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Front Cover

OKIDATA

Service Guide

OKIPAGE 8c / OKIPAGE 8cn
LED PAGE COLOR PRINTER PRODUCTS

Adobe Acrobat printable reference copy
of the OKIDATA Service Training Manual.
11/02/98 Rev. 2.0

Note: This Adobe Acrobat version of the Okidata Service Training Manual was built with the pictures rendered at 72 dpi, which is ideal for screen viewing. For future updates to this manual, and more on-line information visit our **Business Partner Exchange (BPX) at http://bpx.okidata.com**.

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Preface

This manual provides procedures and techniques for the troubleshooting, maintenance, and repair of OKIPAGE 8c.

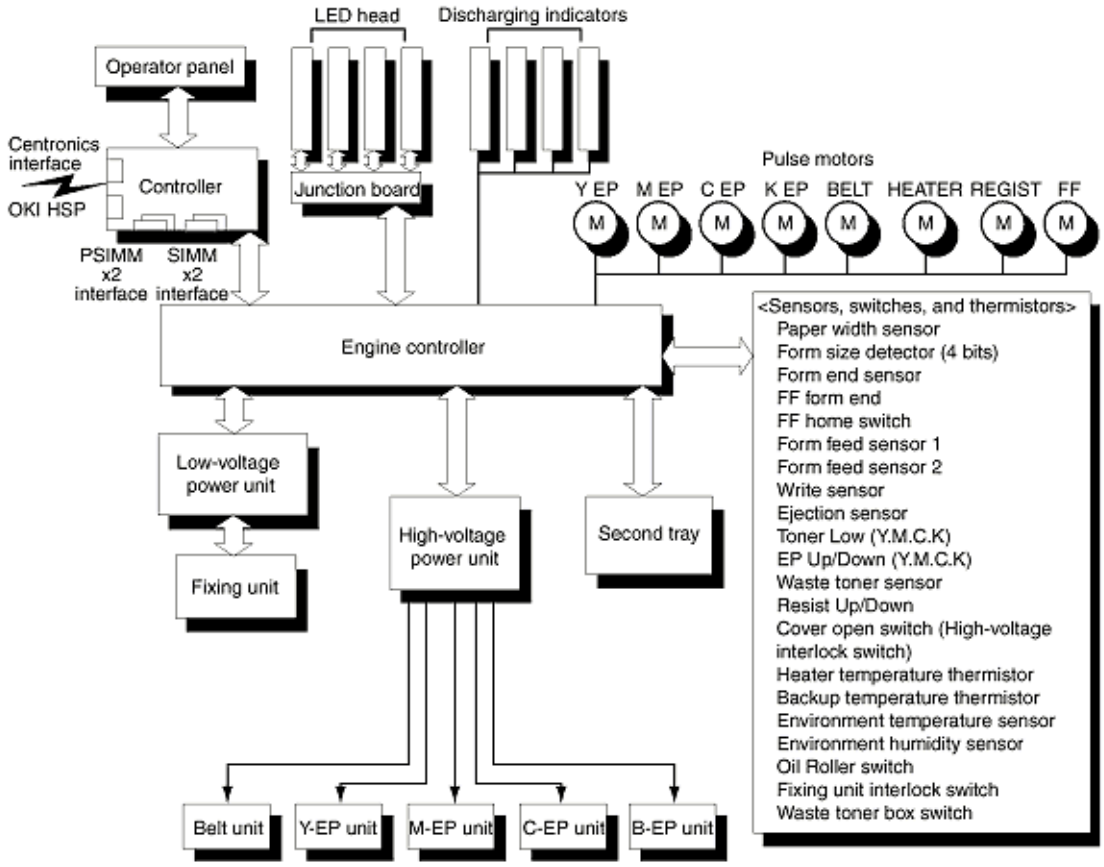
This manual is written for maintenance personnel, but it should always be accompanied with the OKIPAGE 8c User's Manual for procedures for handling and operating OKIPAGE 8c. For repairing each component of OKIPAGE 8c, see the Troubleshooting Manual.

[Notices]
The contents of this manual are subject to change without prior notice. Although reasonable efforts have been taken in the preparation of this manual to assure its accuracy, this manual may still contain some errors and omissions. OKI will not be liable for any damage caused or alleged to be caused, by the customer or any other person using this maintenance manual to repair, modify, or alter OKIPAGE 8c in any manner.

[Warning]
Many parts of OKIPAGE 8c are very sensitive and can be easily damaged by improper servicing. We strongly suggest that OKIPAGE 8c be serviced by OKI's authorized technical service engineers.

1.1 Basic System Configuration

This diagram shows the basic system configuration of OKIPAGE 8c.



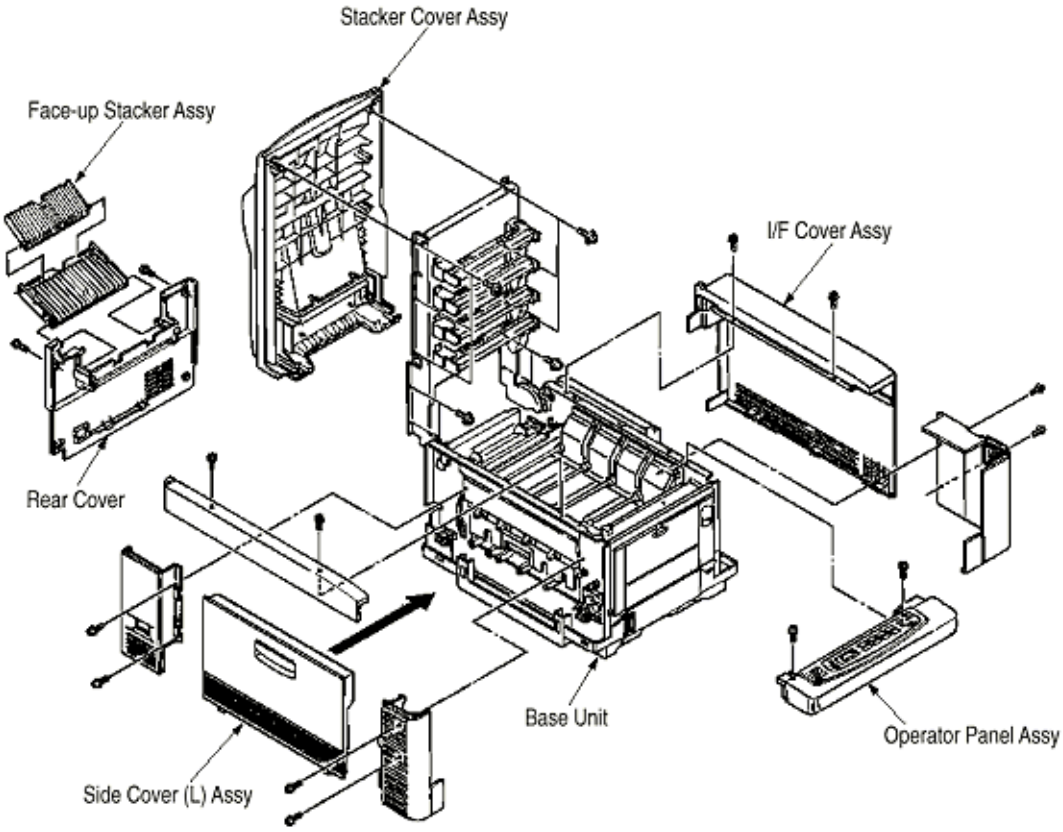
Basic System Configuration Diagram

1.2 Printer Specifications

This printer unit is composed of the following hardware.

- Electro-photographic processor
- Paper feeder
- Controller (CU part / PU Part)
- Operator panel
- Power board (High voltage part / PU part)

This diagrams shows the printer unit configuration.

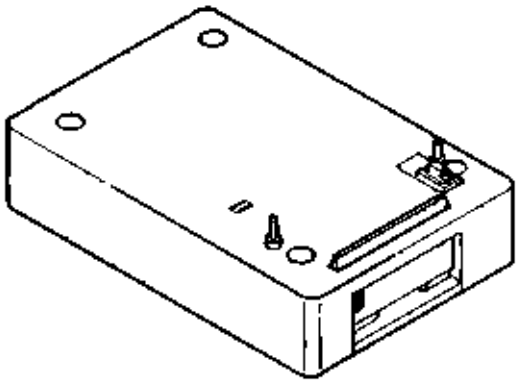


Printer Unit Configuration Diagram

1.3 Option Specifications

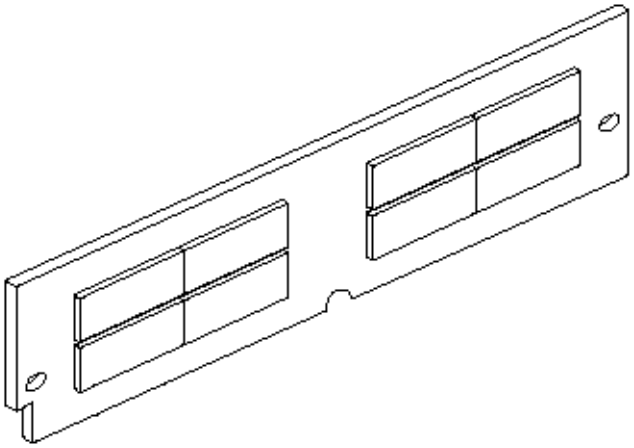
The OKIPAGE 8c options are listed below.

(1) Second Paper Feeder



(2) RAMM SIMM module (72 pin SIMM, 4MB/8MB/16MB/32MB)

- Make sure to use a set of 2 of the same volume size modules.



1.4 Basic Specifications

(1)	**Dimensions**	Width: 18.8"
(2)	**Weight**	Approx. 91 lbs. without box
(3)	**Form**	
	Type:	Ordinary paper (Hammermill xx lb.) and Transparency (Only CG3710) Recommended paper (for color printing) Note: the printout color tones are dependent upon the whiteness of the print paper.
	Sizes:	Letter, Legal (13" or 14"), Executive, A4, A5, B5, and B6 (1st tray and front feeder)
	Reams:	1st tray - 20 lbs. to 28 lbs. 2nd tray - 20 lbs. to 28 lbs. Front feeder - 20 lbs. to 44 lbs.
(4)	**Printing speed:**	8 pages per minute (5 pages per minute: Transparency / 34 lb. ~ 44 lb., 123g/m^2 ~ 166g/m^2)
(5)	**Resolution**	600 dots per inch x 600 dots per inch
(6)	**Input voltage**	120VAC +5.5%, -15% 230VAC to 240VAC +10%, -14%
(7)	**Power consumption**	Peak: Approx. 980W Typical operation: Approx 230W Idle: Approx 70W Power save mode: Approx 32W
(8)	**Frequency**	50Hz or 60Hz +2%, -2%
(9)	**Noises**	Operating: 54 decibels (without 2nd tray), 55 decibels (with 2nd tray) Standby: 45 decibels Power-saving: 43 decibels
(10)	**Expendables and service life**	Toner Cartridge: Approx. 1800 pages (5% density) (each of Y, M, C, and K) Image Drum: Up to 12,000 pages (5% density, continuous) (each of Y, M, C and K) Waste Toner Box: Up to 25,000 sheets (under typical printout conditions: Single images of 5% density, equivalent to printout using 14 toner cartridges) Oil Roller Unit: Up to 10,000 sheets (Life defined in the number of actual printed paper sheets) **Note:** Y=Yellow, M=Magenta, C=Cyan, K=Black
(11)	Periodically replaced parts	Fuser Heat Unit Assy: 60,000 pages Transfer Belt Cassette Assy: 50,000 pages

(12) Temperatures and relative humidities

Temperature

Temperature conditions			
	Fahrenheit	**Celsius**	**Remarks**

Operating	50 to 89.6	10 to 32	17 Celsius to 27 Celsius (for assurance of full-color printout quality)
Non-operating	32 to 109.4	0 to 43	Power off
Storage (1 year max.)	-14 to 109.4	-10 to 43	with drum and toner
Delivery (1 month max.)	-20 to 122	-29 to 50	without drum and toner and Belt Cassette Assy
Delivery (1 month max.)	-20 to 122	-29 to 50	with drum and toner

Humidity

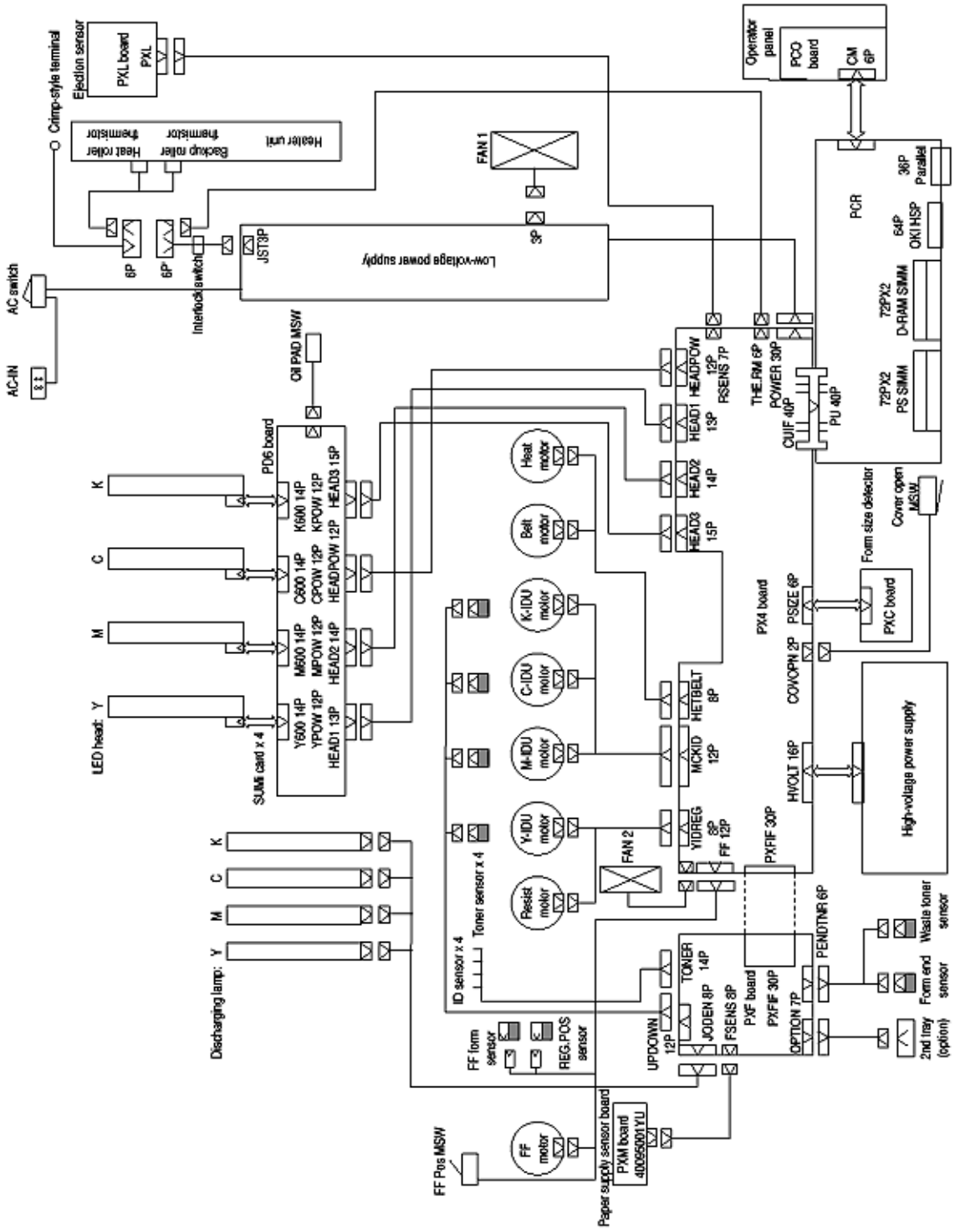
Humidity condition			
	Fahrenheit	**Celsius**	**Remarks**
Operating	20 to 80	5	50% to 70% (for assurance of full-color printout quality)
Non-operating	10 to 90	26.8	Power off
Storage	10 to 90	35	
Delivery	10 to 90	40	

(13) Printer life - 3,000,000 (A4) pages or 5 years

2. Operation

OKIPAGE 8c is a tandem color electrophotographic page printer, using 4992 Pixel-LED technologies, OPC, dry single-component non-magnetic developing, roller transfer, heat-compression fixing (fusing). The printing method used is a Black Writing method which applies light beams to printout areas.

Here is the Functional Block Diagram of OKIPAGE 8c.

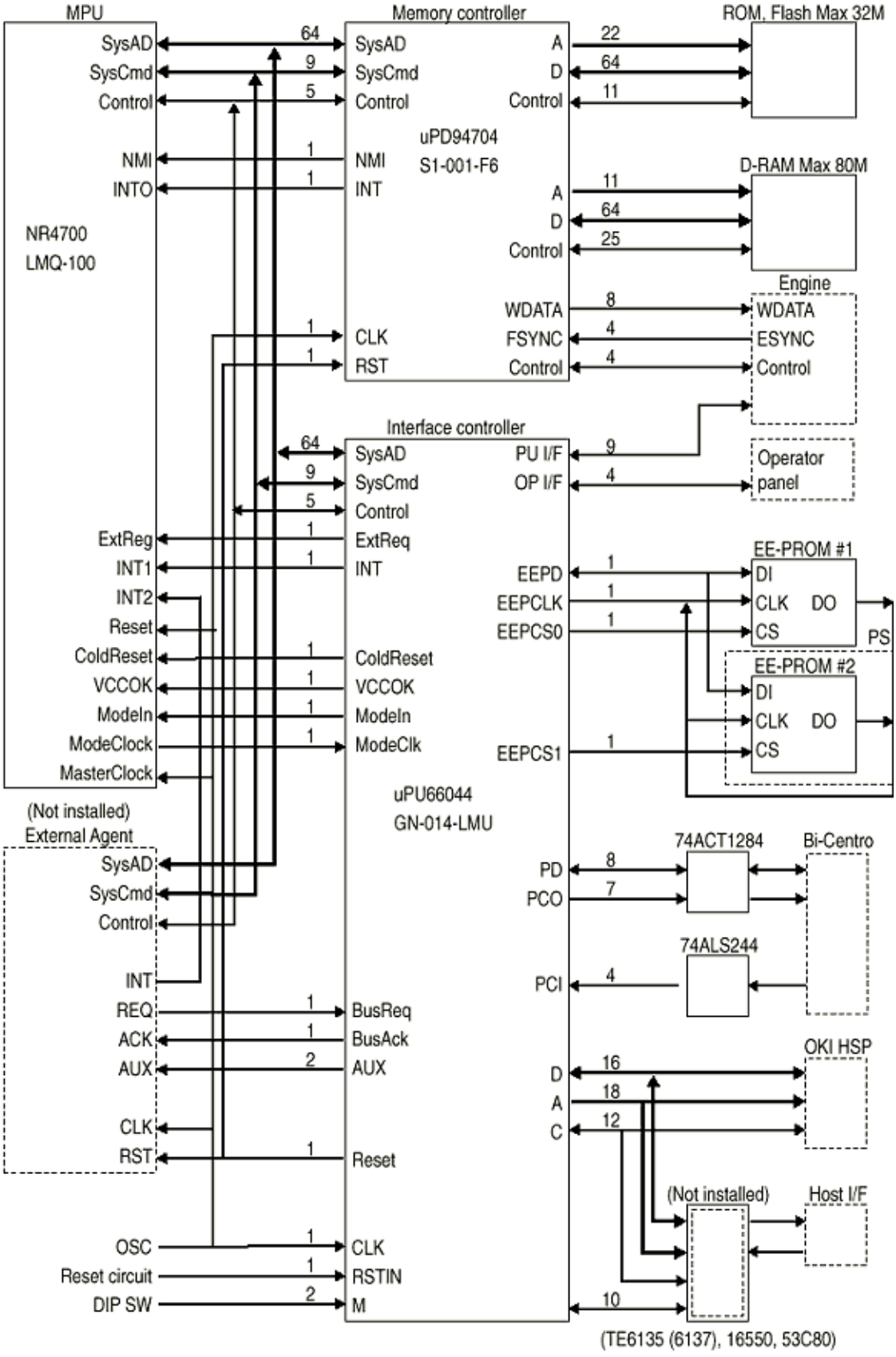


Functional Block Diagram

2.1 Main Control Board (PCR PCB)

The control board consists of a CPU (NR4700) block, a memory control LSI block, an interface control LSI block, a DRAM block, an EEPROM block, a mask ROM block, and an interface block.

Here is the Functional Block Diagram of the main control board (PCR PCB).


MPU
SysAD
SysCmd
Control
NMI
INTO
NR4700
LMQ-100
ExtReg
INT1
INT2
Reset
ColdReset
VCCOK
ModeIn
ModeClock
MasterClock
(Not installed)
External Agent
SysAD
SysCmd
Control
INT
REQ
ACK
AUX
CLK
RST
OSC
Reset circuit
DIP SW
64
9
5
1
1
1
1
64
9
5
1
1
1
1
1
1
1
2
1
1
2
Memory controller
SysAD
SysCmd
Control
uPD94704
S1-001-F6
NMI
INT
CLK
RST
Interface controller
SysAD
SysCmd
Control
ExtReq
INT
ColdReset
VCCOK
ModeIn
ModeClk
uPU66044
GN-014-LMU
BusReq
BusAck
AUX
Reset
CLK
RSTIN
M
A
D
Control
WDATA
FSYNC
Control
PU I/F
OP I/F
EEPD
EEPCLK
EEPCS0
EEPCS1
PD
PCO
PCI
D
A
C
10
22
64
11
11
64
25
8
4
4
9
4
1
1
1
1
8
7
4
16
18
12
ROM, Flash Max 32M
D-RAM Max 80M
Engine
WDATA
ESYNC
Control
Operator
panel
EE-PROM #1
DI
CLK DO
CS
PS
EE-PROM #2
DI
CLK DO
CS
74ACT1284
Bi-Centro
74ALS244
OKI HSP
(Not installed)
Host I/F
(TE6135 (6137), 16550, 53C80)

Functional Block Diagram of Main Control Board

(1) CPU

The CPU is a 64-bit RISC architecture processor (provided y NKK). It inputs a frequency of 50 MHz and runs at 100 MHz. It transfers data to a from memory at 50 MHz.

(2) Mask ROM

The mask ROM block consists of four 16 Mbit (1M x 16 bits) chips and its total size is 8M bytes. The chips are mounted on the PCR-PCB by means of IC sockets and store programs and character fonts.

(3) DRAM

The DRAM block consists of eight 16 Mbit (1M x 16bits) chips and its total size is 16M bytes. The chips are mounted on the PCR-PCB and can be expanded up to 80M bytes by adding the 32M byte SIMMs to the SIMM slots on the PCR-PCB.

(4) EEPROM

The EEPROM block consists of 1K-bit chips mounted on a board by means of IC sockets and stores the following:

- Menu data
- Counter values
- Adjustment values

(5) Flash ROM

The Flash ROM block consists of four 4M bit (256K x 16bits) chips and its total size is 2M bytes. The chips are mounted on the PCR-PCB and are used for storing fonts, macro and demo pages.

(6) Memory control LSI

This block mainly consists of memory control, CPU control, compression and decompression, and video interface functions.

(7) Interface control LSI

This block mainly consists of PU interface control, operator panel interface control, EEPROM control, parallel interface control, and HSP control functions.

(8) Host interface

The printer has the following interfaces to the host.
Centronics bi-directional parallel interface
OKI HSP interface (Option)

The single effective interface or the automatic interface select mode can be selected using the menu. If the busy state of the printer continues for a long time period, the buffer near-full control releases the busy status at constant intervals even if the host side is busy so as not to cause interface time-out at the host side.

(a) Centronics bi-directional parallel interface

This is an interface confirming to IEEE-1284 and provides either unidirectional ad bi-directional communications according to each of the following communication modes.

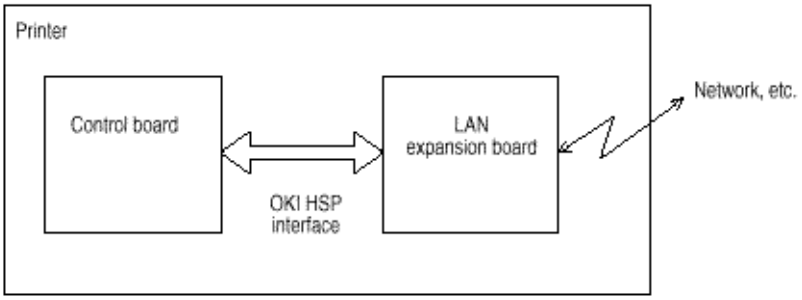
- **Compatibility mode** - Unidirectional communications from the host to the printer.
- **Nibble mode** - This mode transfers 4-bit wide data from the printer to the host. In this mode, each bit of 1-byte data transmits in the form of two nibbles using ERROR, BUSY, FAULT, and SELECT signal leads. This mode can provide bi-directional operation in combination with the compatibility mode.
- **ECP mode** - This mode provides the asynchronous bi-directional interface and transmits and receives 1-byte data using eight data signal leads under semi-duplex control by the host.

When the power is turned on, the compatibility mode is automatically selected. The change to another mode form the compatibility mode is made through negotiation. (When the BI-DIRECTION is set to ENABLE in the menu, this change can be performed.) (For the electrical/physical characteristics of this interface, see APPENDIX B).

(b) OKI HSP interface (Option)

This interface (slot) is an OKI unique universal interface that provides the platform to connect various boards (including those supplied by third vendors) such as the LAN connection expansion board and SCSI expansion board.

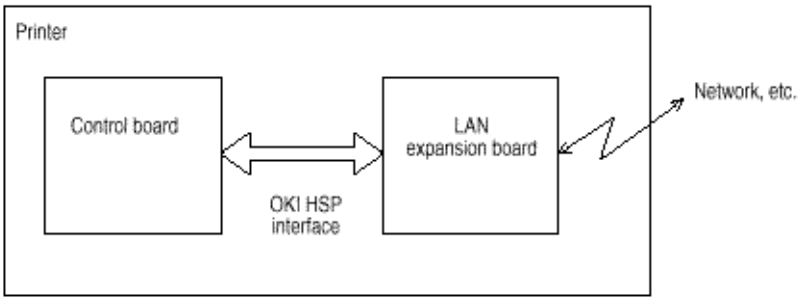
Any expansion boards compatible with this interface can be mounted on the Control board the piggyback board from without modifying the program at the printer side. Refer to the Conceptual Diagram of the OKI HSP interface.



Conceptual Diagram of OKI HSP Interface

(9) RAM module

- Pin layout



- Basic specification

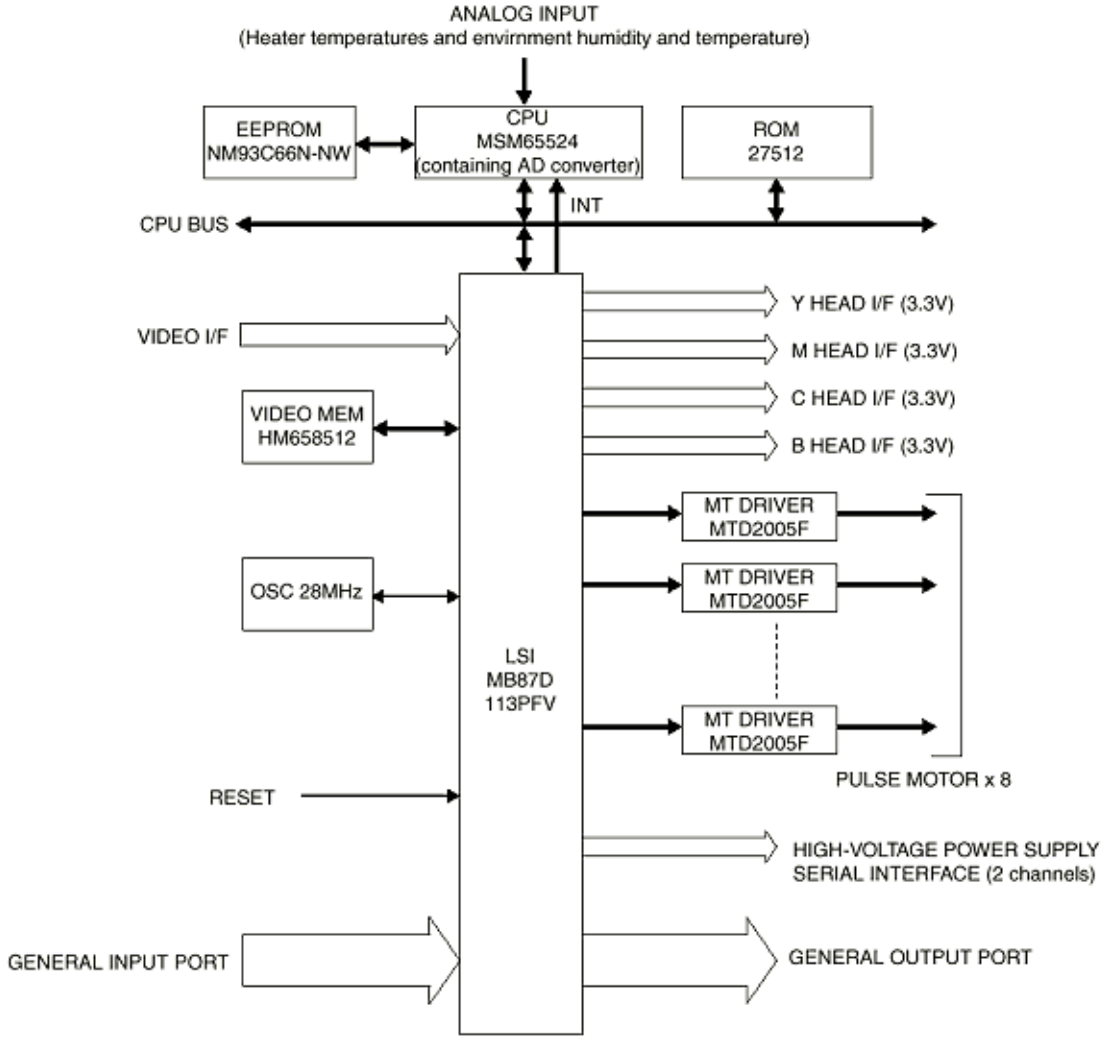
Type:	
Access time:	72 pins SIMM (32 bits buss width)
Capacity:	60ns, 70ns, 80ns
Parity:	4, 8, 16 32 or 64MB
	None

2.2 Engine Control Board (PX4 PCB)

ANALOG INPUT

(Heater temperatures and environmental humidity and temperature)

Yellow (Y), Magenta (M), Cyan (C), Black (B)



Engine Control Board Block Diagram

The engine control block (PU) is controlled by the engine control board (PX4 PCB) which consists of a CPU (MSM65524), general purpose LSI chips, EPROM, EEPROM, pulse motor drivers, and video memory. Refer to the Engine Control Board Block Diagram.

(1) CPU
This is an 8-bit CPU (OKI MSM65524) containing the AD converter and controls the whole system.

(2) General-purpose LSI
This LSI (MB87D113PFV) is provided in the printer engine control block and has controller-engine video interface, LED interface, motor control, sensor input, video memory control, main scanning color correction, skew correction, high-voltage power control, and OST-EX2 functions.

(3) EPROM
This EPROM (275C512-150) has a storage capacity of 512K bits and stores programs for the PU block.

(4) EEPROM
This EEPROM (NM93C66N-NW) has a storage capacity of 4K bits. It is mounted on the board by means of IC socket and stores adjustment values.

(5) Pulse motor drivers
These drivers (MTD2005F) drive eight pulse motors for moving up and down the image drum (EP) and transferring medium.

(6) Video memory
This SRAM received print data through video interface and stores it.

2.3 Power/Board

The power board consists of an AC filter circuit, a low voltage power supply circuit, a high voltage power supply circuit, and heater drive circuit, and photo sensors.

(1) Low voltage power supply circuit.

This circuit generates the following voltages.

Output voltage	Use
+3.3 V	CU Unit CPU, LED HEAD
+5 V	Logic circuit supply voltage
+32 V	Motor and fan drive voltage and source voltage for high-voltage supply, discharge lamp
+12 V	HSP, OP Amp, high voltage power supply
-12 V	HSP

(2) High voltage power supply circuit

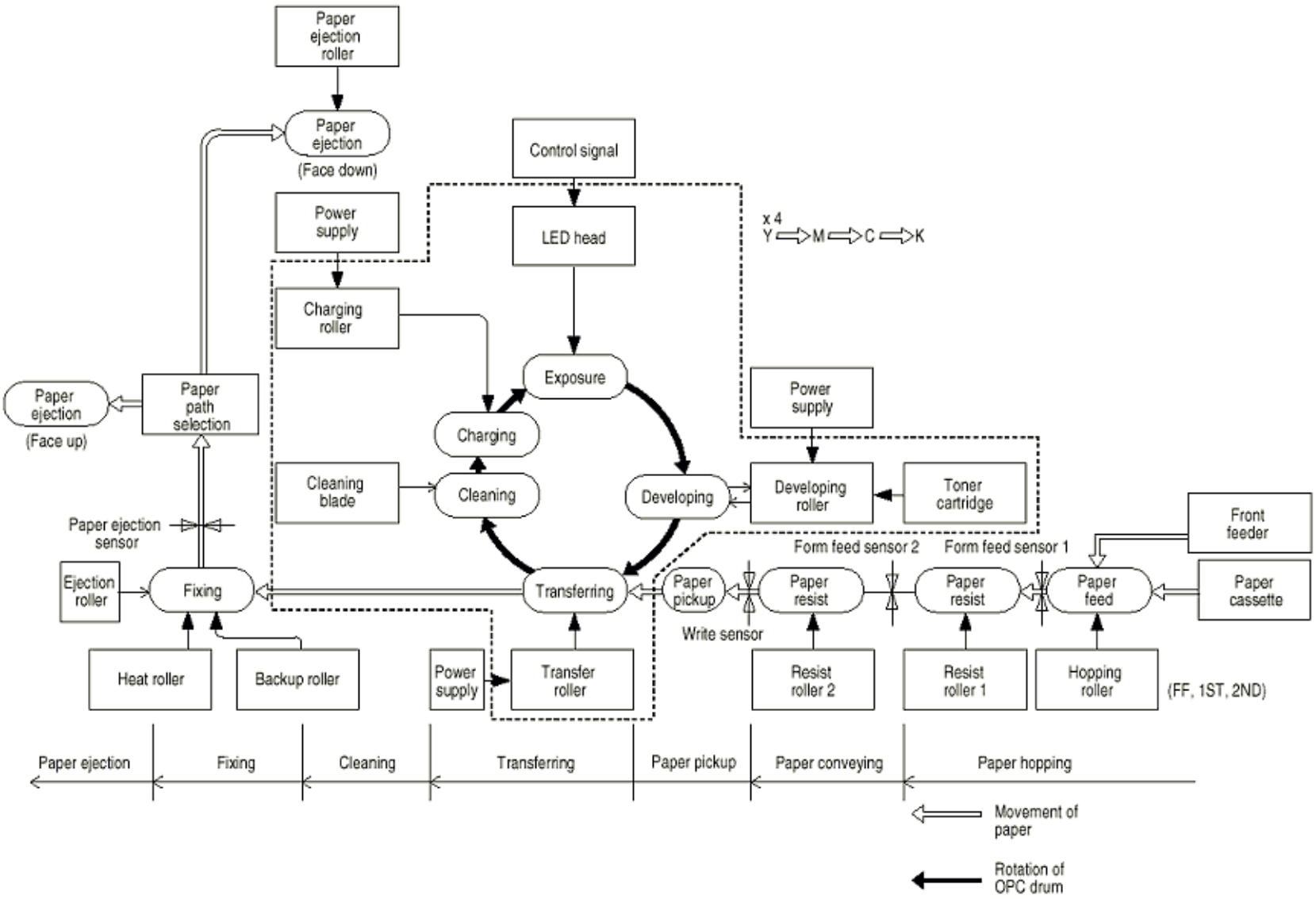
This circuit generates the following voltages necessary for electro-photographic processing from +32 V in accordance with the control sequence from the control board. When cover open state is detected, +32 V supply is automatically interrupted to stop the supply of all high-voltage outputs.

YMCK = Yellow, Magenta, Cyan, Black

Output	Voltage	Use	Remarks
CH	-1.35 KV ±50V	Voltage applied to charging roller	
DB	Normal paper Y.M.C.K.: -250V/+300V, -232V/+300V (First paper: Y only) K.: -270V/+300V Transparency Y.M.C.: -200V/+300V, K.: -250V/+300V	Voltage applied to developing roller	
SB	Y.M.C.K.: -650V/0V	Voltage applied to toner supply roller	
TR	0 to 4 KV	Voltage applied to transfer roller	Variable
FIX	0 to 2.5 KV	Voltage applied to transfer roller	Variable

2.4 Mechanical Processes

Here is the Mechanical Process Diagram of OKIPAGE 8c.


Paper ejection roller
Paper ejection
(Face down)
Control signal
Power supply
LED head
x 4
Y M C K
Charging roller
Exposure
Paper ejection
(Face up)
Paper path selection
Charging
Power supply
Cleaning blade
Cleaning
Developing
Developing roller
Toner cartridge
Front feeder
Paper ejection sensor
Form feed sensor 2
Form feed sensor 1
Ejection roller
Fixing
Transferring
Paper pickup
Paper resist
Paper resist
Paper feed
Paper cassette
Write sensor
Heat roller
Backup roller
Power supply
Transfer roller
Resist roller 2
Resist roller 1
Hopping roller
(FF, 1ST, 2ND)
Paper ejection
Fixing
Cleaning
Transferring
Paper pickup
Paper conveying
Paper hopping
Movement of paper
Rotation of OPC drum

Mechanical Process Diagram (Figure 2.5)

2.4.1 Electrophotographic processing mechanism

(1) **Electrophotographic processed** - Each process of the electrophotographic processing mechanism is outlined below.

(1) Paper pickup - This process causes the roller to give a DC voltage to the paper, resulting in a negative charge. With this negative charge, the paper is electrostatically attracted to the roller.

(2) Charging - This process gives a DC voltage to the charge roller so that the image drum may have a uniform negative charge on its surface.

(3) Exposure - This process causes the LED head to apply light beams according to image signals to the negatively-charged surface of the image drum. The negative charge on the illuminated surface of the image drum is reduced according to magnitudes of the light beams. Thus, a latent image is formed on the surface of the image drum according to the resulting surface potentials.

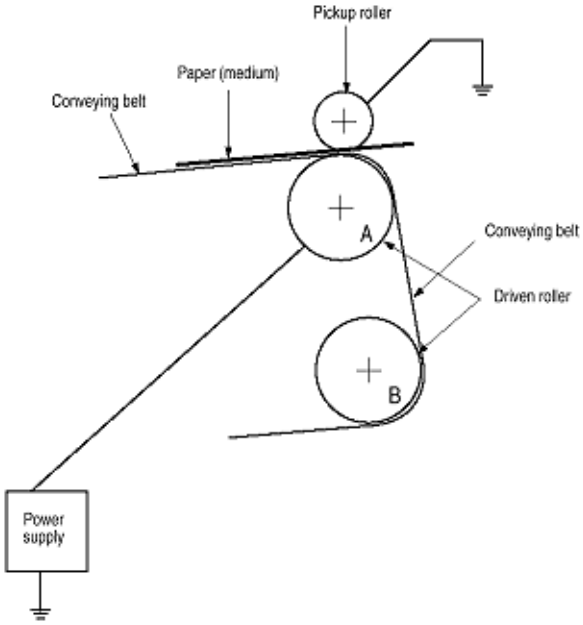
(4) Developing and recovery of excessive toner - This process applies negatively-charged toner to the surface of the image drum. The toner is electrostatically attracted to the latent image to form a visible image on the surface of the image drum. Simultaneously, this process electrostatically transfers excessive toner from the image drum to the developing roller.

(5) Transferring - This process fits paper to the surface of the image drum and applies positive charge (opposite to the charge of the toner) to the back side of the paper from the transfer roller. The toner image is transferred to the paper.

(6) Cleaning - Cleaning blade scrapes off the remaining toner of any image drum, which has been used to transfer the image drum the drum to the paper.

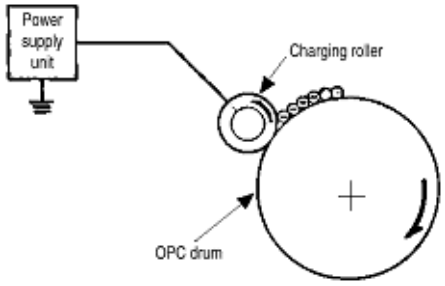
(7) Fixing - This process fixes the toner image on the paper by pressing the fusing the image.

(2) **Paper pickup**

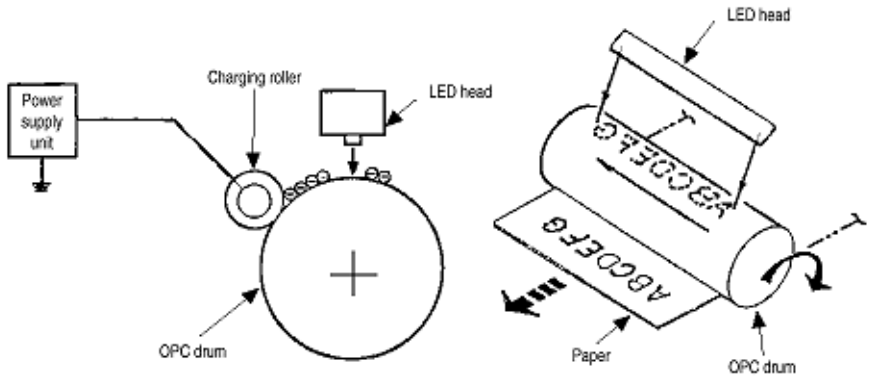


A DC voltage (0V to 2KV) is applied to the driven roller A, to create a positive charge on the lower surface of the paper. The
kept in charged paper is electrostatically attracted to the pickup roller. The paper is in close contact with the conveying Belt
and moves steadily.

(3) Charging - This process applies a DC voltage to the charging roller in contact with the surface of the image drum.

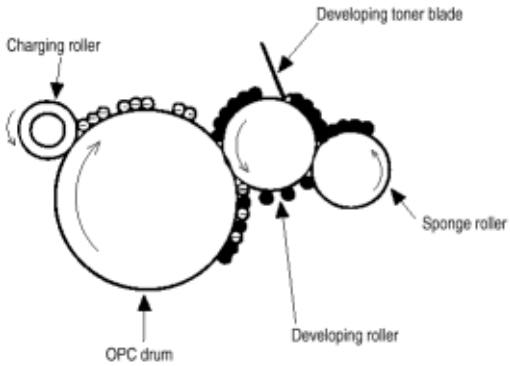


(4) Exposure - The light beams from the LED head are applied to the surface of the image drum which is charged
negatively. The negative charge on the illuminated surface f the image drum is reduced according to the magnitude of the
light beams and a latent image is formed on the surface of the image drum according to the resulting surface potentials.



(5) Developing - This process applies toner to the latent image on the surface of the drum to create a toner image.
Developing is carried out on the surface of the image drum at where the image contacts with the developing roller.

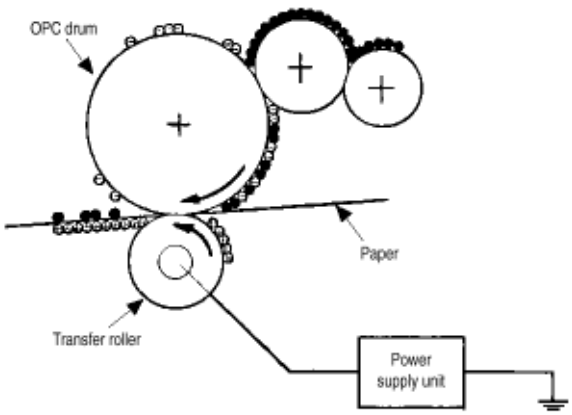
(1) The sponge roller transfers toner to the developing roller. The toner is charged negatively.



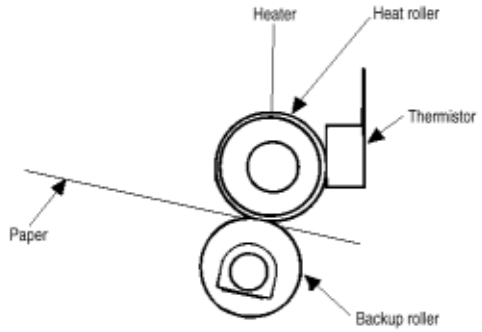
(2) The toner blade scrapes away excess toner from the developing roller, leaving a thin film of toner on the surface of the developing roller.

(3) The toner is attracted to the latent image on the surface of the image drum, where the image drum contacts the developing roller. The latent image on the surface of the image drum is made visible with the toner.

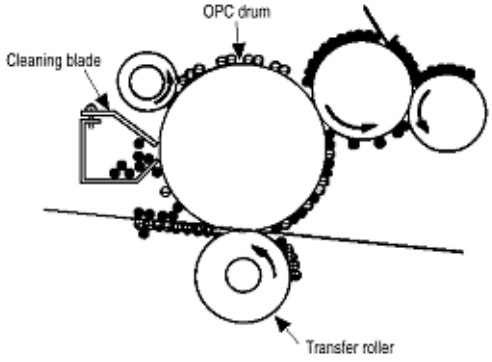
(6) Transferring - The transfer roller made of conductive sponge presses the paper against the surface of the image drum. The paper will make close contact with the surface of the image drum. This process fits the paper to the surface of the image drum (using the transfer roller) and applies a positive charge (opposite to the charge of the toner) from under the paper. When a positive high voltage is applied to the transfer roller from the power supply, the positive charge induced on the transfer roller jumps to the upper surface of the paper (where the transfer roller touches the paper) and attracts the negatively-charged toner from the surface of the image drum onto the surface of the paper.



(7) Fixing - The toner image just transferred to the paper is fused and fixed to the paper while the paper is passing through the gap between the heat roller and the backup roller. The teflon-coated surface of the heat roller is heated by the 800-watt heater (or a halogen lamp) in the heat roller. The temperature of the heat roller surface is controlled by a thermistor in contact with the surface of the heat roller. A thermostat is provided for safety. When the heat roller temperature rises above the preset temperature, the thermostat opens and shuts off power to the heater in the heat roller. The backup roller is evenly pushed against the heat roller by two end springs.



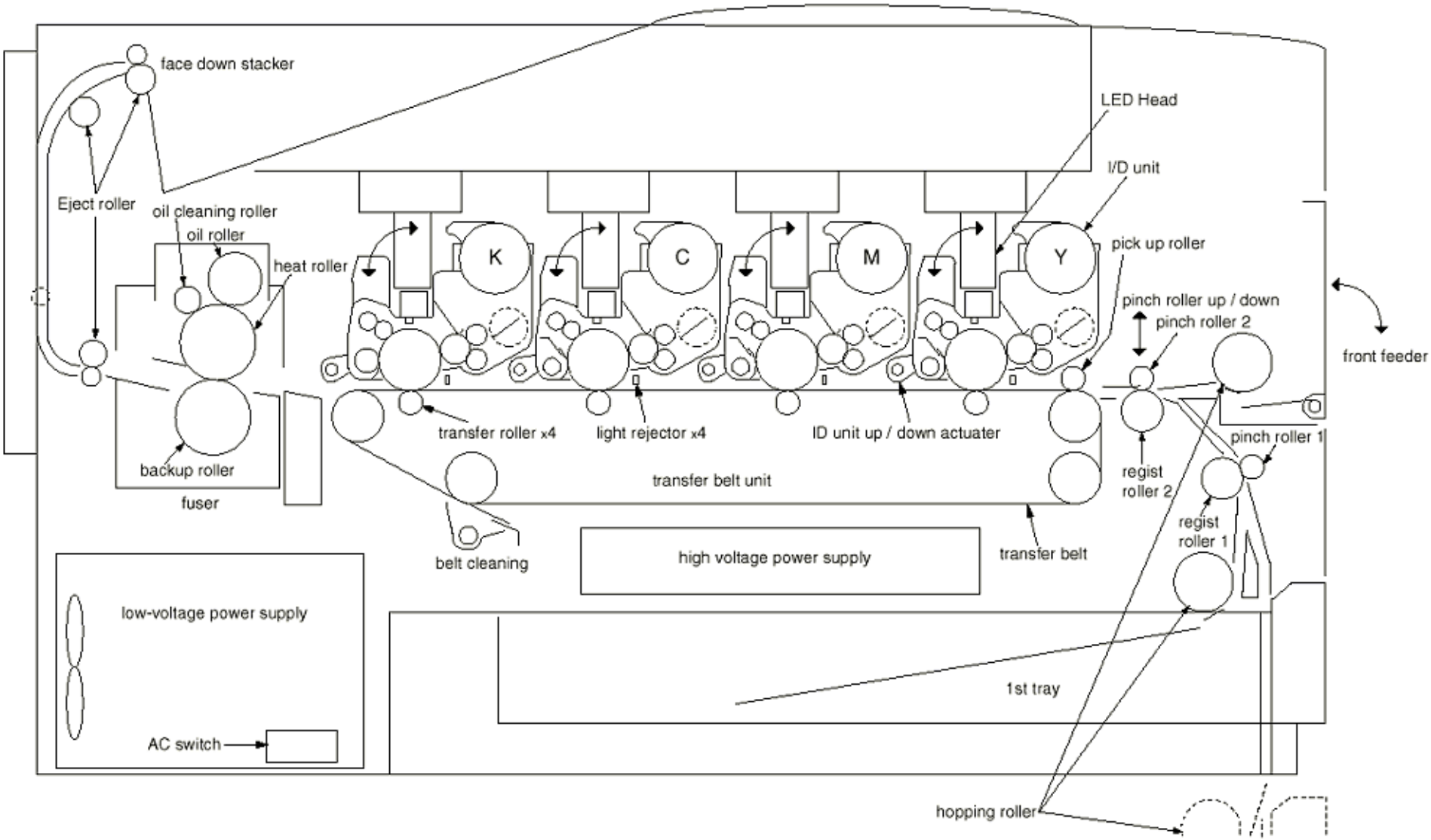
(8) Cleaning - The toner which remains on the (OPC) Image Drum without being fused is scraped by a cleaning blade and discarded in the waste toner tank.



2.4.2 Paper running process

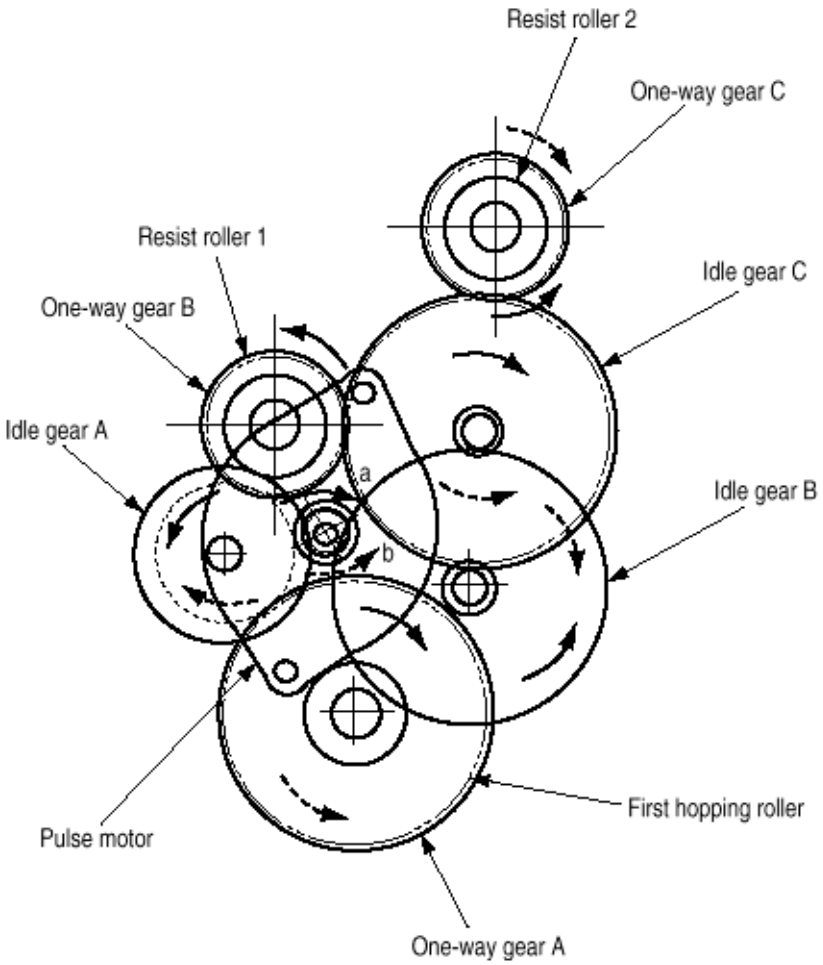
How paper moves through the OKIPAGE 8c is shown in the Paper Route Diagram.

Y=Yellow; M=Magenta; C=Cyan; K=Black


face down stacker
Eject roller
oil cleaning roller
oil roller
heat roller
backup roller
fuser
LED Head
I/D unit
K
C
M
Y
pick up roller
pinch roller up / down
pinch roller 2
front feeder
transfer roller x4
light rejector x4
ID unit up / down actuater
pinch roller 1
regist roller 2
transfer belt unit
regist roller 1
belt cleaning
high voltage power supply
transfer belt
low-voltage power supply
1st tray
AC switch
hopping roller

(1) Paper hopping and transfer and up/down movement of pinch roller 2

Paper is hopped and delivered by the mechanism shown below. This mechanism is driven by a single pulse motor.

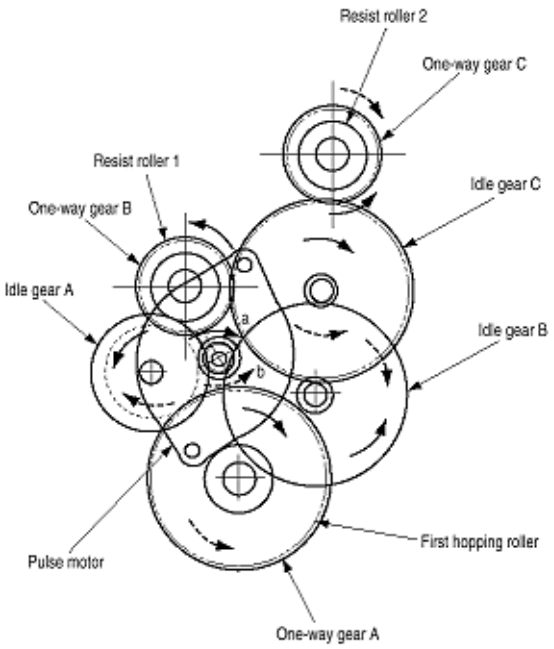


The pulse motor turns in the arrow direction (a) and drives the hopping roller in the direction of "b". The hopping roller drives the resist roller. Gears A, B, and C, have one-way clutches to prevent the roller form rotating reversely.

a) Hopping

(1) The pulse motor turns in the arrow direction of "a" (counterclockwise) and drives the hopping roller to move the paper until the Entrance sensor turns on. Although the one-way gears B and C are driven, the resist roller 2 does no turn.
The reverse rotations of the one-way clutch gears are not transmitted to the resist roller.

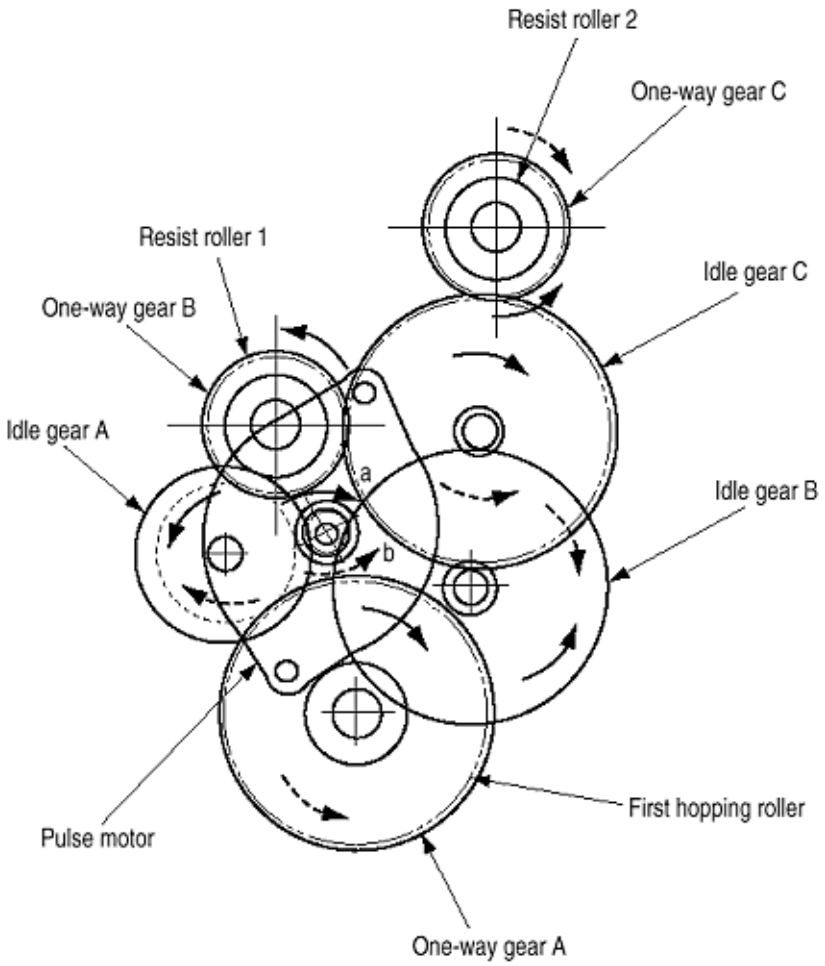
(2) After the Entrance sensor turns on, the hopping roller keeps on feeding the paper until it hits the resist roller 1. This operation corrections any paper skew.



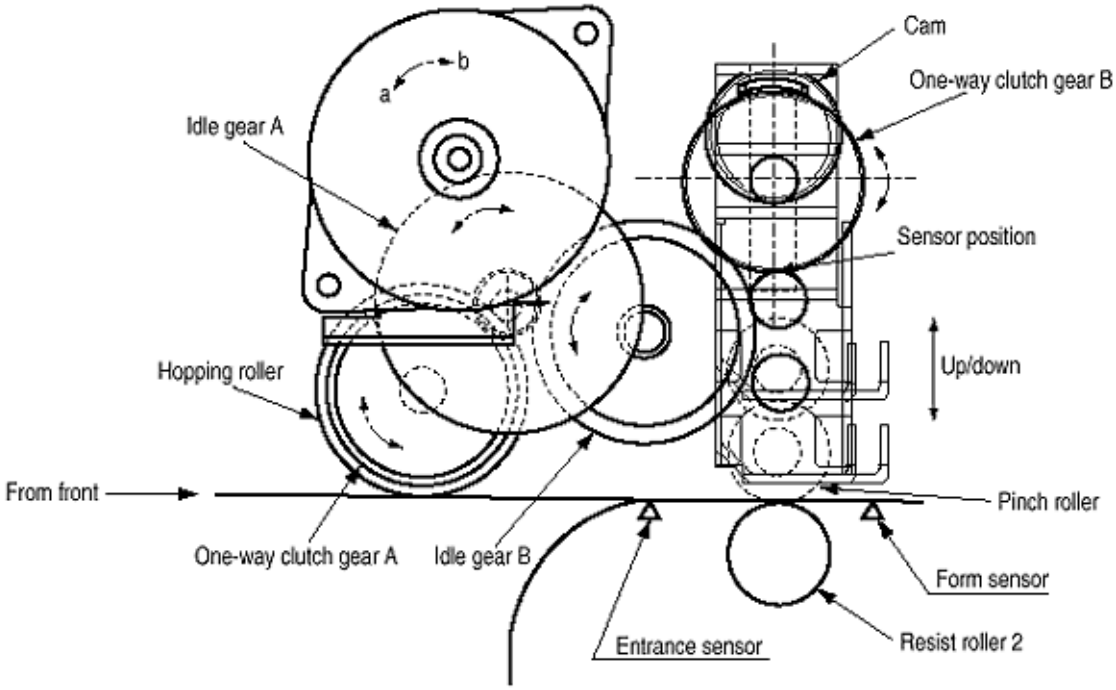
b) Conveying

(1) After paper hopping is completed, the pulse motor turns right (in the direction of "b") to drive the resist rollers 1 and 2. The resist rollers feed the paper until the Form sensor turns on. Although the one-way gear A is also driven, the hopping roller does not turn because of the one-way clutch.

(2) The paper is further fed in synchronism with the print data.



(2) The hopping operation of the front feeder and the up/down operation of the pinch roller 2 are performed by a single pulse motor.

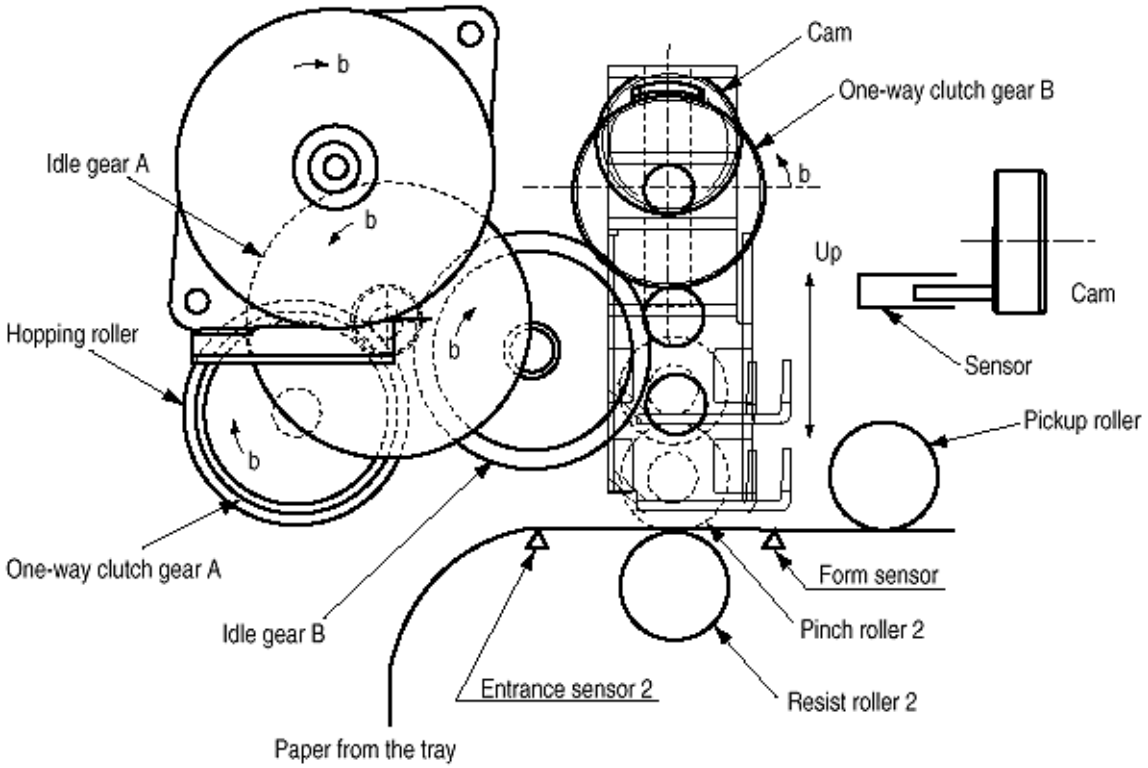


When the pulse motor of the front feeder turns right (in the direction of "A"), the front hopping roller turns left (in the direction of "b") to drive the cam. This cam moves up an down the pinch roller 2. The one-way clutch gears are made to turn only in a present direction by means of the one-way clutches.

(a) First and second hopping rollers

1 When the front edge of the paper passes by the pickup roller, the pulse motor of the front feeder turns counter-clockwise (in the direction of "b" to drive the cam. The cam moves up the pinch roller 2. Although the one-way clutch gear A is also rotating, the hopping roller of the front feeder does not rotate (because of the one-way clutch).

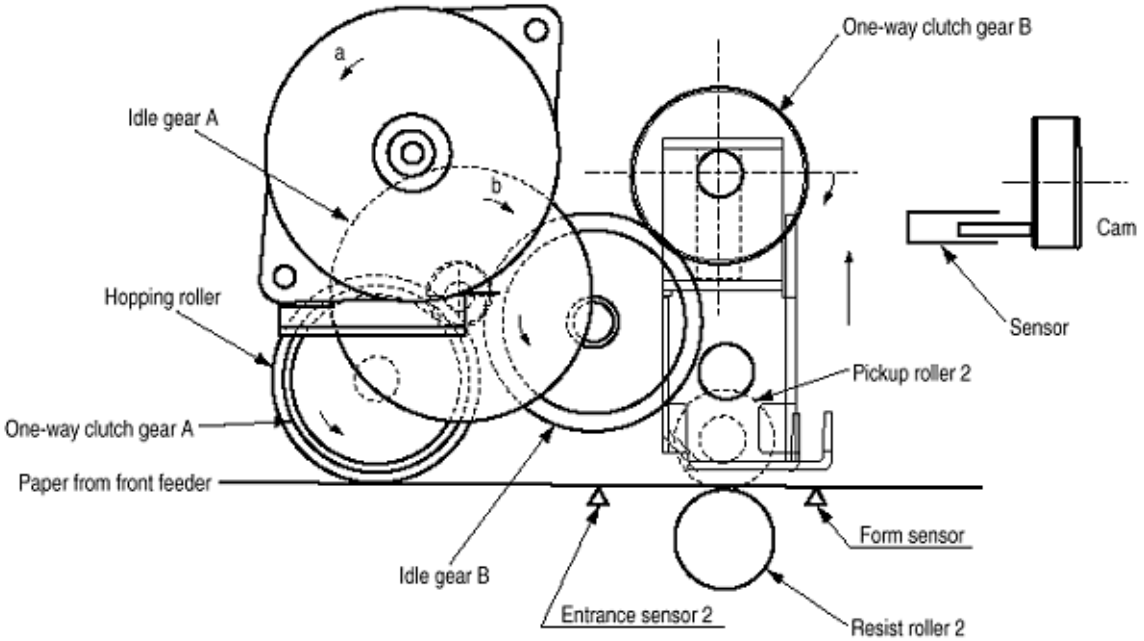
2 When the rear edge of the paper passes by the Entrance sensor 2, the pulse motor of the front feeder turns counter-clockwise (in the direction of "b") to drive the cam. The cam moves down the pinch roller 2 until it is sensed by the sensor. Although the one-way clutch gear A is also rotating, the hopping roller of the front feeder does not rotate (because of the one-way clutch).



(b) Front feeding hopping

(1) The pulse motor of the front feeder turns right (in the direction of "a") to drive the hopping roller. The paper feeds until the Entrance sensor 2 is activated. Although the one-way clutch gear B is also rotating, the pinch roller 2 does not drive the up/down cam (because of the one-way clutch). After the Entrance sensor is activated, the paper feeds until it reaches the resist roller.

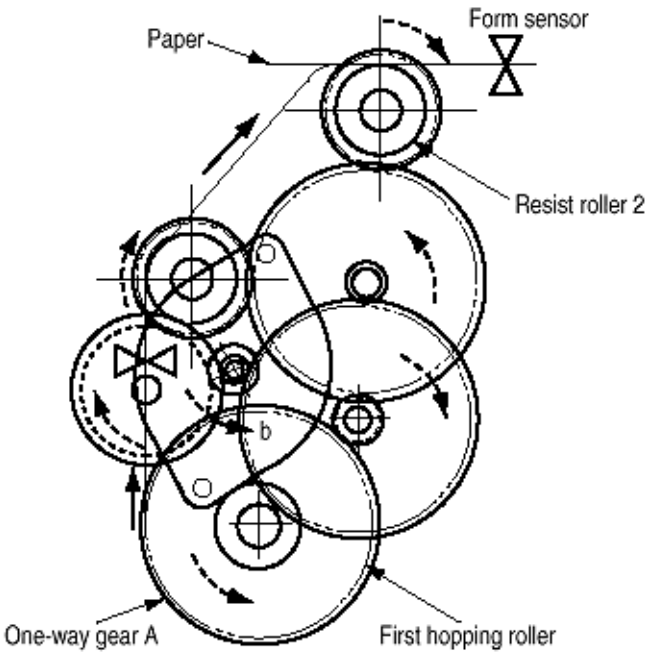
(2) This operation corrects any paper skew.



(c) Conveying

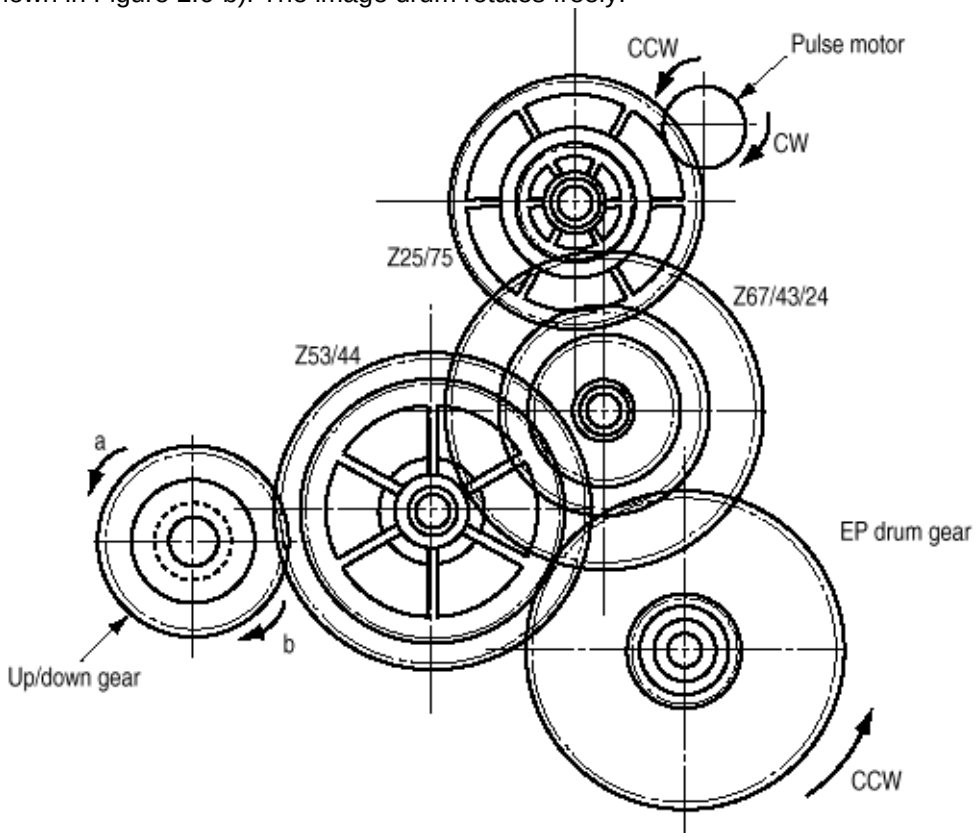
(1) After paper hopping is completed, the pulse motor turns right (in the direction of "b") to drive the resist rollers 1 and 2. The resist rollers feed the paper until the Form sensor turns on.

(2) Although the one-way gear A is also driven, the first hoping roller does not turn (because of the one-way clutch).

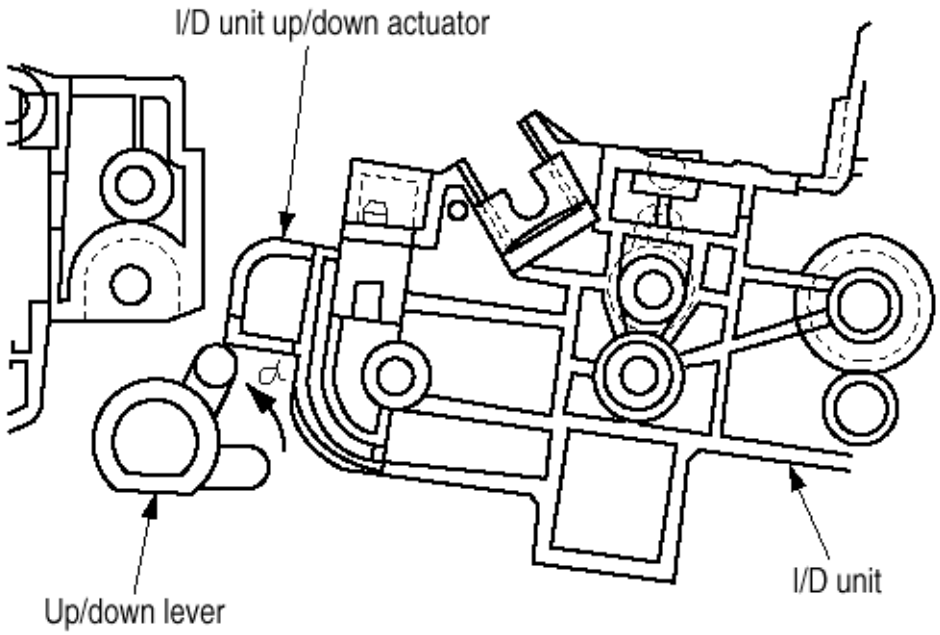


(2) Up/down movement of the image drum unit and rotation of the image drum.
The up/down movement of the image drum unit and the rotation of the image drum are performed by a mechanism shown below. (See Figure 2.6-a). This mechanism is driven by a single pulse motor.

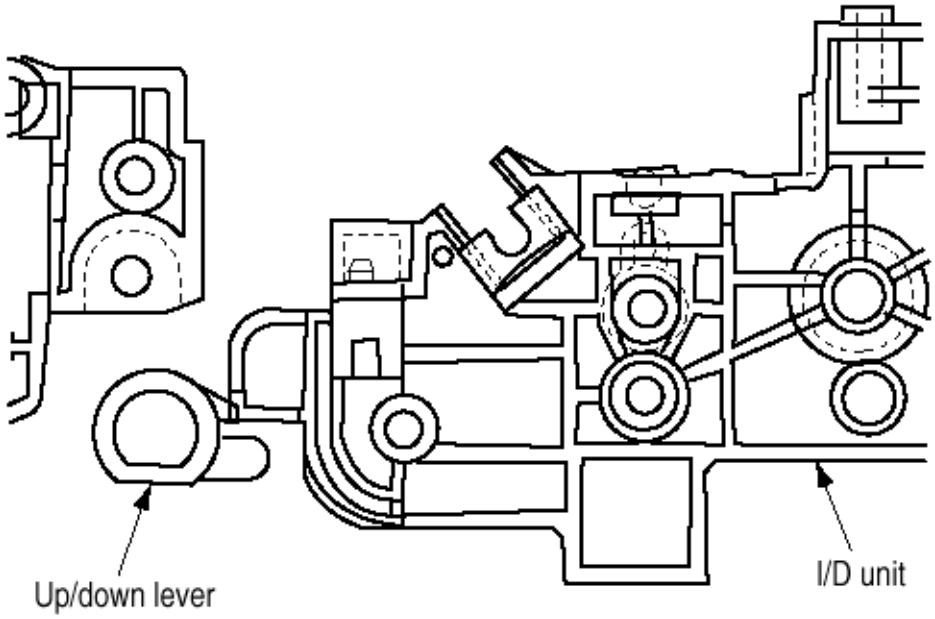
When the pulse motor turns left (Counter-clockwise), the up/down gear turns left (in the direction of "a"), and the up/down lever (see Figure 2.6-b) moves up (in the direction of "a". The up/down lever pushes up the up/down actuator of the image drum unit. The image drum unit moves up as shown in Figure 2.6-b). The image drum rotates freely.



When the pulse motor (see Figure 2.6-a) turns right (Counter-clockwise), the image drum gear turns left (Counter-clockwise) and the up/down gear (one-way gear) is released. The weight of the image drum unit is applied to the up/down lever via the up/down actuator of the image drum unit. The free up/down gear turns right (in the direction "b" in Figure 2.6-a), and the image drum unit goes down until the up/down actuator of the image drum unit is stopped by the up/down lever. (See Figure 2.6-c). During this, the image is transferred onto the running paper.

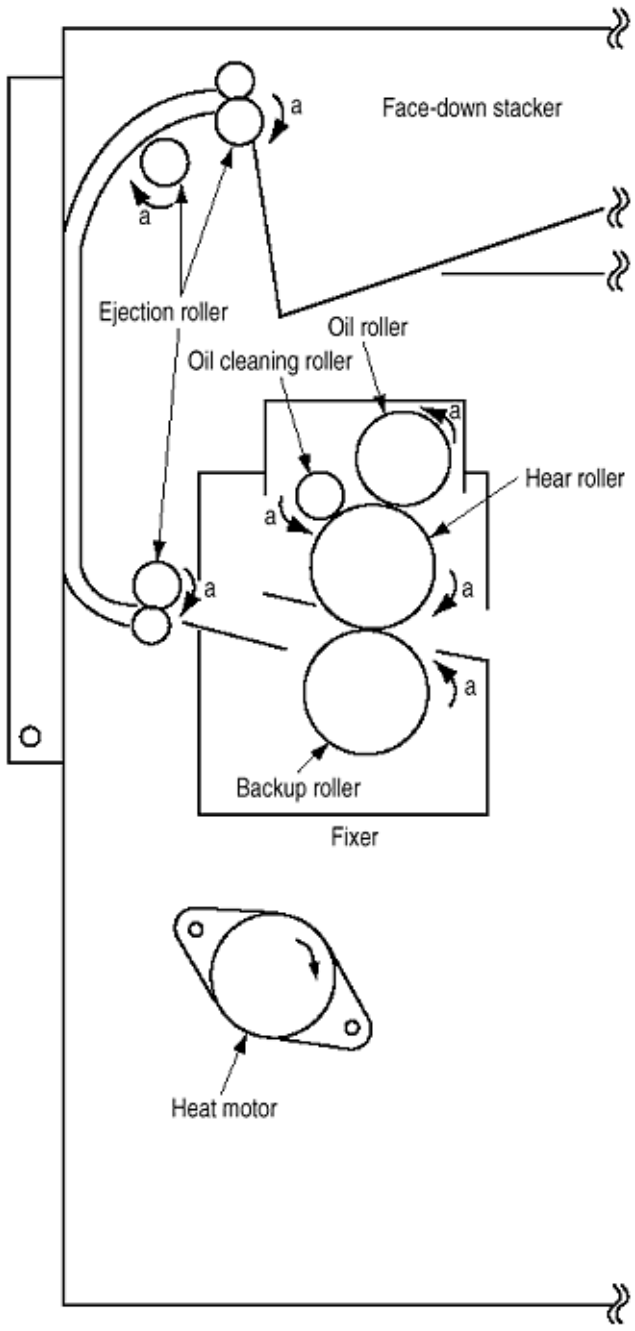


Upward Movement of Image Drum



Downward Movement of Image Drum

(3) Lubrication and cleaning of fixing, ejecting, and heat rollers.



The fixing roller, the ejecting roller, and the heat roller are lubricated and cleaned by a single pulse motor.

When the heat roller pulse motor turns right (in the direction of "a"), the heat roller and the backup roller turn left (in the direction of "a") to fix a toner image onto the paper.

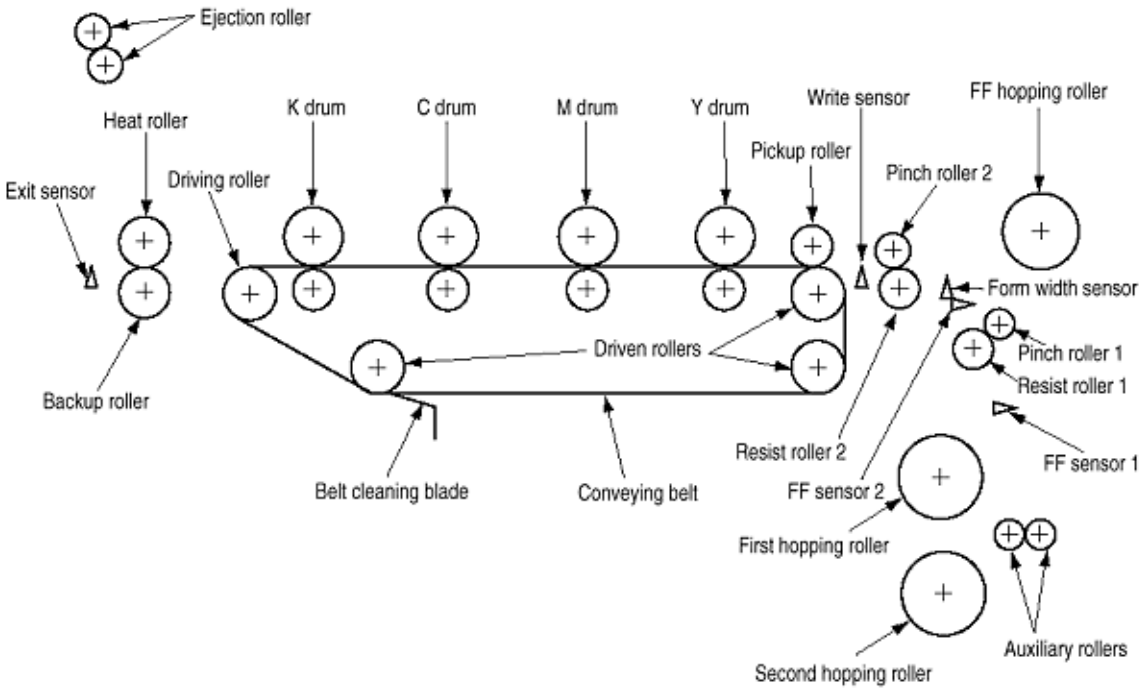
At the same time, three ejection rollers turn right (in the direction of "a") to eject the paper. The oil roller and the oil cleaning roller turn left (in the direction of "a") to supply oil to the surface of the heat roller and clean the surface.

2.5 Sensors

2.5.1 Paper related sensors

2.5.2 Other sensors

2.5.1 Paper Related Sensors



Sensor	Function	Sensor status
FF sensor 1/2 (Entrance sensor 1/2)	Detects the front edge of an incoming paper and determines timing to change from hopping to conveying.	ON: Front edge detected OFF: Front edge not detected
Write sensor	Detects the front edge of the conveyed paper sheet and determines the length of the paper sheet from elapsed time before the front edge of the paper reaches the sensor.	ON: Form present OFF: Form absent
Ejection sensor	Detects the front and rear edges of a paper sheet and determines whether the paper is ejected.	ON: Form present OFF: Form ejected

2.5.2 Other sensors

(1) Form end sensor
This sensor checks whether the paper cassette is empty.

(2) Front Feeder form end sensor
This sensor checks whether the front feeder has paper.

(3) Front Feeder home switch
The microswitch checks whether the front feeder stage is in the up or down position.

(4) Image Drum
Image drum up/down sensor (one for each color Y, M, C, K)
Y = Yellow, M = Magenta, C = Cyan, K = Black

(5) Waste toner sensor
This sensor judges whether the waste toner cartridge is full by measuring a time period at which the sensor lever turns on periodically. When the time period falls under a preset value, the system judges that the waste toner cartridge is full and displays the "waste toner full" message.

(6) Resist up/down sensor
This sensor detects the up or down position of the resist roller 2.

(7) Temperature sensor
Refer to 2.7 (Transfer Control according to Environmental Changes).

(8) Humidity sensor
Refer to 2.7 (Transfer Control according to Environmental Changes).

2.6 Correction of Color Deviation

OKIPAGE 8c is equipped with an array of I/D units which cannot be from generation of color deviations. This mechanic below.

(1) Color deviations to be corrected

1 Color deviation in the X axis (Positional error of the LED head)
2 Diagonal color deviation (Positional error of the LED head)
3 Color deviation in the Y axis (Positional errors of the I/D units and light receivers)

(2) Method of correction Print out the preset color chart, compare the printed color chart by the original color chart, and enter the amount of color deviation of each color from the operator panel or from the host computer. OKIPAGE 8c calculates correction values from the entered values and changes the write timing of each color (cyan, magenta, and yellow) relative to black.

2.7 Transfer Control according to Environmental Changes

Transfer Control according to Environmental Changes Room Temperatures and Relative Humidities)

OKIPAGE 8c measures the room temperature and humidity. It uses a room temperature sensor and a room humidity sensor. An optimum transfer voltage is calculated, using the obtained environmental conditions. The unit then prints, using the optimum transfer voltage.

2.8 Form Jam Detection

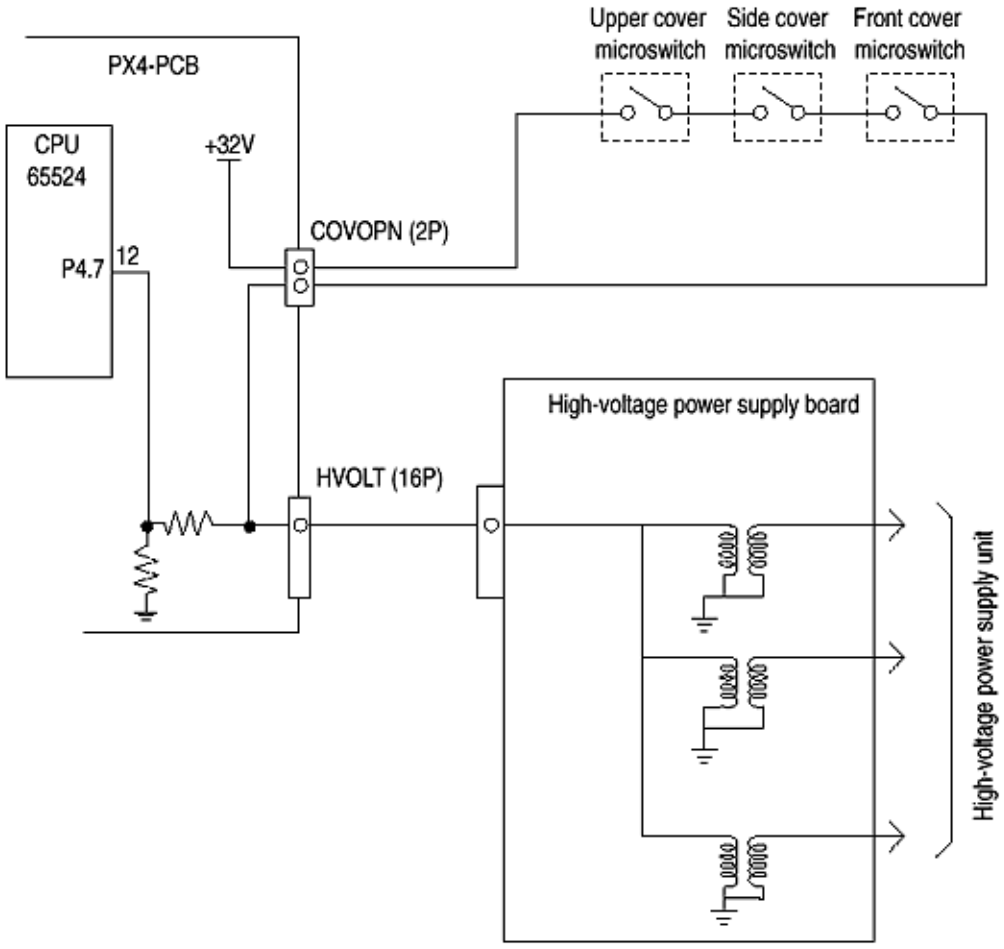
OKIPAGE 8c checks for a paper jam when the page printer is powered on, and during printing. When a paper jam is found, the OKIPAGE 8c immediately stops the printing process. To recover the printer, open the cover, find and remove the jammed paper, then close the cover.

Error	Conditions
Form feed jam	Three hopping operations are made, but the Form Feed sensor (Entrance) does not turn on within a preset time after the Form Feed sensor 1 turns on.
Convey jam	The ejection sensor does not turn on within a preset time period after the Write sensor detects the front end of paper.
Ejection jam	The eject sensor detected the front edge of the paper, but does not detect the rear edge of the paper within a preset time period.
Form size error	The form size (obtained by measuring the time period between the rear edge of the paper passes by the Form Feed sensor 2 after the front edge of the paper passed the Write sensor) is longer by 45mm than the specified form length.

* To obtain the form size, measure the time interval from when the front edge of the paper passes the Write Sensor until the rear edge of the paper passes the Form Feed Sensor 2. A Form Size Error occurs when the specified length is exceeded by 45 mm.

2.9 Cover Opening

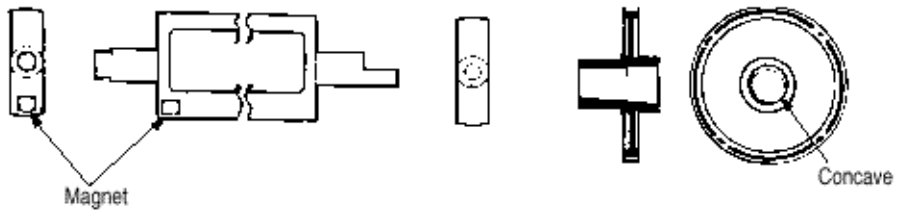
When the upper, side, or front cover of the OKIPAGE 8c is opened, the Cover open microswitch turns off, the voltage of 32V to the high-voltage power supply is shit off, and all high-voltage outputs are shut off. At the same time, the CPU receives a signal (CVOPN), (indicating the status of the microswitch), and performs the cover open process.



2.10 Toner Lower Detection

- **Composition**

The device consists of the stirring gear (which rotates at a constant rate), the stirring bar, and the magnet on the stirring bar. The stirring bar rotates by engaging with the concave section in the stirring gear.



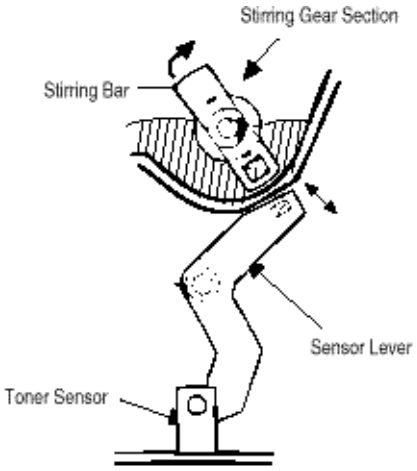
Stirring Bar　　Stirring Gear

- **Operation**

Toner Low is detected by monitoring the time interval between engagement of the magnet set on the sensor lever and the magnet on the stirring bar.

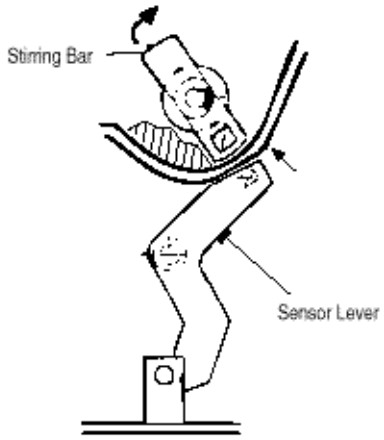
OPERATION during toner full state

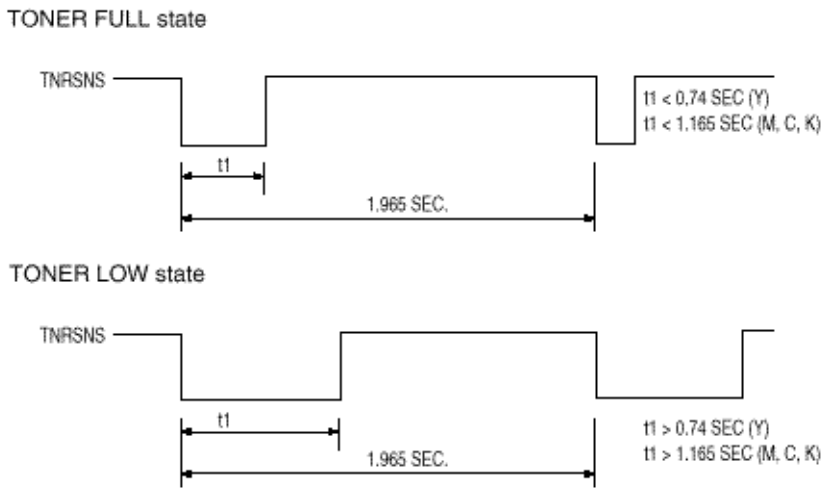
- The stirring bar rotates by interlocking with the stirring gear.
- When the magnet on the stirring bar reaches its maximum height, the other end of the bar is dipped in the toner. The stirring bar is pushed by the stirring gear.



Operation during toner low state

- When the stirring bar reaches the maximum height, the lack of toner provides no resistance on the other end. The bar falls to the minimum height, due to its own weight.
- The time length of the encounter (between the stirring bar magnet and the sensor lever magnet), counter with the magnet of the sensor lever becomes long. By monitoring this time interval, toner low is detected.





- When the toner low state is detected 2 times consecutively, Toner Low is established.
- When the toner full state is detected 2 times consecutively, Toner Low is canceled.
- When there is no change with the toner sensor for 2 cycles (1.965 sec. x 2) or more, the Toner Sensor Alarm is activated.
- The toner sensor is not monitored while the drum motor is in halt.

2.11 Page Size Detection

The four tab pieces are driven according to the setting position of the paper guide (through the cam interlocked with the paper guide of the paper cassette).

When the paper cassette is inserted into the printer, the position of the tab pieces is detected by a microswitch, recognizing the paper size.

STATE OF MICROSWITCHES

SW1	SW2	SW3	SW4	Paper size
0	1	1	1	Letter
0	1	0	1	Executive
0	0	1	1	A4
1	1	1	0	Legal 14
1	0	1	1	Legal 13
1	1	0	1	B5
1	1	0	0	A5
1	0	0	1	A6

2.12 Power-on Processing

2.12.1 Self-diagnostic test

(1) Initial test

The following check are automatically performed when the printer is power on:

(a) ROM check
(b) RAM check
(c) EEPROM check
(d) Flash ROM check

(2) ROM check

(a) Checks ROM by comparing the sum of bits in the received data unit by the number of bits in the transferred data unit.

(3) RAM check

(a) Checks RAM by writing a preset data patter in RAM, reading the contents of RAM, and comparing the data read from RAM by the data written in RAM. (Write-read test).
(b) Checks optional RAM (if it is installed).
(c) Checks resident RAM by exclusively O Ring high and low addresses (to prepare 16-bit data units), writing a preset 16-bit data patter in RAM, reading the contents of RAM, and comparing the data read from RAM by the data written in RAM. Checks optional RAM by writing and reading 32-bit fixed patterns ("5555h" and "aaaah") in optional RAM.

(4) EEPROM check

(a) Checks identification numbers stored in the fixed addresses of EEPROM.
(b) Checks the contents of the menu area (by control firmware) and the engine area (by engine firmware).

(5) Flash ROM check

Checks Flash ROM by writing a present data pattern in Flash ROM, reading the contents of Flash ROM, and comparing the data read from Flash ROM by the data written in Flash ROM. (Write-read test).

(6) Option check unit

Checks whether the optional units (such as the second tray, and PS SIMM) have been installed before entering the operation mode.

Partner Exchange (BPX) for any updates to this material. (http://bpx.okidata.com)

3.0 Parts Replacement

3.1 Precautions for Parts Replacement

3.2 Parts Layout

3.3 How to Change Parts

3.1 Precautions for Parts Replacement

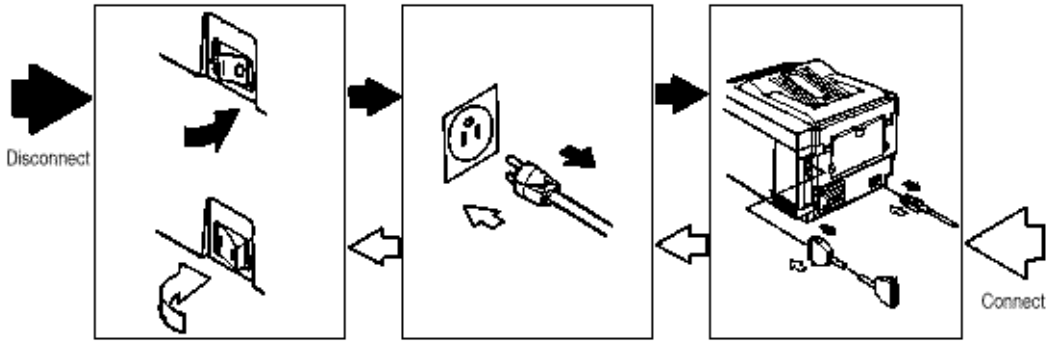
(1) Before starting parts replacement, remove the AC cable and interface cable.

(a) Removing the AC cable

i) Turn off ("o") the power switch of the printer.
ii) Disconnect the AC inlet plug of the AC cable from the AC receptacle.
iii) Disconnect the AC cable and interface cable from the printer.

(b) Reconnecting the AC cable

i) Connect the AC cable and interface cable to the printer.
ii) Connect the AC inlet plug to the AC receptacle.
iii) Turn on ("I") the power switch of the printer.



(2) Do not disassemble the printer, if operating normally.

(3) Do not remove unnecessary parts: try to keep disassembly to a minimum.

(4) Use specified service tools.

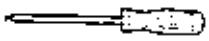
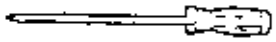
(5) When disassembling, follow the determined sequence. Otherwise, parts may be damaged.

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

(7) When handling ICs such as microprocessors, ROM and RAM, and circuit boards, follow standard electrostatic procedures.

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

No.	Service Tools	Tools	Qty	Place of Use	Remarks

1		No. 1-100 Philips screwdriver	1	2-2.5 mm screws	
2		No. 2-200 Philips screwdriver, Magnetized	1	3-5 mm screws	
3		No. 3-100 screwdriver	1		
4		No. 5-200 screwdriver	1		
5		Digital multimeter	1		
6		Pliers	1		
7		Handy cleaner	1		
8		LED Head cleaner P/N 51802901	1	Cleans LED head	

3.2 Parts Layout

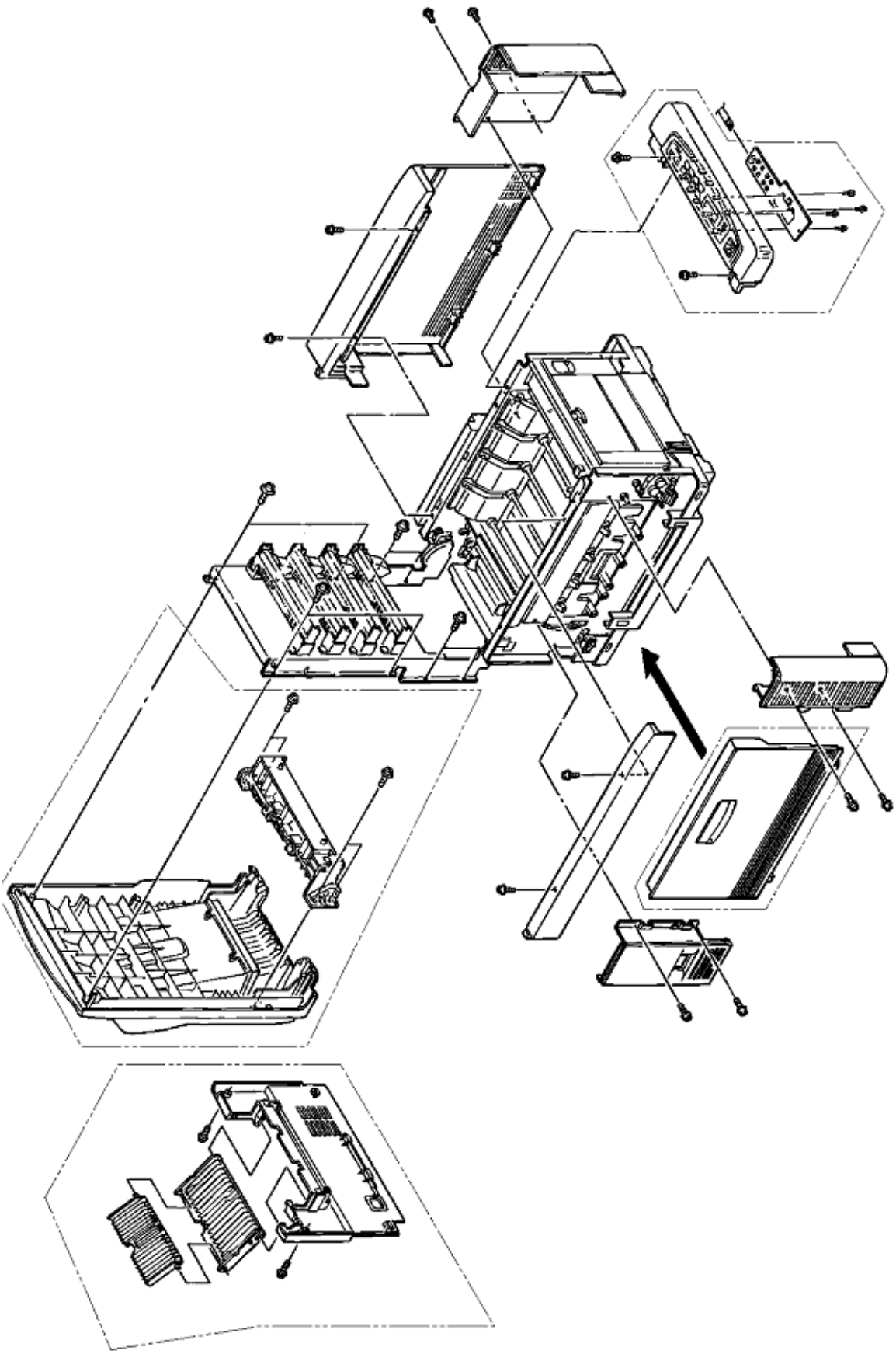


Figure 3-1, Covers

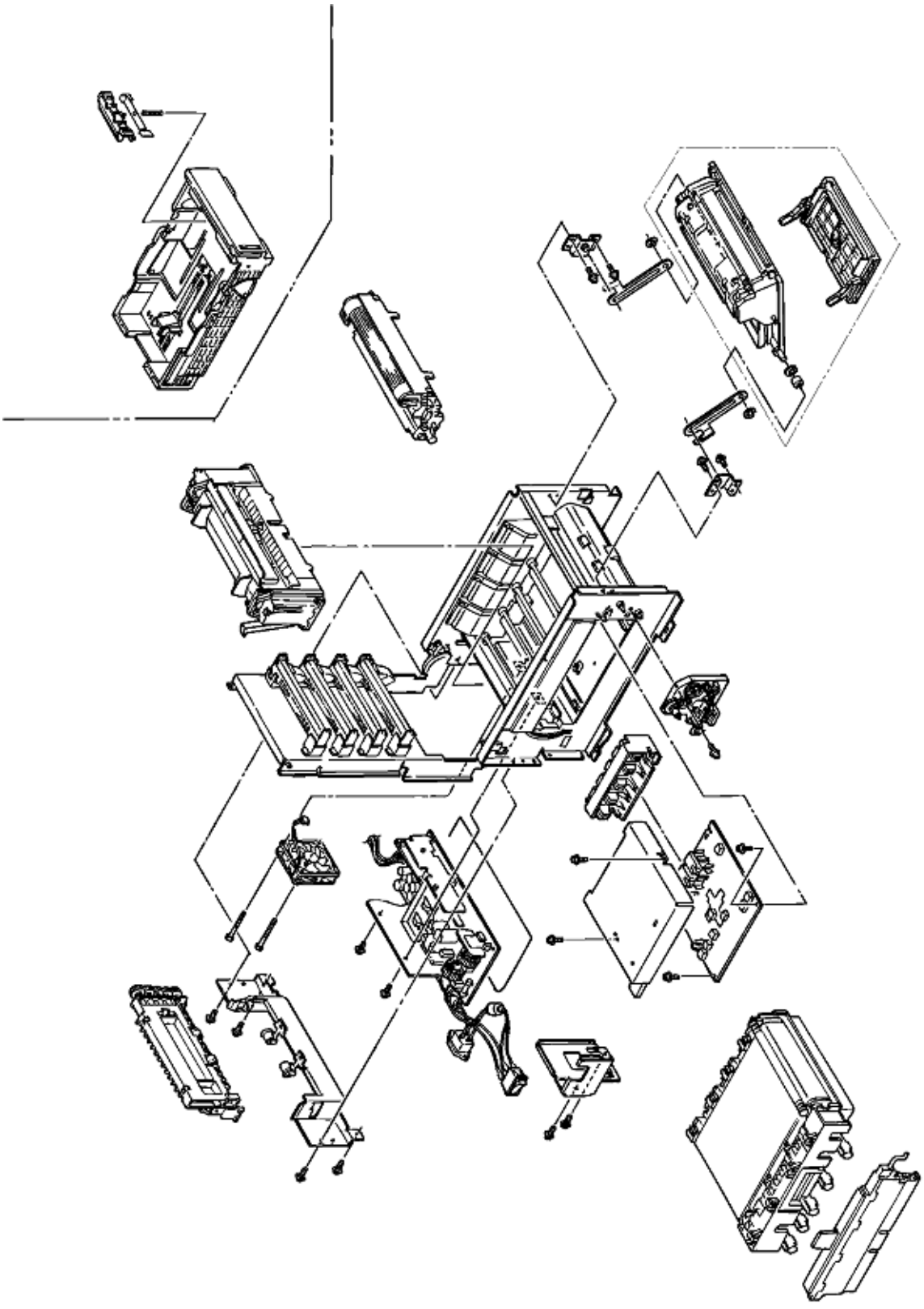


Figure 3-2, Print Assemblies

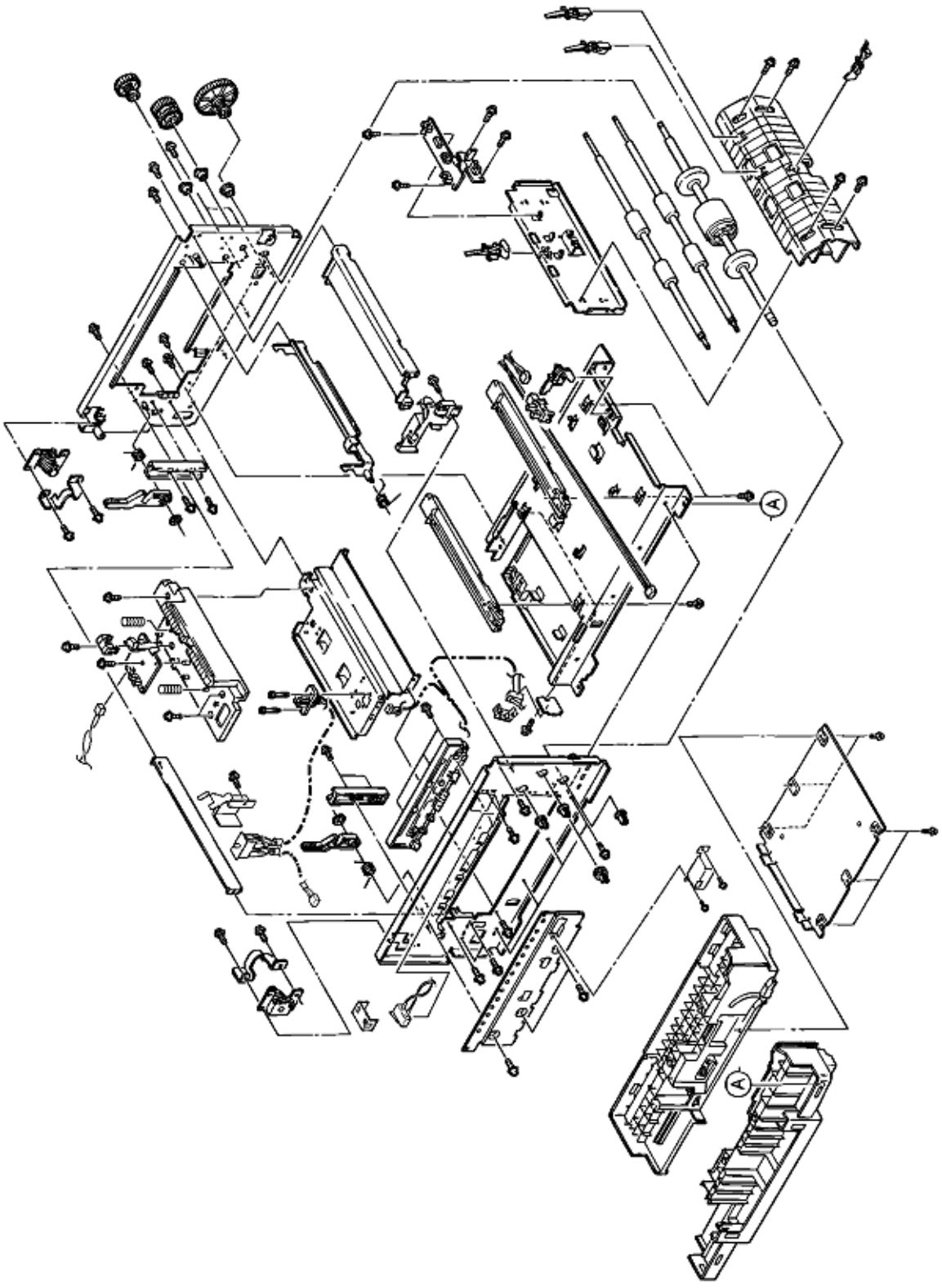


Figure 3-3, Base Assemblies

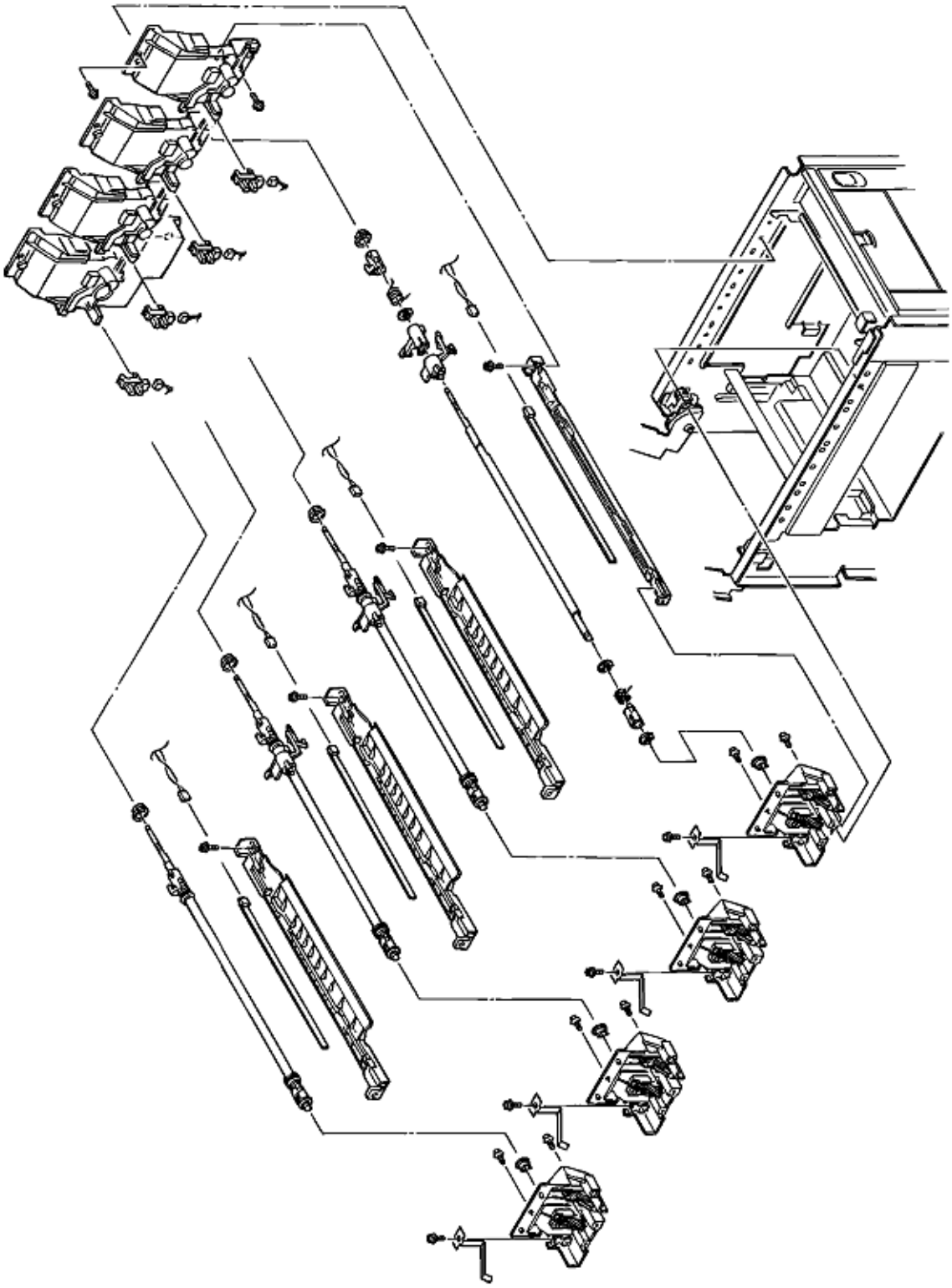


Figure 3-4, Contact Assemblies

3.3 How to Change Parts

This section explains how to change parts and assemblies appearing in the disassembly diagram below.

3.3.1 Cover Assy Rear
3.3.2 Motor Fan (80-25)
3.3.3 Paper Eject Assy
3.3.4 Cover Assy Stacker Guide Eject FD Assy
3.3.5 Frame Assy Upper
3.3.6 Plate Support Assy
3.3.7 Limiter 2Way (L), (R) / Plate Guide (L), (R)
3.3.8 Cover
3.3.9 PCB Assy: PCR
3.3.10 Motor Fan (CU)
3.3.11 PXF PCB/PX4 PCB
3.3.12 Gear Heat Assy
3.3.13 Main Motor (A), (B) Assy
3.3.14 Gear On-way (Z30)
3.3.15 Motor Assy BT
3.3.16 Power Supply Unit, Holder Inlet, Sheet Insulation
3.3.17 Sensor Assy Box Toner
3.3.18 Square-shaped Connector
3.3.19 Hopping Motor
3.3.20 Gear One-Way
3.3.21 Feeder Unit Front
3.3.22 Manual Feed Hopper Assy
3.3.23 Guide Paper Input Assy
3.3.24 Lever Input Sensor
3.3.25 Roller Registration, Roller Assy Hopping
3.3.26 Roller Hopping
3.3.27 PXU PCB/PXM PCB, Lever Regist Sensor
3.3.28 Paper End Lever
3.3.29 PCO PCB (Operator Panel)

3.3.30 Holder Gear Toner Assy

3.3.31 Plate Latch Lever (FD), Spring Latch Lever (FD)

3.3.32 Belt Cassette Assy

3.3.33 High Voltage Power Supply Unit, Bracket HV

3.3.34 Erase Bracket Assy, Eraser Bracket

3.3.35 Shaft Link

3.3.36 Contact (BL-R) Assy, Contact (CL-R) Assy

3.3.37 Contact (BL-L) Assy, Contact (CL-L) Assy

3.3.38 Contact SB Assy

3.3.39 PXC PCB

3.3.40 Heat Unit Assy

3.3.41 Oil Roller Assy

3.3.42 Lever Lock Heat (L) / (R), Guide Side Heat, Spring Lock

3.3.43 PXL PCB

3.3.44 Heat Unit Guide Assy

3.3.45 Holder LED Assy, LED Head

3.3.1 Cover Assy Rear

Remove the 2 screws (1) then lift the cover assy rear (2) a little bit, then remove the cover assy rear by releasing the two claws.

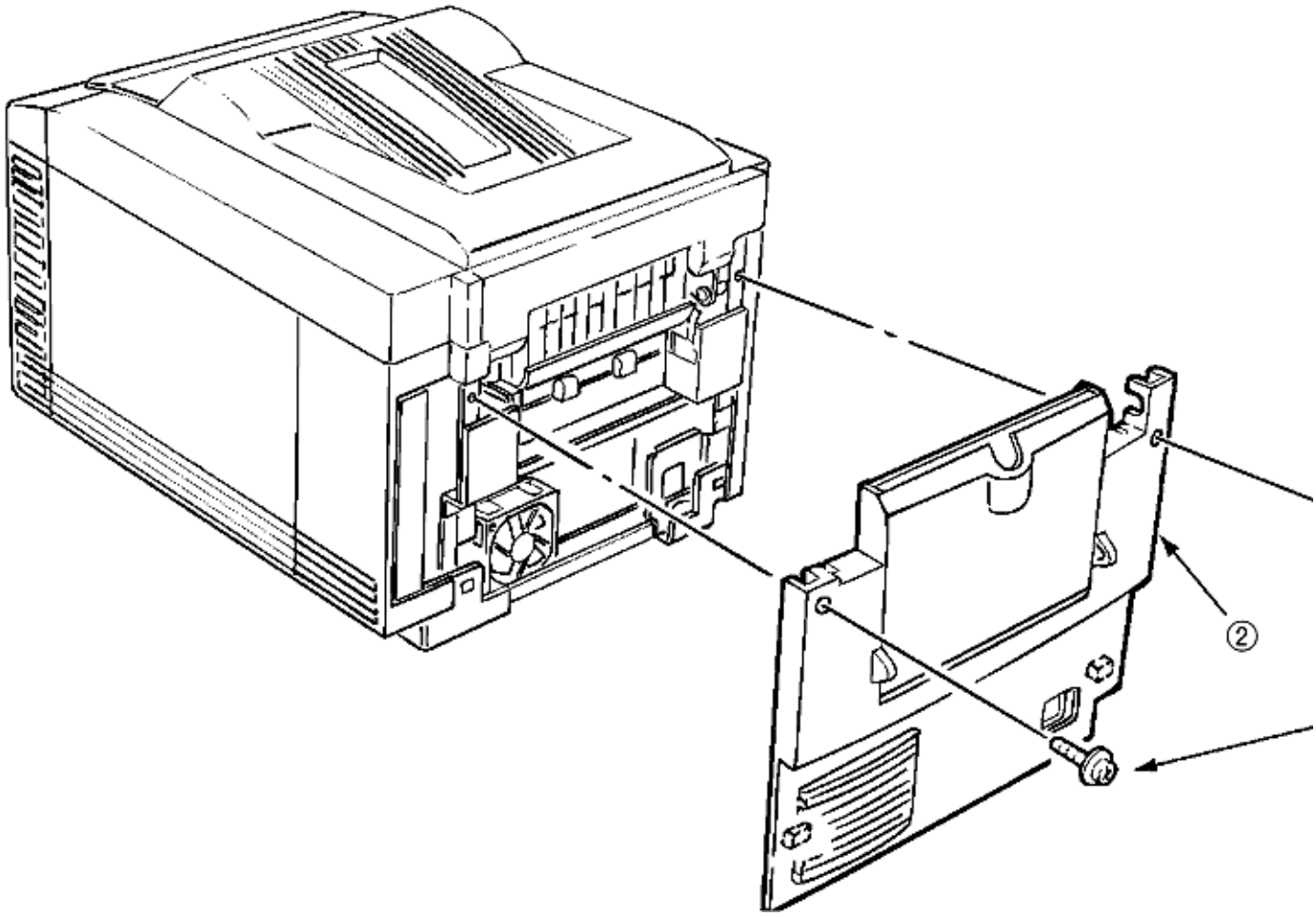


Figure 3.3.1 Cover Assy Rear

40315201 Cover Assy Rear - RSPL

Includes:

40098401 Cover Rear
40187501 Stacker Face-up
40187601 Support Stacker

3.3.2 Motor-Fan (80-25)

1. Remove the cover assy rear (See 3.3.1)
2. Remove the two screws (1).
3. Detach the fan motor (2) from the guide with its right side lifted then draw the fan motor.
4. Detach the cable (3) then remove the fan motor (3).

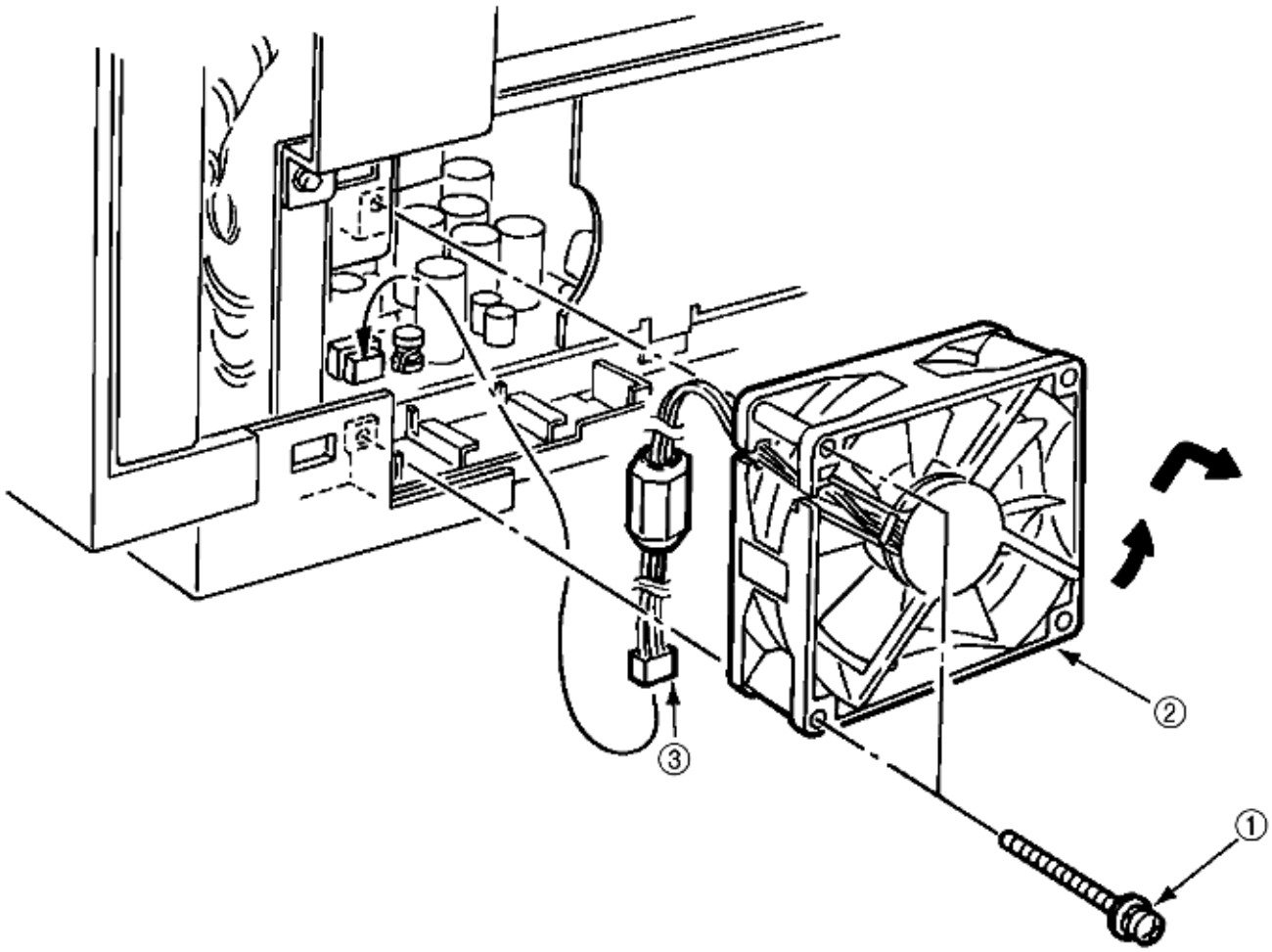


Figure 3.3.2 Fan Motor (80-25)

40255201	**Fan Motor (80-25)**	**RSPL**

3.3.3 Paper Eject Assy

The paper eject assy includes the frame: eject assy and the guide: paper eject assy.

1. Remove the cover assy rear (See 3.3.1)
2. Open the top cover.
3. Unscrew 4 screws (1) then remove the frame eject assy (2).
4. Remove the guide paper eject assy (3) by releasing the lock of one claw.

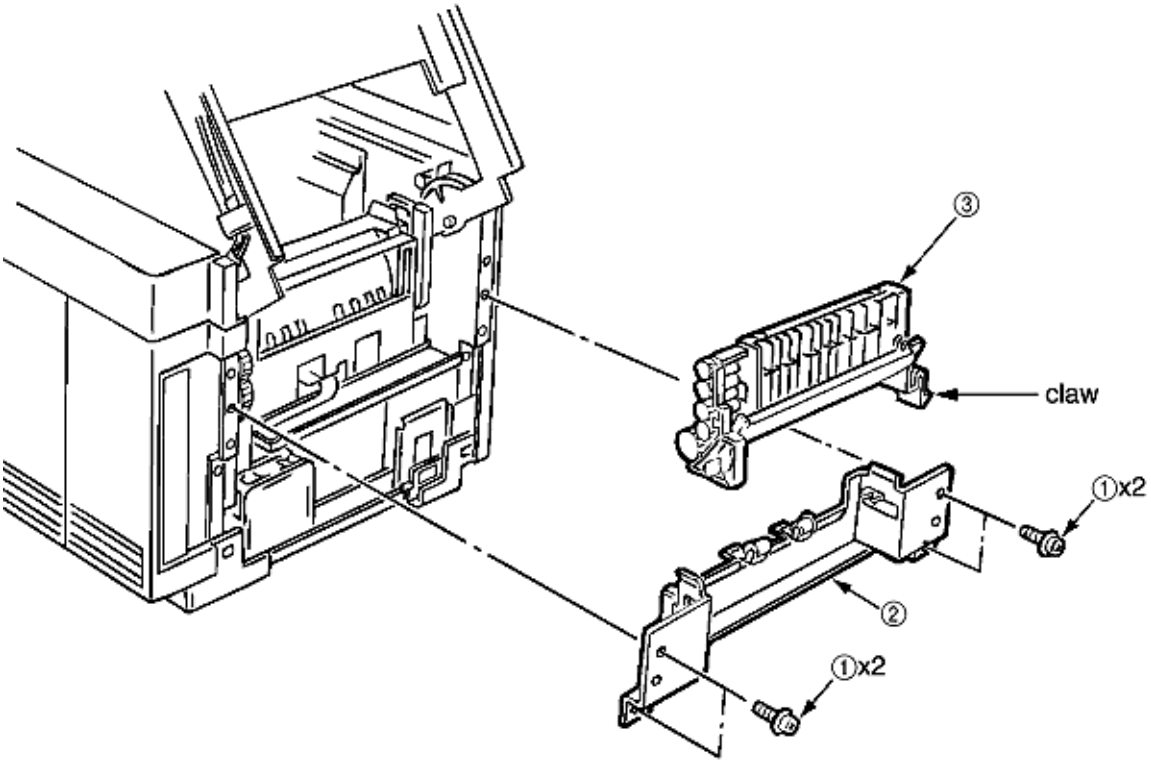


Figure 3.3.3 Paper Eject Assy

40303501	**Frame: Eject Assy**	**RSPL**
40303401	**Guide: Paper Eject Assy**	**RSPL**

3.3.4 Cover Assy Stacker, Guide Eject FD Assy

1. Remove the cover assy rear. (See 3.3.1)
2. Release the cable from the cable clamp (1) by opening the clamp.
3. Unscrew 8 screws (2) then remove the cover assy stacker (3).
4. Unscrew 4 screws (4) then remove the guide eject FD assy (5).

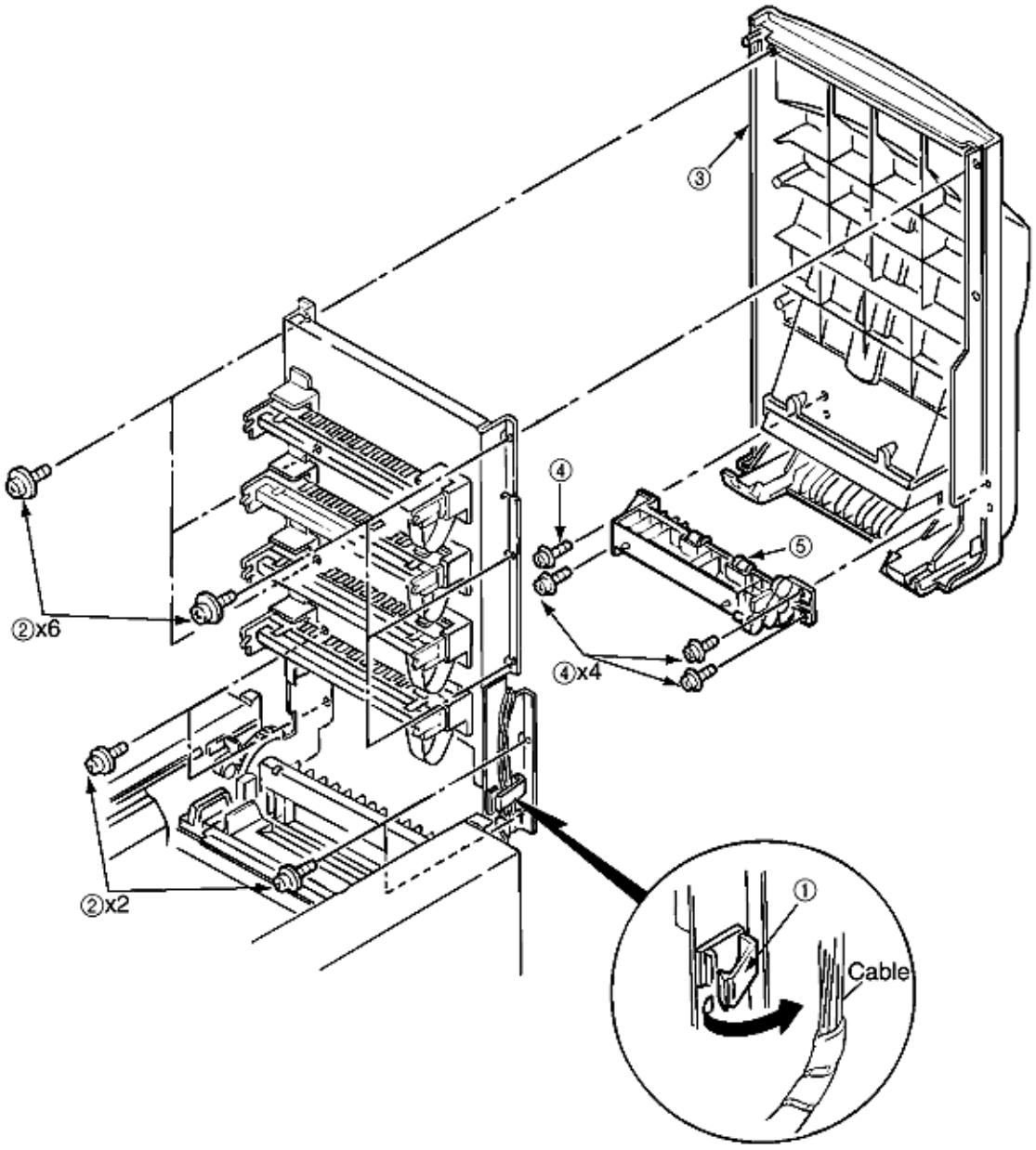


Figure 3.3.4 Cover Assy Stacker, Guide Eject FD Assy

40314801 Cover: Assy Stacker RSPL

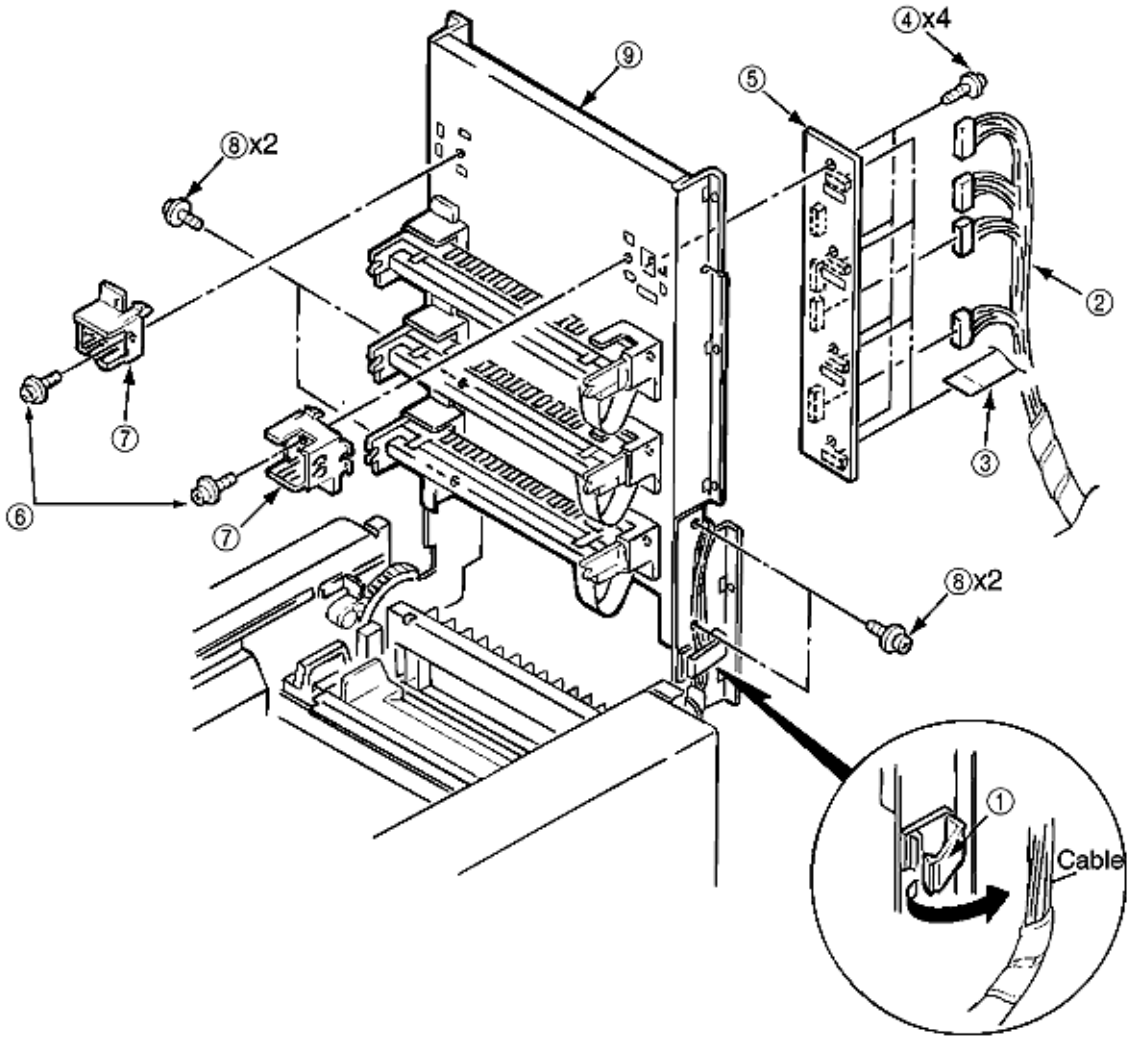
Includes:

40303601 Guide - Eject - FD - Assy RSPL
40449901 Cover - Sub - Assy - Stacker RSPL

Item 2 - 50318701 PP4083-5670P001 Screw RSPL

3.3.5 Upper Frame Assy

1. Remove the cover assy rear. (See 3.3.1.)
2. Remove the cover assy stacker. (See 3.3.4.)
3. Remove the holder LED assy. (See 3.3.45.)
4. Detach the cable from the cable clamp (1) by releasing its lock.
5. Remove connections of 4 connector cables (2) and 4 cables (3).
6. Unscrew 4 screws 4 then remove the PD6 PCB (5).
7. Unscrew 2 screw 6 then remove Guide Holder (7) by releasing the clamp of the claw.
8. Unscrew 4 screws 8 then remove the Upper Frame Assy (9).



Cable is pushed against sharp edge on hole down to LED head.

Figure 3.3.5 Upper Frame Assy

(9)	**40410701**	**Frame - Upper Assembly**	**RSPL**
(7)	**40187801**	**Guide Holder**	**RSPL**

3.3.6 Plate Support Assemblies

The plate support assemblies are provided right and left. The method of those replacements is the same.

1. Remove the heat unit assy. (See 3.3.40)
2. Remove the cover assy rear. (See 3.3.1)
3. Remove the cover assy stacker. (See 3.3.4)
4. Remove the frame assy upper. (See 3.3.5)
5. Detach the cable from the flat cable clip (1) by releasing the lock.
6. Remove the 2 screws (2) then remove the plate support assy (3). Be careful not to lose the spring 4 which is removed with the plate support assy (3).)

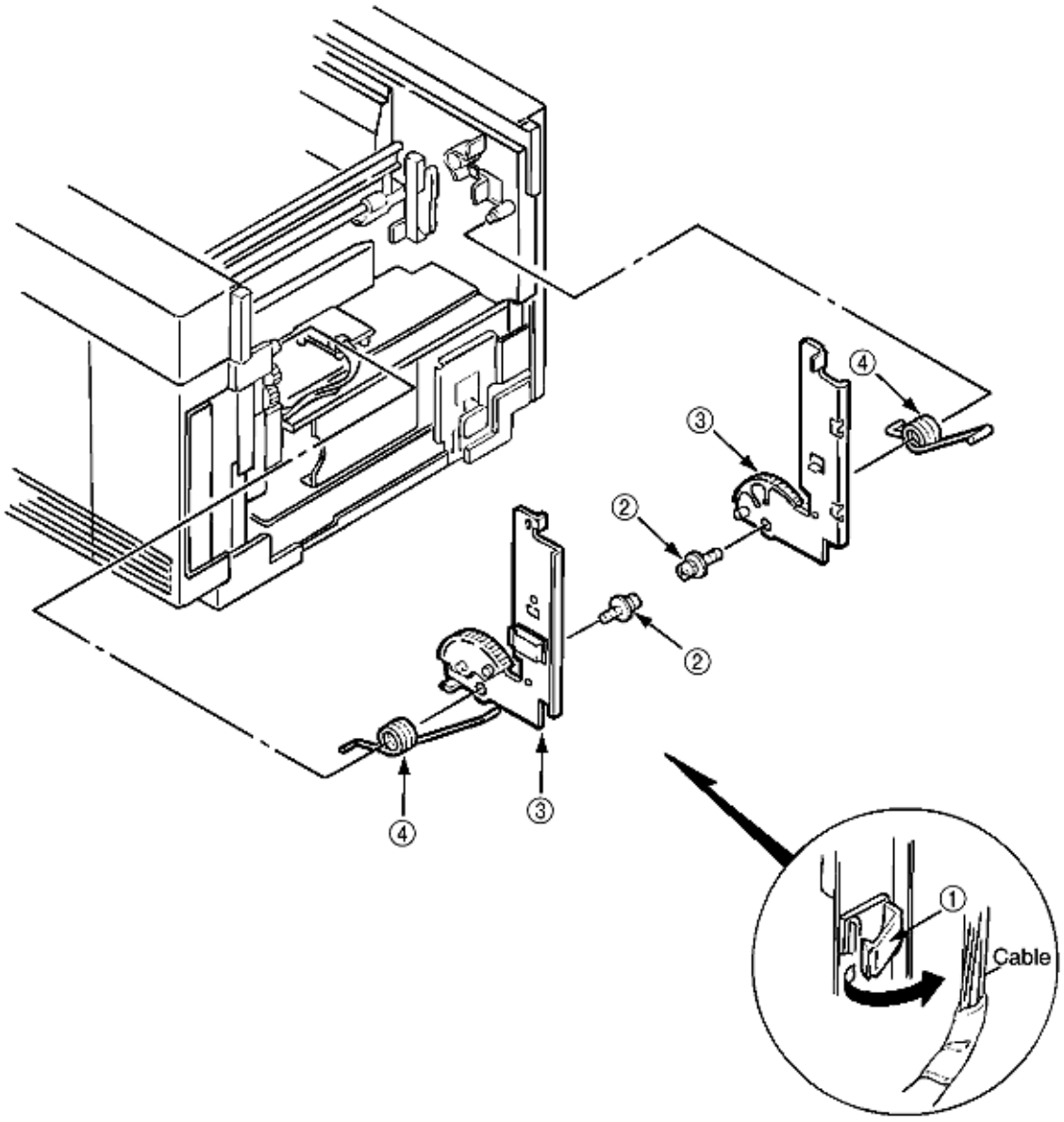


Figure 3.3.6 Plate Support Assy

(3) A	**40449201**	**Plate - Support - (R) - Assy**	**RSPL**
(4) A	**40218301**	**Torsion Spring (B)**	**RSPL**
(1)	**56636301**	**LP-6665-1 - Flat - Cable - Clip**	**RSPL**
(36)	**40449301**	**Plate - Support - L - Assy**	**RSPL**
(46)	**40197401**	**Torsion - Spring (A)**	**RSPL**

3.3.7 Limiter 2way (L), (R) / Plate Guide (L), (R)

1. Remove the plate support assy (L) and (R). (See 3.3.6)
2. Unscrew 2 screws (1) then remove the limiter 2way (L) (2) and the plate guide (L) (3).
3. Unscrew 2 screws (4) then remove limiter 2way (R) (5) and the plate guide (R) (6).

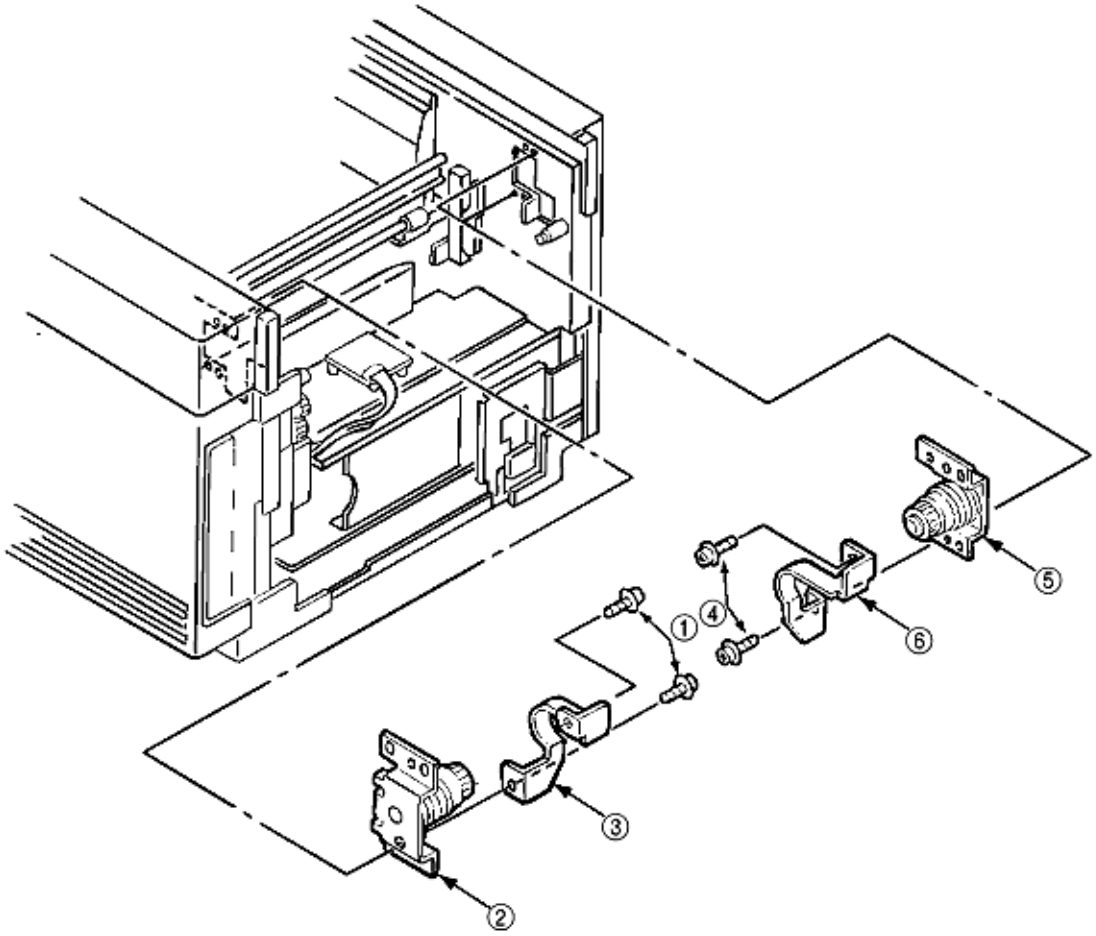


Figure 3.3.7 Limiter 2way (L), (R) / Plate guide (L) , (R)

40383701	**Limiter - 2 way (L)**	**RSPL**	**8-3, Item 15**
40335001	**Plate-Guard (L)**	**RSPL**	**8-3, Item 17**
40383801	**Limiter - 2 way (R)**	**RSPL**	**8-3, Item 16**
40335101	**Plate - Guard (R)**	**RSPL**	**8-3, Item 18**

3.3.8 Cover

Describes the method of removing the cover assy side (L)/(R), cover assy OP panel, cover front (L)/(R) and the cover rear (L).

1. Remove the cover assy rear. (See 3.3.1)

2. Remove the cover assy stacker. (See 3.3.4)

3. Remove the 2 screws (1) then remove the frame side (L) (2).

4. Remove the 2 screws (3) then release the lock of the claw with the cover assy side (R) (4) lifted a little bit, then remove the cover assy side (R).

5. Detach the operator panel cable (5) from the PCM PCB.

6. Open the FDR unit front in the arrow direction.

7. Remove the 2 screws (6) then remove the cover assy OP panel (7).

8. Remove the 2 screws (8), with the cover front (R) (9) pushed up, then release the lock of the claw, then remove the cover front (R).

9. Remove the 2 screws (10) then remove the cover front (L) (11).

10. Remove the 2 screws (12) then remove the cover rear (L) (13).

11. Pull off the film (15) glued on the cassette guide.

12. Release the engagement with the guide by lifting the cover assy side (L) (14), then remove the cover assy side (L).

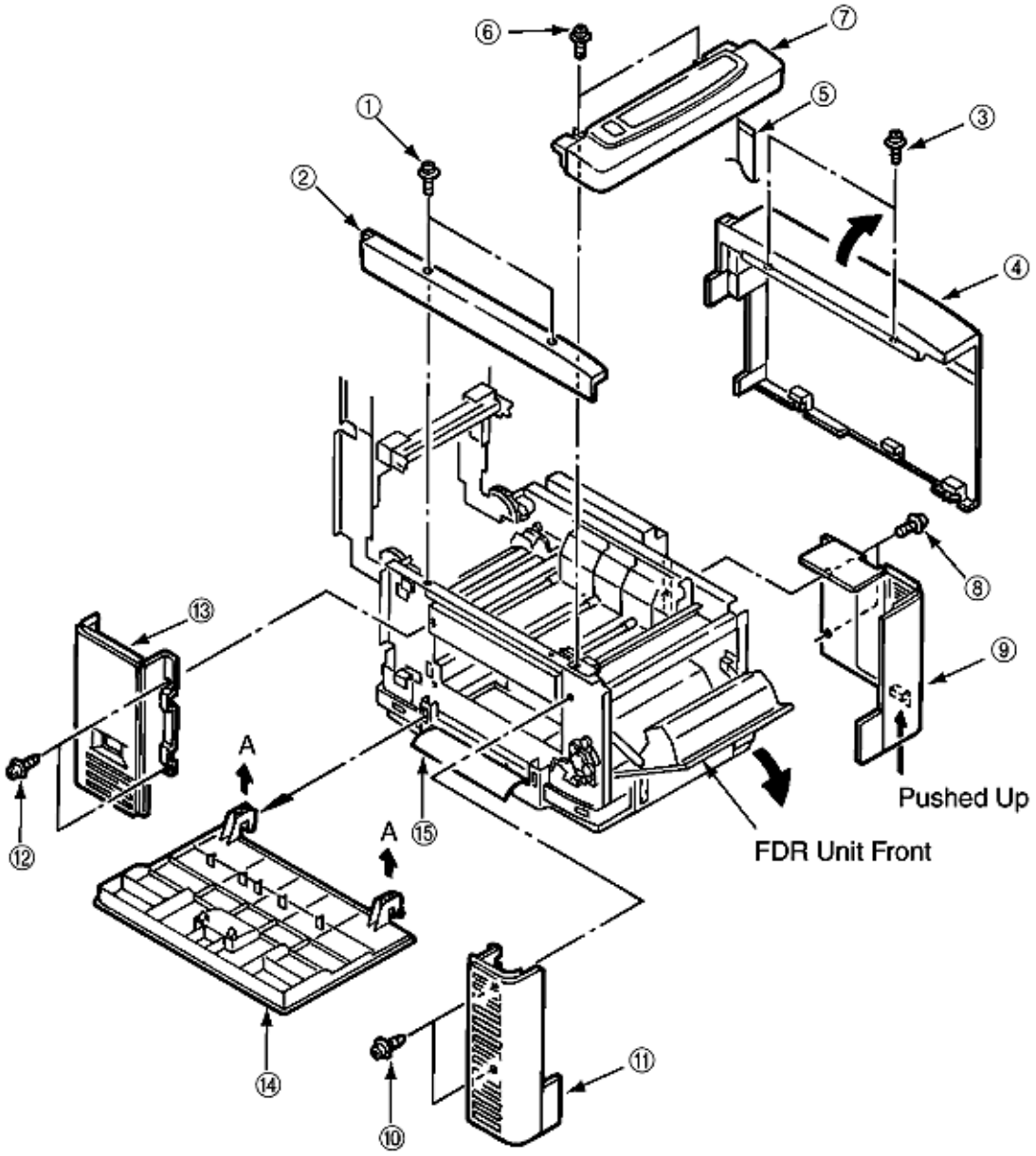


Figure 3.3.8 Cover

(2)	40195601	Frame - Side (L)	RSPL	8-1, # 16
(4)	40315001	Cover - Assy - Side (R)	RSPL	8-1, # 6
(7)	40314901	Cover - Assy - Op - Panel	RSPL	8-1, # 10
	(7) Includes:			
	40492601	Cover - Sub - Assy. Op - Panel	RSPL	8-1, #11
	40387201	PCO PCB	RSPL	8-1, #18
	56636205	2381005P005 *1		
(9)	40098301	Cover - Front (R)	RSPL	8-1, #9
(11)	40098201	Cover - Front (L)	RSPL	8-1, #12
(13)	40195701	Cover - Rear (L)	RSPL	8-1, #17
(15)	40728701	Foam - Seal (Cover)	RSPL	8-1, #24
(14)		Cover - Side (L)	RSPL	8-1, #14

***1**		**Cable: HCUS (1.25) - 6F-440-10S6(B) M1 (20624)**	**RSPL**	**8-1, #19**
***2**	**Includes**	**Cover - Side (R) Frame - Side (R)**		

3.3.9 PCR PCB Assy

1. Open the top cover.
2. Remove the 2 screws (1) and release the lock of the claw by lifting the cover assy side (R) (2) a little bit, then remove the cover assy side (R).
3. Remove the 2 screws (8) to remove the plate shield (CU) (9).
4. Remove the 3 screws (3) to remove the plate sealed (4).
5. Detach the operator panel cable (5) from the PCR PCB. PCR PCB requires ten (10) screws for removal.
6. Remove the 7 screws (6) to remove the PCR PCB (7).

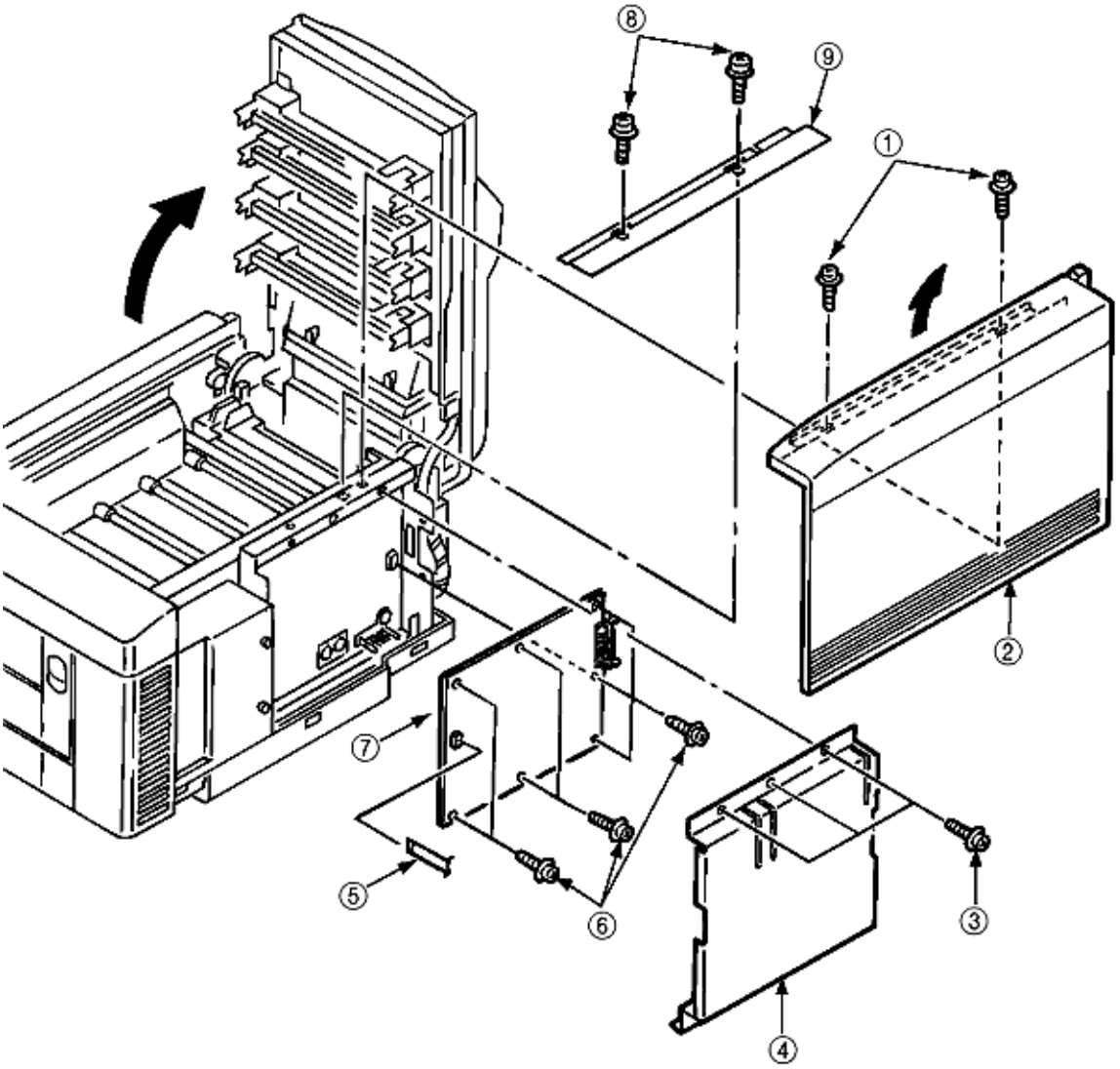


Figure 3.3.9 PCB Assy: PCM

(2)	**40315001**	**Cover - Assy - Side (R)**	**RSPL**	**8-1, #6**
	Includes:	**Cover - Side (R)** **Frame - Side (R)**		
(9)	**40704901**	**Plate - Shield (CU)**	**RSPL**	**8-5, #43**
(4)	**40376901**	**Plate - Sealed**	**RSPL**	**8-5, #16**
(7)	**40604802**	**PCR - PCB**	**RSPL**	**8-5, #15**

3.3.10 Motor Fan

1. Open the top cover.
2. Remove the cover assy side (R), frame side (L), cover assy OP panel and the cover front (R). (See 3.3.8)
3. Unplug the cable (1) and unscrew 2 screws (2), 2 collars (4) and then remove the motor fan (3).

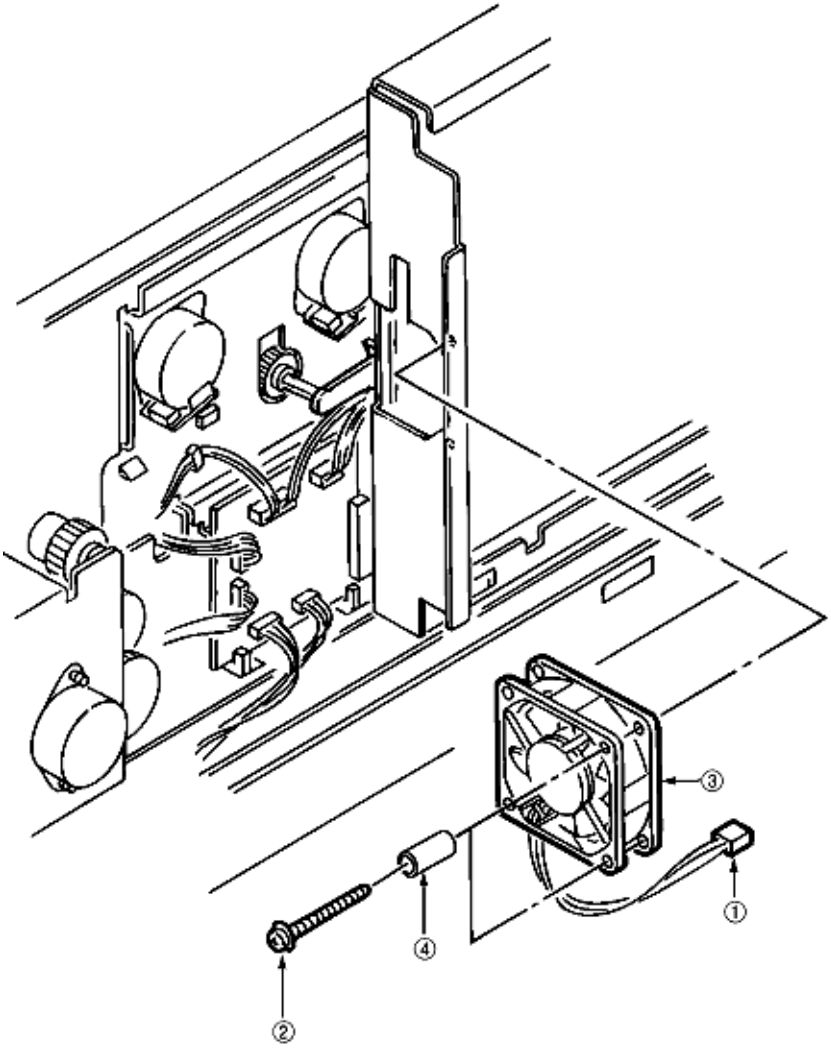


Figure 3.3.10 Motor Fan

(2)	54122925	PSW2W3-253	Screw	RSPL	8-5, #18
(3)	40197101		Motor, Fan	RSPL	8-5, #17

3.3.11 PXF PCB/PX4 PCB

Since the PXF PCB and PX4 PCB are connected with each other via the connector, remove them at the same time.
1. Remove the PCB assy : PCM. (See 3.3.9)
2. Unscrew 5 screws 1 then remove the cover CU2.
3. Unplug all the cables 5 connected to the PXF PCB 3 and PX4 PCB 4.
4. Unscrew 5 screws 6 then remove the PXF PCB3 and PX4 PCB4 at the same time.

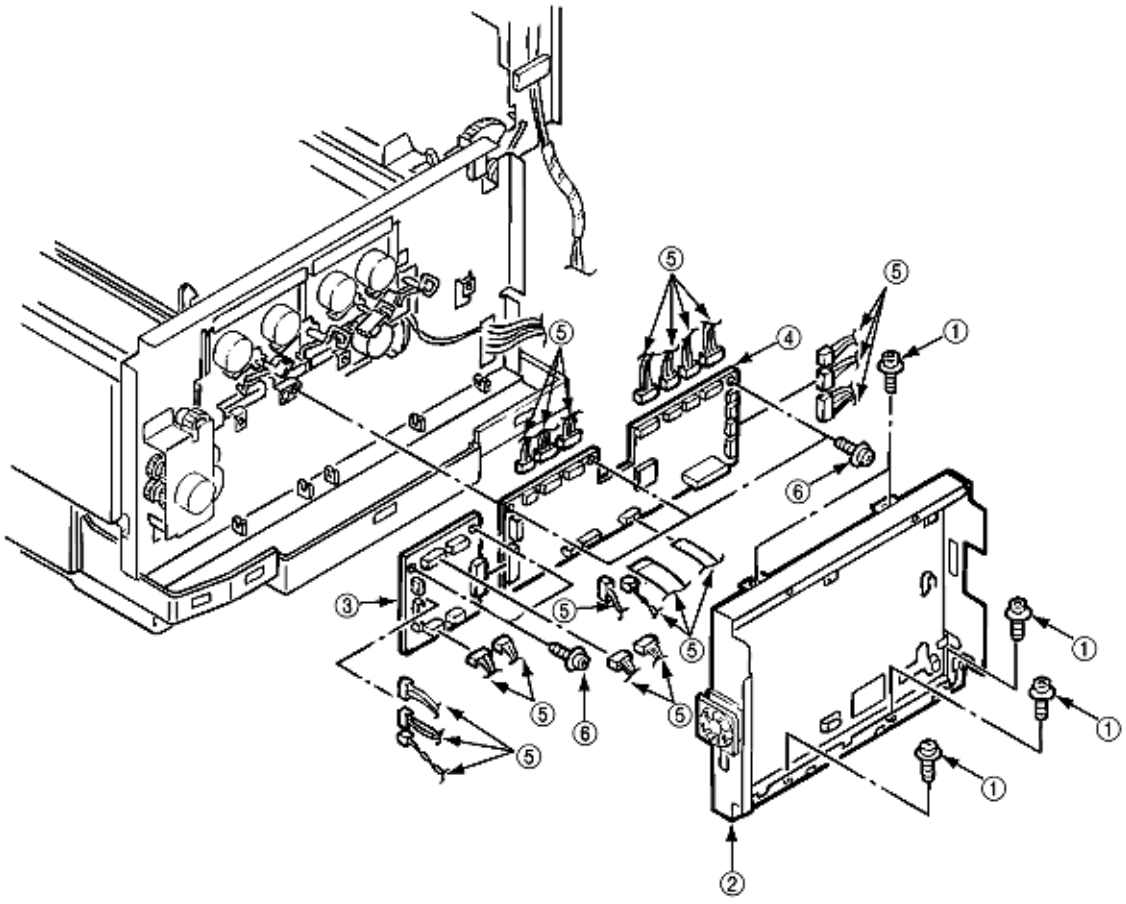


Figure 3.3.11 PXF PCB/PXS PCB

3.3.12 Gear Heat Assy

1. Remove the cover assy side (R), cover assy OP panel, cover front (R) and the cover rear (L). (See 3.3.8)
2. Remove the cover CU then unplug all the cables connected to the PX4 PCB and unscrew 3 screws. (See 3.3.11)
3. Unplug all the cables connected to the PXF PCB then remove the PX4 PCB. (See 3.3.11) **(Be careful not to damage the connector when unplugging cables connected to the PXF PCB.)**
4. Remove the heat unit assy. (See 3.3.40)
5. Remove the guide paper eject assy. (See 3.3.3)
6. Remove the motor fan (80-25). (See 3.3.2)
7. Remove the 5 screws (1) and detach the cable (2) then remove the guide heat assy (3).
8. Remove the 2 screws (4) then remove the motor (ID) (5).

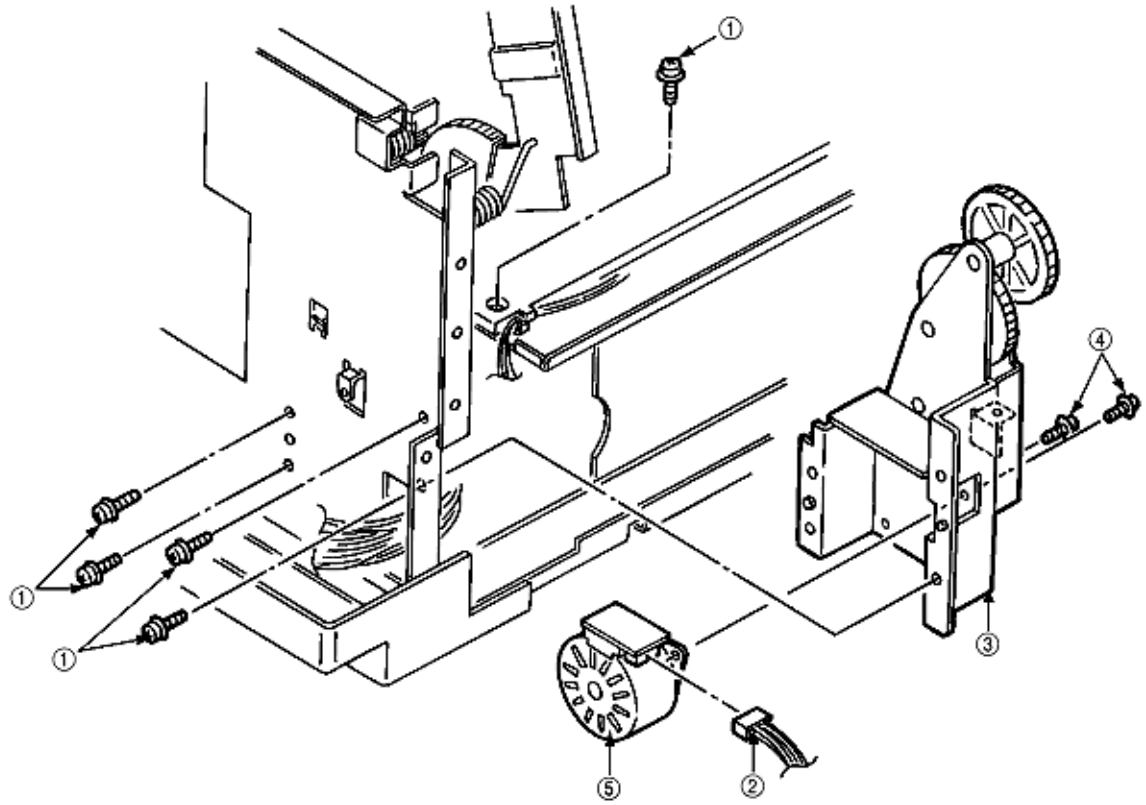


Figure 3.3.12 Gear Heat Assy

(3)	**40310001**	**Gear-Heat-Assy**	**RSPL**	**8-5, #1**
	Includes:			
	40124101	**Motor-Pulse (ID)**	**RSPL**	**8-5, #11**
	40448901	**Gear - Heat - Mech Assy**	**RSPL**	**8-5, #40**
(5)	**40124101**	**Motor - Pulse (ID)**	**RSPL**	**8-5, #11**

3.3.13 Main Motor (A), (B) Assy

1. Remove the PXF PCB and PX4 PCB. (See 3.3.11)
2. Remove the 4 screws (8) and remove 4 plate-Earth (9) and 4 lever Up/Dn 2 (1).
3. Detach the all the cables (2) connected and unscrew 4 screws (3), then remove the main motor (A) assy (4).
4. Detach the all the cables (5) connected and unscrew 3 screws (6), then remove the main motor (B) assy (7).

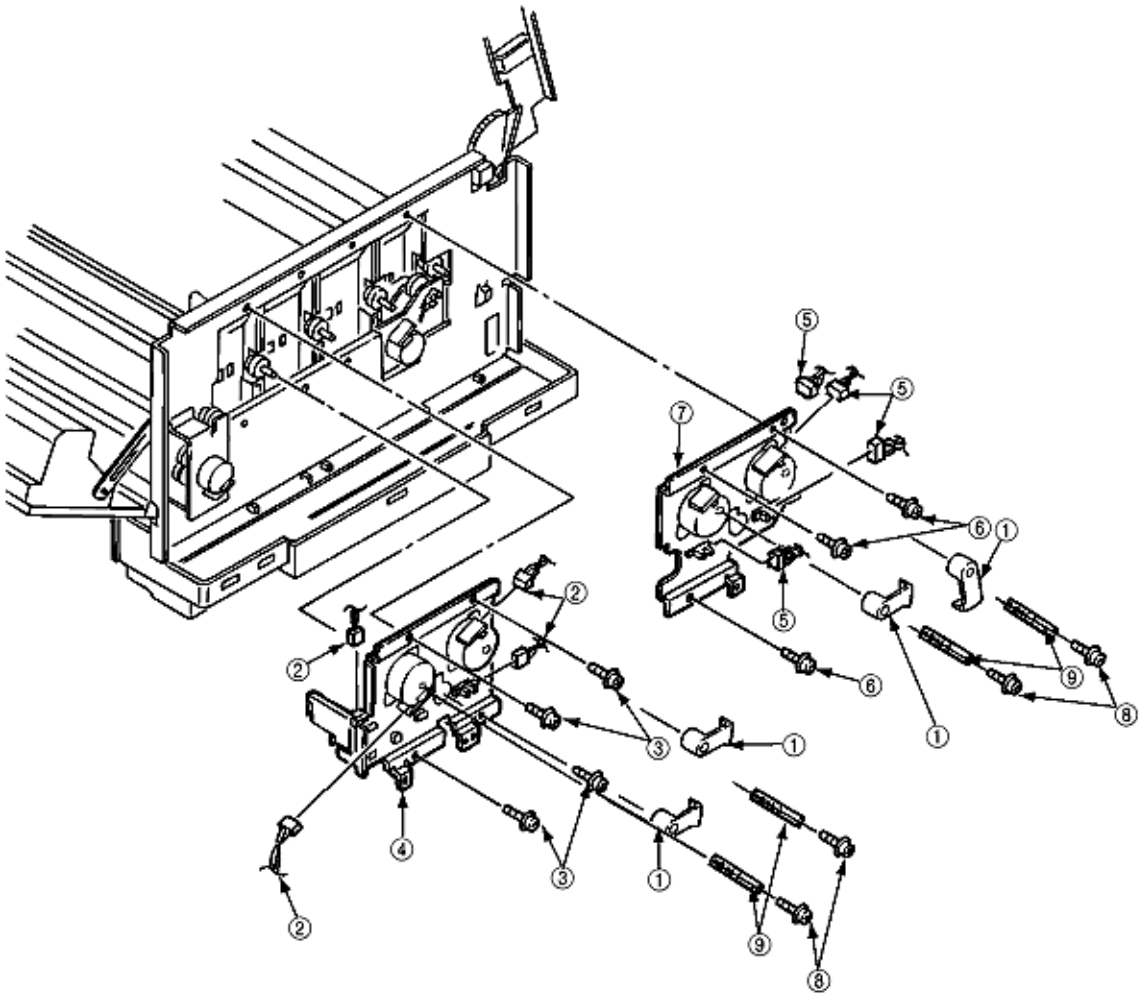


Figure 3.3.13 Main Motor (A), (B) Assy

(9)	**40583901**	**Plate - Earth (LKR)**	**RSPL**	**8-5, #42**
(1) B	**40664401**	**Lever - Up/Dn 2 (YMC)**	**RSPL**	**8-5, #6**
(4)	**40309101**	**Main - Motor (A) - Assy**	**RSPL**	**8-5, #3**
(7)	**40309201**	**Main - Motor (B) - Assy**	**RSPL**	**8-5, #4**
(1) A	**40664501**	**Lever - Up/Dn 2 - (K)**	**RSPL**	**8-5, #41**

3.3.14 Gear One-way (Z30)

Four gear one-ways (Z30) are provided but the method of those replacements is the same. Do not disassemble the gear one-ways (Z30) because they are assemblies which require adjustment.

1. Remove the PCB assy : PCM. (See 3.3.9)
2. Remove the cover CU. (See 3.3.11)
3. Remove the 4 Plate-Earth and 4 lever Up/Dn 2. (See 3.3.13)
4. Release the lock with the shaft by spreading the claw, then remove the gear one-way (Z30) (1).

[Notice for mounting]

Mount the gear one-way (Z30) by fitting it with the shaft link turned in the arrow direction.

40208101	**Gear - One - Way - (Z30)**	**RSPL**	**8-5, #5**

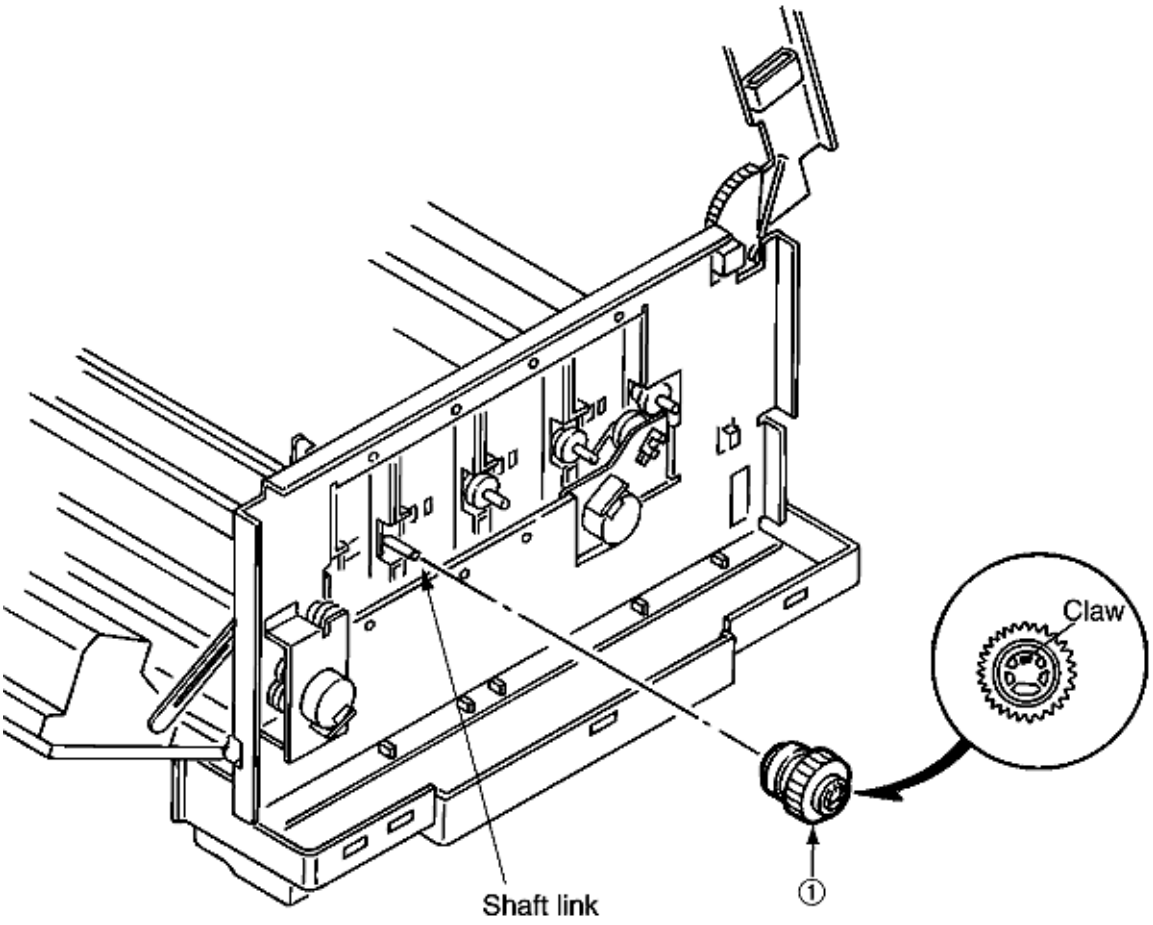


Figure 3.3.14 Gear One-Way (Z30)

3.3.15 Motor Assy Belt

1. Remove the main motor (B) assy. See (3.3.13)
2. Unplug 2 cables (1) connected and unscrew 2 screws (2), then remove the motor assy belt (3).

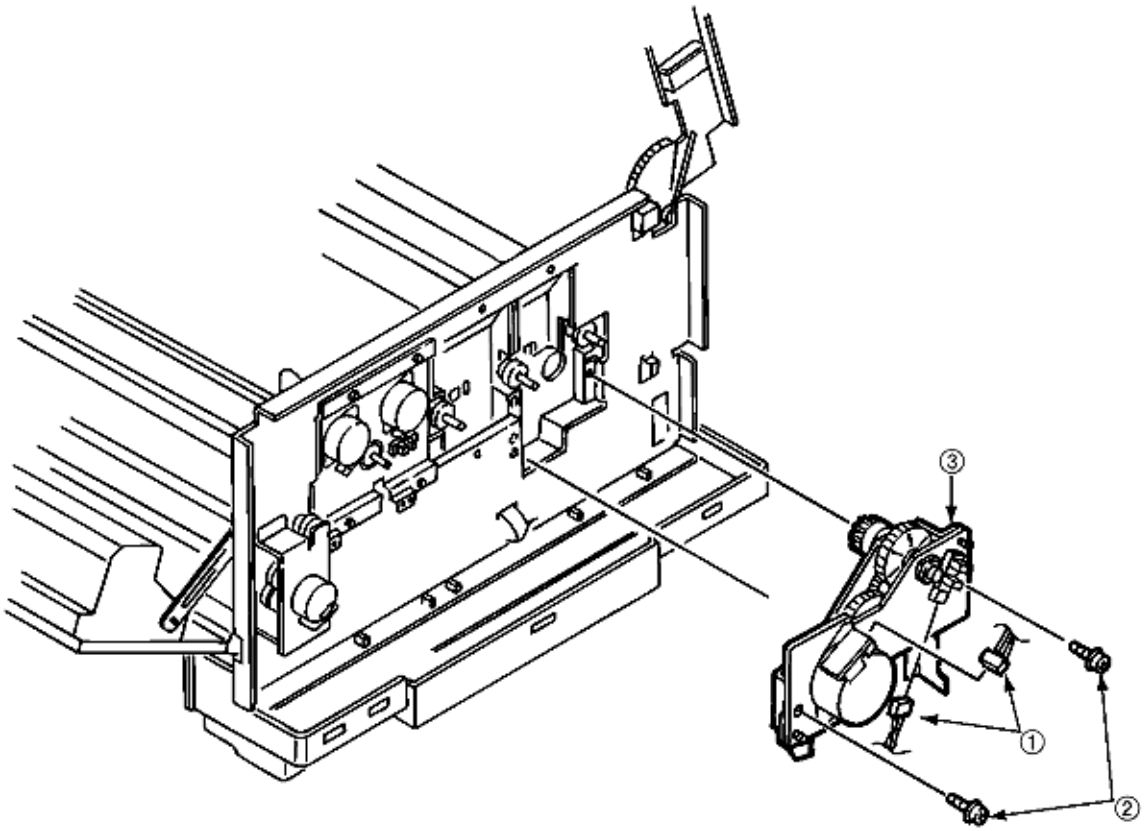


Figure 3.3.15 Motor Assy Belt

(3)	**40392301**	**Motor - Assy - Belt**	**RSPL**	**8-5, #1**
	Includes			
	40124101	**Motor - Pulse**	**RSPL**	**8-5, #11**
	40135301	**Photo - Interrupter**	**RSPL**	**8-5, #39**
	40450001	**Belt - Motor - Mech - Assy**	**RSPL**	**8-5, #37**

3.3.16 Power Supply Unit, Holder Inlet, Sheet Insulation

1. Remove the motor-fan (80-25). (See 3.3.2)
2. Remove the frame side (L), the cover assy side (R) and the cover rear (L). (See 3.3.8)
3. Detach the cable (1).
4. Remove the holder inlet (3) by unscrewing 2 screws (2), then remove the power switch (4) and unplug the AC socket (5).
5. Draw the power supply unit (7) by unscrewing 2 screws (6), then unplug the cable (8).

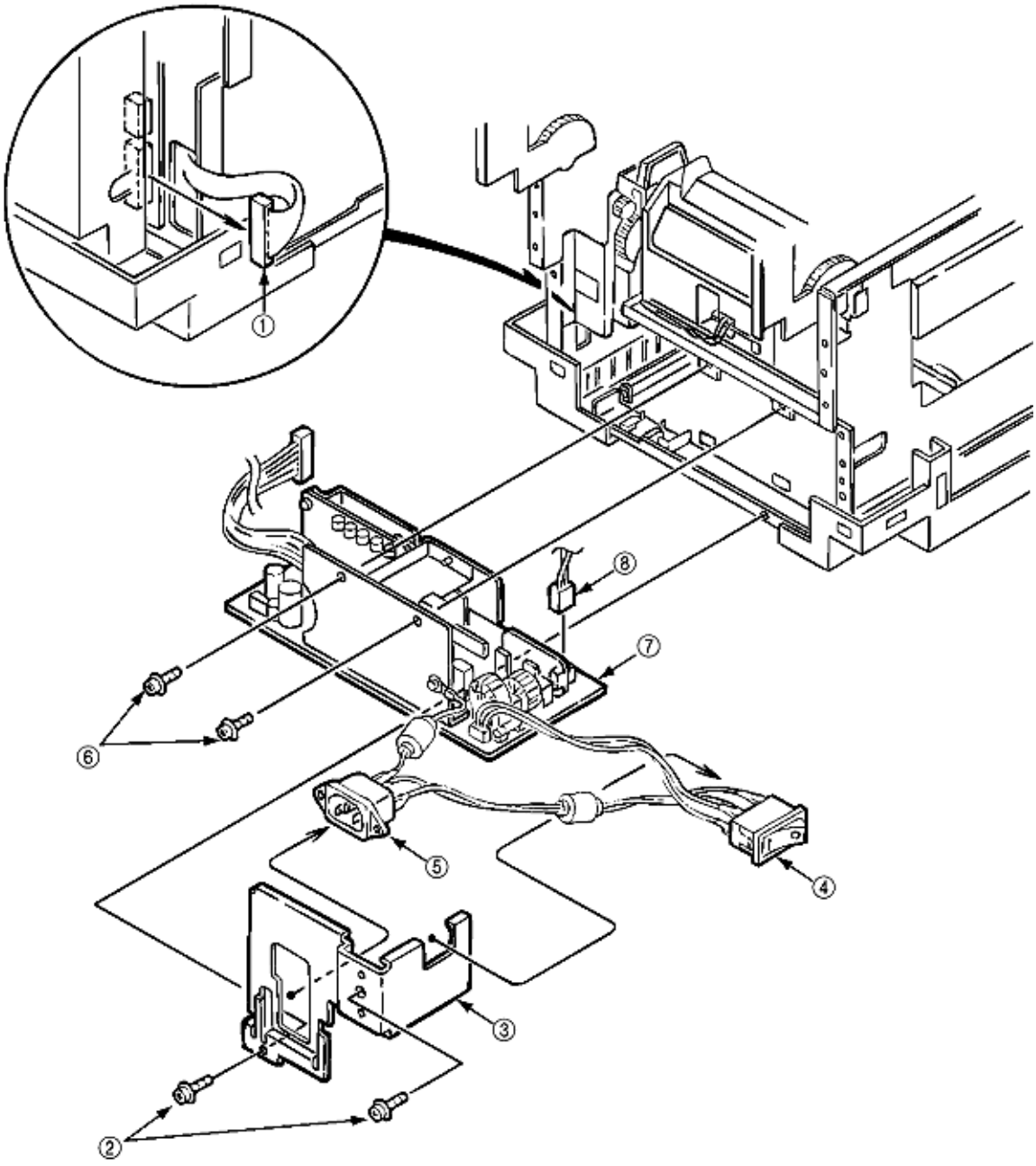


Figure 3.3.16 Power Supply Unit, Holder Inlet, Sheet Insulation

(7)	**40018901**	**Power - Unit - ACDC - Switching 120V**	**RSPL**	**8-2, # 5**
	40019001	**Power - Unit - ACDC - Switching 230V**	**Option RSPL**	**8-2, # 5**

3.3.17 Sensor Assy Box Toner

1. Remove the power supper unit. (See 3.3.16)

2. Unscrew the screw (1) then remove the sensor assy box toner (2) together with the bracket 93).

3. Unscrew the screw (4) then remove the sensor assy box toner (2).

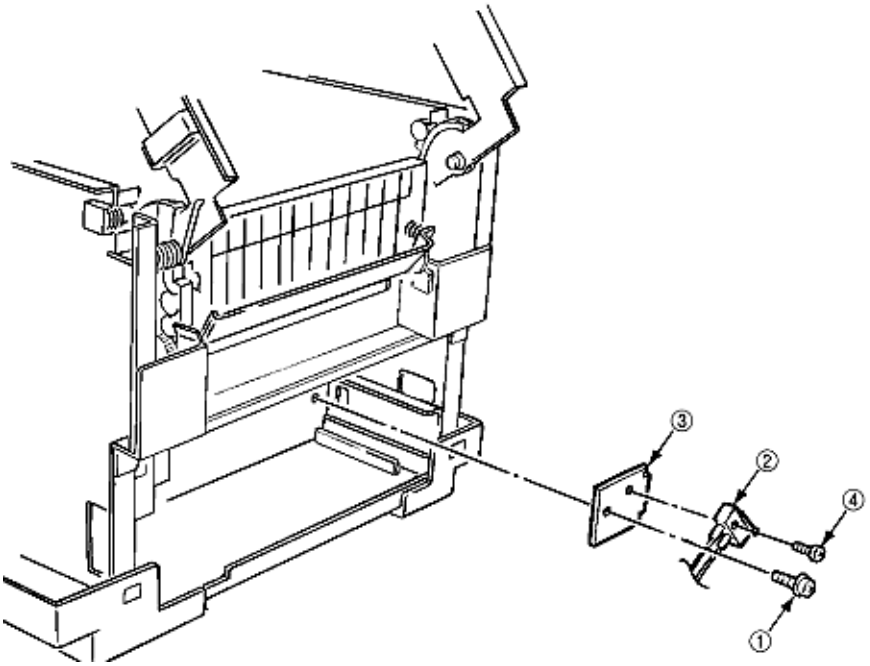


Figure 3.3.17 Sensor Assy Box Toner

(2)	**40450401**	**Sensor - Assy - Box - Toner**	**RSPL**	**8-3, Item 5**
(3)	**40450201**	**Bracket - Switch**	**RSPL**	**8-3, Item 47**

3.3.18 Square-shaped Connector

1. Remove the power supply unit. (See 3.3.16) (Do not remove the power switch and AC socket from the holder inlet.)
2. Unplug the cable (1).
3. Remove cable (2), screw (5) and bracket (6) in order and then take off SW from bracket (6) to pull off square-shaped connector (4).

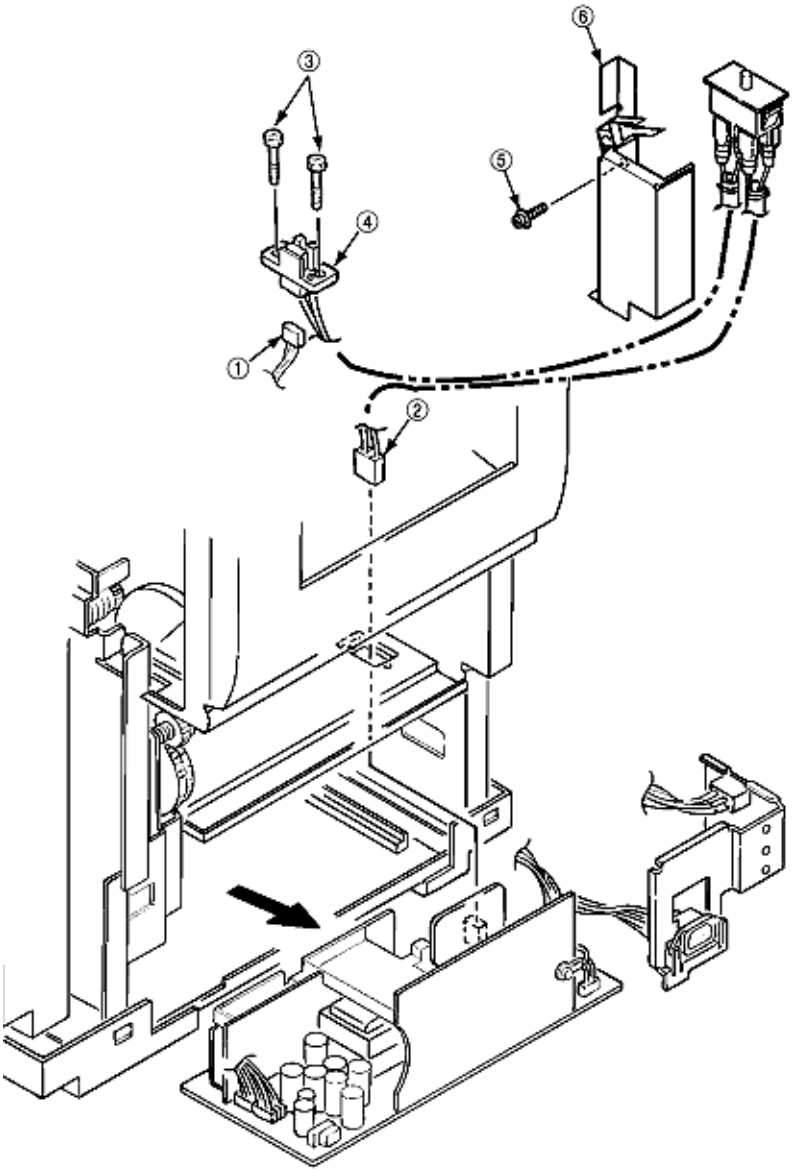


Figure 3.3.18 Square-shaped Connector

(3)	**50318601**	**PB4043-4718 P001**	**Screw**	**RSPL**	**8-3, #38**
(6)	**40446501**		**Interlock - SW - Cable - Assy**	**RSPL**	**8-3, #53**
(4)	**40563101**		**Connection-Cord-Wire**	**RSPL**	**8-3, #37**

3.3.19 Motor - Pulse (ID)

1. Remove the cover assy side (R), cover assy OP panel and the cover front (R). (See 3.3.8)
2. Unscrew 2 screws (1) and unplug the cable (2), then remove the bracket hopping motor (3). (Be careful not to lose the gears (5), (6) and (7) which slip off at this time.)
3. Unscrew 2 screws (8) then remove the hopping motor (3).

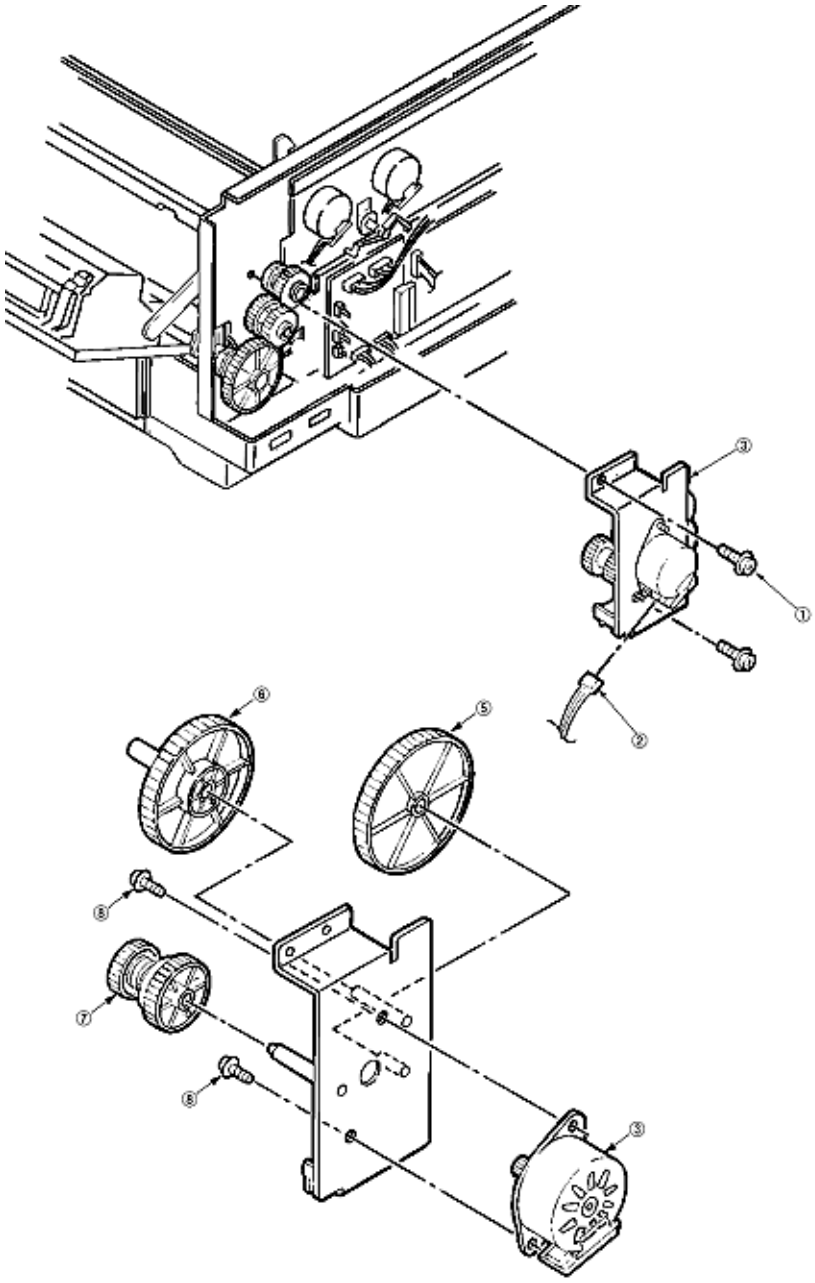


Figure 3.3.19 Motor - Pulse (ID)

(3B)	40124101	Motor - Pulse (ID)	RSPL	8-5, 11
(3A)	40175001	Bracket - Hopping - Motor	RSPL	8-5, #7
(5)	40143501	Gear - Feed (118/7)	RSPL	8-5, #9
(6)	40143401	Gear - Idle (92)	RSPL	8-5, #8
(7)	40164401	Gear - One Way - (Z48/74)	RSPL	8-5, #10
(2)	40171001	Cord - Wire - AMP8P AMP4PX2 (Y8D-240x270mm)	RSPL	8-5, #23

3.3.20 One-way Gears

1. Remove the bracket hopping motor. (See 3.3.19).

2. Remove the spacer (4) first and release the locks with the shaft by spreading the claws of the gear one-way 91), 92) and (3), then remove the gear one-ways.

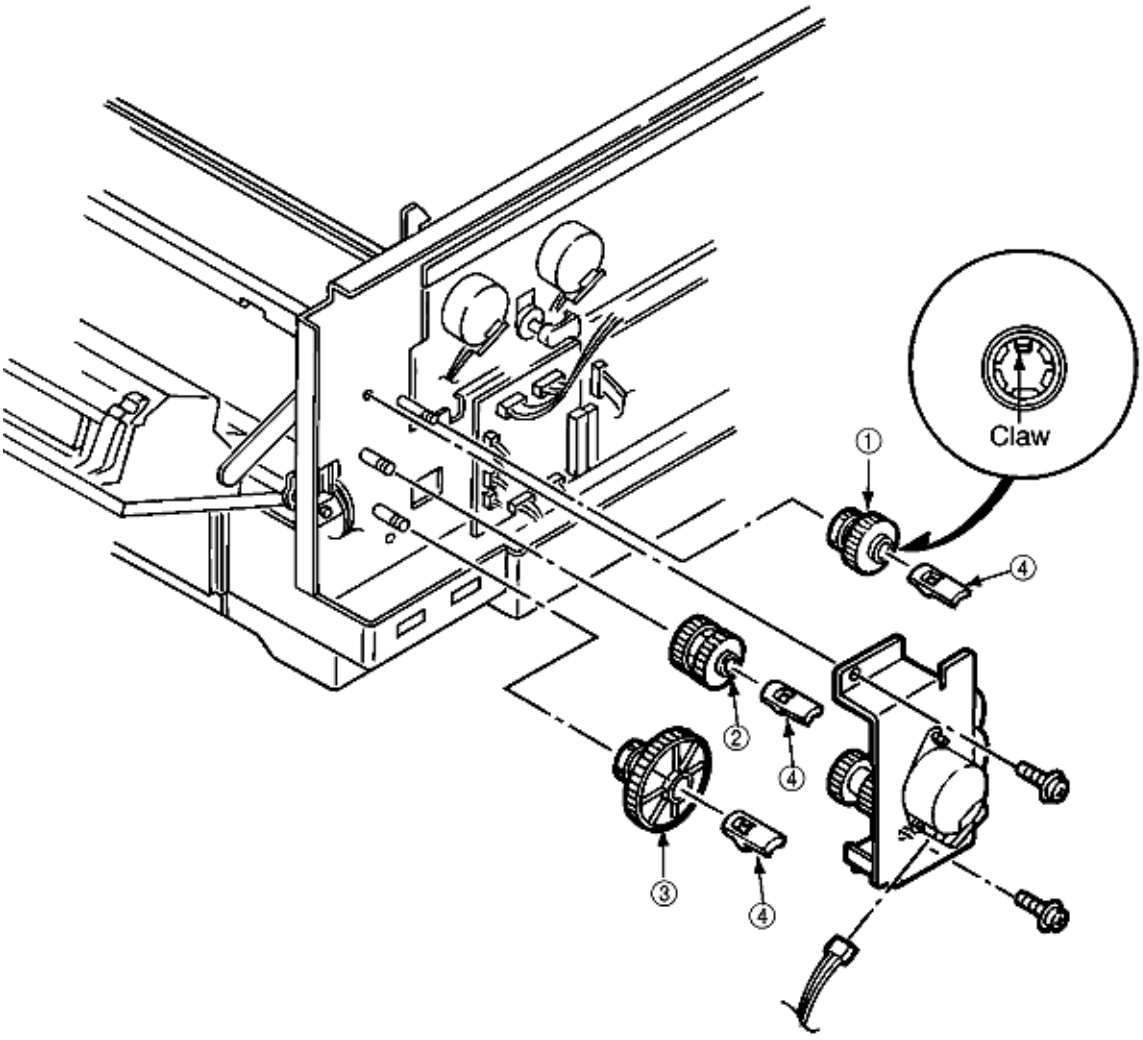


Figure 3.3.20 Gear One-way

(4)	40686701	Space - Register - Gear	RSPL	8-3, 67
(1)	40164301	Gear - One - way (Z48)	RSPL	8-3, #31
(2)	40164501	Gear - One - way (Z48/48)	RSPL	8-3, #30
(3)	40250901	Gear - One - way (96)	RSPL	8-3, #29

3.3.21 Feeder Unit Front

1. Remove the cover assy side (R), cover assy OP panel, cover front (R) and the cover front (L). (See 3.3.8.)
2. Remove the cover CU. (See 3.3.11)
3. Unplug the cable (1) and unscrew the screw (2), then remove the bracket FF shaft (3).
4. Remove 2 E-rings (4) then remove the feeder unit front (5).
5. Unscrew each 2 screws (6) then remove 2 bracket FF links (7).

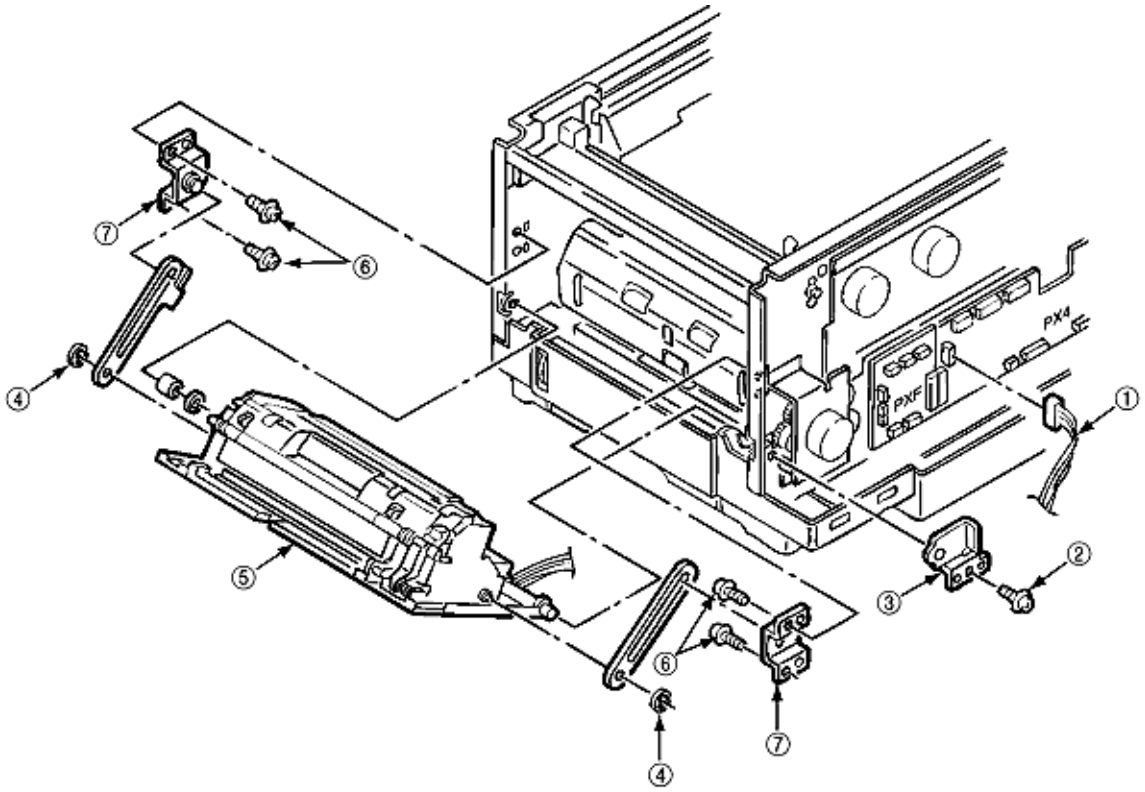


Figure 3.3.21 Feeder Unit Front

(1)	**40641801**	**Conn - Cord - Wire**	**RSPL**	**8-2, #29**
(3)	**40193601**	**Bracket - FF - Link**	**RSPL**	**8-2, #7**
(5)	**40311201**	**FDR - Unit - Front**	**RSPL**	**8-2, #6**
	Includes:			
	55700401	**2PA4128-1076G001 Hopper - Manual - Feed (Assy)**	**RSPL**	**8-2, #26**

	40449001	**FDR - Unit - Main - Assy**	**RSPL**	**8-2, #27**
(7)	**40193501**	**Plate: FF Link**	**RSPL**	**8-2, #7**

3.3.22 Manual Feed Hopper Assy

1. Open the manual feed hopper assy.
2. Release the engagement between the holder and the link then remove the manual feed hopper assy. (Be careful not to damage the holder.)

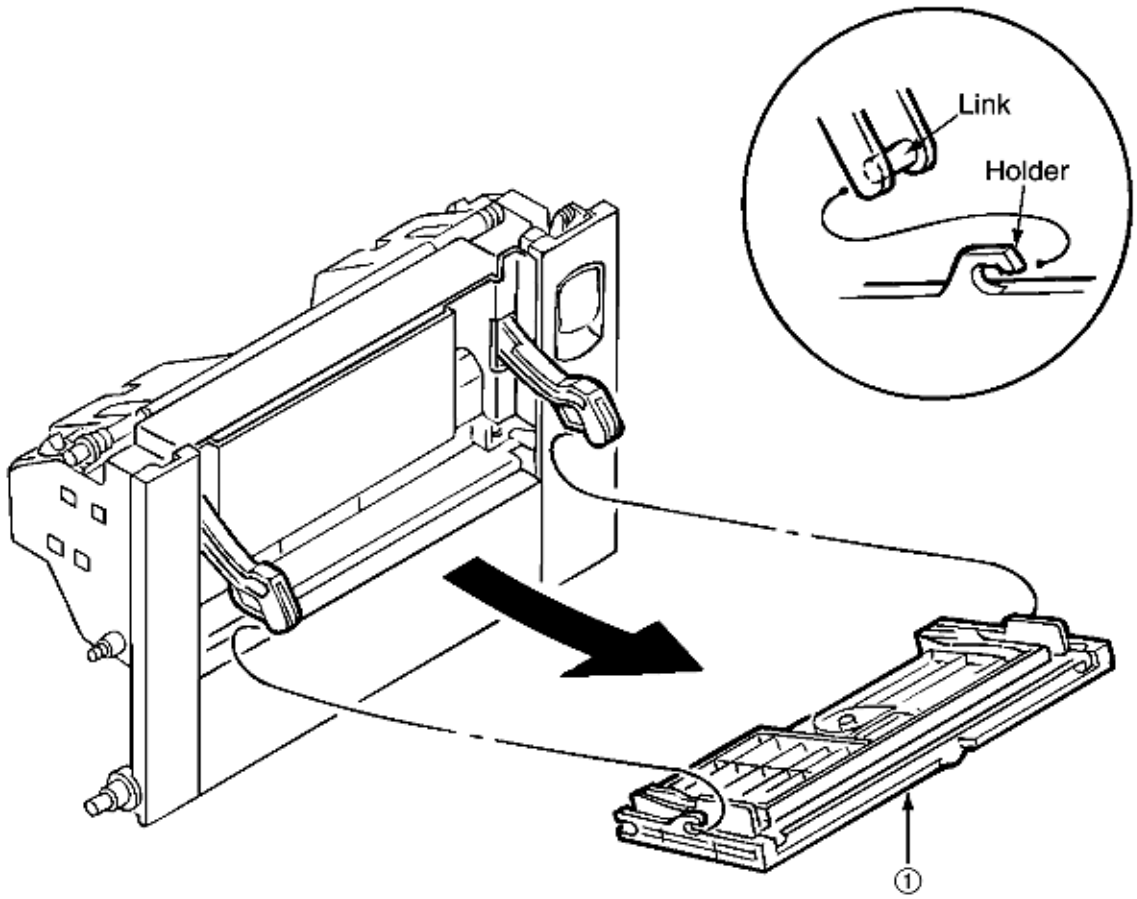


Figure 3.3.22 Manual Feed Hopper Assy

3.3.23 Guide Paper Input Assy

1. Remove the cover assy OP panel, cover front (R) ad the cover front (L). (See 3.3.8.)
2. Remove the feeder unit front. (See 3.3.21)
3. Unscrew 4 screws (1) then draw out the guide paper input assy (2) from the left side by rotating its upper part. **(Be careful not to damage the lever sensor resist).**

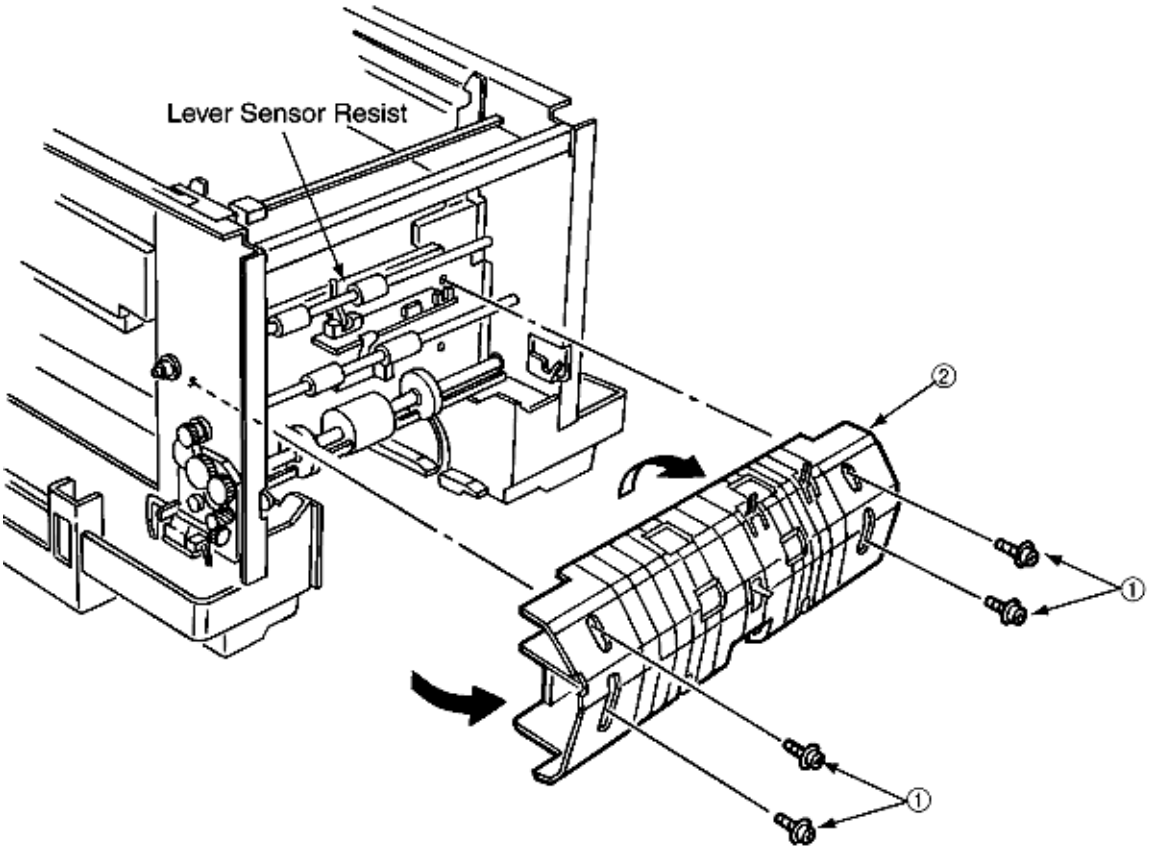


Figure 3.3.23 Guide Paper Input Assy

(2)	**40303301**	**Guide - Paper - Input - assy**	**RSPL**	**8-3, #24**
	Includes:			
	40097301	**Guide - Paper - Input - A**	**RSPL**	**8-3, #43**
	40144301	**Lever - Input - Sensor**	**RSPL**	**8-3, #44**
	40144401	**Lever - 2nd - Feed - Sensor**	**RSPL**	**8-3, #45**

3.3.24 Two Lever Input Sensors, Lever 2nd Feed Sensor

1. Remove the guide paper input assy. (See 3.3.23.)
2. Release the engagement with the guide (3) by pressing the lever input sensors (1) in the arrow direction, then remove them.
3. Release the engagement with the guide by pressing the lever 2nd feed sensor (2) in the arrow direction, then remove the sensor.

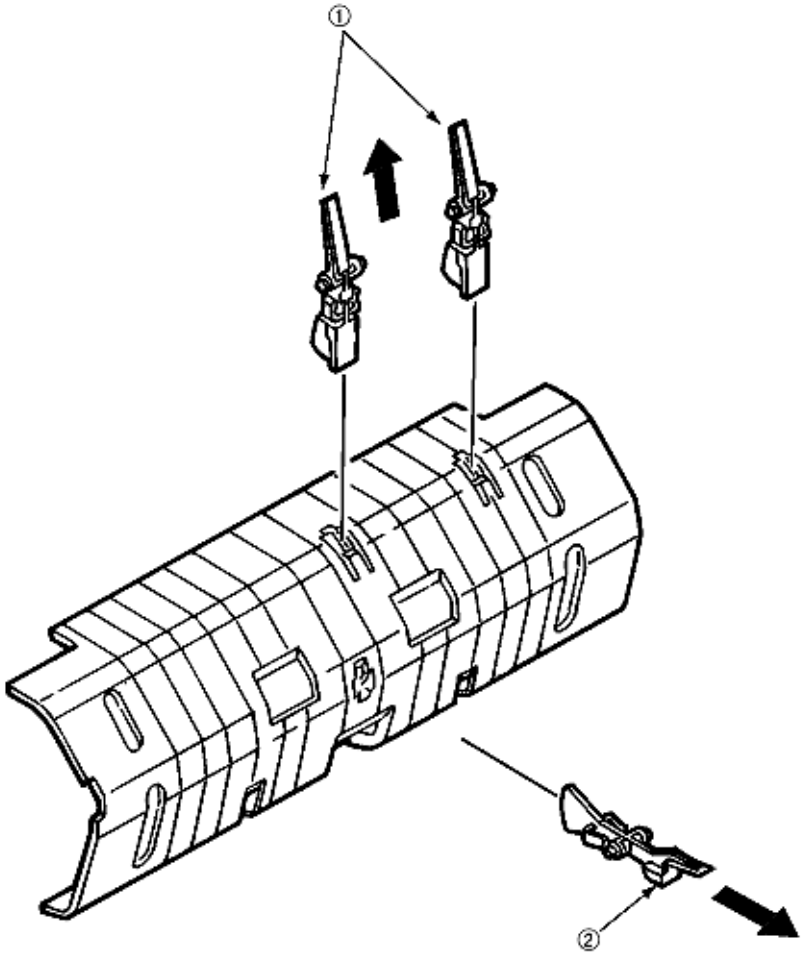


Figure 3.3.24 Two Lever Input Sensors, Lever 2nd Feed Sensor

	40303301	**Guide - Paper - Input - Assy**	**RSPL**	**8-3, #24**
	Includes:			

(3)	**40097301**	**Guide - Paper - Input A**	**RSPL**	**8-3, #43**
(1)	**40144301**	**Lever - Input - Sensor**	**RSPL**	**8-3, #44**
(2)	**40144401**	**Lever - 2nd - Feed - Sensor**	**RSPL**	**8-3, #45**

3.3.25 Roller Registration, Roller Assy Hopping

1. Remove the guide paper input assy. (See 3.3.23.)
2. Remove the bracket hopping motor. (See 3.3.19)
3. Remove the gear one-way. (See 3.3.20)
4. Remove the holder gear toner assy. (See 3.3.30)

[Removal of the roller registration]

5. Remove the gear (1) and 2 bushes (2) and 2 bearings (3), then 2 roller registrations (4).

[Removal of the roller assy hopping]

6. Remove the bush (5) and the bearing (6).

7. Remove E-rings (9) of the sub-roller hopping at both sides of hopping roller and then release the lock of the roller hopping (7) with the shaft (8) by spreading the claw, then remove the roller hopping from the left side by the sliding shaft (8) in the arrow direction. **(Be careful not to lose the knock-pin for fastening the roller hopping (7), which slisp off together.)**

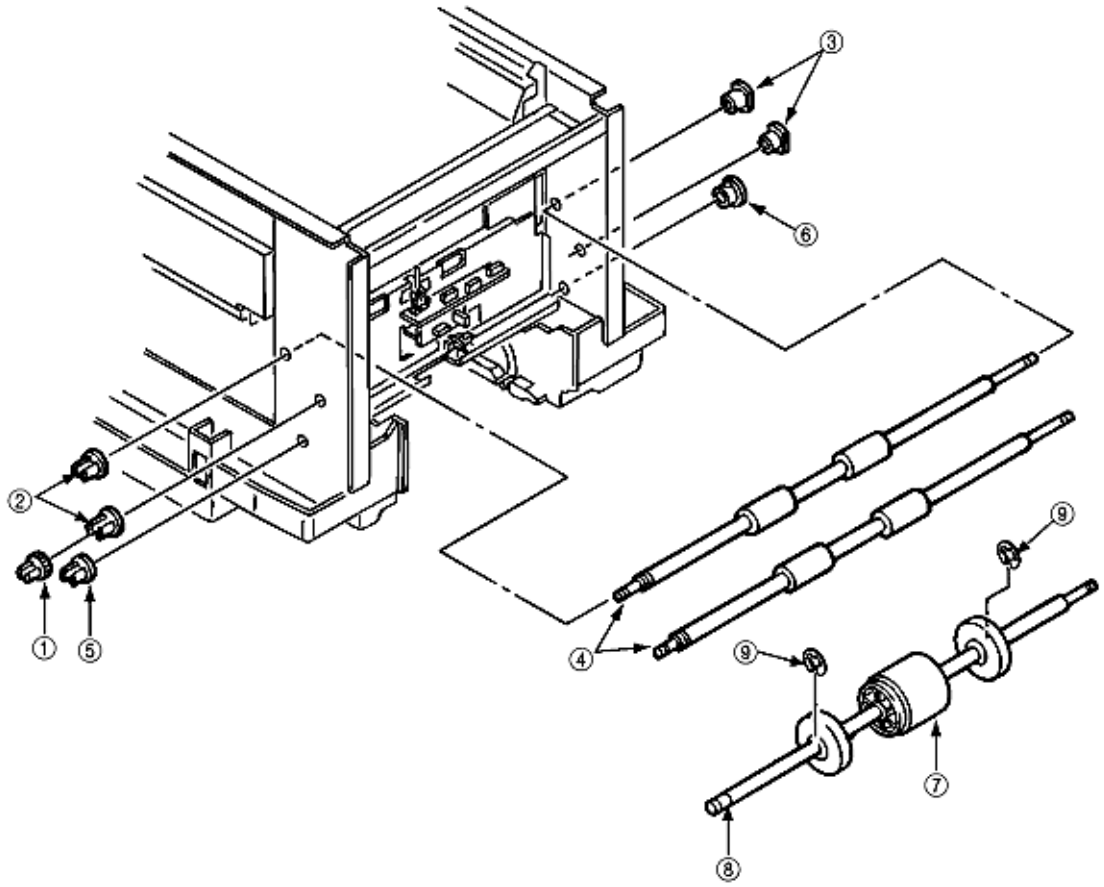


Figure 3.3.25 Roller Registration, Roller Assy Hopping

	40310601	**Roller - Assy - Hopping**	**RSPL**	**8-3, #23**
	Includes:			
(7)	**40449701**	**Hopping - Roller - Boss - Assy**	**RSPL**	**8-3, #42**
(8)	**40189601**	**Shaft - Hopping - Roller - 1st**	**RSPL**	**8-3, #46**
	50608118	**NK3-18-SUS Knock-Pin**	**RSPL**	**8-3, #50**
(10)	**40743701**	**Roller - Assy - Hopping (Sub)**	**RSPL**	**8-3, #66**
(4)	**40130801**	**Roller - Registration**	**RSPL**	**8-3, #22**

3.3.26 Hopping Roller Assy

1. Remove the roller assy hopping. (See 3.3.25) and remove the 2 sub-roller hopping guide (3). (Be careful not to lose the knock-pin which clips off together when removing the roller assy hopping.
2. Detach the roller hopping (2) from the shaft (1).

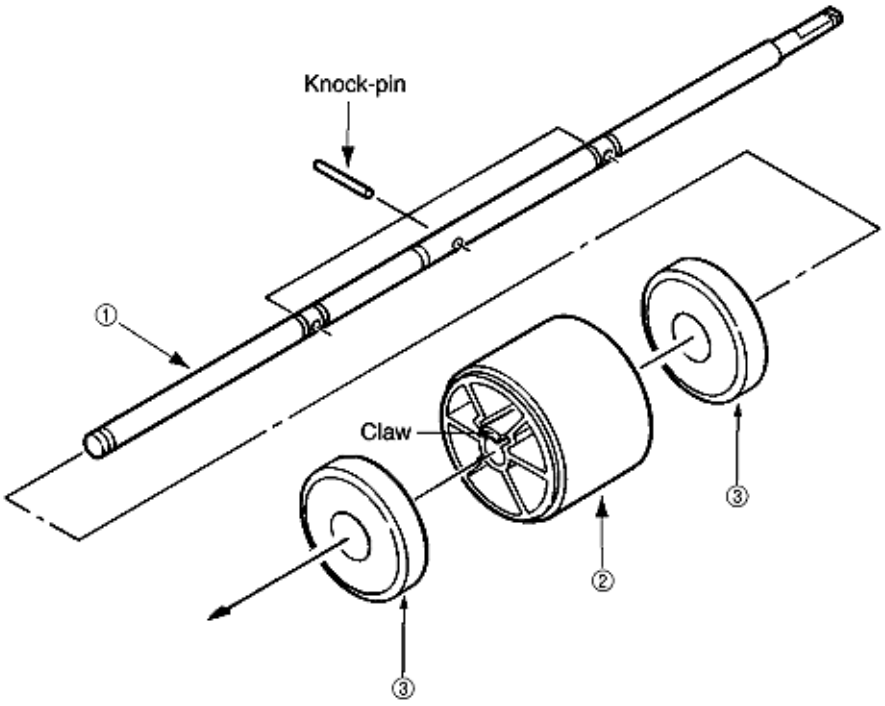


Figure 3.3.26 Hopping Roller Assy

	40310601	Roller - Assy - Hopping	RSPL	8-3, #23
	Includes:			
(2)	40449701	Hoping - Roller - Boss - Assy	RSPL	8-3, #42
(1)	40189601	Shaft - Hopping - Roller - (1st)	RSPL	8-3, #46
(4)	50608118	NK3-18-SUS Knock-Pin	RSPL	8-3, #50
(3)	40743701	Roller Assy Hopping Sub	RSPL	

3.3.27 PXU PCB/PXM PCB, Lever Resist Sensor

Since the PXU PCB and PXM PCB are connected with each other via the cable, remove them at the same time.
1. Remove the guide paper input assy. (See 3.3.23)
2. Unscrew 4 screws 1 and unplug the cable 2, then remove the PXU PCB 3 and PXM PCB 4 at the same time.
3. Remove the lever resist sensor 5 by releasing the engagement with the guide.

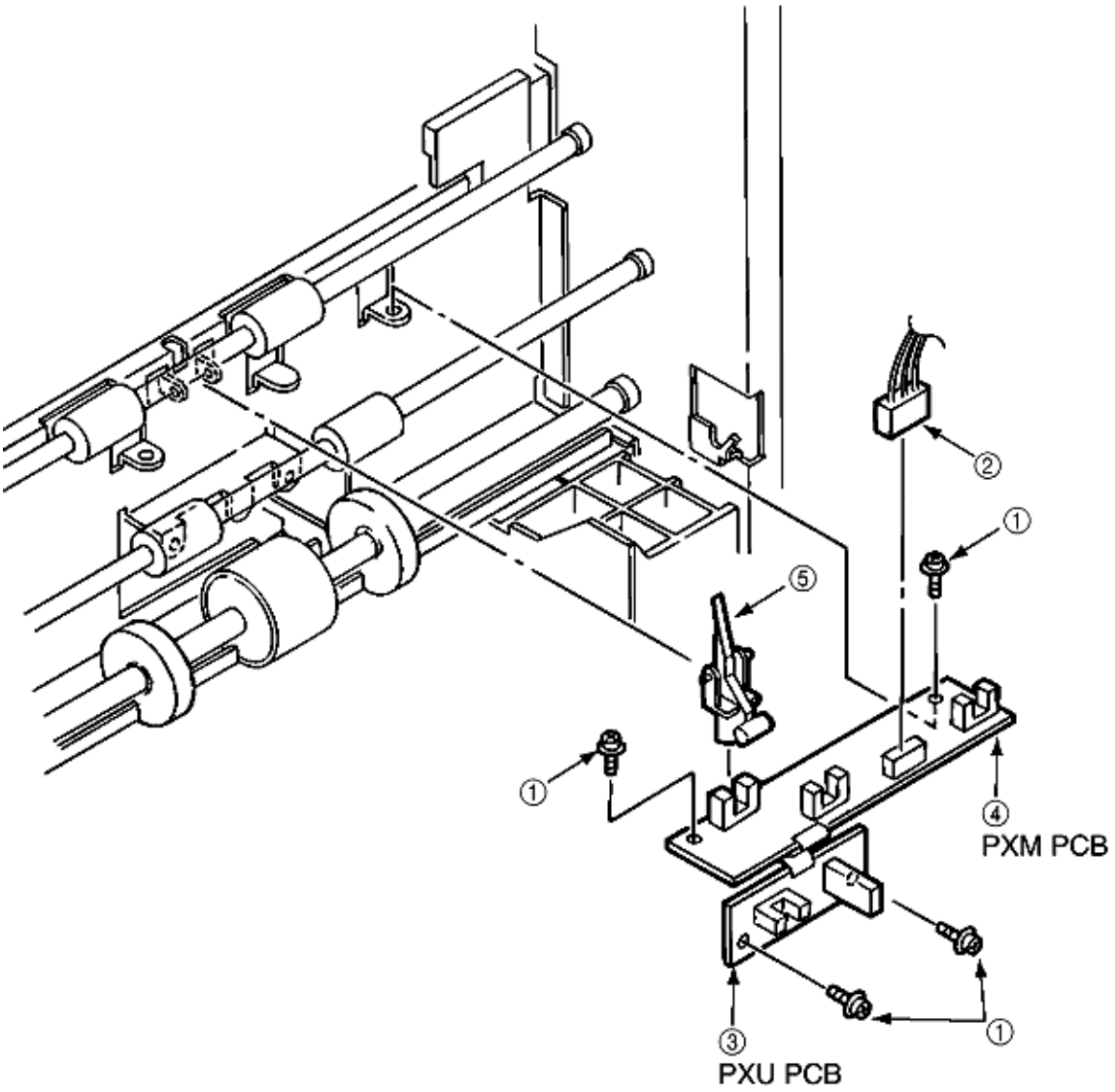


Figure 3.3.27 PXU PCB/PXM PCB, Lever Resist Sensor

3.3.28 Paper End Lever

1. Remove the guide paper input assy. (See 3.3.23.)
2. Remove the paper end lever (1) by releasing the engagement with the guide.

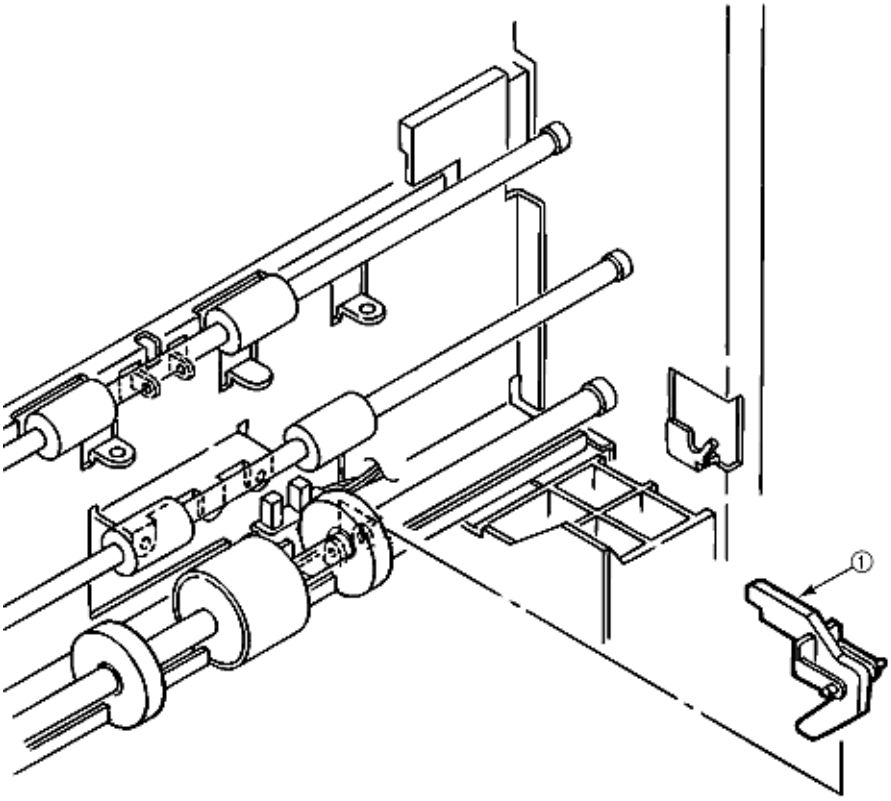


Figure 3.3.28 Paper End Lever

50808201	**4PP4076-5154P001**	**Lever: Paper End**	**RSPL**	**8-3, #4**

3.3.29 PCO PCB (Operator Panel)

1. Remove the cover assy side (R), and the cover assy OP panel. (See 3.3.8.)
2. Unscrew 4 screws (1) and unplug the operator panel cable (2).
3. Remove the PCO PCB (3) by releasing 6 claws. (Be careful not to drop the LCD (Liquid Crystal Display) (4) and (5) which are detached together).

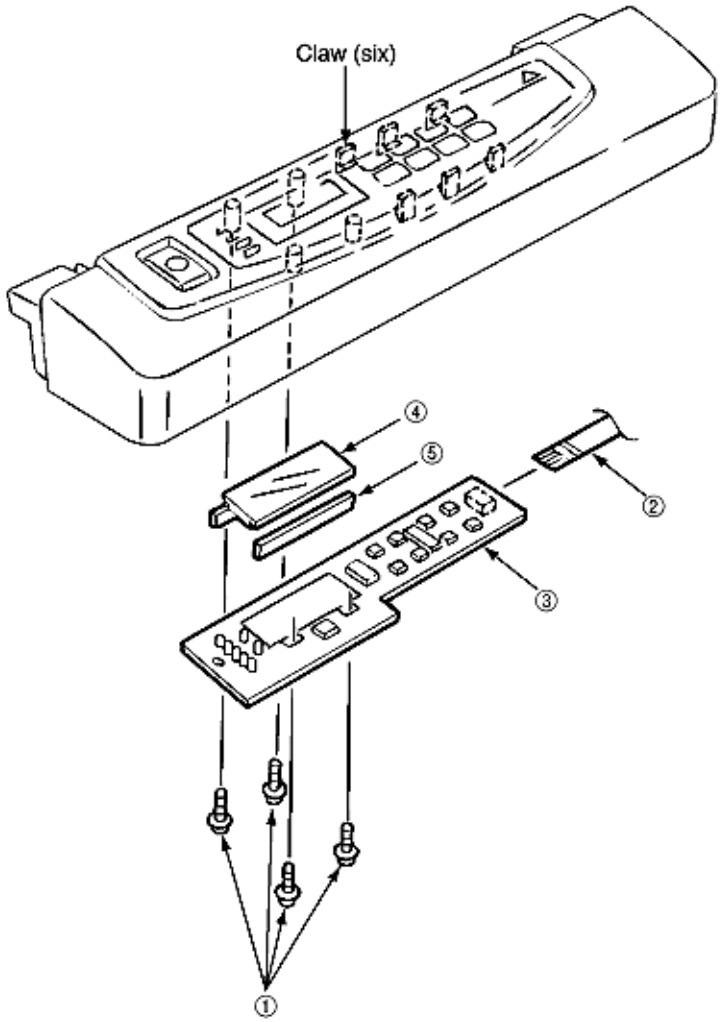


Figure 3.3.29 PCO PCB (Operator Panel)

(2)	**56636205**	**2381005P0005**	**Cable: HCUN (1.25)-6F-440-1056 (B)-M1 (20624)**	**RSPL**	**8-1, #19**

(3)	**40387201**		**PCO PCB**	**RSPL**	**8-1, #18**
(6)	**40492601**		**Cover - Sub - Assy - Op - Panel**	**RSPL**	**8-1, #11**
	40314901		**Cover - Assy - Op - Panel (Includes 3 & 6)**	**RSPL**	**8-1, #10**

3.3.30 Holder Gear Toner Assy

1. Remove the cover assy side (R), cover assy OP panel, cover front (R) and the cover front (L). (See 3.3.8.)
2. Unplug the cable (1) and unscrew the screw (2), then remove the holder gear toner assy (3).

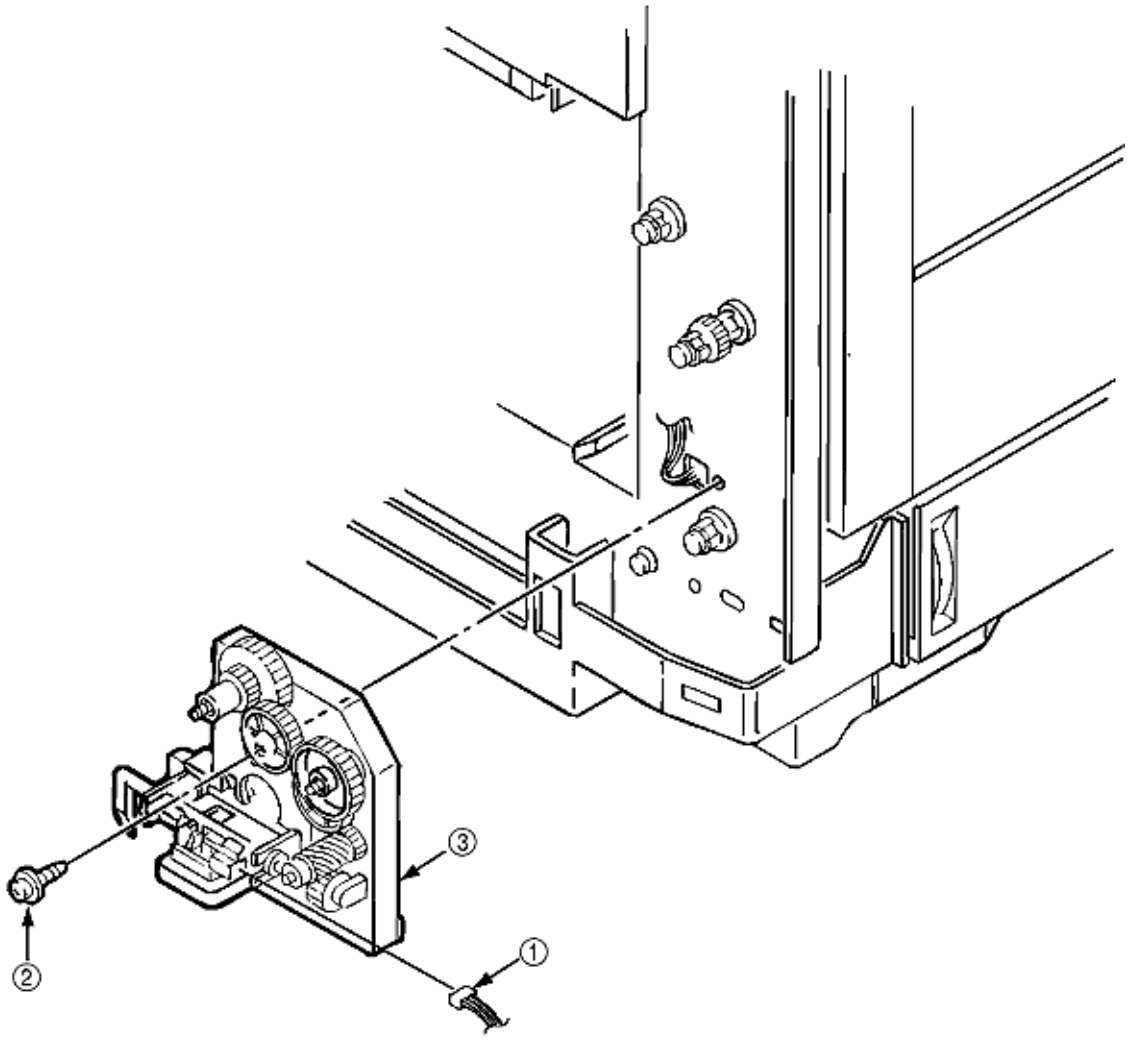


Figure 3.3.30 Holder Gear Toner Assy

(3)	**40309801**	**Holder - Gear - Toner - Assy**	**RSPL**	**8-2, #10**

3.3.31 Plate Latch Lever (FD), Spring Latch Lever (FD)

1. Remove the cover assy side (R), cover assy OP panel, cover front (R) and the cover front (L). (See 3.3.8.)
2. Open the cover CU. (See 3.3.11)
3. Unplug the cable (1).
4. Unscrew the screw (2) then remove the bracket SW (side) (3).
5. Unscrew 4 screws (4) then remove the stay upper (front) (5).
6. Remove the plate latch lever (FD) (6) and spring latch lever (FD) (7) with the side frames spread. **(Be careful not to spread the frames too much).**

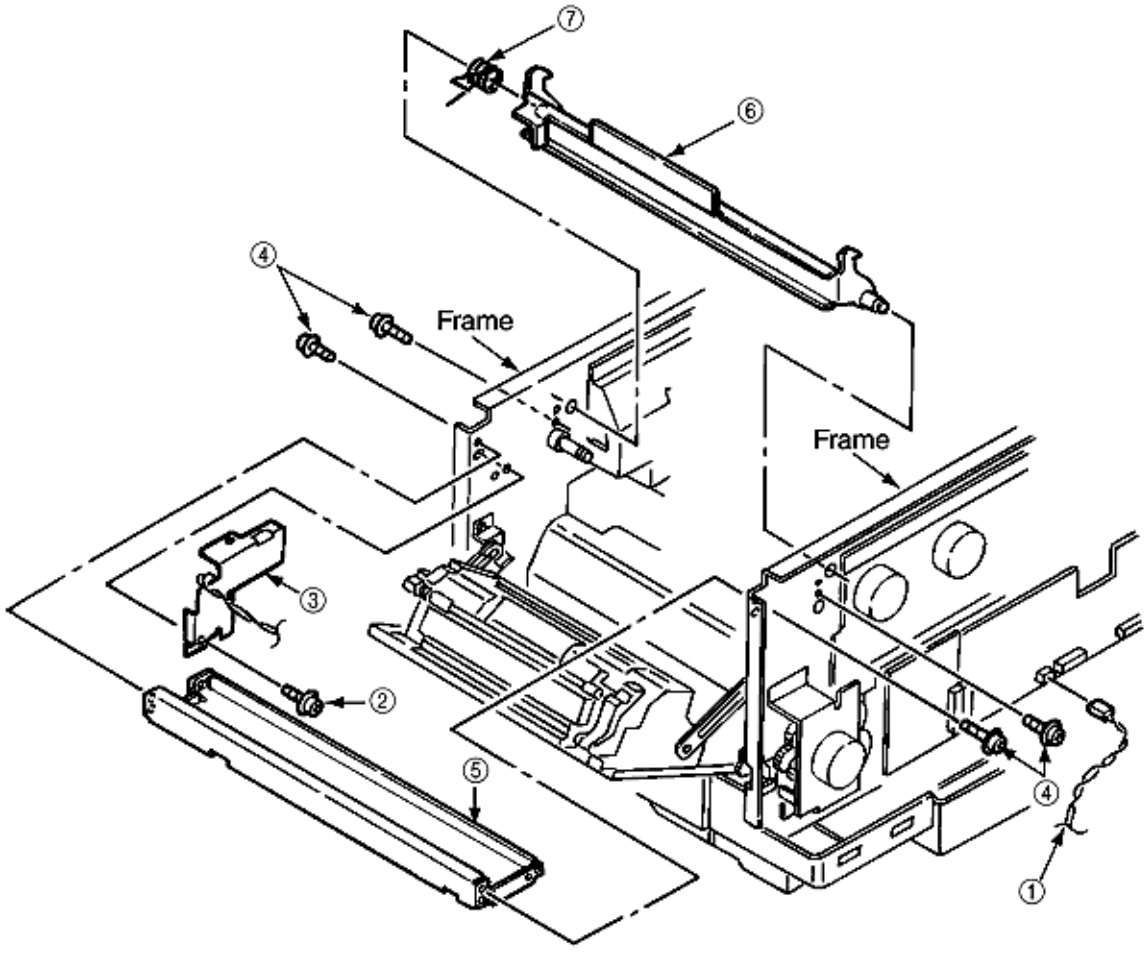


Figure 3.3.31 Plate Latch Lever (FD), Spring Latch Lever (FD)

(3)	**40388501**	**Bracket - SW**	**RSPL**	**8-3, #33**
(5)	**40171101**	**Stay - Upper - (Front)**	**RSPL**	**8-3, #32**
(6)	**40195101**	**Plate - Latch - Lever (FD)**	**RSPL**	**8-3, #34**
(7)	**40195001**	**Spring - Latch - Lever (FD)**	**RSPL**	**8-3, #35**

3.3.32 Transfer Belt

1. Open the Top cover.
2. Release the lock by drawing the cover knob then open the cover assy side (L).
3. Turn the waste toner box (box toner assy) (1) to the left by pressing it down, then remove it.
4. Draw out the belt cassette assy (2) by lifting it a little bit with its handle.

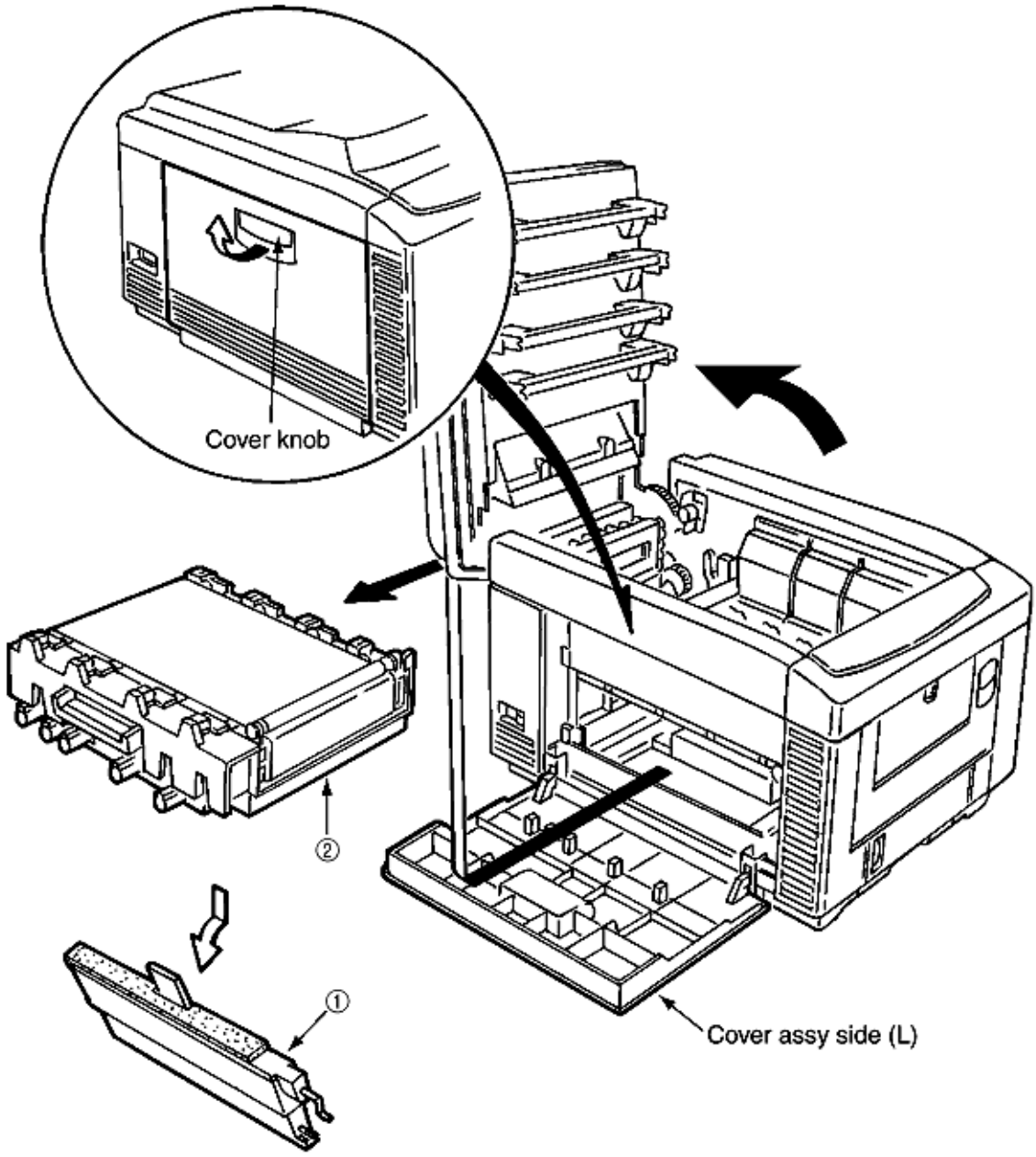


Figure 3.3.32 Transfer Belt

		Cover - Knob		**8-1, #15**
		Cover - Side (L)		**8-1, #14**
(1)	**40645401**	**Waste - Toner - Bottle - Kit (Consumable)**		**8-2, #30**
(2)	**40490802**	**Transfer Belt (Consumable)**		**8-2, #11**

3.3.33 High Voltage Power Supply Unit, Bracket HV (BT) Assy

1. Remove the belt cassette assy. (See 3.3.32)
2. Unscrew 2 screws (1) with the stacker cover opened, then remove the plate HV (2).
3. Unplug the cable (3) and 7 codes (4).
4. Unscrew 2 screws (5) then remove the high voltage power supply unit (6).
5. Remove the bracket HV (BT) Assy (7).

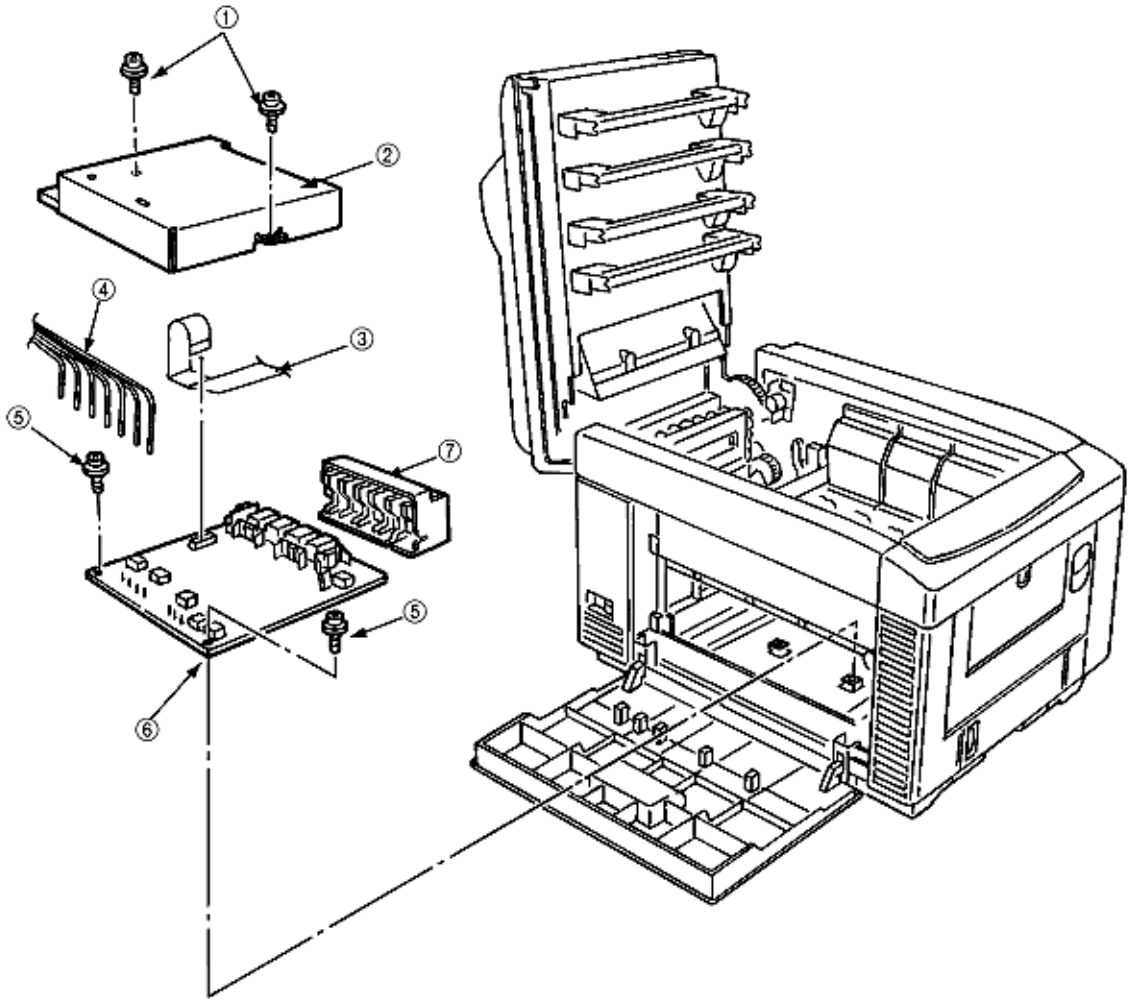


Figure 3.3.33 High Voltage Power Supply Unit, Bracket HV (BT) Assy

(2)	**40168001**	**Plate - HV**	**RSPL**	**8-2, #15**

(6)	**40065601**	**High - Voltage - Power - Supply**	**RSPL**	**8-2, #13**
(7)	**40325001**	**Bracket - HV - (BT) - Assy**	**RSPL**	**8-2, #14**

3.3.34 Eraser Bracket Assy, Eraser Bracket (KCM) Assy

1. Remove the belt cassette assy. (See 3.3.32).
2. Open the stacker cover.
3. Remove four screws (5) and then remove the Plate Blind (6).

[Removing the eraser bracket assy]

4. Remove the screw (1) and the connector (2).

5. Release the screw (7) and then remove the eraser bracket assy (3).

[Removing the eraser bracket (KCM) assy]

6. Remove the screw (1) and the connector (2).

7. Release the lock of the claw then release the engagement with the bracket sensor T (KCM). (See 3.3.35).

8. Release the screw (7) and then remove the eraser bracket (KCM) assy (4) and unplug the cable (2) then remove the eraser bracket (KCM) assy.

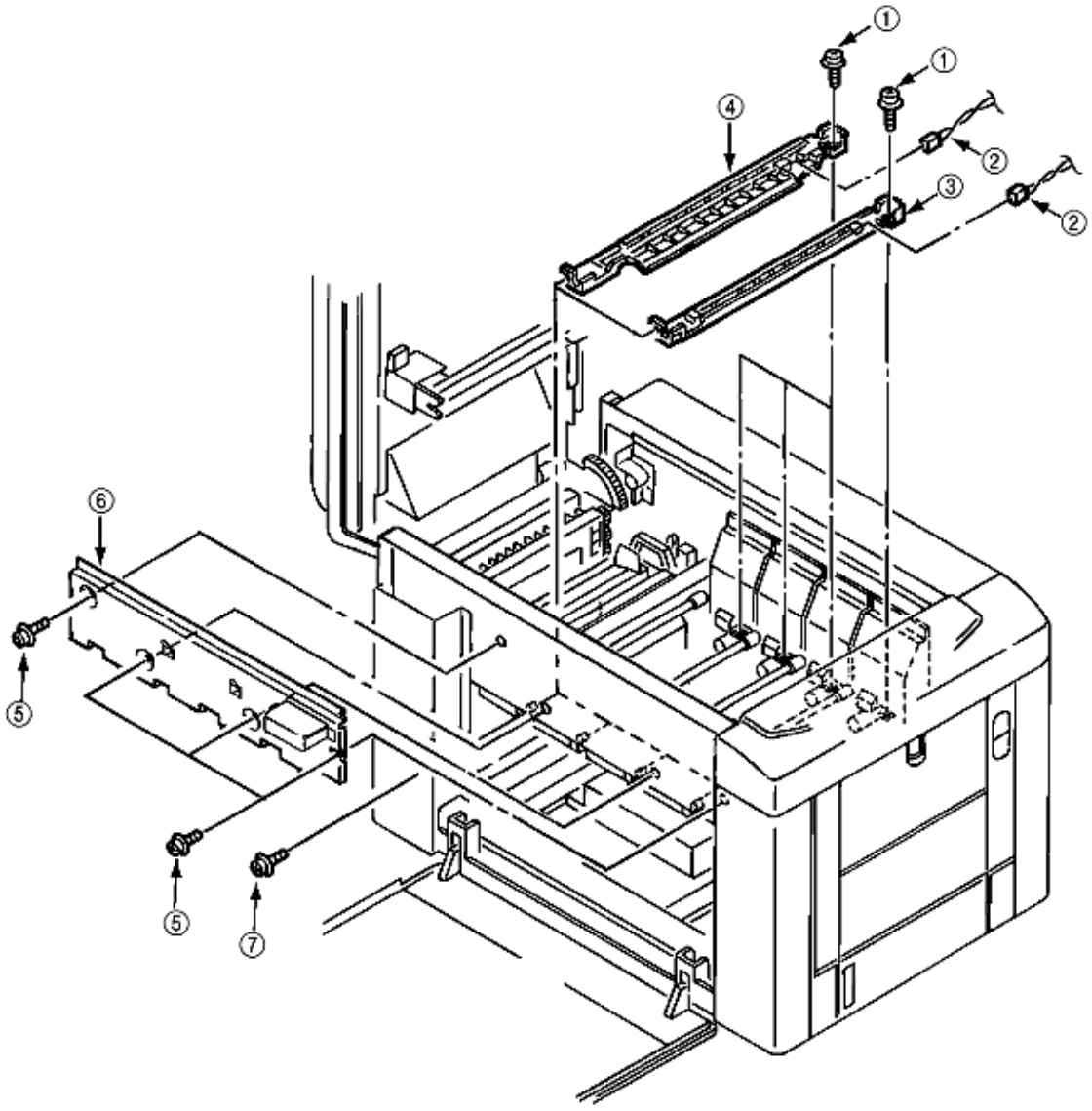


Figure 3.3.34 Eraser Bracket Assy, Eraser Bracket (KCM) Assy

(2)	**40172710**	**Cord - Wire - AMP8P-AMP2PX4**	**RSPL**	**8-4, #20**
(3)	**40308501**	**Eraser - Bkt - Assy**	**RSPL**	**8-4, #8**
(4)	**40324301**	**Eraser - Bkt - (KCM) - Assy**	**RSPL**	**8-4, #9**

3.3.35 Shaft Link

1. Remove the eraser bracket assy. (See 3.3.34)
2. Remove the gear one-way (Z30). (See 3.3.14.)
3. Remove the E-ring (3) by sliding the sensor assy T (KCM) (1) and bracket sensor T (KCM) (2) together in the arrow (A) direction.
4. Release the engagement between the lever Up/Dn and boss A of the lever link (R) (5) by sliding the spring support (R) (4), lever link (R) (5) and the bearing (6) together in the arrow (B) direction. **(Keep on sliding until the lever link (R) (5) reaches the end of D-cut part of the shaft link (7).)**
5. Draw out the entire shaft link (7) by pressing it in the arrow (C) direction and turning its left side under the contact (BL L) assy.
6. Detach the sensor assy T (KCM) (1), bracket sensor T (KCM) (2), spring support (R) (4), lever link (R) (5) and the bearing (6) from the shaft link (7).
7. Remove 2 E-rings (8) then remove the spring support (L) (9) and lever link (L) (10).

[Notice for mounting]

- Engagement between the lever Up/Dn and boss A of the lever link (R) (5): Mount the spring support (L (9) and lever link (L (10) in the predetermined positions, then clamp the boss A of lever link (R) (5) with the lever Up/Dn by adding rotating power on the spring support (L) (9) by rotating the shaft link (7).

- Mounting of the spring support (R) (4): Clamp the spring support (R) (4) at the predetermined positions in the lever link (R) (5) and the contact BKT (R).

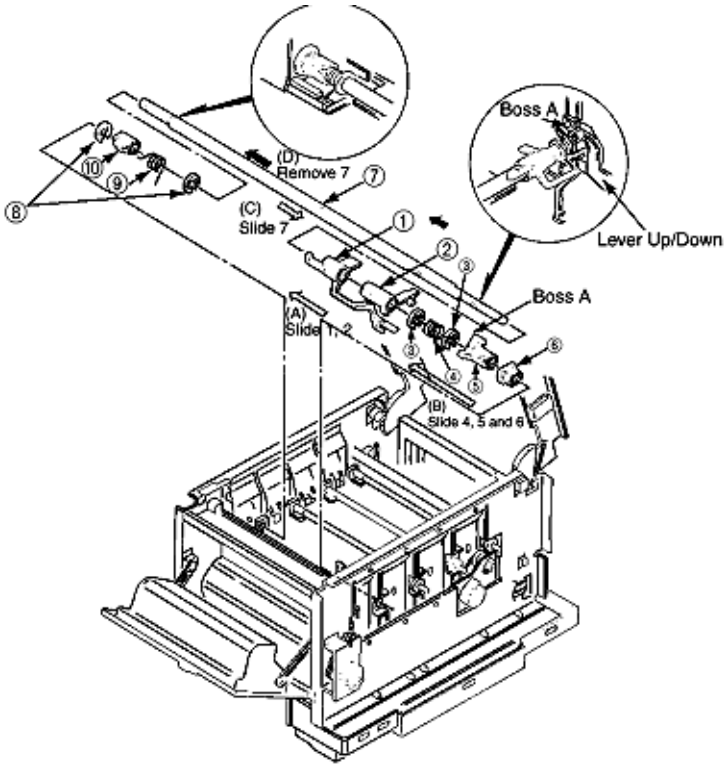


Figure 3.3.35 Shaft Link

(3)	**50705301**	**RE6-SUS Ring: "E"**	**RSPL**	**8-4, #13**
(1)	**40449501**	**Sensor - Assy - T - (KCM)**	**RSPL**	**8-4, #19**
(2)	**40136201**	**Bracket - Sensor - Toner - (KCM)**	**RSPL**	**8-4, #16**
(5)	**40132301**	**Lever - Link - (R)**	**RSPL**	**8-4, #11**
(4)	**40168401**	**Spring - Support (R)**	**RSPL**	**8-4, #14**

3.3.36 Contact Bracket (BL-R) Assy, Contact Bracket (CL-R) Assy

1. Remove the gear one-way (Z30). (See 3.3.14)
2. Remove the motor assy BT. (See 3.3.15)
3. Remove the high voltage power supply unit. (See 3.3.33)
4. Remove the shaft link. (See 3.3.35)

[Removal of the contact (BL-R) Assy]

5. Unscrew 2 screws (1) and unplug the cable (2), then rmeove the contact (BL-R) assy (3).

[Removal of the contact (CL-R) Assy]

6. Unscrew 2 screws (4) then remove the contact (CL-R) Assy (5).

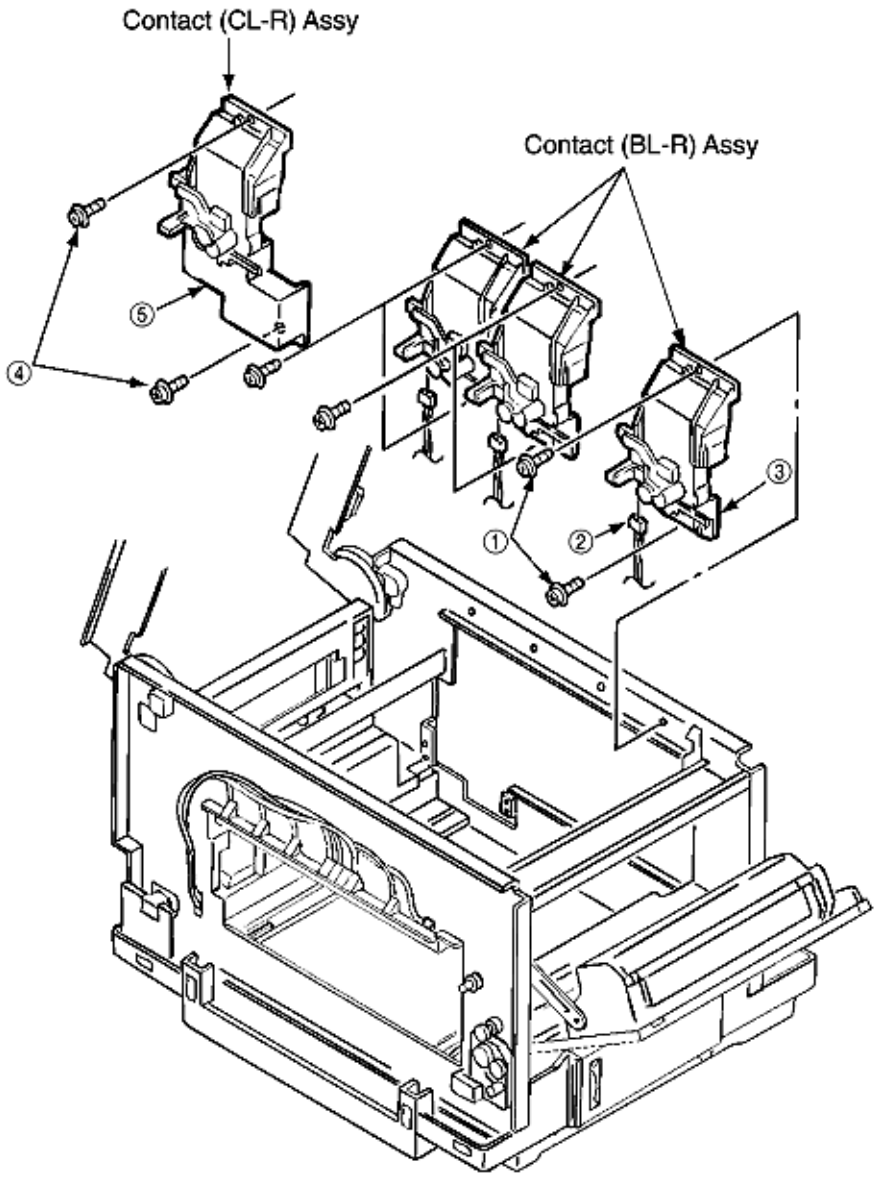


Figure 3.3.36 Contact Bracket (BL-R) Assy, Contact Bracket (CL-R) Assy

(2)	**40173301**	**Cord - Wire - : Amp 14p-1MPX43**	**RSPL**	**8-4, #18**
(5)	**40309001**	**Contact - BK - T (CL-R) Assy**	**RSPL**	**8-4, #7**
	Includes:			
	40135301	**Photo Interrupter**	**RSPL**	**8-4, #6**

3.3.37 Contact (BL-L) Assy, Contact (CL-L) Assy

1. Remove the shaft link. (See 3.3.35)

[Removal of the contact (BL-L) assy]

2. Unscrew 2 screws (1) then remove the contact (BL-L) Assy (2).

[Removal of the contact (CL-L) assy]

3. Unscrew 2 screws 93) then remove the contact (CL-L) assy (4).

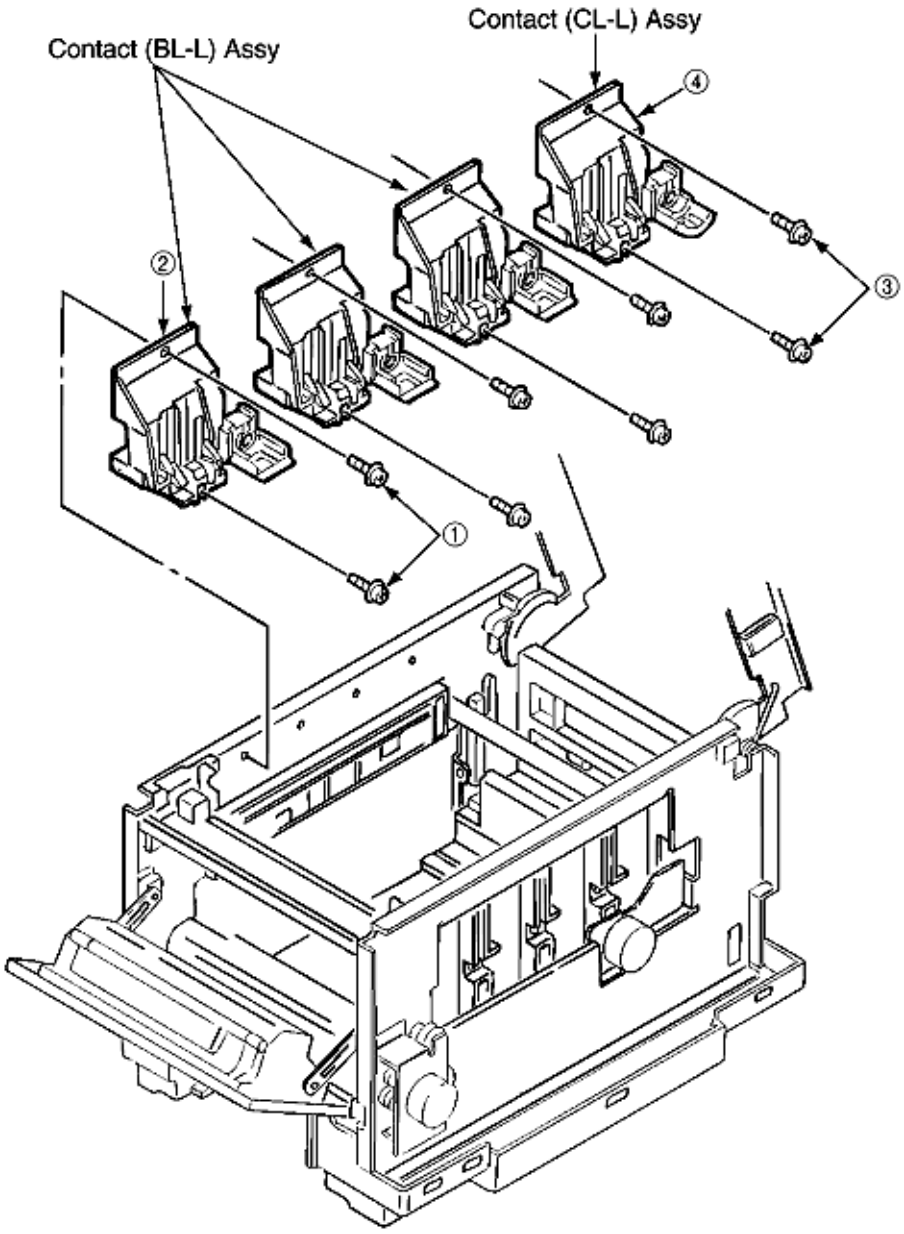


Figure 3.3.37 Contact (BL-L) Assy, Contact (CL-L) Assy

(2)	40324501	Contact - (BL-L) Assy	RSPL	8-4, #1
	Includes:			
(A)	40278101	Plate - Earth (LK)	RSPL	8-4, #2
(A)	51608901	PP4076-5308P001 Bearing: F	RSPL	8-4, #3
(4)	40324401	Contact (CL-L) Assy		8-4, #4
	Includes:	(A) Both Parts		

Partner Exchange (BPX) for any updates to this material. (http://bpx.okidata.com)

3.3.38 Contact SB Assy

1. Remove the contact (BL-L) assy and contact (CL-L) assy. (See 3.3.37)
2. Unscrew 3 screws (1) then remove the plate blind (2).
3. Unplug 7 codes (3).
4. Unscrew 3 screws (4) then remove the contact SB assy (5).

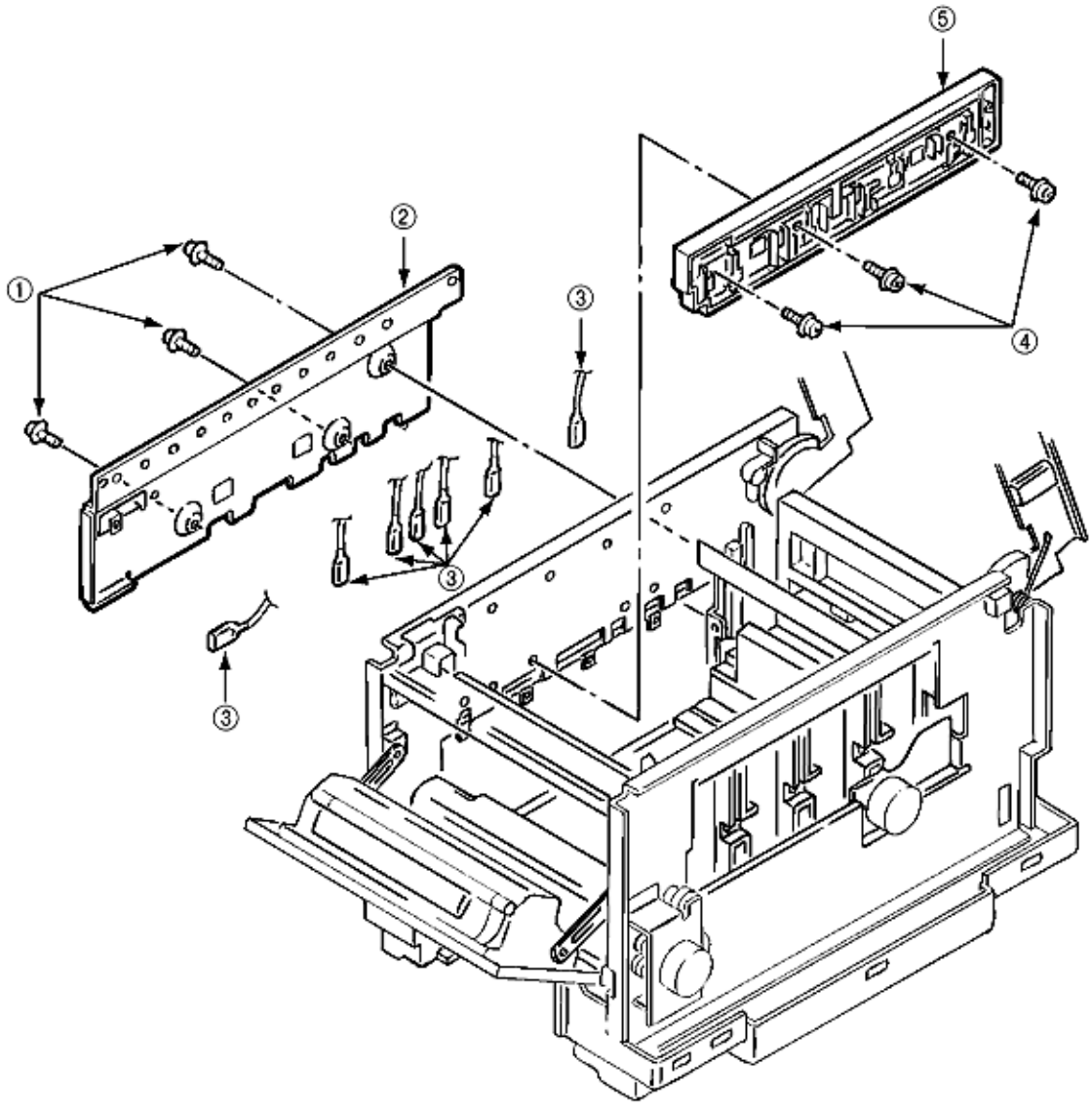


Figure 3.3.38 Contact SB Assy

(2)	**40290201**	**Plate - Blind**	**RSPL**	**8-3, #9**
(5)	**40308801**	**Contact - SB - Assy**	**RSPL**	**8-3, #8**

3.3.39 PXC PCB

1. Remove the contact (BL-R) assy and contact (CL-R) assy. (See 3.3.36)
2. Remove the contact (BL-L) assy and contact (CL-L) assy. (See 3.3.37)
3. Remove the hopping motor. (See 3.3.19)
4. Remove the motor assy BT. (See 3.3.15)
5. Remove the gear heat assy. (See 3.3.12)
6. Remove the roller assy hopping. (See 3.3.25)
7. Remove the holder gear toner assy. (See 3.3.30)
8. Remove the high voltage power supply unit. (See 3.3.33)
9. Unplug the inlet AC. (See 3.3.16)
10. Unscrew 9 screws (1) then remove the guide cassettes (L) (2) and (R) (3) together.
11. Unscrew the screw (4) then remove the switch (5).
12. Unscrew the screw (6) then remove the PXC PCB (7).

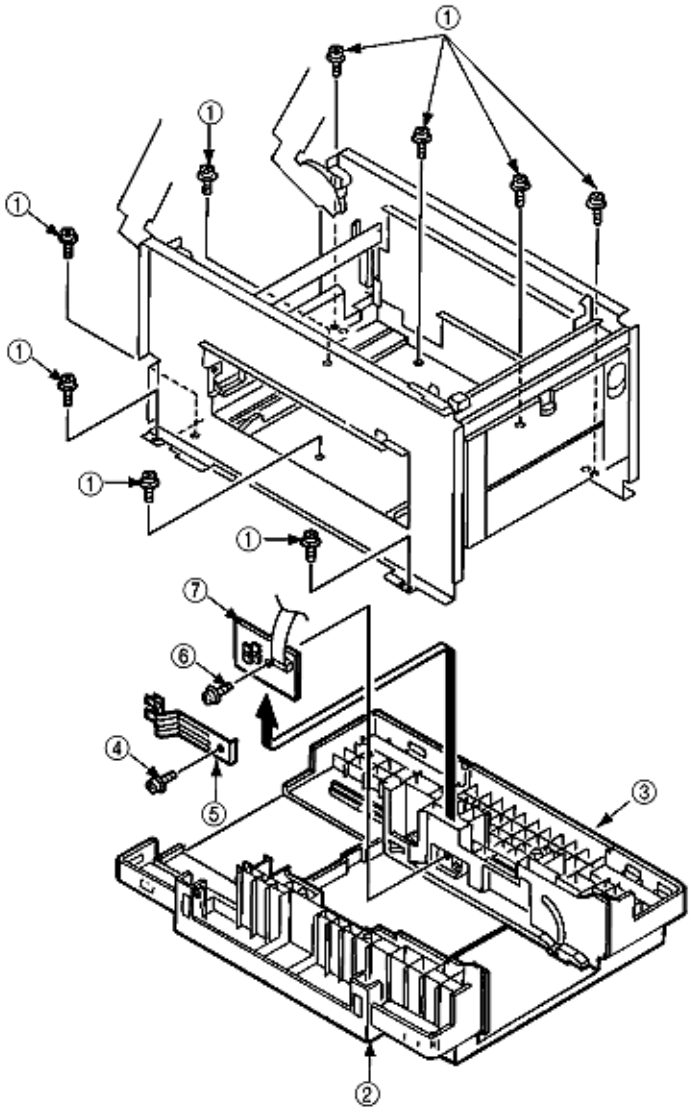


Figure 3.3.39 PXC PCB

(2)	**40302101**	**Guide - Cassette - (L) - Assy**	**RSPL**	**8-3, #60 ***
(3)	**40302901**	**Guide - Cassette - (R) - Assy**	**RSPL**	**8-3, #61*; 8-7, #1**
(5)	**50928901**	**4PP4076-5306P001 Spring: Detector**	**RSPL**	**8-7, #2**
(7)	**40368301**	**PXC - PCB**	**RSPL**	**8-7, #5**

3.3.40 Heat Unit Assy (Fuser unit and oil roller)

1. Open the stacker cover.
2. Release the lock by turning down the lever lock heat guides (blue) on both sides, then lift the fuser unit assy (1) and remove it.

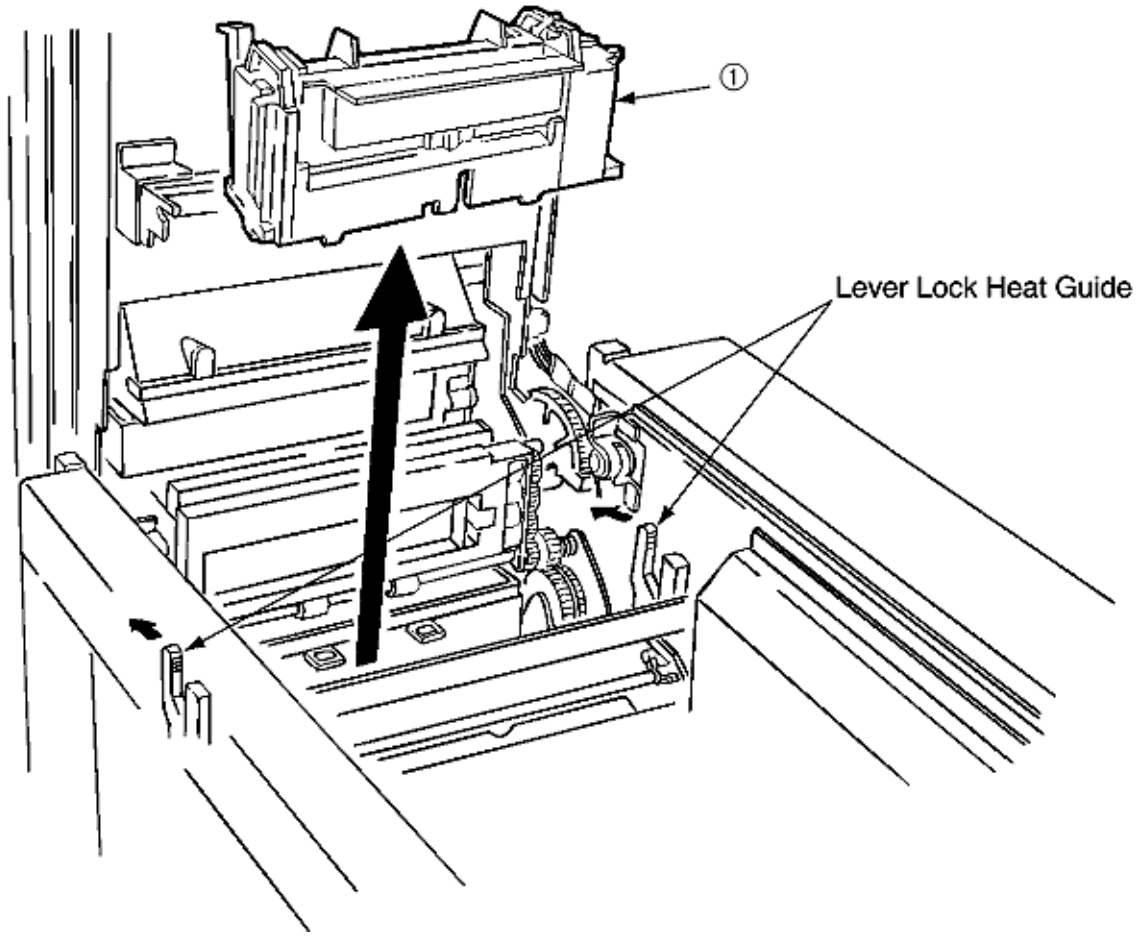


Figure 3.3.40 Heat Unit Assy

(1)	**40490901**	**Unit: Fuser 120V (OP8c)**	**RSPL**	**8-2, #21**
	40490904	**Unit: Fuser 220V (OP8c)**	**RSPL**	**8-2, #21**

3.3.41 Oil Roller Kit

1. Remove the heat unit assy. (See 3.3.40)
2. Release the lock by turning down the lever in the arrow (A) direction, then slide the oil roller assy (1) with its right side lifted and remove it.

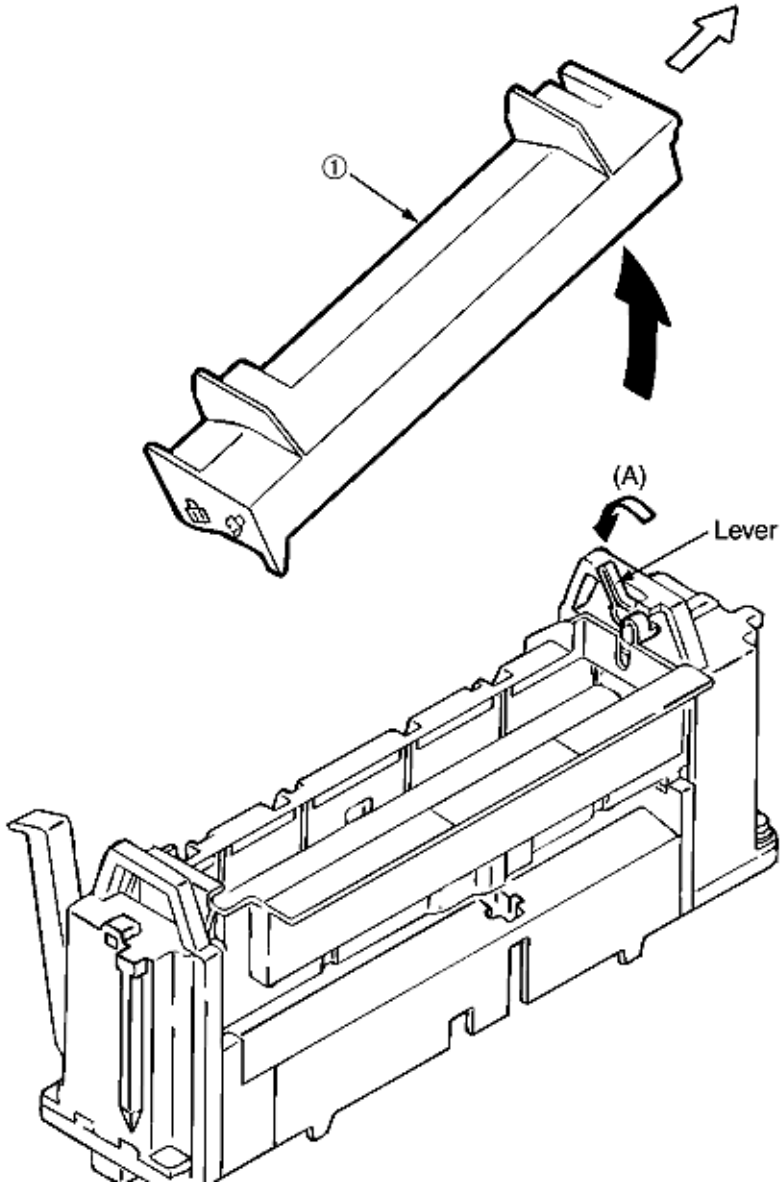


Figure 3.3.41 Oil Roller Kit

(1)	**40645301**	**Oil Roller Kit (Consumable)**		**8-2, #12**

3.3.42 Lever Lock Heat (L)/(R), Guide Side Heat, Spring Lock

Removing methods for right side and left side of each part are the same. Here describes the method for right side.

1. Remove the heat unit assy. (See 3.3.40)
2. Unscrew 2 screws (1) then remove the guide side heat (2).
3. Remove the E-ring (3) then lever lock heat (R) (4). **(Be careful not to lose the spring lock 5 which slips off together.)**

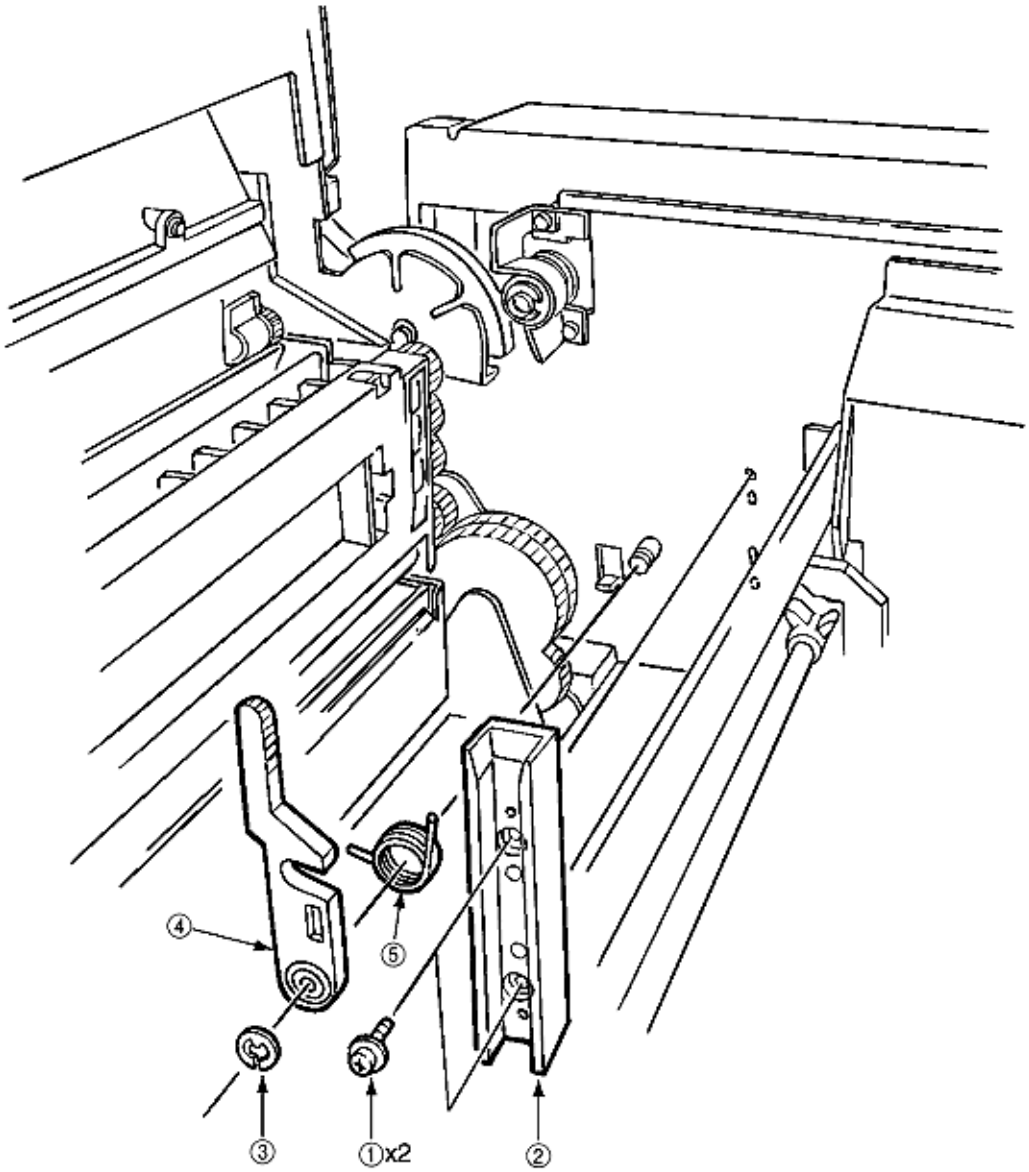


Figure 3.3.42 Lever Lock Heat (L)/(R), Guide Side Heat, Spring Lock

(2)	**40163401**	**Guide - Side - Heat - Unit**	**RSPL**	**8-3, #10**
(4)	**40163601**	**Lever - Lock - Heat - Unit - (R)**	**RSPL**	**8-3, #14**
	40163501	**Lever - Lock - Heat - Unit - (L)**	**RSPL**	**8-3, #13**
(5)	**40163702**	**Spring - Lock - Heat (R)**	**RSPL**	**8-3, #12**
	40163701	**Spring - Lock - Heat (L)**	**RSPL**	**8-3, #11**

3.3.43 PXL PCB

1. Remove the paper eject assy. (See 3.3.3)
2. Remove the belt cassette assy. (See 3.3.32)
3. Remove the heat unit assy. (See 3.3.40)
4. Unplug the cable (1) and the screw (2), then remove the PXL PCB (3).
5. Release the lock of the claw then remove the sensor cover (4).

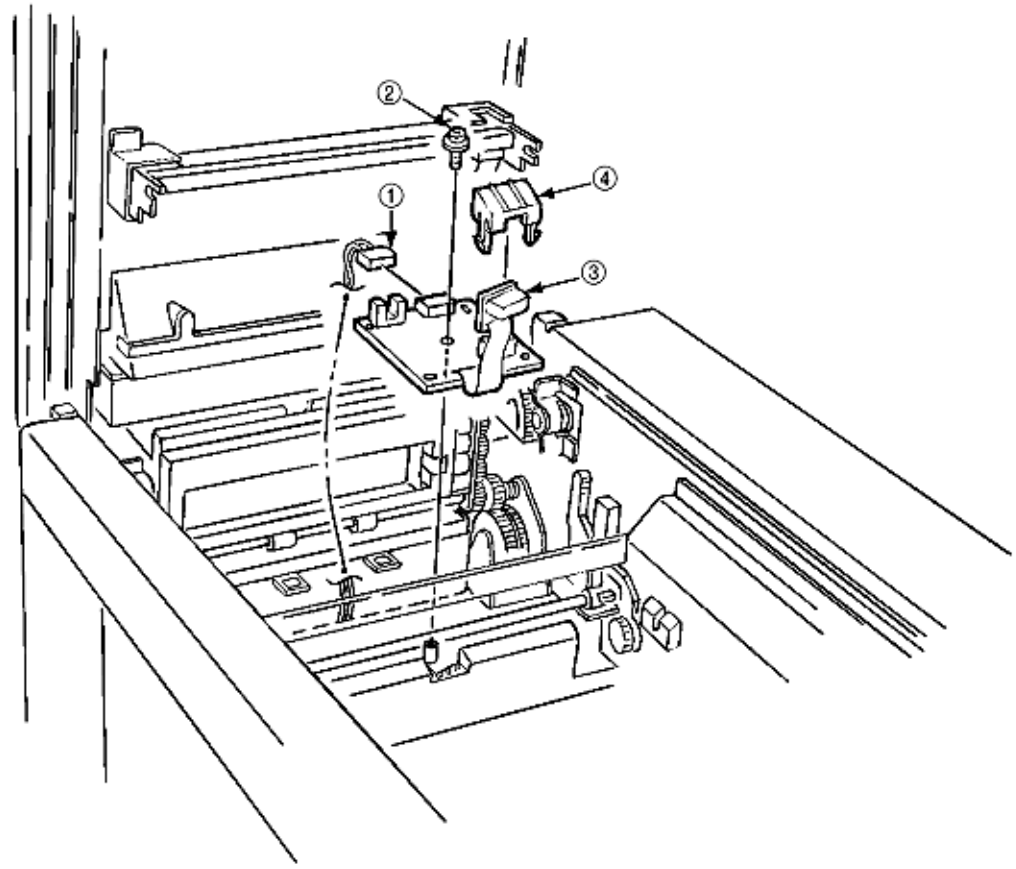


Figure 3.3.43 PXL PCB

(1)	**40171801**	**Cord Wire - AMP7P-AMP7P (White 300 mm)**	**RSPL**	**8-3, #57**
(3)	**40437501**	**PXL-PCB**	**RSPL**	**8-3, #56**
(4)	**40162201**	**Cover - Sensor**	**RSPL**	**8-3, #54**

3.3.44 Heat Unit Guide Assy

1. Remove the cover assy rear. (See 3.3.1)
2. Remove the paper eject assy. (See 3.3.3)
3. Remove the gear heat assy. (See 3.3.12)
4. Remove the belt cassette assy. (See 3.3.32)
5. Open the stacker cover and remove the heat unit assy. (See 3.3.40)
6. Unscrew 4 screws (1) then remove the heat unit guide assy (2).

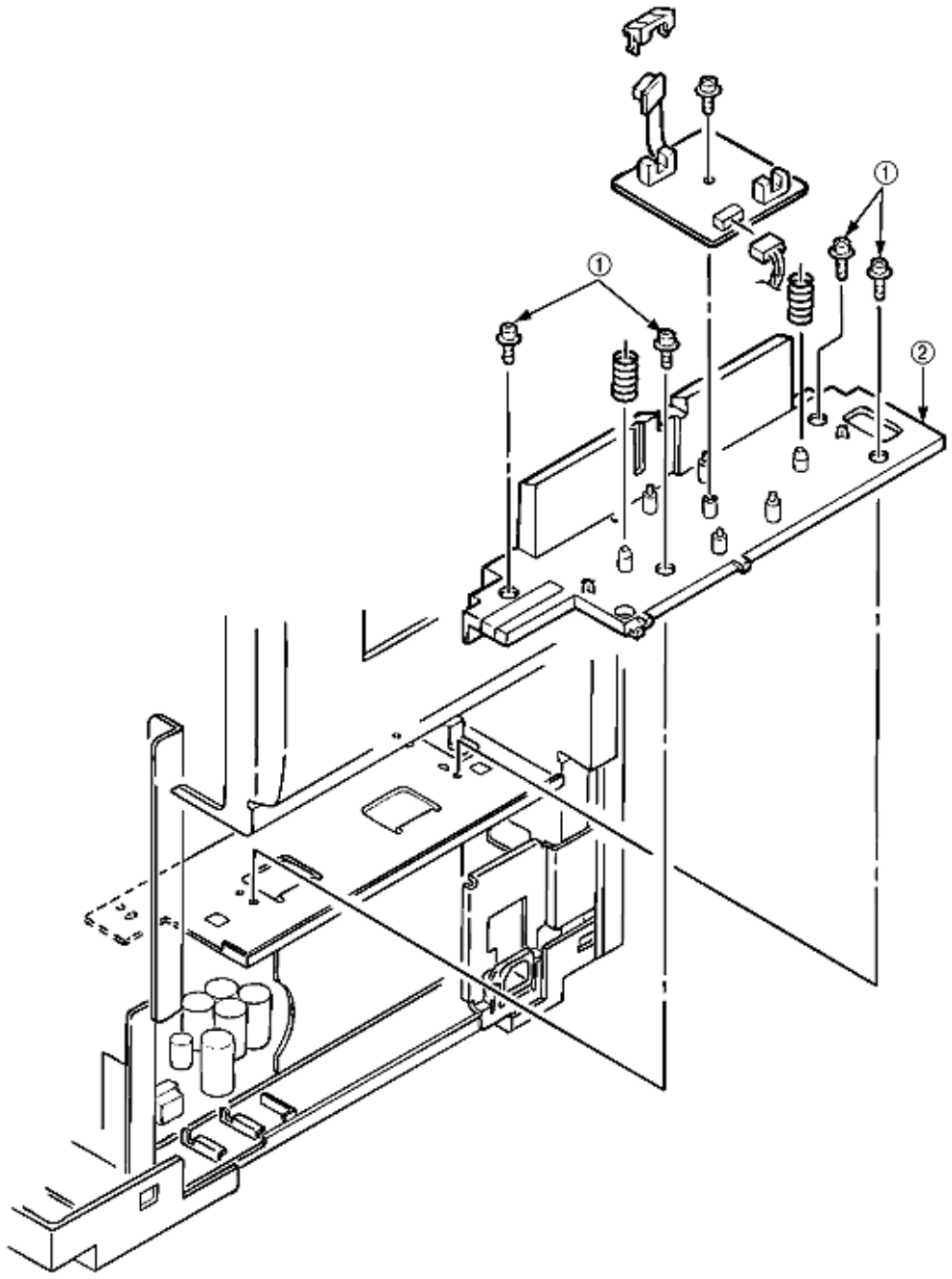


Figure 3.3.44 Heat Unit Guide Assy

(2)	40162101	Guide - Assy - Heat - Unit	RSPL	8-3, #39
	Includes:			
	40449401	Guide - Assy - Heat	RSPL	8-3, #41
	40264401	Spring - Eject - Heat	RSPL	8-3, #49
	40162201	Cover - Sensor	RSPL	8-3, #54
	40437501	PXL - PCB	RSPL	8-3, #56

3.3.45 Holder LED Assy, LED Head

1. Unplug the cable 1.
2. Remove the LED head 3 by spreading the holder LED assy 2 a little bit. (Be careful not to lose the spring 4 which slips off together.)
3. Remove the holder LED assy 2 by spreading the A-part of the guide holder a little bit with a flat blade screwdriver.
(Be careful not to lose the spring 5 which slips off together.)

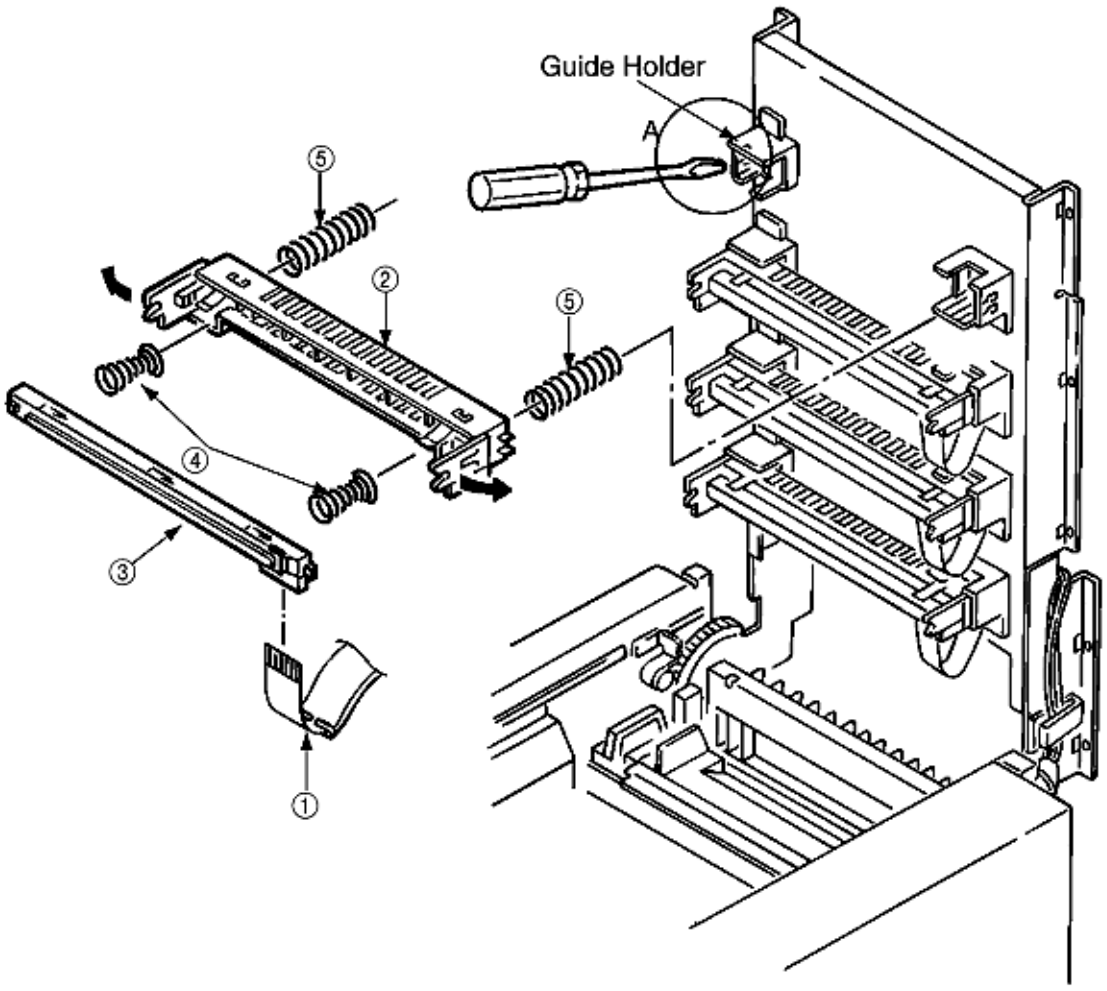


Figure 3.3.45 Holder LED Assy, LED Head

4. Adjustments

Adjustments are carried out by key operations on the operator panel, by software operation panel, and by EEPROM of PU (PXS-PCB) setting.

This page printer supports three maintenance modes. Select and enter a maintenance mode fit for the adjustment.

4.1 Maintenance Modes and Their Functions

4.2 Adjustments after Parts Replacement

4.1 Maintenance Modes and Their Functions

4.1.1 User maintenance mode

4.1.2 System maintenance mode

4.1.3 Engine maintenance mode

4.1.1 User maintenance mode

To enter the user maintenance mode, press and hold the MENU key while powering on the printer.

- Functions

  - Menu reset
  - Drum counter reset
  - (YELLOW, MAGENTA, CYAN, BLACK)
  - Belt count reset
  - Resource save area
  - Operator panel menu disable
  - SETTING
  - Hex dump
  - FUSER COUNT RESET
  - Oil roller count reset
  - Receive buffer size
  - X adjust
  - Darkness
    (YELLOW, MAGENTA, CYAN, BLACK)
  - Color Reg Adjust Execute

(a) Menu reset

1. Resets all Menu Level 1 settings to the default settings (which have been factory-set).
2. Resets all executable Emulation menu items (including options) to factory-set default emulation items.

(b) Hex dump

1. Receives data from the host computer and dumps it in a hexadecimal format.
2. When one or more page of data come from the host, printing automatically starts. To print out data of less than one page, press the ONLINE key to set the offline state and press the EJECT key. Printing starts.
3. To exit this mode, shut off power to the page printer. This is the only way to exit this mode.

(c) Drum counter reset (for yellow, magenta, cyan and black)

1. Used to reset the drum life after the image drum is replaced.
2. After drum-counter resetting is made, the page printer does not enter the operation mode automatically.

(d) Fuser count reset
Resets the fuser life counter the fuser unit is replaced.

(e) Belt count reset
Resets the belt life counter the belt unit is replaced.

(f) Oil roller count reset
Resets the oil roller life counter after the oil roller unit is replaced.

(g) Resource save area
Sets the resource saving area. This menu item appears when the option PS SIMM and RAM increases. The selectable size will also increase. When adding RAM over 24Mbytes, the selection can be made up to 22.5Mbytes. The size upon auto will also increase if the size of the add-on RAM increases.

(h) Receive buffer
Sets the receive buffer. The data transmission time from the upper command will decrease when set to a high value, but memory overflow is more likely to occur. Memory will be restructured with this change, and the contents of all download fonts, PCL macro, and PostScript will be lost.

(i) Operator panel menu disable

Enables or disables the menu functions (Menu1, Menu2, Tray Type, Power Save, and Paper Size) of the operator panel.

(j) X adjust

1. Corrects the position of the whole print image so that it may be perpendicular to the movement of paper (at intervals of 0.25mm).
2. The print image exceeding the specified printable area is clipped.

(k) Y adjust

1. Corrects the position of the whole print image so that it parallels the movement of paper (at intervals of 0.25mm).
2. The print image exceeding the specified printable area is clipped.

(l) Darkness (Yellow, Magenta, Cyan and Black)

Sets the printout density of each color.

(m) SETTING

Used for fine adjustments when the operational environment, of the use of special paper, etc may produce a prominent blur and dispersion on the printed output. Executes a Print Quality correction for continuous use of special environment and media. When scattered printing or snow flake-like printing is output, it should be decremented. When the printing becomes scratchy, it should be incremented. Press the ENTER key to write the setting to the EEPROM.

(n) Color Register Adjust Execute

Sets values for correcting X-axis, diagonal, and Y-axis deviations of the LED heads (yellow, magenta, and cyan) relative to black. The tandem-type page printer is equipped with an array of image drum (I/D) units which cannot be free from generation of color deviations. The color deviations are main scanning, sub-scanning, and diagonal deviations. These mechanically-caused color deviations are corrected electronically.

User maintenance mode menu system

Category	Selection	DF	After pressing [ENTER] key	After completing the process
MENU RESET			MENU RESETTING	MENU RESET
HEX DUMP			ON-LINE HEX DUMP	
YELLOW DRMCNT RESET			YELLOW DRMCNT RESETTING	YELLOW DRMCNT RESET
MAGENTA DRMCNT RESET			MAGENTA DRMCNT RESETTING	MAGENTA DRMCNT RESET
CYAN DRMCNT RESET			CYAN DRMCNT RESETTING	CYAN DRMCNT RESET
BLACK DRMCNT RESET			BLACK DRMCNT RESETTING	BLACK DRMCNT RESET
FUSER COUNT RESET			FUSER COUNT RESETTING	FUSER COUNT RESET
BELT COUNT RESET			BELT COUNT RESETTING	BELT COUNT RESET
OIL ROLLER COUNT RESET			OIL ROLLER COUNT RESETTING	OIL ROLLER COUNT RESET

RESOURCE SAVE	AUTO OFF 400KB 900KB 1.6MB 2.5MB • • • 19.6MB 22.5MB	*		
RECEIVE BUFFER	AUTO OFF 8KB 20KB 50KB 100KB 1MB	*		
OP MENU	ENABLE DISABLE	*	SETTING EEPROM	
X ADJUST	0 mm +0.25 mm +0.50 mm ~ +2.00 mm -2.00 mm 1.75 mm ~ -0.25 mm	*	SETTING EEPROM	
Y ADJUST	0 mm +0.25 mm +0.50 mm ~ +2.00 mm -2.00 mm -1.75 mm ~ -0.25 mm	*	SETTING EEPROM	
YELLOW DARKNESS	0 +1 +2 -2 -1	*	SETTING EEPROM	
MAGENTA DARKNESS	0 +1 +2 -2 -1	*	SETTING EEPROM	
CYAN DARKNESS	0 +1 +2 -2 -1	*	SETTING EEPROM	

BLACK DARKNESS	0 +1 +2 -2 -1	*	SETTING EEPROM	
SETTING	0 +1 +2 -2 -1	*		
COLOR REG ADJUST EXECUTE	Refer to Section 4.2.2 color deviation correction			

4.1.2 System maintenance mode

To enter the system maintenance mode, press and hold the RECOVER key while powering on the printer.

Note: The system maintenance mode is hidden and not available to the user.

To exit this mode, press the ONLINE switch except during rolling ASCII continuous printing. Then the RUN mode is set.

In the system maintenance mode, the category changes each time the MENU switch is pressed. The last category wraps around to the first category. The system maintenance mode supports the following functions:

• Page count display • Rolling ASCII continuous printing • HSP ERROR recovery • HSP ERROR count reset	• Page count printing enable/disable • EEPROM reset • HSP ERROR count display

(1) Page count display

- The total number of pages counted at the engine is displayed on the operator panel.

(2) Page count printing enable/disable

- This function selects whether to include (enable) or exclude (disable) the total number of printed pages counted at the engine at the time of menu printing.

(3) Rolling ASCII continuous printing

- The rolling ASCII pattern is printed continuously for various engine tests.
- Press the ON-LINE key to cancel this mode.

(4) EEPROM reset

- All EEPROM areas (including Menu level-2) to the factory default values.
- The following items are excluded

Head drive time setting

ENGINE Maintenance Item

Revision (Including Destination setting)

(5) HSP ERROR recovery

- Select HSP ERROR recovery function either recover or stop.

(6) HSP ERROR count

- Display total HSP ERROR count.

(7) HSP ERROR count reset

- Reset the HSP ERROR counter.

System Maintenance mode menu system

Category	Selection	DF	After pressing [ENTER] key	After completing the process
PAGE CNT nnnnnn				
PAGE PRT	DISABLE ENABLE	*		
CONT PRT			CONT PRT PRINTING	CONT PRT CANCELLED (Press the ONLINE button).
EEPROM RESET			EEPROM RESETTING	
HSPERR	RECOVER STOP	*	SETTING EEPROM	
HSPERR CNT nn				
HSPERR CNT RST			HSPERR RESETTING	HSPERR CNT RST

4.1.3 Engine maintenance mode

To enter the engine maintenance mode, pres and hold the ENTER and FORM FEED keys while powering on the printer. ENG MNT is displayed on the operator panel.

Note: The engine maintenance mode is hidden and not available to the user.

To exit this mode, press the ONLINE switch. The operation mode is entered. The engine maintenance mode supports the following functions:

- Head drive time setting (YELLOW, MAGENTA, CYAN, BLACK)
- Drum count display (YELLOW, MAGENTA, CYAN, BLACK)
- Total drum count display (YELLOW, MAGENTA, CYAN, BLACK)
- Fuser count display
- Belt count display
- Oil roller count display
- Setting of standard tray paper feed length
- Setting of second tray paper feed length
- Setting of front feeder paper feed length
- Engine reset

(1) Head drive time setting (Yellow, Magenta, Cyan, and Black)
Sets the time of driving each LED head.

(2) Drum count display (Yellow, Magenta, Cyan, and Black)
Displays the number of revolutions of each image drum counted by the engine on the LCD.

(3) Total drum count display (Yellow, Magenta, Cyan, Black)
Displays the total number of rotations at each color.

(4) Fuser count display
Displays the total number of pages handled by the Fuser which have been counted by the engine.

(5) Belt count display
Displays the total number of pages handled by the Belt which have been counted by the engine.

(6) Oil roller count display
Displays the counter of the oil roller.

(7) T1 position (Setting of standard tray paper feed length)
Sets a value for correcting the amount of paper feeding of the standard tray.

(8) T2 position (Setting of second tray paper feed length)
Sets a value for correcting the amount of paper feeding of the second tray.

(9) Engine reset

- Resets the contents of all EEPROM areas used by the engine with default values.

- Does not reset the following items:
  - LED head drive time
  - Menu level 1
  - Menu level 2
  - Operator Panel Menu Disable/Enable
  - Page Print Disable/Enable

Engine Maintenance mode menu system (1/2)

Category	Selection	DF	After pressing [ENTER] key	After completing the process
YELLOW LED HEAD	No. 1 No. 2 - No. 16 No. 17 - No. 32		SETTING EEPROM	
MAGENTA LED HEAD	No. 1 No. 2 - No. 16 No. 17 - No. 32		SETTING EEPROM	
CYAN LED HEAD	No. 1 No. 2 - No. 16 No. 17 - No. 32		SETTING EEPROM	
BLACK LED HEAD	No. 1 No. 2 - No. 16 No. 17 - No. 32		SETTING EEPROM	

Engine Maintenance mode menu system (2/2)

Category	Selection	DF	After pressing [ENTER] key	After completing the process

YELLOW DRMCNT nnnn				
Yellow DRMCNT T nnnnnnn				
MAGENTA DRMCNT nnnn				
Magenta DRMCNT T nnnnnnn				
CYAN DRMCNT nnnn				
Cyan DRMCNT T nnnnnnn				
BLACK DRMCNT nnnn				
Black DRMCNT T nnnnnnn				
FUSER COUNT nnnn				
BELT COUNT nnnn				
Oil Roller Count nnnnnnn				
T1 POSITION	0 mm +1 mm ~ +7 mm -8 mm ~ -1 mm	*	SETTING EEPROM	
T2 POSITION	0 mm +1 mm ~ +7 mm -8 mm ~ -1 mm	*	SETTING EEPROM	
FF POSITION	0 mm +1 mm ~ +7 mm -8 mm ~ -1 mm	*	SETTING EEPROM	
ENGINE REST			ENGINE RESETTING	ENGINE RESET

4.2 Adjustments after Parts Replacement

Adjustments required after parts replacement are listed below.

Adjustment and correction of color deviations are always required after parts are replaced.

Part replaced	Adjustment required
LED head	Set the LED head driving time and correct color deviations.
Drum cartridge (Y, M, C, B, and K)	Reset the drum counter and correct color deviations.
Fuser Unit	Reset the fuser counter and correct color deviations.
Transfer Belt	Reset the belt counter and correct color deviations.
EEPROM (PU block)	Set the LED head driving time and correct color deviations.
Oil Roller	Reset the oil roller counter.
Other parts	Correct color deviations (if any).

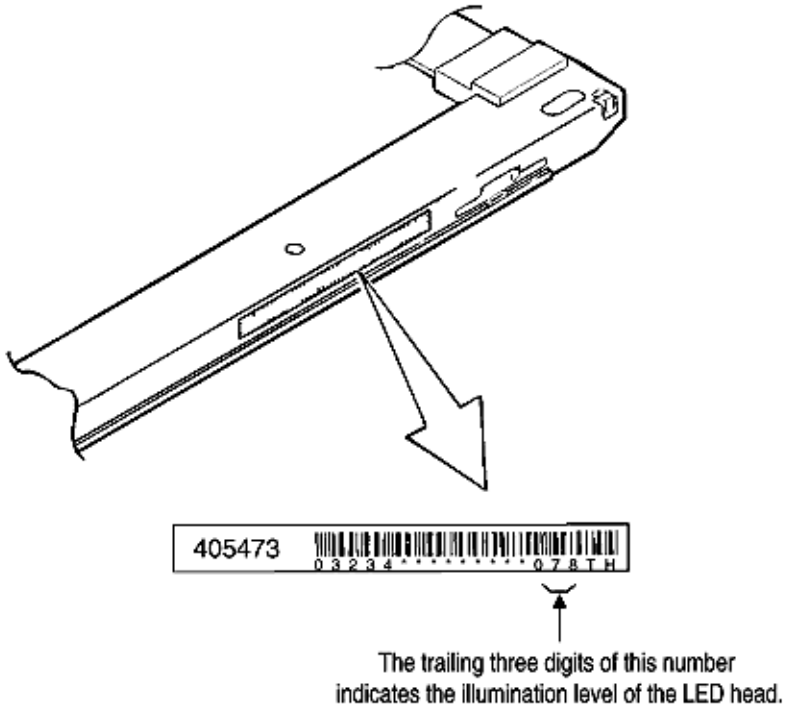
4.2.1 Confirm the LED head driving time

4.2.2 Color Registration Adjustment

4.2.1 Confirm the LED head driving time

Note: When a new LED HEAD is installed, the printer, reads the contents of the EEPROM within the LED HEAD, automatically re-setting the drive time. Therefore, the re-setting of drive time is not necessary. A confirmation of the drive time re-reset is necessary.

- Display of illumination level of the LED head



Parameter value (displayed on LCD)	Illumination level of LED head	Parameter value (displayed on LCD)	Illumination level of LED head
1	155	17	**53 - 57**
2	145 - 154	18	50 - 52
3	136 - 144	19	47 - 49
4	127 - 135	20	44 - 46
5	119 - 126	21	41 - 43
6	111 - 118	22	38 - 40
7	104 - 110	23	36 - 37
8	97 - 103	24	33 - 35
9	91 - 96	25	31 - 32
10	85 - 90	26	29 - 30
11	80 - 84	27	27 - 28
12	74 - 79	28	26 - 26
13	70 - 73	29	25 - 25

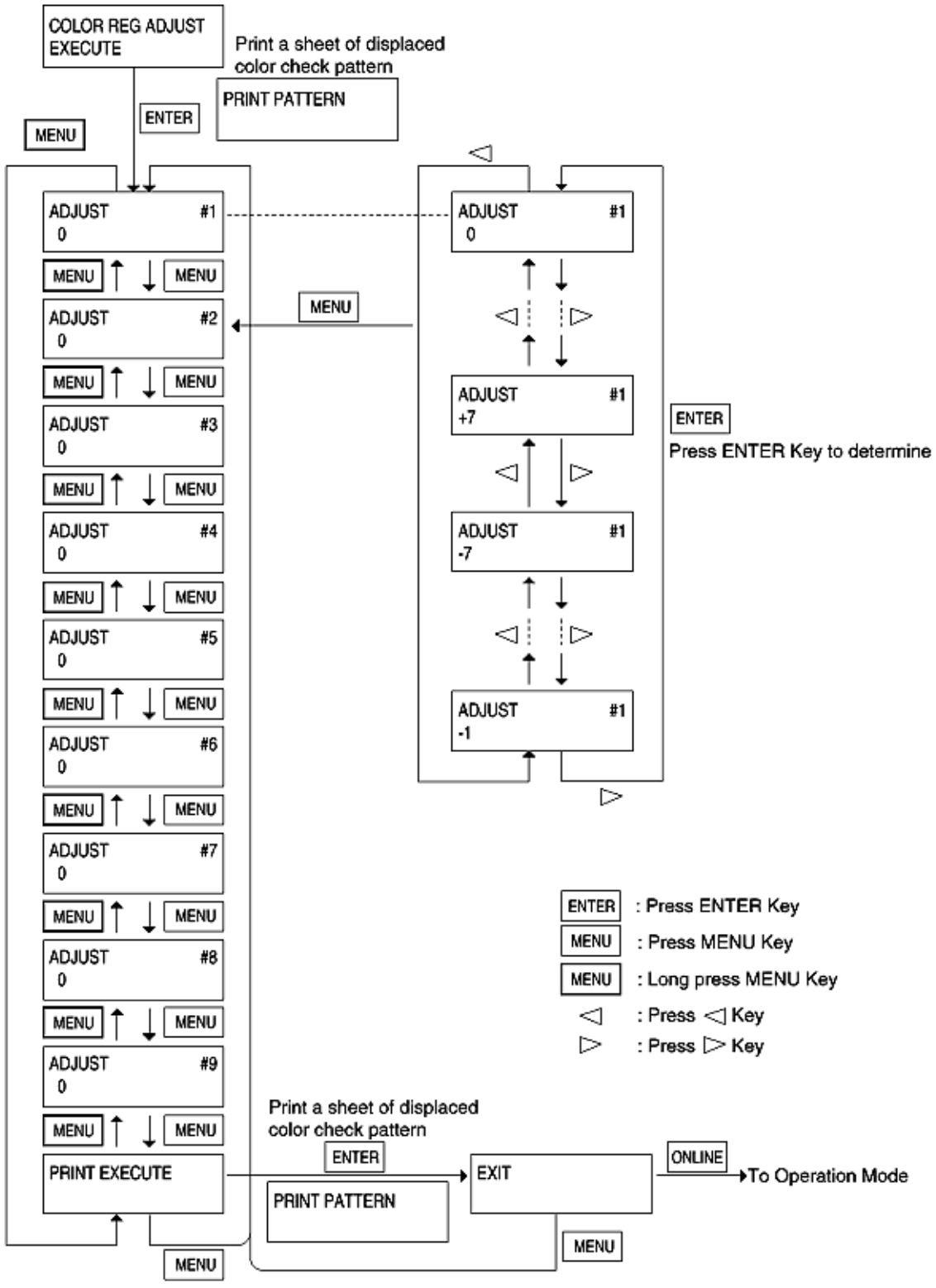
14	65 - 69	30	22 - 24
15	61 - 64	31	21 - 21
16	58 - 60	32	20

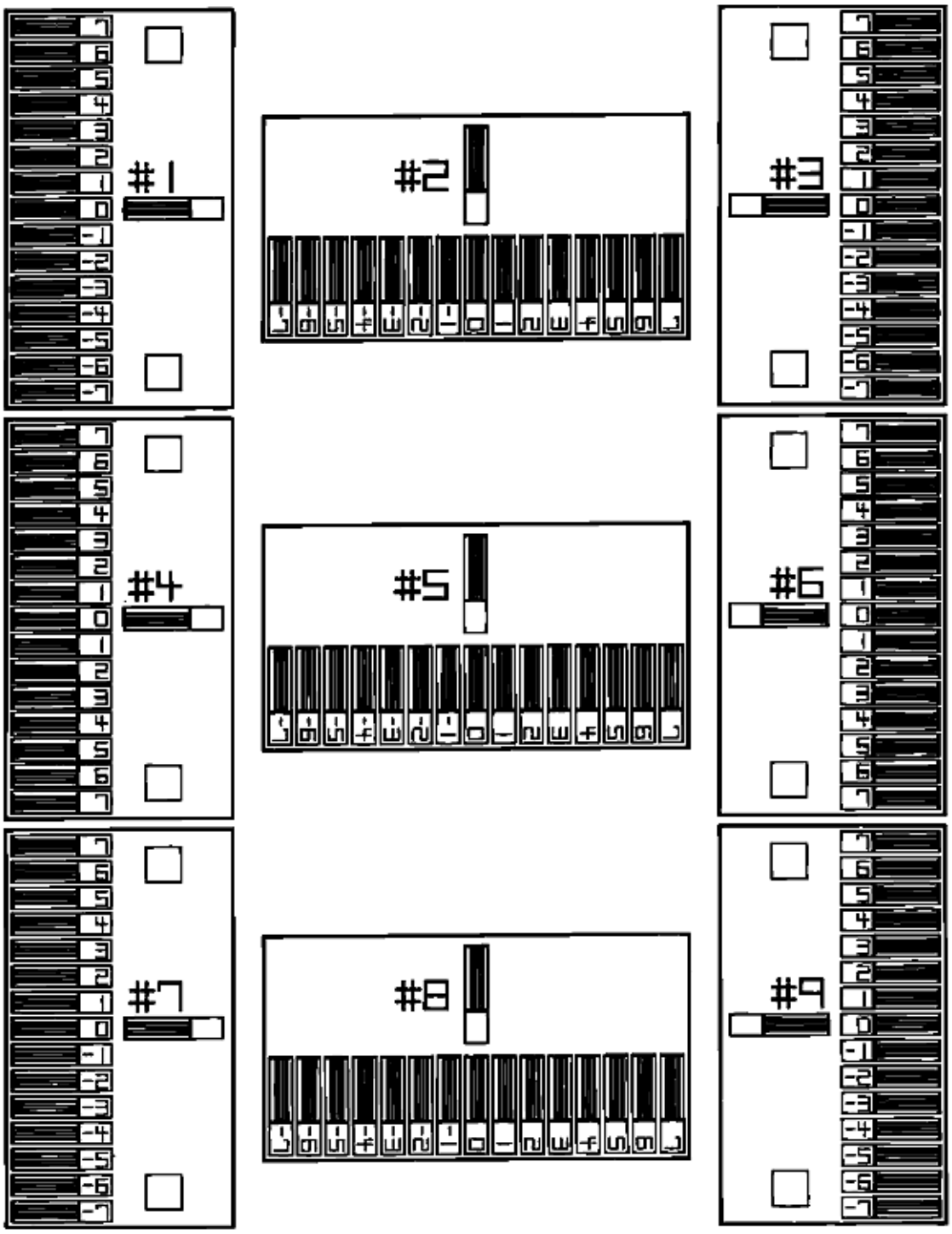
4.2.2 Color Registration Using the Operator Panel (Color deviation correction)

After replacing a part of the page printer, be sure to check whether colors are matched. If not, correct the deviations.

- Method of correcting color deviations
(a) Set the User Maintenance mode, select the Color Deviation Correction mode (COLOR REG ADJUST EXECUTE), and print out a color chart (PRINT PATTERN). In this mode, the page printer cannot receive any data from the host computer.
(b) Watch the printed color and check color deviations (#1 to #3 for yellow, #4 to #6 for magenta, and #7 to #9 for cyan).
(c) After a color chart is printed out, the menu shows the ADJUST #1 mode for entering a correction value for the left (#1) yellow chart.
(d) Enter correction values for #1 (left yellow chart), #2 (middle yellow chart) and #3 (right yellow chart). Similarly enter correction values for #4 to #6 for left, middle, and center magenta charts and for #7 to #9 for left, middle, and center cyan charts.
(e) After entering all correction values, print out a new color chart (by PRINT EXECUTE), and check color deviation.
(f) Repeat the above steps until all colors match.
(g) Press the ONLINE switch to exit the color correction mode (by EXIT). Initialize the page printer and enter the operation mode.

The menus for correction of color deviations are as follows:


COLOR REG ADJUST
EXECUTE
Print a sheet of displaced color check pattern
PRINT PATTERN
ENTER
MENU
ADJUST #1 0
MENU
ADJUST #2 0
ADJUST #3 0
ADJUST #4 0
ADJUST #5 0
ADJUST #6 0
ADJUST #7 0
ADJUST #8 0
ADJUST #9 0
PRINT EXECUTE
ADJUST #1 +7
ADJUST #1 -7
ADJUST #1 -1
ENTER
Press ENTER Key to determine
ENTER : Press ENTER Key
MENU : Press MENU Key
MENU : Long press MENU Key
◁ : Press ◁ Key
▷ : Press ▷ Key
Print a sheet of displaced color check pattern
PRINT PATTERN
EXIT
ONLINE
To Operation Mode



Color Check pattern

Preventive Maintenance

5.1 Periodically Replaced Parts

5.2 Cleaning

5.3 Cleaning the LED Lens Array

5.4 Cleaning the Pickup Roller

5.1 Periodically Replaced Parts

The parts listed below should be replaced periodically. If the parts are not replaced, output quality may be poor, in extreme cases, the printer may malfunction

Parts Name	Display of warning condition	Recommend condition for replacement	Adjustment after replacement
Toner Cartridge	When the "TONER LOW" message is displayed	When 1,800 pages are printed out (5% prunt density) (without the first cartridge)	Replace Toner Cartridge
Image Drum	When the "CHG DRUM" message is displayed	When 12,000 pages are printed out	Reset the drum counter of the replaced drum
Oil Roller Assy	When the "OIL ROLLER LIFE" message is displayed	When 10,000 pages are printed out	Replace Holder Assy Oil Roller
Waste toner bottle	When the "WASTE TONER FULL" message is displayed	When 25,000 pages are printed out (single images of 5% print density)	Replace Waste Toner Bottle and Oil Roller
Fuser Unit	When the "FUSER LIFE" message is displayed	When 60,000 pages are printed out	Reset the fuser counter
Transfer Belt	When the "BELT LIFE" message is displayed	When 50,000 pages are printed out	Reset the belt counter

The above parts may be replaced by the user.

5.2 Cleaning

Periodically clean the inside and outside of the page printer with a soft cloth and small vacuum cleaner. The vacuum cleaner must have a toner-safe filter.

Caution: Do not touch the terminals of the image drums, the LED lens array, or the LED head connector block.

5.4 Cleaning the Pickup Roller

When horizontal lines appear on output, clean the Pick up Roller.

Note: Clean it up with a soft cloth so that the surface is not scratched.

6.0 Troubleshooting Procedures

6.1 Troubleshooting Tips

6.2 Points to Check before Correcting Image Problems

6.3 Tips for Correcting Image Problems

6.4 Preparation for Troubleshooting

6.5 Troubleshooting Charts

6.1 Troubleshooting Tips

1. Check the basic check points covered in the user's manual.
2. Gather as much information on the problem from the customer as possible.
3. Perform inspections in conditions close to those in which the problem occurred.

6.2 Points to Check before Correcting Image Problems

1. Is the printer being run in proper ambient conditions?
2. Have the supplies (toner) and the routine replacement part (image drum cartridge) been replaced properly?
3. Does the paper meet specifications? See paper specifications section.
4. Has the image drum cartridge been installed properly?

6.4 Preparation for Troubleshooting

(1) Operator panel display

The error messages for this printer are displayed on the liquid crystal display (LCD) in the operator panel. Take proper corrective action as directed by messages that are displayed on the LCD.

6.5 Troubleshooting Flow

If problems should develop in this printer, troubleshoot using the following flowchart.

6.5.1 LCD status message/problem list

6.5.2 LCD message troubleshooting

6.5.3 Image troubleshooting

6.5.1 LCD status message/problem list

Table 6-1 lists the status and problems that may be indicated by messages on the LCD.

xxx: Emulation in operation (AUT, PCL, PS)
ffff: Trays (Tray1, Tray2, Front)
mmmmmm: Paper Size (Letter, A4, etc...)

Category: Daily Status - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
[redacted]	Undefined	Undefined	Undefined	Undefined	ON	OFF	Displayed when the page printer is power on.	Normal operation When powered on, the page printer turns on LEDs for about one second to check whether the LEDs and the LCD are normal
INITIALIZING	Undefined	Undefined	Undefined	Undefined	OFF	OFF	Displayed while the controller is initializing (after the page printer is powered on).	Normal operation
ON-LINE	Undefined	Undefined	Undefined	Undefined	ON	Undefined	The printer is in the on-line mode.	Normal operation
OFF-LINE	Undefined	Undefined	Undefined	Undefined	OFF	Undefined	The printer is in the off-line mode.	Normal operation
PRINTING	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Displayed while the page printer is printing.	Normal operation
PROCESSING .xxx	Undefined	Undefined	Undefined	Undefined	Blink	Undefined	Displayed while the page printer is receiving data or performing the output processing.	Normal operation
DATA PRESENT .xxx	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Indicates that the data remains unprinted in the buffer.	Normal operation

RESET TO FLUSH	Undefined	Undefined	Undefined	Undefined	ON	Undefined	When this message is displayed, data remains	To clear this message, press the RESET switch.
RESET TO SAVE	Undefined	Undefined	Undefined	Undefined	OFF	OFF	When this message is displayed, data remains unprinted in the buffer (off-line). This message prompts the user to press the RESET switch, to cancel the data.	To clear this message, press the RESET switch.
FLUSHING JOB	Undefined	Undefined	Undefined	Undefined	Blink	OFF	indicates that the data (to the end of processing) is being canceled.	Normal operation
PS NOT AVAILABLE	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Indicates that a printer language which is not available has been specified by the PCL command.	Normal operation When "CLEARABLE WARNINGS " On the menu is set to "ON", press the RECOVER switch to clear the message.
COPY nnn/mmm	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Displays the number of copies being printed when the number of copies being printed is two or more.	Normal operation
TNR SNS *******	ON	ON	ON	ON	Undefined	ON	Indicates that Toner sensor is abnormal when page counter is above thirty. (The LED of the color lights).	This message is cleared when the drum is properly positioned or sensor level which is exchanged corresponds to the LED color lights.

POWER SAVING	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Indicates that the page printer is in Power Save Mode (in which the fuser is powered off).	Normal operation
TNR LOW *******	ON	ON	ON	ON	Undefined	ON or Blink	Indicator that toner of the specified color is running out. However, when "LOW TONER" is set to "OFF", the ATTENTION indicator blinks.	Normal operation This message is cleared when the toner cartridge is replaced.
CHG DRUM *******	ON	ON	ON	ON	Undefined	ON	Indicates that the end of life of a specified color drum has been reached. (The LED of the color lights).	Normal operation This message is cleared when the specified drum is replaced. After the drum is replaced, its drum counter must be reset. (See the user's manual)
FUSER LIFE	Undefined	Undefined	Undefined	Undefined	Undefined	ON	Indicates that the end of life of the Fuser Unit has been reached.	Normal operation This message is cleared when the Fuser Unit is replaced. After the fuser unit is replaced, it's counter must be reset. (See the user's manual)

BELT LIFE	Undefined	Undefined	Undefined	Undefined	Undefined	ON	Indicates that the end of life of the Transfer Belt has been reached.	Normal operation This message is cleared when the transfer belt is replaced. After the Transfer Belt is replaced, its counter must be reset. (See the user's manual).
RESET	OFF	OFF	OFF	OFF	OFF	OFF	Clears the data left unprinted in the buffer and initializes the printer to the user default status. The temporary DLL, macro, and user patterns are deleted.	Normal operation
PRINT DEMO PAGE	Undefined	Undefined	Undefined	Undefined	Blink or ON	Undefined	Prints out a demo page. This operation is started by a command when the READY LED is on or by a switch when the READY LED is blinking.	Normal operation
PRINT MENU	Undefined	Undefined	Undefined	Undefined	Blink or ON	Undefined	Prints out a menu setting. This operation is started by a command when the READY LED is on or by a switch when the READY LED is blinking.	Normal operation

OIL ROLLER LIFE	Undefined	Undefined	Undefined	Undefined	Undefined	ON	Indicates that the end of life of the Oil roller assy has been reached. (Warning)	This message is cleared when the oil roller assy is replaced. After the oil roller assy is replaced, its counter must be reset. (See the user's manual)
OIL ROLLER LIFE	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the end of life of the Oil roller assy has reached. (Alarm)	This message is cleared when the oil roller assy is replaced. After the oil roller assy is replaced, its counter must be reset. (See the user's manual)
PRINT FONTS	Undefined	Undefined	Undefined	Undefined	Blink or ON	Undefined	Prints out all character sets (fonts) for the printer available. This operation is started by a command when the READY LED is on or by a switch when the READY LED is blinking.	Normal operation
******* TONER EMPTY	Blink	Blink	Blink	Blink	OFF	Blink	Displayed when 50 pages are printed after "Toner Low" was detected to prompt the user to replace the toner cartridge.	This message temporarily disappears when a cover of the page printer is opened, but will be displayed every 20 pages until the cartridge is replaced.

WASTE TONER FULL	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Displayed when 100 pages are printed after Waste Toner NR FULL message is detected, prompting the user to replace the Waste Toner Bottle.	This error is reset when the Waste Toner Bottle is replaced. Printing is suppressed until it is replaced.
FRONT TRAY ERROR PRESS RECOVERKEY	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the front feeder has caused a home position error.	The front feeder becomes unavailable when the RECOVER switch is pressed. The other tray is available. This message is cleared when the front feeder assembly is replaced.
COVER OPEN	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the printer cover is open.	This error is reset when the cover is closed. If this error occurs frequently go to Section 6.5.2.
BELT NOT INSTALLED	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the transfer belt has not been installed.	This error corrected when the Transfer Belt is installed. Printing is suppressed until the Transfer Belt is installed.
WASTE TONER BOX NOT INSTALLED	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the Waste Toner Bottle has not been installed.	This error is corrected when the Waste Toner Bottle is installed. Printing is suppressed until the Waste Toner Bottle is installed.

WASTE TNR NRFULL	Undefined	Undefined	Undefined	Undefined	Undefined	ON	Indicates that the Waste Toner Bottle is near full.	Nothing
OIL PAD NOT INSTALLED	Undefined	Undefined	Undefined	Undefined	OFF	BLINK	Indicates that the Oil Pad Assy has not been installed.	Please install the Oil Pad Assy.

Category: Buffer Overflow - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
ERROR MEMORY OVERFLOW	Undefined	Undefined	Undefined	Undefined	off	Blink	Indicates that data overflowed the memory space. - Too much print data in one page - Too much macro data - Too much DLL data - Data overflow after compression of frame data	This error corrected when the RECOVER switch is pressed. Expand RAM or reduce data.
ERROR RECEIVE BUFFER OVERFLOW	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the receive buffer overflowed.	This error is corrected when the RECOVER switch is pressed. Increase the setting of Receive Buffer Size (in User Maintenance Mode), then send the data from the host or expand RAM.

Category: Tray Paper Out- Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy

PAPER OUT mmmmmmm mm ttttt	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the tray is empty or the cassette assembly has not been installed. mm..m: paper size (Letter, Executive, Legal 14, Legal 13, A4, A5, A6 or B5 size) ttttt: Tray type (Tray 1, Tray 2, or Front)	This message is cleared when paper is set in the tray or the cassette assembly is mounted.
CANNOT USE A6 PAPER ON TRAY 2	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Displayed when the second tray (optional) contains A6-size paper.	The second tray (optional) cannot use A6-size paper. The A6-size paper is available to the first tray or to the front feeder.
TRAY 1 INSTALL	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the first tray is pulled out when the second tray (optional) is used.	This message is cleared when the first tray is mounted corrected.

Category: Paper Request - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
mmmmmmm MANUAL PAPER REQUEST	Undefined	Undefined	Undefined	Undefined	ON	OFF	Requests the user to load the specified paper in the manual feeder. mm..m: paper size (Letter, Executive, Legal 14, Legal 13, A4, A5, A6 or B5 size)	Normal operation This message is cleared when the specified paper is loaded into the manual feeder.

mmmmmmm MANUAL PAPER REQUEST	Undefined	Undefined	Undefined	Undefined	ON	OFF	Requests the user to load the specified paper in the manual feeder. mm...m: paper size (Letter, Executive, Legal 14, Legal 13, A4, A5, A6, or B5 size).	Normal operation This message is cleared when the specified paper is loaded into manual feeder.

Category: Paper Size Error - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
ERROR PAPER SIZE CHECK ttttt	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that wrong size paper was fed from the specified tray. tttttt: Tray type (Tray 1, Tray 2, or Front)	Check the size of paper in the tray or whether two or more paper sheets are fed at a time. When the cover is opened and closed, this error is reset and printing resumes. If this error occurs frequently go to Section 6.5.2.

Category: Paper Jam Error - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
PAPER INPUT JAM CHECK tttttt	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that a paper jam occurred when paper feeds from the specified tray. tttttt: Tray type (Tray 1, Tray 2, or Front)	Check the size of paper in the tray or whether two or more paper sheets were fed at a time. When the cover is opened and closed, this error is reset and printing resumes. If this error occurs frequently go to Section 6.5.2.

PAPER FEED JAM ttttt	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that paper coming out of the tray jammed. ttttt: Tray type (Tray 1, Tray 2, or Front)	Open the cover and remove the paper jam from the inside of the printer. When the cover is opened and closed, this error is reset and printing resumes. If this error occurs frequently go to Section 6.5.2.
PAPER EXIT JAM REMOVE THE PAPER	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that paper jammed exiting the printer.	Open the cover and remove the paper jam from the inside of the printer. When the cover is opened and closed, this error is reset and printing resumes. If this error occurs frequently go to Section 6.5.2.

Category: Interface Error - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy
OKI HSP I/F CARD RESETTING	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the OKI HSP interface card is being reset.	The page printer recovers automatically when resetting is complete.

JAM 001 Error	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that Process error occurred.	Notifies that the power supply LSI has been reset due to line noise, etc. (process error) Open cover and remove the paper. Close cover to recover and proceed.
ERROR HOST I/F OKI HSP xx	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that a fatal OKI HSP interface error has occurred. xx=10: Interface timeout xx=20: Initialization failed 10 seconds after the page printer is powered on. xx=21: It takes 3 seconds or more before the RUN mode starts or the page printer received a Run Mode command in the power-on mode. xx22: HSP-PC communication error.	This page printer recovers from the error when the RECOVER switch is pressed. If this error occurs frequently, replace the OKI HSP interface card or the main board (PCR PCB).

Category: Controller Error - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Trouble or Status	Remedy

EEPROM RESETTING	Undefined	Undefined	Undefined	Undefined	OFF	Blink	Indicates that the identification number of EEPROM is invalid.	Set the default values in EEPROM and it will be recovered automatically.
ERROR POSTSCRIPT	Undefined	Undefined	Undefined	Undefined	Blink	OFF	Indicates that the interpreter detected one of the errors given below. The data coming after this error is recovered until the end of the command. When the reception of the command is completed, this message is reset automatically. - Invalid PostScript command - The page is complicated and the vertical memory is full.	Simplify the pages.

XX

Category: Interface Error (continued) - Table 6.1

LCD Status Message	LED K	LED C	LED M	LED Y	READY	ATTENTION	Code (nn)	Trouble or Status	Remedy
								Details of error	Remedy

ERROR nn	Undefined	Undefined	Undefined	Undefined	OFF	Blink	10	Indicates that an error was found in the program ROM by the program ROM check.	Power off, then power on the printer. If this error still occurs, replace the program ROM on the main board (PCR PCB) or the main board itself. When replacing the main board (PCR PCB) or the main board itself. When replacing the main board (PCR PCB), remove the EEPROM chip and proms from the old main board and mount it on the new main board.
	Undefined	Undefined	Undefined	Undefined	OFF	Blink	30	Indicates that an error was found in the resident RAM by the resident RAM check.	Power off, then power on the printer. If this error still occurs, replace the main board (PCR PCB), the EEPROM chip and proms from the old main board and mount it on the new main board.

	Undefined	Undefined	Undefined	Undefined	OFF	Blink	40	Indicates that an error was found in the EEPROM by the EEPROM check.	Power off, then power on the printer. If this error still occurs, replace the EEPROM on the main board (PCR PCB) or the main board itself. When replacing the main board (PCR PCB), remove the EEPROM chip and proms from the old main board and mount it on the new main board.
	Undefined	Undefined	Undefined	Undefined	OFF	Blink	50	Indicates that an error was found in the optional ROM by the optional ROM check.	Power off, then power on. If this error still occurs, replace the optional ROM on the main board (PCR PCB) or the main board itself. When replacing the main board (PCR PCB), remove the EEPROM chip and proms from the old main board and mount it on the new main board.

6.5.2 LCD message troubleshooting

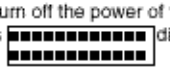
If a problem cannot be repaired according to the LCD message problem list, troubleshoot using the troubleshooting chart.

No.	Trouble	Flowchart Number
1	The printer does not work normally after being turned on.	(1)
2	JAM Error Paper Input Jam (1st Tray) Paper Input Jam (Front Feeder) Paper Feed Jam Paper Exit Jam 2-4	 (2) -1 (2) -2 (2) -3 (2) -4
3	Paper Size Error	(3)
4	Image Drum	(4)
5	Fusing Unit Error	(5)
6	Fan Motor Error	(6)
7	Cannot receive data from parallel interface	(7)
8	Cannot receive data from OKI HSP interface	(8)

Note: When replacing the main board (PCR PCB) and the engine board (PX4 PCB), remove EEPROM chips from the old boards and install them on the new boards.

① The printer does not work normally after turned on the power of rhe printer.

- Turn off the power of the printer, wait a few seconds, then turn on power again.

Is  displayed on the LCD (for about 1 second)?

No Is the AC cable connected correctly?

No Connect the AC cable correctly.

Yes Does a voltage of +5V are being supplied on the panel connector of the main board (PCR PCB)?
Pin 5: +5V Pin 2: 0V

Yes Is the operator panel cable connected correctly?

No Connect the cable correctly.

Yes Replace the operator panel cable. Recovered?

No Replace the cover assembly operator panel.

Yes End

No Check the connection of the PU connector. Does a voltage of +5V are being supplied on the PU connector of the main board (PCR PCB)?
Pin 6, 15, 26, 35: +5V Pin 1, 3, 5, 11, 20, 21, 40: 0V

Yes Replace the main board.

No Does a voltage of +5V are being supplied on the Power connector of the engine board (PX4 PCB)?
Pin 11,12, 13, 14: +5V Pin 3, 4, 5, 6, 23, 24, 5, 26, 27, 28, 29, 30: 0V

No Check the connection of the power connector or replace the low-voltage power supply unit.

Yes Replace the engine board.

Yes Do the following voltages are being supplied on the PU connector of the main board?
Pin 6, 15, 26, 35: +5V Pin 2, 22: +3.3V
Pin 23: -12V Pin 25: +12V Pin 1, 3, 5, 11, 20, 21, 40: 0V

Yes Replace the main board.

No Do the following voltages are being supplied on the power connector of the engine board?
Pin 11, 12, 13, 14: +5V Pin 15, 16, 17, 18: +3.3V
Pin 1: +12V Pin 2: -12V Pin 7, 8, 9, 10: +32V
Pin 3, 4, 5, 6, 23, 24, 25, 26, 27, 28, 29, 30: 0V

Yes Replace the engine board.

No Replace the low-voltage power supply unit.

Yes Do the following voltages are being supplied on the PU connector of the main board?
Pin 6, 15, 26, 35: +5V Pin 2, 22: +3.3V
Pin 23: -12V Pin 25: +12V Pin 1, 3, 5, 11, 20, 21, 40: 0V

Yes Replace the main board.

No Do the following voltages are being supplied on the power connector of the engine board?
Pin 11, 12, 13, 14: +5V Pin 15, 16, 17, 18: +3.3V
Pin 1: +12V Pin 2: -12V Pin 7, 8, 9, 10: +32V
Pin 3, 4, 5, 6, 23, 24, 25, 26, 27, 28, 29, 30: 0V

Yes Replace the engine board.

No Replace the low-voltage power supply unit.

Is the regist motor rotates properly?

Yes Replace the feed roller or the paper separation frame assembly of the paper cassette.

No Is the resistance of the regist motor about 7.1 ohms?

No Replace the regist motor.

Yes Is +32V being supplied on the FU2 of the engine board?

No Replace the low-voltage power supply.

Yes Check the gear engagement and the connection of the cables or replace the engine board.

②-2 Paper input jam (Front feeder)

Is the paper jam immediately occur after the page printer is powered on?

Yes Is the paper jam occur FF sensor 2?

Yes Remove the paper jam.

No Ⓐ Do the sensor levers (FF sensor 2) work right?

No Replace the defective sensor lever (FF sensor 2).

Yes Do the sensor (FF sensor 2) work right? (Operate each sensor lever and check its signal on the related pin of the FSENS connector of the junction board (PXF-PCB).)
Pin 4 for FF sensor 2

No Check the connection of the signal cable or replace the sensor board (PXM PCB).

Yes Is the junction board (PXF PCB) operation properly?
(Operate each sensor lever and check its signal on the related pin of the PXFIF connector of the junction board (PXF-PCB).)
Pin A7 for FF sensor 2

No Replace the junction board (PXF-PCB).

Yes Check the connection of the cables between the junction board (PXF PCB) and the engine board (PX4 PCB) or replace the engine board.

No Is the paper jam immediately occur after paper feeding?

Yes Does the paper reach the FF sensor 2?

Yes Go to Ⓐ.

No Replace the front feeder assembly.

No Does the front feeder motor rotate properly?

No Is +32V being supplied on the FU2 of the engine board?

No Replace the low-voltage power supply.

Yes Check the connection of cables or replace the engine board.

Yes Check the connection of cables or replace the engine board.

②-3 Paper feed jam

Is the paper jam immediately occur after the page printer is powered on?

- Yes: Is there jam med paper at the Write sensor?
  - Yes: Remove the paper jam.
  - No: Ⓐ Does the lever of the Write sensor work right?
    - No: Replace the lever of Write sensor.
    - Yes: Does the Write sensor work right? (Operate the lever of the Write sensor and check its signal on the related pin of the FSENS connector of the junction board (PXF-PCB).)
      Pin 2 for Write sensor
      - No: Check the connection of the cable or replace the sensor board (PXM PCB).
      - Yes: Is the junction board (PXF PCB) operation properly?
        (Operate the lever of the Write sensor and check its signal on the related pin of the PXFIF connector of the junction board (PXF-PCB).)
        Pin A8 for Write sensor
        - No: Replace the junction board (PXF-PCB).
        - Yes: Check the connection of the cables between the junction board (PXF PCB) and the engine board (PX4 PCB). Is the connection properly?
          - No: Connect the cables properly.
          - Yes: Replace the engine board.
- No: Is the paper jam immediately occur after paper feeding?
  - Yes: Does the paper reach the Write sensor?
    - Yes: Go to Ⓐ.
    - No: Regist motor rotates?
      - No: Is the resistance of the regist motor about 7.1 ohms?
        - No: Replace the regist motor.
        - Yes: Check the gear engagement or replace the engine board.
      - Yes: Replace the resist roller 1 or 2.
  - No: Is the paper jam occur when paper loading?
    - Yes: Is the Belt motor rotates properly?
      - Ⓑ
      - Ⓒ

Ⓑ Ⓒ

No Is the resistance of belt motor about 7.1 ohms?
No Replace the belt motor.

Yes Check the gear engagement or replace the engine board.

Yes Check the gear engagement or replace the belt cassette Assy.

No Does the leading edge of a paper pass by the Exit sensor?

Yes Is the sensor lever in a normal operation?

- No Replace the defective sensor lever (Exit sensor)

Yes Is the Exit sensor in a normal operation?
(Operate the sensor lever and check its signal on pins land 6 of the RSENS connector of the engine board (PX-4-PCB).)

- No Check the connection of the signal cable or replace the sensor board (PXL-PCB).

Yes Replace the engine board (PX4-PCB).

No Replace the engine board (PX4-PCB).

②-4 Paper Exit Jam

Is the paper jam immediately occur after the page printer is powered on?

Yes Is the jammed paper at the Exit sensor?

Yes Remove the paper .

No Does the sensor lever work correctly?

No Replace the defective sensor lever.

Yes Does the Exit sensor work correctly? (Operate the sensor lever and check its signal on pins 1 and 6 of the RSENS connector of the engine board (PX4-PCB).)

No Check the connection of the signal cable or replace the sensor board (PXL PCB).

Yes Replace the engine board.

No Is the Faceup stacker open or closed completely?

No Open or close the faceup stacker completely.

Yes Is the Heat motor rotating properly?

No Is the resistance of heater motor about 7.1 ohms?

No Replace the heater motor.

Yes Is +32V being supplied on the FU2 of the engine board?

No Replace the low-voltage power supply.

Yes Check the connection of the cables or replace the engine board.

Yes Is the Guide paper ejecting Assy work correctly?

No Replace the guide paper ejecting Assy.

Yes Replace the engine board.

③ Paper Size Error

Is the paper which being used under the specification?

No Use paper which is under the specification.

Yes Is the paper jam med at the Lever regist sensor or the Write sensor?

Yes Remove the paper.

Yes Does the sensor levers (Lever regist sensor) work correctly?

No Replace the defective sensor lever (Lever regist sensor).

Yes Does the sensor (Lever regist sensor) work correctly? (Operate each sensor lever and check its signal on the related pin of the FSENS connector of the junction board (PXF-PCB).
Pin 4 for Lever regist sensor

No Check the connection of the cables or replace the sensor board (PXM-PCB).

Yes Does the Write sensor lever work correctly?

No Replace the Write sensor lever.

Yes Does the Write sensor work correctly? (Operate the sensor lever and check its signal on the related pin of the FSENS connector of the junction board (PXF-PCB).)
Pin 2 for Write sensor

No Check the connection of the cables or replace the sensor board (PXM PCB).

Yes Is the Junction board (PXF PCB) work correctly?
(Operate the Write sensor lever and check its signal on the related pin of the PXFIF connector of the junction board (PXF-PCB).)
Pin A8 for Write sensor

No Replace the junction board (PXF-PCB).

Yes Check the connection of the cables between the junction board (PXF PCB) and the engine board (PX4 PCB) or replace the engine board. Connection correctly?

No Connect the cables correctly.

Yes Replace the engine board.

④ Image Drum Unit (IDU) Up/Down Error

- Turn off power to the page printer, wait a few seconds, then turn on power again.

Each image drum unit (IDU) motor rotating for printout?

No Is the value of IDU motor resistance about 7.1 ohms?

No Replace the defective IDU motor.

Yes Is +32V being supplied on the FU2 of the engine board?

No Replace the low-voltage power supply.

Yes Check the connection of the cables or replace the engine board.

Yes Each IDU sensor lever work correctly?

- No Check the gear engagement and the sensor lever operation or replace the gear or the sensor lever.

Yes Is each IDU sensor work correctly?
(Cover up for each IDU sensor to shut off light and check its signal on the related pin of the PXFI connector of the junction board (PXF PCB).)
Pin B13 for the yellow IDU sensor Pin A13 for the magenta IDU sensor Pin B14 for the cyan IDU sensor Pin A14 for the black IDU sensor

- No Replace the junction board (PXF PCB).

Yes Check the connection of the cables between the junction board (PXF PCB) and the engine board (PX4 PCB) or replace the engine board.

⑤ Fusing Unit Error

Is the Fusing unit trouble occur immediately after the page printer is powered on?

Yes Is Heat roller thermistor open or shorted? (See Figure 6.1.)
(Normal registance and temperature are about between 90 ohms the 700 ohms at room temperature between 0°C the 43°C)

Yes Is the voltage being supplied on pin 8 of the THERM connector of the engine board (PX4 PCB)?
Normaly Voltage: between 0.03V and 0.25V

Yes Replace the engine board.

No Replace the fusing unit.

No Is Backup roller thermistor open or shorted? (See Figure 6.1.)
(about 90 ohms to 700 ohms at room temperature 0°C to 43°C)

Yes Is the voltage being supplied on Pin4 of the THERM connector of the engine board (PX4 PCB) normal?
Normaly Voltage: between 0.03V and 0.25V

No Replace the engine board.

Yes Replace the fusing unit.

No

No — Is Fusing unit trouble occur about 3 minutes elapsed after the page printer is powered on?

- No — Go to Ⓐ.

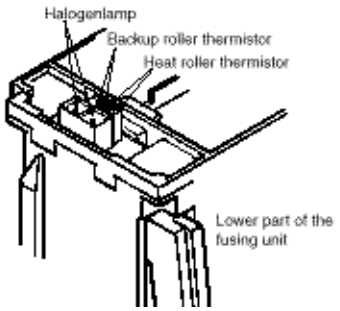
Yes — Is Fusing unit heater turn on? (Is the heater hot?)

- Yes — Is the voltage being supplied on pin 6 of the THERM connector of the engine board (PX4 PCB) normal?
  Rated voltage: 0.03V to 0.25V
  - Yes — Replace the engine board.
  - No — Replace the fusing unit.

No — Is AC voltage appears between pins 1 and 3 of the CN1 connector of the low-voltage power supply?

- No — Replace the low-voltage power supply.

Yes — Replace the fusing unit.



⑥ Fan Motor Error

Is the Low-voltage power supply fan rotating after the page printer is powered on?

- No — Is +32V being supplied on the FU2 of the engine board (PX4 PCB)?
  - No — Is +32V being supplied on the power connector of the engine board (PX4 PCB)?
    32V: Pin 7, 8, 9, 10
    - No — Check the connection of the cable or replace the low-voltage power supply.
  - Yes — Replace the engine board.
- Yes — Is the resistance about 700 ohms of the low-voltage power supply fan about 700 ohms?
  - No — Replace the fan of the low-voltage power supply.
- Yes — Check the connection of the cable or replace the low-voltage power supply.

Yes — Is the Engine board fan rotating after the page printer is powered on again?

- No — Is +32V being supplied on the FU2 of the engine board (PX4 PCB)?
  - No — 32V on the power connector of the engine board (PX4 PCB)?
    32V: Pin 7, 8, 9, 10
    - No — Check the connection of the cable or replace the low-voltage power supply.
  - Yes — Replace the engine board.
- Yes — Is the resistance about 800 ohms of the engine board fan about 800 ohms?
  - No — Replace the fan of the engine board.
- Yes — Check the connection of the cable or replace the low-voltage power supply.

Yes — End

⑦ Cannot Receive Data from Parallel Interface.

Is "PARALLEL I/F" (in menu 1) set to "ENABLE"?

No — Set the "PARALLEL I/F" (in menu 1) to "ENABLE."

Yes — Is Parallel interface of the host computer set to "Bidirectional Communication"?

Yes — Set the "Bidirectional Communication" of "Parallel Interface" (in menu 2) to "ENABLE."

No — Set the "Bidirectional Communication" of "Parallel Interface" (in menu 2) to "DISABLE."

Is Data printed out?

Yes — End

No — Is Parallel interface cable connected correctly?

No — Connect the cable correctly.

Yes — Check the connection of the parallel interface cable (for wire disconnections or bent pins). Is it recovered?

No — Replace the parallel interface cable.

Yes — Replace the main board (PCR PCB) or check hardware and software of the host computer.

⑧ Cannot Receive Data from OKI HSP Interface.

Is OKI HSP I/F board connected correctly to the main board (PCR PCB)?

No — Connect the OKI HSP I/F board correctly to the main board (PCR PCB).

Yes — Is there Any bent or broken pin on the OKI HSP I/F board?

Yes — Replace the OKI HSP I/F board.

No — Replace the main board.

Repaired?

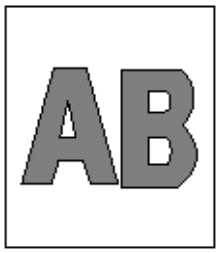
Yes — End

No — The OKI HSP I/F board may be not defective. Check the settings of the host computer or the connection of the interface cables and the others.

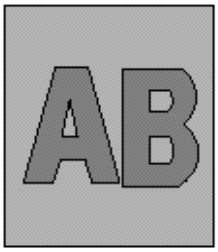
6.5.3 Image Troubleshooting

When the printout images are not satisfactory, follow the troubleshooting steps listed below.

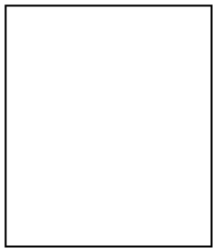
Printout problem	Reference flowchart No.
Light or blurred images (Figure 6.2-A)	(1)
Dark background (Figure 6.2-B)	(2)
Blank paper (Figure 6.2-C)	(3)
Vertical black (Figure 6.2-D)	(4)
Vertical white (Figure 6.2-F)	(5)
Poor fusing (Images are blurred or peeled off when touched)	(6)
Evenly spaced, repeating marks (Figure 6.2-E)	(7)
Missing characters or colors	(8)
Poor synthesization Color	(9)
Printout colors different from original colors	(1)



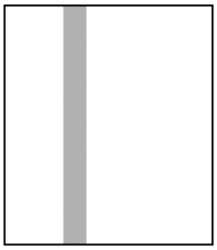
(A) Light or blurred images



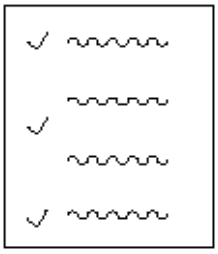
(B) Dark background



(C) Blank paper



(D) Vertical lines



(E) Evenly space, repeating marks

(D) Vertical lines

Blank paper

Is each LED head assembly connected to the junction board (PD6 PCB) correctly?

No — Connect the LED head assembly to the junction board correctly.

Yes — Check the connection of the cables or replace the LED head assembly. Is the problem recovered?

Yes — End

No — Check the connection of the cables or replace the junction board (PD6 PCB). Recovered?

Yes — End

No — Is engine board (PX4 PCB) connected to the junction board (PD6 PCB) correctly?

No — Connect the engine board to the junction board correctly.

Yes — Check the connection of the cables or replace the engine board (PX4 PCB). Is the problem recovered?

Yes — End

No — Is Each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.2.)

No — Make the terminals be in contact with the contact assembly correctly.

Yes — Replace the the image drum unit.

Notes:
1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit, be sure to reset its counter in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Vertical black

④ Black stripe or lines in the vertical direction

Is each LED head assembly connected to the junction board (PD6 PCB) correctly?

No — Connect the LED head assembly to the junction board correctly.

Yes — Check the connection of the cables or replace the LED head assembly. Is the problem recovered?

Yes — End

No — Check the connection of the cables or replace the junction board (PD6 PCB). Recovered?

Yes — End

No — Is engine board (PX4 PCB) connected to the junction board (PD6 PCB) correctly?

No — Connect the engine board to the junction board correctly.

Yes — Check the connection of the cables or replace the engine board (PX4 PCB). Is the problem recovered?

Yes — End

No — Is Each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.2.)

No — Make the terminals be in contact with the contact assembly correctly.

Yes — Replace the the image drum unit.

Notes: 1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit, be sure to reset its counter in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Vertical white

Is each LED head lens contaminated?

Yes: Clean the LED head lens.

No: Is each LED head assembly connected to the junction board (PD6 PCB) correctly?

No: Connect the LED head assembly to the junction board (PD6 PCB) correctly.

Yes: Check the connection of the cables or replace the LED head assembly. Is the problem recovered?

Yes: End

No: Check the connection of the cables or replace the junction board (PD6 PCB). Is the problem recovered?

Yes: End

No: Is engine board (PX4 PCB) connected to the junction board correctly?

No: Connect the boards correctly.

Yes: Check the connection of the cables or replace the engine board (PX4 PCB). Is the problem recovered?

Yes: End

No: Is each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.2.)

No: Make the terminals be in contact with the contact assembly correctly.

Yes: Replace the the image drum unit.

Notes:
1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit, be sure to reset its counter in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Poor fusing (Images are blurred or peeled off when touched)

Is the paper under specification being used?

No — Use the paper under the specification.

Yes — Is contacts of the fusing unit assembly connected correctly?

No — Connect the contacts correctly.

Yes — Are there any rollers of the fusing unit (heat roller, oil roller, or cleaning oil roller) contaminated?

Yes — Replace the fusing unit assembly or oil roller assembly.

No — Is the setting of "MEDIA TYPE" (in menu 1)correctly?
LIGHT:60g/m² LIGHT MIDIUM:67.5g/m² MEDIUM:75g/m² MEDIUM HEAVY:90g/m²
HEAVY:105g/m² ULTRA HEAVY:120g/m² TRANSPARENCY:OHP

No — Set the "MEDIA TYPE" correctly.

Yes — Is AC voltage between pin 1 and 3 of the CN1 connector of the low-voltage power supply being supplied?

No — Replace the low-voltage power supply.

Yes — Is resistance range of the heat roller thermistor under the regulation? (See Figure 6.1.) (It's about between 90 ohms and 700 ohms at room temperature of 0°C to 43°C)

No — Replace the fusing unit assembly.

Yes — Is resistance range of the backup roller thermistor under the regulation? (See Figure 6.1.) (It's about between 90 ohms and 700 ohms at room temperature of 0°C to 43°C)

No — Replace the fusing unit assembly.

Yes — Is the signal THERM1 on pin 6 of the THERM connector of the engine board (PX4 PCB) in the following range?

LIGHT and LIGHT MEDIUM:2.8V–3.5V	MEDIUM:3.1V–3.8V
MEDIUM HEAVY:3.1V–3.9V	HEAVY:3.4V–4V
ULTRA HEAVY:3.4V–4.1V	TRANSPARENCY default value:3.4V–4V

No — Replace the fusing unit assembly.

Yes — Replace the fusing unit assembly.

Notes:
1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit, the fusing unit, and the belt cassette assembly, be sure to reset their counters in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Evenly spaced, repeating marks

	Possibly defective part	Repairing
94.2 mm	Image Drum	Replace the image drum unit.
44.0 mm	Developing Roller	Replace the image drum unit.
28.3 mm	toner Supply Roller	Replace the image drum unit.
28.3 mm	Charging Roller	Replace the image drum unit.
114 mm	Heat Roller	Replace the fusing unit assembly.
47.1 mm	Transfer Roller	Replace the Transfer Belt assembly.

Note: After replacing the image drum unit the fusing unit and the Transfer Belt cassette assembly, be sure to reset their counters in the User Maintenance mode.

Missing characters or colors

Is each LED head lens contaminated?

Yes Clean the lens of LED head.

No Is each LED head assembly connected to the junction board (PD6 PCB) correctly?

No Check the connection of the cables (between each LED head and the junction board) or connect the LED head cables to the junction board correctly.

Yes Is +3.3V on the following pins of the HEADPOW connector of the junction board (PD6 PCB) being supplied?
+3.3V: Pin 1, 2, 3, 4, 5, 6

Yes Is +3.3V being supplied to each LED head assembly from the junction board (PD6 PCB)?
Pins 1, 2, 3, 4, 5 and 6 of the YPOW connector for the yellow LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the MPOW connector for the magenta LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the CPOW connector for the cyan LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the BPOW connector for the black LED head assembly

No Replace the junction board (PD6 PCB).

Yes Check the connection of the cables or replace the LED head assembly.

No Is +3.3V being supplied on the following pins of the HEADPOW connector of the engine board (PX4 PCB) being supplied?
+3.3V: Pin 1, 2, 3, 4, 5, 6

Yes Replace the HEADPOW cable.

No Is +3.3V on the following pins of the POWER connector of the engine board (PX4 PCB)?
+3.3V: Pin 15, 16, 17, 18

Yes Replace the engine board.

No Check the connection of the cables or replace the low-voltage power supply. Is the problem recovered?

Yes End

No Is +32V on the power connector of the engine board (PX4 PCB) being supplied?
+32V: Pin 7, 8, 9, 10

No Check the connection of the cables or replace the low-voltage power supply.

Yes Is +32V on pin 2 of the HVOLT connector of the engine board (PX4 PCB) being supplied?

No Replace the engine board.

Yes Check the connection of the cables, replace the high-voltage power supply or belt cassette assembly. Is the problem recovered?

Yes End

No Is each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.3.)

Ⓐ

No Make the terminals be in contact with the contact assembly correctly.

Yes Replace the the image drum unit.

Notes: 1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit and the belt cassette assembly, be sure to reset their counters in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Poor synthesization Color

Correct color deviations of each LED head by "COLOR REG ADJUST EXECUTE." Is the problem recoverd?

Yes End

No Are there any gear broken of the unit (Image drum unit gear assembly, front feeder assembly, belt unit assembly or belt motor assembly, etc.)?

Yes Replace the broken gear assembly.

No Is each LED head unit connected to the junction board (PD6 PCB) correctly?

No Connect the boards correctly.

Yes Check the connection of the cables or replace the LED head assembly. Is the problem recovered?

Yes End

No Check the connection of the cables or replace the junction board (PD6 PCB). Is the problem recovered?

Yes End

No Is engine board (PX4 PCB) connected to the junction board (PD6 PCB) correctly?

No Connect the boards correctly.

Yes Check the connection of the cables or replace EEPROM of the engine board. Is the problem recovered?

Yes End

No Replace the engine board. Recovered?

Yes End

No Is each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.3.)

No Make the terminals be in contact with the contact assembly correctly.

Yes Replace the the image drum unit.

Notes:

1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit, be sure to reset its counter in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

Printout colors different from original colors

Is each LED head lens contaminated?

Yes Clean the LED head lens.

No Is each LED head assembly connected to the junction board (PD6 PCB) correctly?

No Check the connection of the cables (between each LED head and the junction board) or connect the LED head cables to the junction board correctly.

Yes Is +3.3V on the following pins of the HEADPOW connector of the junction board (PD6 PCB) being supplied?
+3.3V: Pin 1, 2, 3, 4, 5, 6

Yes Is +3.3V being supplied to each LED head assembly from the junction board (PD6 PCB)?
Pins 1, 2, 3, 4, 5 and 6 of the YPOW connector for the yellow LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the MPOW connector for the magenta LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the CPOW connector for the cyan LED head assembly
Pins 1, 2, 3, 4, 5 and 6 of the BPOW connector for the black LED head assembly

No Replace the junction board (PD6 PCB).

Yes Check the connection of the cables or replace the LED head assembly.

No Is +3.3V on the following pins of the HEADPOW connector of the engine board (PX4 PCB) being supplied?
+3.3V: Pin 1, 2, 3, 4, 5, 6

Yes Replace the HEADPOW cable.

No Is +3.3V on the following pins of the POWER connector of the engine board (PX4 PCB) being supplied?
+3.3V: Pin 15, 16, 17, 18

Yes Replace the engine board.

No Check the connection of the cables or replace the low-voltage power supply. Is the problem recovered?

Yes End

No Is +32V on the power connector of the engine board (PX4 PCB) being supplied?
+32V; Pin 7, 8, 9, 10

No Check the connection of the cables or replace the low-voltage power supply.

Yes Is +32V on pin 2 of the HVOLT connector of the engine board (PX4 PCB) being supplied?

No Replace the engine board.

Yes Check the connection of the cables, replace the high-voltage power supply or belt cassette assembly. Is the problem recovered?

Yes End

No Is Each terminal of each image drum unit connected to the contact assembly correctly? (See Figure 6.3.)

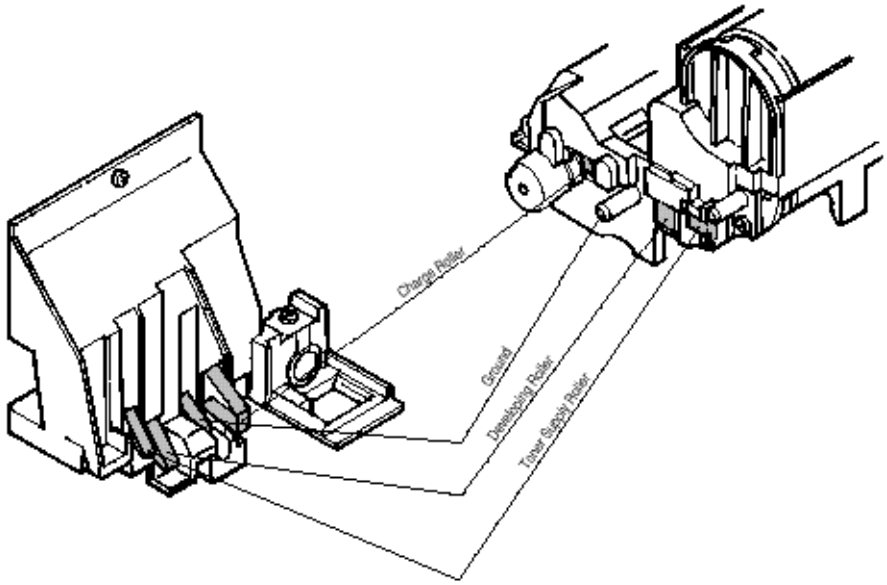
Ⓐ

Ⓐ

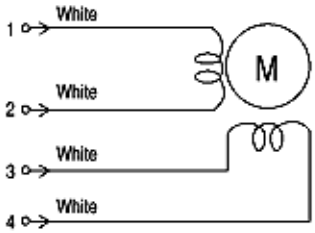
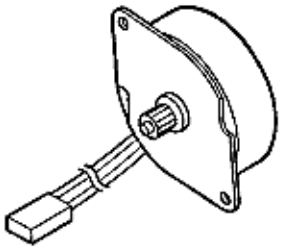
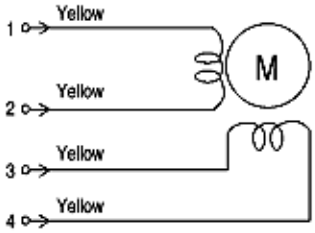
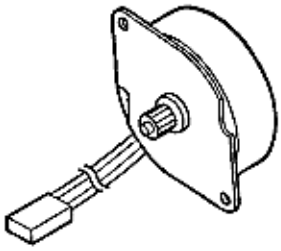
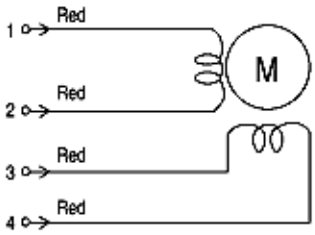
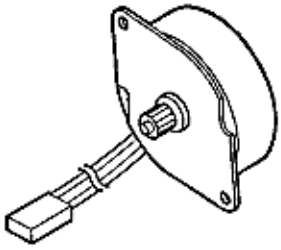
No Make the terminals be in contact with the contact assembly correctly.

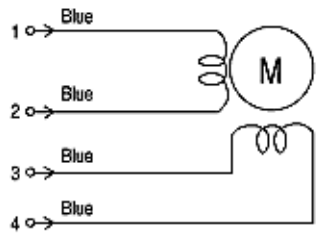
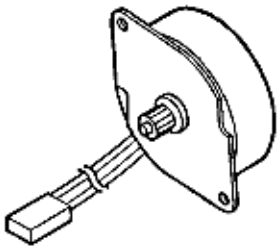
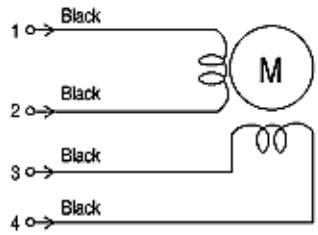
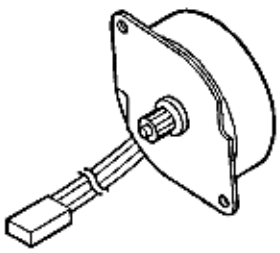
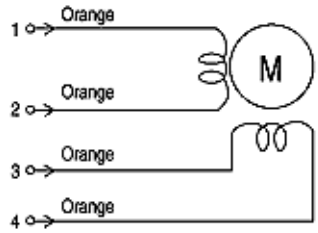
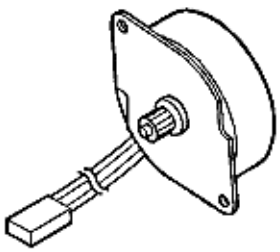
Yes Replace the the image drum unit.

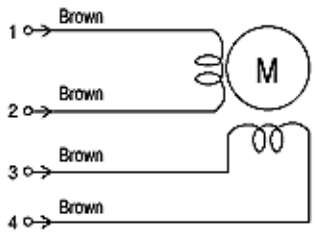
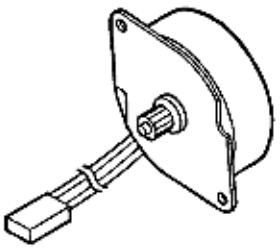
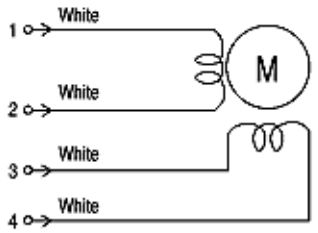
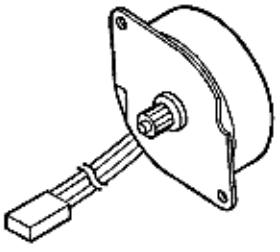
Notes: 1. When replacing the engine board (PX4 PCB), demount the EEPROM chip from the old engine board and remount it on the new one.
2. After replacing the image drum unit and the belt cassette assembly, be sure to reset their counters in the User Maintenance mode.
3. After replacing the LED head assembly, be sure to adjust its drive time and correct its color deviation.

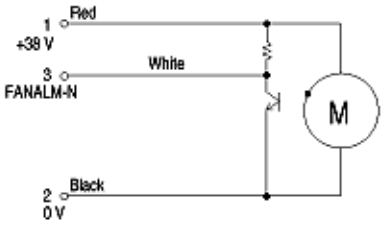
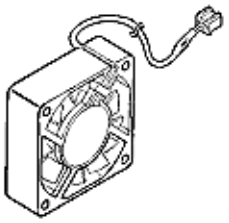
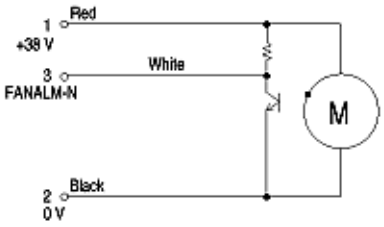
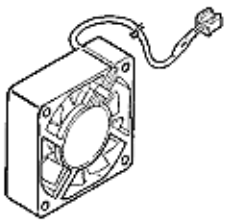
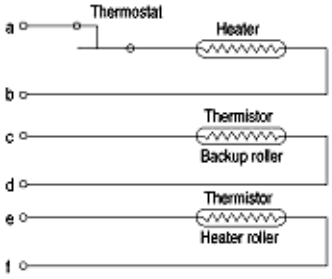
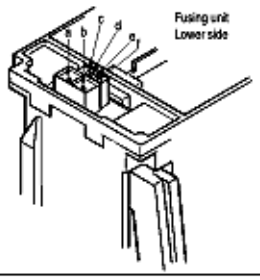


7.1 Resistance Check

Unit	Circuit Diagram	Illustration	Resistance
Belt motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω
YIDU motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω
MIDU motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω

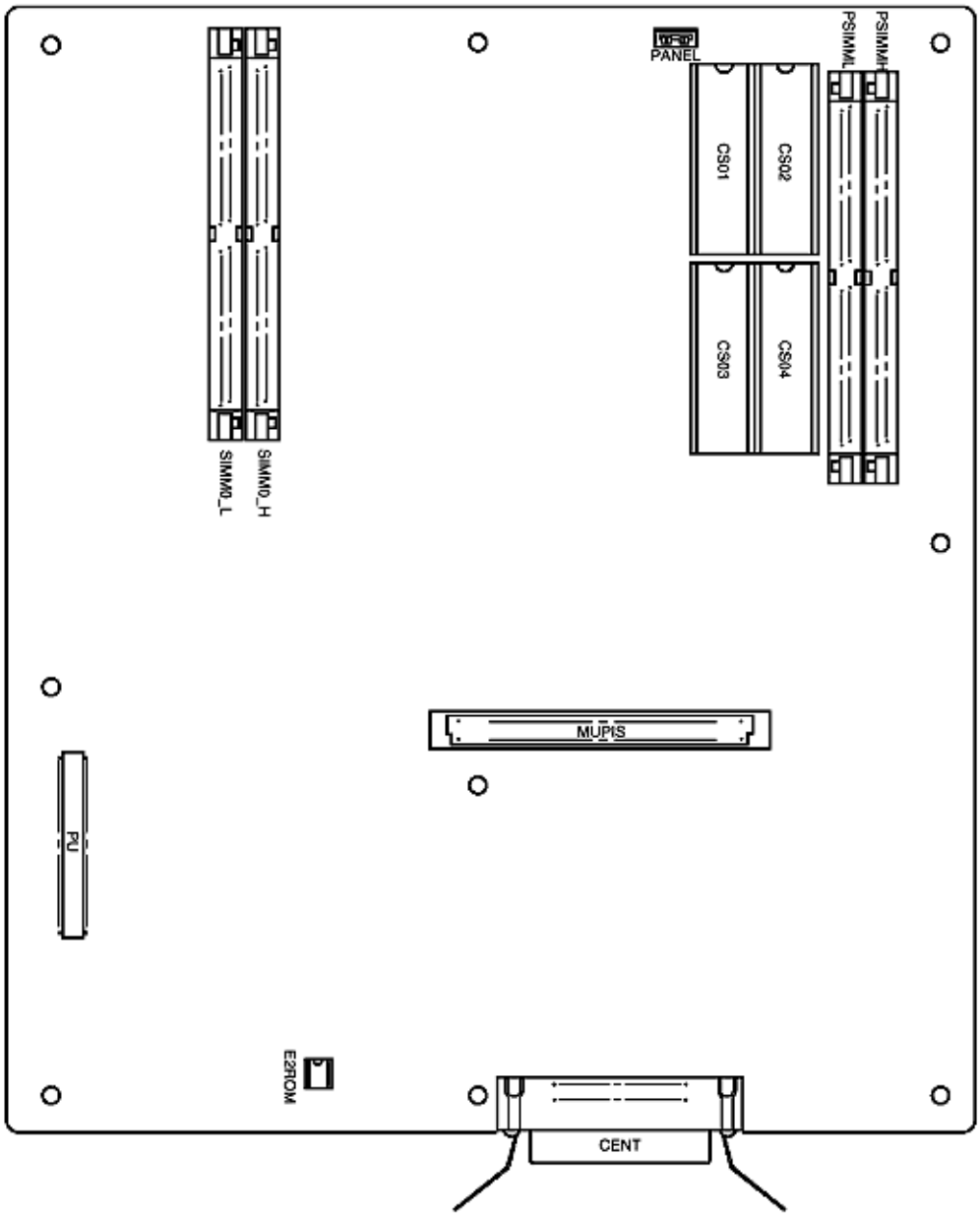
Unit	Circuit Diagram	Illustration	Resistance
CIDU motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω
BIDU motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω
Resist motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω

Unit	Circuit Diagram	Illustration	Resistance
Heater motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω
FF motor			Between pins 1 and 2: 7.1Ω Between pins 3 and 4: 7.1Ω

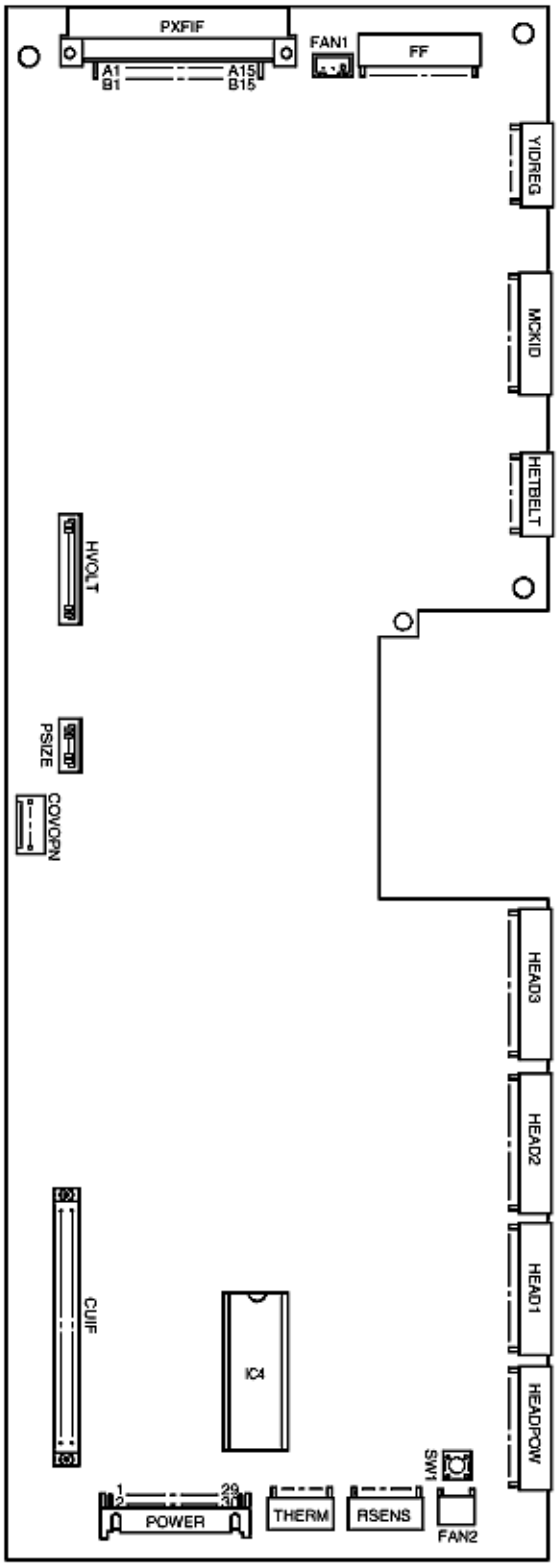
Unit	Circuit Diagram	Illustration	Resistance
Fan 1 (To: Low Power supply)			Between pins 1 and 2: 700Ω
Fan 2 (To: PX4-PCB)			Between pins 1 and 2: 800Ω
Fusing Unit			Between pins c and d: 205kΩ (at 25°C) Between pins e and f: 205kΩ (at 25°C) Between pins a and b: 2.3Ω (120V, at 25°C) 8.5Ω (240V, at 25°C)

7.2 Program/Font ROM Location

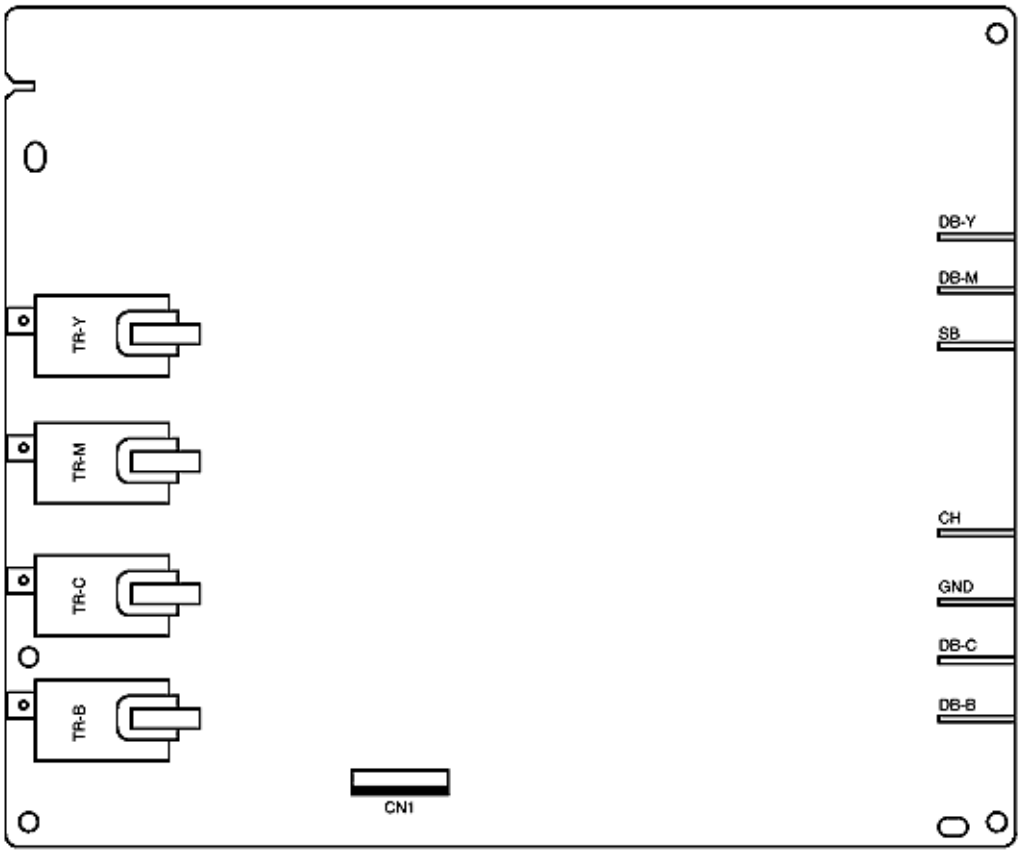
(1) PCR-PCB (Main Board)



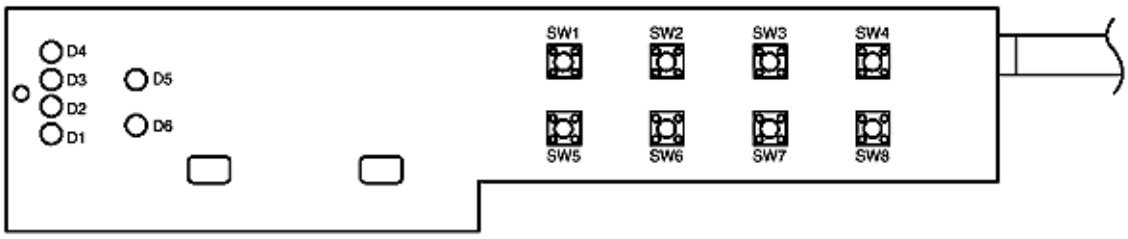
(2) PX4-PCB (Engine Board)



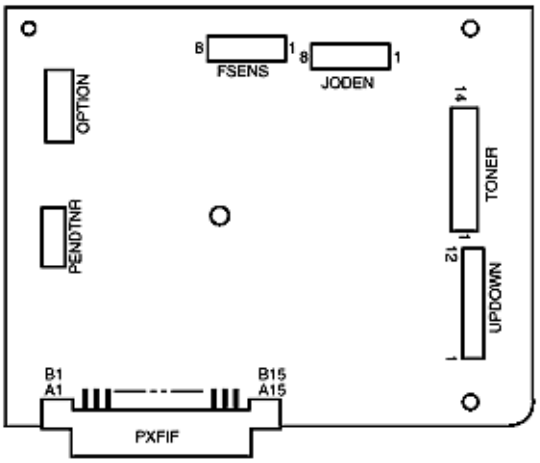
(3) Power-Supply PCB



(4) PCO PCB



(5) PXF PCB



Centronics Parallel Interface

1) Connector

- Printer side : 36-pin receptacle (single port) Type 57RE-40360-830B-D29A (made by Daiichi Denshi), or equivalent
- Cable side : 36-pin plug Type 57-30360 (made by Daiichi Denshi) or equivalent Plug-552274-1 (AMP), 552073-1 (AMP) or equivalent

2) Cable

- Cable length : 6 ft (1.8 m) max.

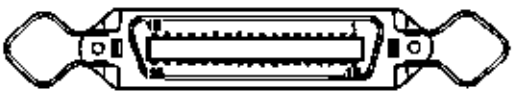
(A Shielded cable composed of twisted pair wires is recommended for noise prevention.)

Note: Cable is not supplied with the printer, and is not available from Oki.

3) Table of Parallel I/F Signals

Pin No.	Signal name	Signal direction	Functions
1	$\overline{\text{DATA STROBE}}$	→PR	Parallel data sampling strobe
2	DATA BIT - 1		
3	DATA BIT - 2		
4	DATA BIT - 3		
5	DATA BIT - 4	→PR	PR Parallel input and output data
6	DATA BIT - 5		
7	DATA BIT - 6		
8	DATA BIT - 7		
9	DATA BIT - 8		
10	$\overline{\text{ACKNOWLEDGE}}$	←PR	Completion of data input or end of a function
11	BUSY	←PR	During print processing or alarm
12	PAPER END	←PR	End of paper
13	SELECT	←PR	Select state (ON-LINE)
14	$\overline{\text{AUTOFEED}}$	→PR	Request to change mode
15	-		(Not used)
16	0V		Signal ground
17	CHASSIS GROUND		Chassis ground
18	+5V	←PR	50 mA max.
19 ⋮ 30	0V		Signal ground
31	$\overline{\text{INPUT PRIME}}$	→PR	Initializing signal
32	$\overline{\text{FAULT}}$	←PR	End of paper or during alarm
33	-		Signal ground
34	-		(Not used)
35	-		High level (3.3 kΩ)
36	$\overline{\text{SELECT IN}}$	→PR	Request to change mode

- Connector pin arrangement



4) Signal Level

- LOW : 0 V to +0.8 V
- HIGH : +2.4 V to 5.0 V

5) Specifications

Item	**Description**
Mode	Compatibility mode, Nibble mode, ECP mode
Data bit length	8 bits (in the compatibility mode)
Input prime	Valid/Invalid
Receive buffer	8K, 20K, 50K, 100K, 1M Bytes
Control	Handshaking control is performed in each mode. Data received from the host is stored in the receive buffer. Busy control is performed. Signal lead control is performed.

6) Timing Charts

Data receiving timing

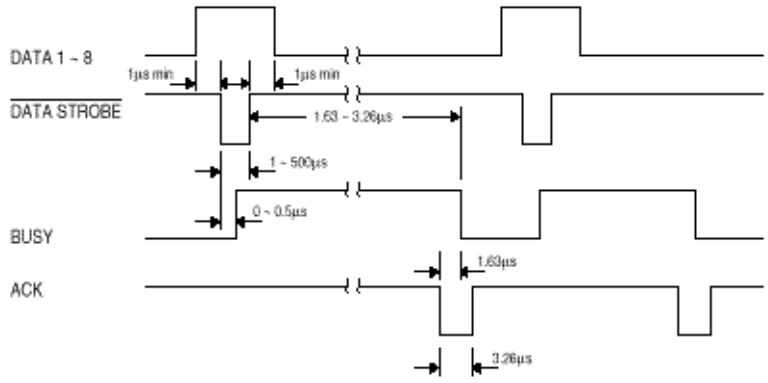


Diagram A1: Covers (Top & Sides)

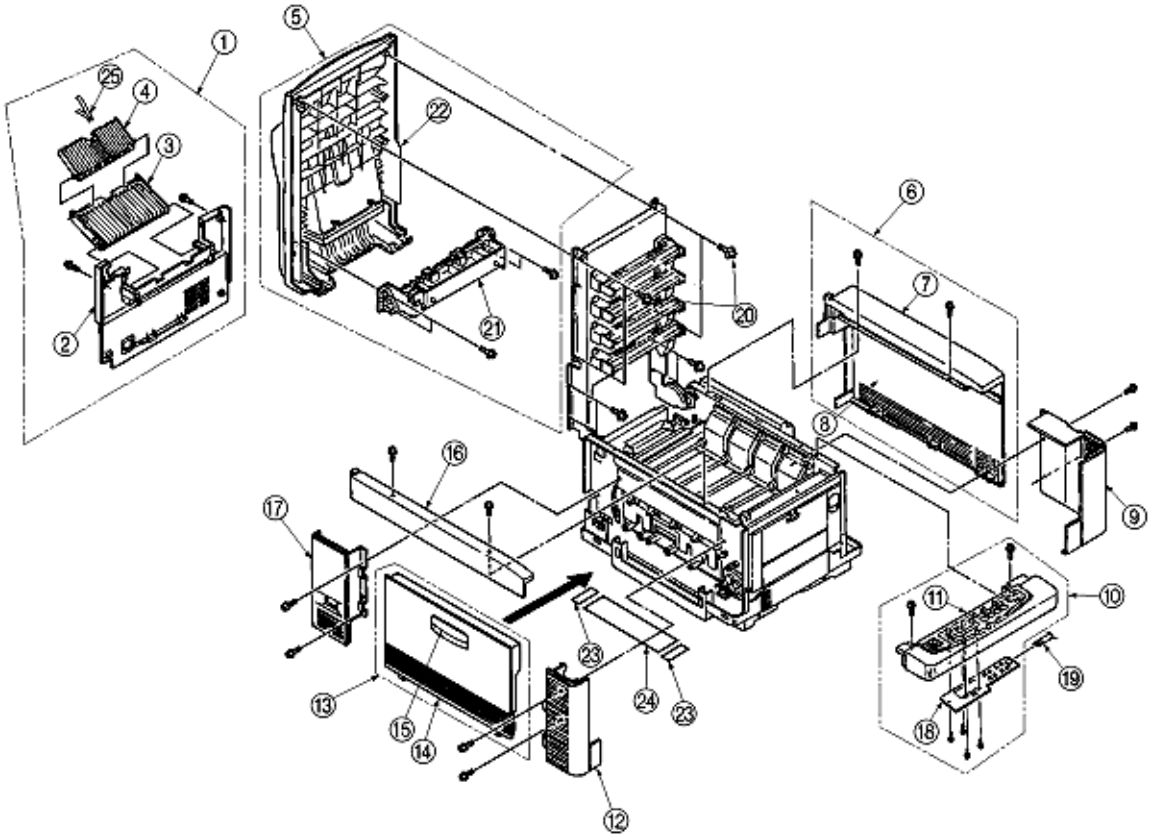


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description

1	51025202		Plate: Ground (Contact)
2	40098401		Cover Rear
3	40187501		Stacker Faceup
4	40187601		Support Stacker
5	40314801		Cover Assy. Stacker
6	40315001		Cover Assy. Side (R)
7	0		Cover Side (R)
8	0		Frame Side Right
9	40098301		Cover Front (R)
10	40314901		Cover Assy. OP Panel
10	40314902		Cover Assy. OP Panel (OEL/INT 230V)
11	40492601		Cover Sub Assy. OP Panel
12	40098201		Cover Front (L)
13	40315101		Cover Assy. Side (L)
14	0		Cover Side (L)
15	0		Cover Knob
16	40195601		Frame Side (L)
17	40195701		Cover Rear (L)
18	40387201		PCB:PCO
19	56636205		CABLE: OP
20	50318701		Screw
21	40303601		Guide Eject FD Assy.
22	40449901		Cover Sub Assy. Stacker
23	40728601		Film Waste Toner
24	40728701		Foam Seal (Cover)
25	40664701		Spring : Support

Diagram A2: Printer Unit

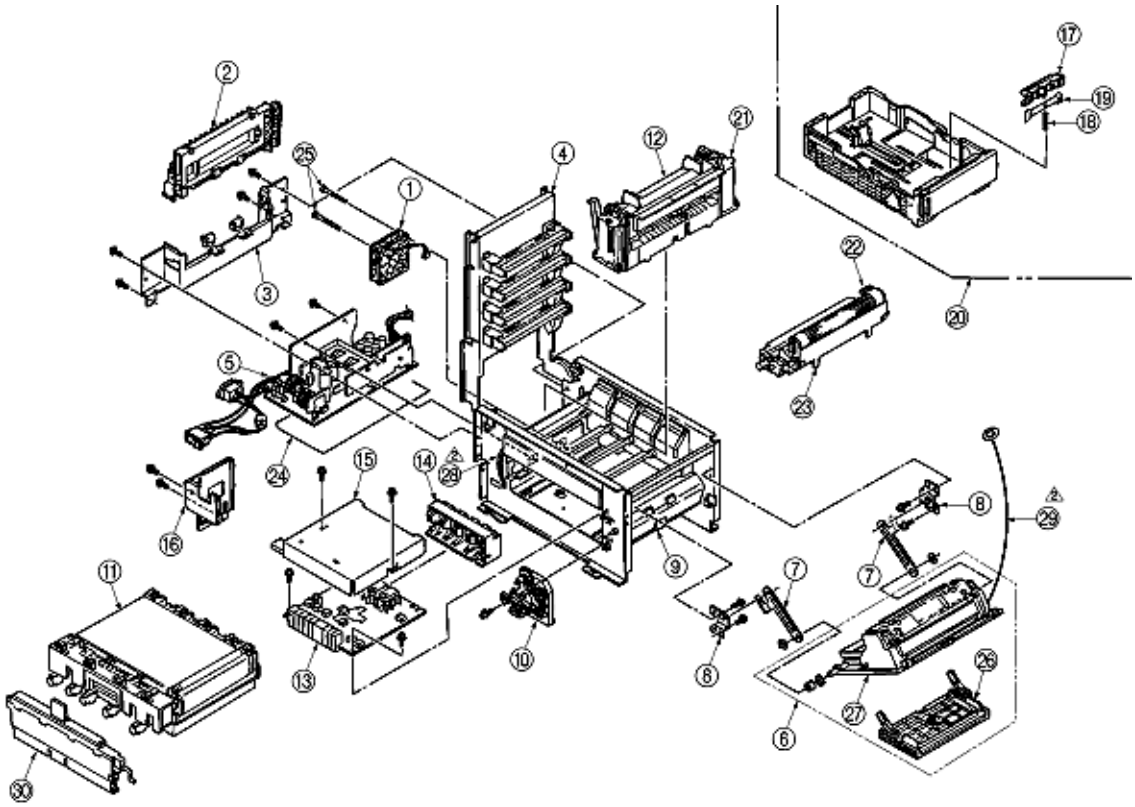


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description

1	40255201		Motor Fan (80-25)
2	40303501		Frame Eject Assy.
3	40303401		Guide Paper Eject Assy.
4	40410701		Frame Upper Assy.
5	40019001		Power Unit ACDC Switching (230v)
5	40018901		Power Unit ACDC Switching (120v)
6	40311201		FDR Unit Front
7	40193501		Plate FFLink
8	40193601		Bracket FF Link
9	40303301		Guide Paper Input Assy.
10	40309801		Holder Gear Toner Assy.
11	40490801		Belt Unit
12	40645301		Oil Roller Unit
13	40065601		High Voltage Power Supply Unit
14	40325001		Bracket HV (BT) Assy.
15	40168001		Plate HV
16	40193201		Holder Innret
17	40607001		Separator Frame assy.
18	40744501		Separation Spring
19	40795501		Spring: Damper assy.
20	40744401		Paper Cassette Assy
21	40490904		Fuser Unit (230V)
21	40490901		Fuser Unit
22	40370603		Magenta Toner Cartridge Kit "Type C1"
22	40370602		Yellow Toner Cartridge Kit "Type C1"
22	40370604		Cyan Toner Cartridge Kit "Type C1"
22	40370601		Black Toner Cartridge Kit "Type C1"
23	40370201		Black Image Drum Kit "Type C1"
23	40370302		Magenta Image Drum Kit "Type C1"
23	40370301		Yellow Image Drum Kit "Type C1"
23	40370303		Cyan Image Drum Kit "Type C1"
24	40191201		Sheet Insuration
25	54122930		Screw / PSW2W3-30C
26	55700401		Hand hopper Assy.
27	40449001		FDR Unit Main Assy.
28	40294201		CONN Cord Wire
29	40641801		CONN Cord Wire
30	40645401		Waste Toner Box

Diagram A3: Main Chassis Unit (1)

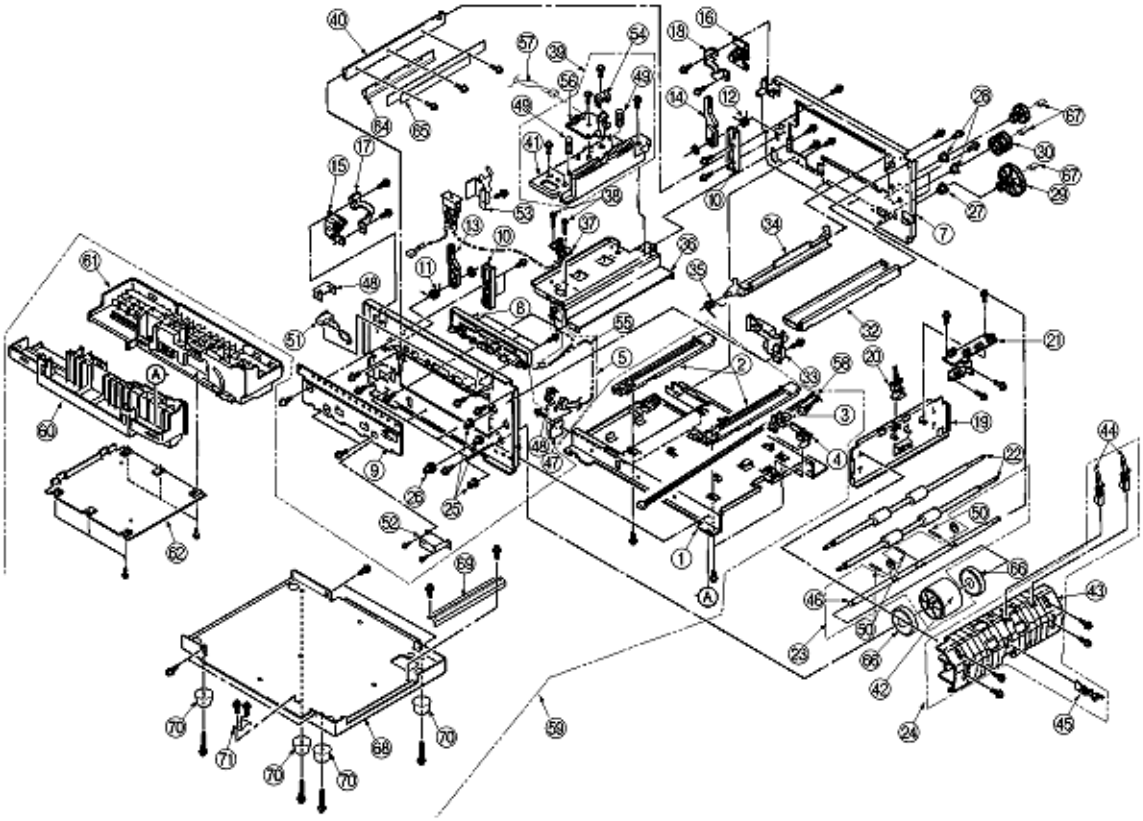


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description

1	40175701		Plate Base
2	40096401		Guide Belt (F)
3	40135301		Photo Interrupter
4	50808201		Lever Paper End
5	40450401		Sensor Assy. Box Toner
6	40171401		Frame Side (L)
7	40171301		Frame Side (R)
8	40308801		Contact SB Assy.
9	40290201		Plate Blind
10	40163401		Guide Side Heat unit
11	40163701		Spring Lock (L)
12	40163702		Spring Lock Heat
13	40163501		Lever Lock Heat unit (L)
14	40163601		Lever Lock Heat unit (R)
15	40383701		Limiter-2Way (L)
16	40383801		Limiter-2Way (R)
17	40335001		Plate Guard (L)
18	40335101		Plate Guard (R)
19	40171201		Stay Lower (Front)
20	40144501		Lever Regist Sensor
21	40437601		PCB:PXM
22	40130801		Roller Registration
23	40310601		Roller Assy. Hopping
24	40303301		Guide Paper Input Assy.
25	40261301		Bearing Hopping
26	40130301		Gear(Z20)
27	51608901		Bearing
28	51607301		Bushing ADF
29	40250901		Gear Oneway (96)
30	40164501		Gear Oneway (Z48/48)
31	40164301		GearOneway (Z48)
32	40171101		Stay Upper (Front)
33	40388501		Bracket SW
34	40195101		Plate Latch lever (FD)
35	40195001		Spring Latch lever (FD)
36	40175201		Stay Heat
37	40563101		Conection cord wire
38	50318601		Screw / PB4043-4718P001
39	40162101		Guide Assy. Heat Unit
40	40175101		Stay EP
41	40449401		Guide Assy. Heat
42	40449701		Hopping Roller Boss Assy.
43	40097301		Guide Paper Input A
44	40144301		Lever Input Sensor
45	40144401		Lever 2nd Feed Sensor
46	40189601		Shaft Hopping roller (1st)
47	40450201		Bracket Switch
48	40408601		Holder Switch
49	40264401		Spring Eject Heat
50	50608118		Knock Pin
51	40447201		CONN Cord Wire
52	40388401		Bracket Switch (Side)
53	40446501		InterLock SW Cable Assy.
54	40162201		Cover Sensor
55	40172401		AMP6P-AMP4P
56	40437501		PCB:PXL
57	40171801		AMP7P-AMP7P
58	40447301		Cordwire JST6P-AMP3PX2
59	40303201		Plate Base Assy.
60	40303101		Guide Cassette (L) Assy.
61	40302901		Guide Cassette (R) Assy.
62	40164801		Plate Bottom
63	40448501		Conection cord wire
64	40551301		Plate Shield Heat
65	40714401		Heat-Sink (801)
66	40743701		Roller Assy. Hopping
67	40686701		Spacer Register Gear
68	40661001		Cover Bottom (Weld)
69	40661501		Plate Guide
70	40671001		Rubber Foot

Diagram A4: Main Chassis Unit (2)

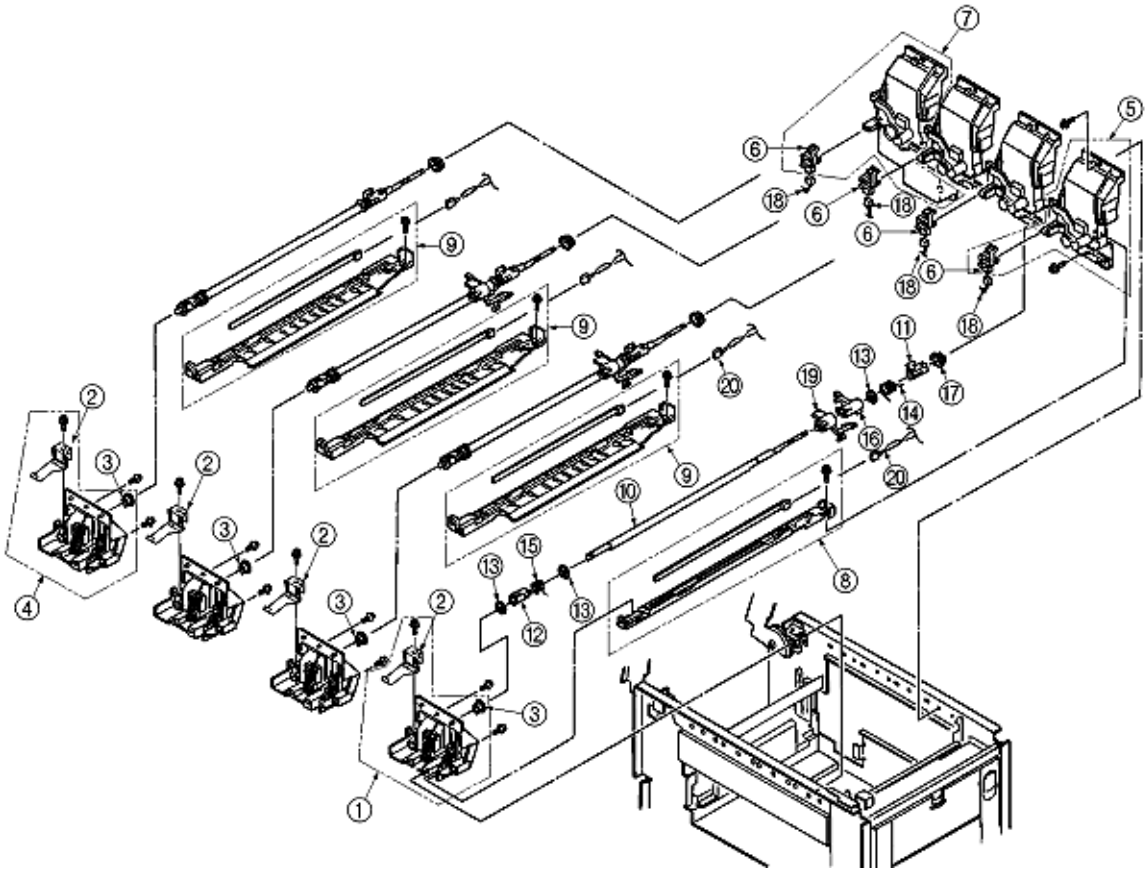


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description

1	40324501		Contact (BL-L) Assy.
2	40278101		Plate Earth (LK)
3	51608901		Bearing
4	40324401		Contact (CL-L) Assy.
5	40324601		Contact Bkt (BL R) assy
6	40135301		Photo Interrupter
7	40309001		Contact BKT (CL-R) Assy
8	40308501		Eraser BKT Assy.
9	40324301		Eraser BKT (KCM) Assy.
10	40167901		Shaft Link
11	40132301		Lever Link (R)
12	40132401		Lever Link(L)
13	50705301		E Ring
14	40168401		Spring Support (R)
15	40188501		Spring Support (L)
16	40136201		Bracket Sensor Toner (KCM)
17	0	PP3522-3568P001	Bearing
18	40173301		AMP14P-AMP3PX4
19	40449501		Sensor Assy. T (KCM)
20	40172701		AMP8P-AMP2PX4

Diagram A5: Main Chassis Motor/PCB

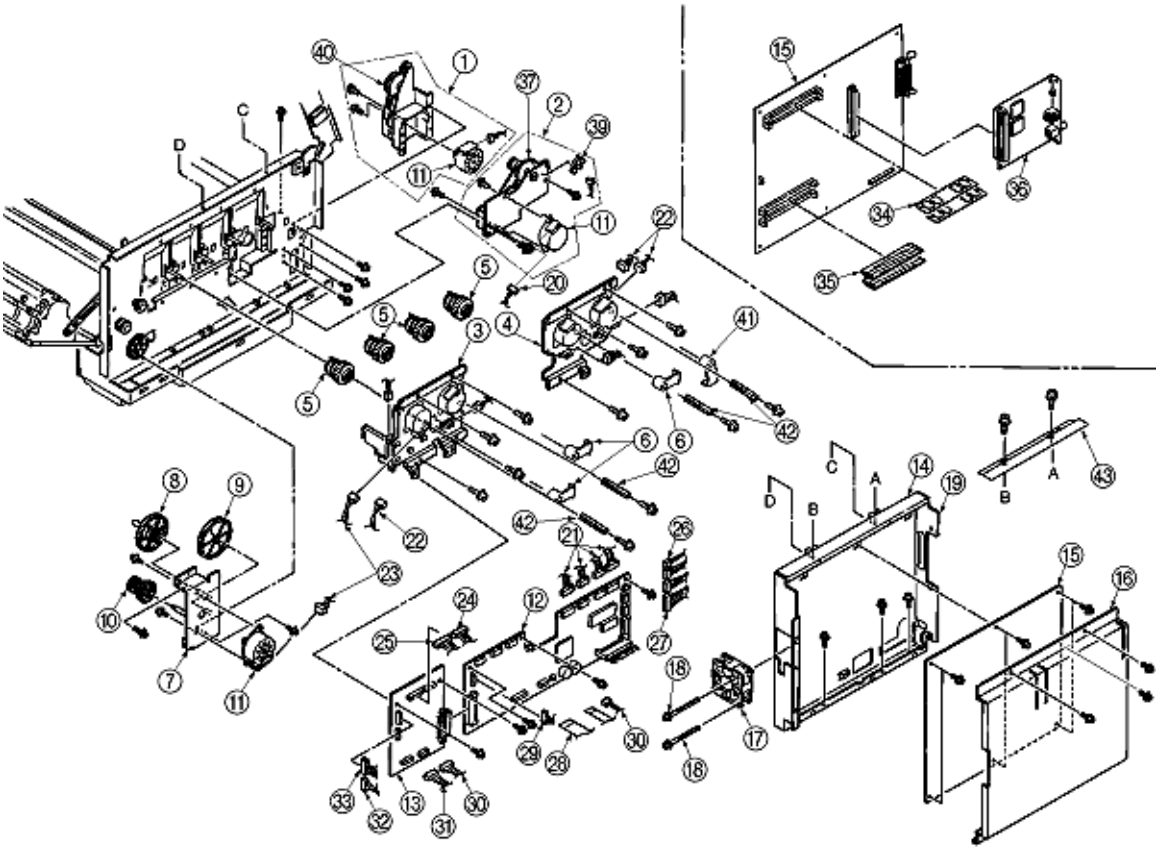


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description

1	40310001		Gear Heat Assy.
2	40392301		Motor Assy. Belt
3	40309101		Main Motor (A) Assy.
4	40309201		Main Motor (B) Assy.
5	40208101		Gear Oneway (Z30)
6	40664401		LEVER: UP/DOWN 2 (YMC)
7	40175001		Bracket Hopping Motor
8	40143401		Gear Idle (92)
9	40143501		Gear Feed (118/17)
10	40164401		Gear Oneway (Z48/74)
11	40124101		Motor Pulse (ID)
12	40634102		PCB: PX4 (Engine)
13	40437201		PCB:PXF
14	40233901		Cover CU
15	40604802		PCB: PCR (Main)
16	40376901		Plate Sealed
17	40197101		Motor Fan
18	54122925		Screw
19	40377001		Board IF
20	40171002		AMP8P-AMP4PX2
21	40456101		JST12 AMP15 AMP10 AMP9
22	40173001		AMP12P-AMP3PX2
23	40171001		AMP8P-AMP4PX2
24	40447101		AMP12P-AMP3PX4
25	40173301		AMP14P-AMP3PX4
26	40171801		AMP7P-AMP7P
27	40172401		AMP6P-AMP4P
28	0		HCUJ (1.25)-16F-300
29	40172801		AMP12-AMP4,3X2
30	40447301		Cordwire JST6P-AMP3PX2
31	40177701		Connector Cord
32	40447001		JST8P-JST8P
33	40172701		AMP8P-AMP2PX4
34	000000		PS-SIMM
35	000000		DRAM SIMM
36	0		Network Card
37	40450001		Belt Motor Mech Assy.
38	0		Unknown
39	40135301		Photo Interrupter
40	40448901		Gear Heat Mech Assy.
41	40664501		LEVER: UP/DOWN 2 (K)
42	40583901		Plate-Earth(LKR)
43	40704901		Plate-Shield CU
44	40447201		CONN Cord Wire

Diagram A6: Frame Upper Assy

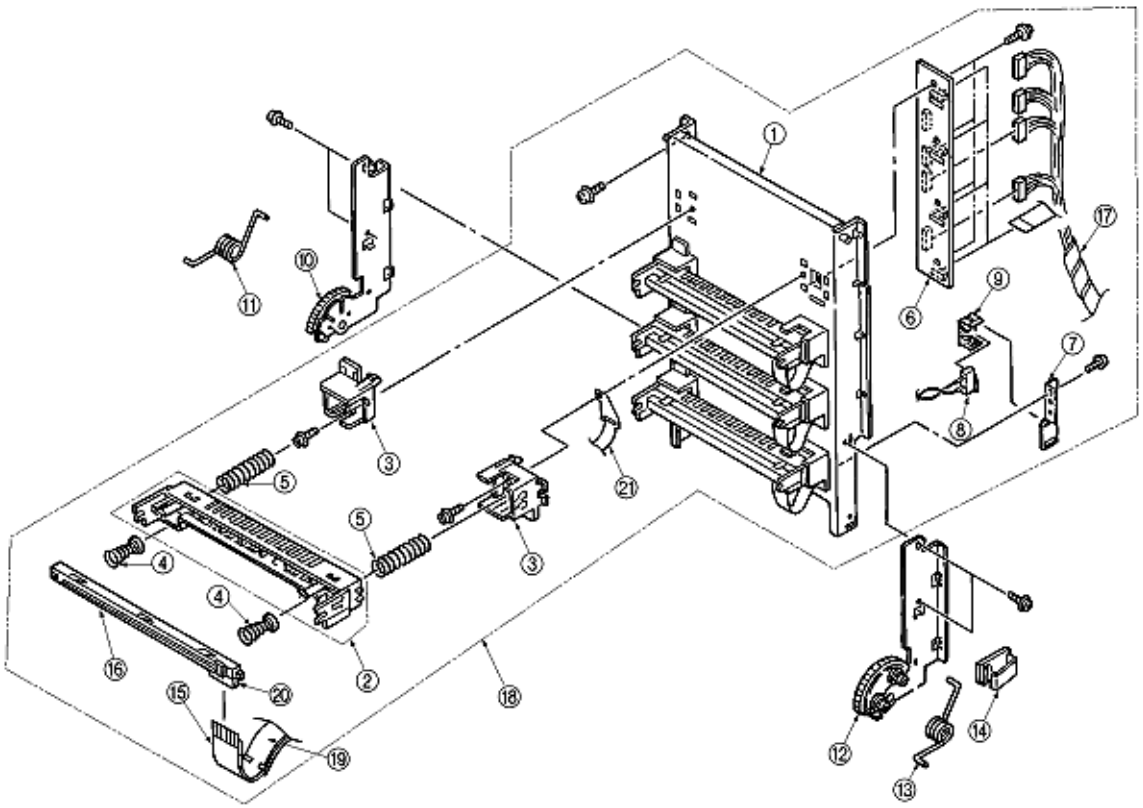


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description
1	40187901		Frame Upper
2	40449101		Holder LED Assy.
3	40187801		Guide Holder
4	40293601		Spring Head
5	40197701		Spring EP
6	40536001		PCB: PD6 Board
7	40394201		Plate Oil Sensor
8	40171702		AMP2P-MSW
9	40408601		Holder Switch
10	40449301		Plate Support (L) Assy.
11	40197401		Torsion Spring (A)
12	40449201		Plate Support (R) Assy.
13	40218301		Torsion Spring (B)
14	56636301		Flat Cable Clip
15	56636201		HCUJ(1.25)-14F-140-10S6(B)-MI(2896)
16	40547301		LED HEAD
17	40456101		JST12 AMP15 AMP10 AMP9
18	40410701		Frame Upper Assy.
19	56636206		HGCUJ(1.25)-12F-160
20	56730960		PXW26-1250B
21	40700401		Film_FG

Diagram A7: Guide Cassette (R) Assy

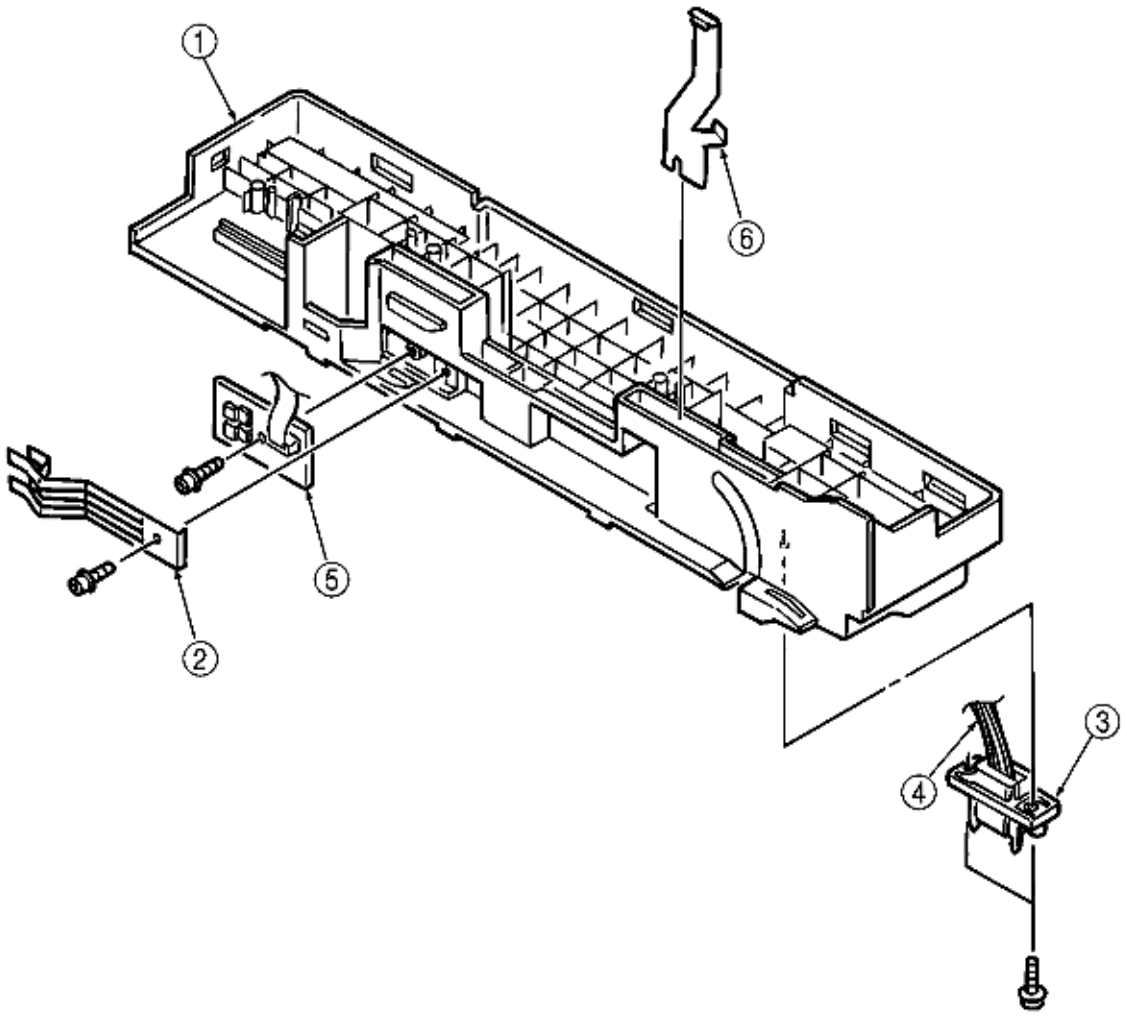


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description
1	40449801		Guide Cassette (R) Sub Assy.
2	50928901		Spring Detector
3	56730640		Square shaped connector
4	40177701		Connector Cord
5	40368301		PCB:PXC
6	53346601		Plate Earth

Diagram A8: Main Motor (A) Assy

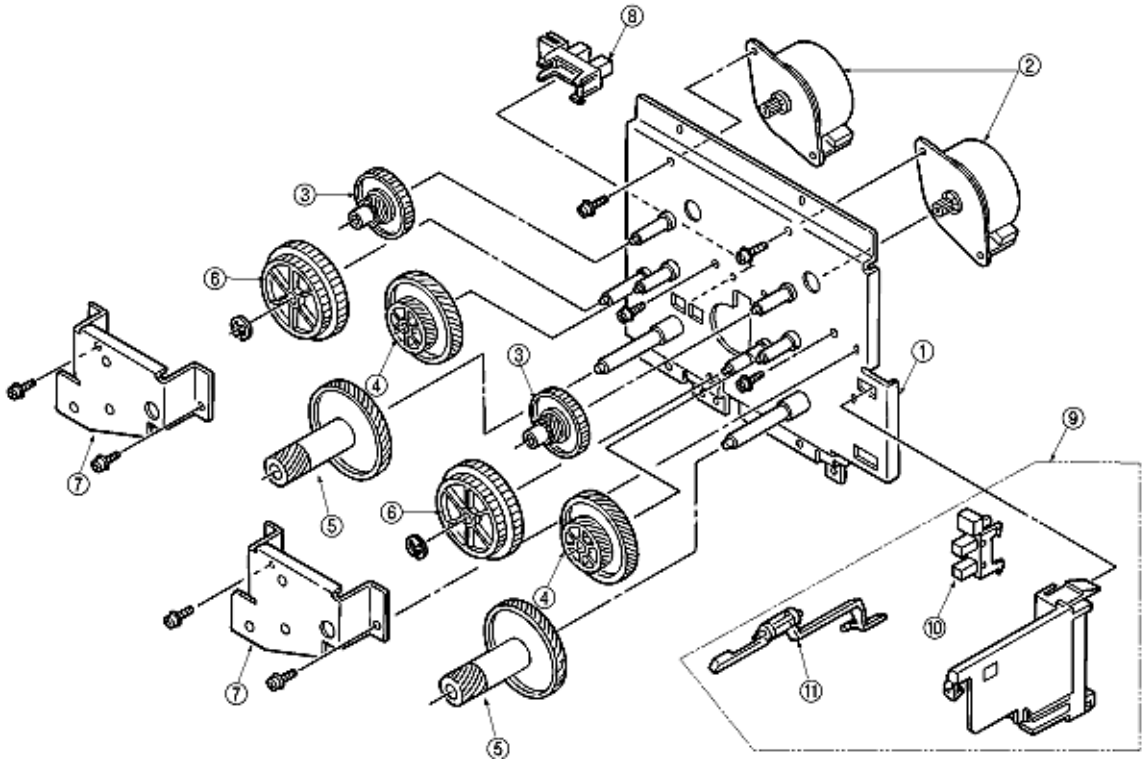


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description
1	40165301		Frame Motor (ID1)
2	40124101		Motor Pulse (ID)
3	40129901		Gear (25/75)
4	40130701		Gear Helical (67/43/24)
5	40130601		Gear Helical (67/18)
6	40130201		Gear Z53/44
7	40129501		Bracket Support (ID)
8	40135301		Photo Interrupter
9	40308601		Toner Sensor (Y) Assy.
10	40135301		Photo Interrupter
11	40449601		Sensor Assy. T (Y)

Diagram A9: Main Motor (B) Assy

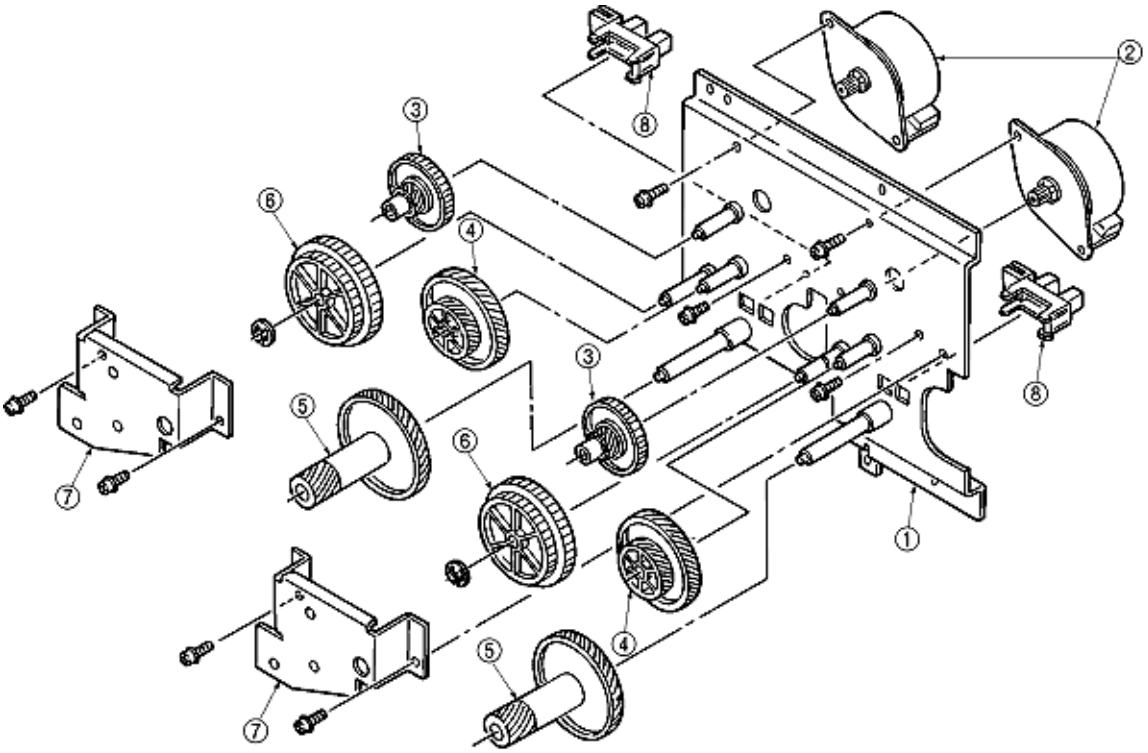


Diagram Number	OKI Part Number	Univerisal Part Number	Part Description
1	40129401		Frame Motor (ID)
2	40124101		Motor Pulse (ID)
3	40129901		Gear (25/75)
4	40130701		Gear Helical (67/43/24)
5	40130601		Gear Helical (67/18)
6	40130201		Gear Z53/44
7	40129501		Bracket Support (ID)
8	40135301		Photo Interrupter

Preface

This Maintenance Manual is intended for the maintenance personnel and describes the field maintenance methods for High Capacity Second Paper Feeder option of OKIPAGE 10i Series LED Page Printer.

Refer to the Printer Handbook for equipment handling and operation methods.

1.0 Outline

1.1 Functions

1.2 External View and Component Names

1.1 Functions

The printer is mounted on top of this High Capacity Second Paper Feeder. The High Capacity Second Paper Feeder supplies paper automatically through the operation of pulse motor (hopping), which is driven by signals sent from the printer.

The main functions are the following:

- Paper that can be used:

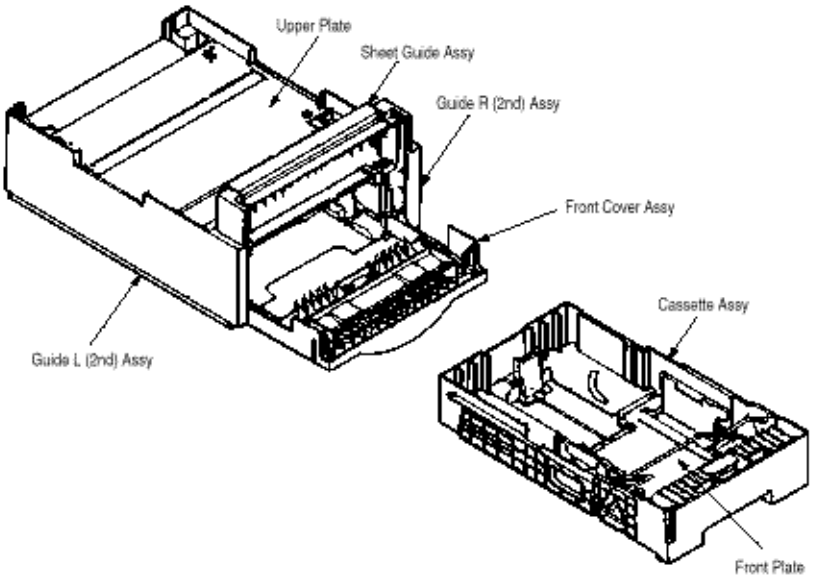
[Paper Type]

- Standard paper: Xerox 4200 (20-lb)
- Special paper: OHP sheets (for PPC), Label sheets (PPC sheets); use of envelopes or thick paper is not possible.
- Cut sheet size: A4, A5, B5, Letter, Executive, Legal13, Legal14
- Special size: Paper width: 148 to 216mm; Paper length: 210 to 355.6mm

[Weight]

- 16-lb to 24-lb (60 to 90 g/m^2)
- Paper setting quantity: 500 sheets of paper weighing 64 g/m^2

1.2 External View and Component Names



2.0 Mechanism Description

2.1 General Mechanism

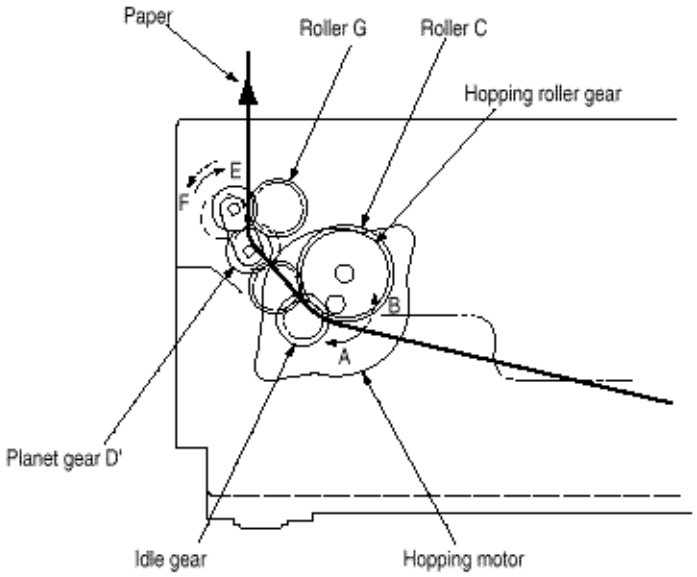
2.2 Hopper Mechanism

2.1 General Mechanism

The sheet at the very top of the stack in the paper cassette is fed into the printer, one sheet at a time, when the High Capacity Second Paper Feeder receives the signal from the printer.

(1) First, the hopping motor rotates in the direction of arrow A. The hopping gear is turned, via the idle gear, and the roller C on the same shaft is also turned. At the same time, the planet gear D' moves in the direction of the arrow E, and roller G turns; the paper is fed for a predesignated distance until its leading edge reaches roller G.

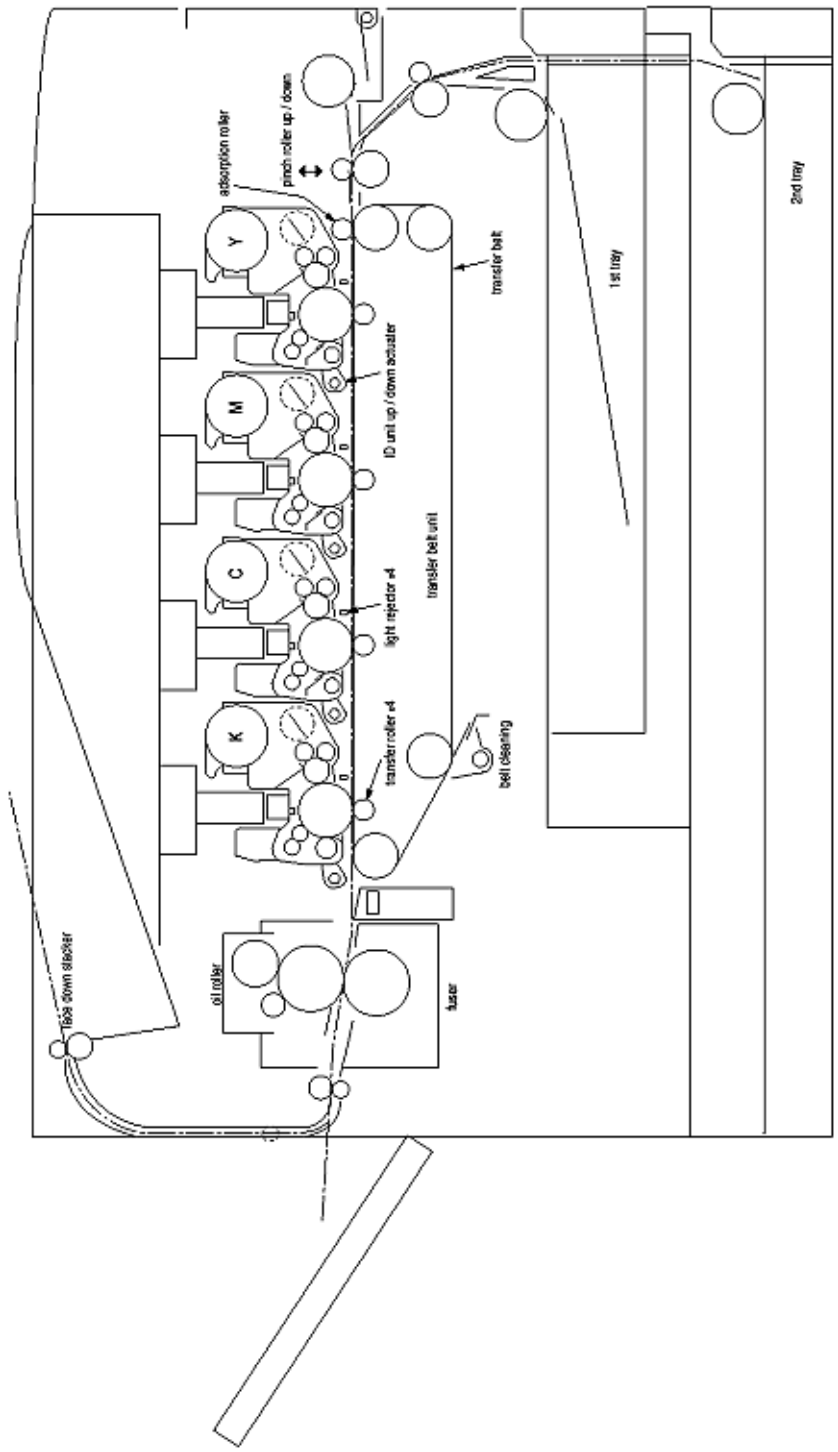
(2) Next, the hopping motor rotates in the direction of arrow B. While the hopping gear also turns at the same time, (due to the one-way bearing being engaged at the hopping gear), the roller C does not turn. The planet gear D' moves in the direction of the arrow F, drives the Roller G and feeds the paper into the printer, until it reaches the registration roller of the printer.



Once the delivered into the printer, the paper is then controlled and fed through by the registration motor of the printer.

2.2 Hopper Mechanism

The hopper automatically feeds the printer with the paper being sent, single sheet at a time. When the paper is loaded in the paper cassette, it is then transported by the hopping motor, carrying forward only a single sheet at a time, caught by hopping roller at a time.



3.0 PARTS REPLACEMENT

This section covers the procedures for the disassembly, reassembly and installations in the field. This section describes the disassembly procedures, and for reassembly procedures, basically proceed with the disassembly procedures in the reverse order.

3.1 Precautions Concerning Parts Replacement

3.2 Parts Layout

3.1 Precautions Concerning Parts Replacement

(1) Parts replacements must be carried out, by first turning the printer power switch off "O" and removing the printer from the High Capacity Second Paper Feeder.

(2) Do not disassemble the High Capacity Paper Feeder if it is operating normally.

(3) Establish the extent of disassembly suitable for the purpose of the procedure, and do not disassemble any more than necessary.

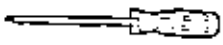
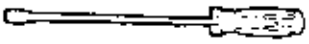
(4) Only specified service tools may be used.

(5) Disassembly must be carried out according to the prescribed procedures. Parts may be damaged if such procedures are not followed.

(6) Small parts such as screws and collars can easily be lost. Therefore, these parts should be temporarily fixed in the original location.

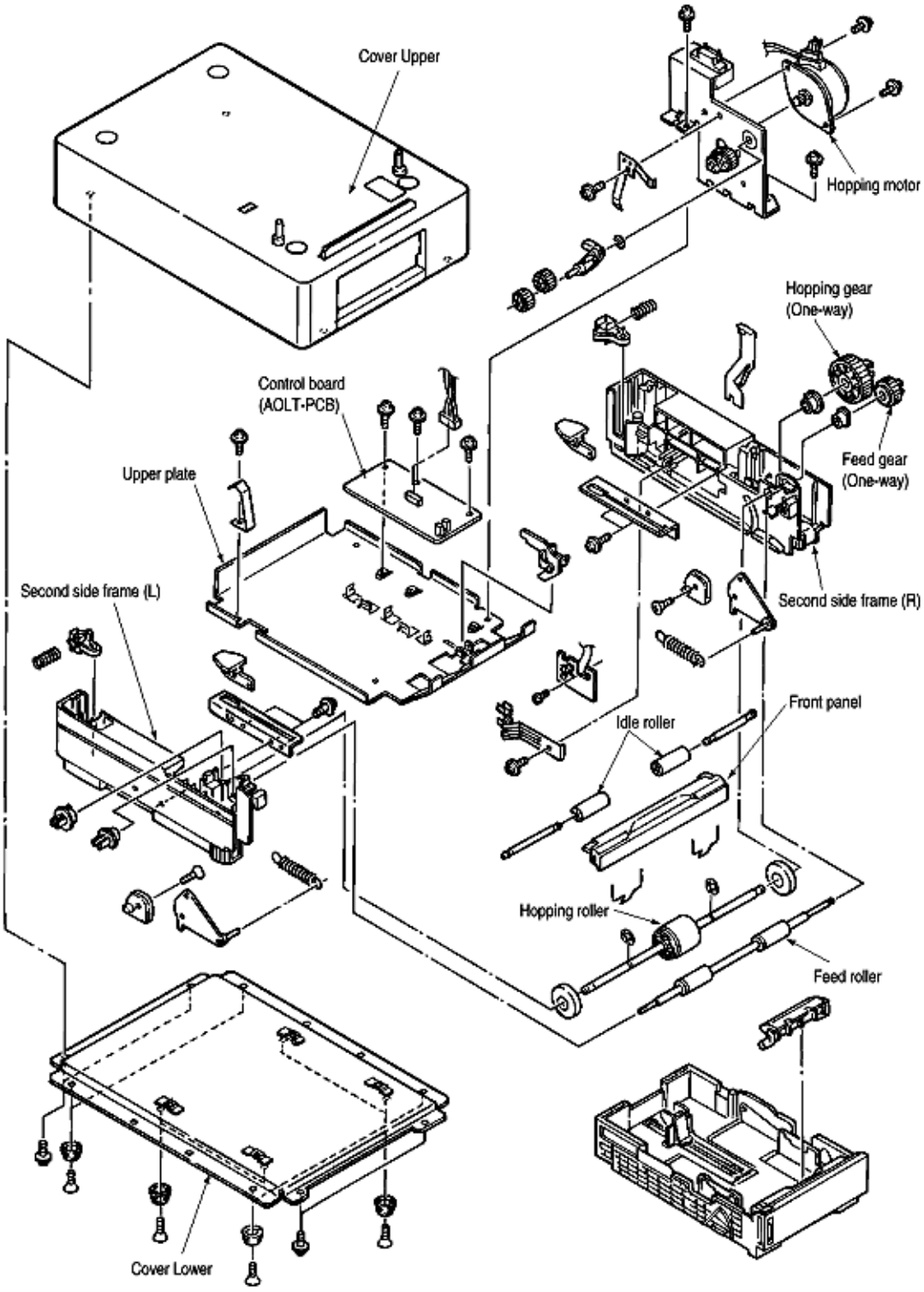
(7) When handling printed circuit boards, do not use any glove which may generate static electricity.

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

No.	Service Tools		Q'ty	Place of use	Remarks
1		No. 1-100 Philips screwdriver	1	2~2.5 mm screws	
2		No. 2-100 Philips screwdriver	1	3~5 mm screws	
3		No. 3-100 screwdriver	1		
4		No. 5-200 screwdriver	1		
5		Digital multimeter	1		
6		Pliers	1		
7		Handy cleaner	1		
8		Connector remover	1	OKI P/N: 4PP4076-5395P1	

3.2 Parts Layout

This section describes the layout of the main components.



3.3 Parts Replacement Methods

This section describes the parts replacement methods for the components listed in the disassembly order diagram below.

Idle rollers (3.3.1)

AOLT-PCB (3.3.2)

Hopping motor (3.3.3)

Feed roller (3.3.4)

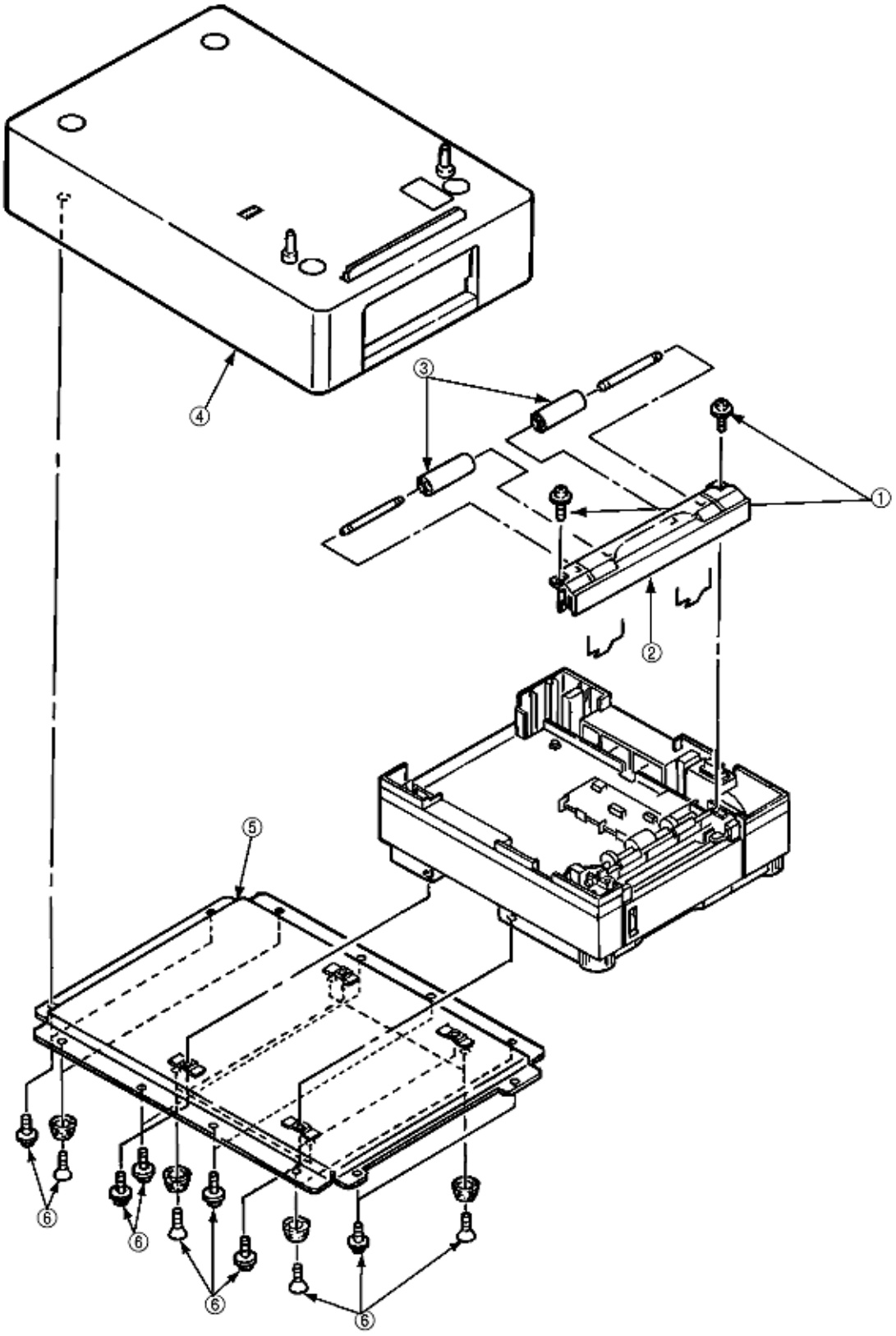
Hopping roller (3.3.5)

Side frame (L) assy (3.3.6)

Side frame (R) assy (3.3.7)

3.3.1 Idle rollers

(1) Remove 16 screws 6 and remove Cover Upper 4 and Cover Lower 5.
(1) Remove two screws 1 and remove the front panel assy 2.
(2) Remove two idle rollers 3.


①
②
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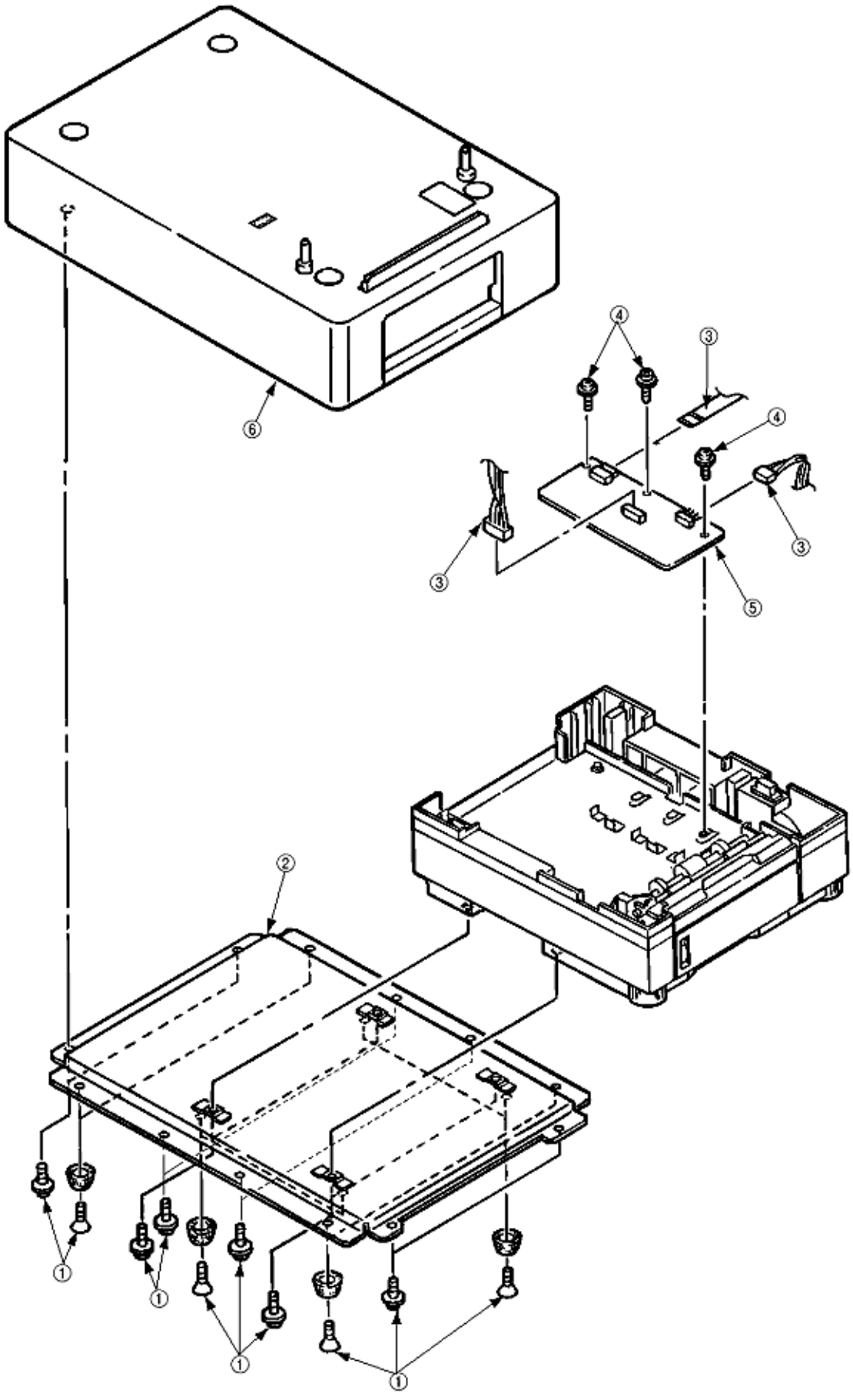
⑥
⑥

3.3.2 AOLT-PCB

(1) Remove 16 screw (1) and remove the Cover Lower (2), Cover Upper (6).

(2) Remove three connectors (3) and three screws (4).

(3) Remove the AOLT-PCB (5).


⑥
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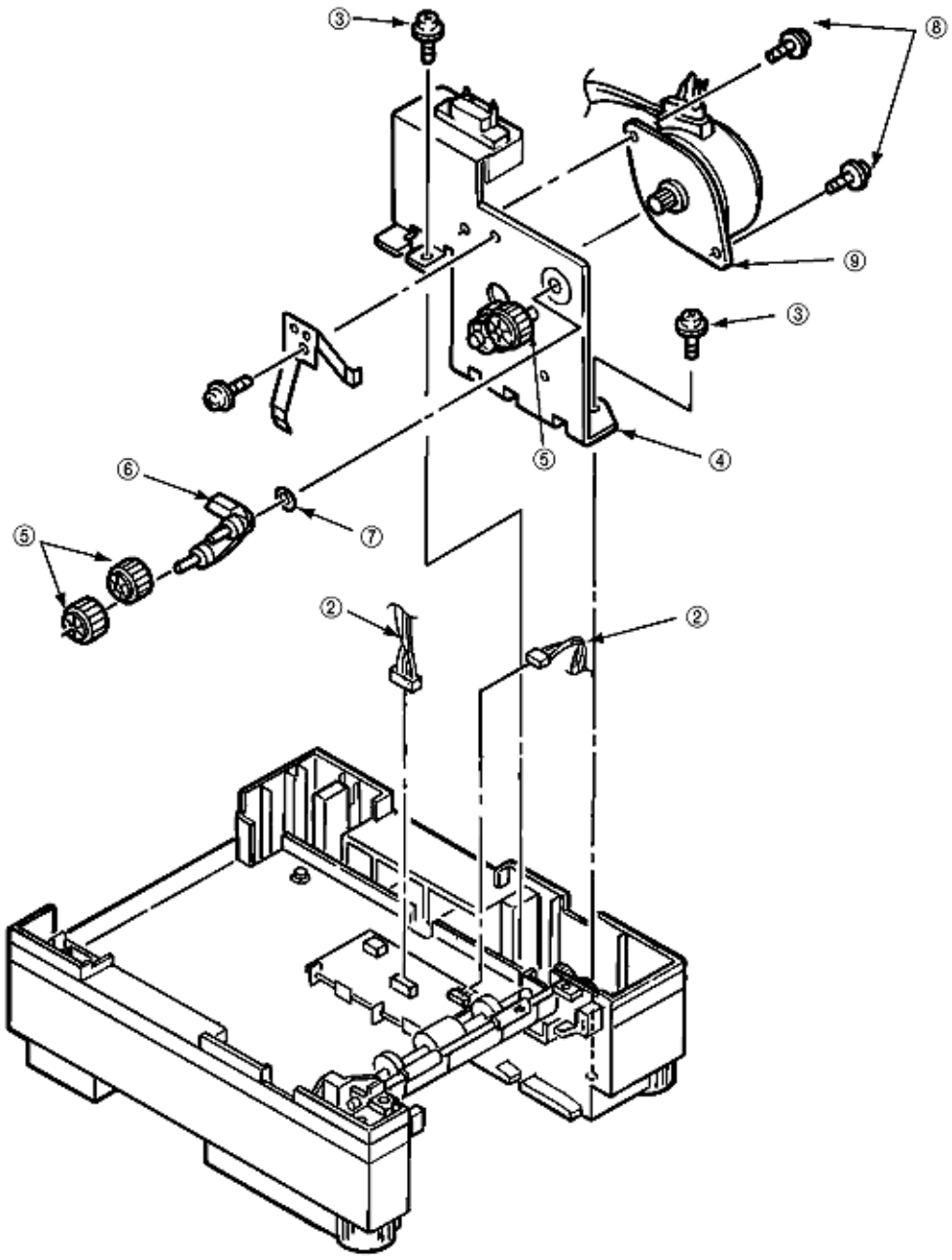
3.3.3 Hopping motor

(1) Remove the Cover Upper and Cover Lower (see 3.3.1 step 1).

(2) Remove the front panel assy (see 3.3.1 step 2).

(3) Remove two connectors (2) and two screws (3), then remove the hopping motor assy (4). Three gears (5) and the connecting lever (6), as well as the wave washer (7) all come off at the same time, so be careful not to lose them.

(4) Remove two screws (8) and remove the hopping motor (9).



3.3.4 Feed roller

(1) Remove 16 screws and remove Cover Upper and Cover Lower (see 3.3.1 step1).

(2) Remove the front panel assy (see 3.3.1 step2).

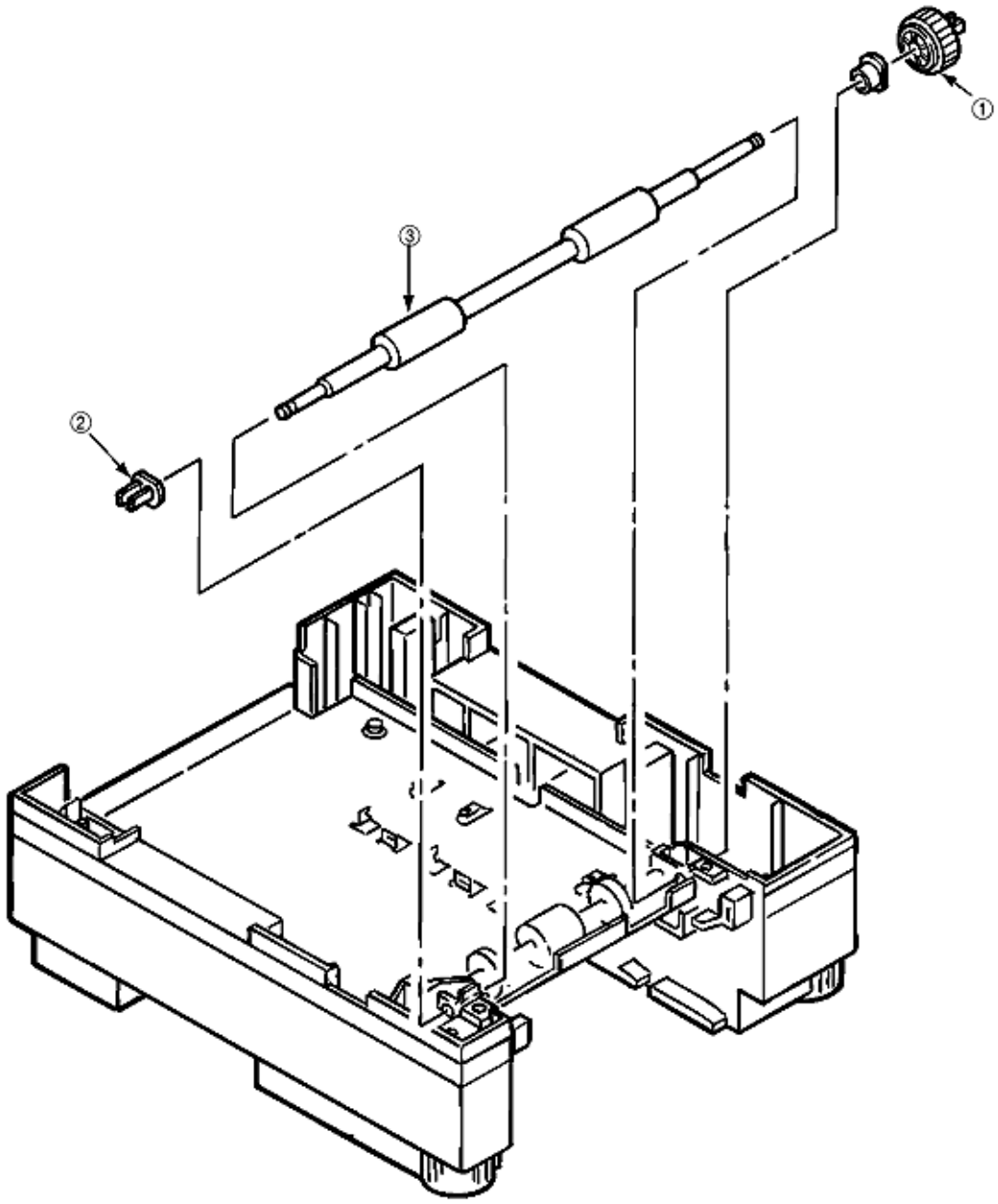
(3) Remove the AOLT-PCB (see 3.3.2).

(4) Remove the hopping motor assy (see 3.3.3).

(5) Remove the latch on the feed roller gear (1) and remove the feed roller gear (1).

(6) Remove the latch on the feed roller bearing (2) and remove the feed roller bearing (2).

(7) Shift the feed roller (3) to the right side and lift it out, holding it on the left side.



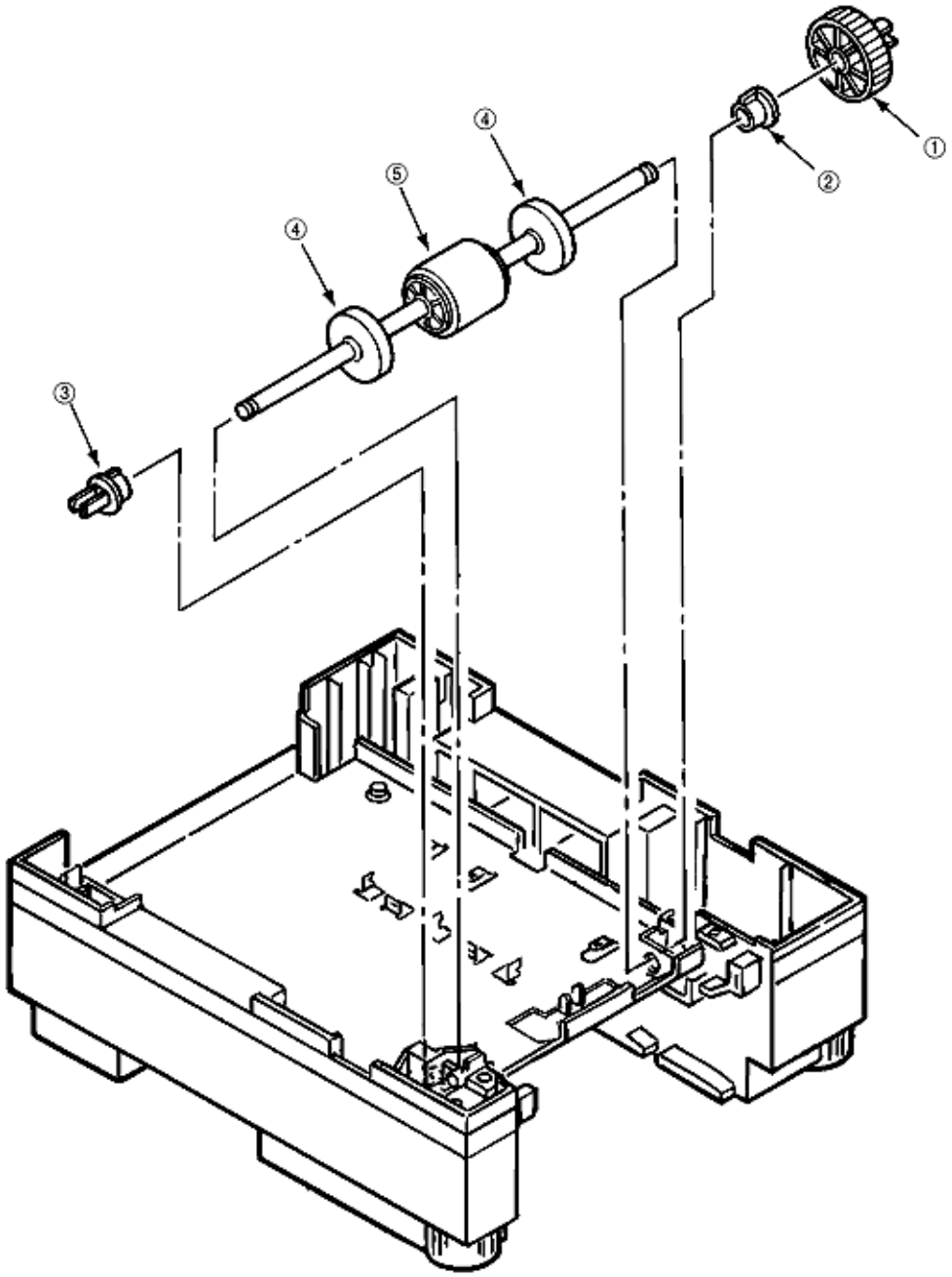
3.3.5 Hopping roller

(1) Remove the feed roller (see 3.3.4).

(2) Remove the latch on the hopping roller gear 1 and remove the hopping roller gear 1. The bearing F (2) comes off at the same time, so be careful not to lose it.

(3) Remove the latch on bearing L (3) and remove the bearing L (3).

(4) Remove the hopping roller (sub) (4) and remove the hopping roller rubber (5) from it.



3.3.6 Side frame (L) assy

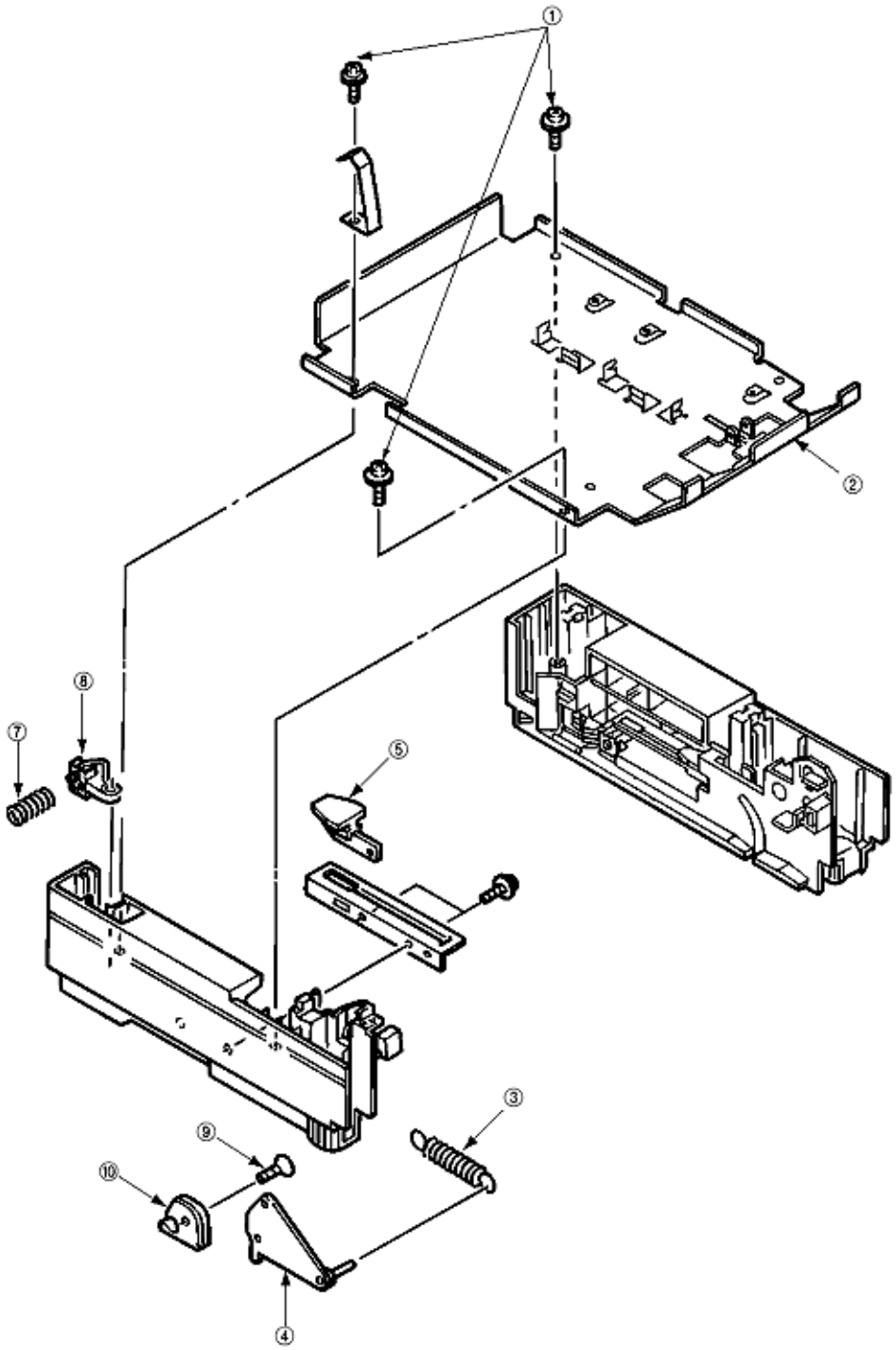
(1) Remove the hopping roller (see 3.3.5).

(2) Remove three screws (1) and remove the upper plate (2).

(3) Remove the cassette lock spring (3), link (4), pull block (5) (note the directions of the hooks of the cassette lock spring (3)).

(4) Remove the spring (7) and cassette stopper (8).

(5) Remove the screw (9) and remove the link support (10).



3.3.7 Side frame (R) assy

(1) Remove the hopping roller (see 3.3.5).

(2) Remove three screws (1) and remove the upper plate (2).

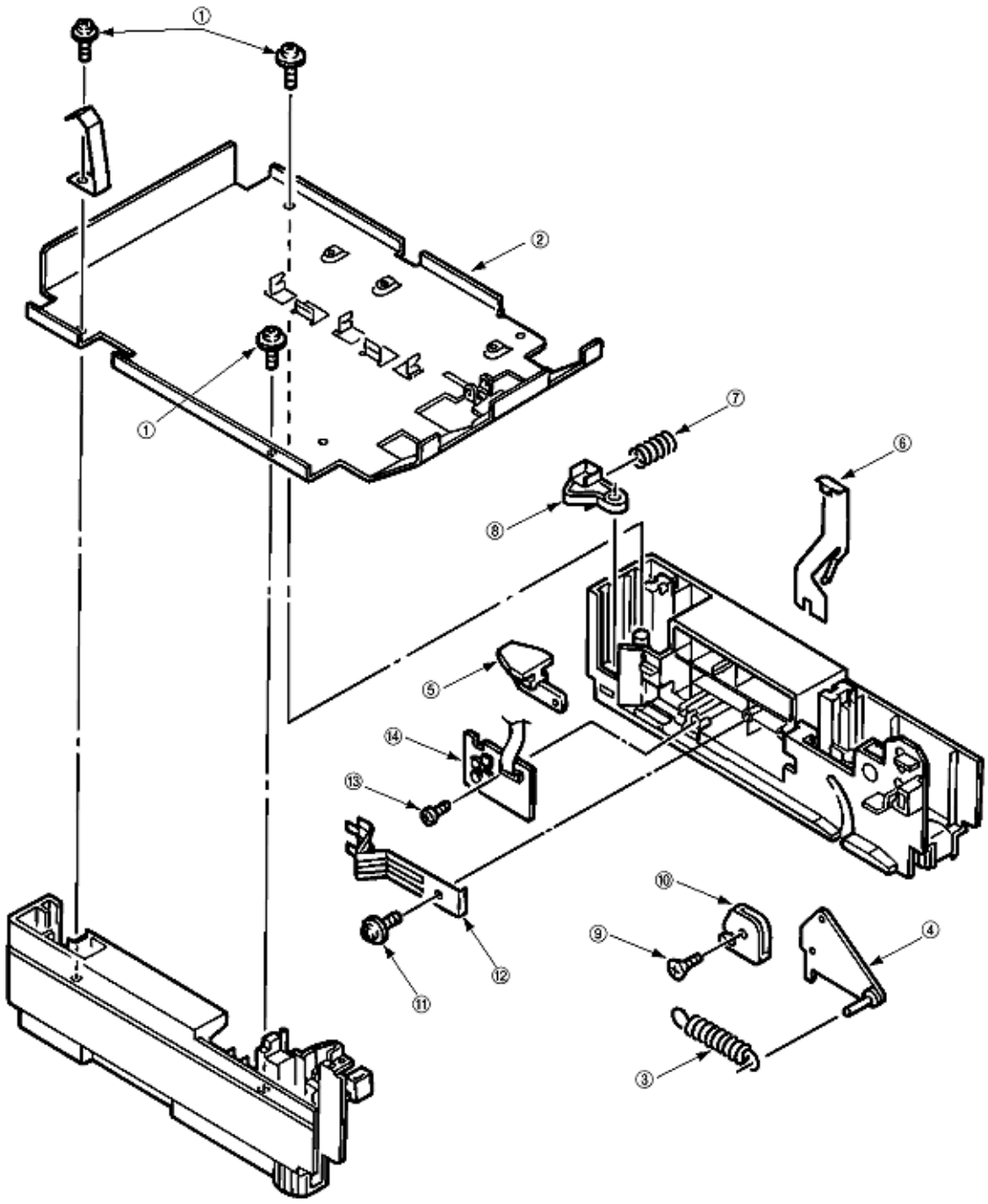
(3) Remove the cassette lock spring (3), link (4), pull block (5) and earth plate (6) (note the directions of the hooks of the cassette lock spring 3).

(4) Remove the spring (7) and remove the cassette stopper (8).

(5) Remove the screw (9) and remove the link support (10).

(6) Remove the screw (11) and remove the detector spring (12).

(7) Remove the screw (13) and remove the AOLD-PCB (14).



4.0 Troubleshooting

4.1 Precautions Prior to the Troubleshooting

4.2 Preparations for the Troubleshooting

4.3 Troubleshooting Method

4.3.1 LCD Status Message List

4.1 Precautions Prior to the Troubleshooting

(1) Go through the basic checking items provided in the Printer Handbook.

(2) Obtain detailed information concerning the problem from the user.

(3) Check in conditions similar to that in which the problem occurred.

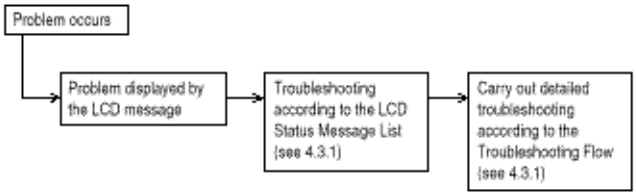
4.2 Preparations Prior to the Troubleshooting

(1) Display on the Operator panel

The status of the problem is displayed on the LCD (Liquid Crystal Display) on the Operator panel. Go through the appropriate troubleshooting procedures according to the messages displayed on the LCD.

4.3 Troubleshooting Method

When a problem occurs, go through the troubleshooting according to the following procedure.



4.3.1 LCD Status Message List

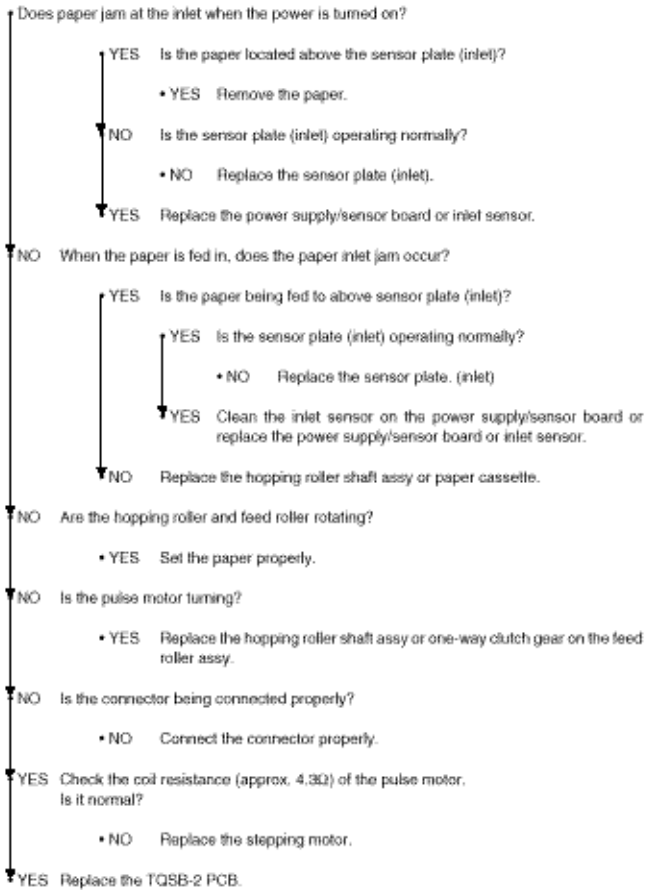
The listing of the statuses and problems displayed in the form of messages on the LCD is provided in Table 4-1.

Table 4-1

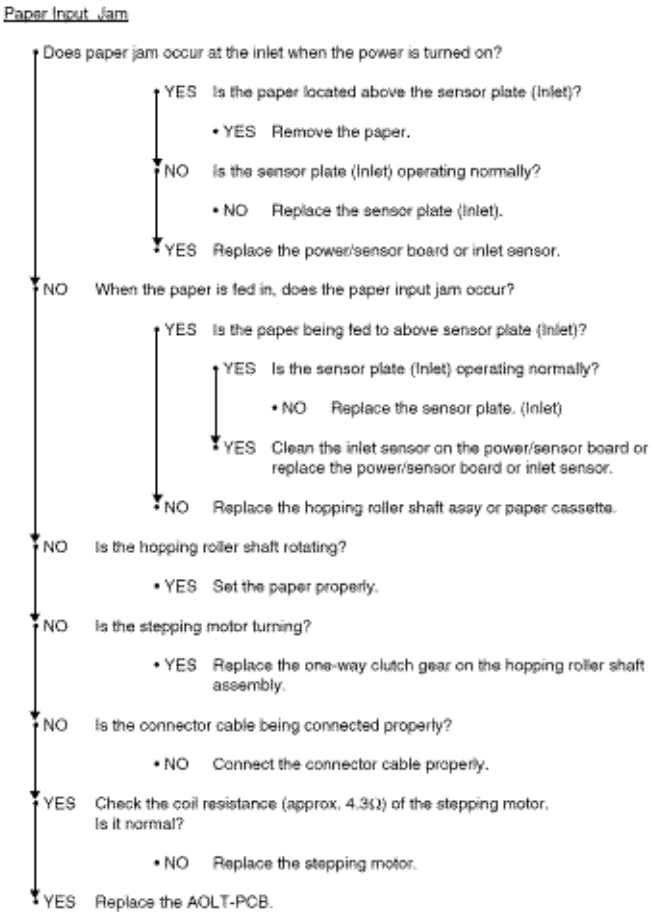
Classification	LCD Status Message	Description	Recovery method
Jam error (feeding)	TRAY2 FEED JAM	Notifies of occurrence of jam while the paper is being feed from High Capacity Second Paper Feeder.	- Check the paper in the High Capacity Second Paper Feeder. carry out the recover printing by opening and closing the cover, and turn the error display off. - When the problem occurs frequently, go through the Troubleshooting.
Jam error (ejection	TRAY2 EXIT JAM	Notifies of occurrence of jam while the paper is being ejected from the printer.	- Check the paper in the printer. Carry out the recovery printing by opening and closing the cover, and turn the error display off.
Paper size error	TRAY2 EXIT JAM	Notifies of incorrect size paper feeding from High Capacity Second Paper Feeder.	- Check the paper in the High Capacity Second Paper Feeder. Also check to see if there was a feeding of multiple sheets. Carry out the recovery printing by opening and closing the cover, and turn the error display off.
Tray paper out	TRAY2 PAPEROUT	Notifies of no paper state of the High Capacity Second Paper Feeder.	- Load the paper in High Capacity Second Paper Feeder.
Paper size request	TRAY2 OOOREQUEST OOO : Papre size (A4, Letter, Legal, etc.)	Notifies of correct paper size for the High Capacity Second Paper Feeder.	- Load the requested size in the High Capacity Second Paper Feeder.

- **(JAM error)**

Paper Inlet Jam



4.3.2 Troubleshooting Flow

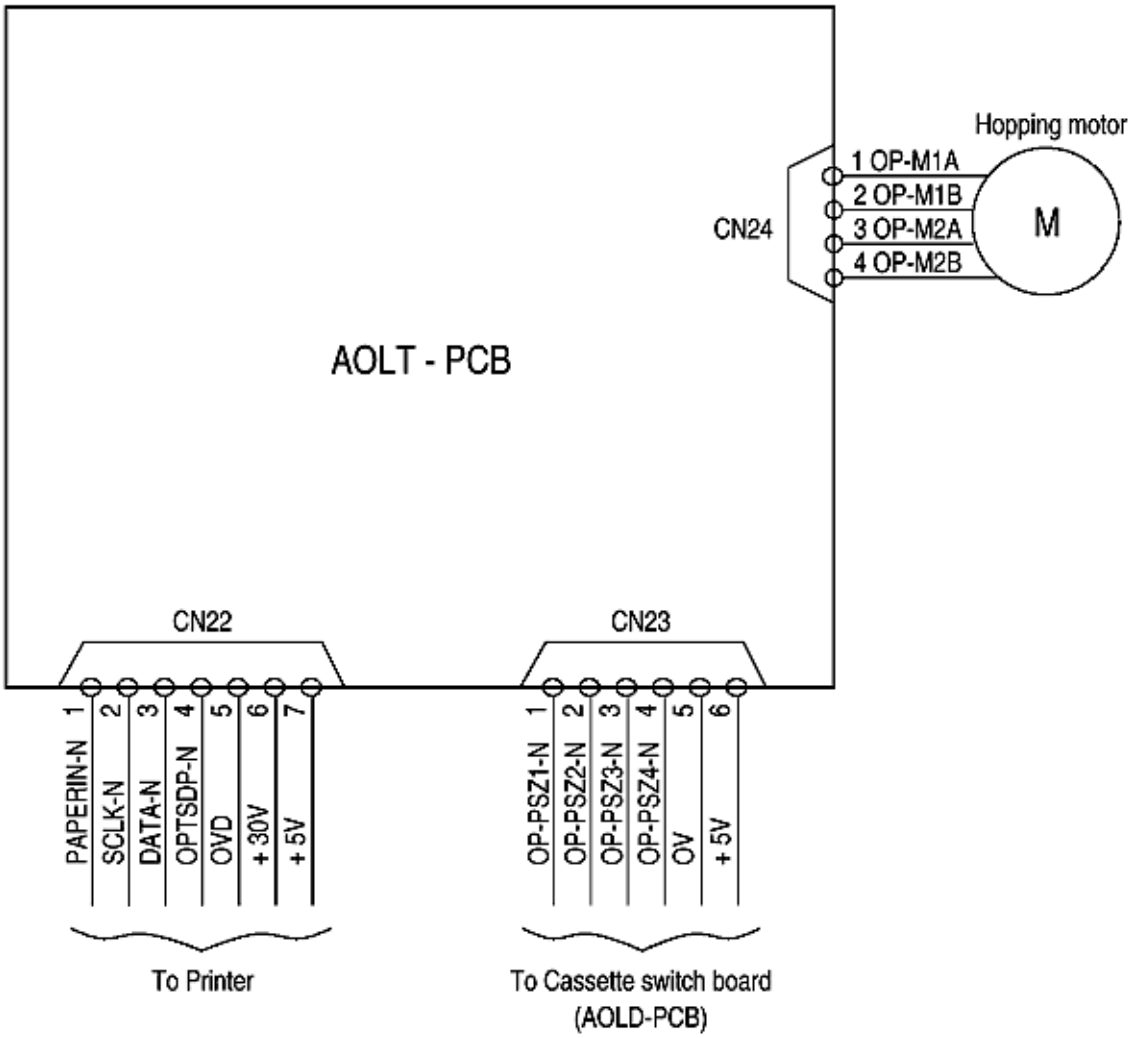


5.0 CONNECTION DIAGRAM

5.1 Interconnection Diagram

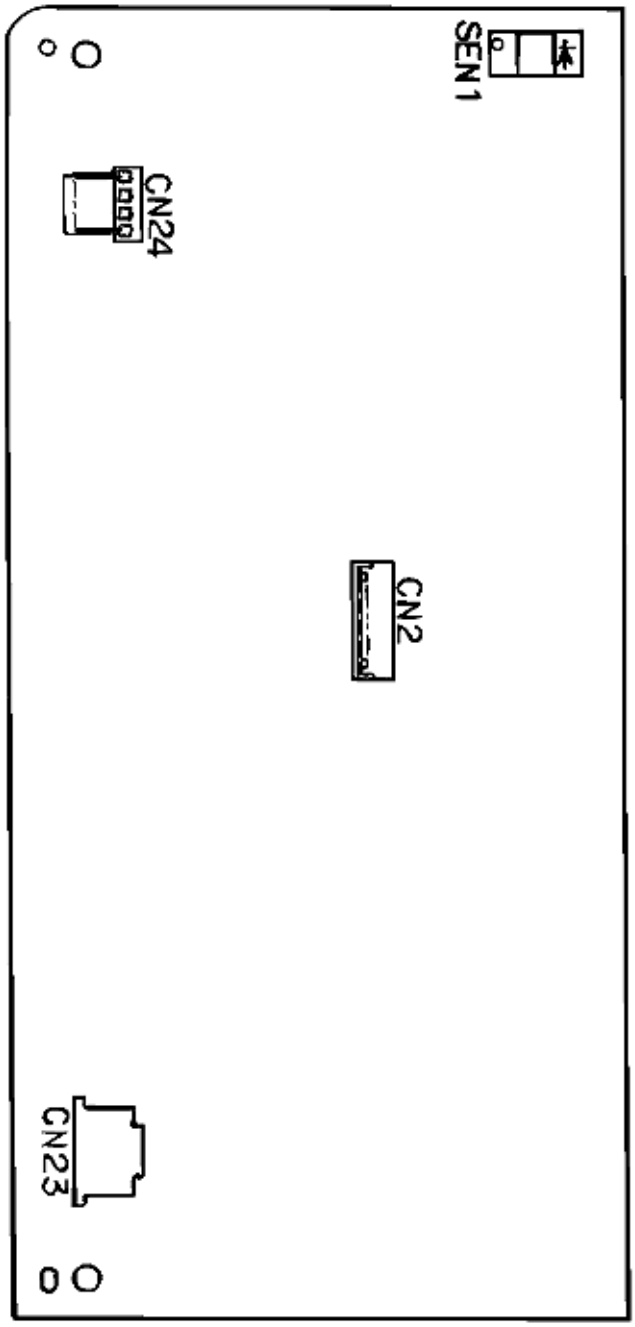
5.2 PCB Layout

5.1 Interconnection Diagram



5.2 PCB Layout

TQSB-2 PCB



6. PARTS LIST

High Capacity Second Paper Feeder

2nd Tray Assembly

High Capacity Second Paper Feeder

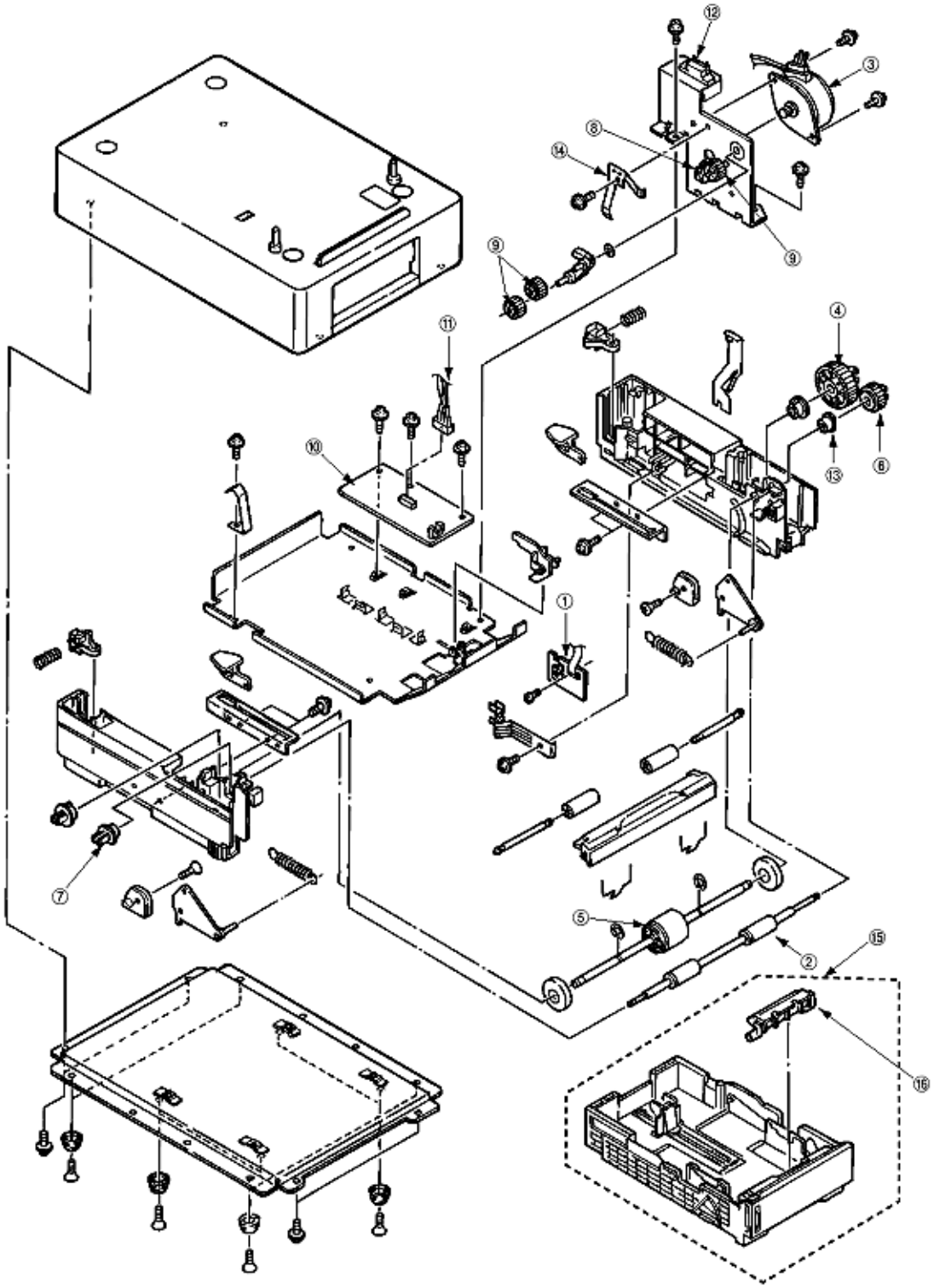
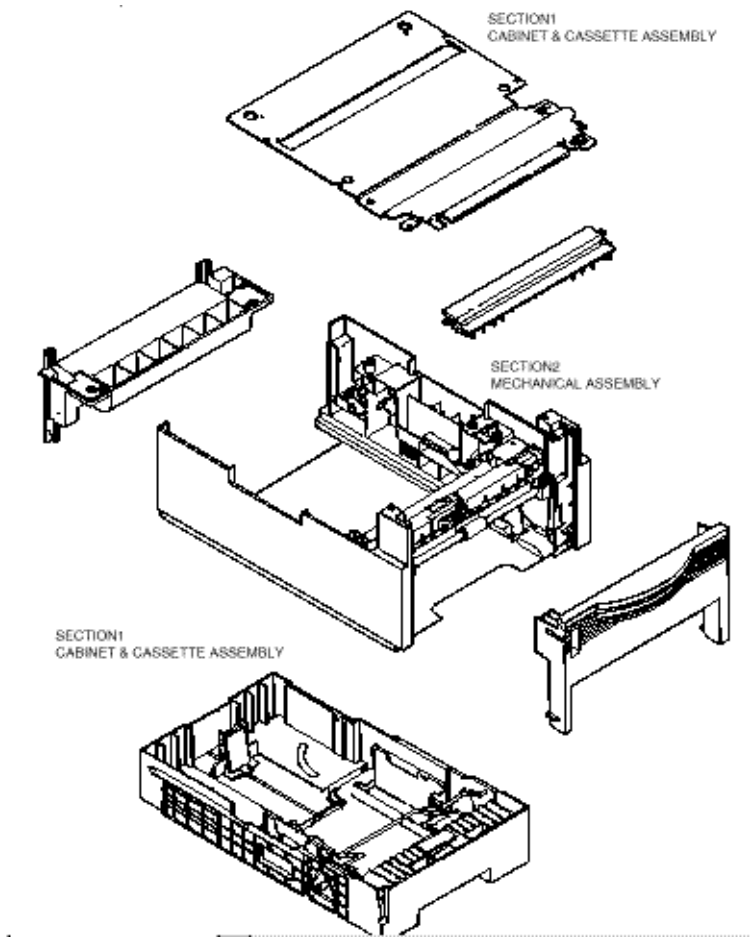


Table 6-1 High Capacity Second Paper Feeder

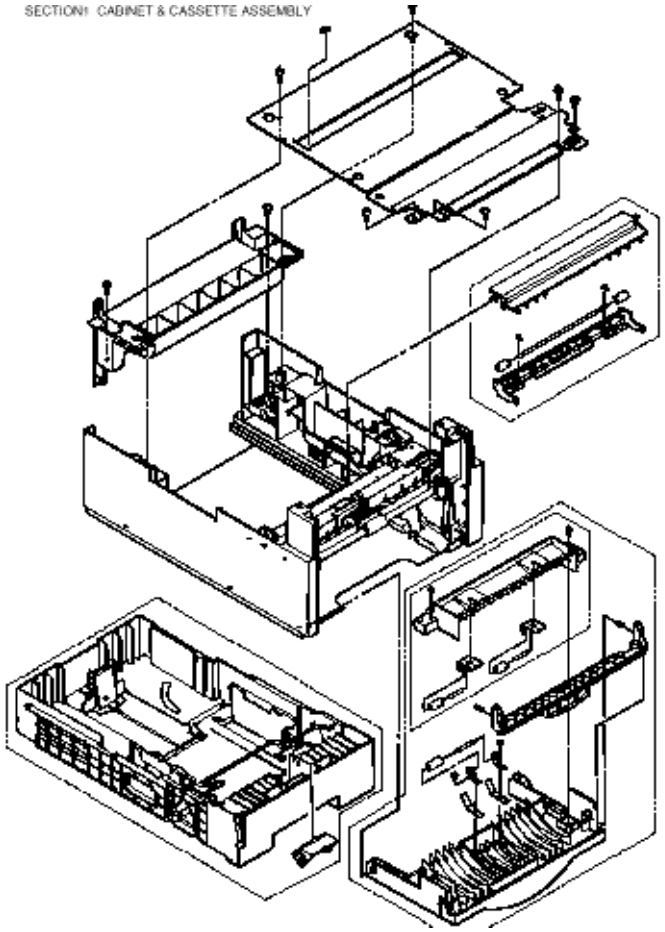
No.	Description	OKI-J Part #	Qty
1	AOLD-PCB	-	1
2	Feed roller	56408701	1

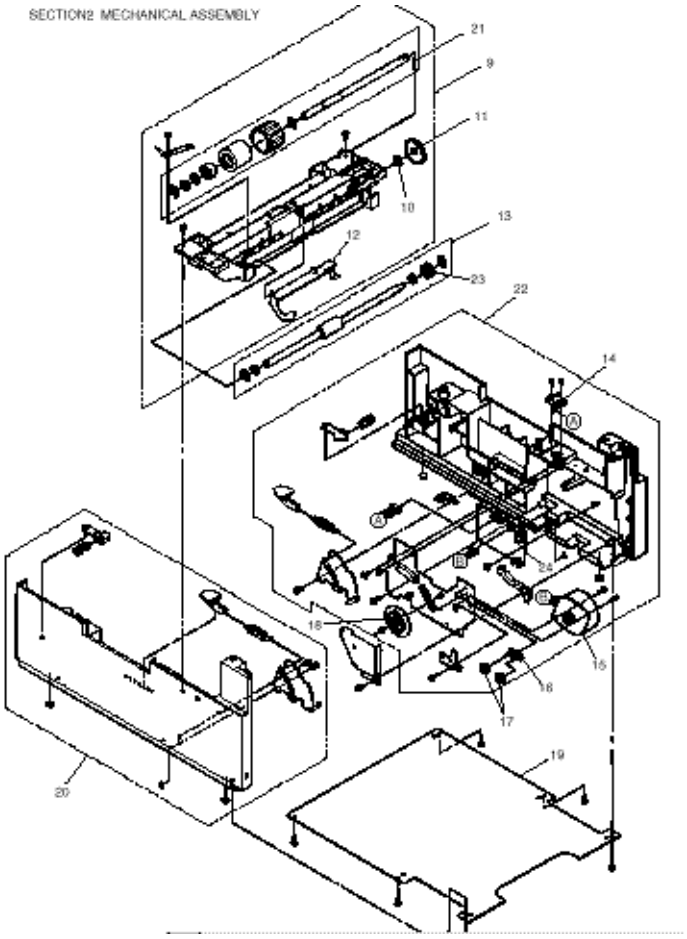
3	Hopping motor	56511901	1
4	Hopping gear	51235001	1
5	Hopping roller assy	50407901	1
6	Feed roller gear	-	1
7	Feed roller bearing	-	1
8	Feed idle gear	51235201	1
9	Planet gear	51235301	3
10	AOLT-PCB	55077511	1
11	Connector Cord	56730803	1
12	Square-shaped connector	56730803	1
13	Bush	56730641	1
14	Shaft earth plate	53346801	1
15	Paper cassette assy	40744401	1
16	Separator frame assy	40607701	1

2nd Tray Assembly



SECTION1 CABINET & CASSETTE ASSEMBLY





No.	Description	OKI Part No.	Qty/U	500	1000
1	Plate, upper	1PP4122-1401P001	1	3	5
2	Sheet guide assembly	3PA4122-1370G001	1	3	5
3	Front cover assembly	1PA4122-1369G001	1	3	5
4	Inner guide assembly	3PA4122-1371G001	1	3	5
5	Cassette assembly (2nd tray)	1PA4122-1362G004	1	3	6
6	Separation frame assembly	4PP4120-1009G001	1	6	12
7	Cover, rear	1PA4122-1323P001	1	3	5
8	Stick finger	4PB4122-1441P001	1	3	5
9	Hopping flame assembly	1PA4122-1366G001	1	3	6
10	Bush, metal (ADF)	4PP3522-3568P001	1	3	5
11	Gear (z70)	4PP4122-1207P001	1	3	5
12	Lever, sensor (p)	3PP4122-1331P001	1	3	5
13	Feed roller assembly	3PA4122-1393G001	1	3	5
14	Cable & connector	3YS4111-3528P001	1	3	5
15	Stepping motor	3PB4122-1399P001	1	3	6
16	Bracket	4PP4122-1384G001	1	3	5
17	Gear (z24)	4PP4122-1383P001	2	3	5
18	Gear (z87/z60)	4PP4122-1226P001	1	3	5
19	Plate, bottom	2PP4122-1389P001	1	3	5
20	2nd cassette guide (L) assy	1PA4122-1365G001	1	3	6
21	Hopping roller assembly	3PA4122-1367G001	1	3	6
22	2nd cassette guide (R) assy	1YX4122-1364G002	1	3	6

23	One-way clutch gear	4PB4122-1382P001	1	6	12
24	TQSB-2 PCB	4YA4046-1651G002	1	3	6