SHARP SERVICE MANUAL

No. 00ZFODC500SME

FACSIMILE

MODEL FO-DC500

MODEL	SELECTION CODE	DESTINATION
FO-DC500	U	U.S.A./Canada

Chapters 2, 3, 7 and 8 of this manual are omitted because they are partly common to the FO-4400U. Please refer to previous service manual (00ZFO4400USME) for these chapters.

OPTION

Toner cartridge:	**FO-50ND**
Drum cartridge:	**FO-47DR**
Option memory:	**FO-8MK**
Verification stamp:	**FO-45VS**
Paper cassette:	**FO-CS1**
LAN Network interface kit:	**FO-LN1**
Network printer kit:	**FO-NP1**
Network scanner kit:	**FO-NS2**

CAUTION

This laser printer is a class 1 laser product that complies with 21CFR 1040.10 and 1040.11 of the CDRH or IEC60825-1 standard. This means that this machine does not produce a hazardous laser radiation. The use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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

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

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

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

Laser Wave Length : 770-795 nm
Laser Pulse Times : 51.3 ns
Laser Output Power : 5 mW

Parts marked with "⚠" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

CONTENTS

CAUTION FOR BATTERY REPLACEMENT

(Danish) ADVARSEL !
Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren.

(English) Caution !
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

(Finnish) VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

(French) ATTENTION
Il y a danger d'explosion s' il y a remplacement incorrect
de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type recommandé par le constructeur.
Mettre au rébut les batteries usagées conformément aux
instructions du fabricant.

(Swedish) VARNING
Explosionsfare vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

(German) Achtung
Explosionsgefahr bei Verwendung inkorrekter Batterien.
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder
vom Hersteller empfohlene Batterien verwendet werden.
Entsorgung der gebrauchten Batterien nur nach den vom
Hersteller angegebenen Anweisungen.

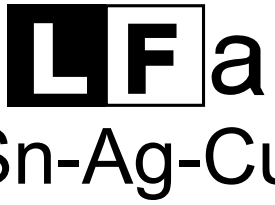
PRECAUTIONS FOR USING LEAD-FREE SOLDER

① Employing lead-free solder

The **Power supply PWB** of this model employs lead-free solder. This is indicated by the "LF" symbol printed on the PWB and in the service manual.

The suffix letter indicates the alloy type of the solder.

Example:



Indicates lead-free solder of tin, silver and copper.

② Using lead-free solder

When repairing a PWB with the "LF" symbol, only lead-free solder should be used. (Using normal tin/lead alloy solder may result in cold soldered joints and damage to printed patterns.)

As the melting point of lead-free solder is approximately 40ºC higher than tin/lead alloy solder, it is recommended that a dedicated bit is used, and that the iron temperature is adjusted accordingly.

③ Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is higher and has poorer wettability (flow), to prevent damage to the land of the PWB, extreme care should be taken not to leave the bit in contact with the PWB for an extended period of time. Remove the bit as soon as a good flow is achieved.

The high content of tin in lead free solder will cause premature corrosion of the bit.

To reduce wear on the bit, reduce the temperature or turn off the iron when it is not required.

Leaving different types of solder on the bit will cause contamination of the different alloys, which will alter their characteristics, making good soldering more difficult.

It will be necessary to clean and replace bits more often when using lead-free solder. To reduce bit wear, care should be taken to clean the bit thoroughly after each use.

CHAPTER 1. GENERAL DESCRIPTION

[1] Specifications

• **GENERAL**

Automatic dialing: Conventional Auto Dialing:
Rapid Key Dialing: 59 numbers
Speed Dialing: 100 numbers
Personal Auto Dial Books: 20 books
(59 Rapid Keys, 16 Speed Dial numbers per book)

Memory size* : 8 MB (approx. 500 pages)
Optional memory: FO-8MK (8 MB; approx. 500 pages)

Modem speed: 33,600 bps (max.) with automatic fallback to lower speeds

Transmission time* : Approx. 2 seconds

Toner cartridge yield: (continuous printing, 4% page coverage, letter paper) **Initial starter cartridge** (included with fax machine): Approx. 3000 pages
Replacement cartridge (FO-50ND): Approx. 6000 pages

Drum cartridge yield: **Initial starter cartridge** (included with fax machine): 20,000 pages (avg.)
Replacement cartridge (FO-47DR): 20,000 pages (avg.)

Resolution: Standard: 203 x 98 lines/inch (8 x 3.85 lines/mm)
Fine/Halftone: 203 x 196 lines/inch (8 x 7.7 lines/mm)
Super fine: 203 x 391 lines/inch (8 x 15.4 lines/mm)
Ultra fine: 406 x 391 lines/inch (16 x 15.4 lines/mm)

Automatic document feeder: Letter paper (20 lb): Max. 50 pages
Legal paper: Max. 20 pages
(Note: 11" x 17" paper must be loaded one page at a time.)

Paper capacity: 250 sheets (20 lb)
(500-sheet cassette available as option)

Compression scheme: MMR, MR, MH, Sharp (H2), JBIG

Halftone (grayscale): 64 levels

Applicable telephone line: Public switched telephone network

Compatibility: ITU-T (CCITT) G3 mode, Super G3 mode

Printing resolution: **Horizontal:** 406 dots/inch (16 dots/mm)
Vertical: 391 lines/inch (15.4 lines/mm)

Input document size: Automatic feeding:
Width: 5.8 to 10.1" (148 to 256mm)
Length: 5.0 to 14.3" (128 to 364 mm)
Manual feeding:
Width: 5.8 to 11.0" (148 to 279 mm)
Length: 5.0 to 19.0" (128 to 483 mm)

Effective scanning width: 10.1" (256 mm) max.

Effective printing width: 8.0" (203 mm) max.

Printing speed: 16 ppm

Reception modes: Auto/Manual

Instascan speed: 1.3 sec/page (letter paper; scan time only, excludes document feeding time)

Full Dual Access: Yes

Copy function: Single/Multi/Sort (99 copies/page)

Power requirements: 120 V AC, 60 Hz

Operating temperature: 50 - 86°F(10 - 30°C)

Humidity: 20 to 85 % RH

Power consumption: Stand-by: 9 W
(When all Option's were attached under the condition of stand-by: 16W)
Maximum: 760 W

Dimensions: Width: 21.5" (546 mm)
Depth: 16.2" (412 mm)
Height: 13.6" (346 mm)
(Not including paper tray or attachments)

Weight: Approx. 31.3 lbs. (14.2 kg)
(Not including supplies paper tray or attachments)

* Based on ITU-T Test Chart #1 at standard resolution, excluding time for protocol signals (i.e., ITU-T phase C time only).

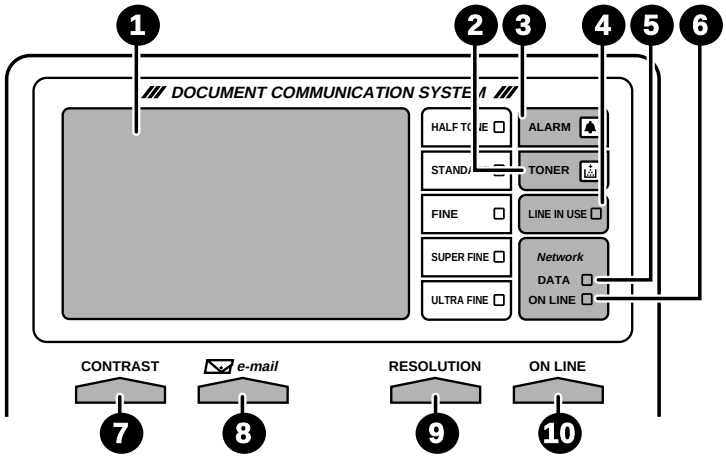
<IMPORTANT PLEASE READ FIRST>

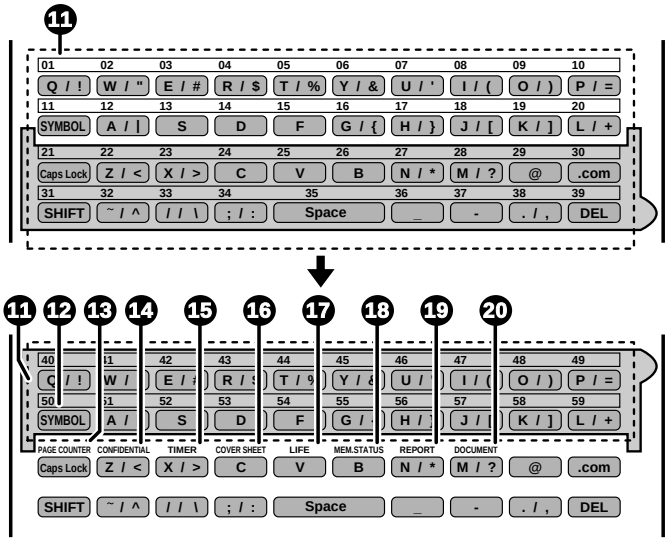
To avoid problems with supplies, please don't use supplies from other units. Please use new supplies, when supply changes are required.

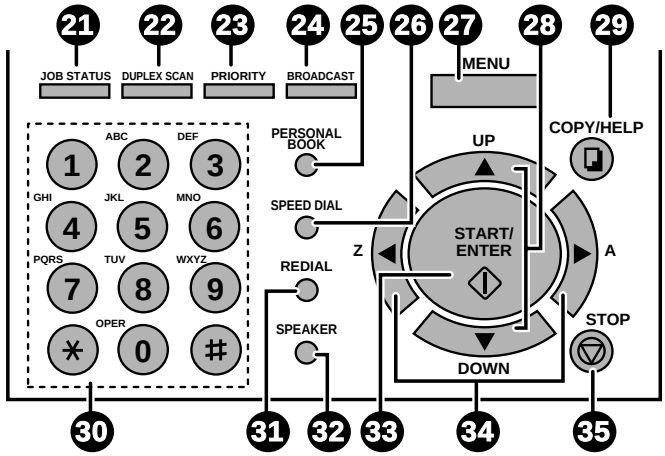
[2] Life of consumable

Section	Part	Estimated Life	Replaced by
Toner cartridge	Replacement cartridge (FO-50ND)	6,000 prints (at Letter/4% chart)	User
Drum cartridge	Replacement cartridge (FO-47DR)	20,000 prints (at Letter/4% chart)	User
Paper feed	Transfer roller (Refer to the P/G No. 10-8) (0KW4127410302)	50,000 prints	Service Engineer
Fuser	Fusing unit (Refer to the P/G No. 9-14) (0KW4127035501)	50,000 prints	Service Engineer
Paper transport	Paper transfer roller (Refer to the P/G No. 8-6) (0KW4127300101)	Cleaning as needed	————
Unit	FO-DC500	5 years or 75,000 prints of early either	————

[3] Operation panel (1)







1 Display
This displays messages and prompts to help you operate the machine.

2 TONER indicator
This blinks when the toner cartridge nears empty, and lights steadily when the toner cartridge needs replacement.

3 ALARM indicator
This blinks when one of the paper sources is empty or the drum cartridge is near the end of its life (printing is still possible). This lights steadily when the drum cartridge has reached the end of its life, all paper sources are empty, the print compartment cover is open, or a paper jam has occurred (printing is not possible). A message will appear in the display to indicate the problem.

4 LINE IN USE light
This lights when the fax machine is using the telephone line.

5 DATA light
This blinks when the machine is receiving a print job over the network (only when the network printer option is installed).

6 ON LINE light
When this light is on, the machine can receive data (print jobs) over the network. The light is turned on or off with the ON LINE key. (Only available when the network printer option is installed).

7 CONTRAST key
Press this key to adjust the contrast before sending or copying a document.

8 E-mail key
Press this key to send a scanned document to an e-mail recipient. (Only available when the network scanner option is installed).

9 RESOLUTION key
Press this key to adjust the resolution before sending or copying a document. An indicator will light next to the selected setting (HALFTONE, STANDARD, FINE, SUPER FINE or ULTRA FINE).

10 ON LINE key
Press this key to select whether the machine is online or off-line (the ON LINE light is on when the machine is online). The machine must be online to receive print jobs over the network. (Only available when the network printer option is installed).

11 Rapid Dial Keys
Press one of these keys to dial a fax number automatically, or specify an e-mail recipient if the network scanner option is installed. Note that you must attach the Rapid Key labels. When navigating through the display menu, a Rapid Key can also be pressed in place of the numeric keys to enter a two-digit number (for example, you can press Rapid Key 01 to enter the number "01").

12 SYMBOL key
When entering a name, press this key to enter the symbol on a letter key (the character to the right of the slash). Press the key again to turn off symbol entry mode.

13 PAGE COUNTER key
Press this key to include a slash and the total number of pages after each page number on the pages of a transmitted document.

14 CONFIDENTIAL key
Press this key to send or print out a confidential document.

Operation panel (2)

15 TIMER key
Press this key to set a fax operation to be performed automatically at a later time.

16 COVER SHEET key
Press this key to include a cover sheet when sending a fax.

17 LIFE key
Press this key, followed by START/ENTER, to check the total number of pages printed by the fax machine. (Press STOP to return to the data and time display.

18 MEM. STATUS key
Press this key to check the status of fax transmission jobs, copy jobs, and fax receptions. This key can also be used to cancel a job.

19 REPORT key
Press this key to print out a report on the most recently completed transmission or reception.

20 DOCUMENT key
Press this key to transmit a document directly from the feeder without reading it into memory.

21 JOB STATUS key
Press this key to display the FAX-STATUS screen, which shows information on the fax job that is currently in progress. If the dual line option is installed, the fax status will appear separately for each line. If the network printer option is installed, the NETWORK PRINT STATUS screen showing information on current printer activity will appear following the FAX STATUS screen (note that "IDLE" will appear if a print job has been executed but is not yet being printed).
To cancel a job that is in progress, display the job in the status screen and then press STOP. To move through each of the screens and return to the date and time display, press JOB STATUS one or more times as needed.

22 DUPLEX SCAN key
Press this key to transmit or copy a two-sided document.

23 PRIORITY key
Press this key when you need to transmit a document ahead of other documents waiting in memory for transmission.

24 BROADCAST key
Press this key to send a document to a group of fax machines, or to a group of e-mail recipients if the network scanner option is installed.

25 PERSONAL BOOK
Press this key to use or store an auto-dial number in a personal book. If the book has a passcode, enter the passcode; otherwise, select the book with ▲ or ▼ and press START/ENTER.

26 SPEED DIAL key
Press this key to dial a Speed Dial number.

27 MENU key
Press this key to select special functions and setting.

28 UP and DOWN arrow keys
Volume setting: Press these keys to change the speaker volume when the **SPEAKER** key has been pressed, or the ringer volume at any other time.
MENU key settings: Press these keys after pressing the **MENU** key to scroll through the **MENU** key settings.

29 COPY/HELP key
When a document is in the feeder, press this key to make a copy of a document. At any other time, press this key to print out the Help List, a quick reference guide to the operation of your fax machine.

30 Dial keypad (numeric keys)
Use these keys to dial and program fax numbers.

31 REDIAL key
Press this key to automatically redial the last number dialed.

32 SPEAKER key
Press this key when transmitting a document by Normal Dialing to listen to the line and verify the response of the receiving fax machine.

33 START/ENTER key
Press this key to begin fax transmission when using Speed Dialing, Direct Keypad Dialing, or Normal Dialing. This key is also used to select settings in the **MENU** key menu and complete entries when storing names and numbers.

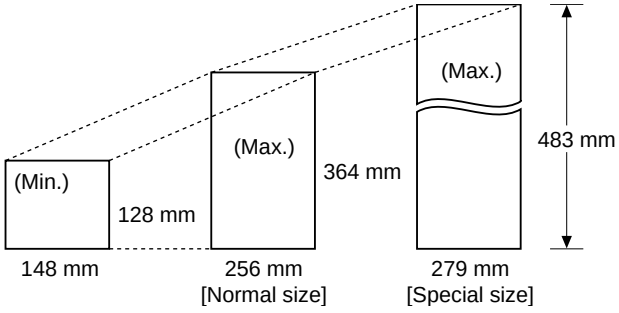
34 Left and right arrow keys
Auto-dial numbers: Press these keys to search for an auto-dial number when sending a fax.

35 STOP key
Press this key to cancel an operation before it is completed.

[4] Transmittable documents

1. Document Sizes

Normal size	width	5.8" – 10.1" (148 – 256 mm)
	length	5.0" – 14.3" (128 – 364 mm)



* With special sizes, only one sheet can be fed into the machine at a time. Insert next page into feeder as current page is being scanned.

2. Paper Thickness & Weight

		Product specifications	
	Indication	Lower Limit	Upper Limit
Weight indication	Japanese indication Size 4 × 6	45kg paper	70kg paper
	Metric system indication	52g/m^2	80g/m^2
	American indication LB system indication	14 LB	20 LB
Thickness indication	Metric system indication	0.06mm	0.1mm
	Inch system indication	0.0024"	0.0035"
Document size	Document size Range	(148mm × 128mm) ~ W letter (279mm × 483mm)	
		A4 (210mm × 297mm)	
		Letter (216mm × 279mm)	
Number of ADF sheets	Document size Weight	B6 ~ Letter/A4 size	50 sheets
		B4 size/Legal	20 sheets
		W letter size	1 sheet
		90 kg (104g/m^2) or more 135 kg (157g/m^2) or less	1 sheet
Paper quality	Kind	Paper of fine quality/bond paper/ Kent paper	

3. Document Types

- Normal paper

  Documents handwritten in pencil (No. 2 lead or softer), fountain pen, ball point pen, or felt-tipped pen can be transmitted.

  Documents of normal contrast duplicated by a copying machine can also be transmitted.
- Diazo copy (blueprint)

  Diazo copy documents of a normal contrast may be transmitted.
- Carbon copy

  A carbon copy may be transmitted if its contrast is normal.

4. Cautions on Transmitting Documents

- Documents written in yellow, greenish yellow, or light blue ink cannot be transmitted.
- Ink, glue, and correcting fluid on documents must be dry before the documents can be transmitted.
- All clips, staples and pins must be removed from documents before transmission.
- Patched (taped) documents should be copied first on a copier and then the copies used for transmission.
- All documents should be fanned before insertion into the feeder to prevent possible double feeds.

5. Automatic Document Feeder Capacity

Number of pages that can be placed into the feeder at anytime is as follows:

Normal size: max. 50 sheets (14 lbs - 20 lbs)

Special size: single sheet only (manual feed)

NOTES:
- If you need to send or copy more 50 pages, place the additional pages and carefully in the feeder just before the last page is scanned. Do not try to force them in, as this may cause double-feeding or jamming.
- If your document consists of several large or thick pages which must be loaded one at a time, insert each page into the feeder as the previous page is being scanned. Insert gently to prevent doublefeeding.

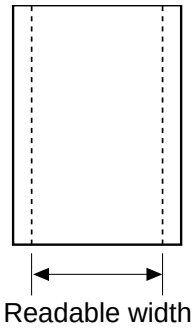
6. Readable Width & Length

The readable width and length of a document are slightly smaller than the actual document size.

Note that characters or graphics outside the effective document scanning range will not be read.

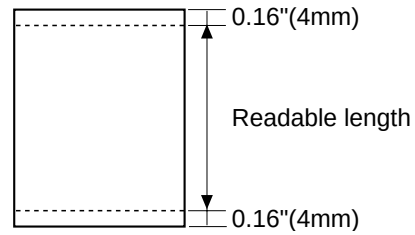
- **Readable width**

10.1" (256 mm) max.



- **Readable length**

This is the length of the document sent minus 0.16" (4 mm) from the top and bottom edges.



[5] Installation

1. Site selection

Take the following points into consideration when selecting a site for this model.

ENVIRONMENT

- The machine must be installed on a level surface.
- Keep the machine away from air conditioners, heaters, direct sunlight, and dust.
- Provide easy access to the front, back, and sides of the machine. In particular, keep the area in front of the machine clear, or the original document may jam as it comes out after scanning.
- The temperature should be between 50° and 86°F (10° and 30°C).
- The humidity should be between 30% and 85% (without condensation).

ELECTRICITY

AC 120 V, 60 Hz, grounded (3-prong) AC outlet is required.

Caution!

- Connection to a power source other than that specified will cause damage to the equipment and is not covered under the warranty.
- If your area experiences a high incidence of lightning or power surges, we recommend that you install a surge protector for the power and telephone lines. Surge protectors can be purchased at most telephone specialty stores.

TELEPHONE JACK

A standard RC11C telephone jack must be located near the machine. This is the telephone jack commonly used in most homes and offices.

- Plugging the fax machine into a jack which is not an RC11C jack may result in damage to the machine or your telephone system. If you do not know what kind of jack you have, or need to have one installed, contact the telephone company.

If the machine is moved from a cold to a warm place...

If the machine is moved from a cold to a warm place, it is possible that the reading glass may fog up, preventing proper scanning of documents for transmission. To remove the fog, turn on the power and wait approximately 2 hours before using the machine.

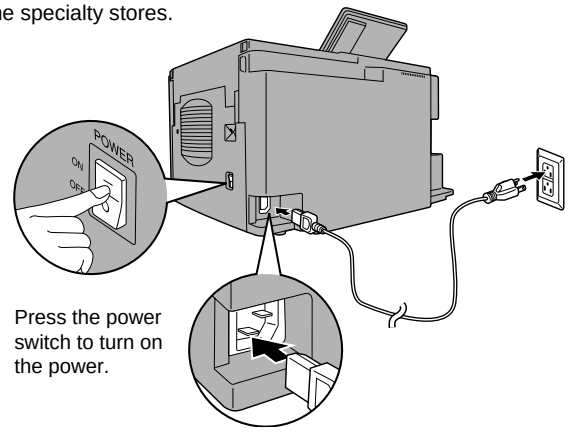
2. Assembly and connections

① **Connecting the power cord**

Connect the female end of the power cord to the fax machine as shown. Insert the male end into a 120 V, 60 Hz, grounded (3-prong) AC outlet.

Important!: The fax machine requires its own dedicated power outlet. The power outlet must not be shared with any other devices. In particular, do not use an extension cord to connect multiple devices to the outlet.

Note: If your area experiences a high incidence of lightning or power surges, we recommend that you install surge protectors for the power and telephone lines. Surge protectors can be purchased at most telephone specialty stores.

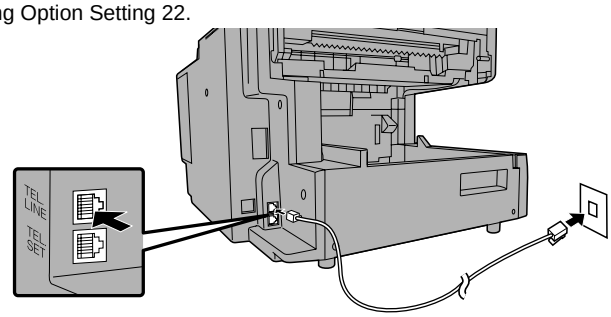


Press the power switch to turn on the power.

② **Connecting the telephone line cord**

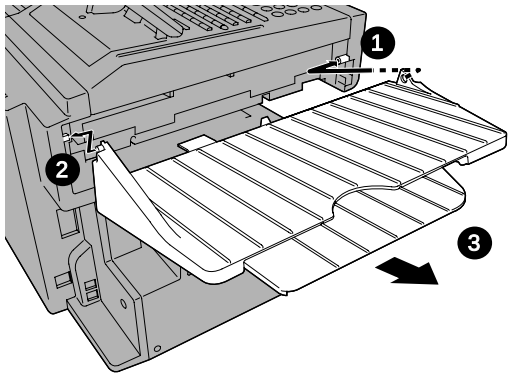
Insert one end of the line cord into the jack on the back of the machine marked **TEL. LINE**. Insert the other end into a standard (RJ11C) single-line wall telephone jack.

Note: The fax machine is set for touch-tone dialing. If you are on a pulse dial (rotary) line, you must set the fax machine for pulse dialing by changing Option Setting 22.



③ **Attaching the ADF exit tray**

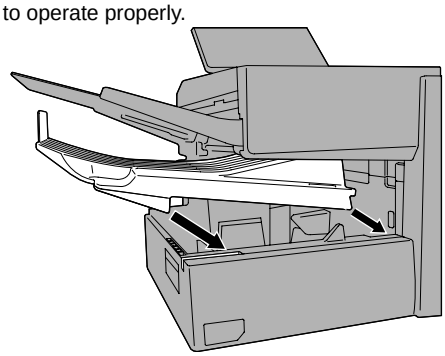
Insert the protrusion on the right side of the machine into the hole in the right side of the ADF exit tray ❶, then bend the tray slightly and insert so that the protrusion on the left side of the machine goes into the hole on the left side of the ADF exit tray ❷. Pull out the tray extension ❸.



④ **Attaching the received document tray**

Slide the received document tray into the machine as shown. When it stops, lift the end slightly and push in so that the tray locks into place.

Important!: The received document tray must be attached for the fax machine to operate properly.



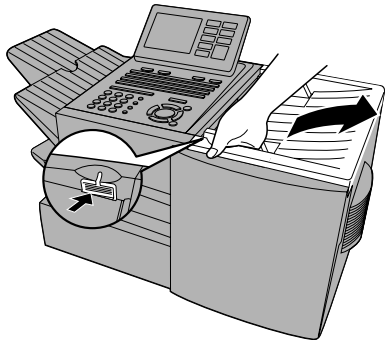
3. Installing the print cartridges (Toner cartridge: FO-50ND) (Drum cartridge: FO-47DR)

Follow the steps below to install or replace the toner and drum cartridges.

- The initial starter toner cartridge included with the fax machine can print approximately 3000 letter-size pages (4% coverage of each page; continuous printing).
- The replacement toner cartridge (FO-50ND) can print approximately 6000 letter-size pages.
- The drum cartridge (FO-47DR) can print approximately 20,000 letter-size pages.

① Press the cover release to open the print compartment cover.

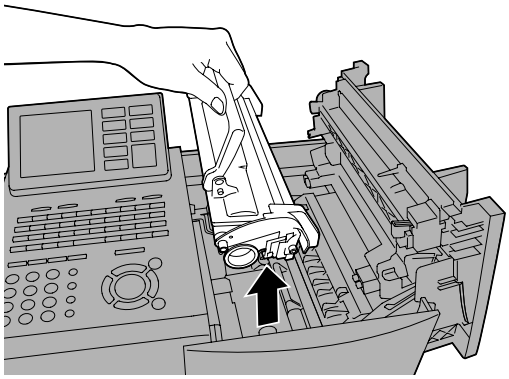
- **Caution!** The fusing unit inside the print compartment becomes very hot during operation. Be careful not to touch the inside of the compartment.

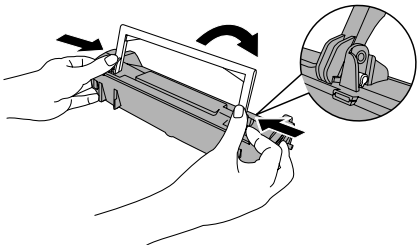


② If you are replacing the toner cartridge, remove the old cartridge and dispose of it according to local regulations.

Go directly to STEP 5 if you are only replacing the toner cartridge and not the drum cartridge.

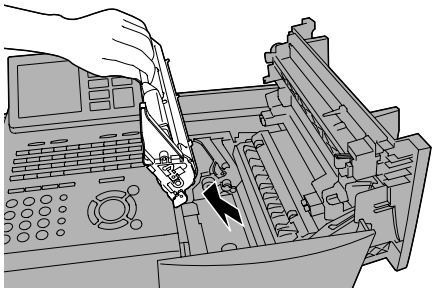
- If you are replacing the drum cartridge but not the toner cartridge, remove the toner cartridge and place it on a sheet of paper.





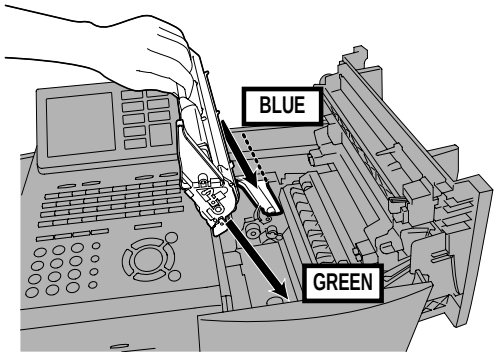
To make the cartridge more compact for disposal, press the buttons on the ends of the handle and fold the handle down.

③ If you are replacing the drum cartridge, remove the old cartridge and dispose of it according to local regulations.

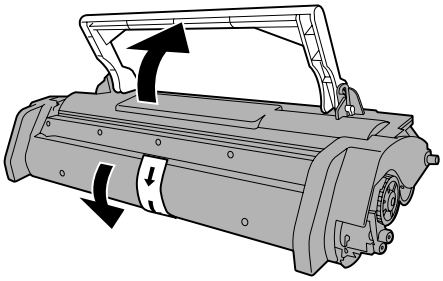


④ Remove the new drum cartridge from its packaging. Insert the drum cartridge into the print compartment.

- **Caution!** Excessive exposure to light will damage the drum cartridge. Install the cartridge promptly after removing it from its packaging.
- Make sure the drum cartridge is inserted in as far as it will go.

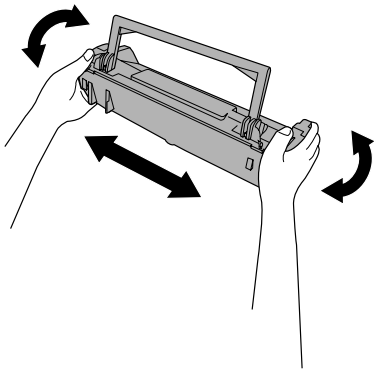


⑤ If you are installing a new toner cartridge, remove the new toner cartridge from its packaging. Remove the tape from the cartridge and then open the cartridge handle so that it stands straight up.



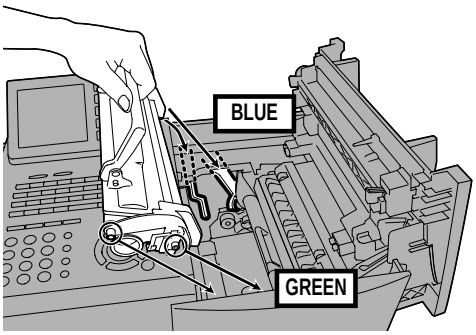
⑥ Shake as indicated by the arrows to distribute the toner evenly within the cartridge.

- If the toner is still lumpy after shaking, the gears in the cartridge may make a noticeable sound when the print compartment cover is closed after installing the cartridge. This is normal and does not indicate a problem.

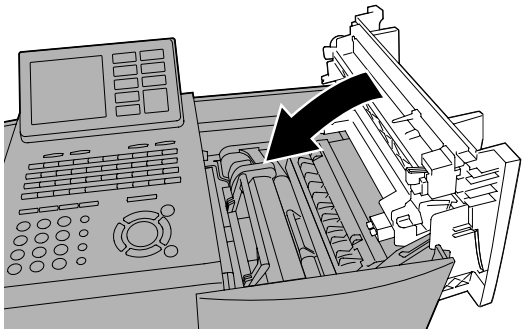


⑦ Hold the toner cartridge by the handle and insert it into the print compartment.

- Make sure the toner cartridge clicks into place.
- The handle can be left standing up.



⑧ Close the print compartment cover.



⑨ Reset the drum counter by pressing LIFE (flip up the Rapid Key overlay), ▲, or ▼ until DRUM COUNTER CLEAR is selected in the display, and then START/ENTER twice.

- **Note:** The toner counter automatically resets each time you replace the toner cartridge. There is normally no need to reset the toner counter manually. Should you find it necessary to manually reset the toner counter, press LIFE (flip up the Rapid Key overlay), ▲ or ▼ until TONER COUNTER CLEAR is selected, and then START/ENTER twice.

Note: The print compartment cover may become noticeably warm if a large number of pages are successively printed. This is normal and does not indicate a problem in the machine.

⑩ When to replace the toner cartridge

When the toner cartridge nears empty (about 100 pages can still be printed), the toner cartridge indicator on the operation panel will blink. When the toner cartridge is empty, the toner cartridge indicator will light steadily and REPLACE TONER will appear in the display. Printing will no longer be possible. Use the following replacement toner cartridge.

Sharp FO-50ND toner cartridge

Hint:

When the toner cartridge nears empty, try taking it out of the machine and shaking it. This may increase the number of pages that can be printed before the toner runs out.

⑪ When to replace the drum cartridge

When the drum cartridge nears the end of its life, the ALARM indicator on the operation panel will blink and DRUM LIFE REACHED will appear in the display. (this message appears when approximately 1000 pages can still be printed). Use the following replacement drum cartridge.

Sharp FO-47DR drum cartridge

4. Loading printing paper

You can load up to 250 sheets of letter or legal paper (max. 20 lbs.) in the paper tray.

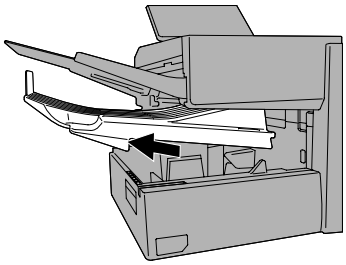
- A paper cassette is available as an option. Up to 500 sheets of letter or legal paper can be loaded in the paper cassette. To have the cassette installed, consult your dealer.

  Important: Do not use the back side of paper that has already been printed on.

  Note: If you need to add paper to the tray or cassette while paper still remains, remove the remaining paper and combine it into a single stack with the new paper.

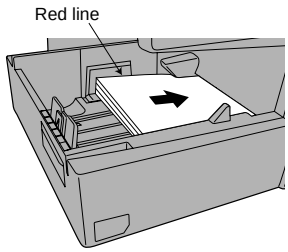
Loading paper in the paper tray

① Remove the received document tray.

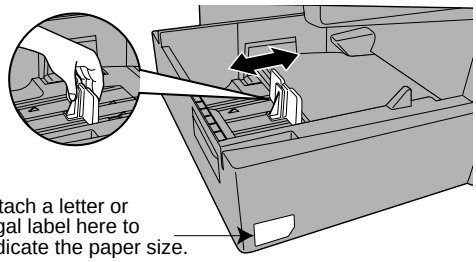


② Insert a stack of paper into the tray, print side up.

- **Important!** The stack of paper must not be higher than the red line on the paper tray.

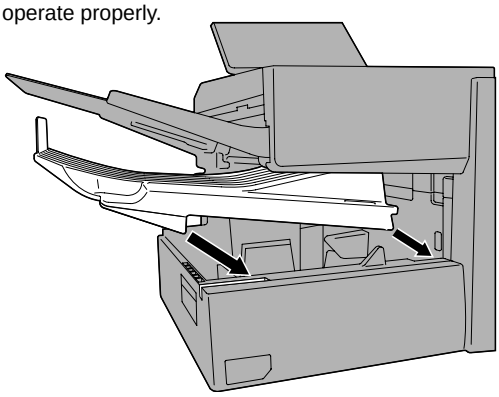


③ Squeeze the paper guide and move it to match the length of the paper you are loading.



④ Replace the received document tray.

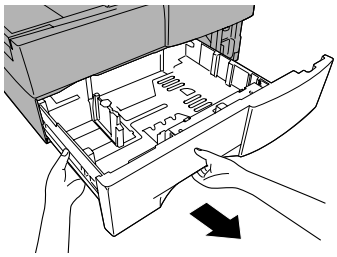
- The received document tray must be attached for the fax machine to operate properly.



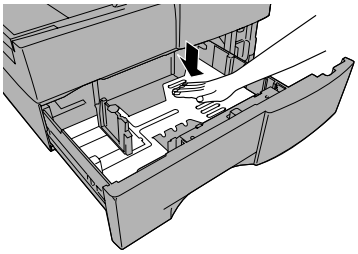
Loading paper in the paper cassette (if installed FO-CS1)

Note: To use A4 paper in the paper cassette, you must have a service technician adjust the cassette.

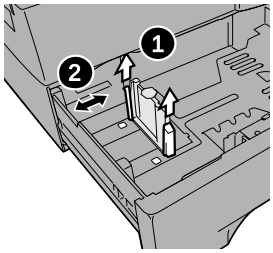
① Grasp the hand-hold on the cassette and pull the cassette out until it stops.



② Push the pressure plate down until it locks into position.

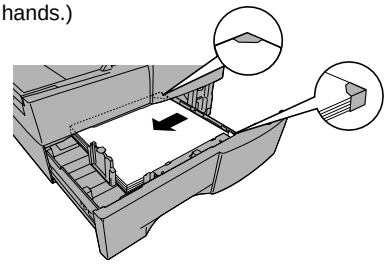


③ Squeeze the paper guide and pull up to move it to the appropriate holes for the length of the paper. Push the guide down into the holes.

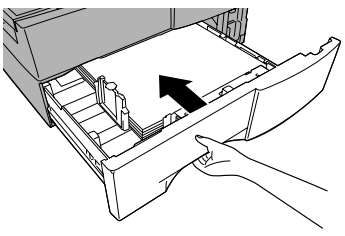


④ Place a stack of paper in the cassette, print side up.

- Make sure the stack of paper is not higher than the two tabs on the paper guide and the two metal tabs. If it is, remove some of the paper.
- If you find it difficult to load the paper, remove the cassette from the machine. (Pull the cassette out as far as it will go, grasp the left side of the cassette with your left hand, and then lift it up and out with both hands.)



⑤ Push the cassette back into the machine, making sure it clicks into place.



5. Clearing paper jams

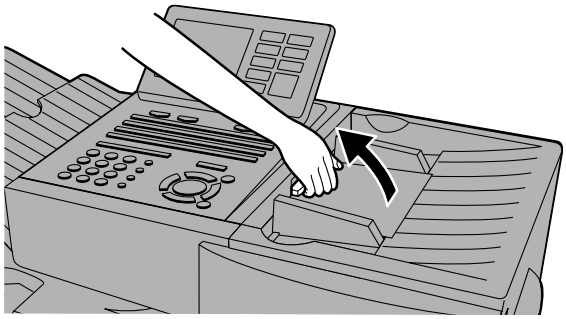
Clearing a jammed document

If the original document doesn't feed properly during transmission or copying, or REMOVE ORIGINAL(S) appears in the display, fist try pressing (START/ENTER) . If the document doesn't feed out, open the operation panel and remove it.

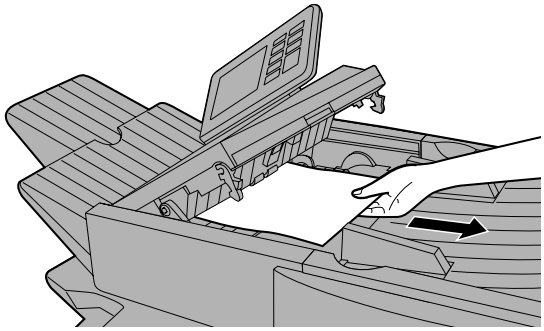
Important: Do not try to remove a document without opening the operation panel. This may damage the feeder mechanism.

① Open the operation panel.

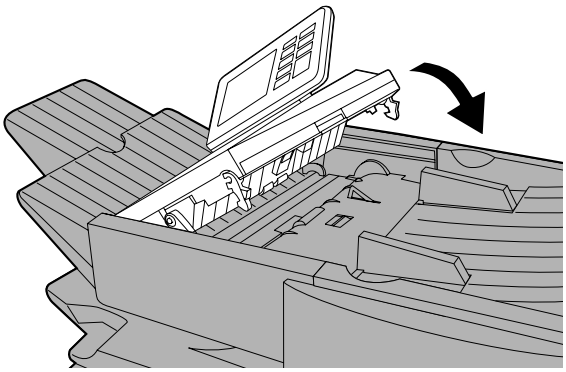
- Squeeze the release marked **PANEL RELEASE** and pull up.



② Remove the document.



③ Close the operation panel, making sure it clicks into place.

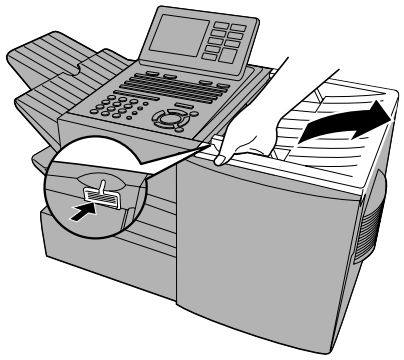


Clearing a jammed printing paper

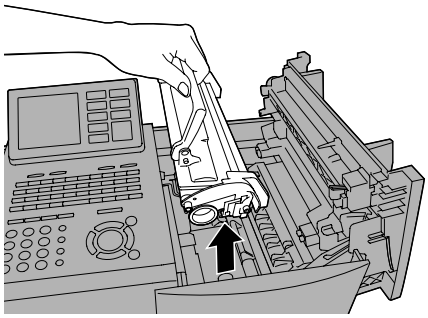
If the printing paper jams, PAPER JAM will appear in the display. Follow the steps below to clear the jam.

① Press the green release and open the print compartment cover.

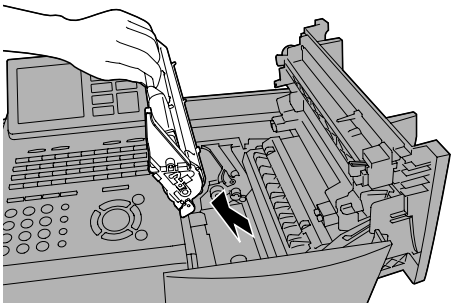
- **Caution!** The fusing unit inside the print compartment becomes very hot during operation. Be careful not to touch the inside of the compartment.



② Remove the toner cartridge and place it on a sheet of paper.

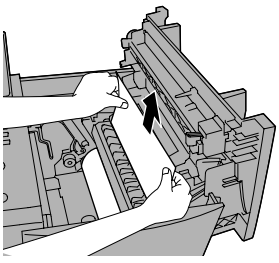


③ Remove the drum cartridge.

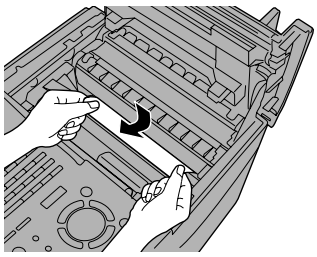


④ Remove the jammed paper.

- Make sure no torn pieces of paper remain in the print compartment and rollers.

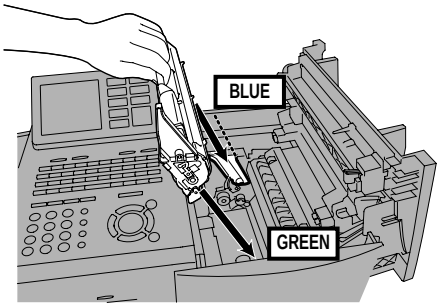


OR

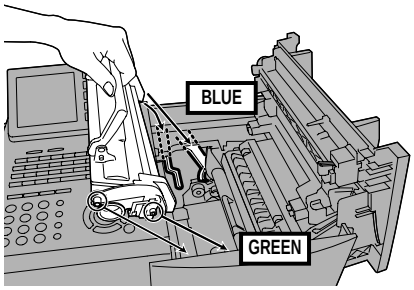


⑤ Replace the drum cartridge.

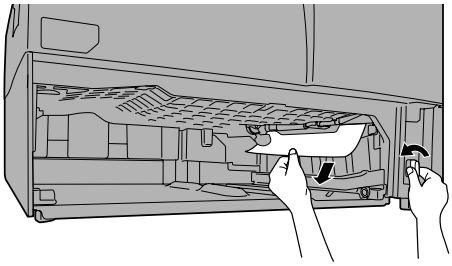
- Make sure the drum cartridge is inserted in as far as it will go.



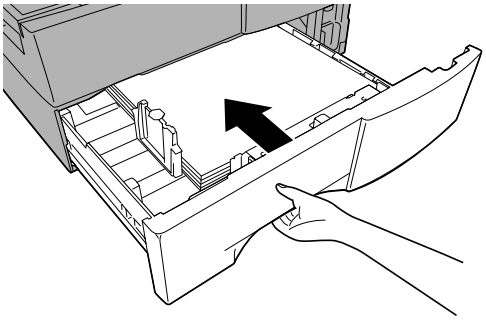
⑥ Replace the toner cartridge and then close the print compartment cover.



⑦ If you have a paper cassette and the display still indicates that paper is jammed, pull out the cassette and remove the jammed paper.



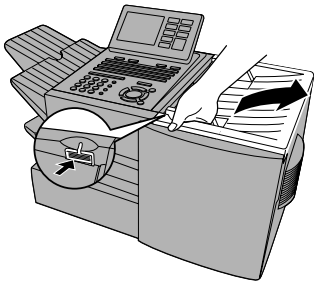
⑧ Replace the paper cassette.



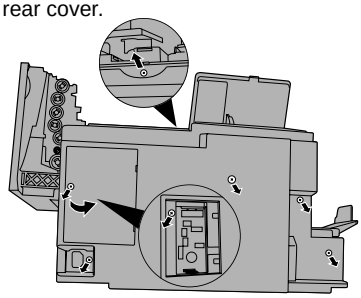
6. Installing the LAN Network Interface Kit (FO-LN1)

Important: The following procedure is only to be performed by a qualified service technician. Be sure to turn off the power, unplug the power cord, and unplug the telephone line before proceeding. In addition, touch a grounded piece of metal to discharge any static electricity that may be on your body.

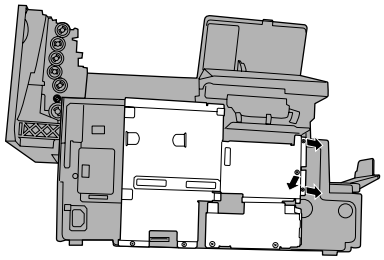
① Press the cover release to open the print compartment cover.



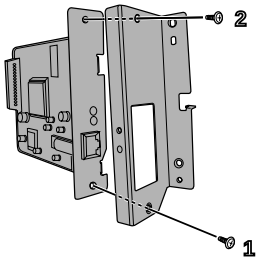
② Remove 6 screws from the rear cover.
(Remember which screw secures the small cover on the left side of the rear cover, as it must be replaced in the same position).
Remove the small cover, and then remove the screw underneath.
Remove the rear cover.



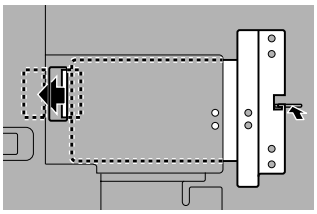
③ Remove 3 screws and then remove the small metal side plate.



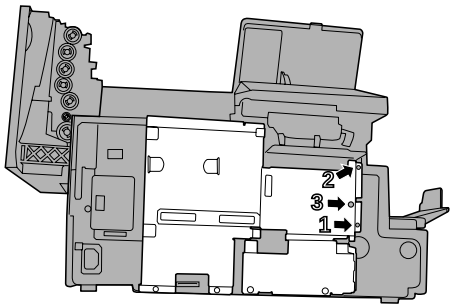
④ Attach the provided metal side plate to the LAN interface board with 2 screws in the order shown (this plate replaces the small metal side plate that was removed in Step 3).



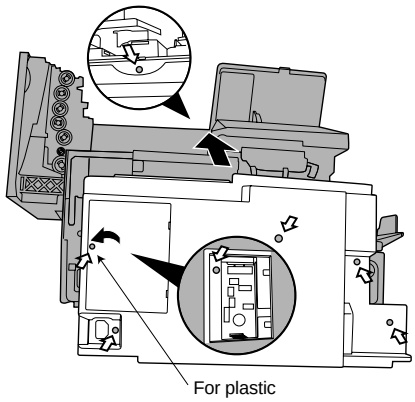
⑤ Insert the LAN interface board under the metal plate with the tab on the right side of the board going into the slit in the machine indicated by the arrow. Continue sliding the board to the left until the connector inserts into the connector on the machine.



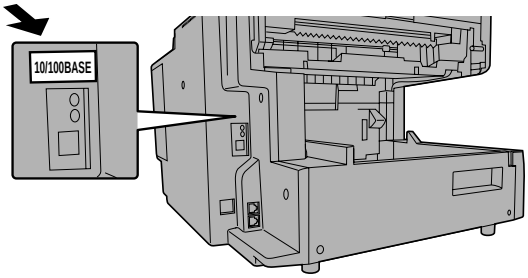
⑥ Secure the LAN interface board with the 3 screws in the order shown.



⑦ Replace the rear cover.
(Be sure to replace the screw that secures the small cover in the same position, as it is for plastic.)



⑧ Affix the port label in the position shown.

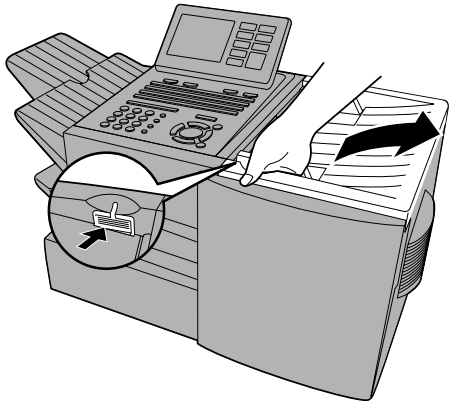


7. Installing the Network Printer Kit (FO-NP1)

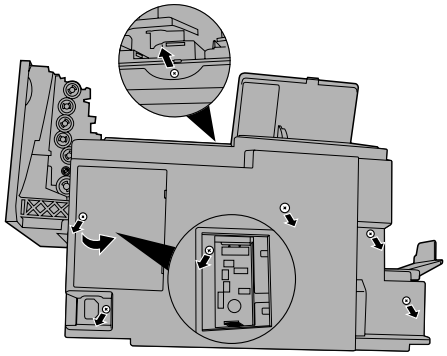
Note: To use the FO-NP1 Network Printer Kit, the FO-LN1 LAN Network Interface Kit must be installed.

Important: The following procedure is only to be performed by a qualified service technician. Be sure to turn off the power, unplug the power cord, and unplug the telephone line before proceeding. In addition, touch a grounded piece of metal to discharge any static electricity that may be on your body.

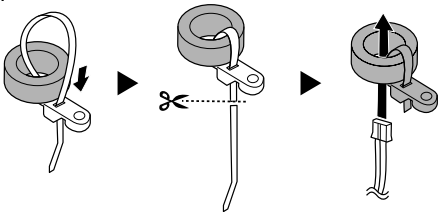
① Press the cover release to open the print compartment cover.



② Remove 6 screws from the rear cover.
(Remember which screw secures the small cover on the left side of the rear cover, as it must be replaced in the same position).
Remove the small cover, and then remove the screw underneath. Remove the rear cover.



③ Attach the core band to the core as shown, and insert cable through the core.

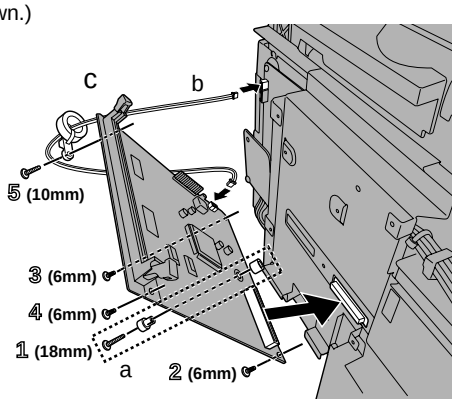


④ Attach the PCL board:

a. Insert the bushing into the hole in the PCL board from the outer side, and secure it with the collar on the inner side.

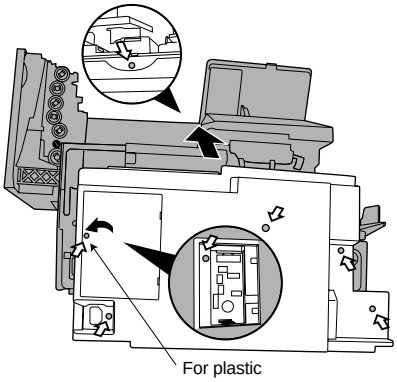
b. Connect the cable to the connector on the PCL board and to the **upper** connector on the machine.

c. Attach the board so that the connector inserts into the connector on the machine. Secure the board with the screws in the order shown. (The 18 mm screw goes into the bushing, and the 10 mm screw goes through the hole in the core band and into the board shown.)



⑤ Replace the rear cover.

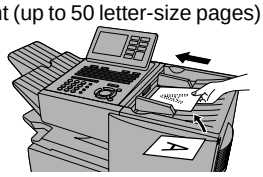
(Be sure to replace the screw that secures the small cover in the same position, as it is for plastic.)



[6] Quick reference guide

SENDING FAXES

Place your document (up to 50 letter-size pages) face down in the document feeder.



(Note: For Normal Dialing and Direct Keypad Dialing, you can also load the document after dialing the number.)

Press RESOLUTION or CONTRAST if needed.

Normal Dialing

1. Lift extension phone or press SPEAKER .
2. Dial the fax number (if using an extension phone, dial on the extension phone keypad).
3. Wait for the reception tone (if a person answers, ask them to press their Start key).
4. Press START/ENTER .

Rapid Key Dialing

1. Press the desired Rapid Key.

Speed Dialing

1. Press SPEED DIAL and enter the desired Speed Dial number (press START/ENTER if you entered less than 3 digits).
2. Press START/ENTER .

Direct Keypad Dialing

1. Dial the fax number.
2. Press START/ENTER .

STORING AUTO DIAL NUMBERS

1. Press MENU , and then ▲ or ▼ until ENTRY MODE is selected in the display..
2. Press START/ENTER . Make sure that DESTINATION SETTING is selected.
3. Press START/ENTER . Make sure that SET is selected. (To clear a number, select CLEAR.)
4. Press START/ENTER .
5. To store a Rapid Key number, press the desired Rapid Key. To store a Speed Dial number, press SPEED DIAL and enter a number from 1 to 100 (press START/ENTER if you entered less than 3 digits). (If clearing a number, select it as explained above and then press START/ENTER and STOP .)
6. If the network scanner option is installed, SELECT DESTINATION TYPE will appear. Make sure that FAX is selected and press START/ENTER .
7. Enter the full fax number and press START/ENTER .
8. Enter a name by pressing the letter keys and press START/ENTER .
9. Select YES if this is a Chain Dial number or NO if not, and press START/ENTER .
10. Press STOP repeatedly to exit.

CHAPTER 2. ADJUSTMENTS

[1] Adjustments

General

Since the following adjustments and settings are provided for this model, make adjustments and/or setup as necessary.

1. Adjustments

Adjustments of output voltage (FACTORY ONLY)

1. Install the power supply unit in the machine.
2. Set the recording paper and document.
3. When the document is loaded, power is supplied to the output lines. Confirm that outputs are within the limits below.

Output voltage settings

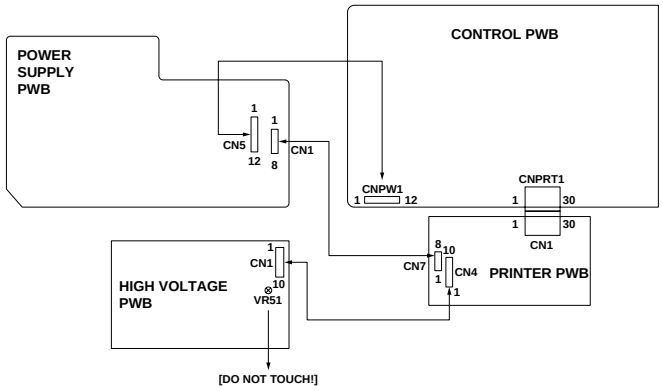


Fig. 1

Output	Voltage limits	Note
+5V MAIN	4.947V~5.25V	CN5 7pin ↔ 8pin
+24V SUB	23.04V~24.96V	CN5 1pin ↔ 2pin

Connector No. / Pin No.	CN4 / CN1
1	11
2	10
3	9
4	8
5	7
6	6
7	5
8	4
9	3
10	2

Connector No. / Pin No.	CN5 / CNPW1
1	+24V SUB
2	MG
3	MG
4	MG
5	+24V MAIN
6	+24V MAIN
7	+5V MAIN
8	DG
9	DG
10	DG
11	+5V MAIN
12	+5V MAIN

Connector No. / Pin No.	CN1 / CN7
1	+24V MAIN
2	MG
3	DG
4	DG
5	+5V MAIN
6	+5V MAIN
7	HEATER ON
8	H-RELAY OFF

2. IC protectors replacement

ICPs (IC Protectors) are installed to protect the CIS unit, panel PWB unit, TX motor drive circuit and verification stamp drive circuit. ICPs protect various ICs and electronic circuits from an overcurrent condition.

The location of ICPs are shown below:

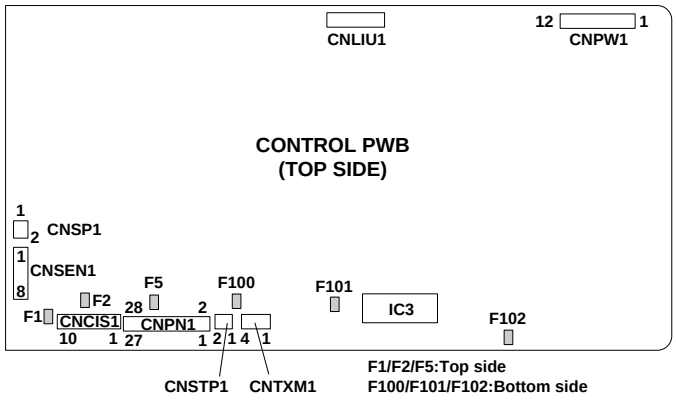


Fig. 2

(1) F1 (ICP-S0.5) F2 (ICP-S1.0) is installed in order to protect IC's from an overcurrent generated in the CIS unit. If F1 or F2 are open, replace it with a new one.

(2) F5 (ICP-S1.0) is installed in order to protect IC's from an overcurrent generated in the panel PWB unit. If F5 is open, replace it with a new one.

(3) F100 (ICP-S1.0) is installed in order to protect IC's from an overcurrent generated in the verification stamp drive circuit. If F100 is open, replace it with a new one.

(4) F101 (ICP-S1.8) is installed in order to protect IC's from an overcurrent generated in the TX motor drive circuit. If F101 is open, replace it with a new one.

(5) F102 (ICP-S0.7) is installed in order to protect IC's from an overcurrent generated in the LCD drive circuit. If F102 is open, replace it with a new one.

In addition to the replacement of F1, F2, F5, F100, F101 andF102 the factor causing F1, F2, F5, F100, F101 and F102 to open must also be repaired. If not, F1, F2, F5, F100, F101 and F102 will open again.

Replacement parts

ICP-S0.5 (Sharp code: VHViCPS05//-1)
ICP-S0.7 (Sharp code: VHViCPS07//-1)
ICP-S1.0 (Sharp code: VHViCPS10//-1)
ICP-S1.8 (Sharp code: VHViCPS18//-1)

3. Settings

(1) Dial mode selector

OPTION SETTING: DIAL MODE (Soft Switch No. SW2 DATA No. 1)

Use this to set the fax machine to the type of telephone line you are on.

• The factory setting is "TONE".

(step 1) Select "OPTIONAL SETTING".

KEY: [MENU] (4)

DISPLAY: 4:OPTIONAL SETTING / ENTER #(01-36,▶,◀)

(step 2) Select "DIAL MODE".

KEY: (2)(2)

DISPLAY: 22: DIAL MODE / 1=TONE, 2=PULSE

(step 3) Select, using "1" or "2".

KEY: (1)

DISPLAY: TONE SELECTED

KEY: (2)

DISPLAY: PULSE SELECTED

(step 4) End, using the "STOP" key.

KEY: STOP

[2] Diagnostics and service soft switches

1. Operating procedure

Two kinds of diagnoses are supported.

1-1. Fax diagnosis

This diagnosis is concerned with the main body of fax which is used for production and service support.

Entering the diagnostic mode

Press [MENU] → [9] → [✳] → [8] → [#] → [7], and the following display will appear.

	1st Line	
	2nd Line	
FAX : TA69✳	3rd Line	F/W version
NIC :x.xxx	4th Line	NIC board version
PRN :xxxx	5th Line	PCL board version
	6th Line	
PRN MEMORY SIZE = 16(MB)	7th Line	Memory size
GAA : ESx GAB : ESx	8th Line	GATE arrayA/B version
	9th Line	

Then press the [START] key. Select the desired item with the [✳] key and the [#] key or select with the rapid key.

Enter the mode with the [START] key.

(Diag・specifications)

MENU → (9)(✳)(8)(#)(7) → TA69✳ → START

A	START	SOFT SWITCH MODE
B	START	PRINT AREA
C	START	ROM & RAM CHECK
D	START	AUTO FEEDER MODE
E	START	AGING MODE
F	START	PANEL CHECK MODE
G	START	OPTICAL ADJUST MODE
H	START	PRODUCT CHECK
I	START	SIGNAL SEND MODE
J	START	COMM. CHECK MODE
K	START	MEMORY CLEAR MODE
L	START	FLASH MEMORY CHECK
M	START	ALL FAX/TEL. ENTRY MODE
N	START	DEPT. PASSCODE
O	START	CONF. PASSCODE
P	START	SIGNAL SEND MODE 2
Q	START	MEMORY SET MODE
R	START	STAMP AGING MODE
S	START	DIAL TEST MODE
T	START	COPY DIAG MODE
U	START	LCD CHECK MODE
V	START	PERSONAL BOOK LIST
W	START	FONT LIST PRINT MODE(*)
X	START	NO FUNCTION

*: FONT LIST PRINT MODE can be used only when the network function is effective.

1-2. Print diagnosis

This diagnosis is concerned with the print which is used for production and service support.

Entering the diagnostic mode

Press [MENU] → [9] → [✳] → [8] → [#] → [6], and the following display will appear.

PCU ROM VER.:✳✳

Then press the [START] key. Select the desired item with [✳] the key and the [#] key or select with the rapid key.

Enter the mode with the [START] key.

(Diag・specifications)

MENU → (9)(✳)(8)(#)(6) → PCU ROM Ver.: ✳✳ → START

01	START	AREA PRINT MODE 1
02	START	CHECK PATTERN 1
03	START	CHECK PATTERN 2
04	START	CHECK PATTERN 3
05	START	CHECK PATTERN 4
06	START	PAPER FEED AGING 1
07	START	PAPER FEED AGING 2
08	START	BIAS ADJUST MODE2
09	START	LIFE SET MODE
10	START	LIFE ALL CLEAR
11	START	LIFE ENTRY MODE
12	START	LIFE CLEAR MODE

Memory clear when power is turned on

Pressing the START and STOP keys, turn on the main power, and the following message will be displayed.

```
MEMORY CLEAR ?
1 = ALL , 2 = IMAGE , 3 = NO
```

1 = All the data will be deleted including initially registered data.
2 = Delete the image file to be used in transmission. This will delete all the data related to communication such as reserved transmission or intercepting. However, the data initially registered will not be deleted.
3 = Memory will not be cleared and the machine enters stand-by mode.

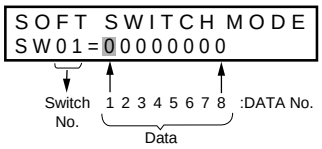
2. Diagnostic items description

2-1. Fax diagnosis

A) Soft switch mode

In this mode, the soft switch are set and the soft switch list is printed.

Soft switch mode screen



① Switch number selection

- Press START key for setting of the next soft switch. If the soft switch number is the final, pressing START key will exit the soft switch mode.
- Enter two digits of a soft switch number to set the switch number. If a switch number of nonexistent soft switch is entered, key error buzzer sounds to reject the input.

② Data number selection

The cursor position shows the data to be set.

Pressing # key or → key moves the cursor to the right. If, however, the cursor is on data number 8, pressing # key or → key shifts the cursor to data number 1 of the next switch number. If the switch number is the final, pressing # key or → key will exit the soft switch mode.

Pressing ⋊ key or ← key moves the cursor to the left. If, however, the cursor is on data number 1, pressing ⋊ key or ← key shifts the cursor to data number 1 of the former switch number. If the switch number is 1, pressing ⋊ key or ← key will not move the cursor and the error buzzer will sound.

③ Data setting method

Press the MENU key, and the data at the position of the cursor will be reversed to 0 when it is 1, or to 1 when it is 0. (If the soft switch can be changed at the bit (Refer to ⑥.), the error buzzer will sound with the process not received.)

④ Outputting method of soft switch list

In the soft switch mode, press the REPORT key, and the soft switch list will be output.

If the recording paper runs out or is clogged, the key error buzzer will sound with the process not received.

⑤ Storage of data

In the following case, the data of the soft switches set will be stored.

- It is shifted to set the next soft switch by pressing the START switch.
- It is shifted to set the next soft switch with the [#] key.
- It is shifted to set the last soft switch with the [⋊] key.
- It is shifted to set another soft switch by inputting two digits as the switch number. (When 2 digits are completely input.)
- Output of the soft switch list is started.

⑥ Inhibition of data change

(This is also applicable for the optional setting.)

In the following case, it is inhibited to change the data with the key error buzzer.

- Switching ON/OFF of ECM during the use of image memory.
- OFF to ON of telephone billing function which is using the image memory is used (Note: In the existing set, the telephone billing code function is specified from OFF to ON when the timer system communication (including the batch communication) is set.)
  Here, the memory is usable when the telephone billing code function is on. It can be set from ON to OFF while the memory is used. However, if setting is practically changed even once, it can not be returned from OFF to ON.
- OFF to ON of department control function during use of image memory.
  (Note: In the existing set, the department control function is set from OFF to ON when the timer communication (including the batch sending) or the memory hold is set.)
- ON to OFF of continuous serial polling function when the continuous serial polling is started.
  (Note: In the existing set, "ON to OFF of the continuous serial polling function when the continuous serial polling is registered" has been applied, but the conditions are now moderated. However, registration is impossible to the program of the new continuous serial polling when the continuous serial polling function is OFF.)
- In addition, change of all soft switches during communication

B) Print area

According to the size of the specified sheet, the effective printing area is printed.

C) ROM & RAM check

This is an item to check if the loaded memory device acts normally.

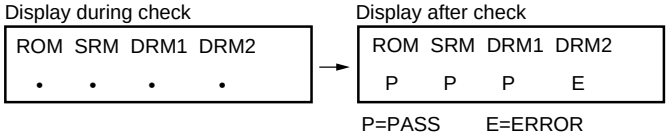
- The memory devices shown in the following table are checked.
- In case that an error occurs in the device check, the alarm buzzer shown in the table sounds.

Check device and alarm buzzer

No.	Device checked		Number of buzzer sound	Remarks
1	Main	ROM (PROGRAM FLASH)	<Short sound> 1 time	<Short sound>:
2		SRAM	<Short sounds> 2 times	0.5 sec.ON / 0.5 sec.OFF
3		D-RAM1 (*1)	<Short sounds> 3 times	<Long sounds>:
4		D-RAM2 (*2)	<Short sounds> 4 times	1.0 sec.ON / 0.5 sec.OFF
5		—	—	

*1: Work memory (SDRAM 8 MB)
*2: Page memory (SDRAM 16 MB)

(Example of display) In case that DRAM2 is erroneous.



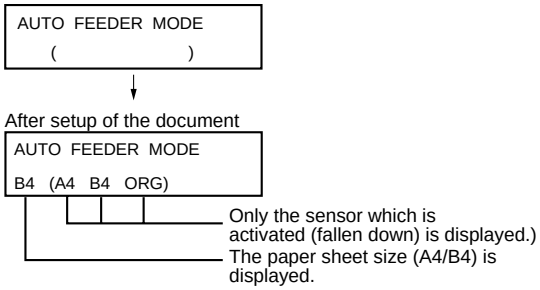
- After the check is complete, the result is outputted.
- In case that an NIC and a PCL board are mounted, the version information of the board is also printed on the result.

D) Auto feeder mode

By executing the document insertion and discharge, the automatic feeding function can be checked. And the document sensor can be checked as well.

① Set the document

Before pressing the “START” key, only the document sensor check is carried out. And as the document sensor is ON, the document size (A4/B4) and the sensor information (A4/B4/ORG) are displayed.



② The automatic feeding starts by pressing the “START” key. This mode ends when the document ends, and the result is printed.

E) Aging mode

This is a mode to execute the copying action and the check pattern printing action once every 60 minutes and continue the action until 10 sheets are outputted in total.

① The printing action on the 1st sheet starts by pressing down the "START" key and entering the mode. When document is set at the time of the mode start-up the copy action is carried out, and when the document is not set the "check pattern 1" of the print dialog is printed.
② The number of printouts is displayed after printing.

F) Panel check mode

This is to check that each key acts normally and this is displayed on the LCD according to the key input. And during execution, the document reading lamp is ON. After inspection start, the LEDs light on sequentially. At the mode end with the "STOP" key, all of them go OFF. As to the test result, it is printed out after the mode end.

When the "NUMERIC" key is pressed during the panel check execution, sending of the DTMF signal corresponding to the key starts, and when another key is pressed sending of the DTMF signal stops. (Softswitch change is required. SW80 No.6: 0 →1)

- After inputting all the keys, input the "STOP" key at last, and then the result is displayed.

a) In case that all the keys are pressed.

```
PANEL CHECK MODE
ALL KEY OK !!
```

- Until the STOP key is pressed, all black 4-split sequential display is performed.
- After the mode end, the test result is printed.

b) In case that there is a key that is not pressed.

```
PANEL CHECK MODE
KEY ERROR !!
```

- Until the STOP key is pressed, all black 4-split sequential display is performed.
- After the mode end, the test result is printed.

G) Optical adjust mode

The optical system is adjusted.

- By pressing down the "START" key, the document reading lamp "100%: ON" is turned ON.

H) Product check

This is a dialog used in the production process and a mode to execute a specific mode in the series of the flow.
After the mode end, the rest result as to the checked items is printed.

- After moving to the mode, the following actions are sequentially executed.

① Memory clear (Same as Diagnosis K)

② Panel check (Same as Diagnosis F)

③ ROM & RAM test check (Same as the Diagnosis C)

④ Test result print
Memory clear printing
Panel check result printing
ROM & RAM test result printing

⑤ Print area (The specification of each item is the same as the specification of the simple mode.)

I) Signal send mode

It can be used to check the modem.
When the START key is pressed, silence signal (make loop) will be executed. The following signals are sent by pressing the START key thereafter.

[1] No signals (make loop)
[2] 4800BPS (V. 27ter)
[3] 14400BPS (V. 33)
[4] 12000BPS (V. 33)
[5] 14400BPS (V. 17)
[6] 12000BPS (V. 17)
[7] 9600BPS (V. 17)
[8] 7200BPS (V. 17)
[9] 9600BPS (V. 29)
[10] 7200BPS (V. 29)
[11] 4800BPS (V. 29ter)
[12] 2400BPS (V. 29ter)
[13] 300BPS (FLAG)
[14] 2100Hz (CED)
[15] 1100Hz (CNG)

J) Comm. check mode

① Turn on the Line Monitor. (SW7 No.7, SW29 No.7)
② Turn off the Cover Sheet Function. (SW2 No.6, SW24 No.6)
③ Set Line Equivalence at 0 km. (SW8 No.1/No.2, SW30 No.1/No.2)
④ Set the copy cut off mode (SW75 No.2) to "Continue"
⑤ Set the ringer volume (SW62 No.5/No. 6) to OFF.
After the check, it is necessary to be sure to return the aforementioned soft switches into the initial state.
(Clear the memory with the diagnosis.)

K) Memory clear mode

Clear the back-up memory to initialize the soft switches.
The Flash Memory will be initialized. Then, the initialized list be output.

① Memory clear is executed.
② The result that says initialized is printed.

NOTE: The life counter, and the adjustment values of the top void and the large LCD contrast are not cleared.

L) Flash Memory check

This is a mode to check that the flash memory acts normally. The flash memories shown in the following table are checked.

No.	Flash memory		Number of buzzer sound	Remarks
1		NOR-Flash (Standard)	<Long sound> 1 time	<Short sound>:
2		NAND-Flash (Standard)	<Long sounds> 2 times	0.5 sec.ON / 0.5 sec.OFF
3		NAND-Flash (Option)	<Long sounds> 3 times	<Long sounds>:
4		—	—	1.0 sec.ON / 0.5 sec.OFF
5		—	—	

- NAND-Flash (optional) is valid only when the optional memory is mounted.

① The NOR flash memory test is executed.

```
NOR FLASH CHECK
S ■■■— — — — — — — E
```

② The concerned alarm buzzer sounds only when the error occurs.
③ The NAND flash memory test is executed.

```
NAND FLASH CHECK
S ■■■— — — — — — — E
```

④ The concerned alarm buzzer sounds only when the error occurs.
⑤ The result is printed.

NOTE:
• During operation of this diagnosis, dual operation is not possible at all.
• If this is excessively repeated, it will shorten the life of the flash memory.

M) All FAX/TEL. entry mode

This is a function to copy the FAX and TEL numbers registered in the one-touch dialing (RAPID) key [01] to the all one-touch dialing (RAPID) key and the all abbreviated number (SPEED DIAL) to simplify the FAX and TEL number registration at the time of aging. (Only the E-MAIL can be used for the network models.)

① Copy the FAX/TEL number or the E-MAIL stored in the RAPID key [01] to all RAPID keys.

② Copy the FAX/TEL number or the E-MAIL stored in the RAPID key [01] to all SPEED DIAL numbers.

③ If the chain dial is not set for the RAPID key, or RAPID key [01] stores the E-MAIL, the RAPID keys [02] – [59] and all SPEED DIAL numbers are stored in the group number [01].

④ Enter all registered one-touch send (RAPID) keys and speed dial numbers (SPEED DIAL) on the personal books [01] - [10].
Following this, set the password registration and the password setting to ON, and set the TTI setting to OFF.

The call-receiver names and book names are specified as follows:

Rapid	R XX	XX	: Rapid key send
SPEED DIAL	S XXX	XXX	: Speed dial number
Personal book	BOOK XX	XX	: Book number

(The letters after 16th letter of the call-receiver's name registered in the one-touch dialing [01] are cut off.)

NOTE: Before entering this mode, a FAX/TEL number or an E-MAIL must be stored in the RAPID key [01]. (This program will not be executed if there is no data stored, or otherwise a program or a group is registered.)

N) Dept. passcode

The department passcode list is printed.

O) Conf. passcode

The confidential passcode list is printed.
Differing from printing of one box alone soon after registration, the confidential passcodes of all boxes are printed.

P) Signal send mode 2

The signals concerned with V.34 & V.8 are checked. It can be used to check the modem.
When the START key is pressed, silence signal (make loop) will be executed. The following signals are sent by pressing the START key thereafter.

[1] No signal (make loop)
[2] 33600BPS (V. 34)
[3] 31200BPS (V. 34)
[4] 28800BPS (V. 34)
[5] 26400BPS (V. 34)
[6] 24000BPS (V. 34)
[7] 21600BPS (V. 34)
[8] 19200BPS (V. 34)
[9] 16800BPS (V. 34)
[10] 14400BPS (V. 34)
[11] 12000BPS (V. 34)
[12] 9600BPS (V. 34)
[13] 7200BPS (V. 34)
[14] 4800BPS (V. 34)
[15] 2400BPS (V. 34)
[16] 0 - 300BPS (V. 34)
[17] ANSam

Q) Memory set mode

The set and dump list of the memory content is output.

```
MEMORY SET MODE
AD = 00000000
```
Cursor

- The address (8 digits (P) generally including the bank information is input, and the data of 2 digits is continuously input.
  Inputting is done in the hexadecimal mode. The ten-key is used for 0 through 9, and the alphabetic keys A (RAPID 01 through 06) are used for A through F.

```
MEMORY SET MODE
AD = A02800F6  DATA = 0B
```

- During data inputting, the address can be moved forward and backward one byte by one byte with "><" and "#". (The address prior to the address 0 is looped as the maximum address.)
- The Validity of the address is not checked. Accordingly, writing/ reading operations are possible in the address of the memory not assigned, the address of ROM and so on.
  (However, as practical, writing is not done, and the data content runs short each reading.)
  Though writing is possible in the flash memory, a little time is required.
  It is also necessary to take care that the life of the flash memory is excessively shortened if much data is written in the flash memory. Since it may run away depending the written content, take minute care for the writing address.
- When the REPORT key is input, the memory dump list is produced from the displayed address (here, it is limited at the 16-byte boundary address (address with end 0) which does not exceed the specified address and is just in front.). The dump list is output to a maximum of 99 pages. If any data of one page can be repeatedly developed and printed, the list is sufficient. But it is not desired that the content of plural pages are developed in the memory once and are then printed. If the STOP key is pressed, it will pass to the diagnosis after the page which is now being printed is completed printed.
  If the address exceeds the maximum address, it will return to the address 0 and printing will be continued.

R) Stamp aging mode

This is a mode to execute the continuous drive aging of the Verification stamp.

① Set the document and press down the "START" key and the continuous drive of the Verification stamp starts.

② Send the document at the interval of 10 mm and stamp the Verification stamp continuously. The total number of times of Verification stamp printing after entering this mode is displayed on the display.

- Displayed screen during execution

```
STAMP AGING
TIMES = 13  PAGES = 1
```
Print total number of times　　Page number

③ By pressing down the "STOP" key during the action, or when no more document is left, the continuous drive of the Verification stamp stops.

NOTE:

- In case that the document is not set, this cannot be executed.
- The normal action aging that one Verification stamp is pressed on one sheet of document is executed in the normal copying.

S) Dial test mode

The mode is used to inspect whether dialing is accurate in two kinds of dial modes . All data which can be dialed in this mode are automatically called up in both PB mode and DP mode.

[In case that 2 line optional is not mounted.]

① Turn on CML, and dial the following in the PB mode.
1, 2, 3, 4, 5, 6, 7, 8, 9, ✳, 0, #

② Dial the following in the DP mode.
1, 5, 9, 0

③ After dialing, turn off CML.

NOTE:
This mode uses the ordinary auto dial. (Accordingly, the signal sending time and minimum pause are all the same as ordinary.
The measurement result in this mode is completely all the same as in the ordinary dial mode.)

T) Copy diag mode

This mode is for automatic mode selection of copy to reduce the time for treatment at the time of production.

① Set 2 sheets of document. (No problem if there are 2 sheets or more.)

② 3 sheet continuous copy: 1st sheet in the FINE AUTO
2nd sheet and after that are copied in the H-TONE DARK.

NOTE:
Input of the image quality and the darkness keys is invalid in this mode.

U) LCD check mode

This is an item to check that the LCD acts normally.

① The screen for selecting the contrast adjustment mode and the “H” display mode appears.

```
U:LCD CHECK MODE
1=CONT.ADJ 2=TEST DISP
```

② Select the mode using the “←” or “→” keys or otherwise dial keys “1” or “2”.

[When the contrast adjustment mode is selected]

③ Adjust with the “←” or “→” keys so that both right and left halves of the “A” can be recognized.

```
CONTRAST=-9  TEMP=+25

A
```

[When the “H” display mode is selected]

③ Turn on the backlight so that the whole screen shows “H”. (26 letters x 9 lines)

```
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHH
```

V) Personal book list

The PASSCODE of the personal book 00 to 10 are output.

W) Font list print mode [Only when network function is mounted]

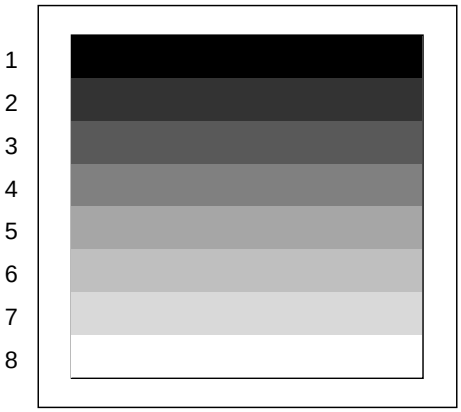
The font list that can be used in the network function is printed.

X) No function

2-2. Print diagnosis

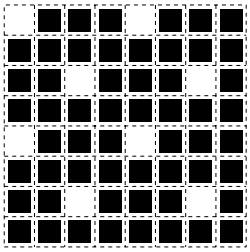
Rapid key 01: Area print mode 1

The effective printing area frame is printed in the specified sheet size.



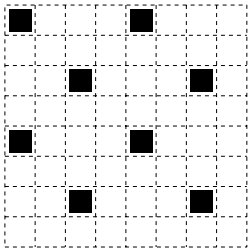
The data pattern used here are as follows and 1 data 30 mm is printed.

1. [Full black pattern]
2. [Intermediate tone 2 pattern]



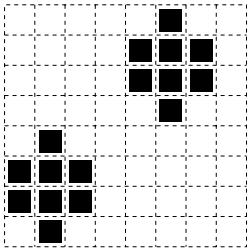
The left pattern is repeated.

3. [Intermediate tone 1 pattern]



The left pattern is repeated.

4. [Mesh point pattern]



The left pattern is repeated.

5. [Longitudinal strip 2 pattern]
   Black 2 dot and white 2 dot are repeated in line.
6. [Lateral strip 2 pattern]
   Black 2 line and white 2 line are repeated.
7. [Longitudinal strip 1 pattern]
   Black 1 dot and white 1 dot are repeated in line.
8. [Full White pattern]

Rapid key 02: Check pattern 1
The lateral stripe 2 pattern is printed on one sheet.
(Black 2 line and white 2 line are repeated.)

Rapid key 03: Check pattern 2
The lateral stripe 2 pattern is printed on multiple pages.
Press the STOP key to end the printing.

Rapid key 04: Check pattern 3
The intermediate tone 1 is printed on one sheet.

Rapid key 05: Check pattern 4
In this mode, 1 sheet is printed as to the square frame pattern for the skew measurement.

Rapid key 06: Paper feed aging 1
The mode is used for aging related to the printing. In this mode, the following modes are provided.

① Blank paper aging mode (ALL WHITE AGING)
② Whole black print aging mode (ALL BLACK AGING)
③ 5% printing aging mode (5% AGING)
④ 4% printing aging mode (4% AGING)
⑤ Outer frame check pattern
⑥ 4% check pattern

After selecting the paper-pass aging mode in the print diagnosis mode, input the number of each mode above with the ten-key, and the mode will be executed. The detailed specifications of each mode are described as follows. Here, the operation in each mode is stopped only when the STOP key is pressed by the operator or a printing-impossible error occurs.

- Blank paper aging mode
  In the mode, printing is continued in the whole white (white paper) printing pattern until the STOP key is pressed by the operator. (In the printing area)
- Whole black printing aging mode
  In the mode, printing is continued in the whole black (whole black) printing pattern until the STOP key is pressed by the operator. (In the printing area)
- 5% aging mode
  In this mode, the 5% print pattern is repeatedly printed until the [STOP] key is pressed by the operator.
- Outer frame pattern aging mode
  In this mode, the outer frame check pattern is repeatedly printed until the [STOP] key is pressed by the operator. For the outer frame, only the frame showing the printing area is printed.
- 4% chart aging mode
  In this mode, the 4% chart is repeatedly printed until the [STOP] key is pressed by the operator.

Rapid key 07: Paper feed aging 2
This is a mode that is used for aging related to printing, and there are following modes. And also as to the print interval 5 sec. – 12 hour can be set.

1. Print pattern
① Blank paper　② All black
③ 5% print pattern　④ 4% print pattern
⑤ Outer frame check pattern　⑥ 4% chart pattern

2. Print interval (Time between finishing and starting the printing.)
   Settable range: 1 – 300 seconds
3. Number of print repetitions (Number of repetitions.)
   Settable range: 125 – 1250 times
4. Number of printouts (Number of serial printings at a time.)
   Settable range: 1 – 10 sheets

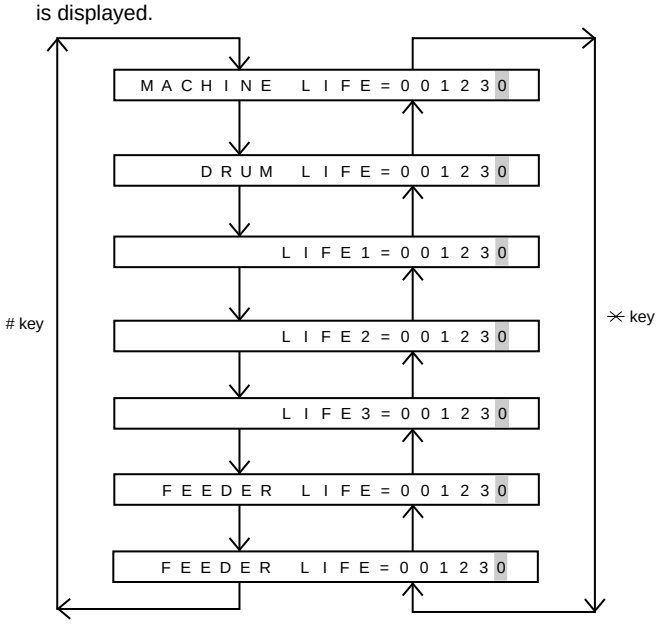
To execute, enter the above items with the ten keys after selecting the mode. Refer to “Paper feed aging 1” for the details of print patterns.
In any of the mode, the operation will be interrupted only when the “STOP” key is pressed by the operator, or an error which makes printing impossible occurs.

Rapid key 08: Bias adjust mode
The mode is used to adjust the printing density of the printed image. The image printing density is adjustable in seven steps of 1 to 7.
For details, refer to the following table. (For selection, use the keys 1 through 7.)

Image printing density	Thin ←					→ Thick	
	1	2	3	4	5	6	7
Default value				◎			

Rapid key 09: Life set mode
The mode is used to set the life counter of the printer and the counter of the auto feeder at desired values. For setting, proceed with the following procedure.

① When the life counter setting mode is selected, the following will be is displayed.



The cursor blinks at the top data.
Five counters can be selected with the "#" and "⋊" keys.

② In the state ①, input a desired setting number of 6 digits with the ten-key.

③ After input of 6 digits, shift to another counter with the "#" and "⋊" keys as necessary. When all necessary counters are completely input, press the START key.

④ "STORED" will be displayed with the set values stored into the memory. For checking, retry this mode.

NOTE: The counter shows the operational state of the printer (how many sheets have been printed since start of use?). The ordinary memory does not reset the counter. Accordingly, it is necessary to reset this counter in addition to the ordinary memory clear if the content in the memory on the control PWB is broken because of PWB repair, etc. (In the production stage, it is necessary to execute this in the last process.)

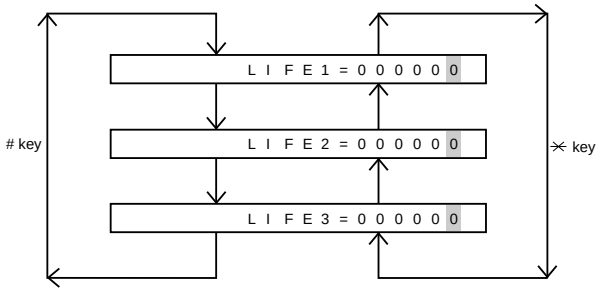
Rapid key 10: Life all clear
The mode is used to clear the life counter of the printer of the counter of the auto feeder.

NOTE: The counter shows the operational state of the printer (how many sheets have been printed since start of use?). The ordinary memory does not reset the counter. Accordingly, it is necessary to reset this counter in addition to the ordinary memory clear if the content in the memory on the control PWB is broken because of PWB repair, etc. (In the production stage, it is necessary to execute this in the last process.)

Rapid key 11: Life entry mode (For Serviceman temporary counter)

The mode is used to set a desired value for the judgment value (alarm judgment counter value) of the general purpose life counters 1 through 3 of the printer. If the life of a consumable part (developer, imprinter, etc) is set, the model which has the error display and RMS function will inform RMS when the counter reaches the set value. For setting, proceed with the following procedure.

① When the life counter setting mode is selected, the following will be displayed.



The cursor blinks at the top data.
Three counters can be selected with the "#" and "*" keys.

② In the state ① , input a desired setting number of 6 digits with the ten-key.

③ After input of 6 digits, shift to another counter with the "#" and "*" keys as necessary. When all necessary counters are completely input, press the START key.

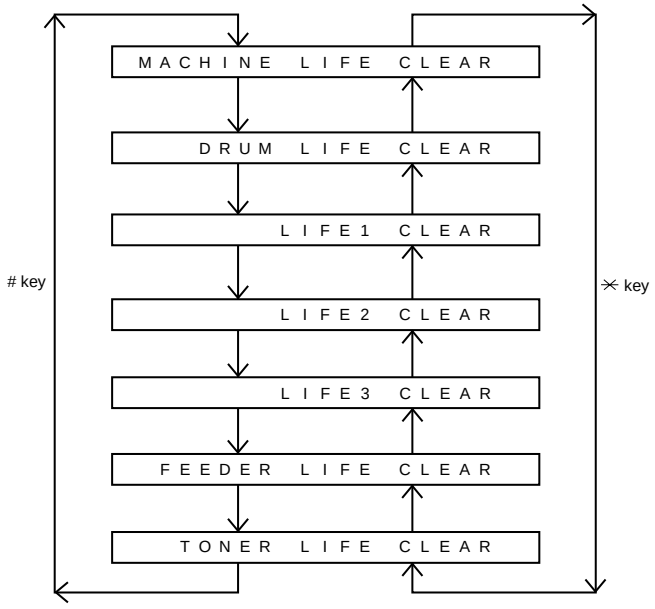
④ "STORED" will be displayed with the set values stored into the memory. For checking, retry this mode.

NOTE: The counter shows the operational state of the printer (how many sheets have been printed since start of use?). The ordinary memory does not reset the counter. Accordingly, it is necessary to reset this counter in addition to the ordinary memory clear if the content in the memory on the control PWB is broken because of PWB repair, etc. (In the production stage, it is necessary to execute this in the last process.)

Rapid key 12: Life clear mode

The mode is used to respectively clear the life counter of the printer and the counter of the auto feeder. For setting, proceed with the following procedure.

① When the life counter clearing mode is selected, the following will be is displayed.



Seven counters can be selected with the "#" and "*" keys.

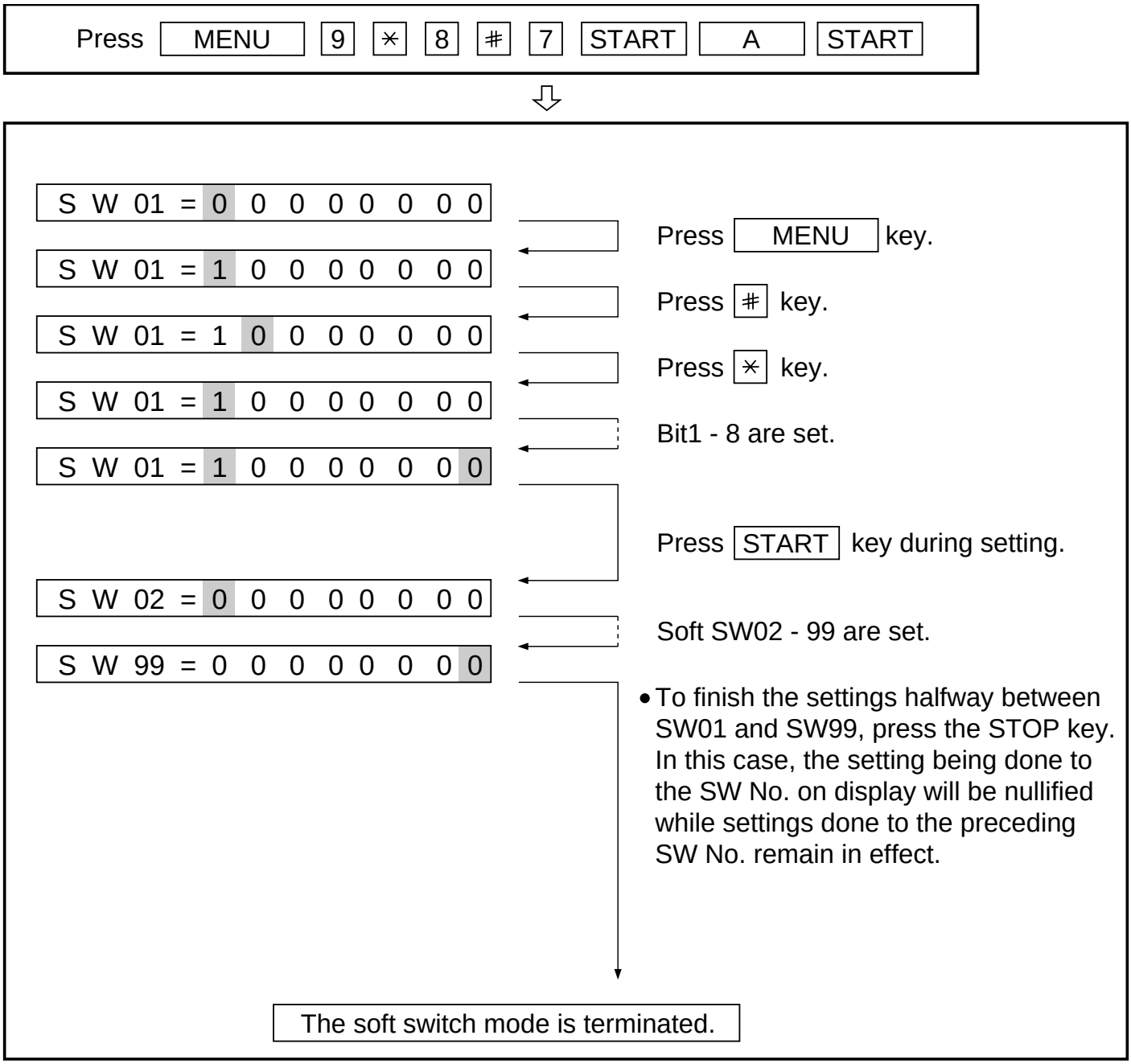
② In the state ①, input the DEL key, and the counter will be respectively cleared.

③ "CLEARED" is displayed and clearing is complete. After ending one clear, move to another counter to clear with the "#" key, "*" key, if necessary. After clearing the necessary counter press down the "STOP" key.

NOTE: The counter shows the operational state of the printer (how many sheets have been printed since start of use?). The ordinary memory does not reset the counter. Accordingly, it is necessary to reset this counter in addition to the ordinary memory clear if the content in the memory on the control PWB is broken because of PWB repair, etc. (In the production stage, it is necessary to execute this in the last process.)

3. How to make soft switch setting

To enter the soft switch mode, make the following key entries in sequence.



4. Soft switch description

• Soft switch

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting	Remarks
			1	0		
SW1	1	Recall interval	Binary input 8 4 2 1		0	OPTION
	2		No. = 1 2 3 4 (Data No.)		1	Set to 1~15
	3		EX 0 1 0 1		0	
	4		eg. Recall interval is set to 5 min.		1	
	5	Recall times	Binary input 8 4 2 1		0	OPTION
	6		No. = 5 6 7 8 (Data No.)		0	Set to 0~14
	7		EX 0 0 1 0		1	
	8		eg. Recall times is set to 2 times.		0	
SW2	1	Dial mode	PULSE	TONE	0	
	2	Receive mode	AUTO	MANUAL	1	
	3	ECM mode	Off	On	0	OPTION
	4	Reserved			0	
	5	Polling security	On	Off	1	OPTION
	6	Auto cover sheet	No	Yes	1	OPTION
	7	JUNK-FAX function in manual reception	Yes	No	0	
	8	JUNK-FAX function	Yes	No	0	OPTION
SW3	1	Number of rings for auto-receive	Binary input 8 4 2 1		0	OPTION
	2	(0: No ring receive)	No. = 1 2 3 4 (Data No.)		0	Set to 0~9
	3		EX 0 0 0 1		0	
	4		eg. Number of rings for auto receive is set to 1 time.		1	
	5	Switch to auto-receive from manual receive	Binary input 8 4 2 1		0	OPTION
	6	(0: No switch)	No. = 5 6 7 8 (Data No.)		0	Set to 0~9
	7		EX 0 0 0 0		0	
	8		eg. Switch to auto receive is set to disable.		0	
SW4		Communication results printout				OPTION
	1		No. 1: 0 (Printed at error only) / 0 (Printed at error/timer/memory only) / 0 (Printed at transmission mode only) / 1 (Not printed) / 1 (Printed every time)		0	
	2		No. 2: 0 / 0 / 1 / 0 / 1		0	
	3		No. 3: 1 / 0 / 0 / 0 / 0		1	
	4	Image addition function to the communication result table (for memory transmission only)	On	Off	1	OPTION
	5	Reserved			0	
	6	TEL billing code function	On	Off	0	OPTION
	7	Billing code position	Before	After	1	OPTION
	8	Multi-TTI feature	On	Off	0	OPTION
SW5	1	Time display format	24 hours	12 hours-AM/PM	0	
	2	Date display format	Month-Day-Year	Day-Month-Year	1	
	3	Header print	Off	On	0	
	4	Footer print	On	Off	0	
	5	Reserved			0	
	6	Substitute reception	Off	On	0	
	7	Substitute reception conditions	Reception disable without TSI	Reception enable without TSI	0	
	8	CSI transmission	Off	On	0	

SW NO.	DATA NO.	ITEM	Switch setting and function										Initial setting	Remarks
			1						0					
	1	JBIG (Joint Bi-level Image Group)	On						Off				1	
	2	JBIG (Joint Bi-level Image Group) option	On						Off				0	
	3	MMR	On						Off				1	
	4	MR	On						Off				1	
SW6		Modem speed		V.33		V.17				V. 29		V. 27ter		
				14400	12000	14400	12000	9600	7200	9600	7200	4800	2400	
	5		No. 5	0	0	1	1	1	1	0	0	0	0	1	
	6		No. 6	1	1	0	0	0	0	0	0	0	0	0	
	7		No. 7	0	1	0	1	0	1	0	1	1	0	0	
	8		No. 8	0	0	0	0	1	1	1	1	0	0	0	
SW7		Reception speed fixed		NO		V. 17-14400bps				V. 29-9600bps		V. 27ter-4800bps			When 14400bps MODEM used, setting to 14400bps is ignored.
	1		No. 1	0		1				0		1		0	
	2		No. 2	0		1				1		0		0	
	3	DIS receive acknowledge during G3 transmission	Twice						Once in NSF reception, twice in DIS reception					0	Effective to international comm.
	4	Non-modulated carrier in V.29 transmission mode	On						Off					0	
	5	CNG send when manual TX	On						Off					1	
	6	Protocol monitor	On						Off					0	
	7	Line monitor	On						Off					0	
	8	Reserved												0	
SW8		Compromised equalizer	RECEPTION	0Km		1.8Km				3.6Km		7.2Km			Valid when transmitting
	1		No. 1	0		0				1		1		0	
	2		No. 2	0		1				0		1		0	
	3	H2 mode	No						Yes					0	
		Signal transmission level	Binary input 16 8 4 2 1										For U.S.A.	For Canada	
			No. = 4 5 6 7 8 (Data No.)												
	4		EX 0 1 1 0 1 (For U.S.A.)										0	0	
	5		EX 0 1 0 0 0 (For Canada)										1	1	
	6		eg. Signal transmission level is set to -10dBm										1	0	
	7												0	0	
	8												1	0	
SW9		CED tone signal interval		75ms		500ms				750ms		1000ms			
	1		No. 1	0		0				1		1		0	
	2		No. 2	0		1				0		1		0	
	3	Equalizer freeze	On						Off					0	
	4	Equalizer freeze conditions	All						7200bps					0	
	5	CED detection time	500ms						1000ms					0	
		Alarm buzzer		3sec		1sec				No BEEP		No BEEP			
	6		No. 5	0		0				1		1		0	
	7		No. 6	0		1				0		1		0	
	8	Action when RTN received	Handle to error						Handle to no error					0	

SW NO.	DATA NO.	ITEM	Switch setting and function						Initial setting		Remarks
			1					0			
SW10	1	Memory retransmission times	Binary input 8 4 2 1						1		OPTION
	2		No. = 1 2 3 4 (Data No.)						0		
	3		EX 1 0 1 0						1		
	4		eg. Retransmission time set to 10 times.						0		
	5	Memory retransmission interval	Binary input 8 4 2 1						0		OPTION
	6		No. = 5 6 7 8 (Data No.)						0		
	7		EX 0 0 1 0						1		
	8								0		
SW11	1	V.34 mode transmission speed	Sending speed = 2400 (bps) x (N+1)						1		
	2		Example :						1		
	3		2400 (bps) x 12 = 28800 (bps)						1		
	4		2400 (bps) is set for N=0. 33600 (bps) is set for N=14.						0		
	5	V.34 mode receiving speed	Receiving speed = 2400 (bps) x (N+1)						1		
	6		Example :						1		
	7		2400 (bps) x 12 = 28800 (bps)						1		
	8		2400 (bps) is set for N=0. 33600 (bps) is set for N=14.						0		
SW12	1	V.34 mode function in case of manual communication	On			Off			1		
	2	V.34 mode function	On			Off			1		
	3	V.34 control channel communication speed	2400bps			1200bps			0		
		EOL detection timer		13sec		25sec	5sec	5sec			
	4		No. 4	0		0	1	1	0		
	5		No. 5	0		1	0	1	0		
		Processing of DIS reception after DIS transmission		Command retransmitting		A line is cut	Apply to T.30	T.30+α			
	6		No. 6	0		0	1	1	0		
	7		No. 7	0		1	0	1	0		
	8	The change to DB from DP by ✕	Yes			No			0		
SW13		DTMF output level (High)	Binary input 16 8 4 2 1						For U.S.A.	For Canada	
			No. = 1 2 3 4 5 (Data No.) n x 0.5dBm								
	1		EX 0 1 1 0 0 (For U.S.A.)						0	0	
	2		EX 0 1 0 0 0 (For Canada)						1	1	
	3		eg. Signal transmission level is set to -10dBm						1	0	
	4								0	0	
	5								0	0	
	6	Reserved							0		
	7	Reserved							0		
	8	Reserved							0		
SW14		DTMF output level (Low)	Binary input 16 8 4 2 1						For U.S.A.	For Canada	
			No. = 1 2 3 4 5 (Data No.) n x 0.5dBm								
	1		EX 1 0 0 0 0 (For U.S.A.)						1	0	
	2		EX 0 1 1 0 0 (For Canada)						0	1	
	3		eg. Signal transmission level is set to -10dBm						0	1	
	4								0	0	
	5								0	0	
	6	Reserved							0		
	7	Reserved							0		
	8	Reserved							0		

SW NO.	DATA NO.	ITEM	Switch setting and function								Initial setting	Remarks
			1				0					
SW15	1	Reserved									0	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
		CI Signal OFF detect enable time	(ms)	200	300	350	400	500	700	1200		
	5		No. 5	0	0	0	0	0	0	0	0	
	6		No. 6	0	0	0	0	1	1	1	1	
	7		No. 7	0	0	1	1	0	0	1	0	
	8		No. 8	0	1	0	1	0	1	0	1	
SW16	1	Reserved									0	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
		Distinctive ringing		OFF	STD	RING1	RING2	RING3	RING4	RING5		
	5		No. 5	0	0	1	0	1	0	1	0	
	6		No. 6	0	0	0	1	1	0	0	0	
	7		No. 7	0	0	0	0	0	1	1	0	
	8		No. 8	0	1	0	0	0	0	0	0	
SW17	1	Reserved									0	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
	5	Reserved									0	
	6	Reserved									0	
	7	Reserved									0	
	8	Reserved									1	
SW18	1	Reserved									1	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
	5	Reserved									1	
	6	Reserved									1	
	7	Reserved									0	
	8	Reserved									0	
SW19	1	Reserved									1	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
	5	Reserved									1	
	6	Reserved									0	
	7	Reserved									0	
	8	Reserved									0	
SW20	1	Reserved									0	
	2	Reserved									0	
	3	Reserved									0	
	4	Reserved									0	
	5	Reserved									0	
	6	Reserved									0	
	7	Reserved									0	
	8	Reserved									0	

SW NO.	DATA NO.	ITEM	Switch setting and function						Initial setting	Remarks
			1			0				
	1	Reserved							0	
	2	Reserved							0	
	3	Reserved							0	
		Busy tone detection frequency		520~640Hz	300~600Hz	380~500Hz	Reserve	Reserve		
SW21	4		No. 4	0	0	0	0	1	0	
	5		No. 5	0	0	1	1	0	0	
	6		No. 6	0	1	0	1	0	0	
	7	Reserved							0	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							0	
	3	Reserved							0	
SW22	4	Reserved							0	
	5	Reserved							0	
	6	Reserved							0	
	7	Reserved							0	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							1	
	3	Reserved							0	
SW23	4	Reserved							1	
	5	Reserved							0	
	6	Reserved							0	
	7	Reserved							1	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							1	
	3	Reserved							0	
SW24	4	Reserved							0	
	5	Reserved							1	
	6	Reserved							1	
	7	Reserved							0	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							0	
	3	Reserved							0	
SW25	4	Reserved							1	
	5	Reserved							0	
	6	Reserved							0	
	7	Reserved							0	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							0	
	3	Reserved							1	
SW26	4	Reserved							1	
	5	Reserved							0	
	6	Reserved							0	
	7	Reserved							1	
	8	Reserved							0	
	1	Reserved							0	
	2	Reserved							1	
	3	Reserved							0	
SW27	4	Reserved							0	
	5	Reserved							0	
	6	Reserved							0	
	7	Reserved							0	
	8	Reserved							0	

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting		Remarks
			1	0			
SW28	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW29	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW30	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
					For U.S.A.	For Canada	
	4	Reserved			0	0	
	5	Reserved			1	1	
	6	Reserved			1	0	
	7	Reserved			0	0	
	8	Reserved			1	0	
SW31	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW32	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			0		
SW33	1	Reserved			1		
	2	Reserved			1		
	3	Reserved			1		
	4	Reserved			0		
	5	Reserved			1		
	6	Reserved			1		
	7	Reserved			1		
	8	Reserved			0		

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting		Remarks
			1	0			
SW34	1	Reserved			1		
	2	Reserved			1		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW35					For U.S.A.	For Canada	
	1	Reserved			0	0	
	2	Reserved			1	1	
	3	Reserved			1	0	
	4	Reserved			0	0	
	5	Reserved			0	0	
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW36					For U.S.A.	For Canada	
	1	Reserved			1	0	
	2	Reserved			0	1	
	3	Reserved			0	1	
	4	Reserved			0	0	
	5	Reserved			0	0	
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW37	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			1		
SW38	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW39	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			1		

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting	Remarks
			1	0		
SW40	1	Reserved			1	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			1	
	6	Reserved			1	
	7	Reserved			0	
	8	Reserved			0	
SW41	1	Reserved			1	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			1	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW42	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW43	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW44	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW45	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			1	
	8	Reserved			0	

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting	Remarks
			1	0		
SW46	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW47	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			1	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			1	
SW48	1	Reserved			1	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			1	
	5	Reserved			1	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			1	
SW49	1	Reserved			1	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			1	
	5	Reserved			1	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			1	
SW50	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			1	
SW51	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting	Remarks
			1	0		
SW52	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW53	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW54	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW55	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW56	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW57	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	

SW NO.	DATA NO.	ITEM	Switch setting and function					Initial setting	Remarks
			1		0				
SW58	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW59	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW60	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW61	1	F.A.S.T. (RMS) mode	On		Off			0	
	2	Reserved						0	
	3	Verification stamp	Yes		No			0	Invalid if not mounted
	4	Day light saving	No		Yes			1	
		Key buzzer volume		Off	High	Low	Low		
	5		No. 5	0	0	1	1	1	
	6		No. 6	0	1	0	1	0	
	7	Reserved						0	
	8	Reserved						0	
SW62		Speaker volume		High	High	Middle	Low		
	1		No. 1	0	0	1	1	1	
	2		No. 2	0	1	0	1	1	
	3	Reserved						1	
	4	Reserved						0	
		Ringer volume		Off	High	Middle	Low		
	5		No. 5	0	0	1	1	1	
	6		No. 6	0	1	0	1	1	
	7	Reserved						0	
	8	Reserved						0	
SW63		Backlight setting		Always Off	3 min.	10 min.	15 min.		OPTION
	1		No. 1	0	0	1	1	0	
	2		No. 2	0	1	0	1	1	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						1	
	6	Reserved						0	
	7	Reserved						1	
	8	Reserved						0	

SW NO.	DATA NO.	ITEM	Switch setting and function					Initial setting	Remarks
			1		0				
	1	Header registration	On		Off			0	
	2	Reserved						0	
	3	Continuous serial polling	On		Off			0	
SW64		Time interval for continuous serial polling							OPTION
				0 min.	30 min.	60 min.	120 min.		When SW64 -No.3
	4		No. 4	0	0	1	1	0	is on, option setting
	5		No. 5	0	1	0	1	0	can be set up
	6	Reserved						0	
	7	Reserved						0	
	8	Quick on line function	Yes		No			1	
		Cassette selection		Manual	Auto-1	Auto-2	Auto-1		OPTION
	1		No. 1	0	0	1	1	0	
	2		No. 2	0	1	0	1	1	
		The 1st priority cassette		None	Tray	1st Cass.	N/A	Tray	OPTION
	3		No. 3	0	0	0	0	Other	0	It is effective
SW65	4		No. 4	0	0	1	1	Combination	1	only when No.31-1/2 are
	5		No. 5	0	1	0	1		0	set up of manual
		The 2nd priority cassette		None	Tray	1st Cass.	N/A	Tray	OPTION
	6		No. 6	0	0	0	0	Other	0	It is effective
	7		No. 7	0	0	1	1	Combination	1	only when No.31-1/2 are
	8		No. 8	0	1	0	1		1	set up of manual
	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						1	
		Cassette selection of separate page		None	Tray	1st Cass.	N/A		OPTION
SW66	4		No. 4	0	0	1	1	0	
	5		No. 5	0	1	0	1	1	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
		Power save mode		ON		OFF			OPTION
	1		No.1	0		0		0	
	2		No.2	0		1		0	
		Density adjustment of print bias	Binary input 4 2 1						set to 1~7.
	3		No. = 3 4 5 (Data No.) 1: faint 6: deep					1	set to 0, is
SW67	4		EX 1 0 0					0	equal to 4
	5		eg. Bias is set to level 4.					0	(100)
		Drum life detection		No Detection	Over only	Near and Over	Near and Over		
	6		No. 6	0	0	1	1	1	
	7		No. 7	0	1	0	1	1	
	8	Reserved						0	
		Distinctive ring pattern		U.S.A.	Canada	Australia	Hong Kong	For U.S.A.	For Canada	
	1		No. 1	0	0	1	1	0	0	
	2		No. 2	0	1	0	1	0	1	
SW68	3	Reserved						0	
	4	Reserved						1	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						1	
	8	Reserved						0	

SW NO.	DATA NO.	ITEM	Switch setting and function					Initial setting	Remarks
			1			0			
SW69	1	Reserved						1	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						1	
	5	Reserved						0	
	6	Reserved						1	
	7	Reserved						1	
	8	Reserved						0	
SW70	1	Reserved						1	
	2	Reserved						0	
	3	Reserved						1	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						1	
SW71		The default resolution for copying		Standard	Fine	S-Fine	U-Fine		OPTION
	1		No. 1	0	0	1	1	0	
	2		No. 2	0	1	0	1	1	
	3	Reserved						0	
	4	Reserved						1	
	5	Reserved						0	
		Picture quality priority mode		Standard	Fine	S-Fine	U-Fine		OPTION
	6		No. 6	0	0	1	1	0	
	7		No. 7	0	1	0	1	0	
	8	Reserved						0	
SW72	1	Reserved						1	
	2	Reserved						0	
	3	Reserved						1	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW73	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
		Data reduction		AUTO	100%				The number in ( ) is
	6	(Except notation: Setting prohibition)	No. 6	0	1	Set up to 100% except the		0	applicable for the
	7		No. 7	0	0	notation		0	footer print on. Auto
	8		No. 8	0	0			0	is equivalent to 100%.
SW74	1	Automatic printing of activity report	Yes (When memory full)			No (First data is cleared when memory full)		0	OPTION
	2	Print out of total time and total number of pages on activity report	Off			On		0	
	3	Reserved						0	
	4	Department function	On			Off		0	
	5	Department ID digit	Binary input 8 4 2 1					0	OPTION
	6		No. = 5 6 7 8 (Data No.)					1	set to 3~9
	7		EX 0 1 0 0					0	
	8		eg. Department ID is set to 4 digits					0	

SW NO.	DATA NO.	ITEM	Switch setting and function					Initial setting	Remarks
			1			0			
SW75	1	Copy protect switch	On			Off		0	
	2	Cut-off mode (when copy mode)	Continue			Cut-off		0	OPTION
	3	Scanning ratio in memory input	1 : 1			Reduce		0	Memory scanning
	4	Overseas communication mode selection function	Yes			No		0	
	5	Reserved						0	
		Reduce ratio when copy mode		AUTO	100%				
	6	(Except notation: Setting prohibition)	No. 6	0	1	Set up to 100% except the notation		1	
	7		No. 7	0	0			0	
	8		No. 8	0	0			0	
SW76	1	Reserved						0	
	2	Reserved						0	
		Density adjustment (when Fine/STD mode)		Normal	Faint	Deep	Deep (when Dark mode)		
	3		No. 3	0	0	1	1	0	
	4		No. 4	0	1	0	1	0	
		Density adjustment (when Half-tone mode)		Normal	Faint	Deep	Deep (when Dark mode)		
	5		No. 5	0	0	1	1	0	
	6		No. 6	0	1	0	1	0	
	7	MTF correction in half-tone mode	On			Off		1	
	8	MTF intensity in half-tone mode	Strong			Weak		0	
SW77	1	Cassette define LTR/A4: Tray	A4			LTR		0	
	2	Cassette define LTR/A4: Upper	A4			LTR		0	When W cassette
	3	Reserved						0	
	4	Reserved						1	
	5	Reserved						1	
	6	Reserved						1	
	7	Reserved						1	
	8	Reserved						0	
SW78	1	Reserved						1	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW79	1	Secure billing code	Yes			No		0	
	2	Pause with SHIFT key	Yes			No		0	Only when special billing code is given.
	3	Reserved						0	
	4	Z key pause time	Binary input 16 8 4 2 1					0	Only when the special billing code is given. The ordinary pause is not affected.
	5	(250ms unit)	No. = 4 5 6 7 8 (Data No.)					0	
	6		EX 0 0 0 0 0					0	
	7		eg. Pause time 250ms					0	
	8		Time=(n+1) x 250ms					0	
SW80	1	Separate feature	On			Off		0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Addition of header (Sender information)	On			Off		1	
	6	DTMF sending by the panel test	On			Off		0	
	7	Power save mode	Real time			Timer		1	
	8	Reserved						0	

SW NO.	DATA NO.	ITEM	Switch setting and function		Initial setting	Remarks
			1	0		
SW81	1	Reserved			1	
	2	Reserved			0	
	3	Reserved			1	
	4	Reserved			1	
	5	Reserved			1	
	6	Reserved			1	
	7	Reserved			1	
	8	Reserved			1	
SW82	1	Reserved			0	
	2	Reserved			1	
	3	Reserved			0	
	4	Reserved			1	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW83	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			1	
	7	Reserved			0	
	8	Reserved			1	
SW84	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			1	
	6	Reserved			1	
	7	Reserved			1	
	8	Reserved			1	
SW85	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW86	1	Reserved			0	
	2	Reserved			0	
	3	Reserved			0	
	4	Reserved			0	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	
SW87	1	File name (Unique identifier)	On	Off	0	
	2	File name (Session page counter)	On	Off	0	
	3	File name (Date & Time)	On	Off	1	
	4	File name (Profile name)	On	Off	1	
	5	Reserved			0	
	6	Reserved			0	
	7	Reserved			0	
	8	Reserved			0	

SW NO.	DATA NO.	ITEM	Switch setting and function					Initial setting	Remarks
			1		0				
SW88		Default file format		TIFF	TIFF-F	PDF			
	1		No. 1	0	1	0		0	
	2		No. 2	0	0	1		0	
				G4	G3-1d	UNCOMPRESSED			
	3		No. 3	1	0	0		1	
	4		No. 4	0	1	0		0	
		The default resolution for Network Scanning		Standard	Fine	S-Fine	U-Fine		
	5		No. 5	0	0	1	1	0	
	6		No. 6	0	1	0	1	1	
	7	Reserved						0	
	8	Reserved						0	
SW89	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						1	
SW90	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						1	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						1	
	7	Reserved						0	
	8	Reserved						1	
SW91	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW92	1	Reserved						0	
	2	Reserved						1	
	3	Waiting time after dialing	90sec		The specification of each country is followed			0	
	4	Show receiver's name	Yes (Show)		No (Hide)			1	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	
SW93	1	Reserved						0	
	2	Reserved						0	
	3	Reserved						0	
	4	Reserved						0	
	5	Reserved						0	
	6	Reserved						0	
	7	Reserved						0	
	8	Reserved						0	

SW NO.	DATA NO.	ITEM	Switch setting and function									Initial setting	Remarks
			1								0		
SW94	1	Reserved										0	
	2	Reserved										0	
	3	Reserved										0	
	4	Reserved										0	
	5	Reserved										0	
	6	Reserved										0	
	7	Reserved										0	
	8	Reserved										0	
SW95	1	Reserved										0	
	2	Reserved										0	
	3	Reserved										0	
	4	Reserved										0	
	5	Reserved										1	
	6	Reserved										1	
	7	Reserved										0	
	8	Reserved										1	
SW96	1	Network print : Auto continue	Value	0	1	2	3	4	5	6	7	0	
	2		On/off	off	on	on	on	on	on	on	on	0	
	3		Time		0s	10s	20s	30s	60s	90s	120s	0	
	4	Network print : Default paper size	A4					LETTER				0	
	5	Reserved										0	
	6	Reserved										0	
	7	Reserved										0	
	8	Reserved										1	
SW97	1	Reserved										0	
	2	Reserved										0	
	3	Reserved										0	
	4	Reserved										0	
	5	Reserved										0	
	6	Reserved										0	
	7	Reserved										0	
	8	Reserved										0	
SW98	1	Reserved										0	
	2	Reserved										0	
	3	Reserved										0	
	4	Reserved										0	
	5	Reserved										0	
	6	Reserved										0	
	7	Reserved										0	
	8	Reserved										0	
SW99	1	Reserved										0	
	2	Reserved										1	
	3	Reserved										1	
	4	Reserved										0	
	5	Reserved										0	
	6	Reserved										0	
	7	Reserved										1	
	8	Reserved										1	

• Soft switch function description

SW1 No. 1 ~ No. 4 Recall interval
Choice is made for a recall interval for speed and rapid dial numbers. Use a binary number to program this. If set to 0 accidentally, 1 will be assumed.

SW1 No. 5 ~ No. 8 Recall times
Choice is made as to how many recall times should be made. Use a binary number to program this.

SW2 No. 1 Dial mode
Switch the type according to the telephone circuit connected to the facsimile.

0: PULSE DIAL

1: TONE DIAL

SW2 No. 2 Receive mode
Auto/manual receiving mode is set.

SW2 No. 3 ECM mode
Used to determine ECM mode function.

SW2 No. 4 Reserved
Set to "0".

SW2 No. 5 Polling security
This switch is employed to enable or disable the polling operation using the ID code verification function, in order to prevent unauthorized polling operation.

SW2 No. 6 Auto cover sheet
When "1" (=YES) is selected, the cover sheet is automatically sent after transmission of the original to notify the receiver of the number of original sheets transmitted.

SW2 No. 7 JUNK-FAX function in manual reception
It is set whether JUNK-FAX is functioned in the manual receiving mode or not.

SW2 No. 8 JUNK-FAX function
This function is used to receive data from a specific remote machine (station registered in entry mode). It is the function that refused a reception in the case that TSI of remote machine matched with fax number of the station registered.

0: No

1: Yes

SW3 No. 1 ~ No. 4 Number of rings for auto-receive (0: No ring receive)
When the machine is set in the auto receive mode, the number of rings before answering can be selected. It may be set from one to nine rings using a binary number. If the soft switch was set to 1, a direct connection is made to the facsimile. If it was set to 0 accidentally, receive ring is set to 1. If it was above 9, receive rings are set to 9.

SW3 No. 5 ~ No. 8 Switch to auto-receive from manual receive (0: No switch)

This setting allows machine to switch from manual to Auto Receive mode. Setting this number to 0 forces machine to stay in Manual receive mode. Entering the binary number 0 forces the machine to remain in the manual answer mode. If a number between 1 and 9 is entered, the machine will go into the answer mode after the given number of rings. However, it can be used as an ordinary telephone if the handset is taken off the hook before this programmed number is finished. If entry of a number above 9 by accident, it will be set to 9. In this case, it must be corrected to the proper number.

SW4 No. 1 ~ No. 3 Communication results printout
It is possible to obtain communication results after each transaction. Normally, the switch is set (No. 1: 0, No. 2: 0, No. 3: 1) so that the communication result is produced only a communication error is encountered. If No. 1 was set to 1, No. 2 was set to 1 and No. 3 was set to 0, the communication result will be produced every time a communication is done, even if the communication was successful.

If No. 1 was set to 0, No. 2 to 1 and No. 3 to 0, the communication result will be produced every transmission.

Setting No. 1 to 1 No. 2 to 0 and No. 3 to 0 will disable this function. No transaction report will be printed.

If No. 1 was set to 0, No. 2 to 0 and No. 3 to 0, the communication result is produced only after a timer and memory transmission or when a communication error is encountered.

SW4 No. 4 Image addition function to the communication result table (for memory transmission only)
Used to set addition of sending image to the communication result table.

SW4 No. 5 Reserved
Set to "0".

SW4 No. 6 TEL billing code function
When set to "1", the TEL billing code function is enabled.

SW4 No. 7 Billing code position
When set to "1", the billing code is delivered before dialing the remote number. When set to "0", the billing code is delivered after dialing.

SW4 No. 8 Multi-TTI feature
When this switch is set to "1", Multi TTI function is enabled.

SW5 No. 1 Time display format
When this switch is set to "0", time is displayed in 12-hour system.

When set to "1", 24-hour system.

SW5 No. 2 Date display format
Used to select date display/print formats.

0: DAY-Month-Year

1: Month-DAY-Year

SW5 No. 3 Header print
When it is set at 0, sender's name, sending page number and so on are automatically printed in the recording paper on the receiving side during transmission. Thus, the sender can be known on the receiving side.

0: Applied.

1: Not applied.

SW5 No. 4 Footer print
When set to "1", the date of reception, the sender machine No., and the page No. are automatically recorded at the end of reception.

SW5 No. 5 Reserved
Set to "0".

SW5 No. 6 Substitute reception
Selection of substitute reception in the case of recording paper ex-hausted or paper jam. If set to "NO", auto receive is disabled even when the receive memory is ready to receive.

Substitute reception is not performed even during receive operation.

SW5 No. 7 Substitute reception conditions
Selection of substitute reception according to existence of TEL number from transmitting side. Initial setting allows substitute reception without CSI. If set to "no", the receiver cannot receive any documents

SW5 No. 8 CSI transmission
CSI signal contains the sender's phone number registered in the machine. If this switch is set to "1", no sender's name will be printed at the receiving side.

SW6 No. 1 JBIG (Joint Bi-level Image Group)
An image compression encoding method recommended by ITU-T. It realizes 2-second transmission when the power is turned on.

SW6 No. 2 JBIG (Joint Bi-level Image Group) option
An optional function for JBIG.

SW6 No. 3 MMR
MMR (Modified MR) selects presence of the compression function.

SW6 No. 4 MR
MR (Modified READ) selects presence of the compression function.

SW6 No. 5 ~ No. 8 Modem speed
Used to determine the initial modem speed. The default is 14400BPS(V.17). It may be necessary to program it to a slower speed when frequent line fallback is encountered, in order to save the time required for the fallback procedure.

SW7 No. 1, No. 2 Reception speed fixed
The transferable speed of modem in the receiving mode is set.

SW7 No. 3 DIS receive acknowledge during G3 transmission
Used to make a choice of whether reception of NSF (DIS) is acknowledged after receiving two NSFs (DISs) or receiving one NSF (two DISs).

It may be useful for overseas communication to avoid an echo suppression problem, if set to 1.

SW7 No. 4 Non-modulated carrier in V.29 transmission mode
Though transmission of a non-modulated carrier is not required for transmission by the V29 modem according to the CCITT Recommendation, it may be permitted to send a non-modulated carrier before the image signal to avoid an echo suppression problem. It may be useful for overseas communication to avoid an echo suppression problem, if set to 1.

SW7 No. 5 CNG send when manual TX
CNG signal sending ON/OFF in case of manual transmission is set.

SW7 No. 6 Protocol monitor
Normally set to "0". If set to "1", communication can be checked, in case of troubles, without using a G3 tester or other tools.

When communication FSK data transmission or reception is made, the data is taken into buffer. When communication is finished, the data analyzed and printed out. When data is received with the line monitor (SW7-No. 7) set to "1" the reception level is also printed out.

SW7 No. 7 Line monitor
Normally set to "0". If set to "1", the transmission speed and the reception level are displayed on the LCD. Used for line tests.

SW7 No. 8 Reserved
Set to "0".

SW8 No. 1, No. 2 Compromised equalizer
The specific line equalizer is inserted.

No. 1	No. 2	
0	0	The line equalizer built in the modem is turned off.
0	1	Line equalizer corresponding to 1.8 km
1	0	Line equalizer corresponding to 3.6 km
0	1	Line equalizer corresponding to 7.2 km

SW8 No. 3 H2 mode
Used to determine H2 mode (15sec transmission mode). When set to OFF, H2 mode is inhibited even though the transmitting machine has H2 mode.

SW8 No. 4 ~ No. 8 Signal transmission level
Used to control the signal transmission level in the range of –0dB to –31dB.

SW9 No. 1, No. 2 CED tone signal interval
For international communication, the 2100Hz CED tone may act as an echo suppresser switch, causing a communication problem. Though this soft switch is normally set to "0", it should be set to "1" so as to change the time between CED tone and DIS signal from 75ms to 500ms to eliminate the communication problem caused by echo.

SW9 No. 3 Equalizer freeze
This switch is used to perform reception operation by fixing the equalizer control of modem for the line which is always in an unfavorable state and picture cannot be received. Usually, the control is executed according to the state of line where the equalizer setting is changed always.

SW9 No. 4 Equalizer freeze conditions
Setting which specifies SW9 No.3 control only in condition of 7200bps modem speed.

SW9 No. 5 CED detection time
The detection time of the CED signal from the called side in the auto calling mode is set.

SW9 No. 6, No. 7 Alarm buzzer
The length of the buzzer for normal end of operation is set.

SW9 No. 8 Action when RTN received
The operation is set when the RTN signal is received in the G3 transmission mode.

SW10 No. 1 ~ No. 4 Memory retransmission times
The number of memory retransmissions is set.

SW10 No. 5 ~ No. 8 Memory retransmission interval
The interval between memory retransmissions is set.

SW11 No. 1 ~ No. 4 V.34 mode transmission speed
Used to determine the initial modem speed when communication method is V.34 transmission mode.

SW11 No. 5 ~ No. 8 V.34 mode receiving speed
Used to determine the initial modem speed when communication method is V.34 reception mode.

SW12 No. 1 V.34 mode function in case of manual communication
Used to select whether the V.34 mode is made valid when automatically transmitting/receiving.

SW12 No. 2 V.34 mode function
Used to select the V.34 mode for communication when set to “1”, communication method is V.34 mode..

SW12 No. 3 V.34 control channel communication speed
Used to select the control channel communication speed for V.34 mode.

SW12 No. 4, No. 5 EOL detection timer
Used to make a choice of whether to use the 25-second or 13-second timer for detection of End of line This is effective to override communication failures with some facsimile models that have longer End of line detection.

SW12 No. 6, No. 7 Processing of DIS reception after DIS transmission
When receiving , operation in case of DIS reception after DIS transmission is selected. Retransmitting command: To retransmit DIS in disregard of DIS reception.
Breaking circuit: To break circuit instantly. (Abnormal finish)
T. 30: To operate in accordance with T.30.
T. 30+α: To operate in accordance with T.30+α. (To operate differently according to cases.)

SW12 No. 8 The change to DB from DP by ✳
When setting to 1, the mode is changed by pressing the ✳ key from the pulse dial mode to the tone dial mode.

SW13 No. 1 ~ No. 5 DTMF output level (High)
To set the level to output high group DTMF signals. –15 to 0 dBm (0.5 dBm unit)

SW13 No. 6 ~ No. 8 Reserved
Set to "0".

SW14 No. 1 ~ No. 5 DTMF output level (Low)
To set the level to output low group DTMF signals. –15 to 0 dBm (0.5 dBm unit)

SW14 No. 6 ~ No. 8 Reserved
Set to "0".

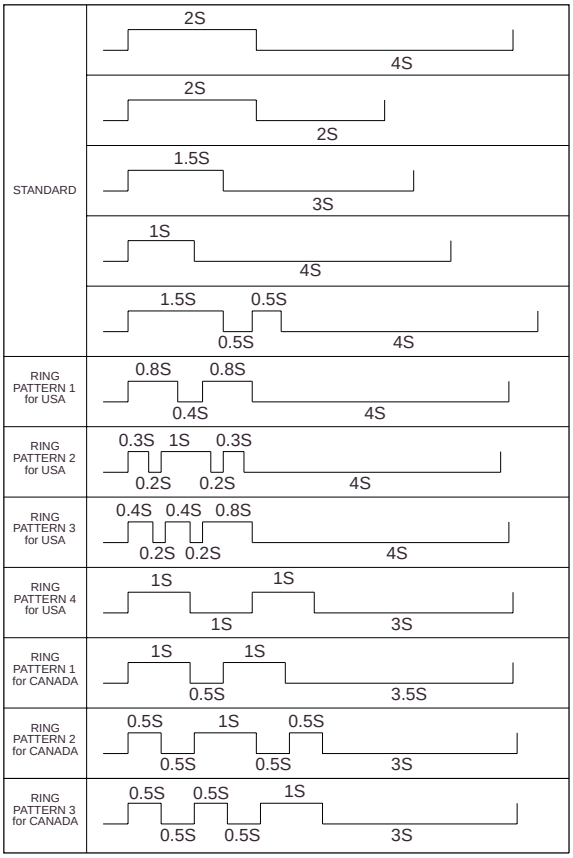
SW15 No. 1 ~ No. 4 Reserved
Set to "0".

SW15 No. 5 ~ No. 8 CI signal OFF detect enable time
Used to set the continuous detection time during OFF period of CI signal.

SW16 No. 1 ~ No. 4 Reserved
Set to "0".

SW16 No. 5 ~ No. 8 Distinctive ringing
When the ringing setting is turned off, all of the CI signal are received. When any of the standard, and ring patterns 1 through 3 is selected for the ringing setting, only the selected CI signal is received.

CI signal patterns
The CI signal patterns consists of the standard pattern, and ring patterns 1 through 7. The standard pattern is the conventional one.



SW17 No. 1 ~ No. 7 Reserved
Set to "0".

SW17 No. 8 Reserved
Set to "1".

SW18 No. 1 Reserved
Set to "1".

SW18 No. 2 ~ No. 4 Reserved
Set to "0".

SW18 No. 5 , No. 6 Reserved
Set to "1".

SW18 No. 7 , No. 8 Reserved
Set to "0".

SW19 No. 1 Reserved
Set to "1".

SW19 No. 2 ~ No. 4 Reserved
Set to "0".

SW19 No. 5 Reserved
Set to "1".

SW19 No. 6 ~ No. 8 Reserved
Set to "0".

SW20 No. 1 ~ No. 8 Reserved
Set to "0".

SW21 No. 1 ~ No. 3 Reserved
Set to "0".

SW21 No. 4 ~ No. 6 Busy tone detection frequency
To select frequency range of signals to be detected as Busy Tone.

SW21 No. 7, No. 8 Reserved
Set to "0".

SW22 No. 1 ~ No. 8 Reserved
Set to "0".

SW23 No. 1 Reserved
Set to "0".

SW23 No. 2 Reserved
Set to "1".

SW23 No. 3 Reserved
Set to "0".

SW23 No. 4 Reserved
Set to "1".

SW23 No. 5, No. 6 Reserved
Set to "0".

SW23 No. 7 Reserved
Set to "1".

SW23 No. 8 Reserved
Set to "0".

SW24 No. 1 Reserved
Set to "0".

SW24 No. 2 Reserved
Set to "1".

SW24 No. 3, No. 4 Reserved
Set to "0".

SW24 No. 5, No. 6 Reserved
Set to "1".

SW24 No. 7, No. 8 Reserved
Set to "0".

SW25 No. 1 ~ No. 3 Reserved
Set to "0".

SW25 No. 4 Reserved
Set to "1".

SW25 No. 5 ~ No. 8 Reserved
Set to "0".

SW26 No. 1, No. 2 Reserved
Set to "0".

SW26 No. 3, No. 4 Reserved
Set to "1".

SW26 No. 5, No. 6 Reserved
Set to "0".

SW26 No. 7 Reserved
Set to "1".

SW26 No. 8 Reserved
Set to "0".

SW27 No. 1 Reserved
Set to "0".

SW27 No. 2 Reserved
Set to "1".

SW27 No. 3 ~ No. 8 Reserved
Set to "0".

SW28 No. 1 Reserved
Set to "1".

SW28 No. 2 Reserved
Set to "0".

SW28 No. 3 ~ No. 5 Reserved
Set to "1".

SW28 No. 6 ~ No. 8 Reserved
Set to "0".

SW29 No. 1 ~ No. 4 Reserved
Set to "0".

SW29 No. 5 Reserved
Set to "1".

SW29 No. 6 ~ No. 8 Reserved
Set to "0".

SW30 No. 1 ~ No. 4 Reserved
Set to "0".

SW30 No. 5 Reserved (For U.S.A.)
Set to "1".

SW30 No. 6 Reserved (For U.S.A.)
Set to "1".

SW30 No. 6 Reserved (For Canada)
Set to "0".

SW30 No. 7 Reserved
Set to "0".

SW30 No. 8 Reserved (For U.S.A.)
Set to "1".

SW30 No. 8 Reserved (For Canada)
Set to "0".

SW31 No. 1 ~ No. 8 Reserved
Set to "0".

SW32 No. 1 Reserved
Set to "1".

SW32 No. 2 Reserved
Set to "0".

SW32 No. 3 Reserved
Set to "1".

SW32 No. 4 ~ No. 6 Reserved
Set to "0".

SW32 No. 7 Reserved
Set to "1".

SW32 No. 8 Reserved
Set to "0".

SW33 No. 1 ~ No. 3 Reserved
Set to "1".

SW33 No. 4 Reserved
Set to "0".

SW33 No. 5 ~ No. 7 Reserved
Set to "1".

SW33 No. 8 Reserved
Set to "0".

SW34 No. 1, No. 2 Reserved
Set to "1".

SW34 No. 3 ~ No. 8 Reserved
Set to "0".

SW35 No. 1 Reserved
Set to "0".

SW35 No. 2 Reserved
Set to "1".

SW35 No. 3 Reserved (For U.S.A.)
Set to "1".

SW35 No. 3 Reserved (For Canada)
Set to "0".

SW35 No. 4 ~ No. 8 Reserved
Set to "0".

SW36 No. 1 Reserved (For U.S.A.)
Set to "1".

SW36 No. 1 Reserved (For Canada)
Set to "0".

SW36 No. 2 Reserved (For U.S.A.)
Set to "0".

SW36 No. 2 Reserved (For Canada)
Set to "1".

SW36 No. 3 Reserved (For U.S.A.)
Set to "0".

SW36 No. 3 Reserved (For Canada)
Set to "1".

SW36 No. 4 ~ No. 8 Reserved
Set to "0".

SW37 No. 1 ~ No. 5 Reserved
Set to "0".

SW37 No. 6 Reserved
Set to "1".

SW37 No. 7 Reserved
Set to "0".

SW37 No. 8 Reserved
Set to "1".

SW37 No. 5 ~ No. 8 CI signal off detect enable time
Used to set the continuous detection time during OFF period of CI signal. Normally set to 700ms, where the short ring (500ms: OFF period) cannot be detected. Therefore, selection of 350ms is allowed.

SW38 No. 1 ~ No. 8 Reserved
Set to "0".

SW39 No. 1 ~ No. 7 Reserved
Set to "0".

SW39 No. 8 Reserved
Set to "1".

SW40 No. 1 Reserved
Set to "1".

SW40 No. 2 ~ No. 4 Reserved
Set to "0".

SW40 No. 5, No. 6 Reserved
Set to "1".

SW40 No. 7, No. 8 Reserved
Set to "0".

SW41 No. 1 Reserved
Set to "1".

SW41 No. 2 ~ No. 4 Reserved
Set to "0".

SW41 No. 5 Reserved
Set to "1".

SW41 No. 6 ~ No. 8 Reserved
Set to "0".

SW42 No. 1 ~ No. 8 Reserved
Set to "0".

SW43 No. 1 ~ No. 8 Reserved
Set to "0".

SW44 No. 1 ~ No. 8 Reserved
Set to "0".

SW45 No. 1 ~ No. 6 Reserved
Set to "0".

SW45 No. 7 Reserved
Set to "1".

SW45 No. 8 Reserved
Set to "0".

SW46 No. 1 ~ No. 8 Reserved
Set to "0".

SW47 No. 1 ~ No. 4 Reserved
Set to "0".

SW47 No. 5 Reserved
Set to "1".

SW47 No. 6, No. 7 Reserved
Set to "0".

SW47 No. 8 Reserved
Set to "1".

SW48 No. 1 Reserved
Set to "1".

SW48 No. 2, No. 3 Reserved
Set to "0".

SW48 No. 4, No. 5 Reserved
Set to "1".

SW48 No. 6, No. 7 Reserved
Set to "0".

SW48 No. 8 Reserved
Set to "1".

SW49 No. 1 Reserved
Set to "1".

SW49 No. 2, No. 3 Reserved
Set to "0".

SW49 No. 4, No. 5 Reserved
Set to "1".

SW49 No. 6, No. 7 Reserved
Set to "0".

SW49 No. 8 Reserved
Set to "1".

SW50 No. 1 ~ No. 7 Reserved
Set to "0".

SW50 No. 8 Reserved
Set to "1".

SW51 No. 1 ~ No. 8 Reserved
Set to "0".

SW52 No. 1 ~ No. 8 Reserved
Set to "0".

SW53 No. 1 ~ No. 8 Reserved
Set to "0".

SW54 No. 1 ~ No. 8 Reserved
Set to "0".

SW55 No. 1 ~ No. 8 Reserved
Set to "0".

SW56 No. 1 ~ No. 8 Reserved
Set to "0".

SW57 No. 1 ~ No. 8 Reserved
Set to "0".

SW58 No. 1 ~ No. 8 Reserved
Set to "0".

SW59 No. 1 ~ No. 8 Reserved
Set to "0".

SW60 No. 1 ~ No. 8 Reserved
Set to "0".

SW61 No. 1 F.A.S.T. (RMS) mode
Used to determine a function of remote maintenance system (F.A.S.T.).

SW61 No. 2 Reserved
Set to "0".

SW61 No. 3 Verification stamp
End stamp:
It is set whether the red round mark is stamped at the bottom margin of the document of every page in the memory input mode and document sending mode or not.

SW61 No. 4 Day light saving
The day light saving function ON/OFF is set.

SW61 No. 5, No. 6 Key buzzer volume
Key buzzer volume:
The sound volume of key inputting buzzer and other buzzers is set.

SW61 No. 7, No. 8 Reserved
Set to "0".

SW62 No. 1, No. 2 Speaker volume
Speaker volume:
The sound volume of the speaker in the on-hook mode is set.

SW62 No. 3 Reserved
Set to "1".

SW62 No. 4 Reserved
Set to "0".

SW62 No. 5, No. 6 Ringer volume
Ringer volume:
The calling sound volume of CI signal receiving is set.

SW62 No. 7, No. 8 Reserved
Set to "0".

SW63 No. 1, No. 2 Backlight setting
LCD backlight is lit whilst the key operation, etc. is performed. It turns off after a period of time without any operation. This SW is used to select the time interval until the backlight turns off.

SW63 No. 2 Reserved
Set to "1".

SW63 No. 3, No. 4 Reserved
Set to "0".

SW63 No. 5 Reserved
Set to "1".

SW63 No. 6 Reserved
Set to "0".

SW63 No. 7 Reserved
Set to "1".

SW63 No. 8 Reserved
Set to "0".

SW64 No. 1 Header registration
When setting this switch to "1", registering senders is protected.

SW64 No. 2 Reserved
Set to "0".

SW64 No. 3 Continuous serial polling
Turns ON/OFF the continuous polling function.

SW64 No. 4, No. 5 Time interval for continuous serial polling
Used to set the interval time for continuous serial polling. Normally set to no interval (0 minute).

SW64 No. 6, No. 7 Reserved
Set to "0".

SW64 No. 8 Quick on line function
It is selected whether auto dial call is activated in the memory input mode when one document is completely read or when all pages are completely read.

SW65 No. 1, No. 2 Cassette selection
To set selective modes for detail paper cassettes of the printer.

00:	Manual	To select detail paper in the first priority cassette in accordance with setting by SW65 3-8 and SW65 1-3. If the detail paper in the first priority cassette runs short, the second priority cassette will be used.
01:	Automatic 1	To automatically select detail paper with optimum size among the first to third priority cassettes in accordance with setting by SW65 3-8 and SW65 1-3. The optimum paper is selected by every page. If all the cassettes have the same size paper, paper will be selected according to the cassette priority.
10:	Automatic 2	To automatically select detail paper with optimum size among the first to third priority cassettes in accordance with setting by SW65 3-8 and SW65 1-3. At the start of printing, the optimum paper is adopted only for the first page. Thereafter the same cassette selected for the first page will be used from the second page and after. If all the cassettes have the same size paper, paper will be selected according to the cassette priority.
11:	Except the above	01: the same setting as in the case of Automatic 1

SW65 No. 3 ~ No. 5 The 1st priority cassette
To select the first priority cassette.

001:	1st paper feeder (MP-TRAY)
010:	2nd paper feeder
011:	3rd paper feeder
Except the above	Printing started from the possible paper feeder

SW65 No. 6 ~ No. 8 The 2nd priority cassette
To select the second priority cassette.

000:	Not used (To set in case of using only paper feeder that has been set in the first priority cassette)
001:	1st paper feeder (MP-TRAY)
010:	2nd paper feeder
011:	3rd paper feeder
Except the above	Not used

SW66 No. 1, No. 2 Reserved
Set to "0".

SW66 No. 3 Reserved
Set to "1".

SW66 No. 4, No. 5 Cassette selection of separate page
The supply origin of a separate page is set.

SW66 No. 6 ~ No. 8 Reserved
Set to "0".

SW67 No.1, No. 2 Power save mode
The heater mode of a printer is set.

SW67 No. 3 ~ No. 5 Density adjustment of print bias
The density of printing is set.

It can be also set in the print diagnosis mode.

SW67 No. 6, No. 7 Drum life detection
The detection mode of Drum life is set.

SW67 No. 8 Reserved
Set to "0".

SW68 No. 1, No. 2 Distinctive ring pattern
The distinctive ring patter is set for country.

SW68 No. 3 Reserved
Set to "0".

SW68 No. 4 Reserved
Set to "1".

SW68 No. 5, No. 6 Reserved
Set to "0".

SW68 No. 7 Reserved
Set to "1".

SW68 No. 8 Reserved
Set to "0".

SW69 No. 1 Reserved
Set to "1".

SW69 No. 2, No. 3 Reserved
Set to "0".

SW69 No. 4 Reserved
Set to "1".

SW69 No. 5 Reserved
Set to "0".

SW69 No. 6, No. 7 Reserved
Set to "1".

SW69 No. 8 Reserved
Set to "0".

SW70 No. 1 Reserved
Set to "1".

SW70 No. 2 Reserved
Set to "0".

SW70 No. 3 Reserved
Set to "1".

SW70 No. 4 ~ No. 7 Reserved
Set to "0".

SW70 No. 8 Reserved
Set to "1".

SW71 No. 1, No. 2 The default resolution for copying
In case of copying without pressing the RESOLUTION key, resolution will be super fine.

SW71 No. 3 Reserved
Set to "0".

SW71 No. 4 Reserved
Set to "1".

SW71 No. 5 Reserved
Set to "0".

SW71 No. 6, No. 7 Picture quality priority mode

Used to set the transmission mode which is automatically selected when the MODE key is not pressed. In the copy mode, however, the fine mode is automatically selected unless the MODE key is manually set to another mode.

SW71 No. 8 Reserved
Set to "0".

SW72 No. 1 Reserved
Set to "1".

SW72 No. 2 Reserved
Set to "0".

SW72 No. 3 Reserved
Set to "1".

SW72 No. 4 ~ No. 8 Reserved
Set to "0".

SW73 No. 1 ~ No. 5 Reserved
Set to "0".

SW73 No. 6 ~ No. 8 Data reduction
Reduction ratio of receiving is set .
It can be changed even in the optional mode.
To set printing reduction rate of received images.

000:	Automatic
100:	100%
Except the above	100%

SW74 No. 1 Automatic printing of activity report
This soft switch is used to select; whether or not to produce the activity report when the memory is full (about 50 items). An activity report can be produced when the following key entry command is made.

"FUNC", "2", "#", "START"

After producing the activity report, all the data in the memory will be cleared.

When the switch function is set to "0" (NO), the data in memory will be deleted from the oldest as it reaches the maximum memory capacity (approx. 50 items).

SW74 No. 2 Print out of total time and total number of pages on activity report
Used to make a choice of whether the total communication time and pages are recorded in the activity report.

SW74 No. 3 Reserved
Set to "0".

SW74 No. 4 Department function
This model has the department audit feature, it has to be set to 1 to utilize this feature.

SW74 No. 5 ~ No. 8 Department ID digit
Used to set the department ID digit number .
When set to "D" , the number is "4" .

SW75 No. 1 Copy protect switch
When this switch is set to “1”, copy is for bidden.

SW75 No. 2 Cut-off mode (when copy mode)
When in copy, if the scanned data is out of the range of recording, the operator has one of the choices below using the switch.

0: Continue: Data is printed onto the next page with the last 20mm also printed at the beginning of the next page.

1: Cut off: Data scanned out of the limit is cut off (a page is printed.)

SW75 No. 3 Scanning ratio in memory input
In the case of memory transmission, etc., only letter size (A4) documents can be stored in the memory. To input B4 documents into the memory, therefore, the B4 documents must be reduced to letter size (A4) or the both ends of the B4 documents will be cut off to input the center letter-size (A4) portion. This switch provides the selection.

0: Reduced to A4 size and inputted.

1: Both ends are cut off and the center portion (A4 size) is inputted.

SW75 No. 4 Overseas communication mode selection function
When this switch is set to "1", the communication is Super G3 mode can be turned off by pressing the "SPACE" key before sending operation, for the transmission set after that (including polling).

SW75 No. 5 Reserved
Set to "0".

SW75 No. 6 ~ No. 8 Reduce ratio when copy mode
Reduction ratio of copying is set .
It can changed even in the optional mode.

SW76 No. 1, No. 2 Reserved
Set to "0".

SW76 No. 3, No. 4 Density adjustment (when Fine/STD mode)
This is used for density adjustment in fine/standard mode. Adjust the density according to that of frequently used original.

Set to "Dark" for darker reading (either in the auto or the dark mode) of light original. Set to "Light" for lighter reading (either in the auto or the dark mode) of dark original.

Set to "Dark only in dark mode" for darker reading only in the dark mode.

SW76 No. 5, No. 6 Density adjustment (when half-tone mode)
This is used for density adjustment in the half tone. Setting procedures are the same as SW46 No. 3 and No. 4.

SW76 No. 7 MTF correction in half-tone mode
In the half tone mode, image area is separated from character area and processed separately to eliminate unclear character transmission. This switch is used to change the criteria of judgement of separation. When "Strong" (= 1) is selected, more area is judged as character area, providing clearer characters.

On the contrary, however, edges of image area may be emphasized.

It is advisable to restrict the use of this function only when clear characters must be transmitted, and to use the function of "Weak" (= 0) for general cases.

SW76 No. 8 MTF intensity in half-tone mode
This allows selection of MTF correction (dimness correction) in the half tone mode. When "NO" (= 1) is selected, the whole image becomes soft and mild, On the contrary, however, mildness of characters will be reduced. Normally set to "NO" (= 1).

SW77 No. 1 Cassette define LTR / A4:Tray
A4 cassette can be used .
Set "0" or "1" for all of three bits.
Do not change the setting during printing.

SW77 No. 2 Cassette define LTR / A4:Upper
A4 cassette can be used .
Set "0" or "1" for all of three bits.
Do not change the setting during printing.

SW77 No. 3 Reserved
Set to "0".

SW77 No. 4 ~ No. 7 Reserved
Set to "1".

SW77 No. 8 Reserved
Set to "0".

SW78 No. 1 Reserved
Set to "1".

SW78 No. 2 ~ No. 8 Reserved
Set to "0".

SW79 No. 1 Secure billing code
When the tel. billing code function is ON, the operation of secure billing code is enabled .

SW79 No. 2 Pause with SHIFT key
The SHIFT key pause time is set.

SW79 No. 3 Reserved
Set to "0".

SW79 No. 4 ~ No. 8 Z key pause time (250ms unit)
The Z key pause time is set.

SW80 No. 1 Separate feature
The separate mode ON/OFF is set.

SW80 No. 2 ~ No. 4 Reserved
Set to "0".

SW80 No. 5 Addition of header (Sender information)
ON/OFF of addition of header (sender information) to various list is set.

SW80 No. 6 DTMF sending by the panel test
When ten keys are pressed in the Panel Test Mode of the diagnosis, the corresponding DTMF signals are output.

SW80 No. 7 Power save mode
To switch power save mode system either to real time or to timer.

SW80 No. 8 Reserved
Set to "0".

SW81 No. 1 Reserved
Set to "1".

SW81 No. 2 Reserved
Set to "0".

SW81 No. 3 ~ No. 8 Reserved
Set to "1".

SW82 No. 1 Reserved
Set to "0".

SW82 No. 2 Reserved
Set to "1".

SW82 No. 3 Reserved
Set to "0".

SW82 No. 4 Reserved
Set to "1".

SW82 No. 5 ~ No. 8 Reserved
Set to "0".

SW83 No. 1 ~ No. 5 Reserved
Set to "0".

SW83 No. 6 Reserved
Set to "1".

SW83 No. 7 Reserved
Set to "0".

SW83 No. 8 Reserved
Set to "1".

SW84 No. 1 ~ No. 4 Reserved
Set to "0".

SW84 No. 5 ~ No. 8 Reserved
Set to "1".

SW85 No. 1 ~ No. 8 Reserved
Set to "0".

SW86 No. 1 ~ No. 8 Reserved
Set to "0".

SW87 No. 1 File name (Unique identifier)
The file names of the E-MAIL notice and files from the FTP server will be automatically created from the following elements. By setting the SWs below, file names with these elements are generated. : A unique number generated from the machine serial number and the date and time data.

SW87 No. 2 File name (Session page counter)
The file names of the E-MAIL notice and files from the FTP server will be automatically created from the following elements. By setting the SWs below, file names with these elements are generated. : Counter

SW87 No. 3 File name (Date & Time)
The file names of the E-MAIL notice and files from the FTP server will be automatically created from the following elements. By setting the SWs below, file names with these elements are generated. : Date and time data

SW87 No. 4 File name (Profile name)
The file names of the E-MAIL notice and files from the FTP server will be automatically created from the following elements. By setting the SWs below, file names with these elements are generated. : Sender's name

SW87 No. 5 ~ No. 8 Reserved
Set to "0".

SW88 No. 1 ~ No. 4 Default file format
SW setting the default of the compression format and the file type required for generating the image data from network scanned data.

SW88 No. 5, No. 6 The default resolution for Network Scanning
SW setting the default resolution on network scanning.

SW88 No. 7, No. 8 Reserved
Set to "0".

SW89 No. 1 ~ No. 7 Reserved
Set to "0".

SW89 No. 8 Reserved
Set to "1".

SW90 No. 1, No. 2 Reserved
Set to "0".

SW90 No. 3 Reserved
Set to "1".

SW90 No. 4, No. 5 Reserved
Set to "0".

SW90 No. 6 Reserved
Set to "1".

SW90 No. 7 Reserved
Set to "0".

SW90 No. 8 Reserved
Set to "1".

SW91 No. 1 ~ No. 8 Reserved
Set to "0".

SW92 No. 1 Reserved
Set to "0".

SW92 No. 2 Reserved
Set to "1".

SW92 No. 3 Waiting time after dialing
The set up of the call time of the auto dial.
90 sec. or depends on each country's specifications.

SW92 No. 4 Show receiver's name
This switch is used to note the receiver's name on the transaction report and activity report. When this switch is set to "0", the receiver's dial number is printed on the report.

SW92 No. 5 ~ No. 8 Reserved
Set to "0".

SW93 No. 1 ~ No. 8 Reserved
Set to "0".

SW94 No. 1 ~ No. 8 Reserved
Set to "0".

SW95 No. 1 ~ No. 4 Reserved
Set to "0".

SW95 No. 5, No. 6 Reserved
Set to "1".

SW95 No. 7 Reserved
Set to "0".

SW95 No. 8 Reserved
Set to "1".

SW96 No. 1 ~ No. 3 Network print : Auto continue
When the paper of designated size runs out whilst printing, the unit will pause until the paper of the selected size is supplied. This function allows to continue printing with the paper of alternative size, if the paper of designated size was not supplied even after a period of time. This SW is for setting ON/OFF of this function, and the ON waiting time.

SW96 No. 4 Network print : Default paper size
When the selected paper size was other than the size that can be set in this unit (LTR, LGL, A4), an alternative paper size can be set with this SW.

SW96 No. 5 ~ No. 7 Reserved
Set to "0".

SW96 No. 8 Reserved
Set to "1".

SW97 No. 1 ~ No. 8 Reserved
Set to "0".

SW98 No. 1 ~ No. 8 Reserved
Set to "0".

SW99 No. 1 Reserved
Set to "0".

SW99 No. 2, No. 3 Reserved
Set to "1".

SW99 No. 4 ~ No. 6 Reserved
Set to "0".

SW99 No. 7, No. 8 Reserved
Set to "1".

[3] Troubleshooting

Refer to the service manual of FO-4400U.

[4] Error code table

Refer to the service manual of FO-4400U.

[5] Overseas communication mode

Refer to the service manual of FO-4400U.

[6] Administrator mode in the personal book function

Refer to the service manual of FO-4400U.

CHAPTER 3. MECHANICAL DESCRIPTION

[1] Mechanical description

1. Facsimile block

1-1. Document feed block and diagram

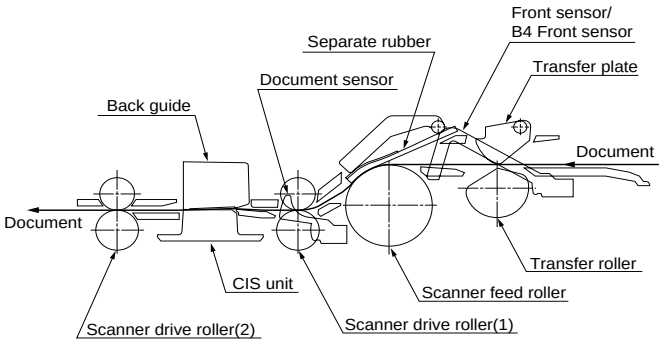


Fig. 1

2. Document feed operation

1) As shown in Fig.1, the document set in the hopper (the front sensor is on) is fed with the let out roller and paper feed roller which rotate together with the pulse motor.

2) When a specified number of pulses are received from the document sensor after the document lead edge is sensed, scanning will be started.

3) When a specified number of pulses are received from the document sensor after the document rear edge is sensed, scanning will be ended to discharge the document to the tray.

4) If the front sensor is on (the document is set up in the hopper), the next document is supplied and fed nearly when the last document is completely read and discharged. If the front sensor is off (no document is set up in the hopper), the drive will be stopped when the document is discharged to the tray.

3. Hopper mechanism

3-1. General view

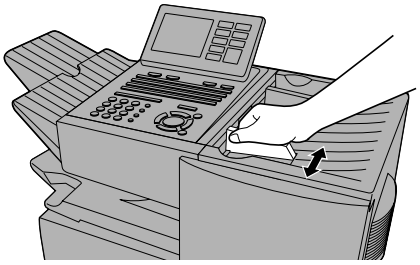


Fig. 2

The hopper is used to align documents with the document guides adjusted to the paper width.

NOTE: Adjust the document guides before and after inserting the document.

3-2. Automatic document feed

1) The structure with secure paper feed of the transfer roller and secure separation of the separation rubber plate system is employed. The transfer roller is semicircular as to be rotated only when the paper feed roller is driven with the 2-step paper feed clutch mechanism. Moreover, the separation securely done by running the paper feed and transfer rollers more slowly than the feed roller.

2) Document separation system:
Friction + speed reduction ratio + roller backlash separation system

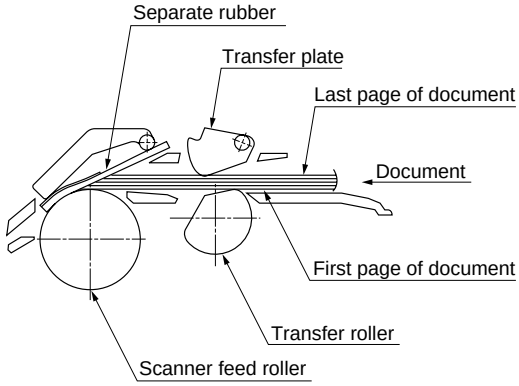


Fig. 3

3-3. Loading the documents

1) Make sure that the documents are of suitable size and thickness, and free from creases, folds, curls, wet glue, wet ink, clips, staples and pins.

2) Place documents face down in the hopper.

- Adjust the document guides to the document width.
- Align the top edge of documents and gently place them into the hopper. The first page under the stack will be taken up by the feed roller to get ready for transmission.

NOTE: 1) Curled edge of documents, if any, must be straighten out.
2) Do not load the documents of different sizes and/or thickness together.

3-4. Documents applicable for automatic feed

		Product specifications	
	Indication	Lower Limit	Upper Limit
Weight indication	Japanese indication Size 4 × 6	45kg paper	70kg paper
	Metric system indication	52g/m^2	80g/m^2
	American indication LB system indication	14 LB	20 LB
Thickness indication	Metric system indication	0.06mm	0.1mm
	Inch system indication	0.0024"	0.0035"
Document size	Document size Range	(148mm × 128mm) ~ W letter (279.4mm × 432mm)	
		A4 (210mm × 297mm)	
		Letter (216mm × 279mm)	
Number of ADF sheets	Document size Weight	B6 ~ Letter/A4 size	50 sheets
		B4 size/Legal	20 sheets
		W letter size	1 sheet
		90 kg (104g/m^2) or more 135 kg (157g/m^2) or less	1 sheet
Paper quality	Kind	Paper of fine quality/bond paper/ Kent paper	

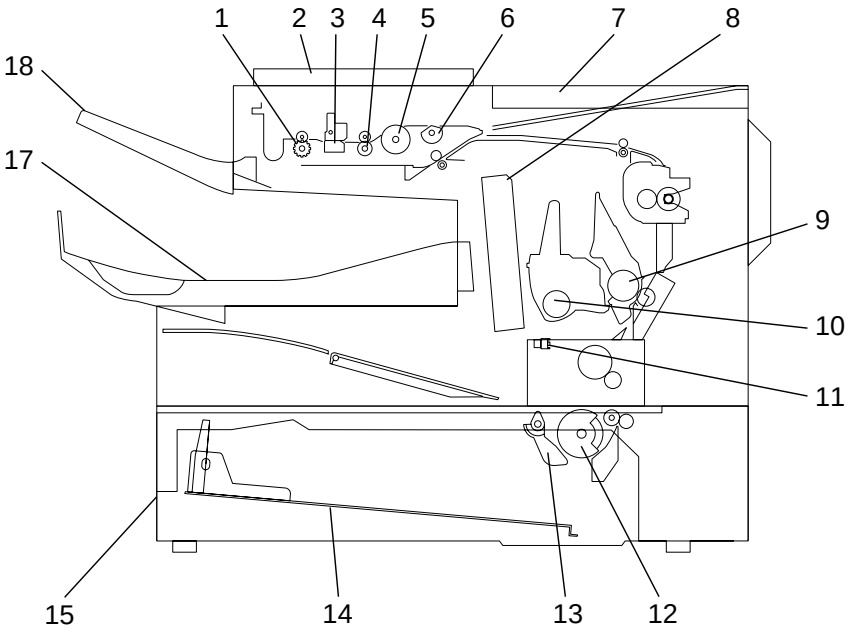
NOTE: Double-side coated documents and documents on facsimile recording paper should be inserted manually.

Documents corresponding to a paper weight heavier than 90kg and lighter than 135kg are acceptable for manual feed.

Documents heavier than 135kg in terms of the paper weight must be duplicated on a copier to make it operative in the facsimile.

[2] Printer description

1. COMPONENTS LAYOUT



1. Scanner Drive Roller 2
2. Operation Panel
3. CIS Unit
4. Scanner Drive Roller 1
5. Scanner Feed Roller
6. Transfer Roller
7. Upper Cover
8. Printer Head
9. Drum Cartridge
10. Toner Cartridge
11. Paper Empty Sensor (PE1)
12. 2nd PU Roller Unit
13. 2nd Paper Sensor lever
14. Cassette Push Up Plate
15. 2nd Option Cassette (Option : FO-CS1)
17. Received Document Tray
18. ADF Exit Tray

Fig. 1

2. DRIVE SECTION

2-1. Overview

The main motor (M1) transmits the drive to the rollers of the printer and the 2nd paper cassette unit via each gear as shown below.

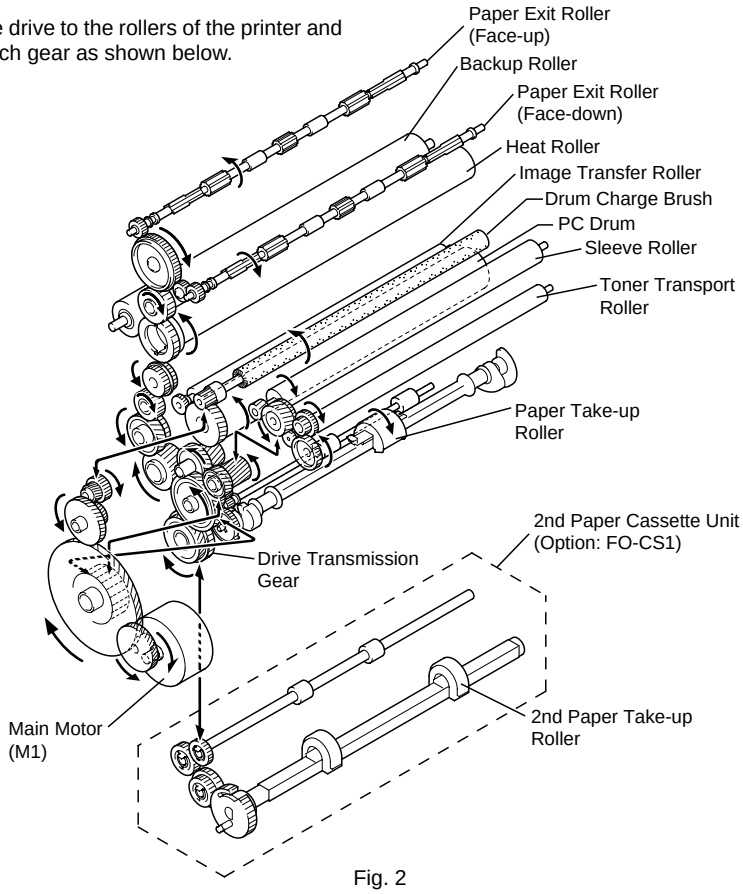


Fig. 2

3. PRINTER ENGINE ELECTRICAL COMPONENTS LAYOUT

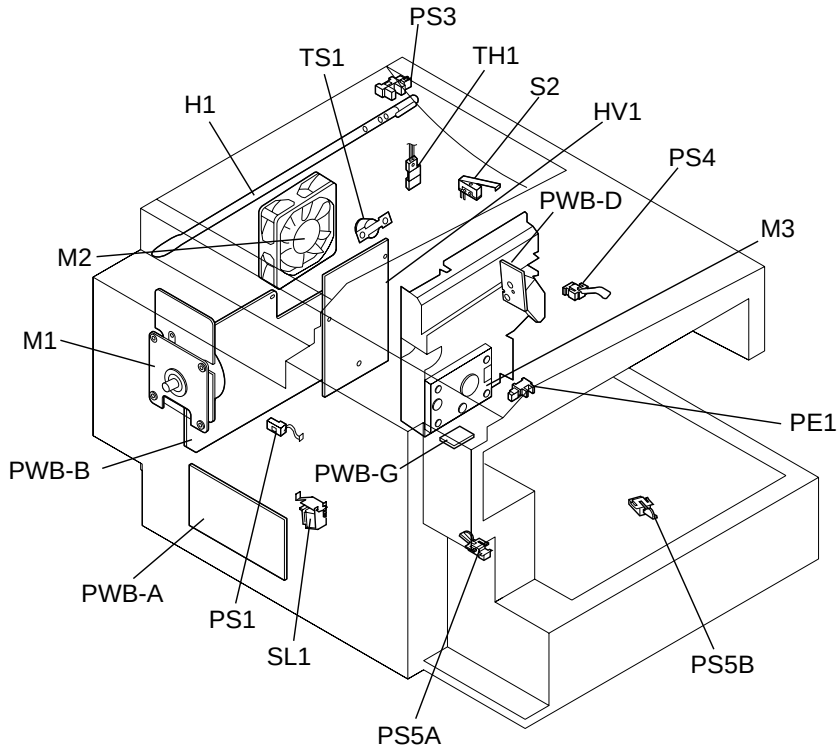


Fig. 3

4. ELECTRICAL PARTS IDENTIFICATION

Symbol	Name	Function
PWB-A	Printer PWB unit	Communicates with the control PWB and controls all printer operation.
PWB-B	Power Supply PWB unit	Converts the power voltage from AC voltage into DC voltage and supplies that to H1.
PWB-D	Laser Diode Drive PWB unit (Inside of the Print Head Unit)	Detects the start point of printing via the laser diodes and SOS sensor, and illuminates the PC Drum with the laser beam according to the image signals.
PWB-G	Toner Empty PWB unit	Toner quantity is read by the analog signal. (Use of LED)
M1	Main Motor	Provides the drive source for the printer.
M3	Polygon Motor (Inside of the Print Head Unit)	A regular heptagon mirror is installed, and rotates at high speed and makes the laser scan in scanning direction.
M2	Cooling Fan Motor	Exhausts heat from the body.
H1	Heater Lamp	A halogen lamp that supplies heat to the Fusing Rollers. (600 W)
HV1	High Voltage PWB unit	Supplies power to the following sections: - Drum Charge Brush: Charged voltage - Developing Sleeve Roller: Developing bias voltage - Developing Toner Regulation Plate: Developing blade voltage - Developing Toner Collecting Plate: Developing Lower Seal voltage - Image Transfer Roller: Image transfer voltage
PE1	Paper Empty Sensor	Detects that a sheet of paper is taken up. The signal is L when paper is detected.
PS1	Paper Take-Up Sensor	Detects that a sheet of paper is taken up. The signal is H when paper is detected.
PS3	Paper Exit Sensor	Detects when the paper is fed out. The signal is H when the paper is detected.
PS4	Paper Out Sensor	Paper out detection signal. The signal L when the paper is detected.
PS5A	Received Docuent Tray Sensor	The signal is L when there is a tray cover.
PS5B	Paper Size Sensor	Detects the size of the paper. Letter: signal H, Legal: signal L.
S2	Interlock Switch	Detects the opening or closing of the Top Cover. Cuts output voltage (except 5 VDC) when the Top Cover is open.
SL1	Paper Take-Up Solenoid	Transmits the drive of the Main Motor to the Paper Take-up Roller.
TH1	Thermistor	Detects the temperature of the Heat Roller, measures the temperature on the surface of the Heat Roller and sends to the Heater control circuit.
TS1	Thermostat	Cuts power to the Heater Lamp (H1) when overheating (215ºC) is detected at the Fusing Section.

5. PAPER PATH

Paper can be fed into the printer from the Multi Purpose Tray (250 sheets) or from the Manual Feed Port (1 sheet).

Installing the 2nd Paper Cassette Unit (FO-CS1) (500sheets) adds another feeding method.

The paper fed by the Paper Take-Up Roller is transported to the Image Transfer Roller, Fusing Roller and then Paper Exit Roller. After this, the paper is fed out onto the Print Tray.

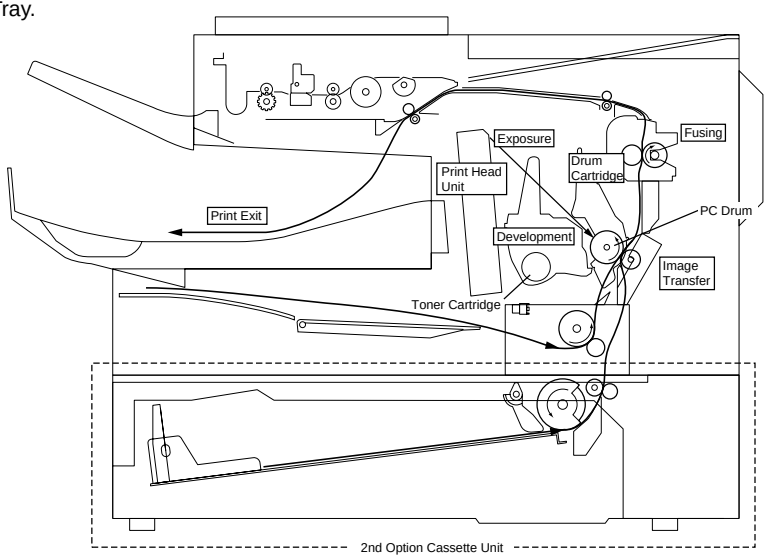


Fig. 4

6. PAPER TAKE-UP SECTION

6-1. Multi-Purpose Tray

When the Paper Take-Up Solenoid (SL1) is energized, the drive of the Main Motor (M1) is transmitted to the Paper Take-Up Roller via the Paper Take-Up Gear (one-way clutch) to turn the Paper Take-Up Roller one revolution. At the same time, the Depressing Cam turns and lifts the Paper Lifting Plate, and the first (top) sheet of paper on the tray is fed to the printer. The Fixed Separating Pad is used for the paper separation system. It prevents the second and subsequent sheets of paper from being fed together with the top sheet. The actual length of the paper is detected using the period of time through which the Paper Take-up Sensor (PS1) remains energized (or through which the paper moves past the sensor) and it is determined whether the actual length matches the paper length specified by the controller.

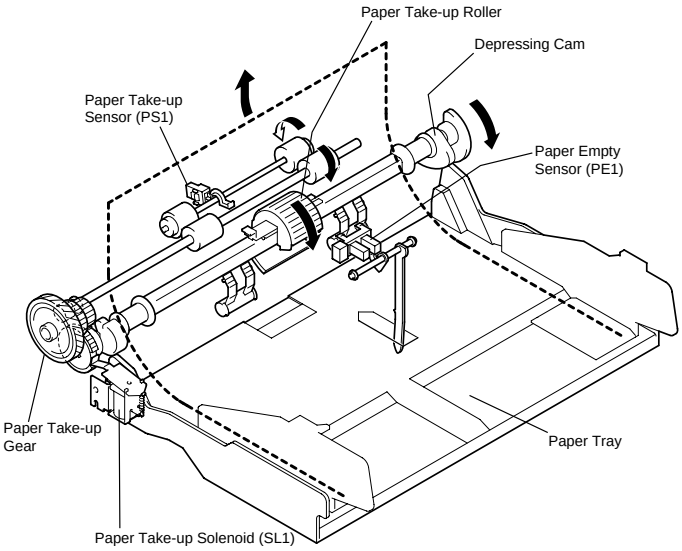


Fig. 5

7. DRUM CHARGE

The PC Drum is charged with static electricity before laser exposure. The Drum Charge Brush and the Pre-charge Film are used for the charging method.
The Drum Charge Brush and Pre-charge Film charging generate little ozone in the printer. Because the charge is directly applied to the PC Drum, the PC Drum can be charged by low voltage. In addition, the charge applied to the PC Drum is stable and even.
The Pre-charge Film supplies the charge to the PC Drum before being charged by the Drum Charge Brush to improve the charging efficiency.
The Drum Charge Brush is turned by the drive of the Main Motor (M1) via a gear.
The electric potential on the surface of the charged PC Drum is approximately-800 V.

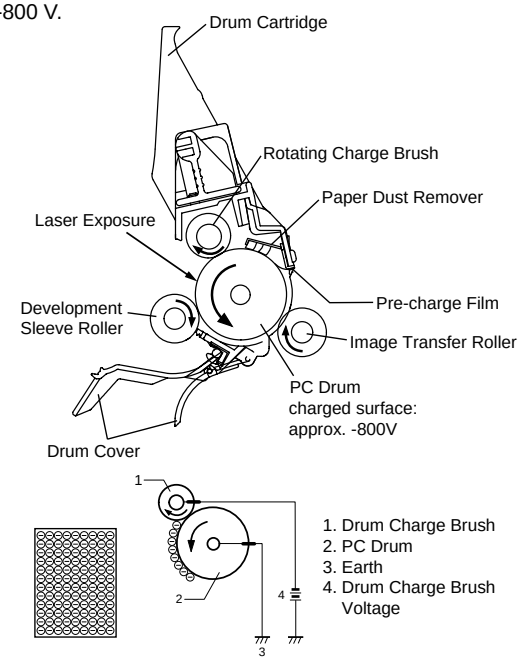


Fig. 6

8. LASER EXPOSURE

Laser exposure is the process of creating an invisible static charge image on the PC Drum by the laser beam emitted from the Print Head Unit. This process is controlled as follows in order to appropriately time image printing.

In the sub-scanning direction (vertical direction)
- · When the printer receives the PRINT signal, the Polygon Motor and the Main Motor rotate and the paper is fed into the printer.
- · The printing in the sub-scanning direction is started when the Controller PWB sends the VIDEO signal to the Print Head a certain time after the leading edge of the paper activates the Paper Sensor (TOD signal).
- · The print starting position for the 2nd line is decided by delaying the VIDEO signal sending timing.

In the scanning direction (horizontal direction)
- · The SOS Sensor is installed on the Laser Diode Control PWB to unify the laser emission timing for each scan line.

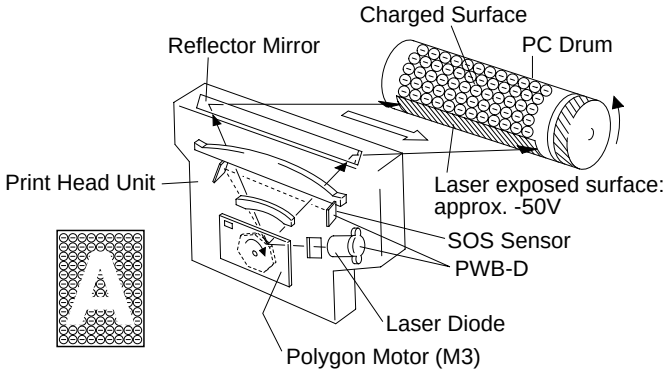


Fig. 7

9. DEVELOPMENT

9-1. Overview

Toner is applied to the invisible static image on the PC Drum and a toner image (developed image) is created on the drum surface.

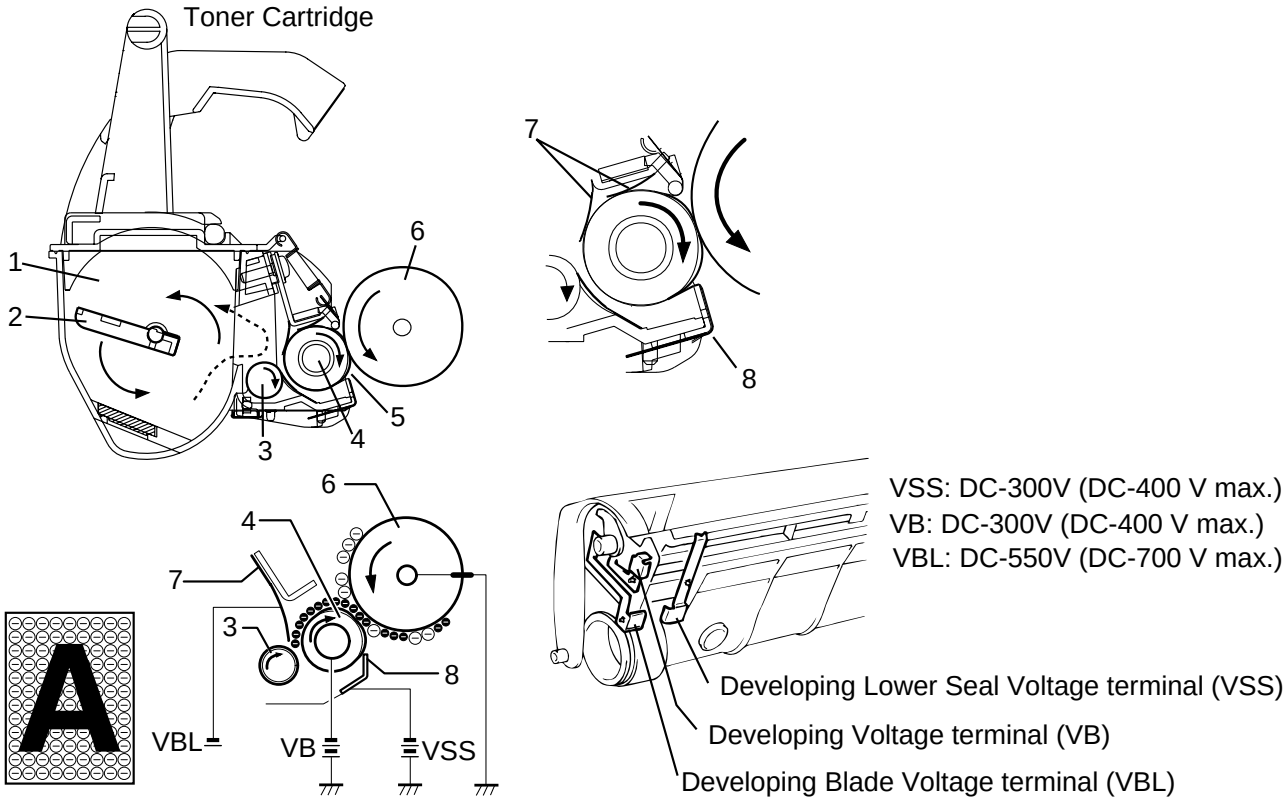


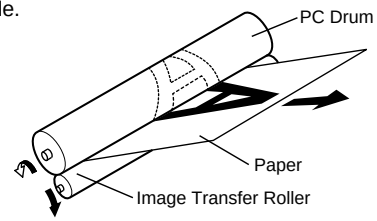
Fig. 8

No.	Part Name	Function
1	Toner Hopper	Contains toner.
2	Toner Agitating Screw	Agitates the toner in the Toner Hopper and sends the toner to the Toner Transport Roller.
3	Toner Transport Roller	Transports the toner to the Sleeve Roller.
4	Sleeve Roller	Turns the Resin Sleeve.
5	Resin Sleeve	Carries the toner to the PC Drum surface for development.
6	PC Drum	Exposed to laser to create an invisible image and rotates to carry the developed image to the paper surface.
7	Toner Blade	Spreads a thin, even coat of toner over the Resin Sleeve. The toner is negatively charged when passing between this Blade and the Resin Sleeve.
8	Bias Seal	Separates toner, which has not been attracted to the PC Drum, from the Resin Sleeve and returns it back to the Buffer Section.

10. IMAGE TRANSFER

10-1. Overview

· Image transfer is the process of transferring the toner image created on the PC Drum in the developing process to paper.
· Roller image transfer is used instead of corona image transfer as the image transfer method.
· In roller image transfer, there is little generation of ozone due to corona discharge. Also, there is no blur of toner because the paper is always pressed by the PC Drum and the Image Transfer Roller.
· When cleaning the Image Transfer Roller and before printing, reverse bias is applied.
· The residual electric potential on the paper is dissipated via a discharge needle.



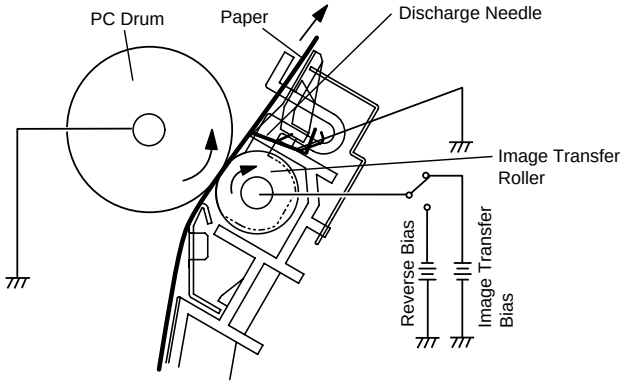


Fig. 9

11. FUSING

11-1. Overview

· The toner image transferred onto the paper is securely fixed to the paper.
· A heat roller system is used as the fusing system. The toner image is fused by the Heat Roller heated by the Heater Lamp (H1), and securely fixed by the pressure between the Heat Roller and Backup Roller.

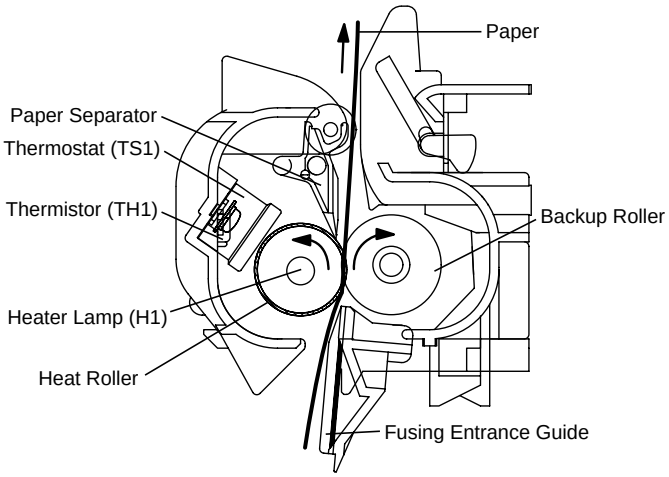


Fig. 10

11-2. Fusing Temperature Control Circuit

· The Thermistor (TH1) detects the surface temperature of the Heat Roller and inputs that analog voltage into IC4-78. Corresponding to this data, the Heater Lamp (H1) ON/OFF signal is output from IC4-55, causing the Heater Lamp (H1) to turn ON or OFF to control the fusing temperature.
· When the Heater Lamp (H1) is not turned OFF even if the Thermistor (TH1) detects a high temperature malfunction (if the surface temperature of the Heat Roller exceeds 230°C), the signal from IC4-79 changes from L to H to turn OFF the Heater Lamp (H1) forcibly.

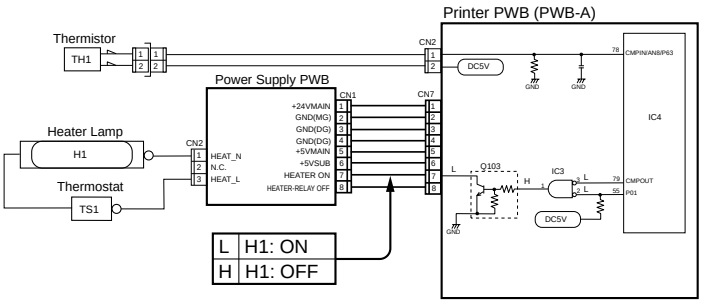


Fig. 11

(At 600 dpi)
The printer is initialized upon power supply. The Heater Lamp then turns on and the printer starts warming up. The temperature is controlled as follows.

Mode 1: The temperature is controlled to maintain 125°C during standby and 210°C during printing. If this mode continues for 300 seconds, the control will shift to mode 2.

Mode 2: The temperature of the Heat Roller falls gradually to about 200°C from about 210°C. If this mode continues for 208 seconds, the control will shift to mode 3.

Mode 3: The temperature is controlled to maintain 125°C during standby and 200°C during printing. Unless an error occurs or the control is opened, this mode is maintained.

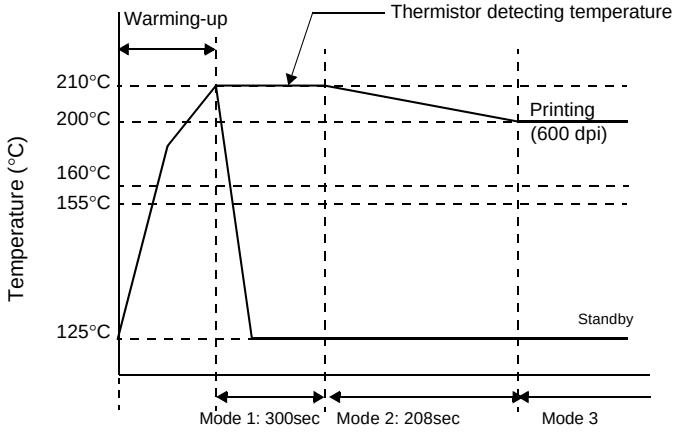


Fig. 12

	Temperature immediately after temperature control start		
The state before discontinuation of temperature control	Less than 50°C	50°C or more, less than 125°C	125°C or more,
Mode 1, warming-up	Mode 1		
Mode 2, 3 or Power OFF	Mode 1	Mode 2	Mode 3

12. PRINT SEQUENCE

Printing is carried out following communication between the engine and controller that determines the timing to be used.
A general outline of the printing sequence is described below.

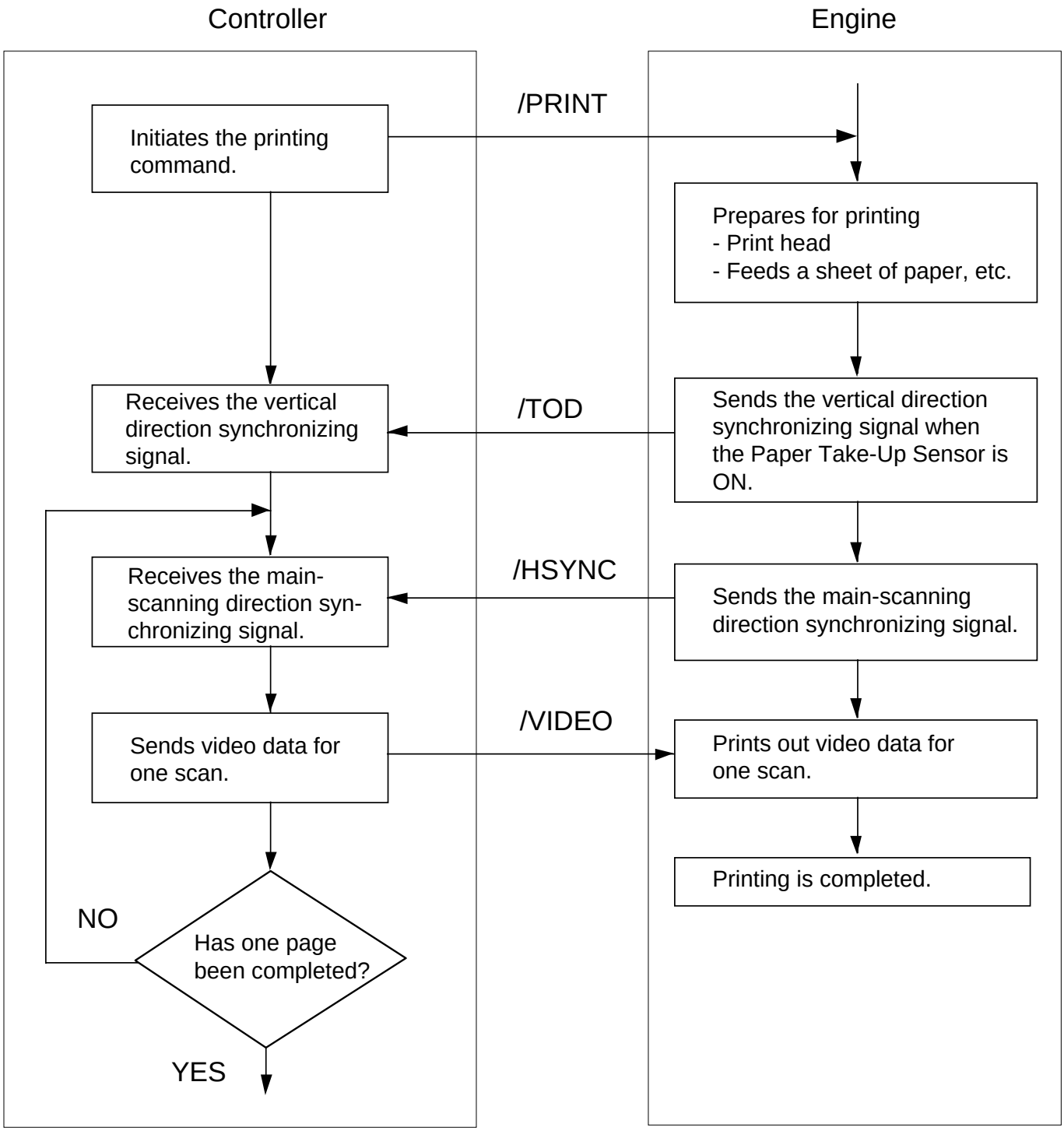


Fig. 13

13. Timing chart

13-1. Print Starting

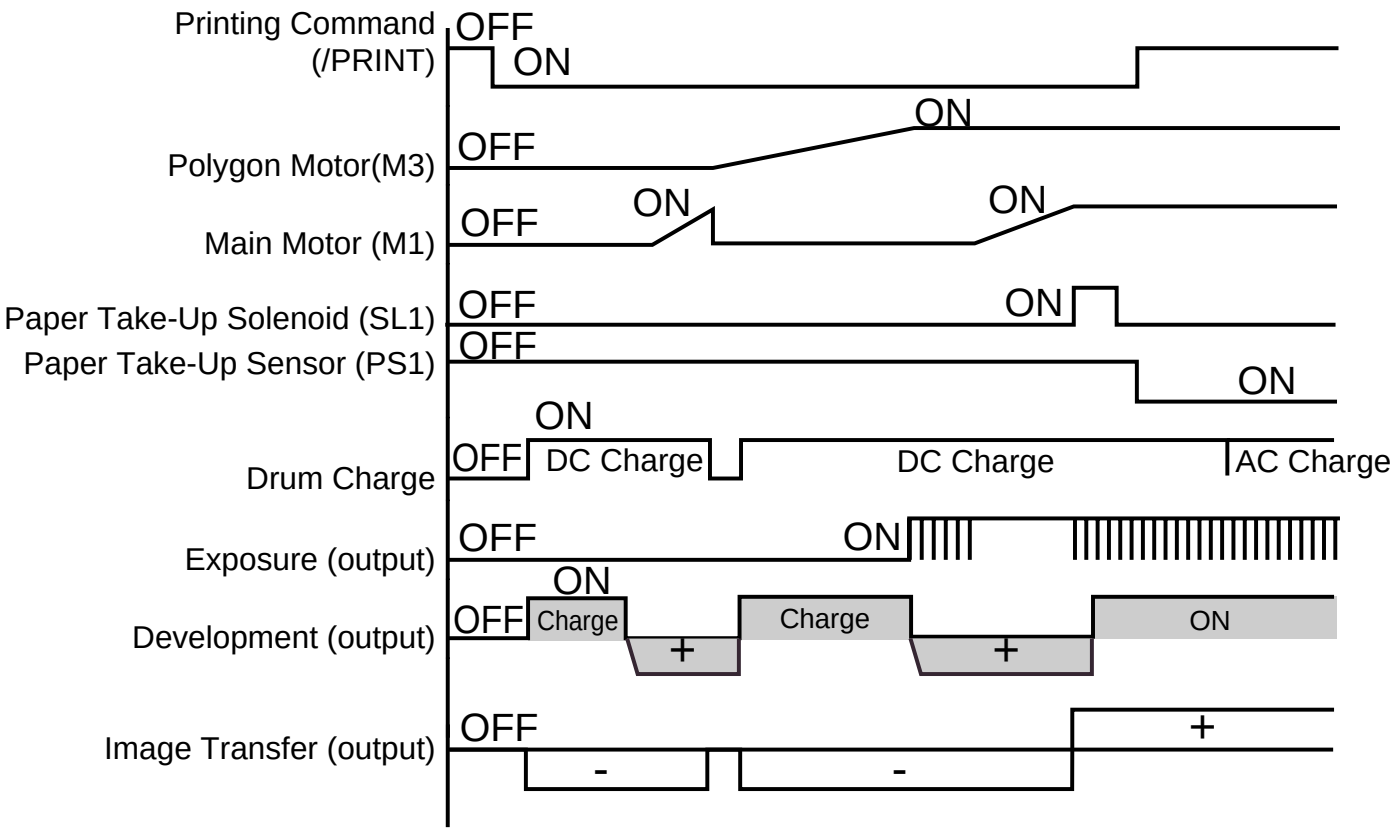


Fig. 14

13-2. Print Ending

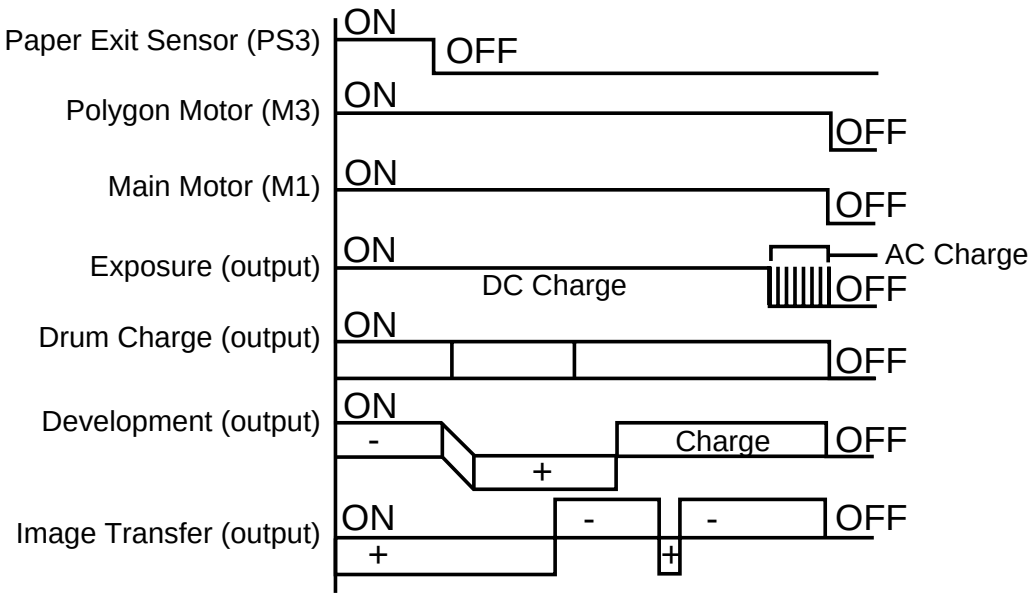


Fig. 15

[3] Disassembly and assembly procedures

- This chapter mainly describes the disassembly procedures. For the assembly procedures, reverse the disassembly procedures.
- Easy and simple disassembly/assembly procedures of some parts and units are omitted. For disassembly and assembly of such parts and units, refer to the Parts List.
- The numbers in the illustration, the parts list and the flowchart in a same section are common to each other.
- To assure reliability of the product, the disassembly and the assembly procedures should be performed carefully and deliberately.

1	**Front cabinet**

Parts list (Fig. 1)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×10)	2
3	Screw (3×10)	1
4	Front cabinet	1

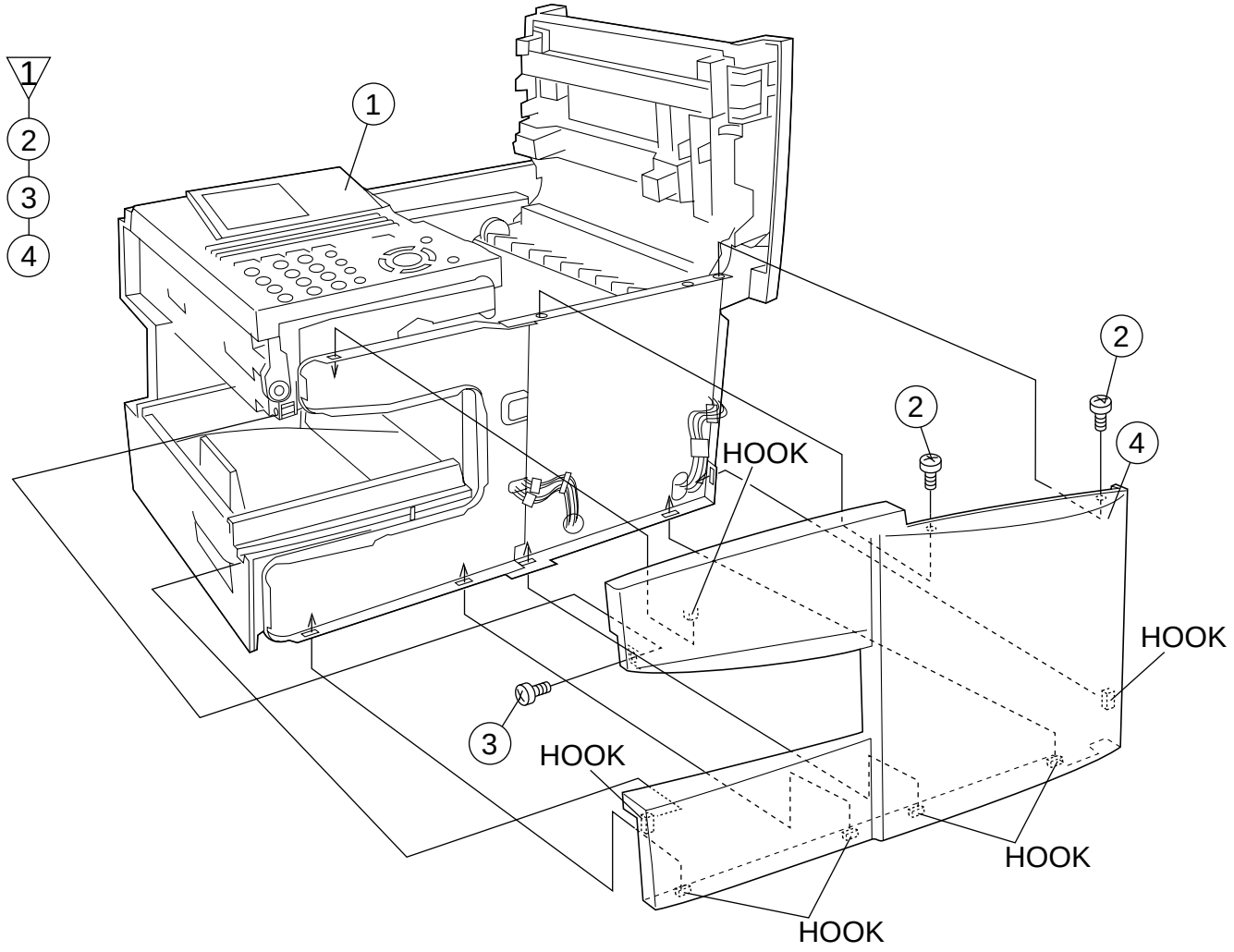


Fig. 1

2	**Rear cabinet**

Parts list (Fig. 2)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×10)	1
3	ROM cover	1
4	Screw (3×10)	6
5	Rear cabinet	1

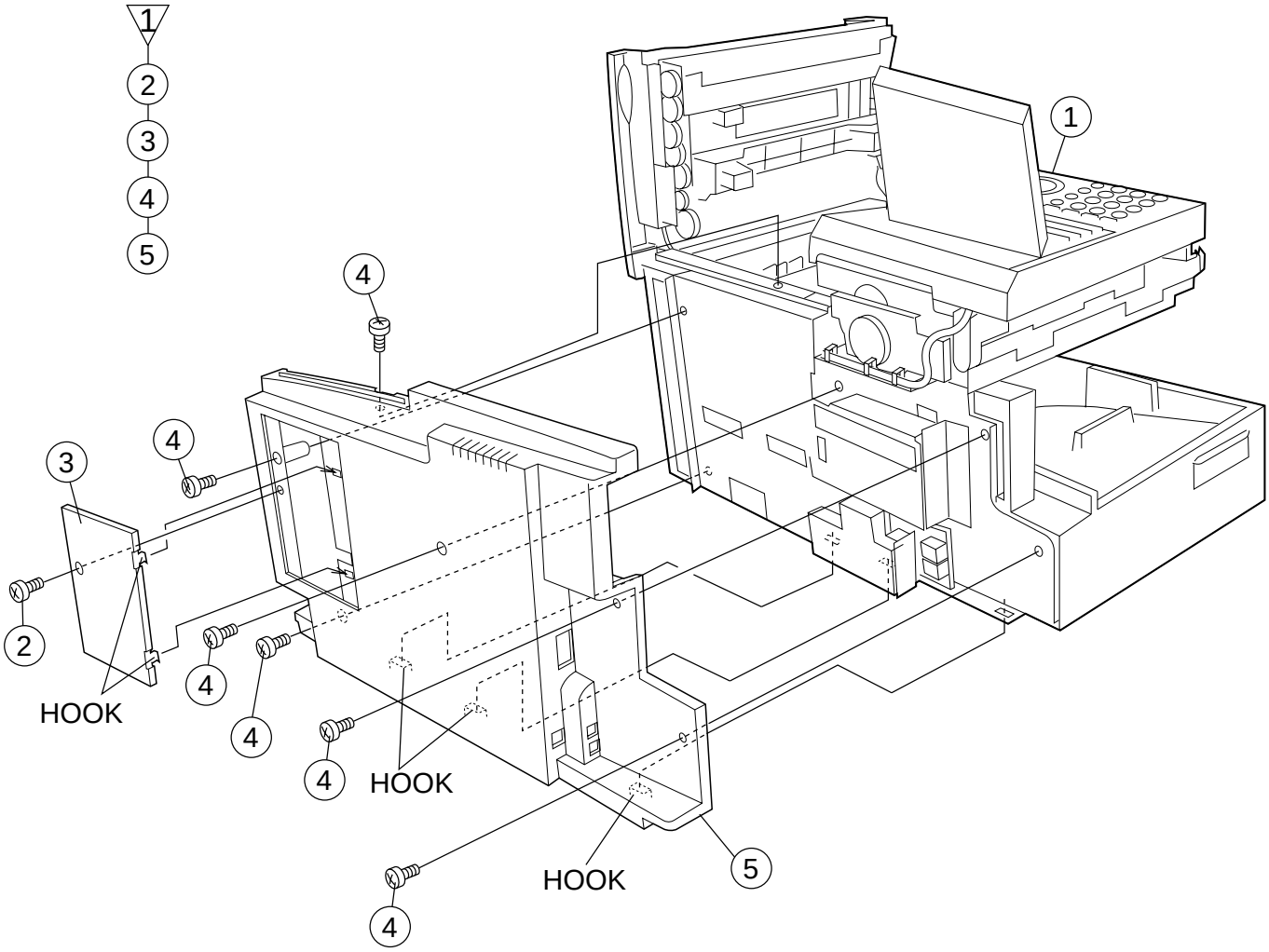


Fig. 2

3	**PWB plate, Right cabinet**

Parts list (Fig. 3)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×6)	6
3	PWB plate	1
4	Screw (3×10)	2
5	Right cabinet	1

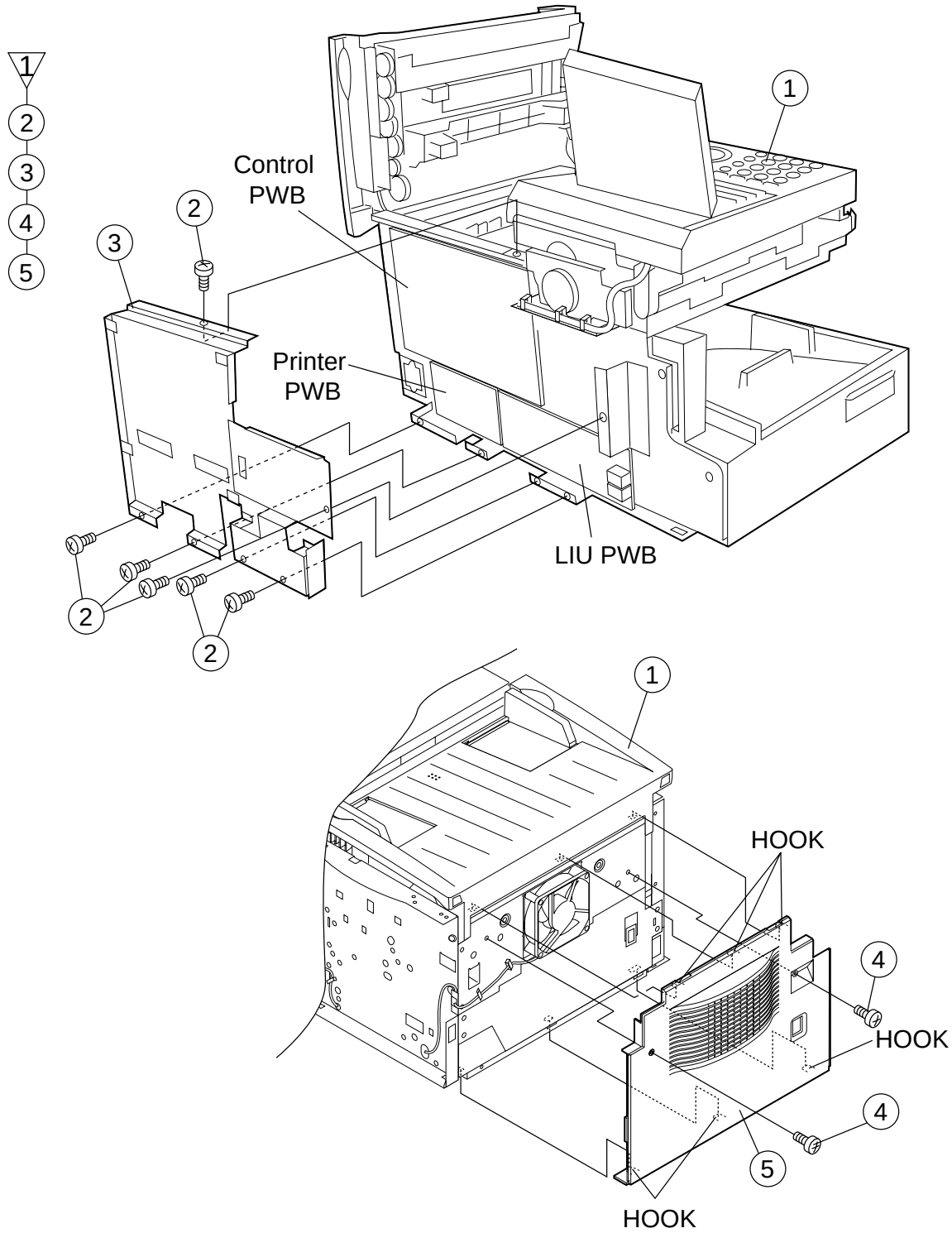


Fig. 3

4	**PWB unit**

Parts list (Fig. 4)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×6)	7
3	Screw (3×10)	1
4	Connector	21
5	LIU PWB unit	1
6	Control PWB unit	1
7	Printer PWB unit	1

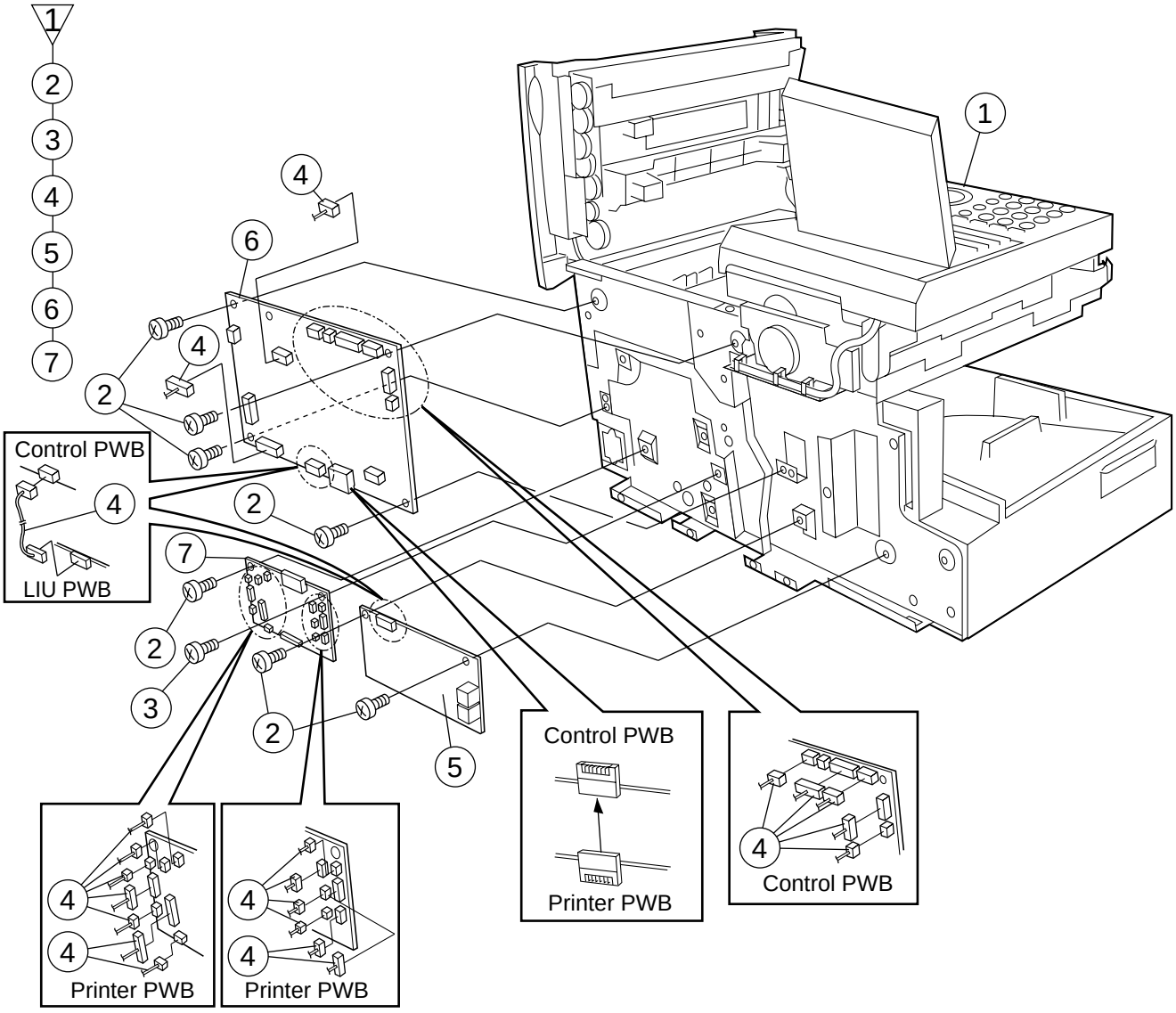


Fig. 4

5 Operation panel unit, Upper cover unit

Parts list (Fig. 5)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×10)	1
3	Screw (3×6)	6
4	Operation panel unit	1
5	Screw (3×8)	1
6	Upper cover unit	1

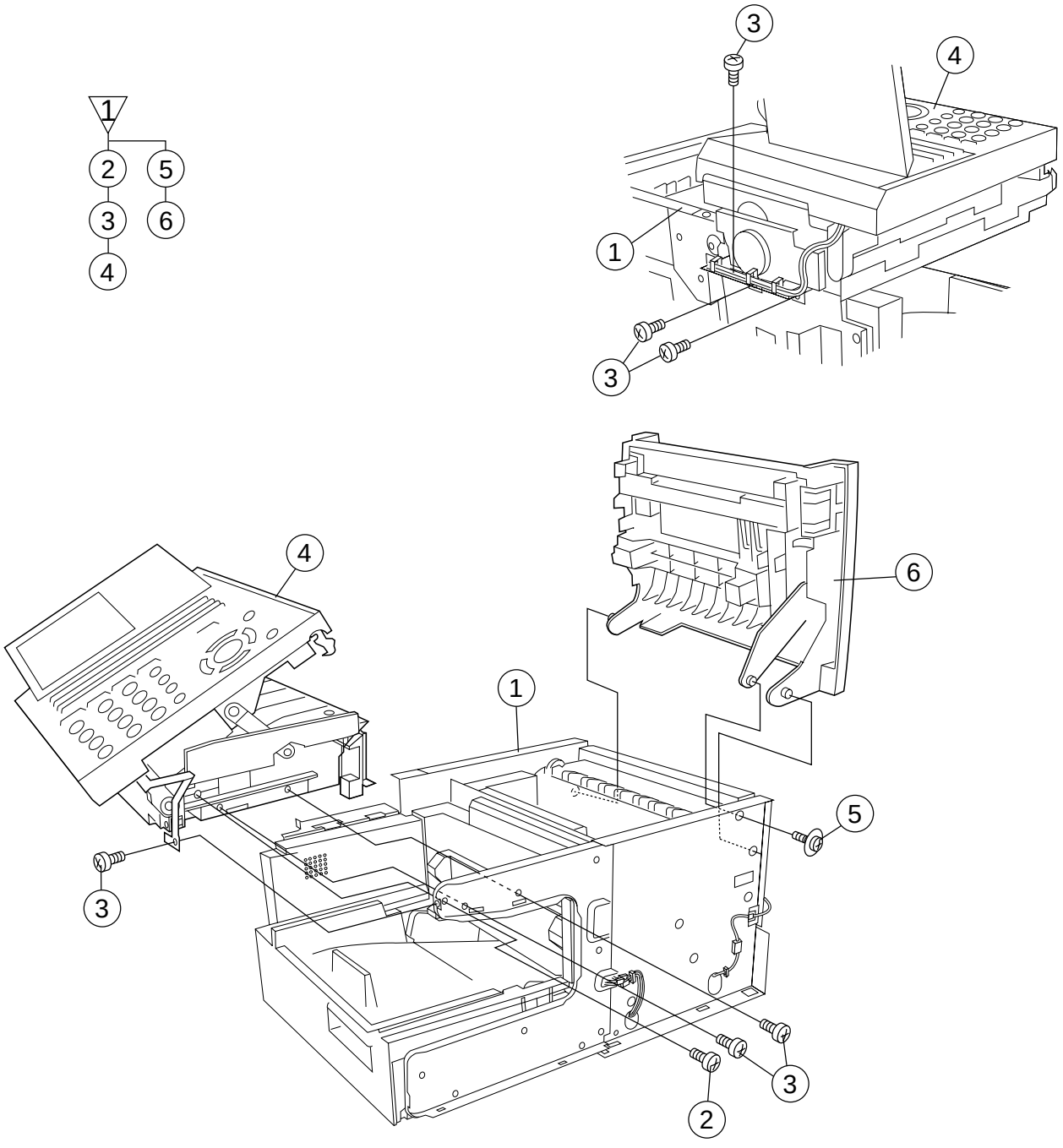


Fig. 5

6 Front left frame, Paper feed tray

Parts list (Fig. 6)

No.	Part name	Qty	No.	Part name	Qty
1	Main unit	1	11	Screw (3×6)	1
2	Screw (3×6)	5	12	Paper feed tray unit	1
3	Screw (3×10)	2	13	Screw (3×10)	1
4	Screw (3×6)	1	14	Tray width guide, front	1
5	Front left frame	1	15	Screw (3×10)	1
6	Screw (3×10)	2	16	Tray width guide, rear	1
7	Speaker holder plate spring	1	17	Connector	2
8	Speaker ass'y	1	18	Sensor	2
9	Inner front cabinet	1	19	Paper feed tray	1
10	Screw (3×10)	2			

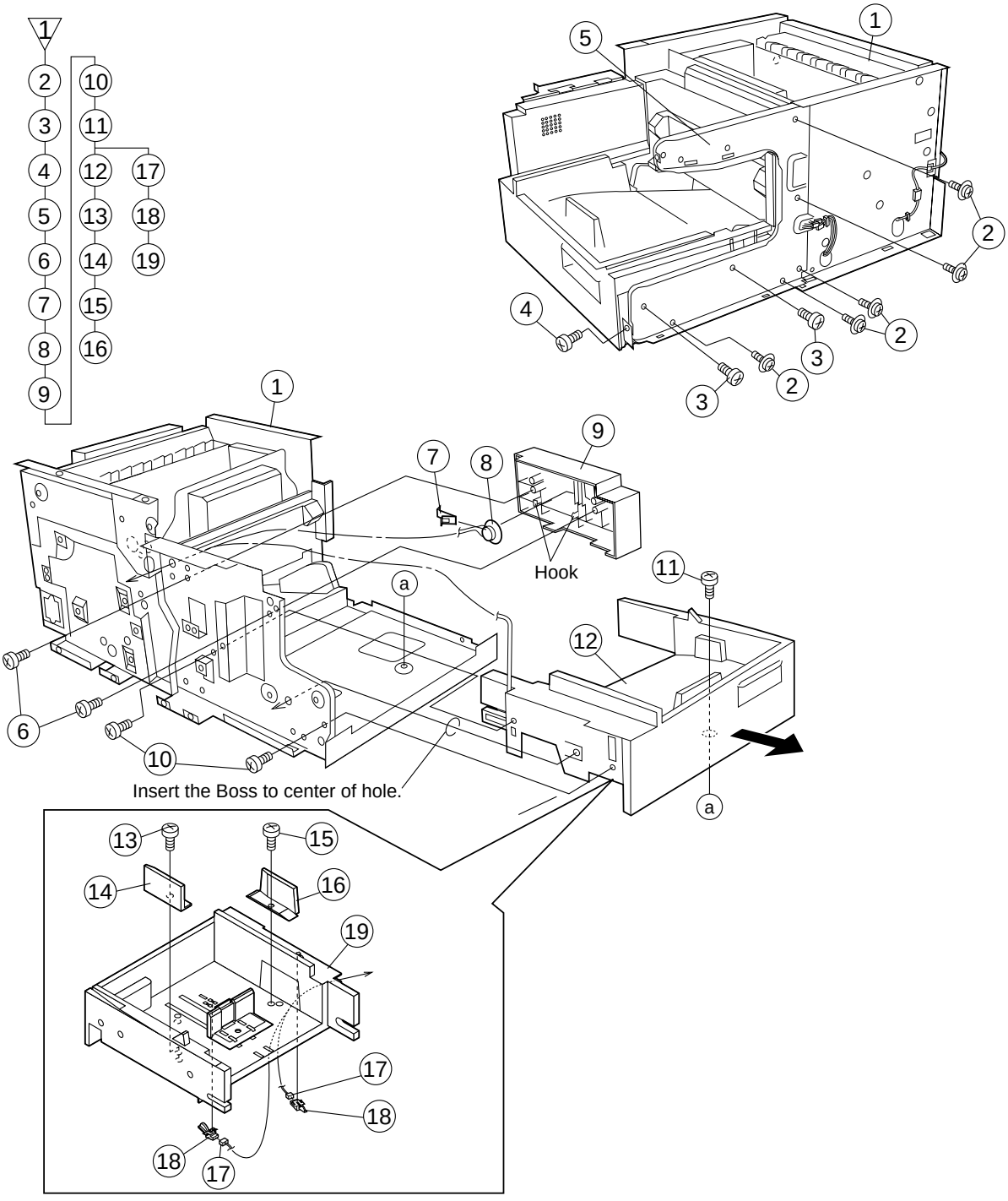


Fig. 6

7 Rear left frame, Bottom left frame

Parts list (Fig. 7)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×6)	7
3	Rear left frame	1
4	Screw (3×6)	1
5	Bottom left frame	1

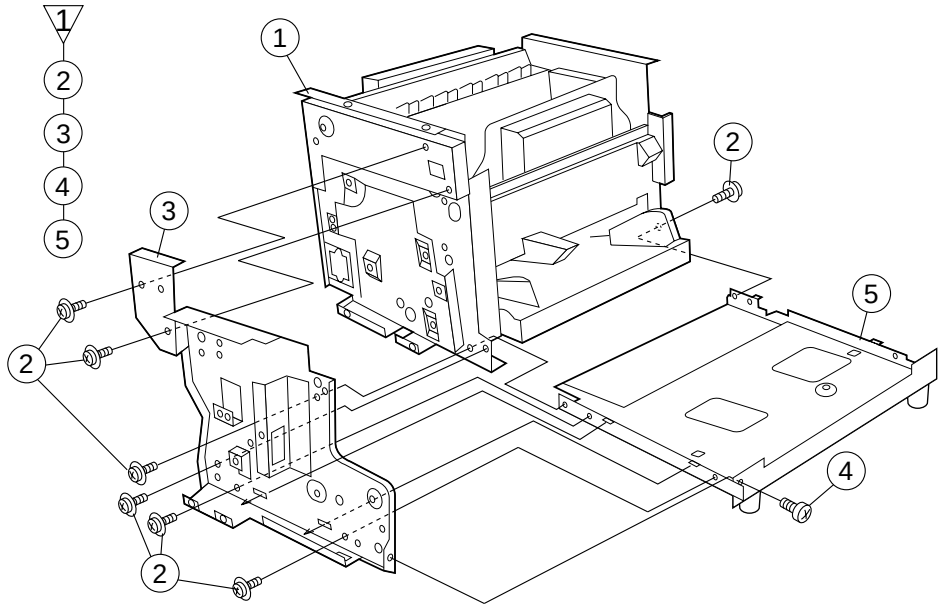


Fig. 7

8 Inner left cabinet unit

Parts list (Fig. 8)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×8)	4
3	Inner left cabinet unit	1

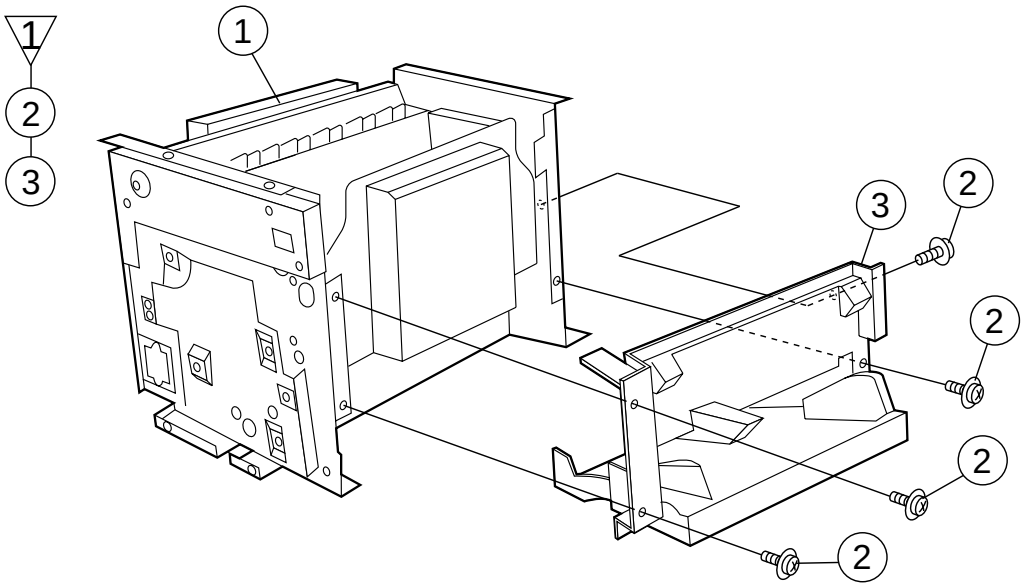


Fig. 8

9 Power supply PWB

Parts list (Fig. 9)

No.	Part name	Qty
1	Main unit	1
2	Screw (3×6)	4
3	Connector	4
4	Power supply PWB unit	1
5	Screw (3×6)	3
6	Screw (4×6)	1
7	Power supply PWB plate	1
8	Power supply PWB	1

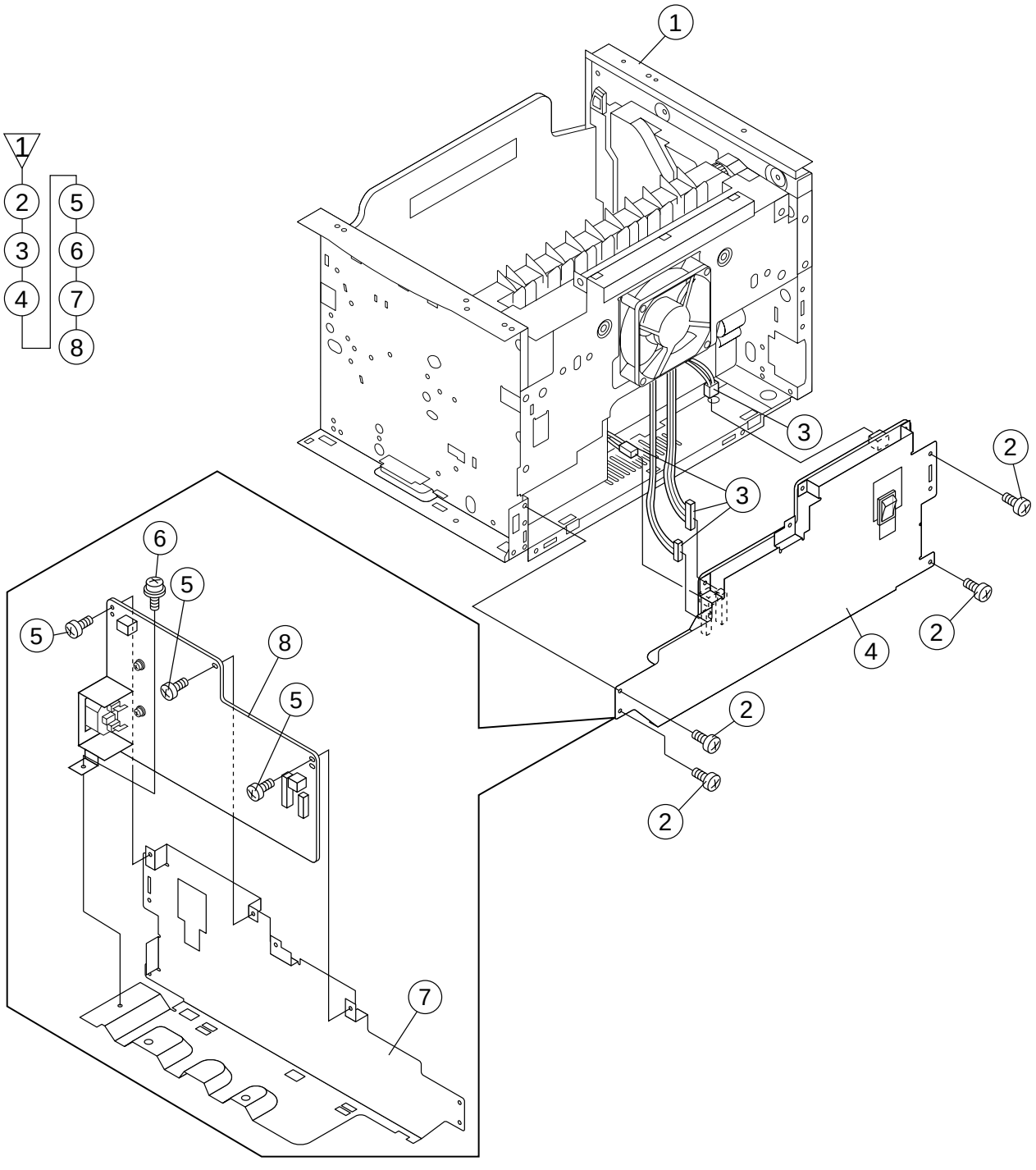


Fig. 9

10 Scanner frame unit (1/2)

Parts list (Fig. 10)

No.	Part name	Qty
1	Scanner frame unit	1
2	Screw (3×8)	1
3	Operation panel unit	1
4	Screw (3×10)	5
5	Screw (3×10)	2
6	Document guide upper	1
7	Stopper	1
8	Left upper cabinet	1

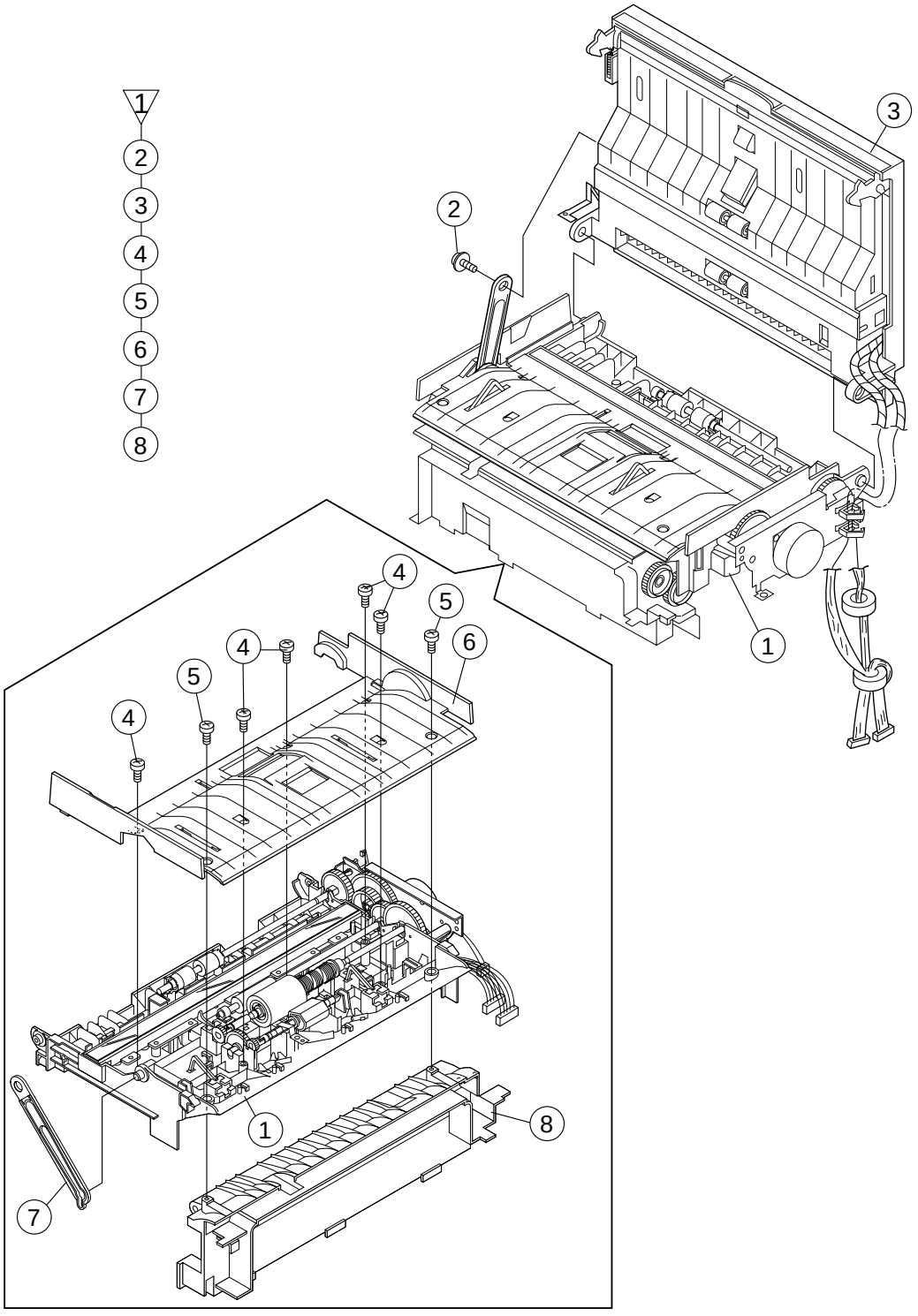


Fig. 10

11 Scanner frame unit (2/2)

Parts list (Fig. 11)

No.	Part name	Qty	No.	Part name	Qty	No.	Part name	Qty
1	Scanner frame unit	1	15	Scanner feed shaft 2	1	29	Screw (3×6)	1
2	Transfer bearing	2	16	Screw (3×10)	1	30	Screw (3×10)	1
3	Feed gear (49z)	2	17	Stopper spring	1	31	SD2 earth spring	1
4	DR bearing	2	18	Transfer idler gear	1	32	Verification stamp (FO-45VS)	1
5	Scanner drive roller 2	1	19	Screw (3×10)	3	33	Document sensor switch	1
6	Scanner drive roller 1	1	20	Drive unit	1	34	Transfer sensor switch	1
7	Scanner bearing 1	2	21	Transfer roller	1	35	Front sensor switch	1
8	Feed gear (73z)	1	22	ADF transfer gear	1	36	B4 Front sensor switch	1
9	Bearing	1	23	CIS unit	1	37	Document sensor cable	1
10	Scanner feed shaft 1	1	24	CIS cable	1	38	Pinch roller spring	2
11	Scanner feed clutch	1	25	Core	1	39	PO pinch roller	2
12	Scanner feed roller	1	26	CIS spring	2	40	Screw (3×10)	2
13	E type ring (5mm)	1	27	Screw (3×6)	1	41	Scanner support plate	1
14	ADF feed gear	1	28	FD1 earth spring	1	42	Paper earth brush	1
						43	Screw (3×10)	2
						44	Anti curl piece	2

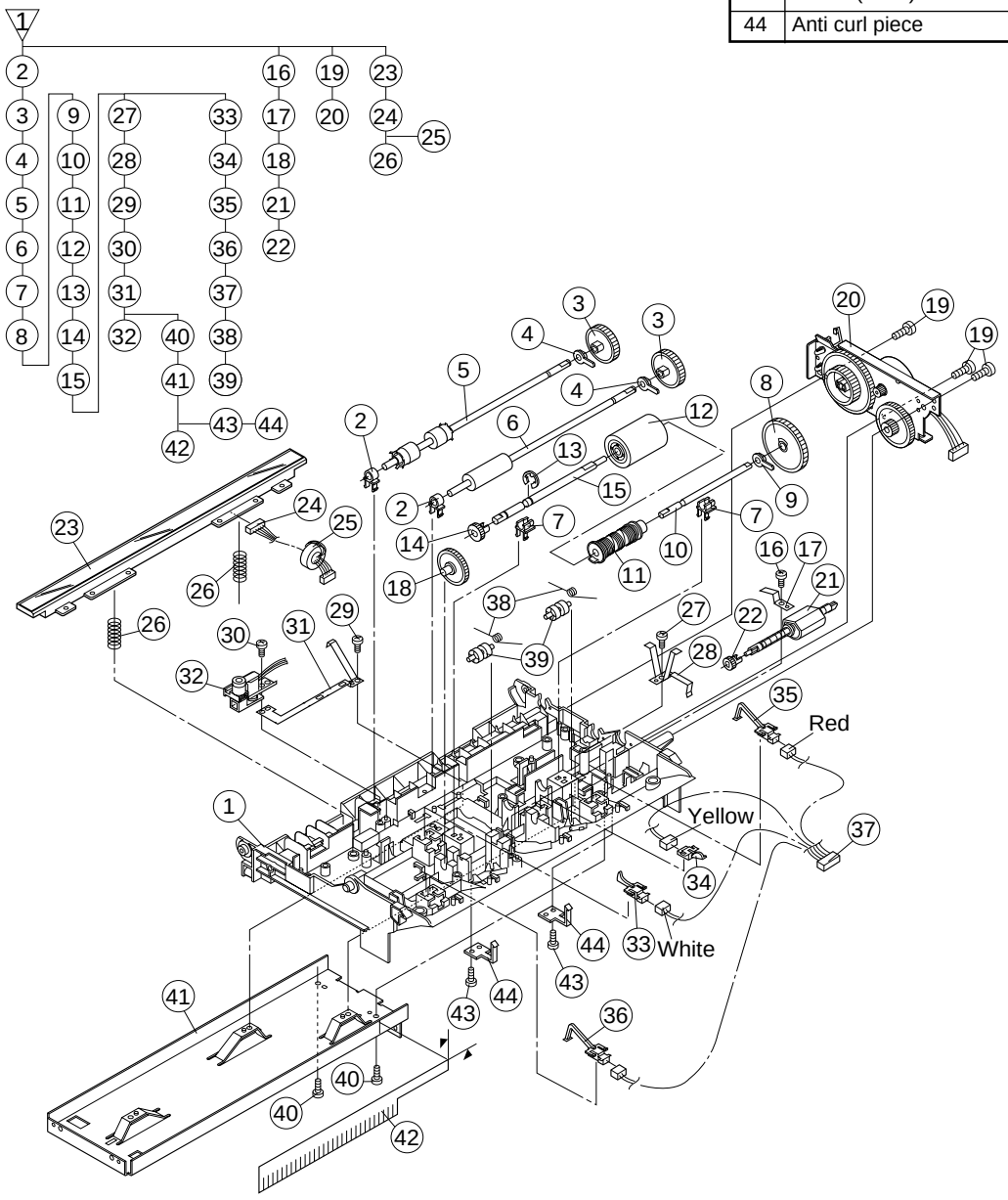


Fig. 11

12 Document guide upper unit, Operation panel unit

Parts list (Fig. 12)

No.	Part name	Qty	No.	Part name	Qty	No.	Part name	Qty
1	Operation panel unit	1	16	Transfer plate piece	1	31	Panel cable	1
2	Screw (3×10)	3	17	Input pressure spring	1	32	Operation panel PWB unit	1
3	Document guide upper unit	1	18	Back sheet	1	33	LCD cable	1
4	Release lever	1	19	Paper brush	1	34	LCD Relay PWB unit	1
5	Release lever spring	1	20	Back guide	1	35	Contrast/e-mail key	1
6	Screw (3×10)	2	21	Back bracket	1	36	Resolution/ON LINE key	1
7	Document upper plate	1	22	Document guide upper	1	37	Direct key	1
8	Brush earth spring	1	23	Screw (3x10)	1	38	10 key	1
9	Separate spring	1	24	LCD support plate	1	39	Start key	1
10	Pinch roller spring 2	4	25	LED Flat cable	1	40	Menu key	1
11	Pinch roller shaft	2	26	LCD Flat cable	1	41	Copy key	1
12	Pinch roller	4	27	Backlight cable	1	42	Stop key	1
13	Separate plate	1	28	LCD panel unit	1	43	Page plate	1
14	Separate gum	1	29	Screw (2×8)	10	44	Operation panel case	1
15	Separate sheet	1	30	Switch cover plate	1			

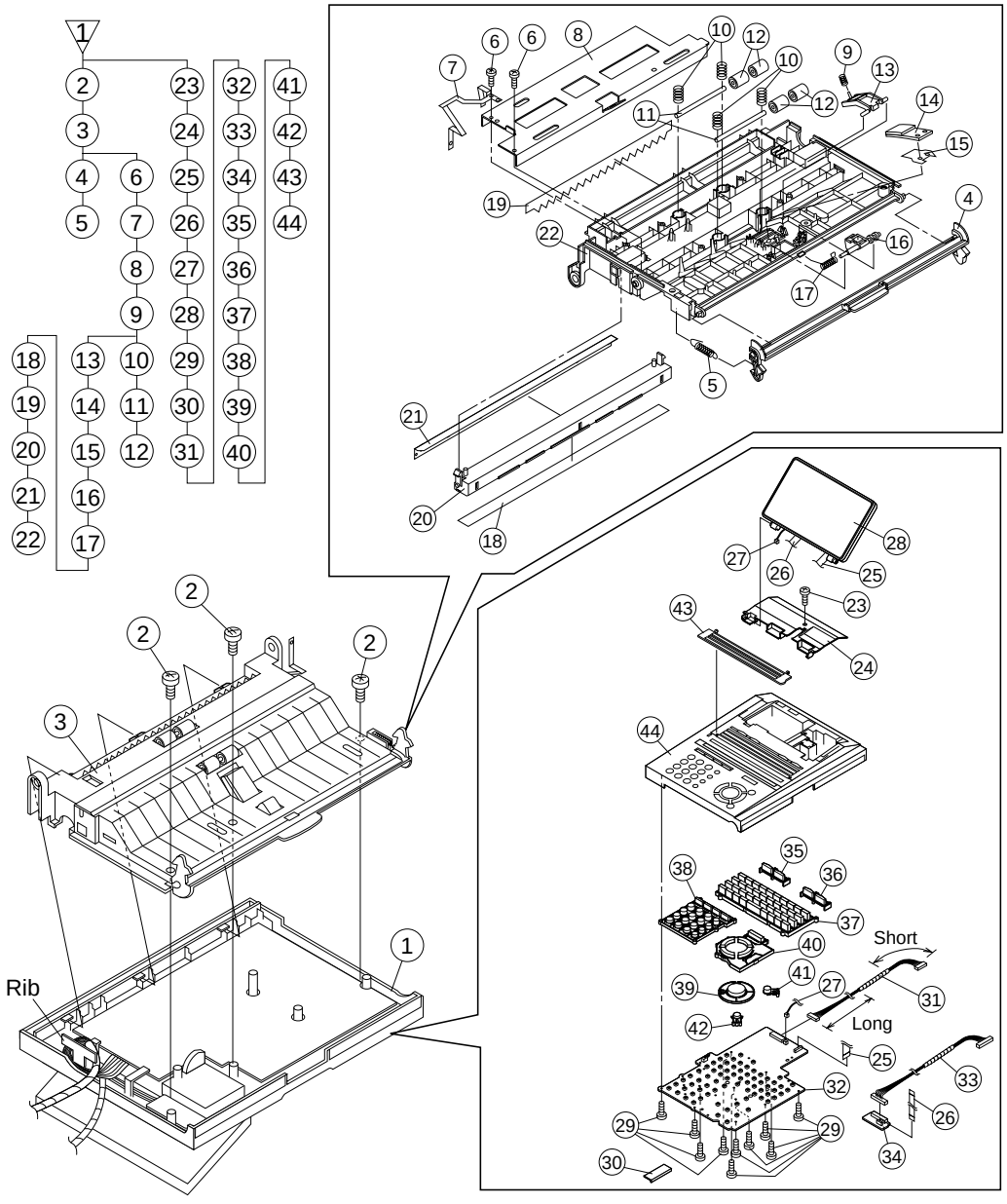


Fig. 12

13 Upper cover

Parts list (Fig. 13)

No.	Part name	Qty	No.	Part name	Qty
1	Screw (3×10)	5	13	Upper cover gear plate spring	1
2	Screw (3×8)	2			
3	Upper cover lock spring	1	14	Drum cartridge press spring	2
4	Upper cover lock nail	1	15	Paper exit guide, under	1
5	Drum cartridge detect lever spring	1	16	Paper exit guide, upper	1
			17	Pinch roller ass'y	2
6	Drum cartridge detect lever	1	18	Screw (3×8)	1
7	Shutter lever	1	19	Pinion gear	1
8	Idler gear (32z)	5	20	Hopper spring	1
9	Upper cover roller	1	21	Upper cover lock button	1
10	Idler gear 2 (17Z)	1	22	Hopper guide, left	1
11	Idler gear 1 (50Z)	1	23	Hopper guide, right	1
12	Upper cover gear plate	1	24	Upper cover	1

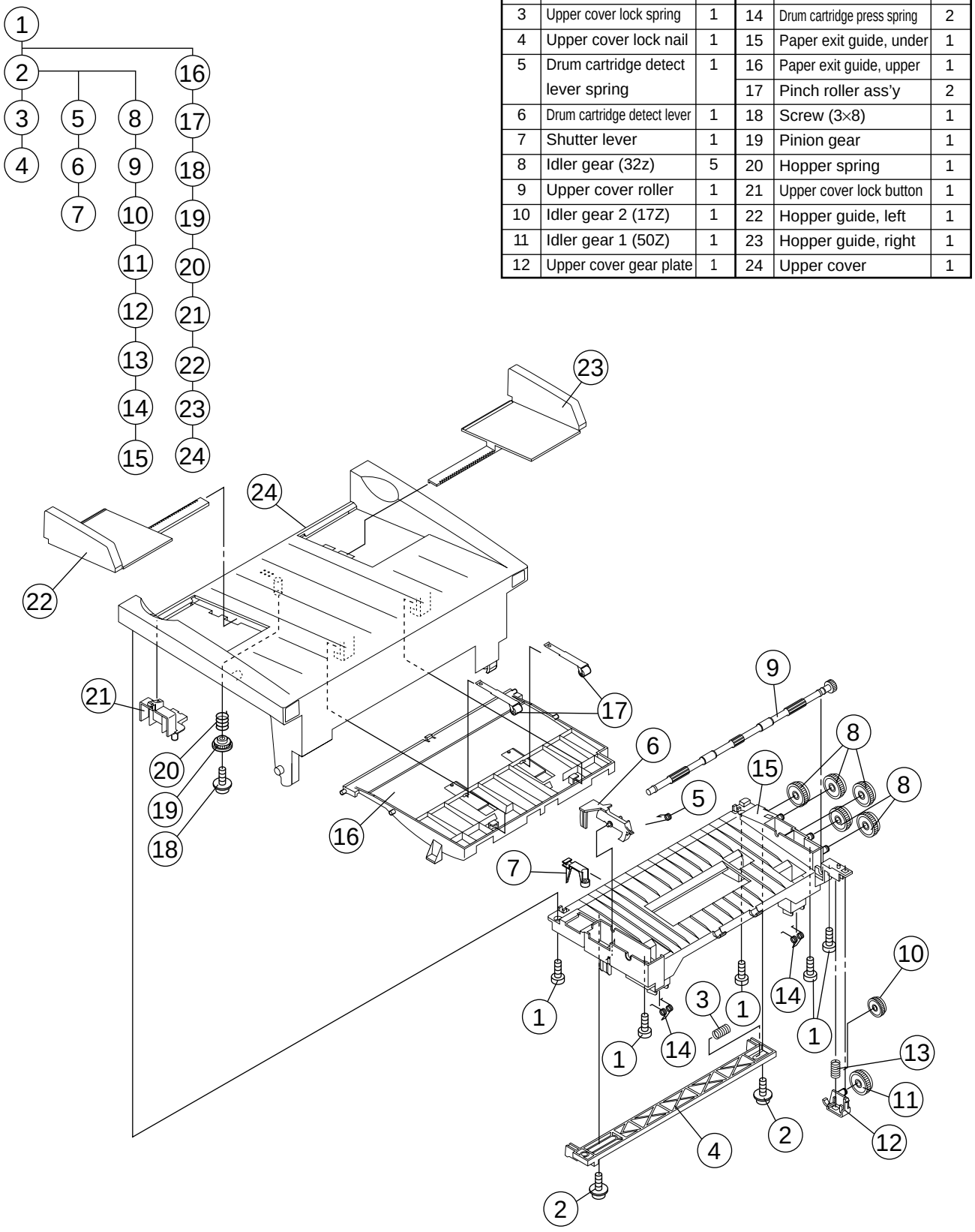


Fig. 13

14 Wire treatment

Parts list (Fig. 14)

No.	Part name	Qty
1	Band (100mm)	5
2	Core (F2125)	2
3	Core (F2124)	2
4	Band	1
5	Screw (3x10)	1

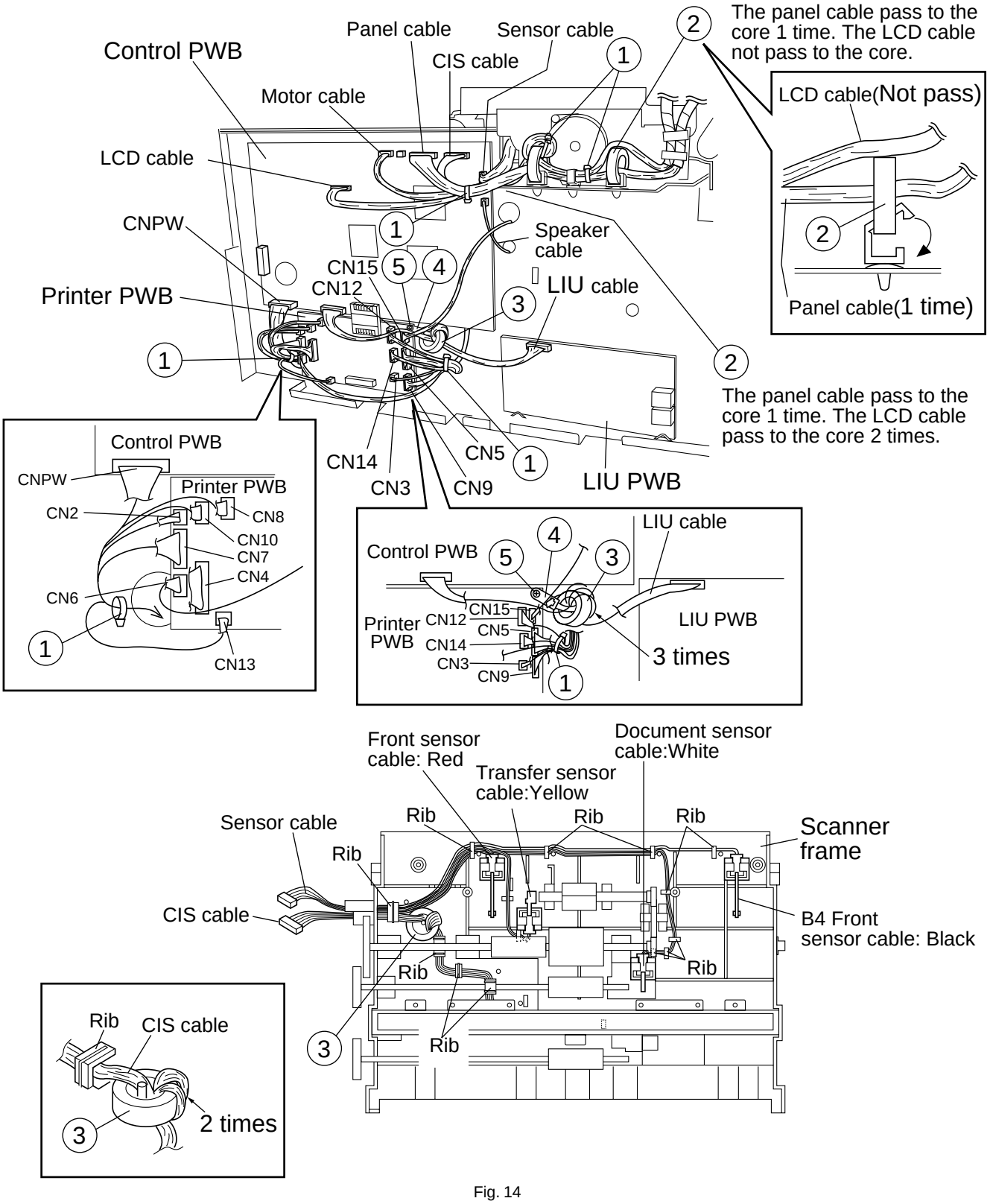
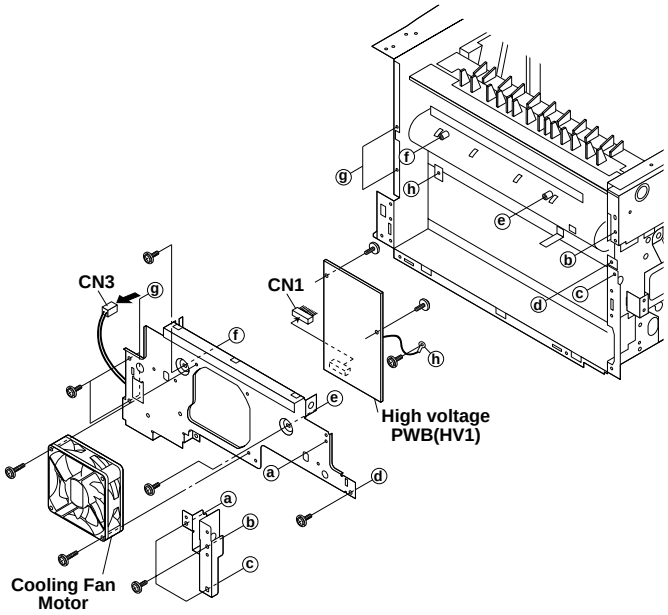
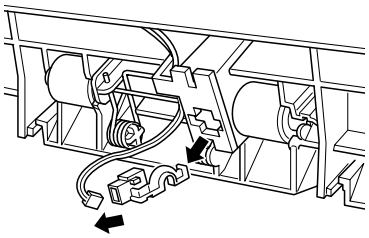


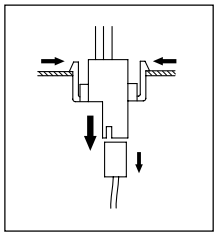
Fig. 14

15	High voltage PWB unit (HV1)



1. Remove the Cooling Fan Motor.(2 screws)
2. Remove the 2 covers. (9 screws)
3. Remove the 2 connectors.
4. Remove the High Voltage PWB.(2 screws)

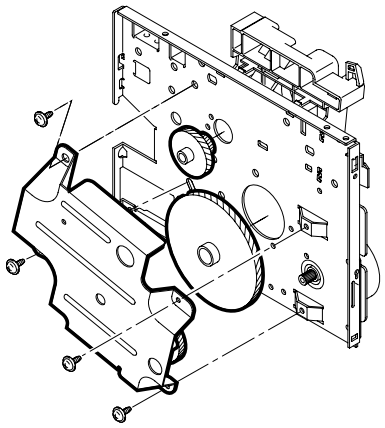




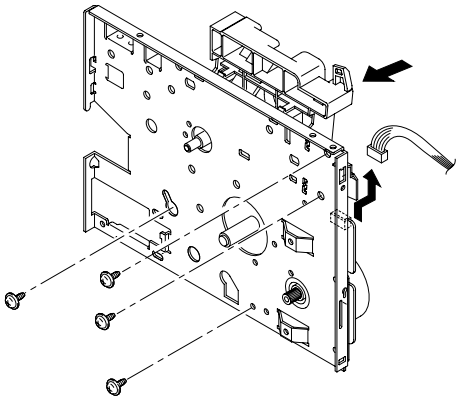
1. Remove the Paper Take-up Sensor (PS1). (1 connector)

Fig. 15

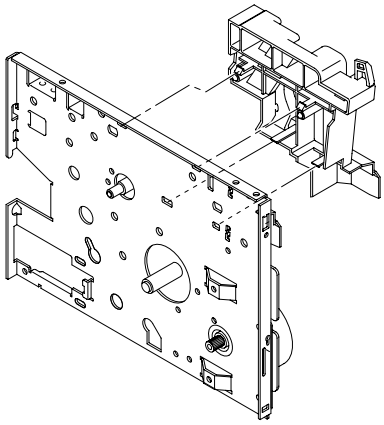
16	Main motor (M1)



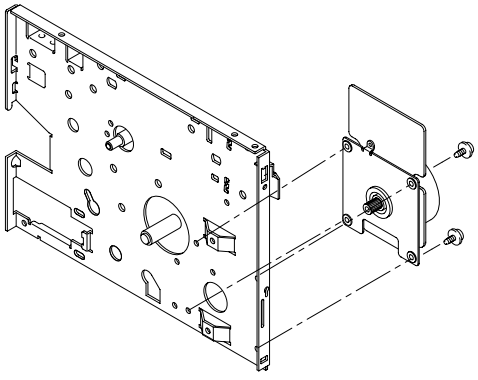
1. Remove the gear plate.(4 screws)
2. Remove 2 gears.



3. Remove the left side plate. (4 screws and 1 connector)



5. Remove the cartridge positioning plate. (Tabs at 4 places)



6. Remove the Main Motor Unit (M1). (4 screws)

Fig. 16

17 Paper take-up roller

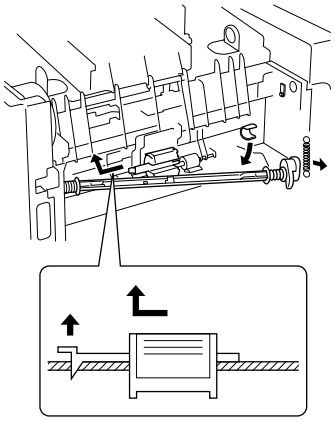


Fig. 17

1. Place the printer with its backside down.
2. Unhook the spring and remove the right-hand side of the Paper Take-up Roller shaft from its bushing.
3. Remove the Paper Take-up Roller.

18 Print head unit (PH)

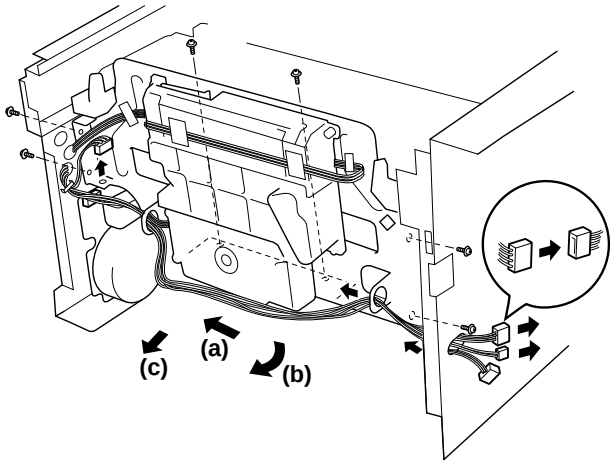


Fig. 18

1. Unplug the connector from the Main Motor Unit and remove the harness from the cord holder.
2. Unplug the connectors from the cord holder.
3. Remove the Print Head Unit (PH). (6 screws)

19 Paper empty sensor (PE1)

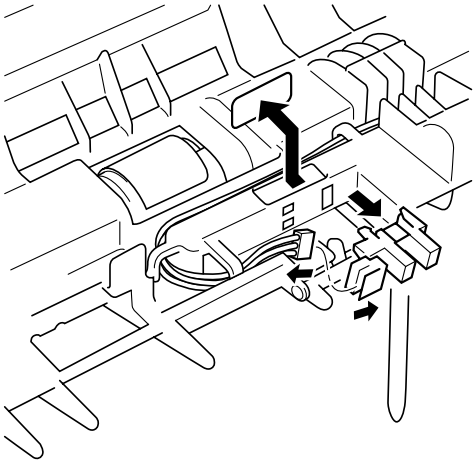
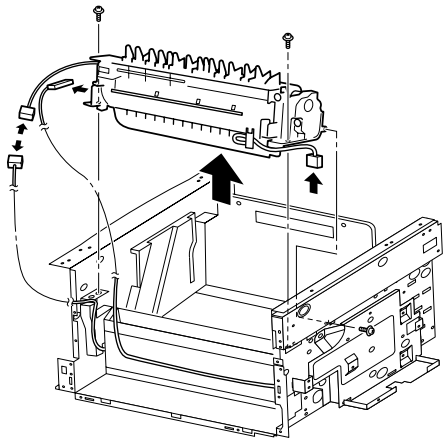


Fig. 19

1. Remove the sensor fixing bracket and remove the Paper Empty Sensor. (1 connector)

20 Fusing unit (1/2)

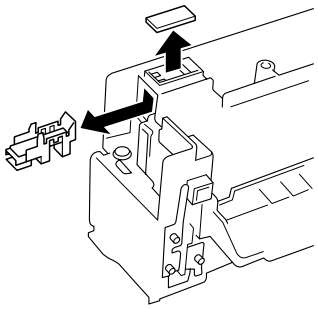


1. Remove the Fusing unit. (3 screws, 3 connectors)

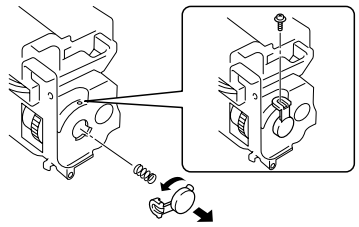
NOTE:

- **The Fusing Unit is to be replaced as a unit at about every 50,000 printed pages.**

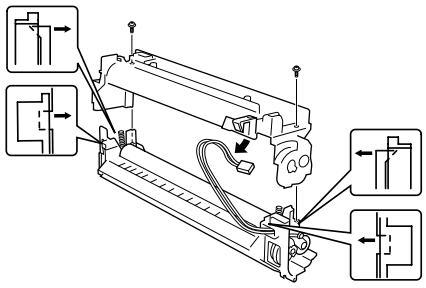
*: Use the following procedure when a part comprising the Fusing Unit is to be replaced individually to correct an image problem or the defective part.



2. Remove the sensor fixing bracket and the Paper Exit Sensor (PS3).



3. Remove the Heater Lamp holding cover. (1 screw and 1 spring)



4. Remove the 2 mounting screws.
5. Pressing the right and left tabs (at 2 places), separate the upper half of the Fusing Unit from the lower half.

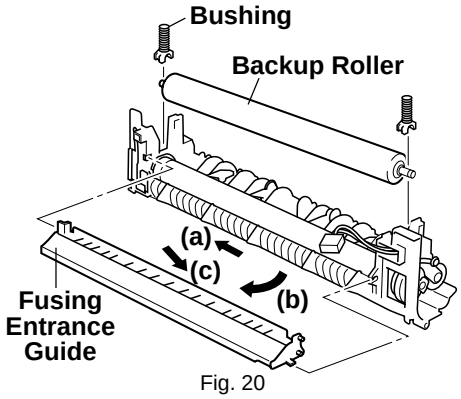


Fig. 20

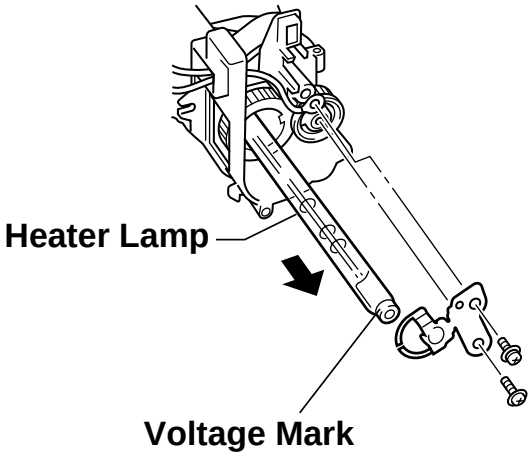
6. Remove the bushings and the Backup Roller.
7. Remove the Fusing Entrance Guide.

(a) Push the Fusing Entrance Guide to the left.

(b) Pull out the right end of the Fusing Entrance Guide.

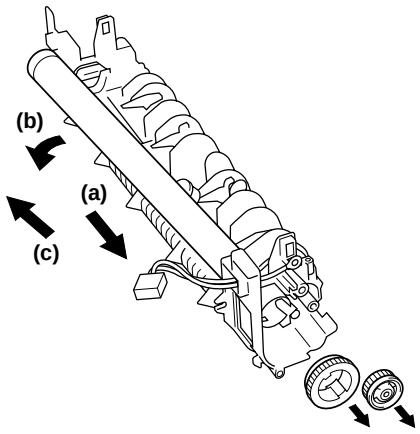
(c) Pull out the left end of the Fusing Entrance Guide.

21	Fusing unit (2/2)



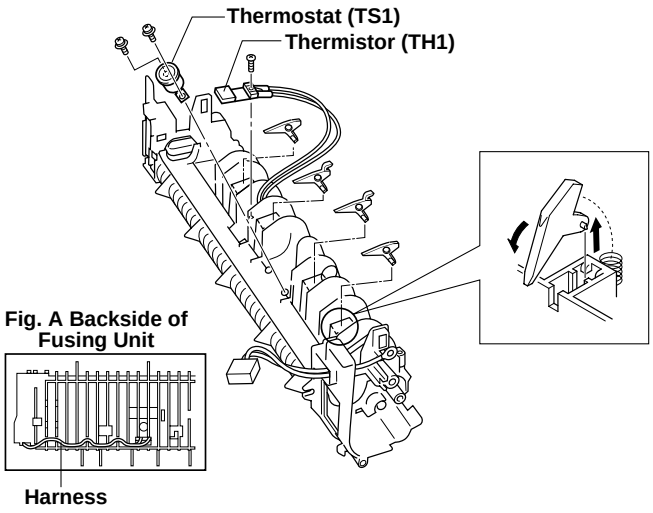
8. Remove the lamp holder. (2 screws)
9. Pull out the Heater Lamp (H1).

NOTE:
- **Use care not to touch the lamp surface with bare hands.**
- **Position the voltage mark on the gear side when reinstalling the lamp.**



10. Remove the drive gear from the Heat Roller.
11. Slide the Heat Roller to the right (a), swing out the left end (b), and then slide the roller in the direction of (c) and pull it out.

NOTE:
- **To prevent the surface of the Heat Roller from being scratched by the Fusing Separators, lift the separators when removing and reinstalling the roller. Use utmost care not to damage the surface of the roller.**



12. Remove the Fusing Paper Separators. (At 4 places)
13. Remove the Thermistor (TH1). (1 screw)

NOTE:
- **Route the harness as shown in Fig. A when reinstalling the Thermistor (TH1).**

14. Remove the Thermostat (TS1). (2 screws)

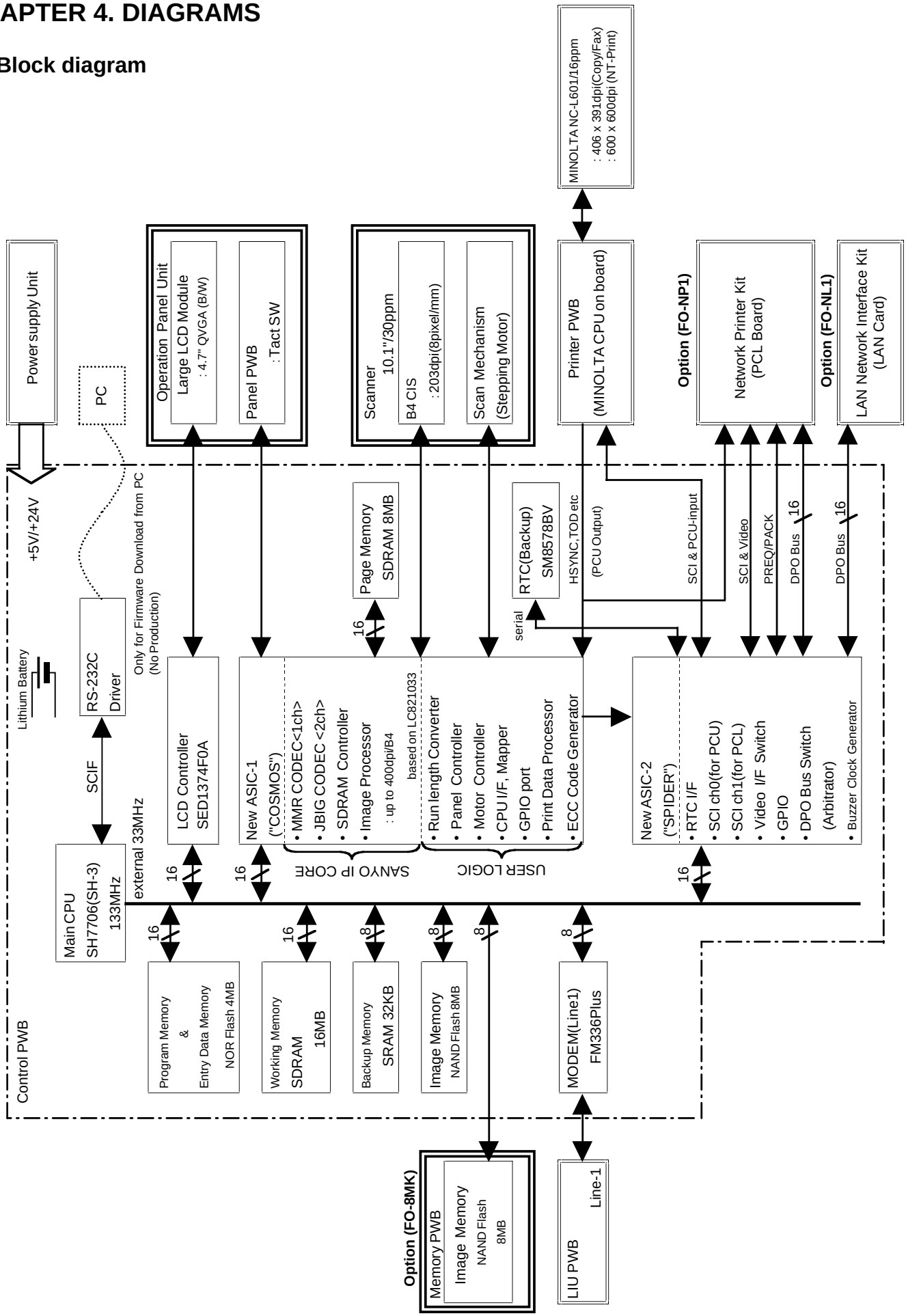
Fig. 21

[4] How to install the verification stamp (FO-45VS)

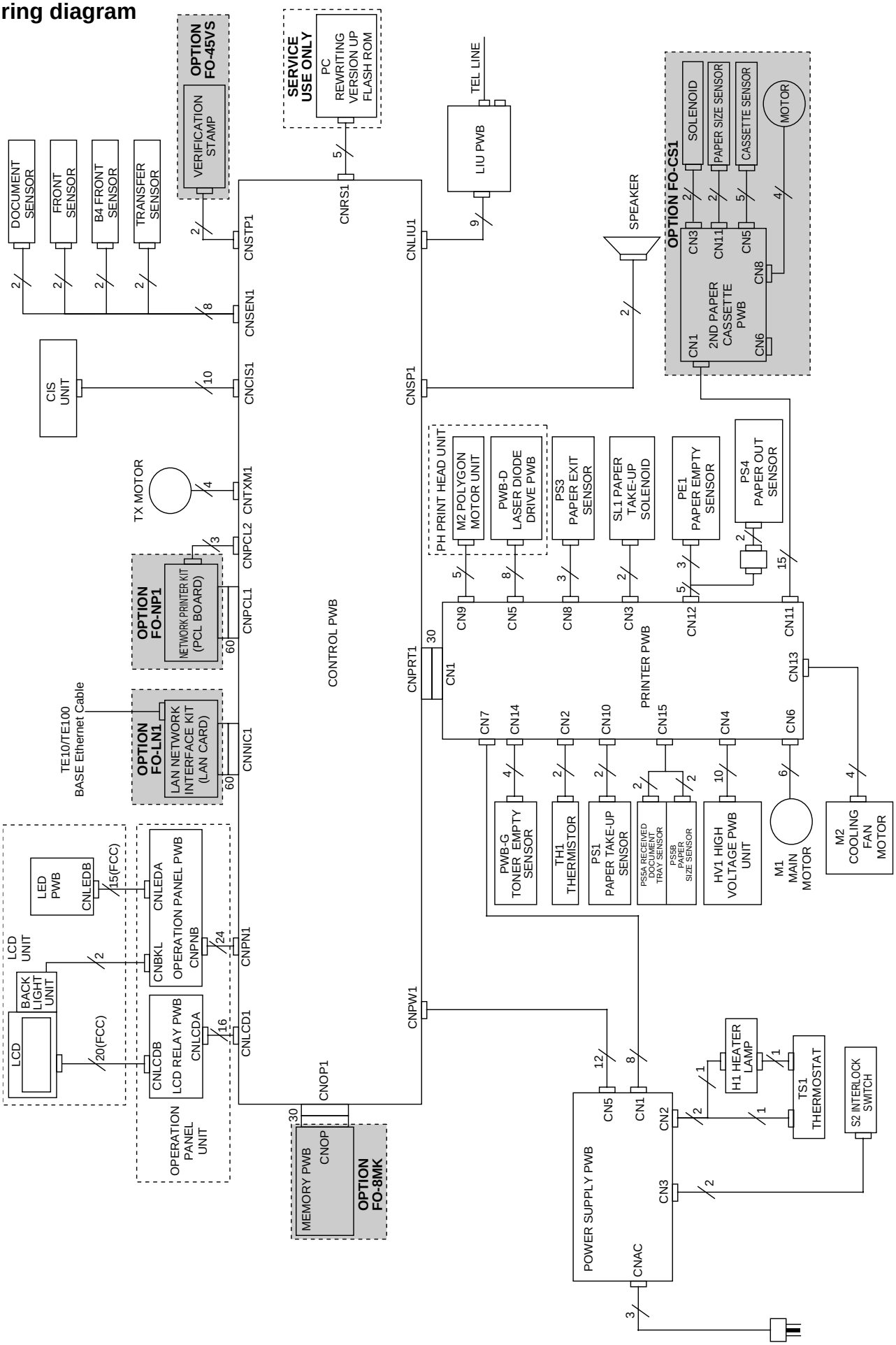
Refer to the service manual of FO-4400U.

CHAPTER 4. DIAGRAMS

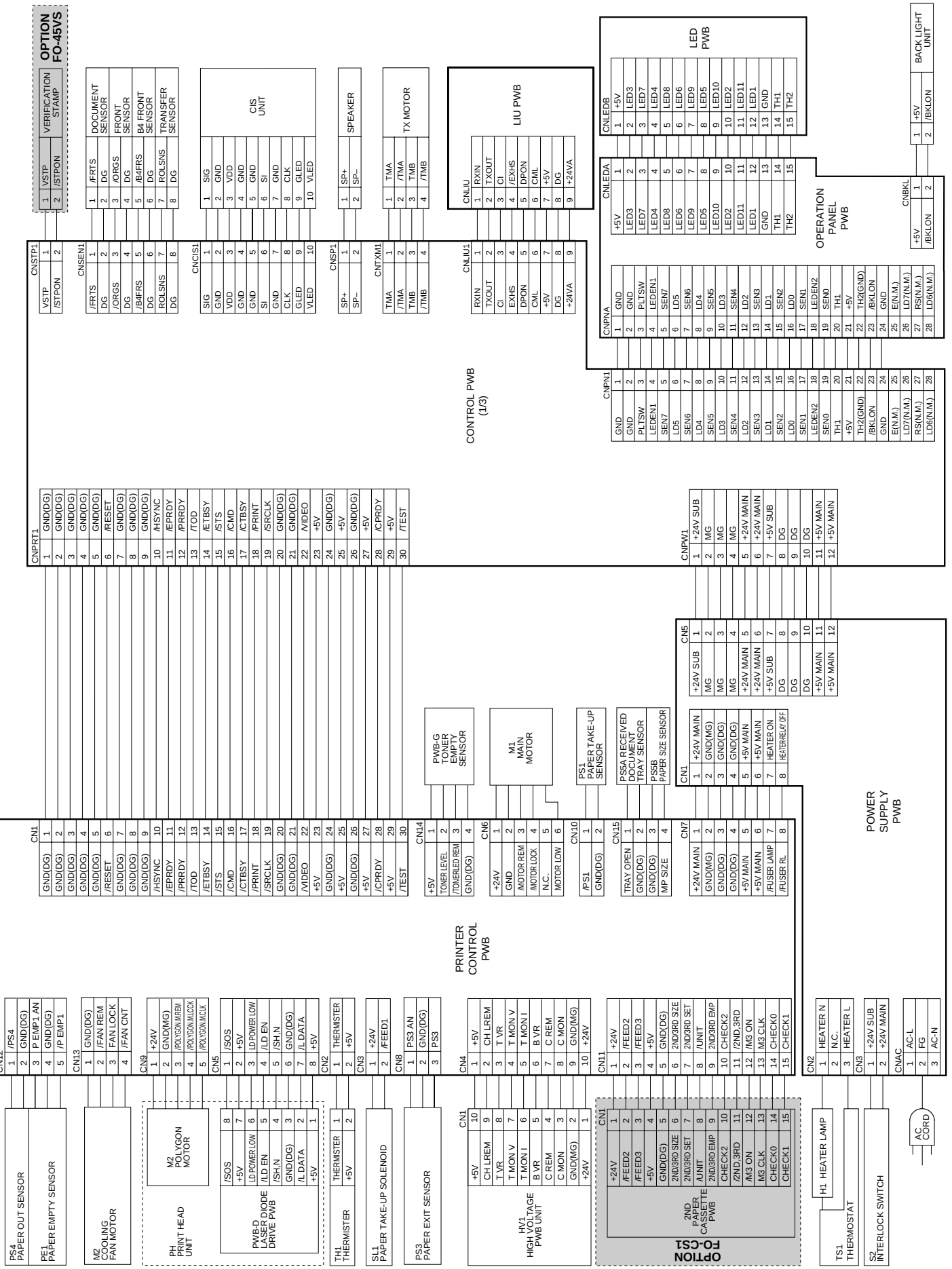
[1] Block diagram



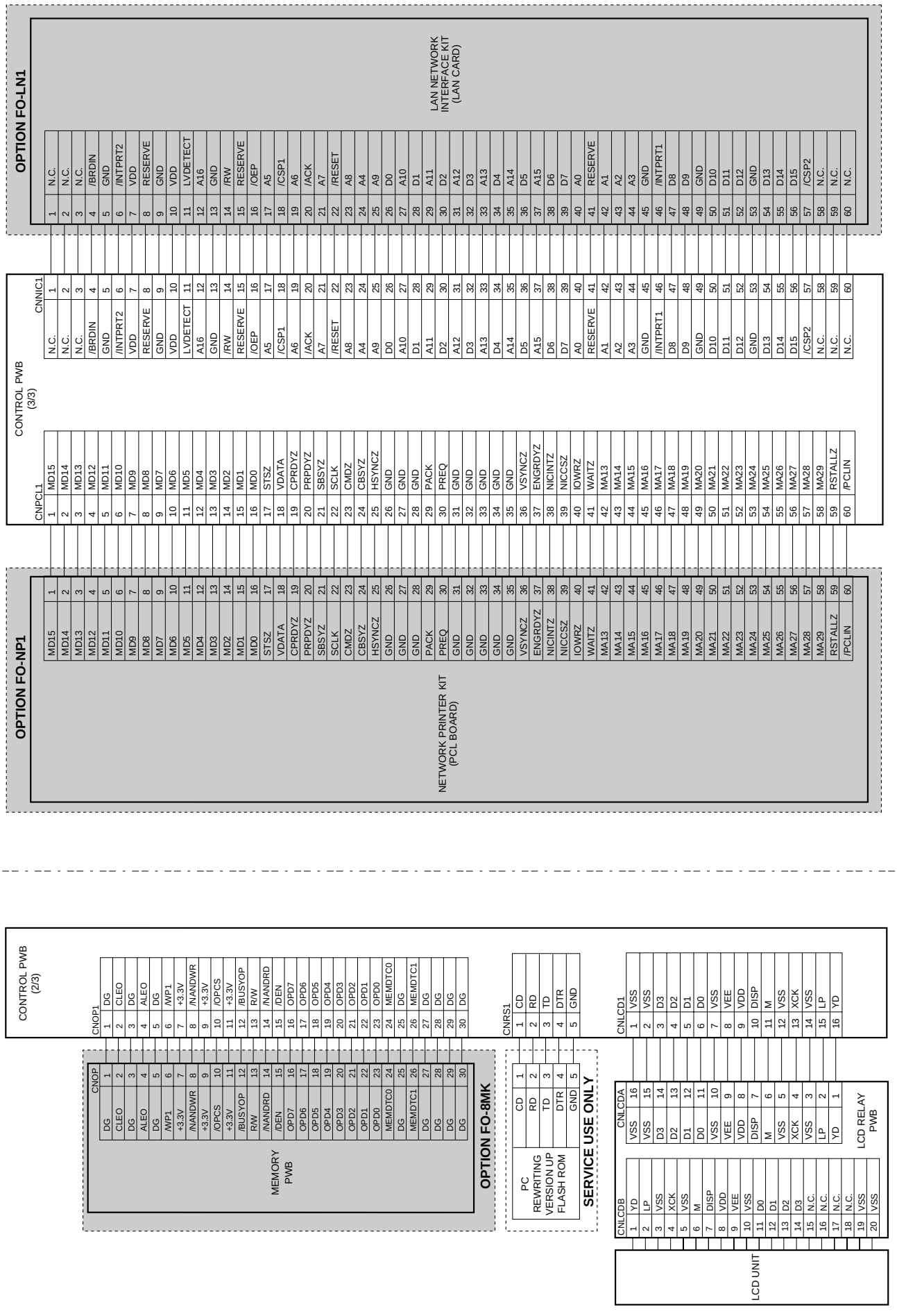
[2] Wiring diagram



[3] Point- to-point diagram and connector signal name (1)



Point- to-point diagram and connector signal name (2)



CHAPTER 5. CIRCUIT DESCRIPTION

[1] Circuit description

1. General description

In this machine, the facsimile control block except the printer control is mainly composed of the units shown in Fig. 1.

2. PWB configuration

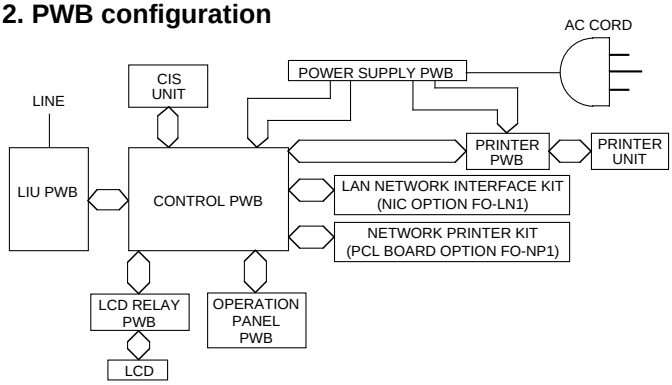


Fig. 1

1) Control PWB

The control PWB controls all the other operations except the printing operation of the printer.

2) CIS unit

CIS UNIT converts the image of the sending or copying draft into the photoelectric signals and transmits the signals to the control PWB.

3) LIU PWB

The LIU PWB controls the I/F telephone function of the circuit with the control signals from the control PWB.

4) Operation panel PWB

The operation panel PWB detects the key input, turns on and off LED and displays LCD according to the control signals from the control PWB.

5) Power supply PWB

DC voltages (+5V, +24V) are produced from AC120V, and are supplied to the printer unit and control PWB unit.

[2] Circuit description of control PWB

1. General description

The control PWB is composed of the following blocks.

(1) Main control block
(2) Backup memory block
(3) Modem block
(4) Scanner control block
(5) Speaker amplifier
(6) Page memory block
(7) Drive block
(8) LCD control block
(9) Network I/F block

2. Description of each block

(1) Main control block

This block consists of 32 bit RISC microcomputer HD6417706F133 (main component), flash ROM, 128 Mb SDRAM, Main ASIC, Sub ASIC, etc. Each device is controlled either by the microcomputer directly or via Main ASIC.

1) HD6417706F133 (IC24): pin-176, QFP (main CPU)

This is a microcomputer with a core of 32 bit RISC (Reduced Instructions Set Computer) CPU, which periphery functions are integrated into. This device is equipped with the following function. The clock inputs 33.1776 MHz from outside and operates at 4-times frequency (approx. 133 MHz) internally.

Feature

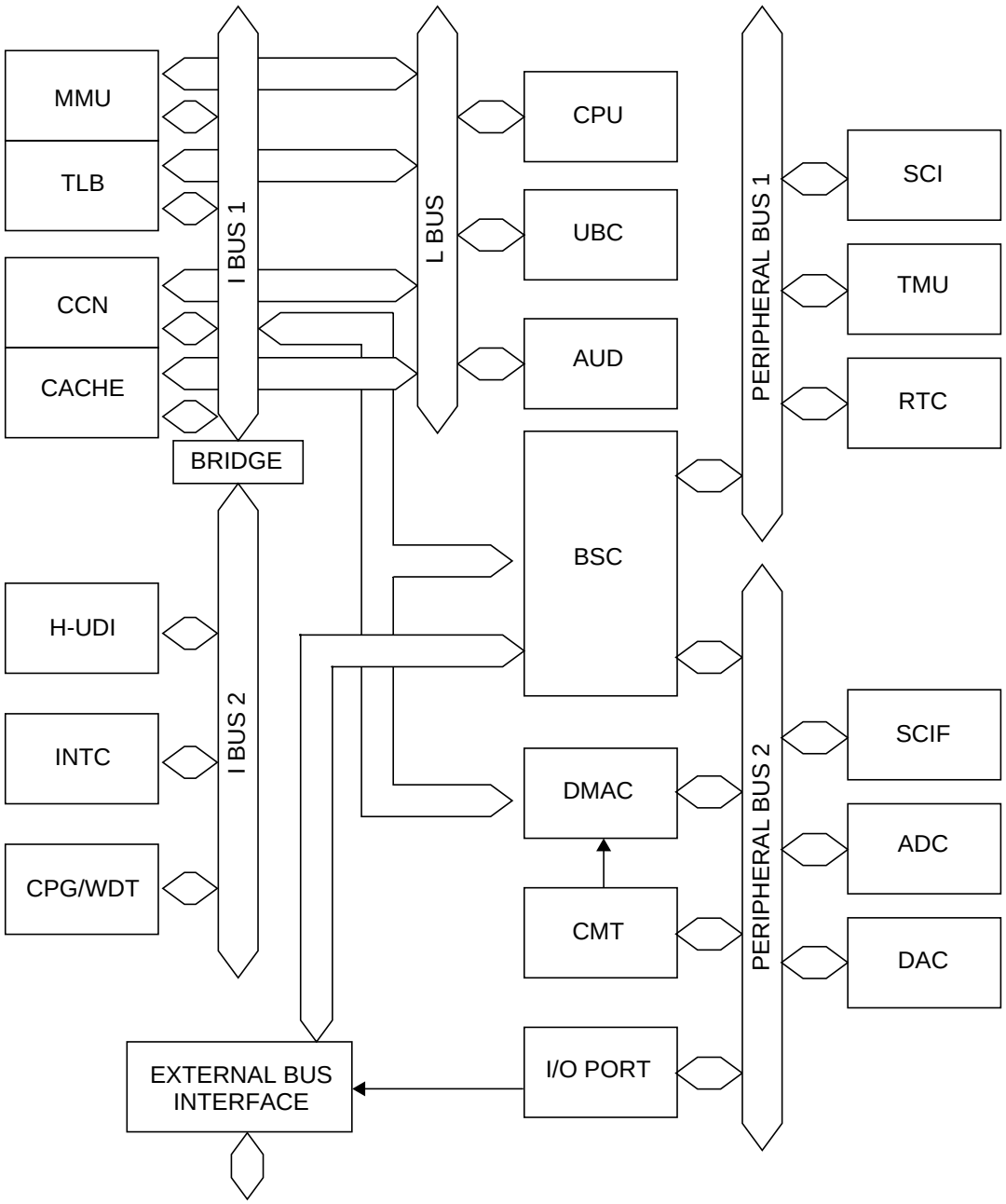
· Original Hitachi SuperH architecture
· Object code level compatible with SH-1, SH-2 and SH-3
· 32-bit RISC-type instruction set
  — Instruction length: 16-bit fixed length
  — Improved code efficiency
  — Load-store architecture
  — Delayed branch instructions
  — Instruction set oriented for C language
· Five-stage pipeline
· Instruction execution time: one instruction/cycle for basic instructions
· General-register: Sixteen 32-bit general registers
· Control-register: Eight 32-bit control registers
· System-register: Four 32-bit system registers
· 32-bit internal data bus
· Logical address space: 4 Gbytes
· Space indentifier ASID: 8 bits, 256 logical address space
· Abundant Peripheral Functions
  — Memory Management Unit (MMU)
  — User Break Controller (UBC)
  — Bus state Controller (BSC)
  — Direct Memory Access Controller (DMAC)
  — Clock Pulse Generator (CPG)
  — Watchdog Timer (WDT)
  — Timer Unit (TMU)
  — Realtime Clock (RTC)
  — Serial Communication Interface (SCI)
  — Smartcard Interface
  — Serial Communication Interface with FIFO (SCIF)
  — 10-bit A/D converter (ADC)
  — 8-bit D/A converter (DAC)
  — Hitachi User Debugging Interface (H-UDI)
  — Advanced User Debugger (AUD)

2) LH28F320BFHE-PBTLZA (IC12): pin-48, TSOP (32 Mb FLASH MEMORY)

This is a flash memory writing program and is also used for the registration data, such as telephone directory.
32 Mb area is divided into 2 for every 16 Mb; the lower-order and higher-order address sides are used for the program and for the registration data, respectively.

3) MT48LC8M16A2TG or W981216BH (IC25): pin-54, TSOP (128 Mb SDRAM)

The program stored in the flash memory (IC12) mentioned in the above item 2) is downloaded to this SDRAM and used as a program execution memory. It is also used as various work memories and communication buffers. The devices manufactured by 2 enterprises are acknowledged. (Former model No.: manufactured by WINBOND, later model No.: manufactured by MICRON)



Legend:

ADC:	A/D converter
AUD:	Advanced user debugger
BSC:	Bus state controller
CACHE:	Cache memory
CCN:	Cache memory controller
CMT:	Compare match timer
CPG/WDT:	Clock pulse generator/watchdog timer
CPU:	Central processing unit
DAC:	D/A converter
DMAC:	Direct memory access controller
H-UDI:	Hitachi user-debugging interface
INTC:	Interrupt controller
MMU:	Memory management unit
RTC:	Realtime clock
SCI:	Serial communication interface (with smart card interface)
SCIF:	Serial communication interface (with FIFO)
TLB:	Address translation buffer
TMU:	Timer unit
UBC:	User break controller

Fig. 2 HD6417706F133 BLOCK DIAGRAM

HD6417706F133 (IC24) Terminal description (1/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
1	—	Vcc-RTC*1	RTC power supply (1.9 V)	52	O	A5	Address bus
2	O	XTAL2	On-chip RTC crystal oscillator pin	53	O	A6	Address bus
3	I	EXTAL2	On-chip RTC crystal oscillator pin	54	O	A7	Address bus
4	—	Vss-RTC*1	RTC power supply (0 V)	55	O	A8	Address bus
5	I/O	D31/PTB[7]	Data bus/input/output port B	56	O	A9	Address bus
6	I/O	D30/PTB[6]	Data bus/input/output port B	57	O	A10	Address bus
7	I/O	D29/PTB[5]	Data bus/input/output port B	58	O	A11	Address bus
8	I/O	D28/PTB[4]	Data bus/input/output port B	59	O	A12	Address bus
9	I/O	D27/PTB[3]	Data bus/input/output port B	60	O	A13	Address bus
10	I/O	D26/PTB[2]	Data bus/input/output port B	61	—	VssQ	Input/output power supply (0 V)
11	—	VssQ	Input/output power supply (0 V)	62	O	A14	Address bus
12	I/O	D25/PTB[1]	Data bus/input/output port B	63	—	VccQ	Input/output power supply (3.3 V)
13	—	VccQ	Input/output power supply (3.3 V)	64	O	A15	Address bus
14	I/O	D24/PTB[0]	Data bus/input/output port B	65	O	A16	Address bus
15	I/O	D23/PTA[7]	Data bus/input/output port A	66	O	A17	Address bus
16	I/O	D22/PTA[6]	Data bus/input/output port A	67	O	A18	Address bus
17	I/O	D21/PTA[5]	Data bus/input/output port A	68	O	A19	Address bus
18	I/O	D20/PTA[4]	Data bus/input/output port A	69	O	A20	Address bus
19	—	Vss	Internal power supply (0 V)	70	O	A21	Address bus
20	I/O	D19/PTA[3]	Data bus/input/output port A	71	—	Vss	Internal power supply (0 V)
21	—	Vcc	Internal power supply (1.9 V)	72	O	A22	Address bus
22	I/O	D18/PTA[2]	Data bus/input/output port A	73	—	Vcc	Internal power supply (1.9 V)
23	I/O	D17/PTA[1]	Data bus/input/output port A	74	O	A23	Address bus
24	I/O	D16/PTA[0]	Data bus/input/output port A	75	O	A24	Address bus
25	—	VssQ	Input/output power supply (0 V)	76	O	A25	Address bus
26	I/O	D15	Data bus	77	O/ I/O	BS-/PTC[0]	Bus cycle start signal/ input/output port C
27	—	VccQ	Input/output power supply (3.3 V)	78	O	RD-	Read strobe
28	I/O	D14	Data bus	79	O	WE-/DQMLL-	D7-D0 select signal/ DQM (SDRAM)
29	I/O	D13	Data bus	80	O	WE1-/DQMLU-/WE-	D15-D8 select signal/DQM (SDRAM)/write strobe (PCMCIA)
30	I/O	D12	Data bus	81	O/O/O/I/O	WE2-/DQMUL-/ICIORD/PTC[1]	D23-D16 select signal/DQM (SDRAM)/PCMCIA
31	I/O	D11	Data bus				input/output read/ input/output port C
32	I/O	D10	Data bus	82	O/O/O/I/O	WE2-/DQMUU-/ICIOWR/PTC[2]	D31-D24 select signal/DQM (SDRAM)/PCMCIA
33	I/O	D9	Data bus				input/output write/ input/output port C
34	I/O	D8	Data bus	83	O	RD/WR-	Read/write
35	I/O	D7	Data bus	84	—	VssQ	Input/output power supply (0 V)
36	I/O	D6	Data bus	85	O	CS0-	Chip select
37	—	VssQ	Input/output power supply (0 V)	86	—	VccQ	Input/output power supply (3.3 V)
38	I/O	D5	Data bus	87	O /I/O	CS2-/PTC[3]	Chip select 2/input/output port C
39	—	VccQ	Input/output power supply (3.3 V)	88	O /I/O	CS3-/PTC[4]	Chip select 3/input/output port C
40	I/O	D4	Data bus	89	O /I/O	CS4-/PTC[5]	Chip select 4/input/output port C
41	I/O	D3	Data bus	90	O/O/I/O	CS5-/CE1A/PTC[6]	Chip select 5/CE1 (area 5 PCMCIA)/input/output port C
42	I/O	D2	Data bus	91	O/O/I/O	CS6-/CE1B/PTC[7]	Chip select 6/CE1 (area 6 PCMCIA)/input/output port C
43	I/O	D1	Data bus	92	O/ I/O	CE2A-/PTD[6]	Area 5 PCMCIA CE2/ input/output port D
44	I/O	D0	Data bus	93	—	VssQ	Input/output power supply (0 V)
45	O	A0	Address bus	94	O/ I/O	CE2B-/PTD[7]	Area 6 PCMCIA CE2/ input/output port D
46	O	A1	Address bus	95	—	VccQ	Input/output power supply (3.3 V)
47	O	A2	Address bus	96	O/ I/O	RASL-/PTD[0]	Lower 32 Mbytes address RAS(SDRAM)/input output port D
48	O	A3	Address bus	97	O/ I/O	RASU-/PTD[1]	Upper 32 Mbytes address RAS(SDRAM)/input output port D
49	—	VssQ	Input/output power supply (0 V)	98	O/ I/O	CASL-/PTD[2]	Lower 32 Mbytes address CAS(SDRAM)/input output port D
50	O	A4	Address bus	99	O/ I/O	CASU-/PTD[3]	Upper 32 Mbytes address CAS(SDRAM)/input output port D
51	—	VccQ	Input/output power supply (3.3 V)	100	O/ I/O	CKE/PTD[4]	CK enable(SDRAM)/input/output port D

HD6417706F133 (IC24) Terminal description (2/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
101	I/I/O	IOIS16-/PTD[5]	IOIS16(PCMCIA)/input port D	139	—	VccQ	Input/output power supply (3.3 V)
102	O	BACK-	Bus acknowledge	140	O	TxD0/SCPT[0]	SCI transmit data 0/SC port
103	I	BREQ-	Bus request	141	I/O	SCK0/SCPT[1]	SCI clock 0/SC port
104	i	WAIT-	Hardware wait request	142	O	TxD2/SCPT[2]	SCIF transmit data 2/SC port
105	O/I/O	DACK0/PTE[0]	DMA acknowledge 0/input/output port E	143	I/O	SCK2/SCP[3]	SCIF clock 2/SC port
106	O/I/O	DACK1/PTE[1]	DMA acknowledge 1/input/output port E	144	O/I/O	RTS2-/SCPT[4]	SCIF transmit request 2/SC port
107	O/I/O	DRAK0/PTE[2]	DMA request acknowledge/input/output port E	145	I	RxD0/SCPT[0]	SCI receive data 0/SC port
108	O/I/O	DRAK1/PTE[3]	DMA request acknowledge/input/output port E	146	I	RxD2/SCPT[2]	SCIF receive data 2/SC port
109	I/O	AUDATA[0]/PTF[0]	AUD data/ input/output port F	147	I	CTS2-/IRQ5/SCPT[5]	SCIF transmit clear/external interruption request/SC port
110	I/O	AUDATA[1]/PTF[1]	AUD data/ input/output port F	148	—	Vss	Internal power supply (0 V)
111	I/O	AUDATA[2]/PTF[2]	AUD data/ input/output port F	149	I	RESETM-	Manual reset request
112	I/O	AUDATA[3]/PTF[3]	AUD data/ input/output port F	150	—	Vcc	Internal power supply (1.9 V)
113	O/I/O	AUDSYNC-/PTF[4]	AUD synchronous/ input/output port F	151	I/I/I/O	IRQ0/IRL0-/PTH[0]	External interrupt request/input/output port H
114	I	TDI/PTG[0]	Data input(H-UDI)/input port G	152	I/I/I/O	IRQ1/IRL1-/PTH[1]	External interrupt request/input/output port H
115	—	Vss	Internal power supply (0 V)	153	I/I/I/O	IRQ2/IRL2-/PTH[2]	External interrupt request/input/output port H
116	I	TCK/PTG[1]	Clock(H-UDI)/input port G	154	I/I/I/O	IRQ3/IRL3-/PTH[3]	External interrupt request/input/output port H
117	—	Vcc	Internal power supply (1.9 V)	155	I/I/O	IRQ4/PTH[4]	External interrupt request/input/output port H
118	I	TMS/PTG[2]	Mode select(H-UDI)/input port G	156	—	VssQ	Input/output power supply (0 V)
119	I	TRST-/PTG[3]	Reset(H-UDI)/input port G	157	I	NMI	Nonmaskable interrupt request
120	O/I/O	TDO/PTF[5]	Data output(H-UDI)/input/output port F	158	—	VccQ	Input/output power supply (3.3 V)
121	O/I/O	ASEBRKAK-/PTF[6]	ASE break acknowledge(H-UDI)/input/output port F	159	I	AUDCK/PTG[4]	AUD clock/input port G
122	I	ASEMD0-*3	ASE mode(H-UDI)	160	I/I/O	DREQ0-/PTH[5]	DMA request/input/output port H
123	—	Vcc-PLL1*2	PLL1 power supply (1.9 V)	161	I/I/O	DREQ1-/PTH[6]	DMA request/input/output port H
124	—	CAP1	PLL1 external capacitance pin	162	I	ADTRG-/PTG[5]	Analog trigger/input port G
125	—	Vss-PLL1*2	PLL1 power supply (0 V)	163	I	MD0	Clock mode setting
126	—	Vss-PLL2*2	PLL2 power supply (0 V)	164	I	MD2	Clock mode setting
127	—	CAP2	PLL2 external capacitance pin	165	I	RESETP-	Power-on reset request
128	—	Vcc-PLL2*2	PLL2 power supply (1.9 V)	166	I	CA	Chip activate/hardware standby request
129	I	MD1	Clock mode setting	167	I	MD3	Area 0 bus width setting
130	—	Vss	Internal power supply (0 V)	168	I	MD4	Area 0 bus width setting
131	O	XTAL	Clock oscillator pin	169	I	MD5	Endian setting
132	I	EXTAL	External clock/crystal oscillator pin	170	—	AVss	Analog power supply (0 V)
133	O/I/O	STATUS0/PTE[4]	Processor status/input/output port E	171	I	AN[0]/PTJ[0]	A/D converter input/input port J
134	O/I/O	STATUS1/PTE[5]	Processor status/input/output port E	172	I	AN[1]/PTJ[1]	A/D converter input/input port J
135	I/O	TCLK/PTE[6]	TMU or RTC clock input/output/input/output port E	173	I/O/I	AN2[2]/DA[1]/PTJ[2]	A/D converter input/ D/A converter output/ input port J
136	O/I/O	IRQOUT-/PTE[7]	Interrupt request notification/output/input/output port E	174	I/O/I	AN3[3]/DA[0]/PTJ[3]	A/D converter input/ D/A converter output/ input port J
137	—	VssQ	Input/output power supply (0 V)	175	—	AVcc	Analog power supply (3.3 V)
138	I/O	CKIO	System clock input/output	176	—	AVss	Analog power supply (0 V)

Notes: *1 Must be connected to the power supply even when the RTC is not used.

*2 Must be connected to the power supply even when the on-chip PLL circuits are not used.(EXcept in hardware standby mode.)

*3 Must be high level when the user system is used independently without using the emulator or H-UDI.

1. Except in hardware standby mode, all Vcc/Vss pins must be connected to the system power supply. (Supply power constantly.) In hardware standby mode, power must be supplied at least to Vcc-RTC and Vss-RTC. If power is not supplied to Vcc and Vss pins other than Vcc-RTC and Vss-RTC, hold the CA pin low.
2. A1, A2, A3, A7, A12, B1, C4, C7, D1, D2, D4, D7, D14, D15, E1, E2, E3, E4, F14, F17, G17, H14, H15, K14, P14, R10, T13, T15, T16, U11, U15, and U16 must be connected to Vss.

4) LC272D0BT-WA6 (IC6): pin-216, QFP (MAIN ASIC)

The device is the embed-array, which has the following functions.

① CPU interface

The block has the following functions.
That is, mapping executed in memory areas CS0 and CS4, that are generated by main CPU (SH-3), and then wait control and access control to the peripheral devices.

② NOR type flash memory interface

The block has control the protections to each block of a NOR flash memory. The NOR flash memory is used as two provided blocks; programming memory block and the entry and history data block.

③ NAND type flash memory interface

The block has the following functions. That is, access control to flash memory (standard setting memory and optional setting memory), and generates ECC code at accessing NAND flash memory.

④ DMA request control

The block has the following functions. That is, generate the two internal DMA requests; read request from FIFO buffer for encodes and write request from FIFO buffer for decodes. And set each request to the DMA request channels, ch0 and ch1 by setting register.

⑤ Interrupt request control

The block has the following functions. That is, encode interrupt request signal code by each generated interrupt priority level. And then at the each interrupt, set priority level, mask and clear interrupt factor.

⑥ CIS control and image processing

The block has the following functions. That is control the CIS and A/D converts the scanning image data from analogue to digital, and executes the converted image data processing.

⑦ Print image processing and output printing data

The block has the following functions. That is, converts the image data for printing into 400dpi, and applies smoothing processing. And then, output the printing data, according to /HSYNC signal from PCU.

⑧ CODEC

The block has the following functions. The One, the encoding from the image data (bit map data) in the page memory to the code data (MMR/MH) in the system memory. The other, the decoding from the code data (MMR/MH) in system memory to the image data (bit map data) in the page memory.

⑨ Page memory (SDRAM) interface

SDRAM is used as Page memory. The block has the controller of SDRAM and the arbiter of the accesses to SDRAM.

⑩ Scanner motor control

The block has the following function. That is, controls the PWM current control type stepping motor driver that uses a bipolar drive scheme.

⑪ Panel/LCD control

The block has I/O port for key sense and LCD control.

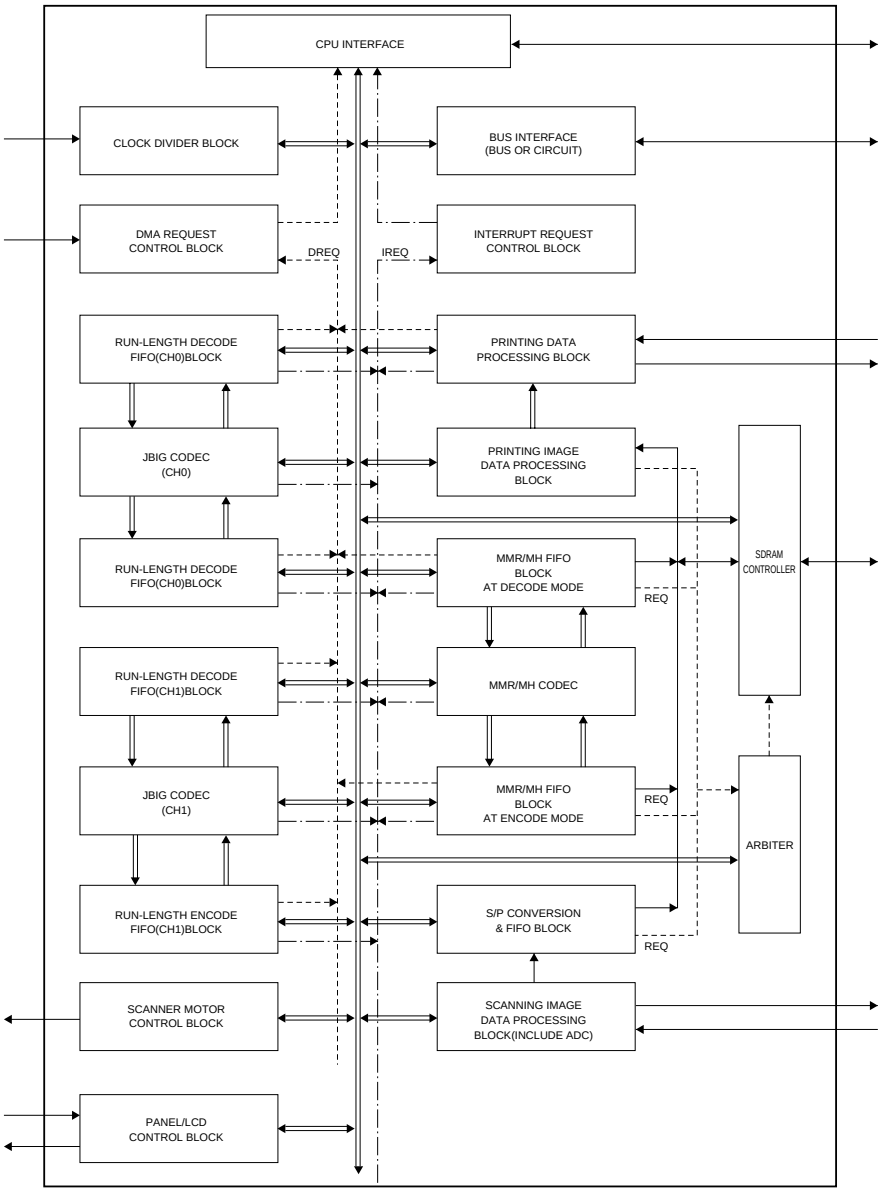


Fig. 3 LC272D0BT-WA6 BLOCK DIAGRAM

LC272D0BT-WA6 (IC6) Terminal description (1/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
1	P	VSS	Ground	55	P	VSS	Ground
2	B	D7	Data bus	56	O	XNICACK	Acknowledge signal for NIC
3	B	D6	Data bus	57	I	XNICINT	Interrupt request from NIC board
4	B	D5	Data bus	58	O	XNICCS	Chip select (NIC Board)
5	B	D4	Data bus	59	O	XJBG1	Reserved
6	B	D3	Data bus	60	O	XJBG0	Reserved
7	B	D2	Data bus	61	B	MAD0	Data bus of page memory
8	B	D1	Data bus	62	B	MAD1	Data bus of page memory
9	B	D0	Data bus	63	P	VDD	Power supply
10	I	XCS0	Chip select (Erea 0)	64	P	VSS	Ground
11	I	XCS4	Chip select (Erea 4)	65	B	MAD2	Data bus of page memory
12	O	XDACK0	DMA acknowledge (Ch0)	66	B	MAD3	Data bus of page memory
13	O	XDACK1	DMA acknowledge (Ch1)	67	B	MAD4	Data bus of page memory
14	O	XDRAK0	DMA request acknowledge (Ch0)	68	B	MAD5	Data bus of page memory
15	O	XDRAK1	DMA request acknowledge (Ch1)	69	B	MAD6	Data bus of page memory
16	I	XDREQ0	DMA request (Ch0)	70	B	MAD7	Data bus of page memory
17	I	XDREQ1	DMA request (Ch1)	71	B	MAD8	Data bus of page memory
18	P	VDD	Power supply	72	P	VDD	Power supply
19	P	VSS	Ground	73	P	VSS	Ground
20	O	XFLCS	Chip select (Flash memory)	74	B	MAD9	Data bus of page memory
21	I	XFLSHINTA	Interrupt request of flash memory	75	B	MAD10	Data bus of page memory
22	I	XFLSHINTB	Interrupt request of flash memory	76	B	MAD11	Data bus of page memory
23	O	XINT0	Interrupt request signal	77	B	MAD12	Data bus of page memory
24	O	XINT1	Interrupt request signal	78	B	MAD13	Data bus of page memory
25	O	XINT2	Interrupt request signal	79	B	MAD14	Data bus of page memory
26	O	XINT3	Interrupt request signal	80	B	MAD15	Data bus of page memory
27	O	XPGMCS	Chip select (Program memory)	81	P	VDD	Power supply
28	O	XWROUT	Write strobe signal	82	P	VSS	Ground
29	O	XRDOUT	Read strobe signal	83	O	SDCLK	Clock of page memory
30	O	XWAIT	Wait request signal	84	O	DQMUL	Data mask of page memory
31	I	XBUSYDP	Busy signal of Dual port RAM	85	O	CKE	CK enable of page memory
32	I	XMDMINT1	Interrupt request from modem chip 1	86	O	CASB	CAS of page memory
33	I	XMDMINT0	Interrupt request from modem chip 0	87	O	RASB	RAS of page memory
34	O	XMDMCS1	Chip select (Modem Chip 1)	88	O	DWEB	Write strobe of page memory
35	O	XMDMCS0	Chip select (Modem Chip 0)	89	O	XCSDRM0	Chip select of page memory
36	P	VDD	Power supply	90	P	VDD	Power supply
37	P	VSS	Ground	91	P	VSS	Ground
38	I	XINPRT	Print block clock in	92	O	MA0	Address bus of page memory
39	O	XOUTPRT	Print block clock out	93	O	MA1	Address bus of page memory
40	P	VSS	Ground	94	O	MA2	Address bus of page memory
41	I	TODB	Top of data	95	O	MA3	Address bus of page memory
42	I	HSYNC	Synchronous signal of horizontal anxious	96	O	MA4	Address bu s of page memory
43	O	PDATA	Print data	97	O	MA5	Address bus of page memory
44	I	XJBGINT1	Reserved	98	O	MA6	Address bus of page memory
45	I	XJBGINT0	Reserved	99	P	VDD	Power supply
46	I	XSGAINT	Interrupt request from modem chip 0	100	P	VSS	Ground
47	I	XSBGA	Chip select (Sub Gate array)	101	O	MA7	Address bus of page memory
48	I	JBGDREQ00	Reserved	102	O	MA8	Address bus of page memory
49	I	JBGDREQ01	Reserved	103	O	MA9	Address bus of page memory
50	I	JBGDREQ10	Reserved	104	O	MA10	Address bus of page memory
51	I	JBGDREQ11	Reserved	105	O	MA11	Address bus of page memory
52	O	XJBGACK1	Reserved	106	O	MA12	Address bus of page memory
53	O	XJBGACK0	Reserved	107	O	MA13	Address bus of page memory
54	P	VDD	Power supply	108	P	VDD	Power supply

LC272D0BT-WA6 (IC6) Terminal description (2/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
109	P	VSS	Ground	163	P	VSS	Ground
110	I	TEST0	Test pin 0	164	O	TXAI1	Current control 1 (Phase A)
111	I	TEST1	Test pin 1	165	O	TXAI0	Current contorl 0 (Phase A)
112	I	XINSC	Image block Clock in	166	O	CRNT0	Current change signal 0
113	O	XOUTSC	Image block Clock out	167	O	CRNT1	Current change signal 1
114	P	VSS	Ground	168	O	XLBE	Low byte(D7-D0) enable signal
115	O	TOUT	Test pin	169	I	XRESET	System Reset Signal
116	O	LININT	Monitor for line interval signal	170	O	XMANRES	Manual Reset Signal
117	O	SAMP	Monitor for sampling point	171	O	XNANDOPCS	Chip select (Optional memory)
118	O	SH	Line shift clock (CIS)	172	O	XNANDSTDCS	Chip select (Standard memory)
119	O	CLK1	Transfor clock (CIS)	173	O	XNANDRD	Read signal (Nand flash)
120	P	AVDD	Power supply (Analogue)	174	O	XNANDWR	Write signal (Nand flash)
121	P	AVSS	Analogue Ground	175	O	XWP0	Write protect (Standard)
122	I	ADREFL	Low reference voltage (ADC)	176	O	XWP1	Write protect (Optional)
123	I	TEMP	Temperature detect	177	O	ALEO	Address latch enable (Flash memory)
124	I	AVO	Video signal for scanning	178	O	CLEO	Command latch enable (Flash memory)
125	O	ATAPH	High reference voltage (ADC)	179	I	SHCK	CPU Outer bus Clock
126	P	AVDD	Power supply (Analogue)	180	P	VDD	Power supply
127	P	AVSS	Analogue Ground	181	P	VSS	Ground
128	P	VDD	Power supply	182	I	RXW	Read/Write signal
129	P	VSS	Ground	183	I	XBS	Bus cycle start signal
130	O	PLTSW	Plate SW detect	184	I	A25	Address bus bit25
131	O	BKLON	Back light on/off control	185	I	A24	Address bus bit24
132	I	SEN7	Key sense signal	186	I	A23	Address bus bit23
133	I	SEN6	Key sense signal	187	I	A22	Address bus bit22
134	I	SEN5	Key sense signal	188	I	A21	Address bus bit21
135	I	SEN4	Key sense signal	189	I	A20	Address bus bit20
136	I	SEN3	Key sense signal	190	I	A13	Address bus bit13
137	I	SEN2	Key sense signal	191	I	A12	Address bus bit12
138	I	SEN1	Key sense signal	192	I	A11	Address bus bit11
139	I	SEN0	Key sense signal	193	I	A10	Address bus bit10
140	B	LD15	LED	194	I	A9	Address bus bit9
141	B	LD14	LED	195	I	A8	Address bus bit8
142	B	LD13	LCD drive signal	196	I	A7	Address bus bit7
143	B	LD12	LCD drive signal	197	I	A6	Address bus bit6
144	P	VDD	Power supply	198	P	VDD	Power supply
145	P	VSS	Ground	199	P	VSS	Ground
146	B	LD11	Reserved	200	I	A5	Address bus bit5
147	B	LD10	Reserved	201	I	A4	Address bus bit4
148	B	LD9	Reserved	202	I	A3	Address bus bit3
149	B	LD8	Reserved	203	I	A2	Address bus bit2
150	B	LD7	LCD drive	204	I	A1	Address bus bit1
151	B	LD6	LCD drive	205	I	A0	Address bus bit0
152	B	LD5	LED/LCD drive	206	B	XWE0	D7-D0 select signal
153	B	LD4	LED/LCD drive	207	B	XOPDEN	Bus buffer enable control
154	B	LD3	Key matrix select/LED/LCD drive	208	B	D15	Data bus bit15
155	B	LD2	Key matrix select/LED/LCD drive	209	B	D14	Data bus bit14
156	B	LD1	Key matrix select/LED/LCD drive	210	B	D13	Data bus bit13
157	B	LD0	Key matrix select/LED/LCD drive	211	B	D12	Data bus bit12
158	O	TXB	Current direction (Phase B)	212	B	D11	Data bus bit11
159	O	TXBI1	Current control 1 (Phase B)	213	B	D10	Data bus bit10
160	O	TXBI0	Current control 0 (Phase B)	214	B	D9	Data bus bit9
161	O	TXA	Current direction (Phase A)	215	B	D8	Data bus bit8
162	P	VDD	Power supply	216	P	VDD	Power supply

5) LC24199B-WJ0-E (IC21): pin-208, QFP (SUB ASIC)

The device is the gate-array, which has the following functions.

① PCU (Print Control Unit) interface

The block has the serial communication to PCU, and using this circuitry, controls/detects PCU.

② I/O port

The block has the following functions; LIU interface, Speaker control and sensor detect, which are controlled with software.

③ Generator of buzzer's frequency

The block has the generated buzzer's frequency by the software.

④ RTC (Real Time Clock) LSI control

Using serial communication to RTC, the device set and read the time.

⑤ Verification stamp control

The software control on/off of the verification stamp. And the control block has hardware timer instead of the continuous stamp-on status.

⑥ Original sensor detect

The software detects the original sensor. And then the control block has the generated interrupt circuitry by detecting the sensor signal risen/fallen.

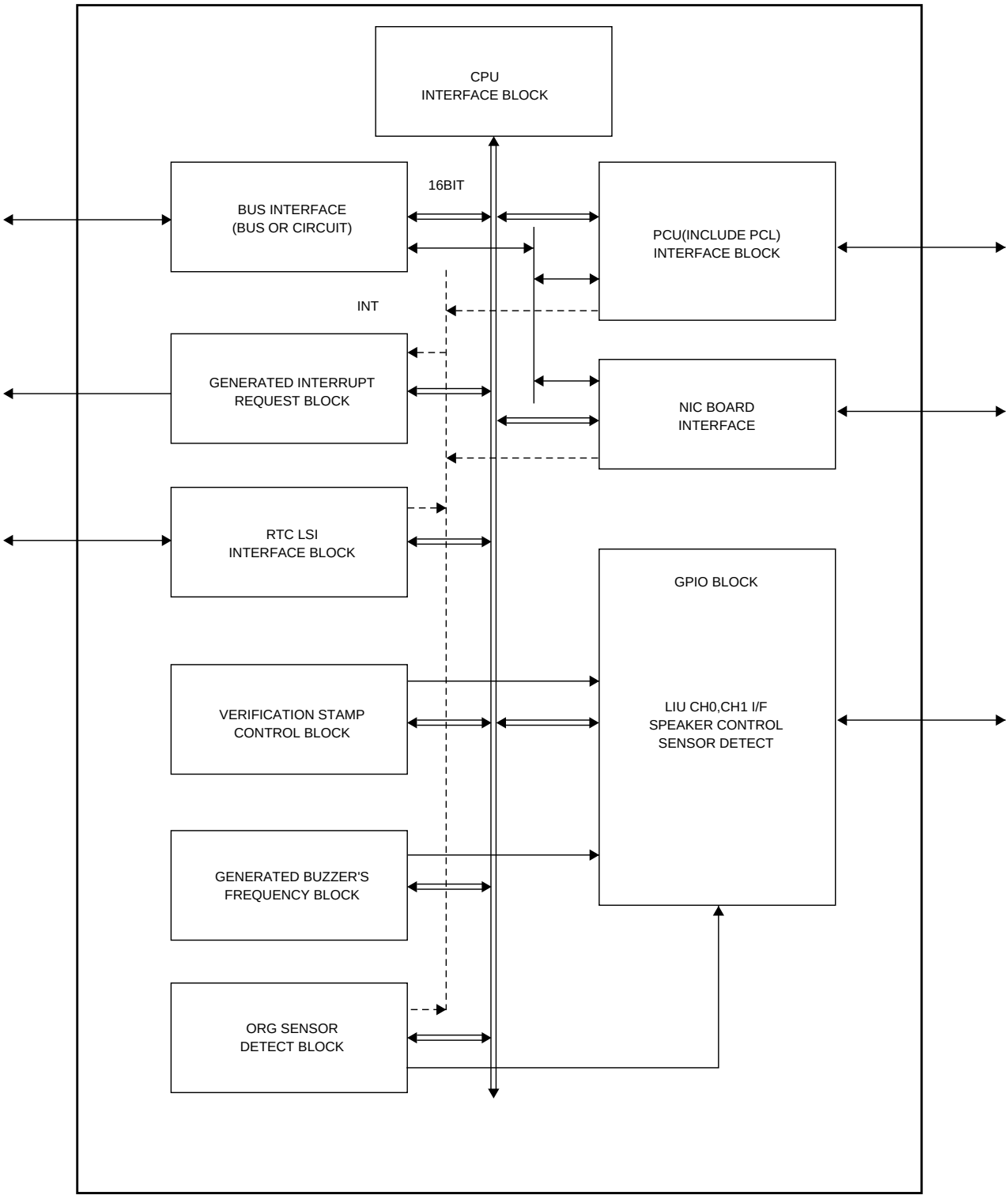


Fig. 4 LC24199B-WJ0-E BLOCK DIAGRAM

LC24199B-WJ0-E (IC21) Terminal description (1/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
1	P	VSS	Ground	53	P	VSS	Ground
2	—	N.C	Not connect	54	—	N.C	Not connect
3	I	XCI1	CI detect signal	55	B	DPOPCL10	GPO bus for PCL board
4	O	ERLY0	Reserved for 200V	56	B	DPOPCL11	GPO bus for PCL board
5	O	GAINC0	Reserved for 200V	57	B	DPOPCL12	GPO bus for PCL board
6	O	DPMUTE0	Reserved for 200V	58	B	DPOPCL13	GPO bus for PCL board
7	O	CML0	CML relay control signal	59	B	DPOPCL14	GPO bus for PCL board
8	O	TXMUTE0	Mute control for TX signal	60	B	DPOPCL15	GPO bus for PCL board
9	O	DPON0	Active choke control	61	I	DPAPCL0	Address bus for NIC board (PCL)
10	I	XEXHS0	Hook detect signal for external telephone	62	I	DPAPCL1	Address bus for NIC board (PCL)
11	I	XCI0	CI detect signal	63	I	DPAPCL2	Address bus for NIC board (PCL)
12	I	PDATAM	Print data form main	64	I	DPAPCL3	Address bus for NIC board (PCL)
13	O	CTBSYB	Controller status busy	65	I	DPAPCL4	Address bus for NIC board (PCL)
14	O	CPRDYB	Controller power ready	66	I	DPAPCL5	Address bus for NIC board (PCL)
15	I	ETBSYB	Engine status busy	67	I	DPAPCL6	Address bus for NIC board (PCL)
16	P	VDD	Power supply	68	P	VDD	Power supply
17	P	VSS	Ground	69	P	VSS	Ground
18	I	PRRDYB	Printer ready	70	I	DPAPCL7	Address bus for NIC board (PCL)
19	I	EPRDYB	Engine power ready	71	I	DPAPCL8	Address bus for NIC board (PCL)
20	O	PDATA	Video data of printer	72	I	DPAPCL9	Address bus for NIC board (PCL)
21	O	PCURESB	PCU reset signal	73	I	DPAPCL10	Address bus for NIC board (PCL)
22	O	PCLK	Serial communication clock	74	I	DPAPCL11	Address bus for NIC board (PCL)
23	I	PSTS	Status data from PCU	75	I	DPAPCL12	Address bus for NIC board (PCL)
24	O	PCMD	Command data to PCU	76	I	DPAPCL13	Address bus for NIC board (PCL)
25	I	CTBSYPCLB	Controller status busy in PCL mode	77	I	DPAPCL14	Address bus for NIC board (PCL)
26	I	CPRDYPCLB	Controller power ready in PCL mode	78	I	DPAPCL15	Address bus for NIC board (PCL)
27	O	ETBSYPCLB	Engine status busy in PCL mode	79	I	DPAPCL16	Address bus for NIC board (PCL)
28	O	PRRDYPCLB	Printer ready in PCL mode	80	I	XCSNICP	Chip select signal
29	O	EPRDYPCLB	Engine power ready in PCL mode	81	B	DPONIC0	DPO bus for NIC board
30	I	PDATAINPCL	Video data from PCL	82	B	DPONIC1	DPO bus for NIC board
31	O	PCLRESB	PCL reset signal	83	B	DPONIC2	DPO bus for NIC board
32	O	XNICACKP	Acknowledge signal for NIC in PCL mode	84	B	DPONIC3	DPO bus for NIC board
33	I	RXWP	READ/WRITE signal from PCL	85	B	DPONIC4	DPO bus for NIC board
34	P	VDD	Power supply	86	P	VDD	Power supply
35	P	VSS	Ground	87	P	VSS	Ground
36	I	PCLKPCL	Serial communication clock in PCL mode	88	B	DPONIC5	DPO bus for NIC board
37	O	PSTSPCL	Status data from PCU in PCL mode	89	B	DPONIC6	DPO bus for NIC board
38	I	PCMDPCL	Command data to PCL in PCL mode	90	B	DPONIC7	DPO bus for NIC board
39	O	PACK	Printing acknowledge signal	91	B	DPONIC8	DPO bus for NIC board
40	I	PREQ	Printing request signal	92	B	DPONIC9	DPO bus for NIC board
41	B	DPOPCL0	GPO bus for PCL board	93	B	DPONIC10	DPO bus for NIC board
42	B	DPOPCL1	GPO bus for PCL board	94	B	DPONIC11	DPO bus for NIC board
43	B	DPOPCL2	GPO bus for PCL board	95	B	DPONIC12	DPO Bus for NIC Board(*2)
44	B	DPOPCL3	GPO bus for PCL board	96	B	DPONIC13	DPO Bus for NIC Board(*2)
45	B	DPOPCL4	GPO bus for PCL board	97	B	DPONIC14	DPO Bus for NIC Board(*2)
46	B	DPOPCL5	GPO bus for PCL board	98	B	DPONIC15	DPO Bus for NIC Board(*2)
47	B	DPOPCL6	GPO bus for PCL board	99	O	NICRESB	Reset for NIC
48	B	DPOPCL7	GPO bus for PCL board	100	O	RXWNIC	R/W signal for NIC
49	B	DPOPCL8	GPO bus for PCL board	101	O	XNICACKH	XACK to HOST
50	B	DPOPCL9	GPO bus for PCL board	102	O	XCSNIC	Chip Select Signal for NIC
51	—	N.C	Not connect	103	—	N.C	Not connect
52	P	VDD	Power supply	104	P	VDD	Power supply

LC24199B-WJ0-E (IC21) Terminal description (2/2)

PIN	I/O	Name	Function	PIN	I/O	Name	Function
105	P	VSS	Ground	157	P	VSS	Ground
106	I	SDDCT	SD DICT in	158	I	A3	Address bus
107	I	DPANIC0	Address bus for NIC board	159	I	A2	Address bus
108	I	DPANIC1	Address bus for NIC board	160	I	A1	Address bus
109	O	DPANIC2	Address bus for NIC board	161	I	A0	Address bus
110	P	DPANIC3	Address bus for NIC board	162	I	XWE	Write strobe signal from COSMOS
111	O	DPANIC4	Address bus for NIC board	163	I	RXW	Read/Write Signal
112	O	DPANIC5	Address bus for NIC board	164	I	XRD	Read strobe signal from COSMOS
113	O	DPANIC6	Address bus for NIC board	165	B	D15	Data bus
114	O	DPANIC7	Address bus for NIC board	166	B	D14	Data bus
115	O	DPANIC8	Address bus for NIC board	167	B	D13	Data bus
116	P	DPANIC9	Address bus for NIC board	168	B	D12	Data bus
117	P	DPANIC10	Address bus for NIC board	169	B	D11	Data bus
118	I	DPANIC11	Address bus for NIC board	170	B	D10	Data bus
119	I	DPANIC12	Address bus for NIC board	171	B	D9	Data bus
120	I	VDD	Power supply	172	P	VDD	Power supply
121	O	VSS	Ground	173	P	VSS	Ground
122	—	N.C	Not connect	174	B	D8	Data bus
123	P	DPANIC13	Address bus for NIC board	175	B	D7	Data bus
124	P	DPANIC14	Address bus for NIC board	176	B	D6	Data bus
125	P	DPANIC15	Address bus for NIC board	177	B	D5	Data bus
126	O	DPANIC16	Address bus for NIC board	178	B	D4	Data bus
127	O	XCSNICIN	Chip select of NIC in FAX mode	179	B	D3	Data bus
128	I	GPIO4	PWSAVE: Powr save control for PS-unit	180	B	D2	Data bus
129	I	GPIO5	LEDON: Light ON/OFF for LED in CIS	181	B	D1	Data bus
130	I	GPIO6	VPPCN: VPP control of nor flash memory	182	B	D0	Data bus
131	I	GPIO7	XWP: Write protect for nor flash memory	183	—	N.C	Not connect
132	I	XNICACK	Acknowlede signal for NIC	184	O	INTR	Interrupt request signal
133	I	XROLSNS	Roller position sensor	185	I	XRESET	Reset signal
134	I	XORGSNS	Document sensor	186	I	TEST	Test pin
135	I	XFRSNS	Front sensor	187	O	RTCCE	Chip select (RTC)
136	B	XB4FRS	B4 width sensor	188	O	RTCCK	Serial communication clock (RTC)
137	B	PLNGON	Plunger contorl signal	189	B	RTCDT	Serial communication data (RTC)
138	B	VDD	Power supply	190	P	VDD	Power supply
139	B	VSS	Ground	191	P	VSS	Ground
140	P	SHCLK	External bus Clock(33.3MHz)	192	O	XMDMRST1	Reset signal for modem chip 1
141	P	XCS	Chip select signal	193	O	XMDMRST0	Reset signal for modem chip 0
142	B	A16	Address bus	194	O	BZCONT	Change control of sound source
143	B	A15	Address bus	195	O	SPMUTE	Speaker mute control signal
144	B	A14	Address bus	196	O	VOLC	Speaker volume control signal
145	B	A13	Address bus	197	O	VOLB	Speaker volume control signal
146	B	A12	Address bus	198	O	VOLA	Speaker volume control signal
147	B	A11	Address bus	199	O	BZOUT	Buzzer signal
148	B	A10	Address bus	200	O	GAINC1	Reserved for 200V
149	B	A9	Address bus	201	O	ERLY1	Reserved for 200V
150	B	A8	Address bus	202	O	DPMUTE1	Reserved for 200V
151	B	A7	Address bus	203	O	CML1	CML relay control signal
152	B	A6	Address bus	204	O	TXMUTE1	Mute control for TX signal
153	B	A5	Address bus	205	O	DPON1	Active choke control
154	O	A4	Address bus	206	O	MONSEL	Monitor select/DC character measured
155	—	N.C	Not connect	207	—	N.C	Not connect
156	P	VDD	Power supply	208	P	VDD	Power supply

6) SM8578BV (IC22): pin-8, SOP (Real time clock IC)

It is oscillated with the quartz oscillator of 32.768 kHz, and the clock and calendar functions are provided.
Even if the power supply of the main body is turned off, it is backed up with lithium battery (BAT1).
This device executes the clock-synchronous type serial communication with the Sub ASIC, and CPU can know the time and date through the Sub ASIC.

(2) Backup memory block

This block consists of flash memory for the image memory and 256 Kb SRAM backed up with a battery.
The image memory has a standard capacity of 2 Mbytes, and it is possible to extend the memory to 10 Mbytes in total by installing the option memory FO-8MK to the connector CNOP1.

1) TC58V64BFT (IC27) ... pin-44, TSOP (64 Mb NAND EEPROM)

This is non-volatile memory whose contents are not deleted even when the power is turned off. 2 Mbytes are available as an area for storing the encoded data of the copies or transmitted/received images.
It is controlled via the above-mentioned MAIN ASIC (IC6).

2) BS62LV256SC-70 (IC19) ... pin-28, SOP (256 Kb SRAM)

Operation information before shutting off the power supply, user setting content and soft switch content are stored. Even if the power supply of the main body is turned off, it is backed up with a lithium battery (BAT1).

(3) Modem block

The block is mainly composed of the G3 FAX modem FM336PLus (IC30), and is provided with the following modem function.

1) G3 FAX modem

The modem satisfies the requirements specified in ITU-T recommendations V.34 half-duplex, V.17, V.33, V.29, V.27 ter, V.21, and meets the binary signaling requirements of V.8 and T.30 with Annex F.
Internal HDLC support eliminates the need for an external serial input/output (SIO) device in the DTE for products incorporating error detection and T.30 protocol. The modem can perform HDLC framing per T.30 at all data speeds. CRC generation/checking along with zero insertion/deletion enhances SDLC/HDLC frame operations. Two FSK (V.21 Ch. 1 and V.21 Ch. 2) flag pattern detectors facilitate FSK detection during high-speed reception. The modem features a programmable DTMF transmitter/receiver and three programmable tone detectors.

2) Features

· 2-wire half-duplex fax modem modes with send and receive data rates up to 33.6 kbps.
  — V.34 half-duplex, V.17, V.33, V.29, V.27 ter, and V.21 Channel 2
  — Short train option in V.17 and V.27 ter
· 2-wire duplex data modem modes
  — V.21, V.23 (75 bps TX/1200 bps RX or 1200 bps TX/75 bps RX)
· PSTN session starting
  — V.8 and V.8 bis signaling
· HDLC support at all speeds
  — Flag generation, 0-bit stuffing, ITU-T CRC-16 or CRC-32 calculation and generation
  — Flag detection, 0-bit stuffing, ITU-T CRC-16 or CRC-32 check sum error detection
  — FSK flag pattern detection during high-speed receiving
· Tone modes and features
  — Programmable single or dual tone generation
  — DTMF receiver
  — Tone detection with three programmable tone detectors
· Serial and parallel synchronous data
· Automatic Rate Adaptation (ARA) in V.34 half-duplex
· Auto-dial and auto-answer control
· TTL and CMOS compatible DTE interface
  — ITU-T V.24 (EIA/TIA-232-E) (data/control)
  — Microprocessor bus (data/configuration/control)
· Receive dynamic range:
  — 0 dBm to -43 dBm for V.17, V.33, V.29, V.27 ter and V.21
  — -9 dBm to -43 dBm for V.34 half-duplex
· Caller ID Demodulation
· Single tone detection in Data Mode
· ADPCM Voice Mode (Conexant Proprietary)
· Programmable RSLD turn-on and turn-off thresholds
· Programmable transmit level: 0 to -15 dBm
· Adjustable speaker output to monitor received signal
· DMA support for interrupt lines
· Two 16-byte FIFO data buffers for burst data transfer with extension up to 255 bytes
· Diagnostic capability
· V.21 Channel 1 Flag detect and V.21 Channel 2 Flag detect
· +3.3 V operation with +5 V tolerant inputs
· +5 V analog signal interface
· 100-pin PQFP package
· Typical power consumption
  — Normal mode:
    VDD1 = 250 mW (+3.3 V for DSP); VDD = 35 mW (+5 V for IA)
  — Sleep mode:
    VDD1 = 20 mW (+3.3 V for DSP); VDD = 0.1 mW (+5 V for IA)

3) Configurations, Signaling Rates, and Data Rates

Configuration	Modulation	Carrier Frequency (Hz) ± 0.01 %	Data Rate (bps) ± 0.01 %	Symbol Rate (Symbols/Sec.)	Bits/Symbol-Data	Bits/Symbol-TCM	Constellation Points
V.90 PCM	PCM	—	56000 R/V.34 rates T (Note 4)	8000	Dynamic	—	—
V. 34 33600 TCM[3]	TCM	Note 2	33600	3429 only	Note 2	Note 2	Note 2
V. 34 31200 TCM[3]	TCM	Note 2	31200	3200 min	Note 2	Note 2	Note 2
V. 34 28800 TCM[3]	TCM	Note 2	28800	3000 min	Note 2	Note 2	Note 2
V. 34 26400 TCM[3]	TCM	Note 2	26400	2800 min	Note 2	Note 2	Note 2
V. 34 24000 TCM[3]	TCM	Note 2	24000	2800 min	Note 2	Note 2	Note 2
V. 34 21600 TCM[3]	TCM	Note 2	21600	2400 min	Note 2	Note 2	Note 2
V. 34 19200 TCM[3]	TCM	Note 2	19200	Note 2	Note 2	Note 2	Note 2
V. 34 16800 TCM[3]	TCM	Note 2	16800	Note 2	Note 2	Note 2	Note 2
V. 34 14400 TCM[3]	TCM	Note 2	14400	Note 2	Note 2	Note 2	Note 2
V. 34 12000 TCM[3]	TCM	Note 2	12000	Note 2	Note 2	Note 2	Note 2
V. 34 9600 TCM[3]	TCM	Note 2	9600	Note 2	Note 2	Note 2	Note 2
V. 34 7200 TCM[3]	TCM	Note 2	7200	Note 2	Note 2	Note 2	Note 2
V. 34 4800 TCM[3]	TCM	Note 2	4800	Note 2	Note 2	Note 2	Note 2
V. 34 2400 TCM[3]	TCM	Note 2	2400	2400 only	Note 2	Note 2	Note 2
V. 32 bis 14400 TCM	TCM	1800	14400	2400	6	1	128
V. 32 bis 12000 TCM	TCM	1800	12000	2400	5	1	64
V. 32 bis 9600 TCM	TCM	1800	9600	2400	4	1	32
V. 32 bis 7200 TCM	TCM	1800	7200	2400	3	1	16
V. 32 bis 4800	QAM	1800	4800	2400	2	0	4
V. 32 9600 TCM	TCM	1800	9600	2400	4	1	32
V. 32 9600	QAM	1800	9600	2400	4	0	16
V. 32 4800	QAM	1800	4800	2400	2	0	4
V. 22 bis 2400	QAM	1200/2400	2400	600	4	0	16
V. 22 bis 1200	DPSK	1200/2400	1200	600	2	0	4
V. 22 1200	DPSK	1200/2400	1200	600	2	0	4
V. 22 600	DPSK	1200/2400	600	600	1	0	4
V. 23 1200/75	FSK	1700/420	1200/75	1200	1	0	—
V. 21	FSK	1080/1750	Up to 300	300	1	0	—
Bell 208 4800	DPSK	1800	4800	1600	3	0	8
Bell 212A	DPSK	1200/2400	1200	600	2	0	4
Bell 103	FSK	1170/2125	Up to 300	300	1	0	—
V. 17 14400 TCM/V.33	TCM	1800	14400	2400	6	1	128
V. 17 12000 TCM/V.33	TCM	1800	12000	2400	5	1	64
V. 17 9600 TCM	TCM	1800	9600	2400	4	1	32
V. 17 7200 TCM	TCM	1800	7200	2400	3	1	16
V. 29 9600	QAM	1700	9600	2400	4	0	16
V. 29 7200	QAM	1700	7200	2400	3	0	8
V. 29 4800	QAM	1700	4800	2400	2	0	4
V. 27 4800	DPSK	1800	4800	1600	3	0	8
V. 27 2400	DPSK	1800	2400	1200	2	0	4
V. 21 Channel 2	FSK	1750	300	300	1	0	—

Notes:

1. Modulation legend: TCM: Trellis-Coded Modulation QAM: Quadrature Amplitude Modulation PCM: Pulse Coded Modulation
   FSK: Frequency Shift Keying DPSK: Differential Phase Shift Keying
2. Adaptive; established during handshake:

Symbol Rate (Baud)	V. 34 Low Carrier Frequency (Hz)	V. 34 High Carrier Frequency (Hz)
2400	1600	1800
2800	1680	1867
3000	1800	2000
3200	1829	1920
3429	1959	1959

3. For both duplex and half-duplex modes.
4. Maximum data rate.

FM336Plus (IC30) Terminal description

PIN	I/O	Name	Interface	PIN	I/O	Name	Interface
1	—	RESERVED	NC	51	—	RESERVED	NC
2	IA	RS2	HOST Interface	52	GND	VSUB	—
3	IA	RS3	HOST Interface	53	GND	VSS	—
4	IA	RS4	HOST Interface	54	—	NC	NC
5	IA	/CS	OHOST Interface	55	—	NC	NC
6	IA	/WR	HOST Interface	56	MI	SLEEP	Modem Interconnect
7	IA	/RD	HOST Interface	57	PWR	VDD1	—
8	OA	/RDCLK	DTE Serial Interface	58	—	NC	NC
9	OA	/RLSD	DTE Serial Interface	59	—	RESERVED	NC
10	OA	TDCLK	DTE Serial Interface	60	—	RESERVED	NC
11	IA	TXD	DTE Serial Interface	61	MI	SR1IO	Modem Interconnect
12	OA	/CTS	DTE Serial Interface	62	PWR	VCORE	—
13	PWR	VDD1	—	63	PWR	VDD1	—
14	—	RESERVED	NC	64	IA	XTCLK	DTE Serial Interface
15	—	RESERVED	NC	65	GND	VSS	—
16	GND	VSS	—	66	—	RESERVED	NC
17	—	NC	NC	67	OA	RXD	DTE Serial Interface
18	IA	/RESET	Modem Interconnect	68	IA	/DTR	DTE Serial Interface
19	OA	SR4OUT	Modem Interconnect	69	PWR	VDD1	—
20	—	NC	NC	70	MI	IA SLEEP	Modem Interconnect
21	IA	SR4IN	Modem Interconnect	71	PWR	VGG	—
22	OA	CLK OUT	Modem Interconnect	72	OA	YCLK	Overhead Signal
23	OA	EYESYNC	Diagnostic Signal	73	OA	XCLK	Overhead Signal
24	OA	EYECLK	Diagnostic Signal	74	OA	EYEXY	Diagnostic Siganl
25	GND	MAVSS	—	75	OA	/DSR	DTE Serial Interface
26	PWR	MAVDD	—	76	OA	/RI	Telephone Line Interface
27	O(DF)	SPKR	Telephone Line Interface	77	IA	RINGD	Telephone Line Interface
28	O(DD)	TXA2	Telephone Line Interface	78	IA	/RTS	DTE Serial Interface
29	O(DD)	TXA1	Telephone Line Interface	79	OA	IRQ	HOST Interface
30	MI	VREF	Modem Interconnect	80	GND	VSS	—
31	MI	VC	Modem Interconnect	81	MI	GP00	Modem Interconnect
32	I(DA)	RIN	Telephone Line Interface	82	—	RESERVED	NC
33	AGND	MAVSS	—	83	—	RESERVED	NC
34	IA	/POR	Modem Interconnect	84	PWR	VDD1	—
35	—	RESERVED	NC	85	I	XTALI/CLKIN	Overhead Signal
36	—	RESERVED	NC	86	O	XTALO	Overhead Signal
37	O(DD)	/TALK	Telephone Line Interface	87	IA/OB	D0	HOST Interface
38	PWR	VDD	—	88	IA/OB	D1	HOST Interface
39	—	RESERVED	NC	89	IA/OB	D2	HOST Interface
40	—	RESERVED	NC	90	IA/OB	D3	HOST Interface
41	—	NC	NC	91	IA/OB	D4	HOST Interface
42	IA	M CNTRL SIN	Modem Interconnect	92	PWR	VDD1	—
43	IA	M CLKIN	Modem Interconnect	93	IA/OB	D5	HOST Interface
44	IA	M TXSIN	Modem Interconnect	94	IA/OB	D6	HOST Interface
45	IA	M SCK	Modem Interconnect	95	IA/OB	D7	HOST Interface
46	IA	M RXOUT	Modem Interconnect	96	IA/OB	RS0	HOST Interface
47	IA	M STROBE	Modem Interconnect	97	IA/OB	RS1	HOST Interface
48	—	RESERVED	NC	98	PWR	PLL VDD	—
49	O(DD)	OH	Telephone Line Interface	99	GND	VSS	—
50	PWR	VDD	—	100	GND	PLL GND	—

Notes:
1. I/O types: MI: Modem interconnect IA, IB: Digital input O(DD), O(DF): Analog input
I(DA): Analog input OA, OB: Digital output
2. NC= No external connection required. RESERVED= No external connection allowed.
3. Interface Legend:
HOST= Modem Control Unit (Host)
DET= Data Terminal Equipment

(4) Scanner control block

1) Image signal process block

The CIS is driven by MAIN ASIC (IC6), and the output video signal from the CIS is input into IC6 through the amplifying circuit.
The ADC and buffer are provided in IC6, and the digital image processing is performed.

2) Mechanical control block

The mechanical control block is mainly composed of MAIN ASIC to control the following.

(a) Scanner motor control

The revolution speed and timing of the scanner motor are controlled to output the control signals to the motor driver (IC3).

(b) Verification stamp and LED lamp control

On/off of the end verification and LED lamp of CIS is controlled with the software.

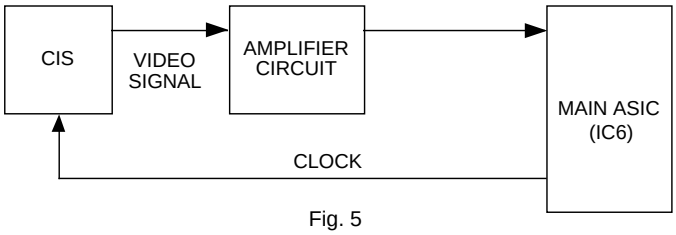


Fig. 5

(5) Speaker amplifier

The speaker amplifier monitors the line under the on-hook mode, outputs the buzzer sound generated by SUB ASIC, ringer sound, DTMF generated from the modem, and line sound.

(6) Page memory block

W986416DH or MT48LC4M16A2TG (IC5): pin-54, TSOP (64 Mb SDRAM)

The page memory block is composed of one SDRAM of 64 Mb, being commonly used as the image memory. The memory is divided into the page memory for the scanner and the page memory for printing.
This memory is controlled by the MAIN ASIC directly.

The page memory for scanner is composed of the partial area of IC5. The image data of approx. one page (except in the super fine mode) of the draft read with the scanner can be stored. They are stored until they are contracted by CODEC function in MAIN ASIC.

The page memory for printing is composed of the remaining areas of IC5 and can store approx. one page of the image data decoded by CODEC function in MAIN ASIC. The data are stored until they are transferred to Printer PWB with the SUB ASIC and printed.

(7) Driver block

Sending motor driver (IC3: LB1845) ---- 28-pin DIP

This IC driver at the sending motor at the constant current with the bipolar, chopper system.

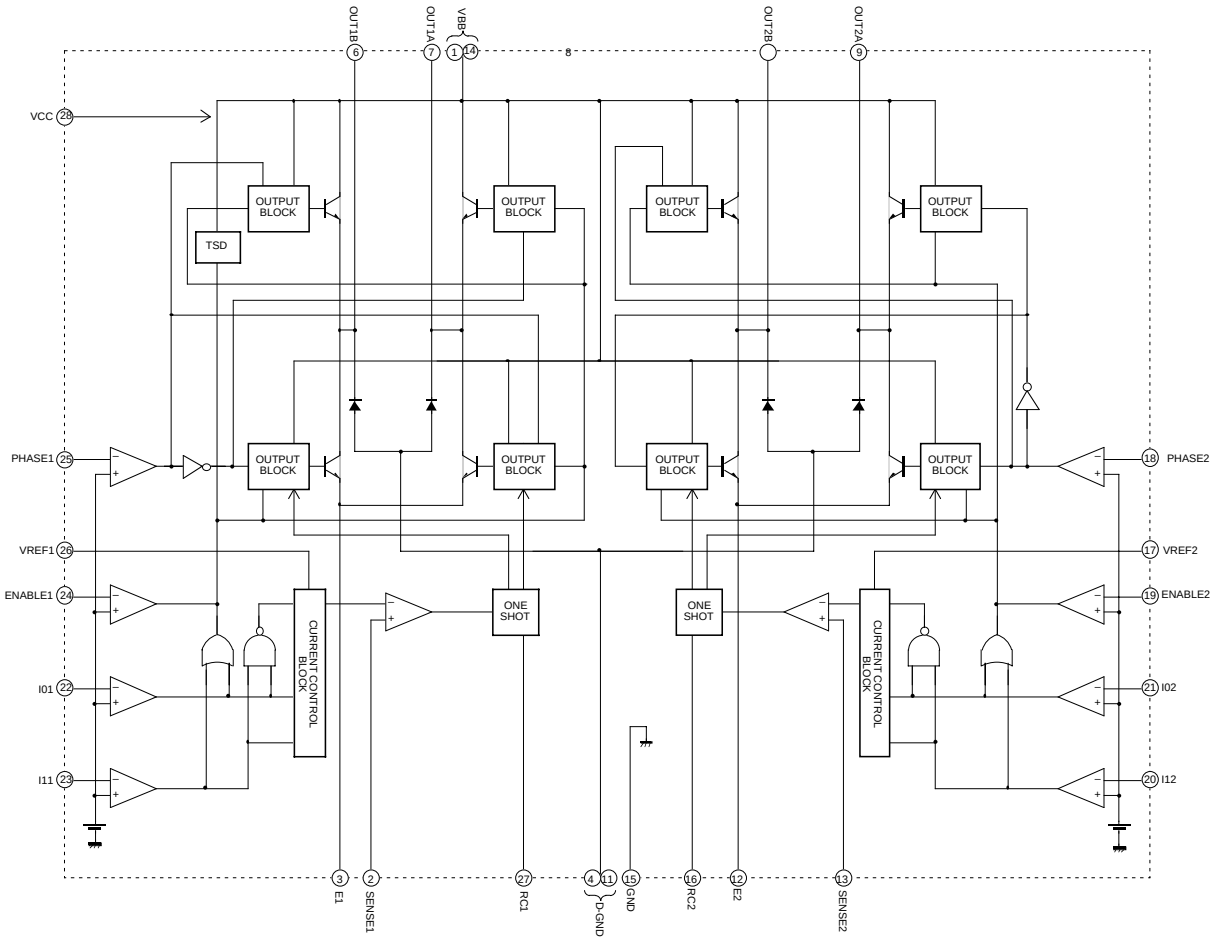


Fig. 6

I_0	I_1	Output Current
L	L	Vref/ (10 x R_E) = I_{OUT}
H	L	Vref/ (15 x R_E) = I_{OUT} x 2/3
L	H	Vref/ (30 x R_E) = I_{OUT} x 1/3
H	H	0

Note: When ENABLE = H or I_0 = I_1 = H, the output is in OFF state.

[Truth Table]

ENABLE	PHASE	OUTA	OUTB
L	H	H	L
L	L	L	H
H	–	OFF	OFF

LB1845 (IC3) Terminal description

Pin name	Pin No.	Pin Description
VBB	1, 14	Output stage power-supply voltage
SENSE1 SENSE2	2 13	Set current detection pins. Connect these pins, fed back through noise filters, to E1, and E2.
E1 E2	3 12	Current control pins by connecting between this pin and GND.
DGND	4,11	Internal diode anode connection
OUT1B OUT1A OUT2B OUT2A	6 7 8 9	Output pins
GND	15	Ground
RC1 RC2	27 16	Used to set the output off time for the switched output signals. The fixed off times are set by the capacitors and resistors connected to these pins. t off ≒ CR
Vref1 Vref2	26 17	Output current settings The output current is determined by the voltage (in the range 1.5 to 7.5V) input to these pins.
PHASE1 PHASE2	25 18	Output phase switching inputs. [H] input : OUT A = high, OUT B = low [L] input : OUT A = low, OUT B = high
ENABLE1 ENABLE2	24 19	Output on/off settings [H] input : output OFF [L] input : output ON
I01, I11 I02, I12	22, 23 21, 20	Digital inputs that set the output current The output currents can be set to 1/3, 2/3, or full by setting these pins to appropriate combinations of high and low levels.
VCC	28	Logic block power supply.

(8) LCD control block

This block consists of the LCD controller and drive voltage generation circuit.

1) SED1374F0A (IC10): pin-80, QFP (LCD Controller)

The LCD controller SED1374F0A (IC10) conducts direct control to display the bitmap data through the LCD module, which is transferred to the built-in VRAM by the CPU (IC24).

2) Drive voltage generation circuit

The drive voltage of the LCD module is generated by the booster circuit including the switching regulator S-8358J50MC (IC4).
The CPU monitors the ambient temperature of the LCD module using the thermistor, and the temperature adjustment of the LCD's contrast is performed by controlling the drive voltage.

(9) Network I/F block

This block establishes interface to the NIC option (FO-LN1) and PCL board option (FO-NP1) through SUB ASIC mentioned in the above item 5). The I/F line (DPO-bus) to NIC is shared with the Fax system on the PCL board, and SUB ASIC assigns a place to connect. The PCU (laser printer engine) is also shared with the Fax system on the PCL board, and the printer master is decided by mutual negotiations via SUB ASIC. The I/F route is as follows:

① Fax system to NIC
Makes communication via SUB ASIC.

② Fax system to PCL board
- Serial Communication: Clock sync serial communication function
- Print Request/Acknowledge: Print request from the PCL board and response to it

③ NIC to PCL board
Makes communication via SUB ASIC.

④ PCL board to PCU
- Serial Communication: Clock sync serial communication function
- Other signals: The print vertical sync signal (/TOD) and the print horizontal sync signal (/HSYNC) are connected directly. Signals other than these are connected via SUB ASIC.

[3] Circuit description of CIS unit

1. CIS

CIS is an image sensor which puts the original paper in close contact with the full-size sensor for scanning, being a monochromatic type with the pixel number of 2,048 dots and the main scanning density of 8 dots/mm.

It is composed of sensor, rod lens, LED light source, control circuit and so on, and the reading line and focus are previously adjusted as the unit.
Due to the full-size sensor, the focus distance is so short that the set is changed from the light weight type to the compact type.

2. Waveforms

The following clock is supplied from LC272D0BT-WA6 via 74HCT244 on the control board, and AO is output.

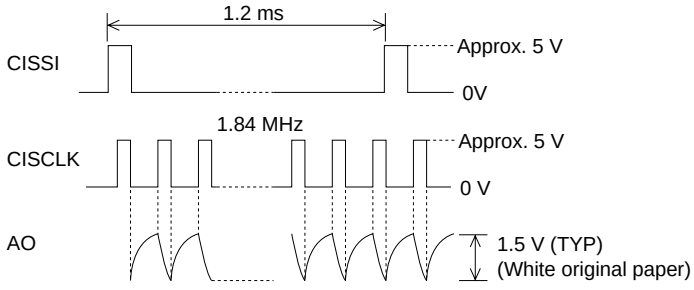


Fig. 7

[4] Circuit description of LIU PWB

(1) LIU block operational description

1) Block diagram

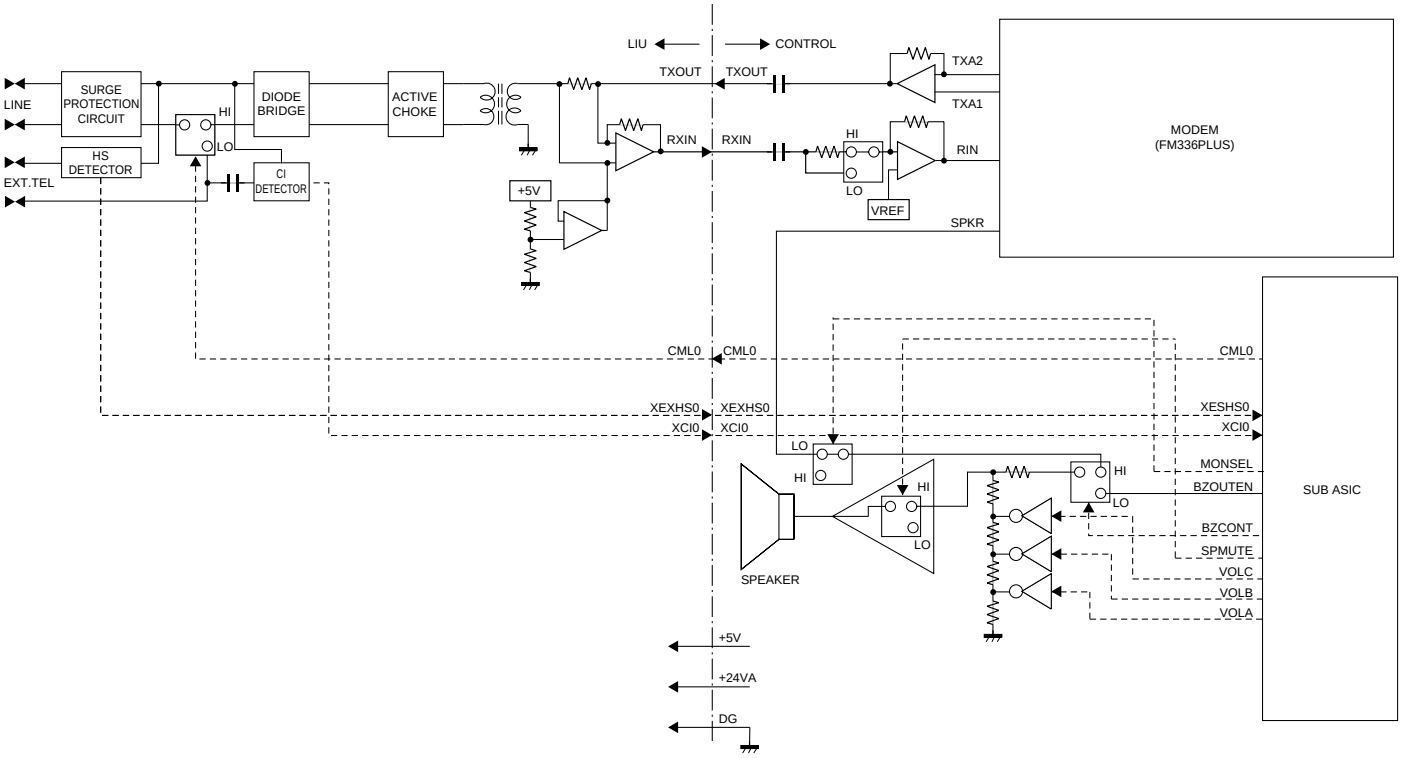


Fig. 8

2) Circuit description

The LIU PWB is composed of the following 9 blocks.

1. Surge protection circuit
2. On-hook status detection circuit
3. Dial pulse generation circuit
4. CML relay
5. Matching transformer
6. Hybrid circuit
7. Signal selection
8. CI detection circuit
9. Power supply and bias circuit

3) Block description

1. Surge Protection circuit

This circuit protects the circuit from the surge voltage occurring on the telephone line.

- The AR1 protect the circuit from the 390V or higher line surge voltages.
- The AR2 and AR3 protect the circuit from the 500V or higher vertical surge voltages.
- The ZD6 and ZD7 control the voltage generated on the secondary side of matching transformer to 2V.

2. On-hook status detection circuit

The on-hook status detection circuit detects the Status of the push speaker key, and the status of the hook of a telephone externally connected.

- External telephone hook status detection circuit (XEXHS0)

This circuit comprises the photo-coupler PC3, resistors R13 and R12, Zener diodes ZD1 and ZD2.
When an external telephone is connected and enters the on-hook mode, the LED of photo-coupler PC3 emits light and the light receiving element tuns on. The status signal XEXHS0 is input to the pin10 of (SUB ASIC) (IC21: Control PWB).

XEXHS0 LOW : EXT. TEL OFF-HOOK

XEXHS0 HIGH: EXT. TEL ON-HOOK

3. Dial pulse generation circuit

The pulse dial generation circuit comprises CML.
CML ON: Make

CML OFF: Break

4. CML relay

The CML relay switches over connection to the matching transformer T1 while the FAX is being used.

5. Matching transformer

The matching transformer performs electrical insulation from the telephone line and impedance matching for transmitting the FAX signal.

6. Hybrid circuit

The hybrid circuit performs 2-wire-to-4-wire conversion using the IC of operational amplifier, transmits the voice transmission signal to the line, and feeds back the voice signal to the voice reception circuit as the side tone.

7. Signal selection

The following signals are used to control the transmission line of FAX signal. For details, refer to the signal selector matrix table.

[Control signals from output port]

<table>
<tr><th>Signal Name</th><th>Description</th></tr>
<tr><td>CML0</td><td><u>Line connecting relay and DP generating relay</u>
H: Line make
L: Line brake</td></tr>
<tr><td>SP MUTE</td><td><u>Speaker tone mute control signal</u>
H: Muting (Power down mode)
L: Muting cancel (Normal operation)</td></tr>
<tr><td>VOL A
VOL B
VOL C

(the circuit is located in the control PWB.)</td><td><u>Speaker volume control signal.</u>
VRSEL1 VRSEL2 matrix
<table>
<tr><th></th><th>VOL A</th><th>VOL B</th><th>VOL C</th><th>RING./ Receiving</th><th>Buzzer</th><th>DTMF</th></tr>
<tr><td></td><td>L</td><td>L</td><td>L</td><td>High</td><td>–</td><td>High</td></tr>
<tr><td></td><td>H</td><td>L</td><td>L</td><td>Middle</td><td>High</td><td>Middle</td></tr>
<tr><td></td><td>L</td><td>L</td><td>H</td><td>Low</td><td>Low</td><td>Low</td></tr>
</table></td></tr>
<tr><td>BZCONT

(the circuit is located in the control PWB.)</td><td><u>Speaker output signal switching</u>
L: Buzzer signal output
H: When monitoring line signal</td></tr>
</table>

[SIgnals for status recognition according to input signals]

Signal Name	Function
XCI0	Incoming call (CI) detection signal
XEXHS0	H: The handset or external telephone is in the on-hook state. L: The handset or external telephone in the off-hook state.

[Other signals]

Signal Name	Function
TXOUT	Transmission (DTMF) analog signal output from modem
RXIN	Reception (DTMF, others) analog signal input into modem

NO	Signal Name(CNLIU)	NO	Signal Name(CNLIU)
1	RXIN	6	CML
2	TXOUT	7	+5V
3	CI	8	DG
4	$\overline{\text{EXHS}}$	9	+24VA
5	DPON (N.C.)		

8. CI detection circuit

The CI detection circuit detects the CI signals of 15.3 Hz to 68 Hz. A CI signal, which is provided to the photo-coupler PC1 through the C1 (0.82 uF), R6 (22K), and ZD3 and R5 (13K) when the ring signal is inputted from the telephone line.

9. Power supply and bias circuits

The voltages of +5V and +24VA are supplied from the control PWB unit.

(Example: Fax signal send)

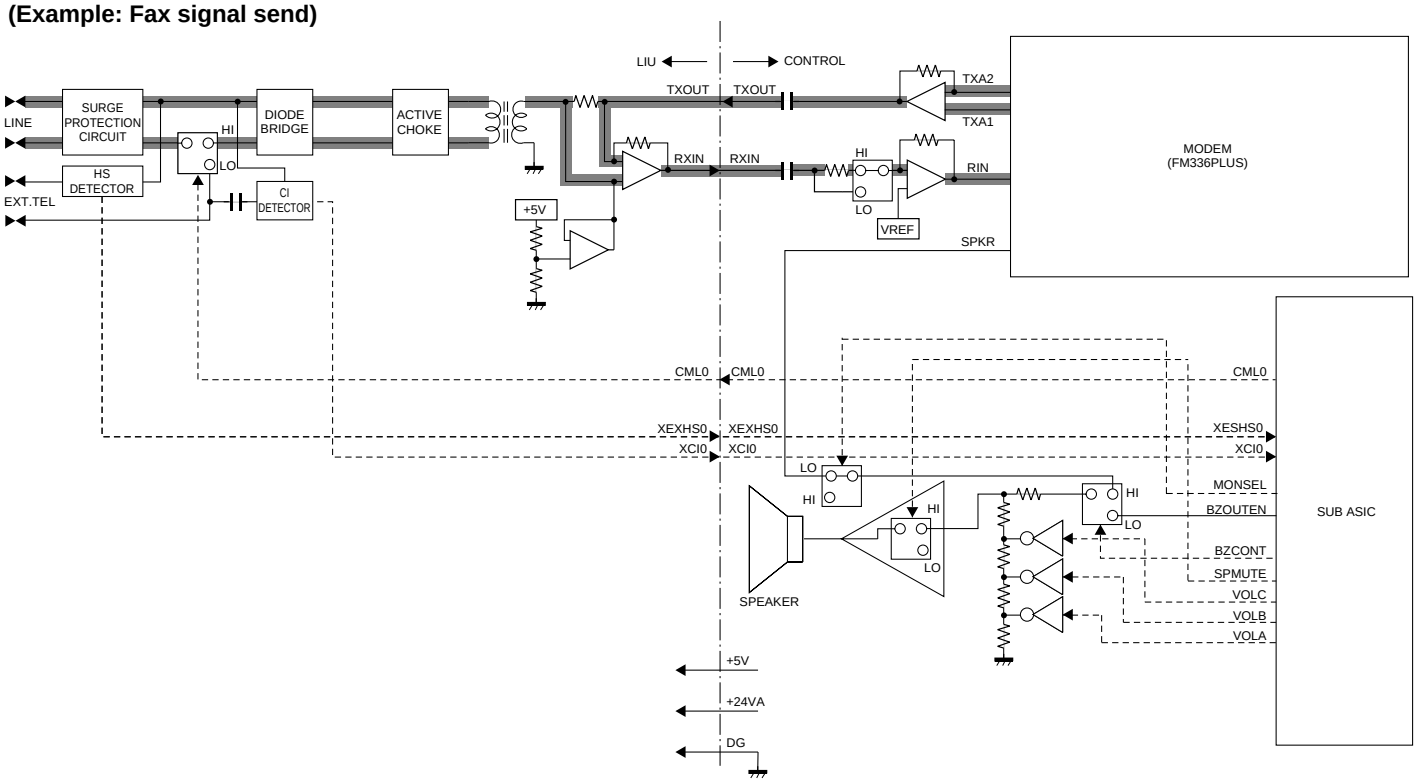


Fig. 9

[5] Circuit description of operation panel PWB

1. Operational description

1) Operation panel PWB

The operation panel PWB includes the ten key scan circuit and the LED lighting circuit.The LS145 is controlled through LD0~LD3 (4 bits) and ten key detection is performed. The HC174 is controlled through LD0~LD5 (6 bits) to provide LED lighting information.

2) LCD (LM046QB1H01)

a. Scope of application
This specification applies to a positive diffusion type monochrome dot matrix LCD module LM046QB1H01.

b. Structure and external shape
Structure: 320 x 240 monographic display module
This dot matrix LCD module consists of an LCD panel, a print PWB mounting electrical parts, a TCP electrically connecting these units and bezels fixing them mechanically.

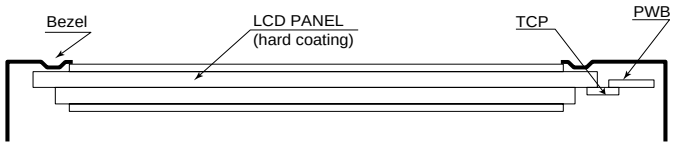


Fig. 10 Module construction plan

2. Block diagram

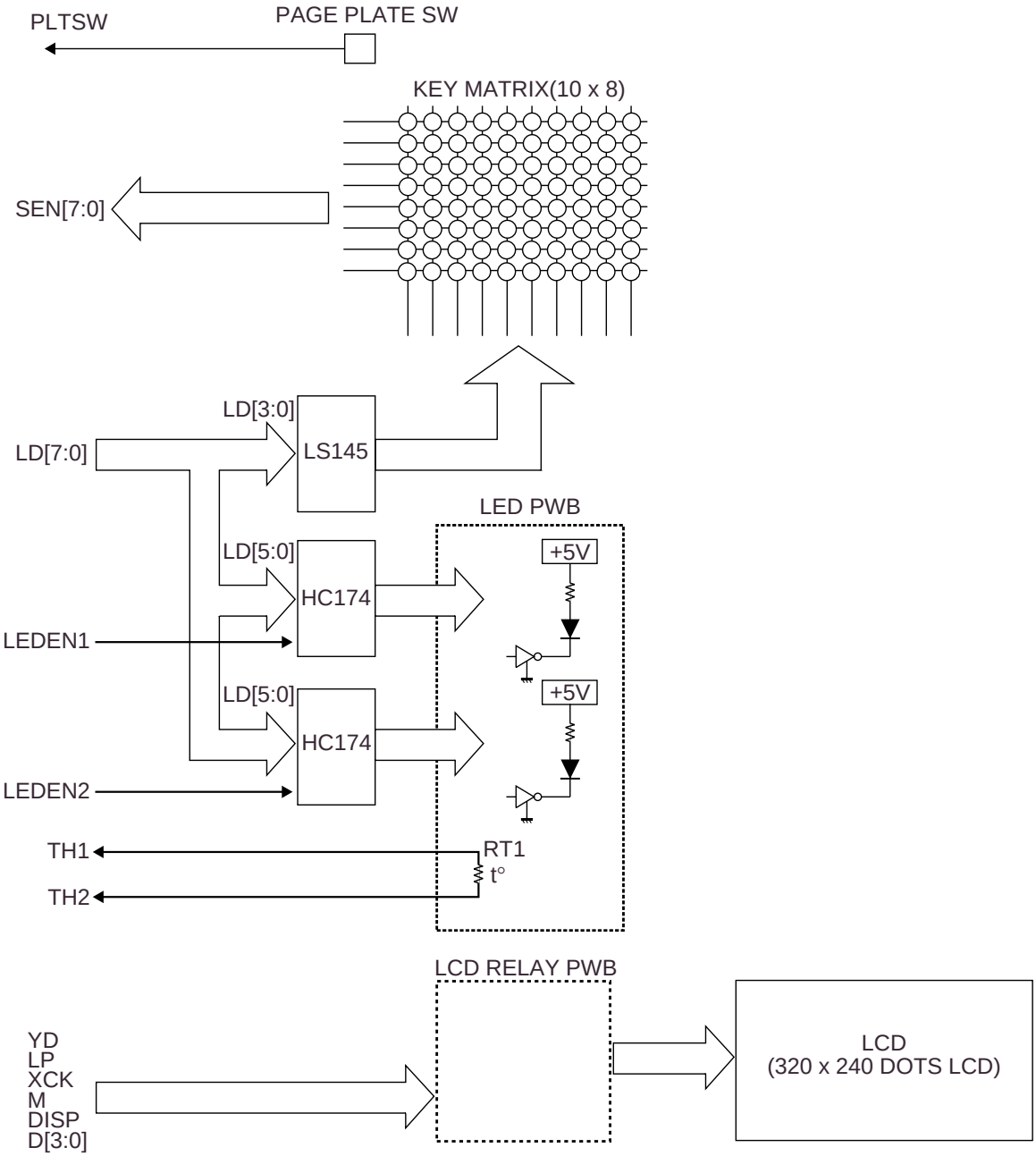


Fig. 11

[6] Circuit description of power supply PWB

This unit supply input AC 120 V/60 Hz, +24 V, +5 V as block diagram shows. (See Fig. 12)

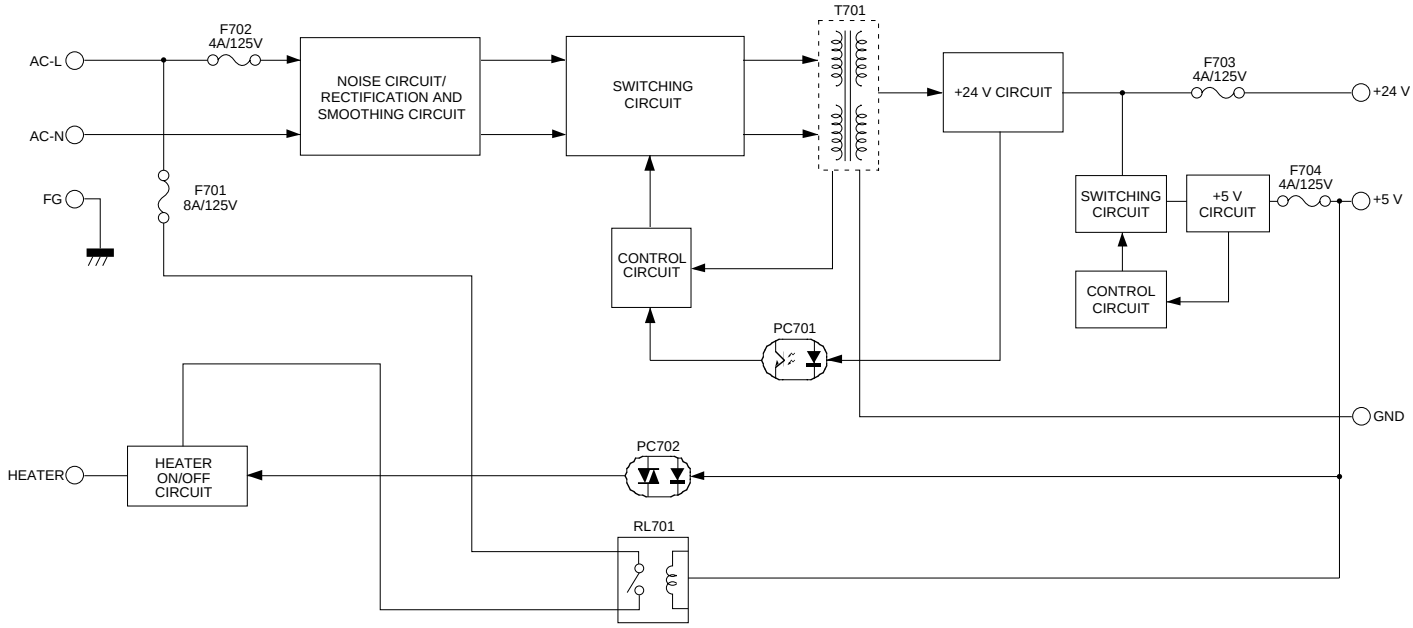


Fig. 12

1. Noise/Rectification and smoothing circuit

Filter part reduces the outgoing noise that generated in the Power Supply unit, and prevents the invasion of the noise from outside. The excessive surge such as the thunder is prevented by Varistor X701.
Rectification and Smoothing circuit is supply DC voltage to switching part by AC input rectify by Diode D701, D702, D703, D704 and smoothing Capacitor C706.

2. Switching circuit

This circuit is adopt Ringing Choke Converter system that self-excited. This system supplies power as follows;
AC voltage that supplied by Rectifying and smoothing part is change high-frequency pulse by NO/OFF repeat of MOS FET Q701. And while Q701 ON, accumulate energy in primary winding of transformer T701. And while OFF, eject energy to secondary winding.
Control of constant voltage is carry out by as follows;
Feedback put on control circuit through photo coupler from +24 V Output. Over Current Protection Circuit detect spread of ON period by Output Load is heavy, and extend OFF period by control circuit. And turn down energy that accumulating in primary winding.
Over Current Protection is make secondary side of output voltage +24 V's rising over voltage condition by conducting Zener Diode D711 that between +24 V output and GND. Then protection is carrying out by Over Current Protection Circuit of Control Circuit working.

3. +24 V circuit

+24 V Circuit is supplied by Transformer T701 Output Rectification and Smoothing by Diode D710, Capacitor C715.

4. +5 V circuit

+5 V Output is carry out stabilization by step-down Chopper Circuit that inputted above +24 V. When MOS FET Q705 ON, this system supply load energy through L705, and when OFF, accumulated energy in L705 Rectification to load by D715. Control of constant voltage is carry out by detect +5 V output by Shunt Regulator and put on Feedback.

5. HEATER ON signal

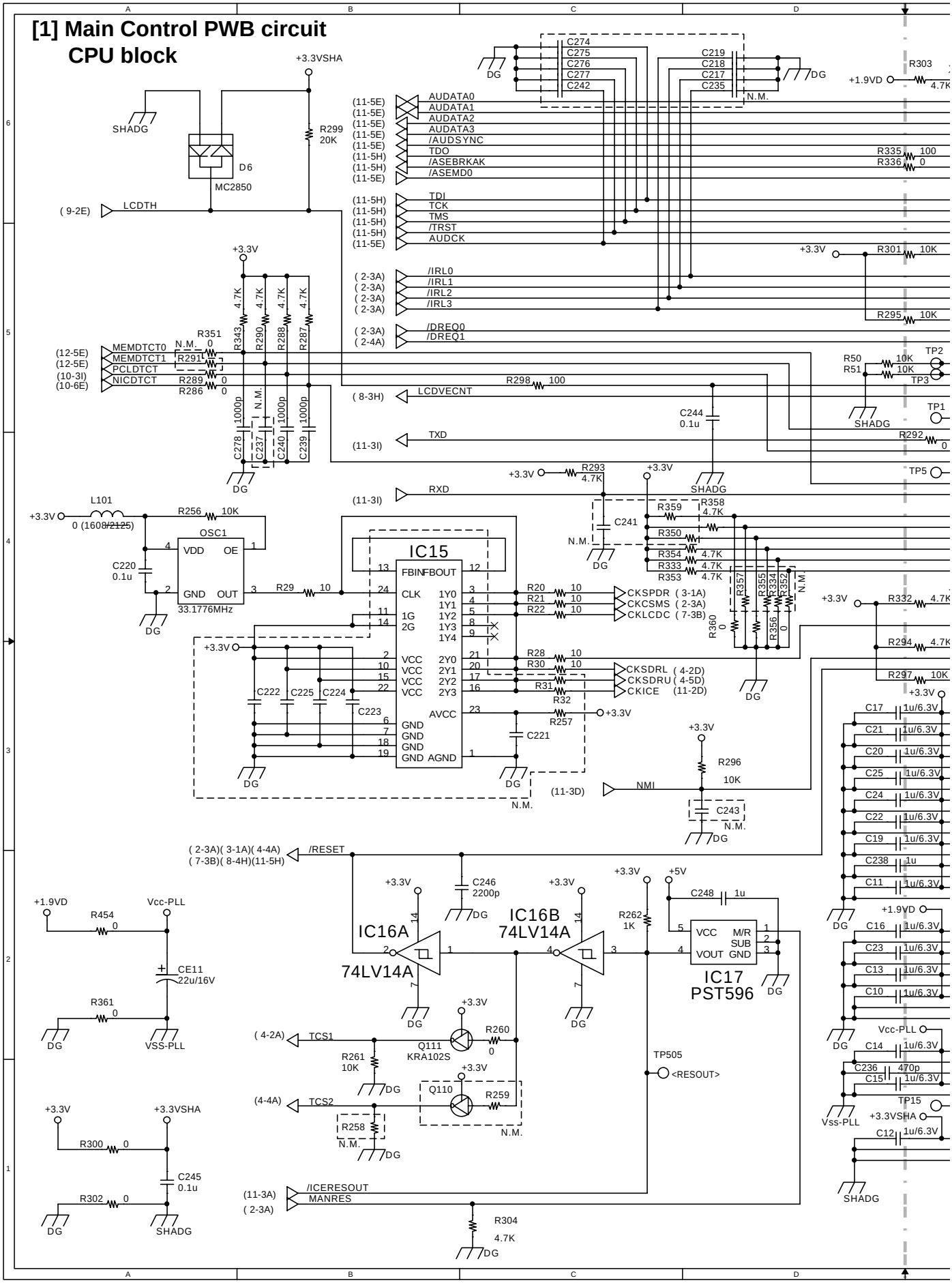
HEATER ON/OFF is carry out by send a signal through Trigger TR701 of Photo Triac Coupler PC702 by (High/Low).

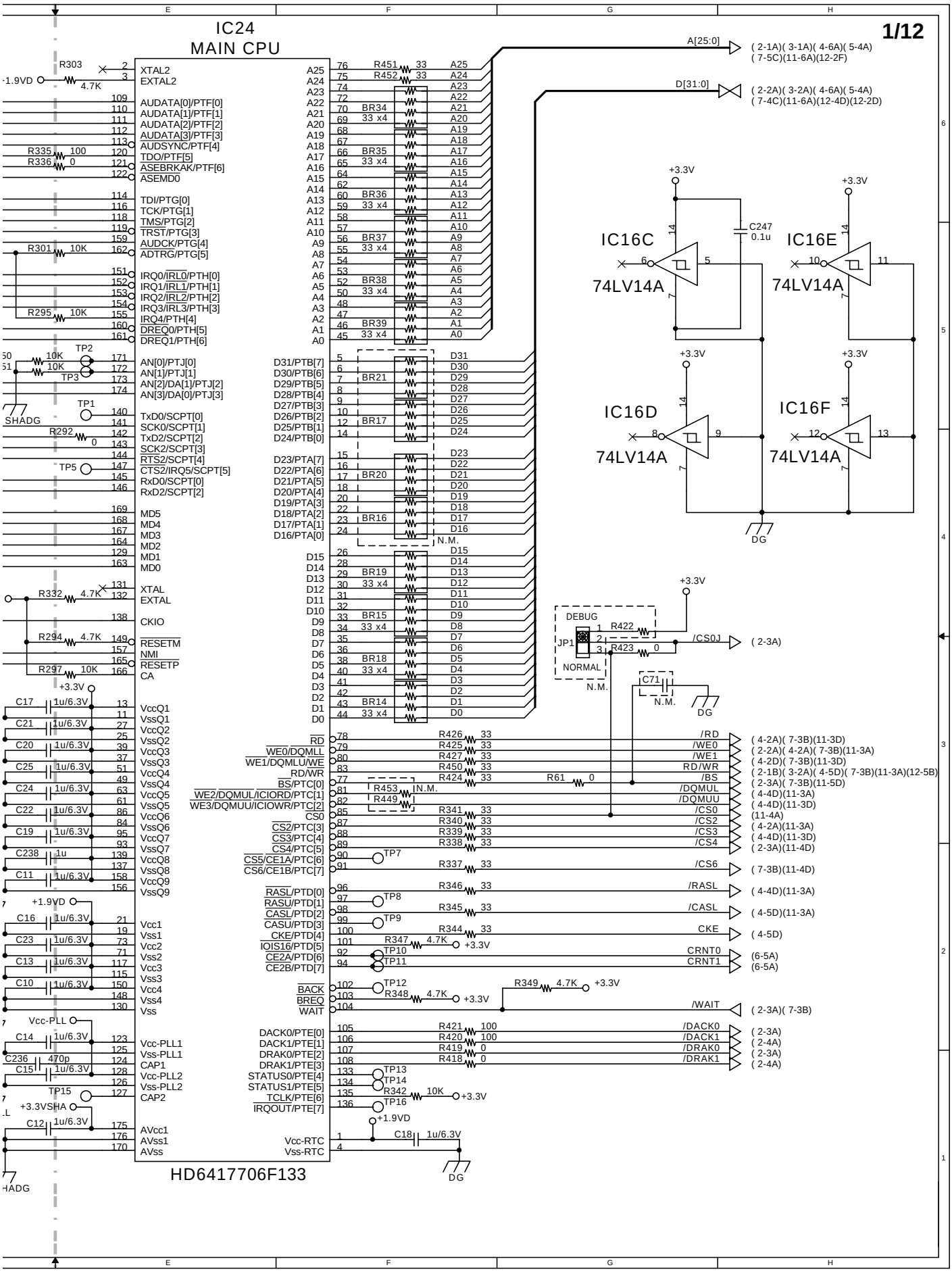
6. HEATER-RELAY OFF signal

ON/OFF of Relay RL701 is carry out by (High/Low). But when HEATER-RELAY OFF Signal change High to Low, Thyristor SR701 keep ON condition. So RL701 keep OFF condition till Power Supply re-inter.

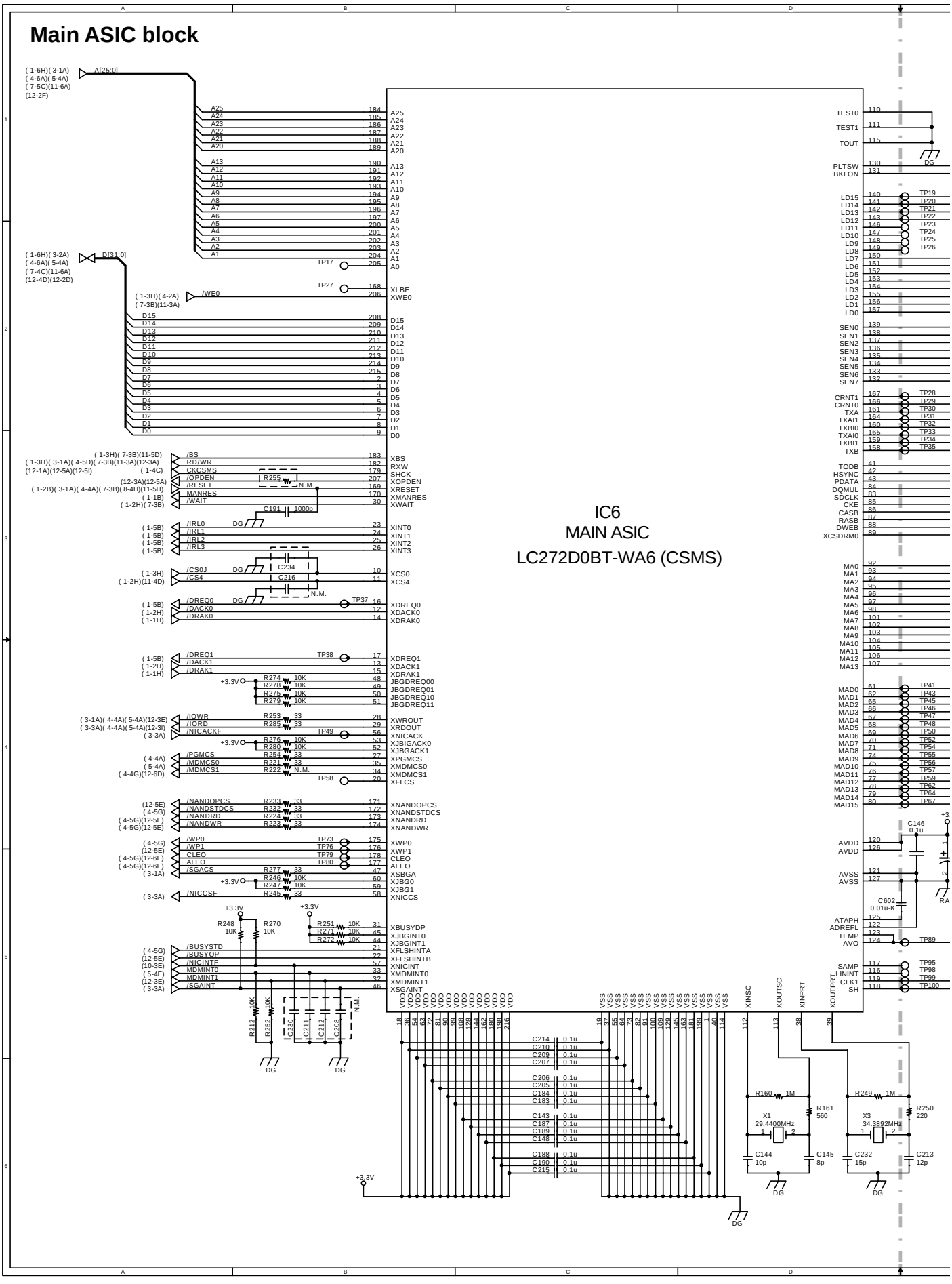
CHAPTER 6. CIRCUIT SCHEMATICS AND PARTS LAYOUT

[1] Main Control PWB circuit
CPU block

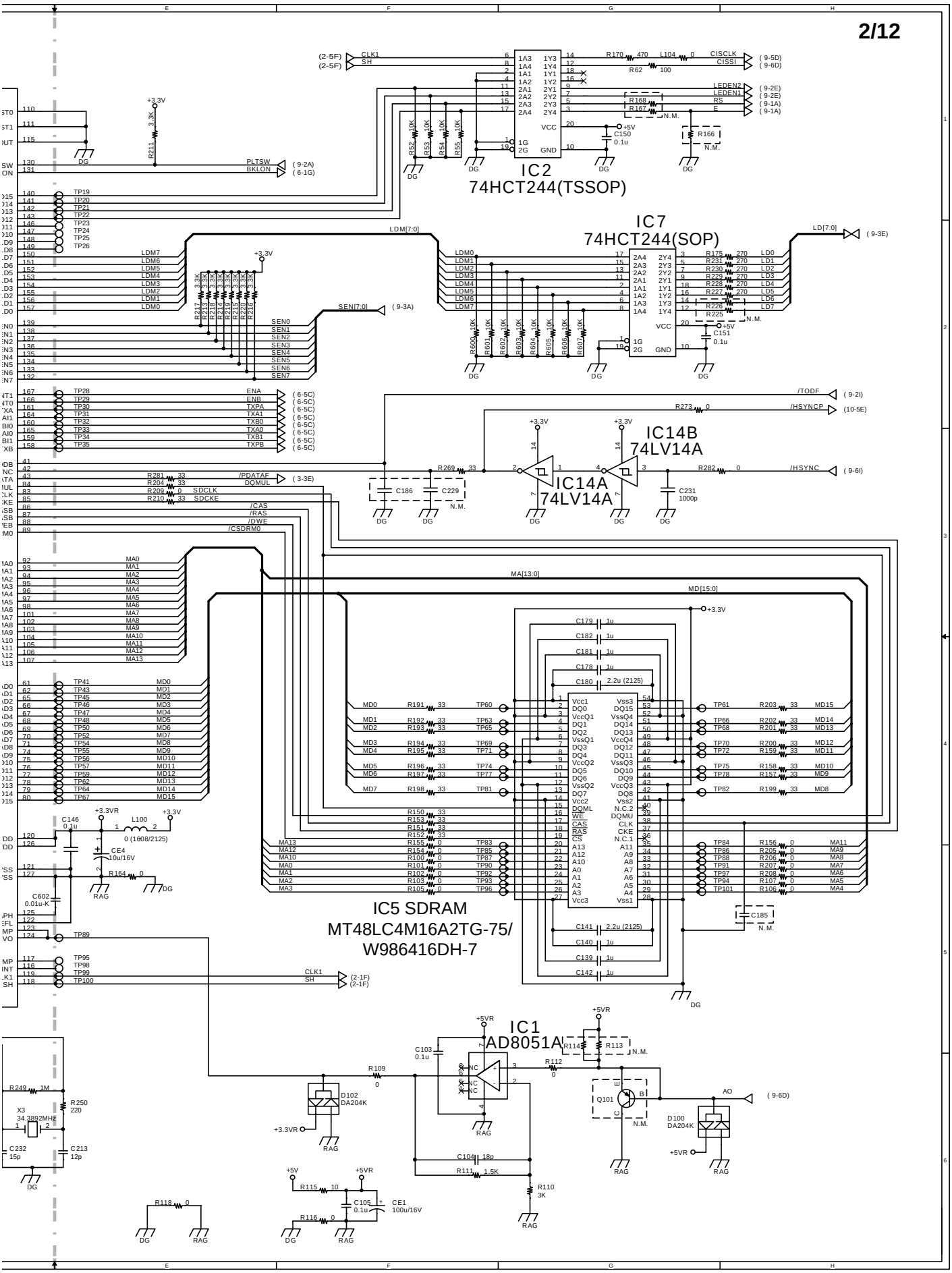


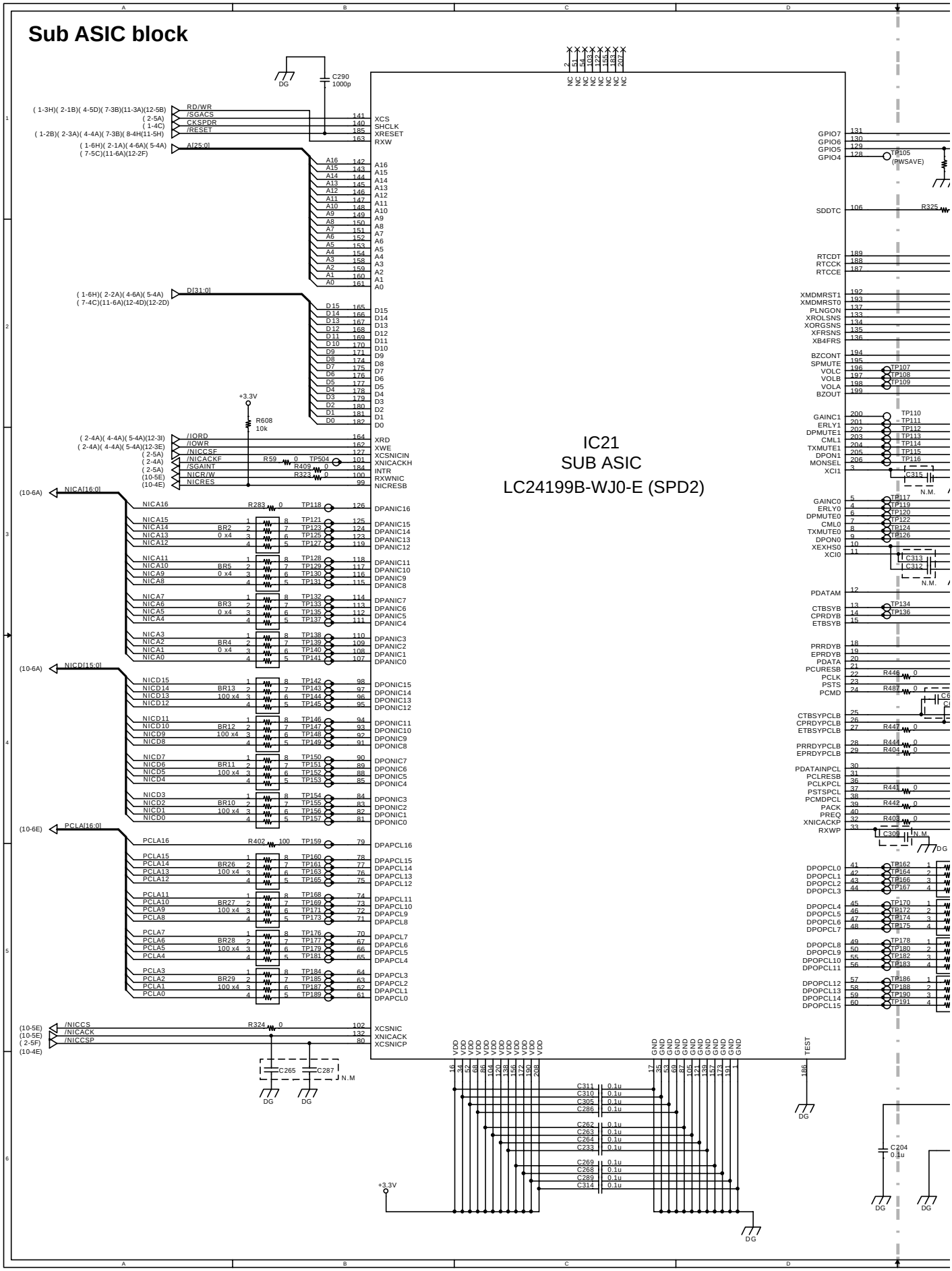

IC24
MAIN CPU
1/12
HD6417706F133
A[25:0]
(2-1A)(3-1A)(4-6A)(5-4A)
(7-5C)(11-6A)(12-2F)
D[31:0]
(2-2A)(3-2A)(4-6A)(5-4A)
(7-4C)(11-6A)(12-4D)(12-2D)
IC16C
IC16E
IC16D
IC16F
74LV14A
C247
0.1u
+3.3V
DG
DEBUG
NORMAL
JP1
N.M.
/CS0J
(2-3A)
/RD
/WE0
/WE1
RD/WR
/BS
/DQMUL
/DQMUU
/CS0
/CS2
/CS3
/CS4
/CS6
/RASL
/CASL
CKE
CRNT0
CRNT1
/WAIT
/DACK0
/DACK1
/DRAK0
/DRAK1
XTAL2
EXTAL2
AUDATA[0]/PTF[0]
AUDATA[1]/PTF[1]
AUDATA[2]/PTF[2]
AUDATA[3]/PTF[3]
AUDSYNC/PTF[4]
TDO/PTF[5]
ASEBRKAK/PTF[6]
ASEMD0
TDI/PTG[0]
TCK/PTG[1]
TMS/PTG[2]
TRST/PTG[3]
AUDCK/PTG[4]
ADTRG/PTG[5]
IRQ0/IRL0/PTH[0]
IRQ1/IRL1/PTH[1]
IRQ2/IRL2/PTH[2]
IRQ3/IRL3/PTH[3]
IRQ4/PTH[4]
DREQ0/PTH[5]
DREQ1/PTH[6]
AN[0]/PTJ[0]
AN[1]/PTJ[1]
AN[2]/DA[1]/PTJ[2]
AN[3]/DA[0]/PTJ[3]
TxD0/SCPT[0]
SCK0/SCPT[1]
TxD2/SCPT[2]
SCK2/SCPT[3]
RTS2/SCPT[4]
CTS2/IRQ5/SCPT[5]
RxD0/SCPT[0]
RxD2/SCPT[2]
MD5
MD4
MD3
MD2
MD1
MD0
XTAL
EXTAL
CKIO
RESETM
NMI
RESETP
CA
VccQ1
VssQ1
VccQ2
VssQ2
VccQ3
VssQ3
VccQ4
VssQ4
VccQ5
VssQ5
VccQ6
VssQ6
VccQ7
VssQ7
VccQ8
VssQ8
VccQ9
VssQ9
Vcc1
Vss1
Vcc2
Vss2
Vcc3
Vss3
Vcc4
Vss4
Vss
Vcc-PLL1
Vss-PLL1
CAP1
Vcc-PLL2
Vss-PLL2
CAP2
AVcc1
AVss1
AVss
Vcc-RTC
Vss-RTC
A25
A24
A23
A22
A21
A20
A19
A18
A17
A16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
D31/PTB[7]
D30/PTB[6]
D29/PTB[5]
D28/PTB[4]
D27/PTB[3]
D26/PTB[2]
D25/PTB[1]
D24/PTB[0]
D23/PTA[7]
D22/PTA[6]
D21/PTA[5]
D20/PTA[4]
D19/PTA[3]
D18/PTA[2]
D17/PTA[1]
D16/PTA[0]
D15
D14
D13
D12
D11
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
RD
WE0/DQMLL
WE1/DQMLU/WE
RD/WR
BS/PTC[0]
WE2/DQMUL/ICIORD/PTC[1]
WE3/DQMUU/ICIOWR/PTC[2]
CS0
CS2/PTC[3]
CS3/PTC[4]
CS4/PTC[5]
CS5/CE1A/PTC[6]
CS6/CE1B/PTC[7]
RASL/PTD[0]
RASU/PTD[1]
CASL/PTD[2]
CASU/PTD[3]
CKE/PTD[4]
IOIS16/PTD[5]
CE2A/PTD[6]
CE2B/PTD[7]
BACK
BREQ
WAIT
DACK0/PTE[0]
DACK1/PTE[1]
DRAK0/PTE[2]
DRAK1/PTE[3]
STATUS0/PTE[4]
STATUS1/PTE[5]
TCLK/PTE[6]
IRQOUT/PTE[7]
R303
4.7K
R335
100
R336
0
R301
10K
R295
10K
R332
4.7K
R294
4.7K
R297
10K
R292
0
R451
33
R452
33
BR34
BR35
BR36
BR37
BR38
BR39
BR21
BR17
BR20
BR16
BR19
BR15
BR18
BR14
33 x4
N.M.
R426
R425
R427
R450
R424
R453
R449
R341
R340
R339
R338
R337
R346
R345
R344
R347
4.7K
R348
4.7K
R349
4.7K
R421
100
R420
100
R419
0
R418
0
R342
10K
R422
R423
0
R61
0
C17
C21
C20
C25
C24
C22
C19
C238
C11
C16
C23
C13
C10
C14
C236
470p
C15
C12
C71
C18
1u/6.3V
1u
TP1
TP2
TP3
TP5
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
SHADG
+1.9VD
+3.3VSHA
Vcc-PLL

Main ASIC block

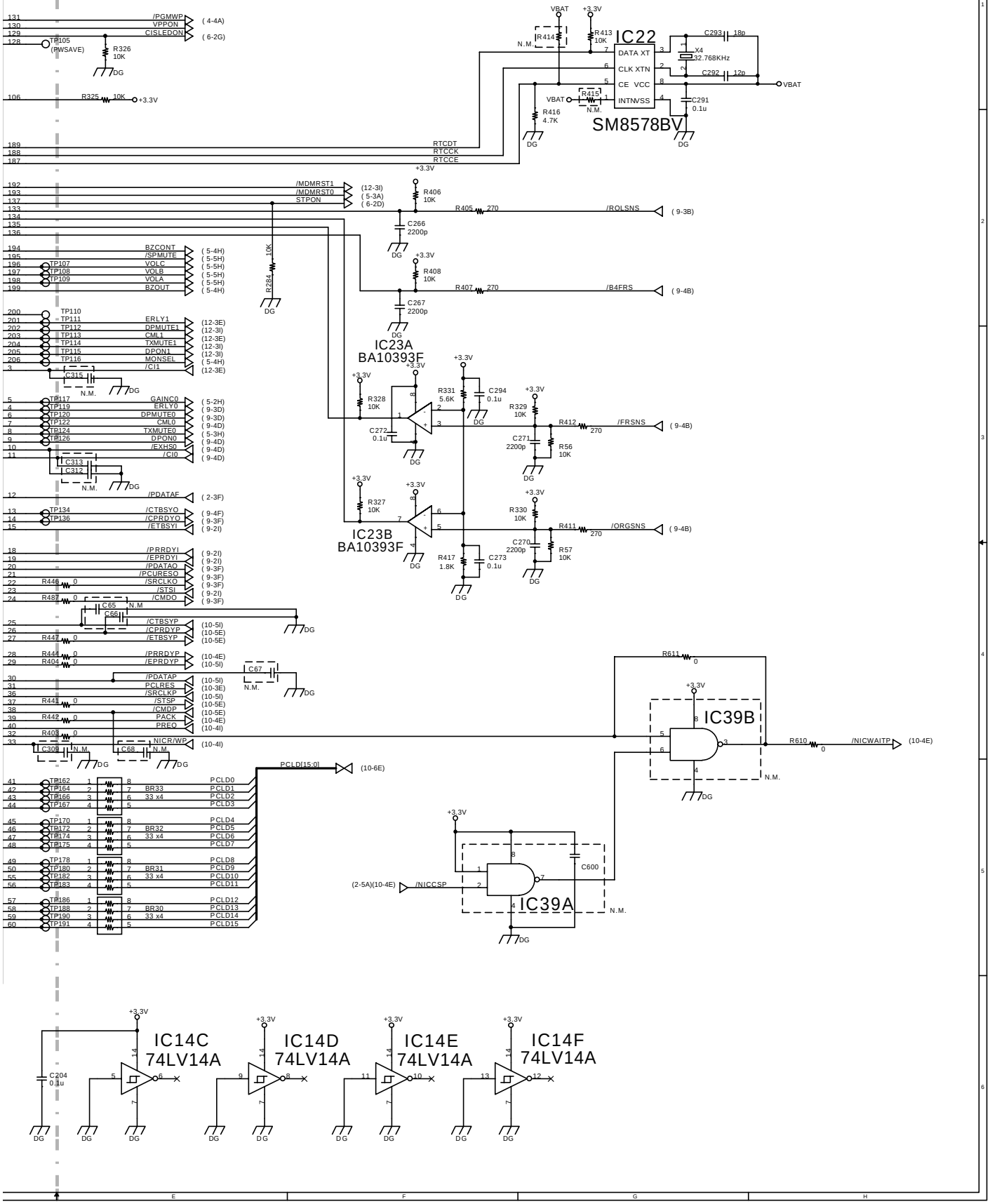


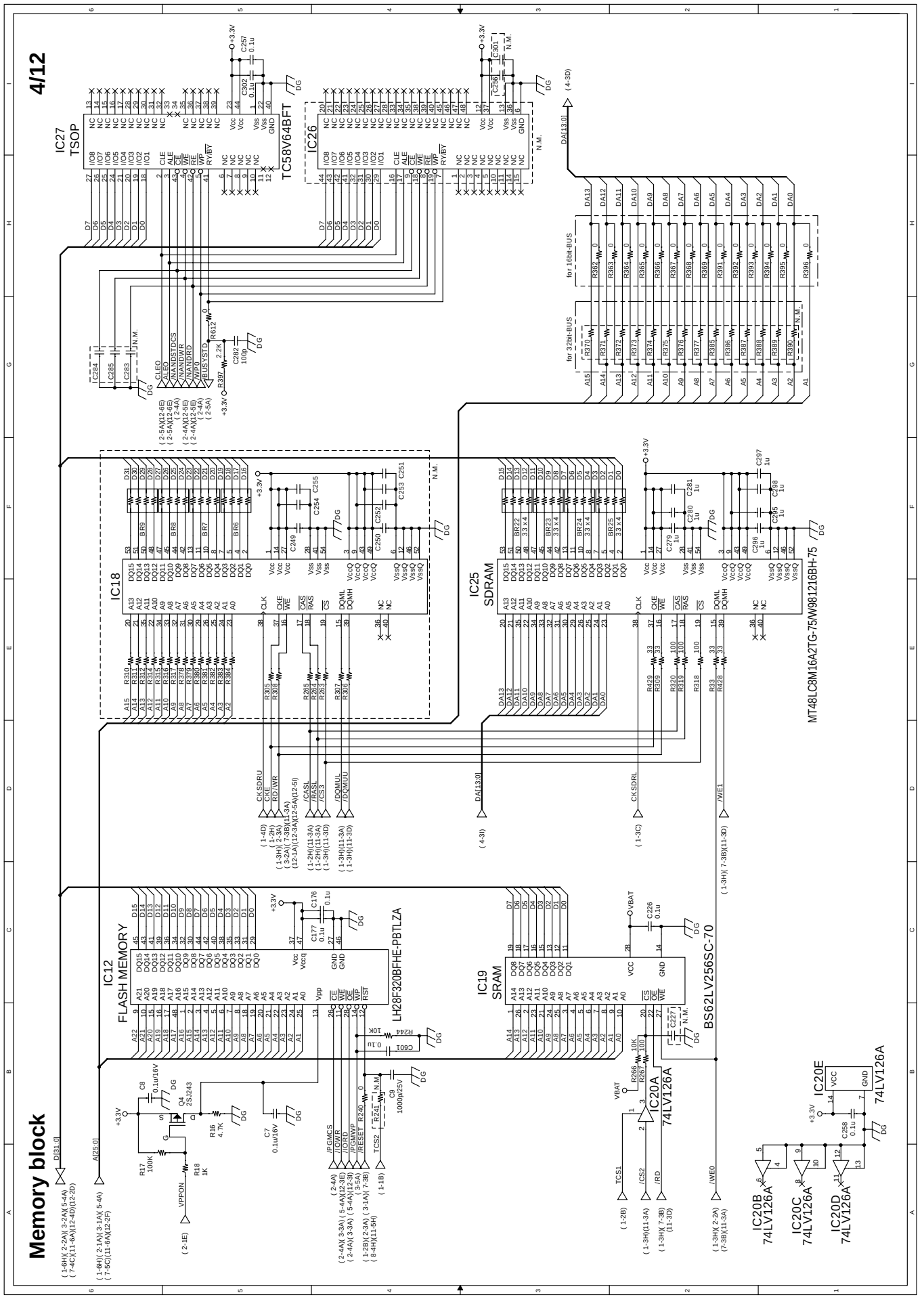
2/12


IC2
74HCT244(TSSOP)
IC7
74HCT244(SOP)
IC14B
74LV14A
IC14A
74LV14A
IC5 SDRAM
MT48LC4M16A2TG-75/
W986416DH-7
IC1
AD8051A
CLK1
SH
PLTSW
BKLON
LDM[7:0]
LD[7:0]
SEN[7:0]
MA[13:0]
MD[15:0]
SDCLK
SDCKE
/CAS
/RAS
/DWE
/CSDRM0
/PDATAF
DQMUL
ENA
ENB
TXPA
TXA1
TXB0
TXA0
TXB1
TXPB
/TODF
/HSYNCP
/HSYNC
CISCLK
CISSI
LEDEN2
LEDEN1
RS
E
AO

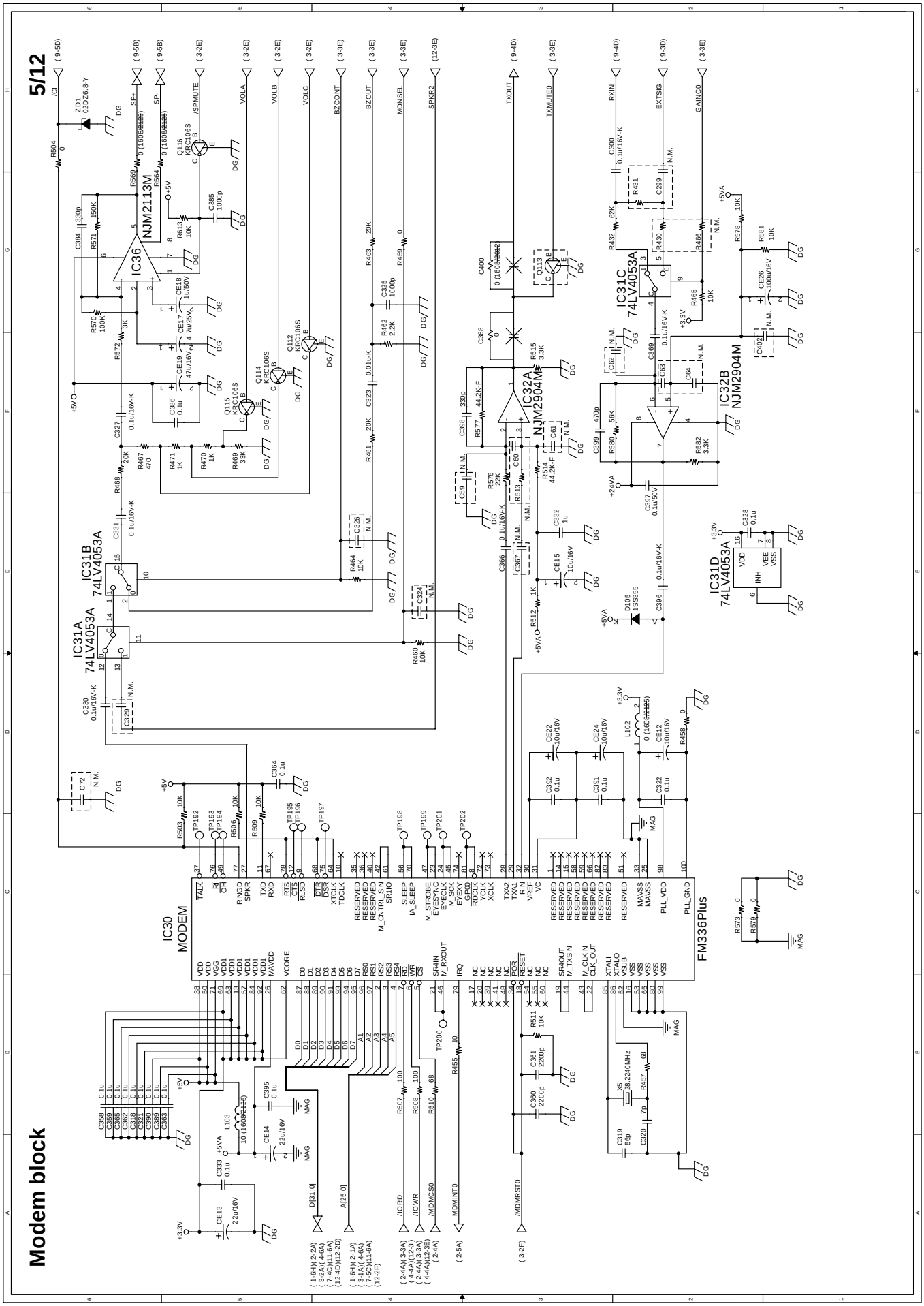

Sub ASIC block
IC21
SUB ASIC
LC24199B-WJ0-E (SPD2)

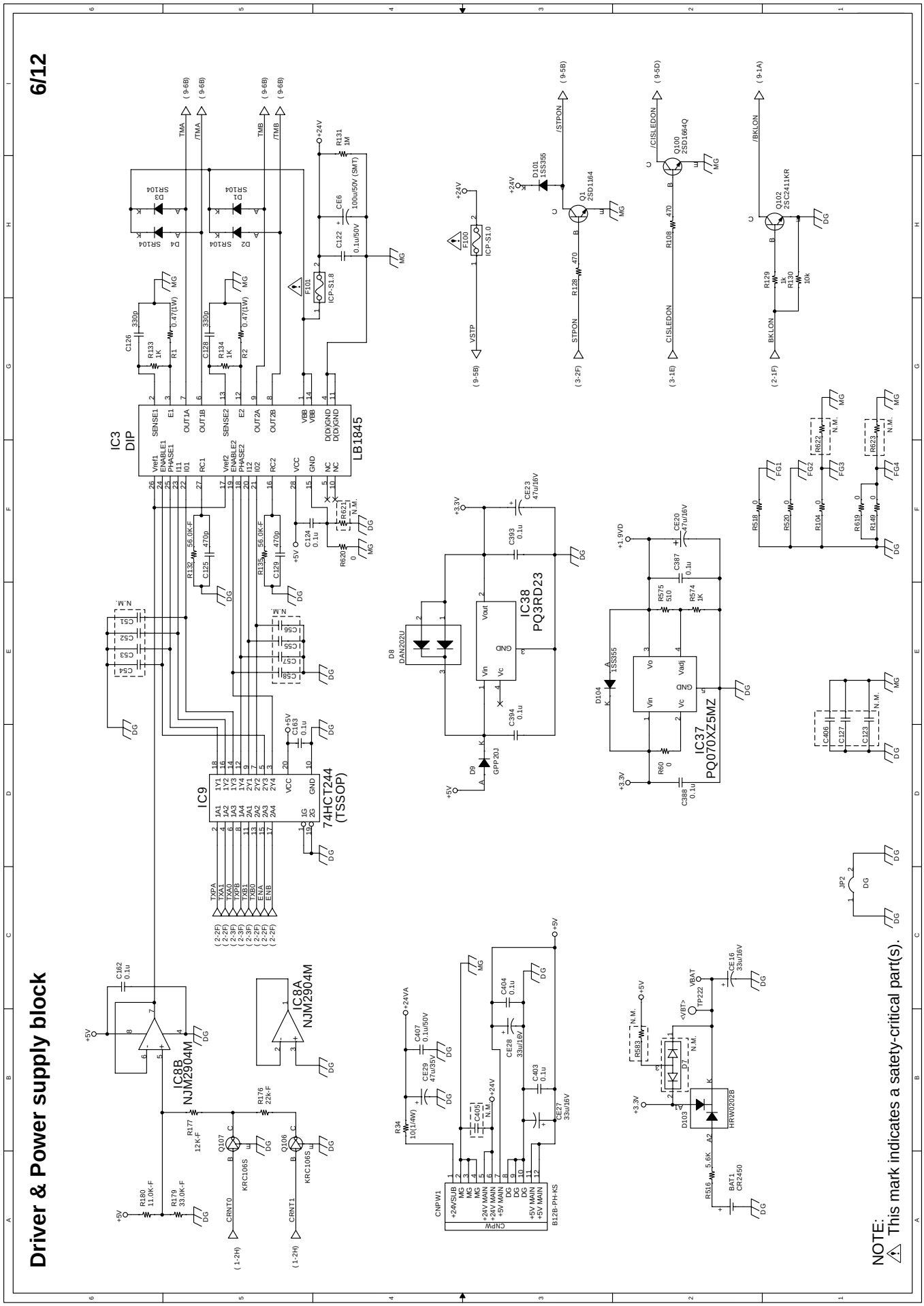
3/12


IC22
SM8578BV
DATA XT
CLK XTN
CE VCC
INTN/VSS
X4
32.768KHz
IC23A
BA10393F
IC23B
BA10393F
IC39B
IC39A
IC14C
74LV14A
IC14D
74LV14A
IC14E
74LV14A
IC14F
74LV14A
/PGMWP
VPPON
CISLEDON
RTCDT
RTCCK
RTCCE
/MDMRST1
/MDMRST0
STPON
/ROLSNS
/B4FRS
/FRSNS
/ORGSNS
/NICWAITP
/NICCSP
PCLD[15:0]
BZCONT
/SPMUTE
VOLC
VOLB
VOLA
BZOUT
ERLY1
DPMUTE1
CML1
TXMUTE1
DPON1
MONSEL
/CI1
GAINC0
ERLY0
DPMUTE0
CML0
TXMUTE0
DPON0
/EXHS0
/CI0
/PDATAF
/CTBSYO
/CPRDYO
/ETBSYI
/PRRDYI
/EPRDYI
/PDATAO
/PCURESO
/SRCLKO
/STSI
/CMDO
/CTBSYP
/CPRDYP
/ETBSYP
/PRRDYP
/EPRDYP
/PDATAP
PCLRES
/SRCLKP
/STSP
/CMDP
PACK
PREQ
NICR/WP
PCLD0
PCLD1
PCLD2
PCLD3
PCLD4
PCLD5
PCLD6
PCLD7
PCLD8
PCLD9
PCLD10
PCLD11
PCLD12
PCLD13
PCLD14
PCLD15
BR33
BR32
BR31
BR30
33 x4
VBAT
+3.3V
DG
N.M.


4/12
Memory block
IC27
TSOP
TC58V64BFT
IC26
IC18
IC25
SDRAM
MT48LC8M16A2TG-75/W981216BH-75
IC12
FLASH MEMORY
LH28F320BFHE-PBTLZA
IC19
SRAM
BS62LV256SC-70
IC20A
74LV126A
IC20B
74LV126A
IC20C
74LV126A
IC20D
74LV126A
IC20E
74LV126A
for 16bit-BUS
for 32bit-BUS
N.M.

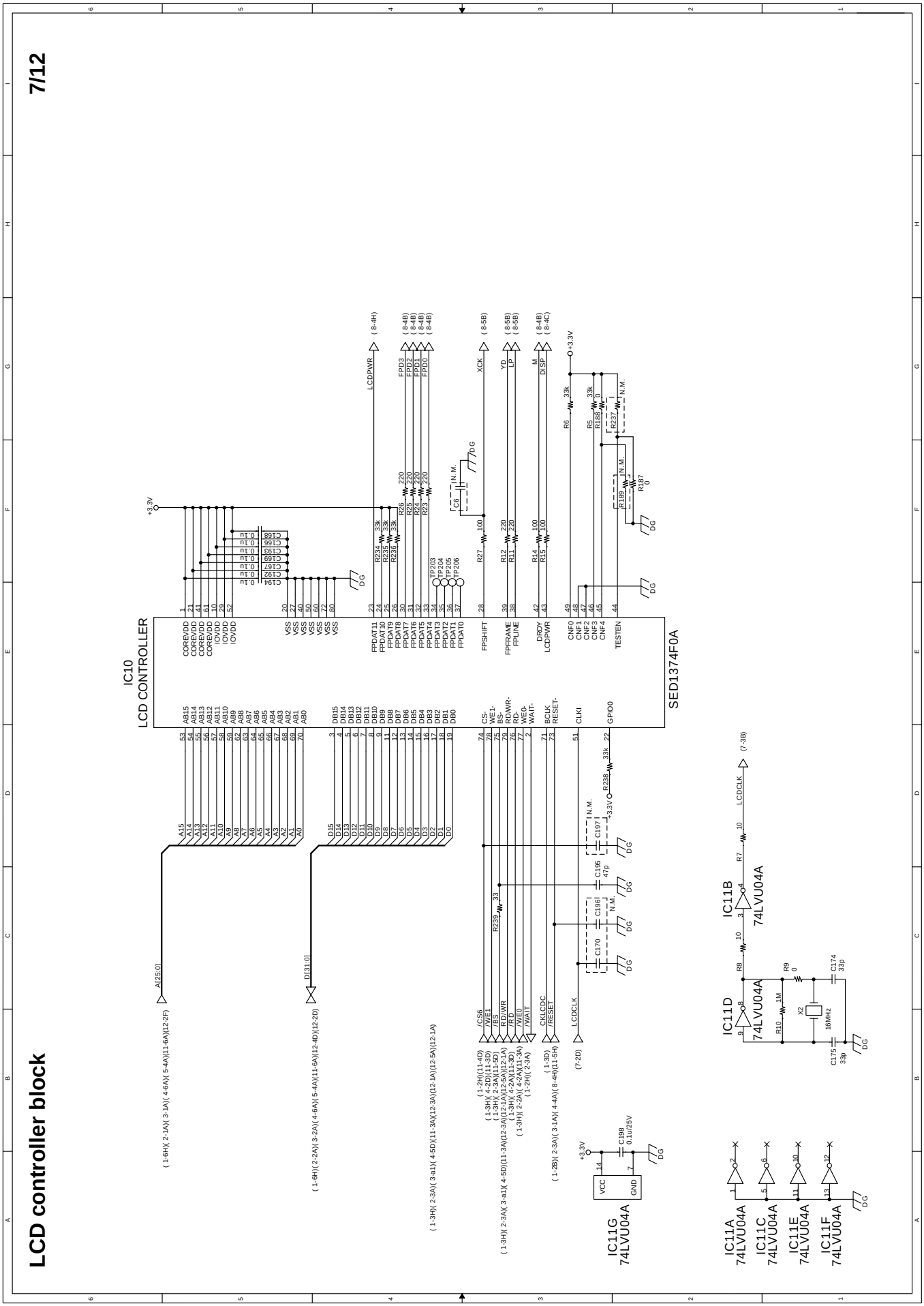
Modem block


5/12
IC30
MODEM
FM336Plus
IC31A
74LV4053A
IC31B
74LV4053A
IC31C
74LV4053A
IC31D
74LV4053A
IC32A
NJM2904M
IC32B
NJM2904M
IC36
NJM2113M
Z-D1
02DZ6.8-Y
Q112
KRC106S
Q113
KRC106S
Q114
KRC106S
Q115
KRC106S
Q116
KRC106S
D105
1SS355
X5
28.2240MHz
L102
L103
+5V
+5VA
+3.3V
+24VA
DG
MAG
/CI
SP+
SP-
/SPMUTE
VOLA
VOLB
VOLC
BZCONT
BZOUT
MONSEL
SPKR2
TXOUT
TXMUTE0
RXIN
EXTSIG
GAINC0
D[31:0]
A[25:0]
/IORD
/IOWR
/MDMCS0
MDMINT0
/MDMRST0


Driver & Power supply block
6/12
IC3
DIP
LB1845
IC9
74HCT244
(TSSOP)
IC8B
NJM2904M
IC8A
NJM2904M
IC38
PQ3RD23
IC37
PQ070XZ25MZ
NOTE:
⚠ This mark indicates a satety-critical part(s).

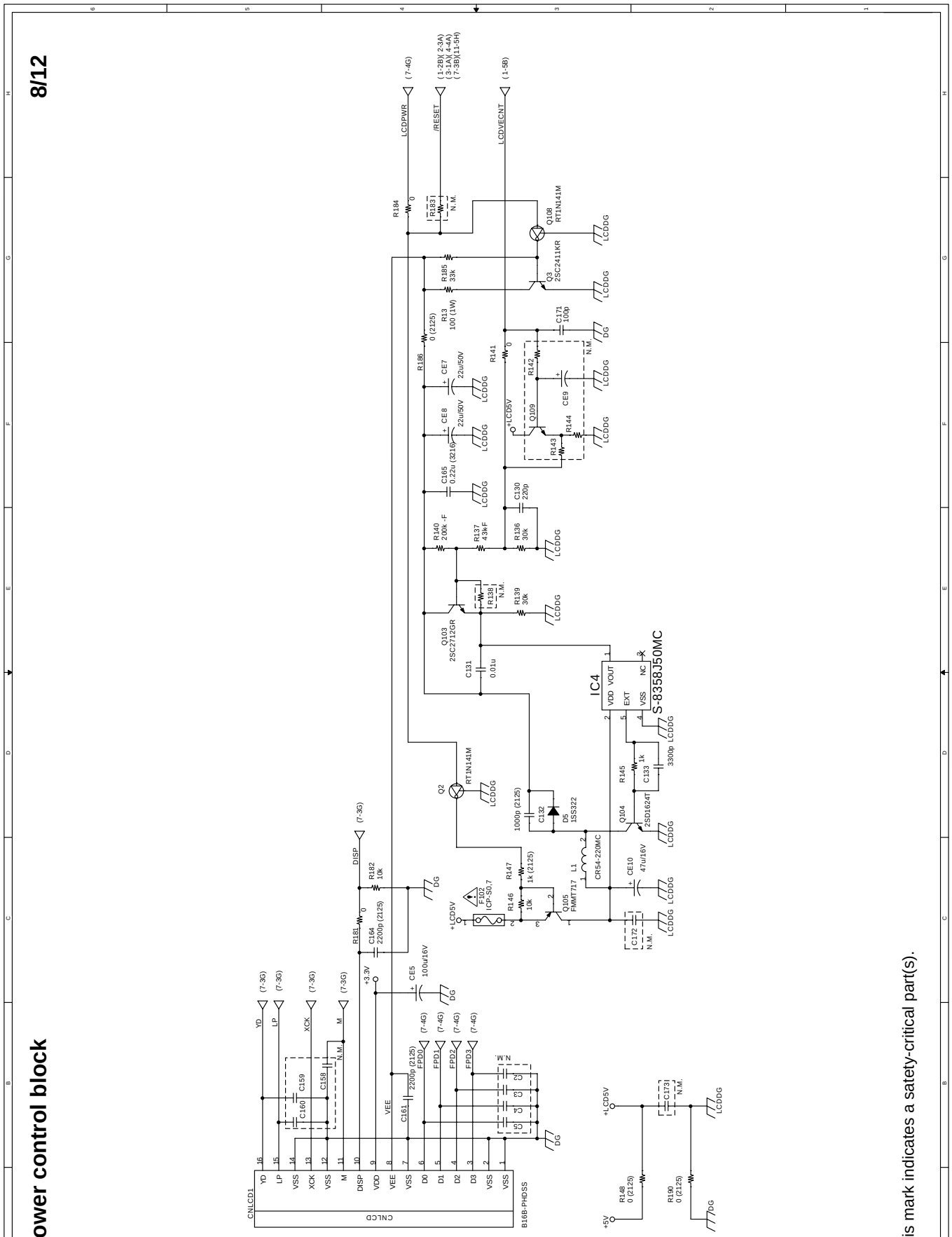
LCD controller block

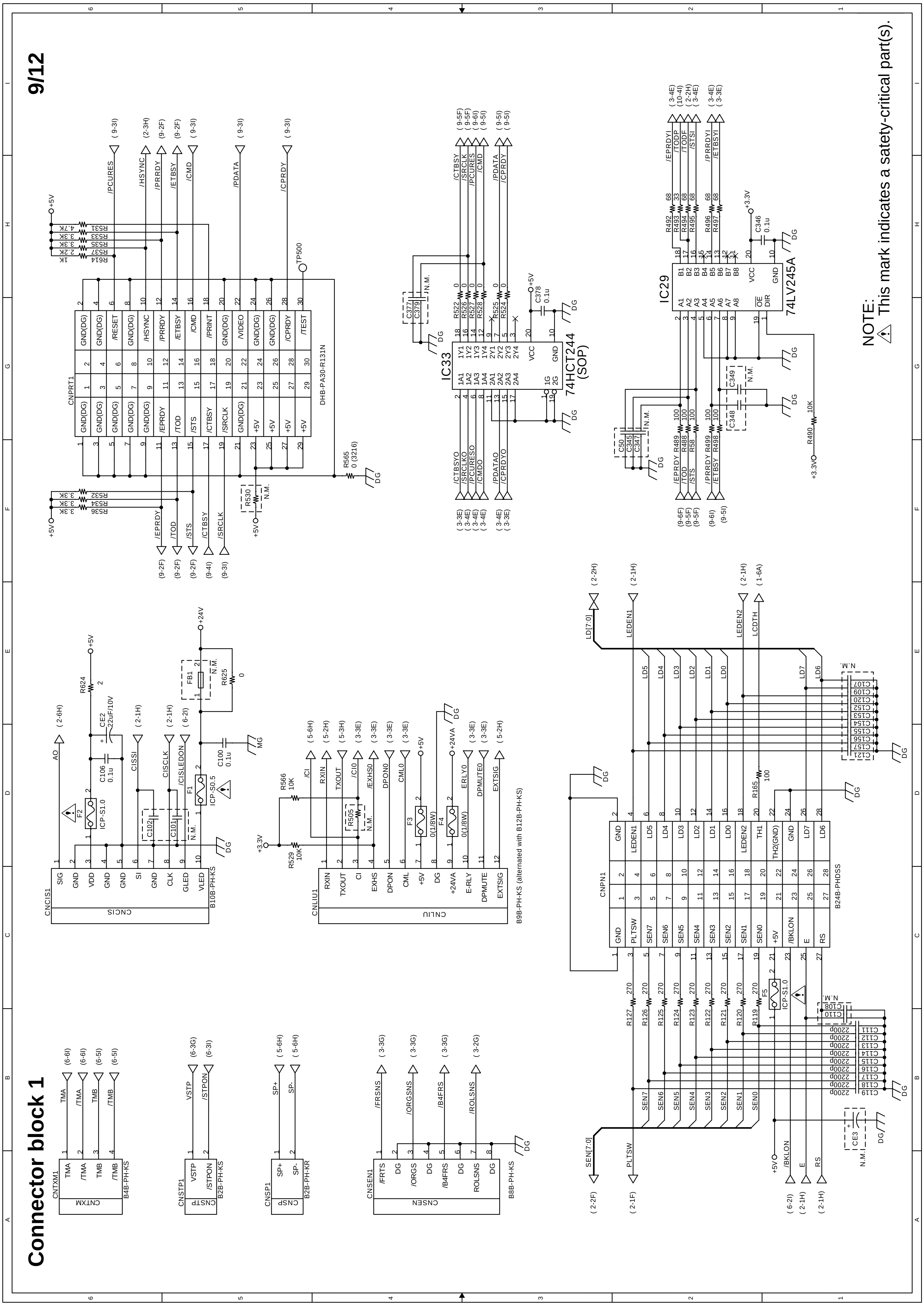
7/12

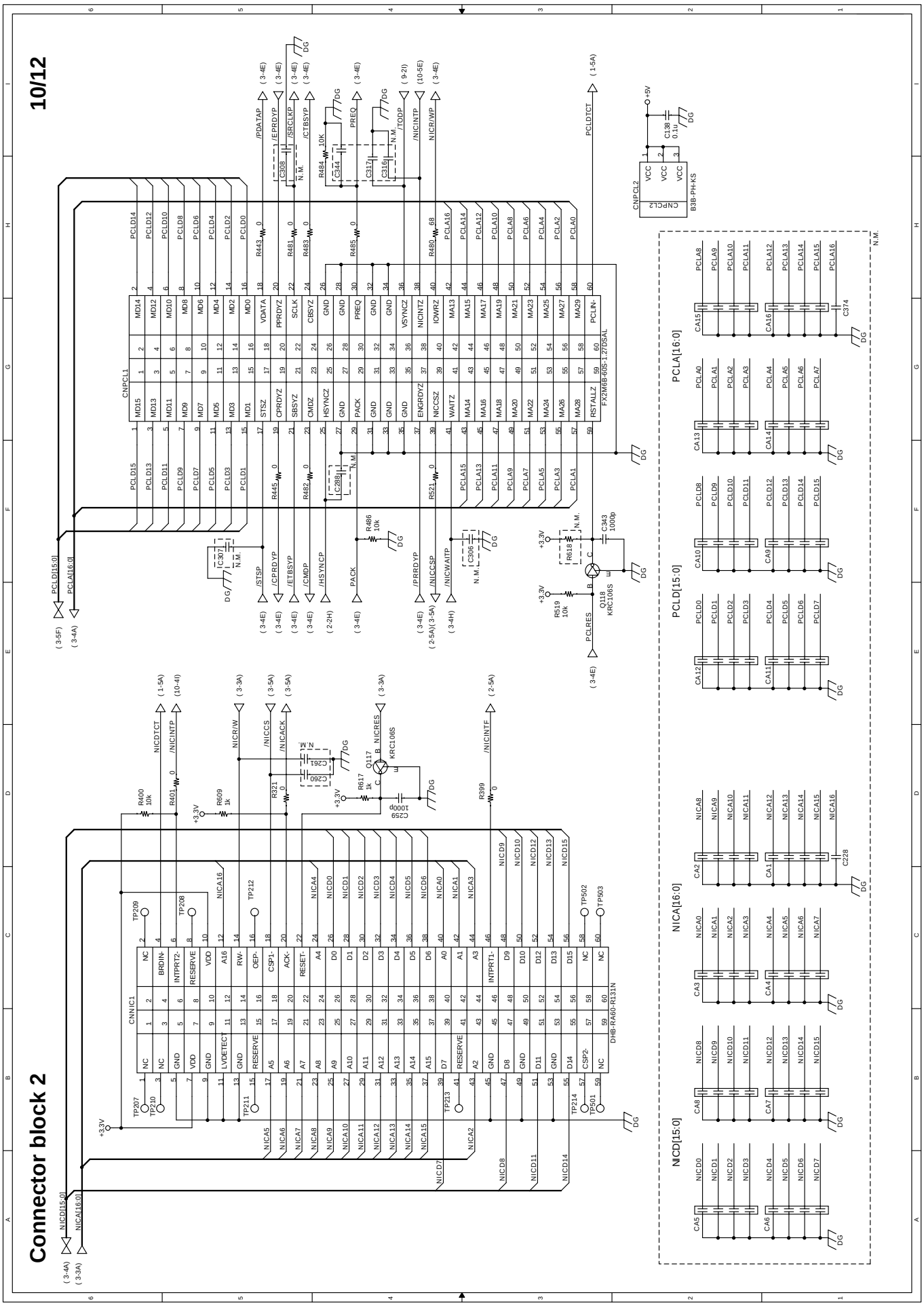


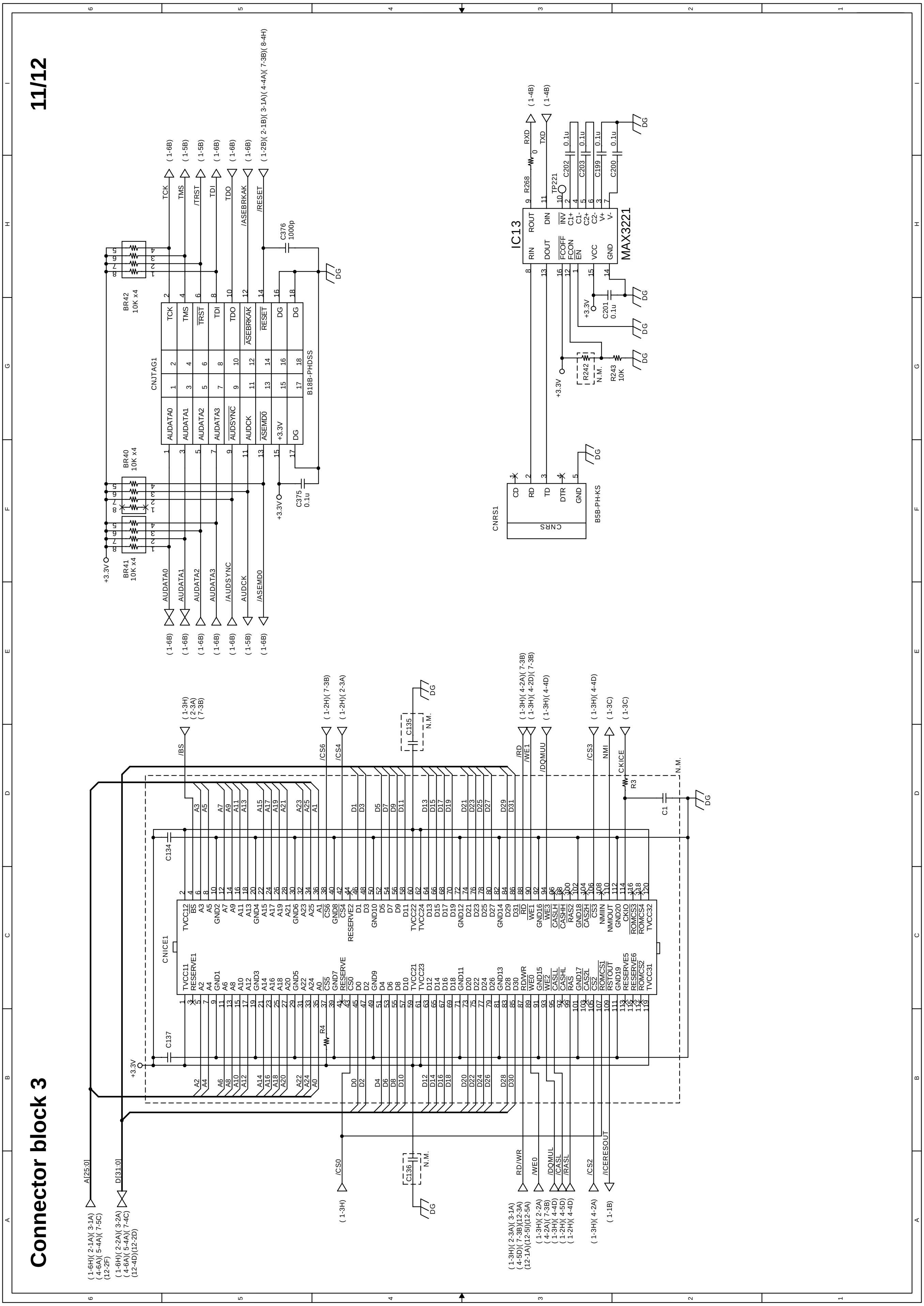
LCD power control block

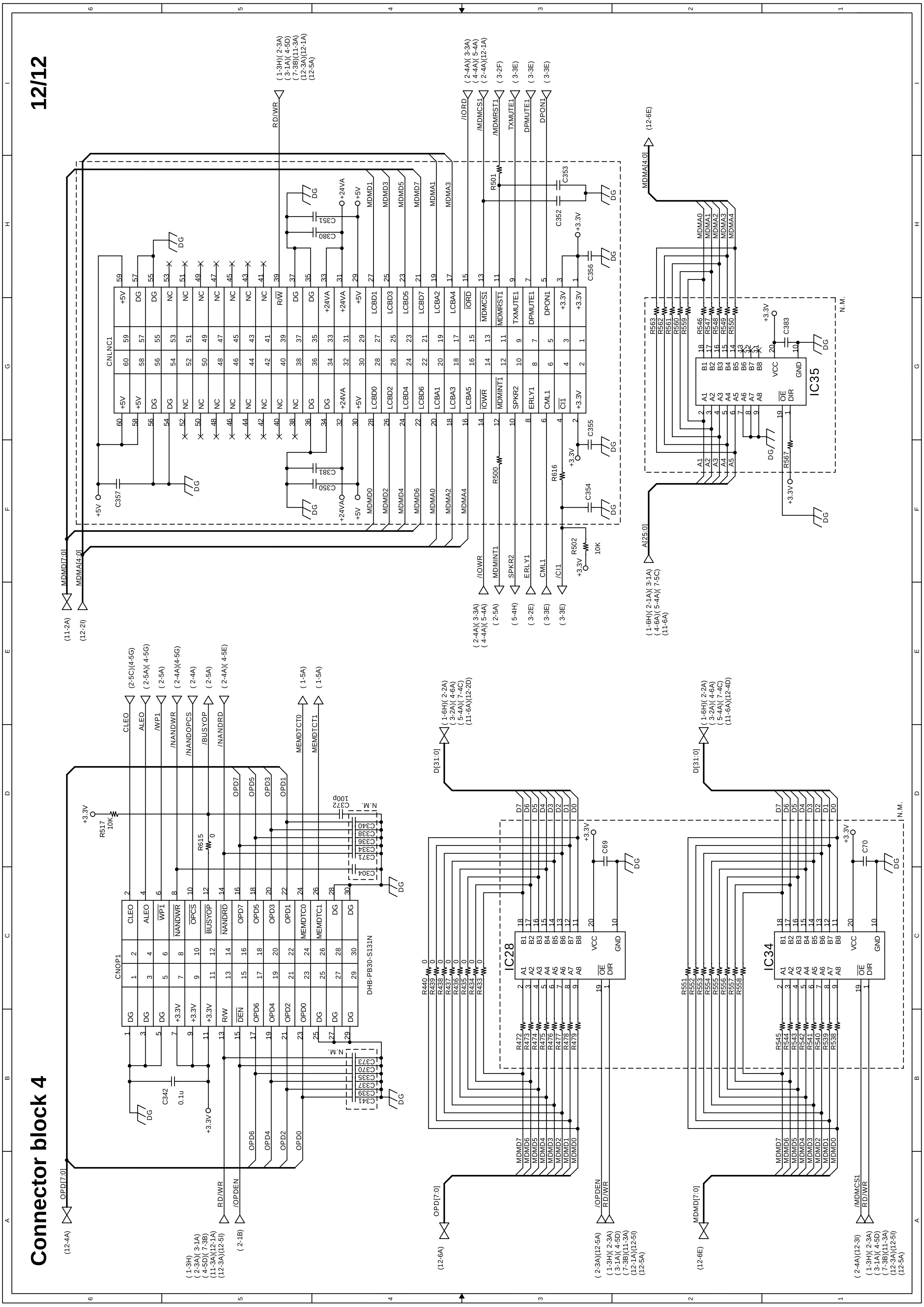
8/12



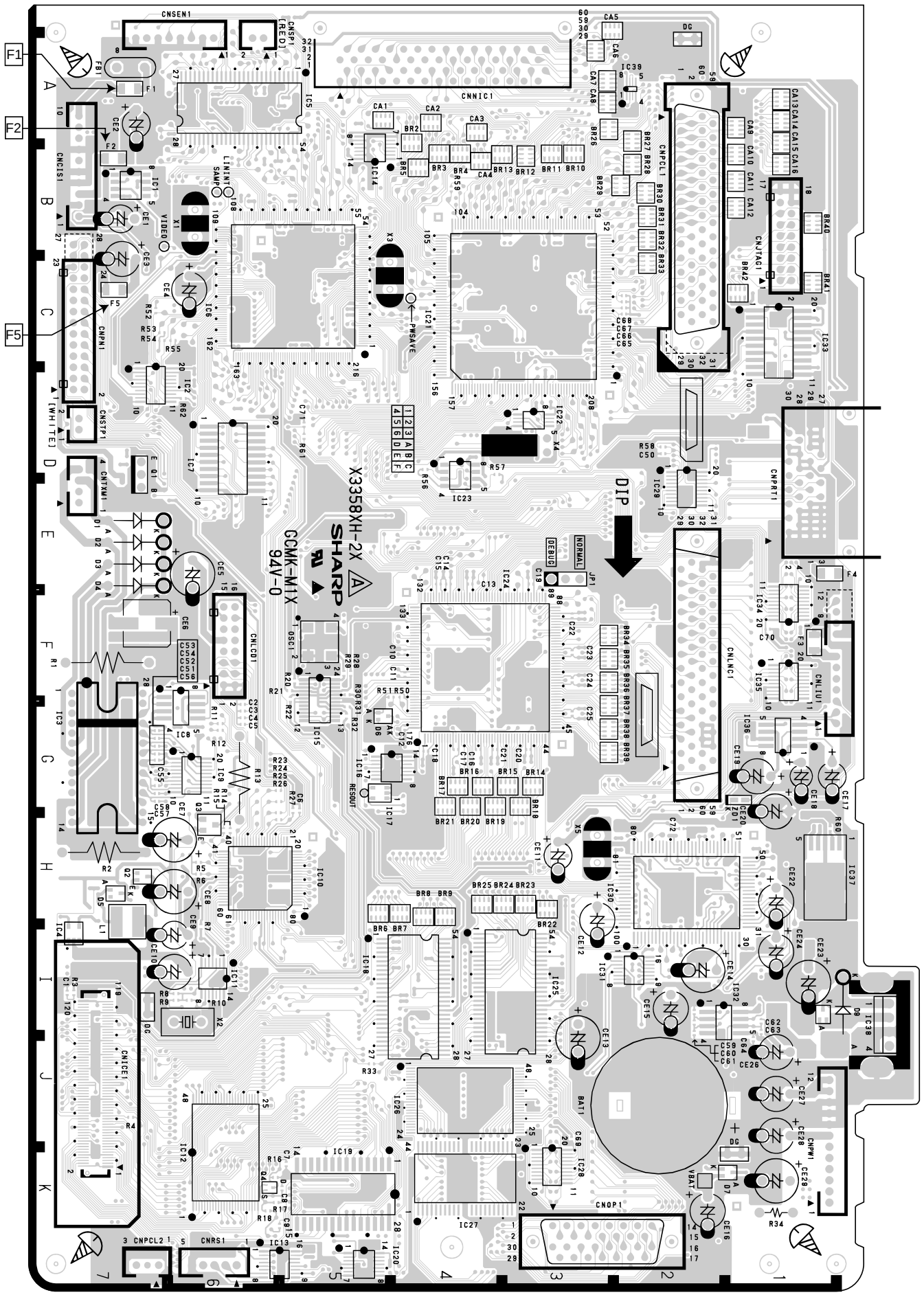

Connector block 1
9/12
NOTE: This mark indicates a safety-critical part(s).
CNCIS1
CNLIU1
CNTXM1
CNSTP1
CNSP1
CNSEN1
CNPRT1
CNPN1
IC33
74HCT244
(SOP)
IC29
74LV245A


Connector block 2
10/12
CNNIC1
CNPCL1
CNPCL2
FX2M6B-60S-1.27DSAL
DHB-RA60-R131N
B3B-PH-KS
NICD[15:0]
NICA[16:0]
PCLD[15:0]
PCLA[16:0]
N.M.

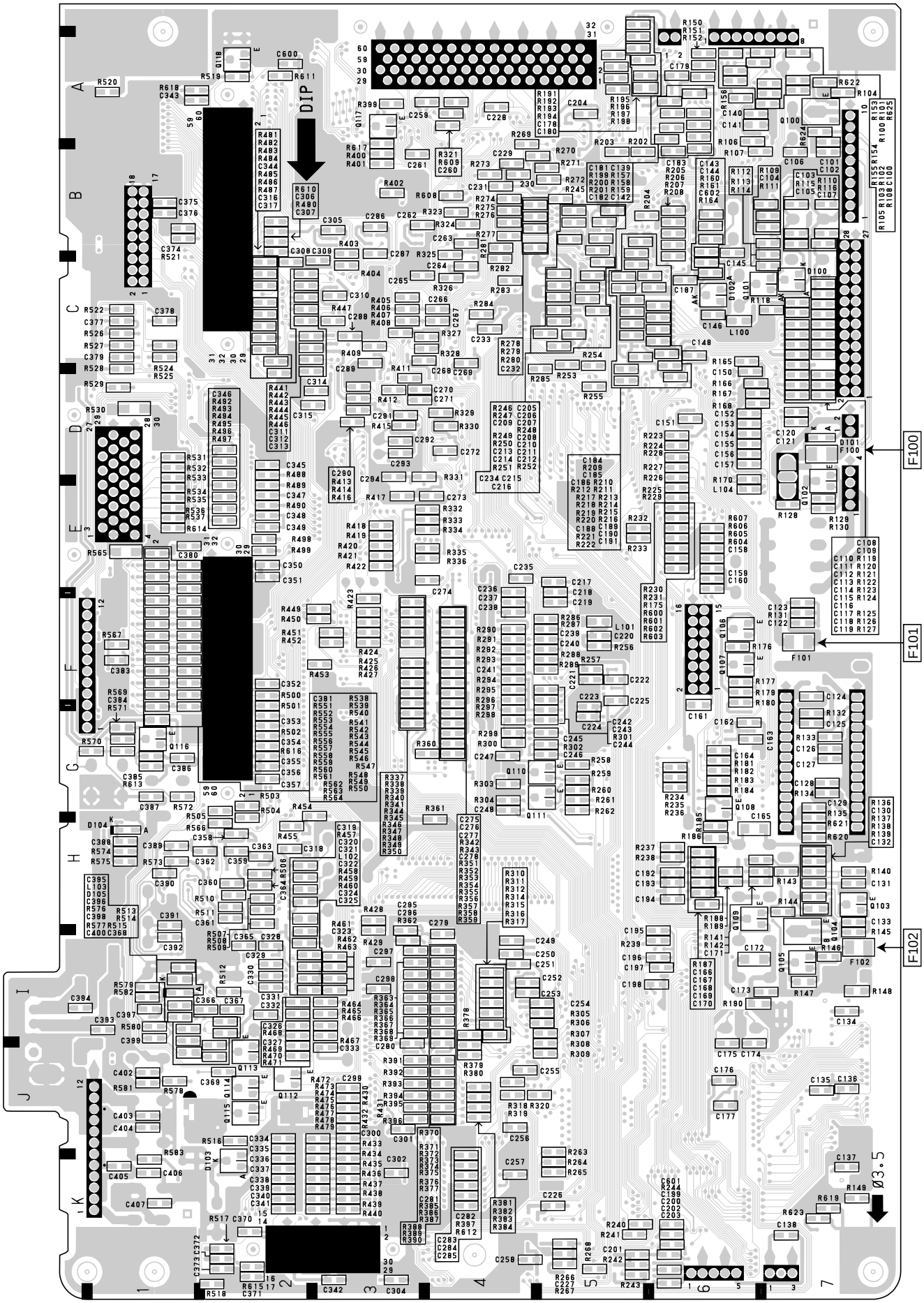

Connector block 3
11/12
CNJTAG1
B18B-PHDSS
BR40
BR41
BR42
10K x4
IC13
MAX3221
CNRS1
B5B-PH-KS
CNICE1
N.M.

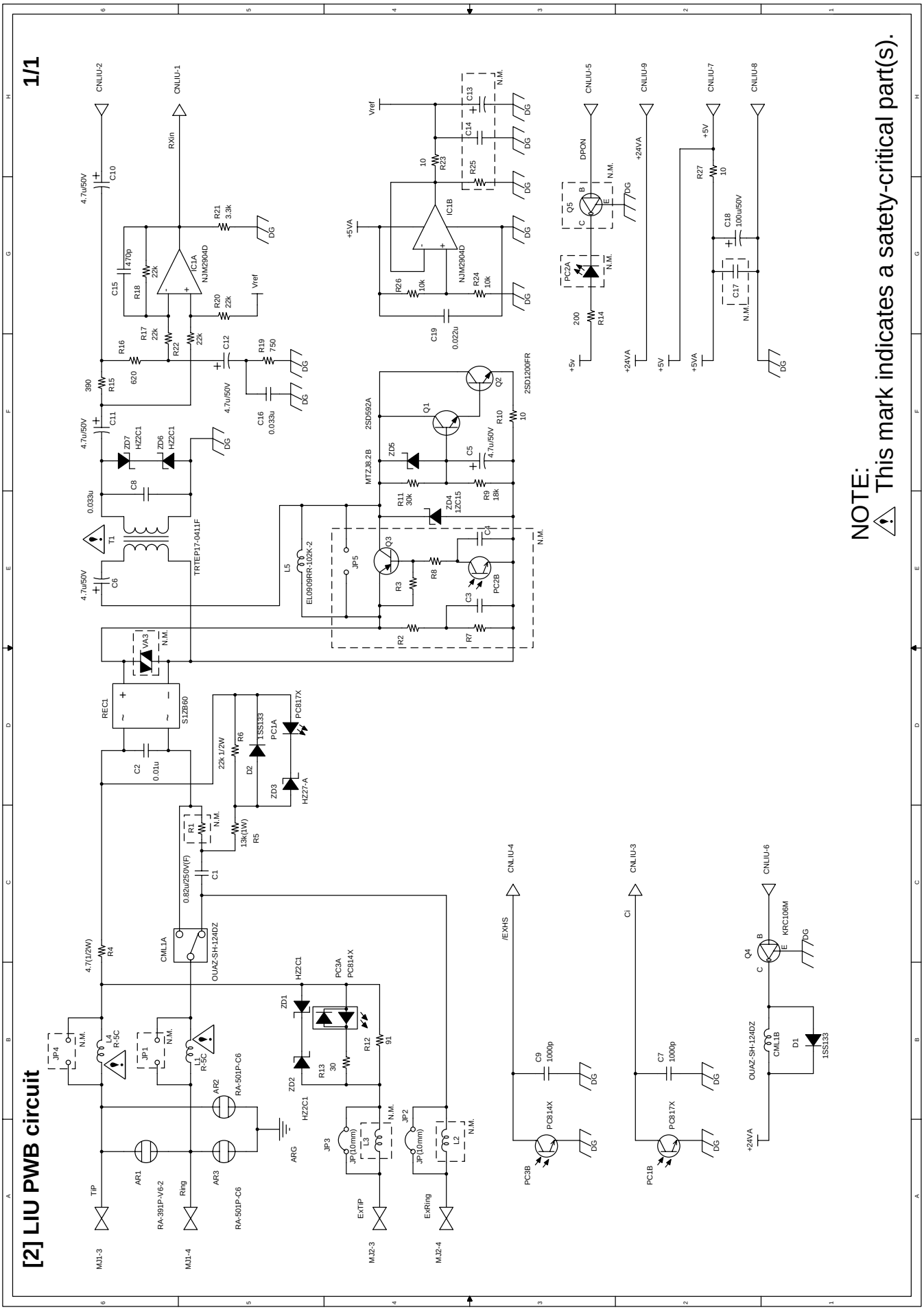

Connector block 4
12/12
CNLNC1
CNOP1
DHB-PB30-S131N
IC28
IC34
IC35
N.M.

Control PWB parts layout (Top side)

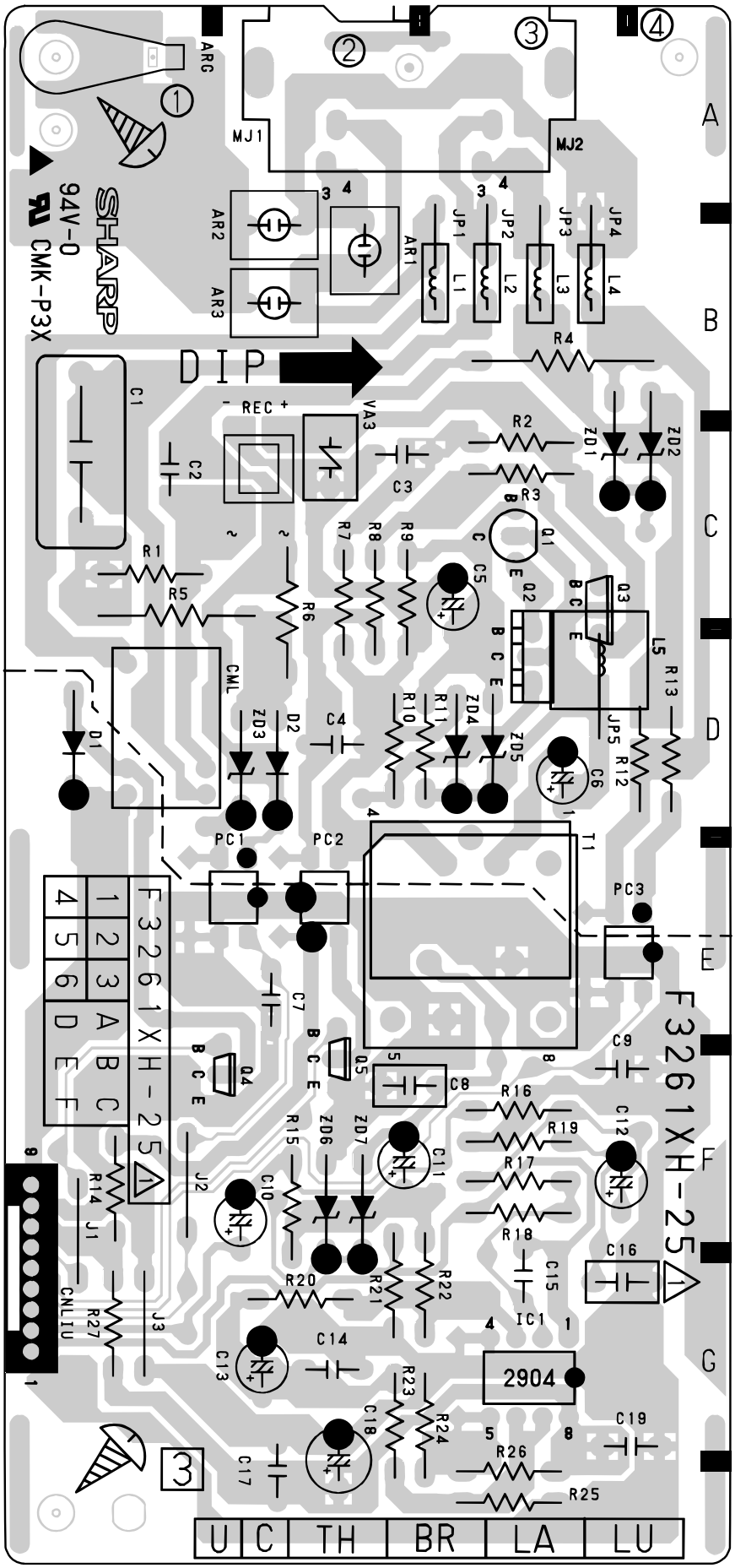


Control PWB parts layout (Bottom side)

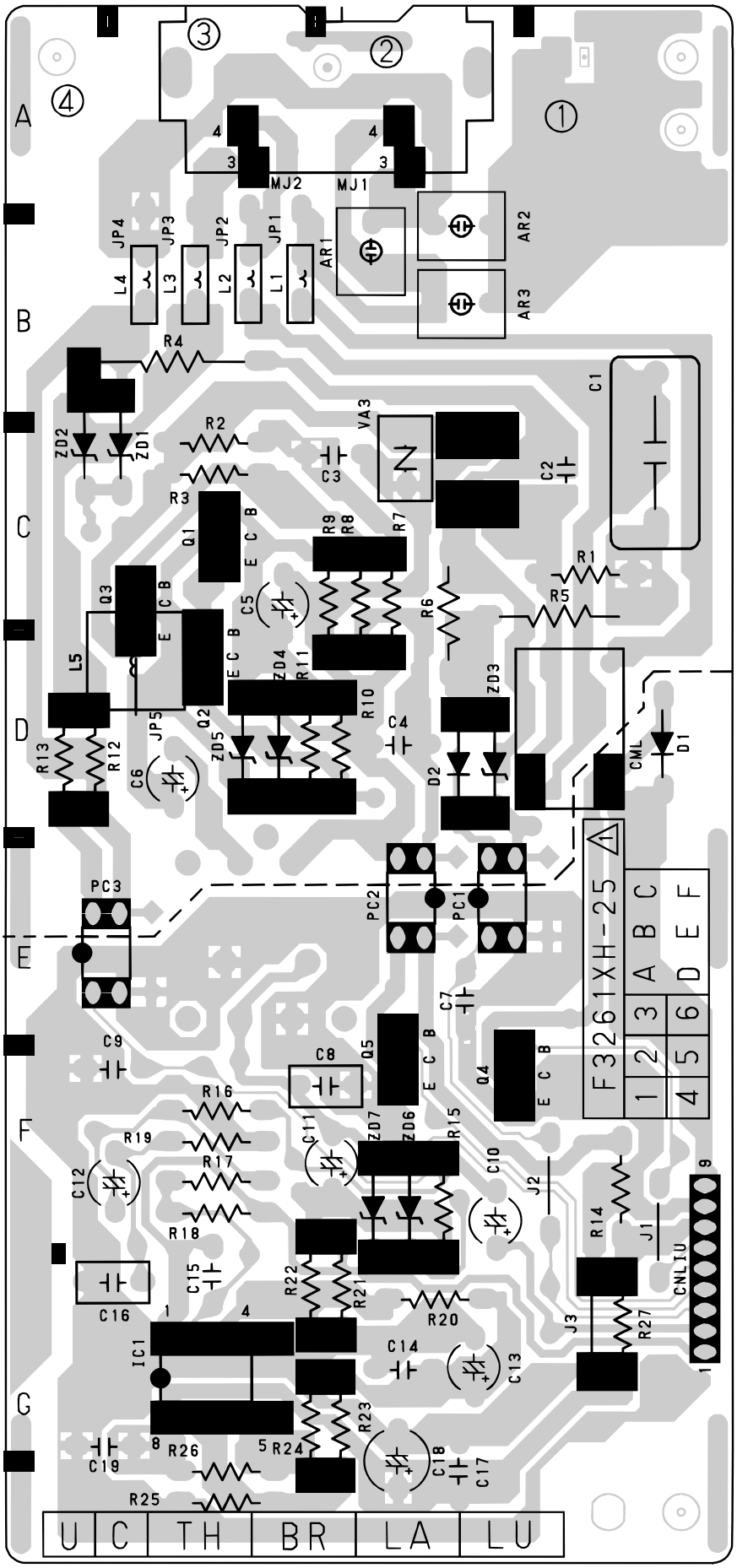


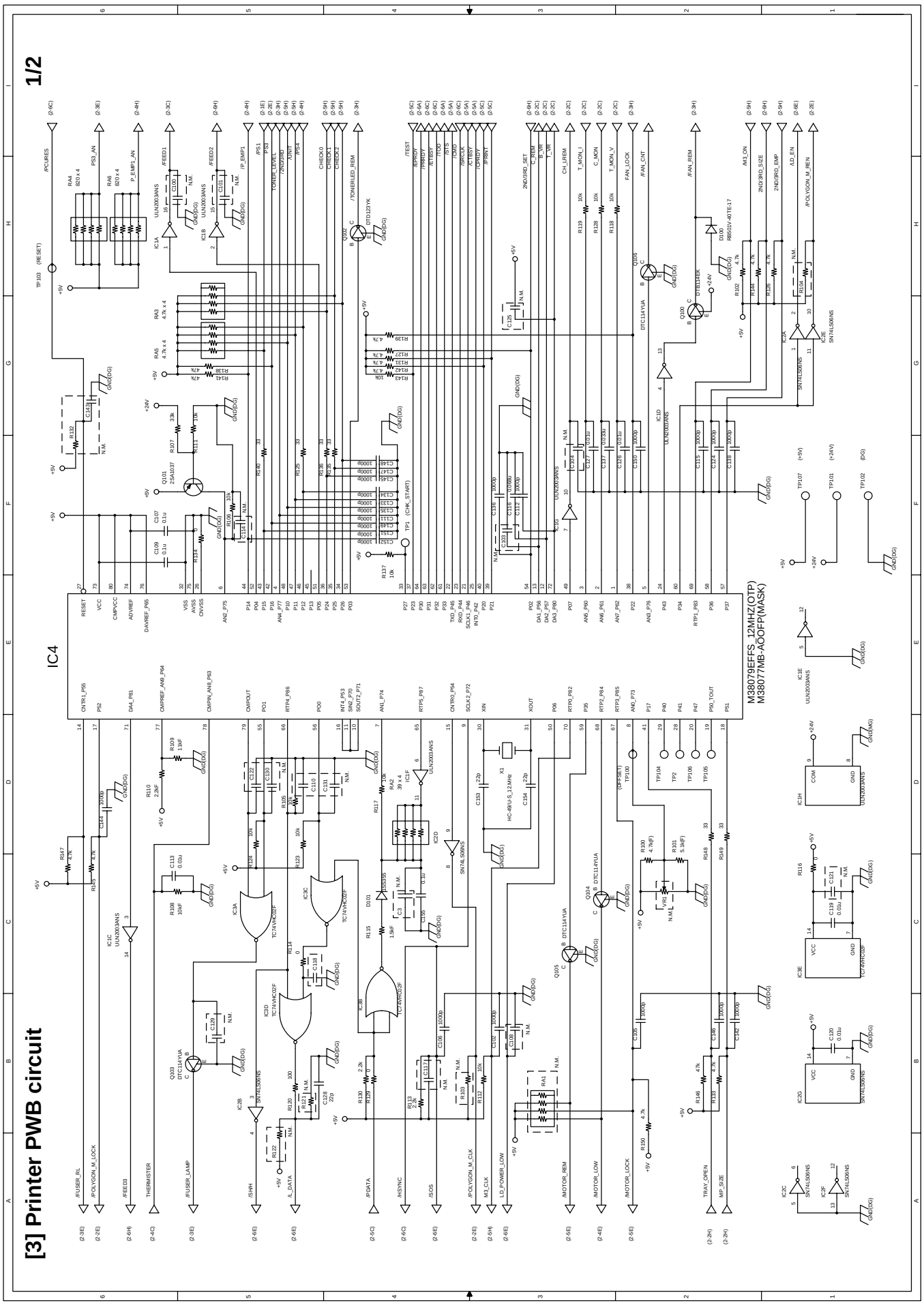

[2] LIU PWB circuit
1/1
NOTE:
⚠ This mark indicates a satety-critical part(s).
CNLIU-1
CNLIU-2
CNLIU-3
CNLIU-4
CNLIU-5
CNLIU-6
CNLIU-7
CNLIU-8
CNLIU-9
RXin
Ci
/EXHS
DPON
+24VA
+5V
+5VA
Vref
DG
TRTEP17-0411F
EL0909RR-102K-2
S1ZB60
OUAZ-SH-124DZ
CML1A
CML1B
RA-391P-V6-2
RA-501P-C6
KRC106M
1SS133
2SD1200FR
2SD592A
NJM2904D
TiP
Ring
ExTIP
ExRing
MJ1-3
MJ1-4
MJ2-3
MJ2-4

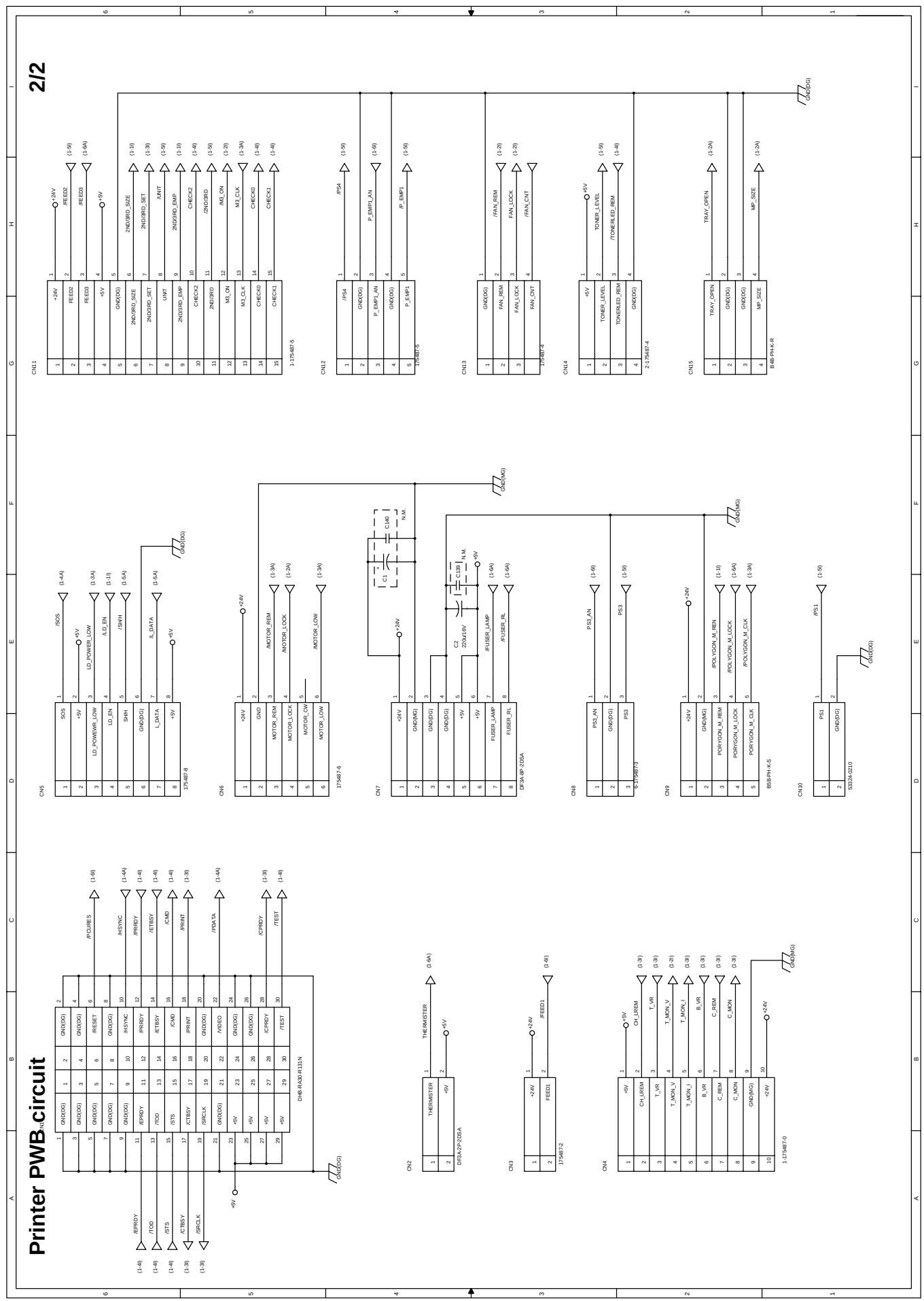
LIU PWB parts layout (Top side)



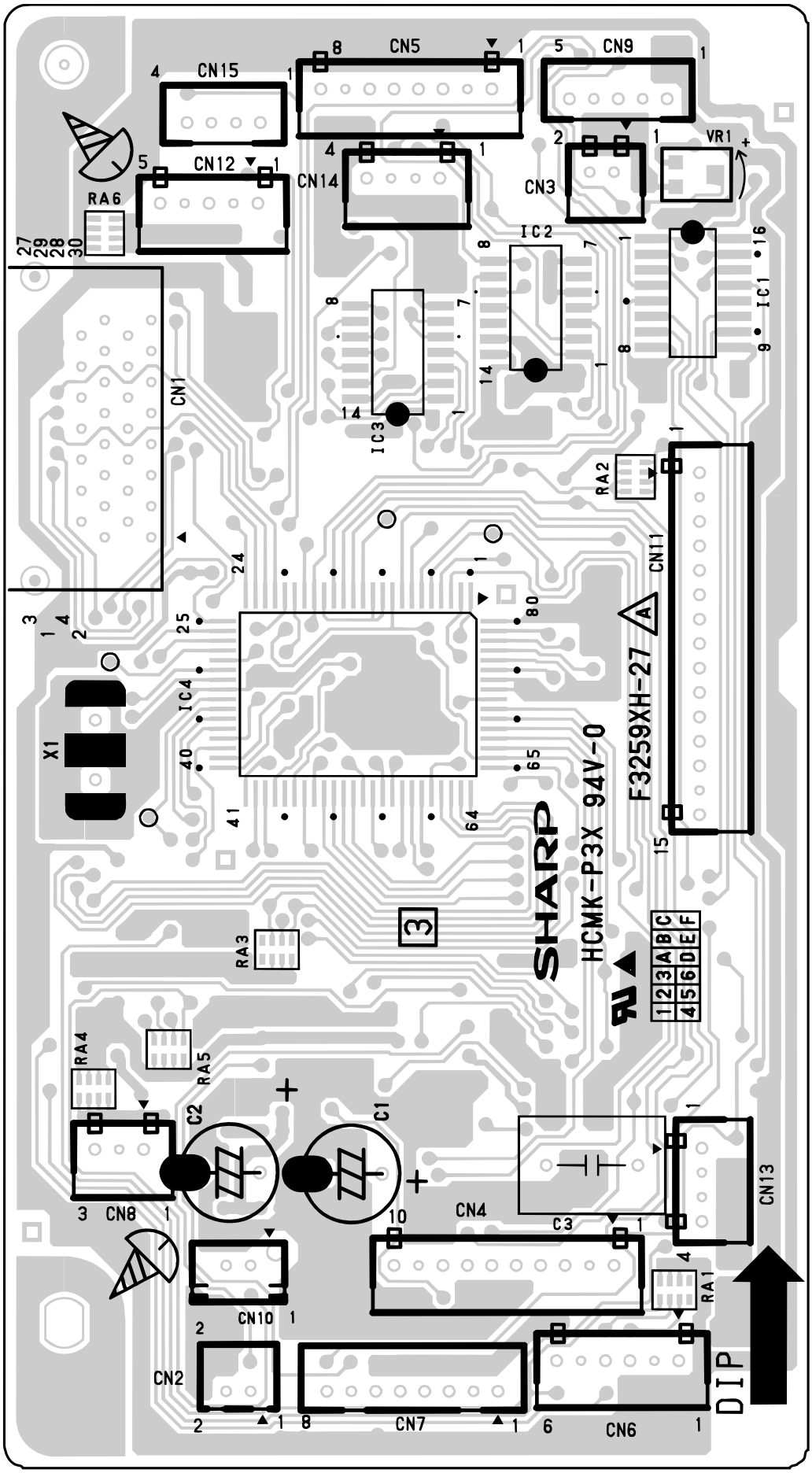
LIU PWB parts layout (Bottom side)



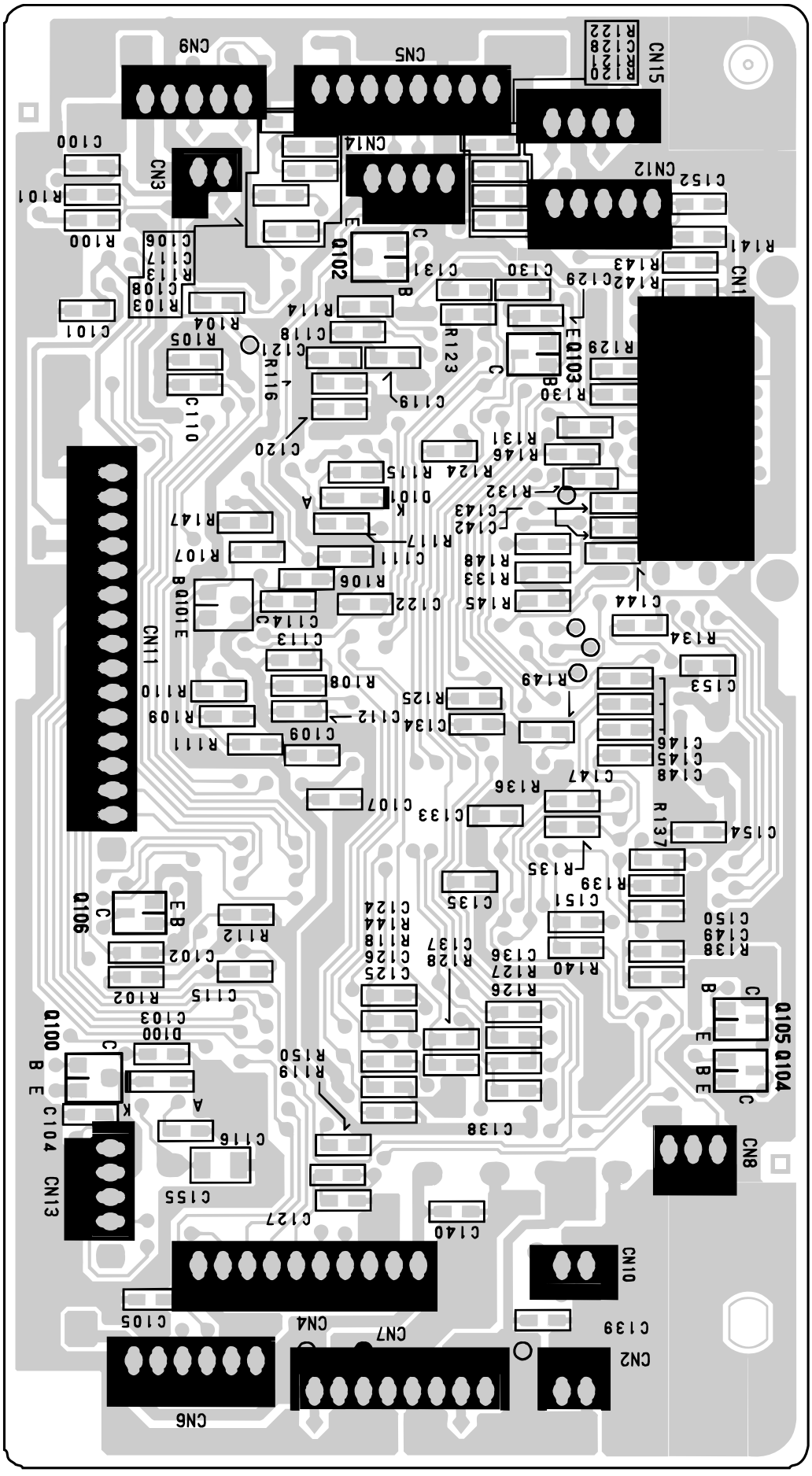

[3] Printer PWB circuit
1/2
IC4
M38079EFFS 12MHZ(OTP)
M38077MB-AOOFP(MASK)

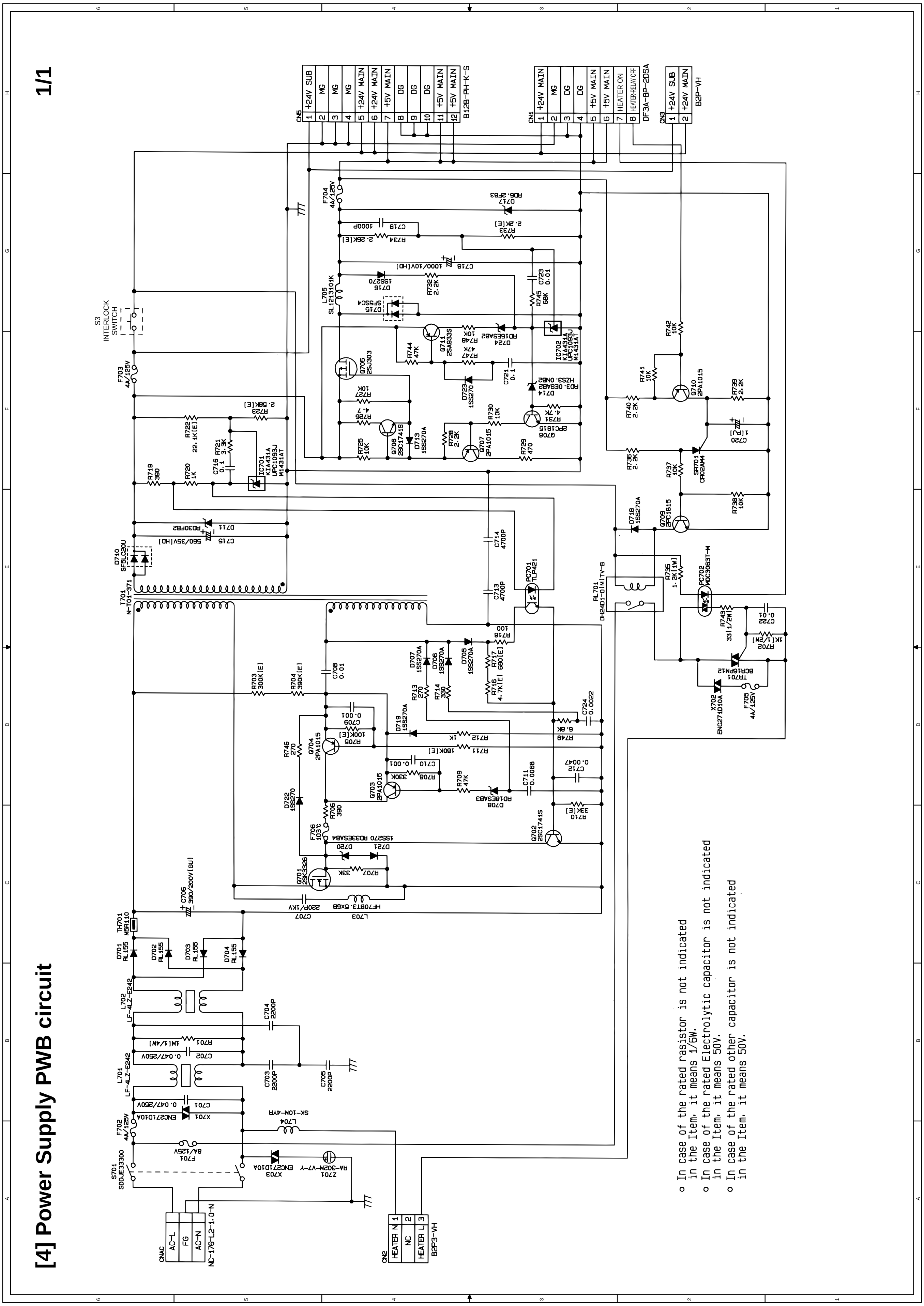

2/2
Printer PWB circuit
CN11
CN12
CN13
CN14
CN15
CN5
CN6
CN7
CN8
CN9
CN10
CN2
CN3
CN4
+24V
/FEED2
/FEED3
+5V
GND(DG)
2ND/3RD_SIZE
2ND/3RD_SET
/UNIT
2ND/3RD_EMP
CHECK2
/2ND/3RD
/M3_ON
M3_CLK
CHECK0
CHECK1
1-175487-5
/PS4
P_EMP1_AN
/P_EMP1
175487-5
/FAN_REM
FAN_LOCK
/FAN_CNT
175487-4
TONER_LEVEL
/TONER/LED_REM
2-175487-4
TRAY_OPEN
MP_SIZE
B-4B-PH-K-R
/SOS
LD_POWERR_LOW
/LD_EN
/SHIH
/L_DATA
175487-8
/MOTOR_REM
/MOTOR_LOCK
/MOTOR_LOW
175487-6
C1
C140
N.M.
C2
220u/16V
C139
/FUSER_LAMP
/FUSER_RL
DF3A-8P-2DSA
PS3_AN
PS3
6-175487-3
/POLYGON_M_REN
/POLYGON_M_LOCK
/POLYGON_M_CLK
B5B-PH-K-S
/PS1
S3P-VH
THERMISTER
DF3A-2P-2DSA
/FEED1
175487-2
CH_LREM
T_VR
T_MON_V
T_MON_I
B_VR
C_REM
C_MON
1-175487-0
/PCURE.S
/HSYNC
/PPRDY
/ETBSY
/CMD
/PRINT
/PDATA
/CPRDY
/TEST
DHB-RA30-R121N
/EPRDY
/TOD
/STS
/CTBSY
/SRCLK
GND(DG)
GND(MG)
+6V
+24V
+5V

Printer PWB parts layout (Top side)

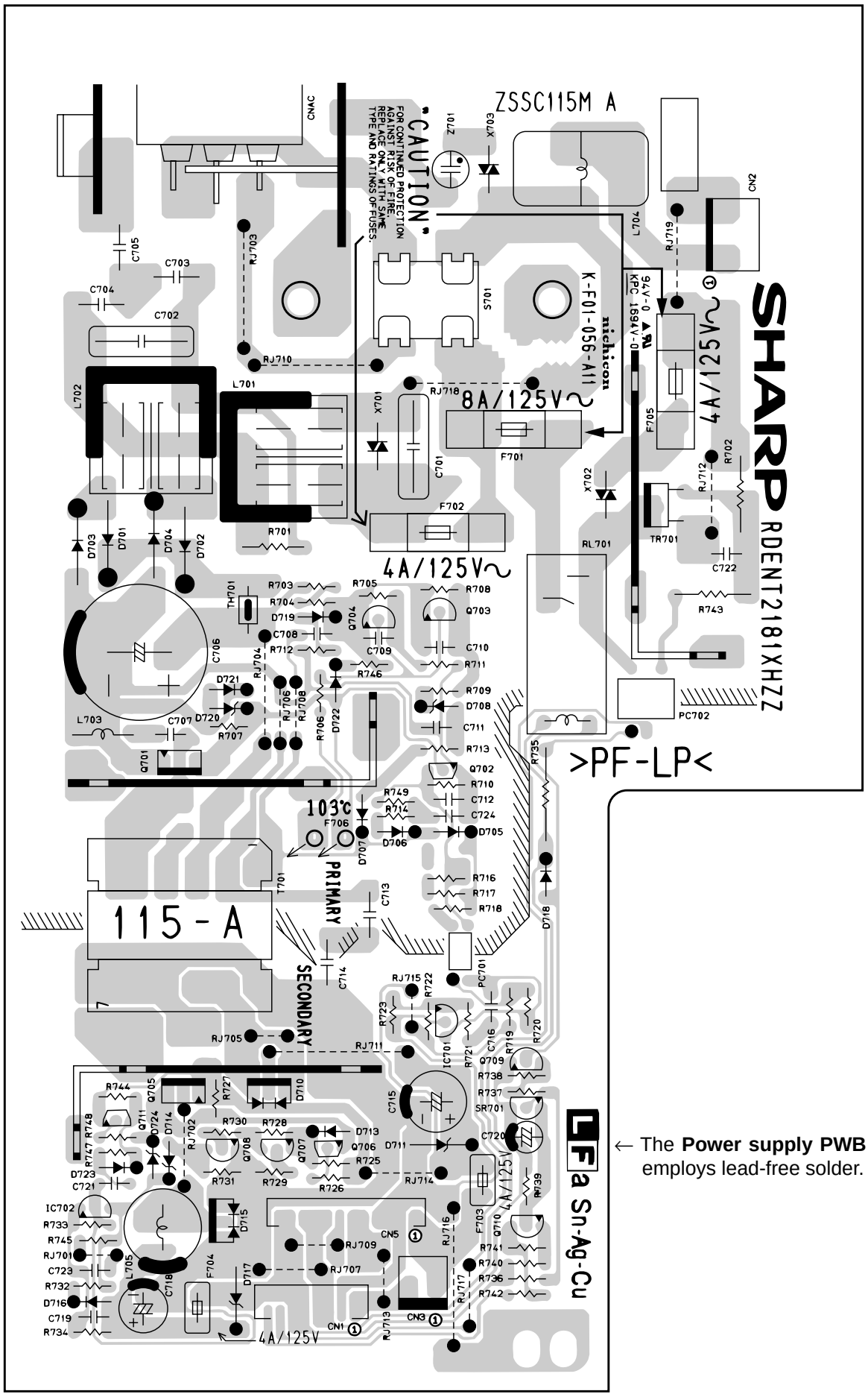


Printer PWB parts layout (Bottom side)




[4] Power Supply PWB circuit
1/1
o In case of the rated rasistor is not indicated in the Item, it means 1/6W.
o In case of the rated Electrolytic capacitor is not indicated in the Item, it means 50V.
o In case of the rated other capacitor is not indicated in the Item, it means 50V.

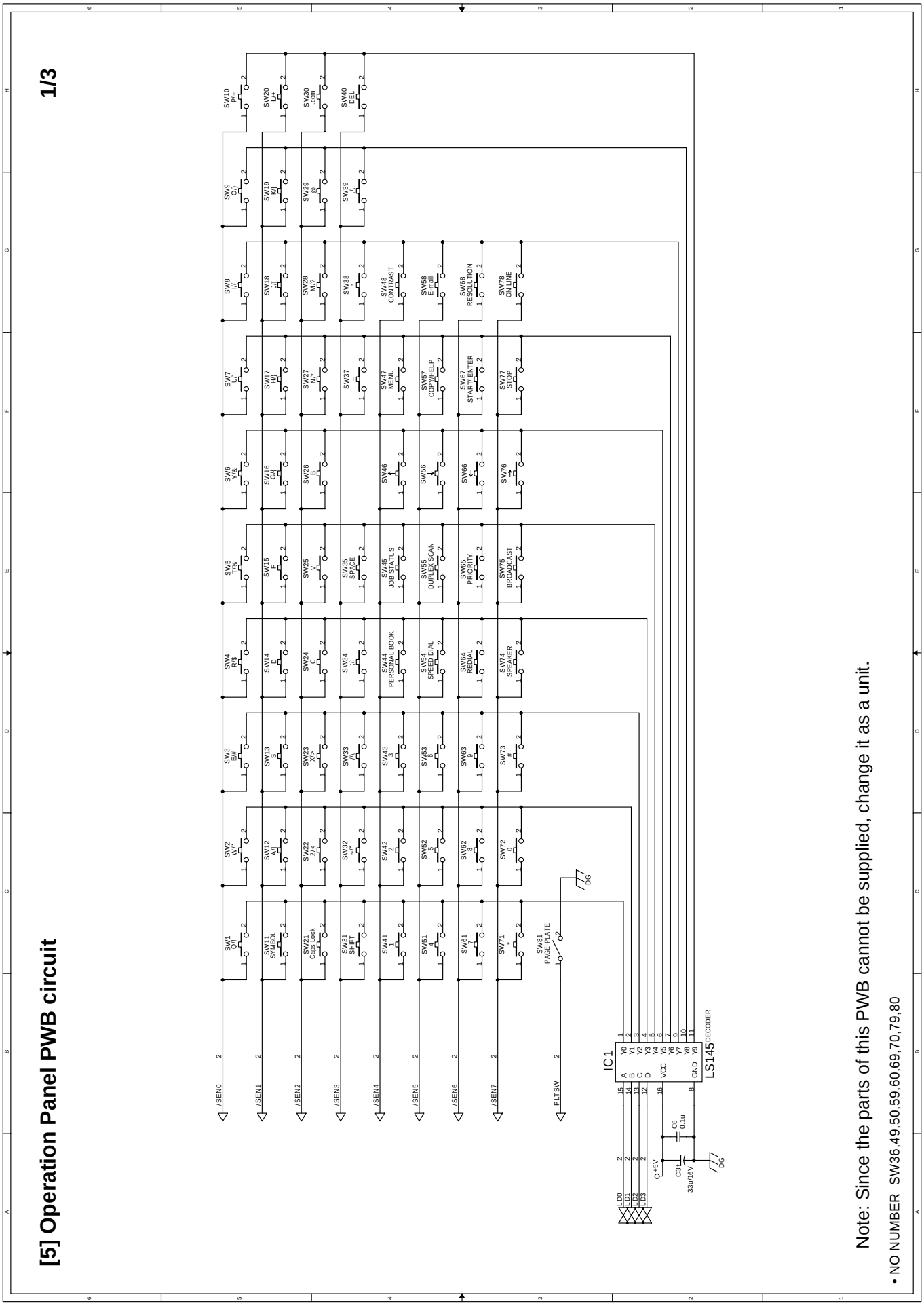
Power Supply PWB parts layout



← The **Power supply PWB** of this model employs lead-free solder.

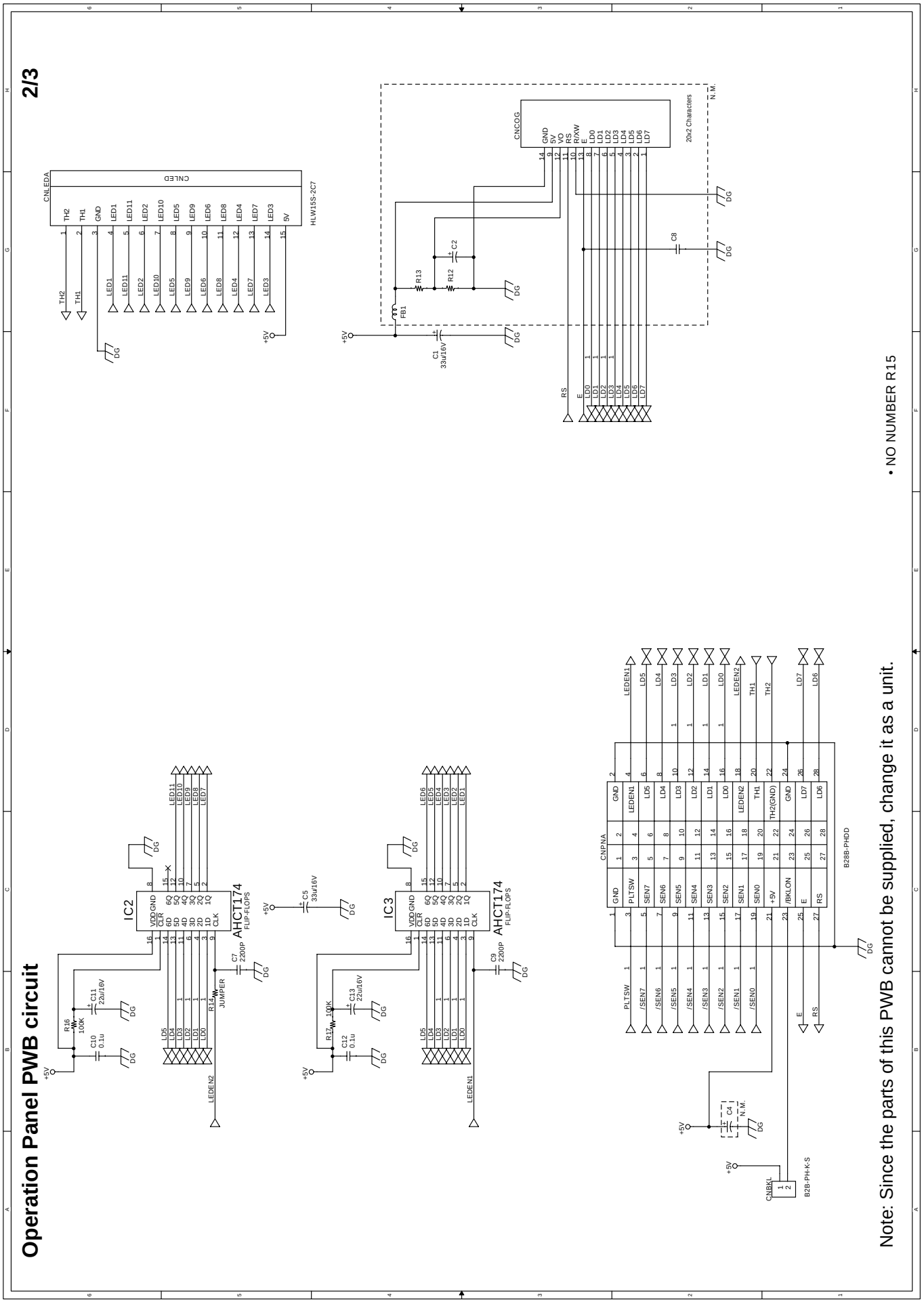
[5] Operation Panel PWB circuit

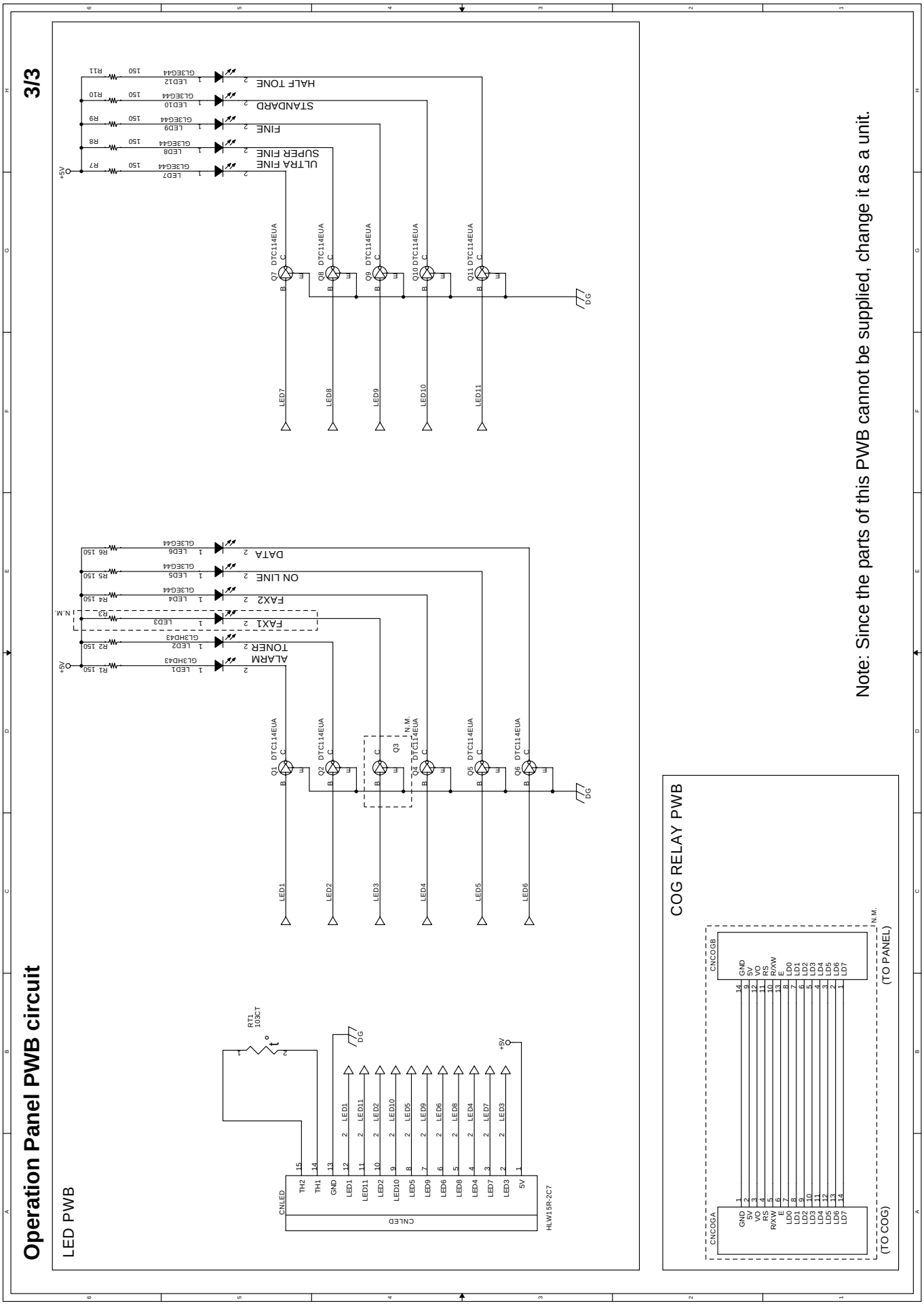
1/3



Note: Since the parts of this PWB cannot be supplied, change it as a unit.

• NO NUMBER SW36,49,50,59,60,69,70,79,80

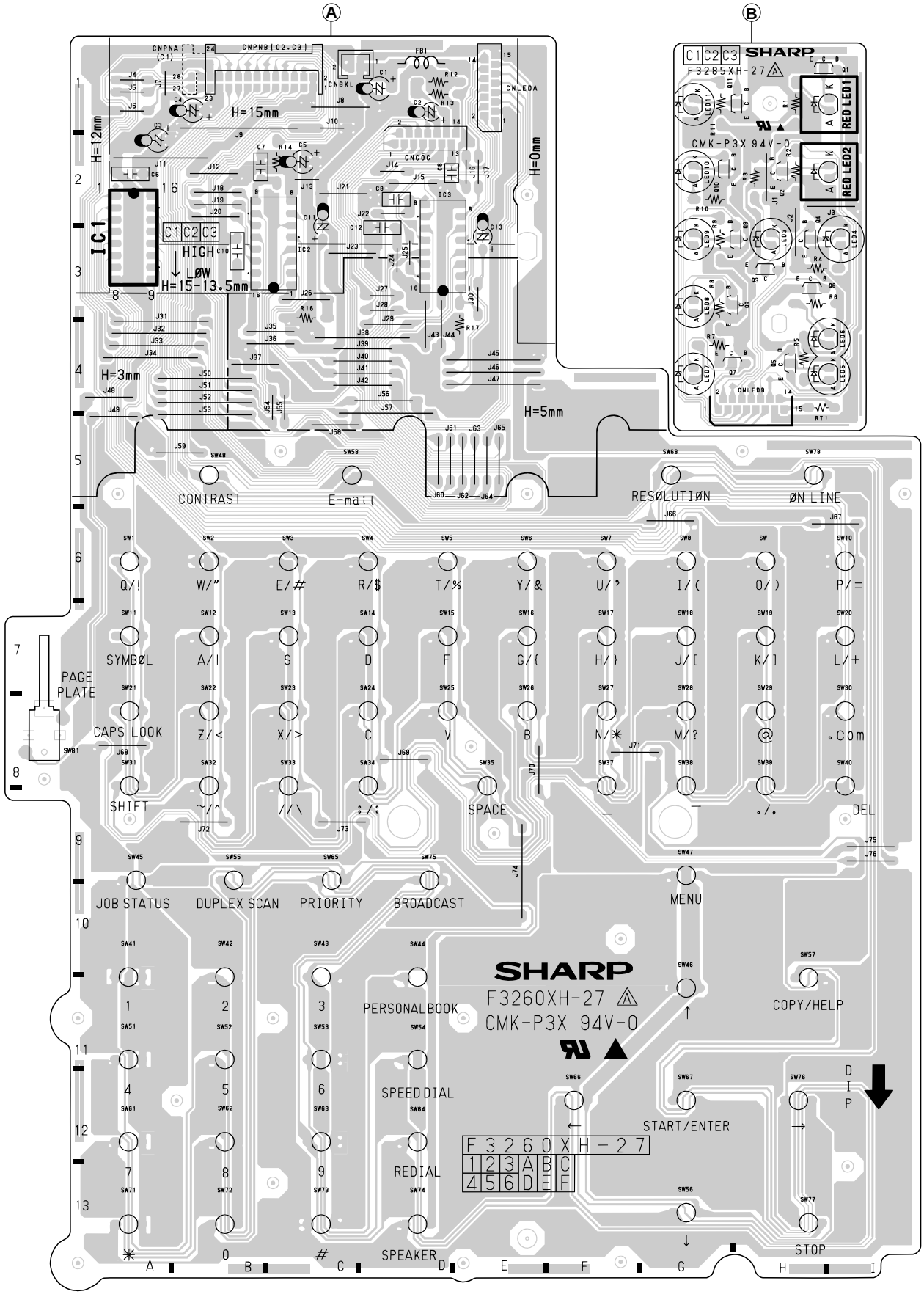

Operation Panel PWB circuit
2/3
CNLED
HLW155-2C7
CNCOG
20x2 Characters
N.M.
IC2
IC3
AHCT174
FLIP-FLOPS
CNP-NA
B28B-PHDD
CNBKL
B2B-PH-K-S
JUMPER
• NO NUMBER R15
Note: Since the parts of this PWB cannot be supplied, change it as a unit.


Operation Panel PWB circuit
3/3
LED PWB
COG RELAY PWB
(TO COG)
(TO PANEL)
N.M.
Note: Since the parts of this PWB cannot be supplied, change it as a unit.

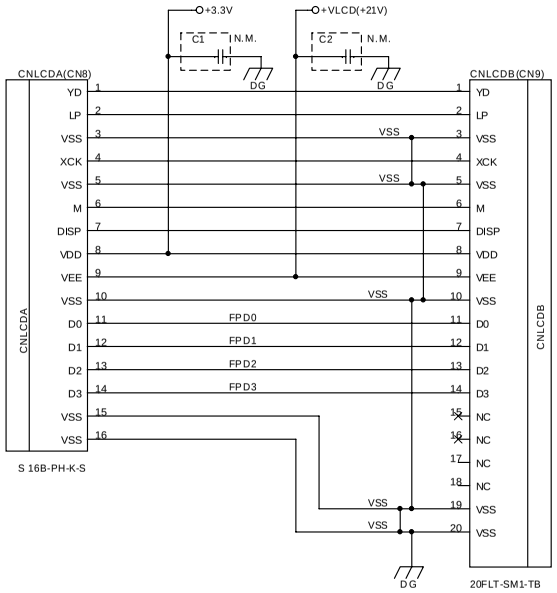
Operation panel PWB parts layout

Note: Since the parts of this PWB cannot be supplied, change it as a unit.

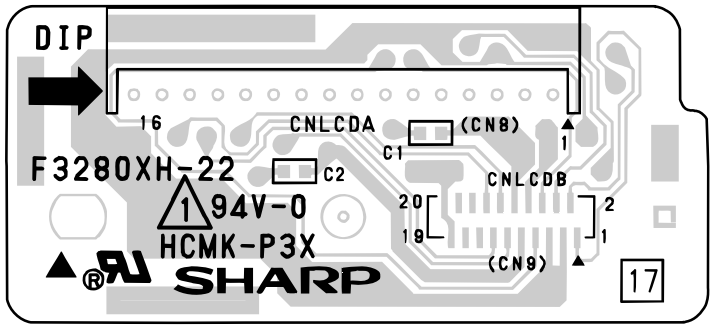
No.	DESCRIPTION	PARTS CODE
Ⓐ	Panel PWB unit	DCEKP425CXHP2
Ⓑ	LED PWB unit	DCEKP425CXHL2



[6] LCD Relay PWB circuit



LCD Relay PWB parts layout



Note: Since the parts of this PWB cannot be supplied, change it as a unit.

CHAPTER 7. OPERATION FLOWCHART

Refer to the service manual of FO-4400U.

CHAPTER 8. OTHERS

[1] Service Tools

1.CONNECTION

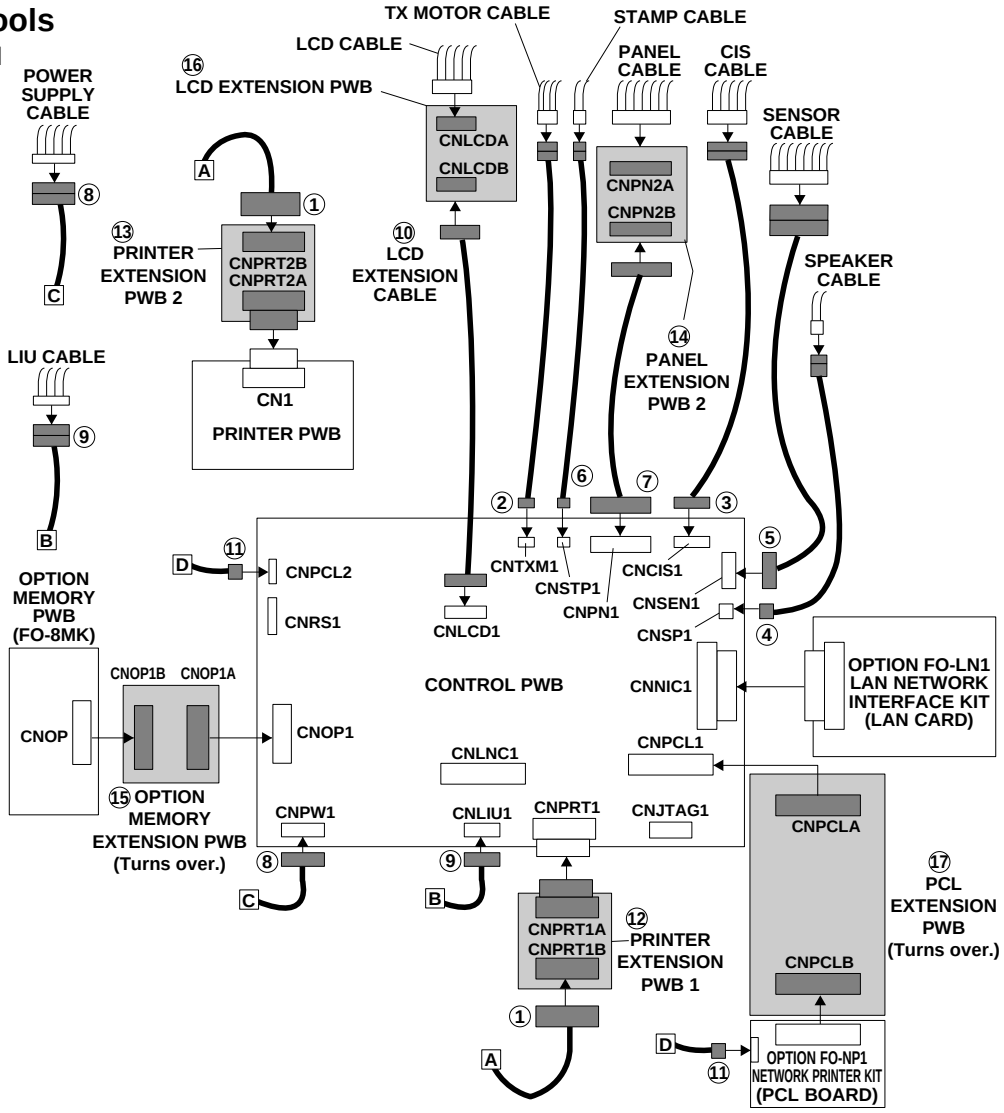


Fig. 1

2. Extension list

NO.	PARTS CODE	DESCRIPTION	Q'TY	PRICE RANK
1	QCNW-4559SCZZ	PRINTER EXTENSION PWB CABLE	1	FX
2	QCNWN313BSCZZ	TX MOTOR EXTENSION CABLE	1	AM
3	QCNWN314BSCZZ	CIS EXTENSION CABLE	1	AT
4	QCNWN315BSCZZ	SPEAKER EXTENSION CABLE	1	AH
5	QCNWN316BSCZZ	SENSOR EXTENSION CABLE	1	AR
6	QCNWN317BSCZZ	STAMP EXTENSION CABLE	1	AH
7	QCNWN290BXHZZ	PANEL EXTENSION CABLE	1	BA
8	QCNWN318SCHZZ	POWER SUPPLY EXTENSION CABLE	1	AU
9	QCNWN319BSCZZ	LIU EXTENSION CABLE	1	AS
10	QCNWN311BSCZZ	LCD EXTENSION CABLE	1	AV
11	QCNWN309BSCZZ	PCL EXTENSION CABLE	1	AN
12	DUNT-459CSC01	PRINTER EXTENSION PWB 1	1	CH
13	DUNT-459CSC02	PRINTER EXTENSION PWB 2	1	CH
14	DUNT-459CSC05	PANEL EXTENSION PWB 2	1	CH
15	DUNT-459CSC03	OPTION MEMORY EXTENSION PWB	1	CH
16	DUNT-459CSC06	LCD EXTENSION PWB	1	CH
17	DUNT-459CSC08	OPTION NETWOARK PRINTER KIT EXTENSION PWB	1	CH

[2] Rewriting version up the FLASH ROM

Refer to the service manual of FO-4400U.

M E M O

SHARP PARTS GUIDE

MODEL FO-DC500

MODEL	SELECTION CODE	DESTINATION
FO-DC500	U	U.S.A./Canada

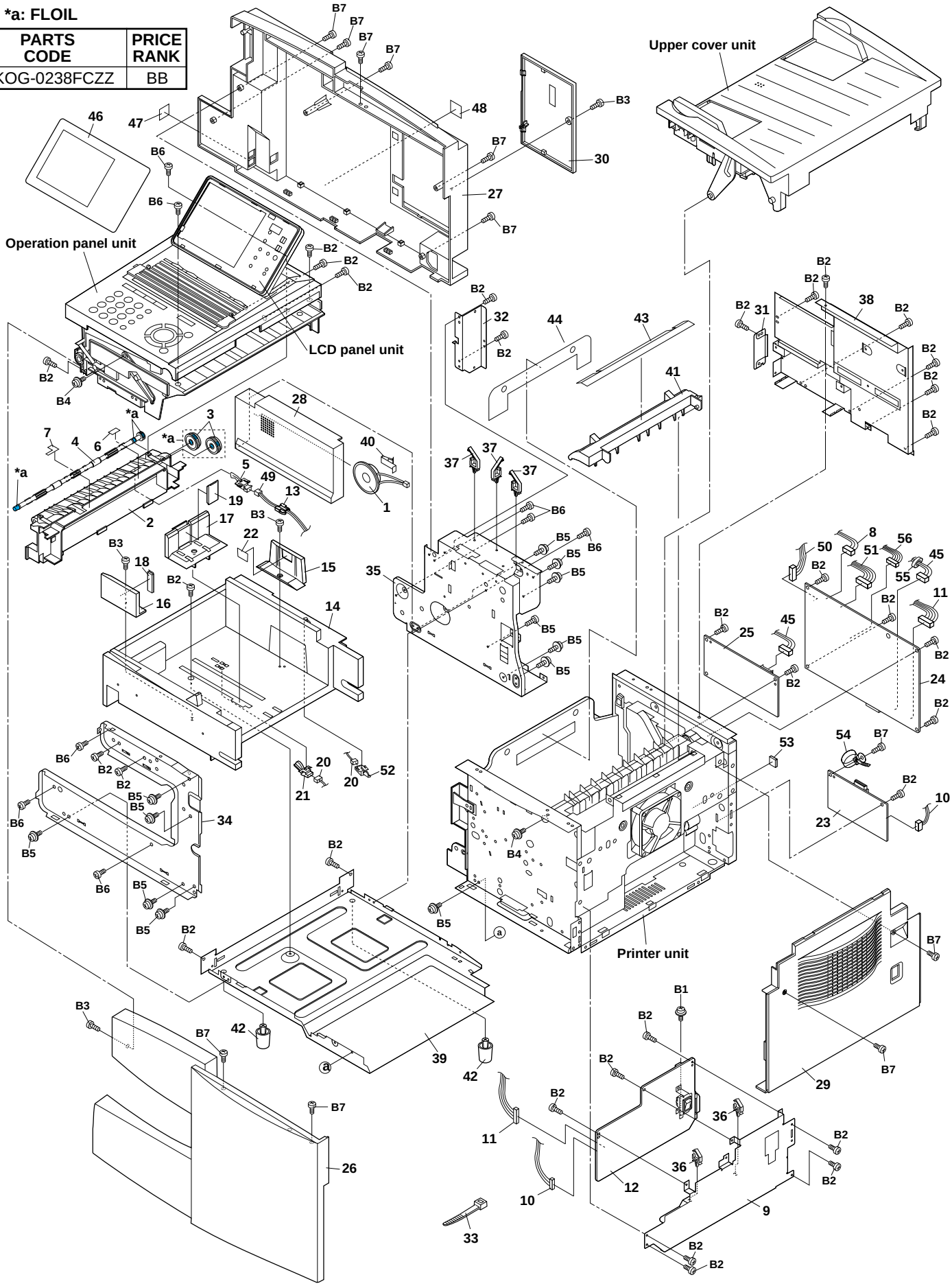
CONTENTS

Because parts marked with "⚠" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specified to the product specification.

[1] Exterior etc.(1)

*a: FLOIL

PARTS CODE	PRICE RANK
UKOG-0238FCZZ	BB

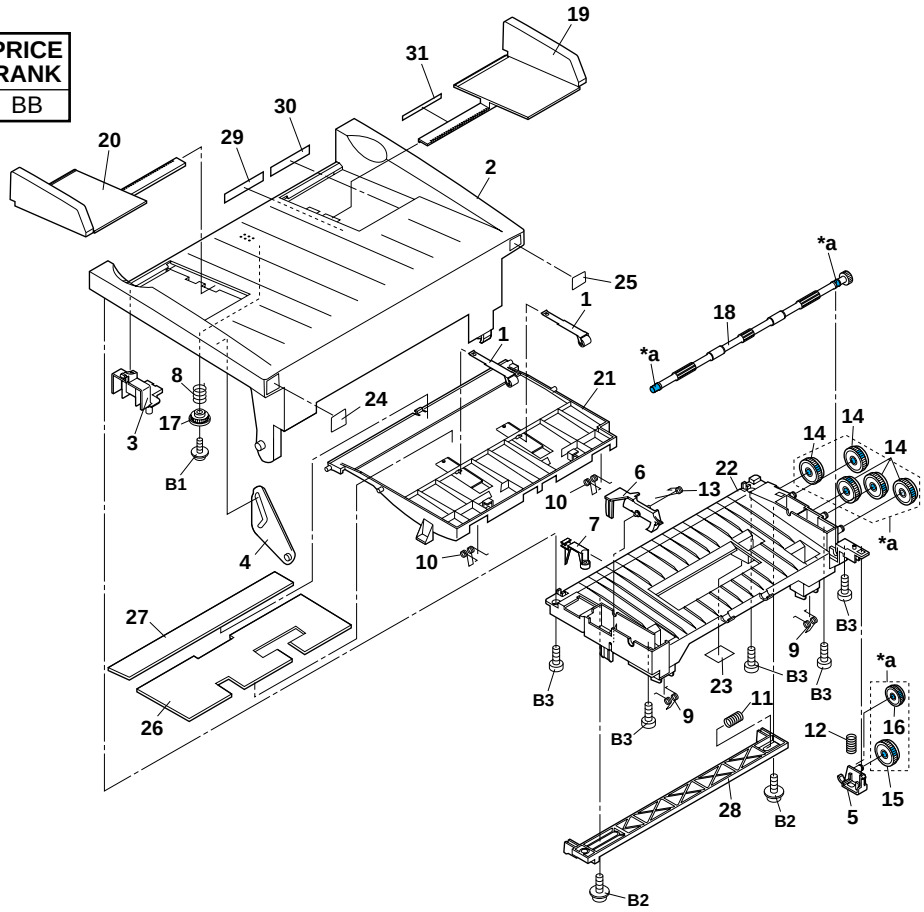


NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] Exterior etc.(1)					
1	CCNW-4955XH02	AL		C	Speaker ass'y
2	GCABE2411XHSA	AX		D	Left upper cabinet
3	NGERH2466XHZZ	AE		C	Idler gear(32Z)
4	NROLP2420XHZZ	AM		C	Left cabinet roller
5	QSW-M2324XHZZ	AN		C	Paper out sensor
6	TLABP394EXHZZ	AE		D	Supply guide label 1
7	TLABP395EXHZZ	AE		D	Supply guide label 2
8	QCNW-4953XHZZ	AK		C	CIS cable
9	LPLTM3267XHZZ	AT		C	Power supply PWB plate
10	QCNWN262BXHZZ	AS		C	Mechanism connect power supply cable
11	QCNWN263BXHZZ	AP		C	Power supply cable
⚠ 12	RDENT2181XHZZ	BX		E	Power supply PWB unit
13	QCNCW2662SC0B	AE		C	Joint connector
14	LPLTP3227XHSA	BE		C	Paper feed tray
15	PGIDM2636XHSA	AH		C	Tray width guide,rear
16	PGIDM2637XHSA	AH		C	Tray width guide,front
17	PGIDM2638XHSA	AH		C	Tray back guide
18	PSPO-2001XHZZ	AD		C	Tray width sponge
19	PSPO-2013XHZZ	AE		C	Tray back guide sponge
20	QCNWN268BXHZZ	AK		C	Paper size sensor cable
21	QSW-M2296XHZZ	AD		B	Paper size sensor
22	TLABH215EXHZZ	AD		D	Paper limit label 1
23	DCEKC424CXH01	BW		E	Printer PWB unit
24	DCEKC985RXHZZ	CU	N	E	Control PWB unit(Within ROM)
25	DCEKL422CXH01	BM		E	LIU PWB unit
26	GCABA2404XHSB	BB	N	D	Front cabinet
27	GCABB2405XHSA	BE		D	Rear cabinet
28	GCABC2409XHSA	AS		D	Inner front cabinet
29	GCABD2410XHSA	AX		D	Right cabinet
30	GCOVA2408XHSC	AL		C	ROM cover
31	LANGP2848XHZZ	AE		C	LIU-2 angle
32	LANGT2849XHZZ	AH		C	NIC angle
33	LBNDJ2006XHZZ	AA		C	Band(100mm)
34	LFRM-2233XHZZ	AV		C	Front frame,left
35	LFRM-2234XHZZ	AX		C	Rear frame,left
36	LHLDW2158SCZZ	AC		C	Wire holder
37	LHLDW2183SCZZ	AD		C	Clamp
38	LPLTM3235XHZZ	AV		C	PWB plate
39	LPLTM3236XHZZ	AZ		C	Bottom frame,left
40	MSPRP3055XHFJ	AD		C	Speaker holder plate spring
41	PGIDM2635XHZZ	AQ		C	Paper press guide
42	PLEGP2071XHZZ	AE		C	Foot
43	PSHEZ3740XHZZ	AL		C	Paper press guide protect sheet
44	PSHEZ3743XHZZ	AN		C	P/H protect sheet
45	QCNWN274BXHZZ	AN		C	LIU cable
46	HPNLH2423XHZZ	AR	N	D	Decoration panel
47	PSHEZ3410XHZZ	AB		C	Jack sheet
48	TLABS307FXHZZ	AE	N	D	FDA label
49	QCNWN269BXHZZ	AK		C	PS4 sensor cable
50	QCNW-277AXHZZ	AY		C	Sensor cable
51	QCNWN290BXHZZ	BA	N	C	Panel cable
52	QSW-M2296XHZZ	AD		B	Received document tray sensor
53	PCUSS2188XHZZ	AE		C	PWB cushion
54	LBNDJ2013XHZZ	AM		C	Band
⚠ 55	RCORF2124XHZZ	AE		B	Core
56	QCNWN292BXHZZ	AX	N	C	LCD cable
B1	LX-BZ2282XHZZ	AB		C	Screw(4x6)
B2	XHBSD30P06000	AA		C	Screw(3x6)
B3	XEBSE30P10000	AA		C	Screw(3x10)
B4	LX-BZ2205XHZZ	AC		C	Screw(3x8)
B5	LX-BZ2241XHZZ	AC		C	Screw(3x6)
B6	XEBSD30P10000	AA		C	Screw(3x10)
B7	XHBSE30P10000	AA		C	Screw(3x10)

[2] Exterior etc.(2)

*a: FLOIL

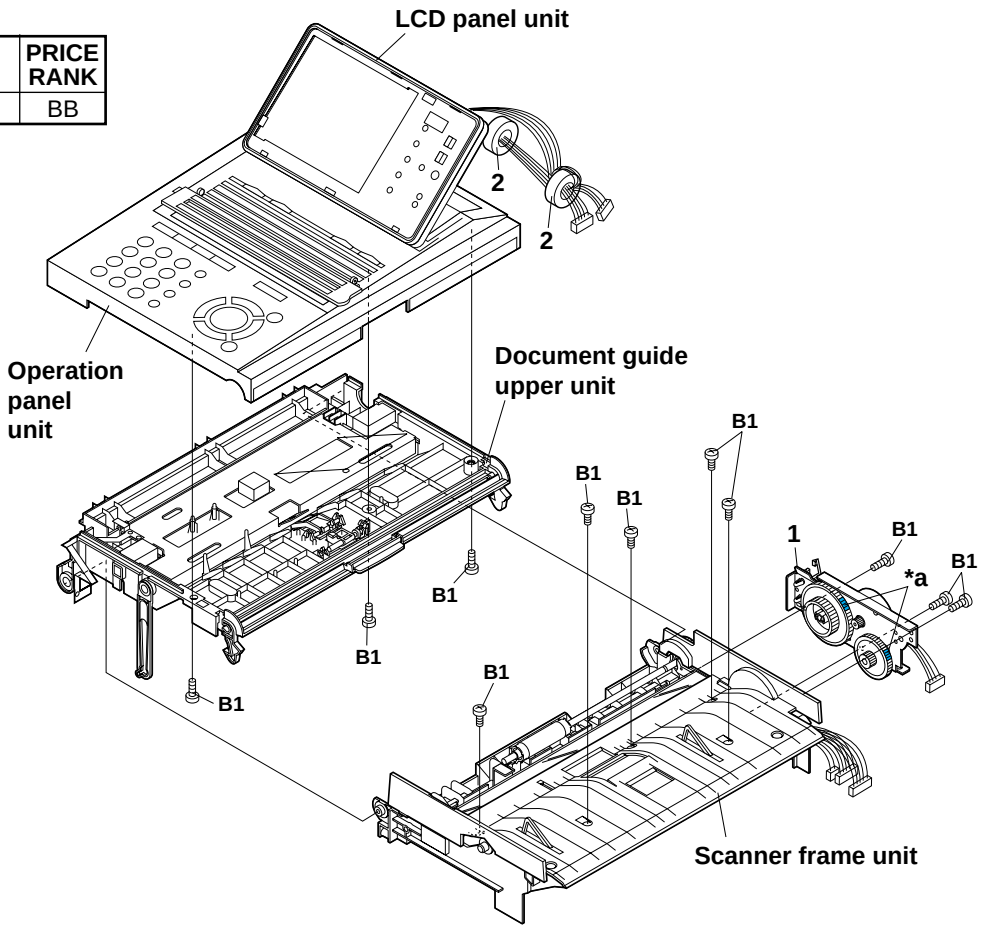
PARTS CODE	PRICE RANK
UKOG-0238FCZZ	BB



[3] Exterior etc.(3)

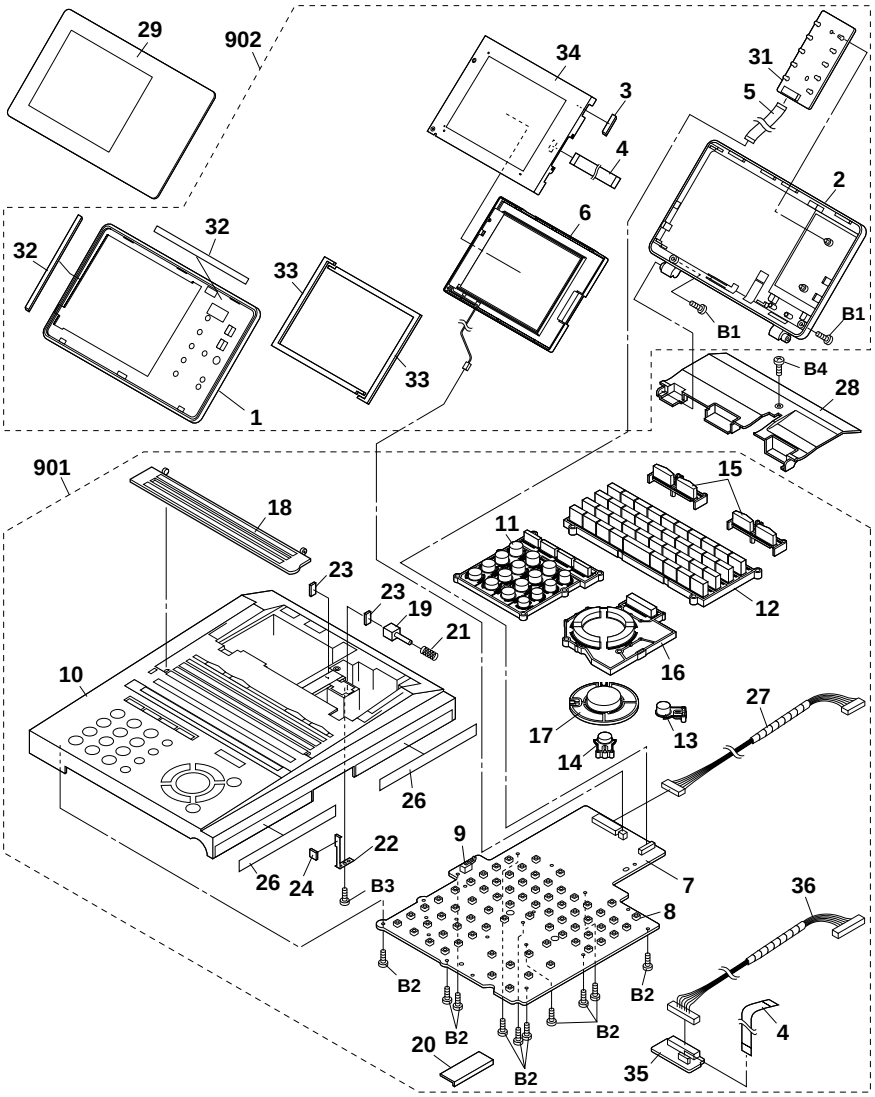
*a: FLOIL

PARTS CODE	PRICE RANK
UKOG-0238FCZZ	BB

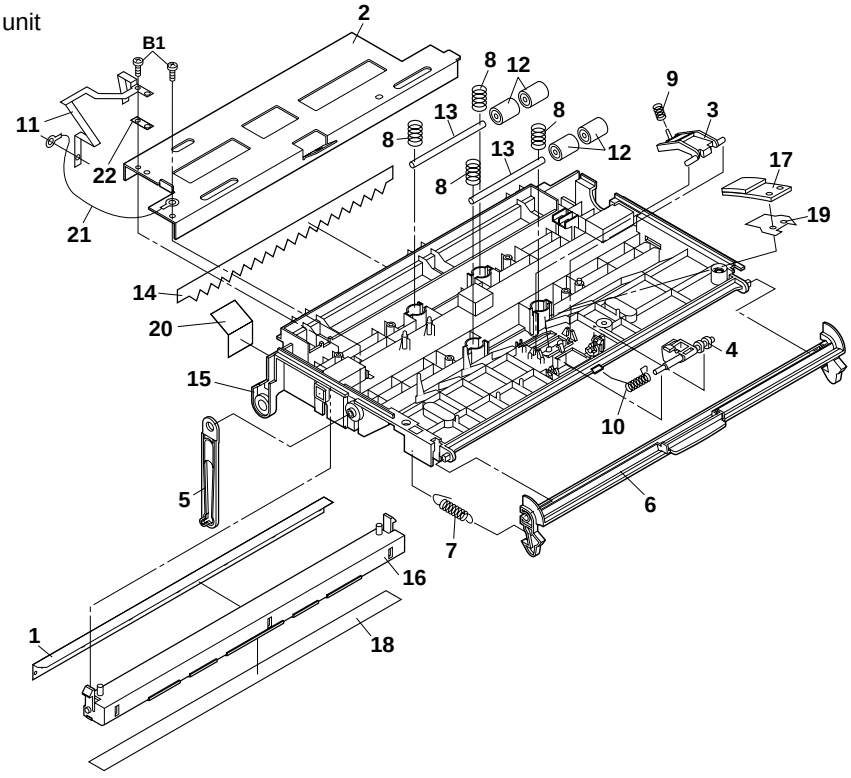


NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[2] Exterior etc.(2)					
1	CROLP2320XH01	AZ		C	Pinch roller ass'y
2	GCOVA2460XHSA	BB		C	Upper cover
3	JBTN-2376XHSB	AF	N	C	Upper cover lock button
4	LPLTM3228XHZZ	AE		C	Upper cover stopper
5	LPLTM3229XHZZ	AH		C	Upper cover gear plate
6	MLEVP2374XHZZ	AE		C	Drum cartridge detect lever
7	MLEVP2376XHZZ	AE		C	Shutter lever
8	MSPRC3149XHZZ	AB		C	Hopper spring
9	MSPRC3348XHZZ	AE		C	Drum cartridge press spring
10	MSPRC3350XHZZ	AE		C	Guide press spring
11	MSPRC3374XHZZ	AC		C	Upper cover lock spring
12	MSPRC3375XHZZ	AD		C	Upper cover gear plate spring
13	MSPRD3091XHZZ	AF		C	Drum cartridge detect lever spring
14	NGERH2466XHZZ	AE		C	Idler gear(32Z)
15	NGERH2602XHZZ	AH		C	Idler gear 1(50Z)
16	NGERH2603XHZZ	AE		C	Idler gear 2(17Z)
17	NGERP2318XHZZ	AD		C	Pinion gear
18	NROLP2421XHZZ	AM		C	Upper cover roller
19	PGIDM2544XHSB	AL		C	Hopper guide,right
20	PGIDM2545XHSB	AL		C	Hopper guide,left
21	PGIDM2639XHZZ	AX		C	Paper exit guide,upper
22	PGIDM2640XHZZ	AY		C	Paper exit guide,under
23	PSHEZ3455XHZZ	AF		C	Reflection sheet
24	PSHEZ3741XHSA	AE		C	Upper cover sheet,left
25	PSHEZ3742XHSA	AE		C	Upper cover sheet,right
26	PSPO-2014XHZZ	AL		C	Upper cover sponge
27	PSPO-2015XHZZ	AH		C	Upper cover sponge
28	PTME-2073XHZZ	AH		C	Upper cover lock nail
29	PSHEZ3777XHZZ	AE	N	C	Upper cover sheet A
30	PSHEZ3778XHZZ	AD	N	C	Upper cover sheet B
31	PSHEZ3779XHZZ	AD	N	C	Hopper right guide,sheet
B1	LX-BZ2138XHZZ	AB		C	Screw(3x8)
B2	LX-BZ2205XHZZ	AC		C	Screw(3x8)
B3	XEBSD30P10000	AA		C	Screw(3x10)
[3] Exterior etc.(3)					
1	CMOTZ2146XH01	BH		E	Drive unit
⚠ 2	RCORF2125XHZZ	AE		B	Core(TRA31)
B1	XEBSD30P10000	AA		C	Screw(3x10)

[4] Operation panel unit



[5] Document guide upper unit

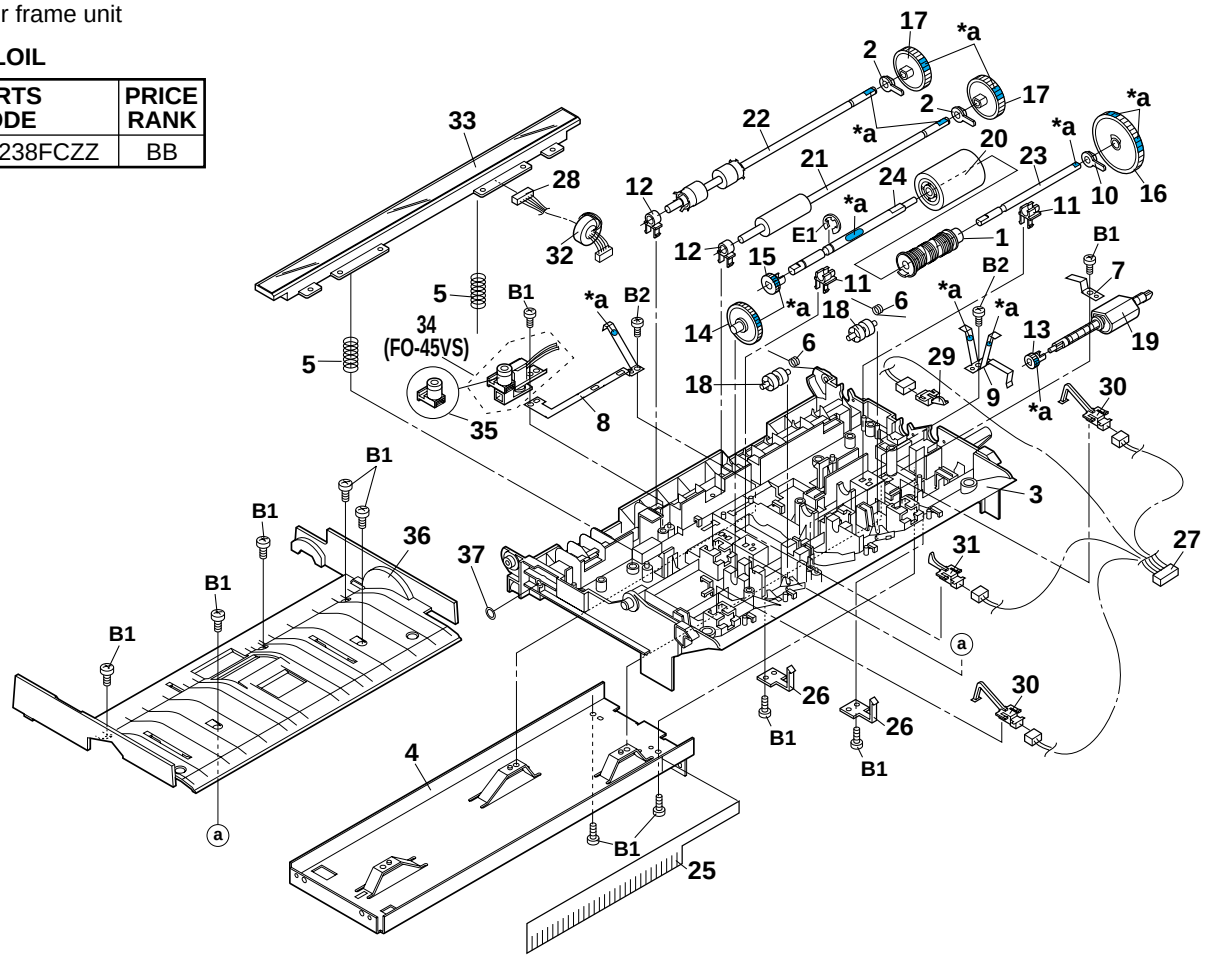


NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[4] Operation panel unit					
1	GCABA2406XHSA	AP	N	D	LCD case,upper
2	GCABB2408XHSA	AQ		D	LCD case,under
3	PCUSS2185XHZZ	AQ	N	C	LCD cushion
4	QCNWN293BXHZZ	AM	N	C	LCD FCC cable
5	QCNWN295BXHZZ	AH		C	LED FCC cable
6	RUNTZ2095SCZZ	BT	N	E	LCD unit
7	DCEKP425CXHP2	BC	N	E	Operation panel PWB unit
8	QSW-K0005AWZZ	AC		C	Tact switch [SW]
⚠ 9	QSW-Z2326SCZZ	AL		C	Paper plate switch [SW-A]
10	GCASP2163XHSB	AZ	N	D	Operation panel case
11	JBTN-2368XHSA	AN		C	10 key
12	JBTN-2369XHSA	AP		C	Direct key
13	JBTN-2370XHSA	AE		C	Copy key
14	JBTN-2371XHSA	AE		C	Stop key
15	JBTN-2372XHSA	AG	N	C	Mode key
16	JBTN-2374XHSA	AH		C	Menu key
17	JBTN-2375XHSA	AH		C	Start key
18	LPLTP3223XHSA	AH		C	Page plate
19	LPLTP3225XHZZ	AE		C	Friction plate
20	LPLTP3226XHZZ	AE		C	Switch cover plate
21	MSPRC3347XHZZ	AE		C	Friction spring 1
22	MSPRP3355XHZZ	AH		C	Friction spring 2
23	PGUMM2201XHZZ	AF		C	Friction gum 1
24	PGUMM2202XHZZ	AE		C	Friction gum 2
26	PSHEZ3752XHSA	AF	N	C	Scan width sheet
27	QCNWN290BXHZZ	BA	N	C	Panel cable
28	LPLTP3224XHSA	AH		C	LCD support plate
29	HPNLH2423XHZZ	AR	N	D	Decoration panel
31	DCEKP425CXHL2	BB	N	E	LED PWB unit
32	PSHEP3768XHZZ	AF		C	LCD blind sheet
33	PCUSS2190XHZZ	AG	N	C	LCD cushion
34	RUNTZ2096SCZZ	AX	N	E	Back light unit
35	DCEKD442CXH01	AS	N	E	LCD Relay PWB unit
36	QCNWN292BXHZZ	AX	N	C	LCD cable
B1	XEBSE26P08000	AA		C	Screw(2.6x8)
B2	XEBSD20P08000	AA		C	Screw(2x8)
B3	XEBSD30P10000	AA		C	Screw(3x10)
B4	XEBSE30P10000	AA		C	Screw(3x10)
	(Unit)				
901	CCASP2163XH52	BR	N	E	Operation panel unit
902	CCABA2406XH02	CE	N	E	LCD panel unit
[5] Document guide upper unit					
1	LANGF2819XHZZ	AF		C	Back bracket
2	LPLTM3011XHZZ	AK		C	Document guide upper plate
3	LPLTP2819XHZZ	AD		C	Separator plate
4	LPLTP2821XHZZ	AD		C	Transfer plate
5	LSTPP2052XHZZ	AD		C	Document guide stopper
6	MLEVP2304XHSB	AL		C	Release lever
7	MSPRC2843XHZZ	AC		C	Release lever spring
8	MSPRC3126XHZZ	AG		C	Pinch roller spring 2
9	MSPRC3180XHZZ	AD		C	Separate spring
10	MSPRD3179XHZZ	AD		C	Input pressure spring
11	MSPRP3083XHZZ	AF		C	Brush earth spring
12	NROLP2334XHZA	AC		C	Pinch roller
13	NSFTZ2306XHZZ	AD		C	Pinch roller shaft
14	PBRS-2059XHZZ	AK		C	Paper brush
15	PGIDM2539XHZC	AT		C	Document guide upper
16	PGIDM2540XHZZ	AF		C	Back guide
17	PGUMM2162XHZZ	AF		C	Separate rubber
18	PSHEZ3418XHZZ	AC		C	Back sheet
19	PSHEZ3419XHZZ	AB		C	Separate sheet
20	PSHEZ3738XHZZ	AE		C	Blind sheet
21	QCNWN270BXHZZ	AF		C	Earth cable
22	PSHEZ3753XHZZ	AE		C	Sheet
B1	XEBSD30P10000	AA		C	Screw(3x10)

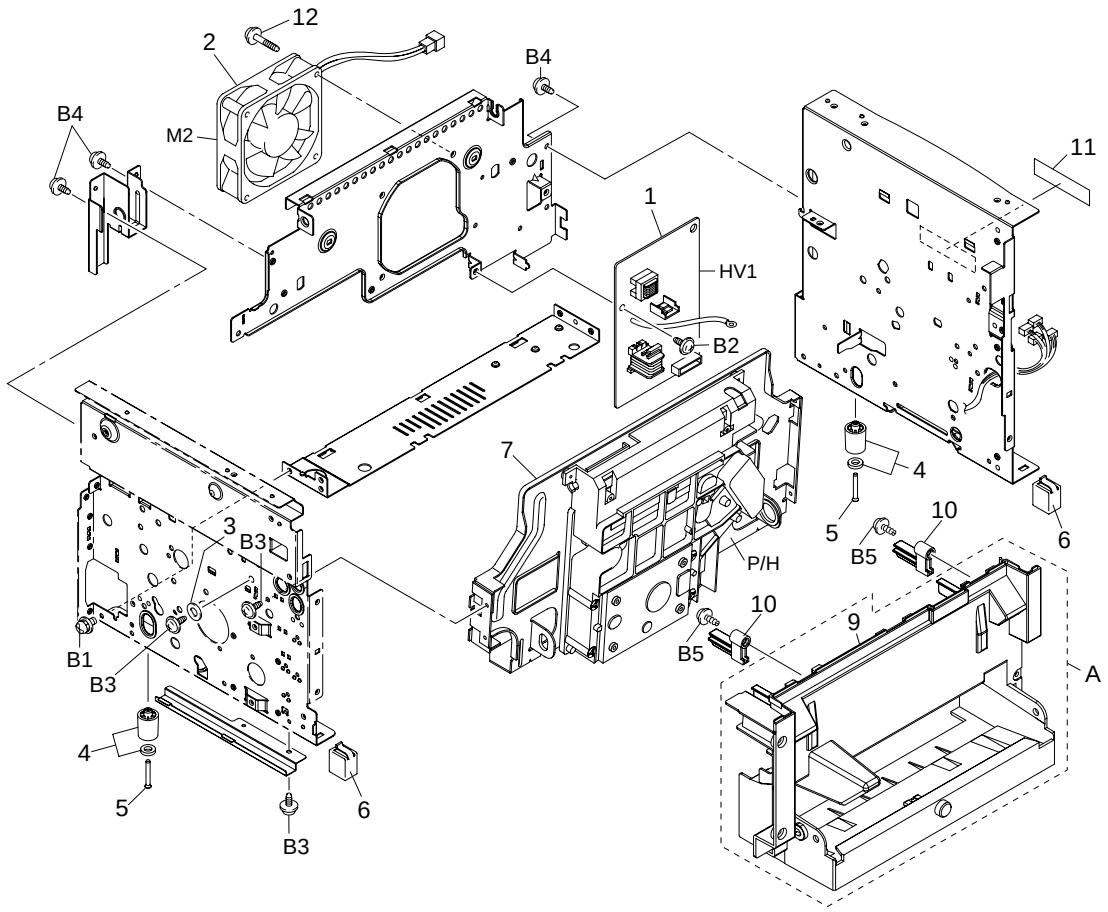
[6] Scanner frame unit

*a: FLOIL

PARTS CODE	PRICE RANK
UKOG-0238FCZZ	BB

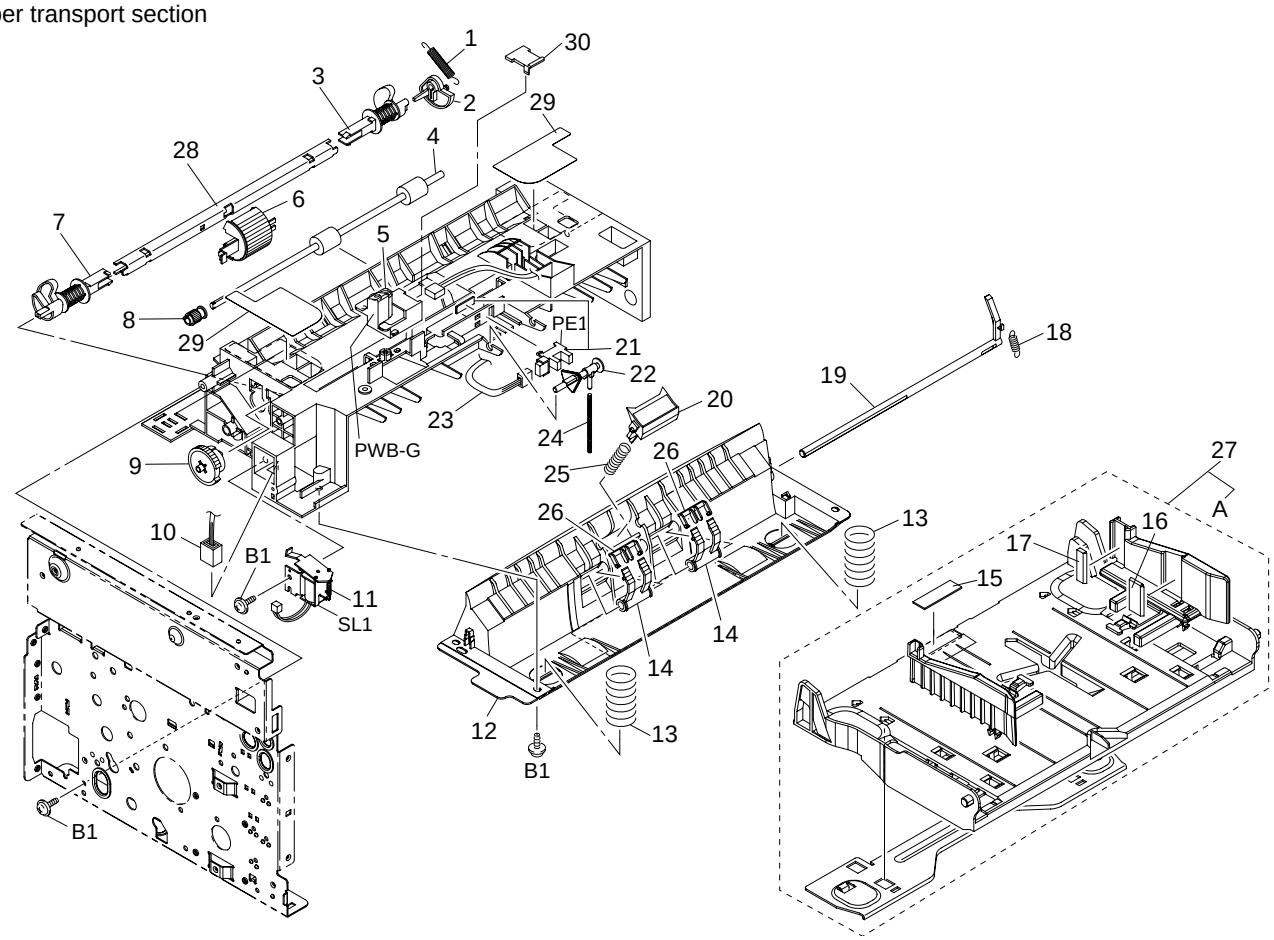


[7] Frames



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[6] Scanner frame unit					
1	CBSHP2079XH02	AZ		C	Scanner feed clutch
2	LBSHP2113XHZZ	AH		C	DR bearing
3	LFRM-2201XHZZ	AL		C	Scanner frame
4	LPLTM3012XHZZ	AL		C	Scanner support plate
5	MSPRC3138XHZZ	AE		C	CIS spring
6	MSPRD3086XHZZ	AH		C	Pinch roller spring
7	MSPRP2841XHZZ	AC		C	Stopper spring
8	MSPRP3088XHZZ	AF		C	SD2 earth spring
9	MSPRP3087XHZZ	AF		C	FD1 earth spring
10	NBRGP2128XHZA	AE		C	Bearing
11	NBRGP2138XHZZ	AD		C	Scanner bearing 1
12	NBRGP2141XHZZ	AH		C	Transfer bearing
13	NGERH2319XHZZ	AD		C	ADF transfer gear
14	NGERH2320XHZZ	AD		C	Transfer idler gear
15	NGERH2322XHZZ	AC		C	ADF feed gear
16	NGERH2462XHZZ	AC		C	Feed gear(73Z)
17	NGERH2463XHZZ	AC		C	Feed gear(49Z)
18	NROLP2332XHZZ	AD		C	PO pinch roller
19	NROLR2417XHZZ	AH		C	Transfer roller
20	NROLR2338XHZZ	AK		C	Scanner feed roller
21	NROLR2418XHZZ	AL		C	Scanner drive roller 1
22	NROLR2419XHZZ	AK		C	Scanner drive roller 2
23	NSFTZ2307XHZZ	AK		C	Scanner feed shaft 1
24	NSFTZ2308XHZZ	AL		C	Scanner feed shaft 2
25	PBRS-2048XHZZ	AD		C	Paper earth brush
26	PTME-2067XHZZ	AK		C	Anti curl piece
27	QCNW-277AXHZZ	AY		C	Sensor cable
28	QCNW-4953XHZZ	AK		C	CIS cable
29	QSW-M2296XHZZ	AD		B	Transfer sensor
30	QSW-M2298XHZZ	AE		C	Front sensor/B4 Front sensor
31	QSW-Z2237SCZZ	AE		B	Document sensor
⚠ 32	RCORF2124XHZZ	AE		B	Core
33	RUNTZ2104XHB4	BW	N	E	CIS unit
34	PSTM-2015SCZZ	AX		E	Verification stamp(FO-45VS)
35	UINK-2009SC01	BA		C	Stamp only(20 pieces)
36	PGIDM2541XHSD	AP	N	C	Document guide under
37	PSHEZ3764XHZZ	AB		C	Sheet
B1	XEBSD30P10000	AA		C	Screw(3x10)
B2	XHBSD30P06000	AA		C	Screw(3x6)
E1	XRESJ50-06000	AA		C	E type ring(5mm)
[7] Frames					
1	0KW4127620701	BN		E	High voltage PWB unit [HV1]
2	0KW4127610101	BE		B	Cooling fan motor [M2]
3	0KW1200152102	AC		C	Washer
4	0KW4122235013	AN		C	Rubber foot
5	0KW4122234901	AC		C	Rubber foot
6	0KW4122235102	AF		C	Auxiliary member
7	0KW4571053601	CB		E	Print head ass'y [PH]
9	0KW4127107303	BB		C	Cover
10	0KW4127207101	AC		C	Stopper
11	0KW4122209201	AC		D	Label
12	0KW0993204501	AC		C	Screw
B1	0KW9646030613	AB		C	Screw(3x6)
B2	0KW9735030613	AB		C	Tapping screw(3x6)
B3	0KW9735030813	AC		C	Tapping screw(3x8)
B4	0KW9735030814	AU		C	Tapping screw(3x8)
B5	0KW9742030613	AP		C	Tapping screw(3x6)

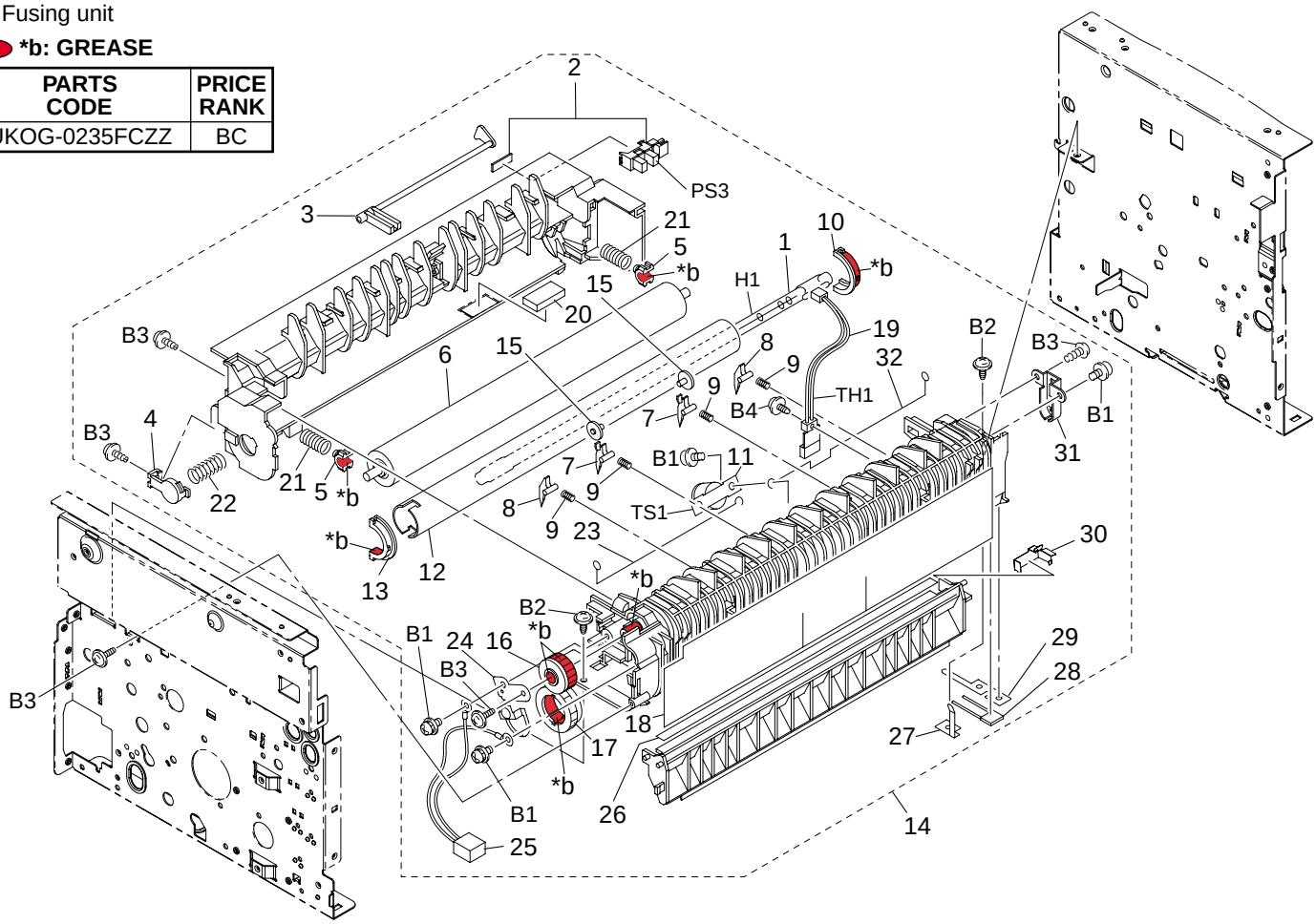
[8] Paper transport section



[9] Fusing unit

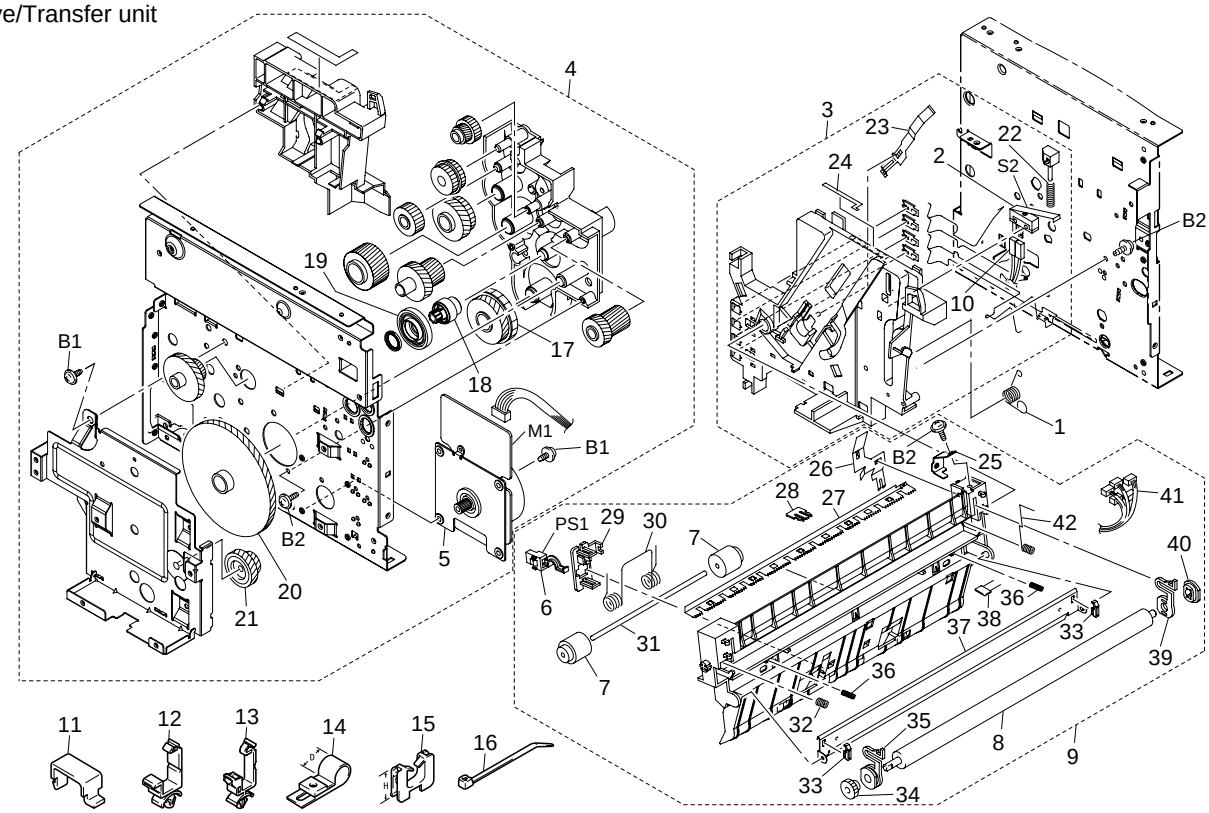
***b: GREASE**

PARTS CODE	PRICE RANK
UKOG-0235FCZZ	BC



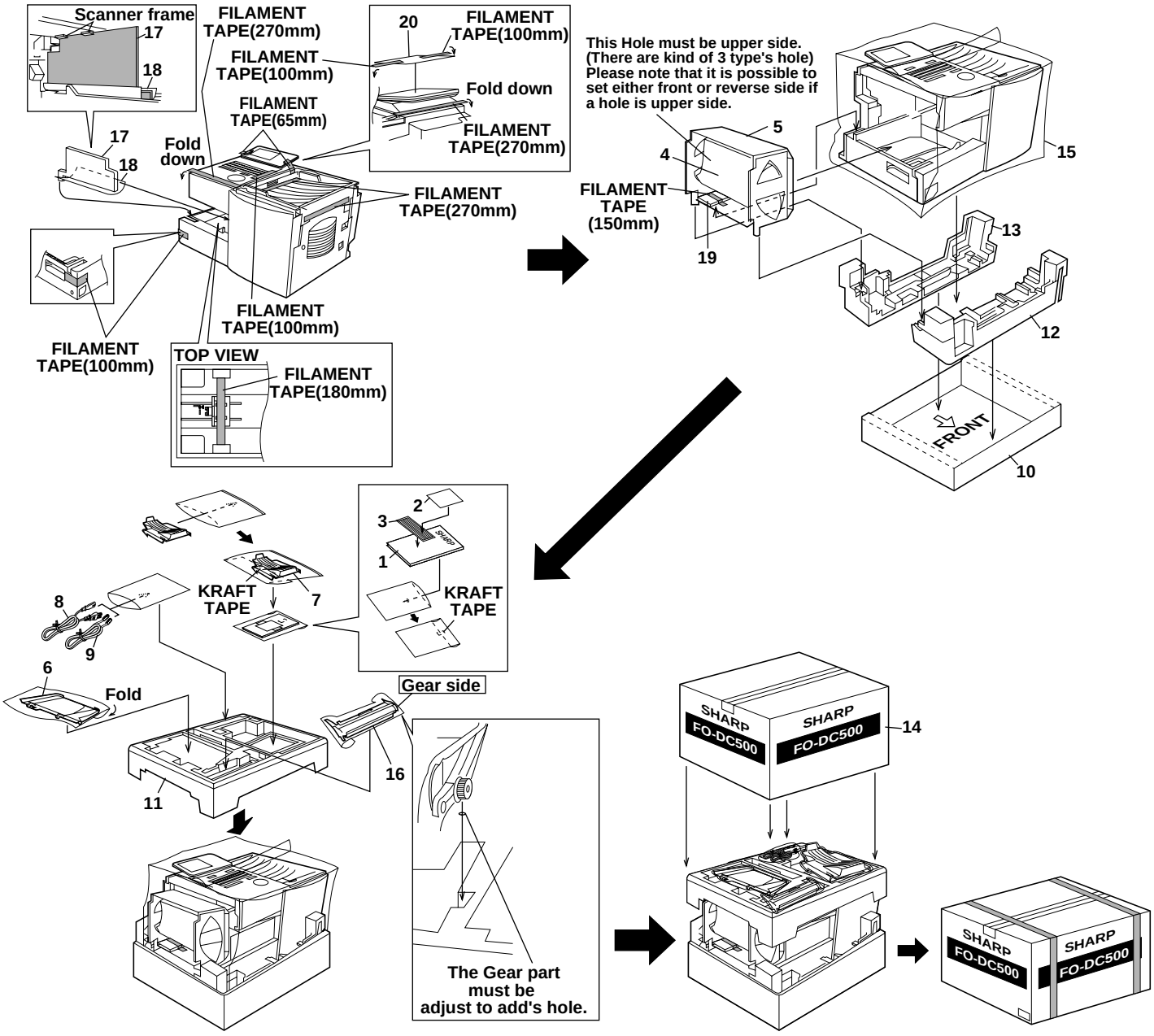
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] Paper transport section					
1	0KW4127301902	AD		C	Tension spring
2	0KW4127302601	AD		C	Cam
3	0KW4127300701	AF		C	Cam
4	0KW4127300201	AS		C	Roller
5	0KW4127011301	AY		E	Toner empty PWB unit [PWB-G]
6	0KW4127300101	AR		C	Roller
7	0KW4127300802	AD		C	Cam
8	0KW4127301401	AD		C	Gear(14T)
9	0KW4127301001	AD		C	Gear(32T)
10	0KW4127680501	AG		C	Wire harness ass'y
11	0KW9321200032	AU		B	Paper take up solenoid [SL1]
12	0KW4127350116	AT		C	Guide
13	0KW4127301601	AC		C	Pressure spring
14	0KW4127302202	AD		C	Stopper
15	0KW4127301301	AC		C	Friction sheet
16	0KW4127317401	AD		C	Guide
17	0KW4127317501	AF		C	Guide
18	0KW4127302701	AC		C	Tension spring
19	0KW4127302501	AD		C	Lever
20	0KW4127048101	AU		C	Separator pad
21	0KW4127090101	AT		B	Paper empty sensor [PE1]
22	0KW4127307101	AG		C	Actuator
23	0KW4127681401	AF		C	Wire harness ass'y
24	0KW4127307201	AH		C	Tension spring
25	0KW4127304102	AC		C	Pressure spring
26	0KW4127304203	AC		C	Guide
27	0KW4127045102	BG		C	Cover ass'y
28	0KW4127302901	AF		C	Shaft
29	0KW4127304801	AF		C	Seal
30	0KW4127305001	AG	N	C	Feed roller cover
B1	0KW9739030813	AB		C	Tapping screw(3x8)
[9] Fusing unit					
1	0KW4127650202	BC		B	Heater,120V [H1]
2	0KW4127090101	AT		B	Paper exit sensor [PS3]
3	0KW4127551801	AD		C	Actuator
4	0KW4127553402	AC		C	Holder
5	0KW4127557101	AH		C	Bushing
6	0KW4127557201	BD		C	Roller
7	0KW4127553601	AQ		C	Separator
8	0KW4127553301	AP		C	Separator
9	0KW4109551601	AC		C	Pressure spring
10	0KW4122552201	AH		C	Fusing bushing
11	0KW4127630101	AY		B	Thermostat [TS1]
12	0KW4121550101	BH		C	Fusing roller
13	0KW4109552101	AK		C	Fusing bushing
14	0KW4127035501	BY		E	Fusing unit,120V
15	0KW4127551602	AF		C	Roll
16	0KW4127551301	AD		C	Gear
17	0KW4127551202	AL		C	Gear
18	0KW4127555004	AH		C	Seal
19	0KW4109670101	AY		B	Thermistor [TH1]
20	0KW4127559301	AN		C	Brush
21	0KW4127551702	AC		C	Pressure spring
22	0KW4127553501	AC		C	Pressure spring
23	0KW4127552602	AD		C	Terminal
24	0KW4127552401	AF		C	Terminal
25	0KW4127680101	AG		C	Wire harness ass'y
26	0KW4127559101	AL		C	Neturalizing member
27	0KW4109552702	AD		C	Contact
28	0KW9454407602	AG		C	Resistor
29	0KW4127552802	AC		C	Contact
30	0KW4127559201	AG		C	Contact
31	0KW4127552501	AH		C	Terminal
32	0KW4127552902	AD		C	Terminal
B1	0KW9646030613	AB		C	Screw(3x6)
B2	0KW9735030813	AC		C	Tapping screw(3x8)
B3	0KW9739030813	AB		C	Tapping screw(3x8)
B4	0KW9742031013	AB		C	Tapping screw(3x10)

[10] Drive/Transfer unit



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[10] Drive/Transfer unit					
1	0KW4127201302	AC		C	Torsion spring
2	0KW4109630501	AN		C	Interlock switch [S2]
3	0KW4127048301	BC		E	I/C guide assy
4	0KW4127030601	BV		E	Drive gear assy
5	0KW9314210012	BP		B	Main motor [M1]
6	0KW4127630201	AN		C	Paper take up sensor switch [PS1]
7	0KW4127300601	AC		C	Roll
8	0KW4127410302	BF		C	Transfer roller
9	0KW4127031201	BM		E	Transfer unit
10	0KW4127682101	AP		C	Wire harness assy
11	0KW1053481202	AP		C	Cord clamp
12	0KW9384100051	AC		C	Wiring saddle
13	0KW9384110091	AC		C	Wiring saddle
14	0KW9384160011	AC		C	P-clip 10D
15	0KW9384201021	AD		C	Edge cover 8.5H
16	0KW4127675201	AC		C	Cable tie
17	0KW4127251001	AF		C	Gear
18	0KW4127257601	AS		C	Gear
19	0KW4127257501	AW		C	Gear
20	0KW4127251201	AS		C	Gear
21	0KW4127257101	AG		C	Gear
22	0KW4127231001	AF		C	Pressure spring
23	0KW4127201201	AN		C	Earth ground
24	0KW4127202203	AC		D	Label
25	0KW4127207301	AF		C	Contact
26	0KW4127413102	AD		C	Earth ground
27	0KW4127411301	AG		C	Neutralizing needle
28	0KW4127413701	AH		C	Regulating plate
29	0KW4127413601	AC		C	Holder
30	0KW4127301801	AC		C	Torsion spring
31	0KW4127303901	AF		C	Shaft
32	0KW4127410701	AC		C	Pressure spring
33	0KW4127413302	AC		C	Spacer
34	0KW4127411101	AD		C	Gear
35	0KW4127410401	AC		C	Bushing
36	0KW4127413501	AC		C	Pressure spring
37	0KW4127413201	AG		C	Guide plate
38	0KW9454407602	AG		C	Resistor
39	0KW4127410501	AC		C	Bushing
40	0KW4127410601	AD		C	Conductive member
41	0KW4127681904	AV		C	Wire harness ass'y
42	0KW4127410801	AC		C	Pressure spring
B1	0KW9735030613	AB		C	Tapping screw(3x6)
B2	0KW9739030813	AB		C	Tapping screw(3x8)

[11] Packing material & Accessories



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[11] Packing material & Accessories					
1	TINSE4302XHTZ	AR	N	D	Operation manual
2	TLABP391EXHZZ	AE		D	Paper size labels
3	TLABZ392EXHZZ	AD		D	Rapid key labels
4	DUNT-429CSCZZ	BZ	N	S	Toner cartridge(Initial starter cartridge)
5	SPAKA344EXHZZ	AL		D	Toner cartridge protection
6	CPLTP2803XHC4	AZ		C	ADF exit tray
7	CPLTP3009XHC5	AY		C	Received document tray(with label)
⚠ 8	QACCD2062XHZZ	AQ		B	Power cord
⚠ 9	QCNW-290ASCZZ	AE		C	Telephone line cord
10	SPAKA422DXHZZ	AS		D	Packing case,bottom
11	SPAKA423DXHZZ	AY		D	Packing add.,top
12	SPAKA424DXHZZ	AP		D	Packing add.,bottom,front
13	SPAKA425DXHZZ	AP		D	Packing add.,bottom,rear
14	SPAKC288EXHTZ	AX	N	D	Packing case,top(Made in Thailand)
	SPAKC288DSCJZ		N	D	Packing case,top(Made in Japan)
15	SPAKP499DXHZZ	AL		D	Vinyl cover
16	DUNT-454BSCZZ	CA		S	Drum cartridge(Initial starter cartridge)
17	SPAKA293EXHZZ	AF		C	Protection sheet
18	SPAKA294EXHZZ	AE		C	Protection sheet
19	SPAKA343EXHZZ	AG		D	Toner cartridge protection sheet
20	SPAKA345EXHZZ	AD		D	LCD protection sheet

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
1	UBATL2071XHZZ	AL		B	Battery(CR2450)	[BAT1]
2	RR-TZ3012SC00	AB		C	Block resistor(0Ωx4)	[BR2]
3	RR-TZ3012SC00	AB		C	Block resistor(0Ωx4)	[BR3]
4	RR-TZ3012SC00	AB		C	Block resistor(0Ωx4)	[BR4]
5	RR-TZ3012SC00	AB		C	Block resistor(0Ωx4)	[BR5]
6	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR10]
7	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR11]
8	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR12]
9	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR13]
10	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR14]
11	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR15]
12	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR18]
13	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR19]
14	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR22]
15	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR23]
16	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR24]
17	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR25]
18	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR26]
19	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR27]
20	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR28]
21	RR-TZ3023SCZZ	AC		C	Block resistor(100Ωx4)	[BR29]
22	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR30]
23	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR31]
24	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR32]
25	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR33]
26	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR34]
27	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR35]
28	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR36]
29	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR37]
30	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR38]
31	RR-TZ3016SCZZ	AA		C	Block resistor(33Ωx4)	[BR39]
32	RR-TZ3044SCZZ	AD		C	Block resistor(10KΩx4)	[BR40]
33	RR-TZ3044SCZZ	AD		C	Block resistor(10KΩx4)	[BR41]
34	RR-TZ3044SCZZ	AD		C	Block resistor(10KΩx4)	[BR42]
35	VCKYCZ1CF104Z	AB		C	Capacitor(16WV 0.1μF)	[C7]
36	VCKYCZ1CF104Z	AB		C	Capacitor(16WV 0.1μF)	[C8]
37	VCKYCZ1EB102K	AA		C	Capacitor(25WV 1000PF)	[C9]
38	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C10]
39	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C11]
40	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C12]
41	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C13]
42	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C14]
43	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C15]
44	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C16]
45	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C17]
46	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C18]
47	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C19]
48	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C20]
49	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C21]
50	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C22]
51	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C23]
52	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C24]
53	VCKYCZ0JF105Z	AC		C	Capacitor(6.3WV 1.0μF)	[C25]
54	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C100]
55	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C103]
56	VCCCCY1HH180J	AA		C	Capacitor(50WV 18PF)	[C104]
57	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C105]
58	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C106]
59	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C111]
60	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C112]
61	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C113]
62	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C114]
63	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C115]
64	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C116]
65	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C117]
66	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C118]
67	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C119]
68	VCKYCY1HF104Z	AA		C	Capacitor(50WV 0.1μF)	[C122]
69	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C124]
70	VCCCCY1HH471J	AA		C	Capacitor(50WV 470PF)	[C125]
71	VCCCCY1HH331J	AB		C	Capacitor(50WV 330PF)	[C126]
72	VCCCCY1HH331J	AB		C	Capacitor(50WV 330PF)	[C128]
73	VCCCCY1HH471J	AA		C	Capacitor(50WV 470PF)	[C129]
74	VCCCCY1HH221J	AA		C	Capacitor(50WV 220PF)	[C130]
75	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01μF)	[C131]
76	VCKYTV1HB102K	AA		C	Capacitor(50WV 1000PF)	[C132]
77	VCKYCY1HB332K	AA		C	Capacitor(50WV 3300PF)	[C133]
78	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1μF)	[C138]
79	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1μF)	[C139]
80	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1μF)	[C140]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
81	VCKYTV1CF225Z	AD		C	Capacitor(16WV 2.2µF)	[C141]
82	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C142]
83	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C143]
84	VCCCCY1HH100D	AA		C	Capacitor(50WV 10PF)	[C144]
85	VCCCCY1HH8R0D	AA		C	Capacitor(50WV 8PF)	[C145]
86	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C146]
87	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C148]
88	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C150]
89	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C151]
90	VCKYTV1HB222K	AA		C	Capacitor(50WV 2200PF)	[C161]
91	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C162]
92	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C163]
93	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C164]
94	VCKYTQ1EB224K	AB		C	Capacitor(25WV 0.22µF)	[C165]
95	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C166]
96	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C167]
97	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C168]
98	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C169]
99	VCCCCY1HH101J	AA		C	Capacitor(50WV 100PF)	[C171]
100	VCCCCY1HH330J	AA		C	Capacitor(50WV 33PF)	[C174]
101	VCCCCY1HH330J	AA		C	Capacitor(50WV 33PF)	[C175]
102	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C176]
103	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C177]
104	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C178]
105	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C179]
106	VCKYTV1CF225Z	AD		C	Capacitor(16WV 2.2µF)	[C180]
107	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C181]
108	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C182]
109	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C183]
110	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C184]
111	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C187]
112	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C188]
113	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C189]
114	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C190]
115	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C191]
116	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C192]
117	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C193]
118	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C194]
119	VCCCCY1HH470J	AA		C	Capacitor(50WV 47PF)	[C195]
120	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C198]
121	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C199]
122	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C200]
123	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C201]
124	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C202]
125	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C203]
126	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C204]
127	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C205]
128	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C206]
129	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C207]
130	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C209]
131	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C210]
132	VCCCCY1HH120J	AA		C	Capacitor(50WV 12PF)	[C213]
133	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C214]
134	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C215]
135	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C220]
136	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C226]
137	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C231]
138	VCCCCY1HH150J	AB		C	Capacitor(50WV 15PF)	[C232]
139	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C233]
140	VCCCCY1HH471J	AA		C	Capacitor(50WV 470PF)	[C236]
141	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C238]
142	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C239]
143	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C240]
144	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C244]
145	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C245]
146	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C246]
147	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C247]
148	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C248]
149	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C257]
150	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C258]
151	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C259]
152	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C262]
153	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C263]
154	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C264]
155	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C266]
156	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C267]
157	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C268]
158	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C269]
159	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C270]
160	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C271]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
161	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C272]
162	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C273]
163	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C278]
164	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C279]
165	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C280]
166	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C281]
167	VCCCCY1HH101J	AA		C	Capacitor(50WV 100PF)	[C282]
168	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C286]
169	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C289]
170	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C290]
171	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C291]
172	VCCCCY1HH120J	AA		C	Capacitor(50WV 12PF)	[C292]
173	VCCCCY1HH180J	AA		C	Capacitor(50WV 18PF)	[C293]
174	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C294]
175	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C295]
176	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C296]
177	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C297]
178	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C298]
179	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C300]
180	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C302]
181	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C305]
182	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C310]
183	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C311]
184	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C314]
185	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C318]
186	VCCCCY1HH560J	AA		C	Capacitor(50WV 56PF)	[C319]
187	VCCCCY1HH7R0D	AA		C	Capacitor(50WV 7PF)	[C320]
188	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C321]
189	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C322]
190	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C323]
191	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C325]
192	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C327]
193	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C328]
194	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C330]
195	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C331]
196	VCKYCY1AF105Z	AC		C	Capacitor(10WV 1µF)	[C332]
197	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C333]
198	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C342]
199	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C343]
200	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C346]
201	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C358]
202	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C359]
203	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C360]
204	VCKYCY1HB222K	AA		C	Capacitor(50WV 2200PF)	[C361]
205	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C362]
206	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C363]
207	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C364]
208	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C365]
209	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C366]
210	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[C368]
211	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C369]
212	VCCCCY1HH101J	AA		C	Capacitor(50WV 100PF)	[C372]
213	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C375]
214	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C376]
215	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C378]
216	VCCCCY1HH331J	AB		C	Capacitor(50WV 330PF)	[C384]
217	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C385]
218	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C386]
219	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C387]
220	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C388]
221	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C389]
222	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C390]
223	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C391]
224	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C392]
225	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C393]
226	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C394]
227	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C395]
228	VCKYCY1CB104K	AB		C	Capacitor(16WV 0.1µF)	[C396]
229	VCKYCY1HF104Z	AA		C	Capacitor(50WV 0.1µF)	[C397]
230	VCCCCY1HH331J	AB		C	Capacitor(50WV 330PF)	[C398]
231	VCCCCY1HH471J	AA		C	Capacitor(50WV 470PF)	[C399]
232	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[C400]
233	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C403]
234	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C404]
235	VCKYCY1HF104Z	AA		C	Capacitor(50WV 0.1µF)	[C407]
236	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C601]
237	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C602]
238	VCEAEA1CW107M	AC		C	Capacitor(16WV 100µF)	[CE1]
239	RC-EZ3097XHZZ	AP		C	Capacitor(10WV 220µF)	[CE2]
240	VCEAEA1CW106M	AC		C	Capacitor(16WV 10µF)	[CE4]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[12] Control PWB unit					
241	VCEAEA1CW107M	AC		C	Capacitor(16WV 100µF) [CE5]
242	RC-EZ3088XHZZ	AK		C	Capacitor(50WV 100µF) [CE6]
243	VCEAEA1HW226M	AB		C	Capacitor(50WV 22µF) [CE7]
244	VCEAEA1HW226M	AB		C	Capacitor(50WV 22µF) [CE8]
245	VCEAEA1CW476M	AA		C	Capacitor(16WV 47µF) [CE10]
246	VCEAEA1CW226M	AA		C	Capacitor(16WV 22µF) [CE11]
247	VCEAEA1CW106M	AC		C	Capacitor(16WV 10µF) [CE12]
248	VCEAEA1CW226M	AA		C	Capacitor(16WV 22µF) [CE13]
249	VCEAEA1CW226M	AA		C	Capacitor(16WV 22µF) [CE14]
250	VCEAEA1CW106M	AC		C	Capacitor(16WV 10µF) [CE15]
251	VCEAEA1CW336M	AB		C	Capacitor(16WV 33µF) [CE16]
252	VCEAEA1EW475M	AA		C	Capacitor(25WV 4.7µF) [CE17]
253	VCEAEA1HW105M	AC		C	Capacitor(50WV 1µF) [CE18]
254	VCEAEA1CW476M	AA		C	Capacitor(16WV 47µF) [CE19]
255	VCEAEA1CW476M	AA		C	Capacitor(16WV 47µF) [CE20]
256	VCEAEA1CW106M	AC		C	Capacitor(16WV 10µF) [CE22]
257	VCEAEA1CW476M	AA		C	Capacitor(16WV 47µF) [CE23]
258	VCEAEA1CW106M	AC		C	Capacitor(16WV 10µF) [CE24]
259	VCEAEA1CW107M	AC		C	Capacitor(16WV 100µF) [CE26]
260	VCEAEA1CW336M	AB		C	Capacitor(16WV 33µF) [CE27]
261	VCEAEA1CW336M	AB		C	Capacitor(16WV 33µF) [CE28]
262	VCEAEA1VW476M	AH		C	Capacitor(35WV 47µF) [CE29]
263	QCNCM7014SC1J	AC		C	Connector(10pin) [CNCIS1]
264	QCNCM2482SC1H	AE		C	Connector(18pin) [CNJTAG1]
265	QCNCM2482SC1F	AF		C	Connector(16pin) [CNLCD1]
266	QCNCM7014SC0I	AB		C	Connector(9pin) [CNLIU1]
267	QCNCW2527SC6J	AV	N	C	Connector(60pin) [CNNIC1]
268	QCNCM2589SC3J	AP	N	C	Connector(30pin) [CNOP1]
269	QCNCW2612SC6J	BA		C	Connector(60pin) [CNPCL1]
270	QCNCM7014SC0C	AA		C	Connector(3pin) [CNPCL2]
271	QCNCM2482SC2D	AB		C	Connector(24pin) [CNPN1]
272	QCNCM2525SC3J	AH		C	Connector(30pin) [CNPRT1]
273	QCNCM7014SC1B	AD		C	Connector(12pin) [CNPW1]
274	QCNCM7014SC0E	AB		C	Connector(5pin) [CNRS1]
275	QCNCM7014SC0H	AB		C	Connector(8pin) [CNSEN1]
276	QCNCM2401SC0B	AA		C	Connector(2pin) [CNSP1]
277	QCNCM7014SC0B	AD		C	Connector(2pin) [CNSTP1]
278	QCNCM7014SC0D	AB		C	Connector(4pin) [CNTXM1]
279	VHDSR104///-1	AF		B	Diode(SR104) [D1]
280	VHDSR104///-1	AF		B	Diode(SR104) [D2]
281	VHDSR104///-1	AF		B	Diode(SR104) [D3]
282	VHDSR104///-1	AF		B	Diode(SR104) [D4]
283	VHD1SS322//-1	AC		B	Diode(1SS322) [D5]
284	VHDMC2850++-1	AE	N	B	Diode(MC2850) [D6]
285	VHDDAN202U/-1	AB		B	Diode(DAN202U) [D8]
286	VHDGPP20J//-1	AE	N	B	Diode(GPP20J G23) [D9]
287	VHDDA204K//-1	AC		B	Diode(DA204K) [D100]
288	VHD1SS355//-1	AB		B	Diode(1SS355) [D101]
289	VHDDA204K//-1	AC		B	Diode(DA204K) [D102]
290	VHDHRW0202B-1	AD		B	Diode(HRW0202B) [D103]
291	VHD1SS355//-1	AB		B	Diode(1SS355) [D104]
292	VHD1SS355//-1	AB		B	Diode(1SS355) [D105]
⚠ 293	VHVICPS05//-1	AA		B	IC protector(ICP-S0.5) [F1]
⚠ 294	VHVICPS10//-1	AG		B	IC protector(ICP-S1.0) [F2]
295	VRS-TP2BD000J	AA		C	Resistor(1/8W 0Ω ±5%) [F3]
296	VRS-TP2BD000J	AA		C	Resistor(1/8W 0Ω ±5%) [F4]
⚠ 297	VHVICPS10//-1	AG		B	IC protector(ICP-S1.0) [F5]
⚠ 298	VHVICPS10//-1	AG		B	IC protector(ICP-S1.0) [F100]
⚠ 299	VHVICPS18//-1	AE		B	IC protector(ICP-S1.8) [F101]
⚠ 300	VHVICPS07//-1	AA		A	IC protector(ICP-S0.7) [F102]
301	RH-IX2304XHZZ	AX		B	IC(AD8051A) [IC1]
302	RH-IX2239SCZZ	AG		B	IC(SN74HCT244PWR) [IC2]
303	VHILB1845//-1	AY		B	IC(LB1845) [IC3]
304	RH-IX2323XHZZ	AP	N	B	IC(S-8358J50MC) [IC4]
305	RH-IX2296XHZZ	BG		B	IC(W986416DH/MT48LC4M16A2TG) [IC5]
306	RH-IX2294SCZZ	BZ		B	IC(LC272D0BT-WA6) [IC6]
307	RH-IX2300XHZZ	AL		B	IC(SN74HCT244NSR) [IC7]
308	VHINJM2904M-2	AG		B	IC(NJM2904M) [IC8]
309	RH-IX2239SCZZ	AG		B	IC(SN74HCT244PWR) [IC9]
310	RH-IX2172SCZZ	BC		B	IC(SED1374F0A) [IC10]
311	RH-IX2303XHZZ	AG	N	B	IC(SN74LVU04APWR) [IC11]
312	VHIF032/TA69B		N	B	IC,FLASH ROM(32MB)(Ver.:TA69B)(DROM-985RXH01) [IC12]
313	RH-IX2299XHZZ	BA		B	IC(MAX3221CPWR) [IC13]
314	RH-IX2302XHZZ	AH		B	IC(SN74LV14APWR) [IC14]
315	RH-IX2302XHZZ	AH		B	IC(SN74LV14APWR) [IC16]
316	VHIPST596CMT1	AF		B	IC(PST596) [IC17]
317	RH-IX2235XHZZ	BD		B	IC(BS62LV256SC-70) [IC19]
318	RH-IX2301XHZZ	AL		B	IC(SN74LV126APWR) [IC20]
319	RH-IX2295SCZZ	BK		B	IC(LC24199B-WJ0-E) [IC21]
320	VHISM8578BV-1	AK		B	IC(SM8578BV) [IC22]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
321	VHIBA10393F-1	AC		B	IC(BA10393F)	[IC23]
322	RH-IX2293XHZZ	BU		B	IC(HD6417706F133)	[IC24]
323	RH-IX2297XHZZ	BK	N	B	IC(MT48LC8M16A2TG-75/W981216BH-75)	[IC25]
324	RH-IX2298XHZZ	BK		B	IC(TC58V64BFT)	[IC27]
325	VHI74LV245APW	AG		B	(SN74LV245A)	[IC29]
326	RH-IX2292XHZZ	BV		B	IC(FM336Plus)	[IC30]
327	RH-IX2320XHZZ	AL		B	IC(SN74LV4053APW)	[IC31]
328	VHINJM2904M-2	AG		B	IC(NJM2904M)	[IC32]
329	RH-IX2300XHZZ	AL		B	IC(SN74HCT244NSR)	[IC33]
330	VHINJM2113M-1	AG		B	IC(NJM2113M)	[IC36]
331	RH-IX2317XHZZ	AQ		B	IC(PQ070XZ5MZP)	[IC37]
332	RH-IX2340XHZZ	AR	N	B	IC(PQ3RD23)	[IC38]
333	RCILZ1081YCZZ	AF		C	Coil(220µH)	[L1]
334	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[L100]
335	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[L101]
336	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[L102]
337	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[L103]
338	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[L104]
339	RCRSC2196XHZZ	AH		B	Crystal(33.1776MHz)	[OSC1]
340	VS2SD1164//-1	AE		B	Transistor(2SD1164)	[Q1]
341	VSRT1N141M/-1	AB		B	Transistor(RT1N141M)	[Q2]
342	VS2SC2411KR-1	AC		B	Transistor(2SC2411KR)	[Q3]
343	VS2SJ243///-1	AD		B	FET(2SJ243)	[Q4]
344	VS2SD1664Q/-1	AD		B	Transistor(2SD1664Q)	[Q100]
345	VS2SC2411KR-1	AC		B	Transistor(2SC2411KR)	[Q102]
346	VS2SC2712GR-1	AB		B	Transistor(2SC2712)	[Q103]
347	VS2SD1624T/-1	AD		B	Transistor(2SD1624)	[Q104]
348	VSFMMT717//-1	AC		B	Transistor(FMMT717)	[Q105]
349	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q106]
350	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q107]
351	VSRT1N141M/-1	AB		B	Transistor(RT1N141M)	[Q108]
352	VSKRA102S//-1	AD		B	Transistor(KRA102S)	[Q111]
353	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q112]
354	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q114]
355	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q115]
356	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q116]
357	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q117]
358	VSKRC106S//-1	AD		B	Transistor(KRC106S)	[Q118]
359	VRS-HT3AAR47J	AC		C	Resistor(1W 0.47Ω ±5%)	[R1]
360	VRS-HT3AAR47J	AC		C	Resistor(1W 0.47Ω ±5%)	[R2]
361	VRS-CZ1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R5]
362	VRS-CZ1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R6]
363	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R7]
364	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R8]
365	VRS-CZ1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R9]
366	VRS-CZ1JB105J	AD		C	Resistor(1/16W 1MΩ ±5%)	[R10]
367	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R11]
368	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R12]
369	VRS-HT3AA101J	AA		C	Resistor(1W 100Ω ±5%)	[R13]
370	VRS-CZ1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R14]
371	VRS-CZ1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R15]
372	VRS-CZ1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R16]
373	VRS-CZ1JB104J	AA		C	Resistor(1/16W 100KΩ ±5%)	[R17]
374	VRS-CZ1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R18]
375	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R20]
376	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R21]
377	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R22]
378	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R23]
379	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R24]
380	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R25]
381	VRS-CZ1JB221J	AD		C	Resistor(1/16W 220Ω ±5%)	[R26]
382	VRS-CZ1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R27]
383	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R28]
384	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R29]
385	VRS-CZ1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R30]
386	VRS-CZ1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R33]
387	VRD-HT2EY100J	AA		C	Resistor(1/4W 10Ω ±5%)	[R34]
388	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R50]
389	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R51]
390	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R52]
391	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R53]
392	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R54]
393	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R55]
394	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R56]
395	VRS-CZ1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R57]
396	VRS-CZ1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R58]
397	VRS-CZ1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R59]
398	VRS-CZ1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R60]
399	VRS-CZ1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R61]
400	VRS-CZ1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R62]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[12] Control PWB unit					
401	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R100]
402	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R101]
403	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R102]
404	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R103]
405	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R104]
406	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R105]
407	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R106]
408	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R107]
409	VRS-CY1JB471J	AA		C	Resistor(1/16W 470Ω ±5%) [R108]
410	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R109]
411	VRS-CY1JB302J	AA		C	Resistor(1/16W 3KΩ ±5%) [R110]
412	VRS-CY1JB152J	AA		C	Resistor(1/16W 1.5KΩ ±5%) [R111]
413	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R112]
414	VRS-CY1JB100J	AA		C	Resistor(1/16W 10Ω ±5%) [R115]
415	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R116]
416	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R118]
417	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R119]
418	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R120]
419	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R121]
420	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R122]
421	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R123]
422	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R124]
423	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R125]
424	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R126]
425	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R127]
426	VRS-CY1JB471J	AA		C	Resistor(1/16W 470Ω ±5%) [R128]
427	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%) [R129]
428	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%) [R130]
429	VRS-CY1JB105J	AA		C	Resistor(1/16W 1.0MΩ ±5%) [R131]
430	VRS-CY1JB563F	AC		C	Resistor(1/16W 56KΩ ±1%) [R132]
431	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%) [R133]
432	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%) [R134]
433	VRS-CY1JB563F	AC		C	Resistor(1/16W 56KΩ ±1%) [R135]
434	VRS-CY1JB303J	AA		C	Resistor(1/16W 30KΩ ±5%) [R136]
435	VRS-CY1JB433F	AC	N	C	Resistor(1/16W 43KΩ ±1%) [R137]
436	VRS-CY1JB303J	AA		C	Resistor(1/16W 30KΩ ±5%) [R139]
437	VRS-CY1JB204F	AA		C	Resistor(1/16W 200KΩ ±1%) [R140]
438	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R141]
439	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%) [R145]
440	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%) [R146]
441	VRS-TS2AD102J	AA		C	Resistor(1/10W 1KΩ ±5%) [R147]
442	VRS-TS2AD000J	AA		C	Resistor(1/10W 0Ω ±5%) [R148]
443	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R149]
444	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R150]
445	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R151]
446	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R152]
447	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R153]
448	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R154]
449	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R155]
450	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R156]
451	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R157]
452	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R158]
453	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R159]
454	VRS-CY1JB105J	AA		C	Resistor(1/16W 1.0MΩ ±5%) [R160]
455	VRS-CY1JB561J	AA		C	Resistor(1/16W 560Ω ±5%) [R161]
456	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R164]
457	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%) [R165]
458	VRS-CY1JB471J	AA		C	Resistor(1/16W 470Ω ±5%) [R170]
459	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%) [R175]
460	VRS-CY1JB223F	AC		C	Resistor(1/16W 22KΩ ±1%) [R176]
461	VRS-CY1JB123F	AA		C	Resistor(1/16W 12KΩ ±1%) [R177]
462	VRS-CY1JB333F	AA		C	Resistor(1/16W 33KΩ ±1%) [R179]
463	VRS-CY1JB113F	AD		C	Resistor(1/16W 11KΩ ±1%) [R180]
464	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R181]
465	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%) [R182]
466	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R184]
467	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%) [R185]
468	VRS-TS2AD000J	AA		C	Resistor(1/10W 0Ω ±5%) [R186]
469	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R187]
470	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%) [R188]
471	VRS-TS2AD000J	AA		C	Resistor(1/10W 0Ω ±5%) [R190]
472	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R191]
473	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R192]
474	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R193]
475	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R194]
476	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R195]
477	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R196]
478	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R197]
479	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R198]
480	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%) [R199]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
481	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R200]
482	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R201]
483	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R202]
484	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R203]
485	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R204]
486	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R205]
487	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R206]
488	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R207]
489	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R208]
490	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R209]
491	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R210]
492	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R211]
493	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R212]
494	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R213]
495	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R214]
496	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R215]
497	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R216]
498	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R217]
499	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R218]
500	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R219]
501	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R220]
502	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R221]
503	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R223]
504	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R224]
505	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R227]
506	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R228]
507	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R229]
508	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R230]
509	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R231]
510	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R232]
511	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R233]
512	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R234]
513	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R235]
514	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R236]
515	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R238]
516	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R239]
517	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R240]
518	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R243]
519	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R244]
520	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R245]
521	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R246]
522	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R247]
523	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R248]
524	VRS-CY1JB105J	AA		C	Resistor(1/16W 1.0MΩ ±5%)	[R249]
525	VRS-CY1JB221J	AA		C	Resistor(1/16W 220Ω ±5%)	[R250]
526	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R251]
527	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R252]
528	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R253]
529	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R254]
530	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R256]
531	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R260]
532	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R261]
533	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R262]
534	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R266]
535	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R267]
536	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R268]
537	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R269]
538	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R270]
539	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R271]
540	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R272]
541	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R273]
542	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R274]
543	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R275]
544	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R276]
545	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R277]
546	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R278]
547	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R279]
548	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R280]
549	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R281]
550	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R282]
551	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R283]
552	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R284]
553	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R285]
554	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R286]
555	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R287]
556	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R288]
557	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R289]
558	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R290]
559	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R292]
560	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R293]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
561	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R294]
562	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R295]
563	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R296]
564	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R297]
565	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R298]
566	VRS-CY1JB203J	AA		C	Resistor(1/16W 20KΩ ±5%)	[R299]
567	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R300]
568	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R301]
569	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R302]
570	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R303]
571	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R304]
572	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R309]
573	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R318]
574	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R319]
575	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R320]
576	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R321]
577	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R323]
578	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R324]
579	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R325]
580	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R326]
581	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R327]
582	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R328]
583	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R329]
584	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R330]
585	VRS-CY1JB562J	AA		C	Resistor(1/16W 5.6KΩ ±5%)	[R331]
586	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R332]
587	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R333]
588	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R335]
589	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R336]
590	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R337]
591	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R338]
592	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R339]
593	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R340]
594	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R341]
595	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R342]
596	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R343]
597	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R344]
598	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R345]
599	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R346]
600	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R347]
601	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R348]
602	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R349]
603	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R351]
604	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R353]
605	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R354]
606	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R356]
607	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R358]
608	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R360]
609	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R361]
610	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R362]
611	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R363]
612	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R364]
613	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R365]
614	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R366]
615	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R367]
616	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R368]
617	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R369]
618	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R391]
619	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R392]
620	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R393]
621	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R394]
622	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R395]
623	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R396]
624	VRS-CY1JB222J	AA		C	Resistor(1/16W 2.2KΩ ±5%)	[R397]
625	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R399]
626	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R400]
627	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R401]
628	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R402]
629	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R403]
630	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R404]
631	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R405]
632	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R406]
633	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R407]
634	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R408]
635	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R409]
636	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R411]
637	VRS-CY1JB271J	AA		C	Resistor(1/16W 270Ω ±5%)	[R412]
638	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R413]
639	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R416]
640	VRS-CY1JB182J	AA		C	Resistor(1/16W 1.8KΩ ±5%)	[R417]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
641	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R418]
642	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R419]
643	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R420]
644	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R421]
645	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R423]
646	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R424]
647	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R425]
648	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R426]
649	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R427]
650	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R428]
651	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R429]
652	VRS-CY1JB623J	AA		C	Resistor(1/16W 62KΩ ±5%)	[R432]
653	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R433]
654	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R434]
655	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R435]
656	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R436]
657	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R437]
658	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R438]
659	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R439]
660	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R440]
661	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R441]
662	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R442]
663	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R443]
664	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R444]
665	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R445]
666	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R446]
667	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R447]
668	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R450]
669	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R451]
670	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R452]
671	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R454]
672	VRS-CY1JB100J	AA		C	Resistor(1/16W 10Ω ±5%)	[R455]
673	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R457]
674	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R458]
675	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R459]
676	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R460]
677	VRS-CY1JB203J	AA		C	Resistor(1/16W 20KΩ ±5%)	[R461]
678	VRS-CY1JB222J	AA		C	Resistor(1/16W 2.2KΩ ±5%)	[R462]
679	VRS-CY1JB203J	AA		C	Resistor(1/16W 20KΩ ±5%)	[R463]
680	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R464]
681	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R465]
682	VRS-CY1JB471J	AA		C	Resistor(1/16W 470Ω ±5%)	[R467]
683	VRS-CY1JB203J	AA		C	Resistor(1/16W 20KΩ ±5%)	[R468]
684	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R469]
685	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R470]
686	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R471]
687	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R480]
688	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R481]
689	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R482]
690	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R483]
691	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R484]
692	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R485]
693	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R486]
694	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R487]
695	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R488]
696	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R489]
697	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R490]
698	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R492]
699	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R493]
700	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R494]
701	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R495]
702	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R496]
703	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R497]
704	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R498]
705	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R499]
706	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R502]
707	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R503]
708	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R504]
709	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R506]
710	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R507]
711	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R508]
712	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R509]
713	VRS-CY1JB680J	AA		C	Resistor(1/16W 68Ω ±5%)	[R510]
714	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R511]
715	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R512]
716	VRSCY1JB4422F	AC		C	Resistor(1/16W 44.2KΩ ±1%)	[R514]
717	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R515]
718	VRS-CY1JB562J	AA		C	Resistor(1/16W 5.6KΩ ±5%)	[R516]
719	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R517]
720	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R518]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[12] Control PWB unit						
721	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R519]
722	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R520]
723	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R521]
724	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R522]
725	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R524]
726	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R525]
727	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R526]
728	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R527]
729	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R528]
730	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R529]
731	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R531]
732	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R532]
733	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R533]
734	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R534]
735	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R535]
736	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R536]
737	VRS-CY1JB222J	AA		C	Resistor(1/16W 2.2KΩ ±5%)	[R537]
738	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R564]
739	VRS-TP2BD000J	AA		C	Resistor(1/8W 0Ω ±5%)	[R565]
740	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R566]
741	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R569]
742	VRS-CY1JB104J	AA		C	Resistor(1/16W 100KΩ ±5%)	[R570]
743	VRS-CY1JB154J	AA		C	Resistor(1/16W 150KΩ ±5%)	[R571]
744	VRS-CY1JB302J	AA		C	Resistor(1/16W 3KΩ ±5%)	[R572]
745	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R573]
746	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R574]
747	VRS-CY1JB511J	AA		C	Resistor(1/16W 510Ω ±5%)	[R575]
748	VRS-CY1JB223J	AA		C	Resistor(1/16W 22KΩ ±5%)	[R576]
749	VRSCY1JB4422F	AC		C	Resistor(1/16W 44.2KΩ ±1%)	[R577]
750	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R578]
751	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R579]
752	VRS-CY1JB563J	AA		C	Resistor(1/16W 56KΩ ±5%)	[R580]
753	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R581]
754	VRS-CY1JB332J	AA		C	Resistor(1/16W 3.3KΩ ±5%)	[R582]
755	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R600]
756	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R601]
757	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R602]
758	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R603]
759	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R604]
760	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R605]
761	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R606]
762	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R607]
763	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R608]
764	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R609]
765	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R610]
766	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R611]
767	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R612]
768	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R613]
769	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R614]
770	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R615]
771	VRS-CY1JB102J	AA		C	Resistor(1/16W 1KΩ ±5%)	[R617]
772	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R619]
773	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R620]
774	VRS-CY1JB2R0J	AD		C	Resistor(1/16W 2.0Ω ±5%)	[R624]
775	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R625]
776	RCRSP2193XHZZ	AL	N	B	Crystal(29.4400MHz)	[X1]
777	RCRMA2010XHZZ	AG	N	B	Crystal(16MHz)	[X2]
778	RCRSP2195XHZZ	AL		B	Crystal(34.3892MHz)	[X3]
779	RCRSP0074AFZZ	AE		B	Crystal(32.768kHz)	[X4]
780	RCRSP2194XHZZ	AL		B	Crystal(28.2240MHz)	[X5]
781	RH-EX2319XHZZ	AE		B	Zener diode(02DZ6.8-Y)	[ZD1]
	(Unit)					
901	DCEKC985RXHZZ	CU	N	E	Control PWB unit(Within ROM)	
[13] LIU PWB unit						
1	VHVRA391PV6-1	AE		B	Varistor(RA-391P-V6-2)	[AR1]
2	VHVRA501PC6-1	AG		B	Varistor(RA501P-C6)	[AR2]
3	VHVRA501PC6-1	AG		B	Varistor(RA501P-C6)	[AR3]
4	QTANZ2042SCZZ	AB		C	Earth terminal	[ARG]
5	RC-FZ3024SCZZ	AG		C	Capacitor(250WV 0.82μF)	[C1]
6	VCKYPA1HB103K	AA		C	Capacitor(50WV 0.01μF)	[C2]
7	VCEAGA1HW475M	AA		C	Capacitor(50WV 4.7μF)	[C5]
8	VCEAGA1HW475M	AA		C	Capacitor(50WV 4.7μF)	[C6]
9	VCKYPU1HB102K	AA		C	Capacitor(50WV 1000PF)	[C7]
10	VCQYNA1HM333K	AA		C	Capacitor(50WV 0.033μF)	[C8]
11	VCKYPU1HB102K	AA		C	Capacitor(50WV 1000PF)	[C9]
12	VCEAGA1HW475M	AA		C	Capacitor(50WV 4.7μF)	[C10]
13	VCEAGA1HW475M	AA		C	Capacitor(50WV 4.7μF)	[C11]
14	VCEAGA1HW475M	AA		C	Capacitor(50WV 4.7μF)	[C12]
15	VCKYPU1HB471K	AA		C	Capacitor(50WV 470PF)	[C15]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[13] LIU PWB unit						
16	VCQYNA1HM333K	AA		C	Capacitor(50WV 0.033µF)	[C16]
17	VCEAGA1HW107M	AA		C	Capacitor(50WV 100µF)	[C18]
18	VCKYPU1HF223Z	AA		C	Capacitor(50WV 0.022µF)	[C19]
19	RRLYD3435XHZZ	AP		B	Relay(A5X-24E-95)	[CML1]
20	QCNCM7014SC0I	AB		C	Connector(9pin)	[CNLIU]
21	VHDDSS133//-1	AA		B	Diode(1SS133)	[D1]
22	VHDDSS133//-1	AA		B	Diode(1SS133)	[D2]
23	VHINJM2904D-1	AG		B	IC(NJM2904D)	[IC1]
⚠ 24	RFILN2027XHZZ	AC		C	Coil(R-5C)	[L1]
⚠ 25	RFILN2027XHZZ	AC		C	Coil(R-5C)	[L4]
26	RCILZ2118SCZZ	AD		C	Coil(1mH)	[L5]
27	QJAKZ2046SCBB	AH		C	Jack	[MJ1/2]
28	VHPPC817X4/-1	AC		B	Photo coupler(PC817X4)	[PC1]
29	VHPPC814X//-1	AE		B	Photo coupler(PC814X)	[PC3]
30	VS2SD592A-S-1	AK		B	Transistor(2SD592A)	[Q1]
31	VS2SD1200FR-1	AE		B	Transistor(2SD1200FR)	[Q2]
32	VSKRC106M//-1	AD		B	Transistor(KRC106M)	[Q4]
33	VSKRC106M//-1	AD		B	Transistor(KRC106M)	[Q5]
34	RR-HZ3011SCZZ	AC		C	Resistor(1/2W 4.7Ω ±5%)	[R4]
35	VRS-HT3AA133J	AB		C	Resistor(1W 13KΩ ±5%)	[R5]
36	VRD-HT2HY223J	AA		C	Resistor(1/2W 22KΩ ±5%)	[R6]
37	VRD-HT2EY183J	AA		C	Resistor(1/4W 18KΩ ±5%)	[R9]
38	VRD-HT2EY100J	AA		C	Resistor(1/4W 10Ω ±5%)	[R10]
39	VRD-HT2EY303J	AA		C	Resistor(1/4W 30KΩ ±5%)	[R11]
40	VRD-HT2EY910J	AA		C	Resistor(1/4W 91Ω ±5%)	[R12]
41	VRD-HT2EY300J	AA		C	Resistor(1/4W 30Ω ±5%)	[R13]
42	VRD-HT2EY201J	AA		C	Resistor(1/4W 200Ω ±5%)	[R14]
43	VRD-HT2EY391J	AA		C	Resistor(1/4W 390Ω ±5%)	[R15]
44	VRD-HT2EY621J	AA		C	Resistor(1/4W 620Ω ±5%)	[R16]
45	VRD-HT2EY223J	AA		C	Resistor(1/4W 22KΩ ±5%)	[R17]
46	VRD-HT2EY223J	AA		C	Resistor(1/4W 22KΩ ±5%)	[R18]
47	VRD-HT2EY751J	AA		C	Resistor(1/4W 750Ω ±5%)	[R19]
48	VRD-HT2EY223J	AA		C	Resistor(1/4W 22KΩ ±5%)	[R20]
49	VRD-HT2EY332J	AA		C	Resistor(1/4W 3.3KΩ ±5%)	[R21]
50	VRD-HT2EY223J	AA		C	Resistor(1/4W 22KΩ ±5%)	[R22]
51	VRD-HT2EY100J	AA		C	Resistor(1/4W 10Ω ±5%)	[R23]
52	VRD-HT2EY103J	AA		C	Resistor(1/4W 10KΩ ±5%)	[R24]
53	VRD-HT2EY103J	AA		C	Resistor(1/4W 10KΩ ±5%)	[R26]
54	VRD-HT2EY100J	AA		C	Resistor(1/4W 10Ω ±5%)	[R27]
55	RH-DX2007SCZZ	AC		B	Diode bridge(S1ZB60)	[REC1]
⚠ 56	RTRNZ2163SCZZ	AH		B	Transformer(TRTEP17-0411F)	[T1]
57	VHEHZ2C1///-1	AA		B	Zener diode(HZ2C1)	[ZD1]
58	VHEHZ2C1///-1	AA		B	Zener diode(HZ2C1)	[ZD2]
59	VHEHZ27-1//-1	AB		B	Zener diode(HZ27-1)	[ZD3]
60	VHE1ZC15///-1	AC		B	Zener diode(1ZC15)	[ZD4]
61	VHEMTZJ8R2B-1	AC		B	Zener diode(MTZJ8R2B)	[ZD5]
62	VHEHZ2C1///-1	AA		B	Zener diode(HZ2C1)	[ZD6]
63	VHEHZ2C1///-1	AA		B	Zener diode(HZ2C1)	[ZD7]
	(Unit)					
901	DCEKL422CXH01	BM		E	LIU PWB unit	
[14] Printer PWB unit						
1	VCEAGA1CW227M	AB		C	Capacitor(16WV 220µF)	[C2]
2	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C102]
3	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C105]
4	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C106]
5	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C107]
6	VCKYCY1EF104Z	AA		C	Capacitor(25WV 0.1µF)	[C109]
7	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C111]
8	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C112]
9	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C113]
10	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C115]
11	VCKYCY1EB683K	AD		C	Capacitor(25WV 0.068µF)	[C116]
12	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C119]
13	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C120]
14	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C124]
15	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C126]
16	VCKYCY1HB103K	AA		C	Capacitor(50WV 0.01µF)	[C127]
17	VCCCCY1HH220J	AA		C	Capacitor(50WV 22PF)	[C128]
18	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C133]
19	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C134]
20	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C135]
21	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C136]
22	VCKYCY1EB333K	AB		C	Capacitor(25WV 0.033µF)	[C137]
23	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C138]
24	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C142]
25	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C144]
26	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C145]
27	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C146]
28	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C147]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[14] Printer PWB unit						
29	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C148]
30	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C149]
31	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C150]
32	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C151]
33	VCKYCY1HB102K	AA		C	Capacitor(50WV 1000PF)	[C152]
34	VCCCCY1HH220J	AA		C	Capacitor(50WV 22PF)	[C153]
35	VCCCCY1HH220J	AA		C	Capacitor(50WV 22PF)	[C154]
36	RC-FZ3039XHZZ	AB		C	Capacitor(16WV 0.1μF)	[C155]
37	QCNCW2527SC3J	AM		C	Connector(30pin)	[CN1]
38	QCNCM2484SC0B	AB		C	Connector(2pin)	[CN2]
39	QCNCM2584SC0B	AC		C	Connector(2pin)	[CN3]
40	QCNCM2584SC1J	AK		C	Connector(10pin)	[CN4]
41	QCNCM2584SC0H	AH		C	Connector(8pin)	[CN5]
42	QCNCM2584SC0F	AH		C	Connector(6pin)	[CN6]
43	QCNCM2484SC0H	AD		C	Connector(8pin)	[CN7]
44	QCNCM2656SC0C	AF		C	Connector(3pin)	[CN8]
45	QCNCM7014SC0E	AB		C	Connector(5pin)	[CN9]
46	QCNCM2498SC0B	AB		C	Connector(2pin)	[CN10]
47	QCNCM2584SC1E	AL		C	Connector(5pin)	[CN11]
48	QCNCM2584SC0E	AD		C	Connector(5pin)	[CN12]
49	QCNCM2584SC0D	AD		C	Connector(4pin)	[CN13]
50	QCNCM2585SC0D	AD		C	Connector(4pin)	[CN14]
51	QCNCM2401SC0D	AC		C	Connector(4pin)	[CN15]
52	RH-DX2308XHZZ	AH		B	Diode(RB501V-40TE-17)	[D100]
53	VHD1SS355//-1	AB		B	Diode(1SS355)	[D101]
54	VHIULN2003ADR	AF		B	IC(ULN2003ADR)	[IC1]
55	RH-IX2307XHZZ	AP		B	IC(SN74LS06NS)	[IC2]
56	VHI74VHC02F-1	AF		B	IC(TC74VHC02F)	[IC3]
57	RH-IX2291XHZZ	BV		B	IC,MASK ROM(M38079EFFP)	[IC4]
58	VSDTB114EK/-1	AD		B	Transistor(DTB114EK)	[Q100]
59	VS2SA1037KS-1	AB		B	Transistor(2SA1037)	[Q101]
60	VSDTD123YK/-1	AC		B	Transistor(DTD123YK)	[Q102]
61	VSDTC114YU/-1	AC		B	Transistor(DTC114YUA)	[Q103]
62	VSDTC114YU/-1	AC		B	Transistor(DTC114YUA)	[Q104]
63	VSDTC114YU/-1	AC		B	Transistor(DTC114YUA)	[Q105]
64	VSDTC114YU/-1	AC		B	Transistor(DTC114YUA)	[Q106]
65	VRS-CY1JB472F	AD		C	Resistor(1/16W 4.7KΩ ±1%)	[R100]
66	VRS-CY1JB512F	AD		C	Resistor(1/16W 5.1KΩ ±1%)	[R101]
67	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R102]
68	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R105]
69	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R106]
70	VRS-CY1JB333J	AA		C	Resistor(1/16W 33KΩ ±5%)	[R107]
71	VRS-CY1JB103F	AB		C	Resistor(1/16W 10KΩ ±1%)	[R108]
72	VRS-CY1JB113F	AD		C	Resistor(1/16W 11KΩ ±1%)	[R109]
73	VRS-CY1JB222F	AB		C	Resistor(1/16W 2.2KΩ ±1%)	[R110]
74	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R111]
75	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R112]
76	VRS-CY1JB222J	AA		C	Resistor(1/16W 2.2KΩ ±5%)	[R113]
77	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R114]
78	VRS-CY1JB152F	AD		C	Resistor(1/16W 1.5KΩ ±1%)	[R115]
79	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R116]
80	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R117]
81	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R118]
82	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R119]
83	VRS-CY1JB101J	AA		C	Resistor(1/16W 100Ω ±5%)	[R120]
84	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R123]
85	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R124]
86	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R125]
87	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R126]
88	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R127]
89	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R128]
90	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R129]
91	VRS-CY1JB222J	AA		C	Resistor(1/16W 2.2KΩ ±5%)	[R130]
92	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R131]
93	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R133]
94	VRS-CY1JB000J	AA		C	Resistor(1/16W 0Ω ±5%)	[R134]
95	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R135]
96	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R136]
97	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R137]
98	VRS-CY1JB473J	AA		C	Resistor(1/16W 47KΩ ±5%)	[R138]
99	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R139]
100	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R140]
101	VRS-CY1JB473J	AA		C	Resistor(1/16W 47KΩ ±5%)	[R141]
102	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R142]
103	VRS-CY1JB103J	AA		C	Resistor(1/16W 10KΩ ±5%)	[R143]
104	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R144]
105	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R145]
106	VRS-CY1JB473J	AA		C	Resistor(1/16W 47KΩ ±5%)	[R146]
107	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R147]
108	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R148]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[14] Printer PWB unit						
109	VRS-CY1JB330J	AA		C	Resistor(1/16W 33Ω ±5%)	[R149]
110	VRS-CY1JB472J	AA		C	Resistor(1/16W 4.7KΩ ±5%)	[R150]
111	RR-TZ3045SCZZ	AD		C	Block resistor(39Ωx4)	[RA2]
112	RR-TZ3019SCZZ	AA		C	Block resistor(4.7KΩx4)	[RA3]
113	RR-TZ3046SCZZ	AD		C	Block resistor(820Ωx4)	[RA4]
114	RR-TZ3019SCZZ	AA		C	Block resistor(4.7KΩx4)	[RA5]
115	RR-TZ3046SCZZ	AD		C	Block resistor(820Ωx4)	[RA6]
116	RCRSP2197XHZZ	AL		B	Crystal(12MHz)	[X1]
	(Unit)					
901	DCEKC424CXH01	BW		E	Printer PWB unit	
[15] Power supply PWB unit						
1	0AV1480000087	AD		C	Capacitor(250WV 0.047µF)	[C701]
2	0AV1480000087	AD		C	Capacitor(250WV 0.047µF)	[C702]
3	0AV1690000106	AD		C	Capacitor(2200PF)	[C703]
4	0AV1690000106	AD		C	Capacitor(2200PF)	[C704]
5	0AV1690000106	AD		C	Capacitor(2200PF)	[C705]
6	0AV1390000202	AQ		C	Capacitor(200WV 390µF)	[C706]
7	0AV1690000117	AC		C	Capacitor(1KWV 2200PF)	[C707]
8	0AV1480000088	AC		C	Capacitor(50WV 0.01µF)	[C708]
9	0AV1480000089	AC		C	Capacitor(50WV 1000PF)	[C709]
10	0AV1480000089	AC		C	Capacitor(50WV 1000PF)	[C710]
11	0AV1480000090	AC		C	Capacitor(50WV 6800PF)	[C711]
12	0AV1480000091	AC		C	Capacitor(50WV 4700PF)	[C712]
13	0AV1690000118	AD		C	Capacitor(4700PF)	[C713]
14	0AV1690000118	AD		C	Capacitor(4700PF)	[C714]
15	0AV1390000203	AF		C	Capacitor(35WV 560µF)	[C715]
16	0AV1690000088	AC		C	Capacitor(50WV 0.1µF)	[C716]
17	0AV1390000181	AE		C	Capacitor(10WV 1000µF)	[C718]
18	0AV1480000089	AC		C	Capacitor(50WV 1000PF)	[C719]
19	0AV1390000189	AC		C	Capacitor(50WV 1µF)	[C720]
20	0AV1690000088	AC		C	Capacitor(50WV 0.1µF)	[C721]
21	0AV1480000088	AC		C	Capacitor(50WV 0.01µF)	[C722]
22	0AV1480000088	AC		C	Capacitor(50WV 0.01µF)	[C723]
23	0AV1480000092	AC		C	Capacitor(50WV 2200PF)	[C724]
24	0AV5030139000	AE		C	Connector(8pin)	[CN1]
25	0AV5030036000	AC		C	Connector(2pin)	[CN2]
26	0AV5030088000	AD		C	Connector(2pin)	[CN3]
27	0AV5030089000	AG		C	Connector(12pin)	[CN5]
28	0AV5150006000	AH		C	Connector(3pin)	[CNAC]
29	0AV3060046000	AC		B	Diode(RL155)	[D701]
30	0AV3060046000	AC		B	Diode(RL155)	[D702]
31	0AV3060046000	AC		B	Diode(RL155)	[D703]
32	0AV3060046000	AC		B	Diode(RL155)	[D704]
33	0AV3050086000	AB		B	Diode(1SS270ATD)	[D705]
34	0AV3050086000	AB		B	Diode(1SS270ATD)	[D706]
35	0AV3050086000	AB		B	Diode(1SS270ATD)	[D707]
36	0AV3070133000	AG		B	Zener diode(RD18ESAB3)	[D708]
37	0AV3050100000	AG		B	Diode(SF5LC20U)	[D710]
38	0AV3070113000	AE		B	Zener diode(RD30FB2)	[D711]
39	0AV3050086000	AB		B	Diode(1SS270ATD)	[D713]
40	0AV3070126000	AC		B	Zener diode(RD3.0ESAB2)	[D714]
41	0AV3050098000	AG		B	Diode(SF5SC4)	[D715]
42	0AV3050086000	AB		B	Diode(1SS270ATD)	[D716]
43	0AV3070134000	AE		B	Zener diode(RD6.2FB3)	[D717]
44	0AV3050086000	AB		B	Diode(1SS270ATD)	[D718]
45	0AV3050086000	AB		B	Diode(1SS270ATD)	[D719]
46	0AV3070135000	AC		B	Zener diode(RD33ESAB4)	[D720]
47	0AV3050086000	AB		B	Diode(1SS270ATD)	[D721]
48	0AV3050086000	AB		B	Diode(1SS270ATD)	[D722]
49	0AV3050086000	AB		B	Diode(1SS270ATD)	[D723]
50	0AV3070136000	AC		B	Zener diode(RD16ESAB2)	[D724]
51	0AV5060096000	AF		A	Fuse(8A/125V)	[F701]
52	0AV5060097000	AE		A	Fuse(4A/125V)	[F702]
53	0AV5060067000	AF		A	Fuse(4A/125V)	[F703]
54	0AV5060067000	AF		A	Fuse(4A/125V)	[F704]
55	0AV5060097000	AE		A	Fuse(4A/125V)	[F705]
56	0AV5070000016	AG		A	Fuse(2A/250V)	[F706]
57	0AV3090082000	AD		B	IC(KIA431A)	[IC701]
58	0AV3090082000	AD		B	IC(KIA431A)	[IC702]
59	0AV4070068000	AE		C	Coil	[L701]
60	0AV4070068000	AE		C	Coil	[L702]
61	0AV4120015000	AC		C	Coil	[L703]
62	0AV4080012000	AM		C	Coil	[L704]
63	0AV4050028000	AF		C	Coil	[L705]
64	0AV3080421100	AE		B	Photo coupler(TLP421GR)	[PC701]
65	0AV3180000005	AL		B	Photo triac coupler(MOC3063T-M)	[PC702]
66	0AV3043326000	AL		B	FET(2SK3326)	[Q701]
67	0AV3021741100	AC		B	Transistor(2SC1741STP)	[Q702]
68	0AV3001015500	AC		B	Transistor(2SA1015)	[Q703]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[15] Power supply PWB unit						
69	0AV3001015500	AC		B	Transistor(2SA1015)	[Q704]
70	0AV3040303000	AN		B	FET(2SJ303)	[Q705]
71	0AV3021741100	AC		B	Transistor(2SC1741STP)	[Q706]
72	0AV3001015500	AC		B	Transistor(2SA1015)	[Q707]
73	0AV3021815500	AC		B	Transistor(2SC1815)	[Q708]
74	0AV3021815500	AC		B	Transistor(2SC1815)	[Q709]
75	0AV3001015500	AC		B	Transistor(2SA1015)	[Q710]
76	0AV3000933100	AC		B	Transistor(2SA933S-Q)	[Q711]
77	0AV2011053020	AA		C	Resistor(1/4W 1MΩ ±5%)	[R701]
78	0AV2011023030	AC		C	Resistor(1/2W 1KΩ ±5%)	[R702]
79	0AV2990092000	AC		C	Resistor(1/6W 300KΩ ±0.5%)	[R703]
80	0AV2990093000	AC		C	Resistor(1/6W 390KΩ ±0.5%)	[R704]
81	0AV2990042000	AC		C	Resistor(1/6W 100KΩ ±0.5%)	[R705]
82	0AV2013913010	AA		C	Resistor(1/6W 390Ω ±5%)	[R706]
83	0AV2013333010	AA		C	Resistor(1/6W 33KΩ ±5%)	[R707]
84	0AV2013343010	AB		C	Resistor(1/6W 330KΩ ±5%)	[R708]
85	0AV2014733010	AA		C	Resistor(1/6W 47KΩ ±5%)	[R709]
86	0AV2990094000	AC		C	Resistor(1/6W 33KΩ ±0.5%)	[R710]
87	0AV2990095000	AC		C	Resistor(1/6W 180KΩ ±0.5%)	[R711]
88	0AV2014723010	AA		C	Resistor(1/6W 4.7KΩ ±5%)	[R712]
89	0AV2012713010	AA		C	Resistor(1/6W 270Ω ±5%)	[R713]
90	0AV2013313010	AA		C	Resistor(1/6W 330Ω ±5%)	[R714]
91	0AV2012733010	AA		C	Resistor(1/6W 27KΩ ±5%)	[R715]
92	0AV2990096000	AC		C	Resistor(1/6W 4.7KΩ ±0.5%)	[R716]
93	0AV2990039000	AC		C	Resistor(1/6W 680Ω ±0.5%)	[R717]
94	0AV2011013010	AA		C	Resistor(1/6W 100Ω ±5%)	[R718]
95	0AV2013913010	AA		C	Resistor(1/6W 390Ω ±5%)	[R719]
96	0AV2014723010	AA		C	Resistor(1/6W 4.7KΩ ±5%)	[R720]
97	0AV2013323010	AA		C	Resistor(1/6W 3.3KΩ ±5%)	[R721]
98	0AV2990009000	AC		C	Resistor(1/6W 22.1KΩ ±0.5%)	[R722]
99	0AV2990097000	AC		C	Resistor(1/6W 2.58KΩ ±0.5%)	[R723]
100	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R725]
101	0AV2014703010	AA		C	Resistor(1/6W 4.7Ω ±5%)	[R726]
102	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R727]
103	0AV2012223010	AA		C	Resistor(1/6W 2.2KΩ ±5%)	[R728]
104	0AV2014713010	AA		C	Resistor(1/6W 470Ω ±5%)	[R729]
105	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R730]
106	0AV2014723010	AA		C	Resistor(1/6W 4.7KΩ ±5%)	[R731]
107	0AV2012223010	AA		C	Resistor(1/6W 2.2KΩ ±5%)	[R732]
108	0AV2990007000	AC		C	Resistor(1/6W 2.2KΩ ±0.5%)	[R733]
109	0AV2990046000	AC		C	Resistor(1/6W 2.26KΩ ±0.5%)	[R734]
110	0AV2021223040	AC		C	Resistor(1W 1.2KΩ ±5%)	[R735]
111	0AV2012223010	AA		C	Resistor(1/6W 2.2KΩ ±5%)	[R736]
112	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R737]
113	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R738]
114	0AV2012223010	AA		C	Resistor(1/6W 2.2KΩ ±5%)	[R739]
115	0AV2012223010	AA		C	Resistor(1/6W 2.2KΩ ±5%)	[R740]
116	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R741]
117	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R742]
118	0AV2013303030	AA		C	Resistor(1/2W 33Ω ±5%)	[R743]
119	0AV2014733010	AA		C	Resistor(1/6W 47KΩ ±5%)	[R744]
120	0AV2016833010	AA		C	Resistor(1/6W 68KΩ ±5%)	[R745]
121	0AV2012713010	AA		C	Resistor(1/6W 270Ω ±5%)	[R746]
122	0AV2014733010	AA		C	Resistor(1/6W 47KΩ ±5%)	[R747]
123	0AV2011033010	AA		C	Resistor(1/6W 10KΩ ±5%)	[R748]
124	0AV2016823010	AA		C	Resistor(1/6W 6.8KΩ ±5%)	[R749]
125	0AV5110012000	AB		C	Jumper wire(6mm)	[RJ701]
126	0AV5110006000	AA		C	Jumper wire(12.5mm)	[RJ702]
127	0AV5110004000	AA		C	Jumper wire(20mm)	[RJ703]
128	0AV5110011000	AB		C	Jumper wire(17.5mm)	[RJ704]
129	0AV5110012000	AB		C	Jumper wire(6mm)	[RJ705]
130	0AV5110001000	AA		C	Jumper wire(10mm)	[RJ706]
131	0AV5110001000	AA		C	Jumper wire(10mm)	[RJ707]
132	0AV5110001000	AA		C	Jumper wire(10mm)	[RJ708]
133	0AV5110003000	AA		C	Jumper wire(7.5mm)	[RJ709]
134	0AV5110004000	AA		C	Jumper wire(20mm)	[RJ710]
135	0AV5110018000	AB		C	Jumper wire(22.5mm)	[RJ711]
136	0AV5110006000	AA		C	Jumper wire(12.5mm)	[RJ712]
137	0AV5110003000	AA		C	Jumper wire(7.5mm)	[RJ713]
138	0AV5110006000	AA		C	Jumper wire(12.5mm)	[RJ714]
139	0AV5110012000	AB		C	Jumper wire(6mm)	[RJ715]
140	0AV5110018000	AB		C	Jumper wire(22.5mm)	[RJ716]
141	0AV5110001000	AA		C	Jumper wire(10mm)	[RJ717]
142	0AV5110004000	AA		C	Jumper wire(20mm)	[RJ718]
143	0AV5110002000	AA		C	Jumper wire(15mm)	[RJ719]
144	0AV5080009000	AP		B	Relay(DH1U)	[RL701]
145	0AV5040012000	AM		C	Switch(SDDJE34100)	[S701]
146	0AV3170001000	AE		B	Thyristor(CR02AM4)	[SR701]
147	0AV4000137111	AR		B	Transformer(N-T01-371)	[T701]
148	0AV5140023000	AE		B	Thermistor(M5R110T3C)	[TH701]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
[15] Power supply PWB unit						
149	0AV3160036000	AQ		B	Triac(BCR16PM-12LP-AA)	[TR701]
150	0AV5190002000	AF		B	Varistor(ENC271D-10A)	[X701]
151	0AV5190002000	AF		B	Varistor(ENC271D-10A)	[X702]
152	0AV5190002000	AF		B	Varistor(ENC271D-10A)	[X703]
153	0AV5190025000	AK		B	Arestor(RA-302M-V7-Y)	[Z701]
154	0AV5050005000	AA		C	Holder	
155	0AV6113121011	AH		C	Bracket	
156	0AV6114128011	AF		C	Bracket	
157	0AV6114128111	AF		C	Terminal	
158	0AV6114128211	AF		C	Heat sink	
159	0AV7414138411	AD		D	Label	
160	0AV8117730314	AB		C	Screw(3x6)	
161	0AV8117730414	AB		C	Screw(3x8)	
	(Unit)					
⚠ 901	RDENT2181XHZZ	BX		E	Power supply PWB unit	
[16] Operation panel PWB unit						
1	QSW-K0005AWZZ	AC		C	Tact switch	[SW]
⚠ 2	QSW-Z2326SCZZ	AL		C	Paper guide switch	[SW-A]
	(Unit)					
901	DCEKP425CXHP2	BC	N	E	Operation panel PWB unit	
[17] LED PWB unit						
	(Unit)					
901	DCEKP425CXHL2	BB	N	E	LED PWB unit	
[18] LCD Relay PWB unit						
	(Unit)					
901	DCEKD442CXH01	AS	N	E	LCD Relay PWB unit	
[19] High voltage PWB unit						
	(Unit)					
901	0KW4127620701	BN		E	High voltage PWB unit	
[20] Toner empty PWB unit						
	(Unit)					
901	0KW4127011301	AY		E	Toner empty PWB unit	

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PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
[C]				
CBSHP2079XH02	6-1	AZ		C
CCABA2406XH02	4-902	CE	N	E
CCASP2163XH52	4-901	BR	N	E
CCNW-4955XH02	1-1	AL		C
CMOTZ2146XH01	3-1	BH		E
CPLTP2803XHC4	11-6	AZ		C
CPLTP3009XHC5	11-7	AY		C
CROLP2320XH01	2-1	AZ		C
[D]				
DCEKC424CXH01	1-23	BW		E
〃	14-901	BW		E
DCEKC985RXHZZ	1-24	CU	N	E
〃	12-901	CU	N	E
DCEKD442CXH01	4-35	AS	N	E
〃	18-901	AS	N	E
DCEKL422CXH01	1-25	BM		E
〃	13-901	BM		E
DCEKP425CXHL2	4-31	BB	N	E
〃	17-901	BB	N	E
DCEKP425CXHP2	4-7	BC	N	E
〃	16-901	BC	N	E
DUNT-429CSCZZ	11-4	BZ	N	S
DUNT-454BSCZZ	11-16	CA		S
[G]				
GCABA2404XHSB	1-26	BB	N	D
GCABA2406XHSA	4-1	AP	N	D
GCABB2405XHSA	1-27	BE		D
GCABB2408XHSA	4-2	AQ		D
GCABC2409XHSA	1-28	AS		D
GCABD2410XHSA	1-29	AX		D
GCABE2411XHSA	1-2	AX		D
GCASP2163XHSB	4-10	AZ	N	D
GCOVA2408XHSC	1-30	AL		C
GCOVA2460XHSA	2-2	BB		C
[H]				
HPNLH2423XHZZ	1-46	AR	N	D
〃	4-29	AR	N	D
[J]				
JBTN-2368XHSA	4-11	AN		C
JBTN-2369XHSA	4-12	AP		C
JBTN-2370XHSA	4-13	AE		C
JBTN-2371XHSA	4-14	AE		C
JBTN-2372XHSA	4-15	AG	N	C
JBTN-2374XHSA	4-16	AH		C
JBTN-2375XHSA	4-17	AH		C
JBTN-2376XHSB	2-3	AF	N	C
[L]				
LANGF2819XHZZ	5-1	AF		C
LANGP2848XHZZ	1-31	AE		C
LANGT2849XHZZ	1-32	AH		C
LBNDJ2006XHZZ	1-33	AA		C
LBNDJ2013XHZZ	1-54	AM		C
LBSHP2113XHZZ	6-2	AH		C
LFRM-2201XHZZ	6-3	AL		C
LFRM-2233XHZZ	1-34	AV		C
LFRM-2234XHZZ	1-35	AX		C
LHLDW2158SCZZ	1-36	AC		C
LHLDW2183SCZZ	1-37	AD		C
LPLTM3011XHZZ	5-2	AK		C
LPLTM3012XHZZ	6-4	AL		C
LPLTM3228XHZZ	2-4	AE		C
LPLTM3229XHZZ	2-5	AH		C
LPLTM3235XHZZ	1-38	AV		C
LPLTM3236XHZZ	1-39	AZ		C
LPLTM3267XHZZ	1-9	AT		C
LPLTP2819XHZZ	5-3	AD		C
LPLTP2821XHZZ	5-4	AD		C
LPLTP3223XHSA	4-18	AH		C
LPLTP3224XHSA	4-28	AH		C
LPLTP3225XHZZ	4-19	AE		C
LPLTP3226XHZZ	4-20	AE		C
LPLTP3227XHSA	1-14	BE		C
LSTPP2052XHZZ	5-5	AD		C
LX-BZ2138XHZZ	2-B1	AB		C
LX-BZ2205XHZZ	1-B4	AC		C
〃	2-B2	AC		C
LX-BZ2241XHZZ	1-B5	AC		C
LX-BZ2282XHZZ	1-B1	AB		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
[M]				
MLEVP2304XHSB	5-6	AL		C
MLEVP2374XHZZ	2-6	AE		C
MLEVP2376XHZZ	2-7	AE		C
MSPRC2843XHZZ	5-7	AC		C
MSPRC3126XHZZ	5-8	AG		C
MSPRC3138XHZZ	6-5	AE		C
MSPRC3149XHZZ	2-8	AB		C
MSPRC3180XHZZ	5-9	AD		C
MSPRC3347XHZZ	4-21	AE		C
MSPRC3348XHZZ	2-9	AE		C
MSPRC3350XHZZ	2-10	AE		C
MSPRC3374XHZZ	2-11	AC		C
MSPRC3375XHZZ	2-12	AD		C
MSPRD3086XHZZ	6-6	AH		C
MSPRD3091XHZZ	2-13	AF		C
MSPRD3179XHZZ	5-10	AD		C
MSPRP2841XHZZ	6-7	AC		C
MSPRP3055XHFJ	1-40	AD		C
MSPRP3083XHZZ	5-11	AF		C
MSPRP3087XHZZ	6-9	AF		C
MSPRP3088XHZZ	6-8	AF		C
MSPRP3355XHZZ	4-22	AH		C
[N]				
NBRGP2128XHZA	6-10	AE		C
NBRGP2138XHZZ	6-11	AD		C
NBRGP2141XHZZ	6-12	AH		C
NGERH2319XHZZ	6-13	AD		C
NGERH2320XHZZ	6-14	AD		C
NGERH2322XHZZ	6-15	AC		C
NGERH2462XHZZ	6-16	AC		C
NGERH2463XHZZ	6-17	AC		C
NGERH2466XHZZ	1-3	AE		C
〃	2-14	AE		C
NGERH2602XHZZ	2-15	AH		C
NGERH2603XHZZ	2-16	AE		C
NGERP2318XHZZ	2-17	AD		C
NROLP2332XHZZ	6-18	AD		C
NROLP2334XHZA	5-12	AC		C
NROLP2420XHZZ	1-4	AM		C
NROLP2421XHZZ	2-18	AM		C
NROLR2338XHZZ	6-20	AK		C
NROLR2417XHZZ	6-19	AH		C
NROLR2418XHZZ	6-21	AL		C
NROLR2419XHZZ	6-22	AK		C
NSFTZ2306XHZZ	5-13	AD		C
NSFTZ2307XHZZ	6-23	AK		C
NSFTZ2308XHZZ	6-24	AL		C
[P]				
PBRS-2048XHZZ	6-25	AD		C
PBRS-2059XHZZ	5-14	AK		C
PCUSS2185XHZZ	4-3	AQ	N	C
PCUSS2188XHZZ	1-53	AE		C
PCUSS2190XHZZ	4-33	AG	N	C
PGIDM2539XHZC	5-15	AT		C
PGIDM2540XHZZ	5-16	AF		C
PGIDM2541XHSD	6-36	AP	N	C
PGIDM2544XHSB	2-19	AL		C
PGIDM2545XHSB	2-20	AL		C
PGIDM2635XHZZ	1-41	AQ		C
PGIDM2636XHSA	1-15	AH		C
PGIDM2637XHSA	1-16	AH		C
PGIDM2638XHSA	1-17	AH		C
PGIDM2639XHZZ	2-21	AX		C
PGIDM2640XHZZ	2-22	AY		C
PGUMM2162XHZZ	5-17	AF		C
PGUMM2201XHZZ	4-23	AF		C
PGUMM2202XHZZ	4-24	AE		C
PLEGP2071XHZZ	1-42	AE		C
PSHEP3768XHZZ	4-32	AF		C
PSHEZ3410XHZZ	1-47	AB		C
PSHEZ3418XHZZ	5-18	AC		C
PSHEZ3419XHZZ	5-19	AB		C
PSHEZ3455XHZZ	2-23	AF		C
PSHEZ3738XHZZ	5-20	AE		C
PSHEZ3740XHZZ	1-43	AL		C
PSHEZ3741XHSA	2-24	AE		C
PSHEZ3742XHSA	2-25	AE		C
PSHEZ3743XHZZ	1-44	AN		C
PSHEZ3752XHSA	4-26	AF	N	C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
PSHEZ3753XHZZ	5-22	AE		C
PSHEZ3764XHZZ	6-37	AB		C
PSHEZ3777XHZZ	2-29	AE	N	C
PSHEZ3778XHZZ	2-30	AD	N	C
PSHEZ3779XHZZ	2-31	AD	N	C
PSPO-2001XHZZ	1-18	AD		C
PSPO-2013XHZZ	1-19	AE		C
PSPO-2014XHZZ	2-26	AL		C
PSPO-2015XHZZ	2-27	AH		C
PSTM-2015SCZZ	6-34	AX		E
PTME-2067XHZZ	6-26	AK		C
PTME-2073XHZZ	2-28	AH		C
[Q]				
QACCD2062XHZZ	11-8	AQ		B
QCNCM2401SC0B	12-276	AA		C
QCNCM2401SC0D	14-51	AC		C
QCNCM2482SC1F	12-265	AF		C
QCNCM2482SC1H	12-264	AE		C
QCNCM2482SC2D	12-271	AB		C
QCNCM2484SC0B	14-38	AB		C
QCNCM2484SC0H	14-43	AD		C
QCNCM2498SC0B	14-46	AB		C
QCNCM2525SC3J	12-272	AH		C
QCNCM2584SC0B	14-39	AC		C
QCNCM2584SC0D	14-49	AD		C
QCNCM2584SC0E	14-48	AD		C
QCNCM2584SC0F	14-42	AH		C
QCNCM2584SC0H	14-41	AH		C
QCNCM2584SC1E	14-47	AL		C
QCNCM2584SC1J	14-40	AK		C
QCNCM2585SC0D	14-50	AD		C
QCNCM2589SC3J	12-268	AP	N	C
QCNCM2656SC0C	14-44	AF		C
QCNCM7014SC0B	12-277	AD		C
QCNCM7014SC0C	12-270	AA		C
QCNCM7014SC0D	12-278	AB		C
QCNCM7014SC0E	12-274	AB		C
〃	14-45	AB		C
QCNCM7014SC0H	12-275	AB		C
QCNCM7014SC0I	12-266	AB		C
〃	13-20	AB		C
QCNCM7014SC1B	12-273	AD		C
QCNCM7014SC1J	12-263	AC		C
QCNCW2527SC3J	14-37	AM		C
QCNCW2527SC6J	12-267	AV	N	C
QCNCW2612SC6J	12-269	BA		C
QCNCW2662SC0B	1-13	AE		C
QCNW-277AXHZZ	1-50	AY		C
〃	6-27	AY		C
QCNW-290ASCZZ	11-9	AE		C
QCNW-4953XHZZ	1-8	AK		C
〃	6-28	AK		C
QCNWN262BXHZZ	1-10	AS		C
QCNWN263BXHZZ	1-11	AP		C
QCNWN268BXHZZ	1-20	AK		C
QCNWN269BXHZZ	1-49	AK		C
QCNWN270BXHZZ	5-21	AF		C
QCNWN274BXHZZ	1-45	AN		C
QCNWN290BXHZZ	1-51	BA	N	C
〃	4-27	BA	N	C
QCNWN292BXHZZ	1-56	AX	N	C
〃	4-36	AX	N	C
QCNWN293BXHZZ	4-4	AM	N	C
QCNWN295BXHZZ	4-5	AH		C
QJAKZ2046SCBB	13-27	AH		C
QSW-K0005AWZZ	4-8	AC		C
〃	16-1	AC		C
QSW-M2296XHZZ	1-21	AD		B
〃	1-52	AD		B
〃	6-29	AD		B
QSW-M2298XHZZ	6-30	AE		C
QSW-M2324XHZZ	1-5	AN		C
QSW-Z2237SCZZ	6-31	AE		B
QSW-Z2326SCZZ	4-9	AL		C
〃	16-2	AL		C
QTANZ2042SCZZ	13-4	AB		C
[R]				
RC-EZ3088XHZZ	12-242	AK		C
RC-EZ3097XHZZ	12-239	AP		C
RC-FZ3024SCZZ	13-5	AG		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
RC-FZ3039XHZZ	14-36	AB		C
RCILZ1081YCZZ	12-333	AF		C
RCILZ2118SCZZ	13-26	AD		C
RCORF2124XHZZ	1-55	AE		B
〃	6-32	AE		B
RCORF2125XHZZ	3-2	AE		B
RCRMA2010XHZZ	12-777	AG	N	B
RCRSC2196XHZZ	12-339	AH		B
RCRSP0074AFZZ	12-779	AE		B
RCRSP2193XHZZ	12-776	AL	N	B
RCRSP2194XHZZ	12-780	AL		B
RCRSP2195XHZZ	12-778	AL		B
RCRSP2197XHZZ	14-116	AL		B
RDENT2181XHZZ	1-12	BX		E
〃	15-901	BX		E
RFILN2027XHZZ	13-24	AC		C
〃	13-25	AC		C
RH-DX2007SCZZ	13-55	AC		B
RH-DX2308XHZZ	14-52	AH		B
RH-EX2319XHZZ	12-781	AE		B
RH-IX2172SCZZ	12-310	BC		B
RH-IX2235XHZZ	12-317	BD		B
RH-IX2239SCZZ	12-302	AG		B
〃	12-309	AG		B
RH-IX2291XHZZ	14-57	BV		B
RH-IX2292XHZZ	12-326	BV		B
RH-IX2293XHZZ	12-322	BU		B
RH-IX2294SCZZ	12-306	BZ		B
RH-IX2295SCZZ	12-319	BK		B
RH-IX2296XHZZ	12-305	BG		B
RH-IX2297XHZZ	12-323	BK	N	B
RH-IX2298XHZZ	12-324	BK		B
RH-IX2299XHZZ	12-313	BA		B
RH-IX2300XHZZ	12-307	AL		B
〃	12-329	AL		B
RH-IX2301XHZZ	12-318	AL		B
RH-IX2302XHZZ	12-314	AH		B
〃	12-315	AH		B
RH-IX2303XHZZ	12-311	AG	N	B
RH-IX2304XHZZ	12-301	AX		B
RH-IX2307XHZZ	14-55	AP		B
RH-IX2317XHZZ	12-331	AQ		B
RH-IX2320XHZZ	12-327	AL		B
RH-IX2323XHZZ	12-304	AP	N	B
RH-IX2340XHZZ	12-332	AR	N	B
RR-HZ3011SCZZ	13-34	AC		C
RR-TZ3012SC00	12-2	AB		C
〃	12-3	AB		C
〃	12-4	AB		C
〃	12-5	AB		C
RR-TZ3016SCZZ	12-10	AA		C
〃	12-11	AA		C
〃	12-12	AA		C
〃	12-13	AA		C
〃	12-14	AA		C
〃	12-15	AA		C
〃	12-16	AA		C
〃	12-17	AA		C
〃	12-22	AA		C
〃	12-23	AA		C
〃	12-24	AA		C
〃	12-25	AA		C
〃	12-26	AA		C
〃	12-27	AA		C
〃	12-28	AA		C
〃	12-29	AA		C
〃	12-30	AA		C
〃	12-31	AA		C
RR-TZ3019SCZZ	14-112	AA		C
〃	14-114	AA		C
RR-TZ3023SCZZ	12-6	AC		C
〃	12-7	AC		C
〃	12-8	AC		C
〃	12-9	AC		C
〃	12-18	AC		C
〃	12-19	AC		C
〃	12-20	AC		C
〃	12-21	AC		C
RR-TZ3044SCZZ	12-32	AD		C
〃	12-33	AD		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
RR-TZ3044SCZZ	12-34	AD		C
RR-TZ3045SCZZ	14-111	AD		C
RR-TZ3046SCZZ	14-113	AD		C
〃	14-115	AD		C
RRLYD3435XHZZ	13-19	AP		B
RTRNZ2163SCZZ	13-56	AH		B
RUNTZ2095SCZZ	4-6	BT	N	E
RUNTZ2096SCZZ	4-34	AX	N	E
RUNTZ2104XHB4	6-33	BW	N	E
[S]				
SPAKA293EXHZZ	11-17	AF		C
SPAKA294EXHZZ	11-18	AE		C
SPAKA343EXHZZ	11-19	AG		D
SPAKA344EXHZZ	11-5	AL		D
SPAKA345EXHZZ	11-20	AD		D
SPAKA422DXHZZ	11-10	AS		D
SPAKA423DXHZZ	11-11	AY		D
SPAKA424DXHZZ	11-12	AP		D
SPAKA425DXHZZ	11-13	AP		D
SPAKC288EXHTZ	11-14	AX	N	D
SPAKC288DSCJZ	11-14		N	D
SPAKP499DXHZZ	11-15	AL		D
[T]				
TINSE4302XHTZ	11-1	AR	N	D
TLABH215EXHZZ	1-22	AD		D
TLABP391EXHZZ	11-2	AE		D
TLABP394EXHZZ	1-6	AE		D
TLABP395EXHZZ	1-7	AE		D
TLABS307FXHZZ	1-48	AE	N	D
TLABZ392EXHZZ	11-3	AD		D
[U]				
UBATL2071XHZZ	12-1	AL		B
UINK-2009SC01	6-35	BA		C
[V]				
VCCCCY1HH100D	12-84	AA		C
VCCCCY1HH101J	12-99	AA		C
〃	12-167	AA		C
〃	12-212	AA		C
VCCCCY1HH120J	12-132	AA		C
〃	12-172	AA		C
VCCCCY1HH150J	12-138	AB		C
VCCCCY1HH180J	12-56	AA		C
〃	12-173	AA		C
VCCCCY1HH220J	14-17	AA		C
〃	14-34	AA		C
〃	14-35	AA		C
VCCCCY1HH221J	12-74	AA		C
VCCCCY1HH330J	12-100	AA		C
〃	12-101	AA		C
VCCCCY1HH331J	12-71	AB		C
〃	12-72	AB		C
〃	12-216	AB		C
〃	12-230	AB		C
VCCCCY1HH470J	12-119	AA		C
VCCCCY1HH471J	12-70	AA		C
〃	12-73	AA		C
〃	12-140	AA		C
〃	12-231	AA		C
VCCCCY1HH560J	12-186	AA		C
VCCCCY1HH7R0D	12-187	AA		C
VCCCCY1HH8R0D	12-85	AA		C
VCEAEA1CW106M	12-240	AC		C
〃	12-247	AC		C
〃	12-250	AC		C
〃	12-256	AC		C
〃	12-258	AC		C
VCEAEA1CW107M	12-238	AC		C
〃	12-241	AC		C
〃	12-259	AC		C
VCEAEA1CW226M	12-246	AA		C
〃	12-248	AA		C
〃	12-249	AA		C
VCEAEA1CW336M	12-251	AB		C
〃	12-260	AB		C
〃	12-261	AB		C
VCEAEA1CW476M	12-245	AA		C
〃	12-254	AA		C
〃	12-255	AA		C
〃	12-257	AA		C
VCEAEA1EW475M	12-252	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VCEAEA1HW105M	12-253	AC		C
VCEAEA1HW226M	12-243	AB		C
〃	12-244	AB		C
VCEAEA1VW476M	12-262	AH		C
VCEAGA1CW227M	14-1	AB		C
VCEAGA1HW107M	13-17	AA		C
VCEAGA1HW475M	13-7	AA		C
〃	13-8	AA		C
〃	13-12	AA		C
〃	13-13	AA		C
〃	13-14	AA		C
VCKYCY1AF105Z	12-79	AC		C
〃	12-80	AC		C
〃	12-82	AC		C
〃	12-104	AC		C
〃	12-105	AC		C
〃	12-107	AC		C
〃	12-108	AC		C
〃	12-141	AC		C
〃	12-148	AC		C
〃	12-164	AC		C
〃	12-165	AC		C
〃	12-166	AC		C
〃	12-175	AC		C
〃	12-176	AC		C
〃	12-177	AC		C
〃	12-178	AC		C
〃	12-196	AC		C
VCKYCY1CB104K	12-179	AB		C
〃	12-192	AB		C
〃	12-194	AB		C
〃	12-195	AB		C
〃	12-209	AB		C
〃	12-211	AB		C
〃	12-228	AB		C
VCKYCY1EB333K	14-22	AB		C
VCKYCY1EB683K	14-11	AD		C
VCKYCY1EF104Z	12-54	AA		C
〃	12-55	AA		C
〃	12-57	AA		C
〃	12-58	AA		C
〃	12-69	AA		C
〃	12-78	AA		C
〃	12-83	AA		C
〃	12-86	AA		C
〃	12-87	AA		C
〃	12-88	AA		C
〃	12-89	AA		C
〃	12-91	AA		C
〃	12-92	AA		C
〃	12-95	AA		C
〃	12-96	AA		C
〃	12-97	AA		C
〃	12-98	AA		C
〃	12-102	AA		C
〃	12-103	AA		C
〃	12-109	AA		C
〃	12-110	AA		C
〃	12-111	AA		C
〃	12-112	AA		C
〃	12-113	AA		C
〃	12-114	AA		C
〃	12-116	AA		C
〃	12-117	AA		C
〃	12-118	AA		C
〃	12-120	AA		C
〃	12-121	AA		C
〃	12-122	AA		C
〃	12-123	AA		C
〃	12-124	AA		C
〃	12-125	AA		C
〃	12-126	AA		C
〃	12-127	AA		C
〃	12-128	AA		C
〃	12-129	AA		C
〃	12-130	AA		C
〃	12-131	AA		C
〃	12-133	AA		C
〃	12-134	AA		C
〃	12-135	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VCKYCY1EF104Z	12-136	AA		C
〃	12-139	AA		C
〃	12-144	AA		C
〃	12-145	AA		C
〃	12-147	AA		C
〃	12-149	AA		C
〃	12-150	AA		C
〃	12-152	AA		C
〃	12-153	AA		C
〃	12-154	AA		C
〃	12-157	AA		C
〃	12-158	AA		C
〃	12-161	AA		C
〃	12-162	AA		C
〃	12-168	AA		C
〃	12-169	AA		C
〃	12-171	AA		C
〃	12-174	AA		C
〃	12-180	AA		C
〃	12-181	AA		C
〃	12-182	AA		C
〃	12-183	AA		C
〃	12-184	AA		C
〃	12-185	AA		C
〃	12-188	AA		C
〃	12-189	AA		C
〃	12-193	AA		C
〃	12-197	AA		C
〃	12-198	AA		C
〃	12-200	AA		C
〃	12-201	AA		C
〃	12-202	AA		C
〃	12-205	AA		C
〃	12-206	AA		C
〃	12-207	AA		C
〃	12-208	AA		C
〃	12-213	AA		C
〃	12-215	AA		C
〃	12-218	AA		C
〃	12-219	AA		C
〃	12-220	AA		C
〃	12-221	AA		C
〃	12-222	AA		C
〃	12-223	AA		C
〃	12-224	AA		C
〃	12-225	AA		C
〃	12-226	AA		C
〃	12-227	AA		C
〃	12-233	AA		C
〃	12-234	AA		C
〃	12-236	AA		C
〃	14-5	AA		C
〃	14-6	AA		C
VCKYCY1HB102K	12-115	AA		C
〃	12-137	AA		C
〃	12-142	AA		C
〃	12-143	AA		C
〃	12-151	AA		C
〃	12-163	AA		C
〃	12-170	AA		C
〃	12-191	AA		C
〃	12-199	AA		C
〃	12-214	AA		C
〃	12-217	AA		C
〃	14-2	AA		C
〃	14-3	AA		C
〃	14-4	AA		C
〃	14-7	AA		C
〃	14-8	AA		C
〃	14-10	AA		C
〃	14-14	AA		C
〃	14-18	AA		C
〃	14-19	AA		C
〃	14-20	AA		C
〃	14-21	AA		C
〃	14-23	AA		C
〃	14-24	AA		C
〃	14-25	AA		C
〃	14-26	AA		C
〃	14-27	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VCKYCY1HB102K	14-28	AA		C
〃	14-29	AA		C
〃	14-30	AA		C
〃	14-31	AA		C
〃	14-32	AA		C
〃	14-33	AA		C
VCKYCY1HB103K	12-75	AA		C
〃	12-190	AA		C
〃	12-237	AA		C
〃	14-9	AA		C
〃	14-12	AA		C
〃	14-13	AA		C
〃	14-15	AA		C
〃	14-16	AA		C
VCKYCY1HB222K	12-59	AA		C
〃	12-60	AA		C
〃	12-61	AA		C
〃	12-62	AA		C
〃	12-63	AA		C
〃	12-64	AA		C
〃	12-65	AA		C
〃	12-66	AA		C
〃	12-67	AA		C
〃	12-93	AA		C
〃	12-146	AA		C
〃	12-155	AA		C
〃	12-156	AA		C
〃	12-159	AA		C
〃	12-160	AA		C
〃	12-203	AA		C
〃	12-204	AA		C
VCKYCY1HB332K	12-77	AA		C
VCKYCY1HF104Z	12-68	AA		C
〃	12-229	AA		C
〃	12-235	AA		C
VCKYCZ0JF105Z	12-38	AC		C
〃	12-39	AC		C
〃	12-40	AC		C
〃	12-41	AC		C
〃	12-42	AC		C
〃	12-43	AC		C
〃	12-44	AC		C
〃	12-45	AC		C
〃	12-46	AC		C
〃	12-47	AC		C
〃	12-48	AC		C
〃	12-49	AC		C
〃	12-50	AC		C
〃	12-51	AC		C
〃	12-52	AC		C
〃	12-53	AC		C
VCKYCZ1CF104Z	12-35	AB		C
〃	12-36	AB		C
VCKYCZ1EB102K	12-37	AA		C
VCKYPA1HB103K	13-6	AA		C
VCKYPU1HB102K	13-9	AA		C
〃	13-11	AA		C
VCKYPU1HB471K	13-15	AA		C
VCKYPU1HF223Z	13-18	AA		C
VCKYTQ1EB224K	12-94	AB		C
VCKYTV1CF225Z	12-81	AD		C
〃	12-106	AD		C
VCKYTV1HB102K	12-76	AA		C
VCKYTV1HB222K	12-90	AA		C
VCQYNA1HM333K	13-10	AA		C
〃	13-16	AA		C
VHDDAN202U/-1	12-285	AB		B
VHDDA204K//-1	12-287	AC		B
〃	12-289	AC		B
VHDDSS133//-1	13-21	AA		B
〃	13-22	AA		B
VHDGPP20J//-1	12-286	AE	N	B
VHDHRW0202B-1	12-290	AD		B
VHDMC2850++-1	12-284	AE	N	B
VHDSR104///-1	12-279	AF		B
〃	12-280	AF		B
〃	12-281	AF		B
〃	12-282	AF		B
VHD1SS322//-1	12-283	AC		B
VHD1SS355//-1	12-288	AB		B

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VHD1SS355//-1	12-291	AB		B
〃	12-292	AB		B
〃	14-53	AB		B
VHEHZ2C1///-1	13-57	AA		B
〃	13-58	AA		B
〃	13-62	AA		B
〃	13-63	AA		B
VHEHZ27-1//-1	13-59	AB		B
VHEMTZJ8R2B-1	13-61	AC		B
VHE1ZC15///-1	13-60	AC		B
VHIBA10393F-1	12-321	AC		B
VHIF032/TA69B	12-312		N	B
VHILB1845//-1	12-303	AY		B
VHINJM2113M-1	12-330	AG		B
VHINJM2904D-1	13-23	AG		B
VHINJM2904M-2	12-308	AG		B
〃	12-328	AG		B
VHIPST596CMT1	12-316	AF		B
VHISM8578BV-1	12-320	AK		B
VHIULN2003ADR	14-54	AF		B
VHI74LV245APW	12-325	AG		B
VHI74VHC02F-1	14-56	AF		B
VHPPC814X//-1	13-29	AE		B
VHPPC817X4/-1	13-28	AC		B
VHVICPS05//-1	12-293	AA		B
VHVICPS07//-1	12-300	AA		A
VHVICPS10//-1	12-294	AG		B
〃	12-297	AG		B
〃	12-298	AG		B
VHVICPS18//-1	12-299	AE		B
VHVRA391PV6-1	13-1	AE		B
VHVRA501PC6-1	13-2	AG		B
〃	13-3	AG		B
VRD-HT2EY100J	12-387	AA		C
〃	13-38	AA		C
〃	13-51	AA		C
〃	13-54	AA		C
VRD-HT2EY103J	13-52	AA		C
〃	13-53	AA		C
VRD-HT2EY183J	13-37	AA		C
VRD-HT2EY201J	13-42	AA		C
VRD-HT2EY223J	13-45	AA		C
〃	13-46	AA		C
〃	13-48	AA		C
〃	13-50	AA		C
VRD-HT2EY300J	13-41	AA		C
VRD-HT2EY303J	13-39	AA		C
VRD-HT2EY332J	13-49	AA		C
VRD-HT2EY391J	13-43	AA		C
VRD-HT2EY621J	13-44	AA		C
VRD-HT2EY751J	13-47	AA		C
VRD-HT2EY910J	13-40	AA		C
VRD-HT2HY223J	13-36	AA		C
VRS-CY1JB000J	12-210	AA		C
〃	12-232	AA		C
〃	12-334	AA		C
〃	12-335	AA		C
〃	12-336	AA		C
〃	12-337	AA		C
〃	12-338	AA		C
〃	12-401	AA		C
〃	12-402	AA		C
〃	12-403	AA		C
〃	12-404	AA		C
〃	12-405	AA		C
〃	12-406	AA		C
〃	12-407	AA		C
〃	12-408	AA		C
〃	12-410	AA		C
〃	12-413	AA		C
〃	12-415	AA		C
〃	12-416	AA		C
〃	12-438	AA		C
〃	12-443	AA		C
〃	12-448	AA		C
〃	12-449	AA		C
〃	12-450	AA		C
〃	12-456	AA		C
〃	12-464	AA		C
〃	12-466	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CY1JB000J	12-469	AA		C
〃	12-470	AA		C
〃	12-486	AA		C
〃	12-487	AA		C
〃	12-488	AA		C
〃	12-489	AA		C
〃	12-490	AA		C
〃	12-517	AA		C
〃	12-531	AA		C
〃	12-536	AA		C
〃	12-541	AA		C
〃	12-550	AA		C
〃	12-551	AA		C
〃	12-554	AA		C
〃	12-557	AA		C
〃	12-559	AA		C
〃	12-567	AA		C
〃	12-569	AA		C
〃	12-576	AA		C
〃	12-577	AA		C
〃	12-578	AA		C
〃	12-589	AA		C
〃	12-603	AA		C
〃	12-606	AA		C
〃	12-608	AA		C
〃	12-609	AA		C
〃	12-610	AA		C
〃	12-611	AA		C
〃	12-612	AA		C
〃	12-613	AA		C
〃	12-614	AA		C
〃	12-615	AA		C
〃	12-616	AA		C
〃	12-617	AA		C
〃	12-618	AA		C
〃	12-619	AA		C
〃	12-620	AA		C
〃	12-621	AA		C
〃	12-622	AA		C
〃	12-623	AA		C
〃	12-625	AA		C
〃	12-627	AA		C
〃	12-629	AA		C
〃	12-630	AA		C
〃	12-635	AA		C
〃	12-641	AA		C
〃	12-642	AA		C
〃	12-645	AA		C
〃	12-653	AA		C
〃	12-654	AA		C
〃	12-655	AA		C
〃	12-656	AA		C
〃	12-657	AA		C
〃	12-658	AA		C
〃	12-659	AA		C
〃	12-660	AA		C
〃	12-661	AA		C
〃	12-662	AA		C
〃	12-663	AA		C
〃	12-664	AA		C
〃	12-665	AA		C
〃	12-666	AA		C
〃	12-667	AA		C
〃	12-671	AA		C
〃	12-674	AA		C
〃	12-675	AA		C
〃	12-688	AA		C
〃	12-689	AA		C
〃	12-690	AA		C
〃	12-692	AA		C
〃	12-694	AA		C
〃	12-708	AA		C
〃	12-720	AA		C
〃	12-722	AA		C
〃	12-723	AA		C
〃	12-724	AA		C
〃	12-725	AA		C
〃	12-726	AA		C
〃	12-727	AA		C
〃	12-728	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CY1JB000J	12-729	AA		C
〃	12-738	AA		C
〃	12-741	AA		C
〃	12-745	AA		C
〃	12-751	AA		C
〃	12-765	AA		C
〃	12-766	AA		C
〃	12-767	AA		C
〃	12-770	AA		C
〃	12-772	AA		C
〃	12-773	AA		C
〃	12-775	AA		C
〃	14-77	AA		C
〃	14-79	AA		C
〃	14-90	AA		C
〃	14-94	AA		C
VRS-CY1JB100J	12-414	AA		C
〃	12-672	AA		C
VRS-CY1JB101J	12-457	AA		C
〃	12-535	AA		C
〃	12-565	AA		C
〃	12-573	AA		C
〃	12-574	AA		C
〃	12-575	AA		C
〃	12-588	AA		C
〃	12-628	AA		C
〃	12-643	AA		C
〃	12-644	AA		C
〃	12-695	AA		C
〃	12-696	AA		C
〃	12-704	AA		C
〃	12-705	AA		C
〃	12-710	AA		C
〃	12-711	AA		C
〃	14-83	AA		C
VRS-CY1JB102J	12-427	AA		C
〃	12-431	AA		C
〃	12-432	AA		C
〃	12-439	AA		C
〃	12-533	AA		C
〃	12-685	AA		C
〃	12-686	AA		C
〃	12-715	AA		C
〃	12-746	AA		C
〃	12-764	AA		C
〃	12-769	AA		C
〃	12-771	AA		C
VRS-CY1JB103F	14-71	AB		C
VRS-CY1JB103J	12-428	AA		C
〃	12-440	AA		C
〃	12-465	AA		C
〃	12-493	AA		C
〃	12-518	AA		C
〃	12-519	AA		C
〃	12-521	AA		C
〃	12-522	AA		C
〃	12-523	AA		C
〃	12-526	AA		C
〃	12-527	AA		C
〃	12-530	AA		C
〃	12-532	AA		C
〃	12-534	AA		C
〃	12-538	AA		C
〃	12-539	AA		C
〃	12-540	AA		C
〃	12-542	AA		C
〃	12-543	AA		C
〃	12-544	AA		C
〃	12-546	AA		C
〃	12-547	AA		C
〃	12-548	AA		C
〃	12-552	AA		C
〃	12-562	AA		C
〃	12-563	AA		C
〃	12-564	AA		C
〃	12-568	AA		C
〃	12-579	AA		C
〃	12-580	AA		C
〃	12-581	AA		C
〃	12-582	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CY1JB103J	12-583	AA		C
〃	12-584	AA		C
〃	12-595	AA		C
〃	12-626	AA		C
〃	12-632	AA		C
〃	12-634	AA		C
〃	12-638	AA		C
〃	12-676	AA		C
〃	12-680	AA		C
〃	12-681	AA		C
〃	12-691	AA		C
〃	12-693	AA		C
〃	12-697	AA		C
〃	12-706	AA		C
〃	12-707	AA		C
〃	12-709	AA		C
〃	12-712	AA		C
〃	12-714	AA		C
〃	12-719	AA		C
〃	12-721	AA		C
〃	12-730	AA		C
〃	12-740	AA		C
〃	12-750	AA		C
〃	12-753	AA		C
〃	12-755	AA		C
〃	12-756	AA		C
〃	12-757	AA		C
〃	12-758	AA		C
〃	12-759	AA		C
〃	12-760	AA		C
〃	12-761	AA		C
〃	12-762	AA		C
〃	12-763	AA		C
〃	12-768	AA		C
〃	14-68	AA		C
〃	14-69	AA		C
〃	14-74	AA		C
〃	14-75	AA		C
〃	14-80	AA		C
〃	14-81	AA		C
〃	14-82	AA		C
〃	14-84	AA		C
〃	14-85	AA		C
〃	14-89	AA		C
〃	14-97	AA		C
〃	14-103	AA		C
VRS-CY1JB104J	12-742	AA		C
VRS-CY1JB105J	12-429	AA		C
〃	12-454	AA		C
〃	12-524	AA		C
VRS-CY1JB113F	12-463	AD		C
〃	14-72	AD		C
VRS-CY1JB123F	12-461	AA		C
VRS-CY1JB152F	14-78	AD		C
VRS-CY1JB152J	12-412	AA		C
VRS-CY1JB154J	12-743	AA		C
VRS-CY1JB182J	12-640	AA		C
VRS-CY1JB2R0J	12-774	AD		C
VRS-CY1JB203J	12-566	AA		C
〃	12-677	AA		C
〃	12-679	AA		C
〃	12-683	AA		C
VRS-CY1JB204F	12-437	AA		C
VRS-CY1JB221J	12-525	AA		C
VRS-CY1JB222F	14-73	AB		C
VRS-CY1JB222J	12-624	AA		C
〃	12-678	AA		C
〃	12-737	AA		C
〃	14-76	AA		C
〃	14-91	AA		C
VRS-CY1JB223F	12-460	AC		C
VRS-CY1JB223J	12-748	AA		C
VRS-CY1JB271J	12-417	AA		C
〃	12-418	AA		C
〃	12-419	AA		C
〃	12-420	AA		C
〃	12-421	AA		C
〃	12-422	AA		C
〃	12-423	AA		C
〃	12-424	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CY1JB271J	12-425	AA		C
〃	12-459	AA		C
〃	12-505	AA		C
〃	12-506	AA		C
〃	12-507	AA		C
〃	12-508	AA		C
〃	12-509	AA		C
〃	12-631	AA		C
〃	12-633	AA		C
〃	12-636	AA		C
〃	12-637	AA		C
VRS-CY1JB302J	12-411	AA		C
〃	12-744	AA		C
VRS-CY1JB303J	12-434	AA		C
〃	12-436	AA		C
VRS-CY1JB330J	12-444	AA		C
〃	12-445	AA		C
〃	12-446	AA		C
〃	12-447	AA		C
〃	12-451	AA		C
〃	12-452	AA		C
〃	12-453	AA		C
〃	12-472	AA		C
〃	12-473	AA		C
〃	12-474	AA		C
〃	12-475	AA		C
〃	12-476	AA		C
〃	12-477	AA		C
〃	12-478	AA		C
〃	12-479	AA		C
〃	12-480	AA		C
〃	12-481	AA		C
〃	12-482	AA		C
〃	12-483	AA		C
〃	12-484	AA		C
〃	12-485	AA		C
〃	12-491	AA		C
〃	12-502	AA		C
〃	12-503	AA		C
〃	12-504	AA		C
〃	12-510	AA		C
〃	12-511	AA		C
〃	12-516	AA		C
〃	12-520	AA		C
〃	12-528	AA		C
〃	12-529	AA		C
〃	12-537	AA		C
〃	12-545	AA		C
〃	12-549	AA		C
〃	12-553	AA		C
〃	12-572	AA		C
〃	12-590	AA		C
〃	12-591	AA		C
〃	12-592	AA		C
〃	12-593	AA		C
〃	12-594	AA		C
〃	12-597	AA		C
〃	12-598	AA		C
〃	12-599	AA		C
〃	12-646	AA		C
〃	12-647	AA		C
〃	12-648	AA		C
〃	12-649	AA		C
〃	12-650	AA		C
〃	12-651	AA		C
〃	12-668	AA		C
〃	12-669	AA		C
〃	12-670	AA		C
〃	12-699	AA		C
〃	14-86	AA		C
〃	14-95	AA		C
〃	14-96	AA		C
〃	14-100	AA		C
〃	14-108	AA		C
〃	14-109	AA		C
VRS-CY1JB332J	12-492	AA		C
〃	12-494	AA		C
〃	12-495	AA		C
〃	12-496	AA		C
〃	12-497	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CY1JB332J	12-496	AA		C
〃	12-499	AA		C
〃	12-500	AA		C
〃	12-501	AA		C
〃	12-717	AA		C
〃	12-732	AA		C
〃	12-733	AA		C
〃	12-734	AA		C
〃	12-735	AA		C
〃	12-736	AA		C
〃	12-754	AA		C
VRS-CY1JB333F	12-462	AA		C
VRS-CY1JB333J	12-467	AA		C
〃	12-512	AA		C
〃	12-513	AA		C
〃	12-514	AA		C
〃	12-515	AA		C
〃	12-684	AA		C
〃	14-70	AA		C
VRS-CY1JB433F	12-435	AC	N	C
VRS-CY1JB471J	12-409	AA		C
〃	12-426	AA		C
〃	12-458	AA		C
〃	12-682	AA		C
VRS-CY1JB472F	14-65	AD		C
VRS-CY1JB472J	12-555	AA		C
〃	12-556	AA		C
〃	12-558	AA		C
〃	12-560	AA		C
〃	12-561	AA		C
〃	12-570	AA		C
〃	12-571	AA		C
〃	12-586	AA		C
〃	12-587	AA		C
〃	12-596	AA		C
〃	12-600	AA		C
〃	12-601	AA		C
〃	12-602	AA		C
〃	12-604	AA		C
〃	12-605	AA		C
〃	12-607	AA		C
〃	12-639	AA		C
〃	12-731	AA		C
〃	14-67	AA		C
〃	14-87	AA		C
〃	14-88	AA		C
〃	14-92	AA		C
〃	14-93	AA		C
〃	14-99	AA		C
〃	14-102	AA		C
〃	14-104	AA		C
〃	14-105	AA		C
〃	14-107	AA		C
〃	14-110	AA		C
VRS-CY1JB473J	14-98	AA		C
〃	14-101	AA		C
〃	14-106	AA		C
VRS-CY1JB511J	12-747	AA		C
VRS-CY1JB512F	14-66	AD		C
VRS-CY1JB561J	12-455	AA		C
VRS-CY1JB562J	12-585	AA		C
〃	12-718	AA		C
VRS-CY1JB563F	12-430	AC		C
〃	12-433	AC		C
VRS-CY1JB563J	12-752	AA		C
VRS-CY1JB623J	12-652	AA		C
VRS-CY1JB680J	12-673	AA		C
〃	12-687	AA		C
〃	12-698	AA		C
〃	12-700	AA		C
〃	12-701	AA		C
〃	12-702	AA		C
〃	12-703	AA		C
〃	12-713	AA		C
VRS-CZ1JB000J	12-365	AA		C
〃	12-397	AA		C
〃	12-398	AA		C
〃	12-399	AA		C
VRS-CZ1JB100J	12-363	AA		C
〃	12-364	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
VRS-CZ1JB100J	12-375	AA		C
〃	12-376	AA		C
〃	12-377	AA		C
〃	12-383	AA		C
〃	12-384	AA		C
〃	12-385	AA		C
VRS-CZ1JB101J	12-370	AA		C
〃	12-371	AA		C
〃	12-382	AA		C
〃	12-396	AA		C
〃	12-400	AA		C
VRS-CZ1JB102J	12-374	AA		C
VRS-CZ1JB103J	12-388	AA		C
〃	12-389	AA		C
〃	12-390	AA		C
〃	12-391	AA		C
〃	12-392	AA		C
〃	12-393	AA		C
〃	12-394	AA		C
〃	12-395	AA		C
VRS-CZ1JB104J	12-373	AA		C
VRS-CZ1JB105J	12-366	AD		C
VRS-CZ1JB221J	12-367	AD		C
〃	12-368	AD		C
〃	12-378	AD		C
〃	12-379	AD		C
〃	12-380	AD		C
〃	12-381	AD		C
VRS-CZ1JB330J	12-386	AA		C
VRS-CZ1JB333J	12-361	AA		C
〃	12-362	AA		C
VRS-CZ1JB472J	12-372	AA		C
VRS-HT3AAR47J	12-359	AC		C
〃	12-360	AC		C
VRS-HT3AA101J	12-369	AA		C
VRS-HT3AA133J	13-35	AB		C
VRS-TP2BD000J	12-295	AA		C
〃	12-296	AA		C
〃	12-739	AA		C
VRS-TS2AD000J	12-442	AA		C
〃	12-468	AA		C
〃	12-471	AA		C
VRS-TS2AD102J	12-441	AA		C
VRSCY1JB4422F	12-716	AC		C
〃	12-749	AC		C
VSDTB114EK/-1	14-58	AD		B
VSDTC114YU/-1	14-61	AC		B
〃	14-62	AC		B
〃	14-63	AC		B
〃	14-64	AC		B
VSDTD123YK/-1	14-60	AC		B
VSFMMT717//-1	12-348	AC		B
VSKRA102S//-1	12-352	AD		B
VSKRC106M//-1	13-32	AD		B
〃	13-33	AD		B
VSKRC106S//-1	12-349	AD		B
〃	12-350	AD		B
〃	12-353	AD		B
〃	12-354	AD		B
〃	12-355	AD		B
〃	12-356	AD		B
〃	12-357	AD		B
〃	12-358	AD		B
VSRT1N141M/-1	12-341	AB		B
〃	12-351	AB		B
VS2SA1037KS-1	14-59	AB		B
VS2SC2411KR-1	12-342	AC		B
〃	12-345	AC		B
VS2SC2712GR-1	12-346	AB		B
VS2SD1164//-1	12-340	AE		B
VS2SD1200FR-1	13-31	AE		B
VS2SD1624T/-1	12-347	AD		B
VS2SD1664Q/-1	12-344	AD		B
VS2SD592A-S-1	13-30	AK		B
VS2SJ243///-1	12-343	AD		B
[X]				
XEBSD20P08000	4-B2	AA		C
XEBSD30P10000	1-B6	AA		C
〃	2-B3	AA		C
〃	3-B1	AA		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
XEBSD30P10000	4-B3	AA		C
〃	5-B1	AA		C
〃	6-B1	AA		C
XEBSE26P08000	4-B1	AA		C
XEBSE30P10000	1-B3	AA		C
〃	4-B4	AA		C
XHBSD30P06000	1-B2	AA		C
〃	6-B2	AA		C
XHBSE30P10000	1-B7	AA		C
XRESJ50-06000	6-E1	AA		C
[0]				
0AV1390000181	15-17	AE		C
0AV1390000189	15-19	AC		C
0AV1390000202	15-6	AQ		C
0AV1390000203	15-15	AF		C
0AV1480000087	15-1	AD		C
〃	15-2	AD		C
0AV1480000088	15-8	AC		C
〃	15-21	AC		C
〃	15-22	AC		C
0AV1480000089	15-9	AC		C
〃	15-10	AC		C
〃	15-18	AC		C
0AV1480000090	15-11	AC		C
0AV1480000091	15-12	AC		C
0AV1480000092	15-23	AC		C
0AV1690000088	15-16	AC		C
〃	15-20	AC		C
0AV1690000106	15-3	AD		C
〃	15-4	AD		C
〃	15-5	AD		C
0AV1690000117	15-7	AC		C
0AV1690000118	15-13	AD		C
〃	15-14	AD		C
0AV2011013010	15-94	AA		C
0AV2011023030	15-78	AC		C
0AV2011033010	15-100	AA		C
〃	15-102	AA		C
〃	15-105	AA		C
〃	15-112	AA		C
〃	15-113	AA		C
〃	15-116	AA		C
〃	15-117	AA		C
〃	15-123	AA		C
0AV2011053020	15-77	AA		C
0AV2012223010	15-103	AA		C
〃	15-107	AA		C
〃	15-111	AA		C
〃	15-114	AA		C
〃	15-115	AA		C
0AV2012713010	15-89	AA		C
〃	15-121	AA		C
0AV2012733010	15-91	AA		C
0AV2013303030	15-118	AA		C
0AV2013313010	15-90	AA		C
0AV2013323010	15-97	AA		C
0AV2013333010	15-83	AA		C
0AV2013343010	15-84	AB		C
0AV2013913010	15-82	AA		C
〃	15-95	AA		C
0AV2014703010	15-101	AA		C
0AV2014713010	15-104	AA		C
0AV2014723010	15-88	AA		C
〃	15-96	AA		C
〃	15-106	AA		C
0AV2014733010	15-85	AA		C
〃	15-119	AA		C
〃	15-122	AA		C
0AV2016823010	15-124	AA		C
0AV2016833010	15-120	AA		C
0AV2021223040	15-110	AC		C
0AV2990007000	15-108	AC		C
0AV2990009000	15-98	AC		C
0AV2990039000	15-93	AC		C
0AV2990042000	15-81	AC		C
0AV2990046000	15-109	AC		C
0AV2990092000	15-79	AC		C
0AV2990093000	15-80	AC		C
0AV2990094000	15-86	AC		C
0AV2990095000	15-87	AC		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
0AV2990096000	15-92	AC		C
0AV2990097000	15-99	AC		C
0AV3000933100	15-76	AC		B
0AV3001015500	15-68	AC		B
〃	15-69	AC		B
〃	15-72	AC		B
〃	15-75	AC		B
0AV3021741100	15-67	AC		B
〃	15-71	AC		B
0AV3021815500	15-73	AC		B
〃	15-74	AC		B
0AV3040303000	15-70	AN		B
0AV3043326000	15-66	AL		B
0AV3050086000	15-33	AB		B
〃	15-34	AB		B
〃	15-35	AB		B
〃	15-39	AB		B
〃	15-42	AB		B
〃	15-44	AB		B
〃	15-45	AB		B
〃	15-47	AB		B
〃	15-48	AB		B
〃	15-49	AB		B
0AV3050098000	15-41	AG		B
0AV3050100000	15-37	AG		B
0AV3060046000	15-29	AC		B
〃	15-30	AC		B
〃	15-31	AC		B
〃	15-32	AC		B
0AV3070113000	15-38	AE		B
0AV3070126000	15-40	AC		B
0AV3070133000	15-36	AG		B
0AV3070134000	15-43	AE		B
0AV3070135000	15-46	AC		B
0AV3070136000	15-50	AC		B
0AV3080421100	15-64	AE		B
0AV3090082000	15-57	AD		B
〃	15-58	AD		B
0AV3160036000	15-149	AQ		B
0AV3170001000	15-146	AE		B
0AV3180000005	15-65	AL		B
0AV4000137111	15-147	AR		B
0AV4050028000	15-63	AF		C
0AV4070068000	15-59	AE		C
〃	15-60	AE		C
0AV4080012000	15-62	AM		C
0AV4120015000	15-61	AC		C
0AV5030036000	15-25	AC		C
0AV5030088000	15-26	AD		C
0AV5030089000	15-27	AG		C
0AV5030139000	15-24	AE		C
0AV5040012000	15-145	AM		C
0AV5050005000	15-154	AA		C
0AV5060067000	15-53	AF		A
〃	15-54	AF		A
0AV5060096000	15-51	AF		A
0AV5060097000	15-52	AE		A
〃	15-55	AE		A
0AV5070000016	15-56	AG		A
0AV5080009000	15-144	AP		B
0AV5110001000	15-130	AA		C
〃	15-131	AA		C
〃	15-132	AA		C
〃	15-141	AA		C
0AV5110002000	15-143	AA		C
0AV5110003000	15-133	AA		C
〃	15-137	AA		C
0AV5110004000	15-127	AA		C
〃	15-134	AA		C
〃	15-142	AA		C
0AV5110006000	15-126	AA		C
〃	15-136	AA		C
〃	15-138	AA		C
0AV5110011000	15-128	AB		C
0AV5110012000	15-125	AB		C
〃	15-129	AB		C
〃	15-139	AB		C
0AV5110018000	15-135	AB		C
〃	15-140	AB		C
0AV5140023000	15-148	AE		B

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
0AV5150006000	15-28	AH		C
0AV5190002000	15-150	AF		B
〃	15-151	AF		B
〃	15-152	AF		B
0AV5190025000	15-153	AK		B
0AV6113121011	15-155	AH		C
0AV6114128011	15-156	AF		C
0AV6114128111	15-157	AF		C
0AV6114128211	15-158	AF		C
0AV7414138411	15-159	AD		D
0AV8117730314	15-160	AB		C
0AV8117730414	15-161	AB		C
0KW0993204501	7-12	AC		C
0KW1053481202	10-11	AP		C
0KW1200152102	7-3	AC		C
0KW4109551601	9-9	AC		C
0KW4109552101	9-13	AK		C
0KW4109552702	9-27	AD		C
0KW4109630501	10-2	AN		C
0KW4109670101	9-19	AY		B
0KW4121550101	9-12	BH		C
0KW4122209201	7-11	AC		D
0KW4122234901	7-5	AC		C
0KW4122235013	7-4	AN		C
0KW4122235102	7-6	AF		C
0KW4122552201	9-10	AH		C
0KW4127011301	8-5	AY		E
〃	20-901	AY		E
0KW4127030601	10-4	BV		E
0KW4127031201	10-9	BM		E
0KW4127035501	9-14	BY		E
0KW4127045102	8-27	BG		C
0KW4127048101	8-20	AU		C
0KW4127048301	10-3	BC		E
0KW4127090101	8-21	AT		B
〃	9-2	AT		B
0KW4127107303	7-9	BB		C
0KW4127201201	10-23	AN		C
0KW4127201302	10-1	AC		C
0KW4127202203	10-24	AC		D
0KW4127207101	7-10	AC		C
0KW4127207301	10-25	AF		C
0KW4127231001	10-22	AF		C
0KW4127251001	10-17	AF		C
0KW4127251201	10-20	AS		C
0KW4127257101	10-21	AG		C
0KW4127257501	10-19	AW		C
0KW4127257601	10-18	AS		C
0KW4127300101	8-6	AR		C
0KW4127300201	8-4	AS		C
0KW4127300601	10-7	AC		C
0KW4127300701	8-3	AF		C
0KW4127300802	8-7	AD		C
0KW4127301001	8-9	AD		C
0KW4127301301	8-15	AC		C
0KW4127301401	8-8	AD		C
0KW4127301601	8-13	AC		C
0KW4127301801	10-30	AC		C
0KW4127301902	8-1	AD		C
0KW4127302202	8-14	AD		C
0KW4127302501	8-19	AD		C
0KW4127302601	8-2	AD		C
0KW4127302701	8-18	AC		C
0KW4127302901	8-28	AF		C
0KW4127303901	10-31	AF		C
0KW4127304102	8-25	AC		C
0KW4127304203	8-26	AC		C
0KW4127304801	8-29	AF		C
0KW4127305001	8-30	AG	N	C
0KW4127307101	8-22	AG		C
0KW4127307201	8-24	AH		C
0KW4127317401	8-16	AD		C
0KW4127317501	8-17	AF		C
0KW4127350116	8-12	AT		C
0KW4127410302	10-8	BF		C
0KW4127410401	10-35	AC		C
0KW4127410501	10-39	AC		C
0KW4127410601	10-40	AD		C
0KW4127410701	10-32	AC		C
0KW4127410801	10-42	AC		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
0KW4127411101	10-34	AD		C
0KW4127411301	10-27	AG		C
0KW4127413102	10-26	AD		C
0KW4127413201	10-37	AG		C
0KW4127413302	10-33	AC		C
0KW4127413501	10-36	AC		C
0KW4127413601	10-29	AC		C
0KW4127413701	10-28	AH		C
0KW4127551202	9-17	AL		C
0KW4127551301	9-16	AD		C
0KW4127551602	9-15	AF		C
0KW4127551702	9-21	AC		C
0KW4127551801	9-3	AD		C
0KW4127552401	9-24	AF		C
0KW4127552501	9-31	AH		C
0KW4127552602	9-23	AD		C
0KW4127552802	9-29	AC		C
0KW4127552902	9-32	AD		C
0KW4127553301	9-8	AP		C
0KW4127553402	9-4	AC		C
0KW4127553501	9-22	AC		C
0KW4127553601	9-7	AQ		C
0KW4127555004	9-18	AH		C
0KW4127557101	9-5	AH		C
0KW4127557201	9-6	BD		C
0KW4127559101	9-26	AL		C
0KW4127559201	9-30	AG		C
0KW4127559301	9-20	AN		C
0KW4127610101	7-2	BE		B
0KW4127620701	7-1	BN		E
〃	19-901	BN		E
0KW4127630101	9-11	AY		B
0KW4127630201	10-6	AN		C
0KW4127650202	9-1	BC		B
0KW4127675201	10-16	AC		C
0KW4127680101	9-25	AG		C
0KW4127680501	8-10	AG		C
0KW4127681401	8-23	AF		C
0KW4127681904	10-41	AV		C
0KW4127682101	10-10	AP		C
0KW4571053601	7-7	CB		E
0KW9314210012	10-5	BP		B
0KW9321200032	8-11	AU		B
0KW9384100051	10-12	AC		C
0KW9384110091	10-13	AC		C
0KW9384160011	10-14	AC		C
0KW9384201021	10-15	AD		C
0KW9454407602	9-28	AG		C
〃	10-38	AG		C
0KW9646030613	7-B1	AB		C
〃	9-B1	AB		C
0KW9735030613	7-B2	AB		C
〃	10-B1	AB		C
0KW9735030813	7-B3	AC		C
〃	9-B2	AC		C
0KW9735030814	7-B4	AU		C
0KW9739030813	8-B1	AB		C
〃	9-B3	AB		C
〃	10-B2	AB		C
0KW9742030613	7-B5	AP		C
0KW9742031013	9-B4	AB		C

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK

SHARP

SHARP CORPORATION
Communication Systems Group
Quality & Reliability Control Center
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