HOME

Konica

SERVICE MANUAL

FAX MODEL

9830

MAY 2000

KONICA BUSINESS TECHNOLOGIES, INC.

HOME

FAX 9830

SERVICE MANUAL

MAY 2000

HOME

IMPORTANT NOTICE

Because of the possible hazards to an inexperienced person servicing this equipment, as well as the risk of damage to the equipment, Konica Business Technologies strongly recommends that all servicing be performed by Konica-trained service technicians only.

Changes may have been made to this equipment to improve its performance after this service manual was printed. Accordingly, Konica Business Technologies, Inc., makes no representations or warranties, either expressed or implied, that the information contained in this service manual is complete or accurate. It is understood that the user of this manual must assume all risks or personal injury and/or damage to the equipment while servicing the equipment for which this service manual is intended.

Corporate Publications Department

HOME

CONTENTS

HOME

APPENDIX A – BOARD DESCRIPTION

APPENDIX B – PRINT OPERATION DESCRIPTION

APPENDIX C – FAX 9830 BLOCK DIAGRAM

APPENDIX D – ILLUSTRATED PARTS LIST

APPENDIX E – SECOND PAPER FEEDER

APPENDIX F – PC-LOADING

SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the Safety and Important Warning Items described below to understand them before doing service work.

IMPORTANT NOTICE

Because of possible hazards to an inexperienced person servicing this equipment, as well as the risk of damage to the equipment, Konica Corporation, strongly recommends that all servicing be performed only by Konica-trained service technicians.

Changes may have been made to this equipment to improve its performance after this service handbook was printed. Accordingly, Konica Corporation, makes no representations or warranties, either expressed or implied, that the information contained in this service handbook is complete or accurate. It is understood that the user of this service handbook must assume all risks or personal injury and/or damage to the equipment while servicing the equipment for which this service handbook is intended. Therefore, this Service Handbook must be read carefully before doing service work both in the course of the technical training and even after that, for keeping the correct maintenance and control of the copying machine. Keep the Service Handbook also for the future service. When it is impossible to read the description about safety and warning (due to contamination or tear), the relevant page should be replaced.

SAFETY WARNINGS

MODIFICATIONS NOT AUTHORIZED BY KONCA

Konica copiers are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network.

Photocopier design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degrading performance and safety. Such modifications are therefore strictly prohibited. The points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

⚠PROHIBITED ACTIONS :

(1) Using extension cables or a different power cord than specified by Konica.
(2) Using other fuses than specified by Konica. Safety will not be assured, leading to a risk of fire and injury.
(3) Disabling fuses or bridging fuse terminals with wire, metal clips, solder or similar. (This applies also to thermal fuses.)
(4) Removing air filters (except for replacement).
(5) Disabling relay functions (such as wedging paper between relay contacts, etc.).
(6) Disabling safety functions (interlocks, safety circuits, etc.). Safety will not be assured, leading to a risk of fire and injury.
(7) Performing actions to copier not described in the instruction manual or the service handbook.
(8) Using parts other than specified by Konica.

CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

Konica machines are extensively tested before shipping, to ensure that all applicable safety standards are met, in order to protect the customer and customer engineer from the risk of injury. However, in daily use, any electrical equipment will be subject to parts wear and eventual failure. In order to maintain safety and reliability, the customer engineer must perform regular safety checks.

⚠CAUTION:

(1) Wear clothing that facilitates work and is designed for safety.
(2) Carry out all procedures carefully to prevent injury.
(3) Be sure to disconnect the power cord of the copier and all optional equipment from the AC outlet. Simply turning off the power switch is not sufficient, because paper feed units or other electrical equipment may be powered also when the power switch is turned off.
(4) Proceed with special care when performing operation checks or adjustment while the unit is powered. When carrying out operation checks or adjustment while external covers are removed, the risk of electrical shock exists when touching parts which carry high voltage or electrical charge. The risk of injury exists when touching moving parts such as gears or chains.

The following list is not exhaustive, but it includes actions which must be carried out at every service call.

⚠CAUTION:

(1) Check external covers and the frame for sharp edges, burrs, or nicks.
(2) Check external covers and hinges for loosening or damage.
(3) Check wiring for squeezing or damage.
(4) Check power cord for insulation problems (conductor must not be exposed).
(5) Check power cord and cable ties etc. for loosening from frame.

⚠WARNING:

(1) Verify that the copier is properly grounded. If a problem is detected, establish a proper ground connection.
(2) Connecting the ground lead to an improper point such as listed below results in a risk of explosion and electric shock.
Unsuitable ground points:
- **Gas pipe**
- **Lightning rod**
- **Telephone line ground**
- **Plastic water pipe or water pipe or faucet that has not**

PRECAUTIONS FOR ON-SITE SERVICE

⚠**CAUTION:**

(1) Before performing maintenance work, read all relevant documentation (service handbook, technical notices, etc.) and proceed according to the prescribed procedure, using only the prescribed tools. Do not carry out any adjustments not described in the documentation.
(2) If the power cord is damaged, replace it only with the specified power cord. If the power cord insulation has been damaged and there are exposed sections, short- circuits and overheating may occur, leading to a serious fire risk.
(3) Do not route the power cord so that it can be stepped on or pinched. Otherwise overheating may occur, leading to a serious fire risk.
(4) When disconnecting any cables, always grasp the connector and not the cable (especially in the case of AC and high-voltage leads).
(5) Carefully remove all toner remnants from electrical parts, electrodes, etc.
(6) Make sure that wiring cannot come into contact with sharp edges, burrs, or other pointed parts.
(7) Double-check to make sure that all screws, components, wiring, connectors, etc. that were removed for maintenance have been reinstalled in the original location. (Pay special attention to forgotten connectors, pinched cables, forgotten screws, etc.)
(8) When installation and preventive maintenance, verify that the power cord has been securely plugged into the AC outlet. Contact problems may lead to increased resistance, overheating, and the risk of fire.

⚠**WARNING:**

(1) Before disassembling or adjusting the optical unit or any parts that use a laser, make sure that the power cord has been disconnected.
(2) Do not remove the main cover of the write unit. Direct exposure of the eye to laser beams may lead to blindness.
(3) Do not turn the copier on while the write unit is not installed in its normal position.
(4) Danger of explosion if battery is incorrectly replaced, replace only with the same or equivalent recommended by the manufacturer. Discard used batteries according to the manufacture's instructions.

HANDLING OF MATERIALS FOR SERVICING

⚠**CAUTION: Drum cleaner (alcohol-based) and roller cleaner (acetone- based) are highly flammable and must be handled with care. When using these materials for cleaning of copier parts, observe the following precautions.**

(1) Disconnect the power cord from the AC outlet.
(2) Use only a small amount of cleaner at a time and take care not to spill any liquid. If this happens, immediately wipe it off.
(3) Perform cleaning only in an environment where sufficient ventilation is assured. Breathing large quantities of organic solvents can lead to discomfort.
(4) Do not replace the cover or turn the unit on before any solvent remnants on the cleaned parts have fully evaporated.

⚠**CAUTION: Toner and developer are not harmful substances, but care must be taken not to breathe excessive amounts or let the substances come into contact with eyes etc. If this happens, immediately rinse with eye wash and plenty of water, and consult a physician.**

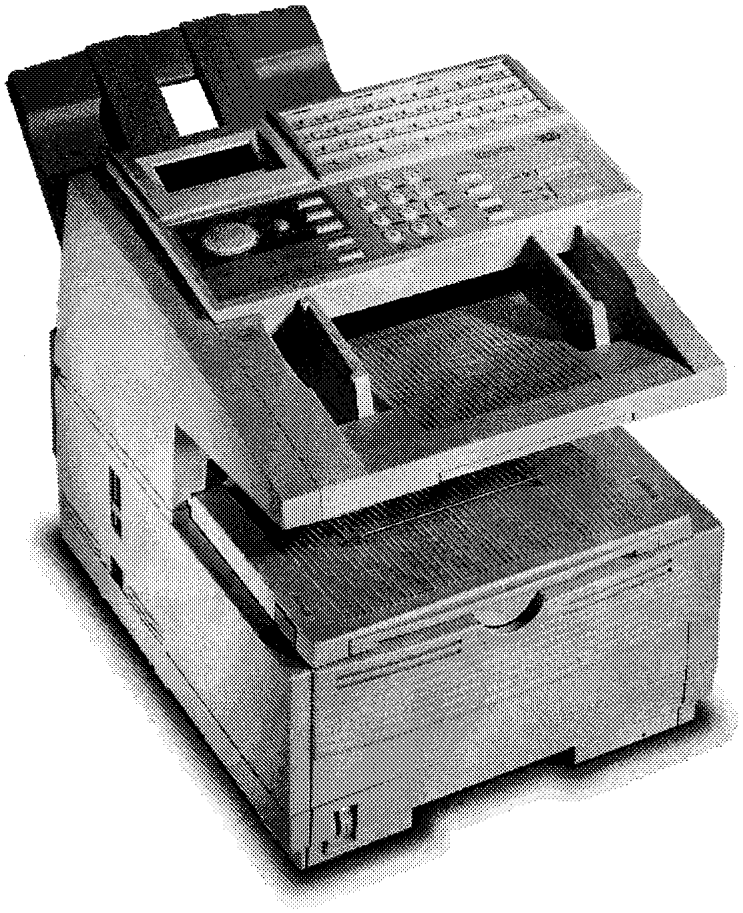
MEASURES TO TAKE IN CASE OF AN ACCIDENT

(1) If an accident has occurred, the distributor who has been notified first must immediately take emergency measures to provide relief to affected persons and to prevent further damage.
(2) If a report of a serious accident has been received from a customer, an on-site evaluation must be carried out quickly and Konica Corporation must be notified.
(3) To determine the cause of the accident, conditions and materials must be recorded through direct on-site checks, in accordance with instructions issued by Konica Corporation.

HOME

Konica

FAX 9830 CONFIGURATOR



Machine and Accessories

Item Description	Item Number
FAX 9830	950-110
Stand	947-166
500-Sheet Universal Cassette	950-127
MFP Kit JetSuite Pro	950-117
Memory Upgrade (2.0 MB) with battery backup	950-118
Memory Upgrade (4.0 MB) with battery backup	950-119

* Toner cartridge and drum unit included with main body.

Supplies

Item Description	Item Number
Toner Cartridge	950-133
Drum Kit	950-138

Power Requirements: 120V AC ±10%

3/8/00

HOME

Chapter 1

General Information

Konica Business Technologies

1. GENERAL INFORMATION

1.1 General Performance

(1) Type of appearance
- Desktop type

(2) Applicable lines
- PSTN (Public switched telephone network
- PBX (Private branch exchange) telephone line
- ISDN (Integrated service digital network)
- LAN (Local area network)

Note: ISDN and LAN are option.

(3) Compatibility
- ITU-T Group 3 facsimile transceiver
- ITU-T Group 4 facsimile transceiver (option)

(4) Document width
- Max. 216 mm (NA Letter)
- Min. 148 mm (ISO A5 size)

(5) Effective reading width

TX
- 215.4 mm (NA Letter)
- 208.6 mm (ISO A4 size)

COPY
- 211.3 mm (NA Letter)
- 211.3 mm (ISO A4 size)*1

* Printing width will be 206 mm.

(6) Scanning length
- 128 mm to 356 mm

Length setting: Long documents (1500 mm) are also available.

(7) Automatic document feeder (ADF)
- 50 sheets (NA Letter/A4-size: 20-lb/75gm Konica recommended paper)
- 30 sheets (NA Letter/A4-size: 16 to 28-lb/60 to 105gm)

(8) Recording paper
- 1st cassette: NA Letter/NA Legal/A4-size plain paper cut 250 sheets capacity (20-lb/75gm)
- 2nd cassette (option): NA Letter/NA Legal/A4-size plain paper cut 500 sheets capacity (20-lb/75gm)
- Manual paper feeder: Transparency for overhead projector, applicable. Sheet size: NA Letter/NA Legal/A4-size. *: Konica recommended paper

(9) Printable width
- NA Letter: 211.3 mm (203.2 mm for assured quality)
- NA Legal: 211.3 mm (203.2 mm for assured quality)
- ISO A4: 206.0 mm (197.3 mm for assured quality)

(10) Printable length
- NA Letter: 273.4 mm (266.7 mm for assured quality)
- NA Legal: 349.6 mm (342.9 mm for assured quality)
- ISO A4: 291.0 mm (284.3 mm for assured quality)

(11) Copy stacker
- Face down stacking: Max. 200* sheets
- Face up stacking: Max. 10* sheets

**Note 1: Konica recommended paper*

Note 2: Face down or face up stacking is changeable by the lever.

(12) Scanning resolution

a) Horizontal:

• 300 dot per inch

Note: 600 dpi x 15.4 mm; copy is available.

b) Vertical:

• 300 dot per inch, 15.4, 7.7, and 3.85 lines per mm

Note: 300 dpi x 300 dpi; Transmission is available.

(13) Scanning method

• 2592 bits contact image sensor

(14) Recording resolution

a) Horizontal:

• 600 dot per inch

b) Vertical:

• Variable:

	A4	Letter
STD	3.85 ~ 4.96	3.85 ~ 5.28
Fine	7.7 ~ 9.93	7.7 ~ 10.57
Ex-Fine (15.4 line/mm)	15.4 ~ 19.87	15.4 ~ 21.15
Ex-Fine (300 dot/inch)	300 ~ 387	300 ~ 412

• Fixed

EX-FINE mode : 300 dot/inch, 15.4 line/mm
FINE mode : 7.7 line/mm
STD mode : 3.85 line/mm
PC-Print : 600 dot/inch, 300 dot/inch

(15) Printing method

Electro photographic printing

• 211.3 mm (4992 bits) LED print head

(16) Minumum scan line time for reception

• When receiving from fax or ECM: 0 ms
• When receiving from non fax and non ECM: 10 ms at 3.85 line/mm
5 ms at 7.7 line/mm, 15.4 line/mm

(17) Print speed

• Max. 10 sheets per minute (at NA letter size)

(18) Coding scheme

• Modified Huffman (MH)
• Modified Read (MR)
• Modified Modified Read (MMR)

(19) Modem

• ITU-T Rec. V.29: 9600bps for use on point-to-point 4-wire leased telephone type circuit.
• ITU-T Rec. V.27 ter: 4800bps modem for use in GSTN (General Switched Telephone Network)
• ITU-T Rec. V.21 channel 2: 300 bps duplex modem for GSTN
• ITU-T Rec. V.17: 2-wire modem for fax applications up to 14.4kbps
• ITU-T Rec. V.34

(20) Transmission speed

• 3.0 sec. per sheet of ITU-T No.1 evalution test chart (for Fax 9830)

Note: This is Phase C at 3.85 line/mm.

(21) Protocol
- ITU-T Rec. T.30
- ITU-T Rec. G4 Class 1 (option)
- OKI special protocols: High speed protocol (G3)

(22) Error correction scheme
- ITU-T ECM

(23) Image memory
- Basic model: 2.5 M-byte (Fax 9830)
- Optional memory: 2.0/4.0 M-byte

(24) Liquid crystal display (LCD)
- Four lines of 20 characters for operation guidance, check and various kinds of information

(25) Power source
- Normal input voltage 120 VAC for ODA version
- Normal input voltage 230 VAC for INT'L version

(26) MFP (Multi-Function Peripheral) function
PC Printer function
PC Scanner function
PC Fax Modem function
Note: For details, see "Product Specification for MFP"
Hardware is standard and software is option for Bi-Centro interface.

(27) ISDN function (option)
- G4 function
- ISDN G4: Communication
- ISDN G3: Communication
- ISDN: Report and List

Note: For details, see "Product Specification for ISDN G4 option"

(28) Network print service
- Netware
- TCP/IP
- Windows NT/95/3.1
- T600dpi, 10ppm

Note: For details, see "Product Specification for Network Print Service"

1.2 General User's Functions

1) Transmission

(1) Transmit mode
- Automatic transmit mode
- Manual transmit mode

(2) Instant Dialling

(3) Delayed feeder transmission

(4) Memory transmission
- 40 sessions

(5) Delayed memory transmission (within 3 days)
- 20 specified times for Fax 9830

(6) Sequential broadcast (Memory)
- 150 stations for Fax 9830

(7) Delayed broadcast
- 20 specified times

(8) Confidential message transmission
- Feeder Confidential TX
- Memory Confidential TX

(9) Relay broadcast initiate
- Feeder Relay broadcast initiate
- Memory Relay broadcast initiate

(10) Polling transmission
- Feeder Polling TX
- Memory Polling TX

(11) Bulletin Poll transmission (When Box number is opened.)
- 16 boxes

(12) Batch transmission

(13) Priority transmission

(14) Transmission preparation (Feeder)

2) Reception

(1) Receive mode
- Automatic receive mode
- Manual receive mode
- TEL/FAX receive mode
- TAD mode
- Memory receive mode
- PC receive mode
- Forwarding mode

(2) Memory only reception

(3) No toner/No paper reception (memory)

(4) Confidential message reception
- 16 mail boxes

(5) Fax forwarding for incoming call

(6) Fax forwarding for no toner/no paper reception

(7) Polling reception

3) Convenience

(1) Dual access

(2) Automatic redial

(3) Last number redial (Manual redial)

(4) Local copy of a document, including multiple copies
- 99 copies max.

(5) Sender identification (Sender ID)

(6) Personal identification (Personal ID)

(7) TSI/CSI: Local telephone number

(8) Acoustic monitor (only TX mode)
- 5 level selectable

(9) Automatic alternate selecting call
(FAX No. + FAX No. can be registerd in one-touch keys).
- Speed Dial (1 to 40) are assigned to one-touch keys.

(10) Half-tone transmission (at FINE resolution)
- 64 scale gradations

(11) Page re-transmission (Only when memory TX mode)

(12) Distinguishing text from pictures

(13) Vertical reduction printing (Reduction rate is from 100% to xx%)
Note: xx is Letter 72.8%, A4 77.5%

(14) Smoothing printing
In case of 8 dot/mm x 3.85 lines/mm → 300 dot/inch x 784 lines/inch

(15) Auto dialing
- Speed dialing:
  1 to 140 (1 to 40 are assigned to one-touch keys.)
- Group dialing; 20 groups
- Keypad dialing
- Chain dialing
- Mixed dialing

(16) Real-time dialing
Dialing with off hook condition or when the HOOK key is pressed.

(17) Automatic pause signal insertion

(18) Local copy

(19) Telephone directory (Alpha/Location) dialing

(20) TEL/FAX automatic switching

(21) TAD mode (for external telephone answering device)

(22) Session number

(23) Time and date printing

(23) Closed user group (Direct mail rejection)

(24) Contrast and resolution control

(25) Key touch tone

(26) Printer counter display (For drum, toner, print, and scan)

(27) Quick scanning

(28) Time and date setting

(29) Language selection
- 2 languages (LCD and Report)

(30) Distinctive ring detect

(31) Restricted access

(32) Beep sound

4) Reports

(1) Function list

(2) Configuration

(3) Phone directory

(4) Group directory

(5) Activity report

(6) Active memory files

(7) Broadcast MCF (Message Confirmation)

(8) Protocol dump (G3 and G4)

(9) NIC configuration

(10) Log. report

(11) G4 Log. report

(12) Self diagnosis report

5) Report options

(1) MCF. (Single-Loc.)

(2) MCF. (Multi-Loc.)

(3) Image in MCF.

(4) Error report (MCF.)

1.3 General Maintenance Functions

1) Local tests

(1) Self-diagnosis
Main board
- CPU ROM/RAM check
- Flash memory check (Program, Language, and Default)
- Modem
- RAM check
- Toner cartridge
- Option memory check

DEVICE ID
- LAN Board check (option)

ISDN board (option)
- CPU ROM/RAM check

(2) Sensor calibration (Adjustment of scanning level)

(3) LED test

(4) Tone send test (When NCU board is installed.)

(5) High-speed modem send test (When NCU board is installed.)

(6) High-speed modem receive test (When NCU board is installed.)

(7) MF tone test (When NCU board is installed.)

(8) Tone (TEL/FAX) test (When NCU board is installed.)

(9) Loop back 1 (When ISDN option board is installed.)

(10) Loop back 2 (When ISDN option board is installed.)

(11) INFO0 sending (When ISDN option board is installed.)

(12) INFO1 sending (When ISDN option board is installed.)

(13) INFO2 sending (When ISDN option board is installed.)

(14) INFO3 sending (When ISDN option board is installed.)

(15) Pulse (1kHz) send (When ISDN option board is installed.)

(16) Pulse (2kHz) send (When ISDN option board is installed.)

(17) Pulse (N2kHz) send (When ISDN option board is installed.)

2) Technical setup

3) System reset
- All data clear
- Location data clear
- Configuration data clear

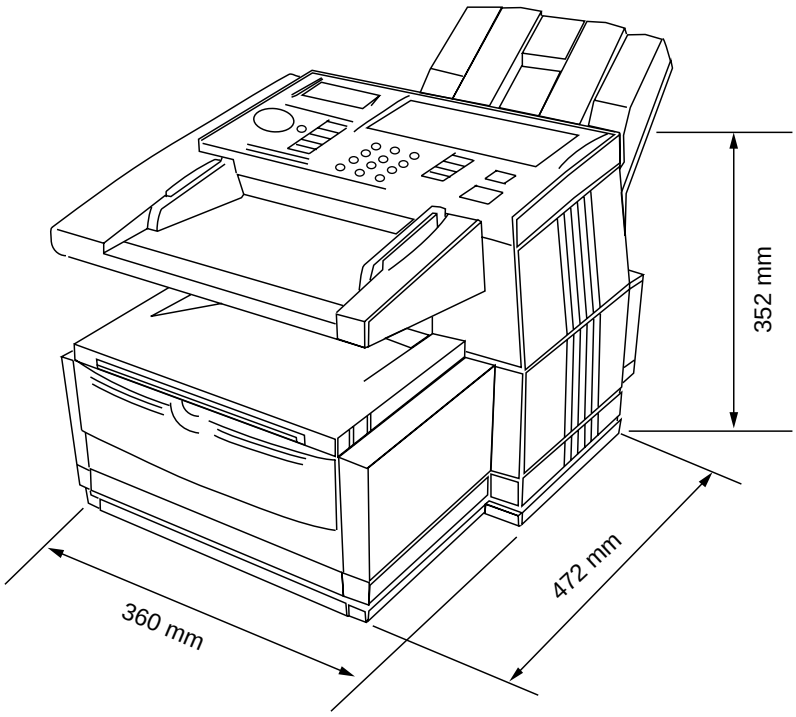
4) Default type set

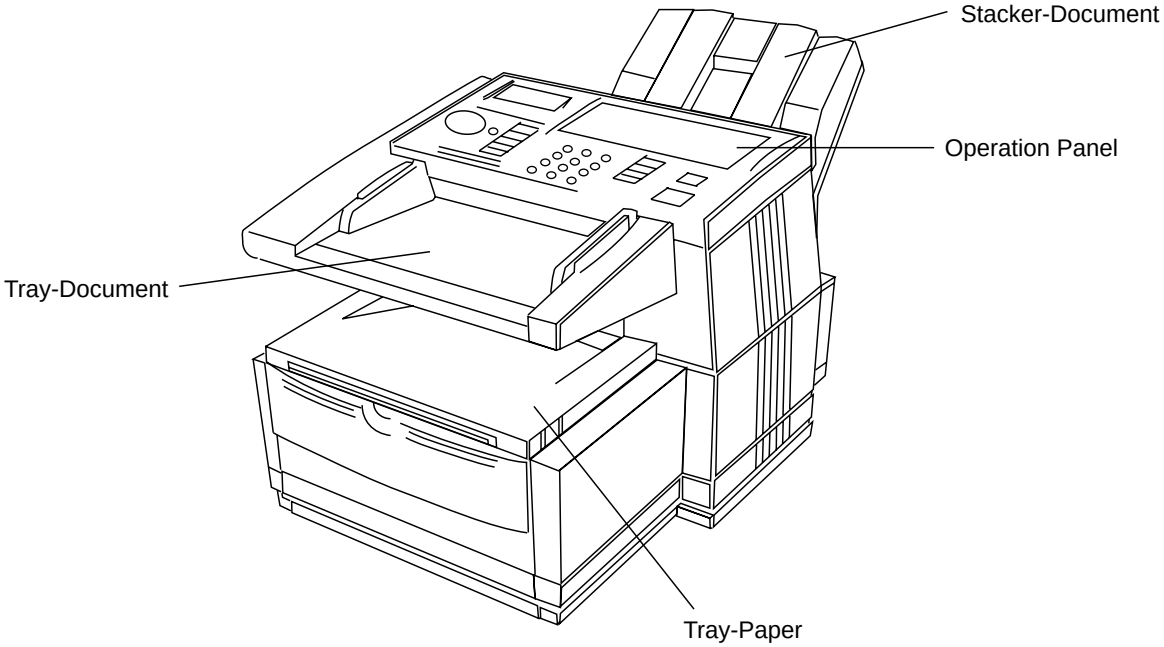
5) PC loading

6) G4 PC loading

1.4 General Appearance

Figure 1.4.1 shows the general appearance of the Fax 9830.





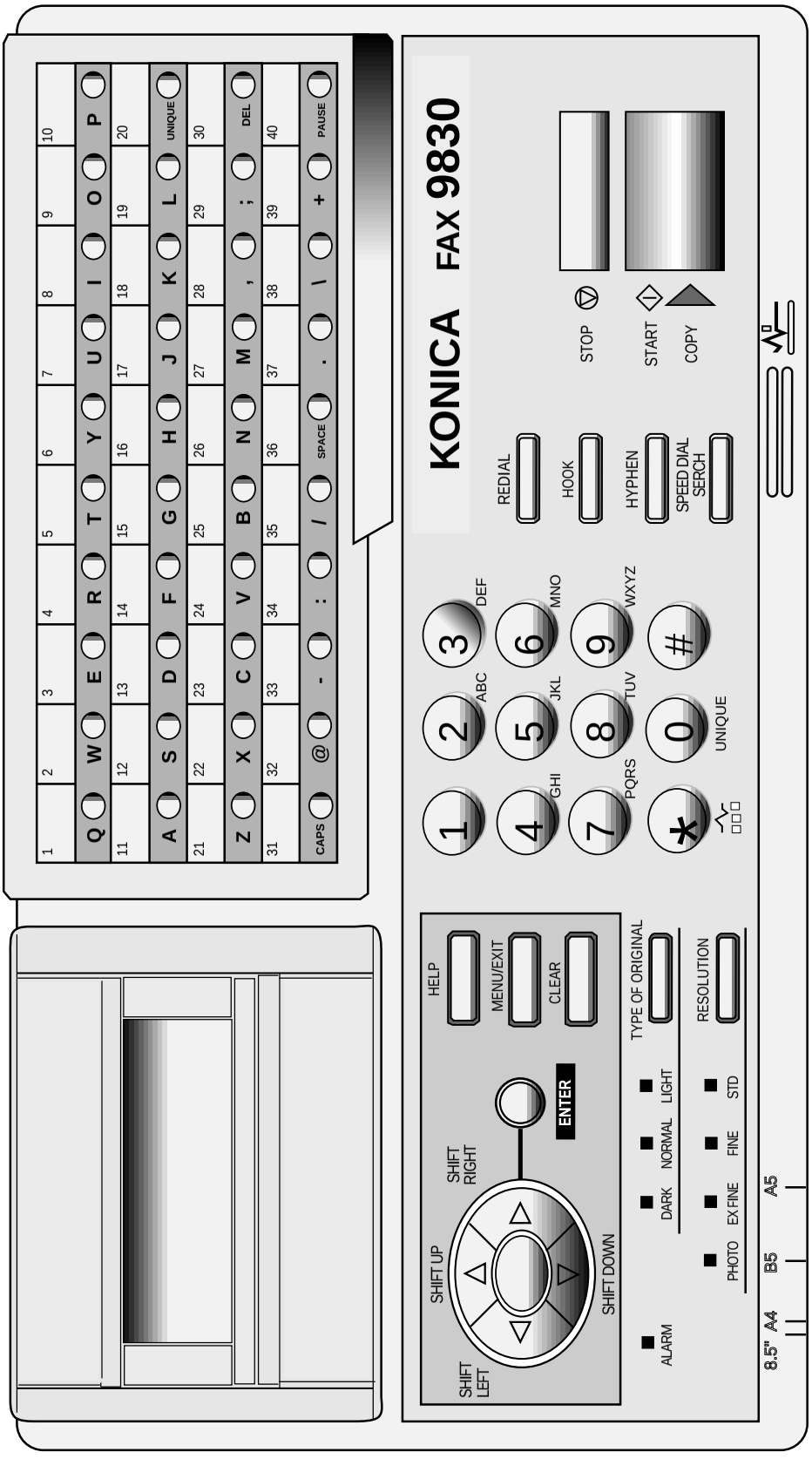


Figure 1.4.2 Control Panel of Fax 9830

HOME

1.5 Basic Performance Specifications

Table 1.5.1 shows basic performance specifications:

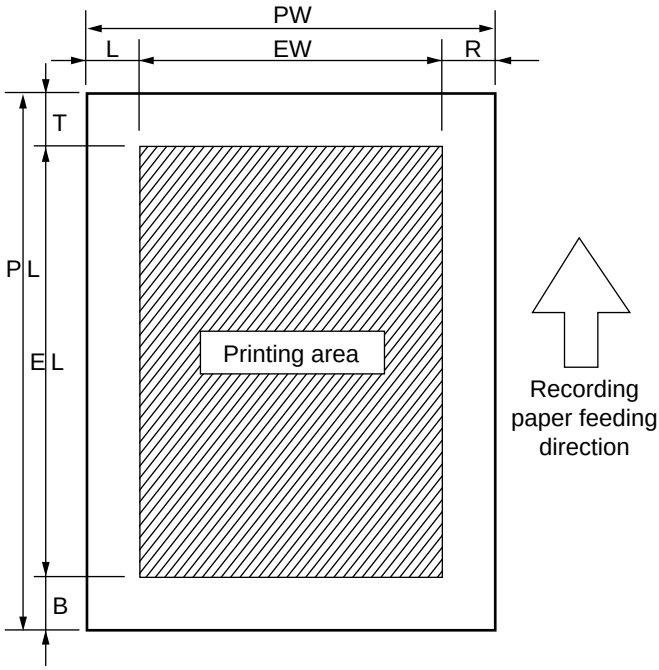
Table 1.5.1 Basic Performance Specifications

No.	Item	Specifications
1	Applicable line	1) PSTN (Public switched telephone network) 2) PBX (Private branch exchange) 3) ISDN (Integrated services digital network): Option 4) LAN (Local area network): Option
2	Line interface 1) Impedance	600 ohm balanced *Note:* Impedance may differ by the requirement of PTT
	2) Sending power level	0 dBm to -15 dBm range (Adjustable in 1 dB steps: Technical Setup No.21)
	3) Receiving power level	0 dBm to -43 dBm (In case of V.34 TX/RX, -3 ~ -36 dBm)
3	Type of document to be transmitted 1) Width	Max. 216 mm (NA Letter) Min. 148 mm (ISO A5) *Note:* Effective reading width is NA Letter (215.4 mm)
	2) Length	Min. 128 mm (5 inch) Max. 356 mm (14 inch) Long document detection: 380 mm or 1500 mm (Technical Setup No. 10: To enables or disables the long document scanning.)
	3) Thickness	Based on common bond paper, 1) 0.08 to 0.13 mm for multiple page feeding 2) 0.06 to 0.15 mm for single page feeding
	4) Shape	Rectangular
	5) Opacity	Document allowing less than 40% of the scanner source light to pass through them.
4	Effective reading width	

Document Width	Communication mode/paper width	Copy size	Effective reading width
NA Letter (216 mm) US/CANADA	G3/A4	Letter	215.4 mm for TX 211.3 mm for local copy
ISO A4 (210 mm) INT'L	G3/A4	A4	208.6 mm for TX 211.3 mm for local copy (*1)

*Note (*1):* Printing width will be 206 mm.

No.	Item	Specifications
5	Automatic document feeder (ADF) capacity	Max. 50 documents: 20 lb/75gm NA Letter or A4 size paper Max. 30 documents: 16 to 28/60 to 105gm NA Letter or A4 size paper Document shall be placed facedown on ADF stacker.
6	Document skew	Max. 1.0 mm skew over any advance of 100 mm. The occurrence of skew exceeding 1 mm per 100 mm shall be 0.5% or less.
7	Document jam detection	1) Transmission will stop and a line disconection will occur when the end of the document is detected within 380 mm after scanning begins.(except if unlimited: Technical Setup No.10) 2) A jam will also be declared if the document does not reach the scanning position within about 5 seconds after the start of a document feed. *Note:* When a jam is detected during message transmission, the machine will stop, but its receiving capability will remain valid.
8	Document jam removal	Manual release
9	Document stacking	Documents up to 297 mm in length, which meet the basic weight and thickness specification, will exit on the stacker, and documents of Letter or A4-size will stack in sequence. The first sheet will be fed first in the feeder and will exit on the stacker with printing side down.
10	Recording paper.	For the first or second recording paper cassette: 1) Type: Plain paper (Bond paper: Xerox 4200 type or equivalent) 2) Size: ISO A4: 210 mm x 297 mm NA Letter: 215.9 mm x 279.4 mm/8.5 inch x 11 inch NA Legal 14: 215.9 mm x 355.6 mm/8.5 inch x 14 inch NA Legal 13: 215.9 mm x 330.2 mm/8.5 inch x 13 inch 3) Weight: 16 lbs to 24 lb/60 to 105gm base weight Base weight is defind as the weight of 500 sheets of 431.8 mm (17 inch) by 558.8 mm (22 inch) or 1 sheet of size 1000mm by 1000mm. 4) Thickness: 0.08 mm to 0.13 mm 5) Condition: New paper For the manual paper feeder: 1) Type: Plain paper, colored paper, printed paper, envilope 2) Size: LA Letter/A4/NA Legal/Exective/A5/A6/etc. 3) Weight, thickness and condition: Same as above *Note:* One single sheet should be loaded on the manual paper feeder for one occation. For best results use Konica recommended papers 1) Xerox 4200 (20-lb/75gm base weight paper)

No.	Item	Specifications
11	Recording paper cassette First cassette	Up to 250 sheets/cassette (Konica recommended paper)
	Second cassette (option)	Up to 500 sheets/cassette (Konica recommended paper)
12	Effective recording paper	
	1) Printable area	Printable area

	Letter Size		A4 Size		14 inch Legal Size		13 inch Legal Size	
	inch	mm	inch	mm	inch	mm	inch	mm
PL	11	279.4	11.7	297	14	355.6	13	330.2
PW	8.5	216	8.27	210	8.5	216	8.5	216
EL	10.76	273.4	11.46	291	13.76	349.6	12.76	324.2
EW	8.32	211.3	8.11	206	8.32	211.3	8.32	211.3
T	0.12	3	0.12	3	0.12	3	0.12	3
B	0.12	3	0.12	3	0.12	3	0.12	3
L	0.09	2.3	0.08	2	0.09	2.3	0.09	2.3
R	0.09	2.3	0.08	2	0.09	2.3	0.09	2.3

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td></td><td>2) Guaranteed printing area</td><td>Guaranteed printing area
<table>
<tr><th></th><th colspan="2">Letter Size</th><th colspan="2">A4 Size</th><th colspan="2">14 inch Legal Size</th><th colspan="2">13 inch Legal Size</th></tr>
<tr><th></th><th>inch</th><th>mm</th><th>inch</th><th>mm</th><th>inch</th><th>mm</th><th>inch</th><th>mm</th></tr>
<tr><td>PL</td><td>11</td><td>279.4</td><td>11.7</td><td>297</td><td>14</td><td>355.6</td><td>13</td><td>330.2</td></tr>
<tr><td>PW</td><td>8.5</td><td>216</td><td>8.27</td><td>210</td><td>8.5</td><td>216</td><td>8.5</td><td>216</td></tr>
<tr><td>EL</td><td>10.5</td><td>266.7</td><td>11.2</td><td>284.3</td><td>13.5</td><td>342.9</td><td>12.5</td><td>317.5</td></tr>
<tr><td>EW</td><td>8.0</td><td>203.2</td><td>7.77</td><td>197.3</td><td>8.0</td><td>203.2</td><td>8.0</td><td>203.2</td></tr>
<tr><td>T</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td></tr>
<tr><td>B</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td></tr>
<tr><td>L</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td></tr>
<tr><td>R</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td><td>0.25</td><td>6.35</td></tr>
</table>
Note: The printable area means the area allowing actual printing at the time of receiving. The guaranteed printing area means the area where the printing quality is guaranteed.
These tables do not include vertical and horizontal addressing error (+/- 3 mm) of recording paper.</td></tr>
<tr><td>13</td><td>Copy stacking</td><td>The printed copies will be discharged on the stacker with printed face up or face down.
1) Face down stacking: Up to 200 copies *
2) Face up stacking: Up to 10 copies *
Note: 1) Using the recommended paper, New standard 20-lb.(Xerox 4200)
2) Except 16 lb papers.
3) Face down or face up stacking is changeable by the lever.</td></tr>
<tr><td>14</td><td>Scanning resolution</td><td>Horizontal:
• 300 dot/inch
Note: 600 dpi x 15.4 mm; Copy is available.

Vertical:
Transmission mode:
• 300 dot/inch, 15.4 lines/mm (EX-FINE), 7.7 lines/mm (FINE) or 3.85 lines/mm (STD)</td></tr>
<tr><td>15</td><td>Scanning method</td><td>NA Letter size (2592-bits) direct contact image sensor</td></tr>
<tr><td>16</td><td>Contrast control</td><td>The Light and Dark contrasts (low contrast) will be automatically enhanced to improve image quality.
Slice level shifting has 3 levels of switch selection on operation panel.</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>17</td><td>Recording resolution</td><td>Horizontal
• 600 dot/inch

Vertical
• 300 dot/inch (EX-FINE), 15.4 line/mm (EX-FINE), 7.7 line/mm (FINE), or 3.85 line/mm (STD)

Variable:
<table><tr><th></th><th>A4</th><th>Letter</th></tr><tr><td>STD</td><td>3.85 ~ 4.96</td><td>3.85 ~ 5.28</td></tr><tr><td>Fine</td><td>7.7 ~ 9.93</td><td>7.7 ~ 10.57</td></tr><tr><td>Ex-Fine (15.4 line/mm)</td><td>15.4 ~ 19.87</td><td>15.4 ~ 21.15</td></tr><tr><td>Ex-Fine (300 dot/inch)</td><td>300 ~ 387</td><td>300 ~ 412</td></tr></table></td></tr>
<tr><td>18</td><td>Copy resolution</td><td>• STD: 200 dot/inch x 3.85 line/mm
• FINE/PHOTO: 300 dot/inch x 300 dot/inch
• EX-FINE: 600 dot/inch x 15.4 line/mm</td></tr>
<tr><td>19</td><td>Recording method</td><td>Electro-photographic printing
• 211.3 mm (4992 bits) LED print head</td></tr>
<tr><td>20</td><td>Recording paper skewing</td><td>Maximun allowable skew is + or - 1 mm over any advance of 100 mm.</td></tr>
<tr><td>21</td><td>Copy darkness</td><td>1) Black image: Greater than 1.2 OD *
2) White background (unprinted area): Not greater than 0.2 OD
Note: OD: (Optical dencity)</td></tr>
<tr><td>22</td><td>Copy uniformity</td><td>Printed copies will exhabit a uniform density of printed and background areas:
1) From edge to edge: 25%
2) From copy to the next copy: 30%</td></tr>
<tr><td>23</td><td>Recording paper running out</td><td>The fax can detect the no-paper condition by a photosensor.
When the paper has run out in the local copy operation, the scanning will stop with “PAPER JAM” on the LCD and an ALARM LED turn on without an alarm tone.
When the paper has run out while a message is being received and the no-paper reception is activated, the LCD display will show “MSG. IN MEMORY”, and the Alarm LED turn on.</td></tr>
<tr><td>24</td><td>Minimum scan line time for receiving</td><td>0 ms, when receiving in ECM mode of from a Konica facsimile.
5 ms at 15.4 line/mm or 7.7 line/mm and 10 ms at 3.85 line/mm when receiving from a non-Konica facsimile or non-ECM mode.</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>25</td><td>Coding scheme</td><td>1) One-dimensional coding scheme:
Modified Huffman (MH)
2) Two-dimensional coding scheme:
Modified READ (MR)
Modified Modified READ (MMR)</td></tr>
<tr><td>26</td><td>Modem operations</td><td>1) High-speed Modem
• ITU-T Rec. V.29 (9600/7200 bps)
• ITU-T Rec. V.27 ter (4800/2400 bps)
• ITU-T Rec. V.17 (14400/12000/9600/7200 bps)
• ITU-T Rec. V.33 (14400/12000 bps)
• ITU-T Rec. V.34 (33600/28800 bps)
2) Low-speed Modem
• ITU-T Rec. V.21 channel 2 (300 bps) or equivalent
3) JBIG: (not on Fax 9830)
4) ISDN G4:
ITU-T Rec. T.563, T.521, T.503, T.62, T.6, T.70</td></tr>
<tr><td>27</td><td>Fallback</td><td>Automatic fallback will occur according to the following sequences by FTT, RTN or PPR.
<table><tr><th>Fall-Back Rank</th><th>Protocol</th><th>Transmission Speed (bps)</th><th>No. of Training</th><th>RTN receivied</th></tr><tr><td>1st</td><td>ITU-T V.17 (V.33)</td><td>14400</td><td>1</td><td>1</td></tr><tr><td>2nd</td><td>ITU-T V.17 (V.33)</td><td>12000</td><td>1</td><td>1</td></tr><tr><td>3rd</td><td>ITU-T V.17 (V.29)</td><td>9600</td><td>1</td><td>1</td></tr><tr><td>4th</td><td>ITU-T V.17 (V.29)</td><td>7200</td><td>1</td><td>1</td></tr><tr><td>5th</td><td>ITU-T V.27 ter.</td><td>4800</td><td>2</td><td>1</td></tr><tr><td>6th</td><td>ITU-T V.27 ter.</td><td>2400</td><td>2</td><td>1</td></tr></table>When the last trial fails, the transmitting station sends out a DCN signal to the remote station for disconnection.
Note: • Modem automatically performs the fall-back depending upon the line condition.
• V.34 fallback sequence:
The modem automatically selects transmission speed according to the line condition.</td></tr>
<tr><td>28</td><td>Protocol</td><td>1) ITU-T Rec. T.30
2) Special protocol (speed protocol)
The T.30 handshaking procedure will be conducted at message transmission speed instead of 300 baud, during transmission multi-page.
Note: In High-speed protocol, V.34 is not applied.
3) ITU-T G4 Class 1 (option)</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>29</td><td>Image transmission time</td><td>3.0 seconds at 33.6 kbps for Fax 9830 per sheet of ITU-T No.1 evaluation test chart.
Note: This speed denotes the time interval corresponding to Phase C (message transmission phase) as referred to in ITU-T T.30.
<table><tr><td rowspan="4">G3 Basic</td><td rowspan="3">Procedure Time</td><td>Initial</td><td></td><td>8.5 sec. (V34)</td></tr><tr><td>Intermediate</td><td></td><td>1.0 sec. (V34)</td></tr><tr><td>Final</td><td></td><td>1.0 sec. (V34)</td></tr><tr><td>Image Time</td><td>33600</td><td>Standard
Fine</td><td>3.0 sec.
4.2 sec.</td></tr></table>
Note: The above table shows the values under the following conditions:
• Sender ID: OFF
• High-speed protocol: OFF
• Transmission mode: Memory
• Resolution: STD</td></tr>
<tr><td>30</td><td>Error correction scheme (ECM)</td><td>ITU-T ECM defined in T4, T.30 are provided.</td></tr>
<tr><td>31</td><td>Communication mode</td><td>Half-duplex</td></tr>
<tr><td>32</td><td>Ringing signal detection sensitivity</td><td>1) Voltage range
• 25 to 150 V r.m.s.
Inoperative below 10V
Note: This range may differ by the requirement of PTT.

2) Frequency range
• 16 to 68 Hz
Note: This range may differ by the requirement of PTT.

3) Ring response time
• One-ringing signal or 5 sec, 10 sec, 15 sec, and 20 sec selectable</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>33</td><td>Memory capacity (Image memory)</td><td>
<table>
<tr><th>Basic model</th><th>Optional memory</th></tr>
<tr><td>2.5 M-bytes</td><td>2/4 M-bytes</td></tr>
</table>
<table>
<tr><th>With option board</th><th>Memory condition</th><th>Pages</th></tr>
<tr><td rowspan="3"></td><td>Standard (without option)</td><td>200</td></tr>
<tr><td>2 M-bytes</td><td>360</td></tr>
<tr><td>4 M-bytes</td><td>520</td></tr>
</table>
Note1: ITU-T No.1 sample document is used to count the number of sheets.
Note2: Memory back-up time is 72 hours (tipical and Battery full charge condition) after the power off condition..
</td></tr>
<tr><td>34</td><td>Telephone handset (option)</td><td>General telephone function is available while the power is on.
Note: In the fax special versions, general telephone is available even when the power is off.</td></tr>
<tr><td>35</td><td>Overheat protection</td><td>The heater of the fuser unit is controlled within the predetermind temperature range by the thermistor. If the temperature of the heater exceeds the range, the LCD displays “PRINTER ALARM4”.
Furethermore, the built-in thermostat in the fuser unit prevents the heater from being overheated even in the event of the failures in the above temperature control circuit.</td></tr>
<tr><td>36</td><td>PC interface applications (option)</td><td>The following three modes are supported.
1) PC Printer function
2) PC Scanner function
3) PC FaxModem function
Note1: Hardware is standard and software is option for Bi-Centro interface.
Note2: For details, see appendix “MFP product specification”.</td></tr>
<tr><td>37</td><td>Network print service (option)</td><td>• This function can be used for Fax 9830 network printer service. The NIC (Network Interface Card) Ethernet Adapter used for Fax 9830 is intended to be forward compatible with (future) products utilizing a Konica compatible interface.
• Installing the NIC card for Fax 9830 provides Network print service as an option.
Note: For details, see appendix “Network Print Service”</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>38</td><td>ISDN G4 (option)</td><td>The follwing four modes are supported.
1) G4 function
2) ISDN G4 communication
3) ISDN G3 communication
4) ISDN Report and List
Note: For details, see appendix “ISDN G4 option system specifications”.</td></tr>
<tr><td>39</td><td>Power supply unit and Power consumption of the machine</td><td>Power consumption of the machine (Typical power without optional board)
1) US/CANADA version
<table>
<tr><th>Mode</th><th>Typical power (W)</th></tr>
<tr><td>Transmit</td><td>28 W</td></tr>
<tr><td>Receive</td><td>355 W</td></tr>
<tr><td>Local copy</td><td>360 W</td></tr>
<tr><td>Standby</td><td>12 W</td></tr>
</table>
2) INT’L version
<table>
<tr><th>Mode</th><th>Typical power (W)</th></tr>
<tr><td>Transmit</td><td>28 W</td></tr>
<tr><td>Receive</td><td>355 W</td></tr>
<tr><td>Local copy</td><td>360 W</td></tr>
<tr><td>Standby</td><td>12 W (0.5 W)</td></tr>
</table>
Note: ( ): When power save mode is set to ON.
Chart: ITU-T No.1</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>40</td><td>Ambient condition
Temperature and Humidity
<table>
<tr><th></th><th>In operation</th><th>Power off mode</th><th>During Storage</th><th>Unit</th></tr>
<tr><td>Temperature</td><td>50 - 90
(10 - 32)</td><td>32 - 110
(0 - 43)</td><td>14 - 110
(-10 - 43)</td><td>°F
(°C)</td></tr>
<tr><td>Humidity</td><td>20 - 80</td><td>10 - 90</td><td>10 -90</td><td>%RH</td></tr>
<tr><td>Maximum wet bulb temperature</td><td>77
(25)</td><td>80.4
(26.8)</td><td>———</td><td>°F
(°C)</td></tr>
<tr><td>Minimum difference between wet and dry bulb temperatures</td><td>35.6
(2)</td><td>35.6
(2)</td><td>———</td><td>°F
(°C)</td></tr>
</table>
1. Storage conditions specified above apply to the machine in packed condition.
2. Temperature and humidity must be in the range where no condensation occurs.</td><td></td></tr>
<tr><td>41</td><td>Dimension (Main body)</td><td>1) Width: Approx. 360 mm
2) Depth: Approx. 472 mm
3) Height: Approx. 352 mm</td></tr>
<tr><td>42</td><td>Weight (Main body)</td><td>Approx. 14 kg
Excluding recording paper and packing materials.</td></tr>
<tr><td>43</td><td>Attachment (to the main body)</td><td>1) AC power cord x 1
2) I/D unit x 1 (Already installed)
3) Toner cartrige x 1
4) Telephone line cord x 1
5) Document stacker x 1
6) One touch sheet x 1 (Already installed)
7) User’s guide x 1</td></tr>
</table>

1.6 Reports and Lists

Table 1.6.1 shows Report and Lists Specifications.

Table 1.6.1 Report and Lists Specifications

No.	Item	Specifications
1	Active memory files	This report will be manually or automatically printed out for information of transmission/reception data stored in the memory. When there is no stored image data in the memory at all, the Active memory files is not printed out. (MENU key → Report Print) See Fig. 1-6-1-1 to Fig. 1-6-1-3
2	Activity report	The fax can print out an activity report manually, and provides of fax machine's last 30 communications. The report does not contain the results of messages which were received without errors. However, it does contain messages received in memory with or without errors. (MENU key → Report Print) See Fig. 1-6-2
3	Message confirmation report	This report will be manually or automatically printed out after completion of memory transmission. 1) Manual print By pressing the ENTER key after a communication. 2) Automatic printout When the Report Options (to enable or disable automatic printing after a communication) is set to Enable. • Single location: (MENU key → SETUP → Report Options: No.70) • Multi location: (MENU key → SETUP → Report Options: No.71) See Fig. 1-6-3-1 and Fig. 1-6-3-2
4	Broadcast entry report	This report will be manually printed out if specified during operating sequence of a broadcast. See Fig. 1-6-4-1 and Fig. 1-6-4-5
5	Broadcast confirmation report	This report will be manually or automatically printed out the broadcast confirmation report. (MENU key → Report Print) See Fig. 1-6-5-1 to Fig. 1-6-5-5
6	Configuration report	This report will be manually printed out for maintenance purpose. (MENU key → Report Print) See Fig. 1-6-6-1 to Fig. 1-6-6-5
7	Telephone directory	This report will be manually printed out and print destinations registered only. (MENU key → Report Print) See Fig. 1-6-7-1 to Fig. 1-6-7-14

No.	Item	Specifications
8	Power outage report	If received communications are lost due to power failure, this report is printed out automatically at power recovery. The information printed on the Power outage report is not printed out on the Activity report. See Fig. 1-6-8
9	Confidential reception report	This report will be informed operator about a stored confidential messages in the memory and automatically printed out. See Fig. 1-6-9
10	Protocol dump (G3)	This report will be manually printed out for maintenance purpose. If the previous communication is G3, G3 communication protocol dump is printed out. (MEMU key → Report Print) See Fig. 1-6-10-1 and Fig. 1-6-10-2
11	Self-diagnosis report	This report will be manually printed out for maintenance purpose. (To check ROMs, RAMs and Printing function.) (MENU key ∅ RESOLUTION key twice → Technical PRG ∅ Local Test ∅ Self-diagnosis) See Fig. 1-6-11-1 and Fig. 1-6-11-2
12	Log report	This report will be manually printed out for fault analysis. (MENU key → Report Print) See Fig. 1-6-12
13	Function list	This list can be printed out manually from the report operation. This list is printed out user function only and does not print technical function. (MENU key → Report Print) See Fig. 1-6-13-1 to Fig. 1-6-13-6
14	Group directory	This list can be printed out manually for a selected group only (Group #1 to #20) through operation. This list cannot output all group at a time. If Group is omitted, report will not be printed out. (MENU: No.8 → Report Print: No.4) See Fig.1-6-14-1 to Fig. 1-6-14-4
15	Protocol dump (G4)	This report will be manually printed out for maintenance purpose. If it is G4, the G4 communication protocol dump is printed out. (MENU: No.8 → Report Print: No.8) See Fig. 1-6-15-1 and Fig. 1-6-15-2
16	NIC (Network Interface Card) configuration	This report will be manually printed out for maintenance purpose. (MENU: No.8 → Report Print: No.9) See Fig. 1-6-16-1 and Fig. 1-6-16-2 This report is not available for localization.

HOME

ACTIVE MEMORY FILES P1

12/24/1998 19:10
ID=ODS

RECEPTION

ENTRIES	PAGES
05	020

TRANSMISSION

DATE	TIME	DISTANT STATION ID	MODE	PAGES
12/24	13:00	KONICA SYS-1	CALLING	003
12/24	12:03	KONICA SYS-2	CALLING	001
12/24	13:00	KONICA SYS-3	CALLING	002
12/24	13:05	KONICA SYS-4	CALLING	002
12/24	14:00	KONICA SYS-5	CALLING	002
12/24	14:30	KONICA SYS-6	CALLING	002
12/24	15:10	KONICA SYS-7	CALLING	002
12/24	15:15	KONICA SYS-8	CALLING	002
12/24	15:30	KONICA SYS-9	CALLING	002
12/24	15:50	KONICA SYS-10	CALLING	002
12/24	16:10	KONICA SYS-11	CALLING	002
12/24	16:30	KONICA SYS-12	CALLING	002
12/24	16:50	KONICA SYS-13	CALLING	002
12/24	17:00	KONICA SYS-14	CALLING	002
12/24	17:10	KONICA SYS-15	CALLING	002
12/24	17:30	KONICA SYS-16	CALLING	002
12/24	17:42	KONICA SYS-17	CALLING	002
12/24	17:50	KONICA SYS-18	CALLING	002
12/24	17:59	KONICA SYS-19	CALLING	002
12/24	18:00	KONICA SYS-20	CALLING	002
12/24	18:10	KONICA SYS-21	CALLING	002
12/24	18:20	KONICA SYS-22	CALLING	002
12/24	18:20	KONICA SYS-23	CALLING	002
12/24	18:20	KONICA SYS-24	CALLING	002
12/24	18:30	KONICA SYS-25	CALLING	002
12/24	18:32	KONICA SYS-26	CALLING	002
12/24	18:35	KONICA SYS-27	CALLING	002
12/24	18:40	KONICA SYS-28	CALLING	002
12/24	18:42	KONICA SYS-29	CALLING	002
12/24	18:45	KONICA SYS-30	CALLING	002
12/24	18:50	KONICA SYS-31	CALLING	002
12/24	18:52	KONICA SYS-32	CALLING	002
12/24	18:53	KONICA SYS-33	CALLING	002
12/24	18:55	KONICA SYS-34	CALLING	002
12/24	18:57	KONICA SYS-35	CALLING	002
12/24	18:59	KONICA SYS-36	CALLING	002
12/24	19:00	KONICA SYS-37	CALLING	002
12/24	19:00	KONICA SYS-38	CALLING	002

POLLING TX/RX

DATE	TIME	DISTANT STATION ID	MODE	PAGES
			POLLED	003
12/24	12:05	12345678901234567890123 4	POLLING	

Fig. 1-6-1-1 Active Memory Files P1 (In case of more than 1 page)

HOME

ACTIVE MEMORY FILES P2

12/24/1998 19:10
ID=ODS

PERSONAL BOX

BOX NO.	MODE	ENTRIES	PAGES
01	CONF	03	020
02	CONF	01	002
03	CONF	01	005
04	CONF	01	005
05	POLL	01	005
06	POLL	01	005
07	POLL	01	005
08	POLL	01	005
09	POLL	01	005
10	POLL	01	005
11	POLL	01	005
12	POLL	01	005
13	POLL	01	005
14	POLL	01	005
15	POLL	01	005
16	POLL	01	005

Fig. 1-6-1-2 Active Memory Files P2 (In case of more than 1 page)

ACTIVE MEMORY FILES

12/24/1998 19:10
ID=ODS

RECEPTION

ENTRIES	PAGES
05	020

TRANSMISSION

DATE	TIME	DISTANT STATION ID	MODE	PAGES
12/24	13:00	KONICA SYS-1	CALLING	003
12/24	15:30	KONICA SYS-9	CALLING	002
12/24	15:50	KONICA SYS-10	CALLING	002
12/24	16:10	KONICA SYS-11	CALLING	002
12/24	16:30	KONICA SYS-12	CALLING	002
12/24	16:50	KONICA SYS-13	CALLING	002
12/24	18:52	KONICA SYS-32	CALLING	002
12/24	18:53	KONICA SYS-33	CALLING	002

POLLING TX/RX

DATE	TIME	DISTANT STATION ID	MODE	PAGES
			POLLED	003
12/24	12:05	12345678901234567890123 4	POLLING	

PERSONAL BOX

BOX NO.	MODE	ENTRIES	PAGES
01	CONF	03	020
02	CONF	01	002
03	CONF	01	005
04	CONF	01	005
05	POLL	01	005
06	POLL	01	005
07	POLL	01	005
08	POLL	01	005
14	POLL	01	005
15	POLL	01	005
16	POLL	01	005

Fig. 1-6-1-3 Active Memory Files (In case of within 1 page)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) RECEPTION (Memory reception)
- Prints the information of no paper/no toner reception
- Entries is the number of received communication times stored in the memory.
- Pages is the number of total pages of the reception messages stored in the memory.

(5) TRANSMISSION (Delayed transmission, standby of redial, Batch TX)
- Prints the information of Delay memory transmission and Redial. However, Polling RX information is printed out on the below item 6.
- Prints the communication date and time, distant station ID, Mode and Pages

(6) POLLING TX/RX
- Prints the information of Polling RX or Polling TX.
- Polling TX prints Mode column and number of read pages. When Feeder Polling TX, the number of read pages is a blank.
- Polling RX prints the communication date and time, distant station ID and Mode.

(7) PERSONAL BOX (Confidential, Bulletin Poll)
- Prints the opened condition of Personal Box.
- Mode shows the type of Box.
- Entries prints the number of receipt times stored in the memory.
- Pages prints the number of total pages of each Box.

ACTIVITY REPORT

12/24/1998 17:05
ID=KON

TOTAL TIME CALLING=08:22' CALLED=17:39'

DATE	TIME	S,R-TIME	DISTANT STAITON ID	MODE	PAGES	RESULT	
12/15	10:10	00'00"	12345678901234567890123 4	CALLING	000	NO	90C1
12/15	10:30	00'00"	ODS TAKASAKI	CALLING	000	STOP	9080
12/15	12:05	01'20"	KONICA FAX	CALLING	000	STOP	9080
12/15	13:00	00'20"	03-5476-4300	CALLING	000	NO	90C1
12/15	15:40	03'25"	ODS TAKASAKI	CONF=01	003	OK	0000*1
12/22	10:00	00'00"	KONICA FAX		001	OK	0000*2
12/22	10:00	02'00"	OKI SHIBAURA	CALLED	005	NO	908E
12/22	10:22	00'12"	0495-22-5400	CALLING	000	STOP	9080
12/22	10:50	00'20"	0495-22-5400	CALLED	003	NO	9090
12/22	12:05	00'20"	KONICA FAX	CALLING	000	STOP	9080
12/22	15:00	01'30"		CALLED	003	OK	0000*3
12/22	15:30	00'20"		CALLING	001	OK	0000
12/22	17:05	00'20"		B.C.		COMP.	60A0*4
12/22	19:04	00'20"	03-5476-4300	CALLING	000	STOP	9080
12/23	09:00	01'11"	KONICA FAX	CALLING-G4	002	OK	0000*5
12/23	10:20	00'20"	03-5476-4300	POLLED	003	OK	9080*6
12/23	10:35	02'23"		CONF=01	002	OK	0000
12/23	10:35	02'23"		CALLED	002	OK	0000
12/24	13:00	00'20"	03-5476-4300		004	NO	9082
12/24	10:36	01'10"	ODS FUKUSHIMA	POLL=01	002	OK	0000*7
12/24	13:00	01'00"	kONICA SYS	POLLED	001	OK	0000

*1: Confidential reception
*2: Manual TX
*3: Memory reception
*4: Broadcast TX
*5: G4 TX
*6: Polling TX
*7: Bulletin poll TX

Fig. 1-6-2 Activity Report

(1) Title of the report
(2) Date and time when the report was printed.
(3) Sender ID
(4) Total TX and total RX time
(5) Date of transmission or reception
(6) Time when the communication started
(7) Length of time for which the Fax 9830 was connected to the line
(8) Identification of the remote station
  • Personal ID/CSI(TSI)/Location ID/Dial number/Called TID/Calling TID
(9) Mode of the communication
  • CALLING/CALLED(Memory reception)/ CONF=XX(Confidential reception)/ B.C.(Broadcast TX)/ POLLED(Polling TX)/POLL=XX(Bulletin Poll TX)/CALLING-G4(G4 TX)/FWD-T/FWD-R/BATCH
  XX=Box No.
(10) Total number of pages
(11) Result of the communication
  • OK/NO/STOP/BUSY/PAPER/COMP(Completion of a broadcast)/S JAM/R JAM/ COVER/CANCEL/PUNIT
(12) Service code

HOME

MESSAGE CONFIRMATION

12/24/1998 17:05
ID=KON

DATE	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	0'20"	12345678901234567890 1234	CALLING	002	OK	0000

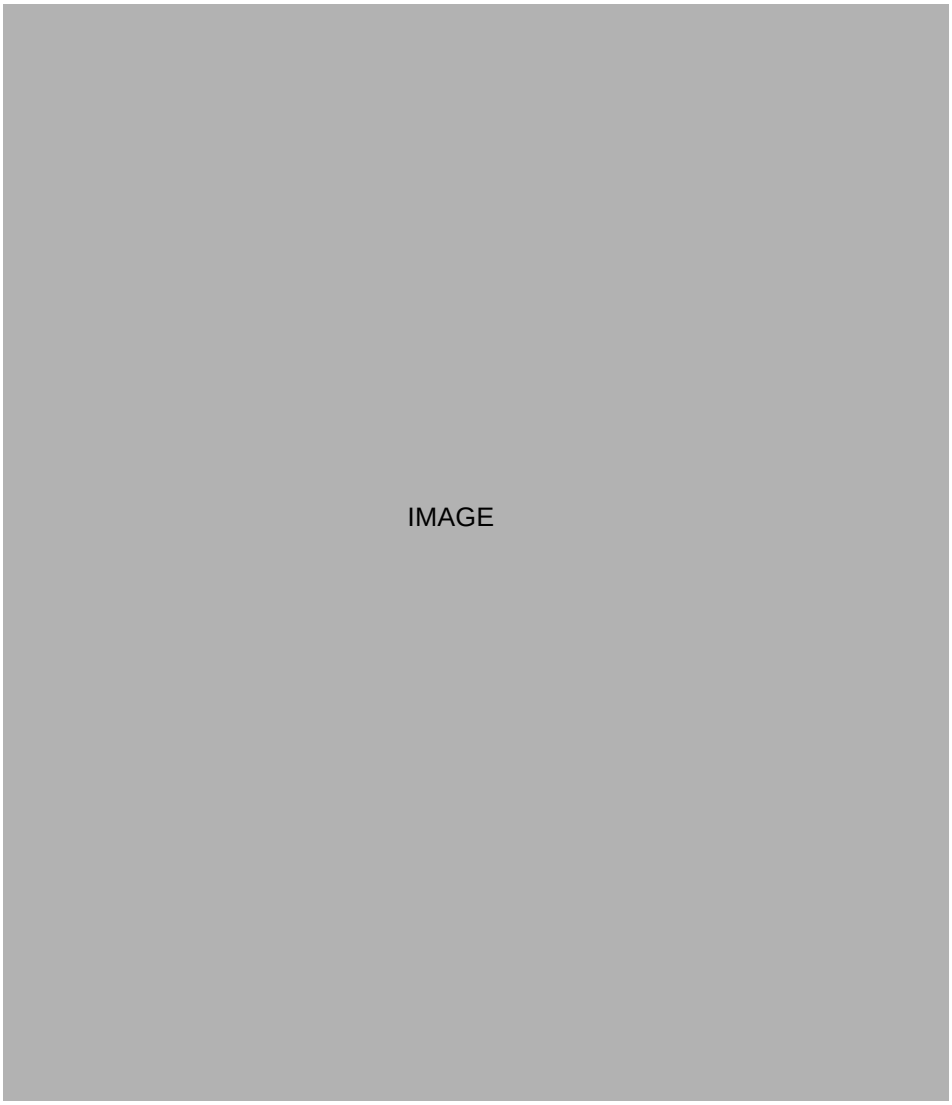


Fig. 1-6-3-1 Message Confirmation (When the transmission is normal end.)

MESSAGE CONFIRMATION

Printed only when Error page

12/24/1998 17:05
ID=KON

DATE	S.R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	0'20"	12345678901234567890123 4	CALLING	002	OK	0000

POSSIBLE ERROR PAGE:*001*002

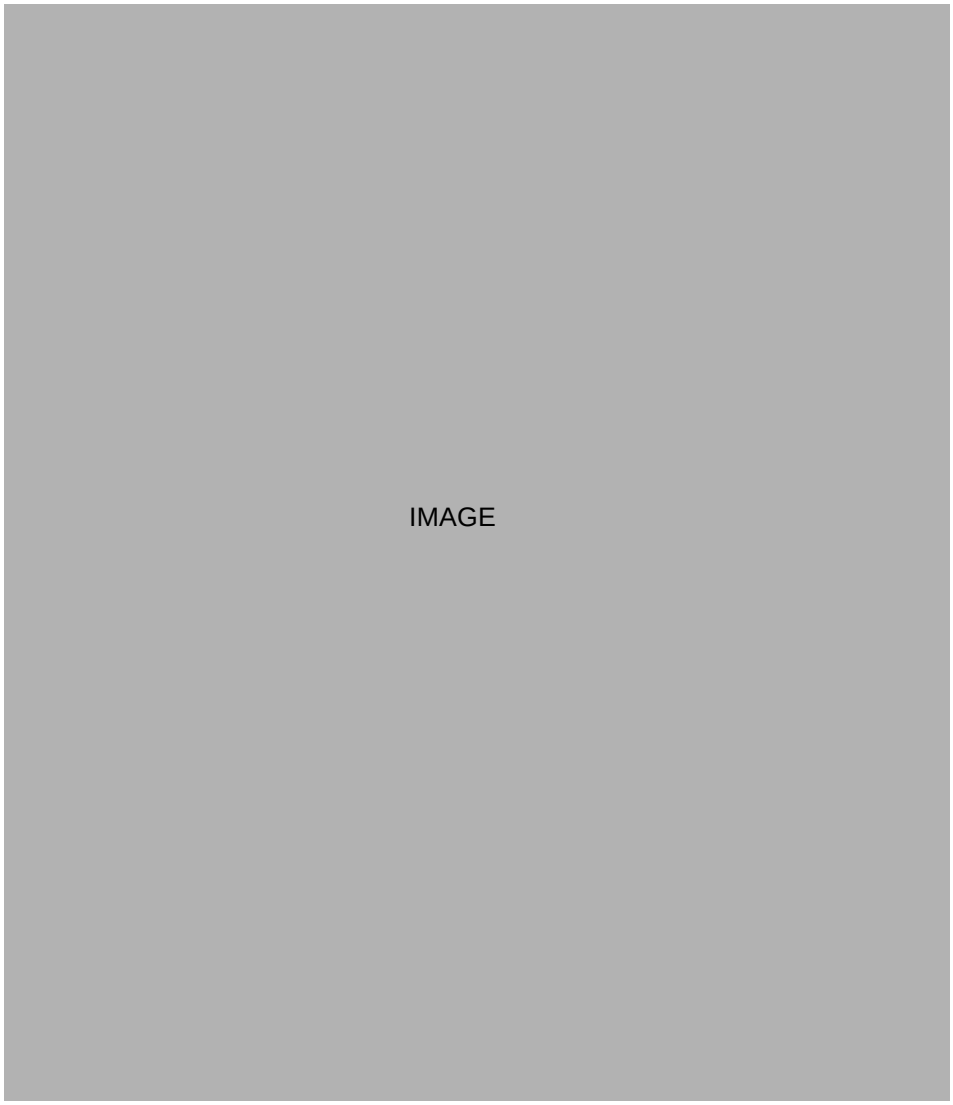


Fig. 1-6-3-2 Message Confirmation (Error report)

(1) Title of the report
(2) Date and time when the report was printed.
(3) Sender ID
(4) Total TX and total RX time
(5) Date of transmission or reception
(6) Time when the communication started
(7) Length of time for which the Fax 9830 was connected to the line
(8) Identification of the remote station
- Personal ID/CSI(TSI)/Location ID/Dial number/Called TID/Calling TID

(9) Mode of the communication
- CALLING/CALLED(Memory reception)/CONF=XX(Confidential reception)/ B.C.(Broadcast TX)/POLLED(Polling TX)/POLL=XX(Bulletin Poll TX)/CALLING-G4(G4 TX)/FWD-T/FWD-R/BATCH
  XX=Box No.

(10) Total number of pages
(11) Result of the communication
- OK/NO/STOP/BUSY/PAPER/COMP(Completion of a broadcast)/S JAM/RJAM/ *COVER/CANCEL/PUNIT

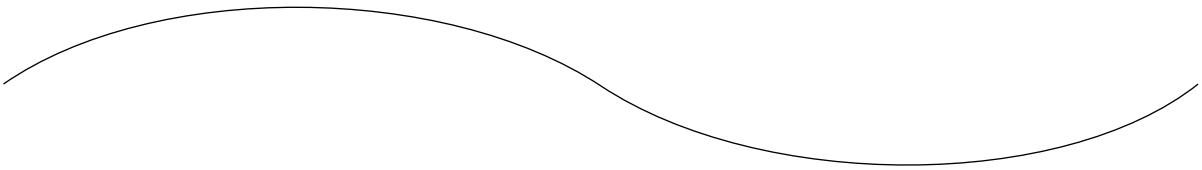
(12) Service code
(13) Message
(14) Fig. 1-6-3-2 (error report)
- Number of pages stored in memory
  Page number is printed only in case transmission from memory is carried out.
- Page numbers of the pages to which an RTN signal or PIN signal received.
  The asterisk (*) mark indicates that retransmission of the page met the criteria of copy quality.

HOME

BROADCAST ENTRY REPORT P1

12/24/1998 17:04
ID= TAKASAKI

LOCATION ID	LOCATION ID
1=12345678901234567890123456789012345678901234567890	2=12345678901234567890123456789012345678901234567890
3=SHIBAURA	4=SHIBAURA
5=FX-050	6=FX-175
7=FX-175VP-ENHANC	8=FX-056
9=KONICA450	10=KONI CA460M
11=M125INTL	12=M125-US
13=KONICA5600	14=KONICA1050
15=KONICA1000	16=KONICA2200
17=OF-3GX	18=115AD
19=2275	20=OF-8
21=OF-18	22=OF-58H
23=M4200	24=5400
25=OF-2B	26=OF-1
27=OF-21	28=2127
29=OF-12M	30=OF-55M
31=M5600	32=ABCDEFGHIJKLMNO
33=KONICA-0000	34=KONICA-0001
35=KONICA-0003	36=KONICA-0004
37=KONICA-0006	38-KONICA-0007
39=KONICA-0009	40=KONICA-000A



101=KONICA-0001	102=KONICA-0002
103=KONICA-0003	104=KONICA-0004
105=KONICA-0005	106=KONICA-0006
107=KONICA-0007	108=KONICA-0008
109=KONICA-0009	110=KONICA-000A
111=KONICA-000B	112=KONICA-000C
113=KONICA-000D	114=KONICA-000E
115=KONICA-000F	116=KONICA-0010
117=KONICA-0011	118=KONICA-0012
119=KONICA-0013	120=KONICA-0014
121=KONICA-0015	122=KONICA-0016
123=KONICA-0017	124=KONICA-0018
125=KONICA-0019	126=KONICA-001A
127=KONICA-001B	128=KONICA-001C
129=KONICA-001D	130=KONICA-001E
131=KONICA-001F	132=KONICA-0020
133=KONICA-0021	134=KONICA-0022
135=KONICA-0023	136=KONICA-0024
137=KONICA-0025	138=KONICA-0026
139=KONICA-0027	140=KONICA-0028

Fig. 1-6-4-1 Broadcast Entry Report (1/2)

BROADCAST ENTRY REPORT P2

12/24/1998 17:04
ID=TAKASAKI

LOCATION ID

KEYPAD

1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890
1234567890123456789012345678901234567890

Fig. 1-6-4-2 Broadcast Entry Report (2/2)

BROADCAST ENTRY REPORT

12/24/1998 17:04
ID=TAKASAKI

LOCATION ID

1=12345678901234567890123456789012345678901234567890
100=SHIBAURA

LOCATION ID

50=12345678901234567890123456789012345678901234567890

KEYPAD

12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890
12345678901234567890123456789012345678901234567890

Fig. 1-6-4-5 Broadcast Entry Report (When the destination of Broadcast TX is specified by Speed Dial No.1, No.50, and No.100)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) Required transmission address (Speed dial)
(5) Registered location ID
(6) Required transmission address (Ten key dial)

HOME

BROADCAST CONFIRMATION REPORT P1

12/24/1998 19:22
ID=KON

PAGES = 001
START TIME = 12/24 17:22
TOTAL TIME = 1:22'22"

LOCATION ID	PAGES	RESULT	LOCATION ID	PAGES	RESULT
1=KONICA SYS1	001	OK	2=KONICA SYS2	001	OK
3=KONICA SYS3	001	OK	4=KONICA SYS4	001	OK
5=KONICA SYS5	001	OK	6=KONICA SYS6	001	OK
7=KONICA SYS7	001	OK	8=KONICA SYS8	001	OK
9=KONICA SYS9	001	OK	10=KONICA SYS10	001	OK
11=KONICA SYS11	001	OK	12=KONICA SYS12	001	OK
13=KONICA SYS13	001	OK	14=KONICA SYS14	001	OK
15=KONICA SYS15	001	OK	16=KONICA SYS16	001	OK
17=KONICA SYS17	001	OK	18=KONICA SYS18	001	OK
19=KONICA SYS19	001	OK	20=KONICA SYS20	001	OK
21=KONICA SYS21	001	OK	22=KONICA SYS22	001	OK
23=KONICA SYS23	001	OK	24=KONICA SYS24	001	OK
25=KONICA SYS25	001	OK	26=KONICA SYS26	001	OK
27=KONICA SYS27	001	OK	28=KONICA SYS28	001	OK
29=KONICA SYS29	001	OK	30=KONICA SYS30	001	OK
31=KONICA SYS31	001	OK	32=KONICA SYS32	001	OK
33=KONICA SYS33	001	OK	34=KONICA SYS34	001	OK
35=KONICA SYS35	001	OK	36=KONICA SYS36	001	OK
37=KONICA SYS37	001	OK	38=KONICA SYS38	001	OK
39=KONICA SYS39	001	OK	40=KONICA SYS40	001	OK
93=KONICA SYS93	001	OK	94=KONICA SYS94	001	OK
95=KONICA SYS95	001	OK	96=KONICA SYS96	001	OK
97=KONICA SYS97	001	OK	98=KONICA SYS98	001	OK
99=KONICA SYS99	001	OK	100=KONICA SYS100	001	OK
101=KONICA SYS101	001	OK	102=KONICA SYS102	001	OK
103=KONICA SYS103	001	OK	104=KONICA SYS104	001	OK
105=KONICA SYS105	001	OK	106=KONICA SYS106	001	OK
107=KONICA SYS107	001	OK	108=KONICA SYS108	001	OK
109=KONICA SYS109	001	OK	110=KONICA SYS110	001	OK
111=KONICA SYS111	001	OK	112=KONICA SYS112	001	OK
113=KONICA SYS113	001	OK	114=KONICA SYS114	001	OK
115=KONICA SYS115	001	OK	116=KONICA SYS116	001	OK
117=KONICA SYS117	001	OK	118=KONICA SYS118	001	OK
119=KONICA SYS119	001	OK	120=KONICA SYS120	001	OK
121=KONICA SYS121	001	OK	122=KONICA SYS122	001	OK
123=KONICA SYS123	001	OK	124=KONICA SYS124	001	OK
125=KONICA SYS125	001	OK	126=KONICA SYS126	001	OK
127=KONICA SYS127	001	OK	128=KONICA SYS128	001	OK
129=KONICA SYS129	001	OK	130=KONICA SYS130	001	OK
131=KONICA SYS131	001	OK	132=KONICA SYS132	001	OK
133=KONICA SYS133	001	OK	134=KONICA SYS134	001	OK
135=KONICA SYS135	001	OK	136=KONICA SYS136	001	OK
137=KONICA SYS137	001	OK	138=KONICA SYS138	001	OK
139=KONICA SYS139	001	OK	140=KONICA SYS140	001	OK

Fig. 1-6-5-1 Broadcast Confirmation Report P1

HOME

BROADCAST CONFIRMATION REPORT P2

12/24/1998 19:22
ID=KON

LOCATION ID	PAGES	RESULT
KEYPAD		
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK
12345678901234567890123 4	001	OK

Fig. 1-6-5-2 Broadcast Confirmation Report P2

BROADCAST CONFIRMATION REPORT

12/24/1998 19:22
ID=KON

PAGES = 001
START TIME = 12/24 17:22
TOTAL TIME = 1:22'22"

LOCATION ID	PAGES	RESULT	LOCATION ID	PAGES	RESULT
1=12345678901234567890	001	OK	50=KONICA SYS2	001	OK
100=KONICA SYS3					

KEYPAD

12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK
12345678901234567890123	001	OK

Fig. 1-6-5-5 Broadcast Confirmation Report (When the destination of Broadcast TX is specified by Speed Dial No.1, No.50, and No.100)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) Total numbers of pages in particular communication
(5) Specified transmission time
(Time is not printed by automatic print out mode.)
(6) Total transmission time
(7) Required transmission address (Speed dial)
(8) Registered location ID (Speed dial) or Identification of the remote station
(9) Required transmission address (Ten key dial)
(10) Transmitted number or pages for each address
(11) Identification of the result of communication

CONFIGURATION P1

12/24/1998 22:00
ID=ODC TAKASAKI *8

USER FUNCTION SETUP

MACHINE SETTINGS			
	< 10 >	AUTO ANSWER MODE	FAX
	< 11 >	MONITOR VOLUME	HIGH-MID.
	< 12 >	BUZZER VOLUME	LOW
	< 13 >	USER LANGUAGE	ENGLISH
	< 14 >	REMOTE DIAGNOSIS	OFF
	< 15 >	TX MODE DEFAULT	STD/NORMAL
	< 16 >	NO TONER MEM. RX	OFF
	< 17 >	MEM. FULL SAVE	OFF
	< 18 >	INSTANT DIAL	ON
	< 19 >	RESTRICT ACCESS	OFF
	< 20 >	ECM FUNCTION	ON
	< 21 >	CLOSED NETWORK	OFF
	< 22 >	TONER SAVE	OFF
	< 23 >	SENDER ID	ON
	< 24 >	1'ST PAPER SIZE	LETTER
	< 25 >	2'ND PAPER SIZE	LETTER *6
	< 26 >	POWER SAVE MODE	ON *2/*11
	< 27 >	ISDN DIAL MODE	G4 MODE *4
	< 28 >	SPEECH RECEIVE	ON *4
DIAL OPTIONS			
	< 40 >	REDIAL TRIES	3 TRIES *2
	< 41 >	REDIAL INTERVAL	3 MIN *2
	< 42 >	AUTO START	ON
	< 43 >	DIAL TONE DETECT	OFF *2/*9
	< 44 >	BUSY TONE DETECT	ON *2/*9
	< 45 >	MF/DP	MF *2/*9
	< 46 >	PULSE DIAL RATE	10 PPS *2/*9
	< 47 >	PULSE MAKE RATIO	39 % *2/*9
	< 48 >	PULSE DIAL TYPE	N *2/*9
	< 49 >	MF(TONE) DURATION	100 MS *2/*9
	< 50 >	PBX LINE	OFF *2/*9
	< 51 >	FLS/EARTH/NORMAL	NORMAL *2/*9
	< 52 >	DIAL PREFIX	OFF *9
INCOMING OPTIONS			
	< 60 >	INCOMING RING	ON *9
	< 61 >	REMOTE RECEIVE	OFF *9
	< 62 >	T/F TIMER PRG.	35 SEC *9
	< 63 >	CONTINUOUS TONE	OFF
	< 64 >	PC/FAX SWITCH	ON *3
	< 65 >	CNG COUNT	1 *2/*9
	< 66 >	RING RESPONSE	1 RING *2/*9
	< 67 >	DISTINCTIVE RING	OFF *2/*9

Fig. 1-6-6-1 Configuration P1 (In case of Service Bit = ON)

CONFIGURATION P2

12/24/1998 22:00
ID=ODC TAKASAKI *8

USER FUNCTION SETUP

- REPORT OPTIONS

< 70 >	MCF. (SINGLE-LOC.)	OFF	
< 71 >	MCF. (MULTI-LOC.)	ON	
< 72 >	MESSAGE IN MCF.	OFF	
< 73 >	ERR. REPORT (MCF.)	OFF	*2

- LAN OPTIONS

< 80 >	AUTO TRAY SW	OFF	*5
< 81 >	PAPER SIZE CHECK	OFF	
< 82 >	LAN PRINT T.O.	30 SEC	

TEL NO.	= 6699	*7
FORWARDING NO.	= 326242116	*7
FORWARD ON P-ERR.	= 6992	*7
RELAY REPORT NO.	= 6411	*7
ISDN-TID COUNTRY CODE	= 081	*4/*7
ISDN NO.	= 02732442117	*4/*7
ISDN ID	= Okidata	*4/*7
ISDN-SUB ADDRESSING	= 123456	*4/*7

Fig. 1-6-6-2 Configuration P2 (In case of Service Bit = ON)

CONFIGURATION P3 *1

12/24/1998 22:00
ID=ODC TAKASAKI *8

TECHNICAL FUNCTION SETUP

< 01 >	SERVICE BIT	ON	
< 02 >	MONITOR CONT.	ON	
< 03 >	COUNTRY CODE	USA	
< 04 >	TIME/DATE PRINT	OFF	
< 05 >	TSI PRINT	ON	
< 06 >	TAD MODE	TYPE2	
< 07 >	REAL TIME DIAL	TYPE2	
< 08 >	TEL/FAX SWITCH	ON	
< 09 >	MDY/DMY	MDY	
< 10 >	LONG DOC. SCAN	OFF	
< 11 >	TONE FOR ECHO	OFF	
< 12 >	MH ONLY	OFF	
< 13 >	H/MODEM RATE	33.6 K	
< 14 >	T1(TX) TIMER VALUE	059	
< 15 >	T1(RX) TIMER VALUE	035	
< 16 >	T2 TIMER *100MS	130	
< 17 >	DIS BIT32	ON	
< 18 >	ERROR CRITERION	10 %	
< 19 >	OFF HOOK BYPASS	OFF	
< 20 >	NL EQUALIZER	0 DB	
< 21 >	ATTENUATOR	10 DB	
< 22 >	T/F TONE ATT.	10 DB	
< 23 >	MF ATT. 3 DB		
< 24 >	RING DURA. *10MS	12	
< 25 >	CML TIMING *100MS	03	
< 26 >	LED HEAD STROBE	10000	
< 27 >	MEDIA TYPE	MEDIUM	
< 28 >	TR LATCH CURRENT	0	
< 29 >	V34 TX RETRY	ON	
< 30 >	SYMBOL RATE	3429	
< 31 >	NSF SWITCH	ON	
< 32 >	ID/TSI PRIORITY	ID	
< 33 >	TONER COUNT CLEAR	OFF	
< 34 >	PARALLEL PICK UP	ON	
< 35 >	PRINT PRIORITY	OFF	
< 36 >	JBIG FACILITY	ON	*10
< 37 >	LLC CHECK	ON	*4

Fig. 1-6-6-3 Configuration P3 (In case of Service Bit = ON)

CONFIGURATION P1

12/24/1998 22:00
ID=ODC TAKASAKI *8

USER FUNCTION SETUP

MACHINE SETTINGS

< 10 >	AUTO ANSWER MODE	FAX	
< 11 >	MONITOR VOLUME	HIGH-MID.	
< 12 >	BUZZER VOLUME	LOW	
< 13 >	USER LANGUAGE	ENGLISH	
< 14 >	REMOTE DIAGNOSIS	OFF	
< 15 >	TX MODE DEFAULT	STD/NORMAL	
< 16 >	NO TONER MEM. RX	OFF	
< 17 >	MEM. FULL SAVE	OFF	
< 18 >	INSTANT DIAL	ON	
< 19 >	RESTRICT ACCESS	OFF	
< 20 >	ECM FUNCTION	ON	
< 21 >	CLOSED NETWORK	OFF	
< 22 >	TONER SAVE	OFF	
< 23 >	SENDER ID	ON	
< 24 >	1'ST PAPER SIZE	LEETER	
< 25 >	2'ND PAPER SIZE	LETTER	*6

DIAL OPTIONS

< 40 >	REDIAL TRIES	3 TRIES	*2
< 41 >	REDIAL INTERVAL	3 MIN	*2
< 42 >	AUTO START	ON	
< 43 >	DIAL TONE DETECT	OFF	*2/*9
< 44 >	BUSY TONE DETECT	ON	*2/*9
< 45 >	MF/DP	MF	*2/*9
< 50 >	PBX LINE	OFF	*2/*9
< 52 >	DIAL PREFIX	OFF	*9

INCOMING OPTIONS

< 60 >	INCOMING RING	ON	*9
< 61 >	REMOTE RECEIVE	OFF	*9
< 62 >	T/F TIMER PRG.	35 SEC	*9
< 63 >	CONTINUOUS TONE	OFF	
< 64 >	PC/FAX SWITCH	ON	*3
< 65 >	CNG COUNT	1	*2/*9
< 67 >	DISTINCTIVE RING	OFF	*2/*9

Fig. 1-6-6-4 Configuration P1
(In case of: Service Bit OFF, Skipped by xpara bit, No LAN option board, No G4 option board, and registration of the incoming transmission TEL No.)

CONFIGURATION P2

12/24/1998 22:00
ID=ODC TAKASAKI *8

USER FUNCTION SETUP

REPORT OPTIONS

< 70 >	MCF. (SINGLE-LOC.)	OFF	
< 71 >	MCF. (MULTI-LOC.)	ON	
< 72 >	MESSAGE IN MCF.	OFF	
< 73 >	ERR. REPORT (MCF.)	OFF	*2

TEL NO.	=	*7
FORWARDING NO.	=	*7
FORWARD ON P-ERR.	= 6992	*7
RELAY REPORT NO.	=	*7

Fig. 1-6-6-5 Configuration P2
(In case of: Service Bit OFF, Skipped by xpara bit, No LAN option board, No G4 option board, and registration of the incoming transmission TEL No.)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) User programmed function parameters
  • Machine Settings (No.10 to No.28)
  • Dial Options (No. 40 to No. 52)
  • Incoming Options (No. 60 to No.67)
  • Report Options (No. 70 to No. 73)
  • LAN Options (No. 80 to No. 82)
(5) Telephone number
(6) Forwarding number
(7) ISDN-TID: Country code, ISDN No. and ISDN ID
(8) ISDN-SUB Adderess
(9) Technical programmed function parameters
  • Setup (No. 01 to No. 37)

Note:

*1: Printed only when Service Bit = ON.

*2: When Service Bit = OFF, printed or not depending on the xpare bit.
USER FUNCTION SETUP > MACHINE SETTINGS > No.26: POWER SAVE MODE is skipped at the time of COUNTRY CODE=USA of DEFAULT TYPE=1(ODA) regardless of the xpara bit.

*3: Printed when the MFP option is specified in Mfpunlock setup.

*4: Printed when the ISDN option is mounted. At this time, if any item is not registered, only the content is left blank and its line itself is not left blank.

*5: Printed when the LAN option is mounted. If the LAN option is not mounted. all setup items in SETUP > LAN OPTIONS are not printed.

*6: Printed only when the second tray is mounted.

*7: If no telephone number is registered, only the telephone number column is left blank and its line itself is not left blank.

*8: If the ID of this machine is not registered, the ID is left blank and its line itself is left blank.

*9: The item is left blank when an ISDN board is mounted. However, printed when Service Bit = ON.

*10: Machine setting No. 26 (power save mode) is not printed when the ISDN/LAN board is mounted.

Error Name (Decimal code)	Error Description
HSP Error 10	Commnad was sent to the HSP card but its response was not returned within 5 seconds.
HSP Error 20	The Status Window did not show in the initial state 10 seconds after powering on.
HSP Error 21	Received the operation command during the POWER ON mode if it takes 3 seconds or more to transfer to the operation mode after clearance of the initial synchronizing flag.
HSP Error 22	In the Reverse Data command, the HSK card could not transmit all the notification data from the higher modules. (In case a communication error has occurred between the HSP and host.)
HSP Error 00	Others

TELEPHONE DIRECTORY P1

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
1 KONICA SYS1	LOC#12345678901234567890123456789012345678901234567890 ALT#0101	ON / 33.6K / G4
2 KONICA SYS2	LOC#0002 ALT#0102	OFF / 33.6K / G4
3 KONICA SYS3	LOC#0003 ALT#0103	ON / 33.6K / G4
4 KONICA SYS4	LOC#0004 ALT#0104	ON / 33.6K / G4
5 KONICA SYS5	LOC#0005 ALT#0105	ON / 33.6K / G4
6 KONICA SYS6	LOC#0006 ALT#0106	ON / 33.6K / G4
7	LOC#0007 ALT#0107	ON / 33.6K / G4
8 KONICA SYS8	LOC#0008 ALT#0108	ON / 33.6K / G4
9 KONICA SYS9	LOC#0009 ALT#0109	ON / 33.6K / G4
10 KONICA SYS10	LOC#0010 ALT#0110	ON / 33.6K / G4
11 KONICA SYS11	LOC#0010 ALT#0010	ON / 33.6K / G4
12 KONICA SYS12	LOC#123456789012345678901245678901234567890 ALT#010	ON / 33.6K / G4
20 KONICA SYS20	LOC#0010 ALT#0110	ON / 33.6K / G4
21 KONICA SYS21	LOC#0010 ALT#	ON / 33.6K / G4
22 KONICA SYS22	LOC#0010 ALT#0010	ON / 33.6K / G4
23 KONICA SYS23	LOC#0010 ALT#0010	ON / 33.6K / G4
24 KONICA SYS24	LOC#0010 ALT#0010	ON / 33.6K / G4
25 KONICA SYS25	LOC#0010 ALT#0010	ON / 33.6K / G4
26 KONICA SYS26	LOC#0010 ALT#	ON / 33.6K / G4
27 KONICA SYS27	LOC#0010 ALT#0010	ON / 33.6K / G4
28 KONICA SYS28	LOC#0010 ALT#0010	ON / 33.6K / G4
29 KONICA SYS29	LOC#12345678901234567890123456789012345678901234567890 ALT#0010	ON / 33.6K / G4
30 KONICA SYS30	LOC#0010 ALT#0010	ON / 33.6K / G4

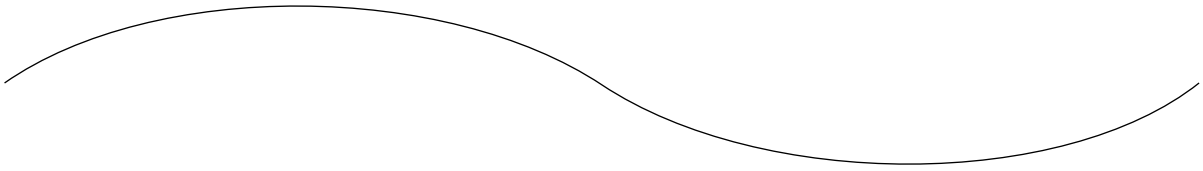
Fig. 1-6-7-1 Telephone Directory P1

HOME

TELEPHONE DIRECTORY P2

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
31 KONICA SYS31	LOC# 12345678901234567890123456789012345678901234567890 ALT# 0010	[12:12] ON / 33.6K / G4
32 KONICA SYS32	LOC# 0010 ALT# 0010	[12:12] ON / 33.6K / G4
33 KONICA SYS33	LOC# 0010 ALT# 0010	[17:12] ON / 33.6K / G4
34 KONICA SYS34	LOC# 0010 ALT# 0010	[:] ON / 33.6K / G4
35 KONICA SYS35	LOC# 0010 ALT# 0010	[20:30] ON / 33.6K / G4
36 KONICA SYS36	LOC# 0010 ALT# 0010	[21:00] ON / 33.6K / G4
37 KONICA SYS37	LOC# 0010 ALT# 0010	[21:30] ON / 33.6K / G4
38 KONICA SYS38	LOC# 0010 ALT# 0010	[21:50] ON / 33.6K / G4
39 KONICA SYS39	LOC# 0010 ALT# 0010	[22:12] ON / 33.6K / G4
40 KONICA SYS40	LOC# 12345678901234567890123456789012345678901234567890 ALT# 0010	[23:12] ON / 33.6K / G3



50 KONICA SYS50	LOC# 0010	ON / 33.6K / G4
51	LOC# 0010	ON / 33.6K / G4
52 KONICA SYS52	LOC# 0010	ON / 33.6K / G4
53 KONICA SYS53	LOC# 0010	ON / 33.6K / G4
54 KONICA SYS54	LOC# 0010	ON / 33.6K / G4
55 KONICA SYS55	LOC# 0010	ON / 33.6K / G4
56 KONICA SYS56	LOC# 0010	ON / 33.6K / G4
57 KONICA SYS57	LOC# 0010	ON / 33.6K / G4
58 KONICA SYS58	LOC# 0010	ON / 33.6K / G4
59 KONICA SYS59	LOC# 0010	ON / 33.6K / G4
60 KONICA SYS60	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4

Fig. 1-6-7-2 Telephone Directory P2

TELEPHONE DIRECTORY P3

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
61 KONICA SYS61	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4
62 KONICA SYS62	LOC# 0002	OFF / 33.6K / G4
63 KONICA SYS63	LOC# 0003	ON / 33.6K / G4
64 KONICA SYS64	LOC# 0004	ON / 33.6K / G4
65	LOC# 0005	ON / 33.6K / G4
66 KONICA SYS56	LOC# 0006	ON / 33.6K / G4
67 KONICA SYS67	LOC# 0007	ON / 33.6K / G4
68 KONICA SYS58	LOC# 0008	ON / 33.6K / G4
69 KONICA SYS59	LOC# 0009	ON / 33.6K / G4
70 KONICA SYS70	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G3
80 KONICA SYS80	LOC# 0010	ON / 33.6K / G4
81 KONICA SYS81	LOC# 0010	ON / 33.6K / G4
82 KONICA SYS82	LOC# 0010	ON / 33.6K / G4
83 KONICA SYS83	LOC# 0010	ON / 33.6K / G4
84 KONICA SYS84	LOC# 0010	ON / 33.6K / G4
85 KONICA SYS85	LOC# 0010	ON / 33.6K / G4
86 KONICA SYS86	LOC# 0010	ON / 33.6K / G4
87 KONICA SYS87	LOC# 0010	ON / 33.6K / G4
88 KONICA SYS88	LOC# 0010	ON / 33.6K / G4
89 KONICA SYS89	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G3
90 KONICA SYS90	LOC# 0010	ON / 33.6K / G4

Fig. 1-6-7-3 Telephone Directory P3

HOME

TELEPHONE DIRECTORY P4

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
91 KONICA SYS91	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4
92 KONICA SYS92	LOC# 0002	OFF / 33.6K / G4
93 KONICA SYS93	LOC# 0003	ON / 33.6K / G4
94 KONICA SYS94	LOC# 0004	ON / 33.6K / G4
95	LOC# 0005	ON / 33.6K / G4
96 KONICA SYS96	LOC# 0006	ON / 33.6K / G4
97 KONICA SYS97	LOC# 0007	ON / 33.6K / G4
98 KONICA SYS98	LOC# 0008	ON / 33.6K / G4
99 KONICA SYS99	LOC# 0009	ON / 33.6K / G4
100 KONICA SYS100	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G3
110 KONICA SYS110	LOC# 0010	ON / 33.6K / G4
111 KONICA SYS111	LOC# 0010	ON / 33.6K / G4
112 KONICA SYS112	LOC# 0010	ON / 33.6K / G4
113 KONICA SYS113	LOC# 0010	ON / 33.6K / G4
114 KONICA SYS114	LOC# 0010	ON / 33.6K / G4
115 KONICA SYS115	LOC# 0010	ON / 33.6K / G4
116 KONICA SYS116	LOC# 0010	ON / 33.6K / G4
117 KONICA SYS117	LOC# 0010	ON / 33.6K / G4
118 KONICA SYS118	LOC# 0010	ON / 33.6K / G4
119 KONICA SYS119	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4
120 KONICA SYS120	LOC# 0010	ON / 33.6K / G4

Fig. 1-6-7-4 Telephone Directory P4

HOME

TELEPHONE DIRECTORY P5

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
121 KONICA SYS121	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4
122 KONICA SYS122	LOC# 0002	OFF / 33.6K / G4
123 KONICA SYS123	LOC# 0003	ON / 33.6K / G4
124 KONICA SYS124	LOC# 0004	ON / 33.6K / G4
125	LOC# 0005	ON / 33.6K / G4
126 KONICA SYS126	LOC# 0006	ON / 33.6K / G4
127 KONICA SYS127	LOC# 0007	ON / 33.6K / G4
128 KONICA SYS128	LOC# 0008	ON / 33.6K / G4
129 KONICA SYS129	LOC# 0009	ON / 33.6K / G4
130 KONICA SYS130	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G3
131 KONICA SYS131	LOC# 0010	ON / 33.6K / G4
132 KONICA SYS132	LOC# 0010	ON / 33.6K / G4
133 KONICA SYS133	LOC# 0010	ON / 33.6K / G4
134 KONICA SYS134	LOC# 0010	ON / 33.6K / G4
135 KONICA SYS135	LOC# 0010	ON / 33.6K / G4
136 KONICA SYS136	LOC# 0010	ON / 33.6K / G4
137 KONICA SYS137	LOC# 0010	ON / 33.6K / G4
138 KONICA SYS138	LOC# 0010	ON / 33.6K / G4
139 KONICA SYS139	LOC# 0010	ON / 33.6K / G4
140 KONICA SYS140	LOC# 12345678901234567890123456789012345678901234567890	ON / 33.6K / G4

Fig. 1-6-7-5 Telephone Directory P5

TELEPHONE DIRECTORY

12/24/1998 17:05
ID=KON

LOCATION ID	TEL NO	G3-ECHO / G3-RATE / MODE
1 KONICA SYS1	LOC# 12345678901234567890123456789012345678901234567890 ALT# 0101	ON / 33.6K / G4
50 KONICA SYS50	LOC# 0002	OFF / 33.6K / G4
100 KONICA SYS100	LOC# 0003	ON / 33.6K / G4

Fig. 1-6-7-14 Telephone Directory (When the destination is registered by Speed Dial No.1, No.50, and No.100 only.)

- Five pages
- SPEED DIAL: Up to140

(1) Title of the report0
(2) Date and time when the report was printed
(3) Sender ID
(4) Programmed ID (up to 15 characters)
(5) Programmed Speed Dial telephone numbers (Up to 40 digits)
(6) Programmed alternative destination (ALT#: alternate TEL No.) telephone numbers
#: 1 to 40
(7) Programmed communication parameters
- When an ISDN board is mounted: G3-ECHO/G3-RATE/MODE
- When no ISDN board is mounted: G3-ECHO/G3-RATE

(8) Programmed batch transmission time
- Batch transmission time can be set for SPEED DIAL 31 to 40 only.

POWER OUTAGE REPORT

12/24/1998 15:10
ID=KON

DATE	TIME	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	10:10		12345678901234567890123 4			LOST	
12/24	10:30		ODS TAKASAKI		003	LOST	
12/24	12:05	01'20"	KONI CA FAX	CONF=01	003	LOST	0000
12/24	13:00	00'20"	03-5476-4300	CALLED	001	LOST	0000
12/24	10:50	00'20"	0495-22-5400	CALLED	003	LOST	0000
12/24	15:00			B.C.	001	LOST	

Fig. 1-6-8 Power Outage Report

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) Reserved/transmission date
(5) Reserved/transmission time
(6) Communication time
(7) Identification of the remote station
(8) Mode of the communication
CONF(Confidential reception)/CALLED(Memory reception)/B.C.(Broadcast TX)
(9) Total number of reserved documents or transmitted pages
(10) Result of the communication
LOST

CONFIDENTIAL RX REPORT

12/24/1998 17:05
ID=KON

DATE	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	01'30"	12345678901234567890123 4	CONF=01	002	OK	0000

Fig. 1-6-9 Confidential RX Report

(1) Title of the report
(2) Date and time when the report was printed.
(3) Sender ID
(4) Date of transmission or reception
(5) Time when the communication started
(6) Length of time for which the Fax 9830 was connected to the line
(7) Identification of the remote station
(8) Mode of the communication
    • The stored confidential box number is printed in the MODE column.
    • CONF=01 (box number)
(9) Total number of pages
(10) Result of the communication
(11) Service code

HOME

PROTOCOL DUMP P1

12/24/1998 19:00
ID=TAKASAKI

DATE	TIME	S.R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	18:56	00'33"	12345678901234567890 1234	CALLING	002	OK	0000

FCF

TX	NSS	PPS_MPS	PPS_PRI_EOP	PPS_PRI_EOP	PPS_PRI_EOP	DCN	
RX	NSF DIS	CFR	MCF		MCF		

TX	
RX	

TX	
RX	

TX	
RX	

TRANSMITTED FRAME

DIS
00 00 00 00 00 00 00 00 00 00 00 00 00

DTC
00 00 00 00 00 00 00 00 00 00 00 00 00

DCS
00 00 00 00 00 00 00 00 00 00 00 00 00

NSF
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

NSS
FF C8 C4 00 00 84 80 30 40 E4 10 40 B8 39 20 0C 0C 0C 0C 30 82 4A AA 82 42 92 12 CA 04 92 D2 F2
80 40 80 10 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00

NSC
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

CSI/CIG/TSI
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

SEP/SUB
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

V34
CM
00 00 00 00
JM
00 00 00 00
SYMBOL RATE(SPS) =
DATA SIGNALLING RATE(BPS) =

MODEM TRACE
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Fig. 1-6-10-1 Protocol Dump P1 (G3)

PROTOCOL DUMP P2

12/24/1998 19:00
ID=TAKASAKI

RECEIVED FRAME

DIS
FF C8 01 00 73 17 22 00 00 00 00 00 00 00 00 00 00 00 00 00

DTC
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

DCS
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

NSF
FF C0 04 00 00 84 80 08 40 F4 10 40 F9 7D 20 0C 0C 0C 0C 90 F2 52 72 F2 12 04 92 D2 F2 80 F0 80
40 80 50 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00

NSS
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00

NSC
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00

CSI/CIG/TSI
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

SEP/SUB
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

V34
CM
00 00 00 00 00 00
JM
00 00 00 00 00 00

Fig. 1-6-10-2 Protocol Dump P2 (G3)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) Date of communication
(5) Time of communication
(6) One message transmission/reception time
(7) Identification of remote station
  • CSI and/or telephone number
(8) Mode of transmission/reception according to ITU-T designation
(9) Total number of pages in communication
(10) Identification of the result of the communication
(11) Service code
(12) TX: DIS/DTC/DCS/NSF/NSS/NSC
(13) Transmitted telephone number
(14) Transmitted SEP/SUB
(15) Common information of ITU-T V.34 TX/RX
(16) Modem trace
(17) RX: DIS/DTC/DCS/NSF/NSS/NSC (page 2)
(18) Received telephone number (page 2)
(19) Received SEP/SUB (page 2)
(20) Common information of ITU-T V.34 TX/RX (page 2)
(21) Modem trace (page 2)

SELF DIAGNOSIS REPORT

12/24/1998 12:00
ID=0dc Takasaki

MAIN BOARD					
	CPU-ROM	VERSION	aaaa		*1
		HASH	OK	hhhh	*1
	CPU-RAM		OK		
	PROGRAM1	VERSION	aaaa		
		HASH	OK	hhhh	
	PROGRAM2	VERSION	aaaa		
		HASH	OK	hhhh	
	LANGUAGE	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	TYPE	01		
	MODEM	VERSION	hhhh		*1
	RAM1	8M	OK		
	RAM2		OK		
	CARTRIDGE		bbbb		*1/*4
	OPT-MEM	2M	OK		*2
DEVICE ID	FAX 9830				*2/*3
HSP			OK		*2/*5
ISDN BOARD			OK		*2/*6
	CPU-ROM	VERSION	aaaa		
		HASH	OK	hhhh	
	CPU-RAM		OK		
	PROGRAM	VERSION	aaaa		
		HASH	OK	hhhh	
	RAM	2M	OK		
	DPRAM	2K	OK		

Fig. 1-6-11-1 Self Diagnosis Report

HOME

SELF DIAGNOSIS REPORT

12/24/1998 12:00
ID=0dc Takasaki

MAIN BOARD					
	CPU-ROM	VERSION	aaaa		*1
		HASH	OK	hhhh	*1
	CPU-RAM		OK		
	PROGRAM1	VERSION	aaaa		
		HASH	OK	hhhh	
	PROGRAM2	VERSION	aaaa		
		HASH	OK	hhhh	
	LANGUAGE	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	TYPE	01		
	MODEM	VERSION	hhhh		*1
	RAM1	8M	OK		
	RAM2		OK		
	CARTRIDGE		bbbb		*1/*4
DEVICE ID	FAX 9830				*2/*3
ISDN BOARD			OK		*2/*6
	CPU-ROM	VERSION	aaaa		
		HASH	OK	hhhh	
	CPU-RAM		OK		
	PROGRAM	VERSION	aaaa		
		HASH	OK	hhhh	
	RAM	2M	OK		
	DPRAM	2K	OK		

Fig. 1-6-11-2 Self Diagnosis Report (In case of no MEM. board and no LAN board)

Note:

*1: a indicates an alphanumeric character; n indicates a numeric character (0 to 9); h indicates a hexadecimal number; and b indicates 0 or 1.

*2: Printed when the option memory board is mounted and if not, entry lines following this line are not omitted.

*3: This item is left blank when MFP AVAIL is OFF. Lowercase letters can also be listed. This item reports MDL information for the PnP device ID only.
This item can be up to 40 characters long.

*4: This item reports toner cartridge ID information (port read value).

*5: For the LAN board, the status of the LAN board at self diagnosis shall be recorded. (If the LAN board is in the alarm state, the cause of the alarm is recorded.) When an HSP error occurs, entry items shown below are printed.
HSP NG nn

*6: The result of ISDN board test, which is performed at self diagnosis, shall be lprinted. (Error information at power-on shall also be listed partially.)
When an ISDN error occurs,entry items shown below are printed.
ISDN BOARD NG nn

nn=01 Waiting for PC loading
The BOOT2 signal from the host side at the time of power on is set to PC loading mode.

nn=02 Board abnormality
The ISDN board program hash is NG upon power on.

nn=03 Board abnormality
The initial sequence between boards cannot be excuted in 10 seconds after power on. (The status window does not indicate a normal value.)

nn=04 Board abnormality
The initial sequence of the ISDN LSI cannot be excuted upon power on.
(No response for the command, NG response)

nn=05 ISDN LSI abnormality
The result of ISDN LSI testing function is NG: (ROM/RAM test, Loop test)

HOME

```
                                                                    12/24/1998 18:15

DATA/TIME        12/24/1998   13:32
EXEC TSK         40
PROMIS           TSKNO : 00                                NGNO   :    0004
FLASH COUNT :    00000067

         MSGDATA                                                  TSKDATA
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
         01 00 01 01 02 03 04 05 01 01 01 01 01 01 01 01          01 01 01 10
```

Fig. 1-6-12 Debug Log Information

FUNCTION LIST P1

12/24/1998 22:00
ID=0dc Takasaki *9

TO ACCESS PROGRAM MENU ITEMS:
-PRESS THE MENU KEY
-TO LOCATE A MENU ITEM. USE THE UP-DOWN ARROW KEY
-SELECT THE MENU ITEM USING EITHER THE ENTER OR RIGHT ARROW KEYS

TO QUICKLY ACCESS A SPECIFIC "SETUP" ITEM:
-PRESS THE MENU KEY
-ENTER THE TWO-DIGIT NUMBER OF THE SETUP ITEM ON THE TEN KEY PAD

MENU

- DELAYED TX
- DELAYED BATCH TX
- PRIORITY TX
- CONFIDENTIAL TX
- RELAYINITIATE TX
- POLLING TX/RX
- PRINT FROM MEMORY
  - PRINT MEMORY MSG.
  - PRINT PERSONAL BOX
- REPORT PRINT
  - FUNCTION LIST
  - CONFIGURATION
  - PHONE DIRECTORY
  - GROUP DIRECTORY
  - ACTIVITY REPORT
  - ACTIVE MEM. FILES
  - BROADCAST MCF
  - PROTOCOL DUMP
  - NIC CONFIGURATION *5
  - LOG. REPORT *1
  - G4 LOG. REPORT *1/*4
- LOCATION PROGRAM
  - SPEED DIAL
  - GROUP
  - BATCH TX TIME
  - FORWARDING NO.
  - FORWARD ON P-ERR.
  - RELAY REPORT NO.
- SETUP
  - CLOCK ADJUSTMENT
    - < 00 > CLOCK ADJUSTMENT
  - ID/PASSWORD PRG.
    - < 01 > TSI/CSI
    - < 02 > SENDER ID
    - < 03 > PERSONAL BOX
    - < 04 > MEM. PASSWORD
    - < 05 > RESTRICT ID *6
    - < 06 > ISDN-TID *4
    - < 07 > ISDN-SUB NO. *4

Fig. 1-6-13-1 Function List P1

FUNCTION LIST P2

12/24/1998 22:00
ID=0dc Takasaki *9

MENU
- SETUP
  - MACHINE SETTINGS

< 10 > AUTO ANSWER MODE	FAX/TEL/TF/TAD/MEM/PC/FWD	*11
< 11 > MONITOR VOLUME	SELECT FROM 5 SOUND LEVEL	
< 12 > BUZZER VOLUME	SELECT FROM 4 SOUND LEVEL	
< 13 > USER LANGUAGE	LNG1/LNG2	
< 14 > REMOTE DIAGNOSIS	ON/OFF	
< 15 > TX MODE DEFAULT	RESOL./CONTRAST	
< 16 > NO TONER MEM. RX	ON/OFF	
< 17 > MEM. FULL SAVE	ON/OFF	
< 18 > INSTANT DIAL	ON/OFF	
< 19 > RESTRICT ACCESS	ON/OFF	
< 20 > ECM FUNCTION	ON/OFF	
< 21 > CLOSED NETWORK	OFF/TXRX/RX	
< 22 > TONER SAVE	ON/OFF	
< 23 > SENDER ID	ON/OFF	
< 24 > 1'ST PAPER SIZE	SELECT FROM 8 PAPER SIZE	
< 25 > 2'ND PAPER SIZE	SELECT FROM 7 PAPER SIZE	*7
< 26 > POWER SAVE MODE	ON/OFF	*2/*13
< 27 > ISDN DIAL MODE	G4 MODE/G3 MODE	*4
< 28 > SPEECH RECEIVE	ON/OFF	*4

  - DIAL OPTIONS

< 40 > REDIAL TRIES	0-10 TRIES	*2/*12
< 41 > REDIAL INTERVAL	1-6 MIN	*2/*12
< 42 > AUTO START	ON/OFF	
< 43 > DIAL TONE DETECT	ON/OFF	*2/*10
< 44 > BUSY TONE DETECT	ON/OFF	*2/*10
< 45 > MF/DP	MF/DP	*2/*10
< 46 > PULSE DIAL RATE	10/16/20 PPS	*2/*10
< 47 > PULSE MAKE RATIO	33/39/40 %	*2/*10
< 48 > PULSE DIAL TYPE	N/10-N/N+1	*2/*10
< 49 > MF(TONE)DURATION	75/85/100 MS	*2/*10
< 50 > PBX LINE	ON/OFF	*2/*10
< 51 > FLS/EARTH/NORMAL	FLASH/EARTH/NORMAL	*2/*10
< 52 > DIAL PREFIX	OFF/4DIGITS(MAX.)	*10

  - INCOMING OPTIONS

< 60 > INCOMING RING	OFF/ON/DRC	*10
< 61 > REMOTE RECEIVE	OFF/00-99/**/##	*10
< 62 > T/F TIMER PRG.	20/35 SEC	*10
< 63 > CONTINUOUS TONE	ON/OFF	
< 64 > PC/FAX SWITCH	ON/OFF	*3
< 65 > CNG COUNT	1-5 TIMES	*2/*10
< 66 > RING RESPONSE	1RING/5/10/15/20 SEC	*2/*10
< 67 > DISTINCTIVE RING	OFF/ON/SET	*2/*10

Fig. 1-6-13-2 Function List P2

FUNCTION LIST P3

12/24/1998 22:00
ID=0dc Takasaki *9

MENU			
SETUP			
REPORT OPTIONS			
	< 70 > MCF. (SINGLE-LOC.)	ON/OFF	
	< 71 > MCF. (MULTI-LOC.)	ON/OFF	
	< 72 > MESSAGE IN MCF.	ON/OFF	
	< 73 > ERR. REPORT (MCF.)	ON/OFF	*2
LAN OPTIONS			
	< 80 > AUTO TRAY SW	ON/OFF	*5
	< 81 > PAPER SIZE CHECK	ON/OFF	
	< 82 > LAN PRINT T.O.	5SEC/30SEC/5MIN	
COUNTER			
DRUM COUNT			
TONER COUNT			*1/*8
DRUM(T) COUNT			*1
PRINT COUNT			
SCAN COUNT			
PRINTER CLEANING			

Fig. 1-6-13-3 Function List P3

HOME

FUNCTION LIST P1

12/24/1998 22:00
ID=0dc Takasaki *9

STEP ACCESSING TO THE WANTED ITEM:
-PRESS THE MENU KEY
-CHOOSE THE ITEM WITH THE UP-DOWN KEY
-DECIDE THE CHOSEN ITEM WITH THE ENTER or RIGHT KEY

SPEED ACCESSING TO THE WANTED ITEM:
=PRESS THE MENU KEY
-ENTER THE NUMBER OF THE ITEM

MENU
- DELAYED TX
- DELAYED BATCH TX
- PRIORITY TX
- CONFIDENTIAL TX
- RELAYINITIATE TX
- POLLING TX/RX
- PRINT FROM MEMORY
  - PRINT MEMORY MSG.
  - PRINT PERSONAL BOX
- REPORT PRINT
  - FUNCTION LIST
  - CONFIGURATION
  - PHONE DIRECTORY
  - GROUP DIRECTORY
  - ACTIVITY REPORT
  - ACTIVE MEM. FILES
  - BROADCAST MCF
  - PROTOCOL DUMP
- LOCATION PROGRAM
  - SPEED DIAL
  - GROUP
  - BATCH TX TIME
  - FORWARDING NO.
  - FORWARD ON P-ERR.
  - RELAY REPORT NO.
- SETUP
  - CLOCK ADJUSTMENT
    - < 00 > CLOCK ADJUSTMENT
  - ID/PASSWORD PRG.
    - < 01 > TSI/CSI
    - < 02 > SENDER ID
    - < 03 > PERSONAL BOX
    - < 04 > MEM. PASSWORD
    - < 05 > RESTRICT ID *6

Fig. 1-6-13-4 Function List P1 (In case of : Service Bit=OFF, Skipped by xpara bit, No LAN option board, and No G4 option board)

FUNCTION LIST P2

12/24/1998 22:00
ID=0dc Takasaki *9

MENU
- SETUP
  - MACHINE SETTINGS

< 10 > AUTO ANSWER MODE	FAX/TEL/MEM/PC/FWD	*11
< 11 > MONITOR VOLUME	SELECT FROM 5 SOUND LEVEL	
< 12 > BUZZER VOLUME	SELECT FROM 3 SOUND LEVEL	
< 13 > USER LANGUAGE	LNG1/LNG2	
< 14 > REMOTE DIAGNOSIS	ON/OFF	
< 15 > TX MODE DEFAULT	RESOL./CONTRAST	
< 16 > NO TONER MEM. RX	ON/OFF	
< 17 > MEM. FULL SAVE	ON/OFF	
< 18 > INSTANT DIAL	ON/OFF	
< 19 > RESTRICT ACCESS	ON/OFF	
< 20 > ECM FUNCTION	ON/OFF	
< 21 > CLOSED NETWORK	OFF/TXRX/RX	
< 22 > TONER SAVE	ON/OFF	
< 23 > SENDER ID	ON/OFF	
< 24 > 1'ST PAPER SIZE	SELECT FROM 8 PAPER SIZE	
< 25 > 2'ND PAPER SIZE	SELECT FROM 7 PAPER SIZE	*7
< 26 > POWER SAVE MODE	ON/OFF	*2/*13

  - DIAL OPTIONS

< 40 > REDIAL TRIES	0-10 TRIES	*2/*12
< 41 > REDIAL INTERVAL	1-6 MIN	*2/*12
< 42 > AUTO START	ON/OFF	
< 43 > DIAL TONE DETECT	ON/OFF	*2/*10
< 44 > BUSY TONE DETECT	ON/OFF	*2/*10
< 45 > MF/DP	MF/DP	*2/*10
< 50 > PBX LINE	ON/OFF	*2/*10
< 52 > DIAL PREFIX	OFF/4DIGITS(MAX.)	*10

  - INCOMING OPTIONS

< 60 > INCOMING RING	OFF/ON/DRC	*10
< 61 > REMOTE RECEIVE	OFF/00-99/**/##	*10
< 62 > T/F TIMER PRG.	20/35 SEC	*10
< 63 > CONTINUOUS TONE	ON/OFF	
< 64 > PC/FAX SWITCH	ON/OFF	*3
< 65 > CNG COUNT	1-5 TIMES	*2/*10
< 67 > DISTINCTIVE RING	OFF/ON/SET	*2/*10

Fig. 1-6-13-5 Function List P2 (In case of : Service Bit=OFF, Skipped by xpara bit, No LAN option board, and No G4 option board)

FUNCTION LIST P3

12/24/1998 22:00
ID=0dc Takasaki *9

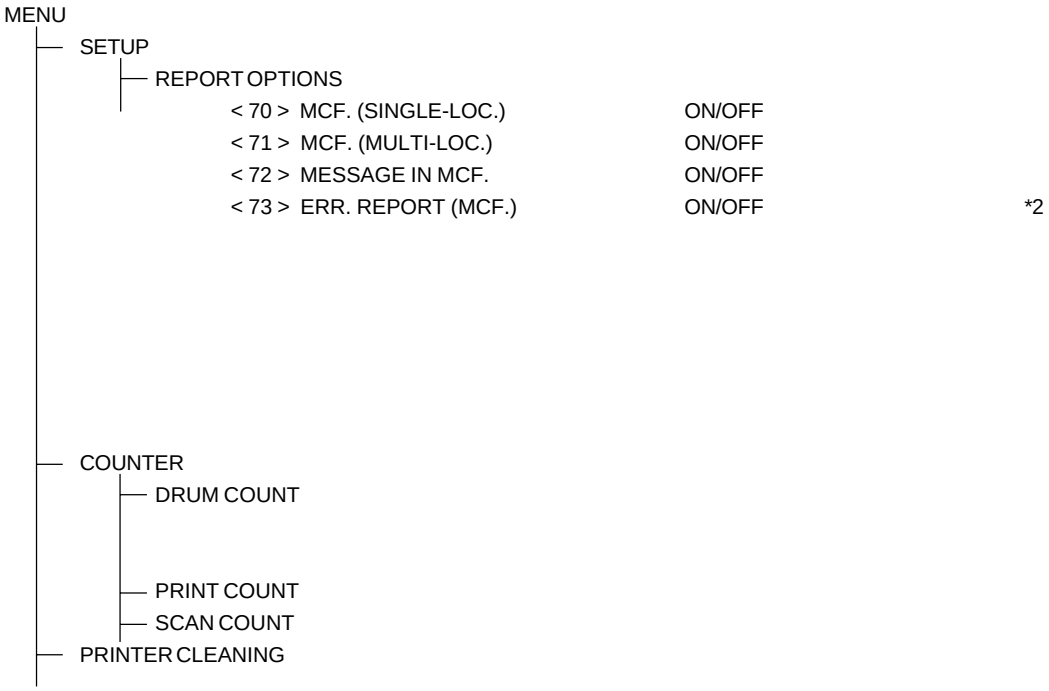


Fig. 1-6-13-6 Function List P3 (In case of : Service Bit=OFF, Skipped by xpara bit, No LAN option board, and No G4 option board)

Note:

*1: Printed only when Service Bit = ON.

*2: When Service Bit = OFF, printed or not depending on the xpare bit.
USER FUNCTION SETUP > MACHINE SETTINGS > No.26: POWER SAVE MODE is skipped at the time of COUNTRY CODE=USA of DEFAULT TYPE=1(ODA) regardless of *the xpara bit.

•3: Printed when the MFP option is specified in Mfpunlock setup.

*4: Printed when the ISDN option is mounted.

*5: Printed when the LAN option is mounted. If the LAN option is not mounted. all setup items in SETUP > LAN OPTIONS are not printed.

*6: Printed only when User SETUP > MACHINE SETTINGS > No.19: RESTRICT ACCESS = ON.

*7: Printed only when the second tray is mounted.

*8: Printed when Technical SETUP > No.33: TONER COUNTER CLEAR = ON, even if Service Bit = OFF.

*9: If the ID of this machine is not registered, the ID is left blank and its line itself is not left blank.

*10: The item is left blank when an ISDN board is mounted. However, printed when Service Bit = ON.

*11:
- FAX, TEL, MEM., and FWD are always listed.
- T/F is listed when the ISDN board is not mounted and TEL/FAX switch is set to ON.(Technical setup: 08)
- TAD is listed when the ISDN board is not mounted and TAD mode is set to ON. (Technical setup: 06)
- When all description conditions are met, modes must be described in the “FAX → TEL → TF → TAD → MEM → PC → FWD” sequence. If any description condition is not met for a mode, the mode must be omitted and the succeeding modes must be moved up.
  Example: ISDN board installed, MFP = ON: FAX/TEL/MEM/PC/FWD

*12: When National code is set to FRE, the following setting values are listed.
- Redial tries: 1 to 5 (in one-try steps)
- Redial interval: 1 to 12 (in one-minute steps)

*13: Machine setting No. 26 (power save mode) is not printed when the ISDN/LAN board is mounted.

GROUP DIRECTORY

12/24/1998 17:04
ID=TAKASAKI

GROUP NO. #1=OKI DATA SYS1

LOCATION ID	LOCATION ID
1 = 12345678901234567890123456789012345678901234567890	2 = 12345678901234567890123456789012345678901234567890
3 = SHIBAURA	4 = SHIBAURA
5 = FX-050	6 = FX-175
7 = FX-0175VP-ENHANC	8 = FX-056
9 = KONICA450	10 = KONICA460M
11 = M125INTL	12 = M125-US
13 = KONICA5600	14 = KONICA1050
15 = KONICA1000	16 = KONICA2200
17 = OF-3GX	18 = 115AD
19 = 2275	20 = OF-8
21 = OF-18	22 = OF-58H
23 = M4200	24 = 5400
25 = OF-28	26 = OF-1
27 = OF-21	28 = 2127
29 = OF-12M	30 = OF-55M
31 = M5600	32 = ABCDEFGHIJKLMNO
33 = KONICA-0000	34 = KONICA-0001
35 = KONICA-0003	36 = KONICA-0004
37 = KONICA-0006	38 = KONICA-0007
39 = KONICA-0009	40 = KONICA-000A

101 = KONICA-0001	102 = KONICA-0002
103 = KONICA-0003	104 = KONICA-0004
105 = KONICA-0005	106 = KONICA-0006
107 = KONICA-0007	108 = KONICA-0008
109 = KONICA-0009	110 = KONICA-000A
111 = KONICA-000B	112 = KONICA-000C
113 = KONICA-000D	114 = KONICA-000E
115 = KONICA-000F	116 = KONICA-0010
117 = KONICA-0011	118 = KONICA-0012
119 = KONICA-0013	120 = KONICA-0014
121 = KONICA-0015	122 = KONICA-0016
123 = KONICA-0017	124 = KONICA-0018
125 = KONICA-0019	126 = KONICA-001A
127 = KONICA-001B	128 = KONICA-001C
129 = KONICA-001D	130 = KONICA-001E
131 = KONICA-001F	132 = KONICA-0020
133 = KONICA-0021	134 = KONICA-0022
135 = KONICA-0023	136 = KONICA-0024
137 = KONICA-0025	138 = KONICA-0026
139 = KONICA-0027	140 = KONICA-0028

Fig. 1-6-14-1 Group Directory for Fax 9830

GROUP DIRECTORY

12/24/1998 17:04
ID=TAKASAKI

GROUP NO. #1=KONICA SYS1

LOCATION ID	LOCATION ID
1 = 12345678901234567890123456789012345678901234567890	50 = 12345678901234567890123456789012345678901234567890

100 = SHIBAURA

Fig. 1-6-14-4 Group Directory (When the destination of Speed Dial No.1, No.50, and No.100 is selected by the group destination.)

(1) Title of the list
(2) Date and time when the list was printed
(3) Sender ID
(4) Registered Group No. and ID
(5) Registered location ID (up to 15 characters)

PROTOCOL DUMP P1

12/24/1998 19:00
ID=TAKASAKI

DATE	TIME	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
12/24	18:56	00'33"	OKI SHIBAURA	CALLING-G4	002	OK	0000

DCH.

TX SETUP CONN-ACK + Bch + DISC REL-C

RX STATUS SETUP-ACK CONN + Bch + REL

TX

RX

BCH.

TX SABM WQ CR TCR CSS CDCL CDUI CDPB CDUI CDPB DUI

RX UA SF CC TCA RSSP RDCLP RDPBP RDPBP

TX CDE CQ DISC

RX RDEP CF UA

TX

RX

TX

RX

COMMN MODE
T.90

COMMN SPEED
64kbps

FLOW CONTROL PARAM.
2048(SPS)/7(SWS)/2048(RPS)/7(RWS)

TID
081-0273242117=KONICA

SETUP
08 01 05 05 01 02 88 90 6C 02 00 80 70 0B 80 30 32 37 33 32 38 30 30 30 31 7C 03 88 90 A9 7D 02
91 A1 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

DISC
45 16

Fig. 1-6-15-1 Protocol Dump P1 (ISDN option)

HOME

PROTOCOL DUMP P2

12/24/1998 19:00
ID=TAKASAKI

CR/CN
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00

CA/CC
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00

CQ/CI
00 00 00 00 00

RQ/RI
00 00 00 00 00

SQ/SI
00 00 00 00 00

TBR
00

TCC
00

TCR
09 E0 00 00 00 01 00 C0 01 0R 00 00 00 00 00 00

TCA
09 D0 00 01 00 01 00 C0 01 0R 00 00 00 00 00 00

CSS
0D 6F 01 2A 0A 18 30 38 31 2D 3D 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 0B 0E
39 37 2D 30 38 2D 32 37 2D 31 34 2D 31 34 02 03 0E 01 01 08 01 01 C1 08 A4 06 80 01 02 81 01 00
E8 2F 00 01 79 00 E0 1C C1 10 50 61 6E 61 66 61 78 20 55 46 2D 12 38 30 20 20 C2 02 36 35 C4 04
30 30 30 30 E1 0B E0 06 C0 01 01 C1 01 01 C1 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

RSSP/RSSN
0E 69 01 2A 09 18 30 38 31 2D 3D 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 0B 0E
39 38 2D 30 36 2D 30 32 2D 31 33 3A 34 36 02 03 0E 01 01 08 01 01 C1 08 A1 06 80 01 02 81 01 00
E8 29 00 01 79 00 E0 16 C1 10 50 61 6E 61 66 61 78 20 55 46 2D 42 38 30 20 20 C2 02 36 35 E1 0B
E0 06 C0 01 01 C1 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

CDCL
3E 58 12 01 3C C1 4D A4 4B 80 01 02 81 01 00 A2 3C A2 32 30 08 80 02 26 C0 81 02 36 CE 30 08 80
02 2F 6D 81 02 13 2C 30 08 80 02 2F 6C 81 02 43 2C 30 08 80 02 2E 23 81 02 41 25 30 08 80 02 36
CE 81 02 4D 80 A1 06 8B 01 04 8B 01 01 E4 05 E1 03 C0 01 01 E8 04 00 01 49 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

RDCLP
3E 40 C1 3E A4 3C 80 01 02 81 01 00 A2 25 A2 1E 30 08 80 02 26 C0 80 02 36 CE 30 08 80 02 2F 6C
81 02 13 2C 30 08 80 02 2F 6D 81 02 13 2C A4 03 8B 01 04 E4 0D E0 06 02 01 02 02 01 03 E1 03 C0
01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

CDS
2D 40 29 03 30 30 31 C1 39 A1 37 80 01 02 81 01 00 A2 28 A2 1E 30 08 80 02 26 C0 81 02 36 CE 30
08 80 02 2F 6D 81 02 43 2C 30 08 80 02 2F 6C 81 02 13 2C A4 06 8B 01 04 8B 01 01 E4 05 E1 03 C0
01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

CDUI
01 00 A2 03 02 01 00 A2 1B 02 01 02 31 16 A1 08 80 02 26 C0 81 02 36 CE A6 05 A1 03 82 01 01 E9
03 C0 01 00 A3 80 31 06 A2 04 80 02 06 C0 24 80 04 82 07 90 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Fig. 1-6-15-2 Protocol Dump P2 (G4 option)

(1) Title of the report
(2) Date and time when the report was printed
(3) Sender ID
(4) Date of communication
(5) Time of communication
(6) One message transmission/reception time
(7) Identification of remote station
    • CSI and/or telephone number
(8) Mode of transmission/reception according to ITU-T designation
(9) Total number of pages in communication
(10) Identification of the result of the communication
(11) Service code
(12) D channel
(13) B channel
(14) COMMN MODE
(15) COMMN SPEED
(16) FLOW CONTROL PARAM.
(17) TID
(18) SETUP
(19) DISC
(20) CR/CN, CA/CC, CQ/CI, RQ/RI, SQ/SI
(21) TBR/TCC/TCR/TCA
(22) CSS
(23) RSSP/RSSN
(24) CD/CL
(25) RDCLP
(26) CDS
(27) CDUI

NIC CONFIGURATION

24/12/1998 19:00
ID=Takasaki

MLETB07 Version 1.0.1
TCP/IP status
  IP address : 192.168.1.21
  Subnet Mask : 255.255.255.0
  Gateway addr: 192.168.1.254
NetWare status
  NWPrint mode: Failed
EtherTalk status
  Zone Name : *
  Type Name : LaserWriter
  Object Name : ML1E4048

MAC Address : 00:80:92:1E:40:48

Fig. 1-6-16-1 NIC Configuration (10 Base T/2 NIC)

```
********************************************************************************
*User name:  SUPERVISOR(2)                    Queue: ODC_SRV312/OKI_220777_PRQ  *
*File name:                                   Server KON_220777                 *
*Directory:                                                                     *
*Description: 16 - Notepad                                                      *
*          April 20, 1998          12:04 p.m.          *
********************************************************************************
```

Fig. 1-6-17 Banner Sheet

HOME

Chapter 2

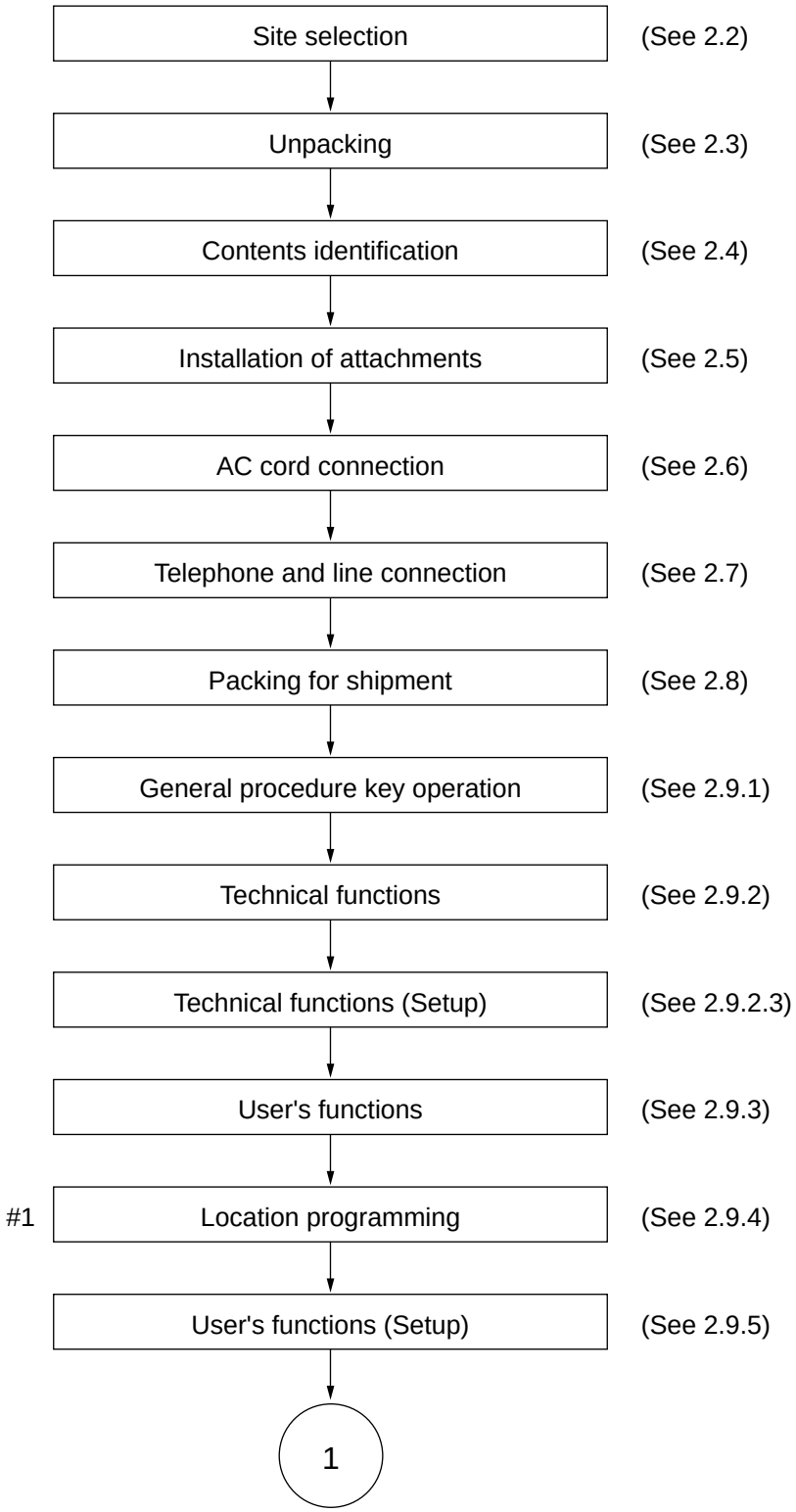
Installation

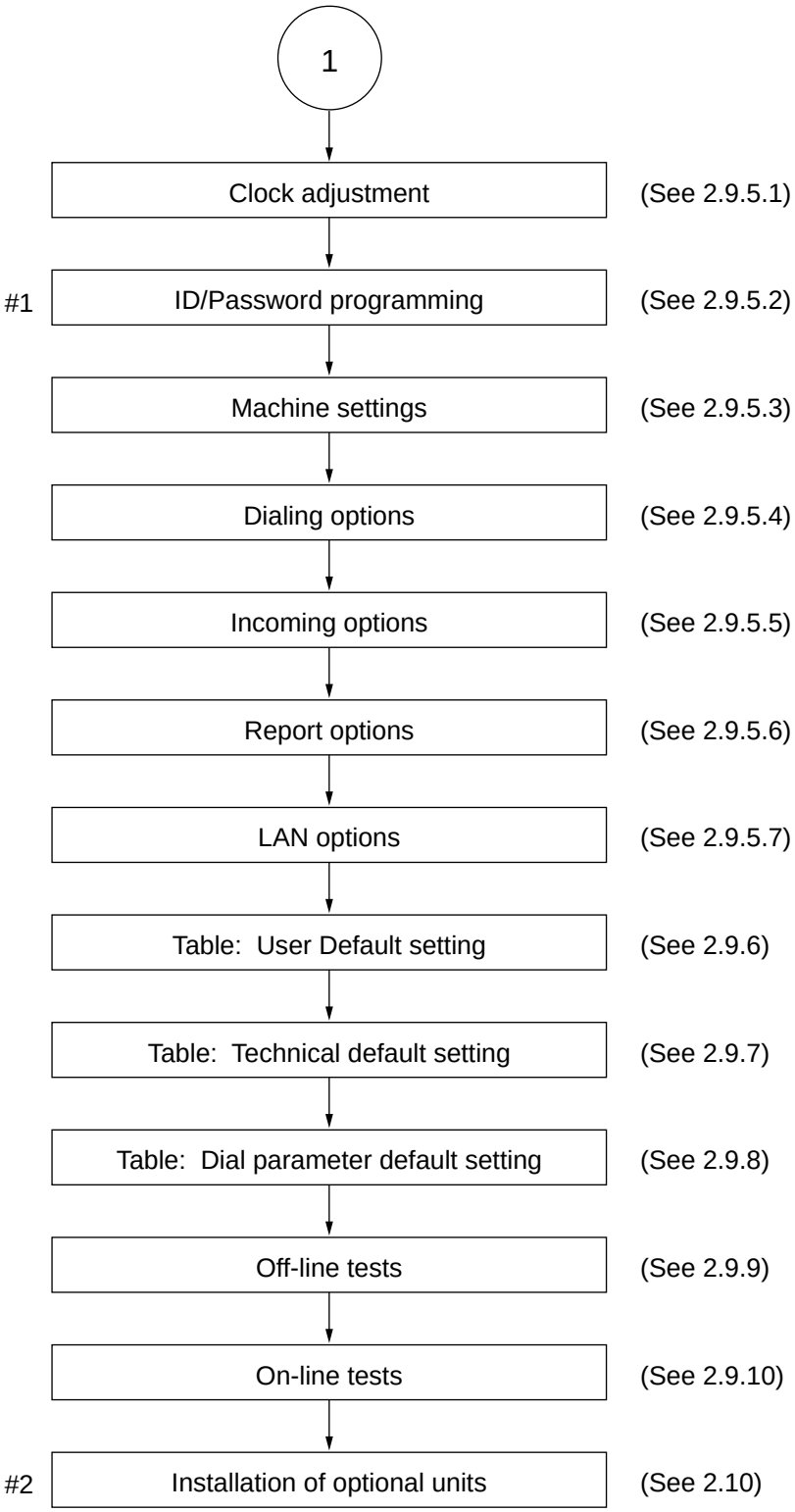
Konica Business Technologies

A. Setup Information

2.1 General

The following flowchart outlines the installation procedure.





#1: For operation and registration, see Fax 9830 Handbook.
#2: Memory board, G4 option board, LAN option board, Second cassette unit etc.,.

2.2 Site Selection

INSTALLATION
Precautions for Installation

(1) Fluctuation in line voltage
- 120VAC (102V to 127V)
- 230VAC (198V to 264V)

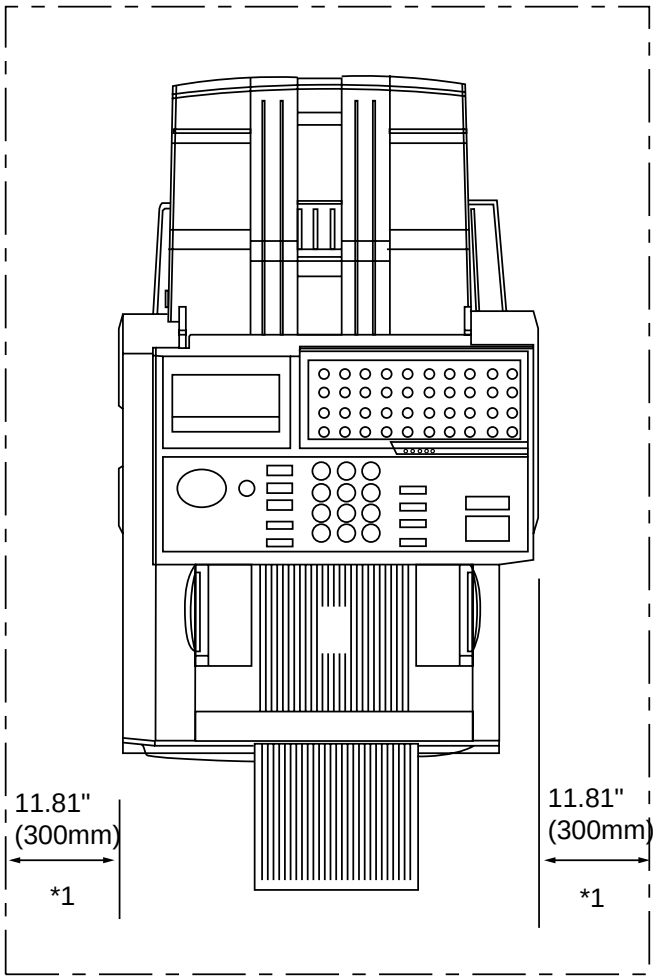
(2) Room temperature
- 50 to 90°F (10 to 32°C)

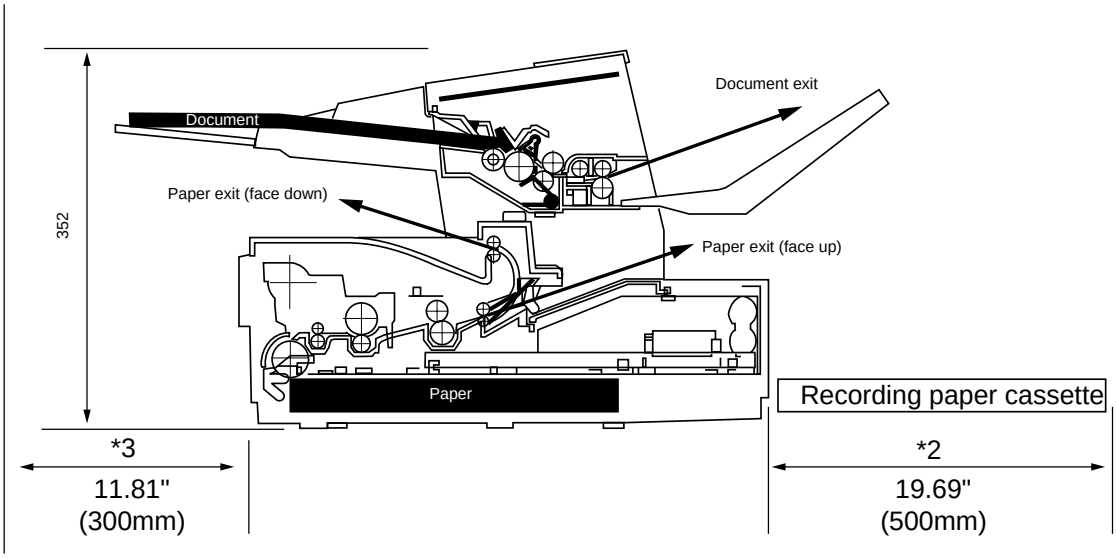
(3) Humidity
- 20 to 80% RH

(4) Operating environment
- Pressure: Equivalent to altitude of 2500m (8020 feet) and below.

(5) Exposure
- Within five minutes at luminous intensity 2000 lux.

(6) Required space for installation
- The facsimile requires the space as shown below for safety and good oprebility.





*Note: *1: This space necessary for having the telephone set.*
**2: This space is necessary for removing the recording paper cassette.*
**3: This space is necessary for installing the document stacker and allow space for the fan exhaust.*

(7) Levelness of installation surface
- 1 degree maximum

(8) Other requirements
Avoid installing in any of the following places:
- A place exposed to direct sunlight
- A place near a heat souce or exposed to vibration
- A dusty place
- A place in the atmosphere of acid gas, or steam etc.,
- A place exposed to quick temperature changes

2.3 Unpacking

Procedure

(1) Remove the on the top of the carton box and open its cover.

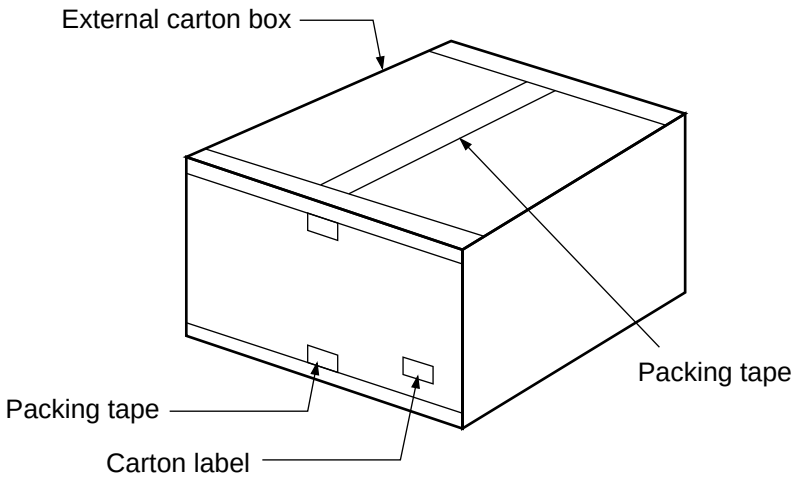


Figure 2.3.1 Unpacking Procedure (1)

(2) Take out the accessory box from the carton box. (See figure 2.3.2)

(3) Take out the machine with plastic wrapper from the box.

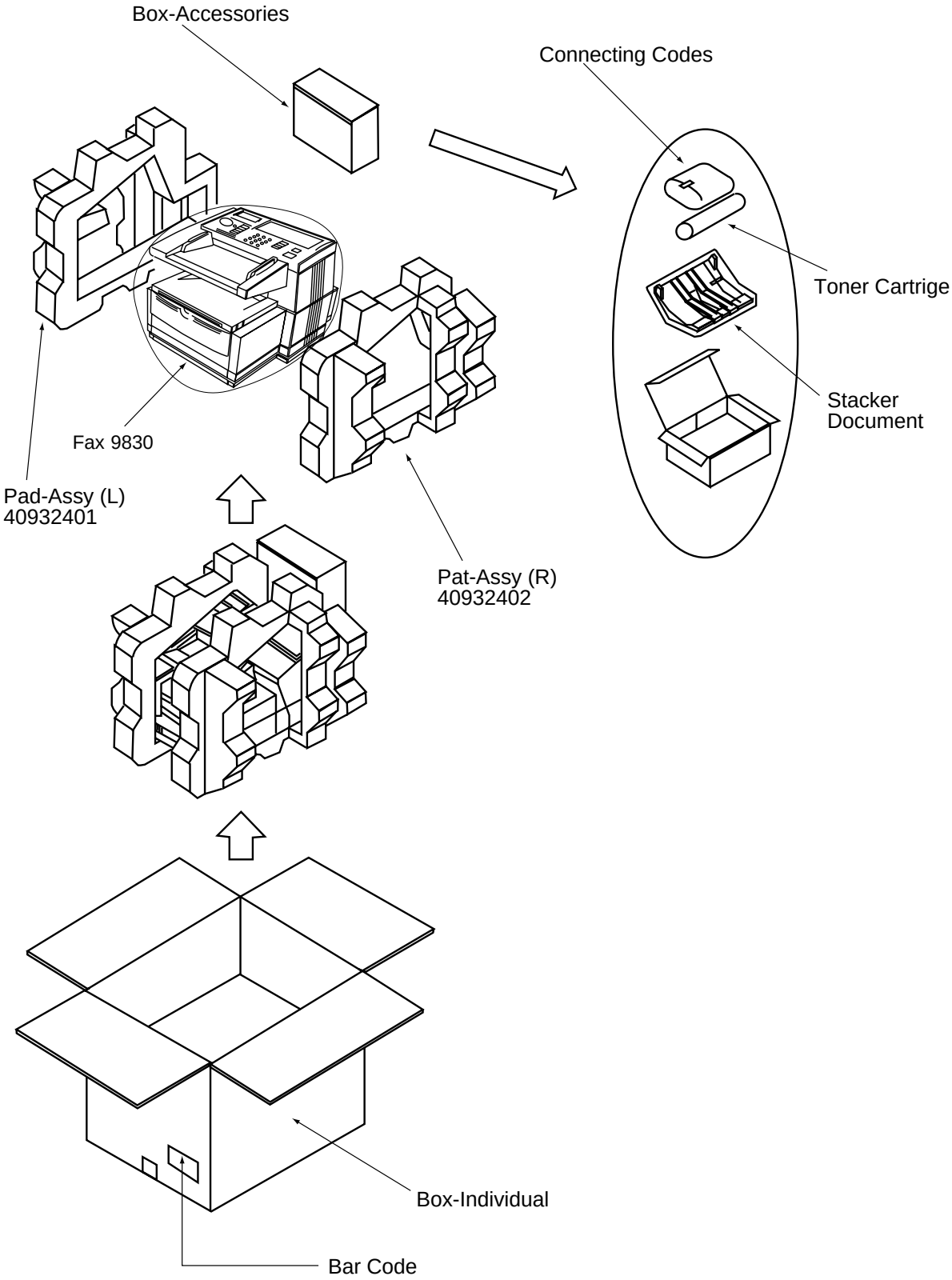


Figure 2.3.2 Unpacking Procedure (2)

2.4 Contents Identification

After having taken out the machine and accompainied accessaries from the carton box, check the contents according to the following list.

Table 2.4.1 Contents List

Item No.	Name	Q'ty	Remarks
1	Fax 9830 facsimile	1	
2	AC power cord	1	
3	I/D unit	1	Already installed.
4	Toner cartridge	1	
5	Document stacker	1	
6	Telephone line code	1	
7	One touch sheet	1	Already installed.
8	User's guide	1 vol.	

2.5 Installation of Attachments

(1) Items
- Image Drum (ID) Unit (already installed)
- Toner cartridge
- Recording paper
- Document stacker

(2) Procedure

1) Toner cartridge
- Peel off the fixed tape attached to the tray-paper.
- Open the tray-document and tray-paper.

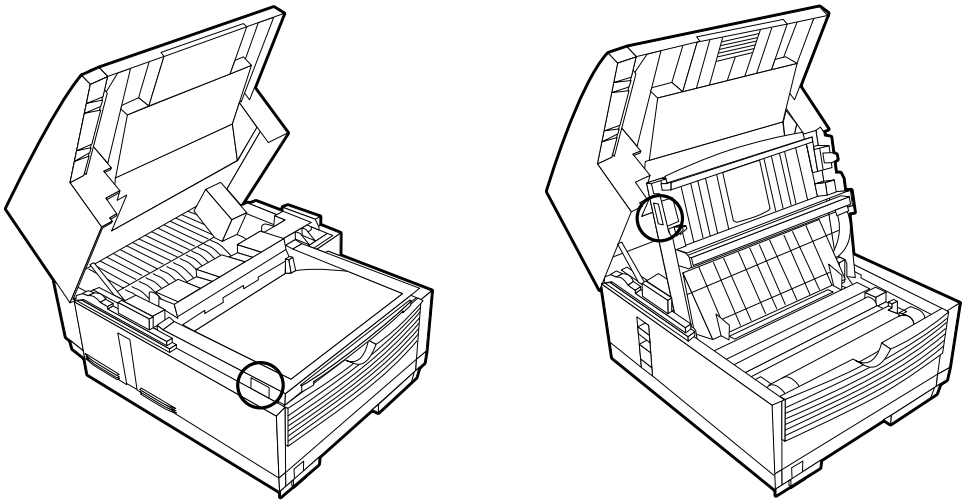


Figure 2.5.1 Toner Cartridge Installation (1)

- Take the plastic cover out of the ID unit.

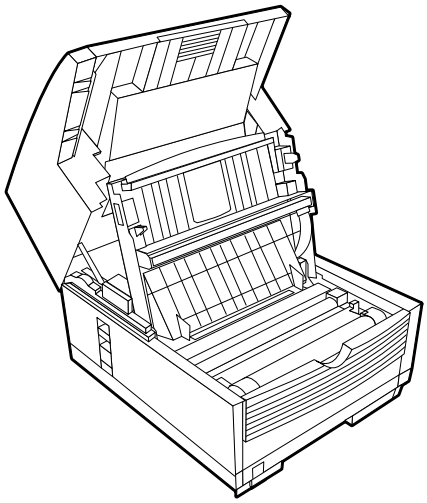


Figure 2.5.2 Toner Cartridge Installation (2)

• Take out the toner cartridge from the damp proof bag, shake it five or six times as shown in the illustration to eliminate the toner deflection, and peel off the seal genitly.

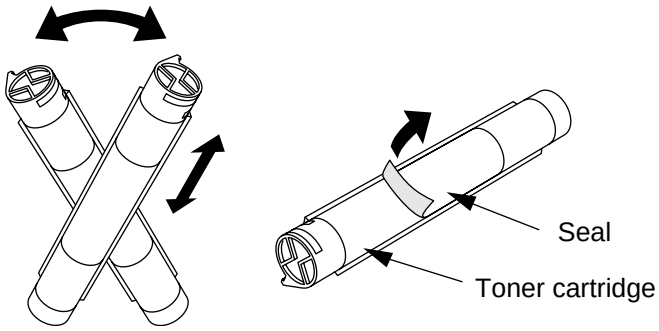


Figure 2.5.3 Toner Cartridge Installation (3)

• Ensure that the plastic tab on the light-hand side of the toner cartridge recess line up with the groove on the toner cartridge.
• Press down on both ends to make sure the cartridge is fully seated.

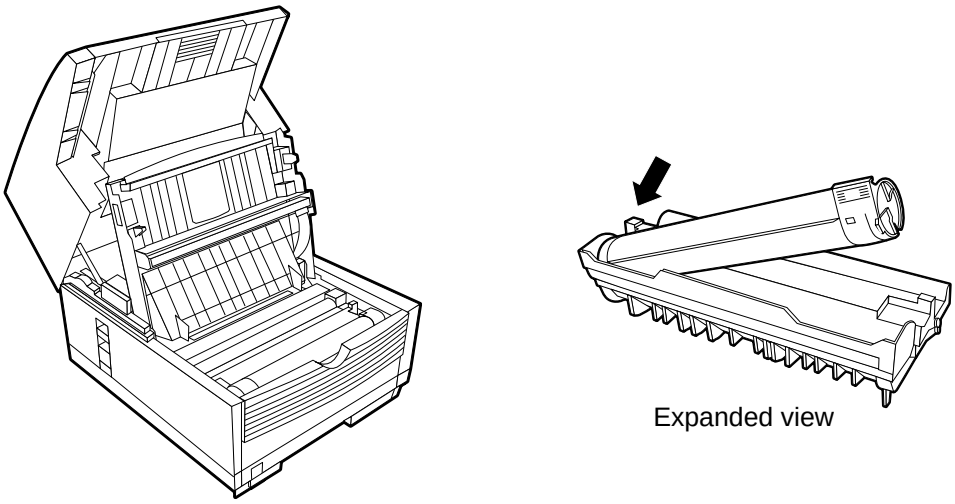


Figure 2.5.4 Toner Cartridge Installation (4)

• Press the gray lever forward until it stops.

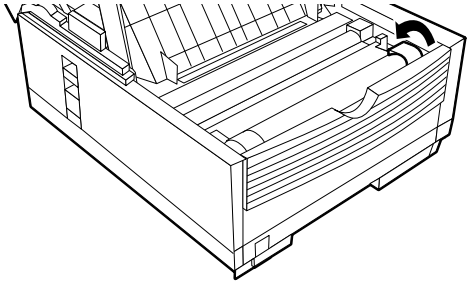


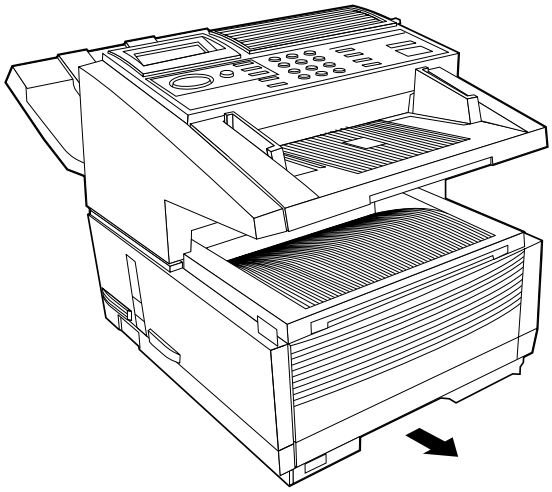
Figure 2.5.5 Toner Cartridge Installation (5)

• Clean the toner scattered in the vicinity of the toner cartridge using a cloth moistened with cold water. Do not use hot water since it makes the toner stick there.
• Close the tray-paper until the buttons have been locked completely.

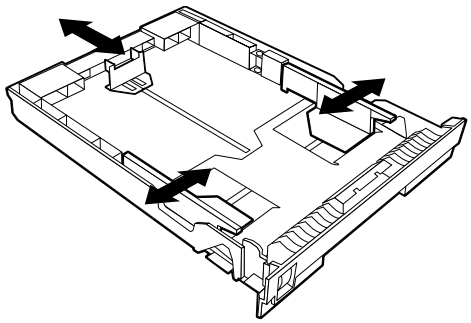
2)Recording paper

Note: About 250 sheets of the new paper can be set in the recording paper cassette.

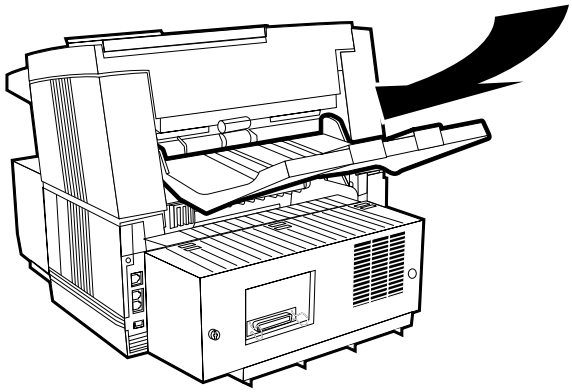
• Remove the paper cassette from the facsimile by pulling the cassette tab.



• Sheets must not exceed the paper full marker of the new paper limit indication. If excessive sheets are set, it will cause paper jams.
• After loading the new paper, push it forward into the slot at the front of the facsimile unit it locks.



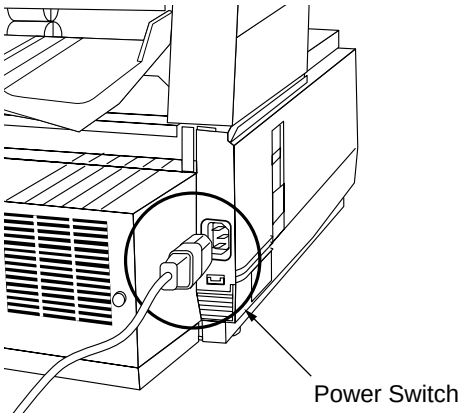
3) Document stacker
   • Hang the document stacker onto hanging position.



2.6 AC Cord Connection

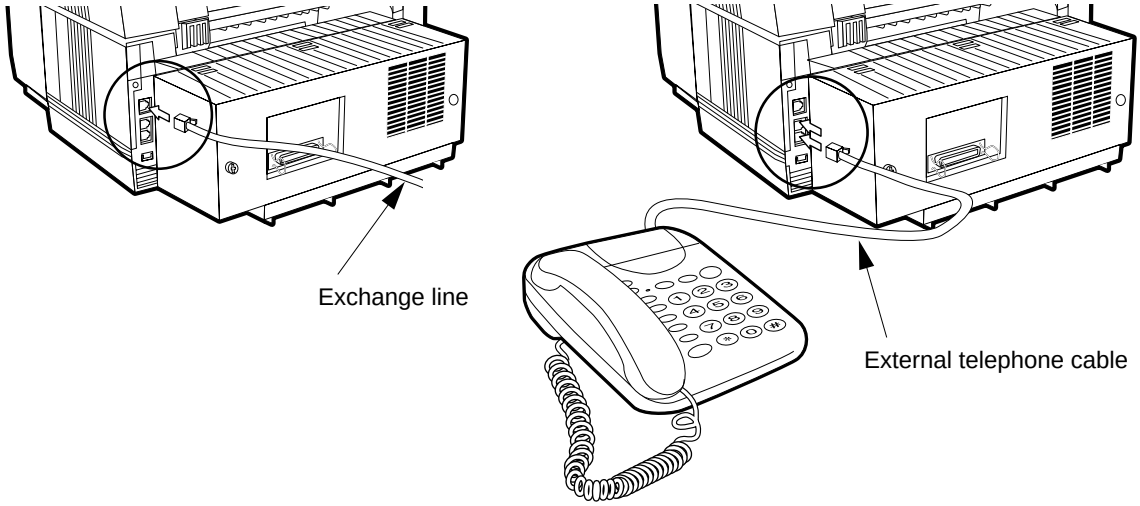
The power supply is provided as follows:
Normal input voltage 120VAC (Voltage range 102 to 127VAC)
Normal input voltage 230VAC (Voltage range 198 to 250VAC)

Check whether the AC voltage of your input is within the above-mentioned voltage range and if so, check that the power switch is turned OFF. After turning off the power switch, connect the female pulg on the AC cord to the machine and insert the male pulg of the AC cord to the inlet receptacle.
Turn the power switch ON and check that the display shows “(TIME and MEMORY FREE 100%)” message indicating the standby state.



2.7 Telephone and Line Connection

(1) Procedure
- Connect the lines.



2.8 Packing for Shipment

Caution: When packing the Fax 9830 for shipment, REMOVE THE IMAGE DRUM AND TONER FROM THE UNIT AND SHIP SEPARATELY!
Failure to do this will result in damege to the machine.

B. Programming and Initial Settings

2.9 Initial Settings

2.9.1 General Procedure of Key Operation

Note: The fonts displayed on the LCD operation panel may differ from the fonts written this manual.

Accessing to desired functions:

- There are two methods for accessing a desired function: Step access and Speed access (direct access).

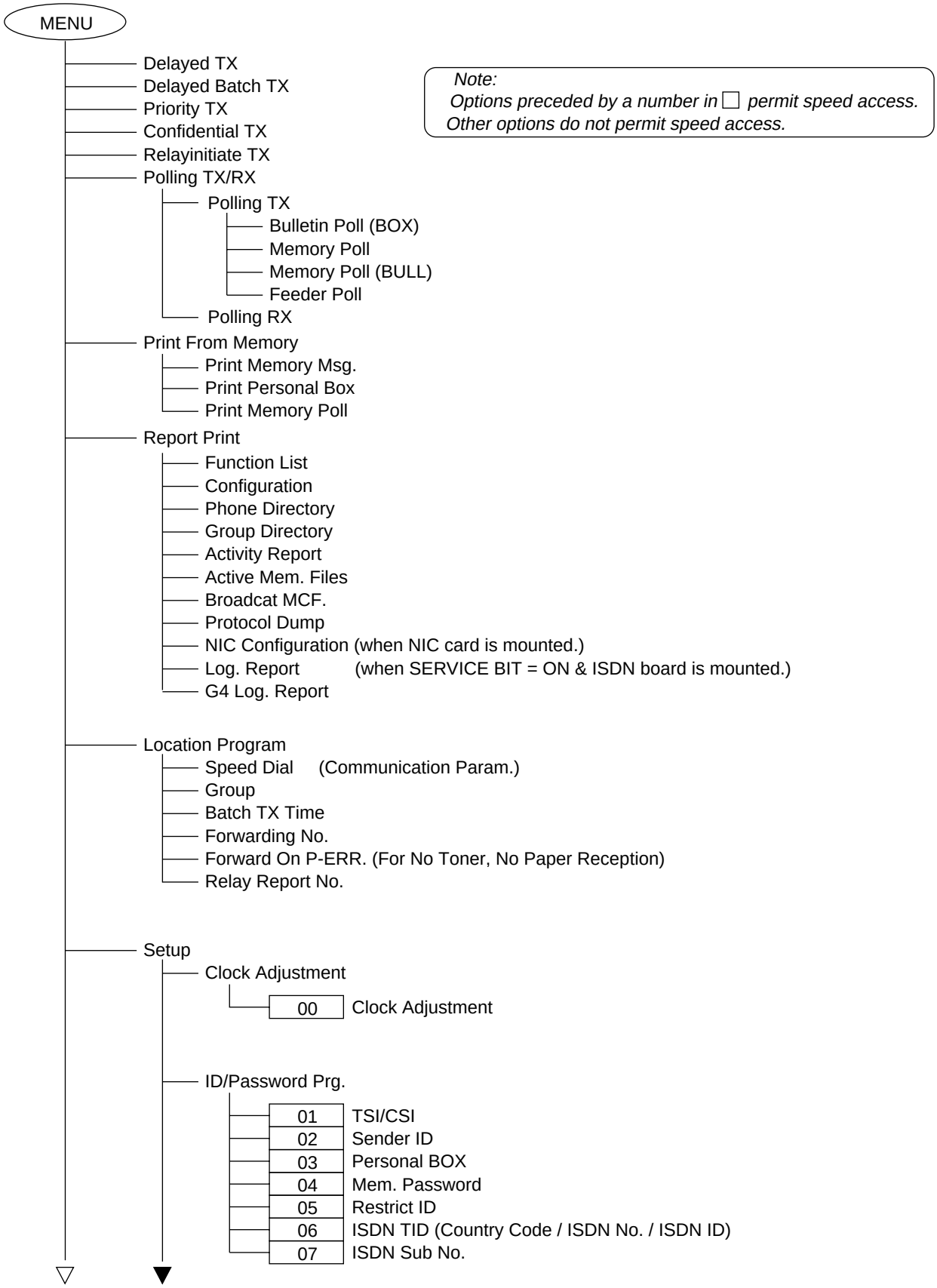
- Step Access
  To access functions in a stepwise manner, the procedure is like that described for navigating the operational layers. Begin from pressing MENU/EXIT key, and then use the programming keys to locate, enter and set the desired function.

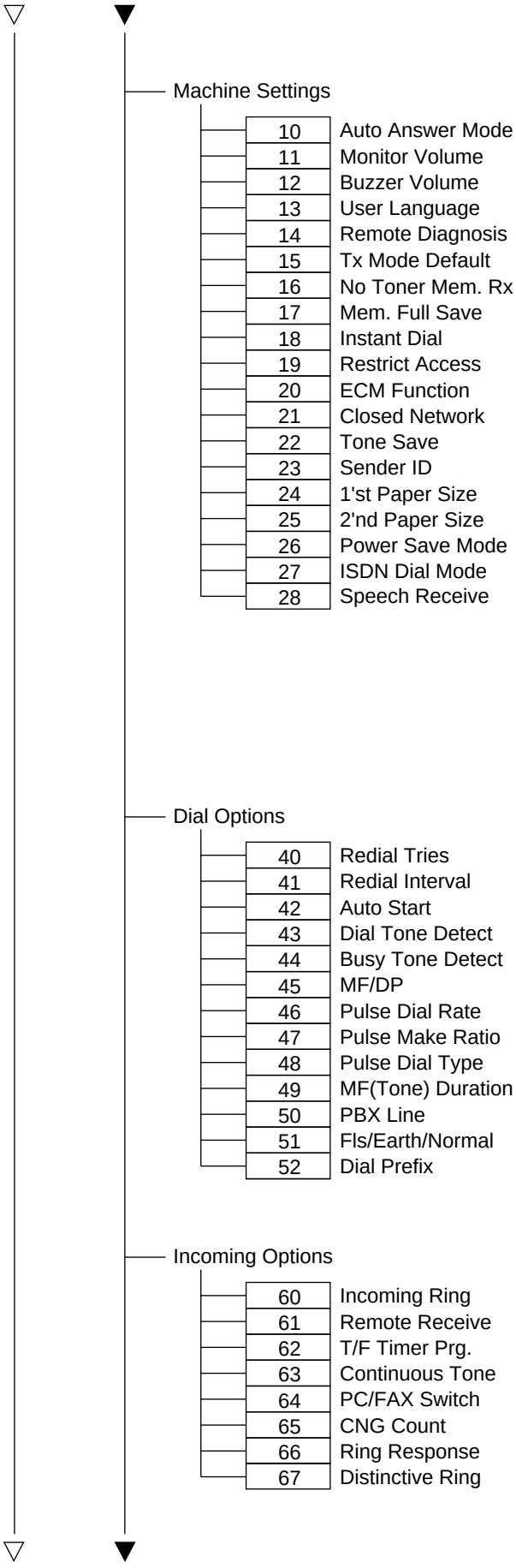
- Speed Access
  If the function is assigned a speed access number, typing this number in at the menu display prompt in the first operational layer will bring up the setting or registration display in the fourth operational layer for direct access.

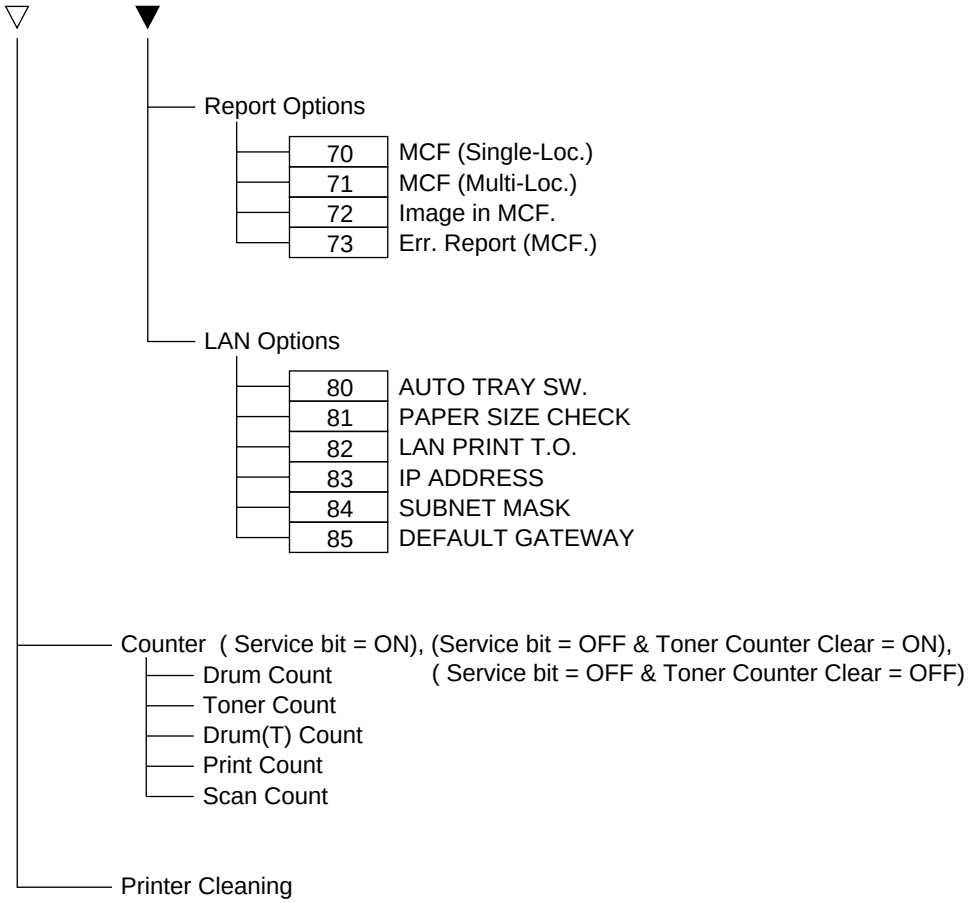
Note1: A speed access number must be entered with two digits. (It must not be entered with neither one digit nor three digits.)

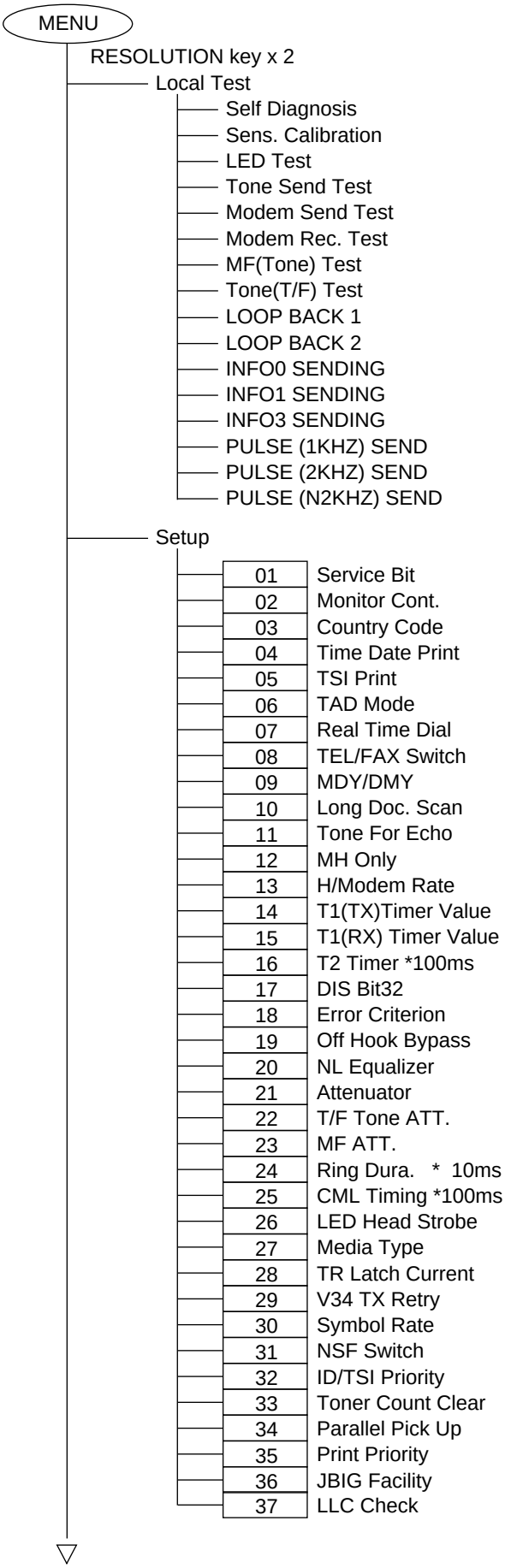
Note2: Speed access numbers are fixed.
Some of them cannot be used (skipped) depending on the destination of delivery and whether the machine is equipped with any option. Access numbers become discontinous.

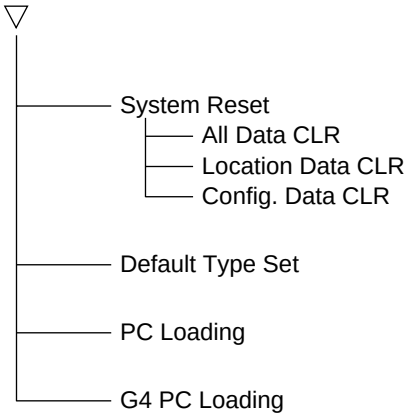
User functions




Machine Settings
10 Auto Answer Mode
11 Monitor Volume
12 Buzzer Volume
13 User Language
14 Remote Diagnosis
15 Tx Mode Default
16 No Toner Mem. Rx
17 Mem. Full Save
18 Instant Dial
19 Restrict Access
20 ECM Function
21 Closed Network
22 Tone Save
23 Sender ID
24 1'st Paper Size
25 2'nd Paper Size
26 Power Save Mode
27 ISDN Dial Mode
28 Speech Receive
Dial Options
40 Redial Tries
41 Redial Interval
42 Auto Start
43 Dial Tone Detect
44 Busy Tone Detect
45 MF/DP
46 Pulse Dial Rate
47 Pulse Make Ratio
48 Pulse Dial Type
49 MF(Tone) Duration
50 PBX Line
51 Fls/Earth/Normal
52 Dial Prefix
Incoming Options
60 Incoming Ring
61 Remote Receive
62 T/F Timer Prg.
63 Continuous Tone
64 PC/FAX Switch
65 CNG Count
66 Ring Response
67 Distinctive Ring


Report Options
70
MCF (Single-Loc.)
71
MCF (Multi-Loc.)
72
Image in MCF.
73
Err. Report (MCF.)
LAN Options
80
AUTO TRAY SW.
81
PAPER SIZE CHECK
82
LAN PRINT T.O.
83
IP ADDRESS
84
SUBNET MASK
85
DEFAULT GATEWAY
Counter (Service bit = ON), (Service bit = OFF & Toner Counter Clear = ON),
(Service bit = OFF & Toner Counter Clear = OFF)
Drum Count
Toner Count
Drum(T) Count
Print Count
Scan Count
Printer Cleaning


MENU
RESOLUTION key x 2
Local Test
Self Diagnosis
Sens. Calibration
LED Test
Tone Send Test
Modem Send Test
Modem Rec. Test
MF(Tone) Test
Tone(T/F) Test
LOOP BACK 1
LOOP BACK 2
INFO0 SENDING
INFO1 SENDING
INFO3 SENDING
PULSE (1KHZ) SEND
PULSE (2KHZ) SEND
PULSE (N2KHZ) SEND
Setup
01 Service Bit
02 Monitor Cont.
03 Country Code
04 Time Date Print
05 TSI Print
06 TAD Mode
07 Real Time Dial
08 TEL/FAX Switch
09 MDY/DMY
10 Long Doc. Scan
11 Tone For Echo
12 MH Only
13 H/Modem Rate
14 T1(TX)Timer Value
15 T1(RX) Timer Value
16 T2 Timer *100ms
17 DIS Bit32
18 Error Criterion
19 Off Hook Bypass
20 NL Equalizer
21 Attenuator
22 T/F Tone ATT.
23 MF ATT.
24 Ring Dura. * 10ms
25 CML Timing *100ms
26 LED Head Strobe
27 Media Type
28 TR Latch Current
29 V34 TX Retry
30 Symbol Rate
31 NSF Switch
32 ID/TSI Priority
33 Toner Count Clear
34 Parallel Pick Up
35 Print Priority
36 JBIG Facility
37 LLC Check


System Reset
All Data CLR
Location Data CLR
Config. Data CLR
Default Type Set
PC Loading
G4 PC Loading

2.9.2 Technical Functions: Setup

1. This section explains items generally conducted by service personnel, not by users.

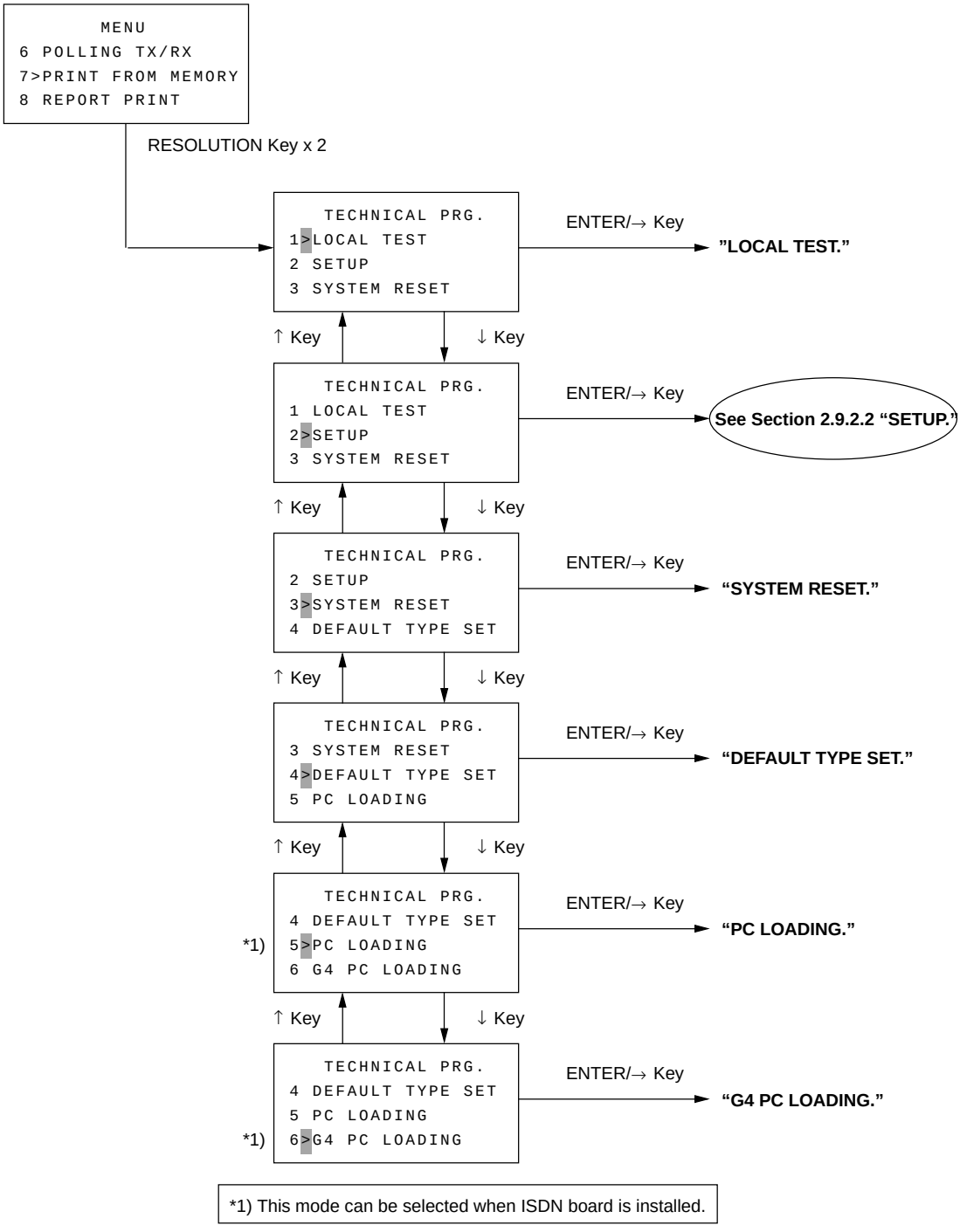
(1) Step access
1) The machine is standby state with no document.
2) Press the MENU/EXIT key once.
3) Press the RESOLUTION key twice.
The display will be shown the “TECHNICAL PRG.”.
4) Press the SHIFT DOWN (↓) key.
The menu option “2 SETUP” indicated by the blinking cursor is selected, and press the ENTER/SHIFT RIGHT (→) key.
5) The display will be shown “SETUP”.
6) You can access a desired function by switching among menus using SHIFT keys (↑, ↓, →, ←).

(2) Speed access
1) The machine is standby state with no document.
2) Press the MENU/EXIT key once.
3) Press the RESOLUTION key twice.
The display will be shown the “TECHNICAL PRG.”.
4) Typing a speed access number in the “TECHNICAL PRG. XX” (XX: 01 to 37) display allows you to bring up the setting or registration screen directly.

2.9.2.1 Technical Functions Operation 1

Select Menu is shown as below:

1. Local Test
2. Technical Setup: Go to Section 2.9.2.2
3. System Reset
4. Default Type Set
5. PC Loading
6. G4 PC Loading



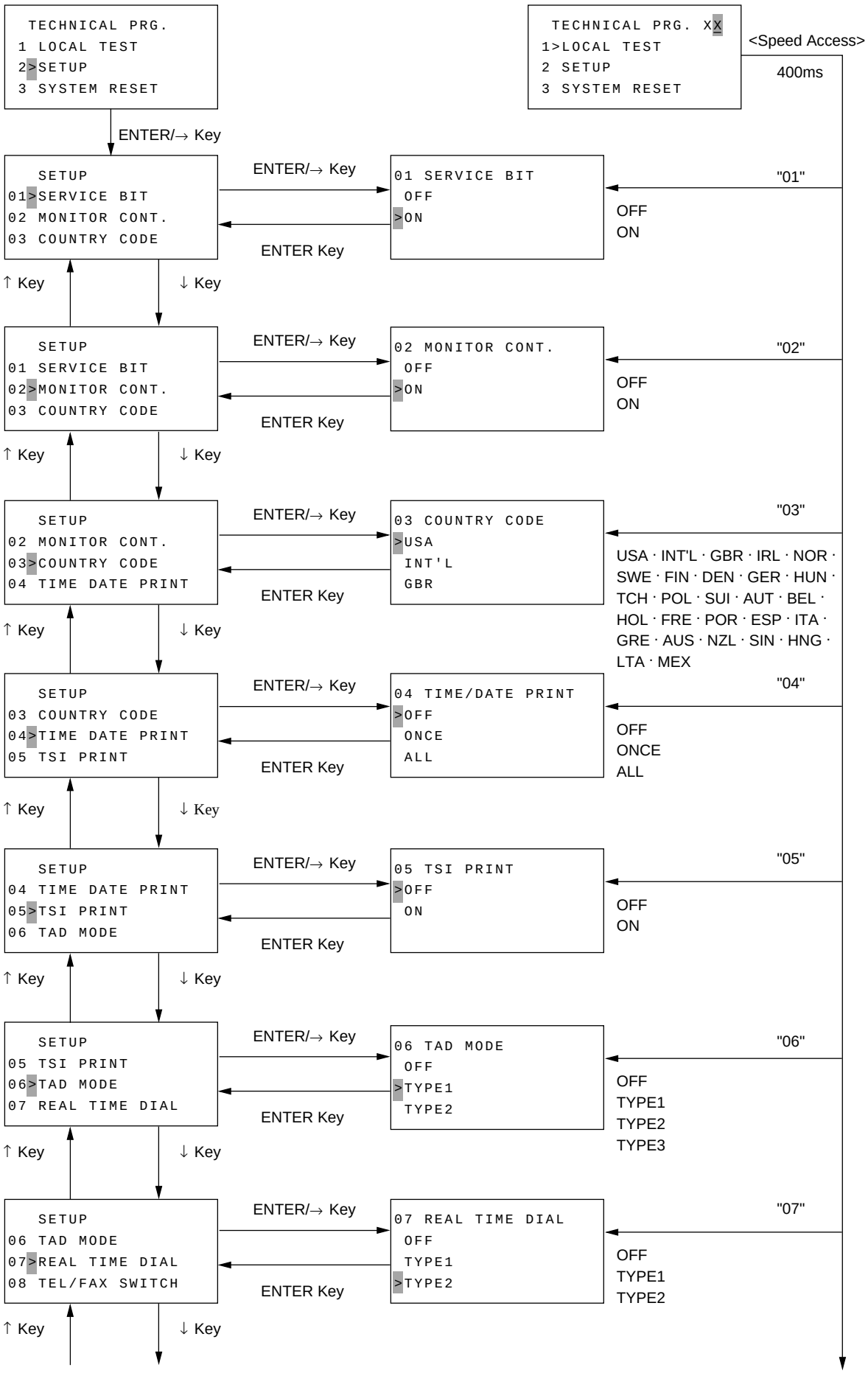
*1) This mode can be selected when ISDN board is installed.

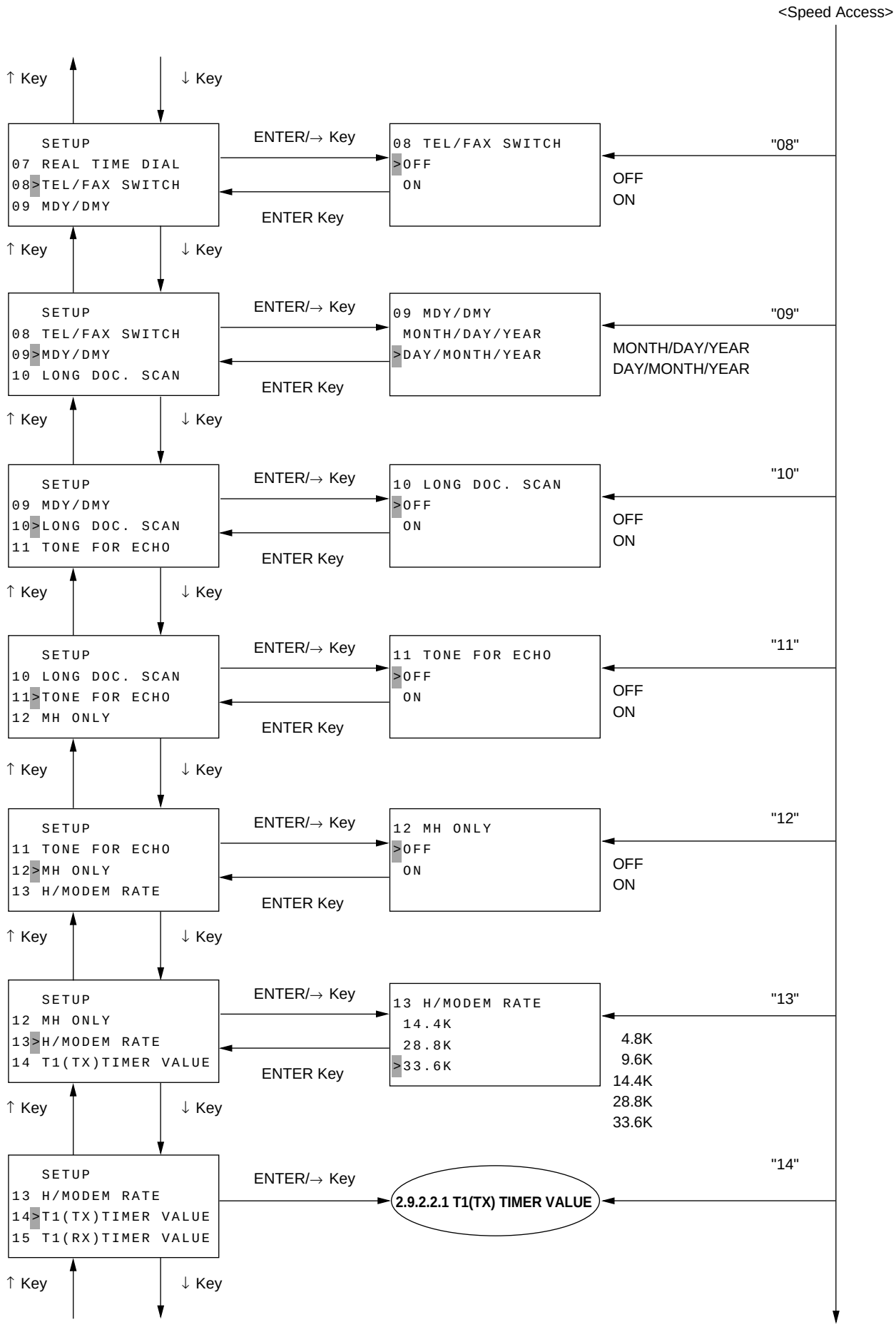
2.9.2.2 Technical Functions Operation 2

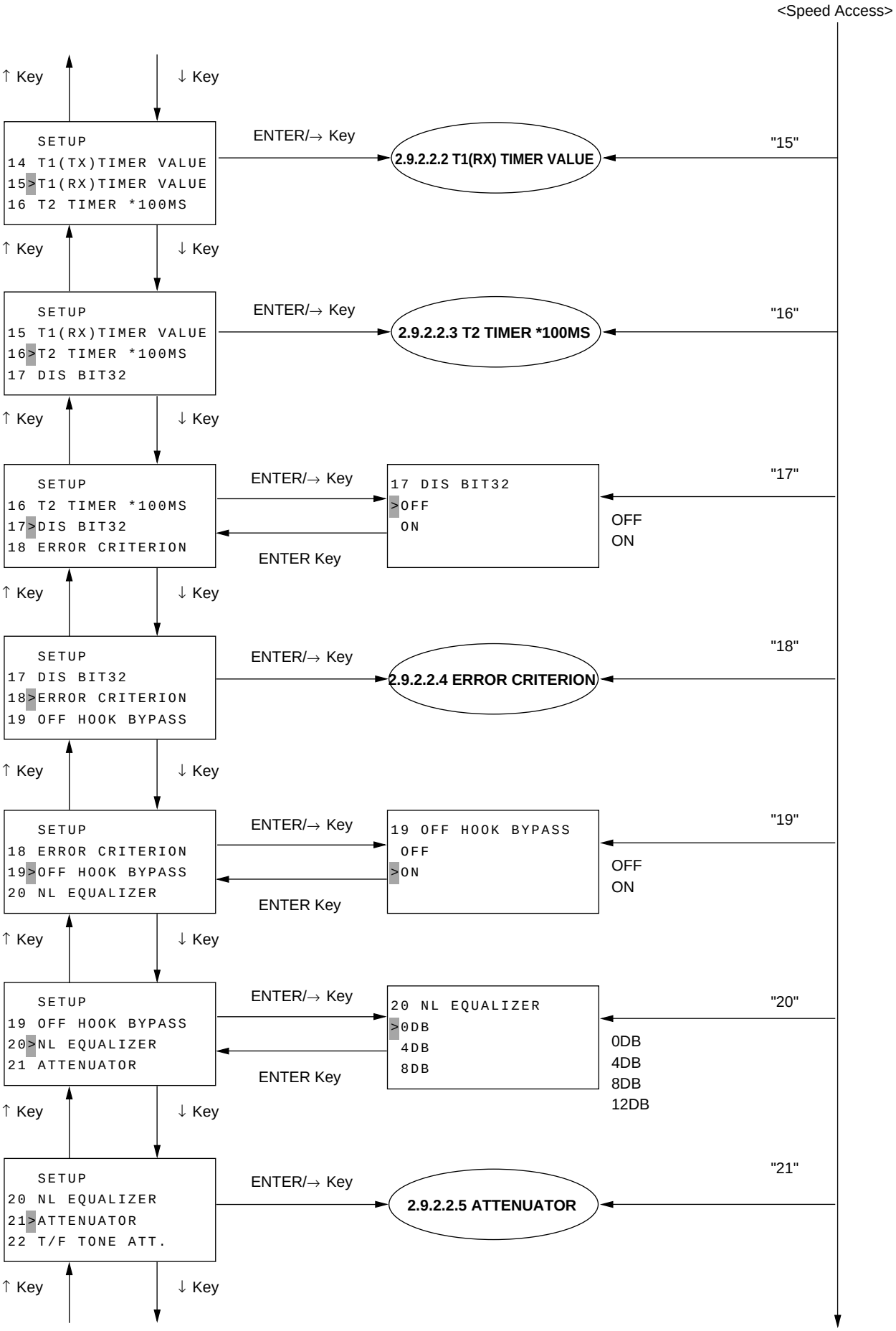
Setup

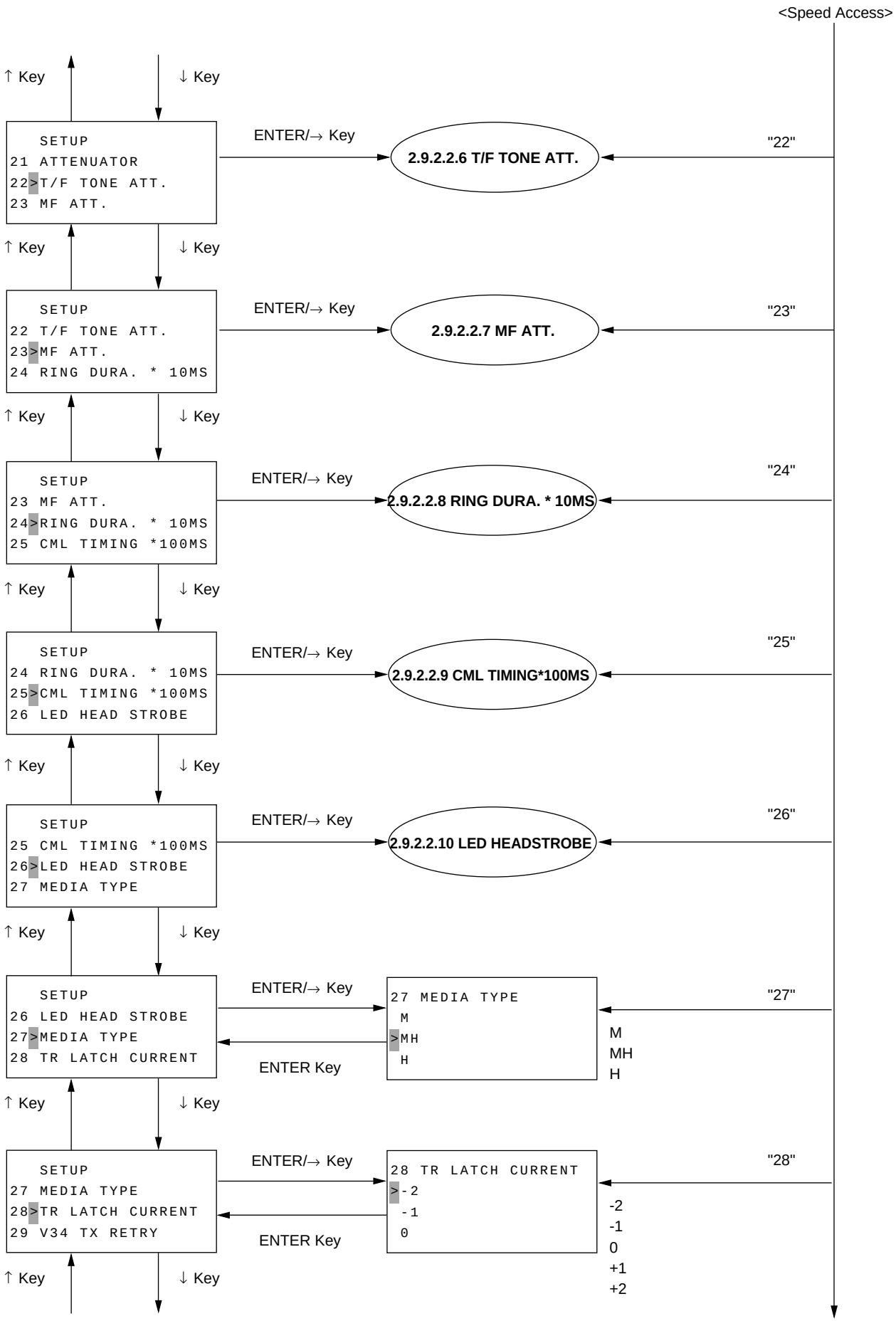
01: Service Bit	(OFF/ON)
02: Monitor Cont.	(OFF/ON)
03: Country Code	(selecting the country code)
04: Time/Date Print	(OFF/ONCE/ALL)
05: TSI Print	(OFF/ON)
06: TAD Mode	(OFF/TYPE1/TYPE2/TYPE3)
07: Real Time Dial	(OFF/TYPE1/TYPE2)
08: TEL/FAX Switch	(OFF/ON)
09: MDY/DMY	(Month/Day/Year or Day/Month/Year)
10: Long Doc. Scan	(OFF/ON)
11: Tone For Echo	(OFF/ON)
12: MH Only	(OFF/ON)
13: H/Modem Rate	(4.8/9.6/14.4/28.8/33.6k)
14: T1(TX) Timer Value	(10 to 255)
15: T1(RX) Timer Value	(10 to 255)
16: T2 Timer *100ms	(1 to 255) *100ms
17: DIS Bit32	(OFF/ON)
18: Error Criterion	(0 to 99%)
19: OFF Hook Bypass	(OFF/ON)
20: NL Equalizer	(0/4/8/12dB)
21: Attenutor	(0 to 15dB) Country code•FRE, (7 to 15dB) Country code=FRE
22: TF Tone Attenutor	(0 to 15dB)
23: MF Attenutor	(0 to 15dB)
24: Ring Dura. *10ms	(10 to 99) *10ms
25: CML Timing *100ms	(1 to 19) *100ms
26: LED Head Strobe	(00000 to 11111)
27: Media Type	(M/MH/H)
28: TR Latch Current	(-2/-1/0/+1/+2)
29: V34 TX Retry	(OFF/ON)
30: Symbol Rate	(2400/2800/3200/3429)
31: NSF Switch	(OFF/ON)
32: ID/TSI Priority	(OFF/ON)
33: Toner Count Clear	(OFF/ON)
34: Parallel Pick Up	(OFF/ON)
35: Print Priority	(OFF/ON)
36: JBIG Facility	(OFF/ON)
37: LLC Check	(OFF/ON)

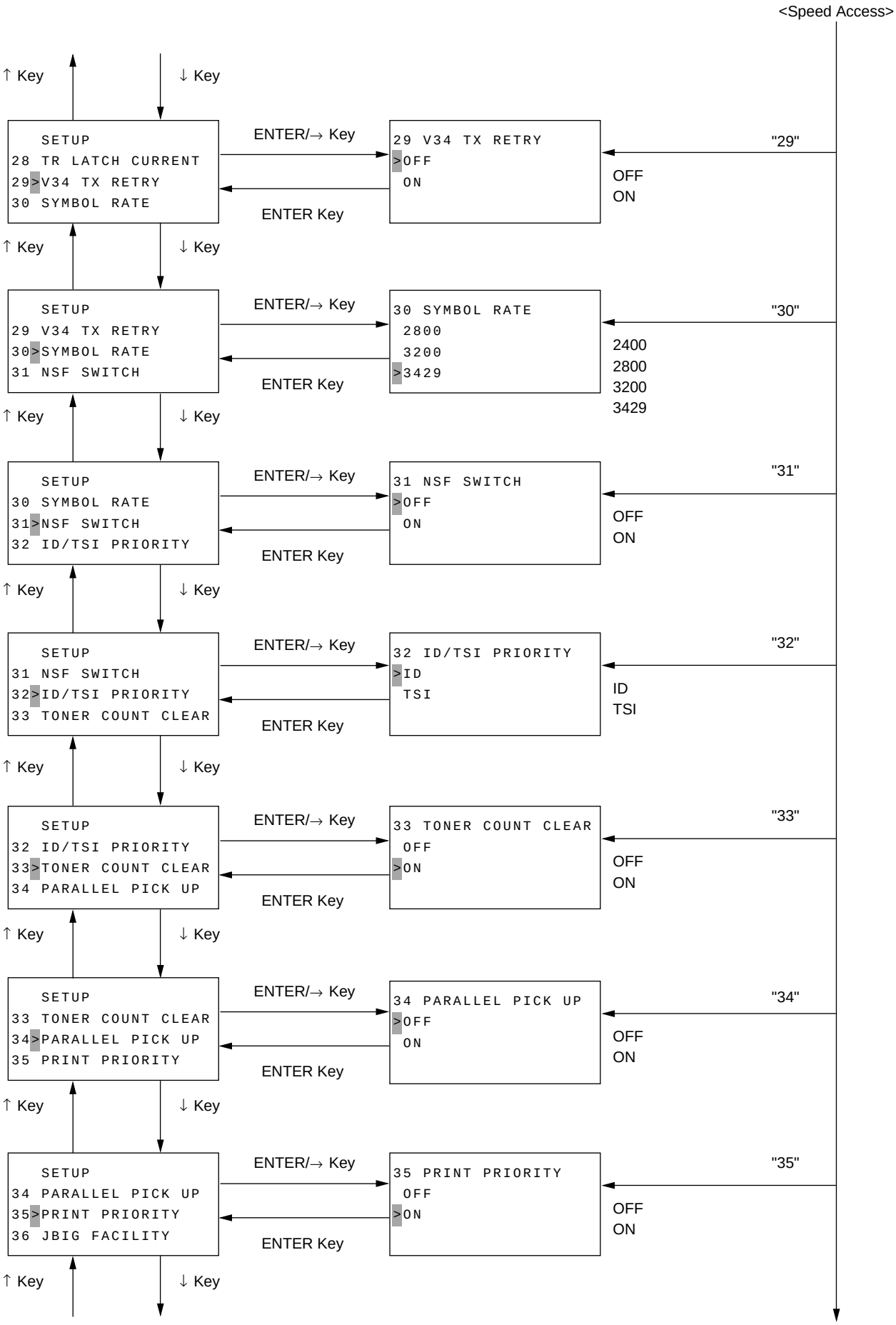
See Section 2.9.2.3 Technical Functions (Setup) for the detail.

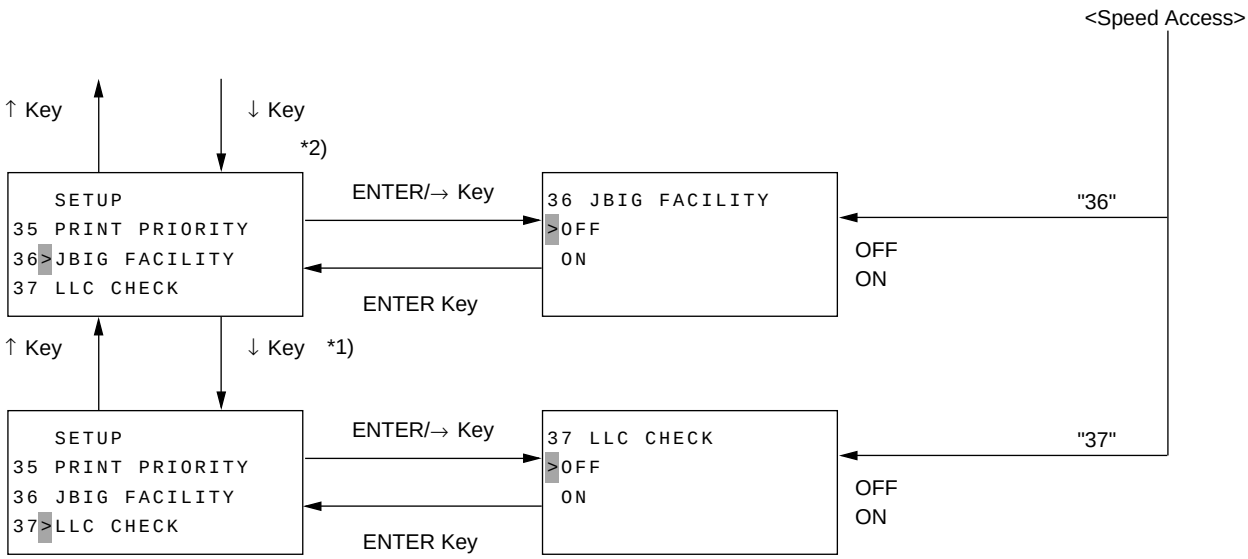

TECHNICAL PRG.
1 LOCAL TEST
2>SETUP
3 SYSTEM RESET
TECHNICAL PRG. XX
1>LOCAL TEST
2 SETUP
3 SYSTEM RESET
<Speed Access>
400ms
ENTER/→ Key
SETUP
01>SERVICE BIT
02 MONITOR CONT.
03 COUNTRY CODE
01 SERVICE BIT
OFF
>ON
"01"
OFF
ON
ENTER Key
↑ Key
↓ Key
SETUP
01 SERVICE BIT
02>MONITOR CONT.
03 COUNTRY CODE
02 MONITOR CONT.
OFF
>ON
"02"
OFF
ON
SETUP
02 MONITOR CONT.
03>COUNTRY CODE
04 TIME DATE PRINT
03 COUNTRY CODE
>USA
INT'L
GBR
"03"
USA · INT'L · GBR · IRL · NOR · SWE · FIN · DEN · GER · HUN · TCH · POL · SUI · AUT · BEL · HOL · FRE · POR · ESP · ITA · GRE · AUS · NZL · SIN · HNG · LTA · MEX
SETUP
03 COUNTRY CODE
04>TIME DATE PRINT
05 TSI PRINT
04 TIME/DATE PRINT
>OFF
ONCE
ALL
"04"
OFF
ONCE
ALL
SETUP
04 TIME DATE PRINT
05>TSI PRINT
06 TAD MODE
05 TSI PRINT
>OFF
ON
"05"
OFF
ON
SETUP
05 TSI PRINT
06>TAD MODE
07 REAL TIME DIAL
06 TAD MODE
OFF
>TYPE1
TYPE2
"06"
OFF
TYPE1
TYPE2
TYPE3
SETUP
06 TAD MODE
07>REAL TIME DIAL
08 TEL/FAX SWITCH
07 REAL TIME DIAL
OFF
TYPE1
>TYPE2
"07"
OFF
TYPE1
TYPE2


<Speed Access>
↑ Key
↓ Key
SETUP
07 REAL TIME DIAL
08>TEL/FAX SWITCH
09 MDY/DMY
ENTER/→ Key
ENTER Key
08 TEL/FAX SWITCH
>OFF
ON
"08"
OFF
ON
SETUP
08 TEL/FAX SWITCH
09>MDY/DMY
10 LONG DOC. SCAN
09 MDY/DMY
MONTH/DAY/YEAR
>DAY/MONTH/YEAR
"09"
MONTH/DAY/YEAR
DAY/MONTH/YEAR
SETUP
09 MDY/DMY
10>LONG DOC. SCAN
11 TONE FOR ECHO
10 LONG DOC. SCAN
>OFF
ON
"10"
OFF
ON
SETUP
10 LONG DOC. SCAN
11>TONE FOR ECHO
12 MH ONLY
11 TONE FOR ECHO
>OFF
ON
"11"
OFF
ON
SETUP
11 TONE FOR ECHO
12>MH ONLY
13 H/MODEM RATE
12 MH ONLY
>OFF
ON
"12"
OFF
ON
SETUP
12 MH ONLY
13>H/MODEM RATE
14 T1(TX)TIMER VALUE
13 H/MODEM RATE
14.4K
28.8K
>33.6K
"13"
4.8K
9.6K
14.4K
28.8K
33.6K
SETUP
13 H/MODEM RATE
14>T1(TX)TIMER VALUE
15 T1(RX)TIMER VALUE
2.9.2.2.1 T1(TX) TIMER VALUE
"14"


<Speed Access>
↑ Key
↓ Key
SETUP
14 T1(TX)TIMER VALUE
15>T1(RX)TIMER VALUE
16 T2 TIMER *100MS
ENTER/→ Key
2.9.2.2.2 T1(RX) TIMER VALUE
"15"
SETUP
15 T1(RX)TIMER VALUE
16>T2 TIMER *100MS
17 DIS BIT32
2.9.2.2.3 T2 TIMER *100MS
"16"
SETUP
16 T2 TIMER *100MS
17>DIS BIT32
18 ERROR CRITERION
17 DIS BIT32
>OFF
ON
"17"
OFF
ON
ENTER Key
SETUP
17 DIS BIT32
18>ERROR CRITERION
19 OFF HOOK BYPASS
2.9.2.2.4 ERROR CRITERION
"18"
SETUP
18 ERROR CRITERION
19>OFF HOOK BYPASS
20 NL EQUALIZER
19 OFF HOOK BYPASS
OFF
>ON
"19"
SETUP
19 OFF HOOK BYPASS
20>NL EQUALIZER
21 ATTENUATOR
20 NL EQUALIZER
>0DB
4DB
8DB
"20"
0DB
4DB
8DB
12DB
SETUP
20 NL EQUALIZER
21>ATTENUATOR
22 T/F TONE ATT.
2.9.2.2.5 ATTENUATOR
"21"


<Speed Access>
↑ Key
↓ Key
SETUP
21 ATTENUATOR
22>T/F TONE ATT.
23 MF ATT.
ENTER/→ Key
2.9.2.2.6 T/F TONE ATT.
"22"
SETUP
22 T/F TONE ATT.
23>MF ATT.
24 RING DURA. * 10MS
2.9.2.2.7 MF ATT.
"23"
SETUP
23 MF ATT.
24>RING DURA. * 10MS
25 CML TIMING *100MS
2.9.2.2.8 RING DURA. * 10MS
"24"
SETUP
24 RING DURA. * 10MS
25>CML TIMING *100MS
26 LED HEAD STROBE
2.9.2.2.9 CML TIMING*100MS
"25"
SETUP
25 CML TIMING *100MS
26>LED HEAD STROBE
27 MEDIA TYPE
2.9.2.2.10 LED HEADSTROBE
"26"
SETUP
26 LED HEAD STROBE
27>MEDIA TYPE
28 TR LATCH CURRENT
27 MEDIA TYPE
M
>MH
H
ENTER Key
"27"
M
MH
H
SETUP
27 MEDIA TYPE
28>TR LATCH CURRENT
29 V34 TX RETRY
28 TR LATCH CURRENT
>-2
-1
0
ENTER Key
"28"
-2
-1
0
+1
+2


<Speed Access>
↑ Key
↓ Key
SETUP
28 TR LATCH CURRENT
29>V34 TX RETRY
30 SYMBOL RATE
ENTER/→ Key
ENTER Key
29 V34 TX RETRY
>OFF
ON
"29"
OFF
ON
SETUP
29 V34 TX RETRY
30>SYMBOL RATE
31 NSF SWITCH
30 SYMBOL RATE
2800
3200
>3429
"30"
2400
2800
3200
3429
SETUP
30 SYMBOL RATE
31>NSF SWITCH
32 ID/TSI PRIORITY
31 NSF SWITCH
"31"
SETUP
31 NSF SWITCH
32>ID/TSI PRIORITY
33 TONER COUNT CLEAR
32 ID/TSI PRIORITY
>ID
TSI
"32"
ID
TSI
SETUP
32 ID/TSI PRIORITY
33>TONER COUNT CLEAR
34 PARALLEL PICK UP
33 TONER COUNT CLEAR
OFF
>ON
"33"
SETUP
33 TONER COUNT CLEAR
34>PARALLEL PICK UP
35 PRINT PRIORITY
34 PARALLEL PICK UP
"34"
SETUP
34 PARALLEL PICK UP
35>PRINT PRIORITY
36 JBIG FACILITY
35 PRINT PRIORITY
"35"

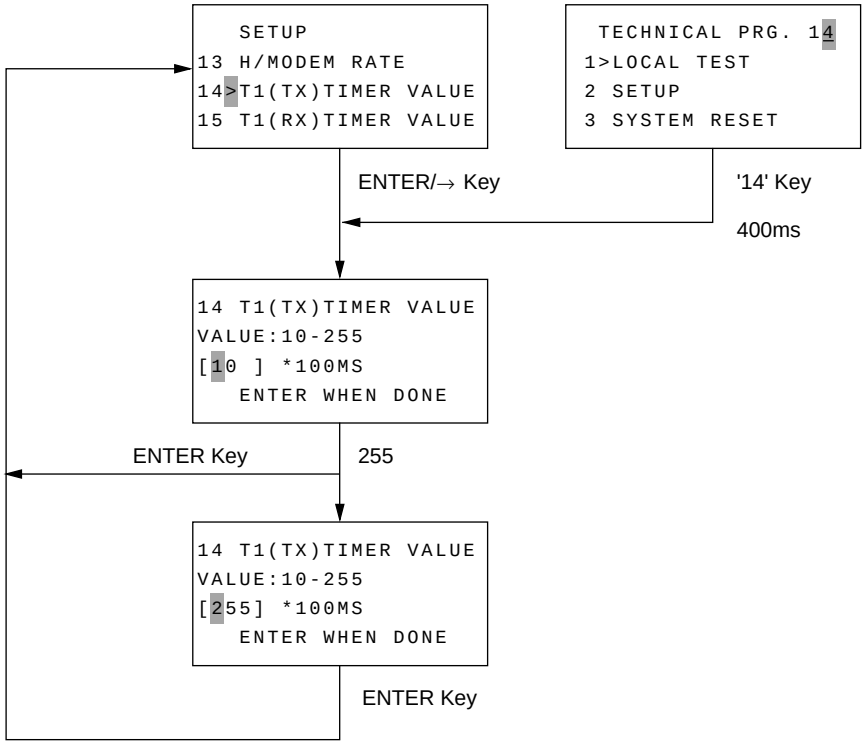


Some options of the SETUP menu cannot be selected depending on the destination of delivery, machine specs, and machine settings. However, numbers related to speed access are fixed.
If there are unselective options, these numbers become discontinuous.

*1):This mode can be made only when ISDN board is installed. "FUNC.NOT AVAIL" is indicated during 3 seconds by pressing ENTER/→key in the case of MUPIS I/F mode.
*2):Fax 9830 connot be set up.

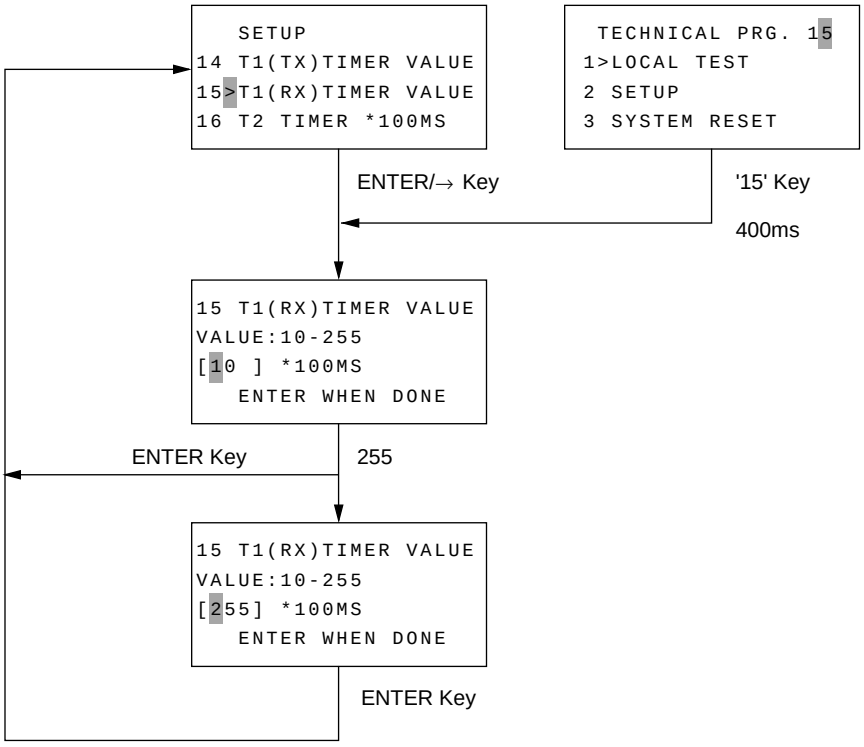
2.9.2.2.1 T1 (TX) Timer Value

Set the T1 timer (call connection wait time: XTTO) for transmission.



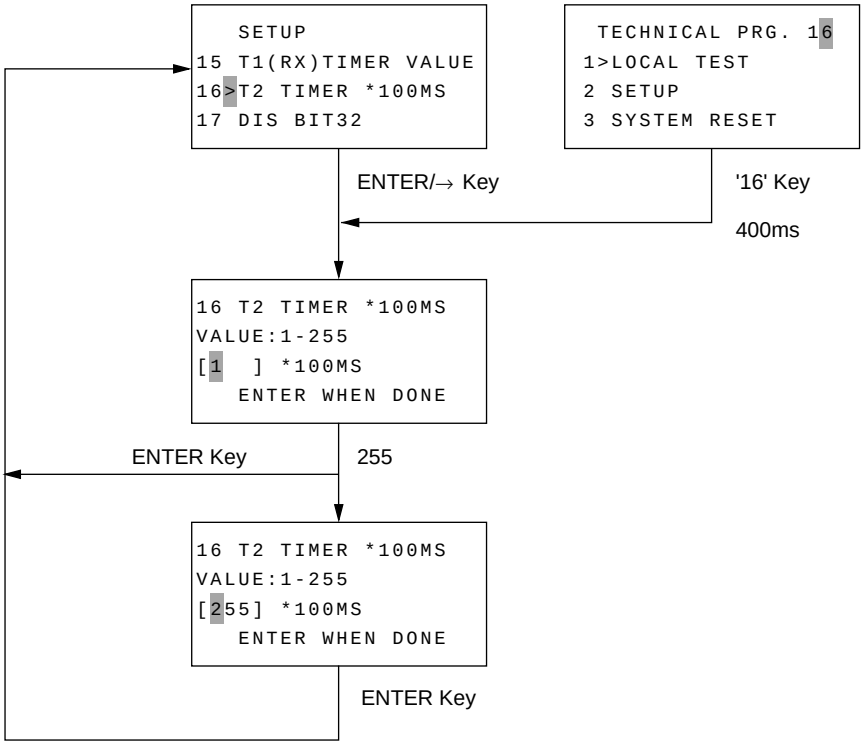
2.9.2.2.2 T1 (RX) Timer Value

Set the T1 timer for reception.
The time from issue of the first DIS to issue of a signal is checked. If a time-out occurs, the line is disconnected.



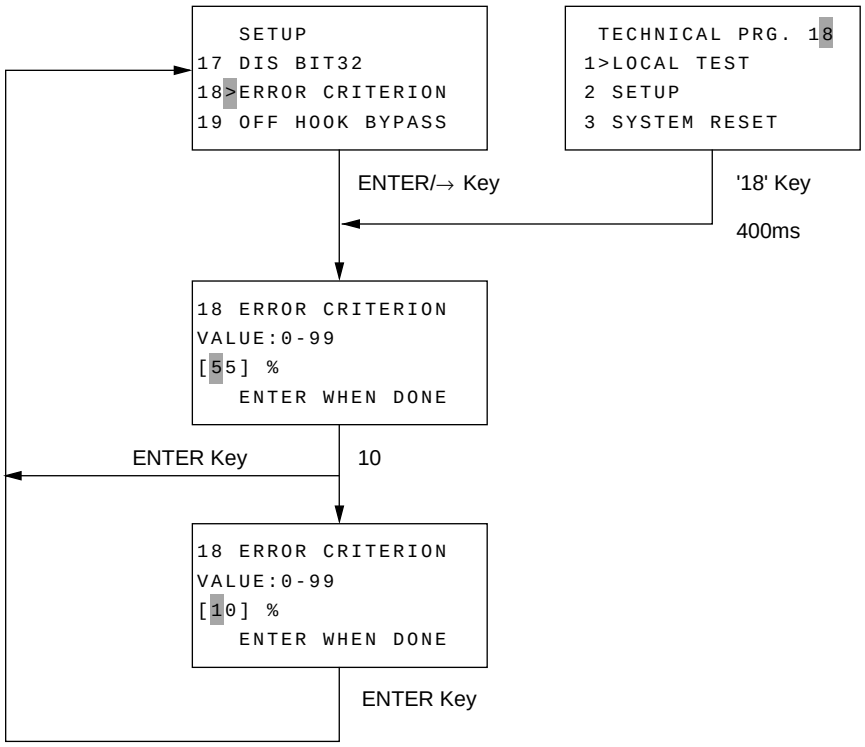
2.9.2.2.3 T2 Timer *100ms

Registers the time duration (in seconds) for which the fax detects the EOL interval during reception of phase C. The fax disconnects the line when EOL cannot detect within T2 Timer.



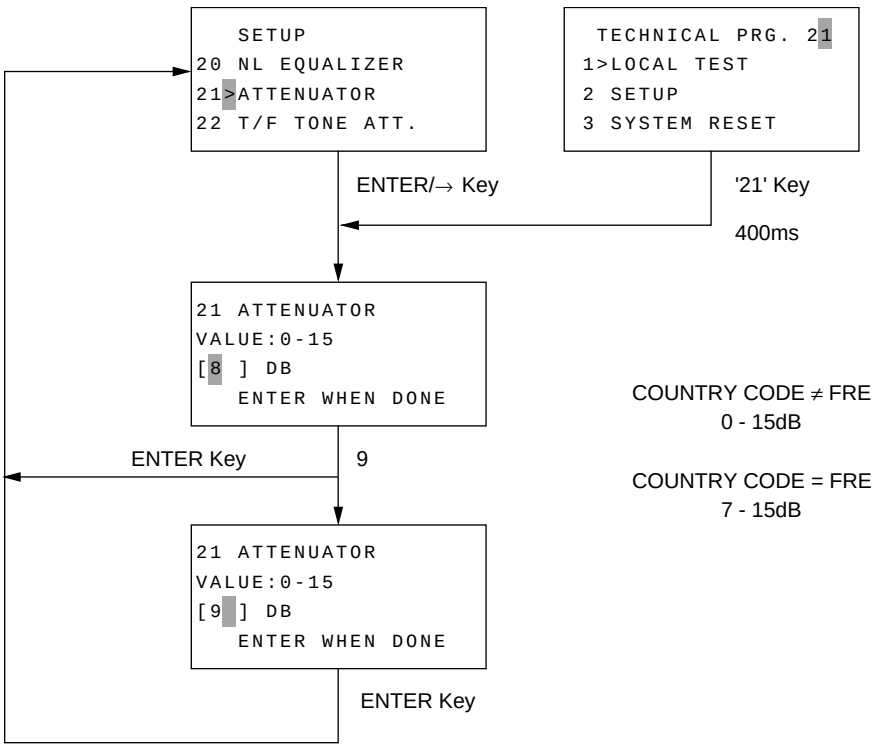
2.9.2.2.4 Error Criterion

Registers the threshould value whether to transmit RTN or MCF signal when the error occurs in received data.



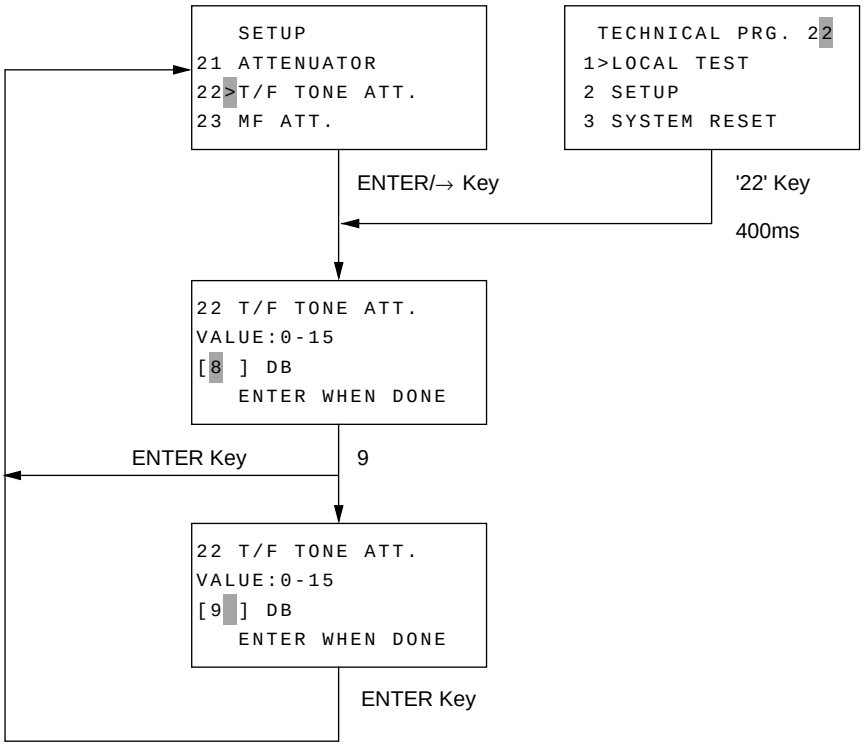
2.9.2.2.5 Attenuator

Adjusts the attenuation (dB) for the message send signal power level.
Adjusting value is 0 to 15dB in one dB steps.



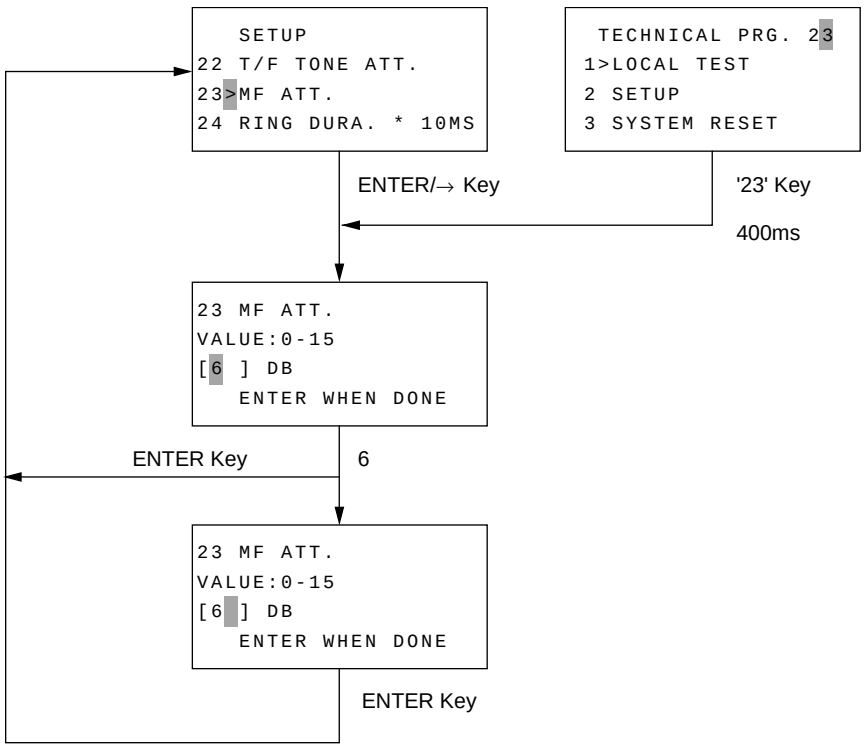
2.9.2.2.6 T/F Tone Att.

Adjusts the attenuation (dB) for the quasi-ring back tone send signal of TEL/FAX switching.
Adjusting value is 0 to 15dB in one dB steps.



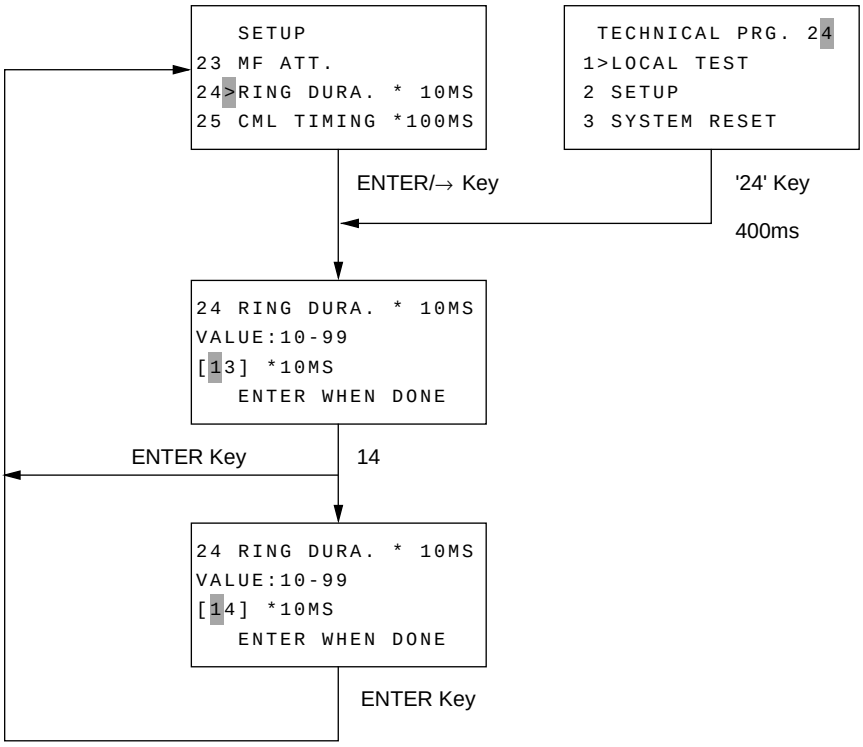
2.9.2.2.7 MF Att.

Adjusts the attenuation (dB) for the send MF tone power level.
Adjusting value is 0 to 15dB in one dB steps.



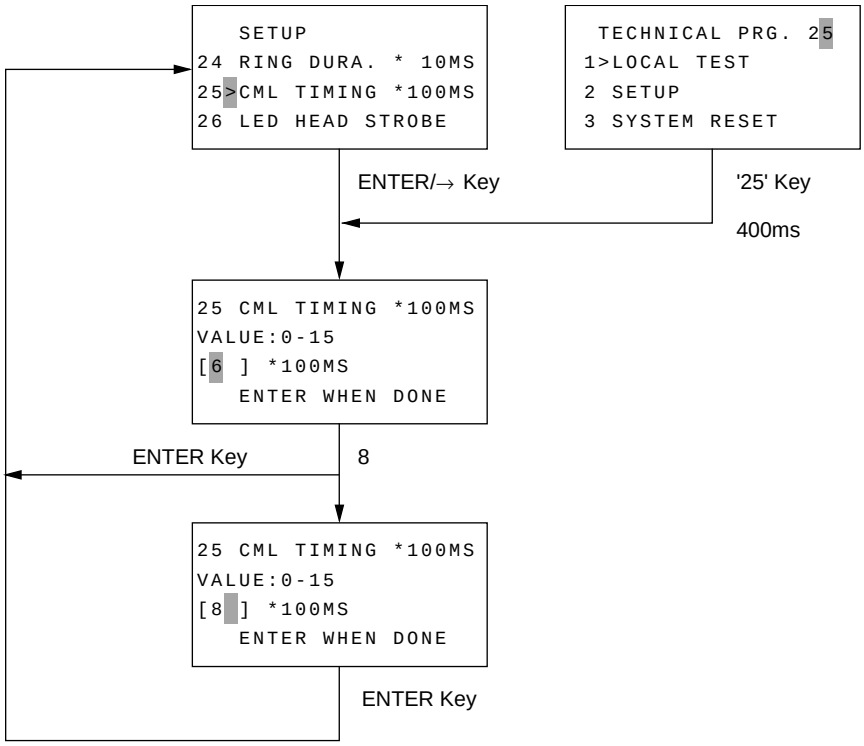
2.9.2.2.8 Ring Dura. *10ms

Selects the minimum ring detection time to meet country's requirements. Adjusting time is 100MS to 990MS in 10MS steps.



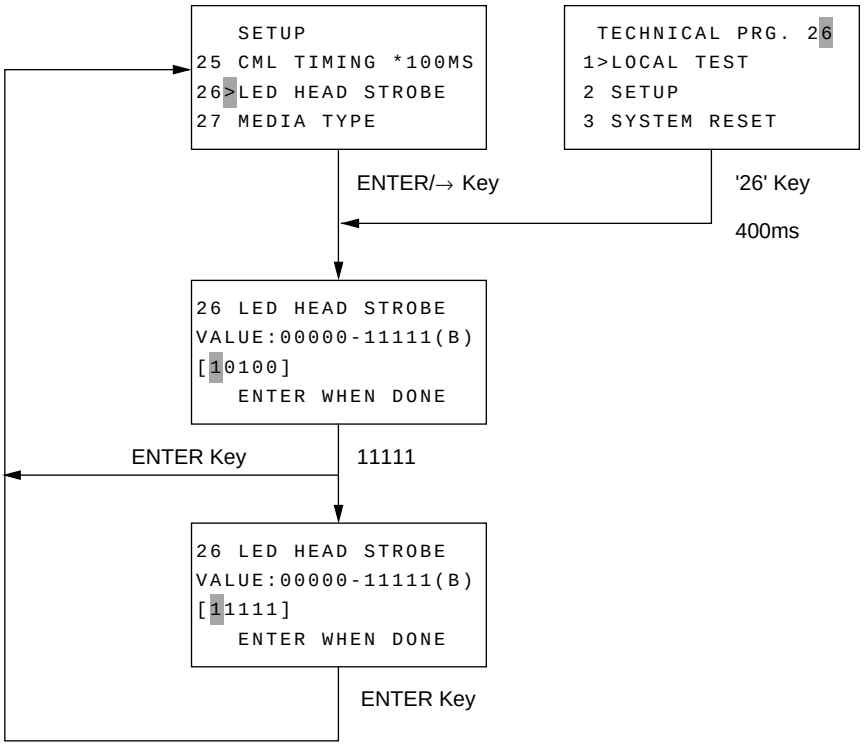
2.9.2.2.9 CML Timing *100ms

Selects the time from end of ring to CML-ON. Adjusting time is 100MS to 1900MS in 100MS steps.



2.9.2.2.10 LED Headstrobe

Setting of LED print head strobe signals (00000 - 11111). Selection of strobe sidth in LED head. "00000" is lightest and "11111" is darkest.



Five digits must be entered.

2.9.2.3 Technical Functions (Setup)

- Table 2.9.2.3 shows the initial setting items and their purpose. (The default setting is different by the individual countries.)
- Each item can be accessed by entering it on Technical Setup.
- The detailed procedures of the initial setting items will be explained on the following tables.

Table 2.9.2.3 Technical Functions: Setup (1/11)

No.	Item	Specifications
01	Service bit	Enables the serviceman to make special settings. If this setting is OFF, some settings and report print function may become unavailable. 1) Setting values ON: Enables the serviceman to make settings. OFF: Disables the serviceman to make settings.
02	Monitor control	Sets up the line monitor. If this setting is OFF at the time of transmission, the line is monitored during dialing but the line will not be monitored after a specified time lapse (about 5 sec). If this setting is ON, the line will be monitored till the end of communication. 1) Setting values ON: Monitored continuously OFF: Not monitored continuously * The tone level can be adjusted by setting Monitor Volume.
03	Country code	Set a country code. 1) Setting values Select a country code: USA/INT/GBR/IRL/NOR/SWE/FIN/DEN/GER/HUN/TCH/POL/SUI/AUT/BEL/HOL/FRE/ POR/ESP/ITA/GRE/AUS/NZL/SIN/HNG/LTA/MEX * The setting data must be transferred to the G4 board. * Setup a dial parameter when changing a country code. * Distinctive ring sets to OFF. * In case Country code is changed in FRE: Forcibily, set to 7dB when the attenuator setting values are set between 0dB to 6dB.

Table 2.9.2.3 Technical Functions: Setup (2/11)

No.	Item	Specifications
04	Time and date print	Determine whether the date and time set on the local machine are to be printed at the beginning of the received image. 1) Setting values OFF/ONCE/ALL selectable. OFF: Not printed ONCE: Printed on page 1 only ALL: Printed on all pages
05	TSI print	Determine whether a TSI is to be printed in the received image. 1) Setting value ON: Printed OFF: Not printed * When this setting is ON and TIME/DATE PRINT is set to ALL , a TSI is printed on all received pages. In other cases, a TSI is printed on the first page only. * When a TSI has not been registered but a personal ID has been registered, the personal ID is printed. (Reference) TSI: Transmitting Subscriber Identification

Table 2.9.2.3 Technical Functions: Setup (3/11)

No.	Item	Specifications
06	TAD mode (For external telephone answering device.)	Switches between TAD modes. This setting is required to determine whether TAD is to be selected in the AUTO ANSWER mode and set the fax operation to be performed after completion of TAD-side operation (response). In the TAD mode, a message is recorded in the telephone memory if the telephone (connected externally) answers automatically when the facsimile is ready for reception. After completion of message recording, the line is switched to the facsimile. If CNG is detected while the telephone is answering automatically, reception starts immediately. 1) Setting values OFF/TYPE1/TYPE2/TYPE3 selectable. * Relationships between settings and operations are as follows: OFF: TAD cannot be selected in the AUTO ANSWER mode. TYPE1: When TAD operation ends without detecting CNG, the line is switched to the facsimile starting reception immediately. TYPE2: After completion of TAD operation, the machine returns to the standby state. TYPE3: The machine starts detecting CNG 15 seconds after the telephone starts the auto answering operation. If TAD operation ends without detecting CNG, the machine returns to the standby state. * When this setting is set to OFF in the TAD mode, the FAX mode will be selected automatically.
07	Real time dialing	Determine whether real-time dialing is enabled. If it is enabled, determine when it will be enabled. 1) Setting values OFF/TYPE1 (External telephone is off-hooked)/ TYPE2 selectable. OFF: Real-time dialing is disabled (accumulated dialing only) TYPE1: Enabled when the external telephone is off-hooked. TYPE2: Enabled when the external telephone is off-hooked or the HOOK key is pressed.

Table 2.9.2.3 Technical Functions: Setup (4/11)

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>08</td><td>TEL/FAX switching</td><td>Determine whether the TEL/FAX mode can be selected in the AUTO ANSWER mode.

1) Setting values
ON: Selective
OFF: Not selective
* When OFF is selected in the TEL/FAX mode, the FAX mode will be selected automatically.

Related item:
• Technical Function: Setup No.22 (T/F tone attenuator)
• User Functions: Incoming Options No.62 (T/F timer Prg.)</td></tr>
<tr><td>09</td><td>MDY/DMY</td><td>Select a date display mode for LCD display and report printing.

1) Setting value
MDY (Month/Day/Year)/DMY (Day/Month/Year) selectable.</td></tr>
<tr><td>10</td><td>Long document Scan</td><td>Determine whether long documents (380 mm or longer) are to be scanned during transmission or copying.

1) Setting values
ON: 1500 mm or 60 minutes
OFF: 380 mm or 60 minutes
* 60 minutes = Transmission time</td></tr>
<tr><td>11</td><td>Tone for Echo</td><td>Determine whether an echo suppressor protection tone is to be added.
This setting is required when the line condition is poor (overseas communication, etc.).

1) Setting value
ON: Added
OFF: Not added

* During speed dial transmission, this setting is ignored because communication parameters are referenced.
* This setting affects the following settings:

<table>
<tr><th>Echo Protection</th><th>OFF</th><th>ON</th></tr>
<tr><td>Ignore 1st DIS</td><td>OFF</td><td>ON</td></tr>
<tr><td>CED - DIS Timer</td><td>75ms</td><td>1.5sec</td></tr>
<tr><td>Tone for Echo</td><td>OFF</td><td>ON</td></tr>
</table>
</td></tr>
</table>

Table 2.9.2.3 Technical Functions: Setup (5/11)

No.	Item	Specifications
12	MH only	Determine whether only MH coding is to be handled forcibly. Switches the function of limiting the image compression to MH codes only. This setting is required when the line noise affects the received image. 1) Setting values ON: MH only OFF: MMR, MR, or MH is selected depending on communication capacity
13	High-speed modem rate	Set the initial value of modem transmission speed. 1) Setting values 33.6/28.8/14.4/9.6/4.8k bps selectable.
14	T1(TX) timer value	Set the T1 timer (call connection wait time: XTTO) for transmission. * T1 (TX) is a time to detect up to 3 flags of DIS sent from a called fax machine. This timer sets the time that lapses from the moment the last digit has been transmitted to the moment the line is disconnected. 1) Setting values 10-255 selectable (in 1 second steps) * Enter a value using ten-keys.
15	T1(RX) timer value	Set the T1 timer for reception. The time from issue of the first DIS to issue of a signal is checked. If a time-out occurs, the line is disconnected. 1) Setting values 10-255 selectable (in 1 second steps) * Enter a value with ten-keys.
16	T2 timer *100ms	Set the T2 timer. The T2 timer is an EOL(End Of Line) signal interval timer used for G3 image reception or an instruction reception wait timer. If any signal cannot be detected within the timer-set time, the fax disconnects the line. 1) Setting values 1-255 selectable (in 100 ms steps) * Enter a value with ten-keys. * Actual value = (Set value) x 100 ms Suppose the set value is 060, then 060 x 100 ms = 6 s

Table 2.9.2.3 Technical Functions: Setup (6/11)

No.	Item	Specifications
17	DIS bit32	Determine whether the thirty-second bit (expansion bit) of DIS is to be sent out. 1) Setting values ON: Transmits a bit32 and a successing bit 32. OFF: Not transmit * When OFF is selected, machines of other companies cannot receive documents in the EX.FINE, SEP/SUB mode or JBIG.
18	Error criterion	Set an image error criterion (RTN sending standard). * Sets the threshould value whether to transmit RTN or MCF signal when the error occurs in received data. 1) Setting values 00-99 (%) selectable (in 1% steps) * Enter a value with ten-keys.
19	Off-hook bypass	Determine whether on-hook is regarded as off-hook. * Switches the function of maintaining communication without hooking up the telephone set in normal testing etc. 1) Setting values ON: bypassed OFF: Not bypassed *Note:* When ON is selected in off-hook bypass mode, the COPY operation cannot be used.
20	NL equalizer	Set up the reception amplitude equalizer. 1) Setting values Select one of the following values according to the line length: 0 dB/4 dB/8 dB/12 dB selectable.

Table 2.9.2.3 Technical Functions: Setup (7/11)

No.	Item	Specifications
21	Attenuator	Set the FAX signal attenuator (level). • Since the maximum send signal power level (dB) of the fax is at 0dB, you can select 0dB to -15dB in one dB steps for the send signal power level. 1) Setting values 0-15 dB se;ectable (in 1 dB steps): except FRE FRE: 7-15dB In case Country code is changed in FRE, Forcibly, set to 7dB when the attenuator setting values are set between 0dB to 6dB. * Enter a value with ten-keys. *Note:* The send signal power level should meet your country's regurations. Some country's may specify the power level at telephone exchange. In that case, you should substract the specified level from the line cable attenuation to determin the send level of your fax.
22	T/F tone attenuator (for TEL/FAX switch)	Set the T/F pseudo ring back tone signal attenuator (level). 1) Setting values 0-15 dB selectable (in 1 dB steps) * Enter a value with ten-keys.
23	MF attenuator	Set the MF signal attenuator (level). 1) Setting values 0-15 dB selectable (in 1 dB steps) * Enter a value with ten-keys.
24	Ring duration detection time *10 ms	Set a ring detection time within the range from 100 ms to 990 ms. 1) Setting values 10-99 selectable (in 10 ms steps) * Enter a value with ten-keys. * Actual value = (Set value) x 10 ms Suppose the set value is 12, then 12 x 10 ms = 120 ms
25	CML timing *100ms	Set a line seizure timing within the range from 100 ms to 1900 ms. 1) Setting values 1-19 selectable (in 100 ms steps) * Enter a value with ten-keys. * Actual value = (Set value) x 100 ms Suppose the set value is 03, then 03 x 100 ms = 300 ms

Table 2.9.2.3 Technical Functions: Setup (8/11)

No.	Item	Specifications
26	LED head strobe	Set the LED head strobe time. The larger the value, the darker the image. 1) Setting values 00000 to 11111 (5 bits) *Note1:* When the rank marking of the new replaced LED print head (new part) is same as that of the old used LED print head (old part), you do not always have to set the LED print head strobe signal. *Note2:* Intensity ranking is determined by the first, second and third digits from the right on the LED print head serial number. (i.e. in ...061, 061 is the intensity ranking.) *Note3:* Setting values are not initialized even though All Data Clear is performed.

Setting of Technical Function No. 26

Setting / Rank Marking	MSB ↕ LSB																															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
		0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
		0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
		0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
085 –												*																					
080 – 084													*																				
074 – 079														*																			
070 – 073															*																		
065 – 069																*																	
061 – 064																	*																
058 – 060																		*															
053 – 057																			*														
050 – 052																				*													
047 – 049																					*												
044 – 046																						*											
041 – 043																							*										
038 – 040																								*									
036 – 037																									*								
033 – 035																										*							
031 – 032																											*						
029 – 030																												*					
027 – 028																													*				
– 026																														*			

Table 2.9.2.3 Technical Functions: Setup (9/11)

No.	Item	Specifications
27	Media type	Set the recording paper quality (thickness). 1) Setting values M (Medium)/MH (Thicker than medium)/H (Thick) selectable.
28	Transfer roller latch current	Set an imprinting latch current value. 1) Setting values -2/-1/0/+1/+2 selectable.
29	V34 TX retry	Determine whether the V34 communication error is to be remembered. 1) Setting values ON: Remembered OFF: Nor remembered
30	Symbol rate	Set the V.34 modem symbol rate. 1) Setting values 2400/2800/3200/3429 selectable.
31	NSF switch	Determine whether the NSS/NSF signal is to be sent out. 1) Setting values ON: Sent OFF: Not sent * If data is transmitted with this setting OFF, DCS transmission is performed (NSC is not sent) even if the fax NSF is received. Relay initiate transmission operation cannot be performed. * If REMOTE DIAGNOSIS is set to ON although NSF Switch (this setting) is set to OFF, an NSF is sent and sent immediately if the faxes original function is ON (confidential, etc.).

Table 2.9.2.3 Technical Functions: Setup (10/11)

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>32</td><td>ID/TSI priority</td><td>Determines whether the personal ID or TSI is given priority during LCD display and printing.

1) Setting values
ID: Personal ID is given priority
TSI: TSI is given priority
<table>
<tr><td rowspan="3">Priority</td><td colspan="2">ID/TSI PRIORITY=ID</td><td colspan="2">ID/TSI PRIORITY=TSI</td></tr>
<tr><td colspan="2">LCD display during communication
Description in communication management report</td><td colspan="2">LCD display during communication
Description in communication management report</td></tr>
<tr><td>TX</td><td>RX</td><td>TX</td><td>RX</td></tr>
<tr><td>1 (High)</td><td>Personal ID</td><td>Personal ID</td><td>CSI</td><td>TSI</td></tr>
<tr><td>2</td><td>CSI</td><td>TSI</td><td>Calling No.</td><td>(Calling No.)</td></tr>
<tr><td>3</td><td>Calling ID</td><td>(Calling ID)</td><td>(Personal ID)</td><td>Personal ID</td></tr>
<tr><td>4 (Low)</td><td>Calling No.</td><td>(Calling No.)</td><td>–</td><td>–</td></tr>
</table>
* Shaded combinations do not exist actually.</td></tr>
<tr><td>33</td><td>Toner counter clear</td><td>Determine whether the toner counter can be cleared regardless of the service bit setting (ON/OFF).

1) Setting values
ON: Can be cleared
OFF: Cannot be cleared
<table>
<tr><td rowspan="3">Display clear
Various counters</td><td colspan="2">Counter display</td><td colspan="2">Counter clear</td><td rowspan="3">Remarks</td></tr>
<tr><td colspan="2">Service bit</td><td colspan="2">Service bit</td></tr>
<tr><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td></tr>
<tr><td>Drum</td><td>×</td><td>○</td><td>○</td><td>○</td><td>Can be replaced by user</td></tr>
<tr><td>Toner</td><td>This function is set to
ON: ×
OFF: –</td><td>○</td><td>This function is set to
ON: ○
OFF: –</td><td>○</td><td>Can be replaced by user</td></tr>
<tr><td>Drum total</td><td>–</td><td>○</td><td>–</td><td>○</td><td></td></tr>
<tr><td>Print</td><td>○</td><td>○</td><td>×</td><td>○</td><td></td></tr>
<tr><td>Scan</td><td>○</td><td>○</td><td>×</td><td>○</td><td></td></tr>
</table></td></tr>
<tr><td>34</td><td>Parallel pick up</td><td>Determine whether parallel pickup is enabled.
* To control a receiving fax by 2 digits (the same digits as remote reception from a telephone set connected parallel to the telephone line.
(For the detail, see section 2.9.2.6 Outline of Parallel Pick Up.)

1) Setting values
ON: Enabled
OFF: Disabled</td></tr>
</table>

Table 2.9.2.3 Technical Functions: Setup (11/11)

No.	Item	Specifications
35	Print priority	Determine whether the memory is mainly used for printing. This setting is required to rescue the image data that cannot be stored in the page memory if ACC compression is carried out during PC/LAN printing. 1) Setting values Relationships between settings and page memory capacities are as follows: ON: 2560 KB OFF: 1844 KB *Note:* When this setting is set to ON, the memory capacities decreases to 716k bytes.
36	JBIG facility	Set up the encoding JBIG. (Not used on Fax 9830)
37	LLC check	Determine whether the lower layer compatibility information instracted from the calling side is analyzed. 1) Setting values ON (Analyzed)/OFF(Not analyzed) * The setting data must be transferred to the ISDN board. * Cannot be selected when ISDN option board is not installed.

2.9.2.4 TEL/FAX automatic switching

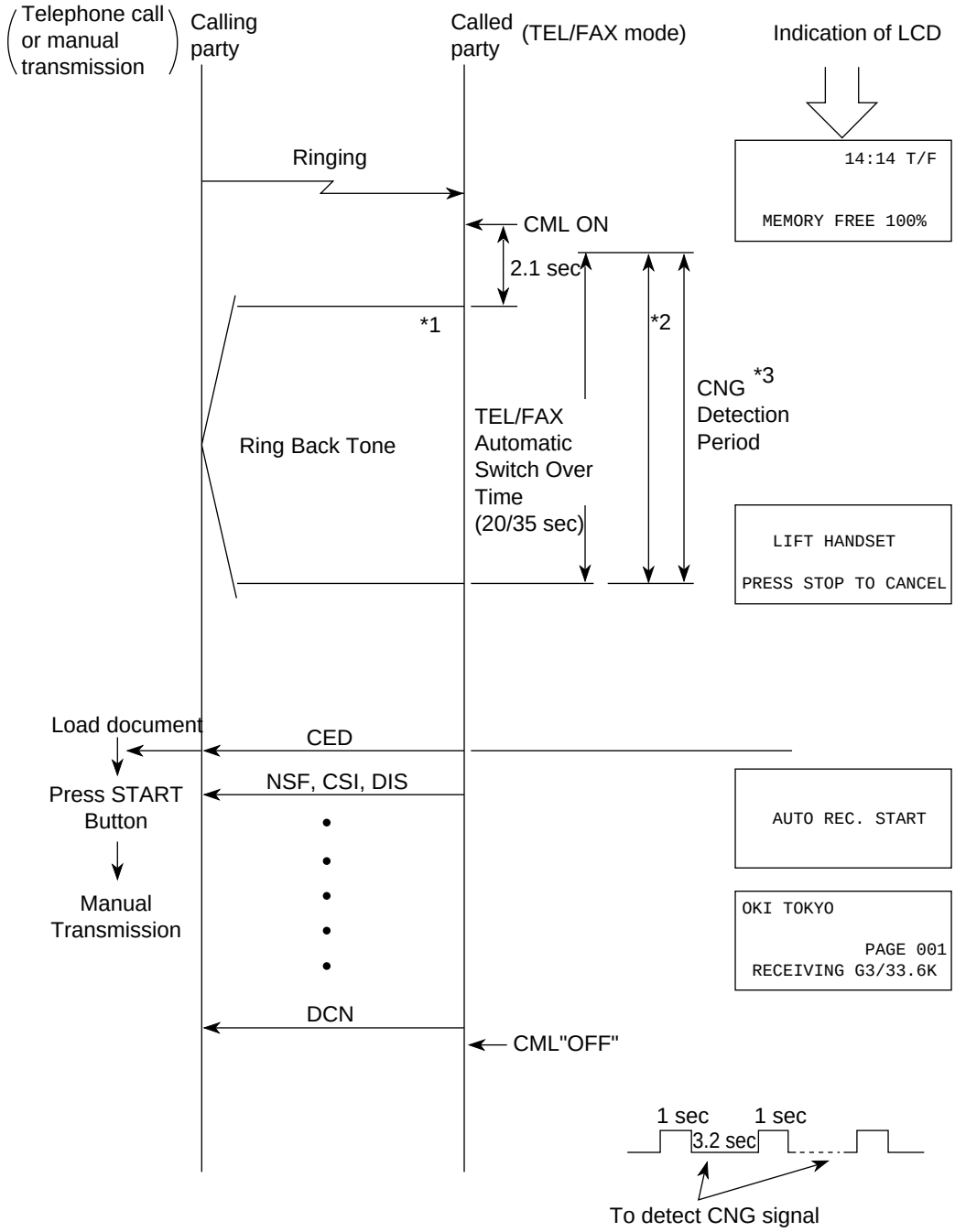
This function is used for the purpose of TEL/FAX automatic switching as follows.

1) If the machine detects a call with a CNG signal indicating an auto send facsimile call, it starts an automatic document receiving operation.
2) If machine detects a call without a CNG signal, machine generates the buzzer sounds as a telephone call. The calling person can hear a “ring back” tone within a predetermined time.

If the operator at the called side does not lift the handset within the predetermined time, the machine automatically starts a document receiving operation.
Voice conversion will automatically be available through the internal handset by lifting up handset while the call buzzer is sounding.

Note: 1: The predetermined time is selectable between 20 or 30 sec.
(User Functions: Incoming option No.62)
2: No ringing signal is sent to the external telephone handset.
3: Choice of message sending level. The level is selectable from 0 to 15 dB in one dB steps.
Technical Functione: Setup No.22)
4. TEL/FAX mode is available by Technical Function (Setup No.08).

• TEL/FAX mode flow chart



Notes **1: Ring Back Tone — 1 sec. ON, 3.2 sec. OFF*
**2: When you want to talk by phone, pick up handset.*
**3: The called party can send CED to the calling party immediately to start FAX communication if the CNG is detected during the period.*
**4: If the fax does not detect CNG signal during working of TEL/FAX mode, LCD display indicates "LIFT HANDSET".*

2.9.2.5 TAD mode

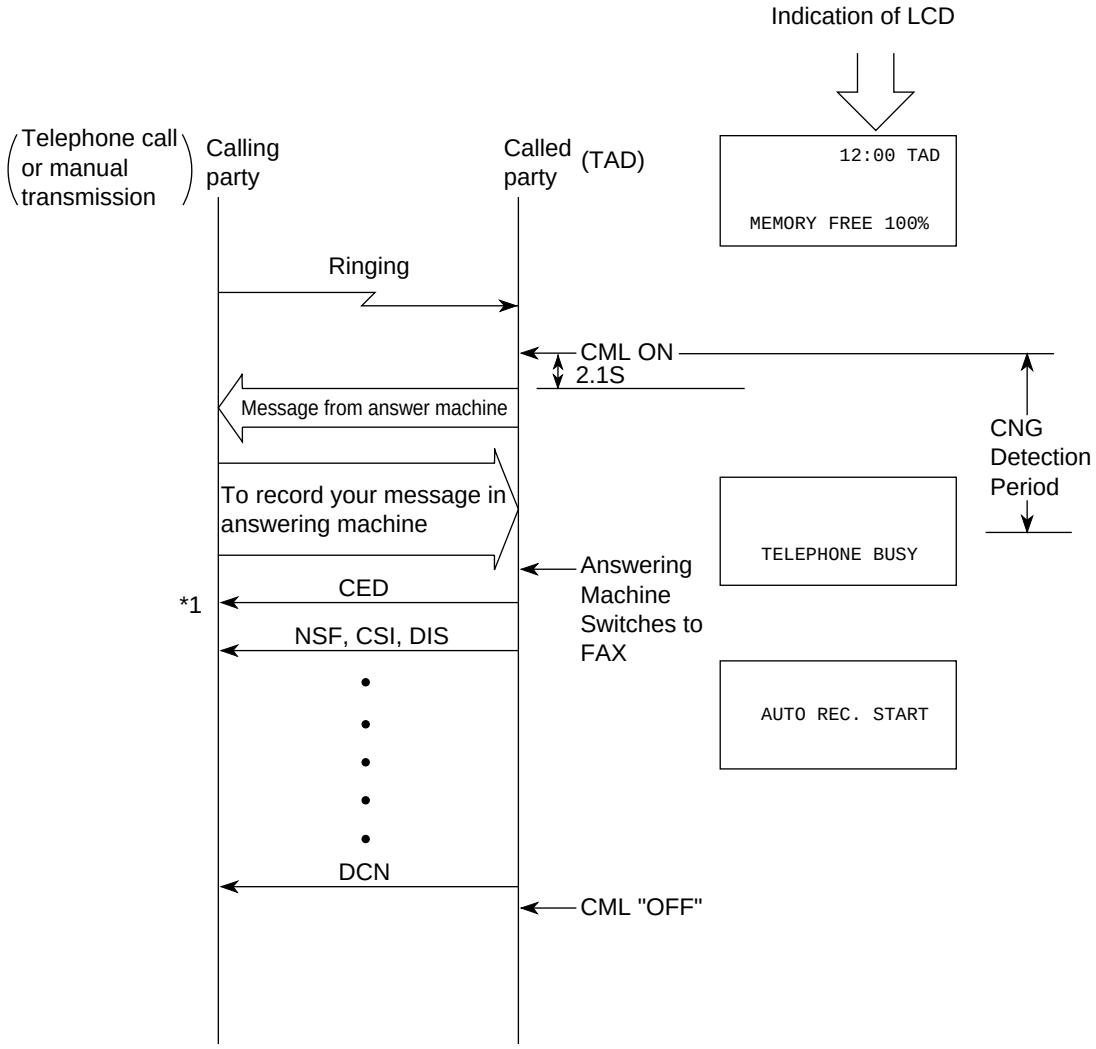
- TAD: Telephone Answering Device
- TAD can be connected to extenal telephone terminal to record your messages.
- TAD records your speech and switches an automatic voice message response to the calling station.

Note1: A choice of TAD mode is available by technical Function (Setup No.06).
Note2: The predetermined time is selectable between 20 or 30 sec.

- TAD mode flow chart

In case of TYPE 1;

Even though the fax does not detect CNG signal, the fax will go to receiving mode.



*1 To enable the manual TX mode.
Load document → Press START button → Manual transmission

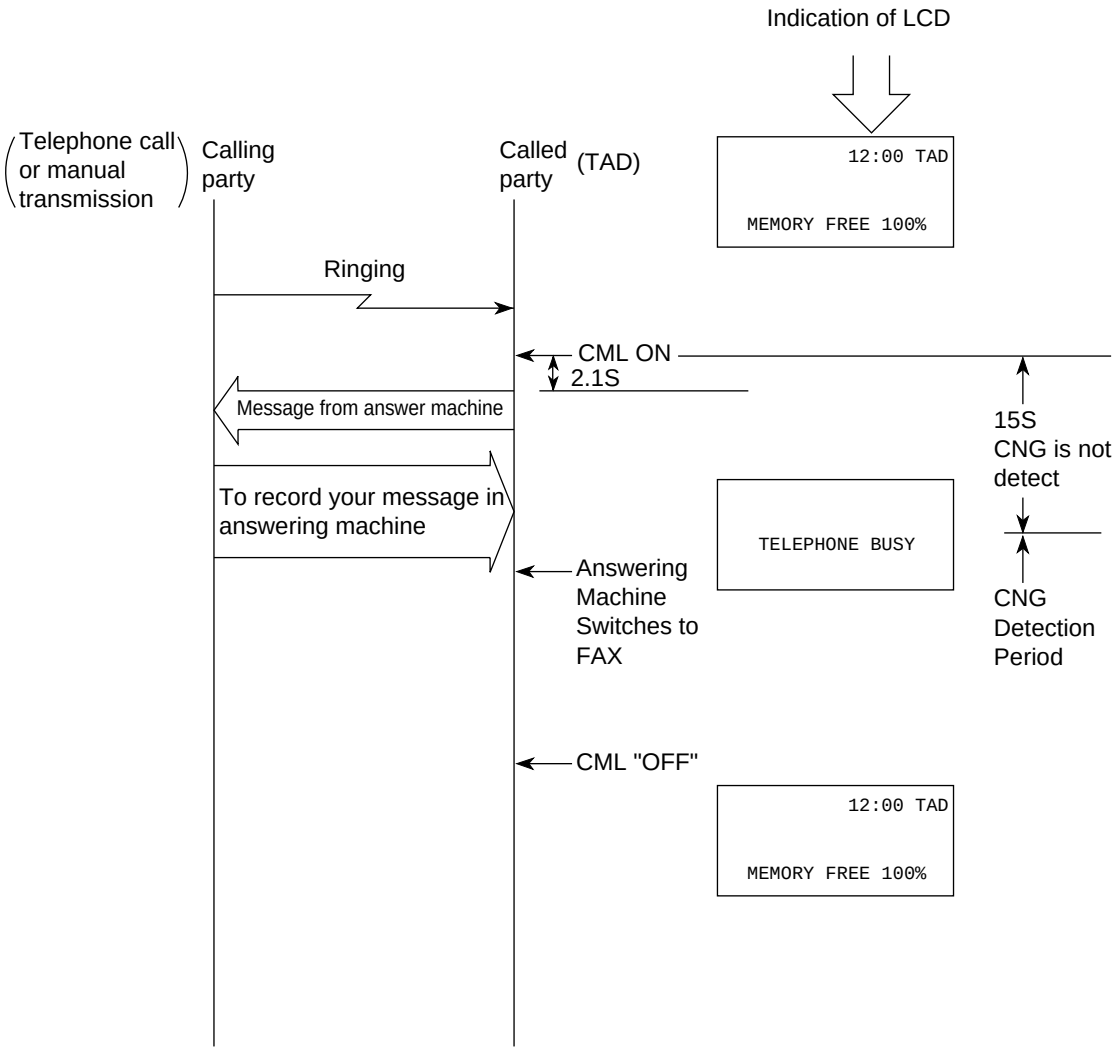
• TAD mode flow chart

1) In case of TYPE2:

If the fax does not CNG signal during working of TAD, the fax will go to standby state.

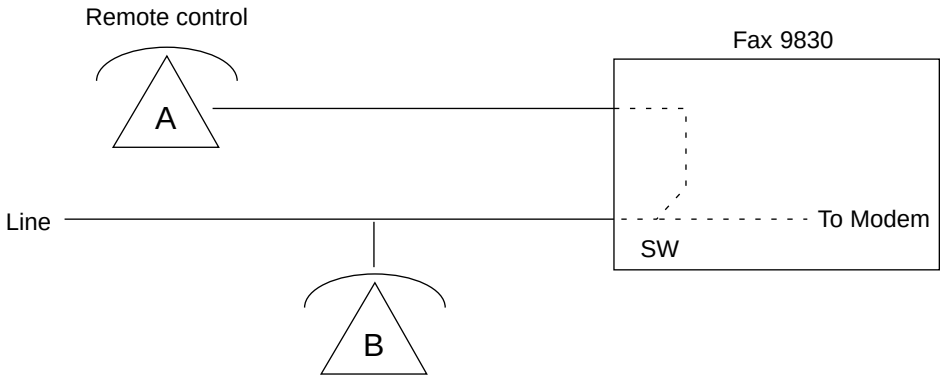
2) In case of TYPE 3:

The fax does not detect CNG signal during 15 seconds from TAD operation starting.
The fax starts CNG signal detection after 15 seconds from TAD operation.
When the fax does not detect CNG signal and ends TAD operation (on-hook of TAD operation), the fax return to standby state.



2.9.2.6 Outline of Parallel Pick Up

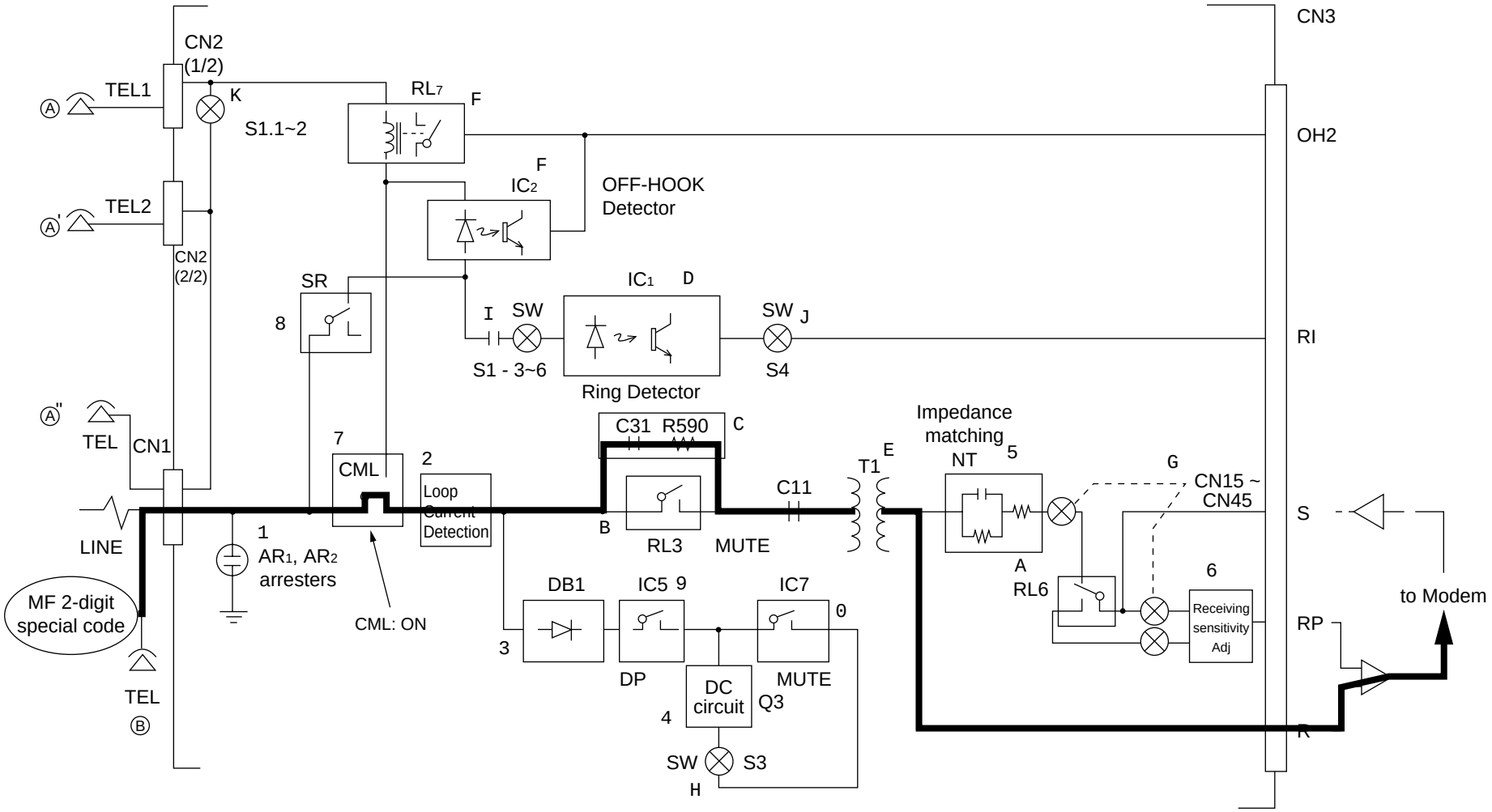
Parallel pick up is a function that controls a fax (to make a fax in receive mode) from a telephone set connected parallel to a fax. The two possible parallel connections of telephone sets A and B are shown in the figure.



Remote control: To control a fax from telephone set A
Parallel Pick Up (PP): To control a fax from telephone set B.

- Why a PP function is needed !
  As shown in the block diagram on the next page, telephone sets B, A, A' and A" are connected to a telephone line.
  Since A, A' and A" are connected to the line via fax, off-hook status of any of the telephone sets can be detected by the OFF-HOOK Detector 16 in the block diagram.
  However, off-hook status of telephone set B cannot be detected by the fax side.

- PP Control
  When a normal ring arrives at the fax from the line, the CML 7 turns on resulting in the formation of an AC loop via circuit 13. The AC loop makes it possible for the modem to detect the AC signals. If a user hooks up telephone set B after the first ring and enters the MF 2-digit special code in order to make the fax in the receive mode, then it becomes possible to detect the MF signals along the remote.

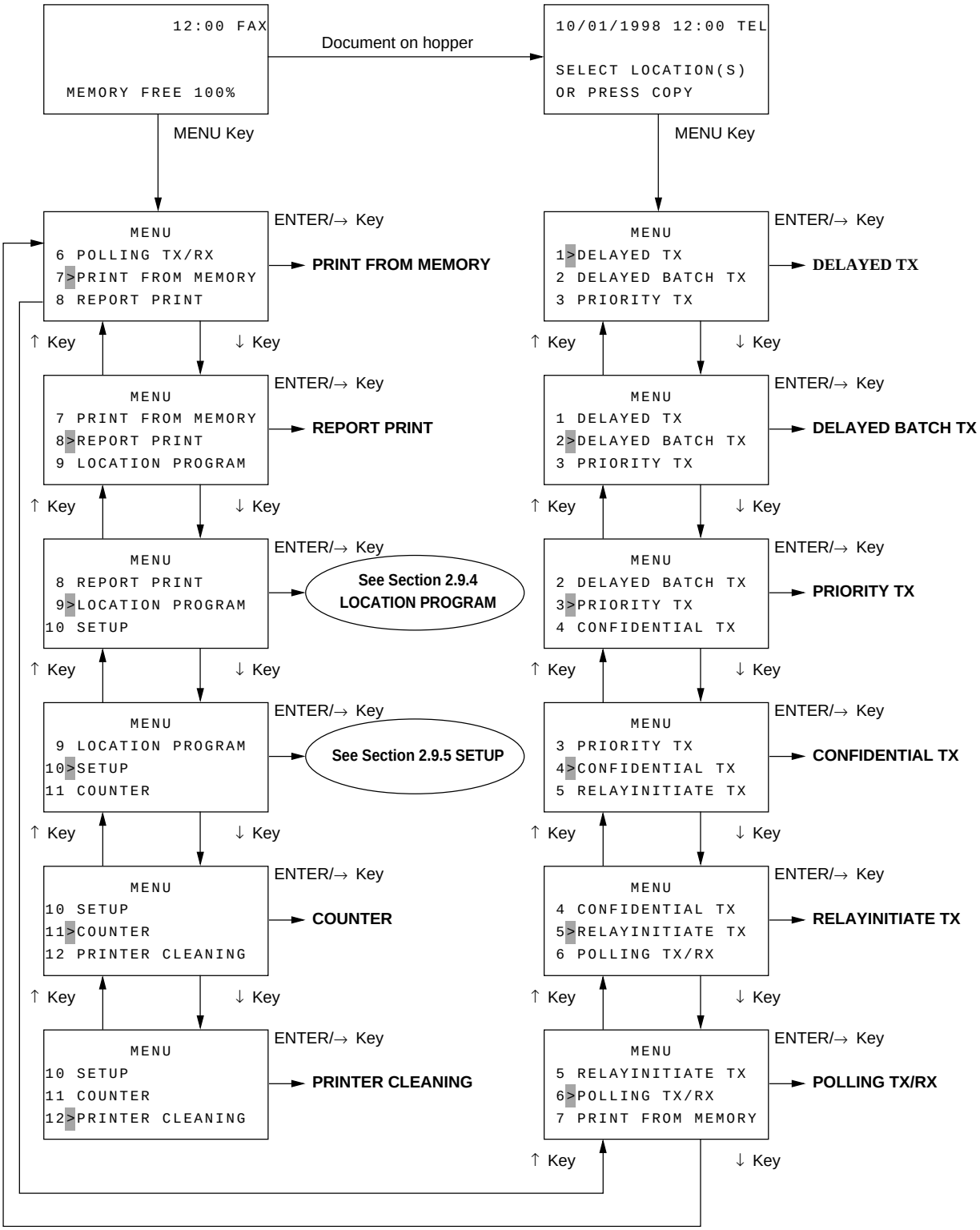

CN3
CN2
(1/2)
TEL1
K
S1.1~2
RL7
F
OH2
F
IC2
OFF-HOOK
Detector
TEL2
CN2
(2/2)
SR
8
IC1
D
I
SW
SW
J
RI
S1 - 3~6
S4
Ring Detector
TEL
CN1
7
CML
2
Loop
Current
Detection
C31
R590
C
Impedance
matching
NT
5
T1
E
C11
G
CN15 ~
CN45
S
LINE
1
AR1, AR2
arresters
B
RL3
MUTE
A
RL6
6
Receiving
sensitivity
Adj
to Modem
MF 2-digit
special code
CML: ON
DB1
IC5
9
IC7
0
RP
3
DP
DC
circuit
Q3
MUTE
TEL
4
SW
S3
H
R

2.9.3 User's Functions

This section explains the items usually set up by general users.

- Select Menu is shown as below:
  1. Delayed TX
  2. Delayed Batch TX
  3. Priotity TX
  4. Confidential TX
  5. Relayinitiate TX
  6. Polling TX/RX
  7. Print From Memory
  8. Report Print
  9. Location Program: Go to Section 2.9.4
  10. Setup Go to Section 2.9.5
  11. Counter
  12. Printer Cleaning

Menu selection



2.9.4 Location Program

1) The machine is standby state with no document.
2) Press the MENUEXIT key once.
3) Press the SHIFT DOWN (↓) key two times.
4) The menu option “9 LOCATION PROGRAM” indicated by the blinking cursor is selected, and press the ENTER/SHIFT RIGHT (→) key.
5) The display will be shown “LOCATION PROGRAM” and you can access a desired function by switching among menus using SHIFT keys (↑ ↓), and press the ENTER/SHIFT RIGHT (→) key.

2.9.4.1 Select Menu is shown as below:

1. Speed Dial
2. Group
3. Batch TX Time
4. Forwarding No.
5. Forward ON P-ERR
6. Relay Report No.

Location Program

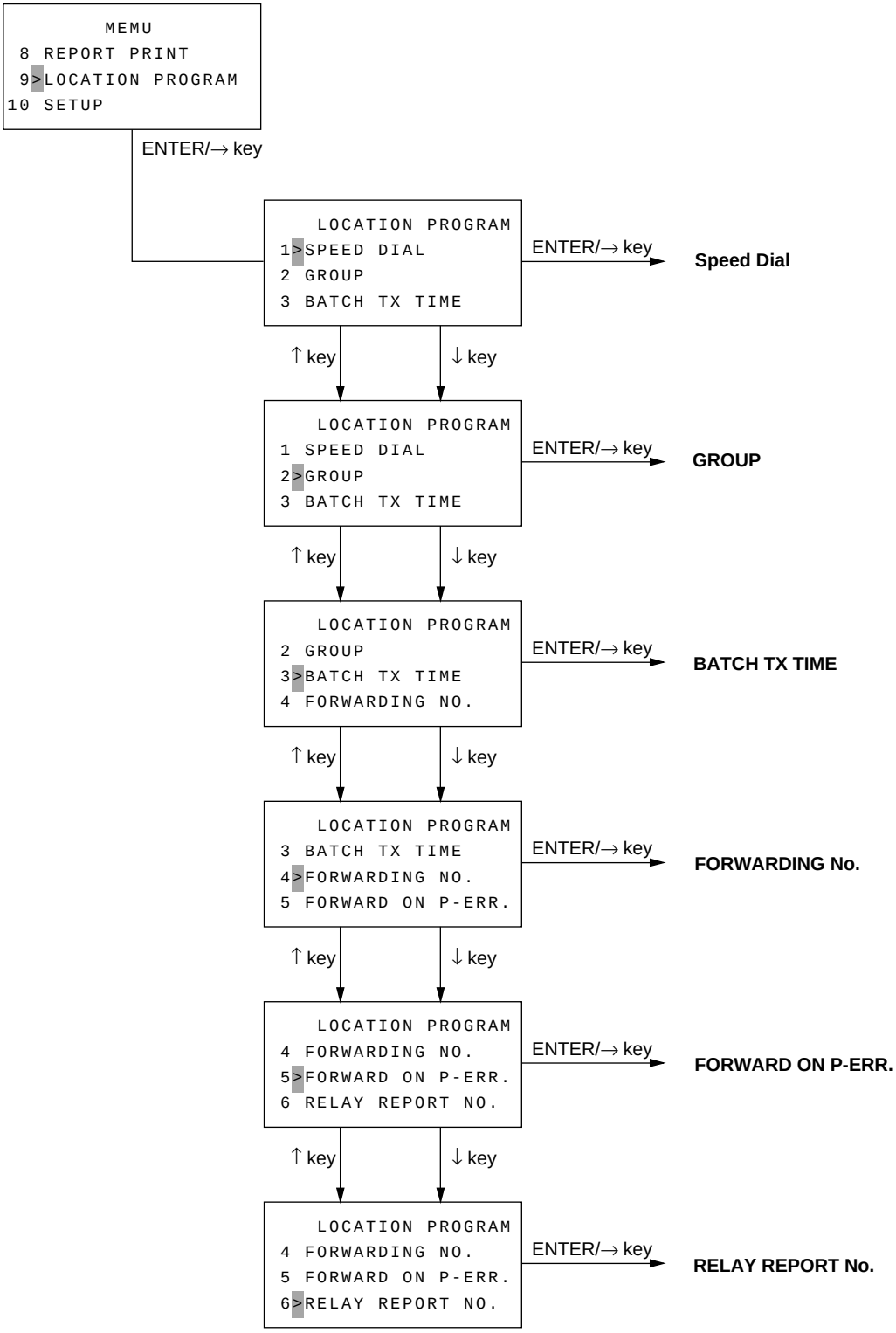


Table 2.9.4.1 Location Program (1/2)

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>1</td><td>Speed Dial</td><td>Register speed dial number.
(LOC#/NAME/ALT#/Communication parameters)
* Only LOC# may be registered.
(If NAME is omitted, location search will not be made.)

1) Number of speed dials
Fax 9830: 1-140 (1-40 are assigned to ONE TOUCH keys.)

2) Number of characters that can be entered (all speed dials)
NAME = 15 characters (ten-keys 0-9/*/#/alphabetic characters (uppercase and lowercase characters)/special characters/PAUSE/HYPEHN/SPACE/+)
LOC# and ALT# = 40 characters each (ten-keys 0-9/* /#/PAUSE/HYPEHN/SPACE/+)
* ALT# can register only One touch key.
* The HYPEHN key is prohibited when country code is set to FRE.

3) Communication parameter
- Communication speeds (33.6/28.8/14.4/9.6/4.8k bps)
- Echo protection (ON/OFF)
The settings shown below depend on the ON/OFF setting.
When OT is transmitted, the “Tone for Echo” setting is ignored and the settings made here are used for the transmission.

<table><tr><td>ECHO PROTECTION</td><td>OFF</td><td>ON</td></tr><tr><td>Protective Tone</td><td>OFF</td><td>ON</td></tr><tr><td>Ignore 1st DIS</td><td>OFF</td><td>ON</td></tr></table>
- G3/G4 SELECT (G3 mode/G4 mode)
- Switching between G3 mode and G4 mode</td></tr>
<tr><td>2</td><td>Group</td><td>Register group dials.
(Only the speed dials to which a location address is assigned can be registered.)

1) Number of group dials that can be registered
Fax 9830: 20 groups (1 group: 1-140 locations)

2) Number of group dial IDs that can be registered
15 characters (ten-keys 0-9/*/#/alphabetic characters (uppercase and lowercase characters)/special characters/PAUSE/HYPEHN/SPACE/+)</td></tr>
</table>

Table 2.9.4.1 Location Program (2/2)

No.	Item	Specifications
3	Batch TX time	Set a batch transmission time (24-hour system). When a time is specified, locations can be specified during batch transmission operation. 1) Number of batch TX times that can be registered Fax 9830: 10 (Speed dial numbers 31-40 are assigned.) * Registration is enabled if the specified speed dial is not registered in the remote machine. 2) Specifiable time range 00:00 to 23:59 (Date cannot be specified.)
4	Forwarding No.	Specify the destination of forwarding for incoming call. When the transfer destination telephone number is set, FWD can be specified in the AUTO ANSWER mode. 1) Number of forwarding destination that can be specified Fax 9830: 1 * The HYPEHN key is prohibited when country code is set to FRE. 2) Number of characters used to specify a destination 40 characters (ten-keys 0-9/*/#/PAUSE/HYPEHN/SPACE/+)
5	Forward ON P-ERR.	Specify the destination of forwarding for no toner/no paper reception. When the transfer destination telephone number is set, Forwarding can be transmitted to the specified destination at the time of message in memory for no toner/no paper condition. 1) Number of forwarding destination that can be specified Fax 9830: 1 2) Number of characters used to specify a destination 40 characters (ten-keys 0-9/*/#/PAUSE/HYPEHN/SPACE/+) * The HYPEHN key is prohibited when country code is set to FRE.
6	Relay report No.	Specify the destination of a relay report for relay broadcast initiate transmission. When this destination is specified, a relay report is transmitted to the specified destination upon the relay broadcast initiate transmission. 1) Number of characters used to specify a destination 40 characters (ten-keys 0-9/*/#/PAUSE/HYPEHN/SPACE/+) * The HYPEHN key is prohibited when country code is set to FRE.

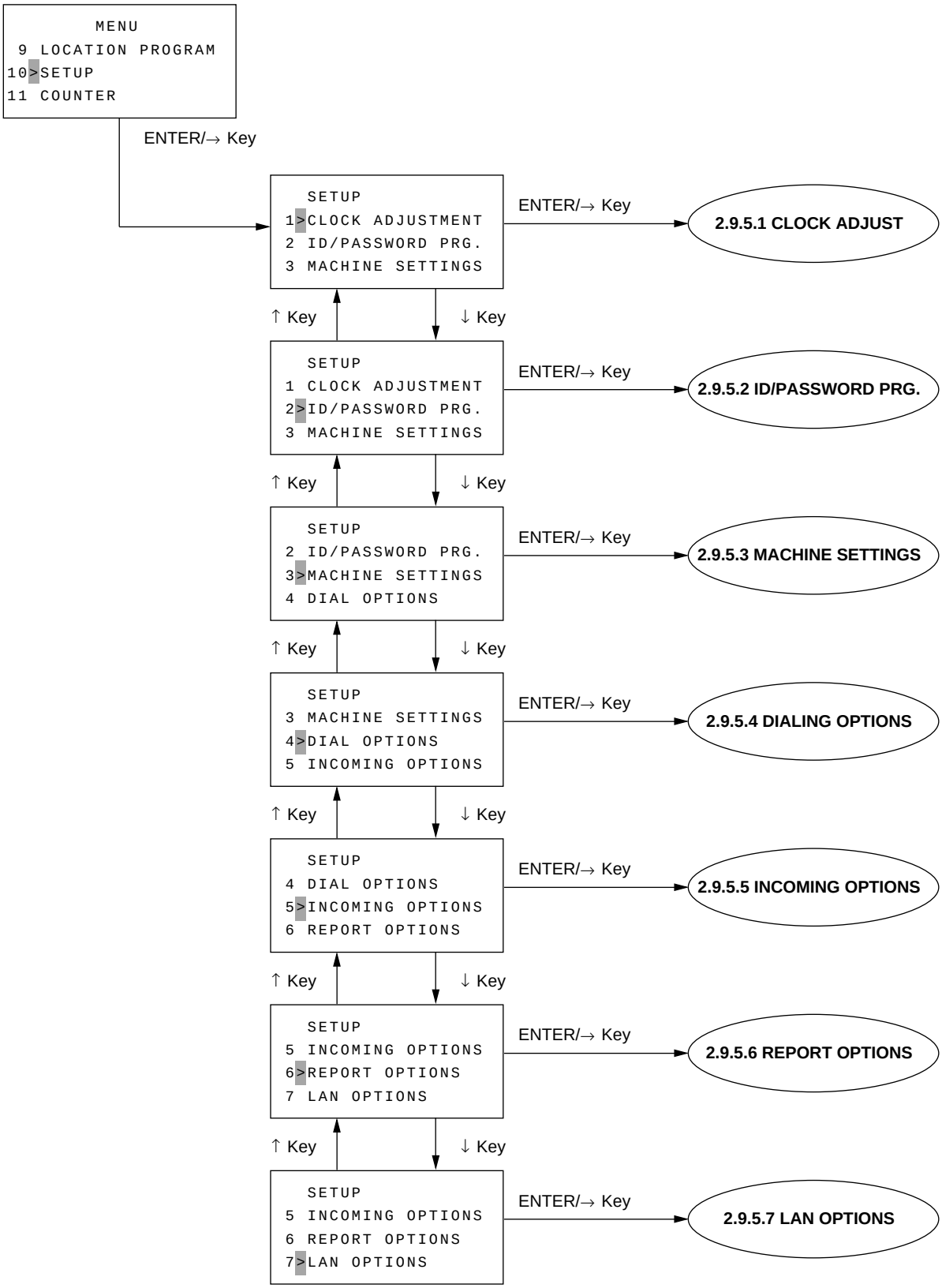
2.9.5 Setup

1) The machine is standby state with no document.
2) Press the MENU key once.
3) Press the SHIFT DOWN (↓) key three times.
4) The menu option “10 SETUP” indicated by the blinking cursor is selected, and press the ENTER/SHIFT RIGHT (→) key.
5) The display will be shown “SETUP” and you can access a desired function by switching among menus using SHIFT keys (↑ ↓), and press the ENTER/SHIFT RIGHT (→) key.

(1)Select Menu is shown as below:

Note: There are two methods for accessing a desired function: Step access and Speed access (direct access).
Speed access number must be entered with two digits.

1. Clock Adjustment (No. 00)
2. I/D Password Programming (No. 01 to 07)
3. Machine Settings (No. 10 to 28)
4. Dialing Options (No. 40 to 52)
5. Incoming Options (No. 60 to 67)
6. Report Options (No. 70 to 73)
7. LAN Options (No. 80 to 85)


MENU
9 LOCATION PROGRAM
10>SETUP
11 COUNTER
ENTER/→ Key
SETUP
1>CLOCK ADJUSTMENT
2 ID/PASSWORD PRG.
3 MACHINE SETTINGS
ENTER/→ Key
2.9.5.1 CLOCK ADJUST
↑ Key
↓ Key
SETUP
1 CLOCK ADJUSTMENT
2>ID/PASSWORD PRG.
3 MACHINE SETTINGS
ENTER/→ Key
2.9.5.2 ID/PASSWORD PRG.
↑ Key
↓ Key
SETUP
2 ID/PASSWORD PRG.
3>MACHINE SETTINGS
4 DIAL OPTIONS
ENTER/→ Key
2.9.5.3 MACHINE SETTINGS
↑ Key
↓ Key
SETUP
3 MACHINE SETTINGS
4>DIAL OPTIONS
5 INCOMING OPTIONS
ENTER/→ Key
2.9.5.4 DIALING OPTIONS
↑ Key
↓ Key
SETUP
4 DIAL OPTIONS
5>INCOMING OPTIONS
6 REPORT OPTIONS
ENTER/→ Key
2.9.5.5 INCOMING OPTIONS
↑ Key
↓ Key
SETUP
5 INCOMING OPTIONS
6>REPORT OPTIONS
7 LAN OPTIONS
ENTER/→ Key
2.9.5.6 REPORT OPTIONS
↑ Key
↓ Key
SETUP
5 INCOMING OPTIONS
6 REPORT OPTIONS
7>LAN OPTIONS
ENTER/→ Key
2.9.5.7 LAN OPTIONS

2.9.5.1 Clock Adjustment

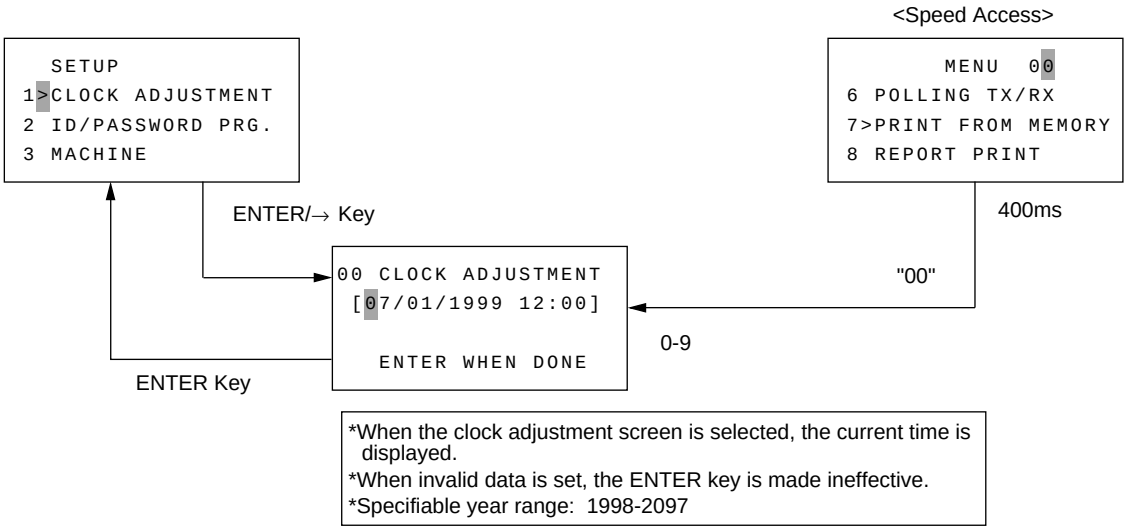
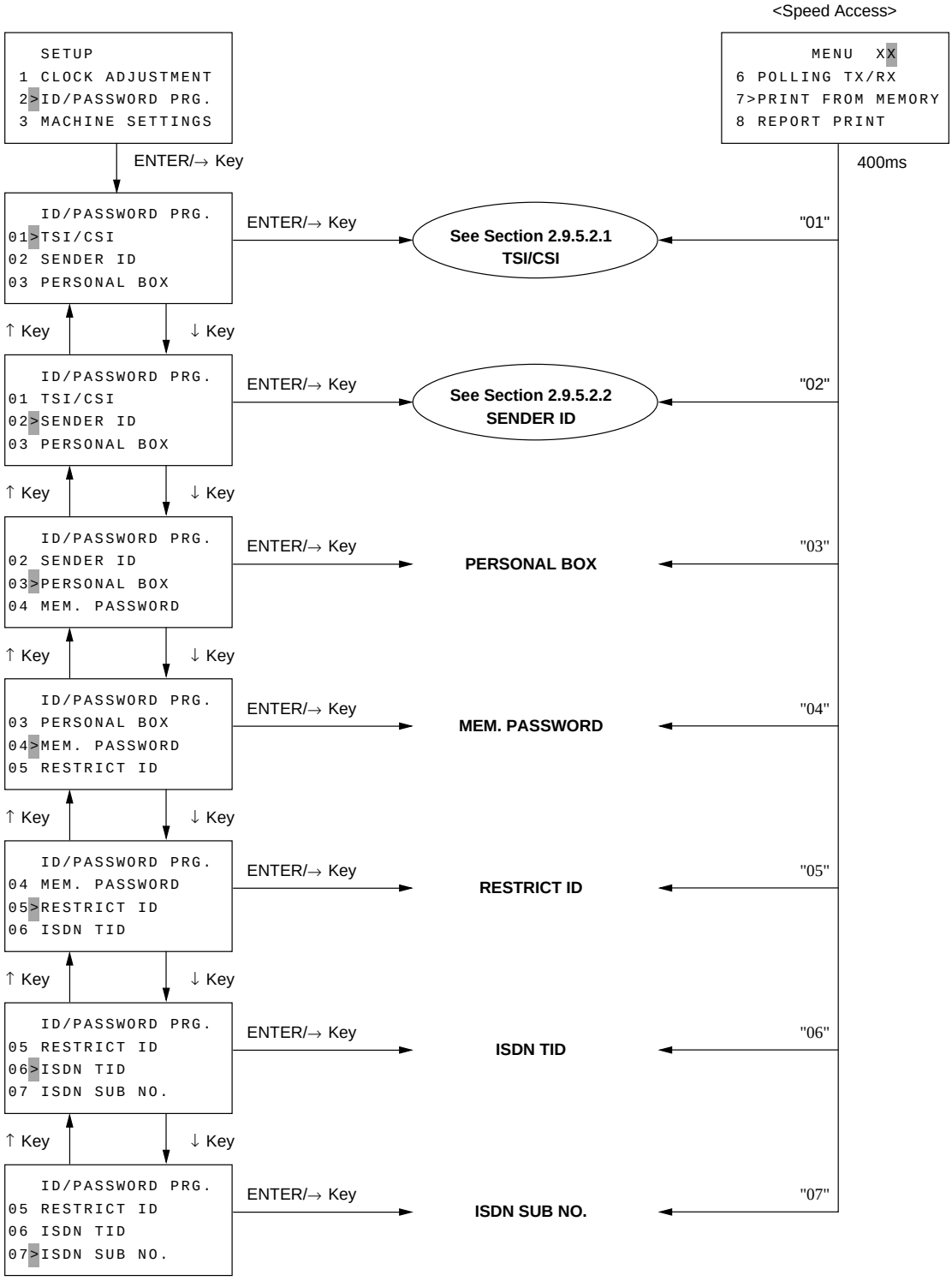


Table 2.9.5.1 Clock Adjustment

No.	Item	Specifications
00	Clock adjustment	Set the date (year, month, and day) and time. Select either MDY (month/day/year) or DMY (day/month/year). 1) Setting values Year: 1998-2097 Month: 1-12 Day: 1-31 (vary with years and months) Time: 00:00 to 23:59 * When the clock adjustment screen is selected, the current time is displayed. * When invalid data is set, the ENTER key is made ineffective.

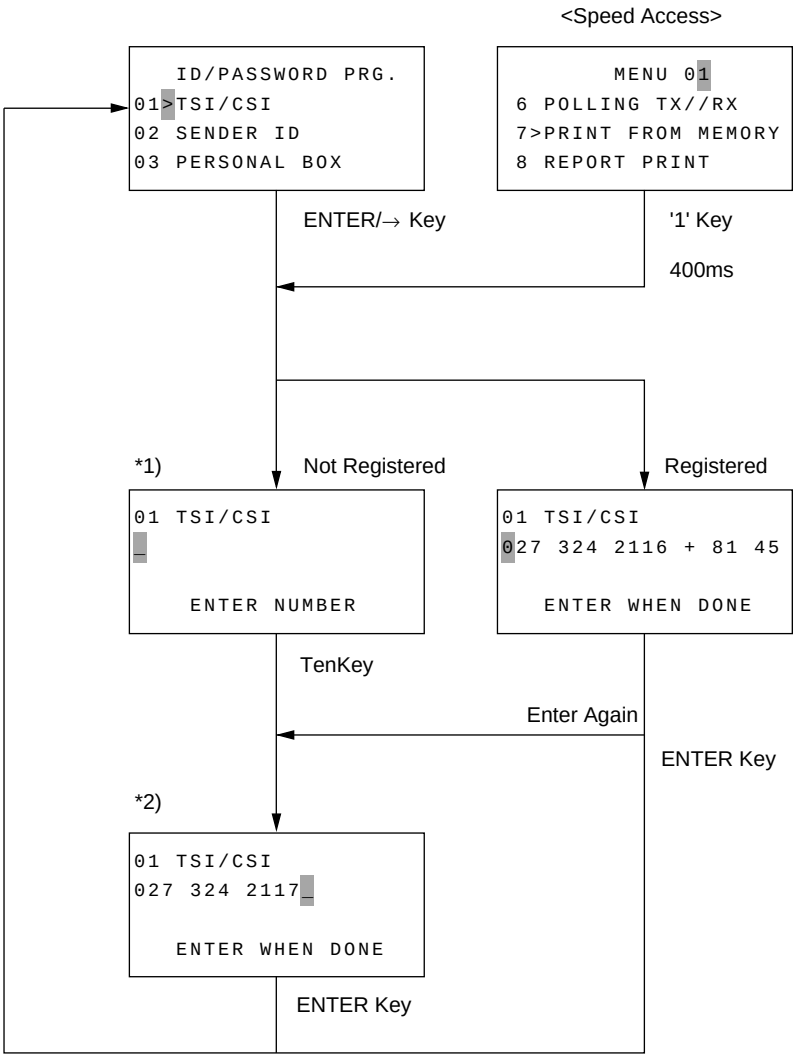
2.9.5.2 ID/Passward Programming:

01. TSI/CSI
02. Sender ID
03. Personal Box
04. Mem. Password
05. Restrict ID
06. ISDN TID (Country Code/ISDN No./ISDN ID)
07. ISDN Sub No.



2.9.5.2.1 TSI/CSI

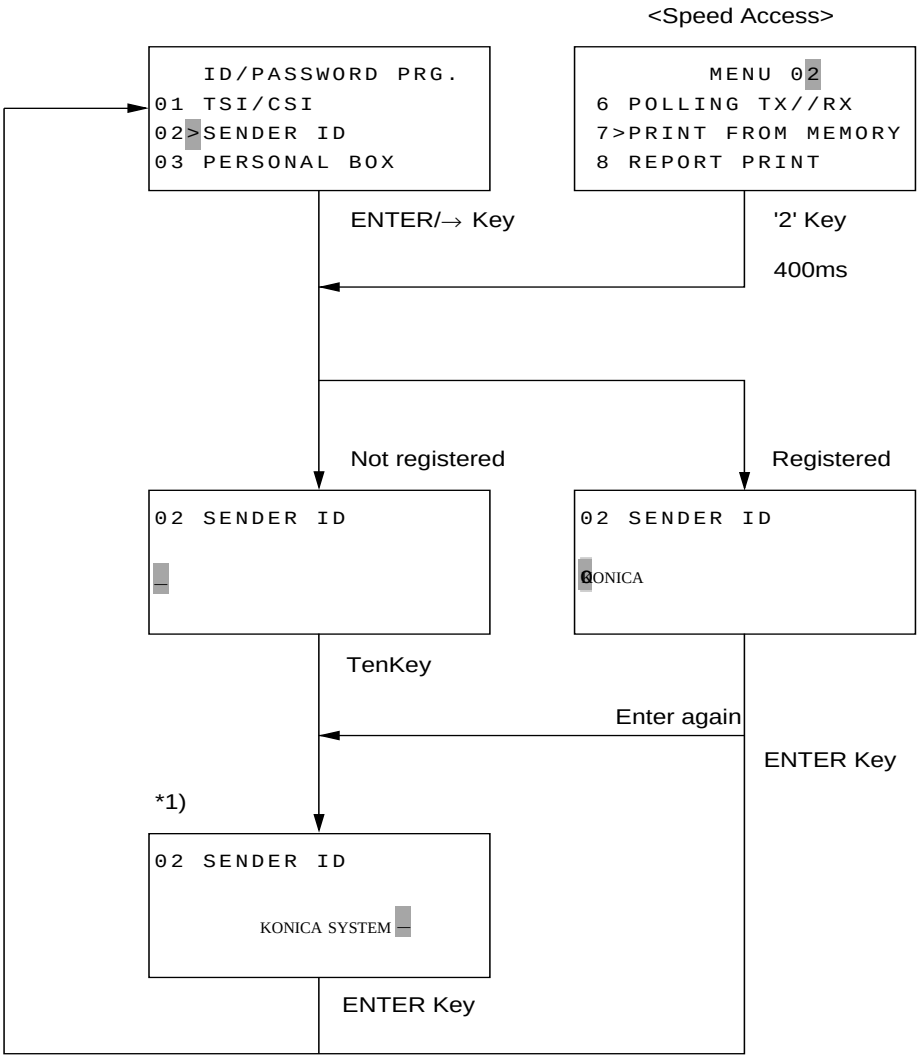
This function is used to register TSI/CSI.



*1:After the first digit is entered, “ENTER WHEN DONE” is displayed. It will not change if all characters are erased by pressing the CLEAR key.
*2:Enter the TSI/CSI with a maximum of 20 characters (numerical characters, +, and space).

2.9.5.2.2 Sender ID

This function is used to register a sender ID.



*1:Enter a sender ID with a maximum of 32 characters.
* Lowercase letters can be used.

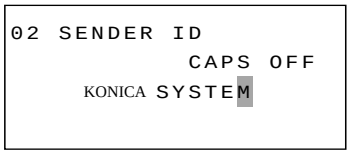


Table 2.9.5.2 ID/Password Prg. (1/3)

No.	Item	Specifications
01	TSI/CSI	Register a TSI/CSI (local telephone number). 1) Number of characters used to register a TSI/CSI 20 characters (ten-keys 0-9/HYPEHN (+)/SPACE/+) * The setting data must be transferred to the G4 board.
02	Sender ID	Register a sender ID. 1) Number of characters used to register a sender ID 32 characters Ten-keys 0-9/*/#/alphabetic characters (uppercase and lowercase characters)/special characters/ PAUSE/HYPEHN/SPACE/+ * The setting data must be transferred to the G4 board.
03	Personal Box	Open/close a personal box (confidential and bulletin). When the specified box has not been opened: “CONFIDENTIAL” or “BULLETIN POLLING” can be selected. When the specified box is opened as a confidential box, “CONFIDENTIAL” or “CLOSE” can be selected. When the specified box is opened as a bulletin, “BULLETIN POLLING” or “CLOSE” can be selected. 1) Number of personal boxes Fax 9830: 16 boxes (1-16) * The user can set these 16 boxes as confidential and bulletin boxes as desired. 2) Confidential A box used only for confidential reception. Either sub frame or Fax mode (NSF) can be selected. When a confidential box is opened, a password must be registered so that other persons cannot print data. Password: 4 digits (0-9 only) 3) Bulletin Poll A box used for bulletin transmission. It is opened to multiple persons. (Password setting is not required.) An SEP frame can be used for bulletin transmission. A document is assigned to a box so that data can be obtained from this box. * SEP and SUB frames are used for bulletin transmission and confidential reception respectively. * To assure communication with the existing machines, this machine is designed taking into account the existing polling (S bit) and confidential (NSS) methods.

Table 2.9.5.2 ID/Password Prg. (2/3)

No.	Item	Specifications
04	Mem. Password	Set the password for using the Auto Answer Mode (MEM.: Memory only reception mode). Persons who do not know the password cannot make changes or print memory data in the Auto Answer Mode (MEM. mode). * This setting is disabled when Auto Answer Mode is set to MEM. 1) Number of Mem. passwords that can be registered Fax 9830: 1 2) Number of characters used to specify a Mem. password: 4 characters (digits only) 3) Password check The entered password cannot be checked on the machine. However, it can be checked using RMCS.
05	Restrict ID	Register a restriction ID. Persons who do not know the password cannot use the machine. A restriction ID can be registered when Restrict Access (machine setting) is set to ON (operation is restricted). 1) Number of restriction IDs that can be registered Fax 9830: 24 2) Number of characters used to specify a restriction ID 4 characters (digits only) 3) Password check The entered password cannot be checked on the machine. However, it can be checked using RMCS.

Table 2.9.5.2 ID/Password Prg. (3/3)

<table>
<tr><th>No.</th><th>Item</th><th>Specifications</th></tr>
<tr><td>06</td><td>ISDN TID</td><td>Set a terminal ID.

1) Setting values
This setting consists of the following:

- Country code
3 characters (digits only)

- ISDN No. (subscriber number)
20 characters (digits only)

- ISDN ID (subscriber code)
10 characters (alphabetic characters, lowercase characters)

* The setting data must be transferred to the G4 board.

<table><tr><th>Handling in G3 mode</th><th>Handling in G4 mode</th></tr><tr><td>Not used</td><td>Switching in standard procedure. Used for location display. Used for TSI/CIL printing. ISDN No. is used for collating closed area communi-cation.</td></tr></table>
In case of origination, the ISDN number if used for reporting the
calling subscriber number. It is reported to the network.
In case of termination, the ISDN number is used for MSN collation.</td></tr>
<tr><td>07</td><td>ISDN Sub No.</td><td>Set a sub address.

1) Setting values

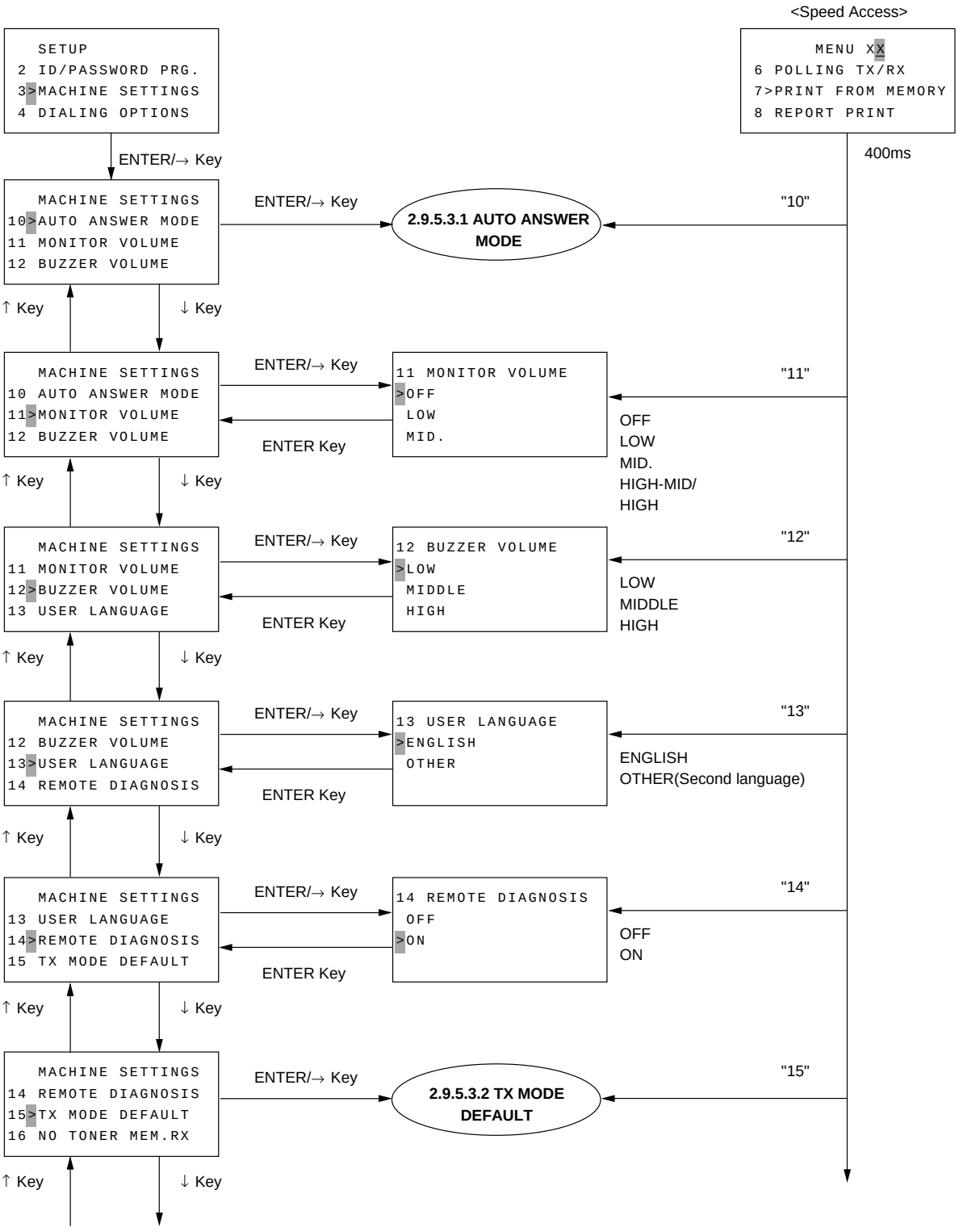
19 characters (digits only)

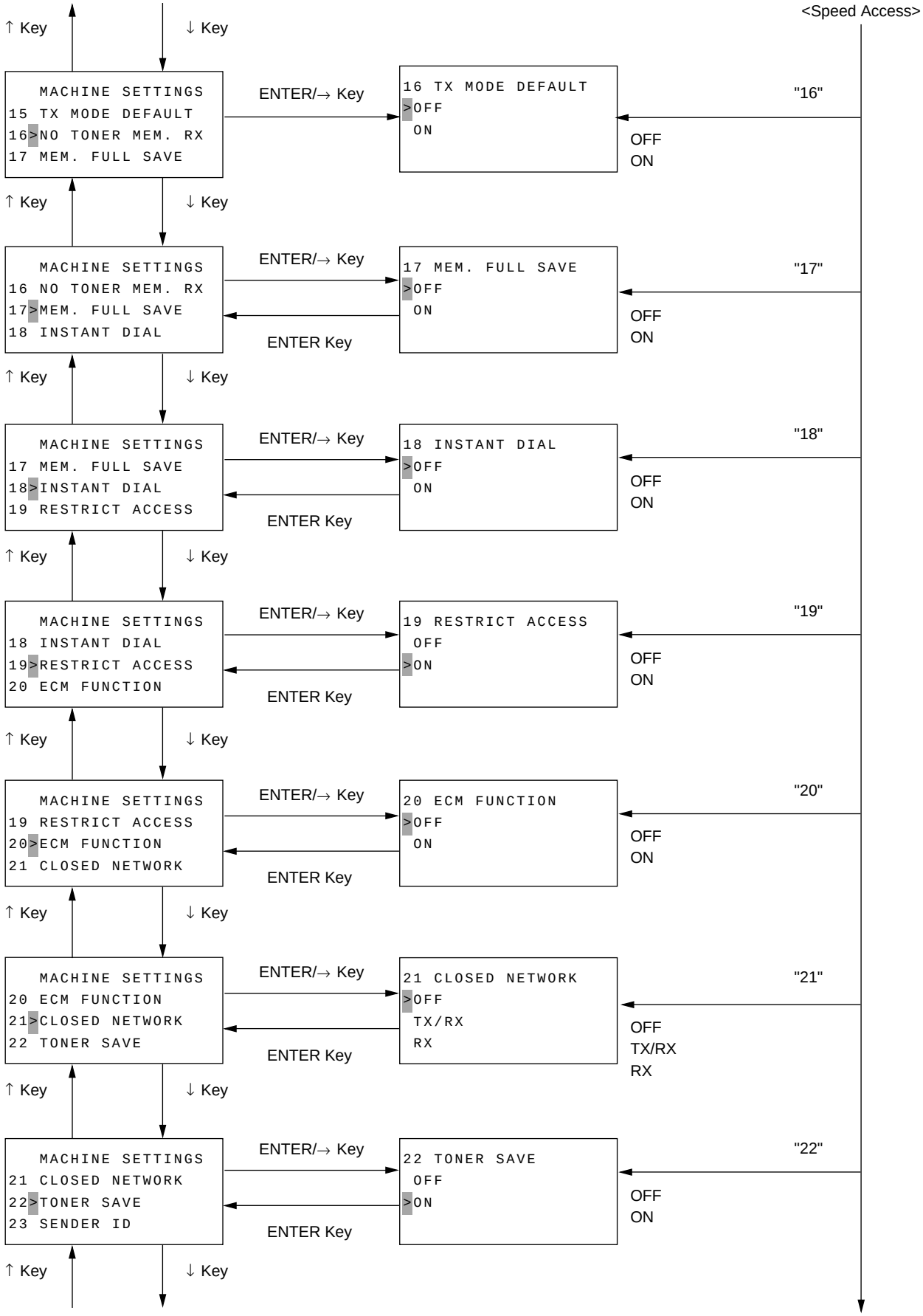
* The setting data must be transferred to the G4 board.

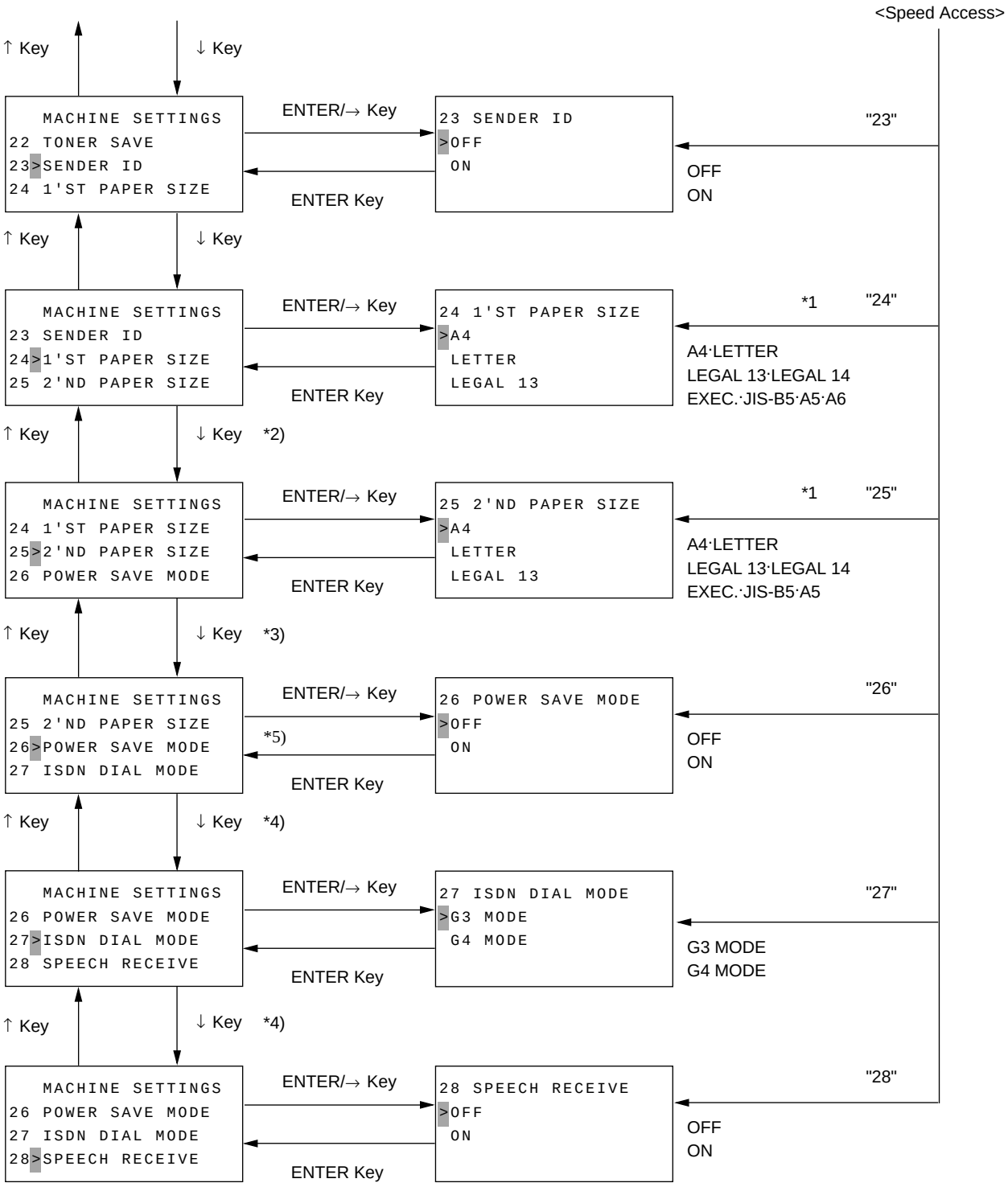
<table><tr><th>Handling in G3 mode</th><th>Handling in G4 mode</th></tr><tr><td colspan="2">Used for sub collation.</td></tr></table></td></tr>
</table>

2.9.5.3 Machine Settings:

10:	Auto Answer Mode	(FAX, TEL, T/F, TAD, MEM, PC, and FWD)
11:	Monitor Volume	(OFF/LOW/MID./HIGH-MID./HIGH)
12:	Buzzer Volume	(LOW/MIDDLE/HIGH)
13:	User Language	(ENGLISH/OTHER: Second language)
14:	Remote Diagnosis	(OFF/ON)
15:	TX Mode Default	(STANDARD/FINE/EXTRA FINE/PHOTO) (LIGHT/NORMAL/DARK)
16:	No Toner Mem. RX	(OFF/ON)
17:	Mem. Full Save	(OFF/ON)
18:	Instant Dialing	(OFF/ON)
19:	Restrict Access	(OFF/ON)
20:	ECM Function	(OFF/ON)
21:	Closed Network	(OFF/TX,RX/RX)
22:	Toner Save	(OFF/ON)
23:	Sender ID	(OFF/ON)
24:	1’st Paper Size	(A4/LETTER/LEGAL 13/LEGAL 14/EXEC/JIS-B5/A5/A6)
25:	2’nd Paper Size	(A4/LETTER/LEGAL 13/LEGAL 14/EXEC/JIS-B5/A5)
26:	Power Save Mode	(OFF/ON)
27:	ISDN Dial Mode	(G3 MODE/G4 MODE)
28:	Speech Receive	(OFF/ON)


SETUP
2 ID/PASSWORD PRG.
3>MACHINE SETTINGS
4 DIALING OPTIONS
ENTER/→ Key
MACHINE SETTINGS
10>AUTO ANSWER MODE
11 MONITOR VOLUME
12 BUZZER VOLUME
↑ Key
↓ Key
ENTER/→ Key
2.9.5.3.1 AUTO ANSWER MODE
MACHINE SETTINGS
10 AUTO ANSWER MODE
11>MONITOR VOLUME
12 BUZZER VOLUME
ENTER/→ Key
ENTER Key
11 MONITOR VOLUME
>OFF
LOW
MID.
MACHINE SETTINGS
11 MONITOR VOLUME
12>BUZZER VOLUME
13 USER LANGUAGE
ENTER/→ Key
ENTER Key
12 BUZZER VOLUME
>LOW
MIDDLE
HIGH
MACHINE SETTINGS
12 BUZZER VOLUME
13>USER LANGUAGE
14 REMOTE DIAGNOSIS
ENTER/→ Key
ENTER Key
13 USER LANGUAGE
>ENGLISH
OTHER
MACHINE SETTINGS
13 USER LANGUAGE
14>REMOTE DIAGNOSIS
15 TX MODE DEFAULT
ENTER/→ Key
ENTER Key
14 REMOTE DIAGNOSIS
OFF
>ON
MACHINE SETTINGS
14 REMOTE DIAGNOSIS
15>TX MODE DEFAULT
16 NO TONER MEM.RX
ENTER/→ Key
2.9.5.3.2 TX MODE DEFAULT
<Speed Access>
MENU XX
6 POLLING TX/RX
7>PRINT FROM MEMORY
8 REPORT PRINT
400ms
"10"
"11"
OFF
LOW
MID.
HIGH-MID/
HIGH
"12"
LOW
MIDDLE
HIGH
"13"
ENGLISH
OTHER(Second language)
"14"
OFF
ON
"15"


↑ Key
↓ Key
<Speed Access>
MACHINE SETTINGS
15 TX MODE DEFAULT
16>NO TONER MEM. RX
17 MEM. FULL SAVE
ENTER/→ Key
16 TX MODE DEFAULT
>OFF
ON
"16"
OFF
ON
MACHINE SETTINGS
16 NO TONER MEM. RX
17>MEM. FULL SAVE
18 INSTANT DIAL
17 MEM. FULL SAVE
>OFF
ON
"17"
ENTER Key
MACHINE SETTINGS
17 MEM. FULL SAVE
18>INSTANT DIAL
19 RESTRICT ACCESS
18 INSTANT DIAL
>OFF
ON
"18"
MACHINE SETTINGS
18 INSTANT DIAL
19>RESTRICT ACCESS
20 ECM FUNCTION
19 RESTRICT ACCESS
OFF
>ON
"19"
MACHINE SETTINGS
19 RESTRICT ACCESS
20>ECM FUNCTION
21 CLOSED NETWORK
20 ECM FUNCTION
>OFF
ON
"20"
MACHINE SETTINGS
20 ECM FUNCTION
21>CLOSED NETWORK
22 TONER SAVE
21 CLOSED NETWORK
>OFF
TX/RX
RX
"21"
OFF
TX/RX
RX
MACHINE SETTINGS
21 CLOSED NETWORK
22>TONER SAVE
23 SENDER ID
22 TONER SAVE
OFF
>ON
"22"

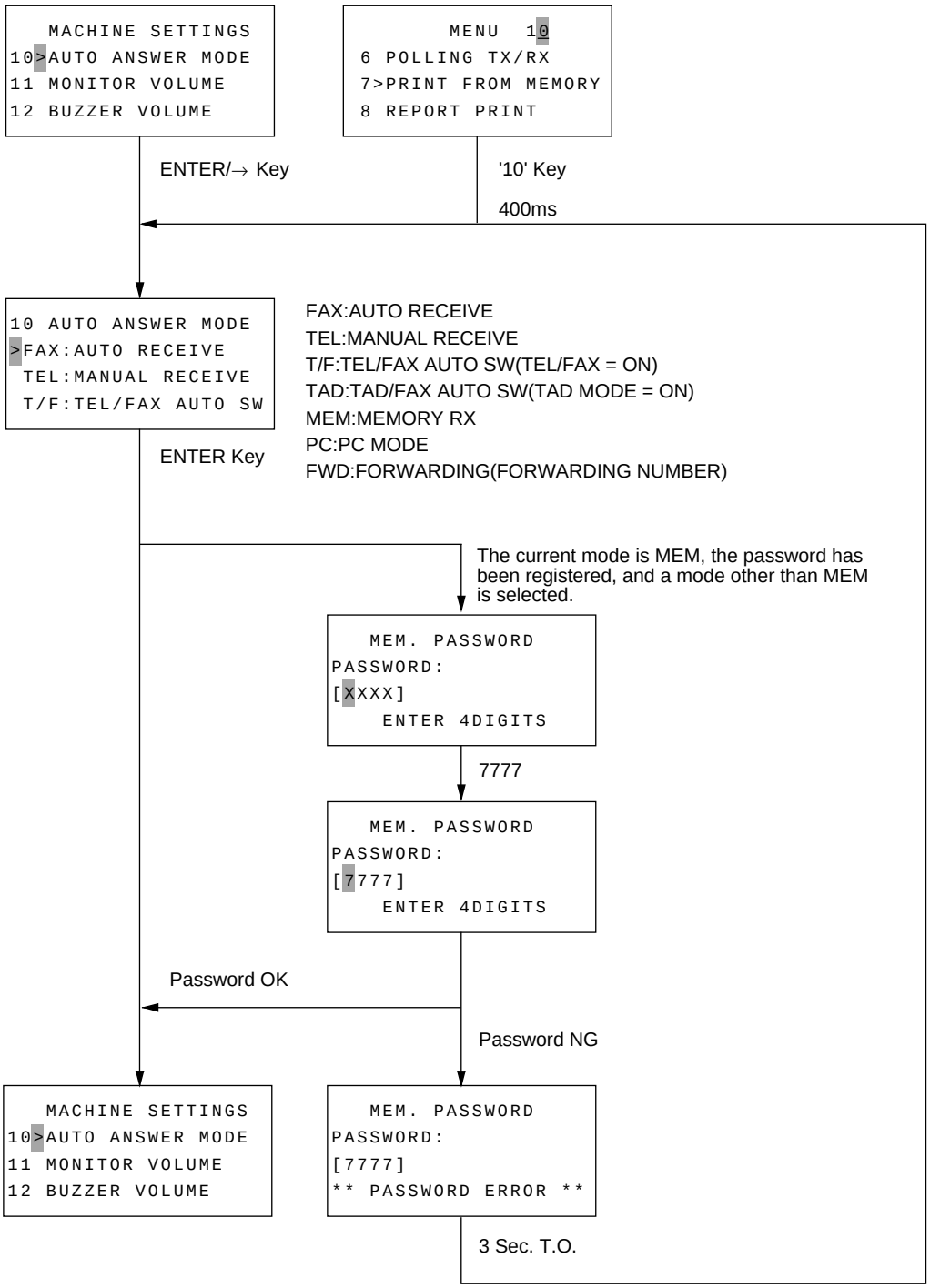


Some options of the MACHINE SETTINGS menu cannot be selected depending on the destination of delivery, machine specs, and machine settings. However, numbers related to speed access are fixed.
If there are unselective options, these numbers become discontinuous.

*1:"EXEC. /JIS-B5/A5/A6" is displayed only when MFPUNLOCK is set to ON.
*2:This mode can be made only when 2nd tray is mounted.
*3:This mode cannot be made when Default type is set to 1 and Country code is set to USA.
*4:This mode can be made only when ISDN option board is installed. "FUNC.NOT AVAIL" is indicated during 3 seconds by pressing ENTER/→key in the case of MUPIS I/F error.
*5:This mode cannot be selected when ISDN/LAN board is installed.

2.9.5.3.1 Auto Answer Mode

This function is used to set up the auto answer mode.



When you switch the MEMORY RX mode (the password has been registered) to another mode and print memory data (PRINT FROM MEMORY) directly without returning to the standby mode, you need not enter the password again.
The G4 model does not have T/F and TAD modes.

2.9.5.3.2 TX Mode Default

This function is used to set default values for the transmission mode selected with a document set in the feeder.

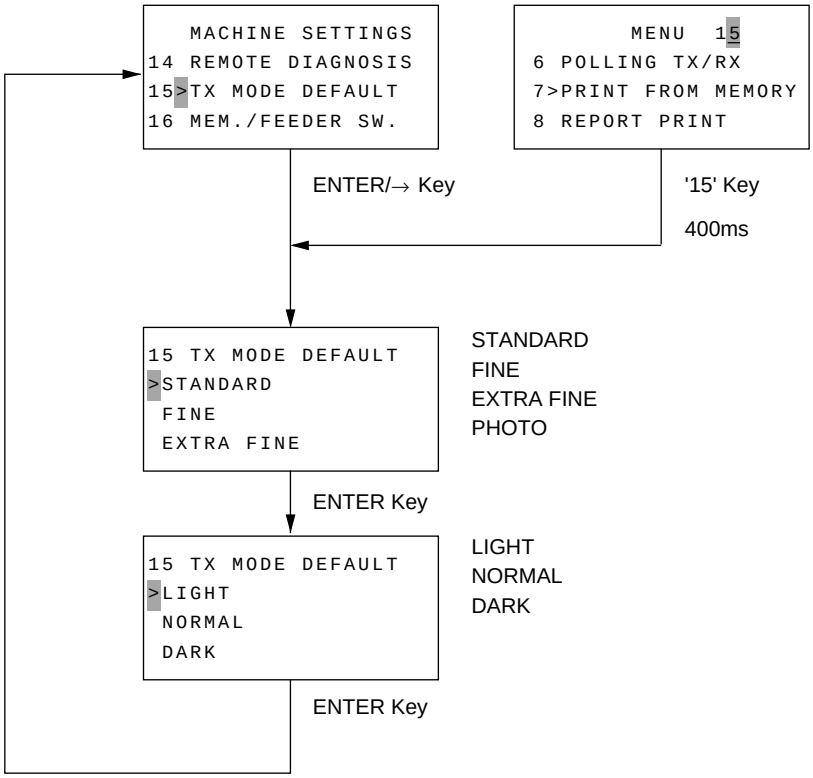


Table 2.9.5.3 Machine Settings (1/5)

No.	Item	Specifications
10	Auto answer mode	Set up the auto answer mode (FAX/TEL/T/F/TAD/MEM/PC/FWD) The following restrictions are placed on individual mode settings according to the machine status and setting: 1) T/F (TEL/FAX AUTO SW.) mode This mode can be selected only when TEL/FAX Switch is set to ON. * This mode is automatically switched to the FAX mode when TEL/FAX switch is set to OFF. 2) TAD (TAD/FAX AUTO SW.) mode (auto answer mode) This mode can be selected except when TAD is set to OFF (TYPE1-3). * This mode is automatically switched to the FAX mode when TAD MODE is set to OFF. 3) MEM. (MEMORY RX) mode When a memory password was set, this mode cannot be switched to another mode without entering the set password. * When printing memory data without returning to the standby state (the flash memory is has not been written with data in the new mode) after switching between modes under the above condition, the password need not been entered again. 4) PC mode (PCFAX mode) This mode can be selected only when MFPUNLOCK (hidden setting) is set to ON (default). 5) FWD (FORWARDING) mode (redirecting mode) This mode can be selected when FORWARDING No. has been programmed. * This mode is automatically switched to the FAX mode when FOWARDING No. is erased. * When G4 is selected, neither T/F nor TAD cannot be selected.
11	Monitor volume	Set the monitor volume. 1) Setting values OFF/LOW/MID./HIGH-MID./HIGH selectable
12	Buzzer volume	Set the buzzer volume (communication end or off-hook alarm). 1) Setting values LOW/MIDDLE/HIGH selectable. * The key touch sound level is fixed at LOW.

Table 2.9.5.3 Machine Settings (2/5)

No.	Item	Specifications
13	User language	Select the language used for LCD display or report printing. 1) Setting values English/Other Other (second language): GER (German), FRE (French), etc. * English/Other is selected according to country code.
14	Remote diagnosis	Determine whether remote maintenance is to be enabled from the remote center. 1) Setting values ON (Enables)/OFF (Disables)
15	TX mode default	Set transmission mode default values used when a document is set in the feeder. The resolution and scanning density can be set separately. 1) Resolution STANDARD/FINE/EXTRA FINE/PHOTO selectable 2) Scanning density (Type of Original) LIGHT/NORMAL/DARK selectable
16	No toner memory RX	Determine whether data is to be received in the memory or on recording paper when the toner level is low. 1) Setting values ON (Memory reception)/OFF (Recording paper reception) ON: Data received in the memory when the toner level is low. OFF: Data is received on recording paper if the toner level is low (the print quality is poor because the toner level is low).

Table 2.9.5.3 Machine Settings (3/5)

No.	Item	Specifications
17	Memory full save	When the memory becomes full during read, the operator must determine whether the read pages are to be saved or canceled. Determine whether the read pages are to be saved or canceled automatically if the operator forget to save/cancel them and therefore an operation T.O. results. 1) Setting values ON (Saved)/OFF (Canceled) ON: The page being read is discarded and the previously read pages are saved (or transmitted if transmission preparation is specified). OFF: All pages are discarded including the page being read.
18	Instant dial	Determine whether instant dial transmission is to be performed. If the remaining memory capacity is not satisfied the instant dial start condition although this setting is ON, the feeder transmission is performed. When this setting is OFF, the feeder transmission is uniformly performed. 1) Setting values ON (Instant dialing transmission is performed)/OFF (Instant dialing transmission is not performed)
19	Restrict access	Determine whether operation is to be restricted. When ON is selected, persons who do not know the password cannot operate the machine. When ON is selected, the standby screen requires the operator to enter the password. Operation is restricted until a valid password is entered. 1) Setting values ON (Operation is restricted)/OFF (Operation is not restricted) ON: The ID/Password Prg. allows a restrict ID to be registered. Operation is restricted only when this setting is ON and a restrict ID has already been registered. OFF: The ID/Password Prg. disables registration of a restrict ID. When this setting is OFF, operation is not restricted irrespective of whether a restrict ID has been registered.

Table 2.9.5.3 Machine Settings (4/5)

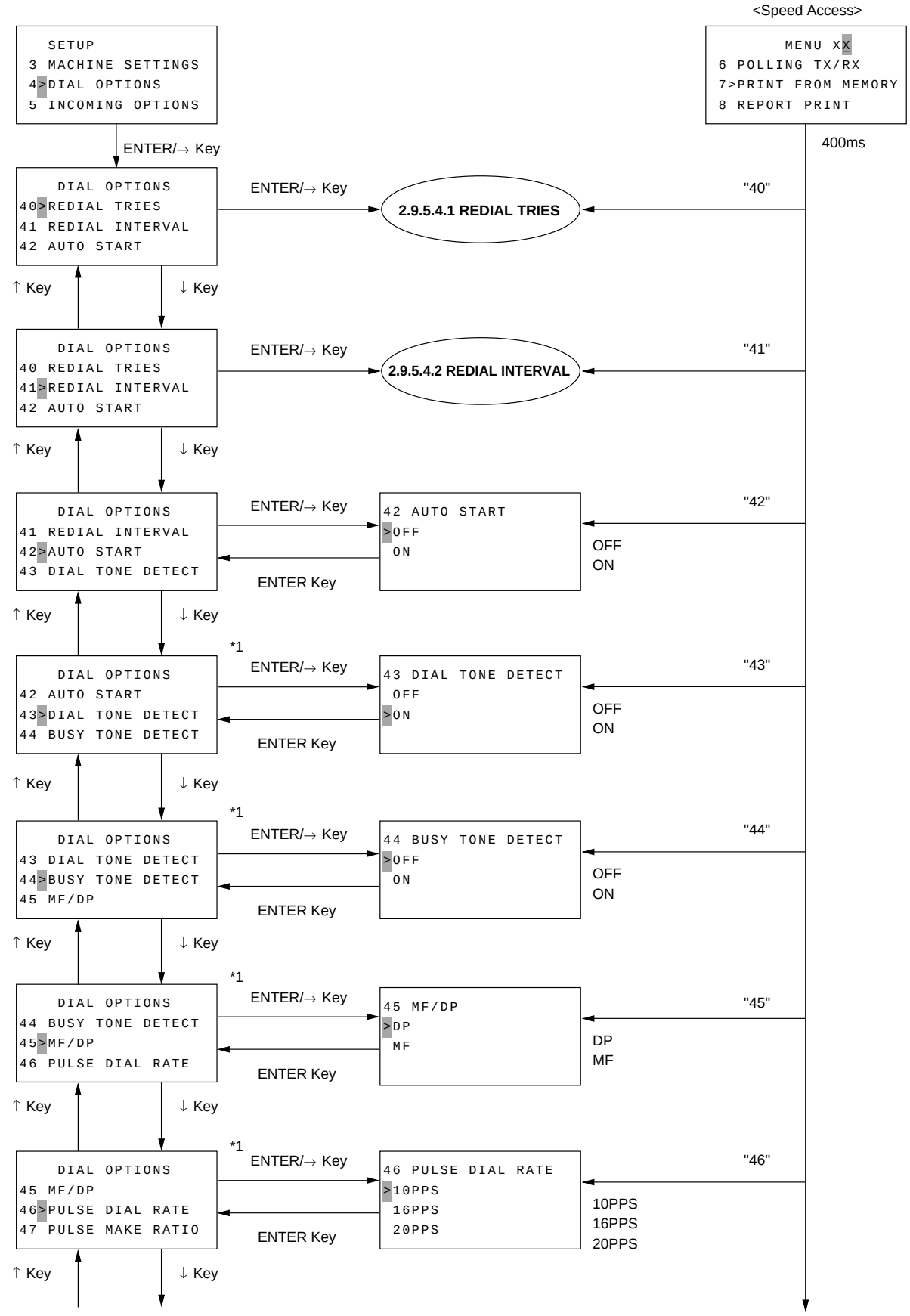
No.	Item	Specifications
20	ECM function	Determine whether ECM transmission is to be performed. 1) Setting values ON (ECM transmission performed)/OFF (ECM transmission not performed)
21	Closed network	Set up closed network. The TSI/CSI of the remote machine is compared with the low-order 4 digits of the speed dial of the local machine. If they match, closed network is performed. If they do not match, closed network is not performed. 1) Setting values OFF: Closed network is not performed. TX/RX: Closed communication is performed for both transmission and reception. RX: Closed communication is performed only for reception.
22	Toner save	Determine whether toner saving is to be performed during fax printing. When a LAN/PC printer is used, this setting is ignored and the command from the host is executed. 1) Setting values ON (Toner saving performed)/OFF (Toner saving is not performed)
23	Sender ID	Determine whether the sender ID is to be added to the sending data. A maximum of 32 characters are added to only outside the document. 1) Setting values ON (Added)/OFF (Not added)
24	1'st paper size	Set the size of recording paper in the first cassette. As the recording paper size is not detected automatically, the operator must set it. EXEC./JIS-B5/A5/A6 can be set only when LAN is mounted. 1) Setting values A4/LETTER/LEGAL 13/LEGAL 14/EXEC./JIS-B5/A5/A6 * The setting data must be transferred to the G4 board.

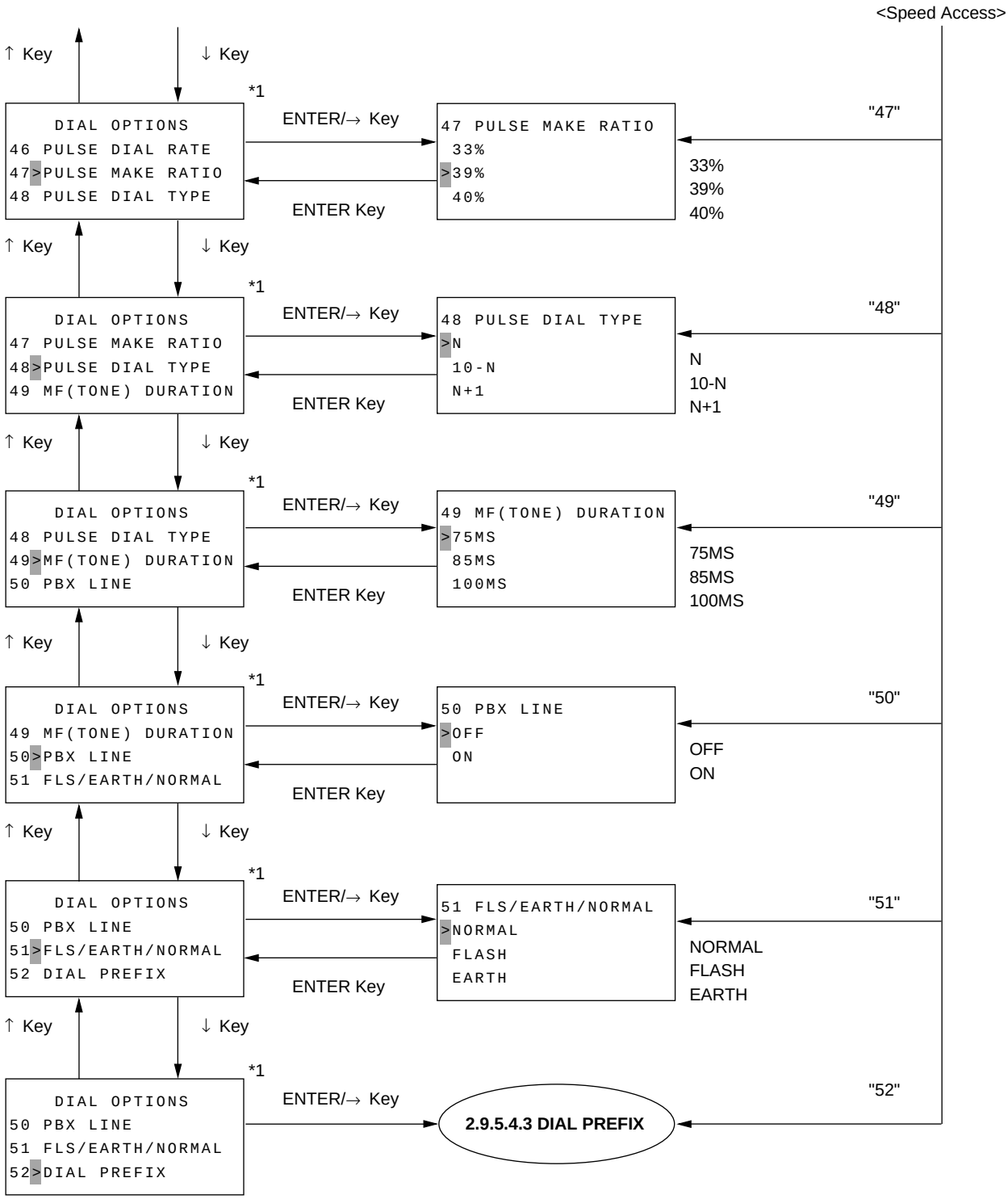
Table 2.9.5.3 Machine Settings (5/5)

No.	Item	Specifications
25	2'nd paper size	Set the size of recording paper in the second tray. EXEC./JIS-B5/A5 can be set only when LAN is mounted. 1) Setting values A4/LETTER/LEGAL 13/LEGAL 14/EXEC./JIS-B5/A5 * The setting data must be transferred to the G4 board.
26	Power save mode	Determine whether the current mode is to be switched to the Power Save mode. The power supply will be fed to all circuits of a fax machine whenever the fax goes to the operating state. The power save mode has reduced the power consumption at standby to below xx W. 1) Setting values ON (Switched)/OFF (Not switched) * When Default Type is set to 1 and Country Code is set to USA, the Power Save mode cannot be selected. * This mode cannot be made when ISDN or LAN board is installed.
27	ISDN dial mode	Determine whether G4 communication is to be performed by calling a single remote machine by pressing ten-keys when an ISDN option is provided. 1) Setting values G3 mode (G3 communication)/G4 mode (G4 communication) * This setting cannot be made when an ISDN option is not provided. * This setting data must be transferred to the ISDN board.
28	Speech Receive	Determine whether the incoming call is answered when the information transmission capacity instracted by the network is voice transmission. 1) Setting values ON (Answered)/OFF (Not answered) * This setting data must be transferred to the ISDN board. * This setting cannot be made when ISDN option is not provided.

2.9.5.4 Dial Options:

40:	Redial Tries	(0 to 10 •FRE, 0 to 5=FRE)
41:	Redial Interval	(1 to 6 •FRE, 1 to 12 =FRE)
42:	Auto Start	(OFF/ON)
43:	Dial Tone Detect	(OFF/ON)
44:	Busy Tone Detect	(OFF/ON)
45:	MF/DP	(DP/MF)
46:	Pulse Dial Rate	(10/16/20 pps)
47:	Pulse Make Ratio	((33/39/40%)
48:	Pulse Dial Type	(N/10-N/N+1)
49:	MF (Tone) Duration	(75/85/100MS)
50:	PBX Line	(OFF/ON)
51:	Flash/Earth/Normal	(NORMAL/FLASH/EARTH)
52:	Dial Prefix	(OFF/4-digit)


<Speed Access>
SETUP
3 MACHINE SETTINGS
4>DIAL OPTIONS
5 INCOMING OPTIONS
MENU XX
6 POLLING TX/RX
7>PRINT FROM MEMORY
8 REPORT PRINT
400ms
ENTER/→ Key
DIAL OPTIONS
40>REDIAL TRIES
41 REDIAL INTERVAL
42 AUTO START
2.9.5.4.1 REDIAL TRIES
"40"
↑ Key
↓ Key
DIAL OPTIONS
40 REDIAL TRIES
41>REDIAL INTERVAL
42 AUTO START
2.9.5.4.2 REDIAL INTERVAL
"41"
DIAL OPTIONS
41 REDIAL INTERVAL
42>AUTO START
43 DIAL TONE DETECT
42 AUTO START
>OFF
ON
"42"
OFF
ON
ENTER Key
*1
DIAL OPTIONS
42 AUTO START
43>DIAL TONE DETECT
44 BUSY TONE DETECT
43 DIAL TONE DETECT
OFF
>ON
"43"
DIAL OPTIONS
43 DIAL TONE DETECT
44>BUSY TONE DETECT
45 MF/DP
44 BUSY TONE DETECT
>OFF
ON
"44"
DIAL OPTIONS
44 BUSY TONE DETECT
45>MF/DP
46 PULSE DIAL RATE
45 MF/DP
>DP
MF
"45"
DP
MF
DIAL OPTIONS
45 MF/DP
46>PULSE DIAL RATE
47 PULSE MAKE RATIO
46 PULSE DIAL RATE
>10PPS
16PPS
20PPS
"46"
10PPS
16PPS
20PPS

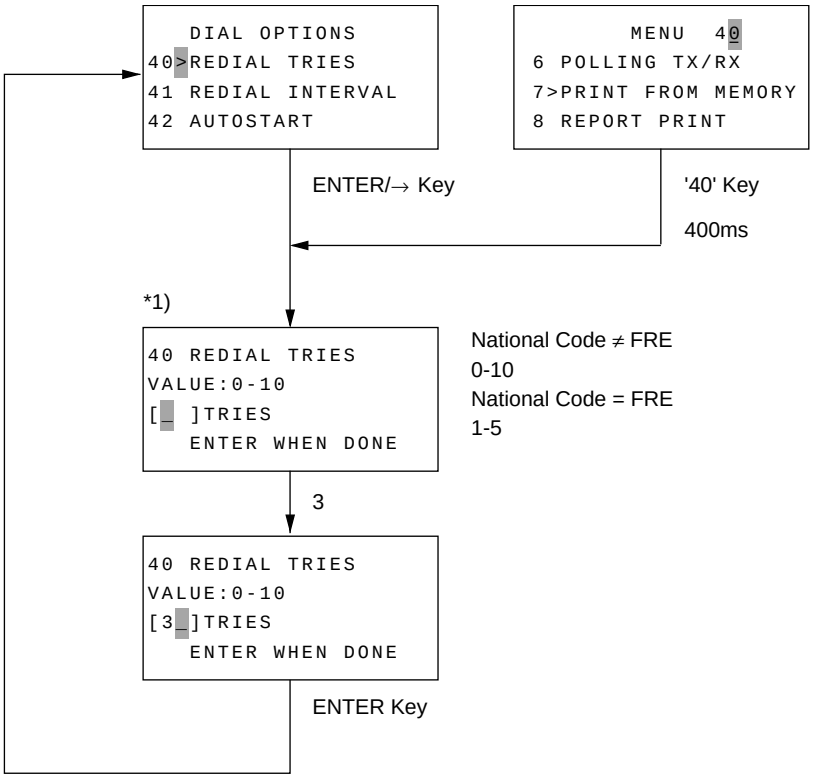


Some options of the DIALING OPTIONS menu cannot be selected depending on the destination of delivery, machine specs, and machine settings. However, numbers related to speed access are fixed.
If there are unselective options, these numbers become discontinuous.

*1:This setting can be skipped when ISDN board is installed. (However, this setting can be made only when service bit is set to ON.)

2.9.5.4.1 Redial Tries

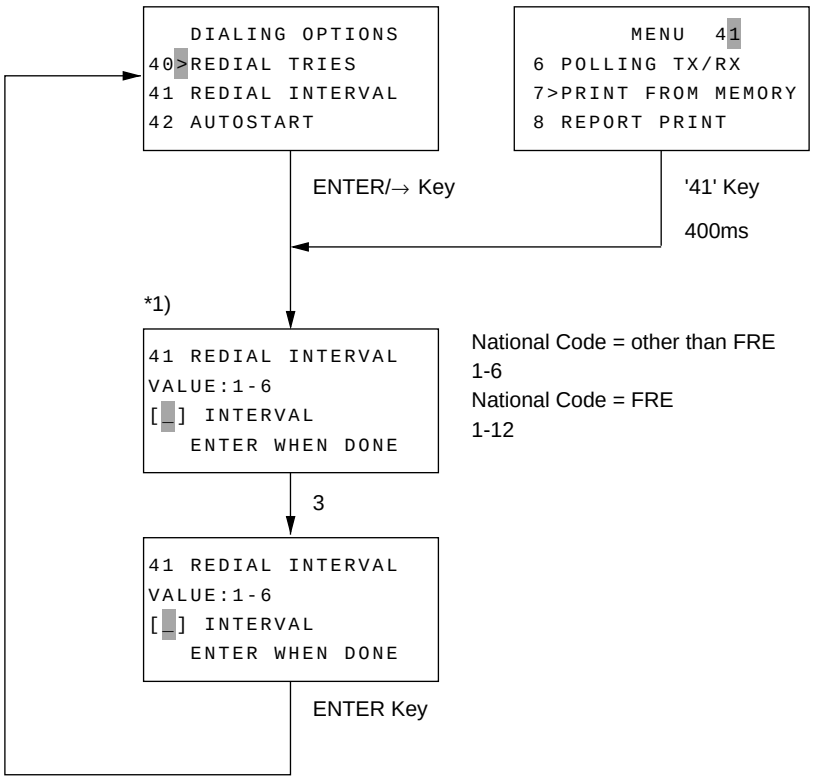
This function is used to set the number of redial tries.



*1:After the first digit is entered, “ENTER WHEN DONE” is displayed. It will not change if all characters are erased by pressing the CLEAR key.

2.9.5.4.2 Redial Interval

This function is used to set an auto redial interval.



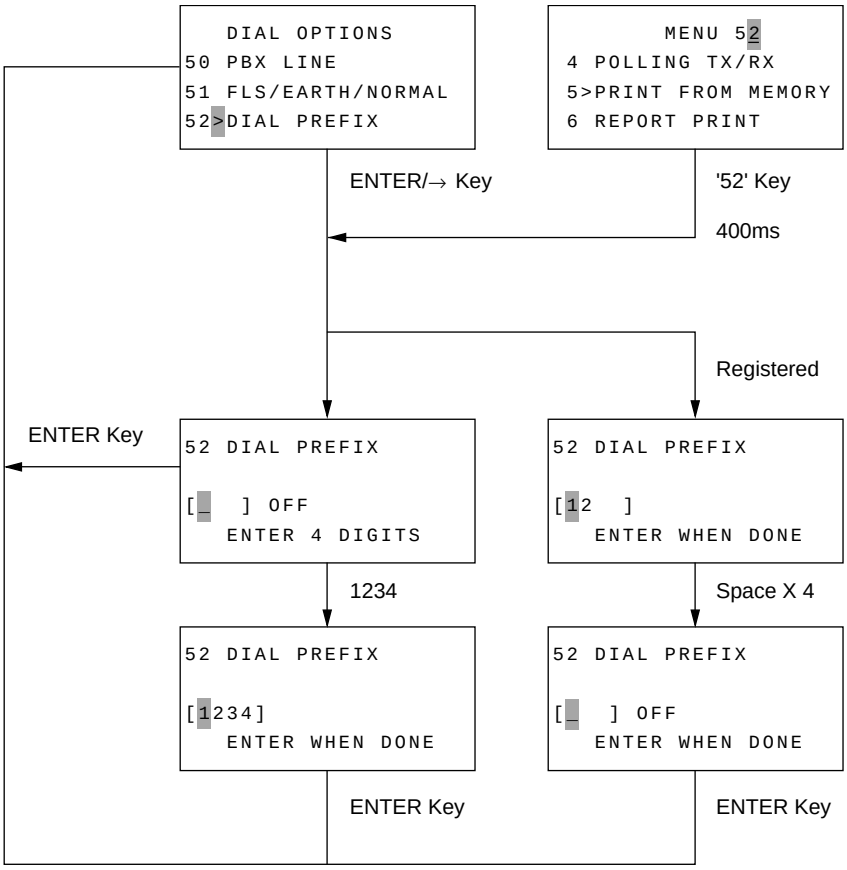
*1:After the first digit is entered, “ENTER WHEN DONE” is displayed. It will not change if all characters are erased by pressing the CLEAR key.

*1:When National code is set to FRE, the following screen appears:

```
41 REDIAL INTERVAL
VALUE:1-12
[_ ] INTERVAL
   ENTER WHEN DONE
```

2.9.5.4.3 Dial Prefix

This function is used to set the access digits for connecting a PBX line to the public line.



*:"OFF" appears when spaces are entered for all digits.

*:Movement and display of cursor during input of spaces and digits
- The blinking cursor moves to the first digit position when four characters (including digits and spaces) have been entered.
- When spaces are included in the 4-digit data, they are truncated on the screen.

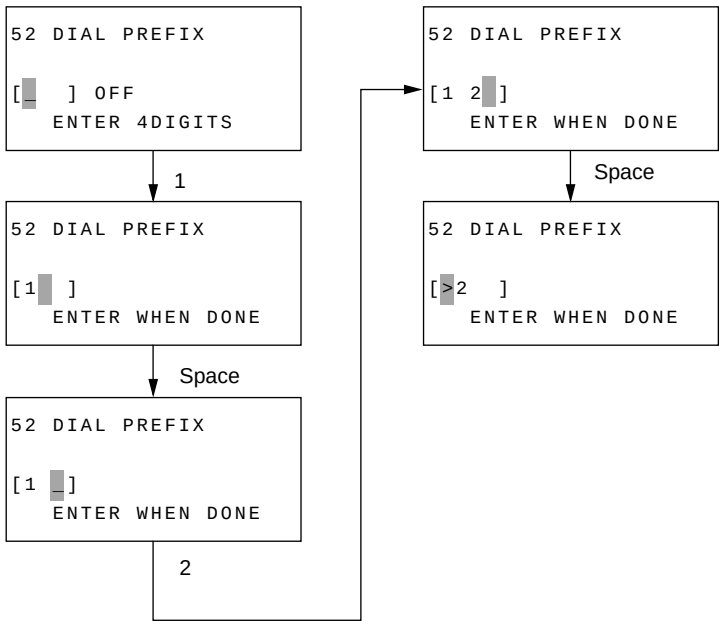


Table 2.9.5.4 Dial Options (1/3)

No.	Item	Specifications
40	Redial tries	Sets on the redial tries to meet the regulations of the installed country. 1) Setting values Country code = Other than FRE: 0-10 (in one-try steps) FRE: 1-5 (in one-tray steps)
41	Redial Interval	Set an automatic redialing interval to meet the regulations of installed country. 1) Setting values Country code = Other than FRE: 1-6 (in one-minute steps) FRE: 1-12 (in one-minute steps)
42	Auto Start	Determine whether a call is to be originated automatically without pressing the START key after specifying a destination with a speed dial key. 1) Setting values ON (Automatic origination)/OFF (Call is not originated until START key is pressed)
43	Dial Tone Detect	Determine whether a dial tone is to be detected. 1) Setting values ON (Detected)/OFF (Not detected) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
44	Busy Tone Detect	Determine whether a busy tone is to be detected. 1) Setting values ON (Detected)/OFF (Not detected) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
45	MF/DP	Determine whether MF or DP is to be used for call origination. 1) Setting values MF (Tone)/DP (Pulse) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)

Table 2.9.5.4 Dial Options (2/3)

No.	Item	Specifications
46	Pulse Dial Rate	Determine a DP pulse rate used at call origination. 1) Setting values 10pps/16pps/20pps selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
47	Pulse Make Ratio	Set a DP make ratio at used at call origination. 1) Setting values 33%/39%/40% selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
48	Pulse Dial Type	Set a DP dial type. 1) Setting values N/10-N/N+1 selectable N: Dial the selected number. 10-N: Dial the number obtained by subtracting the selected number from the selected number. N + 1: Dial the number obtained by adding 1 to the selected number. * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
49	MF (Tone) Duration	Set the MF duration. 1) Setting values 75 ms/85 ms/100 ms selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
50	PBX Line	Determine whether the machine is to be connected to the PBX line. 1) Setting values ON (Connected to PBX)/ OFF (Not connected to PBX) * This setting cannot be made when ISDN board is installed. (However, this setting can be made only when the service bit is set to ON.)

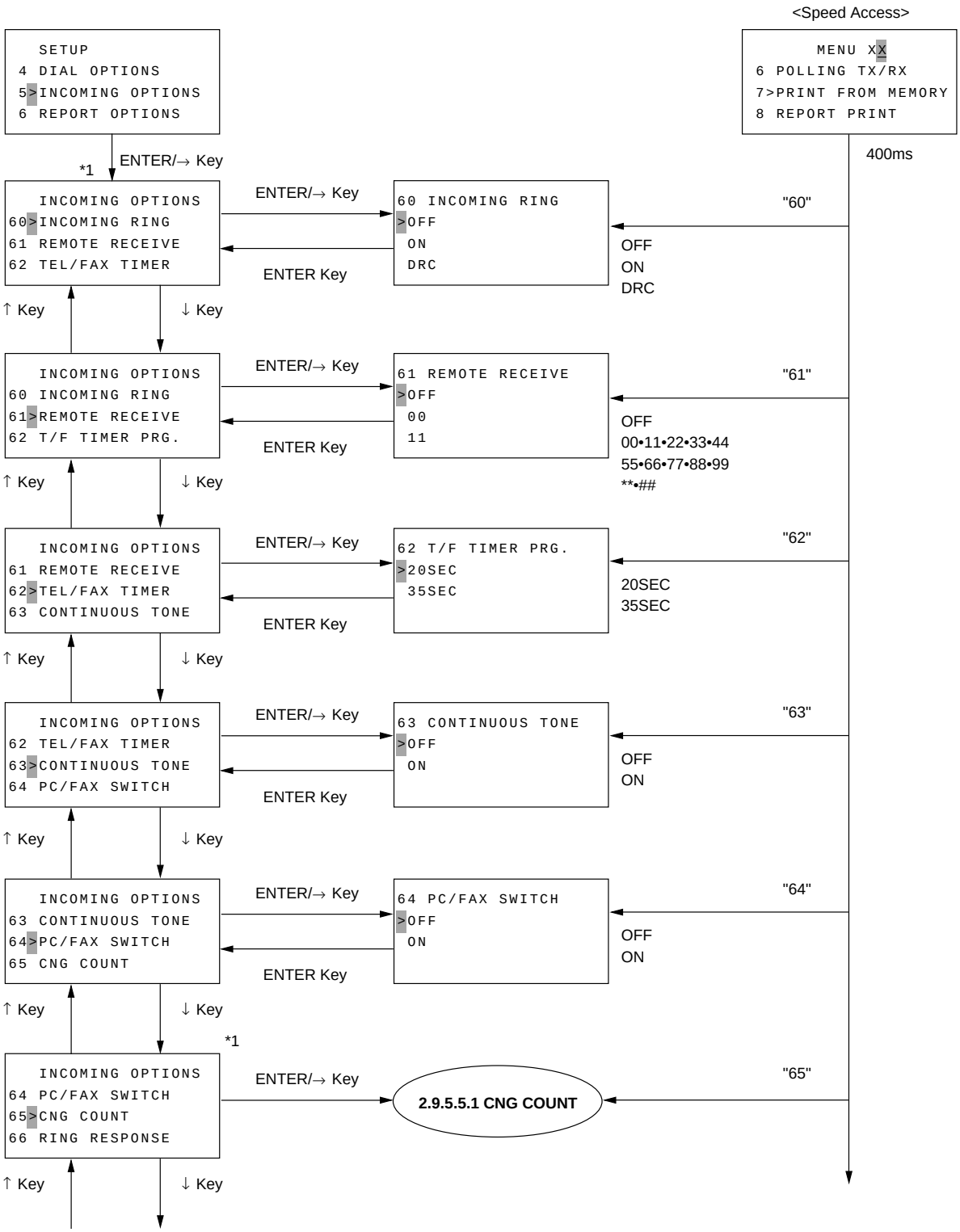
Table 2.9.5.4 Dial Options (3/3)

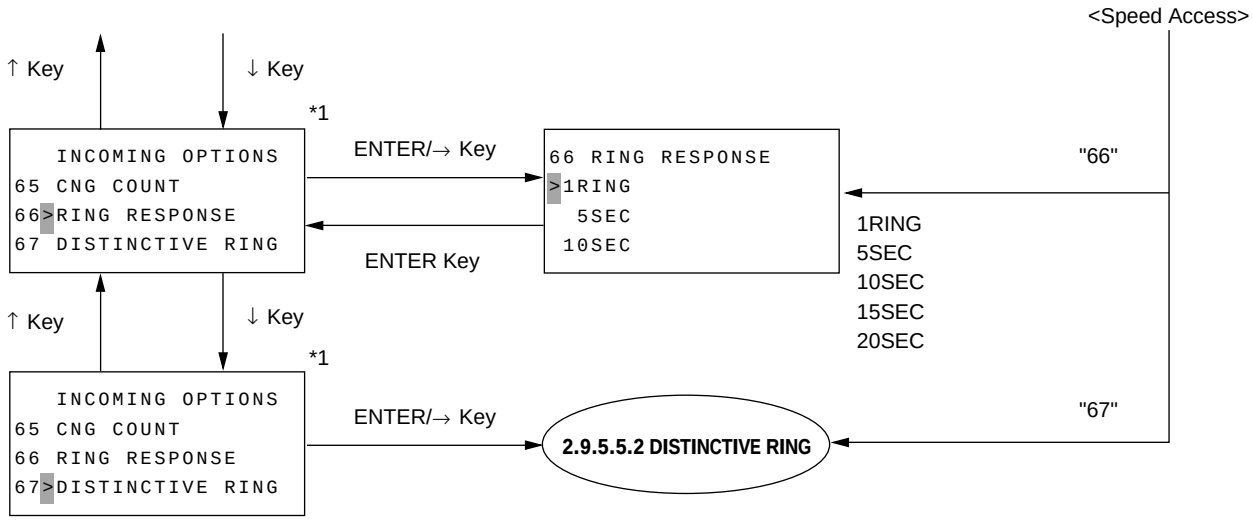
No.	Item	Specifications
51	Flash/Earth/Normal	Set the method of switching between flash and earth modes for PBX line. 1) Setting values NORMAL/FLASH/EARTH selectable (PBX line origination types) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
52	Dial Prefix	Set the access digits used for connecting the PBX line to the public line. 1) Setting values OFF/1- to 4-digit access digit (digits only) * Access digits are validated when a numeric value is entered. * All spaces: OFF * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)

Note: Setting values are defined for each country code.

2.9.5.5 Incoming Options:

60:	Incoming Ring	(OFF/ON/DRC)
61:	Remote Receive	(OFF/00/11/22/33/44/55/66/77/88/99/**/##)
62:	T/F Timer Programming	(20/35SEC)
63:	Continuous Tone	(OFF/ON)
64:	PC/FAX Switch	(OFF/ON)
65:	CNG Count	(1 to 5)
65:	Ring Response	(1RING/5SEC/10SEC/15SEC/20SEC)
66:	Distinctive Ring	(OFF/ON/SET)

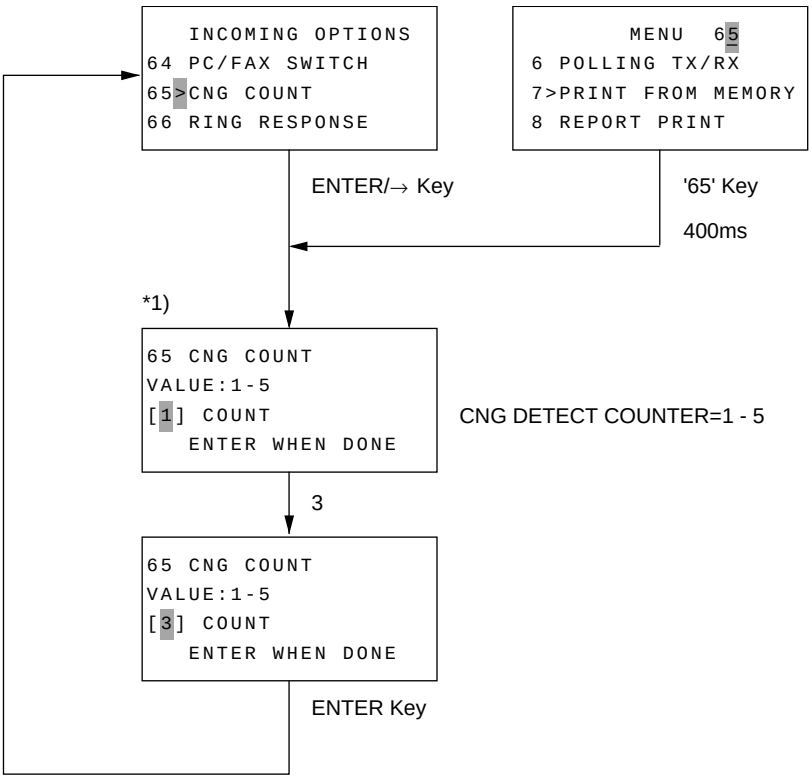




Some options of the INCOMING OPTIONS menu cannot be selected depending on the destination of delivery, machine specs, and machine settings. However, numbers related to speed access are fixed.
If there are unselective options, these numbers become discontinuous.

*1:This setting can be skipped when ISDN board is installed. (However, this setting can be made only when service bit is set to ON.)

2.9.5.5.1 CNG COUNT



*1):After the first digit is entered, "ENTER WHEN DONE" is displayed.

2.9.5.5.2 Distinctive Ring

This function is used to make settings for distinctive ring learning (remembrance) and detection.

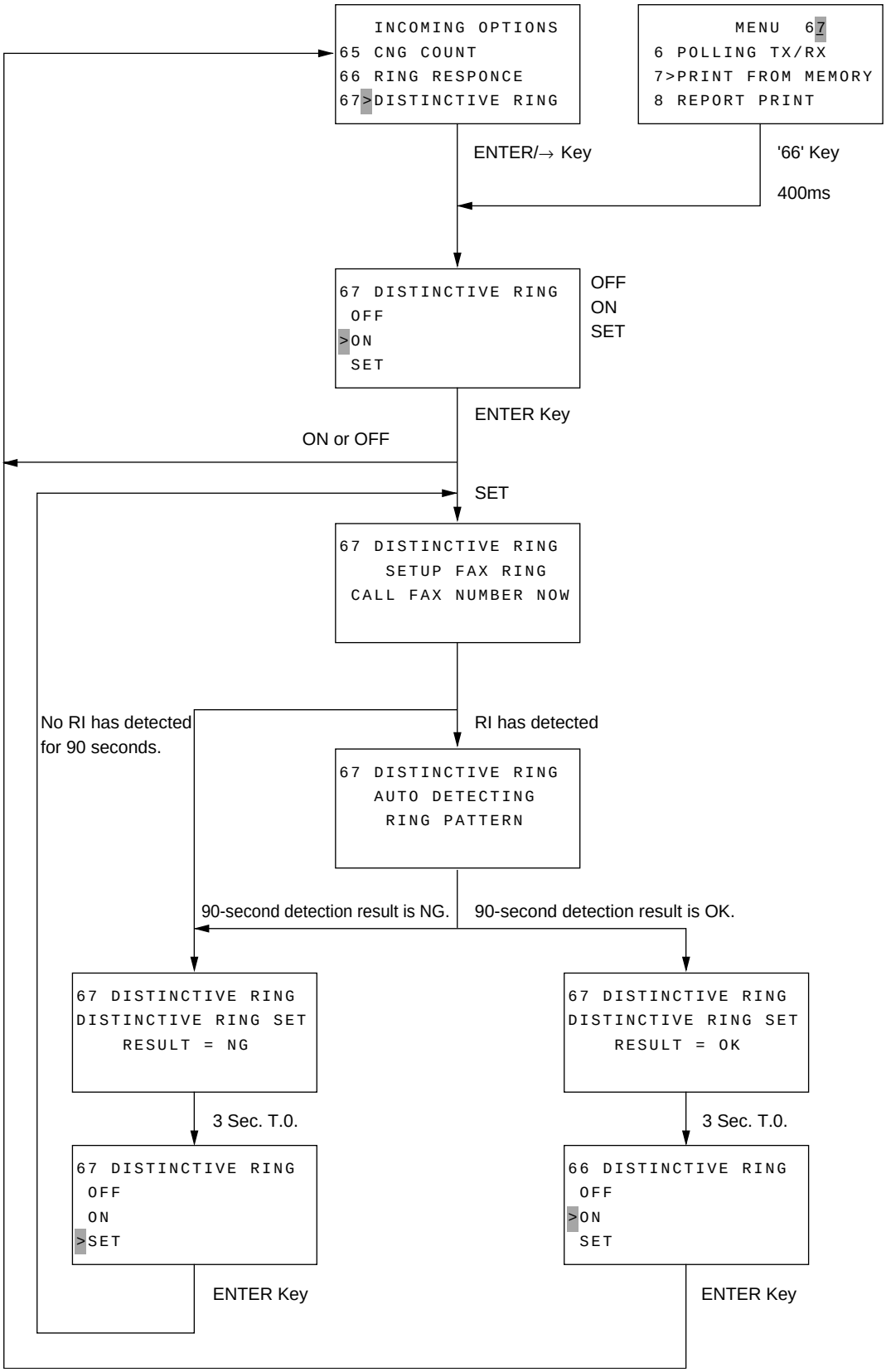


Table 2.9.5.5 Incoming Options (1/3)

No.	Item	Specifications
60	Incoming Ring	Set up the soft ringer. Instead of ringer circuit, software can control built-in speakerto ring sound. 1) Setting values ON (Sounded)/OFF (Not sounded)/DRC (Sounded during DRC detection) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON) * If DISTINCTIVE RING is settable, OFF/ON/DRC is selectable. ("Settable" means that SERVICE BIT is ON or mask by XPARA is not provided with SERVICE BIT=OFF.) * If DISTINCTIVE RING cannot be set, OFF or ON is selectable. * Setting is possible if SERVICE BIT is ON even though masking is done by XPARA. In this case, if SERVICE BIT is turned OFF with this setting set to DRC, setting is changed from DRC to the default (i.e. initial value provided for each default type). * If COUNTRY CODE is USA, AUS, NZL, SIN or HNG, this setting is set to DRC. If COUNTRY CODE is changed to any other country, setting is changed from DRC to the default.
61	Remote Receive	Set a remote access address. This function is used to transfer a call received by an external telephone set (connected to fax) by entering two-digit MF tones if the remote receive setting is not OFF. When this function is off, control of Parallel Pick Up doesn't do it at all regardless of ON/OFF of Parallel Pick Up setting. 1) Setting values Select one of the following: OFF/00/11/22/33/44/55/66/77/88/99/**/## selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)

Table 2.9.5.5 Incoming Options (2/3)

No.	Item	Specifications
62	T/F Timer Programming	Set the time till start of automatic reception when the operator has performed no operation for the call terminated in the TEL/FAX mode. 1) Setting values 20SEC/35SEC selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
63	Continuous Tone	Set up the reception completion buzzer. The buzzer sound can be stopped by pressing the STOP key. 1) Setting values ON: Sounded OFF: Not sounded
64	PC/FAX Switch	Determine whether the FAX reception mode is to be selected automatically when PC reception is impossible. 1) Setting values ON: Selects the FAX reception mode. Fax transfers received faxes directly to PC. OFF: Does not select the FAX reception mode (reception disabled). Fax receives and prints the nessage.
65	CNG Count	When T/F, TAD, or Parallel pickup is operating in CNG signal detection processing, this setting can be shifted to the facsimile reception mode at the time of number of CNG signal detection times are equal to the set values. 1) Setting values: 1 -5 (in one-tray steps) * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)
66	Ring Response	Sets the time from arrival of a ring to line seizure 1) Setting values 1 ring/5 sec/10 sec/15 sec/20 sec selectable * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON)

Table 2.9.5.5 Incoming Options (3/3)

No.	Item	Specifications
67	Distinctive Ring	Determine whether a distinctive is to be remembered and detected. Only in GER, SUI, and AUT modes, OFF is set as the default. When ON is selected, reception operation starts only when a remembered ring pattern is detected. If it has not been remembered, a ring pattern defined for each country as the default is used to detect it. 1) Setting values ON: Detected OFF: Not detected SET: Remembered * Selection is skipped over when the ISDN board is mounted. (selection allowed if SERVICE BIT=ON) * When changing the country code, this setting is forcibly set to OFF. * In case of applicable countries of DRC remenbered ring pattern (Country code=USA, AUS, NZL, SIN, and HUG), OFF/ON/SET can be selected as default. Except for above country, OFF/SET can be selected as default.

Note: Setting values are defined for each default type

2.9.5.6 Report Options:

70: MCF. (Single-Loc.) (OFF/ON)
71: MCF. (Multi-Loc.) (OFF/ON)
72: Image in MCF. (OFF/ON)
73: Error Report (MCF.) (OFF/ON)

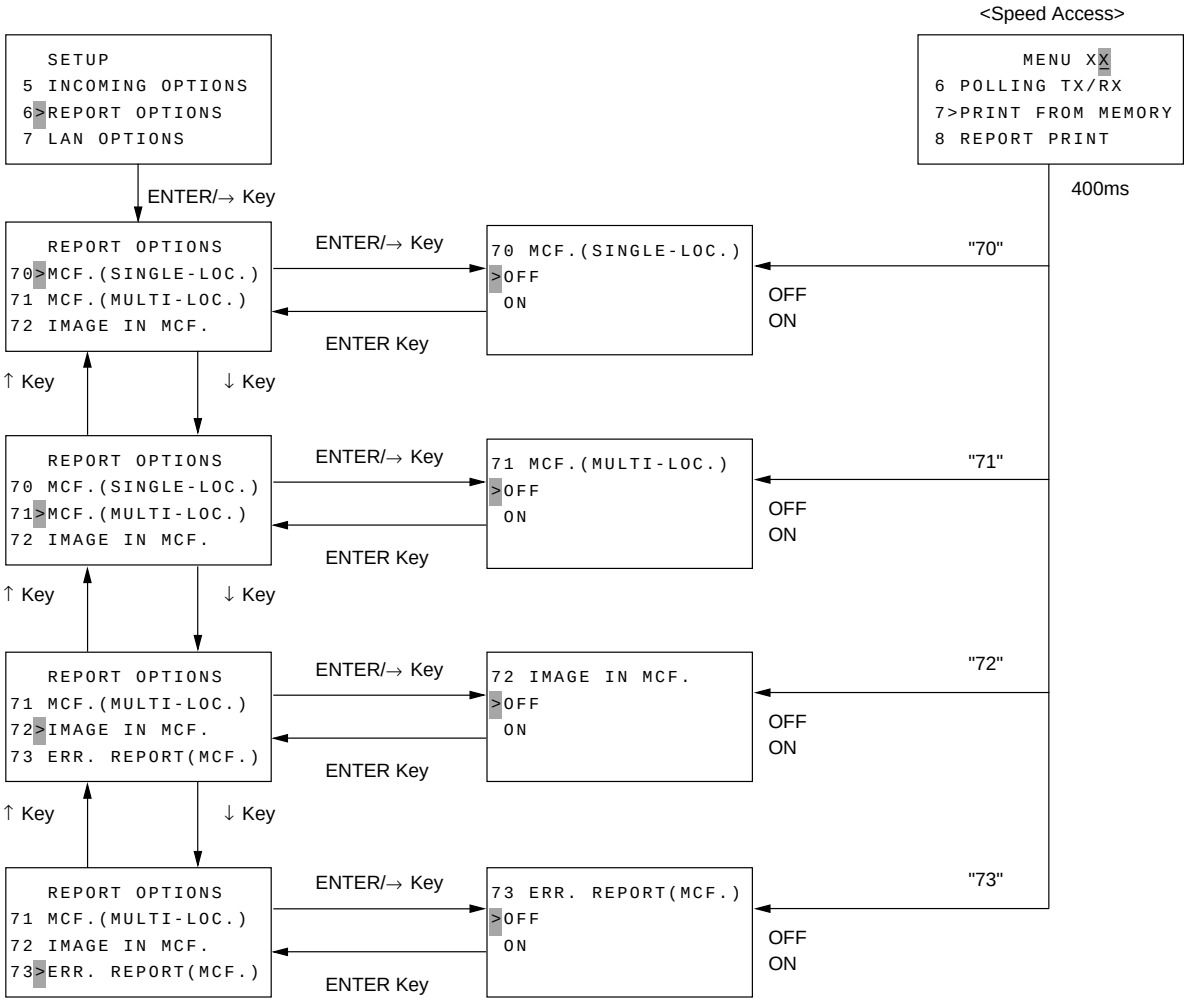


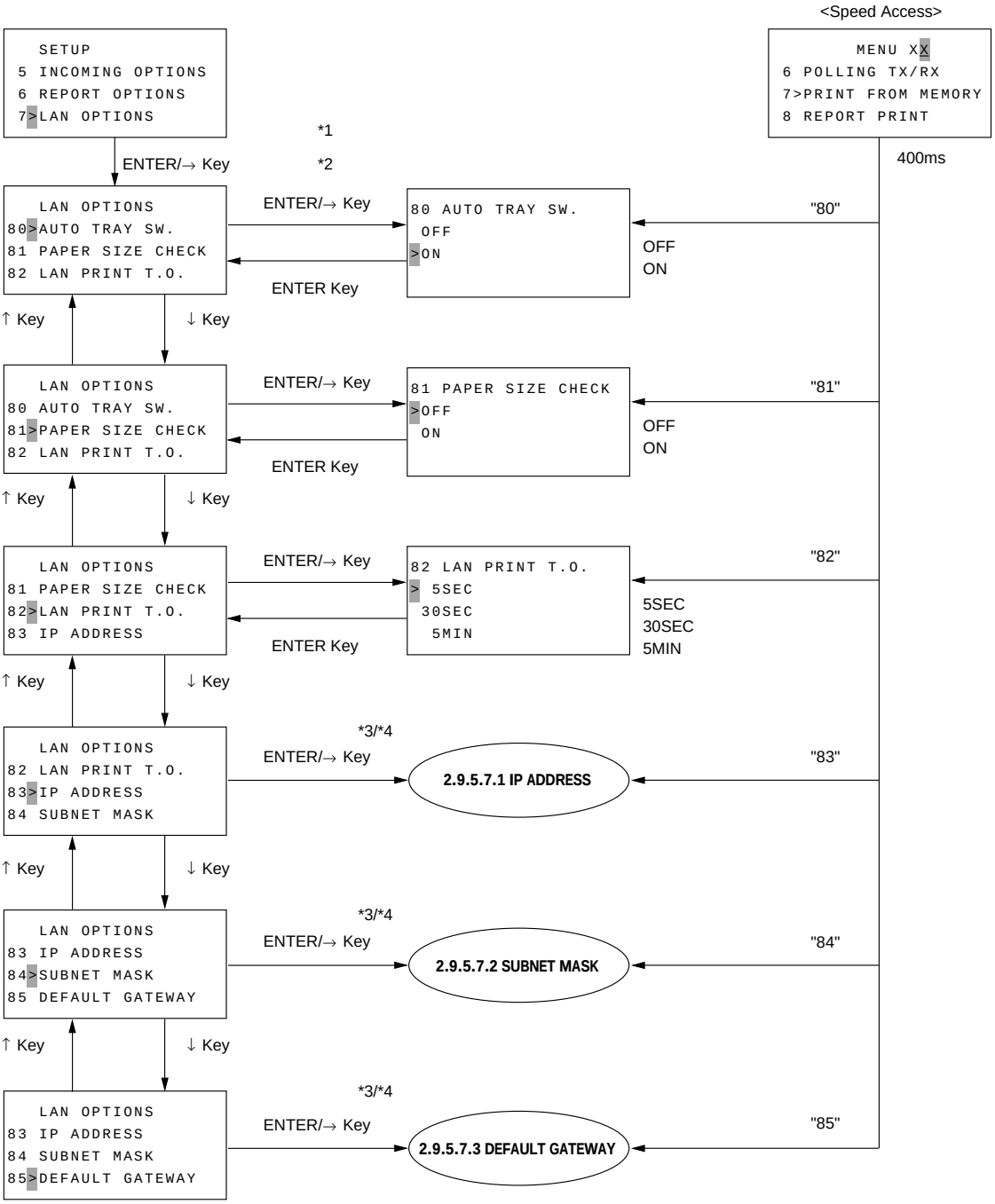
Table 2.9.5.6 Report Options

No.	Item	Specifications
70	Message Confirmation Report (Single lacation)	Determine whether a single location transmission result report is to be output automatically. 1) Setting values ON: Report is output automatically. OFF: Report is not output automatically.
71	Message Confirmation Report (Multiple locations)	Determine whether a multi-location transmission result report is to be output automatically. 1) Setting values ON: Report is output automatically. OFF: Report is not output automatically.
72	Image in MCF	Determine whether an image is to be added to the message confirmation result report. 1) Setting values ON: Image is added. OFF: Image is not added.
73	Error Report MCF.	Determine whether an error report is to be output automatically when communication does not end with S.C 0000 (service code 0000). 1) Setting values ON: Report is output automatically. OFF: Report is not output automatically.

Note: Setting values are defined for each default type

2.9.5.7 LAN Options:

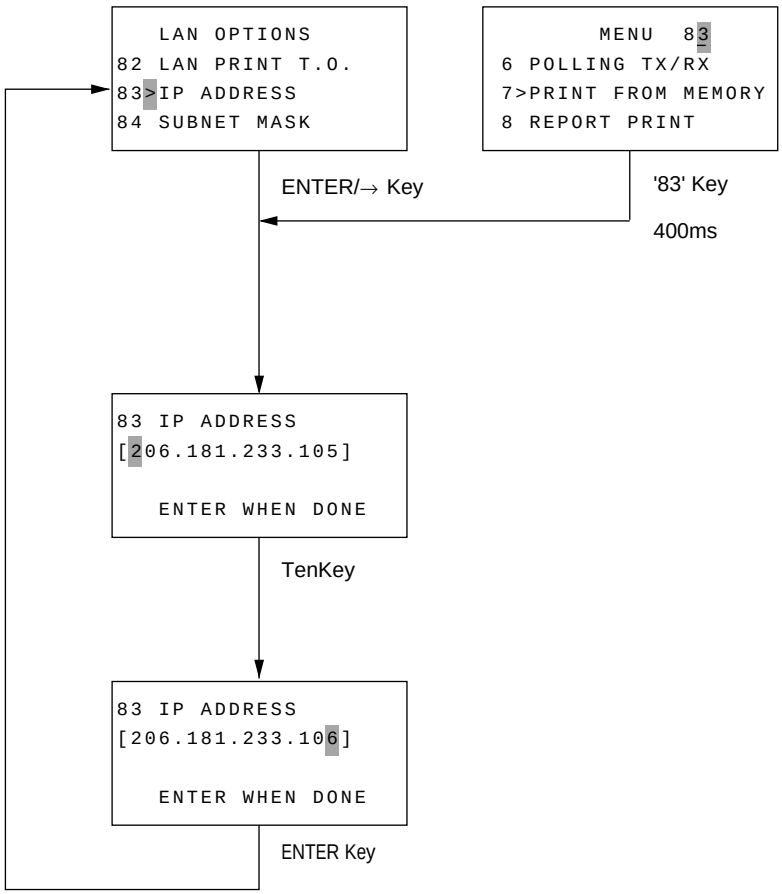
80:	Auto Tray Switch	(OFF/ON)
81:	Paper Size Check	(OFF/ON)
82:	LAN Print Timeout	(5SEC/30SEC/5MIN)
83:	IP Address	See Section 2.9.5.7.1
84:	Subnet Mask	See Section 2.9.5.7.2
85:	Default Gateway	See Section 2.9.5.7.3



*1:If no LAN option is used, “7 LAN OPTIONS” is not displayed.
*2:During NIC initialization or HSP error. "FUNC. NOT AVAIL." is indicated during 3 seconds by pressing ENTER/→key.
*3:If an HSP error occurs. "FUNC. NOT AVAIL." is indicated during 3 seconds by pressing ENTER/→key.
*4:When there is case where NIC card cannot be supported, these mode will not be displayed.

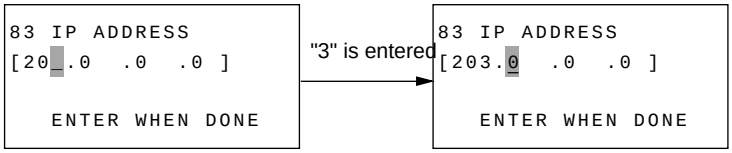
2.9.5.7.1 IP Address

This function is used to display the IP address from the NIC, confirm the data from the terminal, and change settings.



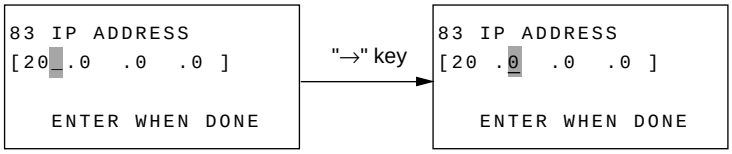
Entering an IP address value

1) Setting data is received from NIC. When HSP error has occured during the data reception, the machine returns to the "LAN OPTIONS" menu screen after "FUNC. NOT AVAIL" is displayed during 3 seconds.
2) When three digits of the network ID or host ID have been entered, the blinking cursor automatically moves to the position following the dot.
3) When three digits have not been entered, the blinking cursor position moves to the next



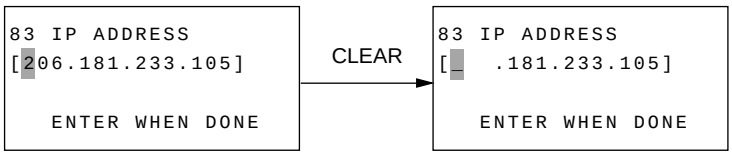
digit input by the pressing the SHIFT RIGHT key.

4) When the CLEAR key is pressed, a maximum of three characters are erased from the

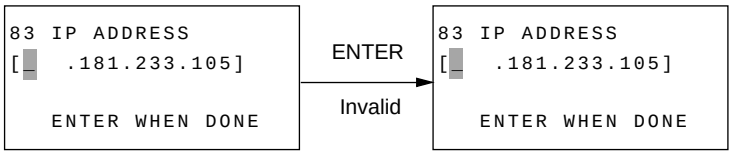


blinking cursor position to the dot position.

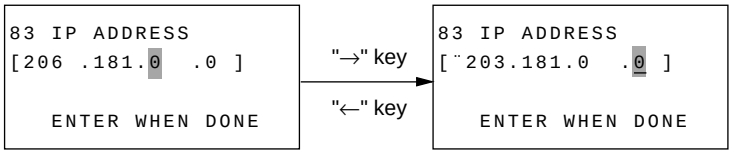
5) The ENTER key is rejected if the numeric entry space delimited by dot is empty.



6)The right-left shift key is valid during input.



7)Whether the entered value is correct is identified when numeric entry between dots is

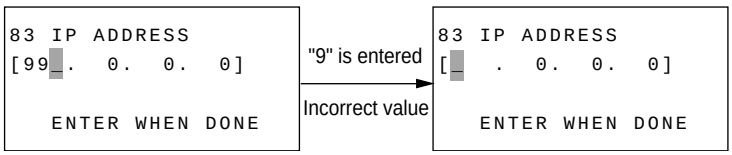


*The cursor cannot be moved over the numeric between dots.

determined as shown below.

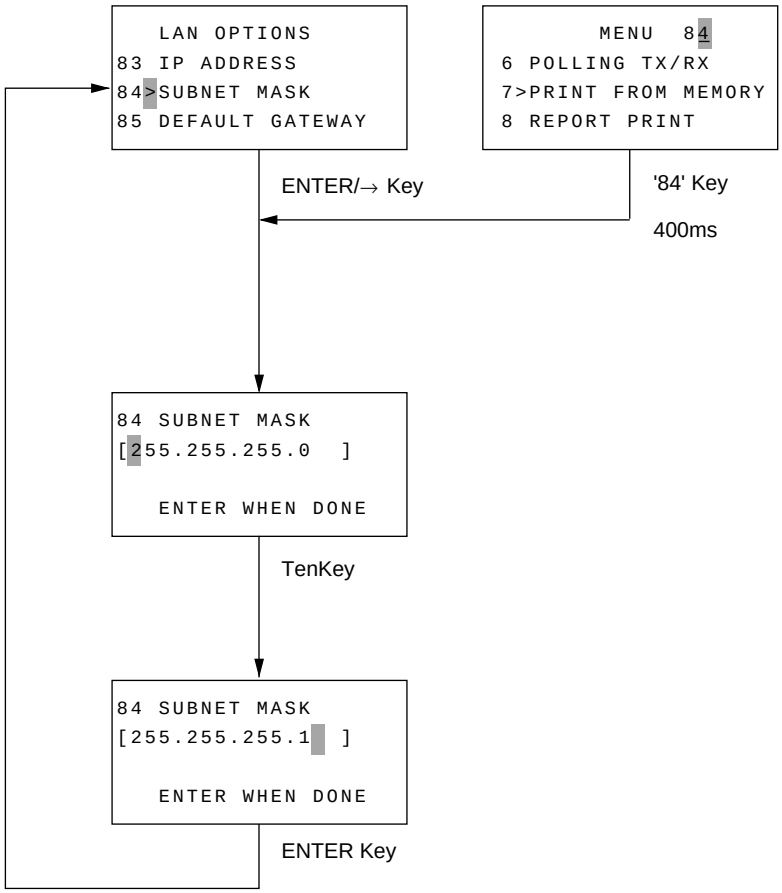
•3-digit entry: When 3 digits are entered
•Less than 3 digits: When the SHIFT key is pressed

8)The value that can be entered ranges from 0 to 255 but the suitable value depends on network limitation, etc.



2.9.5.7.2 Subnet Mask

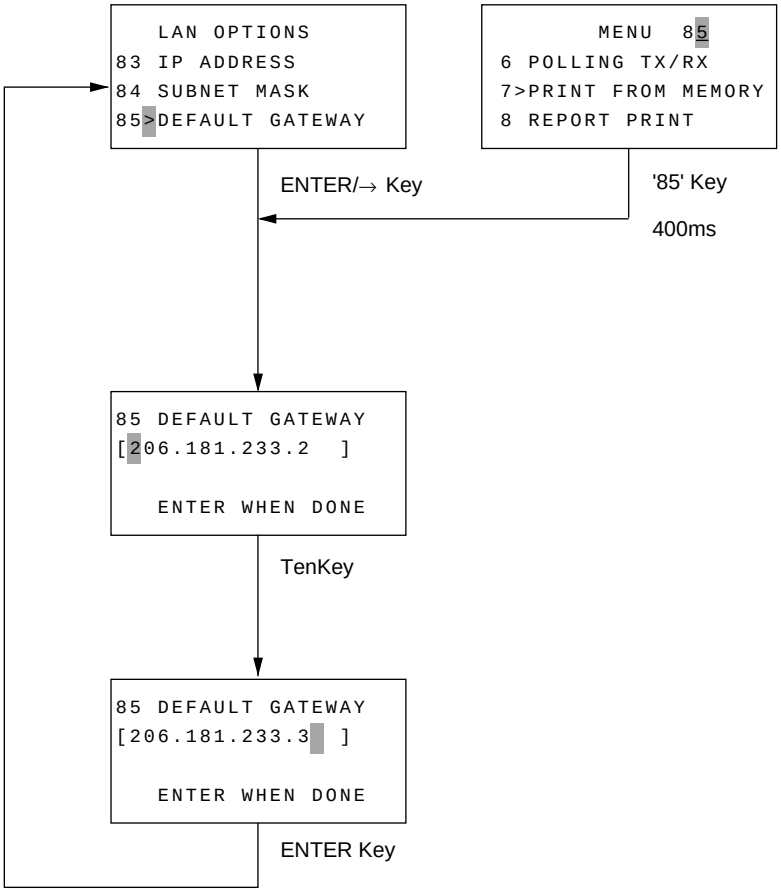
This function is used to display the sub net address from NIC, confirm the data from the terminal, and change settings.



Entering a subnet mask value Same as “Entering an IP address value”

2.9.5.7.3 Default Gateway

This function is used to display the gateway address from NIC, confirm the data from the terminal, and change settings (NIC option setting).



Entering a gateway value
Same as “Entering an IP address value”

Table 2.9.5.7 LAN Options (1/2)

No.	Item	Specifications
80	Auto Tray Switch	Determine whether the current tray is automatically switched to another tray when the current tray runs out of paper in the LAN print mode. This setting can be made only when the second tray is installed. 1) Setting values ON: Switched OFF: Not switched
81	Paper Size Check	Determine whether the set paper size is to be checked against the host-specified paper size in the LAN print mode. 1) Setting values ON: Checked OFF: Not checked * If the two paper sizes do not match, the machine takes the following action: ON: Issues a paper request directly before starting printing and detects the paper size and jam after starting printing. OFF: Does not issues a paper request directly before starting printing nor detect the paper size and jam after starting printing.
82	LAN Print Timeout	Set the time from job start to job end during which image data storage in the image memory (from LAN) should be completed. If this time is expired, LAN printing will be interrupted. 1) Setting values 5 sec/30 sec/5 min selectable
83	IP Address	Display the IP address from the NIC, check the data from the terminal, and change the setting. 1) Setting values 32 bits are divided into four 8-bit decimal values for setting. The decimal values are separated by dots as shown below. [206.181.233.105] * If a LAN option is installed, this setting cannot be made when an HSP error has occurred. * This setting cannot be made when not supported by NIC card.

Table 2.9.5.7 LAN Options (2/2)

No.	Item	Specifications
84	Subnet Mask	Display the subnet address from the NIC, check the data from the terminal, and change the setting. 1) Setting values 32 bits are divided into four 8-bit decimal values for setting. The decimal values are separated by dots as shown below. [207.255.255.0] * If a LAN option is installed, this setting cannot be made when an HSP error has occurred. * This setting cannot be made when not supported by NIC card.
85	Default Gateway	Display the gateway address from the NIC, check the data from the terminal, and change the setting (NIC option setting). 1) Setting values 32 bits are divided into four 8-bit decimal values for setting. The decimal values are separated by dots as shown below. [206.181.233.2] * If a LAN option is installed, this setting cannot be made when an HSP error has occurred. * This setting cannot be made when not supported by NIC card.

Note: Setting values are defined for each default type
The settings listed below can be made only when a LAN option is installed. When it is not installed, none of LAN-related setup items can be selected. None of them can be selected during NIC initialization.

No	Technical Setting Items	Setting Selection	1 ODA	2 LTA	3 E-INT	4 E-GER	5 E-FRE	6 O-AUS	7 O-NZL	8 O-SIN	9 O-HNG	10 L-AG	11 IRL	12 DEN	13 SWE	14 NOR	15 SUI	16 AUT	17 HOL	18 ITA	19 ESP	20 Spare	(21) Factory
	MACHINE SETTINGS																						
10	AUTO ANSWER MODE	FAX/TEL/T/F/TAD/MEM/PC/FWD	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX	FAX
11	MONITOR VOLUME	LOW / MID.-LOW / MID. / HIGH-MID. / HIGH	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	LOW	MID	MID	MID	HIGH	HIGH	MID	HIGH
12	BUZZER VOLUME	LOW / MID / HIGH	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	MID	LOW	MID	MID	MID	HIGH	HIGH	MID	HIGH
13	USER LANGUAGE	LNG1 / LNG2	LNG1	LNG1	LNG1	LNG2	LNG2	LNG1	LNG1	LNG1	LNG1	LNG1	LNG1	LNG2	LNG2	LNG2	LNG2	LNG2	LNG2	LNG2	LNG2	LNG1	LNG2
14	REMOTE DIAGNOSIS	ON / OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
15	TX MODE DEFAULT	STANDARD / FINE / EXTRA FINE/ PHOTO NORMAL/DARK/LIGHT	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR	STD NOR
16	NO TONER MEM. RX	ON / OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	MEM. FULL SAVE	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
18	INSTANT DIALING	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
19	RESTRICT ACCESS	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
20	ECM FUNCTION	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
21	CLOSED NETWORK	OFF / TXRX / RX	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
22	TONER SAVE	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
23	SENDER ID	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
24	1'ST PAPER SIZE	A4/LETTER/LEGAL13/LEGAL14/ EXEC./JIS-B5/A5/A6	LET	LET	A4	A4	A4	A4	A4	A4	A4	LET	A4	A4	A4	A4	A4	A4	A4	A4	A4	A4	LET
25	2'ND PAPER SIZE	A4/LETTER/LEGAL13/LEGAL14/ EXEC./JIS-B5/A5	LET	LET	A4	A4	A4	A4	A4	A4	A4	LET	A4	A4	A4	A4	A4	A4	A4	A4	A4	A4	LET
26	POWER SAVE MODE	ON / OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF
27	ISDN DIAL MODE	G4 / G3	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
28	SPEECH RECEIVE	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
	INCOMING OPTIONS																						
60	INCOMING RING	OFF / ON / DRC	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	ON
61	REMOTE RECEIVE	OFF/00/11/22/..... /88/99/ ** / ##	OFF	OFF	OFF	OFF	OFF	OFF	**	OFF	OFF	OFF	OFF	**	11	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
62	T / F TIMER PRG.	20 sec / 35 sec	35	35	20	35	20	35	35	35	35	35	20	20	20	35	35	35	20	35	20	20	35
63	CONTINIOUS TONE	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
64	PC / FAX SWITCH	ON / OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
65	CNG COUNT	1 - 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
66	RING RESPONSE	1ring/5sec/10sec/15sec/20sec	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring	1ring
67	DISTINCTIVE RING	OFF / ON / SET	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	REPORT OPTIONS																						
70	MCF(single-loc.)	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
71	MCF(multi-loc.)	ON / OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF
72	IMAGE IN MCF.	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
73	ERR.REPORT(MCF.)	ON / OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	ON	OFF	OFF
	LAN OPTIONS																						
80	AUTO TRAY SW.	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
81	PAPER SIZE CHECK	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
82	LAN PRINT T.O.	5SEC / 30SEC / 5MIN	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC	30SEC
83	IP ADDRESS		The outside of the object of the default settings. This setting reads the setting value of NIC card.																				
84	SUBNET MASK																						
85	DEFAULT GATEWAY																						
	COMMUNICATION PARAMETER																						
	COMMUNICATION SPEED	33600/28800/14400/9600/4800 BPS	This setting is initialized on the following condition. (Commn. Speed = 33.6 kbps, Echo Protection = OFF, Isdn Dial Modo = G4) 1.Default Type setting, 2.All Data Clear, 3.Config.Data Clear, 4.The renewal of the TEL No.(ALT#) registration data and clear.																				
	ECHO PROTECTION	ON/OFF																					
	ISDN DIAL MODE	G4/G3																					

No	Technical Setting Items	Setting Selection	1 ODA	2 LTA	3 E-INT	4 E-GER	5 E-FRE	6 O-AUS	7 O-NZL	8 O-SIN	9 O-HNG	10 L-AG	11 IRL	12 DEN	13 SWE	14 NOR	15 SUI	16 AUT	17 HOL	18 ITA	19 ESP	20 Spare	(21) Factory	Note
1	SERVICE BIT	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	
2	MONITOR CONT.	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	
3	COUNTRY CODE	"USA INT'L GBR IRL NOR SWE FIN DEN GER HUN TCH POL SUI AUT BEL HOL FRE POR ESP ITA GRE AUS NZL SIN HNG,LTA,MEX "	USA	LTA	GBR	GER	FRE	AUS	NZL	SIN	HNG	USA	IRL	DEN	SWE	NOR	SUI	AUT	HOL	ITA	ESP	USA	INT'L	
4	TIME DATE PRINT	0:OFF / 1:ONCE / 2:ALL	OFF	OFF	OFF	ALL	OFF	OFF	ALL	ONCE	OFF	OFF	OFF	ONCE	ONCE	OFF	ALL	ALL	ONCE	ALL	ONCE	OFF	ONCE	
5	TSI PRINT	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	
6	TAD MODE	0:OFF / 1:TYPE1 / 2:TYPE2 / 3:TYPE3	TYP2	TYP2	OFF	TYP1	TYP1	OFF	TYP1	OFF	OFF	TYP2	OFF	TYP2	TYP2	OFF	TYP1	TYP1	TYP1	OFF	TYP2	TYP2	OFF	
7	REAL TIME DIAL	0:OFF / 1:TYPE1 / 2:TYPE2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	TYP2	By PTT Parameter
8	TEL/FAX SWITCH	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	
9	MDY / DMY	0:MDY / 1:DMY	MDY	MDY	DMY	DMY	DMY	DMY	DMY	DMY	DMY	MDY	DMY	MDY	MDY	DMY	DMY	DMY	DMY	DMY	DMY	MDY	MDY	
10	LONG DOC. SCAN	ON / OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	
11	TONE FOR ECHO	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
12	MH ONLY	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
13	H/MODEM RATE	33600/28800/14400/9600/4800 BPS	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	33600	
14	T1(TX) TIMER VALUE	010 - 255 sec	59	59	60	60	140	30	40	60	30	59	60	60	60	60	60	60	60	40	45	59	60	By PTT Parameter
15	T1(RX) TIMER VALUE	010 - 255 sec	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	
16	T2 TIMER *100MS	001 - 255 (100ms - 25.5sec)	130	130	130	60	51	130	130	130	130	130	130	130	130	130	60	60	130	130	51	130	130	Base Timer = 100ms
17	DIS BIT32	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	
18	ERROR CRITERION	0 - 99	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
19	OFF HOOK BYPASS	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
20	NL EQULIZER	0DB / 4DB / 8DB / 12DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	0DB	
21	ATTENUATOR	0 - 15 dB	10dB	10dB	11dB	9dB	10dB	11dB	11dB	11dB	11dB	10dB	11dB	11dB	11dB	11dB	9dB	9dB	11dB	8dB	11dB	10dB	10dB	
22	T/F TONE ATT.	0 - 15 dB	10dB	10dB	9dB	7dB	11dB	9dB	9dB	9dB	9dB	10dB	9dB	10dB	9dB	9dB	7dB	7dB	10dB	12dB	10dB	10dB	10dB	
23	MF ATT.	0 - 15 dB	3dB	8dB	6dB	8dB	4dB	5dB	6dB	5dB	8dB	3dB	5dB	8dB	5dB	8dB	1dB	4dB	8dB	4dB	5dB	3dB	8dB	
24	RING DURA. *10MS	10 - 99 (*10 ms)	12	12	14	14	60	12	14	14	14	12	14	12	14	14	14	11	14	14	14	10	12	
25	CML TIMING *100MS	1 - 19 (*100 ms)	3	3	3	3	15	3	12	12	12	3	3	3	1	3	3	3	11	3	3	3	3	
26	LEAD HEAD STROBE	00000 - 11111	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	10100	
27	MEDIA TYPE	M / MH / H	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
28	TR LATCH CURRENT	-2 / -1 / 0 / +1 / +2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	V34 TX RETRY	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	
30	SYMBOL RATE	2.8K / 3.0K / 3.2K / 3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	3.4K	
31	NSF SWITCH	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	
32	ID/TSI PRIORITY	ID / TSI	ID	ID	ID	TSI	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	TSI	TSI	ID	ID	ID	ID	ID	
33	TONER COUNT CLEAR	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
34	PARALLEL PICK UP	ON / OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	
35	PRINT PRIORITY	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
36	JBIG FACILITY	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	Only FX-176
37	LLC CHECK	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

E-XXX=OEL-XXX , CO-XXX=OKI-XXX , CL-XXX=LANIER-XXX

No.	User Setting Items	Setting Selection	COUNTRY CODE													
			1 USA	2 INT'L	3 GBR	4 IRL	5 NOR	6 SWE	7 FIN	8 DEN	9 GER	10 HUN	11 TCH	12 POL	13 SUI	14 AUT
40	REDIAL TRIES	0 - 10 TRIES	1	3	2	2	5	10	3	5	10	10	2	2	10	10
41	REDIAL INTERVAL	1 - 6 min	3	3	3	3	2	3	3	3	1	1	3	3	1	1
42	AUTO START	ON / OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON
43	DIAL TONE DETECT	ON / OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
44	BUSY TONE DETECT	ON / OFF	ON	ON	ON	OFF	ON	ON	ON	ON	ON	OFF	ON	ON	ON	ON
45	MF/DP	DP / MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	DP	MF	DP	MF	DP
46	PULSE DIAL RATE	10 PPS / 16 PPS / 20 PPS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
47	PULSE MAKE RATIO	33 % / 39 % / 40%	39%	33%	33%	33%	33%	39%	39%	39%	40%	33%	39%	33%	40%	40%
48	PULSE DIAL TYPE	N / 10-N / N+1	N	N	N	N	N	N+1	N	N	N	N	N	N	N	N
49	MF(TONE) DURATION	75 ms / 85 ms / 100 ms	100	85	85	85	75	85	85	100	85	100	100	100	85	85
50	PBX LINE	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
51	FLS/EARTH/NORMAL	NORMAL / FLASH / EARTH	N	N	N	N	N	N	N	N	EARTH	N	N	N	FLASH	EARTH
52	DIAL PREFIX	OFF / (max. 4digits)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	0...	OFF	OFF	OFF	0...	0...
		XPARA3[0]	fc	e4	24	24	e0	e0	e4	24	ec	e4	e4	e4	ec	ec
		XPARA3[1]	28	28	28	28	38	28	28	28	38	28	28	28	38	38

Note:User setting are possible for items without mesh.

No.	User Setting Items	Setting Selection	COUNTRY CODE												
			15 BEL	16 HOL	17 FRA	18 POR	19 ESP	20 ITA	21 GRE	22 AUS	23 NZL	24 SIN	25 HNG	26 LTA	27 MEX
40	REDIAL TRIES	0 - 10 TRIES	3	2	2	2	2	2	2	2	2	5	2	3	3
41	REDIAL INTERVAL	1 - 6 min	3	3	6	3	3	3	3	3	3	3	3	3	3
42	AUTO START	ON / OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	ON	ON	ON
43	DIAL TONE DETECT	ON / OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	OFF
44	BUSY TONE DETECT	ON / OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
45	MF/DP	DP / MF	MF	MF	MF	DP	MF	MF	MF	MF	MF	MF	MF	MF	MF
46	PULSE DIAL RATE	10 PPS / 16 PPS / 20 PPS	10	10	10	10	10	10	10	10	10	10	10	10	10
47	PULSE MAKE RATIO	33 % / 39 % / 40%	33%	39%	33%	33%	33%	39%	39%	33%	33%	33%	33%	39%	39%
48	PULSE DIAL TYPE	N / 10-N / N+1	N	N	N	N	N	N	N	N	10-N	N	N	N	N
49	MF(TONE) DURATION	75 ms / 85 ms / 100 ms	85	100	75	85	85	85	100	85	85	85	85	100	100
50	PBX LINE	ON / OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
51	FLS/EARTH/NORMAL	NORMAL / FLASH / EARTH	N	N	FLASH	N	N	N	N	N	N	N	N	N	N
52	DIAL PREFIX	OFF / (max. 4digits)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		XPARA3[0]	64	e0	3c	24	24	e4	24	24	24	24	24	fc	fc
		XPARA3[1]	28	28	38	28	28	38	08	08	08	08	08	28	28

Note:User setting are possible for items without mesh.

2.9.9 Off-line Tests

(1) Purpose
Activate self-diagnosis which includes:

1) Main board
- CPU ROM version printing
- CPU RAM check
- PROG version printing
- LANGUAGE version printing
- DEFAULT version printing
- MODEM version printing
- RAM check
- RAM check (optional memory board)

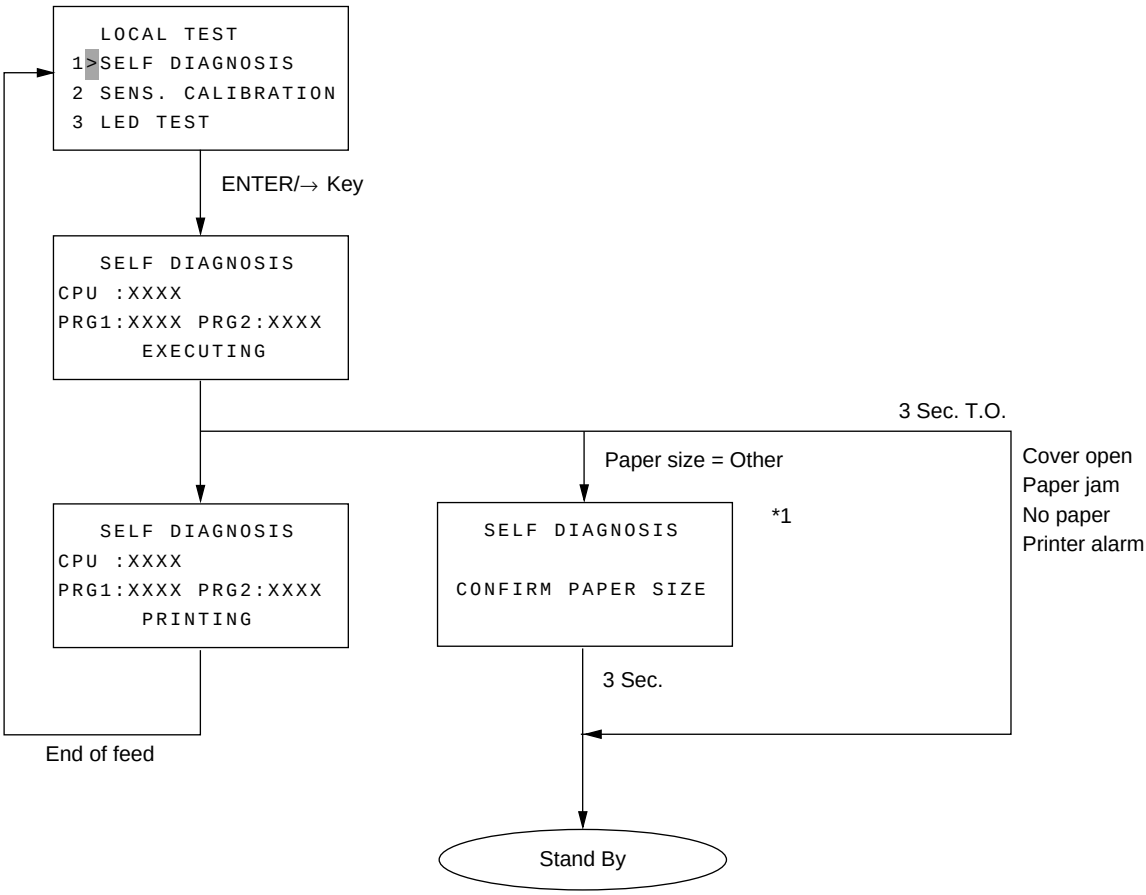
2) ISDN board
- CPU ROM version printing
- CPU RAM check
- PROG version printing
- RAM check
- DPRAM check

3) Printing function

(2) Operations:
1. The machine is standby state with no document.
2. Press the MENU/EXIT key once.
3. Press the RESOLUTION key twice.
   The display will be shown the “TECHNICAL PRG.”.
4. Press the ENTER/SHIFT RIGHT (→) key.
   The display will be shown the “LOCAL TEST”.
5. Press the ENTER/SHIFT RIGHT (→) key.
   The display will be shown the “SELF DIAGNOSIS”.

2.9.9.1 Self Diagnosis Flow

To check ROMs, RAMs and printing function.
Test report will be automatically printed out.



*1: OTHER is shown as below:
EXEC./JIS-B5/A5/A6

HOME

SELF DIAGNOSIS REPORT

12/24/1998 12:00
ID=0dc Takasaki

MAIN BOARD					
	CPU-ROM	VERSION	aaaa		* 1
		HASH	OK	hhhh	* 1
	CPU-RAM		OK		
	PROGRAM1	VERSION	aaaa		
		HASH	OK	hhhh	
	PROGRAM2	VERSION	aaaa		
		HASH	OK	hhhh	
	LANGUAGE	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	TYPE	01		
	MODEM	VERSION	hhhh		* 1
	RAM1	8M	OK		
	RAM2		OK		
	CARTRIDGE		bbbb		* 1 / * 4
	OPT-MEM	2M	OK		* 2
DEVICE ID	Fax 9830				*2/*3
HSP			OK		* 2 / * 5
ISDN BOARD			OK		* 2 / * 6
	CPU-ROM	VERSION	aaaa		
		HASH	OK	hhhh	
	CPU-RAM		OK		
	PROGRAM	VERSION	aaaa		
		HASH	OK	hhhh	
	RAM	2M	OK		
	DPRAM	2K	OK		

HOME

SELF DIAGNOSIS REPORT

12/24/1998 12:00
ID=0dc Takasaki

MAIN BOARD					
	CPU-ROM	VERSION	aaaa		* 1
		HASH	OK	hhhh	* 1
	CPU-RAM		OK		
	PROGRAM1	VERSION	aaaa		
		HASH	OK	hhhh	
	PROGRAM2	VERSION	aaaa		
		HASH	OK	hhhh	
	LANGUAGE	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	TYPE	01		
	MODEM	VERSION	hhhh		* 1
	RAM1	8M	OK		
	RAM2		OK		
	CARTRIDGE		bbbb		* 1 / * 4
DEVICE ID	Fax 9830				*2/*3
ISDN BOARD			OK		* 2 / * 6
	CPU-ROM	VERSION	aaaa		
		HASH	OK	hhhh	
	CPU-RAM		OK		
	PROGRAM	VERSION	aaaa		
		HASH	OK	hhhh	
	RAM	2M	OK		
	DPRAM	2K	OK		

Note: In case of no MEM board and no LAN board

Note:

*1: a indicates an alphanumeric character; n indicates a numeric character (0 to 9); h indicates a hexadecimal number; and b indicates 0 or 1.

*2: Printed when the option board is mounted and if not, entry lines following this line are not omitted.

*3: Lowercase letters can also be listed. This item reports MDL information for the PnP device ID only.
This item can be up to 40 characters long.

*4: This item reports toner cartridge ID information (port read value).
Entry items shown below are printed.
CARTRIDGE bbbb

*5: For the LAN board, the status of the LAN board at self diagnosis shall be recorded. (If the LAN board is in the alarm state, the cause of the alarm is recorded.) When an HSP error occurs, entry items shown below are printed.
HSP NG nn

*6: The result of ISDN board test, which is performed at self diagnosis, shall be lprinted. (Error information at power-on shall also be listed partially.)
When an ISDN error occurs,entry items shown below are printed.
ISDN board NG nn

nn=01 Waiting for PC loading
The BOOT2 signal from the host side at the time of power on is set to PC loading mode.

nn=02 Board abnormality
The ISDN board program hash is NG upon power on.

nn=03 Board abnormality
The initial sequence between boards cannot be excuted in 10 seconds after power on. (The status window does not indicate a normal value.)

nn=04 Board abnormality
The initial sequence of the ISDN LSI cannot be excuted upon power on.
(No resonse for the command, NG response)

nn=05 ISDN LSI abnormality
The result of ISDN LSI testing function is NG: (ROM/RAM test, Loop test)

2.9.10 On-line Tests

1. Transmission

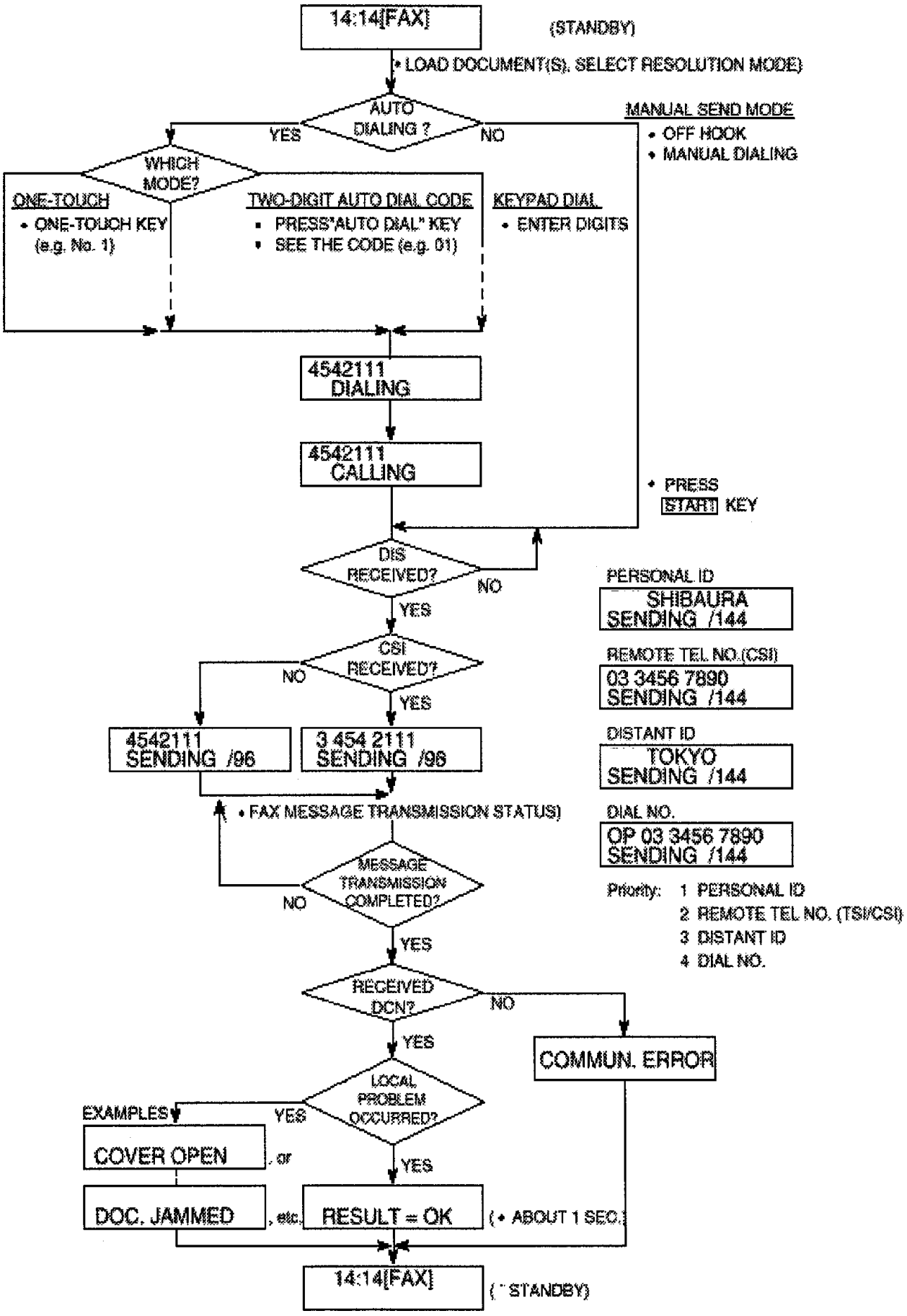
(1) Load documents
(2) Make sure that
- The loaded documents are fed in automatically.
- The STD and NORMAL lamps light.
- The display shows SELECT LOCATION(S) OR PRESS COPY.

(3) Dial the telephone number of the remote machine by the ten-key pad.
(4) Make sure that the telephone number of the remote machine is shown on the display.
(5) Press the START/COPY button.
(6) Typical message transmission flow is described in Figure 2.9.10.1.

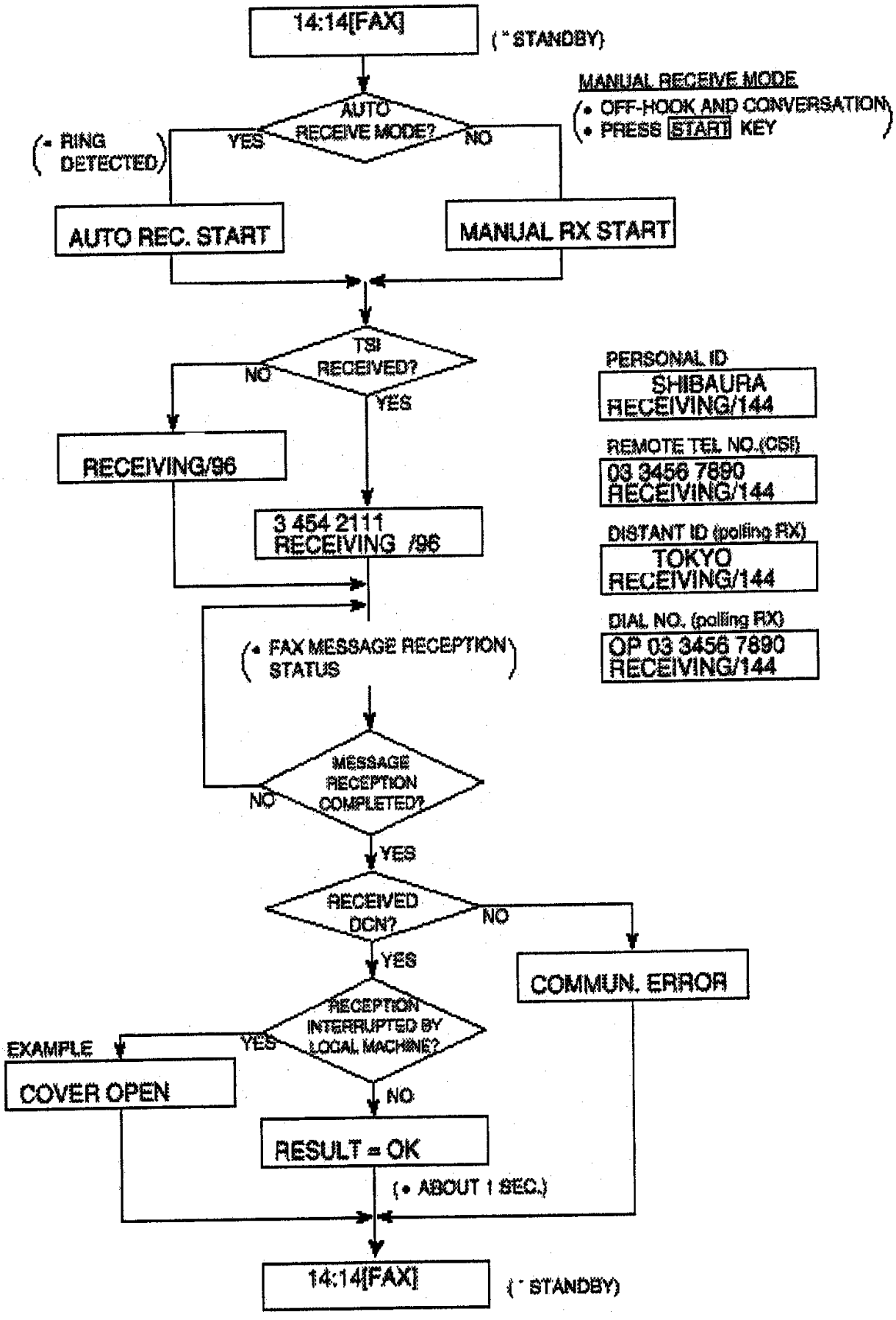
2. Reception

(1) Use another machine for dialing.
(2) Make sure that
- The display shows AUTO REC. START.
- The message is automatically received.

(3) Typical message reception flow is described in Figure 2.9.10.2



Typical Transmission flow (Figure 2.9.10.1)



Typical Reception flow (Figure 2.9.10.2)

2.10 Installation of optional units

2.10.1 Optional units

(1) Items
- Memory EXP. Board-RA1-/-2
- Board-G4A
- Board-LAN
- 2nd tray unit

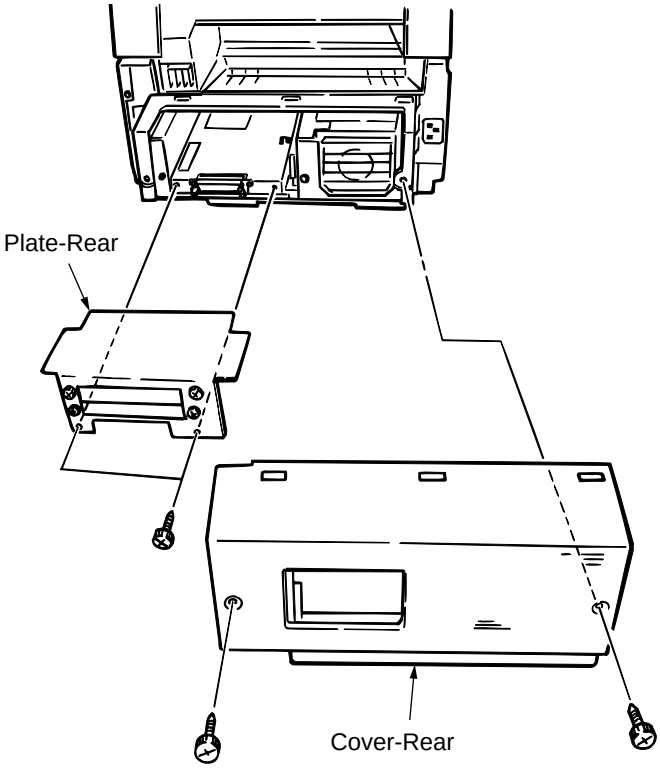
(2) Procedure
- Turn the facsimile power switch OFF and remove the AC power cord.

Note: Unplug the AC power cord from the wall outlet first and then from the facsimile.

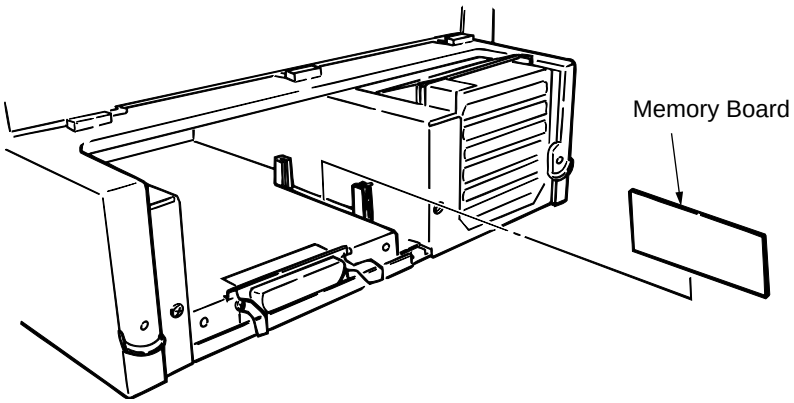
- Do not remove unnecessary parts.
- Since screws and small parts are likely to be lost, they should temporarily be attached to their original positions.

2.10.2 Memory Board Installation Instruction

1. Remove Cover-Rear, Plate-Rear



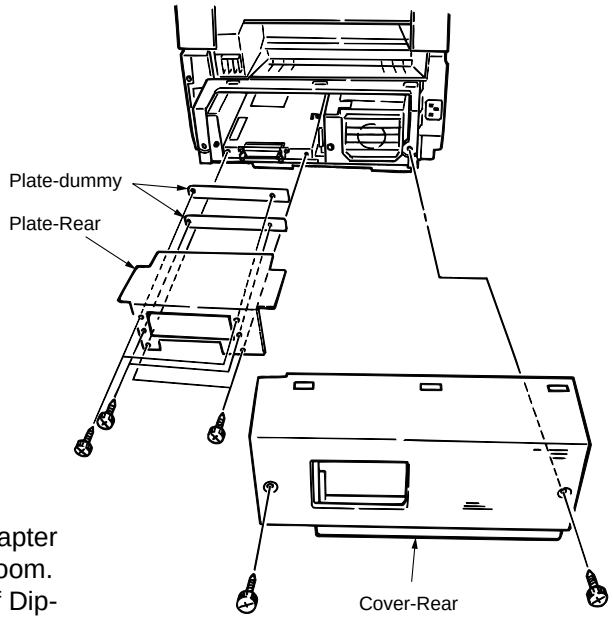
2. Connect Memory Board



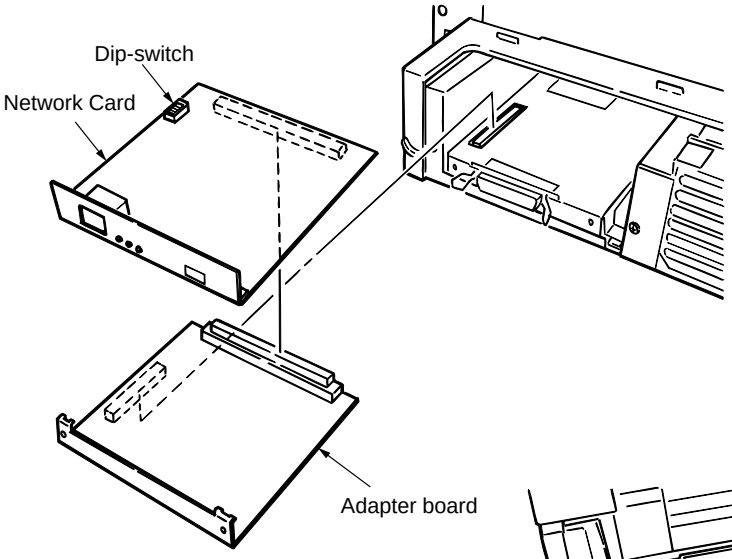
3. Attach Plate-Rear and Cover-Rear.

2.10.3 Network Card Installation Instruction

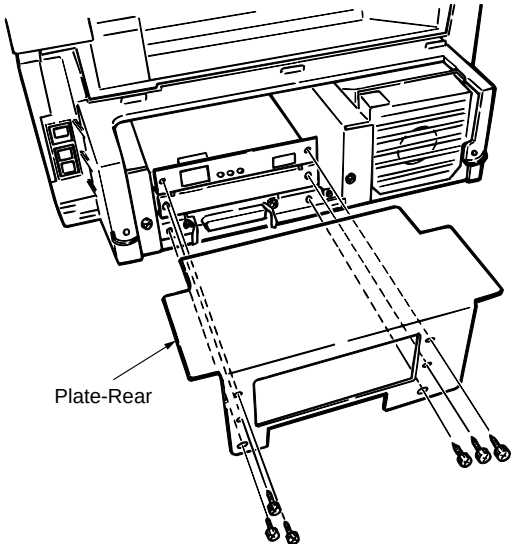
1. Remove Cover-Rear, Plate-Rear and 2 piece of Plate-dummy.



2. Connect Network card with Adapter board, then, mount it into the room. Before installation, check #1 of Dip-switch should be "ON" and #2 - #4 be "OFF". In case of G4 board application, exchange above Adapter board to G4 board.



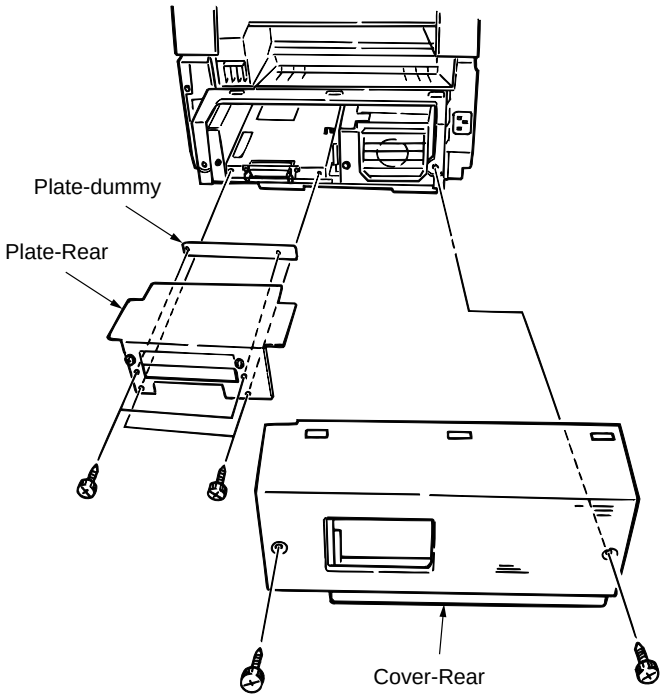
3. Attach Plate-Rear, and fix Network card, Adaptor board with 2 each screw. Then fix Plate-Rear.



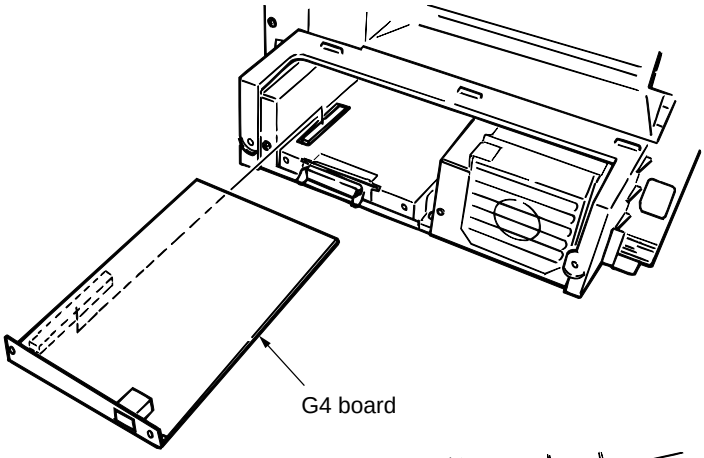
4. Attach Cover-Rear.

2.10.4 G4 Board Installation Instruction

1. Remove Cover-Rear, Plate-Rear and Plate-dummy.
   Caution: Remove only lower Plate-dummy.



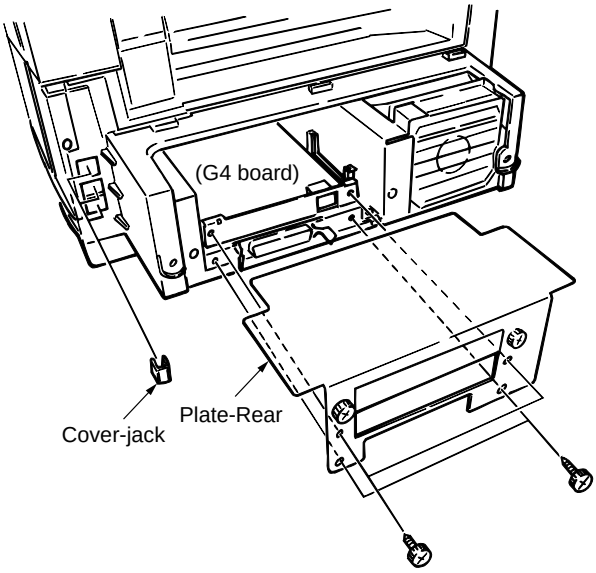
2. Mount G4 Board.



3. Attach Plate-Rear, and fix G4 board with 2 screws, then fix Plate-Rear.

4. Attach Cover-Rear.

5. Attach three Cover-jack to the line, TEL1, TEL2 connector.

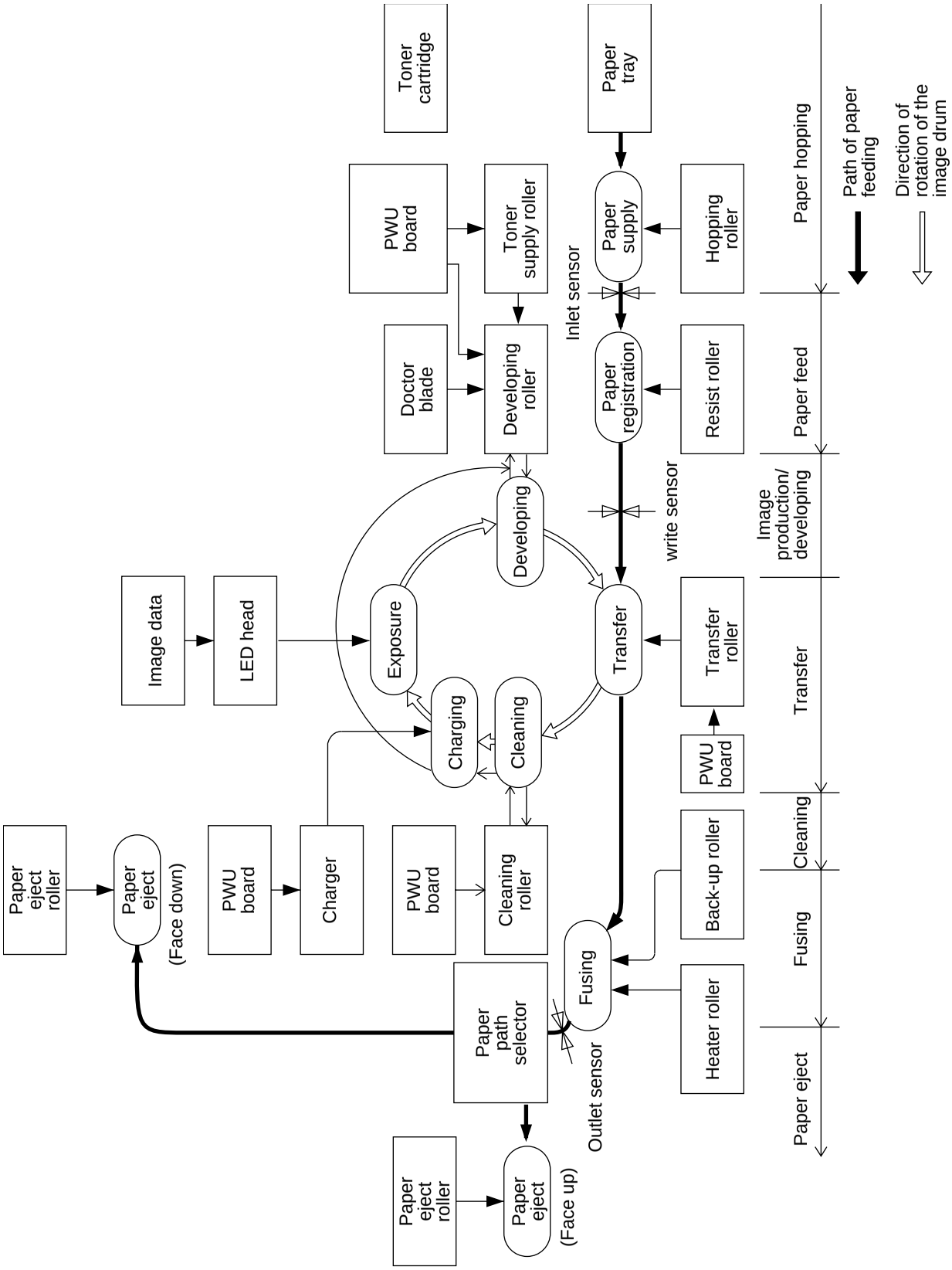


HOME

Chapter 3

Brief Technical Description

Konica Business Technologies

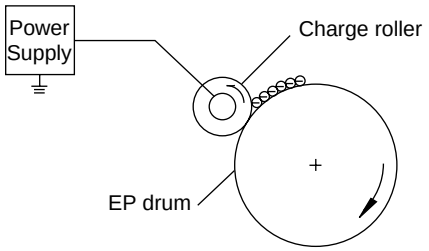
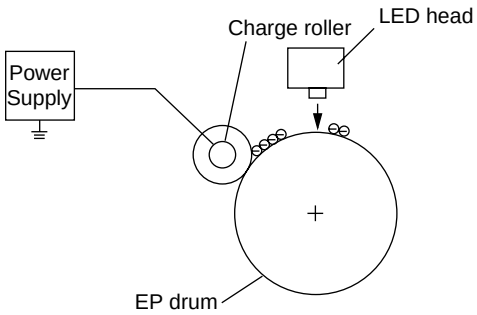
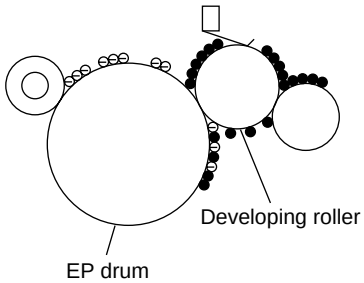


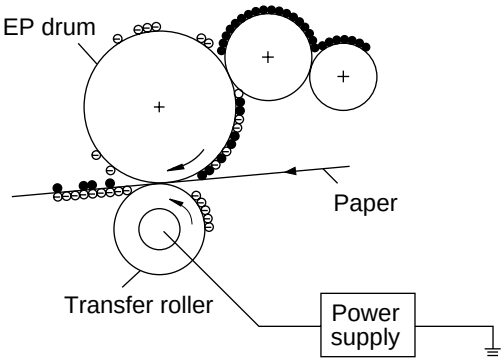
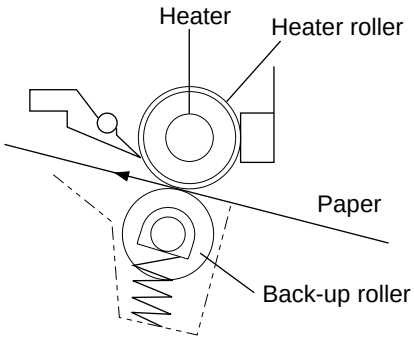
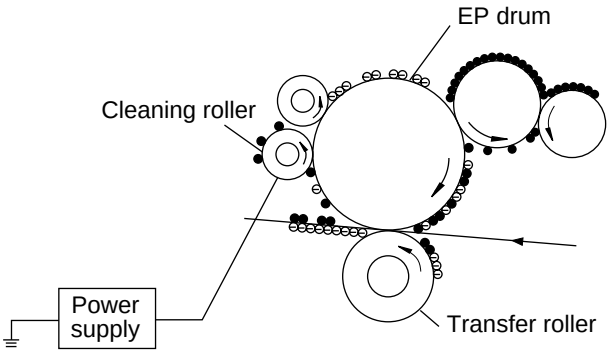
Electro-photographic Process Flow

3.1 Fundamentals of the Electro-Photographic Process

The electro-photographic process involves six sub-processes:
(1) Charging (2) Exposure (3) Development (4) Transfer (5) Fusing (6) Cleaning

Outline of each process is explained below.

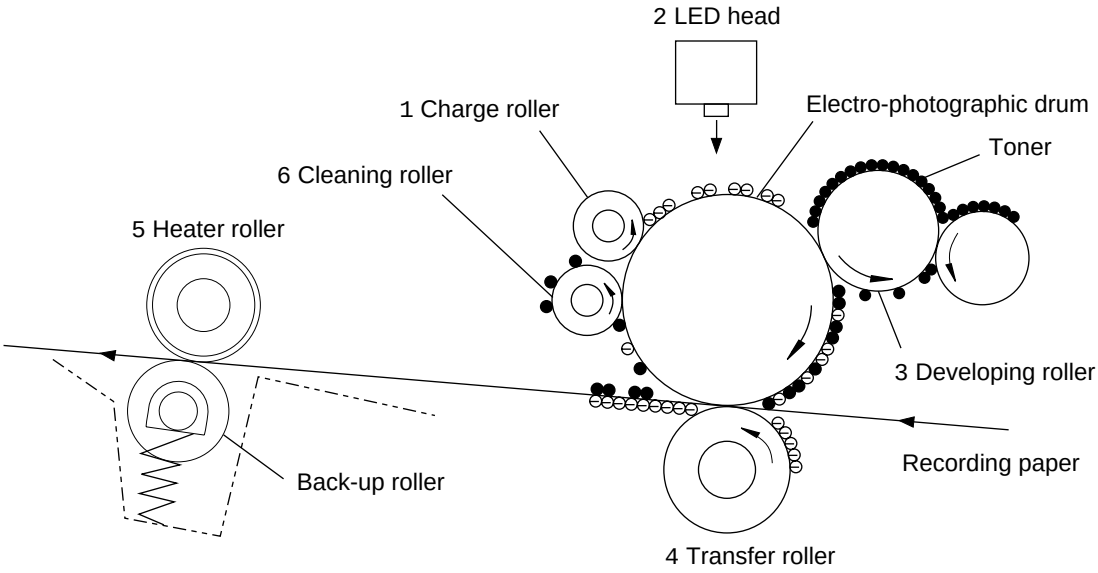
Process	Illustration	Description
1 Charging		The surface of the electro-photographic Image drum is uniformly charged with negative charges by applying a negative voltage to the charge roller. When the applied DC voltage exceeds a threshold value, charging of the drum begins.
2 Exposure		Light emitted from the LED head irradiates the negatively charged surface. The potential of the irradiated part of the Image drum surface is raised, so that an electrostatic latent image associated with the print image is formed.
3 Development		Toner is attracted to the exposed part (high-potential part) of the Image drum at the contact between the Image drum and the developing roller, making the electrostatic latent image visible. At the same time, the residual toner on the Image drum is attracted to the developing roller by static electricity.

Process	Illustration	Description
4 Transfer		The recording paper is placed over the Image drum surface and a positive charge, opposite in polarity to the toner, is applied to the reverse side of the paper from the transfer roller. The toner is attracted by the positive charge and is transferred to the paper. The toner charged negative that is attracted to the Image drum surface is transferred to the upper side of the recording paper by the positive charge on the lower side of the paper.
5 Fusing		The unfused toner image is fused on the paper under heat and pressure as it passes between the heater roller and the back-up roller.
6 Cleaning		Residual toner on the Image drum is attracted to the cleaning roller temporarily by static electricity on the Image drum surface.

3.2 Actual Electo-photographic Process

The electro-photographic process consists of six essential processes.

The following Figure 3.2.1 provides a general description.



* Process:

1 : Charging
2 : Exposure
3 : Developing
4 : Transfer
5 : Fusing
6 : Cleaning

Figure 3.2.1 Actual EP Process

3.3 Boards and Units

The following boards and units constitute the facsimile transceiver machine.

Standard	
• MCNT (Main control board)	R76-2
• V.34 Modem	C34/H34-
• NCU (Network Control Unit)	UNC- (USA/Canada) WN5- (INT'L) DN5- (GER) FN5- (UK/France)
• Operation panel assembly unit	P76- (Main), P77- (One-touch)
• High Voltage Power Unit	H10
• Toner Lock Board	TLK-
• Low Voltage Power Unit	MPW2520 (120V) MPW2420 (230V)
Option	
• Optional Memory	RA- (2M byte) RA-2 (4M byte)
• G4 board	G4A-
• Adaptor board for NIC	DM1-
• NIC (Network Interface Card)	

3.4 Overall Dimension and Mechanical Structure of FAX 9830

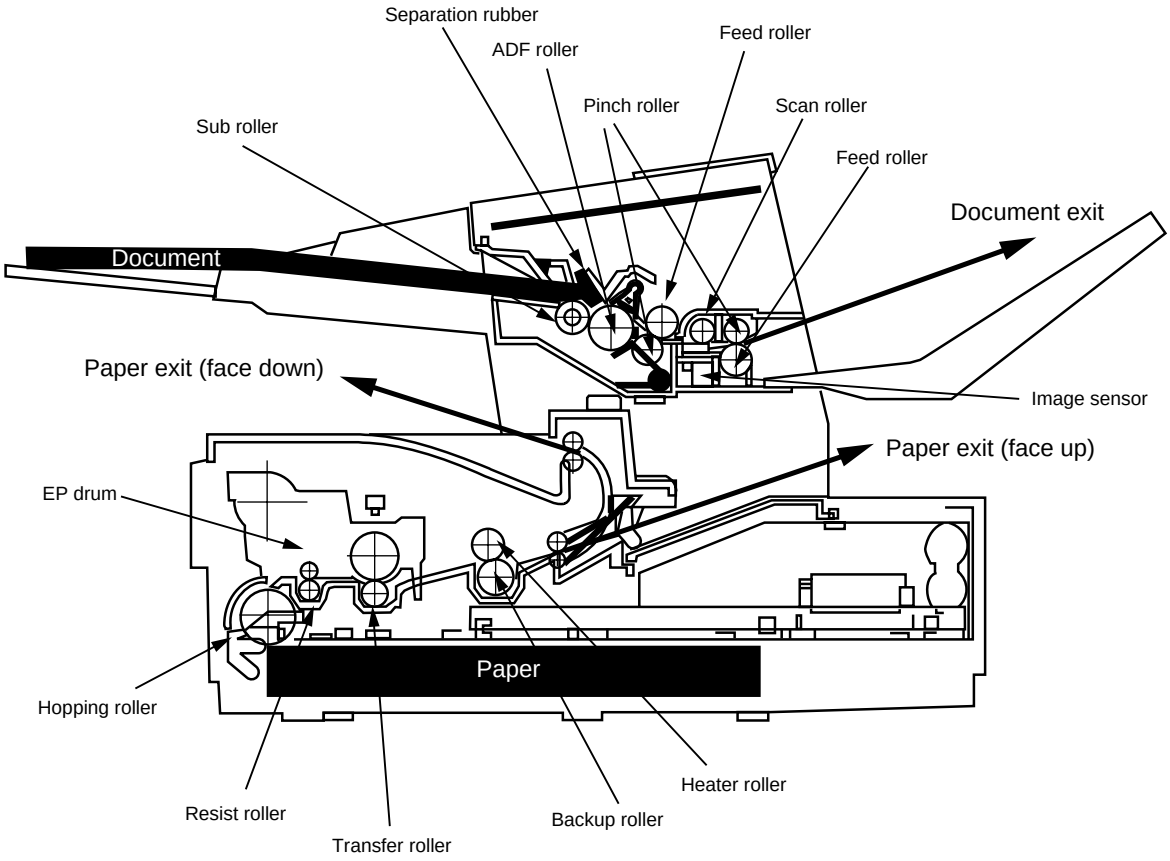


Fig. 3.4.1-1 Overall Dimension and Mechanical Structure 1/2

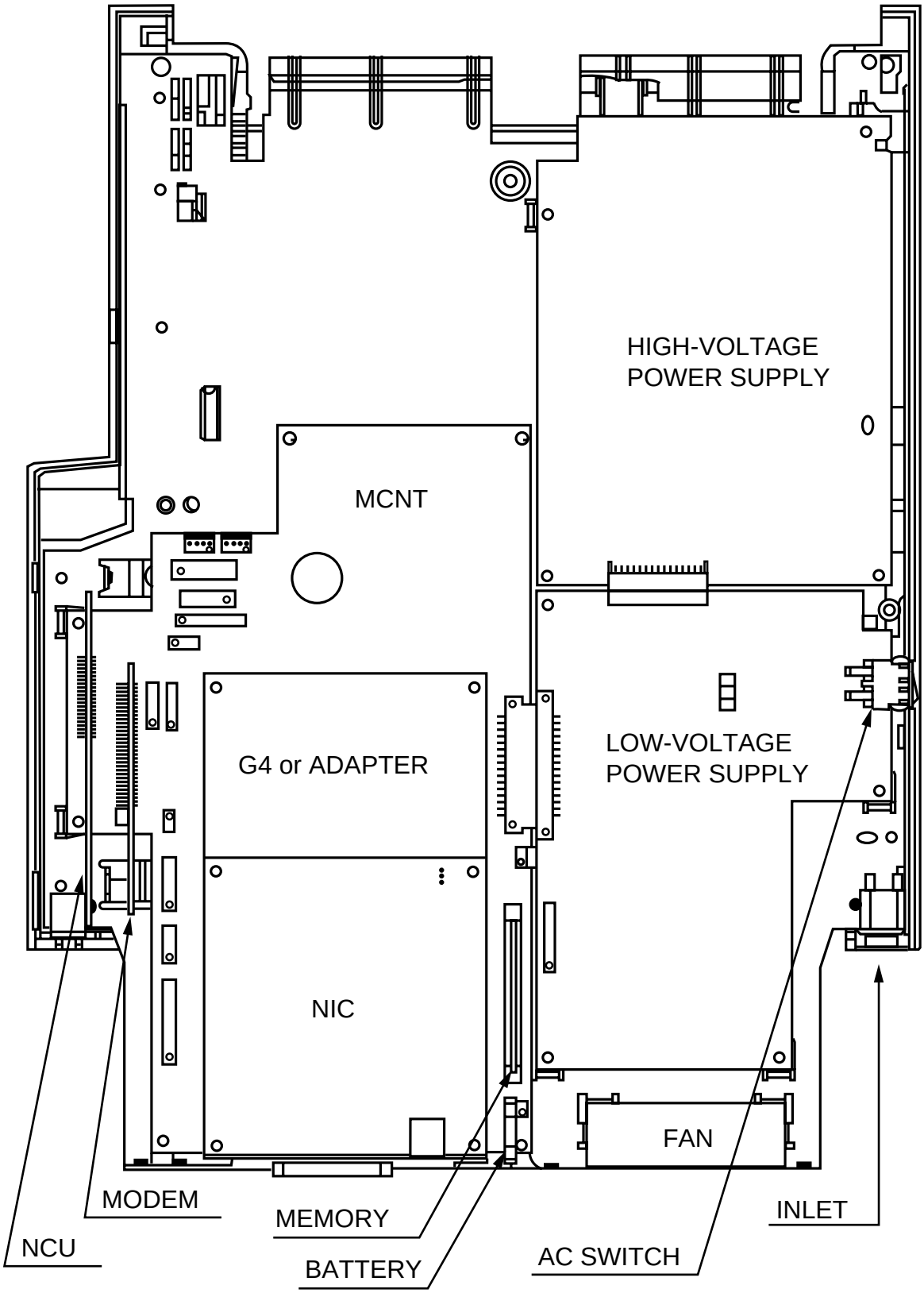


Fig. 3.4.1-1 Overall Dimension and Mechanical Structure 2/2

HOME

Chapter 4

Disassembly

Konica Business Technologies

4. General

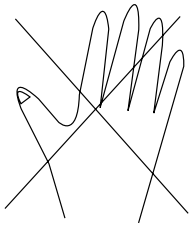
The section explains the procedures for replacement of parts, assemblies, and units in the field. Only the disassembly procedures are explained here. For reassembly, reverse the disassembly procedure.

4.1 Precautions for Parts Replacement

DANGER

Do Not
Touch !

HIGH VOLTAGE



You may be subjected to high-voltage electric shock by touching the following parts without an insulating material:

a. High-voltage unit PC board
b. Low-voltage PC board
c. Contact ass'y
d. Power supply unit

* The high voltage risk may continue for about 3 days after power-off.
* Never touch the power supply unit pattern.

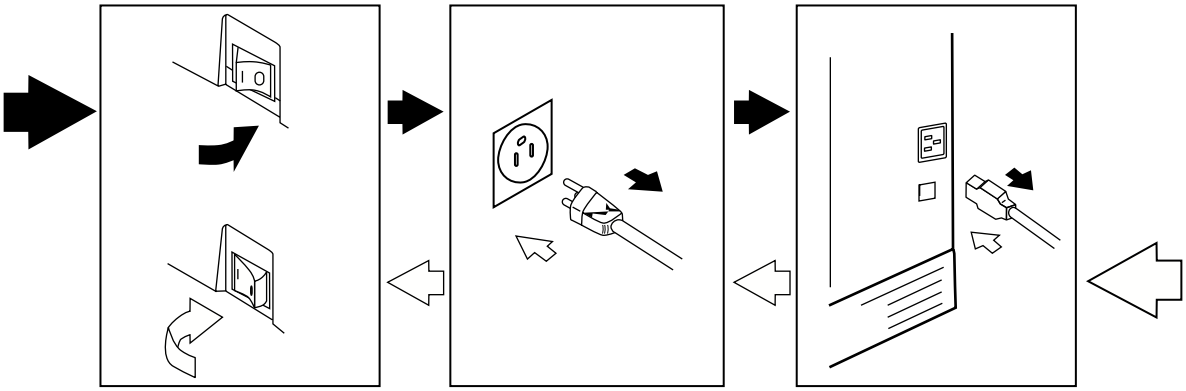
(1) Before starting to replace parts, remove the AC cord.

(a) Remove the AC cord in the following sequence:

1. Turn off ("o") the power switch of the machine.
2. Disconnect the AC inlet plug of the AC cord from the AC receptacle.
3. Disconnect the line cable from the machine.

(b) Reconnect the machine in the following procedure:

1. Connect the AC cord and line cable to the machine.
2. Connect the AC inlet plug to the AC receptacle.
3. Turn on ("I") the power switch of the machine.



(2) Do not disassembly the printer as long as it is operating normally.

(3) Do not remove parts which do not have to be touched; try to keep the disassembly to a minimum.

(4) Use specified service tools.

(5) When disassembling, follow the laid out sequences. Parts may be damaged if these sequences are not followed.

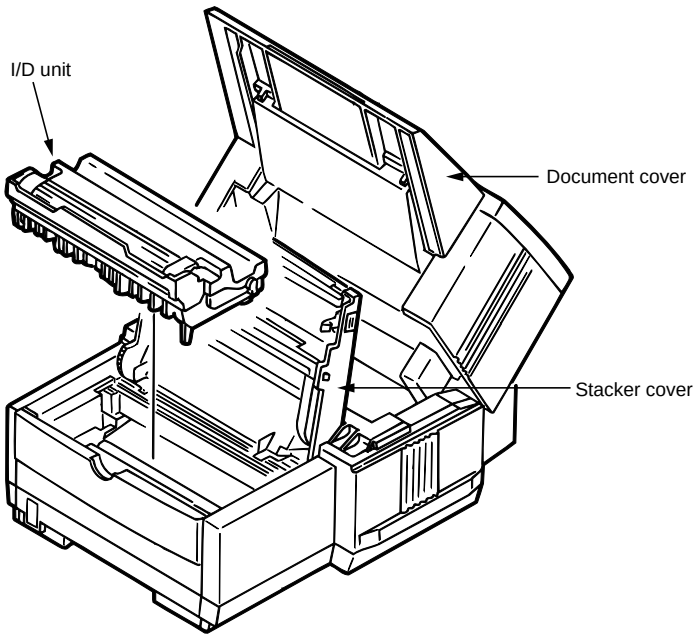
(6) Since screws, collars and other small parts are likely to be lost, they should temporarily be attached to the original positions during disassembly.

(7) When handling IC's such as microprocessors, ROMs and RAMs, or circuit boards, do not wear gloves that are likely to generate static electricity.

(8) Do not place printed circuit boards directly on the equipment or floor.

(9) Remove the I/D unit (image drum unit).

- Open the document cover and stacker cover, then remove the I/D unit.

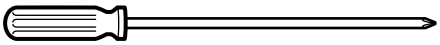
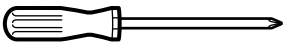
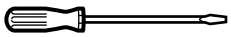
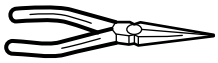
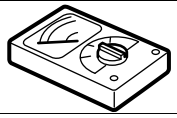


Caution: Do not expose the I/D unit to direct sunlight. To protect the I/D unit against room lights, cover it with A4-size paper or the like.

	Board or Part	Adjustment
(a)	NCU board	DIP switches to be placed in the same position as on the removed board. Refer to Chapter 8.
(b)	LED print head	When the rank marking of the replaced LED print head (new part) is the same as that of the used LED print head (old part), you do not always have to set the LED print head strobe time by the technical function (Refer to chapter 5).

4.2 Tools

Table 4.1 shows the tools required for the replacement of parts such as circuit boards and mechanical units.

No.	Service tools		Q'ty	Remarks
1		Philips screw driver (L)	1	
2		Philips screw driver (M)	1	
3		Flat screw drivers (S)	1	
4		Philips screw driver (S)	1	
5		Radio pliers	1	
6		Nippers	1	
7		Multimeter	1	Short-ciucuit test

4.3 How to Disassemble and Reassemble

This section explains how to disassemble and reassemble the fax.

- Figure 4.1 shows the disassembly procedure flow as generalization.
- The detailed disassembly procedure is explained from sub-section 4.3.1 to 4.3.28.

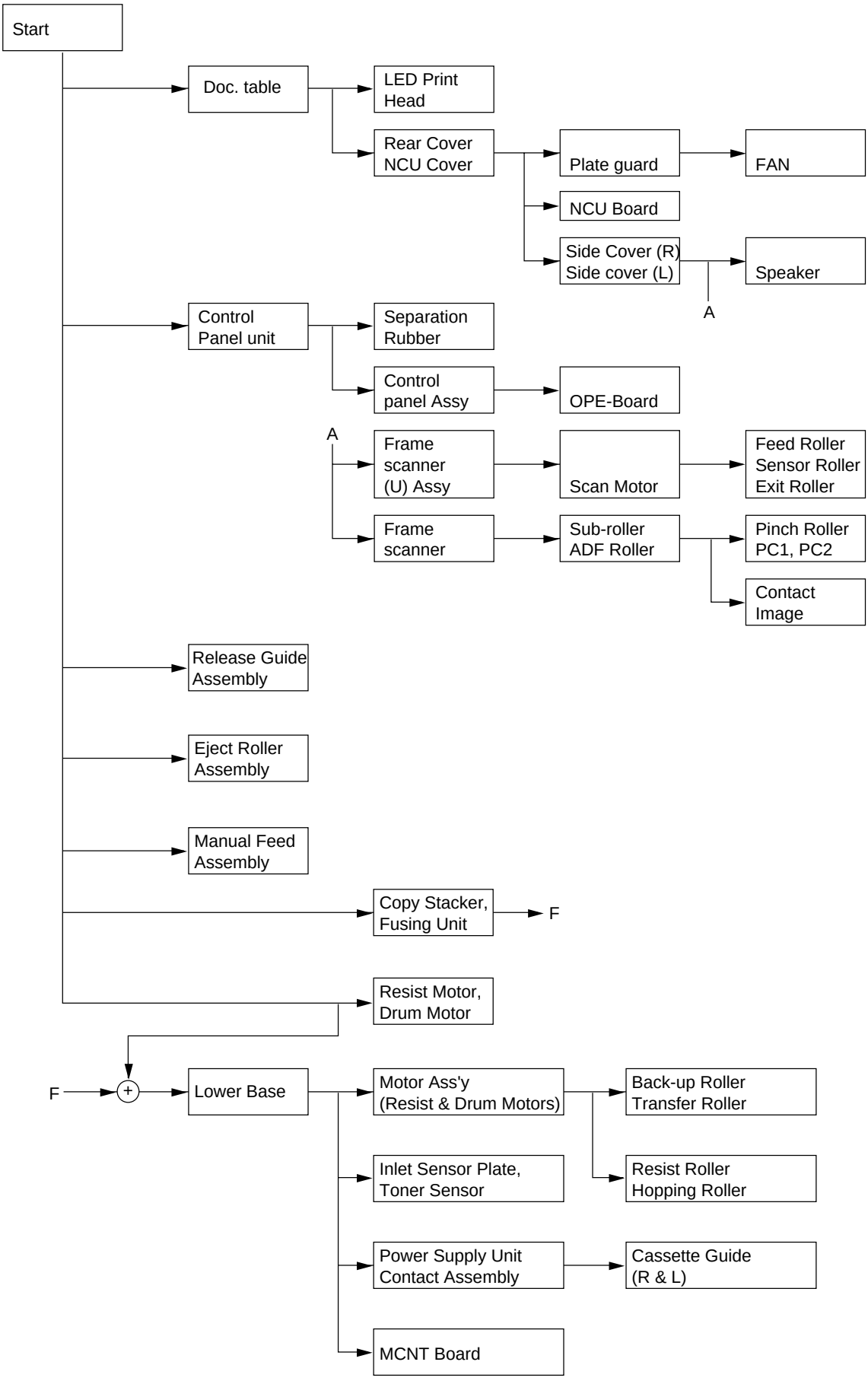
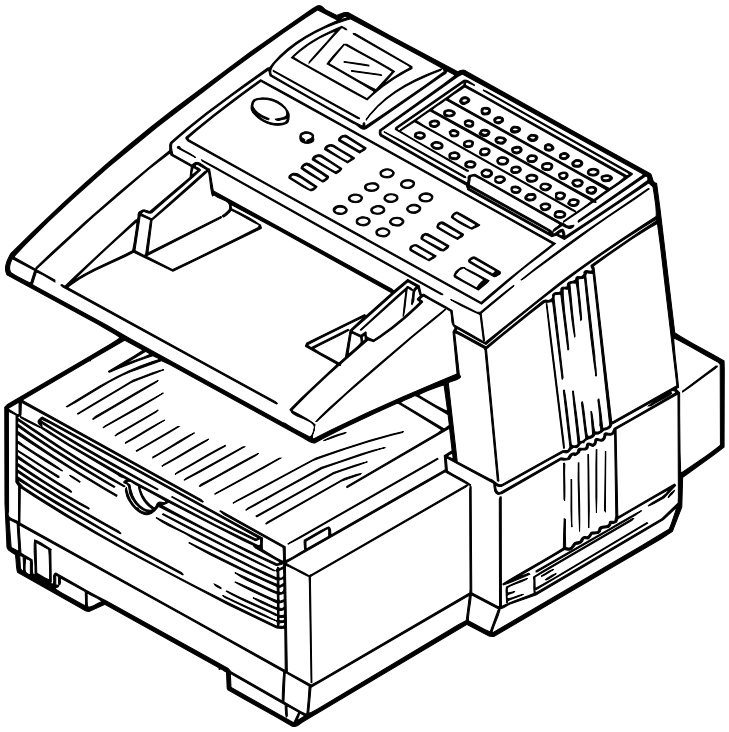


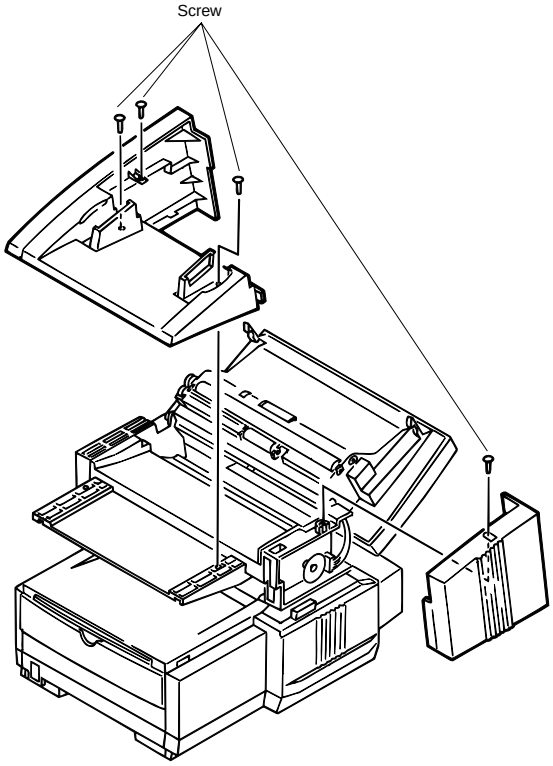
Fig. 4.1 FAX 9830 Disassembly Procedure Flow

Appearance of the FAX 9830



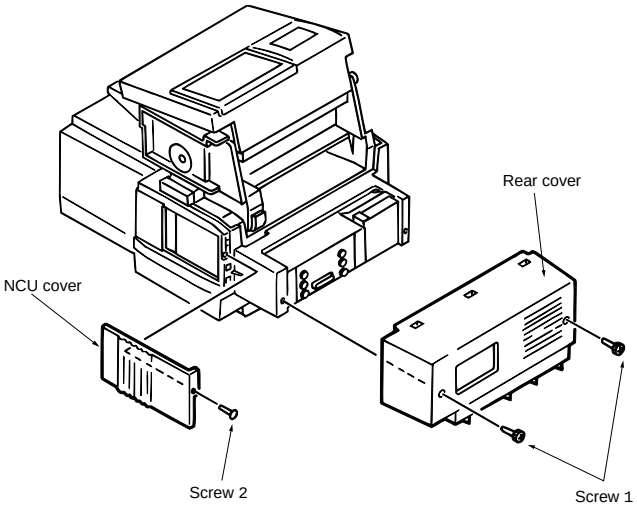
4.3.1 Document Table Cover

1. Open the operation panel.
2. Remove the cover by unscrewing four screws.



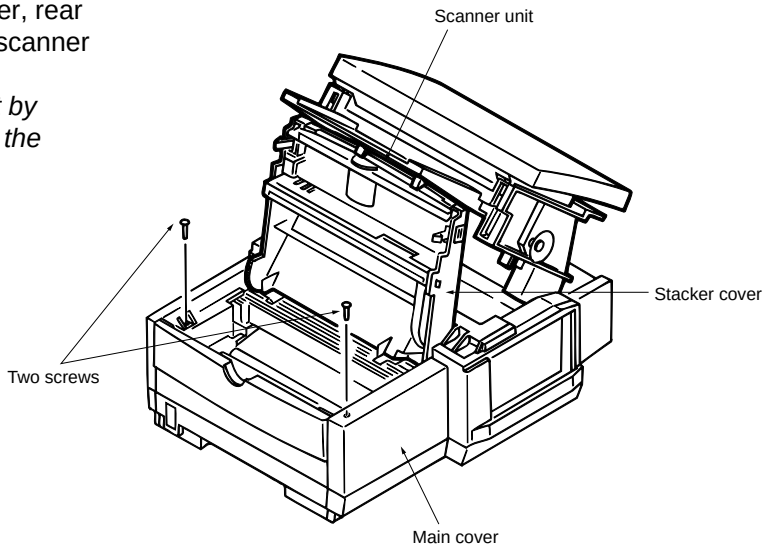
4.3.2 Rear Cover and NCU Cover

1. Unscrew two screws (1).
2. Slide the rear cover up slightly and pull it forward for removal.
3. Remove the NCU cover by unscrewing one screw (2).

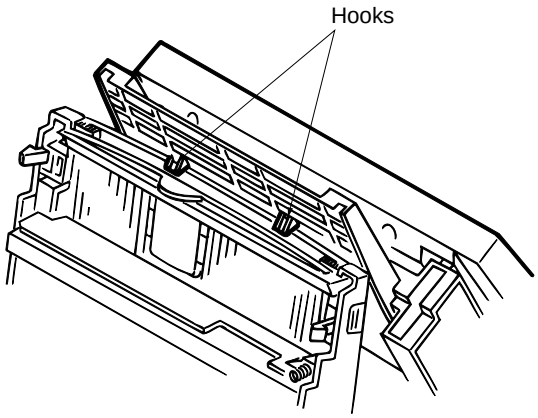


4.3.3 Main Cover

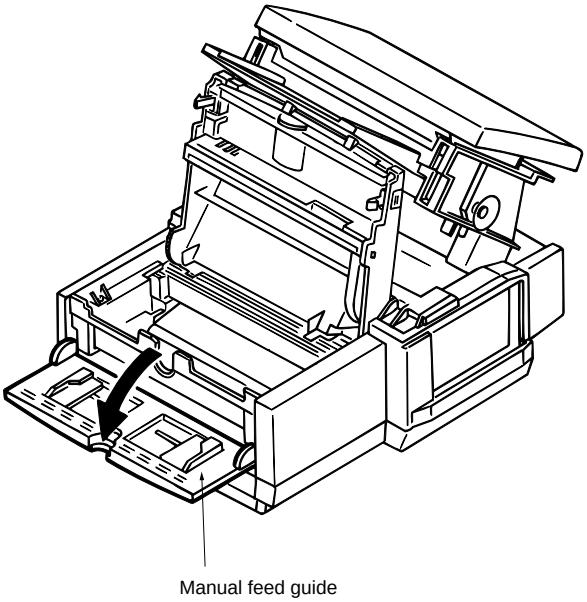
1. After removing the document cover, rear cover, and NCU cover, open the scanner unit and stacker cover.
   Caution: Secure the scanner unit by engaging its hooks with the stacker cover.



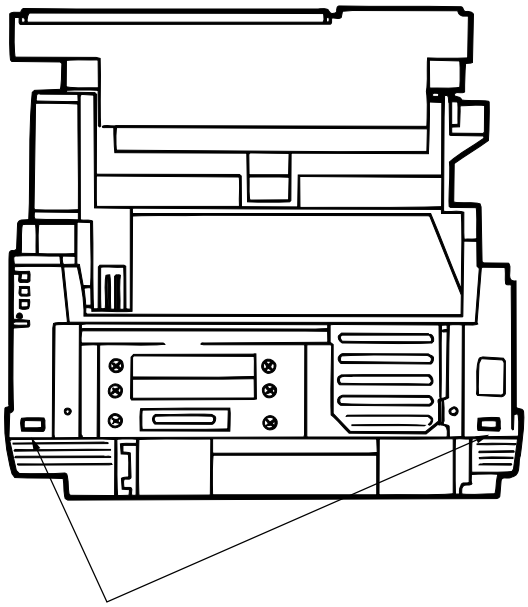
2. Unscrew two screws.

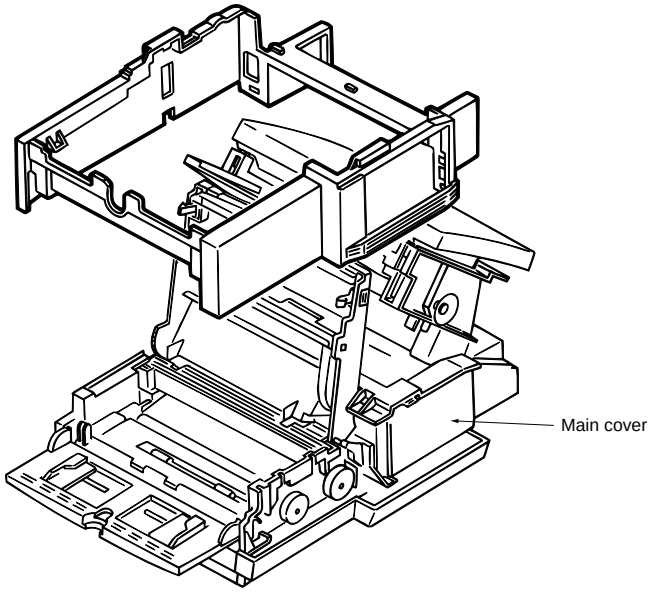


3. Open the manual feed guide.



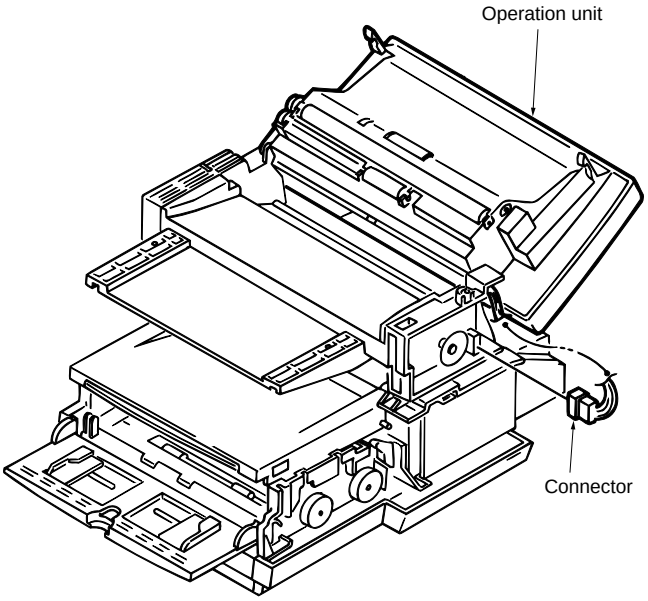
4. First, disengage the two hooks at the back. Next, remove the main cover with it lifted.



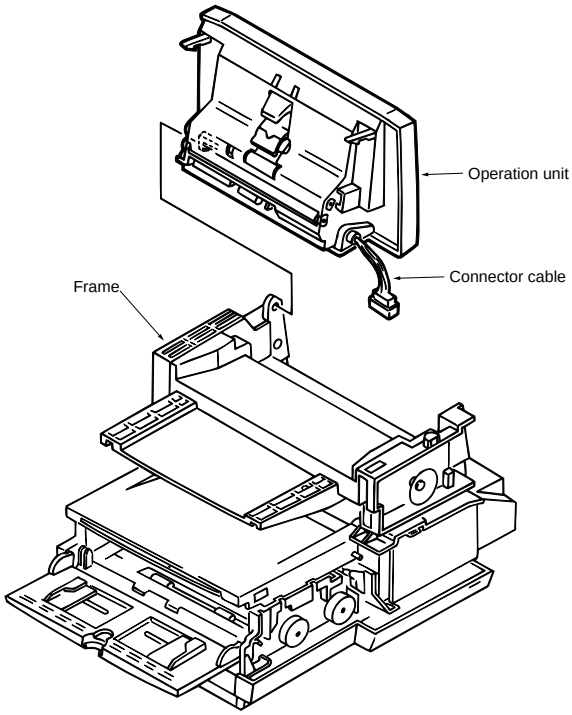


4.3.4 Operation Unit

1. Disconnect the connector.



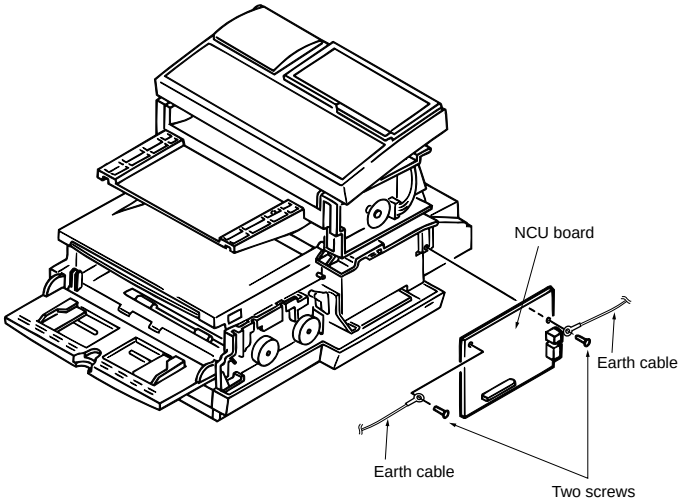
2. Open the operation unit and slide it leftward for removal.
   Caution: Pull out the connector cable from the frame.



4.3.5 NCU Board

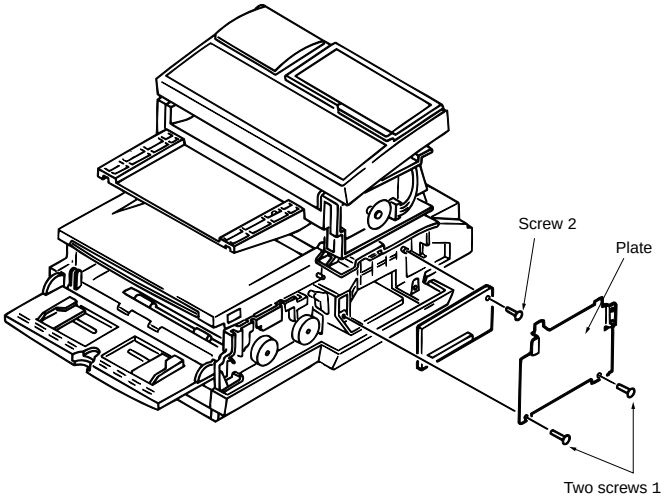
Remove the NCU board by unscrewing two screws.

Caution: Earth cable position is different from each machine version.



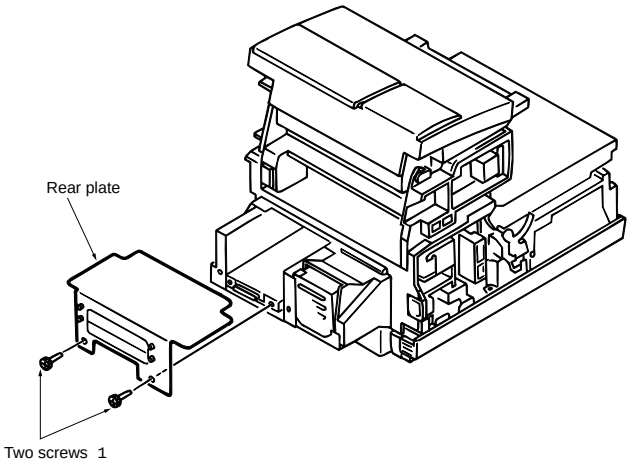
4.3.6 MODEM Board

1. Remove the plate by unscrewing two screws (1).
2. Remove the MODEM board by unscrewing one screw (2).

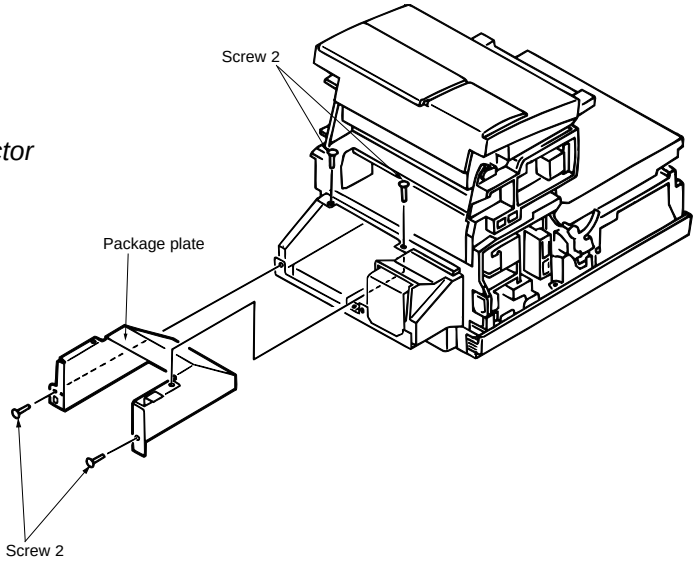


4.3.7 Plate Package

1. Unscrew two screws (1) and pull out the rear plate.



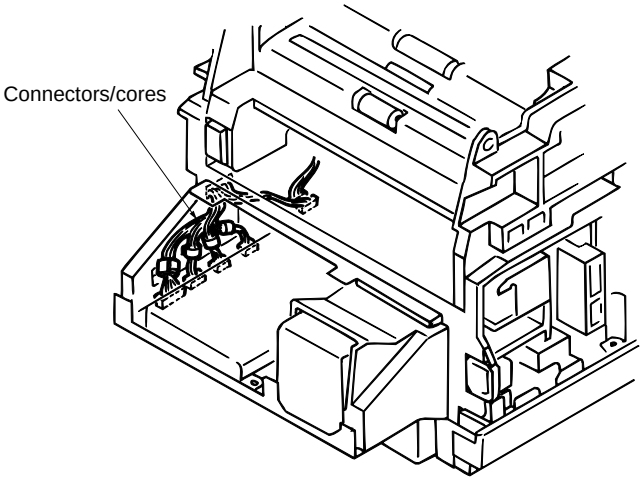
2. Unscrew four screws (2) and take out the package plate.
   Caution: Before take out the package plate, disconnect the connector of Battery.



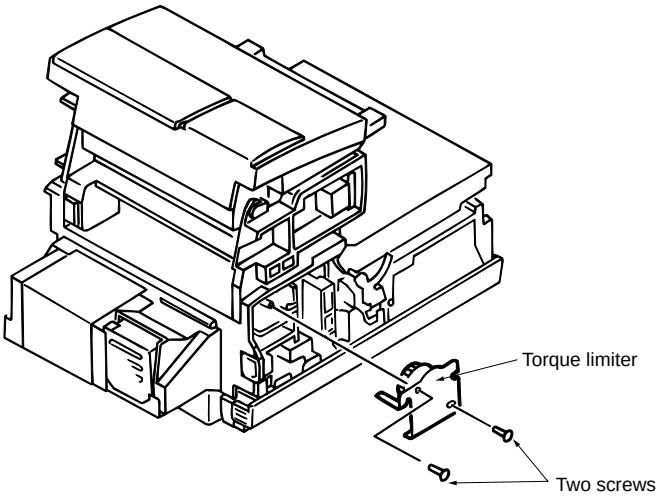
4.3.8 Scanner Unit (CIS)

1. Disconnect six connectors (CN8, 9, 13, 14, 15 and SP)

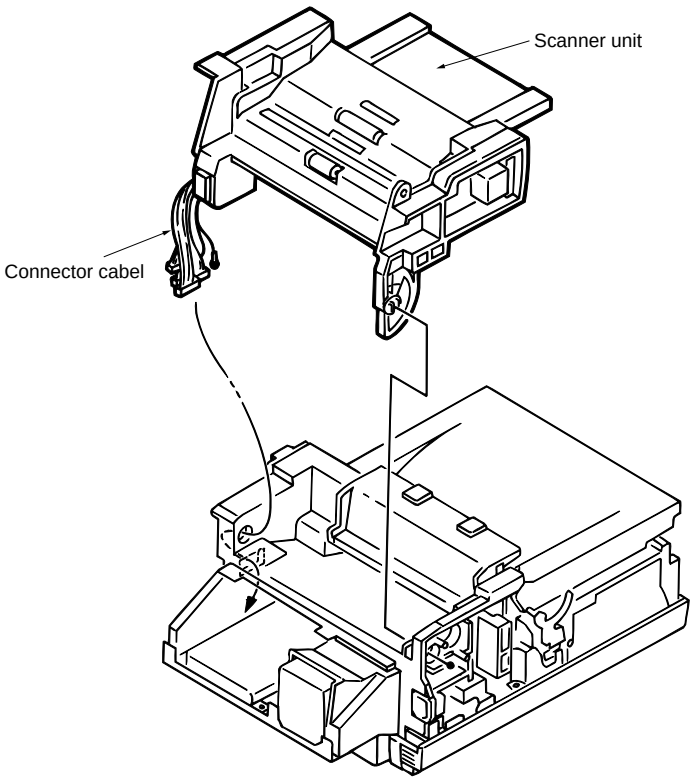
2. Remove four cores.



3. Remove the torque limiter by unscrewing two screws.

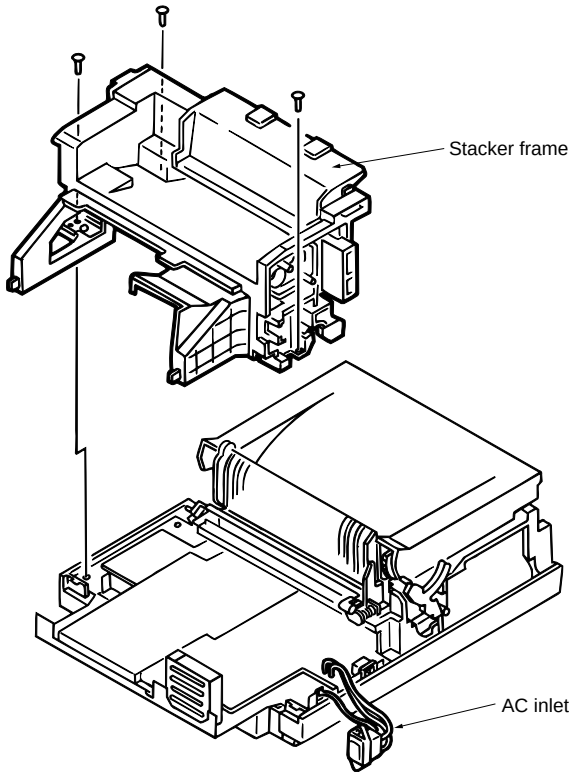


4. Pull out the connector cable from the stacker frame and remove the scanner unit.



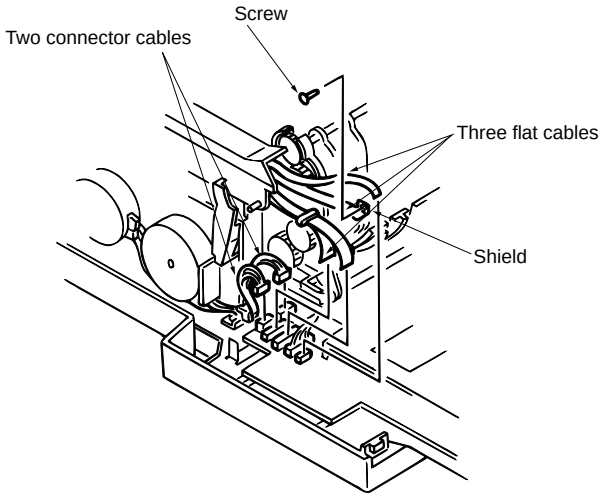
4.3.9 Stacker Frame

Remove the AC inlet and unscrew three screws to remove the stacker frame.



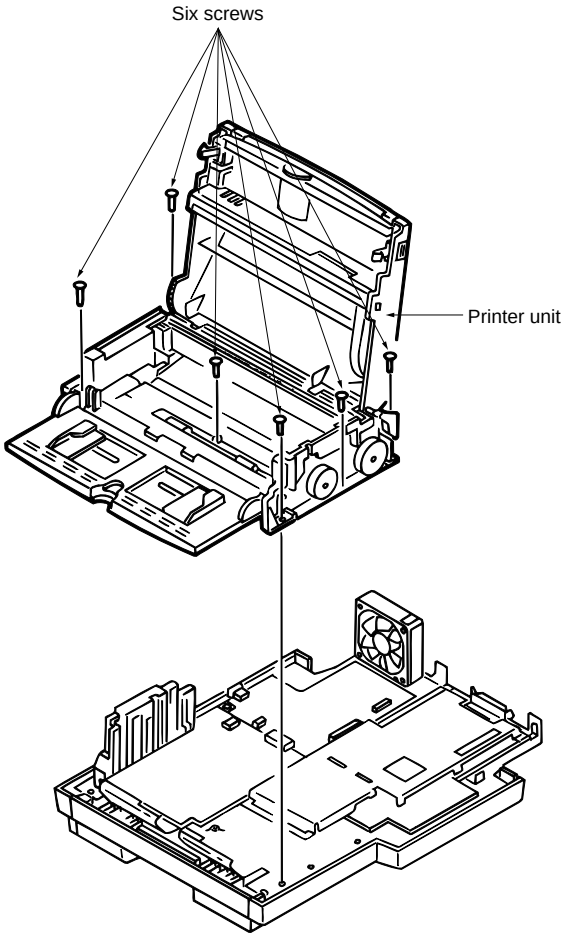
4.3.10 Printer Unit

1. Disconnect three flat cables and two connector cables
2. Remove the shield by unscrewing one screw.



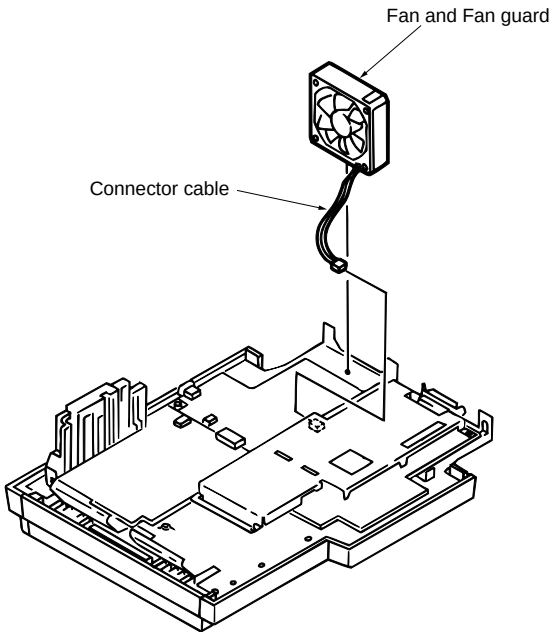
3. Remove the printer unit by unscrewing six screws.

Caution: The number of pins of the CN2 connector is the same as that of the CN3 connector; however, colors of these connectors are different (CN2 is yellow and CN3 is white). When connecting these connectors, pay attention to their colors.



4.3.11 Fan and Fan guard

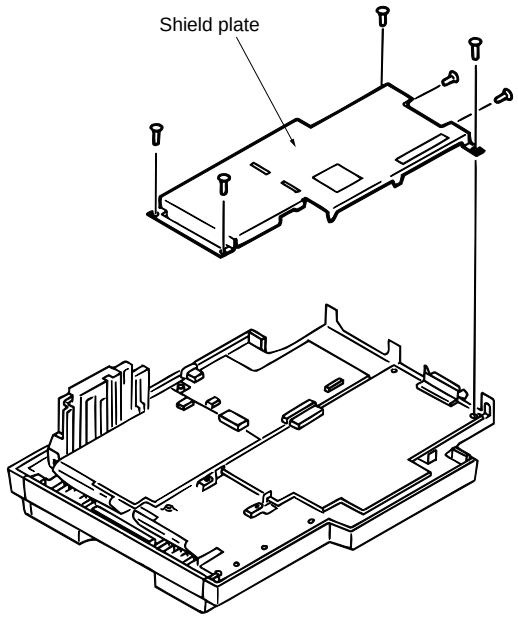
Disconnect the connector cable and remove the fan and Fan guard.



4.3.12 Main Board

1. Remove the shield plate by unscrewing six screws.

2. Unscrew four screws and disconnect two connector cables, then slide the main board for removal.



4.3.13 Contact Assembly and High-/ Low-voltage Power Supply Boards

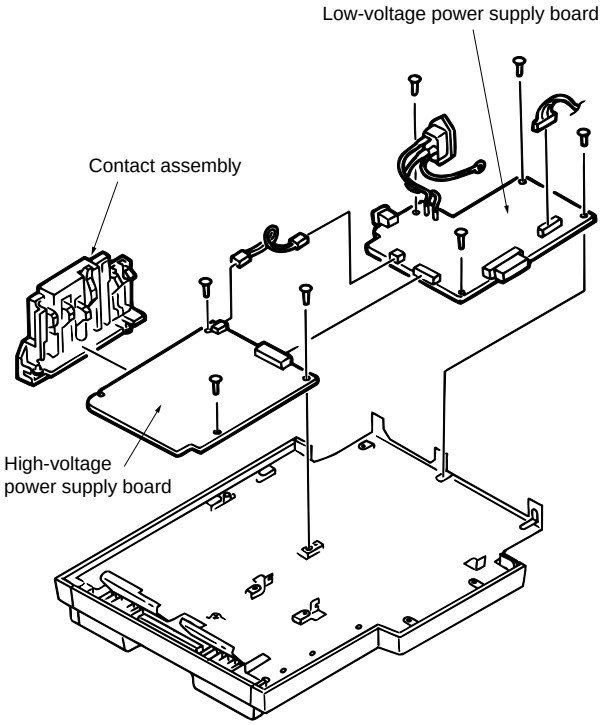
1. Remove the high-/low-voltage power supply boards by unscrewing seven screws.

   Caution: Remove both boards at the same time. Unscrew one ground screw and remove the ground cable from the AC inlet.

2. Disconnect two connectors to separate two boards.

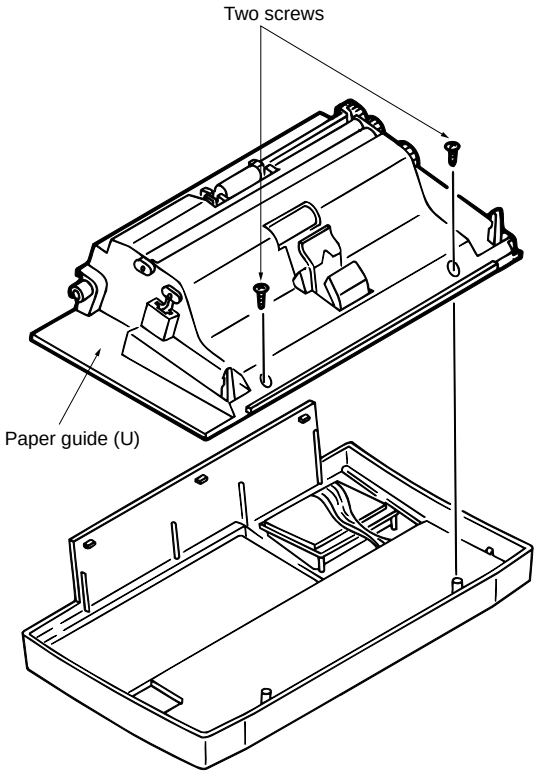
3. Remove the contact assembly.

   Caution: Never touch the pattern on the low-voltage board.

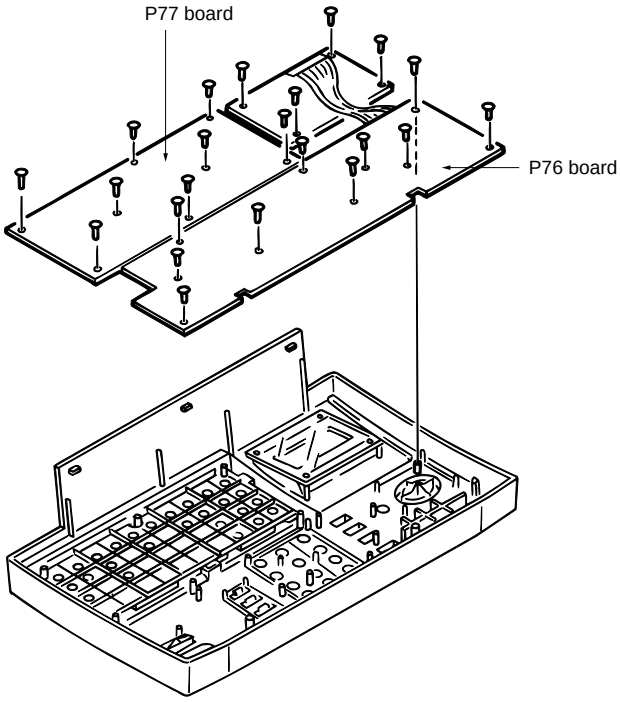


4.3.14 Disassembling the Operation Unit

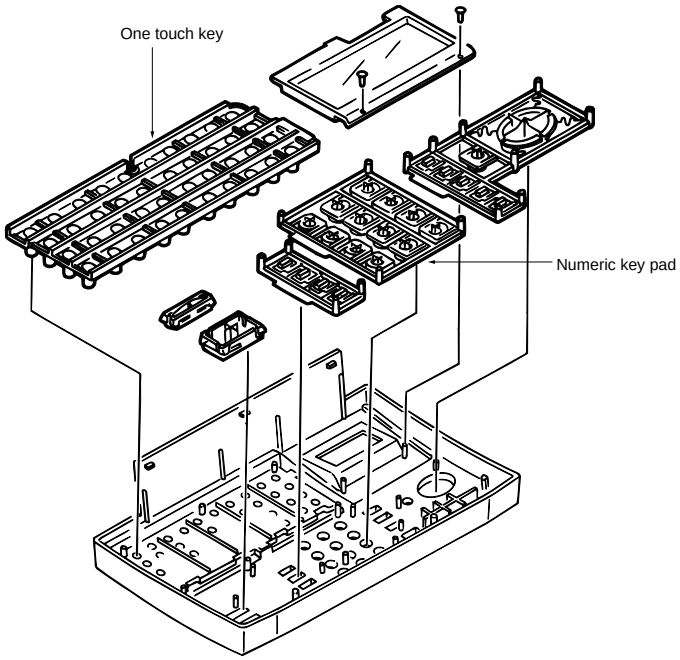
1. Remove the paper guide (U) assembly by unscrewing two screws.



2. Unscrew 22 screws and disengage six hooks to remove the P76/P77 board assembly.

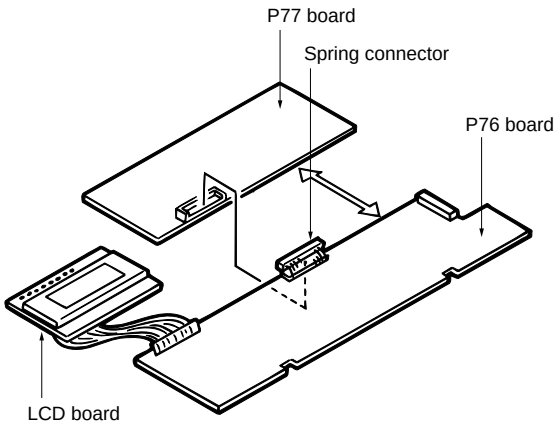


3. Remove the numeric key pad.



4. Disconnect the white connector to separate the P76 board from the P77 board.

   Caution: The white connector is a spring connector. Be careful not to damage the connector when disconnecting it.

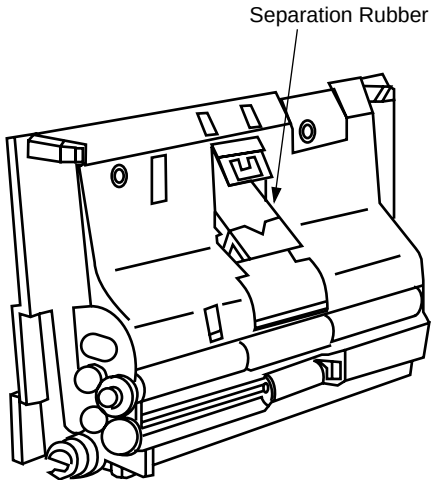


4.3.14.1 Disassembling the Operation Unit

Paper guide (U) Assembly

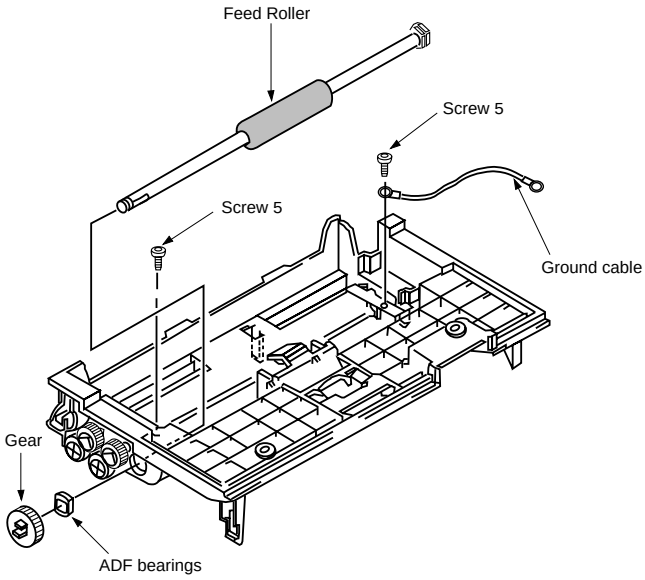
Separation Rubber

The Separation Rubber can be removed from the Paper Guide (U) Assembly.



Feed Roller

1. Remove the ground cable by removing the two screws 5.
2. Remove the Feed Roller by removing the gear and ADF bearings.



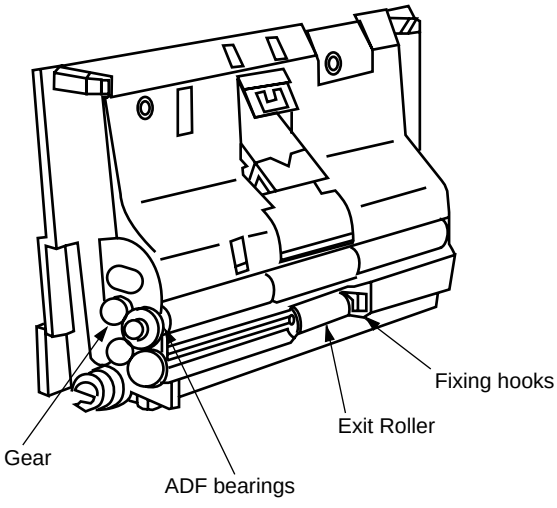
Scan Roller

Remove the Scan Roller by removing the gear and ADF bearing.

Exit Roller

Remove the Exit Roller while spreading and holding up the part of the fixing hooks.

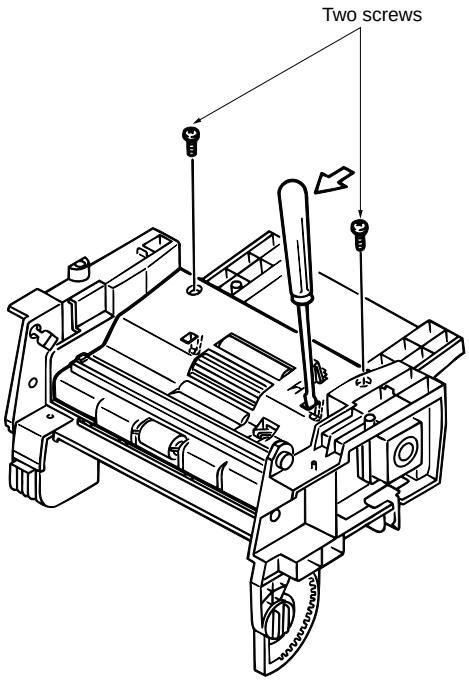
Caution: Be careful as not to break the shaft of the Exit Roller when removing.



4.3.15 Disassembling the Scanner Unit (L)

Paper Guide

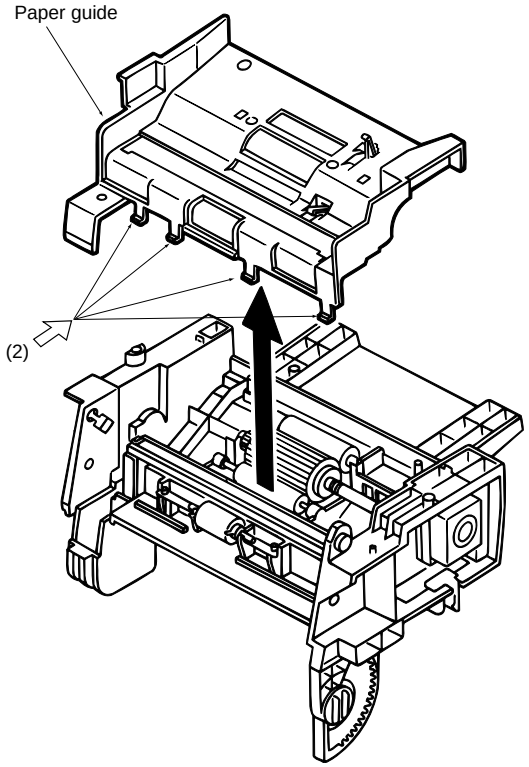
Unscrew two screws and remove the paper guide.



(Removing the Paper Guide)

1. Insert the screwdriver in the holes (two) in the paper guide and push the screwdriver in the direction of the arrow (1) to release the hooks.

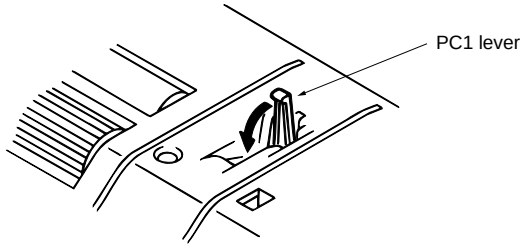
2. While pressing on the portion indicated by the arrow (2) with fingers, lift the paper guide for removal.



(Precaution for Installing the Paper Guide)

Install the paper guide while pressing the PC1 lever.

* This is necessary to prevent the lever from sticking.



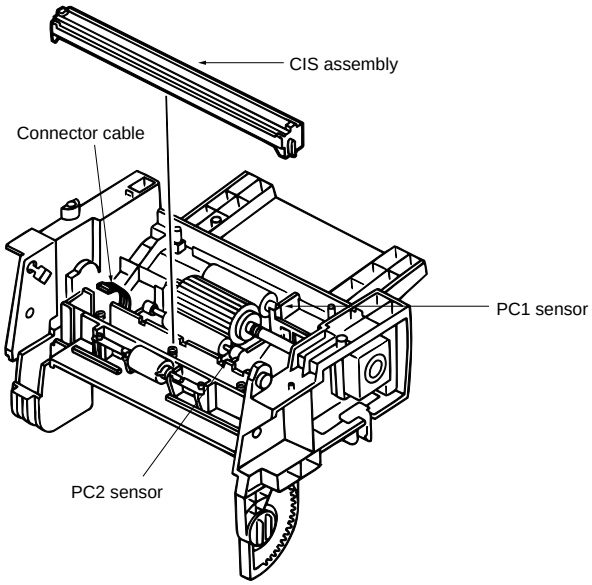
4.3.16 Scanner (CIS)

1. Remove the CIS assembly by disconnecting one connector.

2. Remove the CIS from the bracket. (* Disengage the hook on the side where there is no connector.)

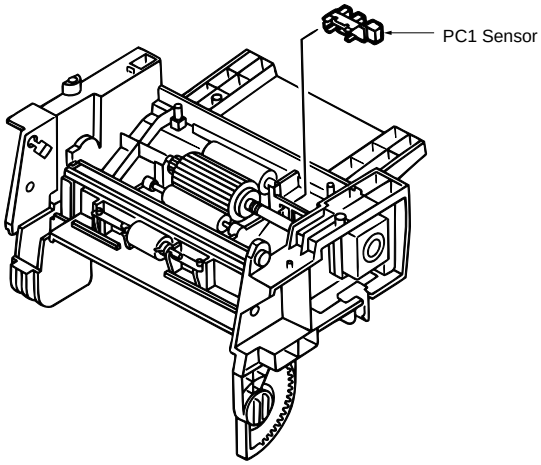
   Caution: Pay attention to the orientation when reassembling it.

   Caution: Be careful not to damage the cable when disconnecting. (The cable is very thin.)

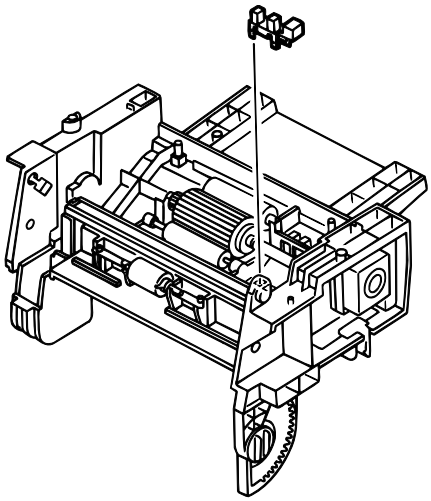


4.3.17 PC1/PC2 Sensors

1. Disengage four hooks and remove the PC1 sensor.



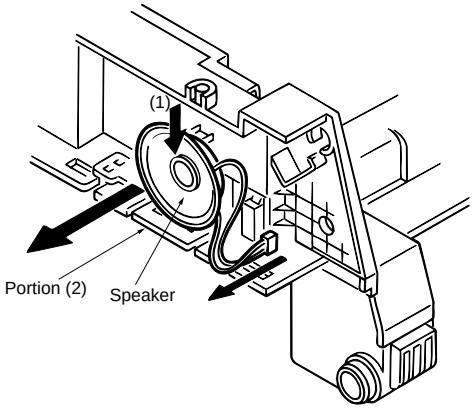
2. Pull out the PC2 sensor.



4.3.18 Speaker

Remove the speaker with it pushed in the direction of the arrow (1), then disconnect the cable.

Caution: Be careful not to damage the portion (2) of the frame indicated by the arrow.

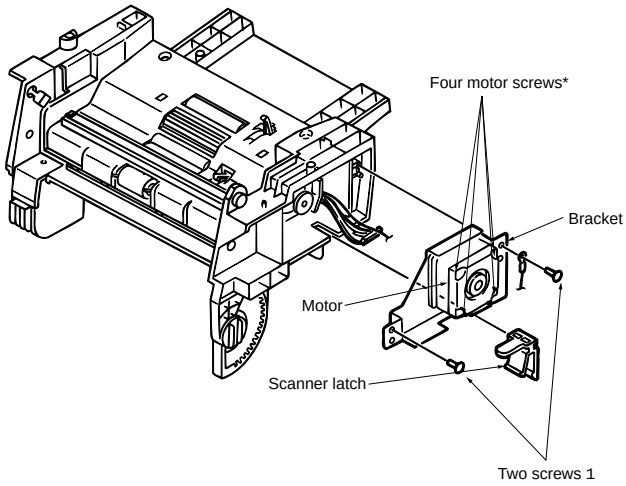


4.3.19 Scanner Motor

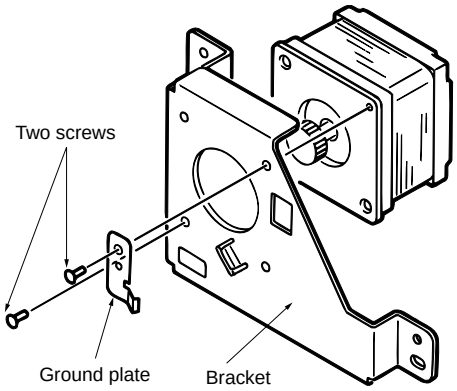
1. Remove the scanner latch.

2. Remove the motor cable and unscrew two screws (1) to remove the motor along with the bracket.

   Caution: Do not remove the four screws securing the motor.*

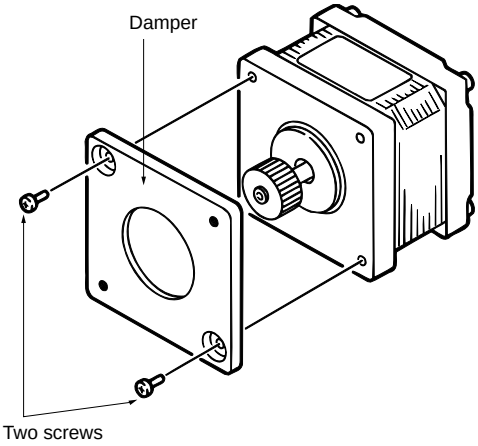


3. Remove the bracket and ground plate by unscrewing two screws.



4. Remove the damper by unscrewing two screws.

   Caution: As a maintenance part, the damper is available separately from the motor. Keep the damper without throwing it away.



Precautions for Installation

1. When installing the damper, pay attention to its orientation and screw positions.
2. When installing the bracket and ground plate, check for their positions.

4.3.20 Disassembling the Printer Unit

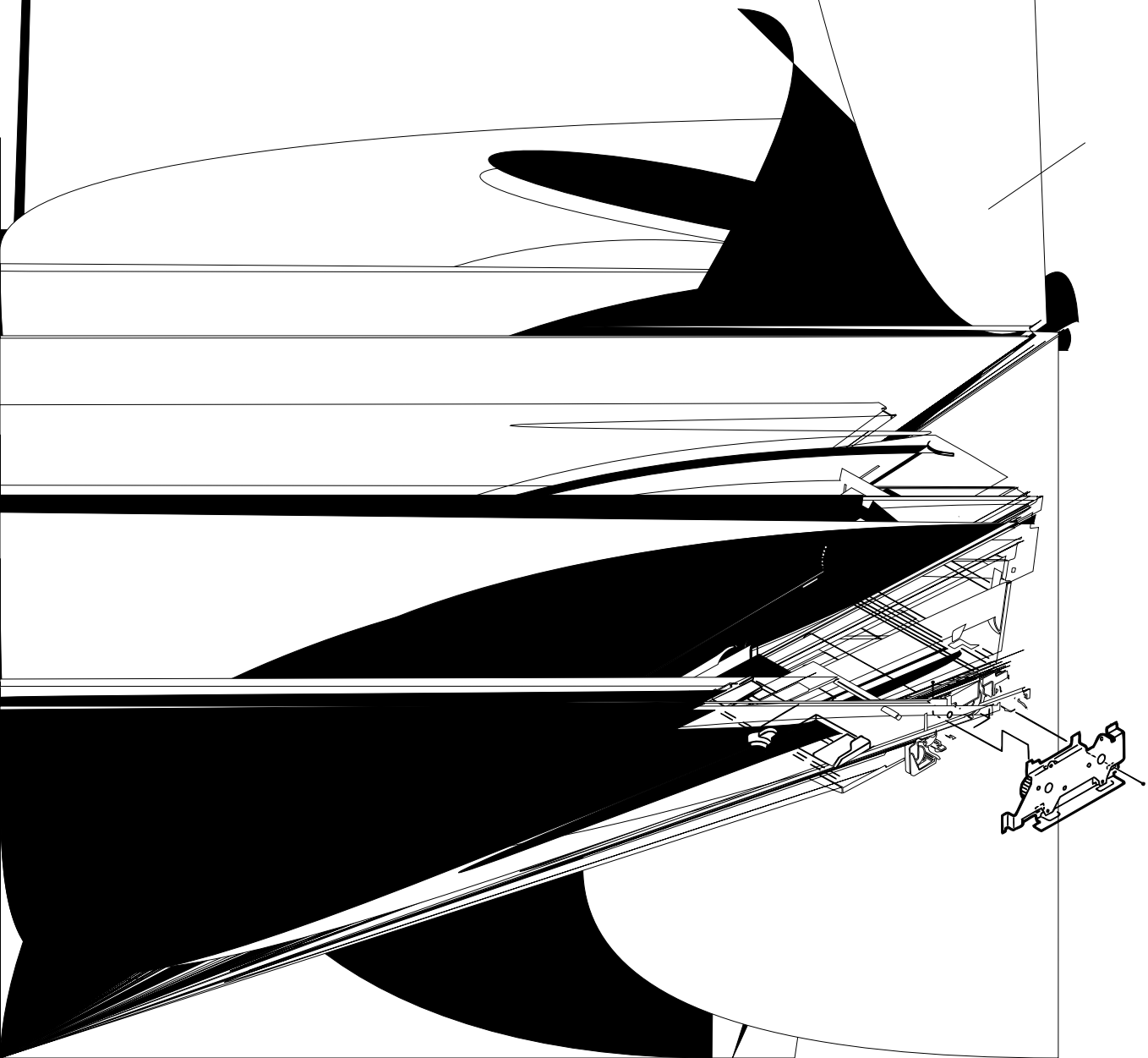
Drum/Resist Motor

1. Remove the drum motor by unscrewing two screws 1.

2. to Remove the resist motor by unscrewing two screws 2.

Motor Bracket

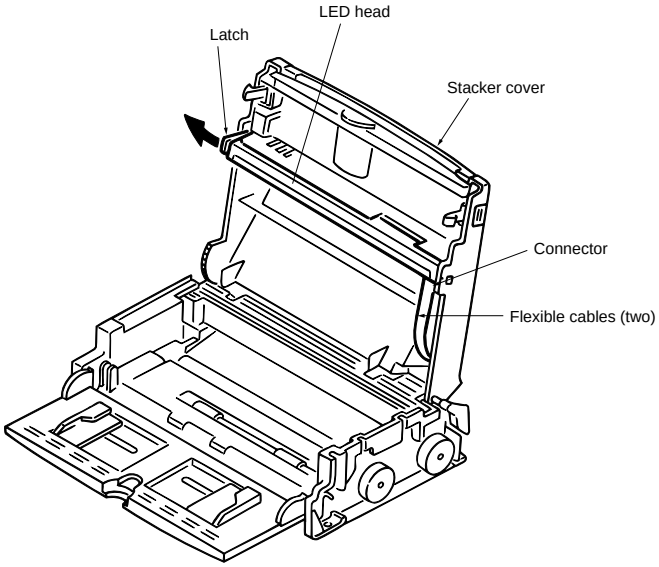
Remove the bracket by releasing two hooks.

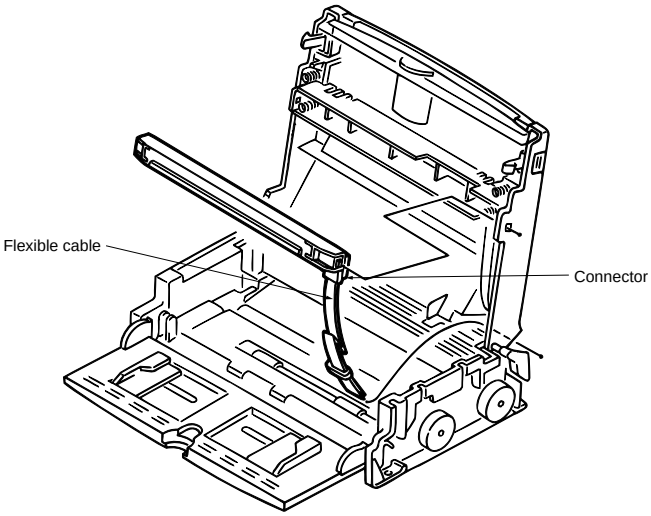


4.3.21 LED Head

1. Open the stacker cover and open the left-hand latch slightly to pull the LED head out. Next, disconnect flexible cables (two) along with connectors.

   Caution: Disconnect the flexible cables with them inserted in connectors.

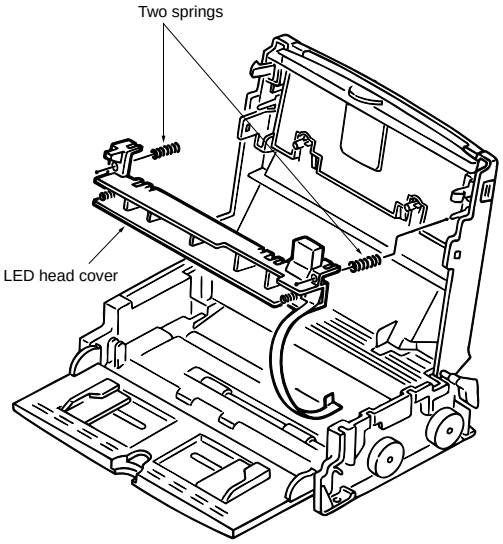




4.3.22 Toner Lockout Board

1. Remove two springs, pull the shield toward you, and remove the LED head cover.

   Caution: Do not lose the springs.

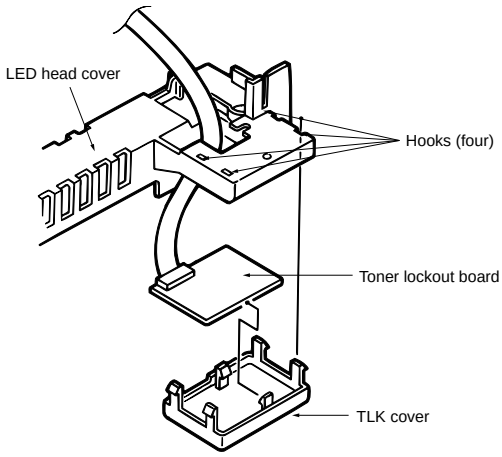


2. Remove the TLK cover by releasing hooks (four).

   Caution: Pay attention to two springs.

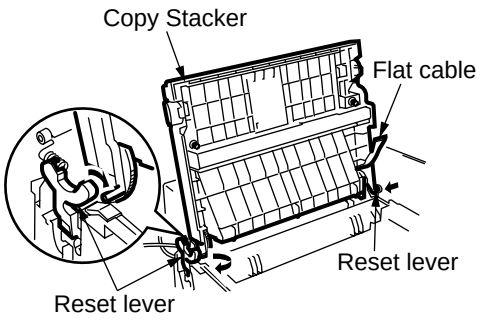
3. Remove the board by releasing hooks (two).

   Caution: Do not break the hooks. Be careful not to loose the springs.



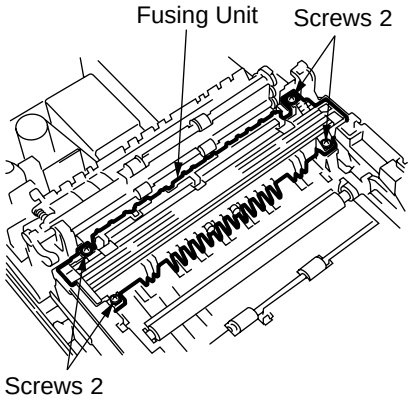
4.3.23 Stacker Cover

1. Disconnect the flat cable.
2. Remove the Copy Stacker by pressing inward the two latches on it from the two reset levers.
3. Remove the Copy Stacker by spreading it from the lower base.



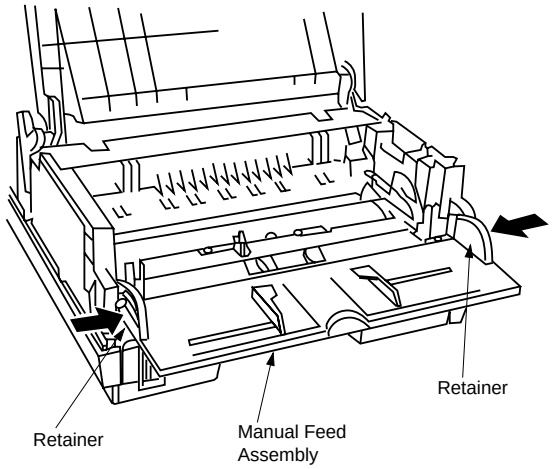
4.3.24 Fusing Unit

Remove the Fusing Unit by removing the four screws 2.



4.3.25 Manual Feed Assembly

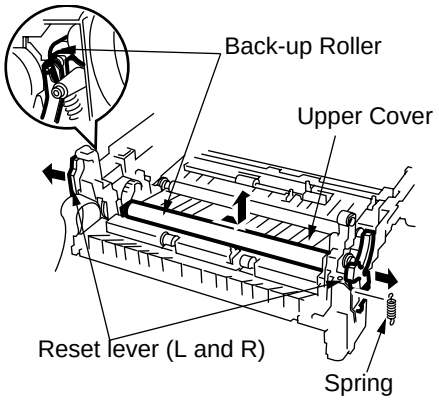
1. First, carry out the disassembly procedure up to the point of Main Cover removal. (Refer to susection 4.3.3)
2. Remove the Manual Feed Assembly by pressing inward the two retainers.



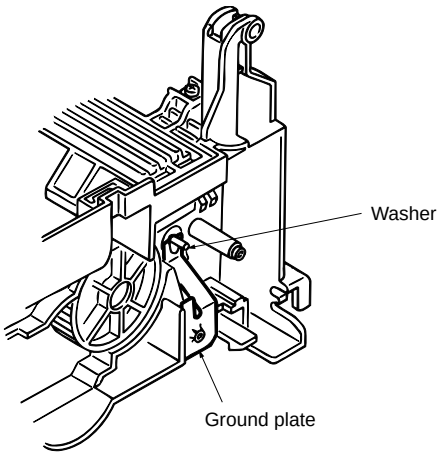
4.3.26 Back-up Roller, Transfer Roller

1. After removing the Lower Base, remove the spring.

2. Lift the left side of the Back-up Roller and pull it out leftwards.

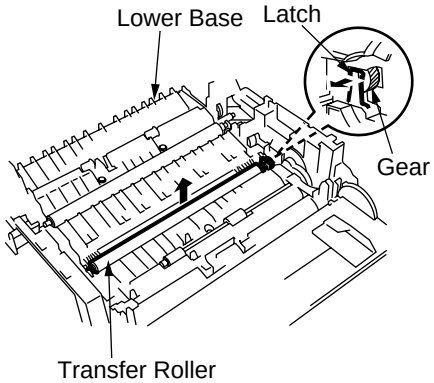


Caution:
- *Do not lose the ground washer.*
- *Do not bend the ground plate.*
- *Do not damage the backup roller.*



3. Release the gear by unlocking the latch on the Lower Base.

4. Lift the right side of the Transfer Roller and shift rightwards, then pull it out from the Lower Base.



4.3.27 Resist Roller, Hopping Roller, Sensor Plates

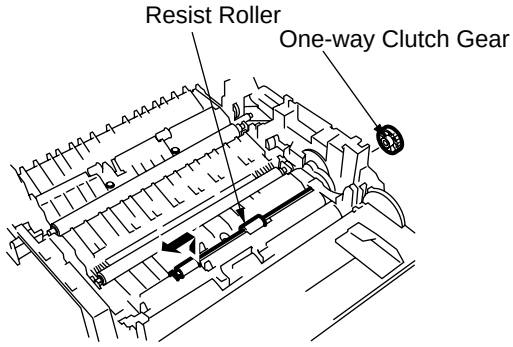
(1) Disassembly procedure

1) Resist Roller, Hopping Roller

1. First, carry out the disassembly procedure up to the point of the Lower Base removal.
   (Refer to sub-item 4.3.23.)

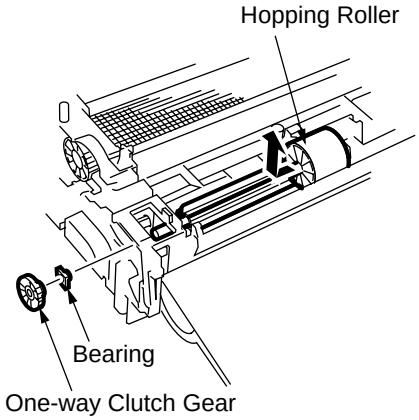
2. Remove the One-way Clutch Gear.

3. Press the Resist Roller to the right side and lift up the left side of it, then take off the Resist Roller.



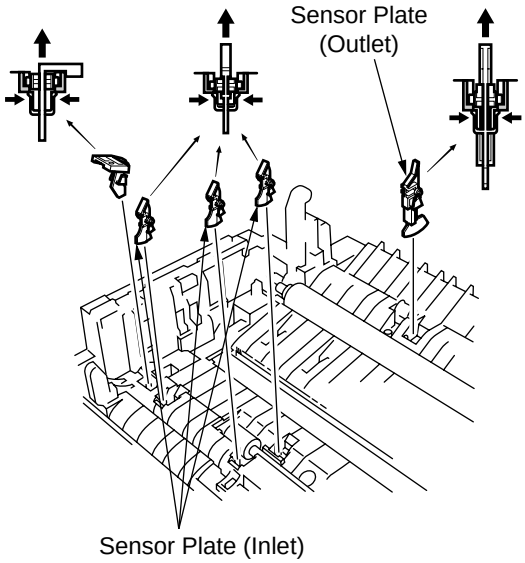
4. Remove the One-way Clutch Gear and Bearing.

5. Remove the Hopping Roller by sliding to the right side.



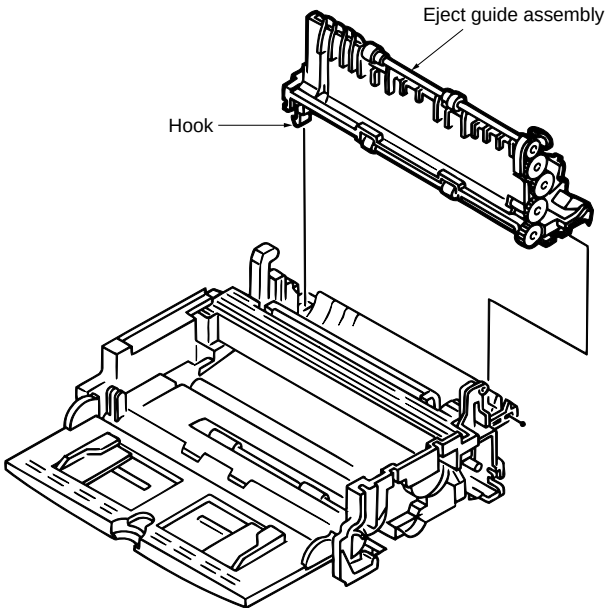
2) Sensor Plates (Inlet, Outlet), Toner Sensor

1. After removing the Lower Base, remove the Sensor Plate by pressing and holding the latches while shifting the Sensor Plate up and out.



4.3.28 Eject Guide Assembly

Remove the eject guide assembly by releasing the left-hand hook.



Reassemby Procedure

Carry out reassembly by reversing the disassembly procedure.

HOME

Chapter 5

Adjustments

Konica Business Technologies

5.1 Setting of LED Print Head Drive Time

- Adjustment point: Technical Function: Setup No. 26

* To bring the LCD up to Technical Function, press MENU key once, RESOLUTION key twice (In case of no message in memory).

Note: When the rank marking of the replaced LED print head (new part) is the same as that of the used LED print head (old part), you do not always have to set the LED print head drive time.

Adjustment:

1) Turn AC power ON.
2) Setting of LED print head should be according to the Table 5.1.1 below:

Table 5.1.1 Setting of Technical Function: Set up No. 26

Setting / Rank Marking	MSB ↕ LSB																														
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1
		0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
		0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
		0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
085 –												*																				
080 – 084													*																			
074 – 079														*																		
070 – 073															*																	
065 – 069																*																
061 – 064																	*															
058 – 060																		*														
053 – 057																			*													
050 – 052																				*												
047 – 049																					*											
044 – 046																						*										
041 – 043																							*									
038 – 040																								*								
036 – 037																									*							
033 – 035																										*						
031 – 032																											*					
029 – 030																												*				
027 – 028																													*			
– 026																														*			

Note1: The luminous intensity ranking is determined by the first, second and third digits from the right in the LED print head (i.e. in ---XX061, 061 is the luminous intensity ranking.)

Note2: When the head label of the replaced LED print head (new part) is the same as that of the used LED print head (old part), you do not always have to set the LED print head width by technical function: Set up No.26. (Refer to table 2.9.2.3, TF No.26)

5.2.1 Confirmation Items

The clock frequency and power voltage of the machine are not possible to adjust in the field. However, their measurement procedures are described here for confirmation of clock frequency and each voltage.

1) Clock Frequency

- Measurement point: R76 board; R180-2 pin and ground terminal
- Specification: 20.000 MHz ± 50 PPM

Note: If the counter does not read with 20.000 MHz, replace with a new crystal oscillator (X1).

2) +5V DC Voltage (SUB)

- Measurement point: R76 board; CN1-A8 pin and ground terminal
- Specification: +5.2V ± 4%

3) +5V DC Voltage

- Measurement point: R76 board; CN1-B10, A11, B11 and A12 pin and ground terminal
- Specification: +5.1V ± 4%

4) +8V DC Voltage

- Measurement point: R76 board CN1-A16 pin and ground terminal
- Specification: +8V ±4%

5) –8V DC Voltage

- Measurement point: R76 board; CN1-B15 pin and ground terminal
- Specification: –8V ±4%

6) +24V DC Voltage

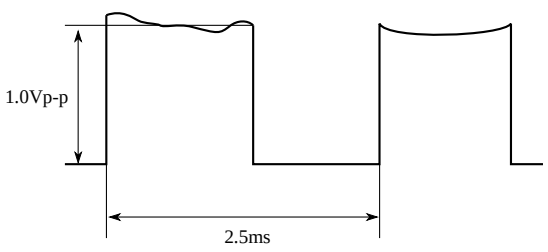
- Measurement point: R76 board; CN1-B6 pin and ground terminal
- Specification: 22V to 27V

7) +38V DC Voltage

- Measurement point: R76 board; CN1-B12, A13 and B13 pin and ground terminal
- Specification: +26V to +45V

8) Contact Image Sensor Output (SIG signal)

- Measurement point: R76 board; CN13-1 pin and ground terminal
- Specification: A waveform sample is shown below.
- Test chart: White sheet (A4 size)



5.2.2 Measurement

1) Trun the AC power OFF.
2) Carry out the disassembly procedure up to Cover assembly-top, Frame assembly-scanner, and Unit-printer.
   (Refer to the Mechanical Disassembly and Reassembly in Chapter 4.)
3) Connect extension cables to the R51 board.
4) Connect the frequency counter (for clock frequency), digital voltmeter (for power voltage) and Oscilloscope (for SIG signal). See figure 5.2.1.
5) Turn AC power ON.
   Main power supply is set to "ON" (PC1 ON) by loading the document on the cover-top. (except +5V SUB)
6) Measurement
7) Turn the AC power OFF.
8) Reverse the disassembly procedures.

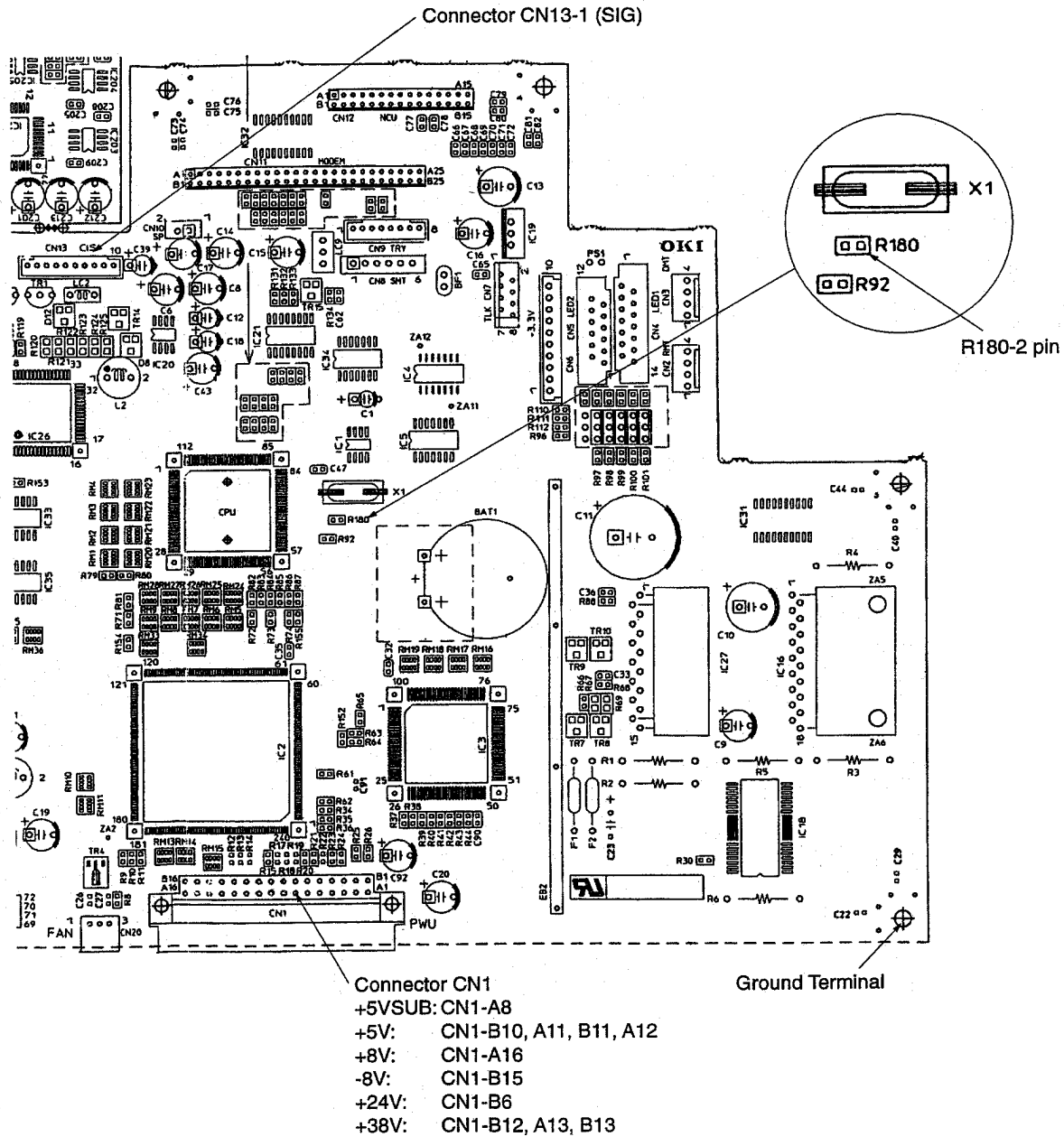


Figure 5.2.1 Measurement Points on R76 Board

HOME

Chapter 6

Cleaning and Maintenance

Konica Business Technologies

6.1 Replacement of Consumable

The user (or service personnel) is required to replace the following items as consumable parts.

(1) User side

No.	Part name	Expected Use Before Replacement	Reference Item No. in Fig.6.1
1	Toner Cartrige	3,000 sheets/4% duty (2,500 sheet for OKI-INT) (ITU-T document sample No.1) (For the second or later cartridge to a new I/D Unit) * The first toner cartridge installed in a new I/D unit will have a decreased yield.	(1)
2	I/D Unit (Image drum unit)	9,000 sheets: 1 page/job, 14,000 sheets: 3 page/job, 20,000 pages/continuous	(2)

(2) Service personnel side

No.	Part name	Expected Use Before Replacement	Reference Item No. in Fig.6.1
1	Fuser Unit	180,000 sheets	(3)
2	Separation Rubber	The Separation Rubber will not require replacement for at least 30,000 documents fed.	(4)

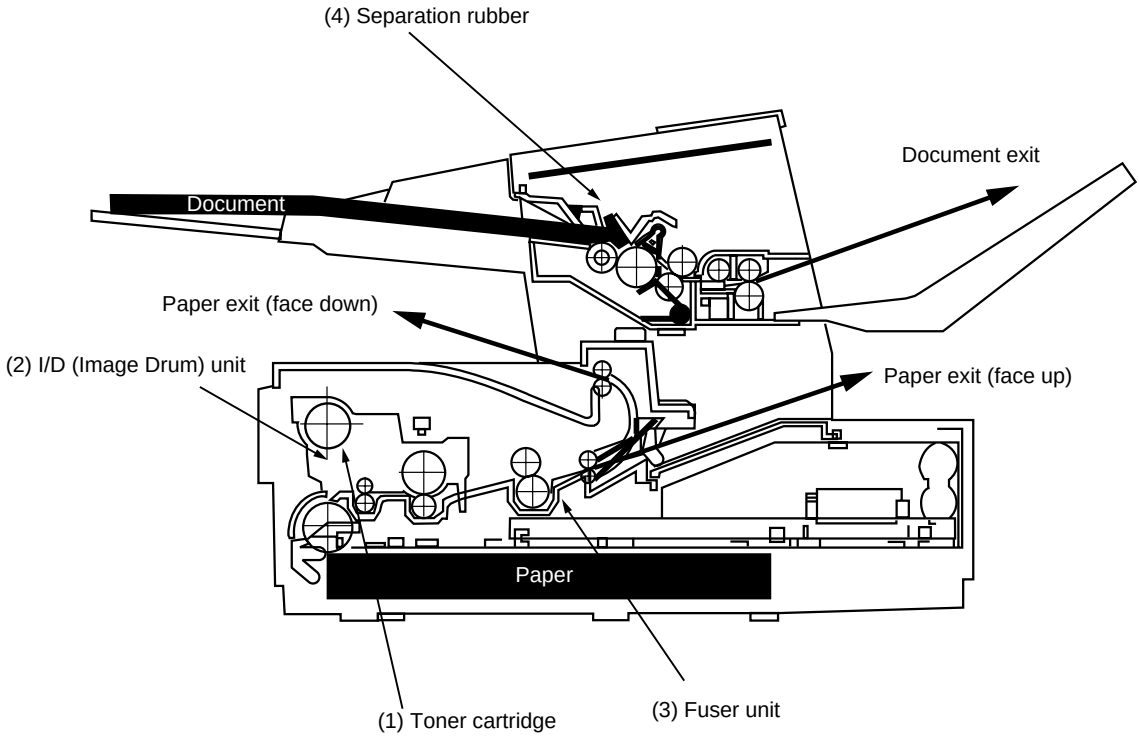


Figure 6.1 Consumable Parts

(3) Others

Table 6.1 Reliability

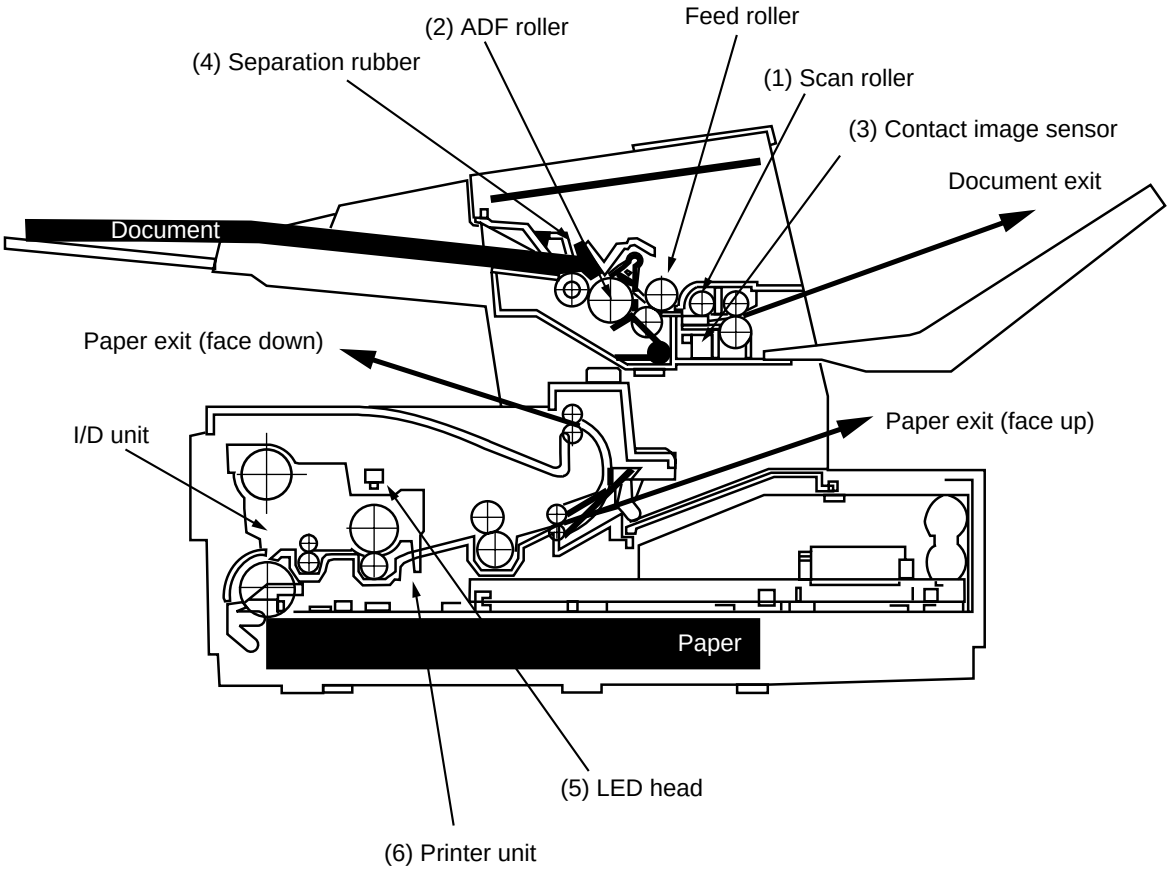
No.	Item	Specifications
1	Document feeder	Jam occurrence and misfeeds in the automatic document feeder will be less than one in 500 operations for all specified documents.
2	Recording paper feeder	Jam occurrence in the automatic paper feeder will be less than one in 1,500 operations and misfeeds will be less than one in 500 operations for all specified recording paper.
3	MTBF	The MTBF for the overall machine will exceed 3,000 hours of actual operation. The MTBF will be measured at a confidence level of 95% under controlled laboratory conditions. The MTBF will be based on 50% transmit and 50% receive activities.
4	Battery • for RTC • for Memory	5 years Lithium battery: Not rechargeable. 300 cycle of charge/discharge Manganese dioxide battery: Chargeable.

6.2 Routine Inspection

Basically, the routine inspection of following items is performed about half-yearly (or every one year) after the machine is installed. The description of routine inspection is shown in Table 6.2.

Table 6.2 Routine Inspection

No.	Part name	Expected Use Before Replacement	Reference Item No. in Fig.6.2
1	Roller-scan	Clean with wet cloth.	(1)
2	Roller-ADF	Clean with wet cloth. If the surface of this roller becomes dirty and the dirt causes misfeeding of documents, perform this cleaning.	(2)
3	Contact Image Sensor	Check for accumulation of paper dust, etc. Clean with ethyl alcohol if necessary.	(3)
4	Separation Rubber	Clean with wet cloth. If this rubber is worn out, replace this rubber. (every one year)	(4)
5	LED print head	Clean the surface of the head by moving the tissue paper back and forth several times.	(5)
6	Printer unit	Clean the inside of the printer unit by using wet cloth.	
7	Lubrication	Apply MOLYKOTE EM-30L Greese (Made by Dow corning co., ltd.) oil to the following parts: a. Gears (every one year)	
8	Cleaning	Remove materials that have fallen from outside, if any.	



Fifure 6.2 Parts of Routine Inspection

6.3 Printer Counter Display/Clear

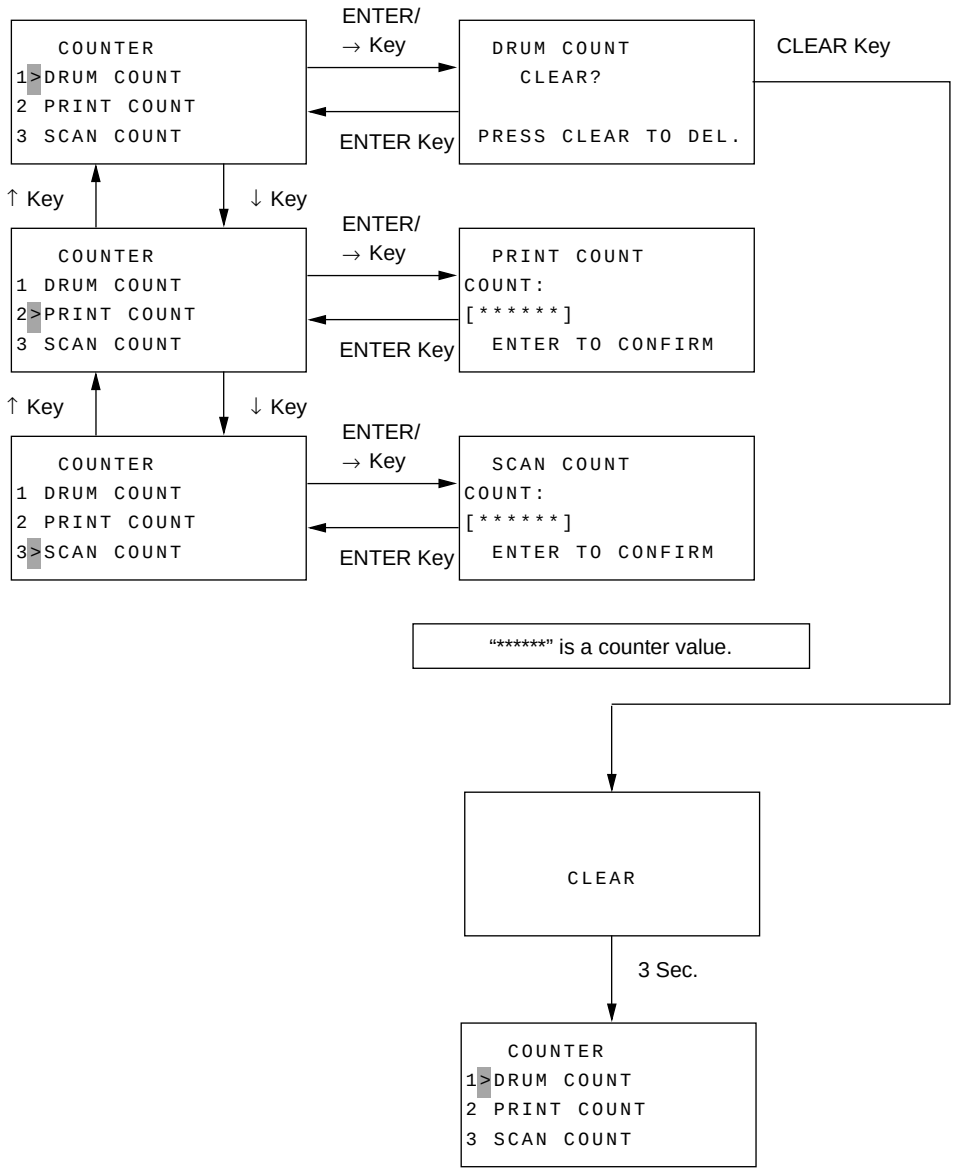
Note: The fonts displayed on the LCD operation panel may differ from the fonts written this manual.

1. Purpose

A user can clear the image drum unit and check some of the counters (such as the print counter, scan counter) by using the ← key or → key.

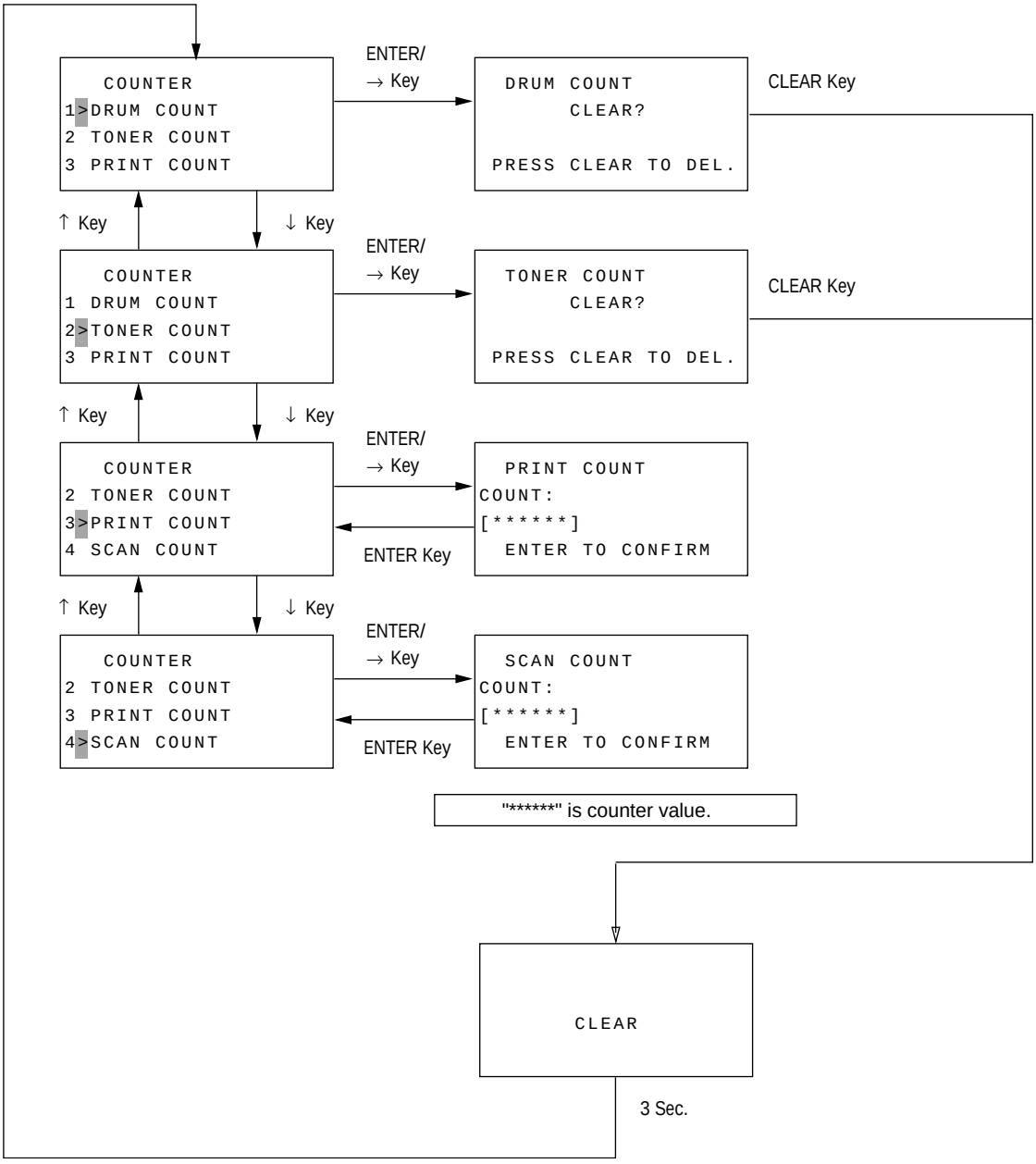
2-1. Procedure

The following shows the case when the service bit has been set OFF & TONER COUNT CLEAR = OFF.



2-2. Procedure

The following shows the case when the service bit has been set OFF & TONER COUNT CLEAR = ON.



6.4 Printer Counter Display/Clear

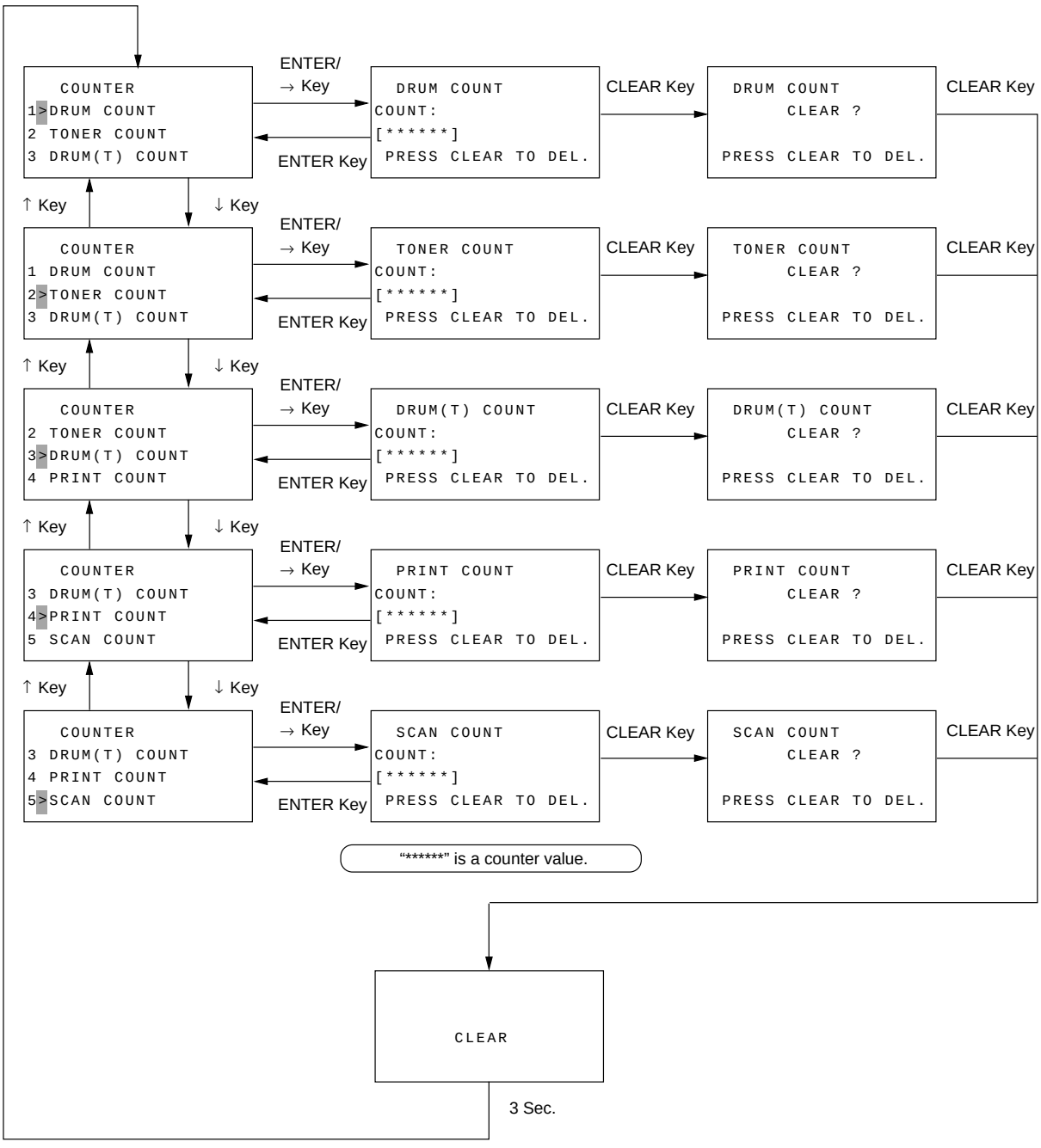
1. Purpose

The service personnel can clear and check the following data:

- Image Drum
- Toner
- Image Drum (Total)
- Print
- Scan

2. Procedure

The following shows the case when the service bit has been set ON.

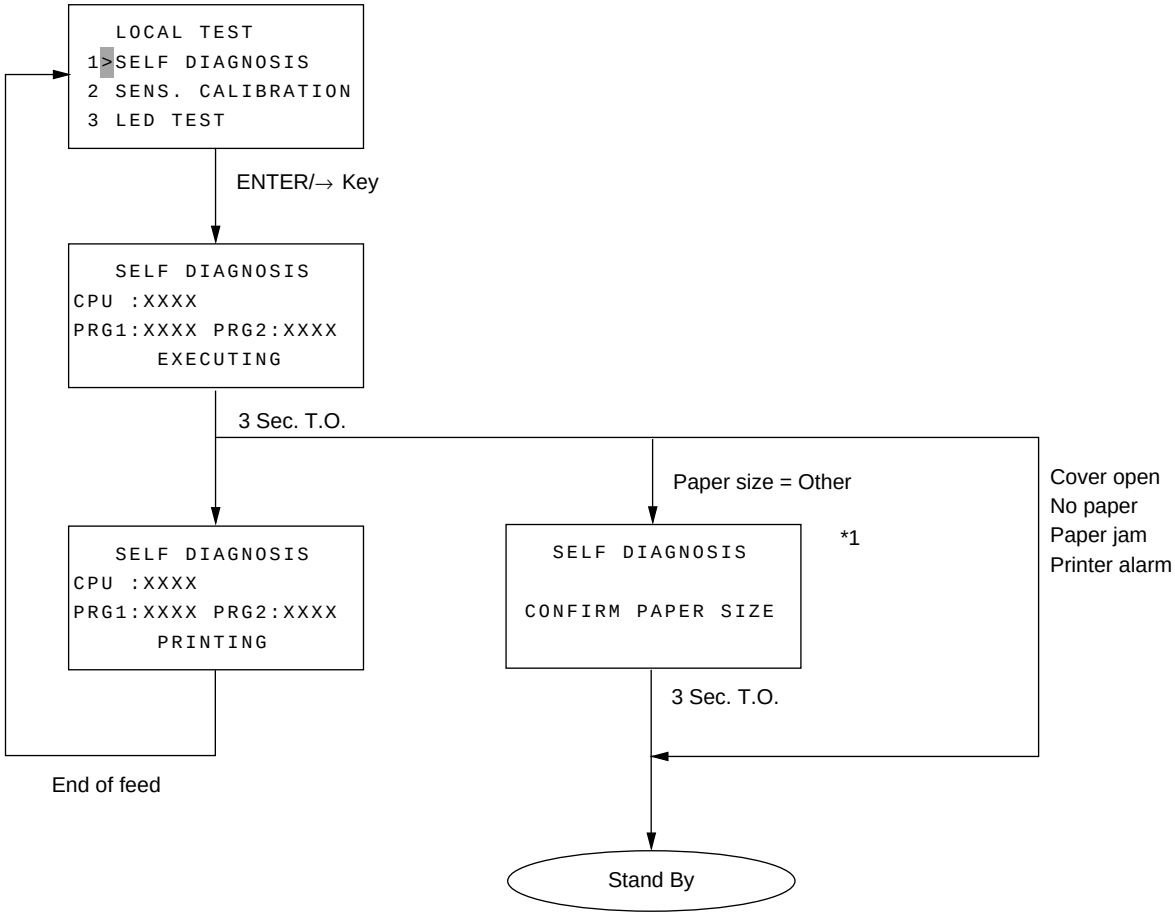


6.5 Self-diagnosis Test

1. Purpose

To check ROMs, RAMs and printing function.

2. Procedure



*1: OTHER is shown as below:
EXEC./JIS-B5/A5/A6

HOME

SELF DIAGNOSIS REPORT

12/24/1998 12:00
ID=0dc Takasaki

MAIN BOARD					
	CPU-ROM	VERSION	aaaa		*1
		HASH	OK	hhhh	*1
	CPU-RAM		OK		
	PROGRAM1	VERSION	aaaa		
		HASH	OK	hhhh	
	PROGRAM2	VERSION	aaaa		
		HASH	OK	hhhh	
	LANGUAGE	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	VERSION	aaaa		
		HASH	OK	hhhh	
	DEFAULT	TYPE	01		
	MODEM	VERSION	hhhh		*1
	RAM1	8M	OK		
	RAM2		OK		
	CARTRIDGE		bbbb		*1/*4
	OPT-MEM	2M	OK		*2
DEVICE ID	Fax 9830			*2/*3	
HSP			OK		*2/*5
ISDN BOARD			OK		*2/*6
	CPU-ROM	VERSION	aaaa		
		HASH	OK	hhhh	
	CPU-RAM		OK		
	PROGRAM	VERSION	aaaa		
		HASH	OK	hhhh	
	RAM	2M	OK		
	DPRAM	2K	OK		

Note:

*1: a indicates an alphanumeric character; n indicates a numeric character (0 to 9); h indicates a hexadecimal number; and b indicates 0 or 1.

*2: Printed when the option board is mounted and if not, entry lines following this line are not omitted.

*3: Lowercase letters can also be listed. This item reports MDL information for the PnP device ID only.
This item can be up to 40 characters long.

*4: This item reports toner cartridge ID information (port read value).
Entry items shown below are printed.
CARTRIDGE bbbb

*5: For the LAN board, the status of the LAN board at self diagnosis shall be recorded. (If the LAN board is in the alarm state, the cause of the alarm is recorded.) When an HSP error occurs, entry items shown below are printed.
HSP NG nn

nn=10:
Command was sent to the HSP card but its response was not returned within 5 seconds.

nn=20:
The Status Window did not show in the initial state 10 seconds after powering on.

nn=21:
Received the operation command during the POWER ON mode if it takes 3 seconds or more to transfer to the operation mode after clearance of the initial synchronizing flag.

nn=22:
In the Reverse Data command, the HSK card could not transmit all the notification data from the higher modules. (In case a communication error has occurred between the HSP and host.)

nn=00:
Others

*6: The result of ISDN board test, which is performed at self diagnosis, shall be lprinted. (Error information at power-on shall also be listed partially.)
When an ISDN error occurs,entry items shown below are printed.
ISDN BOARD NG nn

nn=01 Waiting for PC loading
The BOOT2 signal from the host side at the time of power on is set to PC loading mode.

nn=02 Board abnormality
The ISDN board program hash is NG upon power on.

nn=03 Board abnormality
The initial sequence between boards cannot be excuted in 10 seconds after power on. (The status window does not indicate a normal value.)

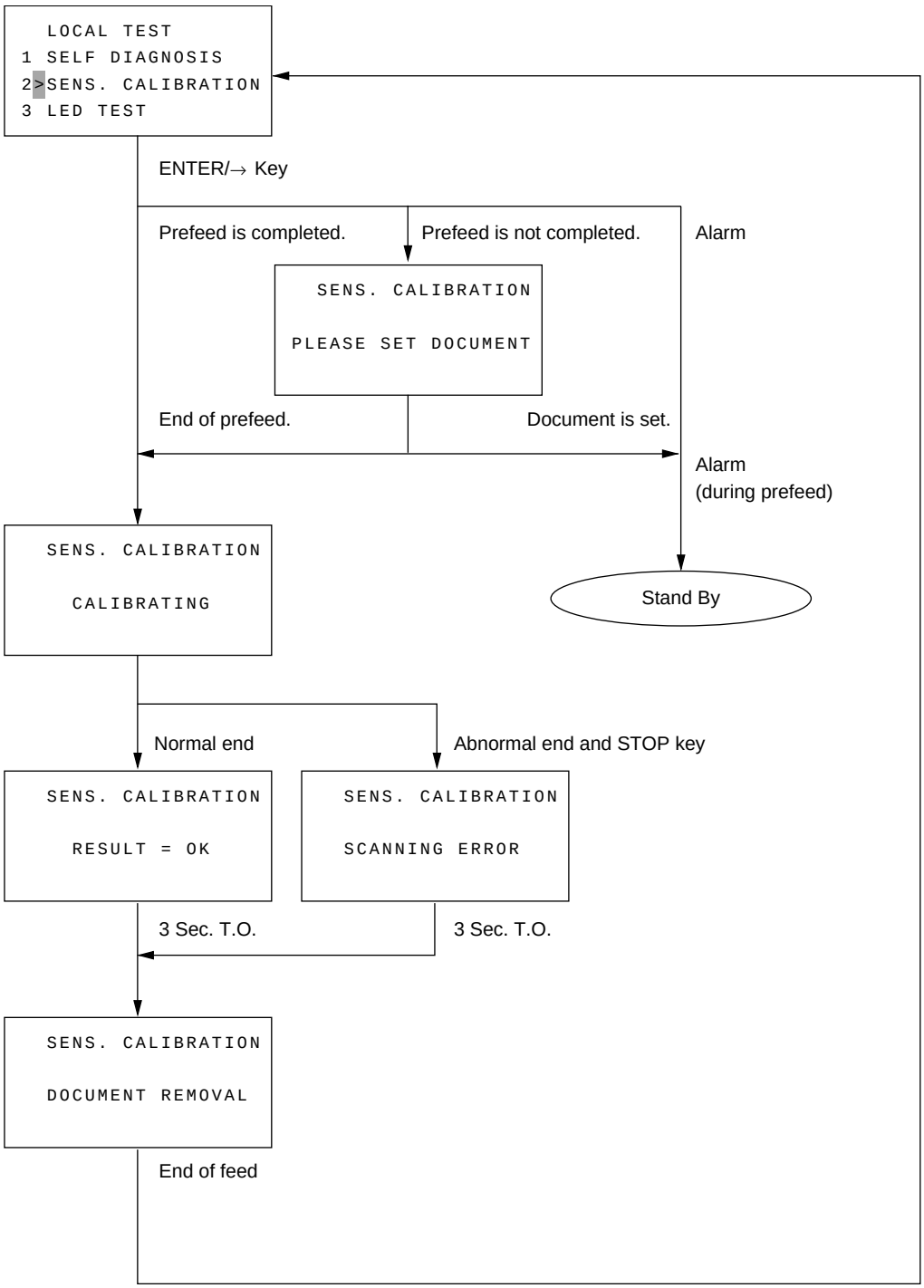
nn=04 Board abnormality
The initial sequence of the ISDN LSI cannot be excuted upon power on.
(No response for the command, NG response)

nn=05 ISDN LSI abnormality
The result of ISDN LSI testing function is NG: (ROM/RAM test, Loop test)

6.6 Sensor Calibration Test

1. Purpose

To adjust the linearity of output levels of contact image sensor.

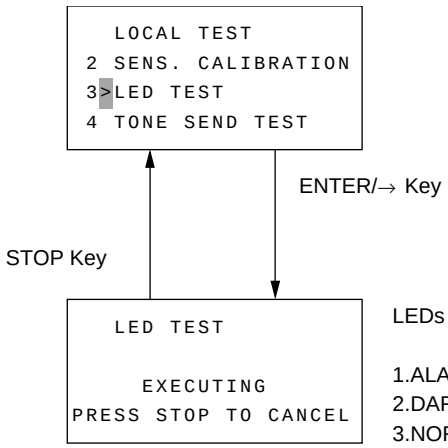


6.7 LEDs Test

1. Purpose

To check all LEDs on operation panel by lighting.

2. Procedure



LEDs go on/off in the following order:

1.ALARM
2.DARK
3.NORMAL
4.LIGHT
5.STD
6.FINE
7.EX.FINE
8.PHOTO
9.All LED

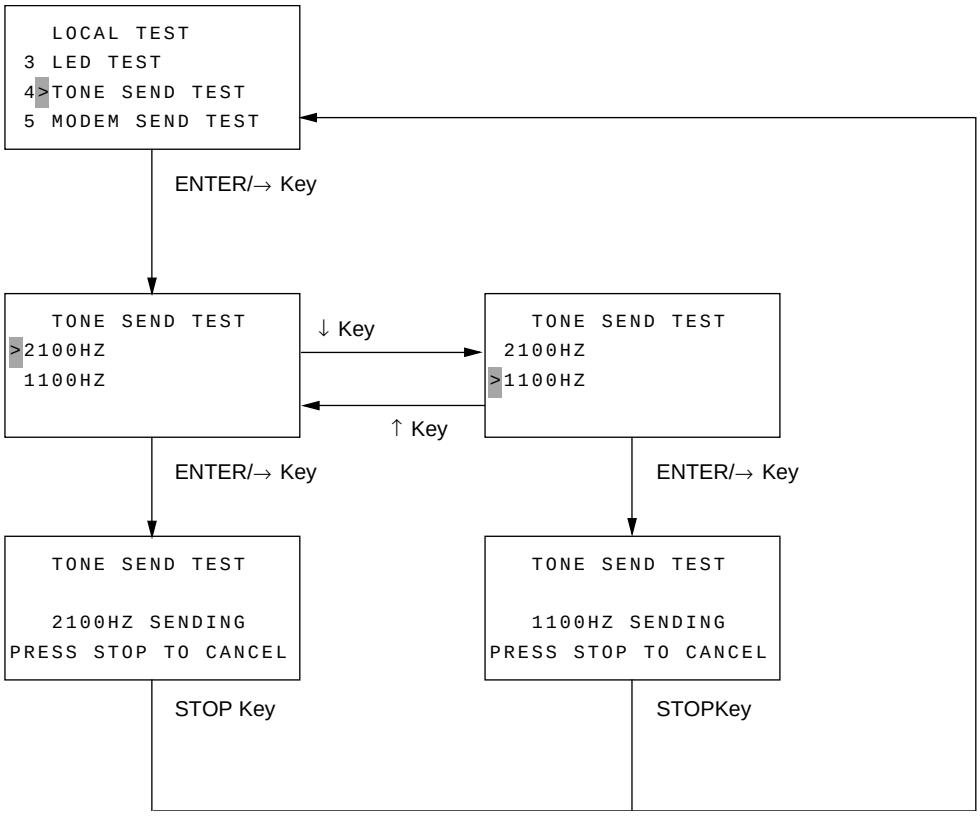
LEDs 1-9 go on/off in the above order repeatedly until the STOP key is pressed.

6.8 Tone Send Test

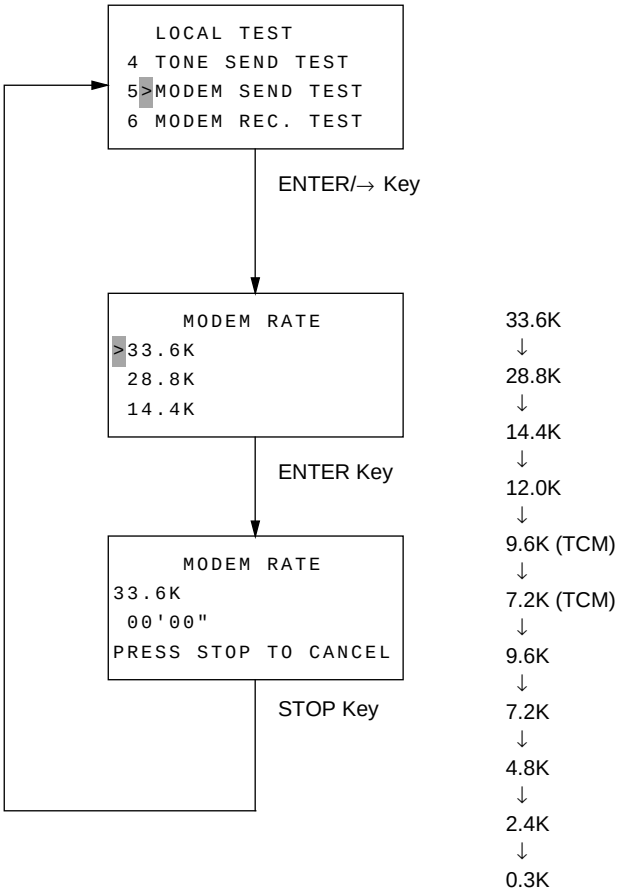
1. Purpose

To send the G3 tonal frequencies to the line.

2. Procedure



6.9 High-speed Modem Send Test

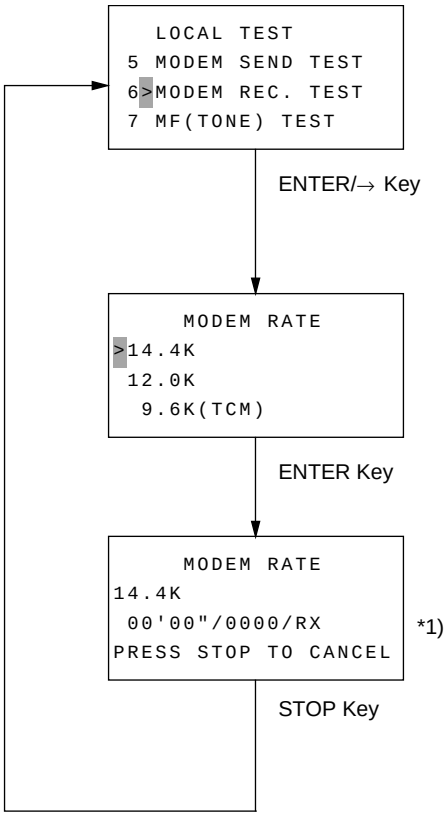


6.10 High-speed Modem Receive Test

1. Purpose

To check the telephone line quality in combination with a remote station programmed to the high-speed modem send test mode.

2. Procedure



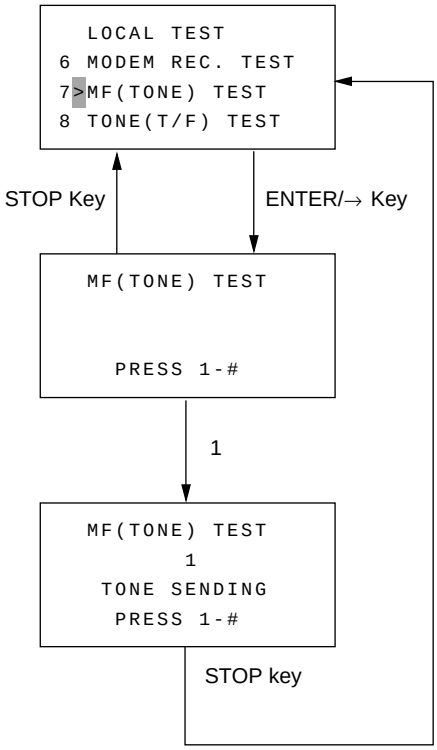
*1 “/RX” is displayed on the LCD when receiving carrier is set to ON.

6.11 MF Send Test

1. Purpose

To send the multi-frequencies of tone dialling to the line.

2. Procedure



- After the test, press STOP key.
  Frequencies of MF tones are as follows:

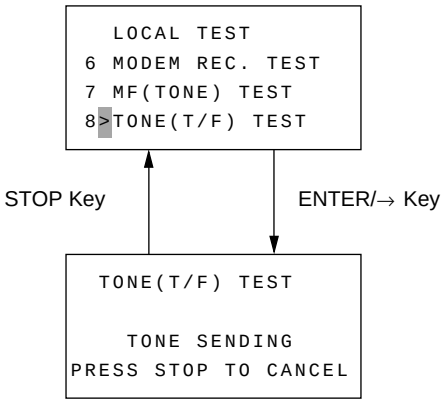
1	697 Hz/1209 Hz
2	697 Hz/1366 Hz
3	697 Hz/1477 Hz
4	770 Hz/1209 Hz
5	770 Hz/1366 Hz
6	770 Hz/1477 Hz
7	852 Hz/1209 Hz
8	852 Hz/1366 Hz
9	852 Hz/1477 Hz
0	941 Hz/1366 Hz
*	941 Hz/1209 Hz
#	941 Hz/1477 Hz

6.12 Tone (TEL/FAX)

1. Purpose

To check the pseudo-ring back tone of TEL/FAX automatic switching.

2. Procedure



6.13 Protocol Dump Data Printing

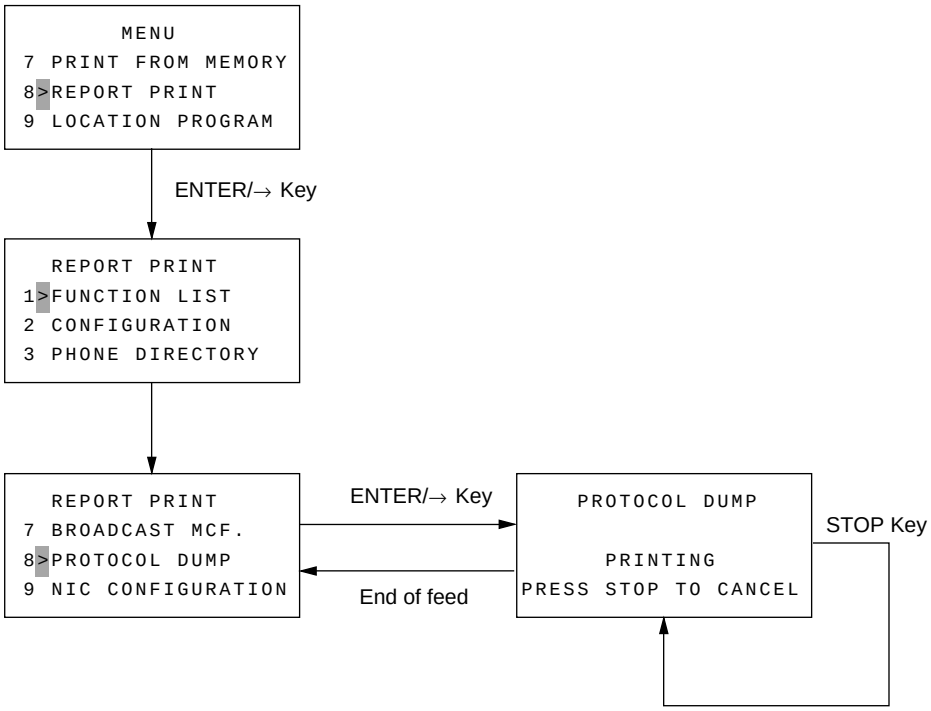
1. Purpose

To analyze the transmitted/received G3 protocol signals.

2. Procedure

- Manual print-out of the last communication.

(a) Manual print-out

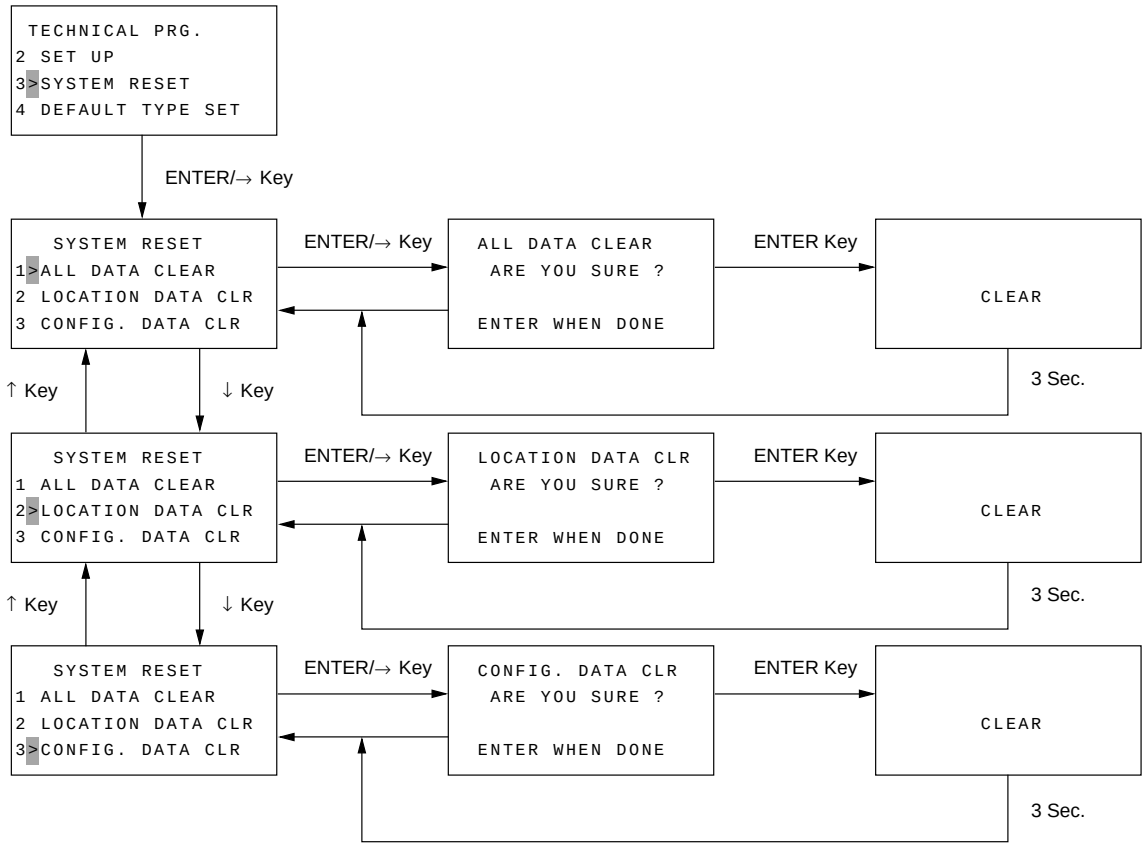


6.14 System Reset

1. Purpose

To clear or initialize the following data:
(a) Location data
(b) Configuration data (default)

2. Procedure



6.15 Service Codes

1) The service code can be printed on Activity Report to recognize the result of each communication.

2) The activity report indicates the code ”0000", should a communication terminates on normal status as a service code.

3) The activity report indicates one of the codes of “90XX”, should a communication terminates on abnormal status, as an error code.

4) Besides the above codes of “90XX”, the following codes are prepared for identifying an abnormal status in details.

-21XX: For error codes in Group 3 transmission phase B
-29XX: For error codes in Group 3 reception phase B
-39XX: For error codes in Group 3 reception phase C
-41XX: For error codes in Group 3 transmission phase D
-49XX: For error codes in Group 3 reception phase D
-90XX: Common error codes
-AEXX: ISDN Common error codes
-BBXX: ISDN Dch layer 2
-BAXX: ISDN Dch layer 3
-BCXX: ISDN Bch layer 2
-B2XX: ISDN Bch layer 3
-B7XX: ISDN Bch layer 4
-B9XX: ISDN Bch layer 5
-B8XX: ISDN Bch layer 6

Table 6.15.1 (1/2) Service Codes List

Code	Description
0000	Successful end of communication.
1080	STOP key has been pressed while calling a remote fax.
10A2	Busy tone detected.
14C0	Dial tone not detected.
14C1	Line current not detected.
14C2	Calling-and-waiting for line connection time out.
14C3	Dialling limit time out.
21A0	Received signal other than DIS/DTC.
21A1	Contents of received DIS/DTC are faulty.
21A3	Each time there is no response from the receiver for sending TCF three times.
21A4	TCF fall back is not possible.
21A5	Received signal other than the desired signal in response to sending TCF.
21B0	Transmitter tried to transmit by confidential transmission function but the remote fax has not the capability of confidential reception.
21B1	Transmitter tried to transmit by Broadcast Initiate function but the remote fax has not the broadcast capability.
21C0	In Closed Network setting, TSI/CIG/CSI is either not received or, if received, it is not authorized one.
21E0	Contents of CM/JM are faulty at transmission side.
21E1	Phase 2 time out at transmission side.
21E2	Phase 3 time out at transmission side.
21E3	Training time out of phase B control channel at transmission side.
29B6	In Confidential Reception, the mail box specified by transmitter is not set up and open.
29C1	In closed Network setting, TSI/CSI is either not received or, if received, it is not authorized one.
29E0	Contents of CM/JM are faulty at receive side.
29E1	Phase 2 time out at receive side.
29E2	Phase 3 time out at receive side.
29E3	Training time out of phase B control channel at receive side.
39A0	The number of continuous-error lines have exceeded the specified limit.
39A1	The number of random-error lines have exceeded the specified limit.
39B0	Memory Overflow has occurred while receiving in memory.
39B1	Memory Overflow occurred during Confidential Reception.
39C0	DECODER hardware error. (cannot reproduce picture)

Table 6.15.1 (2/2) Service Codes List

Code	Description
39C1	DECODER hardware error. (cannot detect end of picture)
41A0	There was no response each time in response to the three post commands.
41A6	Received signal other than the desired signal in responce to the post command.
41A9	Fall back in Phase C is not possible.
41C8	T5 time out.
41CE	Received negative signal in response to the post command.
41E0	Control chanel data. Time out in Phase D.
49CC	Received signal other than the desired signal in response to RNR.
49CD	Command not received in response to RNR.
49E0	Data time out of
49E1	Fall back in Phase C is not possible.
60A0	Broadcast completed.
6803	DCN received in response to NSF/DIS without sending a single picture.
9080	Pressed STOP key.
9081	T1 time out.
9082	T2 time out.
9083	T3 time out.
9084	No recording paper.
9087	Document jam.
9088	60-minute or 70-minute time out.
9089	Document length has exceeded its maximum limit.
908E	Recording paper jam.
9090	Received DCN.
90B1	Picture memory hash error.
90C1	Document removed prior to transmission.
90C6	Normal or error-free lines not received for 13 seconds.
90C7	Error frame protocol received.
90D4	Hardware error in transmission system. (response of modem not detected)
90D5	ENCODER error. (Picture storage fault)
90F0	Option (2'nd tray) error.
90F1	Fan motor error.
90F2	Fuser error.
90F3	Recording paper size error.
90F4	Cover open.

6.16 G4 Service Code Lists

Classification	Code	Description	Alarm	Result	Remarks
Dch layer 2	BB02	LSI NG	ON	NG	ISDN board error
	BB03	Line draw out	ON	NG	
	BB04	Link release by network	ON	NG	
	BB05	TEI release by network	ON	NG	
	BB06	TEI verification procedure failure	ON	NG	
Dch layer 3	BA01	Unallocated (unassigned) number	ON	NG	
	BA02	No route to specified transit network	ON	NG	
	BA03	No route to destination			Handling in the G3 fallback
	BA06	Channel unacceptable	ON	NG	
	BA07	Call awarded and being delivered in an established channel	ON	NG	
	BA11	User busy			Handling of the redial
	BA12	No user responding			Handling in the G3 fallback
	BA13	No answer from user (user alerted)	ON	NG	
	BA15	Call rejected	ON	NG	
	BA16	Number changed	ON	NG	
	BA1A	Non-selected user clearing	ON	NG	
	BA1B	Destination out of order	ON	NG	
	BA1C	Invalid number format	ON	NG	
	BA1D	Facility rejected	ON	NG	
	BA1E	Response to STATUS-ENQUIRY	ON	NG	
	BA1F	Normal, unspecified	ON	NG	
	BA22	No circuit/channel available			Handling of the redial
	BA26	Network out of order	ON	NG	
	BA29	Temporary failure			Handling of the redial
	BA2A	Switching equipment congestion	ON	NG	
	BA2B	Access information discarded	ON	NG	
	BA2C	Requested circuit/channel not available			Handling of the redial
	BA2F	Resources unavailable, unspecified	ON	NG	
	BA31	Quality of service unavailable	ON	NG	
	BA32	Requested facility not subscribed	ON	NG	
	BA39	Bearer capability not authorized			Handling in the G3 fallback
	BA3A	Bearer capability not presently available			Handling in the G3 fallback
	BA3F	Service or option not available, unspecified			Handling in the G3 fallback
	BA41	Bearer capability not implemented			Handling in the G3 fallback
	BA42	Channel type not implemented	ON	NG	
	BA45	Requested facility not implemented	ON	NG	
	BA46	Only restricted digital information bearer capability is available			Handling in the G3 fallback
	BA4F	Service or option not implemented, unspecified			Handling in the G3 fallback
	BA51	Invalid call reference value	ON	NG	
	BA52	Identified channel does not exist	ON	NG	
	BA53	A suspended call exists, but this call identity does not	ON	NG	
	BA54	Call identity in use	ON	NG	
	BA55	No call suspended	ON	NG	
	BA56	Call having the requested call identity has been cleared	ON	NG	
	BA58	Incompatible destination			Handling in the G3 fallback
	BA5B	Invalid transit network selection	ON	NG	
	BA5F	Invalid message, unspecified	ON	NG	
	BA60	Mandatory information element is missing	ON	NG	
	BA61	Message type non-existent or not implemented	ON	NG	
	BA62	Message not compatible with call state or message type non-existent or not implemented	ON	NG	
	BA63	Information element non-existent or not implemented	ON	NG	

Classification	Code	Description	Alarm	Result	Remarks
	BA64	Invalid information element contents	ON	NG	
	BA65	Message not compatible with call state	ON	NG	
	BA66	Recovery on timer expiry	ON	NG	
	BA6F	Protocol error, unspecified			Handling in the G3 fallback
	BA7F	Interworking, unspecified			Handling in the G3 fallback
	BB01	CONN message wait time out	ON	NG	
	BB07	Reset request by network	ON	NG	
Bch layer 2	BC02	N2 times time out	ON	NG	
	BC03	FRMR reception	ON	NG	
	BC04	FRMR transmission	ON	NG	
	BC05	The other party link disconnection	ON	NG	
	BC08	T3 time out	ON	NG	
	BD01	SABME wait time out	ON	NG	
Bch layer 3	B201	The other party terminal busy	ON	NG	
	B203	Incorrect facility request	ON	NG	
	B205	Network congestion	ON	NG	
	B209	Connection impossible (failure or absent)	ON	NG	
	B210	Packet that is not adaptable to status transition (Packet level ready state)	ON	NG	
	B211	Remote procedure error	ON	NG	
	B212	Packet that is not adaptable to status transition (DTE restart request state)	ON	NG	
	B213	Local procedure error	ON	NG	
	B214	Packet that is not adaptable to status transition (Empty state)	ON	NG	
	B215	Packet that is not adaptable to status transition (CO packet wait)	ON	NG	
	B216	Packet that is not adaptable to status transition (CA packet wait)	ON	NG	
	B217	Packet that is not adaptable to status transition (During data transmission)	ON	NG	
	B218	Packet that is not adaptable to status transition (Outgoing/incoming collision)	ON	NG	
	B219	Packet that is not adaptable to status transition (CQ packet)	ON	NG	
	B221	Unallowable packet (Packet type not clear)	ON	NG	
	B222	Unallowable packet (Call by special incoming logic channel)	ON	NG	
	B226	Unallowable packet (Too short packet)	ON	NG	
	B227	Unallowable packet (Too long packet)	ON	NG	
	B229	Unallowable packet (Restart packet in which LCN or LCGN is not 0)	ON	NG	
	B22A	Unallowable packet (Packet that is not adaptable to the facility)	ON	NG	
	B231	Timer time out (CA packet wait time out)	ON	NG	
	B232	Timer time out (CF packet wait time out)	ON	NG	
	B241	Call setting problem (unallowable facility code)	ON	NG	
	B242	Call setting problem (unallowable facility parameter)	ON	NG	
	B243	Call setting problem (incoming address is invalid)	ON	NG	
	B244	Call setting problem (outgoing address is invalid)	ON	NG	
	B245	Call setting problem (invalid facility length)	ON	NG	
	B246	Call setting problem (call termination reject)	ON	NG	
	B247	Call setting problem (No empty logic channel)	ON	NG	
	B248	Call setting problem (outgoing/incoming collision)	ON	NG	
	B249	Call setting problem (overlapped facility request)	ON	NG	
	B24A	Call setting problem (address length other than zero)	ON	NG	
	B24B	Call setting problem (facility length other than zero)	ON	NG	
Bch layer 4	B702	Reception TDT length over	ON	NG	
	B703	TDT length negotiation unsuccessful	ON	NG	
	B704	Invalid block received	ON	NG	
	B705	Abnormal parameter received	ON	NG	

Classification	Code	Description	Alarm	Result	Remarks
	B706	Illegal block received	ON	NG	
	B707	TCR wait time out (T0.2 T.O)	ON	NG	
	B708	TCA wait time out (T1.1 T.O)	ON	NG	
	B709	Communication interruption due to TCC reception	ON	NG	
	B70A	Communication interruption due to TBR reception	ON	NG	
Bch layer 5	B901	Command response reception error	ON	NG	
	B902	Non-implicit command response received	ON	NG	
	B903	Lack of essential parameter	ON	NG	
	B904	Invalid parameter reception	ON	NG	
	B905	Invalid parameter value reception	ON	NG	
	B906	Window size over reception	ON	NG	
	B907	Document reference number error	ON	NG	
	B908	Length illegal	ON	NG	
	B909	Check point error	ON	NG	
	B90A	Unallowable document	ON	NG	
Bch layer 6	B801	Command response reception error	ON	NG	
	B802	Parameter reception error	ON	NG	
	B803	Negotiation unsuccessful RSSP reception	ON	NG	
	B804	Negotiation unsuccessful RSSN reception	ON	NG	
	B805	CSCC at the time when the transmission right cannot be reversed	ON	NG	
	B806	CSA reception	ON	NG	
	B809	Error recovery time out	ON	NG	
	B80A	Time out at the time of termination	ON	NG	
	B80B	Close wait time out	ON	NG	
	B80C	CSE reception before close	ON	NG	
Bch layer 7	AE01	Negotiation unsuccessful (requirement for communication with the other party FAX is not met)	ON	NG	
	AE02	Negotiation unsuccessful (only the other party standard)	ON	NG	
	AE03	The other party SUD fault	ON	NG	
	AE04	Basic terminal function unmatched	ON	NG	
	AE05	Switching type unmatched	ON	NG	
	AE06	The other party TU fault	ON	NG	

If "redial" is applicable, the redial operation is entered depending on the number of redial times.
If the redial operation cannot be entered (i.e. the number of redial times is 0 or the residual number of redial times is 0), Alarm=ON and Result=BUSY occur as with PSTN.

If "G3 fallback" is applicable, the dial operation in G3 mode is entered.
If a service code to which "G3 fallback" is applicable occurs regardless of dialing in G3 mode, a communication error is assumed and Alarm=ON and Result=NG occur.

HOME

Chapter 7

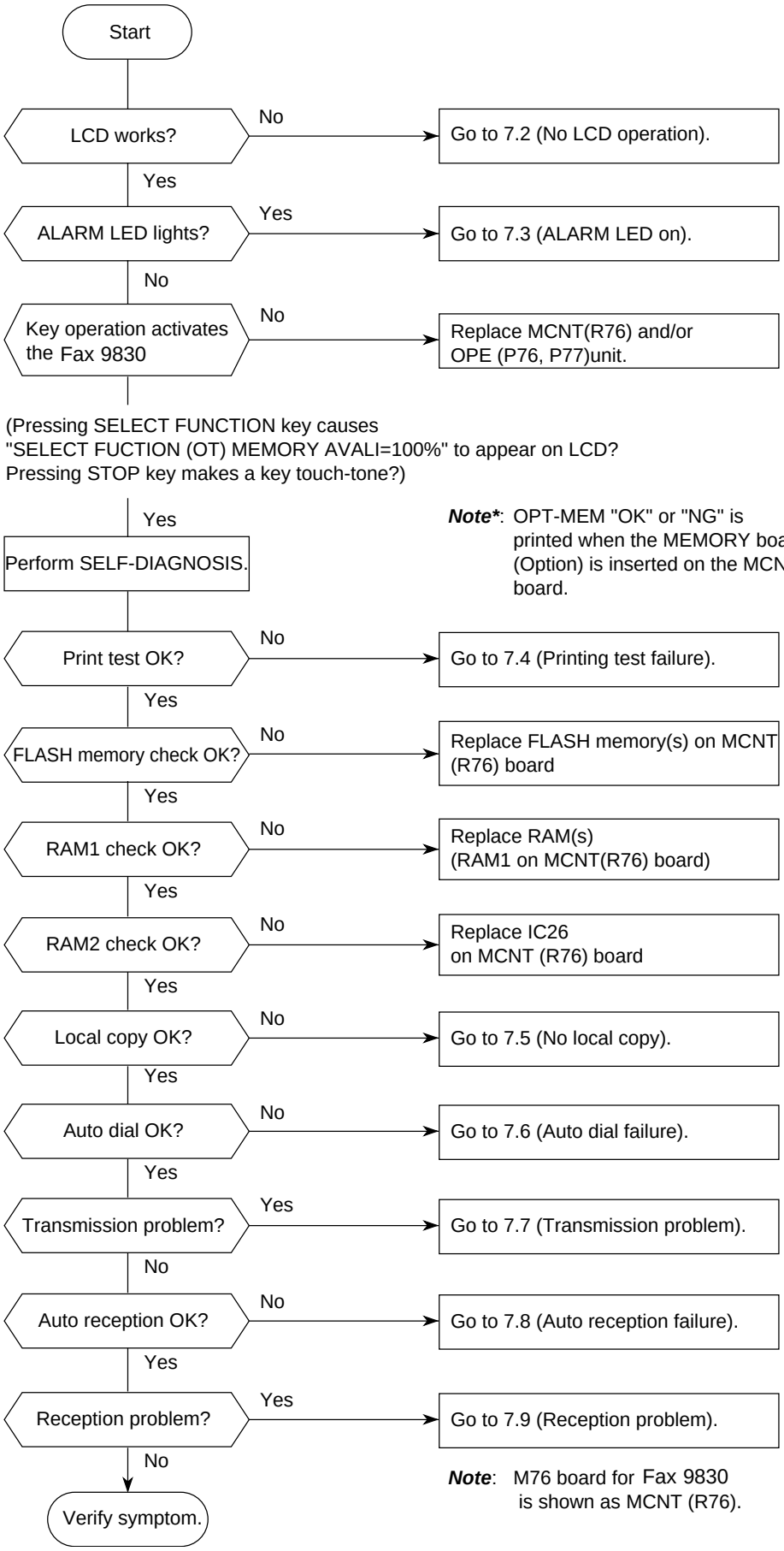
Troubleshooting

Konica Business Technologies

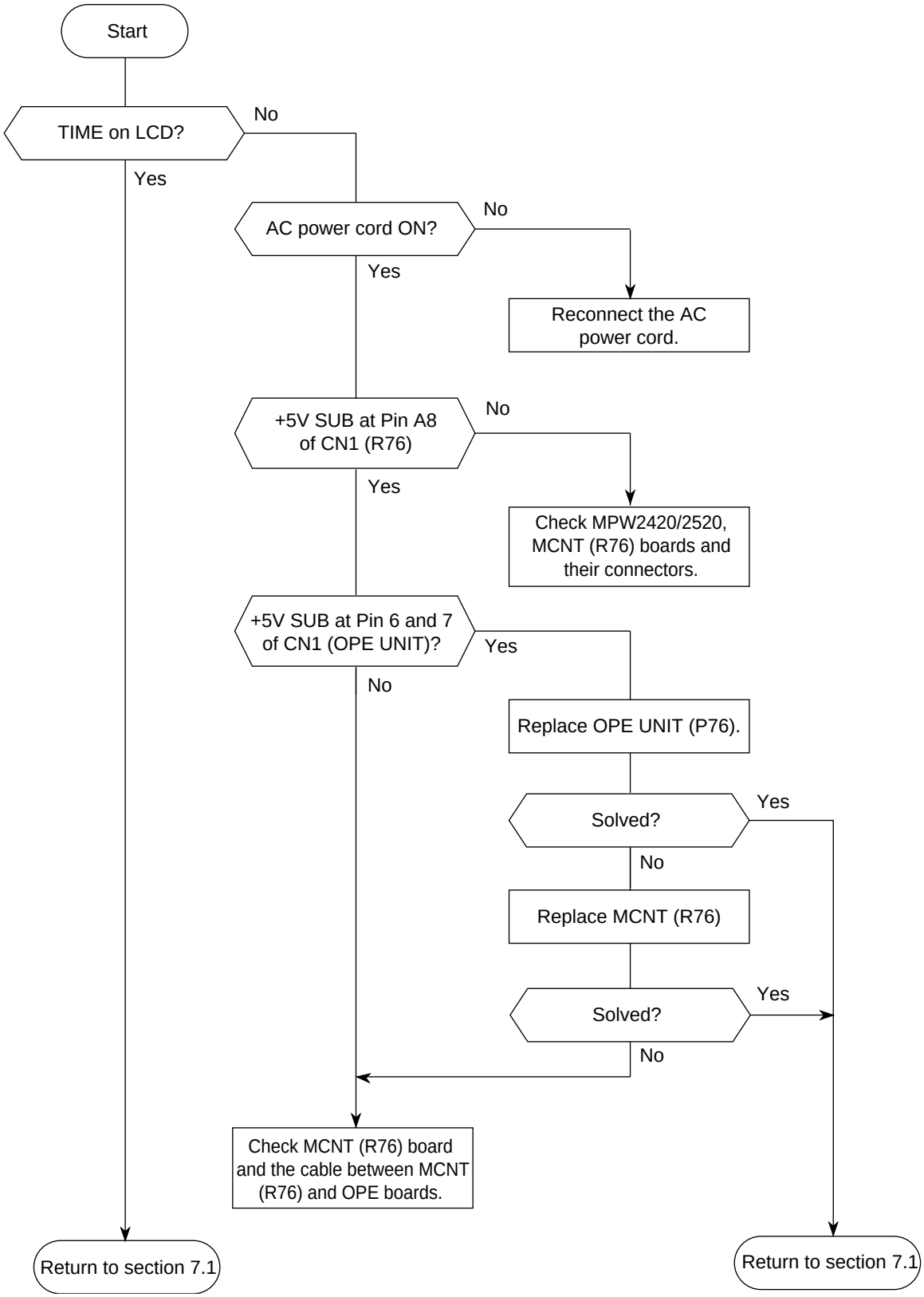
This chapter contains:

(a) Troubleshooting flow charts related to general operations
(b) Troubleshooting flow charts by test operations
(c) Troubleshooting flow charts placing an emphasis on mechanical portions

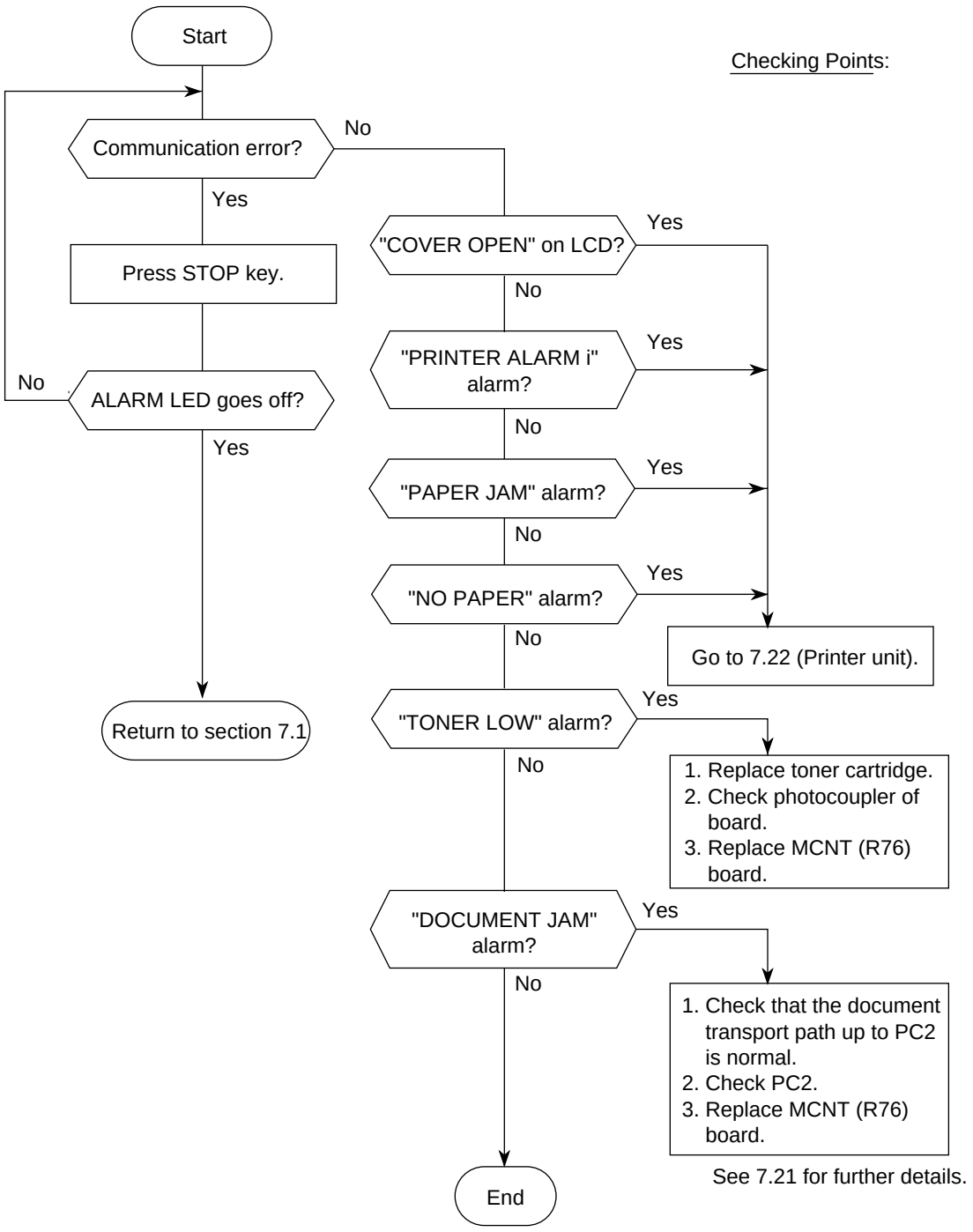
7.1 Overall Troubleshooting Flow Chart



7.2 No LCD Operation

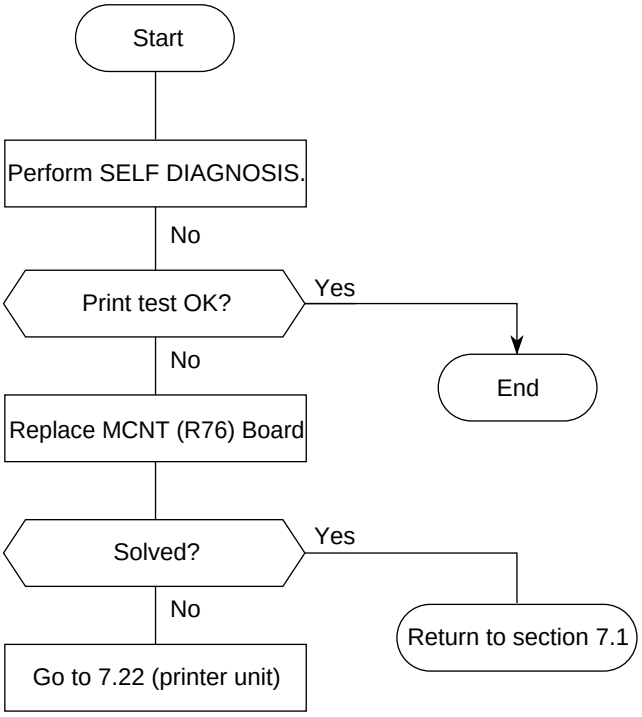


7.3 Alarm LED On

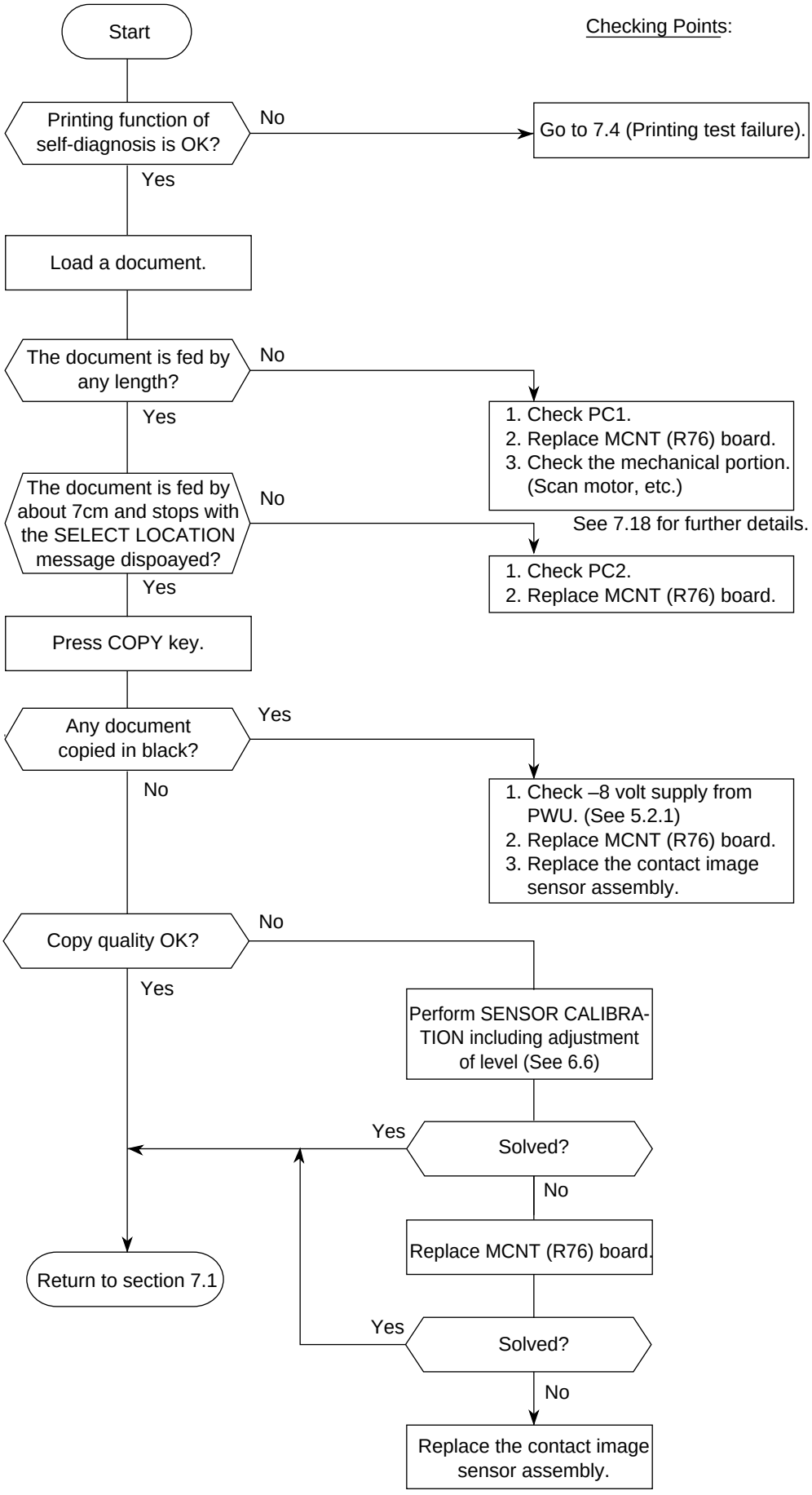


Note* :"PRINTER ALARM i" will be shown as follows:
PRINTER ALARM 2 and PRINTER ALARM 4.

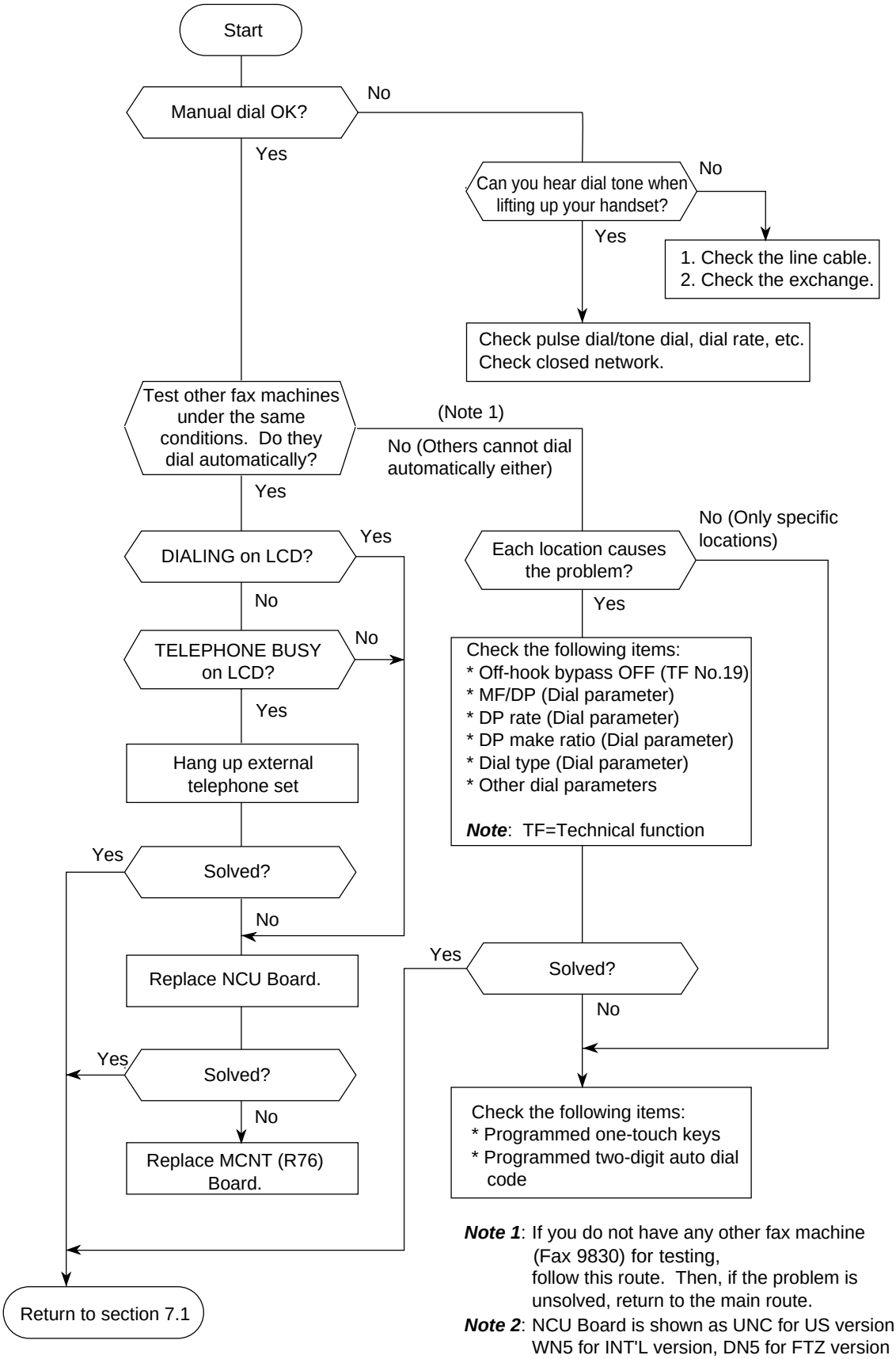
7.4 Printing Test Failure



7.5 No Local Copy



7.6 Auto Dial Failure

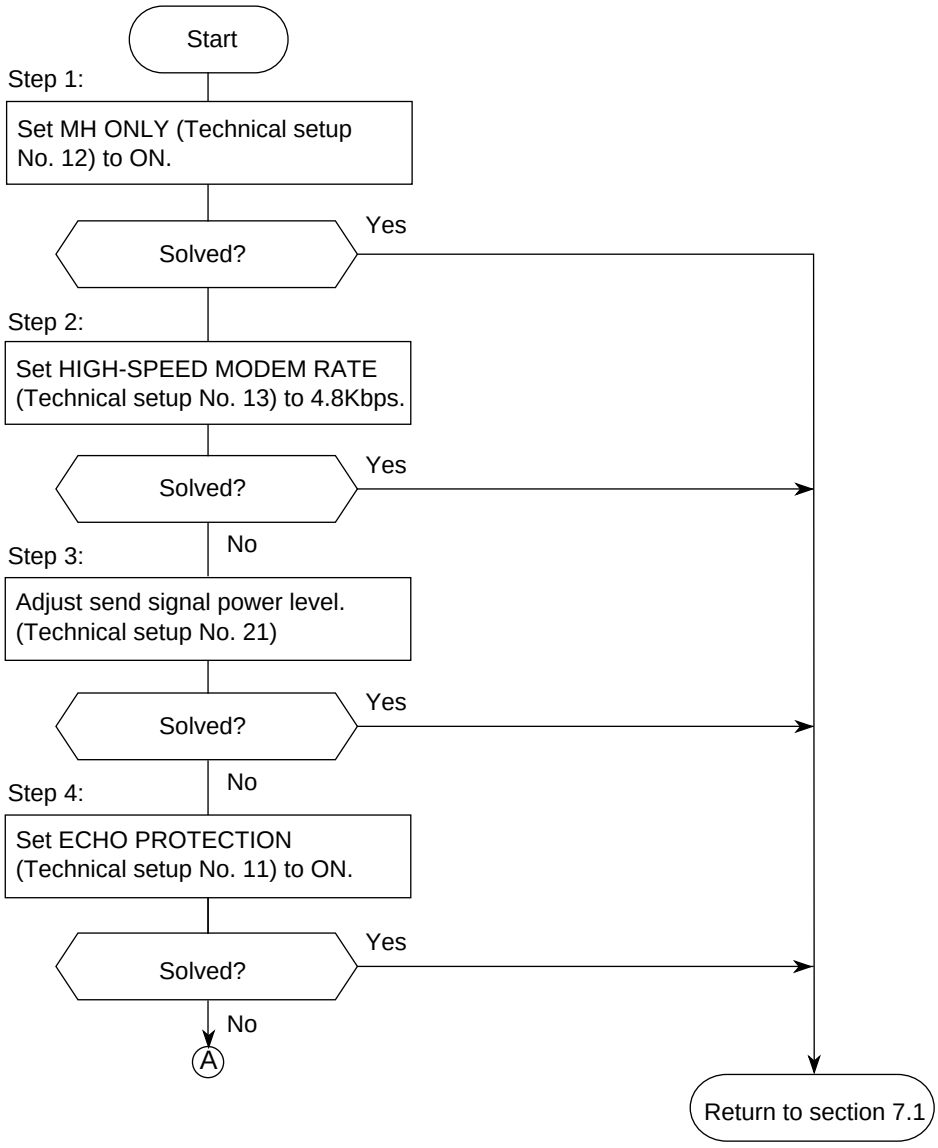


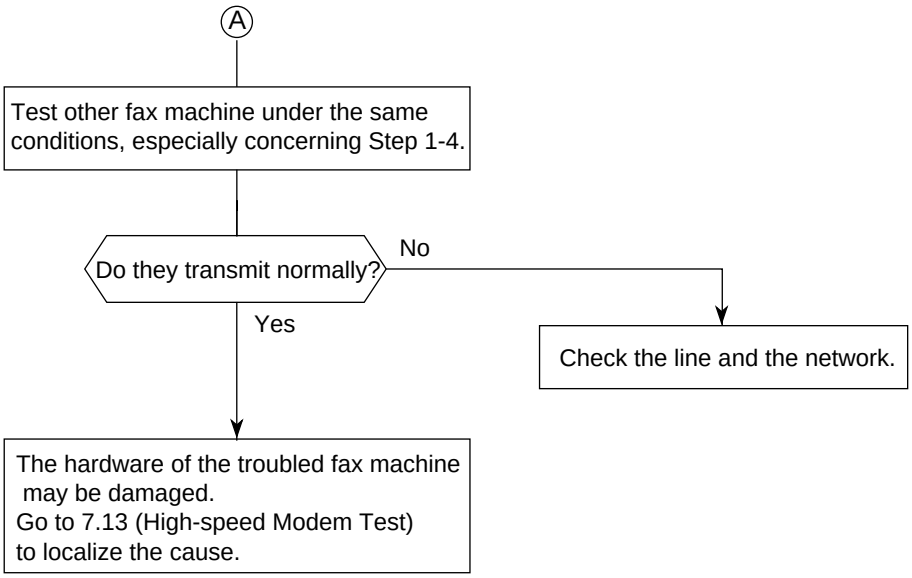
Note 1: If you do not have any other fax machine (Fax 9830) for testing, follow this route. Then, if the problem is unsolved, return to the main route.

Note 2: NCU Board is shown as UNC for US version, WN5 for INT'L version, DN5 for FTZ version and FN5 for France, and UK version.

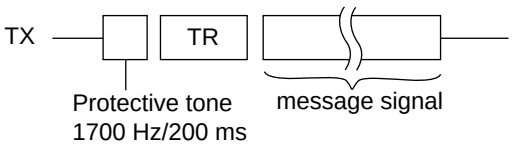
7.7 Transmission Problem

This section explains how to localize the cause of problems occurred after completion of connection with a remote station.

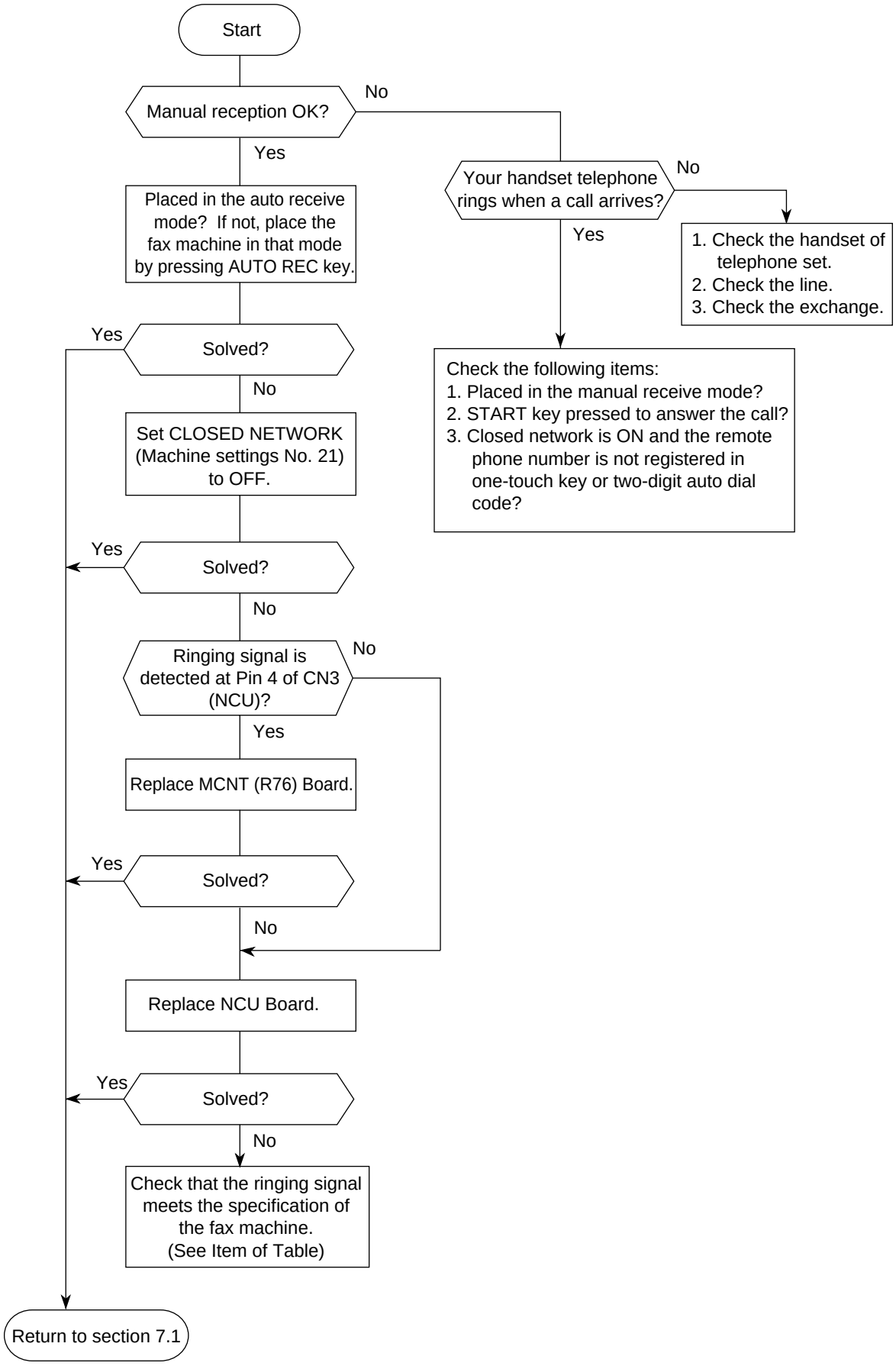




Description: Protective tone is 1700 Hz/200 ms.
This signal is added to training signal to protect the training signal against echo as follows.

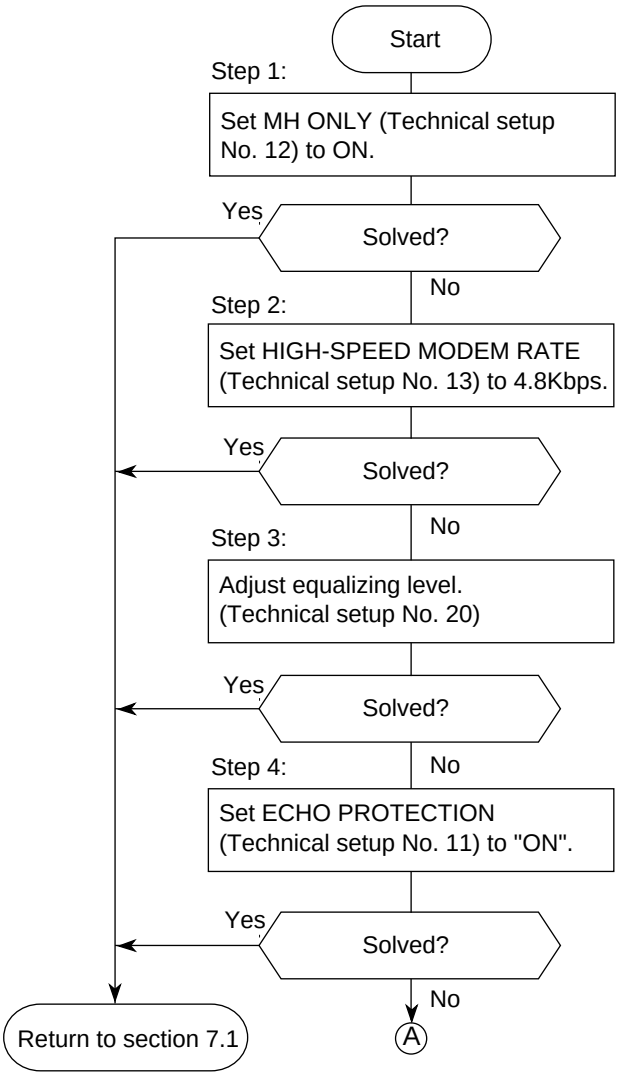


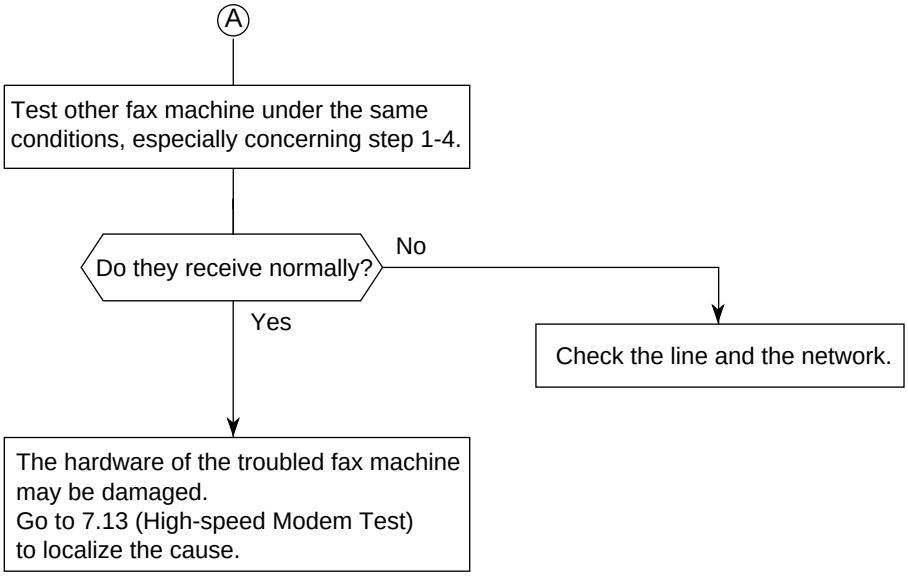
7.8 Auto Reception Failure



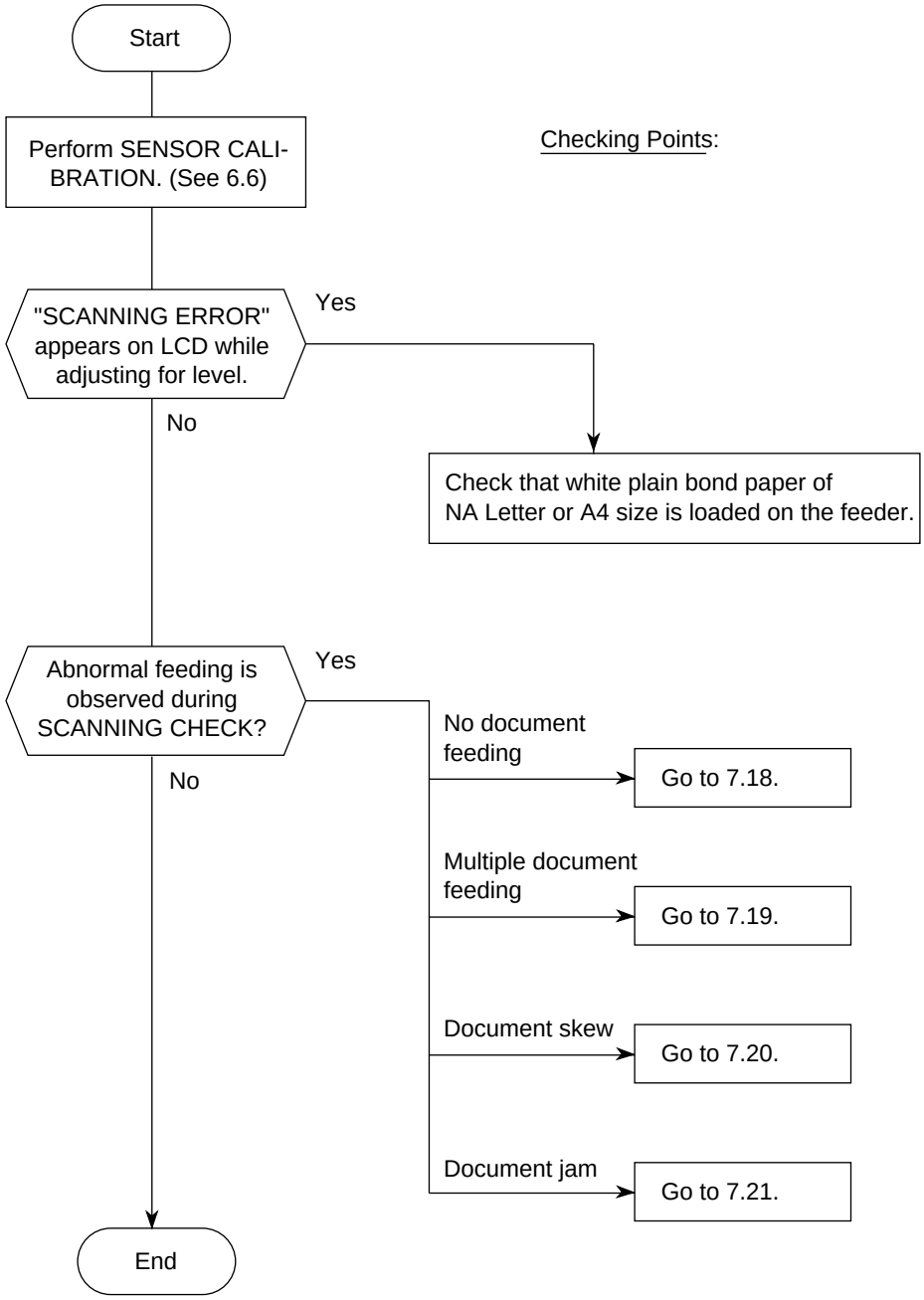
7.9 Reception Problem

This section explains how to localize the cause of problems occurred after completion of connection with a remote station.



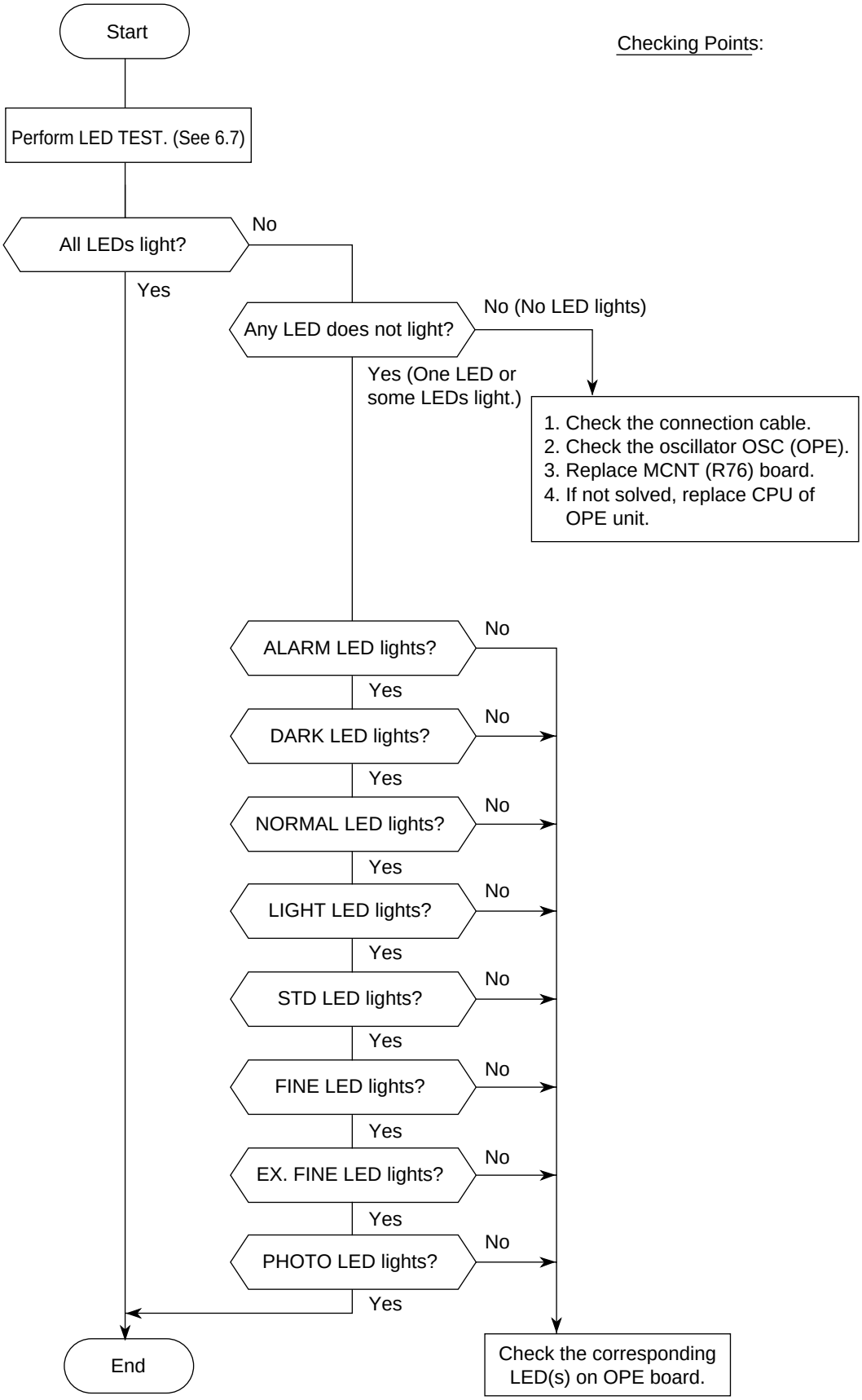

A
Test other fax machine under the same conditions, especially concerning step 1-4.
Do they receive normally?
No
Yes
Check the line and the network.
The hardware of the troubled fax machine may be damaged.
Go to 7.13 (High-speed Modem Test) to localize the cause.

7.10 Sensor Calibration Test

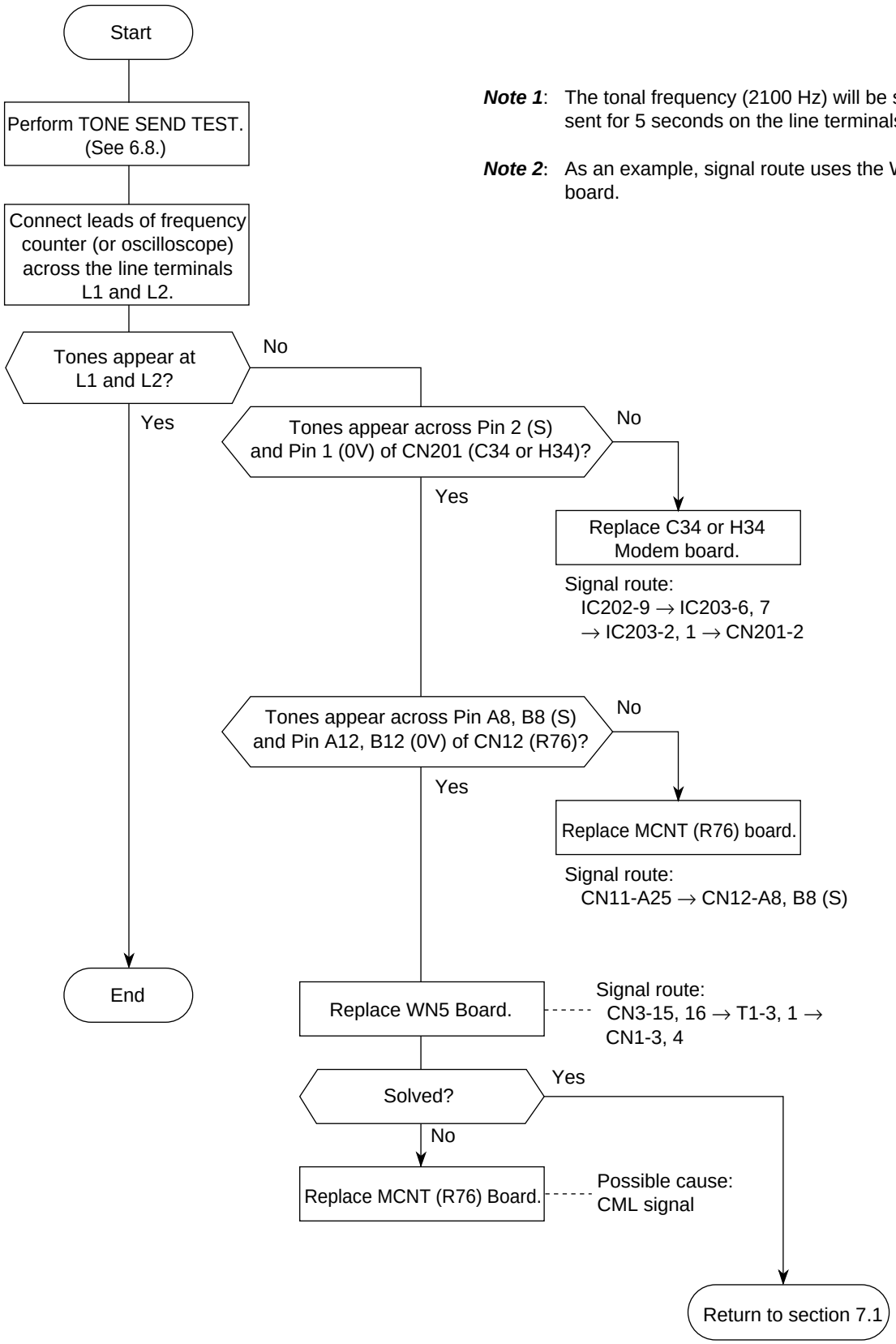


Checking Points:

7.11 LED Test


Start
Perform LED TEST. (See 6.7)
All LEDs light?
No
Yes
Any LED does not light?
No (No LED lights)
Yes (One LED or some LEDs light.)
Checking Points:
1. Check the connection cable.
2. Check the oscillator OSC (OPE).
3. Replace MCNT (R76) board.
4. If not solved, replace CPU of OPE unit.
ALARM LED lights?
DARK LED lights?
NORMAL LED lights?
LIGHT LED lights?
STD LED lights?
FINE LED lights?
EX. FINE LED lights?
PHOTO LED lights?
End
Check the corresponding LED(s) on OPE board.

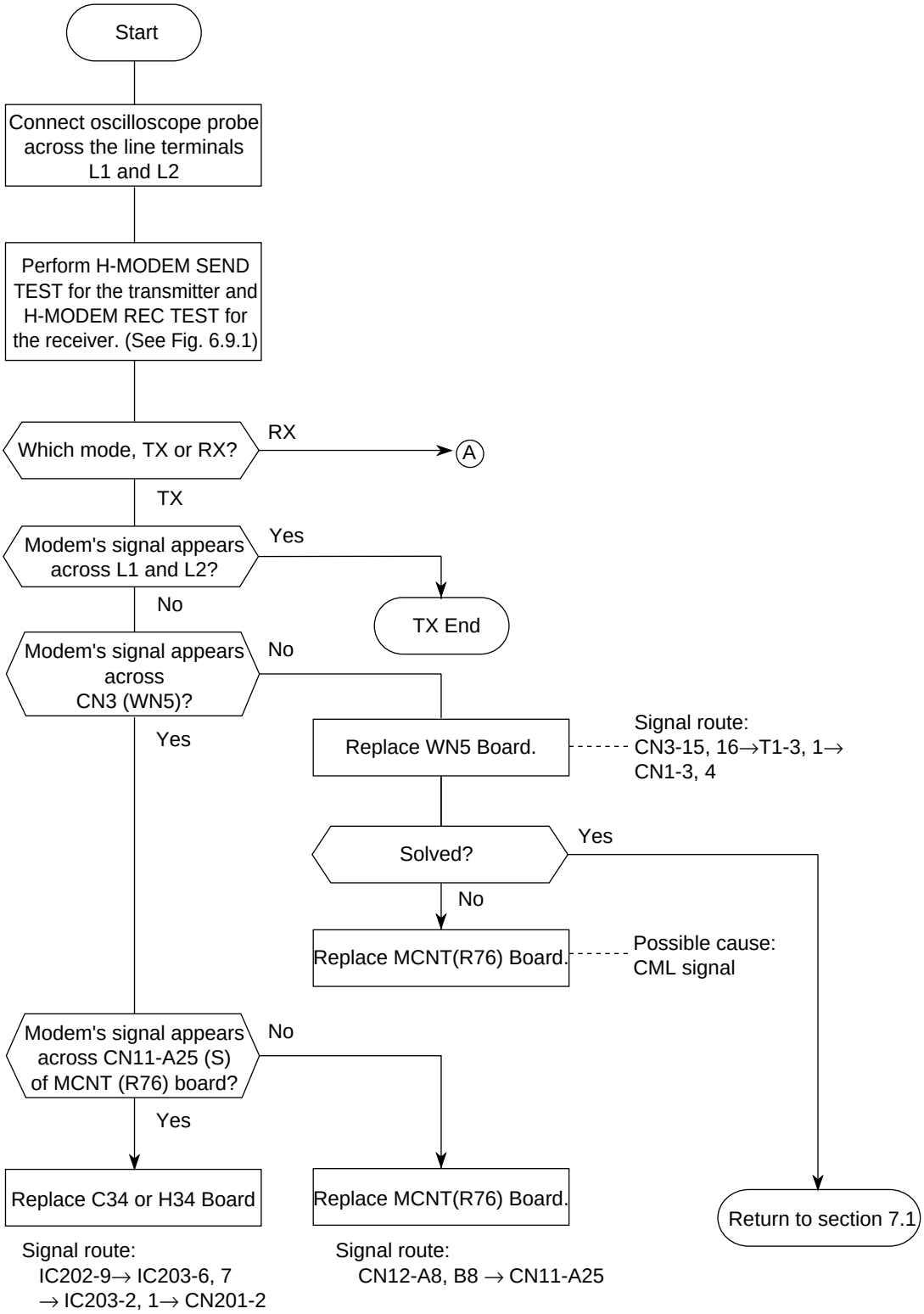
7.12 Tone Send Test

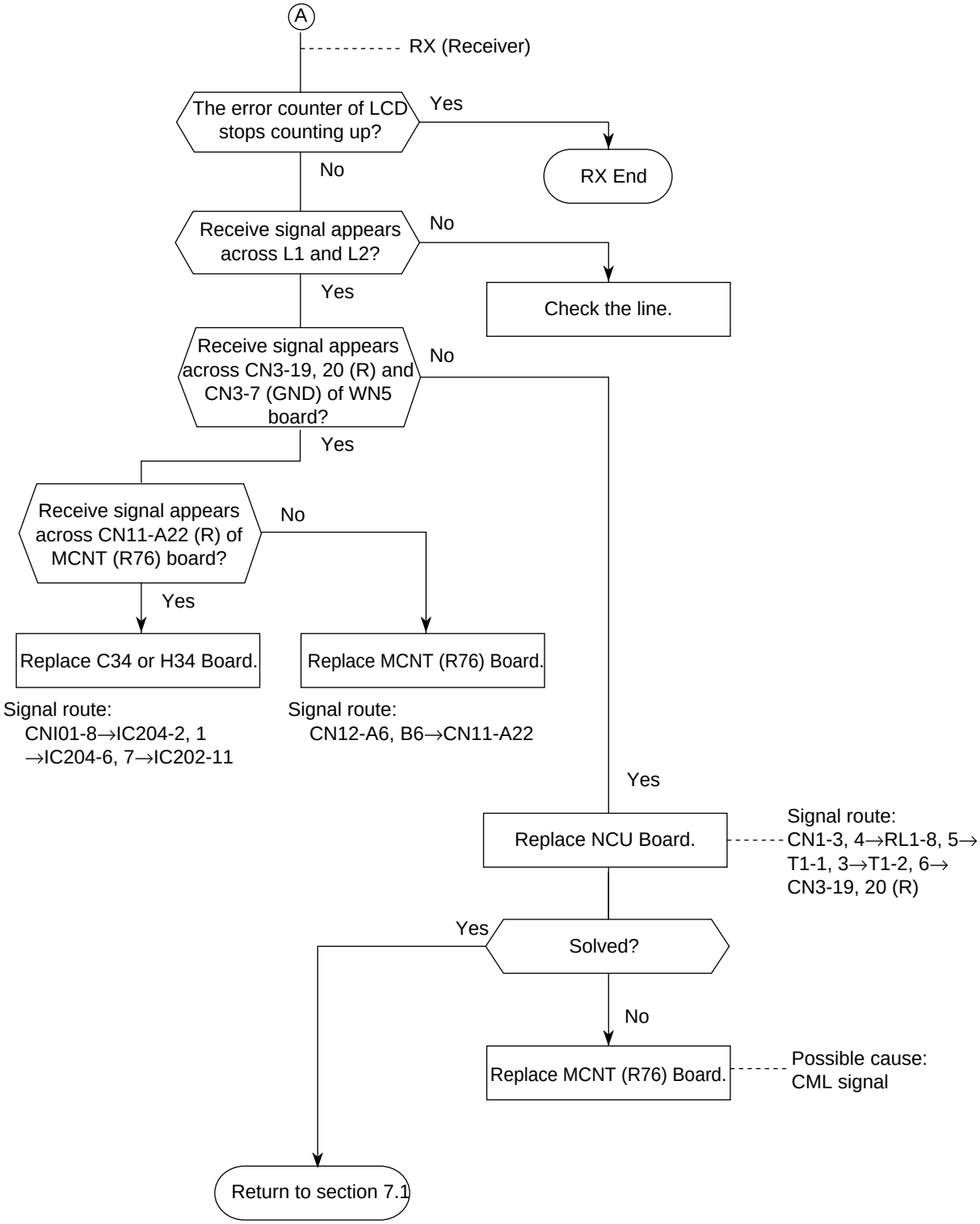


Note 1: The tonal frequency (2100 Hz) will be sequentially sent for 5 seconds on the line terminals L1 and L2.

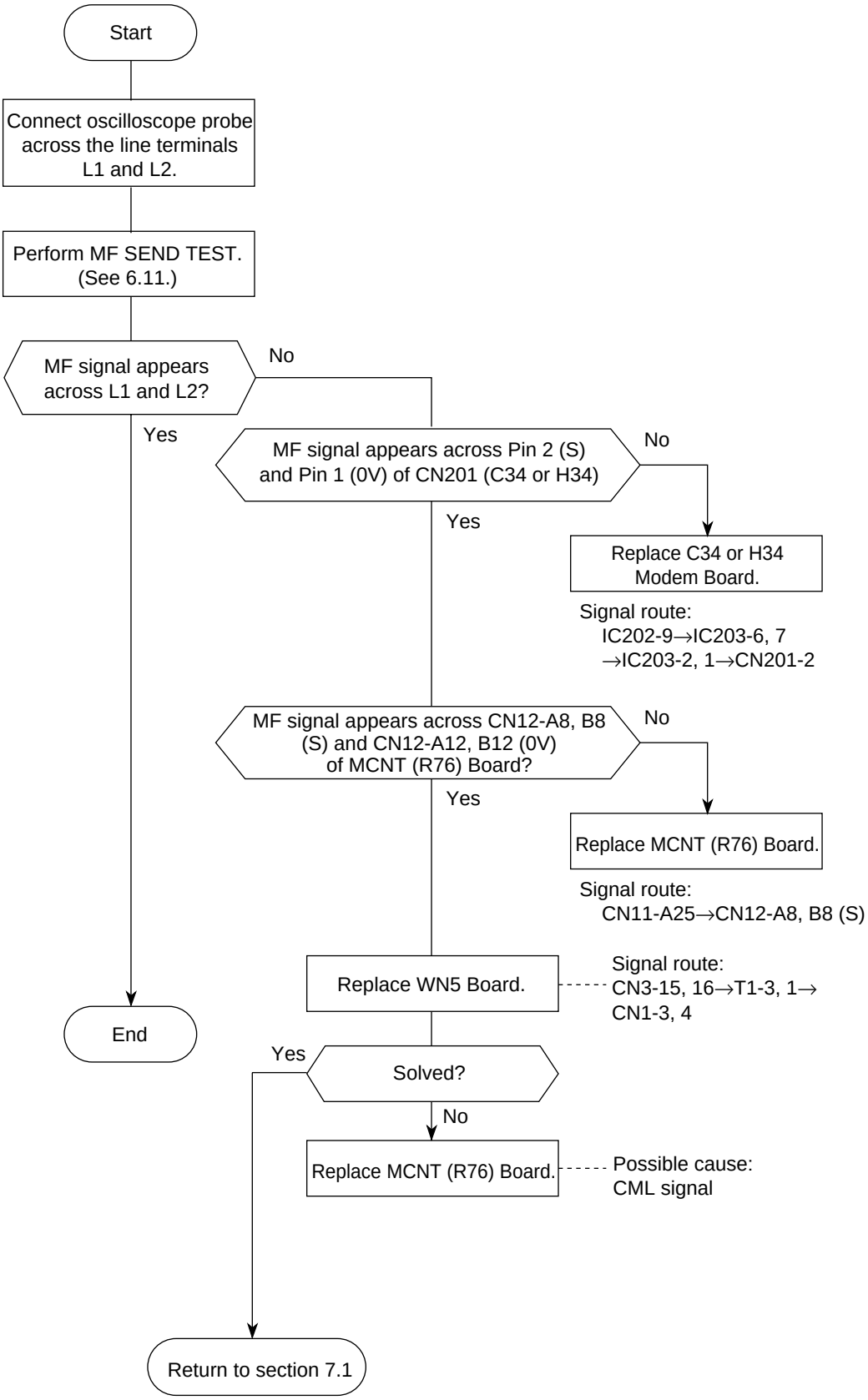
Note 2: As an example, signal route uses the WN5 (NCU) board.

7.13 High-speed Modem Test

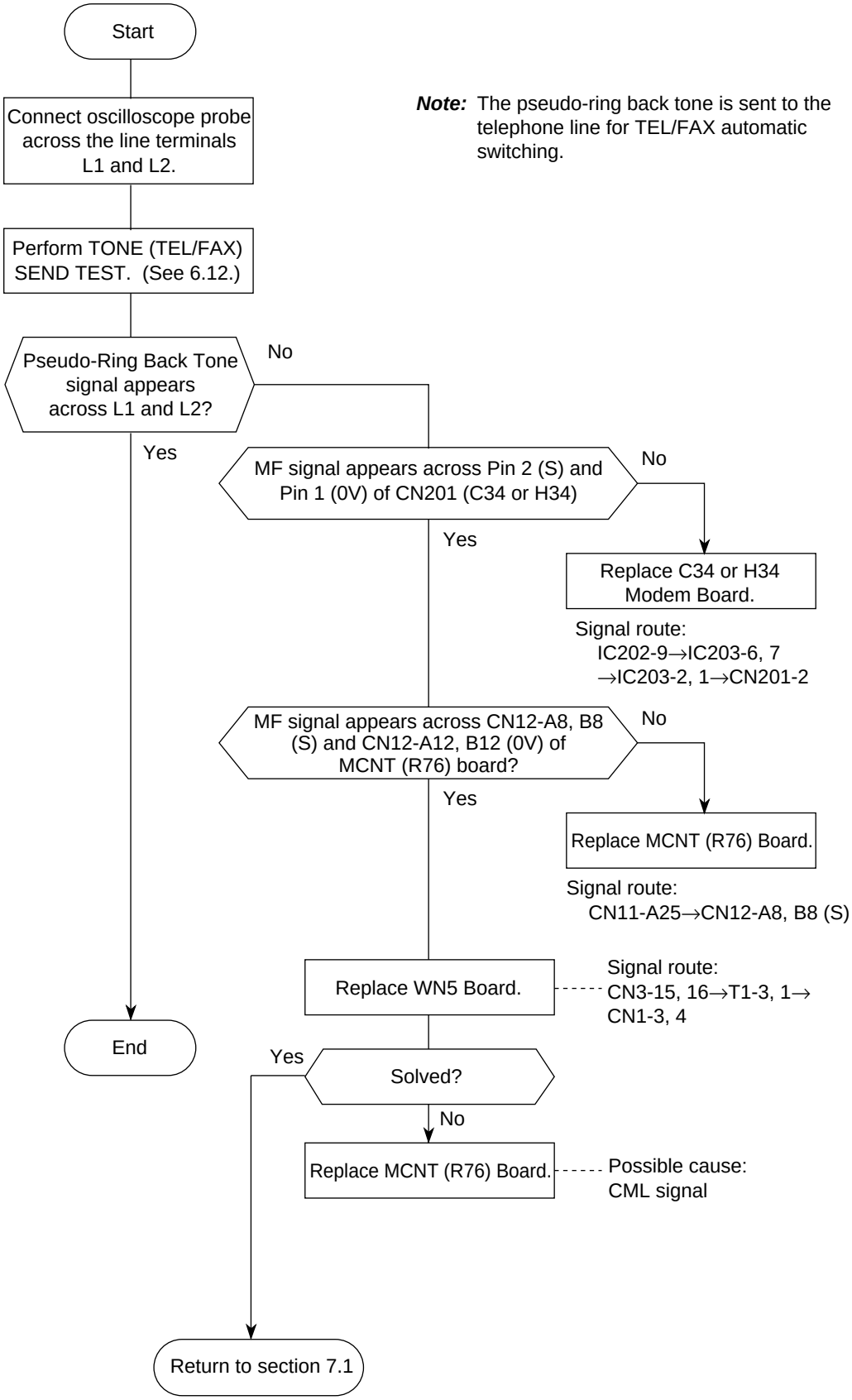



A
RX (Receiver)
The error counter of LCD stops counting up?
Yes
RX End
No
Receive signal appears across L1 and L2?
No
Check the line.
Yes
Receive signal appears across CN3-19, 20 (R) and CN3-7 (GND) of WN5 board?
No
Yes
Receive signal appears across CN11-A22 (R) of MCNT (R76) board?
No
Yes
Replace C34 or H34 Board.
Signal route:
CNI01-8→IC204-2, 1
→IC204-6, 7→IC202-11
Replace MCNT (R76) Board.
Signal route:
CN12-A6, B6→CN11-A22
Yes
Replace NCU Board.
Signal route:
CN1-3, 4→RL1-8, 5→
T1-1, 3→T1-2, 6→
CN3-19, 20 (R)
Yes
Solved?
No
Replace MCNT (R76) Board.
Possible cause:
CML signal
Return to section 7.1

7.14 MF Send Test



7.15 Tone (TEL/FAX) Send Test



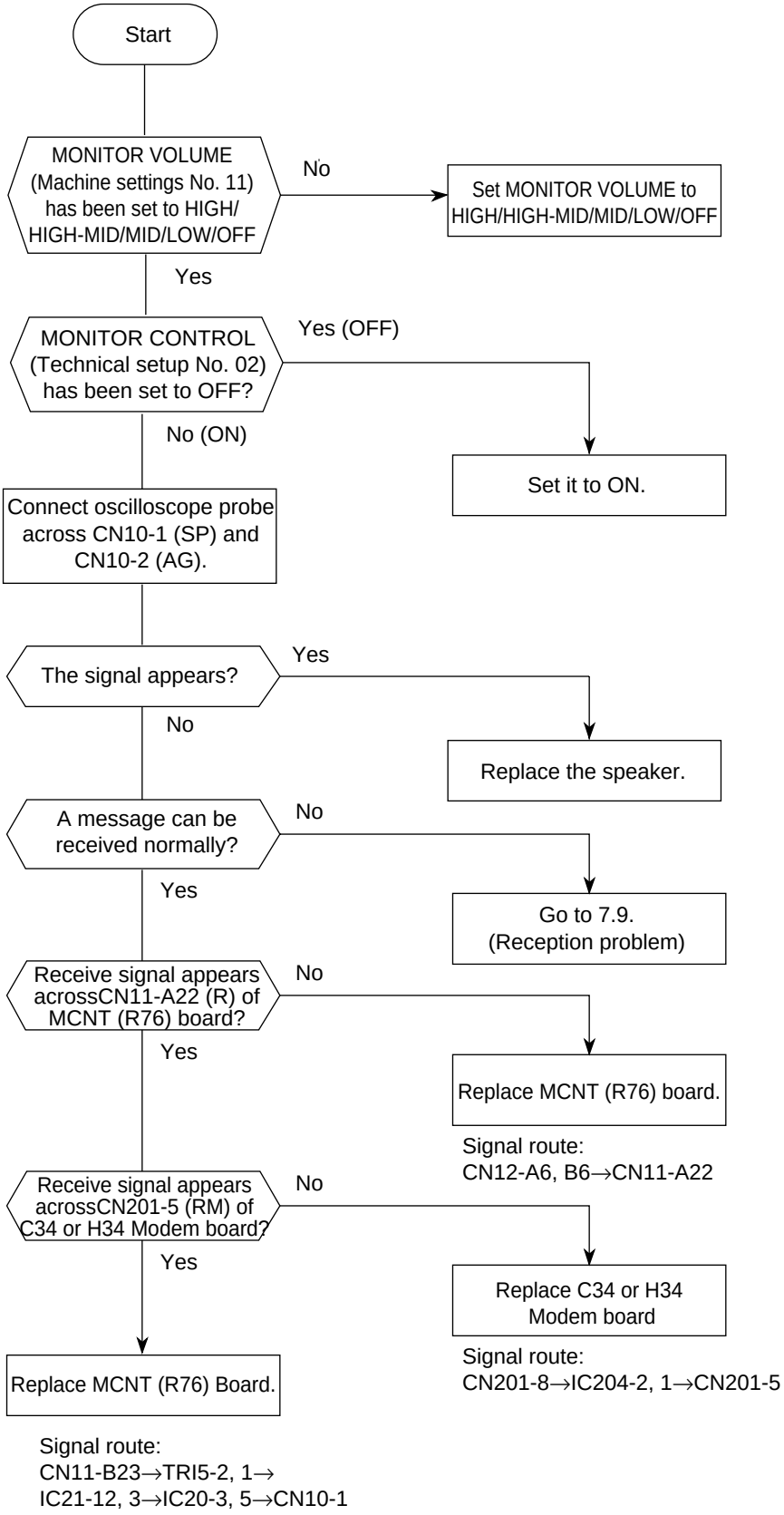
Note: The pseudo-ring back tone is sent to the telephone line for TEL/FAX automatic switching.

7.16 No Acoustic Line Monitor

There are two source routes of acoustic line monitor:

(a) General communication signal

(b) DP pulse signal



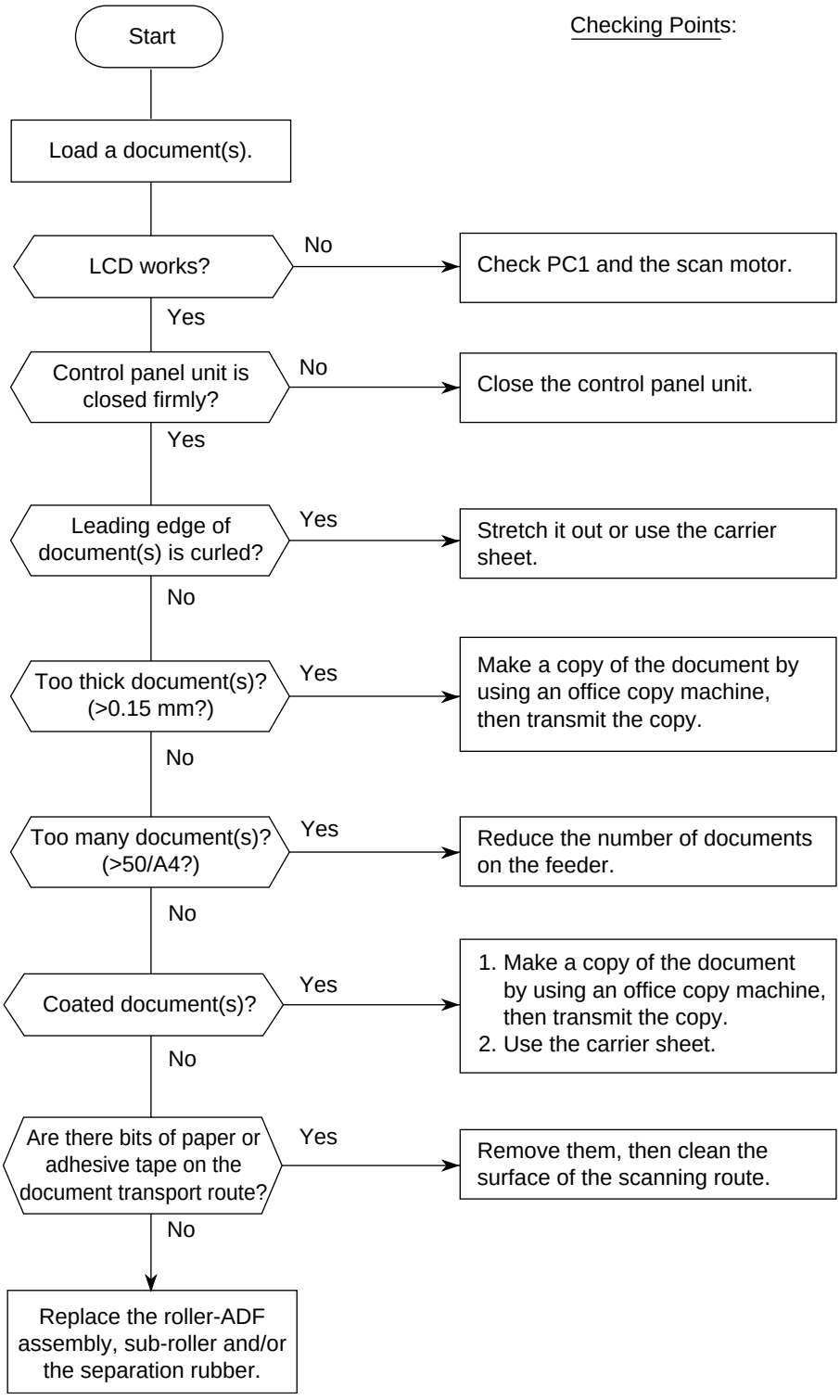
7.17 Power Supply Unit

(A) Low-voltage Selection
Replace the Power Supply Unit when output voltage written on the item A3 in the Appendix A is not normal.

(B) High-voltage Selection (H10 board)

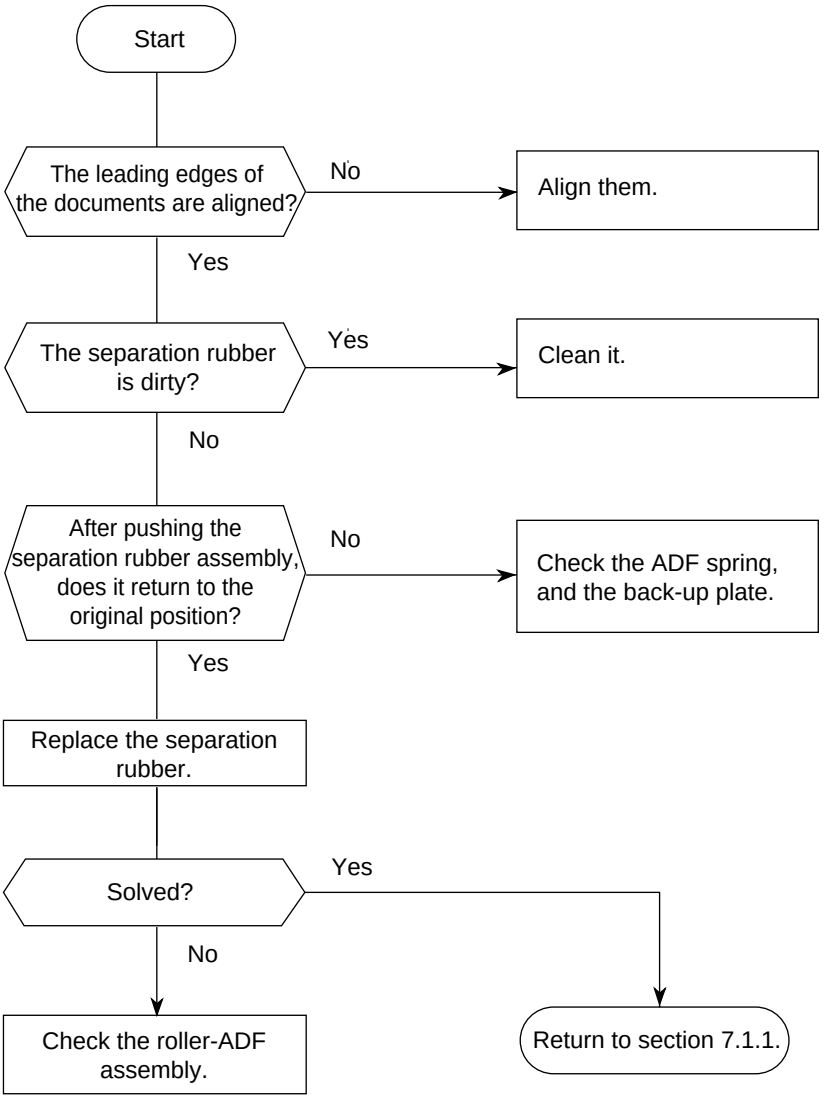
7.18 No Document Feeding

Note: This section places an emphasis on troubleshooting of mechanical portions. Therefore, it is recommended to replace the MCNT (R76) Board first and, then if not solved, follow this flow chart.

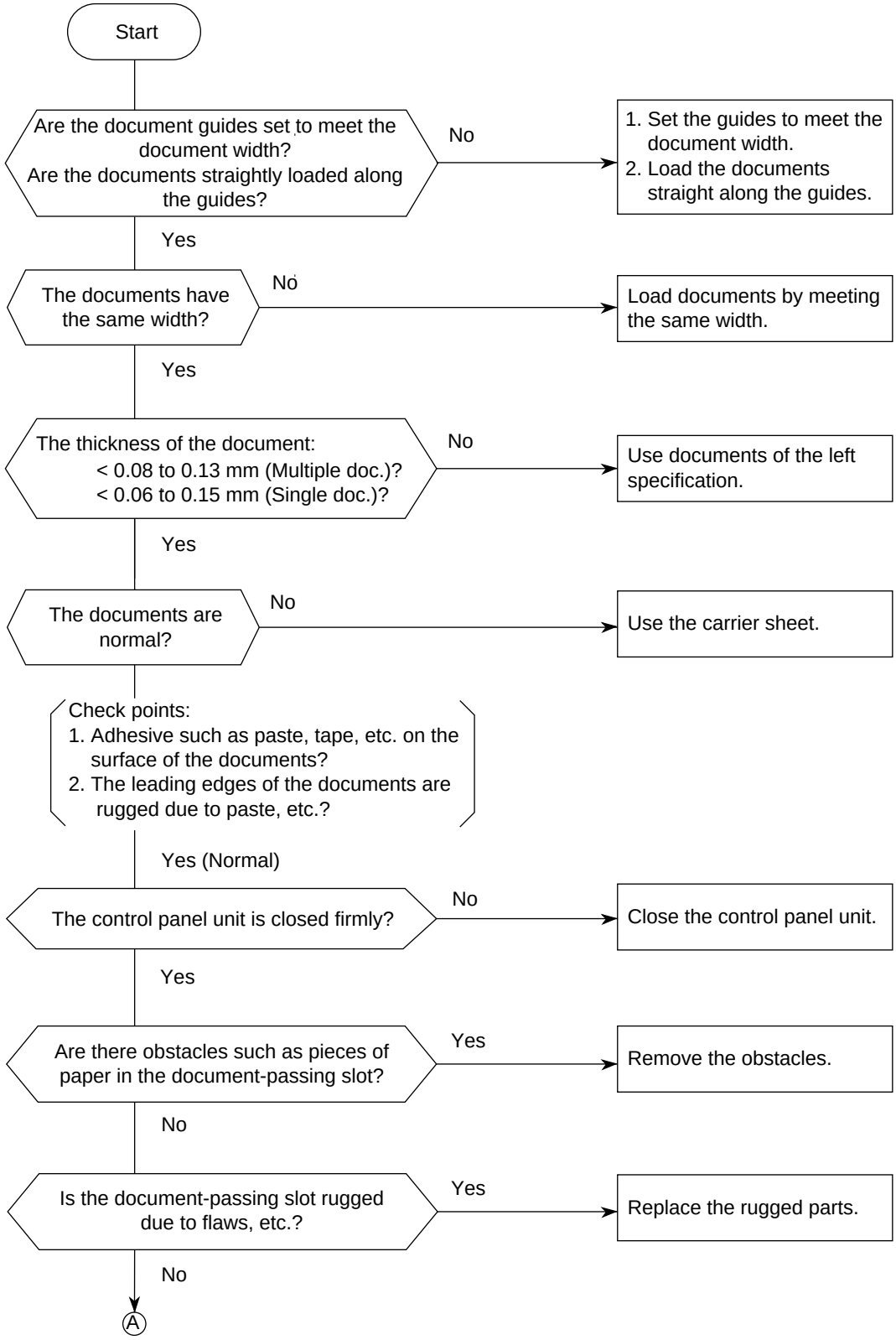


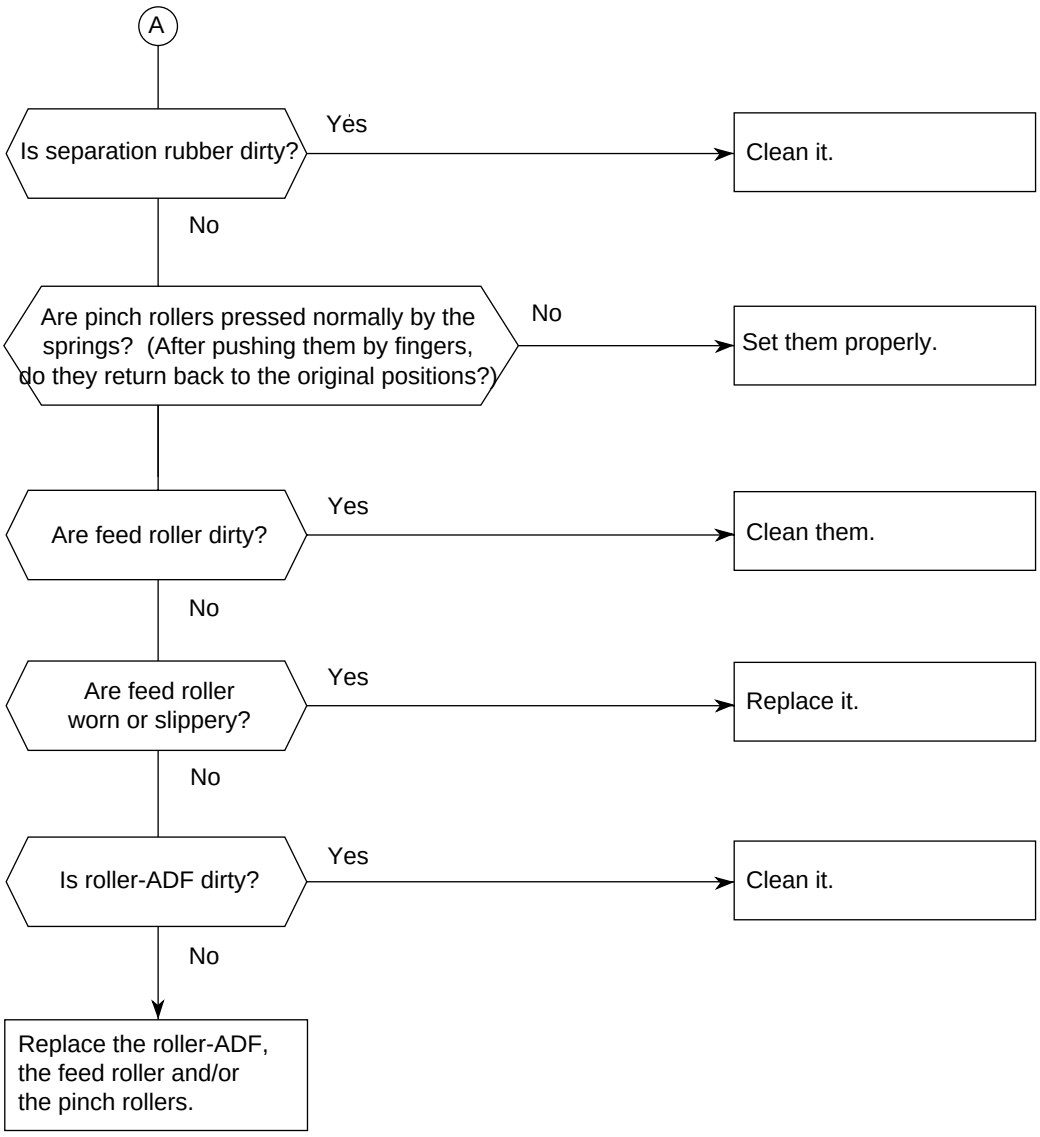
7.19 Multiple Document Feeding

Definition: Multiple document feeding.
Multiple documents are not separated and they are fed in the same one feeding operation.

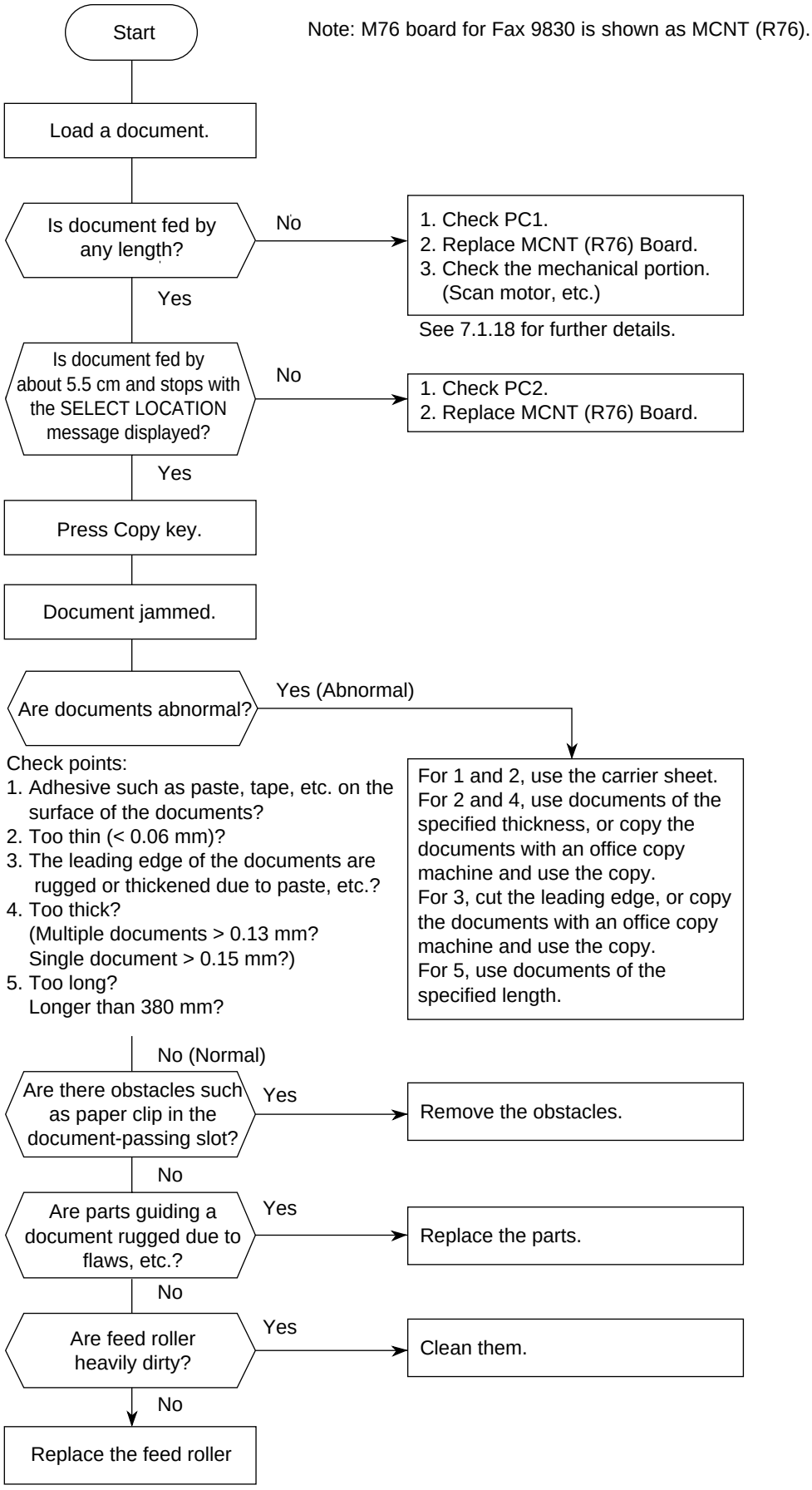


7.20 Document Skew




A
Is separation rubber dirty?
Yes
Clean it.
No
Are pinch rollers pressed normally by the springs? (After pushing them by fingers, do they return back to the original positions?)
No
Set them properly.
Are feed roller dirty?
Yes
Clean them.
No
Are feed roller worn or slippery?
Yes
Replace it.
No
Is roller-ADF dirty?
Yes
Clean it.
No
Replace the roller-ADF, the feed roller and/or the pinch rollers.

7.21 Document Jam



7.22 Printer Unit

7.22.1 Precautions

1. Points to check before correcting image troubles
   (1) Is the printer being run in proper ambient conditions?
   (2) Have the supplies (toner) and the routine replacement part (ID unit) been replaced properly?
   (3) Is the recording paper normal?
   (4) Has the ID unit been loaded properly?

2. Tips for correcting image troubles
   (1) Do not touch, or bring foreign matter into contact with the surface of the drum.
   (2) Do not expose the drum to direct sunlight.
   (3) Keep hands off the fuser unit as it is heated during operation.
   (4) Do not expose the drum to light for longer than 5 minutes at room temperature.

7.22.2 Troubleshooting Flow Charts of Printer Unit

Overall troubleshooting flow chart:

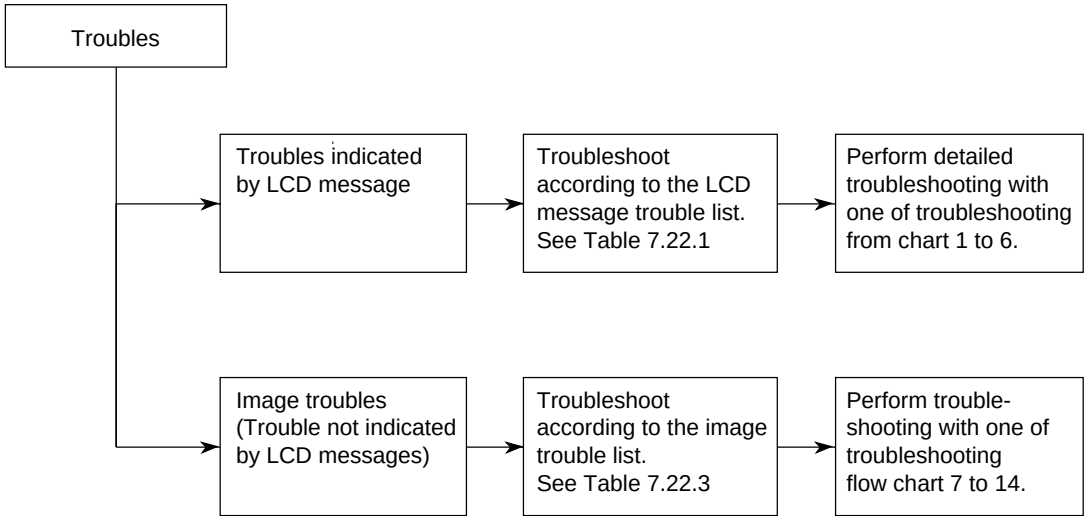


Table 7.22.1 LCD Message Trouble List

Category	LCD message display	Trouble	Troubleshooting flow chart number
Cover open	See "Table 7.22.2 Alarm Display".	The cover (cover-top) is open.	1
Image drum alarm	See "Table 7.22.2 Alarm Display".	Warning message to replace EP unit because of its life.	2
Engine errors	See "Table 7.22.2 Alarm Display".	Engine controller error	3
	See "Table 7.22.2 Alarm Display".	Fuser unit thermal error	4
Recording paper/jam error	See "Table 7.22.2 Alarm Display".	Recording paper feed jam, transport jam, ejection jam, recording size error	5
Paper cassette request	See "Table 7.22.2 Alarm Display".	No recording paper tray or no recording paper	6
Daily status	See "Table 7.22.2 Alarm Display".	Toner is running short. Note: No toner memory RX is ON.	
	See "Table 7.22.2 Alarm Display".	Toner is running short. Note: No toner memory RX is OFF.	

Table 7.22.2 Alarm Display (1/3)

ALARM	LCD	LED
Flash memory error (data)	12:00 XXX MEMORYERROR	ON
Second tray time-out error	12:00 TEL PRINTER ALARM2 REFER TO USER GUIDE MEMORY FREE 100%	ON
ID lock	12:00 TEL INVALID DRUM CART. REFER TO USER GUIDE MEMORY FREE 100%	ON
Toner lock	12:00 TEL INVALID TONER CART. REFER TO USER GUIDE MEMORY FREE 100%	ON
Thermister error	12:00 TEL PRINTER ALARM4 REFER TO USER GUIDE MEMORY FREE 100%	ON
Fan motor error	12:00 TEL PRINTER ALARM3 REFER TO USER GUIDE MEMORY FREE 100%	ON
Cover open	12:00 XXX CLOSE THE COVER MEMORY FREE 100%	ON
Document jam (limit length error)	11/01/1998 12:00 XXX DOCUMENT JAM CONFIRM AND "STOP" MEMORY FREE 100%	ON

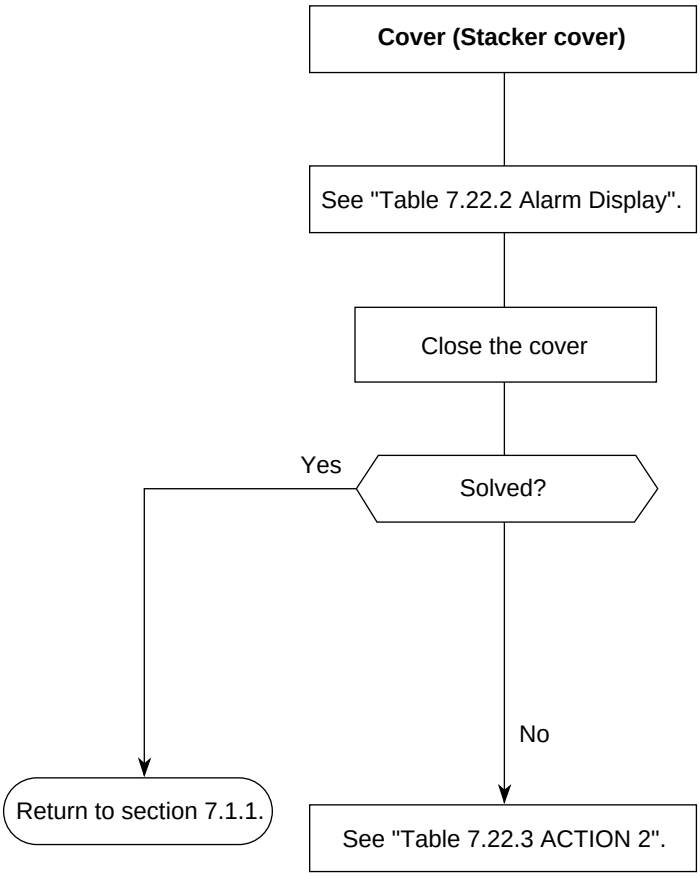
Table 7.22.2 Alarm Display (2/3)

ALARM	LCD	LED
Document jam (suction error)	11/01/1998 12:00 XXX RELOAD DOCUMENT MEMORY FREE 100%	ON
Paper jam (feed outlet error) Paper jam (path error)	12:00 XXX PAPER JAM CHECK PAPER OR PATH MEMORY FREE 100%	ON
Paper jam (feed error)	12:00 XXX PAPER MISS FEED CHECK PAPER OR PATH MEMORY FREE 100%	ON
Paper size error	12:00 XXX PAPER SIZE ERROR CHECK PAPER OR PATH MEMORY FREE 100%	ON
No paper	12:00 XXX NO PAPER CHECK PAPER SUPPLY MEMORY FREE 100%	ON
Face-up	12:00 XXX FACE UP STACKING SWITCH OUTPUT LEVER MEMORY FREE 100%	ON
Drum life expired Toner near end (Toner near end & drum counter • 19000)	12:00 XXX CHANGE DRUM SOON MEMORY FREE 100%	ON
No ID (Image Drum)	12:00 XXX TONER SENSOR CHECK DRUM CART. MEMORY FREE 100%	ON
Toner near end (NO TONER MEM. RX = OFF)	12:00 XXX REPLACE TONER CART. MEMORY FREE 100%	OFF

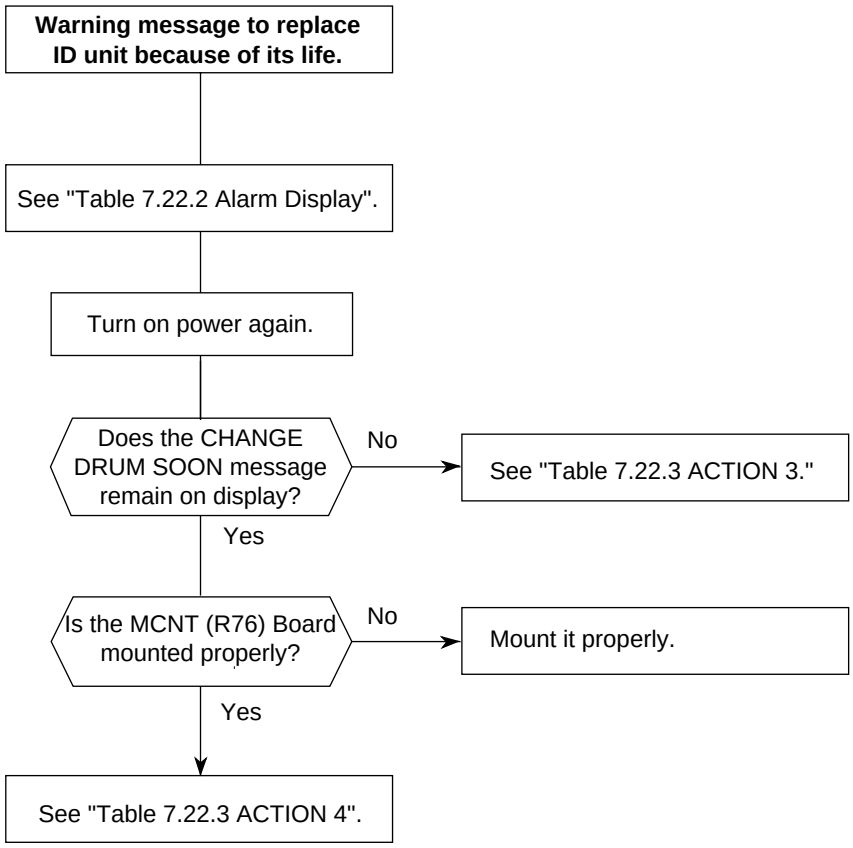
Table 7.22.2 Alarm Display (3/3)

ALARM	LCD	LED
Toner near end (NO TONER EM. RX = ON)	12:00 XXX TONER LOW REPLACE TONER CART. MEMORY FREE 100%	ON
Second tray cover open	12:00 XXX CLOSE THE 2ND COVER MEMORY FREE 100%	OFF
Memory overflow	12:00 XXX MEMORY OVERFLOW REFER TO USER GUIDE MEMORY FREE 100%	ON
Communication error	12:00 XXX COMMUN. ERROR MEMORY FREE 100%	ON
LAN board MUPIS I/F error	12:00 XXX HSP ERROR REFER TO USER GUIDE MEMORY FREE 100%	ON
ISDN board MUPIS I/F error	12:00 XXX ISDN BOARD I/F ERROR REFER TO USER GUIDE MEMORY FREE 100%	ON
Error 77 (no ID)	12:00 XXX ERROR77 MEMORY FREE 100%	ON
LAN print ACC error	12:00 XXX LAN DATA ERROR REFER TO USER GUIDE MEMORY FREE 100%	ON

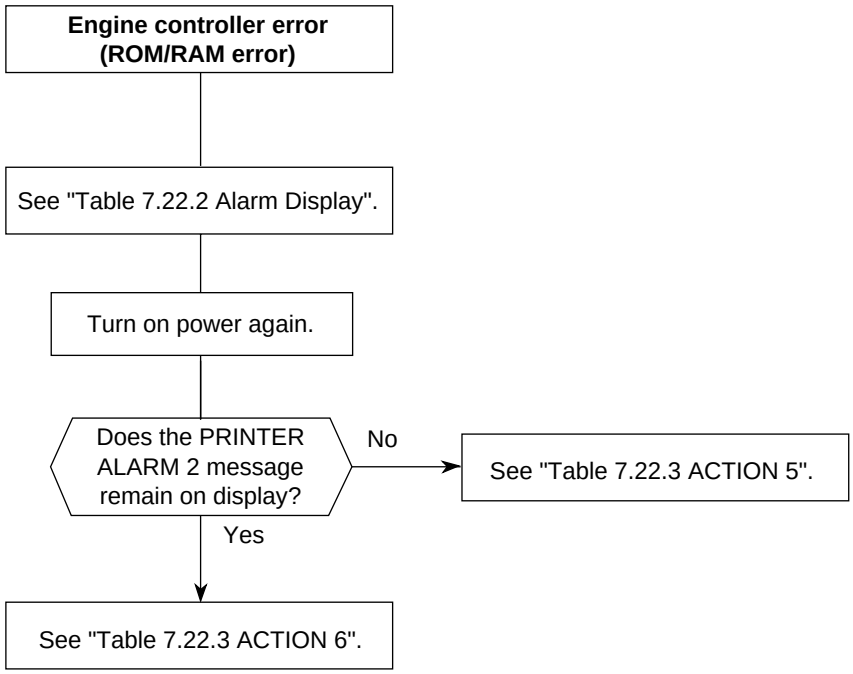
Troubleshooting flow chart 1:



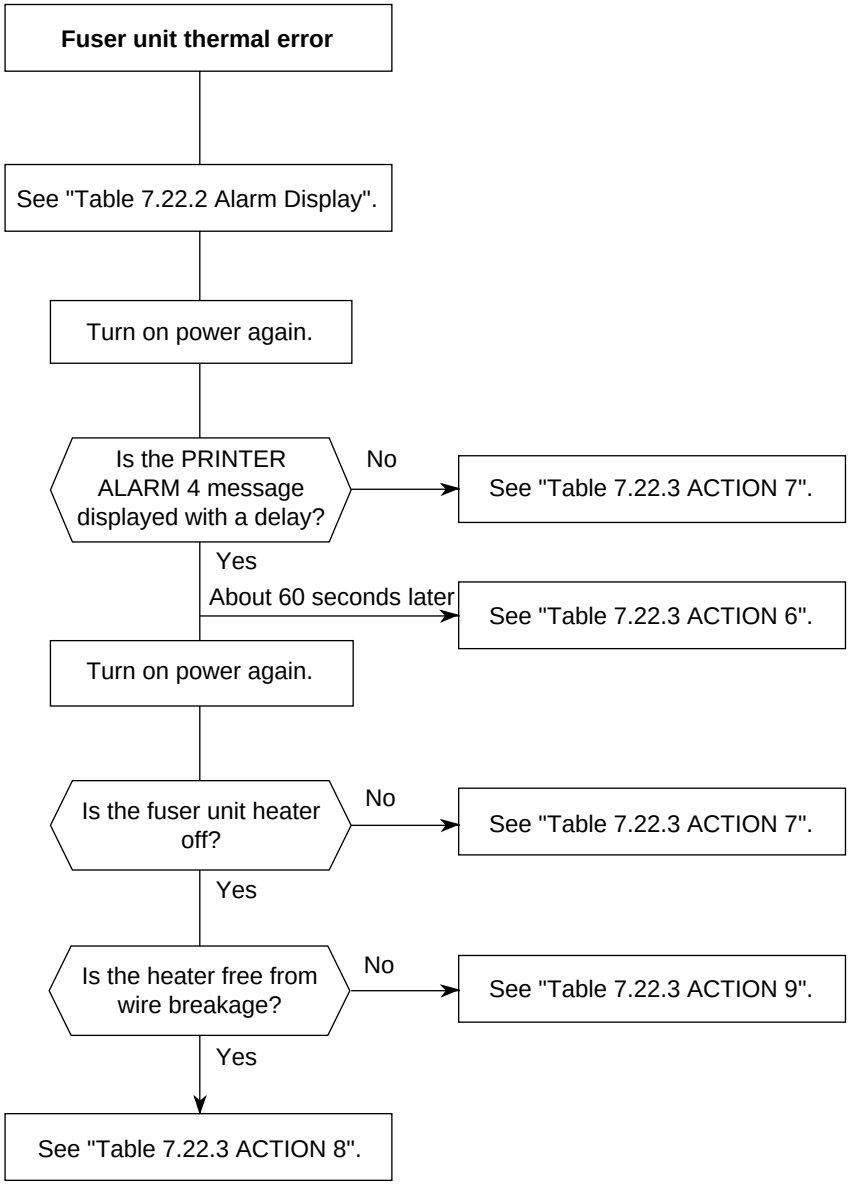
Troubleshooting flow chart 2:



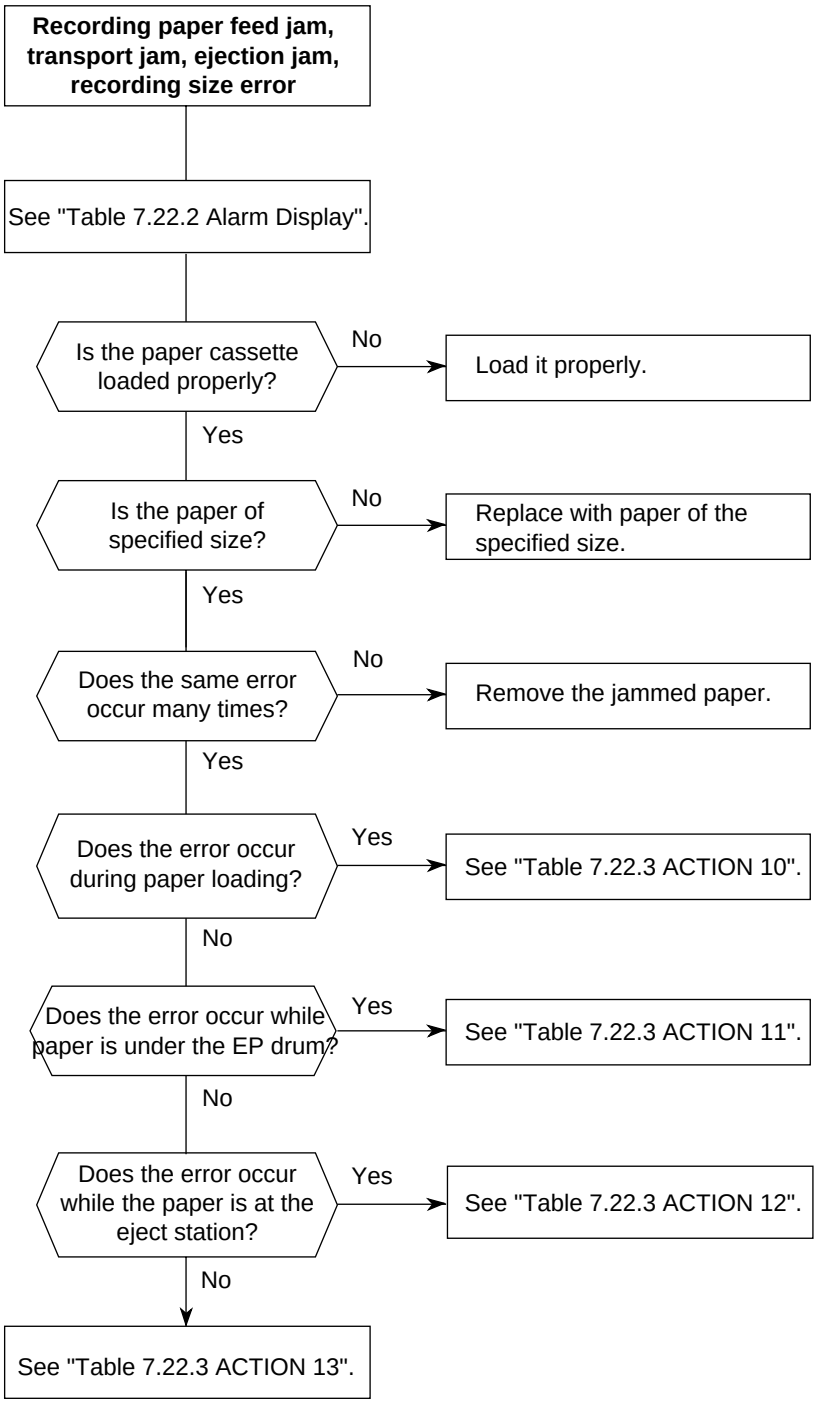
Troubleshooting flow chart 3:



Troubleshooting flow chart 4:



Troubleshooting flow chart 5:



Troubleshooting flow chart 6:

No recording paper cassette or not recording paper

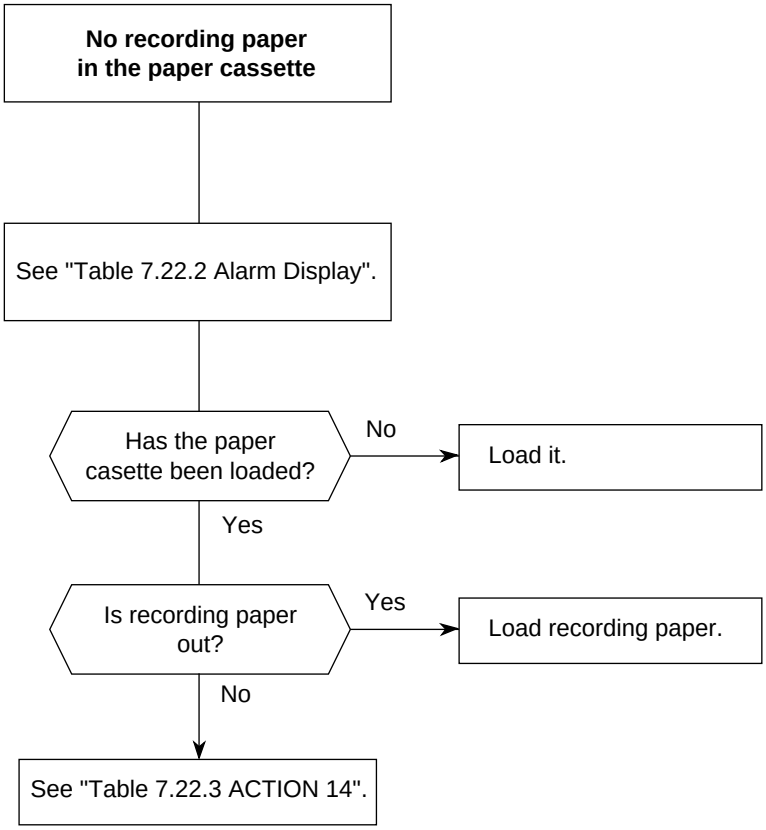


Table 7.22.3 Action Items (Printer Unit-LCD Message)

No.	ACTION	No.	ACTION
1	Check MCNT (R76) Board.	8	Check connection between the PWU and the fuser assembly, heater, thermostat.
2	Check H10 Board cover open switch, cover open switch connection. Check MCNT (R76) Board.	9	Check PWU.
3	Return to Section 7.1.	10	Check Sensor-E, magnet-H, hopping roller, pulse motor, MCNT (R76) Board, Action of Idle gear-P.
4	Replace the EP Unit. And clear Drum Count, Section 6.3.	11	Check Gear-T, MCNT (R76) Board, P2H/P6L Board.
5	Check installation of MCNT (R76) board, POWER SUPPLY UNIT board.	12	Check exit sensor lever, PWU
6	Check MCNT (R76) Board.	13	Check MCNT (R76) Board.
7	Check thermister (resistance of about 200 kilo ohms at room temperature and about 140 kilo ohms at high temperature), POWER SUPPLY UNIT.	14	Check H10 Board, MCNT (R76) board.

Note: M76 board for Fax 9830 is shown as MCNT (R76).

Table 7.22.4 Image Troubles

Abnormal Symptom	Reference Figure	Troubleshooting Flow Chart No.
Images are light or blurred as a whole.	Fig. Ⓐ	7
The blank background is smeared.	Fig. Ⓑ	8
Blank paper is output.	Fig. Ⓒ	9
Black belts or black stripes in vertical direction.	Fig. Ⓓ	10
Periodic abnormal printing.	Fig. Ⓔ	11
Some parts not printed.	——	12
White belts or some white stripes in vertical direction	Fig. Ⓕ	13
Poor fusing (Images are blurred or peeled off when touched by hands)	——	14

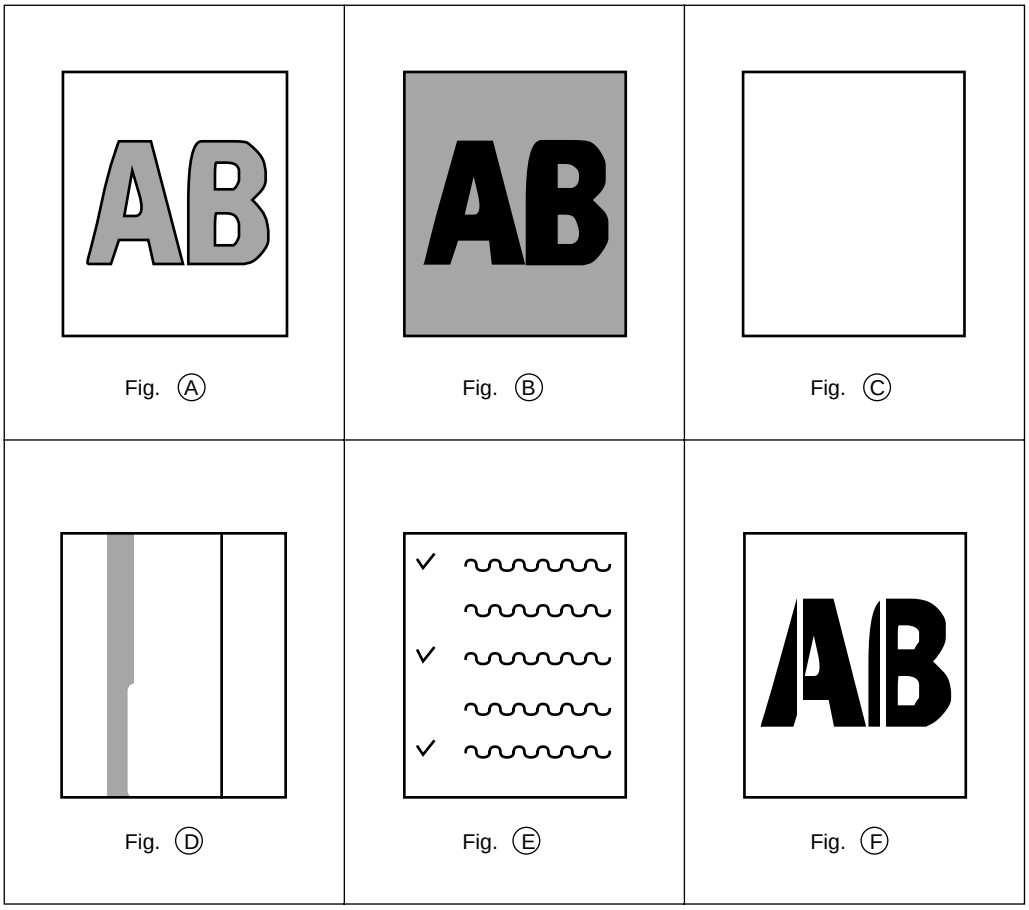
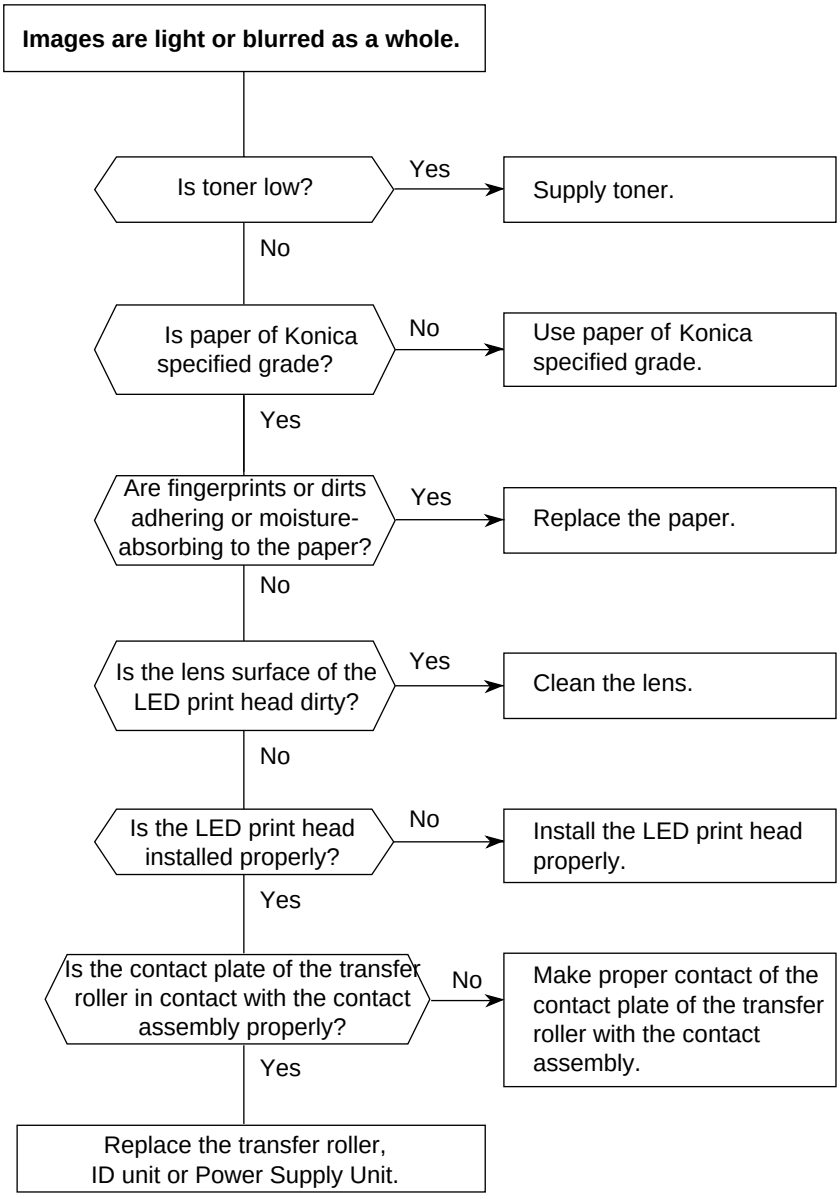
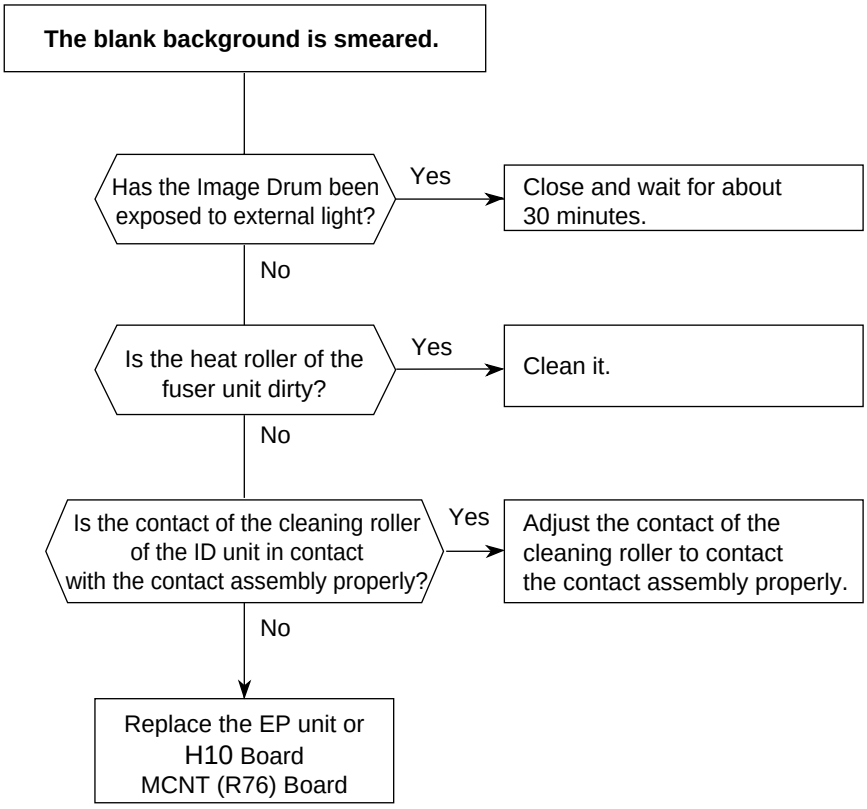


Figure 7.22.1 Abnormal Symptoms of Image Troubles (Example)

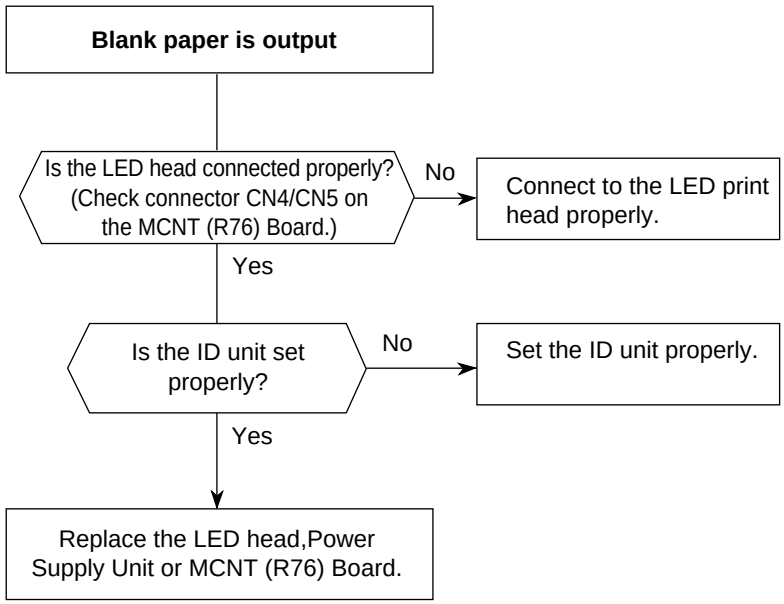
Troubleshooting flow chart 7:



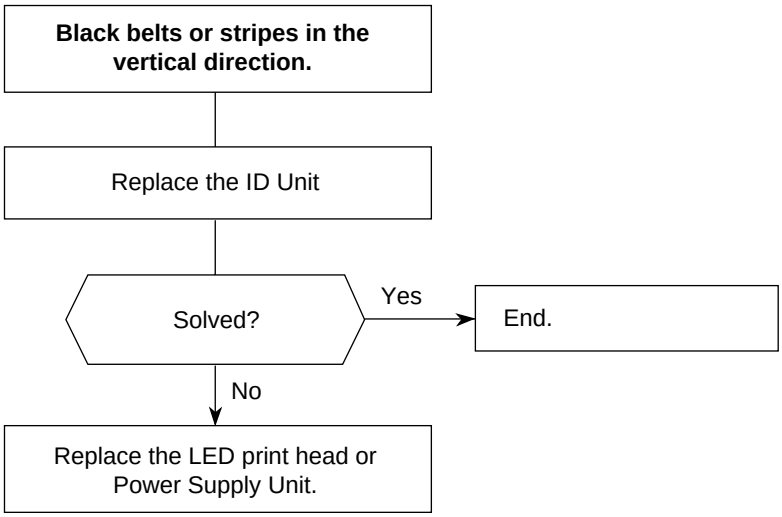
Troubleshooting flow chart 8:



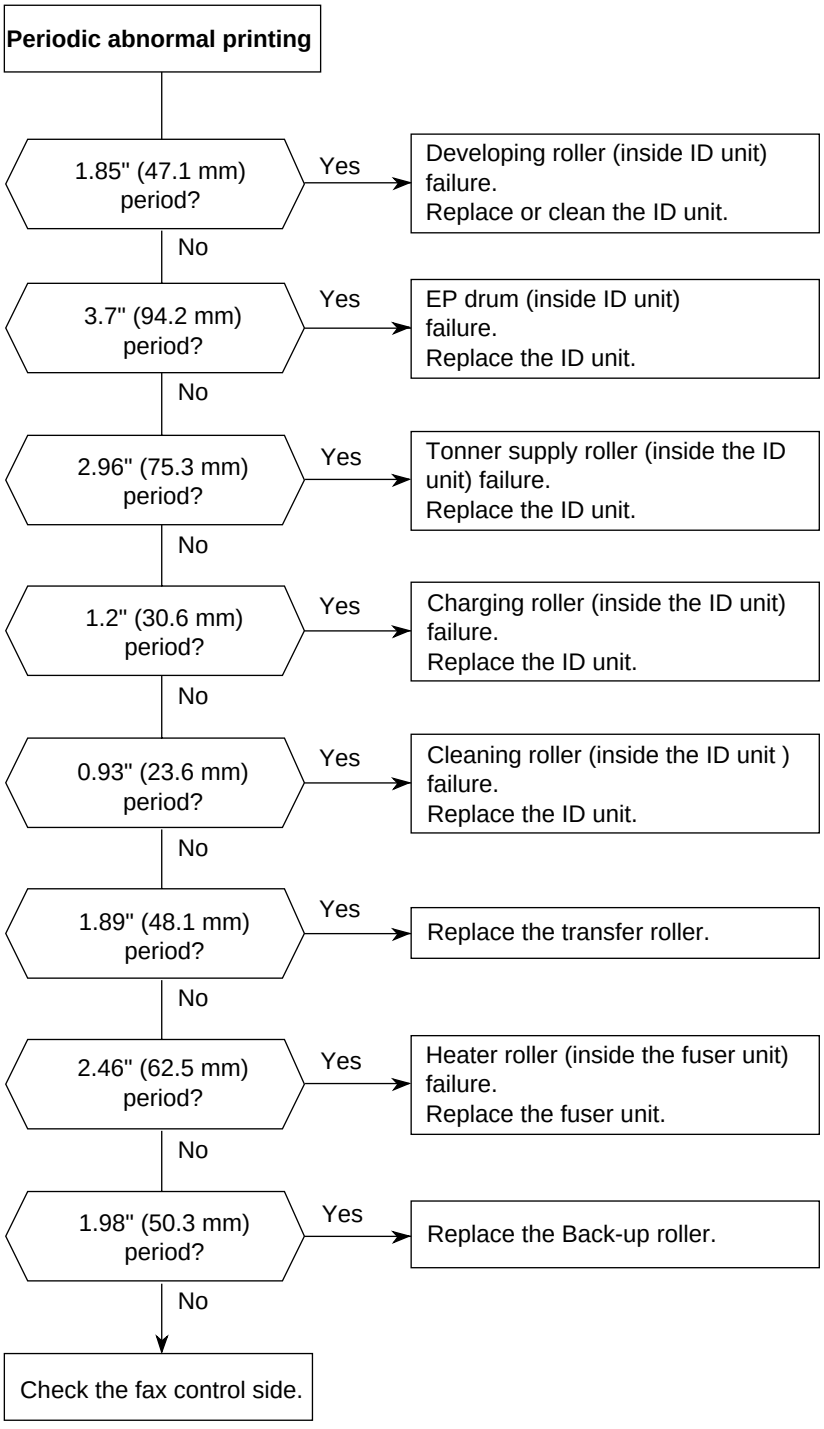
Troubleshooting flow chart 9:



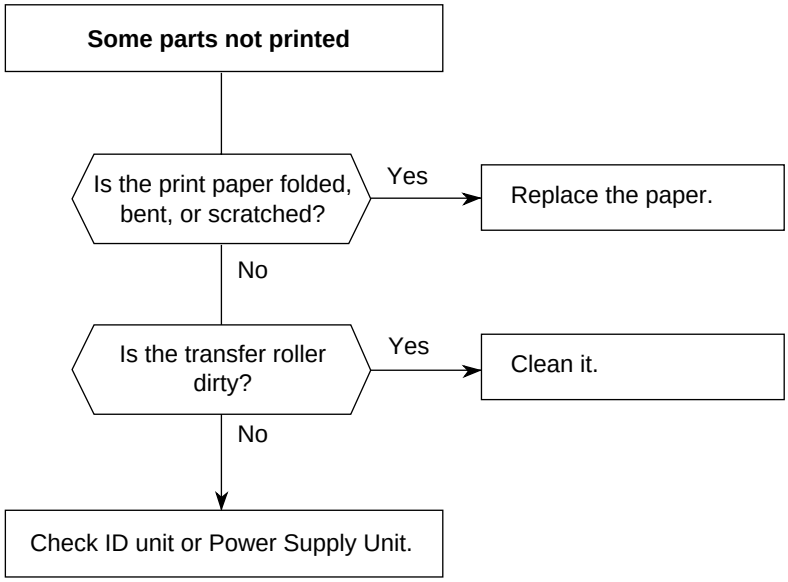
Troubleshooting flow chart 10:



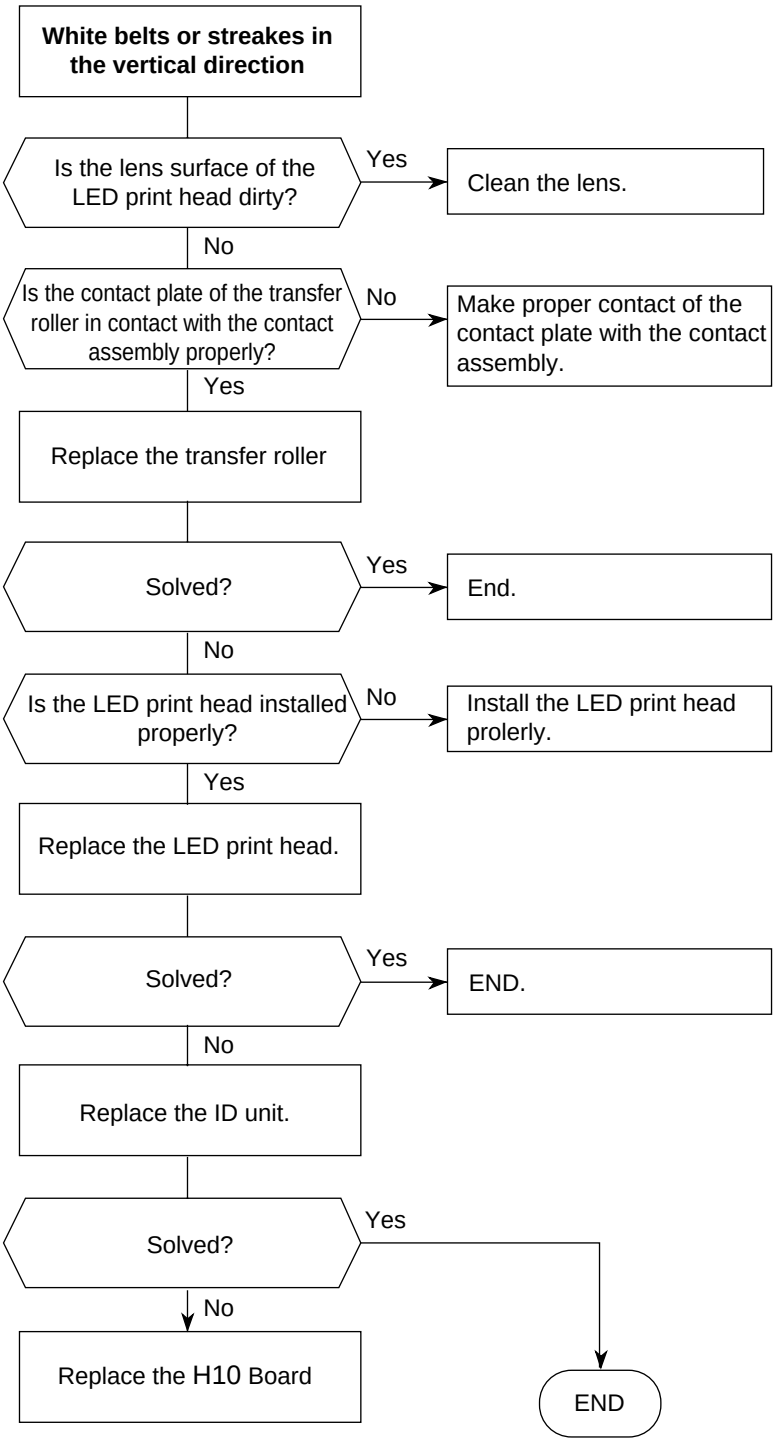
Troubleshooting flow chart 11:



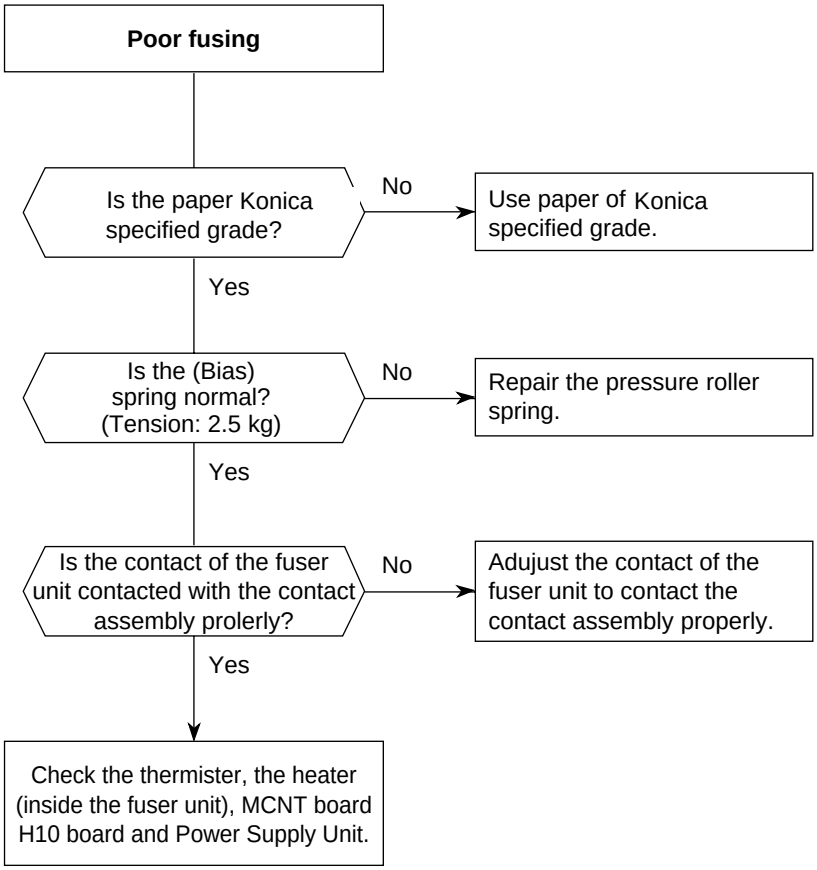
Troubleshooting flow chart 12:



Troubleshooting flow chart 13:



Troubleshooting flow chart 14:



HOME

Chapter 8

Dipswitch Setting Tables

Konica Business Technologies

WN5

(Setting as of May 17, 1998)

Each country's hardware parameters comparison table.

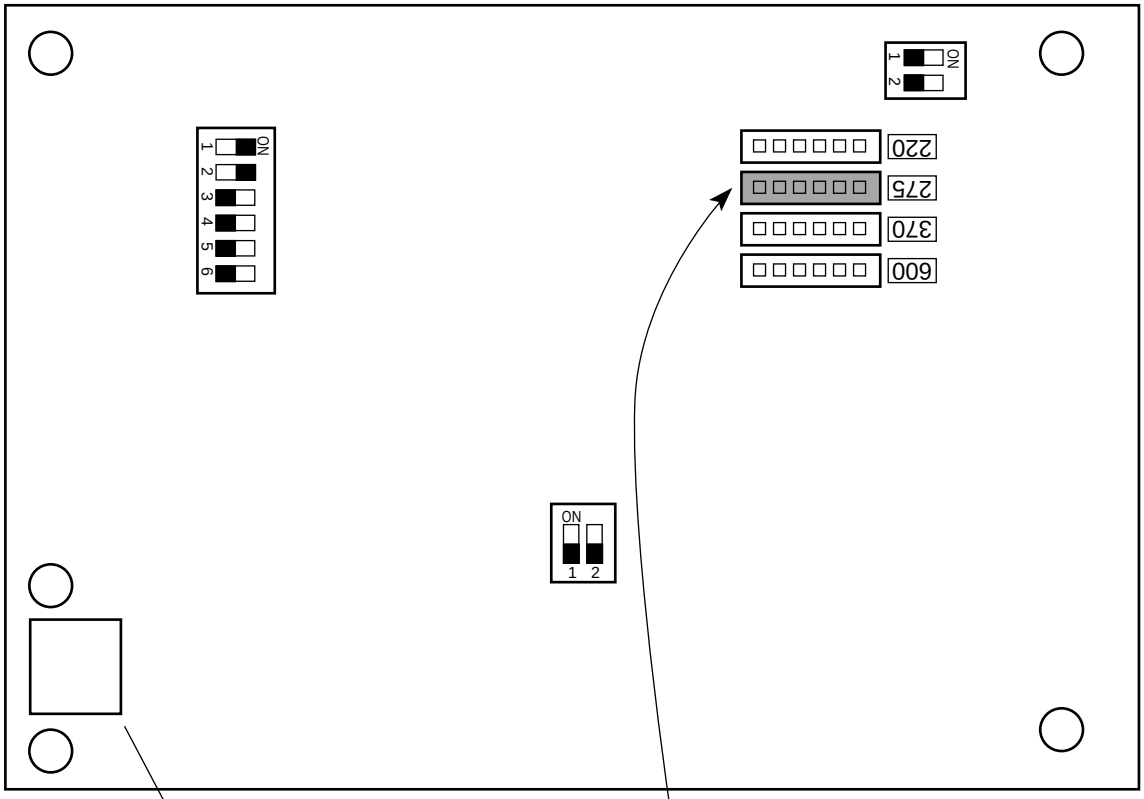
Dip-switch No.		Sweden	Finland	The Netherlands	Ireland	Portugal	New Zealand	Australia	Remarks
S1	1	ON	ON	ON	ON	ON	ON	ON	Cascade connection
	2	ON	ON	ON	ON	ON	ON	ON	
	3	OFF	OFF	OFF	ON	OFF	ON	ON	Ring impedance
	4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	5	OFF	OFF	OFF	ON	OFF	OFF	OFF	
	6	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
S3	1	OFF	OFF	OFF	OFF	ON	OFF	OFF	DC loop resistance
	2	OFF	OFF	OFF	OFF	ON	OFF	ON	
S4	1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Ring sensitivity adjustment
	2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

Dip-switch No.		Belgium	Spain	Greece	Italy	Norway	Denmark		Remarks
S1	1	ON	ON	ON	OFF	ON	ON		Cascade connection
	2	ON	ON	ON	OFF	ON	ON		
	3	OFF	OFF	OFF	OFF	OFF	OFF		Ring impedance
	4	OFF	OFF	OFF	OFF	OFF	OFF		
	5	ON	OFF	OFF	OFF	OFF	OFF		
	6	ON	OFF	OFF	OFF	OFF	OFF		
S3	1	OFF	ON	OFF	OFF	OFF	ON		DC loop resistance
	2	OFF	ON	OFF	OFF	ON	ON		
S4	1	ON	ON	OFF	OFF	OFF	OFF		Ring sensitivity adjustment
	2	OFF	OFF	OFF	OFF	OFF	OFF		

1 Sweden (40044301)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "275".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

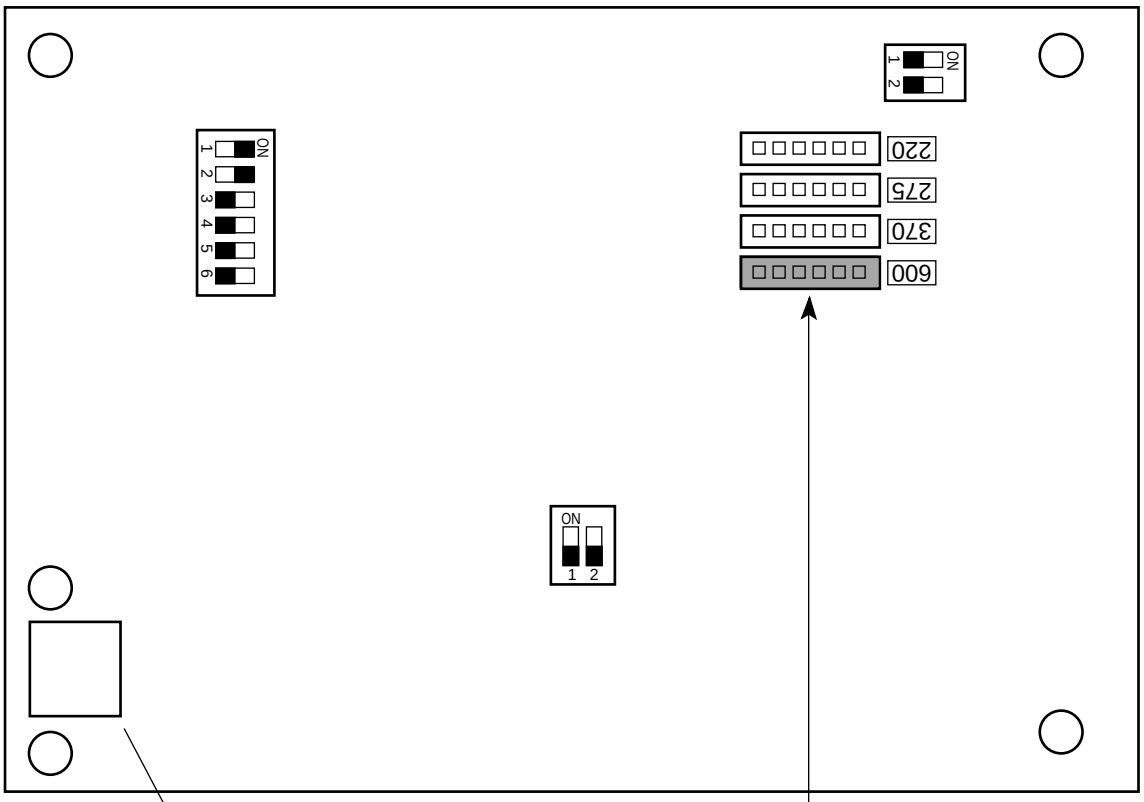
Magnified figure

Marking a portion "S" with red oil ink.

2 Finland (40044302)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

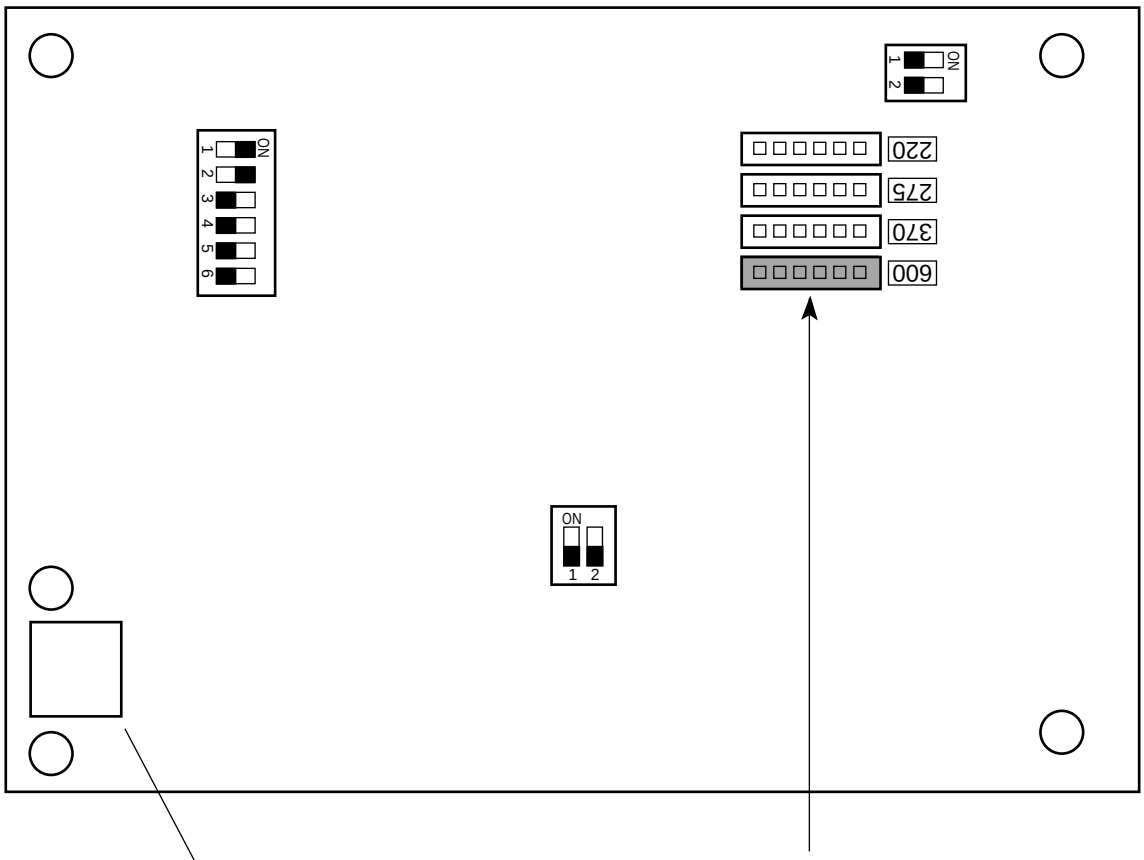
Magnified figure

Marking a portion "SF" with red oil ink.

3 Holland (40044303)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

Magnified figure

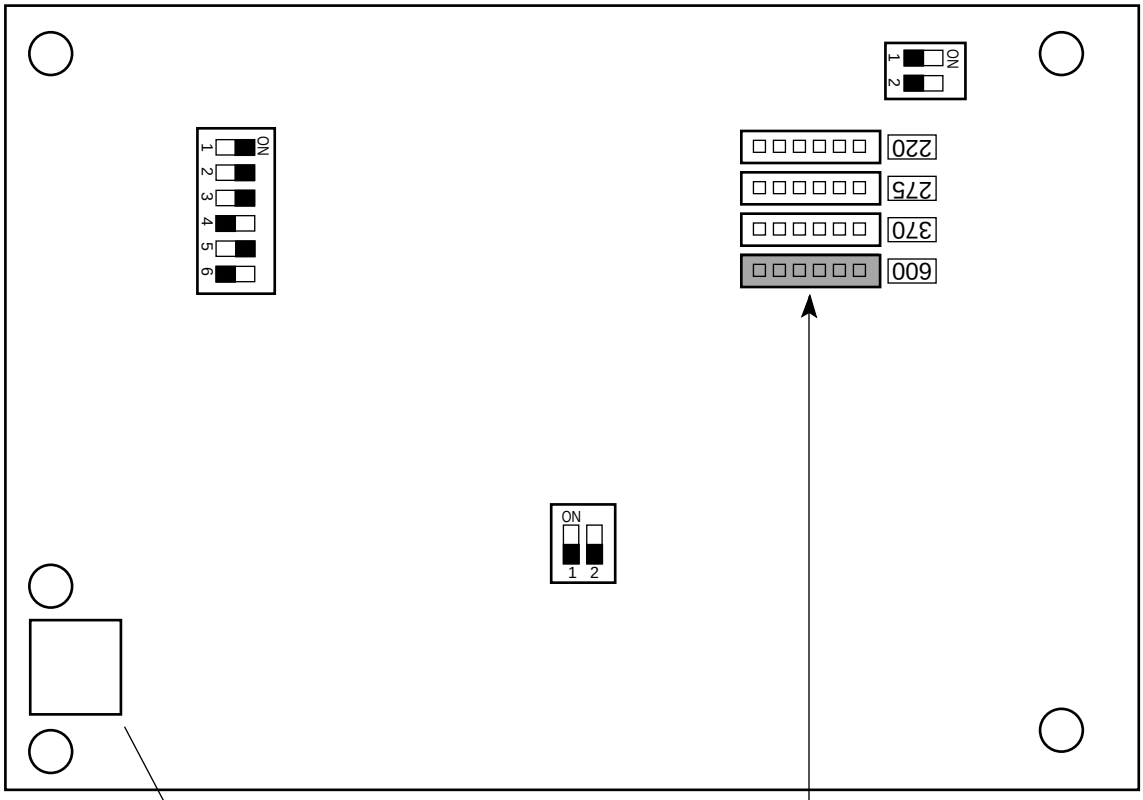
Marking a portion "NL" with red oil ink.

HOME

4 Ireland (40044304)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K	
S	S F	I	G R	E	
P	AUS	N Z	S P	M A	
X 1	X 2	X 3	X 4	X 5	

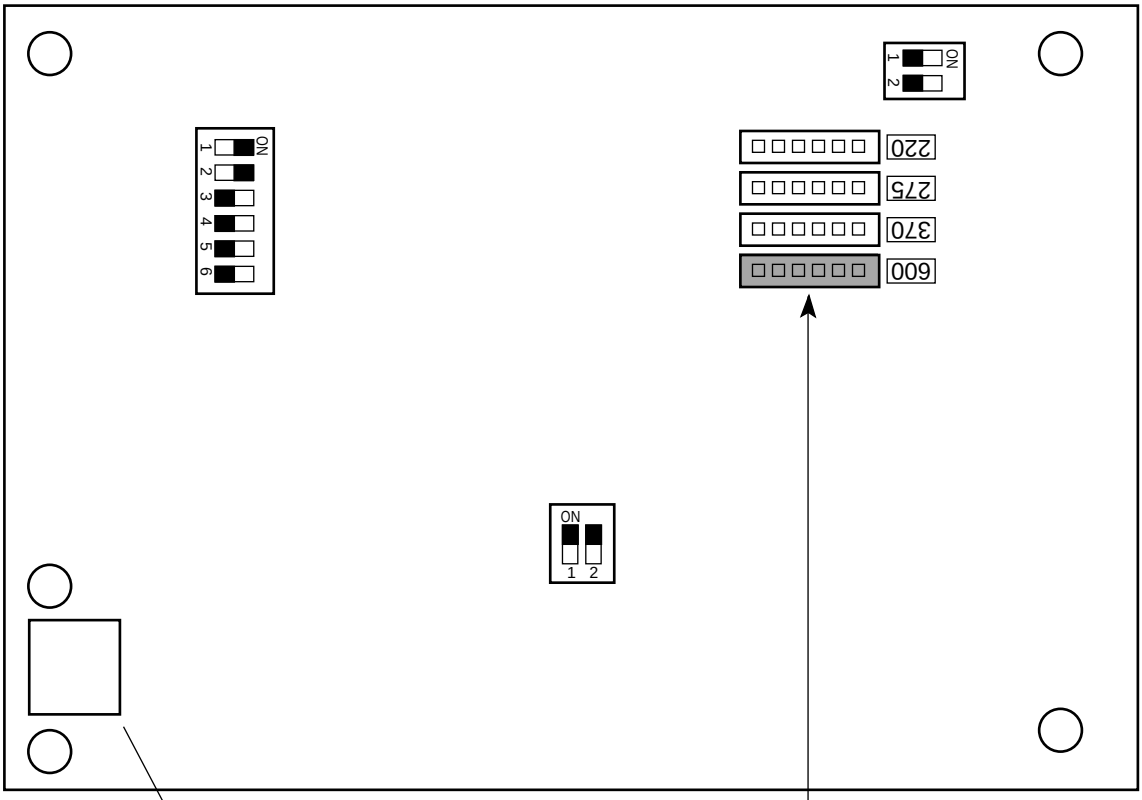
Magnified figure

Marking a portion "IRL" with red oil ink.

5 Portugal (40044305)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K	
S	S F	I	G R	E	
P	AUS	N Z	S P	M A	
X 1	X 2	X 3	X 4	X 5	

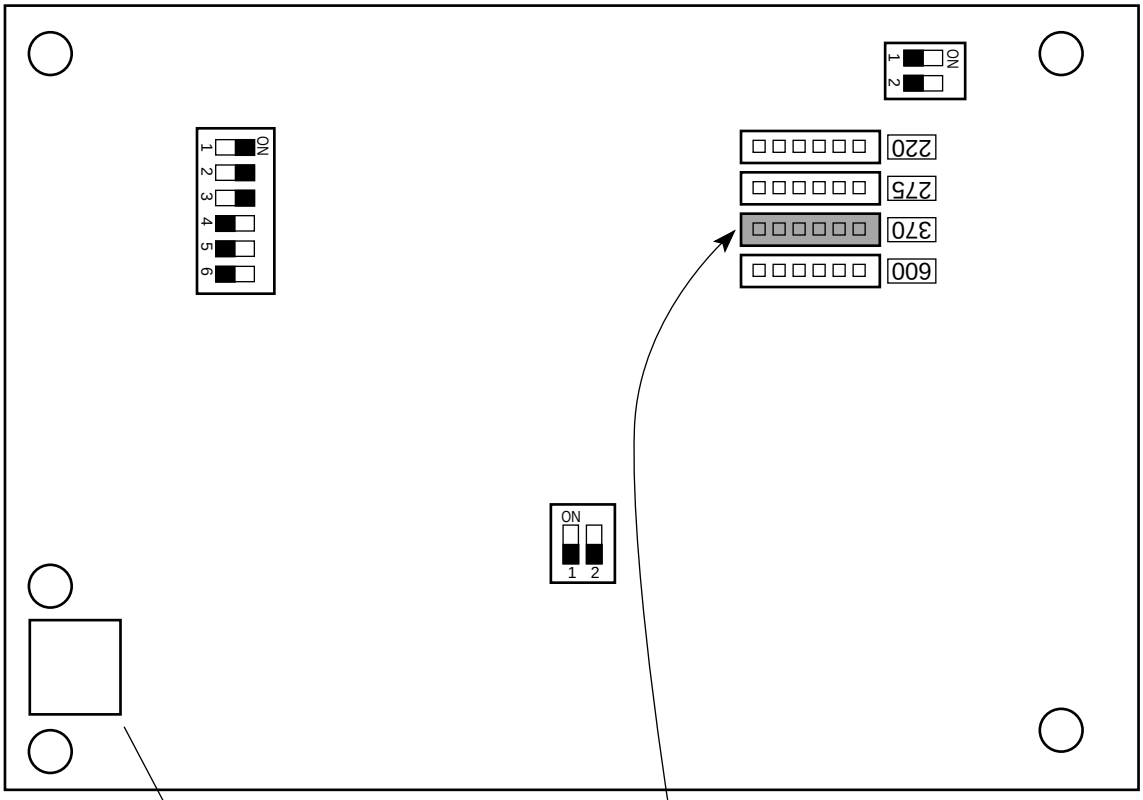
Magnified figure

Marking a portion "P" with red oil ink.

6 New Zealand (40044306)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "370".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

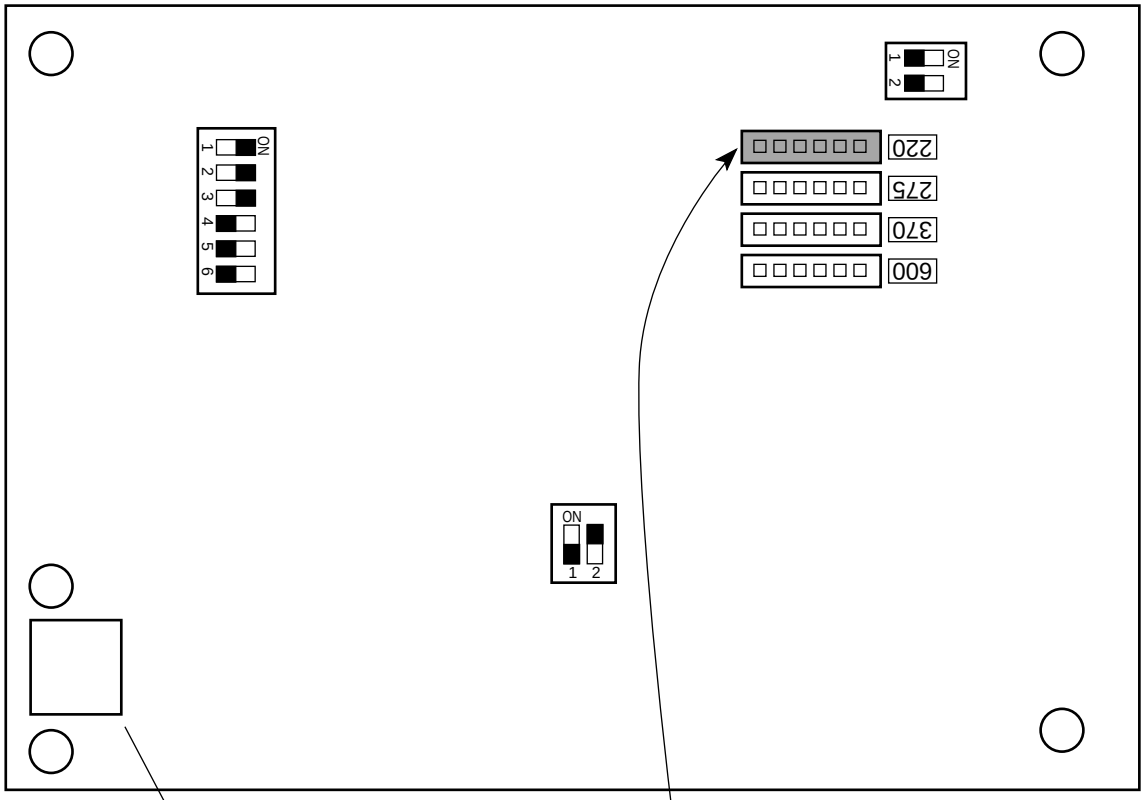
Magnified figure

Marking a portion "NZ" with red oil ink.

7 Australia (40044307)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "220".

B	N L	IRL	N	D K	
S	S F	I	G R	E	
P	AUS	N Z	S P	M A	
X 1	X 2	X 3	X 4	X 5	

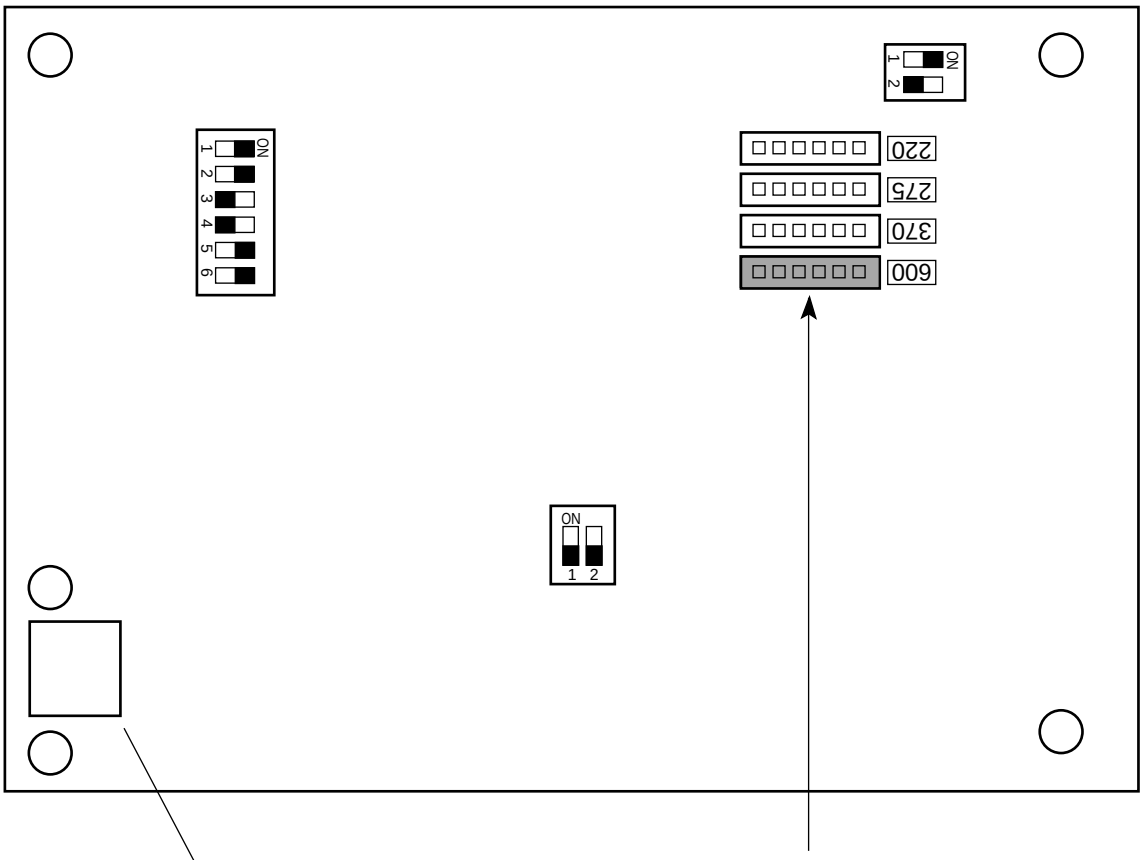
Magnified figure

Marking a portion "AUS" with red oil ink.

8 Belgium (40044308)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

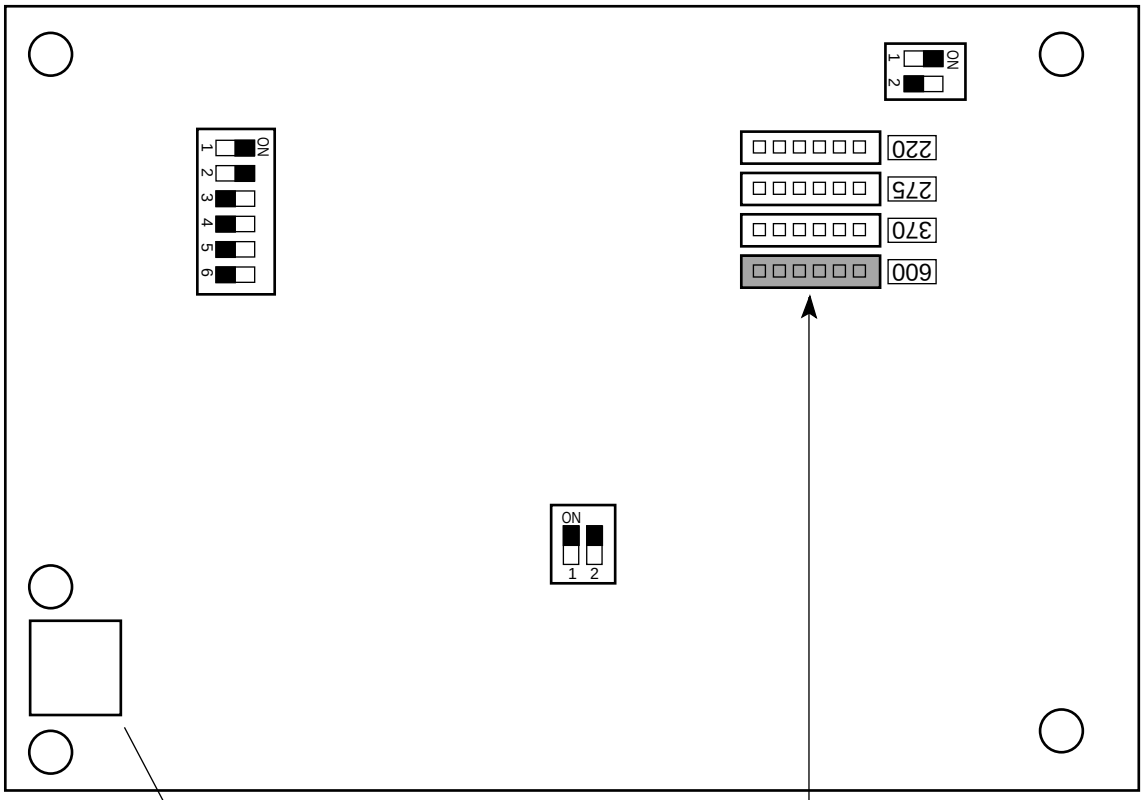
Magnified figure

Marking a portion "B" with red oil ink.

9 Spain (40044309)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

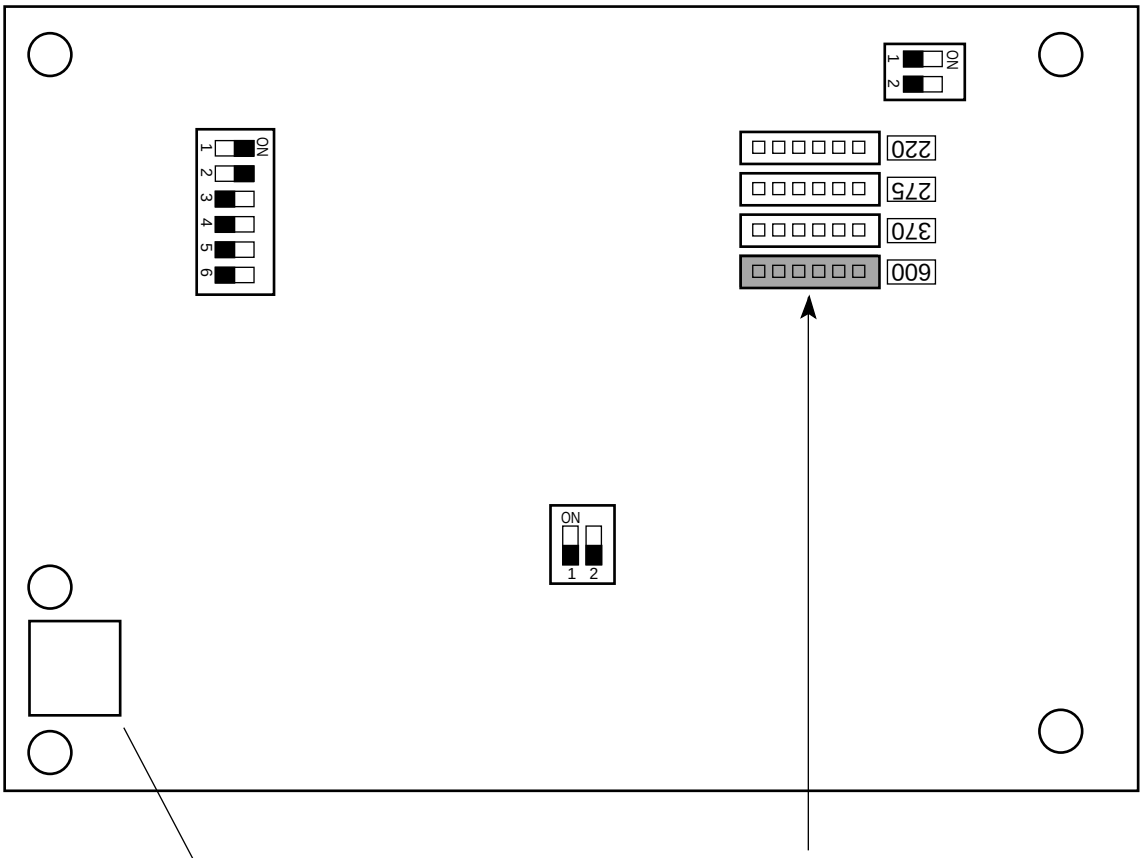
Magnified figure

Marking a portion "E" with red oil ink.

10 Greece (40044310)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

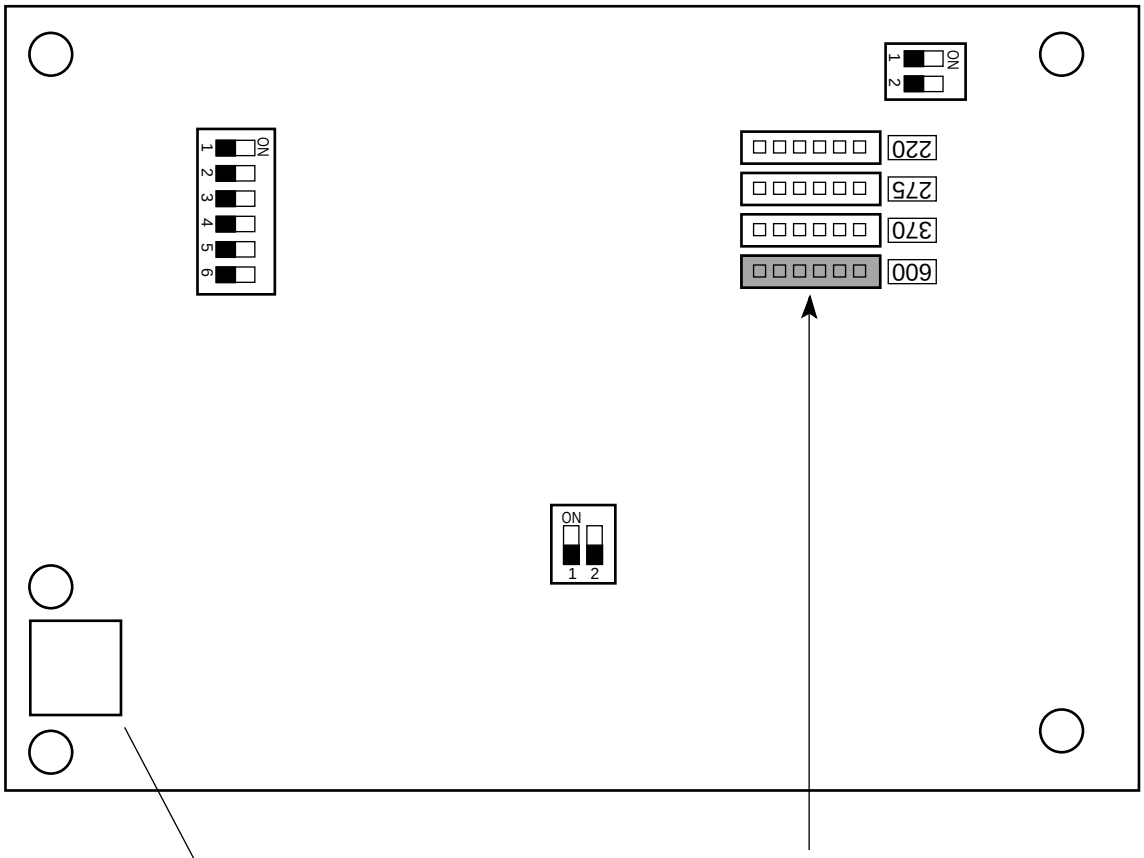
Magnified figure

Marking a portion "GR" with red oil ink.

11 Italy (40044312)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K	
S	S F	I	G R	E	
P	AUS	N Z	S P	M A	
X 1	X 2	X 3	X 4	X 5	

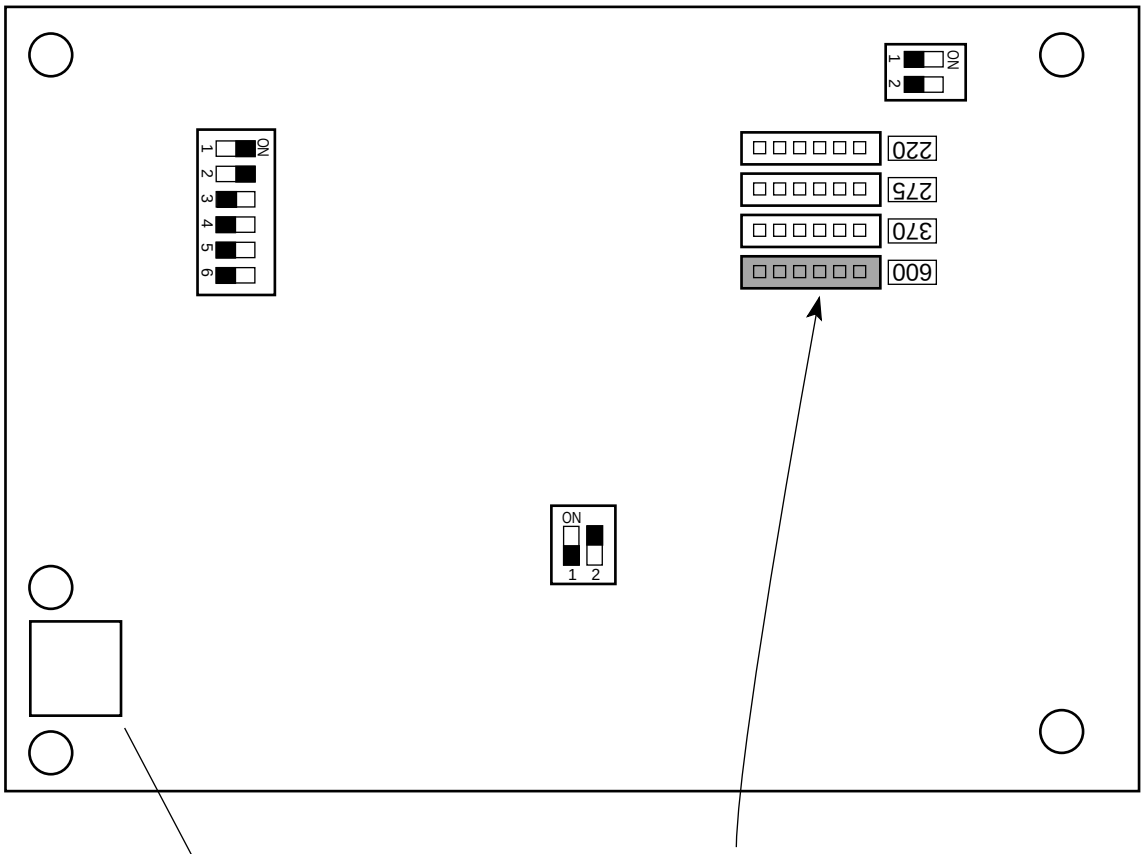
Magnified figure

Marking a portion "I" with red oil ink.

12 Norway (40044313)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K	
S	S F	I	G R	E	
P	AUS	N Z	S P	M A	
X 1	X 2	X 3	X 4	X 5	

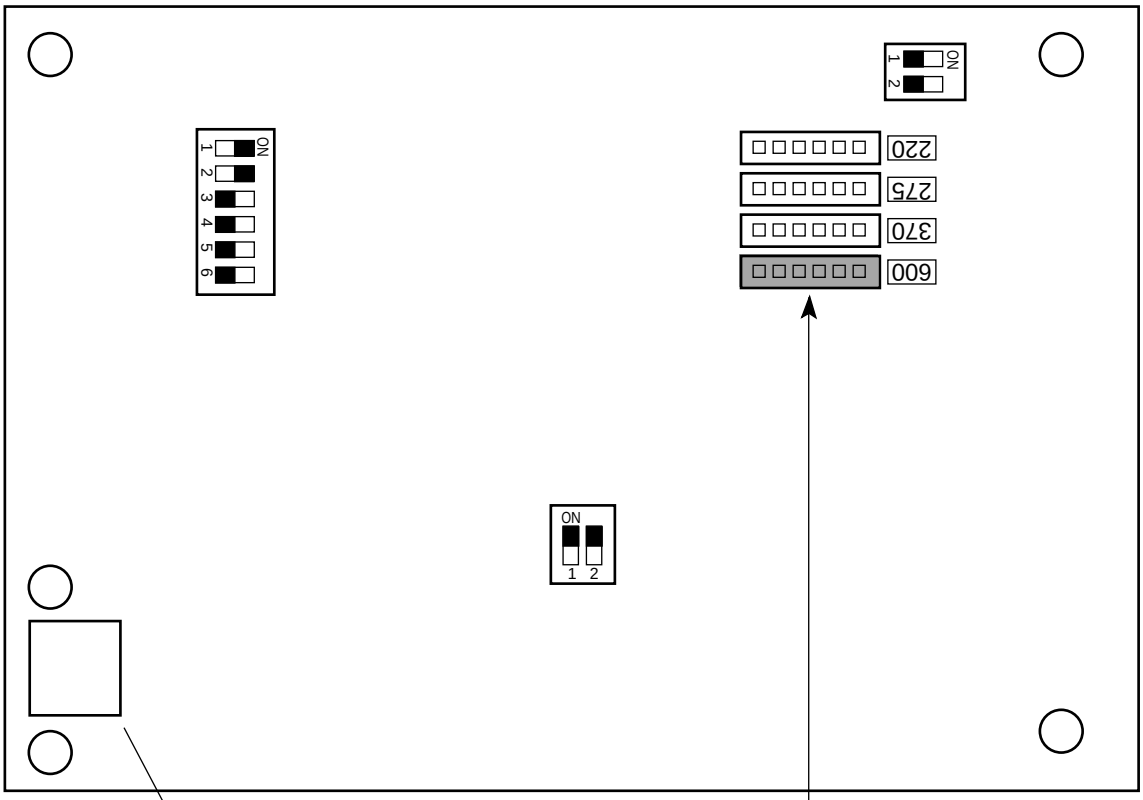
Magnified figure

Marking a portion "N" with red oil ink.

13 mark (40044314)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Put short-plug (40095701) into designated connector.

For detail, see the figure below.



Put short-plug (40095701) into connector indicated "600".

B	N L	IRL	N	D K
S	S F	I	G R	E
P	AUS	N Z	S P	M A
X 1	X 2	X 3	X 4	X 5

Magnified figure

Marking a portion "DK" with red oil ink.

DN5

(Setting as of May 17, 1998)

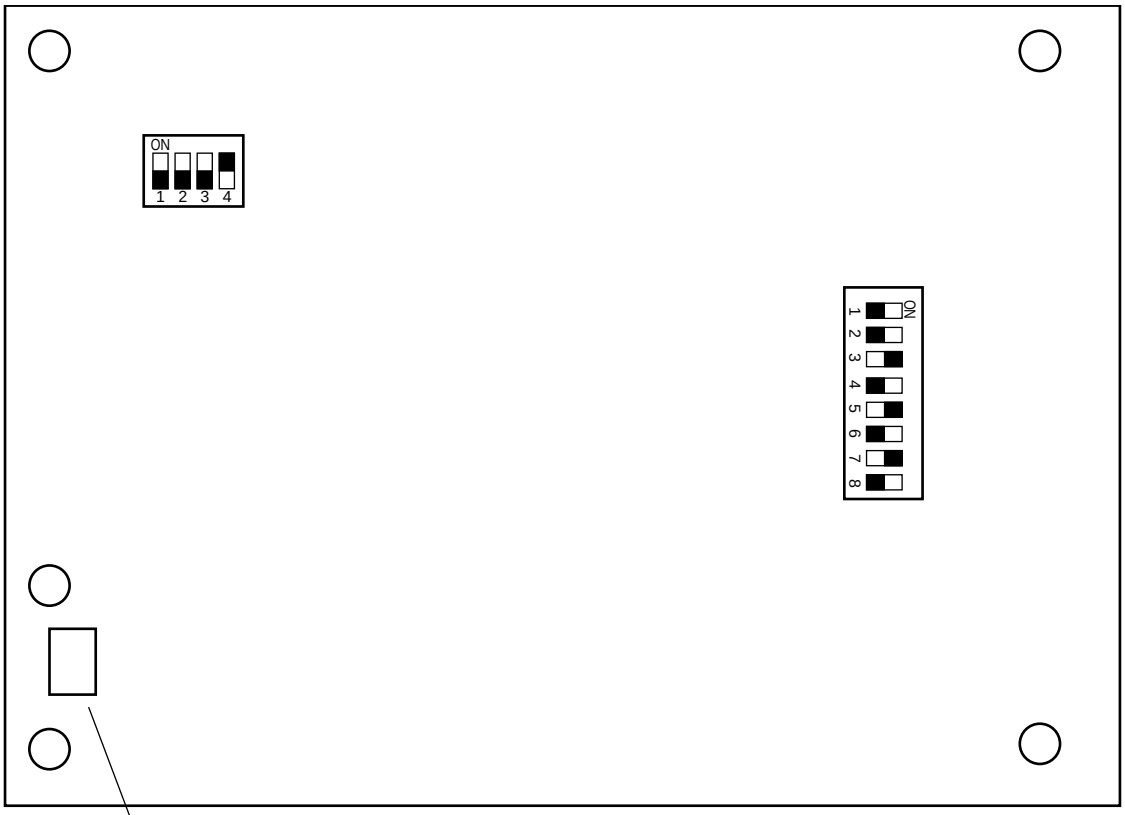
Each country's hardware parameters comparison table.

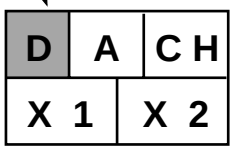
Dip-switch No.		Germany	Switzer-land	Austria					Remarks
S1	1	OFF	OFF	OFF					Cascade connection
	2	OFF	OFF	OFF					
	3	OFF	OFF	OFF					Not used
	4	ON	OFF	OFF					Ring impedance
S4	1	OFF	OFF	OFF					Ring sensitivity adjustment
	2	OFF	OFF	OFF					
	3	ON	ON	OFF					Impedance matching switch
	4	OFF	OFF	ON					
	5	ON	ON	OFF					Receiving Gain (for Paralle pickup)
	6	OFF	OFF	ON					
	7	ON	ON	OFF					Receiving Gain
	8	OFF	OFF	ON					

1 Germany (40044101)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.

For detail, see the figure below.





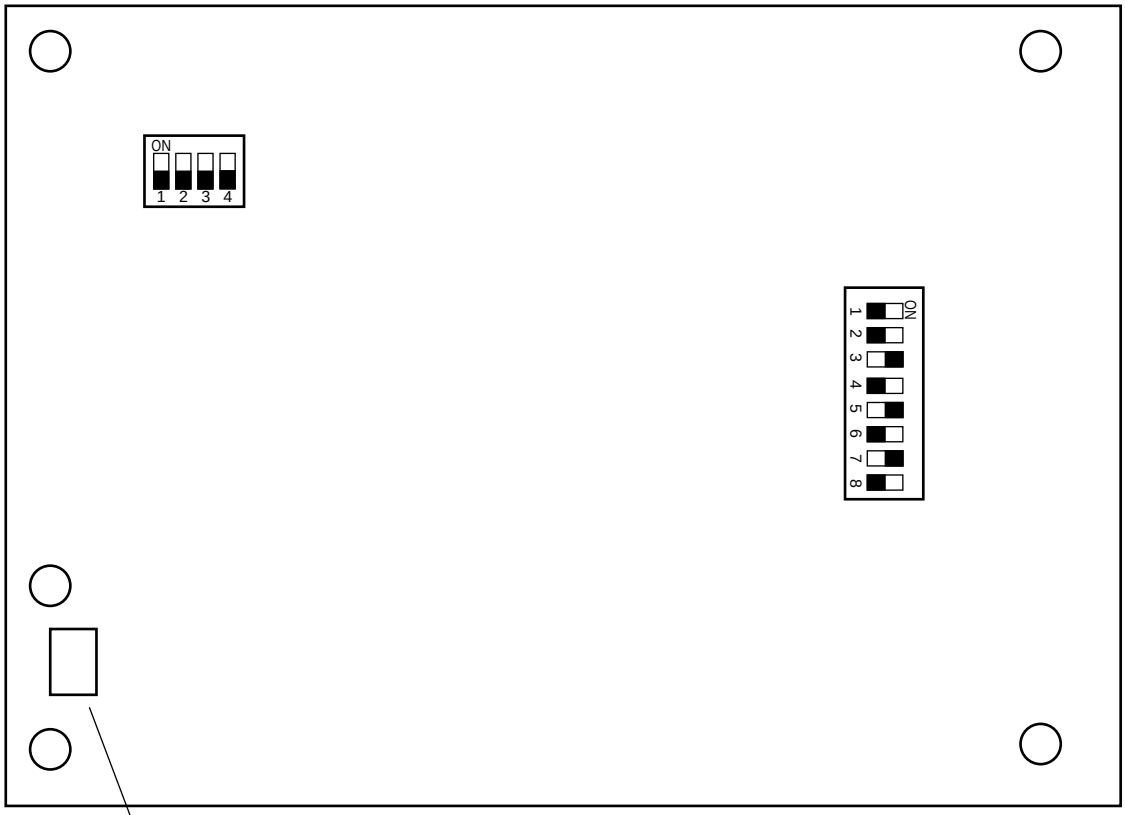
Magnified figure

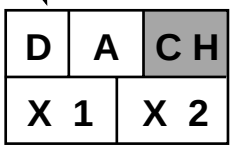
Marking a portion "D" with red oil ink.

2 Switzerland (40044102)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.

For detail, see the figure below.





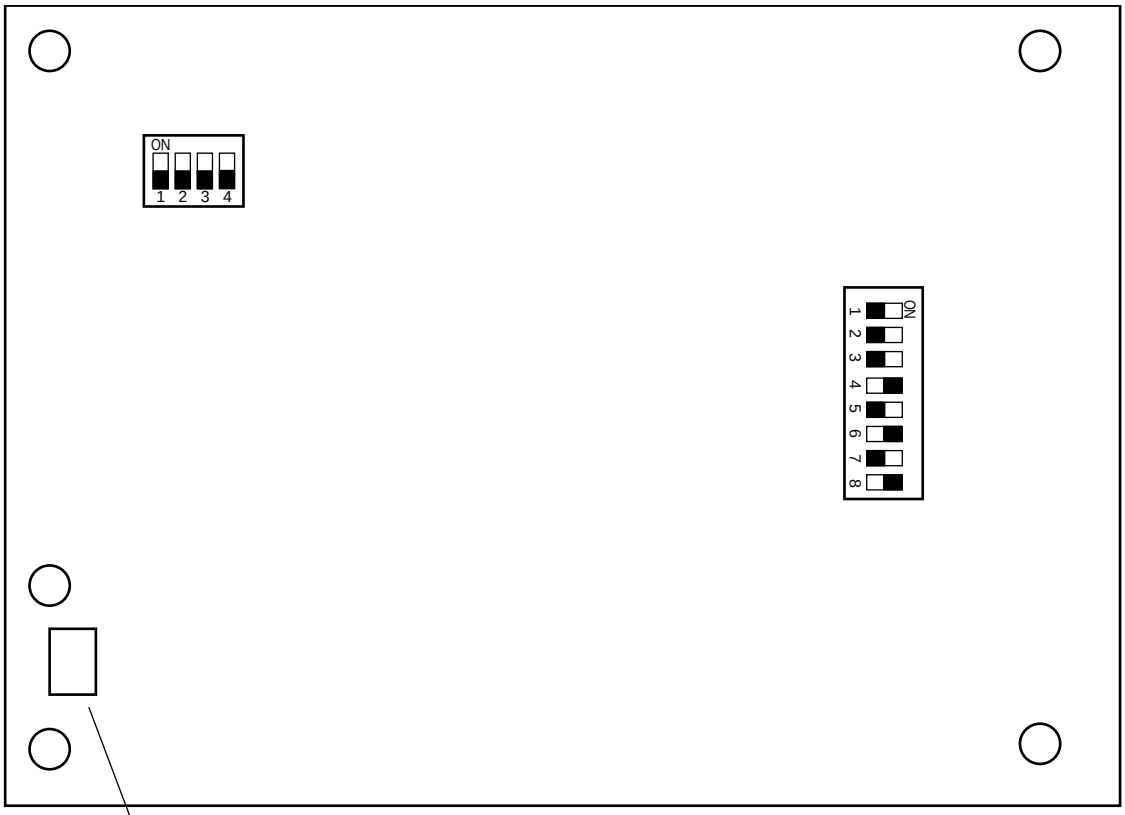
Magnified figure

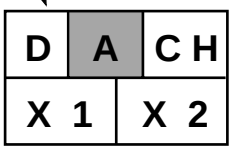
Marking a portion "CH" with red oil ink.

3 Austria (40044103)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.

For detail, see the figure below.





Magnified figure

Marking a portion "A" with red oil ink.

FN5

(Setting as of May 17, 1998)

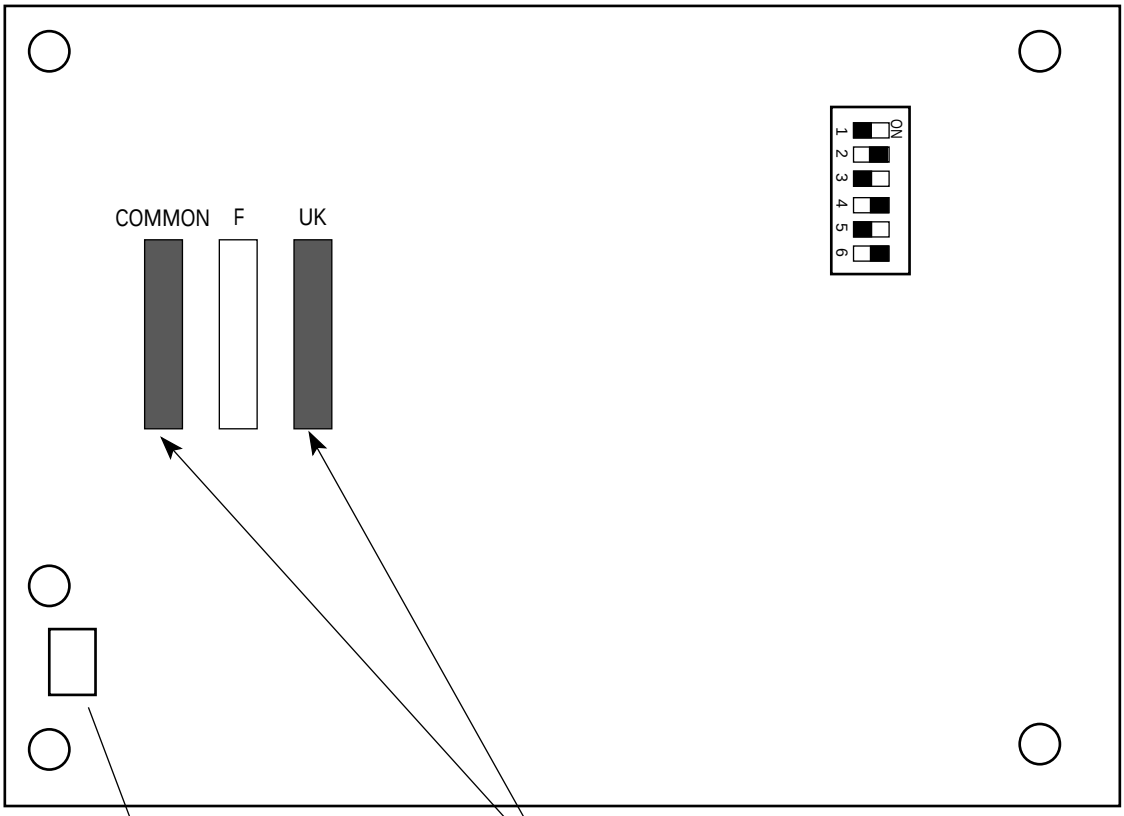
Each country's hardware parameters comparison table.

Dip-switch No.		United Kingdom	France						Remarks
S5	1	OFF	ON						Impedance matching switch
	2	ON	OFF						
	3	OFF	ON						Receiving Gain (for Paralle Pickup)
	4	ON	OFF						
	5	OFF	ON						Receiving Gain
	6	ON	OFF						

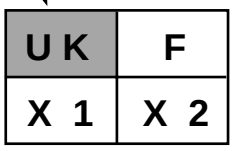
1 United kingdam (40044401)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Setting connector (40095601)

For detail, see the figure below.



Connect these two connectors (COMMON and UK) with the cable 40095601.



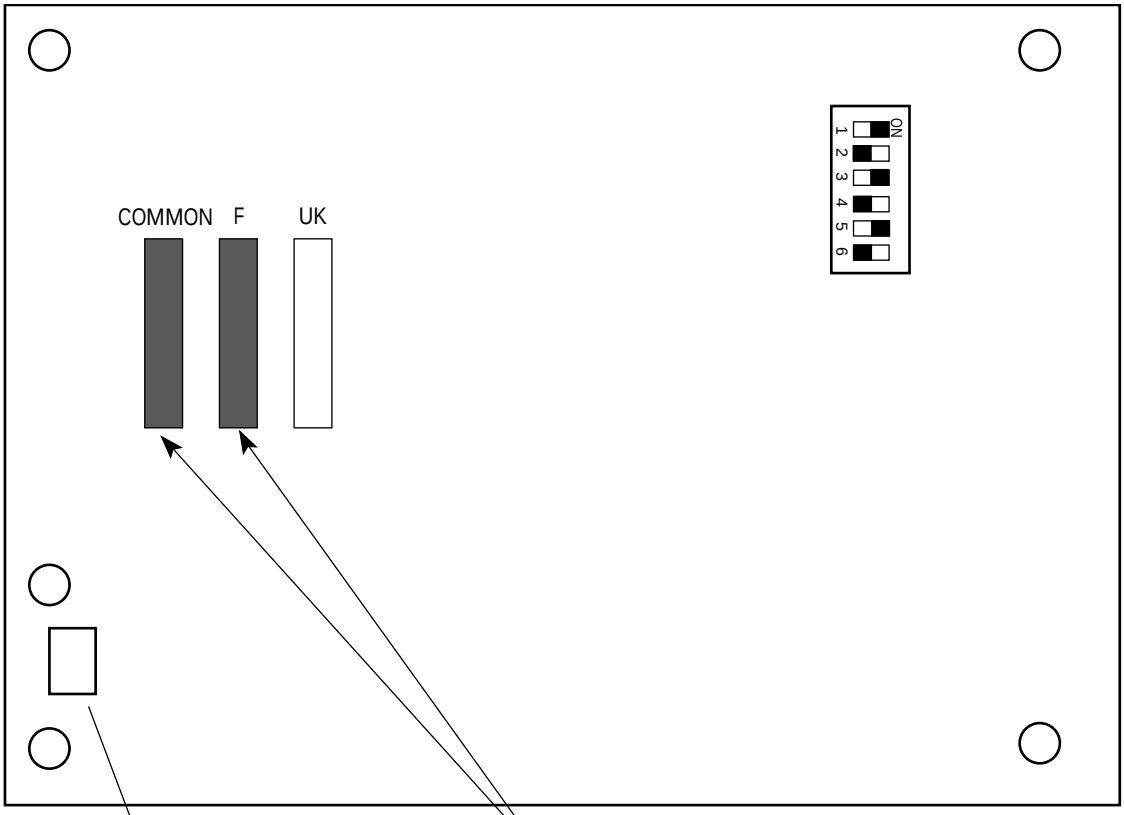
Magnified figure

Marking a portion "UK" with red oil ink.

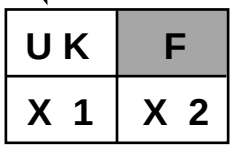
2 France (40044402)

This section gives the following instruction.
- DIP switch setting
- Instructions of marking with red oil ink.
- Setting connector (40095601)

For detail, see the figure below.



Connect these two connectors (COMMON and F) with the cable 40095601.



Magnified figure

Marking a portion "F" with red oil ink.

HOME

Appendix A

Board Descriptions

Konica Business Technologies

A1.1 Unit Configuration and Block Diagram

1. The unit configuration is as follows:

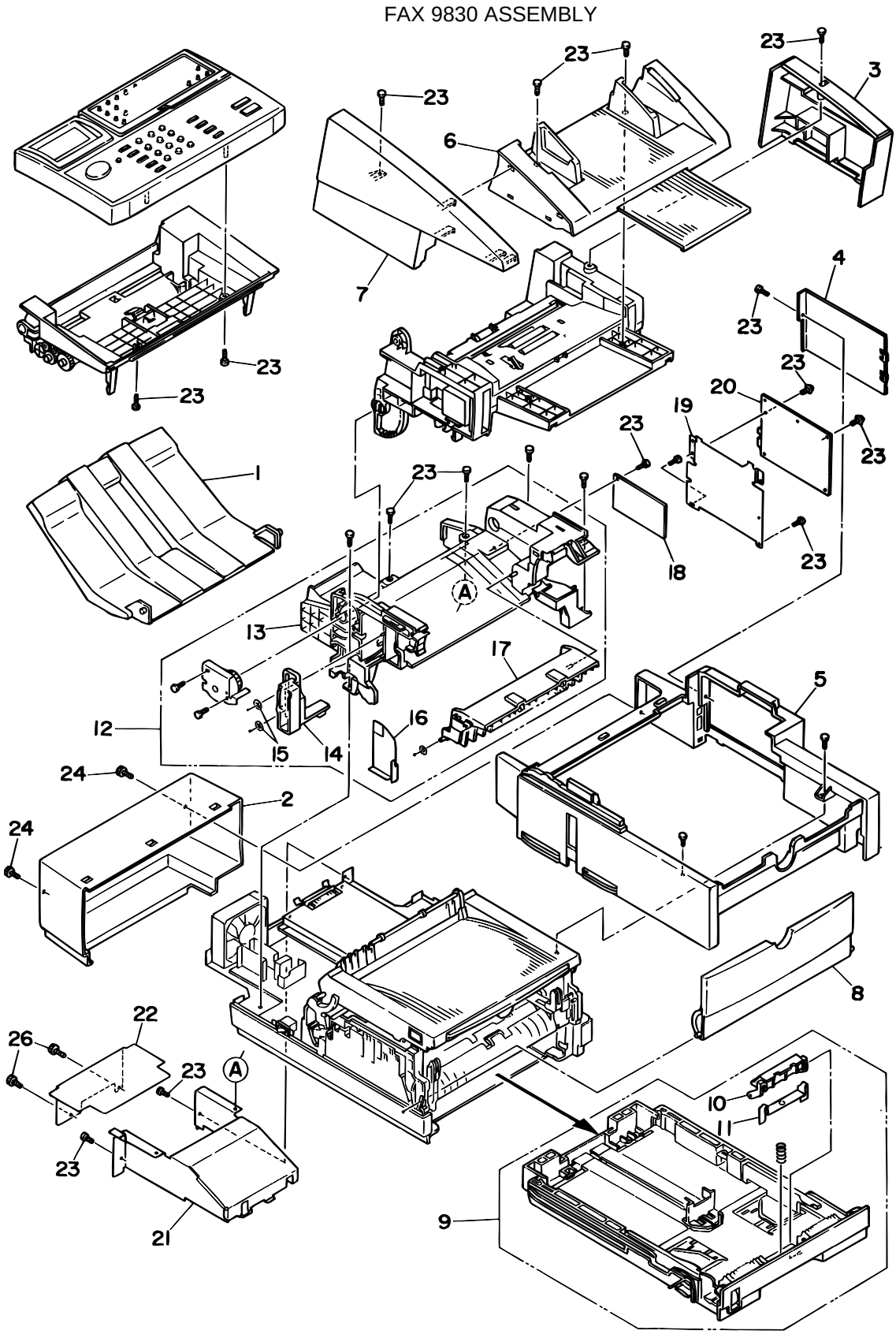


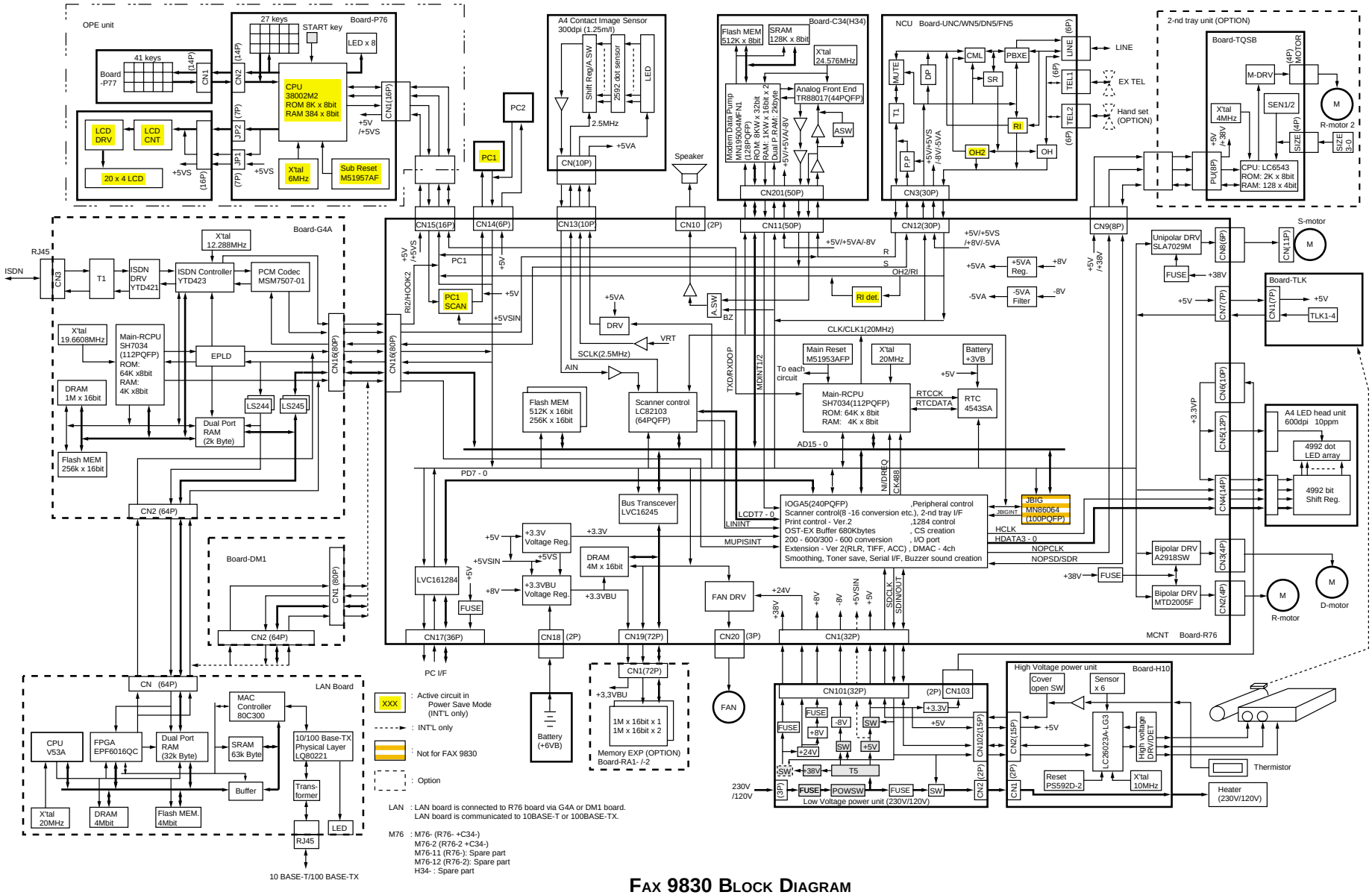
Figure A.1.1 Unit Configuration (Modifying)

Standard:

(1) MCNT (R76- : Fax 9830/R76-2)
(2) V.34 Modem (C34-/H34-)
(3) NCU (UNC-/WN5-/DN5-FN5-)
(4) Operation Panel Board (P76-: Main/P77-: One-touch)
(5) High-voltage Power Unit (H10)
(6) Low-voltage Poewr Unit (MPW2520: 120V/MPW2420: 230V)
(7) Toner Lock Board (TLK-)

Option:

(8) Optional Memory (RA-: 2M byte/RA-2: 4M byte)
(9) G4 Board (G4A-)
(10) Adaptor Board for NIC (DM1-)
(11) NIC (Network Interface Card)



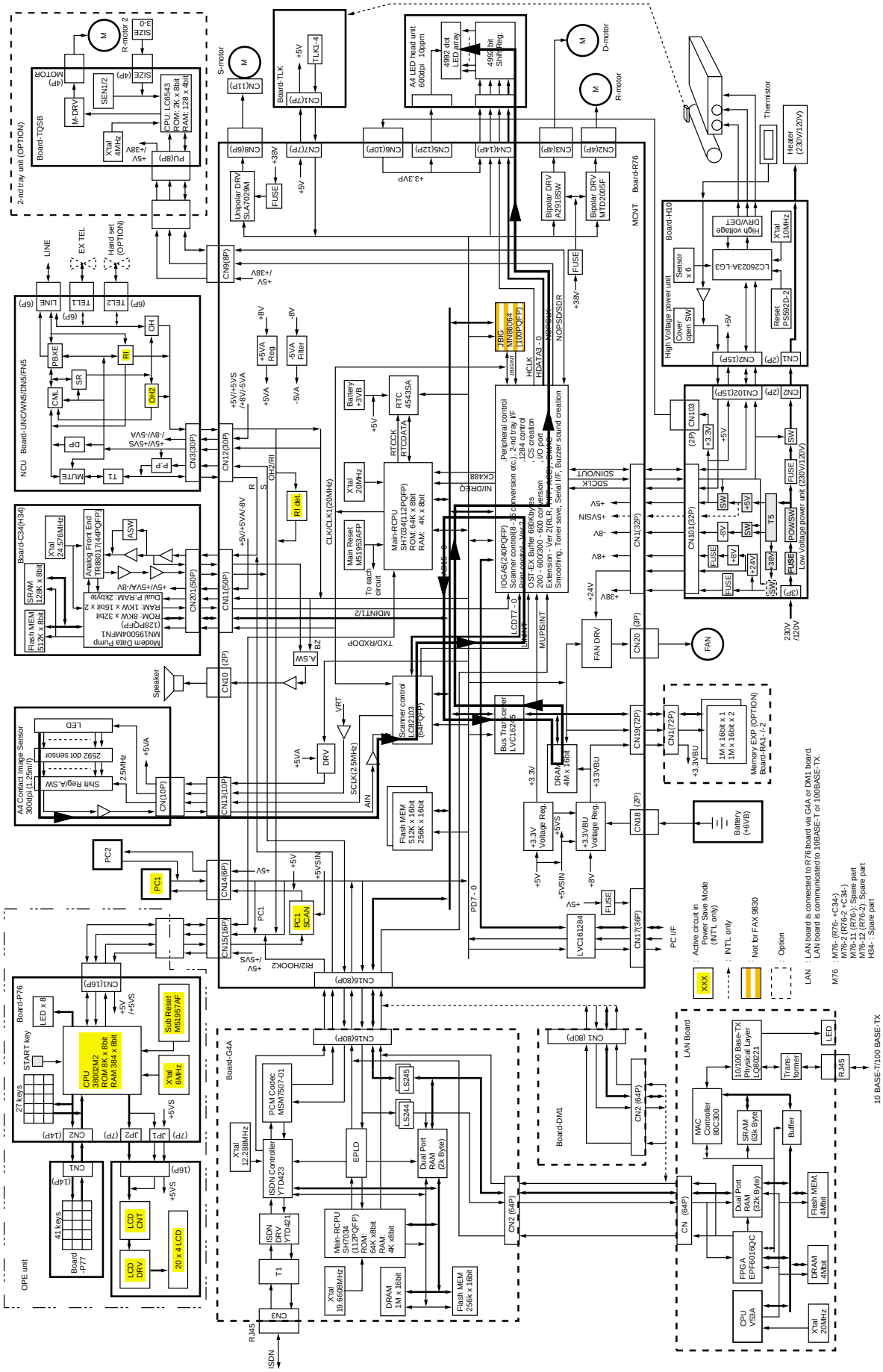
FAX 9830 BLOCK DIAGRAM

A2.1 Fax 9830 Signal Flow

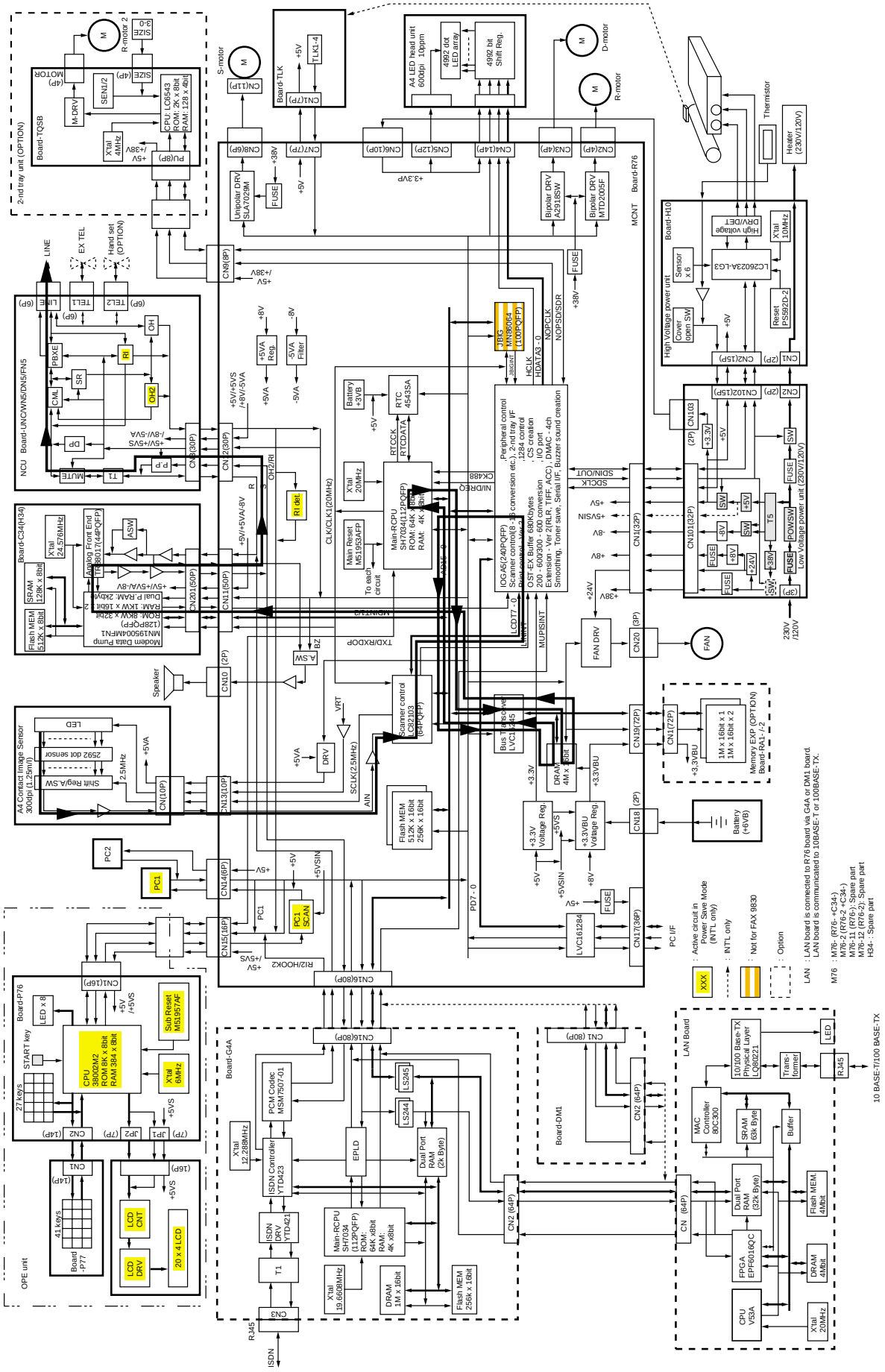
Each signal flow is shown as below:

1. COPY
2. G3 TX (MH/MR/MMR)
3. G3 RX (MH/MR/MMR)
4. PC Print (Option)
5. PC Scanner (Option)
6. PC-FAX TX (Option)
7. PC-FAX RX (Option)
8. ISDN PC-FAX G3 TX (Option)
9. ISDN PC-FAX G3 RX (Option)
10. ISDN G3 TX (Option)
11. ISDN G3 RX (Option)
12. G4 TX (Option)
13. G4 RX (Option)
14. LAN Print (Option)

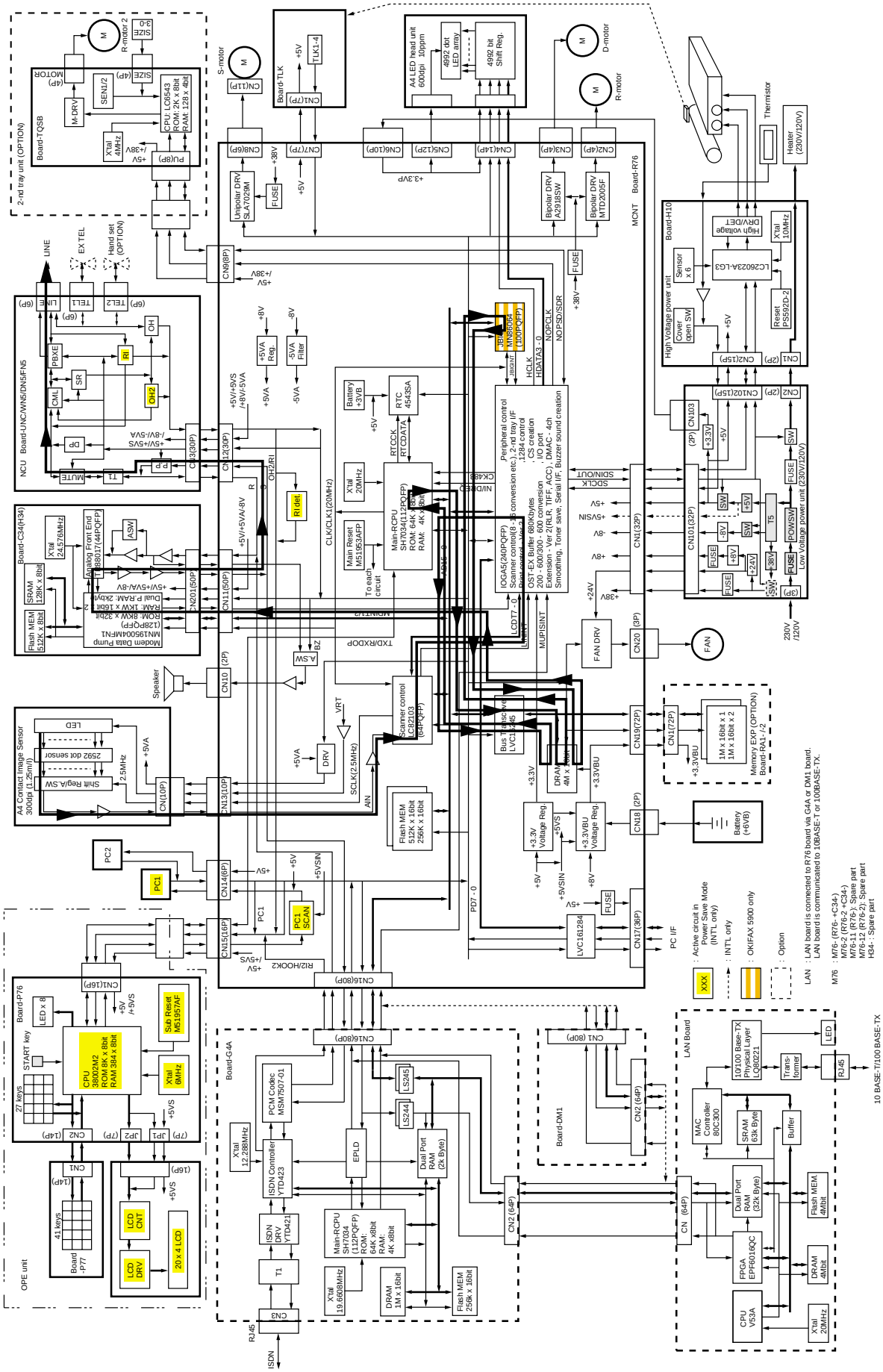
1. COPY


2-nd tray unit (OPTION)
Board-TQSB
CPU: LC6543
ROM: 2K x 8bit
RAM: 128 x 4bit
R-motor 2
S-motor
Board-TLK
A4 LED head unit 600dpi 10ppm
4992 dot LED array
4992 bit Shift Reg.
D-motor
R-motor
Thermistor
Heater (230V/120V)
Unipolar DRV SLA7029M
Bipolar DRV A2918SW
Bipolar DRV MTD2005F
MCNT Board-R76
NCU Board-UNCWN5/DN5/PN5
LINE
EX TEL
Hand set (OPTION)
Board-C34(H34)
Analog Front End TR8801(144PQFP)
Modem Data Pump MN195004MF-N1
Flash MEM 512K x 8bit
SRAM 128K x 8bit
A4 Contact Image Sensor 300dpi (1.25m/l)
2592 dot sensor
Shift Reg/A.SW
Board-P76
CPU 38K02M2 ROM 8K x 8bit RAM 384 x 8bit
Sub Reset M51957AF
START key
27 keys
41 keys
OPE unit
Board-G4A
PCM Codec MSM7507-01
ISDN Controller YTD423
ISDN DRV YTD421
Main-RCPU SH7034 (112PQFP) ROM: 64K x8bit RAM: 4K x8bit
Dual Port RAM (2K Byte)
Dual Port RAM (32K Byte)
Board-DM1
LAN Board
MAC Controller 80C300
10/100 Base-TX Physical Layer LQ80221
SRAM 63K Byte
Buffer
FPGA EPF6016QC
CPU V53A
Flash MEM 4Mbit
DRAM 4Mbit
Board-H10
High Voltage power unit
Sensor x 6
Cover open SW
LC82623A-LG3
High voltage DRY/DET
Reset PS592D-2
Low Voltage power unit (230V/120V)
Main-RCPU SH7034(112PQFP) ROM: 64K x 8bit RAM: 4K x 8bit
Peripheral control (Motor control, A/D conversion etc.), 2nd tray I/F, 1284 control, CS creation, I/O port
IOC A5(240PQFP) Scanner control(8 - 16 bit) Print control Ver.2
O.ST-EX Buffer 680Kbytes 200 - 600/300 - 600 conversion Extension - Ver.2(RLR, Mark, Addr, B/W) Smoothing, Toner save, Serial I/F, Buzzer sound creation
Scanner control C82103 (64PQFP)
Bus Transceiver LVC162245
Flash MEM 512K x 16bit 256K x 16bit
DRAM 4M x 16bit
Battery (+6VB)
LVC161284
FAN DRV
FAN
Speaker
Memory EXP (OPTION) Board-RA1 -/-2
1M x 16bit x 1 1M x 16bit x 2
Active circuit in Power Save Mode (INTL only)
INTL only
Not for FAX 9830
Option
LAN : LAN board is connected to R76 board via G4A or DM1 board. LAN board is communicated to 10BASE-T or 100BASE-TX.
M76 : M76- (R76- +C34-) M76-2 (R76-2 +C34-) M76-11 (R76-): Spare part M76-12 (R76-2): Spare part H34- : Spare part
10 BASE-T/100 BASE-TX
ISDN

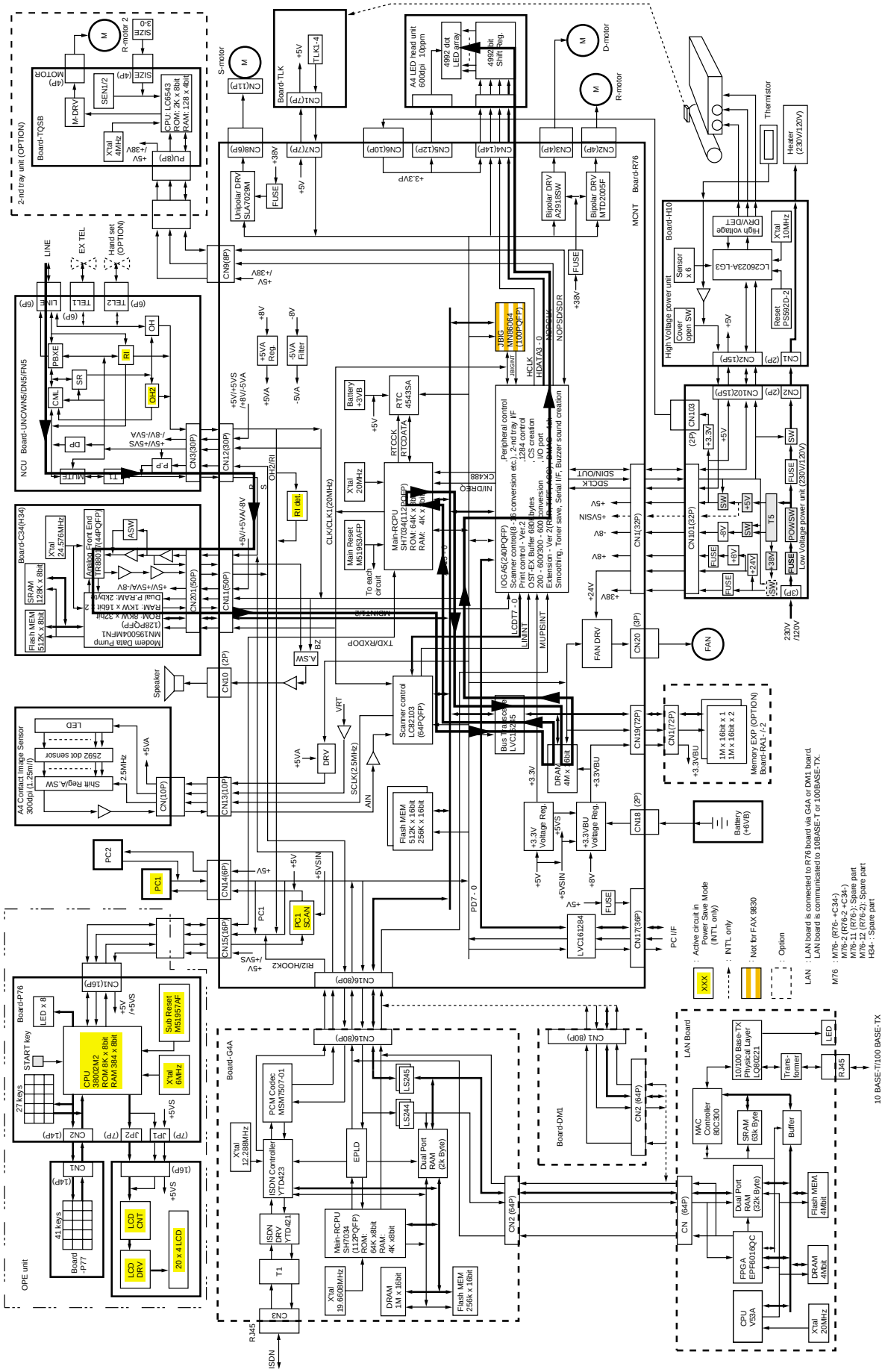
2. G3 TX (MH/MR/MMR)



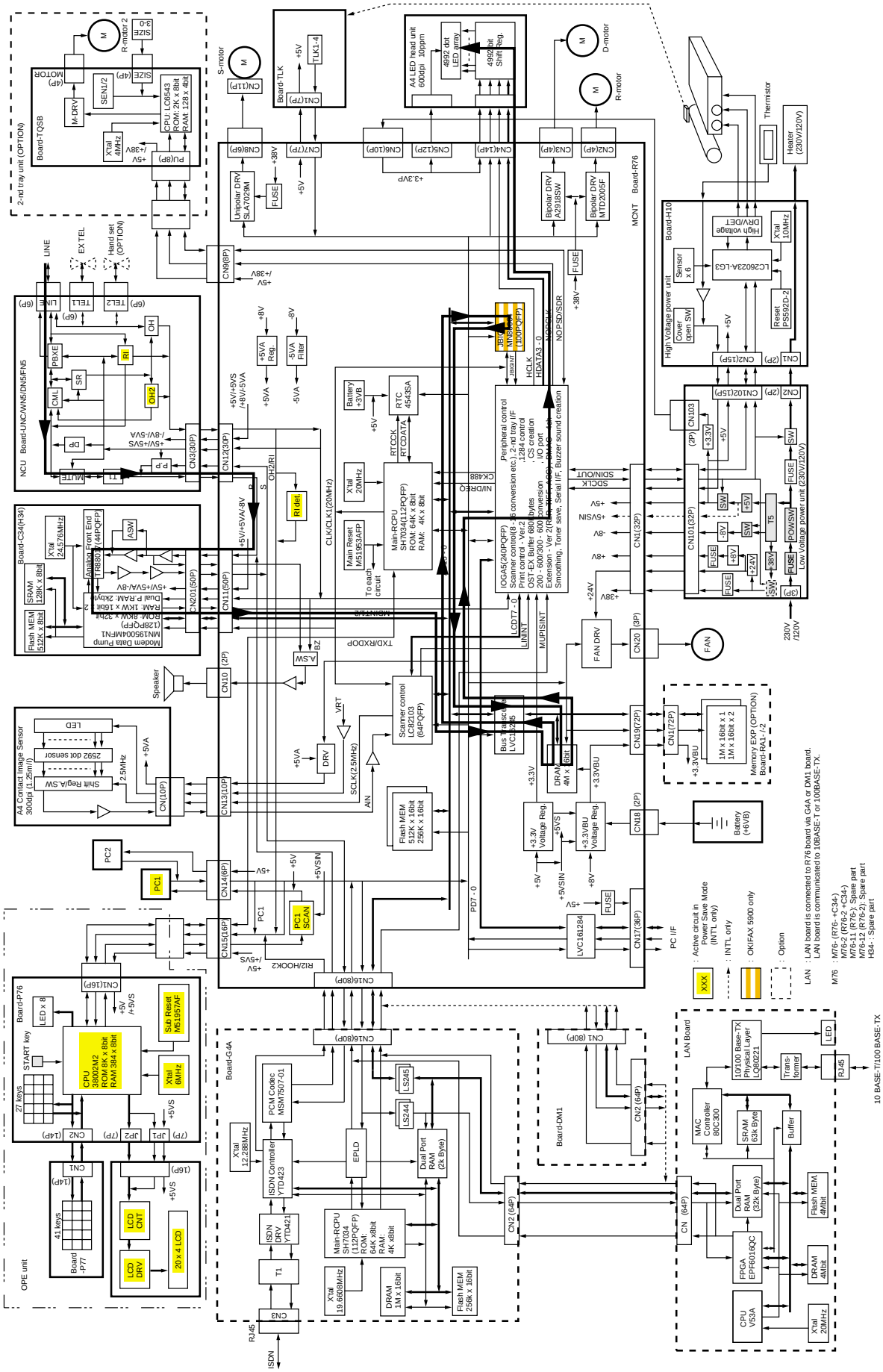
2-1. G3 TX (JBIG) - Does not apply to Fax 9830



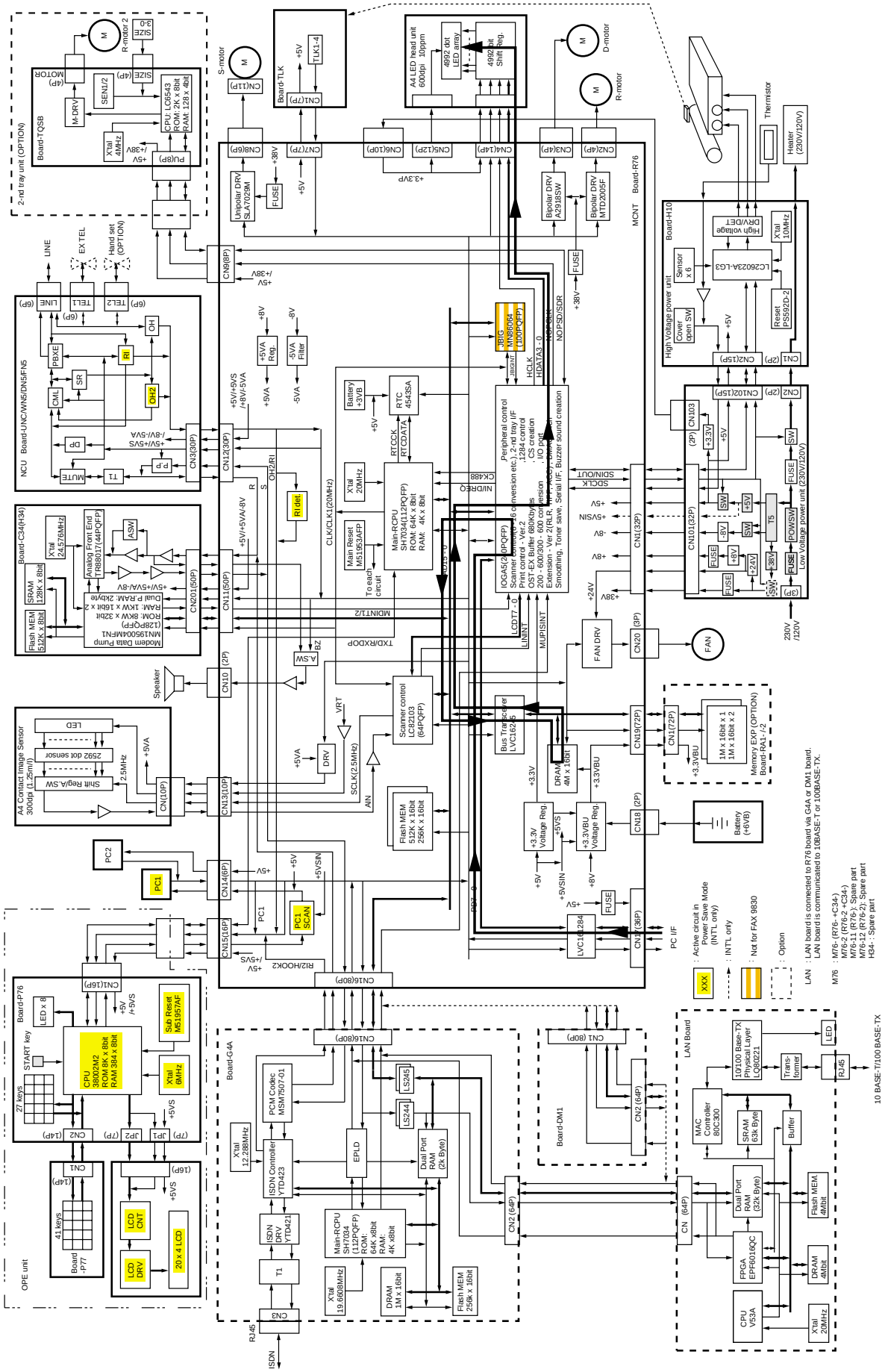
3. G3 RX (MH/MR/MMR)



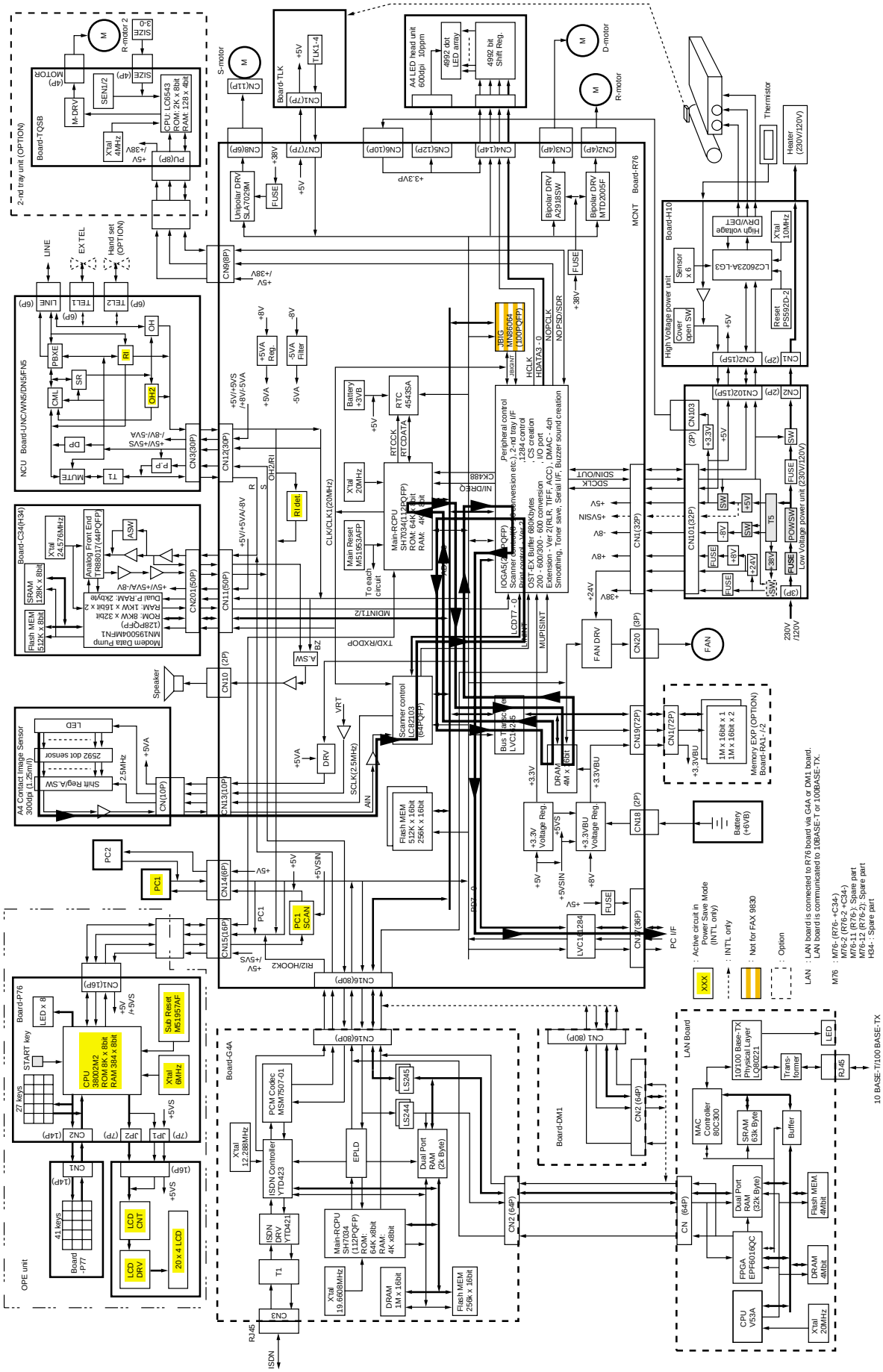
3-1 G3 RX (JBIG) - Does not apply to Fax 9830



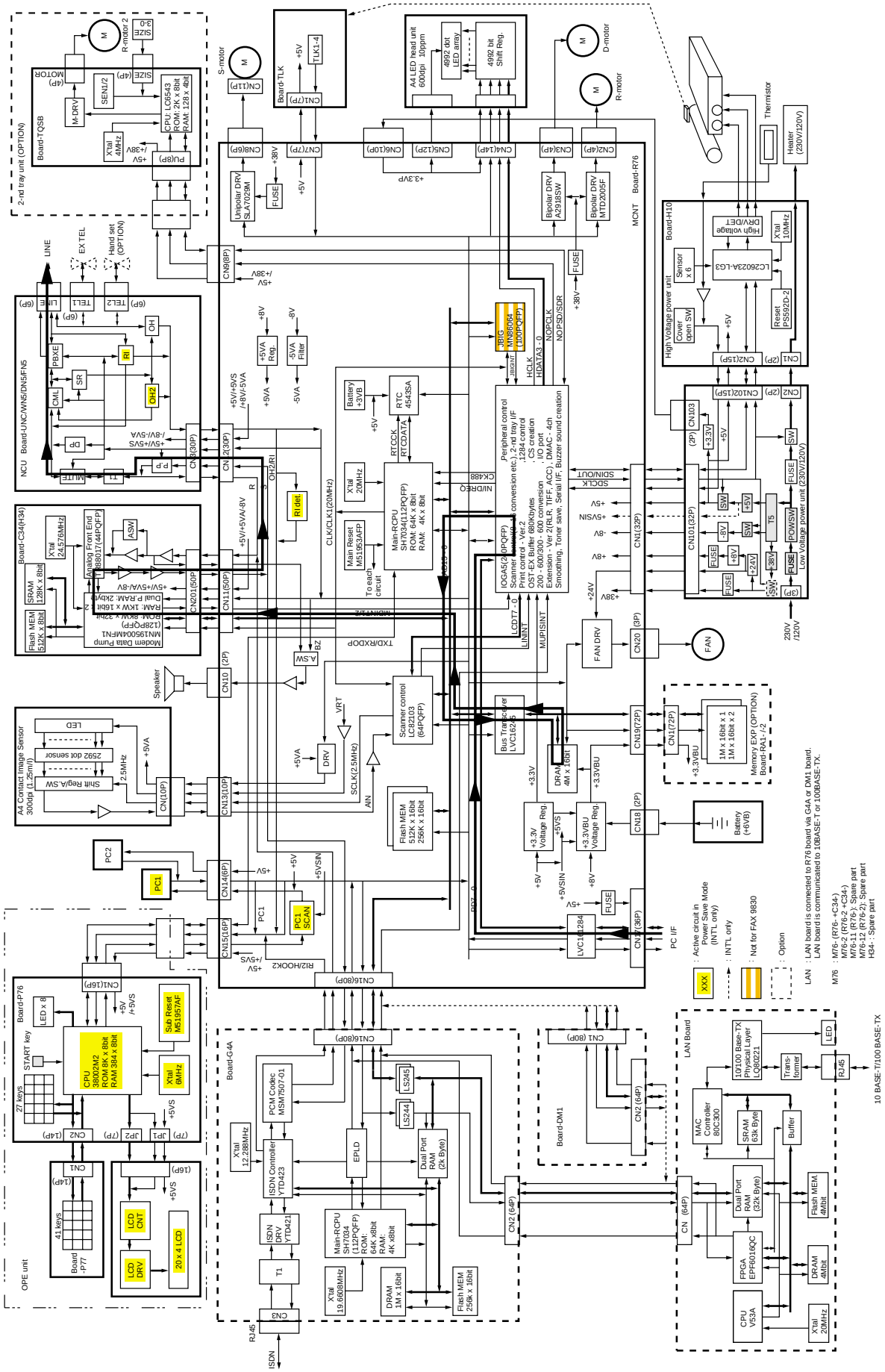
4. PC print (Option)



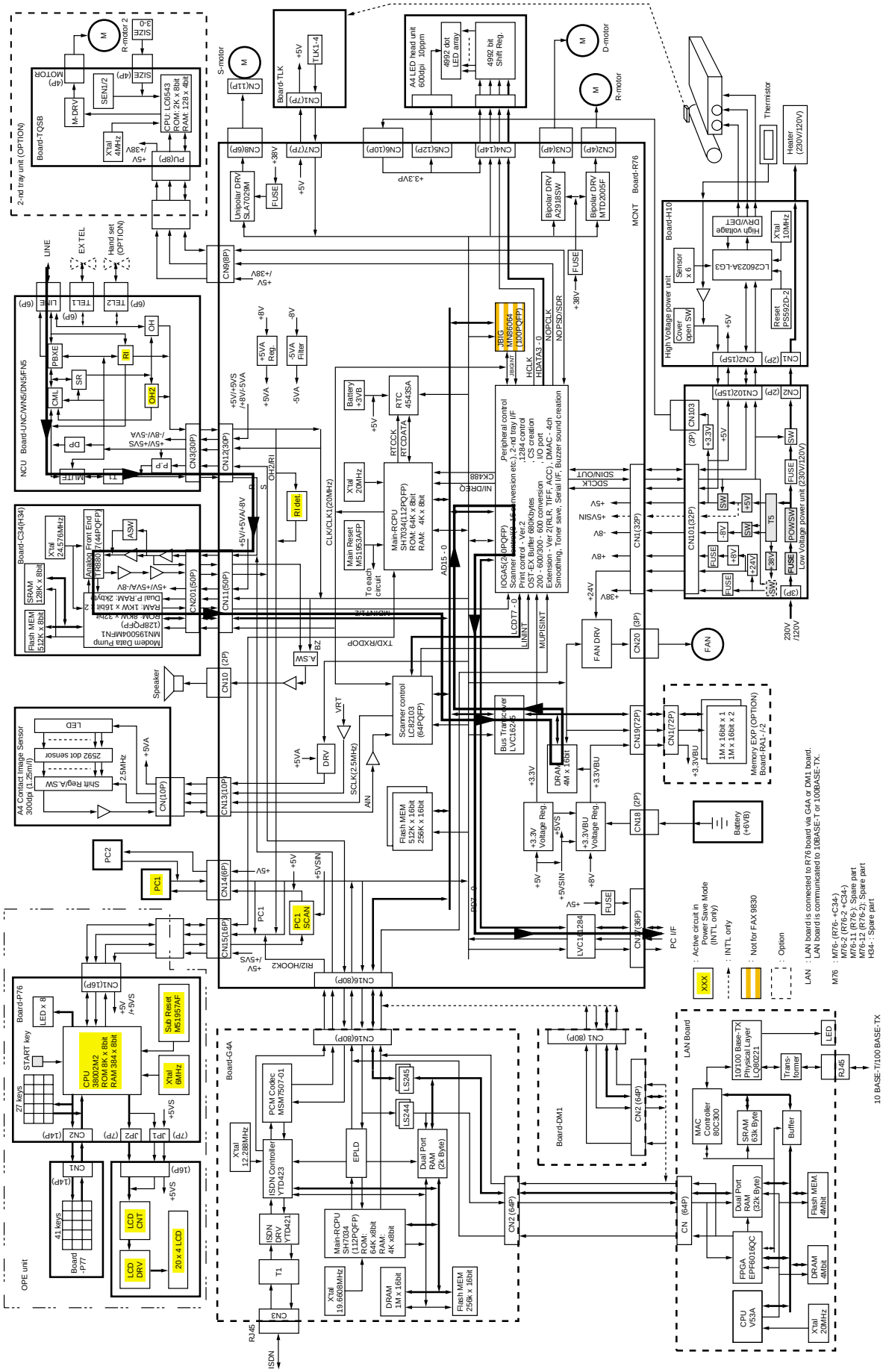
5. PC scanner (Option)



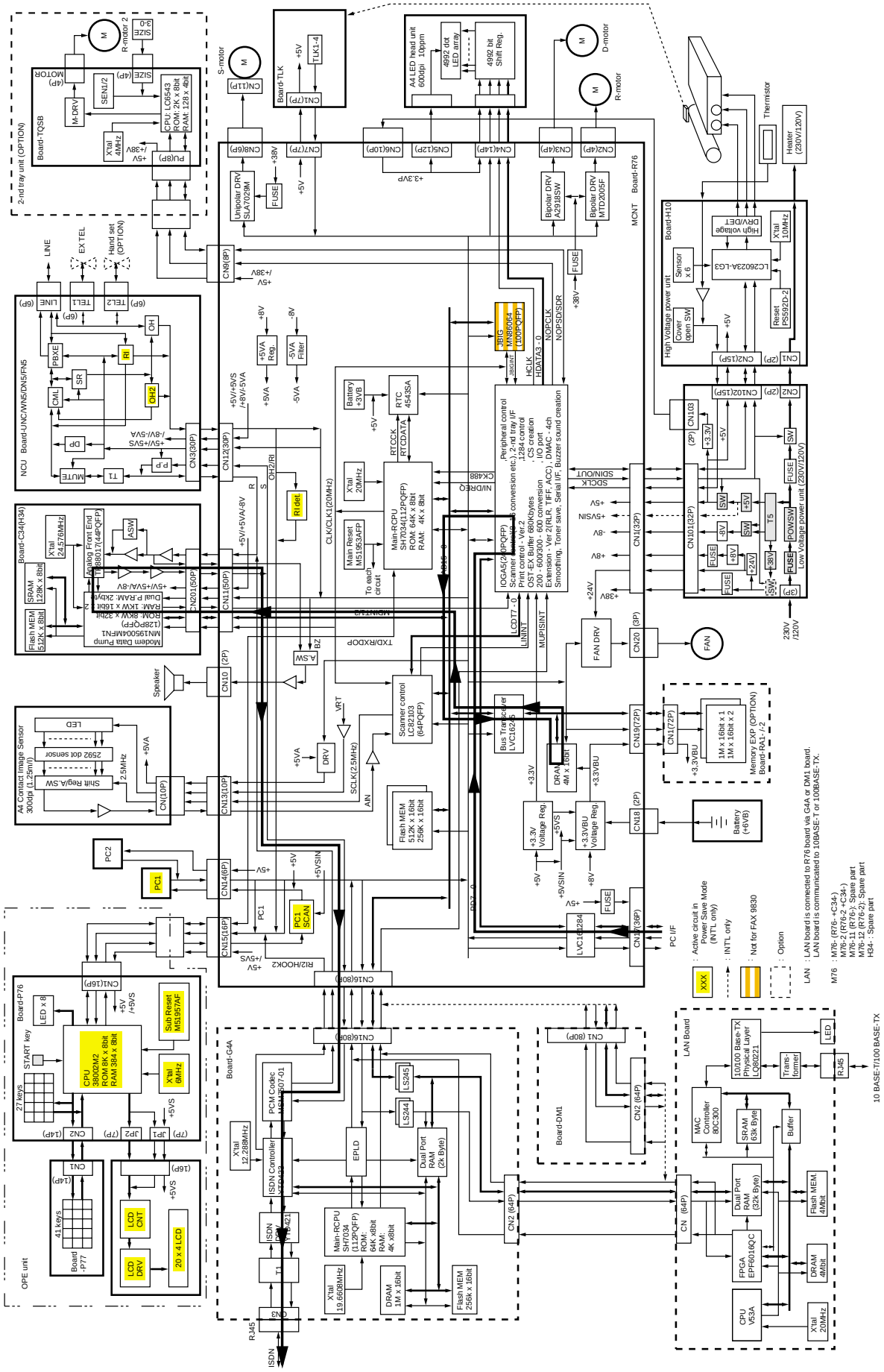
6. PC-FAX TX (Option)



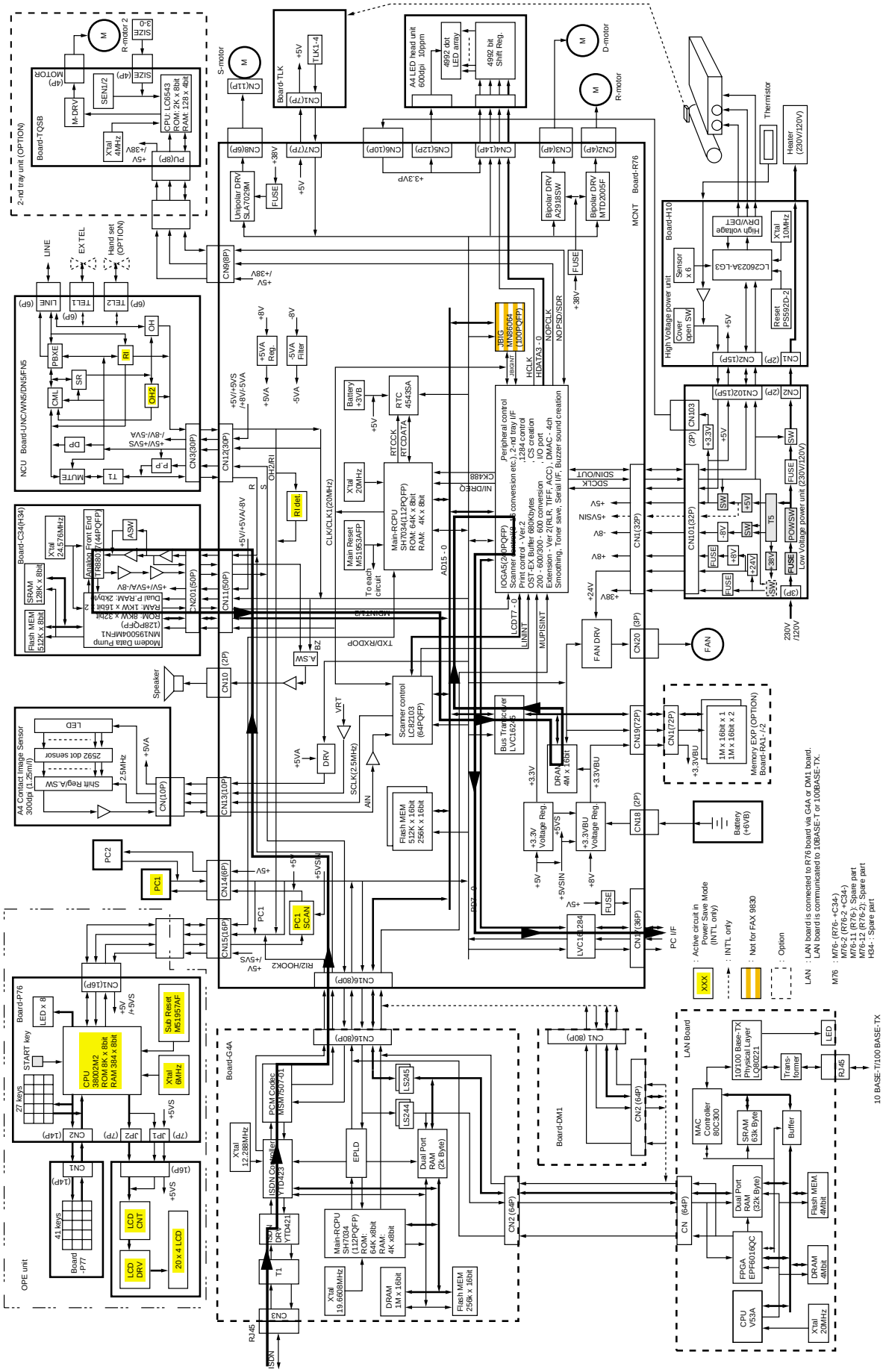
7. PC-FAX RX (Option)



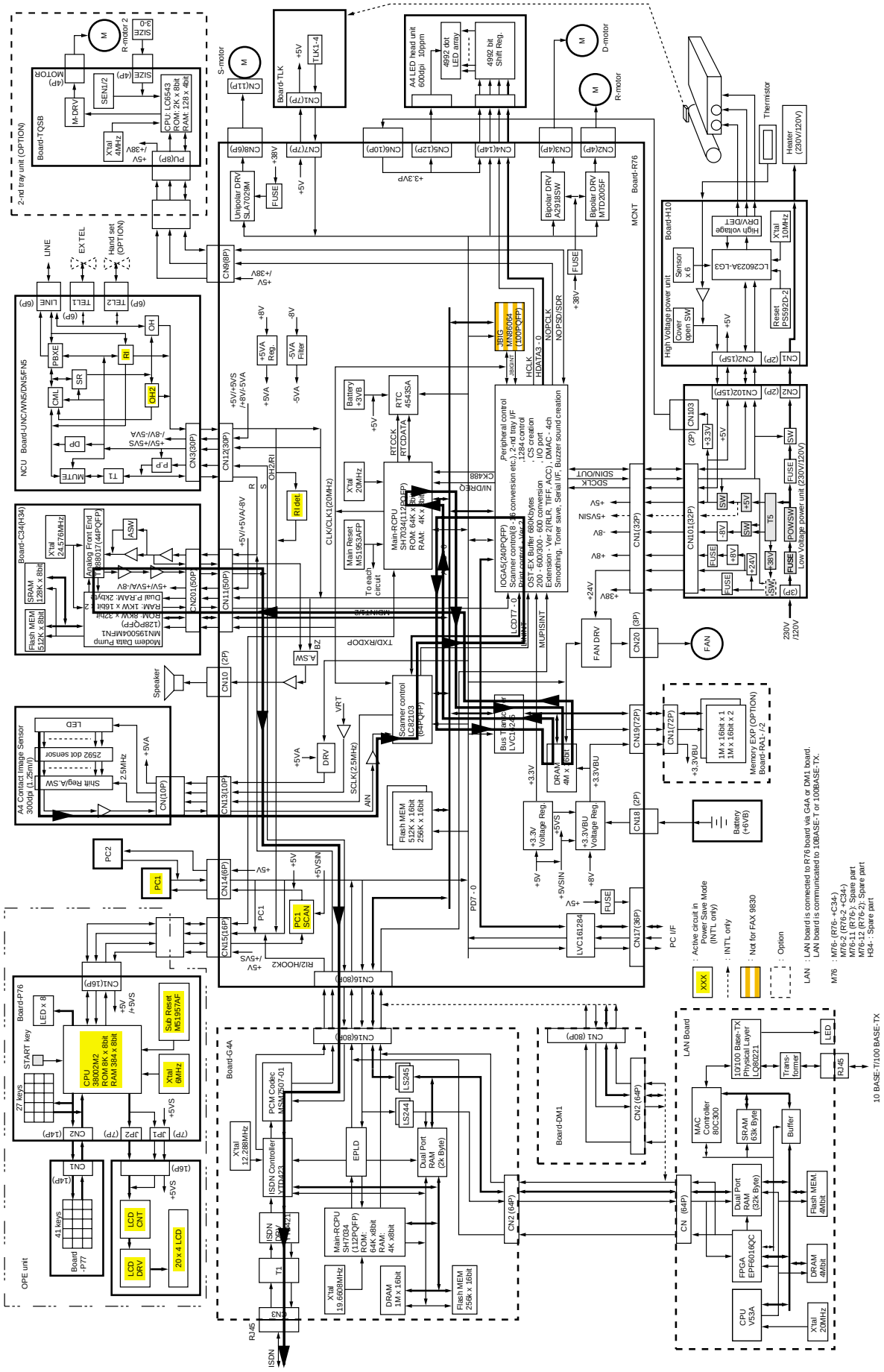
8. ISDN PC-FAX G3 TX (Option)



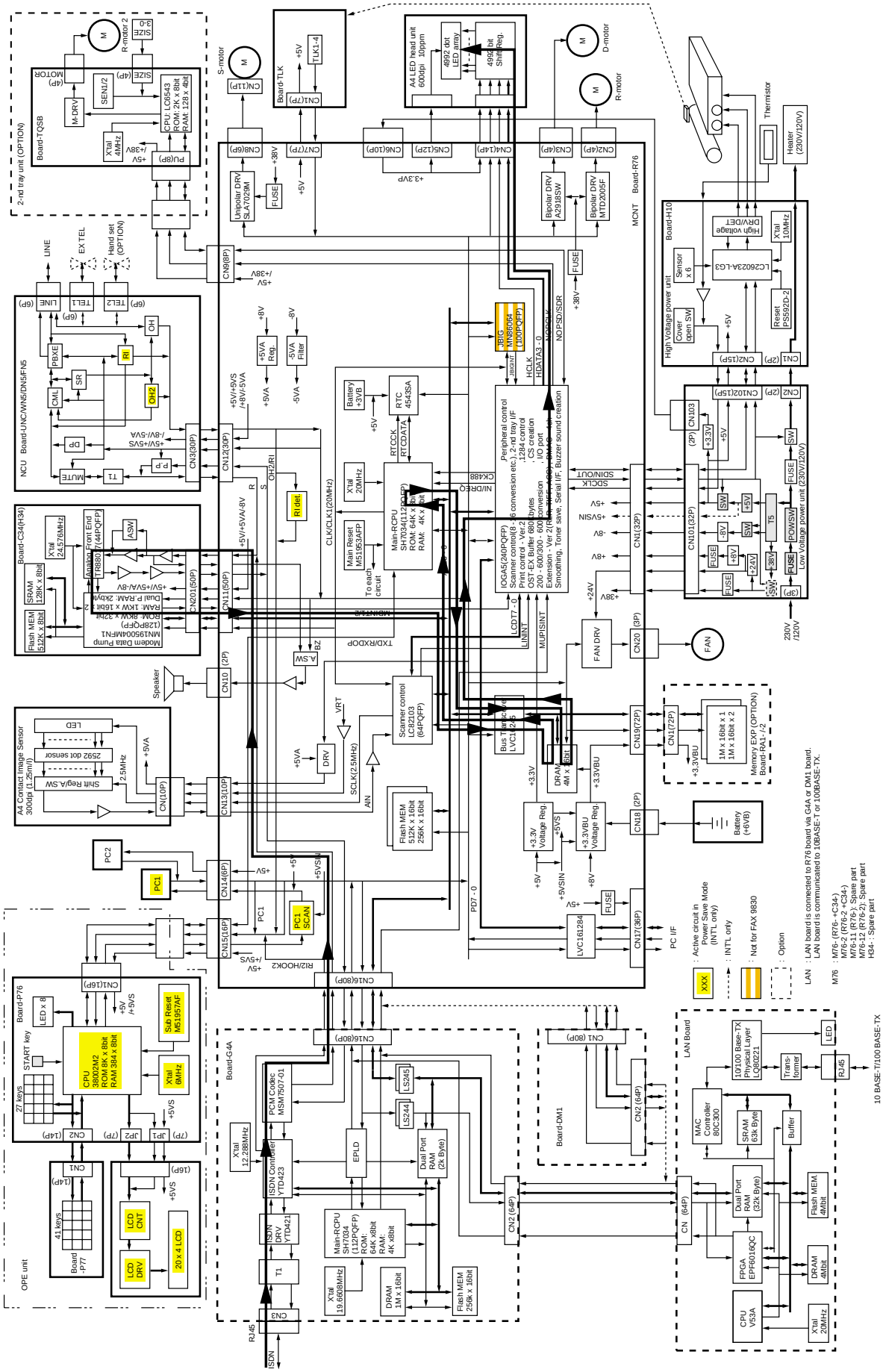
9. ISDN PC-FAX G3 RX (Option)



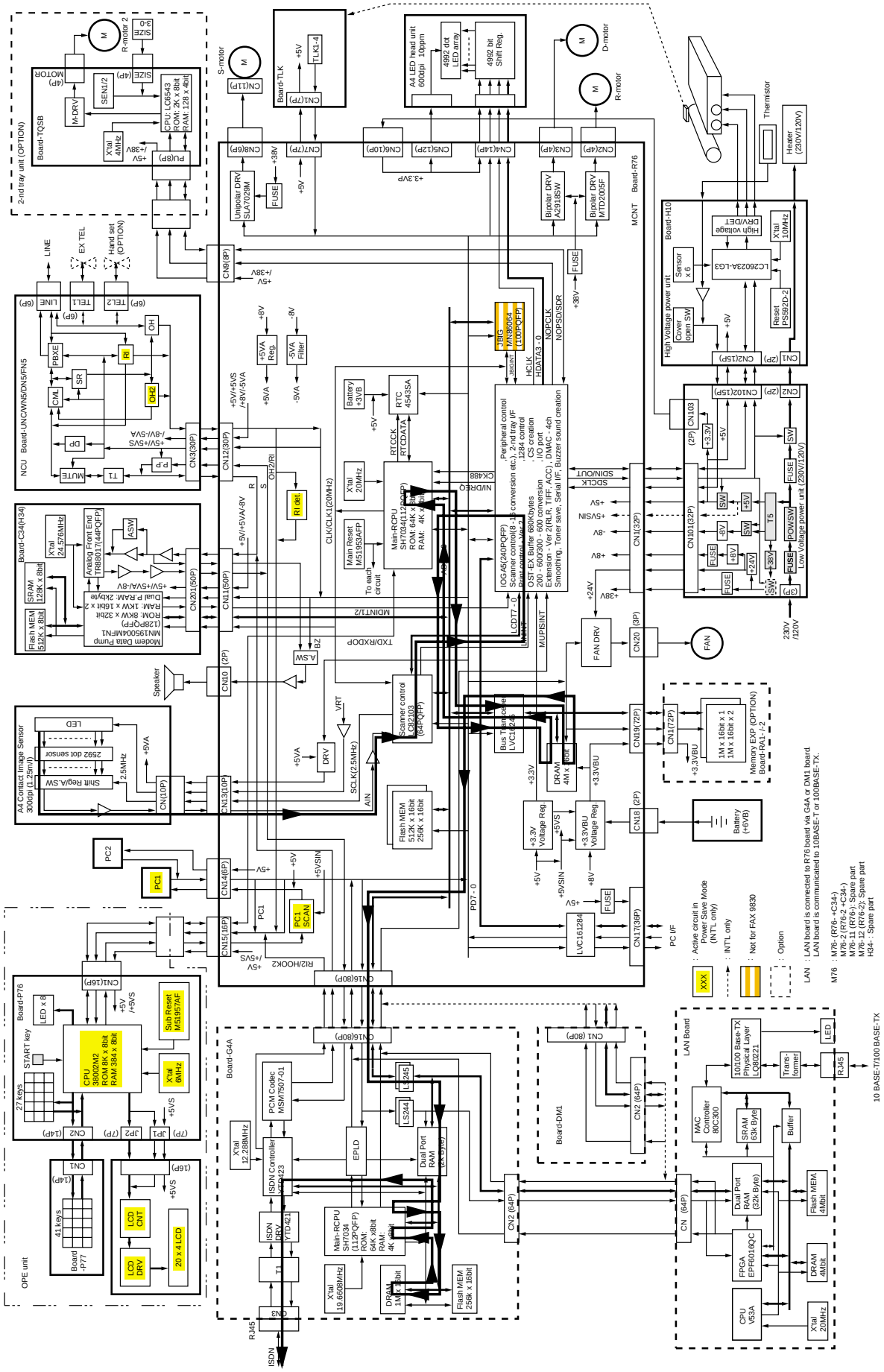
10. ISDN G3 TX (Option)



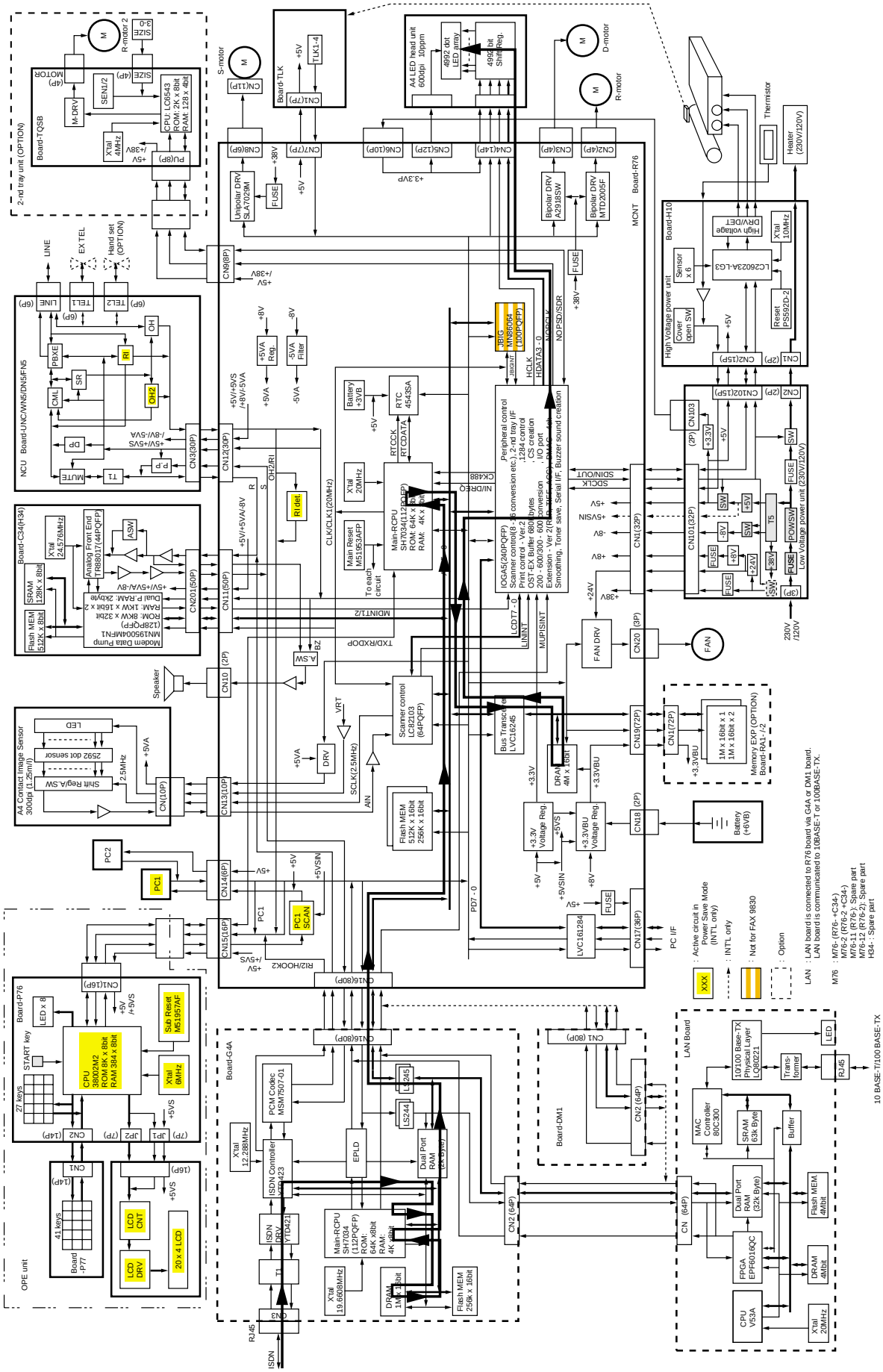
11. ISDN G3 RX (Option)



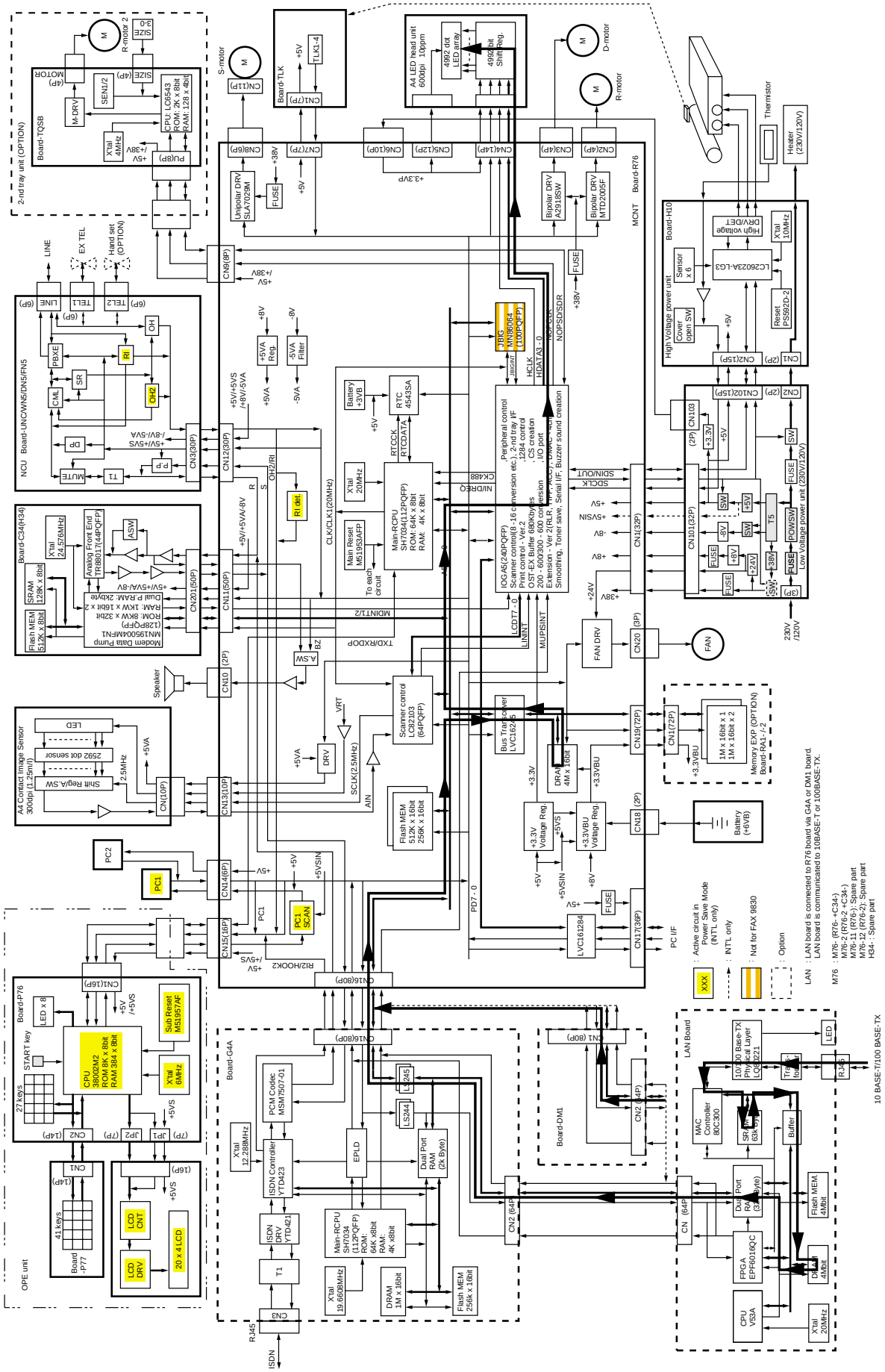
12. G4 TX (Option)



13. G4 RX (Option)



14. LAN print (Option)



A2.2 Explanation of Signal Flowchart

(1) Copy Mode

The analog data output from the image sensor is input to the MCNT-PCB to be amplified by the amplifier. The amplified analog data is input to the scanner controller. Next, the analog data is converted to digital data by the built-in A/D converter. The digital data is corrected by the internal correction function, transferring binary-coded data to the IOGA5 every eighth pixel. The data input to the IOGA5 is temporarily written into the external DRAM (4 megabits x 16 bits). The written data is sent, through the IOGA5, to the LED head in sync with the print operation.

(2) G3 Send Mode (MH/MR/MMMR Codes)

The analog data output from the image sensor is input to the MCNT-PCB to be amplified by the amplifier. The amplified analog data is input to the scanner controller. Next, the analog data is converted to digital data by the built-in A/D converter. The digital data is corrected by the internal correction function, transferring binary-coded data to the IOGA5 every eighth pixel. The data input to the IOGA5 is temporarily written into the external DRAM (4 megabits x 16 bits). The written data is converted to MH/MR/MMR codes by firmware, then written into the external DRAM again.
The converted data is sent to the modem board to be modulated. The data modulated by the modem is sent to the NCU board by the Send signal “S.” The data sent to the NCU board is amplified there, then output to the public line.

(3) G3 Receive Mode (MH/MR/MMR Codes)

The signal input from the public line to the NCU board is amplified, input to the modem board as an R signal, demodulated by the modem, and written into the DRAM on the MCNT PCB.
MH/MR/MMR-code data is converted to image data by firmware and written into the DRAM again. The written data is sent, through the IOGA5, to the LED head in sync with the print operation.

(4) G3 Receive Mode (JBIG Code)

The signal input from the public line to the NCU board is amplified, input to the modem board as an R signal, demodulated by the modem, and written into the DRAM on the MCNT PCB.
JBIG-code data is sent to the JBIG control LSI chip to be converted to image data. Then, the image data is written into the DRAM.
The written data is sent, through the IOGA5, to the LED head in sync with the print operation.

(5) G3 Send Mode (JBIG Code)

The analog data output from the image sensor is input to the MCNT-PCB to be amplified by the amplifier. The amplified analog data is input to the scanner controller. Next, the analog data is converted to digital data by the built-in A/D converter. The digital data is corrected by the internal correction function, transferring binary-coded data to the IOGA5 every eighth pixel. The data input to the IOGA5 is temporarily written into the external DRAM (4 megabits x 16 bits). The written data is converted to MH/MR/MM codes by firmware, then written into the external DRAM again.
The converted data is sent to the JBIG control LSI chip to be converted to JBIG codes. Next, the JBIG-code data is sent to the modem board to be modulated. The data modulated by the modem is sent to the NCU board by the Send signal “S.” The data sent to the NCU board is amplified there, then output to the public line.

(6) PC Print

The data input from the MCNT's parallel I/F is input, through the IOGA5, to the DRAM using DMA.
The input data is transferred to the DEC block in the IOGA5 using DMA.
In the DEC block, the data is expanded in the 1-line raster buffer in the IOGA5. Then, the expanded data is sent to the video block in the IOGA5 in response to a 1-line synchronous signal. In the video block, image processing is performed for printing and the resultant data is transferred to the LED head.

(7) PC Scanner

The analog data output from the image sensor is input to the MCNT-PCB to be amplified by the amplifier. The amplified analog data is input to the scanner controller. Next, the analog data is converted to digital data by the built-in A/D converter. The digital data is corrected by the internal correction function, transferring binary-coded data to the IOGA5 every eighth pixel. The data input to the IOGA5 is temporarily written into the external DRAM (4 megabits x 16 bits). The written data is compressed to TIF data by firmware, then written into the external DRAM again.
The written TIF data is sent to the MCNT's parallel I/F through the IOGA5.

A3.1 MCNT

A3.1.1 CPU

A3.1.1.1 Functions

A 32-bit RISC CPU is used as a core and it is provided with the following peripheral functions:

- Built-in PROM/Mask ROM
- Built-in RAM
- Bus state controller (DRAM control and chip select creation)
- Interrupt controller
- DMA controller
- 16-bit timer pulse unit
- Serial communication interface

(1) CPU's throughput

The basic clock frequency is 20 MHz. A program/data is stored in the built-in ROM/RAM. The rated throughput is 20 MIPS when optimum object code has been created. However, the actual throughput is reduced due to the access times needed by external devices.

(2) Built-in PROM/Mask ROM

The built-in ROM size is 64 KB and memory addresses range from 000000h to 000FFFh.

(3) Built-in RAM

The built-in RAM size is 4 KB and memory addresses range from FFFF000h to FFFFFFFh.

(4) Bus state controller

The bus state controller controls the DRAM and accesses the flash ROM and external devices.
(Figure 6.1 shows the timing chart of the basic bus cycle.)

(5) Interrupt controller

This system has nine interrupts. Three interrupts /IRQ 4, /IRQ6, and /IRQ7 are used but the other six interrupts /IRQ0 to /IRQ3, IRQ5, and NMI are not used.

Interrupts are allocated as follows:

/IRQ7 = Print-related user timer interrupt

/IRQ6 = Matsushita V.34 modem interrupts 1and 2, Sanyo V.17 modem, encryption, line ringing tone (Ring), Sanyo read control IC

/IRQ4 = Centronics I/F controller interrupt, JBIG chip interrupt, MUPIS I/F, power I/F, second tray I/F, user DMA channel 4/5 (Centronics), use DMA channel 6/7 (JBIG)

(6) DMA controller

Two channels of DMAs with external transfer request (DREQ) and acknowledge (DACK) pins and two channels of DMAs without DREQ/DACK pins are incorporated.

DMA channel 0 (with DREQ/DACK): Used for transfer form read image processing LSI chip to memory.

DMA channel 1 (with DREQ/DACK): Used for transfer from memory to IOGA print image processor.

DMA channel 2 (without DREQ/DACK): Not used.

DMA channel 3 (without DREQ/DACK): Used to count main motor operating pulses.

(7) 16-bit timer pulse unit

Channels are used as follows:

ITU channel 0: Used as a 5-ms system timer.

ITU channel 1: A desired time-out time (0 - 13.1 ms) can be specified in steps of 0.2 µs.

ITU channel 2: A 204.8-µs (4.883 kHz) clock signal is input from the TCLKC pin. The clock signal is used in the external clock count mode to make measurement in units of 204.8 µs. The measurement range is from about 0.2 ms to 13.422 sec.

ITU channel 3: Used for drum motor phase control.

ITU channel 4: Used for resist motor phase control.

(8) Serial communication interface

In this system, SCI channel 0 is used in the start-stop mode as the interface with the OPE.

A3.1.2 IOGA5

A3.1.2.1 Purpose and Overview of This ASIC

This ASCI is used for the Fax 9830.
It controls the facsimile and printer, provides an interface with the PC, and implement MFP and the functions listed below.
The block diagram of this ASIC is shown on the next page.

Major functions of this LSI are as follows:

(1) Printer control

T600 dpi printing/ACC expansion/200-600 conversion or 300→600 conversion/ smoothing (200→600)/high voltage control

(2) Interfacing with scanner control LSI

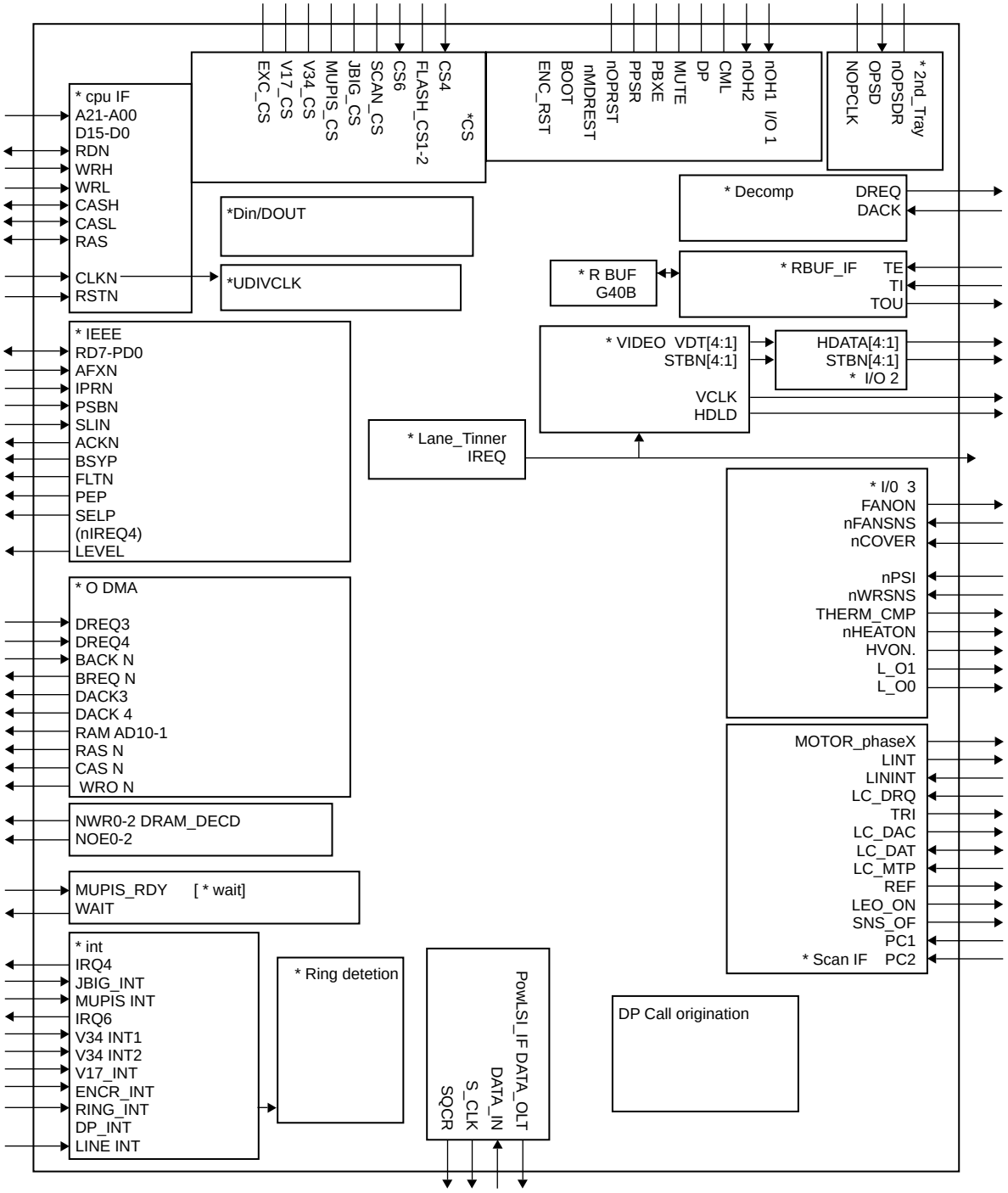
8-to-16 conversion

(3) IEEE1284 control

(4) DMA 4-channel

(5) Peripheral control

CS generation/ I/O port


* cpu IF
A21-A00
D15-D0
RDN
WRH
WRL
CASH
CASL
RAS
CLKN
RSTN
EXC_CS
V17_CS
V34_CS
MUPIS_CS
JBIG_CS
SCAN_CS
CS6
FLASH_CS1-2
CS4
*CS
*Din/DOUT
*UDIVCLK
ENC_RST
BOOT
nMDREST
nOPRST
PPSR
PBXE
MUTE
DP
CML
nOH2
nOH1 I/O 1
NOPCLK
OPSD
nOPSDR
* 2nd_Tray
* Decomp
DREQ
DACK
* R BUF
G40B
* RBUF_IF
TE
TI
TOU
* IEEE
RD7-PD0
AFXN
IPRN
PSBN
SLIN
ACKN
BSYP
FLTN
PEP
SELP
(nIREQ4)
LEVEL
* VIDEO VDT[4:1]
STBN[4:1]
VCLK
HDLD
HDATA[4:1]
STBN[4:1]
* I/O 2
* Lane_Tinner
IREQ
* I/0 3
FANON
nFANSNS
nCOVER
nPSI
nWRSNS
THERM_CMP
nHEATON
HVON.
L_O1
L_O0
* O DMA
DREQ3
DREQ4
BACK N
BREQ N
DACK3
DACK 4
RAM AD10-1
RAS N
CAS N
WRO N
MOTOR_phaseX
LINT
LININT
LC_DRQ
TRI
LC_DAC
LC_DAT
LC_MTP
REF
LEO_ON
SNS_OF
PC1
* Scan IF PC2
NWR0-2 DRAM_DECD
NOE0-2
MUPIS_RDY [* wait]
WAIT
* int
IRQ4
JBIG_INT
MUPIS INT
IRQ6
V34 INT1
V34 INT2
V17_INT
ENCR_INT
RING_INT
DP_INT
LINE INT
* Ring detetion
PowLSI_IF DATA_OLT
DATA_IN
S_CLK
SQCR
DP Call origination

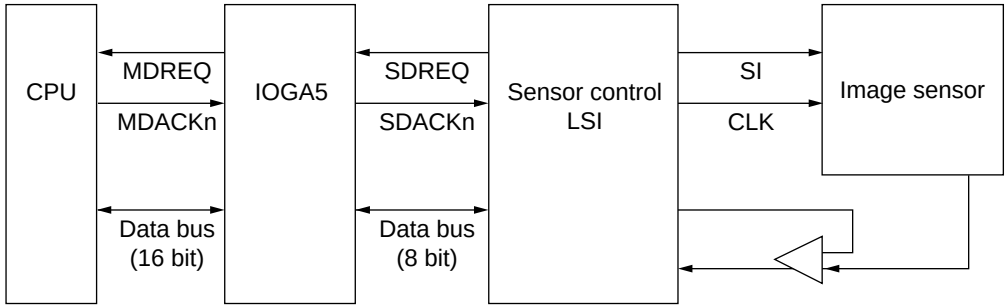
A3.1.3 Scanner Control

A3.1.3.1 Overview

This system uses a monochromic 300-DPI image sensor. It also uses a 1-chip LSI for sensor control.
The overall block diagram is shown on the next page.

(1) Interface

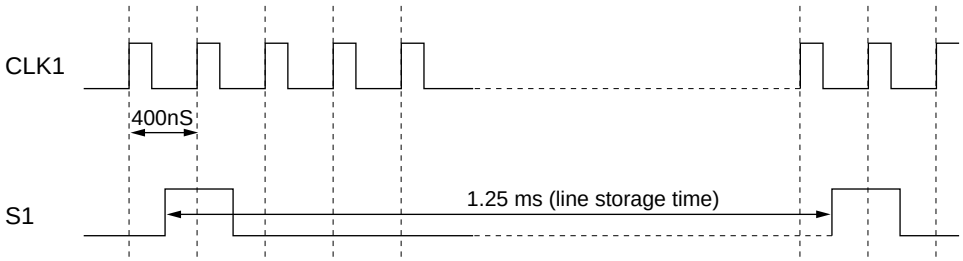
The IOGA5 receives image data from the sensor control LSI, and sends it to the host CPU in blocks of 16 bits (2 words).

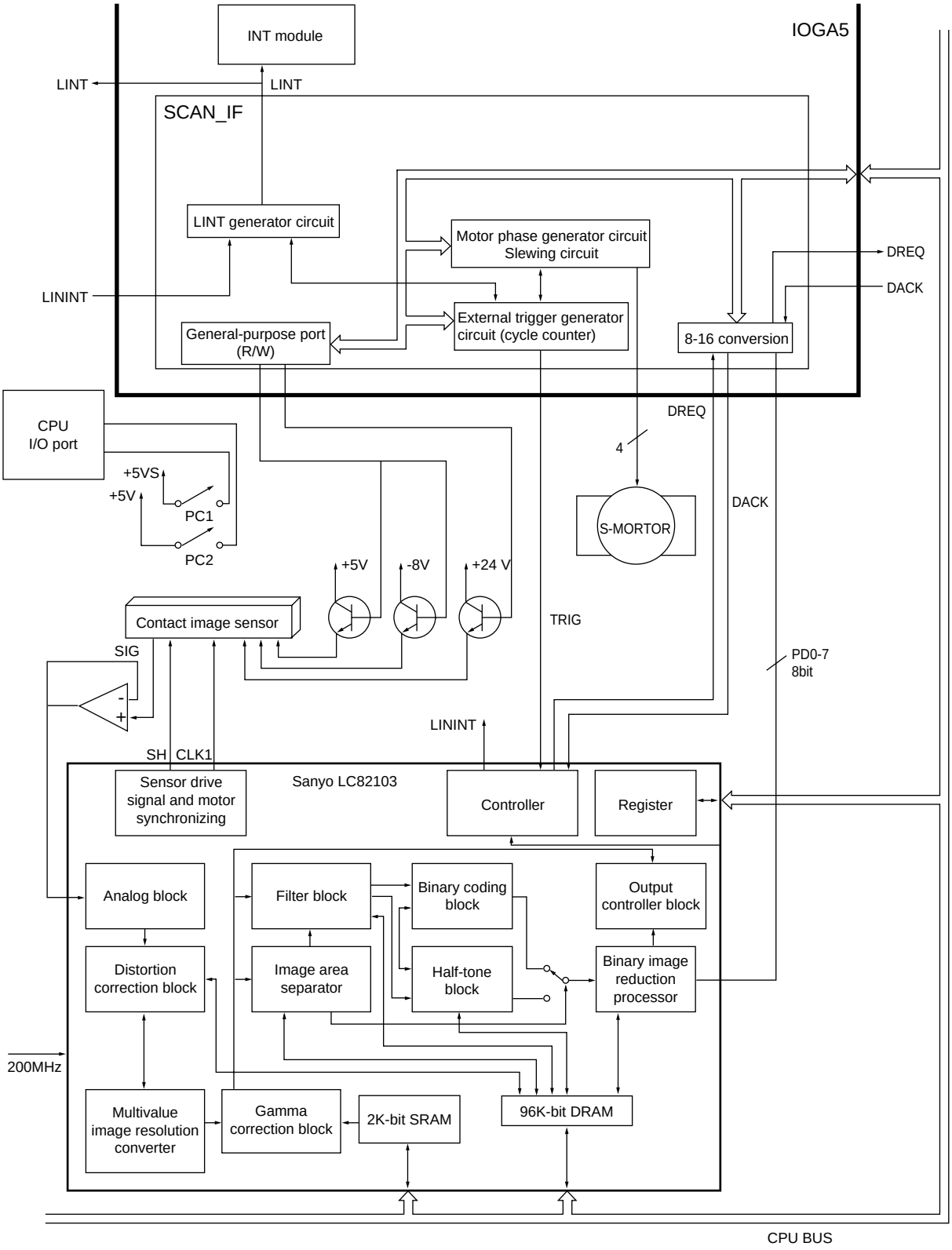


(2) Sensor Specifications

Pixel density: 300 DPI
Number of significant pixels: 2552 dots
Pixel clock frequency: 2.5 MHz

The input signal timing chart is shown below.

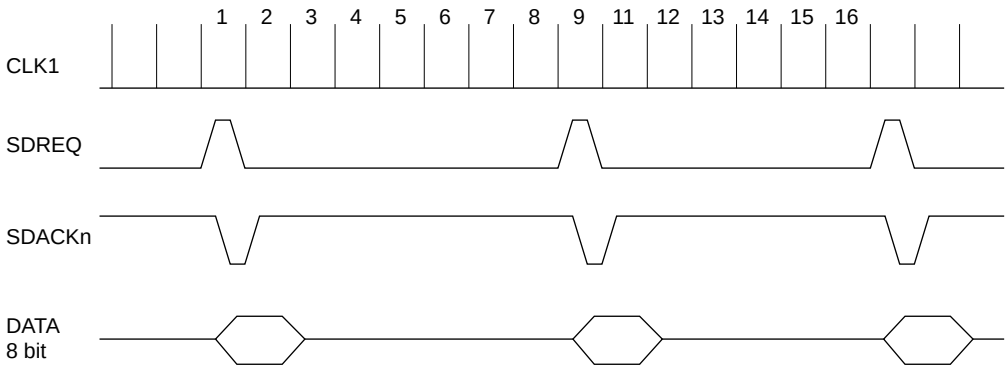



IOGA5
INT module
LINT
LINT
SCAN_IF
LINT generator circuit
Motor phase generator circuit
Slewing circuit
DREQ
DACK
LININT
External trigger generator
circuit (cycle counter)
General-purpose port
(R/W)
8-16 conversion
CPU
I/O port
DREQ
4
+5VS
+5V
PC1
PC2
S-MORTOR
DACK
+5V
-8V
+24 V
Contact image sensor
TRIG
SIG
PD0-7
8bit
LININT
SH
CLK1
Sanyo LC82103
Sensor drive
signal and motor
synchronizing
Controller
Register
Analog block
Filter block
Binary coding
block
Output
controller block
Distortion
correction block
Image area
separator
Half-tone
block
Binary image
reduction
processor
200MHz
Multivalue
image resolution
converter
Gamma
correction block
2K-bit SRAM
96K-bit DRAM
CPU BUS

(3) Image LSI Specifications

The analog image data from the image sensor is amplified about 4.3 times in the external non-reverse amplifier circuit and the amplified analog data is input to this LSI chip. In this LSI chip, the analog data is converted to digital data by the built-in A/D converter and the digital data is corrected by the internal correction function, thus sending binary-coded data to the IOGA5 every eighth pixel normally. When contrast is corrected, multi-valued data is sent for each pixel. When horizontal scanning lines are skipped, a request is suppressed every three requests. A sensor drive signal (CLK1) and motor synchronizing signal (SH) are output to the image sensor.

The timing of data transfer to/from the IOGA5 is shown below.



A3.1.4 JBIG Control (Not for Fax 9830)

A3.1.4.1 Overview

JBIG control is performed by converting codes using the MN86064, a CODEC LSI chip that is fully compliant with ITU-T.85 (JBBIG Facsimile Application). Major functions of the MN86064 are listed below. The system configuration is shown on the next page.

- Coding/decoding (MH, MR, MMR, JBIG)
- Code conversion (between different types of codes)
- Scaling (Horizontal scanning = 0.1% to 400%; Vertical scanning = 0.006% to 400%)
- Decoding error processing (leading line or white line)
- Both ends white masking
- Time-division multiplexing

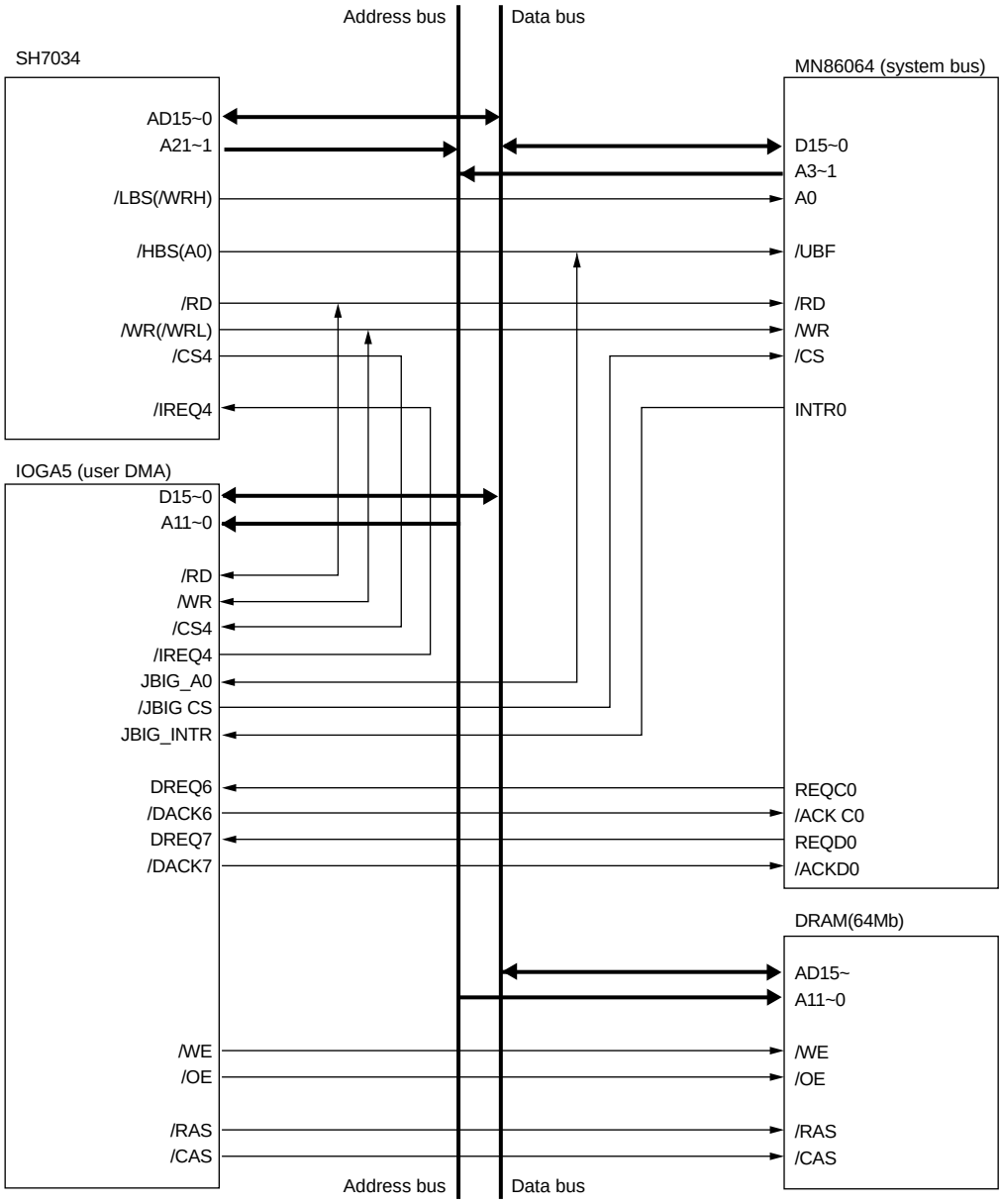
A3.1.4.2 Code conversion

At the time of reception, JBIG codes are converted to image data in this LSI chip. At the time of transmission, image data is converted to MMR data and then this MMR data is converted to JBIG data in this LSI chip.

A3.1.4.3 CPU access

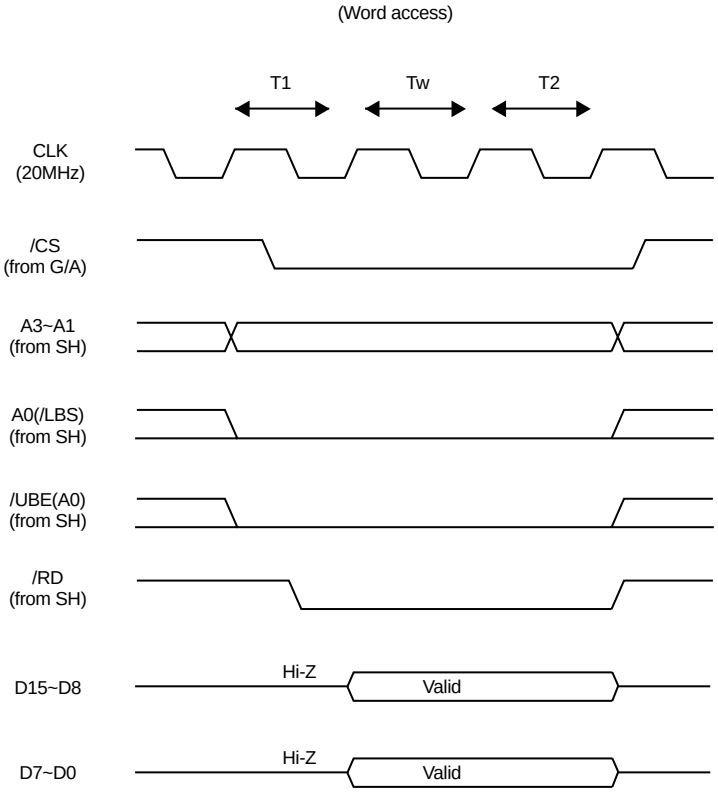
This LSI chip allows both 16-bit word access and 8-bit byte access. However, since this LSI has registers that allow only byte access, so it performs word access and byte access only in 16-bit spaces.
The CPU read (word access) timing chart is shown on the next page.

System Configuration



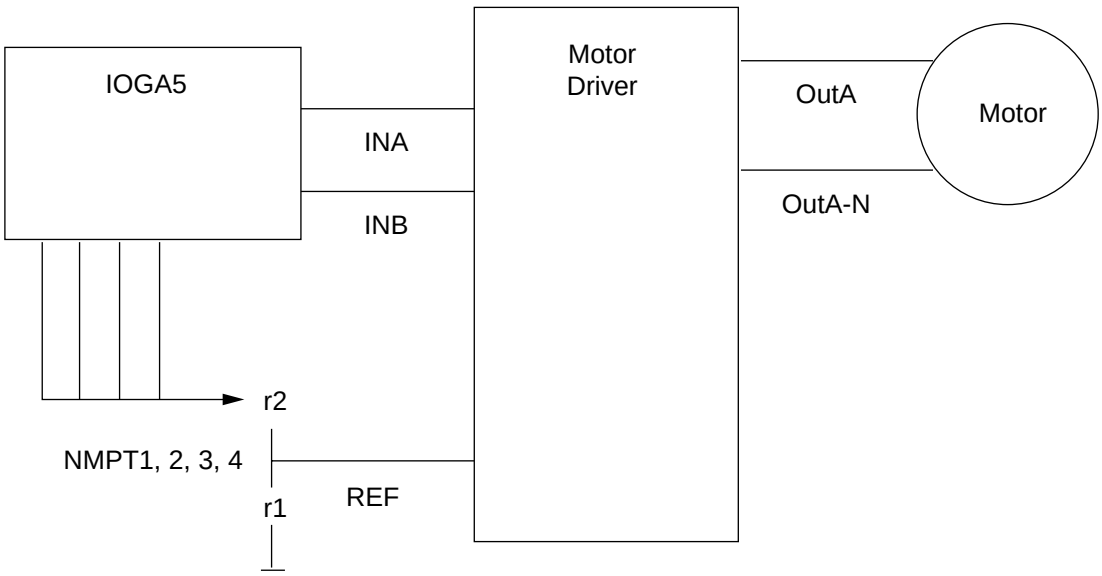
Note 1: JBIG_A0, /RD, and /WR of the IOGA5 are two-way pins.

The CPU read (word access) timing chart is shown below.



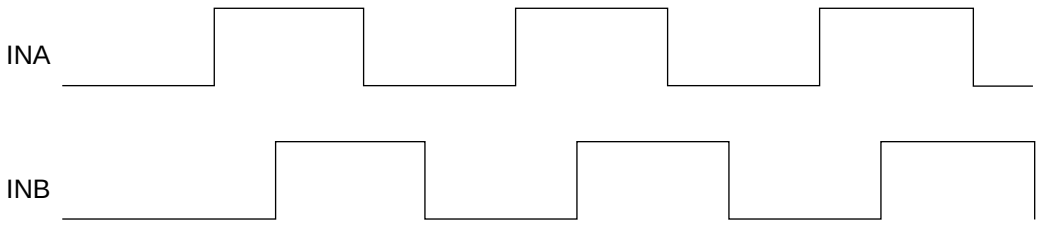
A3.1.5 Scanner Motor Control

The overall control circuit diagram is shown below.



Rotation of the scanner motor is controlled by the INA and INB signals output from the LSI chip (IOGA5) on the MCNT board. MNPT 1, 2, 3, and 4 signals change the reference voltage signal REF to alter the current values of scanner drive signals OutA and OutA-N, controlling the motor speed.

Waveforms of motor drive signals INA and INB are as follows:



A3.1.6 CPU Peripheral Circuits

A3.1.6.1 Memory

(1) DRAM

Size: 8 Mbytes (4 megabits x 16 bits; One chip)
Drive voltage: 3.3 V
The basic control signal is generated by the bus state controller incorporated in the CPU.

(2) Flash ROM

Size: 1.5 Mbytes (512K bits x 16 bits + 256K bits x 16 bits; A total of two chips)

A3.1.6.2 Peripheral elements

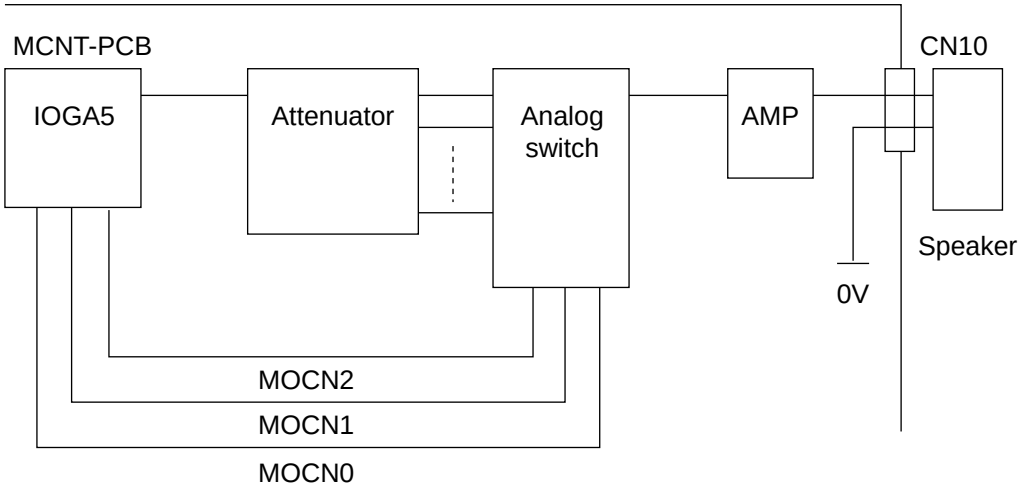
(1) Clock

A real-time clock IC (serial I/F) incorporating a crystal oscillator is used. Its basic frequency is 500 Hz. CPU pins 110 (RTCTXD), 109 (RTCDATA), and 112 (RTCCLK) are used as I/F signal pins. The drive voltage is 3 V and backed up by a dedicated lithium battery.

(2) Speaker drive circuit

A tone switching output board is used to switch between the 2441 Hz waveforms output from the LSI chip (IOGA5), issuing various buzzer sounds, key touch sound, ringing tone and line monitor sounds.

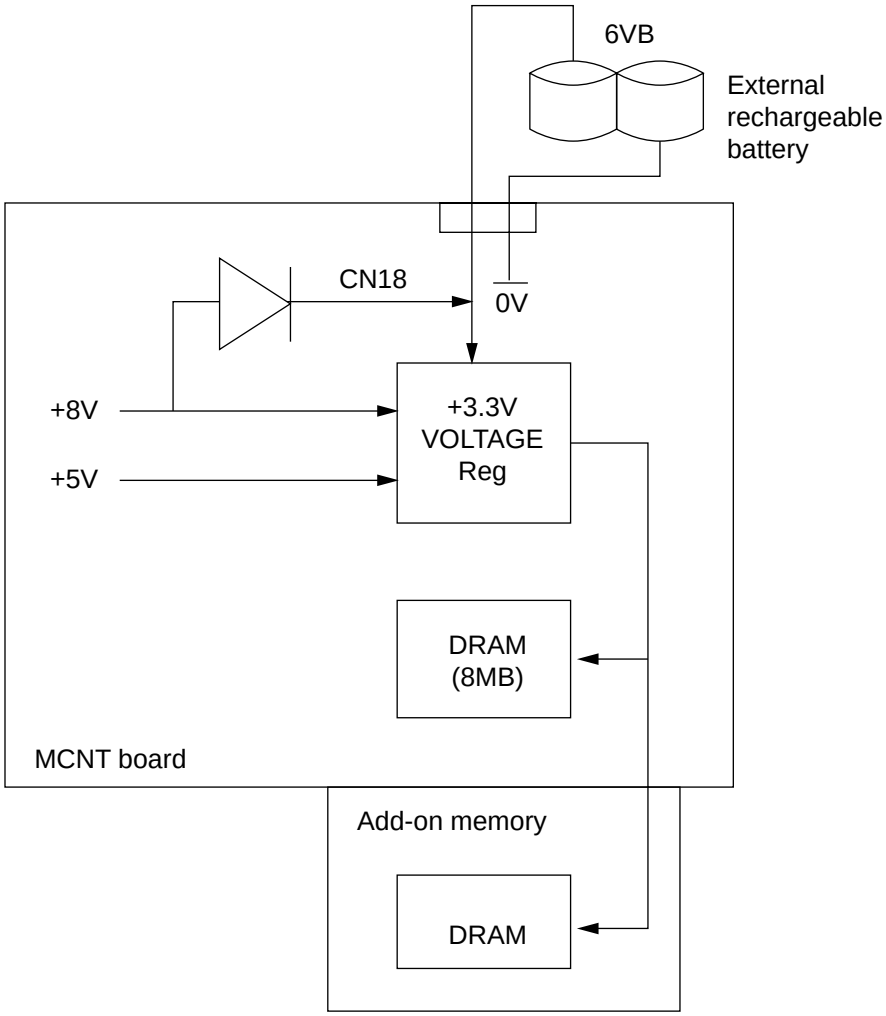
A block diagram is shown below.



A3.1.6.3 Backup circuit

A rechargeable battery connected to the MCNT board externally supplies 6 V to the IC inside the MCNT board. This voltage is reduced to 3.3 V to be supplied to the DRAM and optional add-on memory. Thus, send/received data stored in the DRAM and optional add-on memory can be retained after power-off.
When the power is turned on, the internal IC reduces the +8 V and +5 V supplied from low-voltage power supplies down to 3.3 V, which is supplied to the DRAM. At the same time, +8 V is supplied to the external battery for recharging.

A block diagram is shown below.



A3.1.6.4 Fan control

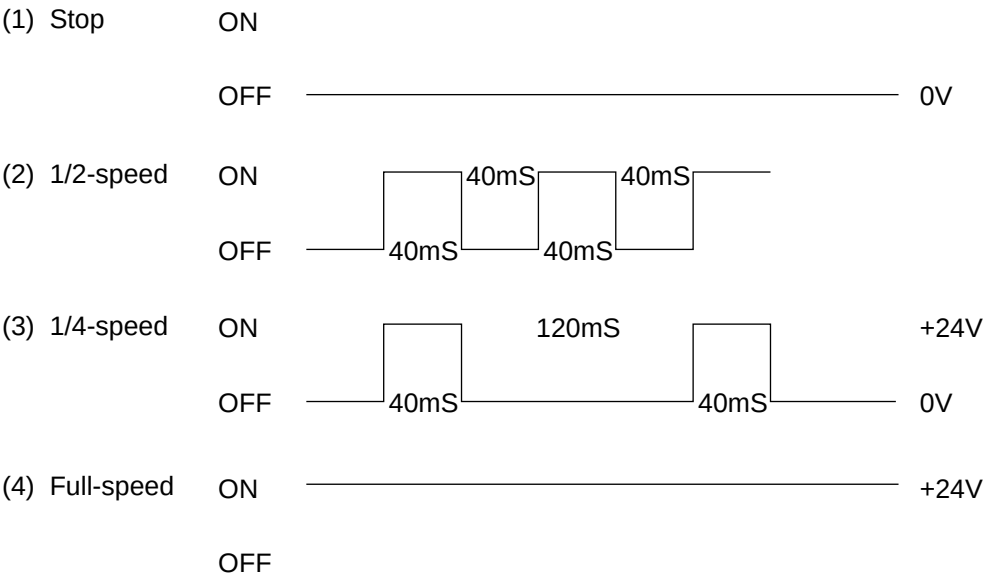
One of the following fan control modes is selected depending on the heater temperature and system status.

(1) Stop

(2) 1/2-speed

(3) 1/4-speed

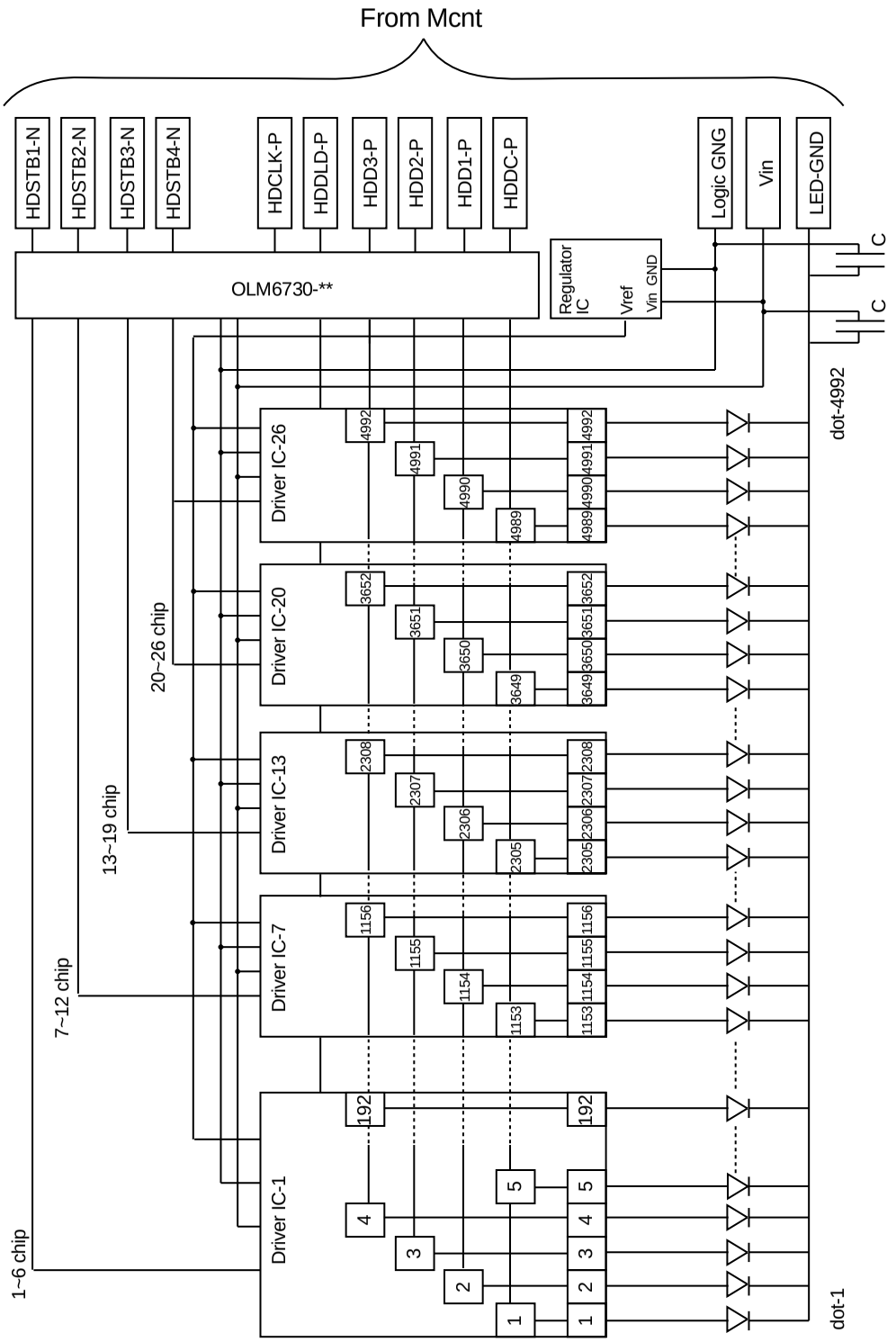
(4) Full-speed



To detect fan errors, the fan sensor (FANALM-P) is monitored in the full speed mode. The fan sensor is not monitored for 3 seconds after the start of full speed operation taking into account the fan sensor output determination time.
The fan sensor is not monitored when the fan is rotating at 1/2 or 1/4 speed or it is at halt.

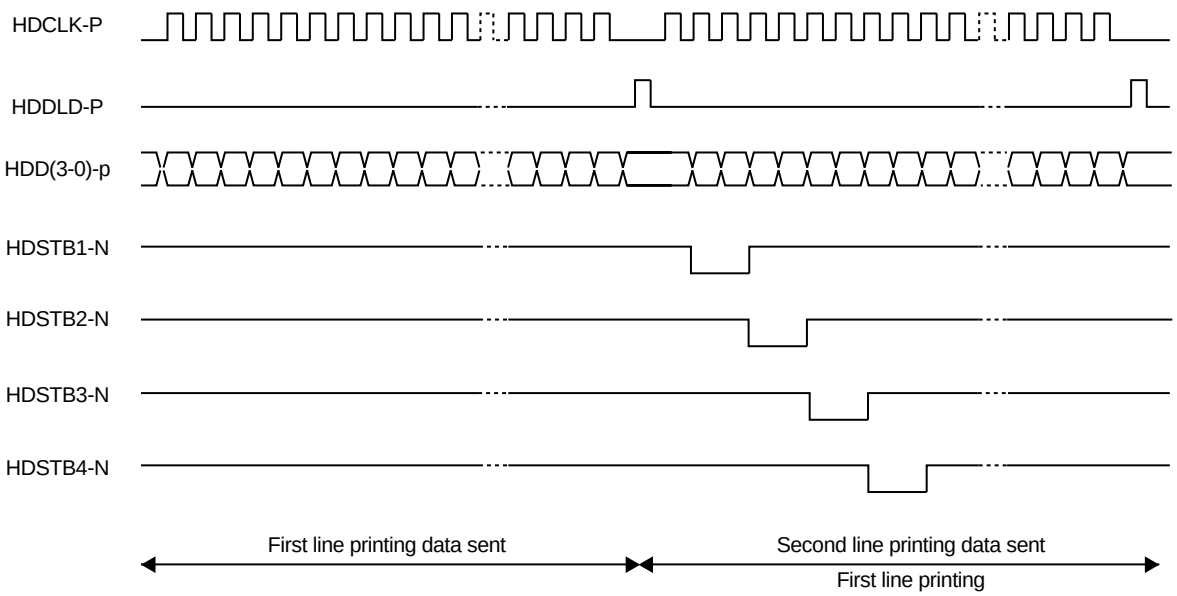
A3.1.7 LED Head Control

The IOGA5 on the MCNT board transfers image data to the LED head. After receiving the image data, the LED head illuminates in the next line cycle, exposing the drum. The head's internal block diagram is shown below. The timing charge is shown on the next page.



Head's Internal Block Diagram

Normal Mode Printing Timing Chart



A3.1.8 Heater Control

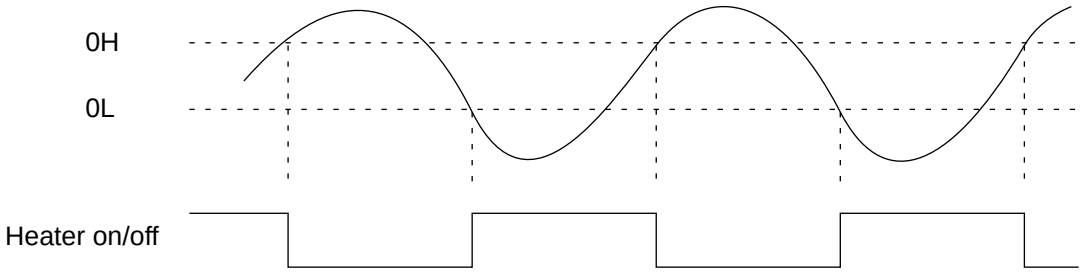
The heater temperature is controlled based on the 8-bit digital data obtained by performing serial communication with the high-voltage power supply unit taking into account the system status, paper size, paper source, and setting menu.

This system drives the drum motor and resist motor to feed paper before the fusing temperature is reached, thus starting printing as soon as possible after call termination.

If fusing is started immediately after the fusing temperature is reached, paper is liable to be wrinkled because of an overshoot.

To prevent this, fusing on the first sheet is started at a temperature lower than the normal fusing temperature.

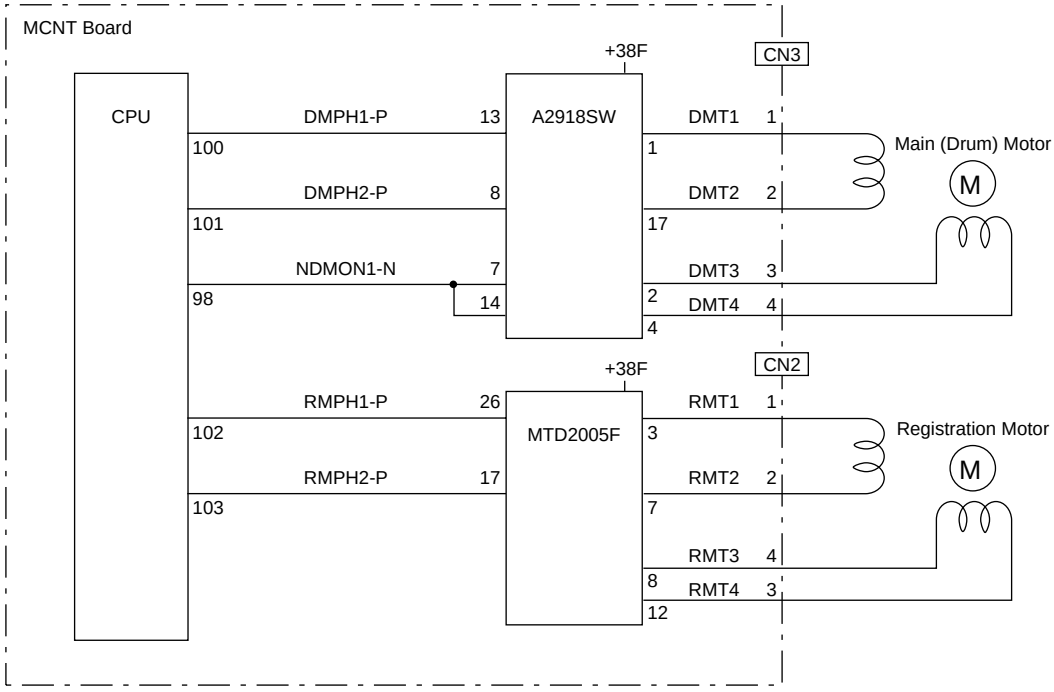
If an attempt is made to turn on/off the heater at an AD conversion value to maintain the temperature at a certain level, the heater may be turned on and off repeatedly due to AD conversion accuracy or noise, overloading the halogen lamp. To prevent this, the temperature at which the heater is turned on is separated far from the temperature at which the heater is turned off.



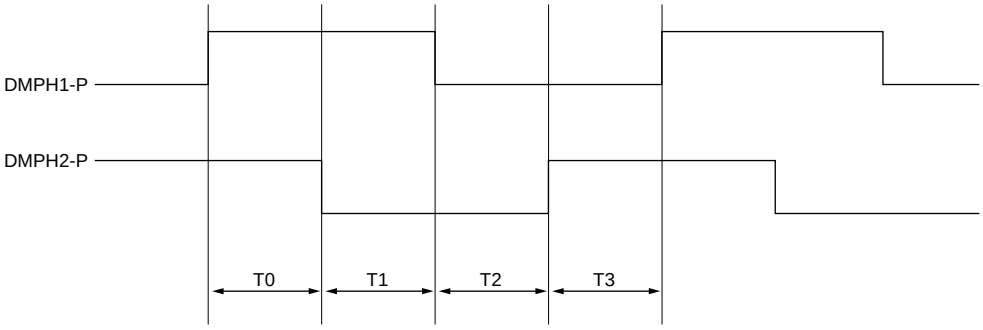
A3.1.9 Printer Motor Control

(1) Registration and main (drum) motors

A registration motor and a drum motor are driven by means of control signals from the CPU and a driver IC.

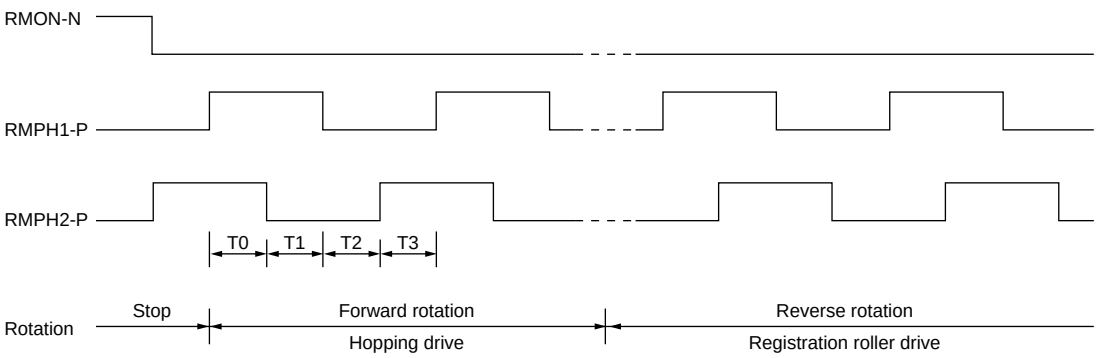


(2) Drum motor



Operation at normal speed: T0 to T3=1.016 ms

(3) Registration motor



Operation at normal speed: T0 to T3 = 1.016 ms

(4) Drive control

Time T0 to T3 determines the motor speed, while the difference of phase direction between phase signals DMPH1-P and DMPH2-P (RMPH1-P and RMHPH2-P) determines the rotation direction, DMON1-N signals control a motor coil current. According to the polarity of the phase signal, the coil current flow as follows:

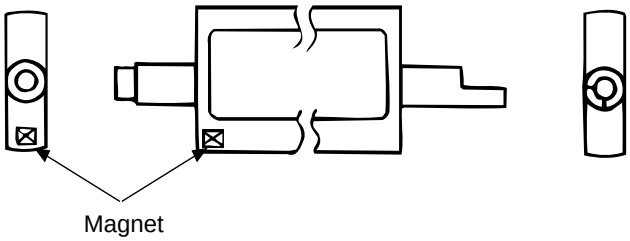
1) +38V → SW → motor coil → $\overline{SW}$ → resistor → earth, or,

2) +38V → $\overline{SW}$ → motor coil → SW → resistor → earth

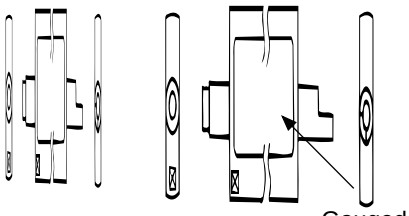
The voltage drop across the reisistor is input to comparator, where it is compared with a reference voltage. If an overcurrent flow occurs, a limiter operates to maintain it within a certain fixed amount of current.

A3.1.10 Toner Low Detection

- Device
  The Toner Low Detection device consists of a stirring gear which rotates at a constant rate, a stiring bar and a magnet on the stirring bar. The stirring bar rotation is driven by the link to the gouged portion in the stirring gear.



Stirring Bar

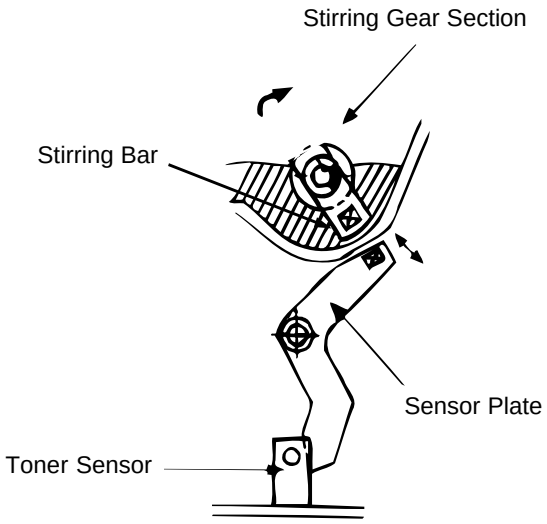


Stirring Gear

- Operation
  Toner Low is detected by monitoring the time interval of the encounter of the magnet set on the sensor plate and the magnet on the stirring bar.

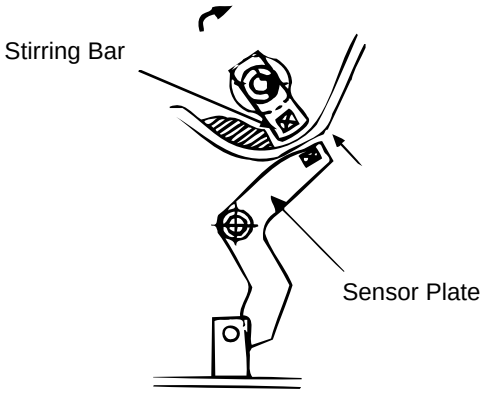
Operation during Toner Full state

- The stirring bar rotates due to the mechanical transmission of energy originating from the interlocking with the stirring gear.
- Even when the magnet on the stirring bar reaches the maximum height, the stirring bar is pushed by the stirring gear, since the other side is being dipped in the toner.

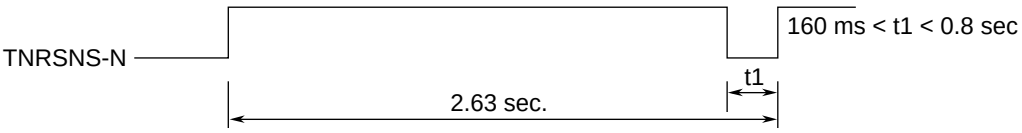


Operation during Toner Low state

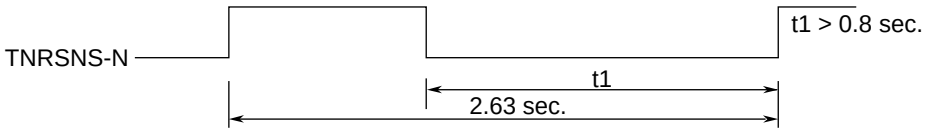
- When the stirring bar reaches the maximum height, it falls to the minimum height due to its own weight, since there is no resistance provided by the toner on the other side. Because of this, the time interval during which it is in encounter with the magnet of the sensor plate becomes longer. By monitoring this time interval, Toner Low state can be detected.



TONER FULL state



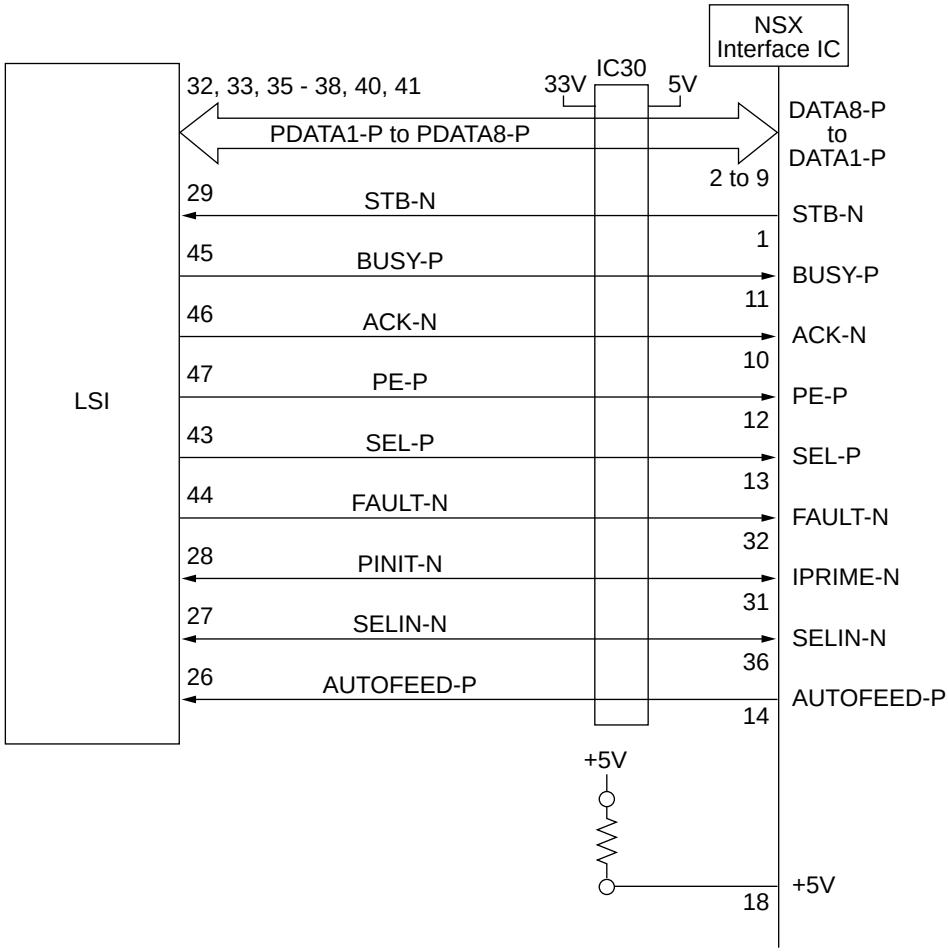
TONER LOW state

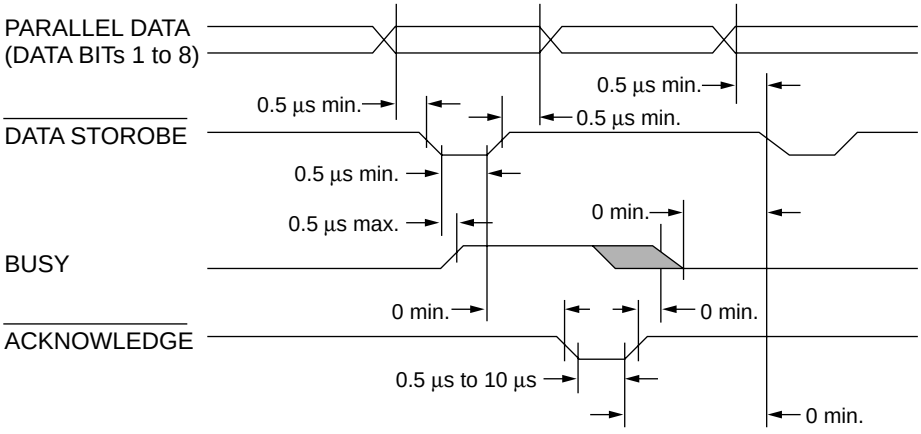


- When the Toner Low state is detected 2 times consecutively, Toner Low is established.
- When the Toner Full state is detected 2 times consecutively, Toner Low is cancelled.
- When there is no change with the toner sensor for 2 cycles (2.63 sec. x 2) or more, then the Toner Sensor Alarm is activated.
- The toner sensor is not monitored while the main (drum) motor is in a halt.

A3.1.11 Centronics Parallel Interface

The LSI sets a BUSY-P signal to ON at the same time when it reads the parallel data (PDATA1-P to PDATA8-P) from the parallel port at the fall of STB-N signal. Furthermore, it makes the store processing of receiving data into a receive buffer terminate within a certain fixed time and outputs an ACK-N signal, setting the BUSY-P signal to OFF.





A3.1.12 Electrophotographic Process

The electrophotographic processing is outlined below. The electrophotographic printing process is shown in Figure 2-4.

1 Charging

The surface of the image drum is charged uniformly with a negative charge by applying the negative voltage to the charge roller.

2 Exposure

Light emitted from the LED head irradiates the negatively charged surface of the image drum. The surface potential of the irradiated portion of the image drum surface becomes lower, forming the electrostatic latent image associated with the print image.

3 Developing and toner recovery

When the negatively charged toner is brought into contact with the image drum, it is attracted to the electrostatic latent image by static electricity, making the image visible.

At the same time, the residual toner on the image drum is attracted to the developing roller by static electricity.

4 Transfer

When paper is placed over the image drum surface, the positive charge which is opposite is polarity to that of the toner, is applied to the reverse side of the paper by the transfer roller. The toner is attracted by the positive charge and is transferred onto the paper. This results in the transfer of the toner image formed on the image drum onto the paper.

5 Temporary cleaning

Residual toner which remains on the image drum without being transferred is evened out by the cleaning roller and is temporarily attracted to the cleaning roller by static electricity.

6 Fusing

The toner image transferred onto the paper is fused to the paper by heat and pressure.

An electrophotographic process timing chart is shown in Figure 2-5.

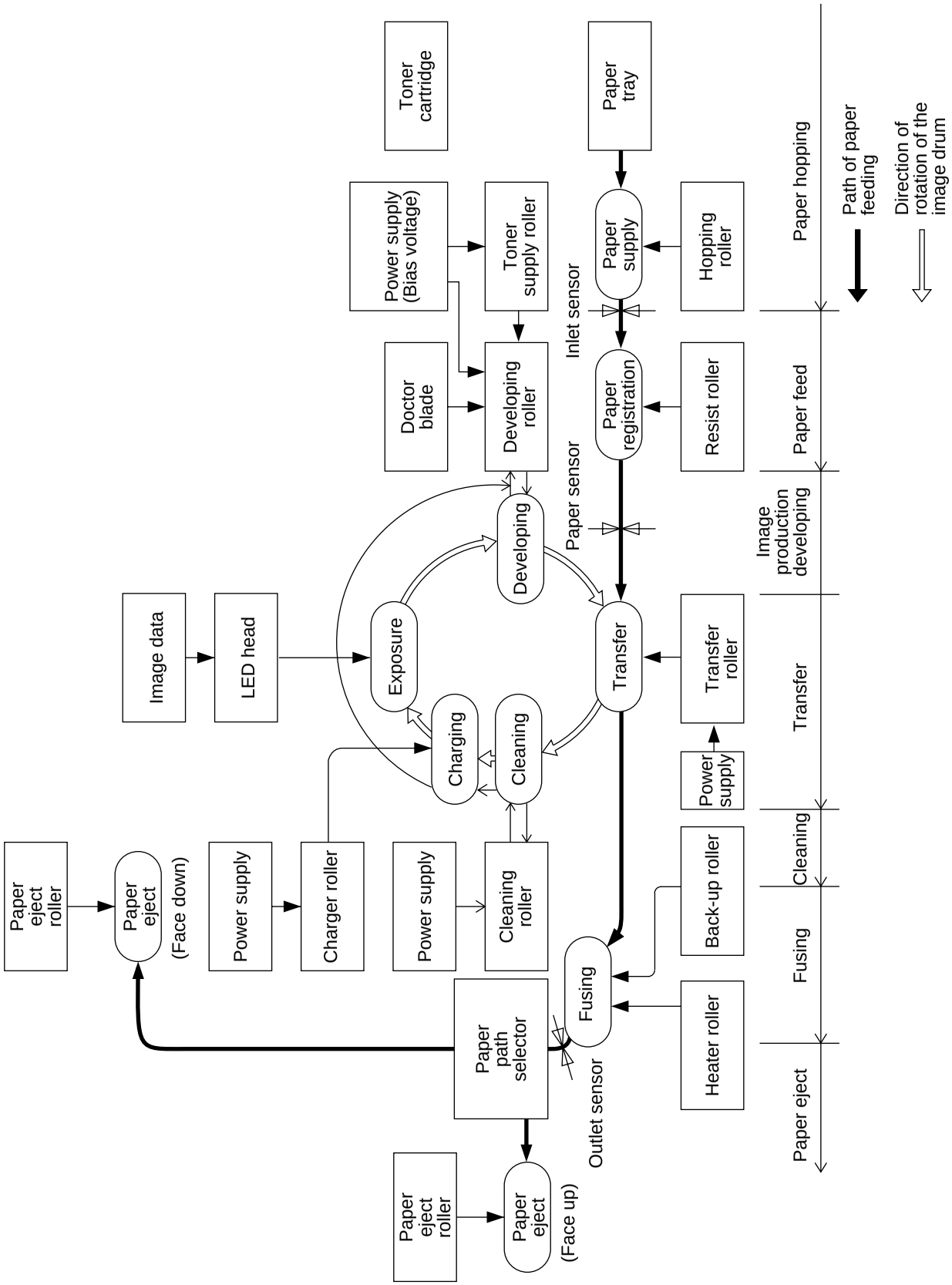

Paper eject roller
Paper eject
(Face down)
Power supply
Charger roller
Power supply
Cleaning roller
Paper path selector
Fusing
Paper eject roller
Paper eject
(Face up)
Outlet sensor
Heater roller
Back-up roller
Power supply
Transfer roller
Transfer
Paper registration
Paper sensor
Resist roller
Inlet sensor
Paper supply
Hopping roller
Paper tray
Image data
LED head
Exposure
Charging
Cleaning
Developing
Developing roller
Doctor blade
Power supply (Bias voltage)
Toner supply roller
Toner cartridge
Paper hopping
Paper feed
Image production developing
Transfer
Cleaning
Fusing
Paper eject
Path of paper feeding
Direction of rotation of the image drum

Fig. 2-4

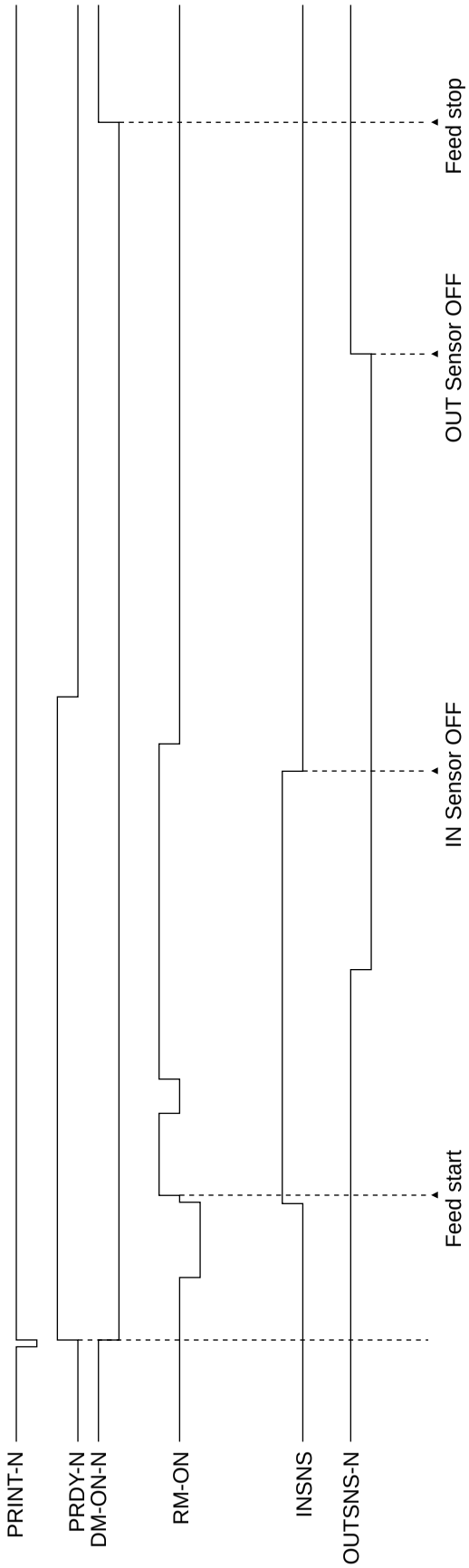
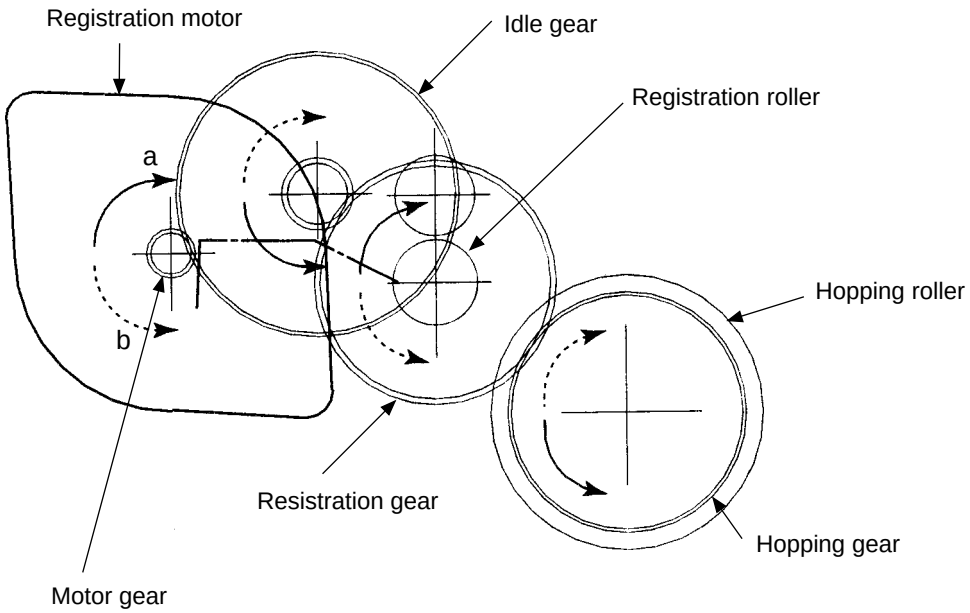

PRINT-N
PRDY-N
DM-ON-N
RM-ON
INSNS
OUTSNS-N
Feed start
IN Sensor OFF
OUT Sensor OFF
Feed stop

Fig. 2-5

A3.1.12.1 Process Operation Descriptions

(1) Hopping and Feeding

Hopping and feeding motions are actuated by a single registration motor in the mechanism as shown below:

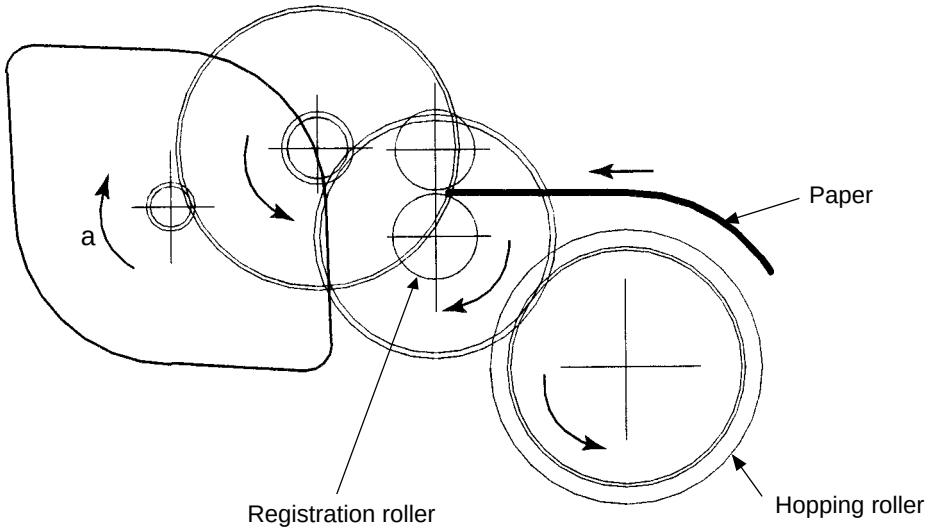


The registration motor turning in direction "a" drives the nopping roller. The registration motor turning in direction "b" drives the registration roller. The registration and hopping gears have one-way bearing, so turning any of these gears in the reverse direction will not transmit the motion to the corresponding roller.

(a) Hopping

1 For hopping, the registration motor turns in direction "a" (clockwise direction) and drives the hopping roller to advance the paper until the inlet sensor turns on (in this case, the registration gear also turns, but the registration roller is prevented from turning by the one-way bearing.)

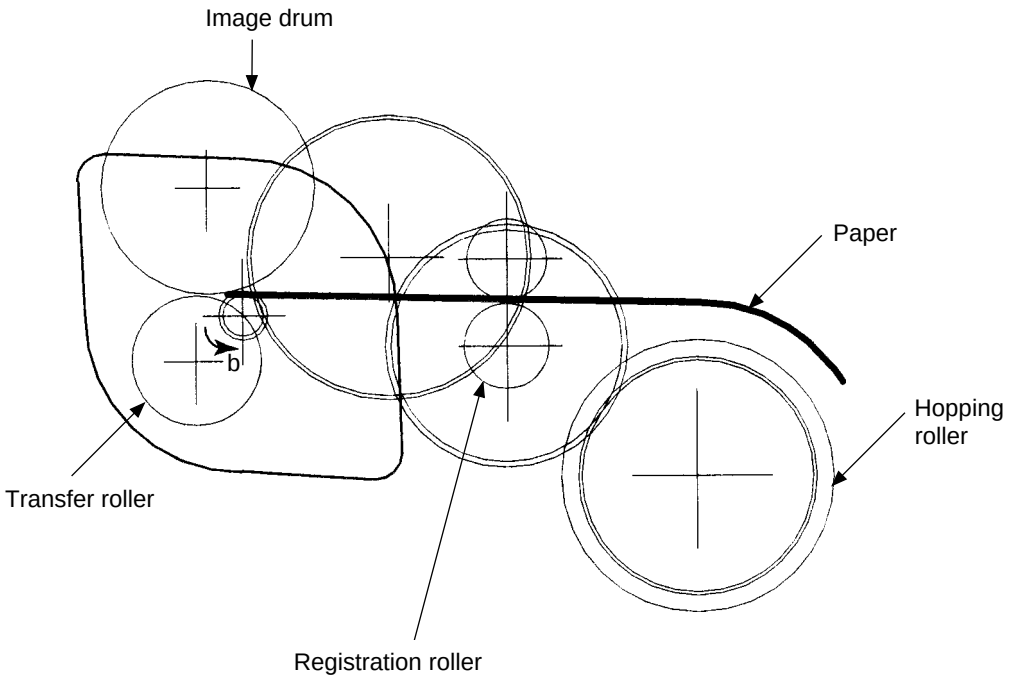
2 After inlet sensor is turned on by the paper advence, the paper is further advanced to a predetermined distance until the paper hits the registration roller (the skew of the paper can thus be corrected.)



(b) Feeding

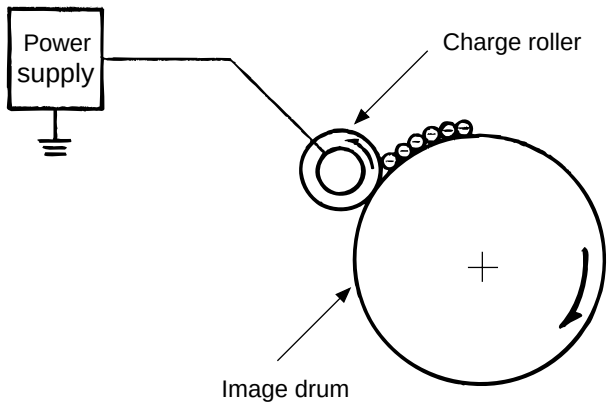
1 When hopping is completed, the registration motor turning in direction "b" (counter-clockwise direction) drives the registration roller to advance the paper (in this case, the hopping gear also turns, but the hopping roller is prevented from turning by the one-way bearing.)

2 The paper is further advanced in synchronization with the print data.

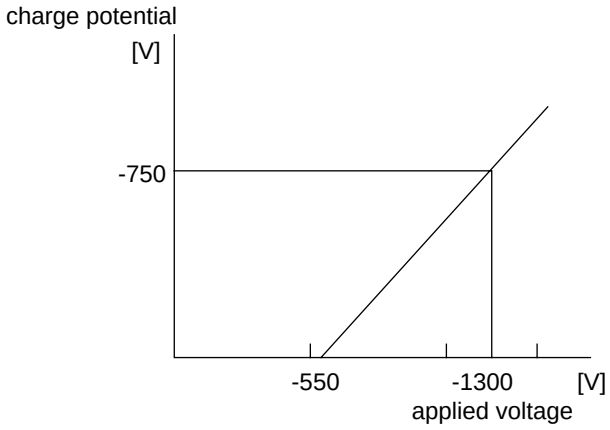


(2) Charging

Charging is actuated by appliciation of the DC voltage to the charge roller thta is in contact with the image drum surface.

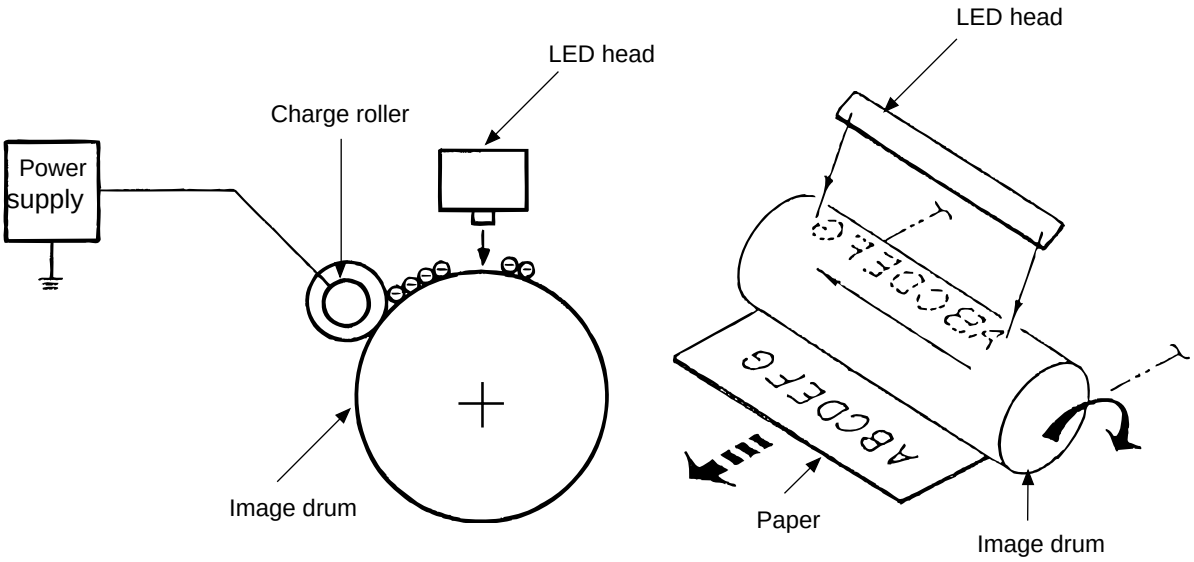


The charge roller is composed of two layers, a conductive layer and a surface protective layer, both having elasticity to secure good contact with the image drum. When the DC voltage applied by the power supply exceeds the threshold value, charging begins. The applied voltage is proportional to the charge potential, with offset of approximately -550V.

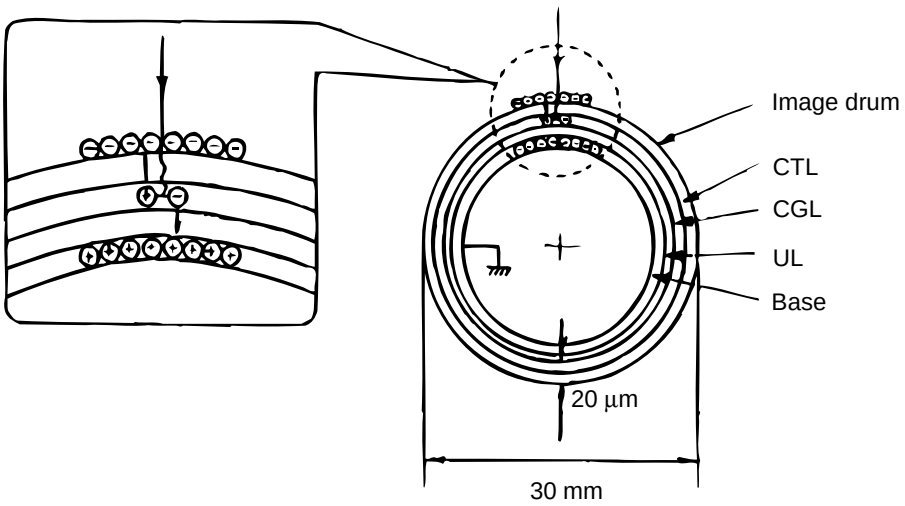


(3) Exposure

Light emitted by the LED head irradiates the image drum surface with a negative charge. The surface potential of the irradiated portion of the image drum drops, forming an electrostatic latent image associated with the image signal.



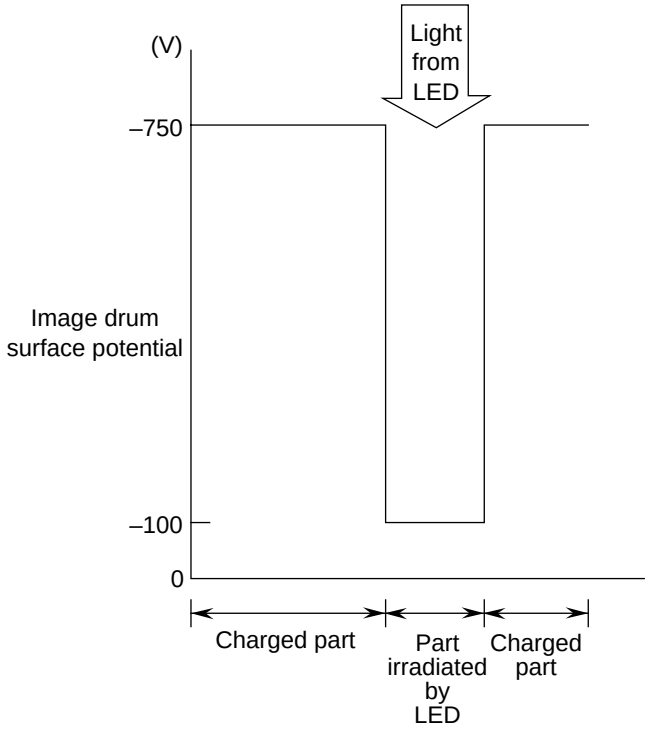
The image drum is coated with an underlayer (UL), a carrier generation layer (CGL), and carrier transfer layer (CTL) on aluminum base. The organic photo conductor layer (OPC), comprising a CTL and a CGL, is about 20 µm thick.



The image drum surface is charged to about -750 V by the contact charge of the charge roller.

When the light from the LED head irradiates the image drum surface, the light energy generates positive and negative carriers in the CGL. The positive carriers are moved to the CTL by an electrical field acting on the image drum. Likewise, the negative carriers flow into the aluminum layer (ground).

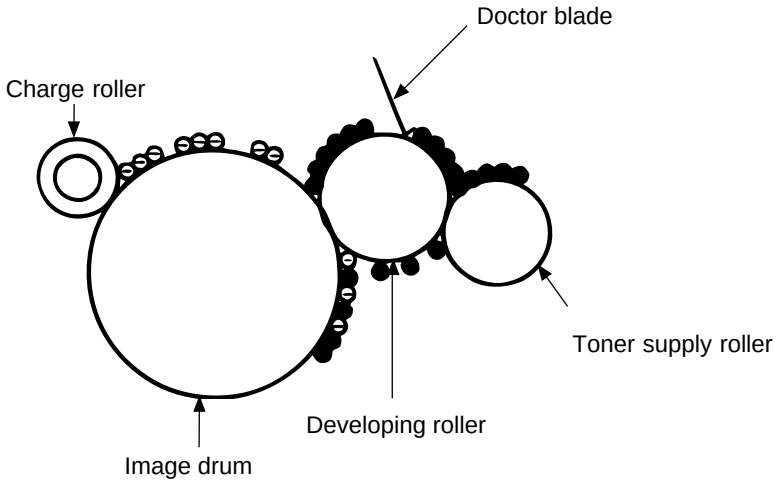
The positive carriers moved to the CTL combine with the negative charges on the image drum surface accumulated by the contact charge of the charge roller, lowering the potential on the image drum surface. The resultant drop in the potential of the irradiated portion of the image drum surface forms an electrostatic latent image on it. The irradiated portion of the image drum surface is kept to about -100 V.



(4) Developing

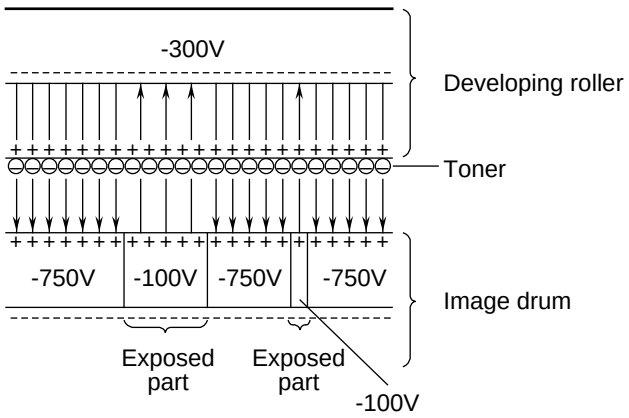
Toner is attracted to the electrostatic latent image on the image drum surface, converting it into a visible toner image. Developing takes place through the contact between the image drum and the developing roller.

1 As the toner supply roller rotates while rubbing on the developing roller, a friction charge is generated between the developing roller and the toner, allowing the toner to be attracted to the developing roller (the developing roller surface is charged positive and the toner, negative.)



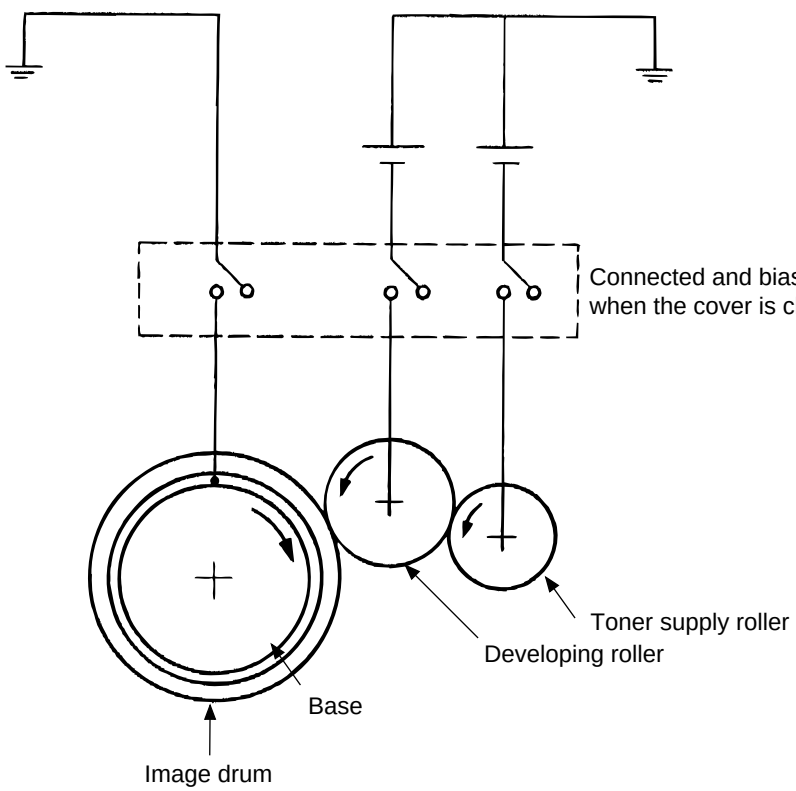
2 The toner attracted to the developing roller is scraped off by the doctor blade, forming a thin coat of toner on the developing roller surface.

3 Toner is attracted to the exposed portion (low-potential part) of the image drum at the contact of the image drum and the developing roller, making the electrostatic latent image visible.



An illustration of activities at the contact point of the image drum surface and the developing roller (arrow marks denote the direction of the electrical field).

Note: The bias voltage required during the developing process is supplied to the toner supply roller and the developing roller, as shown below. -500 VDC is supplied to the toner supply roller, -265 VDC to the developing roller.

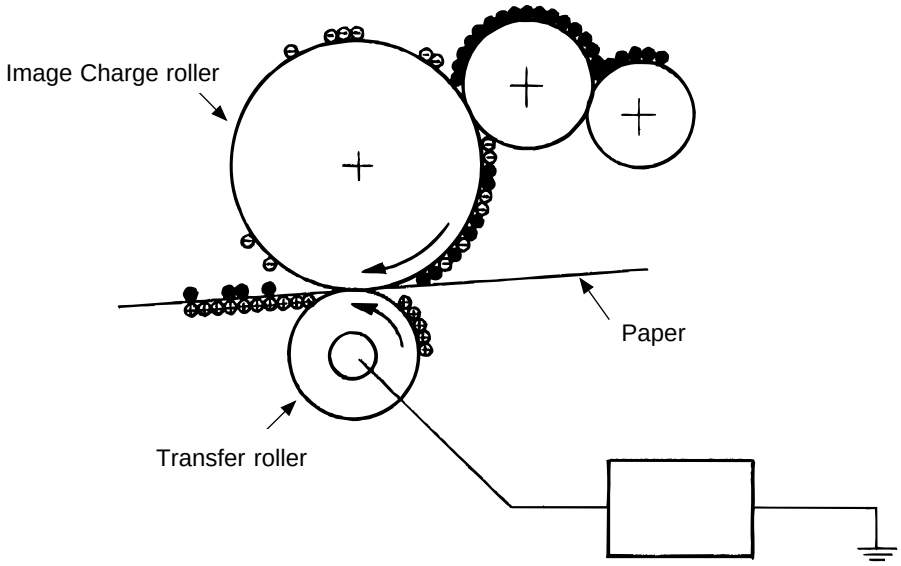


(5) Transfer

The transfer roller is composed of conductive sponge material, and is designed to get the image drum surface and the paper in a close contact.

Paper is placed over the image drum surface, and the positive charge, opposite in polarity to that of the toner, is applied to the paper from the reverse side.

The application of a high positive voltage the from the power supply to the transfer roller causes the positive charge inducement on the transfer roller surface, transferring the charge to the paper as it contacts the transfer roller. The toner with negative charge is attracted to the image drum surface, and it is transferred to the upper side of the paper due to the positive charge on the reverse side of the paper.

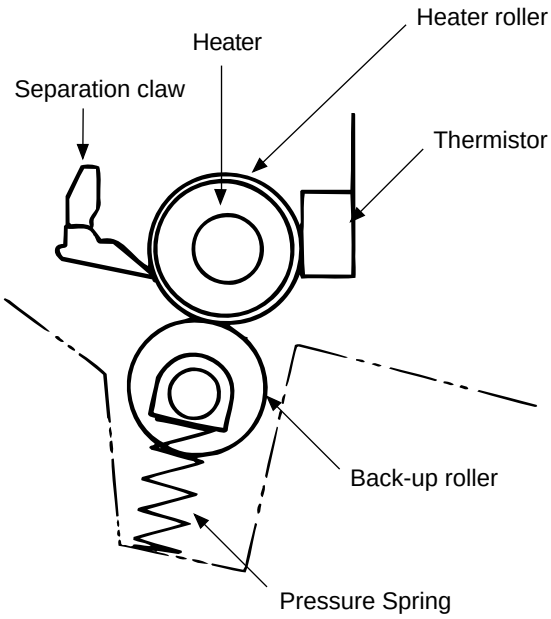


(6) Fusing

After the end of the transfer operation, the unfused toner image is fused on the paper under heat and pressure as it passes between the heater roller and the back-up roller. The heater roller with a Teflon coating incorporates a 500 W heater (Halogen lamp), which heats the heat roller.

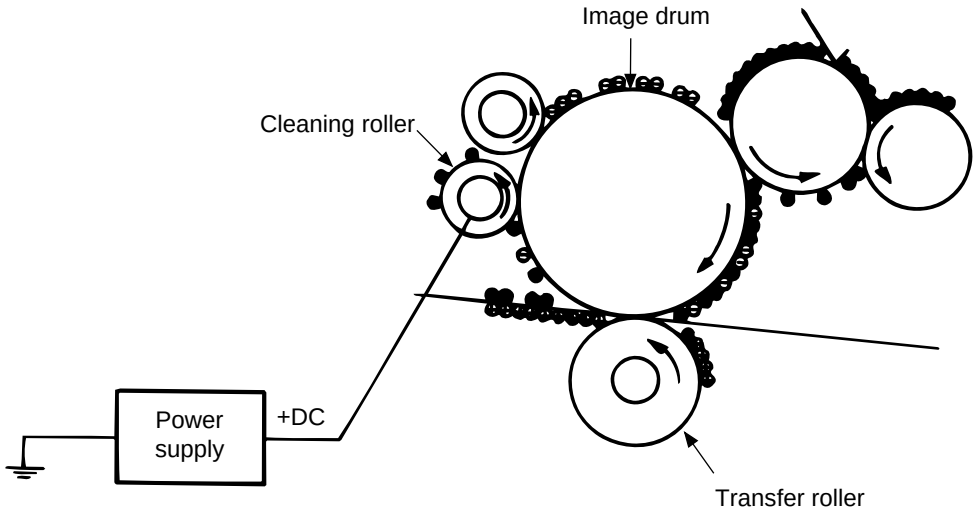
A thermister, which is in contact with the heater roller regulates the heater roller at a predetermined temperature (about 185 ½C). A safety thermostat cuts off voltage supply to the heater by opening the thermostat in the event of abnormal rise in temperature.

The back-up roller is held under a pressure of 3.76 kg applied by the pressure spring on each side.



(7) Cleaning

When the transfer is completed, the residual toner left on the image drum is attracted to the cleaning roller temporarily by static electricity, and the image drum surface is cleaned.



(8) Cleaning of rollers

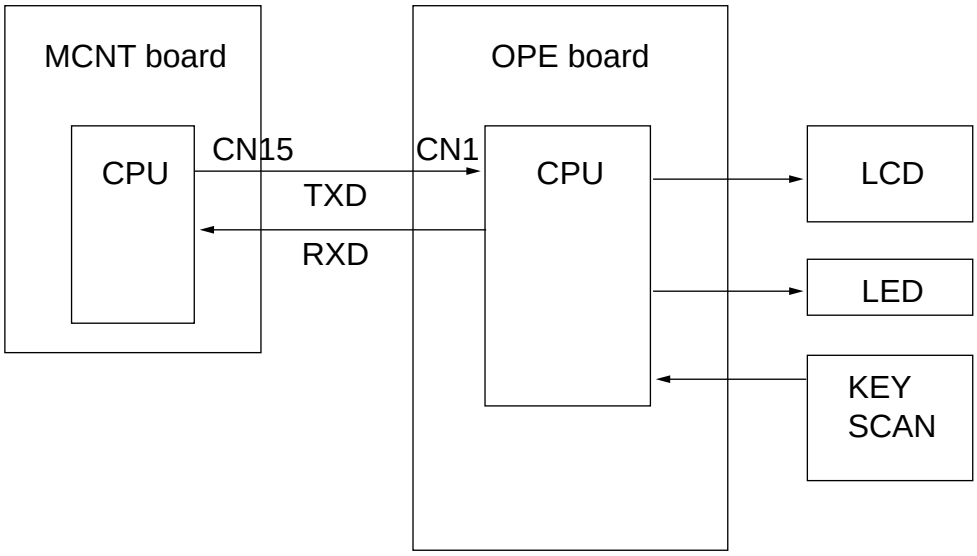
The charge, transfer and cleaning rollers are cleaned for the following cases:

- Warning up when the power is turned on.
- Warning up after the opening and closing of the cover.
- When the number of sheets accumulated reaches 10 or more, and the printout operation ends.

Changes in bias voltage applied to each roller move attaching toner off the roller to the image drum and return it to the developer.

A3.2 OPE Control

The rough block diagram of the OPE panel is shown below.



Host Interface

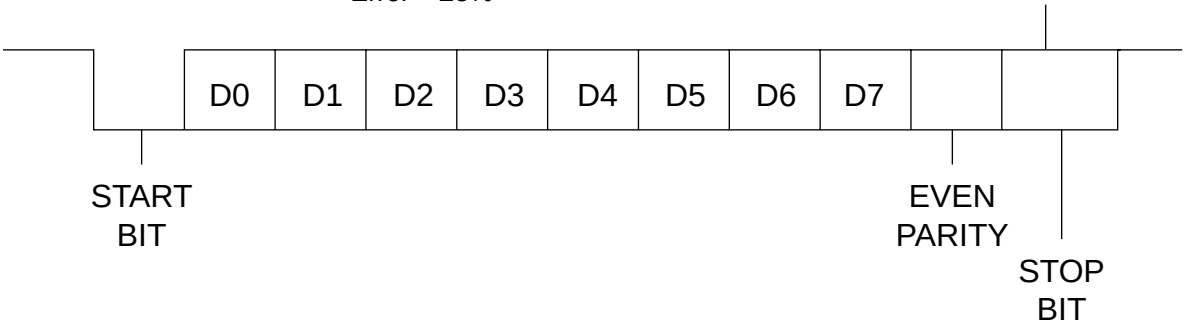
Between the MCNT and OPE, serial data is transferred via the SIO incorporated in the CPU.

<Communication method>

1) Communication method: Start-stop synchronization
2) Transfer rate: 5832 bps
3) Data length: 8 bits

<Data configuration>

1) Status bit: 1 bit
2) Data: 8 bits
3) Even parity: 1 bit (ignored by OPE)
4) Stop bits: Bits 1 and 5
   Error = ±5%

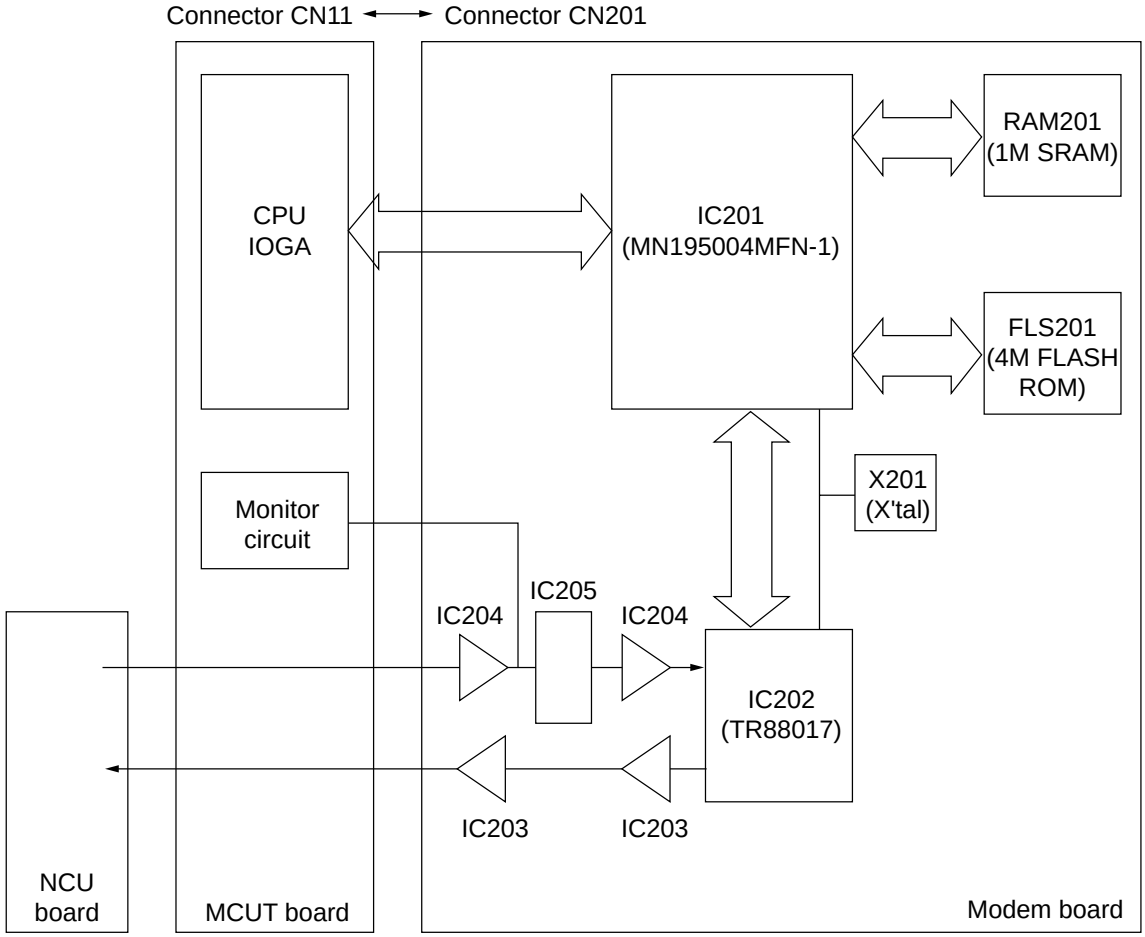


A3.3 MODEM C34 PC Board

Functional Overview

- ITU-T V.34 half-duplex transmission/reception (for image data)
- ITU-T V.33/V.17 transmission/reception (for image data)
- ITU-T V.29 transmission/reception (for image data)
- ITU-T V.27ter transmission/reception (for image data)
- ITU-T V.21 30-bps transmission/reception (for handshaking procedure)
- ITU-T V.8 transmission/reception (for V.34 negotiation procedure)
- HDLC framing
- Single tone issue/detection (CNG signal, CED signal, etc.)
- Dial tone/busy tone detection
- DTMF signal issue/detection
- Pseudo ring back tone
- Automatic gain control
- Amplifier
- A/D and D/A converters

Block diagram



LSI, IC, and Memory

- X201 (Crystal)
  * Crystal oscillator: 24.5760 MHz

- IC201 (MN195004MFN-1)(Modem data pump)
  This LSI provides an interface with the host CPU. It is the heart of the modem. It consists of digital signal processing circuits.

- IC202 (TR88017) (Analog front end)
  An analog front end LSI that provides an interface between the line controller and the MN195004. It consists of analog circuits. It has two channels of 16-bit A/D and D/A converters.

- FLS201 (4MFASH memory)
  A memory for storing the MN195004MFN-1 program. * This program cannot be loaded by the PC loading method.

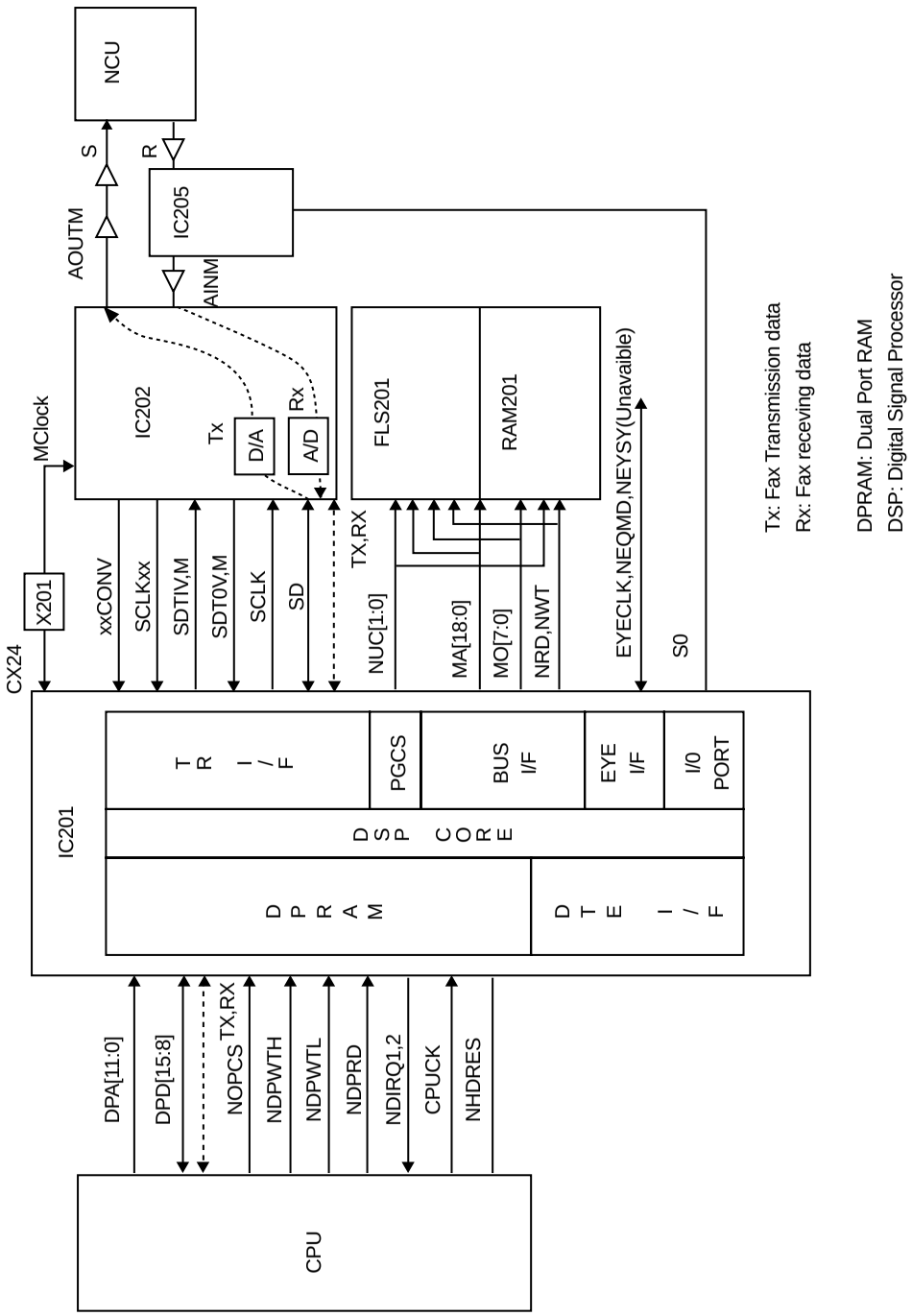
- RAM201 (High-speed 1MSRAM)
  A memory for storing the MN195004MFN-1 program.
  The modem operates by loading the program from the flash memory to the SRAM.

- IC205 (Analog switch IC)
  Gain control

Power supply voltages

- Digital +5 VD
- Analog +5 VA/-8 VA

Signal route



IC201 Pin Assignment

IC202 Pin Assignment

Destination	Description	Signal name	Pin No.		Pin No.	Signal name	Description	Destination
IC201		SCLK	1		24	VBAUD		IC201
IC201	Transmission/Reception Data (Digital)	SD	2		25	SCKL2T		IC201
					30	SCKL2R		IC201
IC201	Reset Signal	RESET	3		26	TMCONV		IC201
IC201		SDTIM	27		29	RMCONV		IC201
X201	X'tal Clock (24.5760Mhz)	MCLOCK	39		28	SDTOM		IC201
IC201		SDTIV	33		31	SCLK1T		IC201
IC204	Received Data (Analog)	AINM	11		36	SCLK1T		IC201
MCNT PCB	+5 Volt Supply (Digital)	+5VD	42		32	TVCONV		IC201
MCNT PCB	+5 Volt Supply (Analog)	+5VA1	6		35	RVCONV		IC201
MCNT PCB	+5 Volt Supply (Analog)	+5VA2	10		34	SDTOV		IC201
—	Ground (Digital)	DGND1	40		38	TMBAUD		IC201
—	Ground (Digital)	DGND2	41		9	AOUTM	Transmission Data (Analog)	MCNT
—	Ground (Analog)	AGND1	8					
—	Ground (Analog)	AGND2	12		13	VREF	Ground (Analog)	—
—	Ground (Analog)	AGND3	4					
—	Ground (Analog)	AGND4	14					

A3.4 UNC, WN5, FN5 and DN5 Circuit Diagram

The NCU board is selected from UNC, WN5, FN5 and DN5 because it differs depending on country's specifications. Therefore, the NCU circuit diagram is destined for the following countries.

- UNC circuit diagram
  US and Canada.

- WN5 circuit diagram
  Sweden, Finland, The Netherlands, Ireland, Portugal, New Zealand, Australia, Belgium, Spain, Greece, Norway, Denmark, Italy, and other countries.

- FN5 circuit diagram
  France and UK

- DN5 circuit diagram
  Germany, Switzerland and Austria.

1. Block diagram

   - Figure A3.4.1 shows a block diagram of UNC circuit.
   - Figure A3.4.2 shows a block diagram of WN5 circuit.
   - Figure A3.4.3 shows a block diagram of FN5 circuit
   - Figure A3.4.4 shows a block diagram of DN5 circuit.

2. General functions of this circuit are as follows:

   1) Generates and detects signals to be exchanged with a telephone exchange or network in Phases A and E defined by ITU T.30.
      - Loop formation for call origination
      - Line current detection (see note 1) before call origination
      - Dial tone detection (see note 1)
      - Generation of dial pulses (see note 2)
      - Busy tone detection (see note 1)
      - Ringing signal detection

   2) Sends various data and signals from the R51 board to the telephone line after amplification.
      - Picture data/Protocol/Tonal signals/PB tone, etc.

   3) Sends the following signals received from the line to the R51 board as data after amplification.
      - Picture data/Protocol/Tonal signals, etc.

      Note 1: This procedure may be omitted depending on the dial parameters.
      Note 2: MF (Multi-frequency) tone is generated by the modem and transferred to the telephone line via the NCU board.

3. Explanation on CN3 Terminals

CN3 pin No.	Terminal name	Explanation	UNC (US.CA)	WN5 (INT'L)	DN5 (D.A.CH)	FN5 (F.UK)
1	REV2	Detection and output of the direction of DC line current.	*	*	*	*
2	OH2	Detection of off-hook of terminal connected to TEL-1 or TEL-2.				
3	OH1	Output upon circuit current detection after fax line seizure	*	*	*	*
4	RI	0 - 5 V signal output synchronized with the ringing signal frequency				
5	NC	Unused terminal	*	*	*	*
6	PP	Relay control signal for special service code detection at parallel pickup or remote reception				
7, 8	E	GND				
9, 10	sub + 5 V	Sub power supply for OH2 and RI detection				
11, 12	+ 5 V	Power supply for relays and logic circuits				
13, 14	+ 5 VA	+5 V power supply for analog circuit	*	*		*
15, 16	S	TX Signal				
17, 18	– 5 VA	– 5 V power supply for analog circuit	*	*		*
19, 20	R	RX Signal				
21, 22	SG	Signal ground				
23, 24	Rp	Receiving sensitivity determination terminal				
25	DP	Pulse dial control signal				
26	CML	Line seizure control signal				
27	F. ICC	Loop current control signal upon line seizure	*	*	*	
28	SR	Control signal for connection between LINE and TEL terminals				
29	PBXE	Control signal for connecting one of LINE terminal to the PBXE terminal	*	*		*
30	MUTE	Control signal for pulse dial improvement and bell shunt relay	*			

Note *: Unused.

4. Description on the NCU Block Diagram

4.1 UNC circuit diagram

1 Lightning arresters (AR1, 2)
The nominal operating voltage is 350 V.
When connecting the ground of the arrestor to the chassis, tighten ARG on the PCB with a screw. At this time, the PCB is grounded through the power cable. The TB1 arrestor ground terminal can also be used to connect to the earth directly.

4 DC circuits (R10, R11, C4)
These circuits provide DC characteristics according to the line requirements using the primary DC resistor in the line transformer T1 and the R10 and R11 resistors . The capacitor C4 bypasses AC signals.

5 Impedance matching network (R523, R536, C503)
This circuit matches the impedance between the line and equipment to reduce reflection of transmitted signals.

6 Receiving sensitivity (R574, R504)
The receiving sensitivity at line seizuring is determined by R574 and the MF tone receiving sensitivity at parallel pickup is determined by R504.

7 CML (RL1)
This circuit selectively switches the line between the telephone or facsimile.

8 SR (RL2)
This circuit connects the line with the telephone. During facsimile transmission, it disconnects the telephone.

A PP (RL6)
If this circuits detects MF or CNG tones without seizuring a line, it sets a proper receiving sensitivity.

B DP (RL3)
This circuit generates pulse dials.
If the circuit detects MF or CNG tones without seizuring a line, it opens to increase the impedance.

C Pickup RC (R5, C31)
These circuits insert a high-impedance resistor and capacitor serially to prevent the line impedance from dropping by the line transformer T1.

D Ring detectors (IC1)
These circuits detect a ring signal arriving to the line. If the input ring signal exceeds a specific voltage, the circuits output a signal having of RI the same frequency as incoming RI.

E Line transformer (T1)
This circuit processes send/receive signals required for facsimile transmission, dial tone receive signals required for automatic dialing, and MF tone send and remote receive signals. It separates between the line and equipment in terms of DC and also keeps a balance between the line and the ground.

F Off-hook detector (IC2)
This circuit detects the off-hook state of the telephone connected to the TEL1, TEL2 through LINE terminals.

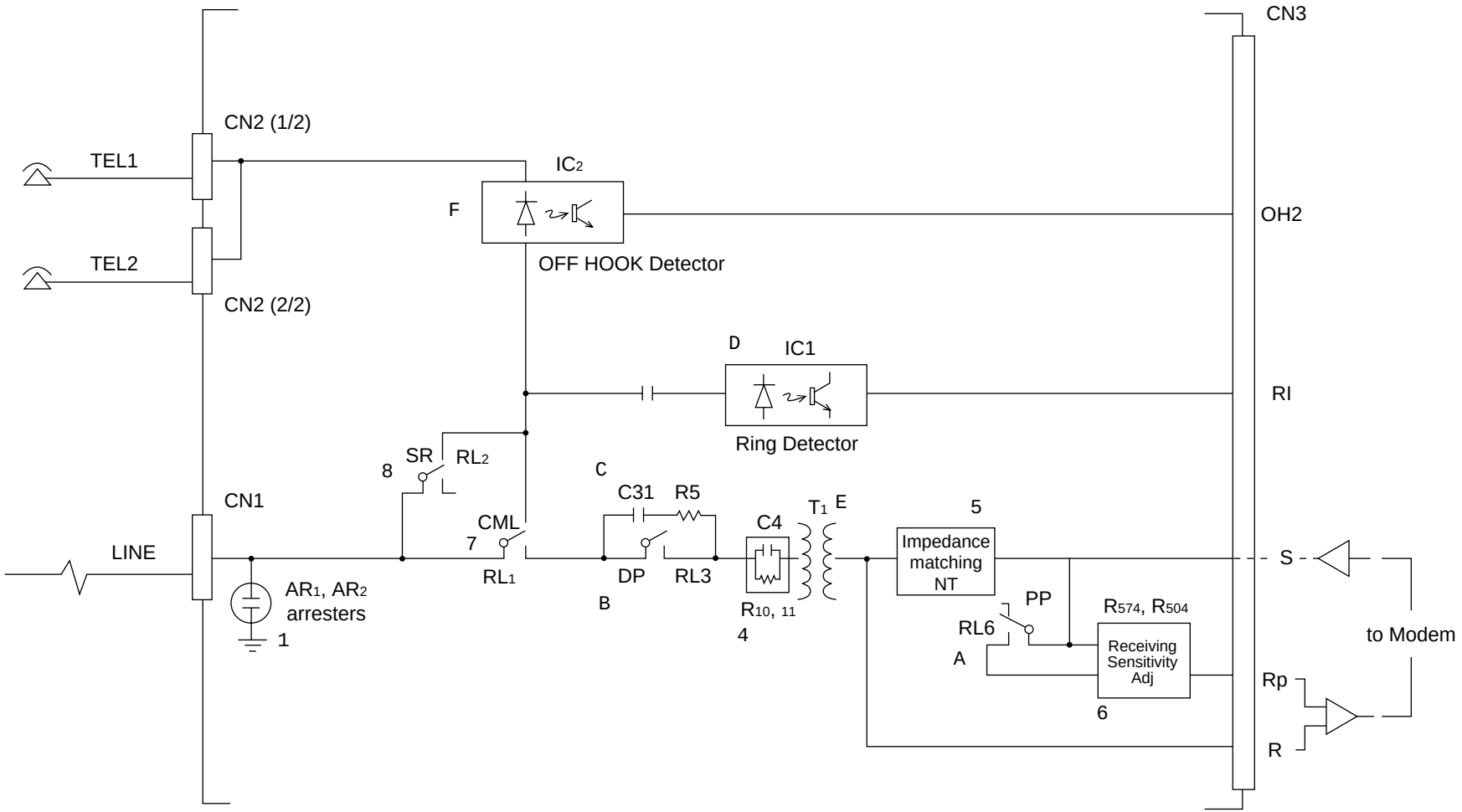


Figure A3.4.1 Block Diagram of UNC

4.2 WN5 circuit diagram

1 Lightning arresters (AR1, 2)
The nominal operating voltage is 500 V.
When connecting the ground of the arrestor to the chassis, tighten ARG on the PCB with a screw. At this time, the PCB is grounded through the power cable. The TB1 arrestor ground terminal can also be used to connect to the earth directly.

2 Loop current detector (IC4) — Optional
When a line is seizured, this circuit detects a DC loop current to notify the fact. For detection (OH1), it outputs the low level to the nominal input current of 10 mA or more.

3 Diode bridge (DB1)
This circuit rectifies the loop current so that the DC circuit characteristics are not affected by a polarity change over the line.

4 DC circuits (Q3, R540, R541, C13, R9, R209, and R309)
These circuits provide DC characteristics according to the line requirements depending on the DIP SW (S3) position.

5 Impedance matching network (R523, R536, C503 ... R823, R836, C803)
This circuit matches the impedance between the line and equipment to reduce reflection of transmitted signals.
It provides impedance (return loss) characteristics to meet the line requirement using the connector keys (CN15 to CN45).

6 Receiving sensitivity (R537, R539...R837, R839)
The receiving sensitivity at line hunting is determined by R539 to R839 depending on the line impedance. Similarly, the MF tone receiving sensitivity at parallel pickup is determined by R537 to R837. The receiving sensitivity is set using connector keys (CN15 to CN45).

7 CML (RL1)
This circuit selectively switches the line between the telephone or facsimile.

8 SR (RL2)
This circuit connects the line with the telephone. During facsimile transmission, it disconnects the telephone.

9 DP (IC5)
This circuit generates pulse dial signals.

0 MUTE (IC7)
During pulse dialing, this circuit closes to reduce the DC loop resistance.

A PP (RL6)
If this circuits detects MF or CNG tones without seizuring a line, it disconnects Impedance matching Net work (5) to increase the input impedance and also sets the receiving sensitivity.

B MUTE (RL3)
During pulse dialing, this circuit opens to prevent pulse distortion caused by capacitor C11. If it detects MF or CNG tones without seizuring a line, it opens to increase the impedance.

C Pickup RC (R590, C31)
These circuits insert a high-impedance resistor and capacitor serially to prevent the line impedance from dropping by the line transformer T1.

D Ring detectors (IC1)
These circuits detect a ring signal arriving to the line. If the input ring signal exceeds a specific voltage, the circuits output a signal of RI having the same frequency as incoming RI.

E Line transformer (T1)
This circuit processes send/receive signals required for facsimile transmission, dial tone receive signals required for automatic dialing, and MF tone send and remote receive signals. It separates between the line and equipment in terms of DC and also keeps a balance between the line and the ground.

F Off-hook detectors (IC2, RL7)
These circuits detect the off-hook state of the telephone connected to the TEL1, TEL2, through LINE terminal. IC2 uses a high detection sensitivity than of RL7. In TEL/FAX mode, the higher sensitive IC2 is used to detect the off-hook state of the telephone while the main equipment is hunting a line. Usually, IC2 is short-circuited by the CML relay (7) in the standby state and RL7 is used for off-hook detection.

G Impedance switches (CN15 to CN45)
These circuits set the impedance according to the line requirement.
220: 220 ohm + 820 ohm//115 nF (CN15)
275: 275 ohm + 850 ohm//150 nF (CN25)
370: 370 ohm + 620 ohm//310 nF (CN35)
600: 600 ohm (CN35)

H DC resistance switch (SW3)
This switch sets the DC resistance according to the line requirement.

I Ring impedance switches (S1-3 to S1-6)
These switches set the ring impedance according to the line requirement.

J Ring sensitivity switch (S4)
This switch sets the ring sensitivity according to the line requirement.

K Telephone cascade/parallel switches (S1-1 to S1-2)
To connect the telephone connected to the TEL1 terminal and an external telephone in parallel, set the switches to ON.

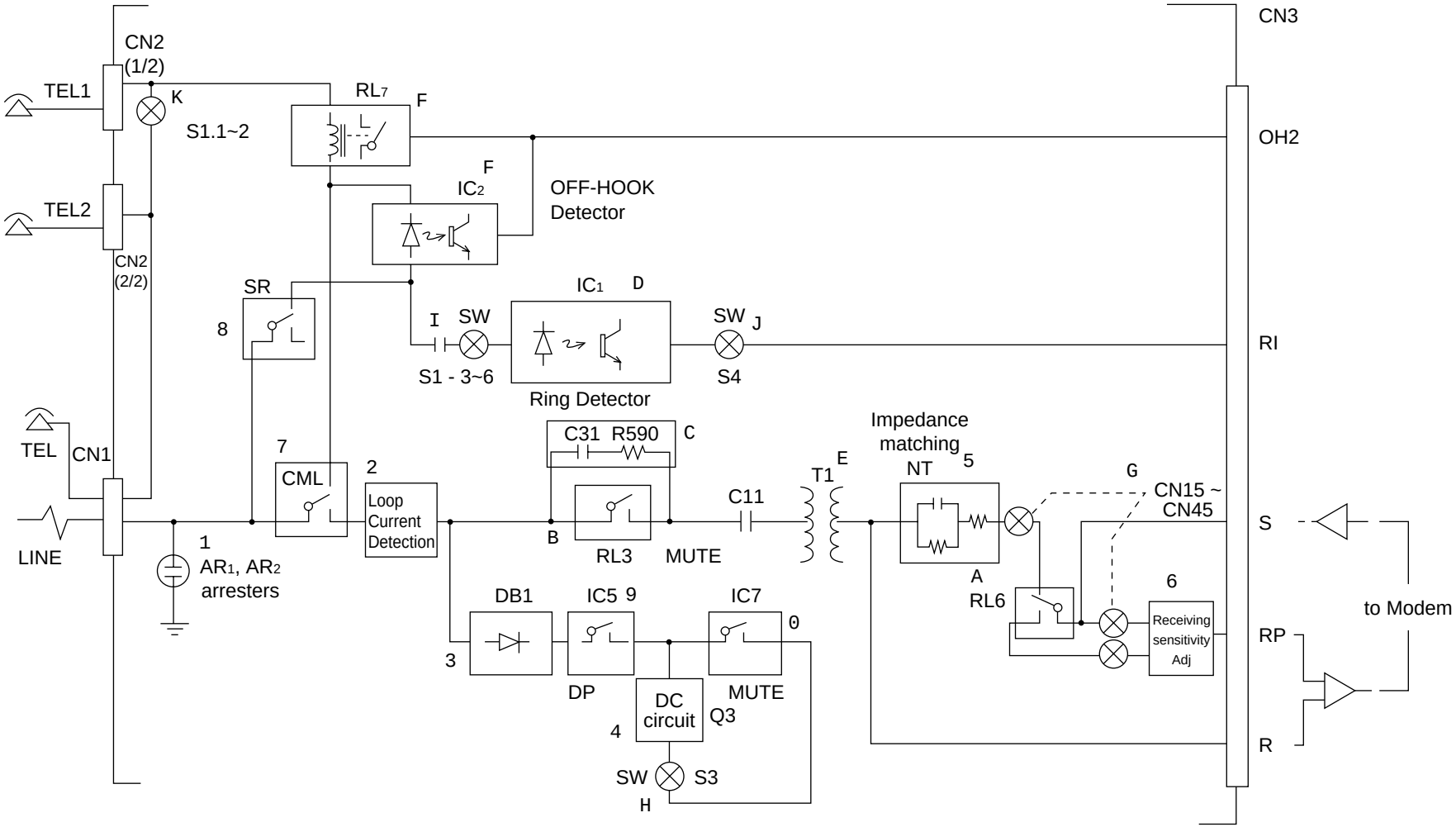


Figure A3.4.2 Block Diagram of WN5

4.3 FN5 circuit diagram

1 Lightning arresters (AR1, 2)
The nominal operating voltage is 500 V.
When connecting the ground of the arrestor to the chassis, tighten ARG on the PCB with a screw. At this time, the PCB is grounded through the power cable. The TB1 arrestor ground terminal can also be used to connect to the earth directly.

3 Diode bridge (DB1)
This circuit rectifies the loop current so that the DC circuit characteristics are not affected by a polarity change over the line.

4 DC circuits (Q3, R540, R541, C13, R9, R209)
These circuits provide DC characteristics according to the line requirements.

5 Impedance matching network (R523, R536, C503, R623, R636, C603)
This circuit matches the impedance between the line and equipment to reduce reflection of transmitted signals.
It provides impedance (return loss) characteristics to meet the line requirement using the S5-1 and 5-2.

6 Receiving sensitivity (R537, R539, R637, R639)
The receiving sensitivity at line hunting is determined by R539 or R639 and the MF tone receiving sensitivity at parallel pickup is determined by R537 or R639. The receiving sensitivity set using DIP switch S5-3 to S5-6.

7 CML (RL1)
This circuit selectively switches the line between the telephone or facsimile.

8 SR (RL2)
This circuit connects the line with the telephone. During facsimile transmission, it disconnects the telephone.

9 DP (IC5)
This circuit generates pulse dial signals.

0 MUTE (IC7)
During pulse dialing, this circuit closes to reduce the DC loop resistance.

A PP (RL6)
When it detects MF or CNG tones without seizuring a line, it disconnects NT (5) to increase the input impedance and also sets the receiving sensitivity.

B MUTE (RL3)
During pulse dialing, this circuit opens to prevent pulse distortion caused by capacitor C11. When it detects MF or CNG tones without seizuring a line, it opens to increase the impedance.

C Pickup RC (R590, C31)
These circuits insert a high-impedance resistor and capacitor serially to prevent the line impedance from dropping by the line transformer T1.

D Ring detectors (IC1)
These circuits detect a ring signal arriving to the line. If the input ring signal exceeds a specific voltage, the circuits output a signal of RI having the same frequency as the incoming RI.

E Line transformer (T1)
This circuit processes send/receive signals required for facsimile transmission, dial tone receive signals required for automatic dialing, and MF tone send and remote receive signals. It separates between the line and equipment in terms of DC and also keeps a balance between the line and the ground.

F Off-hook detectors (IC2, RL7)
These circuits detect the off-hook state of the telephone connected to the TEL1, TEL2, through LINE terminals. IC2 uses a high detection sensitivity than of RL7. In TEL/FAX mode, the higher sensitive IC2 is used to detect the off-hook state of the telephone while the main equipment is hunting a line. Usually, IC2 is short-circuited by the CML relay (7) in the standby state and RL7 is used for off-hook detection.

G Impedance switches (S5-1 to 5-2)
These circuits set the impedance according to the line requirement.
S5-1: 370 ohm + 620 ohm//310 nF (UK)
S5-2: 600 ohm (F)

H DC resistance switches (CN26 and CN36)
These switches set the DC resistance according to the line requirement.

Q FICC (IC6)
This circuits reduces the DC resistance to increase the loop current momentarily to assure operation of the switch at line seizuring.

R Constant current circuits (Q1 and Q2)
These circuits provide DC characteristics according to the French line requirement.

S Shunt (RL5)
This circuit prevents bell resonances in the telephone sets connected in parallel during pulse dialing and also reduces distortions of the pulse waveform.

T Communication line terminal switches (CN26 and CN36)
Unlike other countries, pines 2 and 5 are connected to the line for the UK communication line. Set the switches to “F” for France and “UK” for UK.

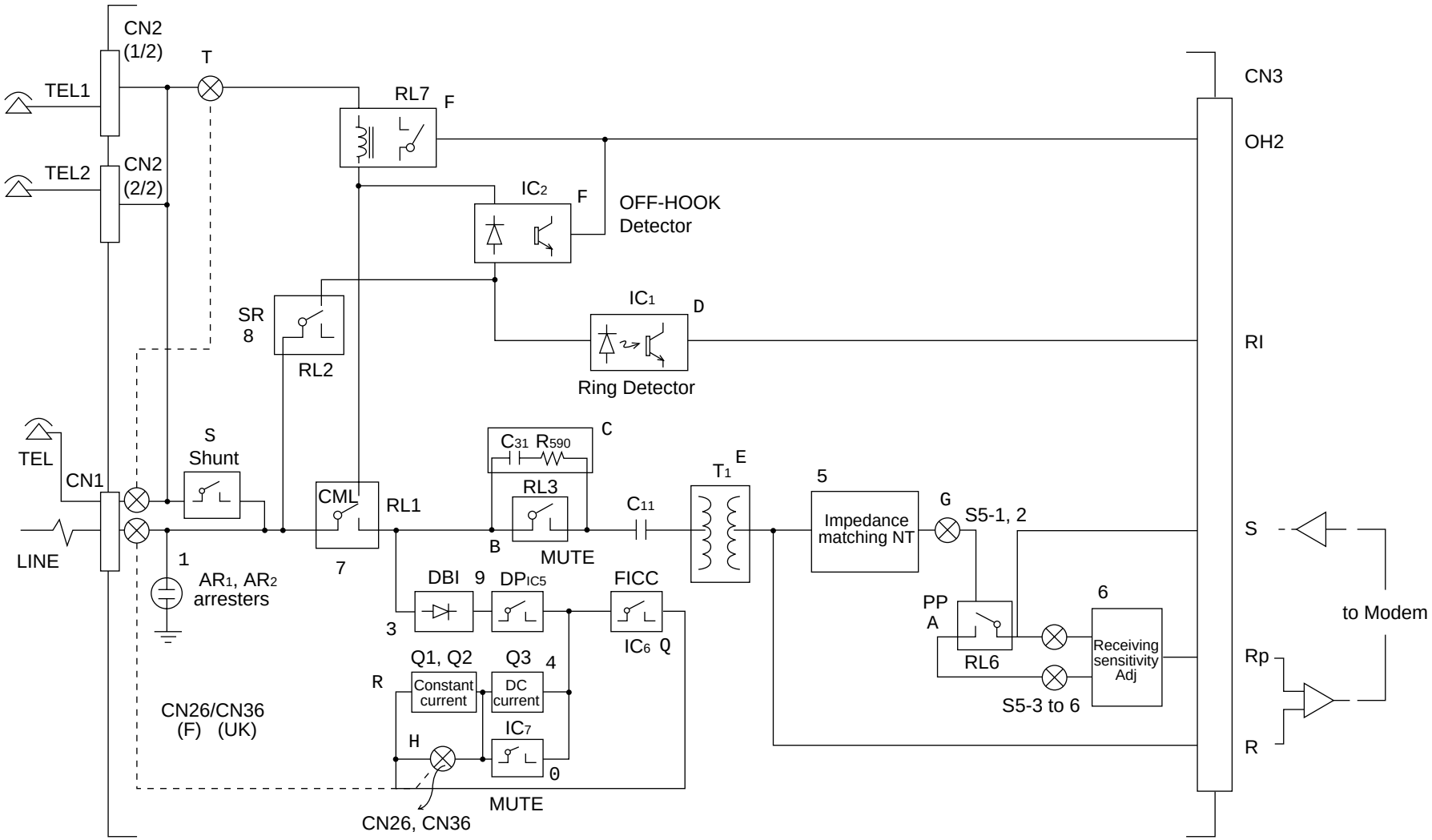


Figure A3.4.3 Block Diagram of FN5

4.4 DN5 circuit diagram

1 Lightning arresters (AR1, 2)
The nominal operating voltage is 500 V.
When connecting the ground of the arrestor to the chassis, tighten ARG on the PCB with a screw. At this time, the PCB is grounded through the power cable. The TB1 arrestor ground terminal can also be used to connect to the earth directly.

2 Loop current detector (IC4) - Optional
When a line is hunt, this circuit detects a DC loop current to notify the fact. For detection (OH1), it outputs the low level to the nominal input current of 10 mA or more.

3 Diode bridge (DB1)
This circuit rectifies the loop current so that the DC circuit characteristics are not affected by a polarity change over the line.

4 DC circuits (Q3, R540, R541, C13, R9, R209)
These circuits provide DC characteristics according to the line requirements.

5 Impedance matching network (R523, R536, C503, ...)
This circuit matches the impedance between the line and equipment to reduce reflection of transmitted signals.
It provides impedance (return loss) characteristics to meet the line requirement using the S4-3 and S4-4.

6 Receiving sensitivity (R537, R539, R637, R639)
The receiving sensitivity at line hunting is determined by R539 to R639 depending on the line impedance. Similarly, the MF tone receiving sensitivity at parallel pickup is determined by R537 or R637.
The receiving sensitivity is set using the DIP switches S4-5 to S4-8.

7 CML (RL1)
This circuit selectively switches the line between the telephone or facsimile.

8 SR (RL2)
This circuit connects the line with the telephone. During facsimile transmission, it disconnects the telephone.

9 DP (IC5)
This circuit generates pulse dial signals.

0 MUTE (IC7)
During pulse dialing, this circuit closes to reduce the DC loop resistance.

A PP (RL6)
If this circuits detects MF or CNG tones without seizuring a line, it disconnects NT (5) to increase the input impedance and also sets the receiving sensitivity.

B MUTE (RL3)
During pulse dialing, this circuit opens to prevent pulse distortion caused by capacitor C11. If it detects MF or CNG tones without seizuring a line, it opens to increase the impedance.

C Pickup RC (R590, C31)
These circuits insert a high-impedance resistor and capacitor serially to prevent the line impedance from dropping by the line transformer T1.

D Ring detectors (IC1)
These circuits detect a ring signal arriving to the line. If the input ring signal exceeds a specific voltage, the circuits output a signal of RI having the same frequency as incoming RI.

E Line transformer (T1)
This circuit processes send/receive signals required for facsimile transmission, dial tone receive signals required for automatic dialing, and MF tone send and remote receive signals. It separates between the line and equipment in terms of DC and also keeps a balance between the line and the ground.

F Off-hook detectors (IC2, RL7)
These circuits detect the off-hook state of the telephone connected to the TEL1, TEL2, through LINE terminals. IC2 uses a high detection sensitivity than of RL7. In TEL/FAX mode, the higher sensitive IC2 is used to detect the off-hook state of the telephone while the main equipment is hunting a line. Usually, IC2 is short-circuited by the CML relay (7) in the standby state and RL7 is used for off-hook detection.

G Impedance switches (S4-3 to S4-4)
These circuits set the impedance according to the line requirement.
S4-3: 220 ohm + 820 ohm//115 nF
S4-4: 600 ohm

I Ring impedance switches (S1-4)
These switches set the ring impedance according to the line requirement.

J Ring sensitivity switch (S4-4, S4-2)
This switch sets the ring sensitivity according to the line requirement.

K Telephone cascade/parallel switches (S1-1 to S1-2)
To connect the telephone connected to the TEL1 terminal and an external trephone in parallel, set the switches to ON.

L 16 kHz LPF (L7, L8, C7, C507, C9)
This low-pass filter removes 16 kHz metering pulses.

M Transmitter amplifier (IC501 1/2)
This transmitter buffer amplifier amplifies DTMF signals and FAX send signals.

N Receiver amplifier (IC501 2/2)
This amplifier amplifies MF tones, dial tones, and FAX receive signals.

O 16 kHz LPF (IC502)
This active low-pass filter removes 16 kHz metering pulses.

P PBXE (RL4)
This circuits connects one end of the LINE terminal to the PBXE terminal when requested from the PBX line.

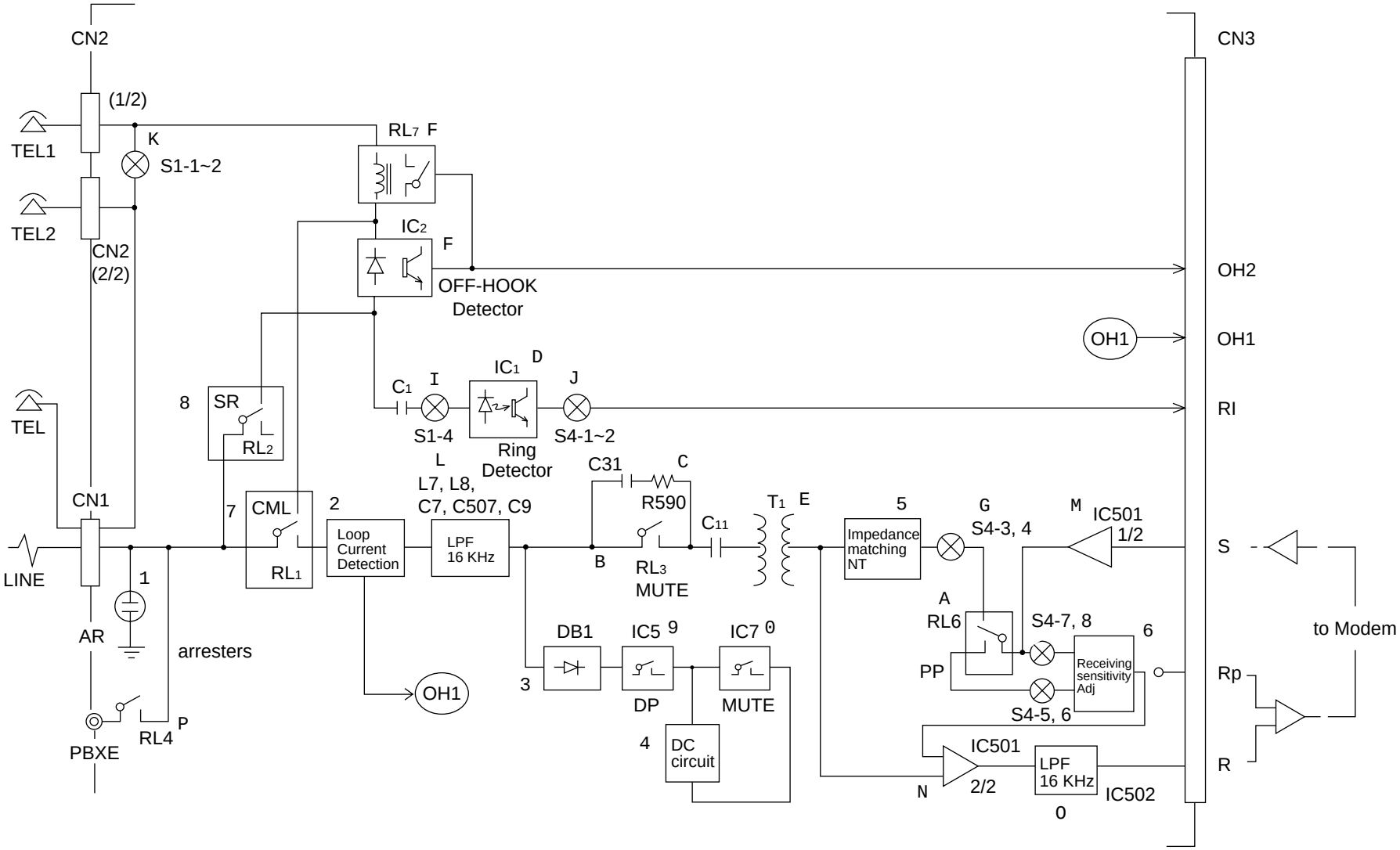


Figure A3.4.4 Block Diagram of DN5

A3.5 Power Supply Board

Caution:

- Voltage charged in the capacitor may cause shock hazards. After turning on the AC power, never touch the pattern on the power supply board.

- For maintenance, Oki Data Corporation recommendes replacement of Power supply board (Both high voltage power supply board and Low voltage power supply board), but not repair of the boards.
  Any purchase orders for components of the power supply board are not accepted. Any trouble on power supply board that was repaired at your side once is not guaranteed.

1.Low voltage power supply board
MPW2520: 120V
MPW2420: 230V

(1) Specifications

AC power input range:

	Input voltage	Frequency
MPW2520	120V (-15%, +6%)	50Hz/60Hz (+/-2%)
MPW2420	230V (-14%, +15%)	50Hz/60Hz (+/-2%)

Note: Only the MPW2420 conforms to the radio-frequency interference regulations and has a power saving feature.

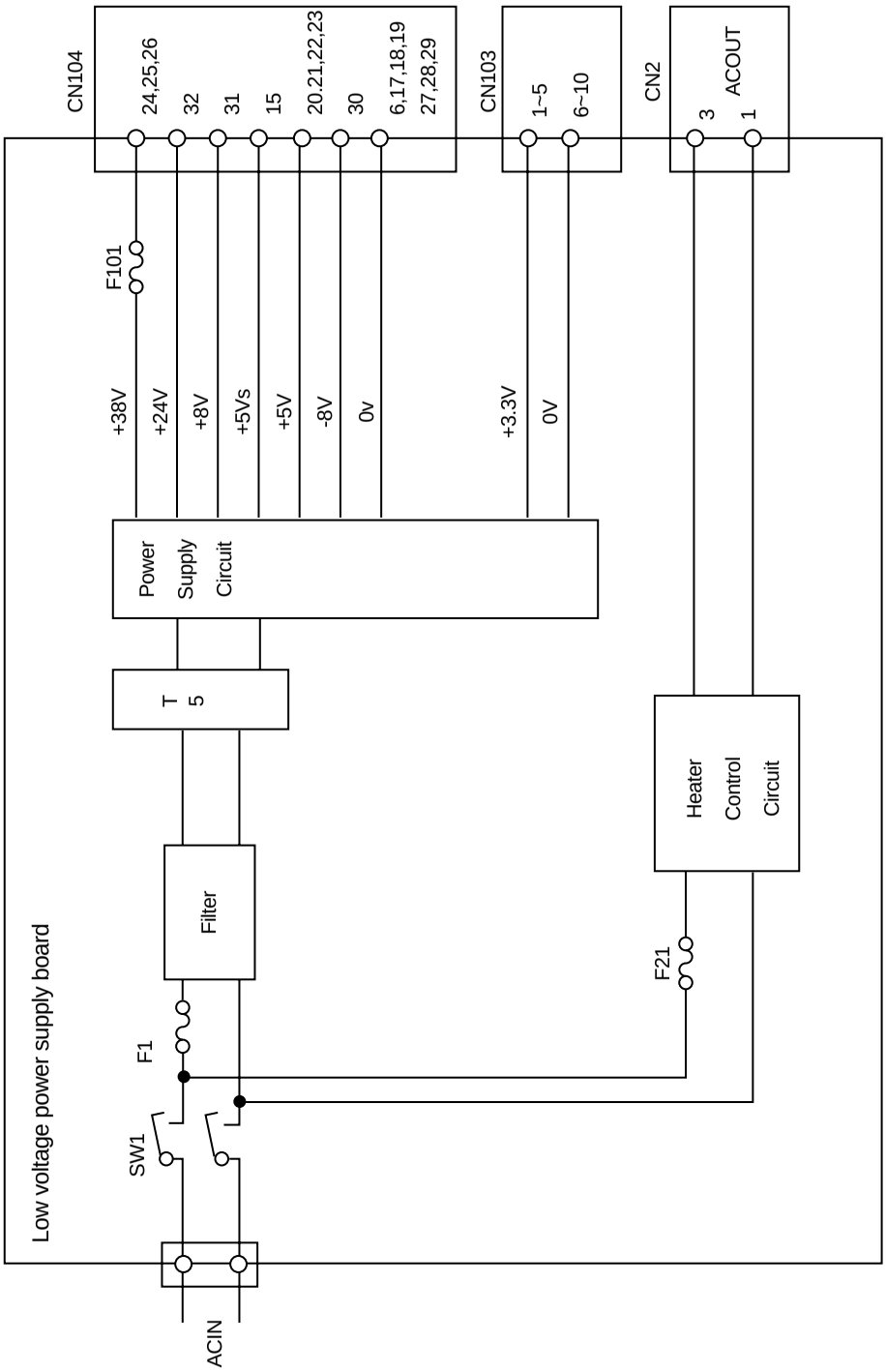
Output range:

Connector/Pin No.	Normal output Voltage	Voltage range	Normal output Current	Load alteration range
CN003/Pin 20-23	+5V	+/-4%	2.4A	0.4 - 2.4A
CN003/Pin 24-26	+38V	26 - 45V	2.6A	0 - 3.1A
CN003/Pin 31	+8V	+/-4%	0.5A	0 - 0.2A
CN003/Pin 30	-8V	+/-4%	0.2A	0 - 0.2A
CN003/Pin 32	+24V	22 - 27V	0.2A	0 - 0.2A
*CN003/Pin 15	+5Vs	+/-4%	20mA	15m - 50mA
CN103/Pin 1-5	+3.3V	+/-3%	1.5A	0.1 - 4.3A

Note: The MPW2520 does not supply +5 Vs from CN003/Pin 15 because it is used in the power save mode.

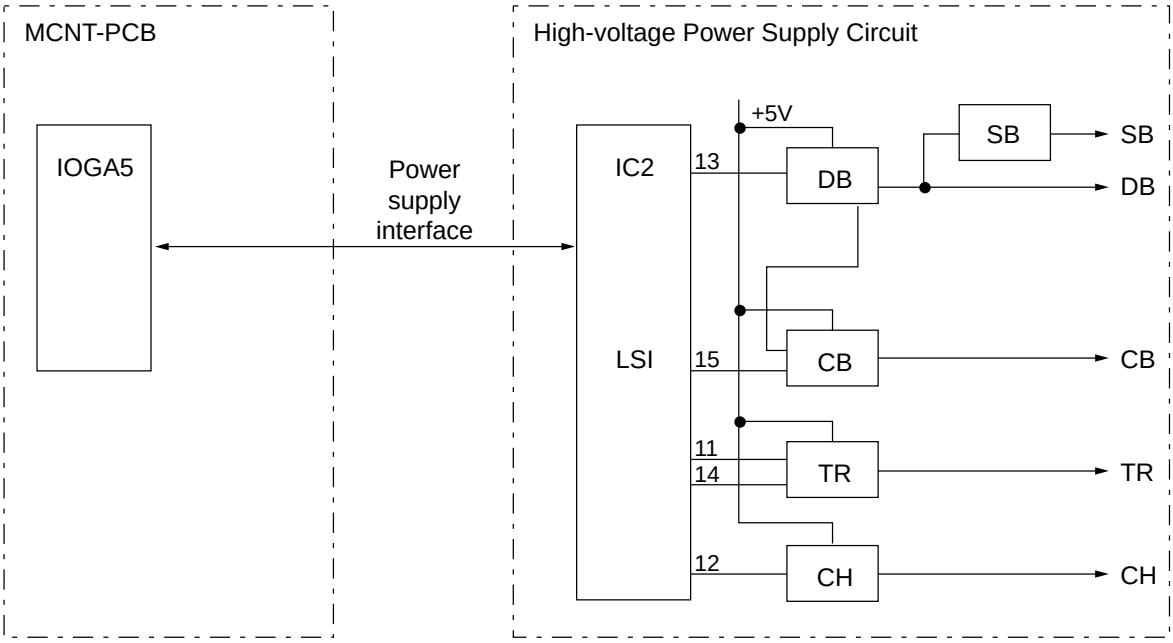
Protection against overvoltage/overcurrent
+5Vs: The protection should be open with Fuse (F501) and shorted with D503. And sometime D202, D203 should be shorted.
+38 V: This unit's O.C.P. is drooping characteristic type. (O.C.P. TIME: MAX 10S) The protection should be shorted with Q201.
+8 V: Overcurrent protection circuit operation
-8 V: Overcurrent protection circuit operation
+24 V: Overcurrent protection circuit operation
+3.3 V: Overcurrent protection circuit operation; Auto resetting (F1 opens if this state continues for more than 10 seconds.)

(2) Block Diagram



A3.6 High-voltage Power Supply Circuit

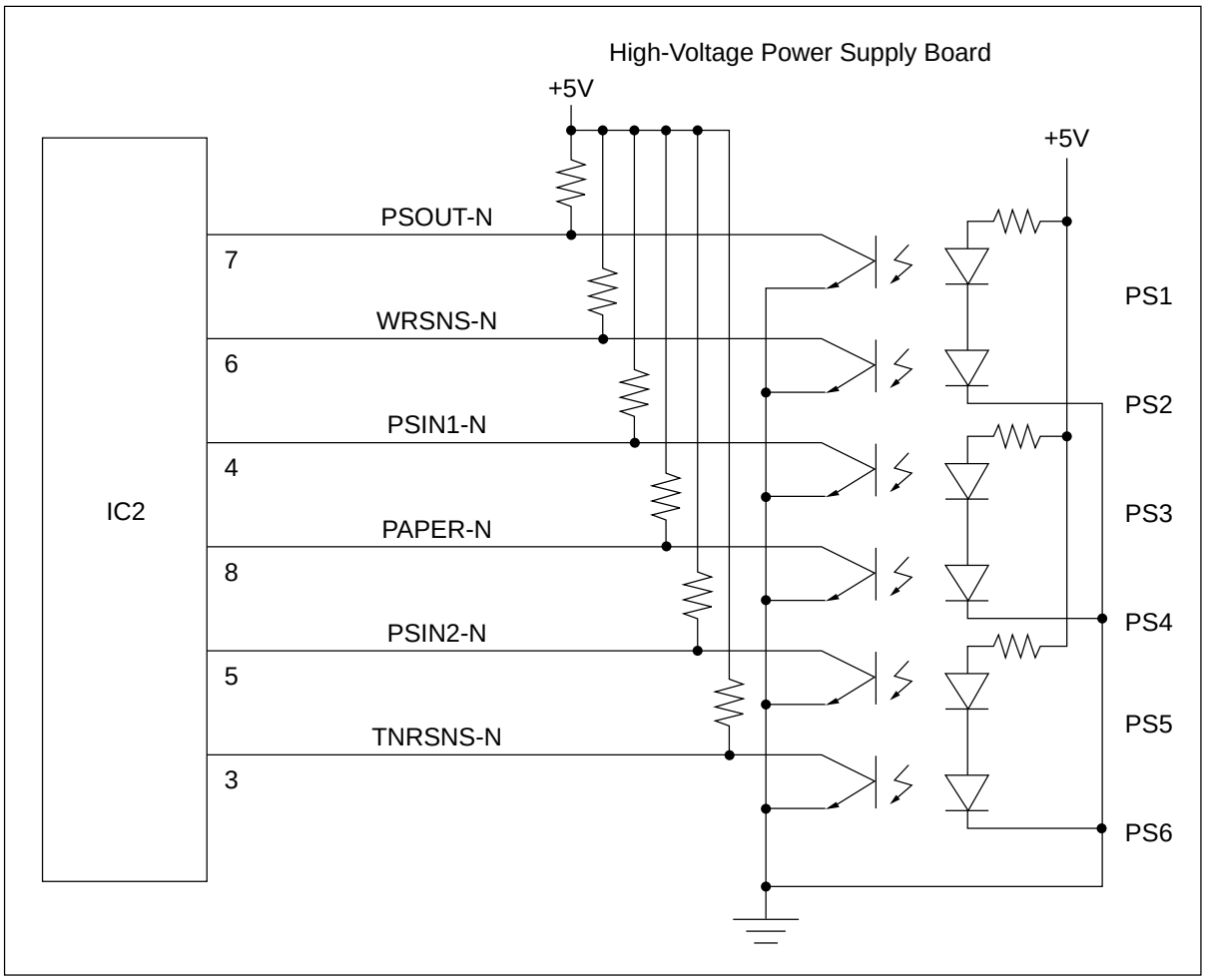
This high-voltage power supply circuit receives the high-voltage generation timing control command that is transmitted in serial through the power supply interface from the control section. It decodes this command by LSI (IC2) and outputs high-frequency pulses to the corresponding high-voltage generating circuits through pins 11, 12, 13, 14 and 15 of LSI (IC2). It supplies +5V to each high-voltage generating circuit as the source voltage. When the cover is open, the supply of +5V is interrupted to interrupt all the high-voltage outputs. The relationship between the high-frequency pulse output pins and the high-voltage outputs is shown in the following table.

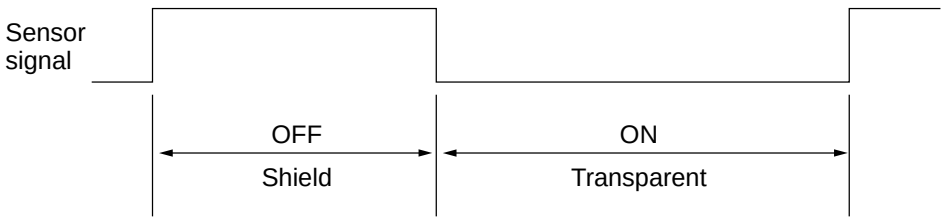


High-voltage outputs / High-frequency pulse output pins	SB	DB	CB	TR	CH	Remarks
11				+1.2kV		
12					-1.3kV	
13	0V	+300V				TRSEL 3: Hi-Z TRSEL 5: L
	-500V	-265V	+400V			TRSEL 3: L TRSEL 5: Hi-Z
14				-1.1kV		
15			-1.35kV			

Part with slant line: no output

Sensor control





A3.7 G4A-PCB

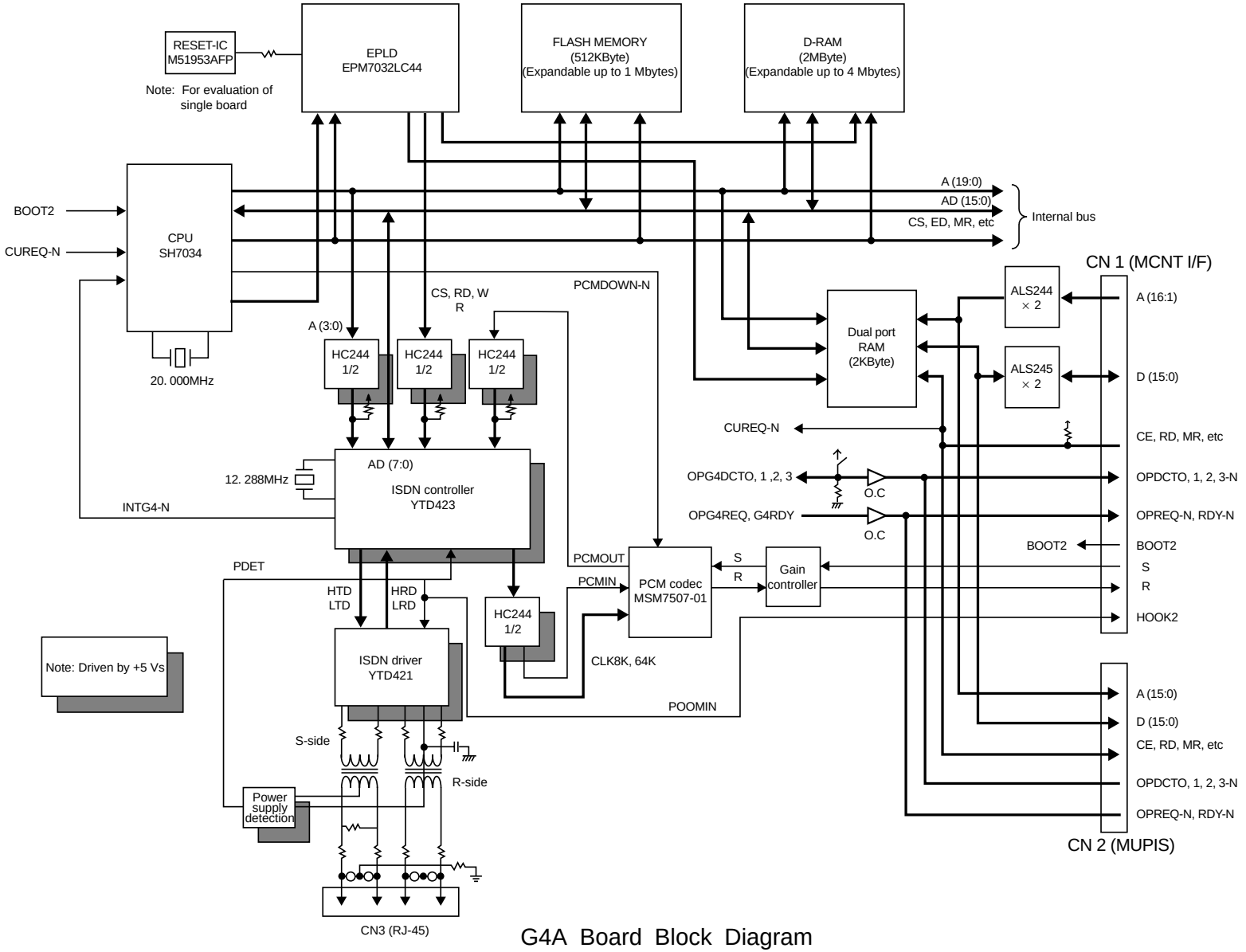
This PCB board is optionally available. Using this board allows the system to be ready for the G4 protocol. This board is connected to the MCNT board through the original MUPIS interface.

The block diagram of this board is shown on the next page.

This board is connected to the MCNT board with an 80-pin connector (CN1). Sixteen pins of this connector are signals lines dedicated to the G4A board, and the remaining 64 pins are signal lines shared with the optional LAN network board. The LAN network board is connected to the 64-pin connector (CN2) when it is used along with this board. It is connected to the line via the RJ-45 connector (CN3).

Data is transferred to/from the CPU on the MCNT board via the 2-KB dual port RAM. When data is sent, the MCNT board causes an interrupt to the G4A board using a CUREQ-N signal and writes data into the 2-KB dual port RAM. The G4A board expands the data from the dual port RAM in the DRAM, and sends the expanded data to the line via the driver.

When data is received, the G4A board causes an interrupt to the MCNT board using an OPREQ signal and writes data from the DRAM into the dual port RAM. The NCNT board reads data from the dual port RAM, expands the data in the DRAM on the MCNT board, and sends the data to the LED head via the IOGA5.



G4A Board Block Diagram

HOME

Appendix B

Print Operation Description

Konica Business Technologies

B.1 Mechanical Components

1) Image drum cartridge

The image cartridge consists of an image drum, a charger, and a developer. The cartridge forms a toner image on the drum, using an electrostatic latent image formed by the LED print head.

2) Resist motor

This resist motor is a pulse motor of 48 steps/rotation that is two-phase excited by the signal from the M76 board. It drives the hopping roller and the resist roller via two one-way clutches according to the direction of rotation.

3) Drum motor

This drum motor is a pulse motor of 48 steps/rotation that is two-phase excited by the signal from the M76 board and is the main motor of this mechanism.

4) LED head

Image data for each dot on a line from the M76 board is received by the shift registers and latch registers. The Letter size LED head are driven to radiate the image data on to the image drum.

5) Fuser

The fuser consists of a heater, a heat roller, a thermister and a thermostat.

An AC voltage from the power supply board (H10, and Low Power Voltage Unit) is applied to the heater under the control of the HEAT-N signal from the M76 board. This AC voltage heats the heater. The M76 board supervises the heat roller temperature via the thermistor, and regulates the heater roller at a predetermined temperature (about 185 ½C for Fax 9830) by connecting or disconnecting the AC voltage supply to the heater.

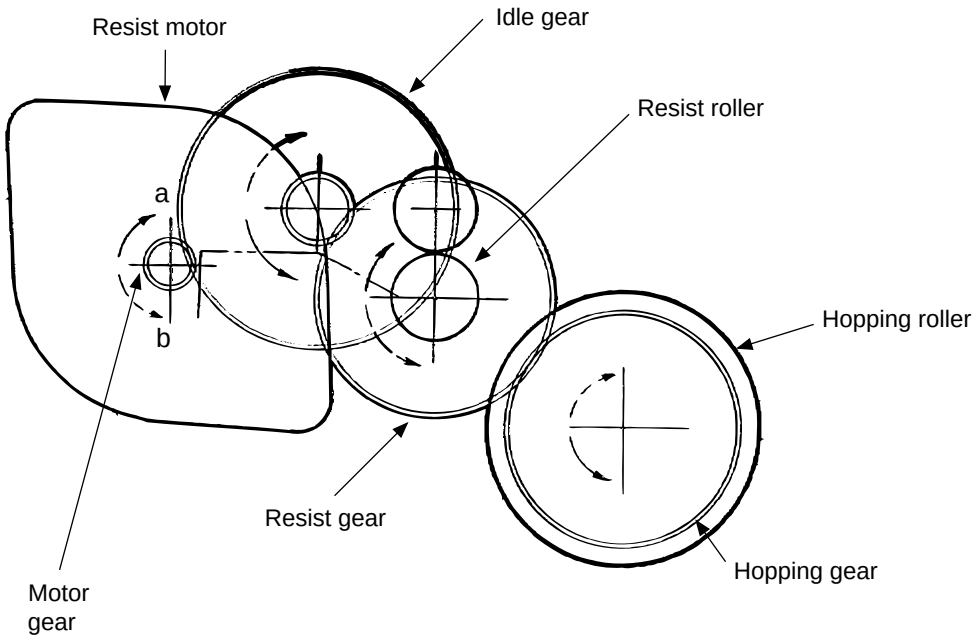
If the heater roller temperature rises abnormally, the thermostat of the heater voltage supply circuit is activated to cut off the AC voltage supply forcibly.

B.2 Description of Print Operations

B.2.1 Process Operations

1) Hopping and feeding

Hopping and feeding are affected by a single resist motor in the mechanism shown below.

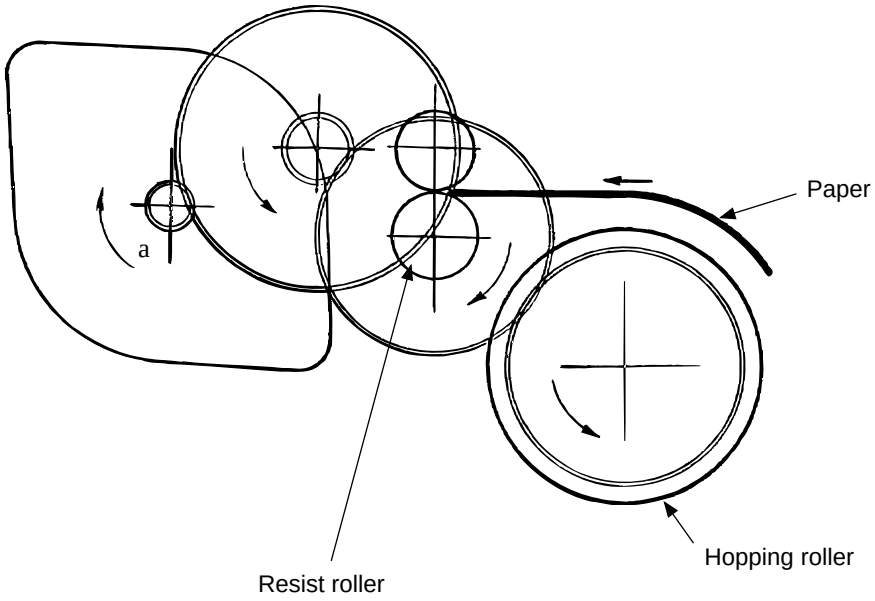


Turning the resist motor in the "a" direction drives the hopping roller. Turning the resist motor in the "b" direction drives the resist roller. The resist gear and hopping gear contain one-way clutch, so that turning each of these gears in reverse direction will not be transmitted to the corresponding roller.

(a) Hopping

1 Hopping turns the resist motor in the "a" direction (in the CW direction) and drives the hopping roller to advance the paper until the inlet sensor turns on. (In this case, the resist gear also turns, but the resist roller is prevented from turning by the one-way clutch gear.)

2 After the paper has turned on the inlet sensor, the paper is further advanced by a predetermined length until the paper hits the resist roller. (The skew in the paper can thus be corrected.)

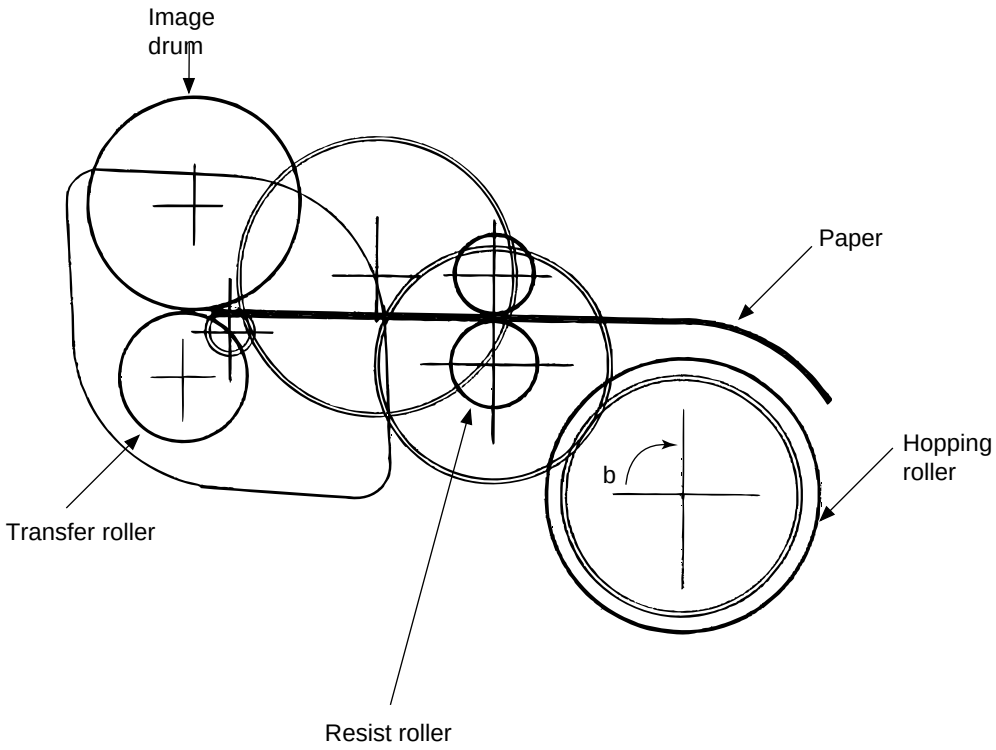


CW = Clockwise

(b) Feeding

1 After end of hopping, turning the resist motor in the "b" direction (in the CCW direction) drives the resist roller to advance the paper. (In this case, the hopping gear also turns, but the hopping roller is prevented from turning by the one-way clutch gear.)

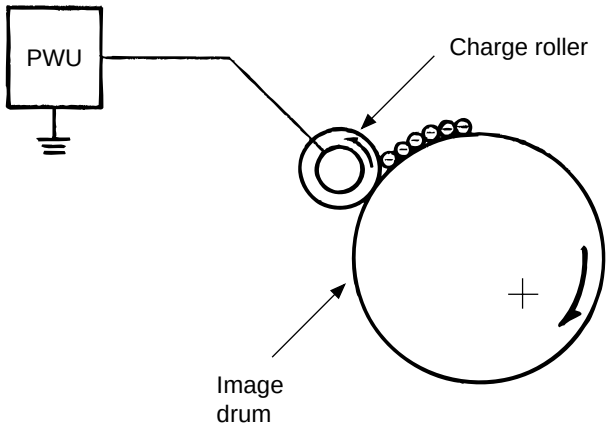
2 The paper is further advanced in synchrony with the print data.



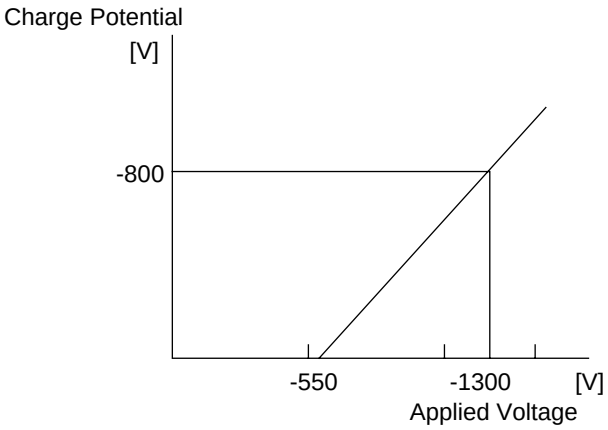
CCW = Counterclockwise

2) Charging

Charging is affected by applying a DC voltage to the charge roller thta is in contact with the image drum surface.

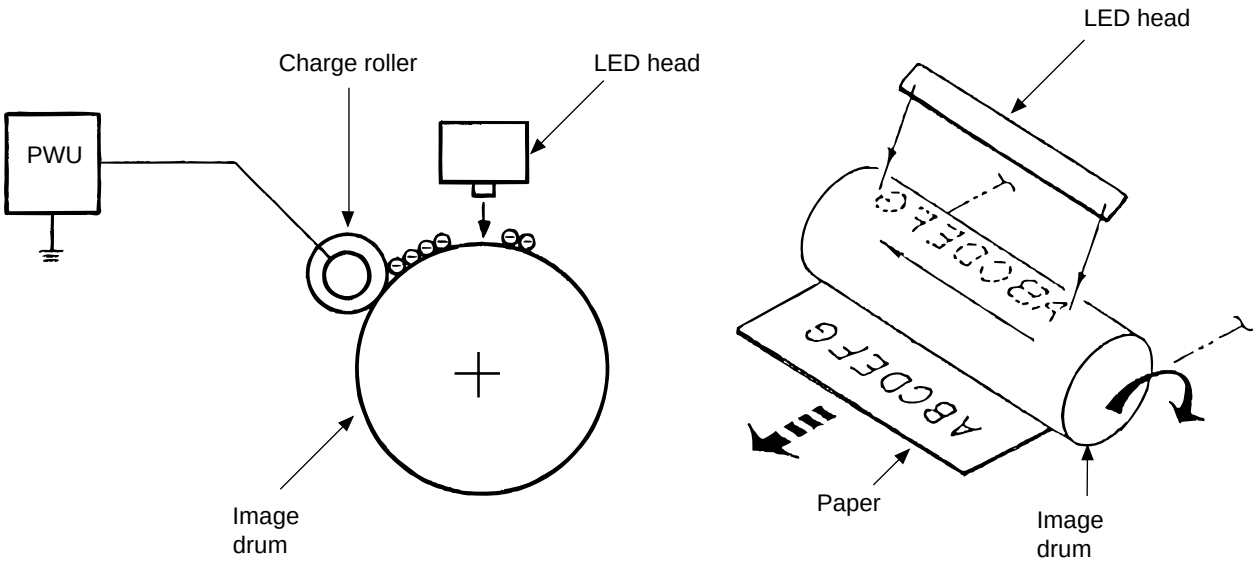


The charge roller is composed of two layers consisting of a conductive layer and a surface protective layer that has elasticity, in order to secure a good contact with the image drum. When the DC voltage (-1.30KV KVDC) applied from the Power Supply Unit exceeds a threshold value, charging begins. The applied voltage is proportional to charge potential with off set of approx. -550V.

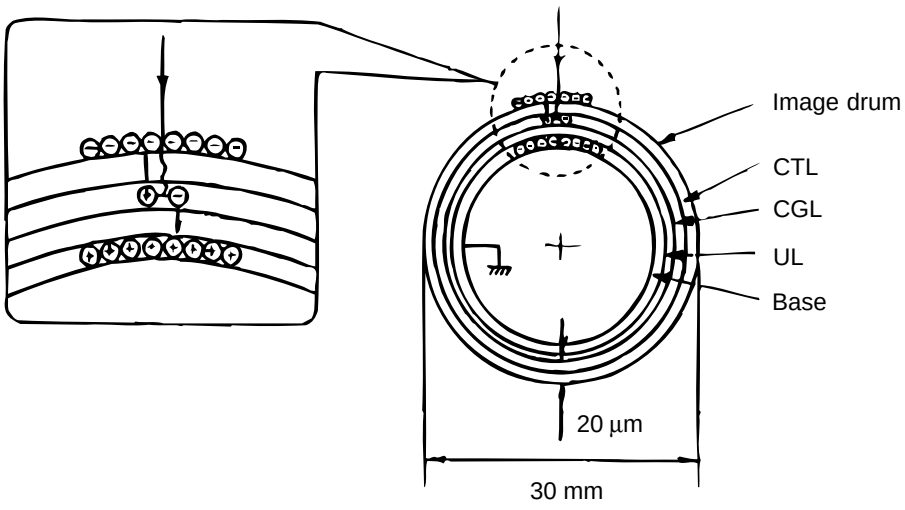


3) Exposure

Light emitted from the LED head irradiates the image drum surface with negative charges. The surface potential of the irradiated part of the image drum drops, thereby forming an electrostatic latent image associated with the image signal.



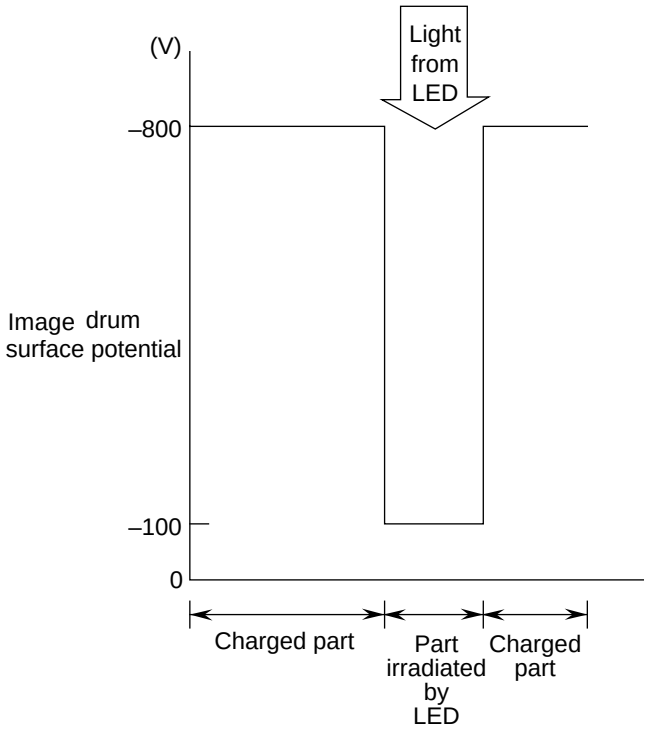
The image drum is coated with an underlayer (UL), a carrier generation layer (CGL), and carrier transfer layer (CTL) on the aluminum base. The organic photo conductor layer (OPC), comprising a CTL and a CGL, is about 20 µm thick.



The image drum surface is charged to about -800 V by the contact charge of the charge roller.

When light from the LED head irradiates the image drum surface, the light energy generates positive and negative carriers in the CGL. The positive carriers are moved to the CTL by an electrical field acting on the image drum. Likewise, the negative carriers flow into the aluminum layer (ground).

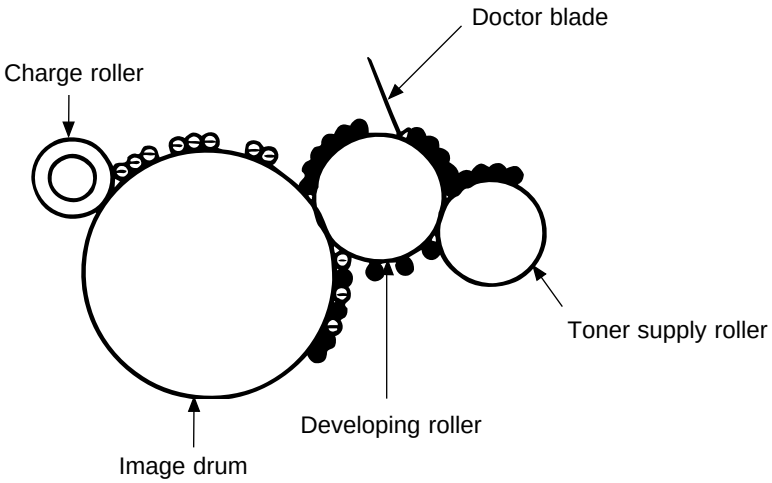
The positive carriers moved to the CTL combine with the negative charges on the image drum surface accumulated by the contact charge of the charge roller, lowering the potential on the image drum surface. The resultant drop in the potential of the irradiated part of the image drum surface forms an electrostatic latent image on it. The irradiated part of the image drum surface is kept at about -100 V.



4) Developing

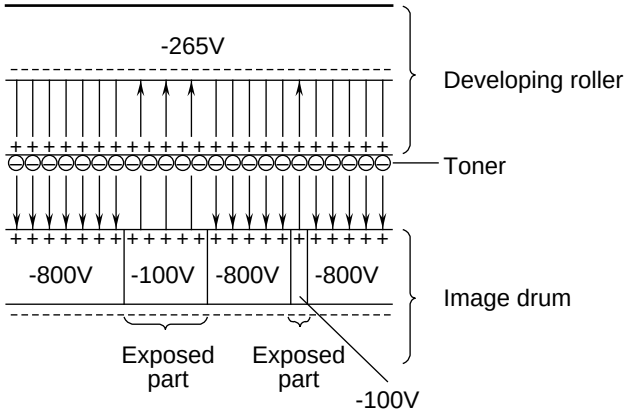
Toner is attracted to the electrostatic latent image on the image drum surface to convert it into a visible toner image. Developing takes place at the contact between the image drum and the developing roller.

1 As the toner supply roller rotates while rubbing on the developing roller, a friction charge is generated between the developing roller and the toner, allowing the toner to be attracted to the developing roller. (The developing roller surface is charges positive and the toner, negative.)



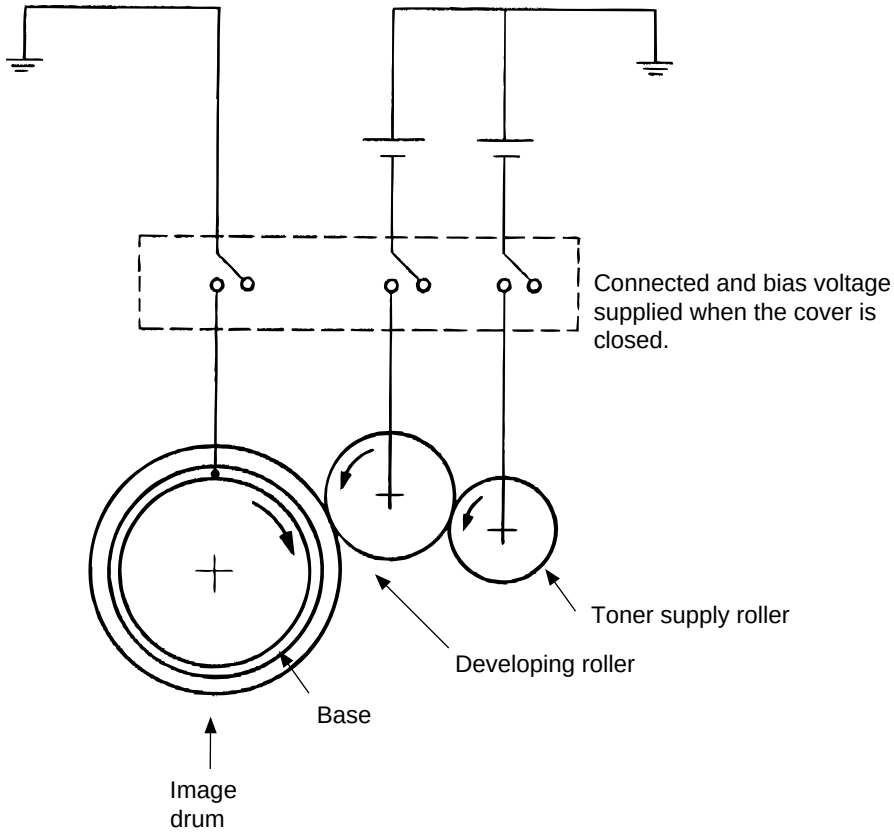
2 The toner attracted to the developing roller is scraped off by the doctor blade, forming a thin coating of toner on the developing roller surface.

3 Toner is attracted to the exposed part (low-potential part) of the image drum at the contact between the image drum and the developing roller, making the electrostatic latent image visible.



An illustration of activities at the contact point of the image drum surface and the developing roller (arrow marks denote the direction of the electric field).

Note: The toner supply roller and the developing roller are supplied with bias voltages required during the developing process as shown below. -500 VDC is supplied to the toner supply roller, -265 VDC to the developing roller.

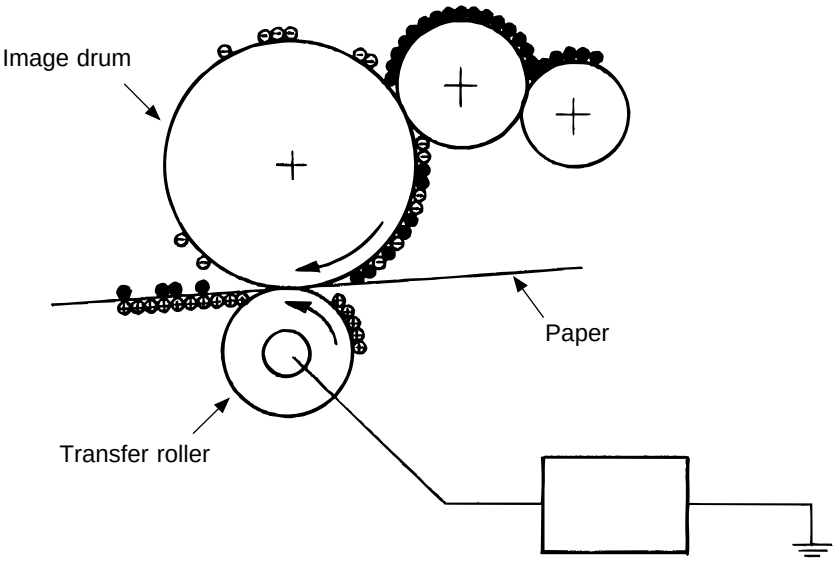


5) Transfer

The transfer roller is composed of conductive sponge material and is designed to make the image drum surface and the paper closely into contact.

Paper is placed over the image drum surface, and a positive charge, opposite in polarity to the toner, is applied to the paper from its reverse side.

The application of a high positive voltage (+1.5 KVDC) from the Power Supply Unit (H10 board) to the transfer roller causes the positive charge induced on the transfer roller surface to be transferred to the paper at the contact between the transfer roller and the paper. As a result, toner charged negative that is attracted to the image drum surface is transferred to the upper side of the paper by the positive charge on the lower side of the paper.

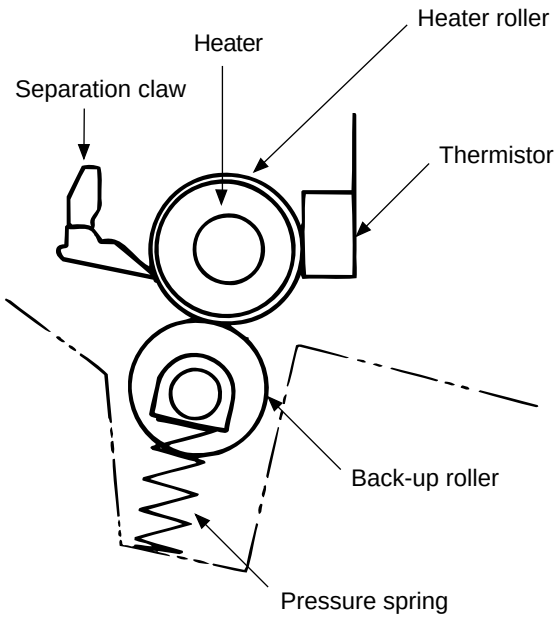


6) Fusing

After the end of the transfer operation, the unfused toner image is fused on the paper under heat and pressure as it passes between the heater roller and the back-up roller. The heater roller with a Teflon coating incorporates a 500 W heater (Halogen lamp), which heats the heat roller.

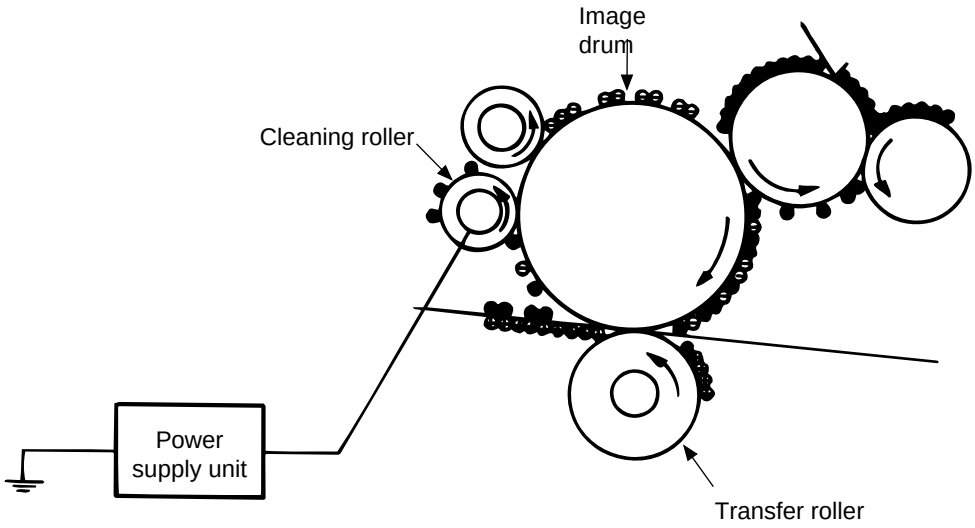
A thermister, which is in contact with the heater roller, regulates the heater roller at a predetermined temperature (about 185 ½C). A safety thermostat cuts off voltage supply to the heater by opening the thermostat in the event of abnormal rise in temperature.

The back-up roller is held under a pressure of 2.84 kg by the pressure spring at each side.



7) Cleaning

After the end of the transfer, residual toner on the image drum is attracted to the cleaning roller temporarily by static electricity to clean the image drum surface.



8) Cleaning of rollers

The charge roller, transfer roller and cleaning roller are cleaned in the following cases:

- In warning up at power-on time
- In warning up after the cover is opened and closed
- When the number of accumulated sheets is 10 and the printout operation ends

Changes in bias voltage applied to each roller move adhesive toner from the roller to the image drum and return it to the developer.

	Cleaning "NO" (V)	Cleaning "YES" (V)
DB+	(+300 V)	—
DB-	-265 V	-265 V
TR+	+1500 V	+1500 V
TR-	—	-1100 V
CB (cleaning)	+400 V	-1350 V
CH-	-1300 V	-1300 V

B.3 Errors

B.3.1 Errors List

The errors are listed below.

1) Major trouble errors

- Fuser error
- Fan error
- 2'nd tray communication error
- Toner lockout

2) Recoverable errors

- Cover open
- 2'nd tray route open
- Paper size error
- Face-up route open
- No cassette in 2'nd tray
- Paper exit jam
- Drum setting error
- No paper in 1'st cassette
- Paper transport system error
- No paper in 2'nd cassette
- Paper supply error

3) Alarms (warning)

- Low toner
- Paper width error
- Drum life expired

Note:

1. The major trouble errors do not recover after an error has been removed unless a reset is not performed.
2. A recoverable error resets automatically by itself once the cause of error has been removed. Printing is not possible while an error is existing.
3. The alarm serves as a warning only and the printing operation is performed.

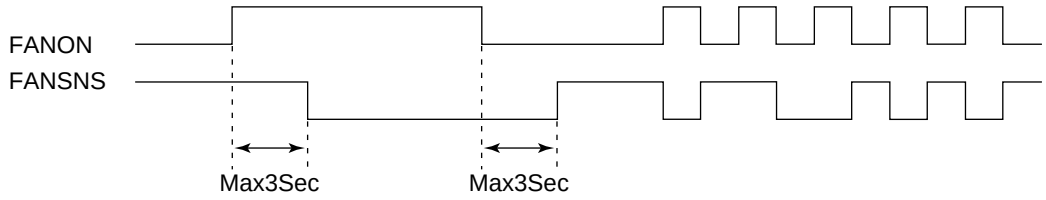
B.3.2 Major Trouble Errors

B.3.2.1 Fuser Error

The fuser error indicates an error in thermister on heater.
In case the fuser error occurs at the time of printing, the heater is turned off soon but the printing continues of that page.
However, if the error occurs before the write sensor is turned on, the motor stops soon.

B.3.2.2 Fan Error

The fan error is generated when the FANSNS signal lead goes "1" while the fan is running at full speed. Operation of the FANSNS signal when the fan is turned on is described below.



Since the fan alarm is not monitored during printing, the fan alarm does not appear from the moment the printing is started until the completion of printing operation.
In other words, the printing will continue even if the fan alarm occurs during printing.

B.3.2.3 Paper Feed Monitoring

Status	Description and Supervising Sensor	Distance
Paper supply error	Indicates monitoring error in hopping. Hopping is retried 3 times.	118 mm or less path Length +36 (hopping) x 3
Transport system jam 1	Indicates an error in the paper transport path. Error on resist roller section. From resist ON to write sensor (PS2) ON.	30 mm or less Inlet ~ write +20
Transport system jam 2	From inlet sensor OFF up to write sensor OFF.	44 mm or less
Transport system jam 3	Indicates an error in the paper transport system. Error of transfer roller and/or heat roller. From write sensor ON to outlet sensor ON.	207 mm or less Write ~ outlet +69
Paper size error	Indicates paper size other than specified one. From resist ON to inlet sensor OFF.	Recording paper +/- 45 mm
Paper outlet jam 1	Supervises slipping of the recording paper. From outlet sensor ON to OFF.	Recording paper +/- 45 mm
Paper outlet jam 2	Supervises jamming at the near paper outlet. From outlet sensor ON to OFF. When a crumpled recording paper is detected, the outlet sensor is set to "OFF" earlier than usual.	135 mm or less: NG

B.3.2.4 2'nd Tray Communication Error

This error is generated if on sending a command to the 2'nd tray is returned no-status (90 ms) or an undefined status. However, in case there is no status when reset, it will be considered that the 2'nd tray is not mounted.

B.3.2.5 Cover Open

Cover open sensor "0" indicates an open cover.
When the cover is closed the CU (control unit) section sends the reset signal and processes in the same way as if the power has been turned on.

B.3.3 Recoverable Errors

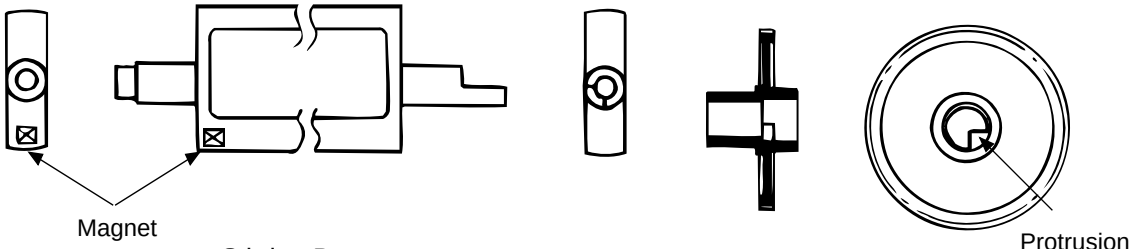
The three recoverable errors are listed in the table below.

Status	Description and Supervising Sensor
2'nd tray route open	Paper supply route from the option 2'nd tray to the main body is open, recording paper of the 1'st tray is being replaced.
No paper in 1'st cassette	No paper has been detected by the 1'st tray's paper sensor. No paper has been detected by paper sensor in "1" state.
No paper in 2'nd cassette	Response from the option tray indicated no paper in 2'nd tray.

B.3.3.1 Toner Low Detection

- Composition
  The device consists of the stirring gear which rotates at a constant rate, the stirring bar and the magnet on the stirring bar. The stirring bar rotates through the link on the protrusion in the stirring gear.

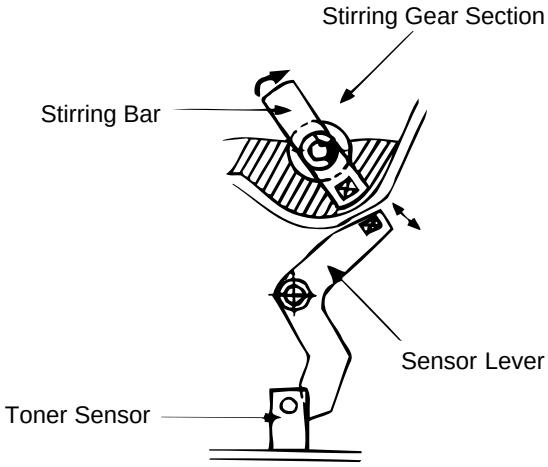
  The configuration of stirring bar in the figure below may differ. The principle of toner detection, however, remains the same.



- Operation
  Toner Low is detected by monitoring the time interval between the encounter of the magnet set on the sensor lever and the magnet on the stirring bar.

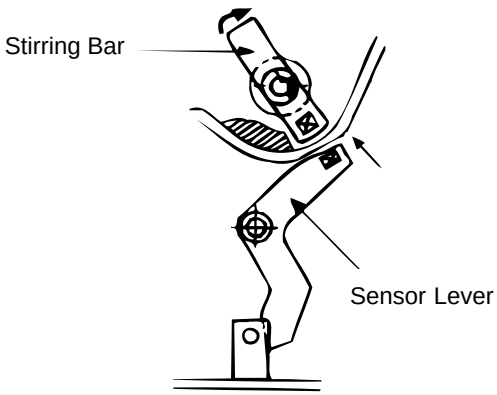
Operation during toner full state

- The stirring bar rotates due to interlocking with the stirring gear.
- Even when the magnet on the stirring bar reaches the maximum height, since the other side is being dipped in the toner, the stirring bar is pushed by the stirring gear.



Operation during toner low state

- When the stirring bar reaches the maximum height, since there is no resnstance provided by the toner on the other side, it falls to the minimum height due to its own weight. Because of this, the time interval during which it is in encounter with the magnet of the sensor lever becomes long. By monitoring this time interval, toner low can be detected.

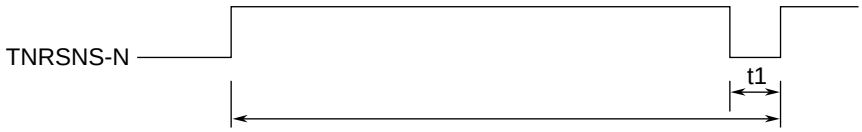


Low Toner Alarm

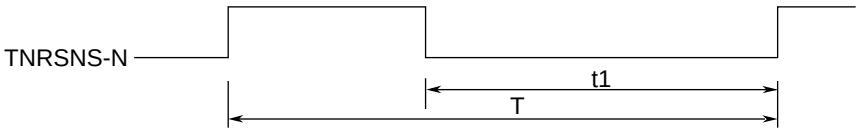
A check for low toner is carried out at all times when the drum is rotating (rotation in opposite direction is excluded).

- The toner sensor is not monitored while the drum motor is in halt.

TONER FULL state



TONER LOW state



- When the toner low state is detected 2 times consecutively, Toner Low is established.
- When the toner full state is detected 3 times consecutively, Toner Low is cancelled.
- When there is no change with the toner sensor for 2 cycles (5.3 sec. x 2) or more, then the Toner Sensor Alarm is activated.

Printing Speed	T	t1 (Toner Exists)	Remarks
8 ppm	2.6 sec.	less than 800 msec.	

B.4 Other Special Cases

B.4.1 Manual Paper Feed

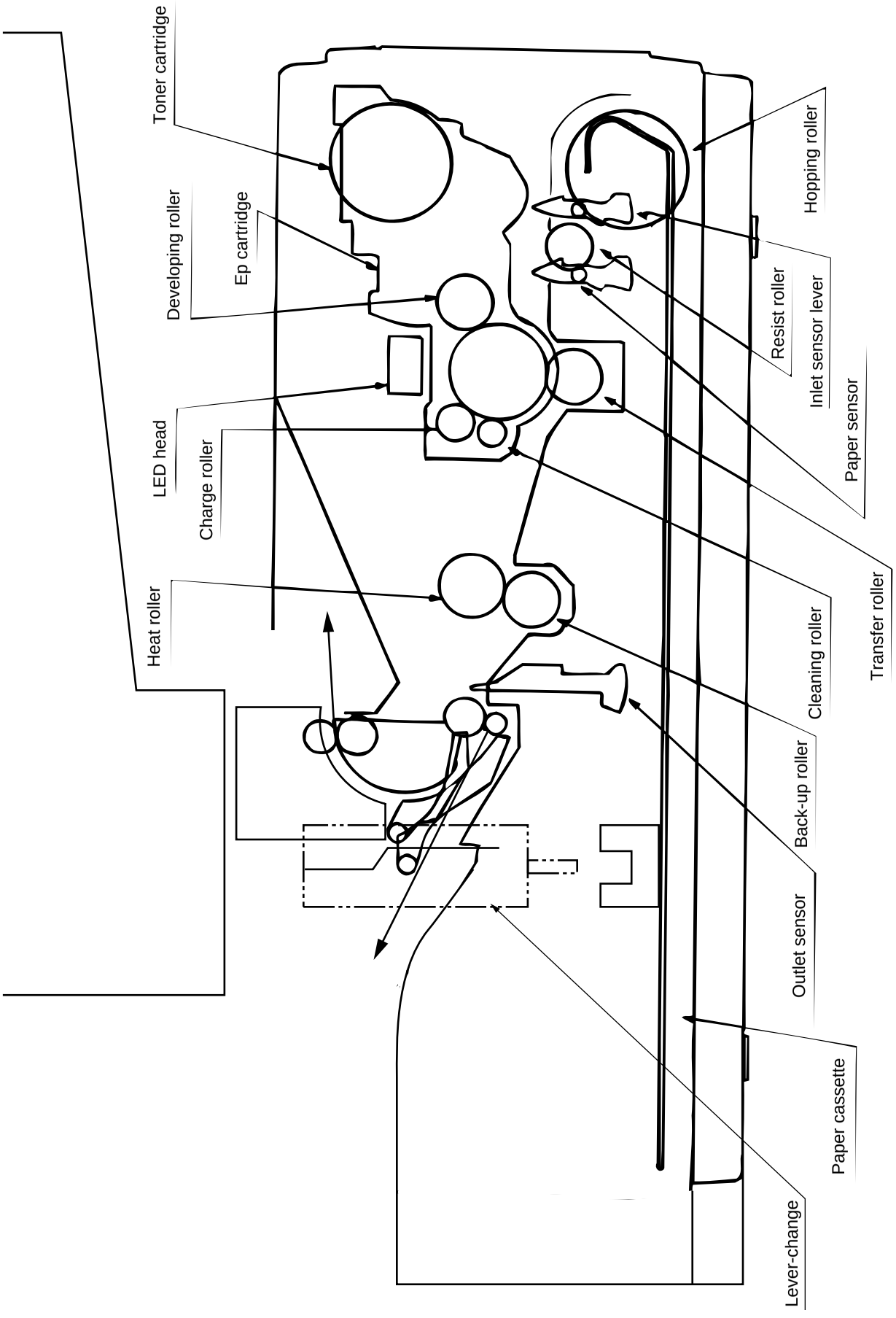
Turning on of the inlet sensors without the hopping operation indicates manual paper feeding for Fax 9830 (excluding when power is on).

B.4.2 Cleaning

The image drum needs cleaning since it gets dirty after having printed copies for a number of times.

The two kinds of cleaning are listed in the table below:

Cleaning Type	Function	Remarks
Cleaning	This cleaning removes the toner whose electric potential is reversed due to poor electrification, or removes the toner whose electric potential is insufficient on the image drum surface. (Recovery of the toner to developing roller)	Cleaning is performed when the number of prints exceed 10 sheets or the one-job operation ends. (At the end of communication or copy operations)
CH (charge roller) cleaning	This cleaning removes the residual toner on the charging roller surface. The toner is removed by moving to the recording paper from charging roller and image drum.	User operation


Toner cartridge
Developing roller
Ep cartridge
LED head
Charge roller
Heat roller
Hopping roller
Resist roller
Inlet sensor lever
Paper sensor
Transfer roller
Cleaning roller
Back-up roller
Outlet sensor
Paper cassette
Lever-change

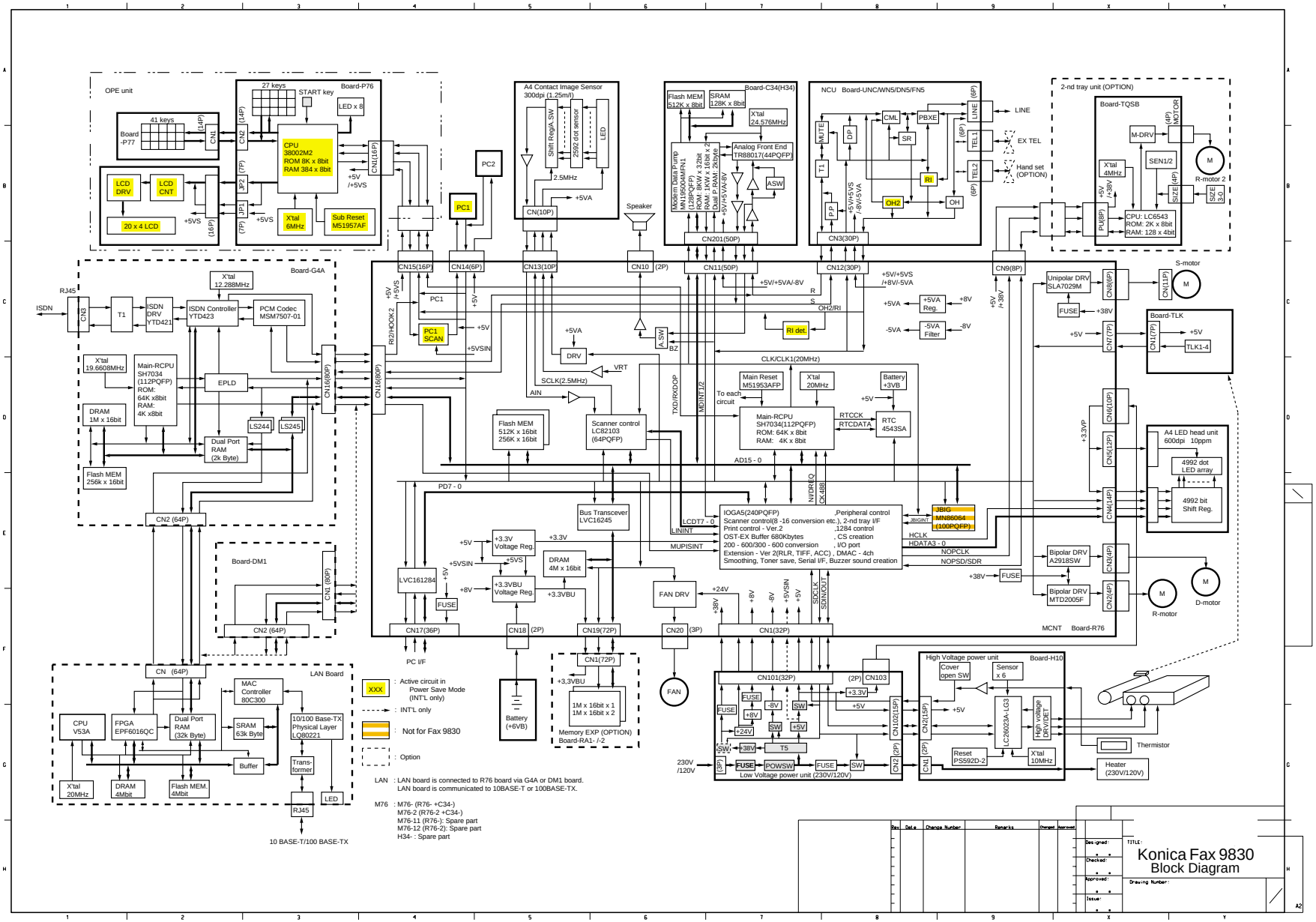
HOME

Appendix C

Block Diagram

Konica Business Technologies

Fax 9830 Block Diagram



HOME

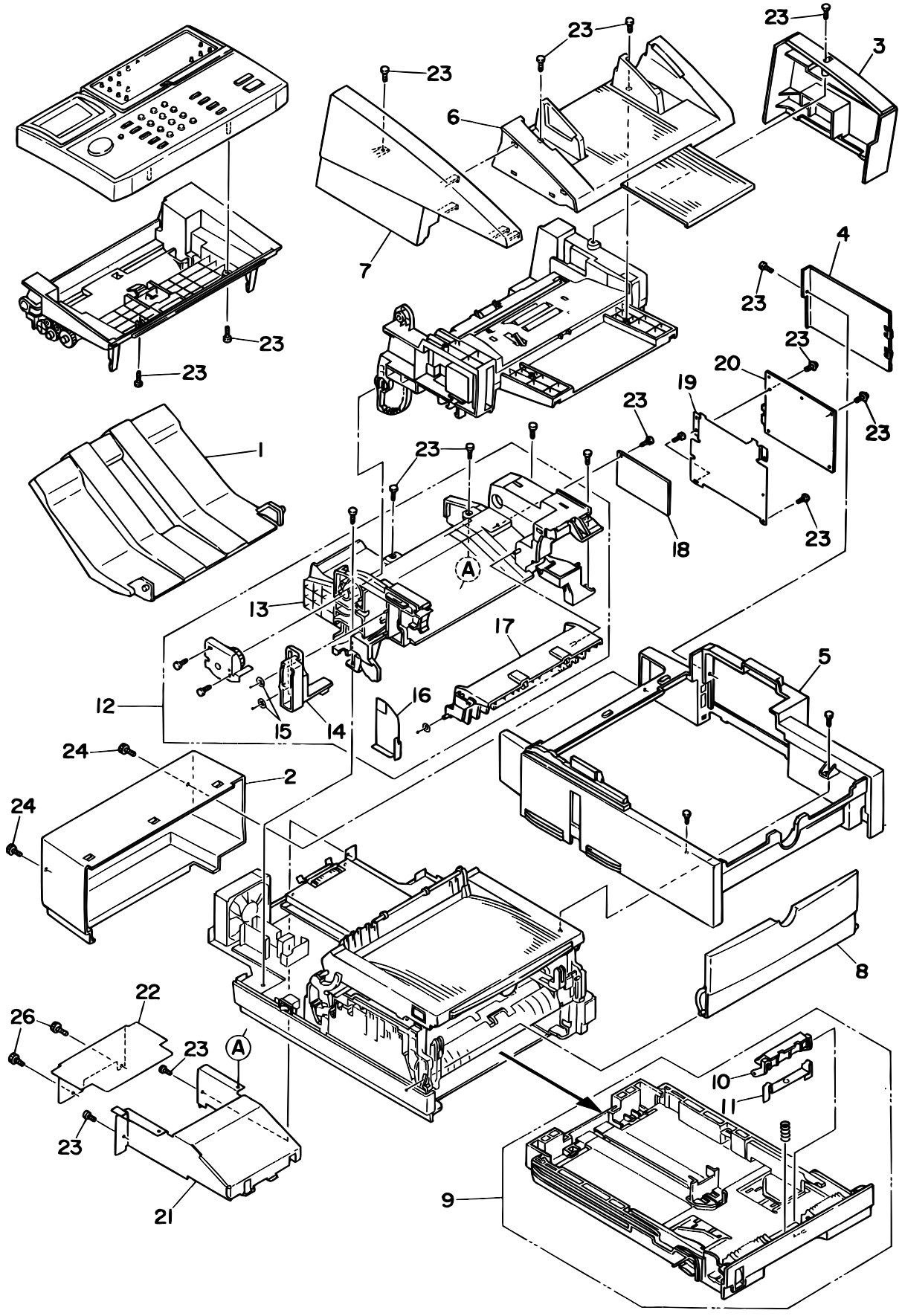
Appendix D

Illustrated Parts List

Konica Business Technologies

HOME

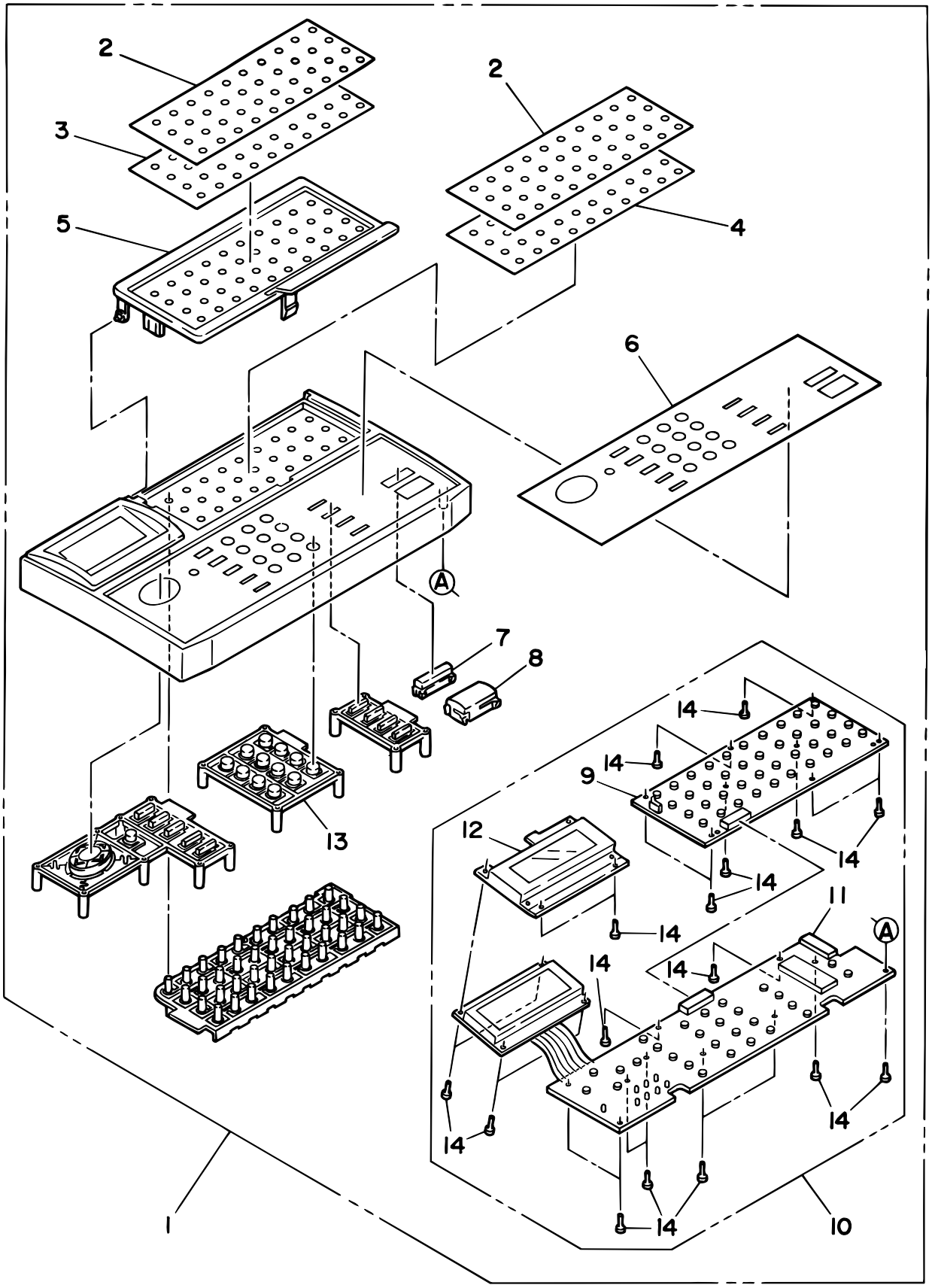
Section 1 CABINET ASSEMBLY



Section 1 CABINET ASSEMBLY

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1a	40730901	Stacker-Document	1	
	2a	40729501	Cover-Rear	1	KONICA
	2b	40729503	Cover-Rear	1	BOSCH
	3a	40762001	Cover-Side (R)	1	KONICA
	3b	40762003	Cover-Side (R)	1	BOSCH
	4a	40729401	Cover-NCU	1	KONICA
	4b	40729403	Cover-NCU	1	BOSCH
	5a	40729301	Cover-Main	1	KONICA
	5b	40729303	Cover-Main	1	BOSCH
	6a	40804001	Cover Assy. -Document Table	1	KONICA
	6b	40804003	Cover Assy. -Document Table	1	BOSCH
	7a	40761901	Cover-Side (L)	1	KONICA
	7b	40761903	Cover-Side (L)	1	BOSCH
	8a	PA4128-1149G001	MANUAL FEED GUIDE ASSEMBLY	1	KONICA
	8b	40955901	Guide Assy. -Manual_Feed	1	BOSCH
	9a	40473001	Cassette Assy. -Paper	1	KONICA
	9b	40473002	Cassette Assy. -Paper	1	BOSCH
	10	PP4083-5663G001	SEPARATION FRAME ASSEMBLY	1	
	11	40093801	Spring-Damper-Assy.	1	
	12	40802601	Frame Assy. -Stacker (FU)	1	
	13	40729601	Frame-Stacker (FU)	1	
	14	40729701	Lever-Change (PS)	1	
	15	PB4013-3501P003	CS-RING (CS4-SUS)	2	
	16	40955801	Plate Assy. -Shield (PSU)	1	
	17	40802501	Guide Assy. -Paper (FD)	1	
	18	40757301	Board-H34	1	
	19	40730101	Plate-Shield (NCU)	1	
	20a	40044503	Board-UNC	1	ODA
	20b	4044314	Board-WN5	1	OLA
	20c	40044307	Board-WN5	1	OEL-INT, AUS
	20d	40044401	Board-FN5	1	UKF
	20e	40971601	Board-DN5	1	GER, BOSCH
	20f	40044305	Board-WN5	1	KONICA/BOSCH
	21	40730301	Plate-PKG	1	
	22	40945401	Plate Assy. -Rear	1	
	23		B SCREW B	1	
	24		Screw	1	
	25		TAPPING SCREW B1	1	
	26		Screw	1	

Section 2 CONTROL PANEL ASSEMBLY



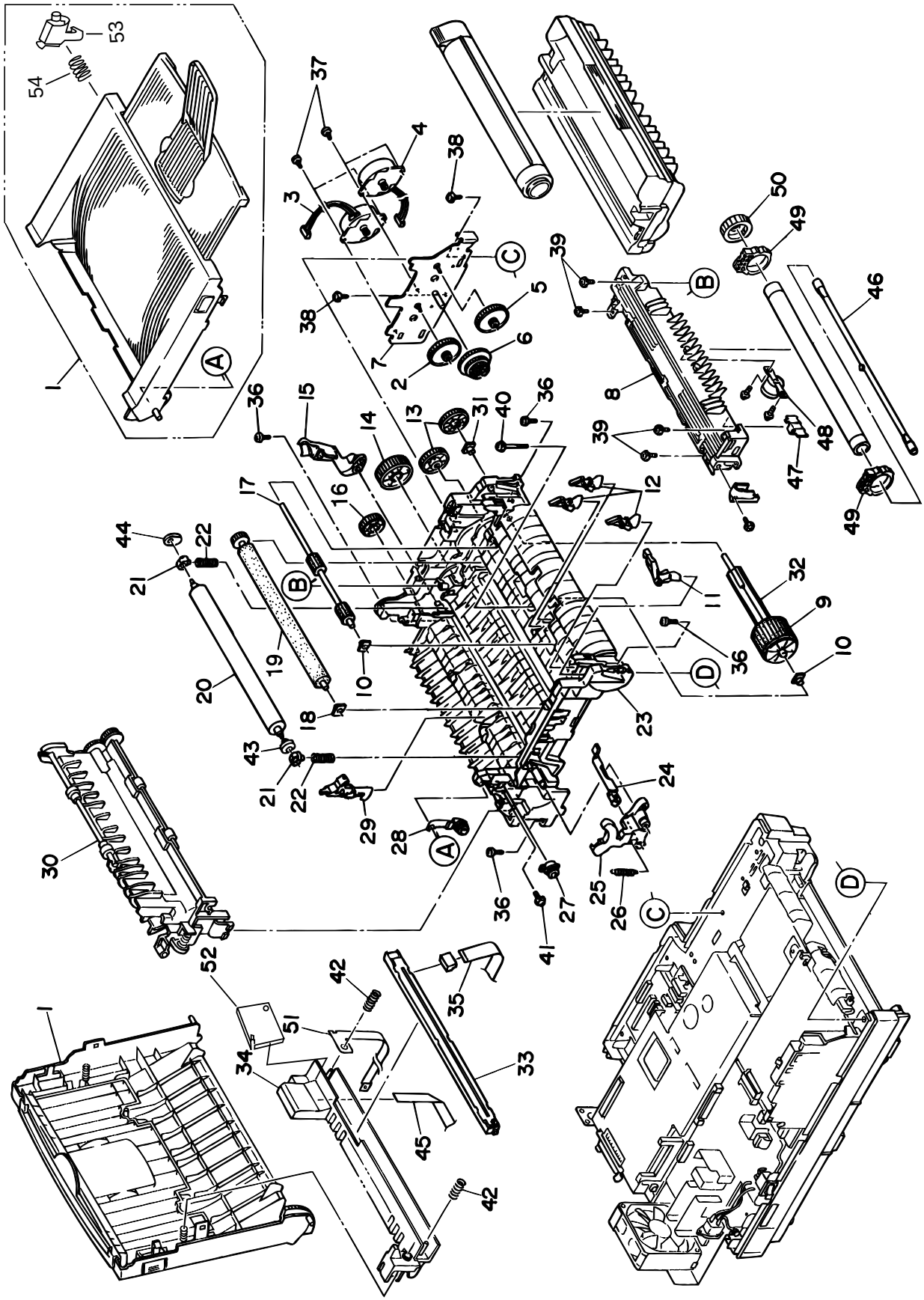
Section 2 CONTROL PANEL ASSEMBLY

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1a	40802901	OP Panel Assy. -FX056/176	1	KONICA OEL/UKF/GER Note 1
	1b	40802902	OP Panel Assy. -FX056/176	1	KONICA
	1c	40802906	OP Panel Assy. -FX056/176	1	FX-056, BOSCH
	1e	40802911	OP Panel Assy. -FX056/176	1	FX-176, BOSCH
	2	40733401	Film-Onetouch	1	
	3a	40733301	Sheet-Onetouch	1	
	3b	40733303	Sheet-Onetouch	1	GER/BOSCH
	4a	40733302	Sheet-Onetouch	1	Except Fax 9830
	4b	40733304	Sheet-Onetouch	1	Except Fax 9830 GER/BOSCH
	5a	40919601	Cover-Onetouch056	1	Fax 9830
	5b	40732401	Cover-Onetouch	1	
	6a	40733201	Sheet-Function	1	Fax 9830
	6b	40733203	Sheet-Function	1	Fax 9830, GER Note 2
	7a	40732601	Button-Start	1	KONICA/BOSCH
	7b	40732602	Button-Start	1	LANIER
	8a	40732701	Button-Stop	1	KONICA/BOSCH
	8b	40732702	BUtton-Stop	1	LANIER
	9	40807101	Board-P77	1	
	10		Board Assy, -P76	1	
	11	40807001	Board-H34	1	
	12	40733101	Holder-LCD	1	
	13a	40732801	Button-TenKey	1	KONICA
	13b	40732803	Button-TenKey	1	BOSCH
	14		B SCREW A		

Note 1: Not included items 6, 7, 8 for OEL version.

Note 2: Parts will be supplied in OEL.

Section 3 PRINTER ASSEMBLY



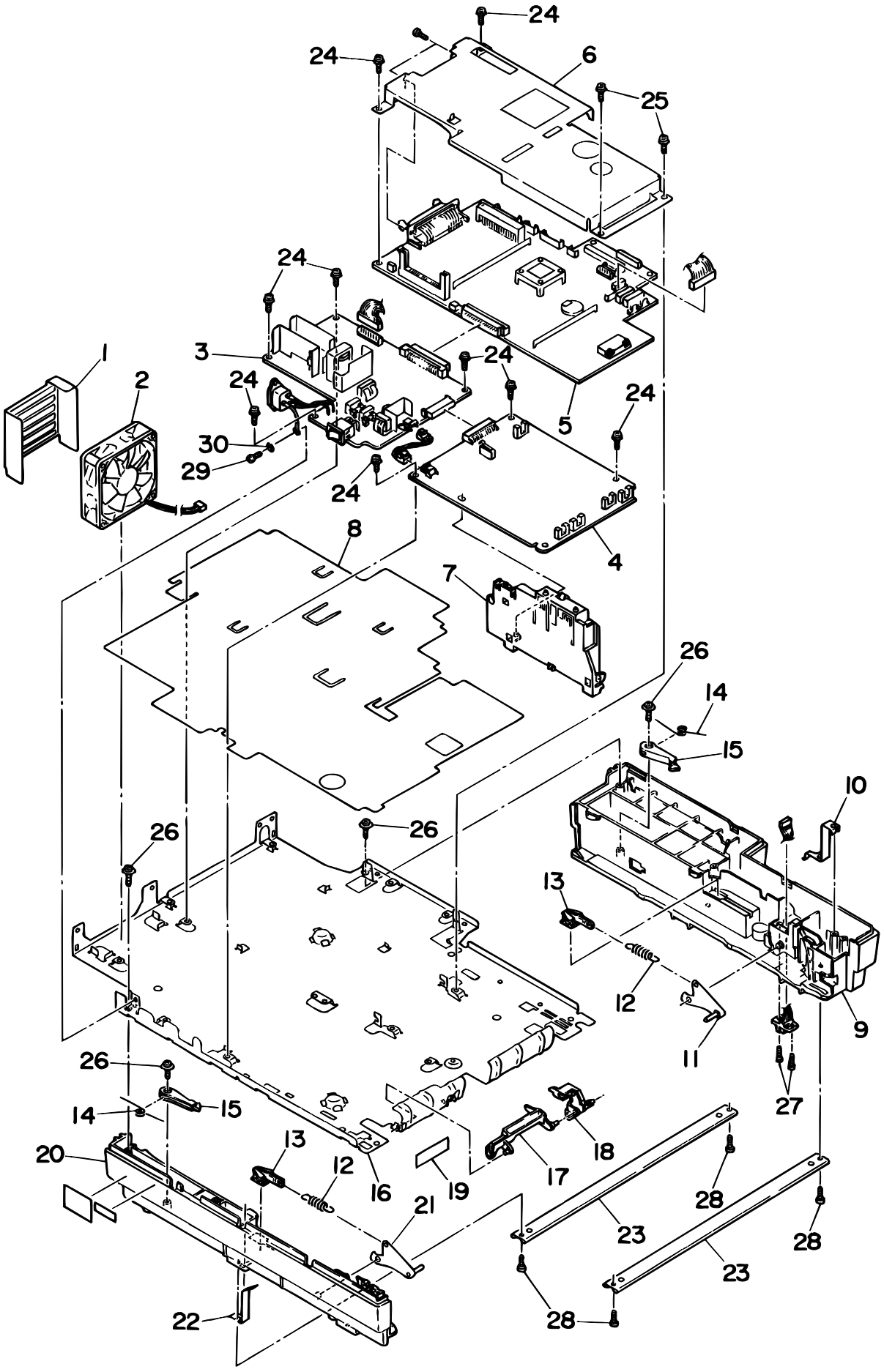
Section 3 PRINTER ASSEMBLY 1/2

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1a	40796501	Stacker-Assy. -176	1	KONICA
	1b	40796502	Stacker-Assy. -176	1	BOSCH
	2	40778101	Gear-Idle A (Z60/16)	1	
	3	40229001	Motor-Pulse (Main)	1	
	4	40396201	Motor-Pulse (Regist)	1	
	5	40295101	Gear-Idle B (Z60/16)	1	
	6	PP4083-7617P001	REDUCTION GEAR	1	
	7	40294801	Bracket-Motor (Caulking)	1	
	8a	40625702	Heat Assy. -176	1	120V, ODA
	8b	40625703	Heat Assy. -176	1	230V, Except ODA
	9	PB4076-5447P001	Rubber-Hopping Roler	1	
	10	PP4083-6022P002	Bearing A	3	
	11	PP4083-6086G001	TONER SENSOR ASSEMBLY	1	
	12	PP4083-6083P001	SENSOR PLATE (IN)	3	
	13	PB4083-6024P001	ONE-WAY CLUTCH GEAR	2	
	14	PP4083-6068P001	IDLE GEAR B	1	
	15	PP4083-6054P001	RESET LEVER R	1	
	16	PP4083-6081P001	IDLE GEAR C	1	
	17	40740601	Roller-Registration	1	
	18	40438001	Bearing-TR	1	
	19	40437801	Roller-Transfer-B Assy	1	
	20	40739201	Roller-Back up	1	
	21	PP4083-6052P001	BUSH A	2	
	22	PP4083-7620P001	BIAS SPRING C	2	
	23	40771201	Frame-Lower Subassembly	1	
	24	PP4083-6058P001	SWITCH ARM LEVER	1	
	25	PP4083-6053P001	RESET LEVER L	1	
	26	PP4083-6057P001	RESET SPRING	1	
	27	PB4083-6197P001	DAMPER FRAME	1	
	28	PP4083-6191G001	DAMPER ARM ASSEMBLY	1	
	29	40771401	Lever-Eject Sensor Assembly	1	
	30	40796201	Guide Assy.-Eject	1	
	31	PP4083-6031P001	BEARING R	1	
	32	PP4083-6020P001	HOPPING ROLLER SHAFT	1	
	33	40521201	LED Head Unit-51K	1	
	34a	40949601	Holder Assy. -TLK	1	
	34b	40541401	Cover-Head	1	
	35	40241703	Cord-LED Assembly	1	
	36		Screw	4	

Section 3 PRINTER ASSEMBLY 2/2

Rev.	No.	Part Number	Description	Q'ty	Remarks
	37		S SCREW B	4	
	38		S SCREW C	1	
	39		TAPPING SCREW B1	4	
	40		CUP SCREW C	1	
	41		TAPPING SCREW B2	1	
	42	40640801	Spring-Head	2	
	43	PP4120-1209P001	WASHER B	1	
	44	PP4120-1210P001	WASHER C	1	
	45	2381014P0001	SMCD7X320BDX10/6 (BL) CONN PAR-	1	
	46a	PB4120-1105P001	HAROGEN LAMP (Q) -F120	1	120V, ODA
	46b	PB4120-1105P002	HAROGEN LAMP (Q) -F230	1	230V, Except ODA
	47	PB4083-6106P001	HEAT SENSOR	1	
	48	PB4083-6293P001	THERMOSTAT A	1	
	49	PB4083-6128P001	BEARING B	2	
	50	PP4083-6113P001	GEAR A	1	
	51	40891301	Film-FG (FAX)	1	
	52	40807201	Board-TLK	1	
	53	PP4128-1140P002	Stacker Cover Holder	2	
	54	PP4128-1245P001	Spring Knob	2	

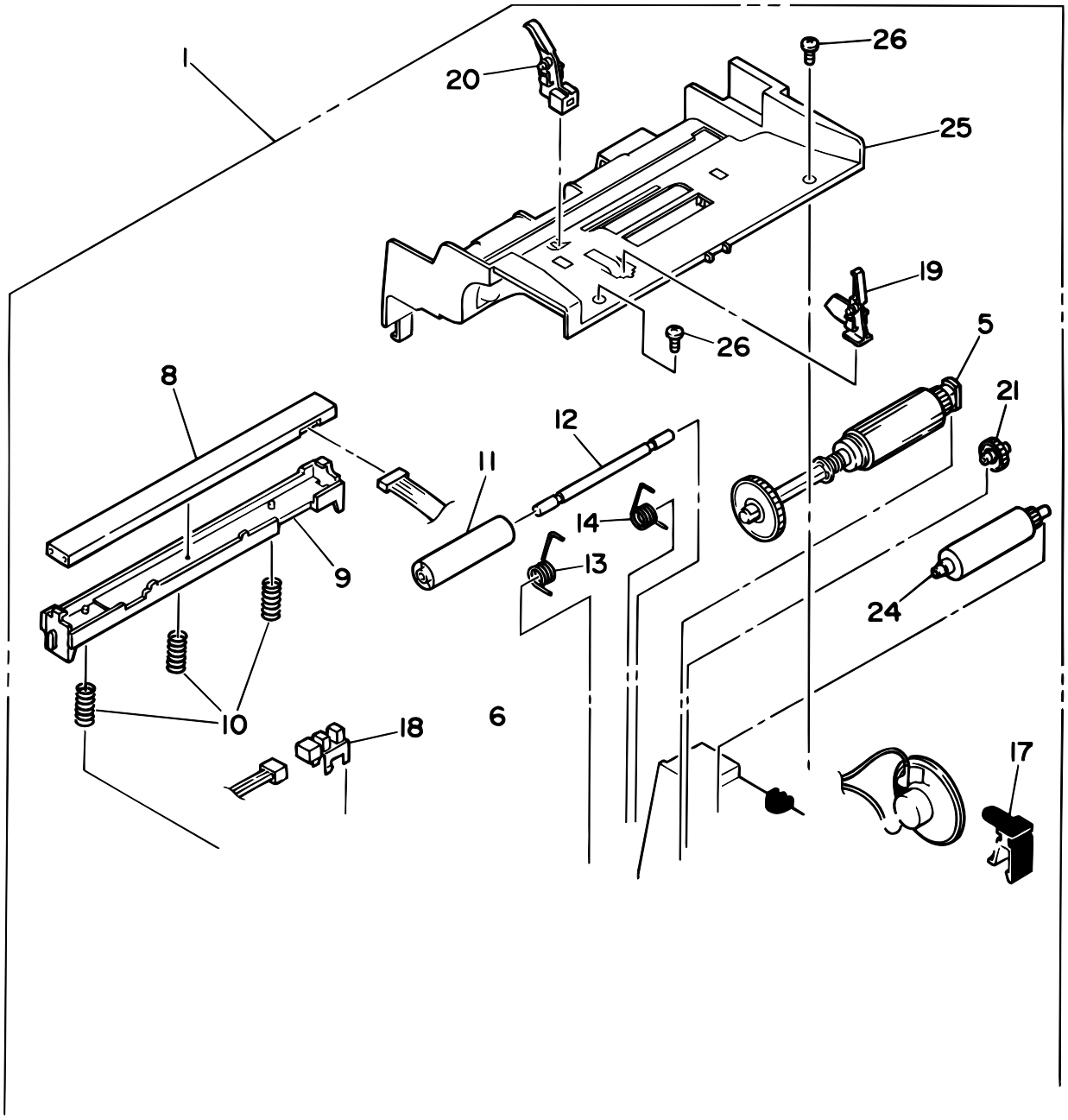
Section 4 BASE ASSEMBLY



Section 4 BASE ASSEMBLY

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1	40275501	Plate-Guard	1	
	2	YB4120-1119P001	DC FAN MOTOR	1	
	3a	40628501	FX-176 120V Power Supply	1	120V, ODA
	3b	40628601	FX-176 230V Power Supply	1	230V, Except ODA
	4	40660201	PWR unit-H10	1	
	5b	40755112	Board-M76-12	1	Fax 9830
	6	40730201	Plate-Shield (MCNT)	1	
	7	PA4083-6090G001	CONTACT ASSEMBLY	1	
	8	40763001	Sheet-Insulation	1	
	9a	40729901	Guide-Cassette (R)	1	KONICA
	9b	40729903	Guide-Cassette (R)	1	BOSCH
	10	PP4083-7622P001	FG PLATE C	1	
	11	PP4083-7658G001	SHEET LINK R ASSEMBLY	1	
	12	PP4083-7666P001	SHEET SPRING	2	
	13	PP4122-1170P001	LINK PULL LEVER	2	
	14	PP4083-7655P001	CASSETTE LOCK SPRING	2	
	15	PP4083-7653P001	CASSETTE LOCK LEVER	2	
	16	40730001	Plate-Base	1	
	17	PP4083-7667P001	PAPER END SENSOR LEVER	1	
	18	PP4083-6154P001	CASSETTE DETECTION LEVER	1	
	19	YC4061-5115P001	POLYETHYLENE TAPE	2	
	20a	PP4083-7651P001	CASSETTE GUIDE L	1	KONICA
	20b	PP4083-7651P004	CASSETTE GUIDE L	1	BOSCH
	21	PP4083-7657G001	SHEET LINK L ASSEMBLY	1	
	22	PP4083-7665P001	FG PLATE D	1	
	23	PP4083-7660P001	BEAM PLATE	2	
	24		B SCREW B		
	25		B SCREW B		
	26		TAPPING SCREW B1		
	27		Screw		
	28		Screw		
	29		S SCREW C		
	30		Washer		

Section 5 FRAME ASSEMBLY-SCANNER (L)

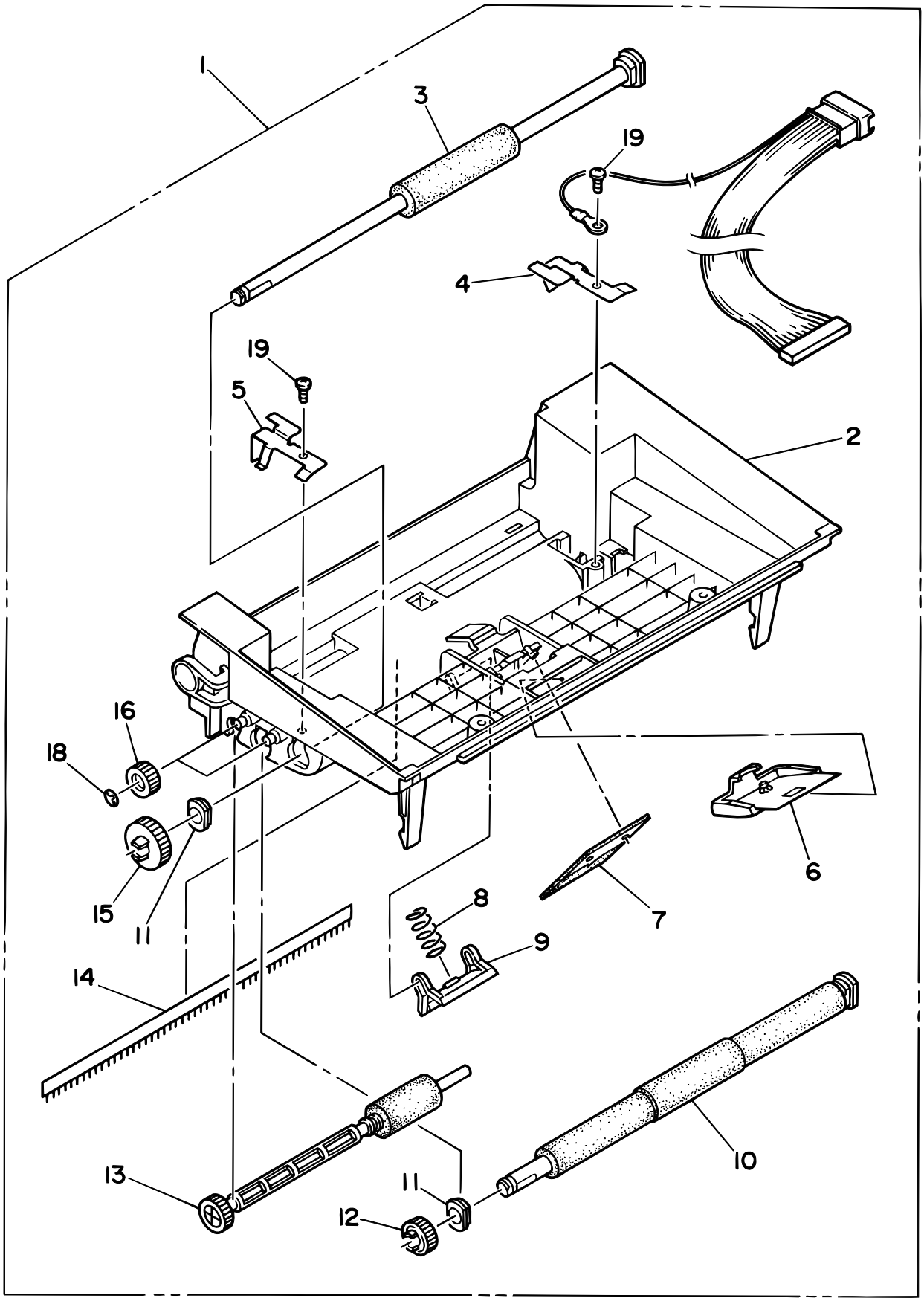


8

Section 5 FRAME ASSEMBLY-SCANNER (L)

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1	40803501	Frame Assy. -Scanner (L)	1	
	2	40731201	Frame-Scanner (L)	1	
	3	40803701	Motor Assy. -Scanner	1	
	4	40803801	Motor-Pulse (S)	1	
	5	40976401	Roller Assy. -ADF	1	
	6		Roller Assy. -Eject	1	
	7	PP4120-1025P001	EJECT PINCH SPRING	2	
	8	40809901	Contact Image Sensor (A4, 300DPI)	1	
	9	40731501	Holder-CIS	1	
	10	40731901	Spring-CIS	3	
	11	PP3529-5045P001	PINCH ROLLER	1	
	12	40802201	Shaft-Pinch	1	
	13	40732101	Spring-Pinch (L)	1	
	14	40732201	Spring-Pinch (R)	1	
	15	PP4120-1032P001	LATCH SPRING	2	
	16	40915801	Cap PC2	1	
	17	40733601	Stopper-Scanner	2	
	18	YB4120-1137P001	PHOTO SENSOR	2	
	19	PP4120-1016P001	PC1 LEVER	1	
	20	PP4120-1017P001	PC2 LEVER	1	
	21	PP3529-5033P001	GEAR (Z20)	1	
	22	40930201	Gear-Idle (Z75/15)	1	
	23	40947001	Tape-Insulation	1	
	24	PA3529-5082G001	SUB-ROLLER ASSEMBLY	1	
	25	40731301	Guide-Paper	1	
	26		B SCREW B		
	27		S SCREW B		
	28	PB4122-1293P002	Damper-Rubber	1	

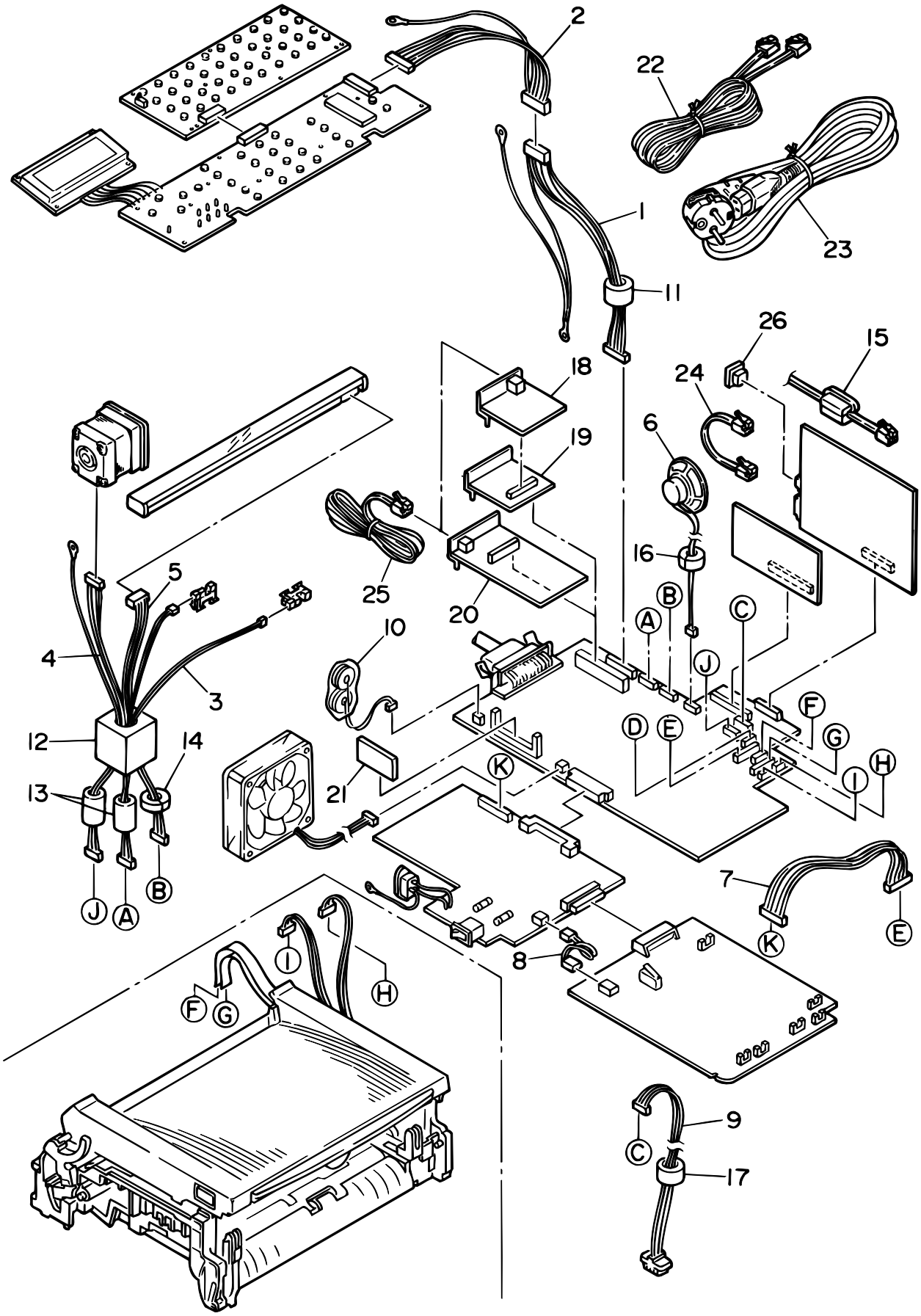
Section 6 FRAME ASSEMBLY-SCANNER (U)



Section 6 FRAME ASSEMBLY-SCANNER (U)

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1	40803401	Frame Assy. -Scanner (U)	1	
	2	40731101	Frame-Scanner (U)	1	
	3	PA4120-1045G001	FEED ROLLER (1) ASSEMBLY	1	
	4	PP4120-1226P001	Earth-Plate (SR)	1	
	5	PP4120-1227P001	Earth-Plate (SL)	1	
	6	40803601	Plate Assy. -Pinch	1	
	7	PA3529-5087G001	SEPARATION RUBBER ASSEMBLY	1	
	8	40732001	Spring-ADF	1	
	9	PP3527-5153P001	BACK-UP PLATE	1	
	10	40935801	Roller Assy. -Sensor	1	
	11	PP3522-3568P001	BEARING ADF	2	
	12	PP3529-5034P001	GEAR (Z22)	1	
	13	PA4120-1052G001	EXIT ROLLER ASSEMBLY	1	
	14	40983001	Bar-Discharge	1	
	15	PP3529-5035P001	GEAR (Z28)	1	
	16	PP3527-5034P001	GEAR (Z16)	2	
	18	PB4013-3102P002	CS-RING (CS4-SUS)	2	
	19		B SCREW B	2	

Section 7 CABLES, OPTION BOARDS



Section 7 CABLES, OPTION BOARDS

Rev.	No.	Part Number	Description	Q'ty	Remarks
	1	40807901	CONN Cord-OPE2	1	
	2	40807801	CONN Cord-OPE1	1	
	3	40807601	CONN Cord-PC1/PC2	1	
	4	40790701	CONN Cord-Wire Motor	1	
	5	40807501	CONN Cord-CIS	1	
	6	40916401	Speaker	1	
	7	40807701	CONN Cord-PSU (3.3V)	1	
	8	40808001	CONN Cord-PSU (High/Low)	1	
	9	YS4111-3527P002	CONNECTOR CORD	1	
	10	40805101	Battery Assy. -Secondary	1	
	11	105A1070C0004	TFC-23-11-14 Core	1	
	12	105A1062C0002	0443-167251 Core	1	
	13	105A1068C1006	SFC-4 Core	2	
	14	105A1051C2001	TR-23-11-14 Core	1	
	15	105A1068C1004	SFC-8 Core	1	
	16	105A1051C1003	TR-16-8-13 Core	1	
	17	105A1051C3002	TR-28-16-20 Core	1	
	18	40924601	Board-Interface MLET B07	1	
	19	40804901	PCB Unit-DM1	1	
	20	40805001	PCB Unit-G4A	1	
	21a	40755201	Board-RA1 (2MB)	1	2MB
	21b	40755202	Board-RA1_2 (4MB)	1	4MB
	22	236A3161P0002	FTC2-001-9SG	1	ODA (TEL/LINE Cable)
	23a	YS4011-1329P002	AC CORD A	1	
	23b	YS3512-1485P001	AC CORD	1	ODA, Note 1
	23c	236A6058P0001	4622-007-0092	1	OEL (AC CORD), Note 2
	24	YS4111-5581P001	CORD (TEL1-TEL2)	1	
	25	40962001	ISDN modular cord (4wire, 3m)	1	
	26	223A7010P0003	TM-6-DC1, Connector-Plug	1	

Note 1: Parts will be supplied by ODA.

Note 2: Parts will be supplied by OUK.

HOME

Appendix E

Second Paper Feeder

Konica Business Technologies

1. OUTLINE

1.1 Functions

When the Second Paper Feeder is installed with the Fax 9830 series facsimile transceiver, the Second Paper Feeder is connected to the facsimile by a connector. The Second Paper Feeder supplies paper automatically through the operation of pulse motor (hopping), which is driven by signals sent from CPU of the Second Paper Feeder under the control of the facsimile. The main functions are the followings:

- Paper that can be used:

[Paper Type]
- Standard paper: Xerox 4200 (20-lb)
- Special paper: PPC sheets; use of envelopes or thick paper is not possible.
- Cut sheet size: A4, Letter, Legal13, Legal14
- Special size: Paper width: 8.27 to 8.5 inches
  Paper length: 11 to 14 inches

[Weight]
- 16-lb to 24-lb (60 to 90 g/m^2)

- Paper setting quantity: 500 sheets of paper weighing 18 lbs

1.2 External View and Component Names

2. MECHANISM DESCRIPTION

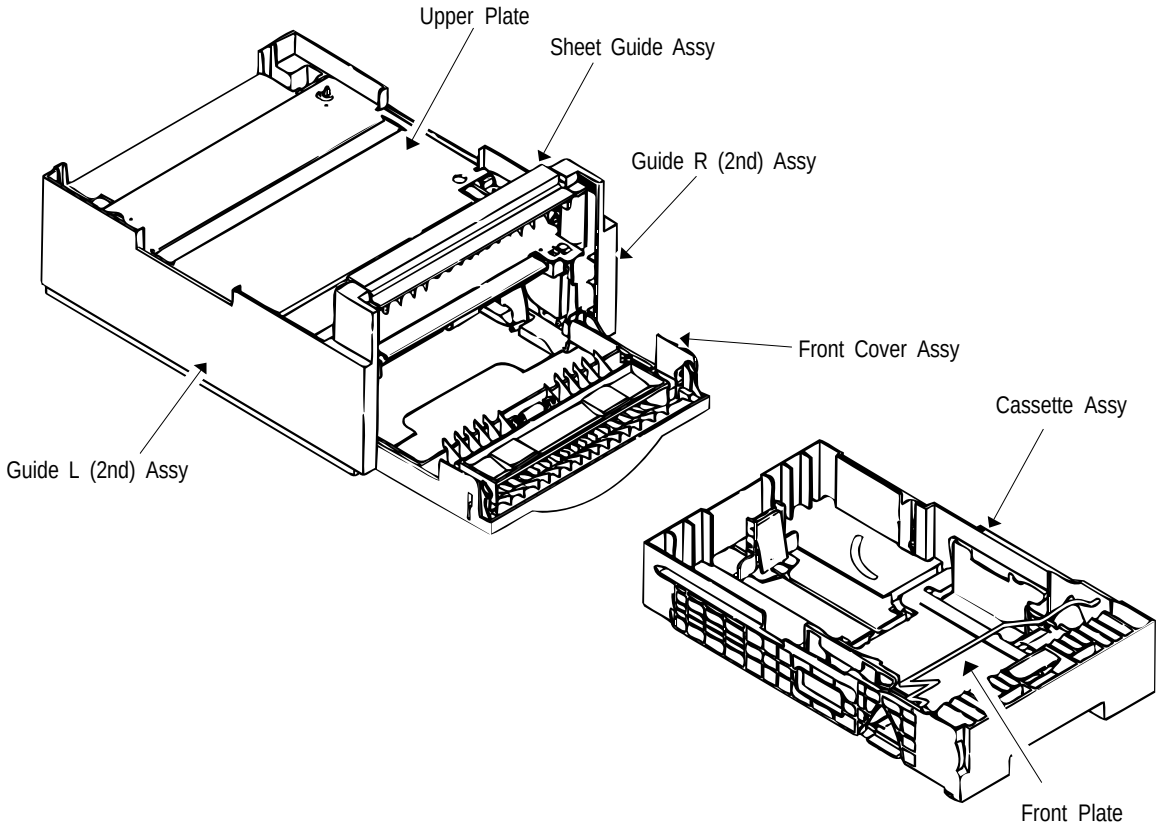


Fig. 1-1 External View and Component Names

2.1 General Mechanism

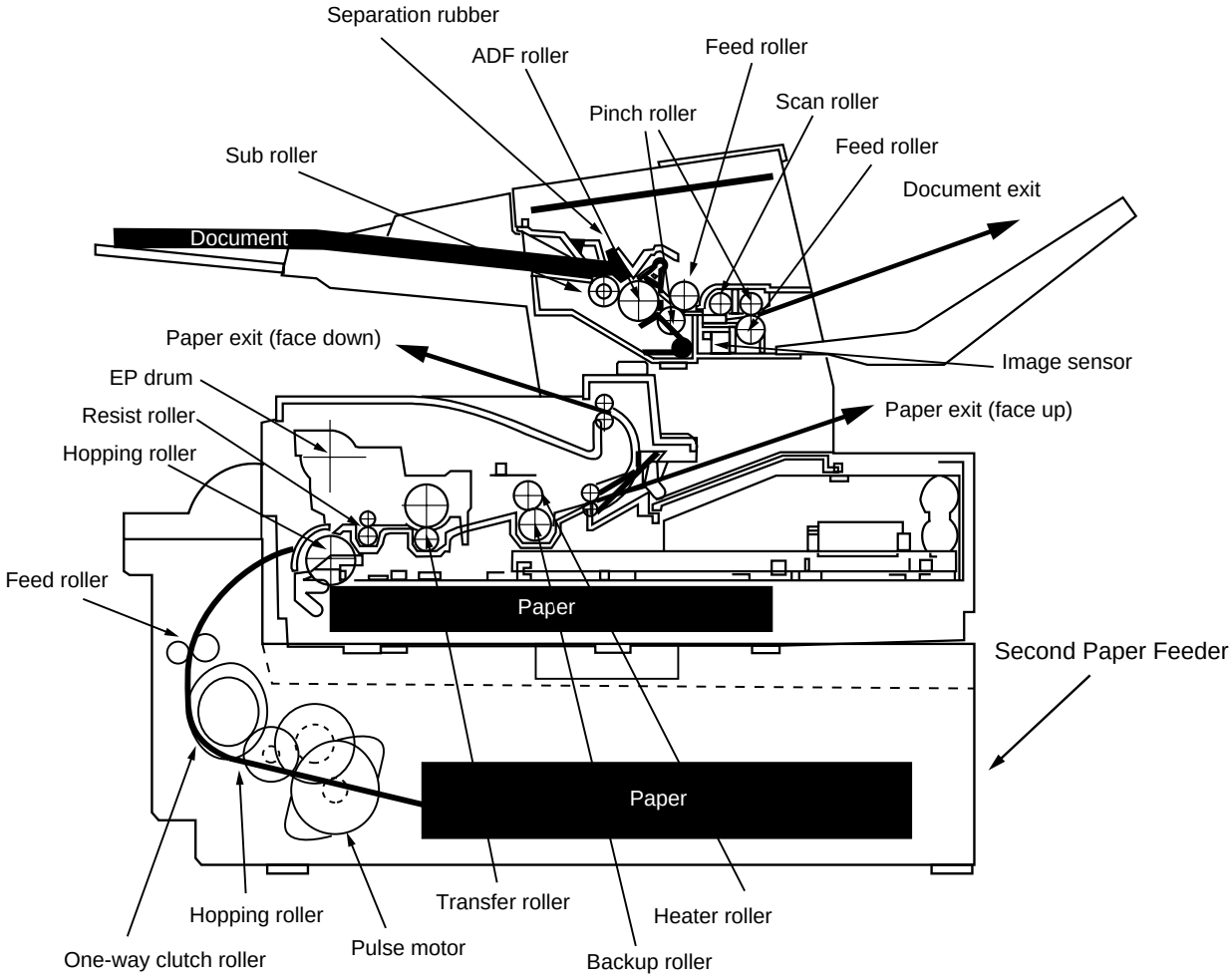
The Second Paper Feeder feeds the paper into the facsimile by receiving the signal from the facsimile, which drives the pulse motor inside the Second Paper Feeder, and this motion is transmitted to rotate the one-way clutch of the hopping frame assembly. The paper is delivered from the hopper into the facsimile through the turning of the hopping roller and feed roller.

Once delivered into the facsimile, the paper is then controlled and fed through by pulse motor (registration) of the facsimile.

2.2 Hopper Mechanism

The hopper automatically feeds the facsimile with the paper being set, single sheet at a time. When the paper is loaded in the paper cassette, it is then transported by the pulse motor, carrying forward only a single sheet caught by the separation rubber at a time.

3. PARTS REPLACEMENT



This section covers the procedures for the disassembly, reassembly and installations in the field.
This section describes the disassembly procedures, and for reassembly procedures, basically proceed with the disassembly procedures in the reverse order.

3.1 Precautions Concerning Parts Replacement

(1) Parts replacements must be carried out, by first turning the facsimile power switch off “O” and removing the facsimile from the Second Paper Feeder.

(2) Do not disassemble the Second Paper Feeder if it is operating normally.

(3) Establish the extent of disassembly suitable for the purpose of the procedure, and do not disassemble any more than necessary.

(4) Only specified service tools may be used.

(5) Disassembly must be carried out according to the prescribed procedures. Parts may be damaged if such procedures are not followed.

(6) Small parts such as screws and collars can easily be lost, therefore these parts should be temporarily fixed in the original location.

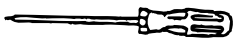
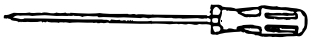
(7) When handling printed circuit boards, do not use any glove which may generate static electricity.

(8) Do not place the printed circuit boards directly on the equipment or floor.

[Service Tools]

Table 3-1 shows the tools required for the replacement of printed circuit boards, assemblies and units in the field.

Table 3-1 Service Tools

No.	Service Tools		Q'ty	Application	Remarks
1		No. 1-100 Philips screwdriver	1	2 ~ 2.5 mm screws	
2		No. 2-100 Philips screwdriver	1	3 ~ 5 mm screws	
3		No. 3-100 screwdriver	1		
4		Digital multimeter	1		
5		Pliers	1		

3.2 Parts Layout

This section describes the layout of the main components.

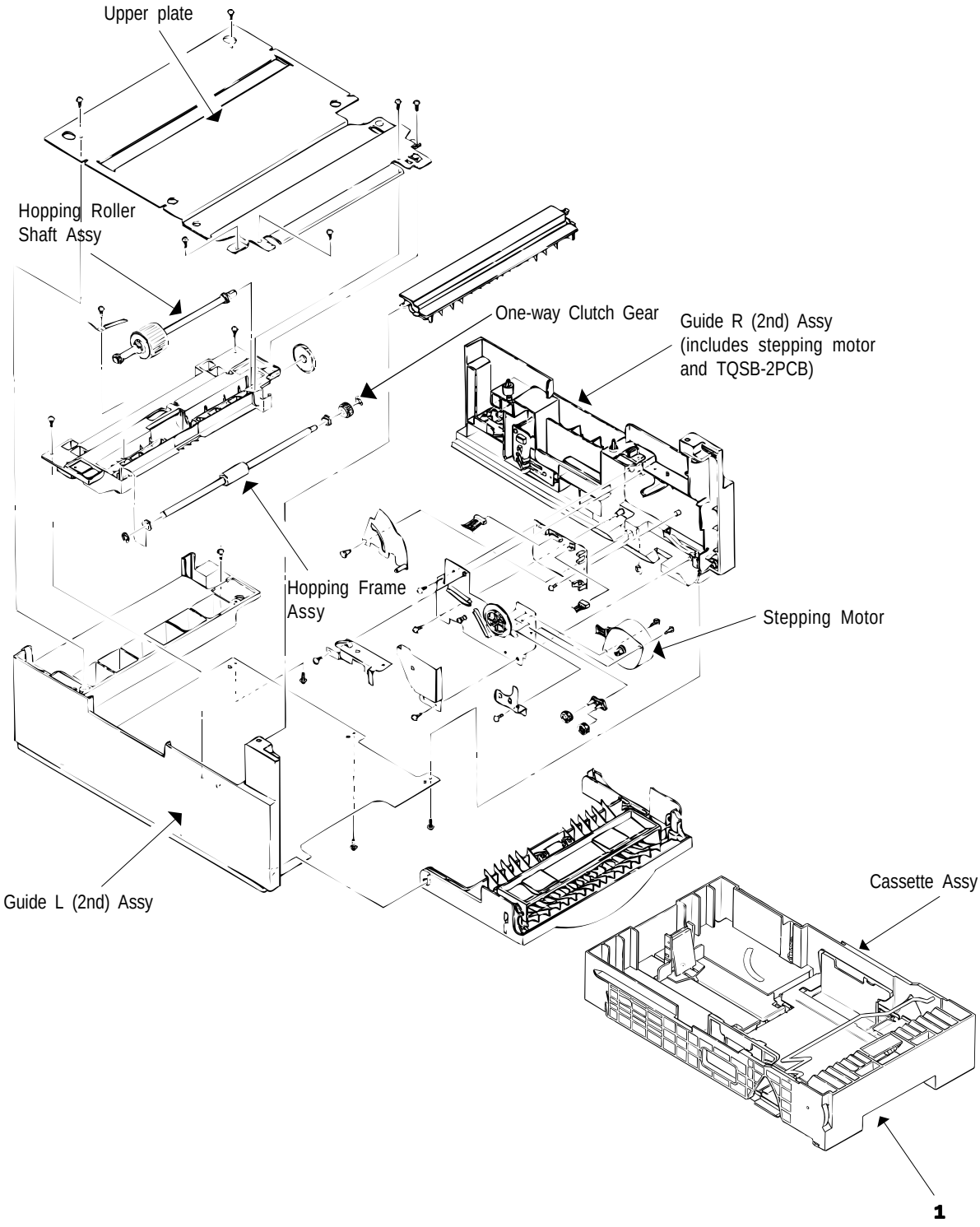
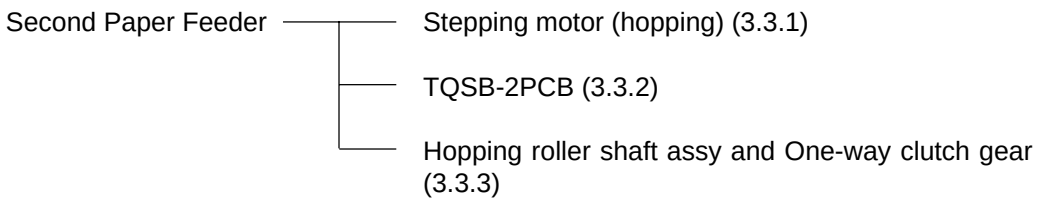


Fig. 3-1

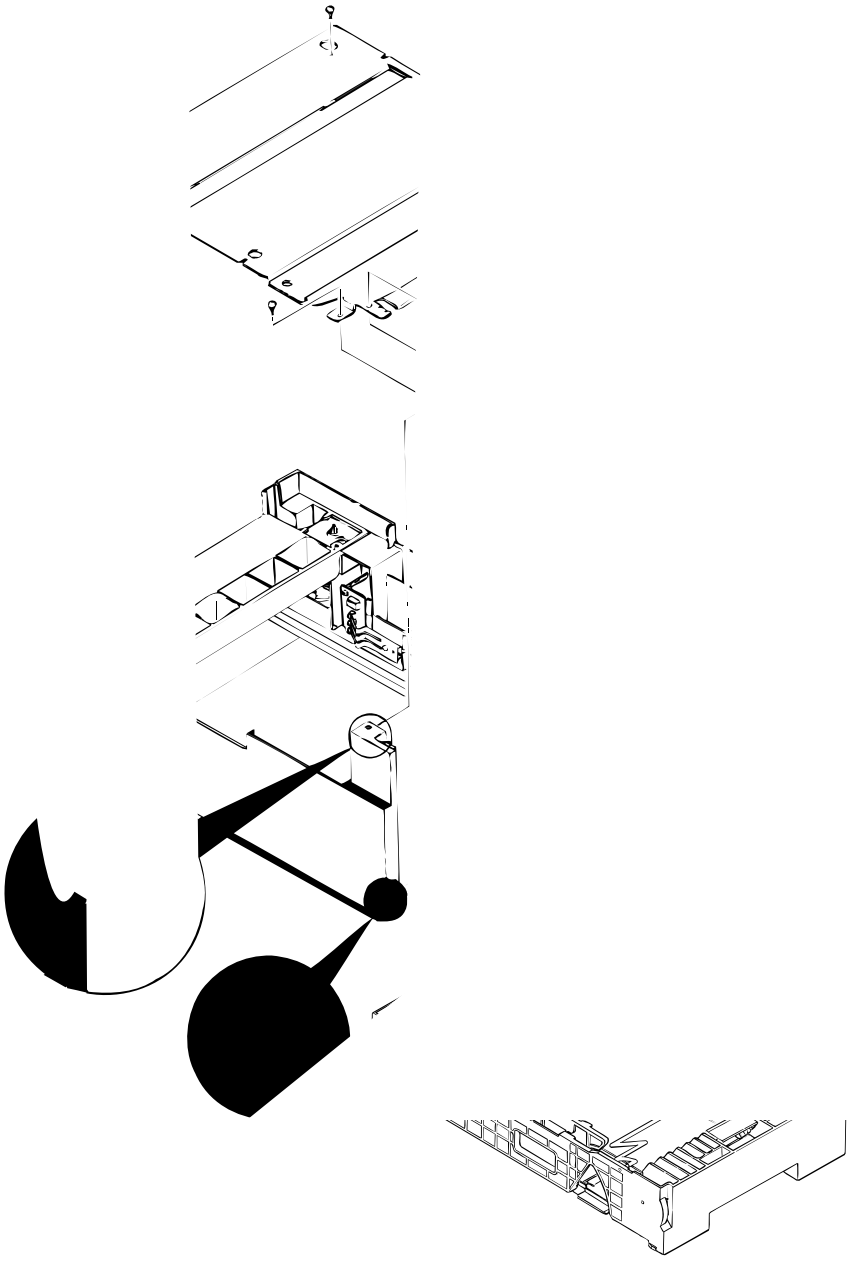
3.3 Parts Replacement Methods

This section describes the parts replacement methods for the components listed in the disassembly order diagram below.

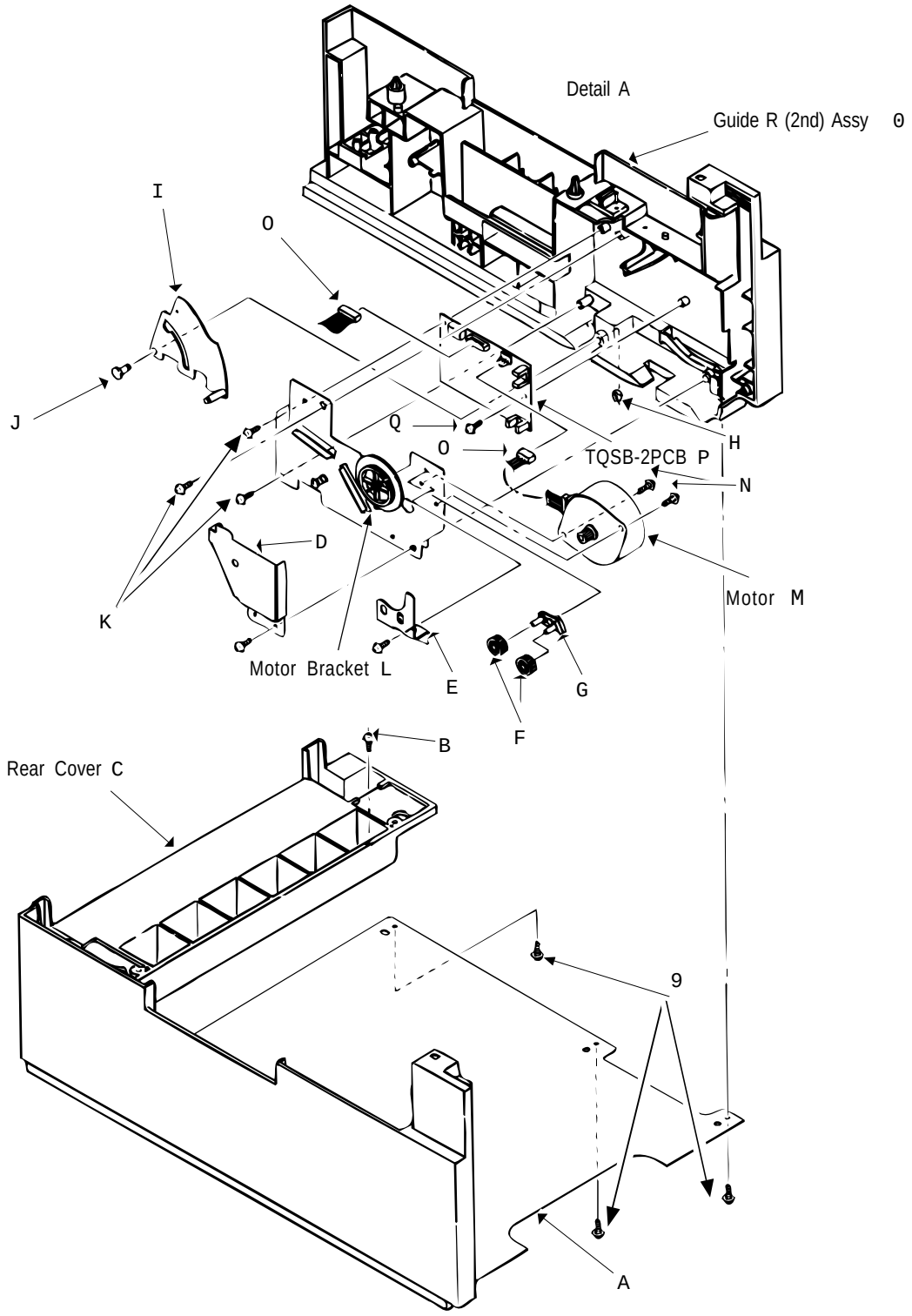


3.3.1 Stepping Motor (Hopping)

(1) Turn the facsimile power switch off, pull out the AC cord from the outlet. Remove the facsimile off Second Paper Feeder.
(2) Take the paper cassette assy 1 out of Second Paper Feeder.
(3) Remove six screws 2 and remove the upper plate 3. Remove two screws 5 and remove the hopping frame assy 6.
(4) Remove the front cover assy 4 off the guide boss on the guide L (2nd) assy 7 by bending the guide L (2nd) assy 7 in the direction of arrow shown in the magnified view below.
(5) Pull the sheet guide assy 8 in the direction of arrow ⓐ and also push in the direction of arrow ⓑ to unlock the notch, and bring the sheet guide assy 8 in the direction of arrow ⓒ to remove the sheet guide assy 8.



(6) Remove three screws 9 which are holding the guide R (2nd) assy 0 to the bottom plate A. Remove the screw B which is keeping the rear cover C and guide R (2nd) assy 0. Remove the guide R (2nd) assy 0.
(7) Remove the protect (M) D, guide bracket E, planet gears F and planet gear bracket G.
(8) Remove the E-ring H which is keeping the sheet link I on the guide R (2nd) assy 0, and pull out the hinge stand J.
(9) Remove three remaining screws K which are keeping the motor on the motor bracket L, and remove the connector off the Stepping Motor M.
(10) Remove two screws N on the Stepping Motor M.



3.3.2 TQSB2-PCB

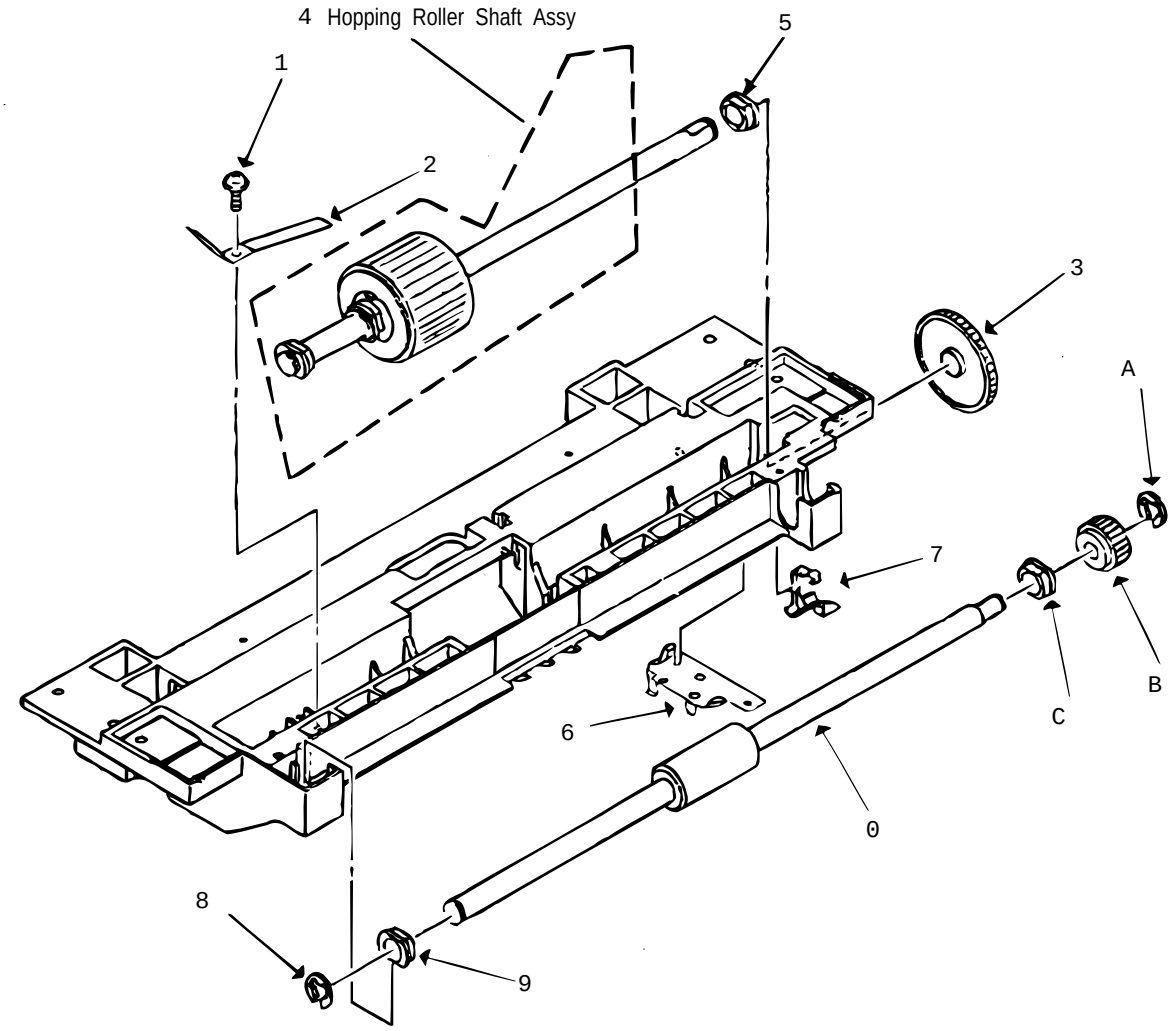
(1) Remove the pulse motor (see 3.3.1).
(2) Remove the connector 0 from the TQSB-2PCB P.
(3) Remove the screw Q and remove the TQSB-2PCB P.

Note : Refer to Detall A in the previous page.

3.3.3 Hopping Roller Shaft Assy and One-way Clutch Gear

(1) Follow up to step (3) of 3.3.1 and remove the hopping frame assy.
(2) Remove the screw 1 and remove the earth plate 2. Remove the sensor lever 7 and remove the ground plate 6. Remove the gear 3 and remove the metal bush 5 and Hopping Roller shaft Assy 4.
(3) Remove the E-ring A and remove the one-way clutch gear B on the right side of the feed roller 0.

Note : The metal bush C also comes off. Be careful not to lose it.



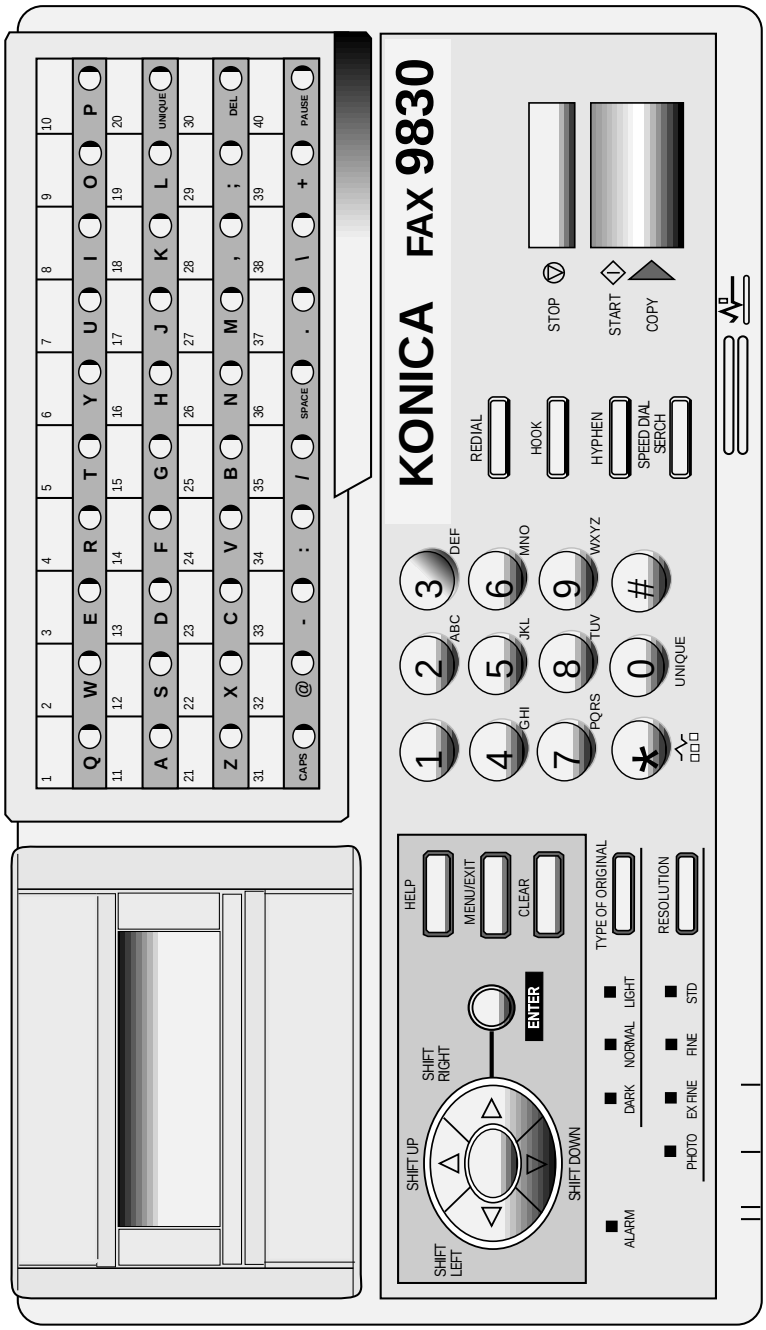
4. TROUBLESHOOTING

4.1 Precautions Prior to the Troubleshooting

(1) Go through the basic checking items provided in the facsimile Handbook.
(2) Obtain detailed information concerning the problem from the user.
(3) Go through checking in the conditions similar to that in which the problem occurred.

4.2 Preparations for the Troubleshooting

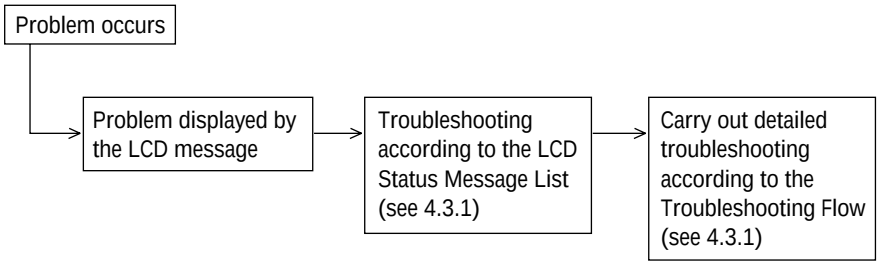
(1) Display on the Operator panel
The status of the problem is displayed on the LCD (Liquid Crystal Display) on the Operator panel. Go through the appropriate troubleshooting procedures according to the messages displayed on the LCD.



Control Panel of Fax 9830

4.3 Troubleshooting Method

When a problem occurs, go through the troubleshooting according to the following procedure.



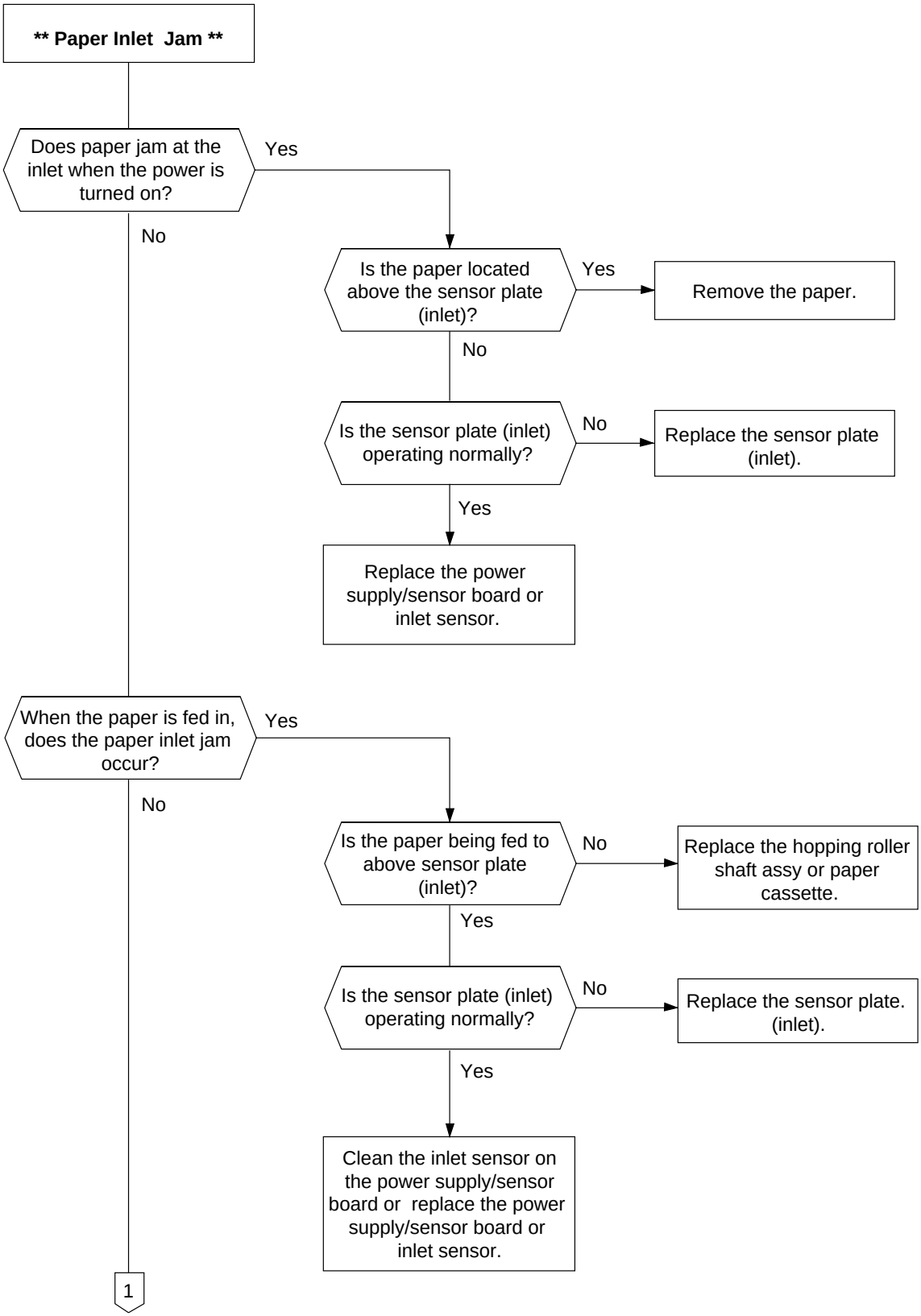
4.3.1 LCD Status Message List

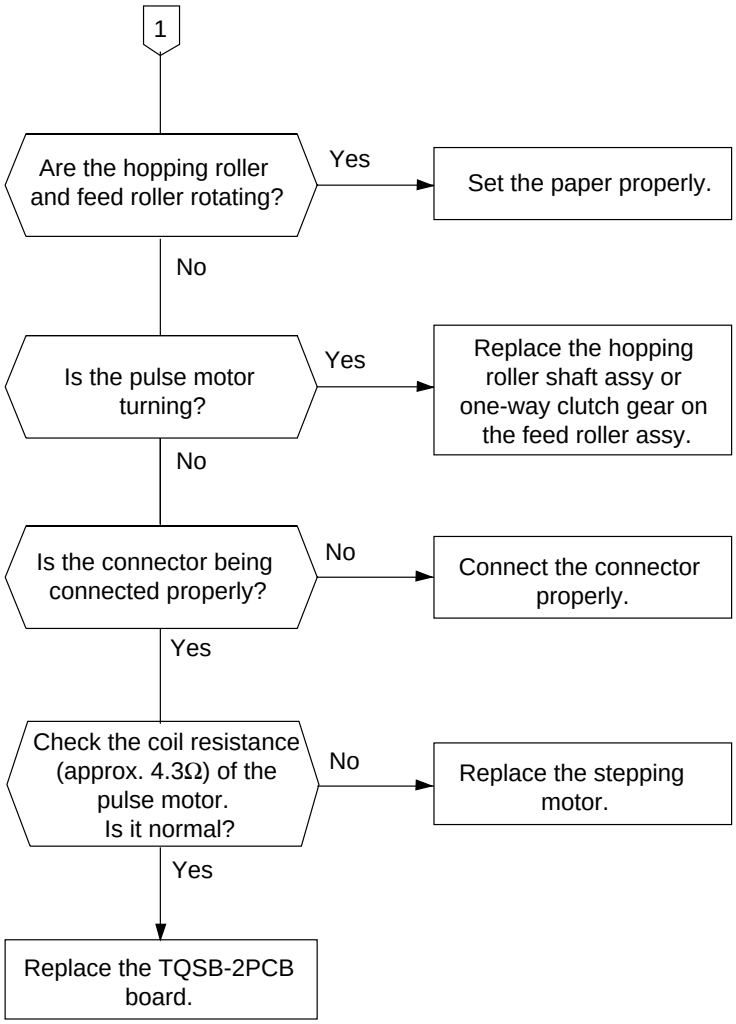
The listing of the statuses and problems displayed in the form of messages on the LCD is provided in Table 4-1.

Classification	LCD Status Message	Description	Recovery method
Jam error (feeding) *1	[redacted] 12:00 XXX PAPER MISS FEED MEMORY FREE 100%	Notifies of occurrence of jam while the paper is being fed from Second Paper Feeder.	• Check the paper in the Second Paper Feeder. Carry out the recovery printing by opening and closing the cover, and turn the error display off. • When the problem occurs frequently, go through the Troubleshooting.
Jam error (ejection)	[redacted] 12:00 XXX PAPER JAM MEMORY FREE 100%	Notifies of occurrence of jam while the paper is being ejected from the Second Paper Feeder.	• Check the paper in the Second Paper Feeder. Carry out the recovery printing by opening and closing the cover, and turn the error display off.
Paper size error	[redacted] 12:00 XXX PAPER SIZE ERROR MEMORY FREE 100%	Notifies of incorrect size paper feeding from Second Paper Feeder.	• Check the paper in the Second Paper Feeder. Also check to see if there was a feeding of multiple sheets. Carry out the recovery printing by opening and closing the cover, and turn the error display off.
Tray paper out *2	[redacted] 12:00 XXX NO PAPER MEMORY FREE 100%	Notifies of no paper state when both cassettes (1st and 2nd) has no recording paper.	• Load the paper in Second Paper Feeder.

*1: Indicates the same message on the display, when 1st or 2nd cassette becomes jam error (feeding).
*2: However, if 1st cassette has recording paper, LCD indicates the standby mode on the display and alarm message does not indicate.

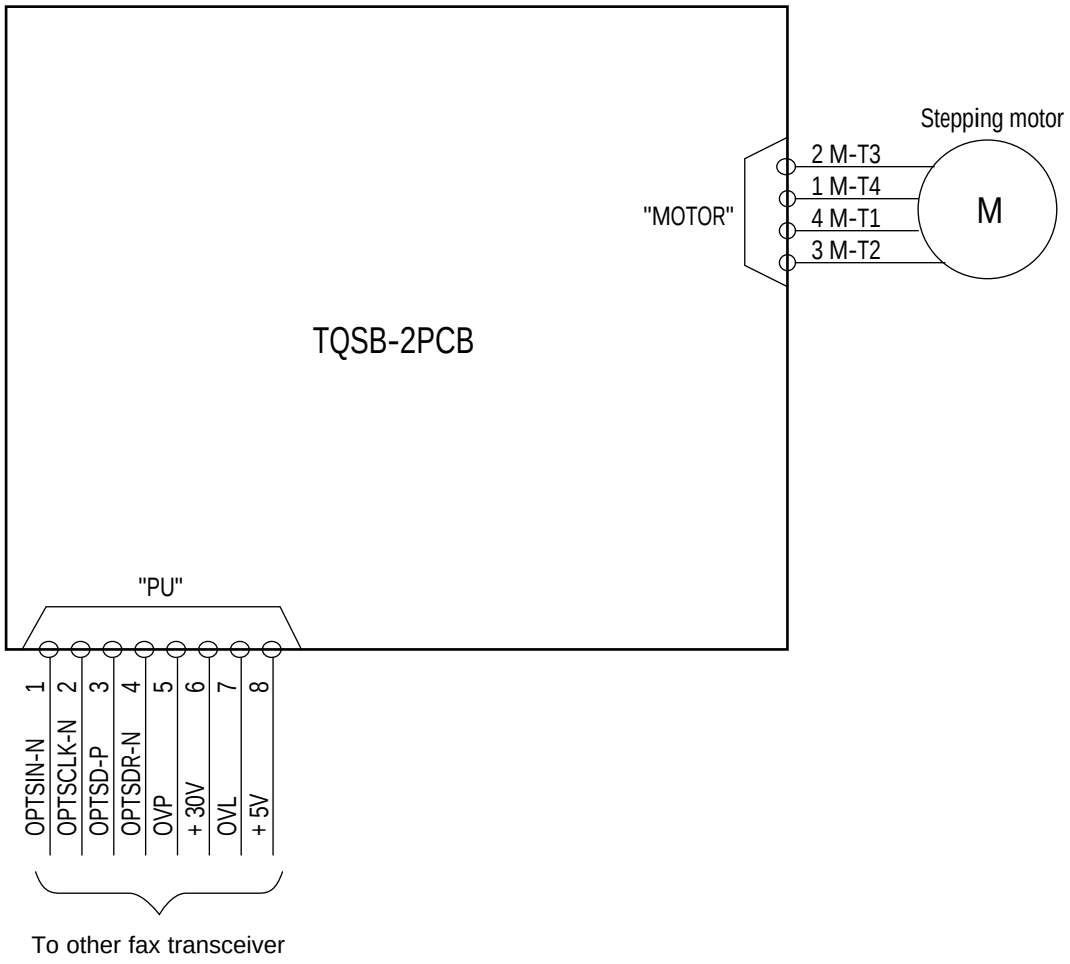
• (JAM error)


** Paper Inlet Jam **
Does paper jam at the inlet when the power is turned on?
Yes
No
Is the paper located above the sensor plate (inlet)?
Yes
Remove the paper.
No
Is the sensor plate (inlet) operating normally?
No
Replace the sensor plate (inlet).
Yes
Replace the power supply/sensor board or inlet sensor.
When the paper is fed in, does the paper inlet jam occur?
Yes
No
Is the paper being fed to above sensor plate (inlet)?
No
Replace the hopping roller shaft assy or paper cassette.
Yes
Is the sensor plate (inlet) operating normally?
No
Replace the sensor plate. (inlet).
Yes
Clean the inlet sensor on the power supply/sensor board or replace the power supply/sensor board or inlet sensor.
1


1
Are the hopping roller and feed roller rotating?
Yes
Set the paper properly.
No
Is the pulse motor turning?
Yes
Replace the hopping roller shaft assy or one-way clutch gear on the feed roller assy.
No
Is the connector being connected properly?
No
Connect the connector properly.
Yes
Check the coil resistance (approx. 4.3Ω) of the pulse motor. Is it normal?
No
Replace the stepping motor.
Yes
Replace the TQSB-2PCB board.

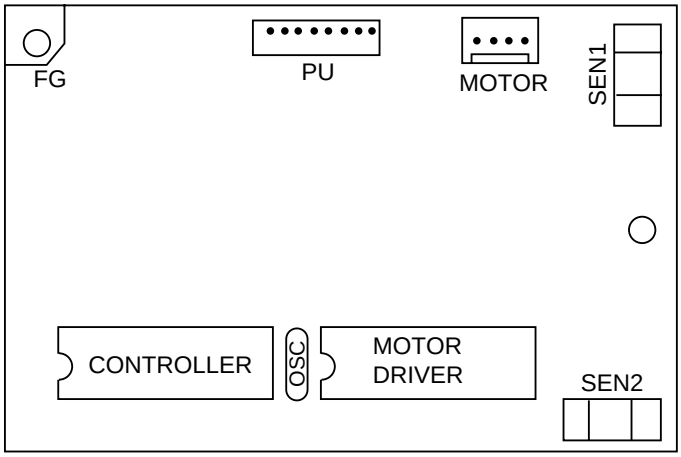
5. CONNECTION DIAGRAM

5.1 Interconnection Diagram



5.2 PCB Layout

TQSB-2PCB



6. PARTS LIST

SECTION1 CABINET & CASSETTE ASSEMBLY

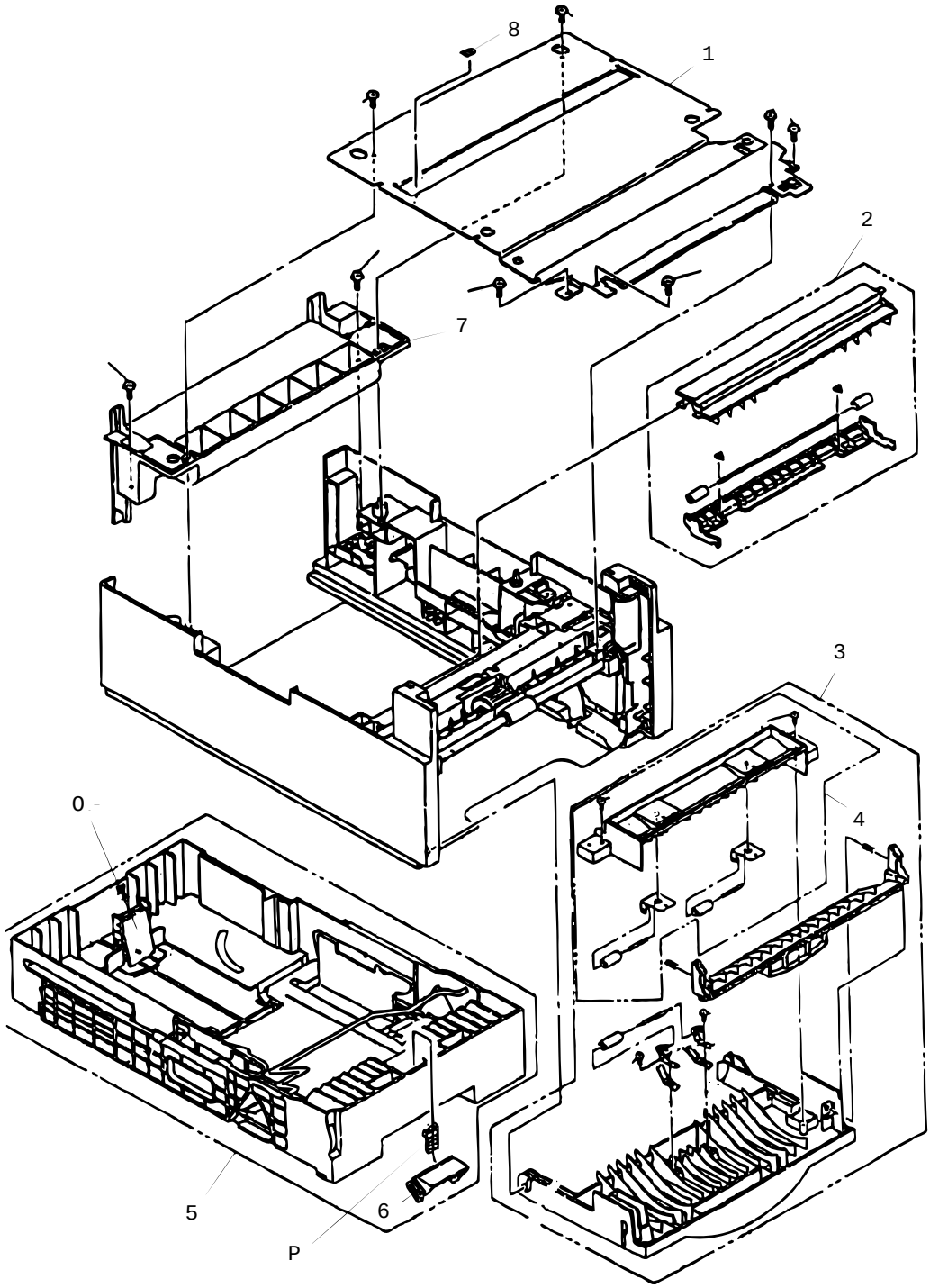


Figure 6-1

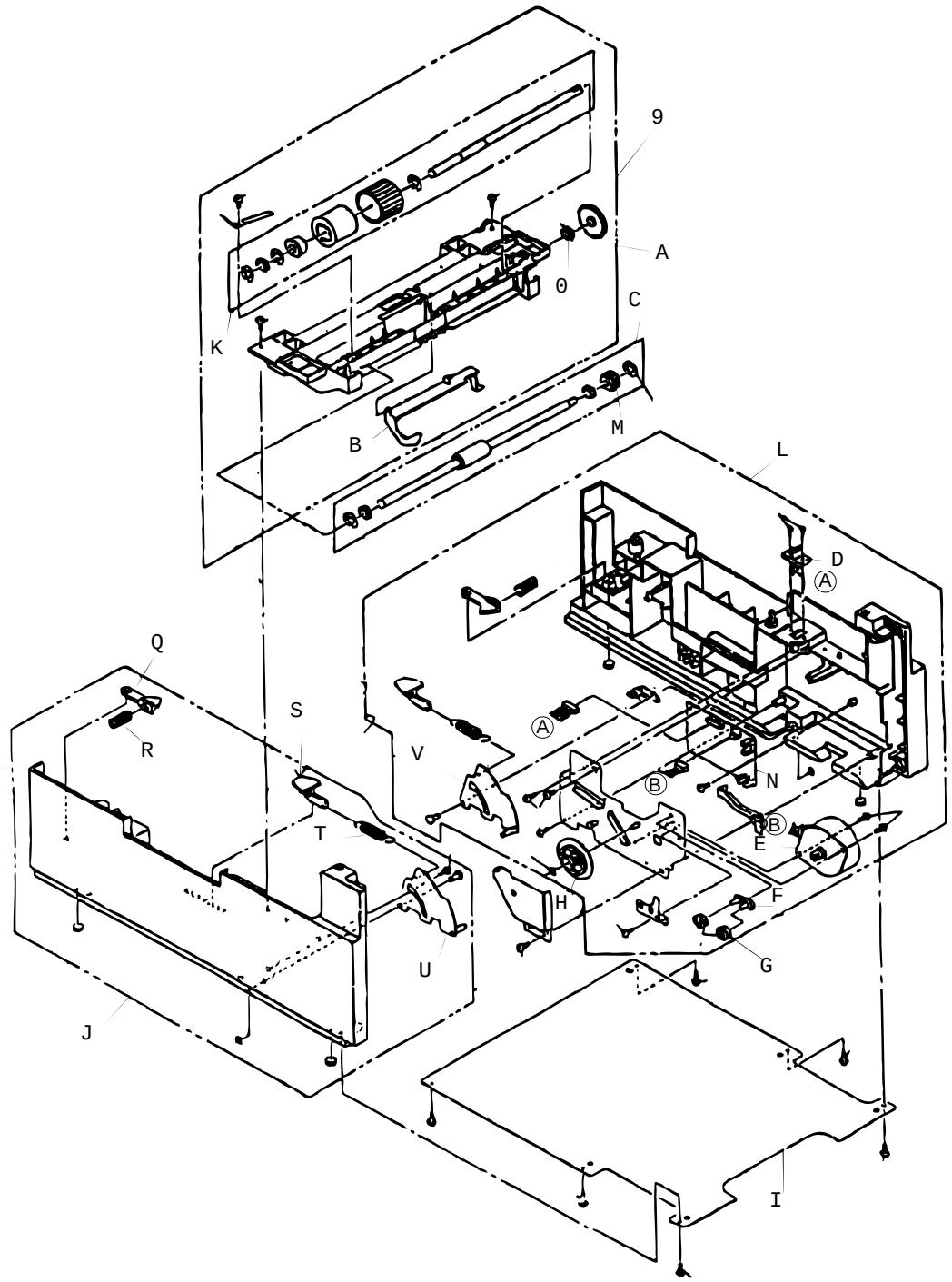


Figure 6-2

Table 6-1 Paper Feeder

No.	OKI Oarts Number	Description	Q'ty/U	Remarks
1	1PP4122-1401P001	Plate, Upper	1	
2	3PA4122-1370G001	Sheet Guide Assembly	1	
3	1PA4122-1369G001	Front Cover Assembly	1	
4	3PA4122-1371G001	Inner Guide Assembly	1	
5	1PA4122-1362G004	Cassette Assembly (2nd Tray)	1	
6	4PP4120-1009G001	Separation (F) Frame Assembly	1	
7	1PP4122-1323P001	Cover, Rear	1	
8	4PB4122-1441P001	Stick Finger	1	
9	1PA4122-1366G001	Hopping Frame Assembly	1	
10	4PP3522-3568P001	Bushing, Metal (ADF)	1	
11	4PP4122-1207P001	Gear (Z70)	1	
12	3PP4122-1331P001	Lever, Sensor (P)	1	
13	3PA4122-1393G001	Feed Roller Assembly	1	
14	3YS4111-3528P001	Cable & Connector	1	
15	3PB4122-1399P001	Stepping Motor	1	
16	4PP4122-1384G001	Bracket	1	
17	4PP4122-1383P001	Gear (Z24)	2	
18	4PP4122-1226P001	Gear (Z87/Z60)	1	
19	2PP4122-1389P001	Plate, Bottom	1	
20	1PA4122-1365G001	Second Cassette Guide (L) Assembly	1	
21	3PA4122-1367G001	Hopping Roller Assembly	1	
22	1YX4122-1364G002	Second Cassette Guide (R) Assembly	1	
23	4PB4122-1382P001	One-way Clutch Gear	1	
24	4YA4046-1651G002	TQSB-2 PCB	1	
25	3PA4122-1372G001	Tail Guide Assembly	1	
26	4PP4122-1238P002	Separation Spring	1	
27	4PP4122-1184P001	Cassette Lock Lever	1	
28	4PP4122-1347P001	Locks Spring	1	
29	4PP4122-1217P001	Pull Block	1	
30	4PP4122-1398P002	Sheet Spring	1	
31	4PP4122-1339G001	Sheet Link (L)	1	
32	4PP4122-1338G001	Sheet Link (R)	1	

HOME

Appendix F

PC–Loading

Konica Business Technologies

1. General

1.1 Application

This specification applies to the Fax 9830, an MFP unit capable of two-way communication using the parallel port as its standard feature.

1.2 General

This specification describes the details of PC loading through the Centro connector provided in the Fax 9830.
The functions covered are for loading by each of default data, flash memory program and language areas, which are equivalent to those of the existing HSLS.

1.3 Note on Explanation

The terms used herein shall be interpreted as follows unless specified otherwise.

Term	Explanation
Transfer	Transmission from the PC to the MFP
Receiving	Receiving from the PC to the MFP
Loading data	Data in general that is transferred from the PC to the MFP
Loading program	Program for receiving the data actually loaded to the MFP
Transfer	Data transfer from the MFP to the G4 board
MFP main unit	Main unit of the MFP excluding the option board
MFP system	Whole MFP system including the option board
G4 board PC loading data	Data transferred from the PC to the MFP, that is, a G4 board loader or a G4 board program to be loaded
G4 board loading program	Program that runs in the G4 board's DRAM to receive the G4 board program from the MFP main unit.

1.4 Related Document

FX-056/176 Product Specification

2. Basic Operation

2.1 Supported Functions

The PC loading functions described herein are as follows. Functions equivalent to those used in the existing HSLS (High Speed Loading System) are supported.

1. Default data area loading function
2. Language area loading function
3. Flash memory area program loading function (The flash memory on the ISDN option board is included.)

These PC loading functions are supported only when the OS used on the PC side is either MS-DOS Ver. 6.0 or above or PC-DOS Ver. 6.0 or above.

2.2 Differences from HSLS

It must be noted that PC loading through the Centro cable is different in the following points as compared with loading in the HSLS:

(1) While transition to the PC loading process is judged according to the presence/absence of the HSLS board, transition to PC loading is possible by detection of memory error occurrence and manual key operation this time.

(2) The header information is added anew to cope with the addition of the loading program as one of the loading data.

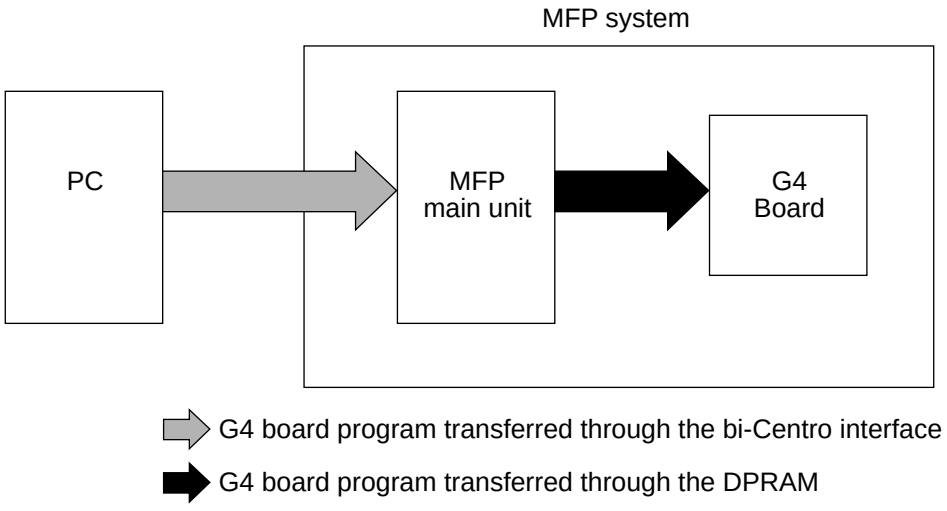
(3) There is no special application in this PC loading unlike the HSLS. Loading is performed by loading data output to the parallel port by means of a binary specification (copy/b).

(4) In the case of the HSLS, returning to normal standby state will not occur so long as the HSLS board is installed. In this system, on the other hand, the normal standby state is set automatically upon detection of the end of loading data by means of the header data.

(5) The cause of the error is displayed by the corresponding code upon occurrence of a hash NG or other error. For the code, see “6. List of Error Causes and Corresponding Codes.”

2.3 G4 PC Loading

The G4 board PC loading data transferred from the PC through the bi-Centro cable is temporarily stored in the DRAM in the MFP main unit. Next, this data is transferred to the G4 board through the dual port RAM (hereafter called the DPRAM).



2.3.1 Operating Conditions

1. G4 board PC loading is started when the following operation is performed with a G4 board installed in the MFP main unit:

   - Operation of G4 board PC loading key when the MFP is in the normal standby state

   Unlike the PC loading to the MCNT, there is no other methods for starting loading such as the method by which a special operation is performed. (For details on the key operation, see Section 2.2.1.3, “Operation Flow.”)

2. Since the G4 board PC loading function is performed using the program in the flash memory in the MFP main unit, G4 board PC loading cannot be done when the machine does not start normally due to a flash memory hash error. (It is a matter of course that G4 board PC loading can be performed normally even if a flash memory hash error occurs on the G4 board side.)

3. The PC has no dedicated application for G4 board PC loading. Use a COPY command of MS(PC)-DOS along with a binary switch (copy/b) to output G4 board PC loading data through the parallel port.

4. When G4 board PC loading ends normally, control jumps to the initial process, getting into the normal standby state.

5. When an error such as a hash error occurs, its cause is displayed on the LCD. For error codes, see Chapter 6, “Error Causes and Codes.”

3. PC Loading Procedure

3.1 PC Loading upon Memory Error Occurrence

3.1.1 Explanation on Procedure

The PC loading procedure when the LCD on the MFP displays “MEMORY ERROR” for a hash NG state due to one reason or another is explained below.

(1) Activate the MS(PC)-DOS with the host PC and the MFP connected via the Centro cable.

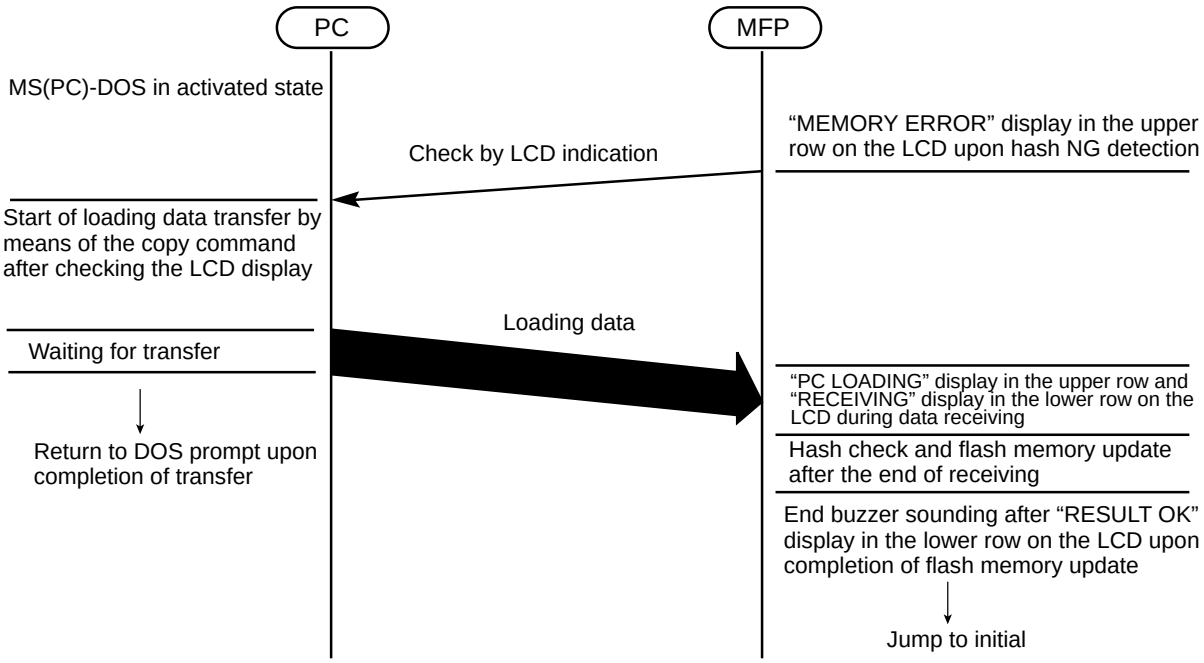
(2) Input the copy command from the MS(PC)-DOS on the PC to output the loading data file in binary specification to the LPT1 in order to transfer the loading data to the MFP.

Example:

`>copy/b xxx.x LPT1` (xxx.x is the loading data file name.)

(3) The user shall judge the normal end of data loading by checking the normal end of file output on the PC and sounding of the buzzer indicating the normal end on the MFP. If the MFP displays an error on the LCD, sounds the buzzer for an error or lights up the alarm LED, the user shall judge abnormal end of data loading from the PC and repeat the procedure from step 2 after turning the MFP power off once and to on again.

3.1.2 Procedural Sequence Diagram



3.2 PC Loading by Manual Operation

3.2.1 Explanation on Procedure

Loading shall be performed as shown below when the PC loading function is selected by key operation by a service man.

(1) Activate the MS(PC)-DOS with the host PC and the MFP connected via the Centro cable.

(2) Input the copy command from the MS(PC)-DOS on the PC to output the loading data file in binary specification to the LPT1 in order to transfer the loading data to the MFP.

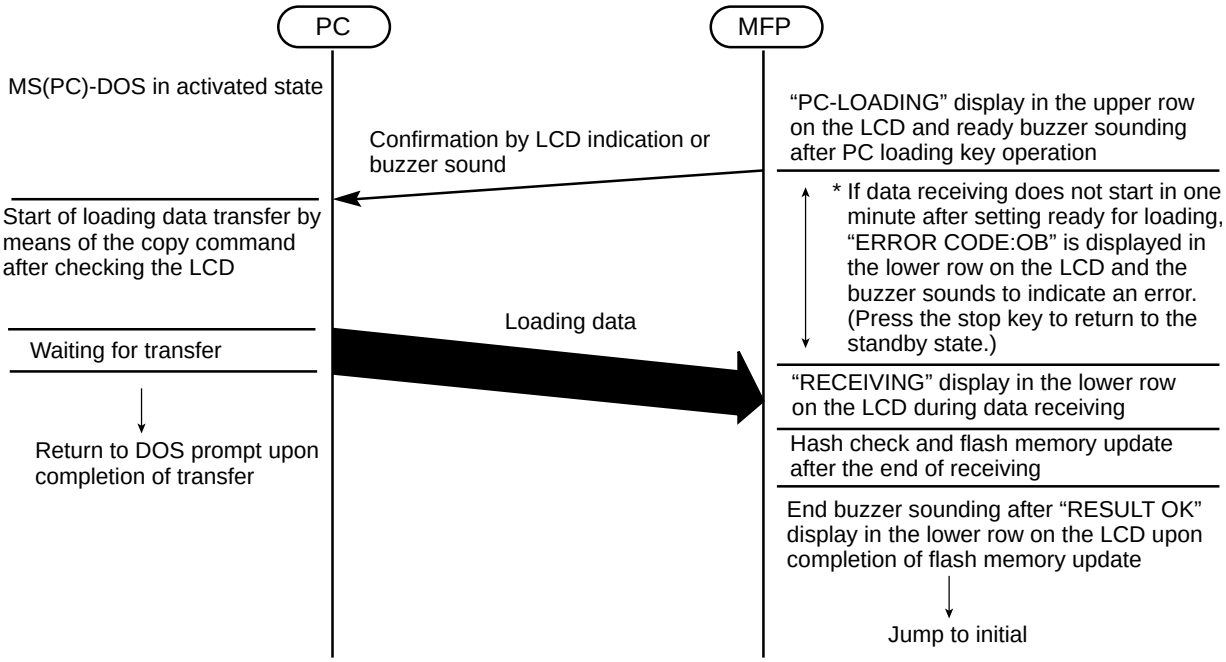
Example:

```
>copy/b xxx.x LPT1
```

(xxx.x is the loading data file name.)

(3) The user shall judge the normal end of data loading by checking the normal end of file output on the PC and sounding of the buzzer indicating the normal end on the MFP. If the MFP displays an error on the LCD, sounds the buzzer for an error or lights up the alarm LED, the user shall judge abnormal end of data loading from the PC and repeat the procedure from step 2 after turning the MFP power off once and to on again. (See “6. List of Error Causes and Corresponding Codes” for the error cause.)

3.2.2 Procedural Sequence Diagram

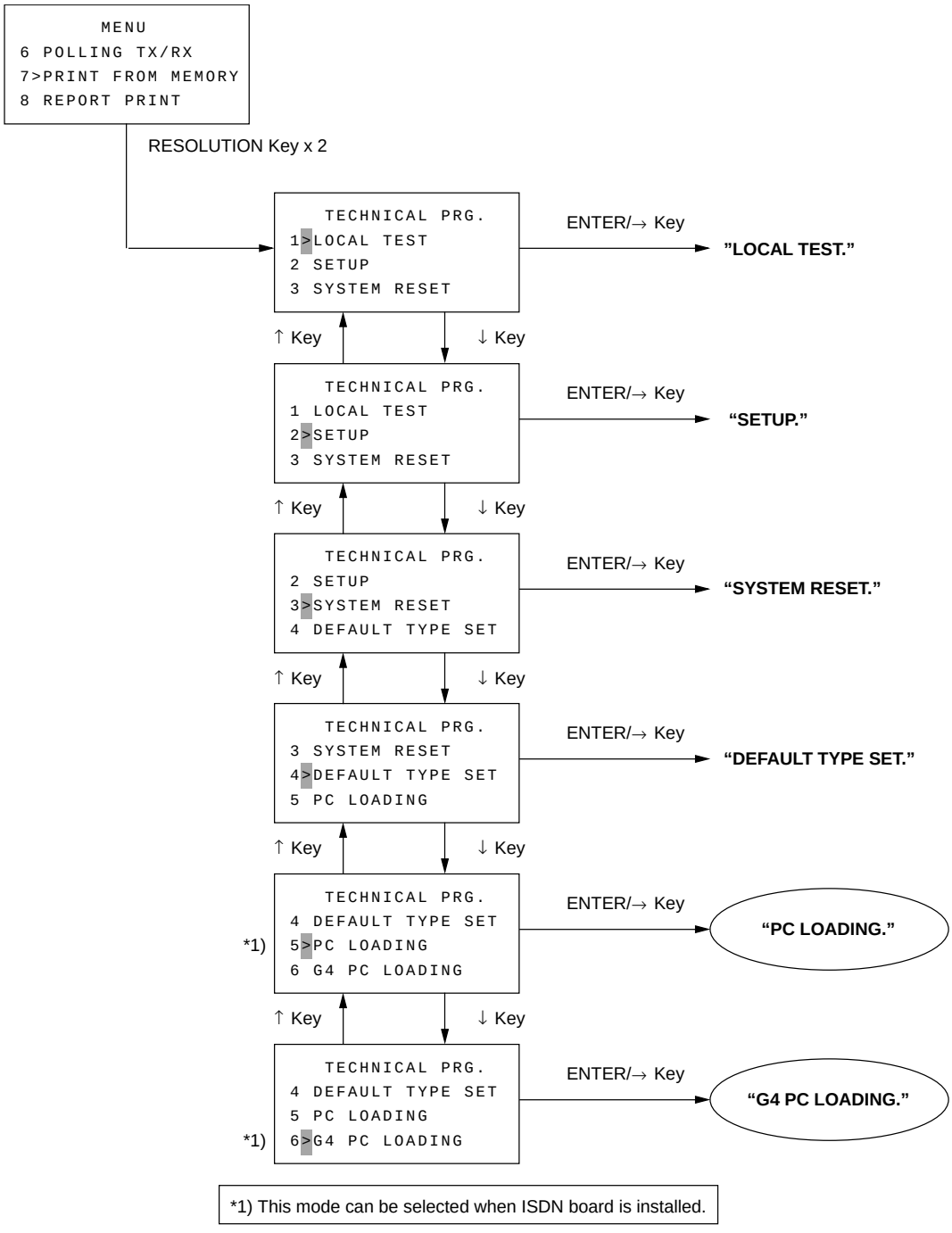


3.2.3 Operation Flow

• PC Loading

1) The machine is standby state with no document.
2) Press rhe MENU key once.
3) Press the RESOLUTION key twice.
   The display will be shown the “TECHNICAL PRG”.
4) PC Loading
   • Press the SHIFT DOWN (↓) key four times.
   • The menu option “5 PC LOADING” indicated by the blinking cursor is selected, and press the ENTER/SHIFT RIGHT (→) key.

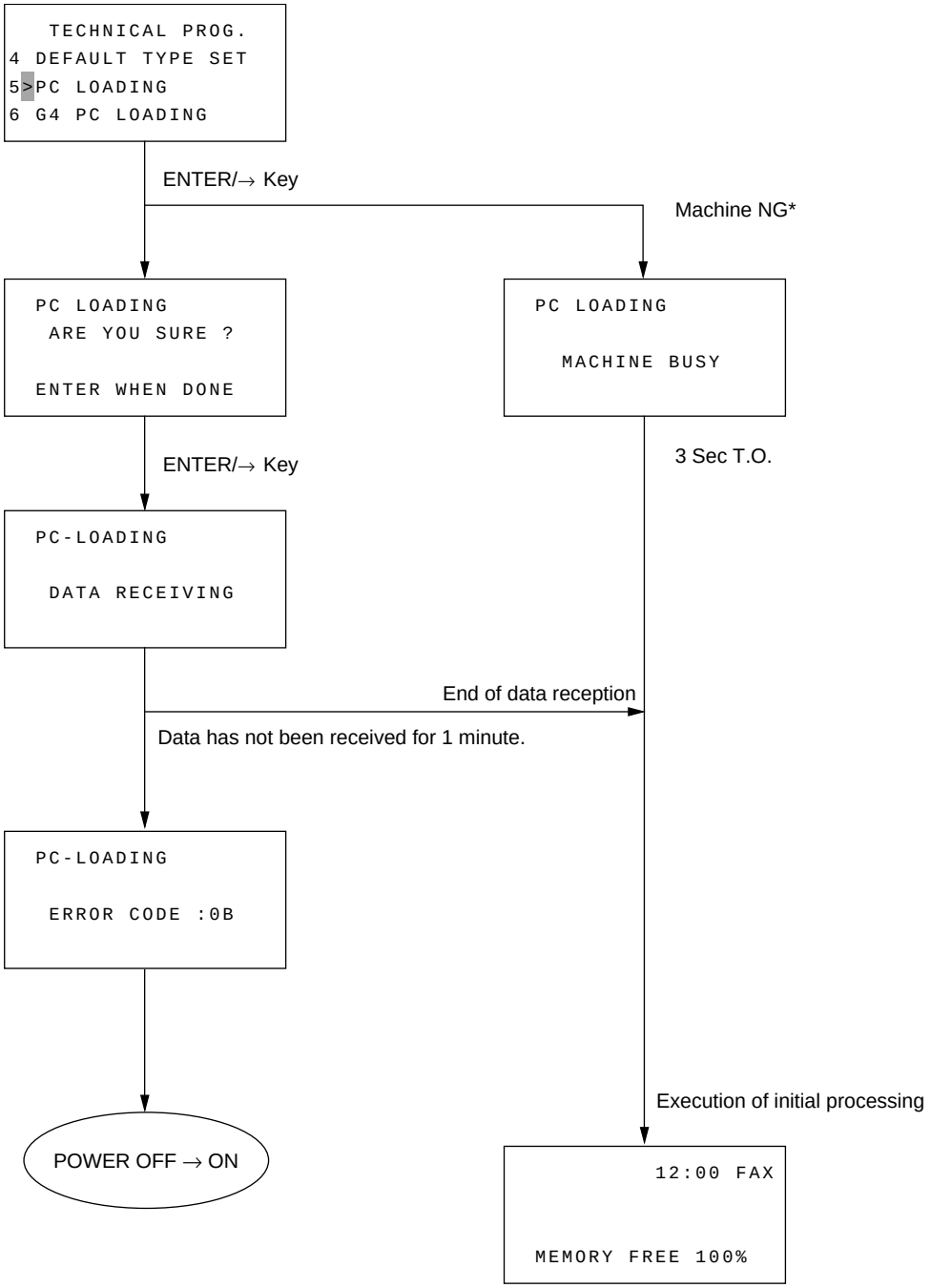
Note: This mode can be selected when ISDN board is installed.



*1) This mode can be selected when ISDN board is installed.

PC Loading Flow

PC Loading automatically rewrites the program stored in the machine by using PC. This function is only for serviceman.



*:Memory data exists, redial is being waited, document reserved to be transmitted exists, a machine alarm (excluding no paper, toner low and no ID alarms), or the telephone is off-hooked.

3.3 G4 Board PC Loading Procedure

3.3.1 Explanation of Procedure

The G4 board PC loading procedure is explained below assuming that the MFP system is normal.

1. With the host PC connected to the MFP (having a G4 board) through a Centro cable, turn on the PC and then MFP.

2. Start MS(PC)-DOS on the PC, then perform the G4 board PC loading start key operation on the MFP. (Make sure “PC-LOADING” is displayed on the LCD on the MFP system and the “Ready” buzzer sounds.)

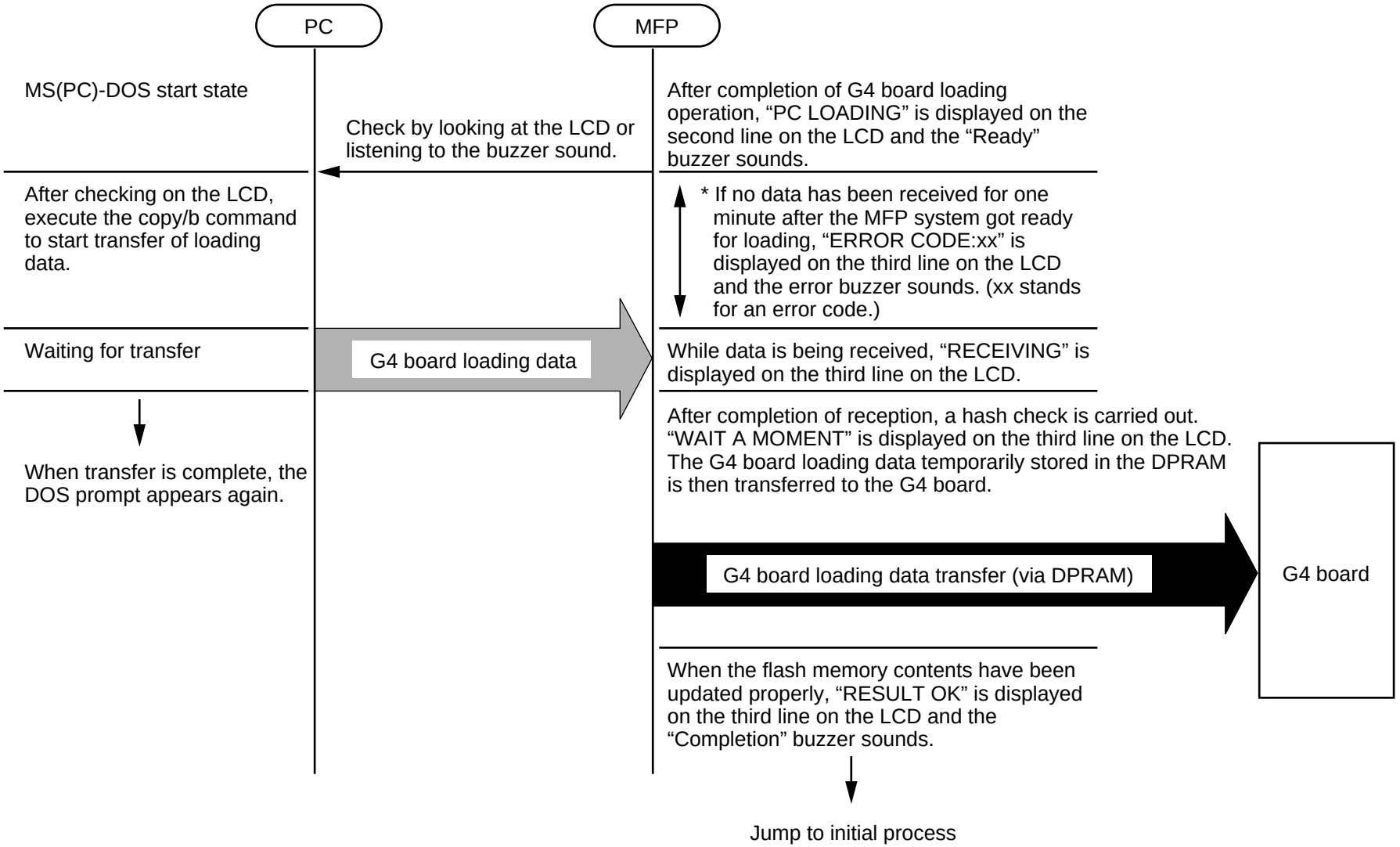
3. Execute an MS(PC)-DOS command “COPY” along with a binary switch on the PC to output the G4 board PC loading data file to the LPT1. Thus, the loading data can be transferred to the MFP.

   Example: >copy/b xxx.x LPT1 (xxx.x is a loading file name.)

4. Look at the message on the LCD and listen to the “MFP normal end” buzzer to check that G4 board PC loading has been competed normally. If the MFP displays an error code on the LCD, issues an error buzzer, or turns on an alarm LED, power the MFP off and on again to perform the above steps again assuming that a PC loading error has occurred.

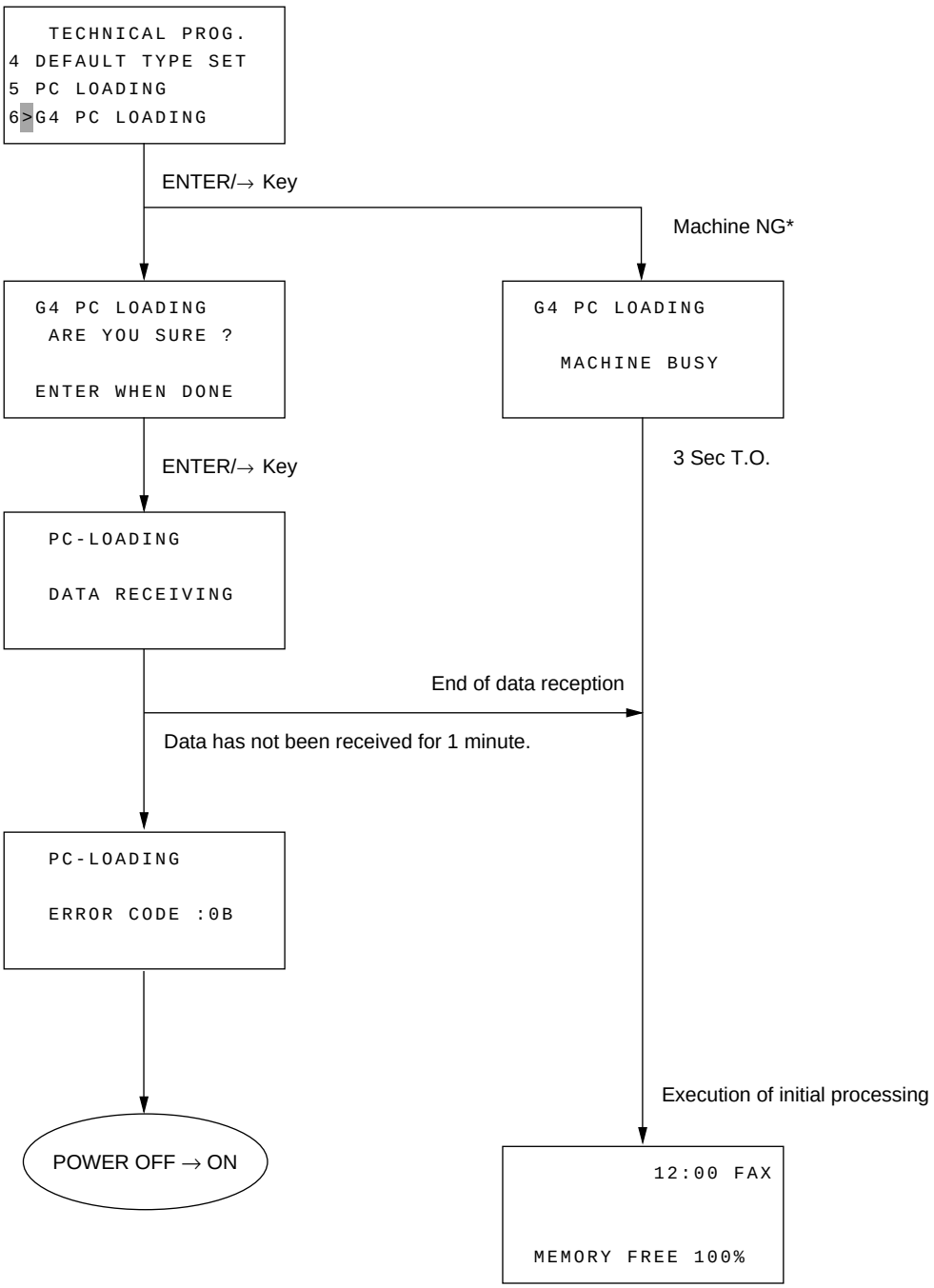
Caution!

Even if a G4 board memory error or a G4 board flash memory contents error occurs together with a hash match error (i.e., runaway), G4 board loading can be performed following the procedure mentioned above.
(For more details, refer to the “FX056/176 System Specifications; G4 Initial.”)


PC
MFP
MS(PC)-DOS start state
Check by looking at the LCD or listening to the buzzer sound.
After completion of G4 board loading operation, “PC LOADING” is displayed on the second line on the LCD and the “Ready” buzzer sounds.
After checking on the LCD, execute the copy/b command to start transfer of loading data.
* If no data has been received for one minute after the MFP system got ready for loading, “ERROR CODE:xx” is displayed on the third line on the LCD and the error buzzer sounds. (xx stands for an error code.)
Waiting for transfer
G4 board loading data
While data is being received, “RECEIVING” is displayed on the third line on the LCD.
After completion of reception, a hash check is carried out. “WAIT A MOMENT” is displayed on the third line on the LCD. The G4 board loading data temporarily stored in the DPRAM is then transferred to the G4 board.
When transfer is complete, the DOS prompt appears again.
G4 board loading data transfer (via DPRAM)
G4 board
When the flash memory contents have been updated properly, “RESULT OK” is displayed on the third line on the LCD and the “Completion” buzzer sounds.
Jump to initial process

3.3.3 G4 PC Loading Flow

G4 PC Loading automatically rewrites the program stored in the machine by using PC. This function is only for serviceman.



*:Memory data exists, redial is being waited, document reserved to be transmitted exists, a machine alarm (excluding no paper, toner low and no ID alarms), or the telephone is off-hooked.

4. LCD Messages

The LCD message in each operation state is shows below. Note that each message does not vary with the default type or language type.

(1) Upon transition to PC loading function

Transition by manual operation

```
PC LOADING
```

Transition by a memory error

```
MEMORY ERROR
```

(2) During data receiving before loading end buzzer sounding

```
PC-LOADING
DATA RECEIVING
```

(3) During loading end buzzer sounding

```
        12:00 FAX

MEMORY FREE 100%
```

(4) Upon error occurrence during loading

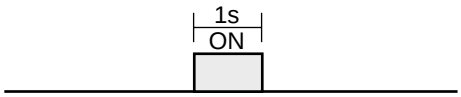
```
PC-LOADING
ERROR CODE :0B
```

"**": Error code (See "6. List of Error causes and Corresponding Codes.")

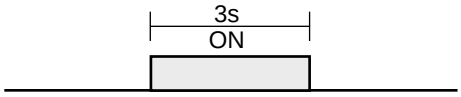
5. Buzzer Sounding Patterns

The buzzer sounding patterns for various cases are shown below. In each case, the buzzer frequency is 2,400 Hz and the sound volume is maximum.

5.1 Upon Start of PC Loading



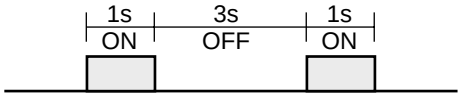
5.2 Upon Normal End



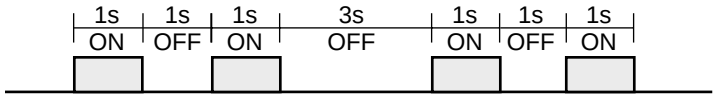
5.3 Upon Error Occurrence

The following sounding patterns are provided for indicating various error causes. Intermittent sounding is repeated until the MFP power is turned off. See “6. List of Error Causes and Corresponding Codes” for details of the error causes and codes.

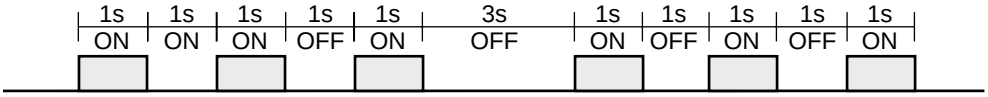
(1) Receive data hash check NG (error code: “01”)



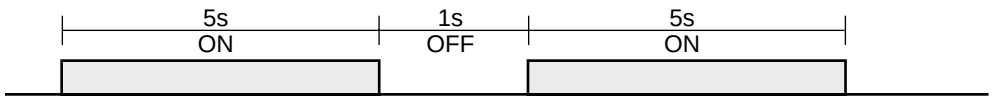
(2) Flash memory erase/write NG (error code: “02”)



(3) Disagreement between contents of flash memory and external RAM (error code: “03”)



(4) Other error (error code: other other than above)



6. List of Error Causes and Corresponding Codes

The table below lists the error causes likely to occur during PC loading and the corresponding codes. When an error occurs, the corresponding error code is displayed, the buzzer sounds in the corresponding pattern and transition to the permanent loop state occurs. (See Note 1.)

See “4. LCD Messages” and “5. Buzzer Sounding Patterns” for the LCD display and buzzer sound upon occurrence of each error.

		CODE
1	Timeout of data receiving waiting timer (14 seconds)	00
2	Loading data hash check error	01
3	Flash memory erase/write error	02
4	Disagreement between flash memory and external RAM contents (verify error)	03
5	Header sum check NG *1	04
6	Disagreement between loading machine type and machine identifier in header *1	05
7	Designation of unspecified parameter in header *1	06
8	Extended address record sum check NG *2	07
9	Data record sum check NG *2	08
10	Start address record sum check NG *2	09
11	File end record sum check NG *2	0A
12	Timeout by failure in normal data receiving for 1 minute in loading waiting state after operation	0B
13	RAM check result NG upon starting loading program processing	0C
33	The data reception wait timer (14 seconds) has expired during data transfer from the PC to the MFP main unit.	20
34	A received data hash check error has occurred in the MFP main unit.	21
35	On the G4 board side, an error has occurred during flash memory data erasure/write.	22
36	On the G4 board side, updated flash memory contents do not mach the contents of source DRAM.	23
37	The G4 board has detected setting of an invalid value in the DPRAM length area on the MFP main unit side.	24
38	The G4 board has detected setting of an invalid value in the DPRAM status area on the MFP main unit side.	25
39	Reserved	26
40	On the MFP main unit side, normal data has not been received for one minute after start of G4 board PC loading.	27
41	On the G4 board side, a header sum check error has occurred.	28
42	On the G4 board side, a loading data hash check error has occurred.	29
43	On the G4 board side, a header parameter specification error has occurred.	2A
44	On the MFP main unit side, the G4-board-side DPARM status response state has been maintained for 3 minutes or longer.	2B
45	On the G4 board side, a DRAM check error has occurred.	2C
46	The MFP main unit has detected setting of an invalid value on the G4 board side.	2D
47	On the G4 board side, the local machine type does not match the header’s type identifier.	2E

*1. Occurs only in binary format specification.
*2. Occurs only in Intel HEX code specification (reservation code not actually used).

(Note 1)
No error processing (transition to permanent loop state after error code display and buzzer sounding in corresponding pattern) occurs when any of the following errors occurs in receiving the loading program header. The receive data until error occurrence is discarded and the program header receiving starts from the beginning again.

(1) Header sum check NG
(2) Disagreement between loading machine type and machine identifier in header
(3) Designation of unspecified parameter in header
(4) Designation of other than loading program as data type identifier in header
(5) Designation of no succeeding data in descriptor
(6) Designation of Intel HEX format as data type
(7) 14 seconds timeout in header receiving end waiting state

7. Cautions

(1) Execute the copy command for PC loading after sounding of the buzzer indicating the ready state for loading (for about 1 second). Since the buzzer does not sound for PC loading upon memory error detection, however, execute the copy command after checking “MEMRY ERROR” indication on the LCD after power on.

(2) Even after returning to the DOS prompt state after the end of the copy command on the PC, do not turn the MFP power off until the buzzer indicating the end of MFP loading sounds.

8. Loading Processing Time

The processing time for reloading in the whole Fax 9830 area (program 1, language and default) is shown below.
Use the value only as reference since the transfer time varies with each type of PC.

8.1 Main Board

Measuring conditions:

MFP:	Fax 9830
Flash memory:	MBM29F800T (non-cleared state)
Transfer file version:	STD1

Result:

Time for transfer from PC to FAX main unit:	Approx.	seconds
Flash memory update time:	Approx.	seconds

8.2 ISDN Option Board

Time for transfer from PC to FAX ISDN Board: About 60 seconds.