

CLC10

SERVICE MANUAL (for 220/240V)

REVISION 1 OCT. 1992

Canon
FY8-13BW-010

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I. FEATURES

1. Canon's bubble jet (BJ) technology assures generation of highly precise, quality images.

A full color document is copied at 400 dpi, thanks to digital technology. In addition, such a document may contain fine lines/characters or may be a silver halide photo, and the copy will be a faithful reproduction with the original hues and contrast.

The provision of a black BJ head to the conventional cyan, magenta, and yellow heads enables reproduction of black that is comparable to black reproduced by black-and-white copiers.

2. The integrated BJ heads in the ink cartridge guarantees high reliability.

The BJ heads and the ink cartridge are constructed as a single entity, guaranteeing high functional reliability. Specifically, the user can expect stable copy quality by simple replacement of the BJ cartridge and minimal cleaning.

3. The body has a compact, light design.

The body is designed so that it may be placed on the user's desk and used as a personal copier.

4. A full range of options enables addition of various features.

The CLC10 is designed to accommodate the Film Projector and the Video Adaptor for copying from 35mm film or video equipment; it may also be connected to the IPU for computer-based operations and to the Editor Unit for image editing.

5. The digital mechanisms enable full color manipulation.

Full color documents are processed using digital signals, enabling manipulation of color images.

Color editing	Auto/Zoom	Image	Shift	Area specification	Editing/Others
Color conversion*	50% to 200% zoom	Color balance specification*	Specified shift*	Framing* Blanking*	Enlarge/Page separation*
Color mode*	Vertical/Horizontal independent zoom	Sharpness specification*	Binding*		Full image mode
Negative/Positive conversion*	Mode memory*	Photo mode			Call mode*
Paint*		Gradation*			Color memory* Image repeat*

*Needs the Editor Unit (option).

6. Various features are at hand by semi-automatic operation.

All the user need to do is place a document and press the COPY START key to obtain faithful reproductions of originals; the machine automatically adjusts subtle differences of tone.

II. SPECIFICATIONS

A. Type

Body	Desktop
Copyboard	Fixed
Light source	Halogen lamp (20 W)
Lens	Lens array
Image reader	Photo sensor (BASIS)
Scanner unit image output	1 bit
External interface	RGB (8 bits each)

B. System

Reproduction	Bubble ink jet (BJ)
Head nozzle	128 nozzles/row (each head)
Recording density	400 dots/inch (15.75 dots/mm)
Image density adjustment	Manual
Ink supply unit	None. (by BJ replacement)
Ink	Water soluble; cyan, magenta, yellow, black)
Paper supply	Cassette (single); Manual
BJ head	Integrated head and ink tank cartridge (disposable); 4 heads
BJ head cleaning	Automatic (at power-on; before, during, and after copying); Semi-automatic (in response to press on CLEAN key)
Waste ink collection	Tank (absorbent at bottom of body)

C. Performance

Document type		Sheet, Book, 3-D object (2 kg)
Document size		A4 (LTR) max.
Copy size		A4 (LTR) to A6 (STMT)
Reproduction ratio	DIRECT	1:1 ($\pm 0.5\%$)
	ZOOM	1:0.500 to 2.00 (in 1.0% increments)
Main scanning direction		400 dpi
Sub scanning direction		400 dpi
Continuous copying		19 copies max.
Wait time		10 sec or less* (20°C)
First copy		90 sec (approx.; A4)
Copying speed		95 sec (approx.; A4 in DIRECT)
Copy paper type		Special coated paper, Special OHP film, Special postcard, Special label sheets
Two-sided copying		Not available.
Overlay copying		Not available.
Cassette		20 mm deep (about 90 sheets of special coated paper; w/ claw)
Pick-up		90 sheets from cassette, 1 sheet from manual tray
Copy tray		19 sheets**
Non-image width (DIRECT)	Leading edge	5 mm (coated paper); 16 mm (approx.; OHP film)
	Left/Right	5 mm (coated paper); 8.5 mm (approx.; OHP film)
	Trailing edge	5 mm (approx.; coated paper, varies with size); 18 mm (approx.; OHP film, A4/LTR)
Option		Film Projector, Editor Unit, Video Adaptor, IPU

* About 40 sec (max.) if immediately after replacing the ink cartridge or the ink cartridge has been left unused for 3 days or more.

** Or less, depending on the type of paper used.

D. Others

Operating conditions	Temperature	15° to 30°C
	Humidity	5% to 80%
	Atmospheric pressure	0.6 to 1 atm
Power supply (±10%)		Serial number
	220V/240V 50Hz	PJBxxxxx
		QJCxxxxx
		RJDxxxxx
		SJExxxxx
		TJFxxxxx
		UJGxxxxx
		PJRxxxxx
PJSxxxxx		
Power consumption	0.12 kw or less	
Power consumption (reference only)	Standby	12 wh
	Copying	68 wh
Noise (1 m from machine; scanner and printer, by ISO)	During exposure	50 dB or less
	Standby	40 dB or less
Dimensions	Width	540 mm
	Depth	476 mm
	Height	217 mm
Weight		19.5 kg (approx.)

Specifications subject to change without notice.

III. NAMES OF PARTS

A. Exterior View

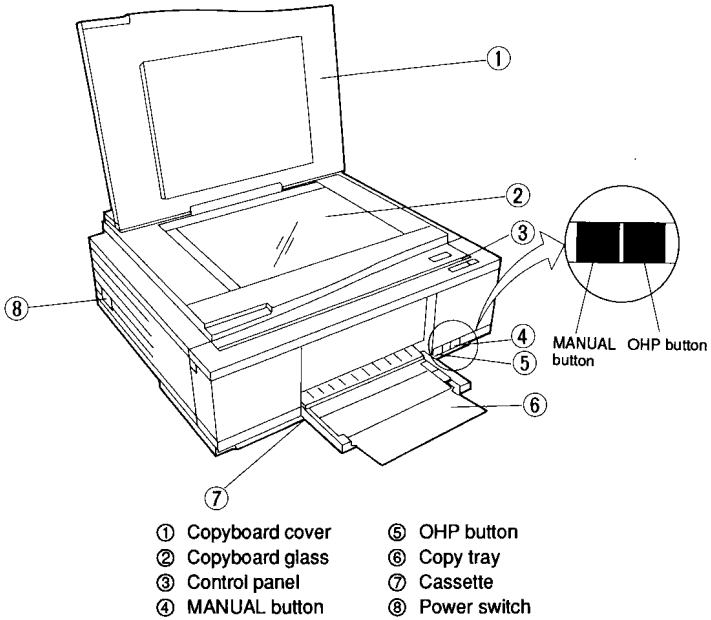


Figure 1-1

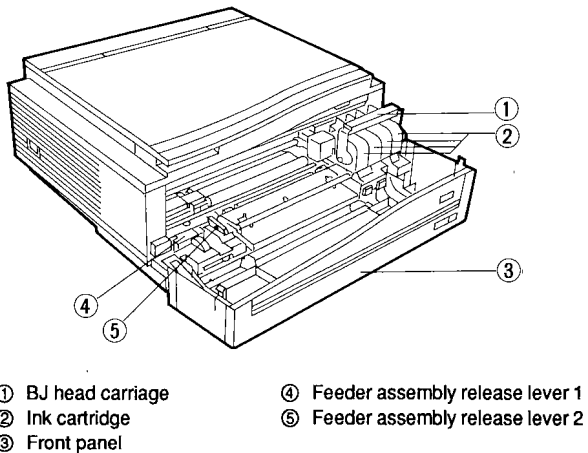
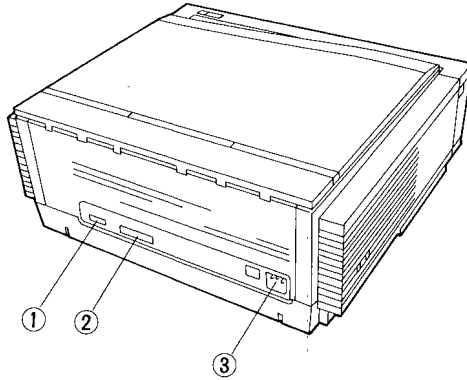


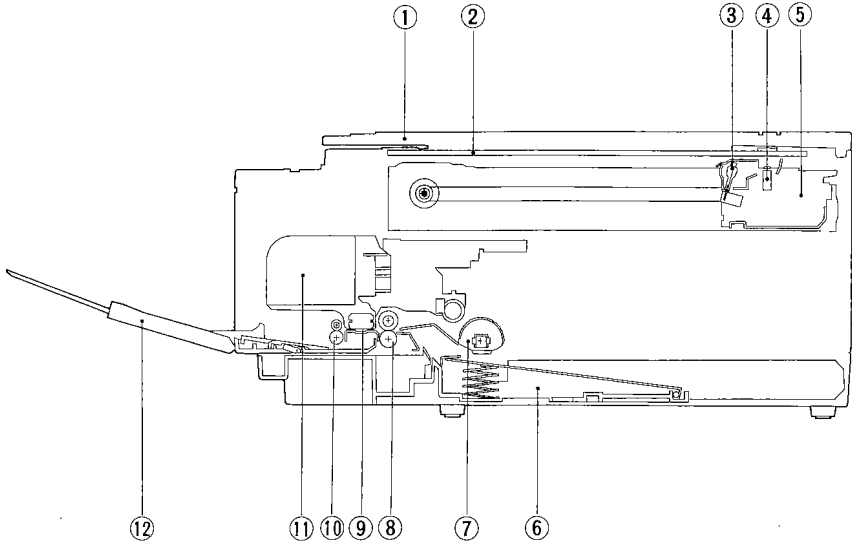
Figure 1-2



- ① Film projector (option) connector
- ② Multiple interface connector
- ③ Power cable connector

Figure 1-3 (rear view)

B. Cross Section



- | | |
|----------------------|-------------------|
| ① Copyboard cover | ⑦ Pick-up roller |
| ② Copyboard glass | ⑧ Feeder roller |
| ③ Scanning lamp | ⑨ Platen assembly |
| ④ Lens array | ⑩ Delivery roller |
| ⑤ Main scanning unit | ⑪ Ink cartridge |
| ⑥ Cassette | ⑫ Copy tray |

Figure 1-4

C. Movement of Scanning System

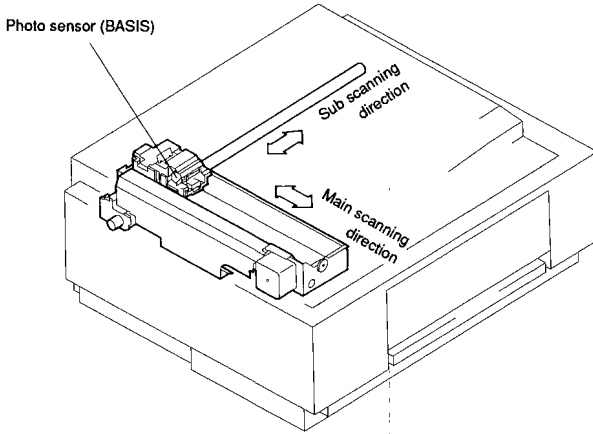


Figure 1-5

D. Movement of Image Formation System

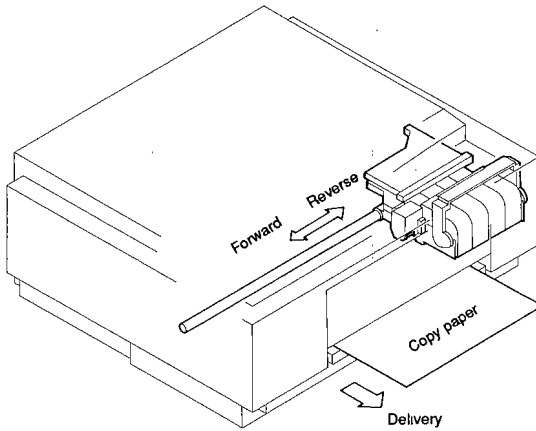


Figure 1-6

IV. OPERATION

A. Control Panel

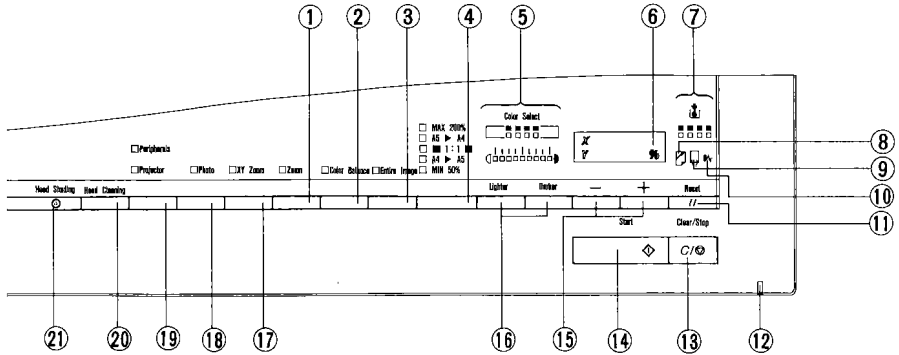


Figure 1-7

- ① ZOOM key
- ② COLOR BALANCE key
- ③ FULL IMAGE key
- ④ FIXED RATIO key
- ⑤ COLOR SELECT lamp
- ⑥ Copy count/Ratio indicator
- ⑦ REPLACE CARTRIDGE indicator
- ⑧ OHP indicator
- ⑨ MANUAL indicator
- ⑩ JAM indicator
- ⑪ RESET key
- ⑫ Pilot lamp
- ⑬ CLEAR/STOP key
- ⑭ START key
- ⑮ Copy count/Ratio key
- ⑯ DENSITY key
- ⑰ INDEPENDENT ZOOM key

- ⑱ PHOTO key
- ⑲ EXTERNAL/PROJECTOR SELECT key
- ⑳ CLEAN key
- ㉑ HEAD SHADE key

Note:

■ Head Shading

Although rare, variations in the amount of ink ejected by the BJ head can cause color displacement. The head shading mechanism is used to re-adjust the amount of ink to be ejected from the BJ head, thereby correcting the problem.

B. Making Copies

- 1) Switch the copier ON.
 - The pilot lamp glows orange and changes to green when the warm-up period is over.
 - Normally, the wait time is about 30 sec or less at 20°C.
- 2) Lift the copyboard cover, and place a document against the size index on the copyboard glass.

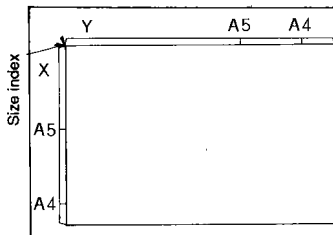


Figure 1-8

- 3) Check that copy paper is in the cassette.
- 4) Check that the copy tray is open.
- 5) Press the RATIO key or the ZOOM key as desired.
 - A press on the ZOOM key causes the copy count display to indicate '100%'; about 3 sec later, it indicates the copy count once again.
- 6) Press the DENSITY key and set the density if manual adjustment is desired.
- 7) Enter the copy count (1 to 19) using the COPY COUNT/RATIO SET key, and check the input on the copy count/ratio display.
 - To correct an error, press the CLEAR/STOP key, and enter the count once again.
- 8) Press the COPY START key.
 - The pilot lamp glows orange during copy operation; it changes to green after the operation.
 - The copy count, ratio, and density cannot be changed between the first and last copies.
 - To stop the operation during continuous copying, press the CLEAR/STOP key; the operation will stop after completing the on-going cycle.

Note:

Do not touch the copyboard glass or the copyboard cover while copies are being made; otherwise, the lens will be out of focus, adversely affecting copy images.

C. Making Copies Manually

- 1) Press the MANUAL button.
 - The MANUAL indicator on the control panel goes ON.
 - The manual mode is cleared automatically after copy paper has been picked up. To make multiple copies, press the MANUAL button for each copy.
- 2) Lift the copyboard cover, and place a document against the size index on the copyboard glass.
- 3) Set the desired reproduction ratio and density; see "Making Copies."
- 4) Slide the manual feed guide (left) attached to the copy tray to suit the paper size.
- 5) Insert copy paper face up along the manual guide; the paper will be pulled into the machine, and copying operation will start.
 - To cancel the manual mode after pressing the MANUAL button, press the COPY START key to switch to the cassette.

Note:

The face side of copy paper refers to the whiter of the two sides.

Note:

Advise the user not to try two-sided or overlay copying to avoid soiling the inside of the machine.

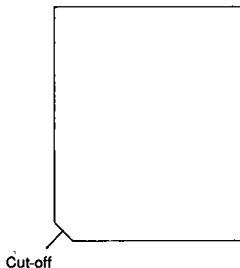
D. Making Copies on OHP Film

- 1) Press the OHP button.
 - The OHP mode remains ON until the OHP button is pressed once again; be sure to press it again after making copies.
- 2) Press the MANUAL button; see "Making Copies Manually."
- 3) Lift the copyboard cover, and place a document against the size index on the copyboard glass.
- 4) Set the desired copy ratio and density; see "Making Copies."
- 5) Slide the manual feed guide (left) attached to the copy tray to suit the size of the OHP film.
- 6) Insert the OHP film along the manual feed guide; the film will be pulled into the machine, and copying operation will start.
- 7) Leave the film alone to dry for about two to three minutes after it has been delivered; do not touch the film until it is dry.
 - To make multiple copies, remove the finished film from the copy tray, and press the MANUAL button.

Note:

Identifying the Face and Back of Special OHP Film

Place the film in portrait orientation. Its face side is up when the cut-off is at the lower left corner. Make sure the images will always be on the face side.



E. Photo Mode

When copying photos or half-tone documents and when copying with priority to hues, use the photo mode.

- 1) A press on the PHOTO mode key causes the PHOTO indicator to go ON.
 - To cancel the photo mode, press the PHOTO key once again.

F. Independent Zoom Mechanism

The reproduction ratio may be set separately for the main and sub scanning directions in relation to documents.

The main scanning direction and the sub scanning direction correspond to 'X' and 'Y', respectively, on the copy count/ratio display.

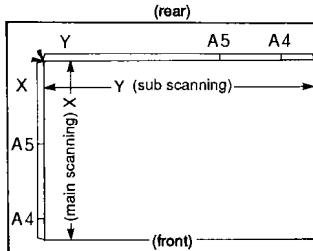


Figure 1-9

Note:

The selected reproduction ratio is indicated for about three seconds on the copy count/ratio display.

If the display has returned to the count, press the INDEPENDENT ZOOM key once again, before re-entering the ratio.

- 1) Press the INDEPENDENT ZOOM key.
 - The INDEPENDENT ZOOM indicator goes ON, and the copy count/ratio display indicates 'X100%'.
- 2) Set the ratio in the x direction using the SET (+,-) key.
- 3) Press the INDEPENDENT RATIO key once again.
 - The INDEPENDENT ZOOM indicator goes ON, and the display indicates 'Y100%'.
- 4) Set the ratio in the y direction using the SET (+,-) key.

G. Full Image Mode

When a document with images or text fully across its edges is copied in DIRECT, a non-image width (about 5 mm) is created along the sides of the copies.

In the full image mode, the document is automatically reduced so that all the entire image fits the copy paper being used. For an idea of how this is executed in relation to each paper size, see Table 1-1.

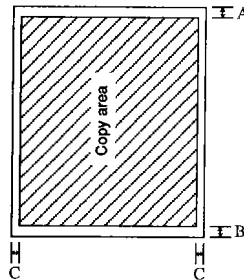


Figure 1-10

Paper size	Paper dimensions (mm)	A (mm)	B (mm)	C (mm)
A4	210 x 297	5	7.8	5
A5	148 x 210	5	4.9	5
A6	105 x 148	5	5.0	5
B5	182 x 257	5	4.8	5
LTR	216 x 279	5	5.8	5
MINI	140 x 216	5	7.9	5
A4 (OHP)	210 x 297	16	18	8.5
LTR (OHP)	216 x 279	16	18	8.5

Table 1-1

- 1) Press the FULL IMAGE key.
 - The FULL IMAGE indicator on the control panel goes ON.
 - The FULL IMAGE key is effective only when one of the default ratios is selected; it is disabled in the zoom mode.
 - To cancel the full image mode, press the FULL IMAGE key once again.

H. Adjusting the Color Balance

Copies has good color balance when the densities of all four colors (yellow, magenta, cyan, black) are properly adjusted.

- 1) Press the COLOR BALANCE key.
 - The blinker under *black* starts to flash.
 - If the density for the black ink is set to default, the blinkers go ON from the left end to the center.

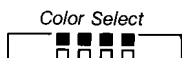
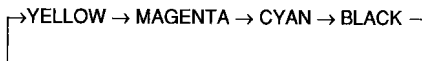


Figure 1-11

- A press on the COLOR BALANCE key moves (toggles) the blinkers as follows:



- 2) Press the DENSITY key, and adjust the density of the ink.
 - To adjust the density of two or more colors, repeat steps 1) and 2) for each color.
 - Press the RESET key or switch the copier OFF and then ON to clear the new densities.

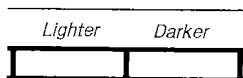


Figure 1-12

V. WARNINGS AND ACTIONS TO TAKE

A. JAM Indicator

The JAM indicator on the right end of the control panel goes ON when a jam occurs.

- 1) Open the front panel.
- 2) Move the BJ head carriage fully to the right.
- 3) Shift feeder assembly release lever 1 to the right and to the front as shown in Figure 1-13; then, shift release lever 2 to the front.

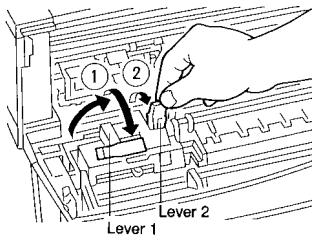


Figure 1-13

- 4) Remove the jam.
- 5) Shift feeder assembly release levers 1 and 2 to their original positions.
- 6) Close the front panel.

B. ADD PAPER Indicator

The ADD PAPER indicator goes ON when the cassette runs out of paper during copying operation.

C. Replacing the Ink Cartridge

When any of the four inks inside the ink cartridge runs out, the REPLACE CARTRIDGE indicator for the respective ink goes ON. Replace the ink cartridge as follows:

- 1) Open the front panel.
- 2) Check that the BJ head carriage is fully to the right, and shift the lever to the front.

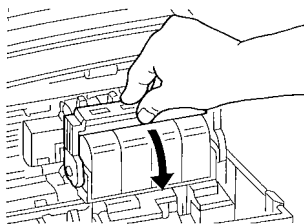


Figure 1-14

- 3) Take out the ink cartridge from its aluminum package and then from the protection cover (transparent).
- 4) Hold the cartridge as shown in Figure 1-15, and remove the protection tab (orange plastic) from the head unit.
 - Take care not to touch the connector or the head unit at the time.

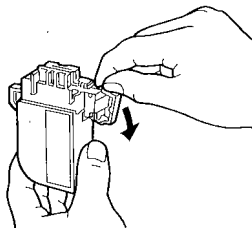


Figure 1-15

- 5) Peel the protection film from the head unit.

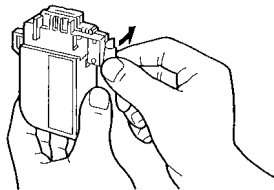


Figure 1-16

- 6) Pick the top end of the existing ink cartridge, and lift it to detach.

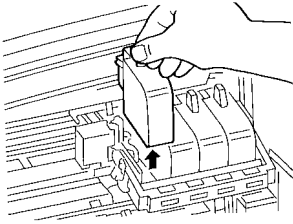


Figure 1-17

- 7) Set the new ink cartridge.
- Make sure that the boss on the carriage rail is fitted to the groove in the cartridge.

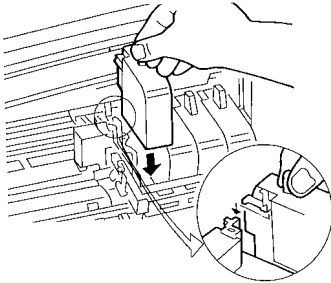


Figure 1-18

- 8) Shift the lever on the BJ head carriage to return it to its original position.
- 9) Close the front cover.

Note:

- Advise the user that the four ink cartridges must be set as indicated on the lever.

VI. MAINTENANCE BY THE USER

A. Maintaining the Image Quality

The copier is equipped with head cleaning and head shading mechanisms to ensure stable image quality.

Note:

Advise the user not to press the HEAD CLEAN or SHADE key more than necessary; such will lead to wasted ink.

1. Head Cleaning

In a BJ copier, collection of air bubbles in the nozzles at the tip of the BJ head or dried ink on the edge of the head can cause white or black lines on the copies.



Figure 1-19

If images as shown in Figure 1-19 are noted, clean the head as follows:

- 1) Press the HEAD CLEAN key on the control panel.
- 2) Check that head cleaning has started.
 - During cleaning operation, the pilot lamp glows orange, and all keys on the control panel are disabled.

Note:

The CLC10 performs head cleaning at time of power-on and upon completion of copying operation as necessary.

2. Head Shading

Although rare, discrepancies in the adjustment of the amount of ink ejected by the BJ head can cause color displacement on the copies; such displacement shows in the form of bands.

Vibration occurring while the cartridge travels, commonly noted after replacement of the cartridge, can also lead to color displacement.

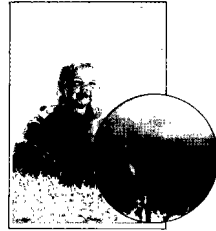


Figure 1-20

If the above is noted, perform head shading as follows:

- 1) Set A4 or B5 coated paper in the cassette; then, press the HEAD SHADE key on the control panel using a pointed object.
 - A press on the HEAD SHADE key clears all previous settings for the external equipment/projector.
 - The copyboard may be left without a document.
- 2) Check that copying starts and, in about 40 sec, a test pattern for shading is generated.
 - During the generation of the test pattern, the pilot lamp glows orange; it changes to green and flashes after output.

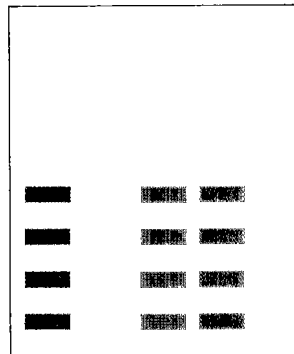


Figure 1-21

- 3) Lift the copyboard cover, and place the generated test pattern on the copyboard face down. Make sure that the *black area* on the pattern is set against the size index on the copyboard glass (vertically).

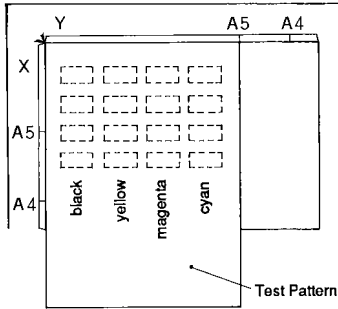


Figure 1-22

- 4) Close the copyboard cover, and press the HEAD SHADE key once again.
- If the generated test pattern is not set correctly, the copy count/ratio display indicates 'C096'.
 - During head shading operation, all keys except the REST key are disabled.
- 5) Check that head shading starts and the test pattern is read (about 30 sec).
- The pilot lamp changes from orange to green when head shading operation is over.

B. Cleaning

1. Periodical Cleaning

Advise the user to clean the following parts once a week.

a. Copyboard Glass

Wipe it using a soft cloth moistened with water or commercially available glass cleaner; then, dry wipe it.

b. Copyboard Cover

Wipe it using a soft cloth lightly moistened with water; then, dry wipe it.

2. When Copies are Soiled with Ink

When non-recommended paper is used or paper already carries images, the inside of the machine tends to become soiled with ink. Advise the user to clean the inside of the machine as soon as such a problem is identified.

a. Delivery Roller/Paper Holding Plate (front)

- 1) Press the COPY START key without a document on the copyboard.
 - This operation is intended to wipe off the ink adhering to the delivery roller; for this reason, it is important to make sure that special paper (A4) is set in the cassette.
- 2) Open the front panel.
- 3) Shift feeder assembly release lever 1; the paper holding plate (front) will turn over.

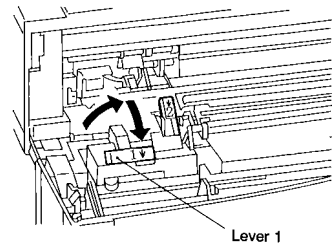


Figure 1-23

- 4) Wipe the paper holding plate (metal face) using a cloth lightly moistened with water. Take care not to deform the paper holding plate; further, wipe the pick-up guide also if necessary.

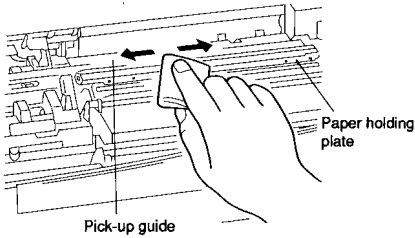


Figure 1-24

- 5) Shift feeder assembly release lever 2.

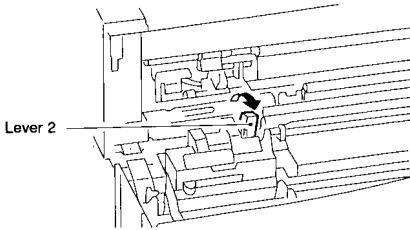


Figure 1-25

- 6) Wipe the delivery roller using a cloth lightly moistened with water; further, wipe the roller under the delivery roller if necessary.

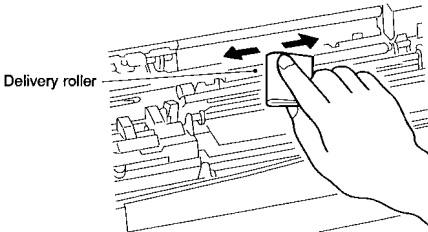


Figure 1-26

- 7) Wait until the roller has become completely dry; then, shift feeder assembly release levers 2 and 1 back to their original positions.

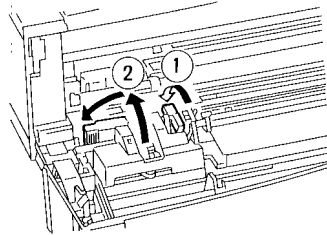


Figure 1-27

- 8) Close the front panel.
9) Repeat step 1); if the paper is soiled, repeat steps 2) through 9).

VII. POINTS TO NOTE

Advise the user to take note of the following:

A. Ink Cartridge

- Do not touch the BJ head unit.

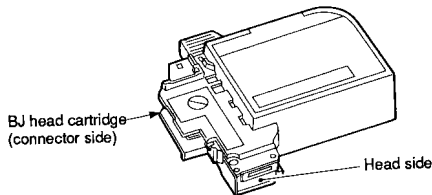


Figure 1-28

- Hold the ink cartridge as shown in Figure 1-29.
- Do not take out the ink cartridge until immediately before replacement.

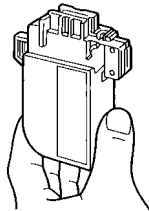


Figure 1-29

- Do not store used cartridges for later use.

B. Special Copy Paper

- Use copy paper exclusively produced for the copier.
- Keep the copy paper in a cool place away from direct rays of the sun; avoid high temperature/humidity; the optimum environment is 18° to 24°C in temperature and 40% to 60% in humidity.
- Store copy paper in its aluminum bag to avoid humidity.
- Identify the sides of paper when making copies; the whiter of the two sides is the face.

C. Special OHP Film

- Use OHP film exclusively produced for the copier.
- Keep the OHP film in a cool place away from direct rays of the sun; avoid high temperature/humidity.
- Store OHP film in its aluminum bag to avoid humidity.
- Do not touch the film or stack the films in contact with each other even after they have dried; place a sheet of regular copy paper between films when stacking them or keeping them in a film holder.
- Do not use overlay copying.
- Do not use creased or curling film.
- To identify the face of the film, place the film in portrait orientation. Its face side is up when the cut-off is at the lower left corner. Make sure the images will always be on the face side.

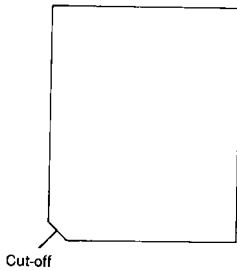


Figure 1-30

I. IMAGE FORMATION

A. Outline

The copier is a color copier that generates copies using bubble jet (BJ) heads. See Figure 2-1 for its basic construction.

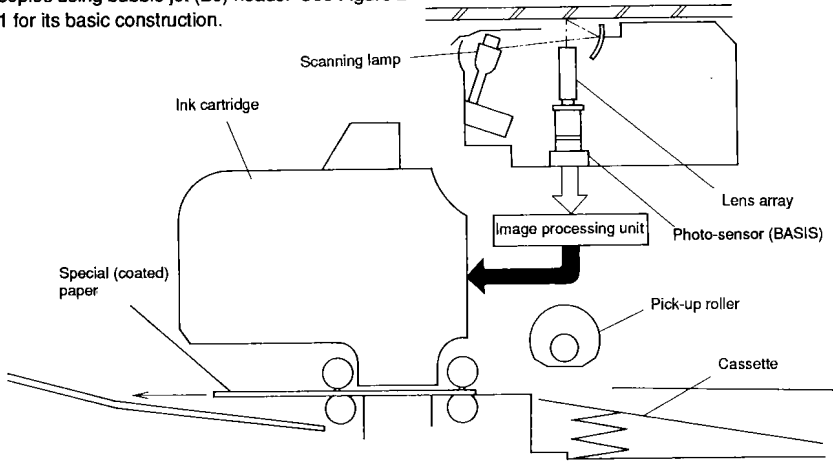


Figure 2-1 Cross Section

The CLC10's image formation process may be divided into the following steps:

- Step 1 Head cleaning (1)
- Step 2 Image exposure
- Step 3 Image processing
- Step 4 Image formation
- Step 5 Head cleaning (2)

In addition to the above five steps, head cleaning (3) is executed as an auxiliary process.

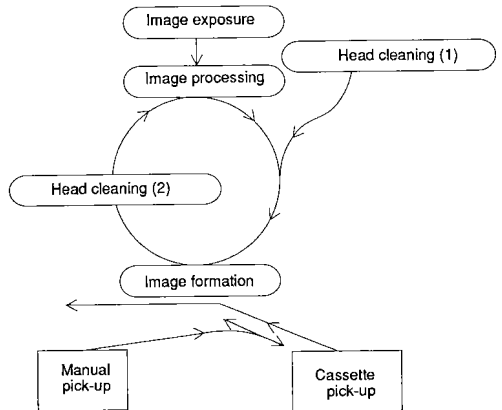


Figure 2-2

B. Head Cleaning (①; Step 1)

The BJ head is cleaned when the copier is switched ON to discharge build-up of ink around the outlets of the head nozzles.

The following operations are executed for head cleaning (1).

1. Idle Ejection

The build-up of ink around the outlets of the head nozzles is ejected to the head cap.

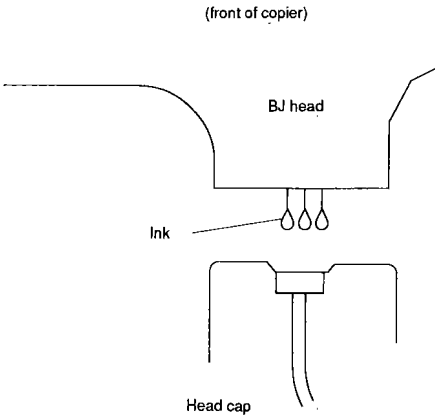


Figure 2-3 Idle Ejection

2. Head Wiping

The ink on the head nozzles is removed by a cleaning blade.

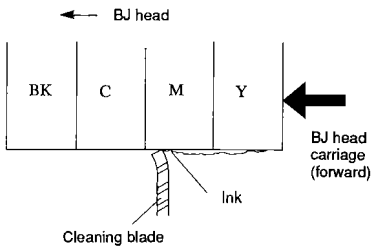


Figure 2-4 Head Wiping

3. Suction

The ink inside the head nozzles is drawn off using a pump.

The ink collected by idle ejection is stored inside the waste ink tank.

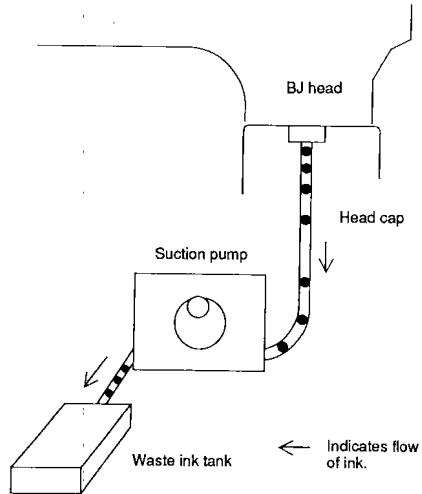


Figure 2-5 Suction

C. Image Exposure (Step 2)

The optical image of the document reaches the photo sensor (BASIS) through the lens array.

The photo sensor generates video signals representing the optical image.

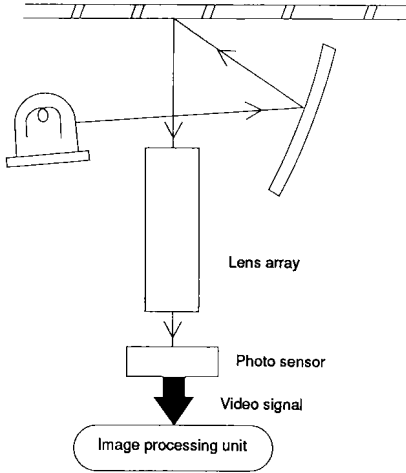


Figure 2-6

D. Image Processing (Step 3)

The video signals generated by the photo sensor are processed on the amplifier PCB and the image processor PCB and then sent to the DC controller PCB. The DC controller PCB converts the video signals to BJ head drive signals and sends them to the BJ head.

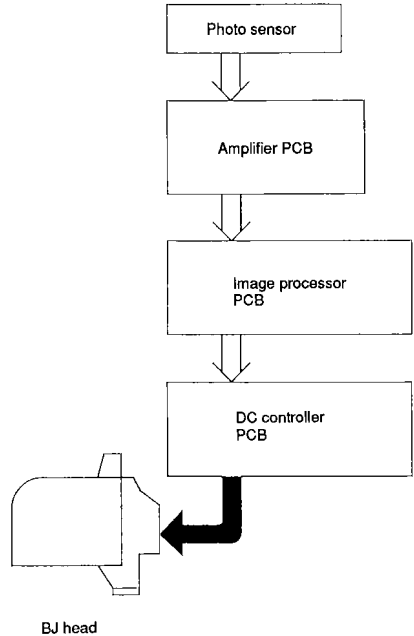


Figure 2-7

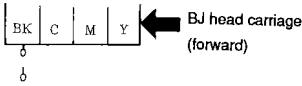
E. Image Formation (Step 4)

Each of the black, cyan, magenta, and yellow heads ejects ink to the paper in response to the drive signals sent from the DC controller PCB.

The inks representing different colors become mixed on the paper; a color image is formed when the inks have been absorbed into the fibers of the paper and dried.

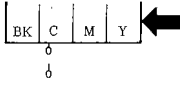
(1) Black

BJ head

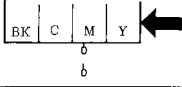


(2) Cyan

Special coated paper or Special OHP film



(3) Magenta



(4) Yellow

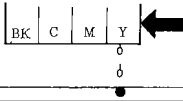


Figure 2-8

F. Head Cleaning (②; Step 5)

All BJ heads execute idle ejection before each forward scanning operation to remove ink that may have dried on the nozzles because of exposure to air.

When the forward scanning operation is over and a single copy is made, head wiping is executed to remove the ink from the heads.

G. Head Cleaning (③; Auxiliary Process)

When the CLEAN key on the control panel is pressed, suction, idle ejection, and head wiping are executed in the order named to remove air bubbles or clogging in the head nozzles.

This is an additional head cleaning operation initiated by the user to correct problems typically noted as white lines on copies; for better results, head cleaning (3) uses larger amounts of ink compared with other head cleaning operations.

II. BJ HEAD

A. Construction

The copier's BJ head consists of 128 minuscule nozzles arranged over a length of 8 mm (main scanning width).

Each BJ head is equipped with a nozzle heater used to eject ink in response to the drive signal from the DC controller PCB.

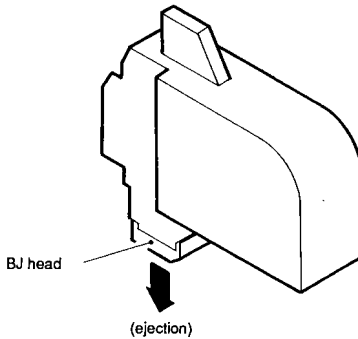


Figure 2-9 BJ Ink Cartridge

B. Principles of Ejection

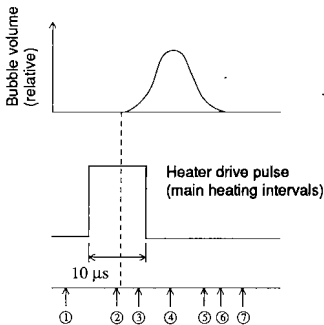
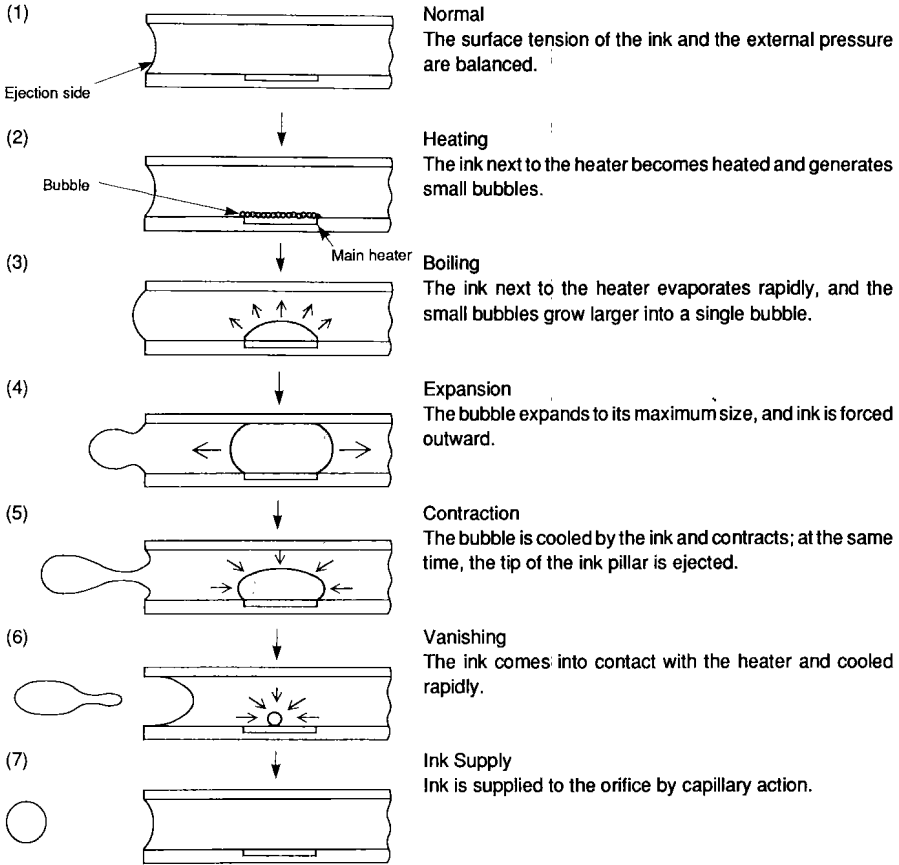


Figure 2-10

III. POINTS TO KEEP IN MIND

A. Outline

As may have been noted previously, the copier uses various processes that are not found in conventional copiers to realize better gradation and color reproduction.

However, because of some characteristics unique to bubble jet technology, the copies produced by the copier should not be considered to equal output produced using high-end printing systems. If necessary, it is important to advise the user that the copies will not be exact duplicates of their originals in terms of quality.

B. Characteristics Unique to Bubble Jet Technology

It would be ideal if the three inks, each representing yellow, magenta, and cyan, absorbed 100 percent of the spectrum of its respective complementary color and reflected all other spectra; the current inks, however, cannot realize such an ideal.

1. Reproduction of Gradations by Bubble Jet Technology

As shown in Figure 2-11, exact reproduction of the document density is not possible because of the nature of inks and processes used.

In addition, details that are represented by dots smaller than the size of the drops of ink cannot be produced with perfect precision.

2. Coated Paper

The paper used for the copier is a special paper prepared by coating paper with special chemicals. Common paper will not allow the inks to spread and dry as desired.

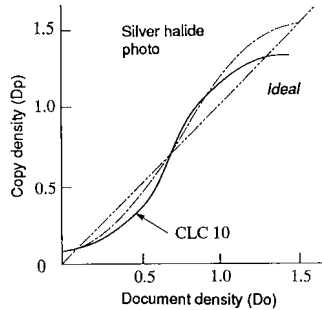


Figure 2-11

Items discussed in 1, 2, and 3 above have been dealt with by processing images in the reader unit. Although the results are good enough to satisfy most of the user's needs, the copies may not be as good as silver halide photos.

3. Deterioration of Ink

The inks used by the copier are affected by the environment, and they also change over time.

I. BASIC OPERATION

A. Functional Construction

The copier can be divided into the reader unit and the printer unit; and, in terms of its functions, it may be divided into the five blocks shown in Figure 3-1, i.e., control system, exposure system, image processing system, image formation system, and pick-up/feeder system.

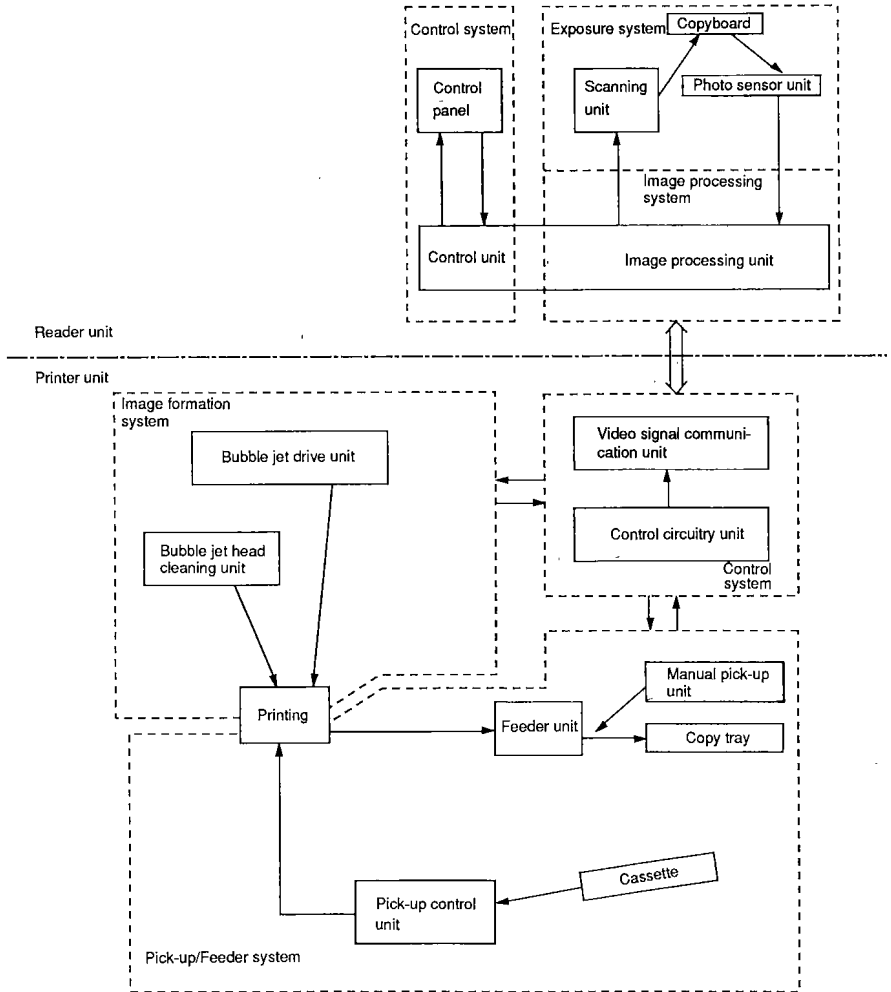


Figure 3-1

When making copies, the copier synchronizes the reading operation of the reader unit and the printing operation of the printer unit; in other words, both units operate simultaneously.

The reader unit reads the document image in bands, each band being equal to the width of the BJ head (about 8 mm); the image is read in digital and sent to the printer unit after processing.

The printer unit prints the image sent by the reader unit on copy paper picked up from the cassette (front loading) or from the manual feed slot.

After copying an equivalent of a single band, the paper is forwarded about 8 mm, and the printer unit waits for the next band. As large as an A4 copy may be made by repeating these operations for each band, covering the entire A4 document.

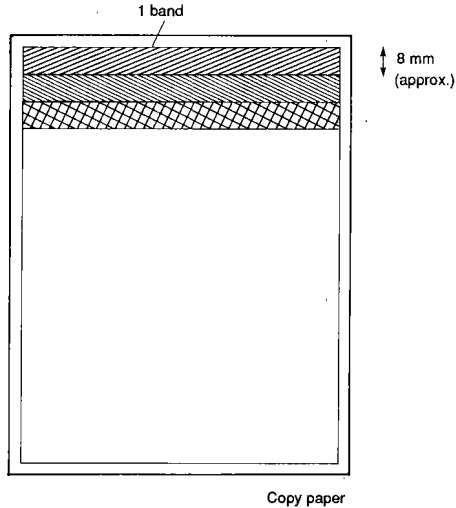


Figure 3-2

B. Electrical Circuitry

The copier's major mechanisms are controlled by the two microprocessors on the image processor PCB and the microprocessor on the DC controller PCB; see below for the functions of each.

■ Image Processor PCB

- ① Q104
 - controls the reader unit motor
- ② Q109
 - controls the control panel
 - controls the projector
 - controls communication with external equipment

■ DC Controller PCB

- ③ Q301
 - controls the printer unit motor

Figure 3-3 is a block diagram showing the relationship among the copier's major circuits.

The copier's sequence program is stored in the ROM on the image processor PCB and the DC controller PCB.

The image data read by the reader unit is sent to the image processor PCB and processed by the image processing unit; thereafter, the data is sent to the DC controller PCB and then to the BJ head through a relay PCB.

Some of the RAMs on the image processor PCB and the DC controller PCB are backed up by a lithium battery.

The copier is provided with a total of ten sensors; two in the reader unit and eight in the printer unit. Further, the reader and printer units are equipped with two motors each.

The signals related to the control panel are dynamic signals, and the panel is connected to the image processor PCB.

The power supply consists of eight channels of +36V, +24V, and +5V; in addition to the image processor PCB, power is supplied to the BJ head and the BASIS PCB as well.

The copier is connected to such external options as the Editor Unit and IPU using a special multiple interface.

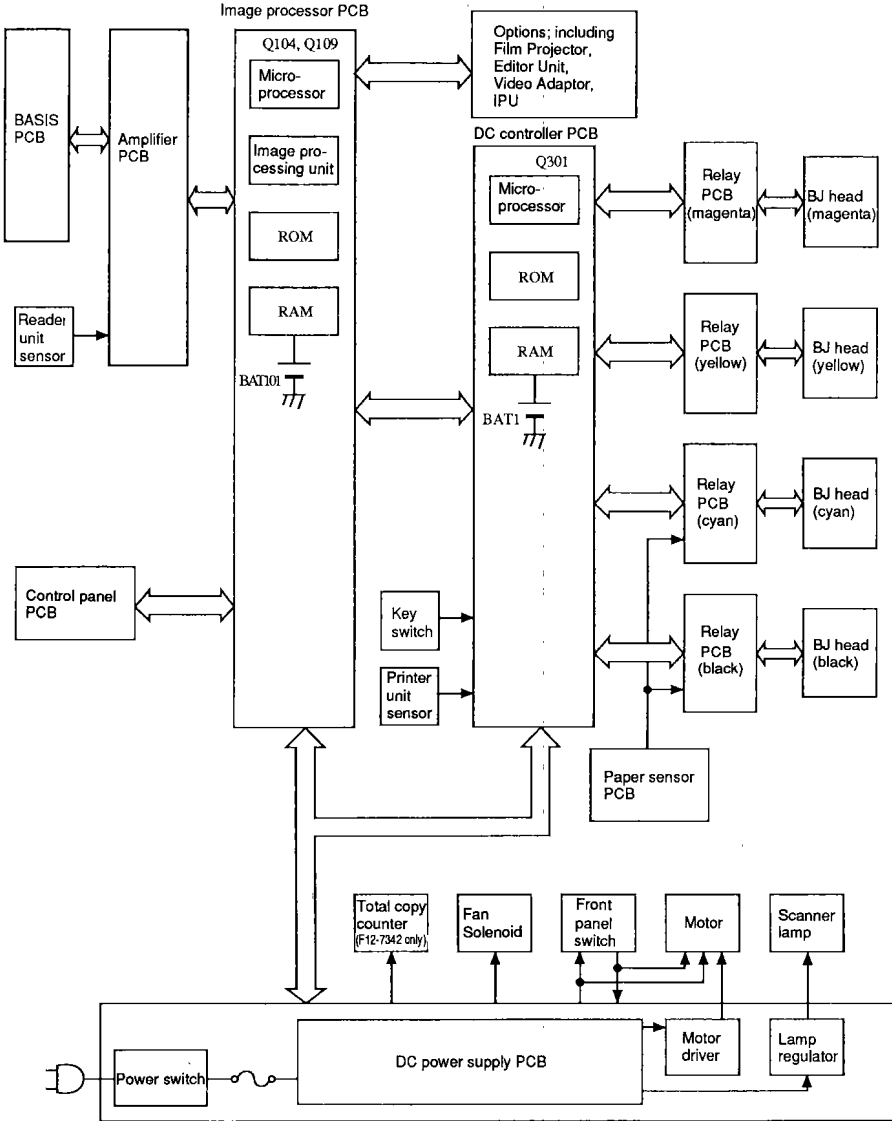


Figure 3-3

C. Inputs to and Outputs from Image Processor PCB

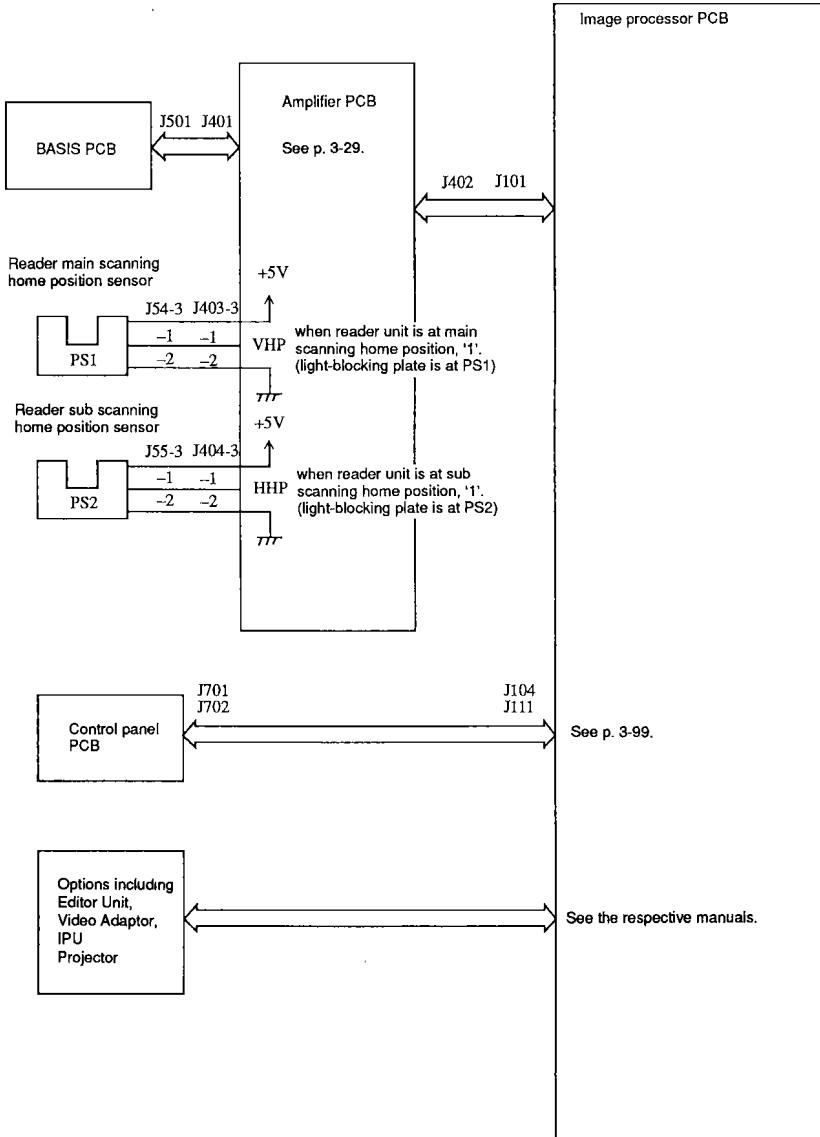


Figure 3-4

D. Inputs to and Outputs from DC Controller PCB (1/2)

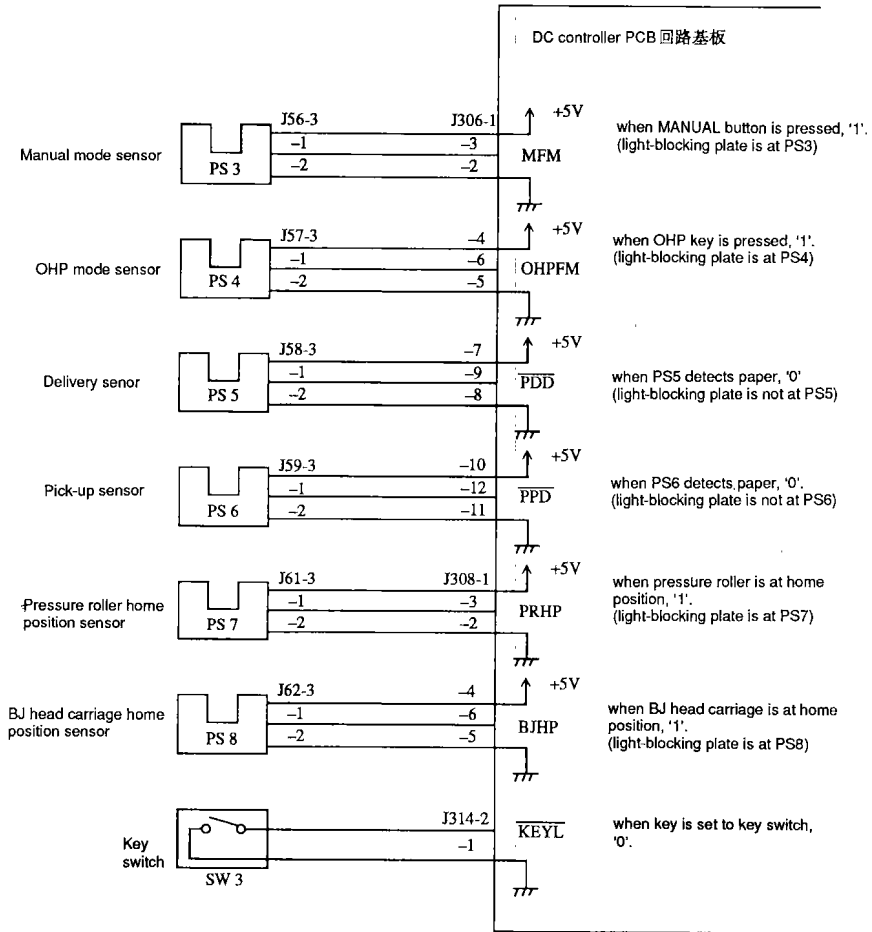


Figure 3-5

Inputs to and Outputs from DC Controller PCB (2/2)

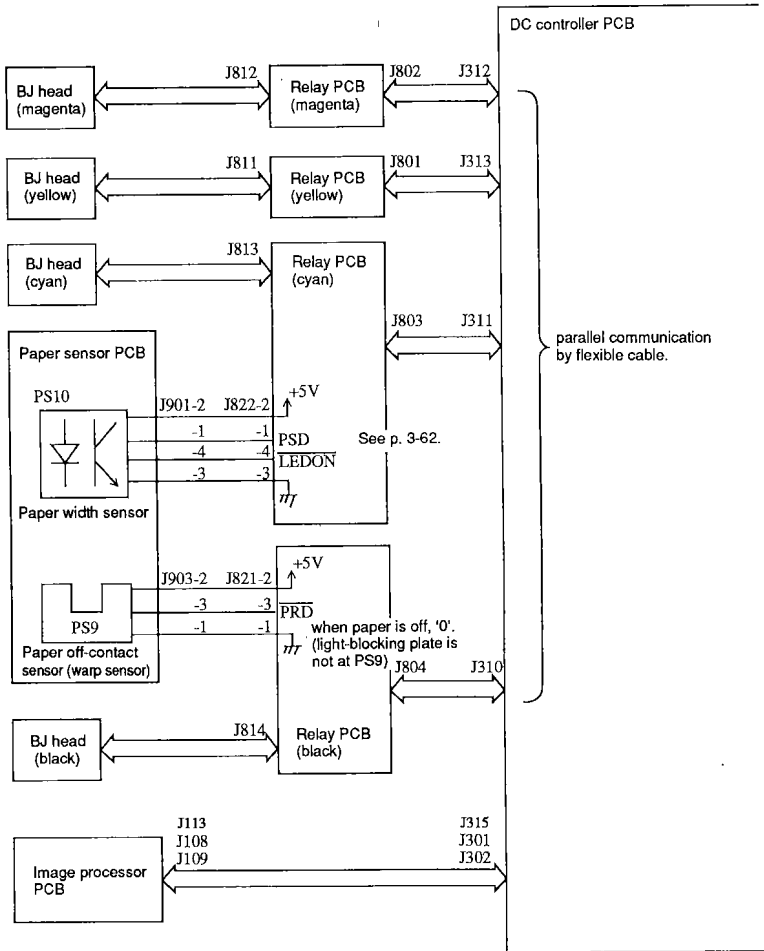


Figure 3-6

E. Inputs to and Outputs from Power Supply PCB

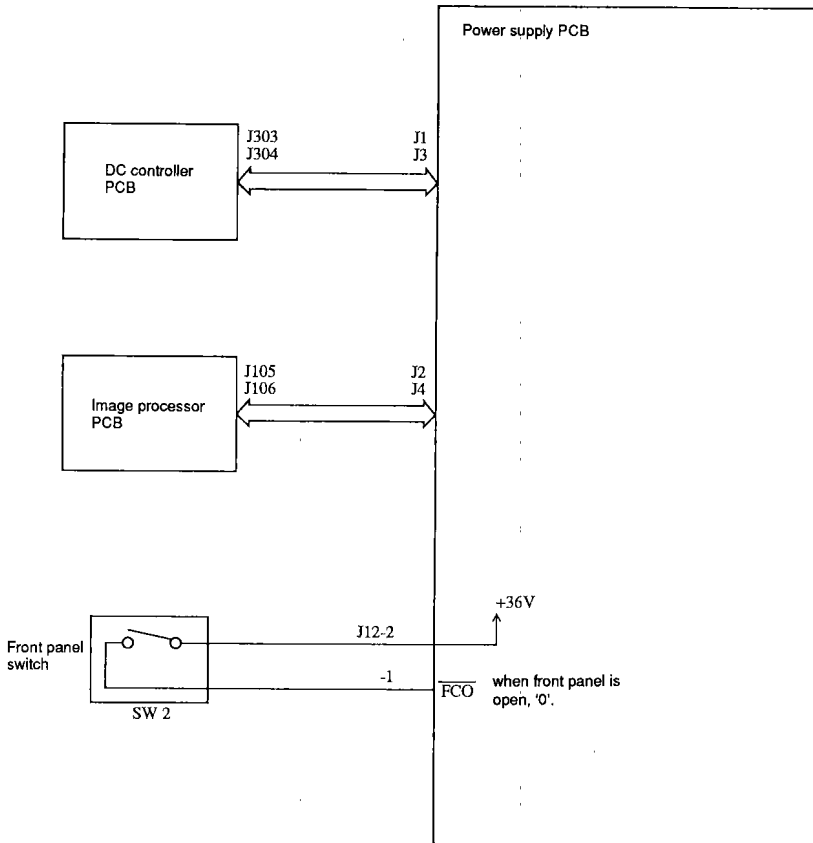


Figure 3-7

Inputs to and Outputs from Power Supply PCB

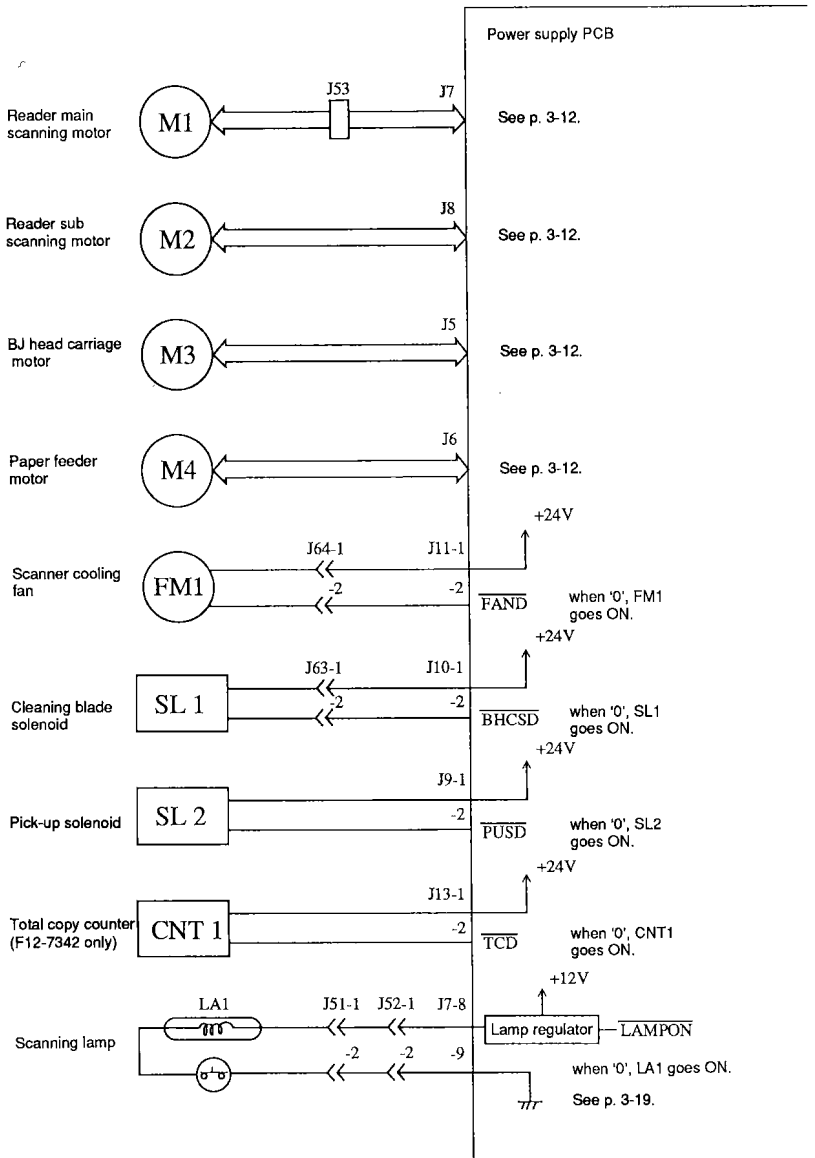
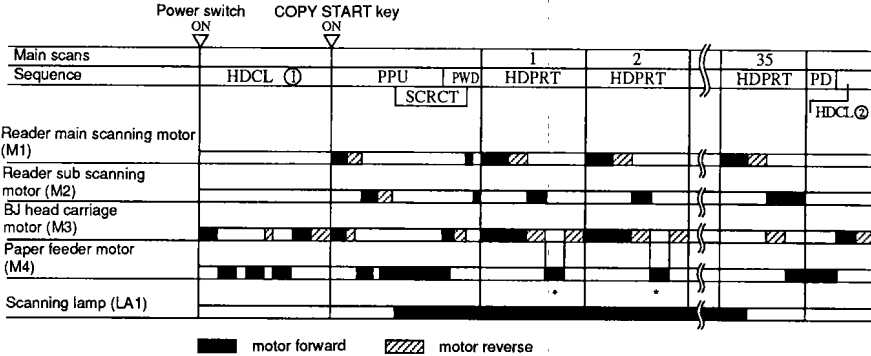


Figure 3-8

F. Basic Sequence

1. A4 Coated Paper, from Cassette, DIRECT

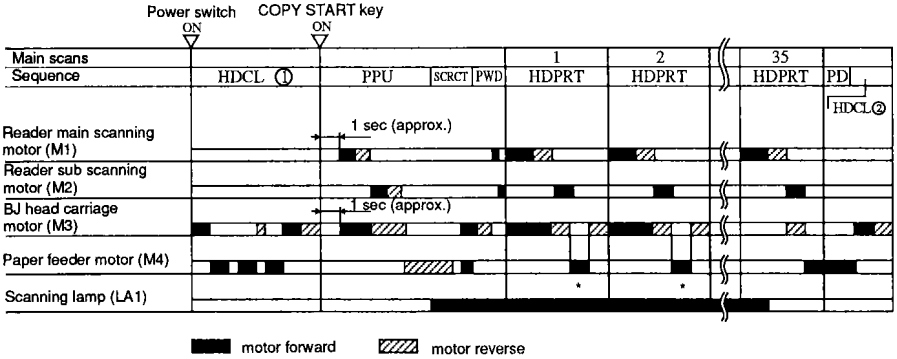


* Paper being fed with the BJ head carriage pressing against the paper holding plate; up to the second scan.

Sequence	Operation
HDCL ①	Pre-copying head cleaning
PPU	Pick-up
SCRCT	Shading correction
PWD	Paper width identification
HDPRT	BJ head printing
PD	Delivery
HDCL ②	Post-copying head cleaning

Figure 3-9

2. A4 Coated Paper, from Manual Slot



* Paper being fed with the BJ head carriage pressing against the paper holding plate; up to the second scan.

Sequence	Operation
HDCL ①	Pre-copying head cleaning
PPU	Pick-up
SCRCT	Shading correction
PWD	Paper width identification
HDPRT	BJ head printing
PD	Delivery
HDCL ②	Post-copying head cleaning

Figure 3-10

G. Motor Control

1. Outline

The copier has two 2-phase stepping motors each in its reader unit and its printer unit. See Figures 3-11 and -12 for block diagrams of the circuit that controls each motor.

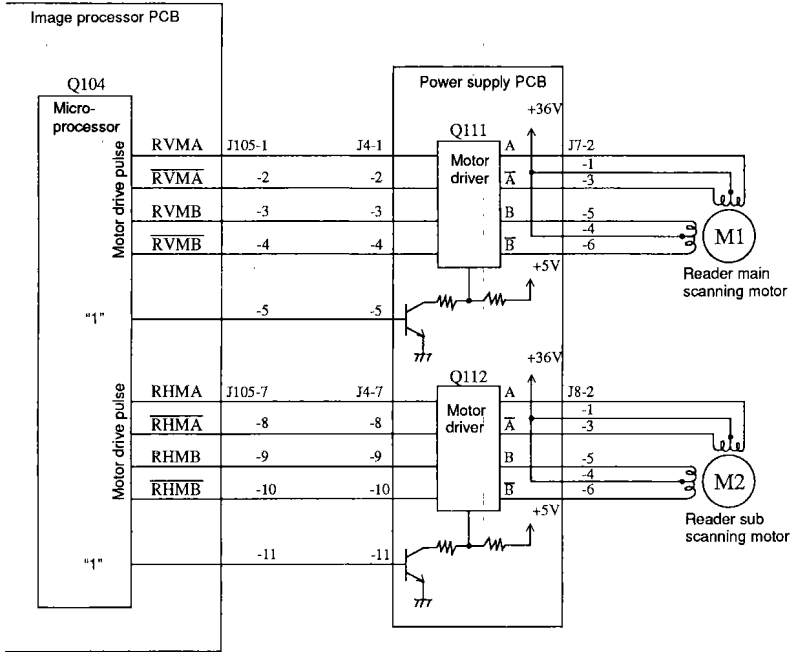


Figure 3-11 Motor Control Circuit (reader unit)

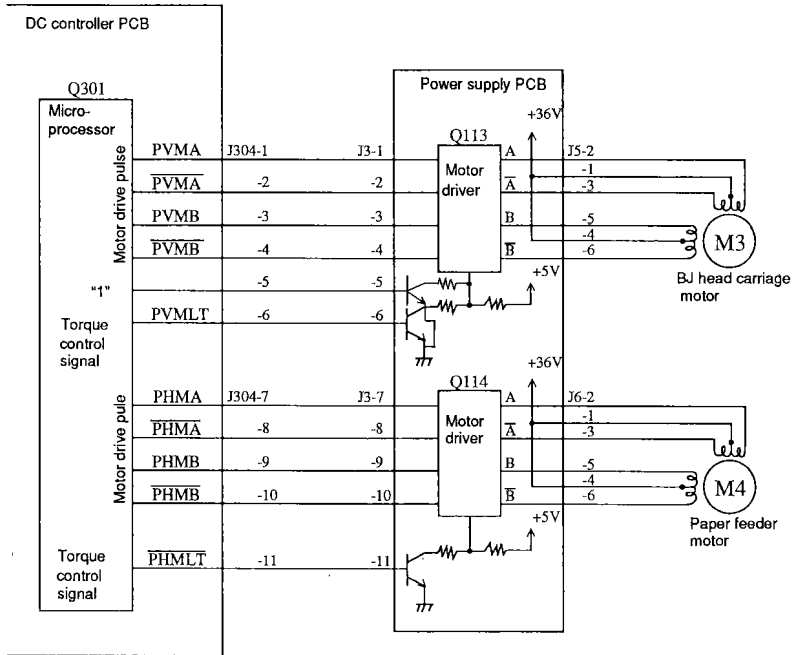


Figure 3-12 Motor Control Circuit (printer unit)

See Table 3-300 for the name of each motor and its functions.

Motor	Function
Reader main scanning motor (M1)	drives reader unit
Reader sub scanning motor (M2)	drives reader unit (sub scanning)
BJ head carriage motor (M3)	drives BJ head carriage
Feeder motor (M4)	drives feeder roller drives delivery roller drives pick-up roller drives suction pump

Table 3-300

Each motor is controlled by the microprocessor and the motor driver on the power supply PCB; specifically,

- ① turns the motor ON and OFF
- ② controls the direction of motor rotation
- ③ controls the speed of motor rotation

2. Operation

a. Stopping the Motor

When all motor drive pulses generated by the microprocessor go '1', the motor stops to rotate. At the time, the motor driver lowers the current flowing to the motor by the torque control signal to prevent the motor from overheating.

b. Controlling the Direction of Motor Rotation

The direction of motor rotation is switched by changing the order of the motor drive pulses.

c. Controlling the Speed of Motor Rotation

The frequency of the motor drive pulse is varied to control the speed of motor rotation.

II. DOCUMENT EXPOSURE SYSTEM

A. Outline

The document exposure system consists of several units as diagramed in Figure 3-100.

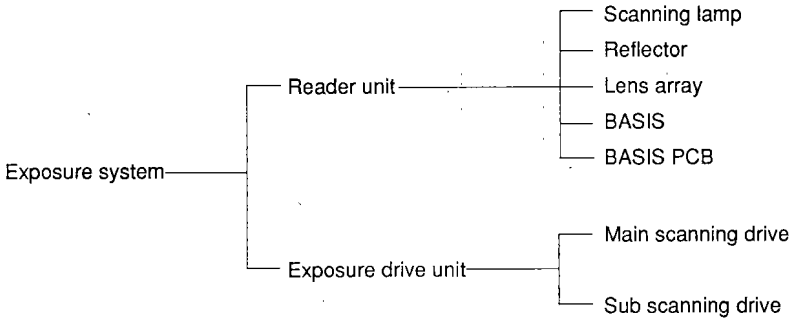


Figure 3-100

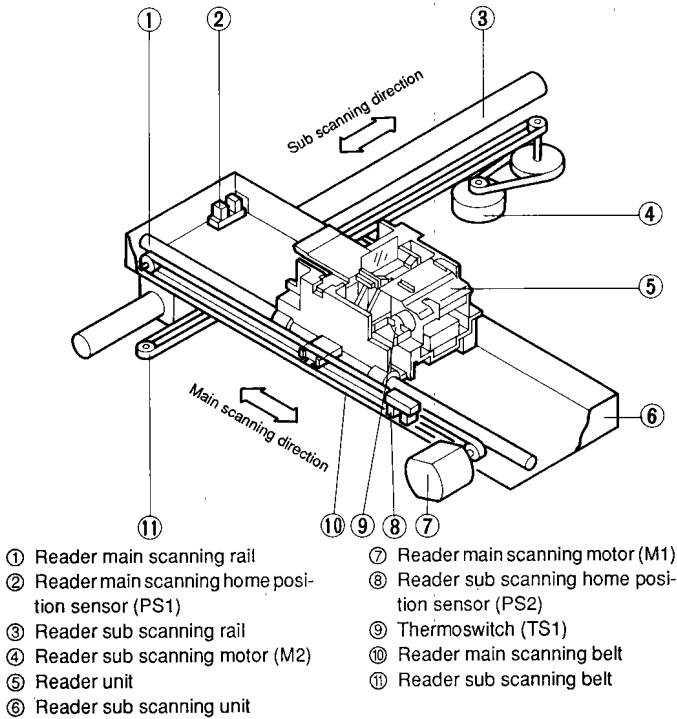
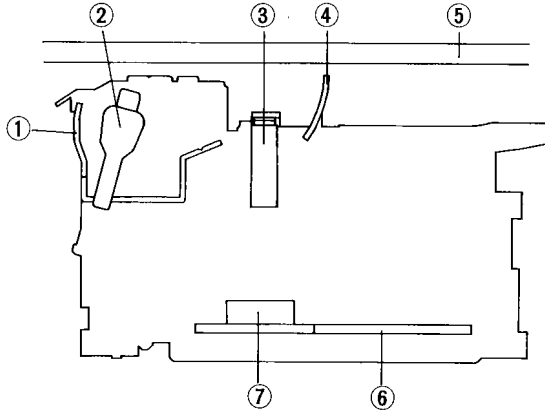


Figure 3-101

During the read operation in the DIRECT mode, the reader unit first reads the image in the main scanning direction (about 8 mm in width); then it moves forward about 8 mm in the sub scanning direction to read the next band of images.

Figure 3-102 shows the names of the parts comprised in the reader unit.



- | | |
|-----------------------|-------------------|
| ① Reflector 2 | ⑤ Copyboard glass |
| ② Scanning lamp (LA1) | ⑥ BASIS PCB |
| ③ Lens array | ⑦ BASIS |
| ④ Reflector 1 | |

Figure 3-102 (Cross Section)

B. Outline of Electrical Circuitry

The microprocessor on the image processor PCB is used to control major mechanisms; the image processor PCB is also used to control image processing operations.

The light reflected by the document is converted by the photo sensor (photoelectrical conversion); the signals are then amplified and put through A/D conversion. Thereafter, the image processor PCB executes image processing to generate binary video signals for transmission to the printer unit.

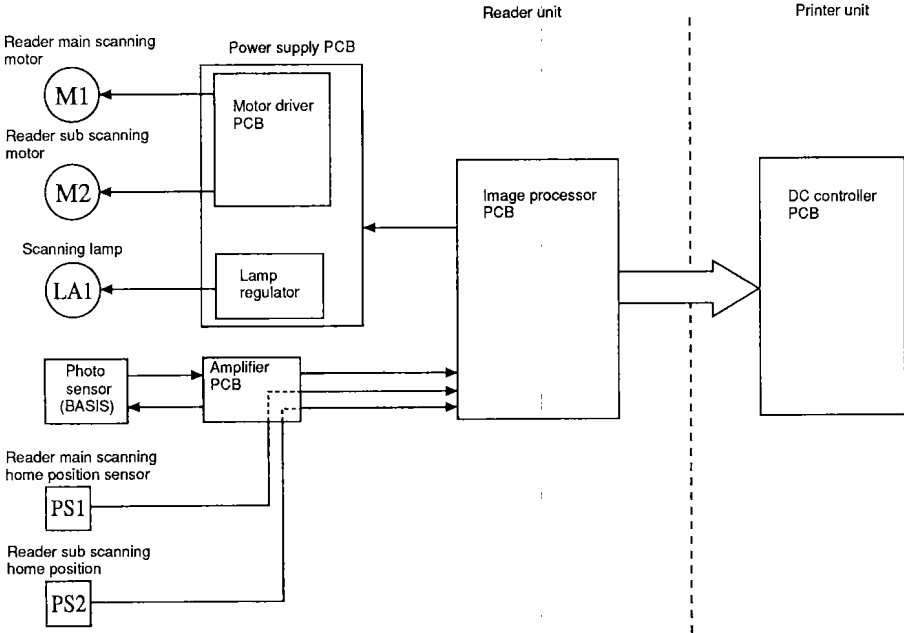


Figure 3-103

C. Scanner Drive System

1. Outline

The scanner moves in two directions; main scanning and sub scanning directions. The movement of the scanner is linked to the operation of the printer unit.

The scanner is controlled by the main scanning motor (M1) when it moves in the main scanning direction; it is controlled by the sub scanning motor (M2) when it moves in the sub scanning direction. The speed at which the scanner moves forward in the main scanning direction varies depending on the selected reproduction ratio; the speed at which it moves in reverse is constant regardless of the selected reproduction ratio.

When the scanner has made a single scan in the main scanning direction, the sub scanning motor moves the scanner forward about 8 mm (DIRECT mode).

The speed of the sub scanning motor remains constant regardless of the direction of the scanner movement.

For a discussion on how the motor is controlled, see "CONTROLLING THE MOTOR" on p. 3-12.

The scanner has both home and start positions for the main and sub scanning directions; a home position sensor is provided to check each home position.

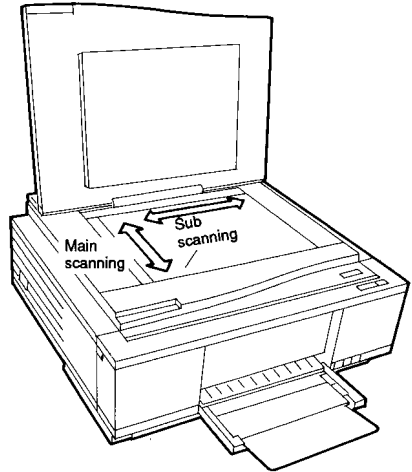


Figure 3-104

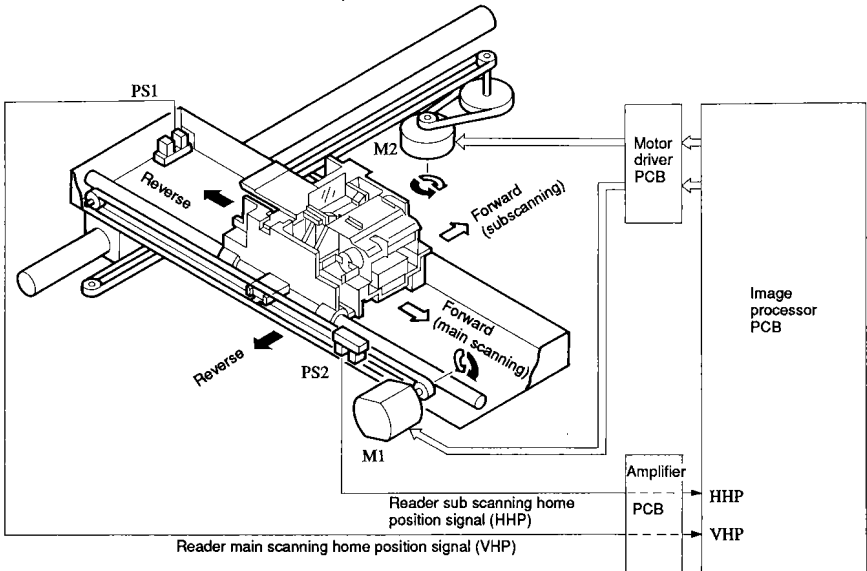


Figure 3-105

2. Main Scanning and Sub Scanning Distances

a. Main Scanning Distance

The distance over which the scanner travels in the main scanning direction varies in relation to the following:

- copy paper size (width in main scanning direction)
- reproduction ratio
- selection of framing, blanking, and the like (use of editor)

(a) Copy Paper Size

The printer unit has a paper width detection mechanism (see p. 3-62), and the signals from the mechanism determines the distance of travel in the main scanning direction.

(b) Reproduction Ratio

The width of the paper is identified, and the measurement is divided by the selected reproduction ratio; for example, if the selected reproduction ratio is 200%, the distance will be:

$$\text{paper width} \div 2$$

likewise, if the selected reproduction ratio is 50%, the distance will be:

$$\text{paper width} \div 0.5$$

The distance, however, cannot exceed 216 mm (LTR); in other words, the scanner will not move in excess of 216 mm.

(c) Framing and Blanking Mode

The scanner moves to a point specified by the editor.

b. Sub Scanning Distance

The scanner moves about 8 mm in the sub scanning direction in the DIRECT mode; the distance, however, varies between about 8 mm and about 4 mm depending on the selected reproduction ratio.

(a) Reproduction Ratios Between 50% and 99%

The distance is obtained by the following formula:

$$\text{distance} = 4 + \text{ratio}$$

for example, if the ratio is 70%,

$$4 + 0.7 = 5.7 \text{ mm}$$

4 mm (image width per scan)

(b) Reproduction Ratios Between 101% and 200%

The distance is obtained by the following formula:

$$\text{distance} = 8 + \text{ratio}$$

for example, if the ratio is 150%,

$$8 + 1.5 = 5.3 \text{ mm}$$

8 mm (image width per scan)

3. Identifying the Position

a. Home Position

For the main scanning direction, the home position is the point 4 mm further ahead after the reader unit has detected the home position sensor in its reverse direction.

The home position in the sub scanning direction is a further 2 mm ahead of the point at which the reader unit starts to detect the home position sensor while it is moving in reverse.

b. Start Position

The start position varies depending on the reproduction ratio and copy paper used. For both main and sub scanning directions, the distance is determined after the reader unit has moved past the home position sensor in its forward direction. The start position, however, does not vary in relation to the size of copy paper.

The start position for differing copy ratios is determined by dividing the DIRECT (100% ratio) value by the selected ratio; see Table 3-100. For example, if the ratio is 50%,
 main scanning direction: $5 \text{ mm} \div 0.5 = 10 \text{ mm}$
 sub scanning direction: $5 \text{ mm} \div 0.5 = 10 \text{ mm}$

The reader unit remains stationary at the start position, waiting for the start signal.

The start position varies between coated paper and OHP film.

Start Position (DIRECT)

Copy paper	Scanning direction	Distance from sensor
Coated paper	Main	X = 5 mm
	Sub	Y = 5 mm
OHP film	Main	X = 8.5 mm
	Sub	Y = 16 mm

Table 3-100

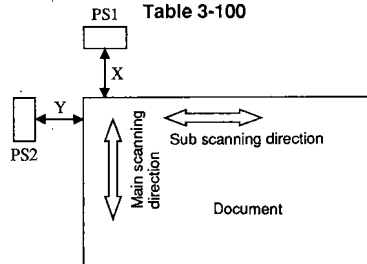


Figure 3-106

D. Controlling the Scanning Lamp

1. Turning the Scanning Lamp ON and OFF

The scanning lamp is turned ON or OFF by the lamp ON/OFF signal (LAMPON) generated by the image processor PCB.

When $\overline{\text{LAMPON}}=0$, the lamp power (12 VDC max.) is supplied to the scanning lamp (LA1), causing the lamp to go ON.

If the scanning lamp fails to go OFF because of a fault in the lamp regulator, the thermoswitch (TS1) is activated to cut off the power to the scanning lamp; the thermoswitch is activated when the temperature around the scanning lamp exceeds 110°C. If the thermoswitch has been activated, be sure to find out the cause and correct the problem before replacing it with a new thermoswitch.

2. Adjusting the Intensity of the Scanning Lamp

The intensity of the scanning lamp is adjusted at the factory and does not have to be adjusted in the field.

The intensity, however, must be adjusted in the service mode if the scanning lamp or the power supply PCB has been replaced; see p. 3-103.

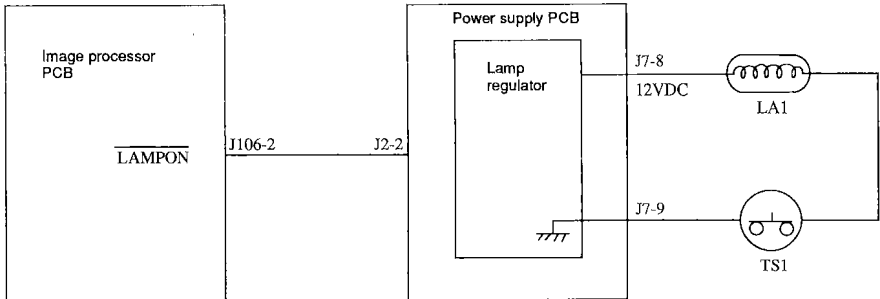


Figure 3-107

E. Basic Sequence

a. A4, Coated Paper, from Cassette

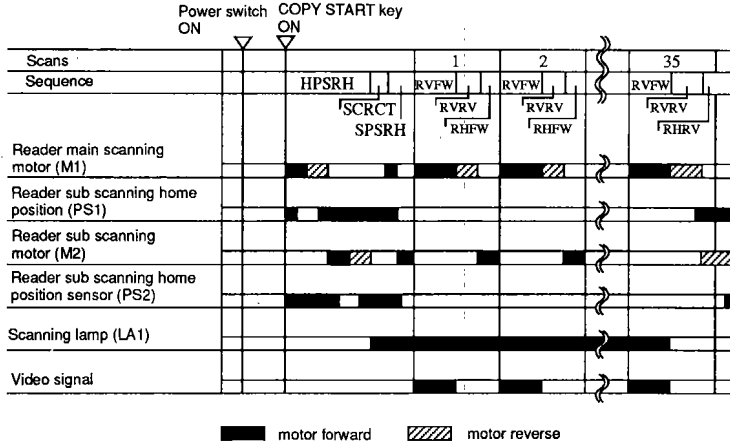


Figure 3-108

b. A4, Coated Paper, from Manual Tray

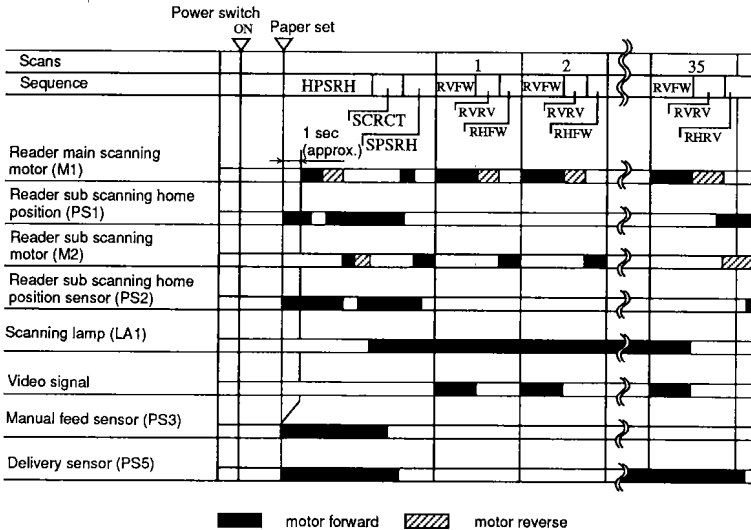


Figure 3-109

c. A4, OHP Film

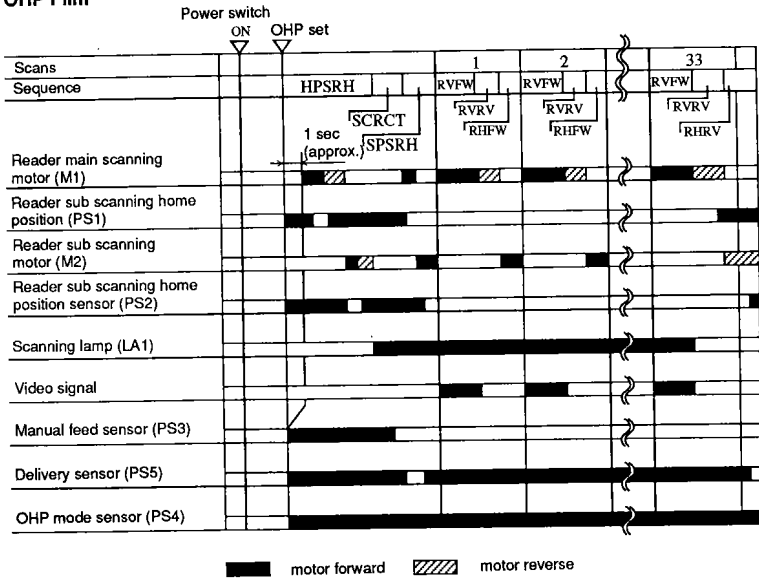


Figure 3-110

		Period	Description	Remarks
①	HPSRH (home position search)	While the reader unit moves forward and in reverse.	The reader unit identifies the home position in the main and sub scanning directions.	The home position is 4 mm (main) or 2 mm (sub) from the point at which the home position sensor is identified while the reader unit is moving in reverse; see Figure 3-111.
②	SCRCT (shading correction)	While the scanning lamp remains ON for shading correction.	The density of the white plate is measured for shading correction.	See Figure 3-112.
③	SPSRH (start position search)	While the reader unit moves forward from the home position.	The reader unit identifies the start position in the main and sub scanning direction.	The start position is 5 mm (coated paper, DIRECT) from the point at which the reader unit has moved past the home position sensor while moving forward; see Figure 3-113.
④	RVFW (reader unit main scanning forward)	While the reader unit moves forward in the main scanning direction to scan the document.	The scanning lamp exposes the document, and the reflected light is directed to the photo sensor (BASIS).	See Figure 3-114.
	RVRV (reader unit main scanning direction reverse)	While the reader unit moves in reverse in the main scanning direction.	The reader unit is returned to the start position in the main scanning direction.	See Figure 3-114.
⑤	RHFW (reader unit sub scanning direction forward)	While the reader unit moves forward in the sub scanning direction.	The reader unit is moved forward in the sub scanning direction for the next move to the main scanning direction.	The reader unit moves about 8 mm (DIRECT) in the sub scanning direction; see Figure 3-115.
⑥	RHRV (reader unit sub scanning direction reverse)	The reader unit moves in reverse in the sub scanning direction.		See Figure 3-116.

Table 3-101

The reader unit moves as follows for each operation:

- ① HRSPPH (home position search)

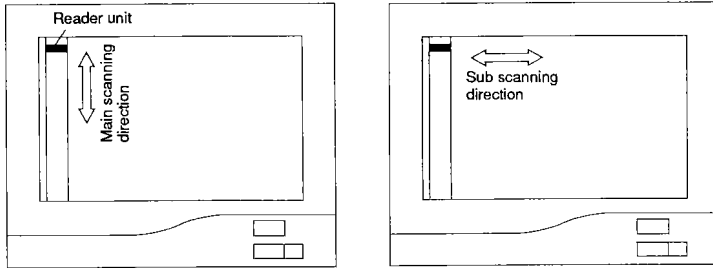


Figure 3-111 (top view)

- ② SCRCT (shading correction)

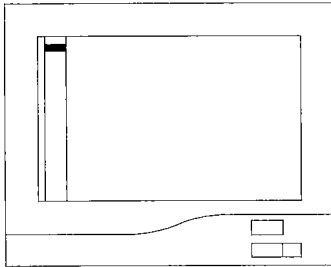


Figure 3-112

- ③ SPSRH (home position sensor)

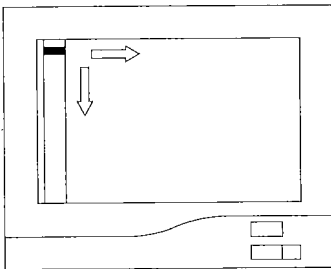


Figure 3-113 (top view)

④ RVFW (reader unit main scanning direction forward/reverse)

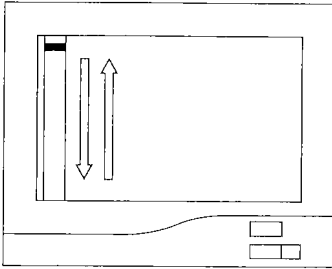


Figure 3-114 (top view)

⑤ RHFV (reader unit forward)

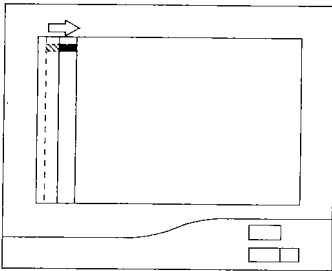


Figure 3-115 (top view)

⑥ RHRV (reader unit reverse)

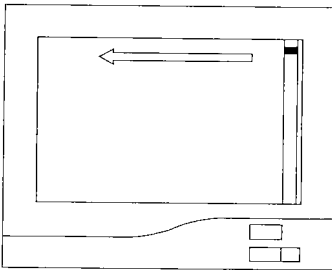


Figure 116 (top view)

d. Number of Scans Made by Reader Unit for Coated Paper and OHP Film

		A4	A5	A6	B5
DIRECT	Coated paper	35	25	17	31
ENLARGE	OHP film	33	—	—	—

Table 3-102

III. IMAGE PROCESSING SYSTEM

A. Outline

The image processing system consists of the photo sensor (BASIS), BASIS PCB, amplifier PCB, and image processor PCB; it converts the optical images created by the exposure system into electrical signals and corrects and processes them for transmission to the image formation system.

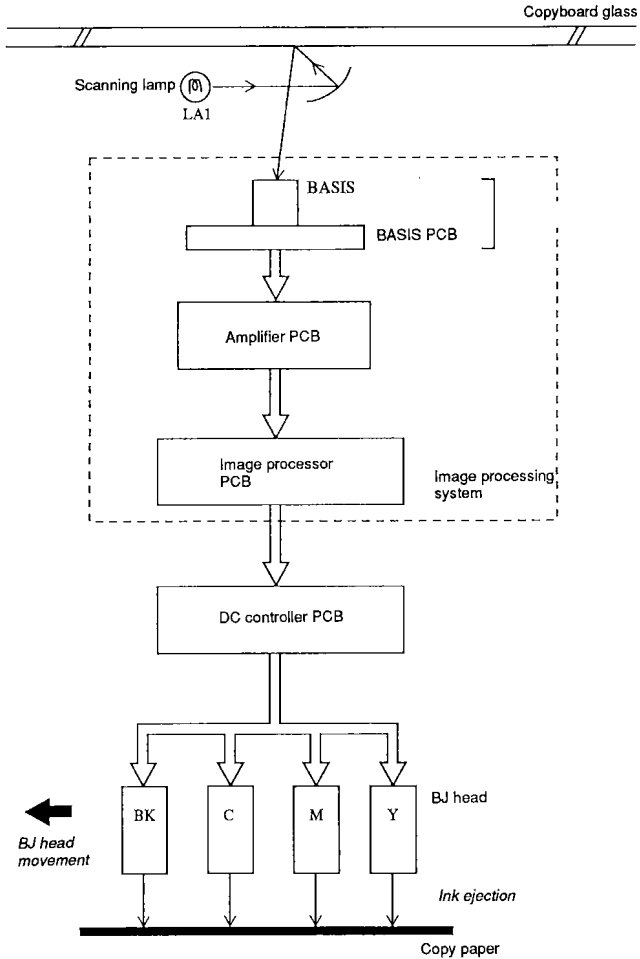


Figure 3-200

B. Reader Unit

1. Outline

The copier reads images by its photo sensor (BASIS for base-stored image sensor).

BASIS differs from CCD (charge-coupled diode) in that it stores image data, allowing repeated reading of the data; in addition, BASIS provides a higher sensitivity and output.

The copier's BASIS consists of about 450 photocells arranged in a row, at intervals of about 21 μm . Each cell has an R, G, and B filter arranged in order, and a combination of three adjacent R, G, and G photocells together reads a single pixel of a color image. In other words, the copier's BASIS is a 144-pixel color image sensor capable of reading a color document at 400 dpi (resolution).

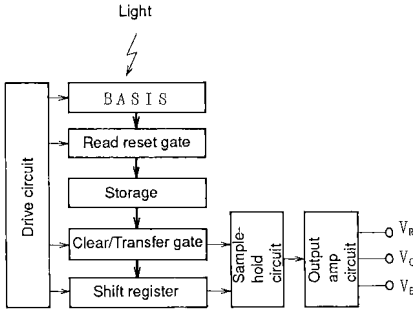


Figure 3-201

2. BASIS Photocells

The photocells of BASIS convert optical signals into electrical signals (photoelectric conversion) and, in addition, store them.

From Figure 3-202, we note that the volume of charge stored (Q) in the base of the phototransistor equals the intensity of light obtained by exposure (L).

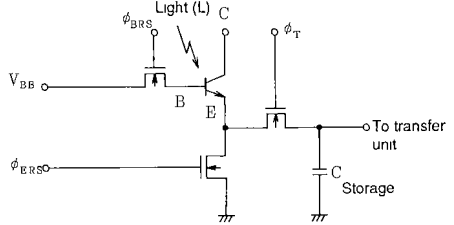


Figure 3-202

3. BASIS Transfer Unit

The signals read transferred to the sample-hold circuit as timed by clock pulses ϕ_1 and ϕ_2 .

Shift Register

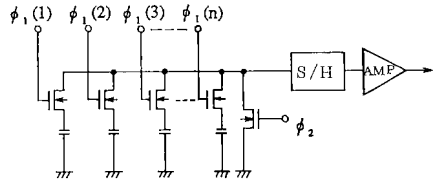


Figure 3-203

4. BASIS Output Unit

The voltage signal from each cell that comes from the transfer unit is retained in the sample-hold circuit and is amplified by the output amplifier circuit.

The output of each color uses three output voltage channels. Figure 3-204 shows the relationship between the clock pulses and the output voltages.

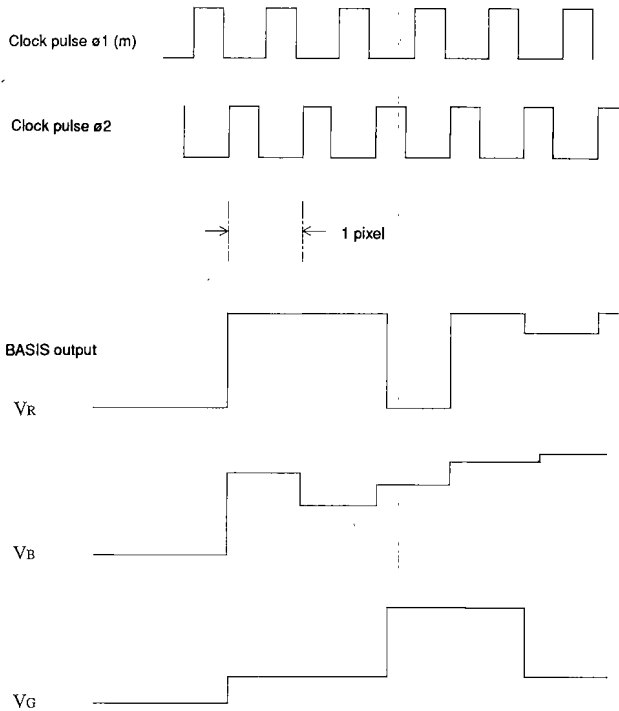


Figure 3-205

C. Amplifier PCB

The amplifier PCB processes video signals (V_R , V_G , V_B) from the BASIS PCB for the following:

- amplification (level matching)
- A/D conversion

The video signals are sent from the BASIS PCB to the amplifier (level matching) circuit using clock pulses $\phi 1$ and $\phi 2$ and the sample-hold signal (SH).

The amplifier circuit has gain and offset values for each R, G, and B (image processor PCB); the photoelectrical conversion ratio for each color from BASIS is corrected using these gain and offset values.

The A/D conversion PCB converts each of the R, G, and B video signals into 8-bit digital signals as timed by the AD CLK signal and sends them to the image processor PCB.

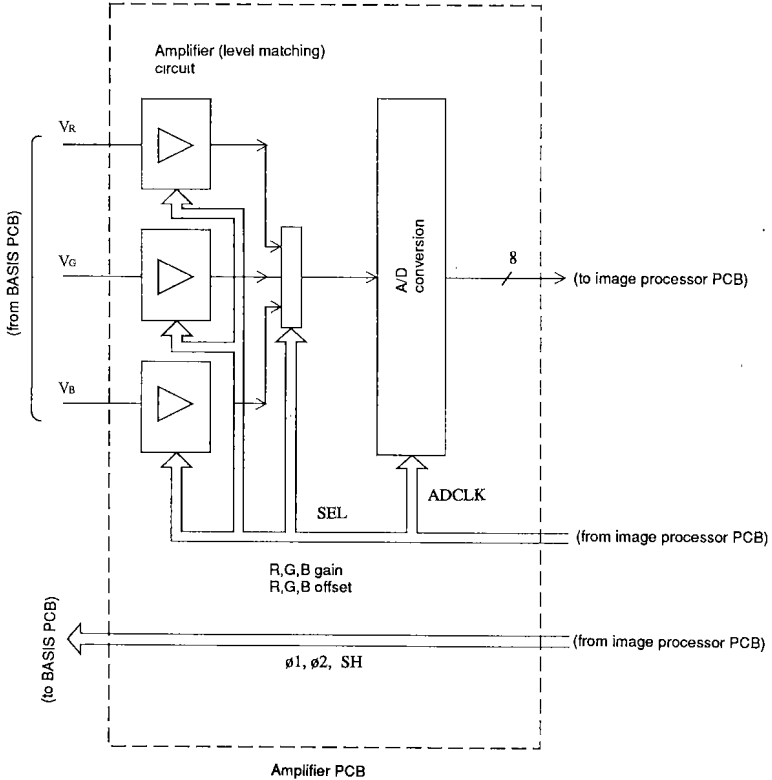


Figure 3-206

D. Digital Image Processing

1. Outline

The digital image processing circuit is constructed as shown in Figure 3-206, and it converts the video signals (R, G, B) from the amplifier PCB into C, B, Y, and Bk.

At the same time, each data item is converted to implement the instructions entered from the control panel.

After conversion of data items, the video data are sent to the DC controller PCB in the printer unit as 1-bit video signals.

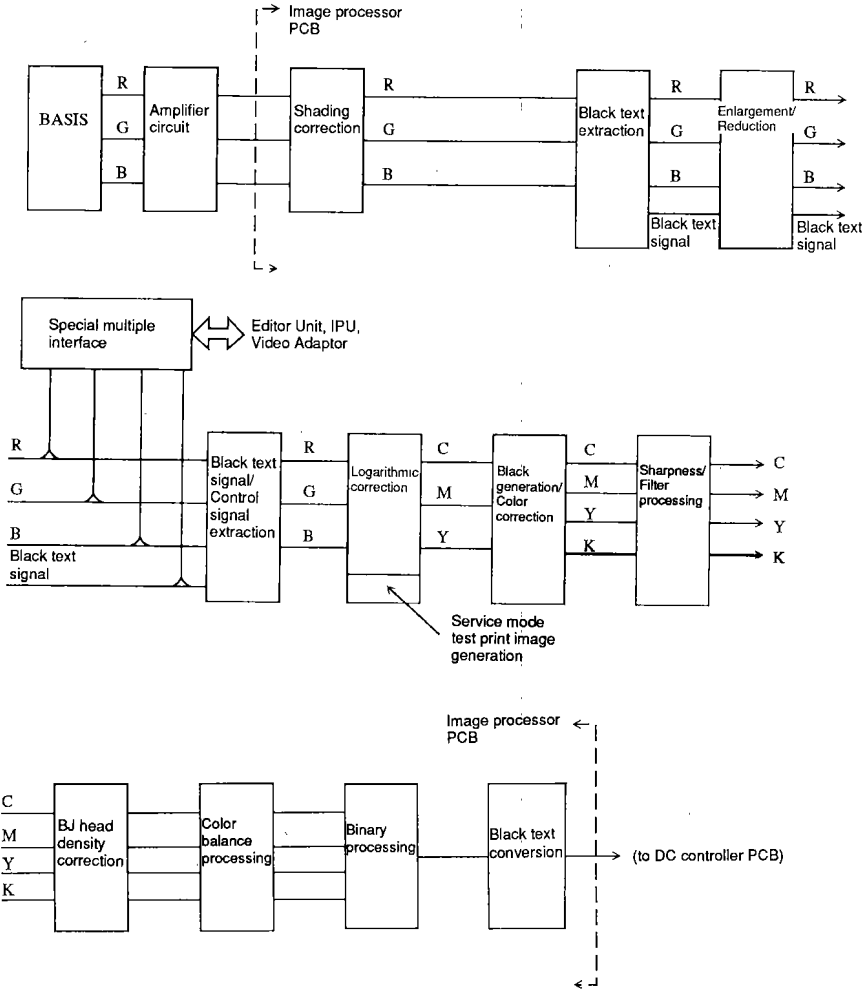


Figure 3-207

2. Shading Correction

Even when all photocells in BASIS detected the light reflected by a document with even density, the outputs of BASIS representing the pixels would not always be even for the following reasons:

- Each photocell of BASIS has a different sensitivity.
- The lenses have variable degrees of transmission.
- The scanning lamp intensity is stronger at the center of BASIS than at both ends.
- The scanning lamp may deteriorate.

These discrepancies are corrected by what is called *shading correction*.

The reader unit is moved under the standard white plate first, and the scanning lamp is turned ON. BASIS generates a voltage corresponding to the light reflected by the standard white plate, and the difference between the output and the target output (255) is obtained as the degree of shading correction and stored for all pixels of BASIS.

When the document is scanned, the output is corrected using the correction value so that the outputs will be even.

Measurements for correction are taken each time the COPY START key is pressed.

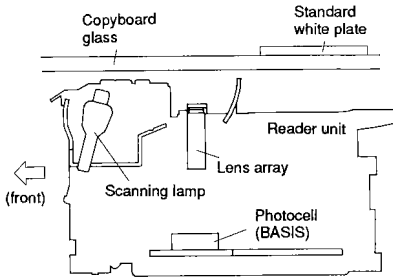


Figure 3-208 (side view cross section)

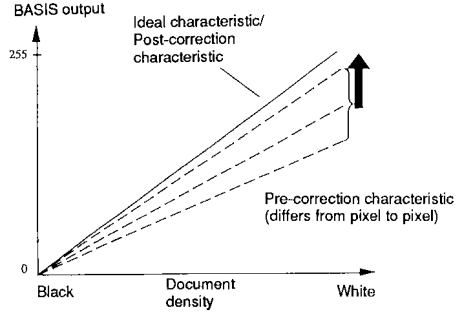


Figure 3-209 (shading correction)

3. Black Text Extraction

To enhance reproduction of black text, the presence/absence of black text on the document is checked; if nay, black text signals are generated for the pixels around the edges of characters and added to the ends of the R, G, and B signals. (The empty bit of the black text signal is assigned to the control signal from the multiple interface.)

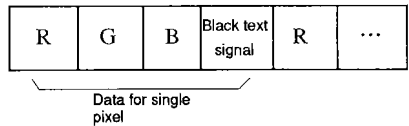


Figure 3-210

A black text document, when color-separated, has the same BGR ratios.

A color document, on the other hand, tends to have differing BGR ratios.

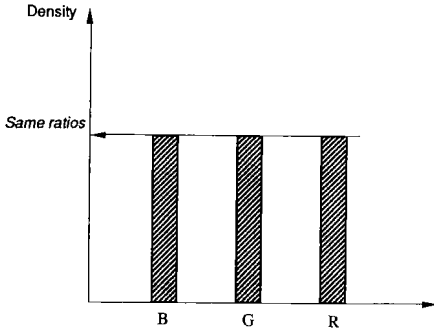


Figure 3-211 Black Document

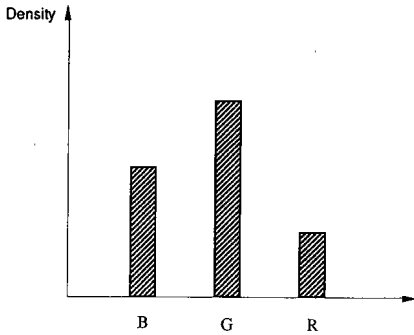


Figure 3-212 Color Document

When a document is color-separated, R, G, and B ratios will be the same. The continuity (vertical, horizontal) of black pixels within a certain area is then checked; if black pixels are found continuously, the area is identified as black text.

4. Enlargement/Reduction Processing

See Table 3-201 for an outline of how images are enlarged or reduced.

a. Enlargement

(1) Vertical Ratio (main scanning direction)

The speed at which the reader unit moves is varied (slower), thus changing the width of each scan made of a single pixel on the document.

(2) Horizontal Ratio (sub scanning direction)

When image data is read from memory, the same data is read twice.

The area of use of BASIS will be made smaller and, further, the pitch of movement in the sub scanning direction for each scan will be made smaller.

b. Reduction

(1) Vertical Ratio (main scanning direction)

The speed at which the reader unit moves is varied (faster), thus changing the width of each scan made of a single pixel on the document.

(2) Horizontal Ratio (sub scanning direction)

When image data is written to memory, data items from BASIS are skipped.

	DIRECT	REDUCE	ENLARGE
Document (image data) (writing) Line memory (reading) Copy			
Sub scanning direction	All data is written as is and read as is.	To reduce the image in half, data are written to memory while skipping every other data item. The movement pitch of the reader unit is made smaller.	To double the image, all data is written into memory as is; when reading, the same data is read twice. The movement pitch of the reader unit is made smaller.
Main scanning direction		The reader unit is moved faster, thereby increasing the scanning width over a single pixel on a document.	The reader unit is moved slower, thereby decreasing the scanning width over a single pixel on a document.

Table 3-201

5. Special Multiple Interface

Figure 3-213 gives an outline of the special multiple interface signals used between the copier and the Editor Unit, IPU, or Video Adaptor to communicate various data.

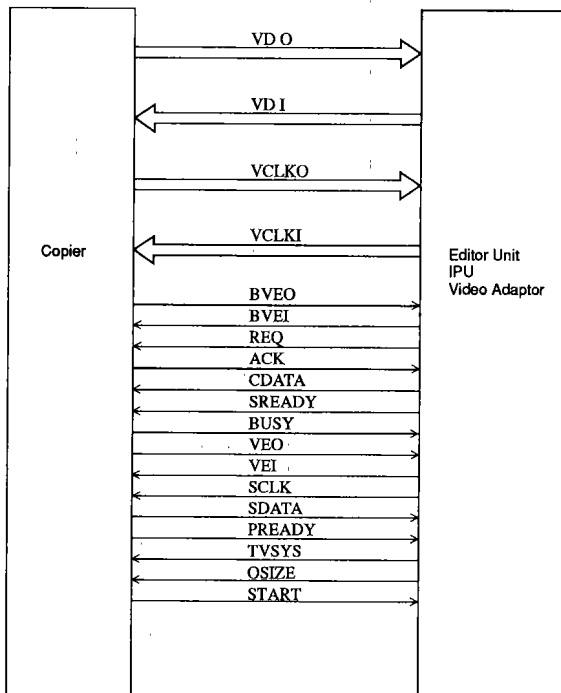


Figure 3-213

■ Special Multiple Interface for the Copier

Notation	Signal	Description
VDO0– VDO7	Video Data Out 0 to Video Data Out 7	video signal sent by the copier to the options (Editor Unit, IPU).
VDI0–VDI7	Video Data In 0 to Video Data In 7	video signal sent by the options (Editor Unit, Video Adaptor) to the copier.
VCLKO1– VCLKO8	Video Clock Out 1 to Video Clock Out 8	sync clock signal used when the copier sends video signals.
VCLKI1– VCLKI8	Video Clock In 1 to Video Clock In 8	sync clock signal used when the options (Editor Unit, Video Adaptor) sends video signals to the copier.
BVEO	Band Video Enable Out	indicates that effective video signals of a scan in the main scanning direction are being sent by the copier to the option (Editor Unit).
BVEI	Band Video Enable In	indicates that effective video signals of a scan in the main scanning direction are being sent by the option (Editor Unit, Video Adaptor) to the copier.
VEO	Video Enable Out	indicates that effective video signals of a row of BASIS are being sent by the copier to the option (Editor Unit); line sync signal.
VEI	Video Enable In	indicates that effective video signals of a row the BJ head are being sent by the option (Editor Unit, Video Adaptor) to the copier; line sync signal.
BUSY	Busy	indicates that the copier is making copies and is busy, and presses on the READ key on the Video Adaptor will be ignored; effective only when the Video Adaptor is connected.
START	Start	instructs the Video Adaptor to send video data representing a single scan; effective only when the Video Adaptor is connected.
TVSYS	TV System Switch	indicates that the video signals processed by the Video Adaptor is PAL or NTSC; effective only when the Video Adaptor is connected.
PREADY	Primary Ready	indicates that communication with the Editor Unit, and the like is possible; copier's ready signal.
SREADY	Secondary Ready	indicates that communication with the Editor Unit, Video Adaptor, and the like is possible; option's ready signal.
REQ	Request	serial communication request signal sent by the option (Editor Unit, Video Adaptor) to the copier; connect signal in relation to the Video Adaptor.

■ Special Multiple Interface for the Copier

Notation	Signal	Description
ACK	Acknowledge	serial communication acknowledge signal sent by the copier to the option (Editor Unit, Video Adaptor) in response to a request signal; connect signal in relation to the Video Adaptor.
CDATA	Command Data	command (execution) signal sent by the option (Editor Unit, Video Adaptor) to the copier.
SDATA	Status Data	sent to by the copier to indicate the status of the copier to the option (Editor Unit) in response to a command (execution) signal; OHP copy mode signals in relation to the Video Adaptor.
OSIZE	Output Size	sent by the Video Adaptor to the copier to indicate the image size used in combination with CDATA; effective only when the Video Adaptor is connected.
SCLK	Serial Clock	clock signal for the command/status signals between the copier and the option (Editor Unit); ready signal in relation to the Video Adaptor.

6. Black Text Signal/Control Signal Extraction

The black text signal attached to the ends of the R, G, and B signals and the control signals attached by the option connected to the copier by a multiple interface cable are extracted; thereafter, only the R, G, and B signals representing each of the pixel are sent for logarithmic correction. See Figure 3-214 for the arrangement of the signals.

Black text signals are then sent forward for sharpness/filter processing and black text conversion processing; the control signals are sent to the respective image processing circuit.

Input

	R	G	B	Black text signal/ Control signal	R	
--	---	---	---	--------------------------------------	---	--

Output

	R	G	B	-	R	
--	---	---	---	---	---	--

Figure 3-214

7. Logarithmic Correction and RGB/CMY Conversion

The levels of the signals are converted by taking advantage of the fact that the intensity of light transmitted by each filter (R, G, B) of BASIS and the density (C, M, Y) of the document are complementary to each other.

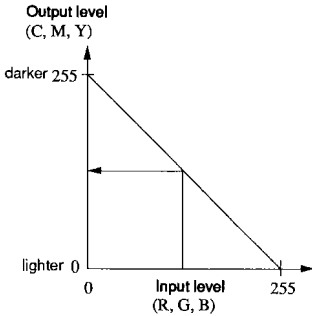


Figure 3-215 BGR/YMC Conversion

Note:

Specifically, the relationship is as follows: $Y=B$, $M=G$, and $C=R$.

See Figure 3-216 for the relationship between the outputs of BASIS and the densities of a document.

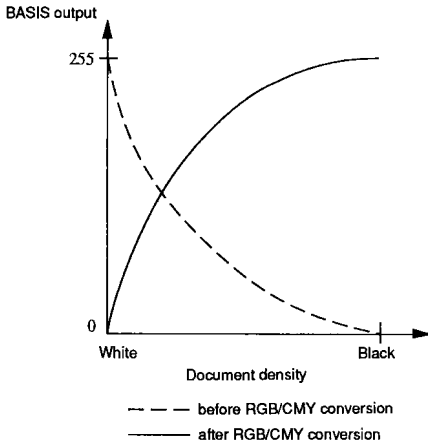


Figure 3-216

The relationship is not represented by a straight line because the density of a document does not vary in direct proportion to the intensity of reflected light. To correct the discrepancies, the levels of the signals are converted as shown in Figure 3-217.

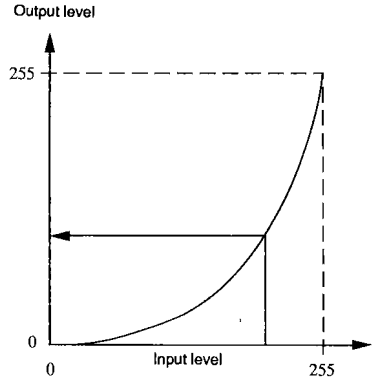


Figure 3-217 Logarithmic Correction

The Test Print image used in the service mode is generated using logarithmic correction.

8. Generation of Black and Color Correction

The Bk (black) ink density signal is generated using the density signals each representing yellow (Y), magenta (M), and cyan (C).

At the same time, the transmission characteristic of the R, G, and B filters of BASIS and the reflective characteristic of the inks (Y, M, C, BK) in the reader unit are corrected.

In general, equal amounts of Y, M, and C inks are mixed to produce black ink; however, to enhance the reproduction, the copier uses an additional ink for black.

The minimum values (Min; Y, M, C) are computed and multiplied by a correction coefficient (β Min); the results (β Min; Y, M, C) are used to represent the black component of the corresponding pixel.

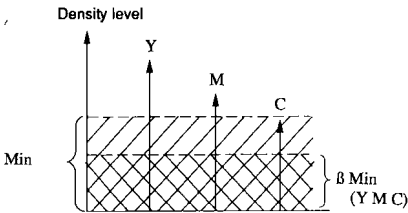


Figure 3-218

In other words, the outputs of BK generation unit, i.e., Yout, Mout, Cout, and BKout can be expressed as follows:

$$\begin{aligned}
 Y_{out} &= Y - \beta \text{ Min (YMC)} \\
 M_{out} &= M - \beta \text{ Min (YMC)} \\
 C_{out} &= C - \beta \text{ Min (YMC)} \\
 BK_{out} &= \beta \text{ Min (YMC)}
 \end{aligned}$$

The following discussion uses the G filter and the M ink as examples.

An ideal G filter should transmit 100% of wave lengths between 500 and 600 nm (green) and block out wave lengths of 500 nm or less and 600 nm or more; in reality, areas represented by a, b, and c (Figure 3-219) exist.

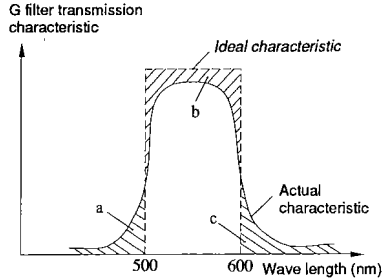


Figure 3-219

An ideal M ink should transmit 100% of wave lengths between 500 and 600 nm (green) and block out wave lengths of 500 nm or less and 600 nm or more; in reality, areas represented by d, e, and f (Figure 3-220) exist.

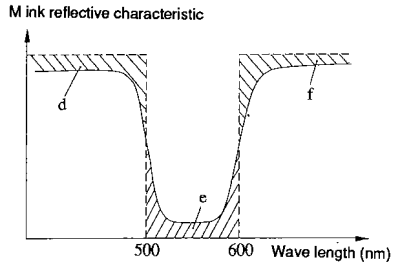


Figure 3-220

These discrepancies are corrected by means of color correction.

9. Sharpness/Filter Processing

Computations are made to generate crispier or softer images as instructed from the Editor Unit.

See Figure 3-222 for the output level noted when image data as shown in Figure 3-221 is entered and 'SHARPNESS STRONG' is selected.

When 'SHARPNESS STRONG' is selected, the contrast of images is emphasized to produce crispier images.

See Figure 3-223 for the output level noted when 'SHARPNESS WEAK' is selected.

When 'SHARPNESS WEAK' is selected, the contrast of images is weakened to produce softer images.

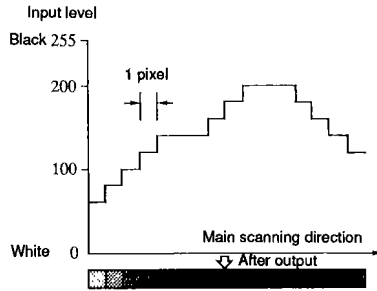


Figure 3-221 Input Level

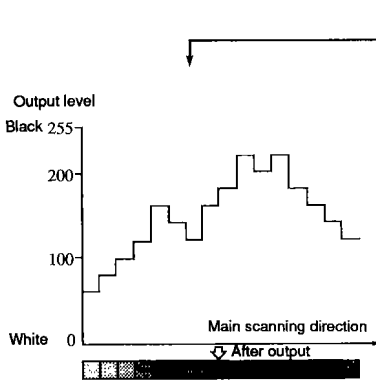


Figure 3-222 SHARPNESS STRONG

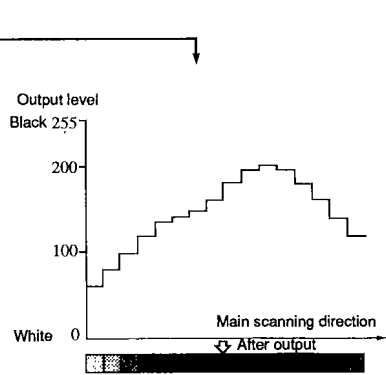


Figure 3-223 SHARPNESS WEAK

10. Correcting the Density (BJ head)

Copies may suffer uneven density because of differing ink dot diameters or irregular nozzle pitch.

The ink ejected by a single nozzle deposits itself on paper in the form of a dot about 90 to 100 μm in diameter; however, it is very difficult to control the ejection so that all dots will be equal in size, sometimes causing uneven density.

To correct such uneven density, a density signal is used to ensure that the density of each unit area will be the same.

The video signals are converted using one of the 64 data conversion curves.

The selection of the curve is determined by the conversion data that corresponds to each nozzle of each head. See Figure 3-224 for the relationship among the input, output, and conversion curve.

Correction of density using conversion data is called head shading (HS).

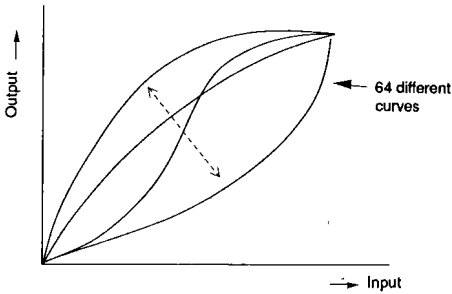


Figure 3-224

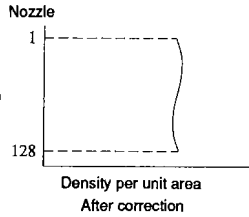
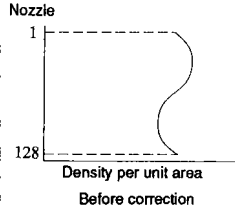


Figure 3-225

To execute head shading, press the HEAD SHADE key on the control panel, place the generated test print on the copyboard glass, and press the HEAD SHADE key on the control panel. The image of the test print image is read by BASIS, and the head shading data to be used is converted. Figure 3-226 shows the test print.

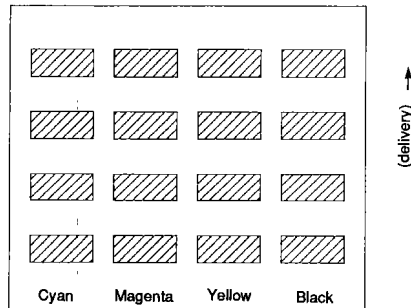


Figure 3-226

11. Binary Processing

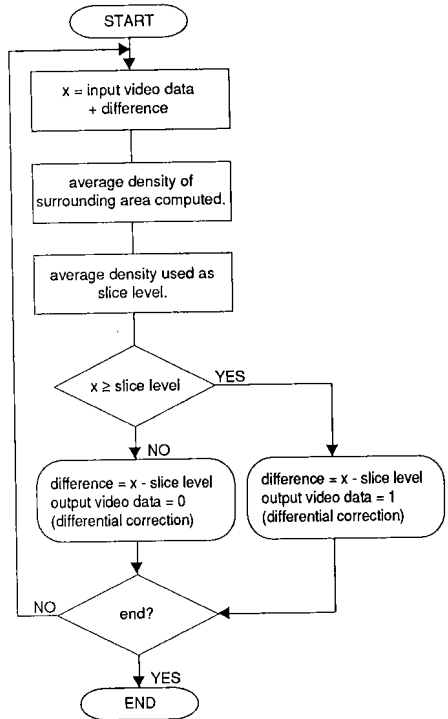
In binary processing, multiple video signals are converted into binary signals and sent to the printer unit.

The copier uses the mean density (MD) retention method, which is a type of the dither method, to convert multiple signals into binary signals.

In the average density retention method, the average density of the area around a pixel whose signal has already been converted into a binary signal is computed and used as a slice level to compute the input video data.

At the time, the difference between the slice level and that of the input video data is used as a binary conversion difference and incorporated into the density of the next pixels (differential correction).

Figure 3-227 is a flow chart that determines the output video data.



Note:

The input data is assumed to be 8-bit data; output data, 1-bit data.

Figure 3-227

12. Black Text Conversion

The pixel identified as being the edge of a black character in black text extraction is processed using black ink; likewise, the inside of the edge will be copied using inks of four colors (cyan, magenta, yellow, black).

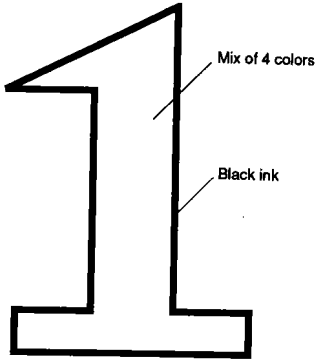


Figure 3-228

[Importance of management]

The bar code label is pasted on the back of the copyboard glass, thus the copyboard glass is the most important part to identifying the copier. For this reason, when replacing the copyboard glass, you must keep a record according to the designated procedure to identify "when", "which customer" and "to which copier" the copyboard glass attached.

13. Color Balance

The color balance circuit processes the density of the entire image. The CPU converts each of the C, M, Y, and BK data items to suit the setting of the DENSITY key or the COLOR BALANCE key on the control panel.

The COLOR BALANCE key input is used to adjust (convert) C, M, Y, and BK colors, and the COLOR BALANCE key is used only on a single color.

14. ID number print

To prevent counterfeiting of paper money, securities, etc., a method in which a unique ID number for each copier is printed on the copy papers in code has been added into the Processing circuitry.

With the ID number print method, bar code data unique to each copier and pasted on the back of the copyboard glass is read when the light intensity of the scanning lamp is adjusted during pre-shipping adjustment and is stored inside the machine; this invisible ID number is then coded and is printed on all copy papers. With this function, if paper money or securities are copied and used, the copier used can be identified.

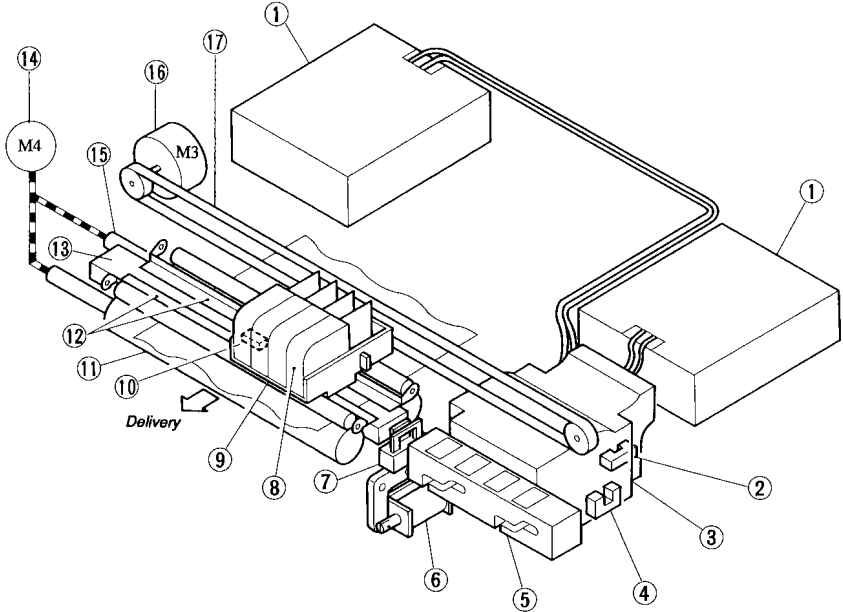
IV. IMAGE FORMATION SYSTEM

A. Outline

1. Construction

The image formation system causes the heads to eject ink to form images on paper based on the video signals read by the reader unit.

See Figure 3-300 for the construction of the image formation system and Table 3-300 for the function of each part.



- | | |
|---|-------------------------------|
| ① Waste ink tank | ⑨ BJ head carriage |
| ② Pressure cam home position sensor (PS7) | ⑩ Paper sensor PCB |
| ③ Suction pump | ⑪ Delivery roller |
| ④ BJ head carriage home position sensor (PS8) | ⑫ Paper holding plate |
| ⑤ Head cap | ⑬ Platen |
| ⑥ Cleaning blade solenoid (SL1) | ⑭ Paper feeder motor (M4) |
| ⑦ Cleaning blade | ⑮ Feeder roller |
| ⑧ Ink cartridge | ⑯ BJ head carriage motor (M3) |
| | ⑰ Motor belt |

Figure 3-300

Ref.	Name	Description
①	Waste ink tank	collects the ink transported by the suction pump.
②	Pressure cam home position sensor (PS7)	detects the home position of the pressure cam inside the suction pump.
③	Suction pump	draws waste ink and air bubbles from the nozzles in the BJ head unit and transports the waste ink to the waste ink tank.
④	BJ head carriage home position sensor (PS8)	detects the home position of the BJ head carriage.
⑤	Head cap	connects with the head ejection face when the BJ head carriage is at the home position to prevent the face from drying and joints the suction pump and the head ejection face.
⑥	Cleaning blade solenoid (SL1)	moves the cleaning blade up and down.
⑦	Cleaning blade	wipes excess ink from the head ejection face.
⑧	Ink cartridge	is a cartridge holding the BJ head unit and the ink tank as one; ejects ink through the head unit and forms images on copy paper.
⑨	BJ head carriage	loads the ink cartridge and moves the BJ head forward and in reverse.
⑩	Paper sensor PCB	loaded on the BJ head carriage and detects the width of the copy paper and checks if the paper is in contact during copying operation.
⑪	Delivery roller	delivers copy paper.
⑫	Paper holding plate	keeps copy paper against the platen to ensure that the surface of the paper is even.
⑬	Platen	keeps the surface of the copy paper even while transporting it; at the time, the BJ head unit scans the platen to make copies.
⑭	Paper feeder motor (M4)	drives the feeder roller, delivery roller, and suction pump.
⑮	Feeder roller	transports copy paper.
⑯	BJ head carriage motor (M3)	moves the BJ head carriage forward and in reverse.
⑰	Motor belt	joints the BJ head carriage motor (M3) and the BJ head carriage to transmit the drive of the motor to the carriage.

Table 3-300

2. Outline of Operation

The DC controller PCB drives the BJ head carriage motor (M4) to move the BJ head carriage forward. While the carriage is moving forward, ink is ejected by the BJ head to the copy paper on the platen to form copy images.

When the BJ head carriage has moved forward for a distance equal to the width of the copy paper, the BJ head carriage motor rotates in reverse to return the BJ head carriage to the start position.

At the start position, the BJ head executes idle ejection of ink to prevent clogging.

3. Sequence of Operations

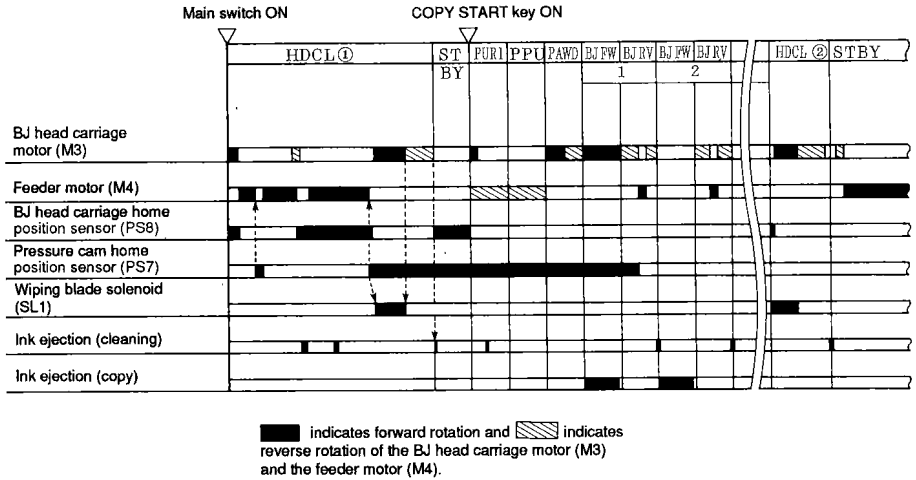


Figure 3-301 Image Formation System Sequence of Operations

Period	Description
HDCL ① (head cleaning ①)	period between when the copier is switched ON and when head cleaning 1 is over; the mode of head cleaning differs depending on the condition of the copier.
STBY (standby)	waits for a press on the COPY START key.
PURI	sets the pick-up roller at the pick-up start position.
PPU	picks up paper.
PAWD (paper width identification)	identifies the width of the paper; this is to prevent adhesion of ink on the platen that would occur if the BJ head carriage scanned the platen beyond the width of the paper.
BJFW (BJ head forward)	moves the BJ head carriage forward; during the period, ink is ejected by the head nozzle to form copy images on paper.
BJRV (BJ head reverse)	moves the BJ head to the start position after its forward movement; during the period, the paper is moved for a single band.
HDCL ② (head cleaning ②)	between when copying operation is over and when head cleaning is over; the mode of head cleaning differs depending on the copy count set in the DC controller PCB. (What is given in Figure 3-301 is based on when the copy count is 20 or less; for details, see p. 3-55.)

Table 3-301

B. BJ Head Carriage

1. Outline

Figure 3-302 shows the parts comprised in the BJ head carriage and those associated with the generation of drive.

The BJ head is moved forward or in reverse by the BJ head carriage motor (M3).

The home position of the BJ head carriage is checked by the BJ head carriage home position sensor (PS8).

The BJ head carriage is moved to the start position and forward or reverse by the number of motor pulses counted in reference to the home position.

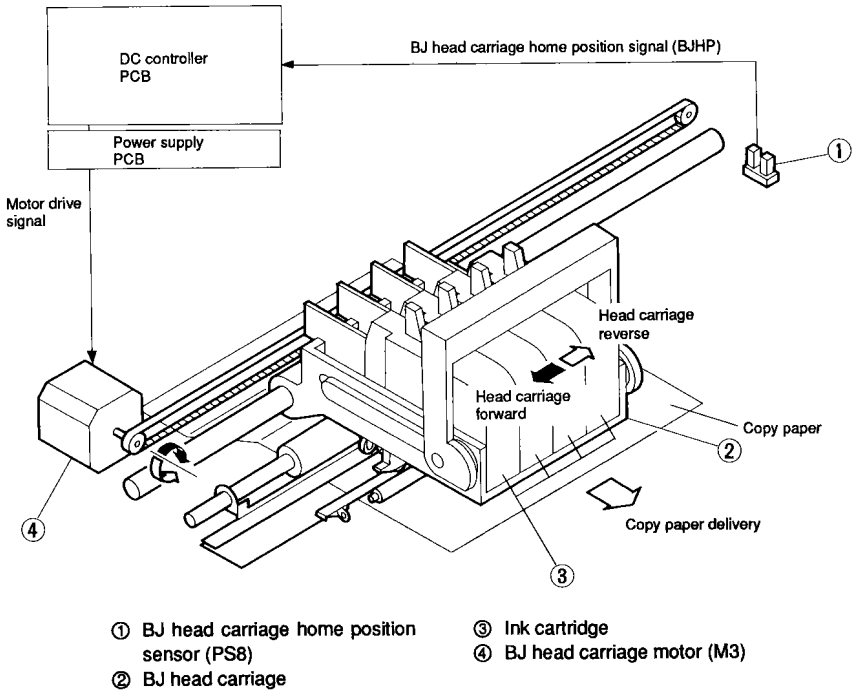


Figure 3-302

2. Operations

When the COPY START key is pressed, the DC controller PCB drives the BJ head carriage motor (M3) to move the BJ head carriage to the start position.

After idle ejection for head cleaning has been executed, the BJ head is then moved forward.

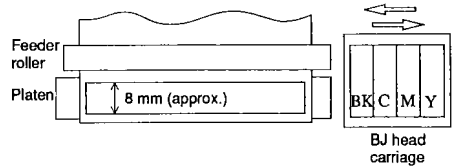
While the BJ head carriage is moving forward, the DC controller PCB moves the BJ head based on the video signals coming from the reader unit to make a copy in bands about 8 mm in width.

When a single forward movement is finished, the DC controller PCB rotates the BJ head carriage motor in reverse to move the BJ head carriage to the start position.

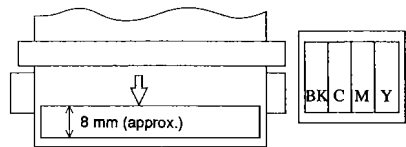
When a single copy is completed, the BJ head carriage is returned to the home position.

3. Image Formation

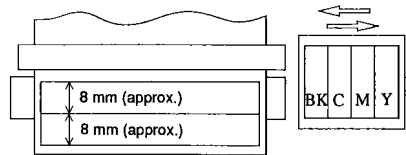
- 1) The BJ head carriage moves forward forming images on paper in bands about 8 mm in width; thereafter, the BJ head carriage moves in reverse.



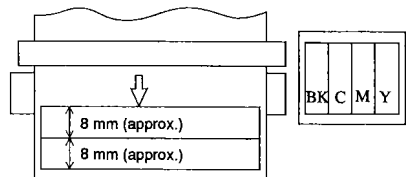
- 2) The paper is moved forward about 8 mm.



- 3) The BJ head carriage moves forward forming images on paper in bands about 8 mm in width; thereafter, the BJ head carriage moves in reverse.



- 4) The paper is moved forward about 8 mm.



- 5) Steps 1) through 4) are repeated as necessary to form the entire copy image.

Figure 3-302a

4. Copy Widths and Reproduction Ratios

The width over which a single scan of the BJ head carriage covers differs for DIRECT, ENLARGE, and REDUCE modes; see Table 3-302.




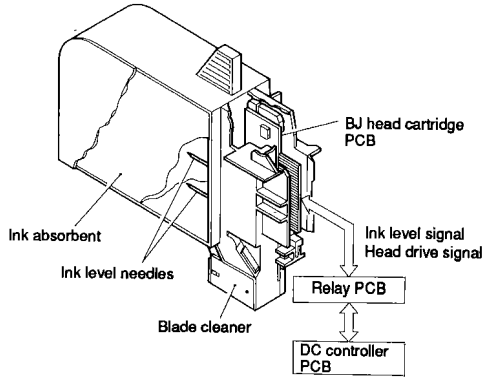
DIRECT	Copy width	Nozzles used for ejection		Paper movement	
DIRECT/ ENLARGE	8 mm (approx.)	All nozzles 		8 mm (approx.) for each carriage forward move- ment	
REDUCE	4 mm (approx.)	Number of carriage forward movements	Odd	64 nozzles  Front half	8 mm (approx.) for each two carriage forward movements
			Even	64 nozzles  Rear half	

Table 3-302

5. Ink Cartridge

a. Outline

In the copier, the parts used between the ink tank and the BJ head are constructed as a single entity and called *ink cartridge*. The ink cartridge contains sealed ink; i.e., either cyan, magenta, yellow, or black ink.



■ BJ Head Unit

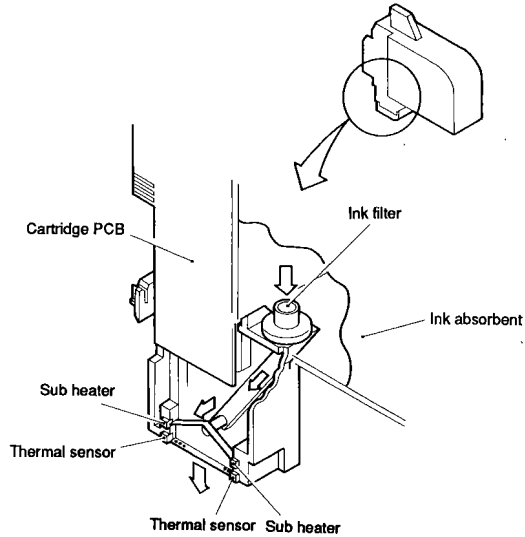


Figure 3-303

The following is an outline of the function of each part:

- Ink Tank Stores ink in absorbent material sealed inside it; about 60 mL.
- BJ Head Ejects ink from the 128 nozzles arranged in a row to form copy images based on the drive signals from the DC controller PCB.
- Cartridge PCB Communicates the heater drive signal to the heater; the signal is sent by the DC controller PCB to the BJ head. The ROM on the PCB contains the numbers of the cartridges and ink colors among other data items.
- Ink Filter Removes miniscule dust particles from the ink and the ink absorbent to prevent clogging of the head nozzles.
- Ink Absorbent Absorbs the ink removed by the cleaning blade during head wiping operation.
- Ink Level Detector Measures the resistance between two needles driven into the ink absorbent to find out the level of remaining ink.
- Heater Helps eject ink and controls the temperature of the head unit (main heater); Controls the temperature of the head unit (sub heater). Each nozzle is equipped with a main heater.
- Thermal sensor Detects the temperature of the head.

b. Controlling the Degree of Ejection

The copier applies pulses to the main heater for ejection of ink; see Figure 3-304.

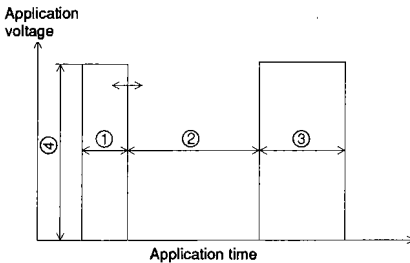


Figure 3-304

If the temperature of the head changes because of changes in the ambient temperature or activation of the main heater, the viscosity of ink changes, causing the amount of ink for ejection (copy density) to change.

To maintain the degree of ejection constant against fluctuations in the head temperature, the pre-heat time is shortened when the head temperature is high.

A different pre-heat time leads to a different rest period so that the total of both pre-heat and rest periods is always the same.

- ① Pre-Heat Period
The temperature of the main heater is controlled to a specific value in preparation for ejection; no bubble is generated during the period.
 - ② Rest Period
The heater is not given pulses.
 - ③ Main Heat Period
Bubbles are generated inside the head, and ink is ejected.
 - ④ Voltage Application
A specific voltage is applied during both pre-heat and main heat periods.
- ① and ② are constant
 ① pre-heat period
 ② rest period

The main heat period is constant regardless of the temperature of the head.

The temperature of the head is monitored by the two thermal sensors attached to the head.

c. Controlling the Temperature of the Head

The temperature of the head unit is controlled by the main heater and the sub heater found in the head unit to control it to 25°C or more.

The temperature of the head is monitored by thermal sensors, and heaters appropriate for the measured temperature are used.

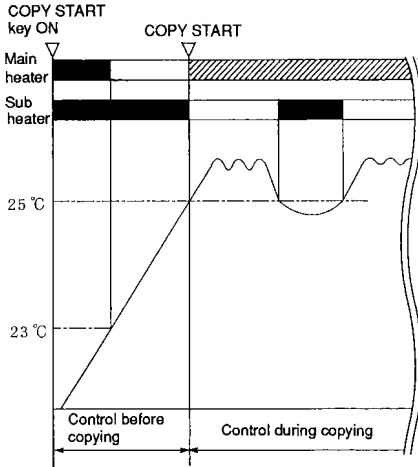


Figure 3-305

Note:

After the COPY START key is pressed, the main heater is used for temperature control and ink ejection; see p. 3-52.

d. Preventing Overheating

If the head was subjected to high temperature for some time, normal ink ejection would not be possible. The copier checks for such a problem at time of power-on and after finishing each copy. If the head temperature remains 48°C or more for two minutes or more, the copying operation is stopped.

e. Checking the Level of Remaining Ink

The copier checks the level of remaining ink by measuring the resistance between two needles driven into the ink absorbent.

The ink retained in the absorbent is conductive, and the resistance between the needles increases when the level of ink drops.

Measuring the Level of Remaining Ink

- ① at time of power-on
- ② upon completion of copy (including continuous copying)
- ③ upon completion of head cleaning ③ (by CLEAN key)

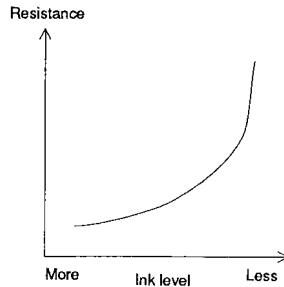


Figure 3-306

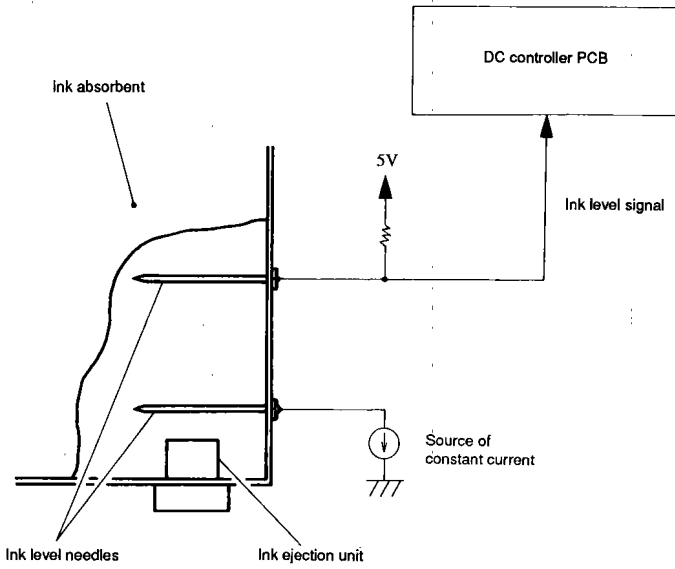


Figure 3-307

C. Head Cleaning

1. Outline

The head cleaning unit is used to remove bubbles from the head nozzles and to remove ink from the head nozzle face.

The head cleaning operation consists of combinations of the following operations:

■ Idle Ejection

Ink is ejected against the head cap when the BJ head carriage is at the start position.

■ Suction

The suction pump is activated to draw the ink from inside the nozzles when the BJ head carriage is at the home position.

■ Head Wiping

The cleaning blade removes ink from the head face.

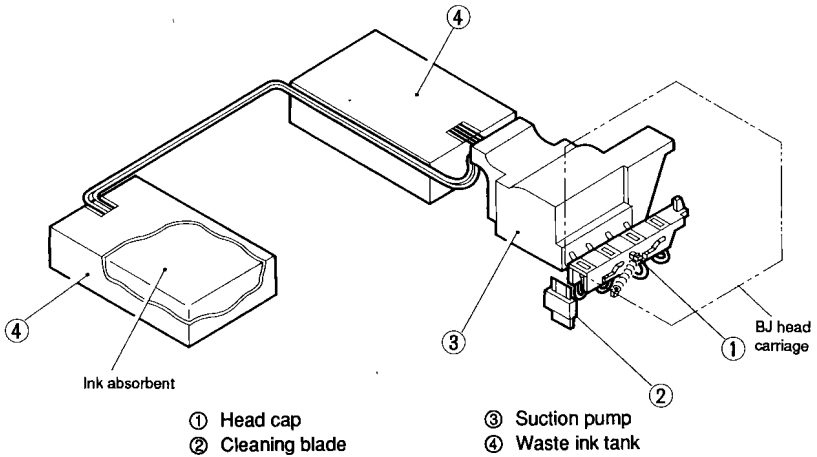
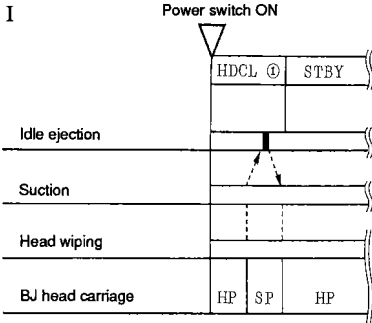


Figure 3-308

2. Head Cleaning Operation

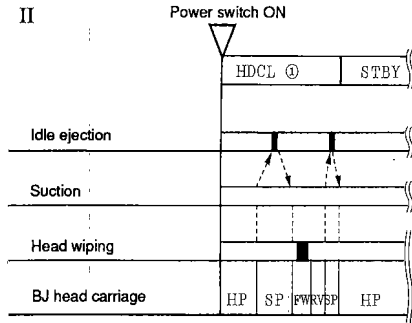
a. Head Cleaning 1

The operation is executed when the copier is switched ON. The DC controller executes either of the following depending on the condition of the copier.



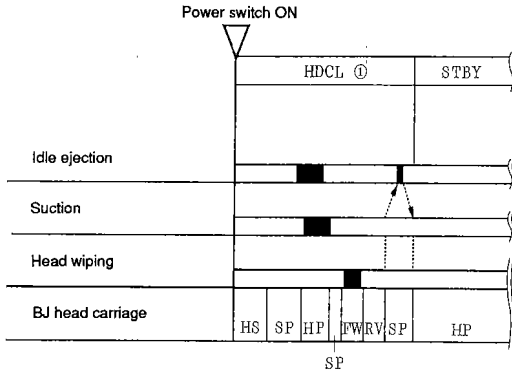
HP: home position
SP: start position

Figure 3-309



HP: home position
SP: start position
FW: forward
RV: reverse

Figure 3-310



HP: home position
SP: start position
FW: forward
RV: reverse

Figure 3-311

b. Head Cleaning 2

During copying operation, idle ejection is executed before each forward movement of the carriage, and head wiping is executed after making a single copy, i.e., after all main scanning operations for a single copy is over.

Suction is executed every 20 copies, and the number of copies is counted by the DC controller PCB.

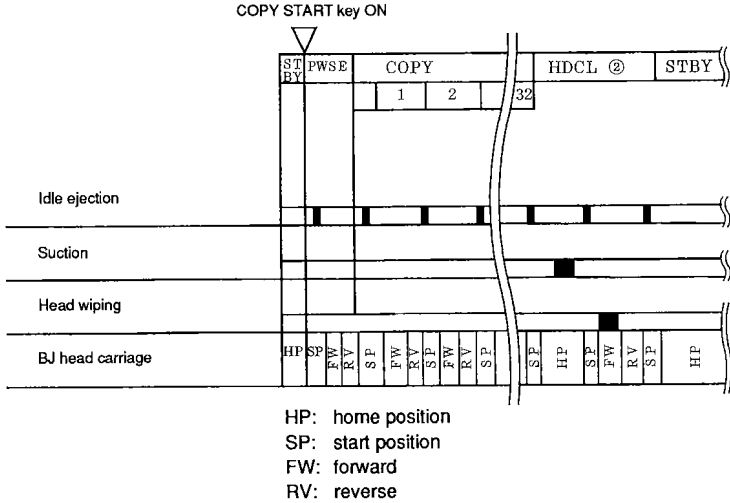


Figure 3-312

c. Head Cleaning 3

The operation is executed when the HEAD CLEAN key on the control panel is pressed. Use it when white lines are noted on the copy image. For better cleaning results, idle ejection for this operation uses more ink than normal cleaning operation.

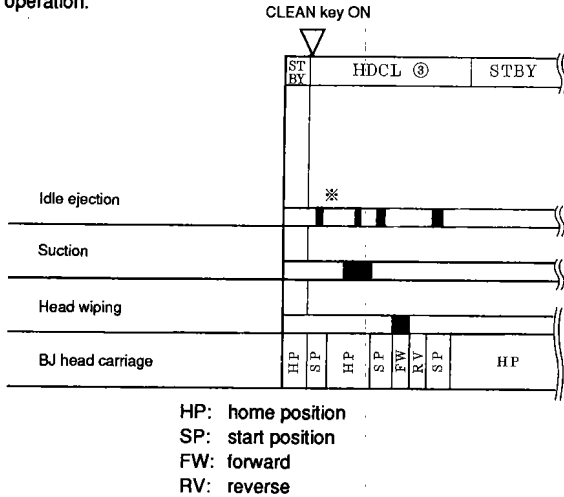
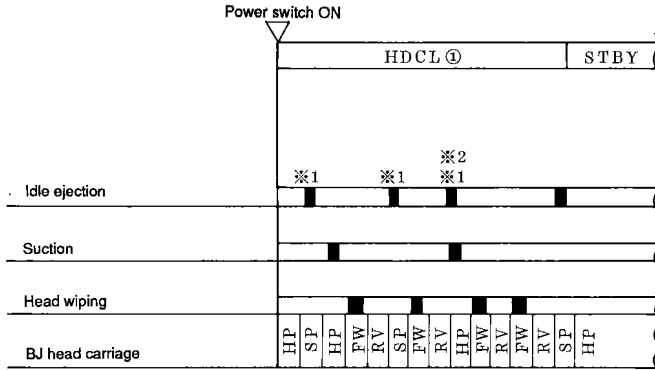


Figure 3-313

d. New Cartridge Head Cleaning

When the copier is switched ON with a new cartridge, the following operation is executed to lead ink from the ink tank unit to the head unit.

The cartridges are identified as new with reference to the ID number stored in the ROM on the cartridge PCB.



HP: home position
 SP: start position
 FW: forward
 RV: reverse

- ※ 1 More ink than in normal operation is used; idle ejection is not executed unless the cartridge is new.
- ※ 2 Idle ejection is executed during suction operation to lead ink to the head unit of the new cartridge.

Figure 3-314

3. Suction Pump

The copier's suction pump is used to draw ink from the head nozzles and also to direct the ink to the waste ink tank.

When the BJ head carriage moves to the home position, the head cap comes into contact with the BJ head; at the same time, the guide roller rotates to cause the pressure cam to push the feeder tube against the housing, thereby creating suction. See Figure 3-315.

The suction pump is driven by the paper feed motor (M4), and the drive path is provided with a one-way clutch to prevent counter rotation of the suction pump that would otherwise occur when the motor rotates in reverse.

The suction pump is equipped with a pressure cam home position sensor (PS7) to detect the suction start point of the guide roller.

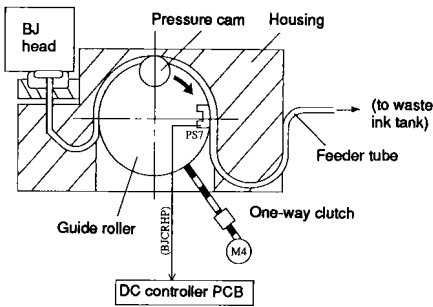


Figure 3-315

The drawn ink is retained by the ink absorbent inside the waste ink tank. The absorbent is designed to last the life of the copier.

The copier keeps count of suction operations and assumes that the waste ink tank is full when the count exceeds a specific number.

The above condition causes the error code 'E146' to go ON on the control panel and suspends copying operation.

To reset the machine, replace the waste ink tank and reset the suction count in the service mode.

Note:

- The tank is assumed to be full after 10,000 suction operations.
- The count increases by two or three for every suction operation.

4. Head Wiping

In this operation, ink collecting on the head nozzles is removed by the cleaning blade.

The DC controller PCB moves the cleaning blade up and down using the wiping solenoid (SL1).

Next, it moves the BJ head carriage forward from the start position; at the time, the tip of the blade comes into contact with the BJ head face and removes the ink. After the forward movement is over, the DC controller PCB lowers the cleaning blade and returns the BJ head carriage to the start position.

This head wiping operation is executed when the BJ head carriage is moving forward but is not executed when it is moving in reverse; this is to prevent splashing of the ink removed from the head face.

When the BJ head carriage returns to the start position, idle ejection is executed to prevent mixing inks of different colors. The ink removed by head wiping operation is collected by the ink absorbent in the BJ head cartridge.

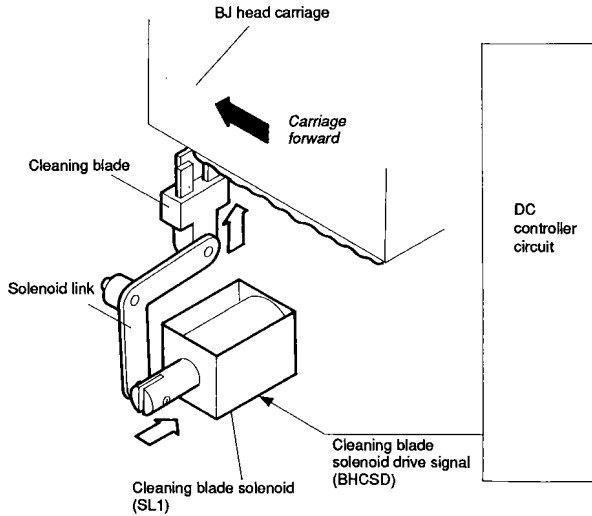


Figure 3-316

D. Paper Sensor PCB

The paper sensor PCB attached to the BJ head carriage checks the presence/absence of paper on the platen or if the paper is in contact with the platen.

The paper sensor PCB consists of a paper width sensor (PS10) and a paper off-contact sensor (PS9).

1. Paper Width Sensor (PS10)

After pick-up operation, the BJ head carriage moves forward on the platen to check the paper width. While it is moving forward, the paper width sensor shines light on the platen to check the presence/absence of paper and its width.

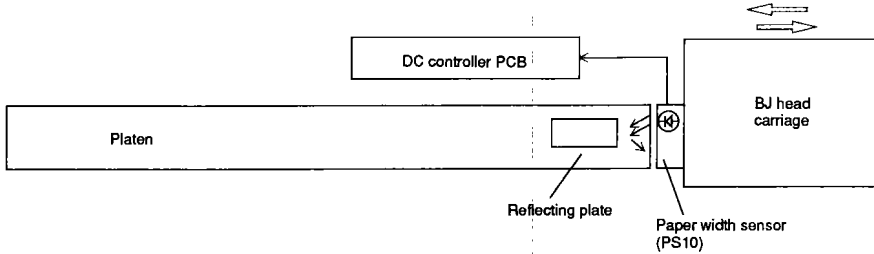


Figure 3-317

a. Checking the Presence/Absence of Paper
■ Copy Paper Present

The level of reflection is high when there is coated paper on the platen and low when there is no paper, as the platen is black. The presence/absence of coated paper is checked based on the level of reflection.

In the case of the OHP mode, however, the presence/absence of OHP is checked by the presence/absence of paper over the delivery sensor (PS5) after feeding operation.

b. Distinguishing Between Coated Paper and OHP Film

The level of reflected light along the platen and reflector differs between coated paper and OHP film as shown in Figures 3-318 and -319.

■ Coated Paper

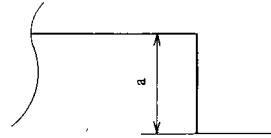


Figure 3-318

■ OHP film

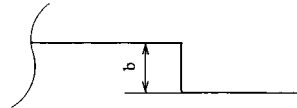


Figure 3-319

c. Checking the Width of Paper

The BJ head carriage is moved ahead and the distance up to the point at which the level of reflected light changes is assumed to be the width of paper (border between the paper and the platen). Although the width of paper is not identified in the OHP, the BJ head is nevertheless moved ahead.

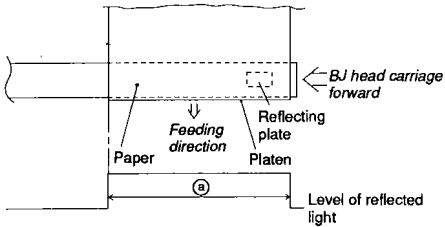


Figure 3-320

■ Checking for Paper Skew and Displacement at Copy Start Position

If the copy paper that has moved to the platen is askew or displaced, a discrepancy will occur in the point at which the level of reflected light is checked; compare Figure 3-321a and 3-321b and c.

If the discrepancy (A) is about 3.8 mm or more, the DC controller PCB identifies the condition as paper skew and causes the JAM message to be indicated on the control panel.

Skew or displacement is not checked in the OHP mode.

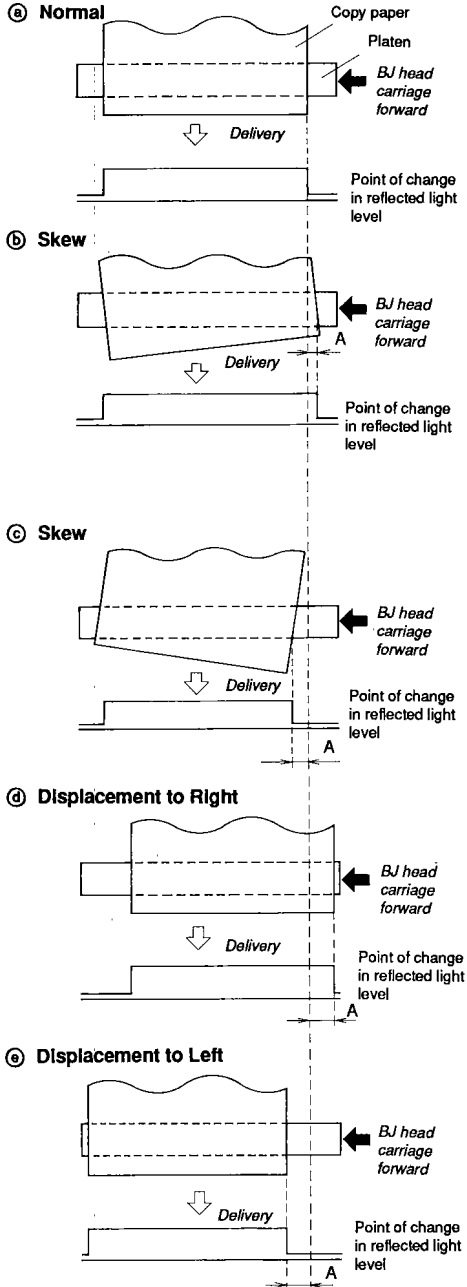


Figure 3-321

2. Paper Off-Contact Sensor (warp sensor)

Figure 3-322 is a diagram of the mechanism that checks the contact of paper.

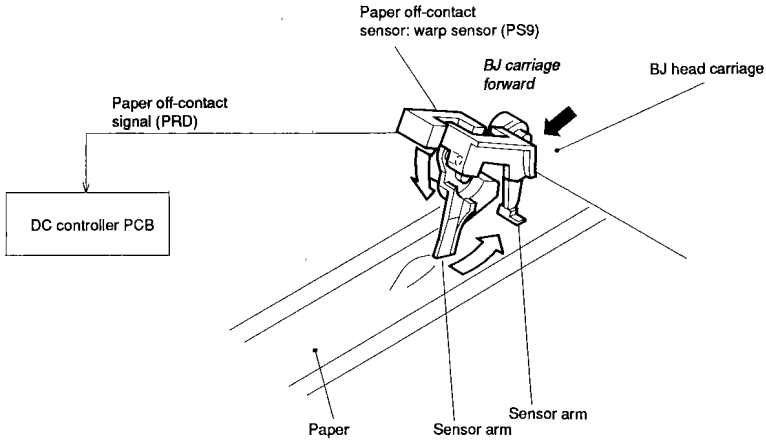


Figure 3-322

If the paper is not in firm contact with the platen while the BJ head carriage is moving forward because of curling or a faulty paper holding plate, the arm activates the paper off-contact sensor: warp sensor (PS9) to identify the condition. The condition causes the on-going copying operation to be suspended and the JAM message to be indicated on the control panel.

When the condition is identified, the friction between the paper and the head is eliminated, thereby preventing adhesion of ink to the platen.

V. PICK-UP/FEEDER SYSTEM

A. Outline

The copier's pick-up/feed operations can be divided into the following:

- Pick-up operation
- Feeding operation
- Delivery operation

Paper is picked up by the pick-up roller and fed by the feeder roller and the delivery roller.

All rollers are driven by the feeder motor (M4). The presence of paper, when pick-up is from the cassette, is checked by the pick-up sensor (PS6).

A jam is identified by the pick-up sensor (PS6), delivery sensor (PS5), and the paper off-contact sensor (PS9) as well as the paper width sensor (PS10) on the paper sensor PCB attached to the BJ head carriage.

See Figure 3-400 for a diagram of the system.

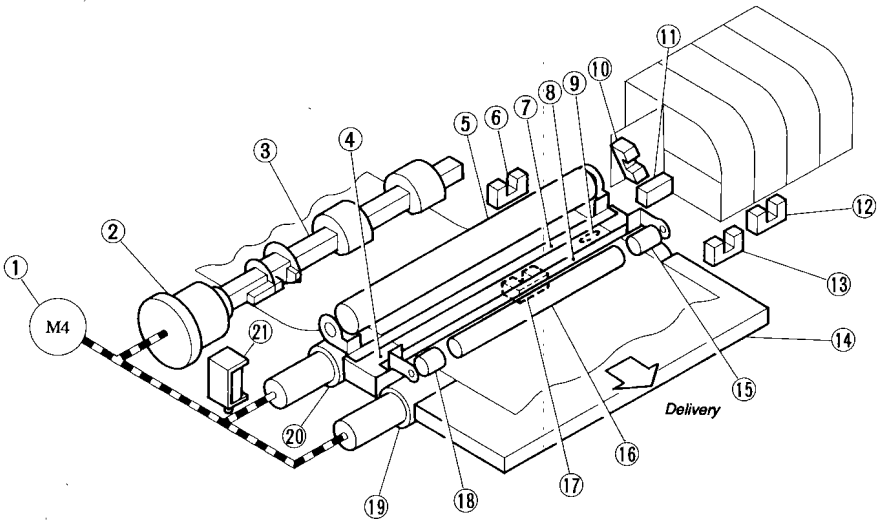


Figure 3-400

- | | | |
|-------------------------------|----------------------------------|--------------------------|
| ① Feeder motor (M4) | ⑨ Reflecting plate | ⑮ Upper delivery roller |
| ② Pick-up clutch | ⑩ Paper off-contact sensor (PS9) | ⑯ Delivery sensor (PS5) |
| ③ Pick-up roller | ⑪ Paper width sensor (PS10) | ⑰ OHP film roller (left) |
| ④ Platen | ⑫ OHP mode sensor (PS4) | ⑱ Delivery roller |
| ⑤ Upper feeder roller | ⑬ Manual feed sensor (PS3) | ⑳ Feeder roller |
| ⑥ Pick-up sensor (PS6) | ⑭ Delivery guide | ㉑ Pick-up solenoid (PL2) |
| ⑦ Paper holding plate (front) | ⑮ OHP film roller (right) | |
| ⑧ Paper holding plate (front) | | |

B. Controlling the Feeder Motor (M4)

The feeder motor (M4) is used to drive the pick-up roller, feeder roller, and delivery roller.

In addition to pick-up and feeding operations, it also provides drive to the suction pump.

The distance over which the paper is moved is controlled by the motor drive signal generated by the DC controller PCB; for details, see p. 3-63.

C. Sequence of Operations

The following is an outline of how paper is picked up, fed, and delivered depending on the source of pick-up, i.e., cassette or manual feed assembly.

1. Pick-Up, Feed, Delivery (cassette, A4, 1 sheet, coated paper)

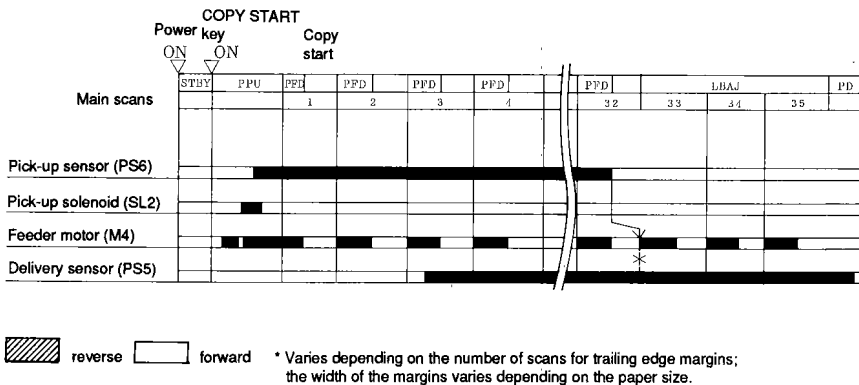


Figure 3-401

2. Pick-Up, Feed, Delivery (cassette, A4, 2 sheets, continuous)

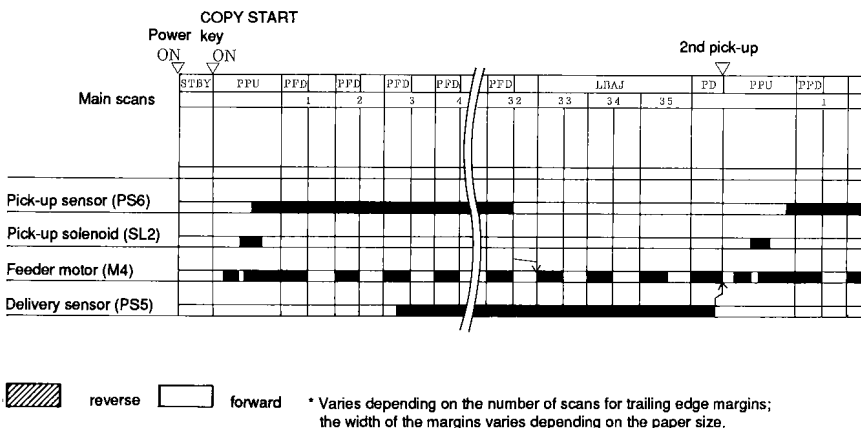


Figure 3-402

3. Pick-Up, Feed, Delivery (manual feed assembly, A4, 1 sheet, coated paper)

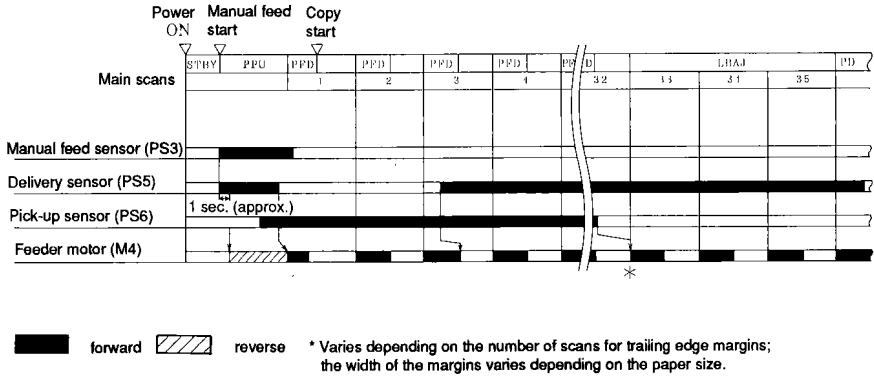


Figure 3-403

D. Pick-Up Operation

1. Outline

The copier picks paper from either its cassette or its manual feed assembly, each having its own paper path.

For the copier, pick-up operation covers the period between the time paper is picked up from the cassette or the manual feed assembly (delivery assembly) and the time the paper reaches the copy start position. In the diagrams below, → refers to the flow of paper.

■ Pick-Up from Cassette

The paper is picked up from the cassette and stopped at the copy start position after the pick-up sensor (PS6) has gone ON.

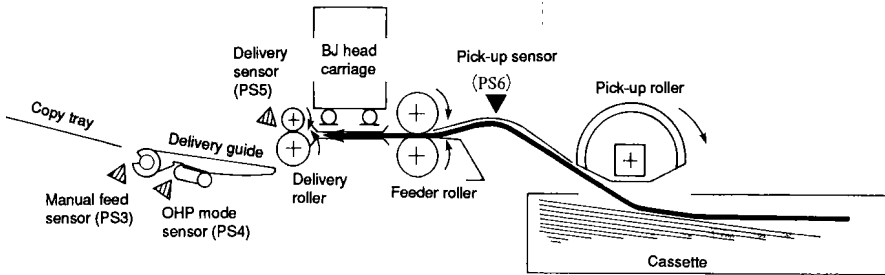


Figure 3-404

■ **Pick-Up from Manual Pick-Up Slot**

In the manual mode, paper is picked up at the front of the machine and delivered at the front also. The paper is picked up from the delivery assembly and switched back after the delivery sensor (PS5) has gone OFF; it is then stopped at the copy start position.

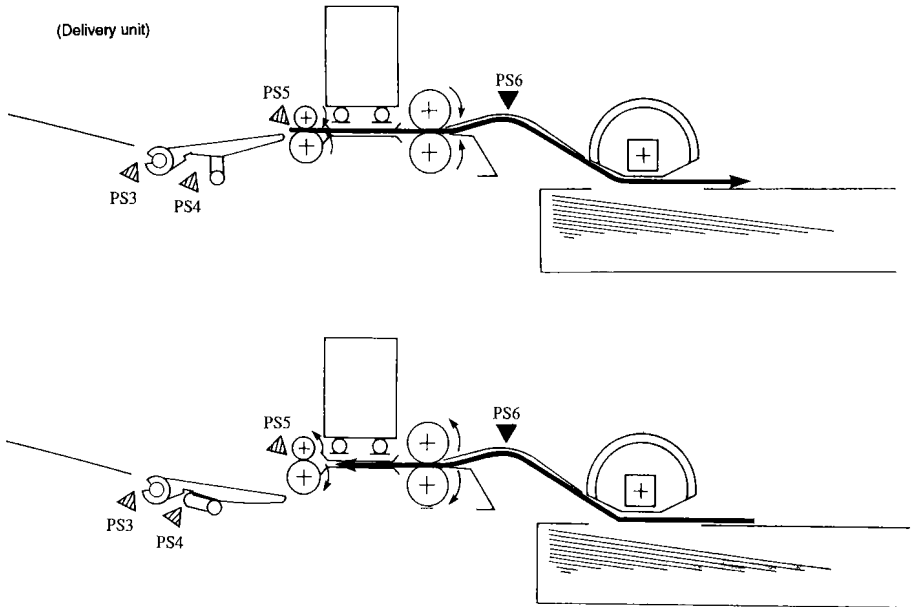


Figure 3-405

Leading Edge of Paper at Copy Start Position

After the paper is picked up, it is moved to the feeder roller and then over the platen until it is stopped with its leading edge in front of the delivery roller.

At the time, the paper has been moved over a distance equal to the leading margin and is ready for copying of the first band; this position represents the copy start position.

After the paper has been pulled inside the machine, the DC controller PCB checks the following sensors and then sends the motor drive signal (pulse signals) to the feeder motor (M4).

- cassette pick-up sensor (PS6; checks that it has gone ON)
- manual feed assembly pick-up sensor (PS5; after checks that it has gone OFF)

Based on the results of the above checks, the DC controller PCB determines the position of the leading edge of the paper.

Figure 3-406 shows the position of the leading edge of coated paper and OHP film.

Unlike coated paper, OHP film is moved by the feeder roller and OHP roller as soon as copying is started.

In other words, the two rollers are used to hold OHP film since its body tends to prevent it from remaining in contact with the platen. Note that the leading edge margin differs between coated paper and OHP film.

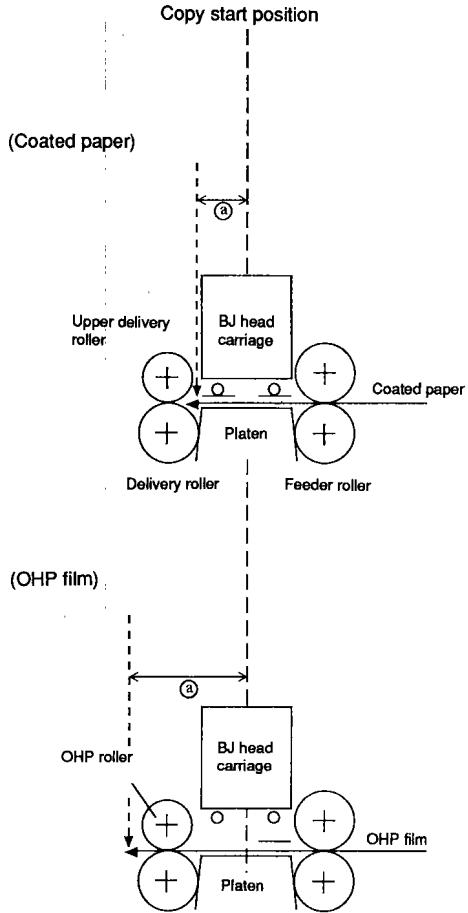


Figure 3-406 (cross section)

2. Pick-Up from Cassette

a. Outline

The paper inside the cassette is moved to the feeder roller by a single rotation of the pick-up roller.

The rotation of the pick-up roller is controlled by turning the pick-up solenoid (SL2) ON and OFF.

The pick-up roller rotates to a position where it can pick up paper driven by the spring clutch (control ring) attached to the roller shaft; thereafter, it makes another single rotation and stops.

The paper is moved from the feeder roller to the platen after the pick-up sensor (PS6) has gone ON.

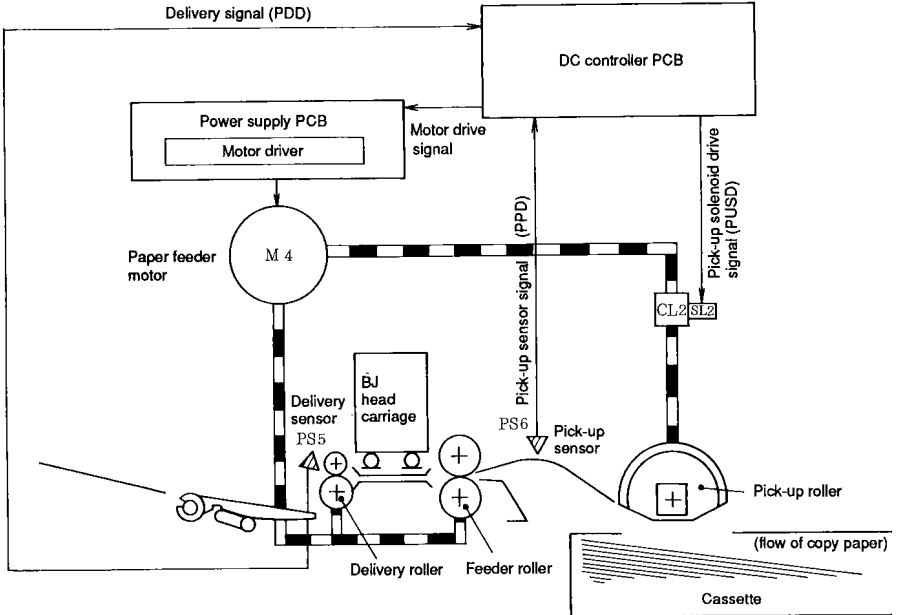


Figure 3-407

b. Pick-Up Operation

- 1) The COPY START key is pressed.
- 2) The feeder motor (M4) starts to rotate, thereby rotating the pick-up roller and picking up paper from the cassette.

The pick-up sensor (PS6) goes ON, and the paper is pulled to the feeder roller.

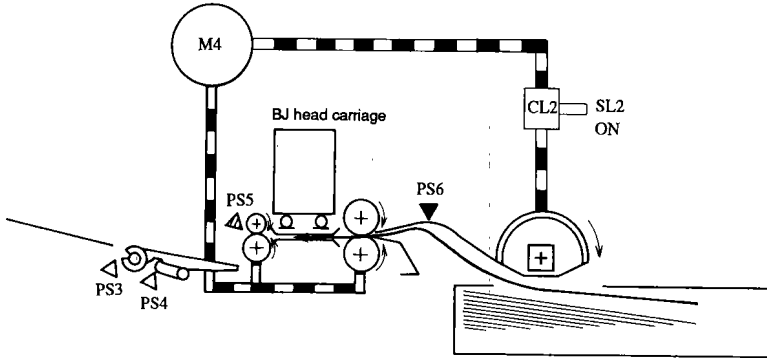


Figure 3-408

c. Presence/Absence of Paper in Cassette

The presence of paper inside the cassette is checked by the pick-up sensor (PS6).

Following a specific period of time after the pick-up roller has started to rotate, the DC controller PCB checks if PS6 is ON or OFF.

If the pick-up sensor does not go ON, the DC controller PCB identifies the condition as the absence of paper and indicates the ADD PAPER message on the copy count/ratio display.

■ **Checking the Presence/Absence of Paper (PS6)**

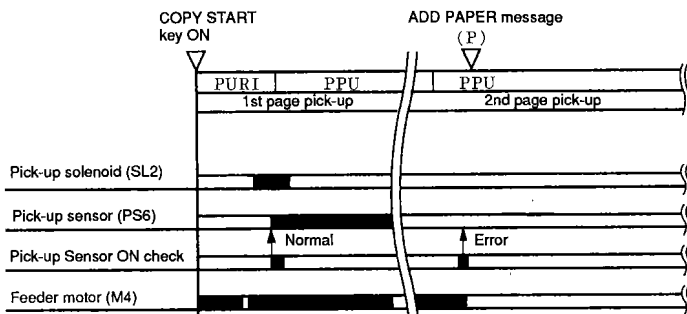


Figure 3-409

2. Manual Pick-Up

a. Outline

After the MANUAL key has been pressed and when the delivery sensor (PS5) remains ON for 1 sec, the DC controller PCB generates the motor drive signal to the feeder motor (M4).

In response, the feeder motor starts to rotate in reverse. The feeder motor starts to rotate forward when the trailing edge (leading edge during copying operation) of the paper has moved past the delivery sensor (PS5); as a result, the paper switches back and stops at the copy start position. The operation is different for OHP film.

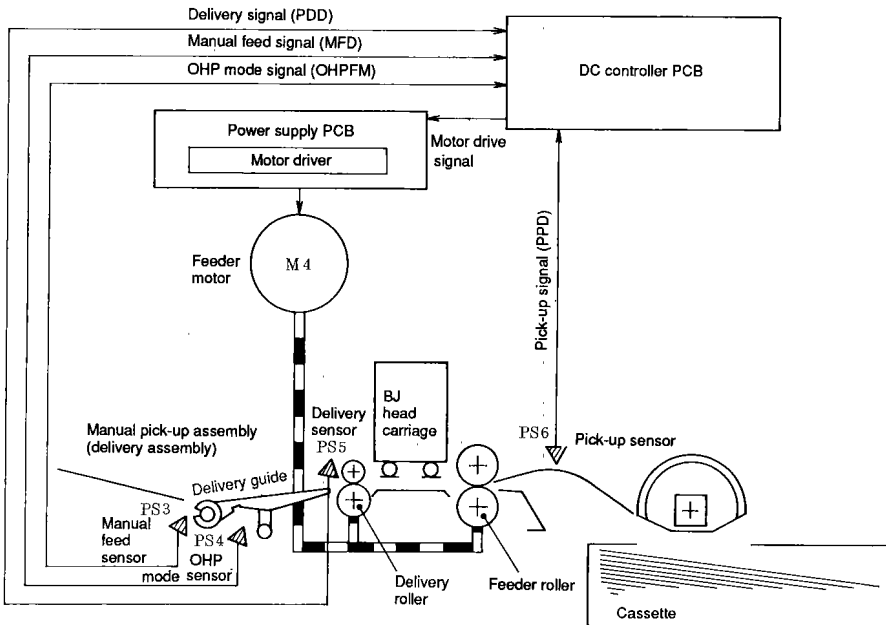


Figure 3-410

b. Pick-Up from Manual Feed Assembly

- 1) The MANUAL FEED key is pressed, and the manual feed sensor (PS3) goes ON. At the same time, the delivery guide rises to the height of the delivery roller.

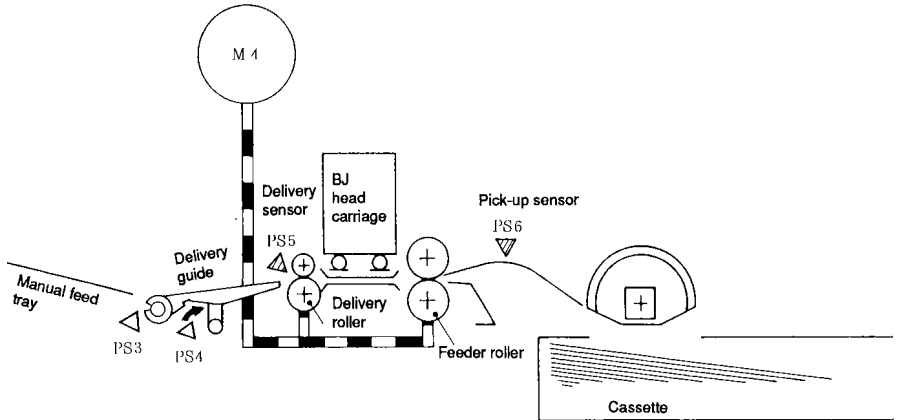


Figure 3-411

- 2) When paper is inserted into the manual feed assembly, the delivery sensor (PS5) goes ON; 1 sec later, the feeder motor (M4) rotates in reverse, rotating the delivery and feeder rollers in reverse to pull the paper inside the machine.

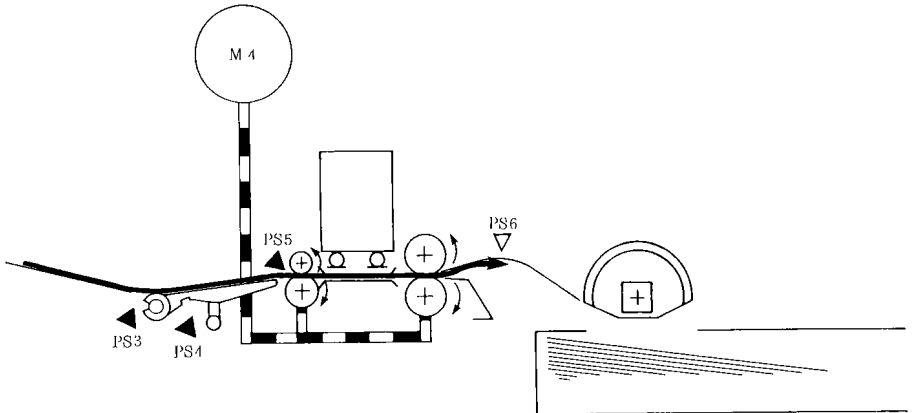


Figure 3-412

- 3) The trailing edge (leading edge during copying operation) of the paper moves past the delivery roller, and the delivery sensor (PS5) goes OFF.

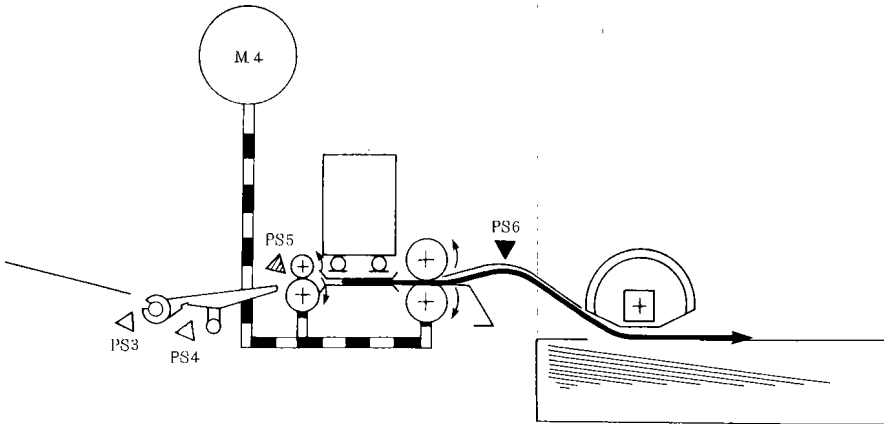


Figure 3-413

- 4) A specific period of time after the delivery sensor (PS5) has gone OFF, the feeder motor starts to rotate forward; the paper is held at the feeder roller. The condition switches the direction of the feeder roller and delivery roller rotation, and the paper switches back and moves to the copy start position.

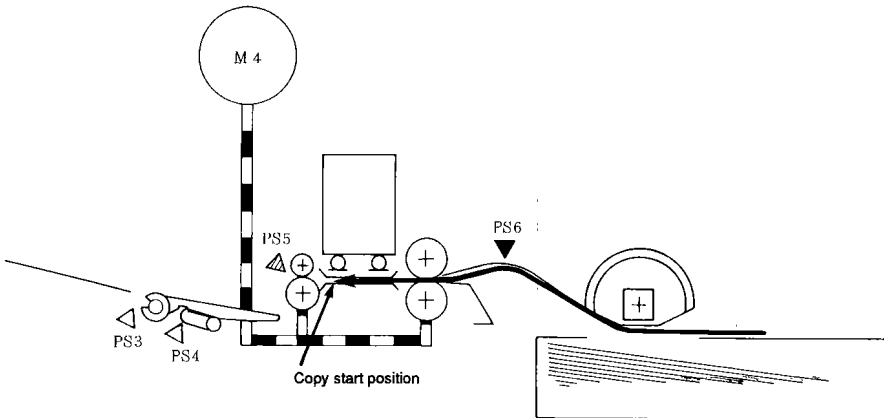


Figure 3-414

■ **Movement of the Delivery Guide**

In the manual mode, the delivery guide also serves as a pick-up guide.

When the MANUAL FEED key is pressed, the delivery guide rises to the height of the delivery roller; this is to ensure that the paper, upon insertion into the manual feed assembly, will block the delivery sensor (PS5). The delivery guide lowers to its original position upon completion of pick-up operation.

- 1) The MANUAL FEED key is pressed.
 - The manual feed shaft receives drive through the clutch attached to the manual feed shaft. At the same time, the boss rotates to raise the delivery guide to the height of the delivery roller.
- 2) Paper is inserted into the manual feed assembly, and pick-up operation begins.
 - While all this is taking place, the feeder motor (M4) is rotating in reverse; however, the manual feed shaft is prevented from rotation by the manual feed clutch.
- 3) The paper starts to switch back.
 - The feeder motor starts to rotate forward; the drive of the motor is transmitted to the manual feed shaft, and the boss rotates in the direction of the arrow shown in Figure 3-418. At the same time the delivery guide returns to its original position, and the MANUAL FEED key is released.

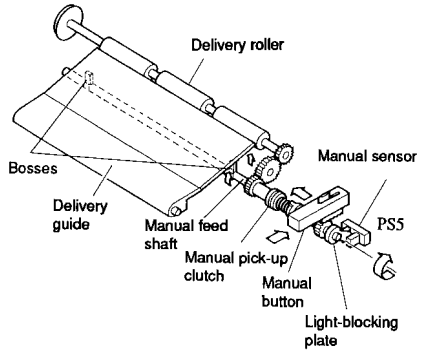


Figure 3-415

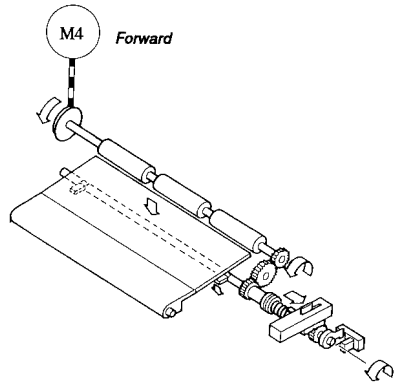


Figure 3-416

c. OHP Mode

In addition to coated paper, the copier can handle special OHP film (manual mode).

OHP film must be picked up and fed in a different way; for copying on OHP film, press the OHP key (Figure 3-419).

Unlike coated paper, OHP film does not absorb BJ ink readily, possibly staining the upper delivery roller and the paper holding plate (front) with BJ ink after copying.

To prevent such a problem, the copier releases the upper delivery roller, which is linked to the delivery roller, to release the paper holding plate (front) and the upper delivery roller in the OHP mode.

At the same time, a gap is created between the BJ head and the paper to prevent friction against the head.

The OHP film, after pick-up and switch-back, is moved by the rotation of the OHP film roller and the feeder roller.

■ Sequence of Operations (pick-up in OHP mode)

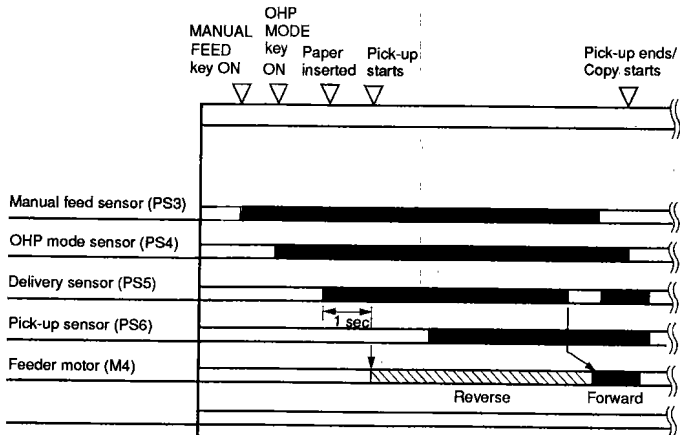


Figure 3-417

■ Pick-Up and Feed Operations

When the OHP key is pressed, the pick-up and feed operations are executed as follows:

- The release shaft rotates 90°, and the boss on the shaft is released.
- At the same time, the delivery roller is released.
- The rotation of the release cam on the release shaft releases the paper holding plate (front).

Note:

The OHP mode is not cancelled until the OHP key is pressed once again.

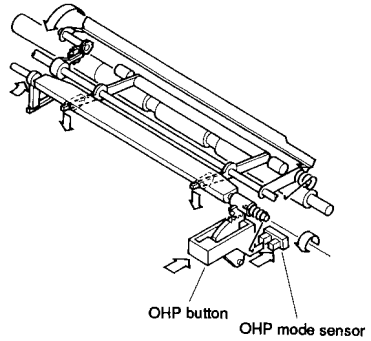


Figure 3-418

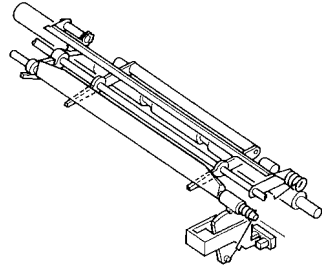


Figure 3-419

Note:

- When the release shaft rotates 90°, the release cam raises the BJ head carriage so that the roll of the BJ head carriage can execute copying operation without being in contact with the latter.

At the time, the release shaft serves as a rail for the BJ head carriage.

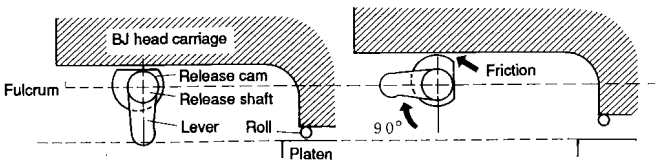
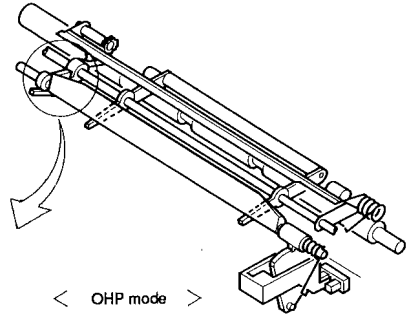


Figure 3-420

■ **Adjusting the Position of the OHP Film Roller**

The paper width sensor of the paper sensor PCB cannot identify the width of OHP film, and it is necessary to enter the width of the film in advance.

For this reason, of the two OHP rollers on both sides of the feeder roller, the left roller must be adjusted to the size of the film (A4/LTR).

To change the size to comply with the needs of the user, see the SERVICE HANDBOOK.

E. Feeding Operation While Making Copies

1. Outline

After pick-up operation, the DC controller PCB sends drive signals to the feeder motor (M4) to move the paper.

During copying operation, paper is moved by the rotation of the feed motor.

The paper is moved over the platen at intervals of about 8 mm, which is equivalent to a single copy band.

During the period, the rotation of the delivery roller and that of the feeder roller are synchronized to keep the paper in firm contact with the platen, thereby ensuring stability.

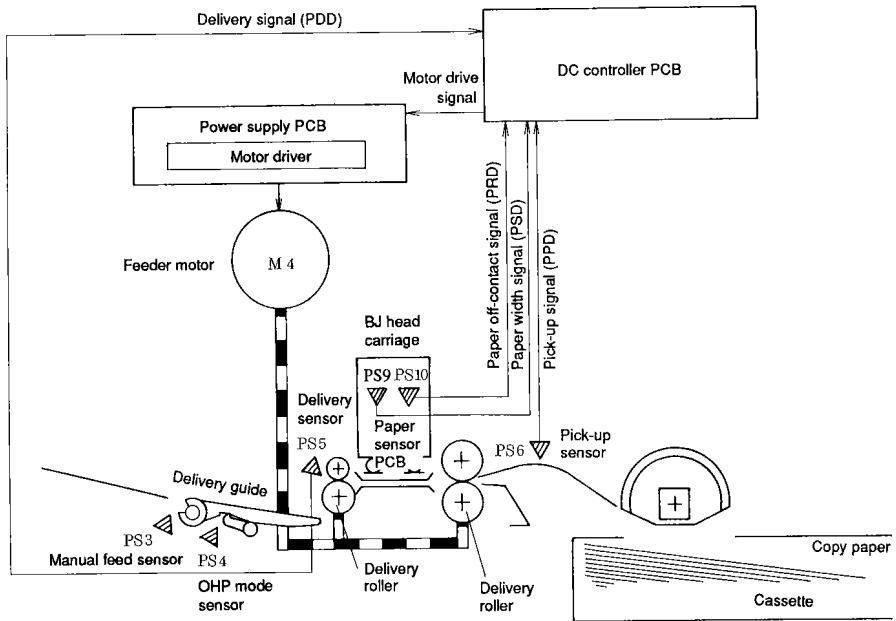


Figure 3-421

2. Feeding Operation

a. Step Feeding

The copier feeds paper and causes the BJ head carriage to operate in turns.

The feeder motor (M4) is held while the BJ head carriage is copying a single band.

Next, the BJ head carriage is returned to the home position, and the feeder motor is rotated to forward the paper for the next band.

The feeder motor is stopped, rotated, and stopped repeatedly until the BJ head carriage finishes the last band.

The above operation is referred to as *step feeding*.

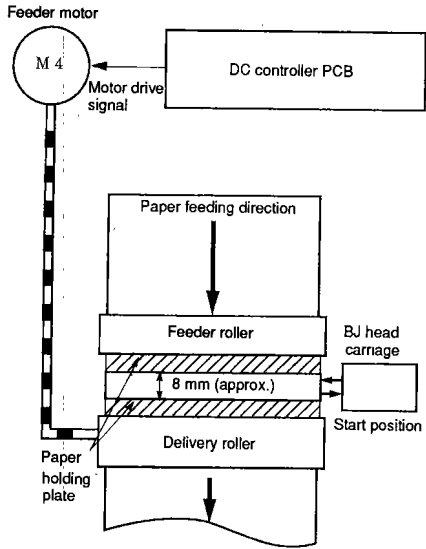


Figure 3-422 (top view)

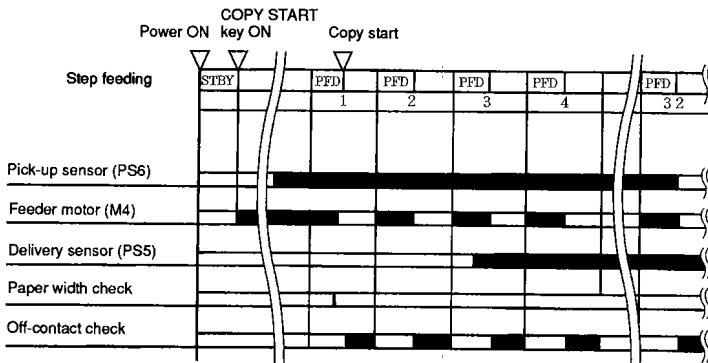


Figure 3-423

b. Paper Sensor PCB

The paper sensor PCB is attached to the BJ head carriage and consists of the off-contact sensor (PS9) and the paper width sensor (PS10).

The paper off-contact sensor is checking the contact of paper against the platen while moving over the platen together with the BJ head carriage.

The paper width sensor is used to identify the width of the paper before the BJ head carriage starts to operate.

At the same time, the sensor checks for a jam on the platen.

For details of how the width and jams are checked, see p. 3-62.

F. Delivery Operation

1. Outline

When the trailing edge of the copy paper moves past the pick-up sensor (PS6), the DC controller PCB sends drive signals to the feeder motor (M4) for delivery operation.

In the copier, *delivery* refers to the period between the trailing edge of paper has moved past the pick-up sensor and when the paper is delivered to the copy tray.

If the delivery sensor (PS5) does not go OFF after a specific period of time, the DC controller PCB identifies the condition as a jam and indicates the JAM message on the control panel.

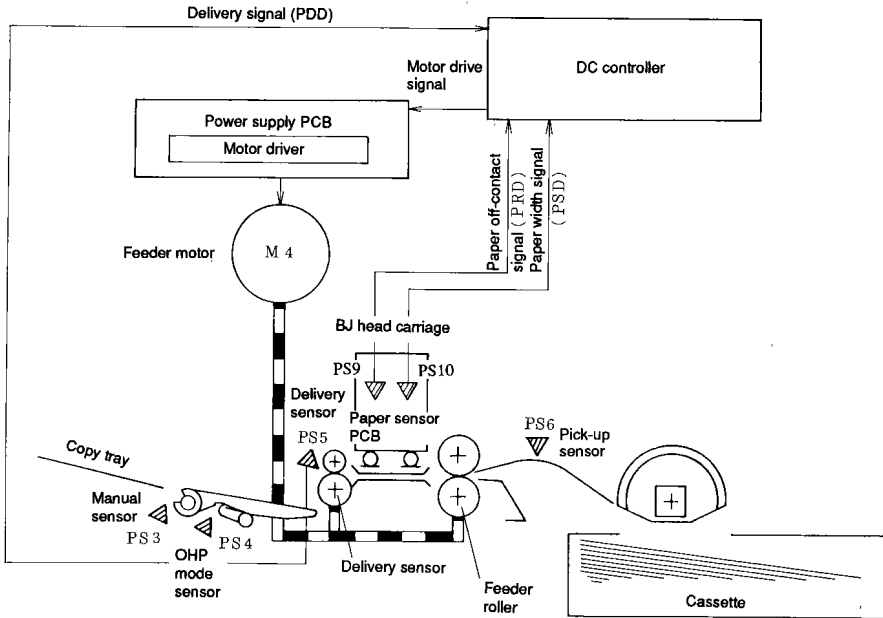


Figure 3-424

2. Controlling the Trailing Edge of Paper

The copier controls the trailing edge of copy paper during delivery operation.

While copying is taking place, the paper is moved in steps of about 8 mm; some sheets, however, will not leave a width of 8 mm on their trailing edges.

Paper is moved only by the delivery roller after its trailing edge has moved past the feeder roller. Moving the paper in this condition and moving the paper using both the feeder roller and the delivery roller would result in movement in different intervals.

To correct such discrepancies, the DC controller PCB controls the distance of movement by adjusting the pulses of the motor drive signal sent to the printer sub scanning motor (M4).

This control mechanism is started with the third or fourth band from the last band of copying; the DC controller PCB identifies the size of the paper (default or non-default) based on the following:

- ① paper width identified in advance
- ② timing at which the trailing edge of the paper moves past the pick-up sensor

Note:

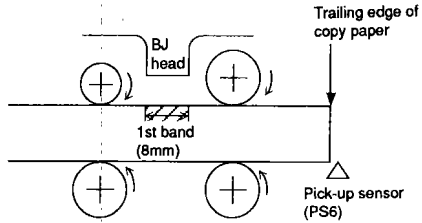
- In the OHP mode, paper is moved from the first to last bands using both the feeder roller and the delivery roller.

For this reason, the trailing edge of paper in the OHP mode is adjusted on the last band.

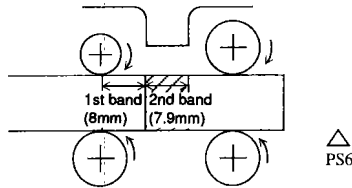
- In the full image mode, the document image is reduced, sometimes causing the width of the last band to be 1 mm.

■ **Adjusting the Trailing Edge (A5, DIRECT)**

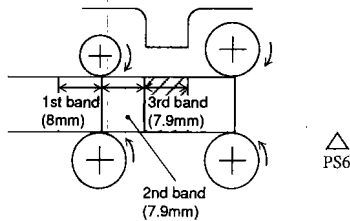
- 1) The trailing edge of paper moves past the pick-up sensor (PS6). The paper is moved for copying on the first band. The DC controller PCB sends the motor drive signal to the feeder motor (M4) for trailing edge control.



- 2) The paper is moved for copying on the second band.



- 3) The paper is moved for copying on the third band.



- 4) The paper is moved for copying on the fourth (last) band, and the copying operation is finished.

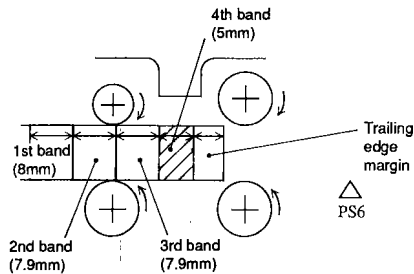


Figure 3-425

G. Checking for Jams

1. Outline

To check if the paper is moving normally, signals from sensors are read at such times as instructed by the microprocessor.

When the microprocessor identifies a jam, the ongoing copying operation is suspended immediately and the machine is stopped.

Thereafter, the JAM message is indicated on the display of the control panel.

When the copier is switched ON after removal of a jam, the copier goes through the same sequence as if it is switched ON normally and becomes ready for copying operation. The microprocessor identifies the following conditions as jams:

- a. Paper exists over respective sensors when the copier is switched ON, or in the wait or standby mode.
- b. Paper does not reach respective sensors within a specific period of time (delay jam).

Manual Feed Assembly

- ① pick-up delay jam 1 identified by pick-up sensor (PS6)
- ② pick-up delay jam 2 identified by the delivery sensor (PS5)

Cassette Pick-Up Assembly (during head shading)

- ③ pick-up delay jam identified by the pick-up sensor (PS6)

OHP Film Pick-Up

- ④ pick-up delay jam identified by the pick-up sensor (PS6)
- c. Paper does not move past respective sensors within a specific period of time (stationary jam)
 - ⑤ delivery stationary jam identified by the delivery sensor (PS5)
- d. The BJ head carriage does not move past respective sensors (faulty feed jam)
 - ⑥ faulty feed jam: warp jam identified by the paper off-contact sensor: warp sensor (PS9)
 - ⑦ faulty feed jam identified by the paper width sensor (PS10)

See Figure 3-425 and Table 3-401 for the arrangement and functions of the sensors used to identify jams.

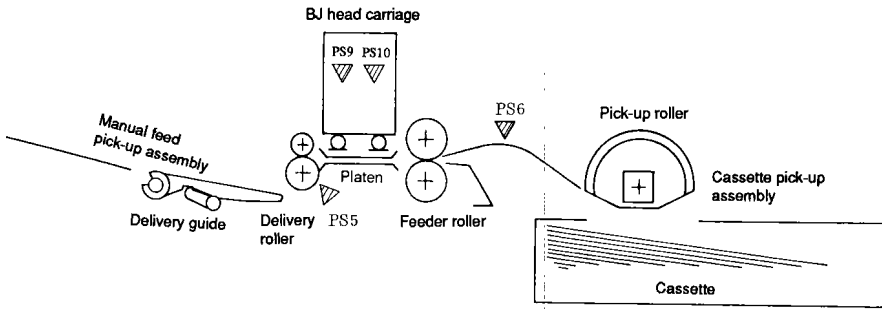
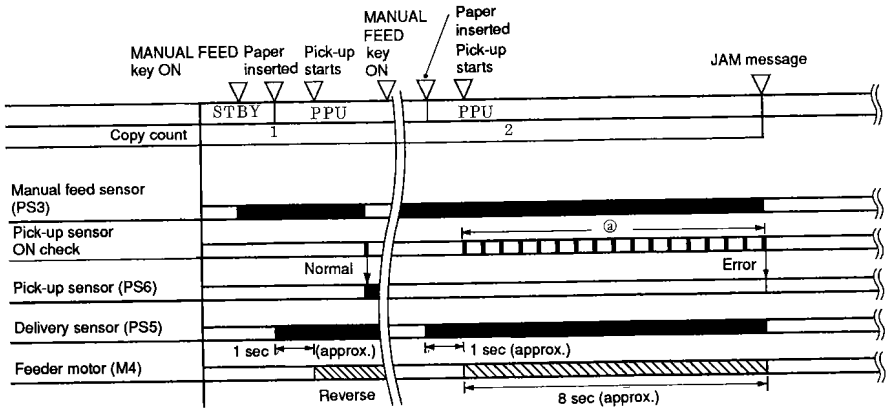


Figure 3-426

Notation	Name	Remarks
PS5	Pick-up sensor	delay, residual
PS6	Delivery sensor	delay, stationary, residual
PS9	Paper off-contact sensor (warp sensor)	feed
PS10	Paper width sensor	feed, skew

Table 3-401

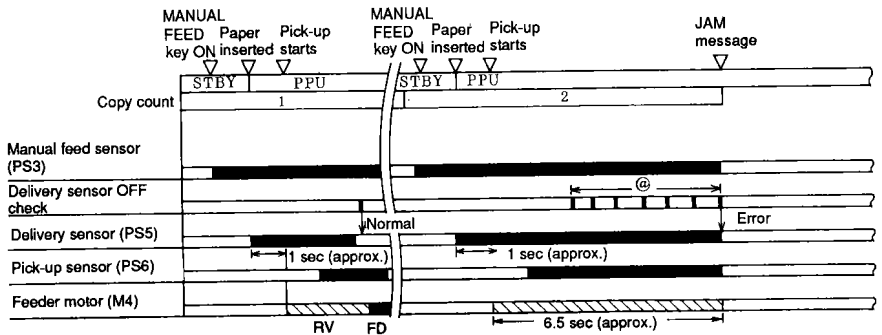
① Pick-Up Delay Jam 1 Identified by Pick-Up Sensor (PS6; manual feed)



① ... Checks over a specific number of pulses (8 sec, approx.).

Figure 3-427

② Pick-Up Delay Jam 2 Identified by Delivery Sensor (PS5; manual feed)



① ... Checks over a specific number of pulses (3.5 sec, approx.).

Figure 3-428

③ Pick-Up Delay Jam Identified by Pick-Up Sensor (PS6; cassette)

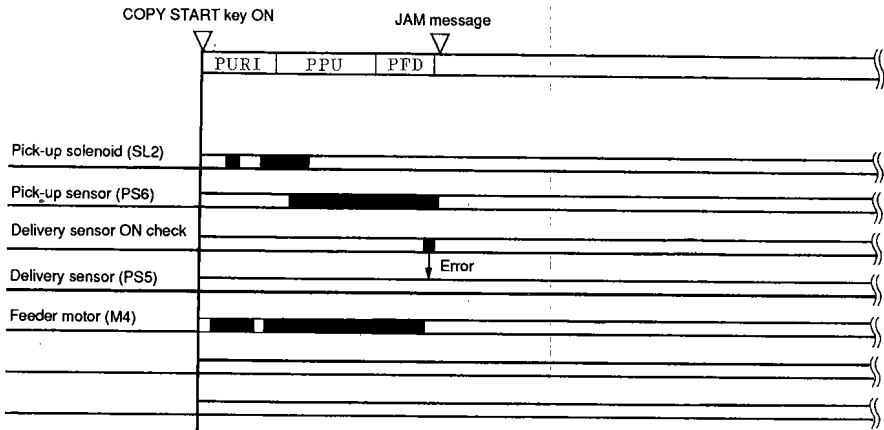


Figure 3-429

④ Pick-Up Delay Jam Identified by Pick-Up Sensor (PS6; manual, OHP)

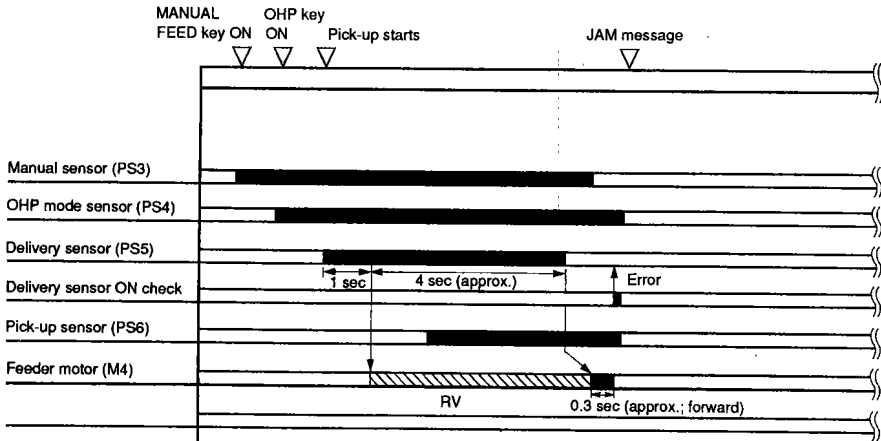


Figure 3-430

⑤ Delivery Stationary Jam Identified by Delivery Sensor (PS5)

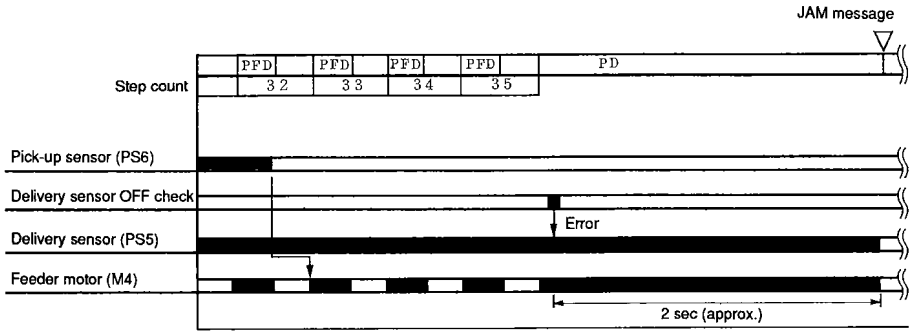


Figure 3-431

⑥ Faulty Feed Jam Identified by Paper Off-Contact Sensor (PS9)
(Warp Jam Identified by Warp Sensor)

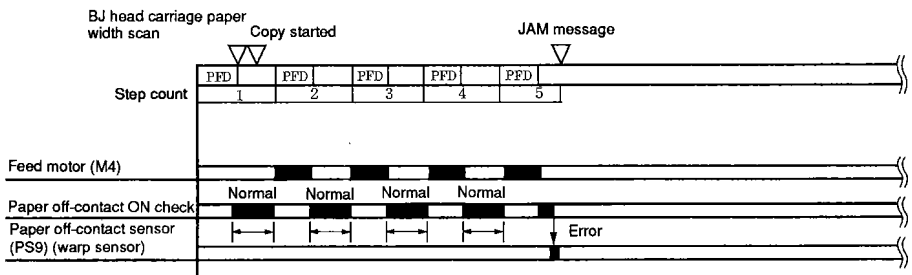


Figure 3-432

⑦ Faulty Feed Jam Identified by Paper Width Sensor (PS10)

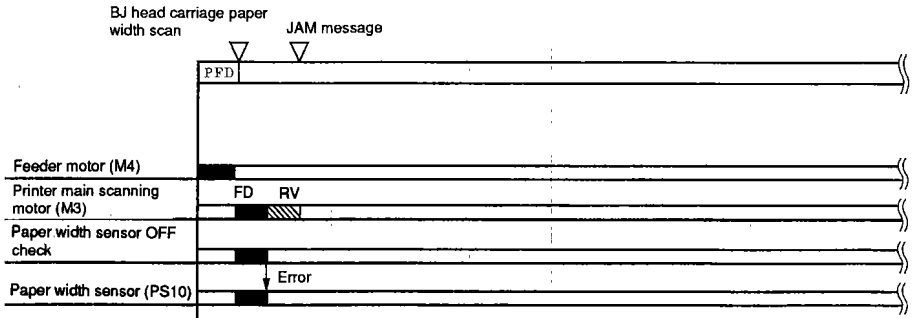


Figure 3-433

VI. CONTROL PANEL

A. Outline

The control panel consists of the following:

- Control panel PCB
- Copy count/Ratio display
- Operation key
- Operation mode display LED
- Ink cartridge replace display LED
- OHP mode/Manual mode/Jam display LED
- Pilot lamp

The copy count and the reproduction display use the LED ON signals (CPLD0 through CPLD7) for indication; see Table 3-500.

The operation mode display LED, ink cartridge replacement display LED, OHP mode/manual mode/jam display LED are wired in a matrix and use CPLD0 through CPLD7 for such indications as the count/ratio display LED.

The operation keys are also wired in a matrix; a press on a key causes the key operation signal (KEY0 through KEY2) to be sent to the image processor PCB.

The pilot lamp is made to glow or flash green or orange by LANPG or LANPO; see Table 3-500.

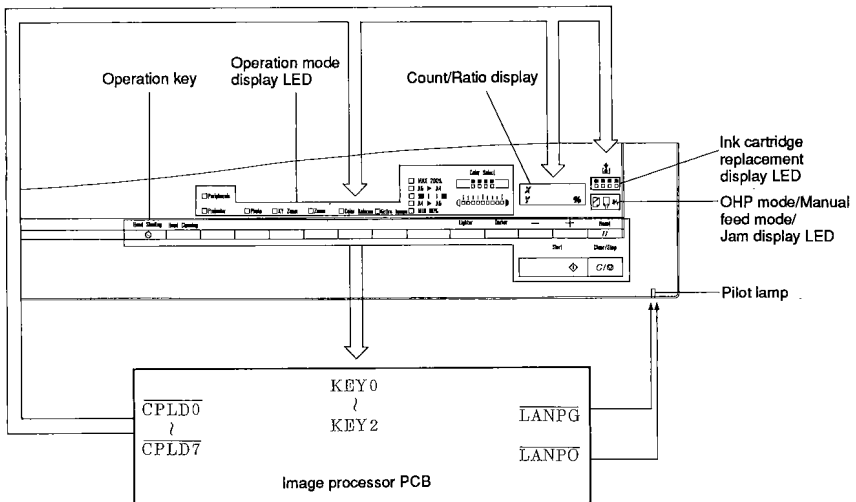


Figure 3-500

B. Displaying the State of the Machine

The copier's state is indicated by the combination of the pilot lamp and the count/ratio display; see Table 3-500 for the meaning of each indication.


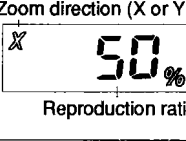


Pilot lamp	Count/Ratio display	Description
Green (remains lit)	Copy count	Standby
		IPU connected
	Zoom direction (X or Y) 	Independent zoom
		No paper in cassette
Green (flashing)	Copy count	Head shading ON (test pattern copying finished)
		Wait period (at power-on)
Orange (remains lit)	Copy count	<ul style="list-style-type: none"> • Copying • Head shading • Test pattern copying • Test pattern being read • Head cleaning • Head cleaning 1 • Copy paper jam
	E code C code	See the SERVICE HANDBOOK.

Table 3-500

VII. POWER SUPPLY

A. Power Supply

Figure 3-600 is a block diagram showing how power is distributed within the copier.

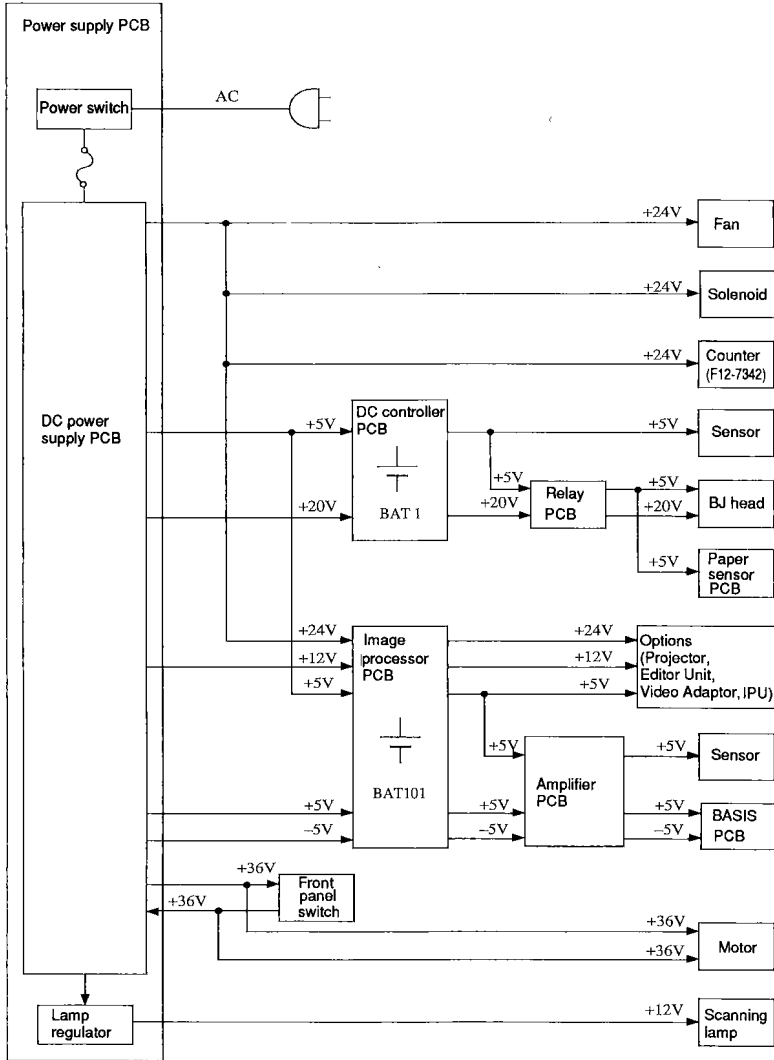


Figure 3-600

The DC power supply circuit is provided with AC power when the power switch (SW1) is turned ON. The DC power supply circuit rectifies, lowers, and smoothes the AC power and sends it to each part in the form of +36 VDC, +24 VDC, +20 VDC, +12 VDC, +5 VDC, and -5 VDC.

+12 VDC and +5 VDC may be one of the two different voltages depending on the destination. See Table 3-600 for the accuracy and the destination of the outputs from the DC power supply circuit.

A/C D/C	Power supply	Accuracy	Destination
DC	+36V	±10%	Motor
	+24V	±10%	Fan, Solenoid, Option
	+20V	±2%	BJ head
	+12V	±5%	Scanning lamp
	+12V	+5 % -2.5	Video Adaptor (option)
	+5.15V	±3%	IC, Sensor, BJ head
	+5.15V		BASIS PCB
	-5V	±5%	

Table 3-600 Values on Output Terminals on Power Supply PCB

The BJ head carriage motor (M3) and the feeder motor (M4) are supplied with +36 V when the front cover switch (SW2) is turned ON.

The RAM (Q106) on the image processor PCB contains the image read start position correction data, and the RAM (Q307) on the DC controller PCB contains the BJ head carriage start position correction data. To retain these data items, the image processor PCB is backed up by a battery (BAT101), and the DC controller PCB is also backed up by a battery (BAT1).

B. Protection Mechanism for Power Supply Circuit

The AC power supply input side of the DC power supply PCB is equipped with a fuse; and, the stabilizer power supply circuit of the DC power supply output side is equipped with an overcurrent protection circuit.

If the load suffers from a short-circuit for some reason, and an overcurrent flows, the protection mechanism becomes activated to cut off the power from the DC power supply circuit; suspension of +36 V output causes all outputs to go OFF.

The outputs for the scanning lamp (+36 V, +20 V, +12 V) and the IC, sensor, and BJ head (+5) are equipped with a voltage protection mechanism. As when the overcurrent protection circuit is activated, suspension of +36 V causes all outputs to go OFF when the voltage protection circuit becomes activated.

To reset the machine, switch it OFF, correct the fault, wait for 10 sec, and then switch the machine ON. If +36 V has been suspended and, therefore, all outputs have gone OFF, switch the machine OFF, correct the fault, and wait for 3 min before switching the machine ON.

Note, however, that repeated short-circuiting and resetting can cause the fuse built in the DC power supply PCB to blow.

CAUTION:

Replace the lithium battery only with the one listed in the Parts Catalog.

Use of a different battery may present a risk of fire or explosion. The battery may present a fire or chemical burn hazard if mistreated.

Do not recharge, disassemble, or dispose of it in fire. Keep the battery out of reach of children and discard any used battery promptly.

VIII. SERVICE MODE

A. Outline

The copier's service mode consists of 12 modes that are operated by the keys on the control panel.

Note:

The service mode is not available when the JAM indicator is ON or while the copier is making copies or executing self diagnosis.

B. Using the Service Mode

1. Entering the Service Mode

- 1) Detach the ROM cover.
- 2) Switch the copier ON while pressing the service switch (SW101) on the image processor PCB. When the service mode is activated, the count/ratio indicator on the control panel will flash hyphens (- - -) and all the LEDs (F) for the density indication go OFF.
- 3) Press the DARKER or LIGHTER key to select the desired item.
- 4) Press the COPY START key. The hyphens (- - -) on the count/ratio indicator remain ON.

2. Leaving the Service Mode

- 1) Switch the copier OFF and then ON.

Note:

The POWER LED glows red while the data for each adjustment item is displayed.

C. Service Label

All settings made in the service mode are stored in the RAM on the image processor PCB or the DC controller PCB.

The settings entered at time of shipment from the factory are recorded on the label (Figure 3-701) found behind the ROM cover.

Record any new settings entered in the field after replacement of the image processor PCB or the DC controller PCB or when the RAM has been cleared.

Mode






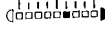
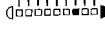


Setting/Operation mode	Adjustment mode
• shifts reader main scanning unit position	• adjusts paper width sensor output
• generates test print	• adjusts light intensity
• sets destination (country)	• adjusts scanner start position
• sets OHP film roller position	• adjusts printer start position
• clears suction operation counter	• adjusts projector start position
• clears RAM	• adjusts BJ head temperature adjustment circuit offset




Table 3-700

				F85-8409			
	TYP				TYP		
DEST.				C1_TEMP			
PSIZE				C2_TEMP			
RSPM				M1_TEMP			
RSPS				M2_TEMP			
K_REQ				Y1_TEMP			
C_REQ				Y2_TEMP			
M_REQ				K1_TEMP			
Y_REQ				K2_TEMP			
PRSPM							
PRSPS							

Figure 3-701

D. Table of Service Modes

No.	Item	F display	LEDs	Keys	Remarks
1	shifts reader main scanning unit position	F9 			X = 111.5 mm Y = 297 mm
2	adjusts paper width sensor output	F8 	count/ratio indicator		
3	adjusts light intensity	F7 	count/ratio indicator		
4	adjusts scanner start position RSPM RSPS	F6 	X indicator LED Y indicator LED count/ratio indicator	DARKER key + key - key	
5	adjusts print start position K-REG C-REG M-REG Y-REG	F5 	ADD INK indicator LED C M Y K count/ratio indicator	DARKER key + key - key	
6	adjusts projector start position PRSPM PRSPS	F4 	X indicator LED Y indicator LED count/ratio indicator	DARKER key + key - key	
7	adjusts BJ head temperature adjustment circuit offset C1-TEMP C2-TEMP M1-TEMP M2-TEMP Y1-TEMP Y2-TEMP K1-TEMP K2-TEMP	F3 	ADD INK indicator LED C M Y K JAM LED count/ratio indicator	DARKER key + key - key	
8	generates test print	F2 	count/ratio indicator	DARKER key	count '0' for output from reader count '1' for output from printer
9	sets destination DEST	F1 	count/ratio indicator	DARKER key	

No.	Item	F display	LEDs	Keys	Remarks
10	sets OHP film roller PSIZE	F1 to F9 (all ON) 	count/ratio indicator	DARKER key	count '0' for metric count '1' for inch
11	clears suction operation counter	F9 OFF (F1 to F8 ON) 	count/ratio indicator	COPY START key	Always clear the count after replacement of the waste ink tank.
12	clears RAM	F8 OFF (F9, F1 to F7 ON) 	count/ratio indicator	DARKER key COPY START key	count '0' for image processor PCB count '1' for DC controller PCB

1. Shifting the Reader Main Scanning Unit Fixing Position

COPY START key

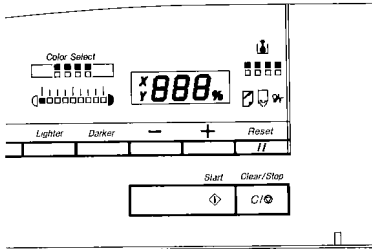


Figure 3-701

Use the mode to fix the position of the main scanning unit of the reader when relocating the copier.

- 1) Press the COPY START key.
- 2) Check that the count/ratio indicator shows flashing hyphens (- - -); the condition indicates that the mode is waiting for input of an item.

Note:

Position from Point of Reference (document)

x: 115.5 mm

y: 297 mm

2. Adjusting the Paper Width Sensor Output

COPY START key

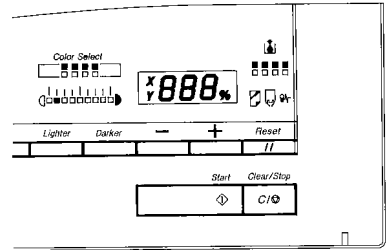


Figure 3-702

Use the mode to adjust the paper width sensor output level (CPU A/D input for DC controller PCB) attached to the BJ head carriage.

- 1) Keep coated paper and OHP film nearby.
- 2) Open the front door, and lock the door switch and the BJ head carriage switch.

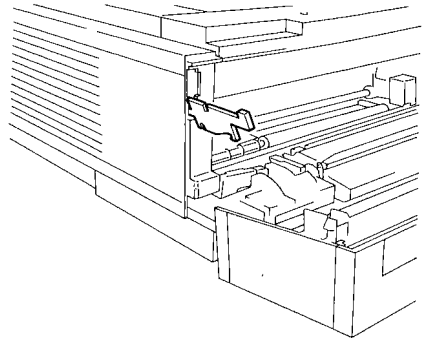


Figure 3-703

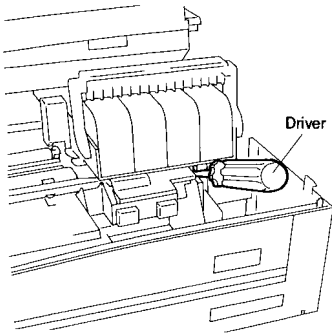
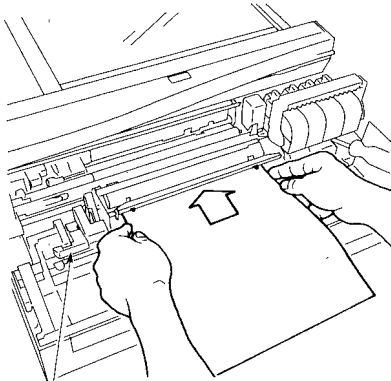


Figure 3-704

- 3) Shift up feeder assembly release lever 1, and place coated paper on the platen.



Feeder assembly
release lever 1

Figure 3-705

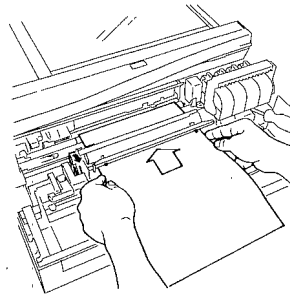


Figure 3-706

Note:

Make sure that the paper is in firm contact with the platen.

- 4) Set feeder assembly release lever 1.
- 5) Move the BJ head carriage to the center of the paper by hand.
- 6) Press the COPY SART key.
- 7) Turn VR901 on the paper sensor PCB so that the count/ratio indicator indicates a value between '94' and '9F'; the target output voltage of the paper width sensor is 3.0 V.

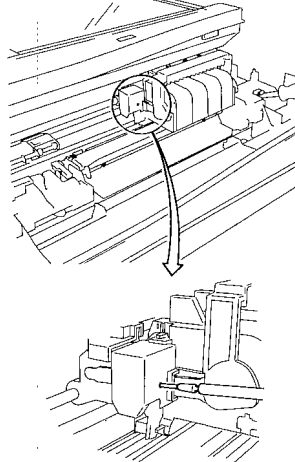


Figure 3-707

- 8) Press the COPY START key.
Check that the count/ratio indicator shows flashing hyphens (- - -); the condition indicates that the mode is waiting for input of an item.
- 9) Move the BJ head carriage to the home position, and replace the coated paper with OHP film.
- 10) Move the BJ head carriage to the center of the OHP film by hand.
- 11) Press the COYP STRAT key.
Check that the count/ratio indicator indicates '80' or a lower number; otherwise, suspect dirt or fault on the paper width sensor
- 12) Remove the OHP film.
- 13) Move the BJ head carriage by hand until the paper width sensor is above the reflecting plate of the platen.
- 14) Press the XOPY START key.
Check that the count/ratio indicator indicates 'C2' or a higher number; otherwise, suspect dirt on the reflecting plate.

Note:

Be sure to make the above adjustments whenever the paper width sensor PCB or the DC controller PCB has been replaced in the field.

3. Adjusting the Light Intensity

COPY START key

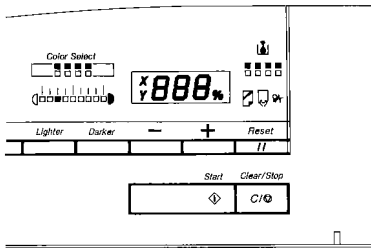


Figure 3-708

Use the mode to adjust the intensity of the scanning lamp and, at the same time, the offset, gain, and white level of the amplifier PCB.

- 1) Press the COPY START key.
Check that the count/ratio indicator indicates '1' and the scanning lamp goes ON; the count/ratio indicator indicates the maximum output level of BASIS.

- 2) Make sure that the reading on the copy count/ratio indicator is between 80 and FF. Otherwise, adjust the VR on the power supply PCB so that the reading is between E0 and EF.

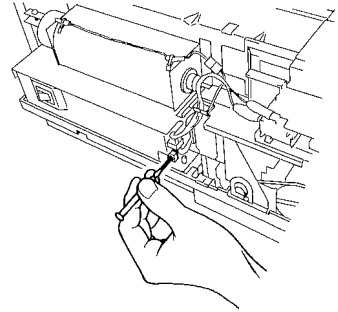


Figure 3-709

- 3) Press the COPY START key.
Check that, after about 10 seconds, the count/ratio indicator indicates '1'; hyphens (- - -) will flash when the offset and the gain have been adjusted, indicating that the mode is waiting for input of an item.

Note:

Be sure to make the above adjustments whenever the scanning lamp, amplifier PCB, power supply PCB, or the image processor PCB has been replaced in the field.

4. Adjusting the Scanner Start Position

DARKER key

- + and - keys
- COPY START key

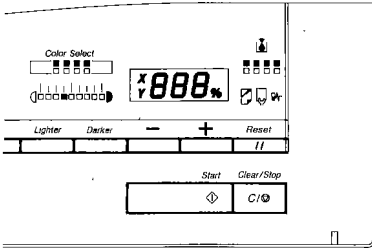


Figure 3-710

Use the mode to adjust the read start position of the scanner in the reader in reference to the point of reference.

- 1) Select the direction of adjustment using the DARKER key. The directions are indicated on the count/ratio indicator; x for main scanning direction, and y for sub scanning direction.
- 2) Press the COPY START key. The data in the RAM will be displayed on the count/ratio indicator.
- 3) Press the + key or the - key to match the data with the setting recorded on the Service Label.
- 4) Press the COPY START key. The count/ratio indicator flashes hyphens (---), indicating that the mode is waiting for input of an item.

Note:

Units of Adjustment and Range

	Unit	Range
Main scanning direction	0.169mm	-8 to +8
Sub scanning direction	0.0635mm	-23 to 0 to +23

Note:

Be sure to make the above adjustments whenever the image processor PCB has been replaced in the field.

5. Adjusting the Printer Start Position

DARKER key

- + and - keys
- COPY START key

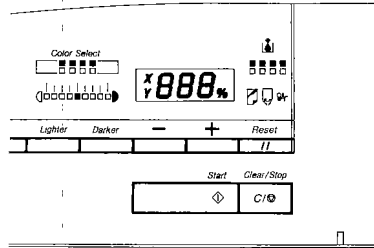


Figure 3-711

Use the mode to adjust the print start position of each BJ head of the printer in relation to the point of reference.

- 1) Press the DARKER key to select the BJ head. The corresponding REPLACE CARTRIDGE LED goes ON, and data will be indicated on the count/ratio indicator.
- 2) Press the COPY START key. The first three digits of the numerical data are indicated on the count/ratio indicator.
- 3) Press the + or - key to modify the data, and press the COPY START key. The last two digits of the numerical data are indicated on the count/ratio indicator.
- 4) Press the + or - key to modify the data.
- 5) Press the COPY START key. The count/ratio indicator flashes hyphens (---).

Note:

The numerical data on the count/ratio indicator are in hexadecimal notation; enter any settings in hexadecimal notation.

Note:

Be sure to enter the settings recorded on the Service Label whenever the DC controller PCB of the printer has been adjusted in the field.

6. Adjusting the Projector Start Position

DARKER key
 + and - keys
COPY START key

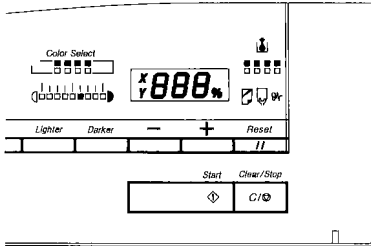


Figure 3-712

Use the mode to adjust the read start position for use of the projector in relation to the point of reference.

- 1) Press the DARKER key to select the direction of adjustment.
 The count/ratio indicator shows the direction; x for main scanning direction, and y for sub scanning direction.
- 2) Press the COPY START key.
 The count/ratio indicator indicates the data from the RAM.
- 3) Press the COPY START key.
 The count/ratio indicator displays flashing hyphens (- - -), indicating that the mode is waiting for input of an item.

Note:
 Units of Adjustment and Range

	Unit	Range
Main scanning direction	1mm	-5 to +5
Sub scanning direction	1mm	-5 to 0 to +5

Note:
 Be sure to make the above adjustments whenever the image processor PCB has been replaced in the field.

7. Adjusting the BJ Head Temperature Adjustment PCB

DARKER key
 + and - keys
COPY START key

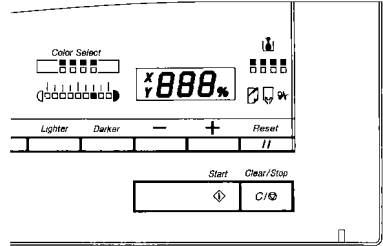


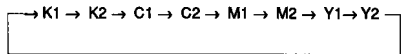
Figure 3-713

Use the mode to adjust the offset of the temperature adjustment circuit for the BJ head found on the DC controller PCB and check the RAM data.

- 1) Press the DARKER key to select the BJ head data.
 The data for the corresponding BJ head are selected based on the combination of the LEDs (REPLACE CARTRIDGE and JAM).

		REPLACE CARTRIDGE			
		K	C	M	Y
JAM	OFF	data K1	data C1	data M1	data Y1
	ON	data K2	data C2	data M2	data Y2

Order of Display



- 2) Press the COPY START key to check the data.
- 3) Press the + or - key to modify the data so that it matches the settings recorded on the Service Label or the DC controller PCB.
- 4) Press the COPY START key.
 The count/ratio indicator displays flashing hyphens (- - -).

Note:
 Be sure to check the RAM data against the settings on the label found on the DC controller PCB and, at the same time, copy the settings on the PCB on the Service Label whenever the DC controller PCB has been replaced in the field. Be sure to set the data whenever the RAM has been cleared in the field.

8. Generating the Test Print

TEST PATTERN

DARKER key
COPY START key

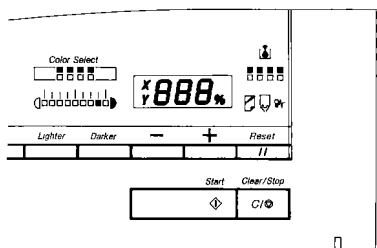


Figure 3-714

Use the mode to generate a test pattern from the image processor PCB or the DC controller PCB

- 1) Press the DARKER key to select the source of the test pattern with reference to the count/ratio indicator:
 - if '0', from the image processor PCB.
 - if '1', from the DC controller PCB.
- 2) Press the COPY START key.
- 3) Check that the count/ratio indicator displays flashing hyphens (- -) when a test print has been generated, indicating that the mode is waiting for input of an item.

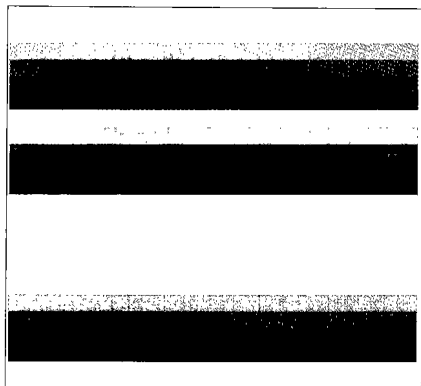


Figure 3-715
Test Pattern from Image Processor PCB

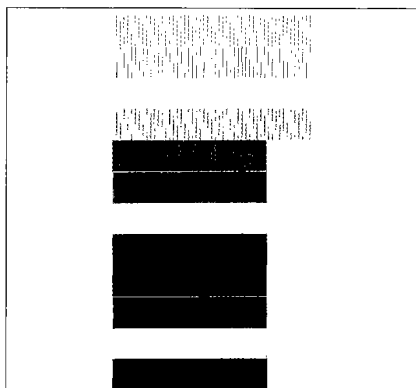


Figure 3-716
Test Pattern from DC Controller PCB

Note:

Place a blank sheet of paper and close the copyboard cover when the image processor PCB generates the test pattern; during the operation, the halogen lamp goes ON and black text processing is performed against the medium placed on the copyboard.

9. Setting the Destination

DARKER key
COPY START key

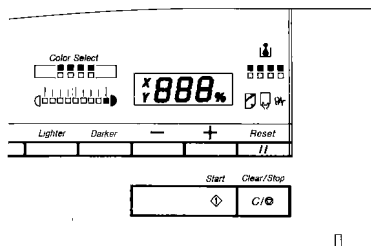


Figure 3-717

Use the mode to set the fixed reproduction ratios to suit the site of installation or needs of the user.

- 1) Press the DARKER key to select the destination.

Destination	Count/Ratio
Japan	0
North America	1
Europe	2
Australia, Others	3

- 2) Press the COPY START key.
The copy/ratio indicator displays flashing hyphens (---), indicating that the mode is waiting for input of an item.

10. Setting the OHP Film Roller Position

DARKER key

COPY START key

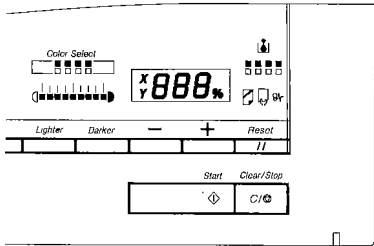


Figure 3-718

Use the mode to re-position the OHP film roller to suit the size (A4 or LTR) of OHP film; the copier is not equipped with a mechanism to identify the position of the roller.

- 1) Press the DARKER key to select the position in reference to the count/ratio indicator.
if '0', A4
if '1', LTR
- 2) Press the COPY START key.
The copy/ratio indicator displays flashing hyphens (---), indicating that the mode is waiting for input of an item.

11. Clearing the Suction Counter Data (BJ head cleaning)

COPY START key

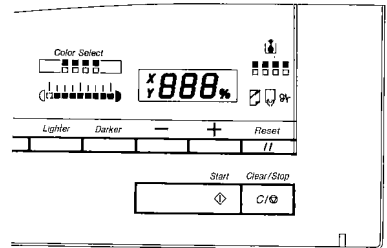


Figure 3-719

Use the mode to clear the suction counter data for the BJ head cleaning whenever the waste ink tank has been replaced in the field; the level of waste ink in the waste ink tank is in proportion to the number of BJ head cleaning operations.

- 1) Press the COPY START key.
The copy/ratio indicator displays flashing hyphens (---), indicating that the mode is waiting for input of an item.

Note:

Be sure to perform the above operation whenever the DC controller PCB has been replaced; clear the RAM after replacing the waste ink tank.

12. Clearing the RAM

DARKER key

COPY START key

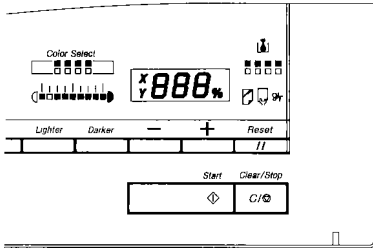


Figure 3-720

Use the mode to clear the RAM on the DC controller PCB or the image processor PCB if a malfunction is suspected or when setting the service mode data to defaults.

1) Press the DARKER key to select the PCB in reference to the count/ratio indicator:

if '0', image processor PCB

if '1', DC controller PCB

2) Press the COPY START key.

The copy/ratio indicator displays flashing hyphens (- - -), indicating that the mode is waiting for input of an item.

Note:

An error code will be indicated on the count/ratio indicator if a read/write error occurs while the RAM is being cleared; E305 indicates an error in the image processor PCB, and E190 indicates an error in the DC controller PCB.

E. Expansion of Service Mode

1. Appearance of Switch Board and Part Names

a. Appearance and name of each part

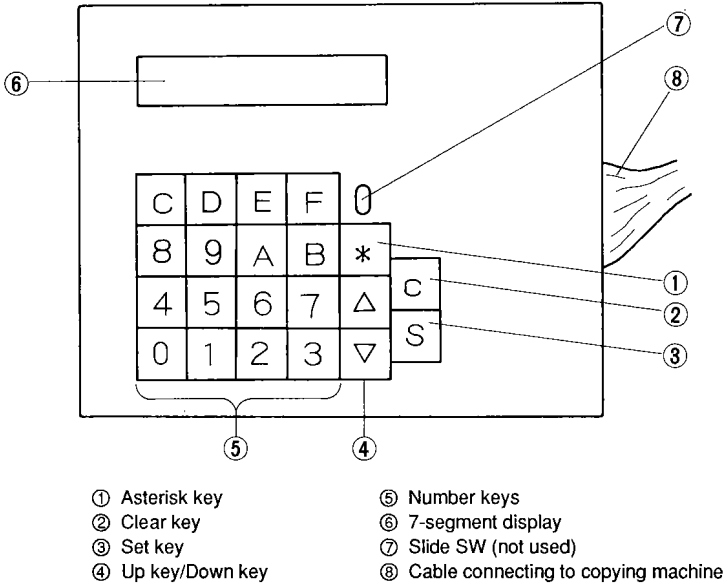


Figure 3-721

b. 7-segment display (example)

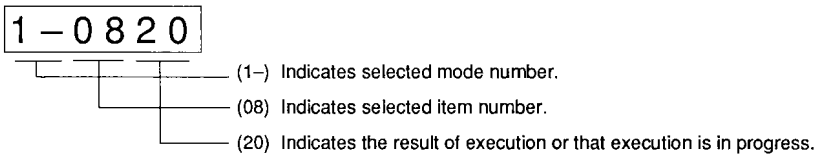


Figure 3-722

2. Procedure for Operating the Switch Board

Operation of the switch board is executed according to the basic procedure presented below. Perform b., c., d. and e. as necessary.

a. Basic procedure

- 1) Turn the power switch of the copying machine OFF.
- 2) Remove the copyboard cover, rear cover and right cover.
- 3) Remove the ROM cover.
- 4) Securely connect the jack on the cable from the switch board to connector J110 on the image processor PCB. (Figure 3-723)

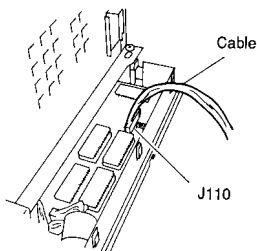


Figure 3-723

- 5) Turn the power switch of the copying machine ON.
 - The 7-segment display of the switch board indicates blinking dashes.
[- - - -] blinks
- 6) Use the $\boxed{\times}$ key and number keys to input the desired mode number for confirmation or operation.

Example: $\boxed{\times} \rightarrow \boxed{1} \rightarrow \boxed{\times}$

 - Enters Control display mode.
[1-00 - -] blinks on the 7-segment display.
- 7) Use the up key, down key or the number keys to enter the item number.

Example: $\boxed{0} \rightarrow \boxed{8}$ (Head temperature display (C1))

[1-08 - -] blinks on the 7-segment display.
- 8) Press the set key.

Example: The head temperature (C1) at the time the set key is pressed is indicated.
[1-0820] is indicated on the 7-segment display.

↳ Represents C1 (20°C) at the time the set key is pressed.

b. To execute the same item again

- 1) Press the clear key.
- 2) Press the set key.
 - Data when the set key is pressed is indicated on the 7-segment display. Otherwise the selected operation is executed.

c. To execute other items in the same mode

- 1) Press the clear key.
- 2) Use the up key, down key or the number key to input the desired item number to be executed.
- 3) Press the set key.
 - Data when the set key is pressed is indicated on the 7-segment display. Otherwise, the input operation is executed.

d. To select other modes

- 1) Press the clear key.
- 2) Perform steps 6), 7) and 8) of a. above.

e. Disconnecting the connector

When pulling out the connector (J110) after switch board operations are completed, make sure to turn the power switch of the copying machine OFF first.

DETAILS OF EACH MODE

I. Control display mode (☒ 1 ☒)

No.	Content	Remarks												
01	ROM version indication	Program ROM on the image processor PCB (Q122)												
02	ROM version indication	Data ROM on the image processor PCB (Q123)												
03	ROM version indication	ROM on the DC controller PCB (Q308)												
04	ROM version indication	ROM on the image processor PCB (Q104)												
05	For factory use	—												
06	Projector input signal indication	<p>When the following keys and signals are ON, the corresponding number values are indicated.</p> <table> <tr> <td>Initial setting key:</td> <td>01</td> </tr> <tr> <td>Set key:</td> <td>02</td> </tr> <tr> <td>Reset key:</td> <td>04</td> </tr> <tr> <td>Auto-color correction key:</td> <td>08</td> </tr> <tr> <td>MS1 (negative/positive identification switch):</td> <td>10</td> </tr> <tr> <td>Projector lamp ON signal (PRRDY):</td> <td>40</td> </tr> </table> <p>When two or more items are ON, the sum is indicated in hexadecimal.</p> <p>Example: Reset key and Auto-color correction keys are ON → "04 + 08 = 0C", therefore "0C" is indicated.</p>	Initial setting key:	01	Set key:	02	Reset key:	04	Auto-color correction key:	08	MS1 (negative/positive identification switch):	10	Projector lamp ON signal (PRRDY):	40
Initial setting key:	01													
Set key:	02													
Reset key:	04													
Auto-color correction key:	08													
MS1 (negative/positive identification switch):	10													
Projector lamp ON signal (PRRDY):	40													
07	For factory use	—												
08	Head temperature indication (C1)	Indicates the sensor temperature of the head (°C).												
09	Head temperature indication (C2)	Same as above.												
10	Head temperature indication (M1)	Same as above.												
11	Head temperature indication (M2)	Same as above.												
12	Head temperature indication (Y1)	Same as above.												
13	Head temperature indication (Y2)	Same as above.												
14	Head temperature indication (K1)	Same as above.												
15	Head temperature indication (K2)	Same as above.												
16 to 31	For factory use	—												

I. Control display mode (☒ [1] ☒) (cont.)

No.	Content	Remarks
32	Ink level detection value (C)	The ink level detection value (hexadecimal) of the ink cartridge (C) is indicated. As the ink level decreases the value is increased. LED goes ON to indicate absence of ink at '80'.
33	Ink level detection value (M)	Same as above for (M) at '5A'
34	Ink level detection value (Y)	Same as above for (Y) at '5C'
35	Ink level detection value (BK)	Same as above for (BK) at '50'
36	Printer unit sensor input (1)	When any of the following sensors is "1", the corresponding values (hexadecimal) are indicated: Paper off-contact (PS9 PRD): 01 Carriage home position (PS8 BJHP): 02 Pressure cam home position (PS7 PRHP): 08 Paper Pick-up (PS6 PPD): 40 Paper delivery (PS5 PDD): 80 Note: 1. "10 (hexadecimal)" is always indicated on the display. 2. For the bar signal, when the light blocking plate is at the sensor "1" is indicated. 3. When two or more sensors are "1" the sum (hexadecimal) of them is indicated. Example: 1. When PS8 is "1" $02 + 10 = 12$, therefore "12" is indicated. 2. When PS5, 6 and 7 are "1" $80 + 40 + 08 + 10 = d8$, therefore "d8" is indicated. When any of the following sensors is "1", the corresponding.
37	Printer unit sensor input (2)	Number values are indicated: Manual feed mode (PS3 MFM): 01 OHP mode (PS4 OHPFM): 04
38 to 39	Not used	—
40	Front cover switch input	When the front cover switch (SW2) is "0" (the front cover is opened), "01" is indicated.
41	Reader sensor input	When the following sensors are "0", the corresponding number values are indicated: Reader main scanning home position (PS1 VHP): 02 Reader sub scanning home position (PS2 HHP): 01

II. Function/Inspection mode (X) 3 (X)

No.	Content	Remarks
01	Reader home position return	The reader returns to the home position.
02	Head carriage start position shift	The head carriage moves to the start position.
03	Head carriage home position return	The head carriage returns to the home position.
04	Reader main scanning	Makes one scan.
05	Head carriage forward/reverse operation	Moves forward/reverse once.
06	Head wipe operation	Performs head wiping once.
07	Heater check (C1)	After setting, the heater is ON for approximately 5 seconds. The head temperature (C°) is indicated on the 7-segment display. Use the clear key to cancel.
08	Heater check (C2)	Same as above.
09	Heater check (M1)	Same as above.
10	Heater check (M2)	Same as above.
11	Heater check (Y1)	Same as above.
12	Heater check (Y2)	Same as above.
13	Heater check (K1)	Same as above.
14	Heater check (K2)	Same as above.
15	Control panel LED ON	All LEDs of the copying machine go ON. They go OFF after about 4 sec.
16	Copying machine scanning lamp ON	The lamp goes ON/OFF each time it is set. When it is kept ON, it goes OFF after about 5 min.
17	Projector halogen lamp ON/OFF	Same as above.
18	Cleaner blade solenoid ON/OFF	It goes OFF immediately after it goes ON.
19	Pick-up solenoid ON/OFF	Same as above.
20	Cooling fan ON	The cooling fan goes ON, then goes OFF after about 5 seconds.
21	Reader scanning unit fixed position shift	The indicated unit moves to the fixed position for packing.
22	Not used	—
23	Pick-up operation	Performs pick-up operation (from pick-up to paper width detection).
24	Delivery operation	Performs delivery operation (from delivery until the head carriage returns to home position).
25	Large suction operation	Suction counter advances by 3.

II. Function/inspection mode (⊗ 3 ⊗) (cont.)

No.	Content	Remarks
26	Small suction operation	Suction counter advances by 2.
27 to 29	Not used	—
30	RAM clear	Image processor PCB
31	RAM clear	DC controller PCB
32	For factory use	—
33	Projector halogen lamp ON voltage maximum setting	Maximum ON voltage is obtained by setting with function/inspection mode item number 17 while lamp is ON.
34	Projector halogen lamp ON voltage minimum setting	Minimum ON voltage is obtained in the same way.

III. Counter mode (⊗ 5 ⊗)

No.	Content	Remarks
01	Number of copies	Displays lower 2 digits among 6 digits.
02	Number of copies	Displays middle 2 digits among 6 digits.
03	Number of copies	Displays upper 2 digits among 6 digits.
04	Number of suction	Displays lower 2 digits among 6 digits.
05	Number of suction	Displays middle 2 digits among 6 digits.
06	Number of suction	Displays upper 2 digits among 6 digits.
07	Number of manual feed operations	Displays lower 2 digits among 4 digits.
08	Number of manual feed operations	Displays upper 2 digits among 4 digits.
09	Number of OHP feeds	Displays lower 2 digits among 4 digits.
10	Number of OHP feeds	Displays upper 2 digits among 4 digits.

Note:

- Counter of the item numbers 01 to 03 and 07 to 10 is incremented each time a paper is picked up.
- Item numbers 01 to 03 include cassette pick-up, manual feed pick-up and OHP mode pick-up.

IX. SELF DIAGNOSIS

checks the condition of the machine.

The mechanism checks the machine, sensors in particular, and indicates an error code on its count/ratio indicator when it finds an error.

A. Error Indication

The microprocessor on the copier's DC controller is provided with a self diagnosis mechanism that

Code (copier)	Pilot lamp	Cause	Description	Code (editor)
E 141	ON (orange)	<ul style="list-style-type: none"> • Pressure roller home position sensor (PS7) • Feeder motor • Power supply PCB • DC controller PCB • Wiring, Connector • Suction pump • Gear 	The pressure roller home position signal (PRHP) is not generated within a specific time after the feeder motor (M4) has gone ON.	E621
E 146		<ul style="list-style-type: none"> • Waste ink tank (full) 	The number of suction operations for the waste ink is in excess of 10,000.	
E 157		<ul style="list-style-type: none"> • BJ head cartridge • Relay PCB • Power supply PCB • DC controller PCB • Flexible cable • Wiring, Connector 	The BJ head heater drive voltage is not within a specific range.	
E 170		<ul style="list-style-type: none"> • BJ head carriage home position sensor (PS8) • BJ head carriage motor (M3) • Power supply PCB • DC controller PCB • Wiring, Connector • BJ head carriage rail 	The BJ head carriage home position signal (BJHP) is not generated within a specific time (motor drive pulses) after the BJ head carriage motor (M3) has gone ON.	
E 193		<ul style="list-style-type: none"> • DC controller PCB 	<ul style="list-style-type: none"> • An error has occurred in the gate array on the DC controller PCB. • An error has occurred in the RAM (back-up) on the DC controller PCB. 	

Code (copier)	Pilot lamp	Cause	Description	Code (editor)
E202	ON (orange)	<ul style="list-style-type: none"> • Reader sub scanning home position sensor (PS2) • Reader sub scanning motor (M2) • Power supply PCB • Image processor PCB • Amplifier PCB • Wiring, Connector 	The reader sub scanning home position signal (HHP) is not generated within a specific time (motor drive pulses) after the reader sub scanning motor has gone ON (M2).	E621
E206		<ul style="list-style-type: none"> • Reader main scanning home position sensor (PS1) • Reader main scanning motor (M1) • Power supply PCB • Image processor PCB • Amplifier PCB • Wiring, Connector 	The reader main scanning home position signal (VHP) is not generated within a specific time (motor drive pulses) after the reader main scanning motor (M1) has gone ON.	
E304		<ul style="list-style-type: none"> • Image processor PCB 	A communication error has occurred in the exposure system (reader, amplifier PCB) on the image processor PCB.	
E305		<ul style="list-style-type: none"> • Image processor PCB 	<ul style="list-style-type: none"> • An error has occurred on the image processor PCB during a RAM check after power-on. • An error has occurred in the RAM (back-up) on the DC controller PCB. 	
E351		<ul style="list-style-type: none"> • Image processor PCB • DC controller PCB 	<p>An error has occurred in the RAM (back-up battery) on the image processor PCB.</p> <p>An error has occurred in the communication between the DC controller PCB and the image processor PCB.</p>	
E352		<ul style="list-style-type: none"> • Image processor PCB • Copyboard glass • Image reading unit 	An error has occurred in the bar code data read (copyboard glass).	

Code (copier)	Pilot lamp	Cause	Description	Code (editor)
<p>E620</p> <p>(See the EDITOR SERVICE MANUAL.)</p>	<p>ON (orange)</p>	<ul style="list-style-type: none"> • Image processor PCB • Multiple interface connector • Editor 	<ul style="list-style-type: none"> • An error has occurred in the communication between the image processor PCB and the editor. • A fault has occurred within the editor. • A memory check has been executed in the IPU service mode. 	<p>E620</p> <p>E624</p> <p>E625</p> <p>E626</p> <p>E627</p>
<p>E630</p> <p>(See the PROJECTOR SERVICE MANUAL.)</p>		<ul style="list-style-type: none"> • Image processor PCB • Projector • Connector • Image processor PCB 	<p>The projector lamp ON signal (PRRDY) is not generated within about 1 sec after the projector lamp ON signal (PRJLA) has been generated.</p>	
<p>E631</p> <p>(See the PROJECTOR SERVICE MANUAL.)</p>		<ul style="list-style-type: none"> • Reader • Amplifier PCB • Image processor PCB • Power supply PCB • Projector • Wiring, Connector 	<p>The intensity level is outside a specific range when the intensity of the halogen lamp of the projector is being adjusted.</p>	<p>E621</p>
<p>E700</p>		<ul style="list-style-type: none"> • Image processor PCB • DC controller PCB • Wiring, Connector 	<p>An error has occurred in the communication between the image processor PCB and the DC controller PCB.</p>	

B. Warning

The copier is equipped with a mechanism to indicate a C code on the count/ratio indicator in response to an operation error made by the user.

Code (copier)	Pilot lamp	Error	Resetting
C044	ON (orange)	The front cover is open. Or, the connectors are not connected firmly.	Close the front cover. Or, re-connect the connector of the front cover switch or J12 on the power supply PCB.
C080		The COPY START key is pressed before copy images are read with the video adaptor is connected.	Automatic; C code indicated for 3 sec.
C081		The COPY START key is pressed while the projector is being reset.	
C082		The COPY START key or the HEAD SHADE key is pressed in the OHP mode.	
C083		The COPY START key is pressed between when copying of the test pattern for head shading is started and when the test pattern has been read.	
C085		The SET key on the projector is pressed without initial setting.	Automatic; C code indicated for 3 sec.
C086		The projector is reset using the carrier for positive film.	
C090		<ul style="list-style-type: none"> • The BJ head cartridge (cyan) is set incorrectly. • The communication between the BJ head and the DC controller PCB is not correct. • The BJ head is overheating. 	See instructions for C090, C091, C092, or C093.
C091		<ul style="list-style-type: none"> • The BJ head cartridge (magenta) is set incorrectly. • The communication between the BJ head and the DC controller PCB is not correct. • The BJ head is overheating. 	

Code (copier)	Pilot lamp	Error	Resetting		
C092	ON (orange)	<ul style="list-style-type: none"> The BJ head cartridge (yellow) is set incorrectly. The communication between the BJ head and the DC controller PCB is not correct. The BJ head is overheating. 	See instructions for C090, C091, C092, or C093.		
C093		<ul style="list-style-type: none"> The BJ head cartridge (black) is set incorrectly. The communication between the BJ head and the DC controller PCB is not correct. The BJ head is overheating. 			
C094		<p>Copy paper is not of a type recommended.</p> <ul style="list-style-type: none"> Coated paper is used in the OHP mode. OHP film has been picked up in the normal mode. A B5 or smaller sheet has been picked up from the cassette during test pattern copying for head shading. 	Automatic; indicated during delivery.		
C096		Head shading is executed using a soiled or incorrectly placed test pattern; or the copy is faulty.	Incorrect placement	Place the test pattern correctly, and press the HEAD SHADE key once again.	
			Soiling/Faulty copy	Press the RESET key, and make a copy of the test pattern once again.	
C 100		The key for the key switch is not set when the machine is switched ON.	Set the key to the key switch.		

X. ELECTRICAL ADJUSTMENTS

1 After Replacing the Scanning Lamp

- 1) Execute 'light intensity adjustment' in the service mode; see SERVICE HANDBOOK.

2 After Replacing the Amplifier PCB

- 1) Execute 'light intensity adjustment' in the service mode; see SERVICE HANDBOOK.

3 After Replacing the Image Processor PCB

- 1) Execute 'RAM clear', and 'light intensity adjustment' in the service mode; see SERVICE HANDBOOK.
- 2) Adjust the image read position adjustment. Enter the settings shown on the Service Label found on the ROM cover using 'scanner start position adjustment' in the service mode; see SERVICE HANDBOOK.
- 3) Set the country code.
 - Make sure that the country code matches that indicated under 'DEST.' on the Service Label attached to the copier ROM cover; reset the code if necessary.
- 4) Set the projector start position.
 - Make sure that the projector start position setting matches 'PRSPM' and 'PRSPS' on the Service Label attached to the copier ROM cover; reset the value if necessary.

4 After Replacing the DC Controller PCB

- 1) Execute 'RAM clear' in the service mode see SERVICE HANDBOOK.
- 2) Check the data shown on the Service Label found on the new DC controller PCB using 'BJ head temperature adjustment circuit offset adjustment' in the service mode; see SERVICE HANDBOOK.

- 3) Adjust the BJ head carriage position. Enter the settings shown on the Service Label found on the ROM cover using 'printer start position adjustment' in the service mode; see SERVICE HANDBOOK.
- 4) Replace the two waste ink tanks with new tanks.
- 5) Execute 'suction operation counter clear' in the service mode; see SERVICE HANDBOOK.
- 6) Set the OHP film roller position setting.
 - Make sure that the OHP film roller position matches that indicated under 'PSIZE' on the Service Label attached to the copier ROM cover; reset the position setting if necessary.
- 7) Adjust the output of the paper width sensor PCB in the service mode.

5 After Replacing the Paper Sensor PCB

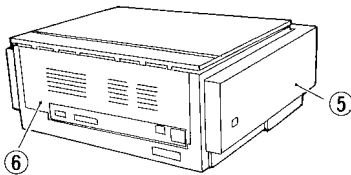
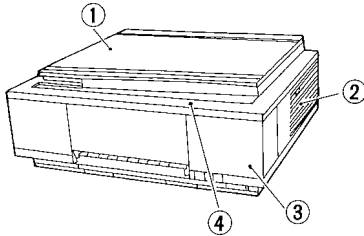
- 1) Adjust the sensor level using the volume (VR901) on the paper sensor PCB with reference to the 'paper width sensor output adjustment' in the service mode.

6 After Replacing the Thermoswitch (TS1)

Dispose of the thermoswitch once it has been activated.

I. EXTERNALS

A. External Covers



- ① Copyboard cover
- ② Right cover
- ③ Front cover
- ④ Upper front cover
- ⑤ Left cover
- ⑥ Rear cover (2)

Figure 4-101

Note:

The number in parentheses indicates the number of mounting screws used.

The covers above (①, ②, ④, ⑤) may be detached simply by disengaging the hooks.

Detach the covers as necessary to clean, inspect, or repair the inside of the machine.

Those that can be detached by mere removal of the mounting screws without detaching any others in advance are omitted from the discussions.

1. Detaching the External Covers

- 1) Slide the copyboard cover ① into the direction of the arrow to detach.

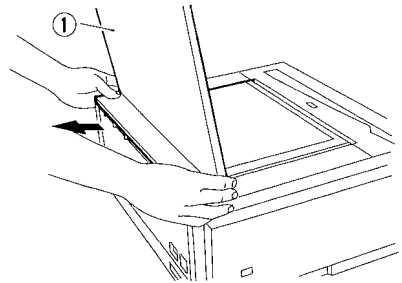


Figure 4-102

- 2) Remove the two mounting screws ③ from the rear cover ②, and detach the rear cover.

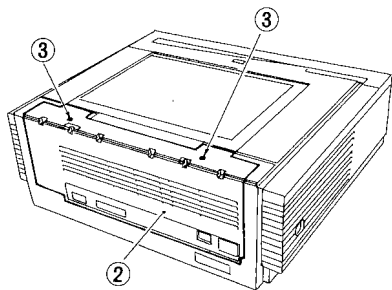


Figure 4-103

- 3) Open the front cover.
- 4) Detach the right cover and the left cover.
- 5) Disengage the three hooks, and detach the upper front cover ④.

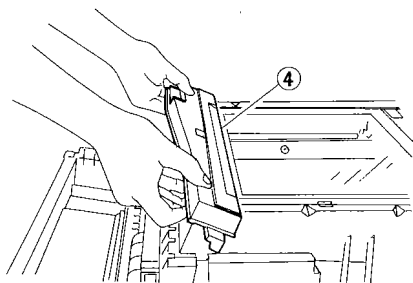


Figure 4-104

2. Detaching the Copyboard Glass

- 1) Detach the copyboard cover, rear cover, right cover, left cover, and upper front cover.
- 2) Remove the copyboard glass retainers ① with their mounting screws each, and detach the copyboard glass.

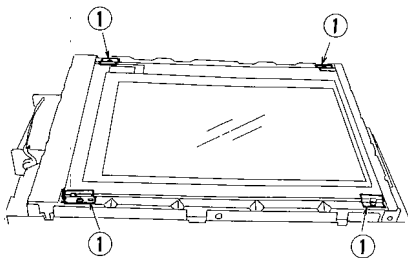


Figure 4-105

B. Control Panel

1. Detaching the Control Panel

- 1) Open the front cover.
- 2) Disengage the three claws, and detach the control cover.

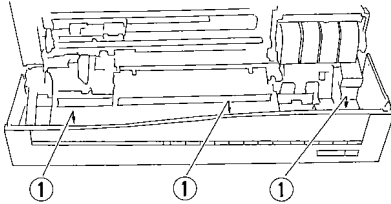


Figure 4-106

- 3) Disconnect connector J701 (2) and J702 (3).

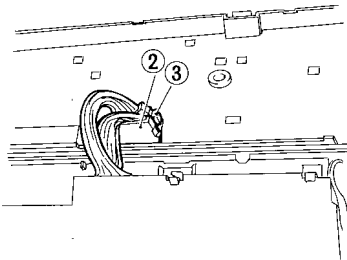


Figure 4-107

C. Reader Unit

When attaching the reader unit, be sure to change the position of the ROM cover as shown below.

- 1) Disconnect all cables connected to the copier's back.
- 2) Detach the copyboard cover, right cover, and left cover.
- 3) Remove the mounting screw (2) from the ROM cover (1) found on the copier's right side, and remove the two fixing screws (3; right) that hold the reader unit.

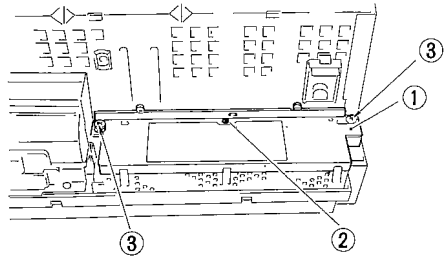


Figure 4-108

- 4) Remove the three screws (left) that hold the reader unit.

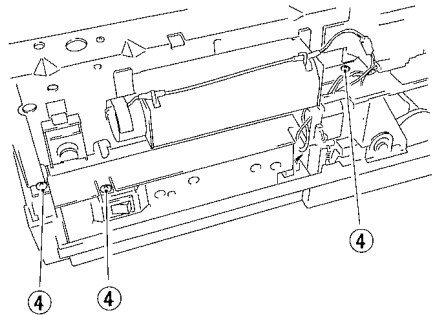


Figure 4-109

- 5) Disconnect J648 ⑤ and the two door switch terminals ⑥.

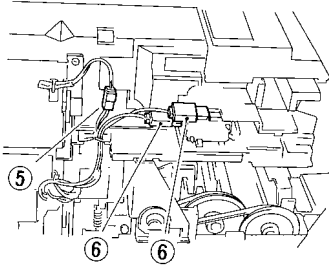


Figure 4-110

- 8) Attach the ROM cover ① to the rear side plate using the mounting screw ② removed in step 3).

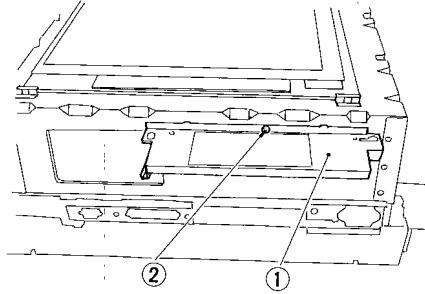


Figure 4-112

- 6) Remove the three mounting screws ⑦ from the rear side plate.

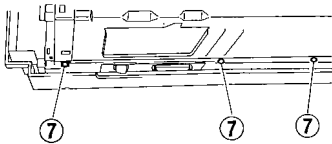


Figure 4-111

- 9) Check that the BJ head carriage is at the home position; then, open the reader unit.

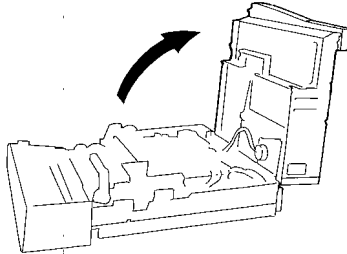


Figure 4-113

- 7) Free the harness of the control key from the harness retainer.

II. SCANNING SYSTEM

A. Exposure Assembly

1. Detaching the Scanning Lamp and Thermoswitch

- 1) Detach the copyboard glass.
- 2) Remove the screw ①, and detach the light-blocking plate ② and reflector ③.

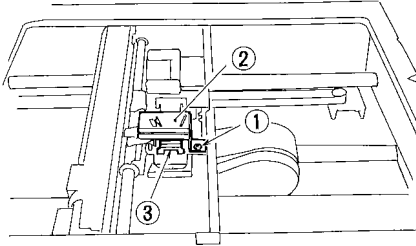


Figure 4-201

- 3) Remove the scanning lamp ④.

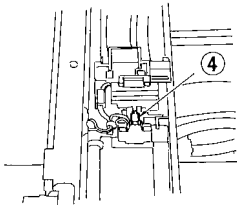


Figure 4-202

- 4) Remove the two mounting screws ⑤ that hold the thermoswitch ⑥ to the reflector ③, and detach the thermoswitch.

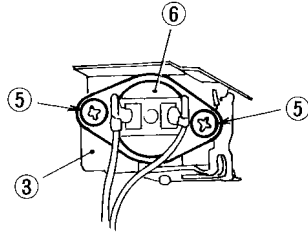


Figure 4-203

Note:

Do not touch the glass surface of the scanning lamp or soil it; such will shorten the lamp life.

B. Scanner Drive Assembly

1. Detaching the Sub Scanning Rail Unit

- 1) Detach the external cover.
- 2) Detach the copyboard glass.
- 3) Remove the screw ①, and detach the pulley cover ②.

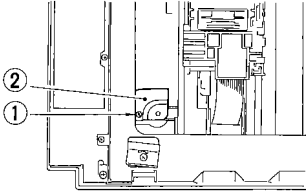


Figure 4-204

- 4) Move the reader unit ③ to the center of the main scanning rail.
- 5) Move the sub scanning unit ④ to the long hole ⑤ in the rear side plate; at the time, be sure to push the rear of the unit by hand.

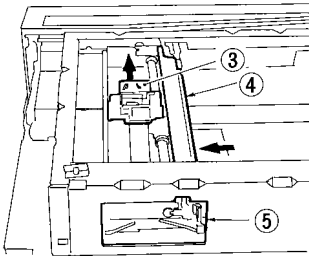


Figure 4-205

- 6) Loosen the tension fixing screw ⑥, and detach the sub scanning drive belt ⑦.

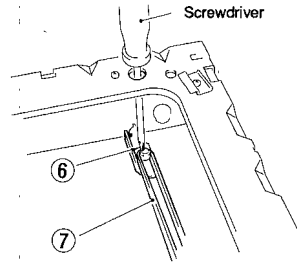


Figure 4-206

Note:

Be sure to check the tension of the sub scanning drive belt when attaching it; see p. 4-10.

- 7) Remove the screw ⑧, and detach the rail retainer (⑨; left).

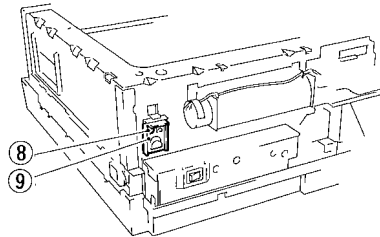


Figure 4-207

Note:

Do not touch the height adjusting screw and the fixing screw on the rail support plate.

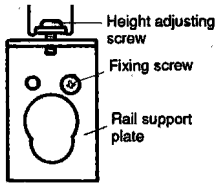


Figure 4-208

- 8) Pull the sub scanning rail ⑩ slightly into the direction of the arrow.

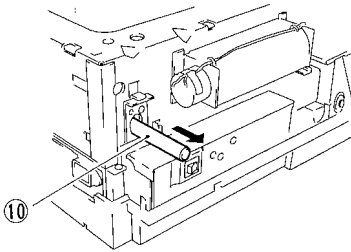


Figure 4-209

- 9) Move the sub scanning unit ④ into the direction of ①; then, lift it into the direction of ② to detach it from the copier.

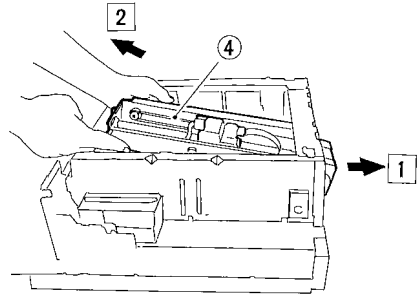


Figure 4-210

Note:

Do not detach the main scanning motor from the sub scanning unit; if the mounting screw on the main scanning motor is tightened at incorrect torque, it may trigger vibration.

2. Detaching the Reader Unit

- 1) Detach the sub scanning rail unit.
- 2) Remove the screw ⑪, and remove the main scanning rail retainer ⑫.

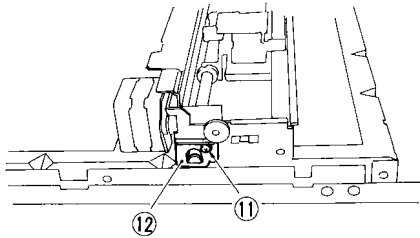


Figure 4-211

- 3) Loosen the tensioner fixing screw ⑬, and detach the main scanning drive belt ⑭.

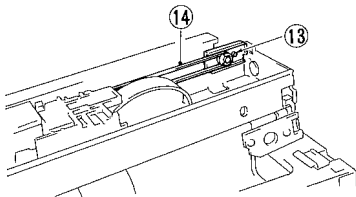


Figure 4-212

- 4) Slide the main scanning rail ⑮ into the direction of the arrow.

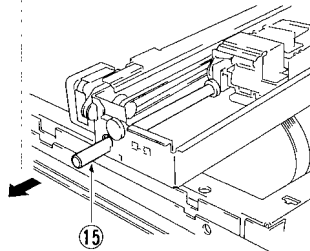


Figure 4-213

- 5) Detach the main scanning home position sensor cable ⑰ from the cable guide ⑯.

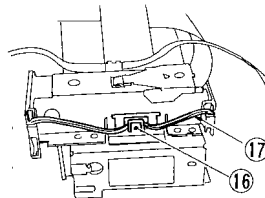


Figure 4-214

- 6) Remove the screw ⑱, and detach the amplifier cover.

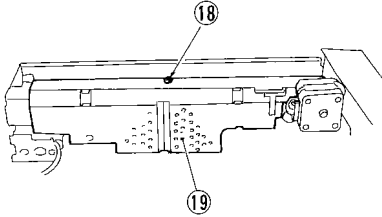


Figure 4-215

- 7) Disconnect connectors J401 ㉔ and J52 ㉕; then, detach the reader unit while detaching the cable guide ㉖.

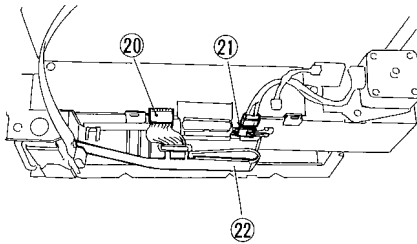


Figure 4-216

3. Detaching the Sub Scanning Motor

- 1) Detach the sub scanning drive belt; see p. 4-6.
- 2) Open the reader unit; see p. 4-3.
- 3) Disconnect J8 ① from the power supply PCB.

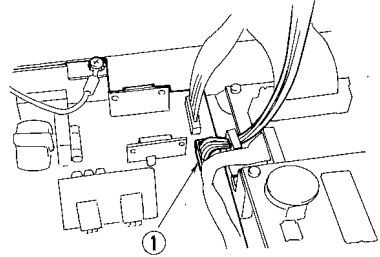


Figure 4-217

- 4) Remove the two mounting screws ② from the sub scanning motor; then, detach the sub scanning motor mount ③.

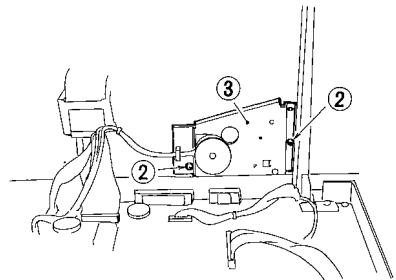


Figure 4-218

- 5) Remove the two screws ④, and detach the sub scanning motor ⑤ from the sub scanning motor mount.

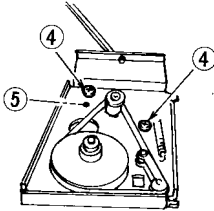


Figure 4-219

4. Adjusting the Tension of the Main Scanning Belt and the Sub Scanning Belt

The tension of the main scanning drive belt and the sub scanning drive belt must be adjusted whenever they have been detached or loosened. To adjust the tension, loosen the tensioner fixing screw, and reposition the tensioner.

Main Scanning Drive Belt

- Hook a spring gauge on the tensioner hook assembly, and pull it straight along the belt; tighten the tensioner fixing screw when the reading on the spring gauge is 800 ± 50 g.

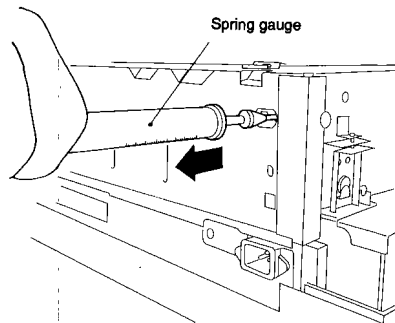
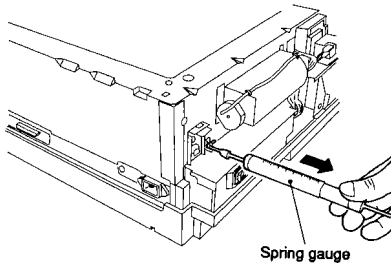


Figure 4-221

Sub Scanning Drive Belt

- Hook a spring gauge on the tensioner hook assembly, and pull it straight along the belt; tighten the tensioner fixing screw when the reading on the spring gauge is 2 ± 0.1 kg.

**Figure 4-222**

III. IMAGE FORMATION SYSTEM

A. BJ Head Carriage Assembly

1. Detaching the BJ Head Carriage

- 1) Open the reader unit; see p. 4-3.
- 2) Unlock the flexible cable retainer ①, and detach the four flexible cables ② from the DC controller PCB.

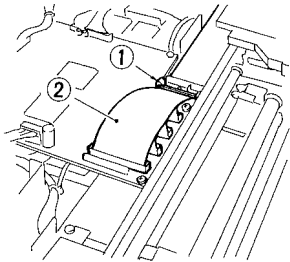


Figure 4-301

■ Detaching the Flexible Cables

Hold both sides (white) of the jack, and lift it; detach the flexible cable after releasing the jack.

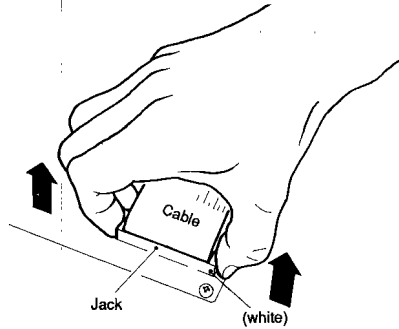


Figure 4-302

■ Locking the Flexible Cable

Attach the flexible cable first; then, lock the flexible cable retainer as follows:

- Shift the flexible cable retainer into the direction of ① slide it into the direction of ②.

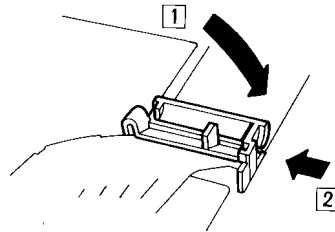


Figure 4-303

- 3) Remove all ink cartridges from the BJ head carriage.

Note:

Store the ink cartridge making sure their head will not be damaged.

- 4) Move the BJ head carriage to the center of the rail.
- 5) Shift the tensioner ③ into the direction of the arrow; then, detach the drive belt ④ on the BJ head side, and loosen the tensioner fixing screw ⑤.

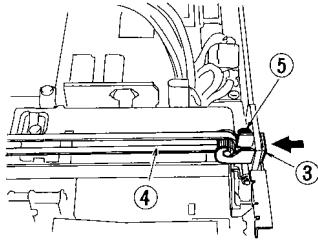


Figure 4-304

- 6) Remove the screw ⑥, and detach the carriage rail mount ⑦. Move the carriage rail ⑧ slightly into the direction of the arrow.

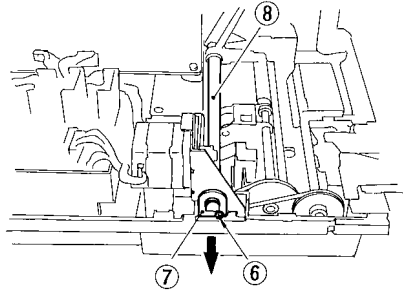


Figure 4-305

- 7) Detach the BJ head carriage and the carriage rail.

Note:

Do not detach the paper off-contact arm from the BJ head carriage; further, do not adjust the height.

B. Image Formation Drive Assembly

1. Detaching the BJ Head Carriage Motor Mount

- 1) Open the reader unit; see p. 4-3.
- 2) Detach the BJ head carriage; see p. 4-12.
- 3) Disconnect J5 ① from the power supply PCB.

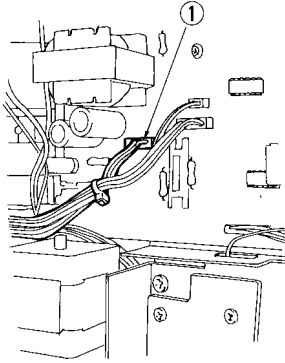


Figure 4-306

- 4) Set feeder assembly release lever 1 to the jam removal position, and lift the upper feeder roller.
- 5) Remove the three screws ②, and detach the carriage motor mount ③.

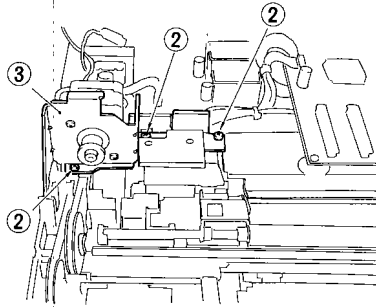


Figure 4-307

C. Suction Assembly

1. Detaching the Suction Pump

- 1) Open the reader unit; see p. 4-3.
- 2) Detach the BJ head carriage; see p. 4-12.
- 3) Remove the two screws ①, and detach the tensioner mount ②.

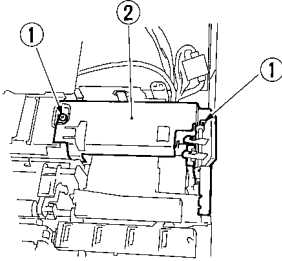


Figure 4-309

- 4) Disconnect J5 ③ and J6 ④ from the power supply PCB.

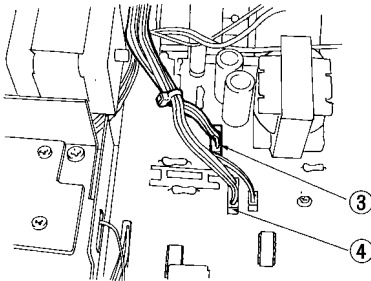


Figure 4-310

- 5) Remove the three screws ⑤, and detach the carriage motor mount ⑥.

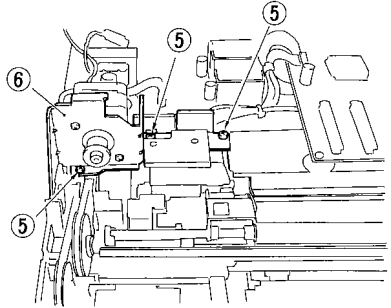


Figure 4-311

- 6) Disconnect J7 ⑦ and J8 ⑧ from the power supply PCB and J101 ⑨ from the image processor PCB.

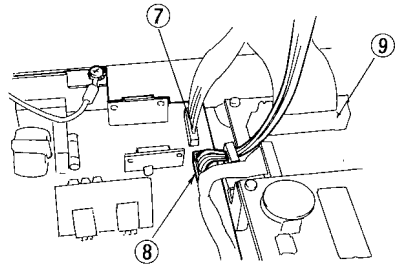


Figure 4-312

- 7) Remove the two pins ⑩ from the left and right hinge assemblies, and separate the reader unit and the printer unit.

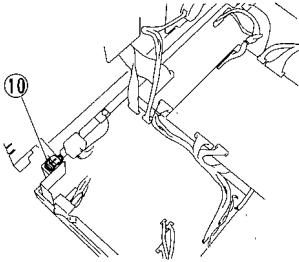


Figure 4-313

- 9) Remove the clamp ⑲ found on the back of the PCB unit, and disengage the two claws ⑰; then, detach the PCB unit ⑱.

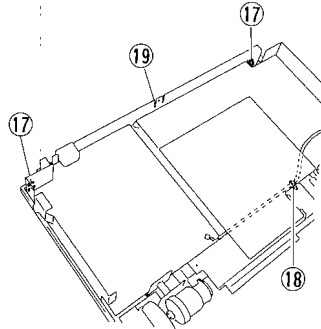


Figure 4-315

- 8) Disconnect J9 ① and J10 ② from the power supply PCB; disconnect J306 ③ and J308 ④ from the DC controller PCB; and disconnect J104 ⑤ and J111 ⑥ from the image processor PCB.

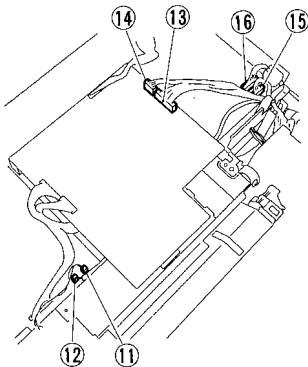


Figure 4-314

- 10) Detach the feeder roller.
11) Detach the button cover ⑳.

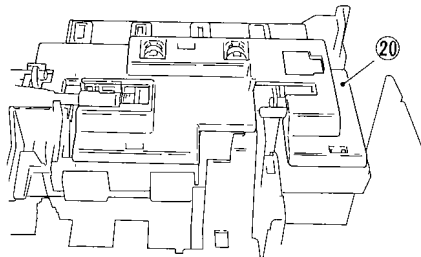


Figure 4-316

12) Disconnect the tube connector ⑳.

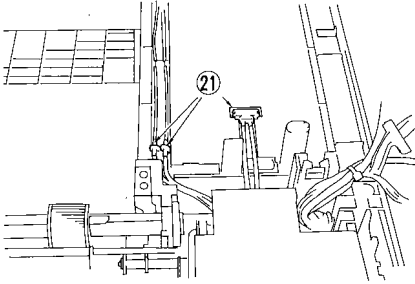


Figure 4-317

13) Disconnect J10 ㉒, J61 ㉓, and J62 ㉔.

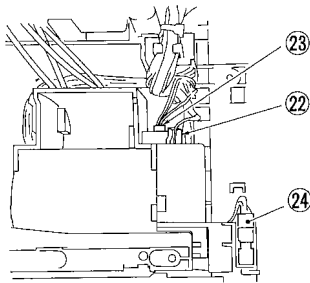


Figure 4-318

14) Detach the suction pump ㉕ while disengaging the three hooks ㉖.

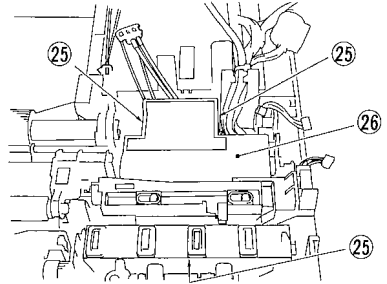


Figure 4-319

15) Detach the suction pump lower cover ㉗ while disengaging the claws ㉘ found on the left and right side of the cover.

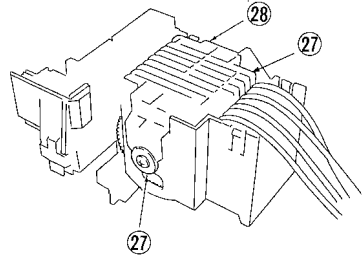
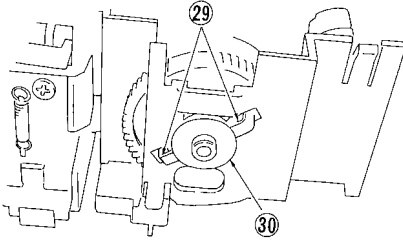


Figure 4-320

- 16) Detach the pump shafts (29; left, right) while disengaging the claw (30).

■ Left View



■ Right View

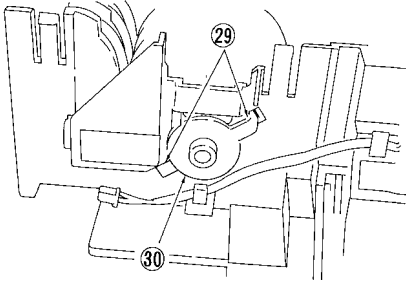


Figure 4-321

- 17) Detach the guide roller (31) from the housing (32).

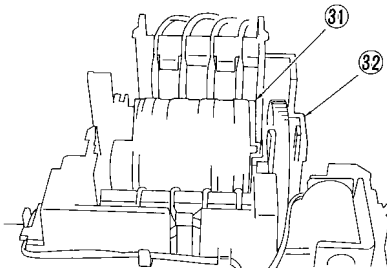


Figure 4-322

2. Detaching the Waste Ink Tank

- 1) Insert a screwdriver into the hole (1) found on the copier's back, and push the claws found inside into the direction of the arrows.

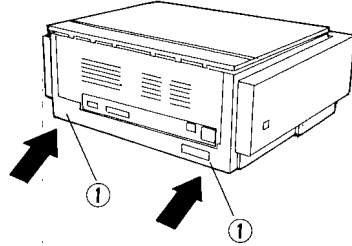


Figure 4-323

- 2) Detach the waste ink tank cover (2) found on the copier's bottom, and detach the waste ink tank (3).

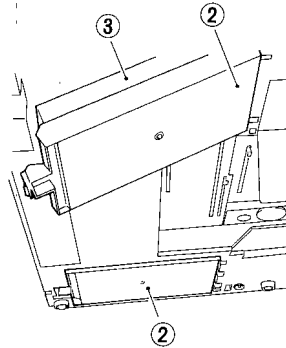


Figure 4-324 (bottom of copier)

Note:

- Do not tilt the copier more than necessary; otherwise, the waste ink may leak out.
- After replacement of the waste ink tank, enter the service mode, and set the suction count.
- When the DC controller PCB must be replaced, replace the waste ink tank also at the same time.

■ **Attaching the Tube to the Suction Pump**

- 1) Put the tube coming from the BJ head cap into the groove; note the marking.

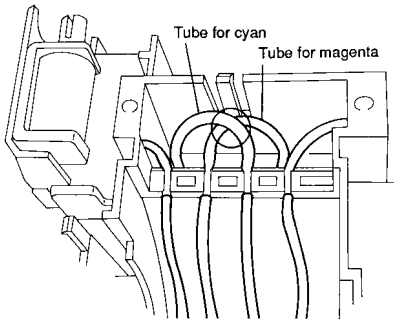


Figure 4-325

Note:

- Make sure the tubes for cyan and magenta are placed as indicated in Figure 4-325.
- 2) Put the groove found opposite the housing; note the marking.

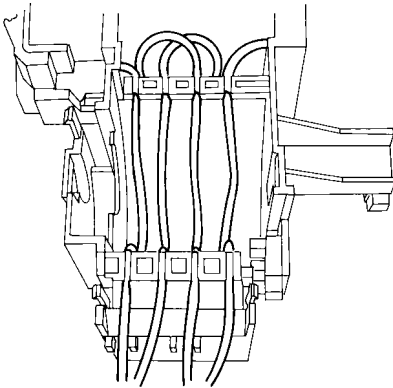


Figure 4-326

- 3) Set the guide roller, and make sure that each tube is in the groove of the guide roller.

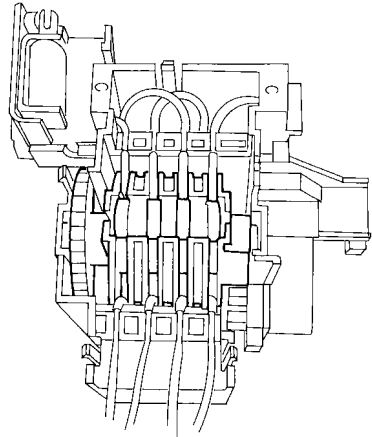


Figure 4-327

IV. PICK-UP/FEEDER SYSTEM

A. Pick-Up Assembly

1. Detaching the Pick-Up Roller

- 1) Open the reader unit; see p. 4-3.
- 2) Detach the BJ head carriage; see p. 4-12.
- 3) Detach the PCB unit; see p. 4-14.
- 4) Detach the pick-up roller ①.

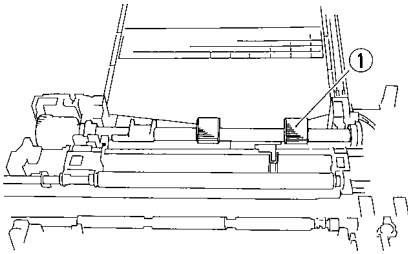


Figure 4-401

B. Feeder Drive Unit

1. Detaching the Feeder Unit

- 1) Open the reader unit.
- 2) Detach the BJ head carriage.
- 3) Detach the BJ head carriage motor mount.
- 4) Remove the screw ①, and detach the feeder motor drive belt ② and the feeder motor mount ③.

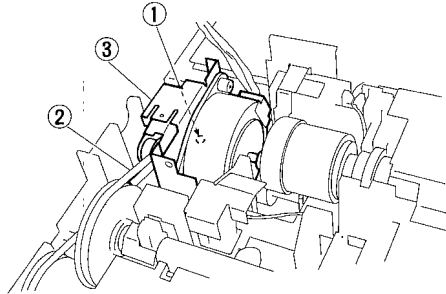


Figure 4-402

Note:

Do not detach the feeder motor from the motor mount; tightening its mounting screws at incorrect torque will lead to image faults.

2. Adjusting the Tension of the Feeder Motor Drive Belt

You must adjust the tension of the belt if the machine is not equipped with a tensioner for the sub scanner drive assembly.

Be sure to adjust the tension of the belt whenever it has been replaced; to adjust it, loosen the tensioner fixing screw and change the position of the tensioner.

- Hook a spring gauge on the feeder motor mount, and push the mount. Tighten the fixing screw when the reading on the gauge is 2.5 kg.

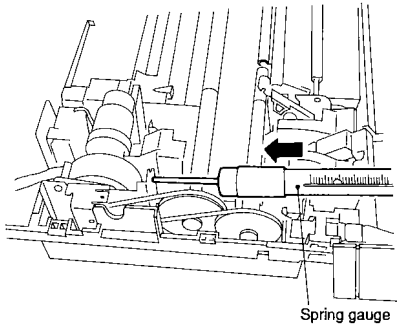


Figure 4-403

C. Feeder Roller Assembly

1. Detaching the Upper Feeder Roller Unit

- 1) Open the reader unit; see p. 4-3.
- 2) Detach the BJ head carriage; see p. 4-12.
- 3) Release the release lever 1.
- 4) Remove the two screws ①, and disconnect J59 ②; then, detach the upper feeder roller unit.

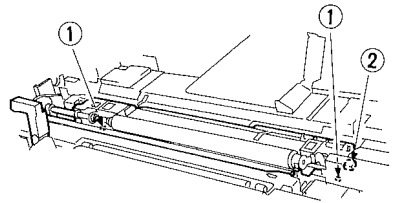


Figure 4-404

Upper Feeder Roller Unit

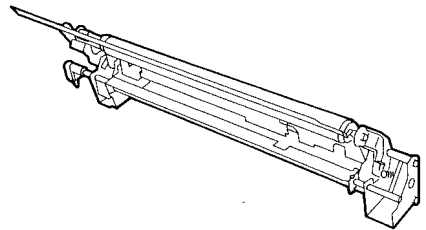


Figure 4-405

■ **Attaching the Upper Feeder Roller Unit**

- 1) Shift the jam lever 1 ① into the direction of the arrow.

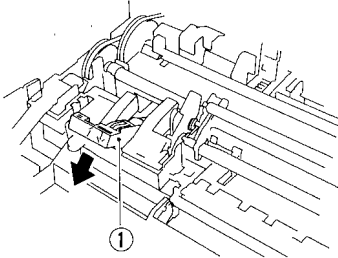


Figure 4-406

- 3) Put link lever A ③ into the hole of link lever B ④, and attach the feeder roller unit to the copier.

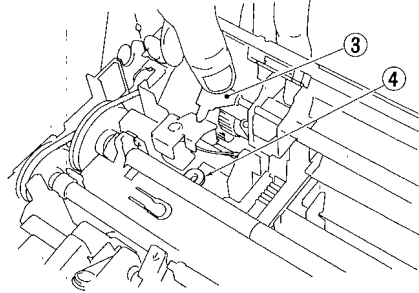


Figure 4-408

- 2) Open the upper feeder roller unit ② into the direction of the arrow until it locks.

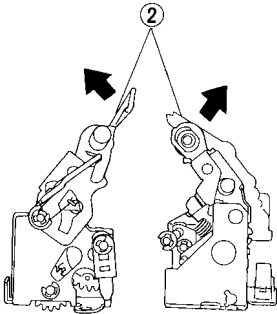


Figure 4-407

2. Detaching the Feeder Roller

- 1) Open the reader unit.
- 2) Detach the BJ head carriage.
- 3) Detach the BJ head carriage motor mount.
- 4) Detach the feeder motor.
- 5) Remove the screw ①, and detach the platen ②.

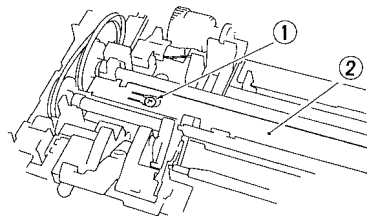


Figure 4-409

- 6) Remove the feeder roller spring ③.

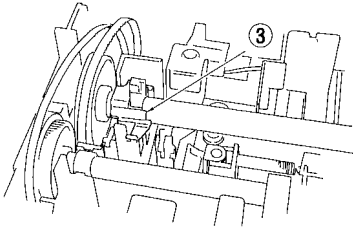


Figure 4-410

- 7) Detach the feeder roller ④.



Figure 4-411

3. Detaching the Upper Delivery Roller Unit

- 1) Open the front cover.
- 2) Make sure that the BJ head carriage is at the home position.
- 3) Shift jam lever ① into the direction of ①.
- 4) Shift the bushing ② into the direction of ②, and detach the upper delivery roller unit ③.

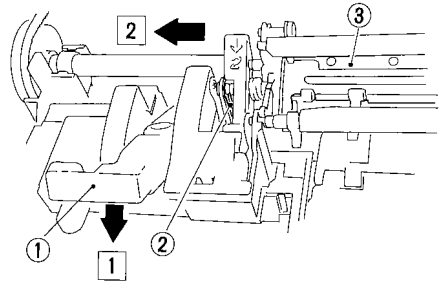


Figure 4-412

Upper Delivery Roller Unit

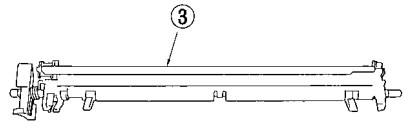


Figure 4-413

■ Points to Note When Attaching the Delivery Roller Unit

- Attach the upper delivery roller unit so that its three arms ① are positioned as shown.

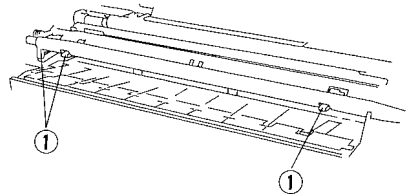


Figure 4-414

4. Detaching the Delivery Roller

- 1) Open the reader unit.
- 2) Detach the BJ head carriage.
- 3) Detach the BJ head carriage motor mount.
- 4) Detach the feeder motor.
- 5) Detach the upper feeder roller unit.
- 6) Remove the screw ①, and detach the platen ②.

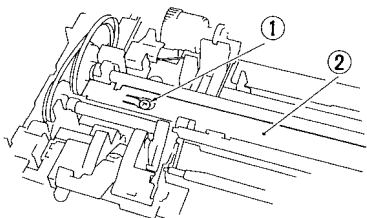


Figure 4-415

- 7) Detach the delivery sensor arm ③.

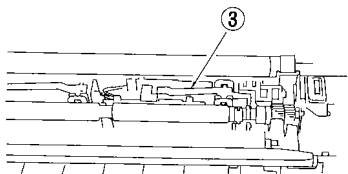


Figure 4-416

- 8) Detach the delivery roller ④.

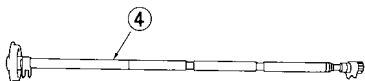


Figure 4-417

5. Detaching the Release Shaft

- 1) Disengage the three claws of the button cover ①, and detach the button cover.
- 2) Shift the bushing ② into the direction of the arrow, and detach the release shaft ③.

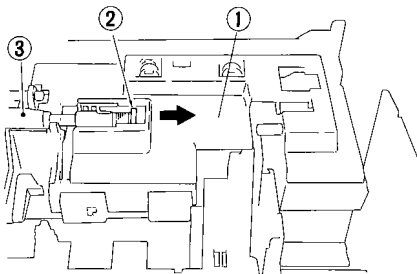


Figure 4-418

■ Points to Note When Attaching the Release Shaft

1. Attach the release shaft gear and the link so that their teeth are engaged as shown.

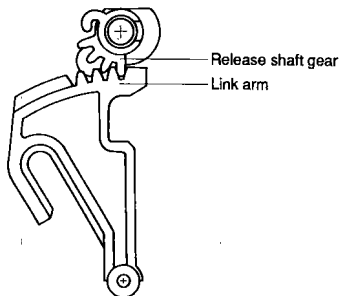


Figure 4-419

2. Make sure that the release shaft spring is hooked on the bushing.

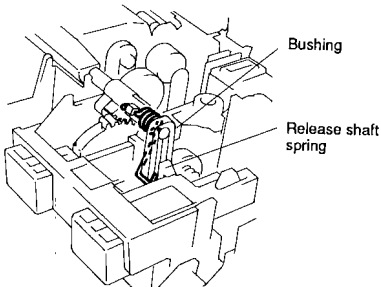


Figure 4-420

6. Detaching the Manual Feed Shaft

- 1) Detach the release shaft.
- 2) Detach the upper delivery roller unit.
- 3) Detach the delivery guide plate ①.

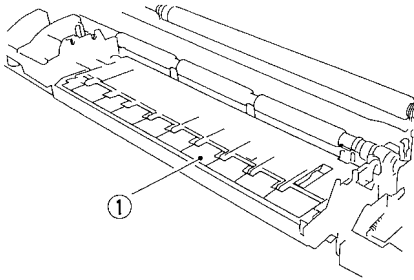


Figure 4-421

- 4) Detach the retainer plate ②.

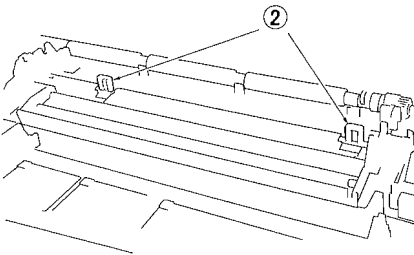


Figure 4-422

- 5) Detach the button cover.
- 6) Detach the shaft retainer ③.

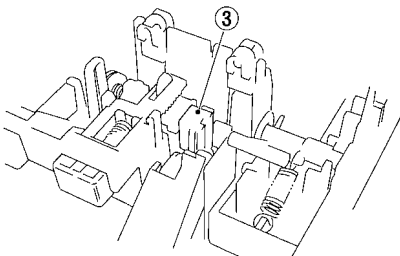


Figure 4-423

- 7) Detach the cassette.
- 8) Detach the OHP mode button.
- 9) Pull out the manual feed shaft ④ into the direction of the arrow.

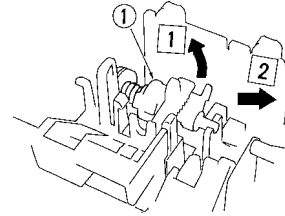


Figure 4-424

■ Points to Note When Attaching the Manual Feed Shaft

- Attach the light-blocking plate pinion and the rack so that they are positioned as shown .

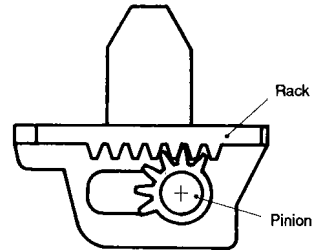


Figure 4-425

8. Relocating the OHP Film Roller

- 1) Open the front cover.
- 2) Shift jam release levers 1 and 2 up.
- 3) Disengage the hook ③ of the holder ② off the hole in the holder arm ① on the OHP film roller.
- 4) Rotate the holder by 90° to shift the holder.
- 5) Engage the holder on the holder arm, and rotate it by 90°; then, engage the hook of the holder on the hole in the holder arm.

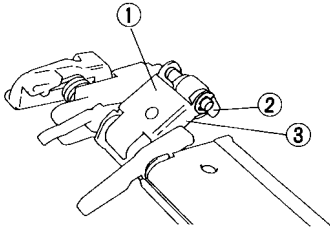
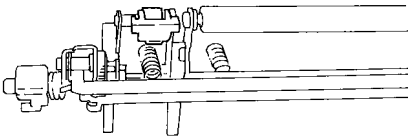


Figure 4-426

■ A4 Size



■ LTR Size

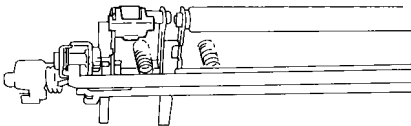


Figure 4-427

Note:

- After re-positioning, reset the DC controller PCB in the service mode.
- The left roller for OHP film found in the upper delivery roller unit supplied as a service part is positioned between A4 and LTR setting positions.

Be sure to reposition the roller either to A4 or to LTR before attaching the unit to the copier.

I. SELECTING THE SITE

The location of the copier should be chosen based on the following considerations. If possible, make a visit to the user for a study of the site before delivery of the copier.

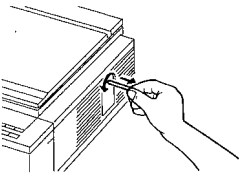
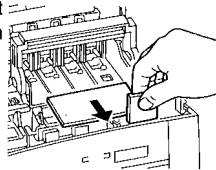
- Make sure there is a power outlet rated as shown on the copier's nameplate.
- Make sure that the site may be maintained to a temperature of 15° to 30°C and a humidity of 5% to 80%; in particular, avoid locations near water faucets, water boilers, humidifiers, and refrigerators.
- Avoid locations near open fire or subject to dust or ammonia fumes and direct rays of the sun. Provide curtains over the windows if necessary.
- Choose a well-ventilated location.
- Make sure all feet of the copier will be in contact with the floor.
- Allow at least 10 cm from any wall to provide access.

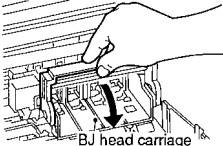
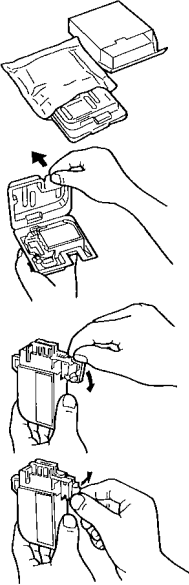
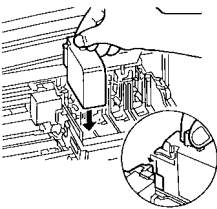
II. UNPACKING AND INSTALLATION

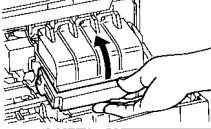
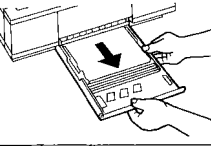
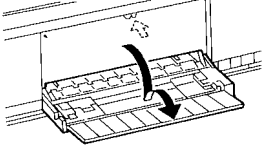
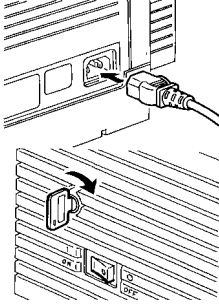

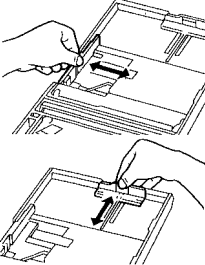
A. Unpacking

Step	Work	Checks
1	Open the shipping box, and remove the plastic sheets.	
2	Take out the contents of the box, and check that the following are available:	<p>Make sure that none of the following is missing:</p> <ul style="list-style-type: none"> • Cassette • Control key • Coated copy paper (20 sheets, A4) • Clip ring • Ink cartridge (yellow, magenta, cyan, black) • Power Cord • Operator's Manual

B. Installation

Step	Work	Checks
1	Remove the strips of tape that hold parts in place.	Check that all covers are free of scratches and deformations caused during transit.
2	<p>Turn the screw that holds the scanner in place, and pull it out; keep the screw for possible relocation of the copier.</p> 	Keep the screw for possible relocation of the copier.
3	<p>Open the front cover, and pull out the member (orange) that holds the BJ head carriage in place.</p> 	Keep the member for possible relocation of the copier.

Step	Work	Checks
4	<p>Shift the handle of the BJ head carriage 90° to the front.</p> 	
5	<p>Set the ink cartridge as follows:</p> <p>1) Prepare the ink cartridge (4 colors) as follows:</p> <p>① Open the box, and open the aluminum package; then, take out the ink cartridge.</p> <p>② Hold the tab, and open the transparent protection cover; then, take out the ink cartridge.</p> <p>③ Hold the cartridge, and remove the protection member (orange) from the ink head unit.</p> <p>④ Remove the film used to protect the end of the ink head.</p> <p>Note: Set the cartridge immediately after removing the film to protect the head.</p> 	
	<p>2) Hold the tab found at the top end of the cartridge, and set the cartridge; make sure that the groove of the cartridge is fitted on the rail of the BJ head carriage.</p> <p>Note: The four ink cartridges must be set, from left to right, black, cyan, magenta, and yellow.</p> 	

Step	Work	Checks
5	3) Shift the handle of the BJ head carriage to the original position. 	
	4) Close the front cover.	
6	Slide out the cassette from the copier, and remove the shock absorber (cardboard); then, set the cassette once again. 	
7	Attach the copy tray. 	
8	Connect the power plug, and switch the copier ON; then, turn the control key clockwise. 	<ul style="list-style-type: none"> • Check that the pilot lamp (from orange to green) goes ON. • Press the + and - keys, and check that the copy count is correct. • Press the RATIO key, and check that the reproduction ratio mode changes. • Make sure that a press on the ZOOM key causes the ZOOM indicator to go ON, and a press on the + and - key changes the zoom ratio.
9	Press the COPY START key.	Press the key without paper in the cassette, and make sure that the copy count/ratio display indicates '0'. 
10	Setting Coated Paper <ol style="list-style-type: none"> 1) Slide out the cassette, and set the guide to suit the size of the paper. 2) Take out the coated paper from its aluminum package, and set it in the cassette; keep the remaining paper sealed in the aluminum package. 	Make sure that the face of the paper is up.
11	Execute head shading.	For operation, see CHAPTER 1.

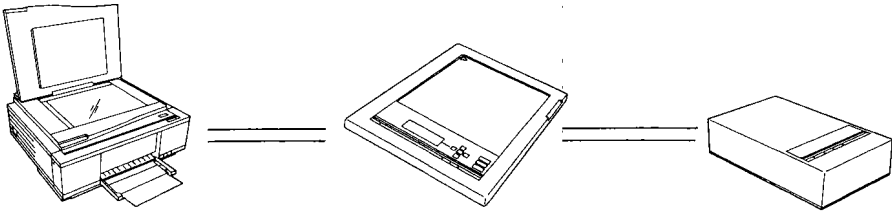
C. Checking Images and Operations

Step	Work	Checks
1	Set the Test Sheet on the copyboard, and make copies; check the copying operation and image quality.	<ul style="list-style-type: none">• Make sure no abnormal noise is heard.• Make sure that copies are made in specified numbers.• Check the quality of the images.

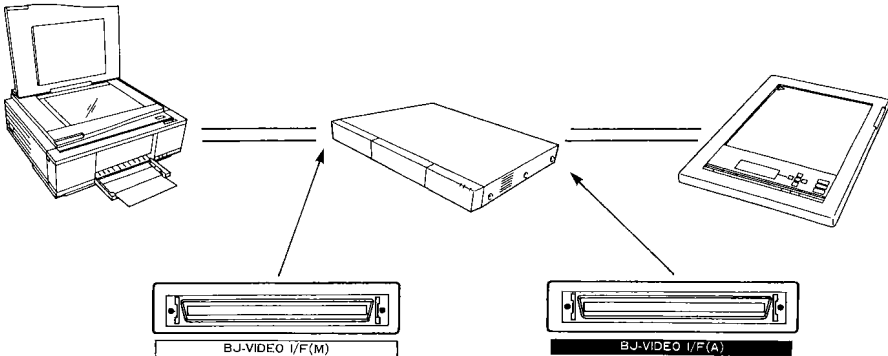
III. CONNECTING THE OPTIONS

When connecting the copier and its options using the multiple interface cable, make sure they are connected as follows:

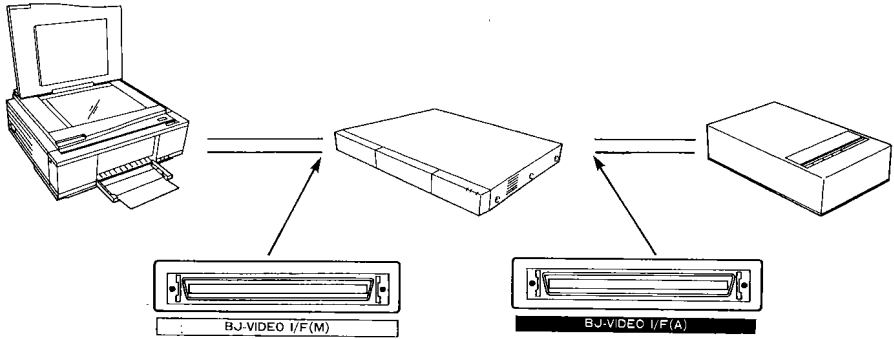
1. Copier, Editor Unit, and Video Adaptor



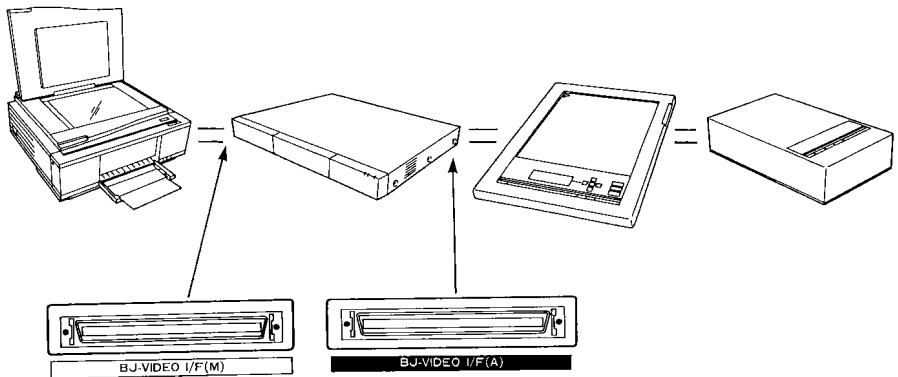
2. Copier, IPU, and Editor Unit



3. Copier, IPU, and Video Adaptor



4. Copier, IPU, Editor Unit, Video Adaptor



IV. MAINTENANCE BY THE USER

A. Maintaining the Image Quality

The copier is equipped with head cleaning and head shading mechanisms to ensure stable image quality.

Note:

Advise the user not to press the HEAD CLEAN or SHADE key more than necessary; such will lead to wasted ink.

1. Head Cleaning

In a BJ copier, collection of air bubbles in the nozzles at the tip of the BJ head or dried head on the edge of the head causes white or black lines to appear on the copies.



Figure 5-1

If images as shown in Figure 5-1 are noted, clean the head as follows:

- 1) Press the HEAD CLEAN key on the control panel.
- 2) Check that the head cleaning has started.
 - During the cleaning, the pilot lamp glows orange, and all keys on the control panel are disabled.

Note:

The copier performs head cleaning at time of power-on and upon completion of copying operation if necessary.

2. Head Shading

Although rare, discrepancies in the adjustment of the amount of ink ejected by the BJ head can cause color displacement on the copies; the displacement show in the form of bands.

Vibration occurring while the cartridge travels, commonly noted after replacement of the cartridge, also can lead to color displacement.



Figure 5-2

If the above is noted, perform head shading as follows:

- 1) Set A4 or B5 coated paper in the cassette; then, press the HEAD SHADE key on the control panel using a pointed object.
 - A press on the HEAD SHADE key clears all previous settings for the external equipment/projector.
 - The copyboard may be left without a document.
- 2) Check that copying starts and, in about 30 sec, a test pattern for shading is generated.
 - During the generation of the test pattern, the pilot lamp glows orange; it changes to green and flashes after output.

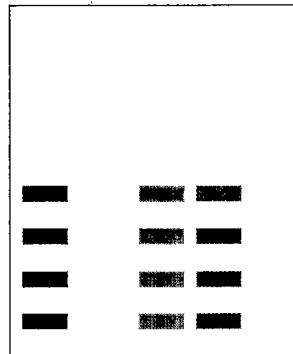


Figure 5-3

- 3) Lift the copyboard cover, and place the generated test pattern on the copyboard face down. Make sure that the *black area* on the pattern is set against the size index on the copyboard glass (vertically).

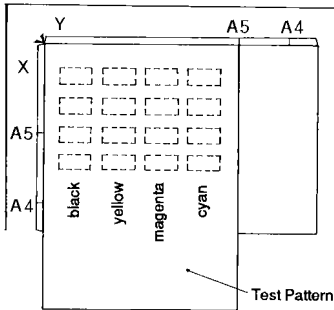


Figure 5-4

- 4) Close the copyboard cover, and press the HEAD SHADE key once again.
 - If the generated test pattern is not set correctly, the copy count/ratio display indicates 'C096'.
 - During head shading operation, all keys except the REST key are disabled.
- 5) Check that head shading starts and the test pattern is read (about 40 sec).
 - The pilot lamp changes from orange to green when head shading operation is over.

B. Cleaning

1. Periodical Cleaning

Advise the user to clean the following parts once a week.

a. Copyboard Glass

Wipe it using a soft cloth moistened with water or commercially available glass cleaner; then, dry wipe it.

b. Copyboard Cover

Wipe it using a soft cloth lightly moistened with water; then, dry wipe it.

2. When Copies are Soiled with Ink

When non-recommended paper is used or paper already carried images is used, the inside of the machine tends to become soiled with ink. Advise the user to clean the inside of the machine as soon as such a problem is identified.

a. Delivery Roller/Paper Holding Plate (front)

- 1) Press the COPY START key without a document on the copyboard.
 - This operation is intended to wipe off the ink adhering to the delivery roller; for this reason, it is important to make sure that special paper (A4) is set in the cassette.
- 2) Open the front panel.
- 3) Shift feeder assembly release lever 1; the paper holding plate (front) will turn over.

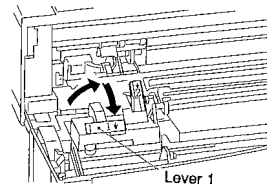


Figure 5-5

- 4) Wipe the paper holding plate (metal face) using a cloth lightly moistened with water. Take care not to deform the paper holding plate; further, wipe the pick-up guide also if necessary.

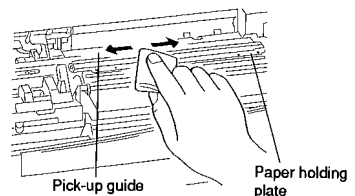


Figure 5-6

- 5) Shift feeder assembly release lever 2.

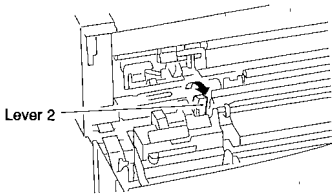


Figure 5-7

- 6) Wipe the delivery roller using a cloth lightly moistened with water; further, wipe the roller under the delivery roller if necessary.

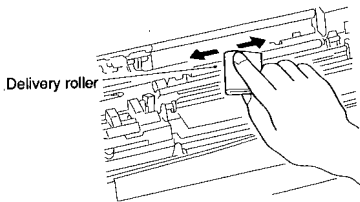


Figure 5-8

- 7) Wait until the roller has become completely; then, shift feeder assembly release levers 2 and 1 back to their original positions.

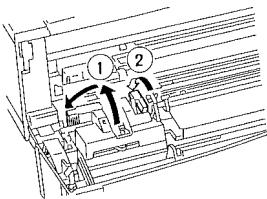


Figure 5-9

- 8) Close the front panel.
- 9) Make a copy as in step 1).
If soiling is noted on the copy, repeat steps 2) through 9).

I. PERIODICALLY REPLACED PARTS

The copier does not contain parts to be replaced on a periodical basis.

II. DURABLES

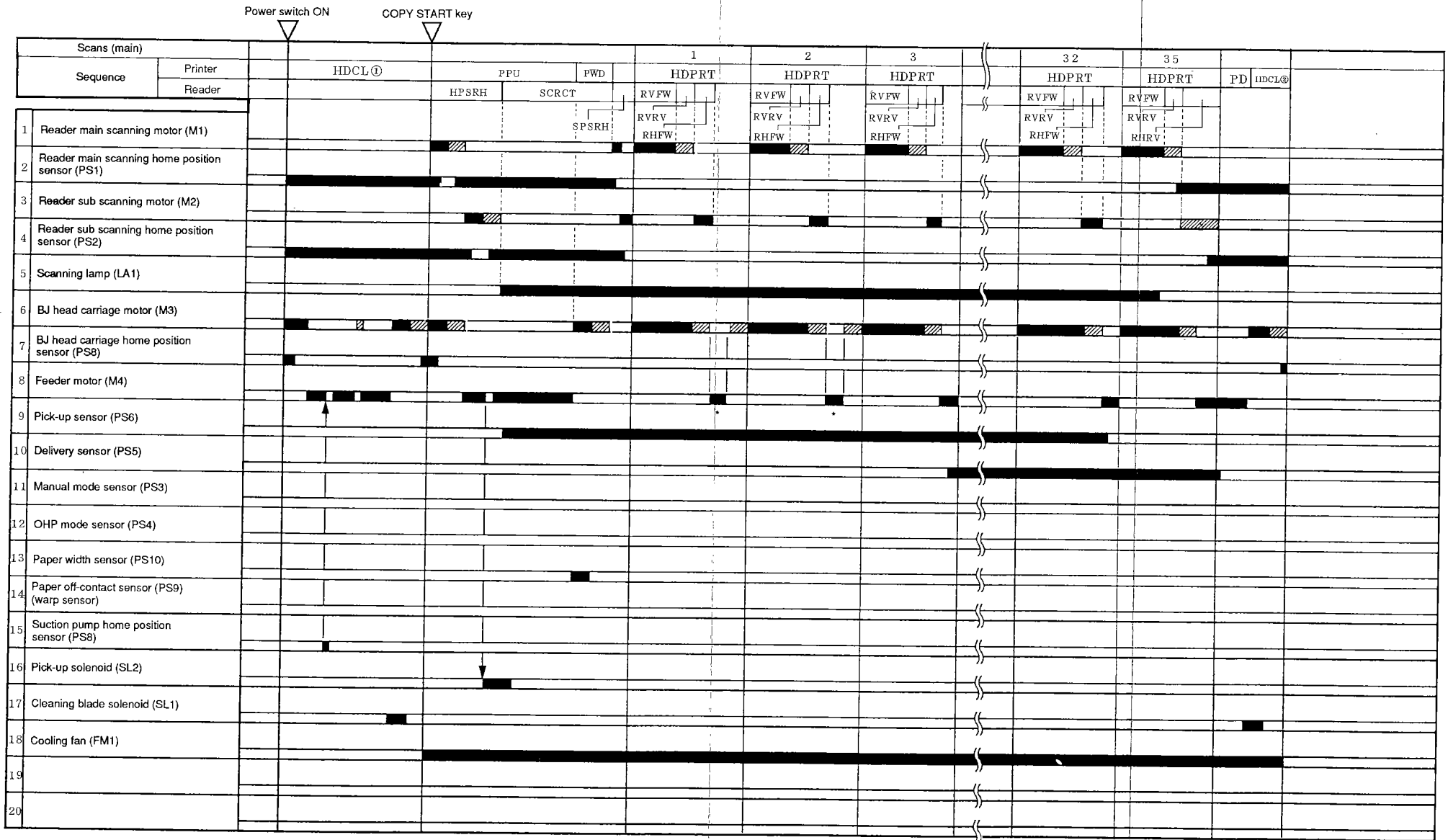
The copier does not contain parts designated as durables.

III. SCHEDULED MAINTENANCE

The copier does not contain parts requiring scheduled maintenance.

A. GENERAL TIMING CHART

Pick-Up from Cassette (A4; coated paper)



Motor forward Motor reverse

*The BJ head carriage keeps the paper holding plate in place while feeding paper for the first and second scans.

B. LIST OF SIGNALS/ABBREVIATIONS

1. Signals

a. Copier

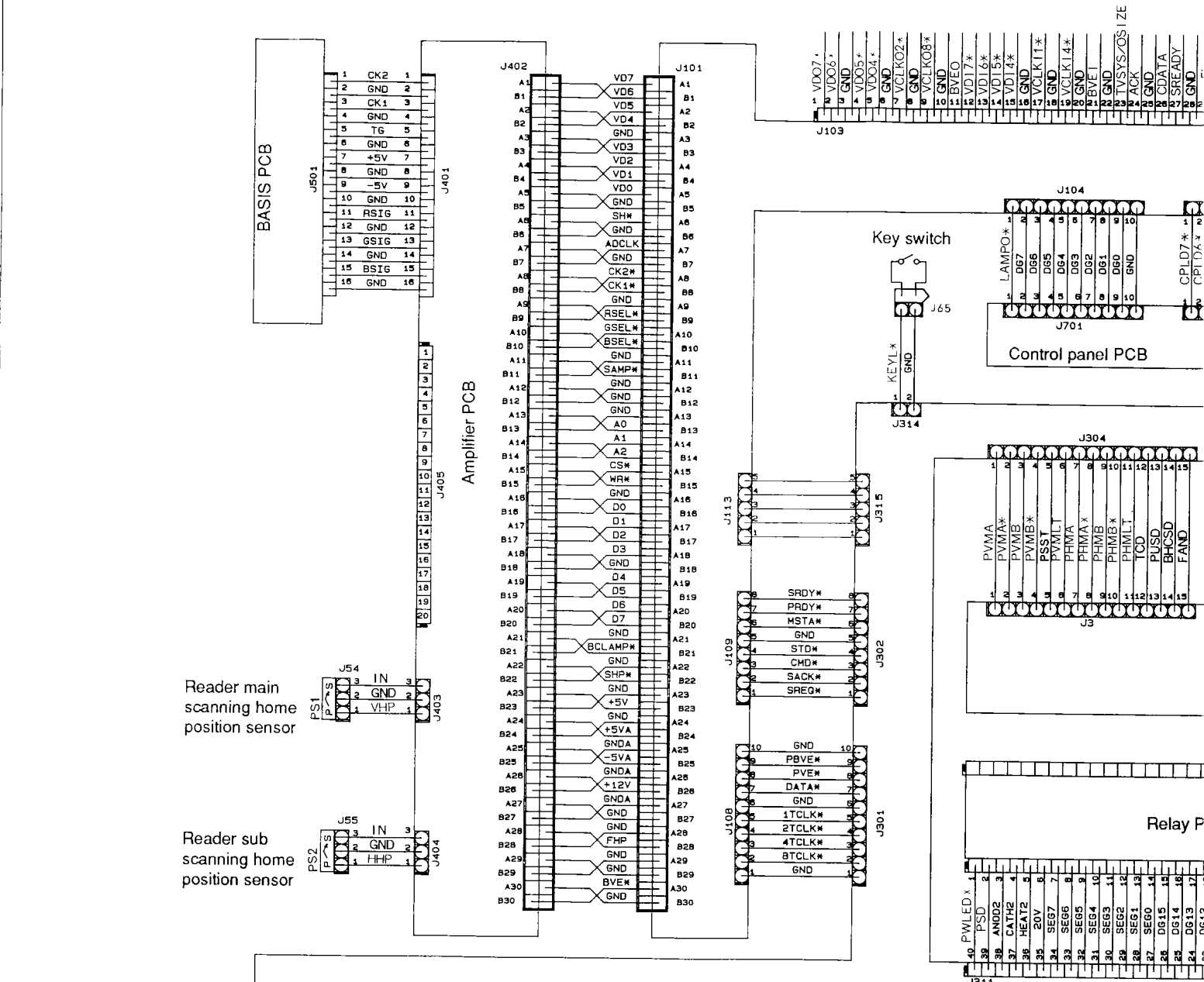
ACK	ACKNOWLEDGE signal
ADCLK	ANALOG TO DIGITAL CONVERSION CLOCK PULSE
BHCSD	CLEANING BLADE SOLENOID DRIVE command
BJHP	BJHEAD CARRIAGE HOME POSITION signal
BUSY	BUSY signal
BVEI	band video enable in SIGNAL
BVEO	BAND VIDEO ENABLE OUT signal
CDATA	COMMAND DATA signal
CPLD 0	CONTROL PANEL LED DRIVE command 0
CPLD 1	CONTROL PANEL LED DRIVE command 1
CPLD 2	CONTROL PANEL LED DRIVE command 2
CPLD 3	CONTROL PANEL LED DRIVE command 3
CPLD 4	CONTROL PANEL LED DRIVE command 4
CPLD 5	CONTROL PANEL LED DRIVE command 5
CPLD 6	CONTROL PANEL LED DRIVE command 6
CPLD 7	CONTROL PANEL LED DRIVE command 7
FAND	SCANNER COOLING FAN DRIVE command
FCO	FRONT COVER OPEN signal
HHP	READER HORIZONTAL HOME POSITION signal
INK	INK NET signal
KEY 0	CONTROL KEY signal 0
KEY 1	CONTROL KEY signal 1
KEY 2	CONTROL KEY signal 2
KEYL	KEY SWITCH signal
LAMPG	PILOT LAMP GREEN DRIVE command
LAMPO	PILOTLAMP ORANGE DRIVE command
LAMPON	SCANNING LAMP DRIVE command
MFM	MANUAL FEED MODE signal
OHPEM	OHP MODE signal
OSIZE	OUT PUT SIZE signal
PDD	PAPER DELIVERY DETECTION signal
PHMA	PAPER FEEDER MOTOR DRIVE PULSE
PHMB	PAPER FEEDER MOTOR DRIVE PULSE
PHMLT	PAPER FEEDER MOTOR TORQUE CONTROL signal
PPD	PICK UP PAPER DETECTION signal
PRD	PAPER OFF-CONTACT DETECTION signal
READY	PRIMARY READY signal
PRHP	PRESSURE ROLLER HOME POSITION signal
PSD	PAPER WIDTH DETECTION signal
PUSD	PICK UP SOLENOID DRIVE command
PVMA	BJ HEAD CARRIAGE MOTOR DRIVE PULSE
PVMB	BJ HEAD CARRIAGE MOTOR DRIVE PULSE
PVMLT	BJ HEAD CARRIAGE MOTOR TORQUE CONTROL signal
PWLED	PAPER WIDTH SENSOR LED DRIVE command

REQ	REQUEST signal
RHMA	READER HORIZONTAL MOTOR DRIVE PULSE
RHMA	READER HORIZONTAL MOTOR DRIVE PULSE
RHMB	READER HORIZONTAL MOTOR DRIVE PULSE
RHMLT	READER HORIZONTAL MOTOR TORQUE CONTROL signal
RVMA	READER VERTICAL MOTOR DRIVE PULSE
RVMB	READER VERTICAL MOTOR DRIVE PULSE
RVMLT	READER VERTICAL MOTOR TORQUE CONTROL signal
SCLK	SERIAL CLOCK signal
SDATA	STATES DATA signal
SEL	SELECT signal
SH	SAMPLE HOLD signal
SREADY	SECONDARY READY SIGNAL
START	START signal
TCD	TOTAL COUNTER DRIVE command
TVSYS	TV SYSTEM SWITCH signal
VCLKI 1	VIDEO CLOCK IN signal 1
VCLKI 2	VIDEO CLOCK IN signal 2
VCLKI 4	VIDEO CLOCK IN signal 4
VCLKI 8	VIDEO CLOCK IN signal 8
VCLKO 1	VIDEO CLOCK OUT signal 1
VCLKO 2	VIDEO CLOCK OUT signal 2
VCLKO 4	VIDEO CLOCK OUT signal 4
VCLKO 8	VIDEO CLOCK OUT signal 8
VDI 0	VIDEO DATA IN signal 0
VDI 1	VIDEO DATA IN signal 1
VDI 2	VIDEO DATA IN signal 1
VDI 2	VIDEO DATA IN signal 2
VDI 3	VIDEO DATA IN signal 3
VDI 4	VIDEO DATA IN signal 4
VDI 5	VIDEO DATA IN signal 5
VDI 6	VIDEO DATA IN signal 6
VDI 7	VIDEO DATA IN signal 7
VDO 0	VIDEO DATA OUT signal 0
VDO 1	VIDEO DATA OUT signal 1
VDO 2	VIDEO DATA OUT signal 2
VDO 3	VIDEO DATA OUT signal 3
VDO 4	VIDEO DATA OUT signal 4
VDO 5	VIDEO DATA OUT signal 5
VDO 6	VIDEO DATA OUT signal 6
VDO 7	VIDEO DATA OUT signal 7
VEI	VIDEO ENABLE IN signal
VEO	VIDEO ENABLE OUT signal
VHP	READER VERTICAL HOME POSITION signal
b. Projector	
PRJLA	PROJECTOR LAMP DRIVE command
PRJLAC	PROJECTOR LAMP CONTROL command
PRJPOW	PROJECTOR POWER ON signal
PRRDY	PROJECTOR LAMP ON signal

2. Abbreviations

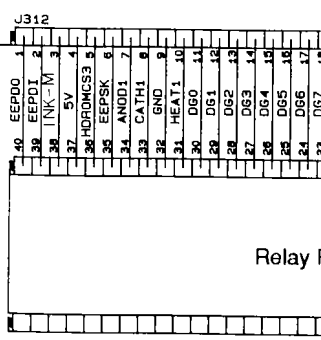
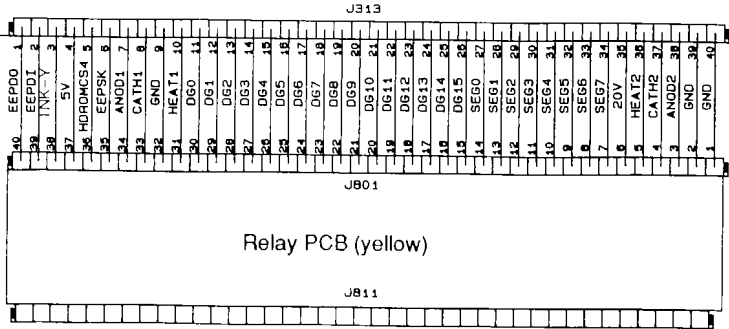
BJFW	BJ HEAD FORWARD
BJRV	BJ HEAD REVERSE
COPY	COPY
HDCL 1	HEAD CLEANING 1
HDCL 2	HEAD CLEANING 2
HDCL 3	HEAD CLEANING 3
HDPRT	BJ HEAD PRINT
HP	HOME POSITION
HPSRH	HOME POSITION SEARCH
LBAJ	LAST BLANK ADJUST
PD	PAPER DELIVERY
PFD	PAPER FEED
PPU	PAPER PICK UP
PWD	PAPER WIDTH DETECTION
RHFW	READER HORIZONTAL FORWARD
RHRV	READER HORIZONTAL REVERSE
RVFW	READER VERTICAL FORWARD
RVRV	READER VERTICAL REVERSE
SCRCT	SHADING CORRECTION
SP	START POSITION
SPSRH	START POSITION SEARCH
STBY	STANDBY

To edit



Color Code

BK	BLACK
BL	BLUE
BR	BROWN
GY	GRAY
GN	GREEN
OR	ORANGE
PK	PINK
R	RED
SB	SKY-BLUE
V	VIOLET
W	WHITE
Y	YELLOW

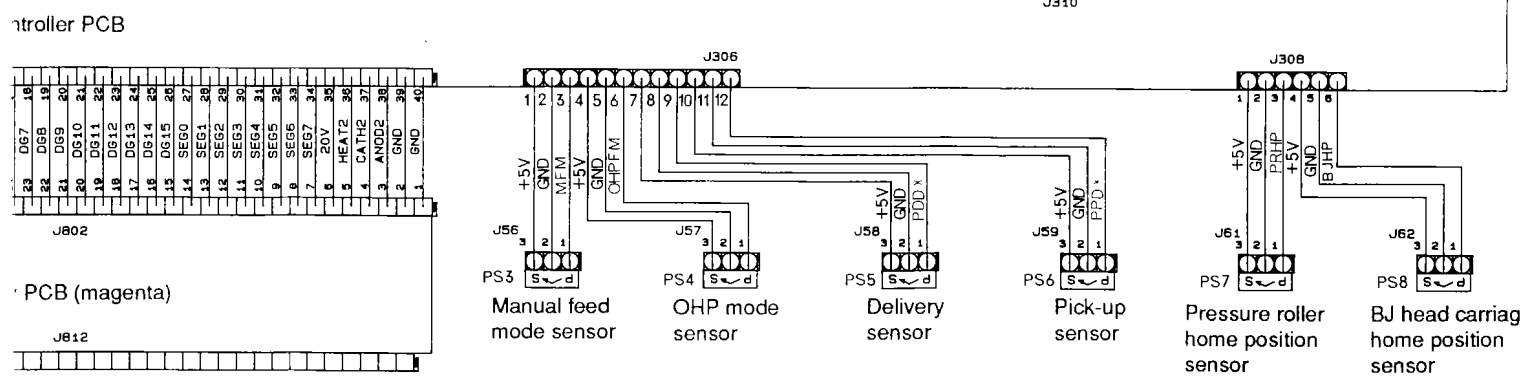
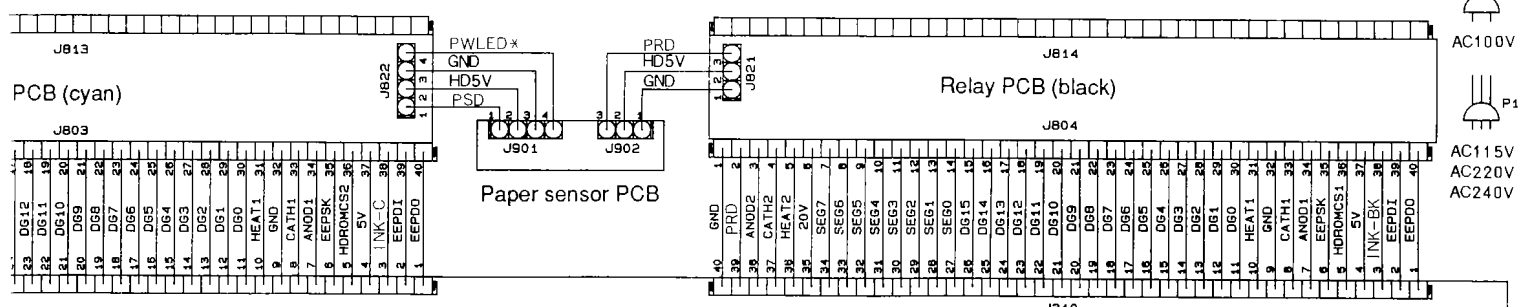
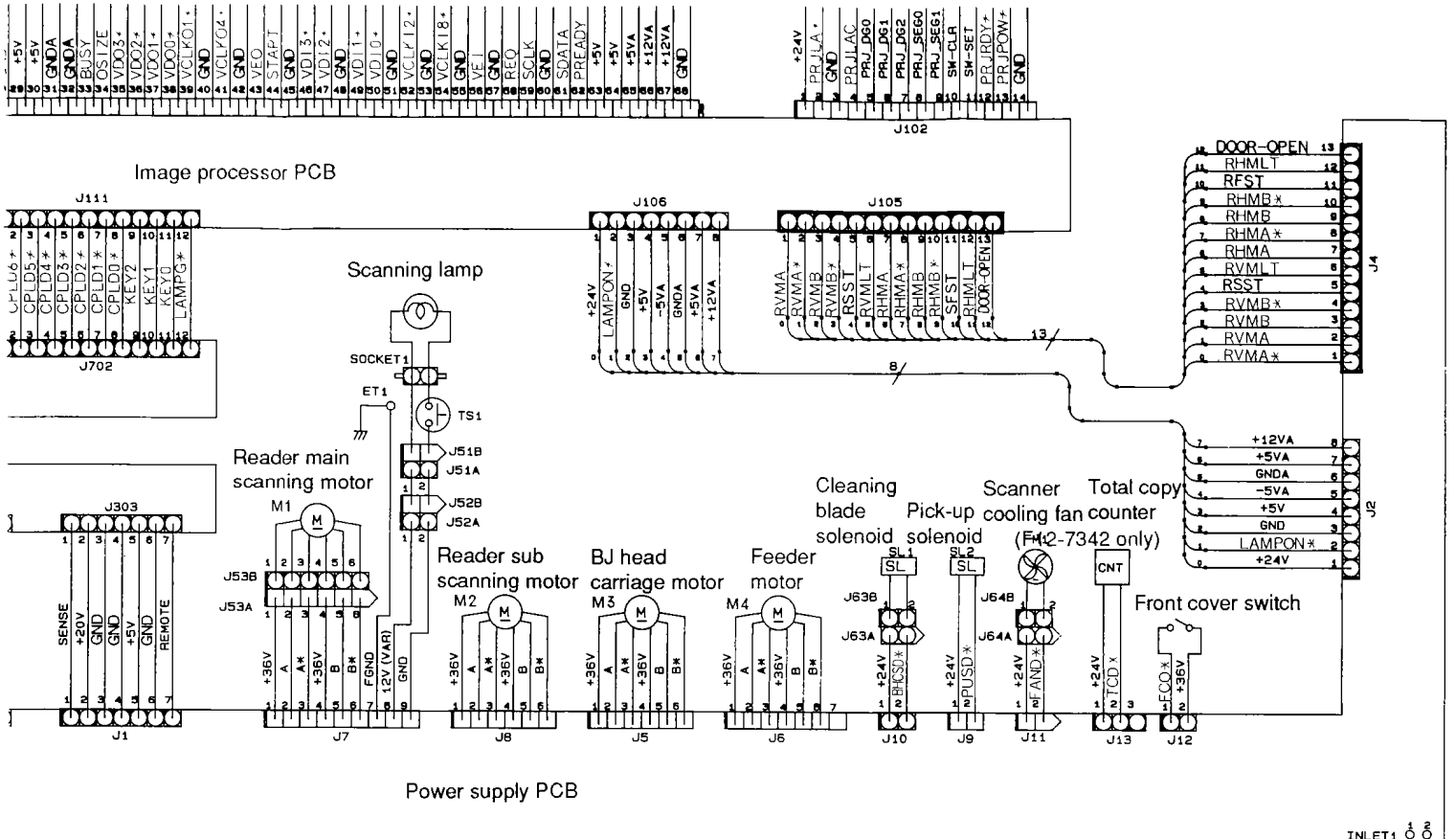


DC cont

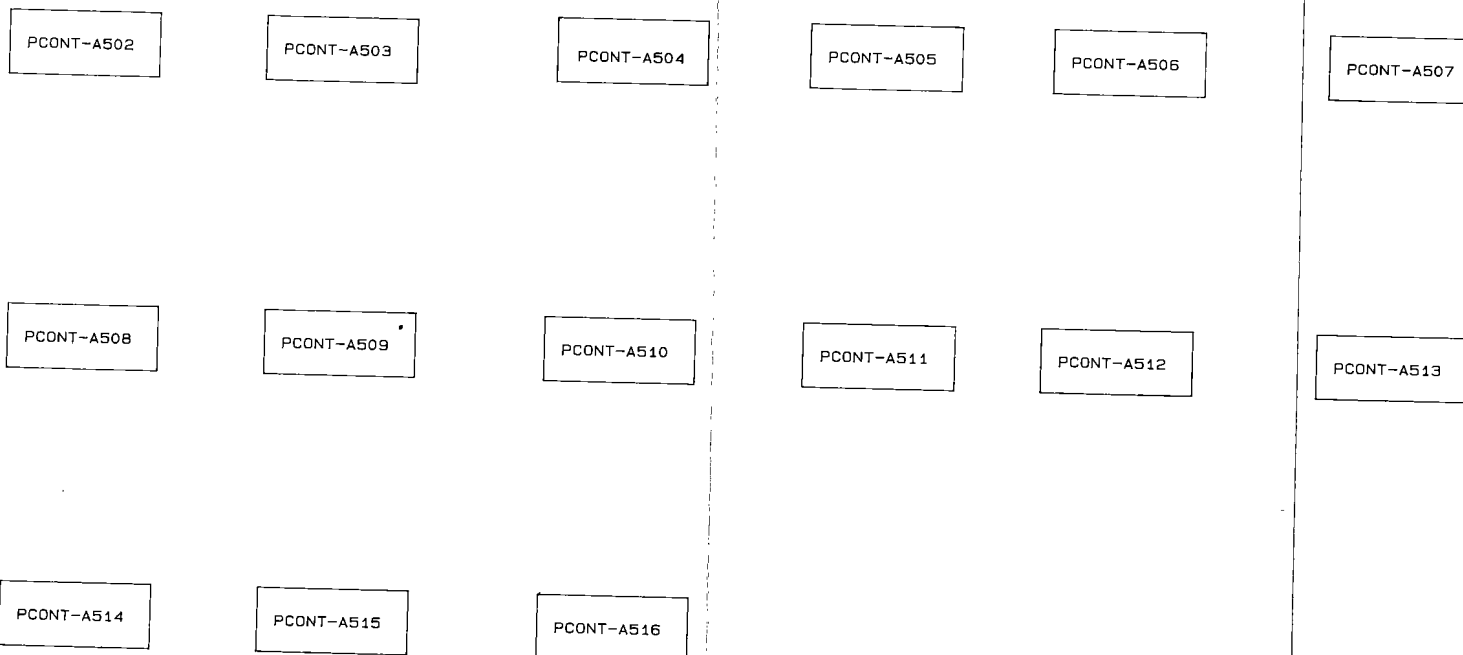
Relay F

itor, video adaptor, IPU

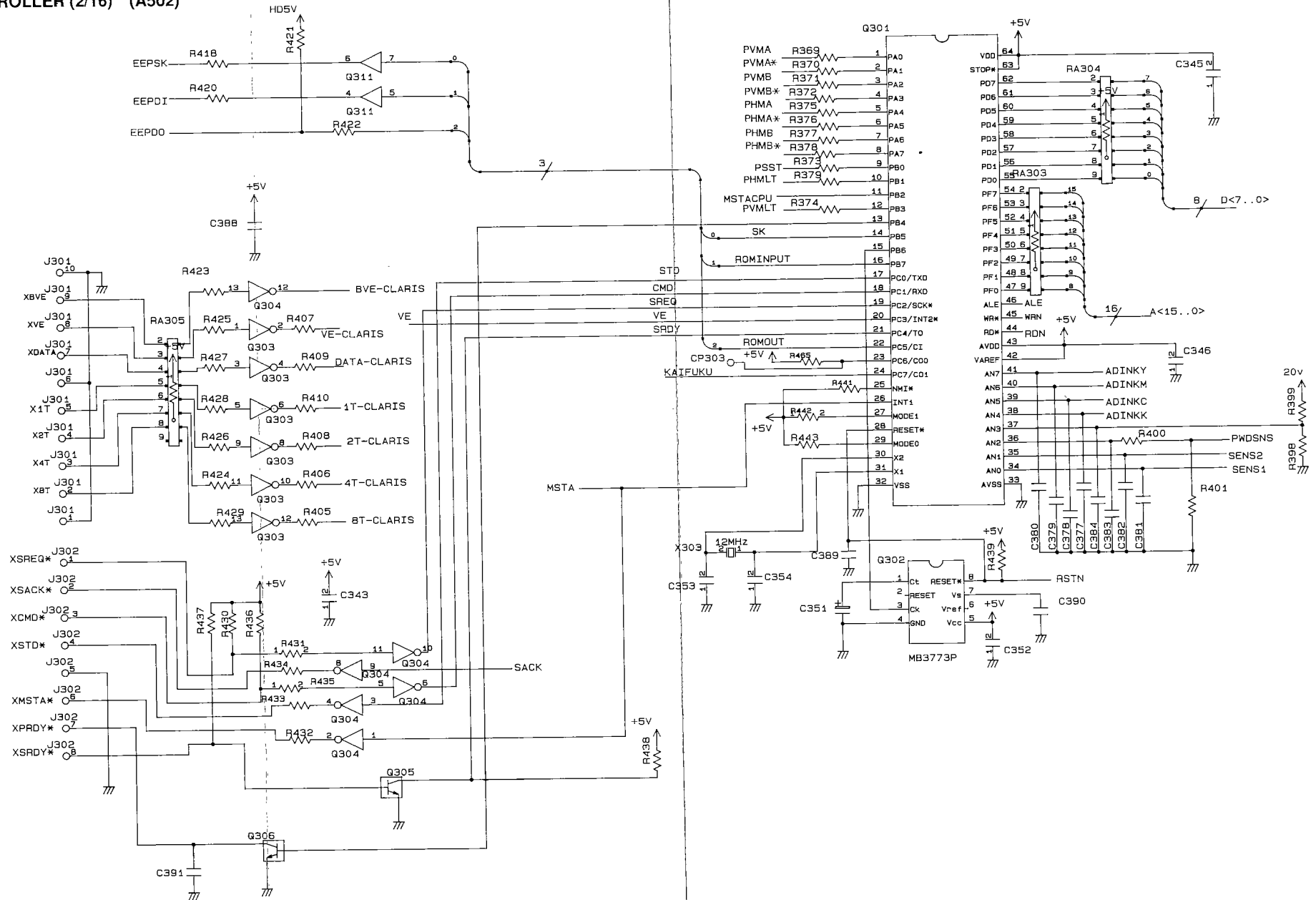
To projector



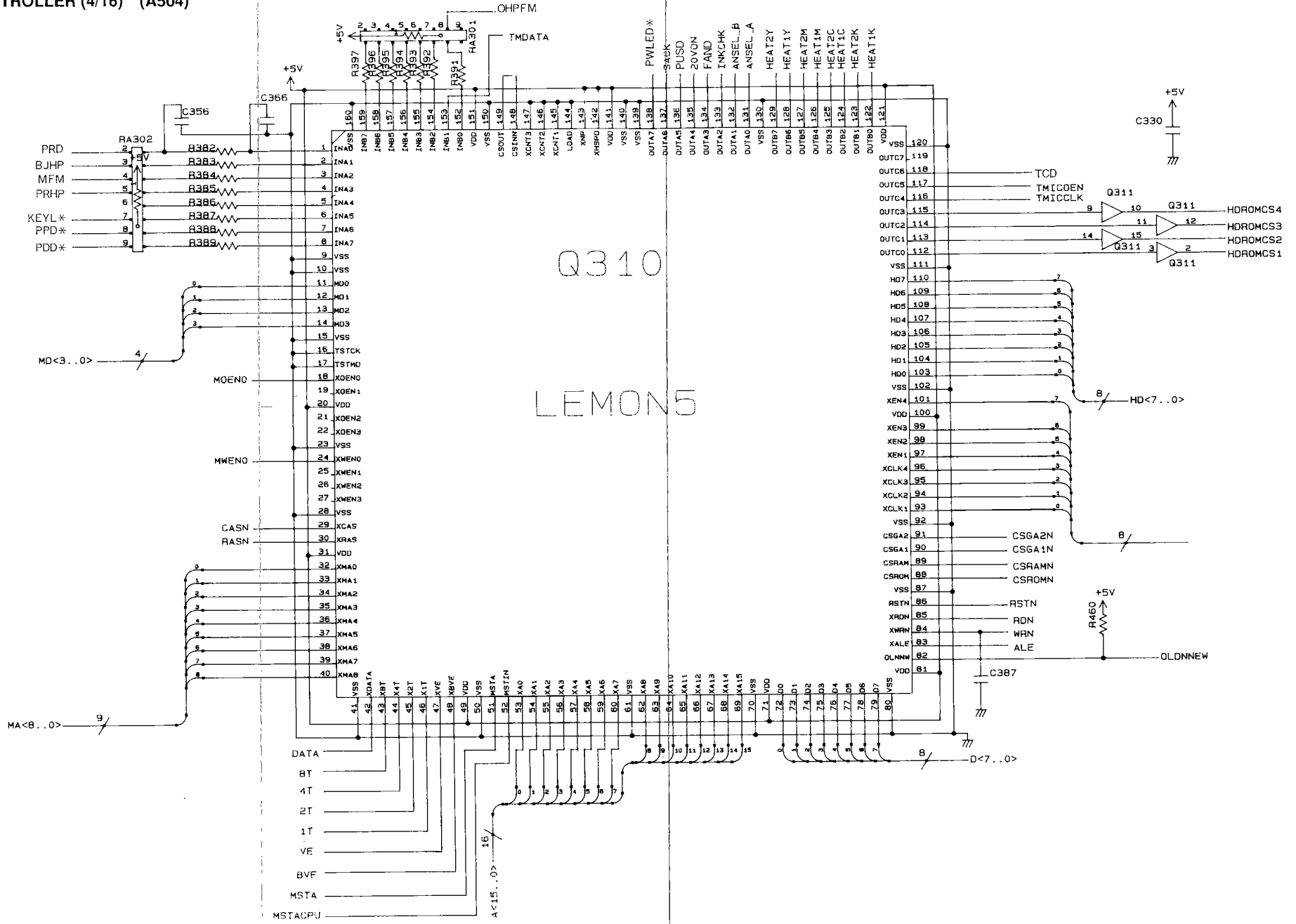
D. DC CONTROLLER
DC CONTROLLER (1/16) (A501)

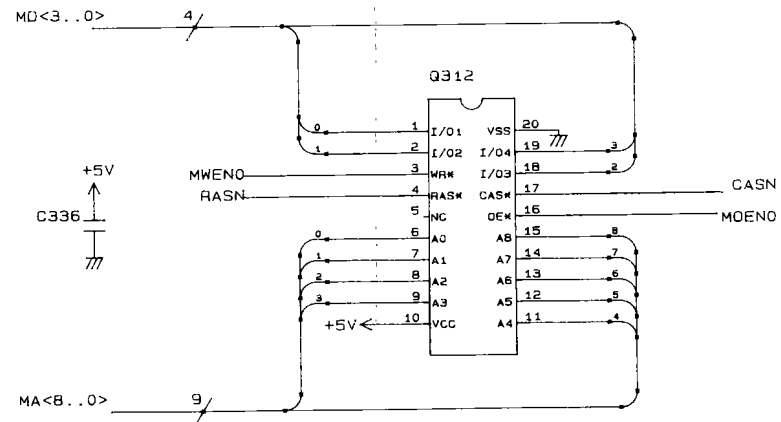


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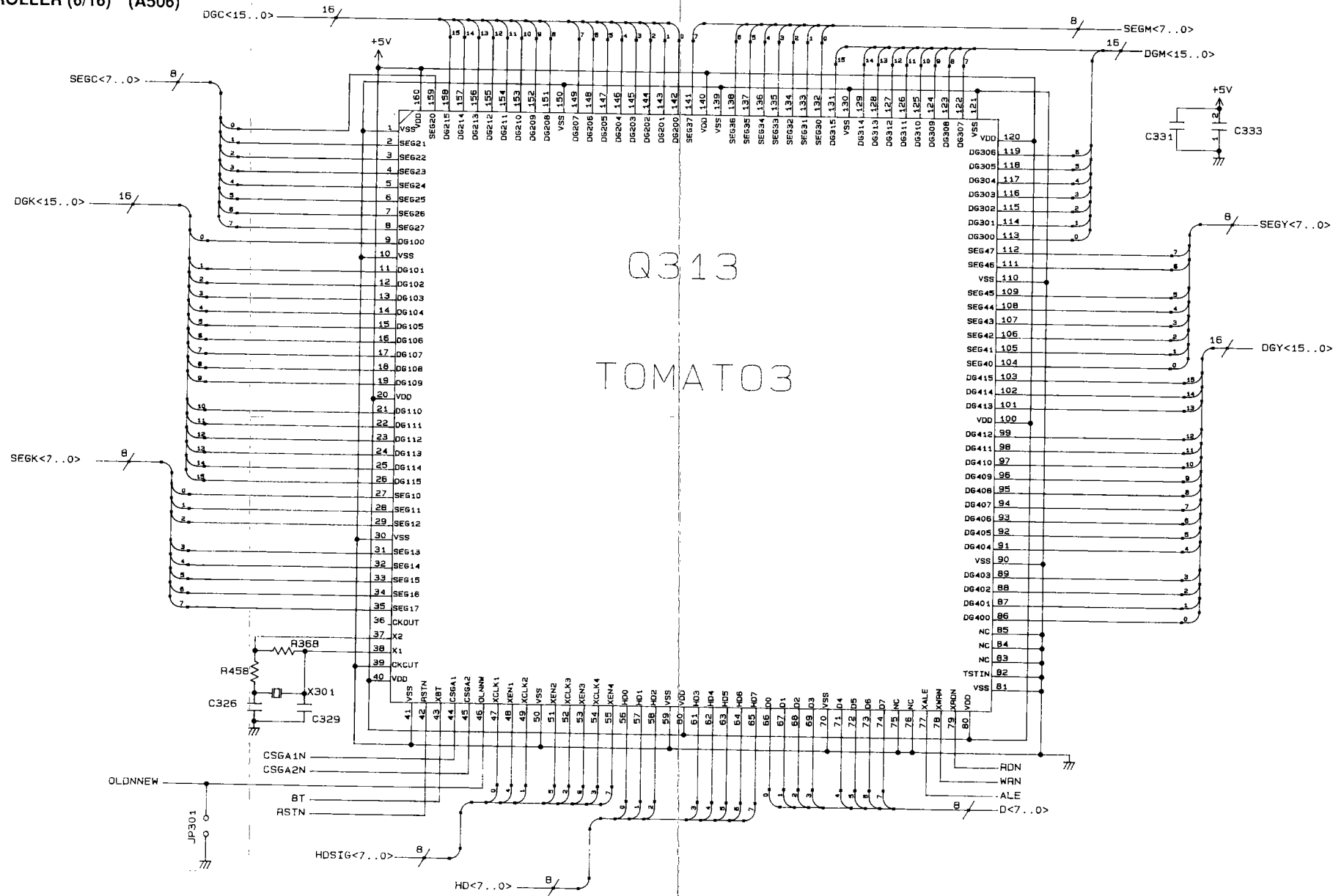
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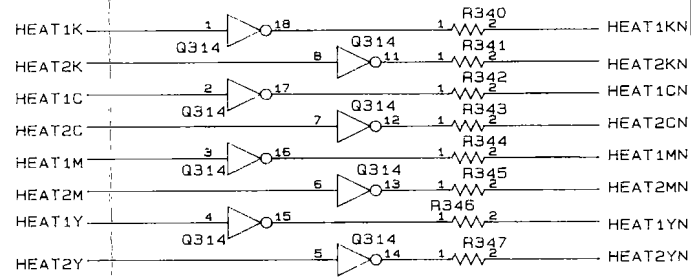
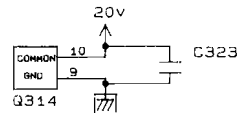
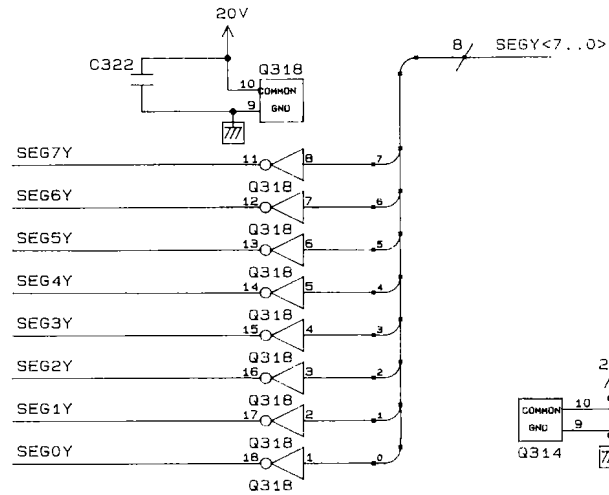
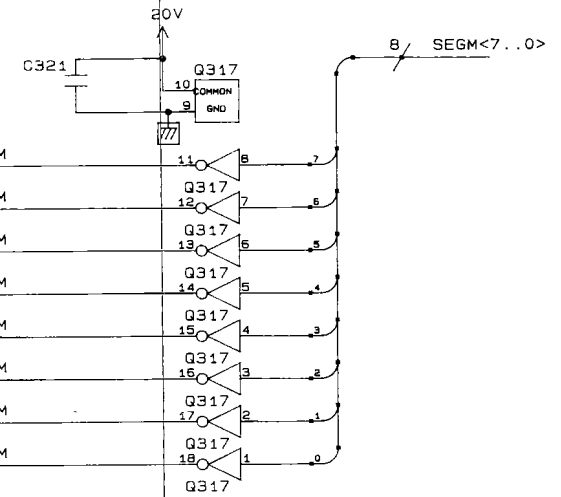
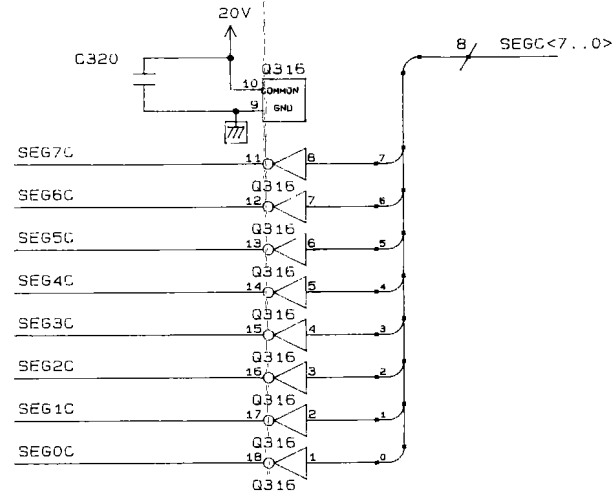
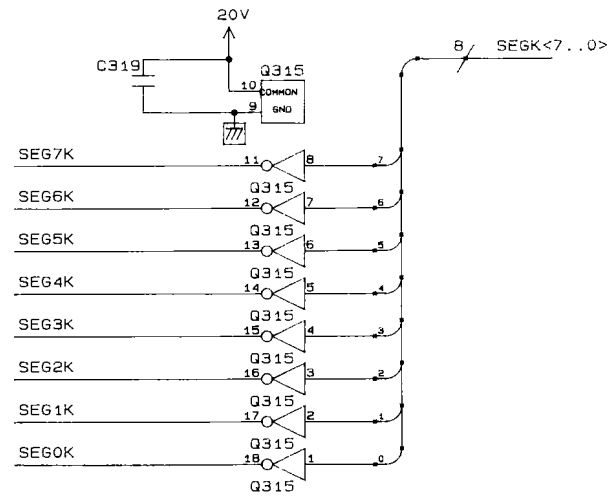


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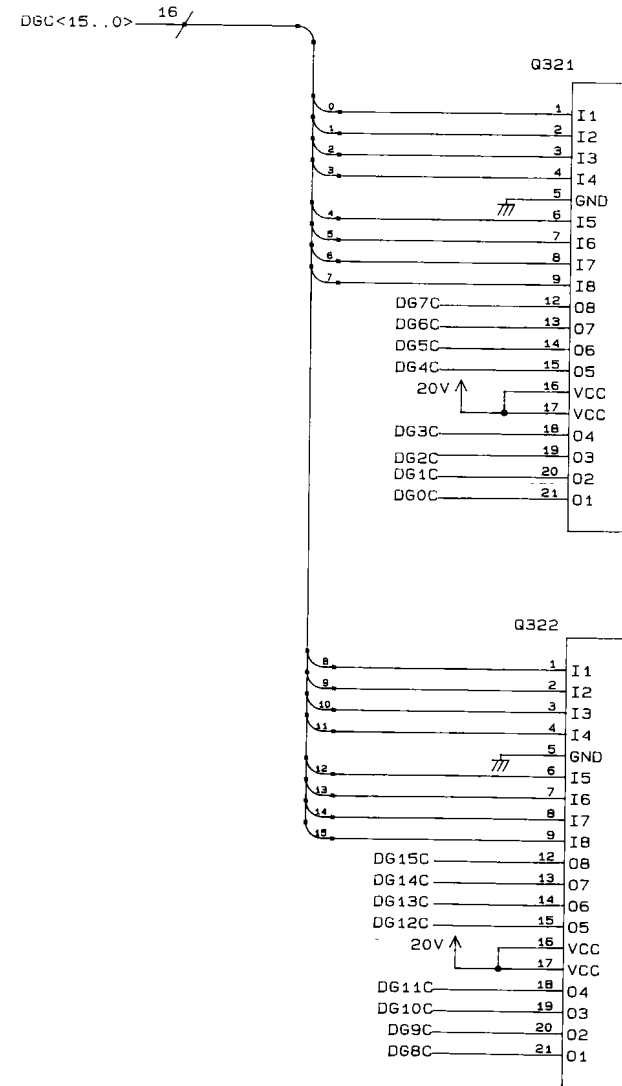
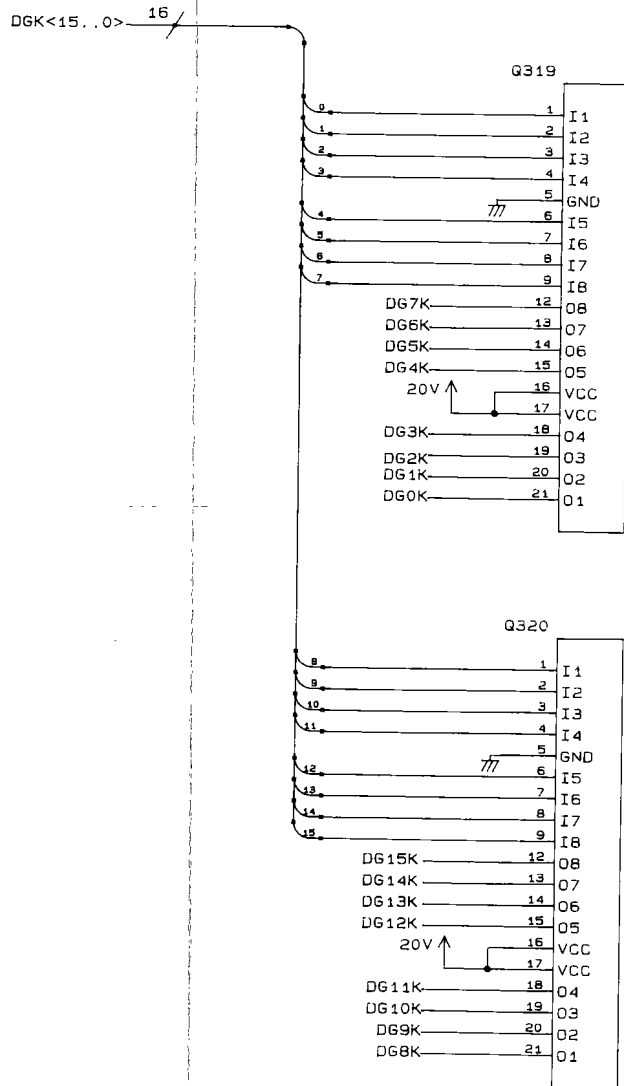
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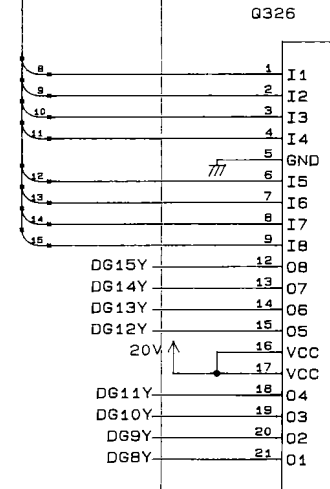
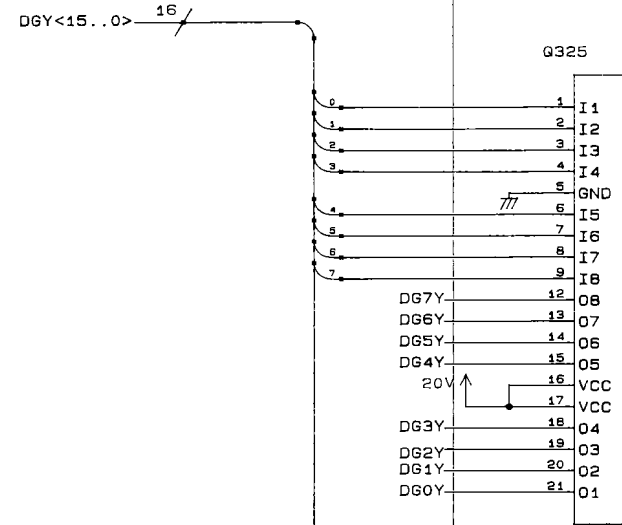
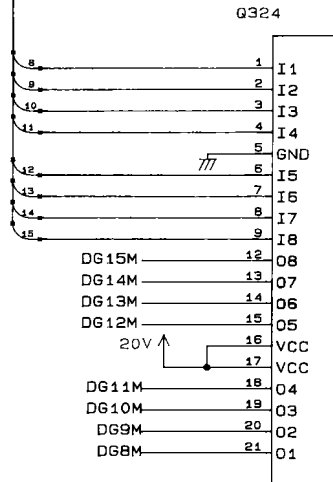
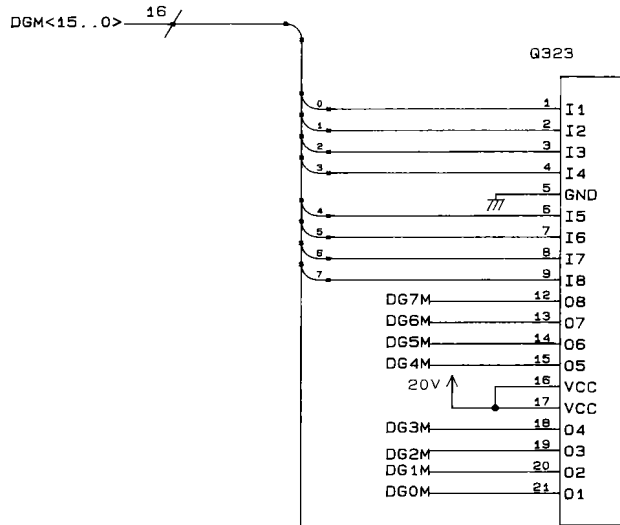
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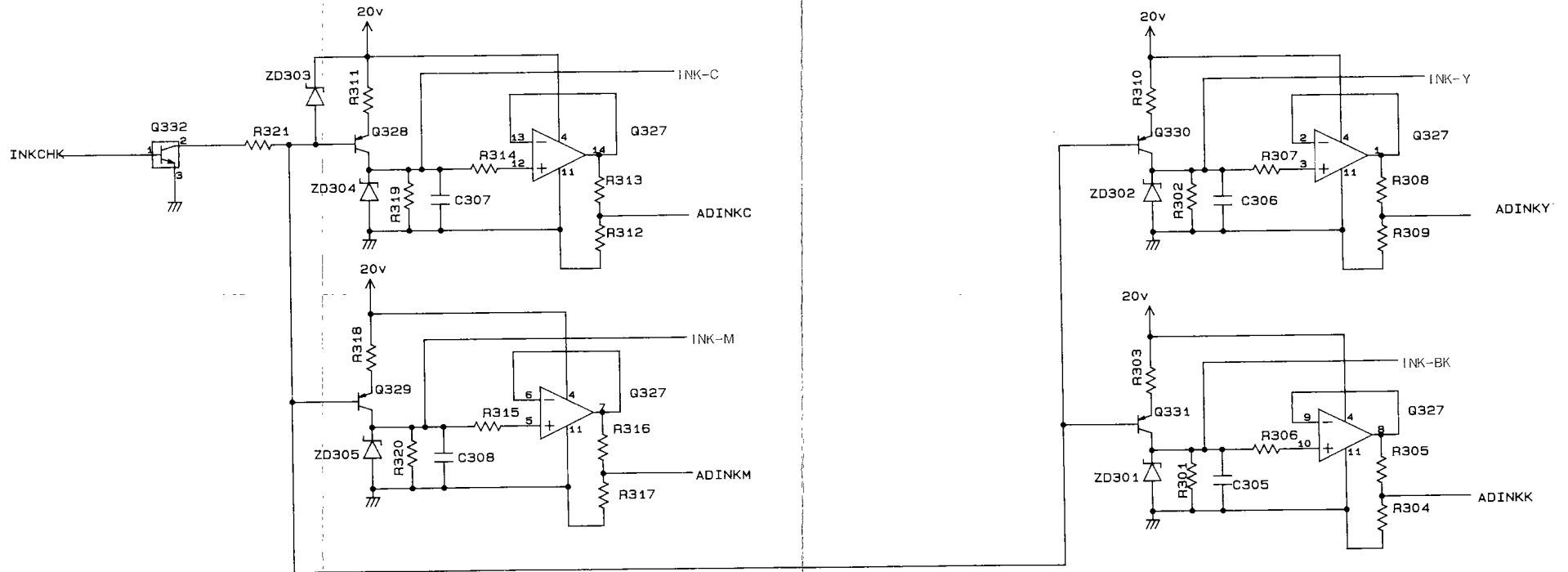
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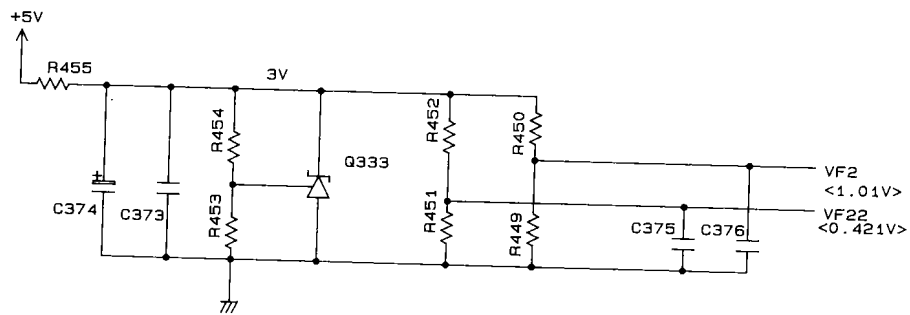
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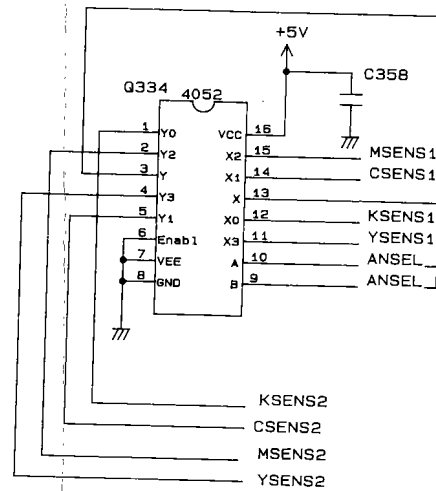
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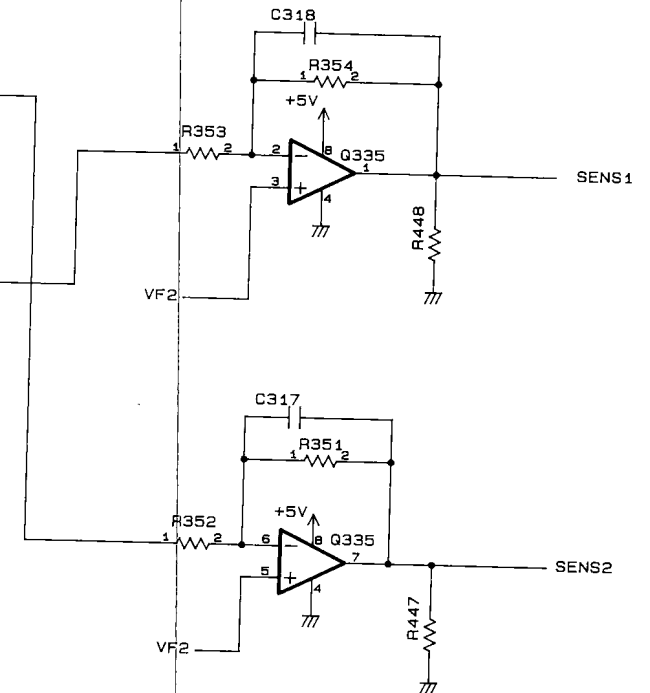
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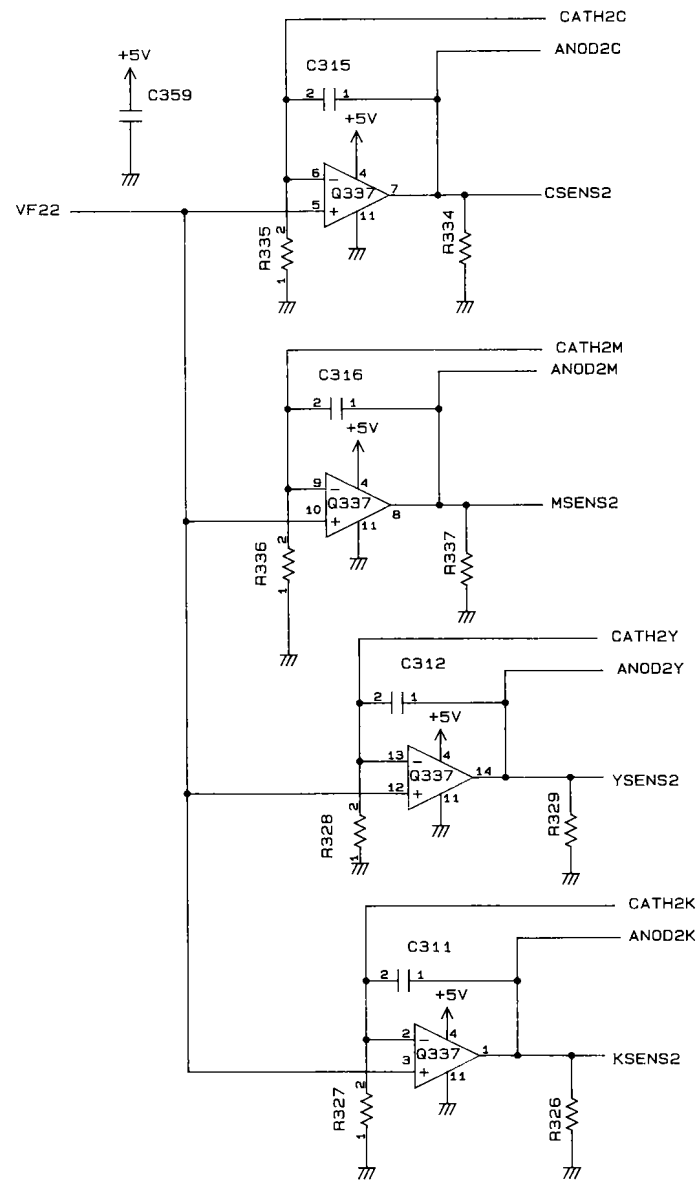
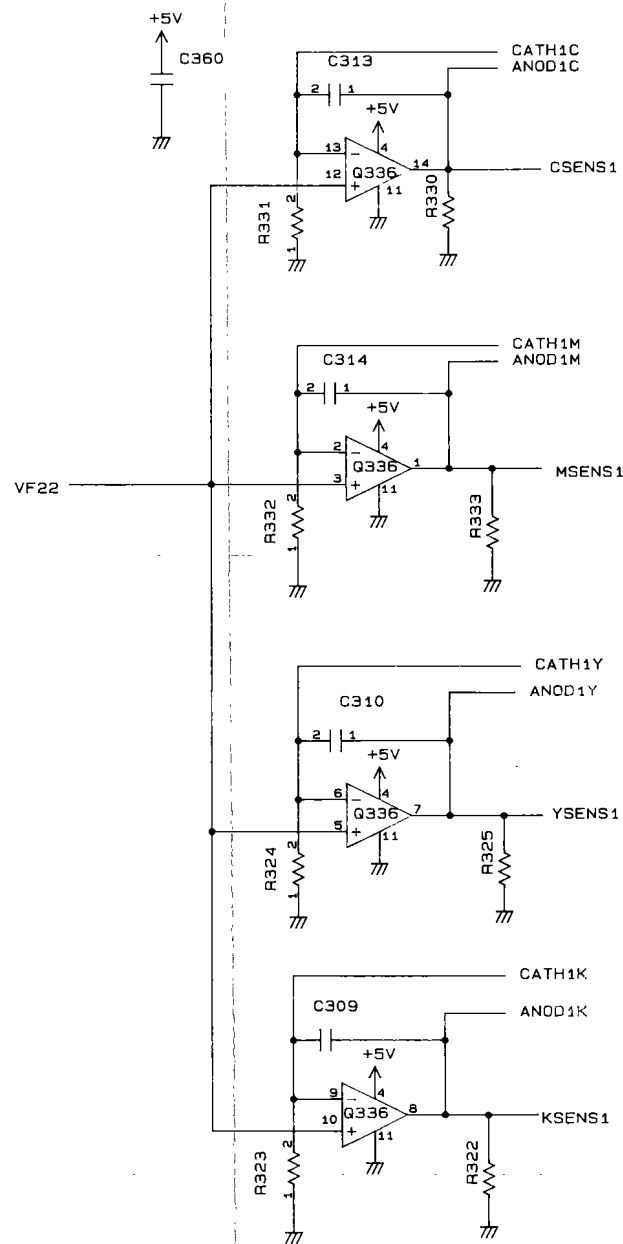
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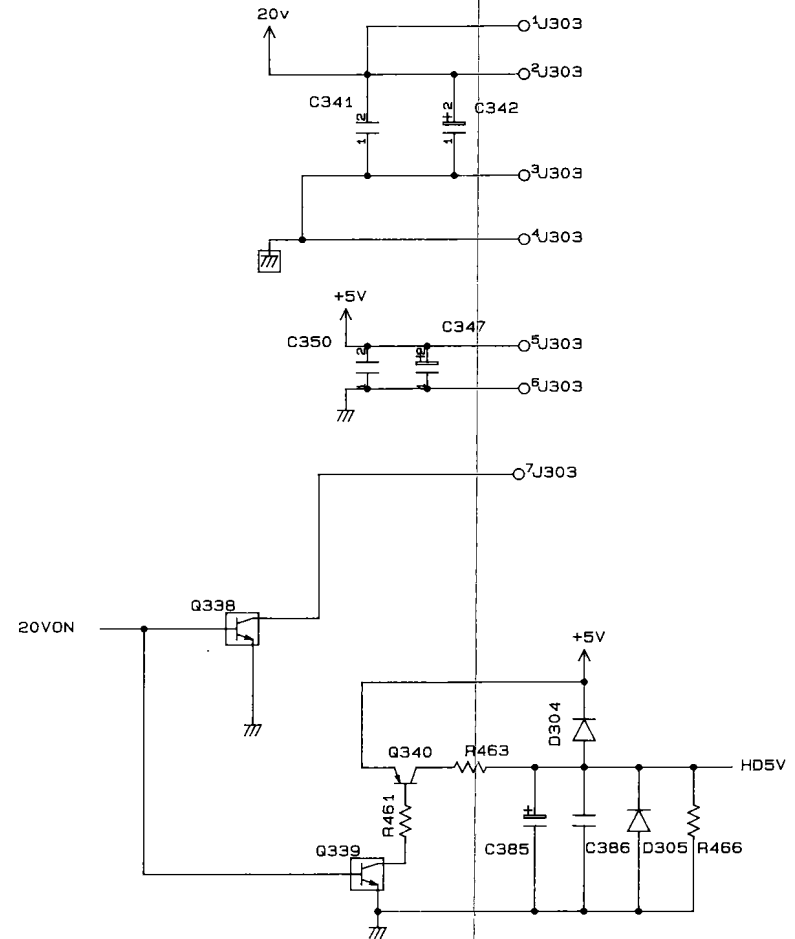
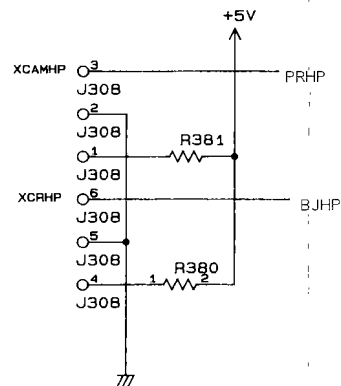
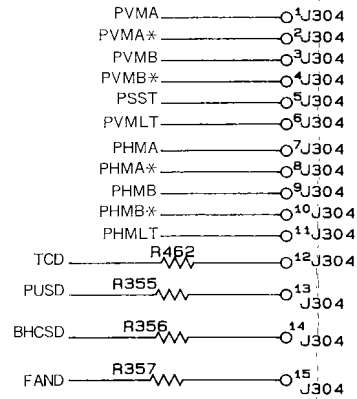
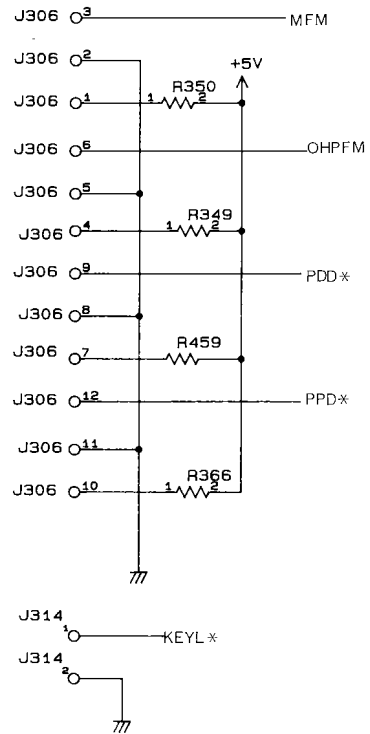
< ANALOG SWITCH >



DC CONTROLLER (12/16) (A512)

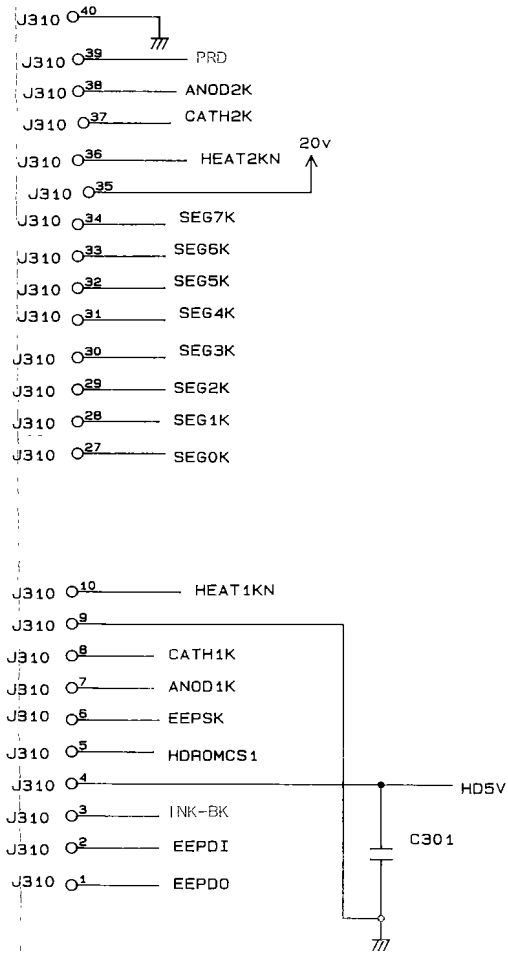


DC CONTROLLER (13/16) (A513)

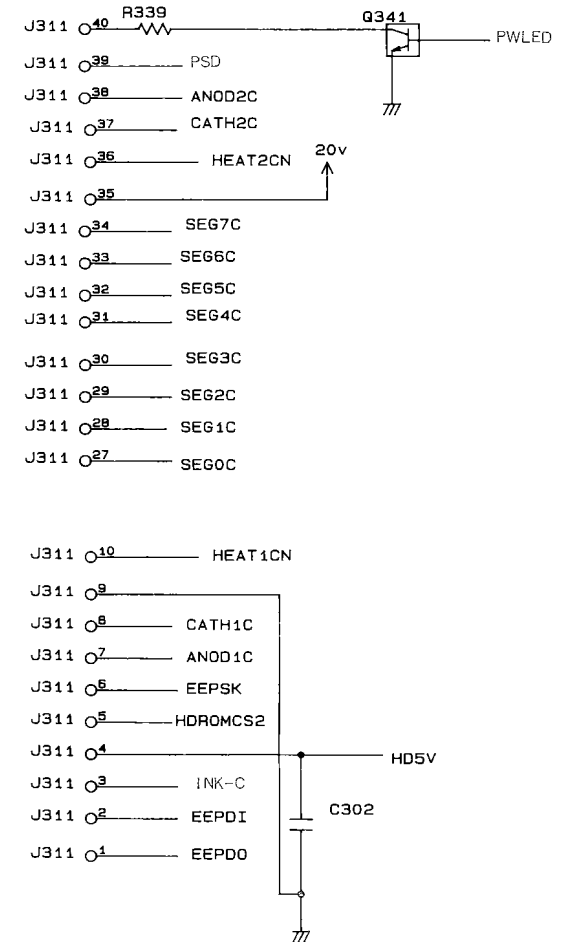


DC CONTROLLER (14/16) (A514)

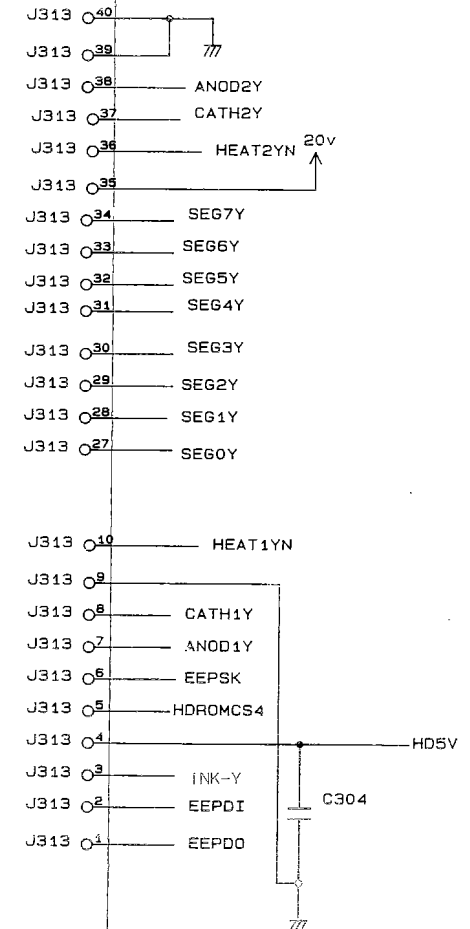
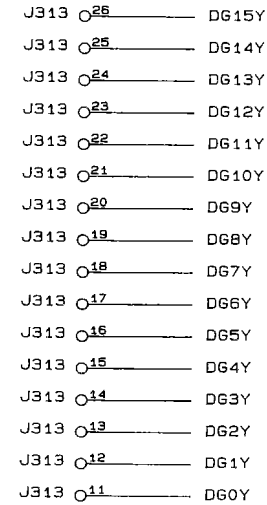
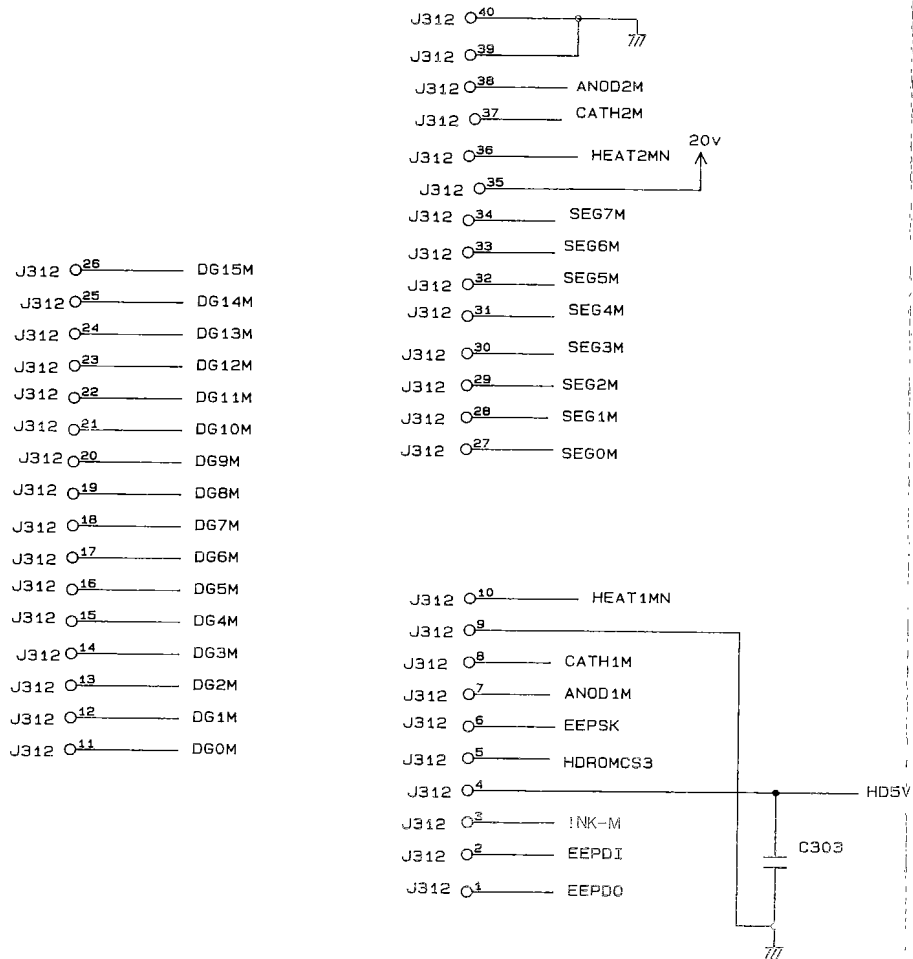
- J310 ○25 _____ DG15K
- J310 ○25 _____ DG14K
- J310 ○24 _____ DG13K
- J310 ○23 _____ DG12K
- J310 ○22 _____ DG11K
- J310 ○21 _____ DG10K
- J310 ○20 _____ DG9K
- J310 ○19 _____ DG8K
- J310 ○18 _____ DG7K
- J310 ○17 _____ DG6K
- J310 ○16 _____ DG5K
- J310 ○15 _____ DG4K
- J310 ○14 _____ DG3K
- J310 ○13 _____ DG2K
- J310 ○12 _____ DG1K
- J310 ○11 _____ DG0K



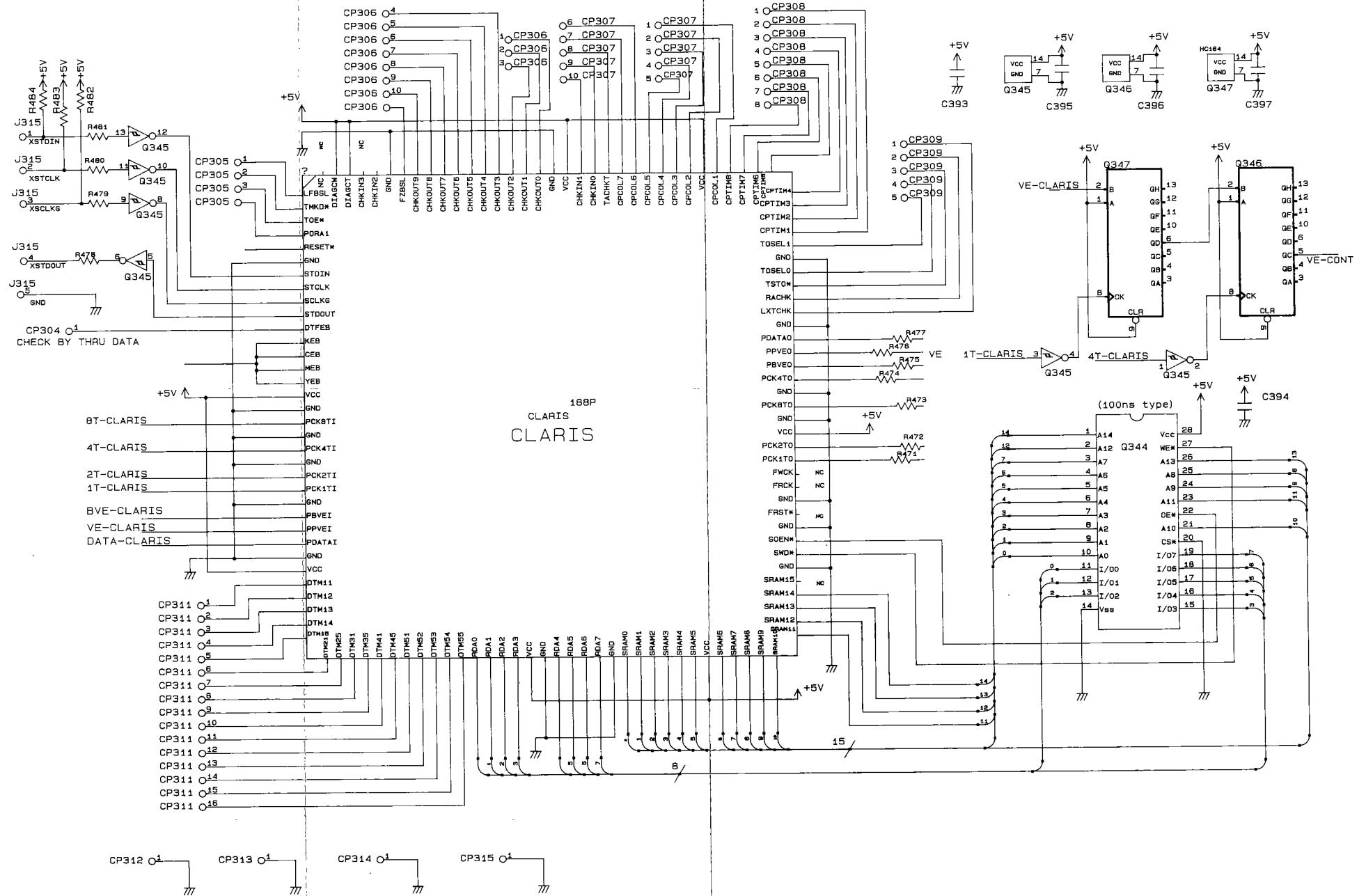
- J311 ○26 _____ DG15C
- J311 ○25 _____ DG14C
- J311 ○24 _____ DG13C
- J311 ○23 _____ DG12C
- J311 ○22 _____ DG11C
- J311 ○21 _____ DG10C
- J311 ○20 _____ DG9C
- J311 ○19 _____ DG8C
- J311 ○18 _____ DG7C
- J311 ○17 _____ DG6C
- J311 ○16 _____ DG5C
- J311 ○15 _____ DG4C
- J311 ○14 _____ DG3C
- J311 ○13 _____ DG2C
- J311 ○12 _____ DG1C
- J311 ○11 _____ DG0C



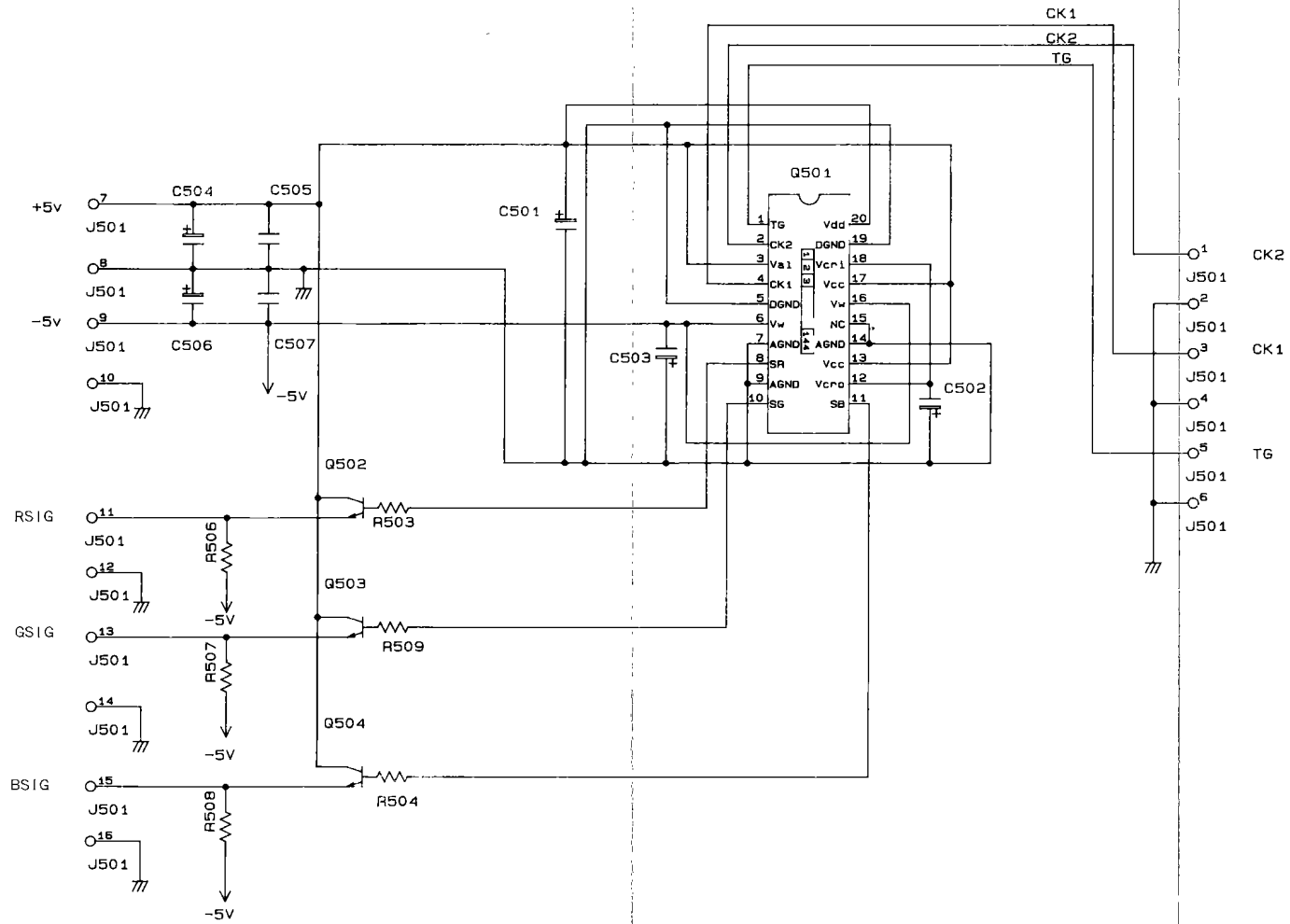
DC CONTROLLER (15/16) (A515)



DC CONTROLLER (16/16) (A516)

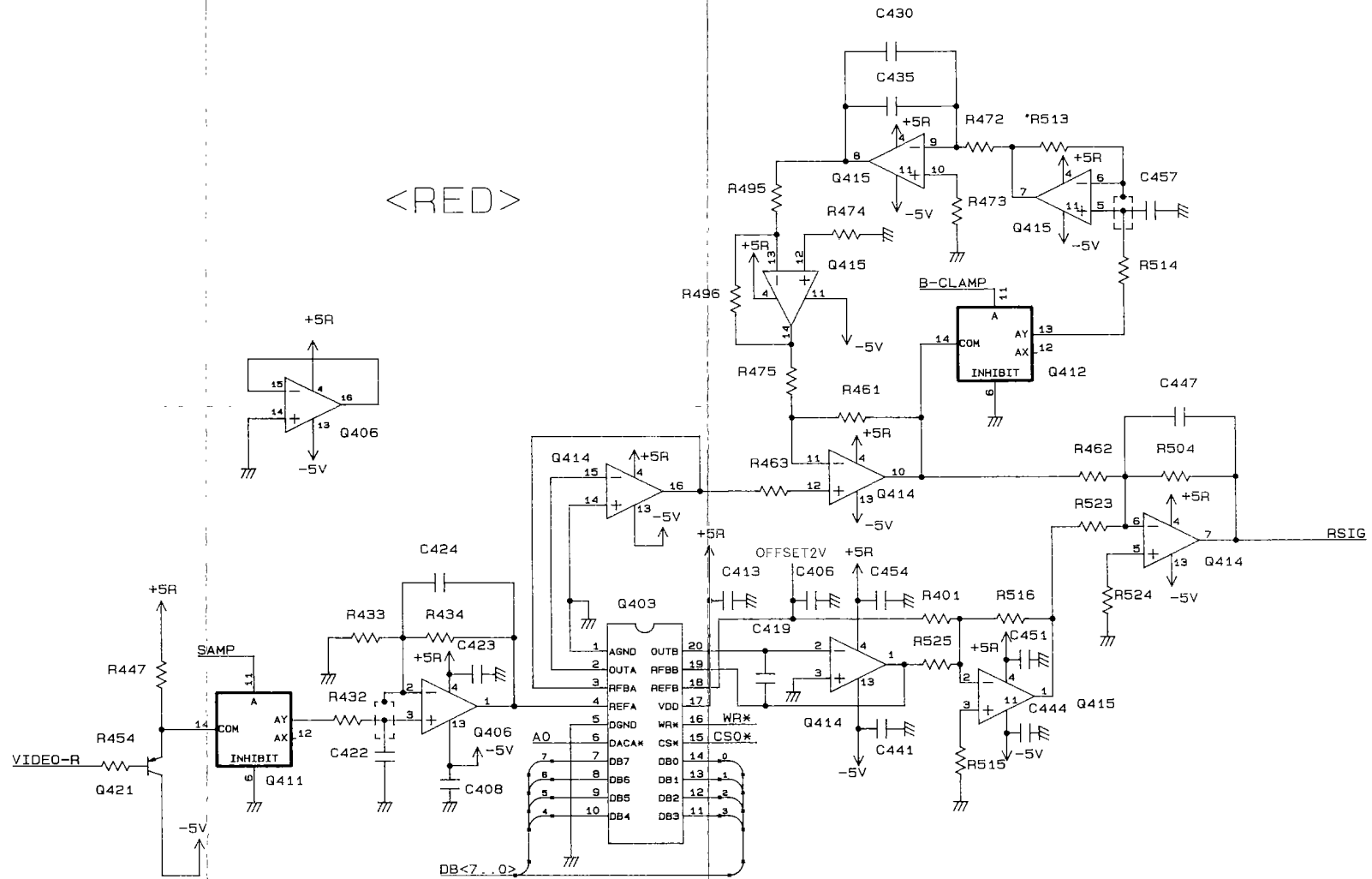


E. BASIS CIRCUIT DIAGRAM

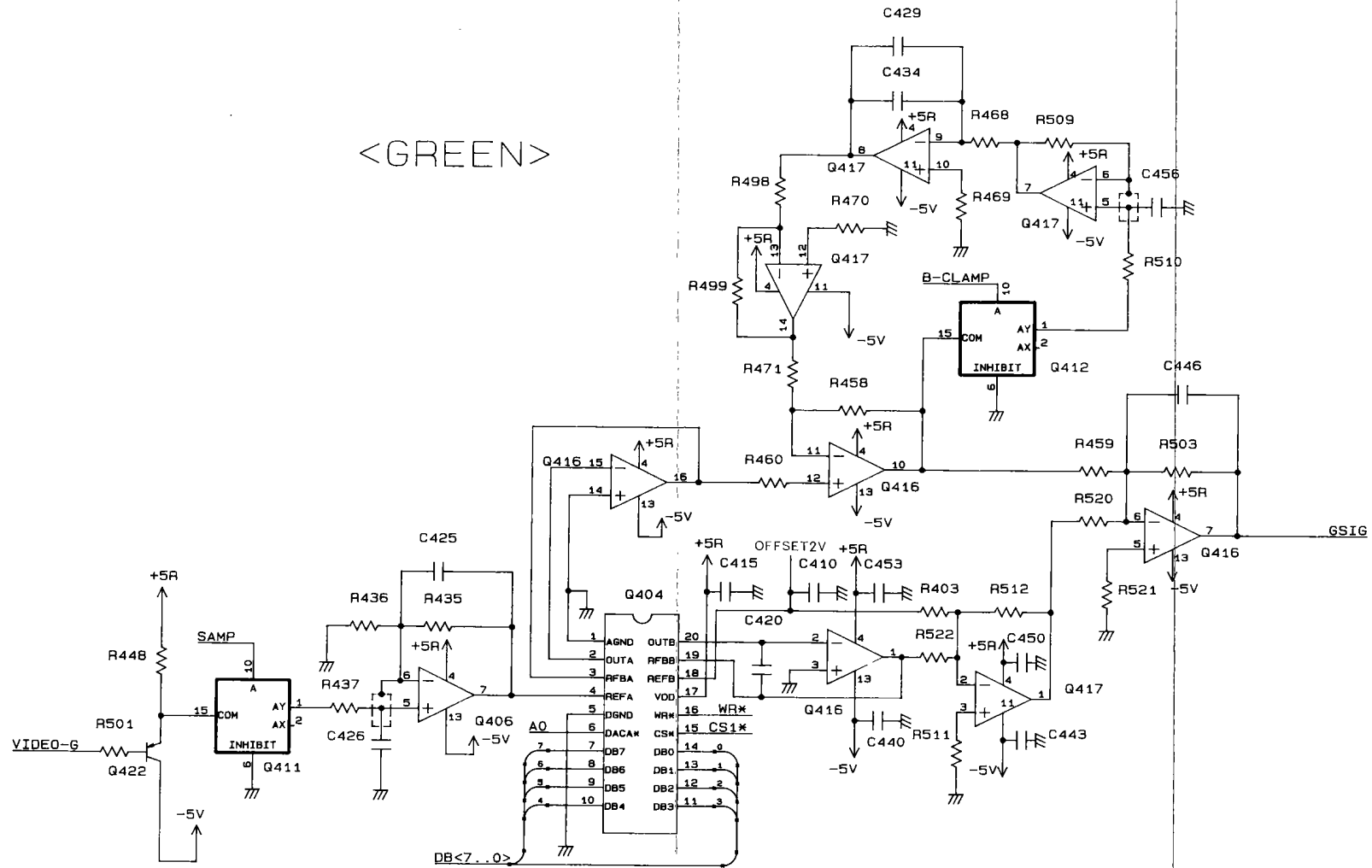


F. AMPLIFIER CIRCUIT DIAGRAM

AMPLIFIER CIRCUIT DIAGRAM (1/6)

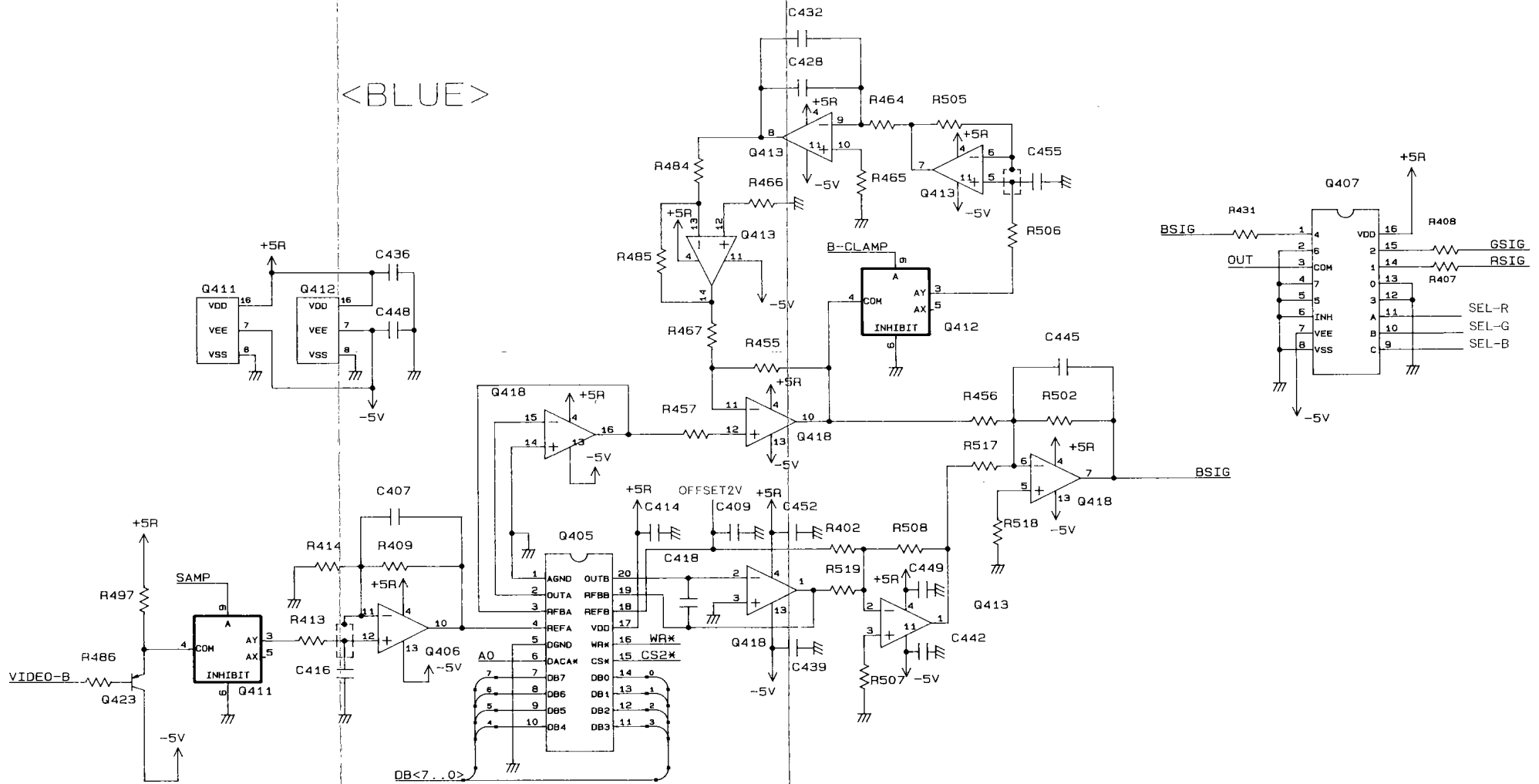


AMPLIFIER CIRCUIT DIAGRAM (2/6)

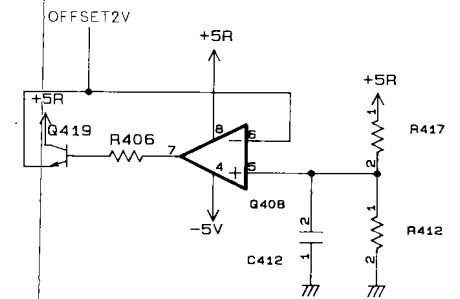
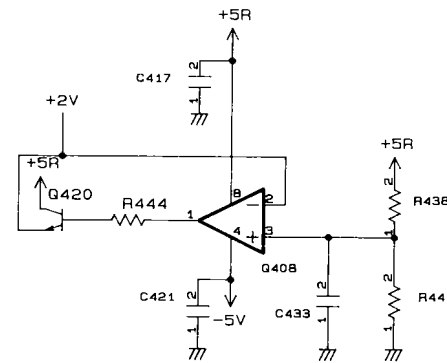
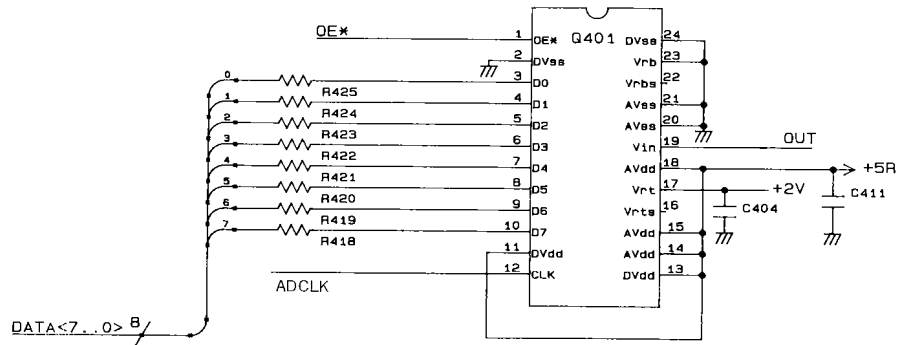


AMPLIFIER CIRCUIT DIAGRAM (3/6)

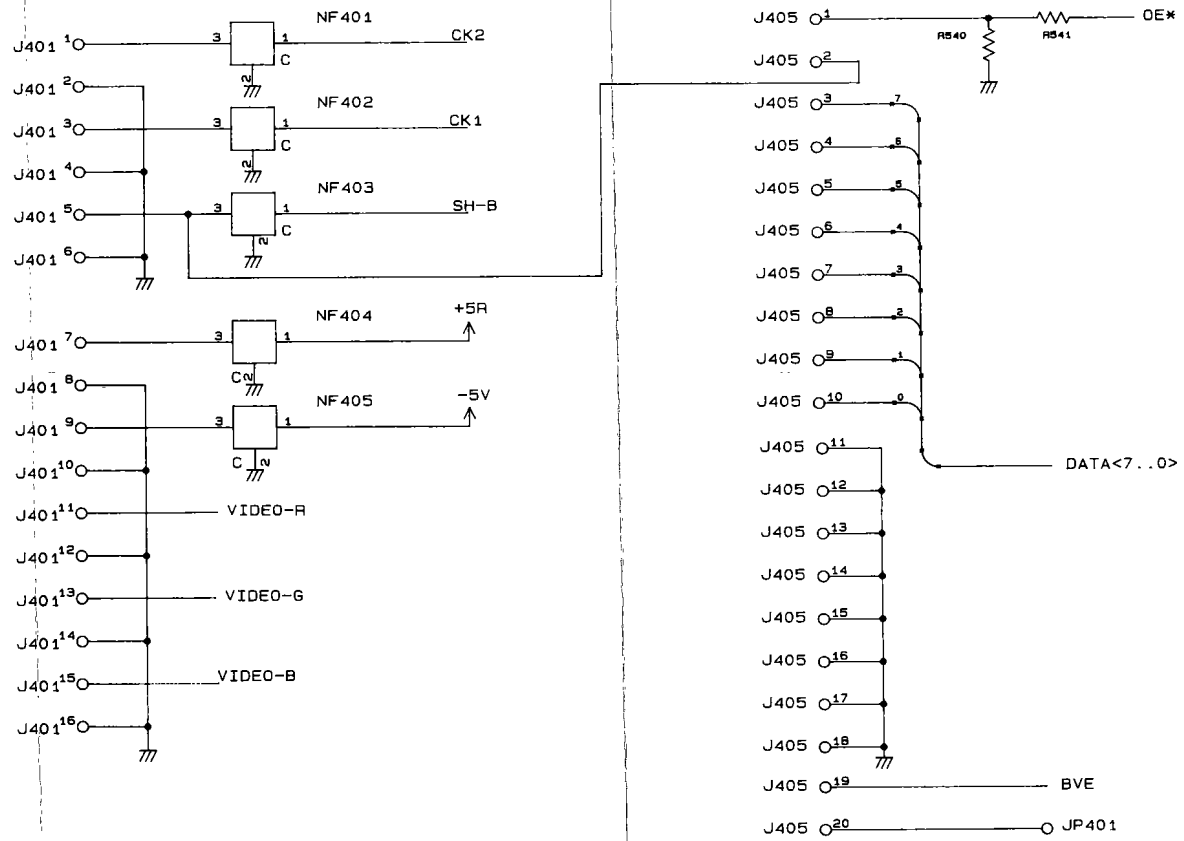
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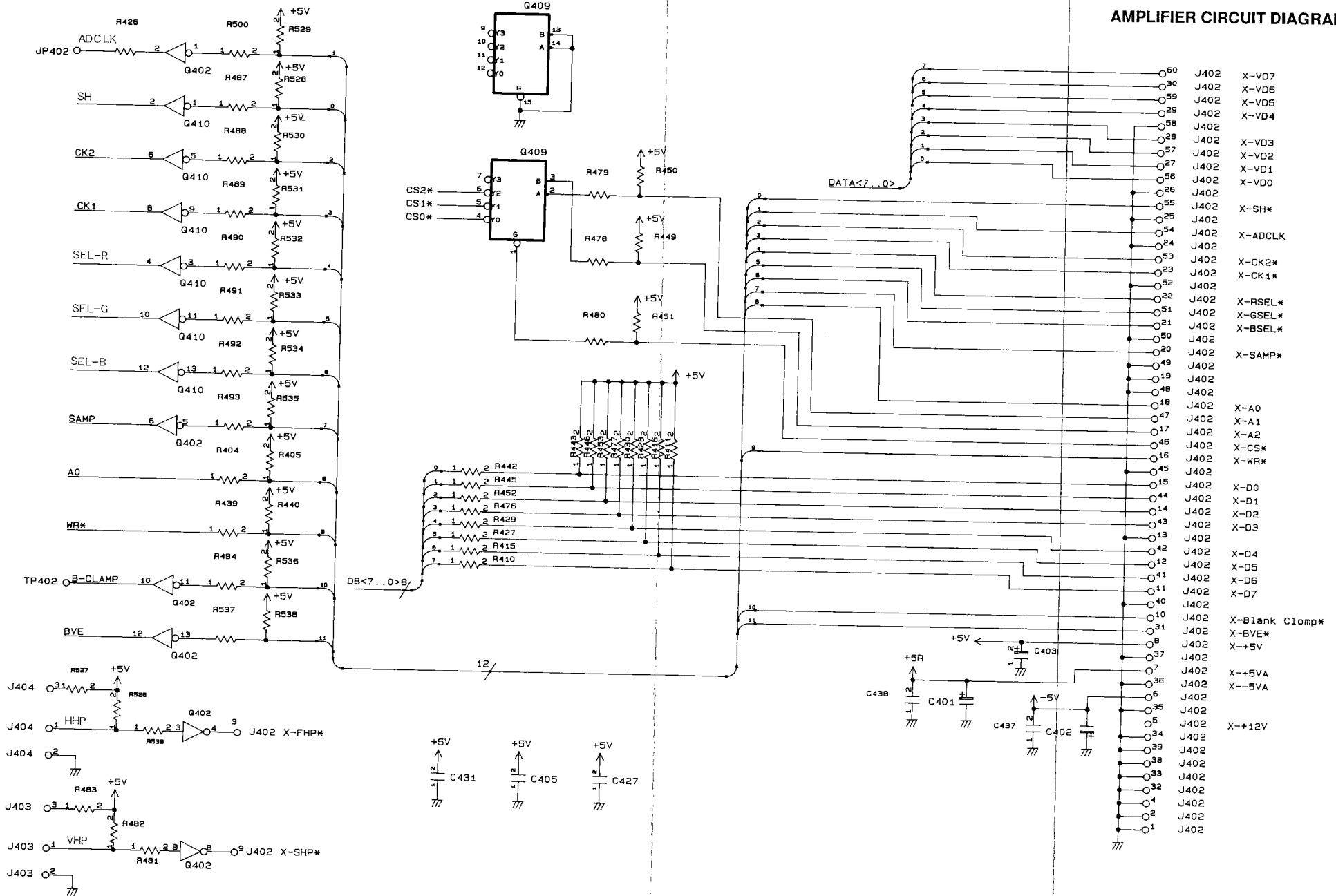
AMPLIFIER CIRCUIT DIAGRAM (4/6)



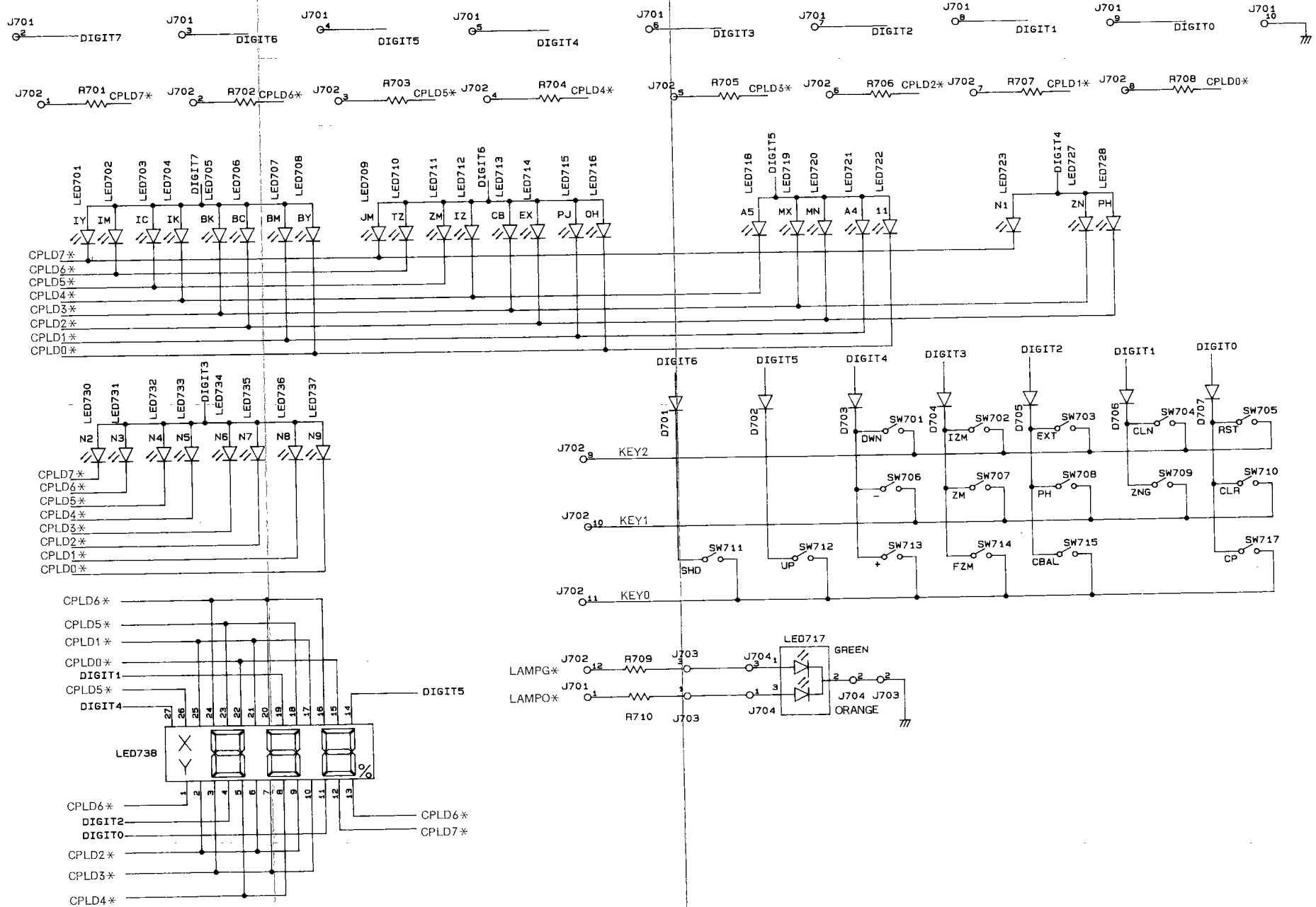
AMPLIFIER CIRCUIT DIAGRAM (5/6)



AMPLIFIER CIRCUIT DIAGRAM (6/6)

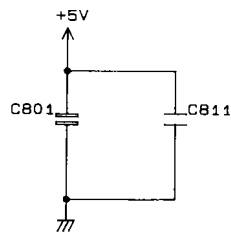
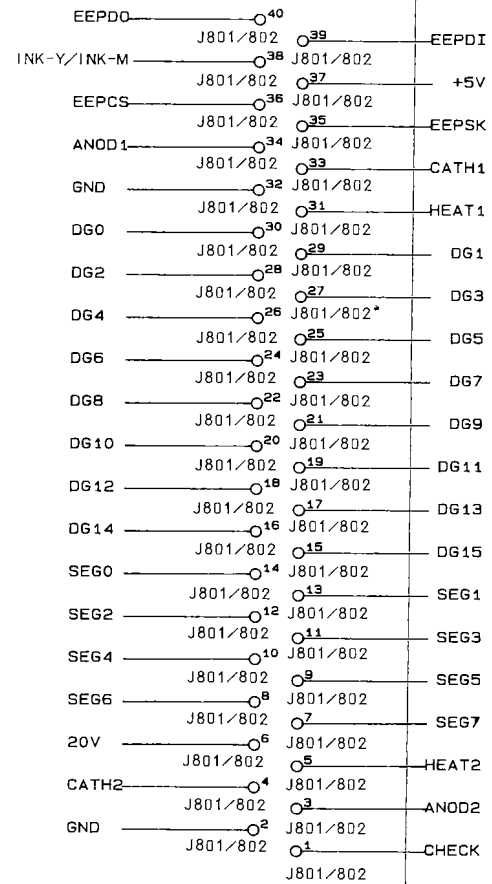
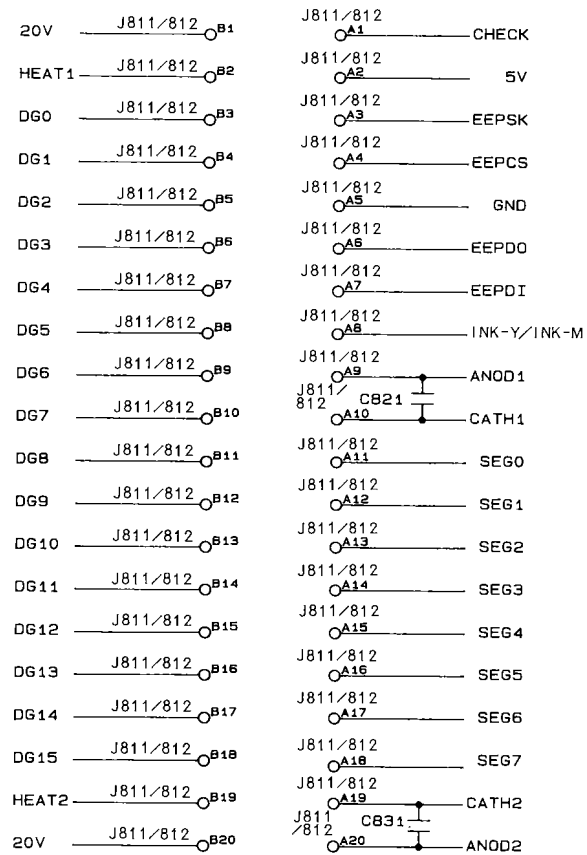


G. CONTROLL PANEL CIRCUIT DIAGRAM

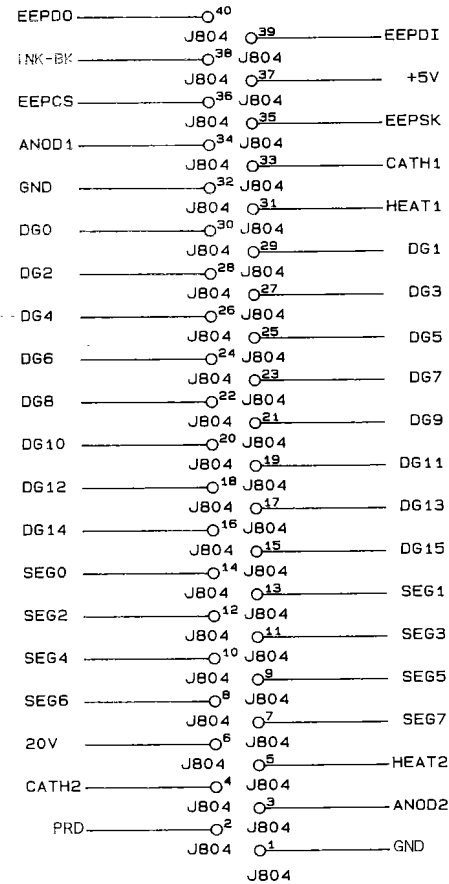
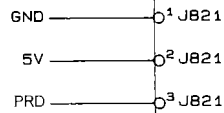
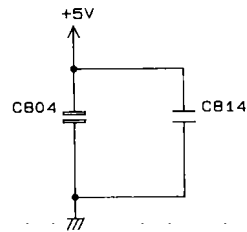
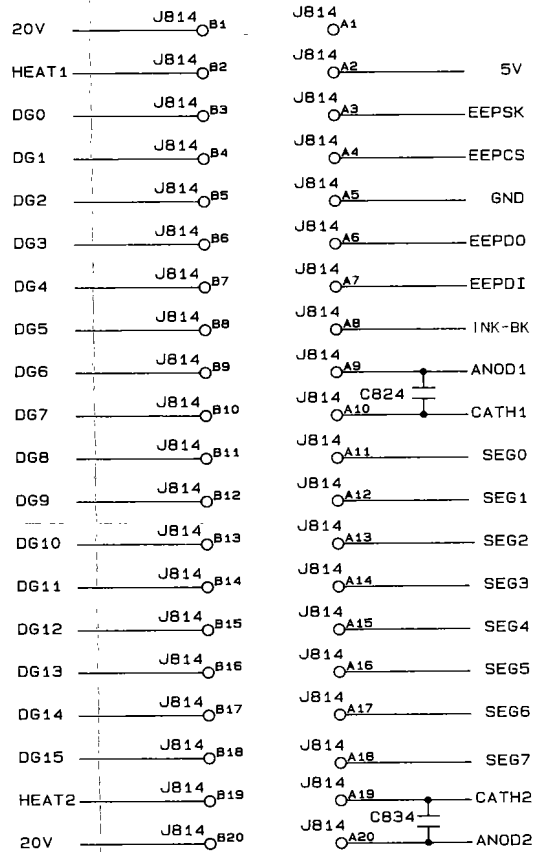


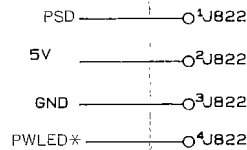
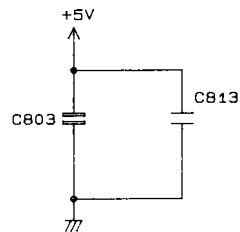
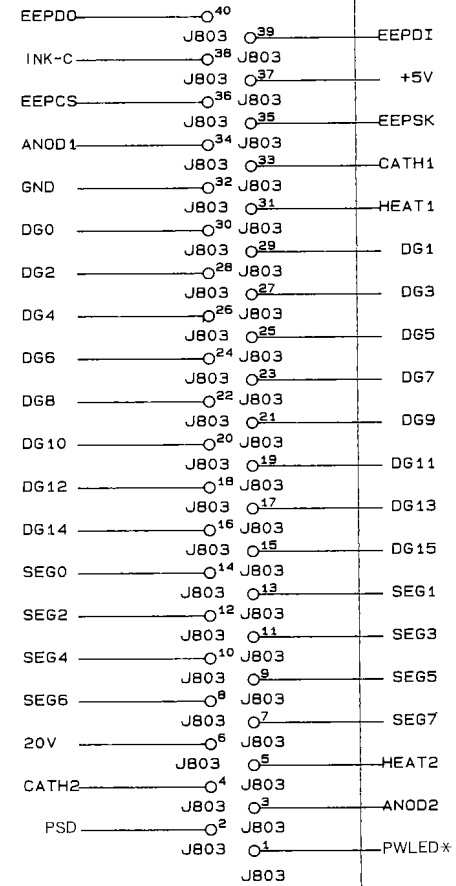
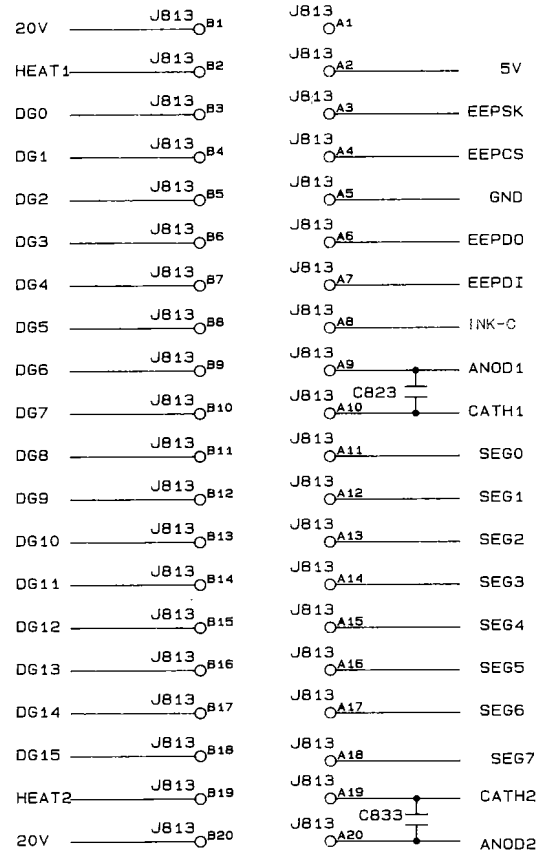
H. RELAY CIRCUIT DIAGRAM

1. YELLOW, MAGENTA

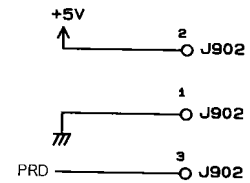
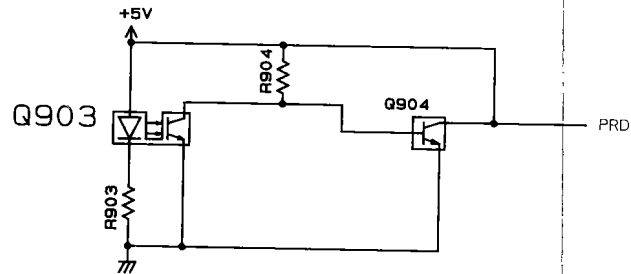
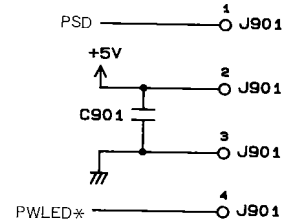
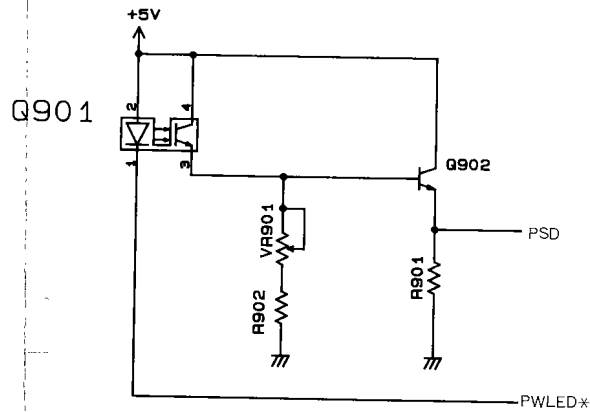


2. BLACK



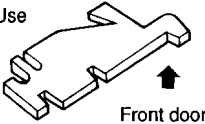
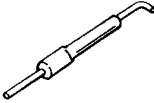
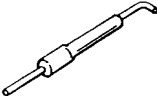
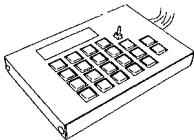
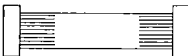


I. PAPER SENSOR CIRCUIT DIAGRAM



J. TABLE OF SPECIAL TOOLS

The following is a list of special tools used when servicing the copier in addition to the standard tools set.

No.	Tool name	Tool No.	Shape	Rank*	Shape
1	Door switch actuator	TKN-0093	Use  Front door	A	
2	Spring gauge	CK-0062		B	For adjusting the tension of the reader main scanning belt; 0 to 1000 g.
3	Spring gauge	CK-0053		C	For adjusting the tension of the reader sub scanning belt; 0 to 4000 g.
4	Switch board with the cable	FY9-4006		B	For the checking service mode.
5	Cable	FY9-4007		B	

*See below.

Note:

- A: Each service person must carry one.
- B: Each group of five service persons must carry one.
- C: Each workshop must keep one.

K. TABLE OF SOLVENTS/OILS

No.	Name	Use	Composition	Remarks
1	Alcohol	Cleaning glass, plastic, rubber parts; e.g., external covers.	Hydrocarbon (fluorine family) Alcohol Surface active agent Water	<ul style="list-style-type: none">• Do not bring near fire.
2	Solvent	Cleaning metal parts or Removing oil/ink.	Hydrocarbon (fluorine family) Hydrocarbon (chlorine family) Alcohol	<ul style="list-style-type: none">• Do not bring near fire.• Procure locally.
3	Lubricant	Moistening oil pads	Mineral oil (paraffin family)	

CLC10/CJ10

PARTS CATALOG

REVISION 1 OCT. 1992

Canon
FY8-31AW-010

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FIGURE A ASSEMBLY LOCATION DIAGRAM (1/2)
 主要部品配置図 (1/2)

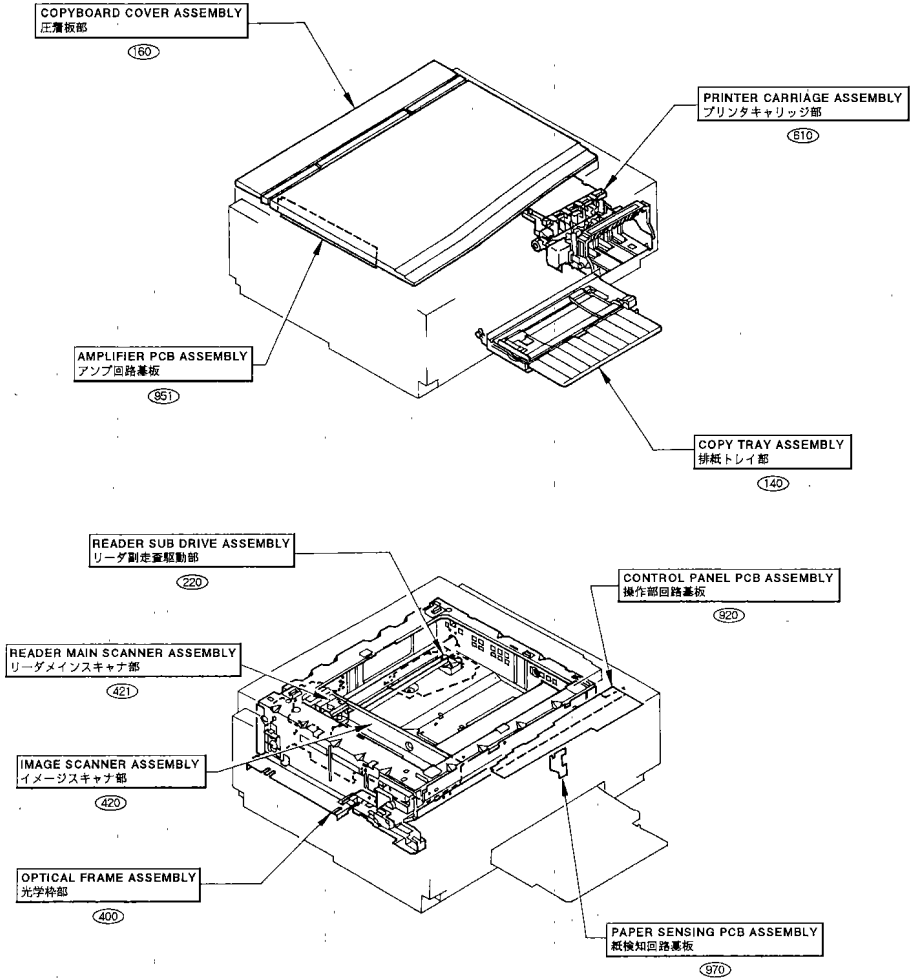


FIGURE A ASSEMBLY LOCATION DIAGRAM (2/2)
 主要部品配置図 (2/2)

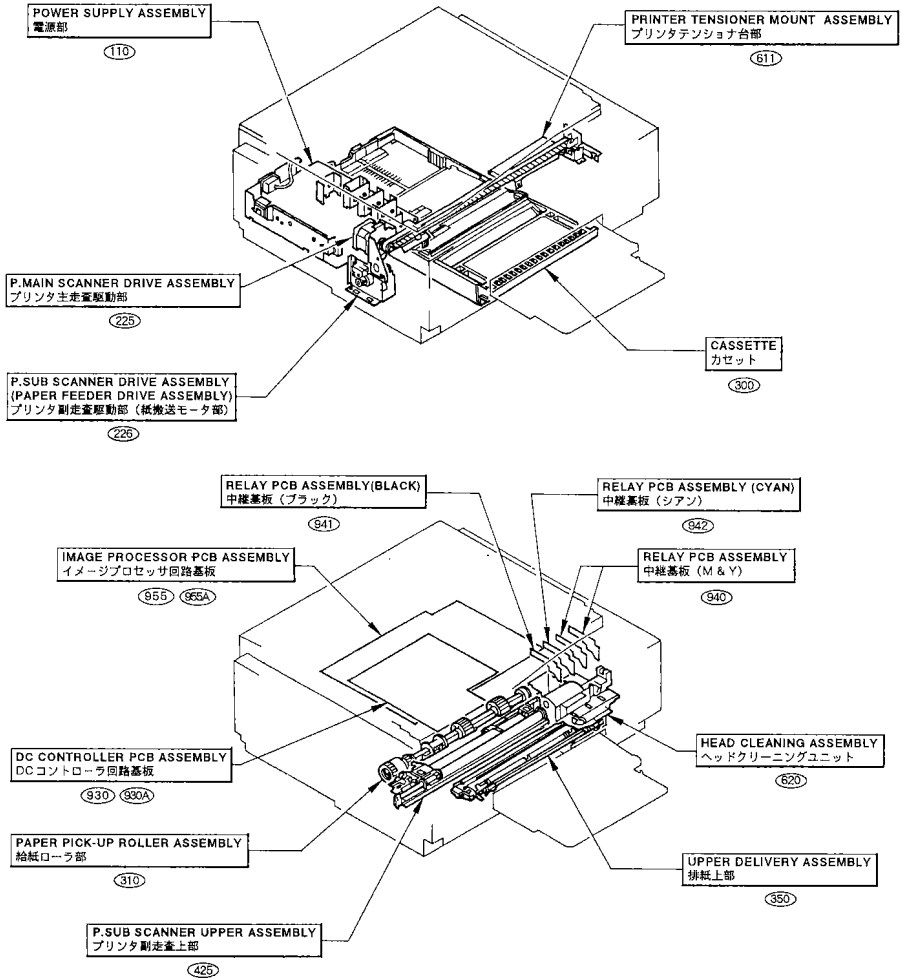


FIGURE 001 ACCESSORIES

消耗品

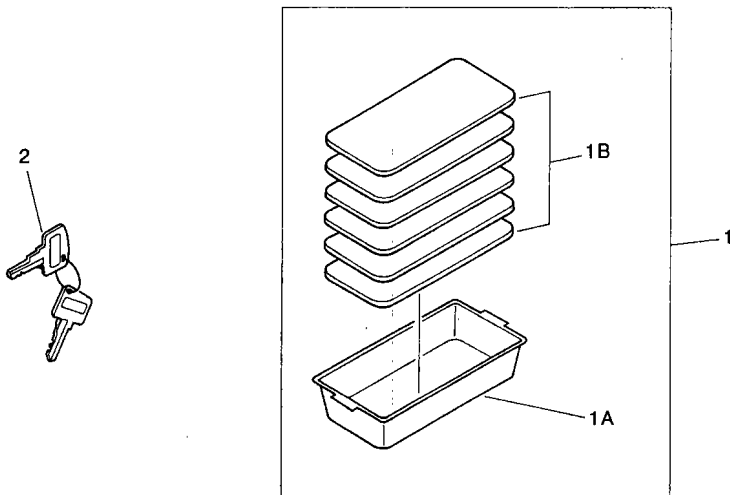


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
001 -	NPN		RF	ACCESSORIES ショウモウビン	
1	FG5 - 1108 - 000		2	WASTE INK CASE ASSEMBLY ハイインク ケース	
1A	FB1 - 5386 - 000		1	CASE ケース	
1B	FB1 - 5387 - 000		6	SHEET, ABSORBENT. キユウシユウ タイ	
2	FF5 - 1381 - 000		1	KEY, SWITCH スイッチ キー	

FIGURE 020 SPECIAL TOOLS 特殊工具

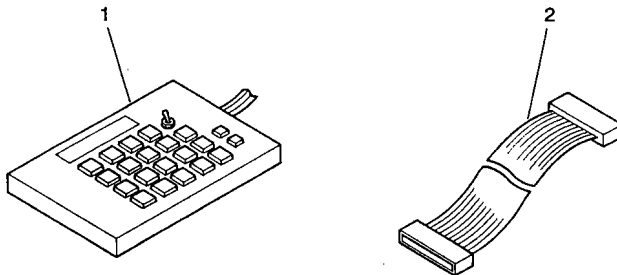
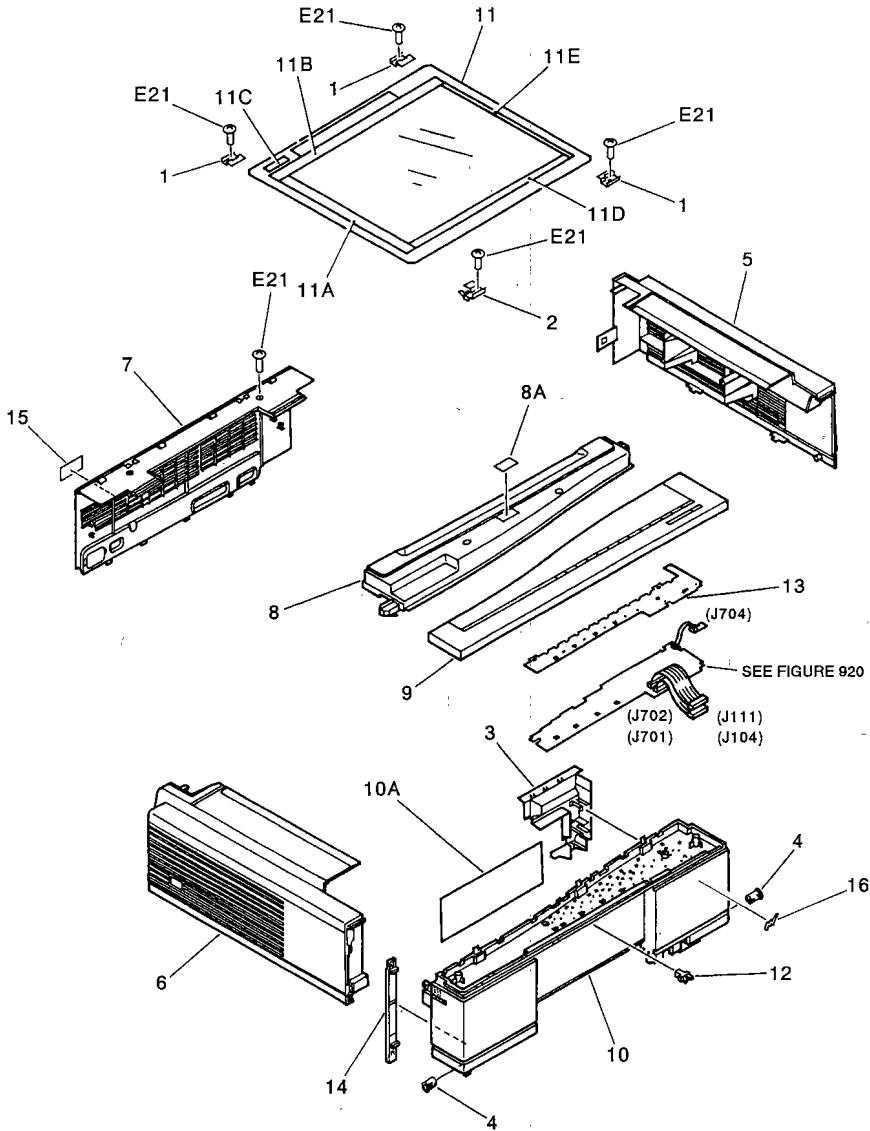


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
020 -	NPN		RF	SPECIAL TOOLS トクシュコウグ	
1	FY9 - 4006 - 000	N	1	SWITCH BOARD スイッチボード	
2	FY9 - 4007 - 000		1	CABLE, FLAT ケーブル	

FIGURE 100 EXTERNAL COVERS, PANELS, ETC.
外装カバー



NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

注：旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
100 -	NPN		RF	EXTERNAL COVERS, PANELS, ETC. ガイソウカバー	SEE NOTE
1	FB1 - 5112 - 000		3	RETAINER, GLASS ガラスオサエ	
2	FB1 - 5113 - 000		1	RETAINER, GLASS, CORNER ガラスオサエ (カド)	
3	FB1 - 5365 - 000		1	COVER, CORD コードカバー	
4	FB1 - 5366 - 000		2	SHAFT, FRONT COVER マエカバー ジュク	
5	FB1 - 5392 - 000		1	COVER, RIGHT カバー (ミギ)	
6	FB1 - 5393 - 000		1	COVER, LEFT カバー (ヒダリ)	
7	FB1 - 5394 - 000		1	COVER, REAR カバー (ウシロ)	
8	FF5 - 1304 - 000		1	COVER, UPPER カバー (ウエ)	
8A	FB1 - 5395 - 000		1	PLATE, MAGNET キューチャックパン	
9	FF5 - 1323 - 000		1	CONTROL PANEL UNIT ソウサブ	JPN
	FF5 - 1324 - 000		1	CONTROL PANEL UNIT ソウサブ	USA
	FF5 - 1325 - 000		1	CONTROL PANEL UNIT ソウサブ	EUR
	FF5 - 1326 - 000		1	CONTROL PANEL UNIT ソウサブ	CAN, ASL
	FF5 - 1327 - 000		1	CONTROL PANEL UNIT ソウサブ	FRA
	FF5 - 1328 - 000		1	CONTROL PANEL UNIT ソウサブ	GER
	FF5 - 1329 - 000		1	CONTROL PANEL UNIT ソウサブ	UK
10	FF5 - 1322 - 000		1	COVER, FRONT マエカバー	
10A	FS5 - 8402 - 000		1	LABEL ラベル	
11	FF5 - 1303 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A/B SIZE(OLD TYPE)
	FF5 - 1308 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	INCH SIZE(OLD TYPE)
	FF5 - 1309 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A/B/INCH SIZE (OLD TYPE)
	FF5 - 1310 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A SIZE(OLD TYPE)
	FF5 - 1749 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A/B SIZE(NEW TYPE)
	FF5 - 1750 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	INCH SIZE(NEW TYPE)
11A	FF5 - 1751 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A/B/INCH SIZE (NEW TYPE)
	FF5 - 1752 - 000		1	GLASS, COPYBOARD ゲンコウダイ ガラス	A SIZE(NEW TYPE)
	FB1 - 5115 - 000		1	PLATE, WIDTH INDEX タテサイズプレート	A/B SIZE
	FB1 - 5330 - 000		1	PLATE, WIDTH INDEX タテサイズプレート	INCH SIZE
	FB1 - 5331 - 000		1	PLATE, WIDTH INDEX タテサイズプレート	A/B/INCH SIZE

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
100 - 11A	FB1 - 5332 - 000		1	PLATE, WIDTH INDEX タテサイズプレート	A SIZE
11B	FB1 - 5116 - 000		1	PLATE, LENGTH INDEX ヨコサイズプレート	A/B SIZE
	FB1 - 5333 - 000		1	PLATE, LENGTH INDEX ヨコサイズプレート	INCH SIZE
	FB1 - 5334 - 000		1	PLATE, LENGTH INDEX ヨコサイズプレート	A/B/INCH SIZE
	FB1 - 5335 - 000		1	PLATE, LENGTH INDEX ヨコサイズプレート	A SIZE
11C	FB1 - 5117 - 000		1	PLATE, SHADING シエーディングバン	
11D	FB1 - 5202 - 000		1	PLATE, AUXILIARY ホジヨプレート	
11E	FB1 - 5403 - 000		1	PLATE, AUXILIARY ホジヨプレート	
12	XZ9 - 0340 - 000		1	LATCH ラツチ	
13	FB1 - 5380 - 000		1	SHEET シート	
14	FB1 - 5384 - 000		1	STRAP, FRONT COVER マエカバー ベルト	
15	FS5 - 8414 - 000		1	PLATE, RATING テイカク メイハン	100V
	FS5 - 8418 - 000		1	PLATE, RATING テイカク メイハン	220/240V
16	FS4 - 8955 - 000		1	LABEL, COLOR カラーラベル	100V

FIGURE 101 BASE, ELECTRICAL (1/3)
 底板部 (1/3)

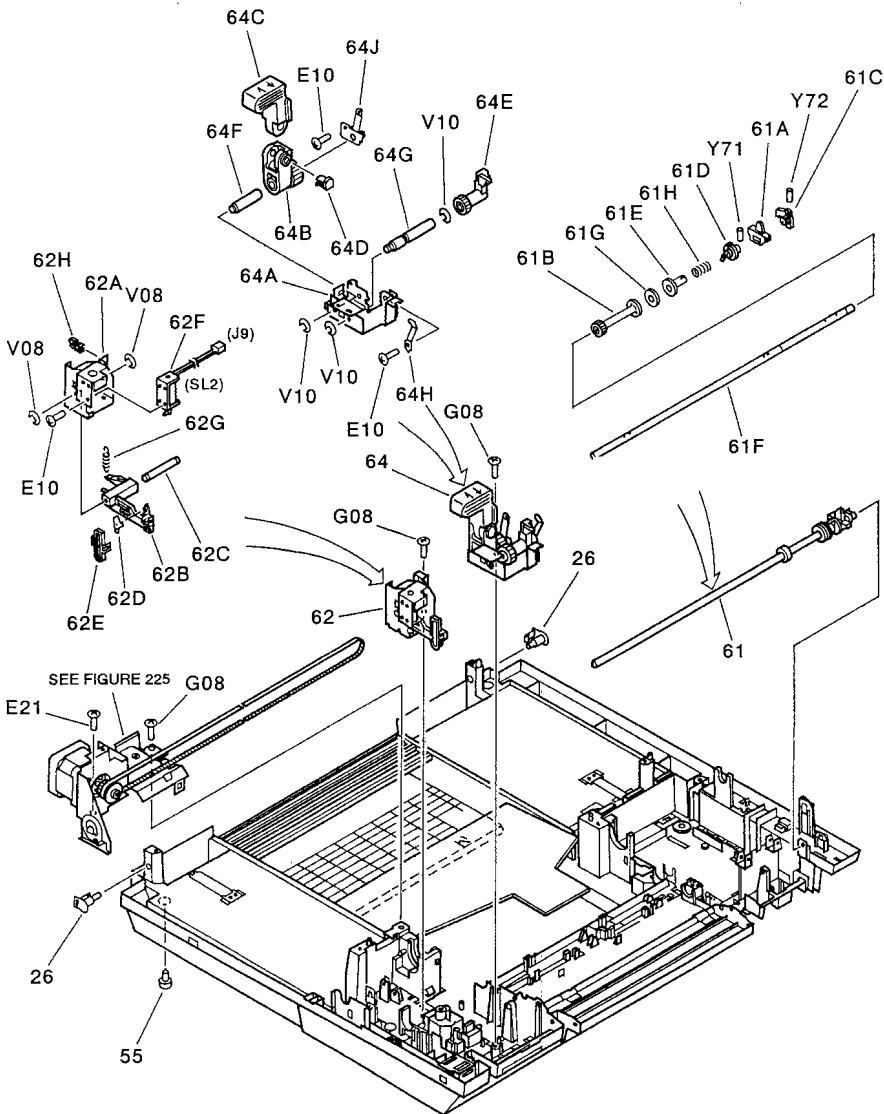


FIGURE 101 BASE, ELECTRICAL (2/3)
 底板部 (2/3)

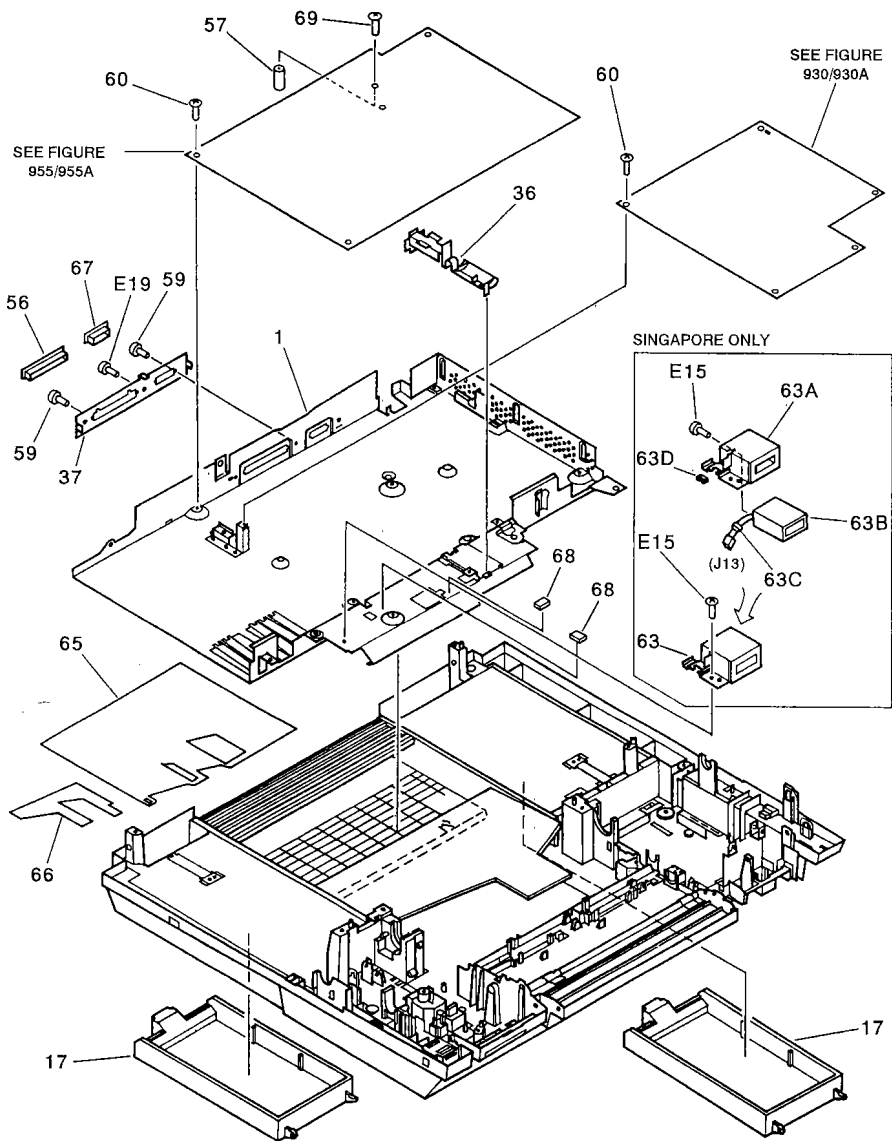


FIGURE 101 BASE, ELECTRICAL (3/3)
 底板部 (3/3)

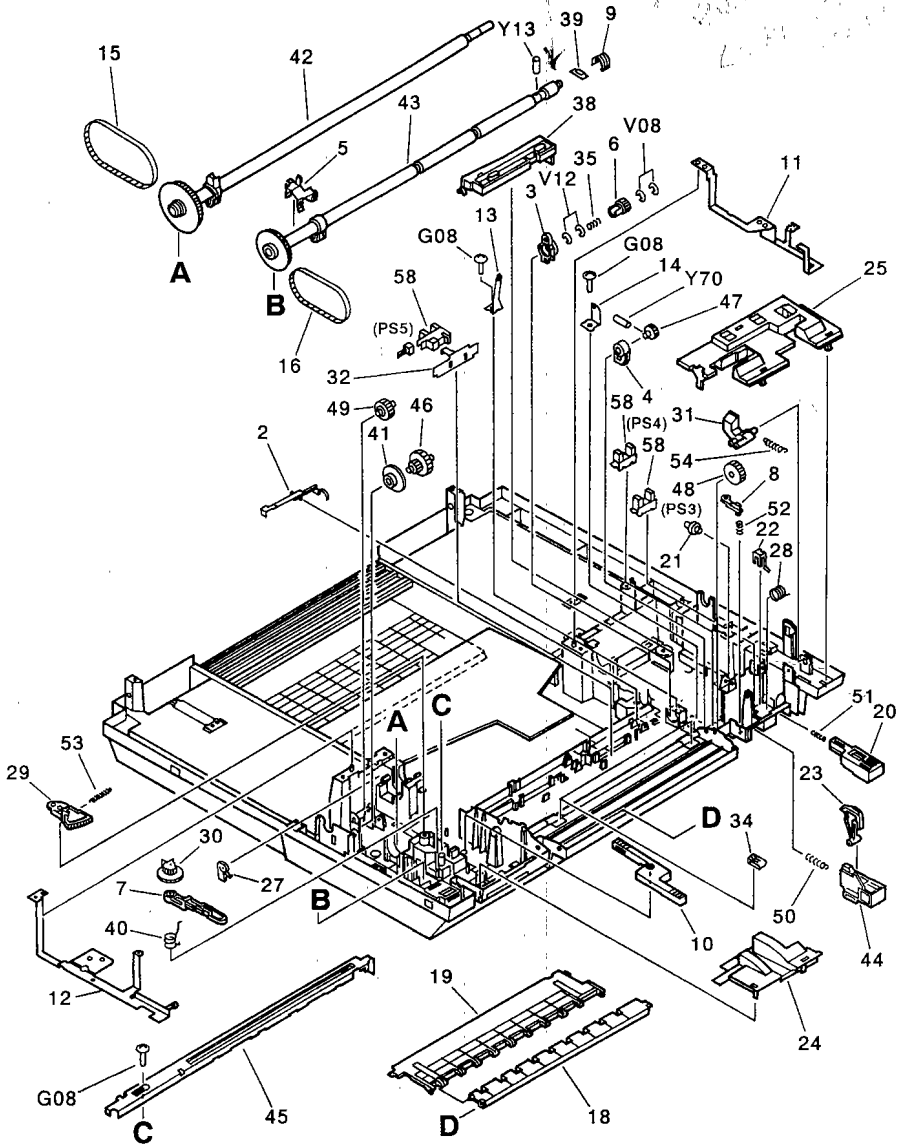


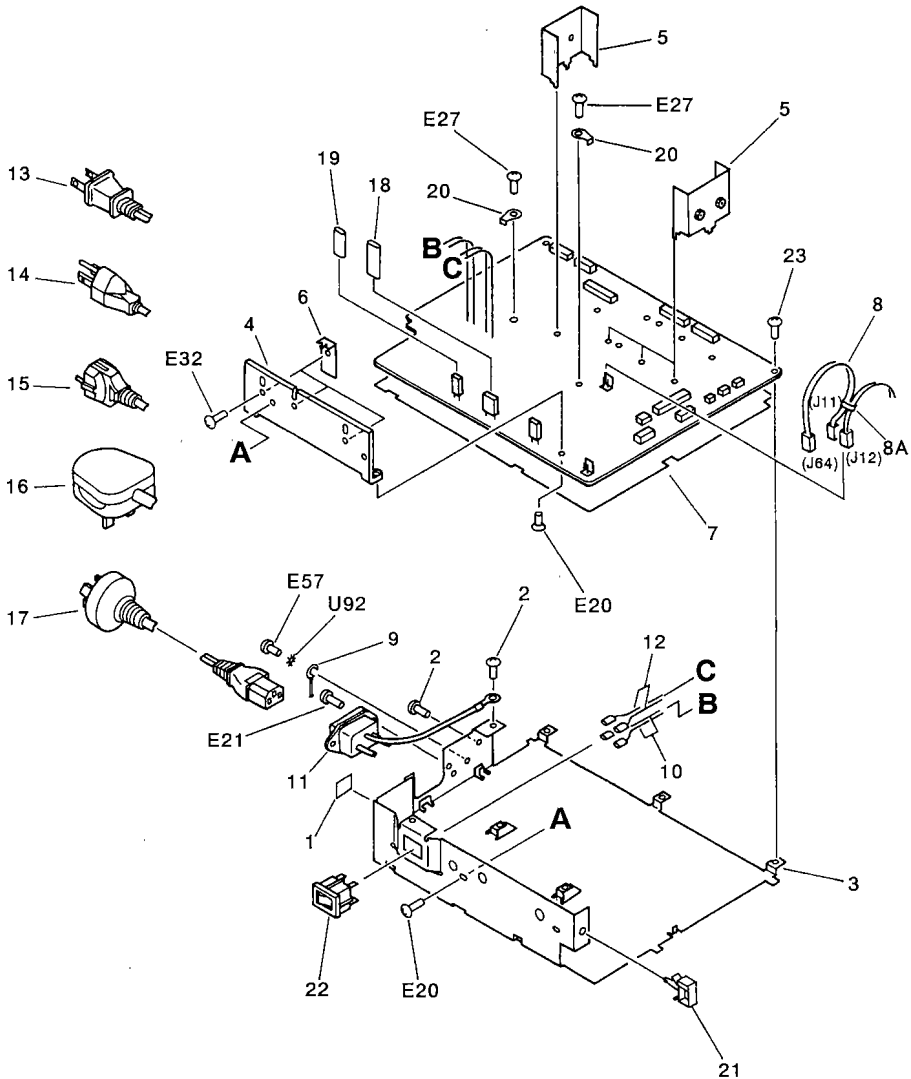
FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
101 -	NPN		RF	BASE PLATE ASSEMBLY ソコイタブ	
1	FB1 - 5162 - 030		1	BASE, ELECTRICAL デソソウ ダイ	
2	FB1 - 5185 - 000		1	ARM, SENSOR センサアーム	
3	FB1 - 5166 - 000		1	HOLDER, DELIVERY SHAFT, FRONT ハイシジク ウケ (マエ)	
4	FB1 - 5168 - 000		1	HOLDER, SHAFT, FRONT ジク ウケ (マエ)	
5	FB1 - 5170 - 000		1	RETAINER, BUSHING ジク ウケ オサエ	
6	FB1 - 5175 - 000		1	GEAR, DRIVE クドウギア	
7	FB1 - 5176 - 000		1	LEVER レバー	
8	FB1 - 5177 - 000		1	LATCH ラツチ	
9	FB1 - 5178 - 000		1	RING リング	
10	FB1 - 5179 - 000		1	RACK ラツク	
11	FB1 - 5185 - 000		1	PLATE, GROUNDING アースイタ	
12	FB1 - 5186 - 000		1	PLATE, GROUNDING アースイタ	
13	FB1 - 5187 - 000		1	SPRING, LEAF アースバネ	
14	FB1 - 5188 - 000		1	SPRING, LEAF アースバネ	
15	FB1 - 5189 - 000		1	BELT, TIMING タイミングベルト	
16	FB1 - 5190 - 000		1	BELT, TIMING タイミングベルト	
17	FB1 - 5191 - 000		2	COVER, WASTE INK ハイインクフタ	
18	FB1 - 5194 - 000		1	PLATE, MANUAL PAPER FEED GUIDE テザシガイド	
19	FB1 - 5195 - 000		1	PLATE, MANUAL PAPER FEED GUIDE テザシガイド	
20	FB1 - 5196 - 000		1	LEVER, MANUAL FEED テザシボタン	
21	FB1 - 5197 - 000		2	ROLLER コロ	
22	FB1 - 5198 - 000		1	COUPLER コマ	
23	FB1 - 5199 - 000		1	GEAR, 4.5T 4.5T レンドウギア	
24	FB1 - 5200 - 030		1	COVER, LEVER レバーカバー	
25	FB1 - 5203 - 000		1	COVER, BUTTON ボタンカバー	
26	FB1 - 5204 - 000		2	PIN コティピン	
27	FB1 - 5205 - 000		1	LATCH ラツチ	
28	FB1 - 5206 - 000		1	SPRING, TORSION ネジリバネ	
29	FB1 - 5207 - 000		1	GEAR, SECTOR, 8T 8T レンケツギア	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
101 - 30	FB1 - 5208 - 000		1	GEAR, LOCK, 9T 9T ロック ギア	
31	FB1 - 5209 - 000		1	LEVER, LOCK ロック レバー	
32	FB1 - 5210 - 000		1	PLATE, SENSOR センサ パン	
34	FB1 - 5325 - 000		2	LEVER, MANUAL PAPER FEED デザシ レバー	
35	FB1 - 5329 - 000		1	SPRING, TORSION ネジリ バネ	
36	FB1 - 5396 - 000		1	CLAMP クランプ	
37	FB1 - 5401 - 000		1	COVER, CONNECTER コネクタ カバー	
38	FB1 - 5402 - 000		1	PLATE, CONNECTOR レンケツパン	
39	FB1 - 5416 - 000		1	RUBBER, DELIVERY ハイン ゴム	
40	FB1 - 5418 - 000		1	SPRING, TORSION ネジリ バネ	
41	FB1 - 5419 - 000		1	SPACER スペーサ	
42	FF5 - 1311 - 000		1	ROLLER ローラ	
43	FF5 - 1312 - 000		1	ROLLER ローラ	
44	FF5 - 1313 - 000		1	BUTTON, OHP OHP ボタン	
45	FF5 - 1314 - 000		1	PLATE, PLATEN プラテンパン	
46	FS5 - 0246 - 000		1	GEAR, IDLER, 28T/14T 28T/14T アイドラ ギア	
47	FS5 - 0248 - 000		1	GEAR, DRIVE, 14T 14T クドウ ギア	
48	FS5 - 0249 - 000		1	GEAR, 23T 23T ギア	
49	FS5 - 0250 - 000		1	GEAR, IDLER, 20T 20T アイドラ ギア	
50	FS5 - 2213 - 000		1	SPRING, TENSION ヒツバリ バネ	
51	FS5 - 2222 - 000		1	SPRING, COMPRESSION アツシユク バネ	
52	FS5 - 2230 - 000		1	SPRING, COMPRESSION アツシユク バネ	
53	FS5 - 2231 - 000		1	SPRING, TENSION ヒツバリ バネ	
54	FS5 - 2232 - 000		1	SPRING, TENSION ヒツバリ バネ	
55	RA1 - 8243 - 000		4	FOOT, RUBBER ゴム アシ	
56	VS9 - 5003 - 068		1	COVER, DUST ダスト カバー	
57	WT2 - 5160 - 000		1	SPACER スペーサ	
58	WG8 - 0291 - 000		3	PHOTO - INTERRUPTER フォトインタラプタ	
59	XA1 - 1260 - 607		4	SCREW, MACH., PAN HEAD, M2.6X6 ナベネジ	
60	XA9 - 0373 - 000		17	SCREW, PAN HEAD, M3X6 ナベコネジ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
101 -- 61	FG5 - 1098 - 000		1	MANUAL FEED CHANGE ASSEMBLY テザシ キリカエブ	
61A	FB1 - 5193 - 000		1	RACK, MANUAL FEED テザシ ラック	
61B	FB1 - 5321 - 000		1	GEAR, CLUTCH, 14T 14T クラッチ ギア	
61C	FB1 - 5322 - 000		1	GEAR, 6T 6T ギア	
61D	FB1 - 5323 - 000		1	CAM, PRESSURE APPLICATION カアツカム	
61E	FB1 - 5324 - 000		1	PLATE, LIFTING カアツパン	
61F	FB1 - 5326 - 000		1	SHAFT ジク	
61G	FB1 - 5327 - 000		1	PAD, FRICTION マサツ バツド	
61H	FS5 - 2223 - 000		1	SPRING, COMPRESSION アツシユク バネ	
62	FG5 - 1583 - 000		1	PAPER FEED SOLENOID ASSEMBLY キユウシ ソレノイドブ	
62A	FB1 - 5563 - 000		1	MOUNT, SOLENOID ソレノイド ダイ	
62B	FB1 - 5564 - 000		1	ARM, SOLENOID ソレノイド アーム	
62C	FB1 - 5565 - 000		1	SHAFT, SOLENOID ソレノイド ジク	
62D	FB1 - 5566 - 000		1	ARM アーム	
62E	FB1 - 5567 - 000		1	PLATE, ARM アーム イタ	
62F	FH7 - 5388 - 000		1	SOLENOID ソレノイド	
62G	FS5 - 2233 - 000		1	SPRING, TENSION ヒツバリ バネ	
62H	WT2 - 0408 - 000		1	CLAMP クランプ	
63	FG5 - 1579 - 000		1	COUNTER ASSEMBLY カウンタブ	F12 - 7342
63A	FB1 - 9084 - 000		1	COVER, COUNTER カウンタ ダイ	F12 - 7342
63B	FF2 - 7893 - 000		1	COUNTER UNIT カウンタ	F12 -- 7342
63C	WT2 - 0030 - 000		1	TIE, CABLE ソクセンバンド	F12 - 7342
63D	WT2 - 5056 - 000		1	CLIP, WIRE エッジサドル	F12 - 7342
64	FG5 - 1097 - 000		1	RELEASE LEVER ASSEMBLY カイジヨ レバーブ	
64A	FB1 - 5306 - 000		1	PLATE ソクパン	
64B	FB1 - 5307 - 000		1	LEVER レバー	
64C	FB1 - 5308 - 000		1	LEVER レバー	
64D	FB1 - 5309 - 000		1	PIN, LEVER レバー ピン	
64E	FB1 - 5311 - 000		1	LEVER レバー	
64F	FB1 - 5312 - 000		1	SHAFT, LEVER レバー ジク	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
101 - 64G	FB1 - 5313 - 000		1	SHAFT カアツジク	
64H	FB1 - 5314 - 000		1	PLATE, GROUNDING アースイタ	
64J	FB1 - 5315 - 000		1	PLATE, GROUNDING アースイタ	
65	FB1 - 9089 - 000		1	GUIDE, BASE PLATE ソコイタガイド (1)	
66	FB1 - 9090 - 000		1	GUIDE, BASE PLATE ソコイタガイド (2)	
67	VS9 - 5003 - 014		1	COVER, DUST ダストカバー	
68	WT8 - 5143 - 000		2	DAMPER ダンパ	
69	XB2 - 8300 - 607		11	SCREW, W/WASHER, M3X6 バネツキネジ	

FIGURE 110 POWER SUPPLY ASSEMBLY 電源部



NOTE : This assemble does not include the parts shown with key No.9, 13, 14, 15, 16, and 17.

注：このユニットにKey No. 9, 13, 14, 15, 16, 17の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
110 -	FG5 - 1123 - 000		1	POWER SUPPLY ASSEMBLY デンゲンブ	100/115V
	FG5 - 1125 - 000		1	POWER SUPPLY ASSEMBLY デンゲンブ	220/240V
	1 FA9 - 0031 - 000		1	LABEL デンアツ シュウハスウ ラベル	220/240V
	FA9 - 0032 - 000		1	LABEL デンアツ シュウハスウ ラベル	100/115V
	2 FA9 - 2568 - 000		2	SCREW, MACH., TRUSS HEAD バインドネジ	
3	FB1 - 5406 - 000		1	MOUNT, POWER SUPPLY デンゲンダイ	
4	FB1 - 5407 - 000		1	HEAT SINK, 1 ホウネツバン (1)	
5	FB1 - 5408 - 000		5	HEAT SINK ホウネツバン	
6	FB1 - 5409 - 000		3	PLATE, HOLDER コテイバン	
7	FB1 - 5410 - 000		1	SHEET, POWER SUPPLY デンゲンシート	
8	FF2 - 7338 - 000		1	CABLE, FAN, SWITCH ファンスイッチソクセン	100/115V
	FF2 - 8205 - 000		1	CABLE, FAN, SWITCH ファンスイッチソクセン	220/240V
8A	WT2 - 0030 - 000		1	TIE, CABLE ソクセンバンド	
9	FH2 - 5288 - 000		1	CABLE, GROUNDING アースコード	100V SEE NOTE
10	FF2 - 7023 - 000		2	CABLE, SWITCH スイッチソクセン	
11	FF2 - 7024 - 000		1	CABLE, INLET インレットソクセン	
12	FF2 - 7025 - 000		2	CABLE, SWITCH スイッチソクセン	
13	FH2 - 5875 - 000		1	CORD, POWER デンゲンコード	100V SEE NOTE
14	FH2 - 5741 - 000		1	POWER CORD, 115V デンゲンコード	115V SEE NOTE
15	FH2 - 5761 - 020		1	POWER CORD デンゲンコード	220V SEE NOTE
16	RH2 - 5015 - 050		1	POWER CORD, 240V デンゲンコード	240V(UK) SEE NOTE
17	FH2 - 5763 - 000		1	POWER CORD, 240V デンゲンコード	240V SEE NOTE
18	FH7 - 8556 - 000		1	SHEET, INSULATION ゼツエンシート	
19	RH7 - 8035 - 000		1	SHEET, INSULATION ゼツエンシート	
20	WT1 - 5167 - 000		2	LUG ラグ	
21	WT2 - 0317 - 000		1	CLIP, CABLE ロツキングワイヤサドル	
22	FH7 - 8185 - 000		1	SWITCH スイッチ	
23	FA9 - 1613 - 000		5	PLATE, WASHER SCREW, M3X6 セムスビス	

FIGURE 140 COPY TRAY ASSEMBLY

排紙トレイ部

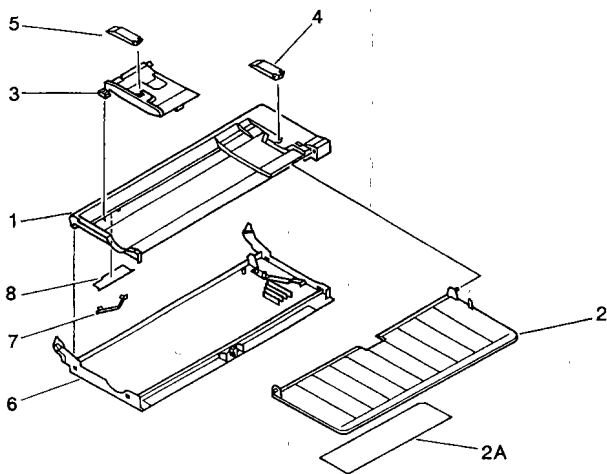
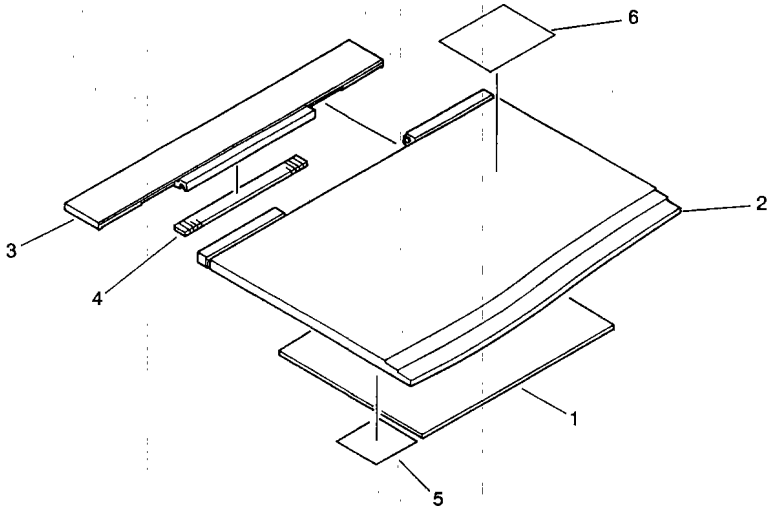


FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS	
140 -	FG5 - 1106 - 050		1	COPY TRAY ASSEMBLY ハイシトレイブ	A/B SIZE	
	FG5 - 1126 - 050		1	COPY TRAY ASSEMBLY ハイシトレイブ	A/INCH SIZE	
	FG5 - 1592 - 050		1	COPY TRAY ASSEMBLY ハイシトレイブ	A SIZE	
	FG5 - 1593 - 050		1	COPY TRAY ASSEMBLY ハイシトレイブ	A/B/INCH SIZE	
	1	FB1 - 5372 - 000		1	FRAME, TRAY, INNER トレイウチワク	A/B SIZE
2	FB1 - 5434 - 000		1	FRAME, TRAY, INNER トレイウチワク	A/INCH SIZE	
	FB1 - 5435 - 000		1	FRAME, TRAY, INNER トレイウチワク	A SIZE	
	FB1 - 5436 - 000		1	FRAME, TRAY, INNER トレイウチワク	A/B/INCH SIZE	
	2A	FF5 - 1748 - 050		1	TRAY トレイ	
3	FB1 - 5374 - 000		1	GUIDE, SIDE サイドガイド		
	4	FB1 - 5376 - 000		1	DEFLECTER, I フラツバ (I)	
	5	FB1 - 5377 - 000		1	DEFLECTER, S フラツバ (S)	
	6	FF5 - 1307 - 000		1	FRAME, TRAY, OUTER トレイソトワク	
	7	FB1 - 9094 - 000		1	SPRING, LEAF イタバネ	
	8	FB1 - 9095 - 000		1	SHEET シート	

FIGURE 160

COPYBOARD COVER ASSEMBLY

圧着板部



NOTE : This assembly does not include the parts shown with key No. 5 and 6.

注 : このユニットにKey No. 5, 6の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
160 -	FG5 - 1107 - 000		1	COPYBOARD COVER ASSEMBLY アツチャク バンプ	
1	FB1 - 0047 - 000		1	CUSHION, COPYBOARD COVER アツチャク シート	
2	FB1 - 5381 - 000		1	COVER, COPYBOARD アツチャク バン	
3	FB1 - 5382 - 000		1	COVER, COPYBOARD, 2 アツチャク バン (2)	
4	FB1 - 5383 - 000	N	1	MAGNET マグネット	
5	FS5 - 8404 - 000		1	LABEL, LEGAL LIMITATIONS コピー キンシ ラベル	JAPANESE SEE NOTE
	FS5 - 8405 - 000		1	LABEL, LEGAL LIMITATIONS コピー キンシ ラベル	ENGLISH SEE NOTE
	FS5 - 8406 - 000		1	LABEL, LEGAL LIMITATIONS コピー キンシ ラベル	ENGLISH(UK) SEE NOTE
	FS5 - 8407 - 000		1	LABEL, LEGAL LIMITATIONS コピー キンシ ラベル	FRENCH SEE NOTE
	FS5 - 8408 - 000		1	LABEL, LEGAL LIMITATIONS コピー キンシ ラベル	GERMAN SEE NOTE
6	FS5 - 8696 - 000		1	LABEL, COLOR MARK カラー マーク ラベル	JPN SEE NOTE

FIGURE 220 READER SUB DRIVE ASSEMBLY
 リーダ副走査駆動部

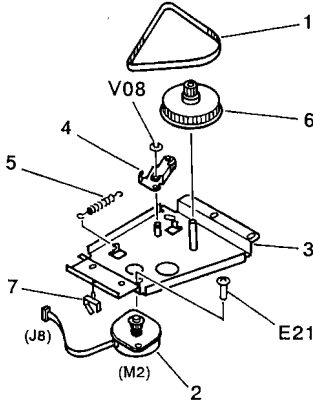
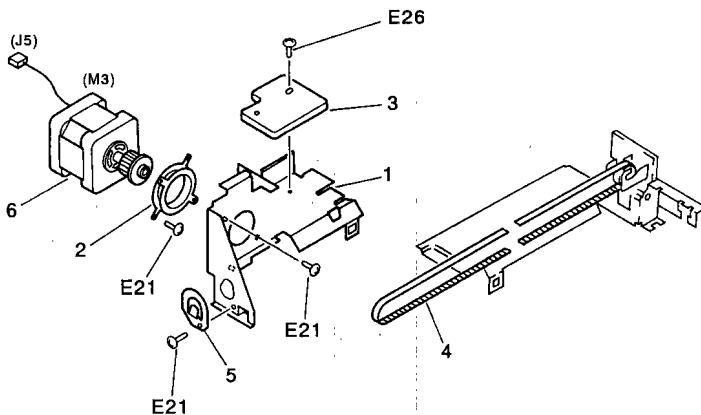


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
220 -	FG5 - 1088 - 000		1	READER SUB DRIVE ASSEMBLY リーダフクソウサドゥブ	
1	FB1 - 5122 - 000		1	BELT, TIMING タイミングベルト	
2	FF5 - 1330 - 000		1	MOTOR, STEPPING ステッピングモータ	
3	FF5 - 1337 - 000		1	MOUNT, MOTOR モータダイ	
4	FF5 - 1338 - 000		1	TENSIONER テンションナ	
5	FS5 - 2226 - 000		1	SPRING, TENSION ヒツバリバネ	
6	FS5 - 3135 - 000		1	PULLEY プーリ	
7	WT2 - 0317 - 000		1	CLIP, CABLE ロックンクワイヤサドル	

FIGURE 225 P. MAIN SCANNER DRIVE ASSEMBLY

プリンタ主走査駆動部



NOTE : This assembly does not include the parts shown with key No. 4 and 5.

注 : このユニットにKey No. 4, 5の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
225 -	FG5 - 1100 - 000		1	P. MAIN SCANNER DRIVE ASSEMBLY プリンタ シユソウサドウブ	
1	FB1 - 5341 - 000		1	BRACKET ダイ	
2	FB1 - 5343 - 000		1	RUBBER, ANTI - VIBRATION ボウシンゴム	
3	FB1 - 5344 - 000		1	PLATE, WEIGHT ウエイトイタ	
4	FB1 - 5398 - 000		1	BELT, TIMING タイミングベルト	SEE NOTE
5	FB1 - 5399 - 000		1	RETAINER, RAIL レールオサエ	SEE NOTE
6	FF5 - 1317 - 000		1	MOTOR, STEPPING ステッピングモータ	

FIGURE 226 P. SUB SCANNER DRIVE ASSEMBLY
(PAPER FEEDER MOTOR ASSEMBLY)
プリンタ副走査駆動部 (紙搬送モータ部)

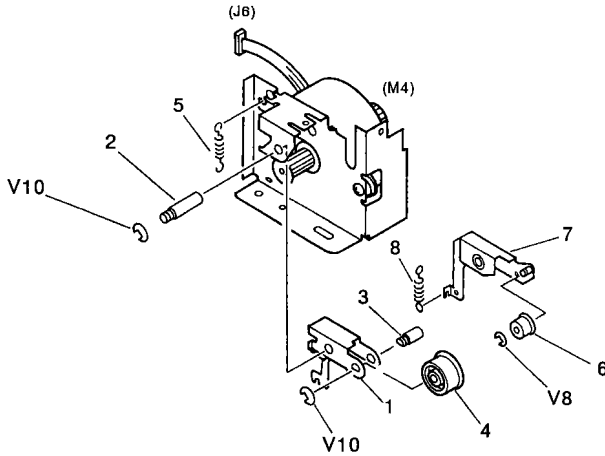


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
226 -	FG5 - 1099 - 020		1	P. SUB SCANNER DRIVE ASSEMBLY プリンタフクソウサドゥブ	
1	FB1 - 5337 - 020		1	TENSIONER, SUB SCANNER フクソウサ テンシヨナ	
2	FB1 - 5338 - 000		1	SHAFT, TENSIONER, 1 テンシヨナジク (1)	
3	FB1 - 5339 - 000		1	SHAFT, TENSIONER, 2 テンシヨナジク (2)	
4	FB1 - 5340 - 000		1	ROLLER, TENSIONER, 1 テンシヨナ ローラ (1)	
5	FS5 - 2218 - 020		1	SPRING, TENSION ヒツバリバネ	
6	FB1 - 9080 - 000		1	ROLLER, TENSIONER, 2 テンシヨナ ローラ (2)	
7	FF5 - 1382 - 000		1	ARM, TENSIONER テンシヨナ アーム	
8	FS5 - 2234 - 000		1	SPRING, TENSION ヒツバリバネ	

FIGURE 300 CASSETTE
カセット

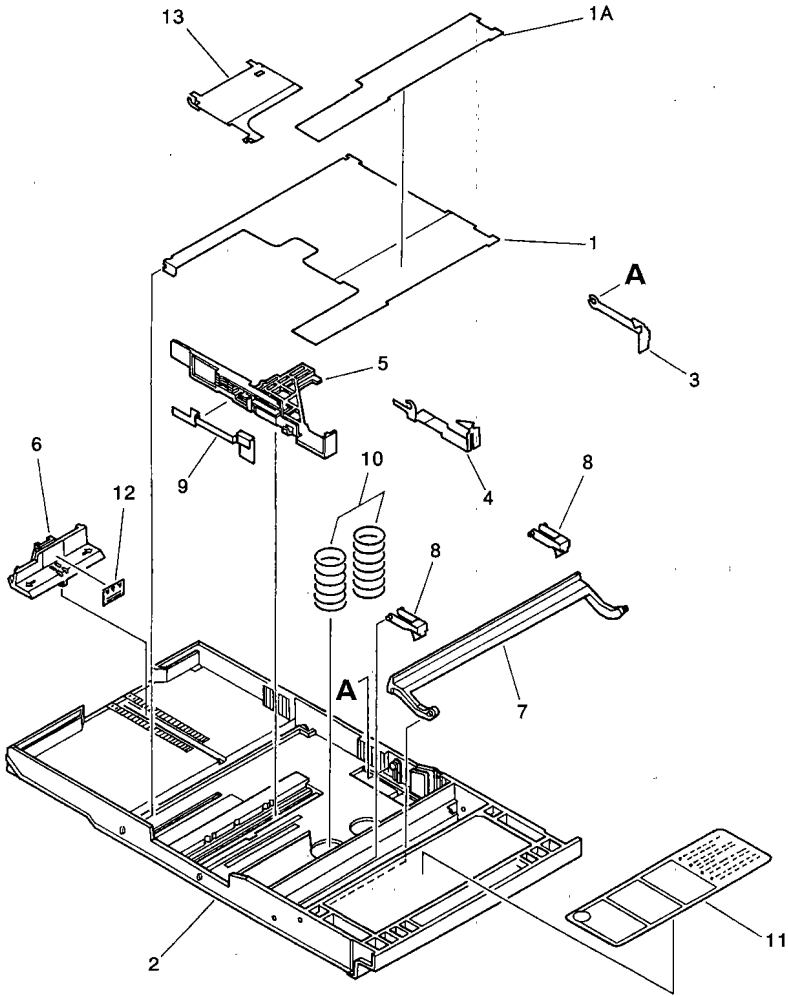


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
300 -	NPN CLC10/CJ10		RF	CASSETTE カセット	UNIVERSAL <i>imp. merchandise no.</i> <i>Leo</i>
1	FF5 - 1305 - 000		1	PLATE, PAPER GUIDE ナカイタ	
1A	FB1 - 5423 - 000		1	SHEET, SEPARATION フリシート	
2	FB1 - 5421 - 000	N	1	BODY, CASSETTE カセット オケ	
3	FB1 - 5424 - 000		1	PLATE, HOLD フリツメ	
4	FB1 - 5425 - 000		1	PLATE, HOLD フリツメ	
5	FB1 - 5426 - 000		1	SUPPORT, SEPARATION CLAW ツメササエイタ	
6	FB1 - 5429 - 000		1	PLATE, SIZE, REAR コウタンキセイバン	
7	FB1 - 5430 - 000		1	GUIDE, PAPER カミ ガイド	
8	FB1 - 5431 - 000		2	CAM, PAPER GUIDE カミ ガイドカム	
9	FF5 - 1306 - 000		1	SPRING, LEAF イタバネ	
10	FS5 - 2221 - 000		2	SPRING, COMPRESSION アツシユクバネ	
11	FS5 - 8403 - 000		1	LABEL カセット ヨウシ ホキユウ ラベル	
12	FS8 - 8506 - 000		1	LABEL カミ セキサイ ヒヨウジ ラベル	
13	FB1 - 9087 - 000		1	PLATE, PAPER GUIDE, AUXILIARY ホジョ ナカイタ	

FIGURE 310

PAPER PICK-UP ROLLER ASSEMBLY 給紙ローラ部

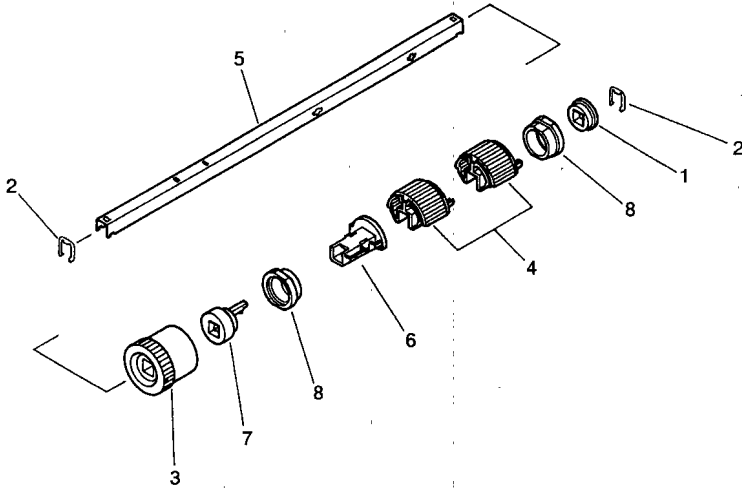


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
310 -	FG5 - 1094 - 000		1	PAPER PICK - UP ROLLER ASSEMBLY キユウシローラ部	
1	FA2 - 8225 - 000		1	BUSHING カク ジクウケ	
2	FA2 - 9221 - 000		2	STOP キンテイ	
3	FB1 - 1474 - 020		1	CLUTCH UNIT クラッチ	
4	FB1 - 5251 - 000		2	ROLLER, PICK - UP キユウシローラ	
5	FB1 - 5252 - 000		1	CROSSMEMBER, PICK - UP キユウシジク	
6	FB1 - 5253 - 000		1	ROLLER, PICK - UP キユウシコロ	
7	FB1 - 5255 - 000		1	LATCH ラッチ	
8	FS5 - 1166 - 000		2	BUSHING ジク ウケ	

FIGURE 350 UPPER DELIVERY ASSEMBLY
排紙上部

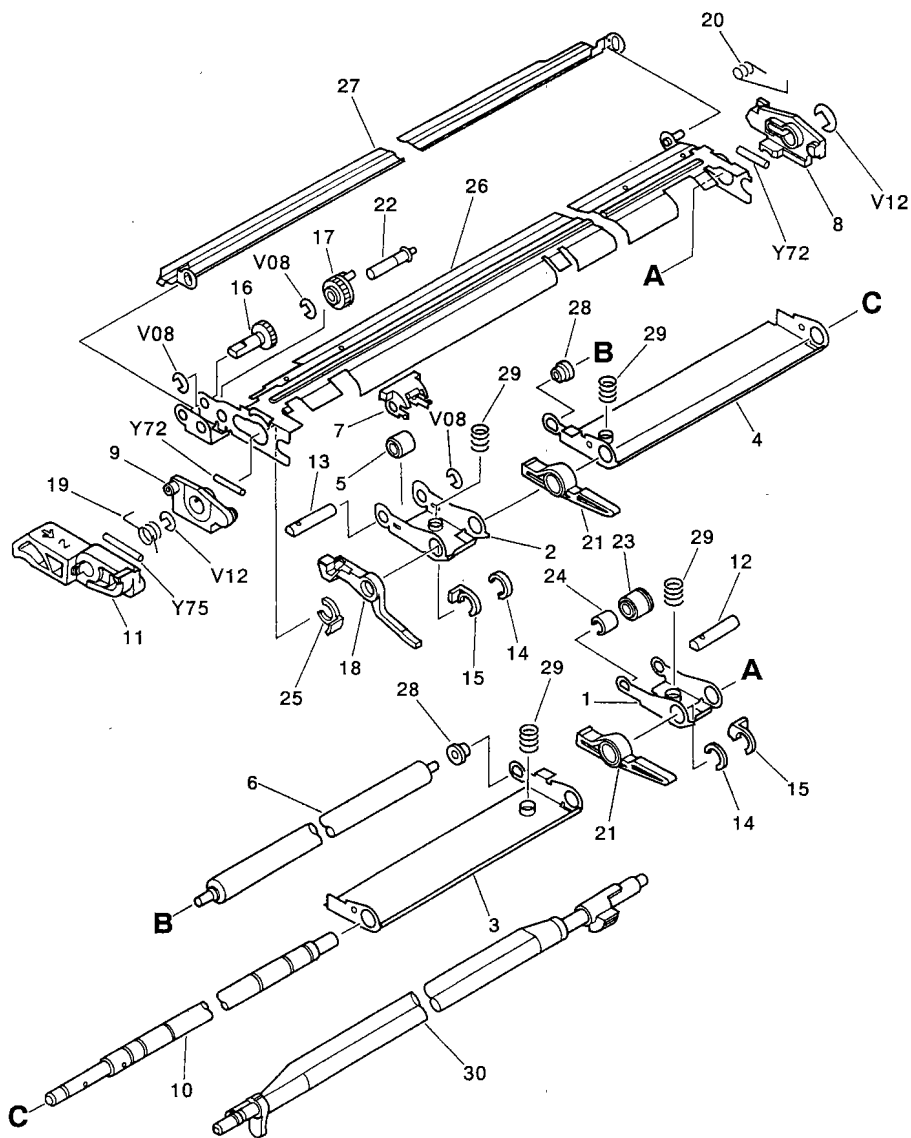


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
350 -	FG5 - 1098 - 080		1	UPPER DELIVERY ASSEMBLY ハインウエブ	
1	FB1 - 5282 - 000		1	ARM, ROLLER コロアーム	
2	FB1 - 5283 - 000		1	ARM, ROLLER コロアーム	
3	FF5 - 1746 - 000		1	ARM, ROLLER, 1 ローラアーム(1)	
4	FF5 - 1747 - 000		1	ARM, ROLLER, 2 ローラアーム(2)	

5	FB1 - 5286 - 000		1	ROLLER コロ	
6	FB1 - 5287 - 000		1	ROLLER, DELIVERY, UPPER ハインウエローラ	
7	FB1 - 5288 - 000		1	HOLDER, ROLLER コロホルダ	
8	FB1 - 5289 - 000		1	RETAINER ブツシュ	
9	FB1 - 5290 - 000		1	RETAINER ブツシュ	

10	FB1 - 5291 - 000		1	SHAFT ササエジク	
11	FB1 - 5292 - 020		1	ARM, PRESSURE ハインカアツアーム	
12	FB1 - 5293 - 000		1	SHAFT, ROLLER コロジク	
13	FB1 - 5294 - 000		1	SHAFT, ROLLER コロジク	
14	FB1 - 5295 - 000		2	RING, RETAINING スラストドメ	

15	FB1 - 5296 - 000		2	RING, RETAINING スラストドメ	
16	FB1 - 5298 - 000		1	GEAR, 14T 14Tギア	
17	FB1 - 5299 - 000		1	GEAR, 18T 18Tギア	
18	FB1 - 5300 - 000		1	LEVER レバー	
19	FB1 - 5303 - 000		1	SPRING, TORSION ネジリバネ	

20	FB1 - 5304 - 000		1	SPRING, TORSION ネジリバネ	
21	FB1 - 5316 - 000		2	LEVER, RELEASE カイジヨバン	
22	FB1 - 5318 - 000		1	SHAFT ジク	
23	FB1 - 5320 - 000		1	ROLLER, GUIDE ガイドローラ	
24	FB1 - 5385 - 000		1	SUPPORT, ROLLER ローラオサエ	

25	FB1 - 5415 - 000		1	RING, RETAINING スラストドメ	
26	FF5 - 1315 - 000		1	PLATE, DELIVERY, UPPER ハインウエイタ	
27	FF5 - 1316 - 000		1	PLATE, HOLDER, PLATE ハインカミオサエイタ	
28	FS5 - 1165 - 000		2	BUSHING ジクウケ	
29	FS5 - 2216 - 000		4	SPRING, COMPRESSION アツシユクバネ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
350 - 30	FG5 - 1121 - 000		1	LATCH RELEASE SHAFT ASSEMBLY ハインカイジヨックブ	

FIGURE 400 OPTICAL FRAME ASSEMBLY
光学枠部

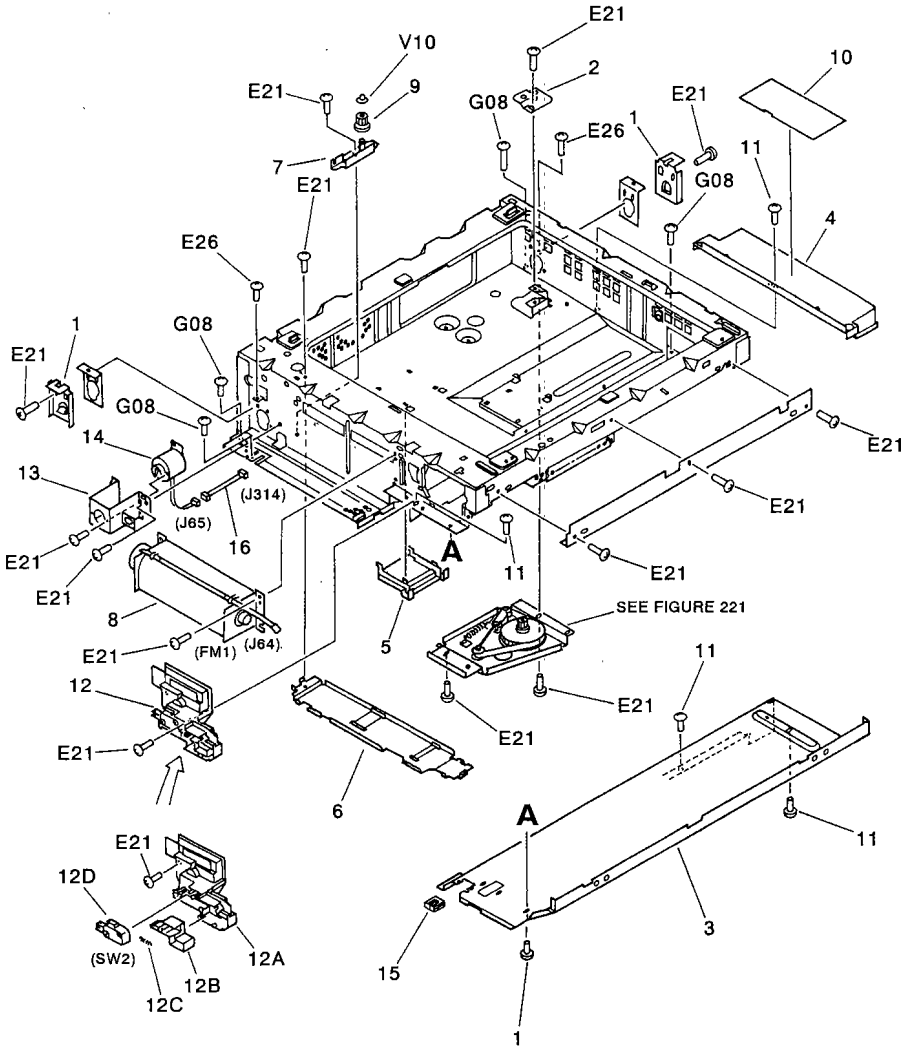
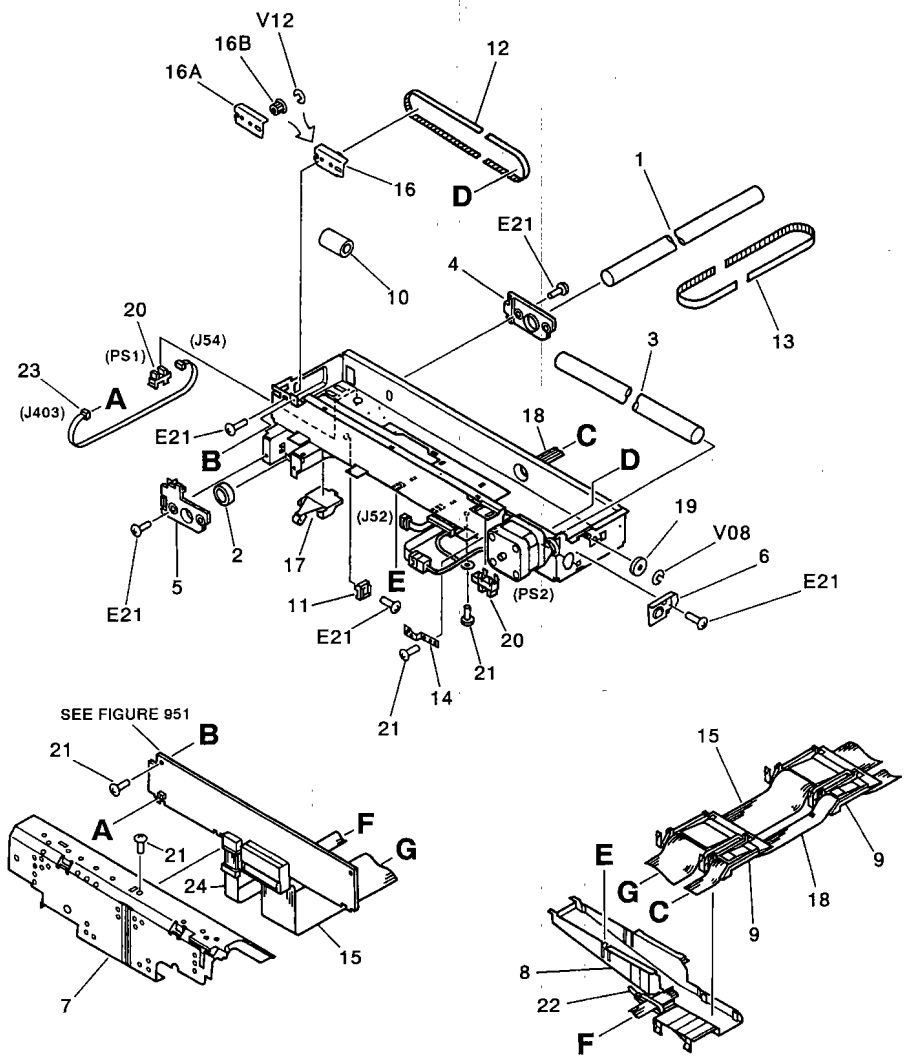


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
400 -	NPN		RF	OPTICAL FRAME ASSEMBLY コウガク ワクフ	
1	FB1 - 5107 - 000		2	RETAINER, SUB RAIL フクレール オサエ	
2	FB1 - 5108 - 000		1	RETAINER, PULLEY プーリ オサエ	
3	FB1 - 5110 - 000		1	COVER, FRONT, LOWER マエシタカバー	
4	FB1 - 5111 - 000	N	1	COVER, SIDE ヨコカバー	
5	FB1 - 5144 - 000		1	SUPPORT, CORD ダブルコード オサエ	
6	FB1 - 5124 - 000		1	PLATE プロツク イタ	
7	FF5 - 1340 - 000		1	PLATE, IDLER アイドラ ダイ	
8	FH7 - 1900 - 000		1	FAN ファン	
9	FSS - 3138 - 000		1	IDLER アイドラ	
10	FS5 - 8409 - 000		1	LABEL サービス ラベル	
11	XA9 - 0373 - 000		5	SCREW, PAN HEAD, M3X6 ナベコネジ	
12	FG5 - 1122 - 000		1	DOOR SWITCH ASSEMBLY ドアスイッチ フ	
12A	FB1 - 5119 - 000		1	BRACKET, MICROSWITCH スイッチ ダイ	
12B	FB1 - 5120 - 000		1	LEVER, MICROSWITCH スイッチ レバー	
12C	FS5 - 2225 - 000		1	SPRING, TENSION ヒツバリバネ	
12D	WC4 - 5039 - 000		1	MICROSWITCH マイクロスイッチ	
13	FB1 - 5433 - 000		1	PLATE, SECURITY LOCK SWITCH キースイッチ トリツケパン	
14	FF2 - 7892 - 000		1	SWITCH, KEY キー スイッチ	
15	WT2 - 0204 - 000		1	CLIP, CABLE エツジ サドル	
16	FF2 - 7894 - 000		1	CABLE, CONNECTOR, KEY SWITCH キースイッチ チェウケイ ケーブル	

FIGURE 420 IMAGE SCANNER ASSEMBLY

イメージスキャナ部



NOTE : This assemble does not include the parts shown with key No. 24.
 注 : このユニットにKey No. 24の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
420 -	FG5 - 1089 - 000	N	1	IMAGE SCANNER ASSEMBLY イメージスキャナブ	
1	FB1 - 5104 - 000		1	RAIL, SUB SCANNING フクソウサ レール	
2	FB1 - 5114 - 000		1	PAD, OIL オイルパッド	
3	FB1 - 5127 - 000		1	RAIL, MAIN SCANNING シユソウサ レール	
4	FB1 - 5128 - 000		1	RETAINER ジクウケバン	
5	FB1 - 5129 - 000		1	RETAINER ジクウケバン	
6	FB1 - 5130 - 000		1	RETAINER, MAIN SCANNING RAIL シユソウサ レール オサエ	
7	FB1 - 5135 - 000		1	COVER, AMP AMP カバー	
8	FB1 - 5136 - 000		1	HOLDER, MAIN CORD シユコード オサエ	
9	FB1 - 5137 - 000		2	HOLDER, DOUBLE CORD ダブルコード オサエ	
10	FB1 - 5138 - 000		1	PAD, OIL オイルパッド	
11	FB1 - 5139 - 000		1	HOLDER, SUB SCANNING BELT フクソウサ ベルト オサエ	
12	FB1 - 5140 - 000		1	BELT, TIMING タイミング ベルト	
13	FB1 - 5141 - 000		1	BELT, TIMING タイミング ベルト	
14	FB1 - 5145 - 000		1	PLATE ドウツウバン	
15	FF2 - 5393 - 000		1	CABLE, AMP IP アンブ IP ケーブル	
16	FG5 - 1120 - 000		1	READER MAIN IDLER ASSEMBLY リーダメインアイドラブ	
16A	FF5 - 1321 - 000		1	PLATE, PIVOT アイドラ トリツケイタ	
16B	FS5 - 3137 - 000		1	IDLER アイドラ	
17	FF5 - 1320 - 000		1	ROLLER, PRESSURE カアツコロ	
18	FH2 - 5839 - 000		1	CABLE, CONNECTING, SCANNER スキャナ チユウケイ ソクセン	
19	FS5 - 6135 - 000		1	ROLLER コロ	
20	WG8 - 0291 - 000		2	PHOTO - INTERRUPTER フォトインタラプタ	
21	XA9 - 0373 - 000		6	SCREW, PAN HEAD, M3X6 ナベコネジ	
22	WT2 - 0030 - 000		1	TIE, CABLE ソクセンバンド	
23	FF2 - 5389 - 000		1	CABLE, SCANNER MAIN HP スキャナ シユ HP ソクセン	
24	FH2 - 5838 - 000		1	BASIS FLAT CABLE BASIS フラット ケーブル	SEE NOTE

FIGURE 421

READER MAIN SCANNER ASSEMBLY リーダメインスキャナ部

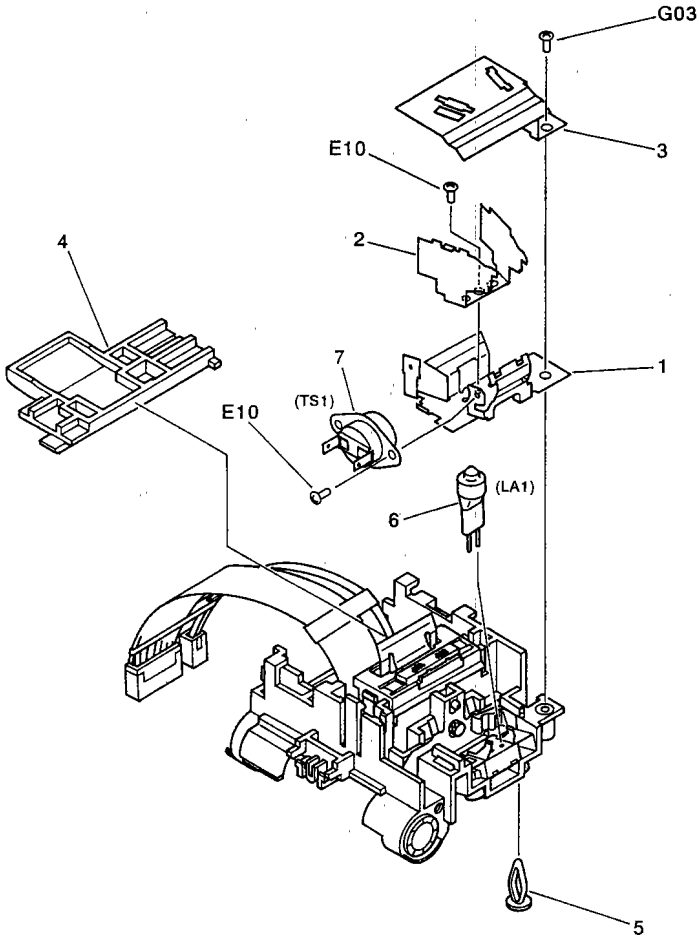


FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
421 -	FG5 - 1090 - 000		1	READER MAIN SCANNER ASSEMBLY リーダメインスキャナブ	
1	FB1 - 5148 - 000		1	REFLECTOR 2 ハンシヤカサ (2)	
2	FB1 - 5149 - 000		1	REFLECTOR 3 ハンシヤカサ (3)	
3	FB1 - 5152 - 000		1	PLATE, LIGHT - BLOCKING シヤコウバン	
4	FB1 - 5153 - 000		1	HOLDER, CORD コードホルダ	
5	FB1 - 5154 - 000		1	BLOCK, SLIDE スライドコマ	
6	FH7 - 3239 - 000		1	LAMP, HALOGEN ハロゲンランプ	
7	FH7 - 7266 - 000		1	THERMOSTAT サーモスタット	

FIGURE 425

P. SUB SCANNER UPPER ASSEMBLY

プリンタ副走査上部

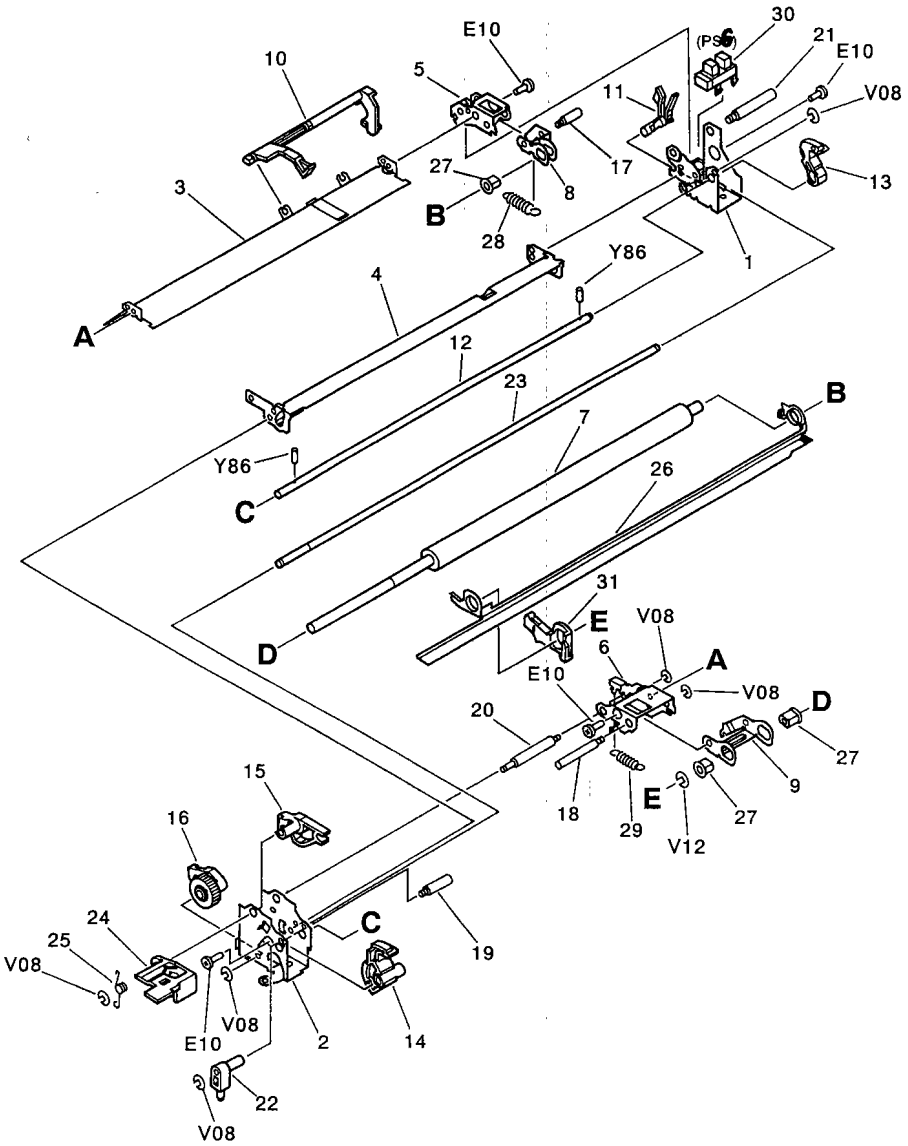
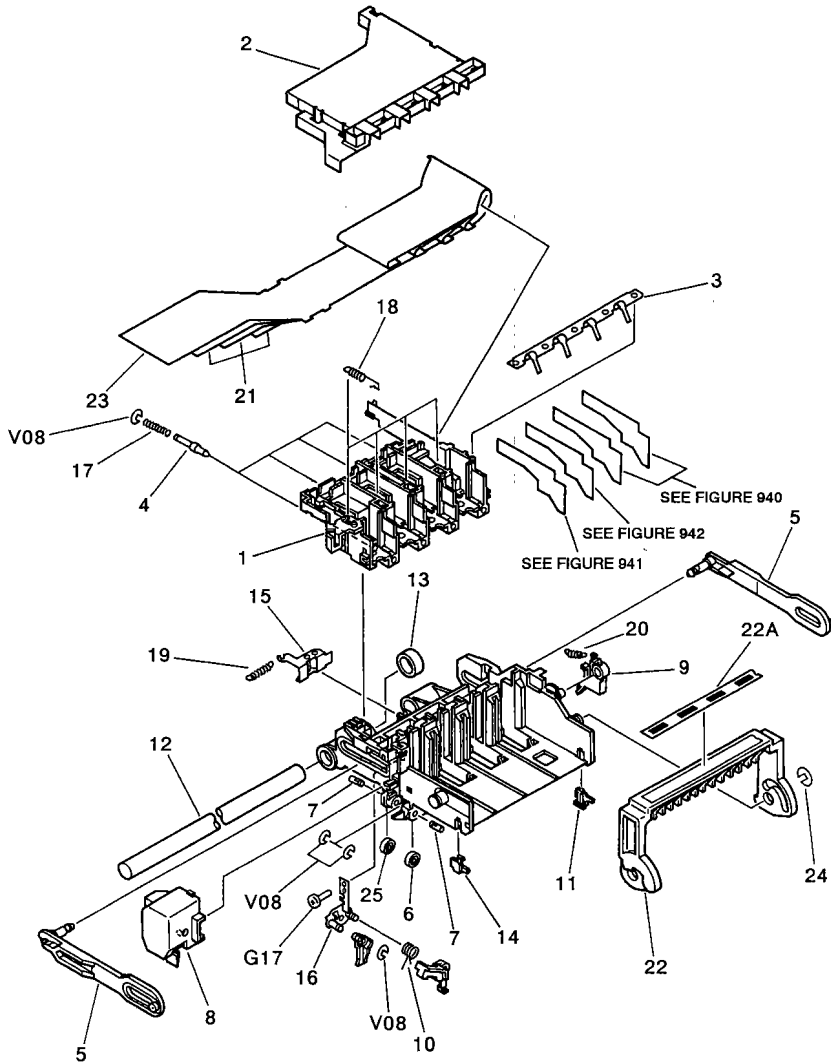


FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
425 --	FG5 - 1095 - 040		1	P, SUB SCANNER UPPER ASSEMBLY プリンタフクソウサウエブ	
1	FB1 - 5256 - 000		1	PLATE, FRONT ソクバン (マエ)	
2	FB1 - 5257 - 000		1	PLATE, REAR ソクバン (オク)	
3	FB1 - 5258 - 000		1	GUIDE, UPPER ウエガイド	
4	FB1 - 5259 - 000		1	GUIDE, LOWER シタガイド	
5	FB1 - 5261 - 000		1	BRACKET, UPPER, FRONT ウエソクバン (マエ)	
6	FB1 - 5262 - 000		1	BRACKET, UPPER, REAR ウエソクバン (オク)	
7	FB1 - 5263 - 000		1	ROLLER, UPPER ウエローラ	
8	FB1 - 5265 - 000		1	ARM, ROLLER PRESSURE, FRONT カアツバン (マエ)	
9	FB1 - 5266 - 000		1	ARM, ROLLER PRESSURE, REAR カアツバン (オク)	
10	FB1 - 5267 - 000		1	ARM, PICK - UP SENSOR, 1 キユウシセンサアーム (1)	
11	FB1 - 5268 - 000		1	ARM, PICK - UP SENSOR, 2 キユウシセンサアーム (2)	
12	FB1 - 5269 - 020		1	SHAFT, LOCK ARM ロツクアームジク	
13	FB1 - 5270 - 020		1	ARM, LOCK, FRONT ロツクアーム (マエ)	
14	FB1 - 5271 - 020		1	ARM, LOCK, REAR ロツクアーム (オク)	
15	FB1 - 5272 - 000		1	CAM, RELEASE カイホウカム	
16	FB1 - 5273 - 000		1	LEVER, RELEASE カイホウレバー	
17	FB1 - 5274 - 000		1	SHAFT, FRONT カアツジク (マエ)	
18	FB1 - 5275 - 000		1	SHAFT, REAR カアツジク (オク)	
19	FB1 - 5276 - 000		1	SHAFT, RELEASE LEVER カイホウレバージク	
20	FB1 - 5277 - 000		1	SHAFT, SUPPORT, REAR ササエジク (オク)	
21	FB1 - 5278 - 000		8	SHAFT, SUPPORT, FRONT ササエジク (マエ)	
22	FB1 - 5279 - 000		1	PIN, LINK リンクピン	
23	FB1 - 5280 - 000		1	SHAFT レンケツジク	
24	FB1 - 5404 - 000		1	ARM アーム	
25	FB1 - 5405 - 000		1	SPRING, TORSION ネジリバネ	
26	FF5 - 1380 - 000		1	PLATE, PAPER PRESSING カミオサエイタ	
27	FS5 - 1164 - 000		3	BUSHING, UPPER ROLLER ウエローラジクウケ	
28	FS5 - 2215 - 000		1	SPRING, TENSION 1 ヒツバリバネ (1)	
29	FS5 - 2229 - 000		1	SPRING, TENSION 2 ヒツバリバネ (2)	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
425 - 30	WG8 - 0291 - 000		1	PHOTO - INTERRUPTER フォトインタラプタ	
31	FB1 - 9086 - 000		1	PLATE, SPRING MOUNT バネウケ	

FIGURE 610 PRINTER CARRIAGE ASSEMBLY

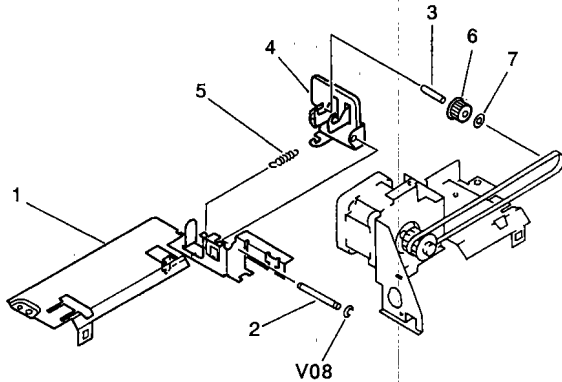
プリンタキャリッジ部



NOTE : This assemble does not include the parts shown with key No. 12, and 13.
 注: このユニットに Key No. 12, 13 の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
610 -	FG5 - 1092 - 000 ^{0.50}	N	1	PRINTER CARRIAGE ASSEMBLY プリンタ キャリッジ アセンブリ	
1	FB1 - 5212 - 000		1	HOLDER, CONNECTOR コネクタホルダ	
2	FB1 - 5213 - 000		1	COVER フレキカバー	
3	FB1 - 5214 - 000		1	SPRING, LEAF カアツバネイタ	
4	FB1 - 5215 - 000		4	PIN, LOCK ロツクピン	
5	FB1 - 5216 - 000		2	ARM, LINK リンクアーム	
6	FB1 - 5218 - 000		2	ROLLER, SPACER スベ-サコロ	
7	FB1 - 5219 - 000		4	SHAFT, ROLLER コロジク	
8	FB1 - 5223 - 000		1	COVER, SENSOR センサカバー	
9	FB1 - 5226 - 000		1	LATCH ロツクツメ	
10	FB1 - 5229 - 000		1	SPRING, TORSION センサバネ	
11	FB1 - 5230 - 000		1	BLOCK, RIGHT シユウドウコマ (ミギ)	
12	FB1 - 5397 - 000	N	1	RAIL レール	SEE NOTE
13	FB1 - 5400 - 000		1	PAD, RAIL レールパッド	SEE NOTE
14	FB1 - 5420 - 000		1	BLOCK, LEFT シユウドウコマ (ヒダリ)	
15	FF5 - 1300 - 000		1	ARM カタヨセアーム	
16	FF5 - 1301 - 000		1	MOUNT, SENSOR センサダイ	
17	FS5 - 2206 - 000		4	SPRING, COMPRESSION アツシユクバネ	
18	FS5 - 2207 - 000		4	SPRING, TENSION ヒツバリバネ	
19	FS5 - 2208 - 000		1	SPRING, TENSION ヒツバリバネ	
20	FS5 - 2224 - 000		1	SPRING, TENSION ヒツバリバネ	
21	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
22	FF5 - 1299 - 000		1	LEVER, RELEASE カイジヨレバー	
22A	FS5 - 8401 - 000		2	LABEL, LEVER レバーラベル	
23	FH2 - 5894 - 000		1	CABLE, FLEXIBLE Y フレキシブルケーブル Y	
24	FB1 - 9092 - 000		2	RING, RETAINING トメワ	
25	FB1 - 9093 - 000		2	ROLLER 2, SPACER スベ-サコロ (2)	

FIGURE 611 PRINTER TENSIONER MOUNT ASS'Y
 プリンタテンショナ台部



NOTE : This assembly does not include the parts shown with key No.3 , 6 and 7.

注 : このユニットにKey No. 3, 6, 7 の部品は含まれません。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
611 -	FG5 - 1101 - 000		1	PRINTER TENSIONER MOUNT ASS'Y プリンタテンショナダイブ	
1	FB1 - 5346 - 000		1	MOUNT, TENSIONER テンショナダイ	
2	FB1 - 5348 - 000		1	ROD, TENSIONER テンショナジク	
3	FB1 - 5349 - 000		1	SHAFT, PULLEY プーリジク	SEE NOTE
4	FF5 - 1302 - 000		1	PLATE, IDLER アイドラバン	
5	FS5 - 2210 - 000		1	SPRING, TENSION ヒツバリバネ	
6	FS5 - 3133 - 000		1	PULLEY, IDLER アイドラプーリ	SEE NOTE
7	FB1 - 9078 - 000		1	WASHER, PLAIN ヒラザガネ	SEE NOTE

FIGURE 620 HEAD CLEANING ASSEMBLY
 ヘッドクリーニングユニット

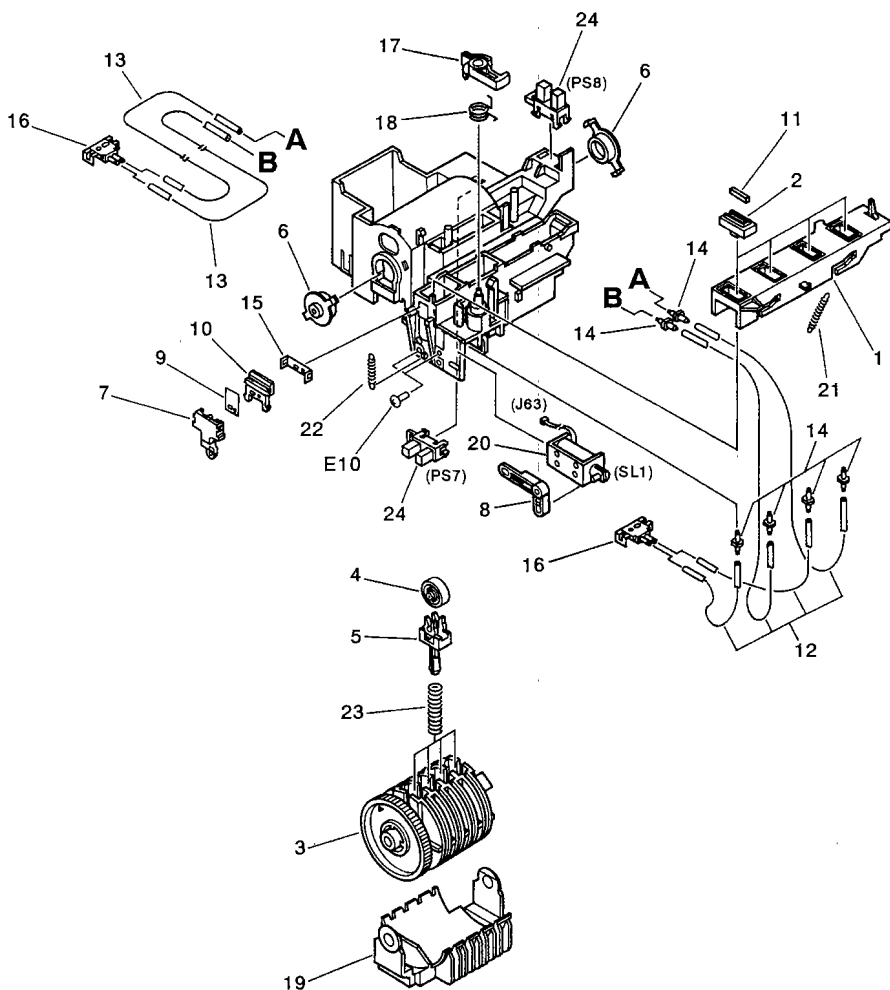


FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
620 -	FG5 - 1093 - 000		1	HEAD CLEANING ASSEMBLY ヘッドクリーニングユニット	
1	FB1 - 5232 - 000		1	HOLDER, CAP キャップホルダ	
2	FB1 - 5233 - 000		4	CAP, RUBBER ゴムキャップ	
3	FB1 - 5234 - 000		1	ROLLER, GUIDE ガイドローラ	
4	FB1 - 5235 - 000		4	ROLLER, PRESSURE カアツコロ	
5	FB1 - 5236 - 000		4	SPINDLE, ROLLER コロジク	
6	FB1 - 5237 - 000		2	BUSHING ジクウケ	
7	FB1 - 5238 - 000		1	HOLDER, BLADE ブレードホルダ	
8	FB1 - 5239 - 000		1	LEVER, BLADE ブレードレバー	
9	FB1 - 5240 - 000		1	BLADE, 1 ブレード (1)	
10	FB1 - 5241 - 000		1	BLADE, 2 ブレード (2)	
11	FB1 - 5242 - 000		4	SPONGE キャップキユウシユウタイ	
12	FB1 - 5243 - 000		4	TUBE, 1 チューブ (1)	
13	FB1 - 5244 - 000		2	TUBE, 2 チューブ (2)	
14	FB1 - 5245 - 000		6	CONNECTOR, TUBE チューブコネクタ	
15	FB1 - 5246 - 000		1	PLATE, HOLDING, BLADE ブレードオサエイタ	
16	FB1 - 5247 - 000		2	HOLDER, TUBE チューブコテイイタ	
17	FB1 - 5248 - 000		1	LEVER, STOP ストップレバー	
18	FB1 - 5249 - 000		1	SPRING, TORSION ネヅリバネ	
19	FB1 - 5250 - 000		1	GUIDE, ROLLER コロガイド	
20	FH7 - 5382 - 000		1	SOLENOID ソレノイド	
21	FS5 - 2210 - 000		1	SPRING, TENSION ヒツバリバネ	
22	FS5 - 2211 - 000		1	SPRING, TENSION ヒツバリバネ	
23	FS5 - 2212 - 000		4	SPRING, COMPRESSION アツシユクバネ	
24	WG8 - 0291 - 000		2	PHOTO - INTERRUPTER フォトインタラプタ	

FIGURE 920 CONTROL PANEL PCB ASSEMBLY
 操作部回路基板

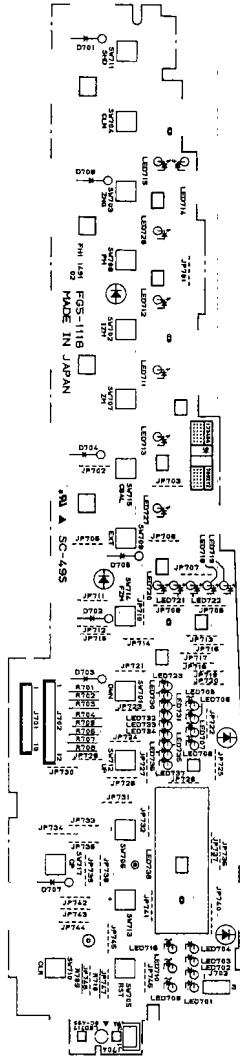


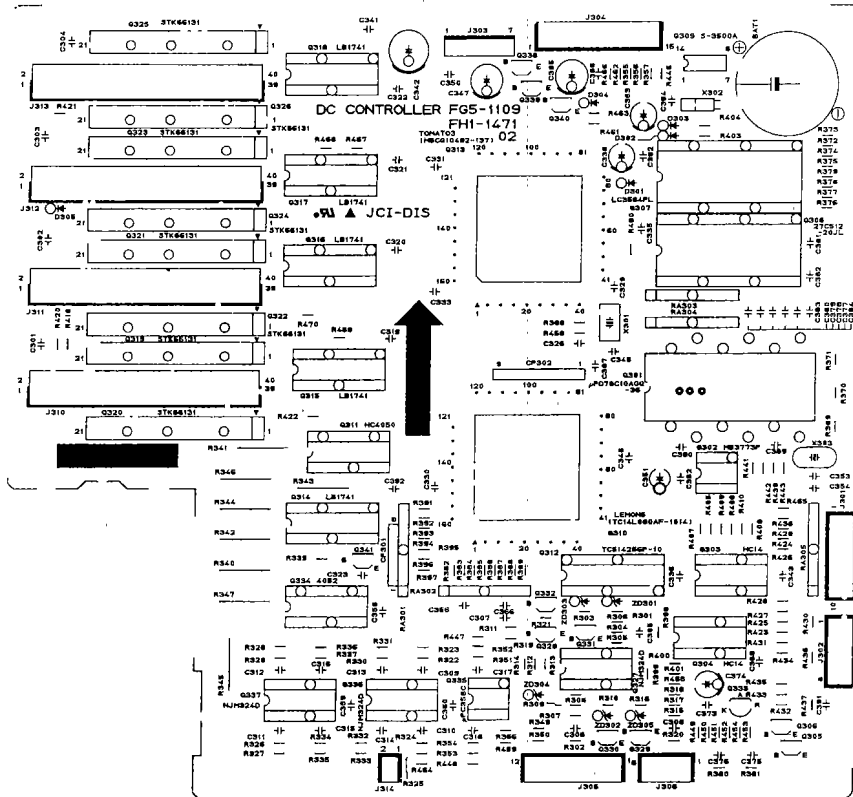
FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
920 --	FG5 -- 1118 -- 000		1	CONTROL PANEL PCB ASSEMBLY ソウサキパンフ	
D701	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D702	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D703	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D704	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D705	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D706	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
D707	WA1 -- 0332 -- 000		1	DIODE, 1SS178 ダイオード	
J701	FF2 -- 7014 -- 000		1	CABLE, FLAT, I/F I/F フラット ケーブル	
J702	FF2 -- 7015 -- 000		1	CABLE 2, CONTROL PANEL ソウサプチュウケイソクセン 2	
J703	FF2 -- 7016 -- 000		1	CABLE, POWER LED ソウサプパワー LED ソクセン	
LED701	WG1 -- 5139 -- 000		1	LED, AA3822K LED	
LED702	WG1 -- 5139 -- 000		1	LED, AA3822K LED	
LED703	WG1 -- 5139 -- 000		1	LED, AA3822K LED	
LED704	WG1 -- 5139 -- 000		1	LED, AA3822K LED	
LED705	WG1 -- 5138 -- 000		1	LED, LN360GCPP LED	
LED706	WG1 -- 5138 -- 000		1	LED, LN360GCPP LED	
LED707	WG1 -- 5138 -- 000		1	LED, LN360GCPP LED	
LED708	WG1 -- 5138 -- 000		1	LED, LN360GCPP LED	
LED709	WG1 -- 5141 -- 000		1	LED, EAA3432S LED	
LED710	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED711	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED712	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED713	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED714	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED715	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED716	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED717	WG1 -- 5140 -- 000		1	LED, VRPG3312X LED	
LED718	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	
LED719	WG1 -- 0452 -- 000		1	LED, LN38GCPP LED	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
920 - LED720	WG1 - 0452 - 000		1	LED, LN38GCPP LED	
LED721	WG1 - 0452 - 000		1	LED, LN38GCPP LED	
LED722	WG1 - 0452 - 000		1	LED, LN38GCPP LED	
LED723	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED727	WG1 - 0452 - 000		1	LED, LN38GCPP LED	
LED728	WG1 - 0452 - 000		1	LED, LN38GCPP LED	
LED730	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED731	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED732	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED733	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED734	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED735	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED736	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED737	WG1 - 5138 - 000		1	LED, LN380GCPP LED	
LED738	FH6 - 0475 - 000		1	LED, GL7E305 LED	
R701	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R702	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R703	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R704	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R705	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R706	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R707	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R708	VR5 - 3680 - 560		1	RESISTOR, 56 OHM, 1/4W テイコウ	
R709	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R710	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
SW701	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW702	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW703	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW704	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW705	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
920 - SW706	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW707	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW708	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW709	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW710	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW711	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW712	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW713	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW714	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW715	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
SW717	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	

FIGURE 930 DC CONTROLLER PCB ASSEMBLY (OLD)

DCコントローラ回路基板 (旧)

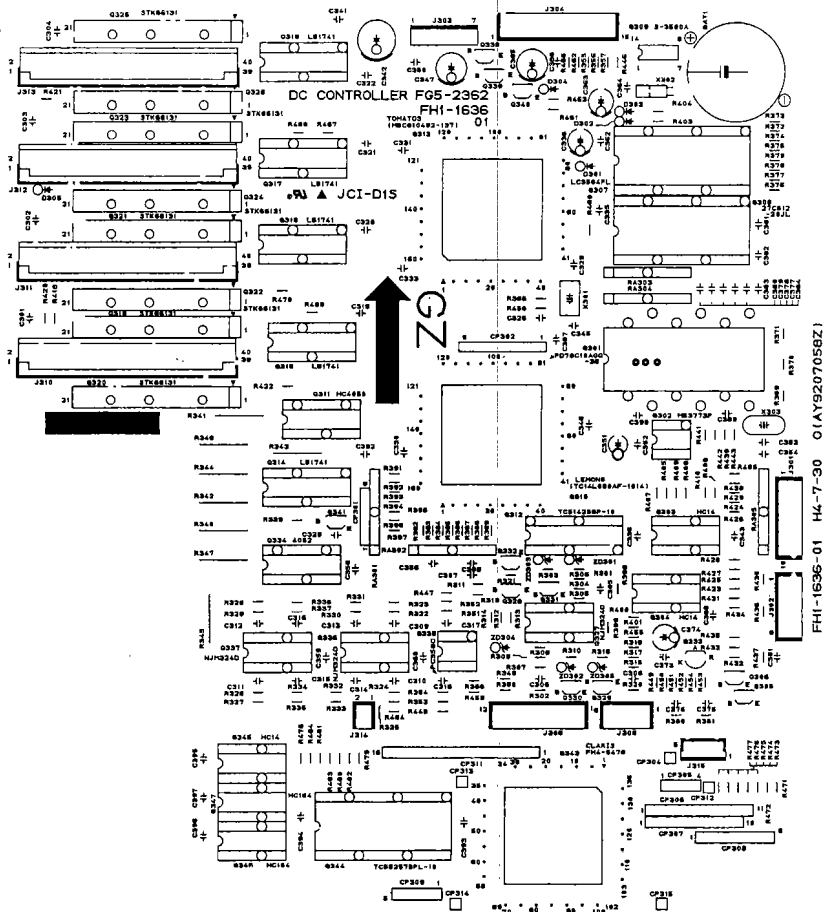


NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

注: 旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新しいDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930 - Q308	FG5 - 1109 - 050 FF2 - 7030 - 120		1 1	DC CONTROLLER PCB ASSEMBLY DC コントローラカイロキバン P - ROM TMS27C512 - 20JL P - ROM	(OLD TYPE PCB)

FIGURE 930A DC CONTROLLER PCB ASSEMBLY (NEW) DCコントローラ回路基板 (新)



FH1-1636-01 H4-70 01AY9207056Z

NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

注: 旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A -	FG5 - 2362 - 000		1	DC CONTROLLER PCB ASSEMBLY DC コントローラ カイロキバン	(NEW TYPE PCB)
BAT1	WK1 - 5037 - 000		1	BATTERY, CR2450 HC228 バッテリー	
C301	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C302	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C303	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C304	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C305	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF,50V コンデンサ	
C306	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF,50V コンデンサ	
C307	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF,50V コンデンサ	
C308	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF,50V コンデンサ	
C309	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C310	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C311	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C312	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C313	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C314	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C315	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C316	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C317	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C318	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C319	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C320	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C321	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C322	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C323	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C326	VC4 - 3503 - 101		1	CAPACITOR, 100PF, 50V コンデンサ	
C329	VC4 - 3503 - 101		1	CAPACITOR, 100PF, 50V コンデンサ	
C330	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C331	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C333	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - C335	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C336	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C338	VC1 - 2181 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C341	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C342	VC1 - 2501 - 337		1	CAPACITOR, 330UF, 50V コンデンサ	
C343	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C345	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C346	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C347	VC1 - 2181 - 337		1	CAPACITOR, 330UF, 16V コンデンサ	
C350	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C351	VC5 - 2980 - 105		1	CAPACITOR, 1UF, 50V コンデンサ	
C352	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C353	VC4 - 2502 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C354	VC4 - 2502 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C356	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C358	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C359	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C360	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C362	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C363	VC1 - 2181 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C364	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C366	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C373	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C374	VC1 - 2181 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C375	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C376	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C377	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C378	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C379	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C380	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - C381	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C382	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C383	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C384	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C385	VC1 - 2181 - 337		1	CAPACITOR, 330UF, 16V コンデンサ	
C386	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C387	VC4 - 2502 - 330		1	CAPACITOR, 33PF, 50V コンデンサ	
C388	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C389	VC6 - 0670 - 472		1	CAPACITOR, 4700PF, 50V コンデンサ	
C390	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF, 50V コンデンサ	
C391	VC4 - 4504 - 103		1	CAPACITOR, CERAMIC, 0.01UF, 50V コンデンサ	
C392	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C393	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C394	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C395	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C396	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C397	VC9 - 5047 - 000		1	CAPACITOR, 0.1UF, 50V コンデンサ	
CP304	VS1 - 5419 - 001		1	CONNECTOR, 1P, MALE コネクタ	
D301	WA1 - 0960 - 000		1	DIODE, AK03 ダイオード	
D302	WA1 - 0887 - 000		1	DIODE, 1SS270A ダイオード	
D303	WA8 - 5028 - 000		1	VARISTOR, MA29T - A バリスタ	
D304	WA1 - 0887 - 000		1	DIODE, 1SS270A ダイオード	
D305	WA1 - 0887 - 000		1	DIODE, 1SS270A ダイオード	
J301	FF2 - 7027 - 000		1	CABLE, INTERFACE インターフェイスソクセン	
J303	VS1 - 0571 - 007		1	CONNECTOR, 7P コネクタ	
J304	VS1 - 1028 - 015		1	PIN ASSEMBLY, 15P ピンアセンブリ	
J306	VS1 - 1028 - 012		1	PIN ASSEMBLY, 12P ピンアセンブリ	
J308	VS1 - 1028 - 006		1	PIN ASSEMBLY, 6P ピンアセンブリ	
J310	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J311	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - J312	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J313	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J314	VS1 - 1028 - 002		1	PIN ASSEMBLY, 2P ピンアセンブリ	
J315	FF2 - 8564 - 000		1	CABLE, DTF DTF ソクセン	
Q301	WA3 - 4371 - 000		1	CPU, UPD78C10AGQ - 36 CPU	
Q302	WA4 - 0672 - 000		1	IC, MB3773 IC	
Q303	WA3 - 5005 - 000		1	IC, 74HC14 IC	
Q304	WA3 - 5005 - 000		1	IC, 74HC14 IC	
Q305	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q306	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q307	WA3 - 6092 - 000		1	RAM, LC3564PL - 12 RAM	
Q308	FF2 - 8567 - 000		1	P - ROM TMS27C512 - 20JL P - ROM	
Q308S	WA9 - 5130 - 000		1	SOCKET, IC IC ソケット	
Q309	WA3 - 5489 - 000		1	CMOS, UPD78C10AGQ - 36 CMOS	
Q310	FH4 - 5480 - 000		1	GATE ARRAY, IDT4L08F1014 ゲートアレイ	
Q311	WA3 - 6142 - 000		1	CMOS, TC74HC4050AP CMOS	
Q312	WA3 - 6093 - 000		1	RAM, LC324256P - 10 RAM	
Q313	FH4 - 5422 - 000		1	GATE ARRAY, MBCG10492 - 137 ゲートアレイ	
Q314	WA4 - 5417 - 000		1	TRANSISTOR ARRAY, LB1741 トランジスタアレイ	
Q315	WA4 - 5417 - 000		1	TRANSISTOR ARRAY, LB1741 トランジスタアレイ	
Q316	WA4 - 5417 - 000		1	TRANSISTOR ARRAY, LB1741 トランジスタアレイ	
Q317	WA4 - 5417 - 000		1	TRANSISTOR ARRAY, LB1741 トランジスタアレイ	
Q318	WA4 - 5417 - 000		1	TRANSISTOR ARRAY, LB1741 トランジスタアレイ	
Q319	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q320	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q321	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q322	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q323	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q324	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q325	FH4 - 5423 - 000		1	IC, STK66131 IC	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - Q326	FH4 - 5423 - 000		1	IC, STK66131 IC	
Q327	WA4 - 5436 - 000		1	IC, NJM324D IC	
Q328	WA2 - 0135 - 000		1	TRANSISTOR, 2SA1015Y トランジスタ	
Q329	WA2 - 0135 - 000		1	TRANSISTOR, 2SA1015Y トランジスタ	
Q330	WA2 - 0135 - 000		1	TRANSISTOR, 2SA1015Y トランジスタ	
Q331	WA2 - 0135 - 000		1	TRANSISTOR, 2SA1015Y トランジスタ	
Q332	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q333	WA4 - 0576 - 000		1	TRANSISTOR, UPC1093J トランジスタ	
Q334	WA3 - 2126 - 000		1	CMOS, TC4052BP CMOS	
Q335	WA4 - 0367 - 000		1	IC, UPC358 IC	
Q336	WA4 - 5436 - 000		1	IC, NJM324D IC	
Q337	WA4 - 5436 - 000		1	IC, NJM324D IC	
Q338	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q339	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q340	WA2 - 0135 - 000		1	TRANSISTOR, 2SA1015Y トランジスタ	
Q341	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
Q343	FH4 - 5478 - 000		1	IC, GATE ARRAY, HG82E130R54F ゲート アレイ	
Q344	WA3 - 5327 - 000		1	IC, RAM, TC55257BPL - 10 RAM	
Q345	WA3 - 5005 - 000		1	IC, 74HC14 IC	
Q346	WA3 - 2057 - 000		1	IC, H-CMOS, TC74HC164P H-CMOS	
Q347	WA3 - 2057 - 000		1	IC, H-MOS, TC74HC164P H-MOS	
R301	VR5 - 3680 - 514		1	RESISTOR, 510KOHM, 1/4W テイコウ	
R302	VR5 - 3680 - 514		1	RESISTOR, 510KOHM, 1/4W テイコウ	
R303	VR5 - 6418 - 661		1	RESISTOR, 8.66KOHM, 1/4W テイコウ	
R304	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R305	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R306	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R307	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R308	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R309	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - R310	VR5 - 6418 - 661		1	RESISTOR, 8.66KOHM, 1/4W テイコウ	
R311	VR5 - 6418 - 661		1	RESISTOR, 8.66KOHM, 1/4W テイコウ	
R312	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R313	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R314	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R315	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R316	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R317	VR5 - 6411 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R318	VR5 - 6418 - 661		1	RESISTOR, 8.66KOHM, 1/4W テイコウ	
R319	VR5 - 3680 - 514		1	RESISTOR, 510KOHM, 1/4W テイコウ	
R320	VR5 - 3680 - 514		1	RESISTOR, 510KOHM, 1/4W テイコウ	
R321	VR5 - 6413 - 001		1	RESISTOR, 3KOHM, 1/4W テイコウ	
R322	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R323	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R324	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R325	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R326	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R327	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R328	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R329	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R330	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R331	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R332	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R333	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R334	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R335	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R336	VR5 - 9162 - 201		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R337	VR5 - 3680 - 121		1	RESISTOR, 120 OHM, 1/4W テイコウ	
R339	VR5 - 3680 - 181		1	RESISTOR, 180 OHM, 1/4W テイコウ	
R340	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - R341	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R342	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R343	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R344	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R345	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R346	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R347	VR7 - 0490 - 820		1	RESISTOR, 82 OHM テイコウ	
R349	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R350	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R351	VR5 - 9168 - 872		1	RESISTOR, 88.7KOHM, 1/4W テイコウ	
R352	VR5 - 9184 - 021		1	RESISTOR, 4.02KOHM, 1/4W テイコウ	
R353	VR5 - 9164 - 021		1	RESISTOR, 4.02KOHM, 1/4W テイコウ	
R354	VR5 - 9168 - 872		1	RESISTOR, 88.7KOHM, 1/4W テイコウ	
R355	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R356	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R357	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R366	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R368	VR5 - 3680 - 105		1	RESISTOR, 1MOHM, 1/4W テイコウ	
R369	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R370	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R371	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R372	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R373	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R374	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R375	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R376	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R377	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R378	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R379	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R380	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - R381	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R382	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R383	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R384	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R385	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R386	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R387	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R388	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R389	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R391	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R392	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R393	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R394	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R395	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R396	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R397	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R398	VR5 - 9182 - 001		1	RESISTOR, 2KOHM, 1/4W テイコウ	
R399	VR5 - 6411 - 402		1	RESISTOR, 14KOHM, 1/4W テイコウ	
R400	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R401	VR5 - 3680 - 332		1	RESISTOR, 3.3KOHM, 1/4W テイコウ	
R403	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R404	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R405	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R406	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R407	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R408	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R409	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R410	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R418	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	
R420	VR5 - 3680 - 470		1	RESISTOR, 47 OHM 1/4W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - R421	VR5 - 3680 - 222		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R422	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R423	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R424	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R425	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R426	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R427	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R428	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R429	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R430	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R431	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R432	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R433	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R434	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R435	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R436	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R437	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R438	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R439	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R441	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R442	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R443	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R446	VR5 - 3680 - 203		1	RESISTOR, 20KOHM, 1/4W テイコウ	
R447	VR5 - 3680 - 681		1	RESISTOR, 680 OHM, 1/4W テイコウ	
R448	VR5 - 3680 - 681		1	RESISTOR, 680 OHM, 1/4W テイコウ	
R449	VR5 - 9161 - 001		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R450	VR5 - 9162 - 001		1	RESISTOR, 2KOHM, 1/4W テイコウ	
R451	VR5 - 9164 - 220		1	RESISTOR, 422 OHM, 1/4W テイコウ	
R452	VR5 - 9162 - 611		1	RESISTOR, 2.61KOHM, 1/4W テイコウ	
R453	VR5 - 9162 - 491		1	RESISTOR, 2.49KOHM, 1/4W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - R454	VR5 - 9185 - 110		1	RESISTOR, 511 OHM, 1/4W テイコウ	
R455	VR5 - 3680 - 151		1	RESISTOR, 150 OHM 1/8W テイコウ	
R458	VR5 - 3680 - 680		1	RESISTOR, 68 OHM 1/4W テイコウ	
R459	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R460	VR5 - 3680 - 472		1	RESISTOR, 4.7KOHM, 1/4W テイコウ	
R461	VR5 - 3680 - 222		1	RESISTOR, 2.2KOHM, 1/4W テイコウ	
R462	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R463	VR5 - 3680 - 229		1	RESISTOR, 2.2 OHM 1/4W テイコウ	
R464	VR5 - 3680 - 221		1	RESISTOR, 220 OHM, 1/4W テイコウ	
R465	VR5 - 3680 - 103		1	RESISTOR, 10KOHM, 1/4W テイコウ	
R466	VR5 - 3680 - 561		1	RESISTOR, 560 OHM, 1/4W テイコウ	
R467	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R468	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R469	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R470	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R471	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R472	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R473	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R474	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R475	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R476	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R477	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R478	VR5 - 3680 - 101		1	RESISTOR, 100 OHM, 1/4W テイコウ	
R479	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R480	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R481	VR5 - 3680 - 102		1	RESISTOR, 1KOHM, 1/4W テイコウ	
R482	VR5 - 3680 - 473		1	RESISTOR, 47KOHM, 1/4W テイコウ	
R483	VR5 - 3680 - 473		1	RESISTOR, 47KOHM, 1/4W テイコウ	
R484	VR5 - 3680 - 473		1	RESISTOR, 47KOHM, 1/4W テイコウ	
RA301	VR5 - 5790 - 103		1	RESISTOR ARRAY, 10KOHM, 1/8W テイコウ アレイ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
930A - RA302	VR5 - 5790 - 103		1	RESISTOR ARRAY, 10KOHM, 1/8W テイクウアレイ	
RA303	VR5 - 5790 - 103		1	RESISTOR ARRAY, 10KOHM, 1/8W テイクウアレイ	
RA304	VR5 - 5790 - 103		1	RESISTOR ARRAY, 10KOHM, 1/8W テイクウアレイ	
RA305	VR5 - 5790 - 472		1	RESISTOR ARRAY, 4.7KOHM, 1/8W テイクウアレイ	
X301	WK2 - 5086 - 000		1	QUARTZ, CERAMIC, 8MHZ セラミツクシンドウシ	
X302	WK2 - 0257 - 000		1	QUARTZ, OSCILLATOR スイショウシンドウシ	
X303	WK2 - 0350 - 000		1	OSCILLATOR, QUARTS, 2MHZ AT51 スイショウシンドウシ	
ZD301	WA1 - 5270 - 000		1	DIODE, ZENER ツェナーダイオード	
ZD302	WA1 - 5270 - 000		1	DIODE, ZENER ツェナーダイオード	
ZD303	WA1 - 0820 - 000		1	DIODE, ZENER, 5.0V - 5.2V 400MW ツェナーダイオード	
ZD304	WA1 - 5270 - 000		1	DIODE, ZENER ツェナーダイオード	
ZD305	WA1 - 5270 - 000		1	DIODE, ZENER ツェナーダイオード	

FIGURE 940 RELAY PCB ASSEMBLY (M&Y)
 中継基板 (M & Y)

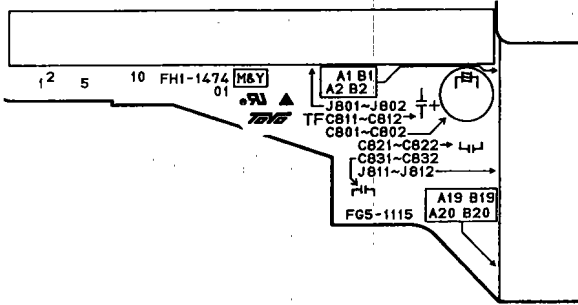


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
940 -	FG5 - 1115 - 000		2	MEDIATE PCB ASSEMBLY チュウケイ カイロキバン (M & Y)	
C801	VC5 - 8630 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C811	VC5 - 1890 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C821	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C831	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
J801	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J811	FH2 - 5873 - 000		1	CONNECTOR, FLAT CABLE, FEMALE コネクタ (メス)	

FIGURE 941 RELAY PCB ASSEMBLY (BLACK)
 中継基板 (ブラック)

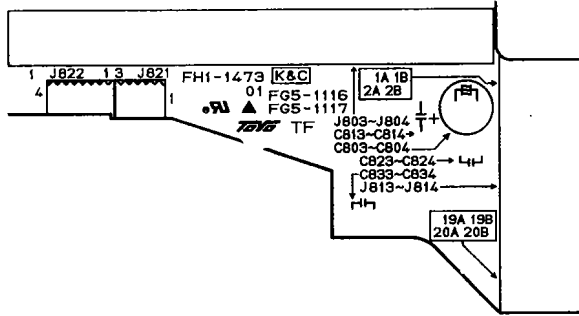


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
941 -	FG5 - 1116 - 000		1	MEDIATE PCB ASSEMBLY チユウケイ カイロキバン (ブラック)	
C804	VC5 - 8630 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C814	VC5 - 1890 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C824	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C834	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
J804	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J814	FH2 - 5873 - 000		1	CONNECTOR, FLAT CABLE, FEMALE コネクタ (メス)	
J821	FF2 - 7028 - 000		1	CABLE ケーブル	

FIGURE 942 RELAY PCB ASSEMBLY (CYAN)
 中継基板 (シアン)

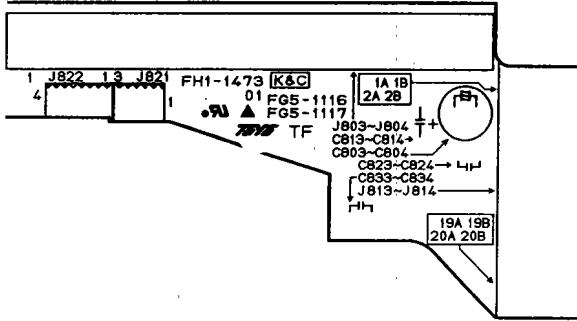


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
942 -	FG5 - 1117 - 000		1	MEDIATE PCB ASSEMBLY チヨウケイ カイロキバン (シアン)	
C803	VC5 - 8630 - 476		1	CAPACITOR, 47UF, 16V コンデンサ	
C813	VC5 - 1890 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C823	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C833	VC4 - 3503 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
J803	VS1 - 5366 - 040		1	CONNECTOR, 40P コネクタ	
J813	FH2 - 5873 - 000		1	CONNECTOR, FLAT CABLE, FEMALE コネクタ (メス)	
J822	FF2 - 7029 - 000		1	CABLE ケーブル	

FIGURE 951

AMPLIFIER PCB ASSEMBLY アンプ回路基板

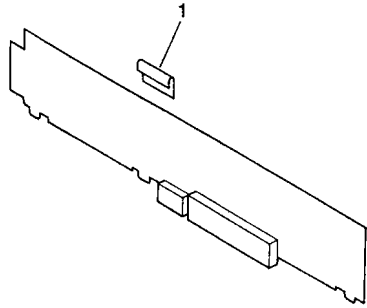
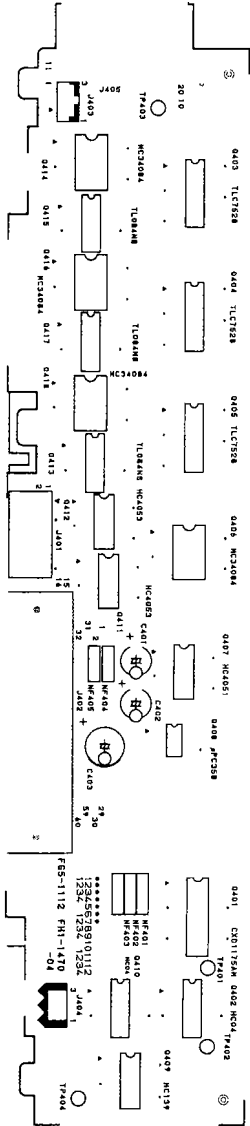


FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 -	FG5 - 1112 - 000		1	AMP PCB ASSEMBLY AMP カイロキバン	
1	FB1 - 9075 - 000		1	SHEET, AMP AMP シート	
C401	VC7 - 4310 - 826		1	CAPACITOR, 82UF, 10V コンデンサ	
C402	VC7 - 4310 - 826		1	CAPACITOR, 82UF, 10V コンデンサ	
C403	VC7 - 3830 - 107		1	CAPACITOR, 100UF, 10V コンデンサ	
C404	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C405	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C406	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C407	VW4 - 2234 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C408	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C409	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C410	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C411	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C412	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C413	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C414	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C415	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C416	VW4 - 2234 - 151		1	CAPACITOR, 150PF, 50V コンデンサ	
C417	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C418	VW4 - 2234 - 150		1	CAPACITOR, 15PF, 50V コンデンサ	
C419	VW4 - 2234 - 150		1	CAPACITOR, 15PF, 50V コンデンサ	
C420	VW4 - 2234 - 150		1	CAPACITOR, 15PF, 50V コンデンサ	
C421	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C422	VW4 - 2234 - 151		1	CAPACITOR, 150PF, 50V コンデンサ	
C423	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C424	VW4 - 2234 - 470		1	CAPACITOR, 47PF, 50V コンデンサ	
C425	VW4 - 2234 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C426	VW4 - 2234 - 151		1	CAPACITOR, 150PF, 50V コンデンサ	
C427	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C428	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
851 - C429	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C430	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C431	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C432	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C433	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C434	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C435	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C436	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C437	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C438	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C439	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C440	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C441	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C442	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C443	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C444	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C445	VW4 - 2234 - 330		1	CAPACITOR, 33PF, 50V コンデンサ	
C446	VW4 - 2234 - 330		1	CAPACITOR, 33PF, 50V コンデンサ	
C447	VW4 - 2234 - 330		1	CAPACITOR, 33PF, 50V コンデンサ	
C448	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C449	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C450	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C451	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C452	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C453	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C454	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C455	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C456	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C457	VW4 - 4027 - 334		1	CAPACITOR, 0.33UF, 25V コンデンサ	
C458	VW4 - 2027 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - D401	WA1 - 5110 - 000		1	DIODE, MA720 ダイオード	
J401	VS1 - 1038 - 016		1	CONNECTOR, 16P コネクタ	
J402	VS1 - 5403 - 060		1	CONNECTOR, 60P コネクタ	
J403	VS1 - 1028 - 003		1	PIN ASSEMBLY, 3P ピンアセンブリ	
J404	FF2 - 5390 - 000		1	CABLE, SUB HP ブク HP ソクセン	
NF401	WK3 - 5091 - 000		1	FILTER, NOISE ノイズフィルタ	
NF402	WK3 - 5091 - 000		1	FILTER, NOISE ノイズフィルタ	
NF403	WK3 - 5091 - 000		1	FILTER, NOISE ノイズフィルタ	
NF404	WK3 - 5040 - 000		1	FILTER, NOISE ノイズフィルタ	
NF405	WK3 - 5040 - 000		1	FILTER, NOISE ノイズフィルタ	
Q401	WA4 - 5318 - 000		1	IC, CXD1175AM IC	
Q402	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q403	WA4 - 5487 - 000		1	IC, TLC7528CNS IC	
Q404	WA4 - 5487 - 000		1	IC, TLC7528CNS IC	
Q405	WA4 - 5487 - 000		1	IC, TLC7528CNS IC	
Q406	WA4 - 5488 - 000		1	IC, MC34084DW IC	
Q407	WA3 - 6215 - 000		1	SWITCH スイッチ	
Q408	WA4 - 0460 - 000		1	OP AMP, UPC358G オペアンプ	
Q409	WA3 - 5285 - 000		1	CMOS, TC74HC139AF CMOS	
Q410	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q411	WA3 - 4014 - 000		1	HS - CMOS, TC74HC4053AF HS - CMOS	
Q412	WA3 - 4014 - 000		1	HS - CMOS, TC74HC4053AF HS - CMOS	
Q413	WA4 - 1202 - 000		1	OP AMP, TL084NS オペアンプ	
Q414	WA4 - 5488 - 000		1	IC, MC34084DW IC	
Q415	WA4 - 1202 - 000		1	OP AMP, TL084NS オペアンプ	
Q416	WA4 - 5488 - 000		1	IC, MC34084DW IC	
Q417	WA4 - 1202 - 000		1	OP AMP, TL084NS オペアンプ	
Q418	WA4 - 5488 - 000		1	IC, MC34084DW IC	
Q419	WA2 - 0935 - 000		1	TRANSISTOR, 2SC2712Y トランジスタ	
Q420	WA2 - 0935 - 000		1	TRANSISTOR, 2SC2712Y トランジスタ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - Q421	WA2 - 1004 - 000		1	TRANSISTOR, 2SA1162Y トランジスタ	
Q422	WA2 - 1004 - 000		1	TRANSISTOR, 2SA1162Y トランジスタ	
Q423	WA2 - 1004 - 000		1	TRANSISTOR, 2SA1162Y トランジスタ	
R401	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R402	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R403	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R404	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイクウ	
R405	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R406	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R407	VV1 - 2118 - 681		1	RESISTOR, 680 OHM, 1/10W テイクウ	
R408	VV1 - 2118 - 221		1	RESISTOR, 220 OHM, 1/10W テイクウ	
R409	VV1 - 2113 - 512		1	RESISTOR, 5.1KOHM, 1/10W テイクウ	
R410	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイクウ	
R411	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R412	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R413	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R414	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R415	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイクウ	
R416	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R417	VV1 - 2113 - 302		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R418	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R419	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R420	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R421	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R422	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R423	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R424	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R425	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R426	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイクウ	
R427	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイクウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - R428	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R429	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R430	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R431	VV1 - 2118 - 221		1	RESISTOR, 220 OHM, 1/10W テイコウ	
R432	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R433	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R434	VV1 - 2113 - 362		1	RESISTOR, 3.6KOHM, 1/10W テイコウ	
R435	VV1 - 2113 - 562		1	RESISTOR, 5.6KOHM, 1/10W テイコウ	
R436	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R437	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R438	VV1 - 2113 - 302		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R439	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R440	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R441	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R442	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R443	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R444	VV1 - 2118 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R445	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R446	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R447	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R448	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R449	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R450	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R451	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R452	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R453	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R454	VV1 - 2118 - 100		1	RESISTOR, 10 OHM, 1/10W テイコウ	
R455	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R456	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R457	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	

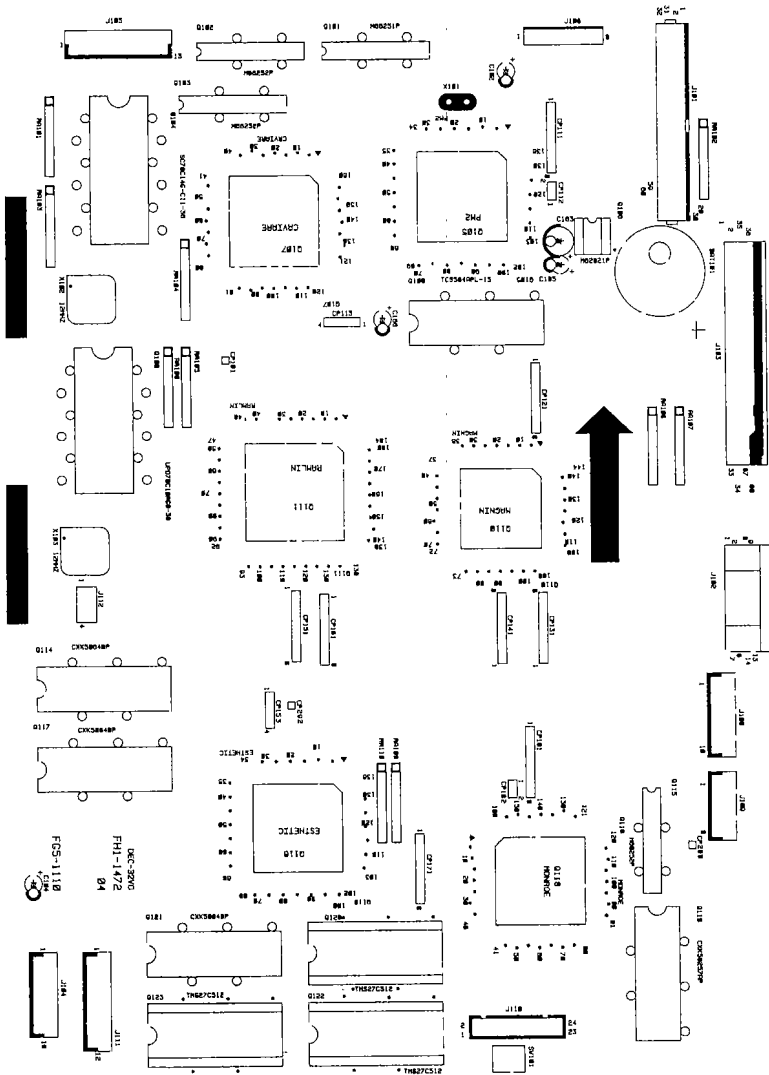
FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - R458	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R459	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R460	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R461	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R462	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R463	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R464	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R465	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R466	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R467	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R488	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R469	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R470	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R471	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R472	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R473	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R474	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R475	VV1 - 2113 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R476	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R477	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R478	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R479	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R480	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R481	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R482	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R483	VV1 - 2118 - 221		1	RESISTOR, 220 OHM, 1/10W テイコウ	
R484	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R485	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R486	VV1 - 2118 - 100		1	RESISTOR, 10 OHM, 1/10W テイコウ	
R487	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - R488	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R489	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R490	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R491	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R492	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R493	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R494	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R495	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R496	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R497	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R498	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R499	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R500	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R501	VV1 - 2118 - 100		1	RESISTOR, 10 OHM, 1/10W テイコウ	
R502	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R503	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R504	VV1 - 2113 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R505	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R506	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R507	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R508	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R509	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R510	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R511	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R512	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R513	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R514	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R515	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R516	VV1 - 2118 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R517	VV1 - 2113 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
951 - R518	VV1 - 2118 - 511		1	RESISTOR, 510 OHM, 1/10W テイコウ	
R519	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R520	VV1 - 2113 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R521	VV1 - 2118 - 511		1	RESISTOR, 510 OHM, 1/10W テイコウ	
R522	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R523	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R524	VV1 - 2118 - 511		1	RESISTOR, 510 OHM, 1/10W テイコウ	
R525	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R526	VV1 - 2118 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R527	VV1 - 2118 - 221		1	RESISTOR, 220 OHM, 1/10W テイコウ	
R528	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R529	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R530	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R531	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R532	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R533	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R534	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R535	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R536	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R537	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	
R538	VV1 - 2118 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R539	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R540	VV1 - 2118 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R541	VV1 - 2118 - 471		1	RESISTOR, 470 OHM, 1/10W テイコウ	

FIGURE 955 IMAGE PROCESSOR PCB ASSEMBLY (OLD)

イメージプロセッサ回路基板 (旧)



NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

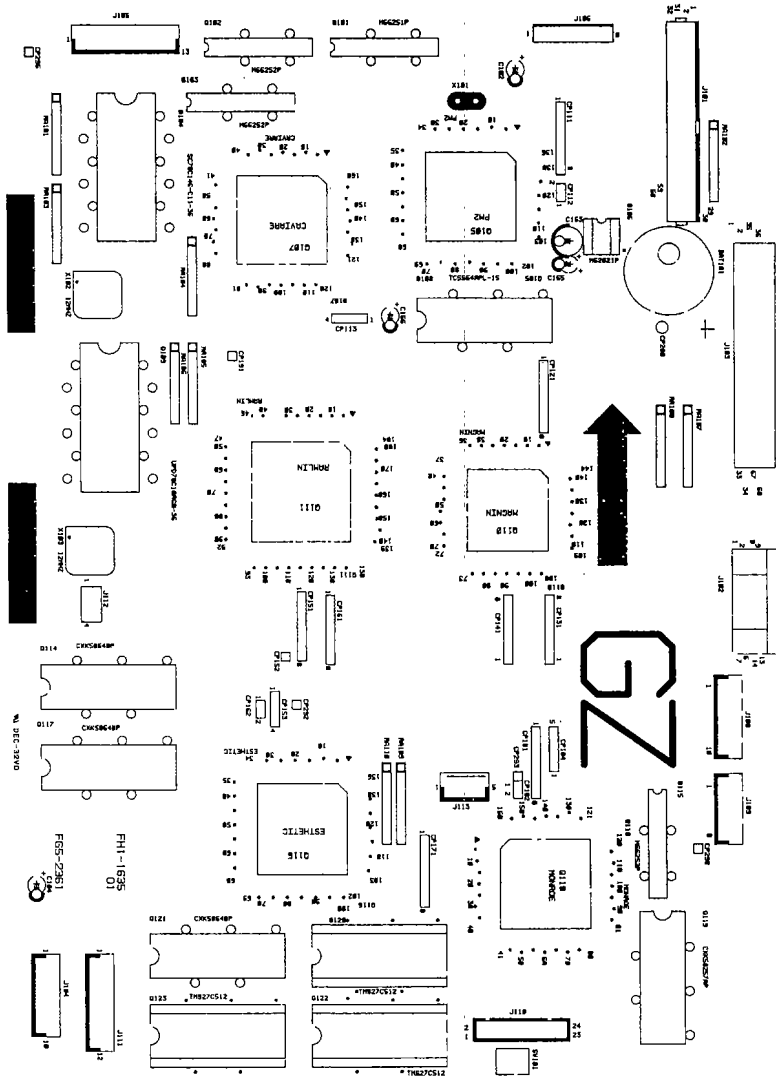
注: 旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
855 -	FG5 - 1110 - 100		1	IMAGE PROCESSOR PCB ASSEMBLY イメージプロセッサカイクイバン	(OLD TYPE PCB) SEE NOTE
Q120	FF2 - 7047 - 000		1	P - ROM, TMS27C512 - 20JL P - ROM	
Q122	FF2 - 7045 - 130		1	P - ROM, TMS27C512 - 20JL P - ROM	
Q123	FF2 - 7046 - 120		1	P - ROM, TMS27C512 - 20JL P - ROM	

FIGURE 955A

IMAGE PROCESSOR PCB ASSEMBLY (NEW) (1/2)

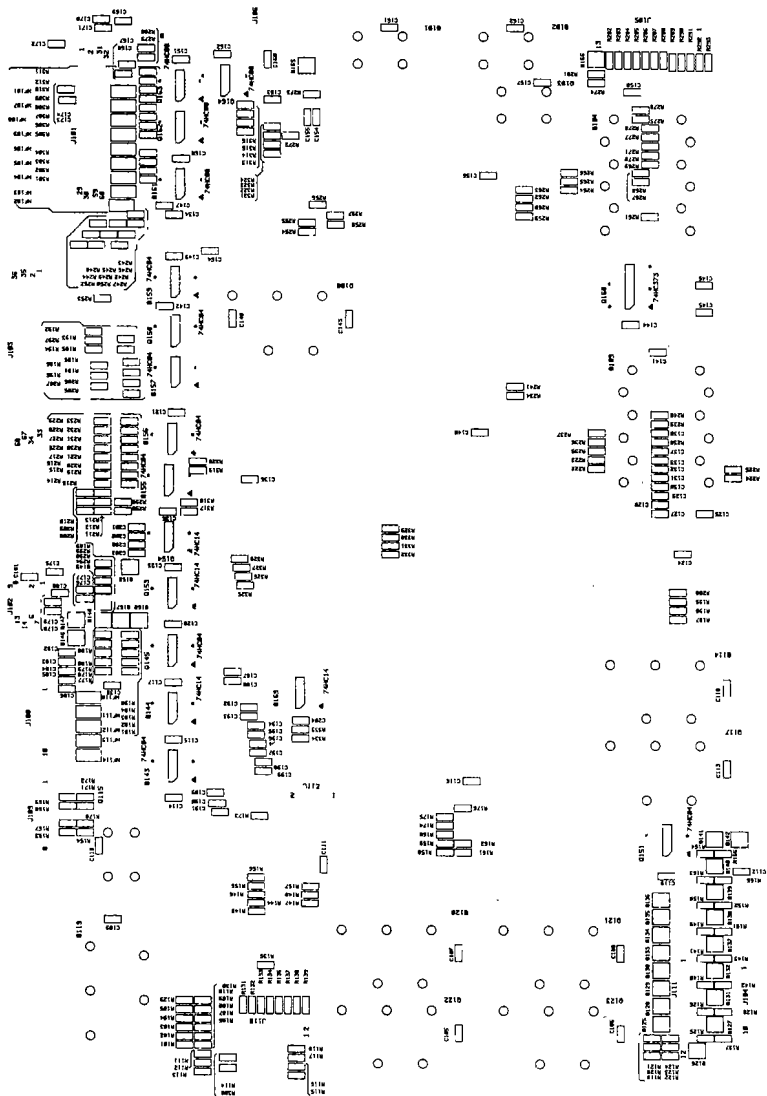
イメージプロセッサ回路基板 (新) (1/2)



NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

注：旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE 955A IMAGE PROCESSOR PCB ASSEMBLY (NEW)^(1/2) イメージプロセッサ回路基板 (新)^(1/2)



NOTE : The old DC controller PCB, image processor PCB, PROM and copyboard glass cannot be used in combination with the new DC controller PCB, image processor PCB, PROM and copyboard glass.

注: 旧のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスと、新のDCコントローラ回路基板、イメージプロセッサ回路基板、PROM、原稿台ガラスを組み合わせ使用しない事。

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A -	FG5 - 2361 - 000		1	IMAGE PROCESSOR PCB ASSEMBLY イメージプロセッサ カイロキバン	(NEW TYPE PCB) SEE NOTE
BAT101	WK1 - 5037 - 000		1	BATTERY, CR2450 HC22B バッテリー	
C102	VC1 - 2101 - 107		1	CAPACITOR, 100UF, 10V コンデンサ	
C104	VC1 - 2101 - 107		1	CAPACITOR, 100UF, 10V コンデンサ	
C105	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C106	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C107	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C108	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C109	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C110	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C111	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C112	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C113	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C114	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C115	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C116	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C117	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C118	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C119	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C120	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C121	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C123	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C124	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C125	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C126	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C127	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C128	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C129	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C130	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C131	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - C132	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C133	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C134	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C135	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C136	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C137	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C138	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C140	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C141	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C142	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C143	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C144	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C145	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C146	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C147	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C148	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C149	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C150	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C151	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C152	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C153	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C154	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C155	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C156	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C157	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C158	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C160	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C161	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C162	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C163	VC1 - 2101 - 107		1	CAPACITOR, 100UF, 10V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - C164	VC5 - 8690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
C165	VC1 - 2501 - 105		1	CAPACITOR, 1UF, 50V コンデンサ	
C166	VC1 - 2161 - 106		1	CAPACITOR, 10UF, 16V コンデンサ	
C167	VC7 - 0630 - 101		1	CAPACITOR, 100PF, 50V コンデンサ	
C168	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C169	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C170	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C171	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C172	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C173	VC7 - 0630 - 101		1	CAPACITOR, 100PF, 50V コンデンサ	
C174	VC7 - 0630 - 101		1	CAPACITOR, 100PF, 50V コンデンサ	
C175	VC5 - 1930 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
C176	VC7 - 0630 - 681		1	CAPACITOR, 880PF, 50V コンデンサ	
C177	VC7 - 0630 - 681		1	CAPACITOR, 880PF, 50V コンデンサ	
C178	VC7 - 0630 - 681		1	CAPACITOR, 880PF, 50V コンデンサ	
C179	VC7 - 0630 - 681		1	CAPACITOR, 680PF, 50V コンデンサ	
C180	VC7 - 0630 - 681		1	CAPACITOR, 680PF, 50V コンデンサ	
C181	VC7 - 0630 - 681		1	CAPACITOR, 680PF, 50V コンデンサ	
C182	VC7 - 0630 - 681		1	CAPACITOR, 680PF, 50V コンデンサ	
C183	VC7 - 0630 - 681		1	CAPACITOR, 680PF, 50V コンデンサ	
C184	VC7 - 0630 - 681		1	CAPACITOR, 880PF, 50V コンデンサ	
C185	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C186	VC5 - 1920 - 102		1	CAPACITOR, 1000PF, 50V コンデンサ	
C187	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C188	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C189	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C190	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C191	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C192	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C193	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - C194	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C195	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C196	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C197	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C198	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C199	VC5 - 8020 - 220		1	CAPACITOR, 22PF, 50V コンデンサ	
C200	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C201	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C202	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C203	VC7 - 0630 - 100		1	CAPACITOR, 10PF, 50V コンデンサ	
C204	VC5 - 6690 - 104		1	CAPACITOR, 0.1UF, 25V コンデンサ	
CP280	WT1 - 0211 - 000		1	PIN, TEST テストピン	
J101	VS1 - 5420 - 060		1	CONNECTOR, 58P コネクタ	
J102	VS1 - 5434 - 014		1	CONNECTOR, 14P コネクタ	
J103	VS1 - 1230 - 068		1	CONNECTOR, 68P コネクタ	
J104	VS1 - 1028 - 010		1	PIN ASSEMBLY, 10P ピンアセンブリ	
J105	VS1 - 1028 - 013		1	PIN ASSEMBLY, 13P ピンアセンブリ	
J106	VS1 - 0571 - 008		1	CONNECTOR, 8P コネクタ	
J108	VS1 - 1028 - 010		1	PIN ASSEMBLY, 10P ピンアセンブリ	
J109	VS1 - 1028 - 008		1	PIN ASSEMBLY, 8P ピンアセンブリ	
J110	VS1 - 5205 - 024		1	CONNECTOR, 24P コネクタ	
J111	VS1 - 1028 - 012		1	PIN ASSEMBLY, 12P ピンアセンブリ	
J113	VS1 - 1028 - 005		1	PIN ASSEMBLY, 5P ピンアセンブリ	
NF101	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF102	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF103	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF104	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF105	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF106	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF107	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - NF108	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF109	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF110	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF111	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF112	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF113	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
NF114	VC7 - 3660 - 101		1	CAPACITOR, 100PF, 100V コンデンサ	
Q101	WA3 - 5978 - 000		1	RAM, M66251P RAM	
Q102	WA3 - 6148 - 000		1	RAM, M66252P RAM	
Q103	WA3 - 6148 - 000		1	RAM, M66252P RAM	
Q104	FH4 - 1182 - 000		1	IC, SC78C14G - C11 - 36 IC	
Q105	FH4 - 5263 - 000		1	GATE ARRAY, HG02E101R35F ゲートアレイ	
Q106	WA4 - 5455 - 000		1	IC, M62021P IC	
Q108	WA3 - 3808 - 000		1	S - RAM, TC5564PL - 20 S - RAM	
Q109	WA3 - 4371 - 000		1	CPU, UPD78C10AGQ - 36 CPU	
Q110	FH4 - 5404 - 000		1	IC, TC23SC260AF - 005 IC	
Q111	FH4 - 5402 - 000		1	IC, TC24SC380AF - 009 IC	
Q114	WA3 - 6149 - 000		1	RAM, CXK5864BP - 12L RAM	
Q115	WA3 - 6148 - 000		1	RAM, M66252P RAM	
Q116	FH4 - 5401 - 000		1	GATE ARRAY, HG02E33R54F ゲートアレイ	
Q118	FH4 - 5264 - 000		1	GATE ARRAY, UPD65070GD - 278 - 5BD ゲートアレイ	
Q119	WA3 - 6150 - 000		1	RAM, CXK58257AP - 12L RAM	
Q120	FF2 - 7047 - 000		1	P - ROM, TMS27C512 - 20JL P - ROM	
Q120S	WA9 - 5130 - 000		1	SOCKET, IC IC ソケット	
Q121	WA3 - 6149 - 000		1	RAM, CXK5864BP - 12L RAM	
Q122	FF2 - 8565 - 000		1	P - ROM, TMS27C512 - 20JL P - ROM	
Q122S	WA9 - 5130 - 000		1	SOCKET, IC IC ソケット	
Q123	FF2 - 8566 - 000		1	P - ROM, TMS27C512 - 20JL P - ROM	
Q123S	WA9 - 5130 - 000		1	SOCKET, IC IC ソケット	
Q125	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - Q126	WA2 - 0835 - 000		1	TRANSISTOR, RN2402 トランジスタ	
Q127	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q128	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q129	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q130	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q131	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q132	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q133	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q134	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q135	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q136	WA2 - 1021 - 000		1	CAPACITOR, RN1406 トランジスタ	
Q137	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q138	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q139	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q140	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q141	WA2 - 5346 - 000		1	CAPACITOR, 2SA1362GR トランジスタ	
Q142	WA2 - 0835 - 000		1	TRANSISTOR, RN2402 トランジスタ	
Q143	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q144	WA3 - 4465 - 000		1	IC, TC74HC14AF IC	
Q145	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q146	WA2 - 0730 - 000		1	CAPACITOR, RN2406 トランジスタ	
Q147	WA2 - 0730 - 000		1	CAPACITOR, RN2406 トランジスタ	
Q148	WA2 - 0730 - 000		1	CAPACITOR, RN2406 トランジスタ	
Q149	WA2 - 0834 - 000		1	TRANSISTOR, RN1402 トランジスタ	
Q151	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q152	WA2 - 0834 - 000		1	TRANSISTOR, RN1402 トランジスタ	
Q153	WA3 - 4465 - 000		1	IC, TC74HC14AF IC	
Q154	WA3 - 4465 - 000		1	IC, TC74HC14AF IC	
Q155	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q156	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - Q157	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q158	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q159	WA3 - 5033 - 000		1	IC, TC74HC04AF IC	
Q160	WA3 - 5413 - 000		1	HC MOS, HD74HC373FP IC	
Q161	WA3 - 4127 - 000		1	IC, TC74HC08AF IC	
Q162	WA3 - 4127 - 000		1	IC, TC74HC08AF IC	
Q163	WA3 - 4127 - 000		1	IC, TC74HC08AF IC	
Q164	WA3 - 4127 - 000		1	IC, TC74HC08AF IC	
Q165	WA2 - 0834 - 000		1	TRANSISTOR, RN1402 トランジスタ	
Q166	WA2 - 0834 - 000		1	TRANSISTOR, RN1402 トランジスタ	
Q167	WA2 - 1021 - 000		1	CAPACITOR, RN1408 トランジスタ	
Q168	WA2 - 1021 - 000		1	CAPACITOR, RN1408 トランジスタ	
Q169	WA3 - 4485 - 000		1	IC, TC74HC14AF IC	
R101	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R102	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R103	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R104	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R105	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイクウ	
R106	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイクウ	
R107	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイクウ	
R108	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイクウ	
R109	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイクウ	
R110	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイクウ	
R111	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R112	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R113	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R114	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R115	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R116	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	
R117	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイクウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R118	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R119	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R120	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R121	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R122	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R123	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R124	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R125	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R126	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R127	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R128	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R129	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R130	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R131	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R132	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R133	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R134	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R135	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R136	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R137	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R138	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R139	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R140	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R141	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R142	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R143	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R144	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R145	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R146	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R147	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R148	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R149	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R150	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R151	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R152	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R153	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R154	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R155	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R156	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R157	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R158	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R159	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R160	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R161	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R162	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R163	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R164	VV1 - 2115 - 202		1	RESISTOR, 2KOHM, 1/10W テイコウ	
R165	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R166	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R167	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R168	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R169	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R170	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R171	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R172	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R173	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R174	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R175	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R176	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R177	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R178	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R179	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R180	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R181	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R182	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R183	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R184	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R185	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R186	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R188	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R189	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R190	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R191	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R192	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R193	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R194	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R195	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R196	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R197	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R198	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R199	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R200	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R205	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R206	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R207	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R208	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R209	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R210	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R211	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R212	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R213	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R214	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R215	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R216	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R217	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R218	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R219	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R220	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R221	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R222	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R223	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R224	VV1 - 2115 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R225	VV1 - 2115 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R226	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R227	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R228	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R229	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R230	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R231	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R232	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R233	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R234	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R235	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R236	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R237	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R238	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R239	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R240	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R241	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R242	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R243	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R244	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R245	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R246	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R247	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R248	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R249	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R250	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R252	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R253	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R254	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R255	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R256	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R257	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R258	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R259	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R260	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R261	VV1 - 2115 - 103		1	RESISTOR, 10KOHM, 1/10W テイコウ	
R262	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R263	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R264	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R265	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R266	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R267	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R268	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R269	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R270	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R271	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R272	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R273	VV1 - 2115 - 105		1	RESISTOR, 1MOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R274	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R275	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R276	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R277	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R278	VV1 - 2115 - 473		1	RESISTOR, 47KOHM, 1/10W テイコウ	
R279	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R280	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R281	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R282	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R283	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R284	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R285	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R286	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R287	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R288	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R289	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R290	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R291	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R292	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R293	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R294	VV1 - 2115 - 112		1	RESISTOR, 1.1KOHM, 1/10W テイコウ	
R295	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R296	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
R297	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R298	VV1 - 2115 - 112		1	RESISTOR, 1.1KOHM, 1/10W テイコウ	
R299	VV1 - 2115 - 112		1	RESISTOR, 1.1KOHM, 1/10W テイコウ	
R300	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	
R301	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R302	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R303	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R304	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R305	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R306	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R307	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R308	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R309	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R310	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R311	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R312	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R313	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R314	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R315	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R316	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R317	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R318	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R319	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R320	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R321	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R322	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R323	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R324	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R325	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R326	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R327	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R328	VV1 - 2000 - 000		1	JUMPER チップジャンパ	
R329	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R330	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R331	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R332	VV1 - 2115 - 101		1	RESISTOR, 100 OHM, 1/10W テイコウ	
R333	VV1 - 2115 - 472		1	RESISTOR, 4.7KOHM, 1/10W テイコウ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
955A - R334	VV1 - 2115 - 102		1	RESISTOR, 1KOHM, 1/10W テイコウ	
RA101	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA102	VR5 - 5790 - 472		1	RESISTOR ARRAY, 4.7KOHM, 1/8W テイコウ アレイ	
RA103	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA104	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA105	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA106	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA107	VR5 - 5790 - 472		1	RESISTOR ARRAY, 4.7KOHM, 1/8W テイコウ アレイ	
RA108	VR5 - 5790 - 472		1	RESISTOR ARRAY, 4.7KOHM, 1/8W テイコウ アレイ	
RA109	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
RA110	VR5 - 5790 - 473		1	RESISTER ARRAY, 47KOHM, 1/8W テイコウ アレイ	
SW101	WC2 - 5076 - 000		1	SWITCH, PUSHBUTTON プッシュスイッチ	
X101	WK2 - 5132 - 000		1	CRYSTAL, QUARTZ スイショウ シンドウシ	
X102	WK2 - 5131 - 000		1	QUARTZ, OSCILLATOR スイショウ シンドウシ	
X103	WK2 - 5131 - 000		1	QUARTZ, OSCILLATOR スイショウ シンドウシ	

FIGURE 970 PAPER SENSING PCB ASSEMBLY

紙検知回路基板

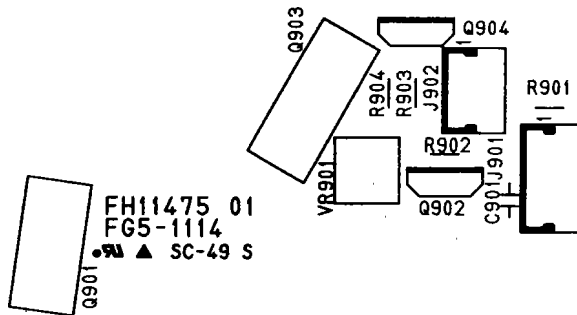


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
970 -	FG5 - 1114 - 000		1	PAPER SENSING PCB ASSEMBLY カミケンチカイロキバン	
C901	VCS - 1890 - 104		1	CAPACITOR, 0.1UF, 50V コンデンサ	
J901	VS1 - 1028 - 004		1	PIN ASSEMBLY, 4P ピンアセンブリ	
J902	VS1 - 1028 - 003		1	PIN ASSEMBLY, 3P ピンアセンブリ	
Q901	FH7 - 7282 - 000		1	PHOTOSENSOR フォトセンサ	
Q902	WA2 - 5376 - 000		1	CAPACITOR, 3.5PF, 50V コンデンサ	
Q903	FH9 - 0384 - 000		1	PHOTOINTERRUPTER フォトインタラプタ	
Q904	WA2 - 0772 - 000		1	TRANSISTOR, RN1202 トランジスタ	
R901	VR5 - 3680 - 302		1	RESISTOR, 3KOHM 1/4W テイクウ	
R902	VR5 - 3680 - 202		1	RESISTOR, 2KOHM, 1/4W テイクウ	
R903	VR5 - 3680 - 181		1	RESISTOR, 180 OHM, 1/4W テイクウ	

FIGURE B LIST OF CONNECTORS (1/2) コネクタ一覧(1/2)

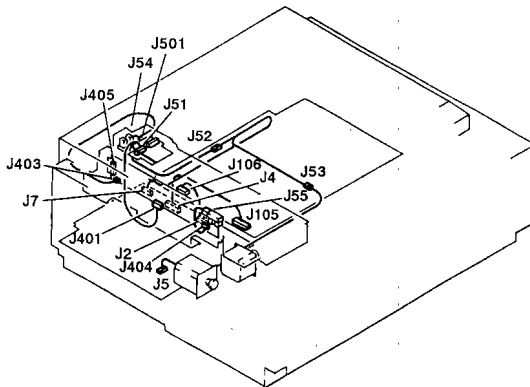
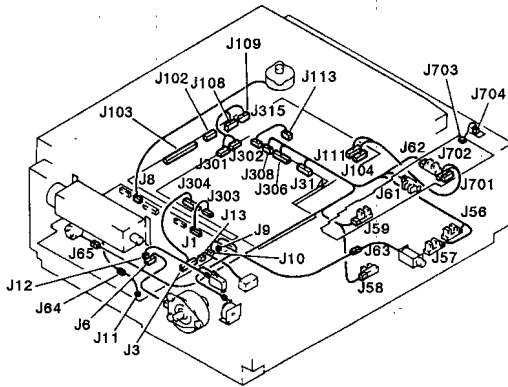


FIGURE B LIST OF CONNECTORS (2/2) コネクタ一覧 (2/2)

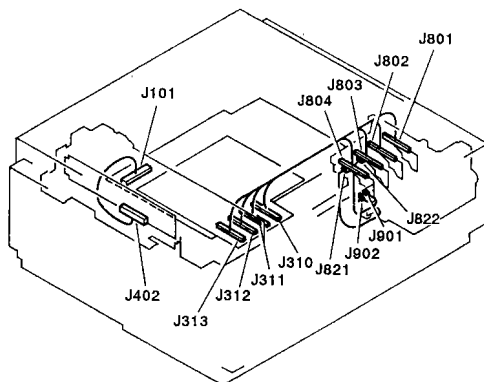


FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
B -	NPN		RF	LIST OF CONNECTORS コネクタ イテラン	
J 1	PCB			POWER SUPPLY デンゲンブ	
	VS1 - 0276 - 007		1	CONNECTOR, 7P, FEMALE コネクタ (メス)	
	WS3 - 1273 - 000		7	SOCKET, CONTACT ソケット コンタクト	
J 2	PCB			POWER SUPPLY デンゲンブ	
	VS3 - 0276 - 008		1	CONNECTOR, 8P, FEMALE コネクタ (メス)	
	WS3 - 1273 - 000		8	SOCKET, CONTACT ソケット コンタクト	
J 3	PCB			POWER SUPPLY デンゲンブ	
	VS1 - 0861 - 015		1	CONNECTOR, 15P, FEMALE コネクタ (メス)	
J 4	PCB			POWER SUPPLY デンゲンブ	
	VS1 - 0861 - 013		1	CONNECTOR, 13P, FEMALE コネクタ (メス)	
J 5	NPN			BJ HEAD CARRIAGE MOTOR BJヘッドキャリッジモータ	M3
	PCB			POWER SUPPLY デンゲンブ	
J 6	NPN			FEEDER MOTOR カミハンソウモータ	M4
	PCB			POWER SUPPLY デンゲンブ	
J 7	FH2 - 5839 - 000		1	CABLE, CONNECTING; SCANNER スキャナ チュウケイソクセン	
	PCB			POWER SUPPLY デンゲンブ	
J 8	NPN			READER SUB SCANNING MOTOR リーダーサブスキャンモータ	M2
	PCB			POWER SUPPLY デンゲンブ	
J 9	NPN			PICK - UP SOLENOID キュウシソレノイド	SL2
	PCB			POWER SUPPLY デンゲンブ	
J 10	PCB			POWER SUPPLY デンゲンブ	
	VS1 - 0842 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
J 11	PCB			POWER SUPPLY デンゲンブ	
	VS3 - 0276 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
	WS3 - 1273 - 000		2	SOCKET, CONTACT ソケット コンタクト	
J 12	PCB			POWER SUPPLY デンゲンブ	
	VS3 - 0276 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
	WS3 - 1273 - 000		2	SOCKET, CONTACT ソケット コンタクト	
J 13	NPN			COUNTER カウンタ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
B - J 13	PCB			POWER SUPPLY デンゲンブ	
J 51	FH2 - 5838 - 000		1	CABLE, FLAT フラットケーブル	
	PCB			BASIS BASIS カイロキバン	
J 52	FH2 - 5838 - 000		1	CABLE, FLAT フラットケーブル	
	FH2 - 5839 - 000		1	CABLE, CONNECTING, SCANNER スキャナ チュウケイソクセン	
J 53	NPN			READER MAIN SCANNING MOTOR リーダシュソウサ モータ	M1
	NPN			SCANNER CONNECTING CABLE スキャナ チュウケイソクセン	
J 54	NPN			MAIN SCANNING H/P SENSOR リーダシュソウサ ホームポジション センサ	PS1
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 55	NPN			SUB SCANNING H/P SENSOR リーダフクソウサ ホームポジション センサ	PS2
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 56	NPN			MANUAL FEED MODE SENSOR デザン モード センサ	PS3
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 57	NPN			OHP MODE SENSOR OHP モード センサ	PS4
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 58	NPN			DELIVERY SENSOR ハイジ センサ	PS5
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 59	NPN			PICK - UP SENSOR キュウシ センサ	PS6
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 61	NPN			PRESSURE CAM H/P SENSOR カアツカム ホームポジション センサ	PS7
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 62	NPN			BJ HEAD CARRIAGE H/P SENSOR BJヘッド キャリッジ H/P センサ	PS8
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J 63	NPN			CLEANER BLADE SOLENOID クリーナブレードソレノイド	SL1
	VS3 - 5010 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
	WS3 - 5006 - 000		3	PIN, CONTACT, 24 - 28AWG ピン コンタクト	
J 84	NPN			SWITCH, KEY キー スイッチ	
	VS1 - 0842 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
J 85	VS3 - 0197 - 002		1	CONNECTOR, 2P, MALE コネクタ (オス)	
	VS3 - 5086 - 002		1	CONNECTOR, 2P コネクタ	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
B - J 65	WS3 - 1185 - 000		2	CONTACT, 24 - 28AWG コンタクト	
	WS3 - 5006 - 000		2	PIN, CONTACT, 24 - 28AWG ピンコンタクト	
	J101 PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
	VS1 - 5402 - 060		1	SOCKET, CONTACT, 28 AWG ソケットコンタクト	
	VS9 - 5018 - 000		1	STRAIN RELIEF ストレインリリーフ	
J102	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J103	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J104	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J105	VS1 - 0842 - 010		1	CONNECTOR, 10P, FEMALE コネクタ(メス)	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J106	VS1 - 0842 - 013		1	CONNECTOR, 13P, FEMALE コネクタ(メス)	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
	VS1 - 0279 - 008		1	CONNECTOR, 8P コネクタ	
J108	WS4 - 0181 - 000		8	SOCKET, CONTACT ソケットコンタクト	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J109	VS1 - 0842 - 010		1	CONNECTOR, 10P, FEMALE コネクタ(メス)	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J111	VS1 - 0842 - 008		1	CONNECTOR, 8P, FEMALE コネクタ(メス)	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J113	VS1 - 0842 - 012		1	CONNECTOR, 12P, FEMALE コネクタ(メス)	
	PCB			IMAGE PROCESSOR イメージプロセッサカイロキバン	
J135	VS1 - 0842 - 005		1	CONNECTOR, 5P, FEMALE コネクタ(メス)	
J301	PCB			DC CONTROLLER DCコントローラカイロキバン	
	PCB			DC CONTROLLER DCコントローラカイロキバン	
J302	VS1 - 0861 - 010		1	CONNECTOR, 10P, FEMALE コネクタ(メス)	
	PCB			DC CONTROLLER DCコントローラカイロキバン	
J303	VS1 - 0861 - 008		1	CONNECTOR, 8P, FEMALE コネクタ(メス)	
	PCB			DC CONTROLLER DCコントローラカイロキバン	
	VS1 - 0279 - 007		1	CONNECTOR, 7P, FEMALE コネクタ(メス)	
	WS4 - 0181 - 000		7	SOCKET, CONTACT ソケットコンタクト	

FIGURE & KEY NO.	PART NUMBER	R A N K	Q T Y	DESCRIPTION	SERIAL NUMBER / REMARKS
B - J304	PCB			DC CONTROLLER DC コントローラカイクバン	
	VS1 - 0842 - 015		1	CONNECTOR, 15P, FEMALE コネクタ (メス)	
J306	PCB			DC CONTROLLER DC コントローラカイクバン	
	VS1 - 0842 - 012		1	CONNECTOR, 12P, FEMALE コネクタ (メス)	
J308	PCB			DC CONTROLLER DC コントローラカイクバン	
	VS1 - 0842 - 006		1	CONNECTOR, 8P, FEMALE コネクタ (メス)	
J310	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
	PCB			DC CONTROLLER DC コントローラカイクバン	
J311	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
	PCB			DC CONTROLLER DC コントローラカイクバン	
J312	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
	PCB			DC CONTROLLER DC コントローラカイクバン	
J313	FH2 - 5894 - 000		1	CABLE, FLEXIBLE Y フレキシブルケーブル Y	
	PCB			DC CONTROLLER DC コントローラカイクバン	
J314	PCB			DC CONTROLLER DC コントローラカイクバン	
	VS1 - 0842 - 002		1	CONNECTOR, 2P, FEMALE コネクタ (メス)	
J315	PCB			DC CONTROLLER DC コントローラカイクバン	
J401	FH2 - 5838 - 000		1	CABLE, FLAT フラットケーブル	
	PCB			AMPLIFIER アンプカイクバン	
J402	PCB			AMPLIFIER アンプカイクバン	
	VS1 - 5402 - 000		1	SOCKET, CONTACT, 28 AWG ソケット コンタクト	
	VS9 - 5018 - 060		1	STRAIN RELIEF ストレインリリーフ	
J403	PCB			AMPLIFIER アンプカイクバン	
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J404	PCB			AMPLIFIER アンプカイクバン	
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J405	PCB			AMPLIFIER アンプカイクバン	
J501	FH2 - 5838 - 000		1	CABLE, FLAT フラットケーブル	
	PCB			BASIS BASIS カイクバン	
J701	PCB			CONTROL PANEL ソウサキバン	

FIGURE & KEY NO.	PART NUMBER	RANK	QTY	DESCRIPTION	SERIAL NUMBER / REMARKS
B - J701	VS1 - 0842 - 010		1	CONNECTOR, 10P, FEMALE コネクタ (メス)	
J702	PCB			CONTROL PANEL ソウサ キバン	
	VS1 - 0842 - 012		1	CONNECTOR, 12P, FEMALE コネクタ (メス)	
J703	PCB			CONTROL PANEL ソウサ キバン	
	VS1 - 0978 - 003		1	CONNECTOR, 3P, MALE コネクタ (オス)	
J704	PCB			CONTROL PANEL ソウサ キバン	
	VS1 - 0861 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J801	FH2 - 5894 - 000		1	CABLE, FLEXIBLE Y フレキシブルケーブル Y	
	PCB			RELAY (BLACK) チュウケイ キバン (ブラック)	
J802	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
J803	PCB			RELAY (CYAN) チュウケイ キバン (シアン)	
	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
	PCB			RELAY (MAGENTA) チュウケイ キバン (マゼンタ)	
J804	FH9 - 0397 - 000		1	CABLE, FLEXIBLE KCM フレキシブルケーブル KCM	
	PCB			RELAY (YELLOW) チュウケイ キバン (イエロー)	
J821	PCB			RELAY (BLACK) チュウケイ キバン (ブラック)	
	VS1 - 0861 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	
J822	PCB			RELAY (CYAN) チュウケイ キバン (シアン)	
	VS1 - 0861 - 004		1	CONNECTOR, 4P, FEMALE コネクタ (メス)	
J901	PCB			PAPER SENSING カミケンチカイロキバン	
J902	VS1 - 0842 - 004		1	CONNECTOR, 4P, FEMALE コネクタ (メス)	
	PCB			PAPER SENSOR カミセンサカイロキバン	
	VS1 - 0842 - 003		1	CONNECTOR, 3P, FEMALE コネクタ (メス)	

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FA2-9221-000	310 - 2	FB1-5232-000	820 - 1	FB1-5331-000	100 - 11A
FA9-0031-000	110 - 1	FB1-5233-000	820 - 2	FB1-5332-000	100 - 11A
FA9-0032-000	110 - 1	FB1-5234-000	820 - 3	FB1-5333-000	100 - 11B
FA9-1613-000	110 - 23	FB1-5235-000	820 - 4	FB1-5334-000	100 - 11B
FA9-2568-000	110 - 2	FB1-5236-000	820 - 5	FB1-5335-000	100 - 11B
FB1-0047-000	180 - 1	FB1-5237-000	820 - 6	FB1-5337-020	228 - 1
FB1-1474-020	310 - 3	FB1-5238-000	820 - 7	FB1-5338-000	228 - 2
FB1-5104-000	420 - 1	FB1-5239-000	820 - 8	FB1-5339-000	228 - 3
FB1-5107-000	400 - 1	FB1-5240-000	820 - 9	FB1-5340-000	228 - 4
FB1-5108-000	400 - 2	FB1-5241-000	820 - 10	FB1-5341-000	225 - 1
FB1-5110-000	400 - 3	FB1-5242-000	820 - 11	FB1-5343-000	225 - 2
FB1-5111-000	400 - 4	FB1-5243-000	820 - 12	FB1-5344-000	225 - 3
FB1-5112-000	100 - 1	FB1-5244-000	820 - 13	FB1-5346-000	811 - 1
FB1-5113-000	100 - 2	FB1-5245-000	820 - 14	FB1-5348-000	811 - 2
FB1-5114-000	420 - 2	FB1-5246-000	820 - 15	FB1-5349-000	811 - 3
FB1-5115-000	100 - 11A	FB1-5247-000	820 - 16	FB1-5360-000	100 - 13
FB1-5116-000	100 - 11B	FB1-5248-000	820 - 17	FB1-5364-000	100 - 14
FB1-5117-000	100 - 11C	FB1-5249-000	820 - 18	FB1-5365-000	100 - 3
FB1-5119-000	400 - 12A	FB1-5250-000	820 - 19	FB1-5366-000	100 - 4
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FB1-5122-000	220 - 1	FB1-5252-000	310 - 5	FB1-5374-000	140 - 3
FB1-5124-000	400 - 6	FB1-5253-000	310 - 6	FB1-5376-000	140 - 4
FB1-5127-000	420 - 3	FB1-5255-000	310 - 7	FB1-5377-000	140 - 5
FB1-5128-000	420 - 4	FB1-5256-000	425 - 1	FB1-5381-000	180 - 2
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FF2 - 7015 - 000	920 - J702	FG5 - 1115 - 000	940 -	FS5 - 2216 - 000	350 - 29
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FF2 - 7025 - 000	110 - 12	FG5 - 1120 - 000	420 - 18	FS5 - 2222 - 000	101 - 51
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FF2 - 7045 - 130	955 - Q122	FG5 - 1128 - 050	140 -	FS5 - 2229 - 000	425 - 29
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	955A - Q120	FG5 - 1592 - 050	140 -	FS5 - 2232 - 000	101 - 54
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FF2 - 7892 - 000	400 - 14	FG5 - 2381 - 000	955A -	FS5 - 2234 - 000	101 - 8
FF2 - 7893 - 000	101 - 63B	FG5 - 2382 - 000	930A -	FS5 - 2235 - 000	228 - 8
FF2 - 7894 - 000	400 - 16	FH2 - 5288 - 000	110 - 9	FS5 - 3133 - 000	611 - 8
FF2 - 8205 - 000	110 - 8	FH2 - 5741 - 000	110 - 14	FS5 - 3135 - 000	220 - 6
FF2 - 8584 - 000	930A - J315	FH2 - 5761 - 020	110 - 15	FS5 - 3137 - 000	420 - 16B
FF2 - 8585 - 000	955A - Q122	FH2 - 5761 - 000	110 - 17	FS5 - 3138 - 000	400 - 9
FF2 - 8586 - 000	955A - Q123	FH2 - 5763 - 000	110 - 17	FS5 - 8135 - 000	420 - 19
FF2 - 8587 - 000	930A - Q308		B - J 51	FS5 - 8401 - 000	610 - 22A
FF2 - 8597 - 000	610 - 22		B - J 52	FS5 - 8402 - 000	100 - 10A
FF5 - 1300 - 000	610 - 15		B - J401	FS5 - 8403 - 000	300 - 11
FF5 - 1301 - 000	610 - 16		B - J501	FS5 - 8404 - 000	180 - 5
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FF5 - 1304 - 000	100 - 8		B - J 52	FS5 - 8407 - 000	180 - 5
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FF5 - 1308 - 000	100 - 11		942 - J813	FS5 - 8418 - 000	100 - 15
FF5 - 1309 - 000	100 - 11	FH2 - 5875 - 000	110 - 13	FS5 - 8695 - 000	140 - 2A
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FF5 - 1316 - 000	350 - 27	FH4 - 5401 - 000	955A - Q118		B - J 3
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FF5 - 1326 - 000	100 - 9		930A - Q323		B - J 11
FF5 - 1327 - 000	100 - 9		930A - Q324		B - J 12
FF5 - 1328 - 000	100 - 9		930A - Q325		B - J 13
FF5 - 1329 - 000	100 - 9		930A - Q326		B - J 14
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FF5 - 1337 - 000	220 - 3	FH4 - 5480 - 000	930A - Q310		B - J101
FF5 - 1338 - 000	220 - 4	FH6 - 0475 - 000	820 - LED738		B - J102
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FG5 - 1089 - 000	420 -		B - J802		B - J304
FG5 - 1090 - 000	421 -		B - J803		B - J306
FG5 - 1092 - 000	810 -		B - J804		B - J308
FG5 - 1093 - 000	820 -		610 - 21		B - J310
FG5 - 1094 - 000	310 -	FS4 - 8955 - 000	100 - 18		B - J311
FG5 - 1095 - 040	425 -	FS5 - 0248 - 000	101 - 46		B - J312
FG5 - 1096 - 080	350 -	FS5 - 0248 - 000	101 - 47		B - J313
FG5 - 1097 - 000	101 - 84	FS5 - 0249 - 000	101 - 48		B - J314
FG5 - 1098 - 000	101 - 61	FS5 - 0249 - 000	101 - 48		B - J401
FG5 - 1099 - 020	228 -	FS5 - 0250 - 000	101 - 49		B - J402
FG5 - 1100 - 000	225 -	FS5 - 1184 - 000	425 - 27		B - J403
FG5 - 1101 - 000	611 -	FS5 - 1185 - 000	350 - 28		B - J404
FG5 - 1108 - 050	140 -	FS5 - 1186 - 000	310 - 8		B - J405
FG5 - 1107 - 000	180 -	FS5 - 2206 - 000	610 - 17		B - J501
FG5 - 1108 - 000	001 - 1	FS5 - 2207 - 000	610 - 18		B - J701
FG5 - 1109 - 050	930 -	FS5 - 2208 - 000	610 - 19		B - J702
FG5 - 1110 - 100	955 -	FS5 - 2210 - 000	620 - 21		B - J703
		FS5 - 2211 - 000	620 - 22		B - J704
		FS5 - 2212 - 000	620 - 23		B - J801

PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.
PCB	B - J802 B - J803 B - J804 B - J821 B - J822 B - J801 B - J802	VC5 - 6680 - 104	955A - C111 955A - C112 955A - C113 955A - C114 955A - C115 955A - C116 955A - C117 955A - C118 955A - C119 955A - C120 955A - C121 955A - C123 955A - C126 955A - C134 955A - C135 955A - C136 955A - C140 955A - C141 955A - C142 955A - C143 955A - C144 955A - C147 955A - C148 955A - C149 955A - C150 955A - C151 955A - C152 955A - C153 955A - C156 955A - C157 955A - C158 955A - C160 955A - C161 955A - C162 955A - C164 955A - C204 955A - C154 955A - C155 955A - C187 955A - C188 955A - C189 955A - C190 955A - C191 955A - C192 955A - C193 955A - C194 955A - C195 955A - C196 955A - C197 955A - C198 955A - C199	VC7 - 3680 - 101 VC7 - 3830 - 107 VC7 - 4310 - 828 VC9 - 5047 - 000	955A - NF111 955A - NF112 955A - NF113 955A - NF114 951 - C403 951 - C401 951 - C402 930A - C301 930A - C302 930A - C303 930A - C304 930A - C319 930A - C320 930A - C321 930A - C322 930A - C323 930A - C330 930A - C331 930A - C333 930A - C335 930A - C336 930A - C341 930A - C343 930A - C345 930A - C350 930A - C352 930A - C356 930A - C358 930A - C359 930A - C360 930A - C362 930A - C364 930A - C366 930A - C373 930A - C375 930A - C376 930A - C386 930A - C388 930A - C392 930A - C393 930A - C394 930A - C395 930A - C398 930A - C397 920 - R709 920 - R710 930A - R355 930A - R356 930A - R357 930A - R405 930A - R406 930A - R407 930A - R408 930A - R410 930A - R422 930A - R432 930A - R433 930A - R434 930A - R462 930A - R467 930A - R468 930A - R469 930A - R470 930A - R471 930A - R472 930A - R473 930A - R474 930A - R475 930A - R476 930A - R477 930A - R478 930A - R308 930A - R307 930A - R314 930A - R315 930A - R400 930A - R479 930A - R480 930A - R481 930A - R403 930A - R404 930A - R438 930A - R439 930A - R441
RA1 - 8243 - 000 RH2 - 5015 - 050 RH7 - 8035 - 000 VC1 - 2101 - 107	101 - 55 110 - 18 110 - 19 955A - C102 955A - C104 955A - C183				
VC1 - 2161 - 106 VC1 - 2161 - 337	955A - C188 930A - C347 930A - C385				
VC1 - 2161 - 478	930A - C338 930A - C383 930A - C374				
VC1 - 2501 - 105 VC1 - 2501 - 337 VC4 - 2502 - 100	955A - C185 930A - C342 930A - C353 930A - C354				
VC4 - 2502 - 330 VC4 - 3503 - 101	930A - C387 930A - C328 930A - C329 930A - C309 930A - C310 930A - C311 930A - C312 930A - C313 930A - C314 930A - C315 930A - C316 930A - C317 930A - C318 930A - C346 930A - C377 930A - C378 930A - C379 930A - C380 930A - C381 930A - C382 930A - C383 930A - C384 940 - C821 940 - C831 941 - C824 941 - C834 942 - C823 942 - C833	VC5 - 8020 - 220			
VC4 - 4504 - 103	930A - C305 930A - C306 930A - C307 930A - C308 930A - C390 930A - C391 940 - C811 941 - C814 942 - C813 970 - C901 955A - C127 955A - C128 955A - C129 955A - C130 955A - C131 955A - C132 955A - C133 955A - C137 955A - C138 955A - C185 955A - C186 955A - C188 955A - C189 955A - C170 955A - C171 955A - C172 955A - C175 930A - C351 955A - C105 955A - C108 955A - C107 955A - C108 955A - C109 955A - C110	VC5 - 8630 - 476 VC8 - 0670 - 472 VC7 - 0630 - 100			
VC5 - 1890 - 104	940 - C821 940 - C831 941 - C824 941 - C834 942 - C823 942 - C833 930A - C305 930A - C306 930A - C307 930A - C308 930A - C390 930A - C391 940 - C811 941 - C814 942 - C813 970 - C901 955A - C127 955A - C128 955A - C129 955A - C130 955A - C131 955A - C132 955A - C133 955A - C137 955A - C138 955A - C185 955A - C186 955A - C188 955A - C189 955A - C170 955A - C171 955A - C172 955A - C175 930A - C351 955A - C105 955A - C108 955A - C107 955A - C108 955A - C109 955A - C110	VC5 - 8630 - 476 VC8 - 0670 - 472 VC7 - 0630 - 100			
VC5 - 1920 - 102	955A - C127 955A - C128 955A - C129 955A - C130 955A - C131 955A - C132 955A - C133 955A - C137 955A - C138 955A - C185 955A - C186 955A - C188 955A - C189 955A - C170 955A - C171 955A - C172 955A - C175 930A - C351 955A - C105 955A - C108 955A - C107 955A - C108 955A - C109 955A - C110	VC7 - 0630 - 101 VC7 - 0630 - 881			
VC5 - 2980 - 105 VC5 - 6680 - 104	955A - C108 955A - C107 955A - C108 955A - C109 955A - C110	VC7 - 3680 - 101	935A - NF101 955A - NF102 955A - NF103 955A - NF104 955A - NF105 955A - NF106 955A - NF107 955A - NF108 955A - NF109 955A - NF110	VR5 - 3680 - 101 VR5 - 3680 - 102 VR5 - 3680 - 103	

PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.
VV1 - 2113 - 302	951 - R438	VV1 - 2115 - 102	955A - R217	VV1 - 2115 - 472	955A - R254
VV1 - 2113 - 362	951 - R434		955A - R218		955A - R255
VV1 - 2113 - 512	951 - R409		955A - R219		955A - R256
VV1 - 2113 - 562	951 - R435		955A - R220		955A - R259
VV1 - 2115 - 101	955A - R185		955A - R221		955A - R260
	955A - R186		955A - R226		955A - R262
	955A - R188		955A - R227		955A - R263
	955A - R189		955A - R228		955A - R264
	955A - R190		955A - R229		955A - R265
	955A - R191		955A - R230		955A - R266
	955A - R192		955A - R231		955A - R272
	955A - R193		955A - R232		955A - R274
	955A - R194		955A - R233		955A - R280
	955A - R195		955A - R242		955A - R281
	955A - R198		955A - R243		955A - R285
	955A - R205		955A - R244		955A - R300
	955A - R206		955A - R245		955A - R333
	955A - R207		955A - R246	VV1 - 2115 - 473	955A - R127
	955A - R282		955A - R247		955A - R128
	955A - R283		955A - R248		955A - R142
	955A - R284		955A - R249		955A - R143
	955A - R285		955A - R250		955A - R151
	955A - R286		955A - R257		955A - R152
	955A - R287		955A - R258		955A - R158
	955A - R288		955A - R279		955A - R159
	955A - R289		955A - R296		955A - R160
	955A - R290		955A - R334		955A - R165
	955A - R291	VV1 - 2115 - 103	955A - R224		955A - R166
	955A - R292		955A - R225		955A - R174
	955A - R293		955A - R261		955A - R175
	955A - R297	VV1 - 2115 - 105	955A - R273		955A - R176
	955A - R301	VV1 - 2115 - 112	955A - R294		955A - R197
	955A - R302		955A - R298		955A - R198
	955A - R303		955A - R299		955A - R199
	955A - R304		955A - R111		955A - R200
	955A - R305	VV1 - 2115 - 202	955A - R112		955A - R222
	955A - R306		955A - R113		955A - R223
	955A - R307		955A - R114		955A - R235
	955A - R308		955A - R115		955A - R236
	955A - R309		955A - R116		955A - R237
	955A - R310		955A - R117		955A - R238
	955A - R311		955A - R118		955A - R239
	955A - R312		955A - R125		955A - R240
	955A - R313		955A - R126		955A - R267
	955A - R314		955A - R131		955A - R268
	955A - R315		955A - R132		955A - R269
	955A - R316		955A - R133		955A - R270
	955A - R321		955A - R134		955A - R271
	955A - R325		955A - R136		955A - R275
	955A - R329		955A - R137		955A - R276
	955A - R330		955A - R138		955A - R277
	955A - R331		955A - R139		955A - R278
	955A - R332		955A - R140	VV1 - 2118 - 100	951 - R454
	955A - R108		955A - R141		951 - R488
	955A - R107		955A - R148		951 - R501
	955A - R108		955A - R150	VV1 - 2118 - 101	951 - R406
	955A - R109		955A - R163		951 - R413
	955A - R110		955A - R164		951 - R418
	955A - R119		955A - R101		951 - R419
	955A - R120	VV1 - 2115 - 472	955A - R102		951 - R420
	955A - R121		955A - R103		951 - R421
	955A - R130		955A - R104		951 - R422
	955A - R144		955A - R105		951 - R423
	955A - R145		955A - R122		951 - R424
	955A - R146		955A - R123		951 - R425
	955A - R147		955A - R124		951 - R426
	955A - R148		955A - R129		951 - R432
	955A - R153		955A - R135		951 - R437
	955A - R155		955A - R154	VV1 - 2118 - 102	951 - R444
	955A - R156		955A - R161		951 - R447
	955A - R157		955A - R162		951 - R448
	955A - R167		955A - R170		951 - R457
	955A - R168		955A - R171		951 - R480
	955A - R169		955A - R172		951 - R483
	955A - R173		955A - R177		951 - R486
	955A - R181		955A - R178		951 - R470
	955A - R182		955A - R179		951 - R474
	955A - R183		955A - R180		951 - R481
	955A - R184		955A - R208		951 - R497
	955A - R211		955A - R209		951 - R505
	955A - R212		955A - R210		951 - R507
	955A - R213		955A - R234		951 - R509
	955A - R214		955A - R241		951 - R511
	955A - R215		955A - R252		951 - R513
	955A - R216		955A - R253		951 - R515

PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.
VV1 - 2118 - 102	951 - R519	VW4 - 2027 - 104	951 - C409	WA2 - 0834 - 000	955A - Q185
	951 - R522		951 - C410		955A - Q186
	951 - R525		951 - C411	WA2 - 0835 - 000	955A - Q126
	951 - R539		951 - C412	WA2 - 0935 - 000	955A - Q142
951 - R540	951 - C413	951 - Q419			
VV1 - 2118 - 103	951 - R484	951 - C414	951 - C415	WA2 - 1004 - 000	951 - Q420
	951 - R488	951 - C415	951 - C417	WA2 - 1021 - 000	951 - Q421
	951 - R472	951 - C421	951 - C423		951 - Q423
	951 - R482	951 - C422	951 - C427	955A - Q125	
VV1 - 2118 - 202	951 - R526	951 - C431	951 - C437	955A - Q128	955A - Q128
	951 - R401	951 - C431	951 - C436	955A - Q130	955A - Q130
	951 - R402	951 - C433	951 - C437	955A - Q133	955A - Q134
	951 - R403	951 - C436	951 - C438	955A - Q135	955A - Q136
VV1 - 2118 - 221	951 - R484	951 - C439	951 - C440	WA2 - 5346 - 000	955A - Q187
	951 - R485	951 - C439	951 - C441		955A - Q188
	951 - R495	951 - C440	951 - C442	955A - Q127	
	951 - R496	951 - C441	951 - C443	955A - Q131	
VV1 - 2118 - 471	951 - R499	951 - C442	951 - C444	WA2 - 5376 - 000	955A - Q132
	951 - R508	951 - C443	951 - C448		955A - Q137
	951 - R512	951 - C444	951 - C449	955A - Q138	
	951 - R516	951 - C448	951 - C450	955A - Q139	
VV1 - 2118 - 472	951 - R408	951 - C449	951 - C451	WA3 - 2057 - 000	955A - Q140
	951 - R431	951 - C450	951 - C452	WA2 - 5378 - 000	955A - Q141
	951 - R483	951 - C451	951 - C453		870 - Q902
	951 - R527	951 - C452	951 - C454	930A - Q346	
VV1 - 2118 - 472	951 - R484	951 - C453	951 - C455	WA3 - 2126 - 000	930A - Q347
	951 - R410	951 - C454	951 - C456	WA3 - 3808 - 000	955A - Q108
	951 - R415	951 - C455	951 - C407	WA3 - 4014 - 000	951 - Q411
	951 - R427	951 - C407	951 - C425	WA3 - 4127 - 000	951 - Q412
951 - R429	951 - C425	951 - C418	955A - Q161		
VV1 - 2118 - 472	951 - R439	951 - C418	951 - C419	WA3 - 4371 - 000	955A - Q162
	951 - R442	951 - C419	951 - C420		955A - Q163
	951 - R445	951 - C420	951 - C422	WA3 - 4465 - 000	955A - Q164
	951 - R452	951 - C422	951 - C426		930A - Q301
VV1 - 2118 - 472	951 - R476	951 - C426	951 - C445	WA3 - 5005 - 000	955A - Q169
	951 - R478	951 - C445	951 - C446		930A - Q304
	951 - R478	951 - C446	951 - C447	WA3 - 5033 - 000	930A - Q345
	951 - R479	951 - C447	951 - C424		951 - Q402
VV1 - 2118 - 472	951 - R480	951 - C424	951 - C428	951 - Q410	955A - Q143
	951 - R487	951 - C428	951 - C429	955A - Q145	
	951 - R488	951 - C429	951 - C430	955A - Q151	
	951 - R489	951 - C430	951 - C432	955A - Q155	
VV1 - 2118 - 472	951 - R490	951 - C432	951 - C434	955A - Q156	955A - Q157
	951 - R491	951 - C434	951 - C435	955A - Q158	
	951 - R492	951 - C435	951 - C455	955A - Q159	
	951 - R493	951 - C455	951 - C456	951 - Q409	
VV1 - 2118 - 472	951 - R494	951 - C456	951 - C457	WA3 - 5285 - 000	930A - Q344
	951 - R500	951 - C457	920 - D701	WA3 - 5327 - 000	955A - Q180
	951 - R537	920 - D701	920 - D702	WA3 - 5413 - 000	930A - Q309
	951 - R541	920 - D702	920 - D703	WA3 - 5489 - 000	955A - Q101
VV1 - 2118 - 472	951 - R405	920 - D703	920 - D704	WA3 - 5978 - 000	955A - Q107
	951 - R411	920 - D704	920 - D705	WA3 - 8092 - 000	930A - Q312
	951 - R416	920 - D705	920 - D706	WA3 - 8142 - 000	930A - Q311
	951 - R428	920 - D706	920 - D707	WA3 - 8148 - 000	955A - Q102
VV1 - 2118 - 472	951 - R430	930A - ZD303	930A - ZD304	WA3 - 8149 - 000	955A - Q103
	951 - R440	930A - ZD303	930A - Q328		955A - Q115
	951 - R443	930A - ZD304	930A - Q329	955A - Q114	
	951 - R446	930A - Q328	930A - Q330	955A - Q121	
VV1 - 2118 - 472	951 - R449	930A - Q330	930A - Q331	WA3 - 8150 - 000	951 - Q407
	951 - R450	930A - Q331	930A - Q340	WA3 - 8215 - 000	930A - Q335
	951 - R451	955A - Q148	955A - Q147	WA4 - 0387 - 000	951 - Q408
	951 - R453	955A - Q147	955A - Q148	WA4 - 0480 - 000	930A - Q333
VV1 - 2118 - 472	951 - R485	930A - Q305	930A - Q305	WA4 - 0576 - 000	930A - Q302
	951 - R489	930A - Q306	930A - Q306	WA4 - 1202 - 000	951 - Q413
	951 - R473	930A - Q307	930A - Q307	WA4 - 5318 - 000	951 - Q415
	951 - R477	930A - Q308	930A - Q308		951 - Q417
VV1 - 2118 - 472	951 - R528	930A - Q309	930A - Q309	WA4 - 5417 - 000	951 - Q401
	951 - R529	930A - Q310	930A - Q310	930A - Q314	
	951 - R530	930A - Q311	930A - Q311	930A - Q315	
	951 - R531	930A - Q312	930A - Q312	930A - Q316	
VV1 - 2118 - 472	951 - R532	930A - Q313	930A - Q313	930A - Q317	
	951 - R533	930A - Q314	930A - Q314	930A - Q318	
	951 - R534	930A - Q315	930A - Q315		
	951 - R535	930A - Q316	930A - Q316		
VV1 - 2118 - 511	951 - R538	930A - Q317	930A - Q317		
	951 - R538	930A - Q318	930A - Q318		
	951 - R518	930A - Q319	930A - Q319		
	951 - R521	930A - Q320	930A - Q320		
VV1 - 2118 - 881	951 - R524	930A - Q321	930A - Q321		
	951 - R407	930A - Q322	930A - Q322		
	951 - C404	930A - Q323	930A - Q323		
	951 - C405	930A - Q324	930A - Q324		
VW4 - 2027 - 104	951 - C406	930A - Q325	930A - Q325		
	951 - C408	930A - Q326	930A - Q326		
	951 - C408	930A - Q327	930A - Q327		
	951 - C408	930A - Q328	930A - Q328		

PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.	PART NUMBER	FIGURE & KEY NO.
WA4 - 5438 - 000	930A - Q327	WS3 - 1273 - 000	B - J 1		
	930A - Q338		B - J 2		
	930A - Q337		B - J 11		
WA4 - 5455 - 000	955A - Q106	WS3 - 5008 - 000	B - J 12		
WA4 - 5487 - 000	951 - Q403		B - J 83		
	951 - Q404	WS4 - 0181 - 000	B - J 85		
	951 - Q405		B - J106		
WA4 - 5488 - 000	951 - Q406		B - J303		
	951 - Q414	WT1 - 0211 - 000	955A - CP280		
	951 - Q416	WT1 - 5167 - 000	110 - 20		
	951 - Q418	WT2 - 0030 - 000	101 - 83C		
WA8 - 5028 - 000	930A - D303		110 - 8A		
WA8 - 5130 - 000	930A - Q308S		420 - 22		
	955A - Q120S	WT2 - 0204 - 000	400 - 15		
	955A - Q122S	WT2 - 0317 - 000	110 - 21		
	955A - Q123S		220 - 7		
WC2 - 5078 - 000	920 - SW701	WT2 - 0408 - 000	101 - 62H		
	920 - SW702	WT2 - 5058 - 000	101 - 83D		
	920 - SW703	WT2 - 5180 - 000	101 - 57		
	920 - SW704	WT8 - 5143 - 000	101 - 88		
	920 - SW705	XA1 - 1260 - 607	101 - 59		
	920 - SW706	XA8 - 0373 - 000	101 - 60		
	920 - SW707		400 - 11		
	920 - SW708		420 - 21		
	920 - SW709	XB2 - 8300 - 607	101 - 69		
	920 - SW710	XZ8 - 0340 - 000	100 - 12		
	920 - SW711				
	920 - SW712				
	920 - SW713				
	920 - SW714				
	920 - SW715				
	920 - SW717				
	955A - SW101				
WC4 - 5038 - 000	400 - 12D				
WG1 - 0452 - 000	920 - LED710				
	920 - LED711				
	920 - LED712				
	920 - LED713				
	920 - LED714				
	920 - LED715				
	920 - LED716				
	920 - LED718				
	920 - LED719				
	920 - LED720				
	920 - LED721				
	920 - LED722				
	920 - LED727				
	920 - LED728				
WG1 - 5138 - 000	920 - LED705				
	920 - LED706				
	920 - LED707				
	920 - LED708				
	920 - LED723				
	920 - LED730				
	920 - LED731				
	920 - LED732				
	920 - LED733				
	920 - LED734				
	920 - LED735				
	920 - LED736				
	920 - LED737				
WG1 - 5138 - 000	920 - LED701				
	920 - LED702				
	920 - LED703				
	920 - LED704				
	920 - LED717				
WG1 - 5140 - 000	920 - LED709				
WG1 - 5141 - 000	101 - 58				
WG8 - 0291 - 000	420 - 20				
	425 - 30				
	620 - 24				
WK1 - 5037 - 000	930A - BATT1				
	955A - BATT101				
WK2 - 0257 - 000	930A - X302				
WK2 - 0350 - 000	930A - X303				
WK2 - 5088 - 000	930A - X301				
WK2 - 5131 - 000	955A - X102				
	955A - X103				
WK2 - 5132 - 000	955A - X101				
WK3 - 5040 - 000	951 - NF404				
	951 - NF405				
	951 - NF401				
WK3 - 5091 - 000	951 - NF402				
	951 - NF403				
WS3 - 1185 - 000	B - J 65				