SHARP SERVICE MANUAL

CODE: 00ZARP350/A2E



LASER PRINTER AR-P350 MODEL AR-P450

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Parts marked with "<u>^</u>" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

CAUTION

This product is a class 1 laser product that complies with 21CFR 1040.10 and 1040.11 of the CDRH standard and IEC825. This means that this machine does not produce hazardous laser radiation. The use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This laser radiation is not a danger to the skin, but when an exact focusing of the laser beam is achieved on the eye's retina, there is the danger of spot damage to the retina.

The following cautions must be observed to avoid exposure of the laser beam to your eyes at the time of servicing.

- 1) When a problem in the laser optical unit has occurred, the whole optical unit must be exchanged as a unit, not as individual parts.
- 2) Do not look into the machine with the main switch turned on after removing the developer unit, toner cartridge, and drum cartridge.
- 3) Do not look into the laser beam exposure slit of the laser optical unit with the connector connected when removing and installing the optical system.
- 4) The middle frame contains the safety interlock switch.

Do not defeat the safety interlock by inserting wedges or other items into the switch slot.

Cautions on laser

Wave length	785 nm +10 nm –15 nm	At the production line, the output power of the scanner un is adjusted to 0.4 MILLIWATT PLUS 8 % and is maintained					
Pulse times	North America: 35 cpm model: (4.1 µs ± 4.1 ns)/7 mm	constant by the operation of the Automatic Power Control (APC).					
	45 cpm model: $(5.7 \ \mu s \pm 5.7 \ ns)/7 \ mm$ Europe: 35 cpm model: $(3.8 \ \mu s \pm 3.8 \ ns)/7 \ mm$ 45 cpm model: $(4.4 \ \mu s \pm 4.4 \ ns)/7 \ mm$	Caution This product contains a low power laser device. To ensure safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified					
Output power	0.2 mW - 0.4 mW	personnel.					

For North America:

SAFETYPRECAUTIONS

This Digital Equipment is rated Class 1 and complies with 21 CFR 1040.10 and 1040.11 of the CDRH standards. This means that the equipment does not produce hazardous laser radiation. For your safety, observe the precautions below.

- Do not remove the cabinet, operation panel or any other covers.
- The equipment's exterior covers contain several safety interlock switches. Do not bypass any safety interlock by inserting wedges or other items into switch slots.

Caution

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



For Europe:

CLASS 1 LASER PRODUCT

LASER KLASSE 1

LUOKAN 1 LASERLAITE

KLASS 1 LASERAPPARAT

CAUTION

INVISIBLE LASER RADIATION WHEN OPEN INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

VORSICHT

UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.

ADVARSEL

USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING

OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

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[1] GENERAL

1. Note for servicing

Pictogram

This Service Manual uses some pictographs to assure safe operation. Please understand the meanings of pictographs before servicing.

CAUTION: If this CAUTION is ignored, an injury or damage to property could occur.

A.Cautions for servicing

- 1) Do not touch the photoconductive drum. Scratches or smudges on the drum will cause dirty printouts.
- 2) The fusing unit is extremely hot. Exercise care in this area.



Fusing unit

- 3) Do not look directly at the light source of the scanner module. Doing so may damage your eyes.
- Five adjusters are provided on all optional stand/paper drawer units. These adjusters should be lowered until they contact the floor.



- 5) Do not make any modifications to this machine. Doing so may result in personal injury or damage to the machine.
- Since this machine is heavy, it is recommended that it be moved by more than one person to prevent injury.
- 7) When connecting this machine to a computer, be sure to first turn both the computer and the machine off.
- Do not print anything which is prohibited from printing by law. The following items are normally prohibited from printing by national law. Other items may be prohibited by local law.
 - Money
 - Stamps
 - •Bonds
 - Stocks
 - •Bank drafts
 - Checks
 - Passports
 - Driver's licenses
- Do not throw toner or a toner cartridge into fire. Toner may be spattered, causing a burn.
- 10) Store toner or toner cartridges in a hard-to-reach place for children.

[2] CONFIGURATION

1.System Configurations



2. Standard

Category	Model Name	Other options required for the installation/mounting. (Such option has be ordered separately.)	Remarks
Printer model (35ppm)	AR-P350	•Multi Purpose Drawer (AR-MU1), or Stand/MPD&2000 Sheet Paper Drawer (AR-D13), or Three	
Printer model (45ppm)	AR-P450	paper drawer stand (AR-D14)	
		•Power Supply Unit (AR-DC1) is required for Stand/MPD&2000 Sheet Paper Drawer (AR-D13) and	
		Three paper drawer stand (AR-D14)	
MFP model (35ppm)	AR-M350	•B/W Scanner module/DSPF (AR-EF1), or B/W Scanner module/SPF(AR-EF2)	
MFP model (45ppm)	AR-M450	•Scanner Rack(AR-RK1)	
		•Stand/MPD&2000 sheet paper drawer (AR-D13) or Three paper drawer stand (AR-D14)	
		•Power supply unit (AR-DC1)	

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AR-P350 CONFIGURATION 2-1

3. List of combination of peripheral devices

As shown in the table below, some other peripheral devices (B) may be needed for installation of a peripheral device (A) and some peripheral devices cannot be installed together.

			I										В										1
	Related to scanner feature		3/W scanner module/DSPF	Scanner rack	Multi purpose drawer	Stand/3 x 500 sheet paper drawer	Stand/MPD & 2000 sheet	Duplex module/bypass tray	Duplex module	Saddle stitch finisher	-inisher	Mail-bin stacker	Exit tray	Jpper exit tray extension	ounch unit	Multi-function controller board	Print server card	S3 expansion kit	Vetwork scanner expansion kit	-acsimile expansion kit	ax memory (8 MB)	^D ower supply unit	Hard disk drive
Т	B/W scanner module/DSPF	AR-EF1	=	Ő	×	Ő	*1	_	_		_		_	-	_	0	_		_	_	-	0	_
	Scanner rack	AR-RK1	Ő ¹	_	X	Ō	*1									0						Ō	_
	Related to paper feed unit Multi purpose drawer Stand/3 x 500 sheet	AR-MU1 AR-D14	×	×	- ×	× –	× ×			×					×				×	×	x	0	
	Stand/MPD & 2000 sheet paper drawer	AR-D13			×	×	_															0	
	Duplex module/bypass tray	AR-DU4			(D ^{*1}		-		X					X							Ő	
	Duplex module	AR-DU3			(D*1			-													Č	
A	Output units Saddle stitch finisher Finisher Mail-bin stacker	AR-FN7 AR-FN6 AR-MS1			×	0 [°] 0 ^{*1}	*1	×	0	- ×	× - ×	× –	×	××	×							0000	
	Exit trav	AR-TE3				_		0	*1	X	X	X	_		X							_	_
	Upper exit tray extension	AR-TE4						-			X	X		-									
	Punch unit	AR-PN1			X	0	*1	X	0	0	Х		Х		-							0	_
	Related to extension of functions and others																						
	PS3 expansion kit	AR-PK1																-					
	Network scanner expansion kit	AR-NS2	0 ^{*1}	0	×	0 [*]	1									0	0		-				
	Facsimile expansion kit	AR-FX5	0 ^{*1}	0	X	Ő	⊧ 1									0				-			
	Fax memory (8 MB)	AR-MM9	Ő	0	×	O,	*1									0				0	-	0	
	Power supply unit	AR-DC1																				-	
	Hard disk drive	AR-HD3																					-
	Multi-function controller board	AR-M11	0 ^{*1}	0	×	0 [*]	1									-							
	Print server card	AR-NC5J															—						

O = Must be installed together. O^{*1} = Any of the units must be installed together. O^{*2} = Must be installed for installation of the stand/3 x 500 sheet paper drawer or the stand/MPD & 2000 sheet paper drawer. χ = Cannot be installed together.

[3] SPECIFICATIONS

1.Basic Specification

A.Base Engine

(1) Form

AR-P350 / AR-P450

(2) Engine speed

Paper size	AR-P350	AR-P450
A4, 8.5" x 11"	35ppm	45ppm
A5R/5.5" x 8.5"R	35ppm	45ppm
B5	35ppm	45ppm
B4/8.5" x 14	20ppm	22ppm
A3/11" x 17"	17ppm	20ppm

Desktop

(3) Engine composition

Photoconductor type	OPC (diameter of photoconductor : ø30mm)
Record method	Electrophotograph (laser)
Development method	Dry-type dual-component magnetic brush
	development
Charge method	Charged saw-tooth method
Transfer method	Transfer roller
Cleaning method	Counter blade
Fusing method	Heat roller
Used toner disposal	Toner recycling system

(4) Engine resolution

Resolution	Write :600dpi
Smoothing	Write :1200dpi equivalent
Gradation	Write :2 levels

(5) Printable area

The print area of this product is shown below.



If a printer driver for Windows or Macintosh is used for printing, the printable area will be smaller. The actual printable area depends on the printer driver to be used.

(in mm)

Paper size	А	В	С	D	Е
A3	297	420	4	289	4
B4	257	364	4	242	4
A4	210	297	4	202	4
B5	182	257	4	168	4
A5	148	210	4	140	4
Japanese postcard	100	148	4	92	4
Ledger	279	432	4	271	4
Legal	216	356	4	208	4
Foolscap	216	330	4	208	4
Letter	216	279	4	208	4
Executive	184	267	4	183	4
Invoice	140	216	4	132	4
Com-10(envelope)	105	241	4	97	4
C5(envelope)	162	229	4	154	4
Monarch(envelope)	98	191	4	90	4
DL(envelope)	110	220	4	102	4
ISO B5(envelope)	176	250	4	168	4

(6) Warm-up

Warm-up time	less than 80 seconds
Pre-heat requirement	Required
Jam recovery time	Target: about 30 seconds
	(Under standard condition of 60 seconds left
	after side cover opening, polygon motor halt)

(7) Power source

Voltage	100V system	200V system	
	100-127V	220-240V	
Frequency	50/60Hz	50/60Hz	
Power cord			

(8) Power consumption

	AR-P350	AR-P450
Max. Power consump.	1350W	1350W
Average waiting mode	1200W	1200W

(9) Energy Star benchmark

	AR-P350	AR-P450
Low power mode	40W	75W
Transition time to Low power mode	60min	60min

(10) Noise

	AR-P350	AR-P450
At working	less than 6.7B	less than 6.7B
At waiting mode	less than 4.8B	less than 4.8B

* Showing noise benchmark in each model as a whole system.

(11) Dimensions

External dimensions *	654 x 567 x 593 (WxDxH) (mm)
Occupied space dimensions *	654 x 567 (W x D) (mm)
Weight	Approx. 39 kg
	Approx. 50 kg
	(with multi purpose tray and
	Upper exit tray extension)

* With multi purpose tray (AR-MU1)

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AR-P350 SPECIFICATIONS 3-1

B. Document Feeding Equipment

(1) One-drawer tray (included in the base engine)

Paper feed method	One-drawer tray		
Sizes to be fed	A4, B5, 8.5" x 11"		
Paper capacity	500 sheets (at 80g/m ²)		
Media available for	Plain paper 60 - 105g/m ² , 16 - 28lbs		
paper feeding			
Paper type	Plain, recycled, pre-printed, pre-punc	hed,	
	color, letter head		
Paper size switching	To be switched by user		
	(paper size to be entered from the operation		
	panel).		
Dehumidification	Not provided		
heater			
Balance detection	Provided (paper empty and 3 steps)		
Default size setting	100V system 200V		
	system		
	8.5" x 11" A4		
Mounting/demounting of the tray	Provided		

C. Output Equipment

(1) Face-down Exit Tray (included in the base engine)

Output position/	Face-down output at the upper side of main		
method	unit		
Output paper capacity	400 sheets (80g/m ² sheet)		
Output paper size	A3, B4, A4, A4R, B5, B5R, A5R		
	11 " x 17", 8.5" x 14", 8.5" x 13", 8.5" x 11 ",		
	8.5" x 11 "R, 5.5" x 8.5"R		
	Executive, postal card, Monarch (98 x 191)		
	Com-10 (105 x 241), DL (110 x 220),		
	C5 (162 x 229), ISO B5 (176 x 250)		
Spec of media for	Tracing paper : 52 ~ 59g/m ² / 14 ~ 15lbs		
paper output	Plain paper : 60 ~ 128g/m² / 16 ~ 34lbs		
	Index paper : 176g/m ² / 47lbs		
	Cover paper : 205g/m ² / 54 ~ 55lbs		
	Transparency firm		
Remaining paper	Not provided		
detection			
Exit tray full detection	Provided		

2.Printer Function Specification

A. Platform

IBM PC/AT (Include compatible machine) Macintosh (680x0), Power Macintosh, iMac, G3Macintosh

* For Macintosh OS, the AR-PK1 is required.

B. Support OS

Custom PS	Windows 95/98/Me
	Windows NT 4.0
	Windows 2000
	Mac OS 7.6 to Mac OS 9
Custom	Windows 95/98/Me
PCL5e/6(XL)	Windows NT 4.0
SPDL	Windows 2000
PPD	Windows 95/98/Me
	Windows NT 4.0
	Windows 2000
	Mac OS 8.5.1 - Mac OS 9

For Macintosh OS, the AR-PK1 is required.

C. PDL emulation

*

PCL6 compatible, PCL5e compatible, PostScript Level 2 compatible, PostScript 3 compatible

D. Print Function

(1) General

		When an optional PS3 expansion kit is installed		
Function	PCL5e/ PCL6	PS	PPD (Windows)	PPD (Macintosh)
Copies	1 - 999	1 - 999	1 - 999	1 - 999
Orientation	Yes	Yes	Yes	Yes
Duplex print	Yes	Yes	Yes	Yes
Saddle stitch	Yes	Yes	No	N/A
Binding edge	Left/top/ right	Left/top/ right	Long/short	Long/short
N-up	2/4/6/8	2/4/6/8	2/4*3*4	2/4/6/9/16
N-up direction	Fixed	Fixed	Fixed	Selectable
N-up border line	Yes	Yes	Yes(always)	Yes

(2) Paper input

		When an installed	optional PS3 e	xpansion kit is
Function	PCL5e/	PS	PPD	PPD
	PCL6		(Windows)	(Macintosh)
Paper size	Yes	Yes	Yes	Yes
Custom paper size	1 size	1 size	3 sizes*3*5	N/A
Source selection	Yes	Yes	Yes	Yes
Different first page	Yes	Yes	N/A	Yes
Transparency inserts	Yes	Yes	N/A	Yes

(3) Paper output

		When an optional PS3 expansion kit installed		
Function	PCL5e/	PS	PPD	PPD
	PCL6		(Windows)	(Macintosh)
Output tray selection	Yes	Yes	Yes	Yes
Mail bin	Yes	Yes	Yes	Yes
Staple	Yes	Yes	Yes	Yes
Offset	Yes	Yes	Yes	Yes
Punch	Yes	Yes	Yes	Yes

(4) Graphic

		When an optional PS3 expansion kit is installed		
Function	PCL5e/ PCL6	PS	PPD (Windows)	PPD (Macintosh)
Resolution	600/300 dpi	600 dpi	600 dpi	600 dpi
Halftone	N/A	Yes	Yes	N/A
Graphic mode	Yes	N/A	N/A	N/A
Smoothing	Yes	Yes	Yes	Yes
Toner save	Yes	Yes	Yes	Yes
Photo enhancement	Yes*8	Yes	N/A	N/A
Negative image	N/A	Yes	Yes	Yes
Mirror image	N/A	Horizontal/ vertical	Horizontal	Yes
Zoom	N/A	N/A	Yes	Yes
Fit to page	Yes	Yes	N/A	N/A

Function

 When an optional PS3 expansion kit is installed

 PCL5e/
 PS
 PPD
 PPD

 PCL6
 (Windows)
 (Macintosh)

 45 fonts
 136 fonts
 136
 35 fonts

Resident font	45 fonts	136 fonts	136	35 fonts
			fonts*6	
Download font	Bitmap	Bitmap	Bitmap	N/A
	TrueType,	Type1	Type1	
	Graphic	TrueType	TrueType	

(6) Others

		When an opti installed	n optional PS3 expansion kit is J			
Function	PCL5e/	PS	PPD	PPD		
	PCL6		(Windows)	(Macintosh)		
Watermark*7	Yes	Yes	Yes	Yes		
Overlay	Yes	Yes	N/A	N/A		
Job retention*1	Yes	Yes	N/A	Yes		
Account control	Yes	Yes	N/A	Yes		
Custom settings	Yes	Yes	N/A	N/A		
Automatic configuration*2	Yes	Yes	N/A	Yes		
Job end notification	Yes	Yes	N/A	N/A		

* 1 In the models without a hard disk drive, an optional hard disk drive must be installed .

- * 2 Functions when peripheral devices are installed.
- * 3 Not supported in the Windows NT 4.0 environment.
- * 4 2/4/6/9/16 is supported in the Windows 2000 environment.
- * 5 Only one size is supported in the Windows 2000 environment.
- * 6 Only 35 fonts are supported in the Windows NT 4.0 environment.
- * 7 This function is limited for PPD.
- * 8 PCL6 only

E. Compatibility

PCL 5e compatibility	Target for PCL5e is to be compatible with HP LaserJet 4000.
	Small margin difference, rendering difference by
	different font family, default and transfer function
	difference are not to be included in the compatibility.
	All the PJL commands are not necessarily included in
	the compatibility.
PCL6	Target for PCL6 is to be compatible with HP LaserJet
compatibility	4000.
	Small margin difference, rendering difference by
	different font family, default and transfer function
	difference are not to be included in the compatibility.
	All the PJL commands are not necessarily included in
	the compatibility.
PostScript	Roman PostScript is targeted to be compatible with
Compatibility	Adobe PostScript as performed in HP LaserJet 4000.
	Small margin difference, rendering difference by
	different font family, default and transfer function
	difference are not to be included in the compatibility.

3.Expanded RAM

Installation of an expanded RAM will avoid the following status.

- 1) Time out error reduction
- 2) Spool time reduction
- 3) Avoidance of VM error / memory full

Use a commercially available RAM of the following specifications. If a RAM which does not meet the specifications is installed, it may cause a trouble such as that it is not recognized or its capacity is not correctly

<Spesification>

recognized.

DIMM TYPE	168pin 3.3V Unbuffered SDRAM DIMM Non-ECC
DIMM capacity	64MByte, 128MByte, 256MByte
CAS LATENCY	CL=2
SDRAM CLOCK	For PC100, PC133
SPD	Supporting
Parity	Not support
ECC	Not support

<Operation-assured Memory> (As of March / 2001)

Manufacture	Capacity	Model name	RAM CHIP name	Note
Kingston Technology	128MB	KVR133X64C3/ 128	HYB39S64800BT -7.5	
	128MB	KVR133X64C3 -128	D456821G-A75 -9JF	
	256MB	KVR133X64C3 -256	HY57V28820AT-H	
Viking Compornents	64MB	VIK8641CL2	µPD456841G5 -A80-9JF	
	64MB	VIK8641CL2	D456841G5-A80 -9JF	
	128MB	VIK6642CL2	TC59SM708FT-80	
	128MB	VIK6642CL2	D4564841G5-A80 -9JF	
	256MB	VIK2642CL2	TC59SM708FT-80	
Memory Card Technology	64MB	DM864VS65804X -7G	GM72V66841XT75	
	128MB	DM1665VS65804 X-7G	HY57V64820HG	

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AR-P350 SPECIFICATIONS 3-3

[4] CONSUMABLE PARTS

1.Supply system table

A.USA

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450NT	*Life setup is based on A4 6%
					(*1 AR-450NT-J)	
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450ND	
3	Drum	Drum	x1	50K	AR-450DR	
4	50K maintenance kit	Cleaner blade	x1	50K	AR-450KC1	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K maintenance kit	Transfer roller	x1	100K	AR-450KA1	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	Upper heat roller kit	Upper heat roller	x1	200K	AR-450UH	
		Fusing separation pawl (Upper)	x4			
7	Lower heat roller kit	Lower heat roller	x1	100K	AR-450LH	
		Fusing separation pawl (Lower)	x2			
8	Cleaner blade	Cleaner blade	x10	50K(x10)	AR-450CB	AR-450CB=(AR-450BL)x10
9	Cleaning roller	Cleaning roller	x10	200K(x10)	AR-450CR	AR-450CR=(AR-450RC)x10
		Bearing	x20			
10	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 &
						AR-FN6
11	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

*1: For USA Government

Note1: Print on Master/individual carton:Toner/Developer in 2 languages (English/French), DR in 4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

B.CANADA/Latin America

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450NT	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450ND	
3	Drum	Drum	x1	50K	AR-450DR	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:Toner/Developer in 2 languages (English/French), DR in 4 languages (English/French/German/Spanish). Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

C.Europe/Australia/New Zealand

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450T	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450DV	
3	Drum	Drum	x1	50K	AR-450DM	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	х3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	х3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

D.Middle East/ Africa

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450FT	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450SD	
3	Drum	Drum	x1	50K	AR-450DR	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

E.Israel/Russia/CIS/Philippines

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450FT	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450SD	
3	Drum	Drum	x1	50K	AR-450DR	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

F.Asia

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450ST	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450SD	
3	Drum	Drum	x1	50K	AR-450DR	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 &
8	Stanle cartridge	Staple cartridge	v3	5000x3	AR-SC2	Common with cartridge for AP-ENIZ
0	Staple califilitye	Staple calificitye	×2	300083	AIX-002	Common with cartiluge for AR-FIV

Note1: Print on Master/individual carton:4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

G.Hong kong

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450ST-C	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)	-	100K	AR-450SD-C	
3	Drum	Drum	x1	50K	AR-450DR-C	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:2 languages (English/Chinease).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

H.Taiwan

NO	Name	Content		Life	Product name	Remark
1	Toner CA(Black)	Toner(Toner : Net Weight 814g)		27K	AR-450FT-T	*Life setup is based on A4 6%
2	Developer	Developer(Developer : Net Weight 450g)		100K	AR-450SD-C	
3	Drum	Drum	x1	50K	AR-450DR-C	
4	50K PM kit	Cleaner blade	x1	50K	AR-450KC	
		Drum separation pawl	x4			
		Screen grid	x1			
		Toner reception seal	x1			
		Side malt F	x1			
		Side malt R	x1			
		Charging plate	x1			
5	100K PM kit	Transfer roller	x1	100K	AR-450KA	
		Discharging plate	x1			
		Paper dust removing unit	x1			
		DV blade	x1			
		DV side seal F	x1			
		DV side seal R	x1			
6	200K PM kit	Upper heat roller	x1	200K	AR-450KB	
		Lower heat roller	x1			
		Fusing separation pawl (Upper)	x4			
		Fusing separation pawl (Lower)	x2			
		Cleaning roller	x1			
		Bearing	x2			
7	Staple cartridge	Staple cartridge	x3	3000x3	AR-SC1	Common with cartridge for AR-FN4 & AR-FN6
8	Staple cartridge	Staple cartridge	x3	5000x3	AR-SC2	Common with cartridge for AR-FN7

Note1: Print on Master/individual carton:4 languages (English/French/German/Spanish).

Note2: Packed with machine: DR 50K/Developer UN/Process UN

Note3: The other maintenance parts which are not listed above are registered as service parts.

2. Production number identification

A. Drum cartridge

The lot number, printed on the front side flange, is composed of 10 digits, each digit showing the following content:

1	2	3	4	5	6	7	8	9	10
1	Number								
	For this model, this digit is 2.								
2	Alphat	bet		•					
	Indicat	es the	model o	conform	ity code	e. T for	this mo	del.	
3	Numbe	ər							
	Indicat	es the	end dig	it of the	produc	tion ye	ar.		
4	Numbe	er or X,	Y, Z						
	Indicat	es the	product	ion mo	nth.				
	X stan	ds for C	October,	Y Nov	ember,	and Z I	Decemb	oer.	
5/6	Numbe	ər							
	Indicat	es the	product	ion day	on the	month.			
7	Numbe	er or X,	Y, Z						
	Indicat	es the	month o	of packi	ng.				
	X stan	ds for C	October,	Y Nov	ember,	and Z [Decemb	er.	
8/9	Numbe	ər							
	Indicat	es the	day of t	he mon	th of pa	icking.			
10	Alphat	pet							
	Indicat	es the	product	ion fact	ory. "A"	tor Na	ra Plant		

B. Toner cartridge

The lot number is of 7 digits, and each digit indicates as follows. The lot number shall be printed in the position shown in the figure.



- Version number (A sequentially revised) 1
- 2 Numeral figure Indicates the end digit of the production year. 3 Alphabet
- Indicates the production factory. (B for SOCC)
- 4 Destination code
- Numeral figures 5,6
- Indicates the production day.
- 7 Numeral figure or X, Y, Z Indicates the production month. X stands for October, Y November, and Z December.



C. Developer cartridge

The lot number is of 10 digit, and each digit indicates as follows. The lot number shall be printed on the bag.

1	2	3	4	5	6	7	8	9	10	
1	Number									
	For this	s mode	, this d	igit is 2						
2	Alphab	bet		0						
	Indicat	tes the r	nodel d	conform	ity code	e. T for	this mo	del.		
3	Numbe	ər								
	Indicat	tes the e	end dig	it of the	produc	ction year	ar.			
4	Numbe	er or X,	Y, Z							
	Indicat	tes the p	product	ion mo	nth.					
	X stan	ds for C	ctober	, Y Nov	ember,	and Z I	Decemb	ber.		
5/6	Numbe	ər								
	Indicat	tes the p	product	ion day	on the	month.				
7	Numbe	er or X,	Y, Z							
	Indicat	tes the r	nonth (of packi	ng.					
	X stan	ds for C	ctober	, Y Nov	ember,	and Z I	Decemb	ber.		
8/9	Numbe	ər								
	Indicat	tes the o	day of t	he mon	ith of pa	acking.				
10	Alphab	bet								
	Indicates the production factory. "A" for Nara Plant.									

3. Environmental conditions

A. Operating conditions



(Without dew condensation)

B. Storage conditions



[5] EXTERNAL VIEWS AND INTERNAL STRUCTURES

1.Appearance



1	Bypass tray	*	2	Exit tray *	3	Duplex module *
4	Upper paper output area		5	Upper exit tray extension *	6	Operation panel
7	Front cover		8	Main switch	9	Paper tray 1
10	Stand / 3 x 500 sheet paper drawer	*	11	Stand / MPD & 2000 sheet paper drawer *	12	Multi purpose drawer *

* 1, 2, 3, 5, 10, 11, and 12 are peripheral units. The configuration of peripheral units varies with the main unit model.

2.Internal



1	Duplex module side cover	2	Side cover open knob	3	Fusing unit
4	Developer cartridge	5	Toner cartridge	6	Photoconductive drum
7	Cartridge lock lever				

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AR-P350 EXTERNAL VIEWS AND INTERNAL STRUCTURES 5-1

3.Operation panel

* This operation panel is valid only when a scanner unit is not installed.



1	Message display	2	[ERROR] indicator	3	[DATA] indicator
4	[READY] indicator	5	[MENU] key	6	[▲/▼] keys
7	[BACK/C] key	8	[OK] key	9	[INFORMATION] key

<Function of each LED>

	READY	DATA	ERROR
ON	Print job reception enable	When RIP-completed print data are stored in memory.	When a trouble which can be canceled by the user occurred.
Flash		When data are processed in the printer board (during RIP).	When a trouble which requires service call occurred.
OFF	Print job reception disable	Neither print data nor data under process are stored.	No trouble

* RIP:Raster In Processor. Develops the print command into pixel information.

4. Cross sectional view



No.	Name	No.	Name
1	OPC drum	15	Upper heat roller
2	Main charger	16	Pressure roller
3	Cleaning blade	17	Heater lamp
4	LSU	18	Thermistor (RTH1 / RTH2)
5	Developing unit	19	Thermostat
6	Magnet roller	20	Fusing back roller
7	Toner hopper	21	Reverse gate
8	Transfer roller	22	Paper exit roller
9	Resist roller	23	Full detection lever
10	Paper transport roller	24	Printer operation PWB
11	Machine tray (Paper tray1) paper feed roller	25	Printer control PWB
12	Machine tray (Paper tray1) separation roller	26	Power supply unit
13	Machine tray (Paper tray1) take-up roller	27	Cleaning roller
14	Machine tray (Paper tray1) rotating plate		

5. Switch, Sensor



	Code	Function/Operation	Active condition
1	DSW-F	Front door open/close detection	H= Door open
2	DSW-L	Left door open/close detection	H=Door open
3	POD1	Paper exit detection	L= Paper detection
4	POD2	Paper exit detection	L= Paper detection
5	POD3	Paper exit detection Full	L= Paper detection
6	PPD1	Paper transport detection	L= Paper detection
7	TCS	Toner concentration sensor	
8	TUD	Paper feed cassette upper limit detection	H= Upper limit detection
9	PED	Paper feed cassette paper empty detection	L= Paper empty detection
10	MAIN SW	Power switch	



	Name	Function/Operation
1	PRT controller	Image process, image data communication control
2	PCU PWB	Overall control of the machine and options
3	Power supply unit	DC power supply
4	LD PWB (Inside LSU)	Laser ON control (Inside LSU: LSU cannot be disassembled.)
5	Mother PWB	Signal interface between PCU and the controller
6	Filter PWB	AC power input
7	Printer operation PWB	Key input, machine state display
8	High voltage resistor PWB	High voltage load adjustment
9	Cassette detection PWB	Paper cassette control
10	Drawer PWB	Fan control
11	High voltage PWB	High voltage power supply
12	Fuse PWB	Protection of the machine when an abnormal power is supplied.

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AR-P350 EXTERNAL VIEWS AND INTERNAL STRUCTURES 5-5

7. Motor, Clutch, Solenoid



	Code	Function/Operation	Туре
1	DM	Drum motor	Brushless motor
2	MM	Main motor	Brushless motor
3	DSBM	Paper exit motor	Stepping motor
4	ТМ	Toner motor	Synchronous motor
5	LUM	Lift-up motor	Synchronous motor
6	VFM2	Heat exhaust fan motor	Fan motor
7	VFM1	Cooling fan motor	Fan motor
8	CFM1	Suction fan motor	Fan motor
9	FM	Controller cooling fan motor	Fan motor
10	CFM2	Ozone exhaust fan motor	Fan motor
11	CPFC	Paper cassette paper feed clutch	
12	TRC	Paper transport clutch	
13	PSPS	Separation solenoid	
14	RRC	Resist roller clutch	

[6] UNPACKING AND INSTALLATION

1. Installing procedure flowchart

There are many combinations between this machine and option units. For installing option units, observe the following procedures for efficiency.

To install the devices effciently, follow the procedure below. Some peripheral devices may have been installed as standard devices depending on the main unit model. Part of descriptions and illustrations may be different.





* For installation of an option unit, refer to the Service Manual of the option unit.

2. Note for installation place

Improper installation may damage this product. Please note the following during initial installation and whenever the machine is moved.

- 1) The machine should be installed near an accessible power outlet for easy connection.
- Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements. Also make certain the outlet is properly grounded.

•For the power supply requirements, see the name plate of the main unit.

Do not install your machine in areas that are:
 •damp, humid, or very dusty

•exposed to direct sunlight

•poorly ventilated

•subject to extreme temperature or humidity

changes, e.g., near an air conditioner or heater.

4) Be sure to allow the required space around the machine for servicing and proper ventilation.



3. Unpacking procedure



Check the following items are included in the package.

Developer	
Toner cartridge for installation	
CD-ROM for AR-350/450 series printers	
Operating Manual	
Counter kit contract	

4. Machine installing procedure

Note: In advance to installation of the machine, the paper feed option units (AR-MU1, AR-D13 or AR-D14) should have been installed.

A. Removal of the machine

1) Remove the cushioning materials from the right and left of the front side.



- Remove the locking tape from the right and left sidesof the tray. Then,Remove the top of the carton and lower the plastic bag covering the machine while the machine is still on the carton base.
- 3) Remove the packing tape from the paper tray, pull out the paper tray until it stops and remove it by tilting it upward.



4) One person must lift by the empty front tray pocket with the right hand and steady the machine with the left hand placed at the upper left of the machine.

The other person must lift with the right hand by using the lifting recess in the rear of the machine and also steady the machine with the left hand as shown in the illustration.



Note: The center of gravity of the machine lies in the left side when viewed from the Back of machine. When lifting the machine, be careful not to drop it.

B. Installation of paper feed options to the machine

- Note: Before use of this machine, one of the paper feed option units (AR-D13/AR-D14/AR-MU1) should be installed to the machine for safety reasons.
 - Refer to the drawing of the AR-MU1 in this manual.
- Put the machine on the previously installed option unit. Be sure to check that the boss of the option unit is securely engaged with the machine and that the external lines (front and left sides) of the option unit and those of the machine are aligned completely.



2) Connect the machine with the option unit.





- 3) Install the option power source (AR-DC1).
- * For necessity of installation, refer to the option combination.
- * For the installing procedure, refer to the AR-DC1 Service Manual.

C. Setting related to process

1) Open the left door and the front door.



2) Remove the developer cartridge from the machine.



3) Remove the top cover of the developer cartridge.



 While rotating the MG roller, supply developer into the developer cartridge evenly.B

Note: Before opening the developer seal, shake it 4 or 5 times.



5) Attach the top cover to the developer cartridge and install the WWW.SERVICE-MA cartridge to the machine.

AR-P350 UNPACKING AND INSTALLATION 6-3

D. Setting related to fusing

1) Put down the right and the left levers of the fusing unit in the arrow direction.



E. Paper setting

1) Pull out the first stage paper feed tray. Slowly pull out the tray until it stops.



2) While pressing the paper holding plate, remove the fixing pin.



3) Put paper in the tray, and close the paper feed tray.

F. Automatic developer adjustment

- 1) Attach the cabinets which were removed.
- 2) Close the left door and the front door.
- 3) Insert the power plug into the power outlet.
- 4) While pressing the [MENU] key and the [OK] key, turn on the power switch, and the machine will enter the diag mode.
- 5) On the operation menu, select "AUTOMATIC DV AD."

(LCD Display)

AUTOMATIC	DV	ADJ.	
			128

6) Press the [OK] key, and the automatic developer adjustment will be performed.

During execution of the automatic developer adjustment, the data (LED) blinks and the LCD indicates the toner sensor value.

 After about 2 min, the adjustment value is stored in the machine. Check that the mode was normally completed.

Normal end: The data LED goes off.

Abnormal end: The error LED lights up.

Remove the cause of the error, and execute the automatic developer adjustment again.

8) Turn off/on the power, and the machine returns to the normal mode and enters the warm-up mode.

G. Print test

- After completion of warm-up (normal mode), Press the [MENU] key to display "USER SETTING."
- 2) Press the [OK] key to select the menu.
- Use [▲] and [▼] keys to select List Print, and print the user setup list to check the print quality.
- 4) Press the [MENU] key again to return to the normal menu.

5. Option expansion memory installation

A. Hard disk (ARHD3), print server card (AR-NC5J), expansion memory (commercially available one)

Note:Before performing this installation work, check that the data lamp on the operation panel is neither lighting nor blinking.

- 1) Turn off the power of the machine and disconnect the power plug from the power outlet.
- 2) Remove all the cables (such as printer cables) from the control PWB.
- ★ In the case of the printer control PWB :★ In the case of the MFP control PWB





4) Install each option.

<Printer model>



Note:To prevent breakage by static electricity, take the following measures.

- a. Use an earth band for installing procedures.
- Keep the memory in the protection bag, and remove it from the bag only just before installation.
- 5) Install the control PWB to the machine.
- 6) Attach the cables which were removed before installation of the memory.
- 7) Insert the power plug into the power outlet, and turn on the power.

B. Print test

- 1) Press the [MENU] key to display "USER SETTING."
- 2) Press the [OK] key to select the menu.
- Use [▲] and [▼] keys to select List Print, and print the setup list or demonstration page to check the print quality.
- 4) Press the [MENU] key again to return to the normal menu.

C. PS3 expansion kit (AR-PK1) product key input procedure

- 1) Enter the key operator program mode.
- 2) Select the PS3 expansion kit product key input menu.
- 3) Enter the product key which was acquired in advance.
- * To acquire the soft key, the application number which is specified on "AR-PK1 Installation Manual" of the AR-230/270 series and the product series number of the printer are required.

D. Other options

For installation of the other options, refer to the Service Manual of each option.

6. Connecting the machine to a computer

1) Connect the machine to the computer

a.When connecting to a parallel port

The parallel interface of this machine conforms to IEEE - STD - 1284 - 1983.

Use a commercially available shielded type parallel interface cable conforming to the specifications of both the machine and the computer. The connector on this machine is a 36-pin Amphenol female connector.



For the specifications of the connector on the computer, see the operation manual of the computer.

Parallel interface connector



b.When using this machine as a network printer

A Print Server Card (AR-NC5J) is required to connect the machine to a network. See the separate installation manual for and also the manual contained in PDF format on the CD supplied with the print server card.

- * If another peripheral device must be installed, carry out the following step at the end of the installation work.
- 2) Insert the power plug into an outlet.
- Caution: If the outlet is also used for lighting fixtures, the lighting fixtures may flicker.
 - Use an outlet which is not connected to lighting fixtures.
- 3) Turn on the main switch of the main unit.

Automatic level adjustment of toner density sensor will start and a message indicating [WARMING UP] will appear on the operation panel. After the level adjustment is complete, the ready indicator will light up.

Caution: While automatic adjustment of the toner density sensor is being done, do not turn the power to the machine off. This will cause improper adjustment.

[7] DISASSEMBLY AND ASSEMBLY, MAINTENANCE

1. Self print of setup value

By using the self print mode (Pattern 98) of diag, the setup values and the jam history of the machine can be printed. Before maintenance and disassembly procedures, they must be printed in advance.

2.Maintenance System Table

A. Engine section

imes Check (Clean, replace,	⊖ Clea	▲ Replace			∆ Adjust			☆L	M _ubricate	laintenance cycle : 50K □ Move position		
Unit name	Part name	When calling	50K	100K	150K	200K	250K	300K	350K	400K		Remark
Drum peripheral	Drum										Installed w	hen shipping
	Cleaner blade											
	Toner reception seal											
	Side molt											
	Transfer roller	×	X		X		X		X			
	Discharge plate	×	×		×		×		×			
	TR bearing (F/R)			×		×		×				
	Transfer roller collar			X		X		X				
	After-transfer star ring			×		×		×		×		
	TR gear	×	×	×	×		×	×	×			
	Screen grid	(O)×										
	Drum separation pawl UN											
	Charger case (M/C)		0	0	0	0	0	0	0	0		
	Charging plate (saw teeth)	(
Developing section	Developer		X		×		X		×		Supplied v	vhen installing
	DV blade		×		×		×		×			
	DSD collar		0	0	0	0	0	0	0	0		
	DV side seal F		X		X		X		X			
	DV side seal R		X		X		X		X			
	Toner cartridge										Attached v EX Japan: user replace	vhen installing./ 814g, cement for every 27K.
Fusing section	Upper heat roller		0	0	0		0	0	0			
	Lower heat roller		0	0	0		0	0	0			
	Upper separation pawl											
	Lower separation pawl											
	Thermistor		0	×	0	×	0	×	0	×	Clean and	remove paper dust.
	Upper heat roller gear		×	×	×		×	×	×			
	Paper guides	0	0	0	0	0	0	0	0	0		
	Gears		☆	☆	☆	☆	☆	☆	☆	☆		
	Cleaning roller		×	×	×		×	×	×			
	CL roller collar											
Filters	Ozone filter											
Paper feed section	Paper feed roller	0	0	×	0	×	0	×	0	×	Note 1	
	Torque limiter	×		×		×		×		×	Note 1	
Transport section	PS follower roller	0	0	0	0	0	0	0	0	0		
Paper exit reverse section	Transport rollers	0	0	0	0	0	0	0	0	0		
	Transport paper guides	0	0	0	0	0	0	0	0	0		
	Paper dust remover		X		X		X		×			
Drive section	Specified position	☆	☆	☆	☆	☆	☆	☆	☆	☆		
	Belts							\times				
Image quality		×	×	×	\times	×	×	\times	\times	×		
Other	Sensors		1	×		×	1	×		×		

Note 1:Replacement reference: Use the counter value of each paper feed port as the replacement reference. Paper feed roller/Torque limiter section 80K of 2 years NUAL.NET

B. Peripheral devices

imes Check (Clean, replace, or adjust as necessary.)

Maintenance cycle : 50K

☆ Lubricate

 \Box Move position

△ Adjust

Option name	Part r	name	vvnen calling	50K	100K	150K	200K	250K	300K	350K	400K	Remark
ADU + Manual feed	Paper feed separation section	Paper feed rollers	(0	×	0	×	0	×	0	×	Note 3
		Separation pad	(0)×	0	X	0	X	0	X	0	X	Note 3
		Torque limiter	$(0) \times$	-	X	-	X	_	X	_	X	Note 3
	Transport section	Transport rollers	0	0	0	0	0	0	0	0	0	
		Transport paper guides	0	0	0	0	0	0	0	0	0	
	Drive section	Gears	☆		☆		☆		☆		\$	(Specified position)
		Belts							X			
	Other	Sensors	×		X		X		X		X	
Desk (Multi stage LCC)	Paper feed separation section	Paper feed rollers	(0)×	0	×	0	×	0	×	0	×	Note 3
Multi purpose		Torque limiter	(0) X		X		X		X		Х	Note 3
	Transport section	Transport roller	0	0	0	0	0	0	0	0	0	
		Transport paper guides	0	0	0	0	0	0	0	0	0	
	Drive section	Gears	*		☆		☆		☆		ঠ	(Specified position)
		Belts	~				~		X			
	Other	Sensors	×		X		X		X		X	
Finisher	Transport section	Transport rollers	0		$\hat{\mathbf{O}}$		$\hat{\mathbf{O}}$		$\hat{\mathbf{O}}$		0	
		De-curler roller	(0)	×	0	×	0	×	0	×	0	
		Transport paper guides	0		0		0		0		0	
	Drive section	Gears	<u>\$</u>		*		Å		*		*	(Specified position)
		Belts	~		~		~		X		~	
	Other	Sensors	×		X		X		X		×	
		Discharge brush	×		X		X		X		×	
	Staple un										//	Replace UN at 100K staple.
	Staple cartridge											User replacement for every 3000pcs.
Mail-bin	Transport section	Transport roller	0		0		0		0		0	
stacker		Transport paper guides	0		0		0		0		0	
	Drive section	Gears	☆		☆		☆		☆		☆	(Specified position)
		Belts							×			
	Other	Sensors	×		X		X		X		Х	
		Discharge brush	×		X		X		X		Х	
Saddle finisher	Transport section	Transport roller	0		0		0		0		0	
		Transport paper guides	0		0		0		0		0	
	Drive section	Gears	☆		☆		☆		☆		☆	(Specified position)
		Belts							×			
	Other	Sensors	×		×		×		×		\times	
		Discharge brush	×		×		×		×		\times	
	Staple UN	<u> </u>										Replace UN at 100K staple (including the staple UN and the holder section).
	Staple cartridge											User replacement for every 5000 pcs.

 \bigcirc Clean

▲ Replace

Note 3: Replacement reference: Use the counter value of each paper feed port as the replacement reference. Paper feed roller/Separation pad/Torque limiter section: 80K or 2 years

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AR-P350 DISASSEMBLY AND ASSEMBLY, MAINTENANCE 7-2

3. Disassembly and assembly

Note:

•When assembling, check that the flat cable and the harness connectors are securely connected.

•When connecting the flat cable, be careful not to break the pins.

•When installing the PWB unit and the memory module, use an earth band to prevent against breakage by static electricity.

A. Exterior

(1) Right cabinet/Right rear cabinet

Remove the right cabinet, and then remove the right rear cabinet.



(2) Rear cabinet



(3) Left door unit

(4) Paper exit upper cabinet/Front left upper cabinet/ Left rear cabinet



(5) Upper cabinet/Operation panel/Front door



B. Drum peripheral

(1) Drum cartridge

No.	Name	Job item	Cycle
1	Drum	Replace	50K
2	Cleaner blade	Replace	50K
3	Toner reception seal	Replace	50K
4	Side molt F	Replace	50K
5	Side molt R	Replace	50K
6	Transfer roller	Check	50K
		Replace	100K
7	Discharge plate	Check	50K
		Replace	100K
8	TR bearing (F/R)	Check	100K
9	Transfer roller collar	Check	100K
10	After-transfer star ring	Check	100K
11	TR gear	Check	50K
		Replace	200K
12	Screen grid	Replace	50K
13	Drum separation pawl UN	Replace	50K
14	Charger case(M/C)	Cleaning	50K
15	Charging plate(saw teeth)	Replace	50K





(2)Charger case



(3) Screen grid

(4) Main charger

Loosen the screw and remove the charger.



(5)OPC drum/DSD collar

* When removing the drum, place the cartridge as shown in the figure, and then remove.



Note: When replacing the OPC drum, cleat the following counters:

•Drum rotating time counter •Drum counter

When installing a new OPC drum, apply starting powder to it. When assembling, attach the DSD collar R to the frame. When installing the collar, engage the collar boss with the hole in the drum frame.





(6) Drum separation pawl



* Be careful not to break the tip of the separation pawl.



(7)Cleaner blade

When removing the cleaning blade, toner may spill.
 Refer to the figure.



C. DV cartridge

No.	Name	Job item	Cycle
1	Developer	Check	50K
		Replace	100K
2	DV blade	Check	50K
		Replace	100K
3	DV side seal F	Check	50K
		Replace	100K
4	Dv side seal R	Check	50K
		Replace	100K

(1) DV cartridge











- Note: After developer is replaced, clear the following counters: •Developer counter
 - •Developing motor RPM counter

When new developer is supplied, be sure to perform the auto DV adjustment.

Before execution of the "automatic DV adjustment," be sure to clear the above counter.

(4) F cover/gear/clutch



(5) Bottom cover/Process Thermistor



D. Transfer roller unit

No.	Name	Job item	Cycle
1	Transfer roller	Check	50K
		Replace	100K

With the left door open, the transfer roller unit can be removed.



(1) Discharge plate



(2) Transfer roller



* When assembling, first assemble the front side and insert it into the case. Then install the rear side. That is an easy method of assembly.

AR-P350 DISASSEMBLY AND ASSEMBLY, MAINTENANCE 7-6

E. Fusing unit

No.	Name	Job item	Cycle
1	Upper heat roller	Cleaning	50K
		Replace	200K
2	Lower heat roller	Cleaning	50K
		Replace	200K
3	Upper separation pawl	Replace	50K
4	Lower separation pawl	Replace	50K
5	Thermistor	Cleaning	50K
		Check	100K
6	Upper heat roller gear	Check	50K
		Replace	200K
7	Paper guides	Cleaning	50K
8	Cleaning roller	Check	50K
		Replace	200K
9	CL roller collar	Replace	200K

With the left door open, the fusing unit can be removed.





(1)Lower separation pawl



(2)Upper separation pawl



(3) Lower heat roller







(5)Heater lamp

Be careful not to mistake the installing position of the heater lamp.



(6)Upper heat roller





F. Ozone filter (1)Ozone filter



(2)Ozone filter

Note: Not subject to maintenance This part is not included in the PM kit.





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G. Paper feed section

No.	Name	Job item	Cycle
1	Separation roller	Replace	80K
2	Pick-up roller	Replace	80K
3	Paper feed roller	Replace	80K

(1)Paper guide



(2)Separation roller/torque limiter



(3)pick-up roller/ paper feed roller



(4)Belt



(5)Upper limit sensor/paper empty sensor



H. Paper dust removing unit

No.	Name	Job item	Cycle
1	Paper dust remover	Check	50K
		Replace	100K



I. Resist roller unit

No.	Name	Job item	Cycle
1	Paper transfer roller	Cleaning	50K
2	Resist roller	Cleaning	50K

* Before removing this unit, remove the paper dust removing unit in advance.



* Note that the harness is connected to the back of the unit.





J. Paper exit unit

No.	Name	Job item	Cycle
1	Transport paper guide	Cleaning	50K





(2) Resist sensor



(1)Paper exit upper paper guide unit

4) 4) 4) 4) 4) 4) 5) 5) 6) 1) 6)

(2)Paper exit sensor/switch-back sensor



(3)Paper exit sensor 2



(5)Paper exit motor

(4)Paper exit roller



(6)Paper exit drive section




K. Main motor/drum motor



L. PCU PWB

Note: When replacing the PCU PWB, remove the EEPROM from the PCU PWB and install it to a new PWB.



M. PCU PWB base plate unit



N. Main drive unit

| No. | Name | Job item | Cycle |
|-----|--------------------|-----------|-------|
| 1 | Specified position | Lubricate | 50K |





(1)Drive gear



Remove the PS unit and apply grease to the bottom of the PS front roller section brake.



P. Fuse PWB



(2) Clutch



O. High voltage PWB







Q. Power unit peripheral (1)Power switch







(3) Filter PWB



(4) Power PWB



R. Printer operation PWB



S. Mother PWB













Note: When the LSU is disassembled, the LSU right angle adjustment is required.

U. Controller PWB

Remove five screws and the controller PWB can be removed.



[8] MACHINE OPERATION

1. Function of each LED

| | READY | DATA | ERROR |
|-------|-----------------------------|---|---|
| ON | Print job reception enable | •When RIP-completed print data are stored in memory. | •When a trouble which can be canceled by the user occurred. |
| Flash | | •When data are processed in the printer board (during RIP). | •When a trouble which requires service call occurred. |
| OFF | Print job reception disable | •Neither print data nor data under process are stored. | No trouble |

* RIP:Raster In Processor. Develops the print command into pixel information.

2. Outline of each mode

The menu groups are classified into five groups and are selected consecutively by pressing the [MENU] key. If the [OK] key is pressed when the desired menu screen is displayed, a message will appear to indicate the next required operation.

In addition, there is the service diag mode used for a serviceman.(with the scanner unit installed)



3. Setting mode on Computer side

| Mode | Outline | Remark |
|-------------------------------|---|---|
| Setting by the printer driver | Changed and set according to the print form of each job. | |
| Web menu
frame | Used to set the work board functions from the Web browser (*1). | Only when the NIC board (AR-NC5J) is installed. |

*1: Recommended Web browser Internet Explorer 4.0 or later, Netscape Navigator 4.0 or later

4.Printer environment setup

| | | Set value (Default) |
|---------------|------------------------------|------------------------------|
| Initial setup | Smoothing | YES* • NO |
| | Number of copies | 1* ~ 999 |
| | Print direction | Vertical* • Horizontal |
| | Standard paper feed paper | A3 • B4 • A4* • B5 • A5 |
| | size | 11" x 17" • 8.5" x 14" • |
| | | 8.5" x 13" • 8.5" x 11" • |
| | | 7.25" • 10.5" • 5.5" x 8.5" |
| | Standard paper feed paper | Normal paper, printed paper, |
| | type | recycled paper, |
| | | letter head paper, |
| | | punched paper, color paper |
| | Standard paper exit tray | Differs depending on |
| | | installation of peripheral |
| | | devices. *1 |
| | White paper print inhibition | Inhibit / Allow* |
| SPDL setup | PCL symbol set | See separate table |
| PS setup | | (PS error cause) |
| | | Print / not print * |

5.User setup

| Total print quantity display | |
|-------------------------------------|-------------------|
| LCD contrast adjustment | |
| List print | Setup list |
| | Printer test page |
| Time setup | |
| Paper feed tray setup | |
| Paper feed tray automatic selection | |
| | |

6.Web menu frame

| | | Set value (Default) |
|------------------------|---|---------------------|
| Receiver
management | Email distribution scan receiver
setup | |
| | File server store scan store receiver information setup | |
| | Desktop distribution scan receiver information setup | |
| | FAX receiver information setup | |
| | Internet FAX receiver information setup | |
| | Group receiver information setup | |
| | Confirmation of receiver
information delete | |
| Memory box | Remote send | |
| management | Confidential reception | |
| | Interface broadcast (forward) | |

| | | Set value (Default) |
|------------|-----------------------------|---------------------|
| Management | Network card setup | |
| setup | Password setup | |
| | Network scanner basic setup | |
| | Email status basic setup | |
| | Email system and DNS system | |
| | basic setup | |
| | Email sender setup | |
| | Group index setup | |
| | Email status setup | |
| | | |

7. PCL symbol set

| No. | Symbol set |
|-----|--------------------------|
| 1 | Roman-8 |
| 2 | ISO 8859-1 Latin 1 |
| 3 | PC-8 |
| 4 | PC-8 Danish/Norwegian |
| 5 | PC-850 |
| 6 | ISO 6 ASCII |
| 7 | Legal |
| 8 | ISO 21 German |
| 9 | ISO 17 Spanish |
| 10 | ISO 69 French |
| 11 | ISO 15 Italian |
| 12 | ISO 60 Norwegian v1 |
| 13 | ISO 4 United Kingdom |
| 14 | ISO 11 Swedish:names |
| 15 | PC1004 (OS/2) |
| 16 | DeskTop |
| 17 | PS Text |
| 18 | Microsoft Publishing |
| 19 | Math-8 |
| 20 | PS Math |
| 21 | Pi Font |
| 22 | ISO 8859-2 Latin 2 |
| 23 | ISO 8859-9 Latin 5 |
| 24 | ISO 8859-10 Latin 6 |
| 25 | PC-852 |
| 26 | PC-775 |
| 27 | PC Turkish |
| 28 | MC Text |
| 29 | Windows 3.1 Latin 1 |
| 30 | Windows 3.1 Latin 2 |
| 31 | Windows 3.1 Latin 5 |
| 32 | Windows Baltic (not 3.1) |
| 33 | Windows 3.0 Latin 1 |
| 34 | Symbol |
| 35 | Wingdings |
| | I |

8. Key operator program

| Key operator program | | | Set value (Default) | Pomark |
|----------------------|------------------------------|-----------------------------------|---|-----------------|
| | | ologiani | Engine section LCD | Remark |
| Account | Auditing mode | | ON/OFF* | |
| control | Print per account | Print per account display | ON*/OFF | |
| | | Print per account print | | |
| | Reset account | | | |
| | Account number control | Enter new account number(5digits) | | |
| | | Delete account number | | |
| | | Change account number | | |
| | | Print account number | | |
| | No print if acc't # invalid | | Yes/No* | |
| Energy save | Auto power shut-off timer | | 15min/30min*/60min/120min/240min | |
| Energy save | Auto power shut-off | | Disable/Enable* | |
| | Preheat mode | | 15min*/30min/60min/120min/240min/None | |
| | Toper save | | | |
| Operation | Auto cloor cotting | | 15000/200000/600000*/OEE | |
| panel settings | Auto clear setting | | 155ec/305ec/005ec/0FF | |
| parlor courigo | Message display time | | Sec/osec / Jsec/ 12sec | Densedeethe |
| | Language setting | | American Englisn/Englisn*/French/Spanisn | distination |
| Device | Disable duplex unit | | Yes/No* | |
| settings | Disable stapler unit | | Yes/No* | |
| | Disable paper desk | | Yes/No* | |
| | drawers
Disable finisher | | Yes/No* | |
| | Disable mail-bin stacker | | Yes/No* | |
| | Saddle stitch adjust | Paper size A4 | -3.0mm~0.0mm*~3.0mm (0.1mm unit) | With the |
| | | Paper size B4 | -3 0mm~0 0mm*~3 0mm (0 1mm unit) | saddle finisher |
| | | Paper size A4R | -3.0mm-0.0mm*-3.0mm (0.1mm unit) | installed |
| | | Paper size Ledger | -3.0mm-0.0mm*-3.0mm (0.1mm unit) | _ |
| | | Paper size Letter-P | -3.0mm-0.0mm*-3.0mm (0.1mm unit) | _ |
| Print kov | | | | |
| | | | | |
| program list | | | | |
| Kev operator | Set code | | 00000* | |
| code change | | | | |
| System | Default settings | Print density level | Normal*/DAKER/DARKEST/LIGHTEST/LIGHTER | |
| settings | | Disable notice page printing | Yes*/No | |
| | | Disable test page printing | Yes*/No | |
| | | A4/LT auto select | ON/OFF* | |
| | Interface settings | Hexadecimal dump mode | ON/OFF* | |
| | Ŭ | PDL for parallel port | Auto*/PostScript/PCL | |
| | | PDL for network port | Auto*/PostScript/PCL | |
| | | I/O timeout | 1sec~20sec*~999sec | |
| | | Port switching | Per job*/Timeout/Paralell OFF/Network OFF | |
| | Network settings | IP address setting | IP address 000 000 000 000* | |
| | Notwork Settings | | IP subpet mask 000 000 000 000* | |
| | | | IP gateway 000 000 000 000* | |
| | | Epoble TCP/IP | Voc*/No | |
| | | | Voo*/No | |
| | | | Voo*/No | |
| | | | | |
| | | | | |
| | Intialize (Otana a still say | | | |
| | Intialize/Store settings | Restore factory defaults | | |
| | | Store current configuration | | |
| | DDD | Restore configuration | | |
| Product key | PS3 expansion kit | | | |
| | E-mail alert and status | | | |

9. Canceling a print job and deleting print data

•To cancel a print job in progress and delete the print data:

Press the [BACK/CLEAR] key during printing. Printing will stop and a message asking for confirmation to delete the job will appear. To delete the data, press the [OK] key.

To cancel deletion, press the [BACK/CLEAR] key. Printing will resume. •To delete print data of a reserved job:

Print data transmitted from computers will be stored in this printer (up to 99 jobs) and will be output sequentially. To delete print data of a reserved job before starting printing, press the $[\triangle]$ or $[\bigtriangledown]$ key to display the desired data in the message display.

If you press the [BACK/CLEAR] key at this time, a confirmation message for deletion will appear. To delete the data, press the [OK] key. To cancel deletion, press the [BACK/CLEAR] key. Printing will resume.

10. Setting the paper size and type

When the paper size or type is changed in a paper tray, to the following procedure.

1) Press the [MENU] key repeatedly until "CUSTOM SETTINGS" appears in the message display.



2) Press the [OK] key.

When the [OK] key is pressed, "TRAY SETTING" will appear in the message display.



3) Press the [OK] key.

When the [OK] key is pressed, the message shown below will appear in the message display.



4) Select the desired paper tray.

Press the $[\triangle]$ or $[\bigtriangledown]$ key repeatedly until the desired paper tray is indicated in the display.



5) Press the [OK] key.

The paper size and paper type of the tray selected in step 4) will appear.

V

•If TRAY 1 is selected in step 4), the message shown below will appear in the display.

LETTER PLAIN 6) Press the $[\bigtriangledown]$ key.

•If TRAY 1 is selected in step 4), the message shown below will appear in the display.

| CHANGE | TRAY1 | |
|---------|-------|--|
| SETTING | OK? | |

7) Press the [OK] key.

To cancel the setting change, press the [BACK/C] key to return to step 4).

- NOTE: Special paper such as thick paper, transparency film, labels, and postcards can be set for tray 2 and the bypass tray. Envelopes can be set only for tray 2.
- 8) Select the paper type that has been set in the tray.
- Press the $[\triangle]$ or $[\bigtriangledown]$ key repeatedly until the paper type that has been set appears.

| PLAIN | | |
|-------|--|--|
| OK? | | |

9) Press the [OK] key.

10) Ensure that the desired paper size is selected.

•Press the [\triangle] or [\bigtriangledown] key repeatedly until the desired paper size appears.



•Depending on the selected tray, a selection for"AUTO-AB" and "AUTO-INCH" may appear

"AUTO-AB": Select when you have set AB system paper.

"AUTO-INCH": Select when you have set inch system paper.

When the paper system is changed from the inch system to the AB system or vise versa, the paper type must be designated. Select the paper type.

•If you have set paper of non-standard size, select "NON STANDARD". This size can be selected when tray 2 or the bypass tray has been selected in step 4).

11) Press the [OK] key to terminate the setting.

11. Specifications of paper trays

The specifications for types and sizes of paper for loading paper trays are shown below.

| Tray | | Tray No.
(trav | | Applicable paper types | Applicable paper sizes | Paper weight | |
|---------------------|---------|-------------------------|--------------|---|---|---|--|
| name) | | | | | per neight | | |
| Paper tray 1 Tray 1 | | Tray 1 | Plain paper | | •8-1/2 x 11, A4, B5 | 16 to 28 lbs. or | |
| | | | (Refer to th | e next page for applicable papers.) | | 60 to 105g/m ² | |
| Multi purpose d | lrawer/ | Tray 2/ | Plain paper | | •If "AUTO-INCH" is selected in setting the paper | 16 to 34 lbs. or | |
| bypass tray | | bypass (Refer to the ne | | next page for applicable papers.) | size and type, the following paper sizes can be | 60 to 128g/m ² | |
| | | tray | | | used with the automatic detection function: | | |
| | | | | | 11 x 17, 8-1/2 x 14, 8-1/2 x 11, 8-1/2 x 11R, | | |
| | | | | | 7-1/4 x 10-1/2, 5-1/2 x 8-1/2R | | |
| | | | | | •If "AUTO-AB" is selected in setting the paper size | | |
| | | | | | and type, the following paper sizes can be used | | |
| | | | | | with the automatic detection function: | | |
| | | | | | A3, B4, A4, A4R, B5, B5R, A5R, 8-1/2 x 13 | | |
| | | | | | •Non-standard sizes | | |
| | | | Special | •Thick paper | •If "AUTO-INCH" is selected in setting the paper | See the | |
| | | | paper | Labels, transparency film | size and type, the following paper sizes can be | remarks for | |
| | | | (Refer to | | used with the automatic detection function: | special paper | |
| | | | the next | | 8-1/2 x 11, 8-1/2 x 11R | | |
| | | | page for | | •If "AUTO-AB" is selected in setting the paper size | | |
| | | | naners) | | and type , the following paper sizes can be used | | |
| | | | paporoly | | with the automatic detection function: | | |
| | | | | | A4, A4R, B5, B5R | | |
| | | | | | •Non-standard sizes smaller than 8-1/2 x 11 or A4 | | |
| | | | | Postcard | Japanese official postcard | | |
| | | | | | Envelopes can only be fed from the | Applicable standard size envelopes: | |
| | | | | multi-purpose drawer. Applicable | COM-10, Monarch, DL, C5, ISO B5 | | |
| | | | | paper stock weight for envelopes is | •Non-standard size | | |
| 0. 1/0 | | | - | 20 to 23 lbs. or 75 to 90g/m ² | | <u> </u> | |
| Stand/3 x 500 | Upper | Iray 2 | Same as m | ulti purpose drawer | | | |
| drawer | Middle | Tray 3 | Plain paper | | •If "AUTO-INCH" is selected in setting the paper | 16 to 28 lbs. or | |
| alawei | Lower | Tray 4 | (Refer to th | e next page for applicable papers.) | size and type, the following paper sizes can be | 60 to 105g/m² | |
| | | | | | used with the automatic detection function: | | |
| | | | | | 11 x 17, 8-1/2 x 14, 8-1/2 x 11, 8-1/2 x 11R, | | |
| | | | | | 7-1/4 x 10-1/2, 5-1/2 x 8-1/2R | | |
| | | | | | •If "AUTO-AB" is selected in setting the paper size | | |
| | | | | | and type, the following paper sizes can be used | | |
| | | | | | with the automatic detection function: | | |
| 01-11/100 | 1.1 | T | 0 | | A3, B4, A4, A4R, B5, B5R, A5R, 8-1/2 x 13 | L | |
| Stand/ MPD & | Upper | iray 2 | Same as m | uiti purpose drawer | | 10.00.00 | |
| 2000 Sheet | Lower | Iray 3 | Plain paper | | •8-1/2 x 11, A4 | 16 to 28 lbs. or | |
| paper drawer | | | (Refer to th | e next page for applicable papers.) | | 60 to 105g/m ² | |

A. Applicable plain paper

For satisfactory results, plain paper must conform to the following requirement

| | Paper in AB system | Paper in inch system | |
|---|--|--------------------------|--|
| | A5 to A3 | 5-1/2 x 8-1/2 to 11 x 17 | |
| Plain paper | 16 to 28 lbs. or 60 to 105g/m ² | | |
| Recycled, colored, pre-punched, pre-printed and letterhead papers must conform to the same conditions as above. | | | |

B. Applicable special paper

For satisfactory results, special paper must conform to the following requirements.

| | Туре | Remarks |
|---------------|--|--|
| Special paper | Thick paper | •For 5-1/2 x 8-1/2 to 8-1/2 x 11 or A5 to A4 sizes, thick paper ranging from 16 to 34 lbs.
or 60 to 128g/m ² can be used. |
| | | •For sizes larger than 8-1/2 x 11 or A4, thick paper ranging from 16 to 28 lbs. or 60 to 105g/m ² can be used. |
| | | •Other thick papers Index stock (65 lbs. or 176g/m ²) can be used. Cover stock (110 lbs. or 200 to 205g/m ²) can be used but only for 8-1/2 x 11, A4 or smaller paper in the portrait orientation. |
| | Transparency film, labels, and tracing paper | •Use SHARP recommended paper. Do not use labels other than SHARP recommended labels.
Doing so may leave adhesive residue in the printer, causing paper misfeeds, smudges on prints or other machine trouble. |
| | Postcards | Japanese official postcards can be used. |
| | Envelopes | Applicable standard envelopes: COM-10, Monarch, DL, C5, ISO B5 Envelopes can only be fed from the multi-purpose drawer. Applicable paper stock weight for envelopes is 20 to 23 lbs. or 75 to 90g/m². |

12. Printing onto envelopes

- •Do not use envelopes that have metal clasps, plastic snaps, string closures, windows, linings, self-adhesive patches or synthetic materials. Attempting to print on these may cause misfeeds, inadequate toner adherence or other trouble.
- •Envelopes of which the surface is not flat because of embossing may cause the prints to become smudges.
- •Under high humidity and temperature conditions the glue flaps on some envelopes may become sticky and be sealed closed when printed.
- •Use only envelopes which are flat and crisply folded. Curled or poorly formed envelopes may be poorly printed or may cause misfeeds.

A. Fusing unit pressure adjusting levers

When feeding envelopes from the multi purpose drawer, damage to the envelopes or smudges on prints may occur even if envelopes within specification are used. In this case, the problem may be reduced by shifting the fusing unit pressure adjusting levers from the normal position to the lower pressure position. Follow the procedure below.

- NOTE: Be sure to return the lever to the normal position when finished feeding envelopes. If not, inadequate toner adherence, paper misfeeds or other trouble may occur.
- 1) Unlatch the duplex module and slide it to the left.

Unlatch the module and gently move the module away from the machine. If the machine is not equipped with a duplex module, open the side cover similarly.



 Lower the two fusing unit pressure adjusting levers marked A and B in the illustration.



3) Gently close the duplex module.

If the machine is not equipped with a duplex module, close the side cover.



13. Loading transparency film

Be sure to load the transparency film with the white label side up. Make sure no image will be printed on the label.

Printing on the label may cause smudges on prints. Transparency film

[9] ADJUSTMENTS

| | | | Contents of adjustment |
|---|---------|---|---|
| 1 | Process | Α | Doctor gap adjustment |
| | section | В | MG roller main pole position adjustment |
| | | С | High voltage output check and adjustment |
| 2 | Engine | Α | LSU right-angle adjustment |
| | | В | Print magnification ratio adjustment |
| | | С | Print off-center adjustment |
| | | D | Self print lead edge adjustment |
| | | Е | Void area adjustment |
| | | F | Resist quantity adjustment |
| | | G | Option paper feed tray paper guide adjustment |
| | | Н | Option manual feed section |
| | | | paper guide position adjustment |

1. Process section

A. Doctor gap adjustment

This adjustment is performed in the following cases:

- •When developer is scattered.
- •When an uneven image is produced.
- Remove the developer cartridge and the developing unit from the machine.
- 2) Remove the DV cover and the developer from the developing unit.
- 3) Remove the DVR cover, the DVF handle, the idle correction plate assembly, and the HG gear 22T, insert a thickness gauge (0.46mm) as shown in the figure below, and check that the clearance is within the specified range.

If the clearance is not within the specified range, adjust the doctor gap in the following procedures.

- 4) Loosen the developing doctor fixing screw A.
- 5) Insert the thickness gauge (0.46mm) again as shown in the figure below.
- Push the developing doctor in the arrow direction and tighten the fixing screw.
- 7) Check the developing doctor gap. If the clearance is within the specified range, fix the screw with screw lock.
- 8) After completion of the job, apply screw lock.





<Adjustment specification>

| | | Specification | Ambient
temperature |
|------------|-----------------------|---------------|------------------------|
| Both sides | Position at 20 - 50mm | 0.45±0.03mm | 5 - 30°C |

B. MG roller main pole position adjustment

This adjustment is performed in the following cases:

- •When developer is scattered.
- •When an uneven image is produced.
- 1) Remove the developer cartridge and the developing unit from the machine.
- 2) Remove the DV cover and the developer from the developing unit.
- 3) Remove the DVF handle and put the developing unit on a flat surface.
- 4) Bind a string to a needle.
- Hold the string and move the needle toward the MG roller. (Since the MG roller diameter is small, use of a clip cannot make an accurate adjustment.)
- 6) With the needle tip 2 3 mm apart from the MG roller surface, mark the point on the MG roller in the elongated line of the needle. (Keep the needle and the MG roller apart from each other.)
- Measure the distance from the marking position to the P surface of the developing unit, and check that the distance is within the specified range.

If the distance is not within the specified range, perform the adjustment in the following procedures.

8) Loosen the fixing screw of the main pole fixing plate.

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AR-P350 ADJUSTMENTS 9-1

9) Move the adjustment plate in the arrow direction and adjust.



<Adjustment specification>

| | | Specification | |
|------------------|-----------------------------------|---------------|--|
| Marking position | Measure from the P surface above. | 54.2mm | |

C. High voltage output check and adjustment

- 1) While pressing the MENU key and the OK key, turn on the power switch.
- 2) The operation panel displays "PCU DIAG MODE."
 - * After releasing your fingers from the keys, do not touch any key for about 8 sec.
- Press the MENU key several times until "HV TEST MC/GRID" is displayed.
- 4) Select a load to be outputted with $[\triangle]$ and $[\nabla]$ keys.
- 5) Press the OK key to determine the selected load.
- Apply the high voltage tester across the measuring pin according to the selected load and the frame.
 - * A high voltage is applied to the measuring pins. Be careful not to short between pins.



7) The set value is displayed on the LCD. Check it and adjust so that it is in the specified range.

The output mode is as shown in the table below.

| LCD display | | | | | Spec | Measuring pin | Measuring unit input impedance |
|-------------|------|-------------------------|-------|-----------------|------------|---------------|--------------------------------|
| MC/GRID | AE | MC grid | | AE mode | -650V±5V* | CN2-7 | 10ΜΩ |
| | CHR | - | | Text mode | -650V±5V* | - | |
| | MIX | | | Text Photo mode | -650V±5V* | | |
| | PHT | | | Photo mode | -650V±5V* | | |
| | PRT | | | Printer mode | -650V±5V* | | |
| | FAX | | | FX mode | -650V±5V* | | |
| THV+ | F | Transfer current | | Casset / Manual | | CN2-5 | |
| | | | | paper feed | | | - |
| | В | | | ADU paper feed | | | |
| BS | AE | Developing bias | | AE mode | -500V±5V* | CN2-1 | 10MΩ |
| | CHR | | | Text mode | -500V±5V* | | |
| | MIX | | | Text Photo mode | -500V±5V* | - | |
| | PHT | - | | Photo mode | -500V±5V* | - | |
| | PRT | - | | Printer mode | -500V±5V* | - | |
| | FAX | - | | FX mode | -500V±5V* | - | |
| | PLUS | - | | Positive bias | +150V±5V* | - | |
| SHV | F | Separation voltage | 45PPM | Casset / Manual | 1.25V±0.1V | CN2-3 | 10MΩ |
| | | | | paper feed | | | |
| | | | | ADU paper feed | 1.25V±0.1V | | |
| | В | | 35PPM | Casset / Manual | 2.15V±0.1V | | |
| | | | | paper feed | | _ | |
| | | | | ADU paper feed | 2.15V±0.1V | | |
| THV- | | Transfer roller CL bias | | | -800V±10V* | CN2-5 | 10MΩ |

* Varies with time by the process control process.

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AR-P350 ADJUSTMENTS 9-2

2. Engine

A. LSU right-angle adjustment

This adjustment is required in the following cases:

- •When the LSU is replaced.
- •When a distortion is produced in print.
- (Check with self print pattern "71".)

After completion of this adjustment, the following adjustments should be performed.

•Print off-center adjustment

- •Void area adjustment
- Hold and push the [MENU] key and the [OK] key, and turn on the power. ("PCU DIAG MODE ***" is displayed.)
 - Do not touch the keys for about 8sec after releasing fingers from the above keys.
- 2) Push the [MENU] key several times until "TEST PRINT" is displayed, and push the [OK] key to enter the test print mode.
- Push the [MENU] key several times until "PRITN PATTERN" is displayed, and set "71".
- 4) Push the [MENU] key several times until "CASSETTE" is displayed, and check with [△] key that the paper for tray 1 is properly set for the destination.
 - AB series: "A4" is displayed
 - * Inch series: LETTER is displayed.
- 5) Push the [OK] key to make self-print.
- 6) Check the output print.

<Right angle check method>

- <1> Make self-print of pattern 71.
- <2> Draw a line perpendicular to the sub scan direction (paper transport direction) with a square.

The point of intersection of the perpendicular line and the horizontal line is regarded as the starting point.

- <3> Measure distance A (between the self-printed line and the perpendicular line drawn with a square) at a position of 220mm from the starting point.
- <4> Check that distance A satisfies the following specification.



- Loosen two fixing screws of the LSU unit (M4 screws which are fixing the LSU and the top plate).
- Turn the adjustment screw on the upper side (on the back of the printer operation panel) clockwise or counterclockwise to adjust the height of the LSU front side.
- After completion of the adjustment, tighten two fixing screws of the LSU unit.
- 10) Print again in the grid pattern and check the print.
- 11) Repeat procedures 7) to 10) until the specification is satisfied.
- 12) After completion of adjustment, apply screw lock to the screws.





<Specification>

| | Measuring
point | Specification | Set value |
|------------------|--------------------|------------------------------------|--------------------------|
| Print distortion | Self print | $\theta = 90^\circ \pm 0.13^\circ$ | θ changes about |
| adjustment | pattern 71 | | 0.25 degrees for 1 scale |
| | | | of adjustment. |

B. Print off-center adjustment

This adjustment is performed in the following cases:

•When the center of print is misaligned.

(Check with the self print pattern "1".)

•When the LSU is replaced.

•When the option paper feed unit or the automatic duplex unit is installed or replaced.

Before executing this adjustment, the following adjustments must have been completed.

•LSU right-angle adjustment

After completion of this adjustment, the following adjustment must be performed.

- Void area adjustment
- 1) Hold and push the [MENU] key and the [OK] key, turn on the power. ("PCU DIAG MODE ***" is displayed.)
 - Do not touch the keys for about 8sec after releasing fingers from the above keys.
- 2) Push the [MENU] key several times until "TEST PRINT" is displayed, and push the [OK] key to enter the test print mode.
- 3) Make a print with "1".
- 4) Press [MENU] key several times to set all Voids to "35".
- 5) Push the [MENU] key several times until T1 OFF CENTER ADJ is displayed, and push the [OK] key.
- Check the print and use [△] or [▽] key to adjust the value of T1 OFF CENTER ADJ so that the off-center value is within the specified range.
- 7) If the option paper feed unit or the automatic duplex unit is installed, make an adjustment for each unit.
 - * When using the duplex unit, set DUPLEX to USE.



| | Measurement
reference | Specification | Set value | |
|---|------------------------------------|---------------|---------------------------------------|---|
| Standard tray
self print off-
center
(T1 OFF
CENTER ADJ) | Output
pattern 1
Center line | 0 ±1.5mm | Shift of
0.1mm for
set value 1. | |
| No. 2 tray self
print off-center
(T2 OFF
CENTER ADJ) | | | | When the
option
paper feed
unit is |
| No. 3 tray self
print off-center
(T3 OFF
CENTER ADJ) | | | | installed. |
| No. 4 tray self
print off-center
(T4 OFF
CENTER ADJ) | - | | | |
| Manual feed
tray self print
off-center
(BPT OFF
CENTER ADJ) | | 0 ±1.5mm | | When the
option
automatic
duplex unit
is installed. |
| ADU Self print
off-center
(ADU OFF
CENTER ADJ) | | | | |

When the print line is shifted toward a from the paper center, decrease the value.

When the print line is shifted toward b from the paper center, increase the value.

C. Self print lead edge adjustment

This adjustment is performed in the following cases:

•When the print start position is improper.

(Check with the self print pattern "1".)

When the LSU is replaced.

Before executing this adjustment, the following adjustments must have been completed.

LSU right-angle adjustment

After completion of this adjustment, the following adjustment must be performed.

Void area adjustment

- Hold and push the [MENU] key and the [OK] key, turn on the power. ("PCU DIAG MODE ***" is displayed.)
 - * Do not touch the keys for about 8sec after releasing fingers from the above keys.
- 2) Push the [MENU] key several times until "TEST PRINT" is displayed, and push the [OK] key to enter the test print mode.
- 3) Make a print with "1".
- 4) Press [MENU] key several times to set all Voids to "35".
- 5) Push the [MENU] key several times until LEAD EDGE is displayed, and push the [OK] key.
- 6) Check the print and use [△] or [▽] key to adjust the value LEAD EDGE so that the distance shown in the figure below is within the specified range.

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7) Check that the print lead edge is within the specified range.

<Specification>

| | Set position | Specification | Set value |
|-----------------|-------------------|-----------------------|--------------|
| Self print lead | Print start | A = 4.0mm or less | Shift of |
| edge adjustment | position A of the | (Lead and tail total: | 0.175mm |
| (LEAD EDGE) | output pattern 1 | 8.0mm or less) | (35ppm) / |
| | | | 0.225mm |
| | | | (45ppm) for |
| | | | set value 1. |

To increase the print lead edge, decrease the set value with $[\bigtriangledown]$ key. To decrease the print lead edge, increase the set value with $[\triangle]$ key.



D. Void area adjustment

This adjustment is performed in the following cases:

- •When the print start position is improper.
- (Check with the self print pattern "71".)

•When the LSU is replaced.

Before executing this adjustment, the following adjustments must have been completed.

•LSU right-angle adjustment

- •Print off-center adjustment
- Hold and push the [MENU] key and the [OK] key, turn on the power. ("PCU DIAG MODE ***" is displayed.)
 - * Do not touch the keys for about 8sec after releasing fingers from the above keys.
- 2) Push the [MENU] key several times until "TEST PRINT" is displayed, and push the [OK] key to enter the test print mode.
- 3) Make a print with "71".
- Push the [MENU] key several times until LEAD EDGE VOID is displayed, and push the [OK] key.
- Check the print and use [△] or [▽] key to adjust the value LEAD EDGE VOID so that the distance A shown in the figure below is within the specified range.
- Push the [MENU] key several times until TAIL EDGE VOID is displayed, and push the [OK] key to make a self print.
- Check the self print and use [△] or [▽] key to adjust the value of TAIL EDGE VOID so that the distance B in the figure below is within the specified range.
- Push the [MENU] key several times to display SIDE EDGE VOID, and push the [OK] key to make a self print.
- Check the self print and use [△] or [▽] key to adjust the value of SIDE EDGE VOID so that the total of distances C ands D in the figure below is within the specified range.

10) Check that the lead edge is within the specified range.

<Specification>

| | Measuring
point | Specification | Set value |
|--|--|--|-------------------------------------|
| Lead edge void
adjustment
(LEAD EDGE VOID) | Output pattern
71 print void A | A = 4.0mm or less
(Total of A and B =
8.0mm or less) | Shift of
0.1 mm for
set value |
| Rear edge void
adjustment
(TAIL EDGE VOID) | Output pattern
71 print void B | B = 4.0mm or less
(Total of A and $B = 8.0$ mm or less) | 1. |
| Side edge void
adjustment
(SIDE EDGE VOID) | Output pattern
71 print void
C-D | Total of C and D =
8.0mm or less | |

To decrease the void quantity, decrease the set value with $[\bigtriangledown]$ key. To increase the void quantity, increase the set value with $[\bigtriangleup]$ key.



E. Resist quantity adjustment

This adjustment is performed in the following cases:

•When the void quantity is changed by the paper feed tray.

•When paper feed skew occurs.

Before executing this adjustment, the following adjustments must have been completed.

- •LSU right-angle adjustment
- •Print off-center adjustment
- •Void area adjustment
- Hold and push the [MENU] key and the [OK] key, turn on the power. ("PCU DIAG MODE ***" is displayed.)

Do not touch the keys for about 8sec after releasing fingers from the above keys.

- 2) Push the [MENU] key several times until "TEST PRINT" is displayed, and push the [OK] key to enter the test print mode.
- 3) Make a print with "71" from each paper feed tray.
- Push the [MENU] key several times until PAPER BUCKLE is displayed.

Adjust the resist quantity so that paper is transported normally.

<Factory setup>

| 45PPM | BPT | 55 |
|-------|------|----|
| | T1 | 60 |
| | T2 | 50 |
| | DESK | 50 |
| | ADU | 50 |
| 35PPM | BPT | 60 |
| | T1 | 65 |
| | T2 | 55 |
| | DESK | 55 |
| | ADU | 55 |

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AR-P350 ADJUSTMENTS 9-5

[10] DIAG

1.Diag mode

When the scanner unit is not installed, the machine can be checked and tested with the following diag mode.

Note: If the scanner unit is installed, this mode does not work.

A. Entering the diag mode

With the power OFF, hold and press the [MENU] key and the [OK] key, and at the same time turn on the power.

B. Selecting diag menus

Press the [MENU] key to change the diag menu. Pressing OPERATION GUIDE key returns to the previous menu. Press the [OK] key to execute the test. Press [\triangle] or [\bigtriangledown] key to go to the input menu. Press the [BACK/C] key to return to the previous menu.

C. Canceling the diag mode

Turn off the power to cancel the diag mode.

D. Diag mode list

| Menu | LCD display |
|----------------------------------|--------------------------|
| Diag mode initial display | PCU DIAG MODE # |
| Sensor check mode | SENSOR CHECK XX |
| LSU test | LASER SYSTEM TEST |
| LED/LCD test | LED/LCD TEST |
| High voltage test | HV TEST XXX |
| Operation test mode | LOAD TEST XX |
| Auto developer adjustment | AUTOMATIC DV ADJ. |
| Laser output setup | LASER OUTPUT SETUP (XXX) |
| Fusing temperature setup | FUSER TEMP. SETTING X |
| Process control value setup | SLOW UP SETTING |
| Paper feed size setup | SIZE ADJUSTMENT X |
| ICU print mode setup | ICU PRINT MODE SET |
| Test print | TEST PRINT XX |
| Warm-up time display | WARM UP TIME DISPLAY |
| Counter display | COUNTER DISPLAY |
| Counter clear | COUNTER CLEAR |
| Trouble cancel | TROUBLE CANCEL X |
| Paper feed tray size setup | XXX SIZE SETUP |
| Destination setup | DESTINATION SETUP |
| Paper feed tray paper type setup | TRAY DETECT TYPE xx |
| CE mark setup | CE MARK SETTING |
| A3 count mode setup | COUNTUP MODE SETUP X |
| Maintenance cycle setup | MNT CYCLE SETUP |
| Operation-at-life-over setup | LIFE OVER SETTING |
| Finisher jogger adjustment | FINISHER JOGGER ADJ. |
| Console finisher setup | CONSOLE FIN. SET X |
| Trouble memory mode setup | MEMORY MODE SETTING |
| Last JAM code display | LAST JAM CODE DISP |
| System information display | SYSTEM INFORMATION X |
| Process control data display | PROCESS DATA DISP X |
| Port check | CENTRO PORT CHECK |
| SELECT IN signal setup | SELECT IN SIGNAL SET |

E. Diag mode menu transition



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F. Diag mode

| Menu | | Initial
value | Set | | | | | | | |
|-----------------|---|--|---------------|----------------------------------|------------------------------------|-------|-------|--|--|--|
| PCU DIAG MODE # | Initial screen | of the diag mode | | | | Value | lange | | | |
| | | DOIT | TAC MO | ากศ | | | | | | |
| | | | JIAG M | | | | | | | |
| | | #•## | | | | | | | | |
| | *To terminate t | he diag mode, turn off and | I on the powe | er. | | | | | | |
| | SENSOR Che | ck mode. | | | | | | | | |
| | Used to check
(LCD display) | the sensors of the machine | e and the op | otions. | | | | | | |
| | | | | | | | | | | |
| | *Pressing [\triangle] | or $[\bigtriangledown]$ key selects the sen | isor group fo | or the Senso | or check mode. | | | | | |
| | | *DDD1 | | 1 * DUU | 2 | | | | | |
| | | | r, rod | I, IUD | 2 | | | | | |
| | | PODS | s, ^CSS. | I, PED | | | | | | |
| | *Pressing [OK |] key starts the selected Se | ensor check | | | | | | | |
| | *Using (MENU | I moves to the next sensor | '9
' data. | | | | | | | |
| | *Pressing [BA0 | *Pressing [BACK/C] key terminates the Sensor check Mode. | | | | | | | | |
| | 01 | | | | | | | | | |
| | (Selectable se | | | | | | | | | |
| | 00 : machine | | | | | | | | | |
| | PPD1 | Paper transport sensor 1 | 1 | DVCRUin | DV unit initial detection | | | | | |
| | POD1 | Paper exit sensor 1 | | DSWL | Left door open sensor | | | | | |
| | POD2 | Paper exit sensor 2 | 1 | | ADL detection | | | | | |
| | CSS1 | Cassette detection senso | or I | MPF | BPT detection | | | | | |
| | PED | Paper empty detection | [| DSW_D | ADU door open sensor | | | | | |
| | LUD | Cassette upper limit sens | sor | | | | | | | |
| | 01 : Multi pu | rpose tray | | | | | | | | |
| | MCSET | MPT detection | ſ | MCSPD MPT remaining quantity det | MPT remaining quantity detection | | | | | |
| | MCDRS | MPT side door open sen | isor I | MCLUD | MPT upper limit sensor | | | | | |
| | MCSS4 | MPT size detection 4 | 1 | | MPT paper empty sensor | | | | | |
| | MCSS3 | MPT size detection 3 | 1 | | MPT transport detection | | | | | |
| | MCSS1 | MPT size detection 2 | - | TPFD1 | MPT transport detection | | | | | |
| | 02 : ADU/Or | peration panel | | - | | | | | | |
| | MPLD1 | Length detection 1 | ŀ | KEYin | Key input signal | | | | | |
| | MPLS2 | BPT draw out sensor 2 | ŀ | KEY1 | Key1 | | | | | |
| | MPLS1 | BPT draw out sensor 1 | ł | KEY2 | Key2 | | | | | |
| | MPED | MPT paper empty detect | tion ł | KEY3 | Key3 | | | | | |
| | AINPD | ADU paper entry detection | on l | KEY4 | Key4 | | | | | |
| | | ADU paper exit detection | 1 I | KEYA | reyo
Key6 | | | | | |
| | APPD2 ADU transport detection 1 KEY6 Key6 | | | | | | | | | |
| | 03 : LCC de | sk (AR-D13) | | | | | | | | |
| | DRS | side door open detection | sensor | SPD1 | Trav1 remaining quantity detection | | | | | |
| | TSD | Tray detection sensor | | PED2 | Tray paper detection sensor 2 | | | | | |
| | LUD2 | Tray2 upper limit sensor | F | PED1 | Tray paper detection sensor 1 | | | | | |
| | LUD1 | Tray1 upper limit sensor | F | PFD3 | Paper transport sensor 3 | | | | | |
| | SPD2 | Tray2 remaining quantity | detection I | PFD2 | Paper transport sensor 2 | | | | | |
| | When the spec | When the specified sensor is active, " * "mark will appear before the sensor name. | | | | | | | | |

| Menu | | Cor | ntent | | Initial
value | rar | |
|-----------------|--|--|-------------|--|------------------|-----|--|
| SENSOR CHECK XX | SENSOR (| Check mode. | | | , and e | | |
| | Used to ch | eck the sensors of the machine and the o | options. | | | | |
| | | | | | | | |
| | (Selectable | e sensor group) | | | | | |
| | 04 : 3 tra | y desk (AR-D14) | | | | | |
| | DRS | Door open detection sensor | PFD3 | Paper transport sensor 3 | | | |
| | SPD2 | Cassette2 remaining quantity detection | CSS14 | Cassette1 paper rear edge detection | | | |
| | 0004 | | 00040 | sensor 4 | | | |
| | SPD1 | Cassette1 remaining quantity detection | CSS13 | Cassette1 paper rear edge detection | | | |
| | CSS24 | Cassatta? paper rear adda detection | 09912 | Sensor 3 | | | |
| | 03324 | cassellez paper rear edge delection | 03312 | casselle i paper lear euge delection | | | |
| | CSS23 | Cassette2 paper rear edge detection | CSS11 | Cassette1 paper rear edge detection | | | |
| | 00010 | sensor 3 | | sensor 1 | | | |
| | CSS22 | Cassette2 paper rear edge detection | LUD1 | Cassette1 upper limit sensor | | | |
| | | sensor 2 | | | | | |
| | CSS21 | Cassette2 paper rear edge detection | PED1 | Cassette1 paper detection sensor | | | |
| | | sensor 1 | | | | | |
| | LUD2 | Cassette2 upper limit sensor | PFD2 | Paper transport sensor 2 | | | |
| | PED2 | Cassette2 paper detection sensor | | | | | |
| | 05 : FINI | SHER (AR-FN6) | | | | | |
| | STHP | Stapler HP detection | PSHP | Pusher home position detection | | | |
| | POD | Tray2 exit paper detection | PPD | Paper holding detection | | | |
| | SCID | Staple compiler paper entry detection | DSW2 | Staple door open/close detection | | | |
| | PID | Paper entry detection | DSW1 | Compiler jam cancel door detection | | | |
| | T2PD | T2PD Tray2 paper detection 2 | | 24V detection | | | |
| | T2DN | Tray2 lower limit sensor | 11PF | Iray1 paper full detection | | | |
| | | IZUP Iray2 upper limit sensor S | | Staple detection | | | |
| | IFHP | logger home position (real) | STNC | Cartridge detection | | | |
| | SCID2 | Staple compiler paper entry detection 2 | DOPD | Relay unit door open detection | | | |
| | STHP2 | Staple Revolution HP detection 2 | MMLK | Main drive motor lock sensor | | | |
| | STHP1 | Staple Revolution HP detection 1 | SCPD | Staple compiler paper detection | | | |
| | STUHP | STUHP Staple movement home position | | | | | |
| | | detection | | | | | |
| | 06 : CON | SOLE FINISHER (AR-FN7) | | | | | |
| | PE | Punch motor encoder | SHPS | Slide home position sensor | | | |
| | PSHPS | Punch side home position | LE | Lift lock sensor | | | |
| | PUC | Punch connection detection | LLLS | Lift lower sensor | | | |
| | PDS | Punch dust sensor | ULS | Lift upper sensor | | | |
| | PDSS4 | Punch side sensor 4 | FE | Bookbinding clock sensor | | | |
| | PDSS3 | Punch side sensor 3 | FES | Bookbinding paper sensor | | | |
| | PDSS2 | Punch side sensor 2 | FRHPS | Bookbinding roller HP sensor | | | |
| | PDSS1 | Punch side sensor 1 | FHPS
EDC | Bookbinding nome position sensor | | | |
| | 500 | Stapler safety switch | SI S | Paper level sensor | | | |
| | JS | Joint switch | BES | Tray paper sensor | | | |
| | FDSW | Front door switch | OBHPS | Exit belt home position sensor | | | |
| | TCS | Upper caver sensor | AS | Alignment tray sensor | | | |
| | FDS | Front door sensor | RJHPS | Alignment home position sensor (rear) | | | |
| | SPS | Self prime sensor | FJHPS | Alignment home position sensor (front) | | | |
| | SUC | Stapler connection detection | ARHPS | Bundle roller home position sensor | | | |
| | SS | Staple sensor | PHPS | Paddle home position sensor | | | |
| | STHPS | Entry sensor | | | | | |
| | 07 : Mail bin stacker (AR-MS1) | | | | | | |
| | 24VM 24V detection PFD8 Tray paper exit sensor 8 | | | | | | |
| | DD1 | Jam cancel door | PFD7 | Tray paper exit sensor 7 | | | |
| | DOPD | Relay unit door | PFD6 | Tray paper exit sensor 6 | | | |
| | PPD5 | Paper transport sensor 5 | PFD5 | Tray paper exit sensor 5 | | | |
| | PPD4 | Paper transport sensor 4 | PFD4 | Tray paper exit sensor 4 | | | |
| | PPD3 | Paper transport sensor 3 | PFD3 | Tray paper exit sensor 3 | | | |
| | PPD2 | Paper transport sensor 2 | PFD2 | Iray paper exit sensor 2 | | | |
| | | Paper transport sensor 1 | PFD1 | Iray paper exit sensor 1 | | | |
| | | Relay unit paper entry detection | | | | | |
| | When the s | specified sensor is active, " * "mark will a | opear bef | ore the sensor name. | | | |

| Menu | | | Con | tent | | | | Initial
value | Set
range | |
|---|---|---|---|------------------------------|--------------------------|---------------|---------|------------------|--------------|--|
| LASER SYSTEM TEST | LASER System U
Used to check the | nit test.
operation o | f the laser system. | | | | | | | |
| | | | LASER SYST | EM | TEST | | | | | |
| LED/LCD TEST | *Pressing [OK] key
*DATA (LED) blink
*When the polygor
When the HSYNC
LED/LCD display
Used to check the | turns on t
to during the
hal mirror do
is properly
test. | the polygonal mirror ar
e processing
bes not rotate and the
or detected, READY light
of the operation pane | nd the
cover i
nts up. | laser.
is open, ERROR | LED lights up | | | | |
| | LED/LCD TEST | | | | | | | | | |
| *Pressing [OK] key lights up the all LEDs.
*Test is terminated 30 seconds after, or can be terminated by pressing [BACK/C] key.
(LCD display) | | | | | | | | | | |
| HV TEST XXX | *All LCD dots will b
High voltage test .
Used to perform th
(LCD display) | All LCD dots will be "on" during the operation.
High voltage test.
Jsed to perform the output test from the high voltage PWB.
LCD display) | | | | | | | | |
| | | | HV TEST XX | X | | | | | | |
| | *Pressing [△] or [
*Pressing [OK] ke
*Using [△] or [▽]
*Pressing [OK] ke
*DATA (LED) blink
*After 30 seconds
*Pressing [BACK/0 | [\rightarrow] key sele
y can change
key change
y starts the
s during the
high voltage
[\rightarrow] key termin | cts the high voltage un
ge the selected High v
s the voltage.
High voltage output.
e processing.
e output is terminated.
hates the High voltage | iit for t
oltage
test. | he testing.
value. | | | | | |
| | XXX: | | | | | Initial value | | | | |
| | MC/GRID(xx): | Main char | ger / Grid bias test | | | 645 | | Refer to | | |
| | THV+(x): | Transfer H | ligh voltage test | | 35PPM | F : 220 | B : 267 | the text. | | |
| | | | - | | 45PPM | F : 267 | B:310 | | | |
| | BS(xx): | Develope | r bias test /Volume | | | 485 | | | | |
| | BS PLUS: | Develope | r bias test (cleaning mo | ode) | | 150 | | | | |
| | SHV(x): | separate | high voltage test | | 35PPM | F : 120 | B : 120 | | | |
| | | | | | 45PPM | F : 160 | B : 160 | | | |
| | THV-: transfer cleaning high voltage t | | | st | | 780 | | | | |
| | | | | | | | | | | |
| | Х | | | | XX | | | | | |
| | F | Casset | / Manual paper feed | | AE | AE mode | | | | |
| | В | ADU Pa | aper feed | | CHR | CHR Text mode | | | | |
| | | I | | | MIX | Text/Photo | mode | | | |
| | | | | | PHT | Photo mod | е | | | |
| | | | | | PRT | Printer mod | le | | | |
| | | | | | FAX | Fax mode | | | | |
| | | | | | | | | | | |

| Menu | | Content | | | | | | | | | |
|--------------|--|---|------------------|--|--|--|--|--|--|--|--|
| LOAD TEST XX | Load test mod
Used to perform
(LCD display) | e.
n the operation test of the motors an | d clutches of th | e machine and the options. | | | | | | | |
| | | LOAD TEST | XX | | | | | | | | |
| | | | | | | | | | | | |
| | *Pressing [△] o | *Pressing $[\Delta]$ or $[\nabla]$ key selects the LOAD group for the Load Test mode. | | | | | | | | | |
| | *Press [OK] key | *Press [OK] key to determine the load operation group. | | | | | | | | | |
| | *Pressing [OK] | key starts the selected Load Test. | | | | | | | | | |
| | *DATA (LED) t | *DATA (LED) blinks during the processing. | | | | | | | | | |
| * | *Pressing [BAC | *Pressing [BACK/C] key terminates the Load Test Mode. | | | | | | | | | |
| | (Selectable Loa | (Selectable Loads Group) | | | | | | | | | |
| | 00 : machine | 00 : machine | | | | | | | | | |
| | HLPR | Heater power relay BS_PHT Developing b
(photo mode | | Developing bias voltage
(photo mode) | | | | | | | |
| | DCPR | DC power relay | BS_MIX | Developing bias voltage
(character/photo mode) | | | | | | | |
| | MM | Main motor | BS_CHR | Developing bias voltage
(character mode) | | | | | | | |
| | DM | Drum motor | BS_AE | Developing bias voltage
(auto mode) | | | | | | | |
| | DSB_FW | Stepping motor forward rotation | FMHi | Fun motor (high speed) | | | | | | | |
| | DSB_RV
TM | Stepping motor reverse rotation Toner motor | FMLo
PSPS | Fun motor (low speed)
Separation pawl operation
solenoid | | | | | | | |
| | CPFC | Paper feed clutch | VG_FAX | Main charger grid voltage
(FAX mode) | | | | | | | |
| | RRC | Resist roller clutch | VG_PRT | Main charger grid voltage
(printer mode) | | | | | | | |
| | TRC | Transport clutch | VG_PHT | Main charger grid voltage
(photo mode) | | | | | | | |
| | FGS_FIN | Finisher gate solenoid | VG_MIX | Main charger grid voltage
(character/photo mode) | | | | | | | |
| | TRC_DSK | DESK Transport clutch | VG_CHR | Main charger grid voltage
(character mode) | | | | | | | |
| | LUM | TRAY1 Lift up motor | VG_AE | Main charger grid voltage
(auto mode) | | | | | | | |
| | HL1 | Heater lamp (lower) | THV+_BACK | Transfer charger output voltage (back mode) | | | | | | | |
| | HL2 | Heater lamp (upper) | THV+FRONT | Transfer charger output voltage (front mode) | | | | | | | |
| | BS_PLUS | Developing bias voltage
(cleaning mode) | THV- | Transfer roller output voltage | | | | | | | |
| | BS_FAX | Developing bias voltage
(FAX mode) | SHV_BACK | Transfer roller output voltage | | | | | | | |
| | BS_PRT | Developing bias voltage
(printer mode) | SHV_FRONT | Transfer roller output voltage | | | | | | | |
| | 01 : Multi pur | rpose tray | | | | | | | | | |
| | MCM MP drive motor MCFCL MP tray transport clutch MCPCL MP tray paper feed clutch MCLLIM MP tray lift up motor | | | | | | | | | | |
| | 02 : Manual f | feed tray | | | | | | | | | |
| | MPFS | Manual paper solenoid | MSS | Manual paper entry gate solenoid | | | | | | | |
| | MPFC | Manual paper clutch Manual paper clutch | | | | | | | | | |
| | 03 : ADU | 03 : ADU | | | | | | | | | |
| | ADMEN1 | ADU motor 1 | DGS | ADU entry gate solenoid | | | | | | | |
| | | | | | | | | | | | |

| Menu | | Initial
value | Set
range | | | |
|-------------------|--|---|--|------------------------------|-----|--|
| LOAD TEST XX | Load test mo
Used to perfo | de.
rm the operation test of the motors an | d clutches of | the machine and the options. | | |
| | (Selectable I (| pads Grope) | | | | |
| | 04 : LCC d | esk (AR-D13) | | | | |
| | | LCC lift up motor 2 | TPCI 2 | LCC paper feed clutch 2 | | |
| | TLUM1 | LCC lift up motor 1 | TPCI 1 | LCC paper feed clutch 1 | | |
| | | I CC multi lift up motor | | I CC multi paper feed clutch | | |
| | TPFCL | LCC transport clutch | TMM | LCC transport motor | | |
| | 05 : 3 trav o | desk (AR-D14) | 1 | • | | |
| | DLUM2 | DESK lift up motor 2 | DPCL2 DESK paper feed clutch 2 | | | |
| | DLUM1 | DESK lift up motor 1 | DPCL1 | DESK paper feed clutch 1 | | |
| | D_MCLM | DESK multi lift up motor | D_MPCL | DESK multi paper feed clutch | | |
| | DPFCL | DESK transport clutch | DMM | DESK transport motor | | |
| | 06 : FINISH | IER (AR-FN6) | | | | |
| | T2S | TRAY2 solenoid | STUM | Staple movement motor | | |
| | T2OM | Paper exit motor | MM | Main drive motor | | |
| | SPS | Stopper solenoid | EVM | Elevator motor | | |
| | SCRS | Roller pressure Release solenoid | STM | Staple motor | | |
| | PPS | Rear edge holding solenoid | JRM | Jogger motor (rear) | | |
| | SCGS | Compiler gate solenoid | JFM | Jogger motor (front) | | |
| | STTM | Staple revolution motor | PSM | Pusher motor | | |
| | 07 : CONS | | | | | |
| | FFC | Fold clutch | FRJM | Alignment motor (rear) | | |
| | FPSM | Punch side motor | FFJM | Alignment motor (front) | | |
| | FPNM | Punch motor | FAM | Bundle exit motor | | |
| | FLM | Shift motor | FPM | Paddle motor | | |
| | FFSM | Stapler motor | FFM | Transport motor | | |
| | FSM | Slide motor | | | | |
| | 08 : Mail bi | | | | | |
| | MMM | Main drive motor | MGSOL4 Gate solenoid 4
MGSOL5 Gate solenoid 5 | | | |
| | MGSOL1 | Gate solenoid 1 | | | | |
| | MGSOL2 | Gate solenoid 2 | MGSOL6 | Gate solenoid 6 | | |
| | MGSOL3 | Gate solenoid 3 | MGSOL7 | Gate solenoid 7 | | |
| AUTOMATIC DV ADJ. | Automatic D'
Note: Before e
rpm.
Used to perfo
(LCD display) | | | | | |
| | AUTOMATIC DV ADJ. | | | | 118 | |
| | *Pressing [OF
*Toner contro
*DATA (LED)
*When adjust
*Adjustment v
*Pressing [BA | | | | | |

| Menu | | | Content | | | Initial
value | Set
range |
|-----------------------|------------------|--|---|--------------------------|-----------|------------------|--------------|
| LASER OUTPUT | La | ser output setup. | outout value | | | | |
| | | Noto: Do not chan | as the factory setup on the laser output | | I | | |
| | | CD diaplaw | ge the factory setup on the laser output. | • | | | |
| | | JD display) | | | | | |
| | | | LASER POWER SET | - (XX) | | | |
| | | | | | | | |
| | *P | ressing $[\triangle]$ or $[\bigtriangledown]$ | key selects the LASER OUTPUT SETU | P mode. | | | |
| | ^P
 ∗ | ressing [OK] key statistical for $[\nabla]$ key | arts the laser output setup. | | | Refer to | |
| | *P | ressing [OK]key me | the text. | | | | |
| | *P | ressing [BACK/C] ke | ey terminates the setting. | | | | |
| | | XX | | 35PPM | 45PPM | | |
| | AE | | AE mode | 80 | 104 | | |
| | | CHR | Text mode | 80 | 104 | | |
| | | MIX | Text/Photo mode | 80 | 104 | | |
| | | PHT | Photo mode | 80 | 104 | | |
| | | PRT | Printer mode | 80 | 104 | | |
| | | FAX | Fax mode | 80 | 104 | | |
| FUSER control | Eu | iser control Tempe | rature setting | | | | |
| temperature setting X | Us
(L(| ed to set the fusing CD display) | temperature. | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | *U | sing [$	riangle$] or [$	riangle$] key | | | | | |
| | *P | ressing [OK] key sta | | | | | |
| | *U
*D | sing $[\triangle]$ or $[\bigtriangledown]$ key | Refer to | | | | |
| | *P | ressing [BACK/C] ke | the text. | | | | |
| | ſ | ¥. | Initial value | | | | |
| | | A: Initial value | | | | | |
| | | B: | 190 | | | | |
| | | C: | preheat temperature FUSER 1 | | 150 | | |
| | | D: | preheat temperature FUSER 2 | heat temperature FUSER 2 | | | |
| | | E: | Bypass tray control temperature FUSER | 200 | | | |
| | | F: | Bypass tray control temperature FUSER | R 2 | 200 | | |
| SLOW UP SETTING | Pr | ocess control valu | e setting. | | | | |
| | Us | ed to set the proces | ss control value. | | | | |
| | | | SLOW UP SETTING | G X | | | |
| | | | | | | | |
| | | | | | | | |
| | *U | sing $[\triangle]$ or $[\bigtriangledown]$ key | v select the process control value. | | | | |
| | * | sing $[\land]$ or $[\bigtriangledown]$ key | and the setting. | | | | |
| | *P | ressing [OK] key me | emorize the value. | | | Defente | |
| | *P | ressing [BACK/C] ke | ey terminates the setting. | | | the text | |
| | X: Initial value | | | Initial value | the toxt. | | |
| | | A: | slow up adjust wait time | | 90 | | |
| | | B: | Vb1-1 | Vb1-1 | | | |
| | | C: | Vb1-2 | | 50 | | |
| | | D: | Vb1-3 | Vb1-3 | | | |
| | | E: | Vb2-1 | Vb2-1 | | | |
| | | F: | Vb2-2 | | 15 | | |
| | | G: | Vb2-3 | | 15 | | |

| Menu | Content | Initial
value | Set
range | | | | |
|--------------------|---|--|--------------|---|--|--|--|
| SIZE adjstment X | SIZE adjustment.
Used to perform the size detection adjustment of the op | tional universal trav and the manual feed tr | av. | 5 | | | |
| | (LCD display) | ·····, ···· | | | | | |
| | SIZE ADJUSTM | IENT X | | | | | |
| | | | | | | | |
| | *Using $[\land]$ or $[\bigtriangledown]$ key select the tray | | | | | | |
| | Pressing [OK] key enter the adjustment mode. | | | | | | |
| | (Selectable modes) | | | | | | |
| | X: | | | | | | |
| | A: Mul | ti purpose tray adjustment | | | | | |
| | B: Byp | bass tray setting | | | | | |
| | C. By | | | | | | |
| | <select a=""> 1. Widen the guide to the MAXIMUM position</select> | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| | 2.Narrow the guide to the MINIMUM position. | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| | <pre><select b=""></select></pre> | | | | | | |
| | *Pressing [OK] key displays the adjustment value. | Max : 66 | | | | | |
| | *Using $[\triangle]$ and $[\bigtriangledown]$ keys changes the value. | P1 : 447 | | | | | |
| | *Pressing [OK] key set the changes of the value, and | | | | | | |
| | *Pressing [BACK/C] key terminates the setting. MIN : 916 | | | | | | |
| | <select c=""> 1. Widen the guide to the MAXIMUM position</select> | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| | 2.Guide to the P1 paper guide position. | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| | 4.Narrow the guide to the MINIMUM position. | | | | | | |
| | *Pressing [OK] key starts the adjustment. | | | | | | |
| ICU PRINT MODE SET | ICU print mode setting. | | | | | | |
| | Used to set the print patterns which are to be used in "T | EST PRINT". The set patterns can be print | ted | | | | |
| | (LCD display) | | | | | | |
| | | | | | | | |
| | ICO PRINI MC | | | | | | |
| | | | | | | | |
| | *Press [OK] key to start the setup mode. | | | | | | |
| | *Pressing [MENU] moves to the next item | | | | | | |
| | *Using $[\Delta]$ and $[\nabla]$ keys changes the mode. | | | | | | |
| | *Pressing [BACK/C] key releases the print mode set. | | | | | | |
| | *Pressing [OK] key starts the print mode set. *DATA (1 ED) blinks during the print mode set execution | | | | | | |
| | | Initial value | | | | | |
| | ICU PRINT PATTERN : Test print pattern (0~99) | 87 | | | | | |
| | ICU PRINT DENSITY : Print density (0~255) 128 | | | | | | |
| | ICU PRINT MODE : Mode setting (0~255) | 0 | | | | | |
| | | | | | | | |
| | 7 6 5 4 3 2 1 0 | | | | | | |
| | 1 : Toner save | ON 0 ALL OFF | | | | | |
| | 1 : Smoothing | ON 1 Toner save ON | | | | | |
| | 1 : Harf tone C | 2 Smoothing ON | | | | | |
| | Reserve | 4 Harf tone ON | | | | | |

| Menu | | Cont | Content | | | | | | | | | |
|---------------|-------------------------------|--|--------------|---|--|--|--|--|--|--|--|--|
| TEST PRINT XX | Printing Tes
Used to perfe | :t
orm self-printing under the set condition: | s, and to ad | just and check the engine set value. | | | | | | | | |
| | | TEST PRINT | 00 | | | | | | | | | |
| | *Pressing [| *Pressing $[\Delta]$ or $[\nabla]$ key selects the mode. | | | | | | | | | | |
| | XX(select the | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | 1 : No warm up cycle | | | | | | | | | | |
| | | 1 : No Developer detection | | | | | | | | | | |
| | | | g | 5 ····· | | | | | | | | |
| | Aging mode: | | Saturalua | | | | | | | | | |
| | XX | Mode | XX | Mode | | | | | | | | |
| | 0 | | 16 | Aging mode | | | | | | | | |
| | 1 | No jam detection | 17 | Aging mode + No jam detection | | | | | | | | |
| | 2 | No fusing control + No iam detection | 18 | Aging mode + No fusing control | | | | | | | | |
| | | | | + No jam detection | | | | | | | | |
| | 4 | No warm-up cycle | 20 | Aging mode + No warm-up cycle | | | | | | | | |
| | 5 | No warm-up cycle + No jam detection | 21 | Aging mode
+ No warm-up cycle No jam
detection | | | | | | | | |
| | 6 | No warm-up cycle + No fusing control | 22 | Aging mode + No warm-up cycle
+ No fusing detection | | | | | | | | |
| | | No warm-up cycle + No fusing control
+ No jam detection | 23 | Aging mode + No warm-up cycle
+ No fusing detection
+ No jam detection | | | | | | | | |
| | 8 | No DV detection | 24 | Aging mode + No DV detection | | | | | | | | |
| | 9 | No DV detection + No jam detection | 25 | Aging mode + No DV detection
+ No jam detection | | | | | | | | |
| | 10 | No DV detection + No fusing control | 26 | Aging mode + No DV detection
+ No fusing control | | | | | | | | |
| | 11 | No DV detection + No fusing control
+ No jam detection | 27 | Aging mode + No DV detection
+ No fusing control
+ No jam detection | | | | | | | | |
| | 12 | No DV detection + No warm-up cycle | 28 | Aging mode + No DV detection
+ No warm-up cycle | | | | | | | | |
| | 13 | No DV detection + No warm-up cycle
+ No jam detection | 29 | Aging mode + No DV detection
+ No warm-up cycle
+ No jam detection | | | | | | | | |
| | 14 | No DV detection + No warm-up cycle
+ No fusing control | 30 | Aging mode + No DV detection
+ No warm-up cycle
+ No fusing control | | | | | | | | |
| | 15 | No DV detection + No warm-up cycle
+ No fusing control + No jam detection | 31 | Aging mode + No DV detection
+ No warm-up cycle
+ No fusing control
+ No iam detection | | | | | | | | |
| | example: If y | | | | | | | | | | | |
| | If y | | | | | | | | | | | |
| | *Pressing [O | | | | | | | | | | | |
| | *Using [△] | | | | | | | | | | | |
| | *Pressing [B | | | | | | | | | | | |
| | *DATA (LED |) blinks during the TEST PRINT executi | on. | | | | | | | | | |

| Menu | | Initial
value | Set
range | | | | |
|---------------|-------------------------------------|--|--|---|------------------------|-----------|----|
| TEST PRINT XX | Printing Test
Used to perform se | If-printing under the se | t conditions, and to adjust and o | check the engine set | value. | | 90 |
| | Selection Menu: | | | | | | |
| | LCD display | Content | Set value | | Initial
value | | |
| | MULTI SETTING | Continuous print
quantity setup | 001 - 999 | | | | |
| | PRINT PATTERN | Test print pattern | 1 - 99 (94 - 97 for production only) | | | | |
| | | | 40 : White copy | | | | |
| | | | 64 : All Black copy | | | | |
| | | | 70 : Scale pattern | | | | |
| | | | 71 : Grid pattern | | | | |
| | | | 75 : ID: BG pattern | | | | |
| | | | 87 : Test image pattern | | | | |
| | | | 98 : List of the setup values | | | | |
| | | | 99 : Patterns set in ICU Print N | /lode set. | | | |
| | CASSETTE | Cassette selection | BPT: Manual paper feed tray DESK1: No. 3 tray
TRAY1: No. 1 tray (STD) DESK2: No. 4 tray
TRAY2: No. 2 tray LCC: I CC tray | | | | |
| | DUPLEX | Duplex setup | NO/USE | | NO | | |
| | OUTPUT | Paper exit,
finishing
method setup | STD: Standard paper exit tray
JSP:
FIN1: Finisher Top
FIN2: Finisher Second
STAPLE (F): Staple front
STAPLE (R): Staple rear
STAPLE (2POS): Staple | SADLE: Saddle
OFFSET: Offset
PUNCH: Punch
MAIL_TEST
BIN1: No. 1 | STD | | |
| | | | 2 positions | | 50 | Refer to | |
| | | Lead edge | 0 - 99 (mm |) | 50 | the text. | |
| | VOID | Lead edge vold | 0 - 99 (mm |) | 35 | | |
| | TAIL EDGE | Rear edge void setup | 0 - 99 (mm | 35 | | | |
| | SIDE EDGE
VOID | Side edge void setup | 0 - 99 (mm | 35 | | | |
| | T1 PAPER | Tray 1 | 0 - 99 | | | | |
| | BUCKLE | resist quantity setup | | | 45PPM:60 | | |
| | T2 PAPER | Tray 2 | 0 - 99 | | 35PPM:55 | | |
| | | resist quantity setup | 0.00 | | 45PPIVI:50 | | |
| | BUCKLE | resist quantity setup | 0 - 99 | | 35PPIVI.55
45PPM:50 | | |
| | BPT PAPER
BUCKLE | Manual feed resist
quantity adjustment | 0 - 99 | | 35PPM:60
45PPM:55 | | |
| | ADU PAPER
BUCKLE | Auto duplex resist
quantity setup | 0 - 99 | | 35PPM:55
45PPM:50 | | |
| | BPT OFF
CENTER ADJ | Manual feed tray
off-center adjustment | 0 - 99 | | | | |
| | T1 OFF
CENTER ADJ | Tray 1
of-center adjustment | 0 - 99 | | | | |
| | T2 OFF
CENTER ADJ | A3 universal tray
off-center adjustment | 0 - 99 | | | | |
| | T3 OFF
CENTER ADJ | Desk 1 tray/LCC1
off-center adjustment | 0 - 99 | | 50 | | |
| | T4 OFF
CENTER ADJ | Desk 2 tray/LCC2
off-center adjustment | 0 - 99 | | | | |
| | ADU OFF
CENTER ADJ | Duplex off-center
adjustment value
setup | 0 - 99 | | | | |
| | | | | | | 1 | |

| Menu | | Co | ntent | | Initial
value | Set
range |
|-------------------------|--|---|--|-----------------------------|------------------|--------------|
| WARM UP TIME
DISPLAY | Warm up time dis
Used to display the
(LCD display) | blay mode.
warm-up time. | | | | |
| | | WARM UP T | IME DISPLAY | | | |
| | *Pressing [OK] key | enter the Warm up time display | mode. | | | |
| | | | me display mode. | | | |
| COUNTER DAIA
DISPLAY | Counter data disp
Used to display ead
(LCD display) | h counter value. | ISPLAY | | | |
| | | | | | | |
| | *Pressing the [△] d
*Pressing [OK] key
*Using [MENU] mo
*Pressing [BACK/C | or [▽] key selects the counter g
displays the counter value.
ves to the next item.
] key terminates the Counter Dis
XXX:: | roup for the counter displa
splay Mode. | ay mode. | | |
| | COUNTER DIS | 2 | PROCESS COUNTER | DISP. | | |
| | TOTAL | TOTAL Total print quantity | | DRUM Drum counter | | |
| | DRUM | Drum counter | TONER | Toner counter | | |
| | TONER | Toper counter | DEVE | Developing counter | | |
| | DEVE | Developing counter | MAINTE | Maintenance counter | | |
| | MAINTE | Maintenance counter | | Drum motor drive time | | |
| | TOTAL OUTPUT | Copy counter
(Effective paper counter) | TONER MOTOR TIME | Toner supply time | | |
| | RIGHT-OUTPU | Right paper exit counter | DV MOTOR TIME | Developing motor drive time | | |
| | PRINTER | Printer counter | PROCESS WAY | Process system | | |
| | OTHERS | Others | | A SRU3 : BTA-A | | |
| | STAPLE COUT | NER DISP. | | B SRU3 : BTA-B | | |
| | STAPLE | Staple counter | | C SRU3 : BTA-B | | |
| | PUNCH | Punch counter | | D SRU3 : BTA-B | | |
| | FEED COUNTE | R DISP. | | E SRU3 : BTA-B | | |
| | TRAY1 | Paper feed tray 1 counter | | F SRU3 : BTA-B | | |
| | TRAY2 | Paper feed tray 2 counter | | G SRU3 : BTA-B | | |
| | LCC1/TRAY3 | Paper feed tray 3 counter | - | H SRU3 : BTA-B | | |
| | LCC2/TRAY4 | LCC2 | 4 | I SRU3 : BTA-B | | |
| | | or paper feed tray 4 counter | | | | |
| | BPT | Manual paper feed counter | | J SRU3 : BTA-B | | |
| | ADJ | Duplex counter | - | K SRU3 : BTA-B | | |
| | | | DESTINATION | Destination | | |
| | | | | 1 SRU-OTHER | | |
| | | | | 2 SRU-JAPAN | | |
| | | | | 3 CRU | | |
| | | | JAM/TBL COUNTER D | ISP | | |
| | | | | Jam counter | | |
| | | | | Trouble counter | | |
| | L | | | | | |

| Menu | | | Conter | nt | | Initial
value | Set
range | |
|-----------------------|--|---|-----------------------------|---------------------|---|------------------|--------------|--|
| COUNTER DATA
CLEAR | Counter dat
Used to clea
(LCD display | a clear.
r each counter
/) | value. | | | | | |
| | | | XXXXX COUNT | ER CLEAR | | | | |
| | *Pressing the
*Pressing [O
*Using [MEN
*Pressing the
*Pressing [O
*Pressing [B | | | | | | | |
| | COUNTER O | | | | | | | |
| | FEED COUNTER CLEAR | | | DEVE COUNTER C | CLEAR | | | |
| | TRAY1 | Paper | feed tray 1 counter | DEVE | Developing counter | | | |
| | TRAY2 | Paper | feed tray 2 counter | DRUM COUNTER (| CLEAR | | | |
| | LCC1/TR | AY3 Paper | feed tray 3 counter | DRUM | Drum counter | | | |
| | LCC1/TR | AY4 LCC1 | or paper ray tray 4 counter | TONER COUNTER CLEAR | | | | |
| | BPT | Manua | l paper feed counter | TONER | Toner counter | | | |
| | ADU | Duplex | counter | OUTPUT COUNTER | R CLEAR | | | |
| | STAPLE | STAPLE COUNTER CLEAR | | | Copy counter
(Effective paper counter) | | | |
| | STAPLE | Staple | counter | PRINTER | Printer counter | | | |
| | PUNCH | Punch | counter | OTHERS | Others | | | |
| | MNT CO | UNTER CLEAF | 8 | TIMER DATA CLEA | R | | | |
| | MENTENANCE Maintenance counter | | | DRUM ROTATION | Drum motor RPM | | | |
| | | | | DEVE ROTATION | | | | |
| | | | | JAM/TBL COUNTEI | R CL | | | |
| | | | | JAM | Jam counter | | | |
| | | | | TROUBLE | Trouble counter | | | |
| TROUBLE CANCEL X | X Trouble cancel.
Used to cancel a trouble code.
(LCD display)
TROUBLE CANCEL X | | | | | | | |
| | *Pressing the [△] or [▽] key selects the trouble cancel mode. *Pressing [OK] key start the trouble cancel mode. *Using [△] and [▽] keys changes the YES or NO. *Pressing [OK] key starts the trouble cancel mode. *Pressing [BACK/C] key terminates the trouble cancel mode. | | | | | | | |
| | | X: | | | | | | |
| | | E-TBL Cancel troubles except for U2 in the engine mode. | | | | | | |
| | | E-U2 Cancel U2 trouble in the engine mode. | | | | | | |
| | | C-TBL | Cancel trouble in the cont | oroller. | | | | |
| 1 | 1 | - | * | | | 1 | 1 | |

| Menu | | | Со | ntent | | | Initial
value | Set
range |
|-------------------|---|---|------------------------|---------------------------|-----------------|------------|------------------|----------------------|
| XXX SIZE SETUP | Tray size se
Used to set t
(LCD display | tting.
he paper size on N
′) | lo. 1 paper feed tray | and the LCC tray. | | | inch | Tray1 |
| | | | XXX SIZE S | SETUP | | | 8.5"x11" | A4
B5
8.5"x11" |
| | *Pressing the | $[\triangle]$ or $[\bigtriangledown]$ key set | elect the tray. | | | | | |
| | *Pressing [O | K] Key displays the
and [□] keys chance | tray size. | | | | AB | LCC |
| | *Pressing [O | K] key set the chan | ige of the tray size. | | | | A4 | A4 |
| | *Pressing [B | ACK/C] key termina | ates the setting. | | | | | 8.5"x11" |
| | | XXX: | | | | | | |
| | | TRAY1 TR | RAY1 | | | | | |
| | | LCC LC | C | | | J | | |
| DESTINATION SETUP | Destination
Used to perfe
(LCD display | setup.
orm the destination | setup.
DESTINATIO | DN SETUP | | | | |
| TRAVERTECT | *Pressing the [△] or [▽] key select the destination. *Pressing [OK] key displays the destination. *Using [△] and [▽] keys changes the destination. *Pressing [OK] key set the change of the destination. *Pressing [BACK/C] key terminates the setting. | | | | | | | |
| TYPE xx | Used to sele
(LCD display | type setting.
ct between the AB | series and the inch | series for size detectior | n of each paper | feed tray. | | AB |
| | | | TRAY DETEC | CT TYPE XXX | | | | |
| | *Pressing the | e [∆] or [▽] key se | elect the tray. | | | | | |
| | *Pressing [O | K] key displays the | destination. | | | | | |
| | *Using [△] a | and $[\bigtriangledown]$ keys chang | ges the destination. | _ | | | | |
| | *Pressing [O | K Key set the chan | ige of the destination | n. | | | | |
| | T TOSSING [D | X | X: | | | 1 | | |
| | | E | B: | BPT | | | | |
| | | Т | 2: | Multi purpose tray | | | | |
| | | Т | -3: | Desk tray1 | | | | |
| | | Т | 4: | Desk tray2 | | | | |
| CE MARK SETTING | CE mark set
Used to set t
(LCD display | t ting.
he operation mode
') | conforming to the C | E mark. | | | Yes
(Europe) | YES |
| | CE MARK SETTING | | | | | | No
(Others) | |
| | *Pressing [O
*Using [△] a
*Pressing [O
*Pressing [B | | | | | | | |

| Menu | Content | | | | |
|-------------------------|---|---|---|--|--|
| COUNTUP MODE
SETUP | countup mode setup.
1.Used to set the count-up mode of A3 (11 x 17) paper.
2.Used to set whether to perform count-up of blank paper.
(LCD display) | A ~ C
Double | A ~ C
SINGLE | | |
| | COUNTUP MODE SETUP X | | DOUBLE | | |
| | *Pressing the [△] or [▽] key select the counter mode. *Pressing [OK] key start the setting. *Using [△] and [▽] keys changes the countup number. *Pressing [OK] key memorize the countup number. *Pressing [BACK/C] key terminates the setting. X: A: total counter A3(11X17) countup mode. B: mainte counter A3(11X17) countup mode. C: deve counter A3(11X17) countup mode. D: blank paper countup mode. | D
(Japan,
AUS)
Yes
(Others) | D
(NO-
COUNT
UP)
YES
(COUNT
UP) | | |
| MNT CYCLE SETUP | Maintenance cycle setup.
Used to set the maintenance cycle.
(LCD display) | Default | DEFAULT
40K
50K
80K | | |
| | *Pressing [OK] key displays the maintenance cycle. *Using [△] and [▽] keys changes the maintenance cycle. *Pressing [OK] key set the change of the maintenance cycle. *Pressing [BACK/C] key terminates the setting. | | 100K
120K
FREE | | |
| LIFE OVER SETTING | Life over setting.
Used to set whether to stop printing when the developer life is over. | | YES | | |
| | (LCD display) | | NO | | |
| | LIFE OVER SETTING | Yes | | | |
| | *Pressing [OK] key start the setting.
*Using [△] and [▽] keys changes the YES or NO.
*Pressing [OK] key memorize the life over mode.
*Pressing [BACK/C] key terminates the setting. | | | | |
| FINISHER JOGGER
ADJ. | Finisher jogger adjustment.
Used to adjust the finisher (AR-FN6/FN7) jogger.
For details, refer to each Service Manual of the AR-FN6/FN7.
(LCD display) | | | | |
| | FINISHER JOGGER ADJ. | | | | |
| | *Press [OK] key to display the finisher jogger adjustment value. *Using [△] or [▽] key changes the value. *Press [MENU] key to display the adjustment value. *Press [△] or [▽] key to change the value. *Pressing [OK] key starts the finisher jogger adjustment. *DATA (LED) blinks during the processing. *Pressing [BACK/C] key terminates the finisher jogger adjustment. | 50 | | | |

| Menu | Content | | | | | initial
value | Set
range | |
|--|--|------------------------|-----------------------------|------------------|---|------------------|--------------|----|
| CONSOLE FIN. SET X | Console finisher setting.
Used to perform the adjustments of the console finisher (AR-FN7).
For details, refer to the Service Manual of the AR-FN7.
(LCD display) | | | | | | | |
| | | | CONSOLE FI | N. SET | X | | | |
| | *Pressing the [△] or [▽] key select the console finisher mode.
*Pressing [OK] key start the setting. | | | | | | | I |
| | *Using [△] and [▽] keys changes the value.
*Pressing [OK] key memorize thevalue. | | | | | | | 1 |
| | *Pressing [BACK/C] key terminates the setting. | | | | | | efer to | 1 |
| | | X: | | | Initial value | the | e text. | |
| | | A: | saddle binding position | n | 200 | | | I |
| | | B: | saddle fold position | | 200 | | | I |
| | | C: | console finisher adjust | ment (front) | 10 | | | |
| | | D: | console finisher adjust | ment (rear) | 10 | | | |
| | | E: | staple position (rear) | | 100 | | | |
| | | F: | staple position (front) | | 100 | | | |
| | | G: | center adjustment (sta | ple) | 100 | | | I |
| | | H: | staple pitch | | 50 | | | I |
| | | l: | center adjustment (pu | nch) | 50 | | | |
| | | J: | punch position | | 50 | | | I |
| | *Pressing [OK] key start the setting. *Using [△] and [▽] keys changes the value. *Pressing [OK] key memorize thevalue. *Pressing [OK] key memorize thevalue. *Pressing [OK] key memorize thevalue. *Pressing [BACK/C] key terminates the setting. Set value Operation ONCE The same trouble as the previous one is not stored. | | | | Once | ONCE
ANY | | |
| | Leation of | | Any trouble is stored unit | contaitionality. | | | | |
| LAST JAW CODE DISP Last jam code display.
Used to display the final jam history.
(LCD display) | | | | | | | | l |
| | *Pressing [OK] key enter the last jam code display mode. | | | | | | | I |
| | | | | | MPED not-reaching iom | | | l. |
| | a jam. Also used when canceling MPFD_ND1 MPFD not-reaching jam (Desk trav 1 paper) | | | | | | | |
| | NONE | No jam. Al | lso used when canceling | MPFD_ND2 | MPFD not-reaching jam | | | |
| | | a jam. | . | | (Desk tray 2 paper) | | | |
| | TRAY2 | Tray 2 pap
(MPFD no | per feed jam
t-reaching) | MPFD_NTD | MPFD not-reaching jam
(Tandem desk tray paper) | | | 1 |
| | MPFD_ST | 2 MPFD ren | naining jam | MPFD_SD2 | MPFD remaining jam | | | |
| | | (Machine | tray 2 paper) | | (Desk tray 2 paper) | | | l. |
| | INIPED_SL | (Desk trav | naining jam
1 paper) | WIPFU_SID | (Tandem desk paper) | | | |
| | | LOCSK LIDY | · paper, | 1 | |] | | |

| Menu | Content | | | | | Set
range | | |
|---|---|---|---|---|---|---|---|---|
| LAST JAM CODE DISP | Last jam code display.
Used to display the final jam history. | | | | | |
| | PPD1_NMF | PPD1 not-reaching jam
(Manual feed tray paper) | PPD1_ND2 | PPD1 not-reaching jam
(Desk tray 2 paper) | | |
| | TRAY1 | Tray 1 paper feed jam
(PPD1 not-reaching) | PPD1_NTD | PPD1 not-reaching jam
(Tandem desk paper) | | |
| | PPD1_NT2 | PPD1 not-reaching jam
(Machine tray 2 paper) | PPD1_NAD | PPD1 not-reaching jam
(ADU re-feed paper) | | |
| | PPD1_ND1 | (Desk tray 1 paper) | | | | |
| | PPD1_SMF | PPD1 remaining jam
(Manual feed tray paper) | PPD1_SD2 | PPD1 remaining jam
(Desk tray 2 paper) | | |
| | PPD1_ST1 | PPD1 remaining jam
(Machine tray 1 paper) | PPD1_STD | PPD1 remaining jam
(Tandem desk paper) | | |
| | PPD1_ST2 | PPD1 remaining jam
(Machine tray 2 paper) | PPD1_SAD | PPD1 remaining jam
(ADU re-feed paper) | | |
| | PPD1_SD1 | (Desk tray 1 paper) | | | | |
| | PPD1_PRI | PPD1 jam
(Image ready complete is not sent
from the ICU.) | POD2_N | POD2 not-reaching jam | | |
| | POD1_N | POD1 not-reaching jam | POD2_SR | POD2 remaining jam
(When discharging paper to the
right side of the machine.) | | |
| | POD1_S | POD1 remaining jam | POD2_SL | POD2 remaining jam
(When discharging paper to the left
side of the machine.) | | |
| | AINPD_N | ADU paper entry sensor not-
reaching jam | APPD1_S | ADU transport sensor 1 remaining | | |
| | AINPD_S | ADU paper entry sensor remaining jam | APPD2_N | ADU transport sensor 2
not-reaching jam
(During ADU transport) | | |
| | APOD_N | ADU paper exit sensor not-
reaching jam | APPD2_S | ADU transport sensor 2 remaining jam (During ADU transport) | | |
| | APOD_S | ADU paper exit sensor remaining jam | BPT | Manual feed tray paper feed jam
(APPD2 not-reaching) | | |
| | | not-reaching jam | _SMF | jam (Manual paper feed tray paper) | | |
| | DESK2 | Desk tray 2 paper feed jam
(DPFD3 not-reaching) | DPFD2_ND2 | DPFD2 not-reaching jam
(Desk tray 2 paper) | | |
| | DPFD3_SD2 | DPFD3 remaining jam
(Desk tray 2 paper) | DPFD2_SD1 | DPFD2 remaining jam
(Desk tray 1 paper) | | |
| | DESK1 | Desk tray 1 paper feed jam
(DPFD2 not-reaching) | DPFD2_SD2 | DPFD2 remaining jam
(Desk tray 2 paper) | | |
| | TTRAY2 | Tandem tray 2 paper feed jam
(TPFD3 not-reaching) | TPFD2
_NTD2 | TPFD2 not-reaching jam
(Tandem tray 2 paper) | | |
| | TPFD3
_STD2 | TPFD3 remaining jam
(Tandem tray 2 paper) | TPFD2
_STD1 | TPFD2 remaining jam
(Tandem tray 1 paper) | | |
| | TTRAY1 | Tandem tray 1 paper feed jam
(TPFD2 not-reaching) | TPFD2
_STD2 | TPFD2 remaining jam
(Tandem tray 2 paper) | | |
| | FPID_N | Build-in finisher PID not-reaching
jam | FPPD_S | Build-in finisher PPD remaining
jam | | |
| | FPID_S | Build-in finisher PID remaining jam | FSCPD_N | Build-in finisher SCPD
not-reaching jam | | |
| | FSCID_N | Build-in finisher SCID not-reaching
jam | FSCPD_S | Build-in finisher SCPD remaining
jam | | |
| | FSCID2 N | jam
Build-in finisher SCID2 | FPOD S | jam | | |
| | FSCID2_N | not-reaching jam
Build-in finisher SCID2 remaining | | jam | | |
| | | jam | | | | |
| Menu | Content | | | | | Initial
value | Set
range | |
|-------------------------|--|---|---|--|------------|---|--------------|--|
| LAST JAM CODE DISP | Las | Last jam code display. | | | | | | |
| | Used to display the final jam history. | | | | | | | |
| | F | ES_N | Console finisher entry port sens
(FES) not-reaching jam | | FSTPL | Console finisher staple jam
(The stapler does not end
clinching.) | | |
| | F | ES_S | Console finisher er
(FES) remaining ja | ntry port sensor
m | FPNCH | Console finisher punch jam
(The puncher does not end
punching.) | | |
| | F | FPS_N | Console finisher sa
reaching jam
(The saddle does r
folding position ser | addle not-
not reach the
nsor (FFPS).) | FDOP | Console finisher door open jam
(The front door/joint/upper cover is
opened during paper passing or
after process.) | | |
| | F | FPS_S | Console finisher sa
jam
(The folding positio
(FFPS) does not tu | addle remaining
on sensor
urn off.) | | | | |
| | P | PID_N | Mail box PID not-re | eaching jam | MPPD3_N | Mail box MPPD3 not-reaching jam | | |
| | | UDS | Mail box MDD1 n | ining jam | MPPD3_S | Mail box MPPD3 remaining jam | | |
| | | APPDI_N | Mail box MPPD1 n | ot-reaching jam | MPPD4_N | Mail box MPPD4 not-reaching jam | | |
| | | | Mail box MPPD2 n | et recebing iom | MDDD5 N | Mail box MPPD5 not reaching jam | | |
| | N | APPD2_N | Mail box MPPD2 II | ot-reaching jam | MPPD5_N | Mail box MPPD5 not-reaching jam | | |
| | | 11 DZ_0 | | ananing jam | NII 1 D0_0 | Mail box Mil 1 B5 Ternaining Jam | | |
| SYSTEM
INFORMATION X | Sy:
Use
(LC | rstem information dispaly.
Se to display the machine information.
CD display) | | | | | | |
| | | | SY | STEM INE | FORMATIC | DN X | | |
| | *Pr
*Pr
*Us
*Pr | Pressing the [△] or [▽] key selects the group.
Pressing [OK] key displays the system information.
Using [MENU] moves to the next item.
Pressing [BACK/C] key terminates the system information | | | | | | |
| | Мо | lode group is: | | | | | | |
| | Г | | X: | | | | | |
| | | | A: | ROM version | | | | |
| | - | | B' | machine speed | 1 | 45PPM | | |
| | | | | | - | 35PPM | | |
| | | | C: | process type | | SRU (Others) | | |
| | | | | | | SRU (Japan) | | |
| | | | | | | CRU | | |

| Menu | Content | | | | | |
|------------------|---|----|-----|--|--|--|
| | Presses control data diantau | | | | | |
| DISPLAY | (I CD display) | | | | | |
| 2.0. 2 | | | | | | |
| | PROCESS DATA DISP | | | | | |
| | | | | | | |
| | | | | | | |
| | *Pressing the [\triangle] or [\bigtriangledown] key selects the group. | | | | | |
| | *Pressing [OK] key displays the process control data. | | | | | |
| | *Using [MENU] moves to the next item | | | | | |
| | *Pressing [BACK/C] key terminates the process control data display mode. | | | | | |
| | | | | | | |
| | | | | | | |
| | X: | | | | | |
| | A: process control data | | | | | |
| | B: toner control data | | | | | |
| XXX CHECK. | Controller port check. | | | | | |
| | Used to check the interface port (Centro/NICS) of the controller PWB. | | | | | |
| | (LCD display) | | | | | |
| | CENTRO DORT CUECK NIC CUECK | | | | | |
| | CENTRO PORT CHECK NIC CHECK | | | | | |
| | | | | | | |
| | *Pressing the $[\land]$ or $[\neg]$ key selects the part check mode | | | | | |
| | *Pressing $[OK]$ key start the port check | | | | | |
| | *Pressing [BACK/C] key terminates the the port check mode. | | | | | |
| | | | | | | |
| | | | | | | |
| | NIC CHECK (network interface card check) | | | | | |
| | HDD R/W CHECK HDD operation check (read/write) (Partial check) | | | | | |
| | HDD R/W CHECK (ALL) HDD operation check (read/write) (All area check) | | | | | |
| SELECT IN SIGNAL | Select in signal setting. | ON | | | | |
| SET | Used to set ON/OFF of the select IN signal of the parallel interface. | | | | | |
| | (LCD display) | | ON | | | |
| | | | OFF | | | |
| | SELECT IN SIGNAL SET | | | | | |
| | | | | | | |
| | | | | | | |
| | Pressing [UK] key start the select in signal setting mode. | | | | | |
| | Using the $\lfloor \Delta \rfloor$ and $\lfloor \nabla \rfloor$ keys changes the UN of UFF. | | | | | |
| | *Processing [DACK/C] key terminated the select in signal setting mode | | | | | |
| | Fiessing [DACR/C] key terminates the select in signal setting mode. | 1 | | | | |

[11] TROUBLE CODES

1.Trouble codes list

| Trouble | | Contonto | Bomork | Trouble |
|---------|------|--------------------------------|-------------------|------------|
| 1100 | JDIE | Contents | Remark | nouble |
| COC | des | | | detection |
| C1 | 00 | MC trouble | | PCU |
| E7 | 02 | Laser trouble | | PCU |
| | 03 | HDD trouble | With HDD | Controller |
| | | | installed | |
| | 06 | Decode error trouble | | Controller |
| | 50 | LSU connection trouble | | PCU |
| F1 | 00 | Finisher communication trouble | With Finisher | PCU |
| | | | installed | |
| | 08 | Finisher staple shift motor | With Finisher | PCU |
| | | trouble | installed | |
| | 10 | Finisher stapler motor trouble | With Finisher | PCU |
| | | | installed | |
| | 11 | Finisher bundle exit motor | With Finisher | PCU |
| | | trouble | installed | |
| | 15 | Finisher lift motor trouble | With Finisher | PCU |
| | | | installed | |
| | 19 | Finisher alignment motor | With Finisher | PCU |
| | | trouble FRONT | installed | |
| | 20 | Finisher alignment motor | With Finisher | PCU |
| | | trouble | installed | |
| | 80 | Finisher 24V power supply | With Finisher | PCU |
| | | trouble | installed | |
| | 87 | Finisher staple rotation motor | With Finisher | |
| | | trouble | installed | |
| F1 | 00 | Mail bin stacker communication | With Mail bin | PCU |
| | | trouble | stacker installed | |
| | 02 | mail bin stacker main drive | With Mail bin | PCU |
| | | motor trouble | stacker installed | |
| | 12 | Mail bin stacker gate trouble | With Mail bin | PCU |
| | | | stacker installed | |
| | 80 | Mail bin stacker 24V power | With Mail bin | PCU |
| | | supply trouble | stacker installed | |

| Irou | JDIE | Contents | Remark | |
|-------|------------|--------------------------------|---------------|-----------|
| COC | jes | - | | detection |
| F1 | 03 | Console finisher paddle motor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 06 | Console finisher slide motor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 10 | Console finisher stapler motor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 11 | Console finisher bundle exit | With Console | PCU |
| | | motor trouble | Finisher | |
| | | | installed | |
| | 15 | Console finisher lift motor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 19 | Console finisher alignment | With Console | PCU |
| | | motor trouble FRONT | Finisher | |
| | | | installed | |
| | 20 | Console finisher alignment | With Console | PCU |
| | | motor trouble | Finisher | |
| | | | installed | |
| | 30 | Console finisher | With Console | PCU |
| | | communication trouble | Finisher | |
| | | | installed | |
| | 31 | Console finisher fold sensor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 32 | Console finisher punch unit | With Console | PCU |
| | | communication trouble | Finisher | |
| | | | installed | |
| | 33 | Console finisher punch side | With Console | PCU |
| | | register motor trouble | Finisher | |
| | | | installed | |
| | 34 | Console finisher punch motor | With Console | PCU |
| | | trouble | Finisher | |
| | | | installed | |
| | 35 | Console finisher punch side | With Console | PCU |
| | | register sensor trouble | Finisher | |
| | ~~ | | | 5011 |
| | 36 | Console finisher punch timing | With Console | PCU |
| | | sensor trouble | installed | |
| | 07 | | | DOLL |
| | 31 | Console finisher backup RAM | Finisher | PCU |
| | | trouble | installed | |
| | 20 | Concele finisher punch beakun | With Concolo | DCU |
| | 50 | | Finisher | FCU |
| | | | installed | |
| | 8 1 | Console finisher transport | With Console | PCU |
| | 51 | motor trouble | Finisher | 100 |
| | | | installed | |
| F2 | 00 | Toner concentration sensor | | PCU |
| | 00 | open | | |
| | 02 | Toner supply abnormality | | PCU |
| | 04 | Improper cartridge | | PCU |
| | 04 | (Destination error, life cycle | | 100 |
| | | error) | | |
| | 05 | CRUM error | | PCU |
| | 30 | Process thermistor breakdown | | PCU |
| F٦ | 12 | Tray 1 lift-n trouble | | PCU |
| 10 | 22 | Troy 2 lift up trouble | Multi purpose | |
| | 22 | (Multi-purpose trav) | trav | F 00 |
| Η2 | 00 | Thermistor open (HI 1) | | PCU |
| 112 | 00 | | | |
| 1 3 7 | | | | r 00 |

| Trou | uble | Contents | Remark | Trouble |
|----------------|--|---|-----------------|---|
| COC | des | | | detection |
| H3 | 00 | Heat roller high temperature | | PCU |
| | 01 | Heat roller high temperature | | PCU |
| | 01 | detection (HI 2) | | 100 |
| H4 | 00 | Heat roller low temperature | | PCU |
| | 00 | detection (HL1) | | |
| | 01 | Heat roller low temperature | | PCU |
| | | detection (HL2) | | |
| H5 | 01 | 5-time continuous POD1 | | PCU |
| | | not-reaching JAM detection | | |
| L4 | 01 | main motor lock detection | | PCU |
| | 02 | Drum motor lock detection | | PCU |
| L6 | 10 | Polygon motor lock detection | | PCU |
| L8 | 01 | No full-wave signal | | PCU |
| | 02 | Full-wave signal width | | PCU |
| | | abnormality | | |
| U6 | 00 | Desk/LCC communication | With Paper feed | PCU |
| | | trouble | desk installed | |
| | 01 | Desk/LCC1CS lift-up trouble | With Paper feed | PCU |
| | | (Multi-purpose tray) | desk installed | |
| | 02 | Desk2 CS lift-up trouble/LCC1 | With Paper feed | PCU |
| | 00 | | desk installed | DOLL |
| | 03 | lift-up trouble | desk installed | PCU |
| | 10 | Desk/I CC transport motor | With Paper feed | PCU |
| | | trouble | desk installed | |
| EE | EL | Auto developer adjustment | Only during | PCU |
| | | trouble (Over-toner) | DIAG | |
| | EU | Auto developer adjustment | Only during | PCU |
| | | trouble (Under-toner) | DIAG | |
| F9 | 02 | Centro port check error | | Controller |
| | 03 | NIC port check error | | Controller |
| U1 | 01 | Battery abnormality | With FAX board | Controller |
| | | | installed | 0 |
| 02 | 00 | EEPROM read/write error | | Controller |
| | 11 | | | Controllor |
| | 11 | (Controller EEPROM) | | Controller |
| | | | | |
| | 12 | Adjustment value check sum | | Controller |
| | 12 | Adjustment value check sum
error (Controller EEPROM) | | Controller |
| | 12
90 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/ | | Controller
PCU |
| | 12
90 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error | | Controller
PCU |
| · · · · | 12
90
91 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum | | Controller
PCU
PCU |
| | 12
90
91 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error | | Controller
PCU
PCU |
| U7 | 12
90
91
00 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication | | Controller
PCU
PCU
Controller |
| U7 | 12
90
91
00 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error | | Controller
PCU
PCU
Controller |
| U7
PF | 12
90
91
00
 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception | | Controller
PCU
PCU
Controller
Controller |
| U7
PF | 12
90
91
00
 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception
Door open (CH ON) | | Controller
PCU
PCU
Controller
Controller |
| U7
PF
CH | 12
90
91
00
 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception
Door open (CH ON) | | Controller
PCU
PCU
Controller
Controller
PCU
PCU |
| U7
PF
CH | 12
90
91
00

00
01 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception
Door open (CH ON)
No developer cartridge | | Controller
PCU
Controller
Controller
PCU
PCU
PCU |
| U7
PF
CH | 12
90
91
00

00
01
 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception
Door open (CH ON)
No developer cartridge
No toner cartridge
Auditor not ready | | Controller
PCU
Controller
Controller
PCU
PCU
PCU
Controller |
| U7
PF
CH | 12
90
91

00
01
 | Adjustment value check sum
error (Controller EEPROM)
PCU section EEPROM read/
write error
PCU section memory sum
check error
PC/MODEM communication
error
RIC copy inhibit command
reception
Door open (CH ON)
No developer cartridge
No toner cartridge
Auditor not ready
Personal counter not installed | | Controller
PCU
PCU
Controller
PCU
PCU
PCU
Controller
Controller |

2.Details of trouble codes

| MAIN | SUB | | |
|------|-----|---------------------|--|
| C1 | 00 | Content | MC trouble |
| | | Detail | Main charger output abnormality
(Output open)
Trouble signal is outputted from the high
voltage transformer. |
| | | Cause | The main charger is not installed properly.
The main charger is not assembled properly.
Disconnection of connector of high voltage
transformer.
High voltage harness disconnection or
breakage. |
| | | Check and
remedy | Use the diag mode or DIAG to check the
main charger output.
Check for disconnection of the main charger.
Replace the high voltage unit. |
| E7 | 02 | Content | Laser trouble |
| | | Detail | BD signal from LSU is kept OFF, or ON. |
| | | Cause | The connector of LSU or the harness in LSU
is disconnected or broken.
The polygon motor does not rotate normally.
The laser home position sensor in LSU is
shifted.
The proper voltage is not supplied to the
power line for laser.
Laser emitting diode trouble
PCU PWB trouble
Controller PWB trouble |
| | | cneck and
remedy | Check for disconnection of the LSU
connector.
Use DIAG (SIM 61-1) to check LSU
operation.
Check that the polygon motor rotates
normally or not.
Check light emission of laser emitting diode.
Replace the LSU unit.
Replace the PCU PWB.
Replace the Controller PWB. |

| MAIN | SUB | | |
|------|-----|---------------------|--|
| E7 | 03 | Content | HDD trouble |
| | | Detail | HDD does not operate properly in the machine with HDD installed. |
| | | Cause | HDD is not installed properly to the Controller PWB. |
| | | | HDD does not operate properly in the
Controller PWB. |
| | | | Controller PWB trouble |
| | | Check and
remedy | Check installation of HDD to the Controller
PWB. |
| | | | Check connection of the harness of HDD to
the Controller PWB. |
| | | | of HDD. |
| | | | Replace Controller PWB. |
| | 06 | Content | Decode error trouble |
| | | Detail | A decode error occurs during making of an image. |
| | | Cause | Data error during input from PCI to PM.
PM trouble |
| | | | Data error during image compression/
transfer. |
| | | Check and | Check insertion of the PW/B (PCI bus) |
| | | remedy | If the error occurred in a FAX job, check installation of the FAX PWB. |
| | | | For the other cases, check the Controller
PWB. |
| | 50 | Contont | |
| | 50 | Detail | LSO connection trouble |
| | | Detail | machine is installed. |
| | | Cause | PCU PWB trouble
LSU trouble |
| | | Check and | Check LSU PWB. Check PCU PWB. |
| | | remedy | Check connection of the connector and the harness between PCU and LSU. |
| F1 | 00 | Content | Finisher (AR-FN6) communication trouble |
| | | Detail | Communication cable test error after turning
on the power or exiting from DIAG. |
| | | Causa | Communication error with the initiater |
| | | Cause | connectors and harness between the |
| | | | machine and the finisher. |
| | | | Control PWB (PCU) trouble
Malfunction by noises |
| | | Check and | Canceled by turning OFF/ON the power. |
| | | remedy | Check connectors and harness in the |
| | | | communication line.
Replace the finisher control PWB or PCU
PWB. |
| | 08 | Content | Finisher (AR-FN6) staple shift motor trouble |
| | | Detail | Staple motor drive trouble |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Checkand | I Institut Control FVD LIOUDIE |
| | | remedy | the staple motor. |

| MAIN | SUB | | |
|------|-----|---------------------|---|
| F1 | 10 | Content | Finisher (AR-FN6) stapler motor trouble |
| | | Detail | Stapler motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | | Finisher control PWB trouble |
| | | Check and
remedy | Use DIAG (SIM3-3) to check the motor operation. |
| | 11 | Content | Finisher (AR-FN6) bundle exit motor trouble |
| | | Detail | Bundle exit motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | | Finisher control PWB trouble |
| | | Check and
remedy | Use DIAG (SIM3-3) to check the motor operation. |
| | 15 | Content | Finisher (AR-FN6) lift motor trouble |
| | | Detail | Lift motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | 40 | Contont | Finisher control PWB trouble |
| | 19 | Content | trouble |
| | | Detail | Front alignment motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Chaoliand | Line DIAC (CIM2 2) to check the motor |
| | | remedy | operation. |
| | 20 | Content | Finisher (AR-FN6) rear alignment motor trouble |
| | | Detail | Rear alignment motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | <u>.</u> | Finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | 00 | Content | Uperation. |
| | 80 | Detail | The 24/ newer is not even like the field |
| | | Detail | PWB. |
| | | Cause | Improper connection or disconnection of |
| | | | connector and harness |
| | | | Finisher control PWB trouble |
| | | Checkand | Use DIAC (SIM2-2) to check the concer |
| | | remedy | |
| | 87 | Content | Finisher (AR-FN6) staple rotation motor trouble |
| | | Detail | Front staple rotation motor trouble |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | <u>.</u> | Finisher control PWB trouble |
| | | Check and
remedy | Use DIAG (SIM3-3) to check the motor operation. |
| | | | |

| MAIN | SUB | | |
|------|-----|---------------------|---|
| F1 | 00 | Content | Mail-bin stacker (AR-MS1)
communication trouble |
| | | Detail | Communication cable test error after turning
on the power or exiting from DIAG.
Communication error with the Mail-bin
stacker. |
| | | Cause | Improper connection or disconnection of
connector and harness between the machine
and the Mail-bin stacker.
Mail-bin stacker control PWB trouble
Control PWB (PCU) trouble
Malfunction by noises |
| | | Check and remedy | Canceled by turning OFF/ON the power.
Check harness and connector in the
communication line.
Replace the Mail-bin stacker PWB or PCU
PWB. |
| | 02 | Content | Mail-bin stacker (AR-MS1)
transport motor abnormality |
| | | Detail
Cause | Transport motor trouble
Motor lock
Motor rpm abnormality |
| | | Check and remedy | Mail-bin stacker control PWB trouble
Use DIAG (SIM3-21) to check the transport
motor operation. |
| | 12 | Content | Mail-bin stacker (AR-MS1) gate trouble |
| | | Detail | Gate operation abnormality |
| | | Cause | Mail-bin stacker control PWB trouble |
| | | Check and
remedy | Use DIAG (SIM3-21) to check the transport gate operation. |
| | 80 | Content | Mail-bin stacker (AR-MS1)
power abnormality |
| | | Detail | The 24V power is not supplied to the Mail-bin stacker PWB. |
| | | Cause | Improper connection or disconnection of
connector and harness
Mail-bin stacker control PWB trouble
Power unit (AR-DC1) trouble |
| | | Check and remedy | Use DIAG (SIM3-20) to check the sensor operation. |
| F1 | 03 | Content | Console finisher (AR-FN7)
paddle motor trouble |
| | | Detail | Paddle motor operation abnormality |
| | | Cause | Motor lock
Motor rpm abnormality
Overcurrent to the motor
Console finisher control PWB trouble |
| | | Check and remedy | Use DIAG (SIM3-3) to check the motor operation. |
| | 06 | Content | Console finisher (AR-FN7)
slide motor trouble |
| | | Detail | Slide motor operation abnormality |
| | | Cause | Motor lock
Motor rpm abnormality
Overcurrent to the motor
Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |

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| MAIN | SUB | | |
|------|-----|------------|--|
| F1 | 10 | Content | Console finisher (AR-FN7)
stapler motor trouble |
| | | Detail | Stapler motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Chaoliand | Console limitsher control PWB trouble |
| | | remedy | operation. |
| | 11 | Content | Console finisher (AR-FN7)
bundle exit motor trouble |
| | | Detail | Bundle exit motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |
| | 15 | Content | Console finisher (AR-FN7) lift motor trouble |
| | | Detail | Lift motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | 10 | Content | Console finisher (AR-ENIZ) |
| | 13 | Content | front alignment motor trouble |
| | | Detail | Front alignment motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Charle and | Console finisher control PWB trouble |
| | | remedy | operation |
| | 20 | Content | Console finisher (AR-FN7) |
| | | | rear alignment motor trouble |
| | | Detail | Rear alignment motor operation abnormality |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |
| | 30 | Content | Console finisher (AR-FN7) |
| | | | communication trouble |
| | | Detail | Communication cable test error after turning |
| | | | on the power or exiting from DIAG. |
| | | | finisher |
| | | Cause | Improper connection or disconnection of |
| | | 0 | connector and harness between the machine |
| | | | and the console finisher. |
| | | | Console finisher control PWB trouble |
| | | | Control PWB (PCU) trouble |
| | | Checkand | Canceled by turning OFE/ON the power |
| | | remedy | Check connectors and harness in the |
| | | | communication line. |
| | | | Replace the console finisher control PWB or |
| | | | |

| MAIN | SUB | | |
|------|-----|--------------|--|
| F1 | 31 | Content | Console finisher (AR-FN7)
fold sensor trouble |
| | | Detail | Sensor input value abnormality |
| | | Cause | Sensor breakage |
| | | | harness breakage |
| | | | Console finisher control PVVB trouble |
| | | Check and | Use DIAG (SIM3-2) to check the sensor |
| | 32 | Content | Communication trouble between the console |
| | 52 | Content | finisher (AR-FN7) |
| | | | and the punch unit (AR-PN1). |
| | | Detail | Communication err between the console |
| | | | finisher and the punch unit. |
| | | Cause | Improper connection or disconnection of |
| | | | connector and harness between the console |
| | | | Console finisher control PWB trouble |
| | | | Control PWB (PCU) trouble |
| | | | Malfunction by noise |
| | | Check and | Canceled by turning OFF/ON the power. |
| | | remedy | Check connectors and harness in the |
| | | | Replace the console finisher control PWB |
| | 33 | Content | Console finisher (AR-FN7) |
| | | | punch (AR-PN1) side registration motor |
| | | | trouble |
| | | Detail | Punch side registration motor operation |
| | | _ | abnormality |
| | | Cause | Motor lock |
| | | | Overcurrent to the motor |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |
| | 34 | Content | Console finisher (AR-FN7) |
| | | D () | punch (AR-PN1) motor trouble |
| | | Detail | Punch motor operation abnormality |
| | | Cause | Motor rom abnormality |
| | | | Overcurrent to the motor |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |
| | 35 | Content | Console finisher (AR-FN7) |
| | | | trouble |
| | | Detail | Sensor input value abnormality |
| | | Cause | Sensor breakage |
| | | | Harness disconnection |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-2) to check the sensor |
| | 00 | remedy | operation. |
| | 36 | Content | Console finisher (AR-FN7) |
| | | Detail | Sensor input value abnormality |
| | | Cause | Sensor breakage |
| | | | Harness disconnection |
| | | | Console finisher control PWB trouble |
| | | Check and | Use DIAG (SIM3-2) to check the sensor |
| | | remedy | operation. |

| MAIN | SUB | | |
|------|-----|------------------|--|
| F1 | 37 | Content | Console finisher (AR-FN7)
backup RAM trouble |
| | | Detail | Backup RAM contents are disturbed. |
| | | Cause | Console finisher control PWB trouble
Malfunction by noise |
| | | Check and remedy | Replace the console finisher control PWB. |
| | 38 | Content | Console finisher (AR-FN7)
punch (AR-PN1) backup RAM trouble |
| | | Detail | Punch unit backup RAM contents are disturbed. |
| | | Cause | Punch control PWB trouble
Malfunction by noise |
| | | Check and remedy | Replace the punch control PWB. |
| | 81 | Content | Console finisher transport motor abnormality |
| | | Detail | Transport motor trouble |
| | | Cause | Motor lock |
| | | | Motor rpm abnormality |
| | | | Overcurrent to the motor |
| | | Check and | Use DIAG (SIM3-3) to check the motor |
| | | remedy | operation. |
| F2 | 00 | Content | Toner control sensor abnormality |
| | | Detail | Toner control sensor output open |
| | | Cause | Connector harness trouble |
| | | | Connector disconnection |
| | | Check and remedy | Check connection of the toner control sensor.
Check connection of connector and harness |
| | | | to the main PWB.
Check for disconnection of barness |
| | 02 | Content | Toper supply abnormality |
| | 02 | Detail | Toner control sensor output value becomes
under-toner too earlier. |
| | | Cause | Connector harness trouble
Toner control sensor trouble |
| | | <u> </u> | The toner cartridge seal is not removed |
| | | cneck and remedy | toneck connection of the connector in the toner motor section. |
| | | loniody | Check connection of connector and harness
to the main PWB |
| | | | Check for disconnection of harness. |
| | | | Toner control sensor output check DIAG |
| | | | (SIM25-1)
Remove the topor contrides and |
| | 04 | Contont | menove the toner cartridge seal. |
| | 04 | Detail | An improper process cartridge is inserted |
| | | Cause | IC chip trouble |
| | | 24400 | Improper cartridge |
| | | Check and | Insert a proper cartridge. |
| | | remedy | · · · - |
| | 05 | Content | CRUM error |
| | | Detail | Communication with IC chip cannot be made. |
| | | Cause | IC chip trouble |
| | | | Improper cartridge |
| | | Check and remedy | Insert a proper cartridge. |
| | | | |

| MAIN | SOB | | | | |
|------|-------------------|---------------------|---|--|--|
| F2 | 39 | Content | Process thermistor trouble | | |
| | | Detail | Process thermistor open | | |
| | | Cause | Process thermistor trouble
Process thermistor harness disconnection
PCU PWB trouble | | |
| | | Check and
remedy | Check connection of harness and connector
of the process thermistor.
Check PCU PWB. | | |
| F3 | 12 | Content | Machine no. 1 tray lift-up trouble | | |
| | | Detail | PED does not turn ON in the specified time.
LUD does not turn ON in the specified time. | | |
| | | Cause | PED/LOD trouble
No. 1 tray lift-up trouble
Check connection of harness between the
PCVU PWB, lift-up unit, and paper feed unit. | | |
| | | Check and
remedy | Check PED, LUD, and their harness and
connectors.
Check the lift-up unit. | | |
| | 22 | Content | Multi purpose tray lift-up trouble | | |
| | | Detail | MCPED does not turn ON in the specified
time.
MCLUD does not turn ON in the specified
time. | | |
| | | Cause | MCPED/MCLUD trouble
Multi purpose tray lift-up motor trouble
Harness disconnection f the PCU PWB, the
lift-up unit, and the paper feed unit. | | |
| | | Check and remedy | Check MCPED, PCLUD, and their harness
and connectors.
Check the lift-up unit. | | |
| H2 | 00…
HL1 | Content | thermistor open
Fusing unit not installed | | |
| | (RT
H1)
01… | Detail | Thermistor is open.
(An input voltage of 2.92V or above is
detected.) | | |
| | HL2 | Causa | Thermistor trouble | | |
| | (RT
H2) | Cause | Control PWB trouble
Fusing section connector disconnection
AC power trouble
Fusing unit not installed | | |
| | | Check and remedy | Check harnesses and connectors from the
thermistor to the control PWB.
Use DIAG (SIM14) to clear the self diag
display. | | |
| H3 | 00 | Content | Fusing section high temperature trouble | | |
| | HL1
(RT
H1) | Detail | The fusing temperature exceeds 242°C.
(An input voltage of 0.27V or above is detected.) | | |
| | 01
HL2
(RT | Cause | thermistor trouble
Control PWB trouble
Fusing section connector disconnection
AC power trouble | | |
| | | Check and
remedy | Use DIAG (SIM5-2) to check the heater lamp
Blinking operation.
If the heater lamp blinks normally:
Check the thermistor and its harness.
Check the thermistor input circuit in the
control PWB.
If the heater lamp keep lighting:
Check the AC PWB and the lamp control
circuit in the control PWB.
Use DIAG (SIM14) to cancel the trouble | | |

| MAIN | SUB | | |
|------|------|------------|---|
| H4 | 00… | Content | Fusing section low temperature trouble |
| | HL1 | Detail | •The set temperature is not reached within |
| | (RT | | the specified time (normally 3 min) when |
| | H1) | | warming up or resetting from pre-heating. |
| | 01 | | Under the ready state. |
| | HI 2 | | (An input voltage of 1.21V or below is |
| | (RT | | detected 5 times continuously.) |
| | H2) | Cause | thermistor trouble |
| | , | | Heater lamp trouble |
| | | | Control PWB trouble |
| | | | Thermostat trouble |
| | | | AC power trouble |
| | | Charle and | |
| | | Check and | Use DIAG (SIM5-2) to check the heater lamp |
| | | Terneuy | If the heater lamp blinks normally: |
| | | | Check the thermistor and its harness. |
| | | | Check the thermistor input circuit in the |
| | | | control PWB. |
| | | | If the heater lamp does not light: |
| | | | Check for heater lamp disconnection and |
| | | | thermostat disconnection. |
| | | | Check the Interlock switch. |
| | | | circuit in the control PWB |
| | | | Use DIAG (SIM14) to cancel the trouble. |
| H5 | 01 | Content | 5-time continuous POD1 not-reaching iam |
| | 01 | Contoin | detection |
| | | Detail | 5-time continuous POD1 not-reaching iam |
| | | | detection |
| | | Cause | A fusing section jam is not properly removed. |
| | | | (Jam paper remains.) |
| | | | POD1 sensor trouble, or harness |
| | | | disconnection |
| | | <u> </u> | Improper Installation of fusing unit |
| | | Check and | Check jam paper in the fusing section. |
| | | remedy | (winding, etc.)
Check POD1 sensor barness, and check |
| | | | installation the fusing unit. |
| | | | Use DIAG (SIM14) to cancel the trouble. |
| L4 | 01 | Content | Main motor lock detection |
| | | Detail | The motor lock signal is detected for 1.5sec |
| | | | during rotation of the main motor. |
| | | Cause | main motor trouble |
| | | | Check connection of harness between the |
| | | | PCU PWB and the main motor. |
| | | | Control circuit trouble |
| | | Check and | Use DIAG (SIM25-1) to check the main |
| | | remedy | motor operation. |
| | | | Check namess and connector between the |
| | 00 | Contant | |
| | 02 | Dotoil | The motor lock detection |
| | | Detall | during rotation of the drum motor |
| | | Cause | Drum motor trouble |
| | | Jause | Improper connection of harness between the |
| | | | PCU PWB and the drum motor. |
| | | | Control circuit trouble |
| | | Check and | Use DIAG (SIM25-1) to check the drum |
| | | remedy | motor operation. |
| | | | Check harness and connector between the |
| | | | PCU PWB and the drum motor. |

| MAIN | SUB | | |
|------|-----|------------------|--|
| L6 | 10 | Content | Polygon motor lock detection |
| | | Detail | It is judged that the polygon motor lock signal is not outputted. |
| | | | Lock signal is checked in the interval of
10sec after starting the polygon motor, and it
is judged that the polygon motor does not |
| | | | rotate normally. |
| | | Cause | The LSU connector or harness in the LSU is
disconnected or broken.
Polygon motor trouble |
| | | Check and remedy | Use DIAG (SIM61-1) to check the polygon motor operation.
Check connector and harness connection. |
| | | | Replace LSU. |
| L8 | 01 | Content | No fullwave signal |
| | | Detail | Full wave signal is not detected. |
| | | Cause | The PCU PWB connector or the power unit
harness is disconnected or broken.
PCU PWB trouble
Power unit trouble |
| | | Check and | Check connection of the harness and |
| | | remedy | connector. |
| | | | Replace the power unit. |
| | 02 | Content | Full wave signal width abnormality |
| | | Detail | It is judged as frequency abnormality of full |
| | | | wave signal. |
| | | | (When the detection cycle is judged as 69Hz or above or 42.5Hz or below) |
| | | Cause | The connector or harness of the PCU PWB
and the power PWB is disconnected.
PCU PWB trouble
Power unit trouble |
| | | Check and | Check connection of the harness and |
| | | remedy | connector. |
| | | | Replace the PCU PWB. |
| 110 | 00 | Original | Replace the power unit. |
| 06 | 00 | Content | Desk/LCC communication trouble |
| | | Detail | Communication cable test error after turning
on the power or exiting DIAG. |
| | | Cause | Improper connection or disconnection of |
| | | | connector and harness |
| | | | Desk control PWB trouble |
| | | | Malfunction by noise |
| | | Check and | Canceled by turning OFF/ON the power. |
| | | remedy | Check connection of the harness and connector in the communication line. |
| | 01 | Content | Desk/LCC No. 1 tray lift-up trouble |
| | | Detail | Desk/LCC No. 1 tray lift-up trouble |
| | | Cause | Sensor trouble
Desk control PWB trouble
Gear breakage
Lift-up motor trouble |
| | | Check and remedy | Use DIAG (SIM4-2) to check the lift-up
sensor detection.
Use DIAG (SIM4-3) to check the lift-up motor
operation. |

| | | MAIN | SUB | | |
|--|----|------|------|-----------|--|
| k detection | | U6 | 02 | Content | Desk No. 2 tray/LCC1 lift-up trouble |
| e polygon motor lock signal | | | | Detail | Desk No. 2 tray/LCC lift-up trouble |
| | | | | Cause | Sensor trouble |
| cked in the interval of | | | | | Desk control PWB trouble |
| g the polygon motor, and it | | | | | Gear breakage |
| polygon motor does not | | | | | Lift-up motor trouble |
| | | | | Check and | Use DIAG (SIM4-2) to check the lift-up |
| or or harness in the LSU is | | | | remedy | sensor detection. |
| roken. | | | | - | Use DIAG (SIM4-3) to check the lift-up motor |
| uble | | | | | operation. |
| to check the polygon | | | 03 | Content | Desk No. 3 tray/LCC2 lift-up trouble |
| | | | | Detail | Desk no. 3 trav lift-up trouble |
| and harness connection. | | | | Cause | Sensor trouble |
| | | | | Ouuse | Desk control PWB trouble |
| | | | | | Gear breakage |
| not detected. | | | | | Lift-up motor trouble |
| nnector or the power unit | | | | Check and | Use DIAG (SIM4-2) to check the lift-up |
| nected or broken. | | | | remedy | sensor detection. |
| | | | | loniedy | Use DIAG (SIM4-3) to check the lift-up motor |
| | | | | | operation. |
| of the harness and | | | 10 | Content | Desk/LCC transport motor trouble |
| | | | | Detail | Desk/LCC transport motor operation trauble |
| В. | | | | Course | Meter lock |
| r unit. | | | | Cause | Motor rom abnormality |
| idth abnormality | | | | | Notor tpm abnormality |
| uency abnormality of full | | | | | Desk control PWR trouble |
| | | | | Chook and | Lice DIAC (SIM4.2) to check the transport |
| on cycle is judged as 69Hz | | | | Check and | Use DIAG (SIM4-3) to check the transport |
| z or below) | | | | Terriedy | |
| narness of the PCU PWB | | EE | EL | Content | Auto developer adjustment trouble |
| /B is disconnected. | | | | | (Over-toner) |
| | | | | Detail | The sample data is of 68 or below when auto |
| | | | | | developer adjustment is performed. |
| of the harness and | | | | Cause | Toner concentration sensor trouble |
| | | | | | Charging voltage, developing voltage |
| PWB. | | | | | abnormality |
| r unit. | | | | | Insufficient toner concentration |
| nication trouble | | | | | Developing unit trouble |
| nication error | | | | | |
| able test error after turning | | | | Check and | Use DIAG (SIM25-2) to perform auto |
| kiting DIAG. | | | | remedy | developer adjustment. |
| on or disconnection of | | | EU | Content | Auto developer adjustment trouble |
| ness | | | | | (Under-toner) |
| trouble | | | | Detail | The sample data is of 168 or above when |
| J) trouble | | | | | auto developer adjustment is performed. |
| se | | | | Cause | Insufficient toner concentration |
| ng OFF/ON the power. | | | | | Charging voltage, developing voltage |
| of the harness and | | | | | abnormality |
| ommunication line. | | | | | Insufficient toner concentration |
| av lift-up trouble | | | | | Developing unit trouble |
| av lift-up trouble | | | | | PCU PWB trouble |
| | | | | Check and | Use DIAG (SIM25-2) to perform auto |
| trouble | | | | remedy | developer adjustment. |
| | | F9 | 02 | Content | PRT Centro port check error |
| | | | | Detail | Controller Centro port trouble |
|)) to check the life we | | | | Cause | Centro port trouble |
| 2) ю спеск тпе шт-up | | | | | Controller PWB trouble |
| a) to check the lift up motor | | | | Check and | Replace the Controller PWB |
| b) to check the int-up motor | | | | remedv | |
| | | | 03 | Content | NIC port check error |
| | | | 03 | Detail | |
| | | | | Detall | |
| | | | | Cause | NIC port trouble |
| | | | | | |
| | | | | | Controller PVVB trouble |
| | | | | Check and | Replace the NIC PWB. |
| WWW.SERVICE- | -M | 4NU | AL N | remedy | Replace the Controller PWB. |
| | | | | - | |

| MAIN | SUB | | |
|------|-----|-----------|---|
| U1 | 01 | Content | Battery abnormality |
| | | Detail | Backup SRAM battery voltage fall |
| | | Cause | Battery life |
| | | | Battery circuit abnormality |
| | | Check and | Check that the battery voltage is about $\overline{2.5V}$ |
| | | remedy | or above.
Check the battery circuit |
| 112 | 00 | Content | EEPROM read/write error (Controller) |
| 02 | 00 | Detail | EEPROM write error |
| | | | EEPROM trouble |
| | | Cause | EEPROM is not initialized. |
| | | | Controller PWB EEPROM access circuit |
| | | | trouble |
| | | Check and | Check that EEPROM is properly inserted. |
| | | remedy | Save the counter/adjustment values with the |
| | | | Use DIAG (SIM16) to cancel U2 trouble |
| | | | Replace the Controller PWB. |
| | 11 | Content | Counter check sum error (Controller) |
| | | Detail | Counter data area check sum error |
| | | Cause | EEPROM trouble |
| | | | Control circuit trouble by noise |
| | | | Controller PWB EEPROM access circuit |
| | | Ohart | |
| | | Cneck and | Check that EEPROM is properly inserted. |
| | | remeuy | DIAG simulation. |
| | | | Use DIAG (SIM16) to cancel U2 trouble. |
| | | | Replace the Controller PWB. |
| | 12 | Content | Adjustment value check sum error |
| | | | (Controller) |
| | | Detail | Adjustment data area check sum error |
| | | Cause | EEPROM trouble |
| | | | Controller PWB EEPROM access circuit |
| | | | trouble |
| | | Check and | Check that EEPROM is properly inserted. |
| | | remedy | Save the counter/adjustment values with the |
| | | | DIAG simulation. |
| | | | Replace the Controller PWB |
| | 90 | Content | EEPROM read/write error (PCII) |
| | 50 | Detail | PCU FEPROM write error |
| | | Cause | EEPROM trouble |
| | | | EEPROM is not initialized. |
| | | | PCU PWB EEPROM access circuit trouble |
| | | Check and | Check that EEPROM is properly inserted. |
| | | remedy | Save the counter/adjustment values with the |
| | | | UIAG SIMULATION. |
| | | | Replace the Controller PWB. |
| | 91 | Content | Memory check sum error (PCU) |
| | | Detail | PCU memory check sum error |
| | | Cause | EEPROM trouble |
| | | | EEPROM is not initialized. |
| | | | PCU PWB EEPROM access circuit trouble |
| | | | Uninitialized E2PROM installed. |
| | | Check and | Check that EEPROM is properly inserted. |
| | | remedy | Save the counter/adjustment values with the |
| | | | Use DIAG (SIM16) to cancel U2 trouble |
| | | | Replace the Controller PWB. |
| | | 1 | L |

| MAIN | SUB | | |
|------|-----|---------------------|---|
| U7 | 00 | Content | RIC communication trouble |
| | | Detail | RIC communication trouble
Communication cable test error after turning
on the power or exiting DIAG. |
| | | Cause | Disconnection of connector and harness
RTC control PWB trouble
Control PWB (Controller) trouble
Malfunction by noise |
| | | Check and remedy | Canceled by turning OFF/ON the power.
Check connector and harness in the
communication line. |
| PF | 00 | Content | RIC copy inhibit signal is received. |
| | | Detail | Copy inhibit command from RIM (host) is received. |
| | | Cause | Judged by the host. |
| | | Check and
remedy | Inform to the host. |

3.Halt of operation in trouble

A. Troubles where the machine can be operated depending on the conditions (Include Multi Function)

| | ludament Trouble | | Operation-possible mode | | | | | |
|---|--------------------|------------------------|-----------------------------------|----------|------------|-----------|-------|------------|
| Trouble | block | code | Copy read
(interruption, etc.) | FAX send | Email send | FAX print | Print | List print |
| (SPF trouble) | SCANNER | U5 | ∆1 | △1 | ∆1 | 0 | 0 | 0 |
| Scanner section troubles
(Mirror motor, lens, copy lamp) | SCANNER | L1,L3,U2
(80,81) | Х | Х | Х | 0 | 0 | 0 |
| (AE trouble) | - | L9 | ∆2 | ∆2 | ∆2 | 0 | 0 | 0 |
| (ADU trouble) | PCU | U4 | ∆3 | 0 | 0 | ∆3 | ∆3 | ∆3 |
| FAX board trouble | Controller/
FAX | F6,F7 | 0 | Х | 0 | Х | 0 | 0 |
| FAX power OFF | Controller | | 0 | Х | 0 | Х | 0 | 0 |
| Staple trouble | PCU | F1(10) | ∆4 | 0 | 0 | ∆4 | ∆4 | ∆4 |
| Paper feed tray trouble | PCU | F3, U6
(Desk) | ∆5 | 0 | 0 | ∆5 | ∆5 | ∆5 |
| (Process control trouble) | PCU | | ∆6 | 0 | 0 | ∆6 | ∆6 | ∆6 |
| PCU section troubles
(Motor, fusing, etc.) | PCU | | Х | 0 | 0 | Х | Х | Х |
| After-work trouble | PCU | | ∆9 | 0 | 0 | ∆9 | ∆9 | ∆9 |
| Laser trouble | PCU | E7
(02 only),
L6 | Х | 0 | 0 | Х | Х | Х |
| HDD trouble | Controller | E7 (03) | Х | Х | Х | Х | Х | Х |
| CCD troubles (Shading, etc.) | SCANNER | E7
(10, 11, 13) | Х | Х | Х | 0 | 0 | 0 |
| Scanner communication trouble | Controller | E7 (80) | Х | Х | Х | 0 | 0 | 0 |
| PCU communication trouble | Controller | E7 (90) | Х | 0 | 0 | Х | Х | Х |
| Printer port trouble | Controller | F9 | 0 | 0 | ∆11 | 0 | ∆11 | 0 |
| Backup battery voltage fall | Controller | U1 (01) | 0 | Х | Х | 0 | 0 | 0 |
| Memory trouble
(Expansion RAM not installed, etc.) | Controller | U2
(00, 11, 12) | Х | Х | Х | Х | Х | Х |
| External communication invalid (RIC) | Controller | U7, PF | Х | Х | Х | Х | Х | Х |
| Image memory trouble, decode error | Controller | E7(01, 06) | Х | Х | Х | Х | Х | Х |

O: Operation possible

X: Operation impossible

 \triangle : Operation possible depending on conditions

- $\triangle 1$:Operation possible in the OC mode
- $\triangle 2$:Operation possible in the manual mode
- riangle 3 :Single mode only
- $\triangle 4$:Operation possible except for the staple mode
- riangle 5 :Operation possible except for the trouble tray
- $\triangle 6$:Operation possible if the image can be limited
- △8 :Original/list print possible after reception
- $\triangle 9$:Operation possible except for the trouble paper exit section
- \triangle 10 :Operation possible by use of memory only
- riangle 11 :Operation possible if the used port (NIC, Centro) is normal

B. Trouble mode process

| Machine operation possible | Operations except for the trouble mode are possible (READY). |
|---------------------------------|---|
| depending on conditions | For the mode where operations are impossible, only setup can be allowed, and the message is provided to show |
| | that operations are impossible. (NOT READY in this case.) |
| | (Display) |
| | A dialog is shown in case of a trouble. For the mode where operations are possible, the OK button is added to the |
| | message. For the mode where operations are impossible, the OK button is not shown, and the process to cancel is |
| | indicated. |
| Machine operation is impossible | The trouble display is always shown, and all setup operations are invalid. |

C. Writing to the trouble memory

In this series, the simulation (diag) allows to select whether the same trouble is written to the trouble memory when it occurs. If the DIAG simulation is set as above, when any trouble occurs, its hysteresis is written to the trouble memory. DIAG(SIM 26-35)

- 0: The same trouble as the previous one is not recorded. (Default) 1: When a trouble occurs, it is written to the trouble memory without exception.

[12] ELECTRICAL SECTION

1. Printer model Block diagram





2. Wiring Diagram















[13] OTHERS

1. PCU self print

This mode is used to print by using only the PCU data and the firmware without using the printer controller.

It is mainly used for separate the PCU and the controller trouble.

A. Execution procedure

- 1) Remove the printer controller, and remove the rear cabinet.
- 2) Short CN22 of the PCU PWB.
- 3) While pressing MENU key and OK key together, turn on the power.
- * When the power is turned on, the PCU is reset by pushing the push switch side of the PWB, and the same operations are performed. Press MENU key and OK key together.



- 4) The machine is operated in the diag mode.
- 5) Press MENU key to select the self-print mode.
- 6) Set the self-print pattern to 1 40, and execute the operation.
- Self-print patterns 1 40 are formed in the PCU.
 Do not set to other than them.

2. Flash Rom version up procedure

A. The following items are required for version up of the flash ROM:

- 1. Machine body
- 2. PC (operating on MS-DOS mode)
- 3. Printer cable (Parallel)
- 4. Firmware for version up (XXXX.SFU file)
- 5. Firmware transfer software (FCOPY.EXE)
- 6. Flash ROM for written PCU (When PCU version is upgraded)
- 7. MFP controller Flash Rom (Boot-ROM)

B. Version up procedure

- 1) Turn off the power.
- 2) Pull out the controller PWB.
- 3) Switch the jumper wires shown in Fig. 1.

•In the case of printer control PWB

| | | → ⊓ |
|-----------|------|---------------------|
| JP-4 DIAG | i 01 | $FF \rightarrow ON$ |

| In the case of WIFF control PWD | | | | |
|---------------------------------|------|----------------------|--|--|
| JP-2 | VCCW | L→H | | |
| JP-5 | DIAG | $OFF \rightarrow ON$ | | |

- 4) When the flash ROM version of other than the controller is upgraded, remove the flash ROM from the said PWB unit and insert it into the ROM slot on the controller as shown in Fig. 1. When the flash ROM of Controller is removed, version up of the flash ROM cannot be made. Therefore install the flash ROM for Controller which are preliminary arranged to the Controller PWB.
- 5) Install the controller PWB.
- At this time, disconnect the scanner cable/FAX connection cable.
- 6) Connect the PC and the machine with the printer cable.
- 7) Turn on the power.

At this time, the machine is booted in the BOOT mode, and the following message is displayed on the 2-line display.

Version Check XXXXXXXXXX

Select the following display screen with MENU key, and press OK key.

•Rewriting the flash ROM inserted to an empty socket

| | CN Update
From Parallel |
|----------------|------------------------------|
| | ↓ [OK]key |
| | CN Update
Waiting Data |
| •Rewriting the | e controller Flash ROM |
| | Firm Update
From Parallel |
| | ↓ [OK]key |
| | Firm Update |

Waiting Data

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- Boot the PC in the MS-DOS mode. Check the directory and the file name in advance.
- 10) Enter the command below and execute, and the file is written. FCOPY XXXX.SFU (XXXX.SFU: File name)
- 11) When data are received, the display is switched as follows. The data LED blinks.

Rewriting the flash ROM inserted to an empty socket

When data reception is normally completed, the screen changes to the display below.



↓ [OK] key [Check writing]

CN Update PCU ->CN5 Writing Data

 \downarrow [\uparrow][\downarrow] key [Write slot selection]



[OK] key [Slot check]

| CN Update | PCU ->CN6 |
|-----------|-----------|
| Writing | Data |

↓ [Writing]

CN Update PCU ->CN6 Result: OK



12) When data reception is completed normally, the display is switched as follows, and the data LED goes off.

Rewriting the flash ROM inserted to an empty socket

CN Update:XXXX Result:OK

Rewriting the controller Flash ROM

Firm Update:XXXX Result:OK

13) If data reception is not completed normally, the display is switched as follows, and the error LED blinks.

Fig.1

Printer control PWB

Rewriting the flash ROM inserted to an empty socket



Rewriting the controller Flash ROM

| Firm | Update:XXXX |
|------|-------------|
| Res | sult:NG |

- In this case, turn off the power and repeat procedures from 7).
- 14) When data reception is completed normally, turn off the power and pull out the control PWB.
- Remove the flash ROM from the socket, and replace it to the original PWB.
- 16) Replace the jumper wire of the control PWB to the original position.

•In the case of printer control PWB

| In the case of I | MEP control PWB | |
|------------------|-----------------|----------|
| JP-4 | DIAG | ON → OFF |
| JP-2 | VCCW | H→L |
| - | | |

| JP-2 | VCCW | $H \rightarrow L$ |
|------|------|----------------------|
| JP-5 | DIAG | $ON \rightarrow OFF$ |

17) Install the control PWB.

Table1 Contorol PWB Jumper-PIN

Printer control PWB

| Jumper switching
function | The mark printed
on PWB | | Function | | | |
|------------------------------|----------------------------|-----|----------|--------|------|---------|
| BOOT program
start | DIAG | JP4 | ON | | OFF* | |
| Flash write
(Control-PWB) | VCCW | JP2 | Н | enable | L* | protect |
| Battery ON/OFF | BATTERY | JP5 | ON* | | OFF | |
| no use | SW1 | JP3 | Н | | L* | |

* Default setting

MFP control PWB

| Jumper switching
function | The mark printed
on PWB | | Function | | | |
|------------------------------|----------------------------|-----|----------|--------|------|---------|
| BOOT program
start | DIAG | JP5 | ON | | OFF* | |
| Flash write
(Control-PWB) | VCCW | JP2 | Н | enable | L* | protect |
| Battery ON/OFF | BATTERY | JP6 | ON* | | OFF | |
| no use | SW1 | JP4 | Н | | L* | |

Default setting

Flash ROM Slot (except JAPAN)

MFP control PWB



[Supplement]

When the controller flash ROM version up procedure is not completed normally due to a power OFF trouble, etc. it may not be booted by turning on the power.

In such a case, if the controller boot ROM and the Controller ROM are available, rewriting can be performed by using the socket. When servicing, therefore, be sure to carry those two ROMs.

Note:

1) To use FCOPY as the writing tool from PC, the controller boot ROM and the Controller ROM are required.

Therefore, to upgrade the Controller version, the Controller flash PWB must be arranged separately.

 When the controller version up procedure is not completed normally due to a power OFF trouble, etc. it may not be booted by turning on the power.

In such a case, if the controller boot ROM and the Controller ROM are available, rewriting can be performed by using the socket. When servicing, therefore, be sure to carry those two ROMs.

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AR-P350 OTHERS 13-3

CAUTION FOR BATTERY REPLACEMENT

| (Danish) ADVARSEL !
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren. |
|--|
| (English) Caution !
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the manufacturer.
Dispose of used batteries according to manufacturer's instructions. |
| (Finnish) VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti. |
| (French) ATTENTION Il y a danger d'explosion s' il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type équivalent recommandé par
le constructeur. Mettre au rebut les batteries usagées conformément aux
instructions du fabricant. |
| (Swedish) VARNING
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion. |
| (German) Achtung
Explosionsgefahr bei Verwendung inkorrekter Batterien.
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder
vom Hersteller empfohlene Batterien verwendet werden.
Entsorgung der gebrauchten Batterien nur nach den vom
Hersteller angegebenen Anweisungen. |
| |

— CAUTION FOR BATTERY DISPOSAL -

(For USA,CANADA)

Contains lithium-ion battery. Must be disposed of properly. Remove the battery from the product and contact federal or state environmental agencies for information on recycling and disposal options.



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