maximum 47 letters	12
1030	Network	Availability of HTTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1031	Network	Port number to NIC HTTP server	ALL	80 <1-65535>	NIC		12
1032	Network	Port number to system HTTP server	ALL	8080 <1-65535>	SYS		1
1037	Network	Availability of SMTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1038	Network	FQDN or IP address to SMTP server	ALL	-	NIC	Maximum 128 Bytes	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1039	Network	TCP port number of SMTP client	ALL	25 <1-65535>	NIC		12
1040	Network	Availability of SMTP server	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1041	Network	TCP port number of SMTP server	ALL	25 <1-65535>	UTY		12
1042	Network	E-mail box name to SMTP server	ALL	-	UTY	Maximum 192 letters	12
1043	Network	Availability of Offramp	ALL	2 <1-2>	UTY	1: Available 2: Not available	12
1044	Network	Offramp security	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1045	Network	Printing at Offramp	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1046	Network	Availability of POP3 clients	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1047	Network	FQDN or IP address to POP3 server	ALL	-	NIC	Maximum 128 Bytes	12
1048	Network	Types of POP3 server	ALL	1 <1-3>	NIC	1: Automatic 2: POP3 3: APOP	12
1049	Network	Login name to POP3 server	ALL	-	NIC	Maximum 96 letters	12
1050	Network	Login password to POP3	ALL	-	NIC	Maximum 96 letters	12
1051	Network	E-mail reception interval (Unit: Minute)	ALL	5 <0-4096>	NIC		12
1052	Network	TCP port number of POP3 client	ALL	110 <1-65535>	NIC		12
1055	Network	TCP port number of FTP client	ALL	21 <1-65535>	UTY		12
1057	Network	Login name to FTP server	ALL	-	SYS	Maximum 31 letters	11
1058	Network	Login password to FTP server	ALL	-	SYS	Maximum 31 letters	11
1059	Network	Availability of FTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1060	Network	TCP port number of FTP server	ALL	21 <1-65535>	UTY		12
1061	Network	Login name to FTP client	ALL	-	SYS	Maximum 31 letters	11
1062	Network	Login password to FTP client	ALL	-	SYS	Maximum 31 letters	11
1063	Network	MIB function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1065	Network	Setting of read Community	ALL	public	NIC	Maximum 31 letters	12
1066	Network	Setting of read/Write Community	ALL	private	NIC	Maximum 31 letters	12
1067	Network	Authentication TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1068	Network	ALERTS TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1069	Network	TRAP destination IP address	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1070	Network	Community setting of TRAP (via IP)	ALL	public	NIC	Maximum 31 letters	12
1073	Network	Availability of Raw/TCP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1074	Network	TCP port number of Raw	ALL	9100 <1-65535>	NIC		12
1075	Network	Availability of LPD client	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1076	Network	TCP port number of LPD	ALL	515 <1-65535>	NIC		12
1077	Network	LPD queue name	ALL	-	NIC	Maximum 31 letters	12
1078	Network	Availability of IPP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1079	Network	Availability of IPP port number “80”	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1080	Network	TCP port number of IPP	ALL	631 <1-65535>	NIC		12
1081	Network	IPP printer name	ALL	MFP_serial	NIC	Maximum 127 letters The Network-related serial number of the equipment appears at “serial“	12
1082	Network	IPP printer location	ALL	-	NIC	Maximum 127 letters	12
1083	Network	IPP printer information	ALL	-	NIC	Maximum 127 letters	12
1084	Network	IPP printer information (more)	ALL	-	NIC	Maximum 127 letters	12
1085	Network	Installer of IPP printer driver	ALL	-	NIC	Maximum 127 letters	12
1086	Network	IPP printer “Make and Model”	ALL	-	NIC	Maximum 127 letters	12
1087	Network	IPP printer information (more) MFGR	ALL	-	NIC	Maximum 127 letters	12
1088	Network	IPP message from operator	ALL	-	NIC	Maximum 127 letters	12
1089	Network	Availability of FTP print	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1090	Network	Printer user name of FTP	ALL	print	NIC	Maximum 31 letters	12
1091	Network	Printer user password of FTP	ALL	-	NIC	Maximum 31 letters	12
1092	Network	TCP port number to FTP print server	ALL	21 <1-65535>	NIC		12
1093	Network	Login name to Novell print server	ALL	MFP_serial	NIC	Maximum 47 letters The Network-related serial number of the equipment appears at “serial“	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1094	Network	Login password to Novell print server	ALL	-	NIC	Maximum 31 letters	12
1095	Network	Name of SearchRoot server	ALL	-	NIC	Maximum 31 letters	12
1096	Network	Scan rate setting of print queue	ALL	5 <1-255>	NIC	Unit: Second	12
1097	Network	Page number limitation for printing text of received E-mail	ALL	5 <1-99>	UTY		12
1098	Network	MDN return mail setting when receiving E-mail	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
1099	Network	Trap destination of IPX	ALL	-	UTY	Maximum 24 letters (Valid from 0 to 9 and from A to F)	12
1100	Network	Method of SMTP server authentication	ALL	5 <1-7,10>	NIC	1: Disable 2: Plain 3: Login 4: Cram-MD5 5: Digest MD5 6: Kerberos 7: NTLM 10: Auto	12
1101	Network	Login name for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1102	Network	Login password for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1103	Network	Rendezvous setting	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1104	Network	Link local host name	ALL	MFP_ serial	NIC	Maximum 127 letters The Network-related serial number of the equipment appears at “serial“	12
1105	Network	Service name setting	ALL	Refer to content	NIC	Maximum 63 letters The Network-related serial number of the equipment appears at “serial“ <Default value> e-STUDIO202L: TOSHIBA e-STUDIO202L_serial e-STUDIO203L: TOSHIBA e-STUDIO203L_serial e-STUDIO232: TOSHIBA e-STUDIO232_serial e-STUDIO233: TOSHIBA e-STUDIO233_serial e-STUDIO282: TOSHIBA e-STUDIO282_serial e-STUDIO283: TOSHIBA e-STUDIO283_serial	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1112	Network	Host name	ALL	MFP_serial	NIC	Maximum 63 letters The Network-related serial number of the equipment appears at “serial“	12
1113	Network	Windows domain No.1 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1114	Network	Sending mail text of InternetFAX	ALL	1 <0-1>	SYS	0: Invalid (Not sending the mail text) 1: Valid (Sending the mail text)	1
1117	Network	SMB time-out period	ALL	300 <1-9999>	SYS	Unit: Second	1
1118	General	Clearing of TAT partition	ALL	-	SYS		3
1119	Network	Initialization of NIC information	ALL	-	-	Initializes only the information of the Network setting items.	3
1121	Network	PDC (Primary Domain Controller) name	ALL	-	UTY	Maximum 128 letters	12
1122	Network	BDC (Backup Domain Controller) name	ALL	-	UTY	Maximum 128 letters	12
1123	Network	NT domain ON/OFF setting	ALL	4 <3-4>	UTY	3: ON (Domain selected) 4: OFF (Work group selected)	12
1124	Network	Workgroup name	ALL	workgroup	UTY	Maximum 15 letters	12
1125	General	Data writing of address book data import (overwriting method)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1126	Counter	Validity of interrupt copying when external counters are installed	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1128	Network	NetwareUserAuthTree Name1	ALL	-	UTY	Maximum 47 letters	12
1129	Network	NetwareUserAuthContext Name1	ALL	-	UTY	Maximum 127 letters	12
1130	User interface	Job Build Function	ALL	1 <0-1>	SYS	Sets the Job Build Function. 0: Invalid 1: Valid	1
1131	User interface	Maximum number of time job build performed	ALL	2000 <5-2000>	SYS	Sets the maximum number of time a job build has been performed. 5-2000: 5 to 2000 times	1
1132	General	Default screen selection of the User Function menu	ALL	1 <0-1>	SYS	Selects the default screen when entering the User Function menu by pressing the [USER FUNCTIONS] button. 0: ADDRESS 1: COUNTER	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1133	Paper feeding	Feeding direction setting of envelope	ALL	0 <0-1>	SYS	Sets the feeding direction of envelopes. 0: Envelope flap comes on its trailing edge (front side of the equipment) 1: Envelope flap comes on its leading edge (rear side of the equipment)	1
1134	Network	NetwareUserAuthTree Name2	ALL	-	UTY	Maximum 47 letters	12
1135	Paper feeding	Default setting of drawers (Printer/BOX)	PRT	1 <1-5>	SYS	1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
1138	Network	LDAP search method setting	ALL	0 <0-3>	SYS	Sets the search method when performing a LDAP search. 0: Partial match 1: Prefix match 2: Suffix match 3: Full match	1
1139	Network	LDAP authentication setting	ALL	0 <0-1>	SYS	0: Not authenticated 1: Authenticated	1
1140	User interface	Restriction of the template function with the administrator privilege	ALL	0 <0-1>	SYS	Selects the restriction of the template function usage setting. 0: No restriction 1: Only available with the administrator privilege.	1
1141	Network	Display of MAC address	ALL	-	SYS	(**:**:**:**:**:**) The address is displayed as above (6-byte data is divided by a colon at every 2 bytes).	2
1143	Network	NetwareUserAuthContext Name2	ALL	-	UTY	Maximum 127 letters	12
1144	Network	NetwareUserAuthTree Name3	ALL	-	UTY	Maximum 47 letters	12
1145	Maintenance (Remote)	Counter notification Remote FAX setting	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [MONITOR/PAUSE] button.	11
1148	Network	NetwareUserAuthContext Name3	ALL	-	UTY	Maximum 127 letters	12
1149	General	Enhanced bold for PCL6	ALL	0 <0-1>	SYS	0:OFF 1:ON	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1372	Counter	Heater and energizing time accumulating counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when power of the equipment is ON) but does not count at the Sleep Mode. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1
1376	Counter	Toner cartridge drive counter	ALL	0 <8 digits>	M	Counts the rotation number of the toner cartridge.	1
1378	Counter	Counter for period of time fuser unit is at ready temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is at ready status). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1380	Counter	Counter for period of time fuser unit is at printing temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (during printing). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1382	Counter	Counter for period of time fuser unit is at energy saving temperature/Counter reset	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is in the Energy Saving Mode). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1385	Image processing	Number of output pages (Thick paper 1)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1
1386	Image processing	Number of output pages (Thick paper 2)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1387	Image processing	Number of output pages (Thick paper 3)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1388	Image processing	Number of output pages (OHP film)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1390	Paper feeding	Feeding retry counter (upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the upper drawer.	1
1391	Paper feeding	Feeding retry counter (lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the lower drawer.	1
1392	Paper feeding	Feeding retry counter (PFP upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP upper drawer.	1
1393	Paper feeding	Feeding retry counter (PFP lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP lower drawer.	1
1394	Paper feeding	Feeding retry counter (bypass feed)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the bypass tray.	1
1395	Paper feeding	Feeding retry counter (LCF)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the LCF.	1
1396	Paper feeding	Feeding retry counter upper limit value (Upper drawer)	ALL	0 <8 digits>	M	When the number of feeding retry (08-1390 to 08-1395) exceeds the setting value, the feeding retry will not be performed subsequently. In case “0” is set as a setting value, however, the feeding retry continues regardless of the counter setting value.	1
1397	Paper feeding	Feeding retry counter upper limit value (Lower drawer)	ALL	0 <8 digits>	M		1
1398	Paper feeding	Feeding retry counter upper limit value (PFP upper drawer)	ALL	0 <8 digits>	M		1
1399	Paper feeding	Feeding retry counter upper limit value (PFP lower drawer)	ALL	0 <8 digits>	M		1
1400	Paper feeding	Feeding retry counter upper limit value (Bypass feed)	ALL	0 <8 digits>	M		1
1401	Paper feeding	Feeding retry counter upper limit value (LCF)	ALL	0 <8 digits>	M		1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1410	Counter	Counter for period of toner cartridge rotation time	ALL	0 <8 digits>	M	Counts up the period of rotation time of the toner cartridge.	1
1411	Counter	Counter for envelope	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is reset, this counter is reset in sync at the PM support mode.	1
1422	Data overwrite kit	HDD data overwriting type setting	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1060 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1
1424	Data overwrite kit	HDD data clearing type setting (forcible clearing)	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1060 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1
1426	Data overwrite kit	Forcible HDD data clearing	ALL	-	-	HDD data is cleared in the procedure set in 08-1424. * This setting is enabled only when the GP-1060 is installed.	3
1427	Data overwrite kit	Forcible NVRAM data all clearing	ALL	-	-	When this code is performed, the equipment cannot be started up. * This setting is enabled only when the GP-1060 is installed.	3
1428	Data overwrite kit	Forcible SRAM backup data all clearing	ALL	-	-	When this code is performed, the equipment cannot be started up. * This setting is enabled only when the GP-1060 is installed.	3
1429	User interface	Margin width (Top/Bottom, Left/Right)	ALL	Front: 7/ Back: 7 <2-100/-100-100>	SYS	This setting is not reflected in "Right", even if the value less than 2 is set for "Back".	10
1430	User interface	Margin width (Bookbinding margin)	ALL	14 <2-30>	SYS		1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1431	Network	ACC (AT_CASETTE_CHANGE) for Printer/Box printing	ALL	1 <0-2>	SYS	0: ACC prohibited 1: Only in the same paper direction 2: In both same direction and different directions	1
1432	Network	Mode only for Private Print	ALL	0 <0-1>	SYS	0: Normal mode 1: Mode for Private Print	1
1435	Network	"Disable private and proof print save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1
1436	Network	"Disable fax save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted	1
1437	Paper feeding	Hole punch on tab paper	ALL	0 <0-1>	SYS	0: No hole punch 1: Hole punch	1
1438	Paper feeding	Automatic feed setting of tab paper and insertion sheet (Remote)	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
1439	Paper feeding	Automatic feed setting of tab paper and insertion sheet (Local)	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
1440	Network	IP Conflict Detect	ALL	1 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1441	Network	SNTP Enable	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1442	Network	SNTP Polling rate	ALL	24 <1-168>	-	Data obtaining interval (Unit: Hour)	12
1444	Network	Primary SNTP Address	ALL	-	-	SNTP server IP Address (Primary)	12
1445	Network	Secondary SNTP Address	ALL	-	-	SNTP server IP Address (Secondary)	12
1446	Network	Port number to SNTP	ALL	123 <1-65535>	-		12
1447	Network	IPP administrator name	ALL	-	-	This should be an account which can control all IPP jobs.	12
1448	Network	IPP administrator password	ALL	-	-	This should be the password of an account which can control all IPP jobs.	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1449	Network	IPP authentication method	ALL	1 <1-4>	-	1: Disabled 2: Basic 3: Digest 4: Basic Digest	12
1450	Network	User name for IPP authentication	ALL	-	-	This should be the account at the time IPP authentication was performed.	12
1451	Network	Password for IPP authentication	ALL	-	-	This should be the password of the account at the time IPP authentication was performed.	12
1464	Network	Samba server ON/OFF setting	ALL	1 <1-4>	NIC	1: Samba enabled 2: Samba disabled 3: Print Share disabled 4: File Share disabled	12
1470	General	Device authentication function setting	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1471	General	User authentication method	ALL	0 <0-5>	SYS	0: Local 1: NTLM (NT Domain) 2: LDAP 3: Kerberos (Active Directory) 4: Netware	1
1472	General	User data management automatic registration function setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1473	General	User data management limitation setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1474	General	User data management limitation Setting by number of printouts	ALL	0 <7 digits>	SYS	0-9,999,999: 0-9,999,999 sheets	1
1476	Network	Restriction on Address book operation by administrator	ALL	0 <0-1>	SYS	Some restrictions can be given on the administrator for operating the Address book. 0: No restriction 1: Can be operated only under the administrator's authorization	1
1477	Network	Restriction on "To" ("cc") address	ALL	0 <0-3>	SYS	0: No restriction 1: Can be set from both of the Address book and LDAP server 2: Can be set only from the Address book 3: Can be set only from the LDAP server	1
1478	User interface	Display of paper size setting by installation operation of drawers	ALL	JPN: 0 UC: 1 EUR: 0 <0-1>	SYS	0: Not displayed 1: Displayed	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1479	User interface	Default setting of sharpness	ALL	5 <1-9>	SYS	1: -4 2: -3 3: -2 4: -1 5: 0 6: +1 7: +2 8: +3 9: +4	1
1481	General	User data management clearing	ALL	-	-	All the user data in the database and backup files can be deleted.	3
1482	General	User data department management	ALL	0 <0-1>	SYS	0: Invalid 1: Valid * When this code is set to “1” (Valid), the department management setting (08-629) should be “1” (Valid).	1
1483	General	User data recovery	ALL	-	-	The data in the database is overwritten with the data in the backup file.	3
1484	Network	Authentication method of "Scan to Email”	ALL	0 <0-2>	SYS	0: Disable 1: SMTP authentication 2: LDAP authentication	1
1485	Network	Setting whether use of Internet FAX is permitted or not when it is given an authentication	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1487	Network	"From" address assignment method when it is given an authentication	ALL	0 <0-2>	SYS	0: "User name" + @ + "Domain name" 1: LDAP search 2: Use the address registered in "From" field of E-mail setting	1
1489	Network	Setting for "From" address edit at "Scan to Email”	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1491	Network	E-mail domain name	ALL	-	SYS	96+2 (delimiter) character ASCII sequence only	11
1492	Paper feeding	Detection method of 13" LG for single-size document	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1493	Network	Role Base Access Function	ALL	0 <0-1>	SYS	0: Function off (No restriction on data saving and other operations) 1: Function on (Data saving and other operations have some restrictions)	1
1494	General	Limitation check method	ALL	0 <0-1>	SYS	0: Checked at every page printed 1: Checked at every job printed	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classifi-cation**	**Items**		**Func-tion**	**Default <Accept-able value>**	**RAM**	**Contents**	**Proce-dure**
1495	Mainte-nance	Service call checking period setting		ALL	6 <0-12>	-	0: No checking period specified (= Calls service technician immediately) 0: 10 minutes 1: 30 minutes 3: 1 hour 4: 6 hours 5: 12 hours 6: 24 hours 7: 48 hours 8: 7 days 9: 1 month 10: 1 year 11: 5 years 12: Not limited (= Calls service technician if such error has occurred in the past even once or more)	12
1496	General	Operation setting for User authentication/registration		ALL	1 <0-1>	SYS	0 : Disables operation setting for User authentication/regis-tration 1 : Enables operation setting for User authentication/regis-tration	1
1497	Network	e-Filing Access Mode (for Client)		ALL	0 <0-2>	SYS	0: Mode 1 1: Mode 2 2: Mode 3	1
1498	FAX	Inbound FAX function (Forwarding by TSI)			1 <0-1>	SYS	0: OFF (Function disabled) 1: ON (Function enabled)	1
1530-0	Counter	Number of output pages	1-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
1530-1			2-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
1530-2			2-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1530-3			4-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1530-4			4-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1530-7			1-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1533-0	Counter	Number of output pages of the printer or BOX	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
1533-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT]. * When printing is performed using a Windows driver, the 1-UP image will be output.	4
1533-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1533-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1533-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1533-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
1533-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
1533-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages .	4
1535-0	Counter	Number of output pages of the FAX printing (1-UP / Duplex printing)	1-UP / Duplex printing	FAX	0 <8 digits>	SYS	Counts the number of sheets in the default settings.	4
1535-7			1-UP / Simplex printing	FAX	0 <8 digits>	SYS		4
1660	Wireless LAN	Wireless LAN driver Radio ON/OFF setting		ALL	1 <1-2>	-	1: OFF 2: ON	12
1661	Wireless LAN	Wireless LAN driver SSID		ALL	-	-	Maximum 32 letters	12
1662	Wireless LAN	Wireless LAN driver Network type		ALL	1 <1-2>	-	1: Infrastructure 2: Ad-Hoc	12
1663	Wireless LAN	Wireless LAN driver Security		ALL	4 <1-7>	-	1: 802.1x 2: WPA-PSK 3: WEP 4: NONE 5: WPA 6: WPA2 7: WPA2PSK	12
1664	Wireless LAN	Wireless LAN driver Encryption system		ALL	1 <1-3>	-	1: TKIP 2: AES 3: Dynamic WEP	12
1665	Wireless LAN	Wireless LAN driver Transmission output power		ALL	1 <1-5>	-	1: 100% 2: 50% 3: 25% 4: 12.5% 5: min	12
1666	Wireless LAN	Wireless LAN driver Transmission rate		ALL	1 <1-2>	-	1: Auto 2: Manual	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1667	Wireless LAN	Wireless LAN driver Transmission rate value	ALL	1 <1-12>	-	1: 1 2: 2 3: 5.5 4: 11 5: 6 6: 9 7: 12 8: 18 9: 24 10: 36 11: 48 12: 54	12
1668	Wireless LAN	Wireless LAN driver Operation channel	ALL	1 <1-2>	-	1: Auto 2: Manual	12
1669	Wireless LAN	Wireless LAN driver Operation channel value	ALL	1 <1-11>	-		12
1670	Wireless LAN	Wireless LAN driver WEP bit number	ALL	1 <1-3>	-	1: 64 2: 128 3: 152	12
1671	Wireless LAN	Wireless LAN driver WEP key entry system	ALL	2 <1-2>	-	1: Hex 2: ASCII	12
1672	Wireless LAN	Wireless LAN driver WEP key value	ALL	-	-	Maximum 32 letters	12
1673	Wireless LAN	Wireless LAN driver WPA-PSK passphrase	ALL	-	-	Maximum 64 letters	12
1674	Wireless LAN	Wireless LAN driver Sleep mode setting	ALL	1 <1-3>	-	1: Off 2: Max 3: Normal	12
1675	Wireless LAN	Wireless LAN driver Slot-time limitation	ALL	1 <1-2>	-	1: Long 2: Short	12
1676	Wireless LAN	Wireless LAN driver Number of times of software retry	ALL	5 <0-1000>	-		12
1677	Wireless LAN	Wireless LAN driver Preamble	ALL	1 <1-2>	-	1: Long 2: Longshort	12
1678	Wireless LAN	Wireless LAN driver Operation mode	ALL	1 <1-3>	-	1: All 2: 11b 3: 11g	12
1679	Wireless LAN	Wireless LAN supplicant Wireless LAN setting	ALL	1 <1-3>	-	This setting is whether the wireless LAN connection is enabled or disabled. 1: Unset 2: Enabled 3: Disabled	12
1681	Wireless LAN	Wireless LAN supplicant Path name for client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12
1682	Wireless LAN	Wireless LAN supplicant Path name for secret key of client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12
1684	Wireless LAN	Wireless LAN supplicant Path name for CA self-certificate	ALL	-	-	This should be the path name in full where the CA self-certificate is located. (Maximum 255 letters)	12
1685	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the EAP-TLS is used.	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1686	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the PEAP is used.	12
1689	Wireless LAN	Wireless LAN supplicant Authentication interval	ALL	30 <30-65535>	-	This should be the time-out interval between EAP responses. 30: 30 seconds	12
1690	Wireless LAN	Wireless LAN supplicant Holding interval	ALL	60 <60-65535>	-	The EAP authentication will start after having been waited in this period when an EAP failure was received. 60: 60 seconds	12
1691	Wireless LAN	Wireless LAN supplicant EAPOL-Start Number of times of packet retry	ALL	3 <1-65535>	-	When an EAPOL-Start packet has been sent and the request ID cannot be received, this EAPOL-Start packet will be re-sent for the number of times set in this code. 3: 3 times	12
1692	Wireless LAN	Wireless LAN supplicant Session resume	ALL	2 <1-2>	-	This setting is whether the pre-master key should be updated or not upon a TLS re-negotiation. 1: Session is resumed 2: Session is not resumed	12
1693	Wireless LAN	Wireless LAN supplicant MAC Frame size	ALL	1398 <1-1398>	-	This is a MAC frame size used in the wireless LAN connection. The data is fragmented into this size. 1398: 1398 bytes	12
1696	Wireless LAN	Wireless LAN supplicant Device file setting for obtaining random number	ALL	/dev/urandom	-	This should be the device file name which can obtain a seed to initialize the WEP PRNG for xsupplicant. (Maximum 255 letters)	12
1697	Wireless LAN	Wireless LAN supplicant CRL directory designation	ALL	-	-	This should be the path name of the directory in full where the CRL file is located. (Maximum 255 letters)	12
1699	Wireless LAN	Wireless LAN supplicant EAP authentication type	ALL	1 <1-3>	-	This setting is for the EAP authentication type which xsupplicant can authenticate. 1: EAP-TLS 2: PEAP 3: EAP-TLS and PEAP	12
1700	Wireless LAN	Wireless LAN supplicant CN name	ALL	-	-	This should be an authentication server name (basically a domain name in full). (Maximum 255 letters)	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1701	Wireless LAN	Wireless LAN supplicant CN name check	ALL	1 <1-2>	-	1: NO 2: YES	12
1704	Wireless LAN	Wireless LAN supplicant Update interval of PTK (Pairwise Transient Key)	ALL	0 <0-720>	-	The update interval of a secret key across AP (Access Point) and STA (Station) can be set. This interval is for updating the secret key from STA. 0: Not updated 1-720: 1-720 minutes of interval	12
1705	Wireless LAN	Wireless LAN supplicant Strict packet check	ALL	1 <1-2>	-	The Ack bit and request bit of EAPOL-Key is checked. 1: Not checked 2: Checked	12
1706	Wireless LAN	Wireless LAN supplicant Priority change at 4-way handshake	ALL	1 <1-2>	-	A higher priority is given to the xsupplicant task when a 4-way handshake is started. 1: Priority not changed 2: Priority changed	12
1707	Wireless LAN	Wireless LAN supplicant Security level	ALL	1 <1-3>	-	The encryption capability output in TLS clientHello message can be selected. 1: LOW 2: MIDDLE 3: HIGH	12
1708	User interface	Selectable security level (EAP-TLS)	ALL	1 <1-3>	-	These are the security level which can be selected from the user interface. This setting is not applied in case of PEAP. ("LOW" and "MIDDLE" is mandatory for PEAP) 1: LOW + MIDDLE + HIGH 2: MIDDLE + HIGH 3: HIGH	12
1709	Bluetooth	Bluetooth Installation status of option	ALL	0 <0-1>	SYS	0: Not installed 1: Installed	1
1710	Bluetooth	Bluetooth ON/OFF setting	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1711	Bluetooth	Bluetooth Device name	ALL	MFP	SYS	Maximum 32 letters	11
1712	Bluetooth	Bluetooth Discovery	ALL	1 <0-1>	SYS	0: Not allowed 1: Allowed	1
1713	Bluetooth	Bluetooth Security	ALL	1 <0-1>	SYS	0: Security function OFF 1: Security function ON	1
1714	Bluetooth	Bluetooth PIN	ALL	0000	SYS	Maximum 8 digits (8-digit sequence) This setting is valid only when the bluetooth security function is ON.	11

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1715	Bluetooth	Bluetooth Data encryption	ALL	1 <0-1>	SYS	0: Not encrypted 1: Encrypted This setting is valid only when the bluetooth security function is ON.	1
1716	Bluetooth	Bluetooth HCRP reception time-out period	ALL	6 <1-50>	SYS	Setting value ~ 0.5 sec.	1
1717	Bluetooth	Bluetooth HCRP transmission time-out period	ALL	6 <1-50>	SYS	Setting value ~ 0.5 sec.	1
1719	Bluetooth	Bluetooth BIP Paper type	ALL	1 <0-3>	SYS	0: Fit page 1: 1/2 size 2: 1/4 size 3: 1/8 size	1
1720	Network	IP address range for IP filter (Minimum area 1)	ALL	-	-	IP filter minimum area 1 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1721	Network	IP address range for IP filter (Maximum area 1)	ALL	-	-	IP filter maximum area 1 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1722	Network	IP address range for IP filter I (Minimum area 2)	ALL	-	-	IP filter minimum area 2 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1723	Network	IP address range for IP filter (Maximum area 2)	ALL	-	-	IP filter maximum area 2 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1724	Network	IP address range for IP filter (Minimum area 3)	ALL	-	-	IP filter minimum area 3 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1725	Network	IP address range for IP filter (Maximum area 3)	ALL	-	-	IP filter maximum area 3 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1726	Network	IP address range for IP filter (Minimum area 4)	ALL	-	-	IP filter minimum area 4 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1727	Network	IP address range for IP filter (Maximum area 4)	ALL	-	-	IP filter maximum area 4 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1728	Network	IP address range for IP filter (Minimum area 5)	ALL	-	-	IP filter minimum area 5 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1729	Network	IP address range for IP filter (Maximum area 5)	ALL	-	-	IP filter maximum area 5 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1730	Network	IP address range for IP filter (Minimum area 6)	ALL	-	-	IP filter minimum area 6 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1731	Network	IP address range for IP filter (Maximum area 6)	ALL	-	-	IP filter maximum area 6 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1732	Network	IP address range for IP filter (Minimum area 7)	ALL	-	-	IP filter minimum area 7 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1733	Network	IP address range for IP filter (Maximum area 7)	ALL	-	-	IP filter maximum area 7 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1734	Network	IP address range for IP filter (Minimum area 8)	ALL	-	-	IP filter minimum area 8 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1735	Network	IP address range for IP filter (Maximum area 8)	ALL	-	-	IP filter maximum area 8 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1736	Network	IP address range for IP filter (Minimum area 9)	ALL	-	-	IP filter minimum area 9 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1737	Network	IP address range for IP filter (Maximum area 9)	ALL	-	-	IP filter maximum area 9 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1738	Network	IP address range for IP filter (Minimum area 10)	ALL	-	-	IP filter minimum area 10 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1739	Network	IP address range for IP filter (Maximum area 10)	ALL	-	-	IP filter maximum area 10 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1740	Network	SSL setting HTTP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1741	Network	SSL setting HTTP server port number	ALL	10443 <1-65535>	-	SSL HTTP server port number	12
1742	Network	SSL setting IPP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1743	Network	SSL setting IPP server port number	ALL	443 <1-65535>	-	SSL IPP server port number	12
1744	Network	SSL setting SSL ftp server OFF/ON	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1745	Network	SSL setting SSL ftp server Port	ALL	990 <1-65535>	-	Port number to FTP Server	12
1746	Network	SSL setting SSL LDAP Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1747	Network	SSL setting SSL LDAP Client Port	ALL	636 <1-65535>	-	Port number to LDAP Server	12
1748	Network	SSL setting SSL POP3 Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1749	Network	SSL setting SSL POP3 Client Port	ALL	995 <1-65535>	-	Port number to POP3 Server	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1750	Network	SSL setting SSL SMTP Client OFF/ON	ALL	2 <2-6>	-	2: Invalid 3: Accept all certificates of SMTP with TLS (STARTTLS) server 4: Accept all certificates of SMTPS (SMTP OverSSL) server 5: Use imported certificates of SMTP with TLS (STARTTLS) server 6: Use imported certificates of SMTPS (SMTP OverSSL) server	12
1751	Network	SSL setting SSL SMTP Client Port	ALL	465 <1-65535>	-	Port number to SMTP Server	12
1755	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	Domain Name Server option (6) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1756	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	NetBIOS over TCP/IP Name Server option (44) = Primary and Secondary Wins NAME 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1757	Network	Enabling server's IP address acquired by DHCP	ALL	1 <1-2>	-	The Host Name Vendor Extension option (12) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1759	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SMTP Server Option (69) Simple Mail Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1760	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	POP3 Server Option (70) Post Office Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1762	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SNTP Server Option (42) NTP Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1764	Wireless LAN	Wireless LAN supplicant Control sequence setting of "Cipher Suite"	ALL	-	-	Maximum 255 letters	12
1765	Wireless LAN	Wireless LAN supplicant Path name for user certificate	ALL	-	-	Maximum 63 letters	12
1766	Wireless LAN	Wireless LAN supplicant Path name entered for CA self-certificate	ALL	-	-	Maximum 63 letters	12
1767	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	SYS	DNS domain name Option (15) DNS domain name of the client 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1768	Network	Previous IP address	ALL	-	-	000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1772	General	Card reading device setting	ALL	0 <8 digits>	SYS	To enable the e-Bridge ID Gate, a card reading device should be set in the order of "ABYYZZZZ". (Enter the corresponding values to "A", "B", "YY" and "ZZZZ".) - AB:Special setting - A :Debugging NIC 0: Not used 1: Used - B :Interface 0: USB connection 1: N/A - YY: Authentication 00: No authentication using a noncontact IC card 02: Authentication using a noncontact IC card (KP-2003) 03: Authentication using a noncontact IC card (KP-2005) 04: Authentication using a noncontact IC card (KP-2004) - ZZZZ: Sub-code 0000: No authentication using a noncontact IC card 0001: Use CSN (Card Serial Number) of a noncontact IC card 0002: Use the Data Area Address Information of a noncontact IC card	5

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1773	General	Card reader format information -1	ALL	-	SYS	To access the data in the noncontact IC card, the Key Information "LLLL" and the Sector Number "MMMM" should be set. The "LLLL" should be set first, and then "MMMM". KP-2003: LLLL: System code (hexadecimal number) MMMM: Service code (hexadecimal number) KP-2005: LLLL : Key information MMMM: Sector number (hexadecimal number)	5
1774	General	Card reader format information -2	ALL	-	SYS	The data of the block number in the noncontact IC is set. KP-2003: <PPQRSSTU (hexadecimal number)> PP:1st block Q: 1st block beginning byte R: 1st block ending-byte SS:2nd block T: 2nd block beginning byte U: 2nd block ending byte KP-2005: <RRBSEbse (hexadecimal number)> RR:00 (Fixed) B: 1st area block number S: 1st area beginning byte offset E: 1st area ending byte offset b: 2nd area block number s: 2nd area beginning byte offset e: 2nd area ending byte offset * If the 2nd block/area is not used, set the SSTU to "FFFF" (hexadecimal number), the bse to"FFF" (hexadecimal number).	5

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1775	General	Card reader format information -3		ALL	-	SYS	Security key “KKKKKKKKKKKK” (12 digits) <hexadecimal number> in the [Key Information] of the [Sector Number] set in the code 08-1773 should be entered.	5
1776	General	Card authentication LDAP server		ALL	0 <0-100>	SYS	LDAP server number for the card authentication when a noncontact IC card is used should be set.	1
1777	General	Card authentication LDAP search index		ALL	-	SYS	LDAP search index when a noncontact IC card is used is set.	11
1778	General	Hang-up period of control panel at the 3rd misentry of administrator's password		ALL	1 <0-7>	SYS	0: No hang-up 1: 0.5 minutes (= 30 seconds) 2: 1 minute 3: 3 minutes 4: 5 minutes 5: 10 minutes 6: 15 minutes 7: 30 minutes	1
1779	Network	Default data saving directory of "Scan to File"		ALL	0 <0-2>	SYS	0: Local directory 1: REMOTE 1 2: REMOTE 2	1
1781-0	Network	Notification of scan job	When job completed	ALL	0 <0-1>	SYS	Sets the notification method of scan job completion. 0: Invalid 1: Valid	4
1781-1			On error	ALL	0 <0-1>	SYS		4
1782	Network	File name format of "Save as file" and Email transmission		ALL	0 <0-6>	SYS	Sets the naming method of the file of "Save as file" and Email transmission. 0: [FileName]-[Data]-[Page] 1: [FileName]-[Page]-[Data] 2: [Data]-[FileName]-[Page] 3: [Data]-[Page]-[FileName] 4: [Page]-[FileName]-[Data] 5: [Page]-[Data]-[FileName] 6: [HostName]_[Data]-[Page]	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1783	Network	Date display format of the file name of "Save as file" and Email transmission	ALL	0 <0-5>	SYS	Sets the data display format of the file of "Save as file" and Email transmission. 0: [YYYY][MM][DD] [HH][mm][SS] 1: [YY][MM][DD] [HH][mm][SS] 2: [YYYY][MM][DD] 3: [YY][MM][DD] 4: [HH][mm][SS] 5: [YYYY][MM][DD] [HH][mm][SS][mm0] The order of [YY], [MM] and [DD] varies depending on the setting of the code 08-640 (Data display format).	1
1784	Network	Single page data saving directory at "Save as file"	ALL	0 <0-1>	SYS	Sets the directory where the file of "Save as file" is saved. 0: Save it under a subfolder 1: Save it without creating a subfolder	1
1785	Network	Page number display format of the file of "Save as file" and Email transmission	ALL	4 <3-6>	SYS	Sets the digit of a page number attached on the file. 3-6: 3-6 digits	1
1786	Network	Extension (suffix) format of the file of "Save as file"	ALL	3 <3-6>	SYS	Sets the extension digits of the file to be saved. 3: Auto 4: 4 digits 5: 5 digits 6: 6 digits	1
1850	Network	IPP MaxConnection	ALL	16 <1-16>	NIC	Number of maximum connections(IPP).	12
1851	Network	IPP ActiveConnection	ALL	10 <1-16>	NIC	Number of active connections(IPP).	12
1852	Network	LPD MaxConnection	ALL	10 <1-16>	NIC	Number of maximum connections(LPD).	12
1853	Network	LPD ActiveConnection	ALL	10 <1-16>	NIC	Number of active connections(LPD).	12
1854	Network	AppleTalk MaxConnection	ALL	10 <1-16>	NIC	Number of maximum connections(AppleTalk).	12
1855	Network	AppleTalk ActiveConnection	ALL	10 <1-16>	NIC	Number of active connections(AppleTalk).	12
1856	Network	RawPrint MaxConnection	ALL	10 <1-16>	NIC	Number of maximum connections(RawPrint).	12
1857	Network	RawPrint ActiveConnection	ALL	10 <1-16>	NIC	Number of active connections(RawPrint).	12
1913	General	Page number addition on multipage file names of "File/Email"	ALL	0 <0-1>	SYS		1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1914	General	Maximum number of decimals in extension fields	ALL	2 <0-6>	SYS	0: 0 digit 1: 1 digit 2: 2 digits 3: 3 digits 4: 4 digits 5: 5 digits 6: 6 digits	1
1915	Network	Filing size for Network scanning function	ALL	0 <0-1>	SYS	0: Eliminates 2 mm from circumference (Void: 2 mm) 1: No space eliminated (Void: 0 mm)	1
1916	General	Default saving/attachment files of "File/Email"	ALL	0 <0-1>	SYS		1
1920	Network	Device domain name of device authentication	ALL	-	UTY	Maximum 128 letters	12
1921	Network	Windows domain No. 2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1922	Network	Windows domain No. 3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1923	Network	LDAP authentication Server type	ALL	1 <1-2>	NIC	1: Windows Server 2: Not Windows Server	12
1924	Network	LDAP authentication User attribute	ALL	-	NIC	Sets a user attribute name.	12
1925	Network	Execution of user authentication when the user ID is not entered	ALL	2 <0-2>	SYS	0: Forcible execution 1: Execution impossible (pooled in the invalid queue) 2: Forcible deletion	1
1926	FAX	Tab/cover sheet printing at FAX reception Printing stop function	ALL	0 <0-1>	SYS	Sets on or off of the printing function of special sheets such as tab or cover sheet of FAX, Email or list print. 0: Function off 1: Function on	1
1927	Network	LDAP server attribute name setting for card authentication	ALL	eBMUser Card	SYS	Up to 32 letters	11
1928	Network	Role Based Access LDAP search index	ALL	0 <0-4294967295>	SYS	This code is used to specify the ID for the LDAP server to implement Role-Based Access Control.	5
1929	User interface	Keyboard layout for Language 1	ALL	0 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1
1930	User interface	Keyboard layout for Language 2	ALL	1 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1
1931	User interface	Keyboard layout for Language 3	ALL	EUR:2 Other:0 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1932	User interface	Keyboard layout for Language 4	ALL	0 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1
1933	User interface	Keyboard layout for Language 5	ALL	0 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1
1934	User interface	Keyboard layout for Language 6	ALL	0 <0-2>	SYS	0: QWERTY layout (for Europe 1: QWERTZ layout 2: AZERTY layout	1
1935	User interface	Keyboard layout for Language 7	ALL	0 <0-2>	SYS	0: QWERTY layout (for Europe) 1: QWERTZ layout 2: AZERTY layout	1
1936	Network	AppleTalk device name	ALL	MFP_ serial	UTY	Maximum 32 letters The Network-related serial number of the equipment appears at "serial".	12
1937	Network	User name and password at user authentication or "Save as file"	ALL	0 <0-2>	SYS	0: User name and password of the device 1: User name and password at the user authentication (Template registration information comes first when a template is retrieved.) 2: User name and password at the user authentication (User information of the authentication comes first when a template is retrieved.)	1
1940	General	STAGE port number	SCN	20080 <0-65535>	SYS	Port number used for the remote scanning is set.	1
1941	Bluetooth	Bluetooth BIP Paper size	ALL	EUR: 6 UC: 2 JPN: 6 <0-13>	SYS	0: Ledger 1: Legal 2: Letter 3: Computer 4: Statement 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: Folio 12: Legal13" 13: LetterSquare	1
1942	Network	Device authentication PDC/BDC time-out period	ALL	60 <1-180>	NIC	Unit: Second	12
1943	Network	User authentication PDC/BDC time-out period	ALL	30 <1-180>	NIC	Unit: Second	12
1944	Network	Device/User authentication Method of Windows domain authentication	ALL	1 <1-3>	NIC	1: Auto 2: Kerberos 3: NTLMv2	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1950	Network	SMB signature for SMB server	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1951	Network	SMB signature for SMB client	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1952	Network	Device name for device authentication	ALL	-	UTY	Maximum 128 letters	12
1953	Network	Password for the device name used for device authentication	ALL	-	UTY	Maximum 128 letters	12
1954	Network	PDC2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1955	Network	BDC2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1956	Network	PDC3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1957	Network	BDC3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1958	Network	PDC of device authentication	ALL	-	UTY	Maximum 128 letters	12
1959	Network	BDC of device authentication	ALL	-	UTY	Maximum 128 letters	12
1960	General	KS Filter operation mode	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1961	General	KS/KSSM setting all clearing	ALL	-	-	Does not reset the value of the code 08-1960 but resets those of the codes 08-1963 to 1994.	3
1963	General	KS Filter Emulation Mode	ALL	0 <0-2>	SYS	0: Auto 1: KS 2: KSSM	1
1964	General	KS Filter Paper Size	ALL	1 <0-5>	SYS	0: A3 1: A4 2: B4 3: B5 4: Letter 5: Legal	1
1965	General	KS Filter Orientation	ALL	0 <0-1>	SYS	0: Portrait 1: Landscape	1
1966	General	KS Filter Copies	ALL	1 <1-999>	SYS		1
1967	General	KS Paper Source	ALL	0 <0-1>	SYS		1
1968	General	KS Duplex Mode	ALL	0 <0-2>	SYS		1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1970	General	KS CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1971	General	KS LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1
1972	General	KS Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1
1973	General	KS Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1974	General	KS Zoom	ALL	100 <20-400>	SYS		1
1975	General	KS CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1
1976	General	KS Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1977	General	KS Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1978	General	KS Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1979	General	KS Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1980	General	KS Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1984	General	KSSM CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1985	General	KSSM LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1
1986	General	KSSM Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1
1987	General	KSSM Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1988	General	KSSM Zoom	ALL	100 <20-400>	SYS		1
1989	General	KSSM CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1
1990	General	KSSM Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1991	General	KSSM Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1992	General	KSSM Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1993	General	KSSM Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1994	General	KSSM Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
3635	General	Proof copy function setting	ALL	1 <0-1>	SYS	Sets the proof copy function. 0: Disabled 1: Enabled	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3736	Network	DNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DNS client connection	12
3737	Network	DDNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DDNS client connection	12
3738	Network	HTTP Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at HTTP client connection	12
3739	Network	FTP Client Time Out (SCAN)	ALL	30 <1-180>	NIC	Use when a timeout occurred at FTP client connection	12
3740	Network	SNTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SNTP client connection	12
3741	Network	SMTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SMTP client connection	12
3742	Network	POP3 Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at POP3 client connection	12
3743	Network	LDAP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at LDAP client connection	12
3744	Network	POP3 Authentication method	ALL	1 <1-3>	NIC	POP3 authentication method setting 1: Disable (Default) 2: NTLM 3: Kerberos	12
3745	General	Secure DDNS Primary Login Name	ALL	- <1-128>	NIC	Login name for login with the Primary DDNS	12
3746	General	Secure DDNS Primary Login Password	ALL	- <1-128>	NIC	Login password for login with the Primary DDNS	12
3747	General	Secure DDNS Secondary Login Name	ALL	- <1-128>	NIC	Login name for login with the Secondary DDNS	12
3748	General	Secure DDNS Secondary Login Password	ALL	- <1-128>	NIC	Login password for login with the Secondary DDNS	12
3749	General	DPWS Friendly Name	ALL	-	NIC	MFP name indicated in DPWS search result <Default value> TOSHIBA e-STUDIOxxx [NIC serial number]	12
3750	General	DPWS Printer Name	ALL	-	NIC	Printer name used for installing the printer with DPWS <Default value> TOSHIBA e-STUDIOxxx Printer-[NIC serial number]	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3751	General	DPWS Scanner Name	ALL	-	NIC	Scanner name used for installing the printer with DPWS <Default value> TOSHIBA e-STUDIOxxx Scanner-[NIC serial number]	12
3752	General	DPWS Printer Information	ALL	-	NIC	Information regarding DPWS printer <Default value> NULL	12
3753	General	DPWS Scanner Information	ALL	-	NIC	Information regarding DPWS scanner <Default value> NULL	12
3754	Network	Switching DPWS Printer setting	ALL	1 <1-2>	NIC	DPWS printer /DPWS secure printer function is switched. 1: Enabled 2: Disabled 3: Security enabled	12
3755	Network	Switching DPWS Scanner setting	ALL	1 <1-2>	NIC	DPWS scanner function is switched. 1: Enabled 2: Disabled	12
3757	Network	DPWS Discovery Port Number	ALL	3702 <1-65535>	NIC	Port number used for DPWS Discovery	12
3758	Network	DPWS Metadata Exchange Port Number	ALL	50081 <1-65535>	NIC	Port number used for DPWS Metadata Exchange	12
3759	Network	DPWS Print Port Number	ALL	50082 <1-65535>	NIC	Port number used for DPWS Print	12
3760	Network	DPWS Scan Port Number	ALL	50083 <1-65535>	NIC	Port number used for DPWS Scan	12
3765	Network	DPWS Print Max numbers of connection	ALL	10 <1-20>	NIC	Maximum numbers received from more than one connection request in the DPWS print	12
3766	Network	DPWS Print Max numbers of reception	ALL	10 <1-20>	NIC	Maximum numbers of data received from more than one clients in the DPWS print	12
3767	Network	Switching IPv6 setting	ALL	2 <1-2>	NIC	IPv6 function is switched. 1: Enabled 2: Disabled	12
3768	Network	Switching IP(IPv6) Address Acquisition	ALL	2 <1-2>	NIC	IP(IPv6) Address Acquisition setting is switched. 1: Manual 2: Auto configuration	12
3769	Network	Link Local Address	ALL	- <0-16>	NIC	Link Local Address is displayed. Unique IP address (128 bits) is set using Mac address.	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3770	Network	IPv6 Address	ALL	0 <0-16>	NIC	DHCPv6 Address in Manual/Auto configuration is displayed.	12
3771	Network	Prefix display setting	ALL	0 <0-128>	NIC	The range of Prefix display is set.	12
3772	Network	Default Gateway setting	ALL	0 <0-16>	NIC	Default Gateway of DHCPv6 Address in Manual/Auto configuration is set.	12
3773	Network	Displaying previous DHCPv6 Address	ALL	0 <0-16>	NIC	The previous DHCPv6 Address is displayed.	12
3774	Network	DHCPv6 Option setting	ALL	2 <1-2>	NIC	DHCPv6 Option is switched when the Manual is set. 1: Enabled 2: Disabled	12
3775	Network	Stateless Address Auto Configuration	ALL	1 <1-2>	NIC	Stateless Address Auto Configuration is switched. 1: Enabled 2: Disabled	12
3776	Network	Stateless Address setting continuation	ALL	2 <1-2>	NIC	When Prefix sent from router is changed, Stateless Address is continued to be set. 1: Enabled 2: Disabled	12
3777	Network	Stateless Address setting	ALL	2 <1-2>	NIC	IP Address is acquired by both Stateless and State full Address. 1: Enabled 2: Disabled	12
3778	Network	Acquiring DHCPv6 Option	ALL	2 <1-2>	NIC	When Stateless Address is selected, an option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3779	Network	State full Address setting	ALL	2 <1-2>	NIC	IP Address is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3780	Network	State full Option setting	ALL	2 <1-2>	NIC	An option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3781	Network	Primary DNS Server Address Registration	ALL	0 <0-16>	NIC	Registration of Primary DNS Server Address	12
3782	Network	Secondary DNS Server Address Registration	ALL	0 <0-16>	NIC	Registration of Secondary DNS Server Address	12
3783	Network	Selecting SAMBA Protocol	ALL	2 <2-3>	NIC	Either IPv6 or IPv4 is selected to use SAMBA. 2: IPv6 3: IPv4	12

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3784	Network	DSN Server resolve type	ALL	4 <1-4>	NIC	Either "ip6.arpa" or "ip6.int" is selected for the name resolution in DNS. 1: "ip6.arpa" only 2: "ip6.int" only 3: In case of error with "ip6.int", "ip6.arpa" is requested. 4: In case of error with “ip6.arpa”, “ip6.int” is requested.	12
3785	Network	DPWS IPv4 or IPv4 with IPv6	ALL	2 <1-2>	NIC	Either IPv4 only or IPv6 together with it is selected to operate Print, Scan and Security related with DPWS. 1: Multi (IPv4 and IPv6) 2: IPv4	12
3793	Network	Switching LLTD setting	ALL	1 <1-2>	NIC	LLTD function is switched. 1: Enabled 2: Disabled	12
3794	Network	Switching LLMNR setting	ALL	2 <1-2>	NIC	LLMNR function is switched. 1: Enabled 2: Disabled	12
3796	Network	DPWS EventRate	ALL	5 <1-600>	NIC	Sets the value of DPWS event rate from 1 to 600.	12
3797	General	Response to PJL job commands	ALL	1 <0-1>	SYS	During bidirectional communication, the next job will not be accepted until the printing of the sent data (all pages) is finished. If the next job must be accepted during bidirectional communication, set the value at “0: (Solicited)”. 0: (Solicited) - Immediately responds to the host side after the completion of RIP. 1: (Unsolicited) - Responds to the host side after the printing is finished.	1
3804	Scanner	List Analysis Logic of Scan to File (FTP)	ALL	0 <0-1>	SYS	Acquisition of Contents in Host side is switched by Scan to File (FTP). 0: NLST 1: LIST	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3805	Scanner	Department Management setting by Remote Scan	ALL	3 <0-3>	SYS	Department Management is set when Remote Scan is performed. 0: w/o GUI OFF, w/ GUI OFF 1: w/o GUI ON, w/ GUI OFF 2: w/o GUI OFF, w/ GUI ON 3: w/o GUI ON, w/ GUI ON	1
3810	Network	Direct SMTP communication setting	ALL	0 <0-1>	SYS	When an Internet Fax is sent, Direct SMTP communication is set. 0: Disabled 1: Enabled When "0: Disabled" is set, an Internet Fax is sent using an SMTP server. When "1: Enabled" is set, direct SMTP communication is enabled and an Internet Fax is sent to MFPs on the intranet without using an SMTP server. Since no SMTP server is used, the SSL encryption and SMTP-AUTH function cannot be used for internet Fax transmission. If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1
3811	Network	Image encrypting at the Direct SMTP communication	ALL	0 <0-1>	SYS	When Direct SMTP communication is performed, an attached image is encrypted. 0: Disabled 1: Enabled	1
3812	Scanner	Dummy full mode at the Internet Fax transmission	ALL	0 <0-1>	SYS	When an Internet Fax is sent, the resolution ratio and the paper size of an attached image are set to the full mode. 0: Disabled 1: Enabled If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3815	Scanner	XPS file thumbnail addition	ALL	1 <0-1>	SYS	Thumbnail is added to the XPS file produced by the Scan function. 0: Not added 1: Only the top page added	1
3816	Scanner	XPS file paper size setting	ALL	1 <0-1>	SYS	The paper size of the XPS file produced by the Scan function is set. 0: Scanned image size 1: Standard size	1
3817	Scanner	PDF file version setting	ALL	4 <0, 1, 4>	SYS	The version of PDF file produced by the Scan function is set. 0: PDF V1.3 1: PDF V1.4 4: PDF V1.7	1
3818	Scanner	DPWS Scan operation mode	ALL	1 <0-1>	SYS	The operation mode in the DPWS Scan function is switched. 0: Batch type 1: Serial type	1
3819	General	Network Fax/Internet Fax processing mode (STD)	ALL	2 <0-2>	SYS	The processing mode of the network Fax/ Internet Fax is switched. 0: High speed/Low image quality 1: Standard 2: Low speed/High image quality	1
3820	General	Network Fax/Internet Fax processing mode (FINE)	ALL	0 <0-2>	SYS	The processing mode of the network Fax/ Internet Fax is switched. 0: High speed/Low image quality 1: Standard 2: Low speed/High image quality	1
3821	General	Network Fax/Internet Fax processing mode (S-FINE)	ALL	0 <0-2>	SYS	The processing mode of the network Fax/ Internet Fax is switched. 0: High speed/Low image quality 1: Standard 2: Low speed/High image quality	1
3822	General	Network Fax/Internet Fax processing mode (U-FINE)	ALL	0 <0-2>	SYS	The processing mode of the network Fax/ Internet Fax is switched. 0: High speed/Low image quality 1: Standard 2: Low speed/High image quality	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3823	General	Processing mode threshold for network Fax/Internet Fax (STD) [Standard]	ALL	254 <0-255>	SYS	Image quality adjustment when "Standard" is set for the Network Fax/Internet Fax processing mode (STD)	1
3824	General	Processing mode threshold for network Fax/Internet Fax (FINE) [Standard]	ALL	254 <0-255>	SYS	Image quality adjustment when "Standard" is set for the Network Fax/Internet Fax processing mode (FINE)	1
3825	General	Processing mode threshold for network Fax/Internet Fax (S-FINE) [Standard]	ALL	180 <0-255>	SYS	Image quality adjustment when "Standard" is set for the Network Fax/Internet Fax processing mode (S-FINE)	1
3826	General	Processing mode threshold for network Fax/Internet Fax (U-FINE) [Standard]	ALL	166 <0-255>	SYS	Image quality adjustment when "Standard" is set for the Network Fax/Internet Fax processing mode (U-FINE)	1
3827	General	Processing mode threshold for network Fax/Internet Fax (STD) [Low speed/High image quality]	ALL	200 <0-255>	SYS	Image quality adjustment when "Low speed/High image quality" is set for the Network Fax/Internet Fax processing mode (STD)	1
3828	General	Processing mode threshold for network Fax/Internet Fax (FINE) [Low speed/High image quality]	ALL	204 <0-255>	SYS	Image quality adjustment when "Low speed/High image quality" is set for the Network Fax/Internet Fax processing mode (FINE)	1
3829	General	Processing mode threshold for network Fax/Internet Fax (S-FINE) [Low speed/High image quality]	ALL	206 <0-255>	SYS	Image quality adjustment when "Low speed/High image quality" is set for the Network Fax/Internet Fax processing mode (S-FINE)	1
3830	General	Processing mode threshold for network Fax/Internet Fax (U-FINE) [Low speed/High image quality]	ALL	161 <0-255>	SYS	Image quality adjustment when "Low speed/High image quality" is set for the Network Fax/Internet Fax processing mode (U-FINE)	1
3831	Network	Mode switching for Role Based Access Control function	ALL	0 <0-1>	SYS	0: Require eBMUser-Role attribute 1: User available LDAP attribute	1
3833	General	Home directory function	ALL	0 <0-1>	SYS	Function to store a file in the user's home directory 0: Disabled 1: Enabled	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3834	General	Backup file encryption	ALL	0 <0-1>	SYS	When the backup file is created from TopAccess, it is encrypted. 0: Enabled (Encryption) 1: Disabled (No encryption)	1
3837	General	Display switching for the machine name/computer name shown in the notification	ALL	0 <0-1>	SYS	The display method of the machine name/computer name shown in the event-related notification is switched. 0: IP address 1: NetBIOS name/FQDN	1
3840	General	Electronic License Key Registration	ALL	-	-	Licenses for Electronic License Key are registered.	3
3841	General	Electronic License Key Deletion	ALL	-	-	Registered licenses for Electronic License Key are deleted.	3
3842	General	Electronic License Key Display	ALL	-	-	All licenses stored in the ELK jig are displayed.	3
3845	Network	SNMP Trap Enterprise OID mode setting	ALL	0 <0-1>	SYS	Trap Enterprise OID is enabled for existing models. 0: Normal (Not enabling for existing models) 1: Enabled for existing models	1
3847	General	FAX mistransmission prevention	FAX	0 <0-1>	SYS	FAX mistransmission prevention function is switched. 0: OFF (Disabled) 1: ON (Enabled)	1
3848	General	Restriction on Address Book destination setting	FAX	0 <0-1>	SYS	Availability of destination selection from the Address Book is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1
3849	General	Restriction on destination direct entry	FAX	0 <0-1>	SYS	Availability of direct entry is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3850	General	Remote Scan User authentication	ALL	3 <0-3>	SYS	User authentication on Remote Scan driver is switched according to the availability of GUI. 0: OFF (No GUI) / OFF (GUI installed) 1: ON (No GUI) / OFF (GUI installed) 2: OFF (No GUI) / ON (GUI installed) 3: ON (No GUI) / ON (GUI installed)	1
3851	General	Template display	ALL	0 <0-1>	SYS	The order of displaying templates on the LCD screen is switched. 0: Order of IDs 1: Alphabetical order	1
3852	User interface	Automatic summer time change	ALL	0 <0-1>	SYS	Automatic summer time change on the day previously set is switched. 0: Disabled 1: Enabled	1
3853	User interface	Summer time mode Offset value	ALL	0 <0-7>	SYS	Summer time is started as follows when 08-3852 is enabled. 0: +2:00 1: +1:30 2: +1:00 3: +0:30 4: 0:30 5: -1:00 6: -1:30 7: -2:00	1
3854	User interface	Summer time mode Starting month	ALL	1 <1-12>	SYS	The month in which summer time is started is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1
3855	User interface	Summer time mode Starting week	ALL	1 <1-5>	SYS	The week in which summer time is started is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3856	User interface	Summer time mode Starting day	ALL	0 <0-6>	SYS	The day on which summer time is started is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3857	User interface	Summer time mode Starting time	ALL	0 <00-23>	SYS	The time at which summer time is started is set. 00-23	1
3858	User interface	Summer time mode Starting minute	ALL	0 <00-59>	SYS	The minute at which summer time is started is set. 00-59	1
3859	User interface	Summer time mode Ending month	ALL	1 <1-12>	SYS	The month in which summer time is ended is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1
3860	User interface	Summer time mode Ending week	ALL	1 <1-5>	SYS	The week in which summer time is ended is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1
3861	User interface	Summer time mode Ending day	ALL	0 <0-6>	SYS	The day on which summer time is ended is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3862	User interface	Summer time mode Ending time	ALL	0 <00-23>	SYS	The time at which summer time is ended is set. 00-23	1
3863	User interface	Summer time mode Ending minute	ALL	0 <00-59>	SYS	The minute at which summer time is ended is set. 00-59	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
3864	Network	Disclosing Telnet Server function		ALL	0 <0-1>	SYS	Disclosure of Telnet Server function is switched. 0: Not disclosed 1: Disclosed	1
3865	Network	Availability of Telnet Server		ALL	2 <1-2>	NIC	Availability of Telnet Server is switched. 1: Enabled 2: Disabled	12
3866	Network	Telnet Server TCP port number		ALL	23 <1-65535>	NIC	A port number for Telnet Server is set.	12
3867	Network	Telnet Server Server administrator's user name		ALL	Admin <Maximum 15 letters>	NIC	A user name for the Telnet Server administrator is confirmed.	12
3868	Network	Telnet Server Server administrator's password		ALL	System <Maximum 15 letters>	NIC	A password for the Telnet Server administrator is set.	12
4016-0	Paper feeding	ACC function when a drawer is specified	Copying	ALL	0 <0-1>	SYS	Sets whether the ACC function is enabled only for automatic drawer selection or enabled when a particular drawer is specified as well. 0: Enabled only for automatic drawer selection 1: Enabled when a drawer is specified	4
4016-1			Printing / BOX printing	ALL	0 <0-1>	SYS		4
4621	Paper feeding	Bypass paper size detection setting		PPC/PRT	0 <0-1>	M	Detects whether the size of paper fed by bypass feeding is the same as the paper size set on the control panel. If the sizes are not the same, the warning message is displayed (Paper jam does not occur). When the bypass paper size detection is broken, the equipment can be used without the size detection by disabling this setting. After repair, enable this setting. 0: Enabled 1: Disabled	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
4622	Paper feeding	Bypass paper size detection counter		PPC/ PRT	0 <0-65535>	M	This is a counter for bypass paper size detection setting. If the printing is executed with the paper size that differs from the paper size set on the control panel, the counter is counted up.	1
6810-0	Counter	Number of output pages in black mode / Large size	1-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
6810-1			2-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
6810-2			2-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6810-3			4-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6810-4			4-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6810-7			1-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
6813-0	Counter	Number of output pages of the printer or BOX / Large	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
6813-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
6813-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6813-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6813-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6813-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
6813-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
6813-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
6815-0	Counter	Number of output pages of the FAX printing / Large	1-UP / Simplex printing	FAX	0 <8 digits>	SYS	Counts the number of output pages in the default settings.	4
6815-7			1-UP / Duplex printing	FAX	0 <8 digits>	SYS		4
8511	General	Wide A4 Mode (for PCL)		PRT	0 <0-1>	SYS	0: Disabled 1: Enabled	1
8517	General	Remote Scan User authentication automatic login		ALL	1 <0-1>	SYS	0: OFF (A user always enters manually (current method)) 1: ON (Previous authentication information will be used)	1
8535	Network	Storing network logs in the HDD		ALL	2 <1-2>	SYS	Stores the network logs of SRAM in the HDD when network-related trouble occurred. 1: Enabled 2: Disabled	1
8536	Network	Data size when storing network logs in the HDD		ALL	30 <1-30>	SYS	Specifies the size of network logs to be stored in the HDD. 1-30:1-30 MB	1
8548	Paper feeding	Operation of cassette size change when printing is interrupted by size mismatch		PRT	0 <0-1>	SYS	0: Operation of cassette size change is disabled. 1: Operation of cassette size change is enabled.	1
8549	Counter	Hardware key control when external counter is installed		ALL	0 <0-1>	SYS	0: No control 1: Mode switch key is disabled.	1
8823	Network	Port number 139 for user authentication		ALL	1 <1-2>	NIC	If the connection to port number 139 is blocked, attempt to connect to port number 139 is skipped by setting this code to “2: disabled.” This code is enabled when “Windows Domain Authentication” is selected in [User Management Setting] - [Authentication] - [User Management Setting]. 1: Enabled 2: Disabled	12
9051	User interface	Panel calibration setting value display		ALL	0 <0-1>	SYS	Switches whether the screen for displaying panel calibration setting values is displayed or not. 0: Disabled (screen not displayed) 1: Enabled (screen displayed)	1
9117	Network	Raw printing job (Blank page will not be printed)		PRT	0 <0-1>	SYS	0: OFF 1: ON	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
9359	User interface	Printing resume after jam releasing	ALL	0 <0-1>	SYS	0: Auto resume 1: Resume by users	1
9394	Network	Single-page option for storing File and sending Email	ALL	0 <0-1>	SYS	0: Sets 1 page as 1 file 1: Makes a file based on the original	1
9629	Network	Attribute name for LDAP Role Based Access	ALL	eBMUserR <->	SYS		11
9739	Maintenance	Remote service Toner-end notification	ALL	0 <0-2>	SYS	0: RDMS toner empty notified immediately 1: RDMS toner empty notified once a day 2: RDMS toner empty not notified	1
9798	Network	Temporary communication password setting	ALL	-	SYS	Sets a temporary communication password. The password can be entered in alphanumeric characters (A to Z, a to z, 0 to 9) up to 10 digits. The entered password is displayed with "*" on the touch panel and the self-diagnostic lists. (Maximum 10 digits, minimum 5 digits)	11
9819	General	STAGE SSL	ALL	1 <0-1>	SYS	When remote scanning is performed, the SSL communication is carried out. 0: Disabled 1: Enabled (SSL communication)	1
9822	General	STAGE SSL port number	ALL	20443 <0-65535>	SYS	When remote scanning is performed using SSL communication, the SSL port number is set.	1
9828	General	Remote scanning mode	ALL	0 <0-1>	SYS	0: Batch 1: Sequential	1
9829	General	Department management limitation setting	ALL	0 <0-3>	SYS	Decide the default limitation setting when the new department code is created. 0: No limit 1: Limited only in the black mode 2: Limited in the color mode 3: Limited in the black/color mode	1
9847	Finisher	Hole punching setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9880	General	Total counter transmission date setting (2)	ALL	0 <0-31>	SYS	0 to 31	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
9881	General	Day of total counter data transmission	ALL	- <0-127>	-	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	1
9882	General	Display mode of the used capacity on the e-Filing administrator page	ALL	1 <0-1>	SYS	0: All files search mode 1: Performance priority mode	2
9883	General	Hardcopy security printing	ALL	0 <0~1>	SYS	0: Disabled 1: Enabled	1
9884	General	Hardcopy security printing / Counting method switchover	ALL	0 <0~1>	SYS	0: Counted as 1 1: Counted as 2	1
9886	Scanning	Decimal point indication for Enhanced Scan Template	SCN	EUR: 0 UC: 1 JPN: 1 <0-1>	SYS	0: Comma 1: Period	1
9888	Scanner	Permission setting for changing the scan parameter when recalling an extension	SCN	1 <0-1>	SYS		1
9889	General	Acceptance of data cloning using USB storage device	ALL	0 <0-1>	SYS	Acceptance of the usage of the USB data cloning tool 0: Accepted 1: Not accepted	2
9891	User interface	Warning message on the touch panel when PM (Periodic Maintenance) time has come	ALL	1 <0-1>	SYS	0: No warning notification 1: Warning notification	1
9933	Network	Domain participation confirmation of printing when LDAP authentication is used	ALL	1 <0-1>	SYS	When LDAP is selected as authentication method for user authentication, checking of domain participation of client computer for print job authentication is set. This function is enabled only when department management is enabled. 0: Disabled 1: Enabled	1
9946	General	E-mail transmission retry number	ALL	3 <0-14>	SYS	The number of times of E-mail communication retry for Scan to E-mail and Internet Fax is set.	1
9947	General	E-mail transmission retry interval	ALL	1 <0-15>	SYS	When E-mail transmission retry for Scan to E-mail and Internet Fax is performed, the interval is set. 0 min - 15 min	1

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
9954	General	Control box counter / job list printing operation (Individual customer)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9960	Maintenance	Displaying equipment information	ALL	0 <0-2>	SYS	Equipment information stored in NVRAM is displayed. 0: Unset 1: e-STUDIO202L/232/282 2: e-STUDIO203L/233/283	2
9980	Network	Receiver's address fixing function at authentication	ALL	0 <0-1>	SYS	Fixes the receiver's address (“To: Destination” field) when the user authentication and E-mail authentication are enabled. 0: Disabled 1: Enabled	1

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<<Pixel counter related code>> (Chap. 2.2.9)

Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1500	Pixel counter	Standard paper size setting	ALL	EUR: 0 UC: 1 JPN: 0	SYS	Selects the standard paper size to convert it into the pixel count (%). 0: A4 1: LT	1
1501	Pixel counter	Pixel counter all clearing	ALL	-	SYS	Clears all information related to the pixel counter.	3
1502	Pixel counter	Service technician reference counter clearing	ALL	-	SYS	Clears all information related to the service technician reference pixel counter.	3
1503	Pixel counter	Toner cartridge reference counter clearing	ALL	-	SYS	Clears all information related to the toner cartridge reference pixel counter.	3
1504	Pixel counter	Pixel counter display setting	ALL	1 <0-1>	SYS	Selects whether or not to display the pixel counter on the LCD screen. 0: Displayed 1: Not displayed	1
1505	Pixel counter	Displayed reference setting	ALL	0 <0-1>	SYS	Selects the reference when displaying the pixel counter on the LCD screen. 0: Service technician reference 1: Toner cartridge reference	1
1506	Pixel counter	Toner empty determination counter setting	ALL	0 <0-1>	SYS	Selects the counter to determine toner empty. 0: Output pages 1: Pixel counter	1
1507	Pixel counter	Threshold setting for toner empty determination (Output pages)	ALL	800 <0-999>	SYS	Sets the number of output pages to determine toner empty. This setting is valid when “0” is set at 08-1506.	1
1508	Pixel counter	Threshold setting for toner empty determination (Pixel count)	ALL	35100 <0-60000>	SYS	Sets the pixel count to determine the toner empty status. This setting is valid when "1" is set at 08-1506.	1
1509	Pixel counter	Pixel counter clear flag/ Service technician reference	ALL	0 <0-1>	SYS	Becomes “1” when 08-1502 is performed.	2
1510	Pixel counter	Service technician reference cleared date	ALL	-	SYS	Displays the date on which 08-1502 was performed.	2
1514	Pixel counter	Toner cartridge reference cleared date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1518	Pixel counter	Toner cartridge reference count started date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1548	Pixel counter	Number of output pages (Service technician reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and service technician reference. [Unit. page]	2
1550	Pixel counter	Number of output pages (Service technician reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and service technician reference. [Unit. page]	2
1551	Pixel counter	Number of output pages (Service technician reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and service technician reference. [Unit. page]	2
1553	Pixel counter	Number of output pages (Toner cartridge reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and toner cartridge reference. [Unit. page]	2
1555	Pixel counter	Number of output pages (Toner cartridge reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and toner cartridge reference. [Unit. page]	2
1556	Pixel counter	Number of output pages (Toner cartridge reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and toner cartridge reference. [Unit. page]	2
1566	Pixel counter	Toner cartridge replacement counter	ALL	<3 digits>	SYS	Counts the number of time of the toner cartridge replacement.	2
1592	Pixel counter	Average pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1593	Pixel counter	Average pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function and service technician reference. [Unit: 0.01%]	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1594	Pixel counter	Average pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1595	Pixel counter	Average pixel count (Service technician reference)	PPC/PRT/FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and service technician reference. [Unit: 0.01%]	2
1606	Pixel counter	Latest pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1607	Pixel counter	Latest pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1608	Pixel counter	Latest pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1613	Pixel counter	Average pixel count (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1619	Pixel counter	Average pixel count (Toner cartridge reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function, and toner cartridge reference. [Unit: 0.01%]	2
1624	Pixel counter	Average pixel count (Toner cartridge reference)	PPC/PRT/FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and toner cartridge reference. [Unit: 0.01%]	2
1625	Pixel counter	Average pixel count (Toner cartridge reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1634	Pixel counter	Latest pixel count (Toner cartridge reference)	FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1639	Pixel counter	Latest pixel count (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2

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Setting mode (08) <e-STUDIO202L/203L/232/233/282/283>								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1640	Pixel counter	Latest pixel count (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and toner cartridge reference. [Unit: 0.01%]	2
1649-0	Pixel counter	Pixel count distribution	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function are displayed. [Unit: page]	14
1649-1			5.1-10%	PPC	<8 digits>	SYS		14
1649-2			10.1-15%	PPC	<8 digits>	SYS		14
1649-3			15.1-20%	PPC	<8 digits>	SYS		14
1649-4			20.1-25%	PPC	<8 digits>	SYS		14
1649-5			25.1-30%	PPC	<8 digits>	SYS		14
1649-6			30.1-40%	PPC	<8 digits>	SYS		14
1649-7			40.1-60%	PPC	<8 digits>	SYS		14
1649-8			60.1-80%	PPC	<8 digits>	SYS		14
1649-9			80.1-100%	PPC	<8 digits>	SYS		14
1650-0	Pixel counter	Pixel count distribution	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function are displayed. [Unit: page]	14
1650-1			5.1-10%	PRT	<8 digits>	SYS		14
1650-2			10.1-15%	PRT	<8 digits>	SYS		14
1650-3			15.1-20%	PRT	<8 digits>	SYS		14
1650-4			20.1-25%	PRT	<8 digits>	SYS		14
1650-5			25.1-30%	PRT	<8 digits>	SYS		14
1650-6			30.1-40%	PRT	<8 digits>	SYS		14
1650-7			40.1-60%	PRT	<8 digits>	SYS		14
1650-8			60.1-80%	PRT	<8 digits>	SYS		14
1650-9			80.1-100%	PRT	<8 digits>	SYS		14
1651-0	Pixel counter	Pixel count distribution	0-5%	FAX	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function are displayed. [Unit: page]	14
1651-1			5.1-10%	FAX	<8 digits>	SYS		14
1651-2			10.1-15%	FAX	<8 digits>	SYS		14
1651-3			15.1-20%	FAX	<8 digits>	SYS		14
1651-4			20.1-25%	FAX	<8 digits>	SYS		14
1651-5			25.1-30%	FAX	<8 digits>	SYS		14
1651-6			30.1-40%	FAX	<8 digits>	SYS		14
1651-7			40.1-60%	FAX	<8 digits>	SYS		14
1651-8			60.1-80%	FAX	<8 digits>	SYS		14
1651-9			80.1-100%	FAX	<8 digits>	SYS		14

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<<PM support mode related code>>

- The management items at PM support mode can also be operated at setting mode (08).
  The following items are displayed or set by using sub-codes at PM management setting in the table below.

<Sub-codes>

0: Present number of output pages
   - Means the present number of output pages.
1: Recommended number of output pages for replacement
   - Means the recommended number of output pages for replacement.
2: Number of output pages at the last replacement
   - Means the number of output pages at the last replacement.
3: Present driving counts
   - Means the present drive counts (1 count = 2 seconds).
4: Recommended driving counts to be replaced
   - Means the recommended drive counts for replacement (1 count = 2 seconds).
5: Driving counts at the last replacement
   - Means the drive counts at the last replacement.
6: Present output pages for control
   - Means the present number of output pages for controlling.
7: Present driving counts for control
   - Means the present drive counts for controlling (1 count = 2 seconds).
8: Number of times replaced
   - Counts up when clearing the counter of each unit in the PM Support Mode Screen.

Notes:

- Sub-code 3 is equivalent to sub-code 7.
- When the value of sub-code 3 is changed, the value of sub-code 7 is also updated and vice versa.
- When “0” is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to “0”.

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Photoconductive drum	1150-0 to 8	1151	<Default values of code 1150 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Drum cleaning blade	1158-0 to 8	1159	<Default values of code 1158 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Drum separation finger	1172-0 to 8	1173	<Default values of code 1172 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Main charger grid	1174-0 to 8	1175	<Default values of code 1174 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Needle electrode	1182-0 to 8	1183	<Default values of code 1182 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Ozone filter	1198-0 to 8	1199	<Default values of code 1198 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Developer material	1200-0 to 8	1201	<Default values of code 1200 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Transfer charger wire	1214-0 to 8	1215	<Default values of code 1214 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000
Separation charger wire	1224-0 to 8	1225	<Default values of code 1224 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Fuser roller	1246-0 to 8	1247	<Default values of code 1246 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Pressure roller	1250-0 to 8	1251	<Default values of code 1250 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Cleaning roller	1266-0 to 8	1267	<Default values of code 1266 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Fuser roller separation finger	1268-0 to 8	1269	<Default values of code 1268 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 128,000/148,000/180,000 Sub-code 4: 240,000/240,000/240,000
Pickup roller (RADF)	1282-0,1,2,8	1283	<Default values of code 1282 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Feed roller (RADF)	1284-0,1,2,8	1285	<Default values of code 1284 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Separation roller (RADF)	1286-0,1,2,8	1287	<Default values of code 1286 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 120,000/120,000/120,000
Pickup roller (Upper drawer)	1290-0,1,2,8	1291	<Default values of code 1290 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (Lower drawer)	1292-0,1,2,8	1293	<Default values of code 1292 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (LCF)	1294-0,1,2,8	1295	<Default values of code 1294 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Feed roller (Upper drawer)	1298-0,1,2,8	1299	<Default values of code 1298 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Feed roller (Lower drawer)	1300-0,1,2,8	1301	<Default values of code 1300 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (LCF)	1302-0,1,2,8	1303	<Default values of code 1302 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Separation roller (Upper drawer)	1306-0,1,2,8	1307	<Default values of code 1306 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (Lower drawer)	1308-0,1,2,8	1309	<Default values of code 1308 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (LCF)	1310-0,1,2,8	1311	<Default values of code 1310 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 160,000/160,000/160,000
Separation roller (PFP upper drawer)	1312-0,1,2,8	1313	<Default values of code 1312 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (PFP lower drawer)	1314-0,1,2,8	1315	<Default values of code 1314 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Separation roller (Bypass unit)	1316-0,1,2,8	1317	<Default values of code 1316 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (PFP upper drawer)	1320-0,1,2,8	1321	<Default values of code 1320 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (PFP lower drawer)	1322-0,1,2,8	1323	<Default values of code 1322 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Feed roller (Bypass unit)	1324-0,1,2,8	1325	<Default values of code 1324 (e-STUDIO202L/203L/232/233/282/283> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000

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Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Pickup roller (PFP upper drawer)	1328-0,1,2,8	1329	<Default values of code 1328 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (PFP lower drawer)	1330-0,1,2,8	1331	<Default values of code 1330 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Pickup roller (Bypass unit)	1332-0,1,2,8	1333	<Default values of code 1332 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 8: 0/0/0 Sub-code 1: 80,000/80,000/80,000
Recovery blade	1336-0 to 8	1337	<Default values of code 1336 (e-STUDIO202L/203L/232/233/282/283)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0 Sub-code 1: 64,000/74,000/90,000 Sub-code 4: 120,000/120,000/120,000

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<<Procedure to copy the total counter value (08-257)>>

(1) Turn ON the power while [0] and [8] are pressed simultaneously.
(2) Key in the code “257” with the digital keys and press the [START] button (the following is displayed).

Note:
Before performing the following operations, note the current counter values.

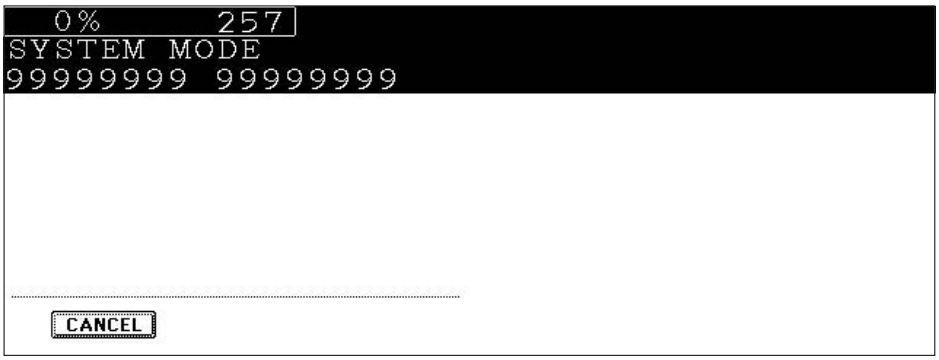


Fig. 2-7

(3) Key in the value “1” or “2” with the digital key and press the [START] button.
The value entered is displayed on the left of the “%”, and the [ENTER] button is displayed.

Note:
The value can be erased by pressing the [CLEAR] button to change as long as the [START] button is not pressed. (The value on the left of the “%” is reset to “0” by pressing the [CLEAR] button.)

- Key in “1” to copy the value of the total counter (LGC board) (A) onto the value of the backup counter (SYS board) (B).

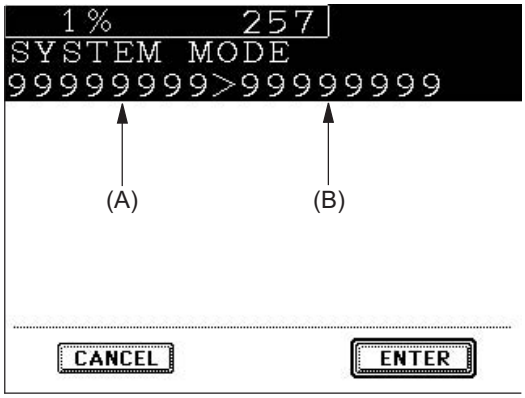


Fig. 2-8

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- Key in “2” to copy the value of the backup counter (SYS board) (B) onto the value of the total counter (LGC board) (A).

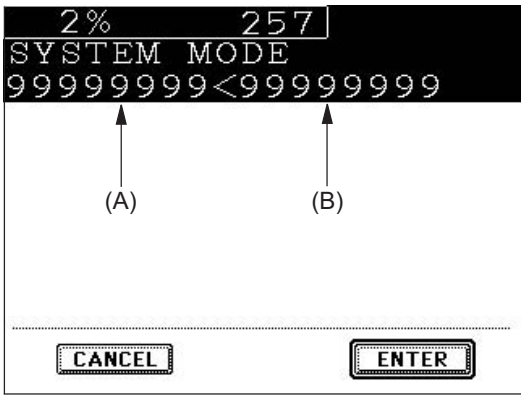


Fig. 2-9

(4) Press the [ENTER] button to complete overwriting of the counter value.

Note:
The screen returns to the code entry screen without copying (overwriting) the value when the [CANCEL] button is pressed.

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2.2.9 Pixel counter

1) Outline

Pixel counter is a function that counts the number of dots emitted by the laser and converts it into the print ratio (%) per standard paper size. This “Print ratio (%) per standard paper size” is called Pixel count (%).

This function enables you to know how each user uses the equipment and to grasp the tendency of toner consumption (number of output pages per cartridge).

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2) Factors affecting toner consumption

Standard number of output pages per cartridge shows the average number of output pages under the condition that the data of print ratio 6% is printed on the standard paper size (A4/LT) at a normal temperature and humidity.

However, users do not always print under the above condition. As for the type of original, copy/print mode and environment, each user has different tendency, and as a result, the number of output pages per cartridge becomes different depending on the user.

The major factors affecting toner consumption are as follows:

- Original/Data coverage
- Original/Data density
- Original/Print mode
- Density setting

Also there are other factors in addition to the above, such as environment, individual difference of equipment, difference in lot quality of materials, toner density and drum surface potential.

The general relations between the 4 factors mentioned in the previous page and toner consumption per output page in the Copier Function are as follows:

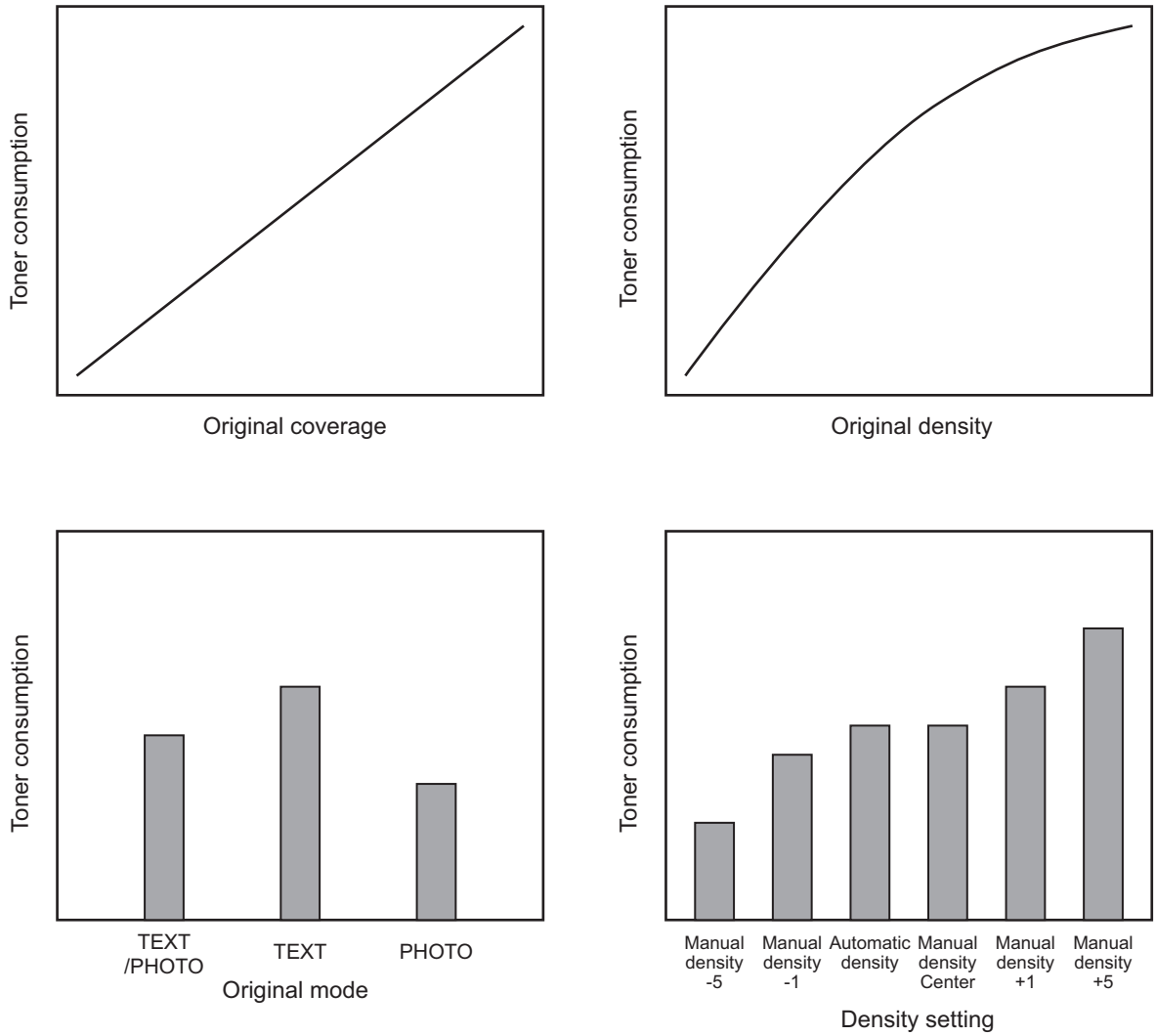


Fig. 2-10 Factors affecting toner consumption and the tendency

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3) Details of pixel counter

- Toner cartridge reference and service technician reference
  The pixel counter function in this equipment has 2 references, toner cartridge reference and service technician reference.

  Toner cartridge reference
  This is a system that accumulates data between the installation of a new toner cartridge and next installation.
  The installation of new toner cartridge is judged when the total number of pixel count or output pages after the detection of toner empty has exceeded the threshold.
  The threshold to be used is selectable in the setting mode (08-1506) between the pixel count and output pages (0: Output pages 1: Pixel counter). The threshold of pixel count is set in the setting mode (08-1508) and that of output pages is set in the setting mode (08-1507). When the new toner cartridge is judged as installed, the data related with the previous cartridge is cleared and replaced with the data after the installation of new cartridge. Clearing of the counter of the toner cartridge reference is performed in the setting mode (08-1503).

  Service technician reference
  This is a system that accumulates data between clearing the counter of the service technician reference by service technician and subsequently clearing the same counter.
  Clearing of the counter of the service technician reference is performed in the setting mode (08-1502).

- Print count (number of output pages)
  The number of output pages shown at the pixel counter is counted after converting all paper sizes to the standard paper size (A4/LT). Printing on other than the standard size is converted by paper area ratio. The standard paper size is set in the setting mode (08-1500).
  The examples of conversion are as follows:

  Ex.)
  “1” is added to the print count when printing on A4/LT size.

  “2” is added to the print count when printing on A3/LD size. (area ratio to A4/LT: 200%)

  “1.49” is added to the print count when printing on B4 size. (area ratio to A4: 149%)

  “1.27” is added to the print count when printing on LG size. (area ratio to LT: 127%)

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- Pixel count (%)
  Pixel count (%) shows the ratio of laser emitting pixels to all pixels on standard paper.
  The examples of pixel count are as follows:

Note:
In the following examples, 'solid copy' is considered to be 100%. But since the image has 4 margins, it never becomes 100% actually.

Ex.)
Printing 5 pages on A4/LT size with solid copy (Laser emits to all pixels.)
→Pixel count: 100%, Print count: 5

Printing 5 pages on A4/LT size with blank copy (Laser never emits.)
→Pixel count: 0%, Print count: 5

Printing 2 pages on A4/LT size with solid copy (Laser emits to all pixels.)
Printing 2 pages on A4/LT size with blank copy (Laser never emits.)
→Pixel count: 50%, Print count: 4

Printing 3 pages on A4/LT size with 6% of laser emission
Printing 1 page on A4/LT size with 2% of laser emission
→Pixel count: 5%, Print count: 4

Printing 2 pages on A3/LD size with solid copy (Laser emits to all pixels.)
→Pixel count: 100%, Print count: 4

Printing 2 pages on A3/LD size with 6% of laser emission
→Pixel count: 6%, Print count: 4

- Average pixel count (%) and latest pixel count (%)
  There are 2 types of the value calculated as the pixel count, average pixel count (%) and latest pixel count (%).

  Average pixel count (%)
  The average value of all pixel count data after each reference data is cleared is calculated and displayed.

  Latest pixel count (%)
  The value is displayed for printing just before the pixel counter is confirmed.

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- Type of calculated data
  Since this is multifunctional, the data of pixel count is calculated for each function.
  The following list is the information that can be confirmed by LCD screen. But actually, more information can be confirmed by the setting mode (08).
  See after-mentioned “5)-Display in the setting mode (08)” for details.

○: With data
—: Without data

	Toner cartridge reference	Service technician reference
Copier function	○	○
Printer function	○	○
FAX function	○	○
Total	○	○

Table 2-201 Type of calculated data

- Setting related with the pixel counter function
  Standard paper size setting
  The standard paper size (A4 or LT) to convert it into the pixel count is selected (08-1500).

  Pixel counter display setting
  Whether or not to display the pixel counter on the LCD screen is selected (08-1504).

  Display reference setting
  The reference when displaying the pixel counter on the LCD screen (toner cartridge reference or service technician reference) is selected (08-1505).

  Determination counter of toner empty
  This is the counter to determine the replacement of new toner cartridge after the toner empty is detected.
  After the toner empty is detected by the auto-toner sensor, this counter checks if toner empty is not detected one more time while the specified number of pixel count or output pages is counted.

  Pixel counter clearing
  There are 3 types for the pixel count clear as follows:
  08-1501: All information related to the pixel count is cleared.
  08-1502: All information related to the service technician reference pixel count is cleared.
  08-1503: All information related to the toner cartridge reference pixel count is cleared.

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4) Relation between pixel count and toner consumption
The user's printing out the image with large coverage or high density may cause the large value of pixel count. And the setting that toner consumption becomes high in the original mode or density setting may cause it as well.
In this case, the replacement cycle of toner cartridge is faster than the standard number of output pages. Therefore, this trend needs to be grasped for the service.
The relation between pixel count and number of output pages per cartridge is as follows:

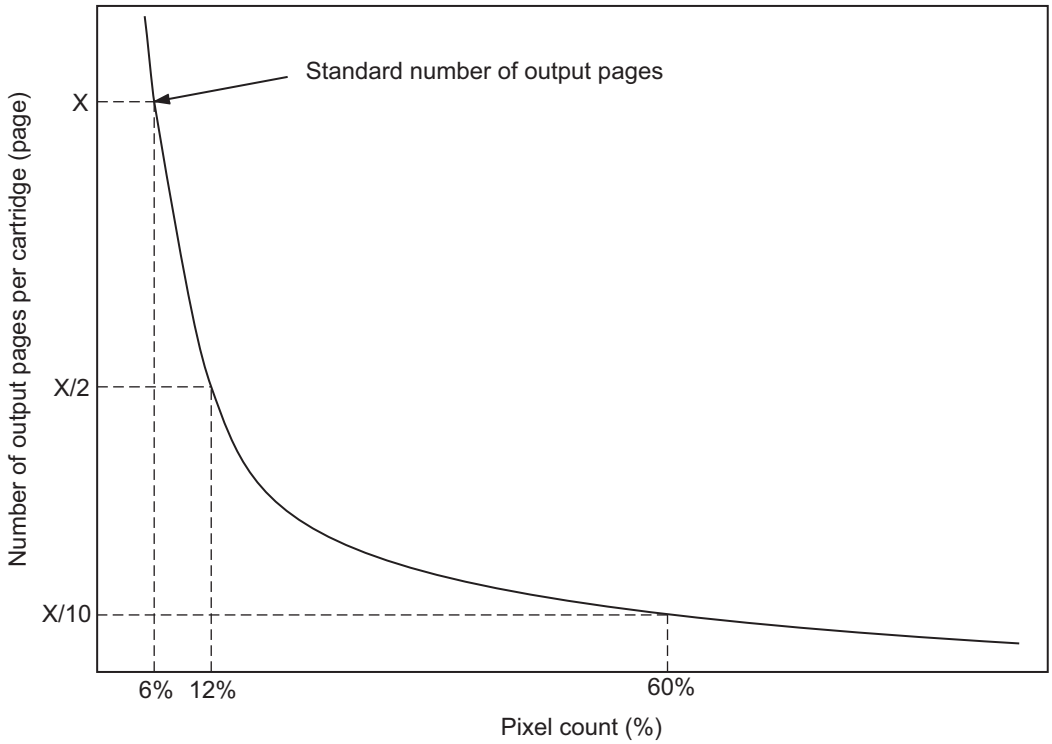


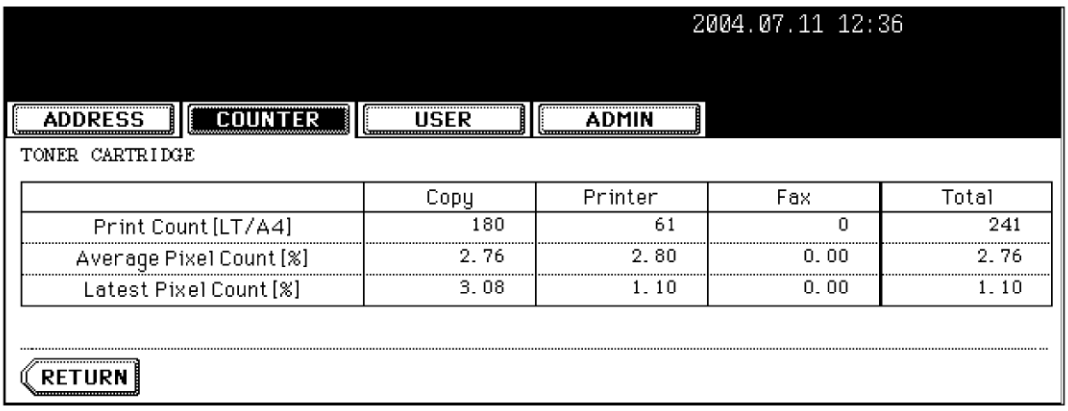
Fig. 2-11 Pixel count and number of output pages per cartridge

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5) Pixel counter confirmation
   - Display on LCD screen
     Whether or not to display the pixel counter on the LCD screen is selected (0: Displayed, 1: Not displayed) in the setting mode (08-1504), and whether or not to display it at the service technician reference or toner cartridge reference is selected (0: Service technician reference, 1: Toner cartridge reference) in the setting mode (08-1505).

     The following screen is displayed when the buttons, [USER FUNCTIONS], [COUNTER] and [PIXEL COUNTER] are pressed in this order after “Displayed” is selected with the code above and the power is, as usual, turned ON.

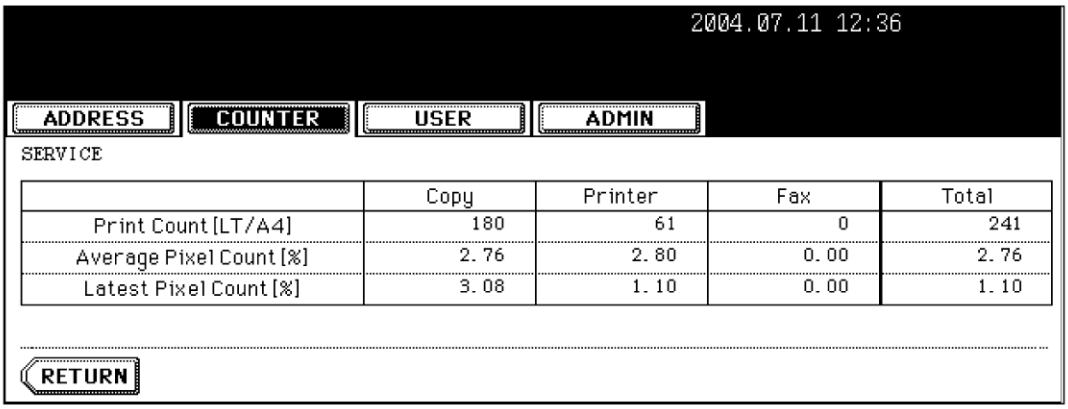
     The following screen is displayed when the toner cartridge reference is selected in the setting mode (08-1505).



	Copy	Printer	Fax	Total
Print Count [LT/A4]	180	61	0	241
Average Pixel Count [%]	2.76	2.80	0.00	2.76
Latest Pixel Count [%]	3.08	1.10	0.00	1.10

Fig. 2-12 Information screen of toner cartridge reference

     The following screen is displayed when the service technician reference is selected in the setting mode (08-1505).

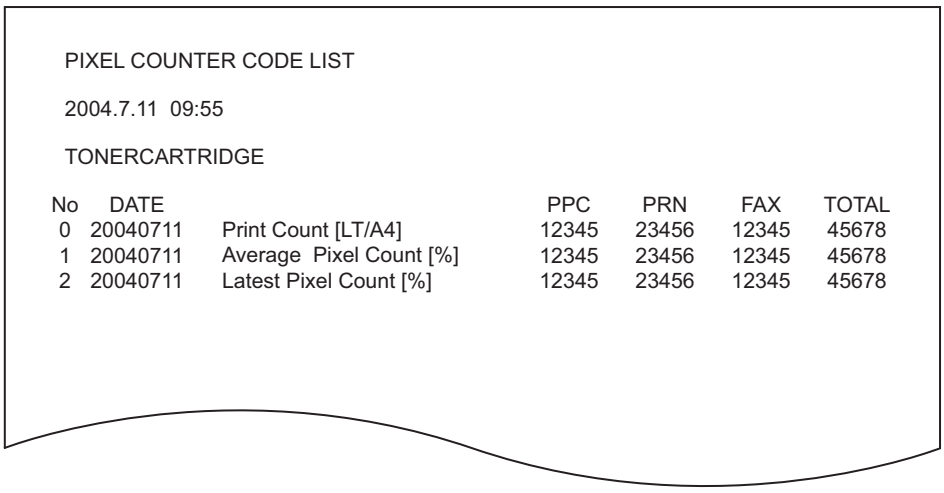


	Copy	Printer	Fax	Total
Print Count [LT/A4]	180	61	0	241
Average Pixel Count [%]	2.76	2.80	0.00	2.76
Latest Pixel Count [%]	3.08	1.10	0.00	1.10

Fig. 2-13 Information screen of service technician reference

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- Data list printing
  The data for pixel counter can be printed in the list print mode (9S).
  9S-104: The data of the toner cartridge reference is printed.
  9S-105: The data of service technician reference is printed.



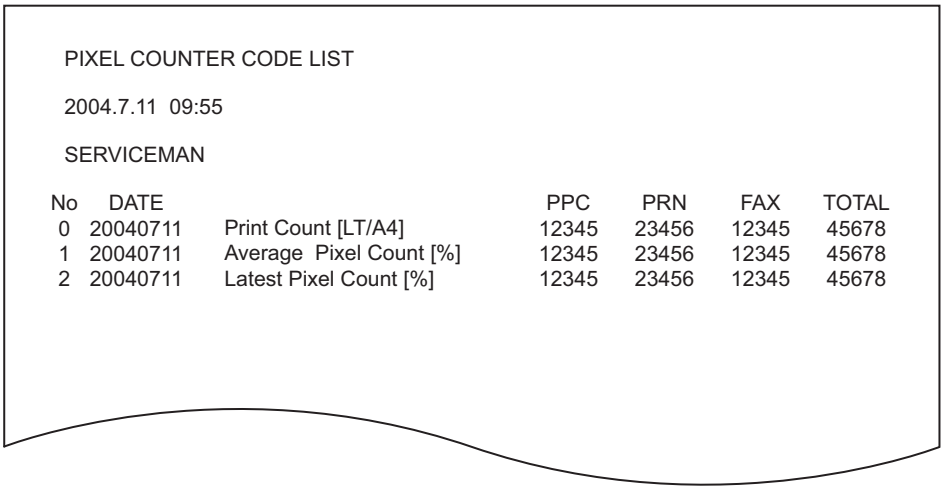
PIXEL COUNTER CODE LIST

2004.7.11 09:55

TONERCARTRIDGE

No	DATE		PPC	PRN	FAX	TOTAL
0	20040711	Print Count [LT/A4]	12345	23456	12345	45678
1	20040711	Average Pixel Count [%]	12345	23456	12345	45678
2	20040711	Latest Pixel Count [%]	12345	23456	12345	45678

Fig. 2-14 Data list of toner cartridge reference



PIXEL COUNTER CODE LIST

2004.7.11 09:55

SERVICEMAN

No	DATE		PPC	PRN	FAX	TOTAL
0	20040711	Print Count [LT/A4]	12345	23456	12345	45678
1	20040711	Average Pixel Count [%]	12345	23456	12345	45678
2	20040711	Latest Pixel Count [%]	12345	23456	12345	45678

Fig. 2-15 Data list of service technician reference

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- Display in the setting mode (08)
  Information of pixel count can be also checked in the setting mode (08).
  For details, see 📖 P. 2-84 "2.2.7 Setting mode (08) (e-STUDIO200L/230/230L/280)"/📖 P. 2-153 "2.2.8 Setting mode (08) (e-STUDIO202L/203L/232/233/282/283)".

Print count, pixel count

		Toner cartridge reference	Service technician reference
Copier function	Print count (page)	1553	1548
	Average pixel count (%)	1613	1592
	Latest pixel count (%)	1639	1606
Printer function	Print count (page)	1555	1550
	Average pixel count (%)	1619	1593
	Latest pixel count (%)	1640	1607
FAX function	Print count (page)	1556	1551
	Average pixel count (%)	1625	1594
	Latest pixel count (%)	1634	1608
Total	Average pixel count (%)	1624	1595

Table 2-202 Pixel count code table

Pixel count distribution

	Pixel count distribution (page)
Copier function	1649
Printer function	1650
FAX function	1651

Table 2-203 Pixel count code table

Note:
By entering the sub code at the above code, the pixel count distribution can be displayed dividing into 10 ranges. The sub codes are as follows.
0: 0 - 5% 1: 5.1 - 10% 2: 10.1 - 15% 3: 15.1 - 20% 4: 20.1 - 25%
5: 25.1 - 30% 6: 30.1 - 40% 7: 40.1 - 60% 8: 60.1- 80% 9: 80.1 - 100%

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Other information

Toner cartridge replacement counter
The toner cartridge replacement count is displayed. (08-1566)

Toner cartridge reference count started date
The toner cartridge reference count started date is displayed. (08-1518)

Service technician reference cleared date
The service technician reference cleared date is displayed.(08-1510)
The date (08-1502 was performed) is stored.

Toner cartridge reference cleared date
The toner cartridge reference cleared date is displayed.
The date (08-1503 was performed) is stored.

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2.2.10 Classification List of Adjustment Mode (05) / Setting Mode (08) (e-STUDIO200L/230/230L/280)

Classification	e-STUDIO200L/230/230L/280	
	Adjustment Mode (05)	**Setting Mode (08)**
User interface		[Date/Time] 200, 638, 640 [Timer] 204, 205, 206, 260 [Screen] 207, 602, 1132 [File] 209, 219, 264, 288 [Language] 220, 221 [Administrator] 263 [Scanning] 265, 266, 273, 274 [Filing] 267, 270, 950, 976, 980, 981, 985 [HDD] 271 [E-mail] 272, 1097, 1098 [default setting] 276, 281, 283, 284, 285, 286, 331, 480, 503, 550, 603, 604, 607, 618, 642, 682, 969, 986, 1135 [Raw printing] 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 973, 978, 979 [Copy volume] 300 [Original counter] 302 [Custom Mode] 508 [Energy saving] 601, 948, 970 [AMS] 605 [Sound] 610 [Book duplexing] 611 [Summer time] 612 [Paper size] 613 [Department management] 617 620, 621, 622, 623, 624, 629, 672 [Sorting] 627, 634, 641, 649 [Original direction] 628 [Image shift] 636 [Edit copying] 645, 646 [Box printing] 647, 953, 954 [X in 1] 650 [Annotation] 651, 657 [Automatic transfer] 660, 661 [Indicator] 671 [Priority drawer] 689 [Media type] 697 [Job Build] 1130, 1131
Scanner	[Position] 305, 306 [Distortion] 308 [Reproduction ratio] 340 [Carriage position] 359	
Image	[Margin] 430, 431, 432, 433, 434-0 to 1, 435, 436, 437, 438 [Image density] 501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 710, 714, 715, 719, 720, 724, 725, 729, 845, 846, 847, 850, 851, 852, 855, 856, 857, 860, 861, 862, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942 [Range correction] 532, 533, 534, 570, 571, 572, 693, 694, 695, 820, 821, 822, 825, 826, 827, 830, 831, 832, 835, 836, 837, 913, 914, 915, 916, 917, 918, 919, 920, 921 [Gamma slope] 593, 594, 595, 943, 944, 945 [Sharpness] 620, 621, 622, 865-0 to 2, 866-0 to 2, 867-0 to 2, 922, 923, 924 [Smudged/Faint text] 653, 654, 655, 928 [Printer density] 667-0 to 4, 672-0 to 4, 676-0 to 4 [Binarizing] 700, 701, 702	[Error diffusion / Dither] 502, 509
Drive	[Main motor] 421, 422 [Exit motor] 424, 425	

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Classification	e-STUDIO200L/230/230L/280	
	Adjustment Mode (05)	Setting Mode (08)
Paper feeding	[Aligning amount] 448-0 to 2, 449-0 to 2, 450-0 to 2, 452-0 to 2, 455-0 to 2, 457, 458-0 to 2, 460-0 to 2, 461-0 to 2, 462-0 to 3, 463-0 to 2, 464-0 to 2, 469-0 to 5, 470-0 to 2, 471-0 to 2, 472-0 to 2, 473, 474-0 to 2 [Paper pushing amount] 466-0 to 7	[paper dimension] 210, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 337, 338, 339, 340, 341, 471 [Paper feeding] 254, 255, 481, 619, 658, 659, 988, 1133 [Retry] 463-0 to 1, 464-0 to 1, 465-0 to 1, 466-0 to 1, 467-0 to 1,468-0 to 1, 482, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401 [Paper size] 224, 225, 226, 227, 228, 247, 248, 249, 256 [Blank copying prevention] 625
Laser	[Laser power] 286 [Polygonal motor] 401, 405 [Write starting] 410, 411, 440, 441, 442, 443, 444, 445, 498-0 to 1 [Sideways deviation] 497-0 to 5	[Polygonal motor] 398, 399, 478, 479, 483, 484, 485, 486, 488, 489, 490 [Power correction] 872, 873, 875, 876, 877
Development	[Auto-toner] 200, 201	[Auto-toner] 414, 455
High-voltage transformer	[Main charger bias] 210 [Developer bias] 205 [Transfer bias] 220, 221, 222 [Separation bias] 233, 234, 235	[Transfer bias] 491, 492, 493, 830, 868, 869 [Main charger bias] 805, 806, 807, 808, 809, 826, 864, 865, 866, 867 [Developer bias] 833, 834, 835, 836, 837, 859, 860, 861, 862, 863 [Separation bias] 831, 870, 871
Fuser		[Status counter] 400 [Temperature] 404-0 to 3, 405-0 to 3, 407, 409, 410, 411, 412, 413, 424-0 to 3, 425-0 to 3, 433-0 to 1, 437, 438, 448, 450, 451, 452, 453, 515, 516, 518, 520, 521, 525-0 to 3, 527-0 to 3, 535, 536-0 to 3, 537-0 to 3, 800-0 to 1, 801-0 to 1, 802-0 to 1, 803-0 to 1, 804-0 to 1, 886, 896-0 to 1 [Pre-running] 417, 439, 440, 441, 523, 526
RADF	[Aligning amount] 354, 355 [Sensors/EEPROM] 356, 367, 368 [Transporting] 357, 358, 365, 366	[Switchback] 462
Finisher	[Folding / Binding position] 468-0 to 2	[Tray reset] 648 [Cascade] 652, 653

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Classification	e-STUDIO200L/230/230L/280	
	Adjustment Mode (05)	Setting Mode (08)
Network		[NIC] 1001, 1002, 1003, 1004, 1120 [IP address] 1005, 1006, 1007, 1008, 1009, 1010 [IPX] 1011, 1099 [Frame type] 1012 [NCP] 1013 [AppleTalk] 1014, 1015 [LDAP] 1016, 1138, 1139, 1486 [DNS] 1017, 1018, 1019 [DDNS] 1020 [SLP] 1021 [NetBios] 1023 [WINS] 1024, 1025 [Bindery] 1026 [NDS] 1027 [Directory] 1028, 1029 [HTTP] 1030, 1031, 1032, 1033, 1034, 1035 [SMTP] 1037, 1038, 1039, 1040, 1041, 1042, 1100, 1101, 1102 [Offramp] 1043, 1044, 1045 [POP3] 1046, 1047, 1048, 1049, 1050, 1051, 1052 [FTP] 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1089, 1090, 1091, 1092 [MIB] 1063 [Community] 1065, 1066 [TRAP] 1067, 1068, 1069, 1070 [Raw/TCP] 945, 1073, 1074 [LPD] 1075, 1076, 1077 [IPP] 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088 [Novell] 1093, 1094 [SearchRoot] 1095 [Print queue] 1096 [Rendezvous] 1103 [SMB] 1117, 1136 [ASCII code] 977 [Link local host name] 1104 [Service name] 1105 [Host name] 1112 [Internet FAX] 1114, 1485 [Workgroup name] 1124 [Private print] 1432 [Function] 1433, 1434 [Scan to E-mail] 1484 [From Address] 1487, 1488, 1489 [E-mail domain] 1491
Counter		[External counter] 202, 381, 683, 975, 1126 [Counter copy] 257 [Paper size] 305-0 to 16, 306-0 to 16, 307-0 to 16, 308-0 to 16, 312-0 to 16, 313-0 to 16, 314-0 to 16, 315-0 to 16, 316-0 to 16 [Large/Small size] 320-0 to 2, 321-0 to 2, 322-0 to 2, 323-0 to 2, 327-0 to 2, 328-0 to 2, 329-0 to 2, 330-0 to 2, 332-0 to 2, 335-0 to 2 [Double count] 345, 346, 347, 348, 349, 352, 353 [Paper source] 356, 357, 358, 359, 360, 370, 372, 374 [HDD] 390, 391, 392, 393 [Fuser unit] 1372, 1378, 1380, 1382 [Toner cartridge] 1376, 1410 [Media type] 1385, 1386, 1387, 1388, 1411
Version		[System firmware] 900, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 933, 934, 935, 936, 937, 938, 939, 944 [Engine firmware] 903, 905, 907, 908 [FAX] 915 [NIC] 916

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Classification	e-STUDIO200L/230/230L/280	
	Adjustment Mode (05)	Setting Mode (08)
Maintenance		[PM counter] 251, 252 [Telephone] 250 [Error history] 253 [FSMS] 258, 999 [Service notification] 702, 703, 707, 715, 716, 717, 718, 719, 720, 721, 723, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 796 [HTTP] 726, 727, 728, 729, 730, 731 [Supply order] 732, 733, 734, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 758, 759, 760, 765, 794, 1145 [Firmware download] 797 [Emergency Mode] 710, 711
Others	[Equipment number] 976 [Toner recycle] 280	[Destination] 201, 701, 849 [Line] 203 [Private printing] 259 [Local I/F] 614 [Memory] 615 [Partition] 662, 666, 667 [Clear] 693 [Trial period] 673, 695, 798, 799 [Banner] 678, 679, 680, 681 [Database] 684, 685, 686 [HDD] 670, 690, 691, 694, 1422, 1424, 1426 [Control panel] 692 [Scrambler board] 696, 698, 699 [Data overwrite kit] 633 [Equipment number] 995 [Toner recycle] 838 [Machine identification information] 477 [Temperature/humidity] 839 [Initialization] 947 [Mode setting] 949 [Template] 1140 [NVRAM] 1427 [SRAM] 1428

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2.2.11 Classification List of Adjustment Mode (05) / Setting Mode (08) (e-STUDIO202L/203L/232/233/282/283)

Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	**Setting Mode (08)**
User interface		[Date/Time] 200, 638, 640 [Timer] 204, 205, 206, 260 [Screen] 207, 602, 1132 [File] 209, 219, 264, 288 [Language] 220, 221 [Administrator] 263 [Scanning] 265, 266, 273, 274 [Filing] 267, 270, 950, 976, 980, 981, 985 [HDD] 271 [E-mail] 272, 1097, 1098 [default setting] 276, 281, 283, 284, 285, 286, 331, 480, 503, 550, 603, 604, 607, 618, 642, 682, 969, 986, 1135 [Raw printing] 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 973, 978, 979, 1856, 1857, 9117 [Copy volume] 300 [Original counter] 302 [Custom Mode] 508 [Energy saving] 601, 970 [AMS] 605 [Sound] 610 [Book duplexing] 611 [Summer time] 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863 [Paper size] 613 [Department management] 617 620, 621, 622, 623, 624, 629, 672 [Sorting] 627, 634, 641, 649 [Original direction] 628 [Image shift] 636, 1429, 1430 [Edit copying] 645, 646 [Box printing] 953, 954 [X in 1] 650 [Panel calibration] 9051 [Annotation] 651, 657 [Automatic transfer] 660, 661 [Indicator] 671 [Priority drawer] 689 [Media type] 697 [Job Build] 1130, 1131 [Display of REVERSE ORDER] 213 [Displaying number of original pages] 342 [Toner is nearly empty] 972 [Paper size setting (drawers)] 1478 [Selectable security level] 1708 [Keyboard layout] 1929, 1930, 1931, 1932, 1933, 1934, 1935 [JOB STATUS] 983 [Jam releasing] 9359 [PM] 9891
Scanner	[Position] 305, 306 [Distortion] 308 [Reproduction ratio] 340 [Carriage position] 359 [Shading position] 350, 351	[Enhanced template] 9886, 9888

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Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	Setting Mode (08)
Image	[Margin] 430, 431, 432, 433, 434-0 to 1, 435, 436, 437, 438 [Image density] 501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 710, 714, 715, 719, 720, 724, 725, 729, 845, 846, 847, 850, 851, 852, 855, 856, 857, 860, 861, 862, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942 [Range correction] 532, 533, 534, 570, 571, 572, 693, 694, 695, 820, 821, 822, 825, 826, 827, 830, 831, 832, 835, 836, 837, 913, 914, 915, 916, 917, 918, 919, 920, 921 [Gamma slope] 593, 594, 595, 943, 944, 945 [Gamma balance] 596-0 to 2, 597-0 to 2, 598-0 to 2, 599-0 to 2 [Sharpness] 620, 621, 622, 865-0 to 2, 866-0 to 2, 867-0 to 2, 922, 923, 924 [Smudged/Faint text] 648, 654, 655, 928 [Printer density] 667-0 to 4, 672-0 to 4, 676-0 to 4 [Binarizing] 700, 701, 702	[Error diffusion / Dither] 502, 509 [Default setting of sharpness] 1479
Drive	[Main motor] 421, 422 [Exit motor] 424, 425	
Paper feeding	[Aligning amount] 448-0 to 2, 449-0 to 2, 450-0 to 2, 452-0 to 2, 455-0 to 2, 457, 458-0 to 2, 460-0 to 2, 461-0 to 2, 462-0 to 3, 463-0 to 2, 464-0 to 2, 469-0 to 5, 470-0 to 2, 471-0 to 2, 472-0 to 2, 473, 474-0 to 2 [Paper pushing amount] 466-0 to 7	[paper dimension] 210, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 337, 338, 339, 340, 341, 471 [Paper feeding] 254, 255, 481, 619, 658, 659, 988, 1133, 4016-0 to 1 [Retry] 463-0 to 1, 464-0 to 1, 465-0 to 1, 466-0 to 1, 467-0 to 1,468-0 to 1, 482, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401 [Paper size] 224, 225, 226, 227, 228, 247, 248, 249, 256, 8548 [Blank copying prevention] 625 [Incorrect paper size jam] 449 [Tab paper] 1437, 1438, 1439 [Detection] 1492, 4621, 4622
Laser	[Laser power] 286 [Polygonal motor] 401, 405 [Write starting] 410, 411, 440, 441, 442, 443, 444, 445, 498-0 to 1 [Sideways deviation] 497-0 to 5	[Polygonal motor] 398, 399, 478, 479, 483, 484, 485, 486, 488, 489, 490 [Power correction] 872, 873, 875, 876, 877
Development	[Auto-toner] 200, 201	[Auto-toner] 414, 455
High-voltage transformer	[Main charger bias] 210 [Developer bias] 205 [Transfer bias] 220, 221, 222 [Separation bias] 233, 234, 235	[Transfer bias] 491, 492, 493, 830, 868, 869 [Main charger bias] 805, 806, 807, 808, 809, 826, 864, 865, 866, 867 [Developer bias] 833, 834, 835, 836, 837, 859, 860, 861, 862, 863 [Separation bias] 831, 870, 871
Fuser		[Status counter] 400 [Temperature] 404-0 to 3, 405-0 to 3, 407, 409, 410, 411, 412, 413, 424-0 to 3, 425-0 to 3, 433-0 to 1, 437, 438, 448, 450, 451, 452, 453, 515, 516, 518, 520, 521, 525-0 to 3, 527-0 to 3, 535, 536-0 to 3, 537-0 to 3, 800-0 to 1, 801-0 to 1, 802-0 to 1, 803-0 to 1, 804-0 to 1, 886, 896-0 to 1 [Pre-running] 417, 439, 440, 441, 523, 526

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Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	Setting Mode (08)
RADF	[Aligning amount] 354, 355 [Transporting] 357, 358, 365, 366	[Switchback] 462
Finisher	[Folding / Binding position] 468-0 to 2	[Tray reset] 648 [Cascade] 652, 653 [Interruption of stapling operation (no staple)] 704-0 to 1 [Hole punching] 9847
Network		[NIC] 1002, 1003, 1119 [IP address] 1006, 1007, 1008, 1009, 1010, 3769 [IPv6] 3767, 3768, 3770, 3775, 3776, 3777 [IPX] 1011, 1099 [Frame type] 1012 [NCP] 1013 [AppleTalk] 1014, 1015, 1854, 1855, 1936 [LDAP] 1016, 1138, 1139, 3743, 9629, 9933 [DNS] 1017, 1018, 1019, 3736, 3781, 3782, 3784 [DDNS] 1020, 3737, 3745, 3746, 3747, 3748 [DPWS] 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3757, 3758, 3759, 3760, 3765, 3766, 3785, 3796 [NetBios] 1023 [WINS] 1024, 1025 [Bindery] 1026 [NDS] 1027 [Directory] 1028, 1029 [HTTP] 1030, 1031, 1032, 3738 [SMTP] 1037, 1038, 1039, 1040, 1041, 1042, 1100, 1101, 1102, 3741 [Direct SMTP] 3810, 3811 [Offramp] 1043, 1044, 1045 [POP3] 1046, 1047, 1048, 1049, 1050, 1051, 1052, 3742, 3744 [FTP] 1055, 1057, 1058, 1059, 1060, 1061, 1062, 1089, 1090, 1091, 1092, 3739 [MIB] 1063 [Community] 1065, 1066 [TRAP] 1067, 1068, 1069, 1070 [Raw/TCP] 945, 1073, 1074 [LPD] 1075, 1076, 1077, 1852, 1853 [IPP] 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1447, 1448, 1449, 1450, 1451, 1850, 1851 [Novell] 1093, 1094 [SearchRoot] 1095 [Print queue] 1096 [Rendezvous] 1103 [SMB] 1117, 1950, 1951 [ASCII code] 977 [Link local host name] 1104 [Service name] 1105 [Host name] 1112 [Internet FAX] 1114, 1485, 3812, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830 [Workgroup name] 1124 [Samba] 1464, 3783, 3833 [Private print] 1432

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Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	Setting Mode (08)
Network		[Scan to E-mail] 1484 [From Address] 1487, 1489 [E-mail] 3837, 9946, 9947 [E-mail domain] 1491 [User authentication] 1113, 1471, 1496, 1921, 1922, 1925, 1937, 1943, 1954, 1955, 1956, 1957, 8823 [PDC] 1121 [BDC] 1122 [NT domain] 1123 [Address book] 1125, 1476, 1477 [Netware] 1128, 1129, 1134, 1143, 1144, 1148 [Network logs] 8535, 8536 [MAC address] 1141 [ACC] 1431 [Disable print save] 1435 [Disable fax save] 1436 [IP Confilct] 1440 [SNTP] 1441, 1442, 1444, 1445, 1446, 3740, 3845 [Device authentication] 1470, 1920, 1952, 1953, 1958, 1959, 1942, 1944 [IP Filter] 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739 [SSL setting] 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 9819, 9822 [Enable server's IP] 1755, 1756, 1757, 1759, 1760, 1762, 1767, 3772, 3773, 3774, 3778, 3779, 3780 [Previous IP address] 1768 [Card authentification] 1776, 1777, 1927 [Scan to File] 1779, 1784, 1786, 8517 [Notification of scan job] 1781-0 to 1 [Save as file and Email transmission] 1782, 1783, 1785, 9394 [Network scanning] 1915, 1940, 3804, 3815, 3816, 3817, 3818 [LDAP authentication] 1923, 1924 [Role Based Access] 1928, 3831 [Prefix] 3771 [LLTD] 3793 [LLMNR] 3794 [Telnet] 3864, 3865, 3866, 3867, 3868 [Temporary communication password] 9798
Wireless LAN		[Driver] 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678 [Supplicant] 1679, 1681, 1682, 1684, 1685, 1688, 1689, 1690, 1691, 1692, 1693, 1696, 1697, 1699, 1700, 1701, 1704, 1705, 1706, 1707, 1764, 1765, 1766, 1764, 1765, 1766
Bluetooth		[Bluetooth] 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1719, 1941

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Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	Setting Mode (08)
Counter		[External counter] 202, 381, 683, 975, 1126, 8549 [Counter copy] 257 [Paper size] 305-0 to 16, 306-0 to 16, 307-0 to 16, 308-0 to 16, 312-0 to 16, 313-0 to 16, 314-0 to 16, 315-0 to 16, 316-0 to 16 [Large/Small size] 320-0 to 2, 321-0 to 2, 322-0 to 2, 323-0 to 2, 327-0 to 2, 328-0 to 2, 329-0 to 2, 330-0 to 2, 332-0 to 2, 335-0 to 2 [Double count] 345, 346, 347, 348, 349, 352, 353 [Paper source] 356, 357, 358, 359, 360, 370, 372, 374 [HDD] 390, 391, 392, 393 [Fuser unit] 1372, 1378, 1380, 1382 [Toner cartridge] 1376, 1410 [Media type] 1385, 1386, 1387, 1388, 1411 [Number of output pages] 1530-0 to 7, 1533-0 to 7, 1535-0 to 7, 6810-0 to 7, 6813-0 to 7, 6815-0 to 7
Version		[System firmware] 900, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 933, 934, 935, 936, 937, 938, 939, 944 [Engine firmware] 903, 905, 907, 908 [FAX] 915
Maintenance		[PM counter] 251, 252 [Telephone] 250 [Error history] 253 [FSMS] 258, 999 [Service notification] 702, 703, 707, 715, 716, 717, 718, 719, 720, 721, 723, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 796 [HTTP] 726, 727, 728, 729, 730, 731 [Supply order] 732, 733, 734, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 758, 759, 760, 765, 794, 1145, 9739, 9880, 9881 [Firmware download] 797 [Emergency Mode] 710, 711 [Service call checking period] 1495 [Equipment information] 9960

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Classification	e-STUDIO202L/203L/232/233/282/283	
	Adjustment Mode (05)	Setting Mode (08)
General	[Equipment number] 976 [Toner recycle] 280	[Destination] 201, 701, 849 [Line] 203 [Private printing] 259 [Local I/F] 614 [Memory] 615 [Partition] 662, 666, 667 [Clear] 693 [Trial period] 673, 695, 798, 799 [Banner] 678, 679, 680, 681 [Database] 684, 685, 686 [HDD] 670, 690, 691, 694, 1422, 1424, 1426 [Control panel] 692 [Scrambler board] 696, 698, 699 [Data overwrite kit] 633 [Equipment number] 995 [Toner recycle] 838 [Machine identification information] 477 [Temperature/humidity] 839 [Initialization] 947 [Mode setting] 949 [Template] 1140, 3851 [NVRAM] 1427 [SRAM] 1428 [TAT partition] 1118 [Enhanced bold] 1149 [User data management] 1472, 1473, 1474, 1481, 1482, 1483 [Limitation] 1494, 9829 [e-Filing Access Mode] 1497 [Inbound FAX] 1498 [Card reader] 1772, 1773, 1774, 1775 [Administrator's password] 1778 [FAX reception] 1926 [File/Email] 1913, 1916 [Extension fields] 1914 [KS/KSMM setting] 1961 [KS] 1960, 1963, 1964, 1965, 1966, 1967, 1968, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980 [KSSM] 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994 [Remote scanning] 3850, 9828 [Filling box] 9882 [Data encryption] 3834 [Data cloning] 9889 [Electronic licence key] 3840, 3841, 3842 [FAX function] 3847, 3848, 3849 [PJL] 3797 [Proof copy] 3635 [Counter / Job list printing] 9954 [Wide A4 Mode (PCL)] 8511

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3. ADJUSTMENT

3.1 Adjustment of Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor in the following procedure.

<Procedure> (Adjustment Mode (05-200))

(1) Install the process unit into the equipment.

Note:
Do not install the toner cartridge.

(2) While pressing [0] and [5] simultaneously, turn the power ON.
The following message will be displayed.

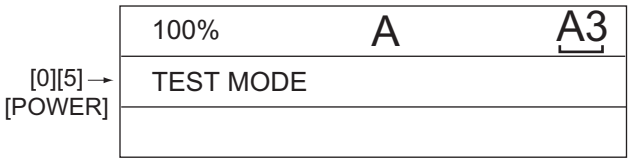


Fig. 3-1

(3) Key in code [200] and press the [START] button.
The display changes as follows.

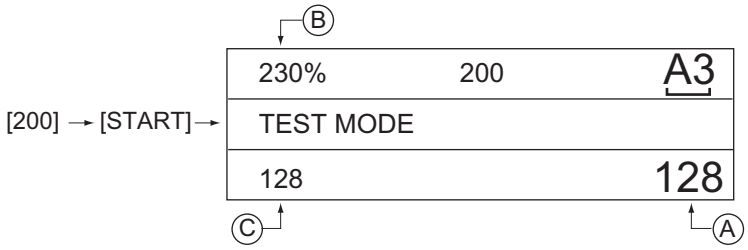


Fig. 3-2

Notes:

- A indicates the controlled value of the auto-toner sensor output. Press the Up or Down button to change the value.
- B indicates the output voltage of the auto-toner sensor (2.30 V in the above case). The drum, developer unit, etc. are in operation.
- C indicates the latest adjustment value.

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(4) After about two minutes, the value B automatically starts changing.

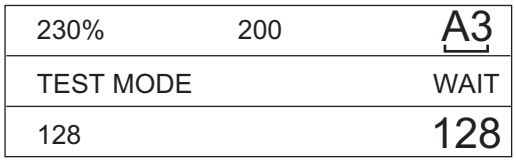


Fig. 3-3

(5) After a short time, the value B becomes stable and the display changes as follows.

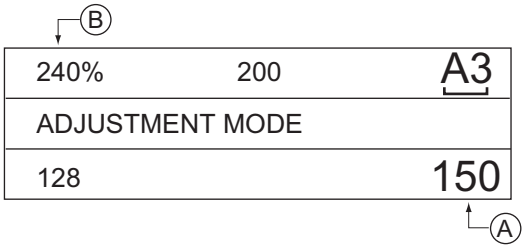


Fig. 3-4

(6) Check if the value B is within the range of 235 to 245 (the output voltage range of the auto-toner sensor is 2.35 V to 2.45 V).

(7) If the value B is not within the range of 235 to 245, press the Up or Down button to adjust the value manually.

Note:
The relation between the button and the values A and B is as follows.

Button to be pressed	Value A	Value B
Up	Increased	Increased
Down	Decreased	Decreased

(8) Press the [ENTER] or [INTERRUPT] button.
The drum, developer unit, etc. are stopped and the following is displayed.

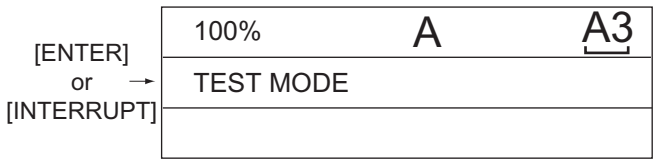


Fig. 3-5

(9) Turn the power OFF.

(10) Install the toner cartridge.

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3.2 Image Dimensional Adjustment

3.2.1 General description

There are several adjustment items in the image dimensional adjustment, as listed below. When adjusting these items, the following adjustment order should strictly be observed.

Item to be adjusted		Code in mode 05
1 Paper alignment at the registration roller		448, 449, 450, 452, 455, 457, 458, 460, 461, 462, 463, 469, 470, 471, 472, 473, 474
2 Printer related adjustment	(a) Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed)	401
	(b) Primary scanning data laser writing start position	411
	(c) Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed)	421
	(d) Secondary scanning data laser writing start position	441, 440, 444, 443, 442, 445
	(e) Primary scanning data laser writing start position at duplexing	498
3 Scanner related adjustment	(a) Image distortion	–
	(b) Reproduction ratio of primary scanning direction	405
	(c) Image location of primary scanning direction	306
	(d) Reproduction ratio of secondary scanning direction	340
	(e) Image location of secondary scanning direction	305
	(f) Top margin	430
	(g) Right margin	432
	(h) Bottom margin	433

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[Procedure to key in adjustment values]
In accordance with the procedure described below, make adjustment of each adjustment item so that the measured values obtained from test copies satisfy the specification. By pressing the [FAX] button, immediately after starting the Adjustment Mode (05), single-sided test copying can be performed (normal copy mode).

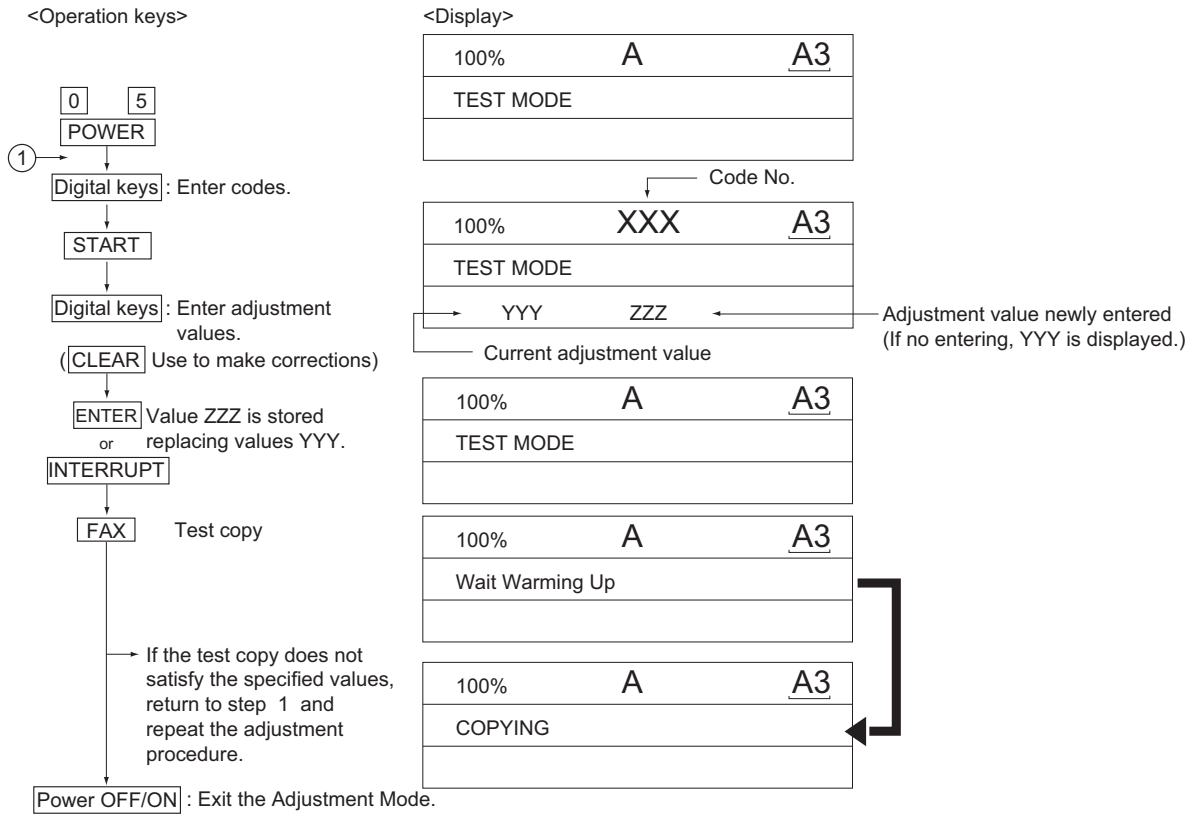


Fig. 3-6

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3.2.2 Paper alignment at the registration roller

The aligning amount is adjusted by using the following codes in Adjustment Mode (05).

Paper type	Weight	Upper drawer	Lower drawer	PFP upper drawer	PFP lower drawer	LCF	ADU	Bypass feed
Plain paper	64-80 g/m^2 17-20 lb.	450 (*1)	452 (*1)	448 (*1)	449 (*1)	457	455 (*1)	458 (*1)
Thick paper 1	81-105g/m^2 21-28 lb.	469 (*1)	470 (*1)	471 (*1)	472 (*1)	473	474 (*1)	460 (*1)
Thick paper 2	106-163g/m^2 29-43 lb.	-	-	-	-	-	-	461 (*1)
Thick paper 3	164-209g/m^2 44-55 lb.	-	-	-	-	-	-	462 (*2)
OHP	-	-	-	-	-	-	-	463 (*3)

Sub-code

(*1) 0: Long size 1: Middle size 2: Short size

(*2) 0: Long size 1: Middle size 2: Short size 3: Post card

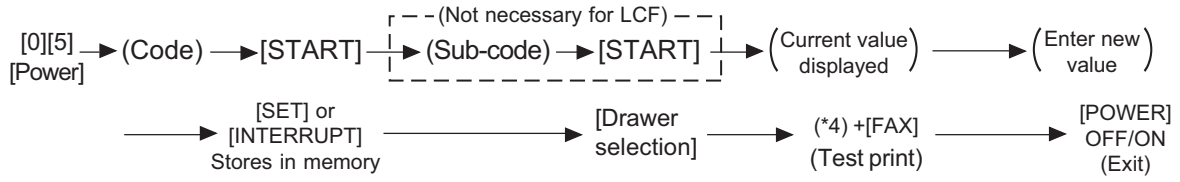
(*3) 0: Long size of OHP film 1: Middle size of OHP film 2: Short size of OHP film

Notes:

1. Long size: 330 mm or longer (13.0 inches or longer)
   Middle size: 220-239 mm (8.7-12.9 inches)
   Short size: 219 mm or shorter (8.6 inches or shorter)
2. The adjustment of “Post card” is for Japan only.

<Procedure>

(1) Perform the test print according to the following procedure.



(*4) 1: Single-sided grid pattern 3: Double-sided grid pattern

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(2) Check if any transfer void is occurring. If there is a transfer problem, try the values in descending order as “31” → “30” → “29”··· until the transfer void disappears. At the same time, confirm if any paper jam occurs. Also, when the aligning amount has been increased, this may increase the scraping noise caused by the paper and the Mylar sheet as it is transported by the registration roller. If this scraping noise is annoying, try to decrease the value.

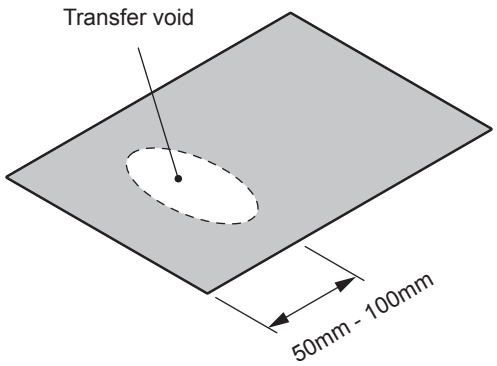


Fig. 3-7

(3) Perform the same procedure for all paper sources.

Note:

When paper thinner than specified is used, paper jams may occur frequently at the registration section. In this case, it is advisable to change (or reduce) the aligning amount.
However, if the aligning amount is reduced too much, this may cause the shift of leading edge position. So, when adjusting the aligning amount, try to choose the appropriate amount while confirming the leading edge position is not shifted.

* As a tentative countermeasure, the service life of the feed roller can be extended by increasing the aligning amount.

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3.2.3 Printer related adjustment

[A] Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(3) Check the grid pattern on the test chart printed out and measure the distance A from the 1st line to the 21st line of the grid pattern.

(4) Check if the distance A is within 200±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance A again.

(Adjustment Mode) → (Key in code [401]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance A becomes (approx. 0.125 mm/step).

[B] Primary scanning data laser writing start position (Printer)

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(3) Check the grid pattern on the test chart printed out and measure the distance B from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance B is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance B again.

(Adjustment Mode) → (Key in the code [411]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance B becomes (approx. 0.05 mm/step).

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(6) After the adjustment for the code 411 is completed, apply the same adjustment value for the code 410.

(Adjustment Mode) → (Key in the code [410]) → [START]
→ (Key in the same value in the step 5 above)
→ Press [ENTER] or [INTERRUPT] (Stored in memory).

Note:
Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[C] Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed (Copier/Printer))

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(3) Check the grid pattern on the test chart printed out and measure the distance C from the 10th line at the leading edge of the paper to the 30th line of the grid pattern.
* Normally, the 1st line of the grid pattern is not printed.

(4) Check if the distance C is within 200±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance C again.

(Adjustment Mode) → (Key in code [421]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ “100% A” is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance C becomes (approx. 0.125 mm/step).

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[D] Secondary scanning data laser writing start position

This adjustment has to be performed for each paper source. (If there is no paper source, skip this step.)
The following table shows the order of the paper source to be adjusted, code, paper size and acceptable values.

Perform 08-477 and check the value.

When the value is 0.

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	Lower drawer	441	A3/LD	0 to 40	
2	Upper drawer	440	A4/LT	0 to 15	
3	PFP or LCF	444/443	A4/LT	0 to 15	
4	Bypass feed	442	A4/LT	0 to 15	
5	Duplexing	445	A3/LD	0 to 15	Paper fed from the lower drawer

When the value is 1.

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	Upper drawer	440	A3/LD	0 to 40	
2	Lower drawer	441	A4/LT	0 to 40	
3	PFP or LCF	444/443	A4/LT	0 to 15	
4	Bypass feed	442	A4/LT	0 to 15	
5	Duplexing	445	A3/LD	0 to 15	Paper fed from the upper drawer

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] ([3] for duplexing) → [FAX]. (A grid pattern with 10 mm squares is printed out.)

(3) Check the grid pattern on the test chart printed out and measure the distance D from the leading edge of the paper to the 6th line of the grid pattern.
* Normally, the 1st line of the grid pattern is not printed.
* At the duplexing, measure it on the top side of the grid pattern.

(4) Check if the distance D is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance D again.

(Adjustment Mode) → (Key in the code shown above) → [START]
→ (Key in an acceptable value shown above)
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed
→ Press [1] ([3] for duplexing)→ [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance D becomes (approx. 0.4 mm/step).

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[E] Primary scanning data laser writing start position at duplexing

Note:
Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[E-1] Adjustment for long-sized paper

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance E is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in code [498]) → [START] → [0] → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed.
→ Press [3] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance E becomes (approx. 0.05 mm/ step).

[E-2] Adjustment for short-sized paper

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A4/LT from the upper drawer.)

(3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance E is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in the code [498]) → [START] → [1] → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory).
→ "100% A" is displayed
→ Press [3] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance E becomes (approx. 0.05 mm/ step).

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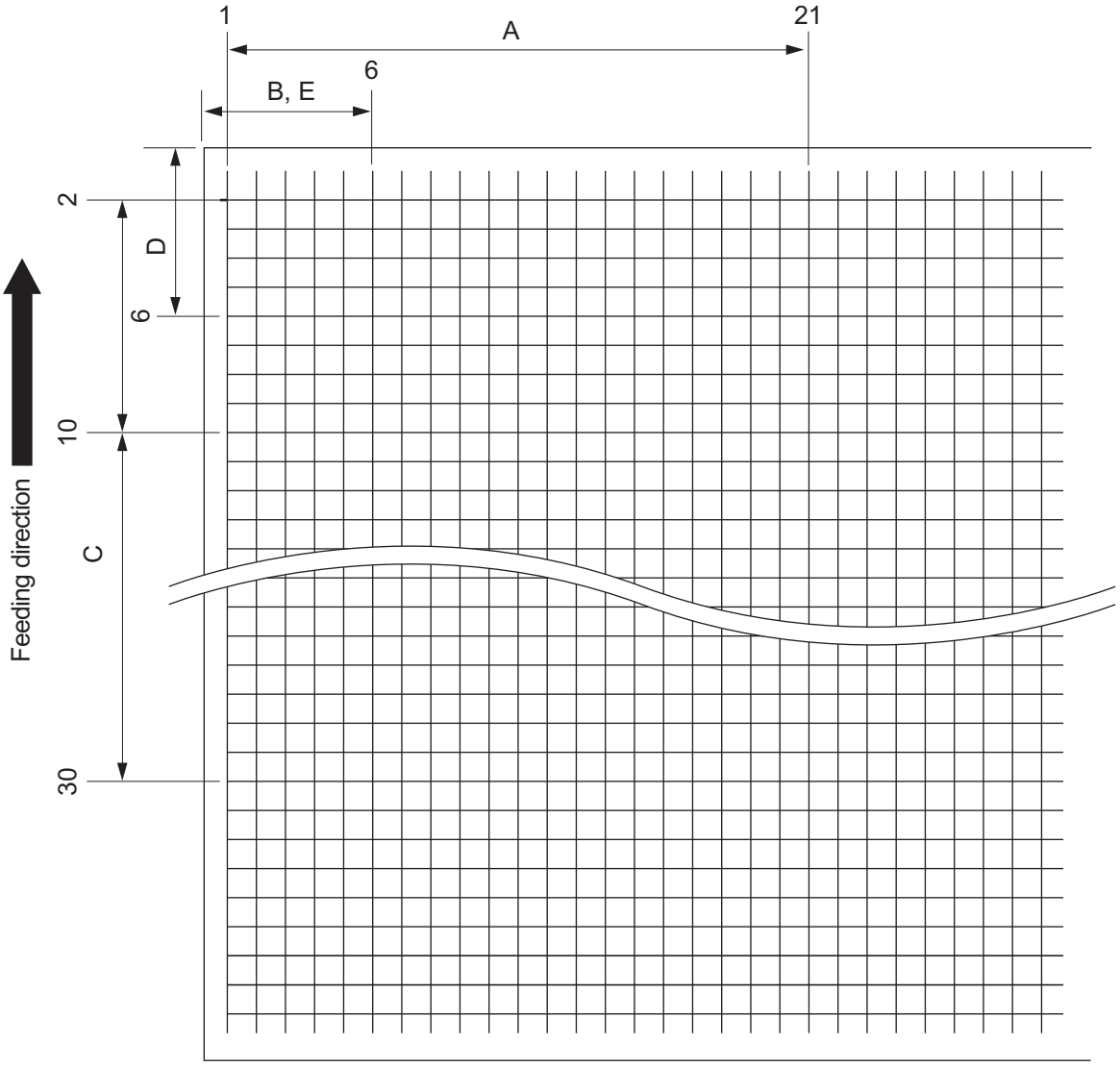


Fig. 3-8 Grid pattern

<Procedure>
Perform 08-477 and check the value.

When the value is 0.
[0] [5] [Power ON] → [1] ([3](05-445, 498) for duplexing) → [FAX]

A: 05-401 (Lower drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)

B: 05-411 (Lower drawer, A3/LD) → 52±0.5 mm (0.05 mm/step)
→ Key in the same value for 05-410.

C: 05-421 (Lower drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)

D: 05-441 (Lower drawer, A3/LD), 440 (Upper drawer, A4/LT), 444 (PFP, A4/LT), 443 (LCF, A4/LT), 442 (Bypass feed, A4/LT), 445 (Duplexing, A3/LD)
→ 52±0.5 mm(0.4 mm/step)

E: 05-498-0 (Lower drawer, A3/LD), 498-1 (Upper drawer, A4/LT) → 52±0.5 mm (0.05 mm/step)

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When the value is 1.
[0] [5] [Power ON] → [1] ([3](05-445, 498) for duplexing) → [FAX]

A: 05-401 (Upper drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)

B: 05-411 (Upper drawer, A3/LD) → 52±0.5 mm (0.05 mm/step)
→ Key in the same value for 05-410.

C: 05-421 (Upper drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)

D: 05-440 (Upper drawer, A3/LD), 441 (Lower drawer, A4/LT), 444 (PFP, A4/LT), 443 (LCF, A4/LT), 442 (Bypass feed, A4/LT), 445 (Duplexing, A3/LD)
→ 52±0.5 mm(0.4 mm/step)

E: 05-498-0 (Upper drawer, A3/LD), 498-1 (Upper drawer, A4/LT)) → 52±0.5 mm (0.05 mm/step)

Remark:
When the adjustment (05-421) is performed, the same adjustment for FAX (05-422) is automatically and consecutively performed.

3.2.4 Scanner related adjustment

[A] Image distortion

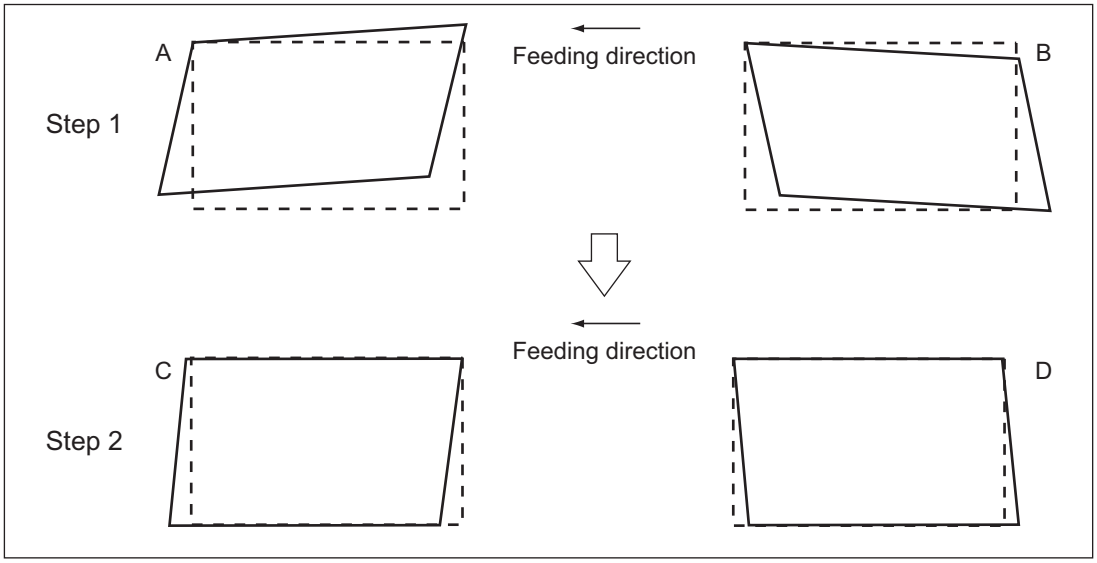


Fig. 3-9

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<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Press [FAX] to make a copy of any image on a sheet of A3/LD paper.

(3) Key in [308] and press the [START] button to move the carriage to the adjustment position.

(4) Make an adjustment in the order of step 1 and 2.
- Step 1
  - In case of A:
    Tighten the mirror-3 adjustment screw (CW).
  - In case of B:
    Loosen the mirror-3 adjustment screw (CCW).
- Step 2
  - In case of C:
    Tighten the mirror-1 adjustment screw (CW).
  - In case of D:
    Loosen the mirror-1 adjustment screw (CCW).

(5) Apply the screw locking agents to the adjustment screws. (2 areas)
- Recommended screw lock agent
  Manufacturer: Three Bond
  Product name: 1401E

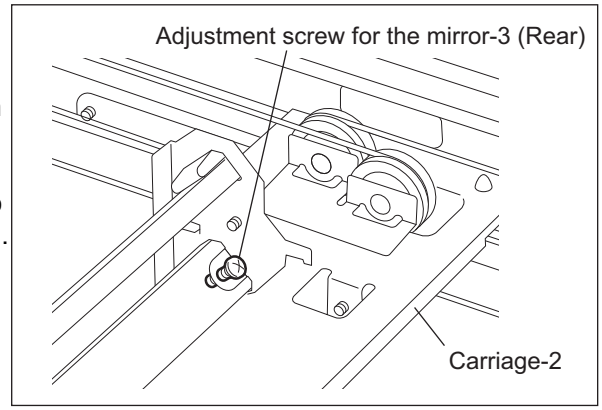


Fig. 3-10

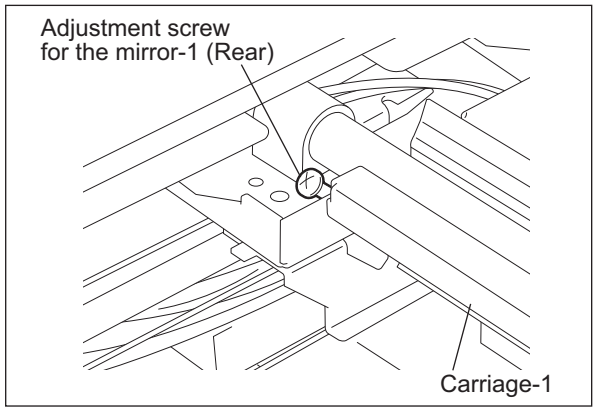


Fig. 3-11

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[B] Reproduction ratio adjustment of the primary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON → (Adjustment Mode)

(2) Place a ruler on the original glass (along the direction from the rear to the front of the equipment).

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the distance A from 10 mm to 270 mm of the copied image of the ruler.

(5) Check if the distance A is within the range of 260±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.
(Adjustment Mode) → (Key in the code [405]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
* The larger the adjustment value is, the higher the reproduction ratio and the longer the distance A become (approx. 0.125 mm/step).

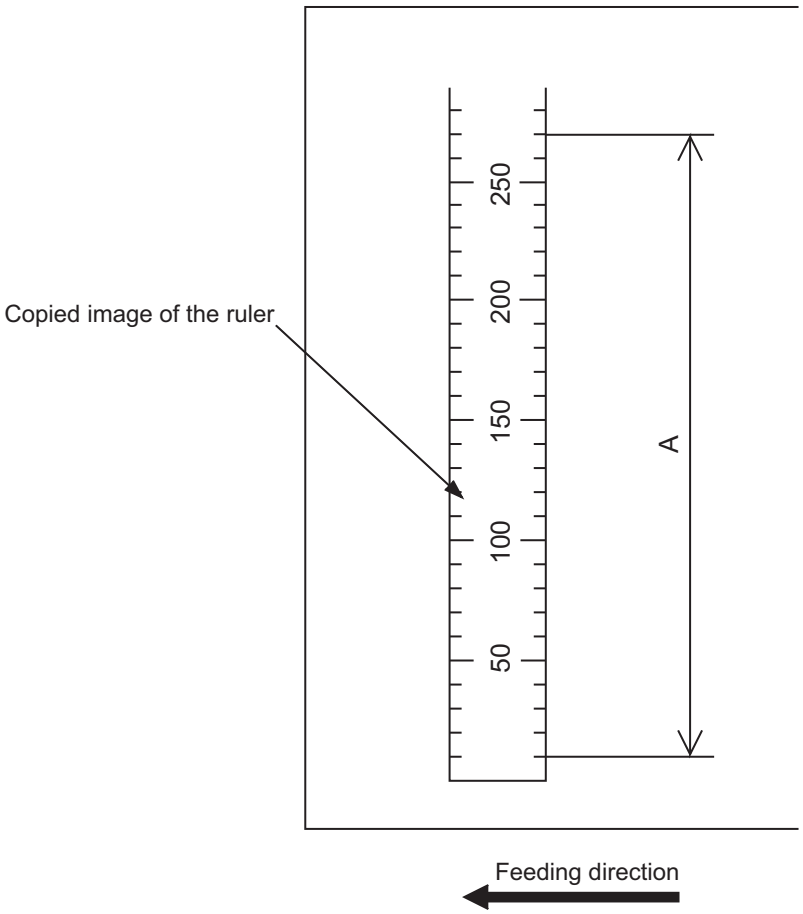


Fig. 3-12

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[C] Image position adjustment of the primary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the rear side and its side along the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and standard drawer of the equipment (Refer to *).

* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the distance B from the left edge of the paper to 10 mm of the copied image of the ruler.

(5) Check if the distance B is within the range of 10±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [306]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)

* The smaller the adjustment value is, the more the image is shifted to the left and the distance B becomes narrower (0.085 mm/step).

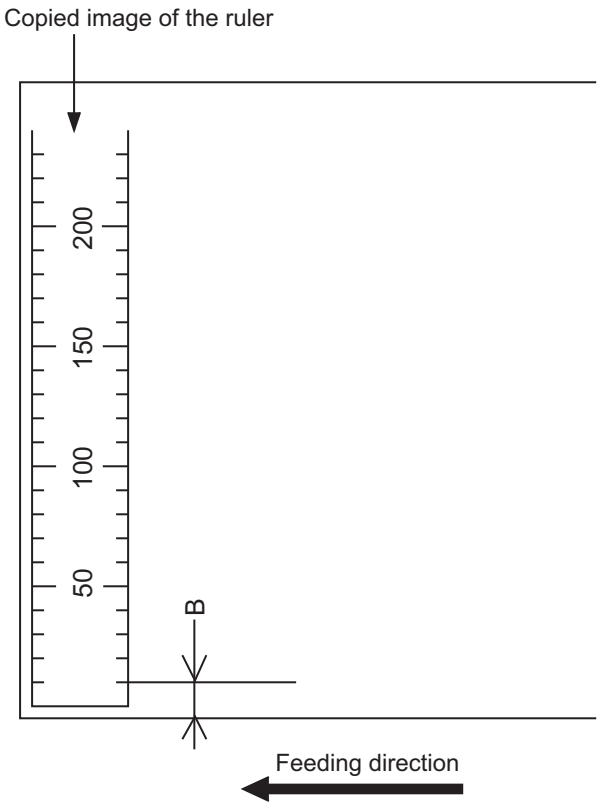


Fig. 3-13

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[D] Reproduction ratio adjustment of the secondary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and standard drawer of the equipment (Refer to *).

* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the distance C from 200 mm to 400 mm of the copied image of the ruler.

(5) Check if the distance C is within the range of 200±0.5 mm.

(6) If not, use the following procedure to change values and repeat steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [340]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)

* The smaller the adjustment value is, the lower the reproduction ratio becomes (0.45 mm/step).

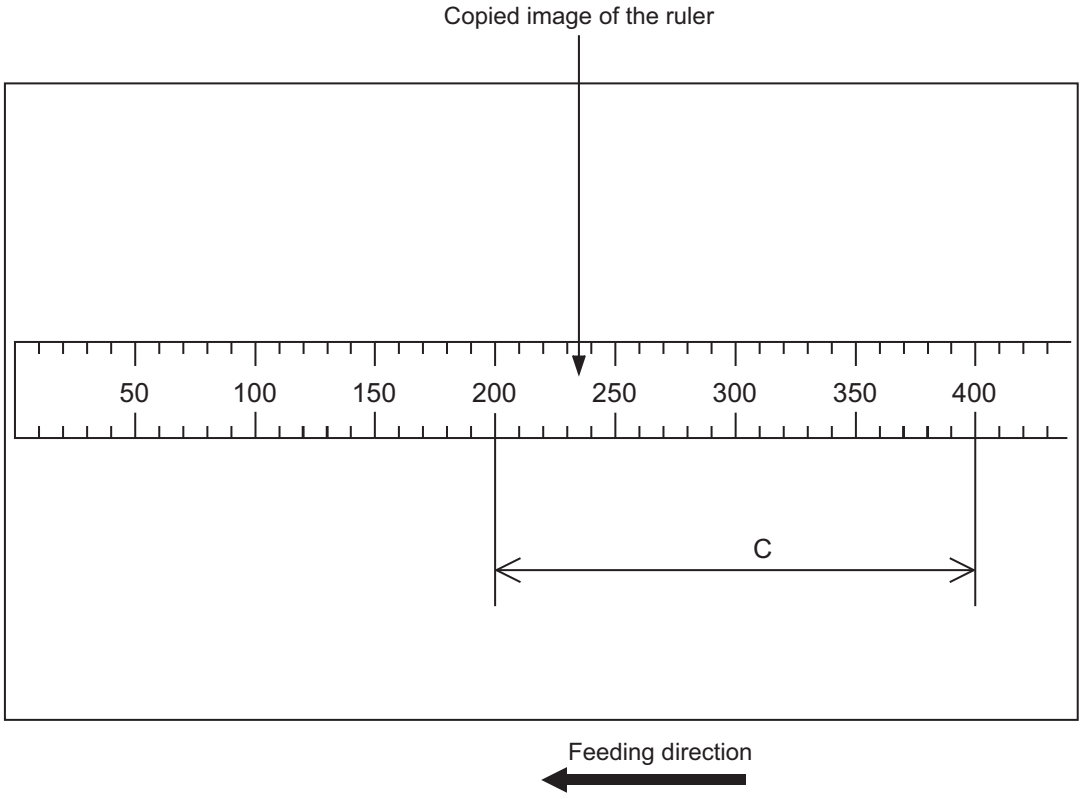


Fig. 3-14

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[E] Image position adjustment of the secondary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and standard drawer of the equipment (Refer to *).

* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the distance D from the leading edge of the paper to 10 mm of the copied image of the ruler.

(5) Check if the distance D is within the range of 10±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [305]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)

* The larger the adjustment value is, the more the image is shifted to the trailing edge (0.14 mm/step).

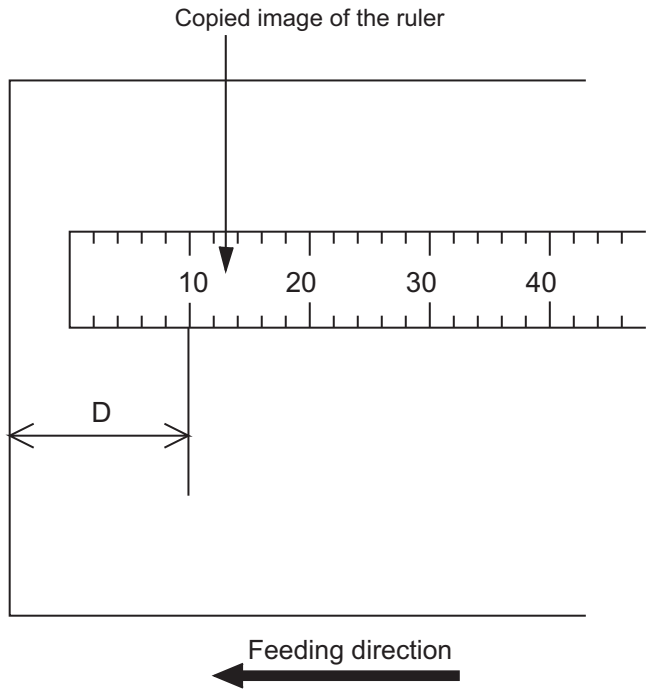


Fig. 3-15

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[F] Top margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open the platen cover or RADF.

(3) Press [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the blank area E at the leading edge of the copied image.

(5) Check if the blank area E is within the range of 3 ± 0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [430]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
* The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/ step).

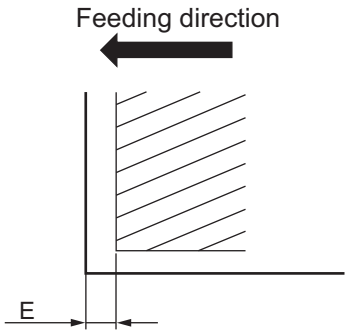


Fig. 3-16

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[G] Right margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open platen cover or RADF.

(3) Press [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the blank area F at the right side of the copied image.

(5) Check if the blank area F is within the range of 2±1.0 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [432]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
* The larger the adjustment value is, the wider the blank area at the right side becomes (approx. 0.04 mm/step).

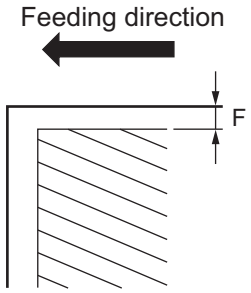


Fig. 3-17

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[H] Bottom margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open platen cover or RADF.

(3) Press the [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and standard drawer of the equipment (Refer to *).
* Perform 08-477 and check the value.
If the value is 0, use the lower drawer.
If the value is 1, use the upper drawer.

(4) Measure the blank area G at the trailing edge of the copied image.

(5) Check if the blank area G is within the range of 2±1.0 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [433]) → [START]
→ (Key in value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
* The larger the adjustment value is, the wider the blank area at the trailing edge becomes (approx. 0.04 mm/step).

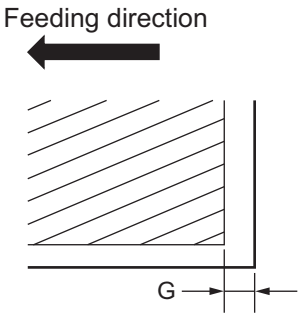


Fig. 3-18

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3.3 Image Quality Adjustment (Copying Function)

3.3.1 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
503 (931)	501 (933)	504 (932)	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255
505 (934)	506 (936)	507 (935)	Manual density mode light step value	The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255
508 (937)	509 (939)	510 (938)	Manual density mode dark step value	The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255
514 (940)	512 (942)	515 (941)	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255

* The values in "( )" are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in a code and press the [START] button.

(3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(4) Press the [ENTER] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.

(5) Let the equipment restarted and perform copying job.

(6) If the desired image density has not been attained, repeat step (2) to (5).

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3.3.2 Gamma slope adjustment

Gamma slope is adjustable with the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
593 (943)	594 (945)	595 (944)	Gamma slope adjustment	One's place: 0: equivalent to the set value 5 1 to 9: Select the gamma slope angle. (The larger the value is, the larger the angle becomes.) Ten's place: 0: equivalent to the set value 5 1 to 9: Select the gamma slope angle of the low density area. (The smaller the value is, the darker the background becomes.) 00: Use default value

* The values in “( )” are the adjustment codes of the Custom Mode.

<Procedure>

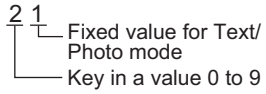
Procedure is same as that of 📖 P.3-21 "3.3.1 Density adjustment".

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3.3.3 Sharpness adjustment

If you want to make copy images look softer or sharper, perform the following adjustment.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
620 (922)	621 (924)	622 (923)	Sharpness adjustment	Key in the following values depending on the original mode. One's place 1: Text/Photo 2: Photo 5: Text Ten's place 0: Use Default value 1 to 9: Change intensity (The larger the value is, the sharper the image becomes.) • Example of value entry in case the mode is "Text/Photo".  **Note:** When the value "0" is keyed in at the ten's digit, the value is not displayed on LCD screen.

* The values in "( )" are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of 📖 P.3-21 "3.3.1 Density adjustment".

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3.3.4 Setting range correction

The values of the background peak / text peak in the range correction can be switched to “varied” or “fixed” in the following codes.
If they are fixed, the range correction is performed with standard values.
The values of the background peak affect the reproduction of the background density and the values of the text peak affect that of the text density.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
570 (913)	571 (915)	572 (914)	Range correction for original manually set on the original glass	The following are the default values set for each original mode. Text/Photo: 12, Photo: 12, Text: 22 Each digit stands for: One’s place: Automatic density mode Ten’s place: Manual density mode The setting conditions possible are as follows: Background peak / Text peak 1: fixed / fixed 2: varied / fixed 3: fixed / varied 4: varied / varied
693 (916)	694 (918)	695 (917)	Range correction for original set on the RADF	

* The values in “( )” are the adjustment codes of the Custom Mode.
Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>
Procedure is same as that of 📖 P.3-21 "3.3.1 Density adjustment".

3.3.5 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction can be set at the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
532 (919)	533 (921)	534 (920)	Background peak for range correction	When the value increases, the background (low density area) of the image is not output. Acceptable values: 0 to 255 (Default: Text/Photo: 40, Photo: 16, Text: 64)

* The values in “( )” are the adjustment codes of the Custom Mode.
Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>
Procedure is same as that of 📖 P.3-21 "3.3.1 Density adjustment".

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3.3.6 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

< e-STUDIO 200L/230/230L/280 >

Original mode Text/Photo	Item to be adjusted	Remarks
653 (928)	Adjustment of smudged/faint spotted text	When the value increases, the faint text is improved. When the value decreases, the smudged text is improved. Acceptable values: 0 to 255 (Default: 192) **Note:** Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

< e-STUDIO 202L/203L/232/233/282/283 >

Original mode Text/Photo	Item to be adjusted	Remarks
648 (928)	Adjustment of smudged/faint spotted text	When the value increases, the faint text is improved. When the value decreases, the smudged text is improved. Acceptable values: 0 to 4 (Default: 2) **Note:** Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

* The values in "( )" are the adjustment codes of the Custom Mode.
Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>
Procedure is same as that of 📖 P.3-21 "3.3.1 Density adjustment".

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3.3.7 Adjustment of image density

The image density level can be set at the following codes.

< Adjustment Mode (05) >

Code	Item to be adjusted	Remarks
667-0 to 4	Adjustment of image density	When the value is decreased, text becomes lighter. Acceptable values: 0 to 10 **Notes:** 1. Set not to reverse the large and small number of the setting value corresponding to the sub code. Ex.) When the image density level for 667-0, 667-1, 667-2, 667-3, and 667-4 is assumed to be "A","B", "C", "D", and "E" respectively, they should have the following correlation: $A \leq B \leq C \leq D \leq E$ 2. Remember that the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in the code “667” and press the [START] button.

(3) Key in the sub code (0, 1, 2, 3 or 4), and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. The equipment goes back to the ready state.

(6) For resetting the value, repeat step (2) to (5).

(7) Turn the power OFF and then back ON to perform printing job.

(8) If the desired image density has not been attained, repeat step (2) to (7).

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3.4 Image Quality Adjustment (Printing Function)

3.4.1 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

Language		Remarks
PS	PCL	
654	655	When the value increases, the smudged text is improved. When the value decreases, the faint text is improved. Acceptable values: 0 to 9 (Default: 5)

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in a code and press the [START] button.

(3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(4) Press the [ENTER] or [INTERRUPT] button to store the value. The equipment goes back to the ready state.

(5) Turn the power OFF and then back ON to perform printing job.

(6) If the desired text density has not been attained, repeat step (2) to (5).

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3.4.2 Adjustment of image density

The image density level is adjustable both at standard and toner saving modes.

< Adjustment Mode (05) >

Toner mode		Item to be adjusted	Remarks
Standard	Toner saving		
672-0 to 4	676-0 to 4	Adjustment of image density	When the value is decreased, text becomes lighter. Acceptable values: 0 to 10 **Notes:** 1. Set not to reverse the large and small number of the setting value corresponding to the sub code. Ex.) When the image density level for 672-0, 672-1, 672-2, 672-3, and 672-4 is assumed to be "A","B", "C", "D", and "E" respectively, they should have the following correlation: $A \leq B \leq C \leq D \leq E$ 2. Remember that the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in a code and press the [START] button.

(3) Key in the sub code (0, 1, 2, 3 or 4), and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. The equipment goes back to the ready state.

(6) For resetting the value, repeat step (2) to (5).

(7) Turn the power OFF and then back ON to perform printing job.

(8) If the desired image density has not been attained, repeat step (2) to (7).

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3.4.3 Gamma balance adjustment < e-STUDIO 202L/203L/232/233/282/283 >

The gamma balance is adjusted by adjusting the density at the Black Mode. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

< Adjustment Mode (05) >

Language and screen				Item to be adjusted	Remarks
Smooth (PS)	Detail (PS)	Smooth (PCL)	Detail (PCL)		
596-0	597-0	598-0	599-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255. (Default: 128)
596-1	597-1	598-1	599-1	Medium density	
596-2	597-2	598-2	599-2	High density	

3

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3.5 Image Quality Adjustment (Scanning Function)

3.5.1 Density adjustment

Adjusts the center density and the variation of density adjustment button.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
845	847	846	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255
850	852	851	Manual density mode light step value	The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255
855	857	856	Manual density mode dark step value	The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255
860	862	861	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in a code and press the [START] button.

(3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(4) Press the [ENTER] or [INTERRUPT] button to store the value. The equipment goes back to the ready state.

(5) Turn the power OFF and then back ON to perform scanning job.

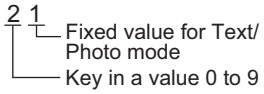
(6) If the desired image density has not been attained, repeat step (2) to (5).

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3.5.2 Sharpness adjustment

If you want to make scan images look softer or sharper, perform the following adjustment.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
865-0	867-0	866-0	Reproduction ratio: 25% to 40%	Key in the following values depending on the original mode. One's place 1: Text/Photo 5: Photo 2: Text Ten's place 0: Use Default value 1 to 9: Change intensity • The larger the value is, the sharper the image becomes.) • Example of value entry in case the mode is "Text/Photo".  **Note:** When the value "0" is keyed in at the ten's digit, the value is not displayed on LCD screen.
865-1	867-1	866-1	Reproduction ratio: 41% to 80%	
865-2	867-2	866-2	Reproduction ratio: 81% to 400%	

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in a code and press the [START] button.

(3) Key in the sub code (0,1 or 2), and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. The equipment goes back to the ready state.

(6) For resetting the value, repeat step (2) to (5).

(7) Turn the power OFF and then back ON to perform scanning job.

(8) If the desired image density has not been attained, repeat step (2) to (7).

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3.5.3 Setting range correction

The values of the background peak / text peak in the range correction can be switched to “varied” or “fixed” in the following codes.
If they are fixed, the range correction is performed with standard values.
The values of the background peak affect the reproduction of the background density and the values of the text peak affect that of the text density.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
825	827	826	Range correction for original manually set on the original glass	The following are the default values set for each original mode. Text/Photo: 12, Photo: 12, Text: 12 Each digit stands for: One’s place: Automatic density mode Ten’s place: Manual density mode The setting conditions possible are as follows: Background peak / Text peak 1: fixed / fixed 2: varied / fixed 3: fixed / varied 4: varied / varied
830	832	831	Range correction for original set on the RADF	

<Procedure>
Procedure is same as that of 📖 P.3-30 "3.5.1 Density adjustment".

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3.5.4 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction can be set at the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
835	837	836	Background peak for range correction	When the value increases, the background (low density area) of the image is not output. Acceptable values: 0 to 255 (Default: text/photo: 48, photo: 40, text: 48)

<Procedure>

Procedure is same as that of 📖 P.3-30 "3.5.1 Density adjustment".

3.5.5 Setting range correction (Adjustment of text peak)

The levels of the text peak for the range correction can be set at the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
820	822	821	Text peak for range correction	When the value is increased, text (high image density part) becomes lighter. Acceptable values: 0 to 255 (Default: text/photo: 224, photo: 239, text: 224)

* The image changes slightly in text mode because it is treated as a simple binary format image.

<Procedure>

Procedure is same as that of 📖 P.3-30 "3.5.1 Density adjustment".

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3.6 Adjustment of High-Voltage Transformer

When replacing the high-voltage transformer, checking each output adjustment of main charger, developer bias, transfer charger and separation charger is needed.

3.6.1 Adjustment

[1] Preparation

Items to check		Developer Bias	Main Charger	Transfer Charger	Separation Charger
Process Unit		Take off from the equipment. (Not used)			
High-Voltage Transformer Jig		Install the high-voltage transformer jig in the equipment. **Note:** Connect the green cable of the high-voltage transformer jig to ground on the equipment frame. Refer to 🕮 P.3-35 "[A] Installation of the high-voltage transformer jig".			
Digital Tester	(+) terminal	Connect with the black cable of the high-voltage transformer jig.	Connect with the red cable (thick line) of the high-voltage transformer jig.	Connect with the red cable (thin line) of the high-voltage transformer jig.	
	(–) terminal	Connect with the white cable of the high-voltage transformer jig.			
	Function switch	DC			
	Full-scale (range)	1000 V		2 V	
	Remarks	Use a digital tester with an input resistance of 10 MΩ (RMS value) or higher.			
How to turn ON the power		Attach the door switch jig and start with the adjustment mode [05] while the front cover opened. Then press the front cover opening/closing switch.			
Note		Refer to 🕮 P.3-37 "[B] Connection for developer bias adjustment".	Refer to 🕮 P.3-37 "[C] Connection for main charger adjustment".	Refer to 🕮 P.3-38 "[D] Connection for transfer/separation charger adjustment".	

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[A] Installation of the high-voltage transformer jig

(1) Open the bypass tray, ADU and transfer cover.
(2) Open the front cover and take off the toner cartridge.
(3) Disconnect 1 connector. Loosen 2 screws and pull out the process unit.

Note:
Be careful not to let the connector and the harness be caught when installing the process unit after adjustment.

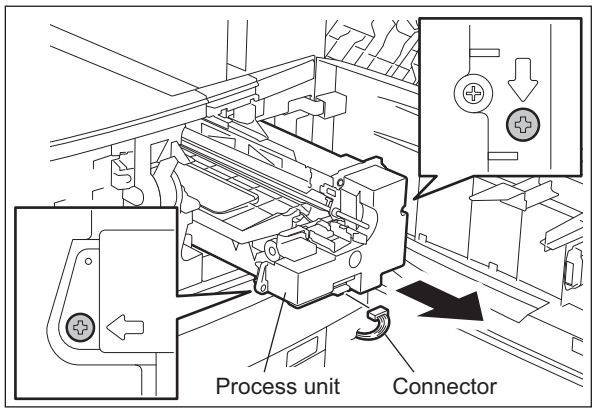


Fig. 3-19

(4) Install the high-voltage transformer jig and fix it with 2 screws.

Note:
Be careful not to let the connector and the harness be caught.

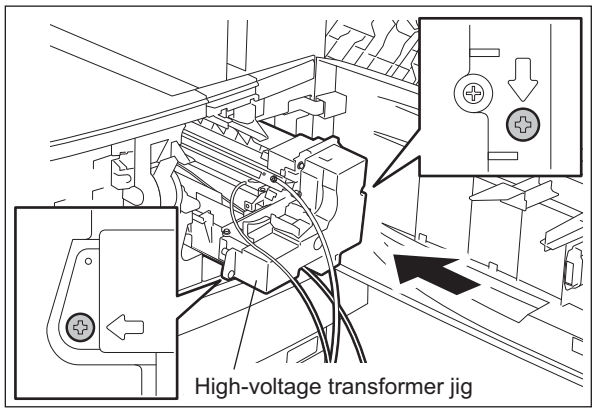


Fig. 3-20

(5) Fix the green cable of the high-voltage transformer jig to the frame of the equipment.

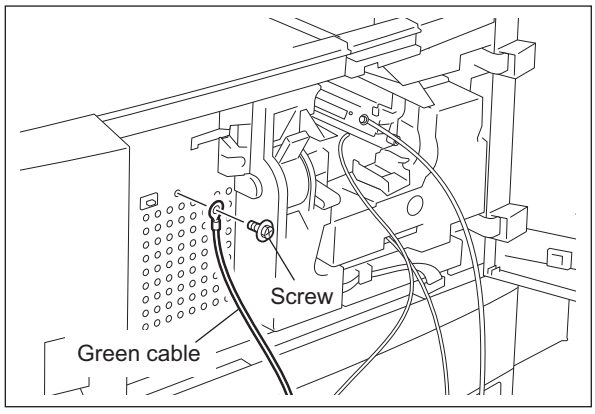


Fig. 3-21

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(6) Install the door switch jig.
(7) Close the transfer cover.

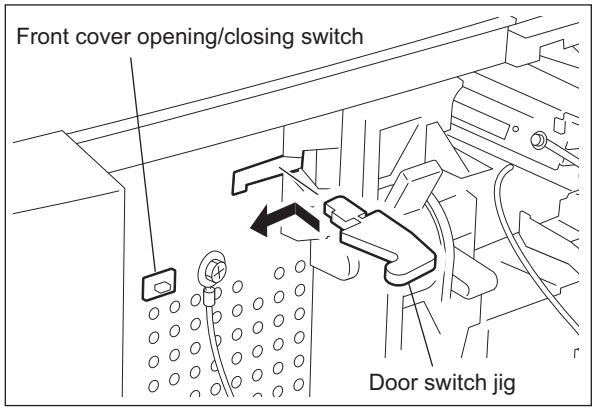


Fig. 3-22

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[B] Connection for developer bias adjustment

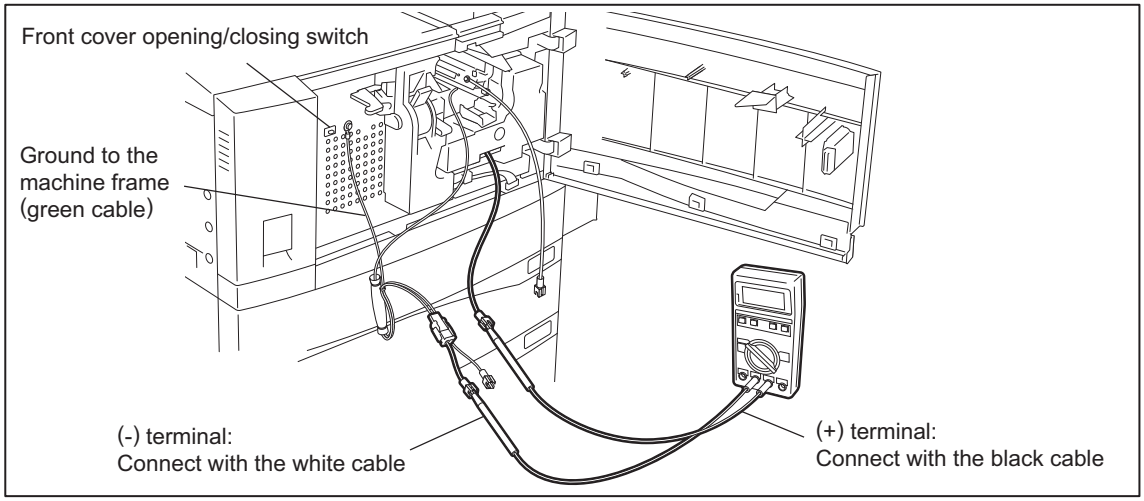


Fig. 3-23

[C] Connection for main charger adjustment

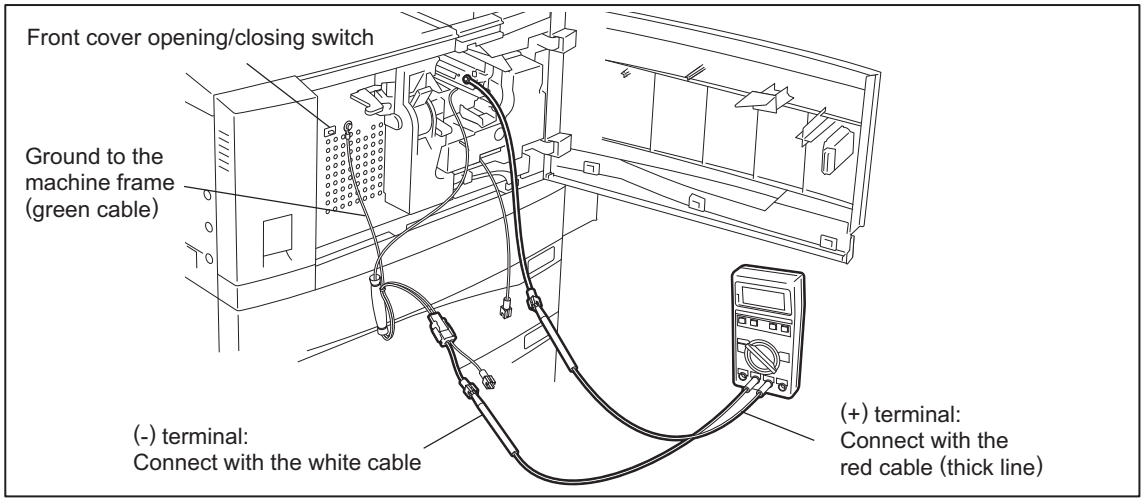


Fig. 3-24

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[D] Connection for transfer/separation charger adjustment

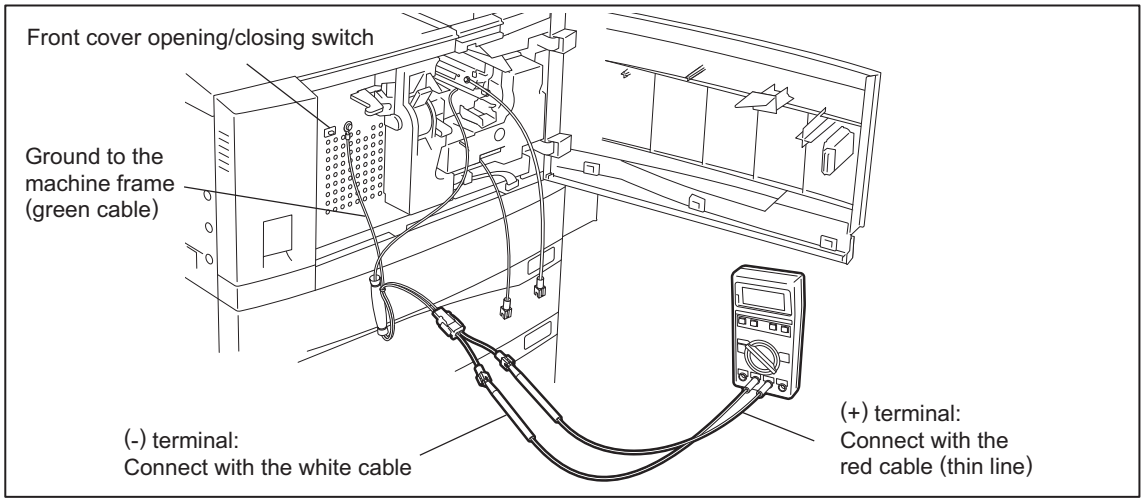


Fig. 3-25

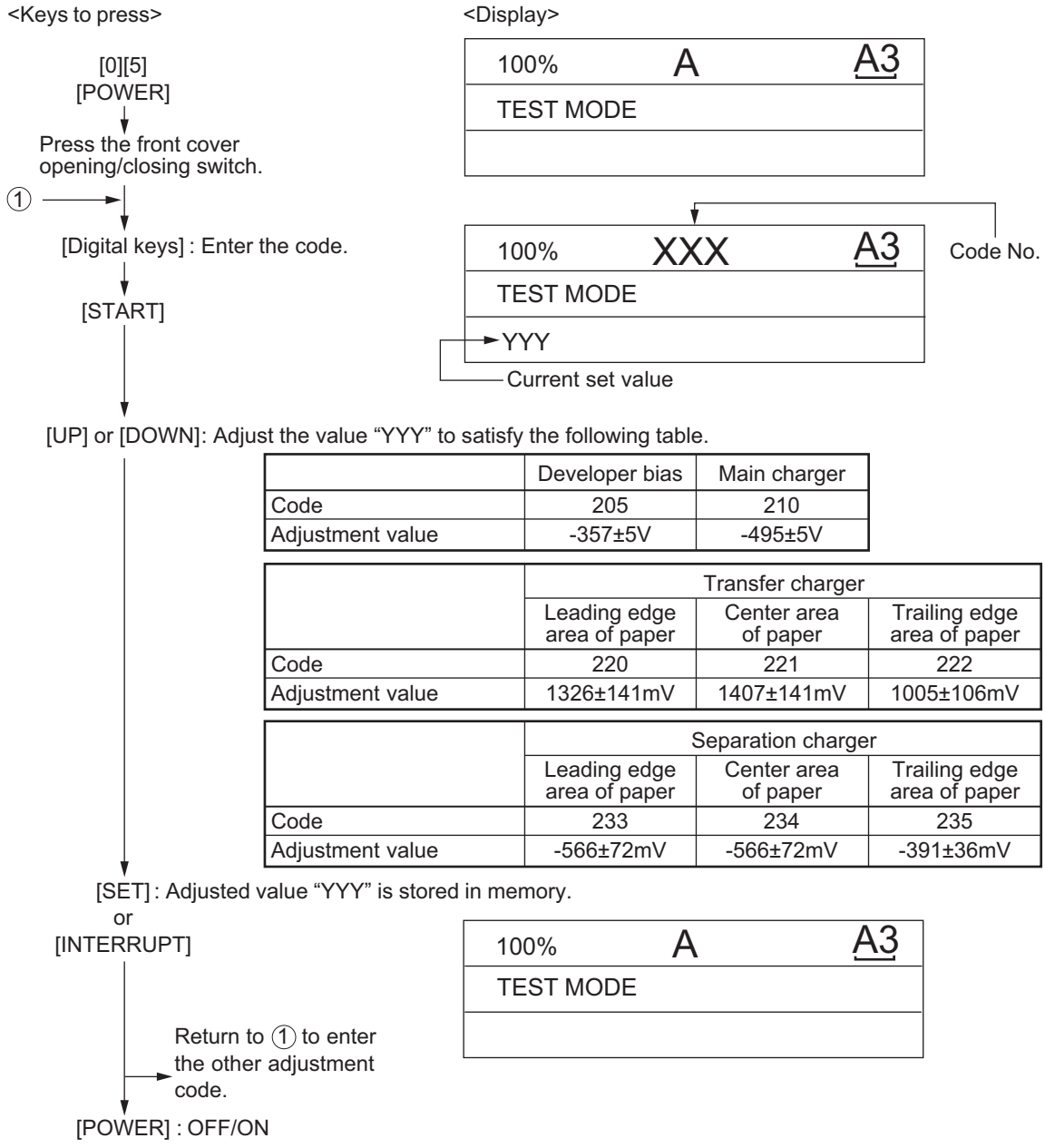
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[2] Operation

Note:

When adjusting output of high-voltage transformer, make sure to use the high-voltage transformer jig.

Connect the digital testers as described in “[1] Preparation”, and follow the procedure on the next page to adjust the output from the main charger, developer bias charger, transfer charger and separation charger.



	Developer bias	Main charger
Code	205	210
Adjustment value	-357±5V	-495±5V

	Transfer charger		
	Leading edge area of paper	Center area of paper	Trailing edge area of paper
Code	220	221	222
Adjustment value	1326±141mV	1407±141mV	1005±106mV

	Separation charger		
	Leading edge area of paper	Center area of paper	Trailing edge area of paper
Code	233	234	235
Adjustment value	-566±72mV	-566±72mV	-391±36mV

Fig. 3-26

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3.6.2 Precautions

[1] Developer bias

Note for adjustment

Adjust the developer bias if fogging occurs over the entire image even though the main charger grid voltage and toner density are appropriate. However, the following may occur if the developer bias is lowered too much:

- Image contrast becomes low.
- Image is patchy or blurred.
- The carrier in the developer material adheres to the photoconductive drum, causing scratches around the cleaner.

[2] Transfer

Items to check before adjustment

Blotched image or poor transfer can be also caused by matters other than defective adjustment of transfer output. Check the following items before adjusting the transfer charger. If there is no problem, adjust the output of the transfer charger.

- Is the charger wire incorrectly installed or dirty? Is the transfer guide deformed?
- Is the process unit properly installed? Is the developer magnetic brush in contact with the drum? Is the process unit worked correctly? Is the toner density low?
- Is the copy paper fed straight? Is the copy paper abnormally moist?
- Is the rotation of the registration roller normal?
- Is the separation output different from the set value?
- Is the developer bias value an appropriate one?
- Are the transfer/separation charger case grounded? Is the high-voltage transformer grounded?

Note for adjustment

When blotched image appear:

- If blotched image appear in halftone areas, lower the transfer output value. Remember that transfer performance becomes low if the transfer output value is lowered too much.

When poor transfer occurs:

Increase the transfer output value under the following conditions. Remember that blotched image appear if the transfer output value is increased too much.

- Transfer is poor even though the charger wire is not dirty.
- Thick paper has been frequently used.

The adjustment code varies according to where blotched image and poor transfer occur. Select the required adjustment code while referring to the following diagram.

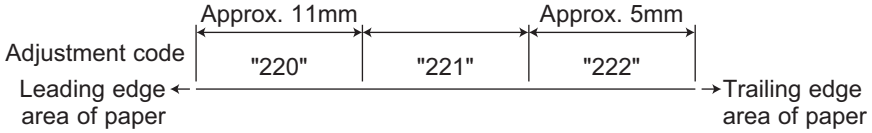


Fig. 3-27

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[3] Separation

Items to check before adjustment

Poor paper separation from the drum can be also caused by matters other than defective adjustment of the separation output. Check the following items before making an adjustment. If there is no problem, adjust the output of the separation charger.

- Is the charger wire incorrectly installed or dirty?
- Is the process unit installed properly? Is the developer magnetic brush in contact with the drum? Is the process unit worked correctly? Is the toner density low?
- Is the copy paper fed straight? Is the copy paper abnormally moist?
- Is the rotation of the registration roller normal?
- Is the output of the main charger normal?
- Is the developer bias an appropriate value?
- Is the transfer output different from the set value?
- Is the transfer/separation charger case grounded? Is the high-voltage transformer grounded?
- Is the separation finger in contact with the drum surface?

Note for adjustment

When poor paper separation occurs:

Increase the separation output value under the following conditions. Remember that if the separation output value is increased too much, blotched image occurs and separation performance becomes low.

- Poor separation occurs even though the charger wire is not dirty.
- Thin paper has been frequently used.

When poor transfer occurs:

- Decrease the separation output value when poor transfer occurs. Remember that the separation performance becomes low if the separation output value is decreased too much.

The adjustment code varies according to where poor paper separation and poor transfer occur. Select the required adjustment code while referring to the following diagram.

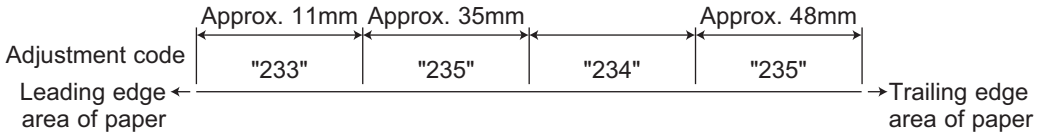


Fig. 3-28

* Adjustment code 235 performs the adjustment for 2 areas.

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3.7 Adjustment of the Scanner Section

3.7.1 Carriages

[A] Installing carriage wires
When replacing the carriage wires, refer illustrations below:

[Front side]

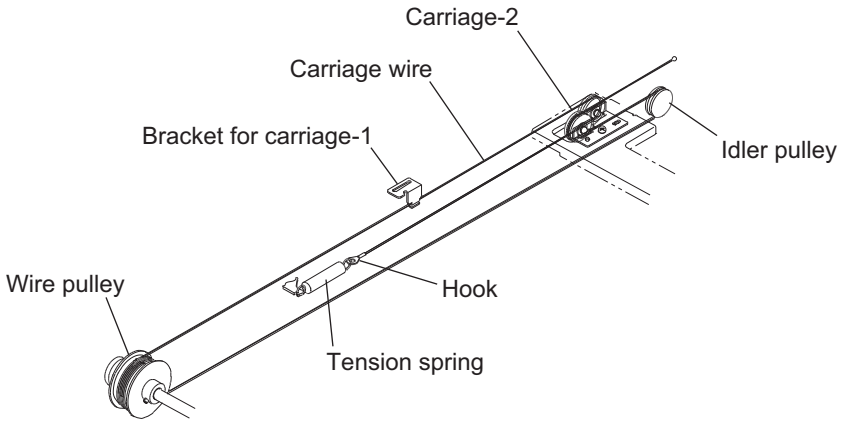


Fig. 3-29

[Rear side]

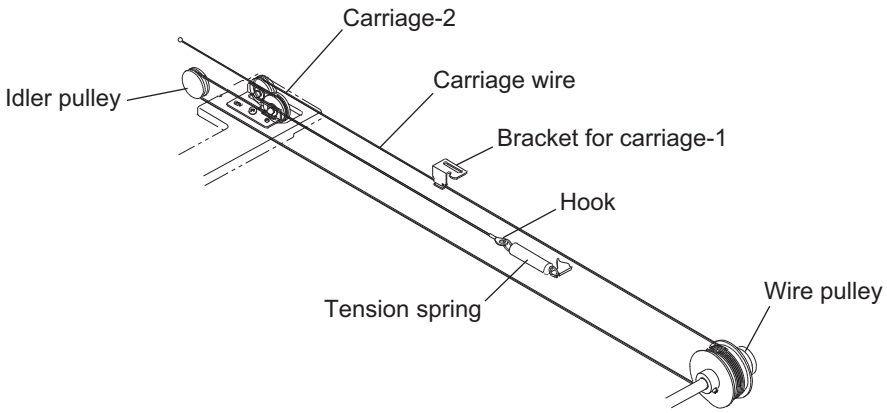


Fig. 3-30

Adjustment of the carriage wire tension is not necessary since a certain tension is applied to the carriage wires by the tension springs.

Note:
Make sure the tension applied to the wire is normal.

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[B] Adjusting carriages-1 and -2 positions

<Procedure>

(1) Move the carriage-2 toward the exit side.

(2) Loosen the screws fixing the front side pulley bracket, make the sections A and B of the carriage-2 touch with the inside of the exit side frame and screw them up.

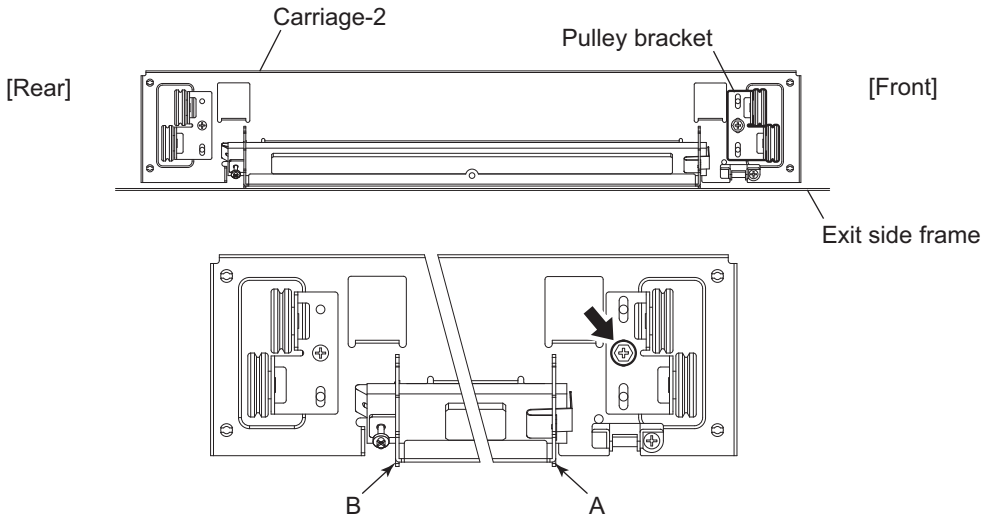


Fig. 3-31

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(3) Put the carriage-1 on the rail, make the sections C and D of it touch with the inside of the exit side frame and screw up the front/rear sides of the bracket to fix it.

Note:
Make sure that the sections A and B of the carriage-2 touch with the exit side frame.

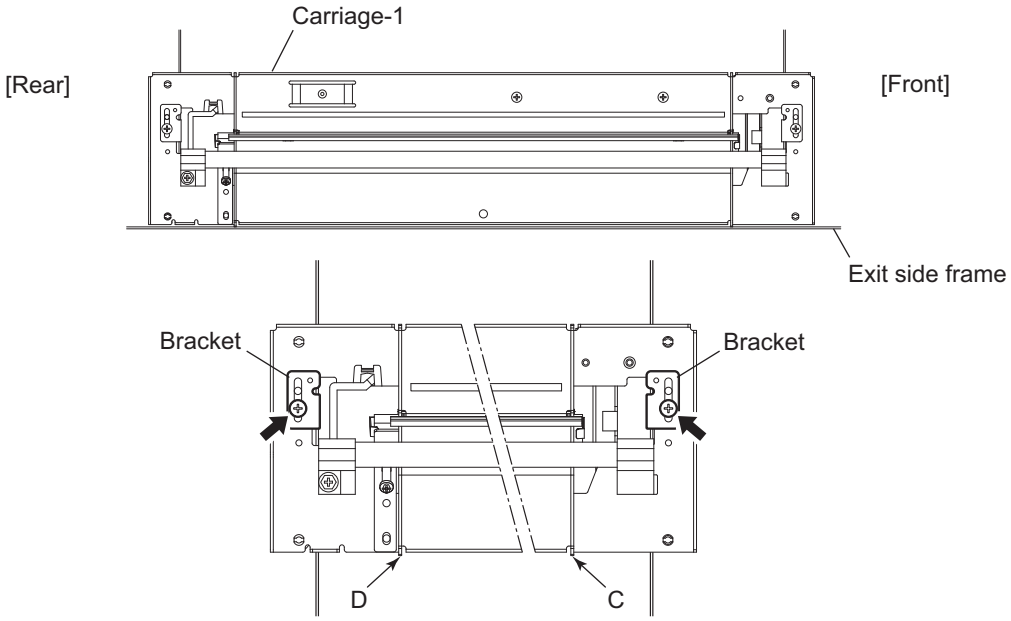


Fig. 3-32

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[C] Assembling carriage wires (Winding the wire around the wire pulley)

<Procedure>

(1) Pull the Ø3 ball terminal located at the center of the wire into a hole on the wire pulley. One end of the wire with a hook attached comes to the outside.

(2) Wind the wires around the wire pulleys of the front and rear sides. The number of turns to be wound are as follows:
- 2 turns toward the opposite side of the boss
- 4 turns toward the boss side

Note:

Pay attention to the following when the wires are wound around the pulleys:
- Do not twist the wire.
- Wind the wires tightly so that they are in complete contact with the surface of the pulleys.
- Each turn should be pushed against the previously wound turn so that there is no space between them.

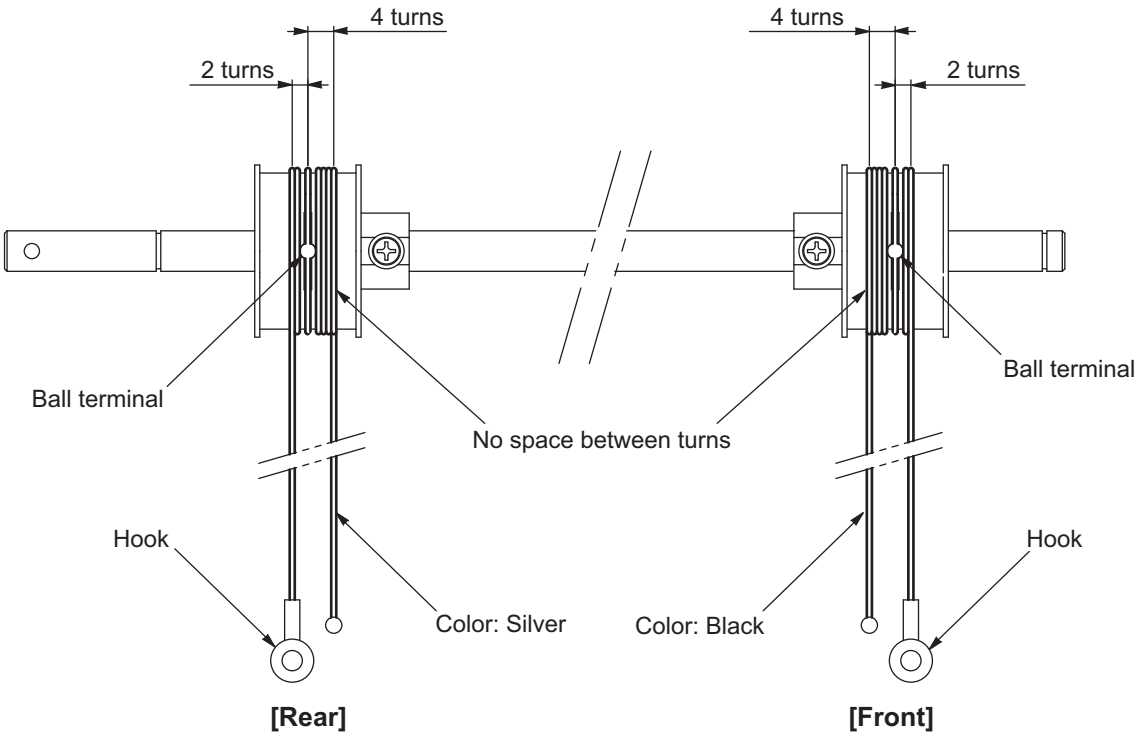


Fig. 3-33

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(3) After winding the wires around the pulleys, attach the wire holder jigs not to loosen the wires.

Notes:

- When the wire holder jig is attached, make sure that the wire is not shifted or loosened.
- The wire should come out of the slot of the wire holder jig and be passed through between the arm and the jig.

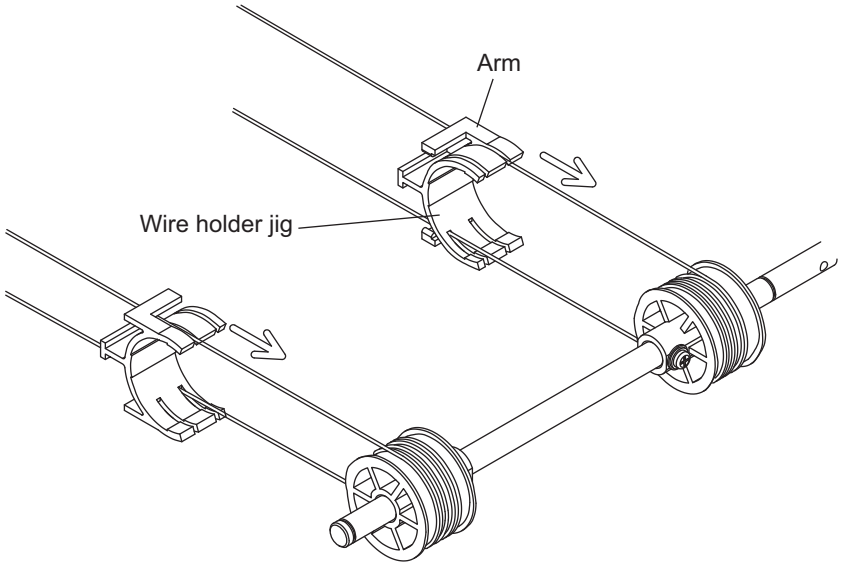


Fig. 3-34

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3.7.2 Lens unit

[A] Replacing the lens unit

- The lens unit must not be readjusted and some part of its components must not be replaced in the field since the unit is precisely adjusted. If any of the components is defective, replace the whole unit.
- When replacing the unit, do not loosen or remove the 4 screws indicated with the arrows.

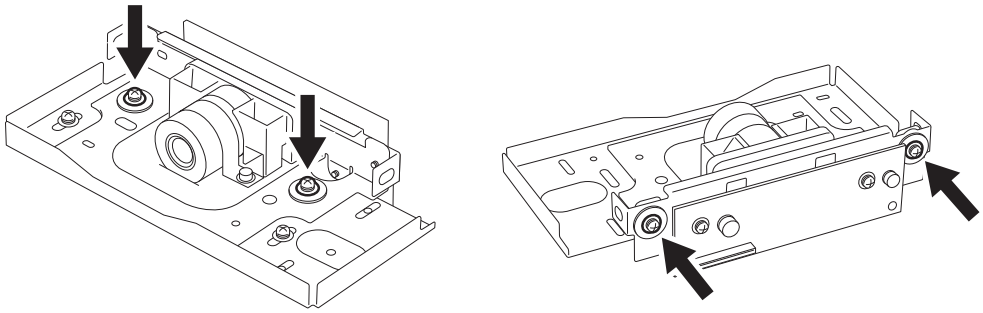


Fig. 3-35

- Handle the unit with care. Do not hold the lens and adjusted part (hold the unit as shown below).

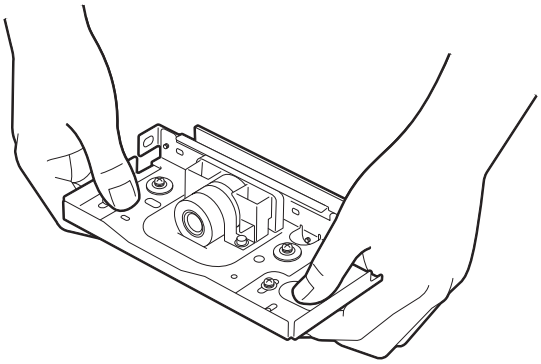


Fig. 3-36

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[B] Adjustment of the magnification ratio of the lens

Notes:

- Perform this adjustment only when the lens unit is taken off or replaced.
- Make sure that the primary scanning reproduction ratio (printer section) is correct before this adjustment.

(1) Place a ruler on the original glass (in the primary scanning direction) and make a copy on A4/LT-sized paper at 100% reproduction ratio.

(2) Compare the copied ruler with the actual ruler.

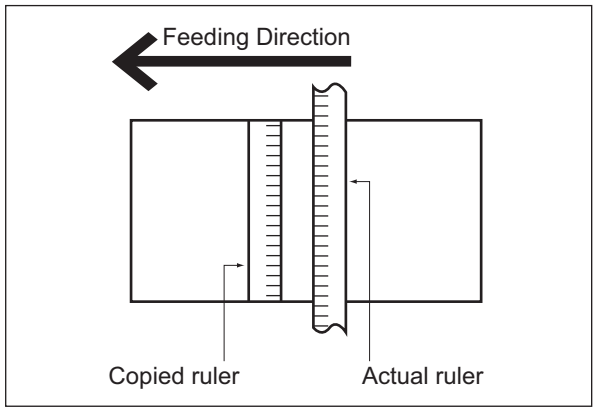


Fig. 3-37

(3) If each mark on the rulers differs, perform the adjustment with the following procedures.

<Procedure>

(1) Take off the original glass and lens cover.

(2) Loosen 2 screws fixing the lens unit.

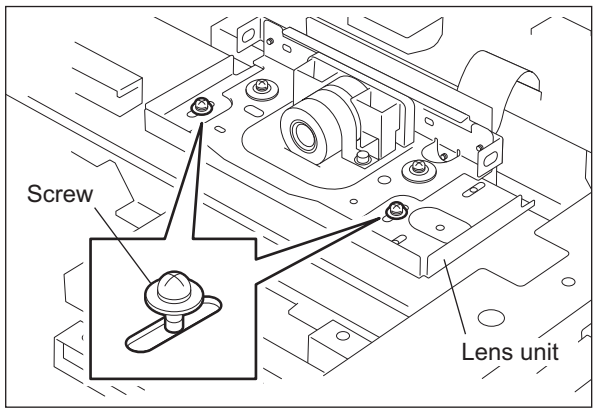


Fig. 3-38

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(3) Slide the lens unit to the right or left direction using the marks on the lens base as a guide. (Slide right when the copied ruler is magnified and slide left when the copied ruler is demagnified.) The following table shows how the reproduction ratio difference between the copied ruler and actual ruler corresponds to the movement amount of the lens unit.

Reproduction-ratio error	Movement amount of unit
0.1%	0.5 mm
0.2%	0.9 mm
0.3%	1.4 mm
0.4%	1.8 mm
0.5%	2.3 mm
0.6%	2.7 mm
0.7%	3.2 mm
0.8%	3.6 mm
0.9%	4.1 mm
1.0%	4.5 mm

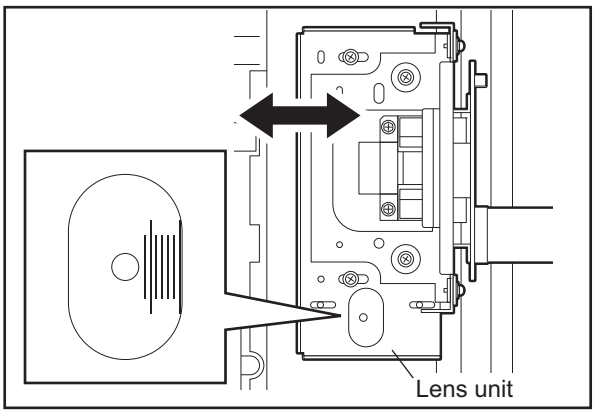


Fig. 3-39

Note:
Fine adjustment can be made in the “Reproduction ratio of primary scanning direction (printer)”. on the copied ruler and actual ruler match.

(4) Tighten 2 screws fixing the lens unit.

(5) Attach the lens cover and original glass. Make a copy to confirm the reproduction ratio.

(6) Repeat the procedure 1 to 5 until the marks on the copied ruler and actual ruler match.

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3.8 Adjustment of the Paper Feeding System

3.8.1 Sheet sideways deviation caused by paper feeding

<Procedure>

The center of the printed image shifts to the front side. → Move the guide to the front side (Arrow (A) direction in the lower figure).

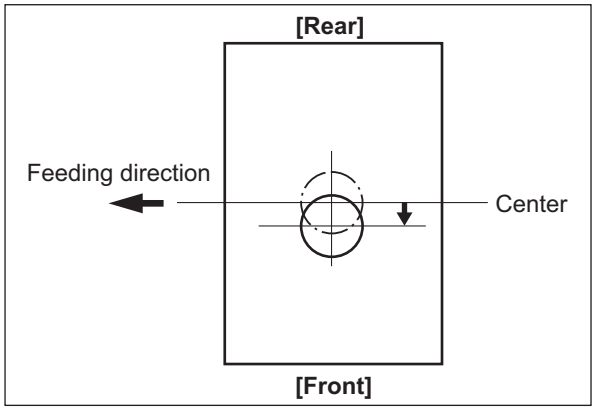


Fig. 3-40

The center of the printed image shifts to the rear side. → Move the guide to the rear side (Arrow (B) direction in the lower figure).

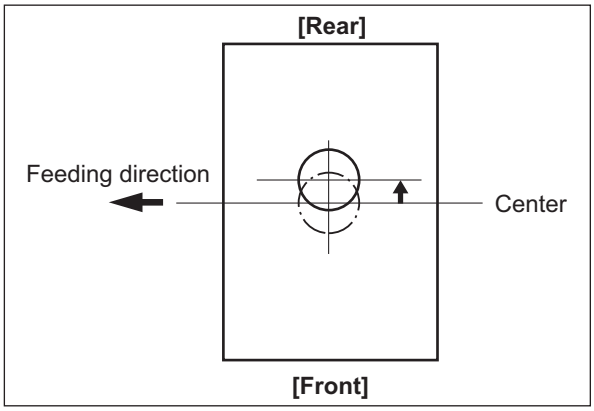


Fig. 3-41

Bypass feeding

1) Loosen the screen.
2) Move the entire guide to the front or rear side.
3) Tighten the screw.

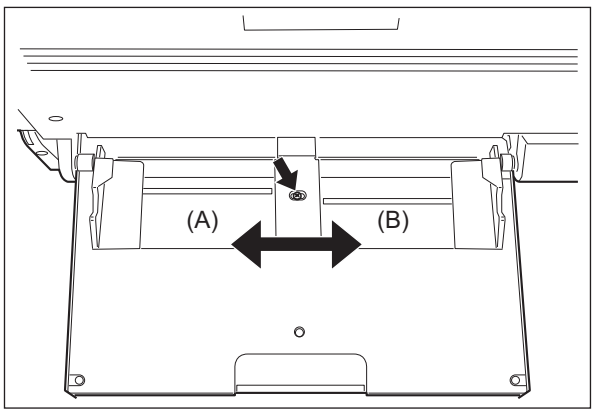


Fig. 3-42

Drawer feeding

1) Loosen 2 screws.
2) Move the entire guide to the front or rear side.
3) Tighten the screws.

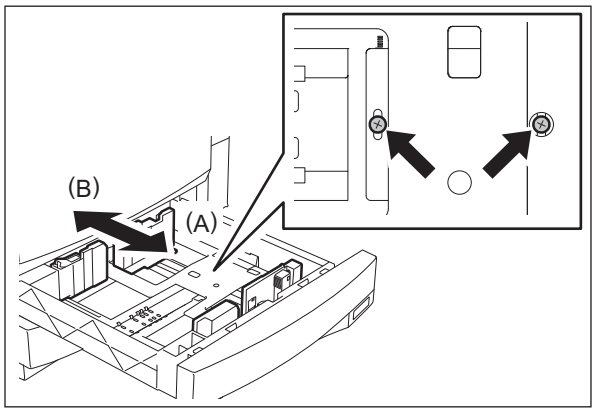


Fig. 3-43

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3.9 Adjustment of Developer Unit

3.9.1 Doctor-to-sleeve gap

Adjustment tool to use: Doctor-sleeve jig
<Procedure>

(1) Perform the adjustment code “05-280”.

(2) Take out the process unit from the equipment.

(3) Take out the developer unit from the process unit.

(4) Remove 2 screws and take off the developer material cover and discharge the developer material.

Note:
Discharge the developer material from the rear side, being careful not to let it be scattered on the gear.

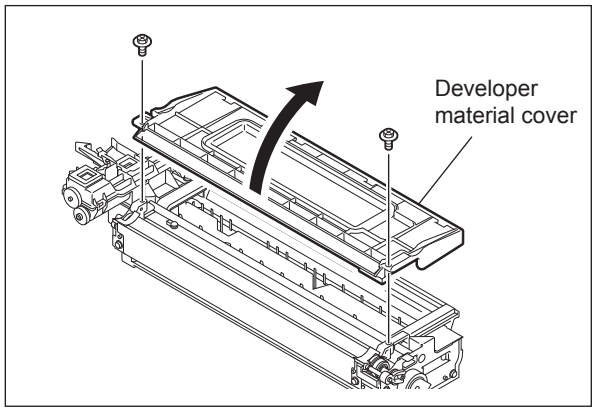


Fig. 3-44

(5) Turn the adjustment screw to widen the gap so that the jig can be inserted in it.
(Turning the screw clockwise widens the gap)

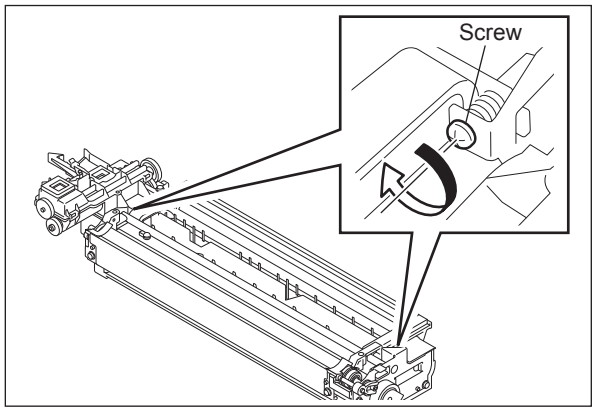


Fig. 3-45

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(6) Insert the gauge with the thickness “0.45” of the doctor sleeve jig into the gap between the developer sleeve and doctor blade after lifting up the toner scattering prevention sheet.
Adjust the screws with the doctor blade to push the doctor sleeve jig lightly.

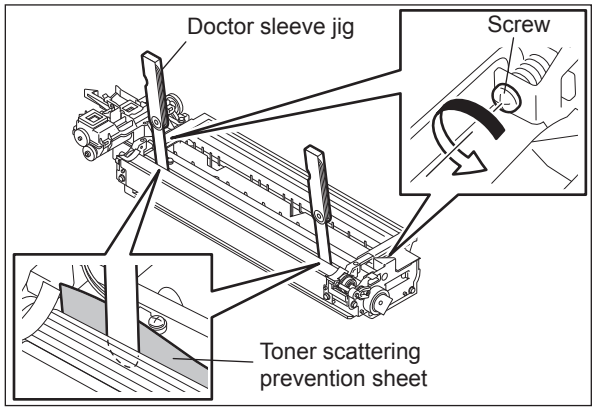


Fig. 3-46

(7) Insert the gauge “0.40” of the doctor sleeve jig into the gap between the developer sleeve and doctor blade. Confirm that the jig moves smoothly to the front and rear side, and the gauge “0.50” cannot be inserted into the gap.

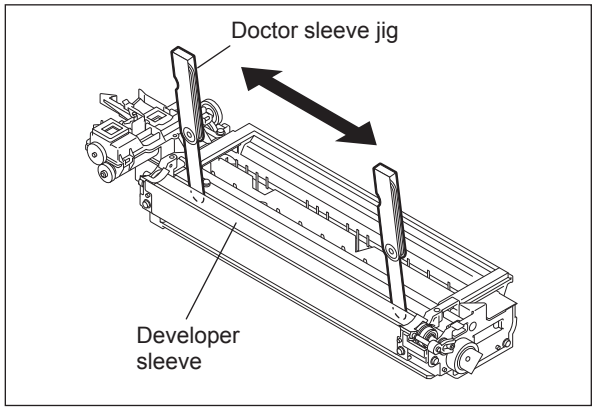


Fig. 3-47

(8) Confirm that the side seals are attached on the toner scattering prevention sheet.

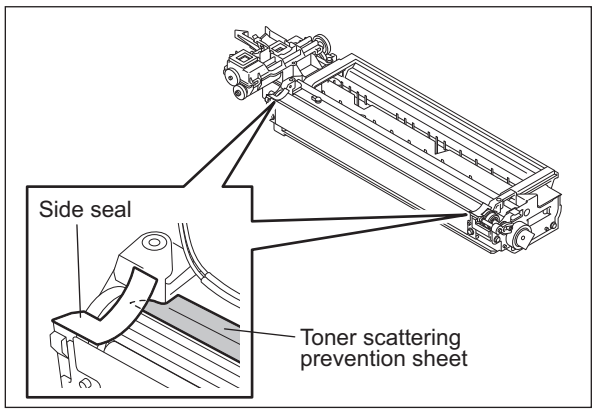


Fig. 3-48

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(9) Attach the developer material cover and tighten 2 screws.

Note:

After the developer material has been replaced, adjust the auto-toner sensor. (See 🕮 P.3-1 "3.1 Adjustment of Auto-Toner Sensor".)

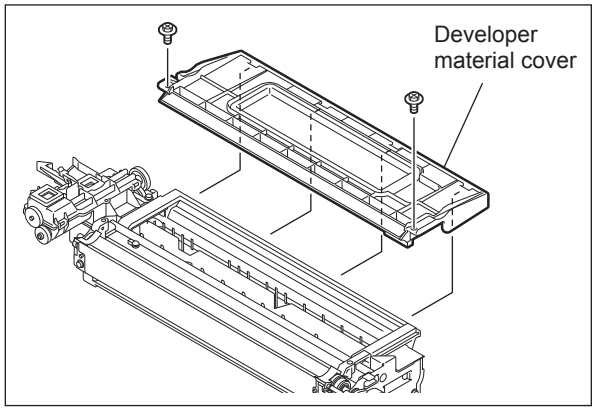


Fig. 3-49

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3.10 Adjustment of the RADF (MR-3016)

3.10.1 Adjustment of RADF position

It is mainly performed at the installation. It is also required when the RADF is dislocated for some reason such as moving the equipment.
Remove the platen sheet during adjustment.
<Procedure>

(1) Open the RADF and then attach 2 positioning pins to the equipment.
(The positioning pins have been attached at the rear of the right-hand hinge of the RADF.)

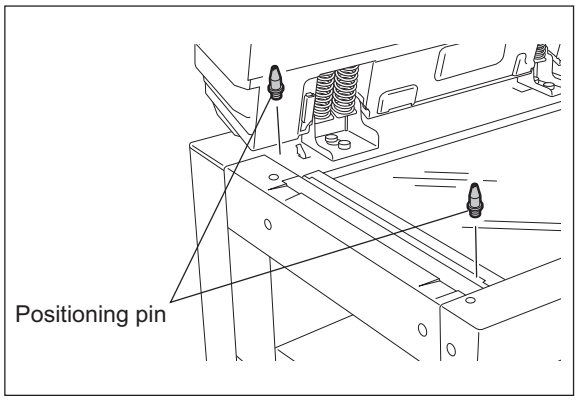


Fig. 3-50

(2) Close the RADF to check that the positioning pins fit smoothly into the holes on the RADF. If they do not, adjust them according to the following procedure.

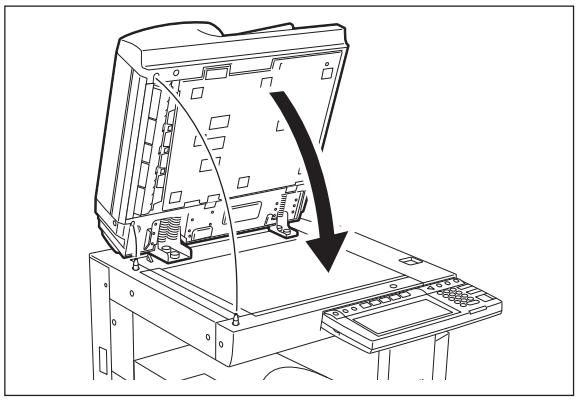


Fig. 3-51

(3) Loosen the stepped screw 1 turn and 2 screws on the adjustment plate a half turn (status of temporary fixing).

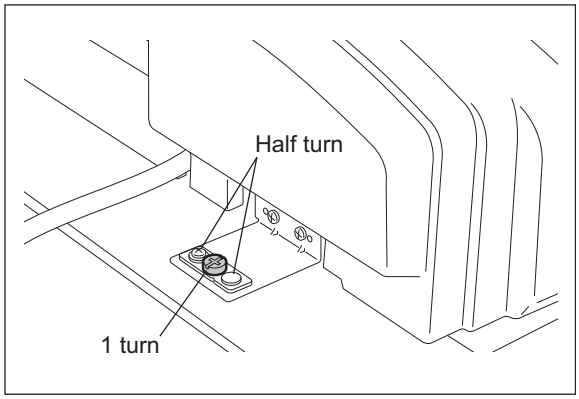


Fig. 3-52

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(4) Remove the stepped screw at the rear of right-hand hinge.

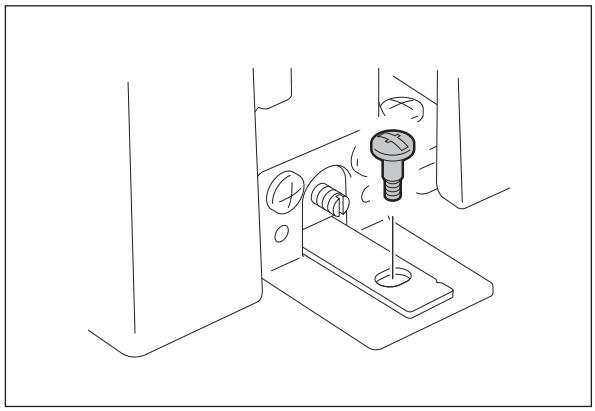


Fig. 3-53

(5) Open the RADF, and then loosen 2 hand screws 1 turn (status of tentative fixing).

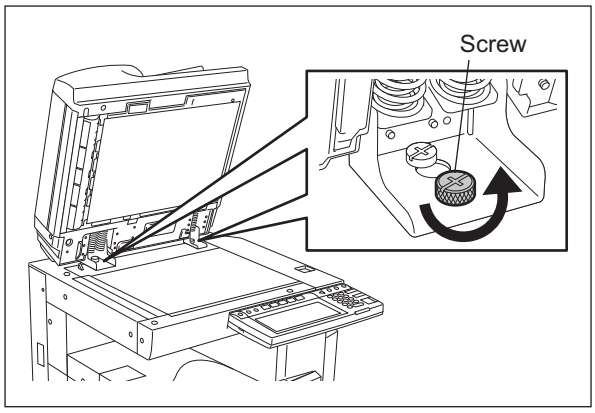


Fig. 3-54

(6) Remove the positioning pin at the front side. Close the RADF to fit the positioning pin into the hole at the rear side of the RADF. While peering inside from the front side, fit the positions of the pin and hole by moving the RADF right and left.

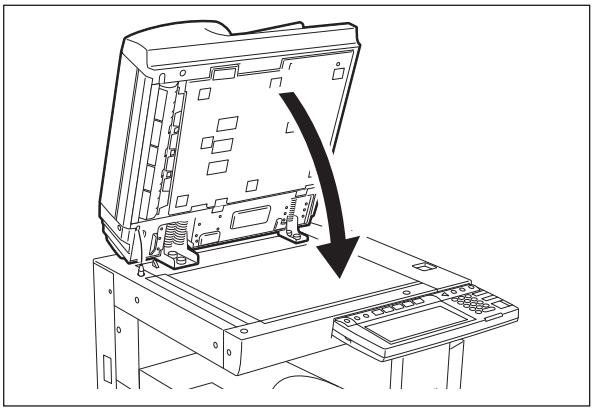


Fig. 3-55

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(7) Tighten the positioning pin at the front side. Close the RADF to fit the positioning pin into the hole at the front side of the RADF. (For the front side, adjust the RADF position all around.)

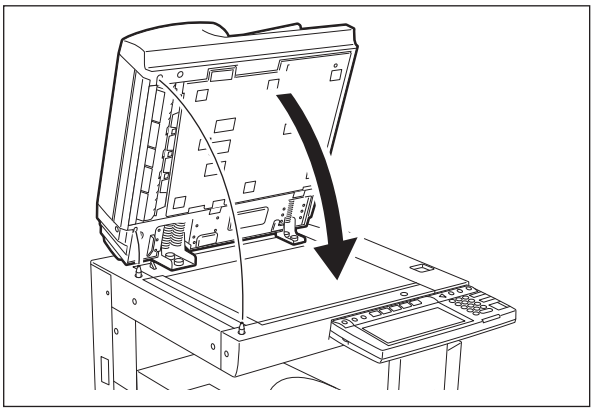


Fig. 3-56

(8) While peering inside from the left side, close the RADF. Check the positions of the holes of the RADF and pins and then fit their positions by moving the RADF back and forth. (For the front side, also adjust the RADF position right and left.) Make sure not to dislocate the positions of the pin and hole at the rear side.

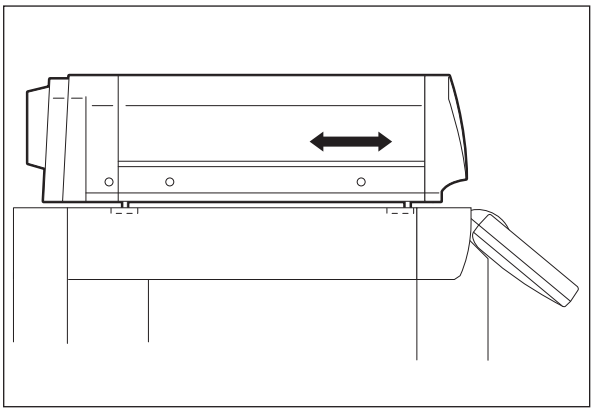


Fig. 3-57

(9) Open the RADF to tighten 2 hand screws. Close the RADF and then check again that the positioning pins fit smoothly into the holes on the RADF.

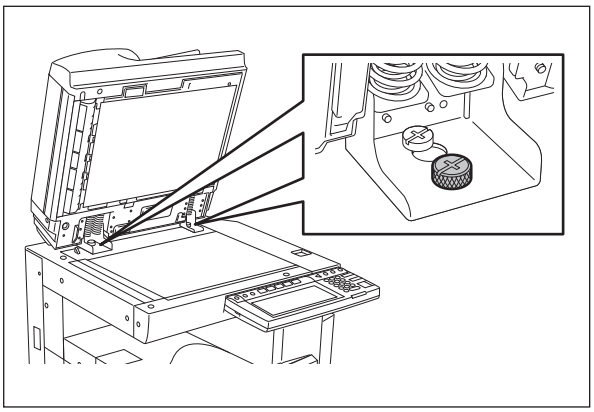


Fig. 3-58

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(10) Match the rear hole of the right-hand hinge and the hole of the equipment side to tighten the stepped screw. If they do not fit, adjust the position of the hole by turning the screw of the adjustment plate.

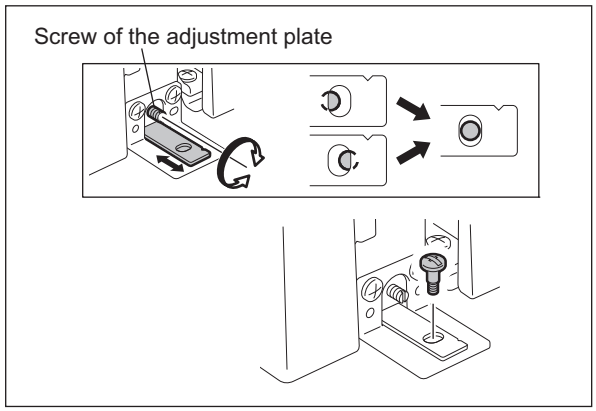


Fig. 3-59

(11) Tighten the stepped screw and 2 screws on the adjustment plate.
Open and close the RADF to check again that the positioning pins fit smoothly into the holes on the RADF. Remove the positioning pins after checking it.
(Replace the positioning pins at the rear of the right-hand hinge of the RADF.)

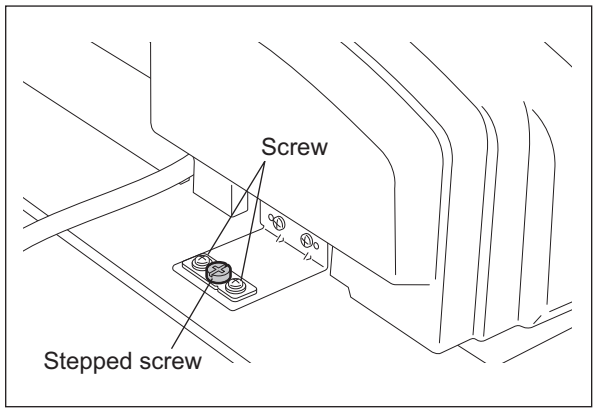


Fig. 3-60

(12) Place the platen sheet on the original glass with the semi round cutout toward you. Align the platen sheet against the left and rear side of the original glass. Close the RADF slowly. Open the RADF to check that the platen sheet is correctly attached.

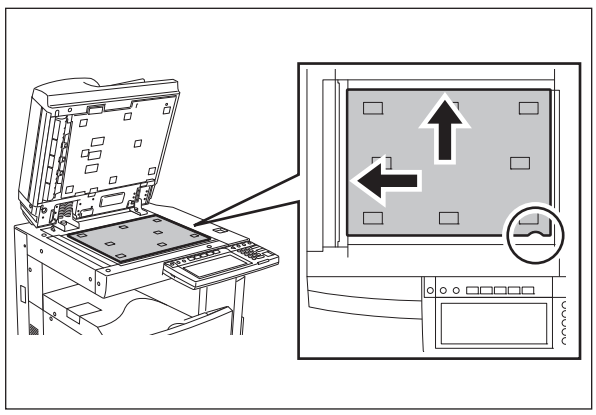


Fig. 3-61

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3.10.2 Adjustment of RADF height

It is mainly performed at the installation. It is also required when the RADF is dislocated for some reason such as moving the equipment.
Perform the following adjustment by using the screw of the left and right hinge.

Note:
Perform this adjustment after “3.10.1 Adjustment of RADF position”.
Turn the exposure lamp ON during the gap check. (Test Mode: 03-267)

<Procedure>

(1) Adjustment standard:
Adjust the height so that the platen guide front holder touches the ADF original glass.
Adjust the height so that the gap between the platen guide rear holder and the ADF original glass becomes 0.5 mm ± 0.3.

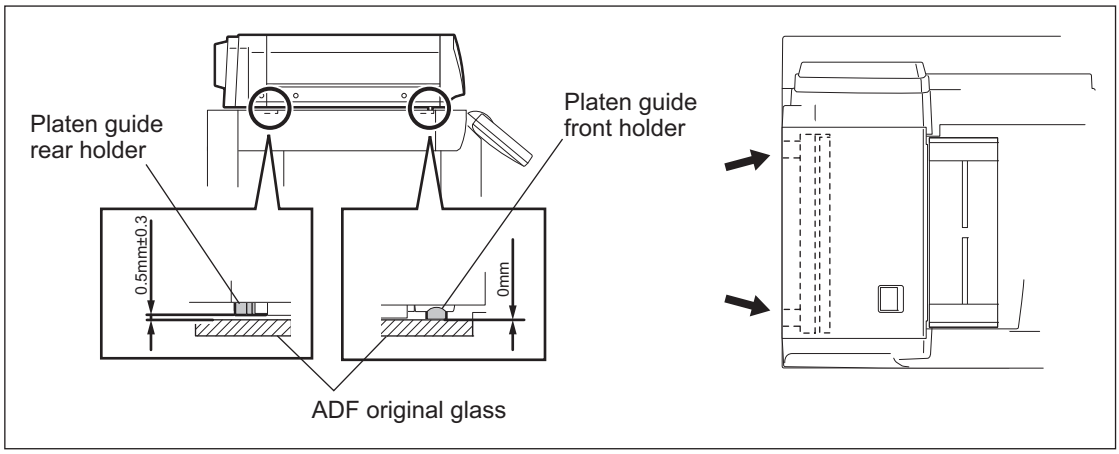


Fig. 3-62

(2) Adjust the height by turning the height adjusting screw on the right hinge.
CW: The height of the hinge becomes high.
CCW: The height of the hinge becomes low.

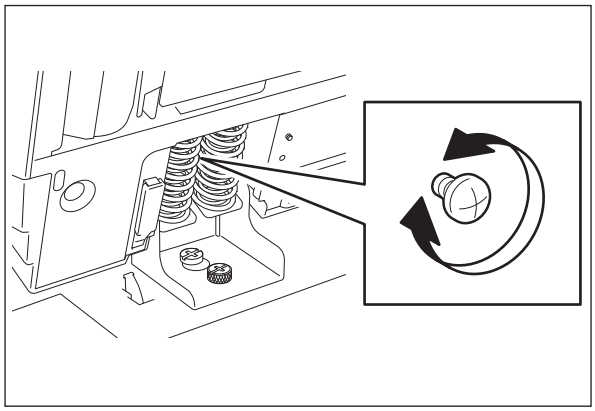


Fig. 3-63

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(3) Adjust the height by turning the height adjusting screw on the left hinge.
CW: The height of the hinge becomes high.
CCW: The height of the hinge becomes low.

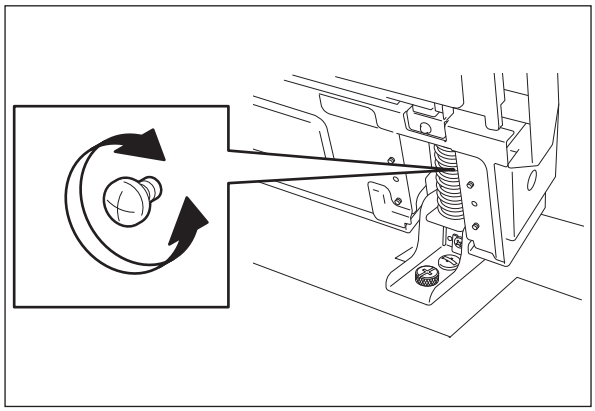


Fig. 3-64

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3.10.3 Adjustment of skew

When an image skew occurs, adjust it according to the following steps, Step 1 → Step 2 → Step 3.

Note:
Perform this adjustment after confirming that the equipment has been adjusted properly.
Prior to this adjustment, of RADF position and height are needed to be adjusted.

(1) **Step 1**
Case A:
Adjust the aligning adjustment position to the rear side “-” of the original (📖 P.3-63 "3.10.5 Adjustment of aligning").
Case B:
Adjust the aligning adjustment position to the rear side “+” of the original (📖 P.3-63 "3.10.5 Adjustment of aligning").

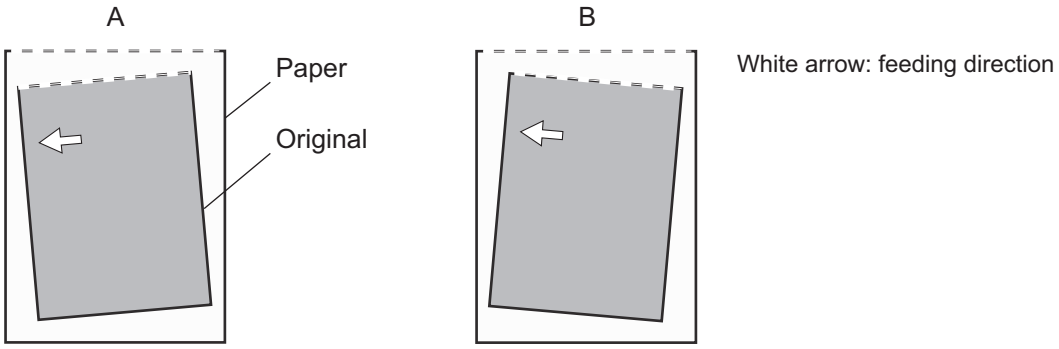


Fig. 3-65

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(2) **Step 2**

Case C:

Loosen the fixing screw and hand screw of the right side hinge and then turn the adjustment screw counterclockwise.

Case D:

Loosen the fixing screw and hand screw of the right side hinge and then turn the adjustment screw clockwise.

Note:

When adjusting, refer to the hinge position (scribed line) and be sure not to move it from the hinge position ±0.5 mm or further. Otherwise, image failures such as a jitter may occur.

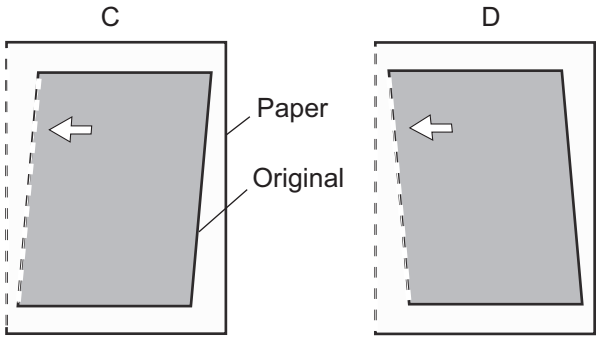


Fig. 3-66

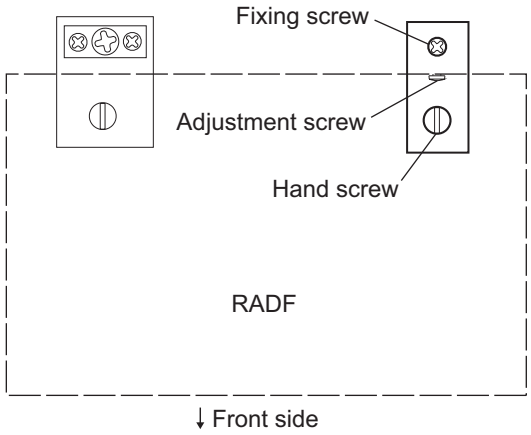


Fig. 3-67

(3) **Step 3**

Case E:

Adjust the reverse aligning adjustment position to the rear side “-” of the original (P.3-64 "3.10.6 Adjustment of aligning at reversing").

Case F:

Adjust the reverse aligning adjustment position to the rear side “+” of the original (P.3-64 "3.10.6 Adjustment of aligning at reversing").

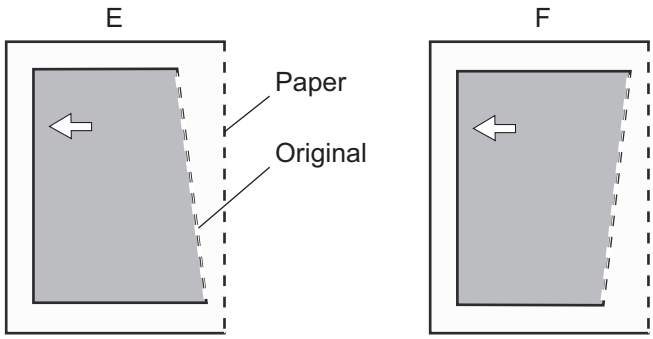


Fig. 3-68

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3.10.4 Automatic adjustment of sensors and initialization of EEPROM

When any of the PC board, original length sensor, read sensor, reverse sensor is replaced with a new one, make sure to perform the initialization of EEPROM and adjustment of sensors in the Adjustment Mode (05).
Perform them after removing all originals on the sensor and closing the RADF.
Also, make sure to adjust the tray volume when the initialization of EEPROM and automatic sensor adjustment have been performed.
Refer to 📖 P.2-44 "2.2.5 Adjustment mode (05) (e-STUDIO200L/230/230L/280)" for the details.
Errors such as paper jamming may occur if the EEPROM is not initialized and the sensors are not adjusted after the above mentioned parts were replaced.

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3.10.5 Adjustment of aligning

Adjust the aligning according to Step 1 of 3.10.3.

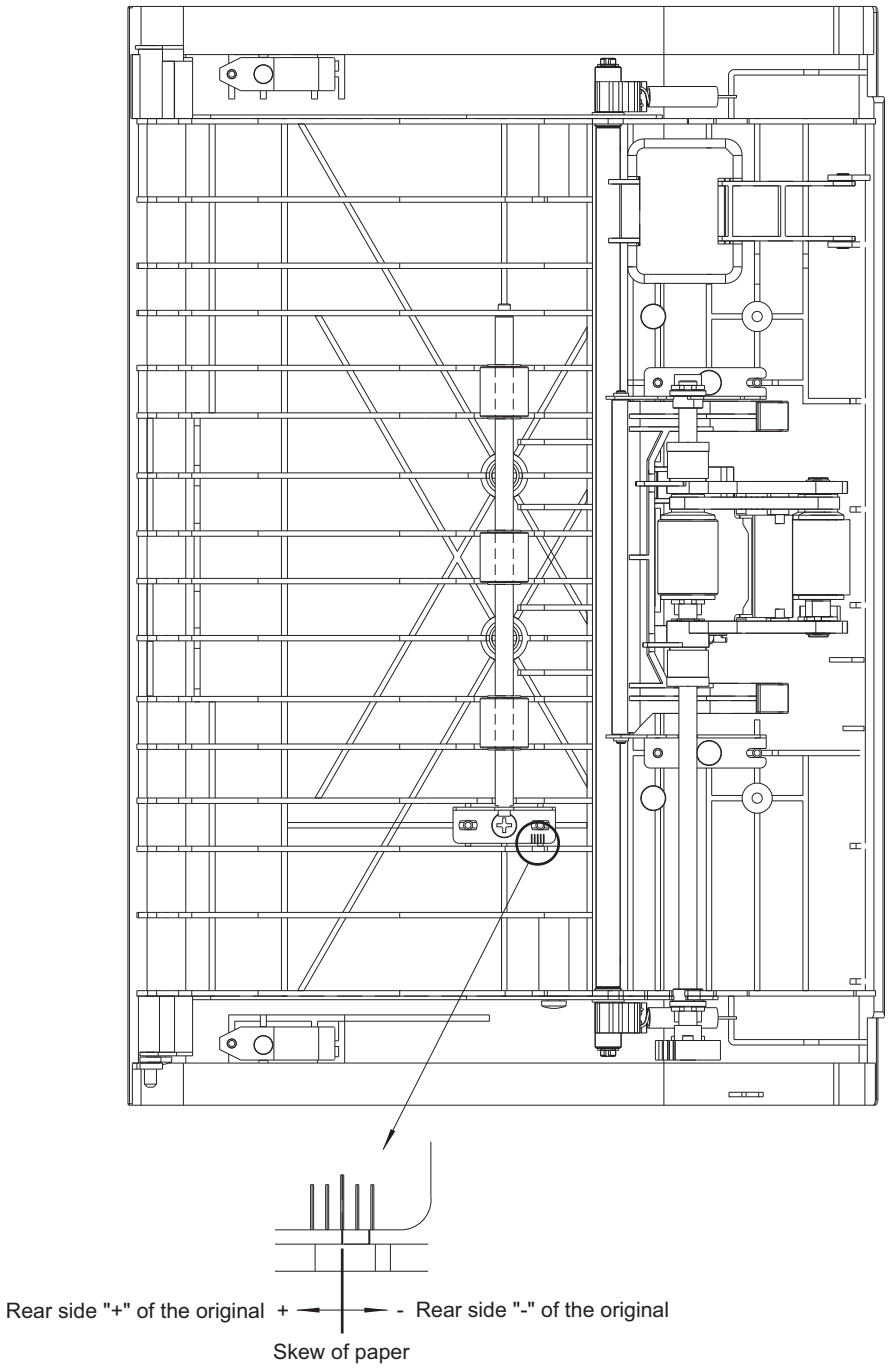


Fig. 3-69

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3.10.6 Adjustment of aligning at reversing

Adjust the aligning according to Step 3 of 3.10.3.

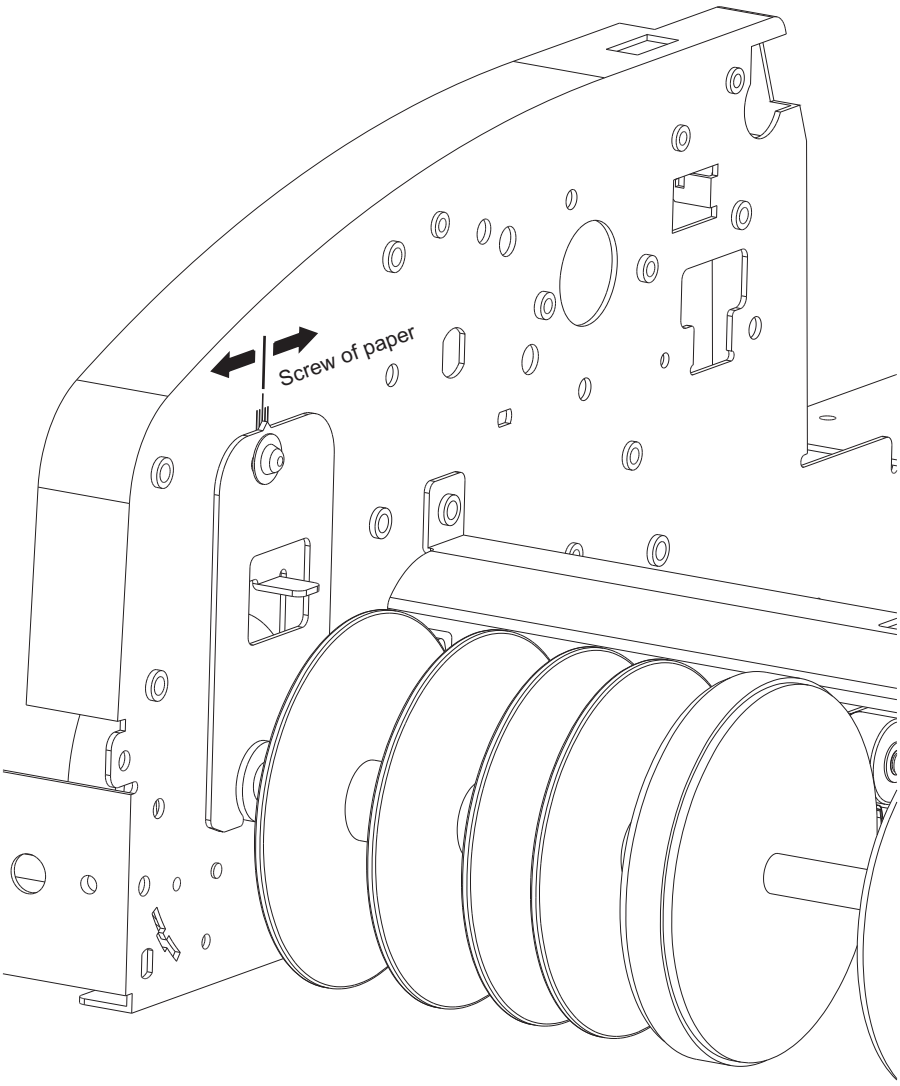


Fig. 3-70

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3.10.7 Adjustment of reverse solenoid

When operating the reverse solenoid, adjust it if the position of the flapper lever is out of the following dimension.
Gap between A of the front frame and the flapper lever “C”: 0.5 mm to 2.0 mm

<Procedure>

(1) Remove the screw on the left and take off the plate spring.

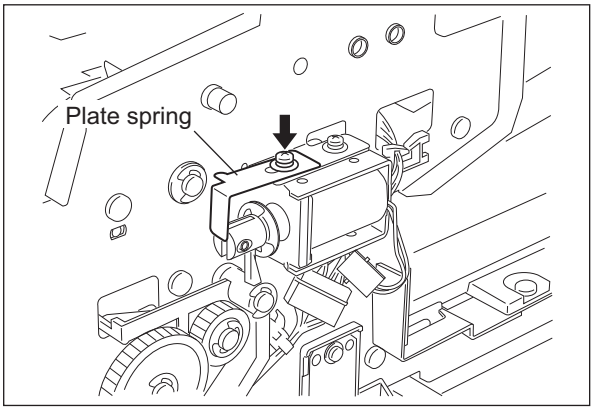


Fig. 3-71

(2) Align B of the front frame with the edge of the reverse solenoid, and temporarily fix the reverse solenoid with the screw on the right.

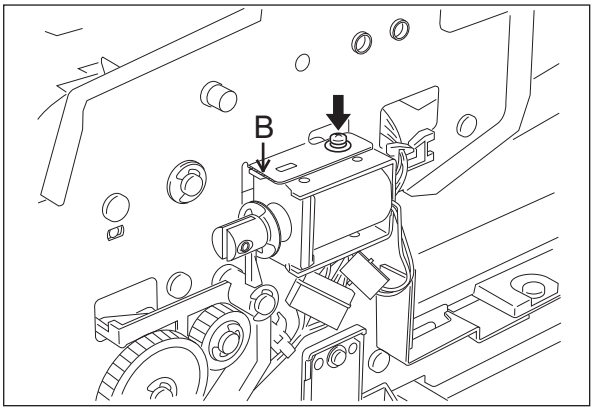


Fig. 3-72

(3) While the plunger of the reverse solenoid is put in the position to be turned ON (by pressing it in the direction of an arrow), loosen the screw on the right to adjust the reverse solenoid so that the gap (C) between A of the front frame and the flapper lever is 0.5 mm to 2.0 mm.

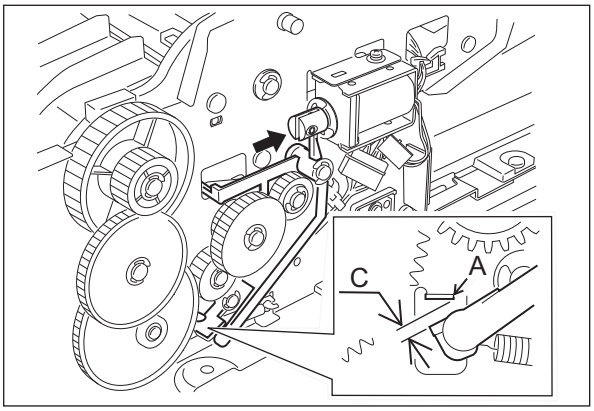


Fig. 3-73

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(4) Fix the plate spring temporarily with the screw on the left. Then press the plate spring slightly in the direction of an arrow and tighten the screw in the position where the gap (D) between the plunger and the flapper lever is eliminated.

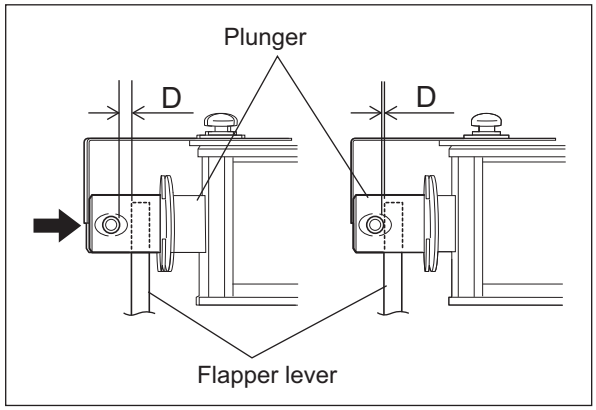


Fig. 3-74

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3.10.8 Adjustment of RADF opening/closing switch

Adjust the bracket position so that the switch is turned ON when the height A becomes 40-45 mm (within the empty weight falling limit).

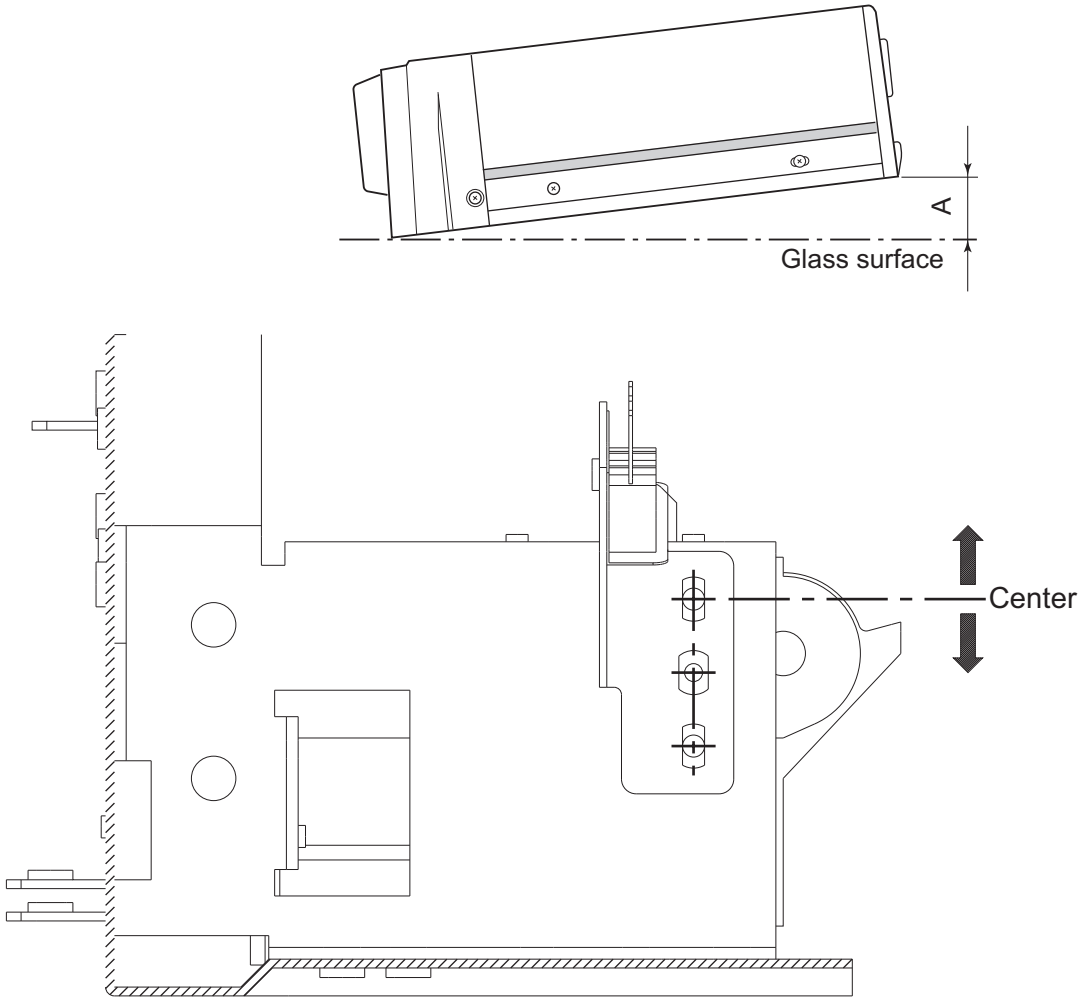


Fig. 3-75

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3.10.9 Adjustment of RADF opening/closing sensor

Adjust the bracket position so that the sensor is turned ON when the height A becomes 30-35 mm (within the empty weight falling limit).

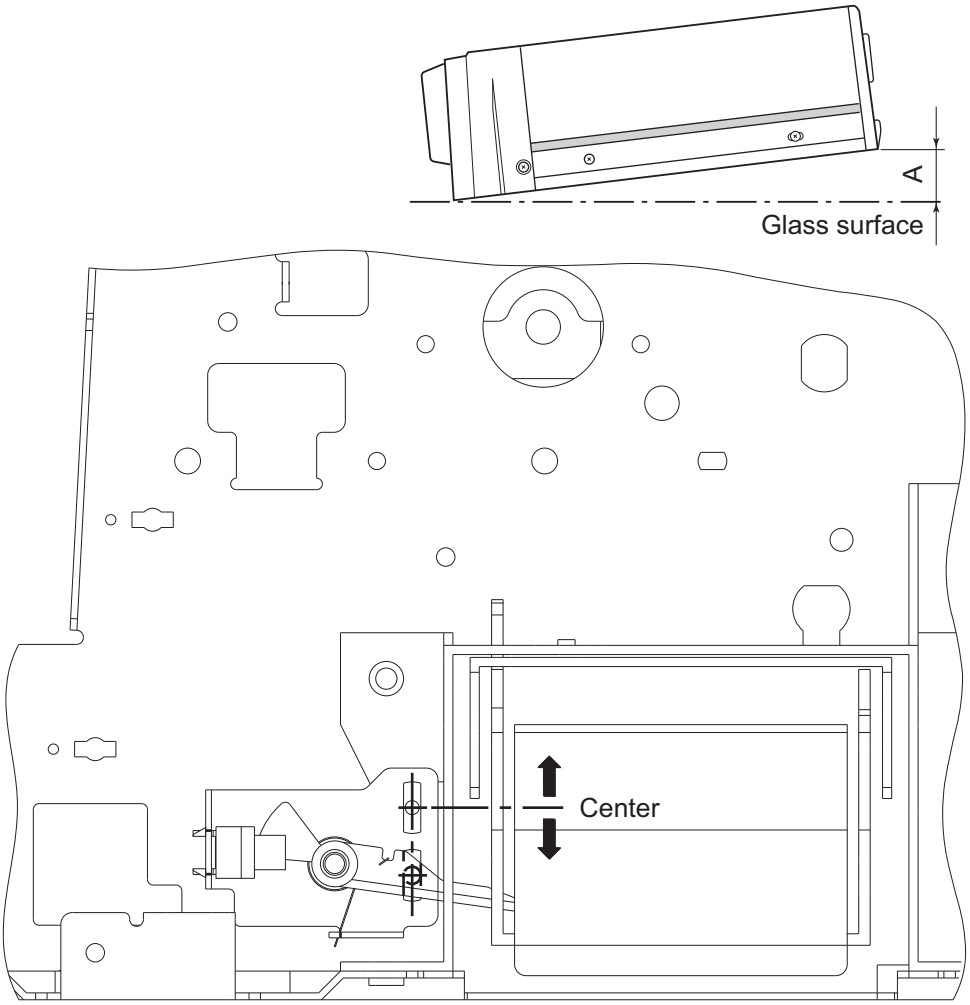


Fig. 3-76

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3.10.10 Adjustment of tray volume

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Narrow the original guide to the limit.

(3) Input the code "367".

(4) Press the [START] button.

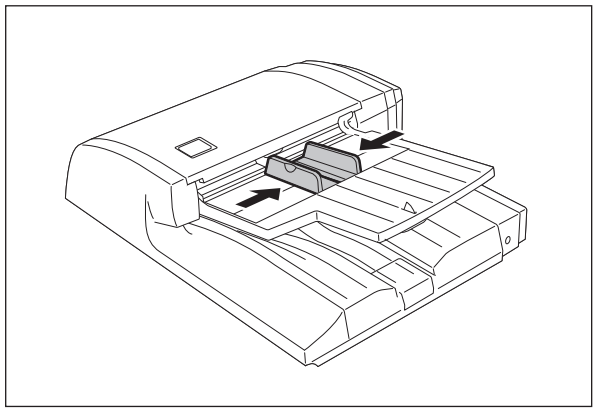


Fig. 3-77

(5) Extend the original guide to the limit.

(6) Input the code "368".

(7) Press the [START] button

(8) Turn the power OFF.

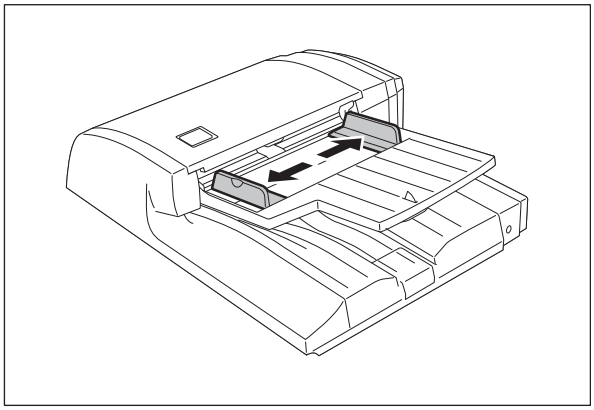


Fig. 3-78

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3.11 Adjustment of the RADF (MR-3020)

3.11.1 Adjustment of RADF Position

Perform this adjustment when the RADF is not installed in the correct position.

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF.

[A] Checking

(1) Open the RADF and install 2 positioning pins (the positioning pins are installed to the back side of the hinge which is on the left side of the RADF).

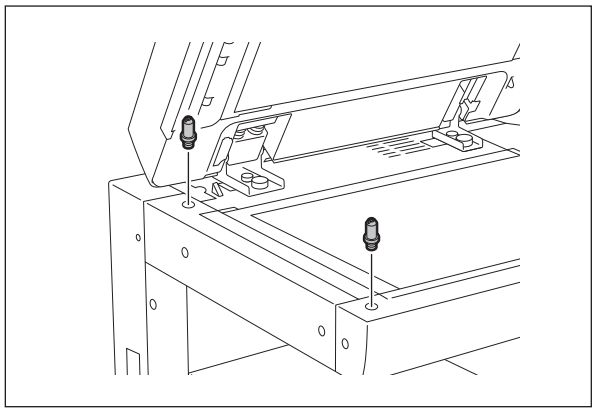


Fig. 3-79

(2) Remove the platen sheet.

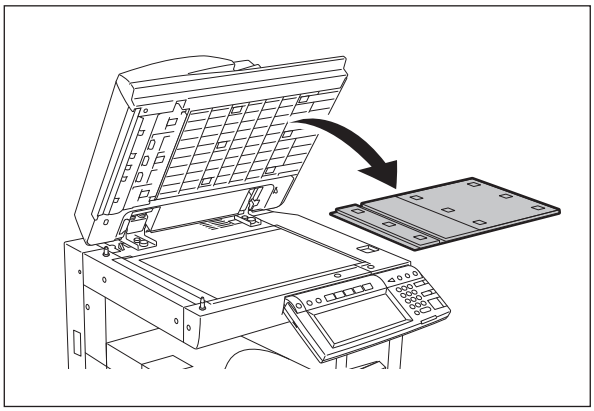


Fig. 3-80

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(3) Close the RADF and check if the positioning pins fit the holes on the RADF.

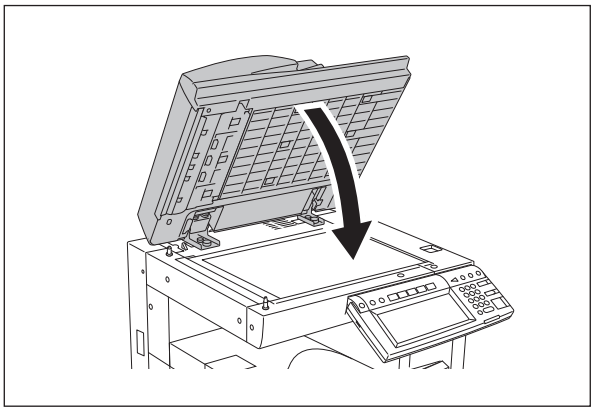


Fig. 3-81

[B] Adjustment

If the pins cannot be fitted into the holes, perform the adjustment according to the following procedure.

(1) Remove the right-hand hinge screw at the rear side.

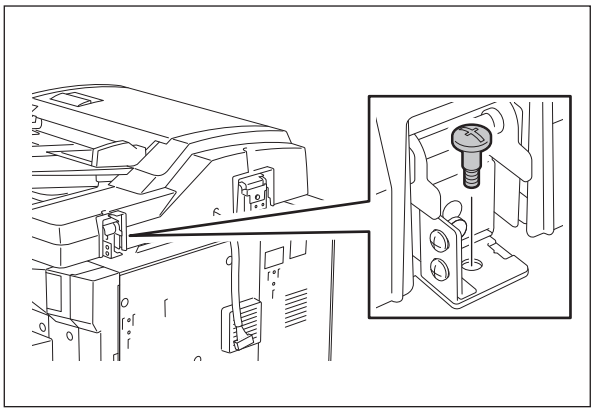


Fig. 3-82

(2) Loosen the left-hand hinge screw at the rear side.

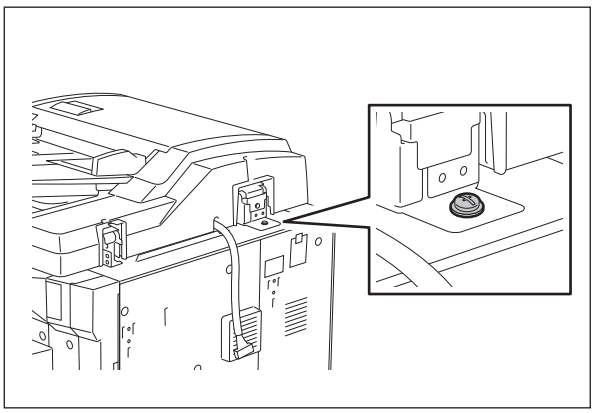


Fig. 3-83

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(3) Loosen the hinge screws at the front side.

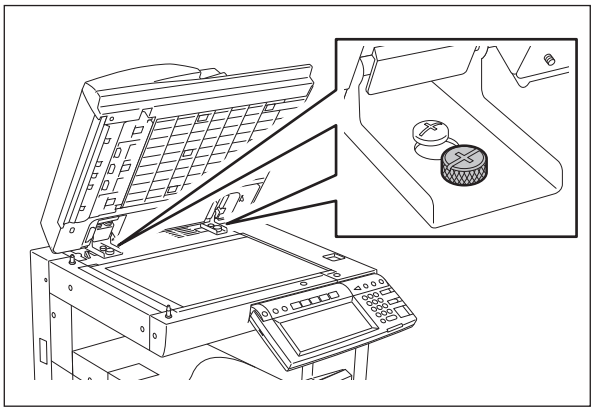


Fig. 3-84

(4) Position the pins with the holes on the RADF by moving it so that the pins fit into the holes when the RADF is closed.

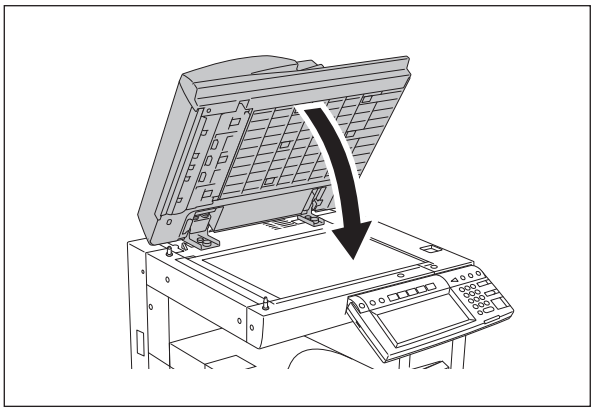


Fig. 3-85

(5) Tighten the left-hand hinge screw at the rear side.

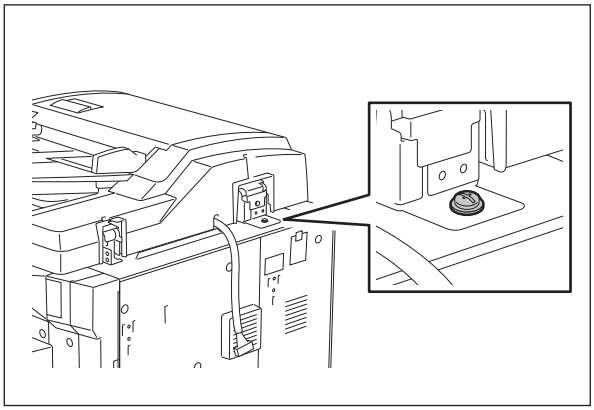


Fig. 3-86

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(6) Loosen the hole position adjustment screws on the right hand side.

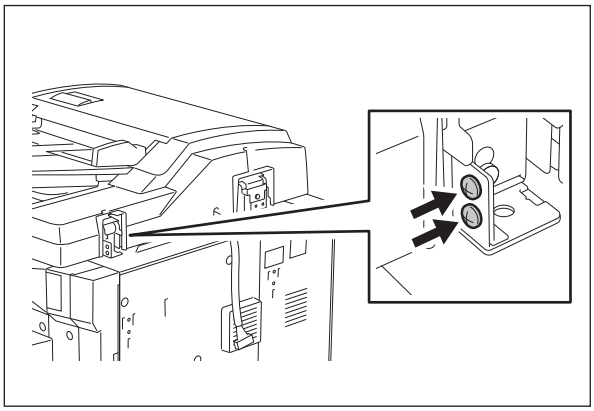


Fig. 3-87

(7) Match the screw hole positions.

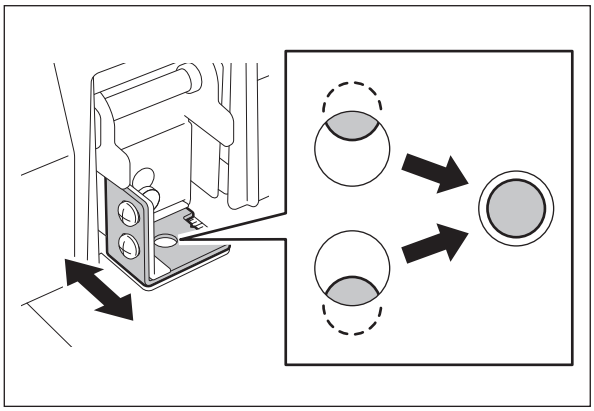


Fig. 3-88

(8) Install the right-hand hinge screw at the rear side.

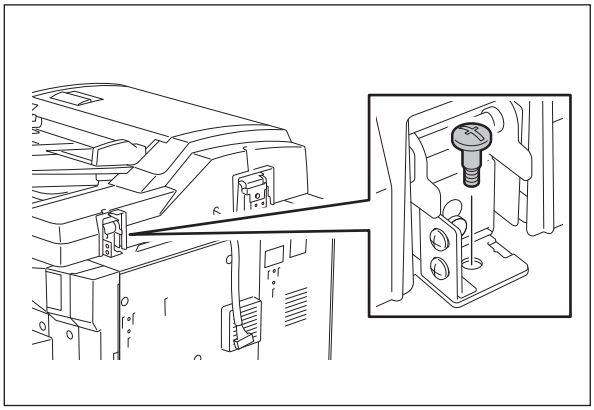


Fig. 3-89

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(9) Loosen the hinge screws at the front side.

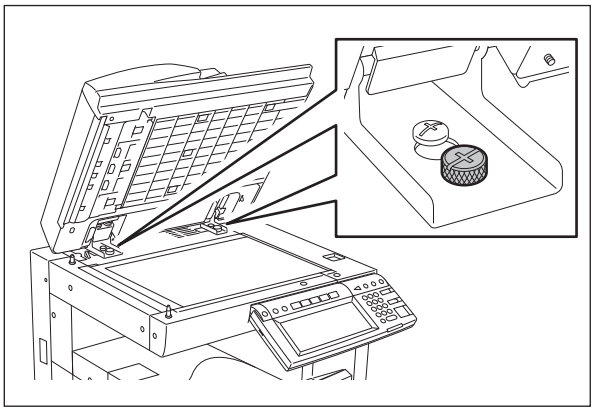


Fig. 3-90

(10) Place the platen sheet on the original glass and align it to the top left corner.
Close the RADF gently and open it to check if the platen sheet is attached properly.

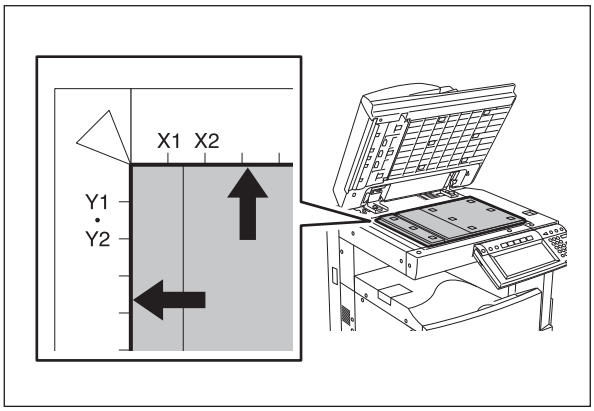


Fig. 3-91

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3.11.2 Adjustment of RADF Height

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF.

[A] Checking

(1) Close the RADF.
(2) Light the exposure lamp.
- Turn the power ON while pressing [0] and [3] simultaneously.
- Key in [267] and then press the [START] button. The exposure lamp is turned ON for a given length of time.

(3) Visually check the gap between platen guide holder "A" and upper surface of the original glass "B" from the left hand side of the equipment. If the value is not within the tolerance, perform the adjustment according to the following procedure.

[Tolerance of the gap]
Rear side: 0 - 0.5 mm
Front side: 0 mm

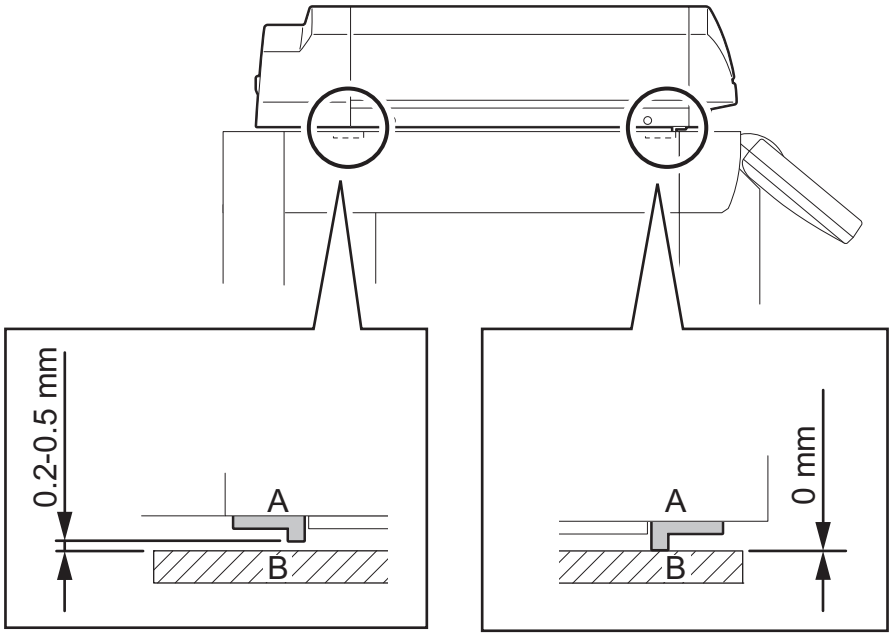


Fig. 3-92

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[B] Adjustment

(1) Close the RADF.
(2) Adjust it by turning the adjustment screws on the hinges.
- Adjust the height on the rear side by means of the screw on the hinge on the feed side of the RADF.

Turn it clockwise ..... Heightened
Turn it counterclockwise ..... Lowered

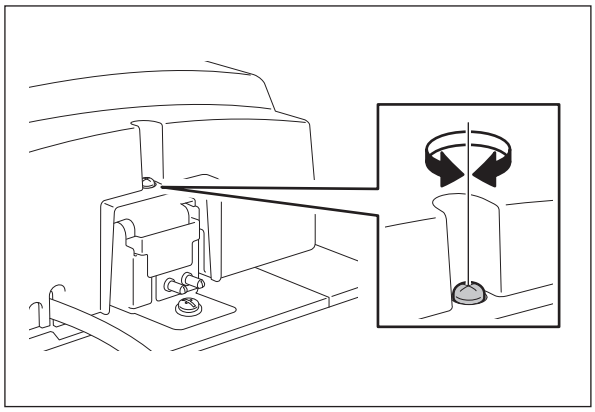


Fig. 3-93

- Adjust the gap on the rear side by means of the screw on the hinge on the feed side of the RADF.

Turn it clockwise ..... Lowered
Turn it counterclockwise ..... Heightened

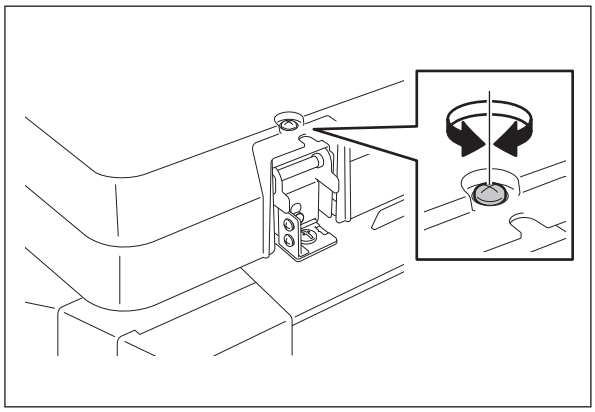


Fig. 3-94

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3.11.3 Adjustment of Skew

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

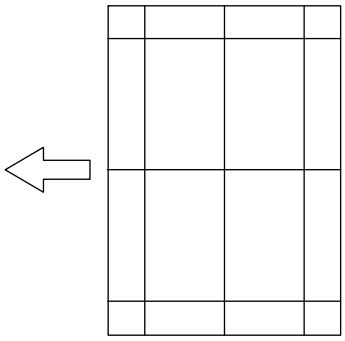


Fig. 3-95 Chart (Original)

Simplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the inclination of the copy image.

Duplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the inclination of the copy image.

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[B] Adjustment

Simplex copying:

(1) Shift the aligning plate with the scale as the guide shown in the figure below to adjust the skew.

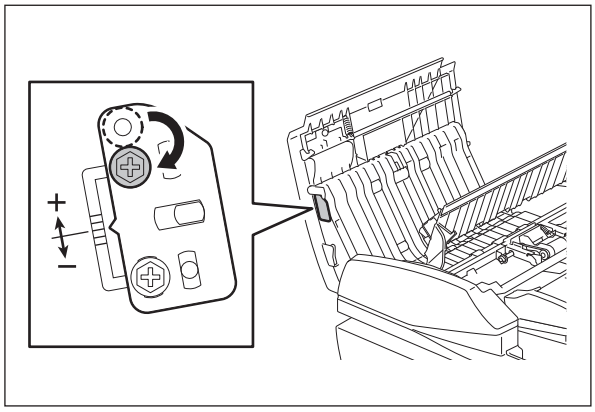


Fig. 3-96

(2) If the image skew is "C" as shown in the figure below, shift the aligning plate in the direction of "+", and if "D", shift it to "-".

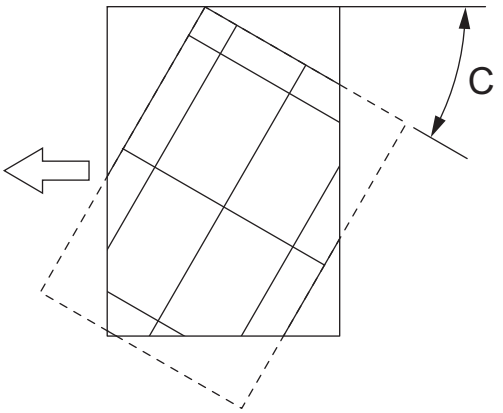


Fig. 3-97

Shift the aligning plate in the direction of "+".

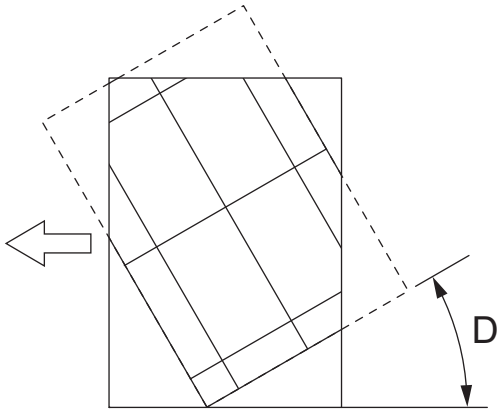


Fig. 3-98

Shift the aligning plate in the direction of "-".

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Duplex copying:

(1) Shift the aligning plate with the scale as the guide shown in the figure below to adjust the skew.

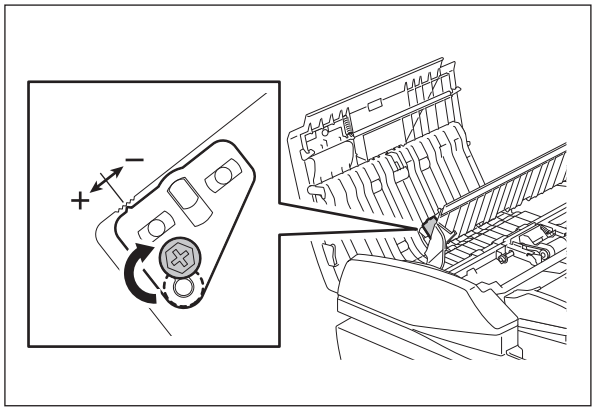


Fig. 3-99

(2) If the image skew is "C" as shown in the figure below, shift the aligning plate in the direction of "-", and if "D", shift it to "+".

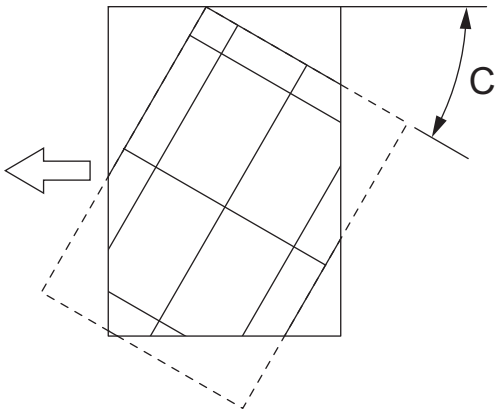


Fig. 3-100

Shift the aligning plate in the direction of "-".

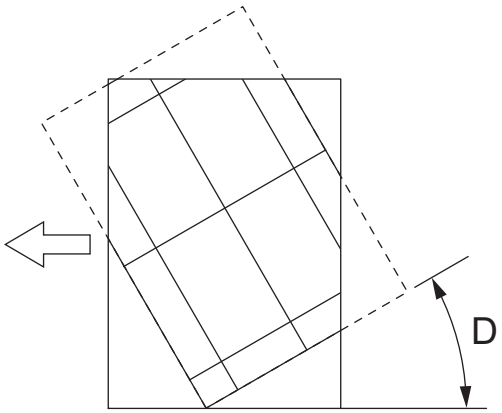


Fig. 3-101

Shift the aligning plate in the direction of "+".

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3.11.4 Adjustment of the Leading Edge Position

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

Simplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.

Duplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.

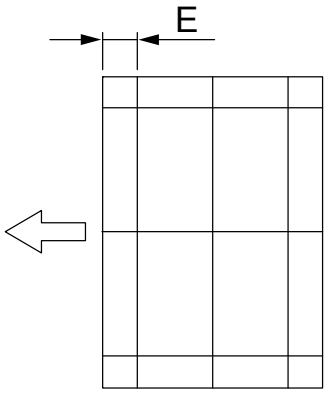


Fig. 3-102 Chart (Original)

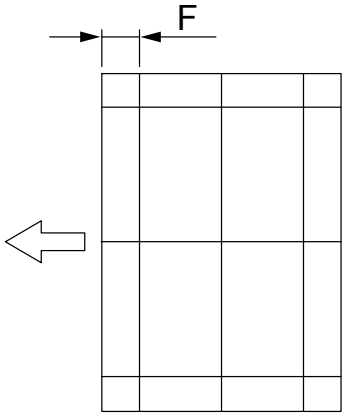


Fig. 3-103 Copy

[B] Adjustment

Simplex copying:

(1) Turn the power ON while pressing [0] and [5] simultaneously, key in [365] and then press the [START] button.
(2) Enter the value.
- If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one.

Note:
Changing one value shifts the copy image by 0.1 mm.

- If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.1 mm.

(3) Press the [ENTER] button.

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Duplex copying:

(1) Turn the power ON while pressing [0] and [5] simultaneously, key in [366] and then press the [START] button.
(2) Enter the value.
    • If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one.

Note:
Changing one value shifts the copy image by 0.1 mm.

    • If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.1 mm.

(3) Press the [ENTER] button.

3.11.5 Adjustment of Horizontal Position

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with a center line in the following procedure.

(1) Place the chart provided as an original with its face up on the original tray of the RADF.
(2) Press the [START] button.
(3) Fold the copy in half and check if the center line is misaligned.

[B] Adjustment

(1) Turn the power ON while pressing [0] and [5] simultaneously.
(2) Key in [358] and then press the [START] button.
    • If the center line of the copy image is shifted to the front side of the equipment, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.042 mm.

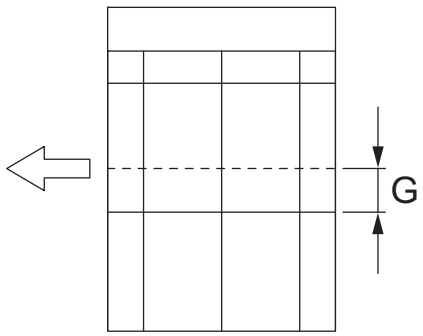


Fig. 3-104

    • If the center line of the copy image is shifted to the rear side of the equipment, enter a value smaller than the current one.

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Note:
Changing one value shifts the copy image by 0.042 mm.

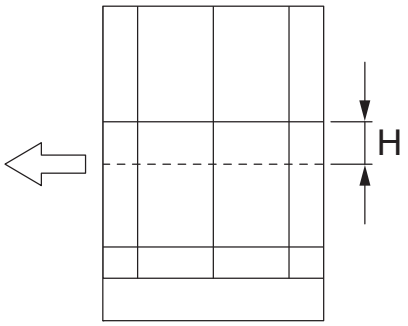


Fig. 3-105

(3) Press the [ENTER] button.

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3.11.6 Adjustment of Copy Ratio

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

(1) Place the chart provided as an original with its face up on the original tray of the RADF.
(2) Press the [START] button.
(3) Superimpose the chart on the copy and check the image dimension “l”.

[B] Adjustment

(1) Turn the power ON while pressing [0] and [5] simultaneously.
(2) Key in [357] and then press the [START] button.
- If the copy image dimension “l” is larger than the chart dimension, enter a value smaller than the current one.
- If the copy image dimension “l” is smaller than the chart dimension, enter a value larger than the current one.

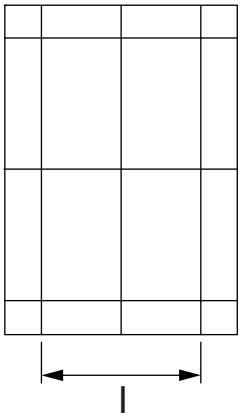


Fig. 3-106

(3) Press the [ENTER] button.

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3.11.7 Adjustment of RADF Opening/Closing Sensor

Adjust the bracket position so that the sensor is turned ON when the height “A” becomes 100 mm or less (within the empty weight falling limit).

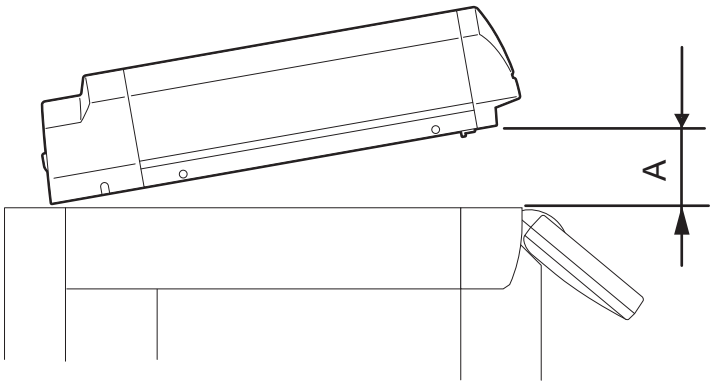


Fig. 3-107

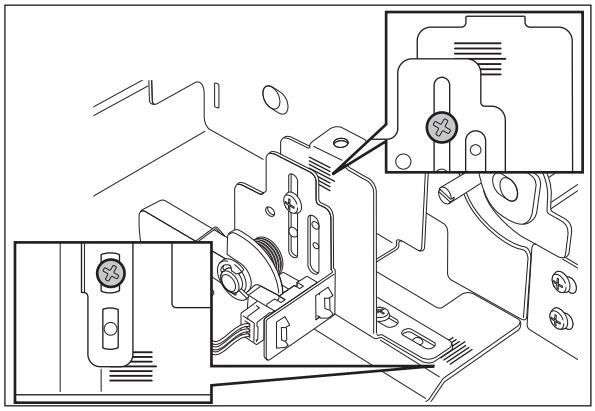


Fig. 3-108

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3.12 Adjustment of the Finisher (MJ-1022)

3.12.1 Adjusting the jogging plate width

<Procedure>

(1) Remove the right inner cover and the rear cover.

(2) Adjust the front jogging plate to the home position.
- Set SW1 on the finisher controller PC board as shown in 📖 P.3-85 "Fig. 3-109 ".
- Press SW2 twice on the finisher controller PC board.
  - The front jogging plate moves to the home position.

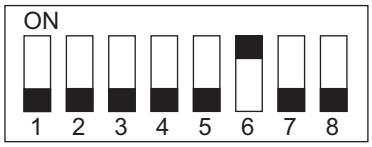


Fig. 3-109

(3) Adjust the rear jogging plate to the home position.
- Set SW1 on the finisher controller PC board as shown in 📖 P.3-85 "Fig. 3-110 ".
- Press SW2 twice on the finisher controller PC board.
  - The rear jogging plate moves to the home position.

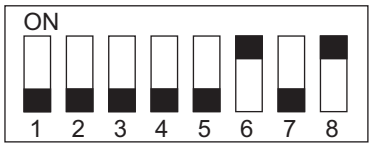


Fig. 3-110

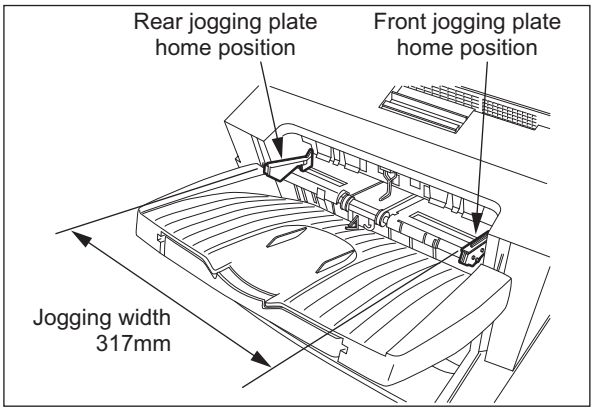


Fig. 3-111

(4) Measure the jogging width (standard at 317 mm).

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(5) Remove the processing tray.

(6) Loosen the screw on the home position sensor plate at the front.

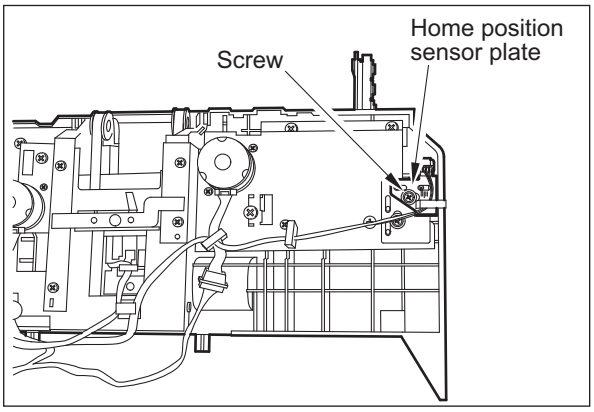


Fig. 3-112

(7) Adjust the position of the front jogging plate home position sensor (S6) with reference to the index.

- EX. 1
  If the width is 319 mm in step (4), the difference from the standard is +2 mm, it requires relocation of the sensor in the direction of arrow A by 2 mm.
- EX. 2
  If the width is 316 mm in step (4), the difference from the standard is -1 mm; it requires relocation of the sensor in the direction of arrow B by 1 mm.

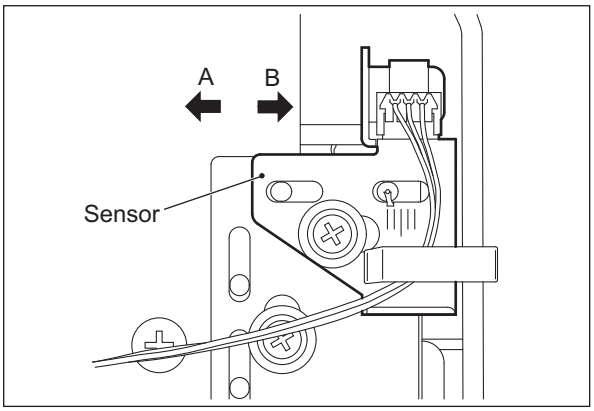


Fig. 3-113

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3.12.2 Adjusting the angle of the jogging plate

<Procedure>

(1) Without removing the processing tray unit, loosen the 2 mounting screws of the rear jogging plate.

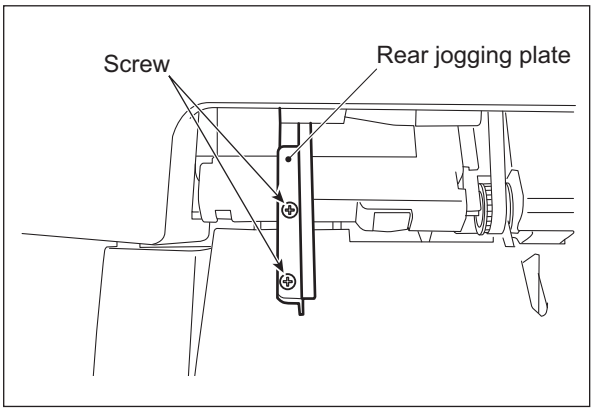


Fig. 3-114

(2) Place several sheets of A4/LT paper on the processing tray, and adjust the rear jogging plate. (At this time, adjust the gap between the paper and the front end of the rear jogging plate so that it is 0 mm to 0.5 mm.)

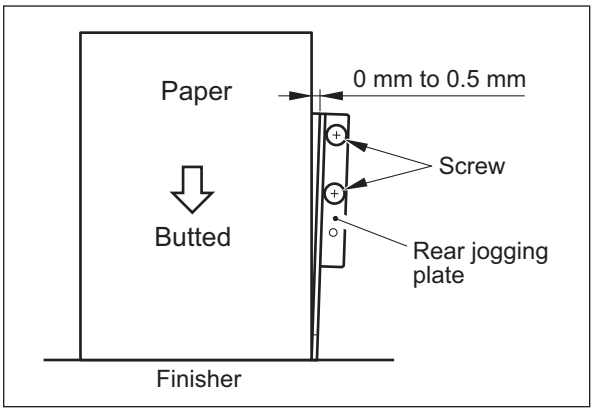


Fig. 3-115

(3) With reference to the rear jogging plate adjusted in step (2), adjust the front jogging plate in the same manner.

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3.12.3 Adjusting the overlap of the sensor flag

If the overlap between the sensor and the flag is wrong for some reason, perform the following adjustment.
<Procedure>

(1) Remove the processing tray unit.

(2) Loosen the mounting screw of the front/rear jogging plate adjusting plate; then, move the adjusting plate to the left and the right.

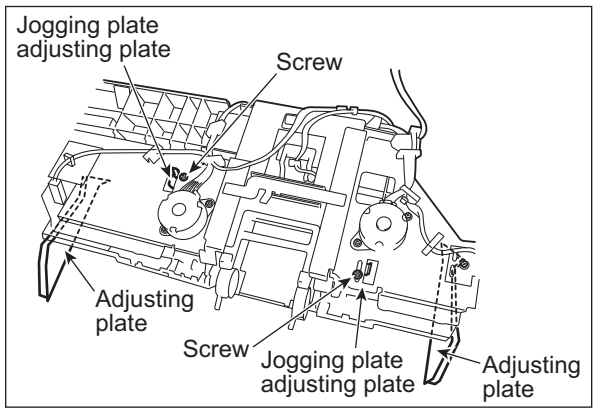


Fig. 3-116

(3) Tighten the screw so that the overlap between the flag of the front/rear jogging rack plate and the sensor is 1.5 mm to 2.0 mm.

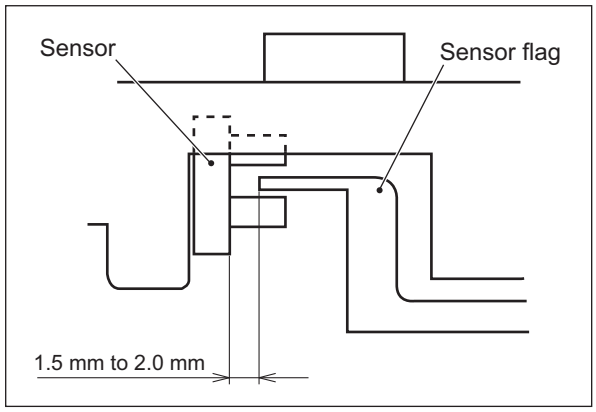


Fig. 3-117

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3.12.4 Adjusting the tension of the stack processing motor belt

<Procedure>

(1) Remove the right inner cover and the rear cover.

(2) Remove the 2 mounting screws, and detach the grip unit.

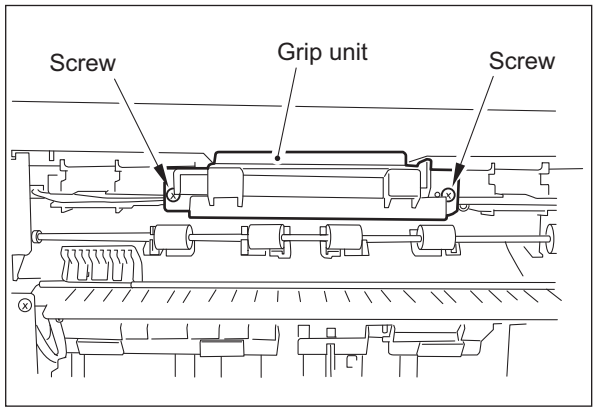


Fig. 3-118

(3) Loosen the screw on the tension arm plate. (The tension arm plate will be pulled under tension by the tension spring.)

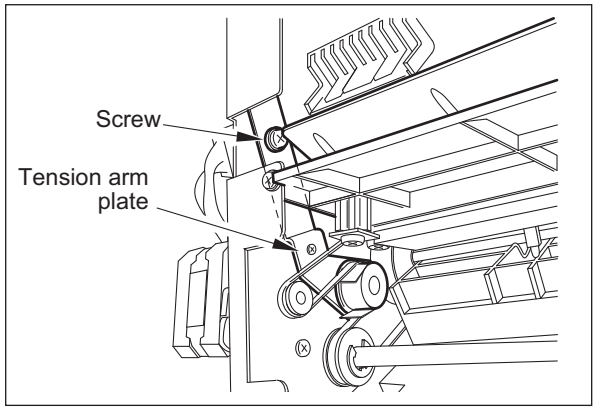


Fig. 3-119

(4) Move the returning roller shaft to its lower limit (the slack of a belt is lightly taken); then, tighten the screw on the tension arm plate.

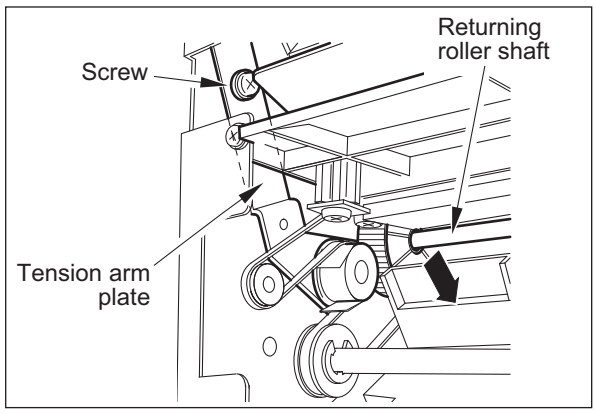


Fig. 3-120

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(5) Check to make sure that the returning roller shaft moves smoothly.

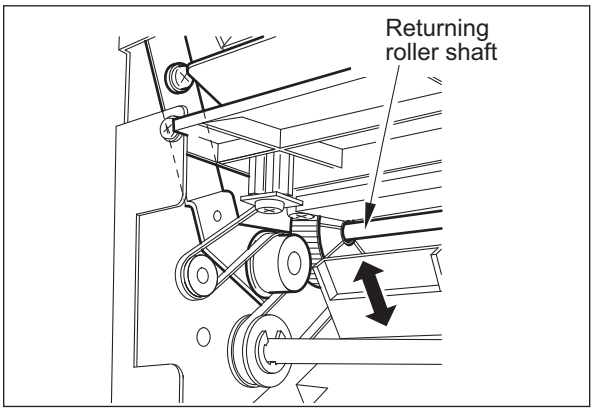


Fig. 3-121

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3.12.5 Releasing the stack tray guide lever fixing plate

<Procedure>

(1) Remove the right inner cover and the rear cover.

(2) Remove the finisher control PC board, PC board bracket and sensor PC board.

(3) Remove the stack tray.

(4) Remove the stack tray drive unit.

(5) Place the stack tray guide lever fixing plate so that it is in view through the hole in the side plate (front, rear). Then remove the fixing screw. (Perform the same for the front and the rear.)

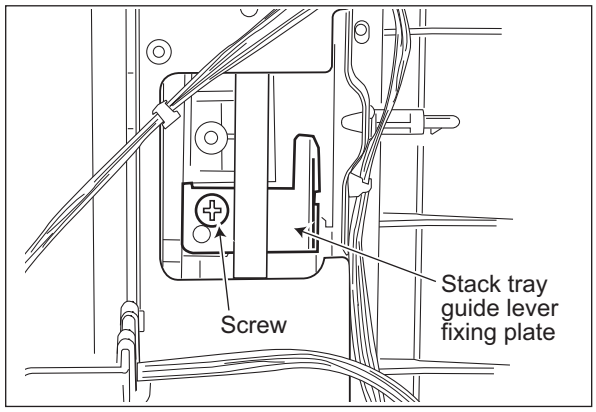


Fig. 3-122

Note:
When removing the mounting screw, be sure to hold the stack tray guide lever up from below.

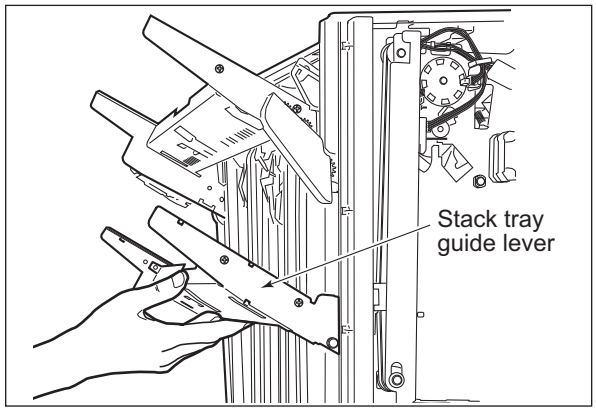


Fig. 3-123

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3.12.6 Adjustment of the upper tray angle

<Procedure>

(1) Remove the front cover.

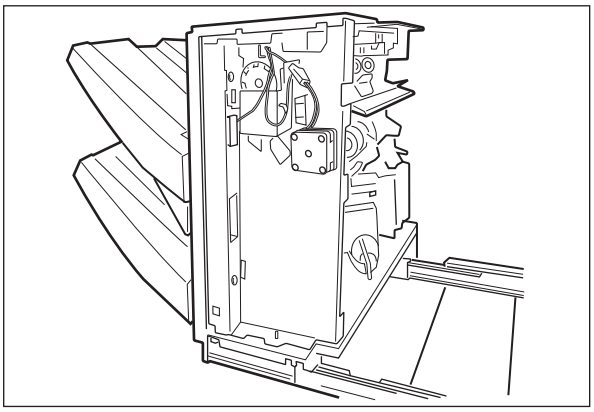


Fig. 3-124

(2) Loosen the screw denoted with the arrow.

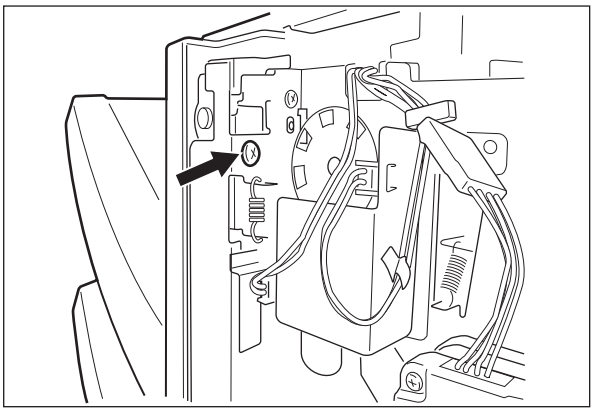


Fig. 3-125

(3) The tension becomes loose.
While pushing the bracket down, hold the tray and move it up or down, to adjust the angle so that the tray becomes parallel by a visual check.

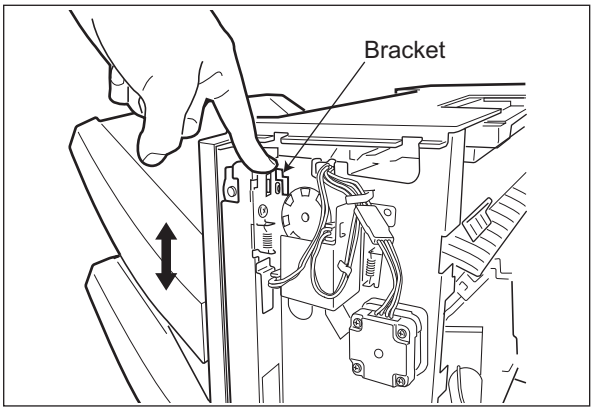


Fig. 3-126

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(4) After adjustment, tighten the fixing screw of the bracket.

Note:

If the fixing screw of the bracket is not fixed, the belt is loosened which may cause a skipped tooth.

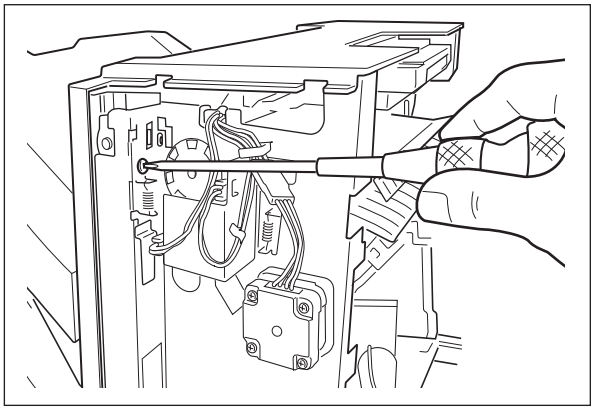


Fig. 3-127

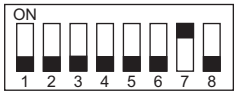
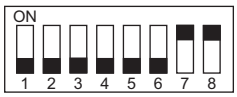
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3.12.7 DIP switch functions

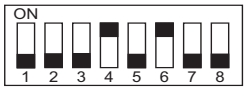
You can simulate various functions by setting the DIP switch (SW1) on the finisher controller PC board appropriately.

Initiating Operations

1) Remove any obstacles from the area of operation.
2) Set the DIP switch (SW1) as shown, and turn ON the power (so that LED1 will start to blink).
3) Press the pushing switch (SW2) twice to initiate the operation in question. (LED2 will remain on during operation).

Setting	Item	Operation		To stop
	Delivery motor	The delivery roller rotates in a specific speed.		• Press SW2 again. • Turn OFF the joint sensor (S4).
	Stack processing motor (stack delivery lever)	The stack delivery lever moves to its home position and stops.		• Turn OFF the joint sensor (S4).
	Stack processing motor (returning roller)	The returning roller moves to the home position and stops.		• Turn OFF the joint sensor (S4).
	Front jogging plate motor	When not at the home position	The front jogging plate moves to its home position and stops.	• Turn OFF the joint sensor (S4).
		When at the home position	The front jogging plate moves over a specific position and stops at the home position.	• Turn OFF the joint sensor (S4).
	Rear jogging plate motor	When not at the home position	The rear jogging plate moves to the home position and stops.	• Turn OFF the joint sensor (S4).
		When at the home position	The rear jogging plate moves over a specific distance and stops.	• Turn OFF the joint sensor (S4).
	Upper stack tray motor (up)	The upper stack tray moves up and stops when the upper stack tray upper limit sensor turns ON.		• Press SW2 again. • Turn OFF the joint sensor (S4).
	Upper stack tray motor (down)	The upper stack tray moves down and stops when the lower stack tray lower limit sensor turns ON.		• Press SW2 again. • Turn OFF the joint sensor (S4).
	Lower stack tray motor (up)	The lower stack tray moves up and stops when the lower stack tray upper limit sensor is turned ON.		• Press SW2 again. • Turn OFF the joint sensor (S4).

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Setting	Item	Operation	To stop
	Lower stack tray motor (down)	The lower stack tray moves down and stops when the lower stack tray lower limit sensor is turned ON.	• Press SW2 again. • Turn OFF the joint sensor (S4).
	Stapler motor	The stapler motor stops after the stapling operation.	• Press the stapler safety switch (S14). • Turn OFF the joint sensor (S4).
	Shipping position operation	The upper and lower stack trays move to the shipping position and stop.	• Turn OFF the joint sensor (S4).

Note:

Perform the shipping position operation when the finisher is packed again.

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3.13 Adjustment of the Finisher (MJ-1025)

3.13.1 Adjusting the folding position (Electrical system (Finisher/Saddle unit))

The folding position is adjusted by matching it with the stapling position.
If you have replaced the finisher controller PCB, you must transfer the existing settings to the new PCB.
Perform the following if the folding position must be adjusted for some reason.

Note:
Both the folding and stapling positions may deviate for some type of paper.
In such a case, change the “middle stapling position” in the user mode of the host machine.

<Procedure>

(1) Set SW1 on the finisher controller PCB as follows:

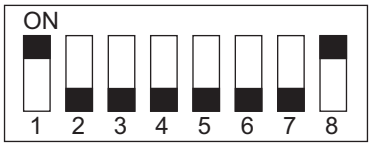


Fig. 3-128

(2) Adjust the folding position by pressing the PSW1 or PSW2 on the finisher controller PCB a required number of times. Pressing the switch once moves the folding position about 0.16 mm.
- To move the folding position in the “-” direction, press the PSW1.
- To move the folding position in the “+” direction, press the PSW2.
- Pressing the PSW1 and PSW2 at the same time clears the adjustment value.

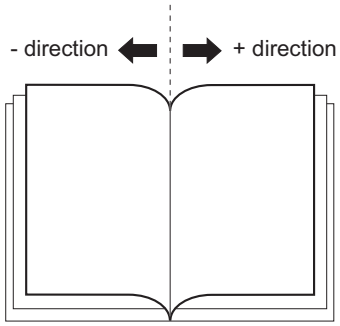


Fig. 3-129

(3) When adjustment of the folding position is complete, set all bits of the SW1 on the finisher controller PCB to OFF.

(4) Enter the bind mode of the host machine and check whether the folding position is adjusted properly. If adjusted improperly, adjust the folding position again.

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3.13.2 Adjusting the sensor output (Electrical system (Puncher unit; option))

Perform the following when the punch controller PCB, horizontal registration sensor (photosensor PCB/ LED PCB), or waste full sensor (waste full photosensor PCB/waste full LED PCB) has been replaced.

<Procedure>

(1) Shift bits 1 through 4 on the punch controller PCB as follows:

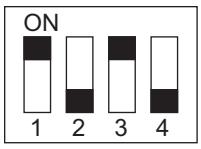


Fig. 3-130

(2) Press SW1002 or SW1003 on the punch controller PCB. A press will automatically adjust the sensor output.
- The adjustment is over when all LEDs on the punch controller PCB are ON: LED 1001, LED1002, LED1003.

(3) Shift all bits of DIPSW1001 to OFF.

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3.13.3 Registering the number of punch hole (Electrical system (Puncher unit; option))

Perform the following to register the type of puncher unit (number of holes) used to the IC on the punch controller PCB for identification by the finisher. Be sure to register the type whenever you have replaced the punch controller PCB.

<Procedure>.

(1) Set bits of 1 through 4 on the DIPSW1001 on the punch controller PCB as follows:



Fig. 3-131

(2) Press SW1002 on the punch controller PCB to select the appropriate number of punch holes.
- Each press on SW1002 moves the selection through the following (repeatedly from top to bottom).

Number of punch holes	LED1001	LED1002	LED1003
2 holes (E)	ON	OFF	OFF
2/3 holes (N)	ON	ON	OFF
4 holes (F)	OFF	OFF	OFF
4 holes (S)	OFF	OFF	ON

(3) Press SW1003 on the punch controller PCB twice. The presses will store the selected number of punch holes on the punch controller PCB.
- A single press on SW1003 will cause the LED indication to flash; another press on SW1003 will cause the indication to remain ON to indicate the end of registration.

(4) Shift all bits of DIPSW1001 to OFF.

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3.13.4 After replacing the EEP-ROM (IC1002) (Electrical system (Puncher unit; option))

<Procedure>

(1) Turn off the host machine.
(2) Set bits 1 through 4 on the punch controller PCB as follows:

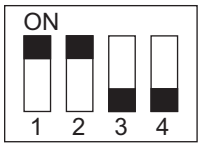


Fig. 3-132

(3) Press SW1002 and SW1003 on the punch controller PCB at the same time.
- The presses will initialize the EEP-ROM. At the end, all LEDs (LED1001, LED1002, LED1003) will go ON.

(4) Adjust the sensor output, and store the number of punch holes.

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3.14 Key Copy Counter (MU-8, MU-10)

To make a key copy counter available, the following 2 components must be installed to the equipment.

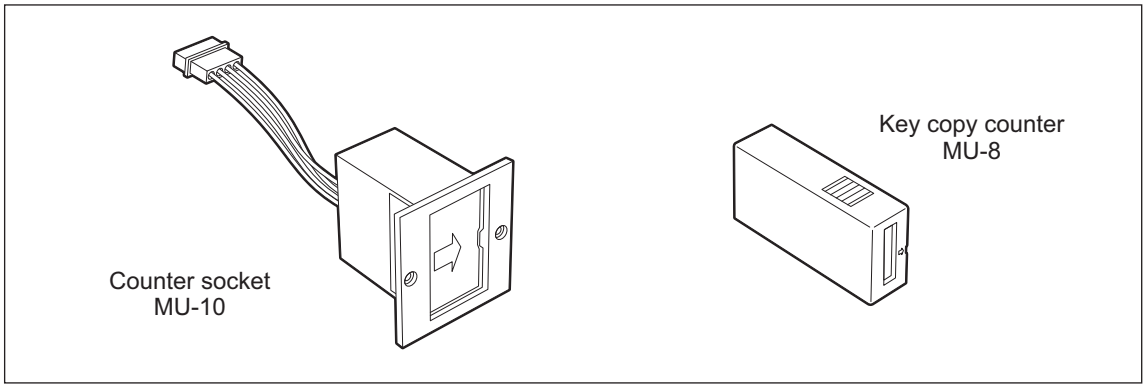


Fig. 3-133

<Installation procedure>

(1) Remove the rear cover.

(2) Remove the right upper cover-3, and cut open the window for the key copy counter.

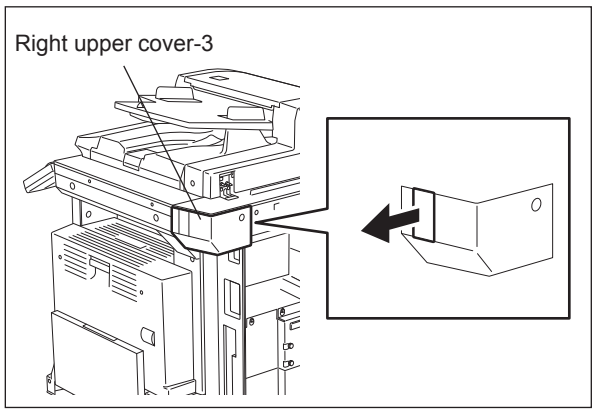


Fig. 3-134

(3) Pull out the harness connector from the hole of the machine frame, and cut the short harness of the connector. (Treat the cut harness properly to avoid it causing a short circuit with the machine frame.) Then, disconnect the dummy connector.

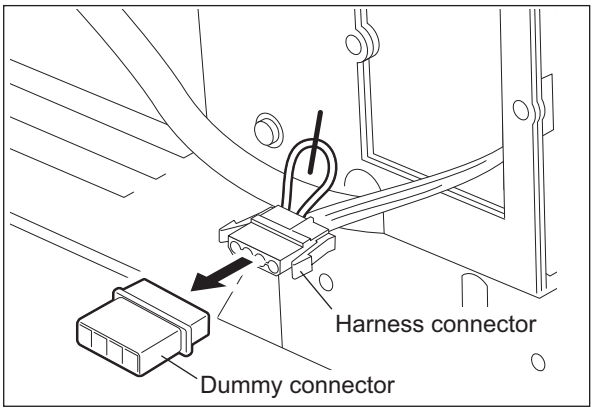


Fig. 3-135

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(4) Connect the connector of the counter socket to the harness connector of the equipment side.

(5) Install the counter socket to the machine frame with two screws.

(6) Reattach the cover.

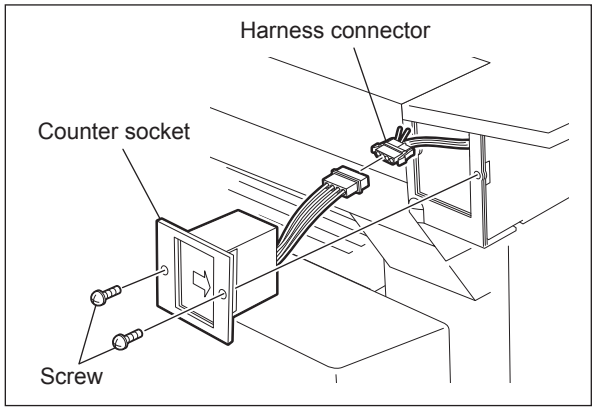


Fig. 3-136

(7) Insert the key copy counter with its arrow mark pointing the rear side of the equipment.

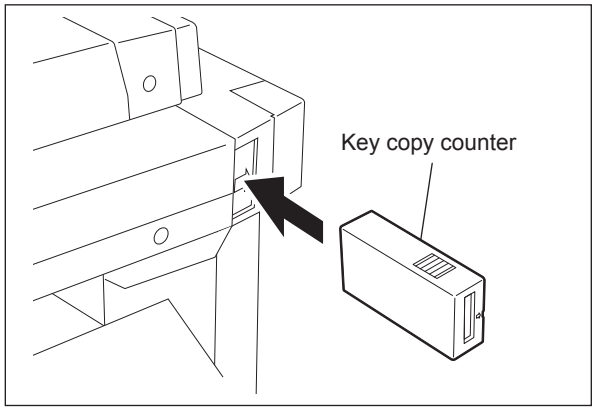


Fig. 3-137

(8) Enter the value “3” in the setting mode (08-202).

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3.15 Adjustment of Dogleg

Dogleg is the name given to an image which is deformed approx. 48 mm of the trailing edge of the output paper.

Since adjustment has usually been performed when the equipment was manufactured, dogleg image should not occur. However, if the following dogleg image A or B does happen to occur, the following adjustment must be performed. An original with a line parallel to the feeding direction is used for the adjustment.

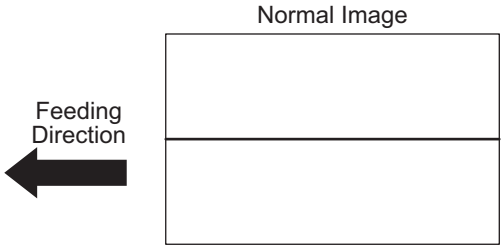


Fig. 3-138

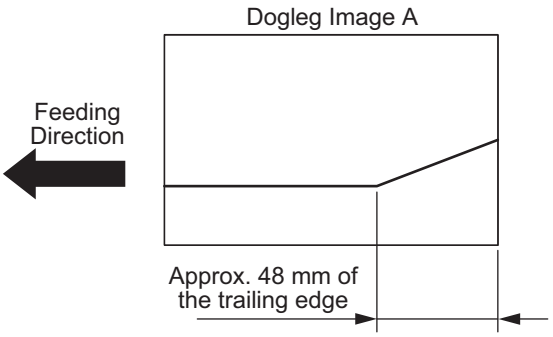


Fig. 3-139

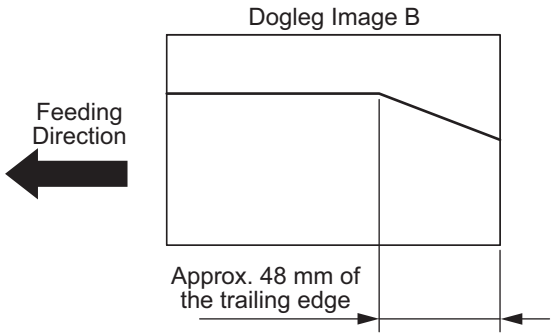


Fig. 3-140

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<Adjustment procedure>

(1) Check the position of the adjustment screws.

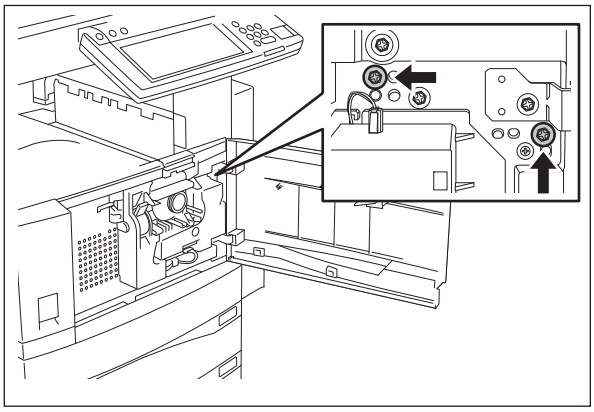


Fig. 3-141

(2) Remove the 2 adjustment screws.

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(3) Fix the adjustment screws in the position as shown in the figure.
- Dogleg image A
  Install the adjustment screws as shown in the figure below so that the stay of the fuser unit can move upward.

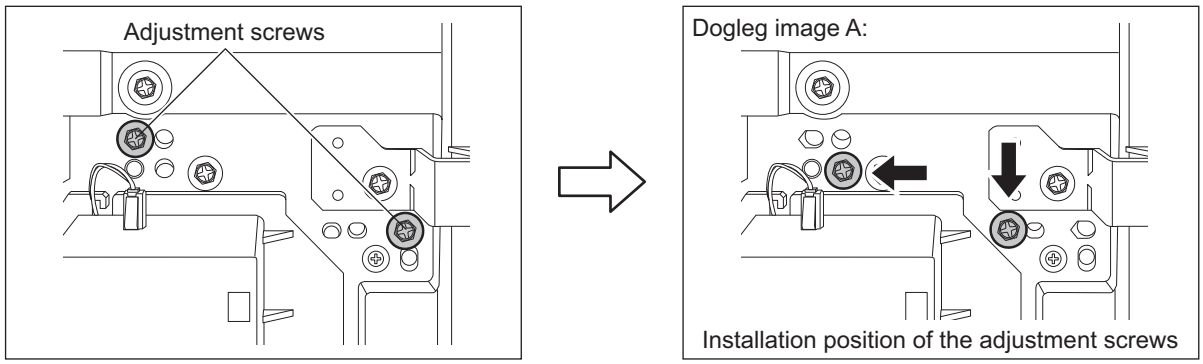


Fig. 3-142

- Dogleg image B
  Install the adjustment screws as shown in the figure below so that the stay of the fuser unit can move downward.

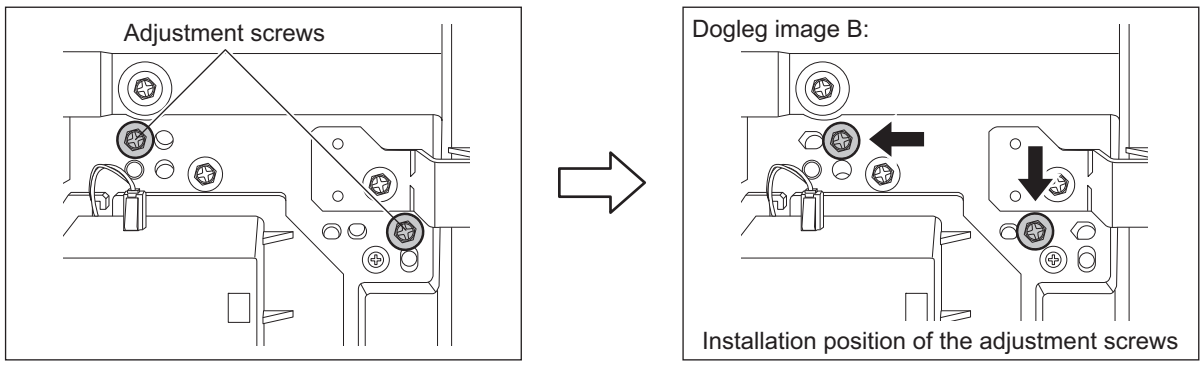


Fig. 3-143

(4) Check the copied image. If further adjustment is needed, fix the adjustment screws in the position as shown in the figure so that the stay can be moved both upward and downward by 1 mm.
Be sure to make the scales on the right and left match when installing the adjustment screws.

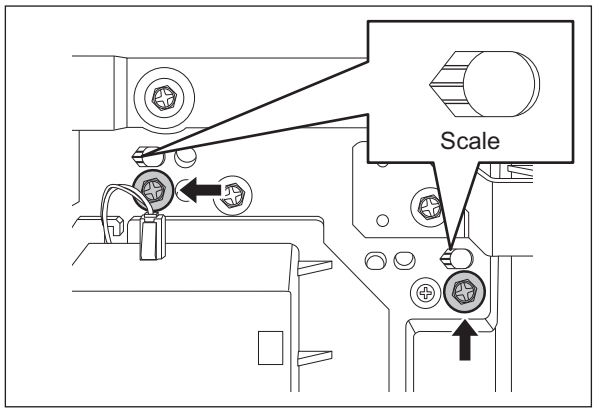


Fig. 3-144

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4. PREVENTIVE MAINTENANCE (PM)

4.1 PM Support Mode

4.1.1 General description

The timing for the parts replacement usually depends on the number of output pages ever printed after they were replaced before. However, the life span of them changes depending on the general use of users and the environment in which the equipment is placed. Therefore, it is necessary to consider not only the number of output pages but also the drive counts when deciding the timing for the parts replacement in order to utilize the parts and materials effectively.
This equipment has the PM support mode, which makes it possible to see the general use of each part (the number of output pages, drive counts) and replacement record and to do a counter clearing operation more efficiently when replacing.
The replacement record can be printed out in the list printing mode (9S-103).

4.1.2 Operational flow and operational screen

[1] Operational flow

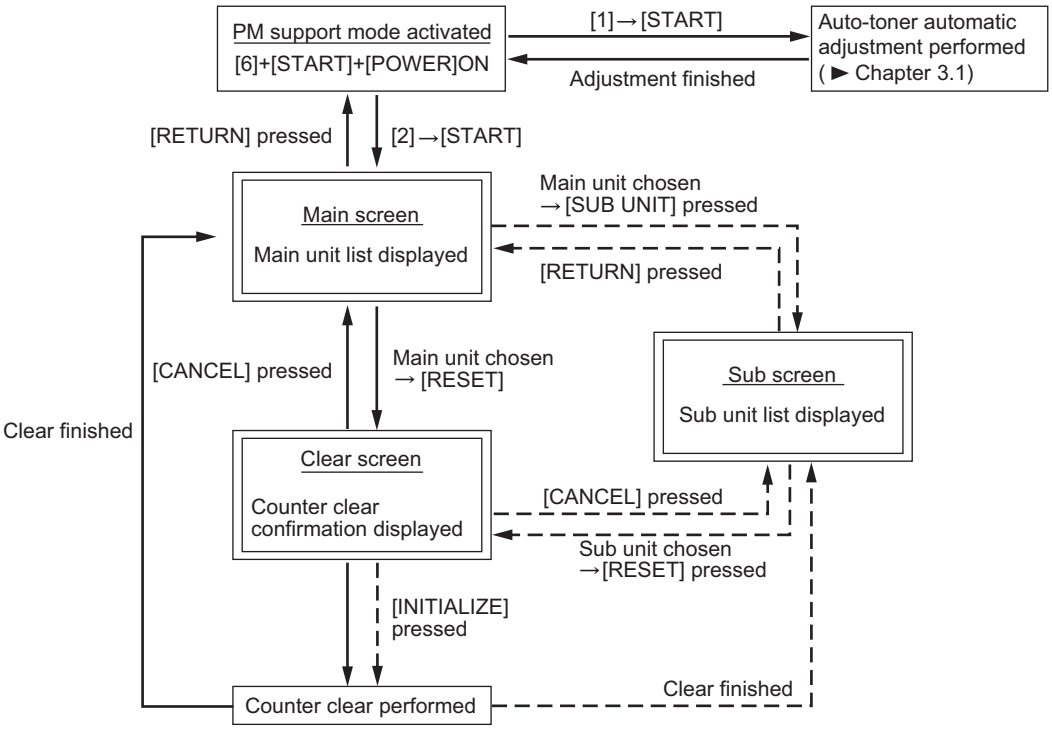


Fig. 4-1

* The screen goes back to the main screen when the counter clear is executed or the [CANCEL] button is pressed after moving from the main screen, while it goes back to the sub screen after moving from the sub screen.

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[2] Operational screen

1) Main screen

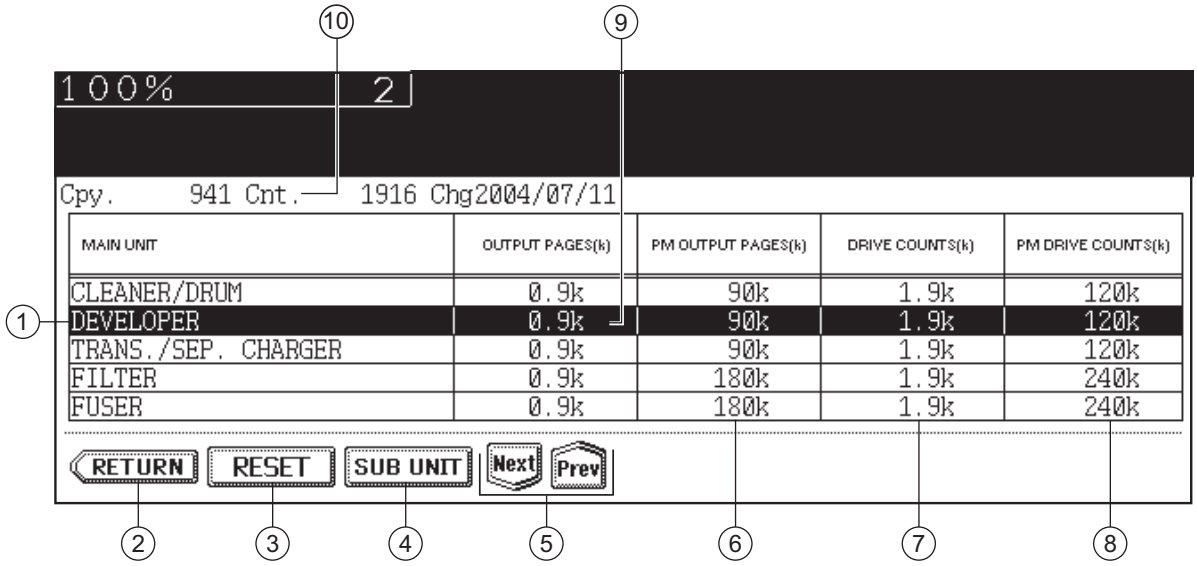


Fig. 4-2

① Displaying of the main unit name

② Back to the PM support mode activation screen

③ Clearing of the chosen unit counters (all the sub unit (parts) counters belonging to that unit) All counters are cleared when the unit is not selected

④ Moving to the sub screen

⑤ Moving to the next/previous page

⑥ Displaying of the standard number of output pages counts (x 1,000) to replace the unit parts

⑦ Displaying of the present drive counts (x 1,000)
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑧ Displaying of the standard number of drive counts (x 1,000) to replace the unit parts

⑨ Displaying of the present number of output pages counts (x 1,000)
When there are differences among the sub units (parts), "_" is displayed and "CHECK SUB-UNIT" is displayed at the top
"*" is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.

⑩ Displaying of the number of output pages counts (Cpy.), drive counts (Cnt.) and previous replacement date (Chg.) for a chosen unit.
When the replacement date for the sub unit is different, press the [SUB UNIT] button to move to the sub screen and see each information, otherwise information is not displayed

Notes:

- "—" is always displayed at the drive counts section for the reversing automatic document feeder (RADF) and feed unit.
- The paper source differs depending on the structure of options, however, "0.0k" is displayed in "OUTPUT PAGES (k)" and its standard number of output pages is displayed in "PM OUTPUT PAGES (k)" even for the installed paper source.

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2) Sub screen

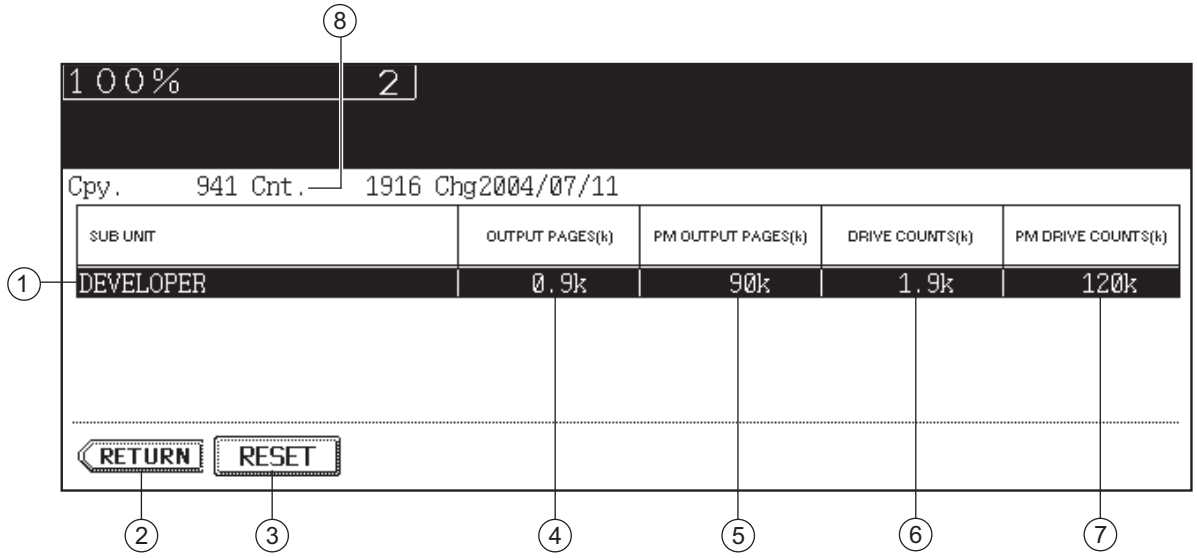


Fig. 4-3

① Displaying of the sub unit (parts) name

② Back to the main screen

③ Clearing of the chosen sub unit (parts) counters

④ Displaying of the present number of output pages counts (x 1,000)
"*" is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.

⑤ Displaying of the standard number of output pages counts (x 1,000) to replace the sub unit (parts)

⑥ Displaying of the present drive counts (x 1,000)
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑦ Displaying of the standard number of drive counts (x 1,000) to replace the sub unit (parts)

⑧ Displaying of the number of output pages counts, drive counts and previous replacement date for a chosen sub unit

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3) Clear screen

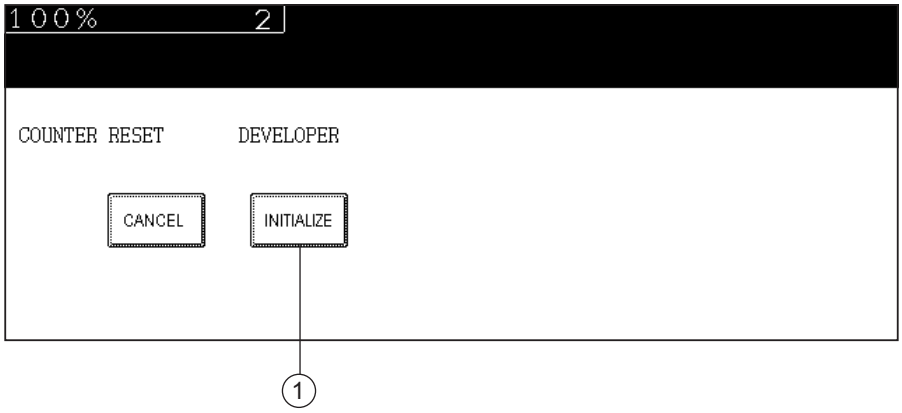


Fig. 4-4

① When the [INITIALIZE] button is pressed, “Present number of output pages counts” and “Present driving counts” are cleared and “Previous replacement date” is updated.

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[3] LCD screen display list

Note:

The name inside [ ] is displayed on the LCD screen.

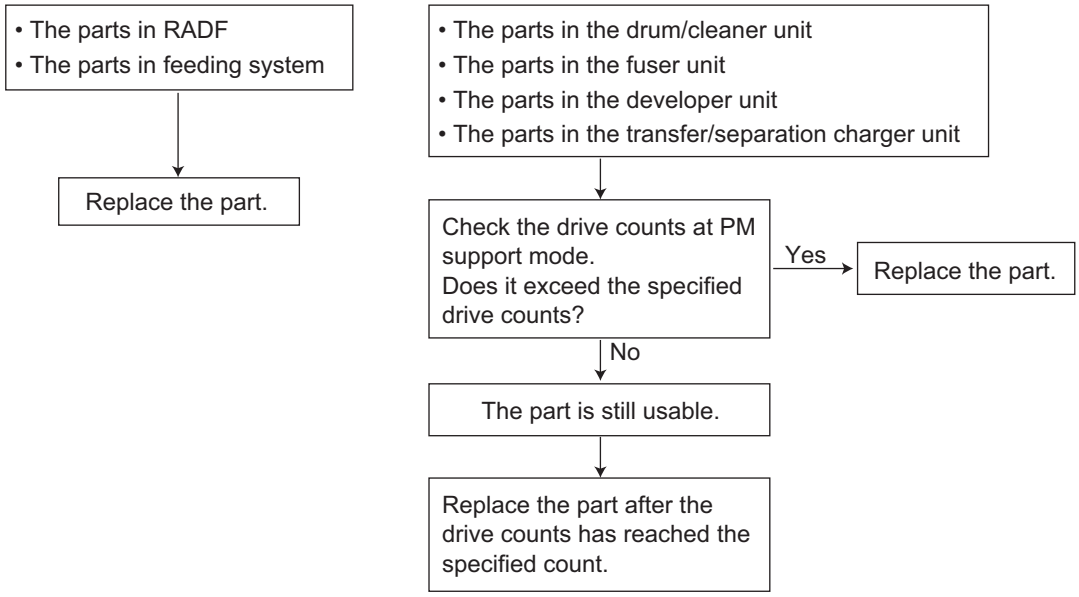
Main screen	Sub-screen
Drum/cleaner unit [CLEANER/DRUM]	Drum [DRUM] Drum cleaning blade [DRUM BLADE] Main charger grid [GRID] Needle electrode [NEEDLE ELECTRODE] Separation finger for drum [SEPARATION FINGER (DRUM)] Recovery blade [RECOVERY BLADE]
Developer unit [DEVELOPER]	Developer [DEVELOPER]
Transfer/separation charger unit [TRANS./SEP. CHARGER]	Transfer charger wire [TRANSFER CHARGER WIRE] Separation charger wire [SEPARATION CHARGER WIRE]
Filter [FILTER]	Ozone filter [OZONE FILTER]
Fuser unit [FUSER]	Fuser roller [FUSER ROLLER] Pressure roller [PRESS ROLLER] Cleaning roller [CLEANING ROLLER] Separation finger for fuser roller [SEPARATION FINGER (FUSER)]
Upper drawer [1st CST.]	Pickup roller [PICK UP ROLLER (1st CST.)] Feed roller [FEED ROLLER (1st CST.)] Separation roller [SEP ROLLER (1st CST.)]
Lower drawer [2nd CST.]	Pickup roller [PICK UP ROLLER (2nd CST.)] Feed roller [FEED ROLLER (2nd CST.)] Separation roller [SEP ROLLER (2nd CST.)]
Bypass unit [SFB]	Pickup roller [PICK UP ROLLER (SFB)] Feed roller [FEED ROLLER (SFB)] Separation roller [SEP ROLLER (SFB)]
RADF [RADF]	Pickup roller [PICK UP ROLLER (RADF)] Feed roller [FEED ROLLER (RADF)] Separation roller [SEP ROLLER (RADF)]
LCF [LCF]	Pickup roller [PICK UP ROLLER (LCF)] Feed roller [FEED ROLLER (LCF)] Separation roller [SEP ROLLER (LCF)]
PFP upper drawer [3rd CST.]	Pickup roller [PICK UP ROLLER (3rd CST.)]] Feed roller [FEED ROLLER (3rd CST.)] Separation roller [SEP ROLLER (3rd CST.)]
PFP lower drawer [4th CST.]	Pickup roller [PICK UP ROLLER (4th CST.)] Feed roller [FEED ROLLER (4th CST.)] Separation roller [SEP ROLLER (4th CST.)]

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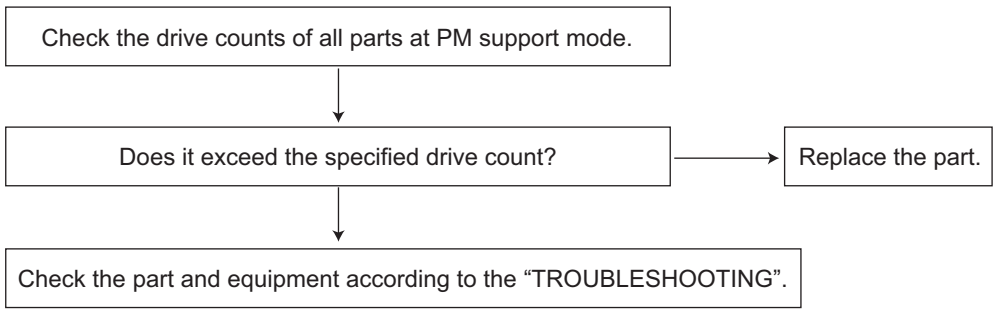
4.1.3 Work flow of parts replacement

The timing for the parts replacement usually depends on the number of output pages ever made after they were replaced before. However, its drive counts time is also to be considered when replacing the parts. Even if the number of output pages has reached the level of replacement, for instance, the part may still be usable with its drive counts not reaching the specified drive counts. On the other hand, the part may need replacement even if the number of output pages has not reached the level of replacement with its driving time exceeding the specified drive counts. The life span of some parts such as feed roller is heavily dependent on the number of output pages rather than the drive counts.
The following work flow diagram shows how to judge the timing of replacement with the number of output pages and the drive counts.

Example 1:
When the number of output pages has reached the specified level



Example 2:
When the image failure occurred before the number of output pages has reached the specified level



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4.2 General Descriptions for PM Procedure

Perform the preventive maintenance in the following timing.
e-STUDIO200L/202L/203L: every 6,400 sheets
e-STUDIO230/230L/232/233:every 74,000 sheets
e-STUDIO280/282/283: every 90,000 sheets

(1) Preparation
- Ask the user about the current conditions of the equipment and note them down.
- Before starting maintenance, make some sample copies and store them.
- See the replacement record and check the parts to be replaced in the PM support mode (6S-2) or list printing mode (9S-103).
  6S-2 : [6] + [START] + [POWER] ON → [2] → [START]
  9S-103 : [9] + [START] + [POWER] ON → [103] → [START]

PM SUPPORT CODE LIST

MM-DD-YY 09:30

UNIT	OUTPUT PAGES	PM OUTPUT PAGE	DRIVE COUNTS	PM DRIVE COUNTS
DRUM	81813	150000	119758	220000
DRUM BLADE	81813	150000	119758	220000
GRID	81813	150000	119758	220000
MAIN CHARGER WIRE	81813	150000	119758	220000
SEPARATION FINGER (DRUM)	81813	150000	119758	220000

Fig. 4-5

- Turn OFF the power and make sure to unplug the equipment.

(2) Perform a preventive maintenance using the following checklist and illustrations. Refer to the Service Manual if necessary.

(3) Plug in the equipment after the maintenance has been finished. Then turn ON the power and make some copies to confirm that the equipment is working properly.

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4.3 Operational Items in Overhauling

Overhaul each equipment with the following timing.

e-STUDIO200L/202L/203L:	When the number of output pages has reached 193,000 or 2.5 years have passed from the start of use (Whichever is earlier)
e-STUDIO230/230L/232/233:	When the number of output pages has reached 222,000 or 2.5 years have passed from the start of use (Whichever is earlier)
e-STUDIO280/282/283:	When the number of output pages has reached 270,000 or 2.5 years have passed from the start of use (Whichever is earlier)

(1) Replace all the supplies.
(2) Check the components in the drive section (gears, pulleys, timing belts, etc.). Replace them with new ones if they are damaged.
(3) Check all the adhesives such as tape and Mylar if they are damaged or have become unstuck. Replace them with new ones if necessary.
(4) Check the performance of all the switches and sensors. Replace them with new ones if necessary.
(5) Clean inside the equipment thoroughly.

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4.4 Preventive Maintenance Checklist

Symbols used in the checklist

Cleaning	Lubrication	Replacement	Operation check	Date
A Clean with alcohol ○ Clean with soft pad, cloth or vacuum cleaner	L Launa 40 Coating SI Silicon oil W1 White grease (Molykote X5-6020) W2 White grease (Molykote HP-300) AV Alvania No.2 FL Floil (GE-334C) CG Conductive grease (KS-660)	The number of sheets consumed before replacement (Value x 1,000) Δ Replace if deformed or damaged	○ After cleaning or replacement, confirm there is no problem.	User name Serial No. Inspector's name Remarks

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[Preventive Maintenance Checklist]

Notes:

- Perform cleaning and lubricating in the following timing. Lubricate the replacement parts according to the replacement cycle.
  e-STUDIO200L/202L/203L: every 64,000 sheets
  e-STUDIO230/230L/232/233:every 74,000 sheets
  e-STUDIO280/282/283: every 90,000 sheets
- Values under “Replacement” indicate the replacement cycle for the e-STUDIO200L/ e-STUDIO230/e-STUDIO230L/e-STUDIO280 or e-STUDIO202L(203L)/e-STUDIO232(233)/ e-STUDIO282(283).
- The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.
- Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.

A. Scanner

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
A1	Original glass	○ or A				<P22-I1>	*a1
A2	ADF original glass	○				<P22-I2>	*a1
A3	Mirror-1	○					
A4	Mirror-2	○					
A5	Mirror-3	○					
A6	Reflector	○				<P23-I4>	
A7	Lens	○				<P11-I16>	
A8	Exposure lamp			Δ	○	<P23-I6>	
A9	Automatic original detection sensor	○			○	<P11-I17>	
A10	Slide sheet (front and rear)	○ or A		Δ			

B. Laser unit

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
B1	Slit glass	○					

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C. Feed unit

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
C1	Pickup roller			80/80		<P15-I19>	
C2	Feed roller			80/80		<P15-I39>	
C3	Separation roller		AV, W2	80/80		<P15-I29>	*c1
C4	Transport roller (1st/2nd)	A		Δ			
C5	Paper guide	○					
C6	Drive gear (tooth face and shaft)		W1				
C7	GCB bushing bearing		L				*c2
C8	One side of the plastic bushing		W1				
C9	Registration roller	A		Δ			

D. Automatic duplexing unit (MD-0102)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
D1	Transport roller (upper, middle and lower)	A		Δ			
D2	One side of the GCB busing to which the shaft is inserted		L				
D3	One side of the plastic busing to which the shaft is inserted		W1				
D4	Paper guide	○				<P32-I4>	

E. Bypass feed unit

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
E1	Pickup roller			80/80		<P20-I4>	
E2	Feed roller			80/80		<P20-I4>	
E3	Separation roller		AV, W2	80/80		<P19-I4>	*e1
E4	Bypass tray	○					
E5	Drive gear (tooth face and shaft)		W1				
E6	GCB bushing bearing		L				

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F. Main charger

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
F1	Main charger case	○				<P25-I1>	*f1
F2	Needle electrode			64/74/90			*f1
F3	Contact point of terminals	○					
F4	Main charger wire cleaner			Δ	○	<P25-I7>	
F5	Main charger grid			64/74/90		<P25-I3>	

G. Transfer / Separation charger

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
G1	Charger case	○				<P26-I2>	*g1
G2	Transfer charger wire			64/74/90	○	<P26-I18>	*g1
G3	Separation charger wire			64/74/90	○	<P26-I18>	*g1
G4	Pre-transfer guide	○ or A					
G5	Post-transfer guide	○ or A					
G6	Separation supporter	○		Δ		<P26-I17>	
G7	Terminal cover	○					
G8	Contact point of terminals	○					
G9	Transfer guide roller	○		Δ		<P26-I14>	

H. Drum/Cleaner related section

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
H1	Photoconductive drum			64/74/90			Chap. 4.8.2
H2	Discharge LED	○					
H3	Whole cleaner unit	○					
H4	Drum cleaning blade			64/74/90		<P27-I5>	*h1
H5	Separation finger for drum			64/74/90 Δ			*h2
H6	Recovery blade	○		64/74/90		<P27-I6>	*h3
H7	Ozone filter			128/148/180		<P12-I8>	

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I. Developer unit / Toner cartridge related section

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
I1	Whole developer unit	○					
I2	Developer material			64/74/90			*i1
I3	Front shield	○		Δ			
I4	Oil seal (6 pcs.)		AV	320/370/450		<P28-I11>	*i2
I5	Guide roller	○ or A					
I6	Side shield	○					
I7	Developer unit lower stay	○					
I8	Toner cartridge drive gear shaft		W1				

J. Fuser unit

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
J1	Fuser roller			128/148/180		<P30-I23>	
J2	Pressure roller			128/148/180		<P30-I21>	
J3	Separation finger for fuser roller			128/148/180		<P30-I28>	*j1
J4	Cleaning roller			128/148/180		<P30-I14>	
J5	Fuser unit entrance guide	A				<P30-I39>	
J6	Thermistor (3 pcs.)	A		Δ		<P30-I10>	*j2
J7	Drive gear (tooth face and shaft)		W2	Δ		<P30-I19>	
J8	Fuser roller gear			Δ		<P30-I24>	

K. Exit unit

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
K1	Exit/reverse guide	A				<P31-I21>	
K2	Exit roller	A		Δ		<P31-I3>	
K3	Drive gear		SI				

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L. RADF (MR-3016)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
L1	Pickup roller	○		120		<P8-I26>	
L2	Feed roller	○		120		<P8-I25>	
L3	Separation roller	○		120		<P6-I6>	
L4	Original length sensor	○					
L5	Registration roller	A					
L6	1st small roller	A					
L7	2nd small roller	A					
L8	Read sensor	○					
L9	Read sensor	○					
L10	Read roller	A					
L11	3rd small roller	A					
L12	4th small roller	A					
L13	Reverse sensor	○					
L14	Exit roller	A					
L15	Reverse roller	A					
L16	Platen sheet	○ or A					

M. PFP (KD-1011)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
M1	Pickup roller (upper/lower)			80		<P5-I29>	
M2	Feed roller (upper/lower)			80		<P5-I26>	
M3	Separation roller (upper/lower)		AV, W2	80		<P5-I12>	*m1
M4	Drive gear (tooth face)		W1				

N. LCF (KD-1012)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
N1	Pickup roller	A		160		<P4-I30>	
N2	Feed roller	A		160		<P4-I28>	
N3	Separation roller	A		160		<P5-I12>	
N4	Drive gear		W1				

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O. Job Separator (MJ-5004)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
O1	Idling roller	O or A	W1				*o1
O2	Other rollers	O or A					
O3	Paper guide	O or A					
O4	JSP upper stuck sensor	O			O	<P1-I51>	
O5	JSP lower stuck sensor	O			O	<P1-I12>	
O6	JSP paper jam sensor	O			O		

P. Offset Tray (MJ-5005)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
P1	OCT separator roller	O or A	W1, FL			<P2-I22>	*p1
P2	Other rollers	O or A				<P2-I39>	
P3	Paper guide	O or A					
P4	OCT stuck sensor	O			O	<P1-I13>	
P5	OCT home position sensor	O			O		
P6	OCT feed sensor	O			O		

Q. Finisher (MJ-1025)

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
Q1	Feed roller	O or A					
Q2	Delivery roller	O or A					
Q3	Stack delivery roller	O or A					
Q4	Stack feed roller	O or A					
Q5	Paper fold roller	O or A					
Q6	Bind delivery roller	O or A					
Q7	Waste full detection sensor	O					
Q8	Feeding assembly member	O or A					
Q9	Paper guide	O or A					

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R. RADF (MR-3020)

Items to check		Cleaning	Lubrication/ Coating	Replacement (KS)	Operation check	Parts list <P-I>	Remarks
R1	Pickup roller	A		120		5-1	
R2	Separation roller	A		120		4-10	
R3	Feed roller	A		120		5-1	
R4	Registration roller	A					
R5	Intermediate transfer roller	A					
R6	Front read roller	A					
R7	Platen roller	A					
R8	Rear read roller	A					
R9	Reverse registration roller	A					
R10	Exit/reverse roller	A					
R11	Platen sheet	○ or A					

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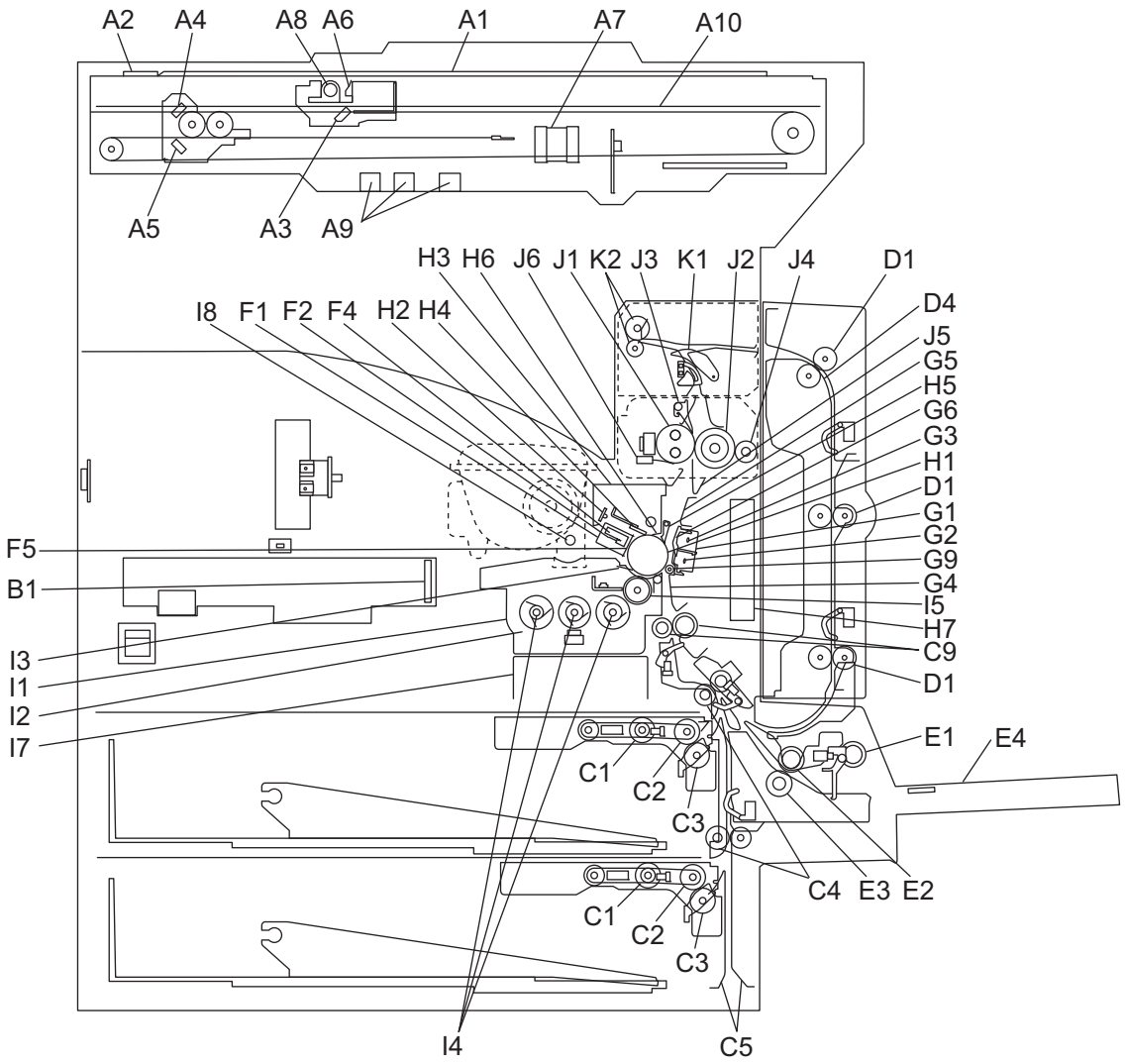


Fig. 4-6 Front side

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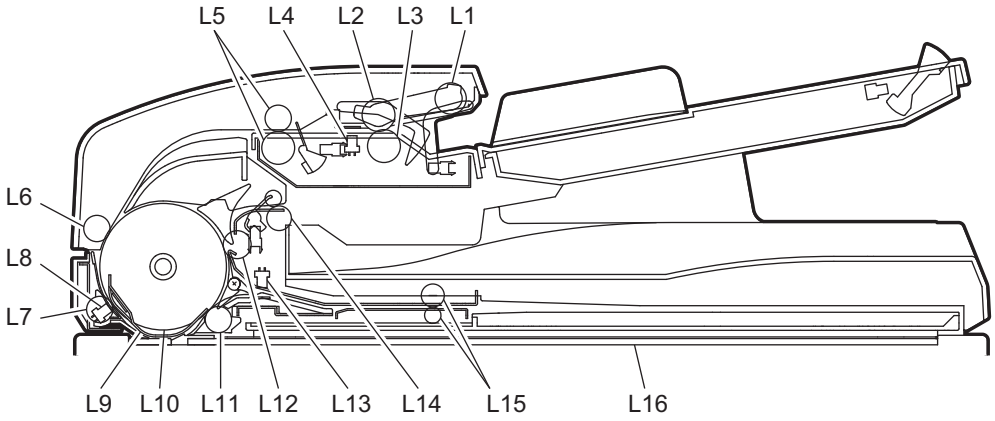


Fig. 4-7 Reversing Automatic Document Feeder (RADF: MR-3016)

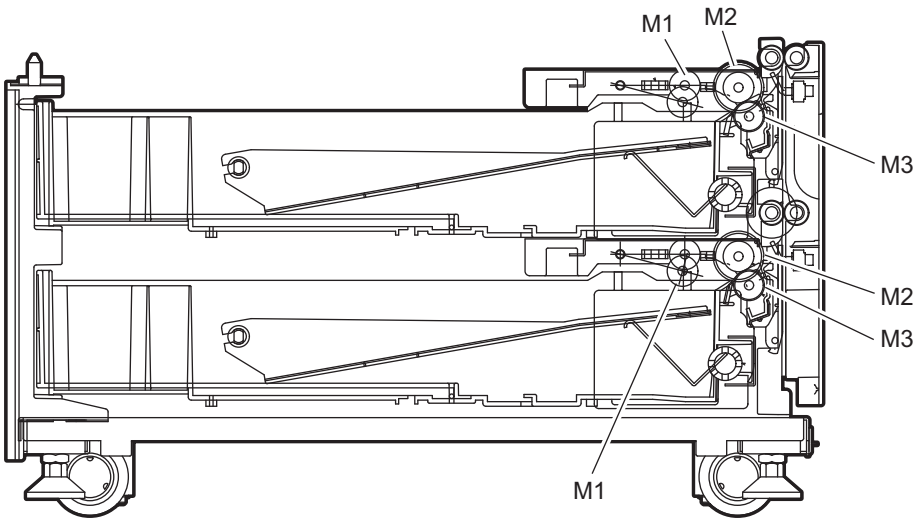


Fig. 4-8 Paper Feed Pedestal (PFP)

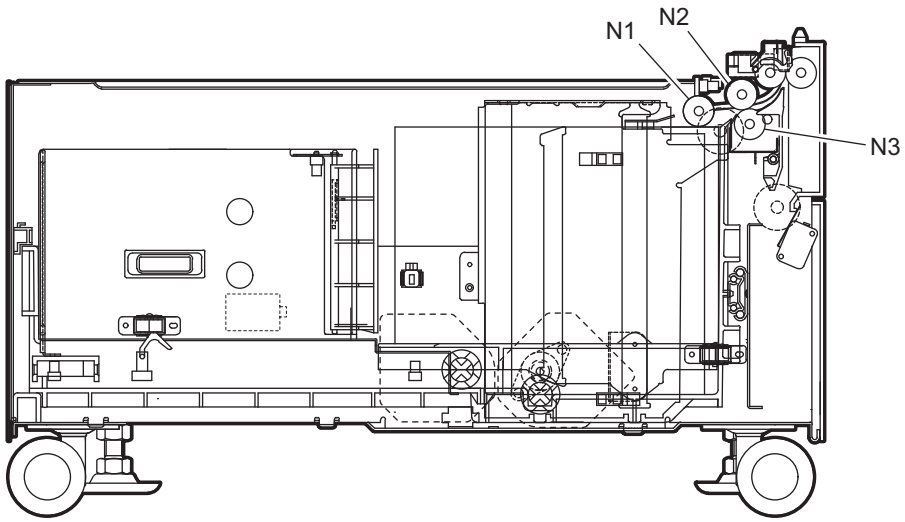


Fig. 4-9 Large Capacity Feeder (LCF)

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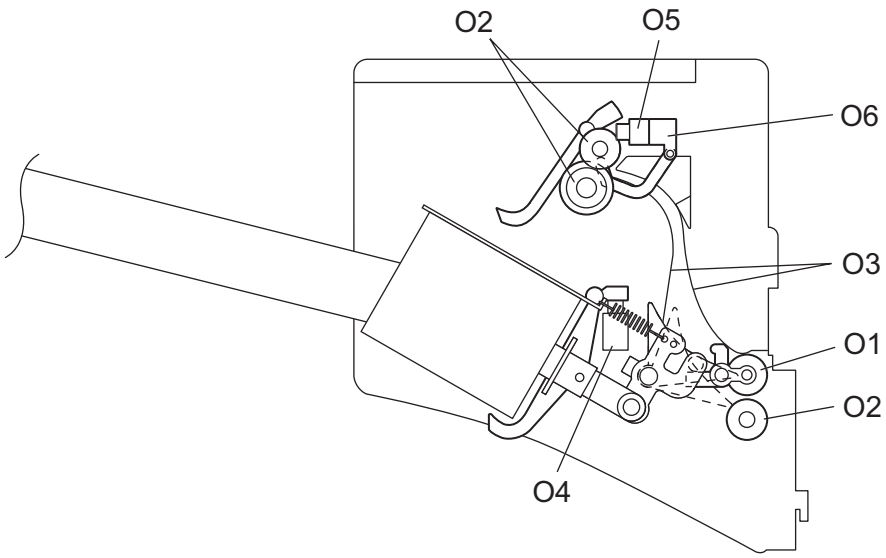


Fig. 4-10 Job Separator (JSP)

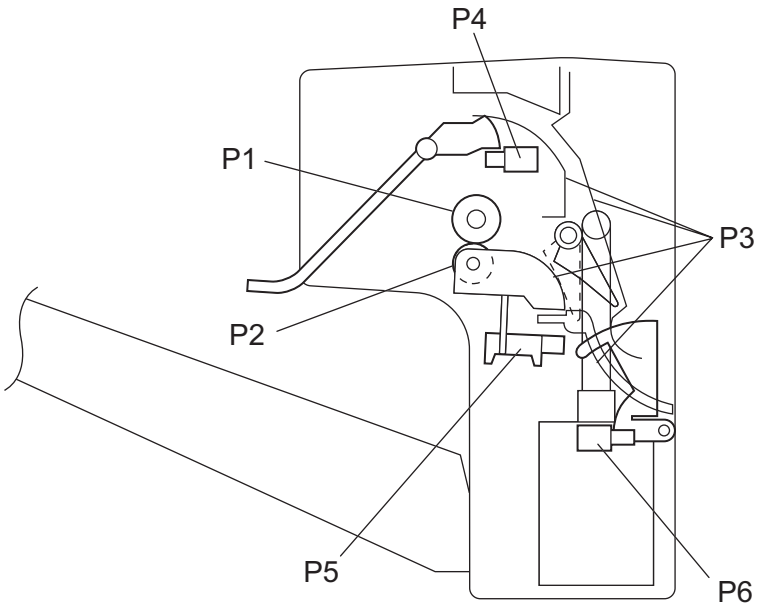


Fig. 4-11 Offset Tray (OCT)

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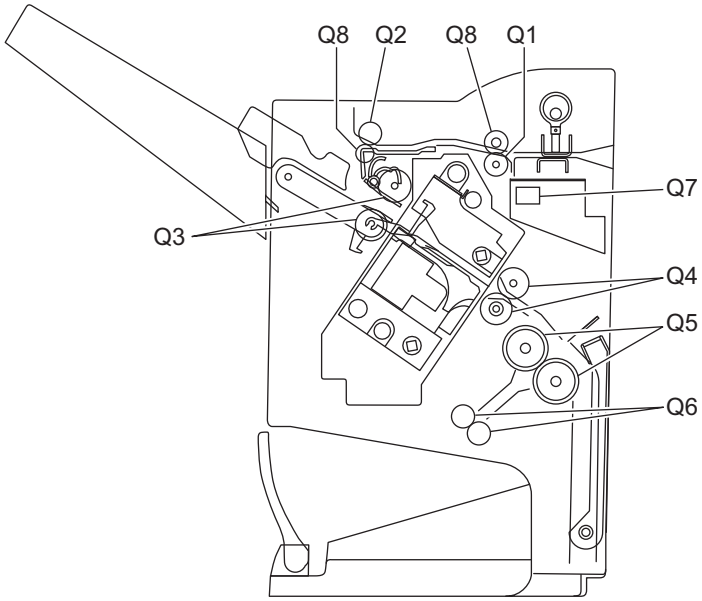


Fig. 4-12 Finisher (MJ-1025)

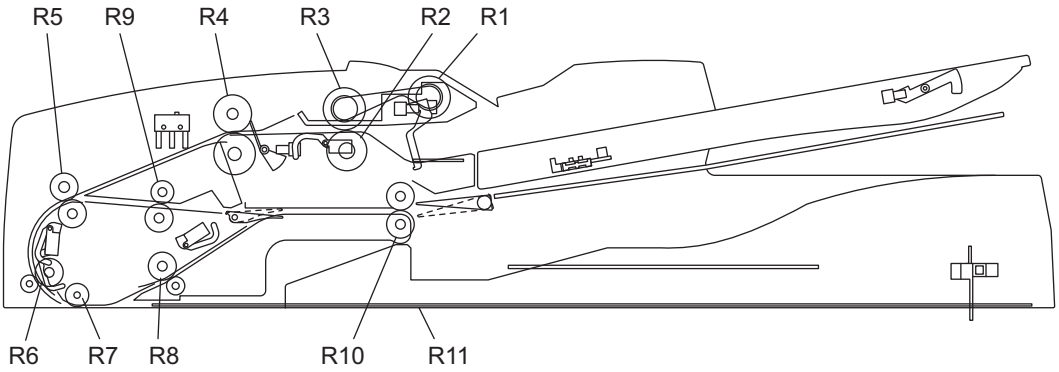


Fig. 4-13 Reversing Automatic Document Feeder (RADF: MR-3020)

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Remarks "*" in the Preventive Maintenance Check List

* a1. Original glass / ADF original glass
Clean both sides of the original glass and ADF original glass.

Note:
Make sure that there is no fingerprints or oil staining on part of the original glass on where the original scale is mounted since the shading correction plate is located below the scale to be scanned.

* c1, m1. Separation roller (Feed unit, PFP)
Apply an even coat of grease (Alvania No.2) to all round the inside of the spring.
When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

Note:
Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.

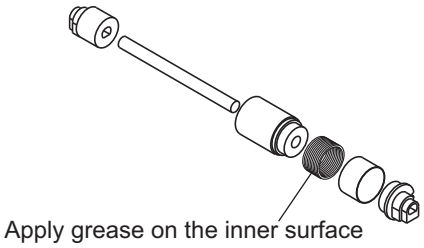


Fig. 4-14

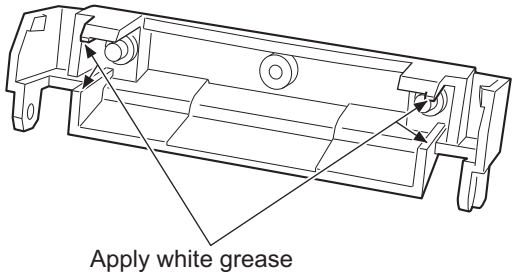


Fig. 4-15

* c2. Drive gears in the paper feeding section (teeth of gears and shafts)
Apply some white grease (Molykote X5-6020) to the teeth of gears and shafts of the drive gears.

Note:
Make sure that oil is not running over or scattered around as the gear is rotated coming into the clutch after applying Molykote to the gear which is located near the clutch. The quantity of Molykote should be smaller than that to be applied to the other parts.

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* e1. Separation roller (SFB)
Apply an even coat of grease (Alvania No.2) to all round the inside of the spring.
When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

Note:
Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.

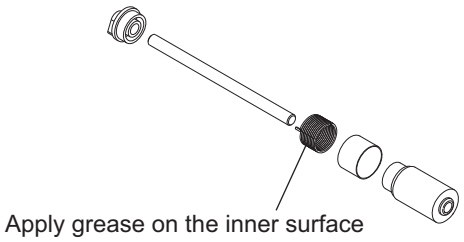


Fig. 4-16

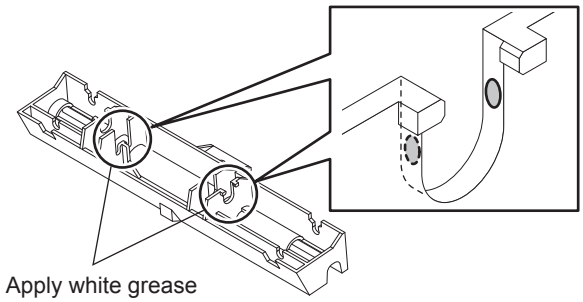


Fig. 4-17

* f1. Main charger case / Needle electrode
Clean the main charger case with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.
Clean the needle electrode only with the main charger cleaner.
Replace the needle electrode with a new one if it is damaged regardless of the number of output pages which have been mode.

Note:
Do not touch the needle electrode with your bare hand when attaching the needle electrode.

* g1. Transfer / separation charger case and transfer / separation wire
Clean the transfer / separation charger case with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.
Replace the wire with a new one if it is damaged regardless of the number of output pages which have been mode.

Notes:
- Do not deform the metal plate of the transfer guide roller.
- Be careful of the following when attaching a new wire (length: 353 mm)
  - Insert the wire securely into the V-grooves of the front and rear sides.
  - Do not twist the wire.
  - Do not touch the wire with your bare hand.

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* h1. Drum cleaning blade
Since the edge of the blade is vulnerable and can be easily damaged by factors such as the adherence of paper dust. Replace the cleaning blade with new ones if poor images are printed due to the damaged blade regardless of the number of output pages if which have been made.

* h2. Separation fingers for drum
The paper jam may be caused if the tip of the separation finger is damaged or deformed. If there is any problem with it, replace the finger with a new one regardless of the number of output pages which have been made.
If any mark which was made by the finger appears on the printed image, clean the tip of the finger.

Notes:
1. Wipe the tip of the finger lightly with a dry cloth trying not to deform it.
   Do not leave the lint on the tip.
2. Apply patting powder to the tip of the fingers and drum surface after replacing or cleaning them to reduce the load on the drum surface by the finger.

* h3. Recovery blade
Replace the recovery blade regardless the number of output pages if the edge of the blade get damaged.

* i1. Developer material
After replacing the developer material, be sure to perform the auto-toner adjustment.
(📖 P. 3-1 "3.1 Adjustment of Auto-Toner Sensor")

* i2. Oil seal (Developer unit)
Mixer unit (Shafts of mixers-1, -2 & -3) 6 pcs.

During replacement, coat the oil seal with grease (Alvanian No.2).

(1) Push in a new oil seal parallel to the mounting hole section of the developer frame or outside of the holder.
* Pay attention to the direction in which the oil seal is attached. (See figure on right.)
(2) Apply an even coat of grease to the inside of the oil seal.
• Amount: About two small drops
(3) Wipe off any grease the exudes from the inside.

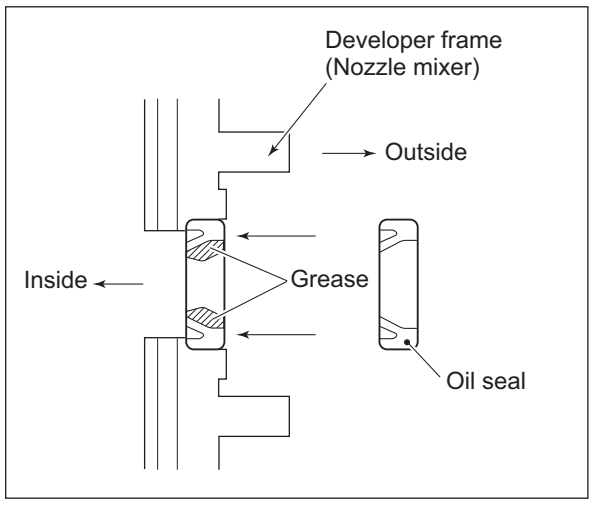


Fig. 4-18

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* j1. Separation fingers for fuser roller
The paper jam may be caused if the tip of the finger is damaged or deformed. If there is any problem with it, replace the finger with a new one regardless of the number of output pages which have been made. Do not damage the tip of the finger during the cleaning. The finger may be damaged if the toner adhering to the tip of it is scraped off forcibly. Replace the finger if the toner is sticking to it heavily.

* j2. Thermistor
Clean the thermistor with alcohol if the toner or dirt is sticking to it when the fuser roller is replaced.
Do not deform or damage the thermistor during the cleaning. Replace the thermistor with a new one if it is damaged or deformed regardless of degree.

* o1. Idling roller
Apply one-rice-grain-amount of white grease (Molykote X5-6020) to each part A in the figure below.

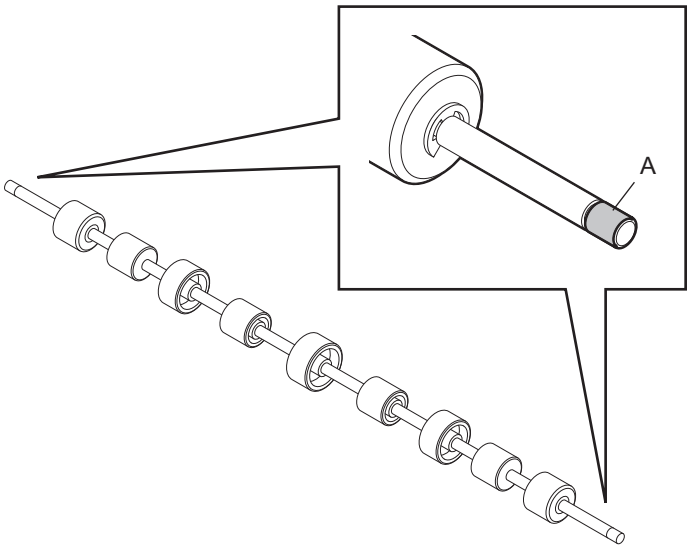


Fig. 4-19

* p1. OCT separator roller
Apply one-rice-grain-amount of FLOIL (GE-334C) to the part A in the figure below. Also apply three-rice-grain-amount of white grease (Molykote X5-6020) to each part B.

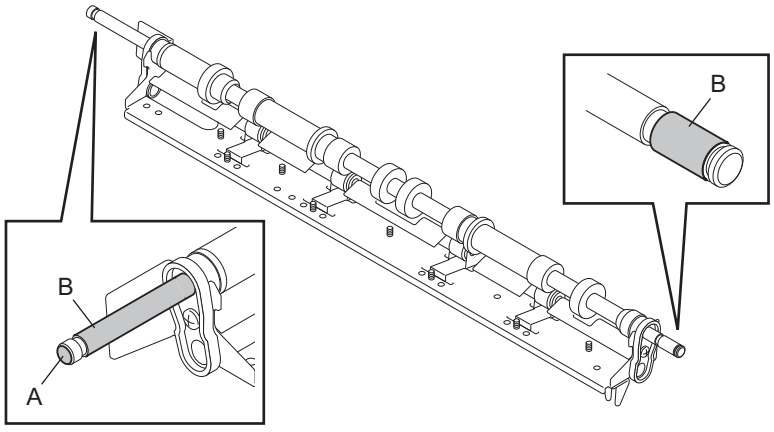


Fig. 4-20

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4.5 PM KIT

Item	Product name	Part name	Qty.
DEV-KIT-2320 (e-STUDIO200L/ 230/230L/280)	Drum cleaning blade Recovery blade Separation finger for drum Main charger grid Needle electrode Transfer charger wire Separation charger wire Developer material	BL-2320D ASYS-BLADE-REC SCRAPER-371 GRID-CH-M-371 CH-M WIRE-CH-060-353-R WIRE-CH-060-353-R D-2320	1 1 3 1 1 1 1 1
DEV-KIT-2340 (e-STUDIO202L/ 203L/232/233/282/ 283)	Drum cleaning blade Recovery blade Separation finger for drum Main charger grid Needle electrode Transfer charger wire Separation charger wire Developer material	BL-2320D BLADE-REC SCRAPER-371 GRID-CH-M-371 CH-M WIRE-CH-060-353-R WIRE-CH-060-353-R D-2320	1 1 2 1 1 1 1 1
FR-KIT-2320	Fuser roller Pressure roller Separation finger for fuser roller Cleaning roller Ozone filter	HR-2320-U HR-2320-L SCRAPER-HR-377 B-2320-L FILTER-OZONE-TRU-377	1 1 6 1 1
ROLL-KIT-2320CST	Pickup roller Feed roller Separation roller	ROLLER-PICK-AT K-ROLL-FEED K-ROLL-SPT	1 1 1
ROL-KIT-1010	Pickup roller Feed roller Separation roller	ROLL-PICK-UP ROLL-PAPER-FED-F ROLL-PAPER-FED-S	1 1 1
DF-KIT-3015	Pickup roller Feed roller Separation roller	ROLL-PICK-UP ROLL-FEED ROL-SPT-513	1 1 1

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4.6 Jig List

Item	Parts list	
	Page	Item
Door switch jig	101	1
Brush	101	2
Doctor sleeve jig	101	3
Developer material nozzle	101	4
Wire holder jig	101	5
Belt tension jig	101	6
High-voltage transformer jig	101	7
Downloading jig (DLM board)	102	1
Download JIG-2 (6 Flash ROMs)	102	2
Download JIG-1 (2 Flash ROMs)	102	3
ROM writer adapter (For 1881)	102	4
ROM writer adapter (For 1931)	102	5

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4.7 Grease List

Grease name		Part name	Volume	Container	Parts list	
					Page	Item
SI	Silicon oil	ASM-SILICONE-1M	100cc	Bottle	101	10
L	Launa 40	OIL-LAUNA40-100	100cc	Oiler	101	11
W2	White grease (Molykote HP-300)	ASM-PG-HP300-S	100g	Bottle	101	12A
W2	White grease (Molykote HP-300)	GREASE-HP300-S	10g	Bottle	101	12B
AV	Alvania No.2	ASM-PG-ALV2	100g	Tube	101	13
W1	White grease (Molykote X5-6020)	MOLYKOTE-100	100g	Tube	101	14
FL	Floil (GE-334C)	ASM-PG-GE334C-S	20g	Bottle	101	15

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4.8 Precautions for Storing and Handling Supplies

4.8.1 Precautions for storing TOSHIBA supplies

1) Toner/Developer
   Toner and developer should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation), and should also be protected against direct sunlight during transportation.

2) Photoconductive drum
   Like the toner and developer, photoconductive drum should be stored in a dark place where the ambient temperature is between 10°C to 35°C (no condensation). Be sure to avoid places where drums may be subjected to high humidity, chemicals and/or their fumes.

3) Drum cleaning blade
   This item should be stored in a flat place where the ambient temperature is between 10°C to 35°C, and should also be protected against high humidity, chemicals and/or their fumes.

4) Fuser roller / Pressure roller / Cleaning roller
   Avoid places where the rollers may be subjected to high humidity, chemicals and/or their fumes.

5) Paper
   Avoid storing paper in places where it may be subjected to high humidity.
   After a package is opened, be sure to place and store it in a storage bag.

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4.8.2 Checking and cleaning of photoconductive drum

1) Use of gloves
   If fingerprints or oil adhere to the drum surface, the property of the photoconductive drum may degrade, affecting the quality of the print image. So, do not touch the drum surface with your bare hands.

2) Handling precautions
   As the photoconductive drum surface is very sensitive, be sure to handle the drum carefully when installing and removing it so as not damage its surface.
   Be sure to apply “patting powder” (lubricant) to the entire surface of the drum (including both ends of the drum where OPC is not coated) when replacing the drum. When the drum has been replaced with a new one, the drum counter (the Setting Mode 08-1150-0, 3, 6 and 7) must be cleared to 0 (zero).
   This clearing can be performed in the PM Support Mode.

   Notes:
   - Application of patting powder is for reducing the friction between the drum and cleaning blade. If the application of patting powder is neglected, the drum and cleaning blade may be damaged.
   - When paper fibers or thread adhere to the cleaning blade edge, they may reduce the cleaning efficiency and, in addition, may damage the blade and the drum. Be sure to remove any fibers found adhering to the blade.

3) Installation of the equipment and storage of drum
   Avoid installing the equipment where it may be subjected to high temperature, high humidity, chemicals and/or their fumes.
   Do not place the light drum in a location where it is exposed to direct sunlight or high intensity light such as near a window. Otherwise the drum will fatigue, and will not produce sufficient image density immediately after being installed in the equipment.

4) Cleaning the drum
   At preventive maintenance calls, wipe the entire surface of the drum clean using the designated cleaning cotton. Use sufficiently thick cleaning cotton (dry soft pad) so as not to scratch the drum surface inadvertently with your fingertips or nails. Also, remove your rings and wristwatch before starting cleaning work to prevent accidental damage to the drum.
   Do not use alcohol, selenium refresher and other organic solvents or silicon oil as they will have an adverse effect on the drum.

5) Scratches on photoconductive drum surface
   If the surface is scratched in such a way that the aluminum substrate is exposed, no print image will be produced on this area. In addition, the cleaning blade will be damaged so replacement with a new drum will be necessary.

6) Collecting used photoconductive drums
   Regarding the recovery and disposal of used photoconductive drums, we recommend following the relevant local regulations or rules.

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4.8.3 Checking and cleaning of drum cleaning blade

1) Handling precautions
   Pay attention to the following points as the cleaning blade life is determined by the condition of its edge:
   - Do not allow hard objects to hit or rub against blade edge.
   - Do not rub the edge with a cloth or soft pad.
   - Do not leave oil (or fingerprints, etc.) on the edge.
   - Do not apply solvents such as paint thinner to the blade.
   - Do not allow paper fibers or dirt to contact the blade edge.
   - Do not place the blade near a heat source.

2) Cleaning procedure
   Clean the blade edge with a cloth moistened with water and squeezed lightly.

4.8.4 Checking and cleaning of fuser roller and pressure roller

1) Handling precautions
   - Fuser roller
     Do not leave any oil (fingerprints, etc.) on the fuser roller.
     Be careful not to allow any hard object to hit or rub against the fuser roller, or it may be damaged, possibly resulting in poor cleaning.

   - Pressure roller
     Do not leave any oil (fingerprints, etc.) on the pressure roller.

2) Checking
   - Check for stain and damage on the fuser and pressure rollers, and clean if necessary.
   - Check the separation guide and fingers and check for chipped tips.
   - Check the cleaning effect of the cleaning roller.
   - Check the thermistors for proper contact with the pressure roller.
   - Check the fused and fixed condition of the toner.
   - Check the gap between the entrance guide and pressure roller.
   - Check the fuser roller for proper rotation.

3) Cleaning procedure
   When fuser roller and pressure roller become dirty, they will cause jamming. If this happens, wipe the surface clean with a piece of soft cloth. For easier cleaning, clean the roller white they are still warm.

   Note:
   Be careful not to rub the fuser roller and pressure roller surface with your nails or hard objects because it can be easily damaged. Do not use silicone oil on the fuser roller and pressure roller.

4.8.5 Checking and replacing the cleaning roller

1) Handling precautions
   Never allow solvents such as paint thinner to touch to the cleaning rollers.

2) Poor cleaning and corrective treatment
   Judgment should be made depending on how much toner has been deposited on the pressure roller surface. When its surface is stained with toner, check the cleaning roller. If toner is heavily adhered on the cleaning roller, the cleaning roller should be replaced with new ones.
   Replace it when a specified number of output pages have been made.

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5. TROUBLESHOOTING

When any of the PC boards or the HDD requires replacement, refer to 📖 P. 5-118 "5.3 Replacement of PC Boards and HDD".

5.1 Diagnosis and Prescription for Each Error Code

5.1.1 Paper transport jam

[E010] Leading edge of paper not reaching the exit sensor

[E020] Trailing edge of paper not passing the exit sensor

Open the transfer cover. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the exit sensor working? (Perform the input check in the test mode: 03-[FAX]ON/[2]/[B])

NO →
1) Check if the connector of the exit sensor is disconnected.
2) Check if the connector CN308 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the exit sensor.
6) Replace the LGC board.

YES

Is the registration roller clutch working?
(Perform the output check in the test mode: 03-108/158)

NO →
1) Check if the connector of the registration roller clutch is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration roller clutch.
6) Replace the LGC board.

YES

Check the registration roller. Replace it if it is worn out.

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[E030] Paper remaining inside the equipment at power-ON

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path? (Refer to the following table.)

↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working? (Perform the input check in the test mode: refer to the following table.)

↓ NO →
1) Check if the connector of the sensor is disconnected.
2) Check if any of the connectors on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the sensor.
6) Replace the LGC board.

YES

Replace the LGC board.

Relation between the jamming area and the corresponding sensors and covers
(If a jam is occurring in the ADU, LCF, PFP, JSP or OCT check the board in each unit.)

Jamming area	Cover	Sensor	Test mode / Input check
Registration area	Transfer cover	Registration sensor	03-[FAX]ON/[2]/[A]
		1st transport sensor	03-[FAX]OFF/[6]/[E]
Exit area	Transfer cover	Exit sensor	03-[FAX]ON/[2]/[B]
ADU	ADU	ADU entrance sensor	03-[FAX]OFF/[1]/[H]
		ADU exit sensor	03-[FAX]OFF/[1]/[G]
Feeding area (Main unit)	Side cover	2nd transport sensor	03-[FAX]OFF/[7]/[E]
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[5]/[G]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[D]
		PFP lower drawer feed sensor	03-[FAX]OFF/[4]/[D]
Bridge unit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[3]/[H]
		Bridge unit transport sensor-2	03-[FAX]ON/[3]/[E]
JSP	JSP cover	JSP feed sensor	03-[FAX]ON/[3]/[H]
OCT	OCT cover	OCT feed sensor	03-[FAX]ON/[3]/[H]

[E061] Incorrect paper size setting for upper drawer (e-STUDIO202L/203L/232/233/282/283)
[E062] Incorrect paper size setting for lower drawer (e-STUDIO202L/203L/232/233/282/283)
[E063] Incorrect paper size setting for PFP upper drawer (e-STUDIO202L/203L/232/233/282/283)
[E064] Incorrect paper size setting for PFP lower drawer (e-STUDIO202L/203L/232/233/282/283)
[E065] Incorrect paper size setting for bypass tray (e-STUDIO202L/203L/232/233/282/283)

If any paper remains in the equipment or drawer, remove it. Match the paper size of the drawer setting and the one in the drawer.

* Paper size detection is performed at the first sheet of paper when the drawer is opened or closed, or when the power of the equipment is turned ON.

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[E090] Paper jam by HDD abnormality

(1) Check if the error is cleared by turning the power OFF and then back ON.
(2) Check if the connectors of the HDD are disconnected.
(3) Check if the connector pins are disconnected and the harnesses are open circuited.
(4) Replace the HDD.
(5) Replace the SYS board.

[E200] Paper fed from the upper drawer not reaching the registration sensor

[E210] Paper fed from the lower drawer not reaching the registration sensor

[E300] Paper fed from the PFP upper drawer not reaching the registration sensor

[E330] Paper fed from the PFP lower drawer not reaching the registration sensor

[E3C0] Paper fed from the LCF not reaching the registration sensor

Open the transfer cover. Is there paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[A]

NO →
1) Check if the connector of the registration sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration sensor.
6) Replace the LGC board.

YES

Are the (lower/middle) transport clutches working?
(Perform the output check in the test mode: 03-203, 205)

NO →
1) Check if the connectors of the (lower/middle) transport clutches are disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the (lower/middle) transport clutches.
6) Replace the LGC board.

YES

1) Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2) Check the transport roller. Replace it if it is worn out.

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[E220] Paper fed from the lower drawer not reaching the 1st transport sensor

[E310] Paper fed from the PFP upper drawer not reaching the 1st transport sensor

[E340] Paper fed from the PFP lower drawer not reaching the 1st transport sensor

[E3D0] Paper fed from the LCF not reaching the 1st transport sensor

Open the transfer cover. Is there paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E])

NO →
1) Check if the connector of the 1st transport sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st transport sensor.
6) Replace the LGC board.

YES

Are the (lower/middle) transport clutches working?
(Perform the output check in the test mode: 03-203, 205)

NO →
1) Check if the connectors of the (lower/middle) transport clutches are disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the (lower/middle) transport clutches.
6) Replace the LGC board.

YES

1) Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2) Check the transport roller. Replace it if it is worn out.

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[E270] Bypass transport jam (Paper not reaching the registration sensor)

[E280] ADU transport jam (Paper not reaching the registration sensor)

Open the transfer cover. Is there paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[A]

NO →
1) Check if the connector of the registration sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration sensor.
6) Replace the LGC board.

YES

Is the registration clutch working?
(Perform the output check in the test mode: 03-108/158)

NO →
1) Check if the connector of the registration clutch is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration roller clutch.
6) Replace the LGC board.

YES

Check the registration roller. Replace it if it is worn out.

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[E320] Paper fed from the PFP upper drawer not reaching the 2nd transport sensor

[E350] Paper fed from the PFP lower drawer not reaching the 2nd transport sensor

[E3E0] Paper fed from the LCF not reaching the 2nd transport sensor

Open the side cover. Is there paper in front of the 2nd transport sensor?

↓ YES → Remove the paper.

NO

Is the 2nd transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[E]

NO →
1) Check if the connector of the 2nd transport sensor is disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 2nd transport sensor.
6) Replace the LGC board.

↓

YES

Are the (lower/middle) transport clutches working?
(Perform the output check in the test mode: 03-203, 205)

NO →
1) Check if the connectors of the (lower/middle) transport clutches are disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the (lower/middle) transport clutches.
6) Replace the LGC board.

↓

YES

Is the PFP transport clutch working? (Perform the output check in the test mode: 03-225)

NO →
1) Check if the connector of the PFP transport clutch is disconnected.
2) Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6) Replace the PFP transport clutch.
7) Replace the PFP board.
8) Replace the LGC board.

↓

YES

1) Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2) Check the transport roller. Replace it if it is worn out.

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[E360] Paper fed from the PFP lower drawer not reaching the PFP upper drawer feed sensor

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP upper drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[D])

NO →
1) Check if the connector of the PFP upper drawer feed sensor is disconnected.
2) Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6) Replace the PFP upper drawer feed sensor.
7) Replace the PFP board.
8) Replace the LGC board.

↓

YES

Is the PFP transport clutch working? (Perform the output check in the test mode: 03-225)

NO →
1) Check if the connector of the PFP transport clutch is disconnected.
2) Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6) Replace the PFP transport clutch.
7) Replace the PFP board.
8) Replace the LGC board.

↓

YES

1) Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2) Check the PFP transport roller. Replace it if it is worn out.

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[E510] ADU transport jam (paper not reaching the ADU exit sensor)

Open the ADU. Is there any paper in front of the ADU exit sensor?

↓ YES → Remove the paper.

NO

Is the ADU exit sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[G])

NO →
1) Check if the connector of the ADU exit sensor is disconnected.
2) Check if either of the connectors CN562 or CN213 on the ADU board is disconnected.
3) Check if the connector CN304 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
6) Replace the ADU exit sensor.
7) Replace the ADU board.
8) Replace the LGC board.

YES

Is the ADU clutch working? (Perform the output check in the test mode: 03-222)

NO →
1) Check if the connector of the ADU clutch is disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the ADU clutch.
6) Replace the LGC board.

YES

Check the rollers in the ADU. Replace them if they are worn out.

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[E520] ADU stack jam (paper not reaching the ADU entrance sensor)

Open the ADU. Is there any paper in front of the ADU entrance sensor?

↓ YES → Remove the paper.

NO

Is the ADU entrance sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[H])

NO →
1) Check if the connector of the ADU entrance sensor is disconnected.
2) Check if either of the connectors CN562 or CN214 on the ADU board is disconnected.
3) Check if the connector CN304 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
6) Replace the ADU entrance sensor.
7) Replace the ADU board.
8) Replace the LGC board.

↓

YES

Is the exit motor (rotating in reverse) working?
(Perform the output check in the test mode: 03-121/171)

NO →
1) Check if the connector of the exit motor is disconnected.
2) Check if the connector CN306 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the exit motor.
6) Replace the LGC board.

↓

YES

Is the ADU motor working? (Perform the output check in the test mode: 03-110/160)

NO →
1) Check if the connector of the ADU motor is disconnected.
2) Check if any of the connectors CN562, CN563 and CN215 on the ADU board is disconnected.
3) Check if the connector CN304 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
6) Replace the ADU motor.
7) Replace the ADU board.
8) Replace the LGC board.

↓

YES

Check the rollers in the ADU and the exit roller of the equipment. Replace them if they are worn out.

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[E550] Paper remaining on the transport path

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working? (Perform the input check in the test mode: refer to the following table)

| NO→ 1) Check if the connector of the sensor is disconnected.
| 2) Check if any of the connectors on the LGC board is disconnected.
| 3) Check if the connector pins are disconnected and the harnesses are open circuited.
| 4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 5) Replace the sensor.
↓ 6) Replace the LGC board.

YES

Replace the LGC board.

Relation between the jamming area and the corresponding sensors/covers
(If a jam is occurring in the ADU, LCF, PFP, JSP or OCT check the board in each unit.)

Jamming area	Cover	Sensor	Test mode/Input check
Registration area	Transfer cover	Registration sensor	03-[FAX]ON/[2]/[A]
		1st transport sensor	03-[FAX]OFF/[6]/[E]
Exit area	Transfer cover	Exit sensor	03-[FAX]ON/[2]/[B]
ADU	ADU	ADU entrance sensor	03-[FAX]OFF/[1]/[H]
		ADU exit sensor	03-[FAX]OFF/[1]/[G]
Feeding area (Main unit)	Side cover	2nd transport sensor	03-[FAX]OFF/[7]/[E]
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[5]/[G]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[D]
		PFP lower drawer feed sensor	03-[FAX]OFF/[4]/[D]
Bridge unit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[3]/[H]
		Bridge unit transport sensor-2	03-[FAX]ON/[3]/[E]
JSP	JSP cover	JSP feed sensor	03-[FAX]ON/[3]/[H]
OCT	OCT cover	OCT feed sensor	03-[FAX]ON/[3]/[H]
Finisher	Finisher door	Sensors in the finisher	-

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[E950] Jam not reaching the JSP feed sensor

[E951] Stop jam at the JSP feed sensor

Open the JSP cover. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the JSP feed sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[H])

NO →
1) Check if the connector of the JSP feed sensor is disconnected.
2) Check if either of the connectors CN260 or CN262 on the JSP board is disconnected.
3) Check if the connector CN306 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the JSP board and LGC board are short circuited or open circuited.
6) Replace the JSP feed sensor.
7) Replace the JSP board.
8) Replace the LGC board.

↓

YES

1) Replace the JSP board.
2) Replace the LGC board.

[E960] Jam not reaching the OCT feed sensor

[E961] Stop jam at the OCT feed sensor

Open the OCT cover. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the OCT feed sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[H])

NO →
1) Check if the connector of the OCT feed sensor is disconnected.
2) Check if either of the connectors CN260 or CN262 on the OCT board is disconnected.
3) Check if the connector CN306 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the OCT board and LGC board are short circuited or open circuited.
6) Replace the OCT feed sensor.
7) Replace the OCT board.
8) Replace the LGC board.

↓

YES

1) Replace the OCT board.
2) Replace the LGC board.

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[EB50] Paper left on the transport path due to multiple feeding

In case the paper is fed from the upper drawer, bypass unit or ADU:

Open the transfer cover. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

When the paper is fed from the upper drawer:
Is the 1st transport sensor working? (Perform the input check: 03-[FAX]OFF/[6]/[E])

NO →
1) Check if the connector of the 1st transport sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st transport sensor.
6) Replace the LGC board.

YES

When the paper is fed from the bypass feed unit:
Is the bypass paper sensor working? (Perform the input check: 03-[FAX]ON/[1]/[D])

NO →
1) Check if the connector of the bypass paper sensor is disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the bypass paper sensor.
6) Replace the LGC board.

YES

When the paper is fed from the ADU:
Is the ADU exit sensor working? (Perform the input check: 03-[FAX]OFF/[1]/[G])

NO →
1) Check if the connector of the ADU exit sensor is disconnected.
2) Check if either of the connectors CN562 or CN213 on the ADU board is disconnected.
3) Check if the connector CN304 on the LGC board is disconnected.
4) Check if the connector pins are disconnected or the harnesses are open circuited.
5) Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
6) Replace the ADU exit sensor.
7) Replace the ADU board.
8) Replace the LGC board.

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YES

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[A])

NO → 1) Check if the connector of the registration sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration sensor.
6) Replace the LGC board.

YES

Check the rollers. Replace them if they are worn out.

In case the paper is fed from the lower drawer, PFP or LCF:

Open the transfer cover. Is there any paper in front of the 1st transport sensor?

YES → Remove the paper.

NO

Are the 1st/2nd transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E], /[7]/[E])

NO → 1) Check if the connector of the 1st/2nd transport sensor is disconnected.
2) Check if the connector CN305/CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st/2nd transport sensor.
6) Replace the LGC board.

YES

Check the rollers. Replace them if they are worn out.

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[EB60] Paper left on the transport path due to multiple feeding

Open the transfer cover. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E])

↓ NO →
1) Check if the connector of the registration sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the registration sensor.
6) Replace the LGC board.

YES

Check the rollers. Replace them if they are worn out.

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5.1.2 Paper misfeeding

[E110] ADU misfeeding

Open the transfer cover. Is there any paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E])

↓ NO →
1) Check if the connector of the 1st transport sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st transport sensor.
6) Replace the LGC board.

YES

Is the ADU clutch working? (Perform the output check in the test mode: 03-222)

↓ NO →
1) Check if the connector of the ADU clutch is disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the ADU clutch.
6) Replace the LGC board.

YES

Check the rollers in the ADU. Replace them if they are worn out.

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[E120] Bypass misfeeding

Open the transfer cover. Is there any paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[6]/[E])

NO →
1) Check if the connector of the 1st transport sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st transport sensor.
6) Replace the LGC board.

YES

Is the bypass feed clutch working? (Perform the output check in the test mode: 03-204)
Is the bypass paper sensor working? (Perform the input check in the test mode: 03-[FAX]OFF/[1]/[D])

NO →
1) Check if the connector of the bypass feed clutch and bypass paper sensor are disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the bypass feed clutch and bypass paper sensor.
6) Replace the LGC board.

YES

Check the bypass transport, feed separation and pickup rollers. Replace them if they are worn out.

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[E130] Upper drawer misfeeding (paper not reaching the 1st transport sensor)

Open the transfer cover. Is there any paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E])

NO →
1) Check if the connector of the 1st transport sensor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 1st transport sensor.
6) Replace the LGC board.

YES

Is the upper drawer feed clutch working?
(Perform the output check in the test mode: 03-201)

NO →
1) Check if the connector of the upper drawer feed clutch is disconnected.
2) Check if the connector CN307 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the upper drawer feed clutch.
6) Replace the LGC board.

YES

Check the upper drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

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[E140] Lower drawer misfeeding (paper not reaching the 2nd transport sensor)

Open the side cover. Is there any paper in front of the 2nd transport sensor?

↓ YES → Remove the paper.

NO

Is the 2nd transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[E])

NO →
1) Check if the connector of the 2nd transport sensor is disconnected.
2) Check if the connector CN304 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the 2nd transport sensor.
6) Replace the LGC board.

↓

YES

Is the lower drawer feed clutch working?
(Perform the output check in the test mode: 03-202)

NO →
1) Check if the connector of the lower drawer feed clutch is disconnected.
2) Check if the connector CN307 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the lower drawer feed clutch.
6) Replace the LGC board.

↓

YES

Check the lower drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

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[E150] PFP upper drawer misfeeding (paper not reaching the PFP upper drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP upper drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[D])

| NO → 1) Check if the connector of the PFP upper drawer feed sensor is disconnected.
| 2) Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
| 3) Check if the connector CN310 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
| 6) Replace the PFP upper drawer feed sensor.
| 7) Replace the PFP board.
↓ 8) Replace the LGC board.

YES

Is the PFP upper drawer feed clutch working?
(Perform the output check in the test mode: 03-226)

| NO → 1) Check if the connector of the PFP upper drawer feed clutch is disconnected.
| 2) Check if any of the connectors CN241, CN242 and CN247 on the PFP board is disconnected.
| 3) Check if the connector CN310 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
| 6) Replace the PFP upper drawer feed clutch.
| 7) Replace the PFP board.
↓ 8) Replace the LGC board.

YES

Check the PFP upper drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

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[E160] PFP lower drawer misfeeding (paper not reaching the PFP lower drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP lower drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP lower drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[4]/[D])

| NO → 1) Check if the connector of the PFP lower drawer feed sensor is disconnected.
| 2) Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
| 3) Check if the connector CN310 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
| 6) Replace the PFP lower drawer feed sensor.
| 7) Replace the PFP board.
↓ 8) Replace the LGC board.

YES

Is the PFP lower drawer feed clutch working?
(Perform the output check in the test mode: 03-228)

| NO → 1) Check if the connector of the PFP lower drawer feed clutch is disconnected.
| 2) Check if any of the connectors CN241, CN242 and CN248 on the PFP board is disconnected.
| 3) Check if the connector CN310 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
| 6) Replace the PFP lower drawer feed clutch.
| 7) Replace the PFP board.
↓ 8) Replace the LGC board.

YES

Check the PFP lower drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

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[E190] LCF misfeeding (paper not reaching the LCF feed sensor)

Open the LCF side cover. Is there any paper in front of the LCF feed sensor?

↓ YES → Remove the paper.

NO

Is the LCF feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[G])

NO →
1) Check if the connector of the LCF feed sensor is disconnected.
2) Check if either of the connectors CN100 or CN104 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6) Replace the LCF feed sensor.
7) Replace the LCF board.
8) Replace the LGC board.

↓

YES

Is the LCF feed clutch working? (Perform the output check in the test mode: 03-209)

NO →
1) Check if the connector of the LCF feed clutch is disconnected.
2) Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6) Replace the LCF feed clutch.
7) Replace the LCF board.
8) Replace the LGC board.

↓

YES

Check the LCF feed roller, separation roller and pickup roller.
Replace them if they are worn out.

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5.1.3 Cover open jam

[E400] Transfer cover opened during printing

Is the transfer cover open?

↓ YES → Remove paper if there is any, then close the cover.

NO

Is the transfer cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[G])

NO →
1) Check if the connector of the transfer cover opening/closing switch is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the front cover opening/closing switch.
6) Replace the LGC board.

↓

YES

Replace the LGC board.

Is the voltage of 24V being supplied from the power supply unit?
(Perform the input check in the test mode: 03-[FAX] ON/[1]/[C])

NO →
1) Check if the connector for 24 V power supply is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the LGC board.

↓

YES

Replace the LGC board.

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[E410] Front cover opened during printing

Is the front cover open?

↓ YES → Close the cover.

NO

Is the front cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[D])

NO →
1) Check if the connector of the front cover opening/closing switch is disconnected.
2) Check if the connector CN303 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the front cover opening/closing switch.
6) Replace the LGC board.

YES

Is the voltage of 24V being supplied from the power supply unit?
(Perform the input check in the test mode: 03-[FAX] ON/[1]/[C])

NO →
1) Check if the connector for 24 V power supply is disconnected.
2) Check if the connector CN303 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the LGC board.

YES

Replace the LGC board.

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[E420] PFP side cover opened during printing

Is the PFP side cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the PFP side cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[F])

| NO →
1) Check if the connector of the PFP side cover opening/closing switch is disconnected.
2) Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6) Replace the PFP side cover opening/closing switch.
7) Replace the PFP board.
↓ 8) Replace the LGC board.

YES

1) Replace the PFP board.
2) Replace the LGC board.

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[E430] ADU opened during printing

Is the ADU open?

↓ YES → Remove the paper if there is any, then close the ADU.

NO

Is the ADU opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[F])

| NO → 1) Check if the connector of the ADU opening/closing switch is disconnected.
| 2) Check if either of the connectors CN562 or CN217 on the ADU board is disconnected.
| 3) Check if the connector CN304 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
| 6) Replace the ADU opening/closing switch.
| 7) Replace the ADU board.
↓ 8) Replace the LGC board.

YES

1) Replace the ADU board.
2) Replace the LGC board.

[E440] Side cover opened during printing

Is the side cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the side door switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[2]/[F])

| NO → 1) Check if the connector of the side door switch is disconnected.
| 2) Check if the connector CN304 on the LGC board is disconnected.
| 3) Check if the connector pins are disconnected and the harnesses are open circuited.
| 4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 5) Replace the side door switch.
↓ 6) Replace the LGC board.

YES

Replace the LGC board.

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[E450] LCF side cover opened during printing

Is the LCF side cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the LCF side cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[D])

| NO → 1) Check if the connector of the LCF side cover opening/closing switch is disconnected.
| 2) Check if either of the connectors CN100 or CN106 on the LCF board is disconnected.
| 3) Check if the connector CN310 on the LGC board is disconnected.
| 4) Check if the connector pins are disconnected and the harnesses are open circuited.
| 5) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
| 6) Replace the LCF side cover opening/closing switch.
| 7) Replace the LCF board.
↓ 8) Replace the LGC board.

YES

1) Replace the LCF board.
2) Replace the LGC board.

[E480] Bridge unit opened during printing

Is the bridge unit open?

↓ YES → Remove the paper if there is any, then close the unit.

NO

Is the bridge unit opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[F])

| NO → 1) Check if the connector of the bridge unit opening/closing switch is disconnected.
| 2) Check if the connector CN306 on the LGC board is disconnected.
| 3) Check if the connector pins are disconnected and the harnesses are open circuited.
| 4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 5) Replace the bridge unit opening/closing switch.
↓ 6) Replace the LGC board.

YES

Replace the LGC board.

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[E490] JSP cover opened during printing

Is the JSP cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the JSP cover switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[F])

NO →
1) Check if the connector of the JSP cover switch is disconnected.
2) Check if either of the connectors CN260 or CN261 on the JSP board is disconnected.
3) Check if the connector CN306 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the JSP board and LGC board are short circuited or open circuited.
6) Replace the JSP cover switch.
7) Replace the JSP board.
8) Replace the LGC board.

YES

1) Replace the JSP board.
2) Replace the LGC board.

[E491] OCT cover opened during printing

Is the OCT cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the OCT cover switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[F])

NO →
1) Check if the connector of the OCT cover switch is disconnected?
2) Check if either of the connectors CN260 or CN261 on the OCT board is disconnected.
3) Check if the connector CN306 on the OCT board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the OCT board and LGC board are short circuited or open circuited.
6) Replace the OCT cover switch.
7) Replace the OCT board.
8) Replace the LGC board.

YES

1) Replace the OCT board.
2) Replace the LGC board.

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5.1.4 Transport jam (RADF)

Note:
When performing the RADF related troubleshooting, be sure to perform "Automatic adjustment of RADF sensor and EEPROM initialization (05-356)" and "RADF original guide width adjustment (05-367/368)" consecutively at the Adjustment Mode whenever the RADF board, original length sensor, read sensor or reverse sensor has been replaced.

[E711] Jam not reaching the original length sensor

[E712] Jam not reaching the registration sensor

[E713] Stop jam at the original length sensor

Are the pickup roller, feed roller and separation roller stained or worn out?

↓ YES → Clean the rollers or replace them.

NO

Is the original excessively curled or folded?

↓ YES → Flatten and set it again.

NO

Are the original length sensor and registration sensor working?
(Perform the input check: 03-[FAX]ON/[8]/[E], /[7]/[H])

↓ NO →
1) Check if the connectors of the original length sensor and registration sensor are disconnected.
2) Check if the connector CN3 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the original length sensor and registration sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

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[E714] Feed signal reception jam

Is the empty sensor working? (Perform the input check: 03-[FAX]ON/[7]/[B])

NO → 1) Check if the lever of empty sensor is working normally.
2) Check if the connector of the empty sensor is disconnected.
3) Check if the connector CN5 on the RADF board is disconnected.
4) Check if the connector pins are disconnected or the harnesses are open circuited.
5) Check if the conductor pattern on the RADF board is short circuited or open circuited.
6) Replace the empty sensor.
7) Replace the RADF board.

↓

YES

Replace the RADF board.

[E721] Jam not reaching the read sensor

Are the registration roller and read roller stained?

↓ YES → Clean the rollers.

NO

Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])

NO → 1) Check if the connector of the read sensor are disconnected.
2) Check if the connector CN6 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the read sensor.
6) Replace the RADF board.

↓

YES

Replace the RADF board.

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[E722] Jam not reaching the exit sensor (during scanning)

[E723] Jam not reaching the reverse sensor (during scanning)

Is the read roller stained?

↓ YES → Clean the roller.

NO

Are the exit sensor and reverse sensor working?
(Perform the input check: 03-[FAX]ON/[7]/[E], /[7]/[F])

↓ NO →
1) Check if the connectors of the exit sensor and reverse sensor are disconnected.
2) Check if the connector CN4 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the exit sensor and reverse sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

[E724] Stop jam at the registration sensor

Is the registration roller stained?

↓ YES → Clean the roller.

NO

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])

↓ NO →
1) Check if the connector of the registration sensor is disconnected.
2) Check if the connector CN3 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the registration sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

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[E725] Stop jam at the read sensor

Is the read roller stained?

↓ YES → Clean the roller.

NO

Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])

↓ NO →
1) Check if the connector of the read sensor is disconnected.
2) Check if the connector CN6 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the read sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

[E726] Transport/exit signal reception jam

(1) If the original remains in the RADF, remove it.
(2) If any paper remains in the equipment, remove it.
(3) Turn the power OFF and then back ON. If the jam still occurs, lead the following procedure.
(4) Check the connection between the RADF board and SLG board, and the connection between the RADF board and switching power supply.
- Are the connection of the connectors and joint connectors normal?
- Are the connector pins disconnected or are the harnesses open circuited?

(5) Check if the 24V and 5V outputs of the switching power supply are normal.
(6) Check if the conductor pattern on the RADF board is short circuited or open circuited.
(7) Replace the RADF board.
(8) Check if the conductor pattern on the SLG board is short circuited or open circuited.
(9) Replace the SLG board.

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[E731] Stop jam at the exit sensor

Is the exit roller stained?

↓ YES → Clean the roller.

NO

Is the exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])

↓ NO →
1) Check if the connector of the exit sensor is disconnected.
2) Check if the connector CN4 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the exit sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

[E741] Stop jam at the reverse sensor

Are the read roller and reverse roller stained?

↓ YES → Clean the rollers.

NO

Is the reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[F])

↓ NO →
1) Check if the connector of the reverse sensor is disconnected.
2) Check if the connector CN4 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the reverse sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

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[E742] Jam not reaching the reverse sensor (feeding in reverse)

Is the reverse roller stained?

↓ YES → Clean the roller.

NO

Is the reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[F])

↓ NO →
1) Check if the connector of the reverse sensor is disconnected.
2) Check if the connector CN4 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the reverse sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

[E743] Jam not reaching the exit sensor (feeding in reverse)

Are the reverse roller and read roller stained?

↓ YES → Clean the rollers.

NO

Is the exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])

↓ NO →
1) Check if the connector of the exit sensor is disconnected.
2) Check if the connector CN4 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the exit sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

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[E860] RADF jam access cover open

Is the RADF jam access cover opened?

↓ YES → Remove the original, if any, and close the RADF jam access cover.

NO

Is the RADF jam access cover switch working? (Perform the input check: 03-[FAX]ON/[7]/[C])

↓ NO →
1) Check if the connector of the RADF jam access cover switch is disconnected.
2) Check if the connector CN8 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the RADF jam access cover switch.
6) Replace the RADF board.

YES

Replace the RADF board.

[E870] RADF open jam

Is the RADF opened?

↓ YES → Remove the original, if any, and close the RADF.

NO

Is the RADF opening/closing sensor adjusted within the specified range?

↓ NO → Adjust the RADF opening/closing sensor.

YES

Is the RADF opening/closing sensor working?
(Perform the input check: 03-[FAX]ON/[7]/[D])

↓ NO →
1) Check if the connector of the RADF opening/closing sensor is disconnected.
2) Check if the connector CN6 on the RADF board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Check if the conductor pattern on the RADF board is short circuited or open circuited.
5) Replace the RADF opening/closing sensor.
6) Replace the RADF board.

YES

Replace the RADF board.

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5.1.5 Finisher jam

[1] Jam in bridge unit

[E910] Paper not reaching the bridge unit transport sensor-1

[E920] Paper stopping at the bridge unit transport sensor-1

[E930] Paper not reaching the bridge unit transport sensor-2

[E940] Paper stopping at the bridge unit transport sensor-2

Is there any paper remaining inside the bridge unit?

↓ YES → Remove the paper.

NO

Are the bridge unit transport sensors-1 and -2 working?
(Perform the input check: 03-[FAX]ON/[3]/[H], /[3]/[E])

NO →
1) Check if the connectors of the bridge unit transport sensors-1 and -2 are disconnected.
2) Check if the connector J512 of the bridge unit is disconnected.
3) Check if the connector CN306 on the LGC board is disconnected.
4) Check if the connector pins are disconnected or the harnesses are open circuited.
5) Check if the conductor pattern on the LGC board is short circuited or open circuited.
6) Replace the bridge unit transport sensors-1 and -2.
7) Replace the LGC board.

YES

Is the bridge unit gate solenoid working? (Perform the output check: 03-232)

NO →
1) Check if the connector J512 of the bridge unit is disconnected.
2) Check if the connector CN306 on the LGC board is disconnected.
3) Check if the connector pins are disconnected or the harnesses are open circuited.
4) Replace the bridge unit gate solenoid.
5) Replace the LGC board.

YES

Does the transport roller of the bridge unit work when the main motor is rotated?
(Perform the output check: 03-101/151)

↓ NO → Check the drive system of the equipment and bridge unit.

YES

Check the roller in the bridge unit. Replace it if it is worn out.

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[2] Paper jam in puncher unit

[E9F0] Punching jam

MJ-1025

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J1006 on the punch controller PC board disconnected?
Is the harness connecting the punch controller PC board and punch home position sensor (PI1P) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the punch home position sensor working properly?

| NO → 1) Connect the connector of the punch home position sensor securely.
↓ 2) Replace the punch home position sensor.

YES

Replace the punch controller PC board.

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[3] Paper jam in finisher section

[EA10] Paper transport delay jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

| NO → 1) Connect the connector of the inlet sensor securely.
| 2) Attach the actuator securely if its shaft is out of place.
↓ 3) Replace the inlet sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector CN16 (inlet sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

| NO → 1) Attach the actuator securely if its shaft is out of place.
↓ 2) Replace the sensor.

YES

Replace the finisher controller PC board.

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[EA20] Paper transport stop jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

| NO → 1) Connect the connector of the inlet sensor securely.
| 2) Attach the actuator securely if its shaft is out of place.
↓ 3) Replace the inlet sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is there any paper remaining on the transport path in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (inlet sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

| NO → 1) Attach the actuator securely if its shaft is out of place.
↓ 2) Replace the sensor.

YES

Replace the finisher controller PC board.

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[EA30] Power-ON jam

MJ-1022

Is there any paper remaining on the transport path in the finisher?

↓ YES → Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

| NO → 1) Connect the connector of the inlet sensor securely.
| 2) Attach the actuator securely if its shaft is out of place.
↓ 3) Replace the inlet sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector CN16 (inlet sensor, folding position sensor) on the finisher controller PC board disconnected?
Is the connector J1007 (photosensor PC board) on the punch controller PC board disconnected?
Is the harness between the finisher controller PC board and each sensor (inlet sensor, folding position sensor, and punch controller PC board open-circuited?
Is the harness connecting the punch controller PC board and photosensor PC board open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the inlet sensor and holding position sensor working properly?
Is the photosensor PC board working properly?

| NO → 1) Attach the actuator securely if its shaft is out of place.
↓ 2) Replace the sensor.

YES

Replace the finisher controller PC board.
Replace the punch controller PC board.

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[EA40] Finisher front door open jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the finisher connected with the equipment?

↓ NO → Connect the finisher with the equipment.

YES

Is the connector J11 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and joint sensor (S4) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the joint sensor working properly?

↓ NO → 1) Connect the connector of the joint sensor securely.
2) Replace the joint sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is the finisher connected with the equipment?
Are the upper cover and front door of the finisher closed?

↓ YES → 1) Connect the finisher with the equipment.
2) Close the cover and door of the finisher.

NO

Is any of the connectors CN4 (upper cover sensor and front door sensor) and CN8 (joint switch) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and each sensor (upper cover sensor or front door sensor) open-circuited?
Is the harness connecting the finisher controller PC board and joint switch (MS2) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the joint switch, upper cover sensor and front door sensor working properly?

↓ NO → 1) Attach the actuator securely if its shaft is out of place.
2) Replace the switch or sensor.

YES

Replace the finisher controller PC board.

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[EA50] Stapling jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment or on the stapling tray?

↓ YES → Remove the paper.

NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?

↓ YES → End.

NO

Is the connector J8 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and stapling home position sensor (S17) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the stapling home position sensor working properly?

| NO → 1) Connect the connector of the stapling home position sensor securely.
↓ 2) Replace the stapling home position sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is there any paper remaining on the stapling tray?

↓ YES → Remove the paper.

NO

Open the front door. Is the stapler home position mark blue?

↓ YES → Rotate the stapler opening dial until the home position mark turns blue.

NO

Is any of the connectors CN11 (slide home position sensor), CN8 (stapler safety switch) and CN6 (staple/fold motor) on the finisher controller PC board disconnected?
Is the stapler unit installed securely?
Is the harness connecting the finisher controller PC board and slide home position sensor open-circuited?
Is the harness connecting the finisher controller PC board and stapler safety switch open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the slide home position sensor and stapler safety switch working properly?

| NO → 1) Replace the stapler unit.
↓ 2) Replace the stapler safety switch.

YES

Replace the finisher controller PC board.

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[EA60] Early arrival jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

| NO → 1) Connect the connector of the inlet sensor securely.
| 2) Attach the actuator securely if its shaft is out of place.
↓ 3) Replace the inlet sensor.

YES

Replace the finisher controller PC board.

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[EA70] Stack delivery jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J9 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and stack delivery lever home position sensor (S8) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the stack delivery lever home position sensor working properly?

| NO → 1) Connect the connector of the stack delivery lever home position sensor securely.
↓ 2) Replace the stack delivery lever home position sensor.

YES

Replace the finisher controller PC board.

MJ-1025

Is there any paper remaining on the stapling tray?

↓ YES → Remove the paper.

NO

Are the paper on the stack tray and the latches of the stack delivery belt contacting each other?

↓ YES → Remove the paper on the stack tray.

NO

Is any of the connectors CN5 (delivery belt home position sensor), CN13 (delivery motor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and delivery belt home position sensor open-circuited?
Is the harness connecting the finisher controller PC board and delivery motor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the delivery belt home position sensor working properly?

↓ NO → Replace the sensor.

YES

Is the delivery motor working properly?

↓ NO → Replace the motor.

YES

Rotate the delivery motor by hand. Is there any mechanical problem with the rotation of the stack delivery belt?
Are the latches of the stack delivery belt damaged?

↓ YES → Fix the mechanism.

NO

Replace the finisher controller PC board.

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[EAF0] Stack return jam

MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and returning roller home position sensor (S3) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the returning roller home position sensor working properly?

| NO → 1) Connect the connector of the returning roller home position sensor securely.
↓ 2) Replace the returning roller home position sensor.

YES

Replace the finisher controller PC board.

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[4] Paper jam in saddle stitcher section

[EAB0] Saddle paper transport stop jam

MJ-1025

Is there any paper remaining on the paper transport path in the saddle stitcher section in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (folding position sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and folding position sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the folding position sensor working properly?

↓ NO → Replace the sensor.

YES

Replace the finisher controller PC board.

[EAC0] Saddle transport delay jam

MJ-1025

Is there any paper remaining on the paper transport path in the saddle stitcher section in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (folding position sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and folding position sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the folding position sensor working properly?

↓ NO → Replace the sensor.

YES

Replace the finisher controller PC board.

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[5] Other paper jam

[EAD0] Print end command time-out jam

Is the main motor rotating normally?

↓

NO

1) Replace the SYS board.
2) Replace the LGC board.

[EAE0] Receiving time time-out jam

Is the finisher working?

↓ YES → Replace the finisher controller PC board.

NO

1) Check if the voltage (24V) is being supplied to the finisher.
2) Check the connection of the LGC board and IPC board.
3) Check if the harness connecting the IPC board and finisher I/F connector of the equipment side is open circuited.
4) Check if the harness connecting the I/F connector of the finisher side and finisher controller PC board is open circuited.
5) Replace the finisher controller PC board.

[EB30] Ready time time-out jam

Is there paper in the equipment?

↓ NO → Replace the LGC board.

YES

Are the IPC board and LGC board properly connected to each other?

↓ NO → Connect them properly.

YES

Is the harness securely connected to the IPC board?

↓ NO → Connect the harness properly.

YES

Is any of the connector pins of the harness connecting the equipment and finisher disconnected or any of those harnesses open circuited?

↓ NO → Connect the pin or replace the harness.

YES

1) Replace the IPC board.
2) Replace the LGC board.
3) Replace the finisher controller PC board.

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5.1.6 Drive system related service call

[C010] Main motor is abnormal

Is the main motor working? (Perform the output check in the test mode: 03-101/151)

NO →
1) Check if the connector CN1 of the main motor is disconnected.
2) Check if the connector CN305 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor patterns on the main motor board and LGC board are short circuited or open circuited.
5) Replace the main motor.
6) Replace the LGC board.

↓

YES

Is the LED on the main motor board lit without flickering?

NO →
1) Check if the connector pins are disconnected and the harnesses are open circuited.
2) Check if the conductor patterns on the main motor board and LGC board are short circuited or open circuited.
3) Replace the main motor.
4) Replace the LGC board.

↓

YES

1) Check if the PLL lock signal CN305-B8 output from the LGC board is always level “L”?
2) Check if the voltage supplied to the CPU input terminal IC24-12 is always “L”?
3) Replace the LGC board.

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5.1.7 Paper feeding system related service call

[C040] PFP motor is abnormal

Is the PFP motor working? (Perform the output check in the test mode: 03-109/159)

NO →
1) Check if the signal line connector CN503 of the PFP motor is disconnected.
2) Check if the power line connector CN502 of the PFP motor is disconnected.
3) Check if the connector CN246 on the PFP board is disconnected.
4) Check if the signal line connector CN241 on the PFP board is disconnected.
5) Check if the power line connector CN242 on the PFP board is disconnected.
6) Check if the connector CN310 on the LGC board is disconnected.
7) Check if the connector pins are disconnected and the harnesses are open circuited.
8) Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
9) Replace the PFP motor.
10) Replace the PFP board.
11) Replace the LGC board.

↓

YES

Is the LED on the PFP motor board lit without flickering?

NO →
1) Check if the connector pins are disconnected and the harnesses are open circuited.
2) Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
3) Replace the PFP motor.
4) Replace the PFP board.
5) Replace the LGC board.

↓

YES

1) Check if the PLL lock signal CN246-8 output from the PFP board is always “L” level.
2) Check if the voltage supplied to the microcomputer input terminal IC5-17 is always “L” level.
3) Replace the PFP board.
4) Replace the LGC board.

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[C130] Upper drawer tray is abnormal

[C140] Lower drawer tray is abnormal

Does the tray go up? (Perform the output check in the test mode: 03-242/243)

NO →
1) Check if the connector of the tray-up motor is disconnected.
2) Check if the connector CN307 on the LGC board is disconnected.
3) Check if the connector pins are disconnected and the harnesses are open circuited.
4) Check if the conductor pattern on the LGC board is short circuited or open circuited.
5) Replace the LGC board.

↓

YES

Is the tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[H], /[7]/[H])

NO →
1) Check if the connector of the sensor is disconnected.
2) Check if the connector CN307 on the LGC board is disconnected.
3) Check if the slit reaches the sensor.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor pattern on the LGC board is short circuited or open circuited.
6) Replace the LGC board.

↓

YES

1) Check if the conductor pattern on the LGC board is short circuited or open circuited.
2) Replace the LGC board.

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[C150] PFP upper drawer tray is abnormal

[C160] PFP lower drawer tray is abnormal

Does the tray go up? (Perform the output check in the test mode: 03-278/280)

NO →
1) Check if the connector of the tray-up motor is disconnected.
2) Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6) Replace the PFP board.
7) Replace the LGC board.

↓

YES

Is the tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[H], /[4]/[H])

NO →
1) Check if the connector of the sensor is disconnected.
2) Check if any of the connectors CN241, CN247 and CN248 on the PFP board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the slit reaches the sensor.
5) Check if the connector pins are disconnected and the harnesses are open circuited.
6) Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
7) Replace the PFP board.
8) Replace the LGC board.

↓

YES

1) Check if the conductor pattern on the LGC board is short circuited or open circuited.
2) Replace the LGC board.

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[C180] LCF tray-up motor is abnormal

Does the tray move? (Perform the output check in the test mode: 03-271)

NO →
1) Check if the connector of the LCF tray-up motor is disconnected.
2) Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6) Replace the LCF board.
7) Replace the LGC board.

↓

YES

Are the LCF tray bottom sensor and LCF tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[F], /[3]/[A])

NO →
1) Check if the connectors of the sensors are disconnected.
2) Check if any of the connectors CN100, CN104 and CN105 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the slit reaches the sensors.
5) Check if the connector pins are disconnected and the harnesses are open circuited.
6) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
7) Replace the LCF board.
8) Replace the LGC board.

↓

YES

1) Check if the conductor pattern on the LGC board is short circuited or open circuited.
2) Replace the LGC board.

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[C1A0] LCF end fence motor is abnormal

Is the LCF end fence motor working? (Perform the output check in the test mode: 03-207)

NO →
1) Check if the connector of the LCF end fence motor is disconnected.
2) Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the connector pins are disconnected and the harnesses are open circuited.
5) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6) Replace the LCF board.
7) Replace the LGC board.

↓

YES

Are the LCF end fence home/stop position sensors working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[A], /[5]/[B])

NO →
1) Check if the connectors of the sensors are disconnected.
2) Check if either of the connectors CN100 or CN107 on the LCF board is disconnected.
3) Check if the connector CN310 on the LGC board is disconnected.
4) Check if the slit reaches the sensors.
5) Check if the connector pins are disconnected and the harnesses are open circuited.
6) Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
7) Replace the LCF board.
8) Replace the LGC board.

↓

YES

1) Check if the conductor pattern on the LGC board is short circuited or open circuited.
2) Replace the LGC board.

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[C1B0] LCF transport motor is abnormal

Is the LCF transport motor working? (Perform the output check in the test mode: 03-122/172)

NO →
1) Check if the connector CN1 of the LCF transport motor is disconnected.
2) Check if the connector CN102 on the LCF board is disconnected.
3) Check if the signal line connector CN100 on the LCF board is disconnected.
4) Check if the power line connector CN101 on the LCF board is disconnected.
5) Check if the connector CN310 on the LGC board is disconnected.
6) Check if the connector pins are disconnected and the harnesses are open circuited.
7) Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
8) Replace the LCF transport motor.
9) Replace the LCF board.
10) Replace the LGC board.

↓

YES

1) Check if the connector pins are disconnected and the harnesses are open circuited.
2) Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
3) Check if the PLL lock signal CN102-3 output from the LCF board is always “L” level.
4) Check if the voltage supplied to the microcomputer input terminal IC103-17 is always “L” level.
5) Replace the LCF transport motor.
6) Replace the LCF board.
7) Replace the LGC board.

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5.1.8 Scanning system related service call

[C260] Peak detection error

Does the exposure lamp light? (Perform the output check in the test mode: 03-267)

YES →
1) Check if the connectors on the CCD and SLG boards are disconnected.
2) Check if the shading correction plate is dirty.
3) Check if the conductor pattern on the CCD board is short circuited or open circuited.
4) Check if the conductor pattern on the SLG board is short circuited or open circuited.
5) Replace the lens unit.
6) Replace the SLG board.

↓

NO

1) Check if the connectors of the exposure lamp and inverter are disconnected.
2) Check the SLG board if the connector pin CN9 is disconnected and the harness is short circuited or open circuited.
3) Check if the conductor pattern on the SLG board is short circuited or open circuited.
4) Replace the SLG board.
5) Replace the inverter.
6) Replace the exposure lamp.

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[C270] Carriage home position sensor not going OFF within a fixed time

[C280] Carriage home position sensor not going ON within a fixed time

Remove the original glass and move the carriages to the paper feeding side. Turn ON the power and check the following items.

[C270] Are the carriages slightly moved to the feeding direction? Are the carriages staying at a position other than home position?

I	YES →	1) Check if the connector of the scan motor is disconnected.
I		2) Check if the connector pin is disconnected and the harness is short circuited or open circuited.
I		
↓		3) Replace the SLG board.

NO

1) Check if the connector pin is disconnected and the harness is short circuited or open circuited.
2) Check if the conductor pattern on the SLG board is short circuited or open circuited.
3) Replace the SLG board.

[C280] Do the carriages make a big noise after they arrive at the home position?

I	YES →	The carriage home position sensor is not turned ON.
I		1) Check if the connector of the sensor is disconnected.
I		2) Replace the carriage home position sensor.
↓		3) Replace the SLG board.

NO

The carriages are stopped at the home position and do not move.
1) Check if the connector pins are disconnected and the harnesses are short circuited or open circuited.
2) Check if the conductor pattern on the SLG board is short circuited or open circuited.
3) Replace the SLG board.

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5.1.9 Fuser unit related service call

CAUTION
Be sure to turn OFF the power and unplug the power cable beforehand when checking the heater.
The fuser unit itself or the part of the unit remains heated and the capacitors are still charged after a while the power cable is unplugged. So make sure the unit is cooled down enough before checking.

[C410] Thermistor or heater is abnormal at power ON

1. Check the thermistors

(1) Check if the connectors are disconnected.
(2) Check if the center, side and edge thermistors are in contact with the surface of the fuser roller properly?
(3) Check if the harnesses of the center, side and edge thermistors are open circuited.

2. Check the heater

(1) Check if the heater is broken.
(2) Check if the connector of the heater is disconnected.
(3) Check if the thermostat is blown.

3. Check the LGC board

(1) Check if the connectors CN308 are disconnected.
(2) Check if the conductor pattern on the LGC board is short circuited or open circuited.
(3) Replace the LGC board.

4. Clear the status counter

After repairing the matter which caused the error [C410], perform the following:

(1) Turn ON the power while [0] and [8] are pressed simultaneously.
(2) Key in “400”, then press [START].
(3) Change the current status counter value “1” or “2” to “0”, then press [ENTER] or [INTERRUPT] (to cancel [C410]).
(4) Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

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[C430] Thermistor abnormality after abnormality judgment
[C440] Fuser is abnormal after abnormality judgment
1,2.3. Check the thermistors, Heater and LGC board
Check the above components following the procedures 1, 2 and 3 for [C410].

4. Clear the status counter
Change the current status counter value (08-400) “4” to “0” for [C430] and “5”, “7” or “9” to “0” for [C440], taking the same procedure as that for [C410].

* The status counter value is as follows in the following cases. Change them to “0” respectively.
- The error occurred during warming-up: “4” or “5”
- The error occurred after the equipment has become ready: “7”
- The temperature detected by the center thermistor is 230°C or higher: “9”
- The temperature detected by the side thermistor is 230°C or higher: “9”
- The temperature detected by the edge thermistor is 230°C or higher: “9” only during printing.

[C450] Thermistor abnormality during printing
1. Check the edge thermistor

(1) Check if the connector is disconnected.
(2) Check if the edge thermistor is in contact with the surface of the fuser roller properly.
(3) Check if the harness of the edge thermistor is open circuited.

2. Check the LGC board

(1) Check if the connector CN308 is disconnected.
(2) Check if the conductor pattern on the board is short circuited or open circuited.
(3) Replace the LGC board.

3. Clear the status counter
Change the current status counter value (08-400) “6” to “0”.

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5.1.10 Communication related service call

[C550 (C780)] RADF I/F error

(1) Check if the harness connecting the RADF board and SLG board is disconnected or open circuited.
(2) Check if the conductor pattern on the RADF board is short circuited or open circuited.
(3) Check if the conductor pattern on the SLG board is short circuited or open circuited.
(4) Replace the RADF board.
(5) Replace the SLG board.

[C570] Communication error between main CPU and IPC board

(1) Check if the LGC board and IPC board are connected properly.
(2) Check if the conductor pattern on the IPC board is short circuited or open circuited.
(3) Check if the conductor pattern on the LGC board is short circuited or open circuited.
(4) Replace the IPC board.
(5) Replace the LGC board.

[C580] Communication error between IPC board and finisher

(1) Check if the specified finisher is attached.
(2) Check if the harness connecting the IPC board and the finisher controller PC board is disconnected or open circuited.
(3) Check if the conductor pattern on the IPC board is short circuited or open circuited.
(4) Check if the conductor pattern on the finisher controller PC board is short circuited or open circuited.
(5) Replace the IPC board.
(6) Replace the finisher controller PC board.

[F070] Communication error between system CPU and main CPU

(1) Check if the harness connecting the SYS board (CN117) and LGC board (CN309) is disconnected or open circuited.
(2) Check the version of the system ROM on the SYS board.
(3) Check the version of the engine ROM version on the LGC board.
(4) Replace the SYS board.
(5) Replace the LGC board.

[F110] Communication error between system CPU and scanner CPU
[F111] Scanner response abnormality

(1) Check if the harness connecting the SYS board and SLG board is disconnected or open circuited.
(2) Check the version of the system ROM on the SYS board.
(3) Check the version of the scanner ROM version on the SLG board.
(4) Replace the SYS board.
(5) Replace the SLG board.

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5.1.11 RADF related service call (MR-3016)

Note:
When performing the RADF related troubleshooting, be sure to perform "Automatic adjustment of RADF sensor and EEPROM initialization (05-356)" and "RADF original guide width adjustment (05-367/368)" consecutively at the Adjustment Mode whenever the RADF board, original length sensor, read sensor or reverse sensor has been replaced.

[C730] EEPROM initialization error

(1) Check the RADF board, mainly IC12, for short circuits and open circuits.
(2) Replace the RADF board.

[C740] Reverse sensor adjustment error

(1) Check if there is any foreign matter between the reverse sensor and the reflecting mirror. Check if the reflecting mirror is dirty.
(2) Check if the harness connecting the reverse sensor and the RADF board is open circuited.
(3) Check the circuits and connectors on the RADF board, mainly IC3, IC4 and CN4, for short circuits and open circuits.
(4) Replace the reverse sensor.
(5) Replace the RADF board.

[C810] Fan motor is abnormal

(1) Check if the load on the motor shaft is normal.
(2) Remove foreign matters.
(3) Check if the harness connecting the fan motor and RADF board is open circuited.
(4) Check if the power is supplied to the pin 1 of the CN9 on the RADF board during the operation.
(5) Check the circuits and connectors on the RADF board, mainly Q12 and Q16, for short circuits and open circuits.
(6) Replace the fan motor.
(7) Replace the RADF board.

[C820] Read sensor adjustment error

(1) Check if there is any foreign matter between the read sensor and the reflecting mirror. Check if the reflecting mirror is dirty.
(2) Check if the harness connecting the read sensor and the RADF board is open circuited.
(3) Check the circuits and connectors on the RADF board, mainly IC3, IC4 and CN6, for short circuits and open circuits.
(4) Replace the read sensor.
(5) Replace the RADF board.

[C830] Original length sensor adjustment error

(1) Check if there is any foreign matter between the original length sensor and reflecting mirror. Check if the reflecting mirror is dirty.
(2) Check if the harness connecting the original length sensor and the RADF board is open circuited.
(3) Check the circuits and connectors on the RADF board, mainly IC3, IC4 and CN3, for short circuits and open circuits.
(4) Replace the original length sensor.
(5) Replace the RADF board.

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5.1.12 RADF related service call (MR-3020)

No service call for the RADF (MR-3020).

5.1.13 Laser optical unit related service call

[CA10] Polygonal motor is abnormal

Is the polygonal motor rotating?

↓ NO →
1) Check if the connector of the harness is disconnected between LGC board (CN312) and the laser optical unit.
2) Check if the harness is open circuited and the connector pin is disconnected.
3) Check if the conductor pattern on the LGC board is short circuited or open circuited.
4) Replace the laser optical unit.
5) Replace the LGC board.

YES

1) Check if the conductor pattern on the LGC board is short circuited or open circuited.
2) Replace the LGC board.

[CA20] H-Sync detection error

Are the harness open circuited and the connectors disconnected between the LGC board (CN313) and LRL board (CN204), and between the LRL board (CN204) and laser optical unit?

↓ YES → Replace the harness. Connect the disconnected connectors.

NO

1) Replace the LGC board.
2) Replace the laser optical unit.

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5.1.14 Finisher related service call

[CB10] Transport motor abnormality

MJ-1025

Is the stack feed roller (upper) home position sensor (PI12) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and feed motor (M1) correct?

↓ NO → Correct the wiring.

YES

Try turning the stack feed roller (upper) shaft by hand. Does the stack feed roller (upper) move up/down normally?

↓ NO → Fix the mechanism.

YES

Try replacing the feed motor (M1). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

5

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[CB20] Delivery motor abnormality

MJ-1022

Rotate the delivery roller by hand. Does it rotate smoothly?

↓ NO → Fix the mechanism.

YES

Is the wiring between the finisher controller PC board and delivery motor (M1) correct?

↓ NO → Correct the wiring.

YES

Is the delivery motor clock sensor (S1) working properly?

↓ NO → Replace the sensor.

YES

1) Replace the delivery motor (M1).
2) Replace the finisher controller PC board.

MJ-1025

Is the delivery belt home position sensor (PI7) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and delivery motor (M3) correct?

↓ NO → Correct the wiring.

YES

Rotate the stack delivery roller by hand. Does it rotate smoothly?

↓ NO → Fix the mechanism.

YES

Try replacing the delivery motor (M3). Is the problem corrected?

↓ YES → END.

NO

Replace the finisher controller PC board.

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[CB30] Tray lift motor abnormality

MJ-1025

[Procedure 1]

Is the paper surface sensor (PI9) working properly?

↓ NO → Replace the sensor.

YES

Is the tray up/down mechanism working properly?

↓ NO → Fix the mechanism.

YES

Is 24 VDC supplied from the finisher controller PC board to the shift motor as soon as the tray is driven?

↓ NO → Replace the finisher controller PC board.

YES

Is the wiring between the finisher controller PC board and shift motor (M6) correct?

↓ YES → Replace the shift motor.

NO

Correct the wiring.

[Procedure 2]

Is the tray as far as the shift upper limit sensor?

↓ YES → Lower the position of the tray.

NO

Is the shift upper limit sensor (PI15) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and shift upper limit sensor (PI15) correct?

↓ YES → Replace the finisher controller PC board.

NO

Correct the wiring.

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[Procedure 3]

Does the tray go up?

NO → Is 24 VDC supplied from the finisher controller PCB to the shift motor as soon as the tray is driven?

↓ NO → Replace the finisher controller PC board.

YES

Is there any problem with the tray up/down mechanism?

↓ YES → Fix the lift mechanism.

NO

↓ Replace the shift motor.

YES

Is the shift motor clock sensor (PI7) working properly?

↓ YES → Replace the finisher controller PC boar

NO

Replace the sensor.

[CB50] Staple motor abnormality

MJ-1025

[Procedure 1]

Is the wiring between the finisher controller PC board and the staple/fold motor normal?

↓ NO → Correct the wiring.

YES

Try to rotate the staple jam releasing dial. Is there mechanical trapping?

↓ YES → Fix the mechanism.

NO

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[Procedure 2]

Is the staple/fold motor clock sensor (PI14) working properly?

↓ NO → Replace the sensor.

YES

Does the staple/fold motor operate at the appropriate timing?

↓ YES → Replace the finisher controller PC board.

NO

Is the stapler unit drive mechanism working properly?

↓ NO → Fix the mechanism.

YES

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[Procedure 3]

Is the folding home position sensor (PI11) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the staple/fold motor normal?

↓ NO → Correct the wiring.

YES

Try to rotate the fold jam releasing dial. Is there mechanical trapping?

↓ YES → Fix the mechanism.

NO

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[Procedure 4]

Is the staple/fold motor clock sensor (PI14) working properly?

↓ NO → Replace the sensor.

YES

Does the staple/fold motor operate at the appropriate timing?

↓ YES → Replace the finisher controller PC board.

NO

Is the saddle stitch unit drive mechanism working properly?

↓ NO → Fix the mechanism.

YES

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[CB60] Stapler unit shift motor abnormality

MJ-1025

Is the slide home position sensor (PI18) working properly?

↓ NO → Replace the sensor controller PC board.

YES

Is the wiring between the finisher controller PC board and slide motor correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the stapler stand motion path?

↓ YES → Fix the mechanism.

NO

Try replacing the slide motor (M8). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[CB80] Backup RAM data abnormality

MJ-1025

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End.

NO

1) Replace the finisher controller PC board.
2) Replace the punch controller PC board.

[CC30] Stack processing motor abnormality/Paddle motor abnormality

MJ-1022 (Stack processing motor abnormality)

[Procedure 1]

Is the tension of the drive belt normal?

↓ NO → Loosen the adjustment screw to adjust its tension.

YES

Does the bushing attached to the returning roller shaft smoothly move up and down?

↓ NO → Apply grease on the cut-out part of the front side frame where the bushing contacts.

YES

Is the spring of the returning roller detached?

↓ YES → Attach the spring.

NO

Is the wiring between the finisher controller PC board and stack delivery motor (M2) correct?

↓ NO → Correct the wiring.

YES

Is the stack delivery lever home position sensor (S8) working properly?

↓ NO → Replace the sensor.

YES

1) Replacing the stack processing motor.
2) Replace the finisher controller PC board.

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[Procedure 2]

Does the bushing attached to the returning roller shaft smoothly move up and down?

| NO → Apply grease on the cut-out part of the front side frame where the bushing contacts.

↓

YES

Is the spring of the returning roller detached?

↓ YES → Attach the spring.

NO

Is the tension of the stack processing motor drive belt normal?

↓ NO → Loosen the adjustment screw to adjust its tension.

YES

Is the returning roller home position sensor (S3) working properly?

↓ NO → Replace the sensor.

YES

1) Replace the stack delivery motor.
2) Replace the finisher controller PC board.

MJ-1025 (Paddle motor abnormality)

Is the paddle home position sensor (PI2) working properly?

↓ NO → Replace the sensor.

YES

Is the swing guide home position sensor (PI3) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and paddle motor (M2) correct?

↓ NO → Correct the wiring.

YES

Try turning the paddle motor counterclockwise by hand. Is there mechanical trapping in the up/down movement of the swing guide?

↓ YES → Fix the mechanism.

NO

Try replacing the paddle motor. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[CC50] Horizontal registration motor abnormality

MJ-1025

Is the horizontal registration home position sensor (PI2P) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the horizontal registration home position sensor (PI2P) correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the horizontal registration mechanism?

↓ YES → Fix the mechanism.

NO

Replace the horizontal registration motor (M2P).

Try replacing the punch controller PC board. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[CC60] Punch motor abnormality

MJ-1025

Is the punch home position sensor (PI1P) working properly?

↓ NO → Replace the sensor.

YES

Is the punch motor clock sensor (PI3P) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and sensor correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the punching mechanism?

↓ YES → Fix the mechanism.

NO

Replace Punch motor (M1P)

Try replacing the punch controller PC board. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[CC80] Front jogging plate motor abnormality/Alignment motor (front) abnormality

MJ-1022 (Front jogging plate motor abnormality)

Is the front jogging plate home position sensor (S6) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and front jogging motor (M3) correct?

↓ NO → Correct the wiring.

YES

Has the rack run over the stopper of the roll?

↓ YES → Fix it.

NO

1) Replace the front jogging motor.
2) Replace the finisher controller PC board.

MJ-1025 (Alignment motor (front) abnormality)

Is the aligning plate home position sensor (front) (PI4) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and alignment motor (front) (M4) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the path of aligning plate?

↓ YES → Fix the mechanism.

NO

Try replacing the alignment motor (front) (M4). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[CC90] Upper stack tray lift motor abnormality

MJ-1022

Is the wiring between the finisher controller PC board and upper stack tray lift motor (M5) correct?

↓ NO → Correct the wiring.

YES

Are the front and rear sides of the upper stack tray leveled?

↓ NO → Level them.

YES

Is the upper stack tray lift motor clock sensor (S19) working properly?

↓ NO → Replace the sensor.

YES

Is the stack tray paper height sensor (S10) working properly?

↓ NO → Replace the sensor.

YES

Are the upper stack tray upper limit sensor (S25), upper stack tray full sensor (S22) and stack processing safety switch (S26) working properly?

↓ NO → Replace the sensor or sensor controller PC board.

YES

Does the voltage between the pins J14-1 pin and -2 pin on the finisher controller PC board become 24 V when the upper stack tray lift motor starts rotating?

↓ NO → Replace the finisher controller PC board.

YES

Check the wiring between the upper stack tray lift motor and finisher controller PC board. If there is no problem, replace the upper stack tray lift motor.

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[CCA0] Lower stack tray lift motor abnormality

MJ-1022

Is the wiring between the finisher controller PC board and lower stack tray lift motor (M7) correct?

↓ NO → Correct the wiring.

YES

Are the front and rear sides of the lower stack tray leveled?

↓ NO → Level them.

YES

Is the lower stack tray lift motor clock sensor (S9) working properly?

↓ NO → Replace the sensor.

YES

Is the stack tray paper height sensor (S10) working properly?

↓ NO → Replace the sensor.

YES

Are the lower stack tray upper limit sensor (S13) and lower stack tray full sensor (S23) working properly?

↓ NO → Replace the sensor or sensor controller PC board

YES

Does the voltage between the pins J3-1 pin and -2 pin on the finisher controller PC board become 24 V when the lower stack tray lift motor starts rotating?

↓ NO → Replace the finisher controller PC board.

YES

Check the wiring between the upper stack tray lift motor and finisher controller PC board. If there is no problem, replace the motor.

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[CCB0] Rear jogging plate motor abnormality/Alignment motor (rear) abnormality

MJ-1022 (Rear jogging plate motor abnormality)

Is the rear jogging plate home position sensor (S7) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and rear jogging motor (M4) correct?

↓ NO → Correct the wiring.

YES

Has the rack run over the stopper of the roll?

↓ YES → Fix it.

NO

1) Replace the rear jogging motor.
2) Replace the finisher controller PC board.

MJ-1025 (Alignment motor (rear) abnormality)

Is the aligning plate home position sensor (rear) (PI5) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and aligning plate home position sensor (rear) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the path of aligning plate?

↓ YES → Fix the mechanism.

NO

Try replacing the alignment motor (rear) (M5). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

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[CDC0] Punch power failure occurred abnormality

MJ-1025

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End

NO

Is the wiring between the finisher controller PC board and punch controller PC board correct?

↓ NO → Correct the wiring.

YES

Does the voltage between the CN14-5 (+) and CN14-3 (-) on the finisher controller PC board become 24 V?

↓ YES → Replace the punch controller PC board.

NO

Replace the finisher controller PC board.

[CDD0] Folding sensor abnormality

MJ-1025

Is the folding position sensor (PI10) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and folding position sensor (PI10) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the fold jam releasing dial?

↓ YES → Fix the mechanism.

NO

1) Replace the staple/fold motor (M7).
2) Replace the finisher controller PC board.

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[CDE0] Paddle motor abnormality

MJ-1025

Is the paddle home position sensor (PI2) working properly?

↓ NO → Replace the sensor.

YES

Is the Swing guide home position sensor (PI3) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and Paddle motor (M2) correct?

↓ NO → Correct the wiring.

YES

Try to rotate the paddle motor (M2) clockwise and counterclockwise by hand. Is there mechanical trapping in the rotation of the paddle or the up/down movement of the swing guide?

↓ YES → Fix the mechanism.

NO

1) Replace the paddle motor (M2)
2) Replace the finisher controller PC board.

[CE00] Communication error between finisher and puncher unit

MJ-1025

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End.

NO

Is the wiring between the finisher controller PC board and the punch controller PC board correct?

↓ NO → Correct the wiring.

YES

Measure the voltage between CN14-5 (+) and CN14-3 (-) on the finisher controller PC board 24 V?

↓ NO → Replace the finisher controller PC board.

YES

Replace the punch controller PC board.

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5.1.15 Service call for others

[C940] Engine-CPU is abnormal

Is the “Call for Service” displayed even after the power is turned OFF and back ON?

↓ NO → Leave it and see what happens.

YES

1) Check if the circuit pattern between the Engine-CPU and FROM is short circuited or open circuited.
2) Replace the LGC board if this error occurs frequently.

[C970] High-voltage transformer abnormality

(1) Is the main charger installed securely?
(2) Check if the spring of high-voltage supply contact point is deformed.
(3) Check if the needle electrode is broken or the main charger grid is deformed.
(4) Check if any foreign matters is on the needle electrode or the main charger grid.
(5) Is the transfer/separation charger installed securely?
(6) Check if the transfer/separation charger wire is broken or unhooked.
(7) Check if any foreign matter is on the transfer/separation charger wire.

[CDF0] Initialize error of the offset tray

(1) Check if each connector between the OCT motor and OCT board (CN261) is disconnected.
(2) Check if each connector between the OCT board (CN261) and LGC board (CN306) is disconnected.
(3) Check if each connector pin is removed or the harness is broken.
(4) Check if any conductor pattern on the OCT board and LGC board is short circuited or open circuited.
(5) Replace the OCT motor.
(6) Replace the OCT board.
(7) Replace the LGC board.

[CF60] Recycle toner transport area lock

(1) Check if any foreign matter or toner flakes are on the recycle toner transport area.
(2) Check if the auger or the gear is damaged on the recycle toner transport area.
(3) Check if the connector (CN305) is disconnected or the connector pin is removed on the LGC board.
(4) Check if the harness is short circuited or open circuited.
(5) Replace the auger lock switch.
(6) Replace the LGC board.

[F090] SRAM abnormality on the SYS board

(1) Turn the power OFF and start up the Setting Mode (08).
(2) When the message “SRAM ERROR DOES IT INITIALIZE?” is displayed on the LCD, press [INITIALIZE]. (SRAM is cleared.)
(3) Turn the power OFF and then back ON. If the error is not recovered, replace the SYS board.

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[F091] NVRAM abnormality on the SYS board

(1) Take off the FAX board if installed.
(2) Turn the power OFF and start up with the Setting Mode (08).

Note:
Be sure to start up with the Setting Mode (08), not the normal mode immediately after the NVRAM replacement or clearing, and then perform the following steps.

(3) When the message “NVRAM ERROR DOES IT INITIALIZE” is displayed on the LCD screen, check the destination and then press the [START] button. If the destination is correct, key in the correct number and press the [START] button.
(4) When the confirmation message appears on the LCD screen, press the [INTERRUPT] button. (NVRAM initialization will start.)
(5) Perform the panel calibration (08-692).
(6) Perform the counter copying (08-257 Sub-code: 1).
(7) Perform the initialization at the software version upgrade (08-947).
(8) Check the serial number after performing “Equipment number display” (08-995). If the number is different from the one on the label attached to the rear cover of the equipment, enter the correct serial number again with 08-995.

Note:
The MAC address of the equipment is generated based on this serial number. Entering the incorrect serial number may result in an inability to access the network due to an invalid MAC address.

(9) Initialize the NIC information (08-693).
(10) Turn the power OFF.
(11) Install the FAX board taken off in step (1).
* If the FAX board has not been installed, the following steps are not necessary.
(12) Start up with the Setting Mode (08).
(13) Set the destinetion with “Destination setting of FAX machine” (08-701).
(14) Start up with FAX Clearing Mode (1*).
(15) Perform “FAX Set Up” (1*-100).
(16) Turn the power OFF.
(17) Turn the power ON.
(18) Set the dial type. [USER FUNCTIONS] →[ADMIN] →[FAX] →[INITIAL SETUP]
(19) Turn the power OFF and then back ON. If the error is not recovered, replace the NVRAM on the SYS board.

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[F092] SRAM/NVRAM abnormality on the SYS board

(1) Take off the FAX board if installed.
(2) Turn the power OFF and start up with the Setting Mode (08).

Note:
Be sure to start up with the Setting Mode (08), not the normal mode immediately after the NVRAM replacement or clearing, and then perform the following steps.

(3) When “NVRAM/SRAM ERROR DOES IT INITIALIZE” is displayed on the LCD, enter the number for the model type and then press the [START] button. Select “1” for a system ROM version earlier than V3.2, and “2” for V3.2 or later.
(4) Check the destination displayed on the LCD and then press the [START] button. If the destination is incorrect, key in the correct number and then press the [START] button.
(5) Check the destination displayed on the LCD screen and then press the [START] button. If the destination is incorrect, key in the correct number and then press the [START] button.
(6) When the confirmation message appears on the LCD screen, press the [INTERRUPT] button. (Initialization of SRAM and NVRAM will start.)
(7) Perform the panel calibration (08-692).
(8) Perform the counter copying (08-257 Sub-code: 1).
(9) Perform the initialization at the software version upgrade (08-947).
(10) Check the serial number after performing “Equipment number display” (08-995). If the number is different from the one on the label attached to the rear cover of the equipment, enter the correct serial number again with 08-995.

Note:
The MAC address of the equipment is generated based on this serial number. Entering the incorrect serial number may result in an inability to access the network due to an invalid MAC address.

(11) Initialize the NIC information (08-693).
(12) Turn the power OFF.
(13) Install the FAX board taken off in step (1).
* If the FAX board has not been installed, the following steps are not necessary.
(14) Start up with the Setting Mode (08).
(15) Set the destinetion with “Destination setting of FAX machine” (08-701).
(16) Start up with FAX Clearing Mode (1*).
(17) Perform “FAX Set Up” (1*-100).
(18) Turn the power OFF.
(19) Turn the power ON.
(20) Set the dial type. [USER FUNCTIONS] →[ADMIN] →[FAX] →[INITIAL SETUP]
(21) Turn the power OFF and then back ON. If the error is not recovered, replace the NVRAM on the SYS board.

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[F100] HDD Initialization error

(1) Check if the HDD is mounted.
(2) Check if the specified HDD is mounted.
(3) Check if the connector pins of the HDD are bent.
(4) Check if the power supply connector is disconnected.
(5) Check if the connector J111 on the SYS board is disconnected.
(6) Replace the harness.
(7) Initialize the HDD. (Key in “2” at 08-690.)
(8) Replace the HDD.
(9) Replace the SYS board.

[F101] HDD unmounted
[F102] HDD start error
[F103] HDD transfer time-out
[F104] HDD CRC error
[F105] HDD other error

(1) Check if the connectors of the HDD are disconnected.
(2) Check if the connector pins are disconnected or the wires of harnesses are broken.
(3) Perform the bad sector check (08-694). If the check result is OK, recover the data in the HDD. If the check result is failed, replace the HDD.
(4) Replace the SYS board.

[F106] Point and Print partition damage

(1) Turn the power OFF and start up the Setting Mode (08).
(2) Key in “662” and press the [START] button. (Partition clearing is performed.)
(3) Restart the equipment.
(4) Access TopAccess. Click the [Administration] tab, and then click the Maintenance Menu to open. Then install the “Point and Print” driver.

[F107] /SHR partition damage

Initialize the Electronic Filing using the Setting Mode (08-666).

[F108] /SHA partition damage

Initialize the shared folder using the Setting Mode (08-667).

[F120] Database abnormality

(1) Rebuild the databases. (Perform 08-684.)
(2) If the error is not recovered, initialize the HDD. (Key in “2” at 08-690.)

[F130] Invalid MAC address (e-STUDIO202L/203L/232/233/282/283)

Compare the serial number of the equipment with a number displayed in 08-995. If they are different, enter the correct serial number at 08-995.

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[F200] Data overwrite kit (GP-1050) is taken off (e-STUDIO202L/230/230L/280)

Clear the service call “F200”. (Key in “0” at 08-633.)

* When the Data overwrite kit (GP-1050) is removed from the equipment, the service call “F200” occurs.

[F200] Data overwrite kit (GP-1060) is taken off (e-STUDIO202L/203L/232/233/282/283)

Check the system ROM version (08-900) since the countermeasure to be taken varies.

T377SY0*329 or later (* represents a letter of the alphabet corresponding to the destination.)
Download the system firmware again.
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Earlier than T377SY0*329 (* represents a letter of the alphabet corresponding to the destination.)
Clear the service call “F200”. (Key in “0” at 08-633.)

* When the Data overwrite kit (GP-1060) is removed from the equipment, the service call “F200” occurs.

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5.1.16 Error in Internet FAX / Scanning Function

Notes:

1. **When initializing the Electronic Filing (Setting Mode (08-666)), all data in the Electronic Filing are erased. Back up the data in the Electronic Filing by using the Electronic Filing Function of TopAccess before the initialization.**
2. **When initializing the shared folder (Setting Mode (08-667)), all data in the shared folder are erased. Back up the data in the shared folder by using Explorer before the initialization.**
3. **When formatting the HDD (Setting Mode (08-690)), all data in the shared folder, Electronic Filing, Address Book, template, etc. are erased. Back up these data before the initialization. Note that some of data cannot be backed up (Page 5-1).**

[1] Internet FAX related error

(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

[1C10] System access abnormality
[1C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[1C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C12] Message reception error
[1C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[1C14] Invalid parameter

When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C15] Exceeding file capacity

Reset and extend the “Maximum send to E-mail/iFAX size” or reduce the number of pages and perform the job again.

[1C20] System management module access abnormality
[1C21] Job control module access abnormality
[1C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board.

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[1C30] Directory creation failure
[1C31] File creation failure
[1C33] File access failure

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[1C40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[1C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[1C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again.
Reset the data in the Address Book and perform the job again.

[1C62] Memory acquiring failure

Check if there is any job being performed and perform the job in error again.

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[1C63] Terminal IP address unset

Reset the Terminal IP address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C64] Terminal mail address unset

Reset the Terminal mail address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C65] SMTP address unset

Reset the SMTP address and perform the job.
Turn the power OFF and then back ON. Perform the job in error again.

[1C66] Server time time-out error

Check if the SMTP server is operating properly.

[1C67] NIC time time-out error
[1C68] NIC access error
[1C6D] System error

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the NIC board.

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[1C69] SMTP server connection error

Reset the login name or password of SMTP server and perform the job again.
Check if the SMTP server is operating properly.

[1C6A] HOST NAME error

Check if there is an illegal character in the device name.
Delete the illegal character and reset the appropriate device name.

[1C6B] Terminal mail address error

Check if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try again.

[1C6C] Destination mail address error

Check if there is an illegal character in the Destination mail address.
Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

[1C70] SMTP client OFF

Set the SMTP valid and perform the job again.

[1C71] SMTP authentication ERROR
Check that SMTP authentication method, login name and password are correct, then perform authentication again.

[1C72] POP Before SMTP ERROR
Check that both the POP Before SMTP setting and POP3 setting are correct, then perform authentication again.

[1C80] Internet FAX transmission failure when processing E-mail job received

Reset the “Received InternetFax Forward”.

[1C81] Onramp Gateway transmission failure

Reset the mail box.

[1C82] Internet FAX transmission failure when processing FAX job received

Reset the “Received Fax Forward”.

[1CC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

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[2] RFC related error

(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

[2500] HOST NAME error (RFC: 500) / Destination mail address error (RFC: 500) / Terminal mail address error (RFC: 500)
[2501] HOST NAME error (RFC: 501) / Destination mail address error (RFC: 501) / Terminal mail address error (RFC: 501)

Check if the Terminal mail address and Destination mail address are correct.
Check if the mail server is operating properly.
Turn the power OFF and then back ON. Perform the job in error again.

[2503] Destination mail address error (RFC: 503)
[2504] HOST NAME error (RFC: 504)
[2551] Destination mail address error (RFC: 551)

Check if the mail server is operating properly.
Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the NIC board.

[2550] Destination mail address error (RFC: 550)

Check the state of the mail box in the mail server.

[2552] Terminal/Destination mail address error (RFC: 552)

Check the capacity of the mail box in the mail server.
Select “Text “of the original modes for the original data or lower the resolution level and then retransmit.
Or divide the original data into several pieces and retransmit them..

[2553] Destination mail address error (RFC: 553)

Check if there is an illegal character in the mail box in the mail server.

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[3] Electronic Filing related error

[2B10] No applicable job error in Job control module
[2B11] JOB status abnormality
[2B20] File library function error
[2B30] Insufficient disk space in /SHR partition
[2BC0] Fatal failure occurred
[2BC1] System management module resource acquiring failure

Erase some data in the Electronic Filing and perform the job in error again (in case of [2B30]).

Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board.

[2B21] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

[2B50] Image library error
[2B90] Insufficient memory capacity

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the main memory.
Perform the job in error again.
Check if there are no other running jobs and initialize the Electronic Filing using the Setting Mode (08-666).

[2B31] Status of specified Electronic Filing or folder is undefined or being created/deleted

Check if the specified Electronic Filing or folder exists. (If no, this error would not occur.)
Delete the specified Electronic Filing or folder.
Perform the job in error again.
If the specified Electronic Filing or folder can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B32] Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.)

Check if the specified document exists. (If no, this error would not occur.)
Delete the specified document.
Perform the job in error again.
If the specified document can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B51] List library error

Check if the Function List can be printed out.
If it can be printed out, perform the job in error again.
If it can not be printed out, replace the main memory.
If the recovery is still not completed, perform the HDD formatting (08-690).

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[2BA0] Invalid Box password

Check if the password is correct.
Reset the password.
When this error occurs when printing the data in the Electronic Filing, perform the printing with the administrator's password.
If the recovery is still not completed or in case of invalid password for the operation other than printing (opening the file, etc.), initialize the Electronic Filing using the Setting Mode (08-666).

[2BA1] A paper size not supported in the Electronic Filing function is being selected

Check the paper size.

[2BB1] Power failure
[2BD0] Power failure occurred during restoring of Electronic Filing

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[2BE0] Machine parameter reading error
Turn the power OFF and then back ON. Perform the job in error again.

[2BF0] Exceeding maximum number of pages
Reduce the number of inserting pages and perform the job again.

[2BF1] Exceeding maximum number of documents
Backup the documents in the box or folder to PC or delete them.

[2BF2] Exceeding maximum number of folders
Backup the folders in the box or folder to PC or delete them.

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[4] E-mail related error

(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

[2C10] System access abnormality
[2C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[2C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C12] Message reception error
[2C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[2C14] Invalid parameter

When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C15] Exceeding file capacity

Reset and extend the “Message size limitation” or reduce the number of pages and perform the job again.

[2C20] System management module access abnormality
[2C21] Job control module access abnormality
[2C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board.

[2C30] Directory creation failure
[2C31] File creation failure
[2C33] File access failure

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[2C40] Image conversion abnormality
[2C62] Memory acquiring failure

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

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[2C43] Encryption error

Turn the power OFF and then back ON. Perform the job in error again.

[2C44] Encryption PDF enforced mode error

Reset the encryption and perform the job in error again.
If an image file not encrypted is created, consult your administrators.

[2C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[2C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again.
Reset the data in the Address Book and perform the job again.

[2C63] Terminal IP address unset

Reset the Terminal IP address.
Turn the power OFF and then back ON. Perform the job in error again.

[2C64] Terminal mail address unset

Reset the Terminal mail address.
Turn the power OFF and then back ON. Perform the job in error again.

[2C65] SMTP address unset

Reset the SMTP address and perform the job.
Turn the power OFF and then back ON. Perform the job in error again.

[2C66] Server time time-out error

Check if the SMTP server is operating properly.

[2C67] NIC time time-out error
[2C68] NIC access error
[2C6D] System error

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the NIC board.

[2C69] SMTP server connection error

Reset the login name and password of SMTP server and perform the job again.
Check if the SMTP server is operating properly.

[2C6A] HOST NAME error (No RFC error)

Check if there is an illegal character in the device name.
Delete the illegal character and reset the appropriate device name.

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[2C6B] Terminal mail address error
Check if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try again.

[2C6C] Destination mail address error (No RFC error)

Check if there is an illegal character in the Destination mail address.
Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

[2C70] SMTP client OFF

Set the SMTP valid and perform the job again.

[2C71] SMTP authentication ERROR
Check that SMTP authentication method, login name and password are correct, then perform authentication again.

[2C72] POP Before SMTP ERROR
Check that both the POP Before SMTP setting and POP3 setting are correct, then perform authentication again.

[2C80] E-mail transmission failure when processing E-mail job received

Reset the “Received InternetFax Forward”.

[2C81] Process failure of FAX job received

Reset the setting of the mail box or “Received InternetFax Forward”.

[2CC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

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[5] File sharing related error

(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

[2D10] System access abnormality
[2D32] File deletion failure
[2DA6] File deletion failure
[2DA7] Resource acquiring failure

Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[2D11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D12] Message reception error
[2D13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[2D14] [2D61] Invalid parameter

When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D15] Exceeding document number

Delete some documents in the folder, and then perform the job in error again.

[2D20] System management module access abnormality
[2D21] Job control module access abnormality
[2D22] Job control module access abnormality
[2D60] File library access abnormality

Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])

Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board.

[2D30] Directory creation failure
[2D31] File creation failure
[2D33] File access failure

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

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[2D40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.
If the error still occurs, first, check if there are no jobs existing and then initialize the shared folder using the Setting Mode (08-667).

[2D43] Encryption error

Turn the power OFF and then back ON. Perform the job in error again.

[2D44] Encryption PDF enforced mode error

Reset the encryption and perform the job in error again.
If an image file not encrypted is created, consult your administrators.

[2D62] File server connection error

Check the IP address or path of the server.
Check if the server is operating properly.

[2D63] Invalid network path

Check the network path.
If the path is correct, turn the power OFF and then back ON, and perform the job again.

[2D64] Login failure

Reset the login name and password. Perform the job.
Check if the account of the server is properly set up.

[2D65] Exceeding documents in folder: Creating new document is failed

Delete some documents in the folder.

[2D66] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[2D67] FTP service not available

Check if the setting of FTP service is valid.

[2D68] File sharing service not available

Check if the setting of SMB is valid.

[2DC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

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[6] E-mail reception related error

(when GM-1020/3020, GM-1030/3030, GM-2020, GM-2030, GM-1070/4070, GM-1080U/4080U, GM-2070, GM-2080U, GM-1071/4070, GM-1081U/4080U, GM-2071, GM-2081U, GM-1130/4130, GM-1140U/4140U, GM-2130, or GM-2140U is installed)

[3A10] [3A11] [3A12] E-mail MIME error

The format of the mail is not corresponding to MIME 1.0.
Request the sender to retransmit the mail in the format corresponding to MIME 1.0.

[3A20] [3A21] [3A22] E-mail analysis error
[3B10] [3B11] [3B12] E-mail format error
[3B40] [3B41] [3B42] E-mail decode error

These errors occur when the mail data is damaged from the transmission to the reception of the mail.
Request the sender to retransmit the mail.

[3A30] Partial mail time-out error

The partial mail is not received in a specified period of time.
Request the sender to retransmit the partial mail, or set the time-out period of the partial mail longer.

[3A40] Partial mail related error

The format of the partial mail is not corresponding to this equipment.
Request the sender to remake and retransmit the partial mail in RFC2046 format.

[3A50] [3A51] [3A52] Insufficient HDD capacity error
[3A60] [3A61] [3A62] Warning of insufficient HDD capacity

These errors occur when the HDD capacity is not sufficient for a temporary concentration of the jobs, etc.
Request the sender to retransmit after a certain period of time, or divide the mail into more than one.
Insufficient HDD capacity error also occurs when printing is disabled for no printing paper.
In this case, supply the printing paper.

[3A70] Warning of partial mail interruption

This error occurs when the partial mail reception setting becomes OFF during the partial mail reception.
Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3A80] [3A81] [3A82] Partial mail reception setting OFF

Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3B20] [3B21] [3B22] Content-Type error

The format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the file in TIFF-FX.

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[3B30] [3B31] [3B32] Charset error

These errors occur when the standard of the Charset is other than ISO-8559-1 or ISO-8559-2.
Request the sender to reformat the Charset into either of the standards described above and then retransmit the mail.

[3C10] [3C11] [3C12] [3C13] TIFF analysis error

These errors occur when the mail data is damaged from the transmission to the reception of the mail, or when the format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the mail.

[3C20] [3C21] [3C22] TIFF compression error

The compression method of the TIFF file is not acceptable for this equipment. (Acceptable: MH/MR/MMR/JBIG)
Request the sender to retransmit the file in the acceptable compression method.

[3C30] [3C31] [3C32] TIFF resolution error

The resolution of the TIFF file is not acceptable for this equipment. (Acceptable: 200 x 100, 200 x 200, 200 x 400, 400 x 400, 300 x 300 or equivalent)
Request the sender to retransmit the file in the acceptable resolution.

[3C40] [3C41] [3C42] TIFF paper size error

The paper size of the TIFF file is not acceptable for this equipment. (Acceptable: A4, B4, A3, B5, LT, LG, LD or ST)
Request the sender to retransmit the file in the acceptable paper size.

[3C50] [3C51] [3C52] Offramp destination error

These errors occur when the FAX number of the offramp destination is incorrect.
Request the sender to correct the FAX number of offramp destination and then retransmit the mail.

[3C60] [3C61] [3C62] Offramp security error

These errors occur when the FAX number of the offramp destination is not on the Address Book.
Check if the FAX number of the offramp destination is correctly entered or the number has not been changed.

[3C70] Power failure error

Check if the mail is recovered after turning ON the power again.
Request the sender to retransmit the mail if it is not recovered.

[3D10] Destination address error

Check if the setting of the server or DNS is correct. Correct if any of the setting is incorrect.
When the content of the setting is correct, confirm the sender if the destination is correct.

[3D20] Offramp destination limitation error

Inform the sender that the transfer of the FAX data over 40 is not supported.

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[3D30] FAX board error

This error occurs when the FAX board is not installed or the FAX board has an abnormality.
Check if the FAX board is correctly connected.

[3E10] POP3 server connection error

Check if the IP address or domain name of the POP3 server set for this equipment is correct, or check if POP3 server to be connected is operating properly.

[3E20] POP3 server connection time-out error

Check if POP3 server to be connected is operating properly.
Check if the LAN cable is correctly connected.

[3E30] POP3 login error

Check if the POP3 server login name and password set for this equipment are correct.

[3E40] POP3 Login Type ERROR
Check that the login type (Auto, POP3 or APOP) to the POP3 server is correct.

[3F00] [3F10] [3F20] [3F30] [3F40] File I/O error

These errors occur when the mail data is not transferred properly to the HDD.
Request the sender to retransmit the mail.
Replace the HDD if the error still occurs after retransmission.

[4030] No printer kit/Invalid
Install the print kit and perform the job again.
Install the Expansion Memory (GC-1230) and perform the job again.
Register it officially and perform the job again.

[4031] HDD full failure during printing
Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[4032] Private-print-only error
Select “Private”, and then perform the printing again.

[4033] Printing data storing limitation error
Select "Print", and then perform the printing again.

[4034] e-Filing storing limitation error
Select "Print", and then perform the printing again.

[4035] Local file storing limitation error
Select "Remote" (SMB/FTP) for the destination of the file to save.

[4036] User authentication error
Perform the authentication or register as a user, and then perform the printing again.

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[4037] Hardcopy security printing error
Hardcopy security printing cannot be performed because the function is restricted in the selfdiagnosis mode.

[A221] Print job cancellation
This message appears when deleting the job on the screen.
[A222] Print job power failure
When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[A290] Limit over error
[A291] Limit over error
[A292] Limit over error
Clear the limit counter.

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5.2 Troubleshooting for the Image

1) Abnormality of image density / Gray balance

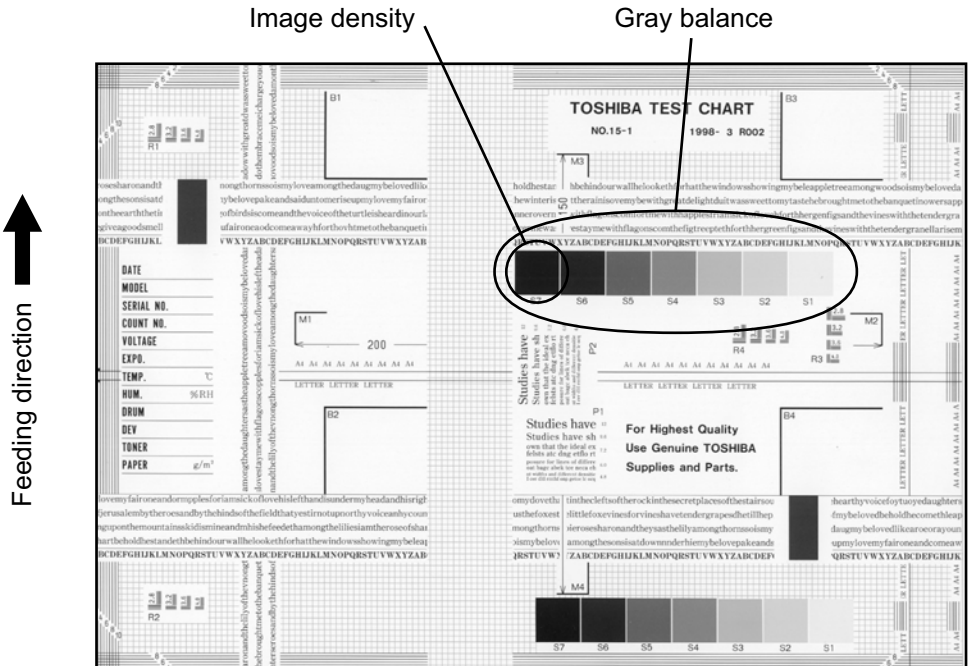


Fig. 5-1

Defective area	Step	Check items	Prescription
Density/Gray balance	1	Check the density/gray balance.	Adjust the density.
Printer section	2	Check test print image (04-113).	Go to step 4 if there is any problem on image.
Scanner	3	Are the original glass, mirrors and lens dirty?	Clean them.
Printed image	4	Is the image faded?	Perform troubleshooting for faded image.
	5	Is background fogging occurring?	Perform troubleshooting for background fogging.
	6	Is there a blotch on the image?	Perform troubleshooting for blotched image.
	7	Is the image transferred normally?	Perform troubleshooting for abnormal transfer.

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2) Background fogging

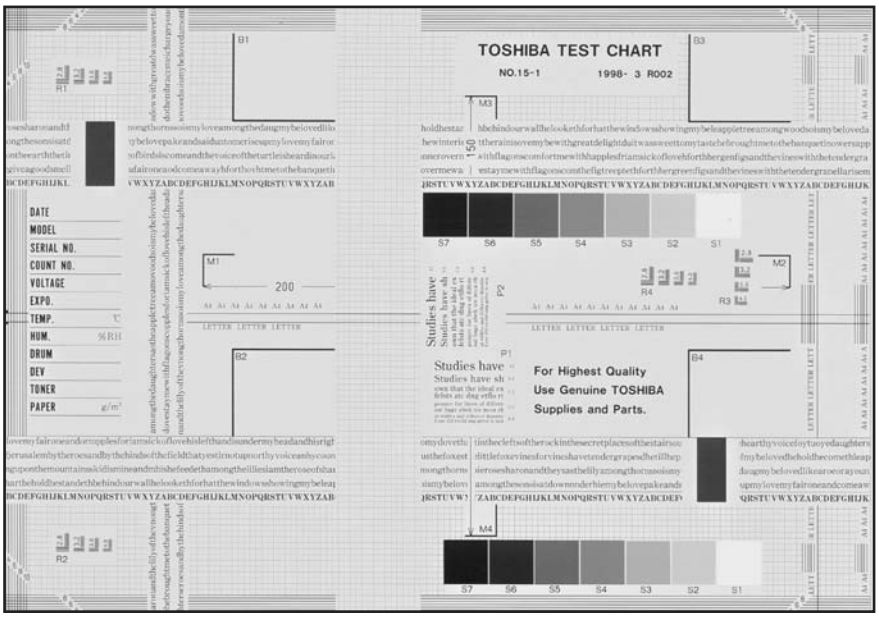


Fig. 5-2

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Background reproduction	2	Check the background reproduction.	Adjust the background.
Printer section	3	Check test print image (04-113).	Go to step 4 if there is any problem on image.
Scanner	4	Are the original glass, mirrors and lens dirty?	Clean them.
Auto-toner	5	Is the auto-toner sensor normal?	Check the performance of the auto-toner sensor and readjust.
	6	Is the toner supplied normally?	Check the motor and circuits.
High-voltage transformer (Main charger / Developer bias)	7	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Developer unit	8	Is the contact between the drum and developer material normal?	Adjust the doctor-sleeve gap and polarity.
Developer material/Toner/ Drum	9	Using the specified developer material, toner and drum?	Use the specified developer material, toner and drum.
	10	Have the developer material and drum reached their PM life?	Replace the developer material and drum.
	11	Is the storage environment of the toner cartridge 35°c less without dew?	Use the toner cartridge stored in the environment within specification.
Drum cleaning blade	12	Is the drum cleaned properly?	Check the pressure of the drum cleaning blade.
Toner dusting	13	Is toner heaped on the seal of the developer unit?	Remove the toner and clean the developer unit.

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3) Moire/lack of sharpness

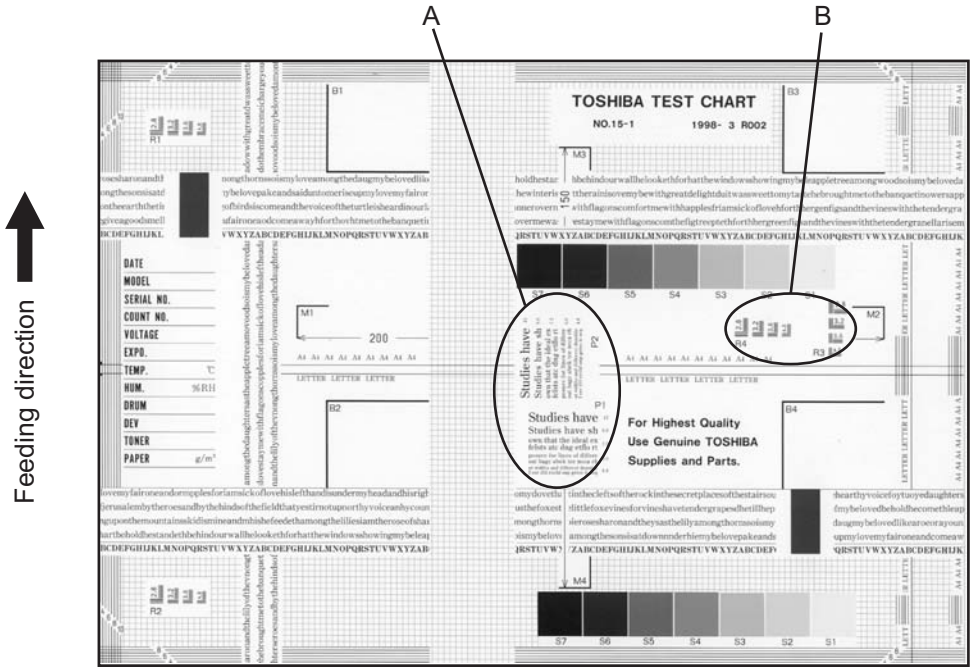


Fig. 5-3

Moire

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-113).	When defects occur, perform the corresponding troubleshooting procedure.

Lack of sharpness

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-113).	When defects occur, perform the corresponding troubleshooting procedure.
	4	Check the image processing parameters.	Check the encircled areas A and B in the image, and change the sharpness intensity in the sharpness adjustment mode.

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4) Toner offset

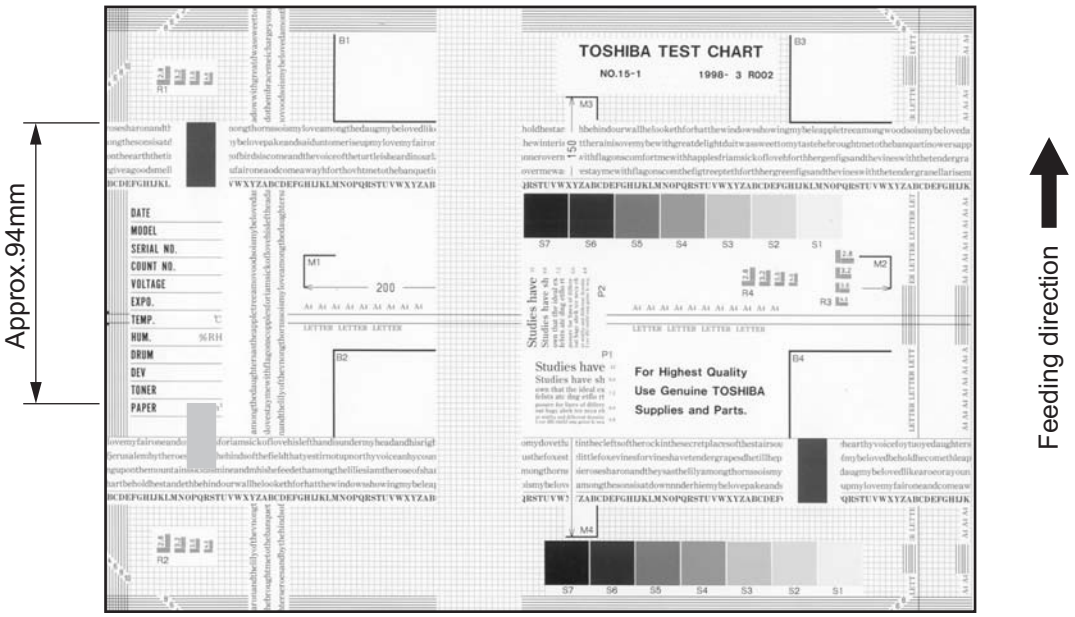


Fig. 5-4

Toner offset (Shadow image appears approx. 94 mm toward the dark image.)

Defective area	Step	Check items	Prescription
Density	1	Is the density too high?	Adjust the density.
Fuser unit	2	Is the pressure of the fuser roller normal?	Check the pressure releasing parts and pressurization mechanism.
	3	Is the thermistor in contact with the fuser roller?	Contact the thermistor with the fuser roller.
	4	Is there a scratch on the fuser roller surface?	Replace the fuser roller.
	5	Has the fuser roller reached its PM life?	Replace the fuser roller.
	6	Is the setting temperature of the fuser roller normal?	Check the adjustment values of fuser roller temperature? 08-407, 410, 411, 450, 515, 516
Paper	7	Has the appropriate paper type been selected?	Select a proper mode.
	8	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. 08-412, 413, 437, 438, 451, 452, 453, 518, 520, 521
	9	Using the recommended paper?	Use the recommended paper.
Developer material	10	Using the specified developer material?	Use the specified developer material and toner.
Scanner	11	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

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5) Blurred image

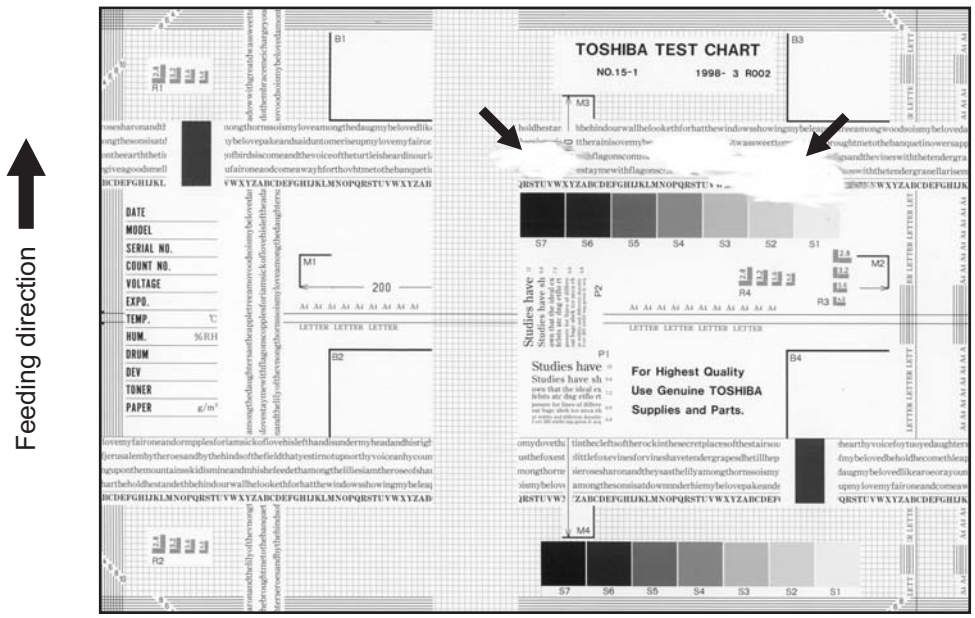


Fig. 5-5

Defective area	Step	Check items	Prescription
Paper	1	Is the paper in the drawer or LCF damp?	Change paper. Avoid storing paper in damp place.
Bedewed scanner	2	Is the scanner bedewed?	Clean the scanner.
Drum	3	Is the drum surface wet or dirty?	Wipe the drum with a piece of dry cloth. * Do not use alcohol or other organic solvents.
Ozone exhaust	4	Is the exhaust fan operating properly?	Check the connection of connector. Replace the ozone exhaust fan.
	5	Is the ozone filter stained or damaged?	Replace the ozone filter.

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6) Poor fusing

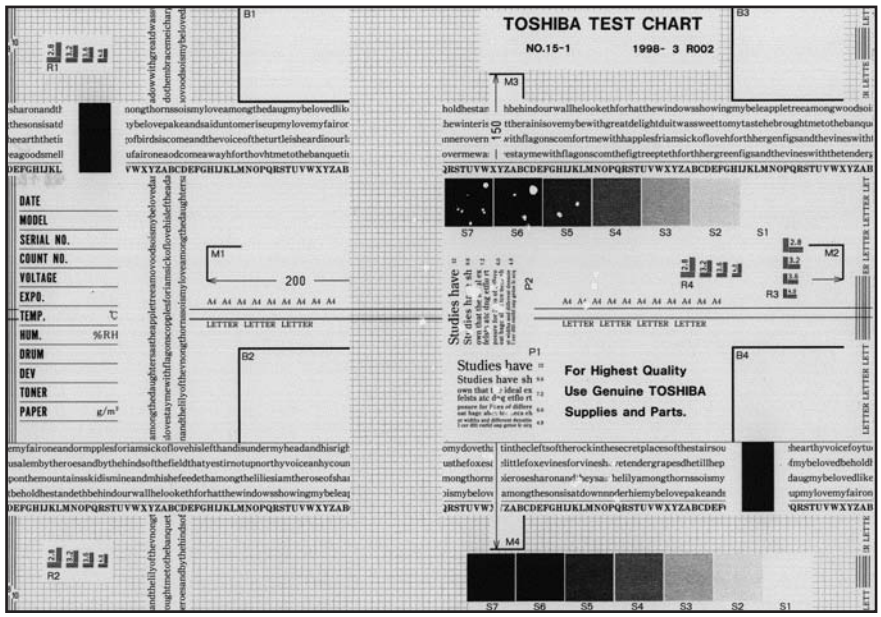


Fig. 5-6

Defective area	Step	Check items	Prescription
Heater electric power	1	Check if the connector contacts properly.	Correct it.
	2	Is the heater shorted or broken?	Replace the heater.
Pressure between fuser roller and pressure roller	3	Are the pressure springs working properly?	Check and adjust the pressure springs.
Fuser roller temperature	4	Is the temperature of the fuser roller normal?	Check the setting and correct it. 08-407, 410, 411, 450, 515, 516
Developer material/Toner	5	Using the specified developer material and toner?	Use the specified developer material and toner.
Paper	6	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	7	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.
	8	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. 08-412, 413, 437, 438, 451, 452, 453, 518, 520, 521
	9	Using the recommended paper?	Use the recommended paper.

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7) Blank copy

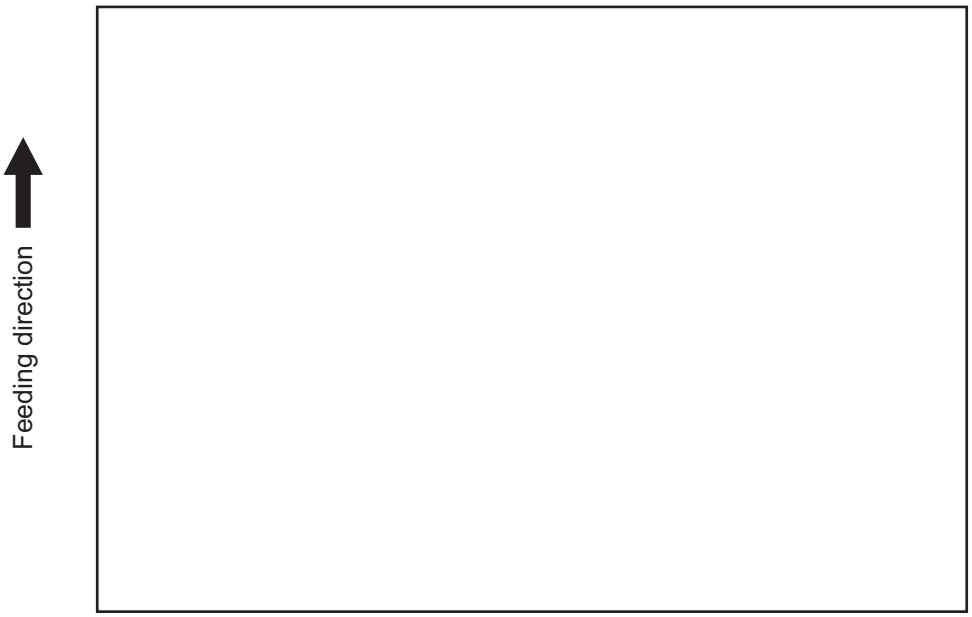


Fig. 5-7

Defective area	Step	Check items	Prescription
Transfer charger wire	1	Is the transfer charger wire cut off?	Replace the transfer charger wire.
High-voltage transformer (Transfer charger, Developer bias)	2	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
	3	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Developer unit	4	Is the developer unit installed properly?	Check and correct the engaging condition of the developer unit gears.
	5	Do the developer sleeve and mixers rotate?	Check and fix the drive system of the developer unit.
	6	Is the developer material smoothly transported?	Remove the foreign matter from the developer material.
	7	Has the magnetic brush phase been shifted?	Adjust the developer polarity.
	8	Is the doctor blade positioned properly?	Adjust it using the doctor-sleeve jig.
Drum	9	Is the drum rotating?	Check the drive system of the drum.
CCD, SLG, SYS, LGC boards and harnesses	10	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

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8) Solid copy



Fig. 5-8

Defective area	Step	Check items	Prescription
Exposure lamp and inverter	1	Does the exposure lamp light?	Check if the connector contacts with the exposure lamp terminal. Replace the defective inverter.
Scanner	2	Is there any foreign matter on the light path?	Remove it.
Bedewed scanner and drum	3	Is the scanner or drum bedewed?	Clean the mirrors, lens and drum. Keep the power cord plugged in all trough the day and night. (For the model with damp heater)
Main charger	4	Is the main charger securely installed?	Install it securely.
	5	Is the needle electrode broken?	Replace the needle electrode.
High-voltage transformer (Main charger)	6	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
	7	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
CCD, SLG, SYS, LGC boards and harnesses	8	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

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9) White banding (in the feeding direction)

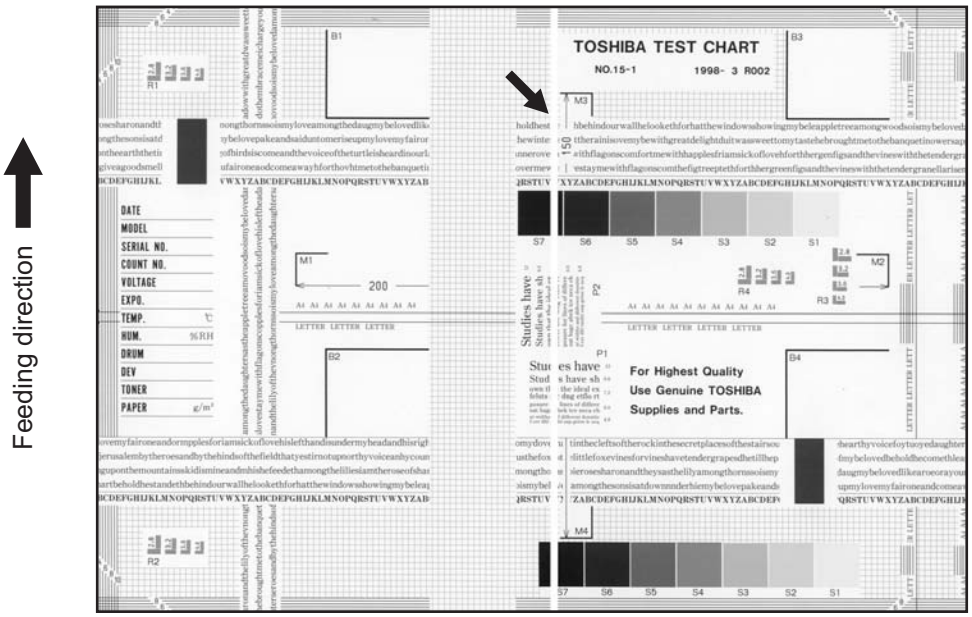


Fig. 5-9

Defective area	Step	Check items	Prescription
Laser optical unit	1	Is there a foreign matter or stain on the slit glass?	Remove the foreign matter or stain.
Main charger grid	2	Is there a foreign matter or dew on the charger grid?	Remove the foreign matter.
Transfer charger wire	3	Is there any foreign matter or stain on the transfer charger wire?	Clean the transfer charger wire.
Developer unit	4	Is the developer material transported properly?	Remove the foreign matter if there is any.
	5	Is there a foreign matter or dew on the drum seal?	Remove the foreign matter or dew.
	6	Is the upper drum seal of the developer unit in contact with the drum?	Correct the position of the drum seal or replace it.
Drum	7	Is there a foreign matter on the drum surface?	Replace the drum.
Transport path	8	Does the toner image contact with any foreign matter before the paper enters the fusing section after the separation?	Remove the foreign matter.
Discharge LED	9	Is any of the discharge LEDS off?	Replace the discharge LED.
Scanner	10	Is there a foreign matter on the light path?	Remove the foreign matter.
	11	Are the original glass (especially the position of shading correction plate) mirror and lens dirty?	Clean them.
Cleaner	12	Is there any foreign matter, which contacts the drum on the cleaner stay?	Remove the foreign matter.

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10)White banding (at right angle with the feeding direction)

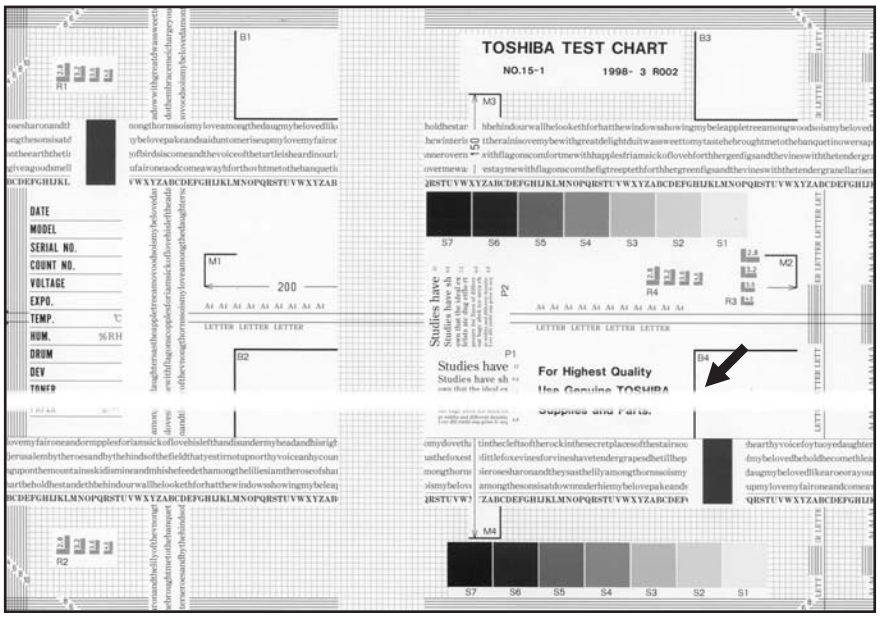


Fig. 5-10

Defective area	Step	Check items	Prescription
Main charger	1	Is there a foreign matter on the charger?	Remove the foreign matter.
	2	Is the connector in proper contact with the terminal?	Clean or adjust the terminal.
Drum	3	Is there any abnormality on the drum surface?	Replace the drum.
Discharge LED	4	Does the discharge LED light normally?	Replace the discharge LED or check the harness and the circuit.
Developer unit	5	Is the developer sleeve rotating normally? Is there any abnormality on the sleeve surface?	Check the drive system of the developer unit, or clean the sleeve surface.
Drive system	6	Are the drum and scanner jittering?	Check each drive system.
High-voltage transformer (Main charger / Developer bias / Transfer charger)	7	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Transfer charger	8	Is any foreign matter such as paper shred sticking to the transfer charger wire?	Remove the foreign matter from the wire.
Feed system	9	Is the aligning amount proper?	Adjust the aligning amount.

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11)Skew (inclined image)

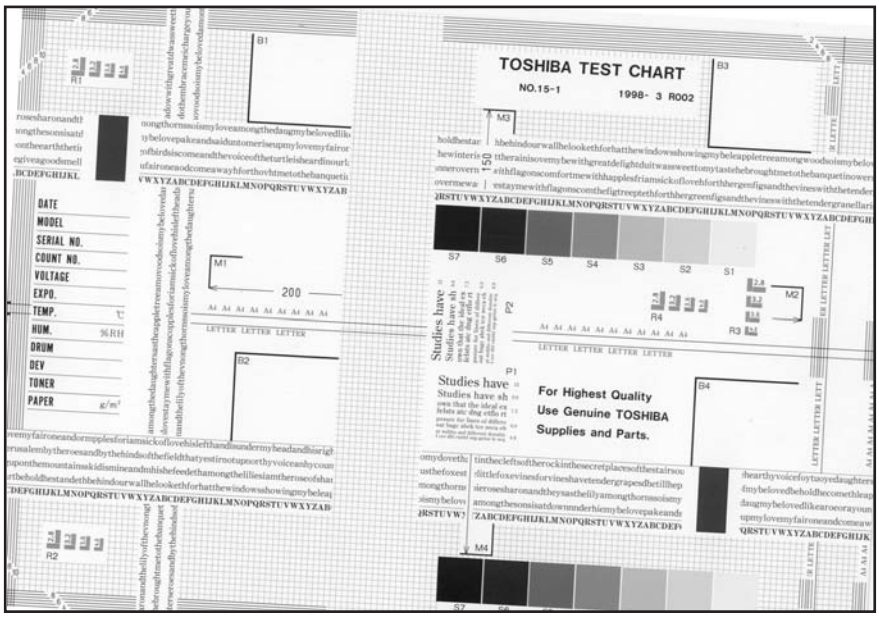


Fig. 5-11

Defective area	Step	Check items	Prescription
Drawers LCF	1	Is the drawer or LCF properly installed?	Install the drawer or LCF properly.
	2	Is there too much paper in the drawer or LCF?	Reduce paper to 550 sheets or less. (2500 sheets or less/stack for LCF)
	3	Is the corner of the paper folded?	Change the direction of the paper and set it again.
	4	Are the side guides of the drawer or LCF properly installed?	Adjust the position of the side guides.
Feed roller	5	Is the surface of the feed roller dirty?	Clean the feed roller surface with alcohol, or replace the roller.
Rollers	6	Are the roller and shaft secured?	Check and tighten the E-rings, pins, clips and setscrews.
Registration roller	7	Is the spring detached from the registration roller?	Attach the spring correctly. Clean the roller if it is dirty.
Pre-registration guide	8	Is the pre-registration guide properly installed?	Correct it.
Carriage-1	9	Is the carriage-1 slanted?	Adjust the carriage-1.

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12)Black banding (in the feeding direction)

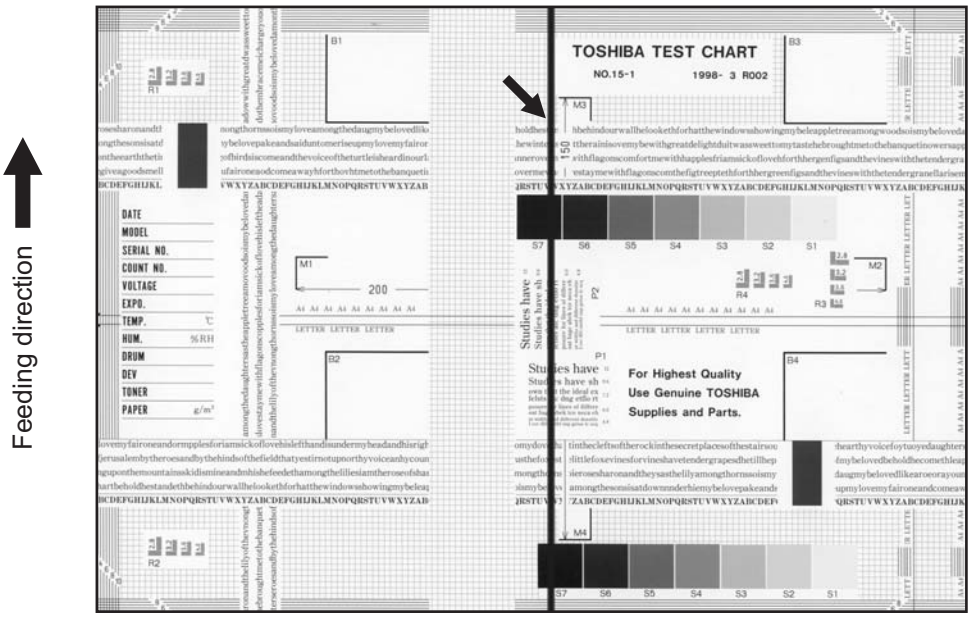


Fig. 5-12

Defective area	Step	Check items	Prescription
Scanner	1	Is there a foreign matter on the light path?	Clean the slit, lens and mirrors.
Shading correction plate	2	Is there dust or stains on part of the original glass where the shading correction plate is placed.	Clean the plate.
Main charger	3	Is there a foreign matter on the main charger grid?	Remove the foreign matter.
	4	Is the main charger grid dirty or deformed?	Clean or replace the main charger grid.
	5	Is there a foreign matter on the main charger?	Remove the foreign matter.
	6	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
	7	Is there a foreign matter inside the main charger case?	Remove the foreign matter.
	8	Is the inside of the main charger case dirty?	Clean the inside of the main charger case.
Cleaner	9	Is there paper dust sticking to the drum cleaning blade edge?	Clean or replace the cleaning blade.
	10	Is the drum cleaning blade working properly?	Check the pressurization of the drum cleaning blade.
	11	Has the used toner been recovered properly?	Clean the toner recovery auger.
Fuser unit	12	Is the fuser roller surface dirty or damaged?	Clean or replace the fuser roller.
	13	Is the thermistor dirty?	Clean the thermistor.
Drum	14	Are there scratches on the drum surface?	Replace the drum.
Laser optical unit	15	Is there a foreign matter or stain on the slit glass?	Remove the foreign matter or the stain.

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13)Black banding (at right angle with the feeding direction)

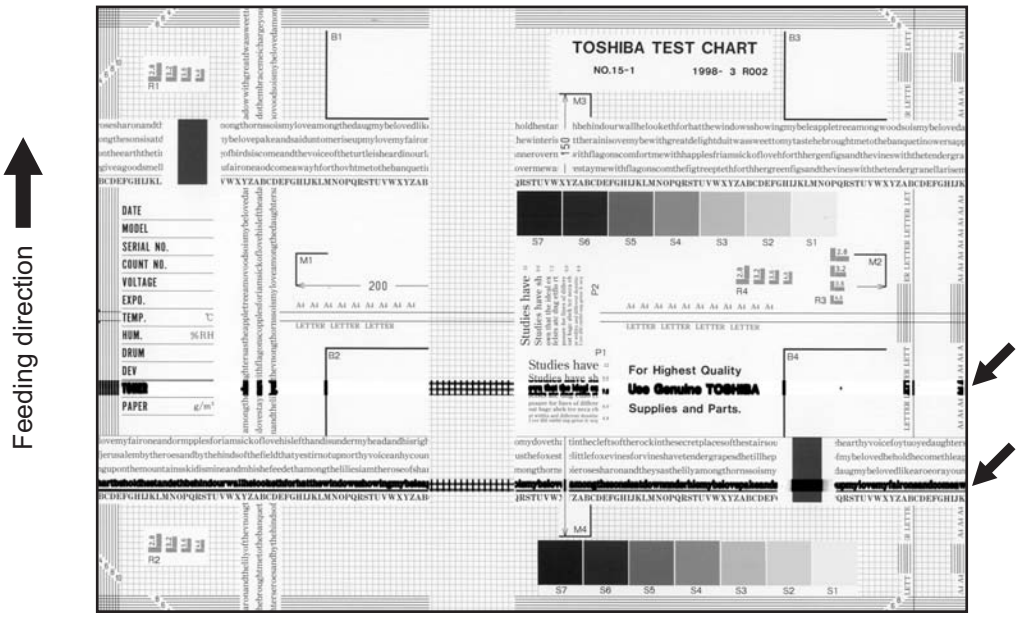


Fig. 5-13

Defective area	Step	Check items	Prescription
Main charger	1	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
Fuser unit	2	Are the fuser roller, separation finger for fuser roller and thermistor dirty?	Clean them.
	3	Has the cleaning roller, pressure roller, fuser roller and separation finger for fuser roller reached their PM life?	Replace them.
High-voltage transformer (Main charger / Developer bias / Transfer charger)	4	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Drum	5	Is there a deep scratch on the drum surface?	Replace the drum if the scratch has reached the aluminum base.
	6	Is there thin scratch (drum pitting) on the drum surface?	Check and adjust the contact condition of the cleaning blade and recovery blade.
Scanner	7	Is there a foreign matter on the carriage rail?	Remove the foreign matter.

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14)White spots



Fig. 5-14

Defective area	Step	Check items	Prescription
Developer unit, Toner cartridge	1	Is the toner density in the developer material appropriate?	Check and correct the auto-toner sensor and toner supply operation. Check if the amount of the toner is sufficient in the toner cartridge.
	2	Is the doctor-sleeve gap proper?	Adjust the doctor-sleeve gap.
Developer material, Toner, Drum	3	Using the specified developer material, toner and drum?	Use the specified developer material, toner and drum.
	4	Have the developer material and drum reached their PM life?	Replace the developer material and drum.
	5	Is the storage environment of the toner cartridge 35°c or less without dew?	Use the toner cartridge stored in the environment with specification.
	6	Is there any dent on the drum surface?	Replace the drum.
	7	Is there any film forming on the drum?	Clean or replace the drum.
Main charger	8	Is there any foreign matter on the charger?	Remove it.
	9	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
High-voltage transformer (Main charger / Developer bias / Transfer charger)	10	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Transfer/Separation charger	11	Is there any foreign matter such as fiber in the paper transport area of the transfer/separation charger?	Clean the transfer/separation charger.

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15)Poor image transfer

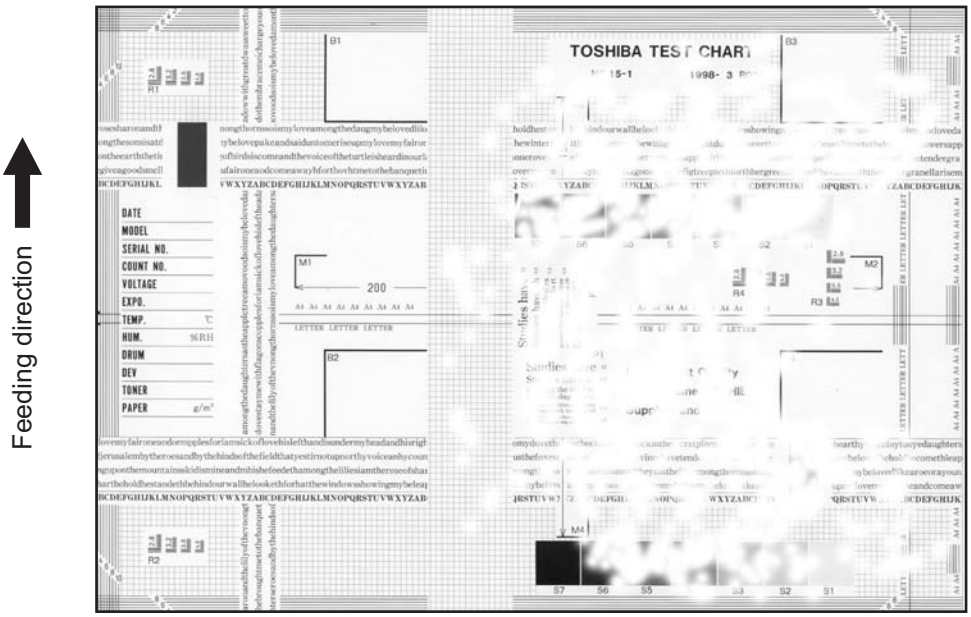


Fig. 5-15

Defective area	Step	Check items	Prescription
Paper	1	Is the paper in the drawer or LCF/ PFP curled?	Reinsert the paper with the reverse side up or change the paper.
	2	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	3	Is the paper type corresponding to its mode?	Select the proper mode.
	4	Using the recommended paper?	Use the recommended paper.
Transfer charger	5	Is the transfer charger case dirty?	Clean the transfer charger case.
	6	Is the transfer charger wire dirty?	Clean the transfer charger wire.
Registration roller	7	Is there any abnormality related to the registration roller or with the roller itself?	Clean the roller if it is dirty. Securely attach the springs if they are detached. Replace the clutch if it is defective. Adjust the rotation speed of the roller.
High-voltage transformer (Transfer charger)	8	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.

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16)Uneven image density

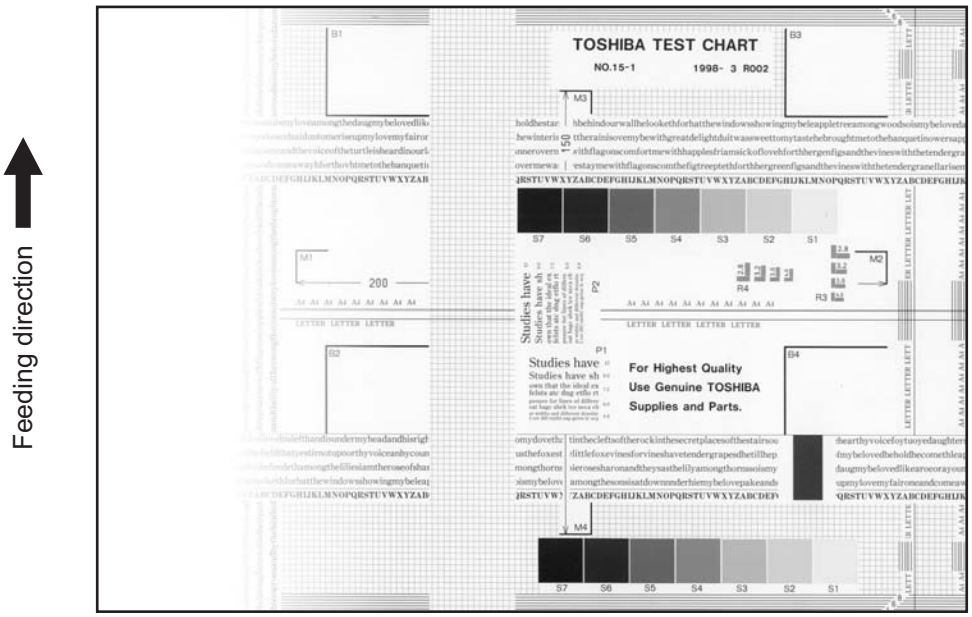


Fig. 5-16

Defective area	Step	Check items	Prescription
Main charger	1	Is the main charger dirty?	Clean or replace the needle electrode and main charger grid.
Transfer charger	2	Is the transfer charger dirty?	Clean the transfer charger.
	3	Is the transfer charger wire dirty?	Clean the transfer charger wire.
Laser optical unit	4	Is there any foreign matter or stain on the slit glass?	Remove the foreign matter or stain.
Discharge LED	5	Are the connectors of discharge LED harness securely connected?	Reconnect the harness securely.
	6	Is the discharge LED dirty?	Clean the discharge LED.
	7	Is any of the discharge LEDs off?	Replace the discharge LED.
Developer unit	8	Is the magnetic brush in proper contact with the drum?	Adjust the doctor-sleeve gap.
	9	Is the developer sleeve pressurization mechanism working?	Check the mechanism.
	10	Is the developer material transported normally?	Remove foreign matters if there is any.
Scanner section	11	Is the platen cover or RADF opened?	Close the platen cover or RADF.
	12	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

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17)Faded image (low density, abnormal gray balance)

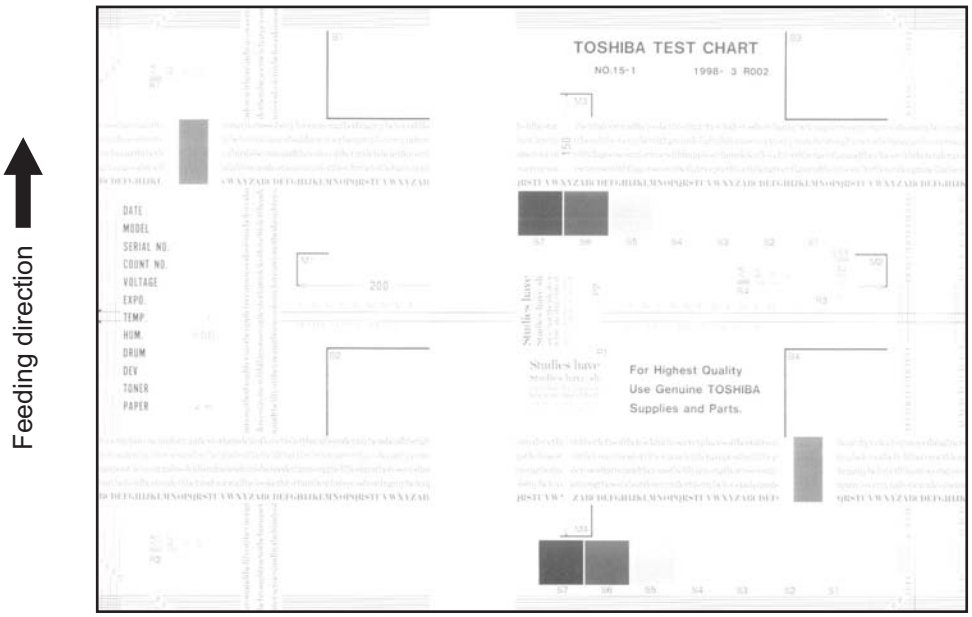


Fig. 5-17

Defective area	Step	Check items	Prescription
Toner empty	1	Is “ADD TONER” symbol lit?	Replace the toner cartridge.
Auto-toner circuit	2	Is there enough toner in the cartridge?	Check the performance of the auto-toner circuit.
	3	Is the toner density in the developer material too low?	
Toner motor	4	Is the toner motor working normally?	Check the toner motor and the motor drive.
Toner cartridge	5	Is there any problem with the toner cartridge?	Replace the toner cartridge.
Developer material	6	Has the developer material reached its PM life?	Replace the developer material.
Developer unit	7	Is the magnetic brush in proper contact with the drum?	Check the installation of the developer unit. Adjust the doctor-sleeve gap and polarity.
	8	Is the developer sleeve pressurization mechanism working?	Check the mechanism.
Main charger	9	Is the main charger dirty?	Clean it or replace the needle electrode and main charger grid.
Drum	10	Is “film-forming” occurring on the drum surface?	Clean or replace the drum.
	11	Has the drum reached its PM life?	Replace the drum.
Transfer charger	12	Is the transfer charger wire cut off?	Replace the transfer charger wire.
High-voltage transformer	13	Is the setting for the high-voltage transformer proper?	Adjust the output from the high-voltage transformer.
	14	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Discharge LED	15	Are the connectors of discharge LED harness securely connected?	Reconnect the harness securely.

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18)Image dislocation in feeding direction

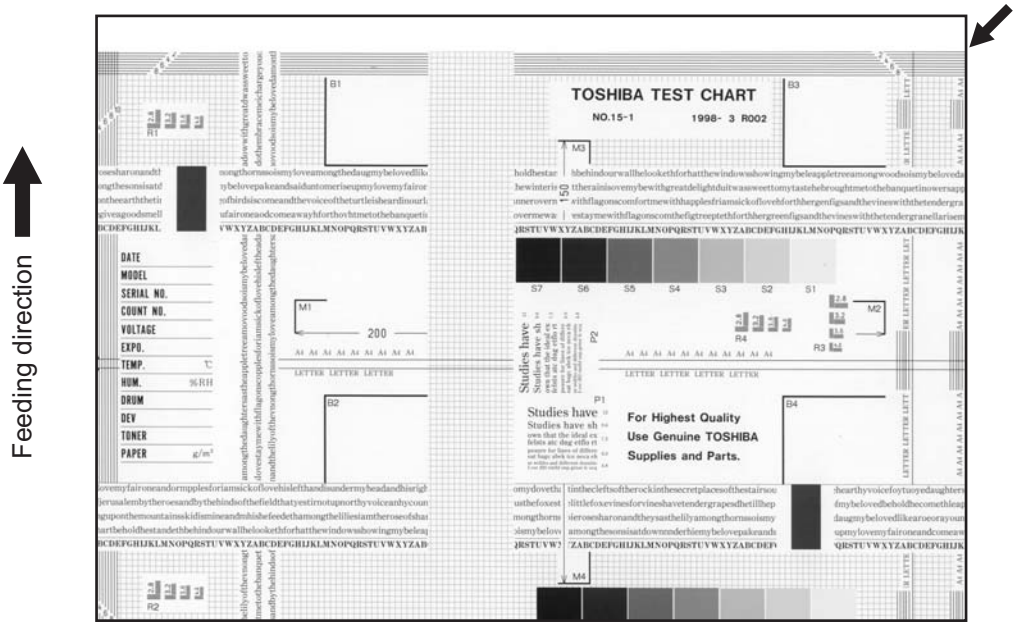


Fig. 5-18

Defective area	Step	Check items	Prescription
Scanner/Printer adjustment	1	Have the printed images been dislocated in the same manner?	Adjust the position of the leading edge of paper in the Adjustment Mode.
Registration roller	2	Is the registration roller dirty, or the spring detached?	Clean the registration roller with alcohol. Securely attach the springs.
	3	Is the registration roller working properly?	Adjust or replace the gears if they are not engaged properly.
Feed clutch	4	Is the feed clutch working properly?	Check the circuit or feed clutch, and replace them if necessary.
Pre-registration guide	5	Is the pre-registration guide installed properly?	Install the guide properly.

5

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19)Jittering image

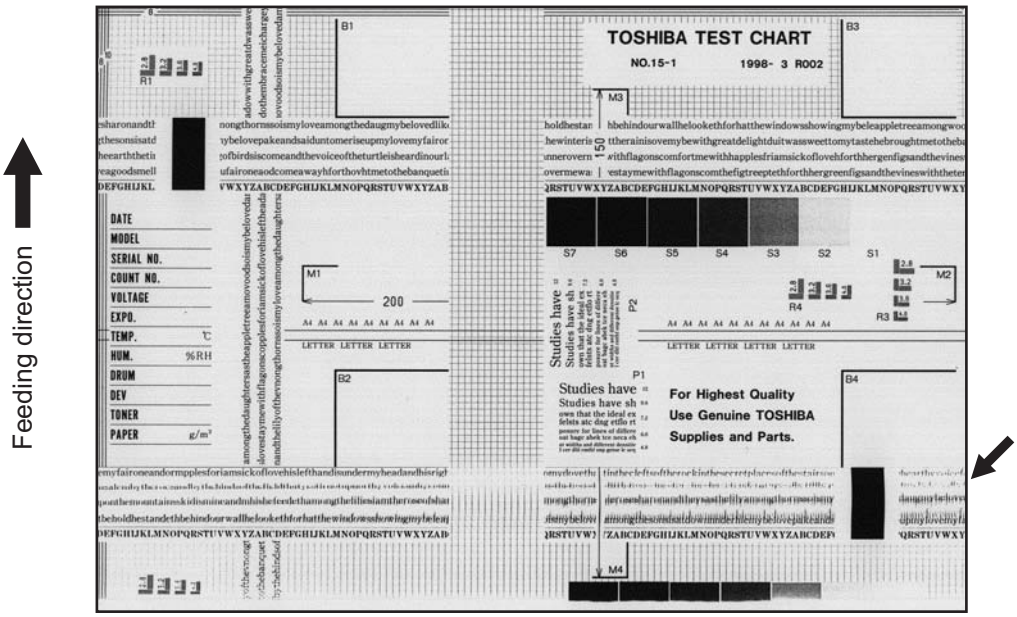


Fig. 5-19

Defective area	Step	Check items	Prescription
—	1	Is the toner image on the drum normal?	If normal, perform steps 2 to 4. Perform step 5 and followings in case the image is abnormal.
Registration roller	2	Is the registration roller rotating normally?	Check the registration roller area and springs for installation condition.
Fuser roller and pressure roller	3	Are the fuser roller and pressure roller rotating normally?	Check the fuser roller area. Replace the rollers if necessary.
Drum	4	Is there a big scratch on the drum?	Replace the drum.
Operation of carriage	5	Is there any problem with the slide sheet?	Replace the slide sheet.
	6	Is there any problem with the carriage foot?	Replace the carriage foot.
	7	Is the tension of the timing belt normal?	Adjust the tension.
	8	Is there any problem with the drive system of the carriage?	Check the drive system of the carriage.
Scanner	9	Is the mirror secured?	Secure it.
Drum drive system	10	Is there any problem with the drive system of the drum?	Check the drive system of the drum. Clean or replace the gears if they have stains or scratches.

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20)Poor cleaning

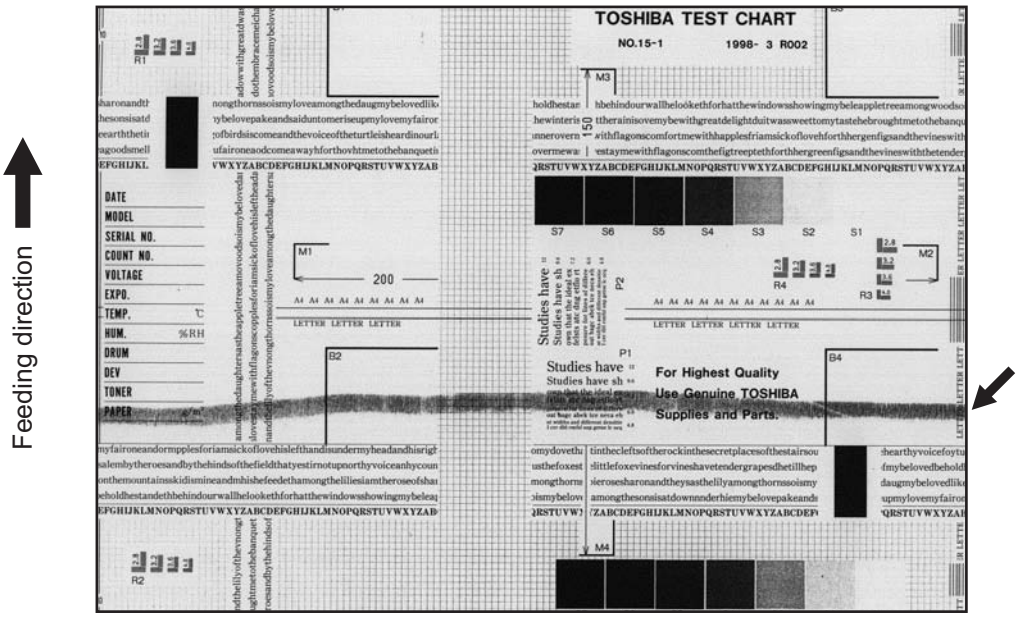


Fig. 5-20

Defective area	Step	Check items	Prescription
Developer material	1	Using the specified developer material?	Use the specified developer material and toner.
Cleaner	2	Is the cleaning blade in proper contact with the drum?	Check the cleaning blade.
	3	Has the cleaning blade been turned up?	Replace the cleaning blade. Check and replace drum if necessary.
Toner recovery auger	4	Is the toner recovered normally?	Clean the toner recovery auger. Check the pressure of the cleaning blade.
Fuser unit	5	Is the cleaning roller damaged or has it reached its PM life?	Replace the cleaning roller.
	6	Are there bubble-like scratches on the fuser roller (94 mm pitch on the image)?	Replace the fuser roller. Check and adjust the temperature control circuit.
	7	Has the fuser roller reached its PM life?	Replace the fuser roller.
	8	Is the pressure of the fuser roller normal?	Check and adjust the mechanism.
	9	Is the setting temperature of the fuser roller normal?	Check the setting and correct it. 08-407, 410, 411, 450, 515, 516

5

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21)Uneven light distribution



Fig. 5-21

Defective area	Step	Check items	Prescription
Original glass	1	Is the original glass dirty?	Clean the original glass.
Main charger	2	Are the needle electrode, main charger grid and main charger case dirty?	Clean or replace them.
Discharge LED	3	Is the discharge LED dirty?	Clean the discharge LED.
	4	Is any of the discharge LEDs off?	Replace the discharge LED.
Scanner	5	Are the reflector, exposure lamp, mirrors, lens, and original glass (especially the position of shading correction plate) dirty?	Clean them.
Exposure lamp	6	Is the exposure lamp tilted?	Adjust the position of the exposure lamp.
	7	Is the exposure lamp discolored or degraded?	Replace the exposure lamp.

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22)Blotched image

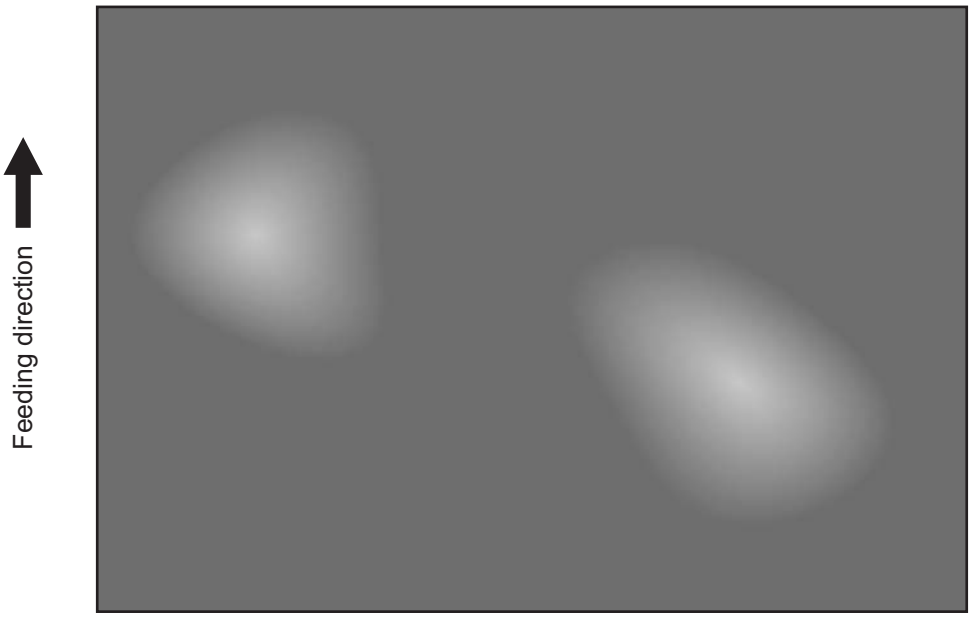


Fig. 5-22

Defective area	Step	Check items	Prescription
Paper	1	Is the paper type corresponding to its mode?	Check the paper type and mode.
	2	Is the paper too dry?	Change the paper.
Separation	3	Is the output from the separation charger too high?	Adjust the output, from the separation charger.
Transfer	4	Is the transfer charger case dirty?	Clean the transfer charger case.
	5	Is the transfer charger wire dirty?	Clean the transfer charger wire.
High-voltage transformer (Transfer charger)	6	Is the output from the high-voltage transformer normal?	Adjust the output. Replace the transformer if necessary.

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5.3 Replacement of PC Boards and HDD

When the HDD requires replacement, refer to 📖 P. 5-118 "5.3.1 Replacing HDD".
When the SYS board requires replacement, refer to 📖 P. 5-121 "5.3.2 Replacing SYS board".

5.3.1 Replacing HDD

<<CAUTION IN REPLACING HDD>>
When the HDD is replaced, it is necessary to back up the data in the HDD before replacing and to recover them after replacing.

Notes:

1. To maintain the security, ask users to perform the backup/restore for users' data/information in the HDD. The service technician can perform them only when users permit it.
2. Some data in the HDD cannot be backed up and can be kept only on the paper.
3. When 08-690 is performed, the HDD self-certificate is not available, so the SSL-related setting becomes disabled. (e-STUDIO202L/203L/232/233/282/283)

The procedure for replacing the HDD is as follows.

[A] Ask users to back up the data in the HDD. See the following for the item of data, and the possibility and the measure of the backup.

(1) Image data in the Electronic Filing
Archive them in the "e-Filing" of TopAccess.
As for the backup in Box data, all data (selectable by the box) can be backed up / restored in one go by using "e-Filing Backup/Restore Utility".

(2) F-code information, Template registration information, Address book
Back them up in the "Administrator" menu of TopAccess.

(3) Department management data
Export them in "Administrator" menu of TopAccess.

(4) Log data (Print, Scan, FAX (Transmission / Reception))
Export them in the "Administrator" menu of TopAccess. (Import cannot be performed.)

(5) Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)
Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)

(6) Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)
Finish printing them after the paper supply and the jam release, etc. (The data cannot be kept.)

(7) Print job (Private print data, Schedule print data)
If any job is left, print them. (The data cannot be backed up.)

(8) FAX saved data (Confidential / Bulletin board data)
Print them. (The data cannot be backed up.)

(9) Registration data for FAX transmission (Delayed transmission / Recovery transmission)
The data cannot be backed up.

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[B] Print out the "FUNCTION LIST FOR MAINTENANCE" (content of Function Mode (13) setting) list.

(1) Press the [USER FUNCTIONS] button and then the [USER] button.

(2) Press the [LIST] button.

(3) Key in [*] [#] [*] [*] [3] [3] and then press the [START] button. → The list is outputted.

[C] Print out the "FUNCTION" list.

(1) Press the [USER FUNCTIONS] button.

(2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

(3) Press the [LIST/REPORT] button and then the [LIST] button.

(4) Press the [FUNCTION] button. → The list is outputted.

[D] Replace the HDD.

[E] Update of HDD program data and UI data.

(1) Create partitions. (In case of using the download jig, this is not necessary.)
While pressing [3] and [CLEAR] button, turn the power ON.
When "Firmware Version Up Mode" appears on the LCD, key in [3] and press the [START] button.

(2) Format the HDD. (Setting Mode (08-690: 2))

(3) Update with the download jig or USB storage.
See 🕮 P. 6-1 "6. FIRMWARE UPDATING" for details.

(4) Format the HDD. (Setting Mode (08-690: 2))
* When the FAX unit (GD-1150/1151) is installed.
Start up with the FAX Clearing Mode (1*)
Perform the 1*-100 (FAX Set Up), 1*-102 (Clearing the image data) of the FAX Clearing Mode.

[F] Ask users to reset the user's setting items and to restore the data/information. See the following for the reset and the restore.

(1) Printer driver
Upload them in the "Administrator" menu of TopAccess.

(2) F-code information, Template registering information, Address book
Restore them in the "Administrator" menu of TopAccess

(3) Department management data
Import them in the "Administrator" menu of TopAccess.

(4) Image data in the Electronic Filing
Upload them in the "e-Filing" of TopAccess.

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(5) When the SSL is enabled, perform the setting of the following items again with "Create self-certificate" of TopAccess. (e-STUDIO202L/203L/232/233/282/283)
    Country Name
    State or Province Name
    Locality Name
    Organization Name
    Organizational Unit Name
    Common Name
    Email Address

(6) When wireless LAN is used, perform the setting again on the LCD panel. (only when security with a certificate is used)
    Also, upload the following certificate file with "Install Certificate for Wireless LAN" of TopAccess. (e-STUDIO202L/203L/232/233/282/283)
    CA certificate
    User certificate

[G] Referring to the "FUNCTION LIST FOR MAINTENANCE" list which was printed beforehand, perform the re-setting.

(1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting. (Refer to the procedure of (2).)

(2) While pressing [1] and [3] simultaneously, turn the power ON. (Function Mode)

(3) Compare the lists which were printed before and after the formatting to check the setting items having the different setting values. Set the value which was set before the formatting.

(4) Turn the power OFF.

[H] Referring to the "FUNCTION" list which was printed beforehand, perform the re-setting of the default setting of the FAX function.

(1) Press the [USER FUNCTIONS] button.

(2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

(3) Press the [FAX] button and then the [TERMINAL ID] button to set each item.

(4) Press the [INITIAL SETUP] button to set each item.

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5.3.2 Replacing SYS board

<<CAUTION IN REPLACING the SYS board>>
The procedure for replacing the SYS board is as follows.

<After replacing the SYS board>

(1) Install DIMM (main memory) to the new SYS board (from the old SYS board).

(2) Install NVRAM to the new SYS board (from the old SYS board).

(3) Install NIC board to the new SYS board (from the old SYS board). (e-STUDIO200L/230/230L/280)

(4) Update the version of system ROMs (System Firmware, OS data, UI data) (The ROMs had been used for the old SYS board).
   * See 🕮 P. 6-1 "6. FIRMWARE UPDATING" for the details of System ROM update.

(5) Turn the power OFF and start up with the Setting Mode (08).

Note:
Be sure to start up with the Setting Mode (08), not the normal mode immediately after the System ROM update, and then perform the following steps.

(6) When the message “SRAM ERROR DOES IT INITIALIZE?” is displayed on the LCD, press the [INITIALIZE] button.
   * SRAM is cleared
   * If SRAM is not performed, F090 error occurs when starting up.

Notes:
- When SRAM is cleared, following items need to be re-set, so make sure the contents of settings are kept as a record.

  <FAX settings>
  Terminal ID
  Default setting of fax

  <E-mail settings>
  Setting of properties for E-mail message

  <Internet Fax>
  Setting of properties for Internet Fax

- When SRAM is cleared, the toner cartridge consumed count of Automatic ordering function of supplies becomes 0, however, it cannot be re-set.

(7) [If a scrambler board has already been installed]
Perform 08-698 (Entering the key code for scrambler board). Have the user enter the key code.

(8) Perform 08-200 (date and time setting) to set Date/Time.

(9) Check the serial number after performing 08 Code 995. If the number is different from the number on the label attached on the rear cover of the machine, re-input the correct number with 08 Code 995. (e-STUDIO202L/203L/232/233/282/283)

(10) Perform 08-693 (initialization of the NIC information). (e-STUDIO202L/203L/232/233/282/283)

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(11) Turn the power OFF.
* If the FAX board has not been installed, skip to step (13).

(12) Start up with the FAX Clearing Mode (1*)

(13) Perform 1*-102 (Clearing the image data).

Note:

Following image data are deleted when 1*-102 is performed.

- Images of fax polling transmission
- Images of fax Mailbox and box information
- Images of fax transmission
- Images of fax reception

(14) Turn the power OFF.

(15) Turn the power ON.

(16) Set the dial type. [USER FUNCTIONS] →[ADMIN] →[FAX] →[INITIAL SETUP]

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5.3.3 Caution when Data overwrite kit (GP-1050/1060) is installed

When the Data overwrite kit (GP-1050/1060) is installed, follow the cautions below.

<<Caution when disposing of the HDD>>
Be sure to perform 08-1426 (forcible HDD data clearing) before disposing of the HDD of the equipment.

* When the scrambler board is installed, data in the HDD are overwritten with encrypted data and erased.

<<Caution when disposing of the SYS board>>
Before the SYS board is disposed, the following codes can be performed.

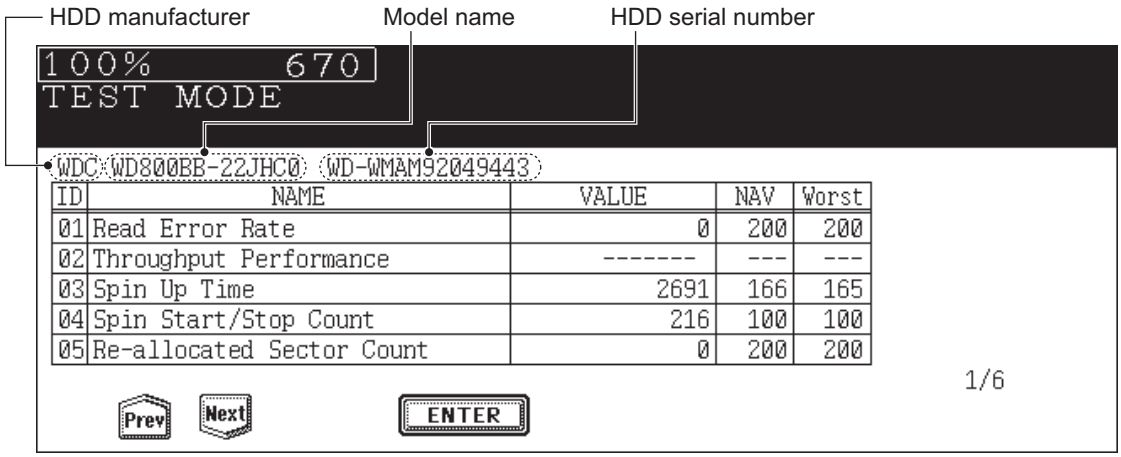
- 08-1427 (Forcible NVRAM data all clearing)
- 08-1428 (Forcible SRAM backup data all clearing)

Caution:
If these codes are performed, the equipment cannot be started up.

5.3.4 HDD information display

This code displays the HDD operation history, which is recorded in the HDD, on the control panel. HDD failure can be diagnosed or predicted with the information displayed.

1) Display
The following screen is displayed with setting code 08-670.



- Items supported differ depending on the HDD manufacturer.
- "---" is displayed on the VALUE, NAV and Worst columns if items are not supported.

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2) Usage

The combination of the values of ID=05 and c5 is used to diagnose whether or not the HDD has a physical failure when HDD failure is suspected (service call F100-108 or 120 occurred).

Result		Description	Diagnosis
ID	VALUE		
05	0	Low possibility of physical failure	HDD replacement is not required.
c5	0		
05	From 1 to 999	Defective sector has been reassigned and HDD is recovered.	HDD replacement is not required.
c5	0		
05	Any value	High possibility of defective sector existence. (There will be a possibility of physical failure depending on the use of HDD.)	HDD replacement is recommended.
c5	1 or more		
05	Either one is at least 1000.	High possibility of physical failure	HDD replacement is recommended.
c5			
05	All values are displayed as "-------".	High possibility of physical failure (A HDD connector, harness or SYS board may be one of the causes.)	HDD replacement is recommended.
c5			

3) ID=05 and c5

ID	Name	Description	Remarks
05	Re-allocated Sector Count	The number of sectors reassigned	This value tends to increase at HDD failure.
c5	Current Pending Sector Count	The number of candidate sectors to be reassigned	This value tends to increase at HDD failure.

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4) Description of each ID

ID	Name	Meaning
01	Read Error Rate	This attribute is a measure of the read error rate.
02	Throughput Performance	This attribute is a measure of the throughput performance.
03	Spin Up Time	This attribute is a measure of how quickly the drive is able to spin up from a spun down condition.
04	Spin Start/Stop Count	This attribute is a measure of the total number of spin ups from a spun down condition.
05	Re-allocated Sector Count	This attribute is a measure of the total number of reallocated sectors.
07	Seek Error Rate	This is a measure of the seek error rate.
08	Seek Time Performance	This attribute is a measure of a drive's seek performance during normal online operations.
09	Power-On Hours	This attribute is a measure of the total time (hours or minutes depending on disk manufacturer) the drive has been on.
0a	Spin Retry Count	This attribute is a measure of the total number of spin retries.
0c	Power Cycle Count	This attribute is a measure of the number of times the drive has been turned on.
c0	Power off Retract Count	This attribute is a measure of the total number of emergency unloads.
c1	Load Cycle Count	This attribute is a measure of the total number of load/unloads.
c2	Temperature	This attribute is a measure of the temperature in the HDD.
c3	ECC On the Fly Count	This attribute is a measure of the total number of the ECC On the Fly.
c4	Reallocation Event Count	This attribute is a measure of the total number of the reallocation events.
c5	Current Pending Sector Count	This attribute is a measure of the total number of candidate sectors to be reallocated.
c6	Off-Line Scan Uncorrectable Sector Count	This attribute is a measure of the total number of uncorrectable sectors found during the off-line scan.
c7	Ultra DMA CRC Error Count (Rate)	This attribute is a measure of the total number of errors found in data transfer in the Ultra-DMA mode.
c8	Write Error Rate	This attribute is a measure of the write error rate.

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5.3.5 Replacing or clearing NVRAM

<<Caution in replacing or clearing NVRAM>>
When NVRAM has been replaced or cleared (“System all clearing (08-669)”), the setting must be performed according to the following procedure.

(1) Take off the FAX board if installed.

(2) Turn the power OFF and start up with the Setting Mode (08).

Note:
Be sure to start up with the Setting Mode (08), not the normal mode immediately after the NVRAM replacement or clearing, and then perform the following steps.

(3) Perform the panel calibration (08-692).

(4) Perform the counter copying (08-257 Sub-code: 1).

(5) Perform the initialization at the software version upgrade (08-947).

(6) Check the serial number after performing “Equipment number display” (08-995). If the number is different from the one on the label attached to the rear cover of the equipment, enter the correct serial number again with 08-995.

Note:
The MAC address of the equipment is generated based on this serial number. Entering the incorrect serial number may result in an inability to access the network due to an invalid MAC address.

(7) Initialize the NIC information (08-693).

(8) Turn the power OFF.

(9) Install the FAX board taken off in step (1).
* If the FAX board has not been installed, the following steps are not necessary.

(10) Start up with the Setting Mode (08).

(11) Set the destinetion with “Destination setting of FAX machine” (08-701).

(12) Start up with FAX Clearing Mode (1*).

(13) Perform “FAX Set Up” (1*-100).

(14) Turn the power OFF.

(15) Turn the power ON.

(16) Set the dial type. [USER FUNCTIONS] →[ADMIN] →[FAX] →[INITIAL SETUP]

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6. FIRMWARE UPDATING

In this equipment, following firmware is written on the ROM on each board.

Firmware	Stored	Update method
Master data (HDD program data, UI data)	Hard disk	USB Storage Device
System ROM (System firmware, OS data, UI data)	System control PC board (SYS board) <e-STUDIO202L/203L/232/233/282/283> The system firmware is stored into the hard disk from the FROM basic section software version “V1.00/4.22”.	USB Storage Device * When replacing the system control PC board (SYS board), update with the Download jig.
Engine ROM (Machine firmware)	Logic PC board (LGC board)	USB Storage Device * Updating with the Download jig is also possible.
Scanner ROM (Scanner firmware)	Scanning section control PC board (SLG board)	USB Storage Device * Updating with the Download jig is also possible.
NIC ROM (NIC firmware) (e-STUDIO200L/230/230L/280 only)	NIC board	Download jig
RADF ROM (RADF firmware)	RADF control PC board (MR-3016/MR-3020)	Download jig
Finisher ROM (Finisher firmware)	Finisher control PC board (MJ-1025)	Download jig
FAX ROM (FAX firmware)	FAX board (GD-1150/1151)	Download jig

When you want to update the firmware above or the equipment becomes inoperative status due to some defectives of the firmware, updating the firmware is available by the following actions.

<e-STUDIO200L/230/230L/280>
- Updating with the download jig
  📖 P.6-3 "6.1 Firmware Updating with Download Jig (e-STUDIO200L/230/230L/280)"
- Updating with PC connected
  📖 P.6-60 "6.3 Firmware Updating with FSMS (Field Service Manager) (e-STUDIO200L/230/230L/280)"
- Updating with the USB Storage Device
  📖 P.6-72 "6.4 Firmware Updating with USB Storage Device (e-STUDIO200L/230/230L/280)"

<e-STUDIO202L/203L/232/233/282/283>
- Updating with the download jig
  📖 P.6-32 "6.2 Firmware Updating with Download Jig (e-STUDIO202L/203L/232/233/282/283)"
- Updating with the USB Storage Device
  📖 P.6-86 "6.5 Firmware Updating with USB Storage Device (e-STUDIO202L/203L/232/233/282/283)"

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Notes:

- < e-STUDIO202L/203L/232/233/282/283 > Before updating the firmware, check the FROM basic section software version (perform the code 08-920).
- < e-STUDIO202L/203L/232/233/282/283 > For updating with the USB Storage Device; The firmware can be updated to the latest version by storing the update program together with the firmware data file for updating in the USB Storage Device.
- < e-STUDIO202L/203L/232/233/282/283 > For updating with the download jig; Before the FROM basic section software is updated from "V1.00 / 1.12" or earlier version to the latest one, update it to "V1.00 / 4.22" first. Select all of the SYS, OS, UI and HDD when updating "V1.00 / 1.12" or earlier versions.
- Written firmware varies depending on the kinds of the boards provided as service parts. For updating, only the minimum firmware is installed on the system control PC board, logic PC board, and scanning section control PC board. No firmware is installed on the NIC board and FAX board. The latest version of the firmware at the delivery is written on the RADF control PC board and finisher control PC board.
  When any of above boards is replaced with a new one in the field, confirm the other firmware version used with and then write the suitable version of the firmware.
- The firmware (master data) is not installed on the hard disk provided as a service part. When the hard disk is replaced with a new one, confirm the other firmware version used with and then write the suitable version of the firmware.

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6.1 Firmware Updating with Download Jig (e-STUDIO200L/230/230L/280)

In this equipment, it is feasible to update the firmware automatically by connecting the download jig using the dedicated connector and turning ON the equipment.
The download jig consists of the ROM, in which the program is written, and the jig board. And three types of the download jigs are available for each type of the firmware.
For updating the firmware, in addition to the current ways such as updating each firmware individually, the batch update of the firmware of the equipment is available (except the hard disk and the option).

Firmware	Stored	Download jig	
		Individual update	Batch update
Master data	Hard disk	PWA-DWNLD-350-JIG2 (48 MB)	—
System ROM	System control PC board (SYS board)	PWA-DWNLD-350-JIG1 (16 MB)	PWA-DWNLD-350-JIG1 (16 MB)
Engine ROM	Logic PC board (LGC board)	K-PWA-DLM-320 or PWA-DWNLD-350-JIG1 (16 MB)	
Scanner ROM	Scanning section control PC board (SLG board)	K-PWA-DLM-320 or PWA-DWNLD-350-JIG1 (16 MB)	
NIC ROM	NIC board	PWA-DWNLD-350-JIG1 (16 MB)	
RADF ROM	RADF control PC board (MR-3016)	K-PWA-DLM-320	—
Finisher ROM	Finisher control PC board (MJ-1025)	K-PWA-DLM-320	—
FAX ROM	FAX board (GD-1150)	K-PWA-DLM-320	—

Refer to the following for the details to update with each download jig.

- 🕮 P.6-5 "6.1.1 PWA-DWNLD-350-JIG2 (48 MB)"
- 🕮 P.6-12 "6.1.2 PWA-DWNLD-350-JIG1 (16 MB)"
- 🕮 P.6-22 "6.1.4 K-PWA-DLM-320"

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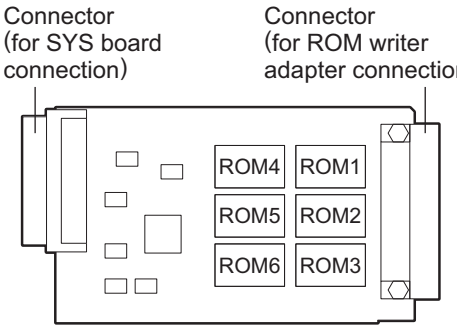


Fig. 6-1 Jig board: PWA-DWNLD-350-JIG2 (48 MB)

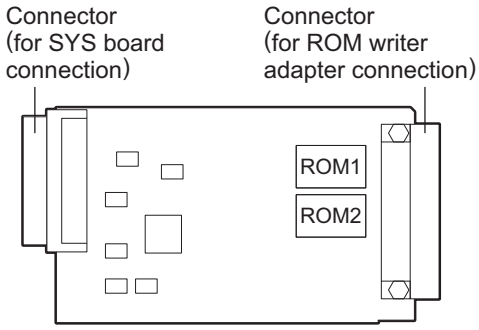


Fig. 6-2 Jig board: PWA-DWNLD-350-JIG1 (16 MB)

Important:

- The download jig (PWA-DWNLD-350-JIG) has two types having different ROM capacity. ROM capacity for each jig is as follows.

Download jig	ROM capacity	Application
PWA-DWNLD-350-JIG2 (48 MB)	8 MB x 6	Updating the master data
PWA-DWNLD-350-JIG1 (16 MB)	8 MB x 2	Updating the system ROM, engine ROM, scanner ROM, NIC ROM

* "PWA-DWNLD-350-JIG2 (48 MB)" is substitutable for "PWA-DWNLD-350-JIG1 (16 MB)"

- The download jig (PWA-DWNLD-350-JIG) is different type jig. The Flash ROM is installed on the board directly. Therefore, ROM writer adapter (PWA-DL-ADP-350) is required to write the data to these Flash ROMs. Refer to the following to write the data.
📖 P.6-21 "6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

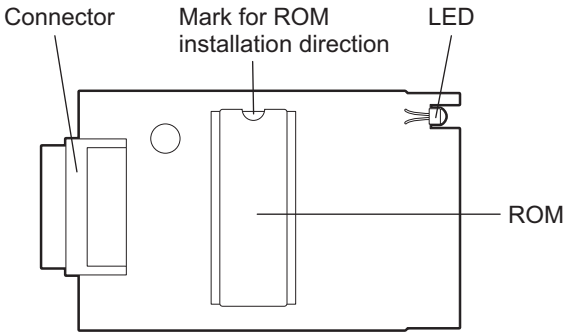


Fig. 6-3 Jig board: K-PWA-DLM-320

Important:

Pay attention to the direction of the ROM.

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6.1.1 PWA-DWNLD-350-JIG2 (48 MB)

The master data written on the hard disk can be updated by using PWA-DWNLD-350-JIG2 (48 MB). Update the master data according to the need such as the case of replacing the hard disk.
The data to be overwritten are as follows.

- HDD program data (RIP data, list data, Web data, filing box control data)
- UI data (fixed section data, common section data, the language 1 to 7 data, the language 1 to 6 data for Web)

[A] Update procedure

Important:

- Use the download jig “PWA-DWNLD-350-JIG2 (48 MB)”.
- Turn OFF the power before installing and removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

(1) Write the data to the download jig.
📖 P.6-21 "6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

(2) Turn OFF the power of the equipment.

(3) Remove the cover plate.

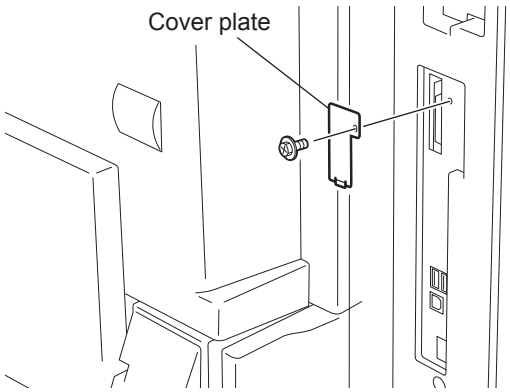


Fig. 6-4

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(4) Connect the download jig with the jig connector (CN100) on the SYS board.

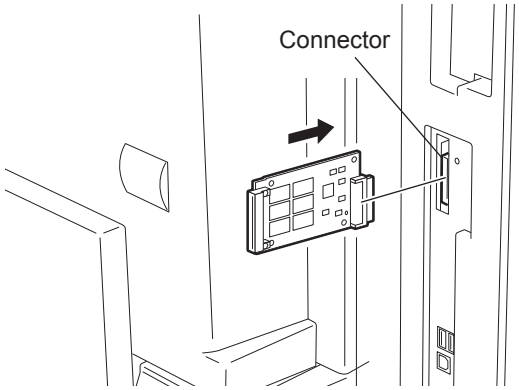


Fig. 6-5

(5) Turn ON the power.
Downloading starts automatically and the processing status is displayed on LCD screen.

```
Download Board Firmware Update Mode

Download Board -> HDD Update Start.


  Check Devices   -    Checking
  Update Status   -
```

Fig. 6-6

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(6) “Update Completed!!” is displayed at the bottom of the LCD screen after the updating is completed properly.

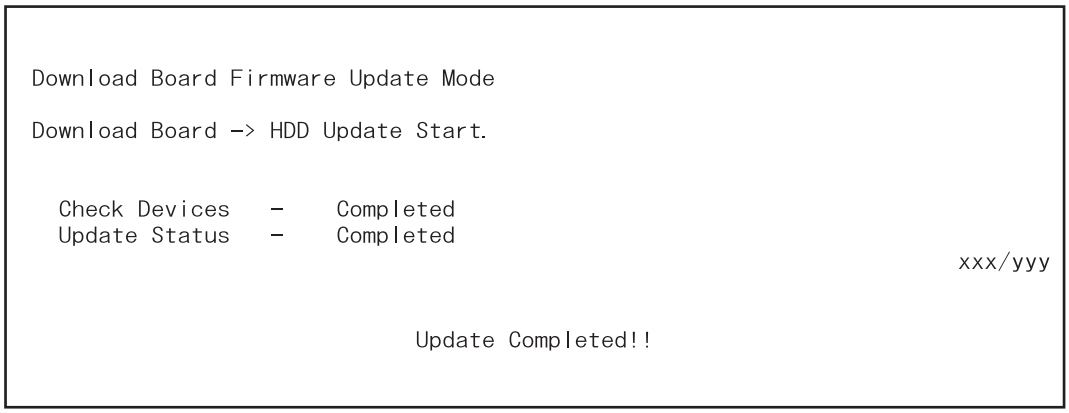


Fig. 6-7

“Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

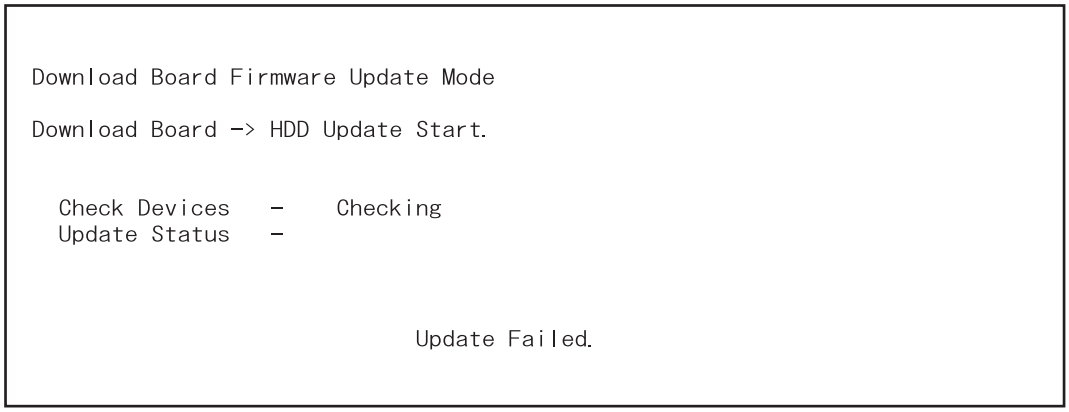


Fig. 6-8

(7) Turn OFF the power, and then remove the download jig.

(8) Perform the “Updating System ROM” continuously.
📖 P.6-12 "6.1.2 PWA-DWNLD-350-JIG1 (16 MB)" <Updating System ROM>

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[B] Confirmation of the updated data

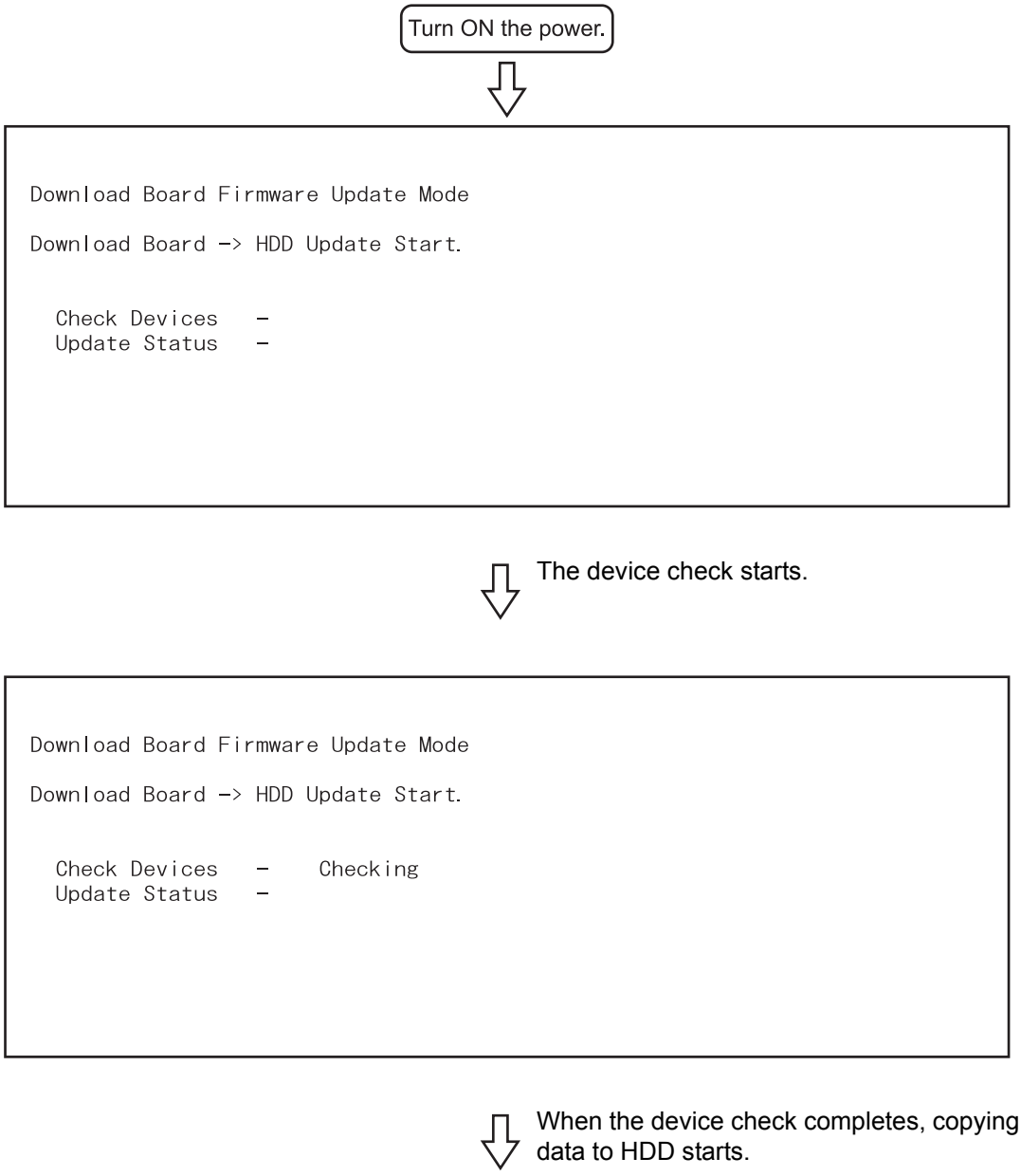
After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

08-900: System ROM version
08-920: FROM basic section software version
08-921: FROM internal program version
08-922: UI data fixed section version
08-923: UI data common section version
08-924: Version of UI data language 1 in HDD
08-925: Version of UI data language 2 in HDD
08-926: Version of UI data language 3 in HDD
08-927: Version of UI data language 4 in HDD
08-928: Version of UI data language 5 in HDD
08-929: Version of UI data language 6 in HDD
08-931: Version of UI data language 7 in HDD
08-930: Version of UI data in FROM displayed at power ON
08-933: HDD unit data version
08-934: Version of Web UI data language 1 in HDD
08-935: Version of Web UI data language 2 in HDD
08-936: Version of Web UI data language 3 in HDD
08-937: Version of Web UI data language 4 in HDD
08-938: Version of Web UI data language 5 in HDD
08-939: Version of Web UI data language 6 in HDD

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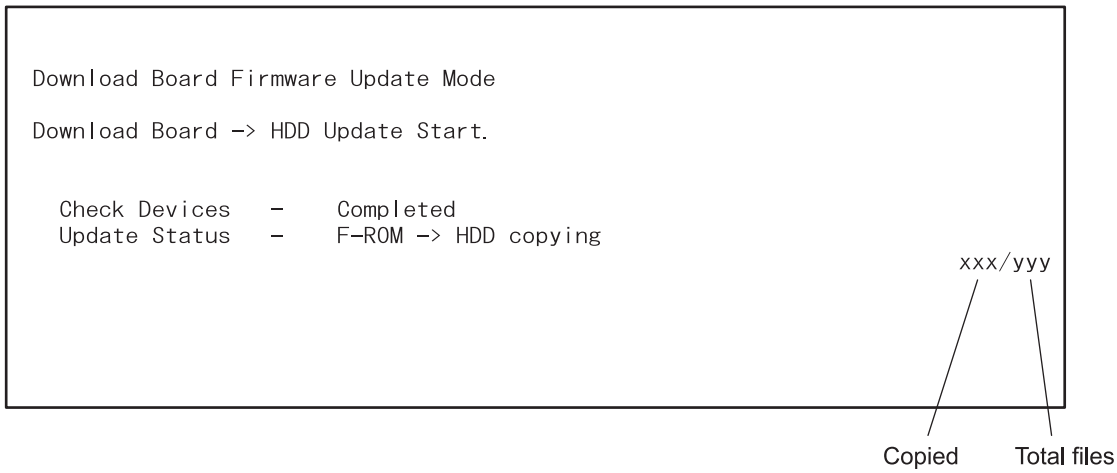
[C] Display during the update

The processing status is displayed as follows on the LCD screen during the update.

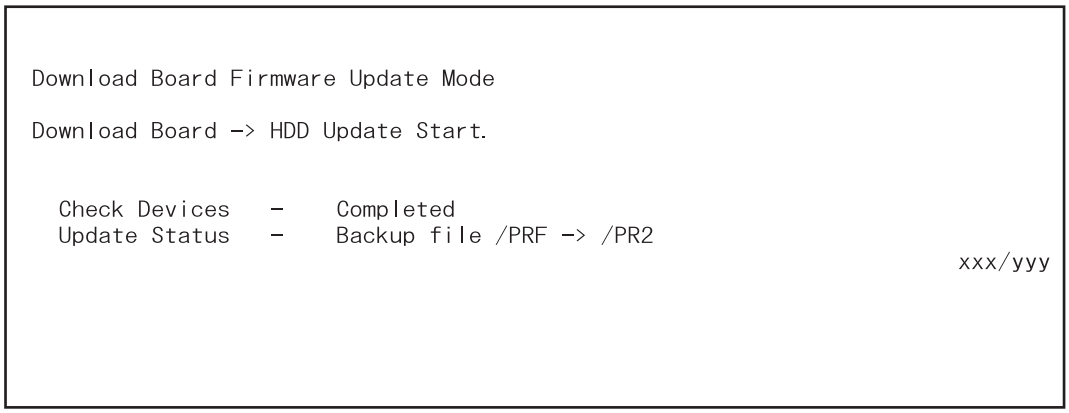


6

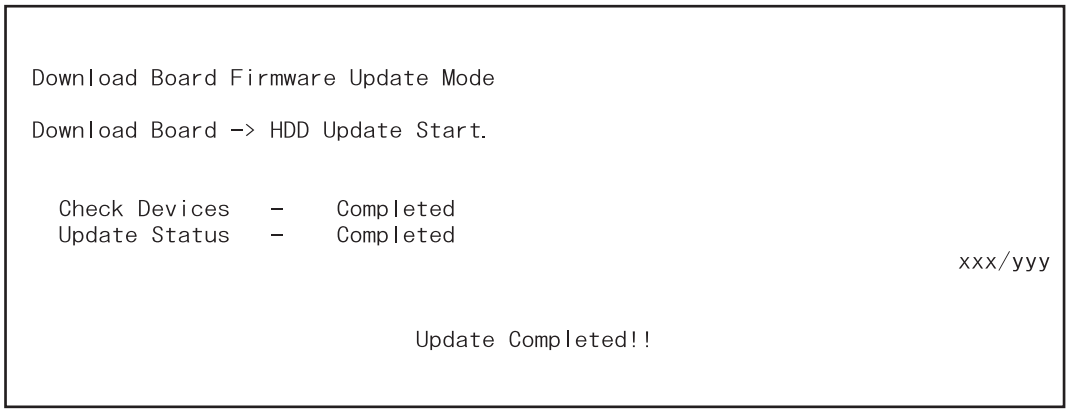
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When copying all the files completes, the backup of the RIP font starts.

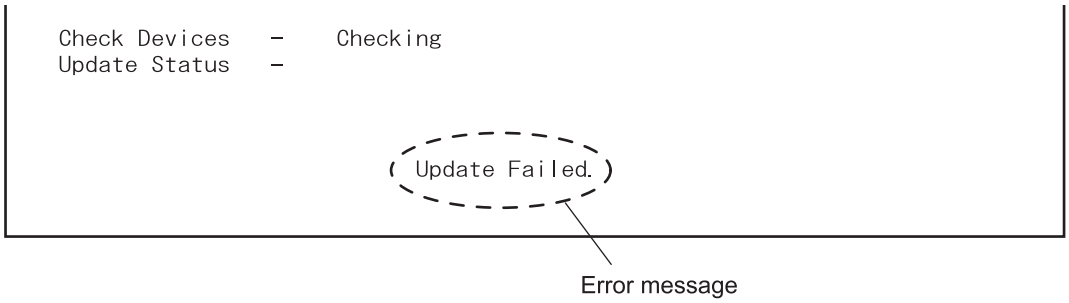


When the backup of the RIP font completes, the update completes with the following screen.



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* If an error occurs, the following error message is displayed and the update is interrupted.



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6.1.2 PWA-DWNLD-350-JIG1 (16 MB)

The firmware of the equipment except the hard disk and the option can be updated individually or in a batch by using PWA-DWNLD-350-JIG1 (16 MB). Update the ROM data written on each board according to the need such as the case of replacing the system control PC board, logic PC board, scanning section control PC board, or NIC board.

The data to be overwritten by this update are as follows.
<Updating System ROM>
- System firmware (System firmware data, FROM internal program data)
- OS data (FROM basic section software)
- UI data (fixed section data, common section data, UI data in FROM displayed at power ON)

<Updating Engine ROM>
Engine ROM data

<Updating Scanner ROM>
Scanner ROM data

<Updating NIC ROM>
NIC ROM data

[A] Update procedure

Important:
- Use the download jig “PWA-DWNLD-350-JIG1 (16 MB)”. (“PWA-DWNLD-350-JIG2 (48 MB)” is substitutable.)
- Turn OFF the power before installing and removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

(1) Write the ROM data to be updated to the download jig.
📖 P.6-21 "6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

(2) Turn OFF the power of the equipment.

(3) Remove the cover plate.

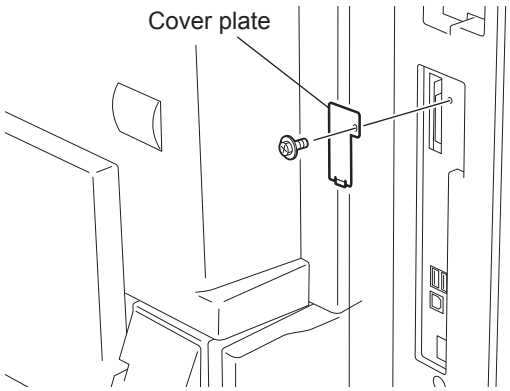


Fig. 6-9

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(4) Connect the download jig with the jig connector (CN100) on the SYS board.

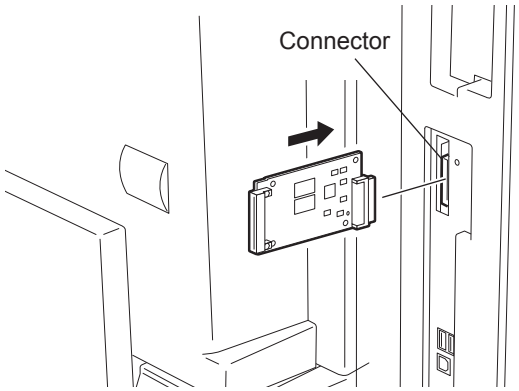


Fig. 6-10

(5) Turn ON the power while [8] button and [9] button are pressed simultaneously.
The screen for selecting the items to be updated is displayed. "*" is displayed next to the items to be updated. (All items are selected in the default settings.)

```
                                    Version in update media
Download Board Firmware Update Mode
Select Update Item                  OS  Version...  Vx.xx/x.xx
                                    UIF Version...  Vxxx.xxx.x
  *1. OS Update                     UI0 Version...  Vxxx.xxx.x
  *2. UI Update                     UI1 Version...  Vxxx.xxx.x
  *3. System Firmware Update        SYS Version...  Vxxx.xxx.x
  *4. NIC Firmware Update           NIC Version...  xxxxxxxx.xxx
  *5. Scanner Firmware Update       SCN Version...  xxxxx-xxx
  *6. Machine Firmware Update       MCN Version...  xxxxx-xxx
```

Fig. 6-11

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(6) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item. All items are selected in the default settings.

- Select all items to update the firmware of the equipment in a batch.
- Select items as follows to update it individually.

<Updating System ROM>
Select "1. OS Update", "2. UI Update", and "3. System Firmware".

<Updating Engine ROM>
Select "6. Machine Firmware Update" only.

<Updating Scanner ROM>
Select "5. Scanner Firmware Update" only.

<Updating NIC ROM>
Select "4. NIC Firmware Update" only.

Example: Updating the system ROM
(Updating the system ROM is taken as an example and explained.)

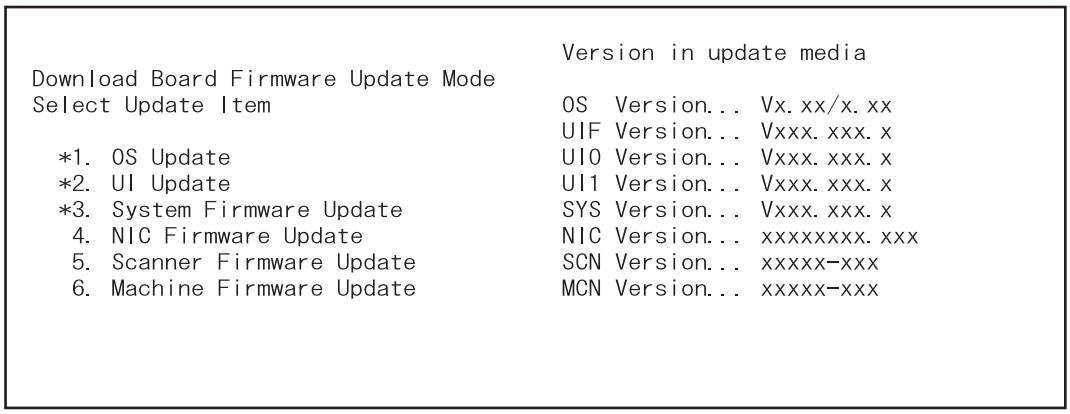


Fig. 6-12

(7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.

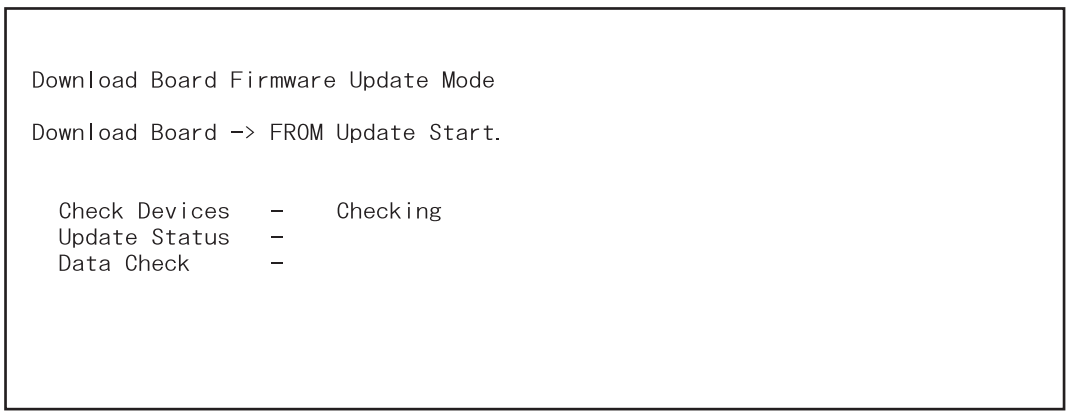


Fig. 6-13

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(8) “Update Completed!!” is displayed at the bottom of the LCD screen after the updating is completed properly.

```
Download Board Firmware Update Mode
                                        OS Update      ...        Completed
Download Board -> FROM Update Start.    UI Data Update ...        Completed
                                        SysFirm Update ...        Completed

  Check Devices   -    Completed
  Update Status   -    Completed
  Data Check      -    Completed

                            Update Completed!!
```

Fig. 6-14

“Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

```
Download Board Firmware Update Mode

Download Board -> FROM Update Start.

  Check Devices   -    Checking
  Update Status   -
  Data Check      -

                            Update Failed.
```

Fig. 6-15

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* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only “4. NIC Firmware Update” and restart updating from the beginning. This may complete the updating properly.

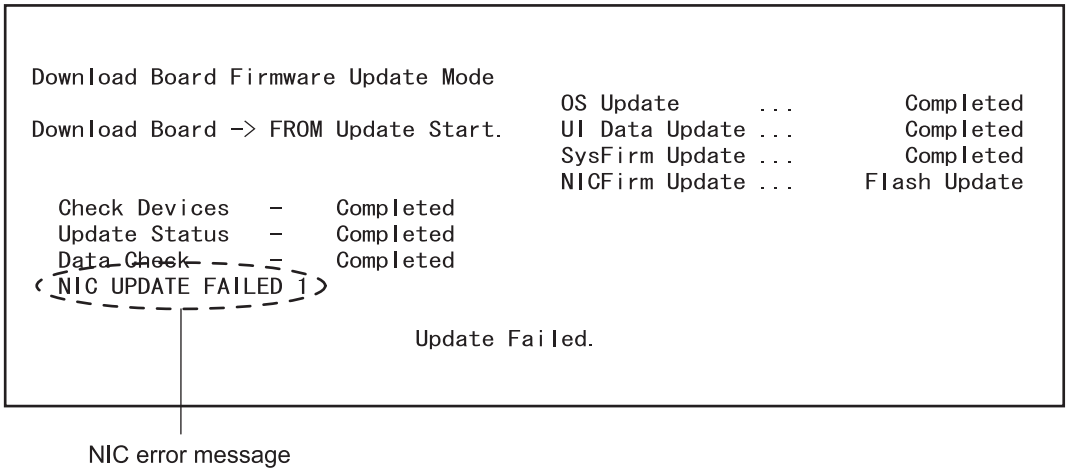


Fig. 6-16

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	The IP address may not be assigned correctly. • Is the IP address assigned correctly? • Does the IP address conflict with the other system? If the error still occurs, replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	The HDD cable may be disconnected. • Is the HDD cable connected correctly? If the HDD cable is connected correctly, replace the SYS board because it may be destroyed.
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 4	NIC setting information backup error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be destroyed.

Note:

If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

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(9) Turn OFF the power, remove the download jig and install the cover plate.

(10) Perform the initialization of the updating data (NVRAM updating).
- Turn ON the power while [0] button and [8] button are pressed simultaneously.
- Key in “947”, and then press the [START] button.
- Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating System ROM>
08-900: System ROM version
08-920: FROM basic section software version
08-921: FROM internal program version
08-922: UI data fixed section version
08-923: UI data common section version
08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

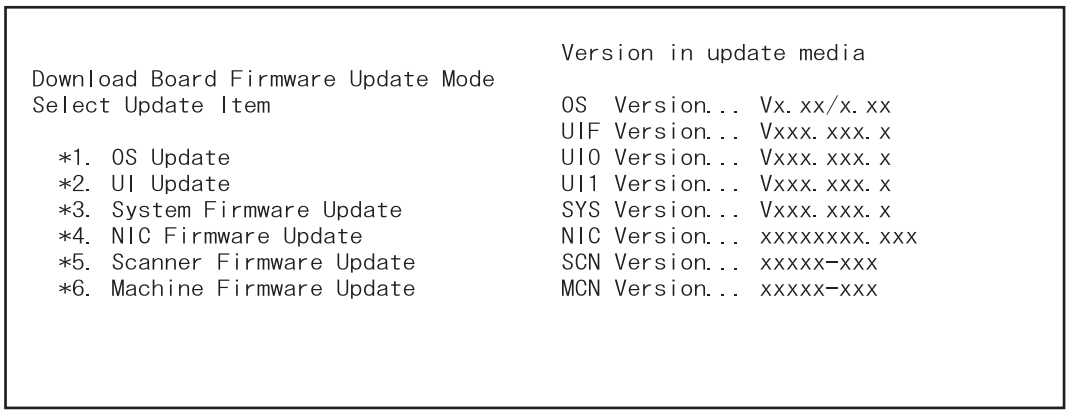
<Updating NIC ROM>
08-916: NIC ROM version

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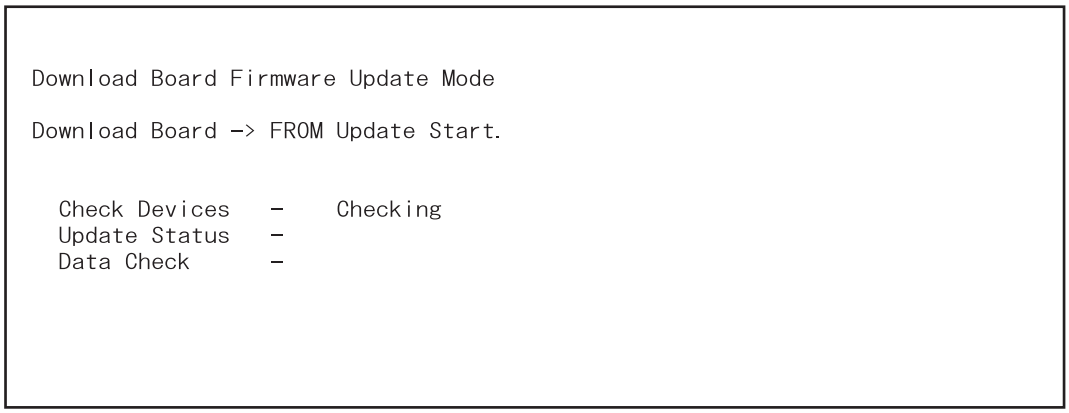
[C] Display during the update

The processing status is displayed as follows on the LCD screen during the update.
(As an example, the display for updating the system ROM is explained below.)

Turn ON the power while [8] button and [9] button are pressed simultaneously.

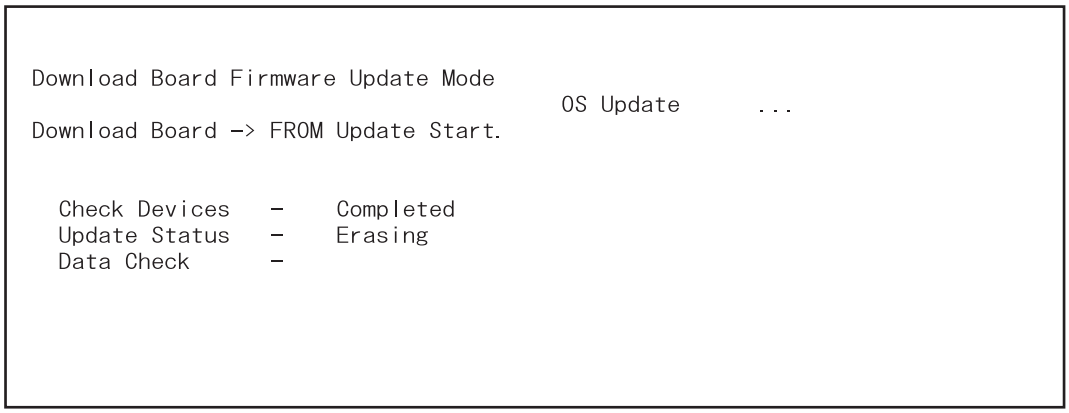


Press [START] button after selecting the item to be updated. The device check starts.

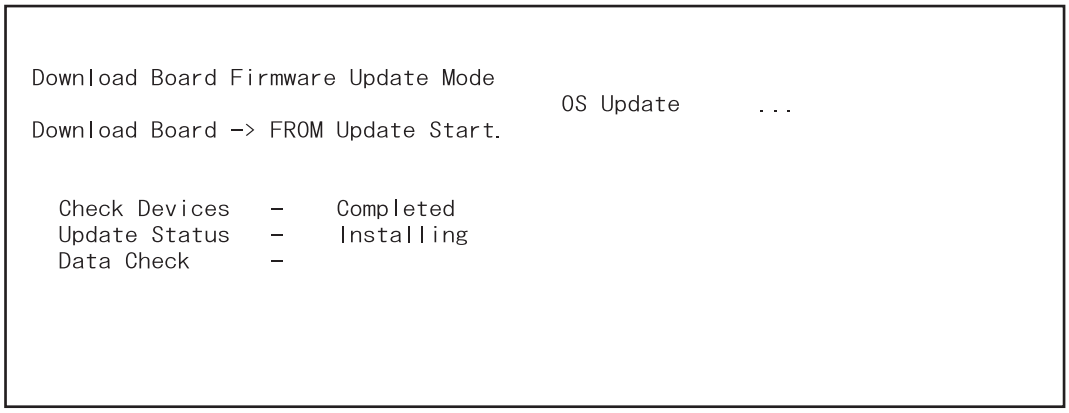


When the device check completes, erasing the data in the ROM of the equipment starts.

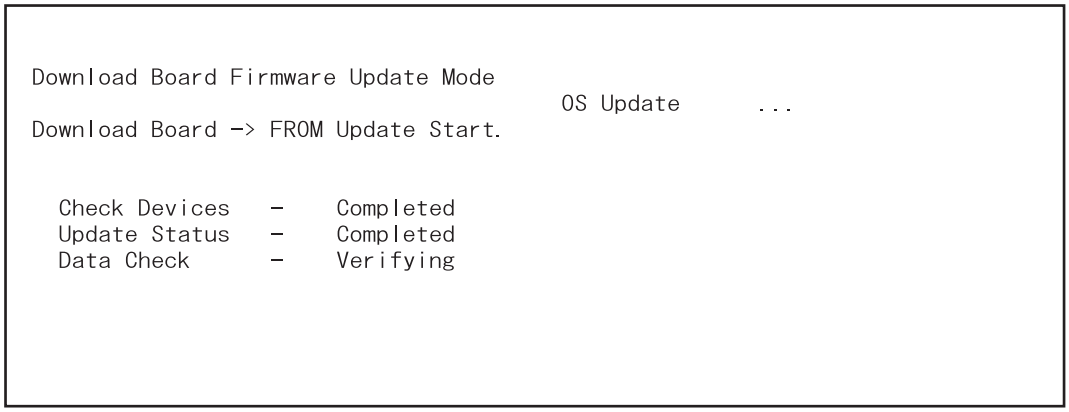
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When erasing the data completes, copying the data to the ROM of the equipment starts.



When copying the data completes, verifying the data starts.



When verifying the data completes, copying and verifying the other data are implemented repeatedly.

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```
Download Board Firmware Update Mode
                                        OS Update      ...        Completed
Download Board -> FROM Update Start.    UI Data Update ...

  Check Devices   -    Completed
  Update Status   -    Installing
  Data Check      -
```

When copying and verifying all the data complete, the update completes with the following screen.

```
Download Board Firmware Update Mode
                                        OS Update      ...        Completed
Download Board -> FROM Update Start.    UI Data Update ...        Completed
                                        SysFirm Update ...        Completed

  Check Devices   -    Completed
  Update Status   -    Completed
  Data Check      -    Completed

                          Update Completed!!
```

* If an error occurs, the following error message is displayed and the update is interrupted.

```
  Check Devices   -    Checking
  Update Status   -
  Data Check      -

                       ( Update Failed. )
```

Error message

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6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)

The download jig (PWA-DWNLD-350-JIG) differs from the existing jigs in that the Flash ROM is mounted on the board of the jig directly. The ROM writer adapter (PWA-DL-ADP-350) is required to write data to these Flash ROMs. Connect the download jig with the ROM writer via ROM writer adapter to write data.
For the procedure to write data, refer to the download procedure, instruction manual of each ROM writer, or others.

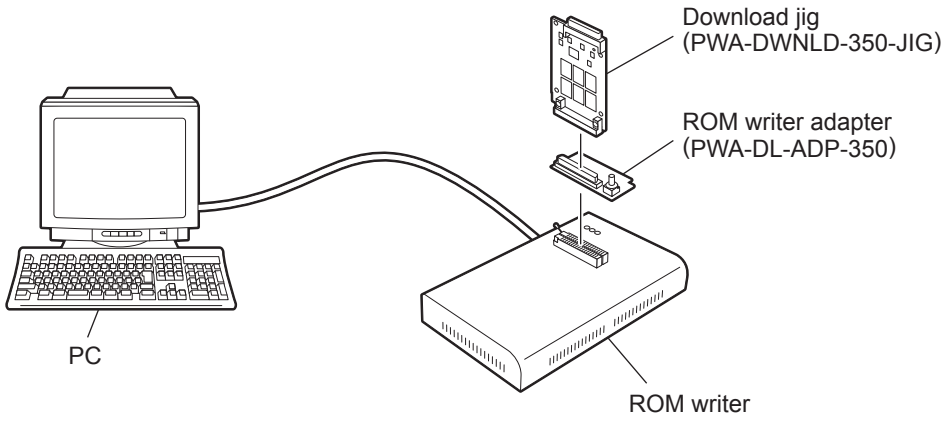


Fig. 6-17

Note:

There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting them. If an unapplied adapter is connected, the application of the ROM writer judges it as an error and writing the data cannot be implemented. Applicable combinations of the ROM writer and adapter are as follows.

ROM writer	ROM writer adapter
Minato Electronics MODEL 1881XP/1881UXP (or equivalent)	PWA-DL-ADP-350-1881 (model 1881)
Minato Electronics MODEL 1893/1895/1931/1940 (or equivalent)	PWA-DL-ADP-350-1931 (model 1931)

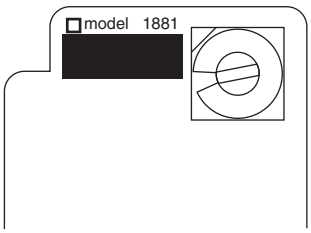


Fig. 6-18 PWA-DL-ADP-350-1881

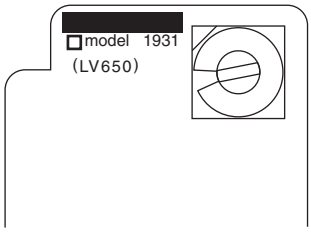


Fig. 6-19 PWA-DL-ADP-350-1931

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[A] Precaution when writing the data

- Set the writing voltage (VID) to 3.3V.
- When writing the data, set the address from 0 to 3FFFFF. The data may not be written correctly if it is not set.
- The Flash ROM in which the data will be written, on the download jig is selected by switching the rotary switch on the adapter. Be sure to switch the rotary switch on the adapter depending on the data (file) to be written.

Important:

When an error such as "Over current detects" appears while the data are being written to the download jig and the writing cannot be finished, set the writing voltage (VID) to 12 V and then write them.

Rotary Switch	File Name		Flash ROM
	Master Data (PWA-DWNLD-350-JIG2)	System, Engine, Scanner and NIC data (PWA-DWNLD-350-JIG1)	
1	ROM. bin	ROM. bin	ROM1
2	1	Sysfirm. bin	ROM2
3	2	N/A	ROM3
4	3	N/A	ROM4
5	4	N/A	ROM5
6	N/A	N/A	ROM6

Note:

Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different.

6.1.4 K-PWA-DLM-320

The firmware of the equipment (engine ROM, scanner ROM) and the option (RADF ROM, Finisher ROM, FAX ROM) can be updated individually by using K-PWA-DLM-320. Update the ROM data written on each board according to the need such as the case of replacing the board.

The data to be overwritten by this update are as follows.

<Updating Engine ROM>
Engine ROM data

<Updating Scanner ROM>
Scanner ROM data

<Updating RADF ROM>
RADF ROM data

<Updating Finisher ROM>
Finisher ROM data

<Updating FAX ROM>
FAX ROM data

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[A] Update Procedure

Since the procedure differs depending on the data, see the each procedure below.

Important:

- Turn OFF the power before installing or removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

<Updating Engine ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-4 "Fig. 6-3").

(2) Turn OFF the power of the equipment.

(3) Take off the connector cover.

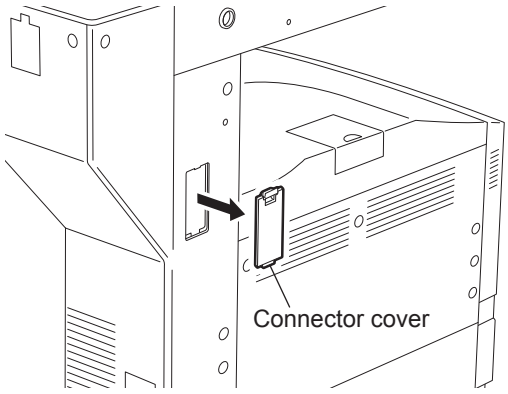


Fig. 6-20

(4) Remove the cover plate.

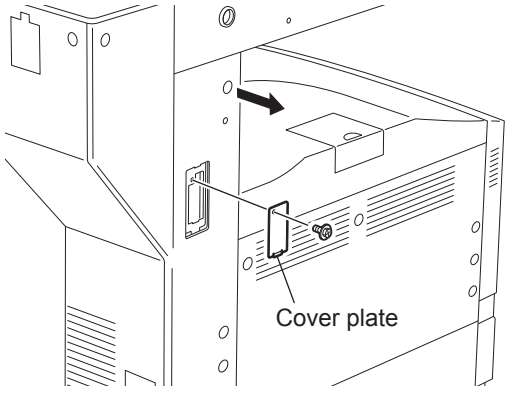


Fig. 6-21

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(5) Connect the download jig with the jig connector (CN316) on the logic PC board (LGC board).

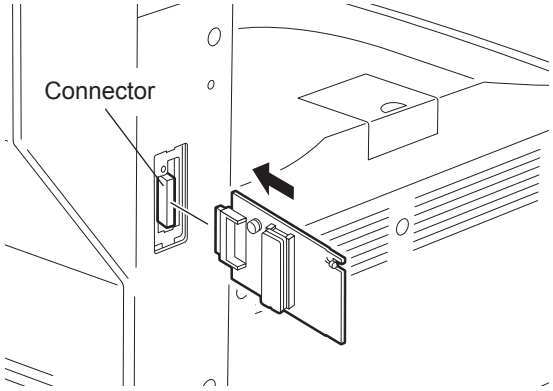


Fig. 6-22

(6) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(7) When the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(8) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.

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<Updating Scanner ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-4 "Fig. 6-3").

(2) Turn OFF the power of the equipment.

(3) Take off the right upper cover-1.

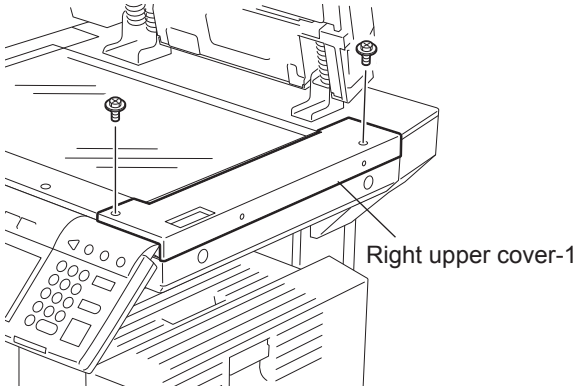


Fig. 6-23

(4) Take off the right upper cover-2.

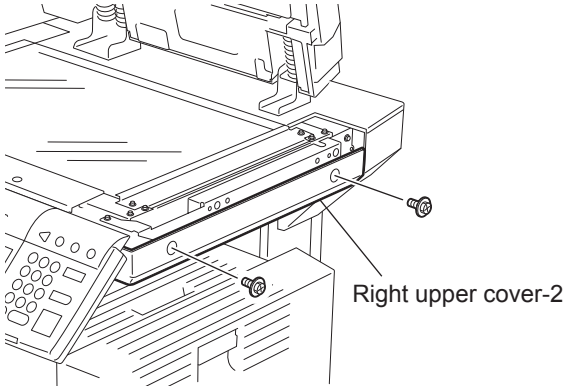


Fig. 6-24

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(5) Remove the cover plate.

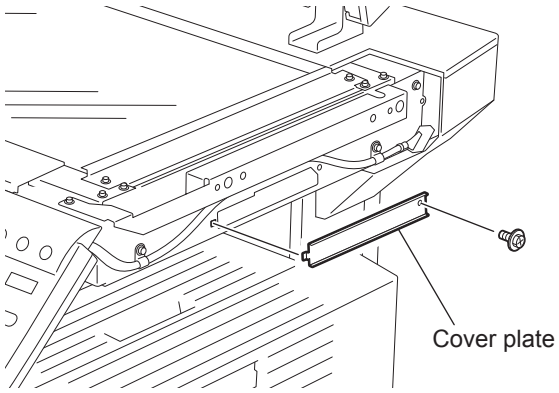


Fig. 6-25

(6) Connect the download jig with the jig connector (CN22) on the scanning section control PC board (SLG board).

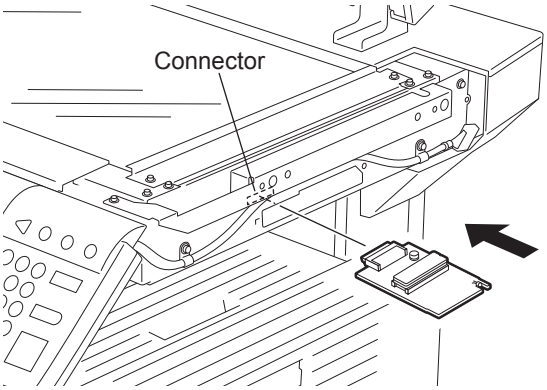


Fig. 6-26

(7) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(8) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(9) Turn OFF the power, remove the download jig and install the cover plate, the right upper cover-1 and the right upper cover-2.

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<Updating RADF ROM (MR-3016)>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-4 "Fig. 6-3").

(2) Turn OFF the power of the equipment.

(3) Take off the RADF rear cover.

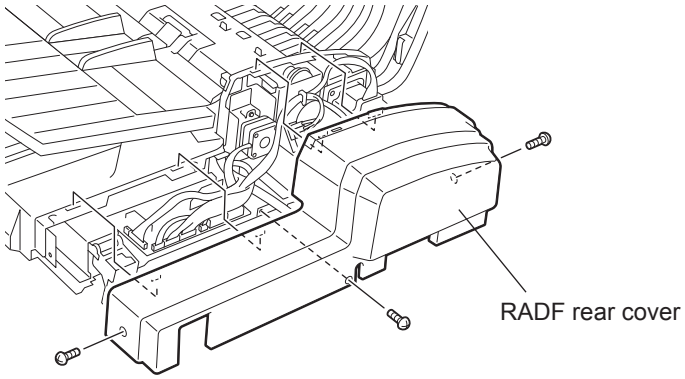


Fig. 6-27

(4) Connect the download jig with the jig connector (CN14) on the RADF control PC board.

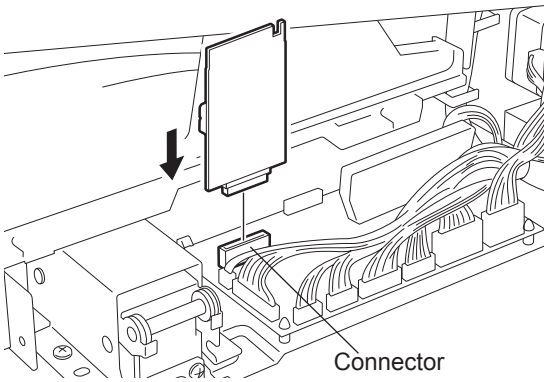


Fig. 6-28

(5) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(6) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 15 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(7) Turn OFF the power, remove the download jig and install the RADF rear cover.

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<Updating Finisher ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-4 "Fig. 6-3").

(2) Turn OFF the power of the equipment.

(3) Take off the finisher rear cover.

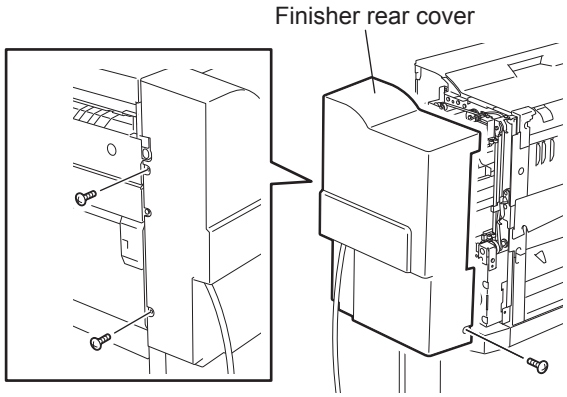


Fig. 6-29

* Connect the finisher interface cable with the equipment after removing the finisher rear cover.

(4) Connect the download jig with the jig connector on the finisher control PC board.

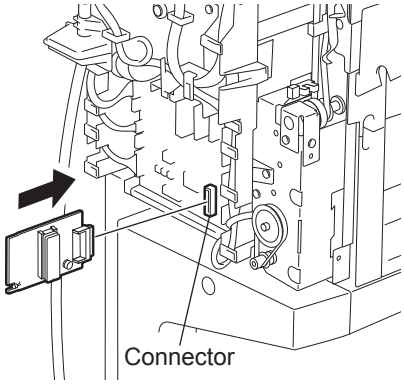


Fig. 6-30

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(5) Change the setting of he DIP switch on the finisher control PC board.
Change all the setting of the DIP switch (1-8) to OFF.

Note:
Record the current settings of the DIP switch before changing them. After the updating is completed, return the DIP switch to the status as record.

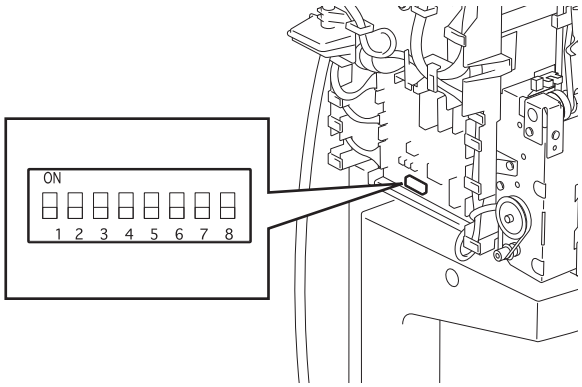


Fig. 6-31

(6) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(7) After the update is completed properly, the LED on the download jig blinks slowly. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed, or LED flashes fast. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.

- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?
- Is the DIP switch on the finisher control PC board set properly?

(8) Turn OFF the power, remove the download jig and return the DIP switch to the status before updating.

(9) Install the finisher rear cover.

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<Updating FAX ROM>

Important:

- Before updating the FAX ROM, make sure to print out the current Function list for maintenance, Function list (ADMIN), Phone book number information and Group number information. In case the updating is failed and the registered information of the users is lost for some reason, re-register the user information referring to the lists and recover it.
- Confirm the following items before turning OFF the power of the equipment. Turning OFF the power may clear the data below.
  - Confirm that the “MEMORY RX” LED is OFF and there are no memory reception data.
  - Print the “Mailbox/Relay box report” and then confirm that there are no F code data.
  - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-4 "Fig. 6-3").

(2) Turn OFF the power of the equipment.

(3) Remove the cover plate.

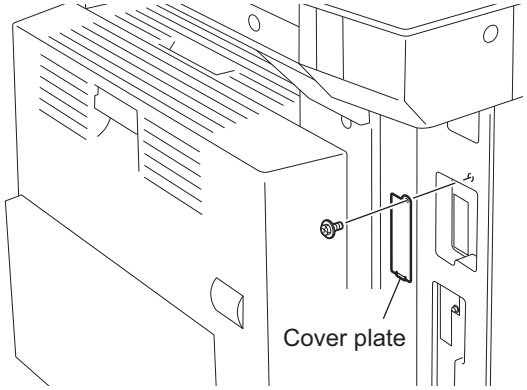


Fig. 6-32

(4) Connect the download jig with the jig connector (CN602) on the FAX board.

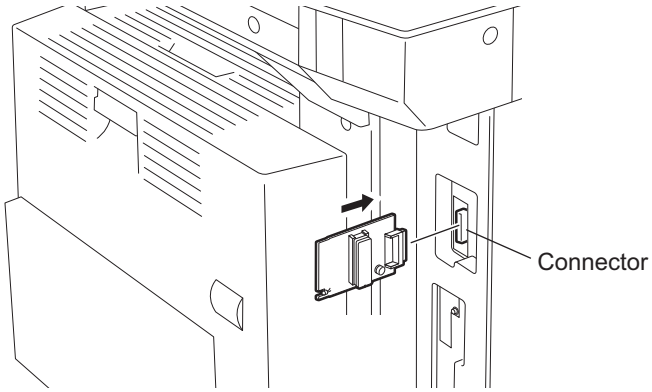


Fig. 6-33

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(5) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.

(6) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 30 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(7) Turn OFF the power, remove the download jig and install the cover plate.

(8) In the FAX Clearing Mode, perform the “FAX Set up”.
- Confirm the destination setting is correct in the Setting Mode (08).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in “100”.
- Press the [START] button.

Notes:

If the equipment does not work properly after the operation (8), follow the procedure below and then perform the “Clearing the image data” in the FAX Clearing Mode to erase the image data in the memory.
- Confirm the destination setting is correct in the Setting Mode (08).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in “102”.
- Press the [START] button.

6

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

<Updating RADF ROM>
08-907: RADF ROM version

<Updating Finisher ROM>
08-908: Finisher ROM version

<Updating FAX ROM>
08-915: FAX ROM version

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6.2 Firmware Updating with Download Jig (e-STUDIO202L/203L/232/233/282/283)

In this equipment, it is feasible to update the firmware automatically by connecting the download jig using the dedicated connector and turning ON the equipment.
The download jig consists of the ROM, in which the program is written, and the jig board.
And two types of the download jigs are available for each type of the firmware.
For updating the firmware, in addition to the current ways such as updating each firmware individually, the batch update of the firmware of the equipment is available (except the hard disk and the option).

Firmware	Stored	Download jig	
		Batch update	Individual update
System ROM	System control PC board (SYS board) * The system firmware is stored into the hard disk from the FROM basic section software version "V1.00/4.22".	PWA-DWNLD-350-JIG2 (48 MB)	-
Engine ROM	Logic PC board (LGC board)		K-PWA-DLM-320
Scanner ROM	Scanning section control PC board (SLG board)		K-PWA-DLM-320
RADF ROM	RADF control PC board (MR-3020)	-	K-PWA-DLM-320
Finisher ROM (Finisher firmware)	Finisher control PC board (MJ-1025)	-	K-PWA-DLM-320
Finisher ROM (Saddle stitcher firmware)	Finisher control PC board (MJ-1024)	-	K-PWA-DLM-320
FAX ROM	FAX board (GD-1150/1151)	-	K-PWA-DLM-320

Refer to the following for the details to update with each download jig.
📖 P.6-34 "6.2.1 PWA-DWNLD-350-JIG2 (48 MB)"
📖 P.6-48 "6.2.2 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

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PWA-DWNLD-350-JIG2 (48MB)

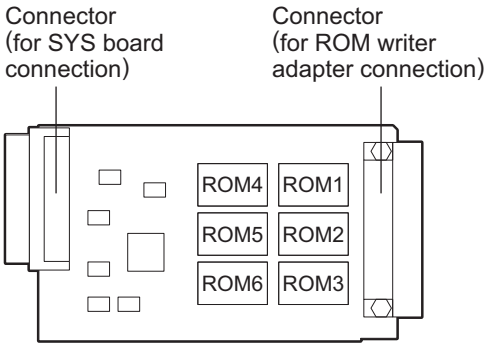


Fig. 6-34 Jig board: PWA-DWNLD-350-JIG2 (48 MB)

Important:

The download jig (PWA-DWNLD-350-JIG) is the jig in which the Flash ROM is mounted on the board directly. Therefore, ROM writer adapter (PWA-DL-ADP-350) is required to write the data to these Flash ROMs. Refer to the following to write the data.

📖 P.6-48 "6.2.2 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

K-PWA-DLM-320

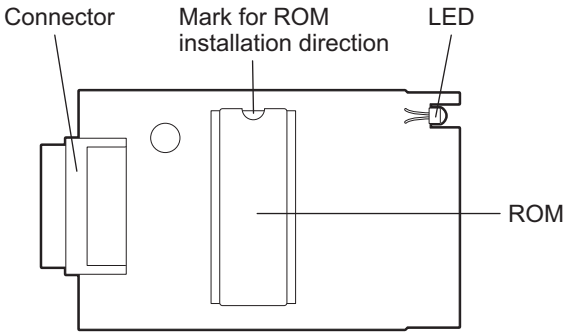


Fig. 6-35 Jig board: K-PWA-DLM-320

Important:

Pay attention to the direction of the ROM.

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6.2.1 PWA-DWNLD-350-JIG2 (48 MB)

The firmware of the equipment except for the hard disk and the option can be updated individually or in a batch by using PWA-DWNLD-350-JIG2 (48 MB). Update the ROM data written on each board according to the need such as the case of replacing the system control PC board, logic PC board or scanning section control PC board.

The data to be overwritten by this update are as follows.
<Updating System ROM>
- System firmware (System firmware data, FROM internal program data)
- OS data (FROM basic section software)
- UI data (fixed section data, common section data, UI data in FROM displayed at power ON)

<Updating Engine ROM>
Engine ROM data

<Updating Scanner ROM>
Scanner ROM data

[A] Update procedure

Important:
- Turn OFF the power before installing and removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

(1) Write the ROM data to be updated to the download jig.
📖 P.6-48 "6.2.2 Writing the data to the download jig (PWA-DWNLD-350-JIG)"

(2) Shut down the equipment.

(3) Remove the cover plate.

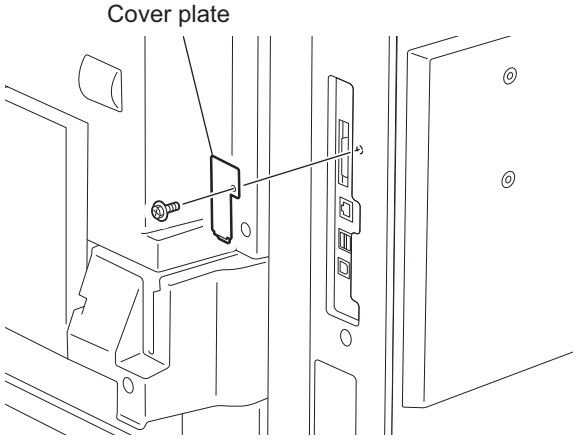


Fig. 6-36

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(4) Connect the download jig with the jig connector (CN100) on the SYS board.

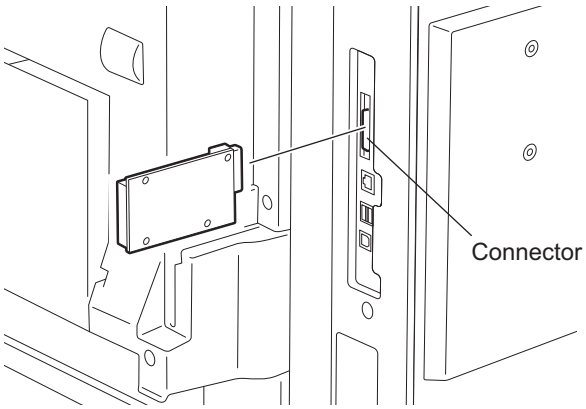


Fig. 6-37

(5) Turn ON the power while [8] button and [9] button are pressed simultaneously.
The screen for selecting the items to be updated is displayed. "*" is displayed next to the items to be updated. (All items are selected in the default settings.)

When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:

```
Download Board Firmware Update Mode      Version in update media
Select Update Item                       OS  Version... Vx.xx/x.xx x
                                         UIF Version... Vxxx.xxx x
  *0. OS Update                          UIO Version... Vxxx.xxx x
  *1. UI Data Update                     UI1 Version... Vxxx.xxx x
  *2. System Firmware Update             SYS Version... Vxxx.xxx x
  *3. Engine Firmware Update             ENG Version... xxxxx-xx
  *4. Scanner Firmware Update            SCN Version... xxxxx-xx
```

Fig. 6-38

When the FROM basic section software version to be updated is "V1.00 / 4.22" or later:

```
Download Board Firmware Update Mode      Version in update media
Select Update Item                       OS  Version... Vx.xx/x.xx x
                                         UIF Version... Vxxx.xxx x
  *1. OS UI Update                       UIO Version... Vxxx.xxx x
  *2. Engine Firmware Update             UI1 Version... Vxxx.xxx x
  *3. Scanner Firmware Update            ENG Version... xxxxx-xx
                                         SCN Version... xxxxx-xx
```

Fig. 6-39

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(6) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item. All items are selected in the default settings.
- Select all items to update the firmware of the equipment in a batch.
- Select items as follows to update it individually.

Types of Firmware	Items <Items vary depending on the FROM basic section software version to be updated.>	
	"V1.00/1.12" or earlier	**"V1.00/4.22" or later**
System ROM	0. OS Update 1. UI Update 2. System Firmware Update	1. OS UI Update
Engine ROM	3. Engine Firmware Update	2. Engine Firmware Update
Scanner ROM	4. Scanner Firmware Update	3. Scanner Firmware Update

Example: Updating the system ROM
When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:

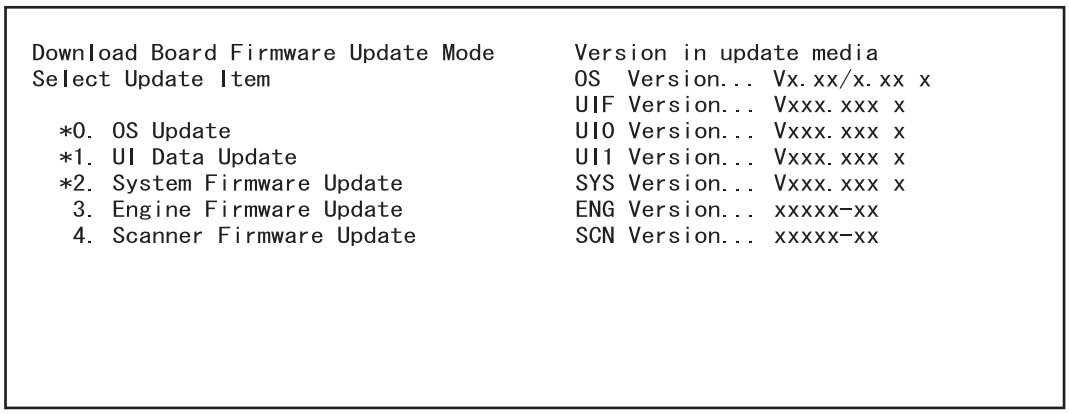


Fig. 6-40

When the FROM basic section software version to be updated is "V1.00 / 4.22" or later:

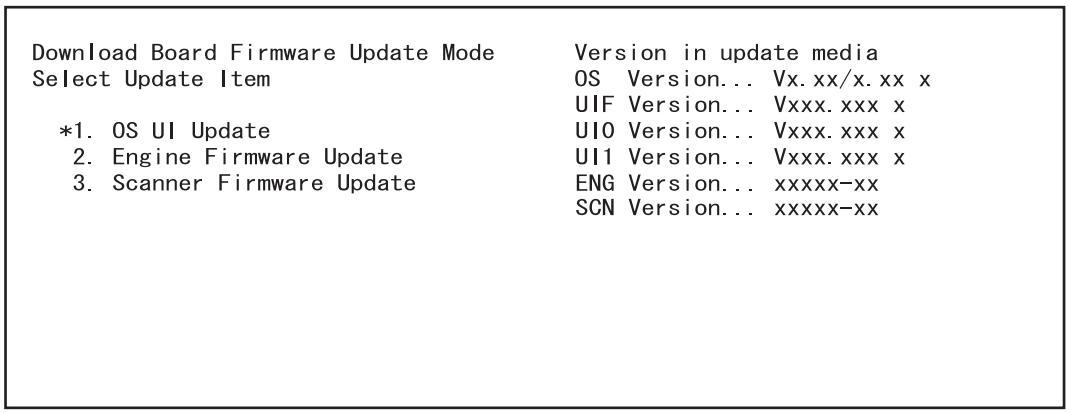


Fig. 6-41

(Updating all the items is taken as an example and explained in the following procedures.)

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(7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.

When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:

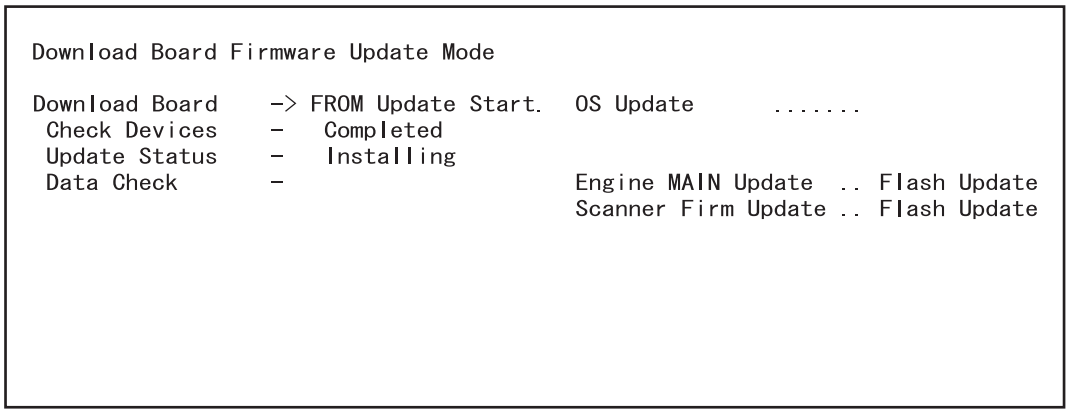


Fig. 6-42

Status display during update	Status display when update is completed
OS Update	OS Update .....Completed
UI Data Update	UI Data Update .....Completed
SysFirm Update	SysFirm Update .....Completed
Engine MAIN Update .. Flash Update	Engine MAIN Update ..Completed
Scanner Firm Update .. Flash Update	Scanner Firm Update..Completed

When the FROM basic section software version to be updated is "V1.00 / 4.22" or later:

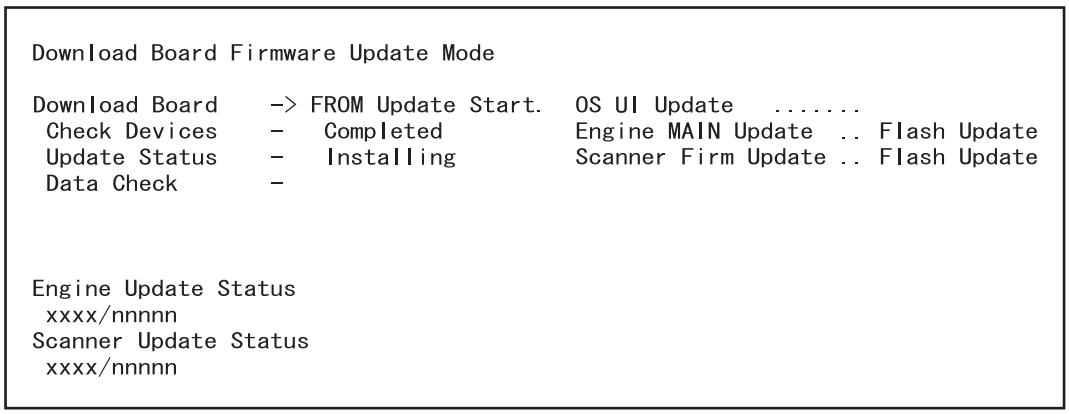


Fig. 6-43

Status display during update	Status display when update is completed
OS UI Update	OS UI Update .....Completed
Engine MAIN Update .....Flash Update	Engine MAIN Update .....Completed
Scanner Firm Update .....Flash Update	Scanner Firm Update .....Completed

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(8) “Update Completed.” is displayed at the bottom of the LCD screen after the updating is completed properly.

When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:

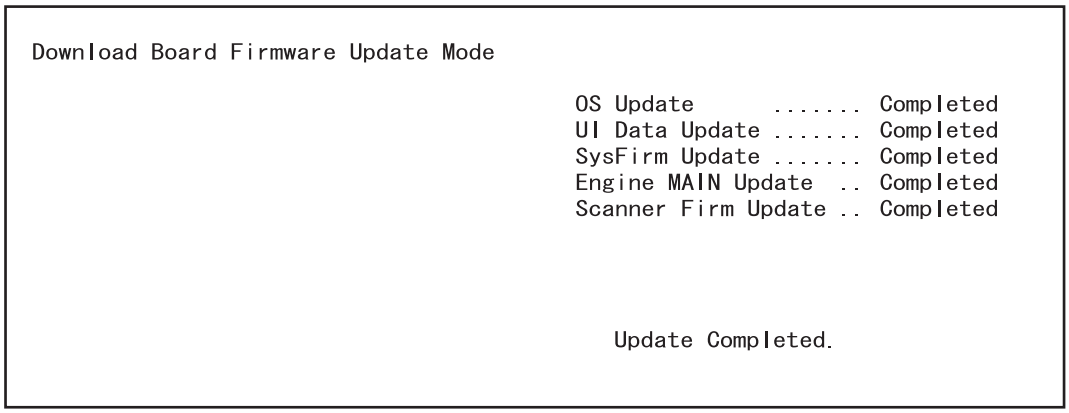


Fig. 6-44

When the FROM basic section software version to be updated is "V1.00 / 4.22" or later:

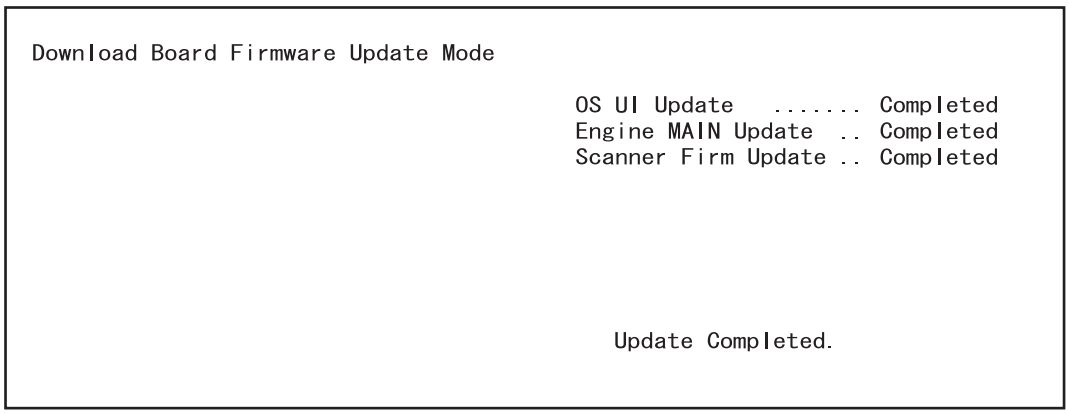


Fig. 6-45

“Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display. Turn OFF the power, and then check the following items. After confirming and cleaning the problems, restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

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When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:

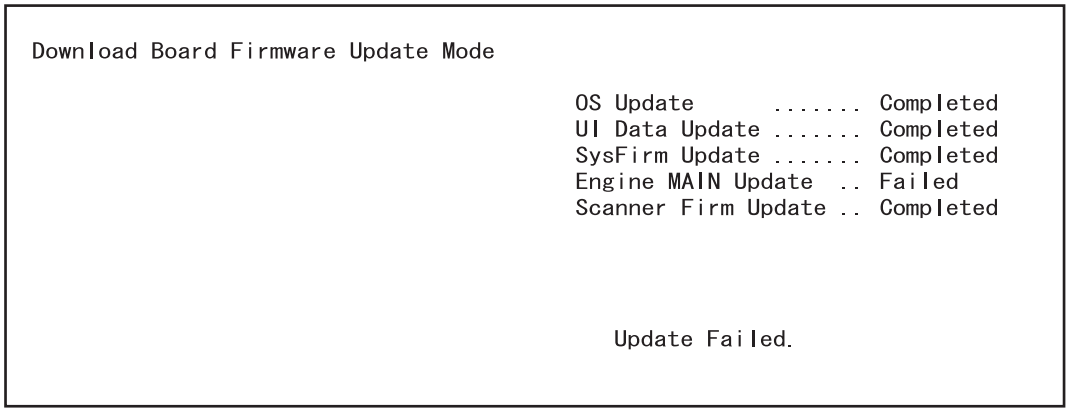


Fig. 6-46

When the FROM basic section software version to be updated is "V1.00 / 4.22" or later:

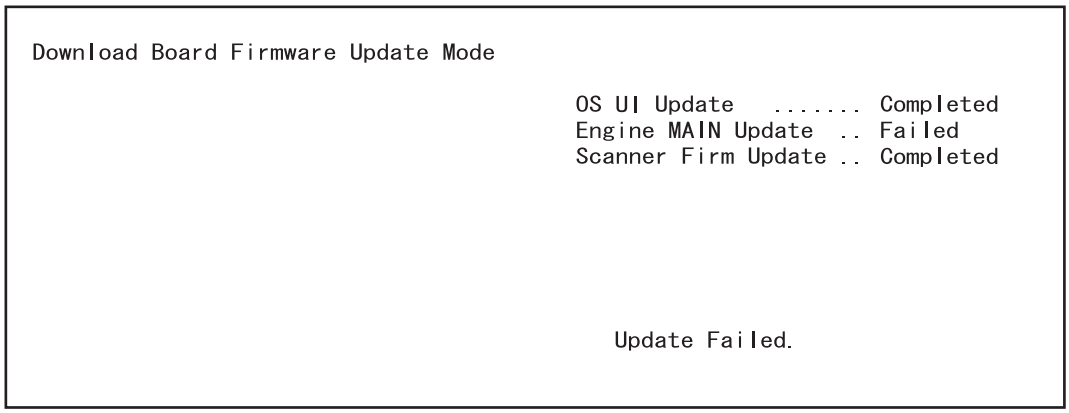


Fig. 6-47

(9) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.

(10) Perform the initialization of the updating data.
- Turn ON the power while [0] button and [8] button are pressed simultaneously.
- Key in “947”, and then press the [START] button.
- Press the [INITIALIZE] button.

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[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating System ROM>
08-900: System ROM version
08-920: FROM basic section software version
08-921: FROM internal program version
08-922: UI data fixed section version
08-923: UI data common section version
08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

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[C] Display during the update (When the FROM basic section software version to be updated is "V1.00 / 1.12" or earlier:)

Update is performed in parallel as shown in the transition diagram below.

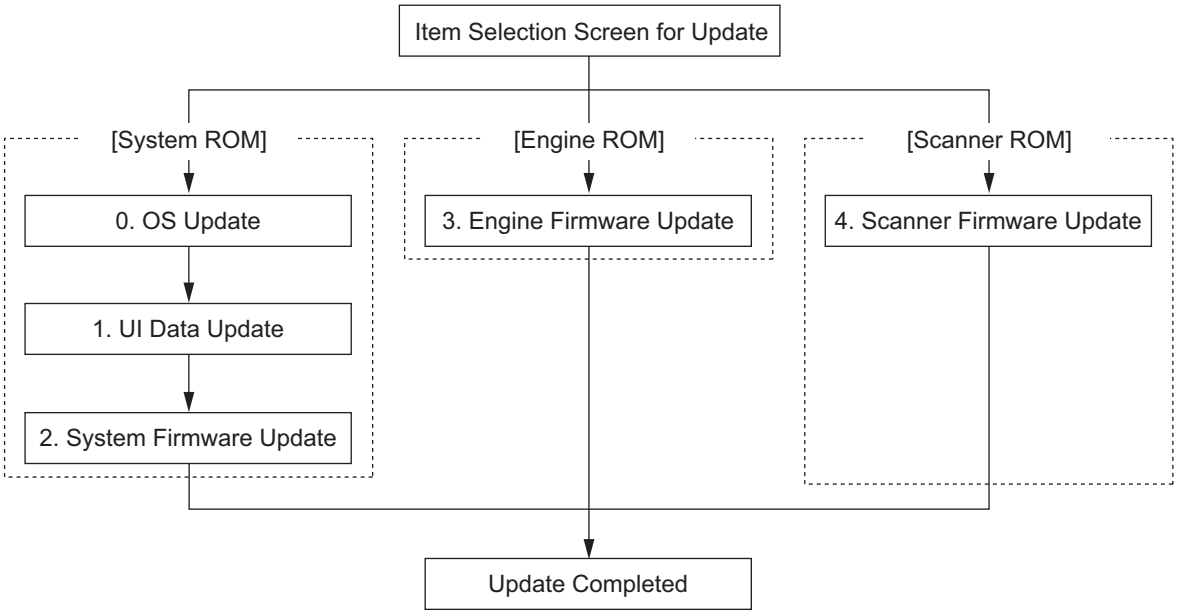
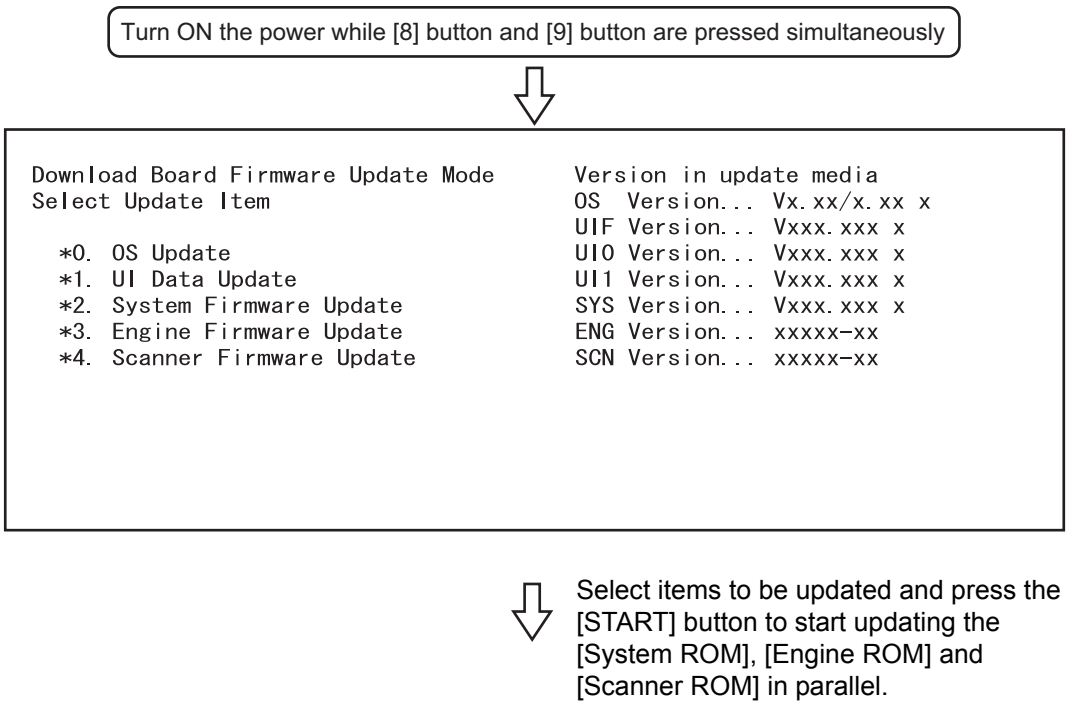
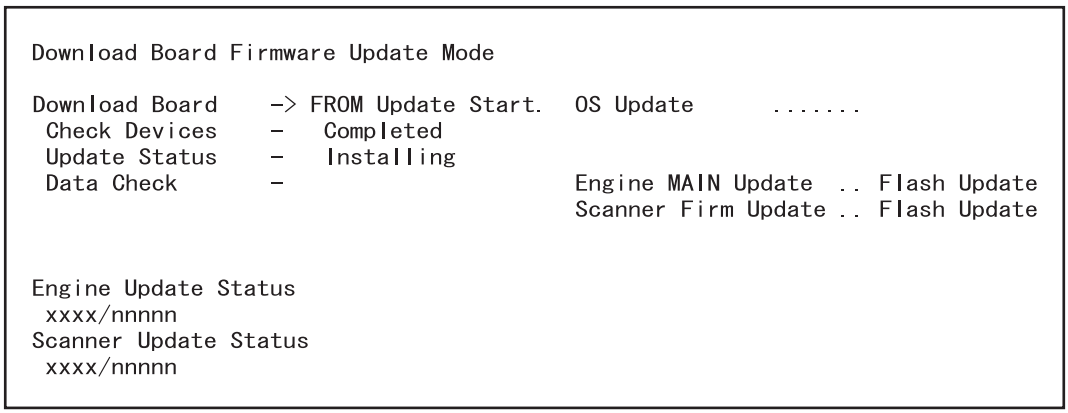


Fig. 6-48

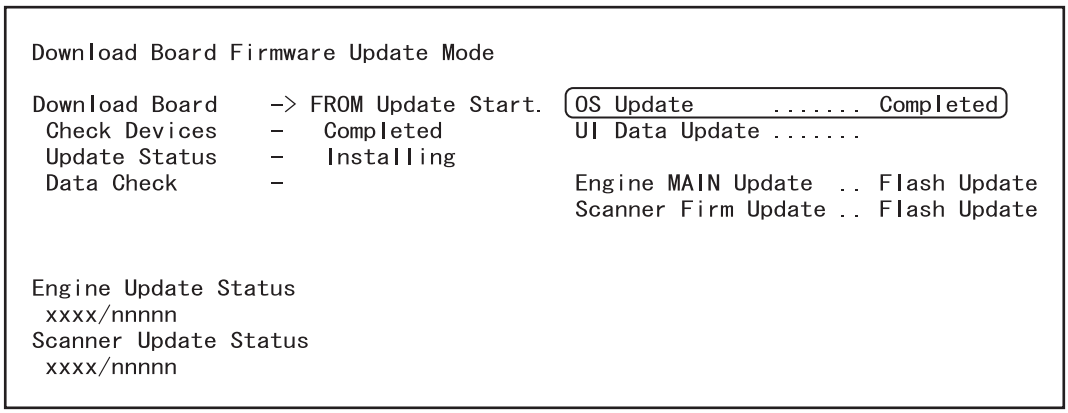
Below is an example of the changes of the LCD screen during update.
Note that the screen order may be different from the actual one, because a parallel update is performed in the process.



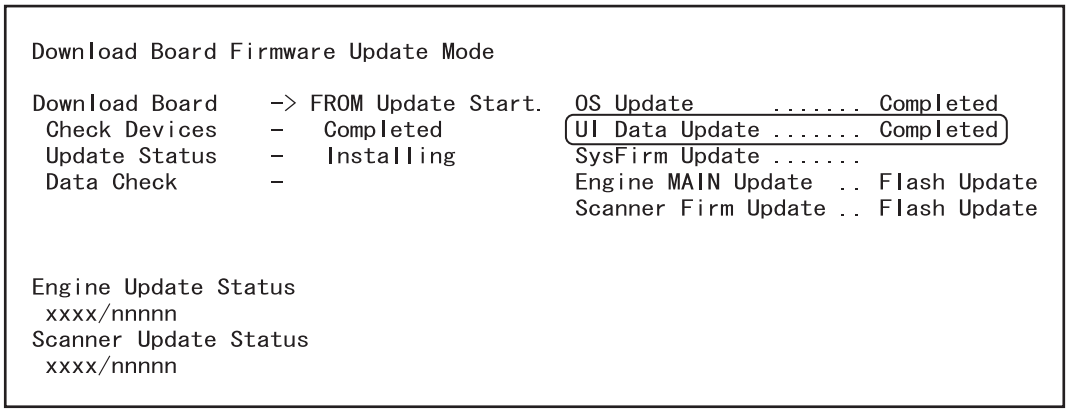
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When the [System ROM]-[OS Update] has been updated, “OS Update…Completed” is displayed and the [UI Update] update will start.

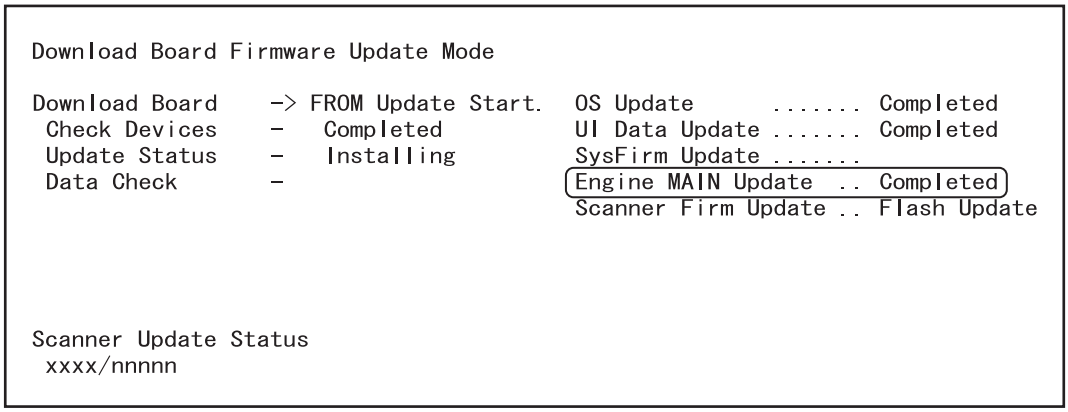


When the [System ROM]-[UI Update] has been updated, “UI Data Update…Completed” is displayed and the [System Firmware Update] update will start.

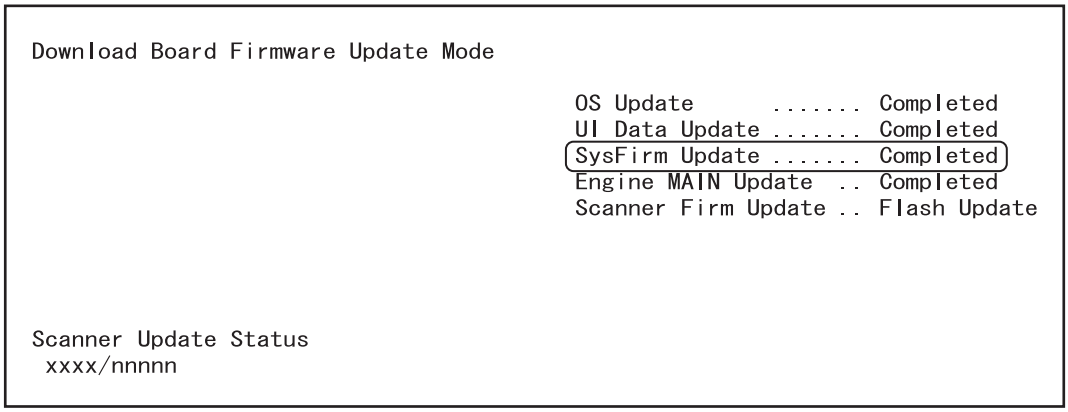


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When the [Engine ROM] has been updated, “Engine MAIN Update..Flash Update” is changed to “Engine MAIN Update..Completed”.



When the [System ROM]-[System Firmware Update] has been updated, “SysFirm Update…Completed” is displayed.

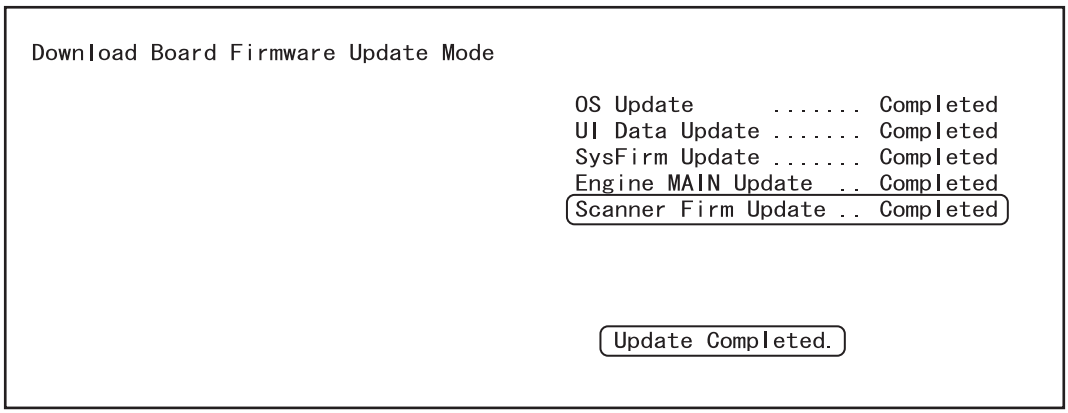


When the [Scanner ROM] has been updated, “Scanner Firm Update..Flash Update” is changed to “Scanner Firm Update..Completed”.

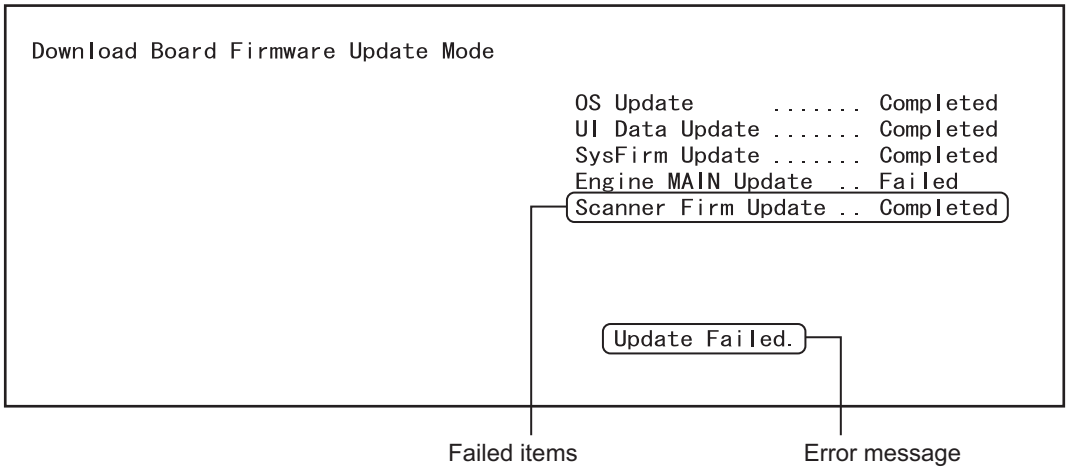
When all data has been updated, “Update Completed” is displayed.

6

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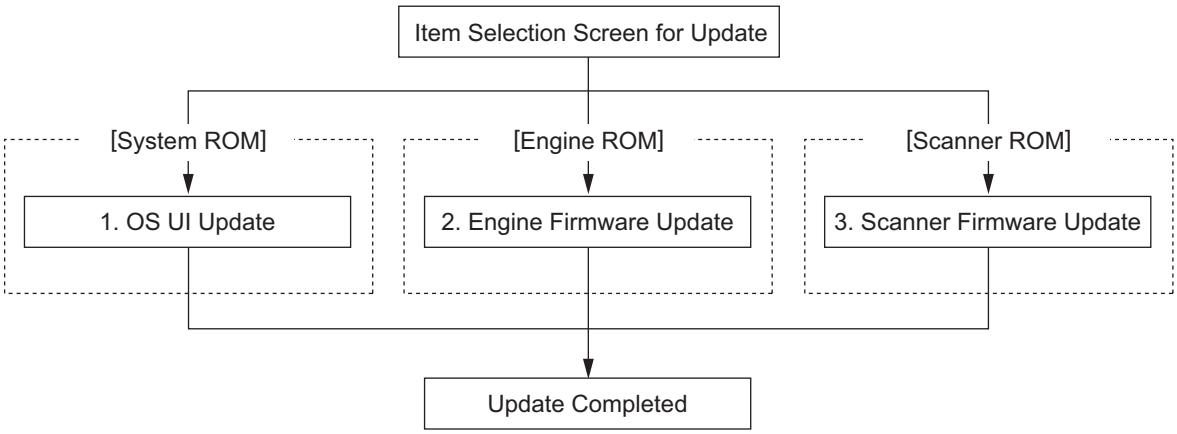
* “Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display.



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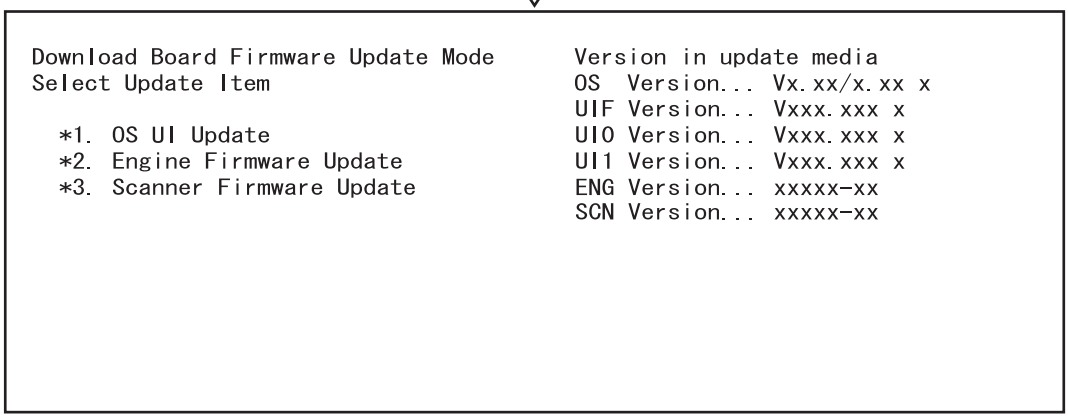
[D] Display during the update (When the FROM basic section software version to be updated is "V1.00 / 4.22" or later)

Update is performed in parallel as shown in the transition diagram below.



Below is an example of the changes of the LCD screen during update.

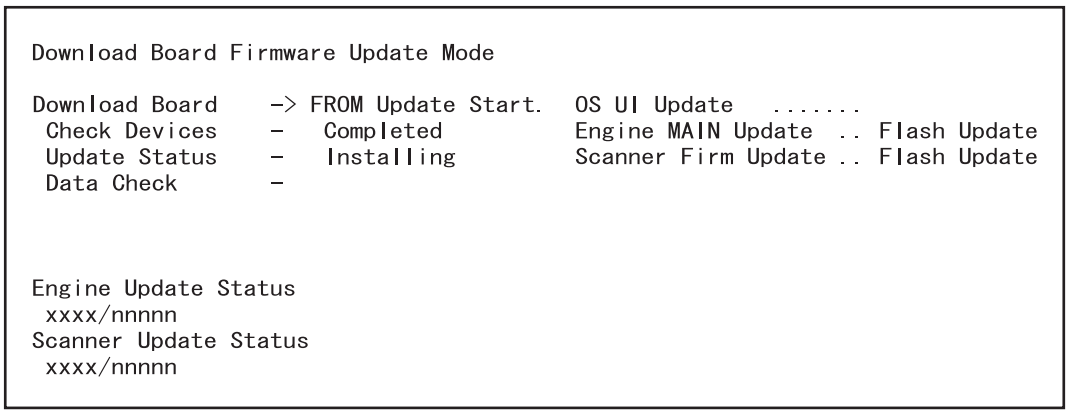
Turn ON the power while [8] button and [9] button are pressed simultaneously



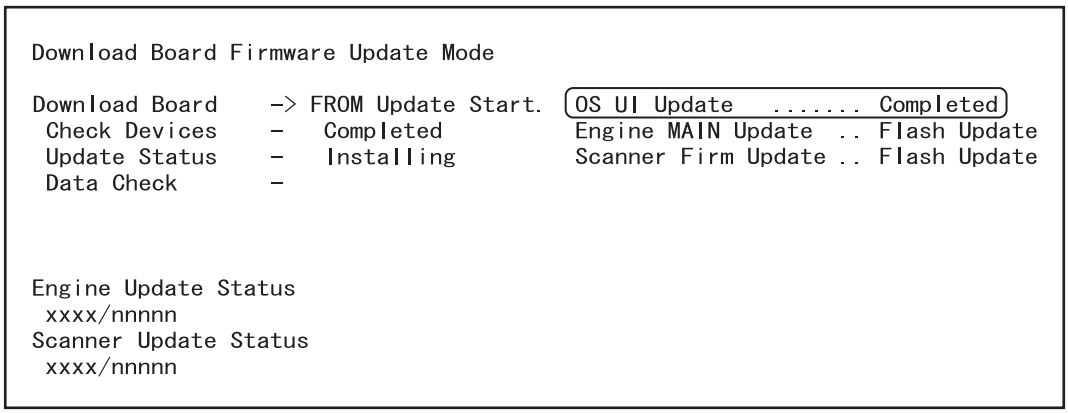
Select items to be updated and press the [START] button.

6

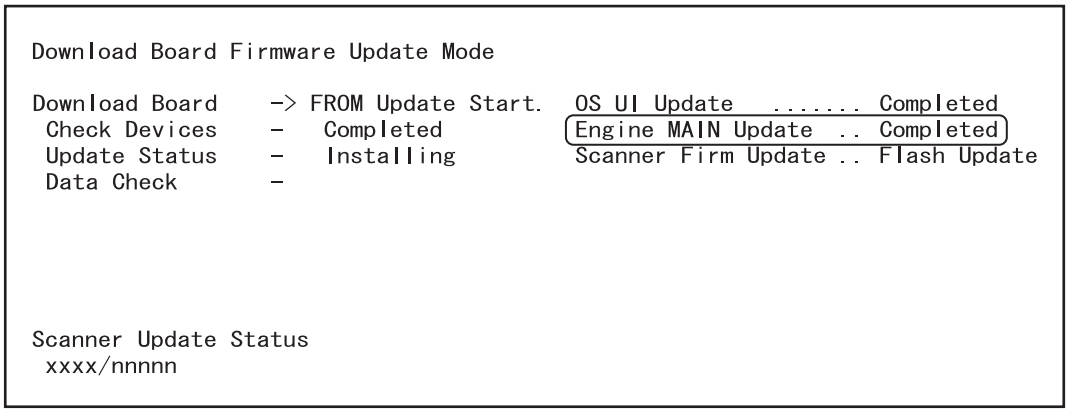
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When the [System ROM]-[OS Update] has been updated, “OS UI Update…Completed” is displayed.



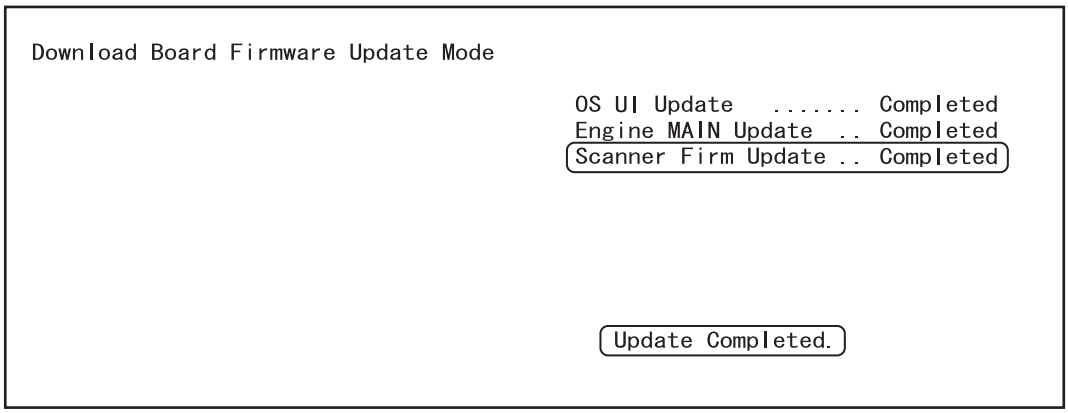
When the [Engine ROM] has been updated, “Engine MAIN Update..Flash Update” is changed to “Engine MAIN Update.. Completed”.



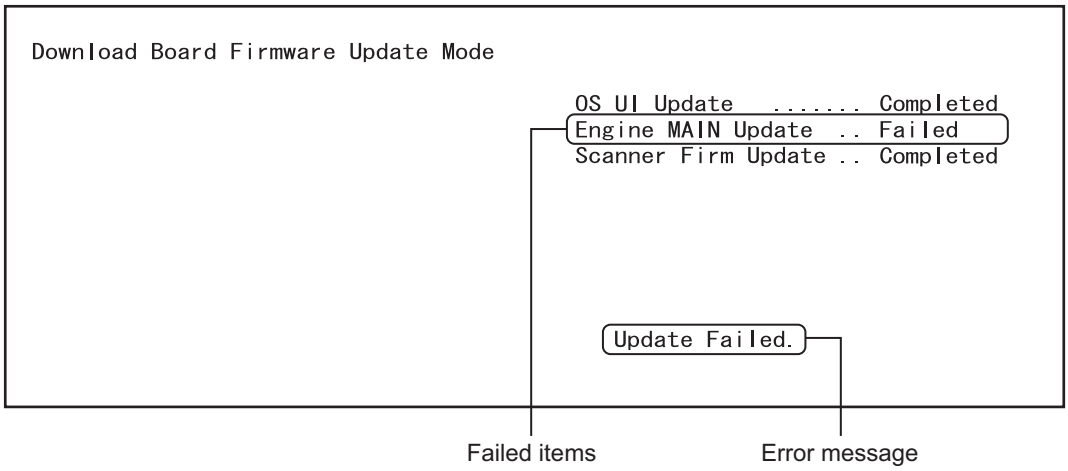
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⇩ When the [Scanner ROM] has been updated, “Scanner Firm Update..Flash Update” is changed to “Scanner Firm Update.. Completed”.

When all data has been updated, “Update Completed” is displayed.



* “Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display.



6

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6.2.2 Writing the data to the download jig (PWA-DWNLD-350-JIG)

The download jig (PWA-DWNLD-350-JIG) is the jig in which the Flash ROM is mounted on the board directly. The ROM writer adapter (PWA-DL-ADP-350) is required to write data to these Flash ROMs. Connect the download jig with the ROM writer via ROM writer adapter to write data. For the procedure to write data, refer to the download procedure, instruction manual of each ROM writer, or others.

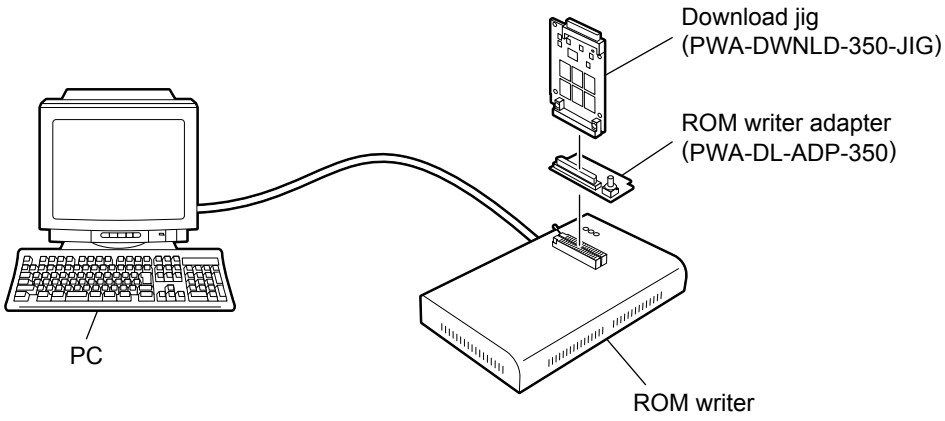
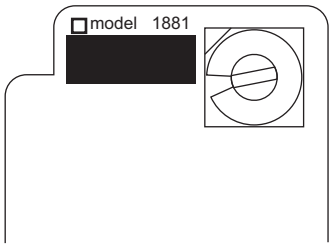


Fig. 6-49

Note:

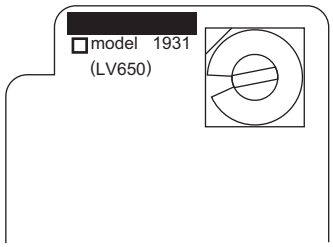
There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting them. If an unapplied adapter is connected, the application of the ROM writer judges it as an error and writing the data cannot be implemented. Applicable combinations of the ROM writer and adapter are as follows.

ROM writer	ROM writer adapter
Minato Electronics MODEL 1881XP/1881UXP (or equivalent)	PWA-DL-ADP-350-1881 (model 1881)
Minato Electronics MODEL 1893/1895/1931/1940 (or equivalent)	PWA-DL-ADP-350-1931 (model 1931)



[PWA-DL-ADP-350-1881]

Fig. 6-50 PWA-DL-ADP-350-1881



[PWA-DL-ADP-350-1931]

Fig. 6-51 PWA-DL-ADP-350-1931

- Precaution when writing the data
  - Set the writing voltage (VID) to 3.3 V.
  - When writing the data, set the address from 0 to 3FFFFF. The data may not be written correctly if it is not set.

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- The Flash ROM in which the data will be written, on the download jig is selected by switching the rotary switch on the adapter. Be sure to switch the rotary switch on the adapter depending on the data (file) to be written.

Important:

When an error such as "Over current detects" appears while the data are being written to the download jig and the writing cannot be finished, set the writing voltage (VID) to 12 V and then write them.

RotarySwitch	File Name	Flash ROM
1	firmImage 0.bin	ROM1
2	firmImage 1.bin	ROM2
3	firmImage 2.bin	ROM3
4	N/A	ROM4
5	N/A	ROM5
6	N/A	ROM6

Note:

Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different.

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6.2.3 K-PWA-DLM-320

The firmware of the equipment (engine ROM, scanner ROM) and the option (RADF ROM, Finisher ROM, FAX ROM) can be updated individually by using K-PWA-DLM-320. Update the ROM data written on each board according to the need such as the case of replacing the board.

The data to be overwritten by this update are as follows.
<Updating Engine ROM>
Engine ROM data

<Updating Scanner ROM>
Scanner ROM data

<Updating RADF ROM>
RADF ROM data

<Updating Finisher ROM>
Finisher ROM data

<Updating FAX ROM>
FAX ROM data

[A] Update Procedure

Since the procedure differs depending on the data, see the each procedure below.

Important:

- Turn OFF the power before installing or removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

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<Updating Engine ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-33 "Fig. 6-35").

(2) Turn OFF the power of the equipment.

(3) Take off the connector cover.

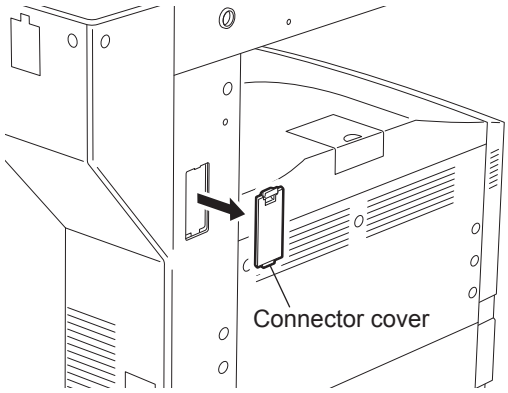


Fig. 6-52

(4) Remove the cover plate.

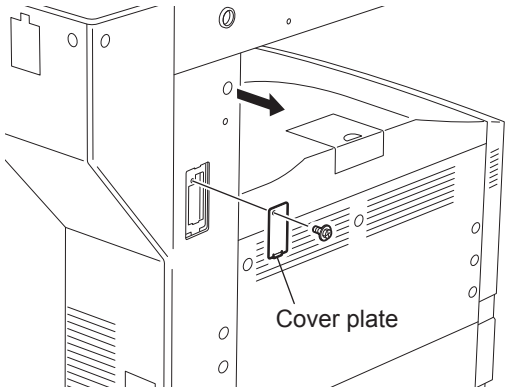


Fig. 6-53

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(5) Connect the download jig with the jig connector (CN316) on the logic PC board (LGC board).

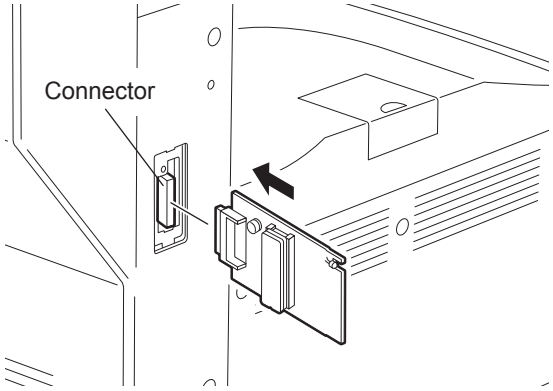


Fig. 6-54

(6) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(7) When the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(8) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.

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<Updating Scanner ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-33 "Fig. 6-35").

(2) Turn OFF the power of the equipment.

(3) Take off the right upper cover-1.

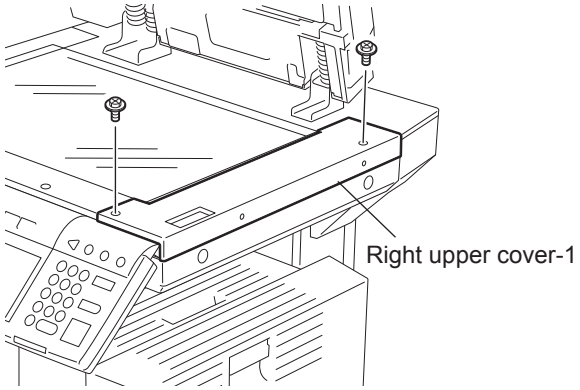


Fig. 6-55

(4) Take off the right upper cover-2.

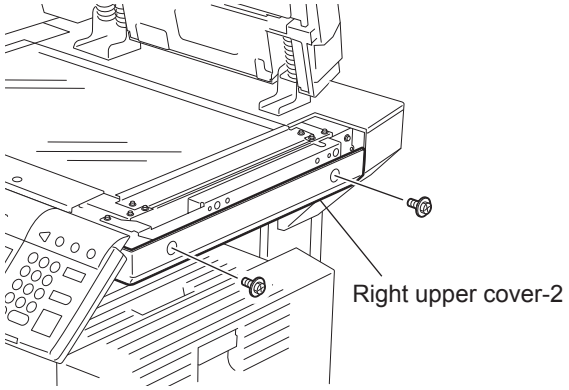


Fig. 6-56

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(5) Remove the cover plate.

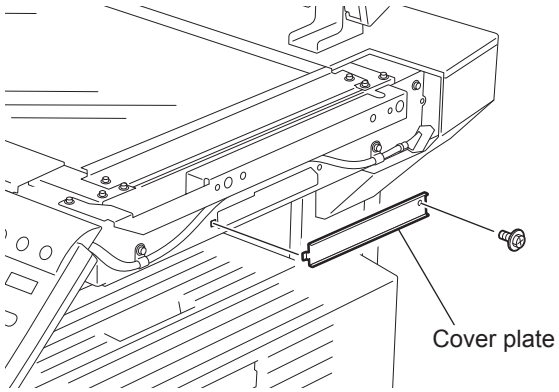


Fig. 6-57

(6) Connect the download jig with the jig connector (CN22) on the scanning section control PC board (SLG board).

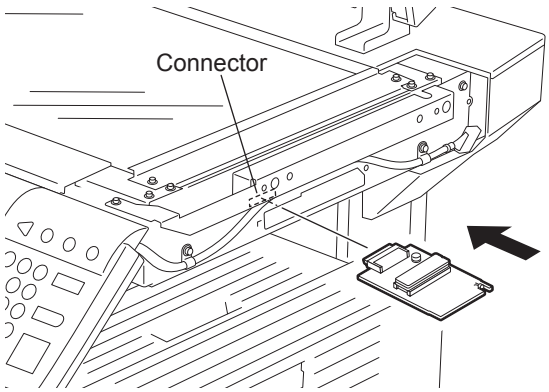


Fig. 6-58

(7) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(8) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(9) Turn OFF the power, remove the download jig and install the cover plate, the right upper cover-1 and the right upper cover-2.

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<Updating RADF ROM (MR-3020)>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-33 "Fig. 6-35").

(2) Turning OFF the power of the equipment.

(3) Take off the RADF rear cover.
(4) Connect the download jig with the connector (CN81) on the PC board.

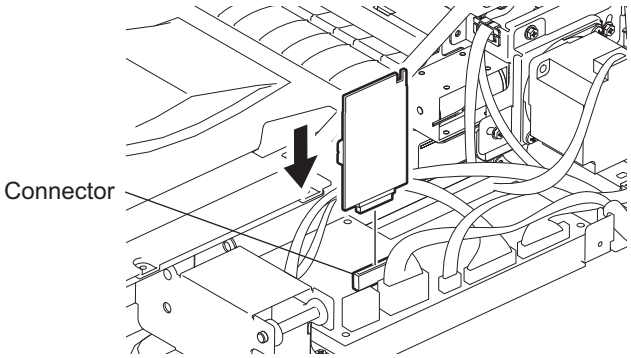


Fig. 6-59

(5) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(6) When the data rewriting is completed, the LED blinks slowly (at an interval of 0.8 sec.).
If the LED blinks fast (at an interval of 0.1 sec.), the rewriting has been failed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(7) Turn OFF the power, remove the download jig and install the RADF rear cover.

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<Updating Finisher ROM>

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-33 "Fig. 6-35").

(2) Turn OFF the power of the equipment.

(3) Take off the finisher rear cover.

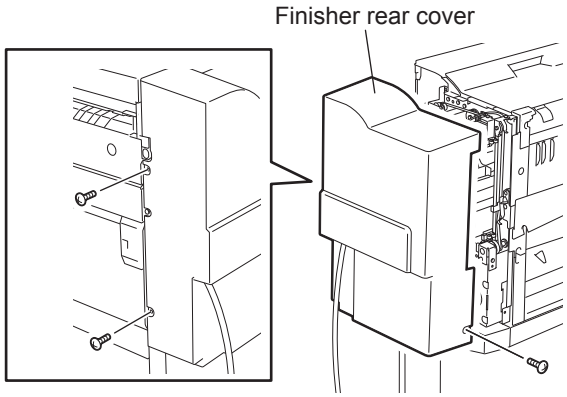


Fig. 6-60

* Connect the finisher interface cable with the equipment after removing the finisher rear cover.

(4) Connect the download jig with the jig connector on the finisher control PC board.

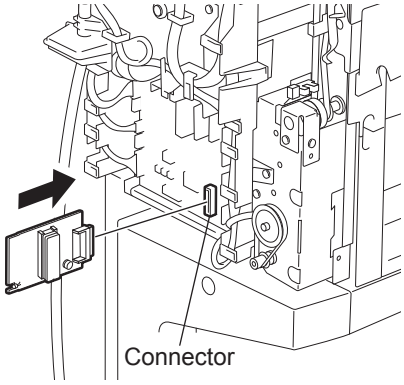


Fig. 6-61

(5) Change the setting of he DIP switch on the finisher control PC board.
Change all the setting of the DIP switch (1-8) to OFF.

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Note:

Record the current settings of the DIP switch before changing them. After the updating is completed, return the DIP switch to the status as record.

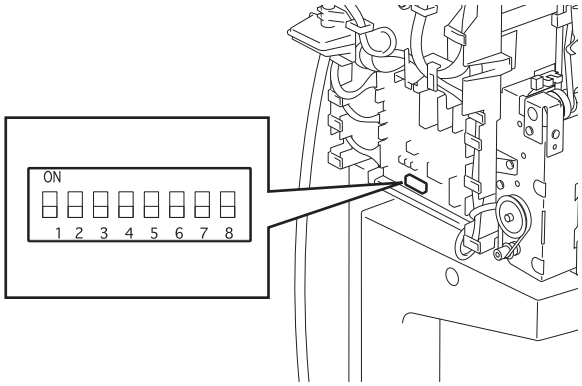


Fig. 6-62

(6) Turn ON the power while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(7) After the update is completed properly, the LED on the download jig blinks slowly. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed, or LED flashes fast. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.

- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?
- Is the DIP switch on the finisher control PC board set properly?

(8) Turn OFF the power, remove the download jig and return the DIP switch to the status before updating.

(9) Install the finisher rear cover.

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<Updating FAX ROM>

Important:

- Before updating the FAX ROM, make sure to print out the current Function list for maintenance, Function list (ADMIN), Phone book number information and Group number information. In case the updating is failed and the registered information of the users is lost for some reason, re-register the user information referring to the lists and recover it.
- Confirm the following items before turning OFF the power of the equipment. Turning OFF the power may clear the data below.
  - Confirm that the “MEMORY RX” LED is OFF and there are no memory reception data.
  - Print the “Mailbox/Relay box report” and then confirm that there are no F code data.
  - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.

(1) Install the ROM to the download jig.
Make sure the direction is correct (P.6-33 "Fig. 6-35").

(2) Turn OFF the power of the equipment.

(3) Remove the cover plate.

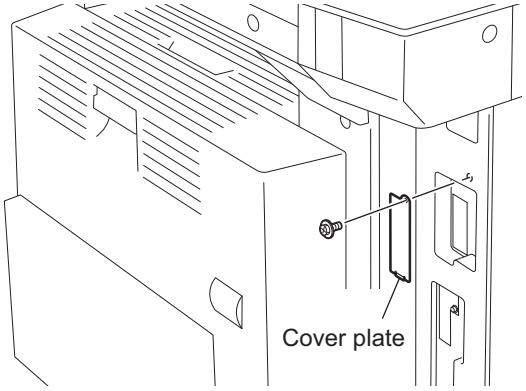


Fig. 6-63

(4) Connect the download jig with the jig connector (CN602) on the FAX board.

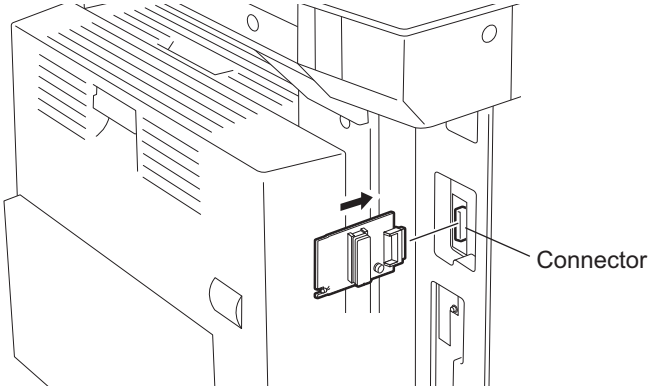


Fig. 6-64

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(5) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.

(6) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 30 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(7) Turn OFF the power, remove the download jig and install the cover plate.

(8) In the FAX Clearing Mode, perform the “FAX Set up”.
- Confirm the destination setting is correct in the Setting Mode (08).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in “100”.
- Press the [START] button.

Notes:

If the equipment does not work properly after the operation (8), follow the procedure below and then perform the “Clearing the image data” in the FAX Clearing Mode to erase the image data in the memory.
- Confirm the destination setting is correct in the Setting Mode (08).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in “102”.
- Press the [START] button.

6

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

<Updating RADF ROM>
08-907: RADF ROM version

<Updating Finisher ROM>
08-908: Finisher ROM version

<Updating FAX ROM>
08-915: FAX ROM version

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6.3 Firmware Updating with FSMS (Field Service Manager) (e-STUDIO200L/230/230L/280)

In this equipment, it is feasible to update the downloaded firmware from the PC connected with the equipment by using the utility software “FSMS (Field Service Manager)”.
Refer to the Field Service Manager Operator’s Manual for the details about installation method and functions of FSMS.

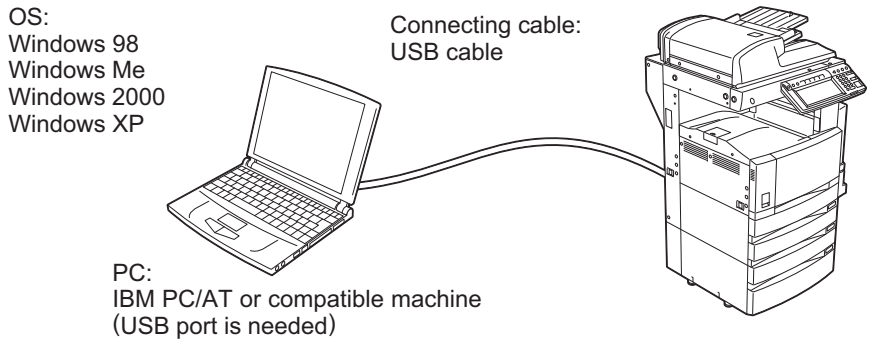


Fig. 6-65

Important:

- Updating through USB is not feasible for Windows NT4.0 since this operating system does not support USB.
- When updating through USB (using FSMS), a printer driver needs to be installed in the PC in advance.
  Refer to the Printing Guide about the installation method of the printer driver.

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The types of firmware which can be updated with this method are as follows in the table below.

Firmware	Stored	Data file name
Master data	Hard disk	uidata2.tz, uidata3.tz, uidata4.tz, uidata5.tz, uidata6.tz, uidata7.tz, webdata1.tz, webdata2.tz, webdata3.tz, webdata4.tz, webdata5.tz, webdata6.tz, all.tz
System ROM	System control PC board (SYS board)	sysfirm.tz, uidataF.tz, uidata0.tz, uidata1.tz
Engine ROM	Logic PC board (LGC board)	mfirm.tz
Scanner ROM	Scanning section control PC board (SLG board)	scnfirm.tz
NIC ROM	NIC board	nicfirm.tz

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[A] Update procedure

Important:

- Do not operate the equipment or send a print job to the equipment during the update. This interferes the updating operation and the firmware may not be written properly.
- Do not turn OFF the power of equipment or PC during the update. The data could be damaged and not to be continued to function properly.
- When using FSMS, set “1” at FSMS permission code (08-258) in the Setting Mode (08) in advance.
- The data file (tz file format) of each firmware is recommended to save at the local drive in the PC (C drive, etc.) where FSMS program is installed.

(1) Connect the equipment and PC with the cable.

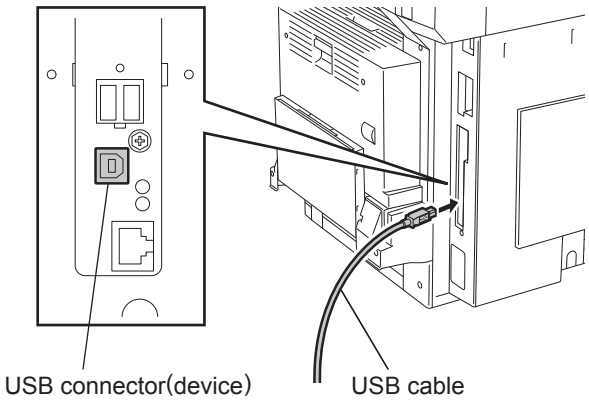


Fig. 6-66 USB connection

* Connect the PC end of the cable to the USB port on the PC.

(2) Turn ON the power of the equipment.

Remark:

When updating with FSMS, updating can be performed in any of the normal mode, Adjustment Mode (05) and Setting Mode (08). To avoid an interruption during the update, using the Setting Mode (08) is recommended.

(3) Turn ON the power of the PC.

(4) Activate FSMS.
Select “TOSHIBA FSMS” starting with the Start menu.

(5) Enter the login password and click the [OK] button.

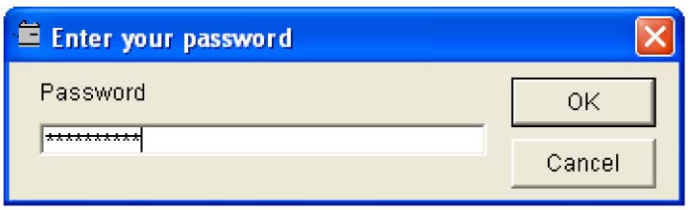


Fig. 6-67

* Set the login password at the installation of FSMS.

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(6) Click the [F/W Download] button.

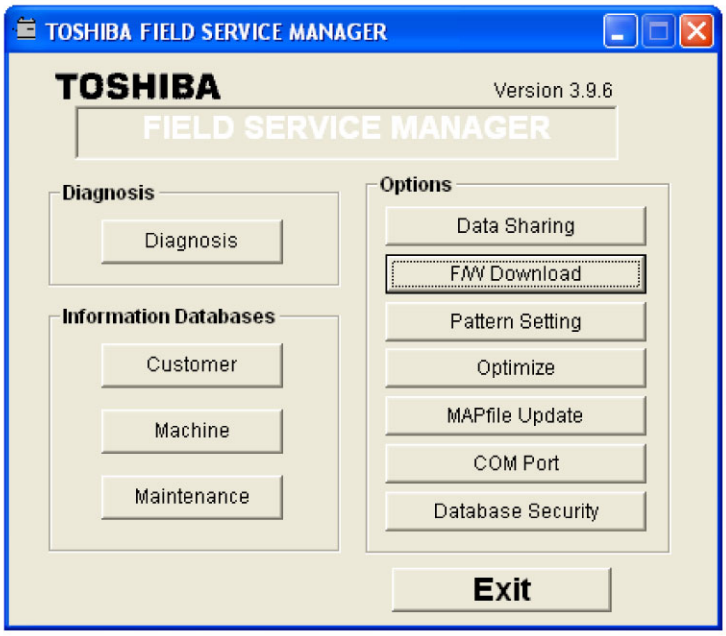


Fig. 6-68

(7) Select the model name of the equipment to be updated from the drop-down menu and click the [OK] button.

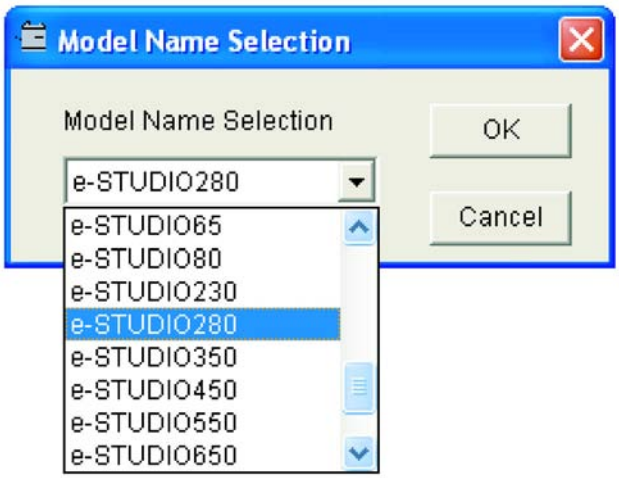


Fig. 6-69

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(8) Click the [OFFLINE] button.

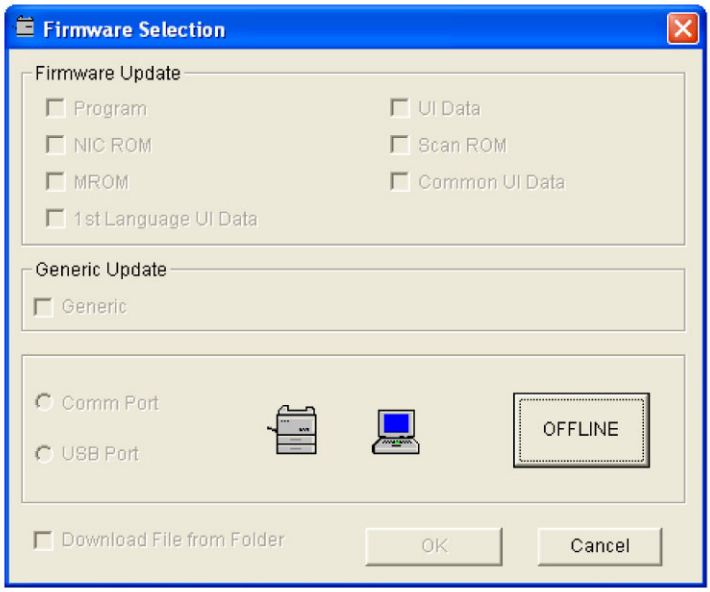


Fig. 6-70

(9) The connection status between the printer driver installed in the PC and the equipment to be connected is displayed. Select the equipment to be updated and click the [Activate FSMS] button.

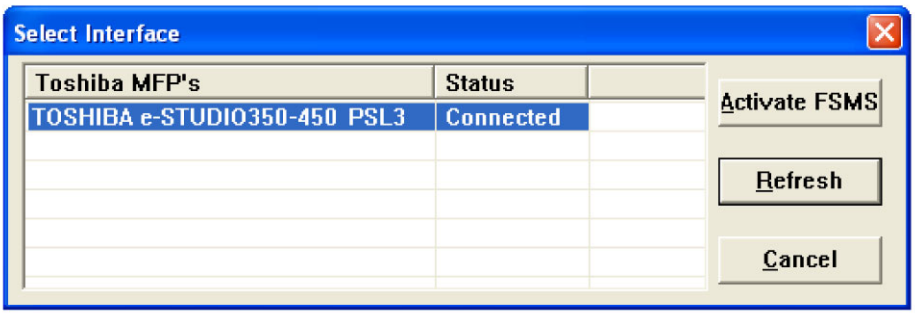


Fig. 6-71

Remark:

The content of “Status” display can be renewed to the latest status by clicking the [Refresh] button. When the status is displayed as “Disconnected” because the start up of the equipment is delayed, the status can be renewed to “Connected” by clicking this.

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(10) Check the firmware to be updated and click the [OK] button.

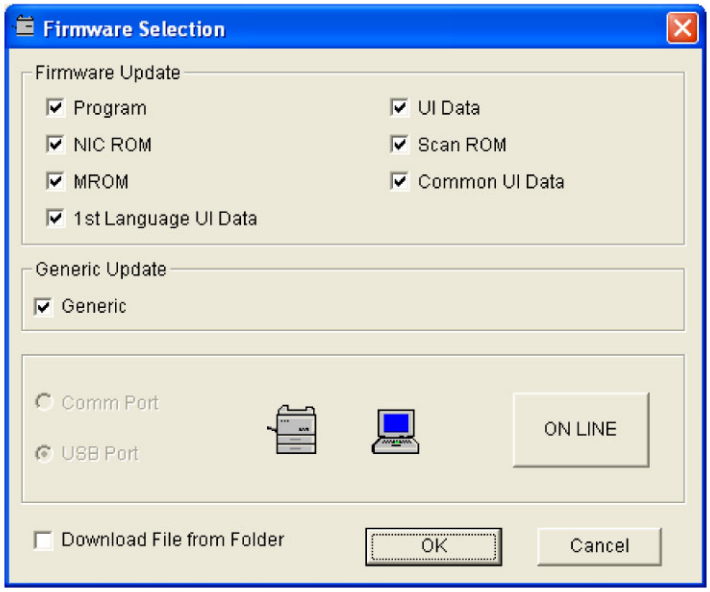


Fig. 6-72

Remark:
The relation between the types of firmware to be updated and items to check is as follows in the table below.

Item	Firmware	Data file name to update
Program	System ROM	sysfirm.tz
UI Data		uidataF.tz
Common UI Data		uidata0.tz
1st Language UI Data		uidata1.tz
MROM	Engine ROM	mfirm.tz
Scan ROM	Scanner ROM	scnfirm.tz
NIC ROM	NIC ROM	nicfirm.tz
Generic	Master data	uidata2.tz, uidata3.tz, uidata4.tz, uidata5.tz, uidata6.tz, uidata7.tz, webdata1.tz, webdata2.tz, webdata3.tz, webdata4.tz, webdata5.tz, webdata6.tz, all.tz

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(11) Select the data file to be updated and click the [OK] button.
There are two data filing methods: Selecting the multiple data files in a batch (select the folder where the files are saved) and selecting each data file individually.

- Selecting the multiple data files in a batch
  - Select “Download File Folder”.
  - Click the [Browse] button and select the folder where the files are saved.

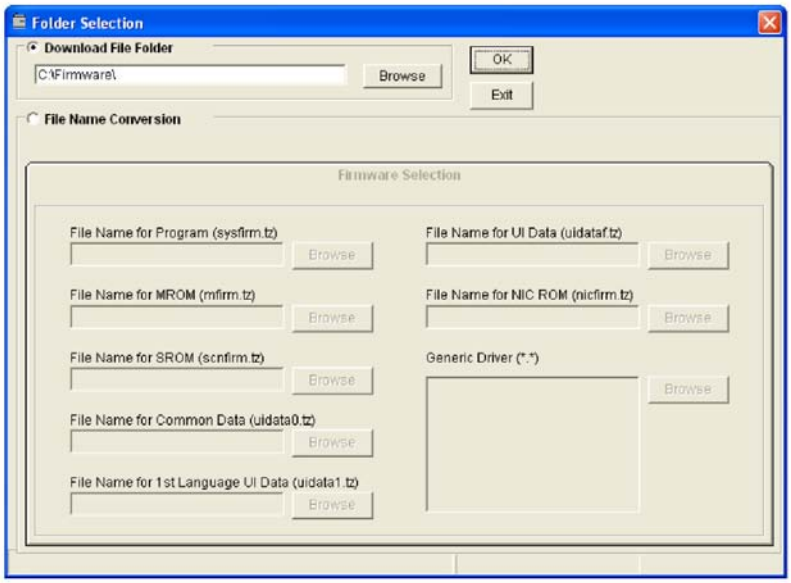


Fig. 6-73

- Selecting each data file individually
  - Select “File Name Conversion”.
  - Click the [Browse] button of each data and select the file. When “Generic Driver” is used, check the checkbox of the file to be selected.

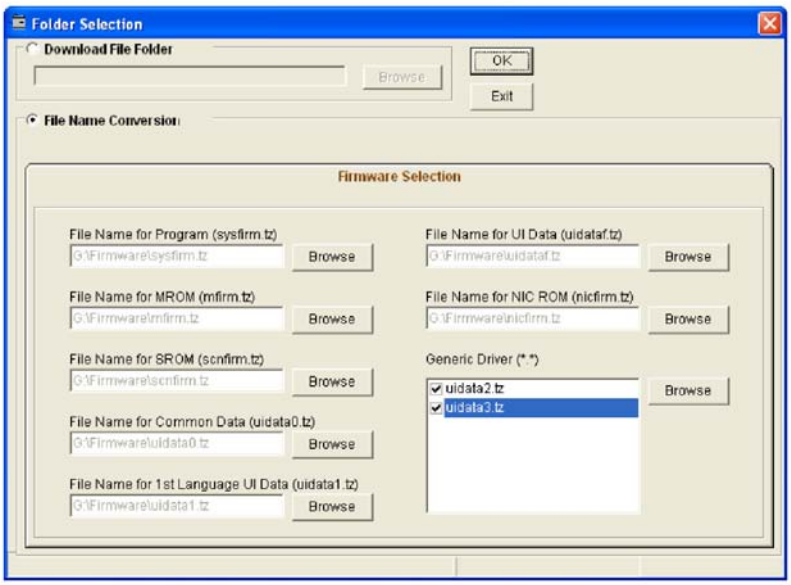


Fig. 6-74

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Remark:

When selecting the multiple files in a batch, the name of the unselected data file (not saved in the folder) may be displayed. In this case, click the [OK] button and then the update of all files except the displayed file starts.



Fig. 6-75

(12) The selected data is transmitted to the equipment.
The data file name being transmitted and transmission condition are displayed at the bottom.

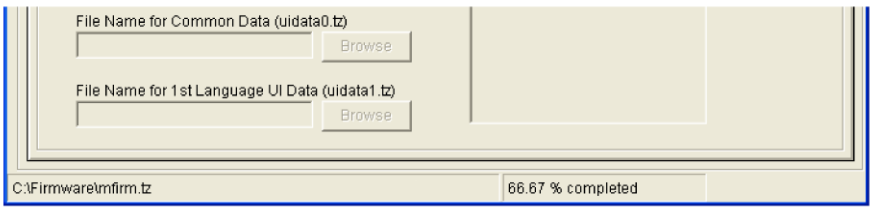


Fig. 6-76

Remark:

During transmission, the message “WAIT” or “NOW SERVICING” is displayed on the LCD screen of the equipment. In this case, all the button operations are locked.

(13) When the data transmission is completed, the following screen is displayed. Then click the [OK] button.



Fig. 6-77

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(14) The equipment restarts automatically and the items to be updated and processing status are displayed on the LCD screen.

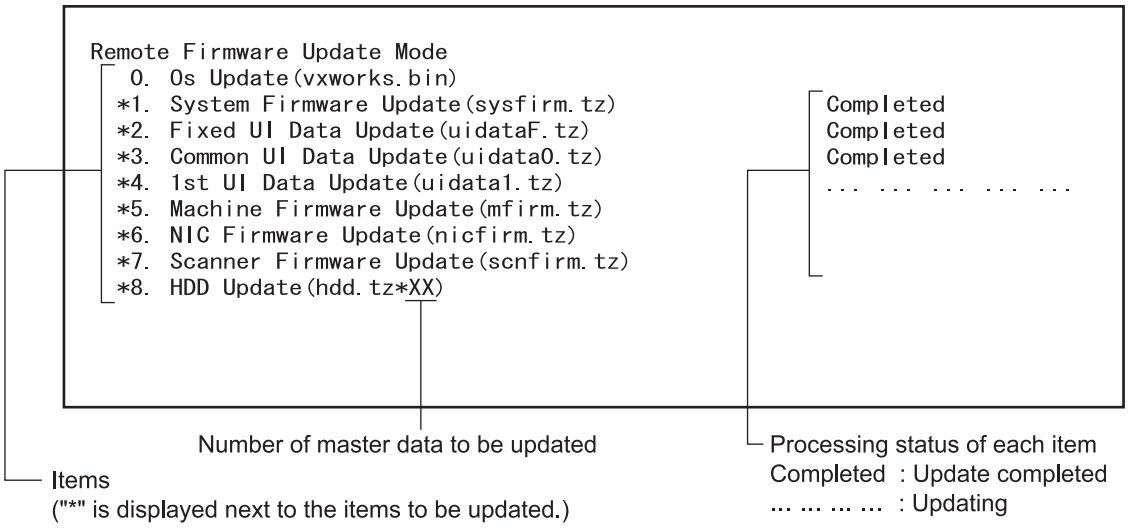


Fig. 6-78

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(15) “Update Completed!!” is displayed at the bottom of the LCD screen after the updating is completed properly.

```
Remote Firmware Update Mode
   0. Os Update(vxworks.bin)
  *1. System Firmware Update(sysfirm.tz)              Completed
  *2. Fixed UI Data Update(uidataF.tz)                Completed
  *3. Common UI Data Update(uidata0.tz)               Completed
  *4. 1st UI Data Update(uidata1.tz)                  Completed
  *5. Machine Firmware Update(mfirm.tz)               Completed
  *6. NIC Firmware Update(nicfirm.tz)                 Completed
  *7. Scanner Firmware Update(scnfirm.tz)             Completed
  *8. HDD Update(hdd.tz*XX)                           Completed

                          Update Completed!!
```

Fig. 6-79

“Update Failed!!” is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Are the equipment and PC properly connected?
- Is the selected data file proper?
- Do the cable, equipment and PC operate properly?
- Are FSMS and printer driver properly installed?

```
Remote Firmware Update Mode
   0. Os Update(vxworks.bin)
  *1. System Firmware Update(sysfirm.tz)              Completed
  *2. Fixed UI Data Update(uidataF.tz)                Completed
  *3. Common UI Data Update(uidata0.tz)               Completed
  *4. 1st UI Data Update(uidata1.tz)                  Completed
  *5. Machine Firmware Update(mfirm.tz)               Completed
  *6. NIC Firmware Update(nicfirm.tz)                 Completed
  *7. Scanner Firmware Update(scnfirm.tz)             Failed
  *8. HDD Update(hdd.tz*XX)

                          Update Failed!!
```

Fig. 6-80

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* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only ”NIC ROM” (6. NIC Firmware Update) and restart updating from the beginning. This may complete the updating properly.

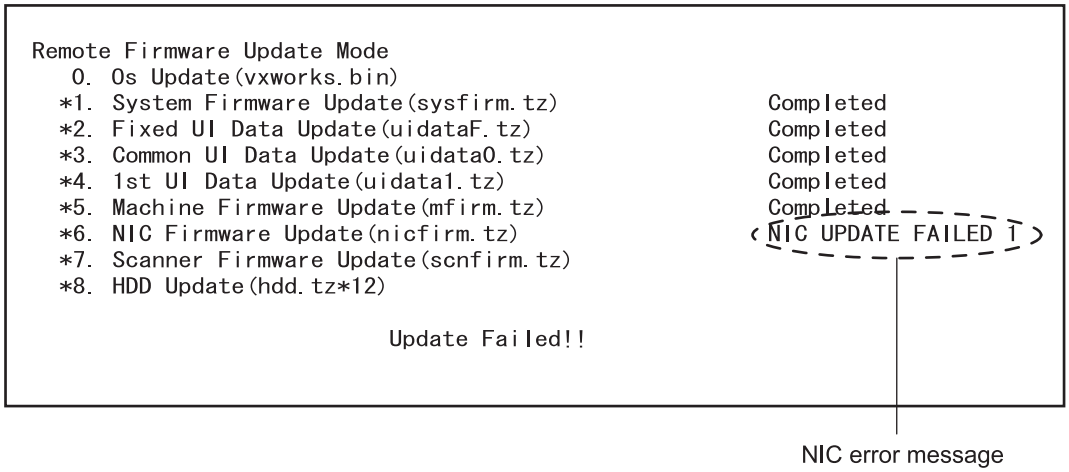


Fig. 6-81

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	The IP address may not be assigned correctly. • Is the IP address assigned correctly? • Does the IP address conflict with the other system? If the error still occurs, replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	The HDD cable may be disconnected. • Is the HDD cable connected correctly? If the HDD cable is connected correctly, replace the SYS board because it may be destroyed.
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 4	NIC setting information backup error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be destroyed.

Note:

If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

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(16) Turn OFF the power of the equipment.

(17) Perform the initialization of the updating data (NVRAM updating).
- Turn ON the power while [0] button and [8] button are pressed simultaneously.
- Key in “947”, and then press the [START] button.
- Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Master data>
08-925: Version of UI data language 2 in HDD
08-926: Version of UI data language 3 in HDD
08-927: Version of UI data language 4 in HDD
08-928: Version of UI data language 5 in HDD
08-929: Version of UI data language 6 in HDD
08-931: Version of UI data language 7 in HDD
08-933: HDD data unit version
08-934: Version of Web UI data language 1 in HDD
08-935: Version of Web UI data language 2 in HDD
08-936: Version of Web UI data language 3 in HDD
08-937: Version of Web UI data language 4 in HDD
08-938: Version of Web UI data language 5 in HDD
08-939: Version of Web UI data language 6 in HDD

<Updating System ROM>
08-900: System ROM version
08-922: UI data fixed section version
08-923: UI data common section version
08-924: Version of UI data language 1 in HDD
08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

<Updating NIC ROM>
08-916: NIC ROM version

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6.4 Firmware Updating with USB Storage Device (e-STUDIO200L/230/230L/280)

In this equipment, it is feasible to update the firmware by connecting the USB storage device on which the firmware data is written to the USB connector mounted on the system control PC board and turning ON the power.
The type of firmware to be updated can be selected on the LCD screen in this method. This allows to update only the necessary firmware individually or to update all firmware in a batch.
The type of firmware which can be updated with this method are as follows in the table below. Also, the data file of each firmware can be used commonly in the updating methods with USB storage device and Download jig.

Firmware	Stored	Data file name
Master data	Hard disk	1, 2, 3 ... n * The file name should be consecutive numbers from 1 to “n” without file extension. The capacity of each file is approx. 8 MB. However, the file capacity of “n” (last number) may be less than 8 MB.
System ROM	System control PC board (SYS board)	sysfirm.bin, ROM.bin
Engine ROM	Logic PC board (LGC board)	ROM.bin
Scanner ROM	Scanning section control PC board (SLG board)	
NIC ROM	NIC board	

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Important:

- The following USB storage devices are recommended for updating.
  - MELCO ClipDrive (RUF-C128M)
  - Lexar Media JumpDrive (RD128-231)
  - Iomega Mini USB Drive (Mini 128 MB USB Drive)

- Only the USB storage device which meets the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
  - A combination USB storage device with a flash memory (to be connected directly to the USB port) and its capacity is 64 MB or more
  - A USB storage device which is complied with the following standards regulated by USB-IF (USB Implementers Forum)
    Class number: 8 (=08h) (Mass-storage class)
    Sub-class number: 6 (=06h) (SCSI transfer command set)
    Protocol number: 80 (=50h) (Bulk-Only)

  * Most common USB storage devices are complied with the specification above and can be used for updating. However, the operation in this equipment is not always guaranteed since the most of these devices are developed based on the use in PC environment (Windows or Macintosh).
  Therefore, confirm thoroughly that the device is operational in this equipment when purchasing the device.

- The USB storage device complied with USB1.1 and USB2.0 can be used for updating. However, the update is performed in the speed of USB1.1 when the device complied with USB2.0 is used.
- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk) since it is never guaranteed.

[A] Update procedure

Important:

- The file system of USB storage device should be formatted in FAT format. Be careful since the devices formatted in FAT32 or NTFS format will not be operated. The file system can be confirmed on the properties in applications such as Explorer of Windows.
- Do not turn OFF the power during the update. The data could be damaged and not to be operated properly.

(1) Connect the USB storage device to the PC and write the data file.
- Confirm the data file name before writing (📖 P.6-72 "6.4 Firmware Updating with USB Storage Device (e-STUDIO200L/230/230L/280)").
- The file system of USB storage device should be formatted in FAT format.
- Windows 95 and NT do not support USB. Be careful since the data can not be written on the devices in the PCs with these operating systems.

(2) Turn OFF the power of equipment.

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(3) Connect the USB storage device to the USB connector (host) on the SYS board.

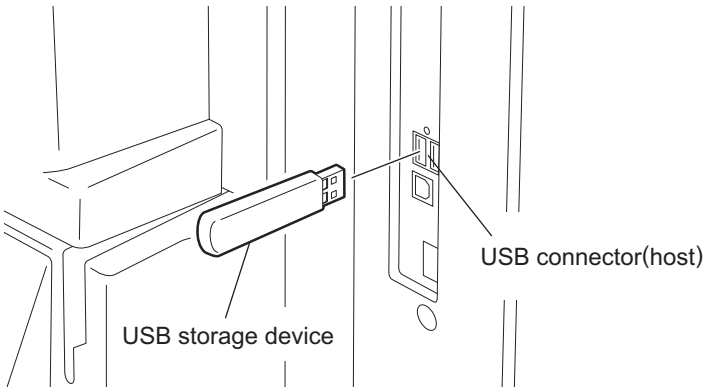


Fig. 6-82

Notes:

- Do not connect multiple USB storage devices together.
- The USB storage device can be connected to either of 2 USB connectors (host).
- In case the printer kit (GM-1020 or 1030), printer/scanner kit (GM-2020 or 2030) and scanner upgrade kit (GM-3020 or 3030) are used, the update must be performed after all the "dongles" are disconnected from the USB connector (host) and only the USB storage device is connected.

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(4) Turn ON the power while [4] button and [9] button are pressed simultaneously.
The screen for selecting the items to be updated is displayed after 3 minutes. “*” is displayed next to the items to be updated. (All items other than "0. OS Update" are selected in the default settings.)

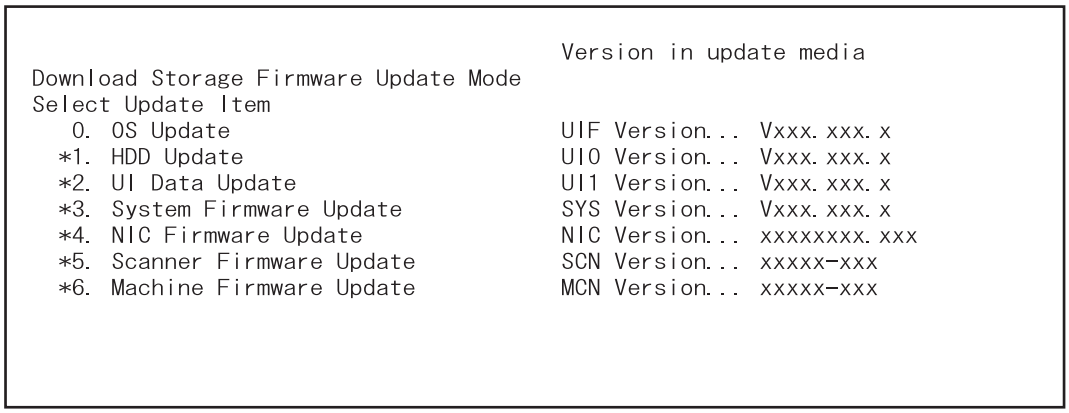


Fig. 6-83

Note:
The display of items on this screen varies depending on the types of data written on the USB storage device. Each item is displayed only when each data file is written on the USB storage device in the following conditions.

Item	Condition
0. OS Update	ROM.bin is written.
1. HDD Update	All master data files (1, 2, 3 ... n) are written.
2. UI Data Update	ROM.bin is written.
3. System Firmware Update	sysfirm.bin and ROM.bin are written.
4. NIC Firmware Update	ROM.bin is written.
5. Scanner Firmware Update	ROM.bin is written.
6. Machine Firmware Update	ROM.bin is written.

If the USB storage device is not recognized properly, the following message is displayed. In this case, turn OFF the power of the equipment and connect the device properly. Then repeat the procedure from (4).

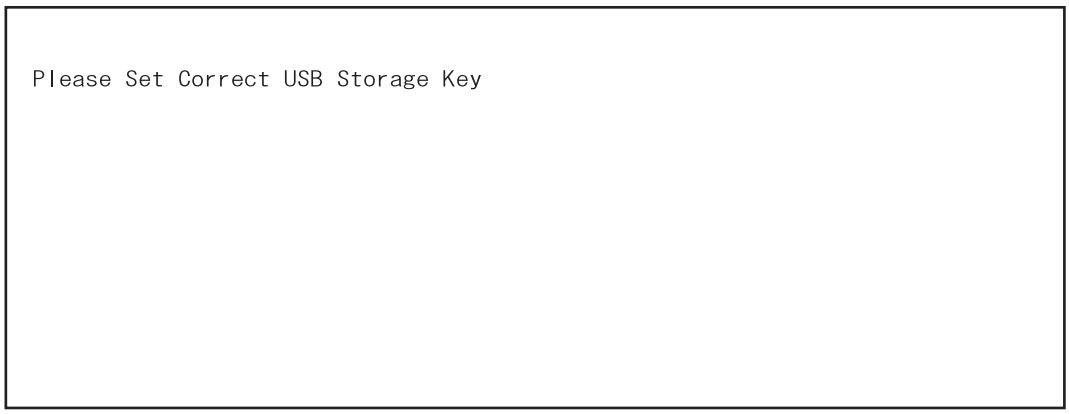


Fig. 6-84

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(5) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item. All items are selected in the default settings.

- Select all items to update the firmware of the equipment in a batch.
- Select items as follows to update individually.

<Updating OS data>
Select "0. OS Update" only.

<Updating Master data>
Select "1. HDD Update" only.

<Updating System ROM>
Select "2. UI Data Update" and "3. System Firmware Update".

<Updating Engine ROM>
Select "6. Machine Firmware Update" only.

<Updating Scanner ROM>
Select "5. Scanner Firmware Update" only.

<Updating NIC ROM>
Select "4. NIC Firmware Update" only.

Example: Updating the master data and system ROM
(Updating the master data and system ROM is taken as an example and explained.)

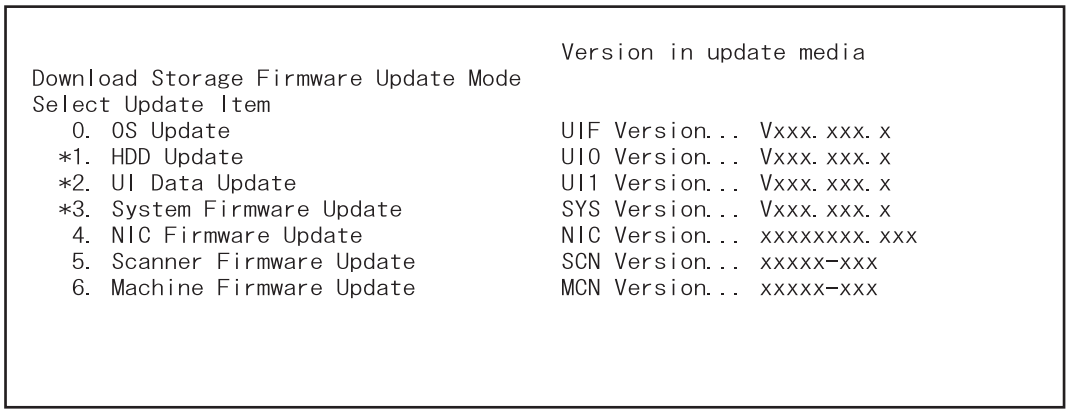


Fig. 6-85

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(6) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen. When the multiple items are selected, updating starts in order of item number.

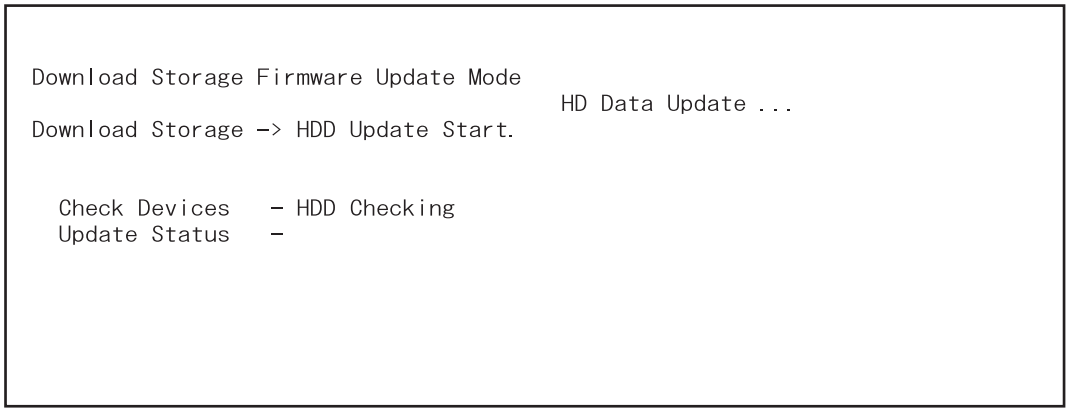


Fig. 6-86

(7) “Update Completed.” is displayed at the bottom of the LCD screen after the updating is completed properly.

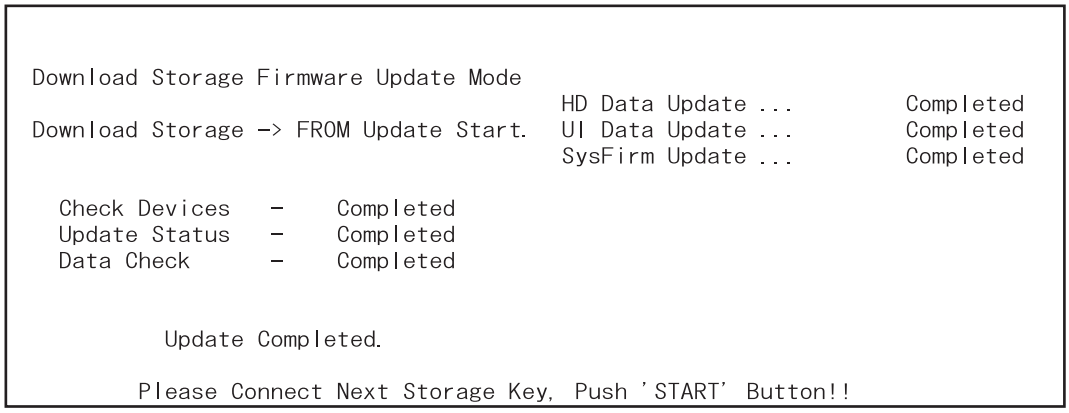


Fig. 6-87

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Remark:

Updating can be continued with another USB storage device on which the firmware data is written in the following procedure when the updating is completed.

1. Confirm the message “Please Connect Next Storage Key. Push ‘START’ Button!!” is displayed at the bottom of the LCD screen.
2. Replace the USB storage device while the power is left ON.
3. Press the [START] button.
4. The screen for selecting the items to be updated is displayed. Continue the updating from procedure (5). However, the items already updated are not displayed on the screen.

“Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Does the USB storage device meet the conditions to be used for updating (📖 P.6-72 "6.4 Firmware Updating with USB Storage Device (e-STUDIO200L/230/230L/280)")?
- Is the data file written properly on the USB storage device?
- Is the USB storage device installed properly?
- Do the USB storage device and equipment operate properly?

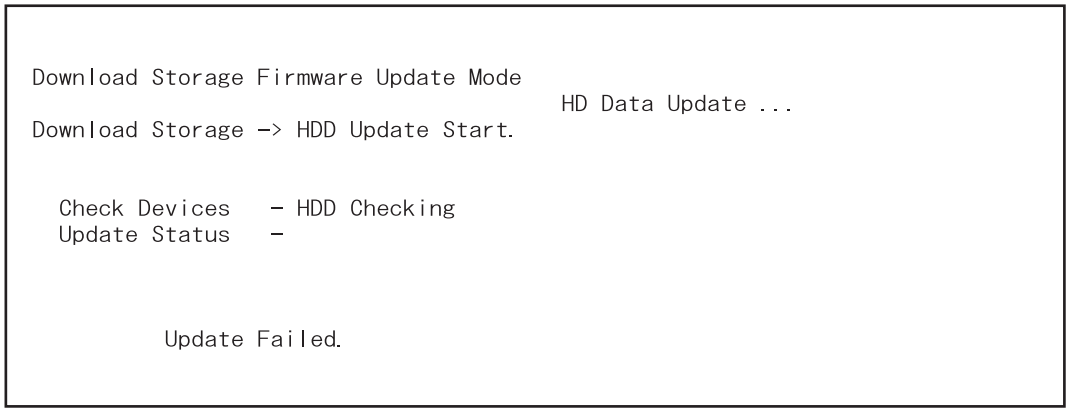


Fig. 6-88

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* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only “4. NIC Firmware Update” and restart updating from the beginning. This may complete the updating properly.

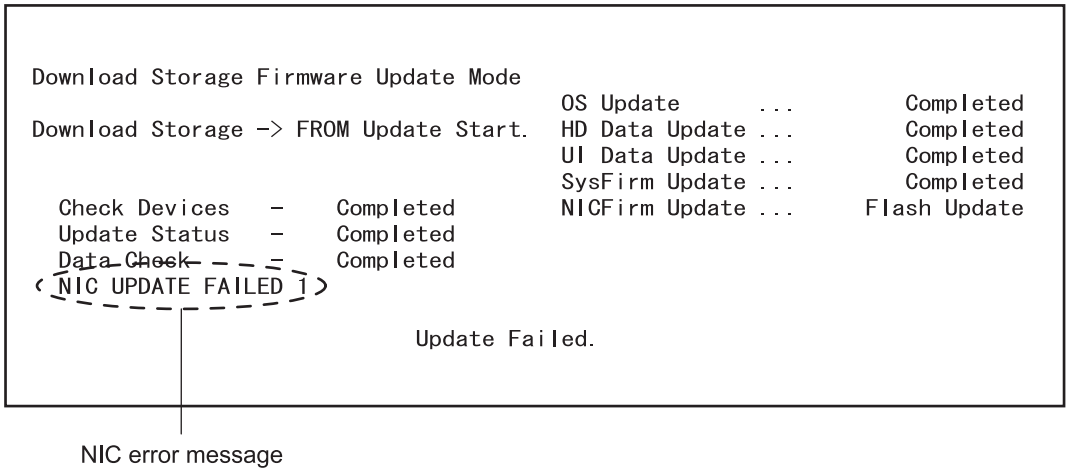


Fig. 6-89

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	The IP address may not be assigned correctly. • Is the IP address assigned correctly? • Does the IP address conflict with the other system? If the error still occurs, replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	The HDD cable may be disconnected. • Is the HDD cable connected correctly? If the HDD cable is connected correctly, replace the SYS board because it may be destroyed.
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 4	NIC setting information backup error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be destroyed.

Note:
If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

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(8) Turn OFF the power, remove the USB storage device.

(9) Perform the initialization of the updating data (NVRAM updating).
- Turn ON the power while [0] button and [8] button are pressed simultaneously.
- Key in “947”, and then press the [START] button.
- Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Master data>
08-924: Version of UI data language 1 in HDD
08-925: Version of UI data language 2 in HDD
08-926: Version of UI data language 3 in HDD
08-927: Version of UI data language 4 in HDD
08-928: Version of UI data language 5 in HDD
08-929: Version of UI data language 6 in HDD
08-931: Version of UI data language 7 in HDD
08-933: HDD unit data version
08-934: Version of Web UI data language 1 in HDD
08-935: Version of Web UI data language 2 in HDD
08-936: Version of Web UI data language 3 in HDD
08-937: Version of Web UI data language 4 in HDD
08-938: Version of Web UI data language 5 in HDD
08-939: Version of Web UI data language 6 in HDD

<Updating System ROM>
08-900: System ROM version
08-920: FROM basic section software version
08-921: FROM internal program version
08-922: UI data fixed section version
08-923: UI data common section version
08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

<Updating NIC ROM>
08-916: NIC ROM version

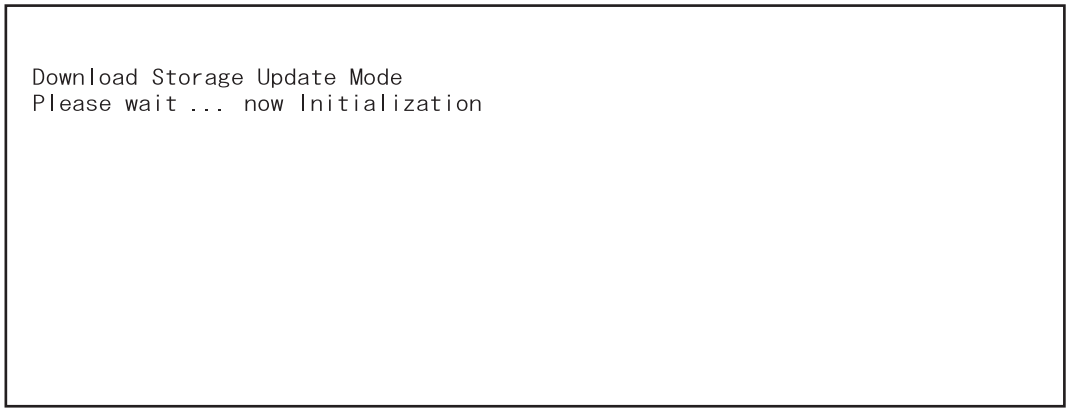
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[C] Display during the update

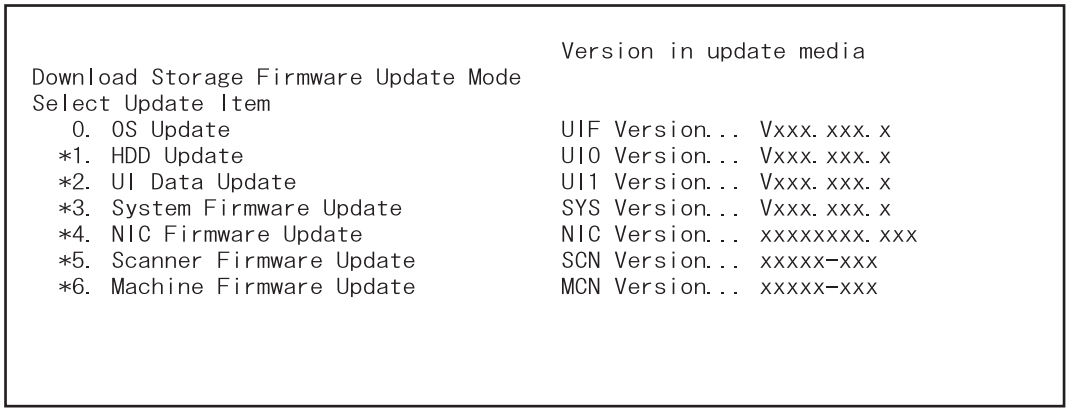
The processing status is displayed as follows on the LCD screen during the update. (As an example, the display for updating the system ROM is explained below.)

Turn ON the power while [4] button and [9] button are pressed simultaneously.

⇩ The initial screen is displayed and the recognition of the USB storage device connected to the equipment is started.



⇩ When the device is recognized properly after 3 minutes, the screen for selecting items is displayed.



⇩ Press the [START] button after selecting the item to be updated. The device check starts.

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```
Download Storage Firmware Update Mode
                                        HD Data Update ...
Download Storage -> HDD Update Start.

  Check Devices   - HDD Checking
  Update Status   -
```

When the device check completes, copying the data to the HDD starts.

```
Download Storage Firmware Update Mode
                                        HD Data Update ...
Download Storage -> HDD Update Start.

  Check Devices   -    Completed
  Update Status   -    F-ROM -> HDD copying
                                                          1/n  xxx/ yyy
```

File name of master data

Copied

Total files

When all files have been copied, the backup of RIP font starts.

```
Download Storage Firmware Update Mode
                                        HD Data Update ...
Download Storage -> HDD Update Start.

  Check Devices   -    Completed
  Update Status   -    Backup file /PRF -> /PR2
                                                          1/n  xxx/ yyy
                                                          2/n  xxx/ yyy
                                                          3/n  xxx/ yyy
                                                          n/n  xxx/ yyy
```


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⇩ When the backup of RIP font is completed, the following screen is displayed. Updating the master data is completed.

```
Download Storage Firmware Update Mode
                                        HD Data Update ...        Completed
Download Storage -> HDD Update Start.


  Check Devices   -    Completed
  Update Status   -    Completed
                                                          1/n  xxx/ yyy
                                                          2/n  xxx/ yyy
                                                          3/n  xxx/ yyy
                                                          4/n  xxx/ yyy
```

⇩ Updating the system ROM starts subsequently. The device check starts.

```
Download Storage Firmware Update Mode
                                        HD Data Update ...        Completed
Download Storage -> FROM Update Start.


  Check Devices   -    Checking
  Update Status   -
  Data Check      -
```

⇩ When the device check completes, copying the data to the ROM of the equipment starts.

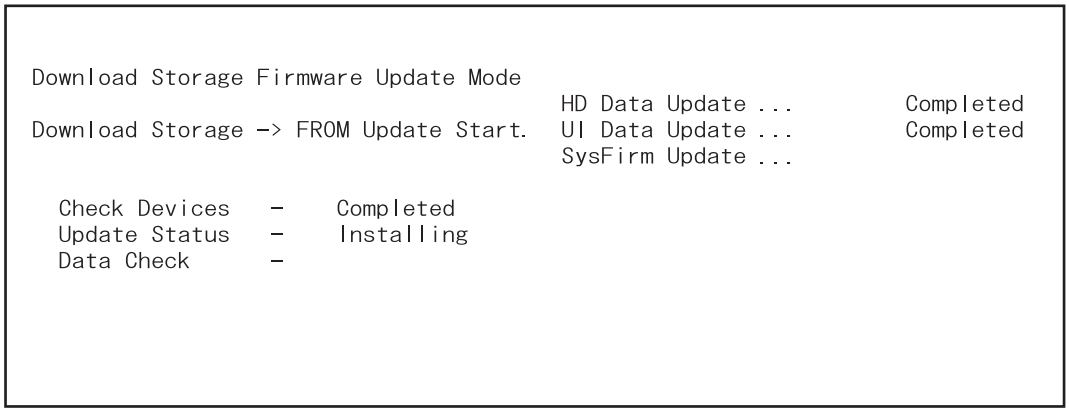
```
Download Storage Firmware Update Mode
                                        HD Data Update ...        Completed
Download Storage -> FROM Update Start.  UI Data Update ...


  Check Devices   -    Completed
  Update Status   -    Installing
  Data Check      -
```

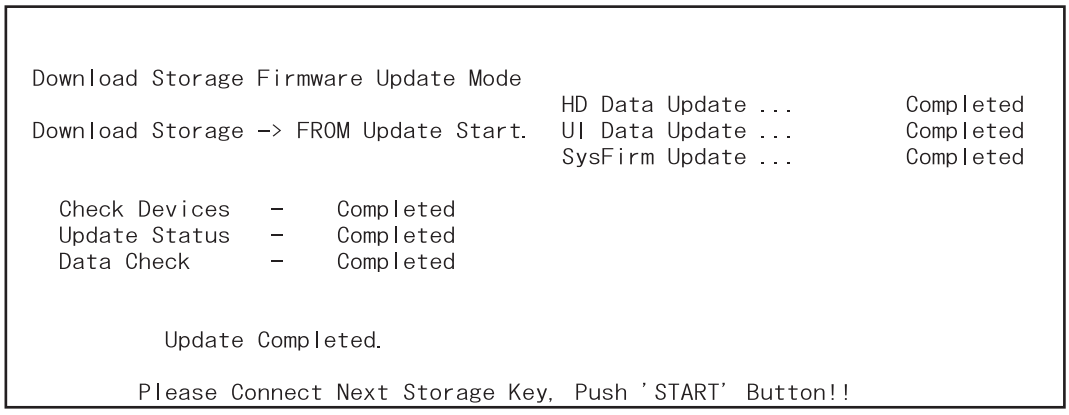
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When copying the data completes, copying the other data are implemented repeatedly.

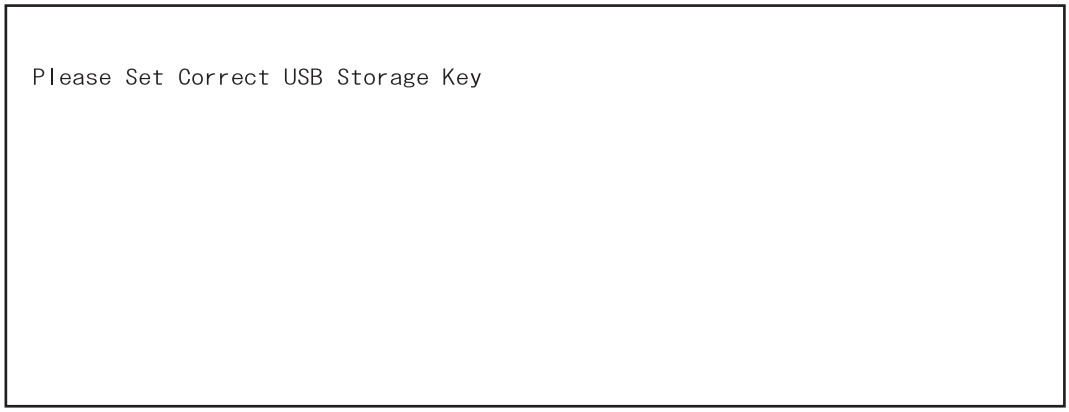


When copying all the data complete, the update completes with the following screen.

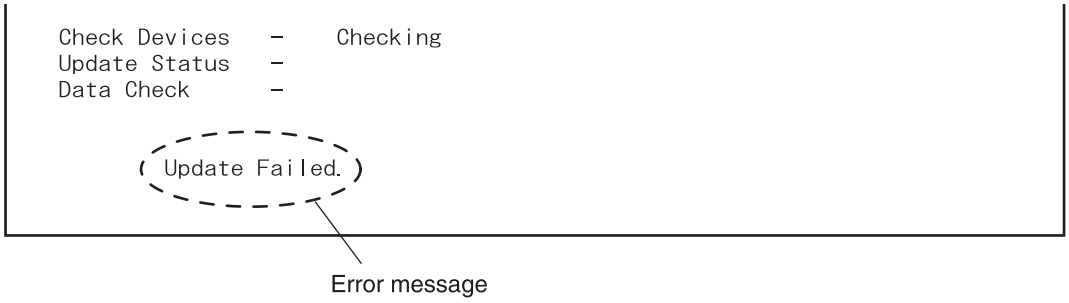


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* If the USB storage device is not recognized properly, the following message is displayed and the update is interrupted.



* If an error occurs, the following error message is displayed and the update is interrupted.



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6.5 Firmware Updating with USB Storage Device (e-STUDIO202L/203L/232/233/282/283)

In this equipment, it is feasible to update the firmware by connecting the USB storage device on which the firmware data is written to the USB connector mounted on the system control PC board and turning ON the power.
The type of firmware to be updated can be selected on the LCD screen in this method. This allows to update only the necessary firmware individually or to update all firmware in a batch.
The type of firmware which can be updated with this method are as follows in the table below.

Firmware	Stored	Model specific folder name	Data file name
Master data	Hard disk	202_282	1, 2, 3 ... n * The file name should be consecutive numbers from 1 to “n” without file extension. The capacity of each file is approx. 8 MB. However, the file capacity of “n” (last number) may be less than 8 MB.
System ROM	System control PC board (SYS board) * The system firmware is stored into the hard disk from the FROM basic section software version “V1.00/4.22”.		firmImage0.bin, firmImage1.bin
Engine ROM	Logic PC board (LGC board)		firmImage2.bin
Scanner ROM	Scanning section control PC board (SLG board)		

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Important:

- Only the USB storage device which meets the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
  - A combination USB storage device with a flash memory (to be connected directly to the USB port) and its capacity is between 64 MB to 512 MB (or 1 GB).
  - Operation of the USB storage device used for updating has been confirmed at the input check of this equipment (Test mode 03).
    (📖 P.2-32 "2.2.2 Input check (Test mode 03) (e-STUDIO202L/203L/232/233/282/283)")
  - A USB storage device which is complied with the following standards regulated by USB-IF (USB Implementers Forum)
    Class number: 8 (=08h) (Mass-storage class)
    Sub-class number: 6 (=06h) (SCSI transfer command set)
    Protocol number: 80 (=50h) (Bulk-Only)
    * Most common USB storage devices are complied with the specification above and can be used for updating. However, the operation in all the Multi Functional Digital Color Systems and Multi Functional Digital Systems is not necessarily guaranteed since the most of these devices are developed based on the use in PC environment (Windows or Macintosh). Therefore, confirm thoroughly that the device is operational in the equipment for which the updating will be performed when purchasing the device.

- The data file for updating is stored in the model specific folder.
  Never change the model specific folder name since it is used for discriminating the data file when the updating data files for multiple models are stored in the USB storage device.

- Store the model specific folder in the root directory of the USB storage device.

- Storing the data file directly in the root directory is possible when the updating data files for one specific model is stored in the USB storage device.
  However, if the model specific folder for the same model as that of the data file stored in the root directory already exists, the model specific folder will have the priority.

- The USB storage device complied with USB1.1 and USB2.0 can be used for updating. However, the update is performed in the speed of USB1.1 when the device complied with USB2.0 is used.

- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk) since it is never guaranteed.

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Update program

The firmware can be updated to the latest version without considering the current one by storing the update program together with the firmware data file for updating in the USB Storage Device.

Name	File name	Stored
Tool object for updating	mentusb.o	root
Update program	dlFirmWare_202_282	[202_282] folder (Model specific folder)

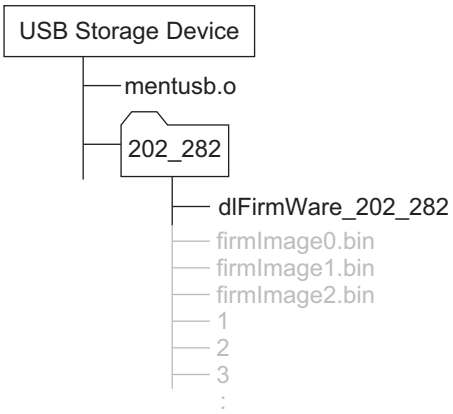


Fig. 6-90

Important:

- The "mentusb.o" file stored in the root of the USB storage device is a common file in e-STUDIO850 Series, e-STUDIO451c Series and e-STUDIO452 Series. To save the firmware of more than one model into one USB storage device, one "mentusb.o" file stored in the root of USB storage device is sufficient.
- Be careful not to mix up the "mentusb.o" file because there is a file whose name is the same in the localization tool.

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[A] Update procedure

Important:

- The file system of USB storage device should be formatted in FAT format. Be careful since the devices formatted in FAT32 or NTFS format will not be operated. The file system can be confirmed on the properties in applications such as Explorer of Windows.
- Do not turn OFF the power during the update. The data could be damaged and not to be operated properly.

(1) Connect the USB storage device to the PC and write the model specific folder in which the data file is stored.

- Confirm the model specific folder name and data file name before writing the data (📖 P.6-86 "6.5 Firmware Updating with USB Storage Device (e-STUDIO202L/203L/232/233/282/283)").
- The file system of USB storage device should be formatted in FAT format.
- Windows 95 and NT do not support USB. Be careful since the data can not be written on the devices in the PCs with these operating systems.

(2) Shut down the equipment.

(3) Connect the USB storage device to the USB connector (host) on the SYS board.

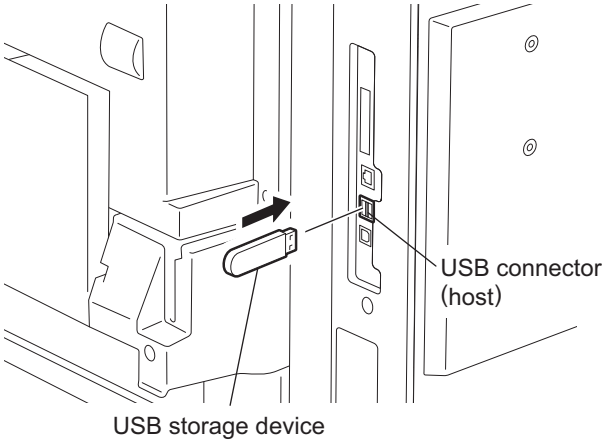


Fig. 6-91

Notes:

- Do not connect multiple USB storage devices together.
- The USB storage device can be connected to either of 2 USB connectors (host).
- In case the printer kit (GM-1070/1071/1080U/1081U), printer/scanner kit (GM-2070/2071/2080U/2081U) and scanner upgrade kit (GM-4070 or GM-4080U) are used, the update must be performed after all the "dongles" are disconnected from the USB connector (host) and only the USB storage device is connected.

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(4) Turn ON the power while [4] button and [9] button are pressed simultaneously.
When the update program is used, the following screen appears.

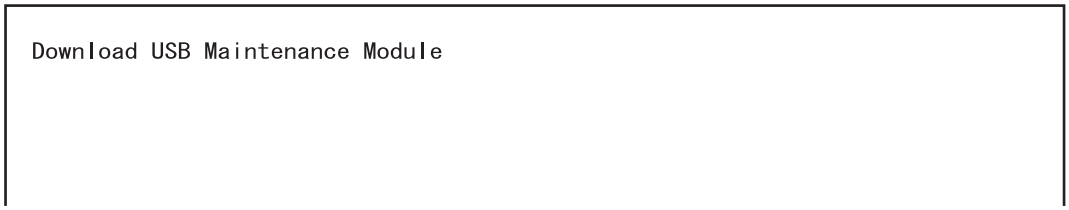


Fig. 6-92

After the update program is finished being loaded, the following screen appears.

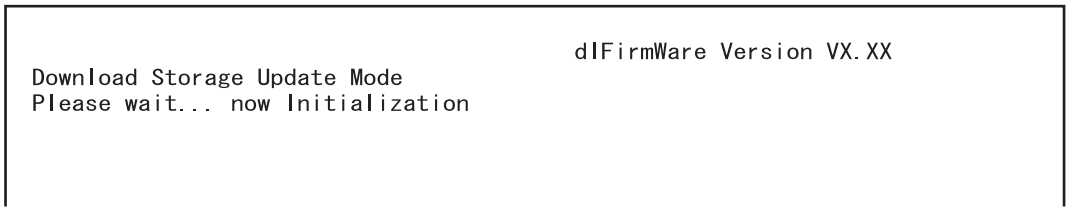


Fig. 6-93

Note:
If the "dlFirmWare_202_282" file of the update program is not stored in the USB storage device though "mentusb.o" file exists, or the loading of the update program fails, the following screen appears. In this case, check if the update program is correctly stored and repeat step (5) and after.



Fig. 6-94

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(5) Check the items to be updated.
The screen for selecting the items to be updated is displayed after 3 minutes. “*” is displayed next to the items to be updated. (When the FORM basic section software version of the equipment is “V1.00/1.12” or earlier: All items other than "0. OS Update" are selected in the default settings. When the FORM basic section software version of the equipment is “V1.00/4.22” or later: All items are selected in the default settings.)

When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:

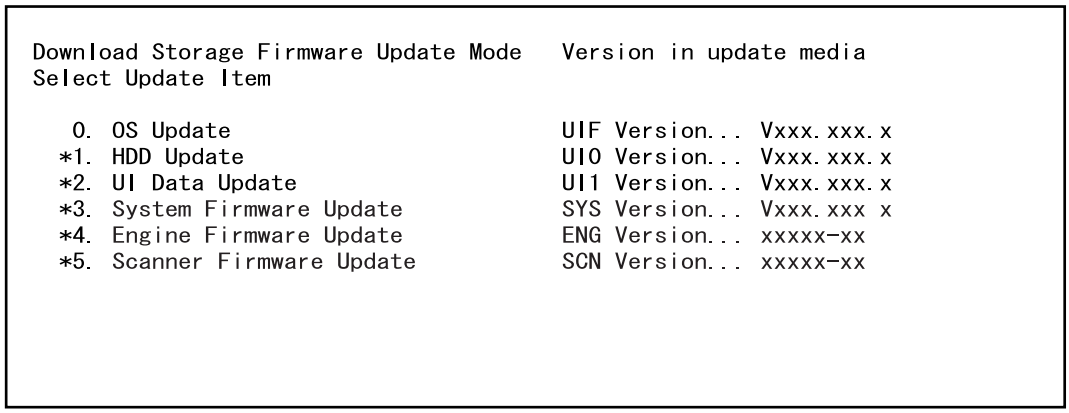


Fig. 6-95

Note:
The display of items on this screen varies depending on the types of data written on the USB storage device. Each item is displayed only when each data file is written on the USB storage device in the following conditions.

Item	Condition
0. OS Update	firmImage0.bin is written.
1. HDD Update	All master data files (1, 2, 3 ... n) are written.
2. UI Data Update	firmImage0.bin is written.
3. System Firmware Update	firmImage0.bin and firmImage1.bin are written.
4. Engine Firmware Update	firmImage2.bin is written.
5. Scanner Firmware Update	firmImage2.bin is written.

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When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:

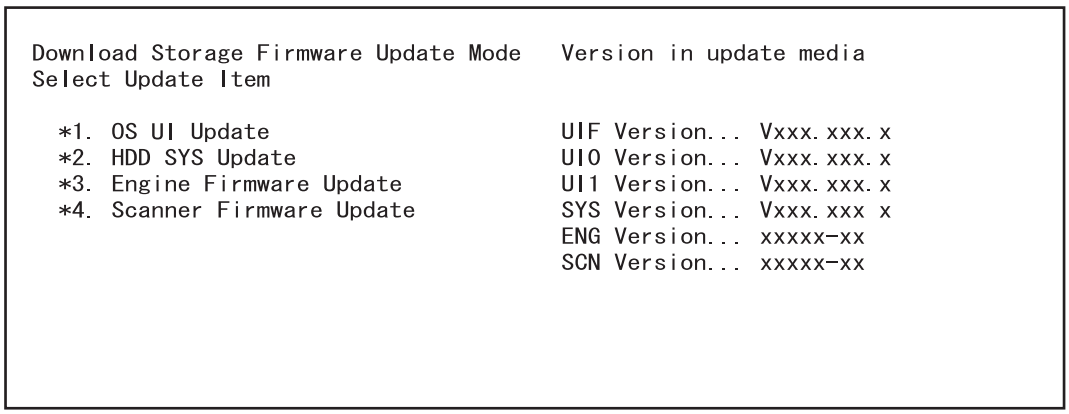


Fig. 6-96

Note:

The display of items on this screen varies depending on the types of data written on the USB storage device. Each item is displayed only when each data file is written on the USB storage device in the following conditions.

Item	Condition
1. OS UI Update	firmImage0.bin, firmImage1.bin are written.
2. HDD SYS Update	All master data files (1, 2, 3 ... n) are written.
3. Engine Firmware Update	firmImage2.bin is written.
4. Scanner Firmware Update	firmImage2.bin is written.

If the USB storage device is not recognized properly, the following message is displayed. In this case, disconnect the USB storage device and connect it again within 3 minutes, or turn OFF the power of the equipment and connect the device properly. Then repeat the procedure from (4).

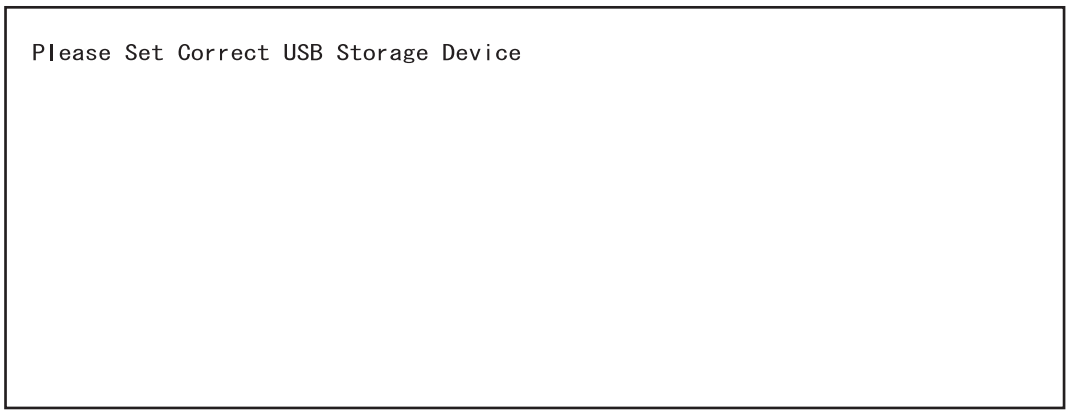


Fig. 6-97

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If the updating data file does not exist or a data file for other model is stored, the following message is displayed. In this case, turn OFF the power of the equipment and confirm if the data file stored in the USB storage device is correct. Then repeat the procedure from (4).

Note:

"If you still want to continue, Please Push Start Key" will not be displayed if the FROM basic section software version of the equipment is "V1.00 / 4.22" or later.

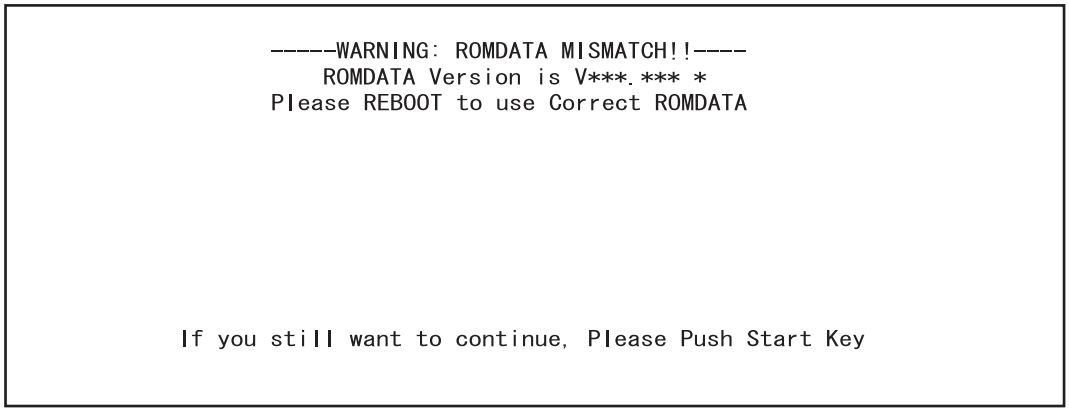


Fig. 6-98

If an attempt to update the FROM basic section software "V1.00 / 1.12" or earlier version to the latest firmware version without the update program, the following screen appears. In this case, store "mentusb.o" and "dlFirmWare_202_282", which are the files for update program, in the specified folder and repeat step (5) and after.

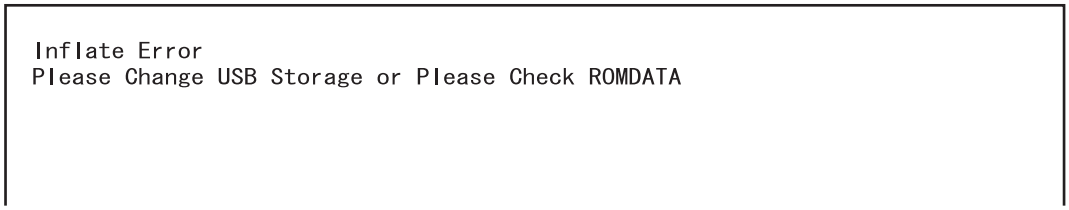


Fig. 6-99

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(6) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item. All items are selected in the default settings.
- Select all items to update the firmware of the equipment in a batch.
- Select items as follows to update individually.

Types of Firmware	Items <Items vary depending on the FROM basic section software version of the equipment>	
	"V1.00/1.12" or earlier	"V1.00/4.22" or later
System ROM (OS data)	0. OS Update	1. OS UI Update
System ROM (UI data)	2. UI Data Update	
Master data	1. HDD Update	2. HDD SYS Update
System ROM (System firmware)	3. System Firmware Update	
Engine ROM	4. Engine Firmware Update	3. Engine Firmware Update
Scanner ROM	5. Scanner Firmware Update	4. Scanner Firmware Update

Example: Updating the master data and system ROM
When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:

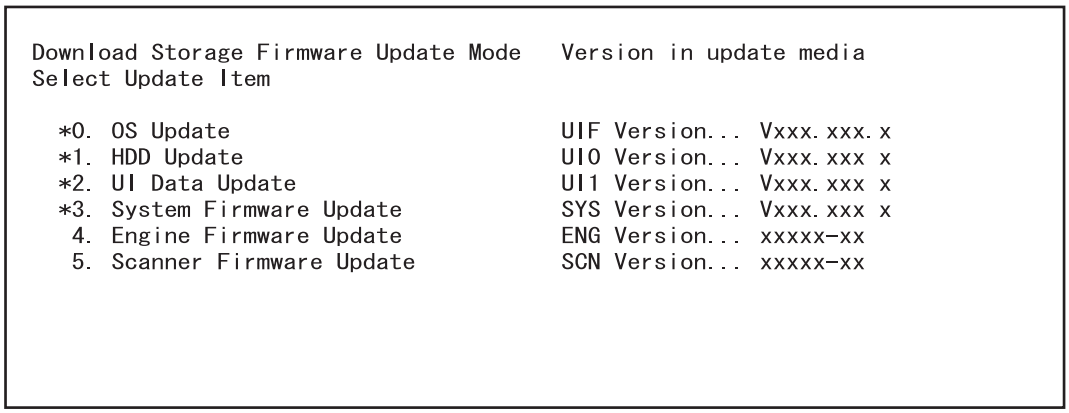


Fig. 6-100

When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:

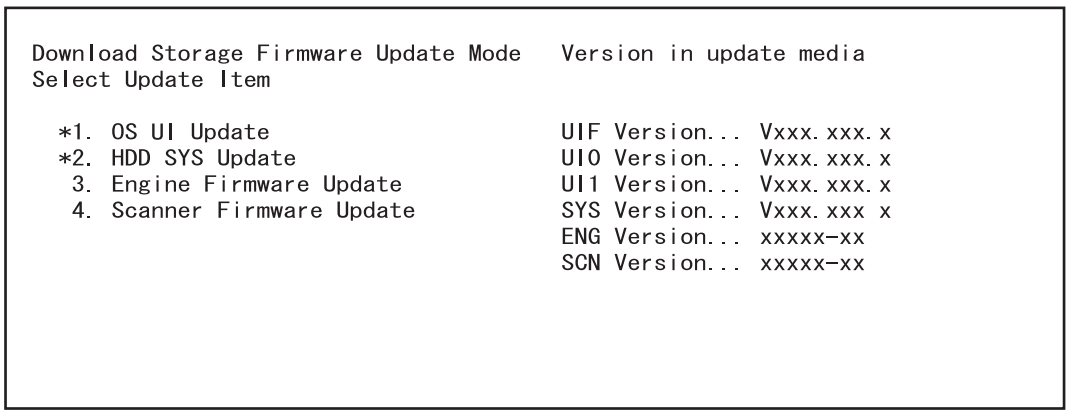


Fig. 6-101

(Updating all the items is taken as an example and explained in the following procedures.)

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(7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.

When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:

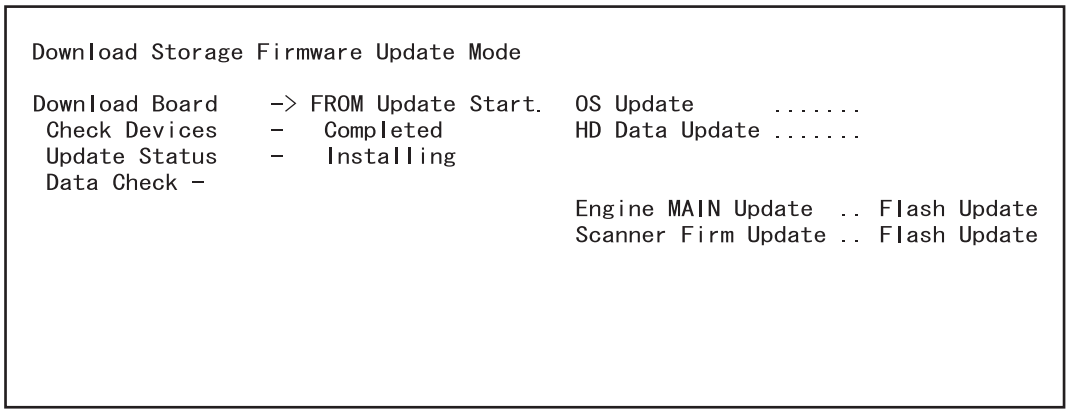


Fig. 6-102

Status display during update	Status display when update is completed
OS Update	OS Update .....Completed
HD Data Update	HD Data Update .....Completed
UI Data Update	UI Data Update .....Completed
SysFirm Update	SysFirm Update .....Completed
Engine MAIN Update ..Flash Update	Engine MAIN Update ..Completed
Scanner Firm Update..Flash Update	Scanner Firm Update..Completed

When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:

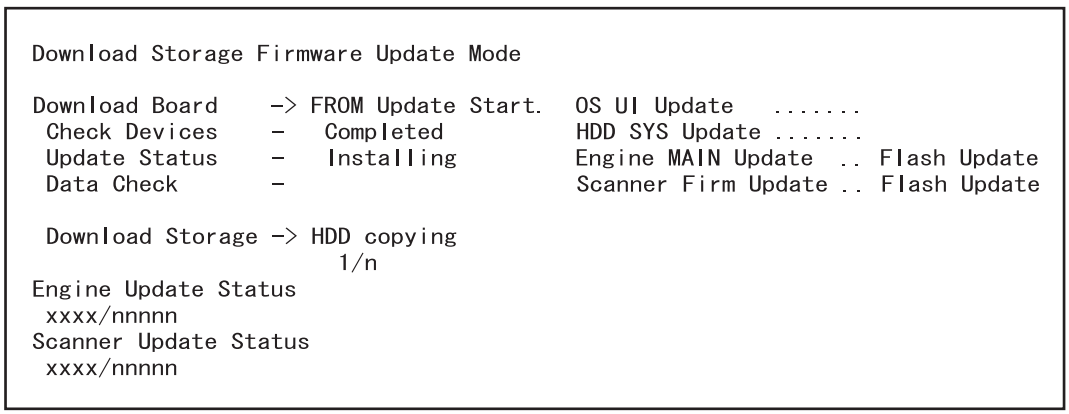


Fig. 6-103

Status display during update	Status display when update is completed
OS UI Update	OS UI Update .....Completed
HDD SYS Update	HDD SYS Update .....Completed
Engine MAIN Update .....Flash Update	Engine MAIN Update .....Completed
Scanner Firm Update .....Flash Update	Scanner Firm Update .....Completed

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(8) “Update Completed.” is displayed at the bottom of the LCD screen after the updating is completed properly.

When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:

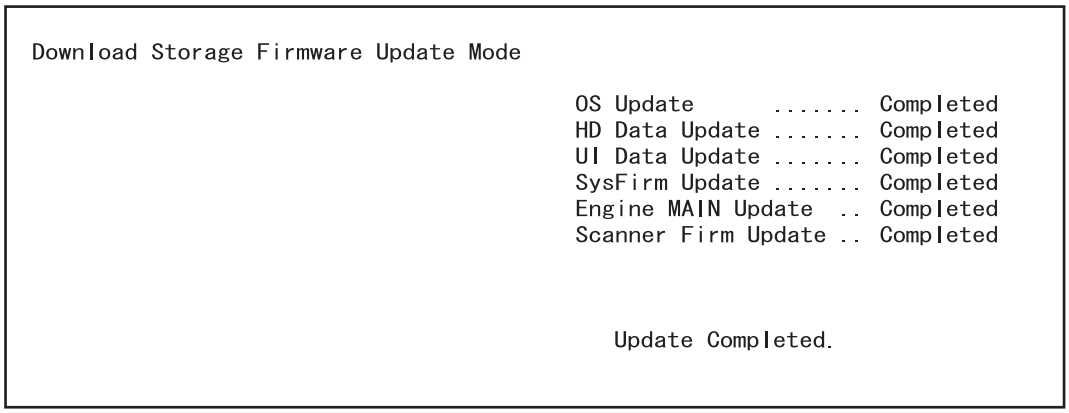


Fig. 6-104

When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:

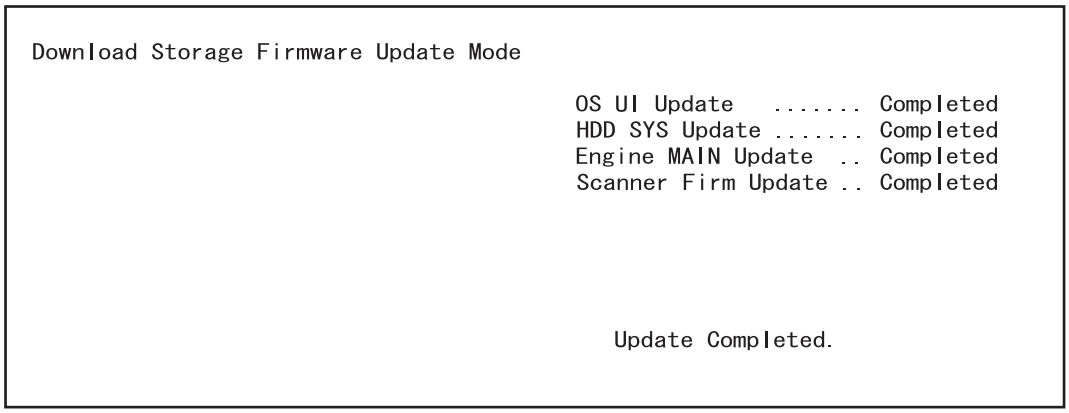


Fig. 6-105

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“Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Does the USB storage device meet the conditions to be used for updating (P.6-86 "6.5 Firmware Updating with USB Storage Device (e-STUDIO202L/203L/232/233/282/283)")?
- Is the data file written properly on the USB storage device?
- Is the USB storage device installed properly?
- Do the USB storage device and equipment operate properly?

When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:

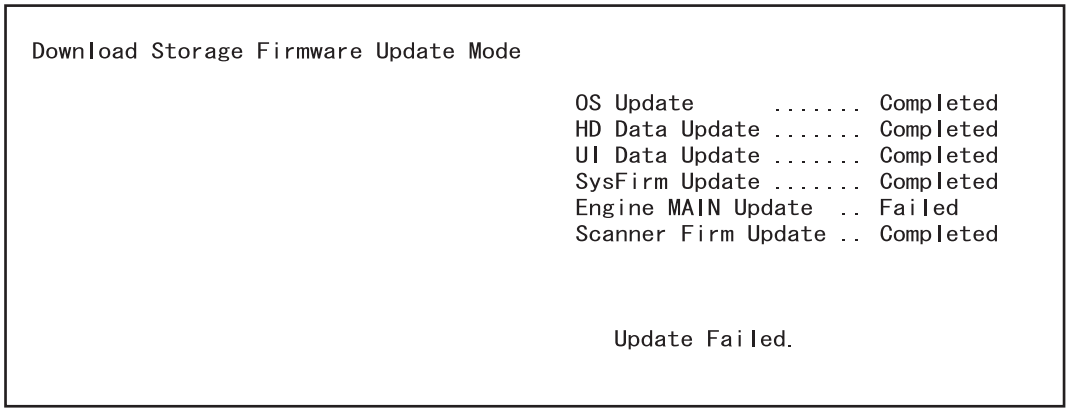


Fig. 6-106

When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:

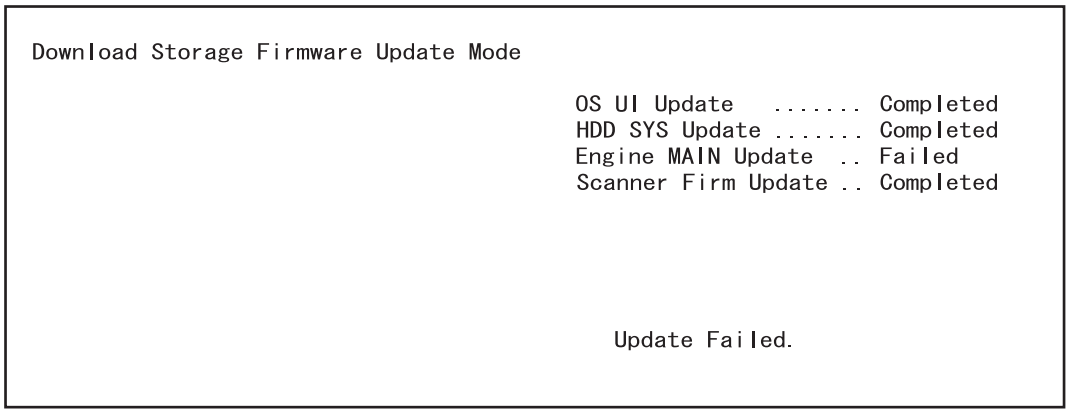


Fig. 6-107

(9) Turn OFF the power, remove the USB storage device and install the cover plate.

(10) Perform the initialization of the updating data.

- Turn ON the power while [0] button and [8] button are pressed simultaneously.
- Key in “947”, and then press the [START] button.
- Press the [INITIALIZE] button.

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[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Master data>
08-924: Version of UI data language 1 in HDD
08-925: Version of UI data language 2 in HDD
08-926: Version of UI data language 3 in HDD
08-927: Version of UI data language 4 in HDD
08-928: Version of UI data language 5 in HDD
08-929: Version of UI data language 6 in HDD
08-931: Version of UI data language 7 in HDD
08-933: HDD unit data version
08-934: Version of Web UI data language 1 in HDD
08-935: Version of Web UI data language 2 in HDD
08-936: Version of Web UI data language 3 in HDD
08-937: Version of Web UI data language 4 in HDD
08-938: Version of Web UI data language 5 in HDD
08-939: Version of Web UI data language 6 in HDD

<Updating System ROM>
08-900: System ROM version
08-922: UI data fixed section version
08-923: UI data common section version
08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM>
08-903: Engine ROM version

<Updating Scanner ROM>
08-905: Scanner ROM version

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[C] Display during the update (When the FROM basic section software version of the equipment is "V1.00 / 1.12" or earlier:)

Update is performed in parallel as shown in the transition diagram below.

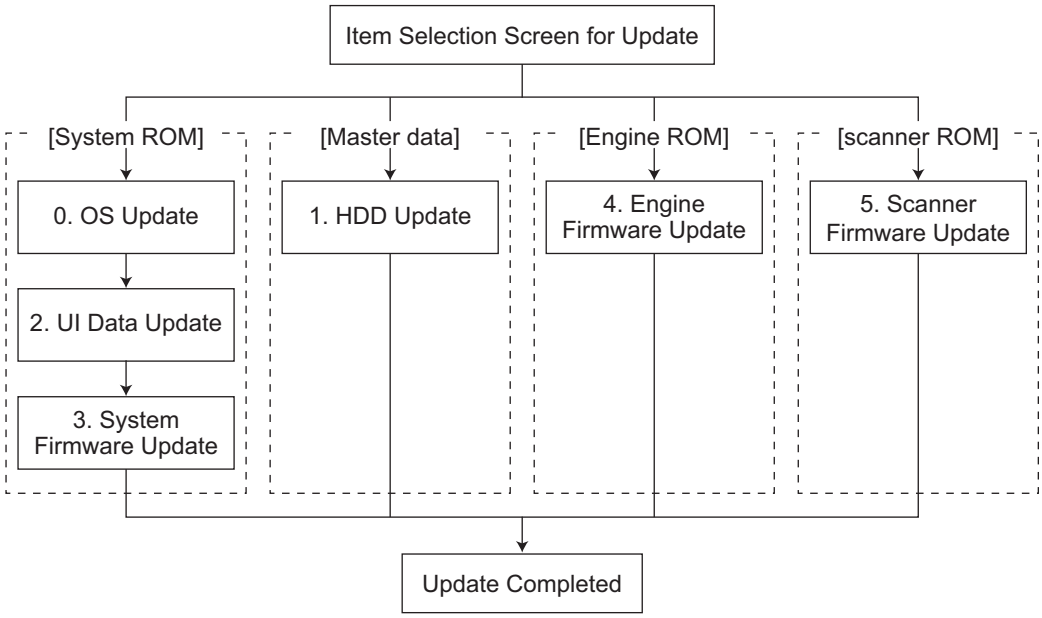


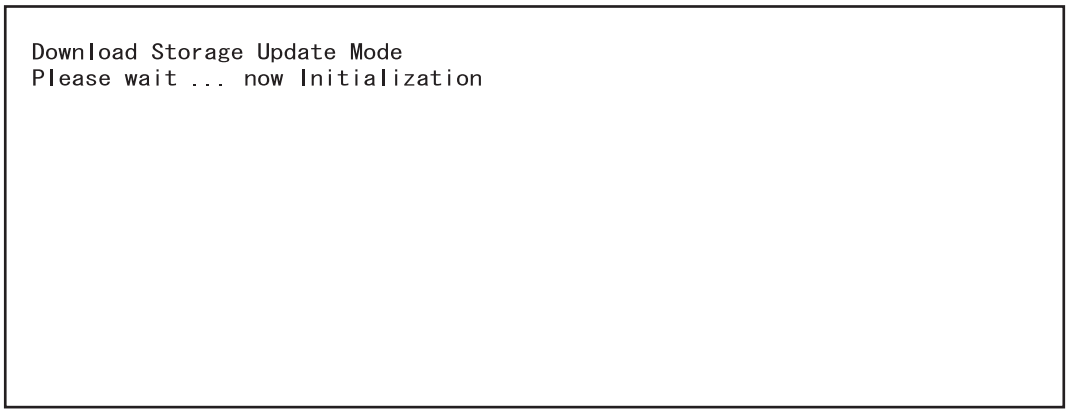
Fig. 6-108

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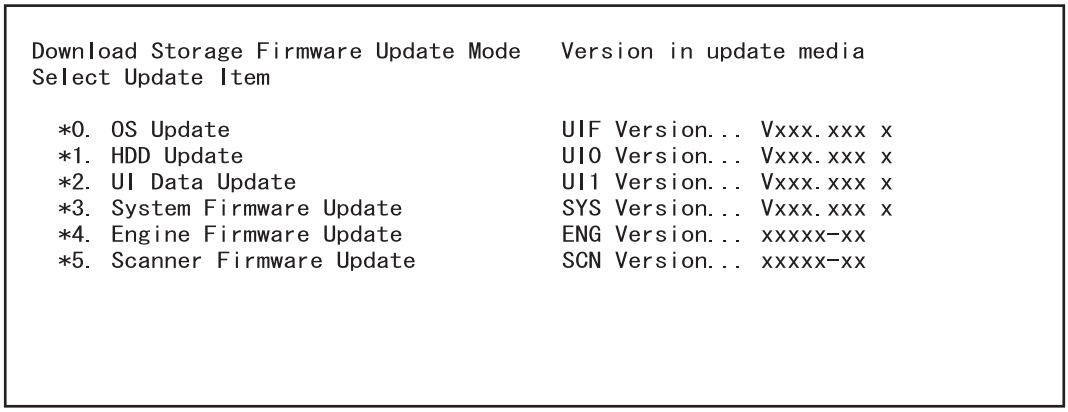
Below is an example of the changes of the LCD screen during update.
Note that the screen order may be different from the actual one, because a parallel update is performed in the process.

Turn ON the power while [4] button and [9] button are pressed simultaneously

⇩ The initial screen is displayed and the recognition of the USB storage device connected to the equipment is started.

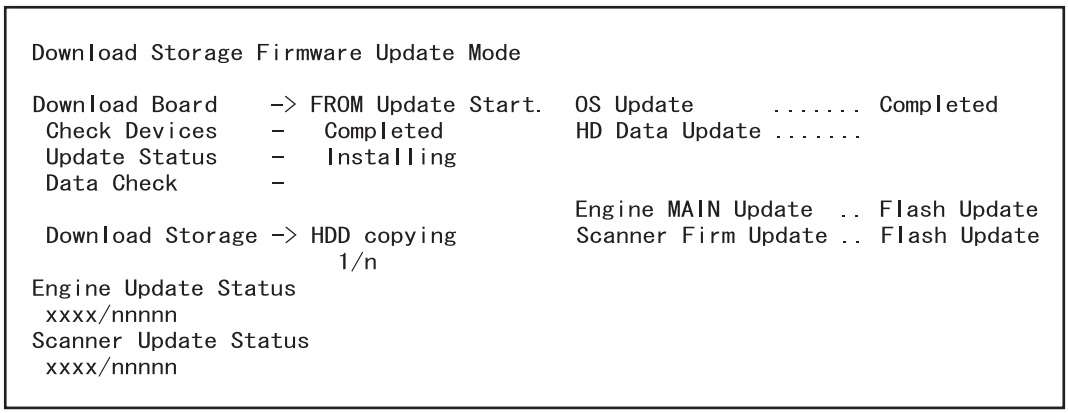


⇩ When the device is recognized properly, the screen for selecting update items is displayed.

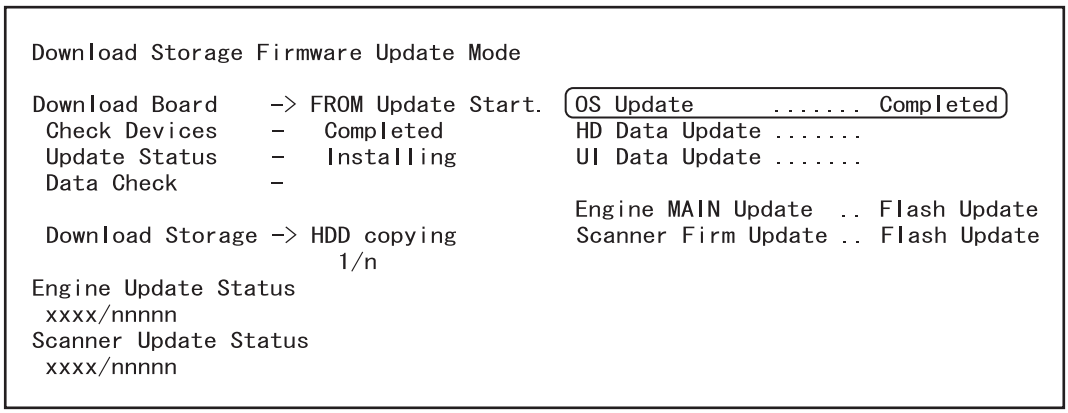


⇩ Select items to be updated and press the [START] button to start updating the [System ROM], [Master Data], [Engine ROM] and [Scanner ROM] in parallel.

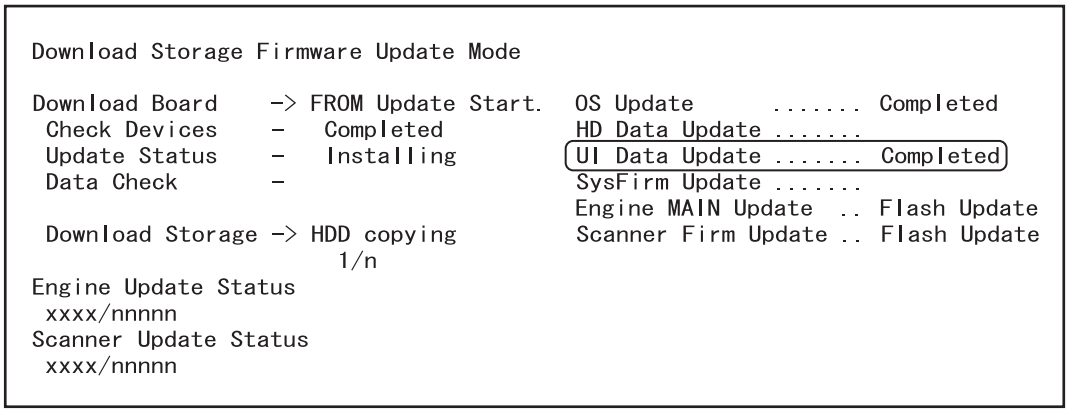
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When the [System ROM]-[OS Update] has been updated, “OS Update…Completed” is displayed and the [UI Update] update will start.



When the [System ROM]-[UI Update] has been updated, “UI Data Update…Completed” is displayed and the [System Firmware Update] update will start.



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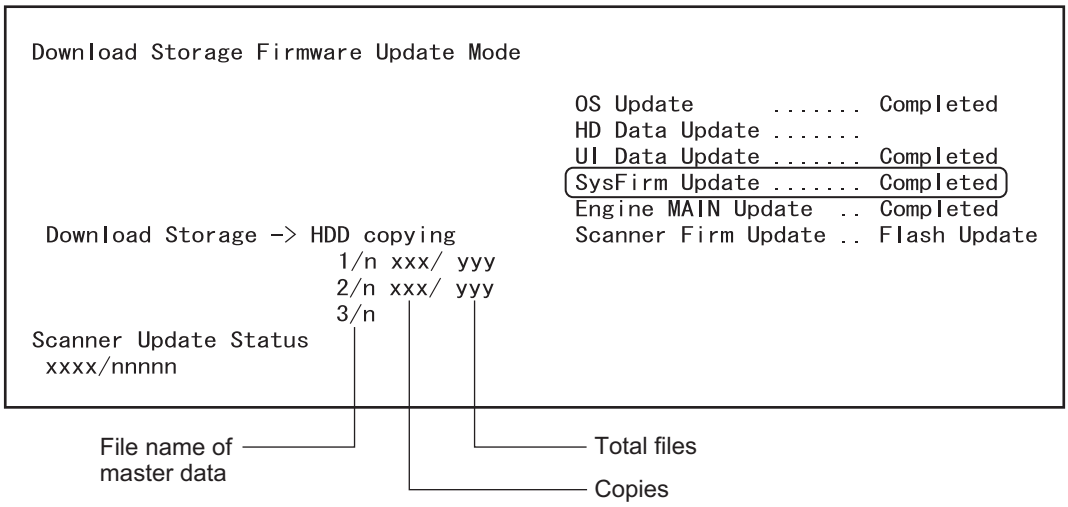
When the [Engine ROM] has been updated, “Engine MAIN Update..Flash Update” is changed to “Engine MAIN Update..Completed”.

```
Download Storage Firmware Update Mode

Download Storage  -> FROM Update Start.   OS Update      ....... Completed
 Check Devices    -   Completed           HD Data Update .......
 Update Status    -   Installing          UI Data Update ....... Completed
 Data Check       -                       SysFirm Update .......
                                          Engine MAIN Update  .. Completed
 Download Storage -> HDD copying          Scanner Firm Update .. Flash Update
                       1/n xxx/ yyy
                       2/n xxx/ yyy

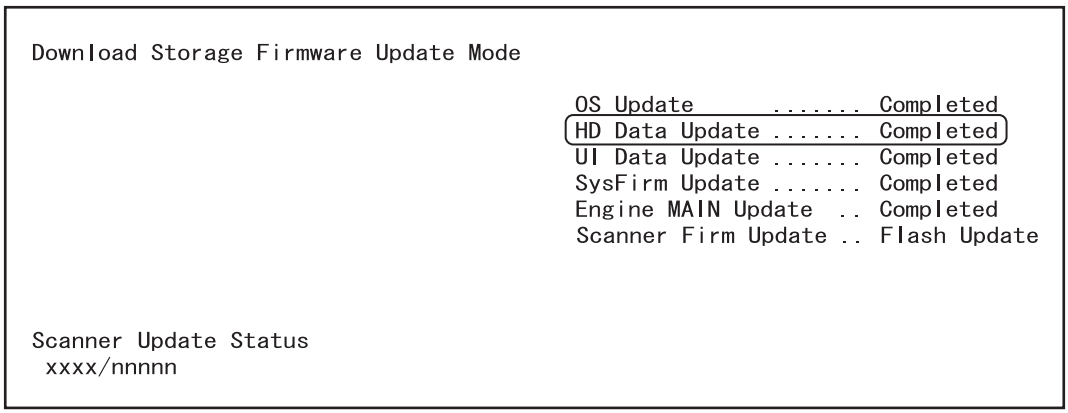
Scanner Update Status
 xxxx/nnnnn
```

When the [System ROM]-[System Firmware Update] has been updated, “SysFirm Update…Completed” is displayed.



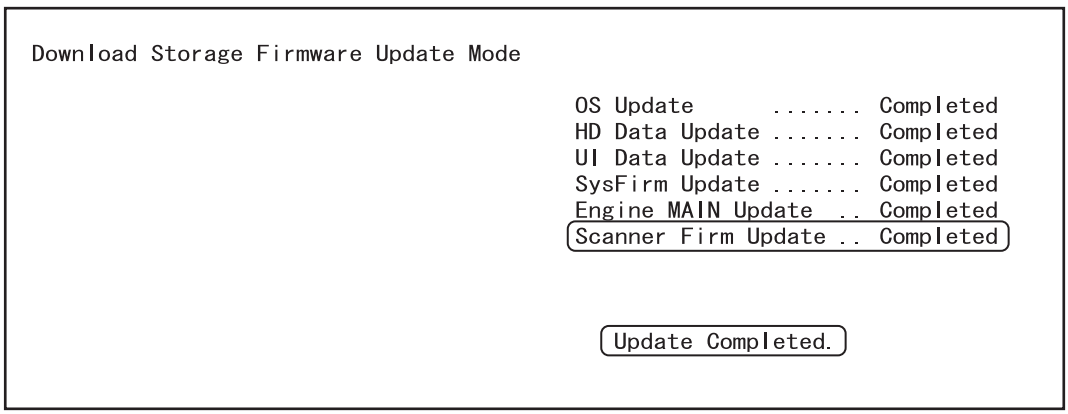
When the [Master Data] has been updated, “HD Data Update…Completed” is displayed.

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When the [Scanner ROM] has been updated, “Scanner Firm Update..Flash Update” is changed to “Scanner Firm Update..Completed”.

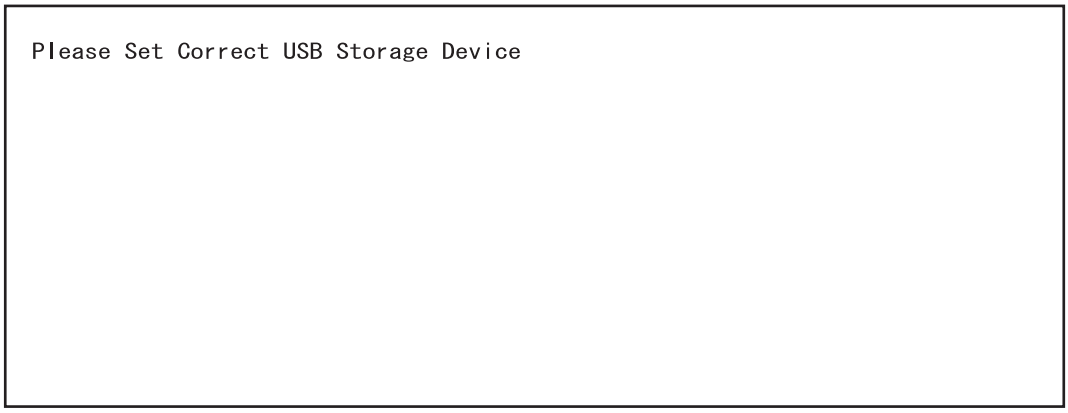
When all data has been updated, “Update Completed” is displayed.



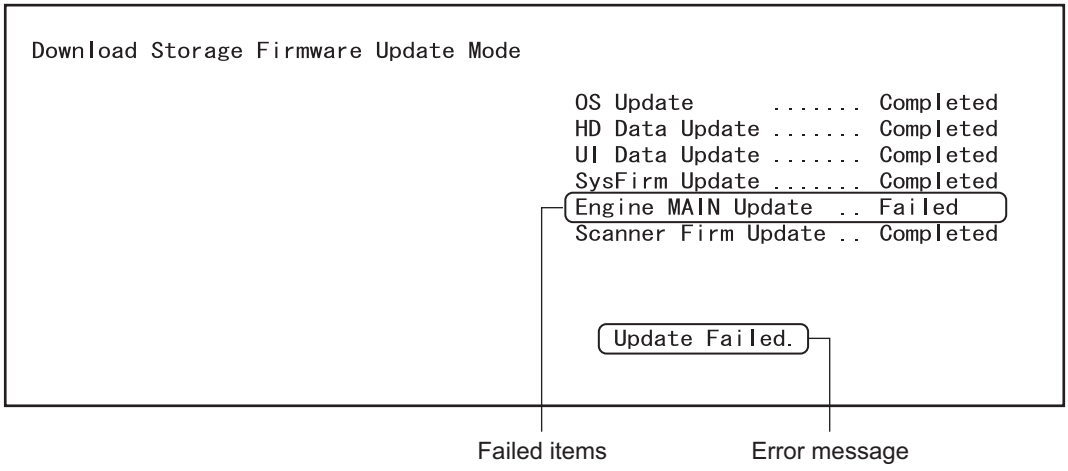
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* If the USB storage device is not recognized properly, the following message is displayed and the update is interrupted.



* “Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display.



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[D] Display during the update (When the FROM basic section software version of the equipment is "V1.00 / 4.22" or later:)

Update is performed in parallel as shown in the transition diagram below.

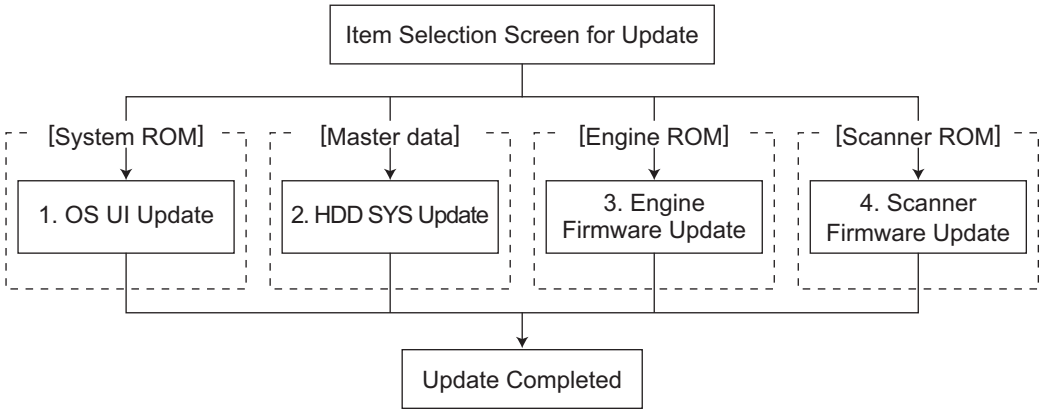


Fig. 6-109

Below is an example of the changes of the LCD screen during update.

Turn ON the power while [4] button and [9] button are pressed simultaneously

⇩ The initial screen is displayed and the recognition of the USB storage device connected to the equipment is started.

```
Download Storage Update Mode
Please wait ... now Initialization
```

⇩ When the device is recognized properly, the screen for selecting update items is displayed.

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```
Download Storage Firmware Update Mode   Version in update media
Select Update Item

  *1. OS UI Update                      UIF Version...  Vxxx.xxx.x
  *2. HDD SYS Update                    UIO Version...  Vxxx.xxx.x
  *3. Engine Firmware Update            UI1 Version...  Vxxx.xxx.x
  *4. Scanner Firmware Update           SYS Version...  Vxxx.xxx x
                                        ENG Version...  xxxxx-xx
                                        SCN Version...  xxxxx-xx
```

⇩ Select items to be updated and press the [START] button.

```
Download Storage Firmware Update Mode

Download Board    -> FROM Update Start.  OS UI Update   .......
 Check Devices    -   Completed          HDD SYS Update .......
 Update Status    -   Installing         Engine MAIN Update  .. Flash Update
 Data Check       -                      Scanner Firm Update .. Flash Update

 Download Storage -> HDD copying
                      1/n
Engine Update Status
 xxxx/nnnnn
Scanner Update Status
 xxxx/nnnnn
```

⇩ When the [OS data] / [UI data] has been updated, “OS UI Update…Completed” is displayed.

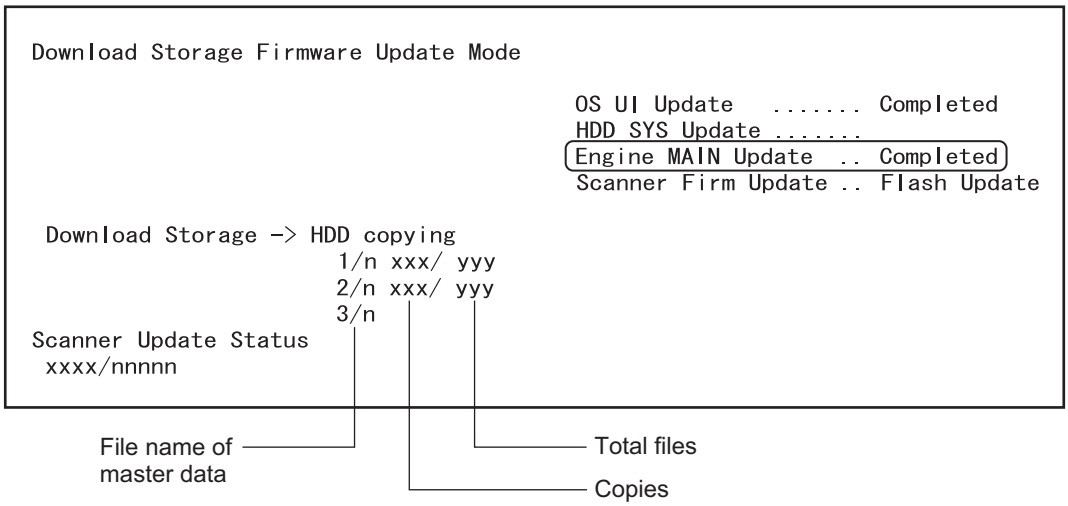
```
Download Storage Firmware Update Mode

Download Board    -> FROM Update Start.  OS UI Update   ....... Completed
 Check Devices    -   Completed          HDD SYS Update .......
 Update Status    -   Installing         Engine MAIN Update  .. Flash Update
 Data Check       -                      Scanner Firm Update .. Flash Update

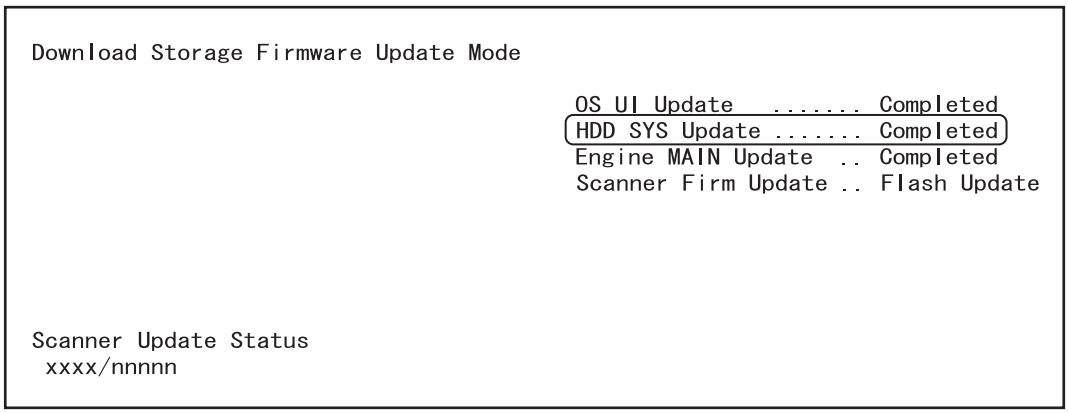
 Download Storage -> HDD copying
                      1/n
Engine Update Status
 xxxx/nnnnn
Scanner Update Status
 xxxx/nnnnn
```


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When the [Engine ROM] has been updated, “Engine MAIN Update..Flash Update” is changed to “Engine MAIN Update.. Completed”.



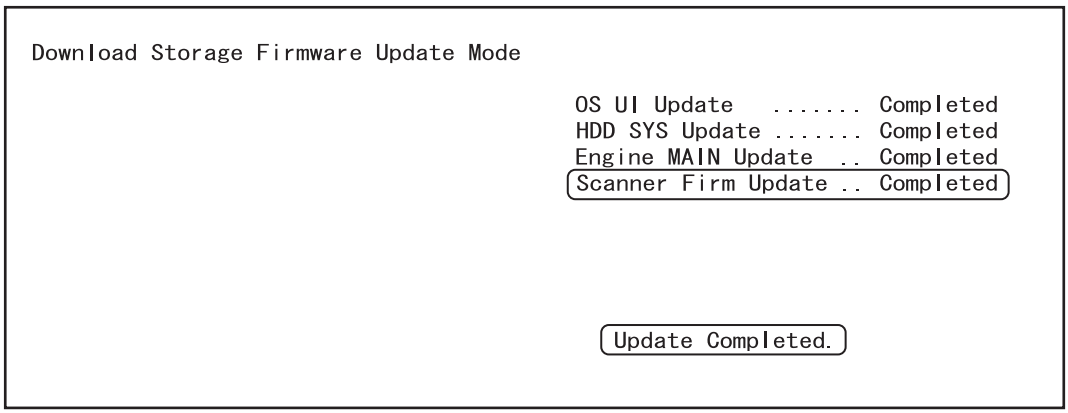
When the [Master Data] / [System firmware] has been updated, “HDD SYS Update… Completed” is displayed.



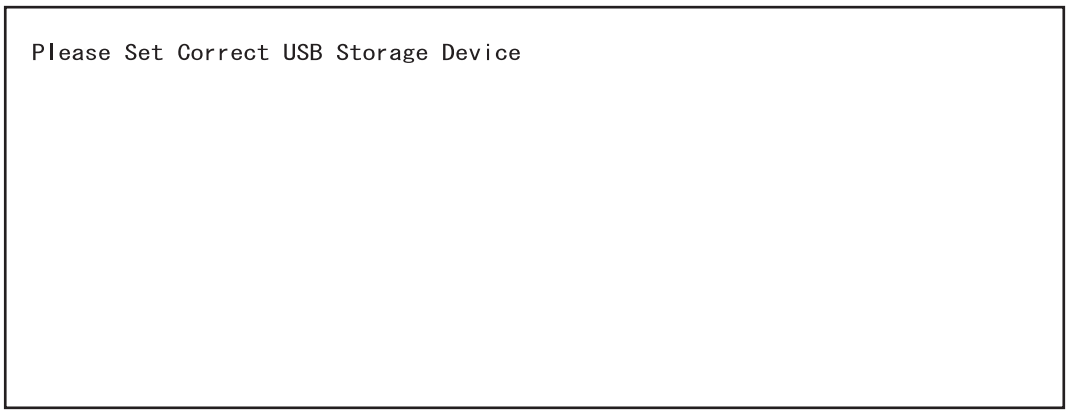
When the [Scanner ROM] has been updated, “Scanner Firm Update..Flash Update” is changed to “Scanner Firm Update.. Completed”.

When all data has been updated, “Update Completed” is displayed.

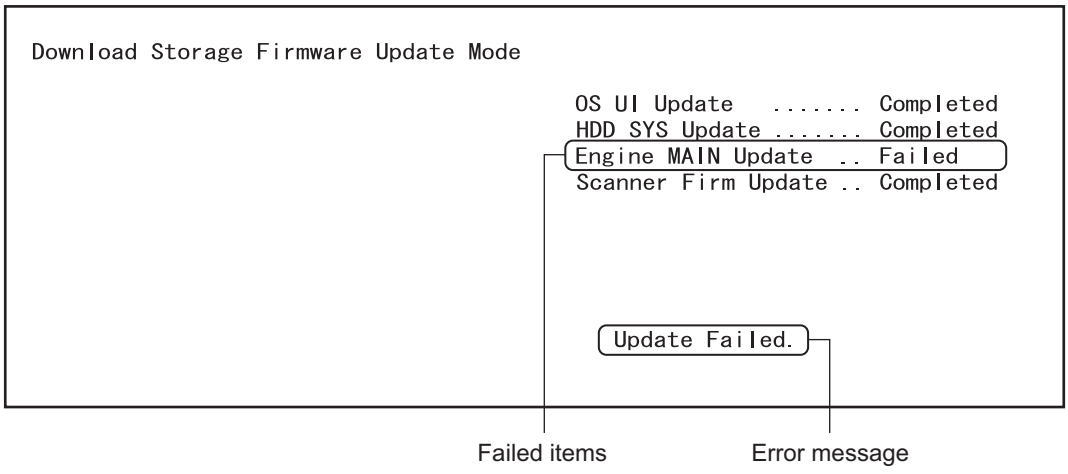
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* If the USB storage device is not recognized properly, the following message is displayed and the update is interrupted.



* “Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display.



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6.6 Appendix

6.6.1 e-STUDIO200L/230/230L/280

[A] Assist Mode

This equipment has the Assist Mode to enable the following functions.

1) NVRAM flag clearing (“Clear NvRAM flags.”)
   Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up when the power is turned ON again. In this case, clear the NVRAM flags used in the download process with this function.
   (Normally, the flags are automatically cleared in the download process.)
   Also in the case the Recovery Mode accidentally starts up after the replacement of NVRAM on the SYS board, the flags are cleared with this function.

2) Data storage partition formatting (“Format UID rom PRF PR2 SMS Partition.”)
   When a defection occurs on the UI data, etc. which are stored in the HDD, the partition with the stored UI data, etc. is formatted with this function.
   (Do not use this function since it is not normally necessary.)

3) HDD partition creation (“All Partition delete and create UID rom PRF PR2 SMS Partition.”)
   When the HDD is replaced or UI data, etc. are downloaded using the FSMS or USB storage, it is necessary to format a partition in the HDD before downloading. In this case, the partition is created in the HDD with this function.

   Notes:
   - When downloading with a download jig, it is not necessary to format a partition in advance.
   - Perform the HDD partition formatting only when a new HDD and scrambler board are installed since all data in the current HDD are erased by this operation.

[B] Operating Procedure of Assist Mode

(1) Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
   - The following screen is displayed.

```
Firmware Version Up Mode


Select Number(1-3) and Press START key.

> 1 : Clear NvRAM flags.
  2 : Format UID rom PRF PR2 SMS Partition.
  3 : All Partition delete and create UID rom PRF PR2 SMS Partition.
```

Fig. 6-110

(2) Select the item with the digital keys and press the [START] button.

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6.6.2 e-STUDIO202L/203L/232/233/282/283

[A] Assist Mode

This equipment has the Assist Mode to enable the following functions.

(1) NVRAM flag clearing (“Clear NvRAM flags.”)
Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up when the power is turned ON again. In this case, clear the NVRAM flags used in the download process with this function. (Normally, the flags are automatically cleared in the download process.)
Also in the case the Recovery Mode accidentally starts up after the replacement of NVRAM on the SYS board, the flags are cleared with this function.

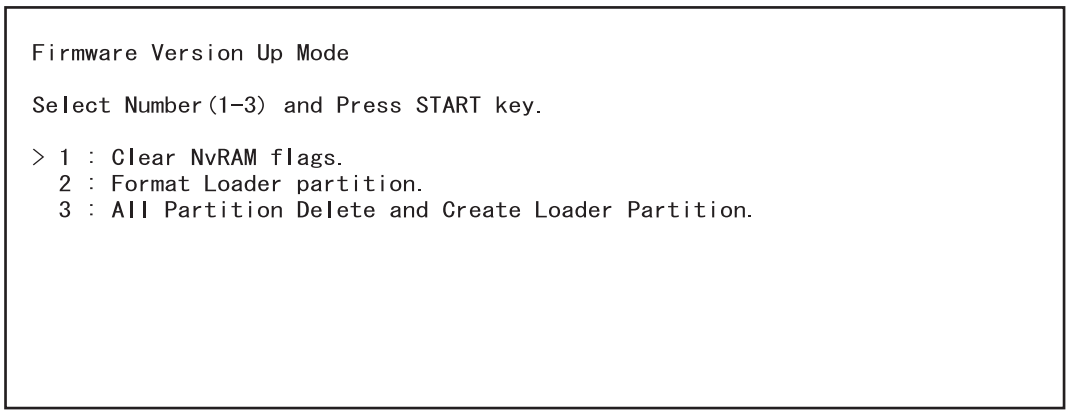
(2) Data storage partition formatting (“Format Loader Partition.”)
When a defection occurs on the UI data, etc. which are stored in the HDD, the partition with the stored UI data, etc. is formatted with this function. (Do not use this function since it is not normally necessary.)

(3) HDD partition creation (“All Partition Delete and Create Loader Partition.”)
When the HDD is replaced or UI data, etc. are downloaded using the USB storage, it is necessary to format a partition in the HDD before downloading. In this case, the partition is created in the HDD with this function.

Notes:
1. When downloading with a download jig, it is not necessary to format a partition in advance.
2. Perform the HDD partition formatting only when a new HDD and scrambler board are installed since all data in the current HDD are erased by this operation.

[B] Operating Procedure of Assist Mode

(1) Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
- The following screen is displayed.



(2) Select the item with the digital keys and press the [START] button.

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7. POWER SUPPLY UNIT

7.1 Output Channel

The followings are five output channels which are not linked with the door switch.

1) +3.3V
- +3.3VA : CN705 Pins 13, 14, 15 and 16
  Output to the SYS board
- +3.3VB : CN705 Pins 19 and 20
  Output to the SYS board
- +3.3VB : CN706 Pin 30
  Output to the LGC board
- +3.3VB : CN708 Pins 9 and 10
  Output to the SLG board

2) +5.1V
- +5.1VA : CN705 Pins 24 and 26
  Output to the SYS board
- +5.1VB : CN705 Pin 25
  Output to the SYS board
- +5.1VB : CN706 Pin 26
  Output to the FUS board
- +5.1VB : CN706 Pins 27 and 28
  Output to the LGC board, PFP/ LCF (via LGC board),
  Bridge unit / Job separator / Offset tray (via LGC board)
- +5.1VB : CN707 Pin 4
  Output to the finisher
- +5.1VB : CN708 Pins 3 and 4
  Output to the SLG board
- +5.1VB : CN708 Pins 5 and 6
  Output to the RADF

3) +12V
- +12VA : CN705 Pin 7
  Output to the SYS board
- +12VB : CN705 Pin 5
  Output to the SYS board
- +12VB : CN706 Pin 22
  Output to the LGC board
- +12VB : CN708 Pin 13
  Output to the SLG board

4) -12V
- -12VA : CN705 Pin 9
  Output to the SYS board
- -12VB : CN705 Pin 3
  Output to the SYS board

5) +24V
- +24VB : Not used

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The followings are two output channels which are linked with the door switch.

1) +5.1V
   +5.1VD : CN706 Pin 2
   Output to the LGC board

2) +24V
   +24VD1 : CN706 Pins 11, 12, 13 and 14
   Output to the LGC board, PFP/LCF (via LGC board)
   +24VD1 : CN707 Pins 15 and 16
   Output to the main motor
   +24VD2 : CN706 Pins 5 and 6
   Output to the LGC board, High-voltage transformer (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board)
   +24VD2 : CN707 Pins 11 and 12
   Output to the ADU board
   +24VD3 : CN708 Pins 23 and 24
   Output to the RADF
   +24VD4 : CN708 Pins 19 and 20
   Output to the SLG board
   +24VD5 : CN707 Pin 8
   Output to the finisher

<<Output connector>>
Not linked with the door switch

Connector	Destination	Voltage
CN705	For the SYS board	+3.3VA, +3.3VB, +5.1VA, +5.1VB, +12VA, +12VB, -12VA, -12VB
CN706	For the LGC board, FUS board, PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board)	+3.3VB, +5.1VB, +12VB
CN707	For the finisher	+5.1VB
CN708	For the SLG board, RADF	+3.3VB, +5.1VB, +12VB

Linked with the door switch

Connector	Destination	Voltage
CN706	For the LGC board, High-voltage transformer (via LGC board), PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board)	+5.1VD, +24VD1, +24VD2
CN707	For the ADU board, finisher	+24VD1, +24VD2, +24VD5
CN708	For the SLG board, RADF	+24VD3, +24VD4

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7.2 Fuse

When the power supply secondary fuse is blown out, confirm that there is no abnormality with each part using the following table.

Voltage	Board/Unit	Part	Fuse type
+24VD1	LGC	Main motor	F3:8A (Semi time-lag)
		Toner motor	
		Polygonal motor	
		Tray-up motor	
		Internal cooling fan 1	
		Internal cooling fan 2	
		Auto-toner sensor	
		Upper drawer feed clutch	
		Lower drawer feed clutch	
		Registration roller clutch	
		Upper transport clutch	
		Middle transport clutch	
		Lower transport clutch	
		Discharge LED	
		Main switch	
	PFP/LCF		
+24VD2	LGC	Exit motor	F5:8A (Semi time-lag)
		ADU motor	
		Exhaust fan	
		Bypass feed clutch	
		ADU clutch	
		Bypass pickup solenoid	
		High-voltage transformer	
	Key copy counter / Copy key card		
	Bridge unit / Job separator / Offset tray		
+24VD3	RADF		F6:4A (Semi time-lag)
+24VD4	SLG	Scan motor	F5:8A (Semi time-lag)
		Exposure lamp (Lamp inverter)	
+24VD5	Finisher		F4:5A (Semi time-lag)

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7.3 Configuration of Power Supply Unit

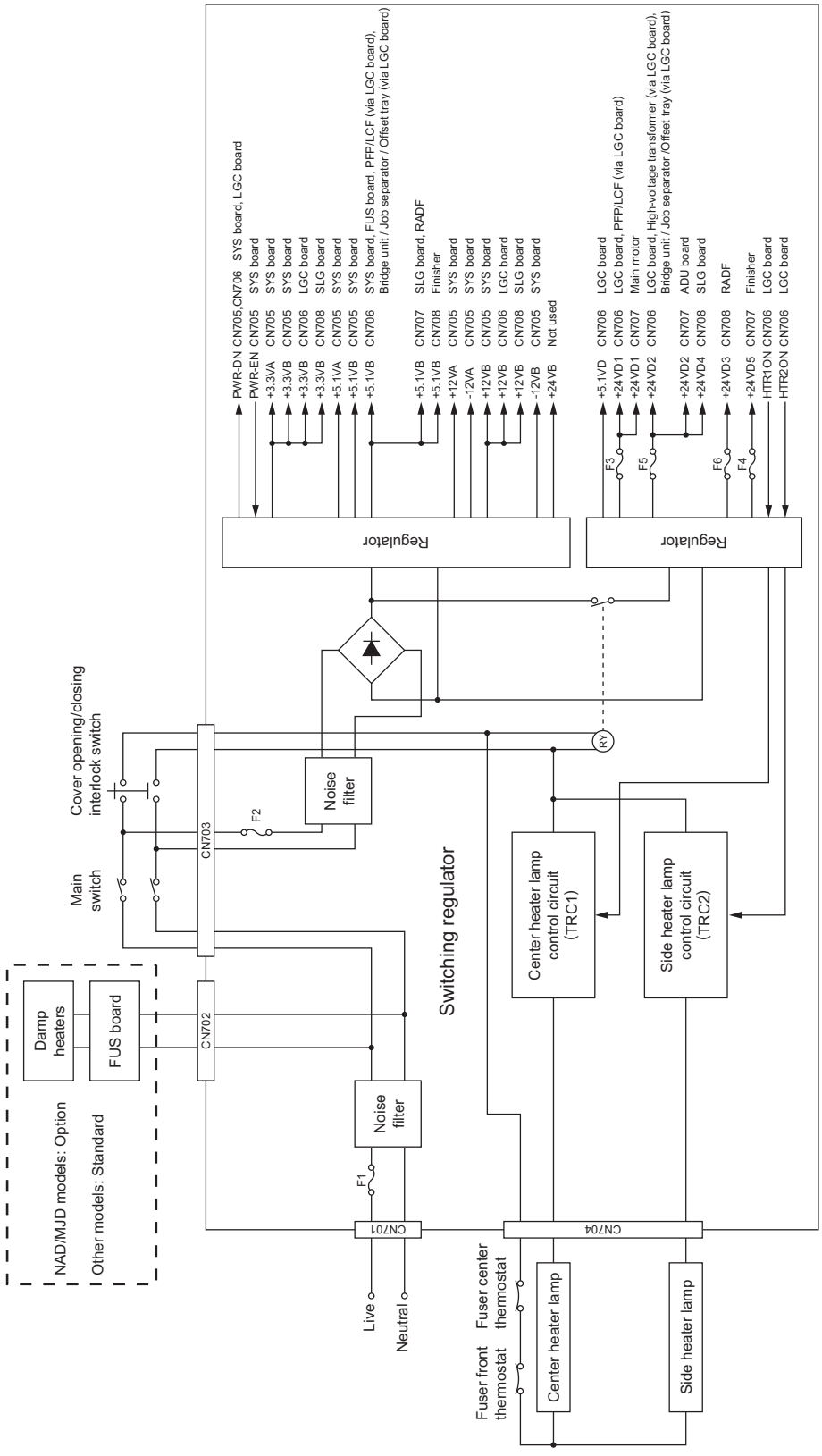


Fig. 7-1

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8. REMOTE SERVICE

There are following functions as Remote Service.

1) Auto Supply Order
   Automatically orders the toner by FAX or E-mail.

2) Service Notification
   Notifies the status of the equipment to the service technician by E-mail or FAX.

8.1 Auto Supply Order

8.1.1 Outline

Automatically orders the toner.

1) Placing an Order
   There are two ways to place an order.
   - FAX
     Installation of the FAX board is required.
     If the FAX board has not been installed, it is regarded as OFF setting.

   - E-mail (E-mail body + TIFF image)

2) Order Intervals
   When the toner empty occurs, the number of occurrences is counted. And when it reaches the specified number for CONDITION, the order is placed automatically.

3) If Order Failure Occurs
   If some problems occur and the order cannot be placed after registering an order as a job, refer to the standard countermeasure for the FAX/E-mail transmission failure.

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8.1.2 Setting Item

To enable Auto Supply Order, the following settings are required.

Note:

When selecting E-mail to place an order, it is required that sending and receiving E-mails are available. Confirm the details to the administrator.

1) Self-diagnosis (08) Setting

As the default setting, the Auto Supply Order setting screen is not displayed on the touch panel. To display it, switching the Valid/Invalid setting (08-765) is required.

0: Valid (FAX/Internet FAX)
1: Valid (FAX/Internet FAX/HTTP)*
2: Invalid (Default)

When changing the setting value from “2” (default) to “0”, the Auto Supply Order setting screen is displayed. (* HTTP has not been supported yet.)

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2) Touch Panel Setting
Each item is set from the Auto Supply Order screen on the touch panel.

Entering the password and customer information is required because the setting is made from the ADMIN screen. Setting it with the administrator is a must.

- Basic setting
  [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [ORDER INFORMATION]

AUTO SUPPLY ORDER	Ordered by: [FAX], [MAIL], [HTTP] (*1)
FAX NUMBER	FAX number of supplier (*2)
E-MAIL	E-mail address of supplier (*3)
CUSTOMER	Customer information
NAME	
TEL NUMBER	
E-MAIL	
ADDRESS	
SUPPLIER	Supplier information
NAME	
ADDRESS	
SERVICE TECHNICIAN	Service technician information
NUMBER	
NAME	
TEL NUMBER	
E-MAIL	

*1 HTTP has not been supported yet.
*2 Even when “FAX” is selected, the order is not placed without entering the FAX number.
*3 Even when “MAIL” is selected, the order is not placed without entering the E-mail address.

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- Detailed setting for the order
  [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [TONER ORDERING]

***** TONER ORDER	Order information (TONER)
PART NUMBER	Part number to be ordered
CONDITION	The number of conditions (*1)
QUANTITY	The quantity to be ordered
AUTO ORDER	ON/OFF setting of order for each part

*1 The order is placed when the number of replacement reaches the number specified for the CONDITION.

- FAX number of this equipment (common information)
  [ADMIN] > [FAX] > [TERMINAL ID]

ID NAME	ID name of this equipment
FAX NUMBER	FAX number of this equipment

- E-mail information of this equipment (common information)
  [ADMIN] > [E-MAIL]

FROM ADDRESS	E-mail address of this equipment (*1)
FROM NAME	E-mail username of this equipment

*1 When sending an E-mail, validity of the address is checked. If the address is invalid, it is not sent.

3) Output of setting list of the Auto Supply Order
   Keying in the following buttons and keys prints the setting list.
   [USER FUNCTIONS] [USER] [LISTS] [*] [#] [*] [*] [3] [8] [START]

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8.1.3 Setting procedure

(1) Start up the self-diagnosis setting mode 08-765, and then change the setting value to “0”.

(2) Turn the power OFF, and then ON.

(3) Press the [USER FUNCTIONS] button to enter the user function screen.

(4) Press the [ADMIN] button.
- When the Administrator Password has been set, ADMINISTRATOR PASSWORD screen is displayed.

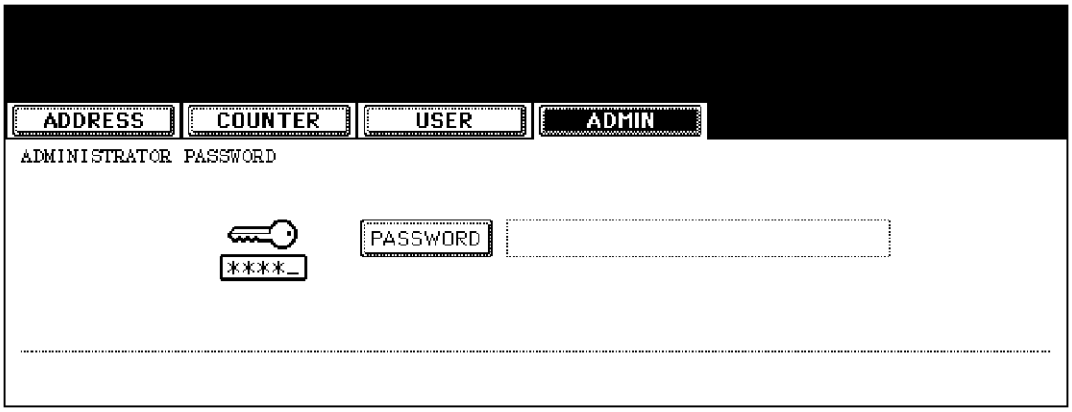


Fig. 8-1

(5) Press the [PASSWORD] button and the screen is switched to a full keyboard. Then key in the Administrator Password and press the [ENTER] button.
* Confirm the password to the administrator.

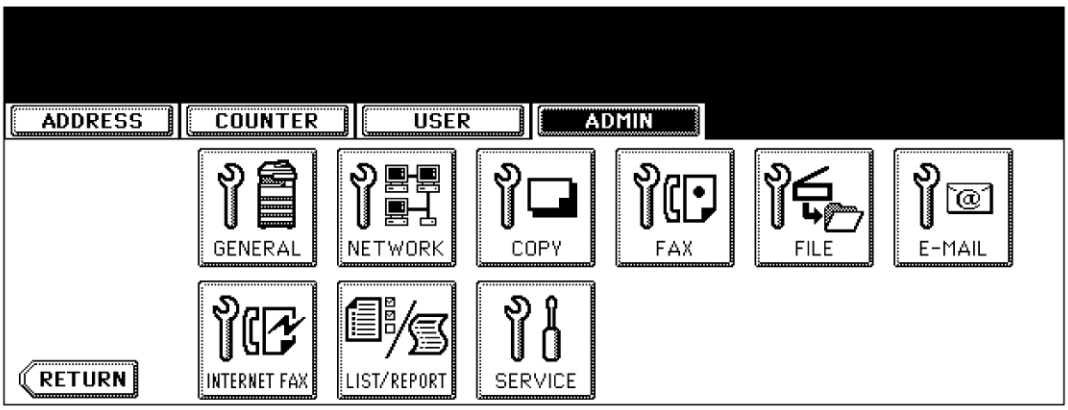


Fig. 8-2

(6) Press the [SERVICE] button in the ADMIN screen.

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(7) The SERVICE screen is displayed.

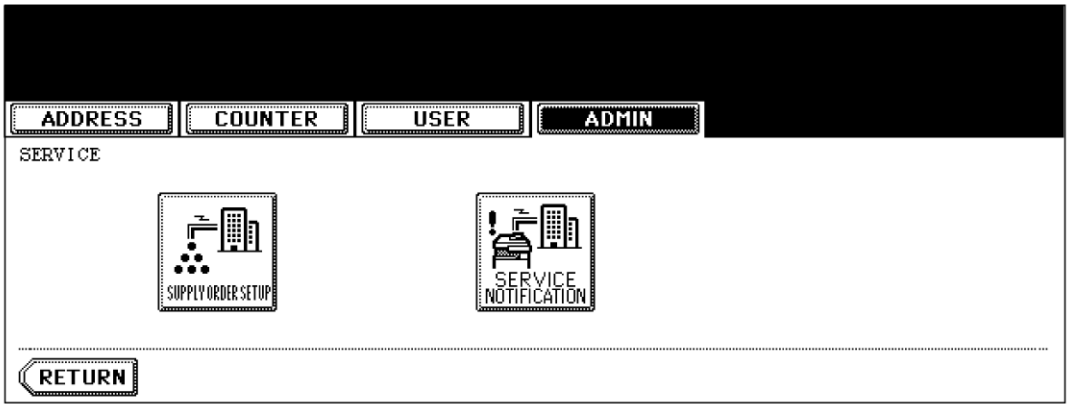


Fig. 8-3

(8) Press the [SUPPLY ORDER SETUP] button.

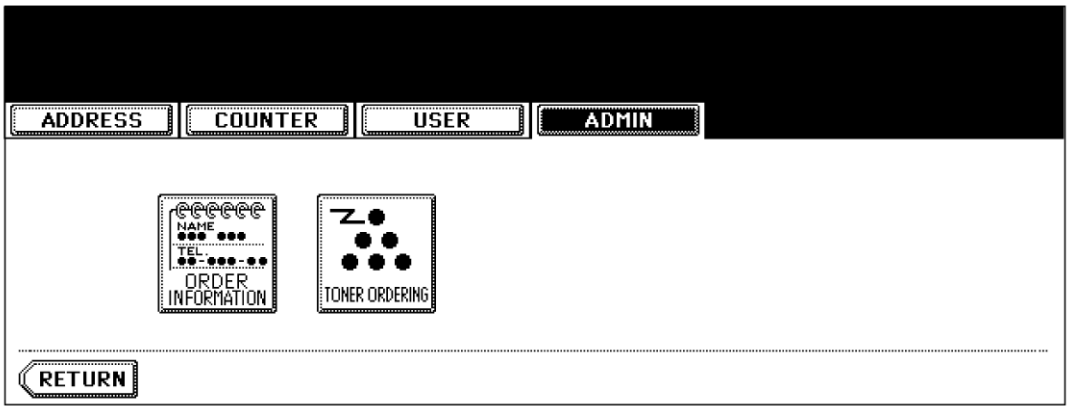


Fig. 8-4

(9) Press the [ORDER INFORMATION] button.

(10) The ORDER INFORMATION screen is displayed.

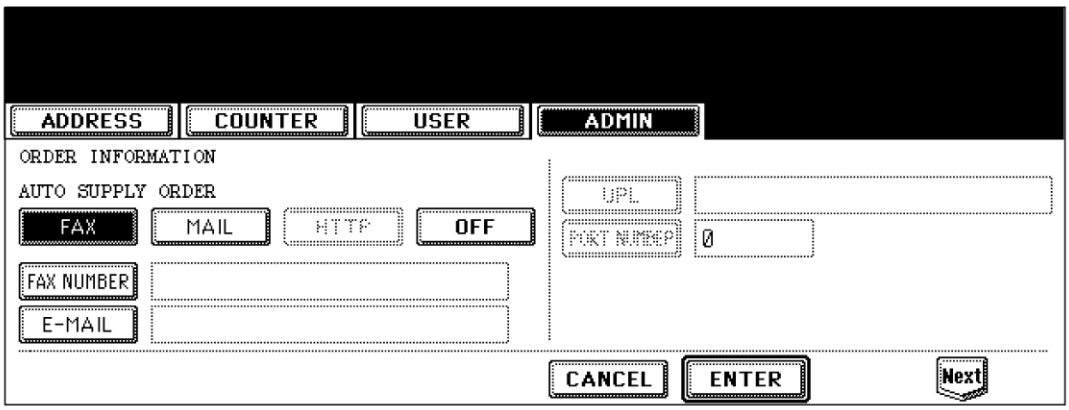


Fig. 8-5

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(11) Press the buttons on the screen of ORDER INFORMATION to set the required item.
[FAX]/[MAIL]/[OFF] ---
Select the [FAX] or the [MAIL] button for the transmitting way of order.
(HTTP has not been supported yet.)
[OFF]: Turn off the AUTO SUPPLY ORDER function.

[FAX NUMBER] --- Input the FAX number of supplier.
(To transmit by FAX, the order cannot be placed automatically if you do not input the number.)

[E-MAIL] --- Input the E-mail address of supplier.
(To transmit by E-mail, the order cannot be placed automatically if you do not input the address.)

(12) Press the [NEXT] button.
(Press the [ENTER] button to register, and then the screen returns to the (7) SERVICE screen. Press the [CANCEL] button to cancel this register, and then the screen returns to the (7) SERVICE screen.)

(13) The CUSTOMER/SUPPLIER screen is displayed.

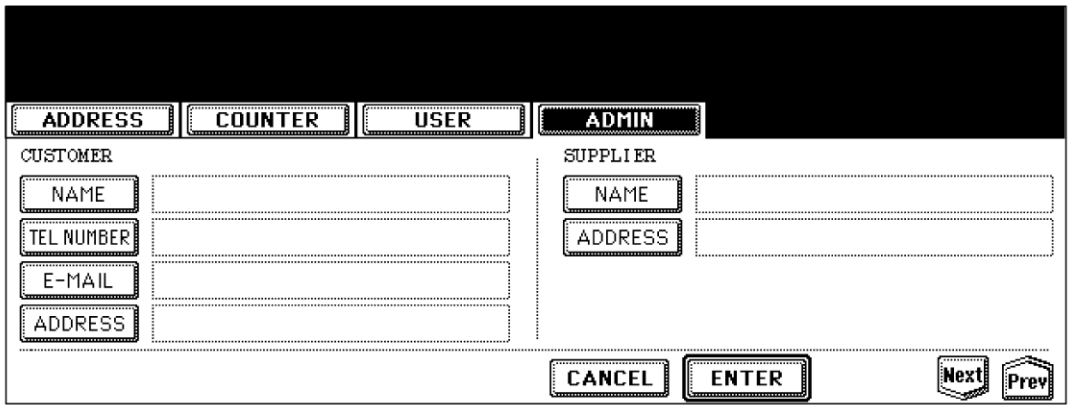


Fig. 8-6

(14) Press the buttons of the screen of CUSTOMER/SUPPLIER to set the required item.

CUSTOMER
[NAME] --- Input the name of customer.
[TEL NUMBER] --- Input the telephone number of customer.
[E-MAIL] --- Input the E-mail address of customer.
[ADDRESS] --- Input the address of customer.

SUPPLIER
[NAME] --- Input the name of supplier.
[ADDRESS] --- Input the address of supplier.

(15) Press the [NEXT] button.

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(16) The SERVICE TECHNICIAN/ RESULT PRINTING screen is displayed.

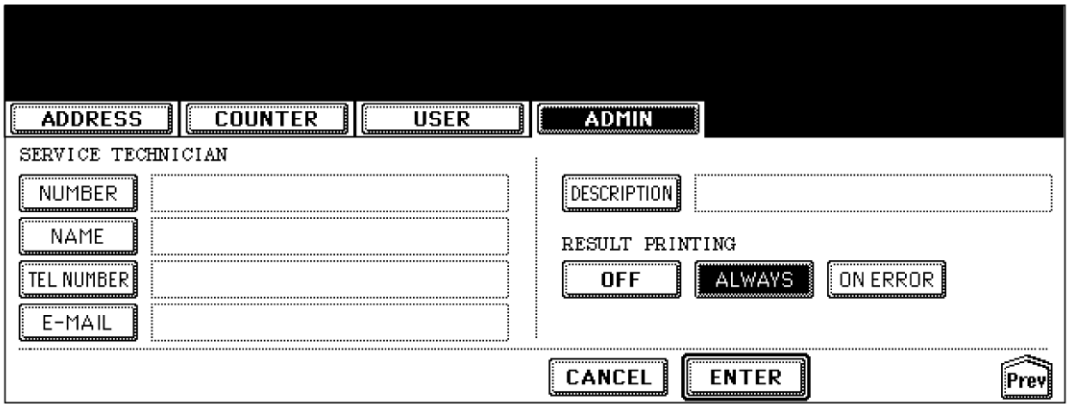


Fig. 8-7

(17) Press a button on the screen of SERVICE TECHNICIAN/ RESULT PRINTING to set the required item.

SERVICE TECHNICIAN
[NUMBER] --- Input the number of SERVICE TECHNICIAN.
[NAME] --- Input the name of SERVICE TECHNICIAN.
[TEL NUMBER] --- Input the telephone number of SERVICE TECHNICIAN.
[E-MAIL] --- Input the E-mail address of SERVICE TECHNICIAN.

[DESCRIPTION] --- Input the remarks if you want to register.

RESULT PRINTING
[OFF] / [ALWAYS] / [ON ERROR] --- Whichever you press, the result list is printed.

(18) Press the [ENTER] button to register and complete the order information setting.

(19) The SERVICE screen is returned.

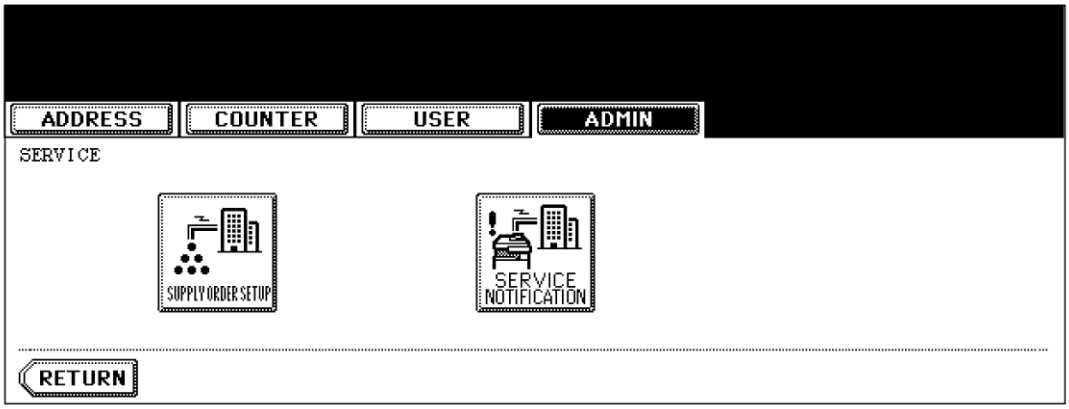


Fig. 8-8

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(20) Press the [SUPPLY ORDER SETUP] button.

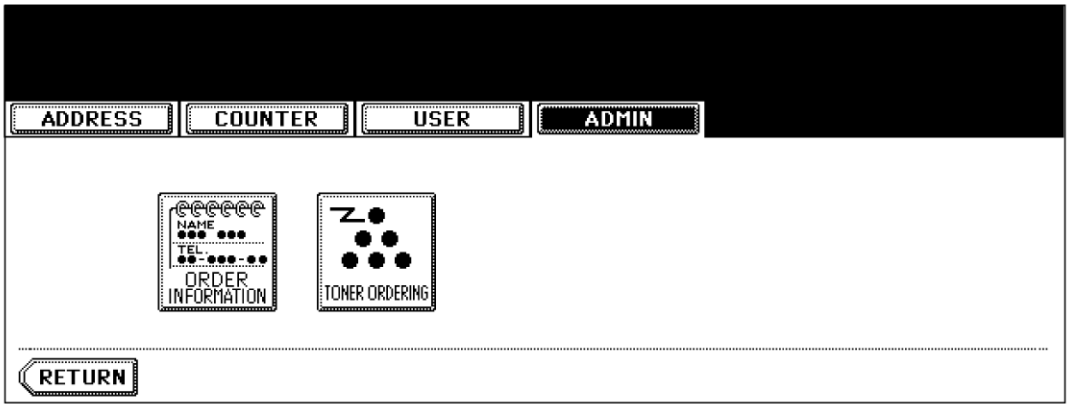


Fig. 8-9

(21) Press the [TONER ORDERING] button.

(22) The TONER ORDERING screen is displayed.

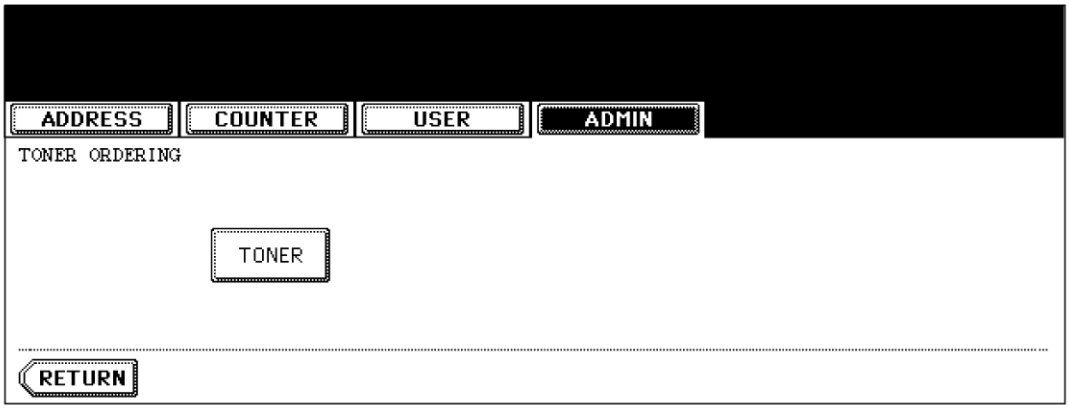


Fig. 8-10

8

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(23) Press the [TONER] button. (Select the part to be ordered.)

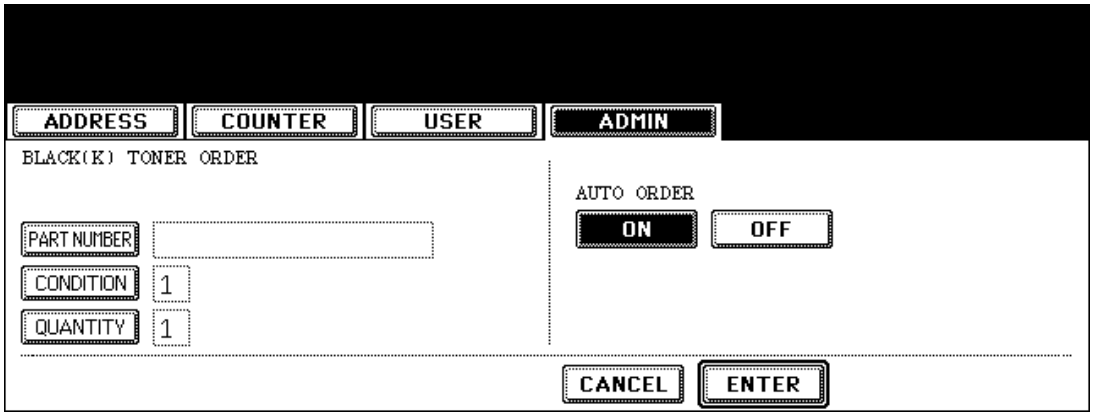


Fig. 8-11

(24) Input the order information of TONER.
[PART NUMBER] --- Toner number

[CONDITION] ---
The order is placed when the number of toner empty reaches the number specified for the CONDITION.

[QUANTITY] --- Quantity to be ordered

AUTO ORDER
[ON]/[OFF]--- Allows you to select whether each part to be ordered is placed automatically or not.

(25) Press the [ENTER] button to register the setting of toner order.

(26) The screen returns to the TONER ORDERING.

(27) Press the [USER FUNCTION] button to be switched from the ADMIN screen on touch panel and returned to the BASIC screen, so that the setting of Auto Supply Order is finished.

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Note:
Auto Supply Order setting is also available from the following setting mode (08).

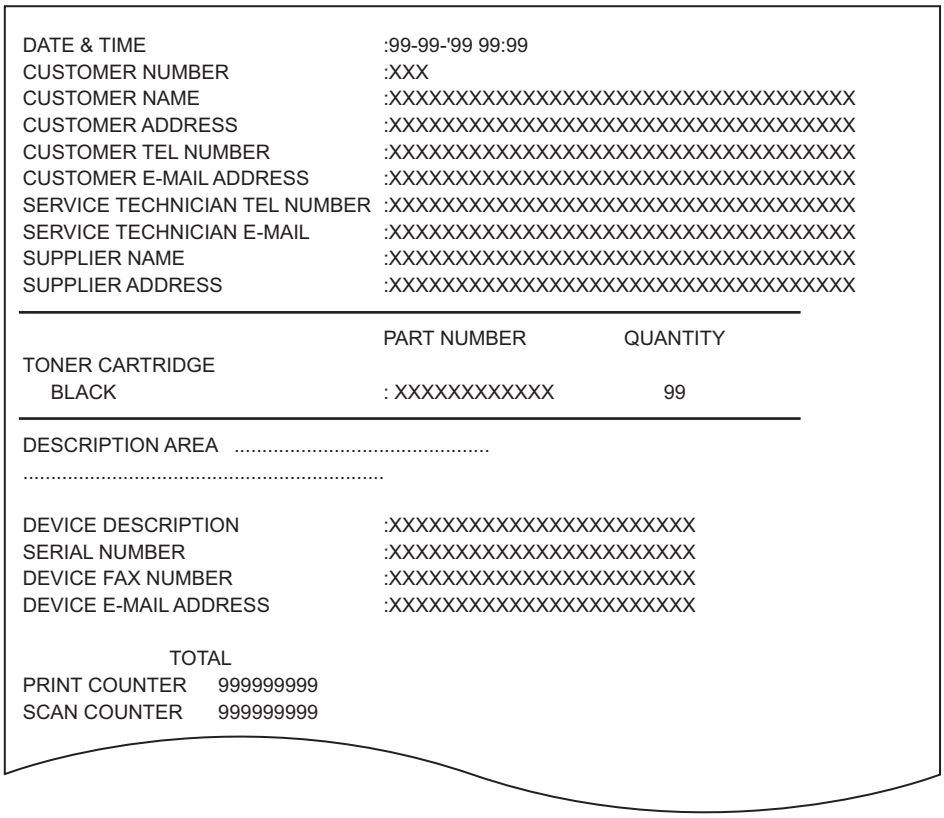
Items	08 code	Contents
The transmitting way of order [FAX] / [MAIL] / [OFF]	732	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF
SUPPLIER [FAX NUMBER]	733	Maximum 32 digits
SUPPLIER [E-MAIL]	734	Maximum 192 letters
CUSTOMER [NAME]	738	Maximum 50 letters
CUSTOMER [TEL NUMBER]	739	Maximum 32 letters
CUSTOMER [E-MAIL]	740	Maximum 192 letters
CUSTOMER [ADDRESS]	741	Maximum 100 letters
SUPPLIER [NAME]	746	Maximum 50 letters
SUPPLIER [ADDRESS]	747	Maximum 100 letters
SERVICE TECHNICIAN [NUMBER]	742	Maximum 5 digits
SERVICE TECHNICIAN [NAME]	743	Maximum 50 letters
SERVICE TECHNICIAN [TEL NUMBER]	744	Maximum 32 digits
SERVICE TECHNICIAN [E-MAIL]	745	Maximum 192 letters
Remarks [DESCRIPTION]	748	Maximum 128 letters
TONER [PART NUMBER]	758	Maximum 20 digits
TONER [CONDITION]	760	1-99
TONER [QUANTITY]	759	1-99

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8.1.4 Order Sheet Format

The sample of order sheet is as follows.

1) FAX (This format is the same as that of TIFF image attached E-mail.)



DATE & TIME :99-99-'99 99:99
CUSTOMER NUMBER :XXX
CUSTOMER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

	PART NUMBER	QUANTITY
TONER CARTRIDGE		
BLACK	: XXXXXXXXXXXX	99

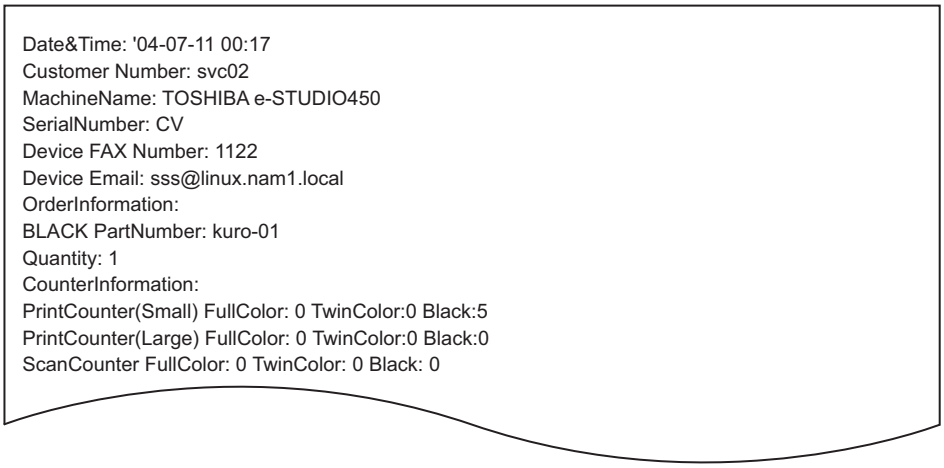
DESCRIPTION AREA .....
.....

DEVICE DESCRIPTION :XXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER :XXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER :XXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXX

	TOTAL
PRINT COUNTER	999999999
SCAN COUNTER	999999999

Fig. 8-12

2) E-MAIL (TIFF image attached with the E-mail is the same format with that of the FAX order sheet.)
SUBJECT: SUPPLY ORDER REQUEST

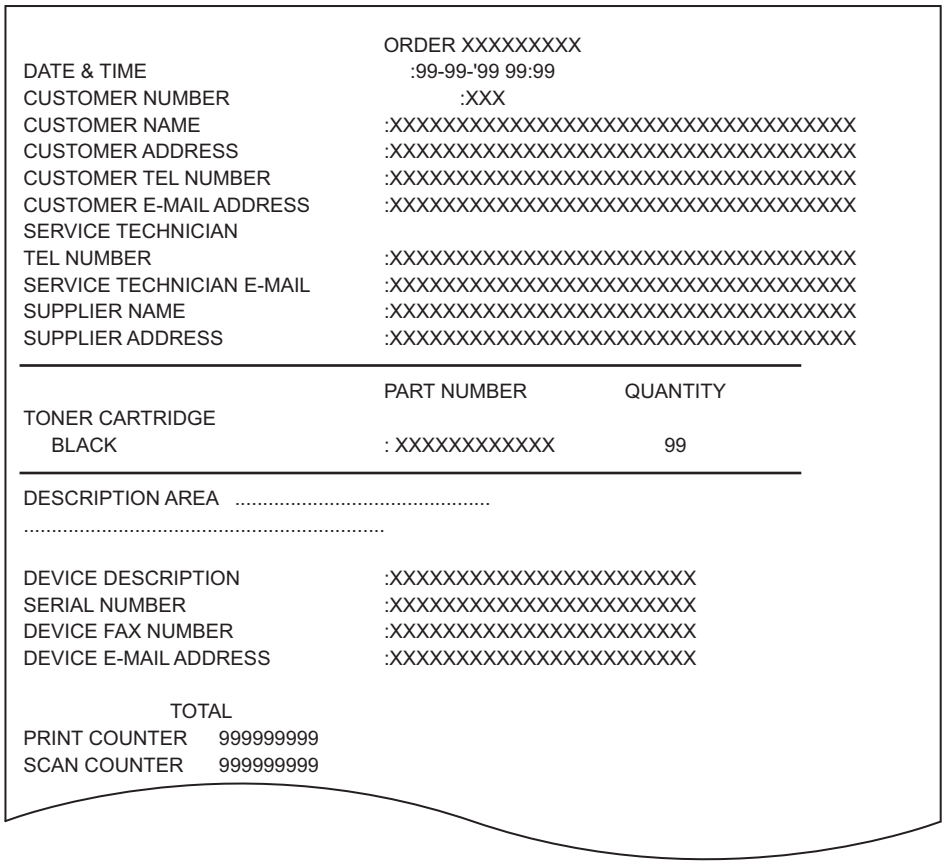


Date&Time: '04-07-11 00:17
Customer Number: svc02
MachineName: TOSHIBA e-STUDIO450
SerialNumber: CV
Device FAX Number: 1122
Device Email: sss@linux.nam1.local
OrderInformation:
BLACK PartNumber: kuro-01
Quantity: 1
CounterInformation:
PrintCounter(Small) FullColor: 0 TwinColor:0 Black:5
PrintCounter(Large) FullColor: 0 TwinColor:0 Black:0
ScanCounter FullColor: 0 TwinColor: 0 Black: 0

Fig. 8-13

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3) Result list



ORDER XXXXXXXXX
DATE & TIME :99-99-'99 99:99
CUSTOMER NUMBER :XXX
CUSTOMER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN
TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

	PART NUMBER	QUANTITY
TONER CARTRIDGE		
BLACK	: XXXXXXXXXXXX	99

DESCRIPTION AREA .....
.....

DEVICE DESCRIPTION :XXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER :XXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER :XXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXX

TOTAL
PRINT COUNTER 999999999
SCAN COUNTER 999999999

Fig. 8-14

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8.2 Service Notification

8.2.1 Outline

This function automatically notifies the status of the equipment to the service technician by E-mail or FAX. The following three are the items to be notified.

- Total Counter Transmit
  When this function is effective, it notifies each counter information periodically (on the set date and time every month).

- Service Call Transmit (E-mail only)
  When this function is effective, it notifies the corresponding error code and such at a service call error.

- PM Counter Transmit
  When this function is effective, it notifies that the PM timing has come when the present PM sheet counter has reached to its setting value, or the present PM driving counter has reached to its setting value.

8.2.2 Setting (e-STUDIO200L/230/230L/280)

Note:
When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

[1] Preparation

The screen to set this function is not displayed at the default setting.
Set this screen to be displayed with the following code (08).

08-774 Setting of notification display
0: Invalid (Default)
1: Valid

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[2] Setting procedure

(1) Press the [USER FUNCTIONS] button and select the [ADMIN] button. Then enter the password and press the [ENTER] button.
- Confirm the password to the administrator.

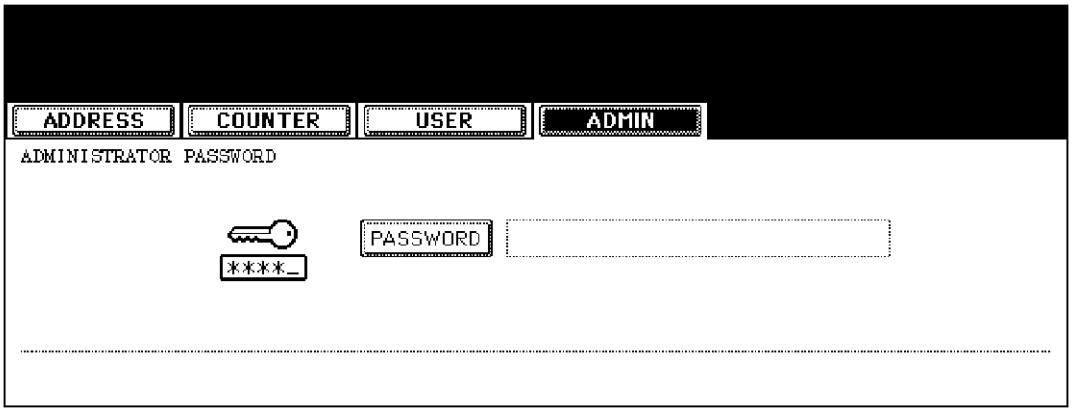


Fig. 8-15

(2) Press the [SERVICE] button.

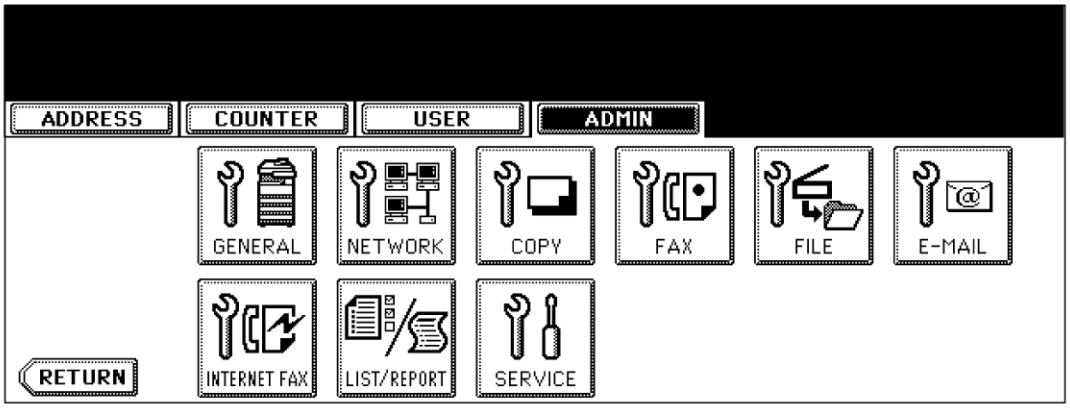


Fig. 8-16

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(3) Press the [SERVICE NOTIFICATION] button.

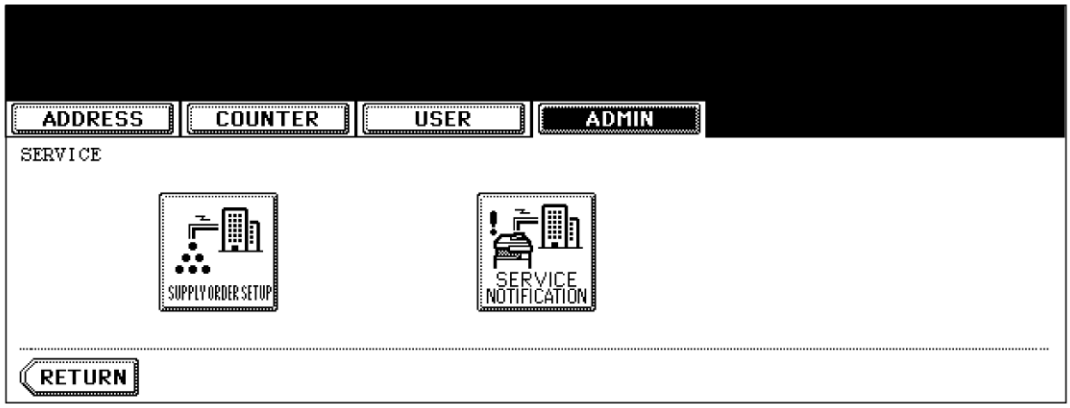


Fig. 8-17

(4) Press the [E-MAIL] or [FAX] button in “SERVICE NOTIFICATION”.
- When the [OFF] button is pressed, all functions related Service Notification become ineffective.

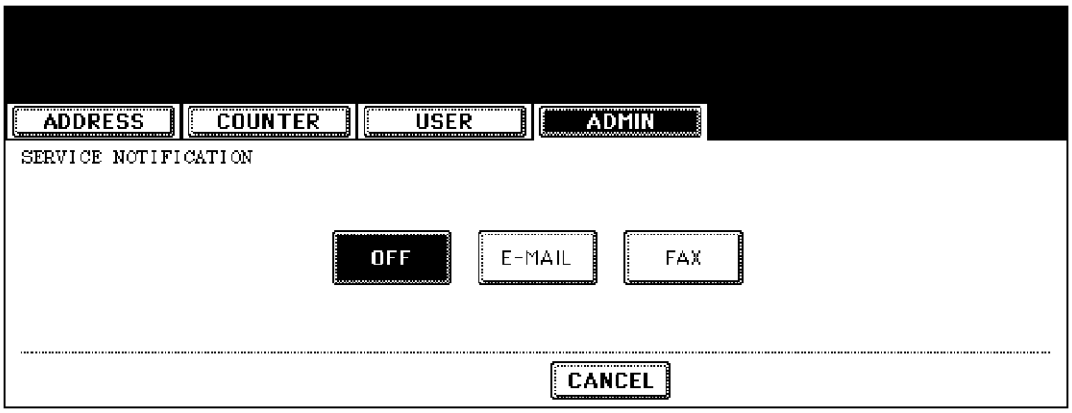


Fig. 8-18

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(5) Enter the E-mail address or FAX number of the destination.

- When pressing the [E-MAIL] button, the screen is switched to a full keyboard. Then enter the E-mail addresses and press the [ENTER] button. (Maximum 3 addresses can be set.)

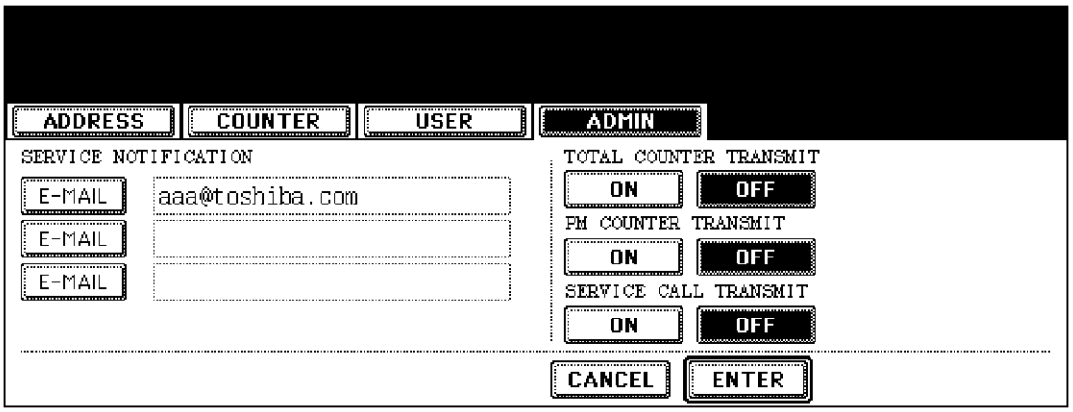


Fig. 8-19

- Press the [FAX NUMBER] button, key in the FAX number and then press the [ENTER] button.

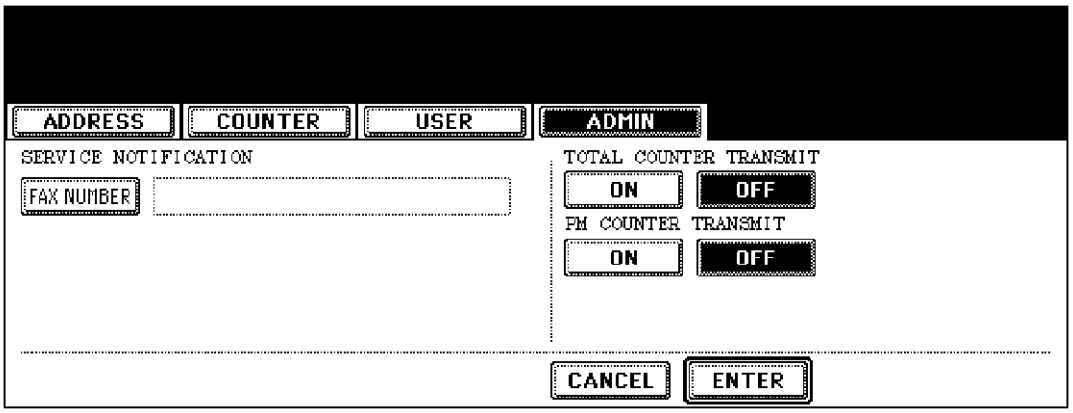


Fig. 8-20

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(6) Press the [ON] button to notify or [OFF] button not to notify of each item for E-mail and FAX. When the Total Count Transmit is set ON, the screen to set the notification date is displayed. Then set the notification date with the following procedure. (The information is notified on the set date and time every month.)

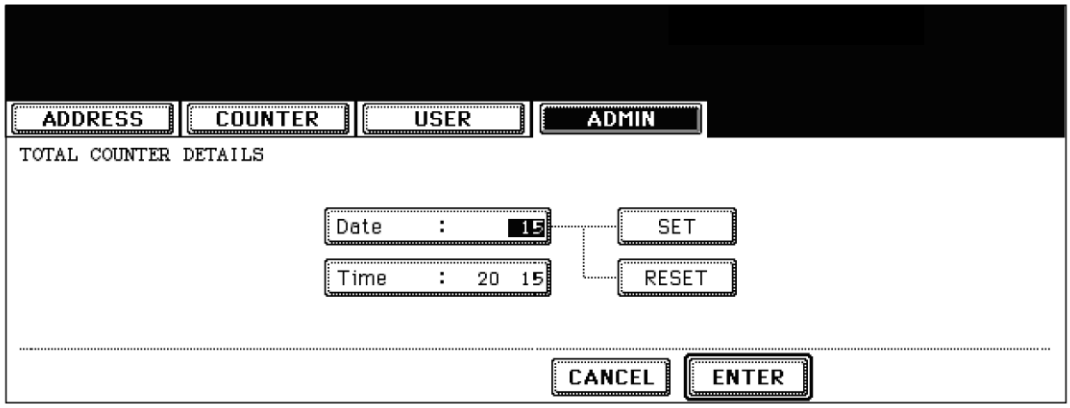


Fig. 8-21

- Key in the date (acceptable values: 1-31) in “Date” and press the [SET] button. (Correct the value by pressing the [CLEAR] button if the [SET] button is not yet pressed. Correct the value by pressing the [RESET] button to move the cursor back to the digit to be corrected if the [SET] button is already pressed.)

- Key in the time (acceptable values: 00:00-23:59) in “Time”.
  Key in the time in the hour column of “Time”, press the [SET] button, key in the time in the minute column of “Time” and press the [SET] button. (Correct the value by pressing the [CLEAR] button if the [SET] button is not yet pressed. Correct the value by pressing the [RESET] button to move the cursor back to the digit to be corrected if the [SET] button is already pressed.)

- Press the [ENTER] button to set all. The display returns to the screen at procedure (5).

(7) Press the [ENTER] button. The setting completes.

Note:
Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	767	0: OFF (Invalid) 1: E-mail 2: FAX
E-mail address 1	768	Maximum 192 letters
E-mail address 2	777	Maximum 192 letters
E-mail address 3	778	Maximum 192 letters
FAX number	1145	Maximum 32 digits
Total Counter Transmit setting	769	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	770	1 to 31
Total counter transmission interval setting (Hour/Hour/Minute/Minute)	776	00:00-23:59
Service Call Transmit setting	775	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	771	0: OFF (Invalid) 1: ON (Valid)

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8.2.3 Items to be notified (e-STUDIO200L/230/230L/280)

The items to be notified are shown below.

1) Total Counter Transmit / PM Counter Transmit by E-mail (XML file attached to E-mail has also the same format.)
   Subject: Counter Notification
   (In case of the PM Counter Transmit, it is shown as “Periodical Maintenance Notification”.)

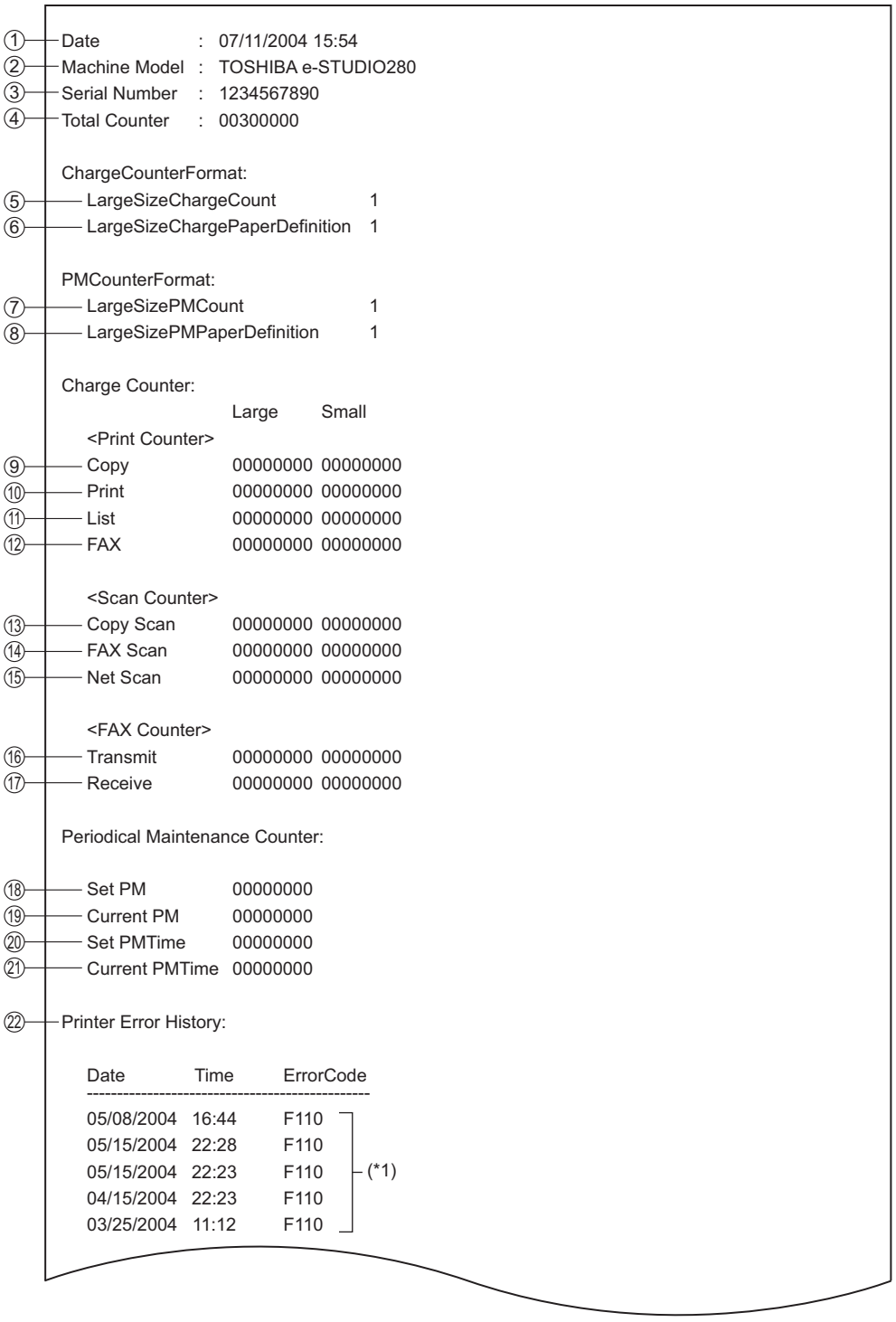


Fig. 8-22

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① Date
② Machine model name
③ Serial number
④ Total counter value
⑤ Count setting of large-sized paper (Fee charging system counter)
⑥ Definition setting of large-sized paper (Fee charging system counter)
⑦ Count setting of large-sized paper (PM)
⑧ Definition setting of large-sized paper (PM)
⑨ Number of output pages in the Copier Function
⑩ Number of output pages in the Printer Function
⑪ Number of output pages at the List Print Mode
⑫ Number of output pages in the FAX Function
⑬ Number of scanning pages in the Copier Function
⑭ Number of scanning pages in the FAX Function
⑮ Number of scanning pages in the Network Scanning Function
⑯ Number of transmitted pages in the FAX Function
⑰ Number of received pages in the FAX Function
⑱ PM sheet counter setting value
⑲ PM sheet counter present value
⑳ PM driving counter setting value
㉑ PM driving counter present value
㉒ History of error
*1 The latest 20 errors are displayed.

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2) Total Counter Transmit / PM Counter Transmit by FAX

*1 In case of the PM Counter Transmit, the title is replaced to “PERIODICAL MAINTENANCE NOTIFICATION”.

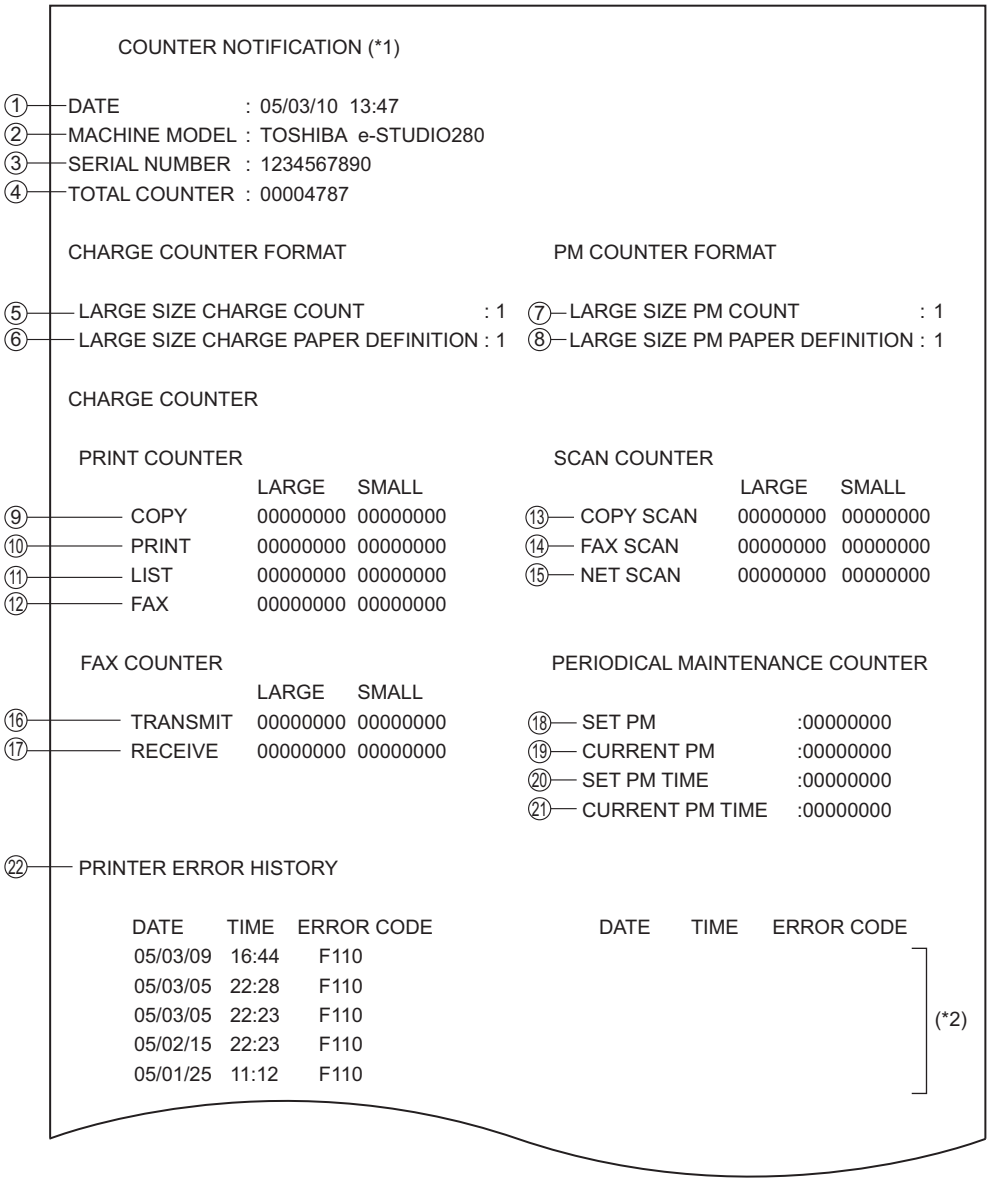


Fig. 8-23

8

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① Date
② Machine model name
③ Serial number
④ Total counter value
⑤ Count setting of large-sized paper (Fee charging system counter)
⑥ Definition setting of large-sized paper (Fee charging system counter)
⑦ Count setting of large-sized paper (PM)
⑧ Definition setting of large-sized paper (PM)
⑨ Number of output pages in the Copier Function
⑩ Number of output pages in the Printer Function
⑪ Number of output pages at the List Print Mode
⑫ Number of output pages in the FAX Function
⑬ Number of scanning pages in the Copier Function
⑭ Number of scanning pages in the FAX Function
⑮ Number of scanning pages in the Network Scanning Function
⑯ Number of transmitted pages in the FAX Function
⑰ Number of received pages in the FAX Function
⑱ PM sheet counter setting value
⑲ PM sheet counter present value
⑳ PM driving counter setting value
㉑ PM driving counter present value
㉒ History of error
*2 The latest 20 errors are displayed.

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3) Service Call Transmit
Subject: Serviceman Call Notification

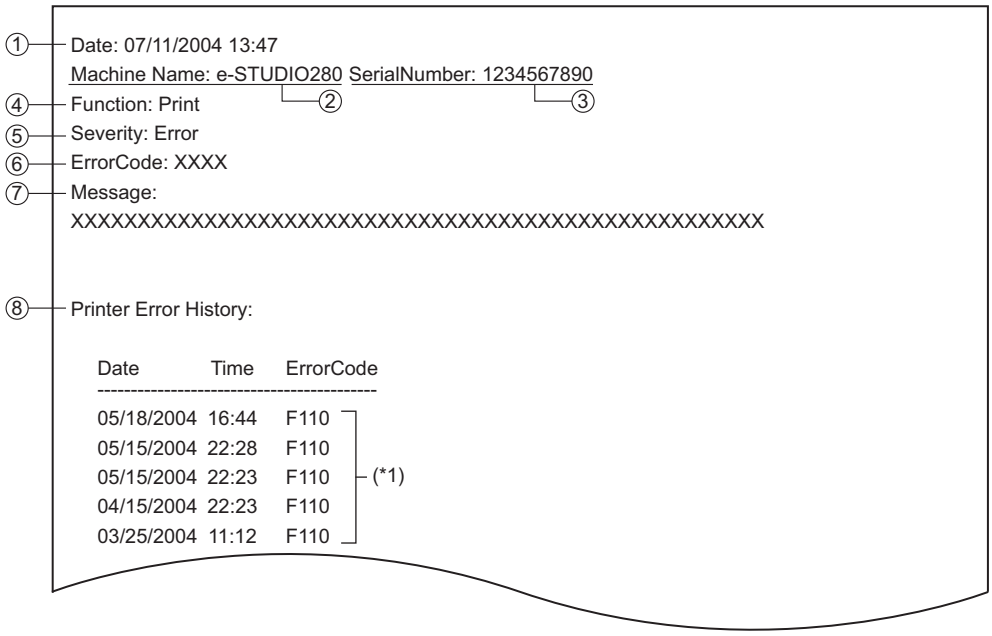


Fig. 8-24

① Date (When an error occurs)
② Machine model name
③ Serial number
④ Function: Fixed at “Print”
⑤ Severity: Fixed at “Error”
⑥ Error code
⑦ Error message: The content of error is displayed.
⑧ History of error
*1 The latest 20 errors are displayed.

8

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8.2.4 Setting (e-STUDIO202L/203L/232/233/282/283)

Note:
When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

[1] Preparation

The screen to set this function is not displayed at the default setting.
Set this screen to be displayed with the following code (08).

08-774 Setting of notification display
0: Invalid (Default)
1: Valid

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[2] Setting procedure

(1) Press the [USER FUNCTIONS] button and select the [ADMIN] button. Then enter the password and press the [ENTER] button.
- Confirm the password to the administrator.

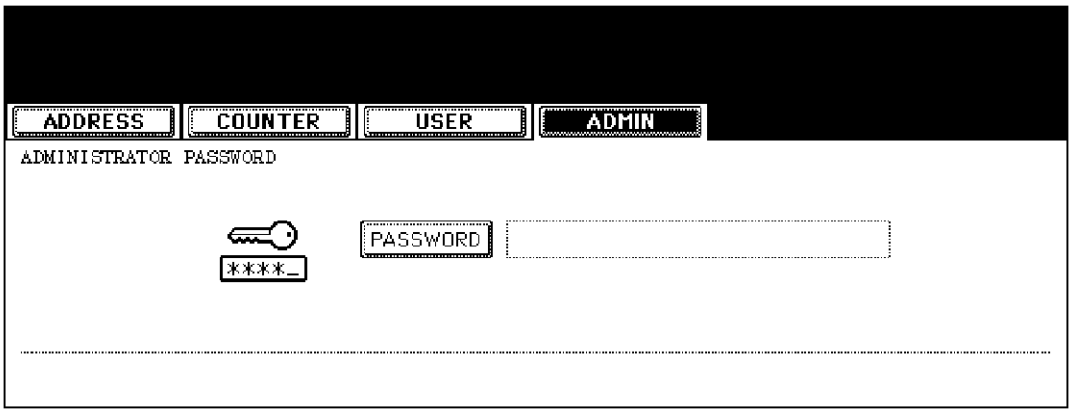


Fig. 8-25

(2) Press the [SERVICE] button.

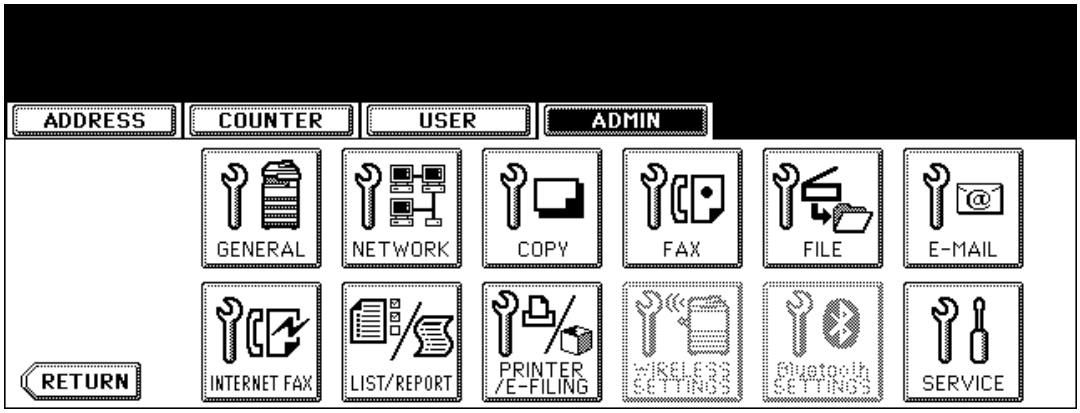


Fig. 8-26

(3) Press the [SERVICE NOTIFICATION] button.

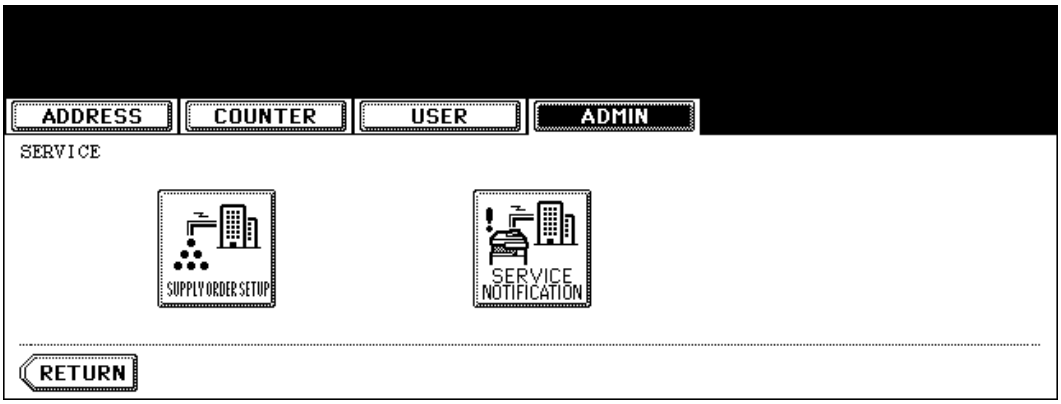


Fig. 8-27

8

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(4) Press the [E-MAIL] or [FAX] button in "SERVICE NOTIFICATION".
- When the [OFF] button is pressed, all functions related Service Notification become ineffective.

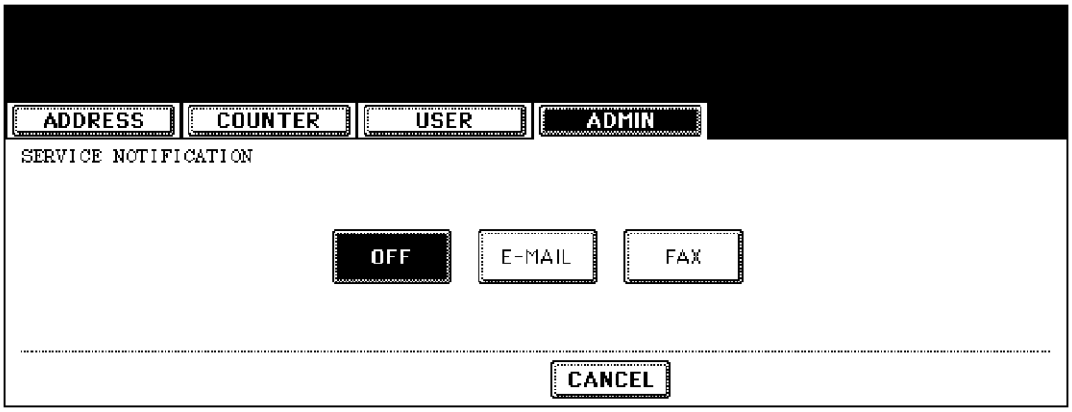


Fig. 8-28

(5) Enter the E-mail address or FAX number of the destination.
- When pressing the [E-MAIL] button, the screen is switched to a full keyboard. Then enter the E-mail addresses and press the [ENTER] button. (Maximum 3 addresses can be set.)

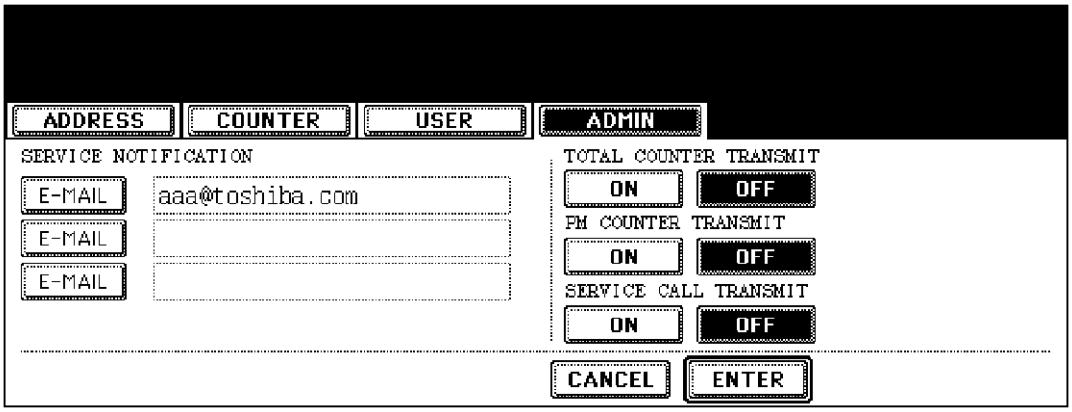


Fig. 8-29

- Press the [FAX NUMBER] button, key in the FAX number and then press the [ENTER] button.

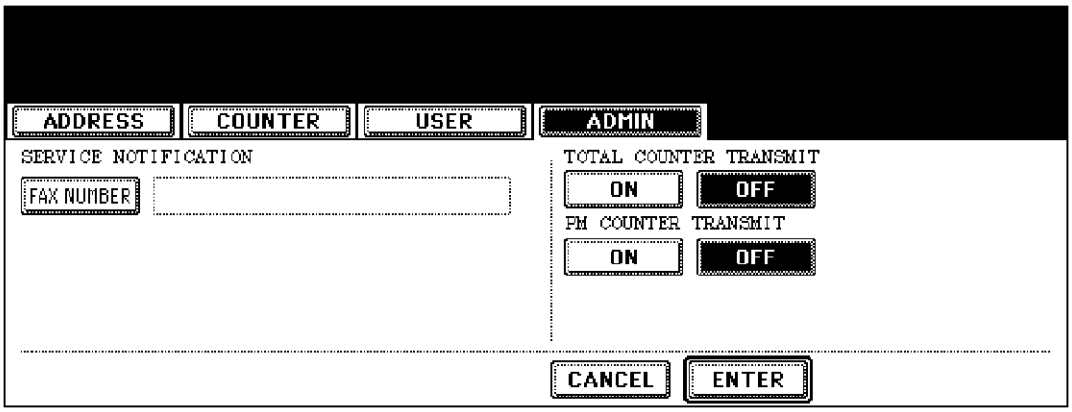


Fig. 8-30

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(6) Press the [ON] button to notify or the [OFF] button not to notify each item for E-mail and FAX. When Total Count Transmit is set to ON, the screen to set the notification date is displayed. Then set the notification date with the following procedure.

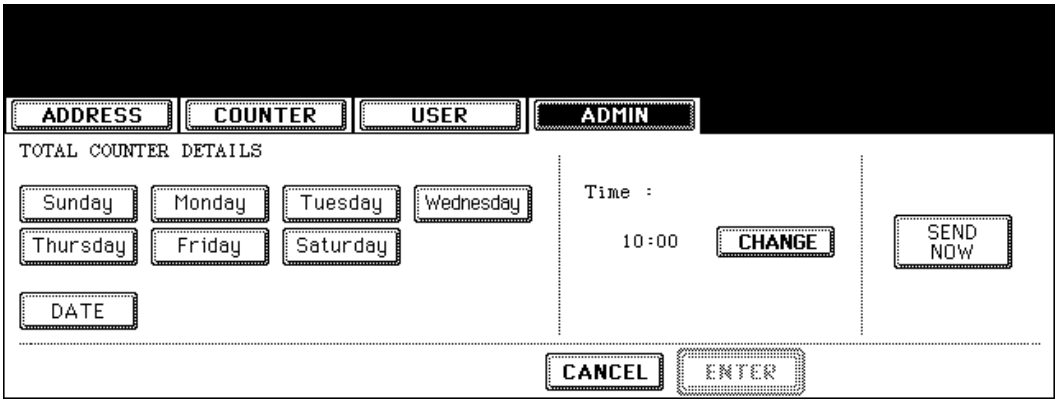


Fig. 8-31

Set the date and time of the Total Counter.
The following 3 items can be specified for the date setting, and more than one day of the week also can be selected.

- Day of the week (More than one day can be selected.)
- Notify Date 1
- Notify Date 2

You can send the Total Counter immediately without the above settings by pressing the [SEND NOW] button.

- **Day of the week ([Sunday] to [Saturday] buttons)**
  Pressing the buttons ([Sunday] to [Saturday]) of the desired day makes transmission on every specified day. More than one day can be selected.
  * This does not affect the settings of "Notify Date 1" and "Notify Date 2".

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- **Notify Date 1 and Notify Date 2 ([DATE] button)**
  Pressing the [DATE] button sets up to 2 dates on which you wand to send data.
  * This is not affected by the specified day of the week.

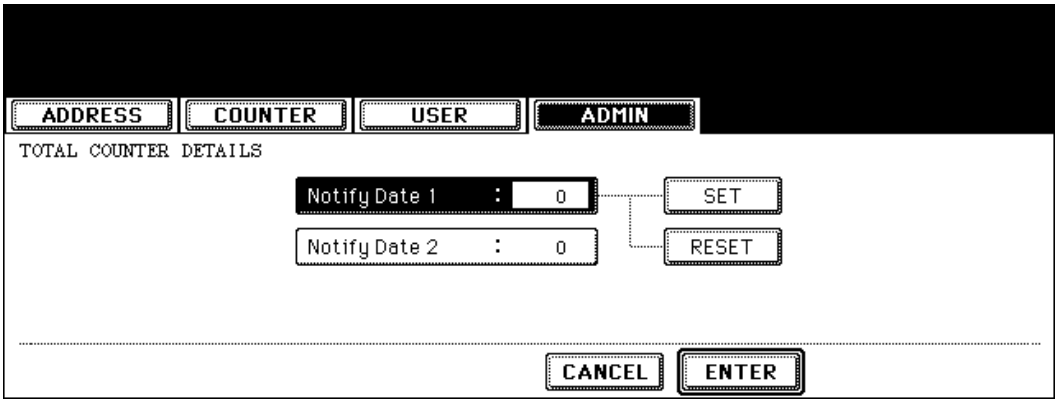


Fig. 8-32

Key in the date (acceptable values: 0-31) in "Notify Date 1" or "Notify Date 2" and press the [SET] button.
([SET] button not pressed: Correct the value after pressing the [CLEAR] button.
[SET] button already pressed: Correct the value after pressing the [RESET] button to move the cursor back to the digit to be rectified.)

- **Time setting ([CHANGE] button)**
  Pressing the [CHANGE] button sets the time at which you wand to send data.
  This is the time when data are sent with "Day of the week", "Notify Date 1" and "Notify Date 2".

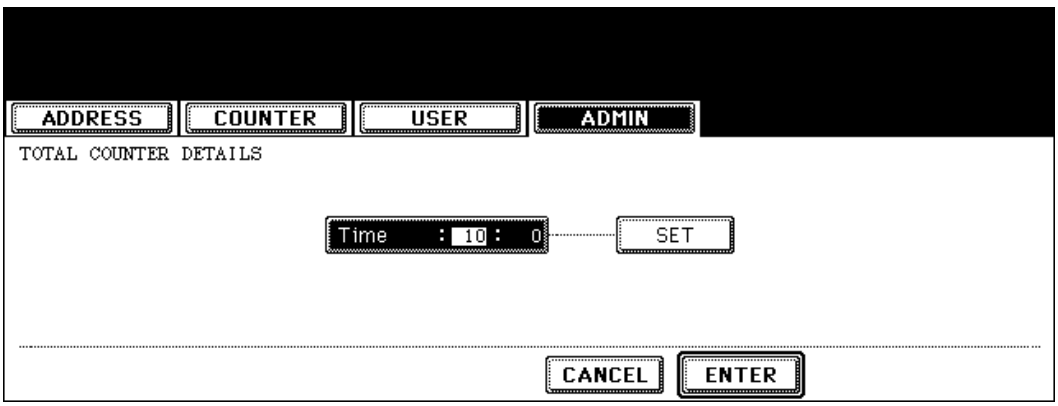


Fig. 8-33

Key in the time (acceptable values: 00:00-23:59) in "Time".
Key in the time in the hour column of "Time", press the [SET] button, key in the time in the minute column of "Time" and press the [SET] button.
([SET] button not pressed: Correct the value after pressing the [CLEAR] button.
[SET] button already pressed: Correct the value after pressing the [RESET] button to move the cursor back to the digit to be rectified.)

After all the settings are completed, press the [ENTER] button. The display returns to the screen in step (5).

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(7) Press the [ENTER] button. The setting completes.

Note:
Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	767	0: OFF (Invalid) 1:E-mail 2:FAX
E-mail address 1	768	Maximum 192 letters
E-mail address 2	777	Maximum 192 letters
E-mail address 3	778	Maximum 192 letters
FAX number	1145	Maximum 32 digits
Total Counter Transmit setting	769	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	770	0 to 31
Total counter transmission date setting(2)	9880	0 to 31
Day of total counter data transmission	9881	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
Total counter transmission interval setting (Hour/Hour/Minute/Minute)	776	00:00-23:59
Service Call Transmit setting	775	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	771	0: OFF (Invalid) 1: ON (Valid)

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8.2.5 Items to be notified (e-STUDIO202L/203L/232/233/282/283)

The items to be notified are shown below.

1) Total Counter Transmit / PM Counter Transmit by E-mail (XML file attached to E-mail has also the same format.)
   Subject: Counter Notification
   (In case of the PM Counter Transmit, it is shown as "Periodical Maintenance Notification".)

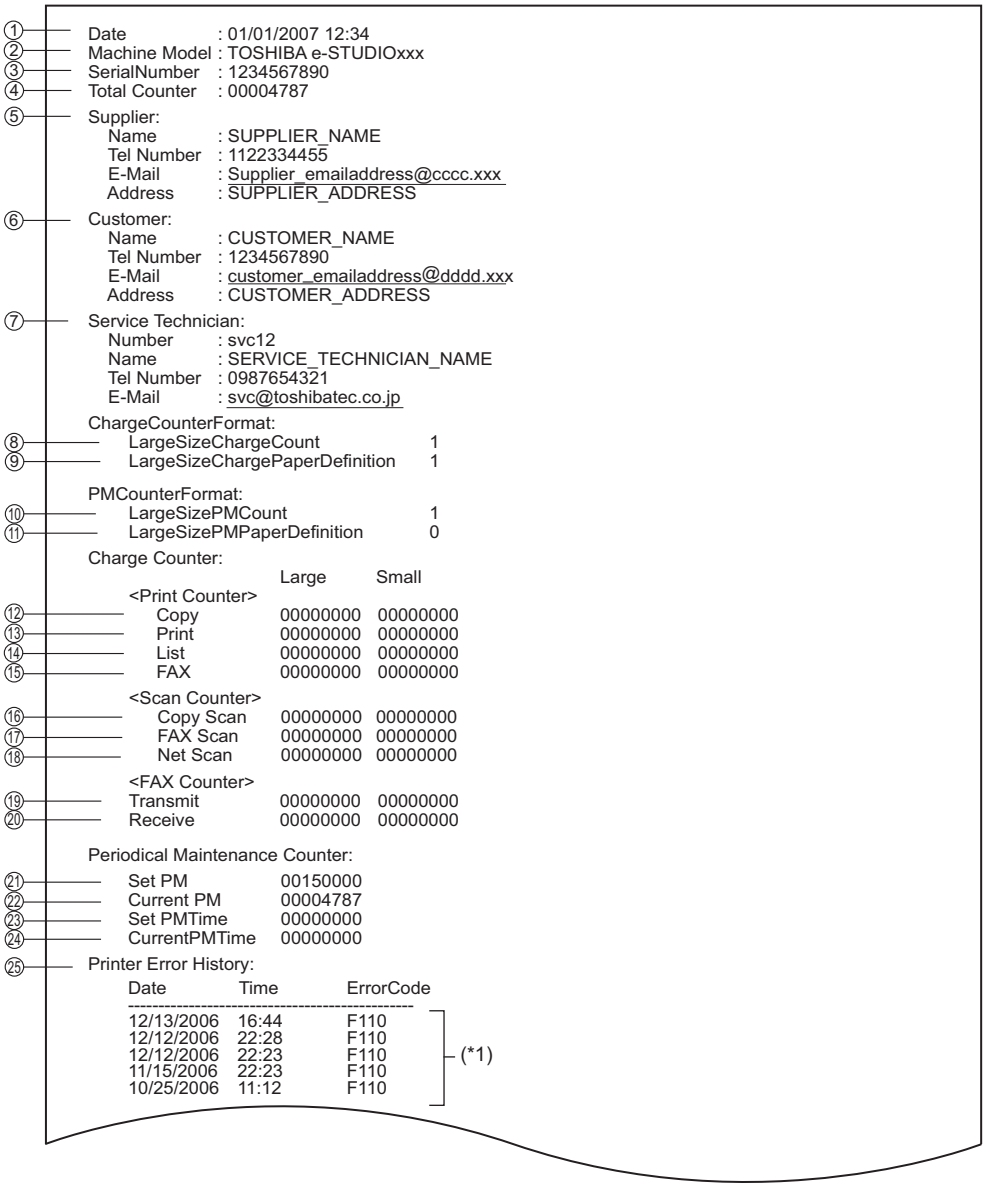


Fig. 8-34

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① Date
② Machine model name
③ Serial number
④ Total counter value
⑤ Supplier information
⑥ Customer information
⑦ Service technician information
⑧ Count setting of large-sized paper (Fee charging system counter)
⑨ Definition setting of large-sized paper (Fee charging system counter)
⑩ Count setting of large-sized paper (PM)
⑪ Definition setting of large-sized paper (PM)
⑫ Number of output pages in the Copier Function
⑬ Number of output pages in the Printer Function
⑭ Number of output pages at the List Print Mode
⑮ Number of output pages in the FAX Function
⑯ Number of scanning pages in the Copier Function
⑰ Number of scanning pages in the FAX Function
⑱ Number of scanning pages in the Network Scanning Function
⑲ Number of transmitted pages in the FAX Function
⑳ Number of received pages in the FAX Function
㉑ PM count setting value
㉒ PM count present value
㉓ PM driving count setting value
㉔ PM driving count present value
㉕ History of error

*1 The latest 20 errors are displayed.

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2) Total Counter Transmit / PM Counter Transmit by FAX

*1 In case of the PM Counter Transmit, the title is replaced to "PERIODICAL MAINTENANCE NOTIFICATION".

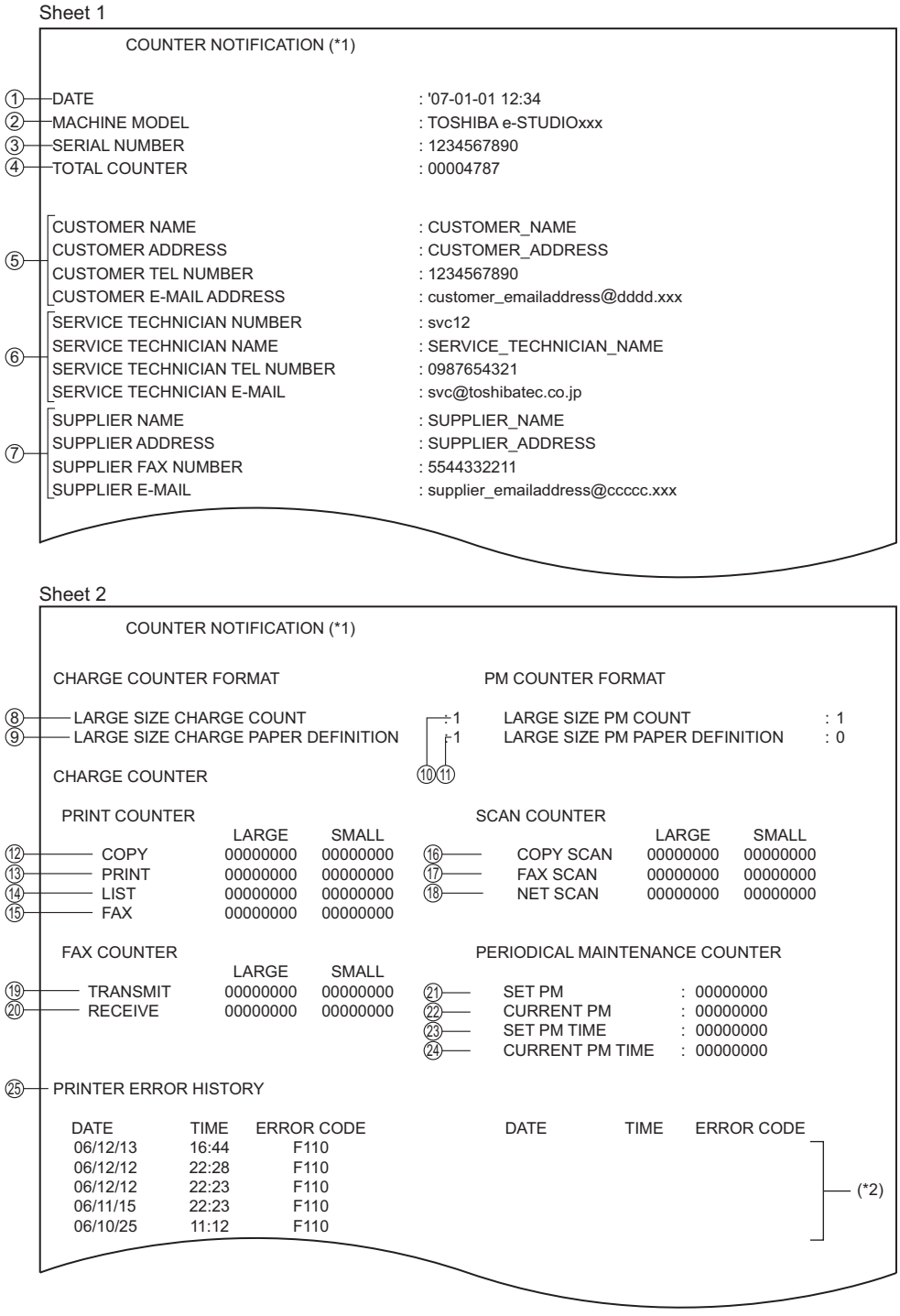


Fig. 8-35

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① Date
② Machine model name
③ Serial number
④ Total counter value
⑤ Customer information
⑥ Service technician information
⑦ Supplier information
⑧ Count setting of large-sized paper (Fee charging system counter)
⑨ Definition setting of large-sized paper (Fee charging system counter)
⑩ Count setting of large-sized paper (PM)
⑪ Definition setting of large-sized paper (PM)
⑫ Number of output pages in the Copier Function
⑬ Number of output pages in the Printer Function
⑭ Number of output pages at the List Print Mode
⑮ Number of output pages in the FAX Function
⑯ Number of scanning pages in the Copier Function
⑰ Number of scanning pages in the FAX Function
⑱ Number of scanning pages in the Network Scanning Function
⑲ Number of transmitted pages in the FAX Function
⑳ Number of received pages in the FAX Function
㉑ PM count setting value
㉒ PM count present value
㉓ PM driving count setting value
㉔ PM driving count present value
㉕ History of error
*2 The latest 20 errors are displayed.

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3) Service Call Transmit
Subject: Service Call Notification

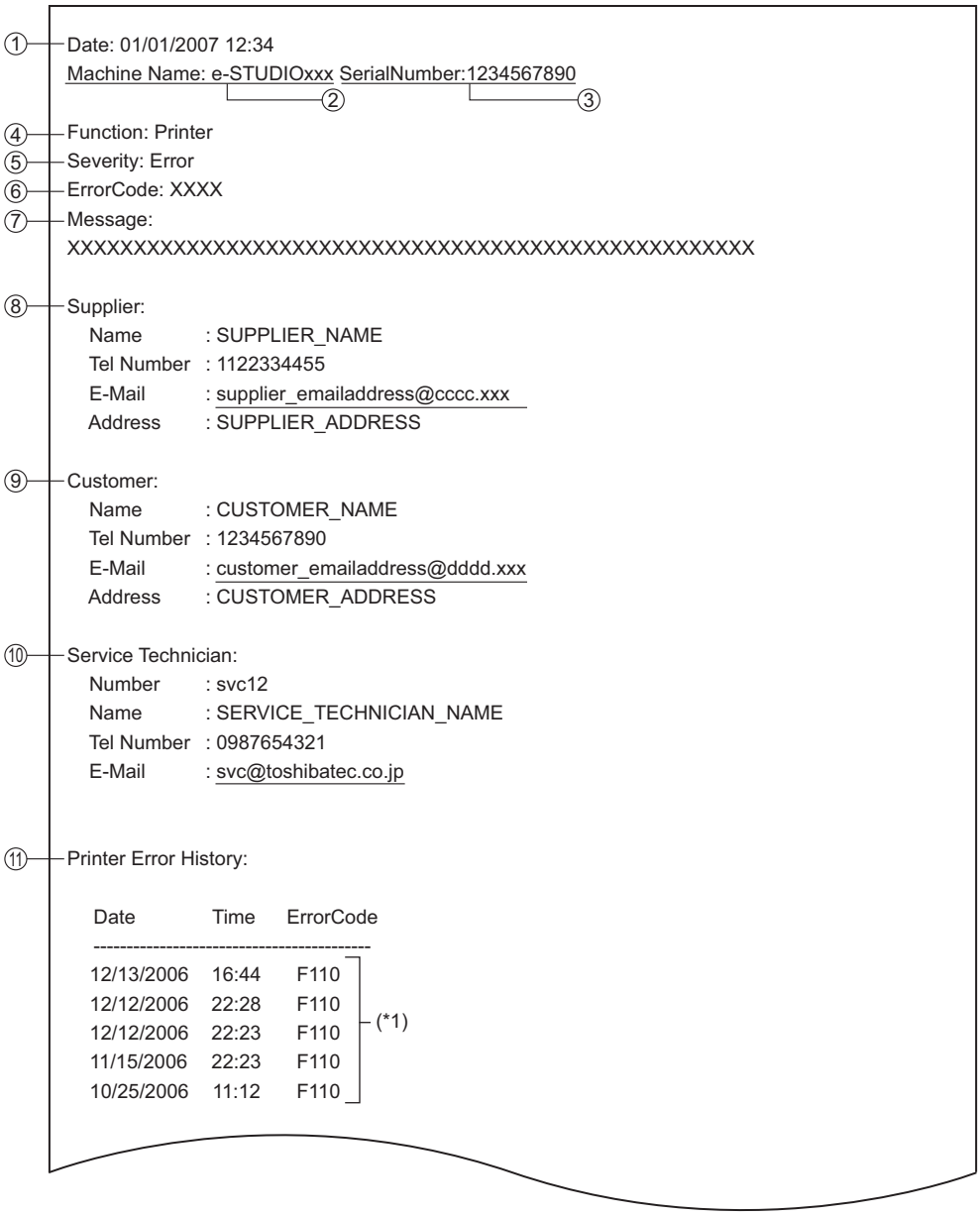


Fig. 8-36

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① Date (When an error occurs)

② Machine model name

③ Serial number

④ Function: Fixed at "Printer"

⑤ Severity: Fixed at "Error"

⑥ Error code

⑦ Error message: The content of error is displayed.

⑧ Supplier information

⑨ Customer information

⑩ Service technician information

⑪ History of error

*1 The latest 20 errors are displayed.

8

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9. DATA CLONING with USB STORAGE DEVICE (e-STUDIO202L/203L/232/233/282/283)

In this equipment, the user data, setting items and SRAM data can be backed up / restored by turning the power ON after connecting the USB storage device on which the data cloning programs have been written to the USB connector mounted on the SYS board.
The type of data to be backed up/restored can be selected on the LCD screen in this method.
This allows you to back up/restore only the necessary data individually or to back up/restore all data in a batch.
Programs needed for data cloning with this method are given in the following table.

Storage location	Program file name
Root directory	rootusb, clone_202_282

Important:

- It is assumed that data cloning is to be performed when equipment is installed or options are installed. If the address book has been registered, do not perform data cloning. Registered / set data are lost.
- The USB storage device for the data cloning must meet the following conditions. A data cloning operation with any devices other than the following will not be guaranteed.
  - A combination USB storage device with a flash memory (to be connected directly to the USB port) and its capacity is between 128 MB and 512 MB (or 1 GB).
  - A device compliant with the following specifications established by USB-IF (USB Implementers Forum)

Class number:	8 (=08h)	(Mass storage class)
Sub-Class number:	6 (=06h)	(SCSI transfer command set)
Protocol number:	80 (=50h)	(Bulk-only)

    * Most of the common USB storage devices are compliant with the above specifications and are therefore applicable to this data cloning. However, most of these devices were originally developed to be used in an environment for PCs (e.g. Windows or Macintosh) and thus operations exclusively with this equipment have not been fully guaranteed. Therefore, the user must thoroughly check in advance whether there will be any problem in operating with this equipment when adopting one of these devices.

- The USB storage devices compliant with both USB 1.1 and USB 2.0 can be used for this data cloning. However, the operating speed when using a device compliant with USB 2.0 is equivalent to the one with a device compliant with USB 1.1.
- Data cloning with any storage devices other than a flash memory (e.g. USB-connectable memory card reader, CD/DVD drive, hard disk) will never be guaranteed. Therefore never use them for this operation.
- Be sure to unplug the LAN cable and Fax line before data are backed up / restored. Also, do not use the RADF and open the cover, drawer, etc. during the data cloning.
- Data can be backed up / restored only for the same model and version. If the version is different, update the firmware and back up / restore data in the same version.
- Restore data to equipment which has the same options as when the data are backed up.
- If "Department management" or "User management information" is restored, the counter values are copied as well, so clear all of them. However, the total counter is not copied.
- Before starting data cloning, check that “Acceptance of data cloning using USB storage device (08-9889)” is set at "0" (Accepted). If this is set at "1" (Not accepted), data cloning is disabled. In this case, ask the administrator to enable it on the TopAccess menu.
- Delete the backed up data in the USB storage device after the data cloning.

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[A] Data cloning procedure (Backup)

Important:

- The file system for the USB storage device should be in the FAT format. Note that any device formatted in FAT32 or NTFS will not be operated. Its file system can be confirmed by opening the properties of the device from Windows Explorer.
- Never turn the power of the equipment OFF during data cloning, or the data could be damaged and the operation not carried out properly.
- Back up or restore SRAM data only for the same equipment in the same ROM version. If SRAM data are restored into the other equipment, problems such as overlapping serial numbers may occur.

(1) Connect the USB storage device to the PC and delete all data in the USB storage device.
- The file system for the USB storage device should be in the FAT format.
- Windows95 and NT do not support USB. The data cannot be written into the device with the PC in which these OS are installed.

(2) Write the program file.
- Write the data cloning program into the root directory.

(3) Shut down the equipment.

(4) Connect the USB storage device to the USB connector (host) on the SYS board.

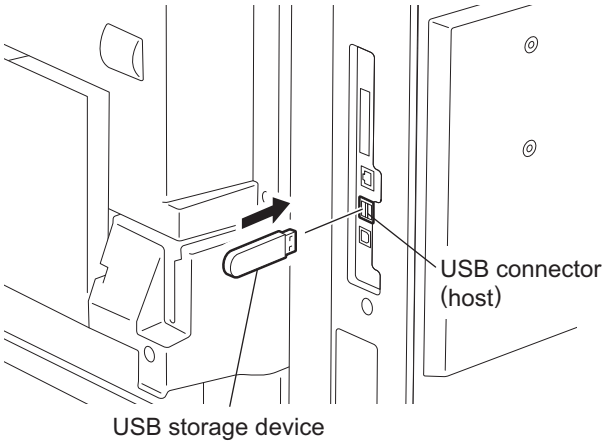


Fig. 9-1

Notes:

- Do not connect multiple USB storage devices together.
- The USB storage device can be connected to either of 2 USB connectors (host).
- In case the printer kit (GM-1070/1071/1080U/1081U), printer/scanner kit (GM-2070/2071/2080U/2081U) and scanner kit (GM-4070 or GM-4080U) are used, the data must be backed up after all the "dongles" are disconnected from the USB connector (host) and only the USB storage device is connected.

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<User Data Backup>

(5) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

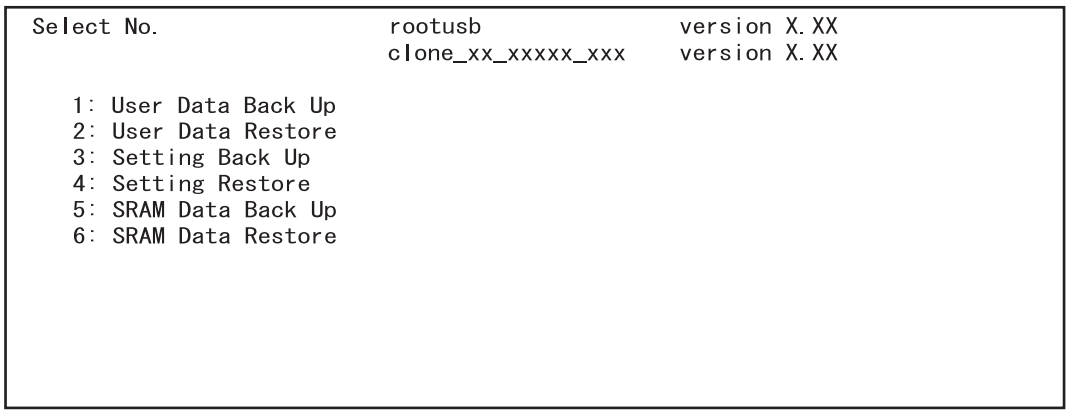


Fig. 9-2

Note:
When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

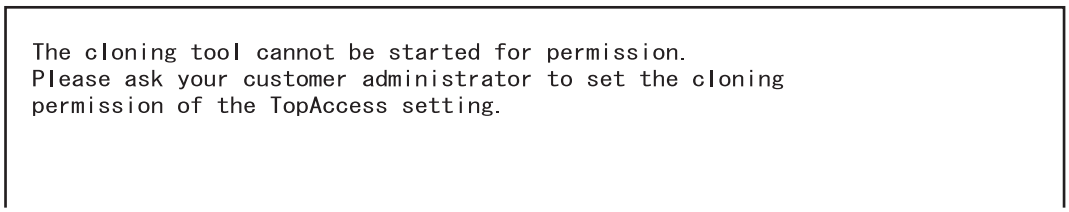


Fig. 9-3

(6) Select the items to be performed with the digital keys.
- In case of backup, select one of the following items.
  <Backing up User data>
  Select "1: User Data Back Up".
  <Backing up Setting item>
  Select "3: Setting Back Up".
  <Backing up SRAM data>
  Select "5: SRAM Data Back Up".

Note:
After the item is selected with the digital keys, displaying the next menu may take a long time.

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(7) Press the [1] button.
The screen to select the user data backup item is displayed. In this screen, the items to be backed up are shown after the mark "*". (The items "4", "5" and "6" are selected in the screen by default.)

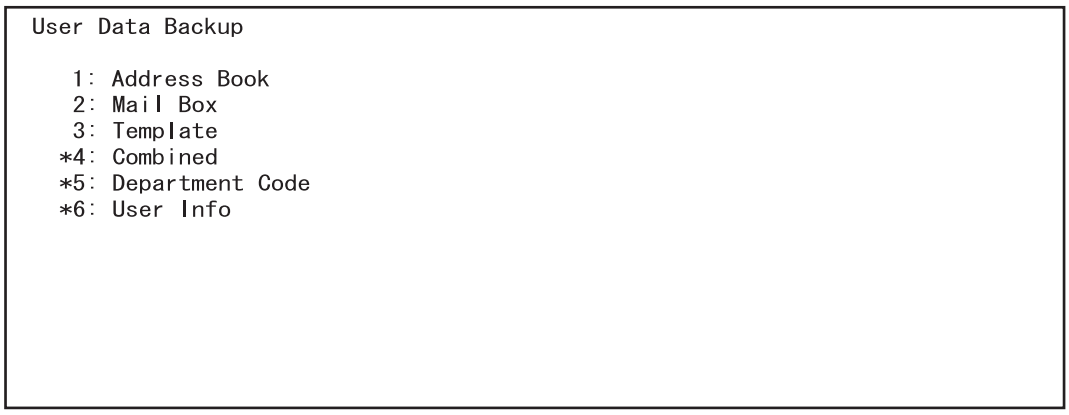


Fig. 9-4

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(8) Select the items to be backed up with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.

- To back up the data in a batch, select "4", "5" or "6". (Selecting "4" performs "1", "2" and "3" together.)
- To back up the data individually, select the following items.
  <Backing up Address book>
  Select "1: Address Book" only.
  <Backing up Mail box>
  Select "2: Mail Box" only.
  < Backing up Template>
  Select "3: Template" only.
  <Backing up 1: Address Book, 2: Mail Box and 3: Template in a batch>
  Select "4: Combined" only.
  <Backing up Department management>
  Select "5: Department Code" only.
  < Backing up User management information>
  Select "6: User Info" only.

E.g.:
In case of backing up the department management and user management information

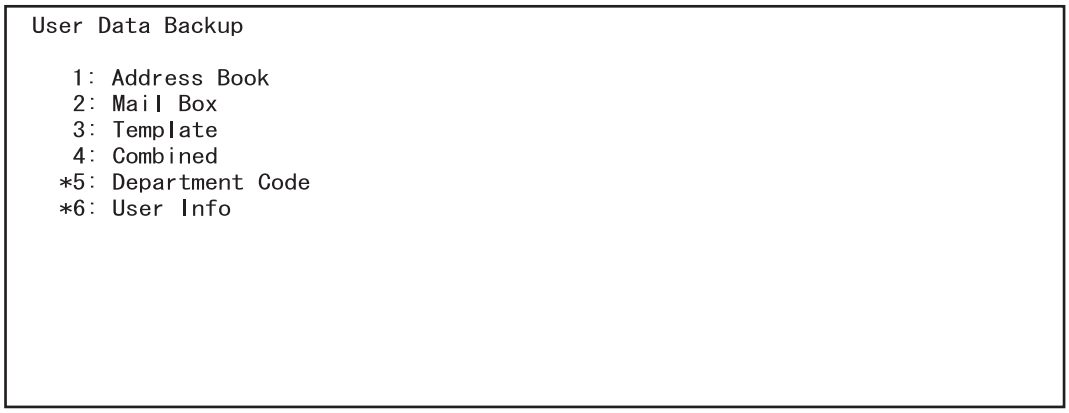


Fig. 9-5

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(The following screens are given as an example of when all items are backed up.)

(9) Press the [Start] button.
The backup starts and the backing up status is displayed on the LCD screen.

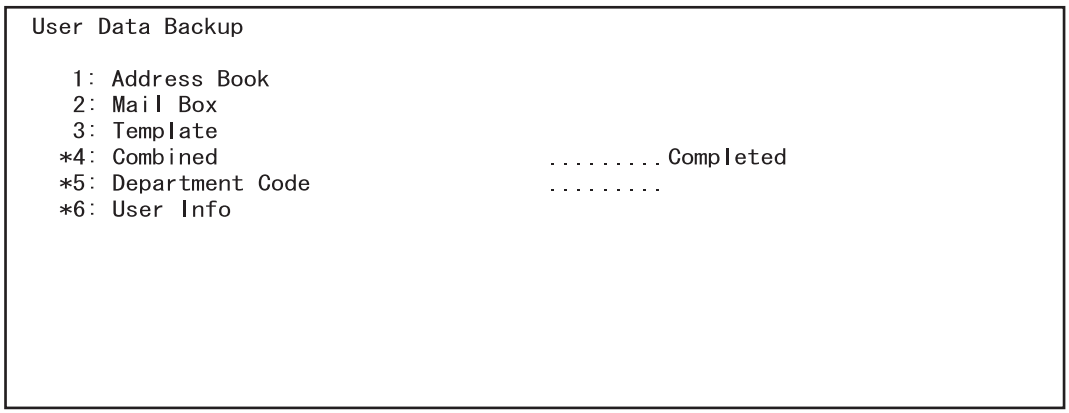


Fig. 9-6

(10) "Back Up Completed" is displayed on the LCD screen when the backup has been properly completed.

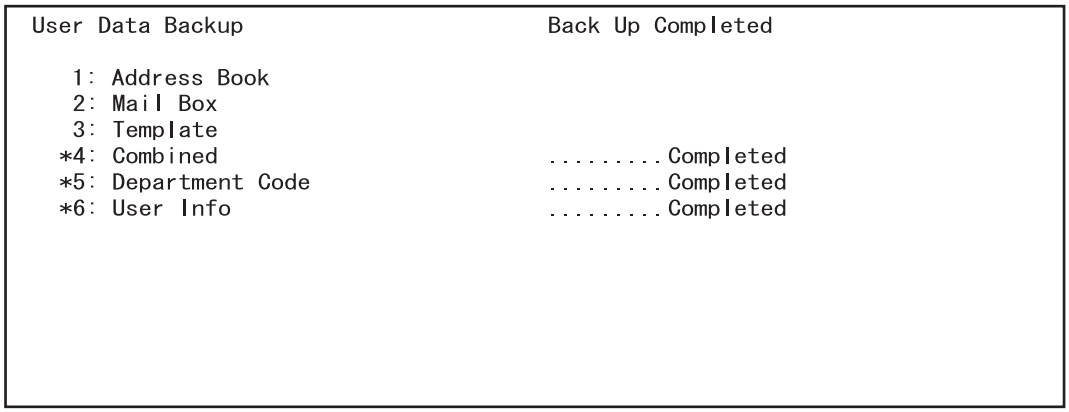


Fig. 9-7

(11) Turn the power OFF and remove the USB storage device.

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<Setting Backup>

(12) Connect the USB storage device to the USB connector (host) on the SYS board.

(13) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

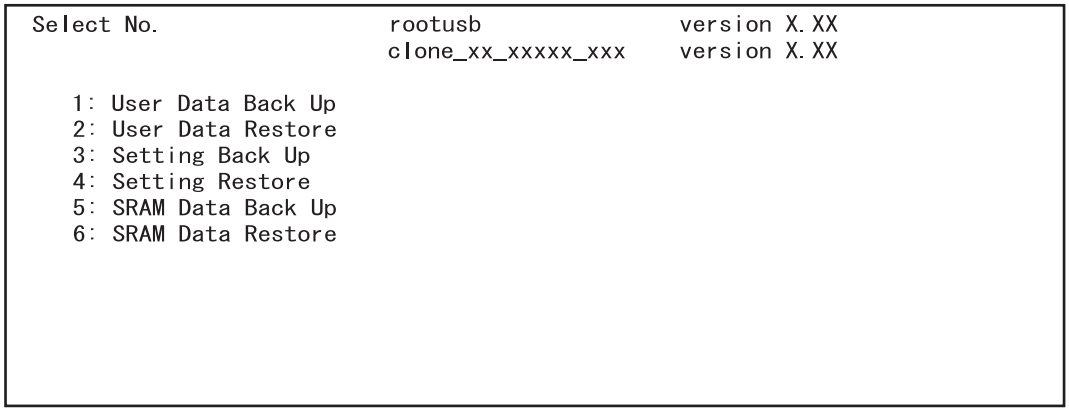


Fig. 9-8

Notes:

- After the item is selected with the digital keys, displaying the next menu may take a long time.
- When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

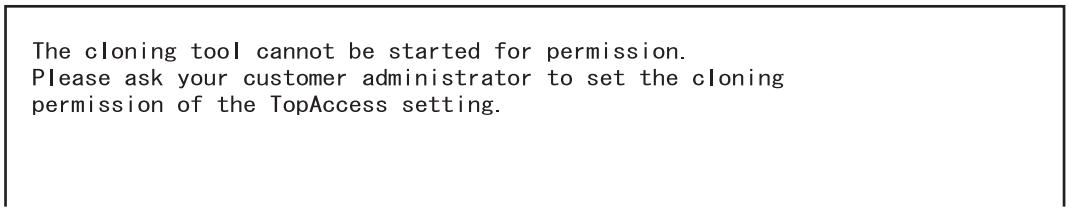


Fig. 9-9

(14) Press the [3] button.
The screen to select the setting backup item is displayed. In this screen, the items to be backed up are shown after the mark "*". (No items are selected in the screen by default.)

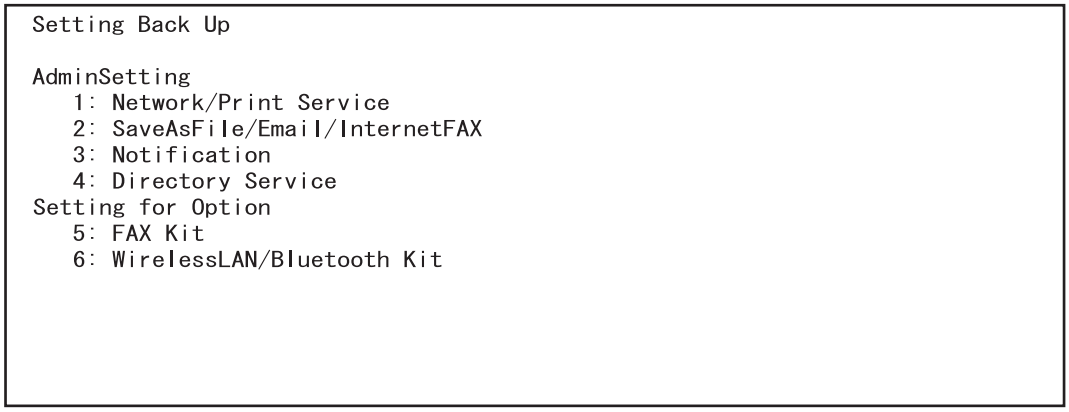


Fig. 9-10

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(15) Select the items to be backed up with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.

- To back up the data individually, select the following items.
  <Backing up TopAccess: Network/Print Service>
  Select "1: Network/Print Service" only.
  <Backing up TopAccess: SaveAsFile/Email/InternetFAX>
  Select "2: SaveAsFile/Email/InternetFAX" only.
  <Backing up TopAccess: Notification >
  Select "3: Notification" only.
  <Backing up TopAccess: Directory Service>
  Select "4: Directory Service" only.
  <Backing up Option: Fax setting>
  Select "5: FAX Kit" only.
  <Backing up Option: WirelessLAN/Bluetooth setting>
  Select "6: WirelessLAN/Bluetooth Kit" only.

(The following screens are given as an example of when all TopAccess items are backed up.)

(16) Press the [Start] button.
The backup starts and the backing up status is displayed on the LCD screen.

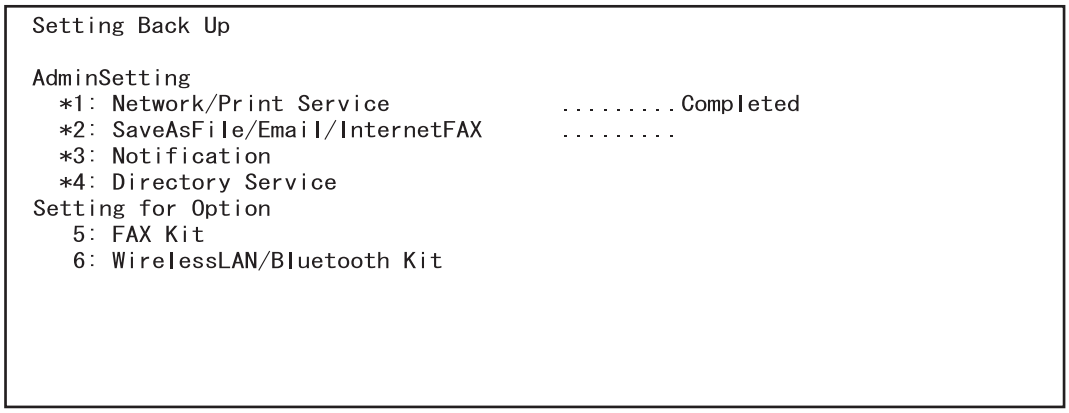


Fig. 9-11

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(17) "Back Up Completed" is displayed on the LCD screen when the backup has been properly completed.

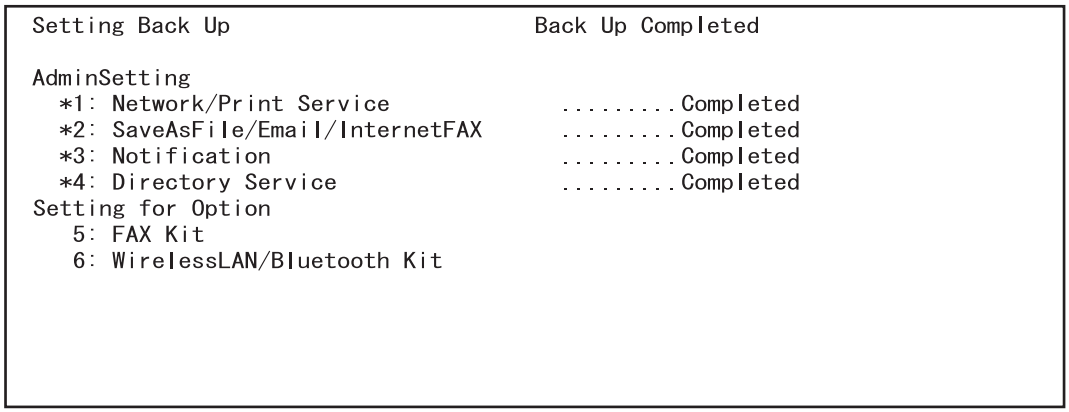


Fig. 9-12

(18) Turn the power OFF and remove the USB storage device.

9

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<SRAM Data Backup>

(19) Connect the USB storage device to the USB connector (host) on the SYS board.

(20) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

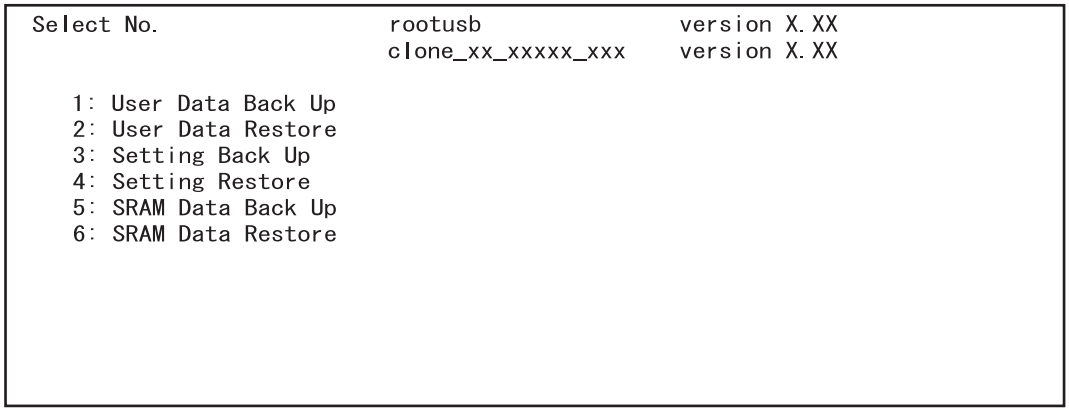


Fig. 9-13

Notes:

- After the item is selected with the digital keys, displaying the next menu may take a long time.
- When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

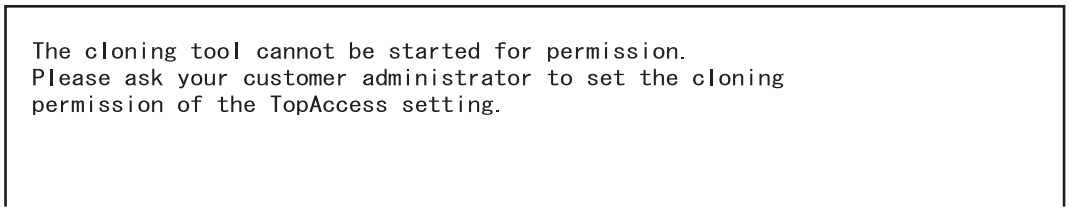


Fig. 9-14

(21) Press the [5] button.
The screen to select the SRAM data backup item is displayed. In this screen, the item to be backed up is shown after the mark "*". (The item is not selected in the screen by default.)

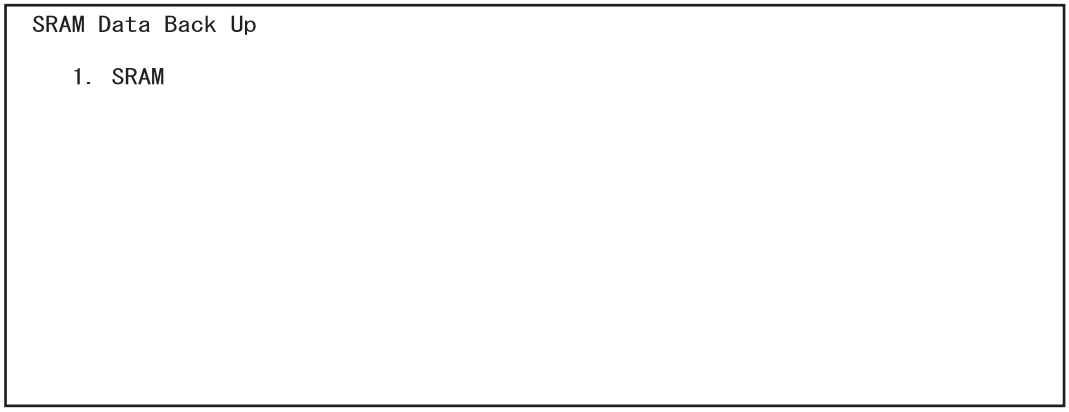


Fig. 9-15

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(22) Select the item to be backed up with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.
- To back up the data individually, select the following item.
<Backing up SRAM Data>
Select "1. SRAM".

Note:
The backup/restore of the SRAM data can be performed only for the same model.
The ROM version must be the same when the data are backed up and restored.

(The following screens are given as an example of when SRAM data are backed up.)

(23) Press the [Start] button.
The backup starts and the backing up status is displayed on the LCD screen.

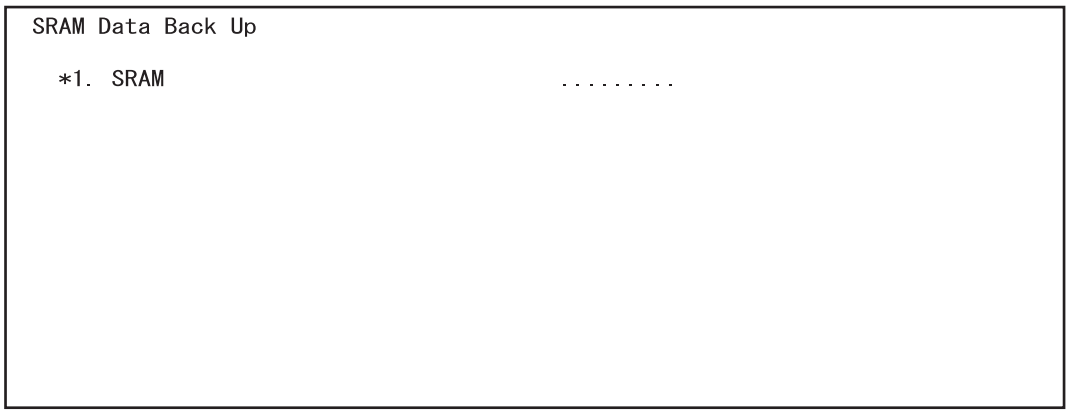


Fig. 9-16

(24) "Back Up Completed" is displayed on the LCD screen when the backup has been properly completed.

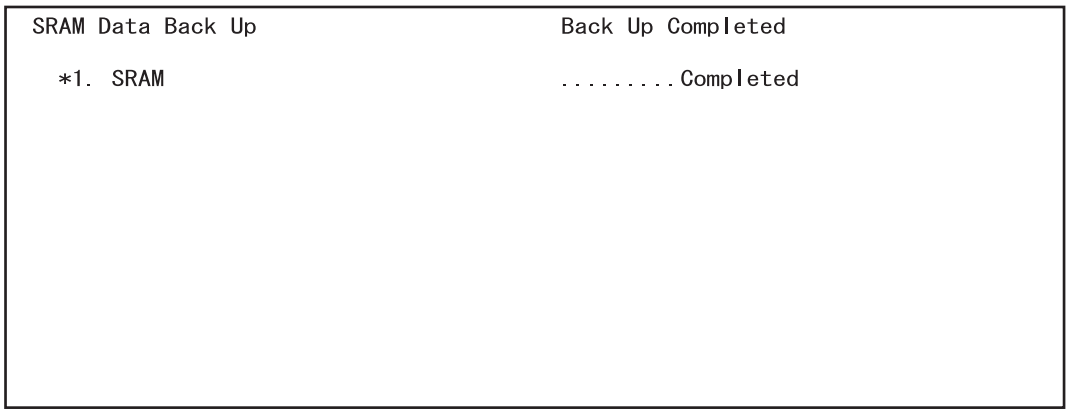


Fig. 9-17

(25) Turn the power OFF and remove the USB storage device.

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[B] Data cloning procedure (Restore)

Important:

- The file system for the USB storage device should be in the FAT format. Note that any device formatted in FAT32 or NTFS will not be operated. Its file system can be confirmed by opening the properties of the device from Windows Explorer.
- Never turn the power of the equipment OFF during data cloning, or the data could be damaged and the operation not carried out properly.

(1) Shut down the equipment.

(2) Connect the USB storage device to the USB connector (host) on the SYS board.

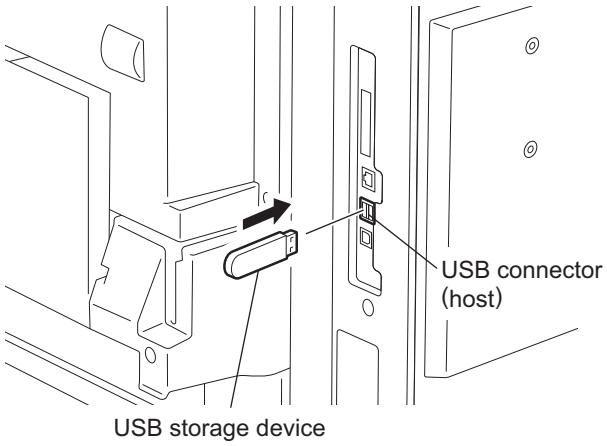


Fig. 9-18

Notes:

- Do not connect multiple USB storage devices together.
- The USB storage device can be connected to either of 2 USB connectors (host).
- In case the printer kit (GM-1070/1071/1080U/1081U), printer/scanner kit (GM-2070/2071/2080U/2081U) and scanner kit (GM-4070 or GM-4080U) are used, the data must be restored after all the "dongles" are disconnected from the USB connector (host) and only the USB storage device is connected.

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<User Data Restore>

(3) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

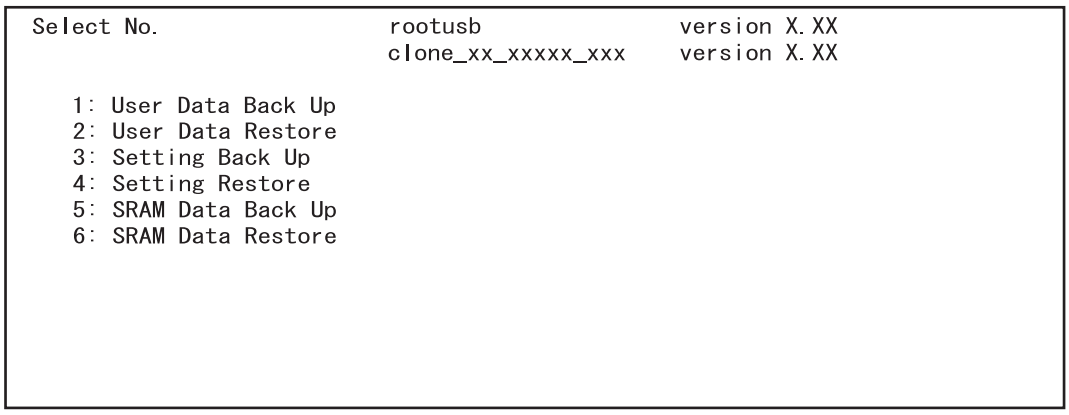


Fig. 9-19

Note:
When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

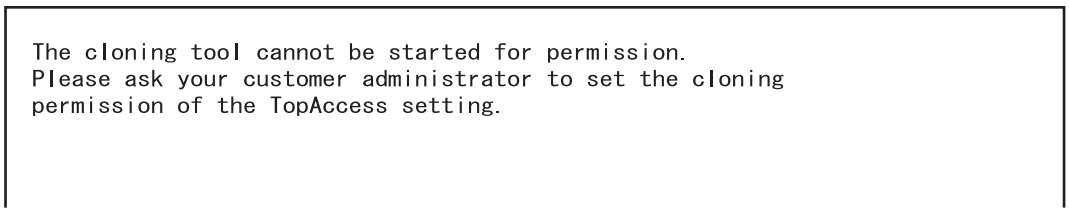


Fig. 9-20

(4) Select the items to be performed with the digital keys.
- In case of restore, select the following items.
  <Restoring User data>
  Select "2: User Data Restore".
  <Restoring Setting item>
  Select "4: Setting Restore".
  <Restoring SRAM data>
  Select "6: SRAM Data Restore".

Note:
After the item is selected with the digital keys, displaying the next menu may take a long time.

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(5) Press the [2] button.
The screen to select the user data restore item is displayed. In this screen, the items to be restored are shown after the mark "*". (The items "4", "5" and "6" are selected in the screen by default.)

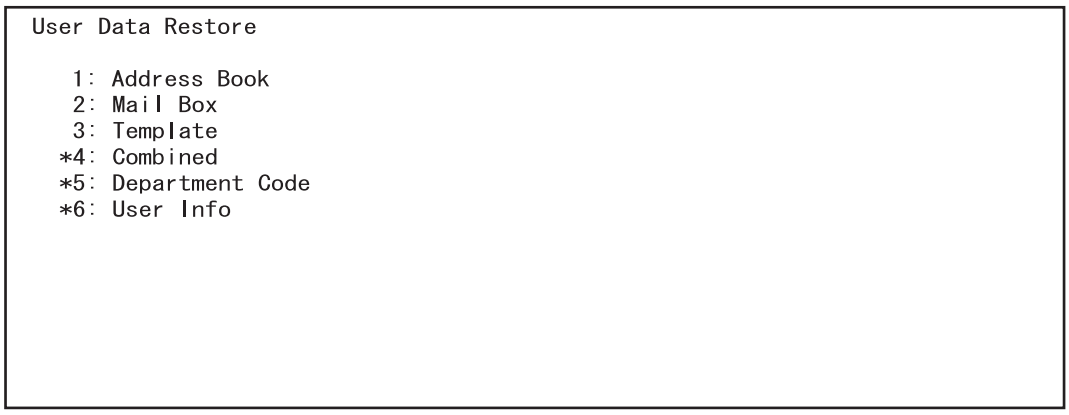


Fig. 9-21

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(6) Select the items to be restored with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.

- To restore the data in a batch, select "4", "5" or "6". (Selecting "4" performs "1", "2" and "3" together.)
- To restore the data individually, select the following items.
  Be sure to select the same item as the one backed up individually.
  <Restoring Address book>
  Select "1: Address Book" only.
  <Restoring Mail box>
  Select "2: Mail Box" only.
  < Restoring Template>
  Select "3: Template" only.
  <Restoring 1: Address Book, 2: Mail Box and 3: Template in a batch>
  Select "4: Combined" only.
  <Restoring Department management>
  Select "5: Department Code" only.
  <Restoring User management information>
  Select "6: User Info" only.

  E.g.:
  In case of restoring the department management and user management information

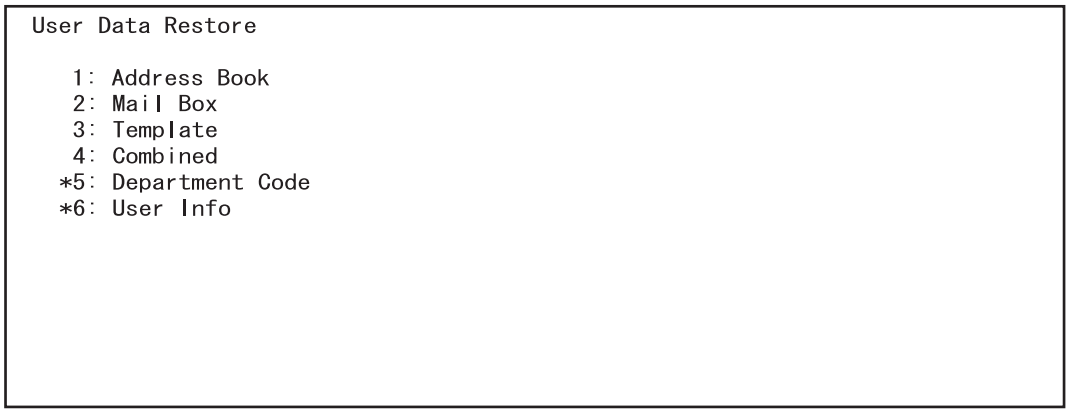


Fig. 9-22

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(The following screens are given as an example of when all items are restored.)

(7) Press the [Start] button.
The restore starts and the restoring status is displayed on the LCD screen.

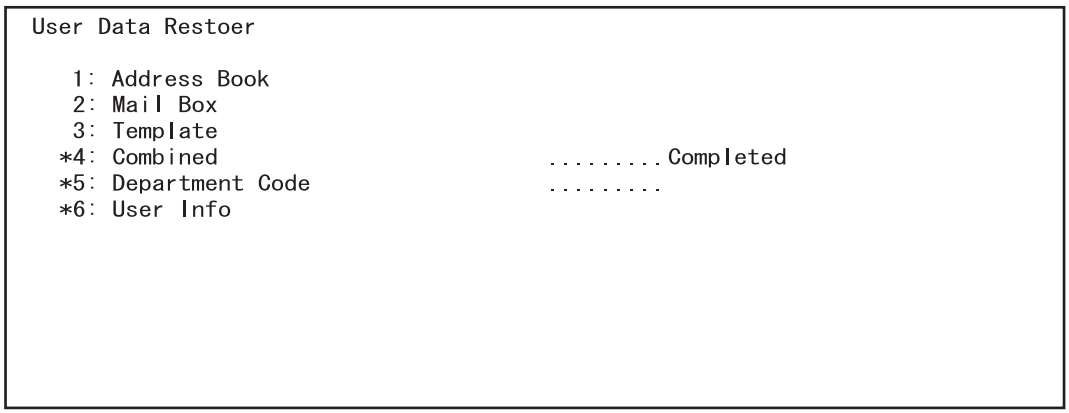


Fig. 9-23

(8) "Restore Completed" is displayed on the LCD screen when the restore has been properly completed.

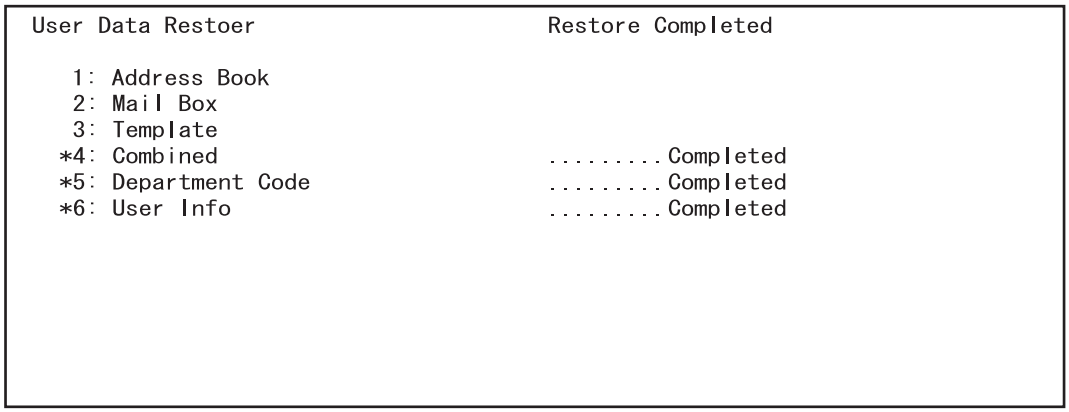


Fig. 9-24

(9) Turn the power OFF and remove the USB storage device.

(10) Clear the counter (in case of restoring "Department Code" and "User Info").
Since the counter values are also copied, clear all of them. However, the total counter is not copied.
<Procedure>
Press the buttons as follows: [USER FUNCTION] →[ADMIN] →Enter the password →
[COUNTER] →[DEPARTMENT SETTING] →Enter the password →[RESET ALL COUNTERS]
* Enable the department management when the [RESET ALL COUNTERS] button is set to be disabled.

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<Setting Restore>

(11) Connect the USB storage device to the USB connector (host) on the SYS board.

(12) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

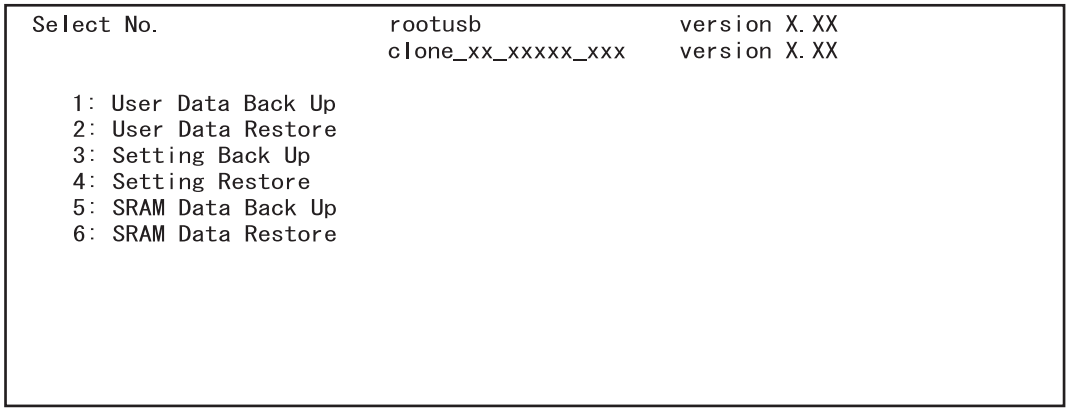


Fig. 9-25

Notes:

- After the item is selected with the digital keys, displaying the next menu may take a long time.
- When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

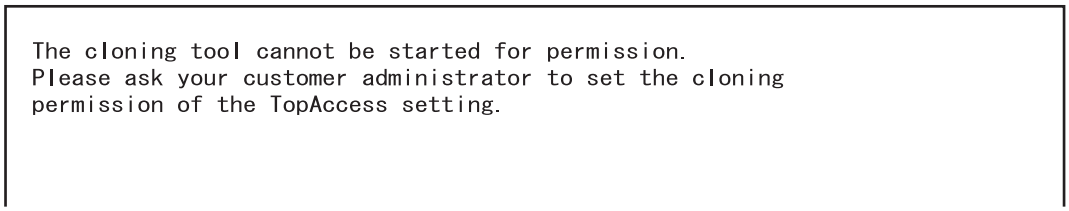


Fig. 9-26

(13) Press the [4] button.
The screen to select the setting restore item is displayed. In this screen, the items to be restored are shown after the mark "*". (No items are selected in the screen by default.)

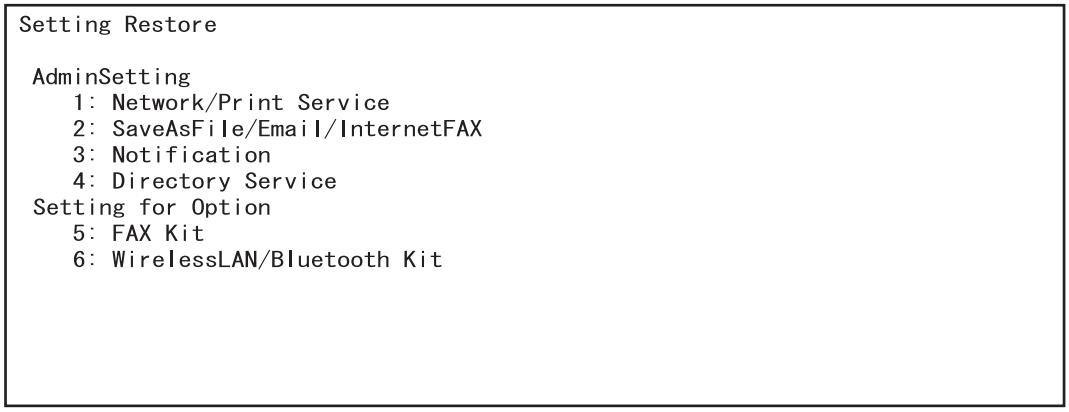


Fig. 9-27

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(14) Select the items to be restored with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.

- To restore the data individually, select the following items.
  <Restoring TopAccess: Network/Print Service>
  Select "1: Network/Print Service" only.
  <Restoring TopAccess: SaveAsFile/Email/InternetFAX>
  Select "2: SaveAsFile/Email/InternetFAX" only.
  <Restoring TopAccess: Notification >
  Select "3: Notification" only.
  <Restoring TopAccess: Directory Service>
  Select "4: Directory Service" only.
  <Restoring Option: Fax setting>
  Select "5: FAX Kit" only.
  <Restoring Option: WirelessLAN/Bluetooth setting>
  Select "6: WirelessLAN/Bluetooth Kit" only.

Note:
Be sure to restore the same option items in the same condition as when the option items were backed up.

(The following screens are given as an example of when all TopAccess items are restored.)

(15) Press the [Start] button.
The restore starts and the restoring status is displayed on the LCD screen.

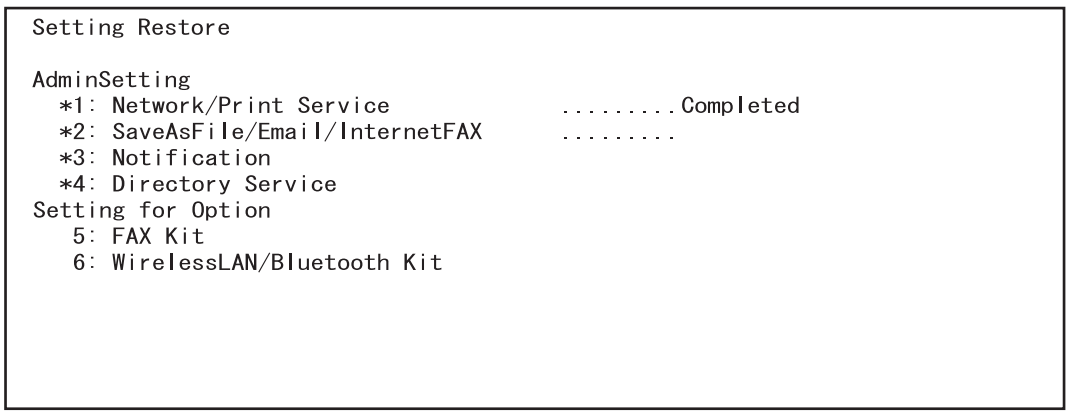


Fig. 9-28

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(16) "Restore Completed" is displayed on the LCD screen when the restore has been properly completed.

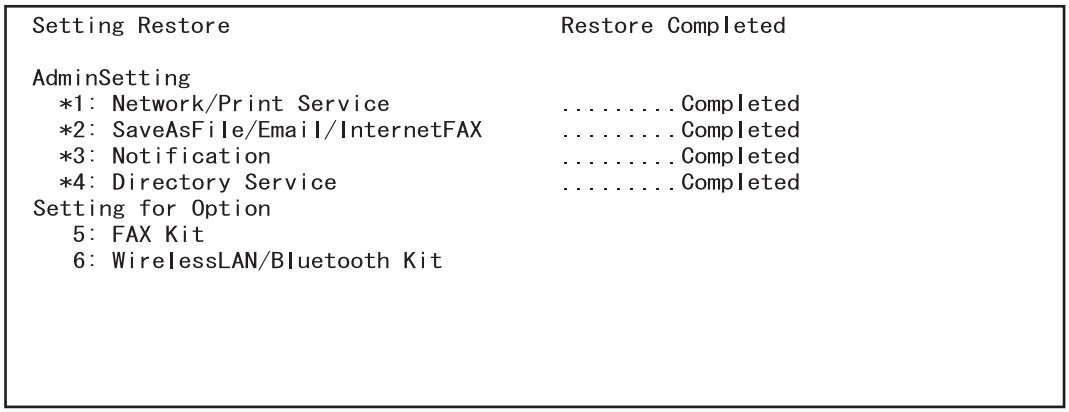


Fig. 9-29

(17) Turn the power OFF and remove the USB storage device.

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<SRAM Data Restore>

(18) Connect the USB storage device to the USB connector (host) on the SYS board.

(19) Turn the power ON while pressing the [5] and [9] button simultaneously.
The screen to select the backup/restore items is displayed.

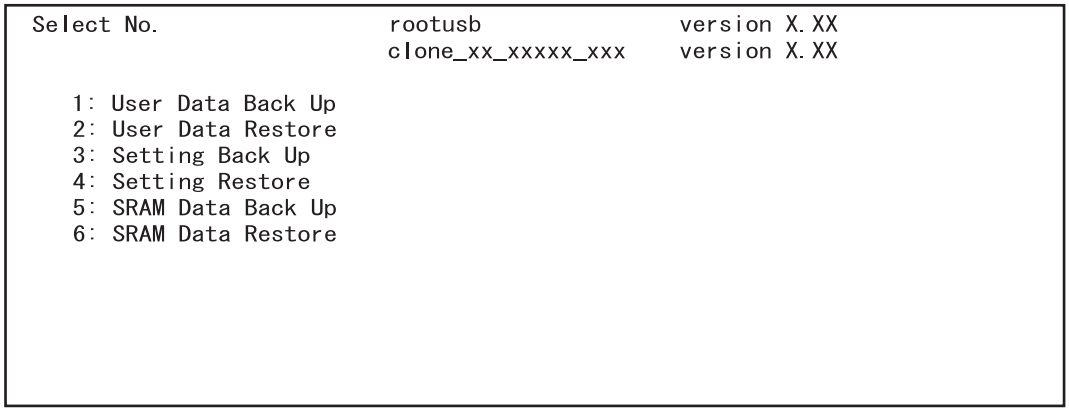


Fig. 9-30

Notes:

- After the item is selected with the digital keys, displaying the next menu may take a long time.
- When “Disable” is set for the [Data Cloning Function] in TopAccess, the following screen is displayed. Contact and ask the administrator to change the setting on TopAccess.

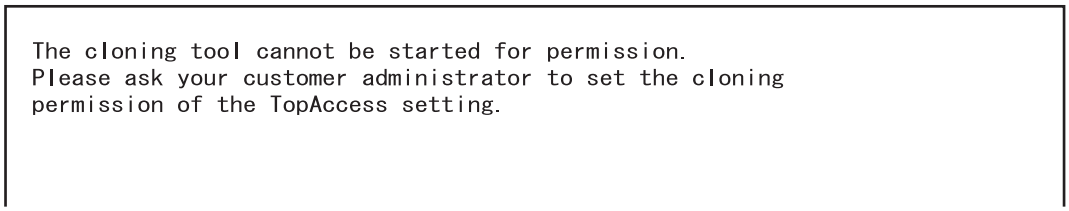


Fig. 9-31

(20) Press the [6] button.
The screen to select the SRAM data restore item is displayed. In this screen, the item to be restored is shown after the mark "*". (The item is not selected in the screen by default.)

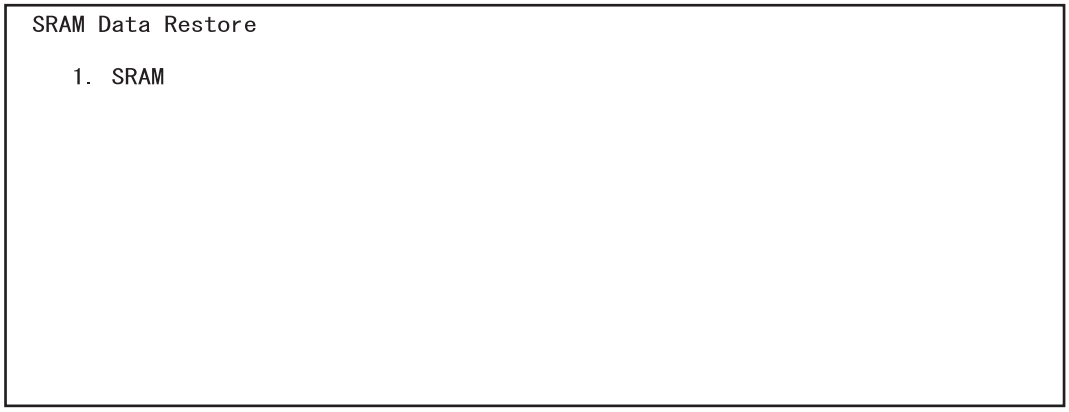


Fig. 9-32

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(21) Select the item to be restored with the digital keys.
The mark "*" is shown on the selected item. The mark "*" can be deleted or added each time the corresponding digital key is pressed.
- To restore the data individually, select the following item.
  <Restoring SRAM Data>
  Select "1. SRAM".

Note:
The backup/restore of the SRAM data can be performed only for the same model.
The ROM version must be the same when the data are backed up and restored.

(The following screens are given as an example of when SRAM data are restored.)

(22) Press the [Start] button.
The restore starts and the restoring status is displayed on the LCD screen.

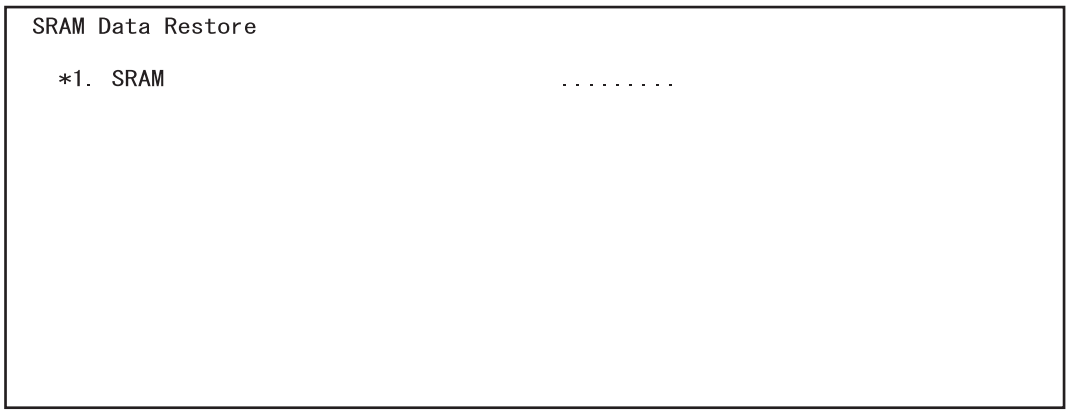


Fig. 9-33

(23) "Restore Completed" is displayed on the LCD screen when the restore has been properly completed.

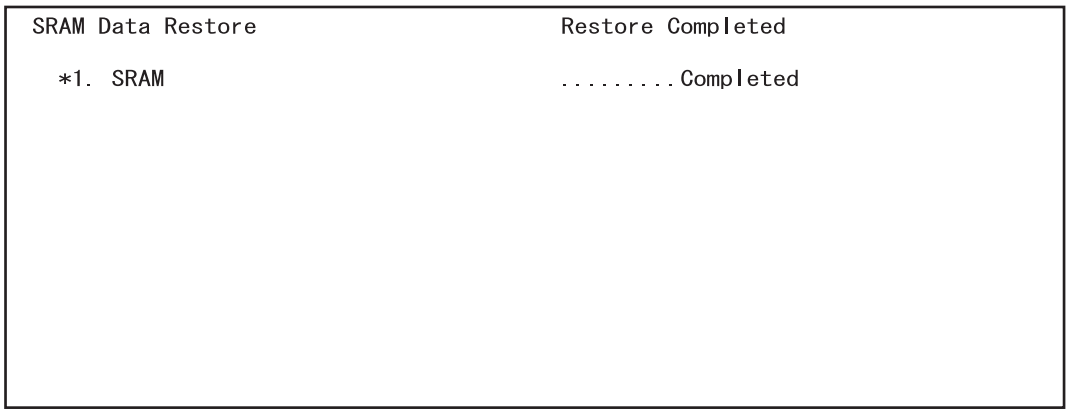


Fig. 9-34

(24) Turn the power OFF and remove the USB storage device.

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[C] Confirmation of the error

"Back Up ERROR X" (X: Error number) is displayed at the top of the LCD screen when the data have not been properly backed up / restored. In this case, turn the power OFF and then check the following items. After confirming and solving the problem, back up / restore the data again from the beginning.

- Does the USB storage device meet the conditions being used for this cloning?
- Is the updated program file written on the USB storage device properly?
- Is the USB storage device installed properly?
- Is the USB storage device or the equipment damaged?

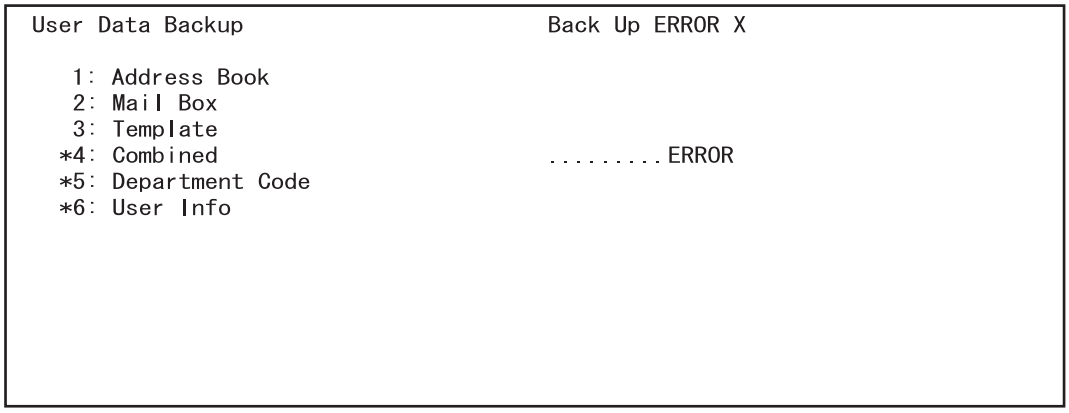


Fig. 9-35

Error number	Error content
ERROR 1	Copy error
ERROR 2	I/F error
ERROR 3	USB memory full error
ERROR 4	Working folder error
ERROR 5	File not found error
ERROR 6	Security error
ERROR 7	Checksum error
ERROR 8	Model check error
ERROR 9	Version check error
ERROR 10	Destination check error
ERROR 11	Serial number check error

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[D] Backup file

Backed up data files are encrypted.

<User data file>

The folder "user_data" is created in the root directory and the following files are stored in it.

Data item	File name
Address book	BACKUP_ADDR.sct
Mailbox	BACKUP_MBOX.sct
Template	BACKUP_TEMP.sct
Back up the Address book, Mailbox and Template in a batch	BACKUP_ALL.sct
Department management information	BACKUP_Department.sct
User management information	BACKUP_User.sct

<Setting data file>

The folder "setting_data" is created in the root directory and the following files are stored in it.

Data item	File name
Network / Print service	network.sct
SaveAsFile / Email / InternetFAX	scan.sct
Notification setting	notice.sct
Directory Service	ldap.sct
FAX setting	fax.sct
Wireless LAN setting / Bluetooth setting	wl.sct, bl.sct

<SRAM data file>

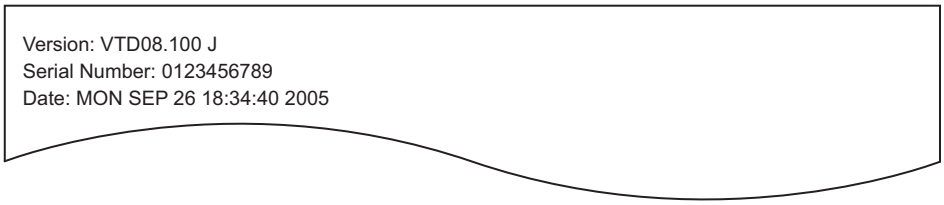
The folder "sram_data" is created in the root directory and the following file is stored in it.

Data item	File name
SRAM	sram.sct

* In addition to the backed up data, the following files are created in each folder.

Back up item	File name
User data	user_data.txt
Setting item data	setting_data.txt
SRAM data	sram_data.txt

<Contents of file>



- File format (user_data.txt, setting_data.txt, sram_data.txt: all in common)
  Line 1: Version
  Line 2: Serial number
  Line 3: Date

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10. WIRE HARNESS CONNECTION DIAGRAMS

10.1 AC Wire Harness

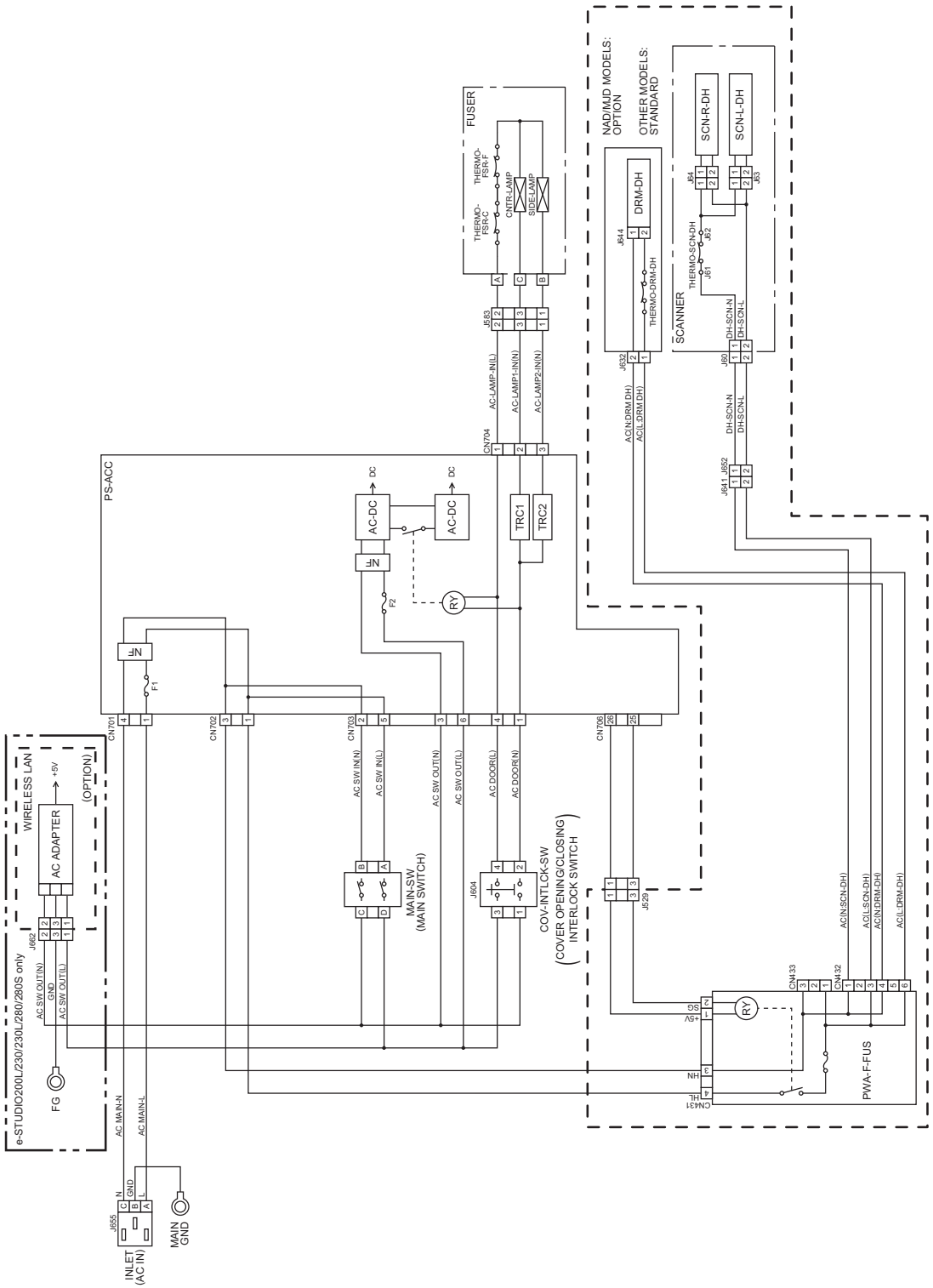


Fig. 10-1

10

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10.2 DC Wire Harness (e-STUDIO200L/230/230L/280/280S)

10.3 Connector Table (e-STUDIO200L/230/230L/280/280S)

CN301 PWA-F-LGC (CN301) <-> COIN CONTROLLER (OPTION)/ COPY KEY CARD (OPTION)

Pin No	Symbol	Name	Active
A1	+24VD2	+24 V	-
A2	CTRON	Total counter ON signal	-
A3	CTRCNT	Copy key card connection detection signal	L
A4	M/C RUN	M/C run signal	L
A5	EXTCTR	Exit sensor ON signal	L
A6	PG	Power ground	-
A7	BKCTR	Black and white mode counter ON signal and CST-CTR signal	-
A8	MNCTR	Mono-color mode counter ON signal	-
B1	FLCTR	Full color mode counter ON signal and reverse side counter signal	-
B2	SG	Signal ground	-
B3	TSIZE3	Paper size signal-3	-
B4	TSIZE2	Paper size signal-2	-
B5	TSIZE1	Paper size signal-1	-
B6	TSIZE0	Paper size signal-0	-
B7	+5.1VB	+5.1 V	-
B8	CTRCNT2	Copy key card /Coin counter judgment signal	-

CN302 PWA-F-LGC (CN302) <-> KEY COPY COUNTER (OPTION)

Pin No	Symbol	Name	Active
1	NC	Not connected	-
2	SG	Signal ground	-
3	KCTRC-0	Key copy counter/Copy key card connection detection signal	L
4	+24VD2	+24 V	-
5	KCTRO-0	Key copy counter ON signal	-
6	NC	Not connected	-

CN303 PWA-F-LGC (CN303) <-> LP-ERS, ATTNR-SNR, THMS-DRM, MAIN-SW (RESET), TEMP/HUMI-SNR, FRNT-COV-SW (e-STUDIO200L)

Pin No	Symbol	Name	Active
A1	ATSCNT-1	PU connection detection signal	L
A2	ERSLP-0A	Exposure lamp drive signal	-
A3	+24VD1	+24 V	-
A4	PG	Power ground	-
A5	ATS-1A	Auto-toner sensor detection signal	Analog
A6	+24VD1	+24 V (Auto-toner sensor)	-
A7	ATSVR-1A	Auto-toner sensor detection signal	Analog
A8	DRTH-1	Drum thermistor detection signal	Analog
A9	SG	Signal ground	-
A10	SG	Signal ground	-
B1	RSTSW-0A	Reset signal to the main switch	H
B2	+24VD1	+24 V	-
B3	+5.1VB	+5.1 V	-
B4	HMS-1A	Humidity sensor signal	Analog
B5	SG	Signal ground	-
B6	TEMP-1	Temperature sensor signal	Analog
B7	FCOVSW-1	Front cover opening/closing switch signal	-
B8	SG	Signal ground	-
B9	NC	Not connected	-
B10	NC	Not connected	-

CN303 PWA-F-LGC (CN303) <-> LP-ERS, ATTNR-SNR, THMS-DRM, MAIN-SW (RESET), TEMP/HUMI-SNR, FRNT-COV-SW (e-STUDIO230/230L)

Pin No	Symbol	Name	Active
A1	ATSCNT-1	PU connection detection signal	L
A2	ERSLP-0A	Exposure lamp drive signal	-
A3	+24VD1	+24 V	-
A4	PG	Power ground	-
A5	ATS-1A	Auto-toner sensor detection signal	Analog
A6	+24VD1	+24 V (Auto-toner sensor)	-
A7	ATSVR-1A	Auto-toner sensor detection signal	Analog
A8	DRTH-1	Drum thermistor detection signal	Analog
A9	SG	Signal ground	-
A10	SG	Signal ground	-
A11	NC	Not connected	-
A12	NC	Not connected	-
B1	CPSW2-0	Not used	-
B2	SG	Signal ground	-
B3	RSTSW-0A	Reset signal to the main switch	H
B4	+24VD1	+24 V	-
B5	+5.1VB	+5.1 V	-
B6	HMS-1A	Humidity sensor signal	Analog
B7	SG	Signal ground	-
B8	TEMP-1	Temperature sensor signal	Analog
B9	FCOVSW-1	Front cover opening/closing switch signal	L
B10	SG	Signal ground	-
B11	NC	Not connected	-
B12	NC	Not connected	-

CN304 PWA-F-LGC (CN304) <-> PWA-F-ADU (CN211, 212), ADU-CLT, SID-COV-SNR, SFB-SIZE-SNR, SFB-SNR, SFB-FEED-CLT, SFB-SOL, SFB-FEED-SNR-2

Pin No	Symbol	Name	Active
A1	ADM1D-0A	ADU motor drive signal-D	-
A2	ADM1B-0A	ADU motor drive signal-B	-
A3	ADM1C-0A	ADU motor drive signal-C	-
A4	ADM1A-0A	ADU motor drive signal-A	-
A5	ADUVR-1	ADU motor current control reference voltage	-
A6	ADTR2-1	ADU exit sensor detection signal	-
A7	5.1VB	+5.1 V	-
A8	SG	Signal ground	-
A9	ADCNT-1	ADU connection detection signal	L
A10	ADTR1-1	ADU entrance sensor detection signal	L
A11	ADCOV-1	ADU opening/closing switch detection signal	-
A12	+24VD2	+24 V	-
A13	ADUCL-0A	ADU clutch drive signal	L
A14	SG	Signal ground	-
A15	CSTCSW-1	Side cover opening/closing sensor detection signal	L
A16	+5.1VB	+5.1 V	-
A17	NC	Not connected	-
A18	NC	Not connected	-
A19	NC	Not connected	-
A20	NC	Not connected	-
B1	SFSZ3-0	Not used	-
B2	SG	Signal ground	-
B3	SG	Signal ground	-
B4	SFSZ0-0	Bypass paper size detection signal-1	-
B5	SFSZ1-0	Bypass paper size detection signal-2	-
B6	SFSZ2-0	Bypass paper size detection signal-3	-
B7	SG	Signal ground	-
B8	SFBEMP-1	Bypass paper detection signal	-
B9	5.1VB	+5.1 V	-
B10	+24VD2	+24 V	-
B11	SFBCL1-0	Bypass feed clutch drive signal	L
B12	+24VD2	+24 V	-
B13	SFBCL2-0	Bypass pickup solenoid drive signal	-
B14	SG	Signal ground	-
B15	SFBTRY-1	Not used	-
B16	+5.1VB	+5.1 V	-
B17	SG	Signal ground	-
B18	2NDFED-1	2nd transport sensor detection signal	-
B19	+5.1VB	+5.1 V	-
B20	SFBCNT-1	Bypass unit connection detection signal	-

CN305 PWA-F-LGC (CN305) <-> FEED-SNR-1, RGST-SNR, TR-COV-SW, TNR-SW, AUG-LOCK-SW, TNR-MOT, MAIN-MOT, REAR-FAN-MOT, MID-FAN-MOT, RGST, CLT.TR-U-CLT, TR-M-CLT

Pin No	Symbol	Name	Active
A1	SG	Signal ground	-
A2	1STFEED-1	1st transport sensor detection signal	-
A3	+5.1VB	+5.1 V	-
A4	SG	Signal ground	-
A5	PSTPSW-1	Registration sensor detection signal	-
A6	+5.1VB	+5.1 V	-
A7	SG	Signal ground	-
A8	SDCSW-1	Transfer cover opening/closing detection signal	-
A9	NC	Not connected	-
A10	TNRSW-1	Toner cartridge installation detection signal	-
A11	SG	Signal ground	-
A12	TNRFULL-1	Cleaner auger lock detection signal	-
A13	SG	Signal ground	-
A14	TNRMT-0A	Toner motor drive signal	-
A15	TNRMT-1A	Toner motor drive signal	-
A16	NC	Not connected	-
A17	NC	Not connected	-
B1	RGTCL-0A	Registration roller clutch drive signal	-
B2	+24VD1	+24 V	-
B3	1STCLL-0A	Middle transport clutch drive signal	-
B4	+24VD1	+24 V	-
B5	1STCLH-0A	Upper transport clutch drive signal	-
B6	+24VD1	+24 V	-
B7	MAMBK-0A	Main motor brake signal	L: Braking H: Normal
B8	MAMPL-1	Main motor PLL signal	L: Normal
B9	MAMCW-0A	Main motor rotational direction signal	L: CW, H: CCW
B10	MAMCK-1	Main motor reference clock signal	-
B11	MAMON-0A	Main motor ON/OFF signal	L: ON, H: OFF
B12	SG	Signal ground	-
B13	+5.1VB	+5.1 V	-
B14	+24VD1	+24 V	-
B15	PWRFN-0A	Internal cooling fan2 motor drive signal	-
B16	+24VD1	+24 V	-
B17	CLNFN-0A	Internal cooling fan1 motor drive signal	-

CN306 PWA-F-LGC (CN306) <-> EXIT-MOT, EXIT-FAN-MOT, JOB SEPARATOR (OPTION)/OFFSET TRAY (OPTION)/ BRIDGE UNIT (OPTION)

Pin No	Symbol	Name	Active
A1	+24VD2	+24 V	-
A2	EXTMA-0A	Exit motor drive signal-A	-
A3	EXTMB-0A	Exit motor drive signal-B	-
A4	EXTMC-0A	Exit motor drive signal-C	-
A5	EXTMD-0A	Exit motor drive signal-D	-
A6	+24VD2	+24 V	-
A7	+24VD2	+24 V	-
A8	VCMFN-0	Exhaust fan motor drive signal	-
A9	NC	Not connected	-
A10	NC	Not connected	-
A11	NC	Not connected	-
A12	NC	Not connected	-
A13	NC	Not connected	-
A14	NC	Not connected	-
A15	NC	Not connected	-
A16	NC	Not connected	-
A17	NC	Not connected	-
A18	NC	Not connected	-
B1	RLC2S-1	JSP/OCT unit exit sensor signal	-
B2	+5.1VB	+5.1 V	-
B3	RLHSW-1	JSP: lower stack sensor detection signal / OCT: stack sensor detection signal	-
B4	SG	Signal ground	-
B5	JSPSW-0	JSP/OCT judgment signal	L
B6	RLCNT-0	JSP/OCT judgment signal	-
B7	OPCHK1-1	JSP/OCT judgment signal	L: OCT, H: JSP
B8	RLCSW-1	JSP/OCT cover opening/closing detection signal	L
B9	RLTRS-1	JSP: paper jam sensor detection signal / OCT: paper feed sensor detection signal	-
B10	JFSL2OH-1	JSP: upper stack sensor detection signal / OCT: separate sensor detection signal	-
B11	GASOL-0A	JSP/OCT gate solenoid driving signal	-
B12	+24VD2	+24 V	-
B13	PG	Power ground	-
B14	OFFSET1	OCT motor drive signal-1	-
B15	OFFSET2	OCT motor drive signal-2	-
B16	NC	Not connected	-
B17	NC	Not connected	-
B18	NC	Not connected	-

CN307 PWA-F-LGC (CN307) <-> EMP-U-SNR, CST-U-TRY-SNR, CST-U-FEED-CLT, NEMP-U-SNR, TRY-MOT, TR-L-CLT, EMP-L-SNR, CST-L-TRY-SNR, CST-L-FEED-CLT, NEMP-L-SNR, CST-U-SW, CST-L-SW

Pin No	Symbol	Name	Active
A1	SG	Signal ground	-
A2	CUEMP-1	Upper drawer empty sensor detection signal	-
A3	+5.1VB	+5.1 V	-
A4	SG	Signal ground	-
A5	CUTOP-1	Upper drawer tray-up sensor detection signal	-
A6	+5.1VB	+5.1 V	-
A7	CURSGC-0A	Upper drawer feed clutch drive signal	-
A8	+24VD1	+24 V	-
A9	SG	Signal ground	-
A10	CUFLS-1	Upper drawer paper stock sensor detection signal	-
A11	+5.1VB	+5.1 V	-
A12	CLTRM-0A	Tray-up motor drive signal	-
A13	CLTRM-1A	Tray-up motor drive signal	-
A14	2NDCL-0A	Lower transport clutch drive signal	-
A15	+24VD1	+24 V	-
B1	SG	Signal ground	-
B2	CLEMP-1	Lower drawer empty sensor detection signal	-
B3	+5.1VB	+5.1 V	-
B4	SG	Signal ground	-
B5	CLTOP-1	Lower drawer tray-up sensor detection signal	-
B6	+5.1VB	+5.1 V	-
B7	CLRGC-0	Lower drawer feed clutch drive signal	-
B8	+24VD1	+24 V	-
B9	SG	Signal ground	-
B10	CLFLS-1	Upper drawer paper stock sensor detection signal	-
B11	+5.1VB	+5.1 V	-
B12	SG	Signal ground	-
B13	CUSW-0	Upper drawer detection signal	-
B14	SG	Signal ground	-
B15	CLSW-0	Lower drawer detection signal	-

CN308 PWA-F-LGC (CN308) <-> PS-HVT (CN720)/THMS-C-HTR, THMS-S-HTR, THMS-EDG-HTR, EXT-SNR

Pin No	Symbol	Name	Active
A1	HVCLK-0A	Developer AC bias high-voltage clock signal	-
A2	HVSDWN-1A	High-voltage power supply leakage detection signal	L
A3	HVSAV-1A	Separation bias voltage output reference voltage	Analog
A4	HVTSP-0A	Separation bias voltage ON/OFF signal	-
A5	HVTGB-0A	Transfer guide bias voltage ON/OFF signal	-
A6	HVTVR-1A	Transfer bias high-voltage output reference voltage	Analog
A7	HVT1-0A	Transfer bias high-voltage ON/OFF signal	-
A8	HVAVR-1A	Developer AC bias high-voltage output reference voltage	Analog
A9	HVTAC-0A	Developer AC bias high-voltage ON/OFF signal	-
A10	HVDVR-1A	Developer DC bias high-voltage output reference voltage	Analog
A11	HVMVR-1A	Main charger grid output reference voltage	Analog
A12	HVTM-0A	Main needle electrode charger voltage ON/OFF signal	-
A13	SG	Signal ground	-
A14	+24VD2	+24 V	-
B1	FUSSW-1A	Fuser roller thermistor connection detection signal	-
B2	MTH-1A	Fuser roller center thermistor + signal	Analog
B3	MTH--1A	Fuser roller center thermistor - signal	Analog
B4	STH+-1A	Fuser roller side thermistor + signal	Analog
B5	STH--1A	Fuser roller side thermistor - signal	Analog
B6	ETH+-1A	Fuser roller edge thermistor + signal	Analog
B7	ETH--1A	Fuser roller edge thermistor - signal	Analog
B8	+5.1VSW	+5.1 V	-
B9	SG	Signal ground	-
B10	EXTSW-1	Exit sensor detection signal	-
B11	+5.1VB	+5.1 V	-
B12	NC	Not connected	-
B13	NC	Not connected	-
B14	NC	Not connected	-

CN310 PWA-F-LGC (CN310) <-> PFP (OPTION)/LCF (OPTION)

Pin No	Symbol	Name	Active
A1	CLKC-1A	PFP/LCF driver control latch signal (C)	-
A2	CLKB-1A	PFP/LCF driver control latch signal (B)	-
A3	SCSWC-0A	PFP/LCF sensor detection port enable signal (C)	-
A4	DRV7-1A	PFP/LCF driver control signal	-
A5	DRV6-1A	PFP/LCF driver control signal	-
A6	DRV5-1A	PFP/LCF driver control signal	-
A7	DRV4-1A	PFP/LCF driver control signal	-
A8	DRV3-1A	PFP/LCF driver control signal	-
A9	DRV2-1A	PFP/LCF driver control signal	-
A10	DRV1-1A	PFP/LCF driver control signal	-
A11	DRV0-1A	PFP/LCF driver control signal	-
A12	PFRST-0	Reset signal	-
A13	+5.1VB	+5.1 V	-
A14	SG	Signal ground	-
A15	+24VD1	+24 V	-
A16	+24VD1	+24 V	-
B1	PG	Power ground	-
B2	PG	Power ground	-
B3	SIZE0-0A	Size data bus-0	-
B4	SIZE1-0A	Size data bus-1	-
B5	SIZE2-0A	Size data bus-2	-
B6	SIZE3-0A	Size data bus-3	-
B7	RETS0-0A	PFP/LCF sensor detection signal	-
B8	RETS1-0A	PFP/LCF sensor detection signal	-
B9	RETS2-0A	PFP/LCF sensor detection signal	-
B10	RETS3-0A	PFP/LCF sensor detection signal	-
B11	RETS4-0A	PFP/LCF sensor detection signal	-
B12	RETS5-0A	PFP/LCF sensor detection signal	-
B13	RETS6-0A	PFP/LCF sensor detection signal	-
B14	RETS7-0A	PFP/LCF sensor detection signal	-
B15	SCSWB-0A	PFP/LCF sensor detection port enable signal (B)	-
B16	LCCNT-0	LCF connection detection signal	L

CN312 PWA-F-LGC (CN312) <-> M/DC-POL

Pin No	Symbol	Name	Active
1	POMOR-0	Polygonal motor reference clock signal	-
2	POMOL-0	Polygonal motor PLL signal	L: Normal
3	POMON-0	Polygonal motor ON/OFF signal	L: ON H: OFF
4	PG	Power ground	-
5	+24VD1	+24 V	-

CN313 PWA-F-LGC (CN313) <-> PWA-F-LRL (CN204)

Pin No	Symbol	Name	Active
1	SG	Signal ground	-
2	+5VD	+5.1 V	-
3	+5VD	+5.1 V	-
4	SG	Signal ground	-
5	WRLVL-1	Laser power control signal (reference voltage)	-
6	SG	Signal ground	-
7	BDIN-1	Laser beam position detection signal (H-sync)	-
8	SG	Signal ground	-
9	PIDT-1	Laser image data (differential signal +)	-
10	PIDT-0	Laser image data (differential signal -)	-
11	SG	Signal ground	-
12	WRAPC-0	APC write signal	-
13	+5.1VB	+5.1 V	-
14	SHDWM-1	Laser shut down signal	-
15	+5.1VB	+5.1 V	-
16	+5.1VB	+5.1 V	-
17	+5.1VD	+5.1 V	-
18	SG	Signal ground	-

CN316 PWA-F-LGC (CN316) <-> DOWNLOAD JIG (LGC)

Pin No	Symbol	Name	Active
1	D[0]	ROM data bus [0]	-
2	D[2]	ROM data bus [2]	-
3	D[4]	ROM data bus [4]	-
4	D[6]	ROM data bus [6]	-
5	RD-D	ROM data read signal	-
6	A[0]	ROM address bus [0]	-
7	A[2]	ROM address bus [2]	-
8	A[4]	ROM address bus [4]	-
9	A[6]	ROM address bus [6]	-
10	A[8]	ROM address bus [8]	-
11	A[10]	ROM address bus [10]	-
12	A[12]	ROM address bus [12]	-
13	A[14]	ROM address bus [14]	-
14	A[16]	ROM address bus [16]	-
15	A[18]	ROM address bus [18]	-
16	SG	Signal ground	-
17	SG	Signal ground	-
18	D[1]	ROM data bus [1]	-
19	D[3]	ROM data bus [3]	-
20	D[5]	ROM data bus [5]	-
21	D[7]	ROM data bus [7]	-
22	CS2-0	Chip select signal	L
23	A[1]	ROM address bus [1]	-
24	A[3]	ROM address bus [3]	-
25	A[5]	ROM address bus [5]	-
26	A[7]	ROM address bus [7]	-
27	A[9]	ROM address bus [9]	-
28	A[11]	ROM address bus [11]	-
29	A[13]	ROM address bus [13]	-
30	A[15]	ROM address bus [15]	-
31	A[17]	ROM address bus [17]	-
32	ROMDT-0	Download board connection detection signal	L
33	+5.1VB	+5.1 V	-
34	LED-0A	External ROM loading status signal	L

CN317 PWA-F-LGC (CN317) <-> IPC (OPTION)

Pin No	Symbol	Name	Active
1	SG	Signal ground	-
2	+5.1VB	+5.1 V	-
3	AD0	System address bus [0]	-
4	AD2	System address bus [2]	-
5	AD4	System address bus [4]	-
6	AD6	System address bus [6]	-
7	I/O0	System data bus [0]	-
8	I/O2	System data bus [2]	-
9	I/O4	System data bus [4]	-
10	I/O6	System data bus [6]	-
11	SG	Signal ground	-
12	WE	Write signal	-
13	CSIP2-0A	IPC chip select signal	-
14	+5.1VB	+5.1 V	-
15	IPCSW-0	IPC board connection detection signal	L
16	SG	Signal ground	-
17	+5.1VB	+5.1 V	-
18	AD1	System address bus [1]	-
19	AD3	System address bus [3]	-
20	AD5	System address bus [5]	-
21	AD7	System address bus [7]	-
22	I/O1	System data bus [1]	-
23	I/O3	System data bus [3]	-
24	I/O5	System data bus [5]	-
25	I/O7	System data bus [7]	-
26	SG	Signal ground	-
27	OE	Output enable signal	-
28	IPRST-0A	IPC reset signal	-
29	+5.1VB	+5.1 V	-
30	SG	Signal ground	-

CN100 PWA-F-SYS (CN100) <-> DOWNLOAD JIG (SYS)

Pin No	Symbol	Name	Active
1	DATA0	System data bus [0]	-
2	DATA2	System data bus [2]	-
3	DATA4	System data bus [4]	-
4	DATA6	System data bus [6]	-
5	DATA8	System data bus [8]	-
6	DATA10	System data bus [10]	-
7	DATA12	System data bus [12]	-
8	DATA14	System data bus [14]	-
9	A21	System address bus [21]	-
10	A19	System address bus [19]	-
11	A17	System address bus [17]	-
12	A15	System address bus [15]	-
13	A13	System address bus [13]	-
14	A11	System address bus [11]	-
15	A09	System address bus [9]	-
16	A07	System address bus [7]	-
17	A05	System address bus [5]	-
18	A03	System address bus [3]	-
19	RDX	System read signal	-
20	CS7-A	Chip select signal (7-A)	-
21	CS7-B	Chip select signal (7-B)	-
22	+3.3VA	+3.3 V	-
23	+3.3VA	+3.3 V	-
24	SG	Signal ground	-
25	SG	Signal ground	-
26	DATA1	System data bus [1]	-
27	DATA3	System data bus [3]	-
28	DATA5	System data bus [5]	-
29	DATA7	System data bus [7]	-
30	DATA9	System data bus [9]	-
31	DATA11	System data bus [11]	-
32	DATA13	System data bus [13]	-
33	DATA15	System data bus [15]	-
34	A20	System address bus [20]	-
35	A18	System address bus [18]	-
36	A16	System address bus [16]	-
37	A14	System address bus [14]	-
38	A12	System address bus [12]	-
39	A10	System address bus [10]	-
40	A08	System address bus [8]	-
41	A06	System address bus [6]	-
42	A04	System address bus [4]	-
43	A02	System address bus [2]	-
44	DWNLED	External ROM loading status signal	-
45	/CS0	System chip select signal-0	-
46	+3.3VA	+3.3 V	-
47	RMSL	System control signal	-
48	/WRX	System write signal	-
49	SG	Signal ground	-
50	SG	Signal ground	-

CN101 PWA-F-SYS (CN101) <-> FAX (CN701) (OPTION)

Pin No	Symbol	Name	Active
1	+5.1VB	+5.1 V	-
2	DA1	Address bus [1]	-
3	+5.1VB	+5.1 V	-
4	DD0	FAX data bus [0]	-
5	+5.1VB	+5.1 V	-
6	DD3	FAX data bus [3]	-
7	+5.1VB	+5.1 V	-
8	DD6	FAX data bus [6]	-
9	+5.1VB	+5.1 V	-
10	DD9	FAX data bus [9]	-
11	SG	Signal ground	-
12	DD12	FAX data bus [12]	-
13	SG	Signal ground	-
14	SG	Signal ground	-
15	SG	Signal ground	-
16	SG	Signal ground	-
17	SG	Signal ground	-
18	SG	Signal ground	-
19	+3.3VB	+3.3 V	-
20	INTRQ	Interrupt request signal	-
21	+3.3VB	+3.3 V	-
22	+5.1VB	+5.1 V	-
23	-12VB	-12 V	-
24	SG	Analog ground	-
25	+12VB	+12 V	-
26	DA0	Address bus [0]	-
27	DA2	Address bus [2]	-
28	IDECS	IDE chip select signal	-
29	DD1	FAX data bus [1]	-
30	DD2	FAX data bus [2]	-
31	DD4	FAX data bus [4]	-
32	DD5	FAX data bus [5]	-
33	DD7	FAX data bus [7]	-
34	DD8	FAX data bus [8]	-
35	DD10	FAX data bus [10]	-
36	DD11	FAX data bus [11]	-
37	DD13	FAX data bus [13]	-
38	DD14	FAX data bus [14]	-
39	DD15	FAX data bus [15]	-
40	/DIOR	Data read signal	-
41	/DIOW	Data write signal	-
42	/DMACK	DMA acknowledge signal	-
43	/DLDCS0	Chip select signal	-
44	/RESET	Reset signal	L
45	DMARQ	DMA request signal	-
46	NC	Not connected	-
47	FXWP	FAX wake-up signal	-
48	SG	Signal ground	-
49	SG	Signal ground	-
50	NC	Not connected	-

CN102 PWA-F-SYS (CN102) <-> PWA-F-SLG (CN4)

Pin No	Symbol	Name	Active
1	SYSRST	System reset signal	-
2	SCTS	Transmission enabled	-
3	STXD	Transmitted SLG data	-
4	SRXD	Received SLG data	-
5	SRTS	Transmission request signal	-
6	SCNT	SLG board connection detection signal	-
7	SG	Signal ground	-
8	SVDEN	Vertical scanning synchronized signal	-
9	SDCLK	Clock signal for scanning data transmission	-
10	SHDEN	Horizontal scanning synchronized signal	-
11	SG	Signal ground	-
12	SG	Signal ground	-
13	SCD7	Scanning data [7]	-
14	SCD6	Scanning data [6]	-
15	SCD5	Scanning data [5]	-
16	SCD4	Scanning data [4]	-
17	SCD3	Scanning data [3]	-
18	SCD2	Scanning data [2]	-
19	SCD1	Scanning data [1]	-
20	SCD0	Scanning data [0]	-

CN112 PWA-F-SYS (CN112) <-> HDD (CN170) (STANDARD)

Pin No	Symbol	Name	Active
1	/RESET	Reset signal	-
2	SG	Signal ground	-
3	DD7	Data bus [7]	-
4	DD8	Data bus [8]	-
5	DD6	Data bus [6]	-
6	DD9	Data bus [9]	-
7	DD5	Data bus [5]	-
8	DD10	Data bus [10]	-
9	DD4	Data bus [4]	-
10	DD11	Data bus [11]	-
11	DD3	Data bus [3]	-
12	DD12	Data bus [12]	-
13	DD2	Data bus [2]	-
14	DD13	Data bus [13]	-
15	DD1	Data bus [1]	-
16	DD14	Data bus [14]	-
17	DD0	Data bus [0]	-
18	DD15	Data bus [15]	-
19	SG	Signal ground	-
20	NC(KEY)	Not connected	-
21	MDARQ	DMA request signal	H
22	SG	Signal ground	-
23	/DIOW	I/O write signal	-
24	SG	Signal ground	-
25	/DIOR	I/O read signal	-
26	SG	Signal ground	-
27	IORDY	I/O ready signal	-
28	SG	Signal ground	-
29	/DMACK	DMA acknowledge signal	L
30	SG	Signal ground	-
31	INTRQ	Interrupt request signal	H
32	NC(RESERVED)	Reserve signal	-
33	DA1	Device address [1]	-
34	/PDIAG	Passed diagnostics	L
35	DA0	Device address [0]	-
36	DA2	Device address [2]	-
37	/CS0	Chip select-0	L
38	/CS1	Chip select-1	L
39	/DASP	Device active or slave present signal	L
40	SG	Signal ground	-

CN113 PWA-F-SYS (CN113) <-> HDD (CN171)

Pin No	Symbol	Name	Active
1	+12V	+12 V	-
2	SG	Signal ground	-
3	SG	Signal ground	-
4	+5.1VA	+5.1 V	-

CN116 PWA-F-SYS (CN116) <->DIMM (0)

Pin No	Symbol	Name	Active
1	SG	Signal ground	-
2	DQ0	Memory data bus [0]	-
3	DQ1	Memory data bus [1]	-
4	DQ2	Memory data bus [2]	-
5	DQ3	Memory data bus [3]	-
6	+3.3VA	+3.3 V	-
7	DQ4	Memory data bus [4]	-
8	DQ5	Memory data bus [5]	-
9	DQ6	Memory data bus [6]	-
10	DQ7	Memory data bus [7]	-
11	DQ8	Memory data bus [8]	-
12	SG	Signal ground	-
13	DQ9	Memory data bus [9]	-
14	DQ10	Memory data bus [10]	-
15	DQ11	Memory data bus [11]	-
16	DQ12	Memory data bus [12]	-
17	DQ13	Memory data bus [13]	-
18	+3.3VA	+3.3 V	-
19	DQ14	Memory data bus [14]	-
20	DQ15	Memory data bus [15]	-
21	NC	Not connected	-
22	NC	Not connected	-
23	SG	Signal ground	-
24	NC	Not connected	-
25	NC	Not connected	-
26	+3.3VA	+3.3 V	-
27	/WE	Data write enable signal	-
28	DQMB0	Output disable/write mask-0	-
29	DQMB1	Output disable/write mask-1	-
30	/CS0	Chip select signal-0	-
31	NC	Not connected	-
32	SG	Signal ground	-
33	A0	Memory address bus [0]	-
34	A2	Memory address bus [1]	-
35	A4	Memory address bus [2]	-
36	A6	Memory address bus [3]	-
37	A8	Memory address bus [4]	-
38	A10	Memory address bus [10]	-
39	BA1	Bank select-1	-
40	+3.3VA	+3.3 V	-
41	+3.3VA	+3.3 V	-
42	CLK0	Clock-0 input	-
43	SG	Signal ground	-
44	NC	Not connected	-
45	/CS2	Chip select signal-2	-
46	DQMB2	Output disable/write mask-2	-
47	DQMB3	Output disable/write mask-3	-
48	NC	Not connected	-
49	+3.3VA	+3.3 V	-
50	NC	Not connected	-
51	NC	Not connected	-
52	NC	Not connected	-
53	NC	Not connected	-
54	SG	Signal ground	-
55	DQ16	Memory data bus [16]	-
56	DQ17	Memory data bus [17]	-
57	DQ18	Memory data bus [18]	-
58	DQ19	Memory data bus [19]	-
59	+3.3VA	+3.3 V	-
60	DQ20	Memory data bus [20]	-
61	NC	Not connected	-
62	NC	Not connected	-
63	CKE1	Clock enable signal	-
64	SG	Not connected	-
65	DQ21	Memory data bus [21]	-
66	DQ22	Memory data bus [22]	-
67	DQ23	Memory data bus [23]	-
68	SG	Signal ground	-
69	DQ24	Memory data bus [24]	-
70	DQ25	Memory data bus [25]	-
71	DQ26	Memory data bus [26]	-
72	DQ27	Memory data bus [27]	-
73	+3.3VA	+3.3 V	-
74	DQ28	Memory data bus [28]	-
75	DQ29	Memory data bus [29]	-
76	DQ30	Memory data bus [30]	-
77	DQ31	Memory data bus [31]	-
78	SG	Signal ground	-
79	CLK2	Clock-2 input	-
80	NC	Not connected	-
81	NC(WP)	Not connected	-
82	SDA	PD serial data	-
83	SCL	PD serial clock	-
84	+3.3VA	+3.3 V	-
85	SG	Signal ground	-
86	DQ32	Memory data bus [32]	-
87	DQ33	Memory data bus [33]	-
88	DQ34	Memory data bus [34]	-
89	DQ35	Memory data bus [35]	-
90	+3.3VA	+3.3 V	-
91	DQ36	Memory data bus [36]	-
92	DQ37	Memory data bus [37]	-
93	DQ38	Memory data bus [38]	-
94	DQ39	Memory data bus [39]	-
95	DQ40	Memory data bus

10.4 DC Wire Harness (e-STUDIO202L/203L/232/233/282/283)

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10.5 Connector Table (e-STUDIO202L/203L/232/233/282/283)

CN301 PWA-F-LGC (CN301) <-> COIN CONTROLLER (OPTION)/ COPY KEY CARD (OPTION)

Pin No	Symbol	Name	Active
A1	+24VD2	+24 V	-
A2	CTRON	Total counter ON signal	-
A3	CTRCNT	Copy key card connection detection signal	L
A4	M/C RUN	M/C run signal	L
A5	EXTCTR	Exit sensor ON signal	L
A6	PG	Power ground	-
A7	BKCTR	Black and white mode counter ON signal and CST-CTR signal	-
A8	MNCTR	Mono-color mode counter ON signal	-
B1	FLCTR	Full color mode counter ON signal and reverse side counter signal	-
B2	SG	Signal ground	-
B3	TSIZE3	Paper size signal-3	-
B4	TSIZE2	Paper size signal-2	-
B5	TSIZE1	Paper size signal-1	-
B6	TSIZE0	Paper size signal-0	-
B7	+5.1VB	+5.1 V	-
B8	CTRCNT2	Copy key card /Coin counter judgment signal	-

CN302 PWA-F-LGC (CN302) <-> KEY COPY COUNTER (OPTION)

Pin No	Symbol	Name	Active
1	NC	Not connected	-
2	SG	Signal ground	-
3	KCTRC-0	Key copy counter/Copy key card connection detection signal	L
4	+24VD2	+24 V	-
5	KCTRO-0	Key copy counter ON signal	-
6	NC	Not connected	-

CN303 PWA-F-LGC (CN303) <-> LP-ERS, ATTNR-SNR, THMS-DRM, MAIN-SW (RESET), TEMP/HUMI-SNR, FRNT-COV-SW (e-STUDIO202L/203L)

Pin No	Symbol	Name	Active
A1	ATSCNT-1	PU connection detection signal	L
A2	ERSLP-0A	Exposure lamp drive signal	-
A3	+24VD1	+24 V	-
A4	PG	Power ground	-
A5	ATS-1A	Auto-toner sensor detection signal	Analog
A6	+24VD1	+24 V (Auto-toner sensor)	-
A7	ATSVR-1A	Auto-toner sensor detection signal	Analog
A8	DRTH-1	Drum thermistor detection signal	Analog
A9	SG	Signal ground	-
A10	SG	Signal ground	-
B1	RSTSW-0A	Reset signal to the main switch	H
B2	+24VD1	+24 V	-
B3	+5.1VB	+5.1 V	-
B4	HMS-1A	Humidity sensor signal	Analog
B5	SG	Signal ground	-
B6	TEMP-1	Temperature sensor signal	Analog
B7	FCOVSW-1	Front cover opening/closing switch signal	-
B8	SG	Signal ground	-
B9	NC	Not connected	-
B10	NC	Not connected	-

CN303 PWA-F-LGC (CN303) <-> LP-ERS, ATTNR-SNR, THMS-DRM, MAIN-SW (RESET), TEMP/HUMI-SNR, FRNT-COV-SW (e-STUDIO232/233)

Pin No	Symbol	Name	Active
A1	ATSCNT-1	PU connection detection signal	L
A2	ERSLP-0A	Exposure lamp drive signal	-
A3	+24VD1	+24 V	-
A4	PG	Power ground	-
A5	ATS-1A	Auto-toner sensor detection signal	Analog
A6	+24VD1	+24 V (Auto-toner sensor)	-
A7	ATSVR-1A	Auto-toner sensor detection signal	Analog
A8	DRTH-1	Drum thermistor detection signal	Analog
A9	SG	Signal ground	-
A10	SG	Signal ground	-
A11	NC	Not connected	-
A12	NC	Not connected	-
B1	NC	Not connected	-
B2	RSTSW-0A	Reset signal to the main switch	H
B3	+24VD1	+24 V	-
B4	+5.1VB	+5.1 V	-
B5	HMS-1A	Humidity sensor signal	Analog
B6	SG	Signal ground	-
B7	TEMP-1	Temperature sensor signal	Analog
B8	FCOVSW-1	Front cover opening/closing switch signal	-
B9	SG	Signal ground	-
B10	NC	Not connected	-
B11	NC	Not connected	-

CN303 PWA-F-LGC (CN303) <-> LP-ERS, ATTNR-SNR, THMS-DRM, MAIN-SW (RESET), TEMP/HUMI-SNR, FRNT-COV-SW (e-STUDIO282/283)

Pin No	Symbol	Name	Active
A1	ATSCNT-1	PU connection detection signal	L
A2	ERSLP-0A	Exposure lamp drive signal	-
A3	+24VD1	+24 V	-
A4	PG	Power ground	-
A5	ATS-1A	Auto-toner sensor detection signal	Analog
A6	+24VD1	+24 V (Auto-toner sensor)	-
A7	ATSVR-1A	Auto-toner sensor detection signal	Analog
A8	DRTH-1	Drum thermistor detection signal	Analog
A9	SG	Signal ground	-
A10	SG	Signal ground	-
A11	NC	Not connected	-
A12	NC	Not connected	-
B1	CPSW2-0	Not used	-
B2	SG	Signal ground	-
B3	RSTSW-0A	Reset signal to the main switch	H
B4	+24VD1	+24 V	-
B5	+5.1VB	+5.1 V	-
B6	HMS-1A	Humidity sensor signal	Analog
B7	SG	Signal ground	-
B8	TEMP-1	Temperature sensor signal	Analog
B9	FCOVSW-1	Front cover opening/closing switch signal	L
B10	SG	Signal ground	-
B11	NC	Not connected	-
B12	NC	Not connected	-

CN304 PWA-F-LGC (CN304) <-> PWA-F-ADU (CN211, 212), ADU-CLT, SID-COV-SNR, SFB-SIZE-SNR, SFB-SNR, SFB-FEED-CLT, SFB-SOL, SFB-FEED-SNR-2

Pin No	Symbol	Name	Active
A1	ADM1D-0A	ADU motor drive signal-D	-
A2	ADM1B-0A	ADU motor drive signal-B	-
A3	ADM1C-0A	ADU motor drive signal-C	-
A4	ADM1A-0A	ADU motor drive signal-A	-
A5	ADUVR-1	ADU motor current control reference voltage	-
A6	ADTR2-1	ADU exit sensor detection signal	-
A7	5.1VB	+5.1 V	-
A8	SG	Signal ground	-
A9	ADCNT-1	ADU connection detection signal	L
A10	ADTR1-1	ADU entrance sensor detection signal	L
A11	ADCOV-1	ADU opening/closing switch detection signal	-
A12	+24VD2	+24 V	-
A13	ADUCL-0A	ADU clutch drive signal	L
A14	SG	Signal ground	L
A15	CSTCSW-1	Side cover opening/closing sensor detection signal	L
A16	+5.1VB	+5.1 V	-
A17	NC	Not connected	-
A18	NC	Not connected	-
A19	NC	Not connected	-
A20	NC	Not connected	-
B1	SFSZ3-0	Not used	-
B2	SG	Signal ground	-
B3	SG	Signal ground	-
B4	SFSZ0-0	Bypass paper size detection signal-1	-
B5	SFSZ1-0	Bypass paper size detection signal-2	-
B6	SFSZ2-0	Bypass paper size detection signal-3	-
B7	SG	Signal ground	-
B8	SFBEMP-1	Bypass paper detection signal	-
B9	5.1VB	+5.1 V	-
B10	+24VD2	+24 V	-
B11	SFBCL1-0	Bypass feed clutch drive signal	L
B12	+24VD2	+24 V	L
B13	SFBCL2-0	Bypass pickup solenoid drive signal	-
B14	SG	Signal ground	-
B15	SFBTRY-1	Not used	-
B16	+5.1VB	+5.1 V	-
B17	SG	Signal ground	-
B18	2NDFED-1	2nd transport sensor detection signal	-
B19	+5.1VB	+5.1 V	-
B20	SFBCNT-1	Bypass unit connection detection signal	-

CN305 PWA-F-LGC (CN305) <-> FEED-SNR-1, RGST-SNR, TR-COV-SW, TNR-SW, AUG-LOCK-SW, TNR-MOT, MAIN-MOT, REAR-FAN-MOT, MID-FAN-MOT, RGST, CLT.TR-U-CLT, TR-M-CLT

Pin No	Symbol	Name	Active
A1	SG	Signal ground	-
A2	1STFEED-1	1st transport sensor detection signal	-
A3	+5.1VB	+5.1 V	-
A4	SG	Signal ground	-
A5	PSTPSW-1	Registration sensor detection signal	-
A6	+5.1VB	+5.1 V	-
A7	SG	Signal ground	-
A8	SDCSW-1	Transfer cover opening/closing detection signal	-
A9	NC	Not connected	-
A10	TNRSW-1	Toner cartridge installation detection signal	-
A11	SG	Signal ground	-
A12	TNRFULL-1	Cleaner auger lock detection signal	-
A13	SG	Signal ground	-
A14	TNRMT-0A	Toner motor drive signal	-
A15	TNRMT-1A	Toner motor drive signal	-
A16	NC	Not connected	-
A17	NC	Not connected	-
B1	RGTCL-0A	Registration roller clutch drive signal	-
B2	+24VD1	+24 V	-
B3	1STCLL-0A	Middle transport clutch drive signal	-
B4	+24VD1	+24 V	-
B5	1STCLH-0A	Upper transport clutch drive signal	-
B6	+24VD1	+24 V	-
B7	MAMBK-0A	Main motor brake signal	L: Braking H: Normal
B8	MAMPL-1	Main motor PLL signal	L: Normal
B9	MAMCW-0A	Main motor rotational direction signal	L: CW, H: CCW
B10	MAMCK-1	Main motor reference clock signal	-
B11	MAMON-0A	Main motor ON/OFF signal	L: ON, H: OFF
B12	SG	Signal ground	-
B13	+5.1VB	+5.1 V	-
B14	+24VD1	+24 V	-
B15	PWRFN-0A	Internal cooling fan2 motor drive signal	-
B16	+24VD1	+24 V	-
B17	CLNFN-0A	Internal cooling fan1 motor drive signal	-

CN306 PWA-F-LGC (CN306) <-> EXIT-MOT, EXIT-FAN-MOT, JOB SEPARATOR (OPTION)/OFFSET TRAY (OPTION)/ BRIDGE UNIT (OPTION)

Pin No	Symbol	Name	Active
A1	+24VD2	+24 V	-
A2	EXTMA-0A	Exit motor drive signal-A	-
A3	EXTMB-0A	Exit motor drive signal-B	-
A4	EXTMC-0A	Exit motor drive signal-C	-
A5	EXTMD-0A	Exit motor drive signal-D	-
A6	+24VD2	+24 V	-
A7	+24VD2	+24 V	-
A8	VCMFN-0	Exhaust fan motor drive signal	-
A9	NC	Not connected	-
A10	NC	Not connected	-
A11	NC	Not connected	-
A12	NC	Not connected	-
A13	NC	Not connected	-
A14	NC	Not connected	-
A15	NC	Not connected	-
A16	NC	Not connected	-
A17	NC	Not connected	-
A18	NC	Not connected	-
A19	NC	Not connected	-
A20	NC	Not connected	-
B1	RLC2S-1	JSP/OCT unit exit sensor signal	-
B2	+5.1VB	+5.1 V	-
B3	RLHSW-1	JSP: lower stack sensor detection signal / OCT: stack sensor detection signal	-
B4	SG	Signal ground	-
B5	JSPSW-0	JSP/OCT judgment signal	L
B6	RLCNT-0	JSP/OCT judgment signal	-
B7	OPCHK1-1	JSP/OCT judgment signal	L: OCT, H: JSP
B8	RLCSW-1	JSP/OCT cover opening/closing detection signal	L
B9	RLTRS-1	JSP: paper jam sensor detection signal / OCT: paper feed sensor detection signal	-
B10	JFSL2OH-1	JSP: upper stack sensor detection signal / OCT: separate sensor detection signal	-
B11	GASOL-0A	JSP/OCT gate solenoid driving signal	-
B12	+24VD2	+24 V	-
B13	PG	Power ground	-
B14	OFFSET1	OCT motor drive signal-1	-
B15	OFFSET2	OCT motor drive signal-2	-
B16	NC	Not connected	-
B17	NC	Not connected	-
B18	NC	Not connected	-

CN307 PWA-F-LGC (CN307) <-> EMP-U-SNR, CST-U-TRY-SNR, CST-U-FEED-CLT, NEMP-U-SNR, TRY-MOT, TR-L-CLT, EMP-L-SNR, CST-L-TRY-SNR, CST-L-FEED-CLT, NEMP-L-SNR, CST-U-SW, CST-L-SW

Pin No	Symbol	Name	Active
A1	SG	Signal ground	-
A2	CUEMP-1	Upper drawer empty sensor detection signal	-
A3	+5.1VB	+5.1 V	-
A4	SG	Signal ground	-
A5	CUTOP-1	Upper drawer tray-up sensor detection signal	-
A6	+5.1VB	+5.1 V	-
A7	CURGC-0A	Upper drawer feed clutch drive signal	-
A8	+24VD1	+24 V	-
A9	SG	Signal ground	-
A10	CUFLS-1	Upper drawer paper stock sensor detection signal	-
A11	+5.1VB	+5.1 V	-
A12	CLTRM-0A	Tray-up motor drive signal	-
A13	CLTRM-1A	Tray-up motor drive signal	-
A14	2NDCL-0A	Lower transport clutch drive signal	-
A15	+24VD1	+24 V	-
B1	SG	Signal ground	-
B2	CLEMP-1	Lower drawer empty sensor detection signal	-
B3	+5.1VB	+5.1 V	-
B4	SG	Signal ground	-
B5	CLTOP-1	Lower drawer tray-up sensor detection signal	-
B6	+5.1VB	+5.1 V	-
B7	CLRGC-0	Lower drawer feed clutch drive signal	-
B8	+24VD1	+24 V	-
B9	SG	Signal ground	-
B10	CLFLS-1	Upper drawer paper stock sensor detection signal	-
B11	+5.1VB	+5.1 V	-
B12	SG	Signal ground	-
B13	CUSW-0	Upper drawer detection signal	-
B14	SG	Signal ground	-
B15	CLSW-0	Lower drawer detection signal	-

CN308 PWA-F-LGC (CN308) <-> PS-HVT (CN720)/THMS-C-HTR, THMS-S-HTR, THMS-EDG-HTR, EXT-SNR

Pin No	Symbol	Name	Active
A1	HVCLK-0A	Developer AC bias high-voltage clock signal	-
A2	HVSDWN-1A	High-voltage power supply leakage detection signal	L
A3	HVSAV-1A	Separation bias voltage output reference voltage	Analog
A4	HVTSP-0A	Separation bias voltage ON/OFF signal	-
A5	HVTGB-0A	Transfer guide bias voltage ON/OFF signal	-
A6	HVTVR-1A	Transfer bias high-voltage output reference voltage	Analog
A7	HVTT-0A	Transfer bias high-voltage ON/OFF signal	-
A8	HVAVR-1A	Developer AC bias high-voltage output reference voltage	Analog
A9	HVTAC-0A	Developer AC bias high-voltage ON/OFF signal	-
A10	HVDVR-1A	Developer DC bias high-voltage output reference voltage	Analog
A11	HVMVR-1A	Main charger grid output reference voltage	Analog
A12	HVTM-0A	Main needle electrode charger voltage ON/OFF signal	-
A13	SG	Signal ground	-
A14	+24VD2	+24 V	-
B1	FUSSW-1A	Fuser roller thermistor connection detection signal	-
B2	MTH+-1A	Fuser roller center thermistor + signal	Analog
B3	MTH--1A	Fuser roller center thermistor - signal	Analog
B4	STH+-1A	Fuser roller side thermistor + signal	Analog
B5	STH--1A	Fuser roller side thermistor - signal	Analog
B6	ETH+-1A	Fuser roller edge thermistor + signal	Analog
B7	ETH--1A	Fuser roller edge thermistor - signal	Analog
B8	+5.1VSW	+5.1 V	-
B9	SG	Signal ground	-
B10	EXTSW-1	Exit sensor detection signal	-
B11	+5.1VB	+5.1 V	-
B12	NC	Not connected	-
B13	NC	Not connected	-
B14	NC	Not connected	-

CN310 PWA-F-LGC (CN310) <-> PFP (OPTION)/LCF (OPTION)

Pin No	Symbol	Name	Active
A1	CLK0-1A	PFP/LCF driver control latch signal (C)	-
A2	CLKB-1A	PFP/LCF driver control latch signal (B)	-
A3	SCSWC-0A	PFP/LCF sensor detection port enable signal (C)	-
A4	DRV7-1A	PFP/LCF driver control signal	-
A5	DRV6-1A	PFP/LCF driver control signal	-
A6	DRV5-1A	PFP/LCF driver control signal	-
A7	DRV4-1A	PFP/LCF driver control signal	-
A8	DRV3-1A	PFP/LCF driver control signal	-
A9	DRV2-1A	PFP/LCF driver control signal	-
A10	DRV1-1A	PFP/LCF driver control signal	-
A11	DRV0-1A	PFP/LCF driver control signal	-
A12	PFRST-0	Reset signal	-
A13	+5.1VB	+5.1 V	-
A14	SG	Signal ground	-
A15	+24VD1	+24 V	-
A16	+24VD1	+24 V	-
B1	PG	Power ground	-
B2	PG	Power ground	-
B3	SIZE0-0A	Size data bus-0	-
B4	SIZE1-0A	Size data bus-1	-
B5	SIZE2-0A	Size data bus-2	-
B6	SIZE3-0A	Size data bus-3	-
B7	RETS0-0A	PFP/LCF sensor detection signal	-
B8	RETS1-0A	PFP/LCF sensor detection signal	-
B9	RETS2-0A	PFP/LCF sensor detection signal	-
B10	RETS3-0A	PFP/LCF sensor detection signal	-
B11	RETS4-0A	PFP/LCF sensor detection signal	-
B12	RETS5-0A	PFP/LCF sensor detection signal	-
B13	RETS6-0A	PFP/LCF sensor detection signal	-
B14	RETS7-0A	PFP/LCF sensor detection signal	-
B15	SCSWB-0A	PFP/LCF sensor detection port enable signal (B)	-
B16	LCCNT-0	LCF connection detection signal	L

CN312 PWA-F-LGC (CN312) <-> M/DC-POL

Pin No	Symbol	Name	Active
1	POMCK-0	Polygonal motor reference clock signal	-
2	POMOL-0	Polygonal motor PLL signal	L: Normal
3	POMON-0	Polygonal motor ON/OFF signal	L: ON H: OFF
4	PG	Power ground	-
5	+24VD1	+24 V	-

CN313 PWA-F-LGC (CN313) <-> PWA-F-LRL (CN204)

Pin No	Symbol	Name	Active
1	SG	Signal ground	-
2	+5VD	+5.1 V	-
3	+5VD	+5.1 V	-
4	SG	Signal ground	-
5	WRLVL-1	Laser power control signal (reference voltage)	-
6	SG	Signal ground	-
7	BDIN-1	Laser beam position detection signal (H-sync)	-
8	SG	Signal ground	-
9	PIDT-1	Laser image data (differential signal +)	-
10	PIDT-0	Laser image data (differential signal -)	-
11	SG	Signal ground	-
12	WRAPC-0	APC write signal	-
13	+5.1VB	+5.1 V	-
14	SHDWM-1	Laser shut down signal	-
15	SG	Signal ground	-
16	+5.1VD	+5.1 V	-
17	+5.1VD	+5.1 V	-
18	SG	Signal ground	-

CN316 PWA-F-LGC (CN316) <-> DOWNLOAD JIG (LGC)

Pin No	Symbol	Name	Active
1	D[0]	ROM data bus [0]	-
2	D[2]	ROM data bus [2]	-
3	D[4]	ROM data bus [4]	-
4	D[6]	ROM data bus [6]	-
5	RD-0	ROM data read signal	-
6	A[0]	ROM address bus [0]	-
7	A[2]	ROM address bus [2]	-
8	A[4]	ROM address bus [4]	-
9	A[6]	ROM address bus [6]	-
10	A[8]	ROM address bus [8]	-
11	A[10]	ROM address bus [10]	-
12	A[12]	ROM address bus [12]	-
13	A[14]	ROM address bus [14]	-
14	A[16]	ROM address bus [16]	-
15	A[18]	ROM address bus [18]	-
16	SG	Signal ground	-
17	SG	Signal ground	-
18	SG	Signal ground	-
19	D[1]	ROM data bus [1]	-
20	D[3]	ROM data bus [3]	-
21	D[7]	ROM data bus [7]	-
22	CS2-0	Chip select signal	L
23	A[1]	ROM address bus [1]	-
24	A[3]	ROM address bus [3]	-
25	A[5]	ROM address bus [5]	-
26	A[7]	ROM address bus [7]	-
27	A[9]	ROM address bus [9]	-
28	A[11]	ROM address bus [11]	-
29	A[13]	ROM address bus [13]	-
30	A[15]	ROM address bus [15]	-
31	A[17]	ROM address bus [17]	-
32	ROMDT-0	Download board connection detection signal	L
33	+5.1VB	+5.1 V	-
34	LED-0A	External ROM loading status signal	L

CN317 PWA-F-LGC (CN317) <-> IPC BOARD (OPTION)

Pin No	Symbol	Name	Active
1	SG	Signal ground	-
2	+5.1VB	+5.1 V	-
3	AD0	System address bus [0]	-
4	AD2	System address bus [2]	-
5	AD4	System address bus [4]	-
6	AD6	System address bus [6]	-
7	IO0	System data bus [0]	-
8	I/O2	System data bus [2]	-
9	I/O4	System data bus [4]	-
10	I/O6	System data bus [6]	-
11	SG	Signal ground	-
12	WE	Write signal	-
13	CSIP2-0A	IPC chip select signal	-
14	+5.1VB	+5.1 V	-
15	IPCSW-0	IPC board connection detection signal	L
16	SG	Signal ground	-
17	+5.1VB	+5.1 V	-
18	AD1	System address bus [1]	-
19	AD3	System address bus [3]	-
20	AD5	System address bus [5]	-
21	AD7	System address bus [7]	-
22	I/O1	System data bus [1]	-
23	I/O3	System data bus [3]	-
24	I/O5	System data bus [5]	-
25	I/O7	System data bus [7]	-
26	SG	Signal ground	-
27	OE	Output enable signal	-
28	IPRST-0A	IPC reset signal	-
29	+5.1VB	+5.1 V	-
30	SG	Signal ground	-

CN101 PWA-F-SYS (CN101) <-> PWA-F-SLG (CN4)

Pin No	Symbol	Name	Active
1	SYSRST	System reset signal	-
2	SCTS	Transmission enabled	-
3	STXD	Transmitted SLG data	-
4	SRXD	Received SLG data	-
5	SRTS	Transmission request signal	-
6	SCNT	SLG board connection detection signal	-
7	SG	Signal ground	-
8	SVDEN	Vertical scanning synchronized signal	-
9	SDCLK	Clock signal for scanning data transmission	-
10	SHDEN	Horizontal scanning synchronized signal	-
11	SG	Signal ground	-
12	SG	Signal ground	-
13	SCD7	Scanning data [7]	-
14	SCD6	Scanning data [6]	-
15	SCD5	Scanning data [5]	-
16	SCD4	Scanning data [4]	-
17	SCD3	Scanning data [3]	-
18	SCD2	Scanning data [2]	-
19	SCD1	Scanning data [1]	-
20	SCD0	Scanning data [0]	-

CN102 PWA-F-SYS (CN102) <-> FAX BOARD (CN701) (OPTION)

Pin No	Symbol	Name	Active
1	+5.1VB	+5.1 V	-
2	DA1	IDE Address [1]	-
3	+5.1VB	+5.1 V	-
4	DD0	FAX data bus [0]	-
5	+5.1VB	+5.1 V	-
6	DD3	FAX data bus [3]	-
7	+5.1VB	+5.1 V	-
8	DD6	FAX data bus [6]	-
9	+5.1VB	+5.1 V	-
10	DD9	FAX data bus [9]	-
11	SG	Signal ground	-
12	DD12	FAX data bus [12]	-
13	SG	Signal ground	-
14	SG	Signal ground	-
15	SG	Signal ground	-
16	SG	Signal ground	-
17	SG	Signal ground	-
18	SG	Signal ground	-
19	+3.3VB	+3.3 V	-
20	INTRQ	IDE Interrupt request signal	-
21	+3.3VB	+3.3 V	-
22	+5.1VA	+5.1 V	-
23	-12VB	-12 V	-
24	SG	Signal ground	-
25	+12VB	+12 V	-
26	DA0	IDE Address [0]	-
27	DA2	IDE Address [2]	-
28	IDECS	IDE chip select signal	-
29	DD1	FAX data bus [1]	-
30	DD2	FAX data bus [2]	-
31	DD4	FAX data bus [4]	-
32	DD5	FAX data bus [5]	-
33	DD7	FAX data bus [7]	-
34	DD8	FAX data bus [8]	-
35	DD10	FAX data bus [10]	-
36	DD11	FAX data bus [11]	-
37	DD13	FAX data bus [13]	-
38	DD14	FAX data bus [14]	-
39	DD15	FAX data bus [15]	-
40	/DIOR	IDE I/O read signal	-
41	/DIOW	IDE I/O write signal	-
42	/DMACK	DMA acknowledge signal	-
43	/DLDCS0	Chip select signal	-
44	/RESET	Reset signal	L
45	DMARQ	DMA request signal	-
46	NC	Not connected	-
47	FAXWP	FAX wake-up signal	-
48	SG	Signal ground	-
49	SG	Signal ground	-
50	NC	Not connected	-

CN104 PWA-F-SYS (CN104) <-> PWA-F-DSP (J427)

Pin No	Symbol	Name	Active
1	XSCL-1A	LCD data transmission clock	-
2	LP-1A	LCD data latch pulse	H
3	WF-1A	LCD frame signal	H
4	YD-1A	LCD scanning line start signal	H
5	INVGND	Signal ground	-
6	BZON-0A	Buzzer-ON signal	L
7	CPPOW-1A	Panel connection detection signal	H
8	LDCLK-1A	LED serial clock	-
9	LDDAT-1A	LED serial data	-
10	LDLTH-1A	LED data latch signal	L
11	LDON1-0A	LED drive selection signal-1	L
12	LDON0-0A	LED drive selection signal-0	L
13	SG	Signal ground	-
14	+5.1VA	+5.1 V	-
15	+5.1VA	+5.1 V	-
16	+5.1VA	+5.1 V	-
17	+5.1VA	+5.1 V	-
18	CPRST-0A	Reset signal	L
19	SG	Signal ground	-
20	RTS0-0A	Key controller SIO Transmission request signal	-
21	CTS0-0A	Key controller SIO Transmission enabled signal	-
22	SOUT(0)	Key controller SIO transmitted serial data	-
23	SIN(0)	Key controller SIO received serial data	-
24	SG	Signal ground	-
25	UD3-1A	LCD display data-3	-
26	UD2-1A	LCD display data-2	-
27	UD1-1A	LCD display data-1	-
28	UD0-1A	LCD display data-0	-
29	SG	Signal ground	-
30	LCDEN-1A	LCD enable signal	H

CN107 PWA-F-SYS (CN107) <-> COIN CONTROLLER (OPTION)/ COPY KEY CARD (OPTION)

Pin No	Symbol	Name	Active
1	LIS	Paper size signal	-
2	FULL-C	Full-color mode signal	-
3	MONO-C	Mono-color mode signal	-
4	B/W	Black and white mode signal	-
5	+5.1VA	+5.1 V	-
6	SG	Signal ground	-
7	NC	Not connected	-

CN108 PWA-F-SYS (CN108) <-> DOWNLOAD JIG (SYS)

Pin No	Symbol	Name	Active
1	DATA0	System data bus [0]	-
2	DATA2	System data bus [2]	-
3	DATA4	System data bus [4]	-
4	DATA6	System data bus [6]	-
5	DATA8	System data bus [8]	-
6	DATA10	System data bus [10]	-
7	DATA12	System data bus [12]	-
8	DATA14	System data bus [14]	-
9	A21	System address bus [19]	-
10	A19	System address bus [17]	-
11	A17	System address bus [15]	-
12	A15	System address bus [13]	-
13	A13	System address bus [11]	-
14	A11	System address bus [9]	-
15	A09	System address bus [7]	-
16	A07	System address bus [5]	-
17	A05	System address bus [3]	-
18	A03	System address bus [1]	-
19	RDX	System read signal	-
20	CS0-A	Chip select signal (0-A)	-
21	CS0-B	Chip select signal (0-B)	-
22	+3.3VA	+3.3 V	-
23	+3.3VA	+3.3 V	-
24	SG	Signal ground	-
25	SG	Signal ground	-
26	DATA1	System data bus [1]	-
27	DATA3	System data bus [3]	-
28	DATA5	System data bus [5]	-
29	DATA7	System data bus [7]	-
30	DATA9	System data bus [9]	-
31	DATA11	System data bus [11]	-
32	DATA13	System data bus [13]	-
33	DATA15	System data bus [15]	-
34	A20	System address bus [18]	-
35	A18	System address bus [16]	-
36	A16	System address bus [14]	-
37	A14	System address bus [12]	-
38	A12	System address bus [10]	-
39	A10	System address bus [8]	-
40	A08	System address bus [6]	-
41	A06	System address bus [4]	-
42	A04	System address bus [2]	-
43	A02	System address bus [0]	-
44	A22	System address bus [21]	-
45	/CS0	Chip select signal	-
46	+3.3VA	+3.3 V	-
47	RMSL	System control signal	-
48	/WRX	System write signal	-
49	SG	Signal ground	-
50	SG	Signal ground	-

CN105 PWA-F-SYS (CN105) <-> DDR DIMM

Pin No	Symbol	Name	Active
1	VREF	Reference voltage	-
2	DQ0	Memory data bus [0]	-
3	SG	Signal ground	-
4	DQ1	Memory data bus [1]	-
5	DQS0	Data strobe signal [0]	-
6	DQ2	Memory data bus [2]	-
7	VDD	+2.5 V	-
8	DQ3	Memory data bus [3]	-
9	NC	Not connected	-
10	NC	Not connected	-
11	SG	Signal ground	-
12	DQ8	Memory data bus [8]	-
13	DQ9	Memory data bus [9]	-
14	DQS1	Data strobe signal [1]	-
15	VDD	+2.5 V	-
16	CK1	Clock-1 input	-
17	/CK1	Differential clock-1 input	-
18	SG	Signal ground	-
19	DQ10	Memory data bus [10]	-
20	DQ11	Memory data bus [11]	-
21	CKE0	Clock enable signal	-
22	VDD	+2.5 V	-
23	DQ16	Memory data bus [16]	-
24	DQ17	Memory data bus [17]	-
25	DQS2	Data strobe signal [2]	-
26	SG	Signal ground	-
27	A9	Memory address bus [9]	-
28	DQ18	Memory data bus [18]	-
29	A7	Memory address bus [7]	-
30	VDD	+2.5 V	-
31	DQ19	Memory data bus [19]	-
32	A5	Memory address bus [5]	-
33	DQ24	Memory data bus [24]	-
34	SG	Signal ground	-
35	DQ25	Memory data bus [25]	-
36	DQS3	Data strobe signal [3]	-
37	A4	Memory address bus [2]	-
38	VDD	+2.5 V	-
39	DQ26	Memory data bus [26]	-
40	DQ27	Memory data bus [27]	-
41	A2	Memory address bus [1]	-
42	SG	Signal ground	-
43	A1	Memory address bus [1]	-
44	CB0	Not used	-
45	CB1	Not used	-
46	VDD	+2.5 V	-
47	DQS8	Data strobe signal [8]	-
48	A0	Memory address bus [0]	-
49	CB2	Not used	-
50	SG	Signal ground	-
51	CB3	Not used	-
52	BA1	Bank select-1	-
53	DQ32	Memory data bus [32]	-
54	VDD	+2.5 V	-
55	DQ33	Memory data bus [33]	-
56	DQS4	Data strobe signal [4]	-
57	DQ34	Memory data bus [34]	-
58	SG	Signal ground	-
59	BA0	Bank select-0	-
60	DQ35	Memory data bus [35]	-
61	DQ40	Memory data bus [40]	-
62	VDD	+2.5 V	-
63	/WE	Data write enable signal	-
64	DQ41	Memory data bus [41]

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