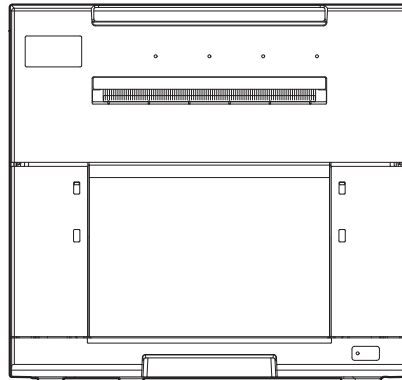


# Service Manual

**TENTATIVE**

DIGITAL COLOR PRINTER

MODEL  
**ASK-500**

This model is RoHS-compliant.  
Provide servicing referring to “NOTES  
FOR SERVICING RoHS-COMPLIANT  
PRODUCTS” described in the service  
manual.

**(Pb) Solder, (Pb) Joints, (Pb) PCA**

This product uses lead-free solder  
on the circuit boards. For repairing  
circuit boards, see "Precautions for  
resoldering" in this Service Manual.

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## CAUTION

Before servicing this chassis, it is important that the service person reads the “SAFETY PRECAUTIONS” and “PRODUCT SAFETY NOTICE” in this service manual.

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# NOTES FOR SERVICING RoHS-COMPLIANT PRODUCTS

Follow the notes and instructions below when servicing RoHS-compliant products.

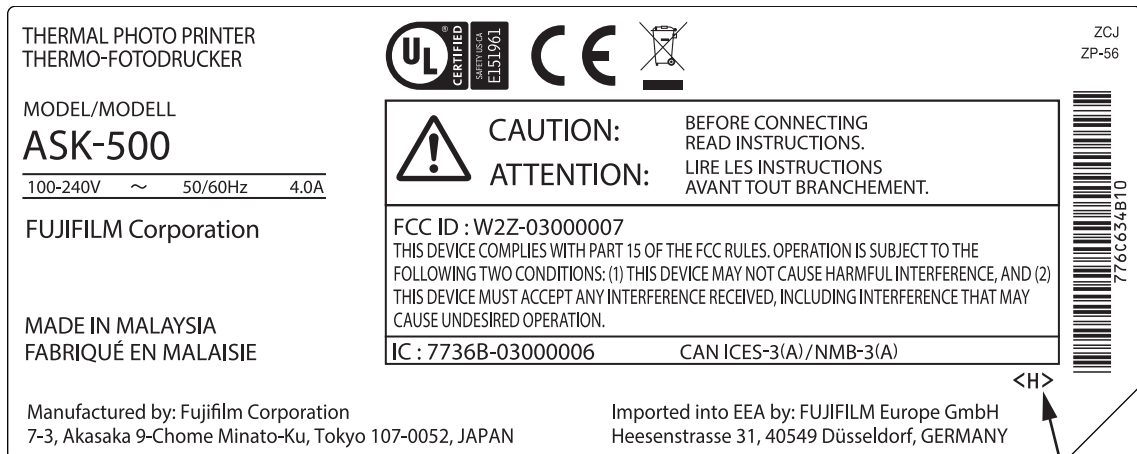
1. For RoHS-compliant products, be sure to use RoHS-compliant service parts.
2. Check the presence of <H> marking on the rating plate to distinguish RoHS-compliant product from non-RoHS-compliant product.

## <H> marking

With <H> marking: RoHS-compliant product

Without <H> marking: Non-RoHS-compliant product

## <Sample>



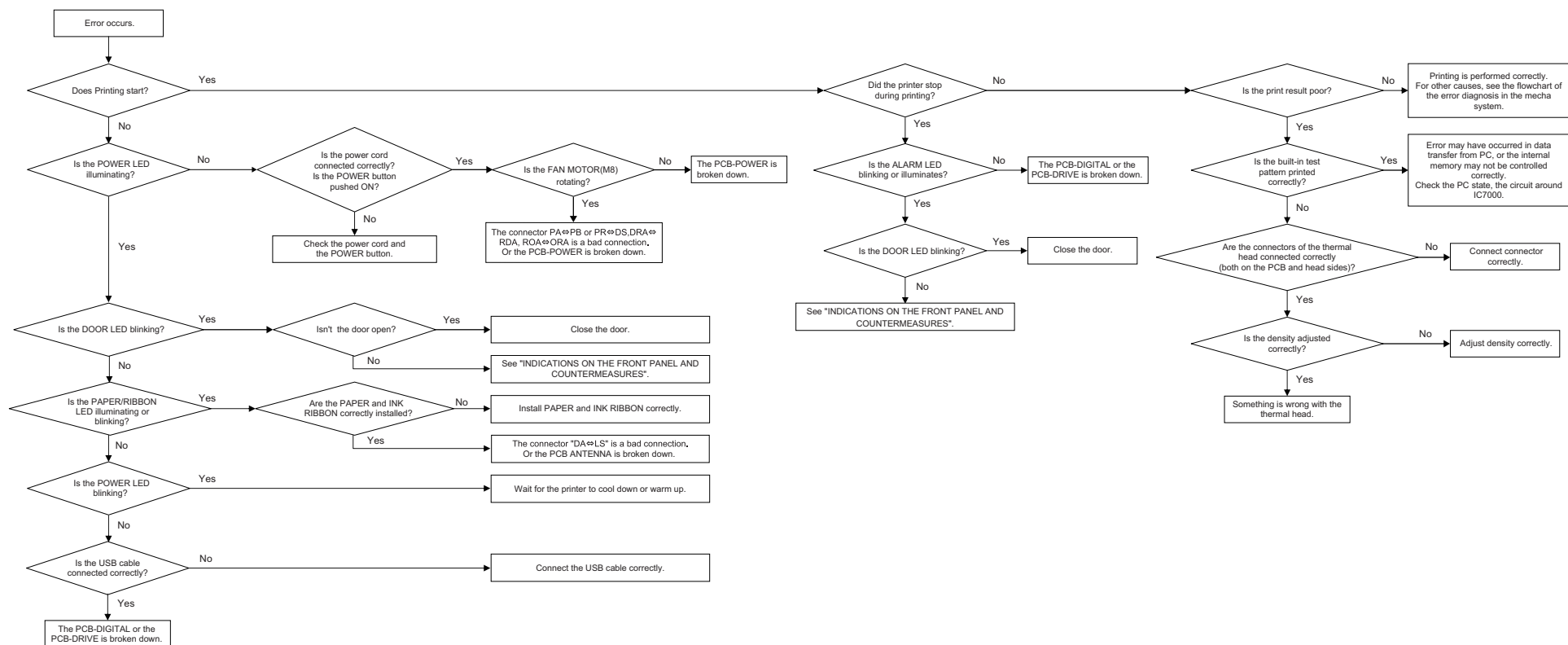
## SPECIFICATIONS

|                            |                                                                                                                                                       |                                  |                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------|
| • <b>Power Supply</b>      | : AC 100 - 240V 50/60Hz                                                                                                                               | • <b>Gradations</b>              | : 256 (8 bits) for each color                 |
| • <b>Power Consumption</b> | : 4A                                                                                                                                                  | • <b>Printing Size</b>           | : 9×13 (3.5×5")<br>89 × 127mm (without frame) |
| • <b>Printing Method</b>   | : Sublimation Dye Thermal Transfer line print<br>3 color faces progressive printing (yellow, magenta, and cyan) and surface lamination                |                                  | : 10×15 (4×6")<br>102 × 152mm (without frame) |
| • <b>Print's quality</b>   | : 300×300 DPI<br>(DPI: Dots per inch)                                                                                                                 |                                  | : 13×18 (5×7")<br>127 × 178mm (without frame) |
| • <b>Dot resolution</b>    | : 9×13 (3.5×5")<br>1082 × 1550 dots<br>: 10×15 (4×6")<br>1232 × 1852 dots<br>: 13×18 (5×7")<br>1550 × 2134 dots<br>: 15×20 (6×8")<br>1852 × 2434 dots | • <b>Supply method</b>           | : Automatic                                   |
|                            |                                                                                                                                                       | • <b>Interface</b>               | : Hi-Speed USB (Ver. 2.0)                     |
|                            |                                                                                                                                                       | • <b>Installation conditions</b> | : Operating attitude : Horizontal ±5°         |
|                            |                                                                                                                                                       | • <b>Outside dimensions</b>      | : 300 (W) × 350 (D) × 281 (H) mm              |
|                            |                                                                                                                                                       | • <b>Weight</b>                  | : Approx. 14 kg                               |

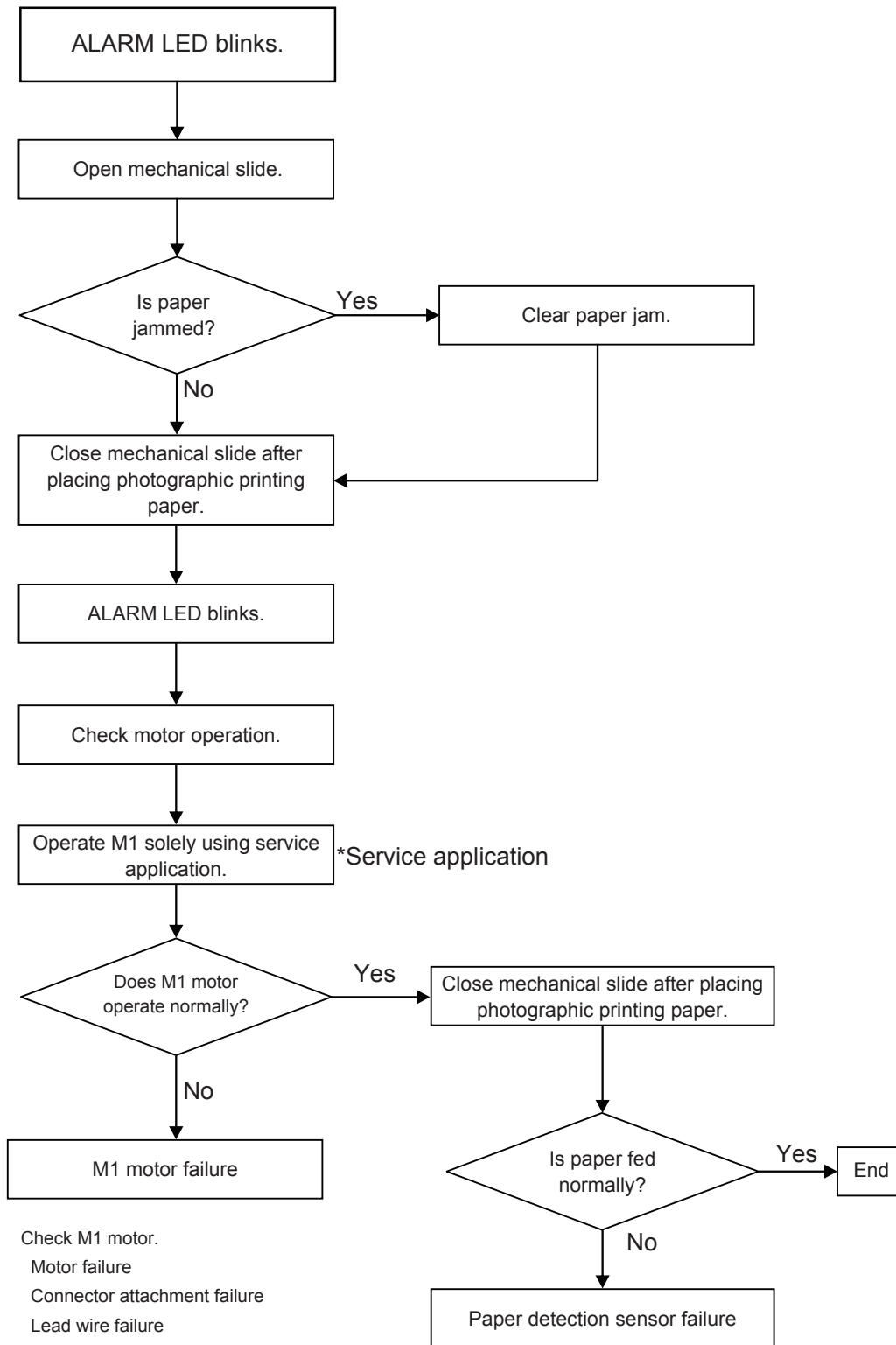
- Weight and dimensions shown are approximate.
- Design and specifications are subject to change without notice.

# ERROR DETECTION FLOW CHART

■Flowchart of the error diagnosis in the electrical system



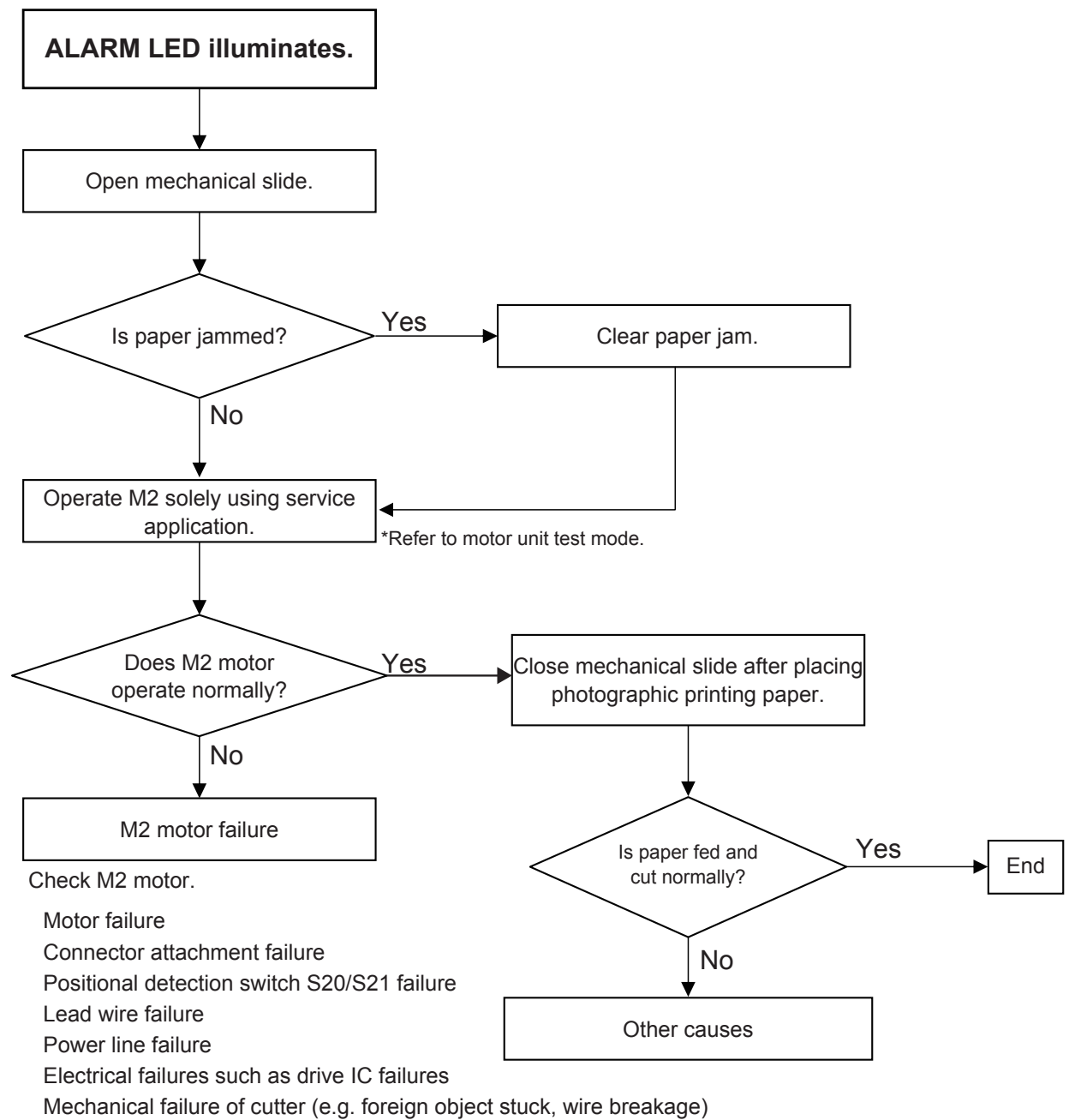
# 1. Flow Chart of Paper Transfer and Feeding System (M1 Motor)



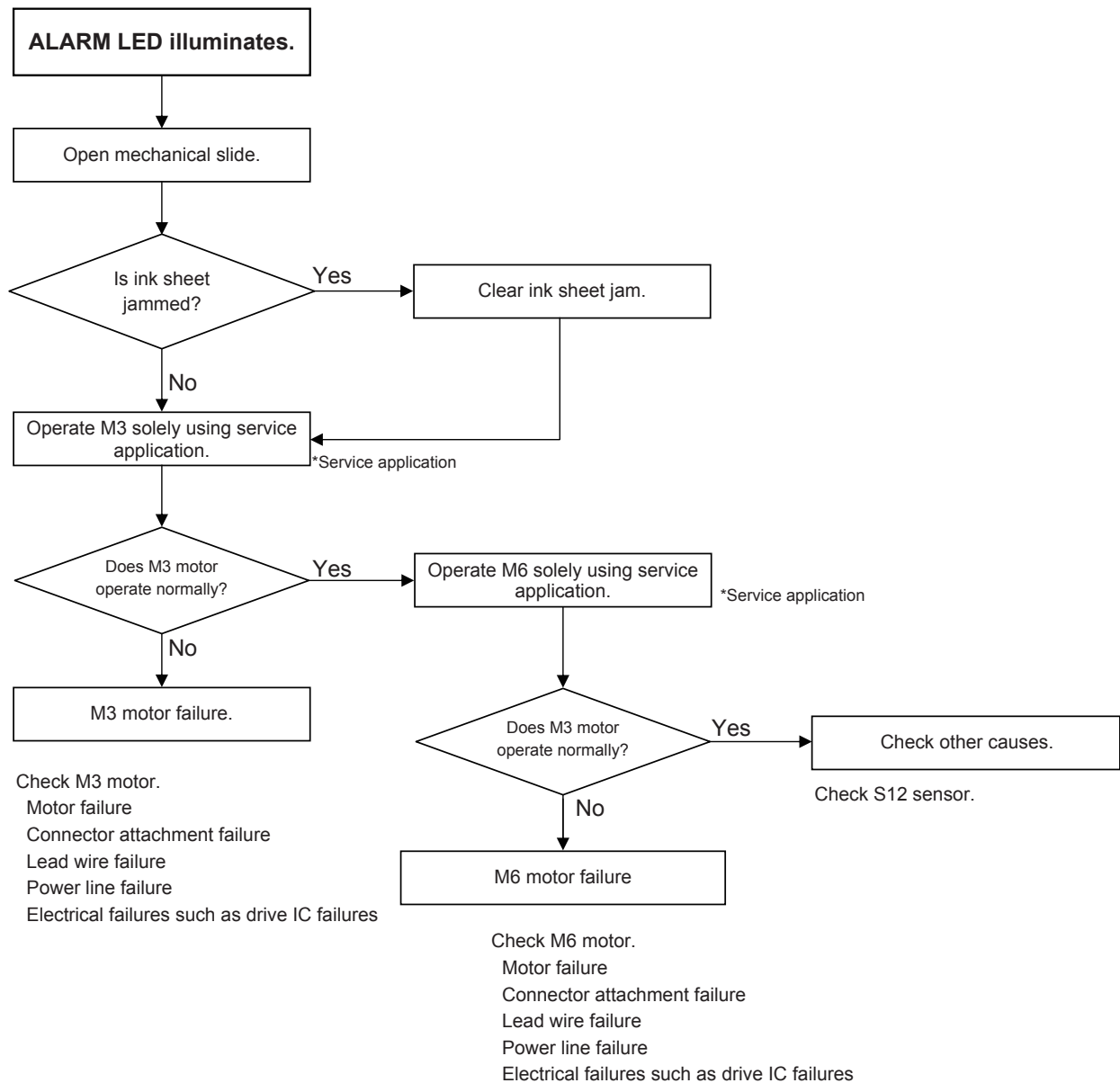
Check M1 motor.  
 Motor failure  
 Connector attachment failure  
 Lead wire failure  
 Power line failure  
 Electrical failures such as drive IC failures

Check S1 and S3 sensors.  
 - Sensor failure  
 - Sensor contamination  
 - Connector attachment failure  
 - Lead wire failure  
 - Power line failure

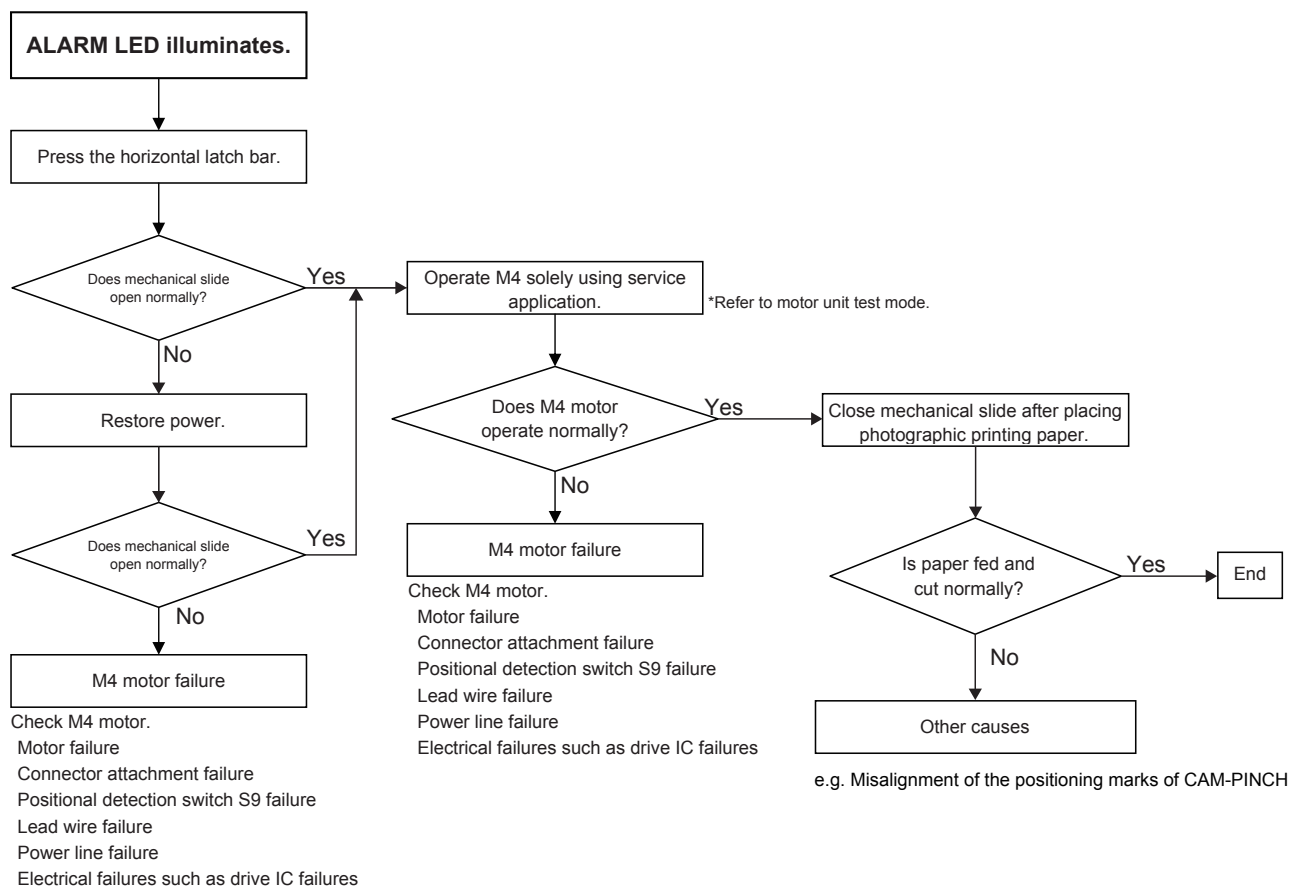
## 2. Flow Chart of Cutter System (M2 Motor)



### 3. Flow Chart of Ink Sheet Drive System (M3/M6 Motor)



4. Flow Chart of Pinch Pressure Bonding/Platen Pressure Bonding (M4 Motor)



# ERROR CODE

| Priority | Mode                                                      | Detail                                                                                                                              | DLL ERROR CODE |                          | ERROR DETAIL INFORMATION(HEX)<br>Stored"detail2"parameter |   |                  |   | ERROR RECOVERY CONDITIONS                  |
|----------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|-----------------------------------------------------------|---|------------------|---|--------------------------------------------|
|          |                                                           |                                                                                                                                     | No.            | Error Item               | ERROR CODE Upper                                          |   | ERROR CODE Lower |   |                                            |
| Low      | No Error                                                  |                                                                                                                                     | 0              | Error_NoError            | 0                                                         | 0 | 0                | 0 |                                            |
|          | Over heat(No error on printer)                            |                                                                                                                                     | 1011           | Error_HeatError 1)       | -                                                         | - | -                | - | Cooling completed                          |
|          | No ink ribbon                                             | Can not detect the ink ribbon                                                                                                       | 1015           | Error_SheetCassetIllegal | 2                                                         | 1 | 9                | 0 | "Reinsert the ink sheet<br>Media exchange" |
|          | No paper                                                  | Can not detect the paper                                                                                                            | 1002           | Error_PaperEnd           | 2                                                         | 2 | 0                | 0 | Media exchange                             |
|          |                                                           | Ink remaining count is zero.                                                                                                        | 1017           | Error_SheetRemain        | 2                                                         | 1 | 0                | 0 | Media exchange                             |
|          | Out of residual the ink ribbon                            | While the remaining count is 1 (half patch of ribbon remains after rewind), image data requiring the remaining count 2 is received. | 1017           | Error_SheetRemain        | 2                                                         | 1 | 1                | 0 | Media exchange                             |
|          | Illegal ink ribbon                                        | Unusable Ink ribbon                                                                                                                 | 1014           | Error_UnusableSheet      | 2                                                         | 6 | *                | * | Media exchange                             |
|          | Mismatch between the ink ribbon size and the picture size | Pixels of Image data set by PC is not suitable for a loaded ribbon size.                                                            | 1008           | Error_PaperSizeIllegal   | 2                                                         | 3 | 9                | 0 | Media exchange                             |
|          | Paper end                                                 | End hole on the paper is detected.                                                                                                  | 1016           | Error_PaperRemain        | 2                                                         | 2 | 0                | 2 | Media exchange                             |
|          |                                                           | Yellow ribbon front edge cannot be detected due timeout.                                                                            | 1001           | Error_SheetEnd           | 2                                                         | 1 | 2                | 0 | Media exchange                             |
|          |                                                           | Yellow ribbon front edge cannot be detected due to stop of ink rotation.                                                            | 1001           | Error_SheetEnd           | 2                                                         | 1 | 3                | 0 | Media exchange                             |
|          | Door open                                                 | Door open is detected while mecha is not operating.                                                                                 | 1013           | Error_DoorOpen           | 2                                                         | 9 | 0                | 0 | Unit closed                                |
|          | No paper strip bin                                        | "No paper strip bin" is detected while mecha is not operating.                                                                      | 1111           | Error_NoScrapBox         | 2                                                         | 8 | 0                | 0 | Install of ScrapBox                        |
|          | Power OFF during printing                                 | Power off during printing was recorded at the last operation.                                                                       | - 2)           | -                        | 2                                                         | F | F                | * | Automatic Feed & Cut at power ON           |
|          |                                                           | Power off during initialization was recorded at the last operation.                                                                 | - 2)           | -                        | 2                                                         | F | E                | * | Automatic Feed & Cut at power ON           |
|          | Ink ribbon error                                          | During printing, front edge of M, C or OP is not detected for a certain period.                                                     | 1113           | Error_SheetError         | 3                                                         | 2 | 9                | 0 | Reinsert paper and ink sheet               |
|          |                                                           | Ink stopped during printing.                                                                                                        | 1004           | Error_SheetJam           | 3                                                         | 4 | 9                | 0 | Reinsert paper and ink sheet               |
|          |                                                           | Ink stopped during ink front edge detection process.                                                                                | 1113           | Error_SheetError         | 3                                                         | 1 | 9                | 0 | Reinsert paper and ink sheet               |
|          |                                                           | Ink rotation stopped while rewinding.                                                                                               | 1004           | Error_SheetJam           | 3                                                         | 5 | 9                | 0 | Reinsert paper and ink sheet               |
|          |                                                           | Ink spool diameter cannot be measured correctly.                                                                                    | 1113           | Error_SheetError         | 3                                                         | 7 | 9                | 0 | Reinsert paper and ink sheet               |
|          | Paper jam                                                 | Paper lead edge was not detected by S1 at ejection direction.                                                                       | 1003           | Error_PaperJam           | 4                                                         | 2 | 9                | 1 | Reinsert paper and ink sheet               |
|          |                                                           | Paper lead edge was not detected by S3 at ejection direction.                                                                       | 1003           | Error_PaperJam           | 4                                                         | 2 | 9                | 3 | Reinsert paper and ink sheet               |
|          |                                                           | Paper lead edge was not detected by S1 at printing direction.                                                                       | 1003           | Error_PaperJam           | 4                                                         | 4 | 9                | 1 | Reinsert paper and ink sheet               |
|          |                                                           | Paper lead edge was not detected by S3 at printing direction.                                                                       | 1003           | Error_PaperJam           | 4                                                         | 4 | 9                | 3 | Reinsert paper and ink sheet               |
|          |                                                           | Unexpected paper lead edge was detected by S1 at printing direction.                                                                | 1003           | Error_PaperJam           | 4                                                         | 3 | 9                | 1 | Reinsert paper and ink sheet               |

| Priority | Mode             | Detail                                                                                               | DLL ERROR CODE |                    | ERROR DETAIL INFORMATION(HEX)<br>Stored"detail2"parameter |   |                  |   | ERROR RECOVERY CONDITIONS    |
|----------|------------------|------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------------------------------|---|------------------|---|------------------------------|
|          |                  |                                                                                                      | No.            | Error Item         | ERROR CODE Upper                                          |   | ERROR CODE Lower |   |                              |
| Low      | Paper jam        | Unexpected paper lead edge was detected by S3 at printing direction.                                 | 1003           | Error_PaperJam     | 4                                                         | 3 | 9                | 3 | Reinsert paper and ink sheet |
|          |                  | S3 sensor status changed without paper move.                                                         | 1003           | Error_PaperJam     | 4                                                         | 0 | 9                | 3 | Reinsert paper and ink sheet |
|          | Mechanical error | M3 error                                                                                             | 1103           | Error_MechaError   | 7                                                         | * | 9                | 3 | Reinsert paper and ink sheet |
|          |                  | A target position (except Home) of M4 cam cannot be detected.                                        | 1103           | Error_MechaError   | 7                                                         | 1 | 9                | 4 | Reinsert paper and ink sheet |
|          |                  | Home position of M4 cam cannot be detected.                                                          | 1103           | Error_MechaError   | 7                                                         | 0 | 5                | 4 | Power off / on the printer   |
|          |                  | A target position (TP) of Cutter sensor cannot be detected.                                          | 1103           | Error_MechaError   | 7                                                         | 1 | 9                | 2 | Reinsert paper and ink sheet |
|          |                  | Home position of Cutter sensor cannot be detected.                                                   | 1103           | Error_MechaError   | 7                                                         | 0 | 9                | 2 | Reinsert paper and ink sheet |
|          |                  | Cutter sensor status does not change from Home position.                                             | 1103           | Error_MechaError   | 7                                                         | 3 | 9                | 2 | Reinsert paper and ink sheet |
|          |                  | Cutter sensor status does not change from TP.                                                        | 1103           | Error_MechaError   | 7                                                         | 2 | 9                | 2 | Reinsert paper and ink sheet |
|          |                  | Cutter Sensor failure.                                                                               | 1103           | Error_MechaError   | 7                                                         | 4 | 5                | 2 | Power off / on the printer   |
|          |                  | Cutter blade moved to Home position due to TP sensing failure, but Home position cannot be detected. | 1103           | Error_MechaError   | 7                                                         | 5 | 5                | 2 | Power off / on the printer   |
|          |                  | Door open is detected while mecha is operating.                                                      | 1103           | Error_MechaError   | 7                                                         | 2 | 5                | 0 | Power off / on the printer   |
|          |                  | "No paper strip bin" is detected while mecha is operating.                                           | 1103           | Error_MechaError   | 7                                                         | 3 | 5                | 0 | Power off / on the printer   |
|          | Electrical error | Over heat error                                                                                      | 1109           | Error_PrinterError | 6                                                         | 0 | 3                | 0 | Power off / on the printer   |
|          |                  | "Thermistor error<br>Head temperature too low"                                                       | 1109           | Error_PrinterError | 6                                                         | 0 | 0                | 1 | Power off / on the printer   |
|          |                  | "Thermistor error<br>Inside temperature is too low"                                                  | 1109           | Error_PrinterError | 6                                                         | 0 | 0                | 3 | Power off / on the printer   |
|          |                  | "Thermistor error<br>Head temperature is too high"                                                   | 1109           | Error_PrinterError | 6                                                         | 0 | 1                | 1 | Power off / on the printer   |
|          |                  | "Thermistor error<br>Inside temperature is too high"                                                 | 1109           | Error_PrinterError | 6                                                         | 0 | 1                | 3 | Power off / on the printer   |
|          |                  | Color sensor error                                                                                   | 1109           | Error_PrinterError | 6                                                         | 1 | 0                | 0 | Power off / on the printer   |
|          |                  | DATA transfer error                                                                                  | 1109           | Error_PrinterError | 6                                                         | 2 | *                | 0 | Power off / on the printer   |
|          |                  | EEPROM error                                                                                         | 1109           | Error_PrinterError | 6                                                         | 3 | *                | 0 | Power off / on the printer   |
|          |                  | FLASH error                                                                                          | 1109           | Error_PrinterError | 6                                                         | 4 | *                | 0 | Power off / on the printer   |
|          |                  | FPGA error                                                                                           | 1109           | Error_PrinterError | 6                                                         | 5 | *                | 0 | Power off / on the printer   |
|          |                  | RFID error                                                                                           | 1109           | Error_PrinterError | 6                                                         | 7 | *                | 0 | Power off / on the printer   |
|          |                  | Power voltage error                                                                                  | 1109           | Error_PrinterError | 6                                                         | 6 | 2                | 0 | Power off / on the printer   |
|          |                  | Fan lock error                                                                                       | 1109           | Error_PrinterError | 6                                                         | 8 | 0                | 2 | Power off / on the printer   |
|          |                  | Firmware combination error                                                                           | 1109           | Error_PrinterError | 6                                                         | 9 | 0                | 1 | Power off / on the printer   |
|          |                  | Overprinting time error                                                                              | 1109           | Error_PrinterError | 6                                                         | 9 | 0                | 3 | Power off / on the printer   |
| High     |                  | Other error                                                                                          | 1109           | Error_PrinterError | 6                                                         | 9 | 0                | 0 | Power off / on the printer   |

Note 1) It is not a printer error code. This is the temperature information of the printer.  
2) DLL does not return as error. It will remain in the printer as error history.

**EXPOSED**

# SAFETY PRECAUTIONS

NOTICE : Observe all cautions and safety notes located inside the cabinet and on the chassis.

## LEAKAGE CURRENT CHECK

Before returning the printer to the customer, it is recommended that leakage current be measured according to the following methods.

### 1. Cold Check

With the AC plug removed from the 110 V / 220-240 V AC source, place a jumper across the two AC plug prongs. Turn the printer AC switch on. Using an ohm-meter, connect one lead to the AC plug and touch the other lead to each exposed metal part (screwheads, metal overlays, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistance reading of 1 megohm. Any resistance below this value indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

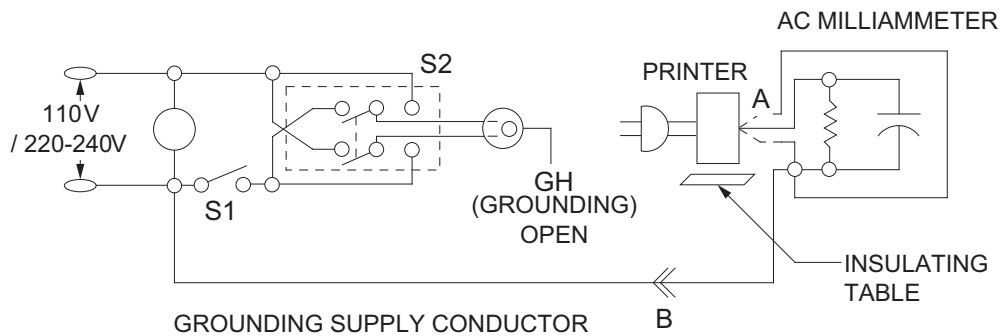
### 2. Hot Check

Use the circuit in the Figure to perform this test.

(1) With switch S1 open, connect the printer to the measuring circuit. Immediately after connection, measure the leakage current using both positions of switch S2, and with the switching devices in the printer in all of their operating positions.

(2) Switch S1 is then closed, energising the printer. Immediately after closing the switch, measure the leakage current using both positions of switch S2, and with the switching devices in the printer in all of their operating positions.

Current measurements of items (1) and (2) are to be repeated after the printer has reached thermal stabilisation. The leakage current shall not be more than 0.5 milliampere.



## PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the printer have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, etc. Replacement parts which have these special safety characteristics are identified in this service manual. Electrical components having such features are identified by shading on the schematic diagram and the parts list of this service manual, and by the supplementary sheet for this chassis to be issued subsequently. Therefore replacements for any safety parts should be identical in value and characteristics.

CAUTION : DOUBLE POLE/  
NEUTRAL FUSING

# PRECAUTIONS FOR RESOLDERING

Lead-free solder is handled in a different way from eutectic solder. See below for details.

## How to distinguish circuit boards using lead-free solder from those using eutectic solder

### Circuit boards using lead-free solder

A mark of **(Pb) Solder**, **(Pb) Joints**, **(Pb) PCA** or **LFS** (for limited marking space) is printed near the board assembly number on the component side.

### Circuit boards using eutectic solder

Circuit boards using eutectic solder are divided into two groups.

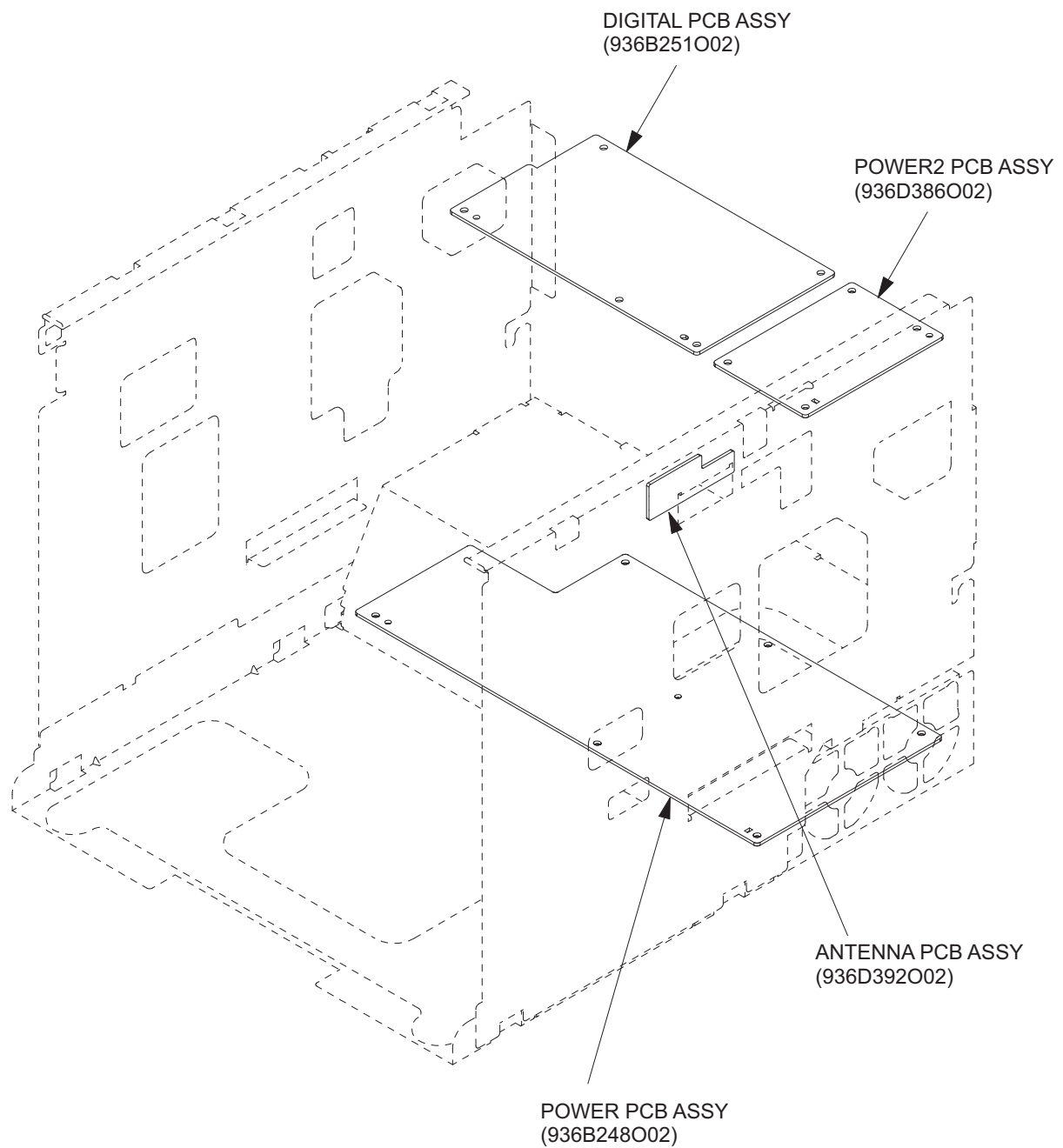
- Boards having no mark of **(Pb) Solder**, **(Pb) Joints**, **(Pb) PCA** or **LFS** (for limited marking space) near the board assembly number.
- Boards having a mark of **(Pb) Solder**, **(Pb) Joints**, **(Pb) PCA** or **LFS** (for limited marking space) that is painted out by a felt pen near the board assembly number.
- \* Only when there is a limited marking space on the board, **(Pb) Solder** may be indicated as **(Pb) S**, **(Pb) Joints** as **(Pb) J**, and **(Pb) PCA** as **(Pb) P**.
- \* Circuit boards using lead-free solder and those using eutectic solder may be used together in the same product.

## Instructions for resoldering

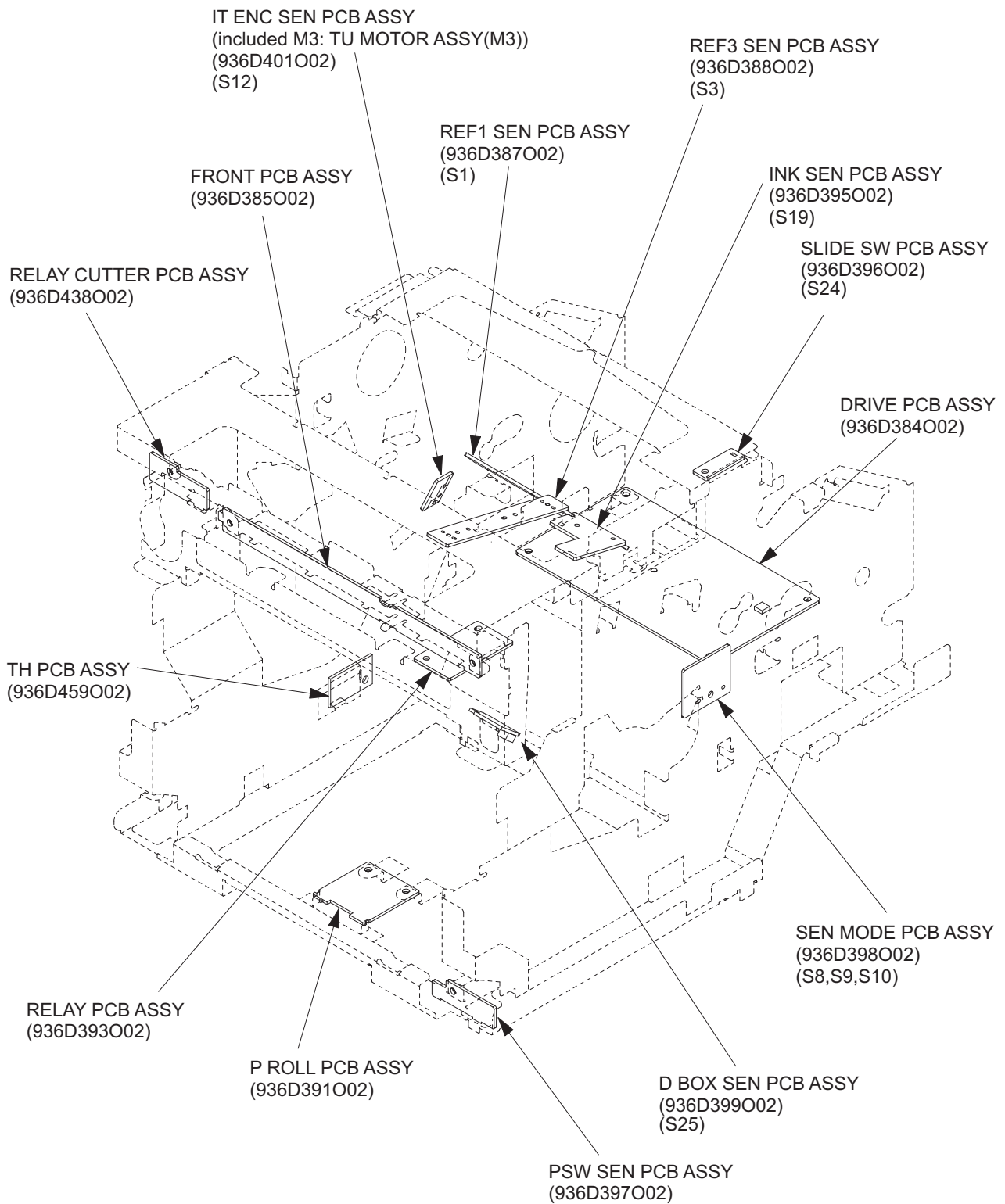
- For circuit boards using lead-free solder, use lead-free solder.
- For circuit boards using eutectic solder, use eutectic solder.
- Separate the soldering iron for lead-free solder from that for eutectic solder completely for use.  
(It is prohibited to use a same soldering iron for lead-free solder and eutectic solder.)
- For lead-free solder, it is advisable to use a soldering iron of at least 40 W because lead-free solder has a melting point approx. 35°C higher than that of eutectic solder as conventionally used. For wire solder, use M705ESC made by Senju Metal Industry Co., Ltd.
- To remove solder, you can use desoldering wires for eutectic solder as conventionally used.

# PCB AND SENSOR LOCATION

## 1. CHASSIS ASSY and MAIN FRAME ASSY

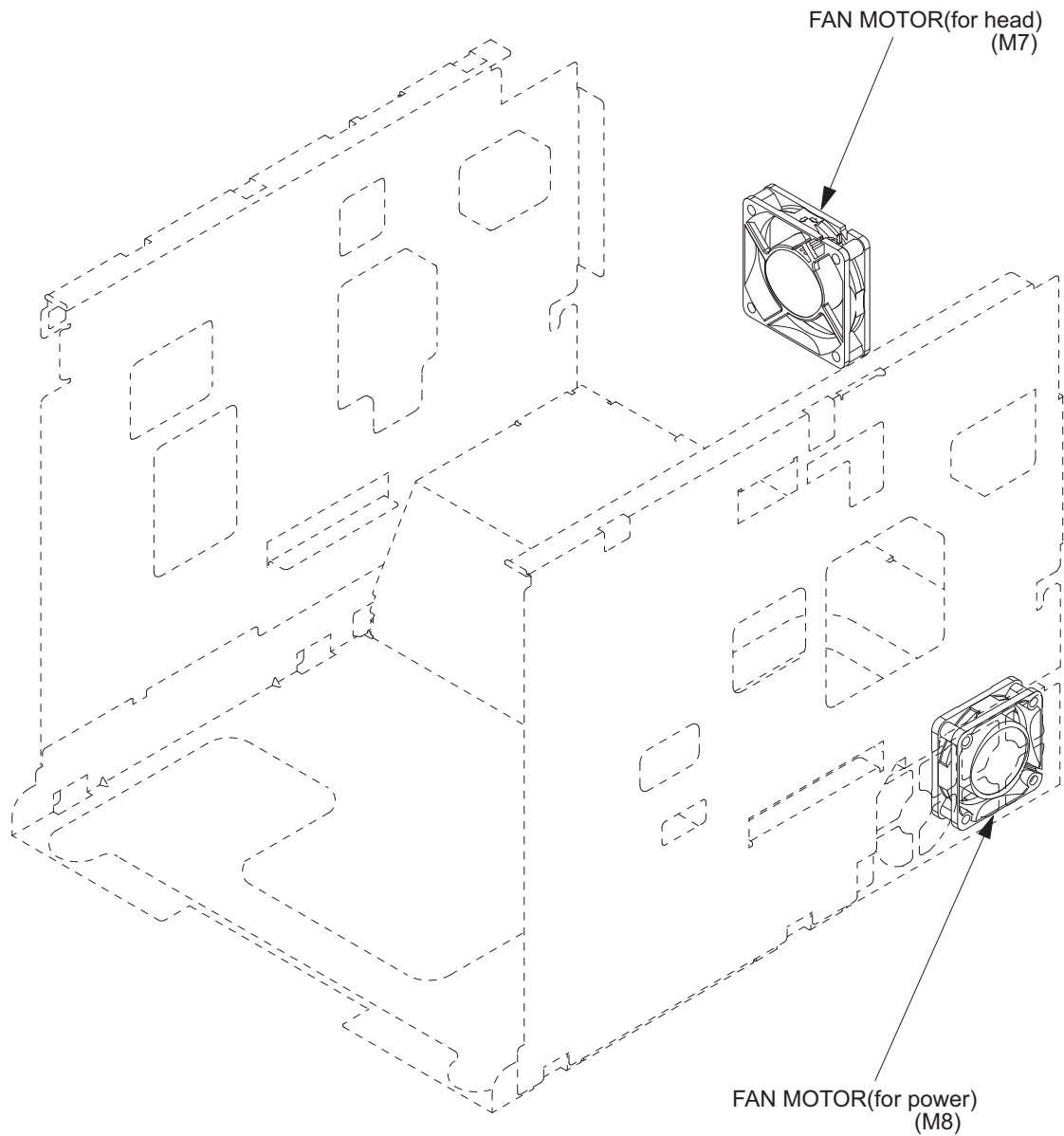


## 2. SLIDE MECHA ASSY

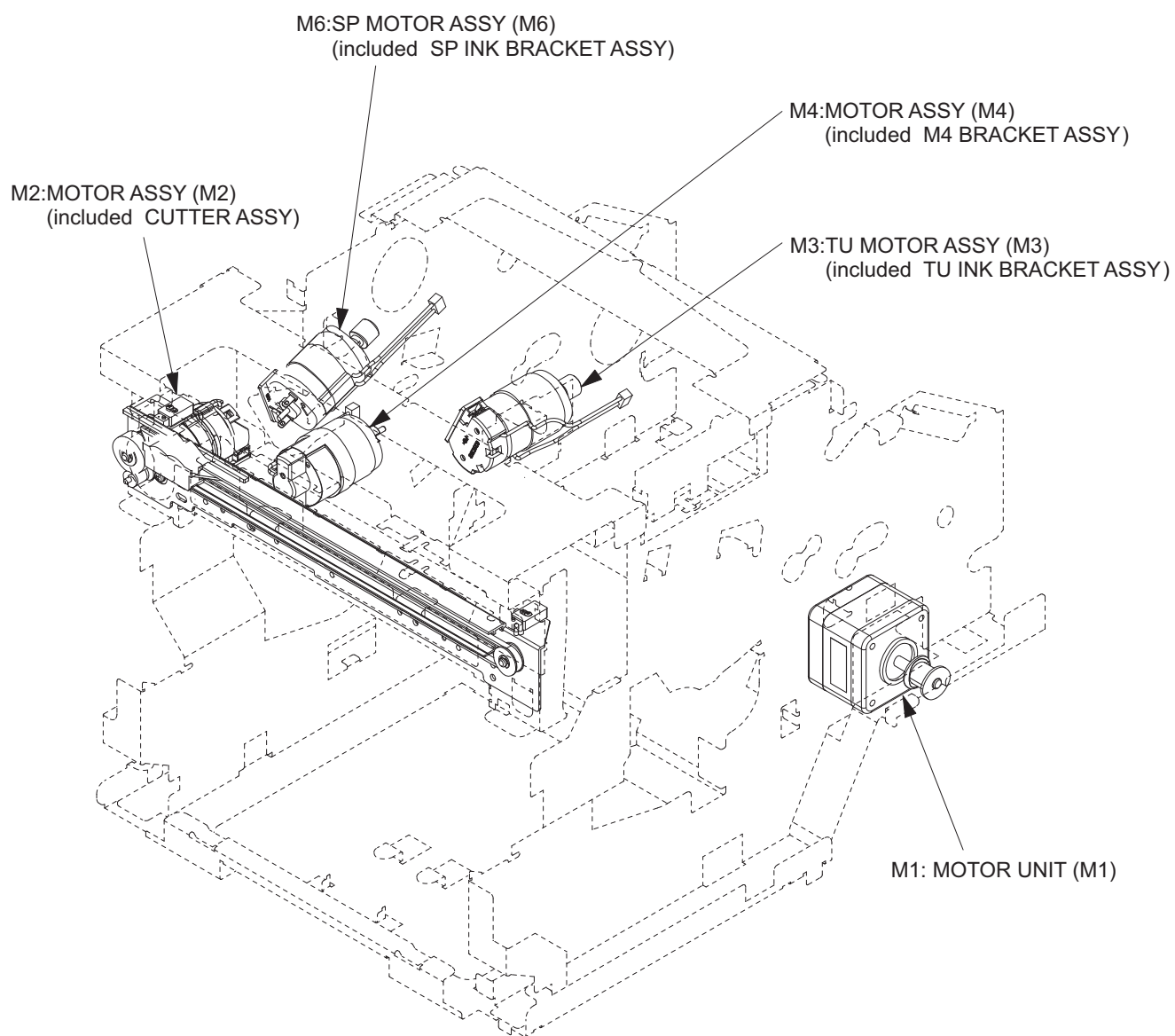


# MOTOR LOCATION

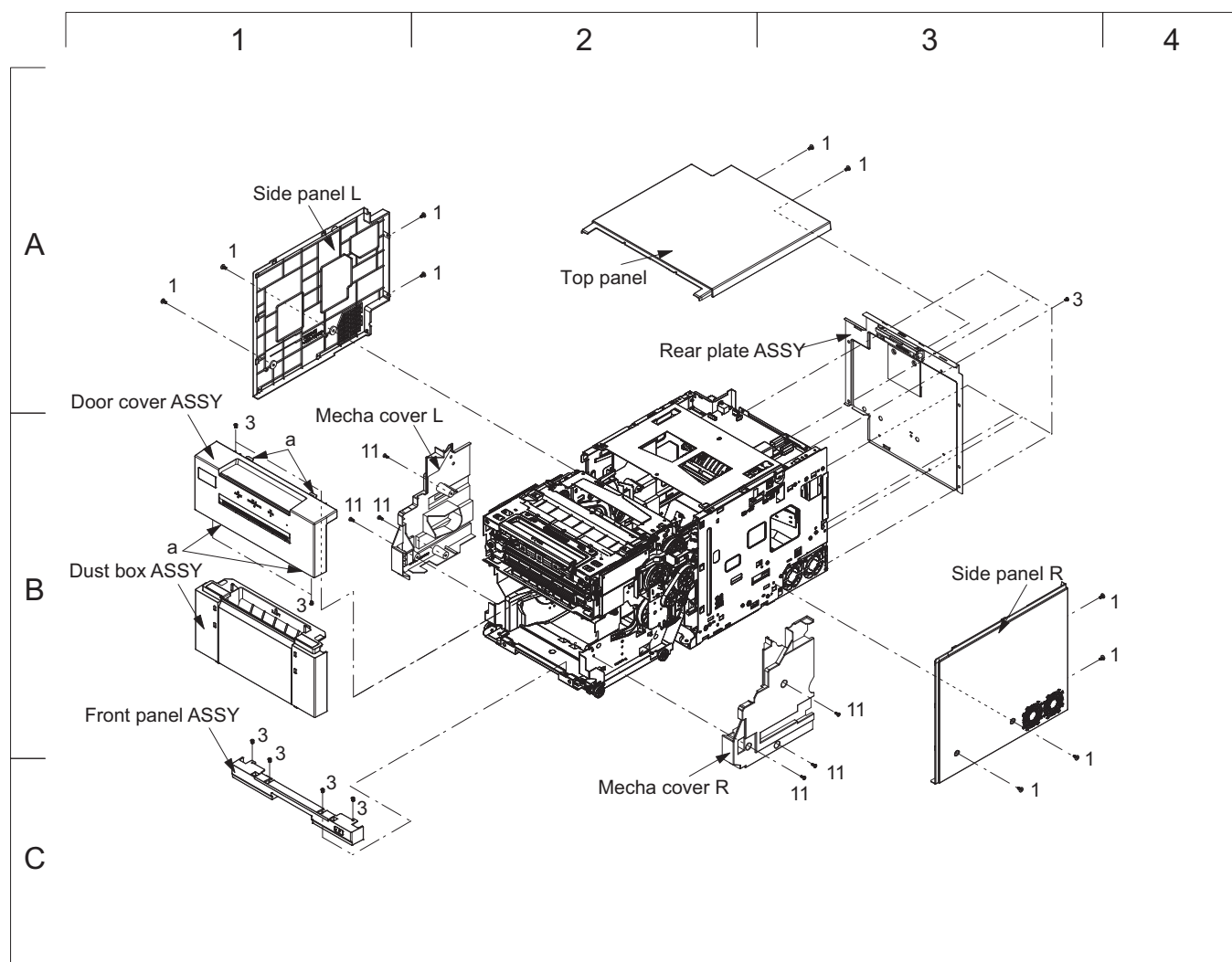
## 1. CHASSIS ASSY and MAIN FRAME ASSY



## 2. SLIDE MECHAASSY



# DISASSEMBLY



## 1. Dust box ASSY / Front panel ASSY

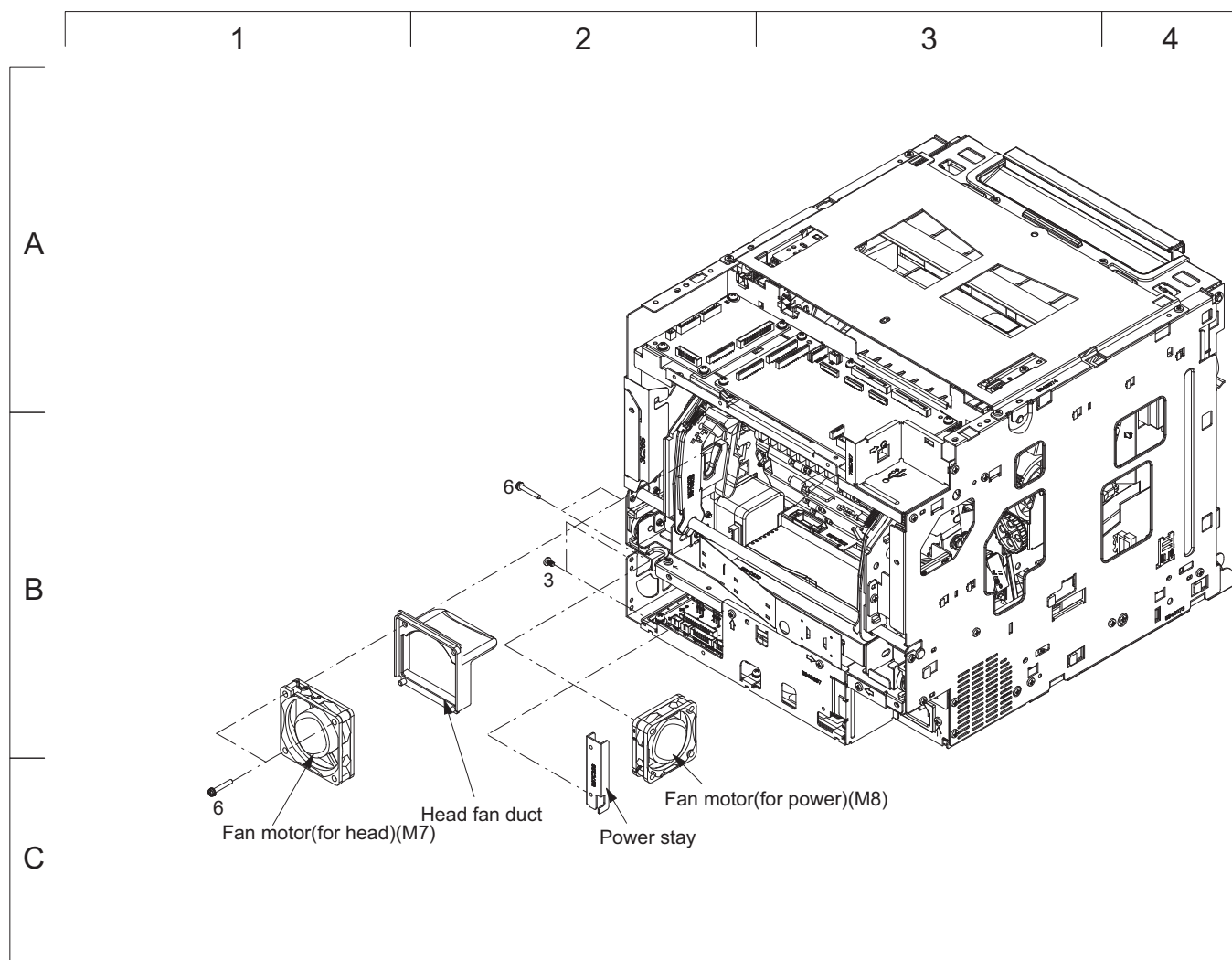
| Step No. | Parts name                                            | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Pull the knob lever to pull out the slide mecha ASSY. |         |                               |                                   |
| 2        | Dust box ASSY                                         | C-1     | -----                         | -----                             |
| 3        | Mecha cover R                                         |         | 11 (3pcs.)                    | -----                             |
| 4        | Mecha cover L                                         |         | 11 (3pcs.)                    | -----                             |
| 5        | Front panel ASSY                                      |         | 3 (4pcs.)                     | -----                             |

## 2. Door cover ASSY

| Step No. | Parts name                                            | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Pull the knob lever to pull out the slide mecha ASSY. |         |                               |                                   |
| 2        | Door cover ASSY                                       | C-3     | 3 (4pcs.) / a (4pcs.)         | -----                             |

### 3. Top panel / Side panel L / Side panel R / Rear plate ASSY

| Step No. | Parts name      | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-----------------|---------|-------------------------------|-----------------------------------|
| 1        | Top panel       |         | 1 (2pcs.)                     | -----                             |
| 2        | Side panel L    |         | 1 (4pcs.)                     | -----                             |
| 3        | Side panel R    |         | 1 (4pcs.)                     | -----                             |
| 4        | Rear plate ASSY |         | 3 (7pcs.)                     | -----                             |



#### 4. Fan motor(for Head)(M7)

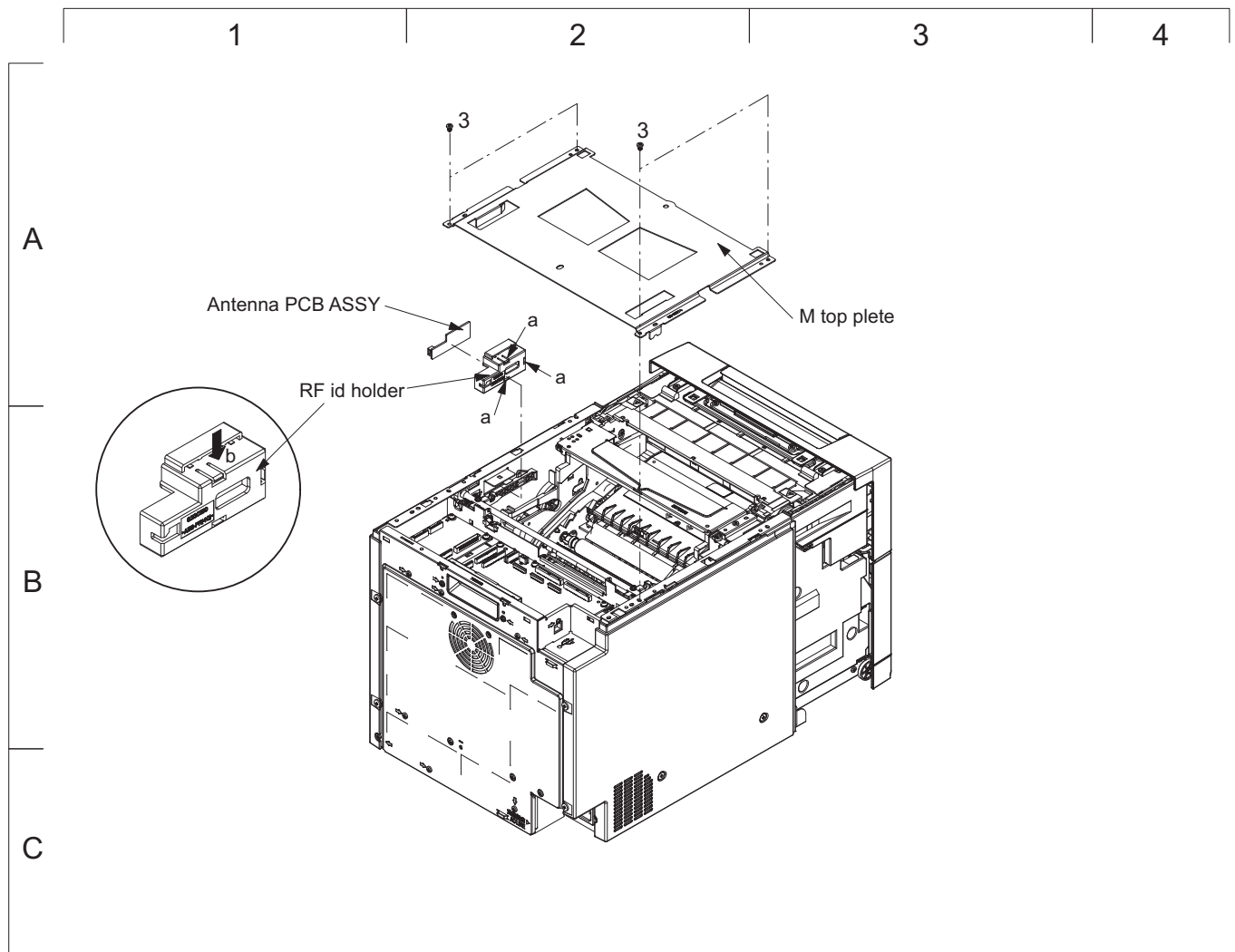
| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Fan motor(for Head)(M7)                                                             |         | 6 (2pcs.)                     | HF                                |

#### 5. Fan motor(for power)(M8)

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Power stay                                                                          | C-2     | 3 (2pcs.)                     | -----                             |
| 3        | Fan motor(for power)(M8)                                                            | C-3     | 6 (2pcs.)                     | PF2                               |

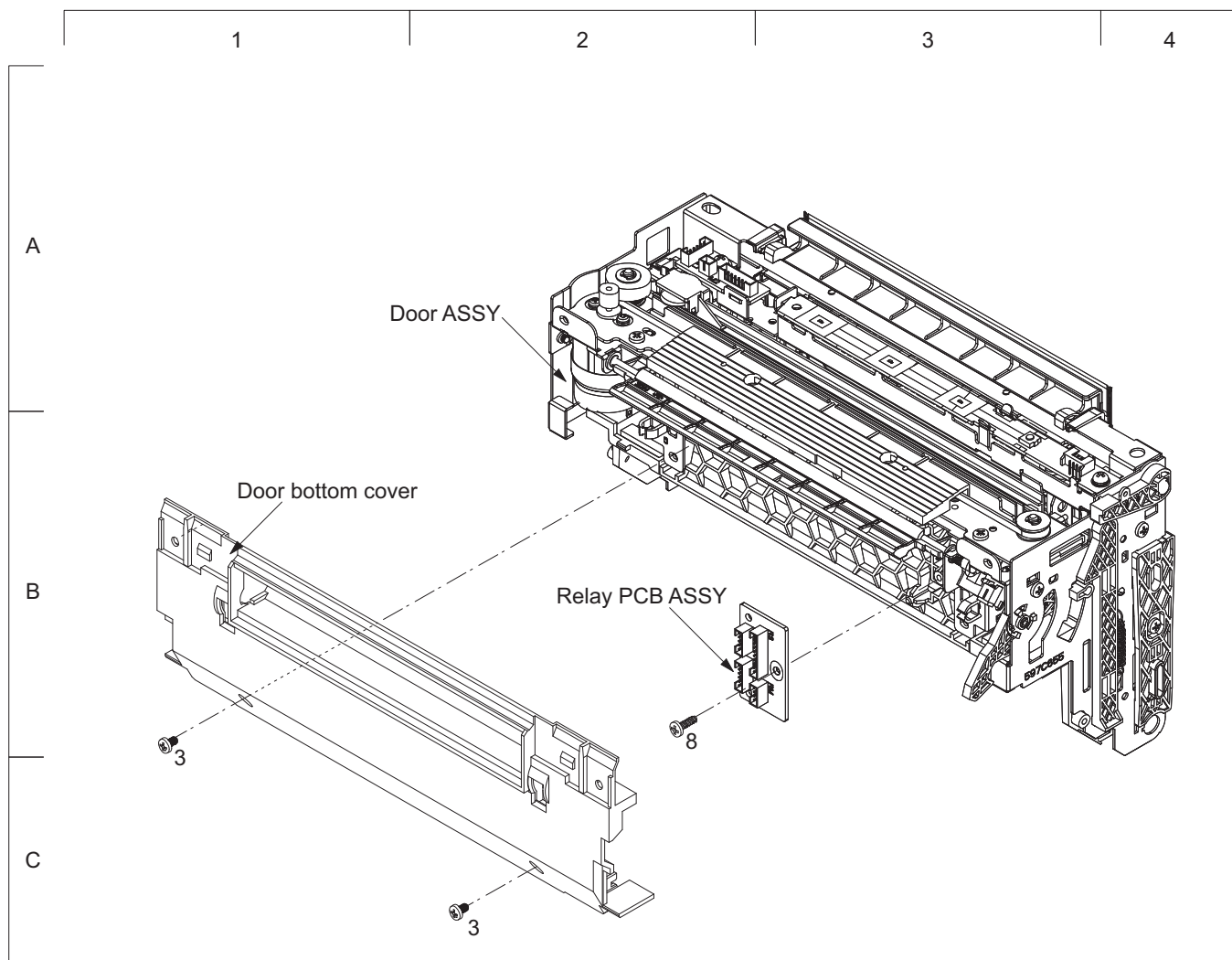






## 9. Antenna PCB ASSY

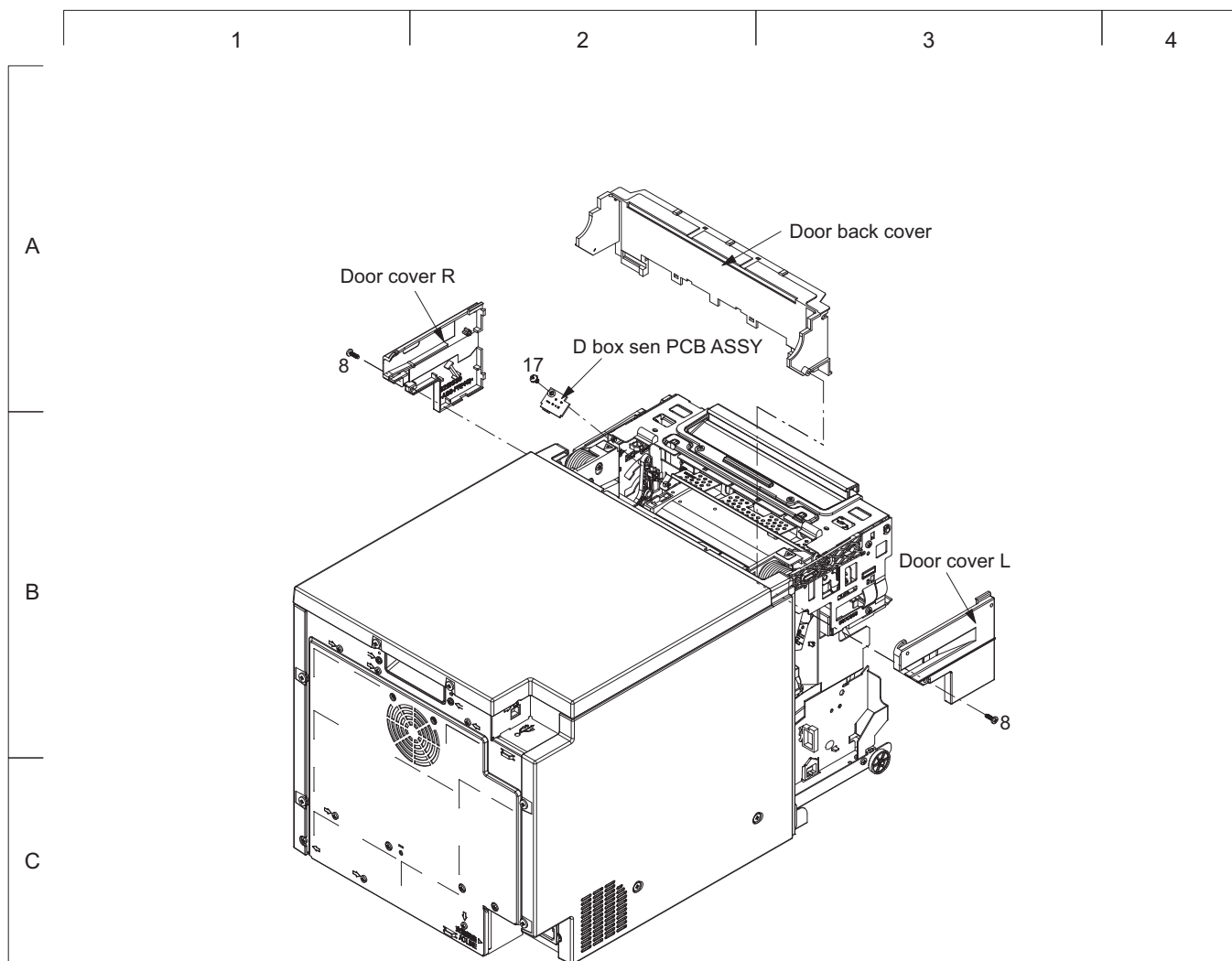
| Step No. | Parts name                                                           | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|----------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Pull the knob lever to pull out the slide mecha ASSY.                |         |                               |                                   |
| 2        | Procedure of 3-1 (Top panel)                                         |         |                               |                                   |
| 3        | M top plete                                                          |         | 3 (4pcs.)                     | -----                             |
| 4        | While holding part B of the Rf id holder, pull out the Rf id holder. |         |                               |                                   |
| 5        | Antenna PCB ASSY                                                     |         | a (3pcs.)                     | LS                                |



## 10. Relay PCB ASSY

| Step No. | Parts name                                                                                                                            | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|---------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-2 (Dust box ASSY)<br>Pull the knob lever to pull out the slide mecha ASSY. The door will automatically open up. |         |                               |                                   |
| 2        | Procedure of 2-2 (Door cover ASSY)                                                                                                    |         |                               |                                   |
| 3        | Door bottom cover                                                                                                                     |         | 3 (2pcs.)                     | -----                             |
| 4        | Relay PCB ASSY                                                                                                                        |         | 8 (1pc.)                      | -----                             |

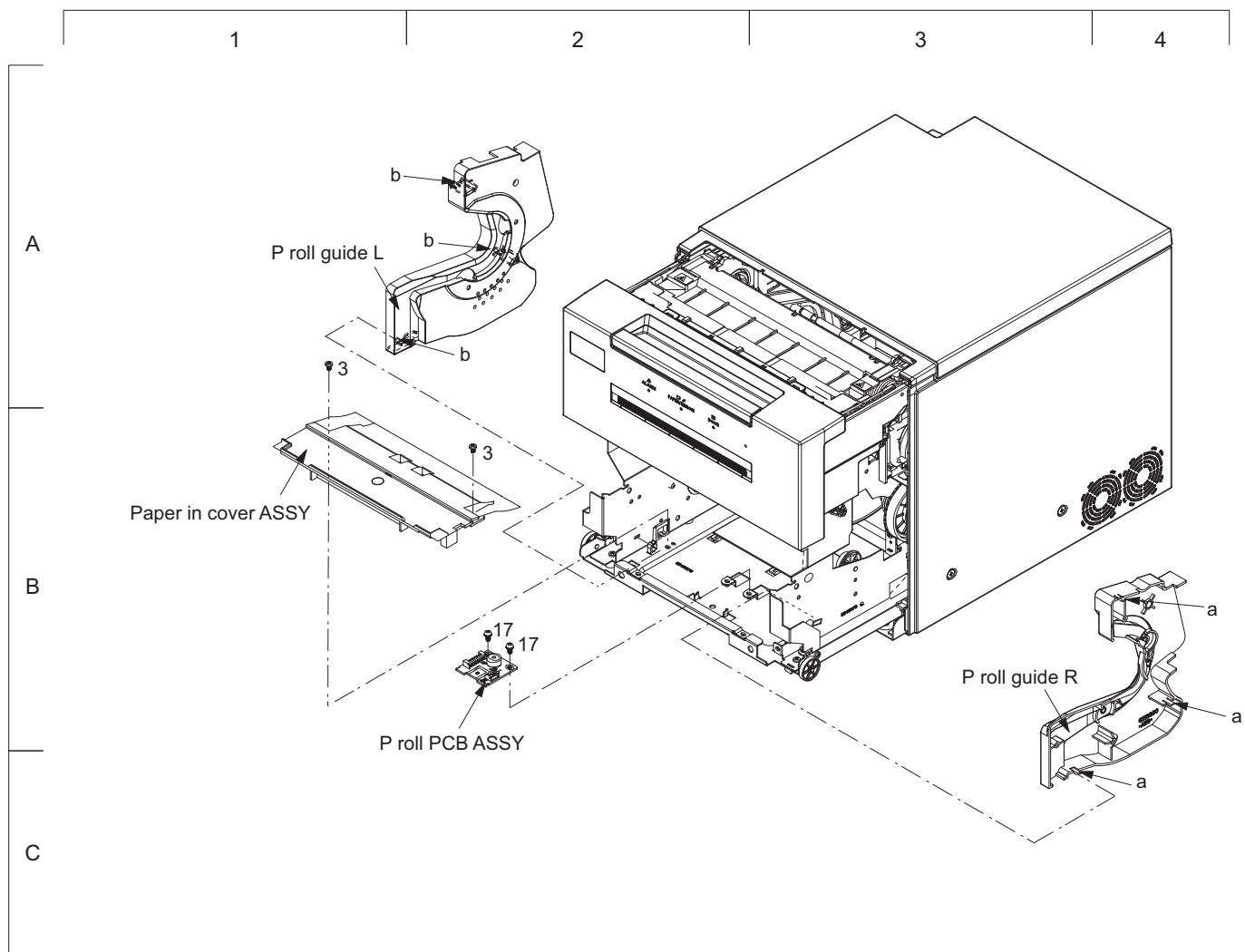




### 13. D box sen PCB ASSY

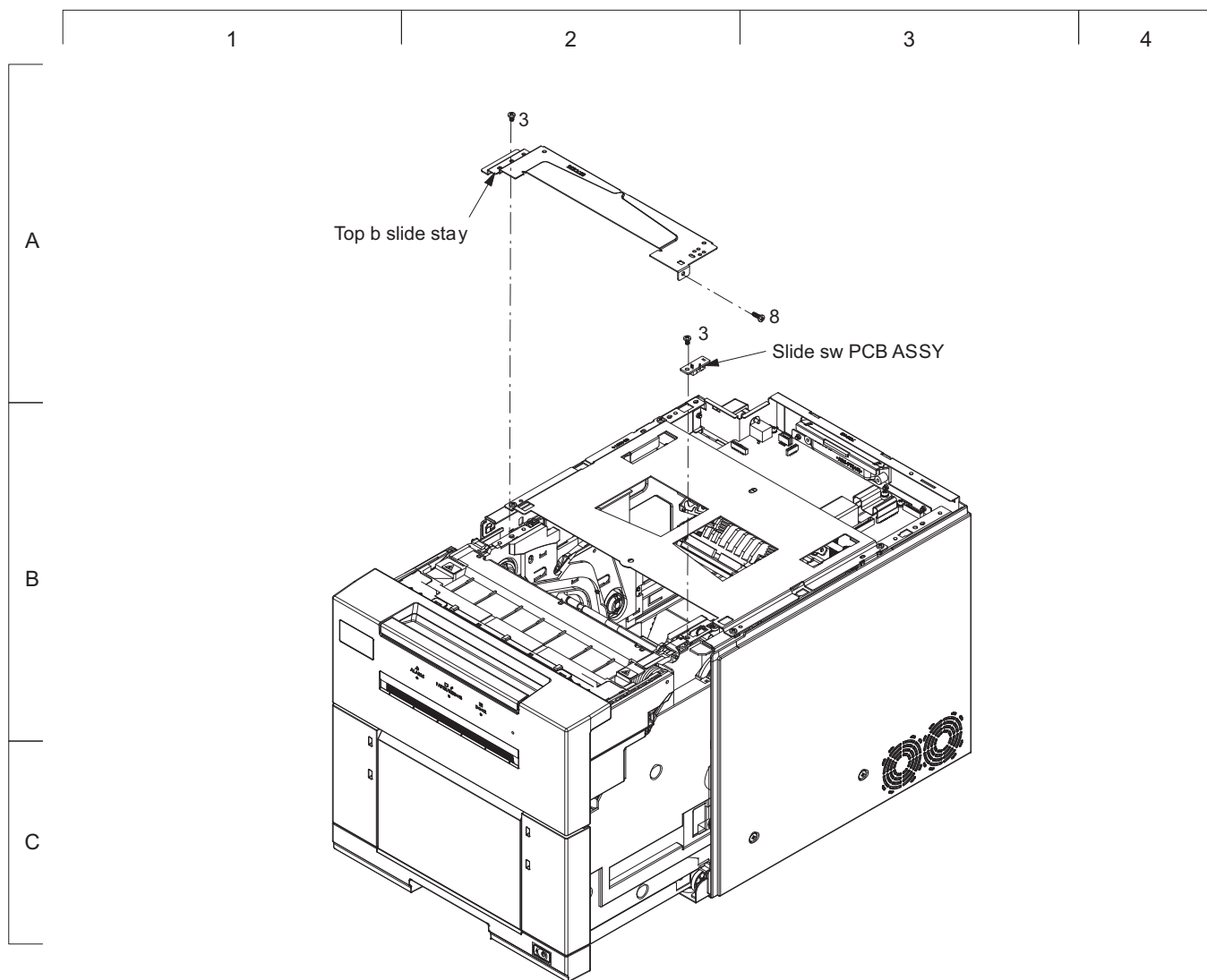
| Step No. | Parts name                              | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-----------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-2 (Dust box ASSY) |         |                               |                                   |
| 2        | Procedure of 2-2 (Door cover ASSY)      |         |                               |                                   |
| 3        | Cas cover shaft R                       |         | -----                         | -----                             |
| 4        | Cas cover shaft L                       |         | -----                         | -----                             |
| 5        | Cassette cover                          |         |                               |                                   |
| 6        | Door bottom cover                       |         | 3 (2pcs.)                     | -----                             |
| 7        | Door back cover                         |         | 8 (2pcs.)                     | Door cover R / Door cover L       |
| 8        | Cas guide R                             |         | -----                         | -----                             |
| 9        | D box sen PCB ASSY                      |         | 17 (1pc.)                     | SB                                |





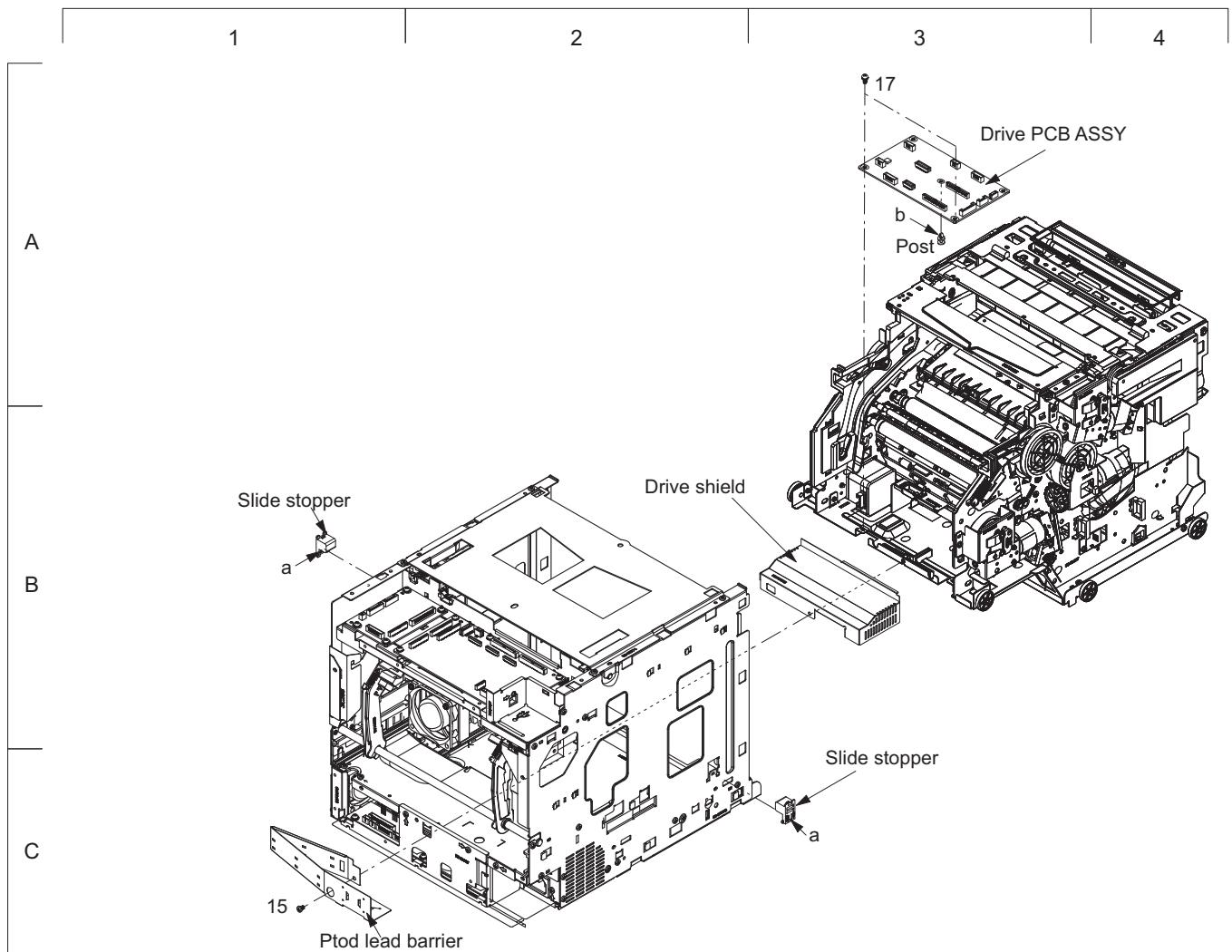
## 15. P roll PCB ASSY

| Step No. | Parts name                                                                                 | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|--------------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-5 (Dust box ASSY / Mecha cover R / Mecha cover L / Front panel ASSY) |         |                               |                                   |
| 2        | Procedure of 11-2 (Psw sen PCB ASSY)                                                       |         |                               |                                   |
| 3        | P roll guide R                                                                             |         | a (3pcs.)                     | -----                             |
| 4        | P roll guide L                                                                             |         | b (3pcs.)                     | -----                             |
| 5        | Paper in cover ASSY                                                                        |         | 3 (2pcs.)                     | -----                             |
| 6        | P roll PCB ASSY                                                                            |         | 17 (2pcs.)                    | SP / RP                           |



## 17. Slide sw PCB ASSY

| Step No. | Parts name                                            | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Pull the knob lever to pull out the slide mecha ASSY. |         |                               |                                   |
| 2        | Procedure of 3-1 (Top panel)                          |         |                               |                                   |
| 3        | Top b slide stay                                      |         | 3 (1pc.) / 8 (1pcs.)          | -----                             |
| 4        | Slide sw PCB ASSY                                     |         | 3 (1pc.)                      | SD                                |

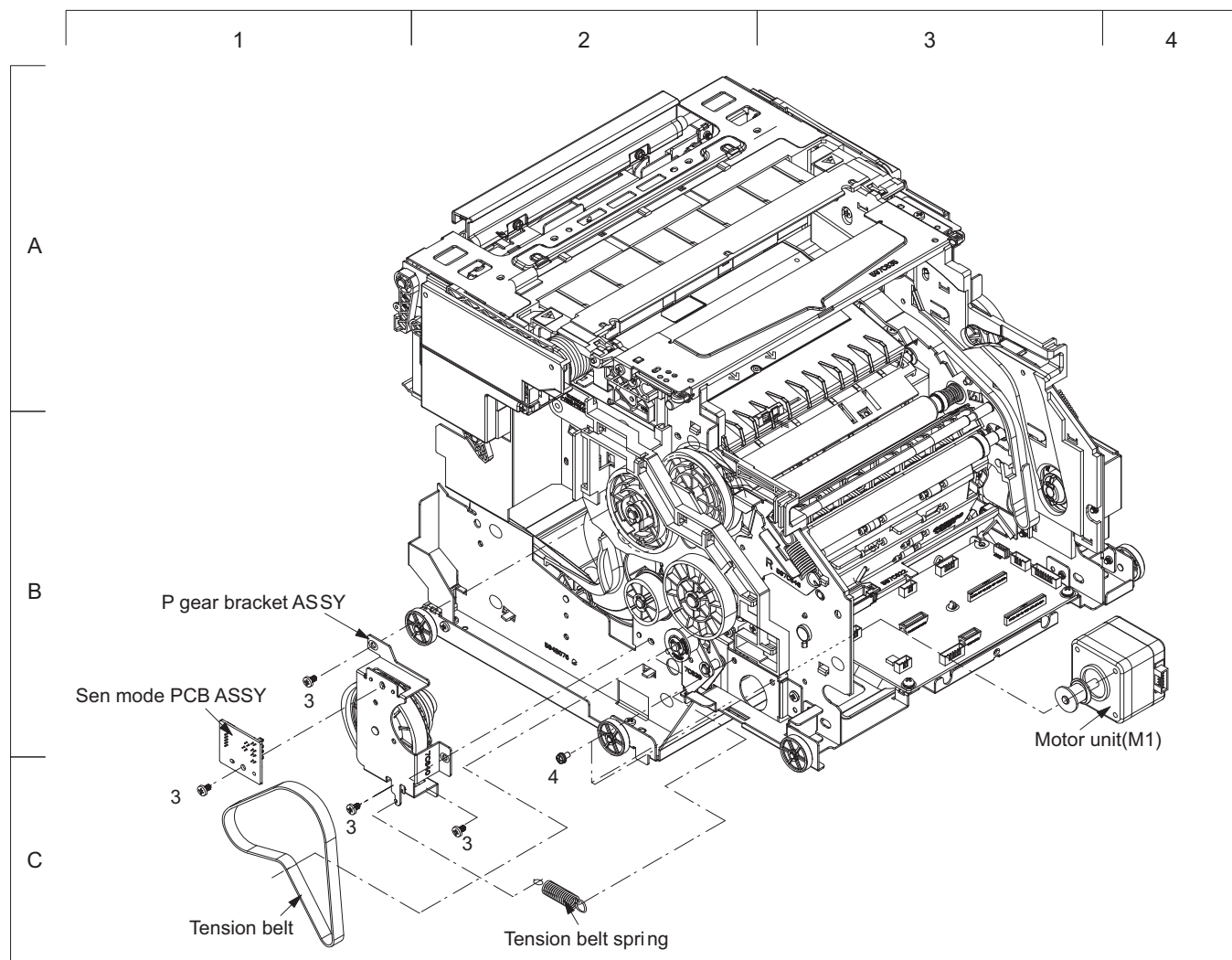


## 18. Slide mecha ASSY

| Step No. | Parts name                                                                                 | Address | Number of parts to be removed | Connectors or parts to be removed     |
|----------|--------------------------------------------------------------------------------------------|---------|-------------------------------|---------------------------------------|
| 1        | Procedure of 1-1 to 1-5 (Dust box ASSY / Mecha cover R / Mecha cover L / Front panel ASSY) |         |                               |                                       |
| 2        | Procedure of 2-2 (Door cover ASSY)                                                         |         |                               |                                       |
| 3        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY)        |         |                               |                                       |
| 4        | Drive shield                                                                               |         | 15 (1pc.)                     | DP / RDA / RDB /<br>Ptod lead barrier |
| 5        | Slide stopper                                                                              |         | a (2pcs.)                     | -----                                 |
| 6        | Pull out and remove the slide mecha ASSY.                                                  |         |                               |                                       |

## 19. Drive PCB ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed               |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-------------------------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                                 |
| 2        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                                 |
| 3        | Drive PCB ASSY                                                                      |         | 17 (2pcs.)                    | SR1 / SR8 / M2 9 / FS / FP / RHM / M1 /<br>M3 4 |
| 4        | Post                                                                                |         | b (1pcs.)                     | -----                                           |

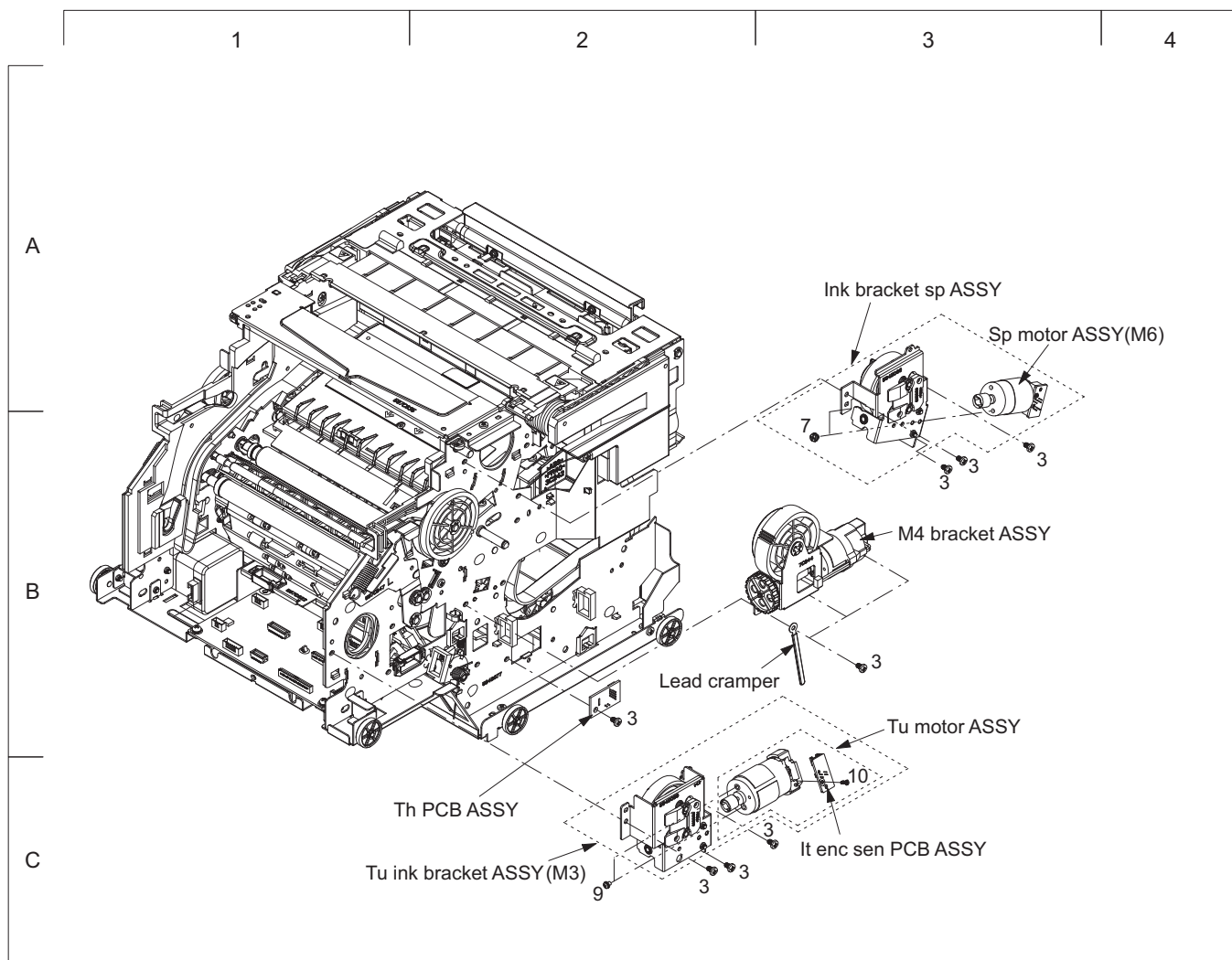


## 20. Motor unit(M1)

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 3        | Tension belt spring                                                                 |         | -----                         | -----                             |
| 4        | Tension belt                                                                        |         | -----                         | -----                             |
| 5        | Motor unit(M1)                                                                      |         | 4 (3pcs.)                     | M1                                |

## 21. Sen mode PCB ASSY / P gear bracket ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-3 (Dust box ASSY / Mecha cover R)                             |         |                               |                                   |
| 2        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | Sen mode PCB ASSY                                                                   |         | 3 (1pc.)                      | S8                                |
| 5        | Tension belt spring                                                                 |         | -----                         | -----                             |
| 6        | P gear bracket ASSY                                                                 |         | 3 (3pcs.)                     | -----                             |



## 22. Ink bracket sp ASSY / Sp motor ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-2 and 1-4 (Dust box ASSY / Mecha cover L)                     |         |                               |                                   |
| 2        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | Ink bracket sp ASSY                                                                 |         | 3 (3pcs.)                     | -----                             |
| 5        | Sp motor ASSY(M6)                                                                   |         | 7 (2pcs.)                     | M6 / S14                          |

## 23. Tu ink bracket ASSY(M3)

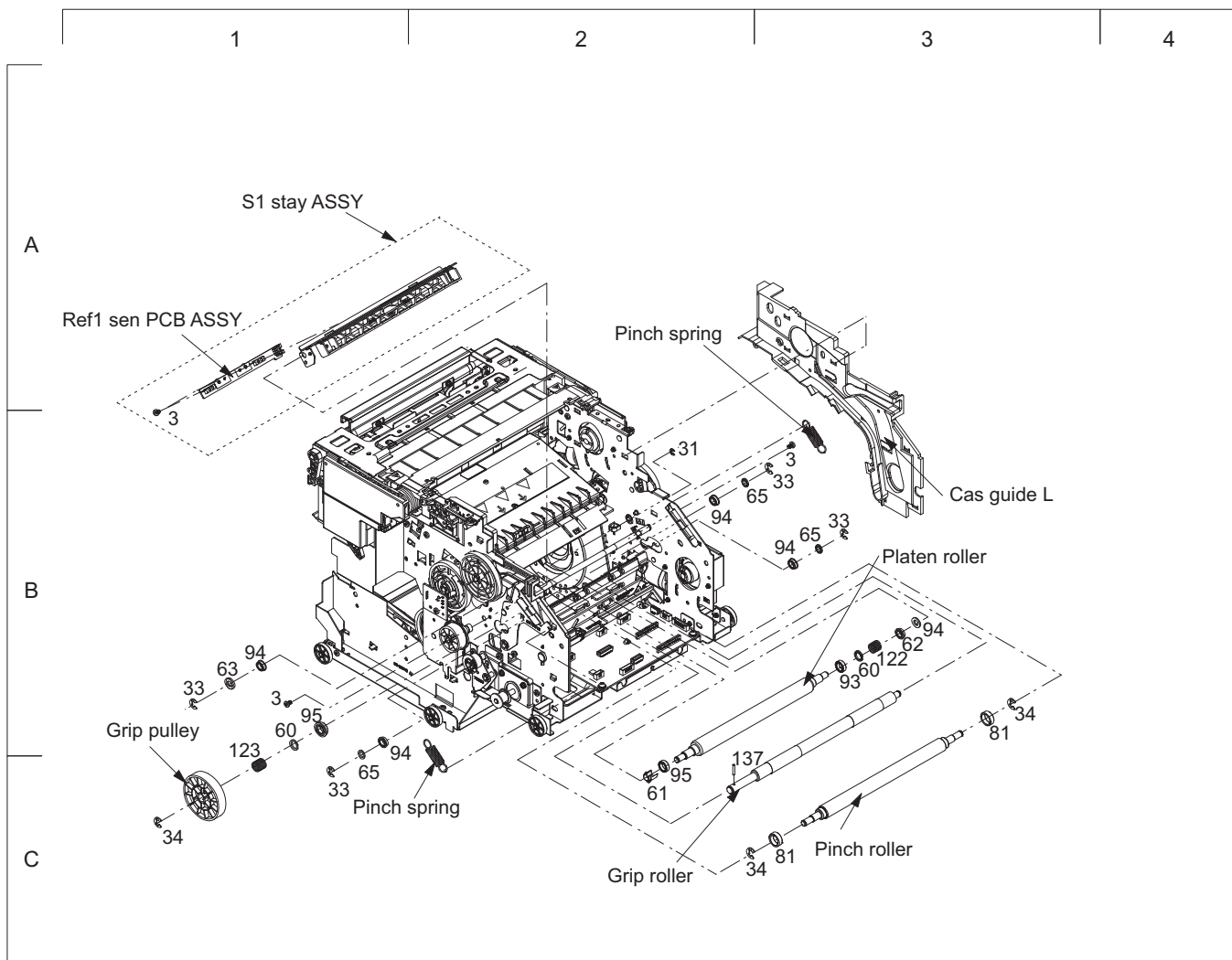
| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 3        | Tu ink bracket ASSY(M3)                                                             |         | 3 (3pcs.)                     | M3 / S12                          |
| 4        | Tu motor ASSY                                                                       |         | 9 (2pcs.)                     | -----                             |
| 5        | It enc sen PCB ASSY                                                                 |         | 10(1pc.)                      | -----                             |

## 24. M4 bracket ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-2 and 1-4 (Dust box ASSY / Mecha cover L)                     |         |                               |                                   |
| 2        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | M4 bracket ASSY                                                                     |         | 3 (3pcs.)                     | M4 / Lead crimper                 |

## 25. Th PCB ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 1-1 to 1-2 and 1-4 (Dust box ASSY / Mecha cover L)                     |         |                               |                                   |
| 2        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | Th PCB ASSY                                                                         |         | 3 (1pc.)                      | TH                                |



## 26. Platen roller

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed      |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|----------------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                        |
| 2        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                        |
| 3        | Procedure of 20-3 to 20-4 (Tension belt spring / Tension belt)                      |         |                               |                                        |
| 4        | Grip pulley                                                                         | C-3     | 34 (1pc.)                     | 137 / 123 / 60 / 95                    |
| 5        | Platen roller                                                                       | B-4     | 31 (1pc.) / 33(1pc.)          | 94 / 62 / 122 / 60 / 93 / 95 / 61 / 63 |

## 27. S1 stay ASSY / Ref1 sen PCB ASSY

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Procedure of 17-3 (Top b slide stay)                                                |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | Procedure of 20-3 to 20-4 (Tension belt spring / Tension belt)                      |         |                               |                                   |
| 5        | Procedure of 26-4 to 26-5 (Platen roller)                                           |         |                               |                                   |
| 6        | Cas guide L                                                                         |         | -----                         | -----                             |
| 7        | S1 stay ASSY                                                                        |         | 3 (2pcs.)                     | -----                             |
| 8        | Ref1 sen PCB ASSY                                                                   |         | 3 (2pcs.)                     | -----                             |

## 28. Pinch roller

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Procedure of 17-3 (Top b slide stay)                                                |         |                               |                                   |
| 3        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 4        | Procedure of 20-3 to 20-4 (Tension belt spring / Tension belt)                      |         |                               |                                   |
| 5        | Procedure of 26-4 (Grip pulley)                                                     |         |                               |                                   |
| 6        | Procedure of 27-6 (Cas guide L)                                                     |         |                               |                                   |
| 7        | Pinch spring                                                                        |         | 2pcs.                         | -----                             |
| 8        | Pinch roller                                                                        | B-1     | 33 (2pcs.) / 34 (2pcs.)       | 33 / 65 / 94 / 34 / 81            |

## 29. Grip roller

| Step No. | Parts name                                                                          | Address | Number of parts to be removed | Connectors or parts to be removed |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------|-----------------------------------|
| 1        | Procedure of 3-1 to 3-4 (Top panel / Side panel L / Side panel R / Rear plate ASSY) |         |                               |                                   |
| 2        | Procedure of 18-4 to 18-6 (Slide mecha ASSY)                                        |         |                               |                                   |
| 3        | Procedure of 20-3 to 20-4 (Tension belt spring / Tension belt)                      |         |                               |                                   |
| 4        | Procedure of 26-3 to 26-4 (Grip pulley)                                             |         |                               |                                   |
| 5        | Grip roller                                                                         |         | 33 (1pc.)                     | 65 / 94 / 95 / 60 / 123 / 137     |







# MANUAL DOOR OPEN

While the power of this product is off, the door does not open even when you press the DOOR OPEN button. While the power is off, use the following procedure to open the door.

1. Remove the two screws(a), and top panel.
2. Remove the four screws(b), and side panel L.
3. Turn the dial M4 shown in Figure1 Counterclockwise until the door lock is released.

The hole on head gear cam L turn unitl coming top.

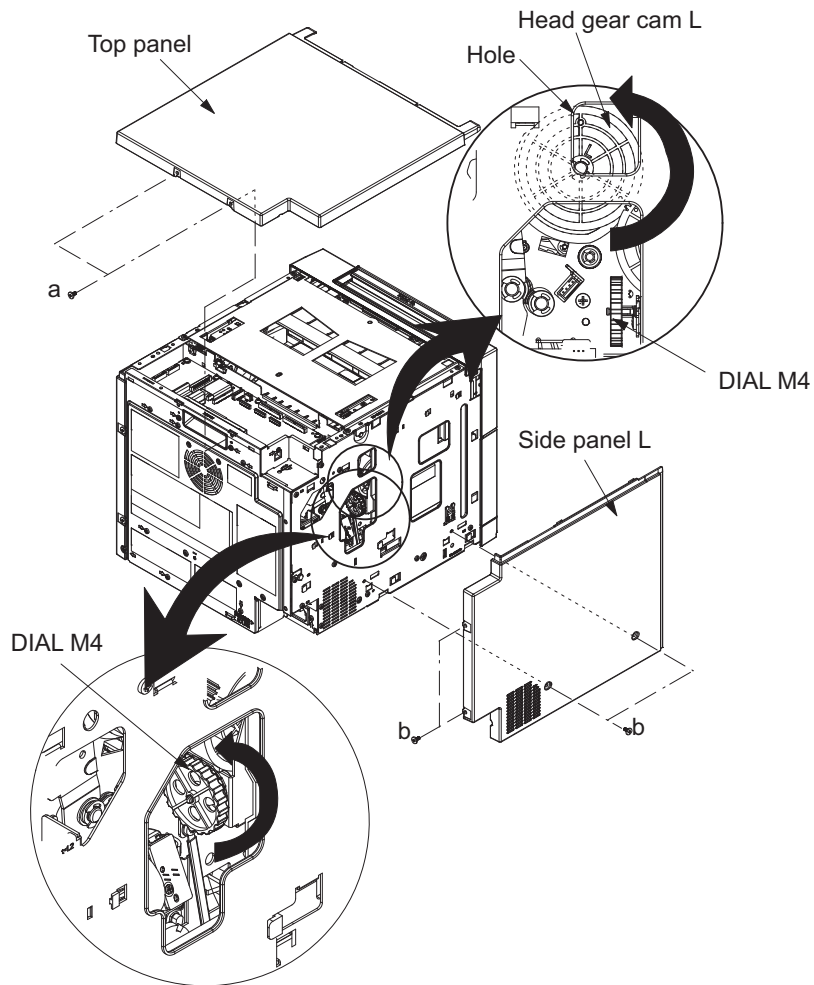


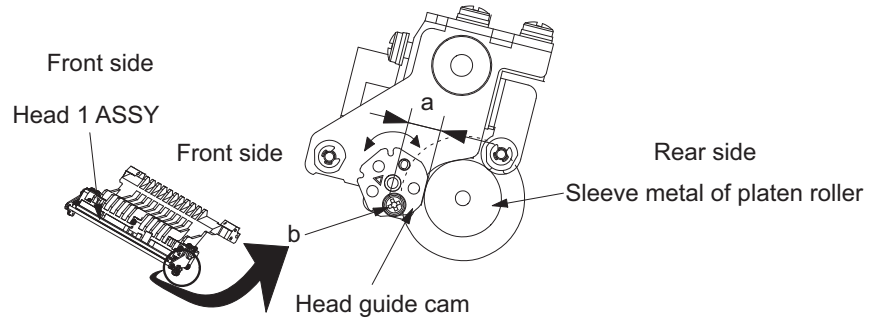
Fig.1

# LINE UP ADJUSTMENT

Drag line and faint black color can be improved by carrying out the head line up adjustment. (Drag lines are streaks that may appear following dark parts of the printed image depending on the situation.)

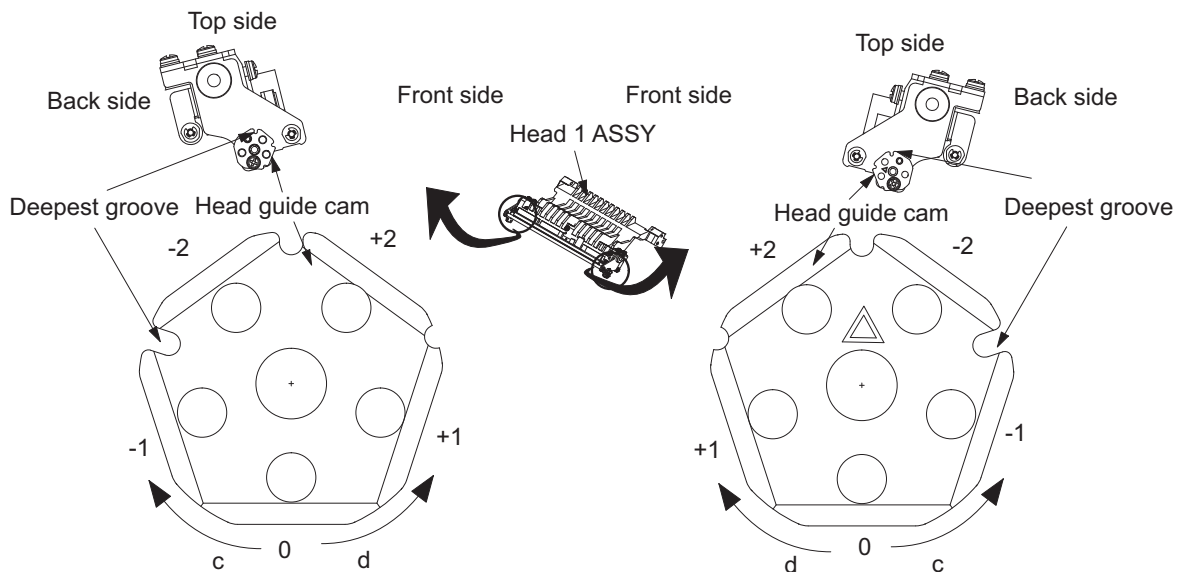
1. Remove the screw "b" of the head guide cam on each side and then turn the head guide cam to improve the drag line or faint black color according to the following note.

[Note] By moving the head toward the bottom of the product, faint black color is improved. By moving the head toward the top of the product, drag line is improved. By rotating and securing the head guide cam, you can move the head up and down. (The distance from the center of the head guide cam to each of its sides (a) is different. By rotating the head guide cam to change the side that comes into contact with the sleeve metal of the platen roller, you can change the distance from the sleeve metal of the platen roller (a). Because the bearing of the platen roller is secured, the head moves up and down. As the distance from the center to the side (a) increases, the head moves downward, and as the distance decreases, the head moves upward.)



Locate the deepest groove of the head guide cam to the back center and define the positions therefrom as +1, +2, -1 and -2 to the right and left direction. When the head guide cam is turned in the direction "c" to the position +1 or +2, the head moves upward. When the cam is turned in the direction "d" to the position -1 or -2, the head moves downward. (Turn both right and left cams in the same direction and same amount.)

| Name of side | Distance from the center to the side | Head location                                              | Head location                                            | Rotating direction from 0                                                      |
|--------------|--------------------------------------|------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| +2           | <br>The distance gets longer.        | <br>The head moves upward.(Faint black color is improved.) | <br>The head moves downward.<br>(Drag line is improved.) | <br>Turn the head in the direction "c."<br>Turn the head in the direction "d." |
| +1           |                                      |                                                            |                                                          |                                                                                |
| 0            |                                      |                                                            |                                                          |                                                                                |
| -1           |                                      |                                                            |                                                          |                                                                                |
| -2           |                                      |                                                            |                                                          |                                                                                |

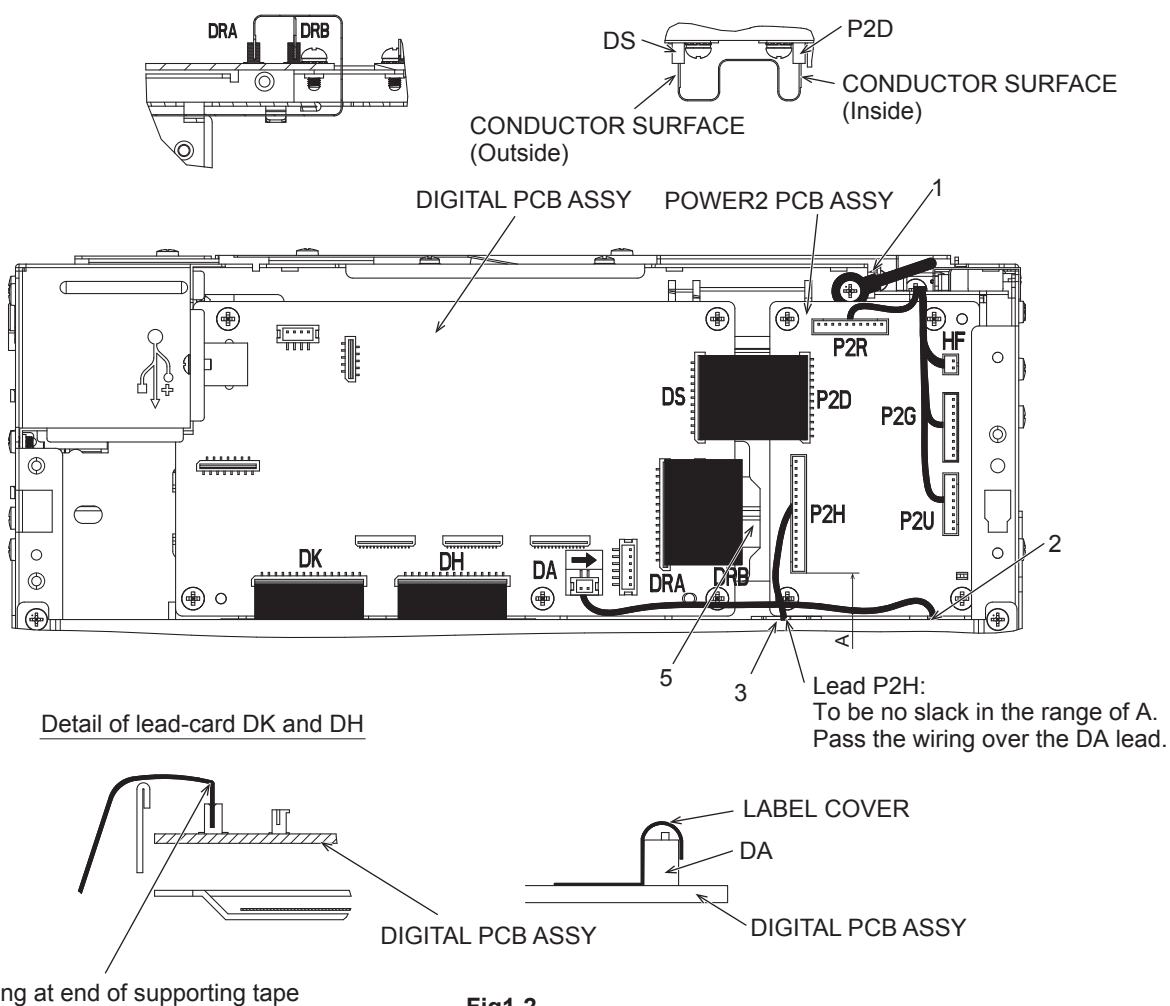
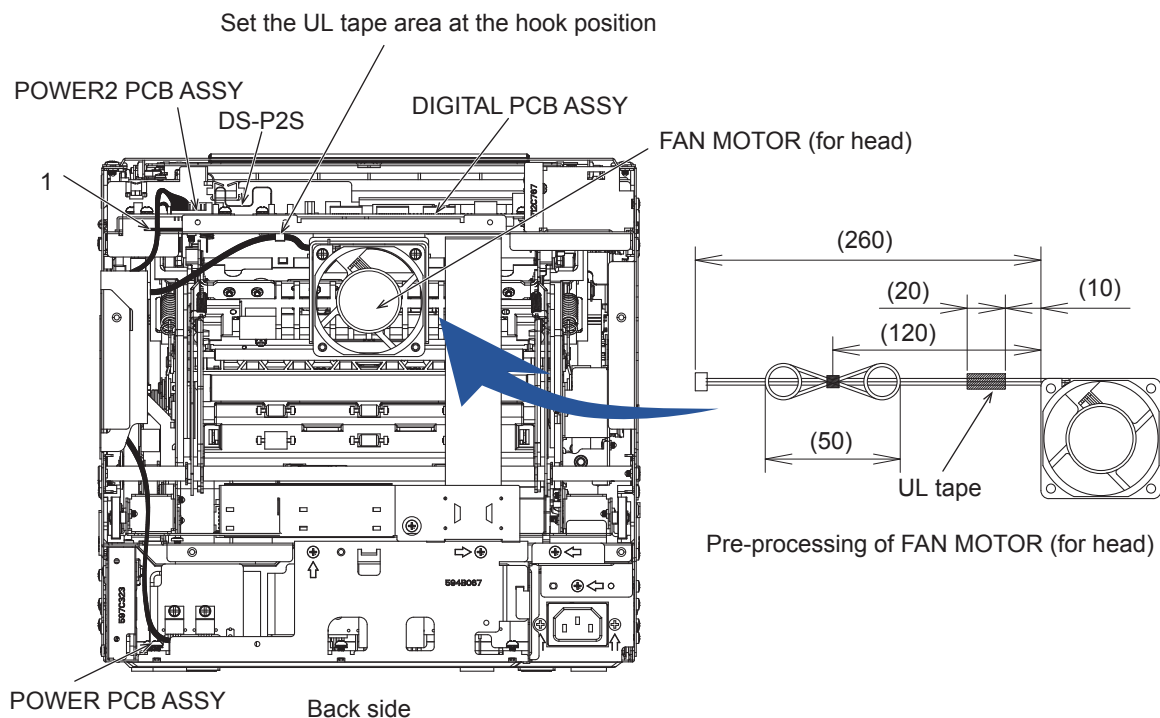


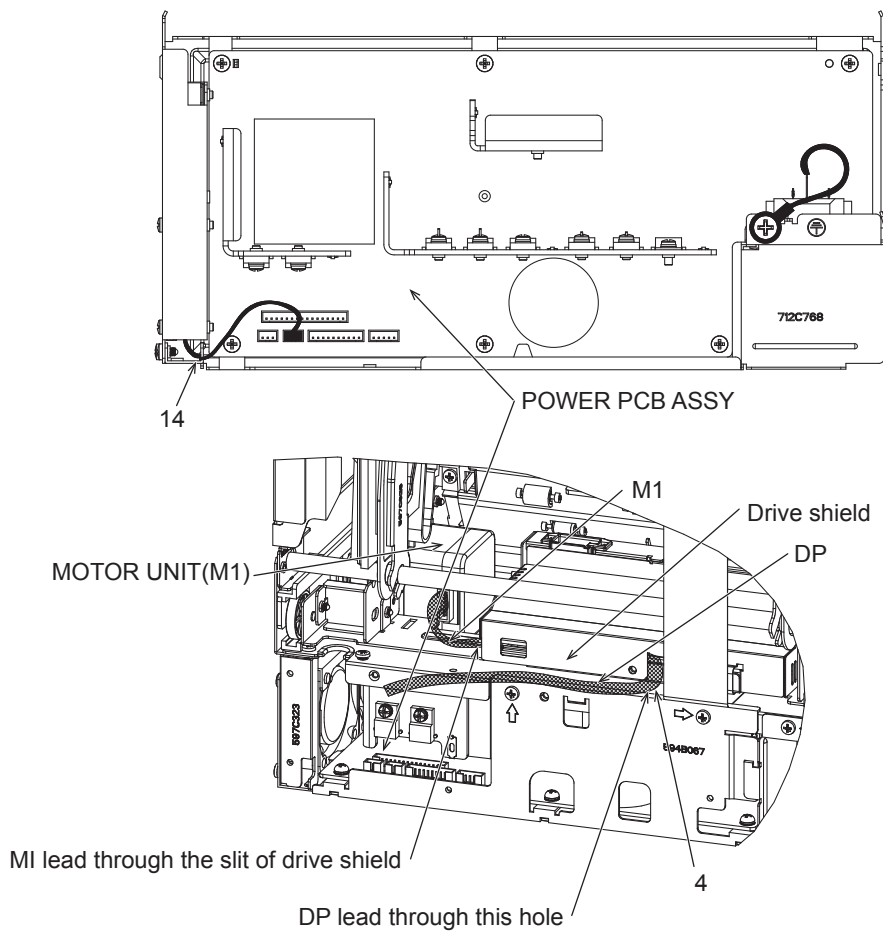
2. Tighten the screw "b" of each head guide cam.
3. Repeat the procedures 1 and 2 until the drag line or faint black color is improved to the best level.

# LEAD DRESS

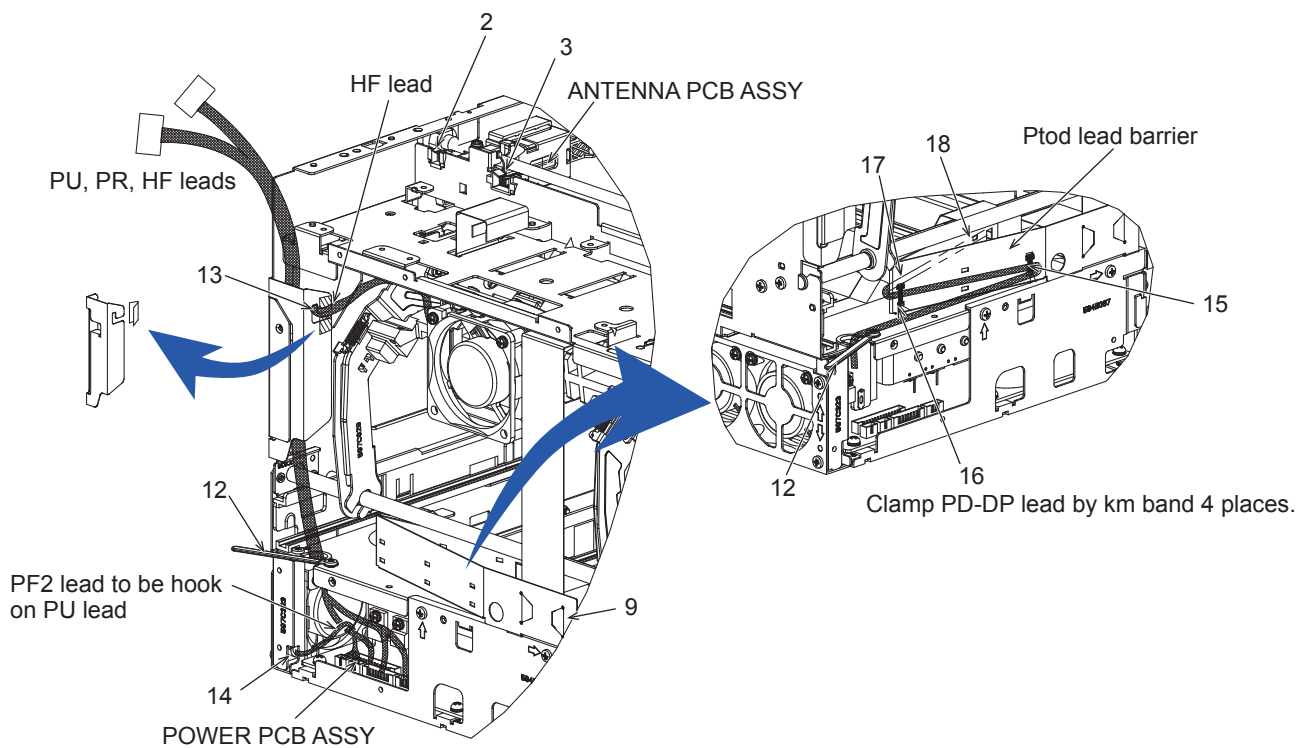
The Lead Wires to be clamped are listed in the table below.

Note: The inner wires are clamped so that they do not come close to heat generating or high voltage parts. After servicing route all wires in their original position.





**Fig1-3**



**Fig1-4**

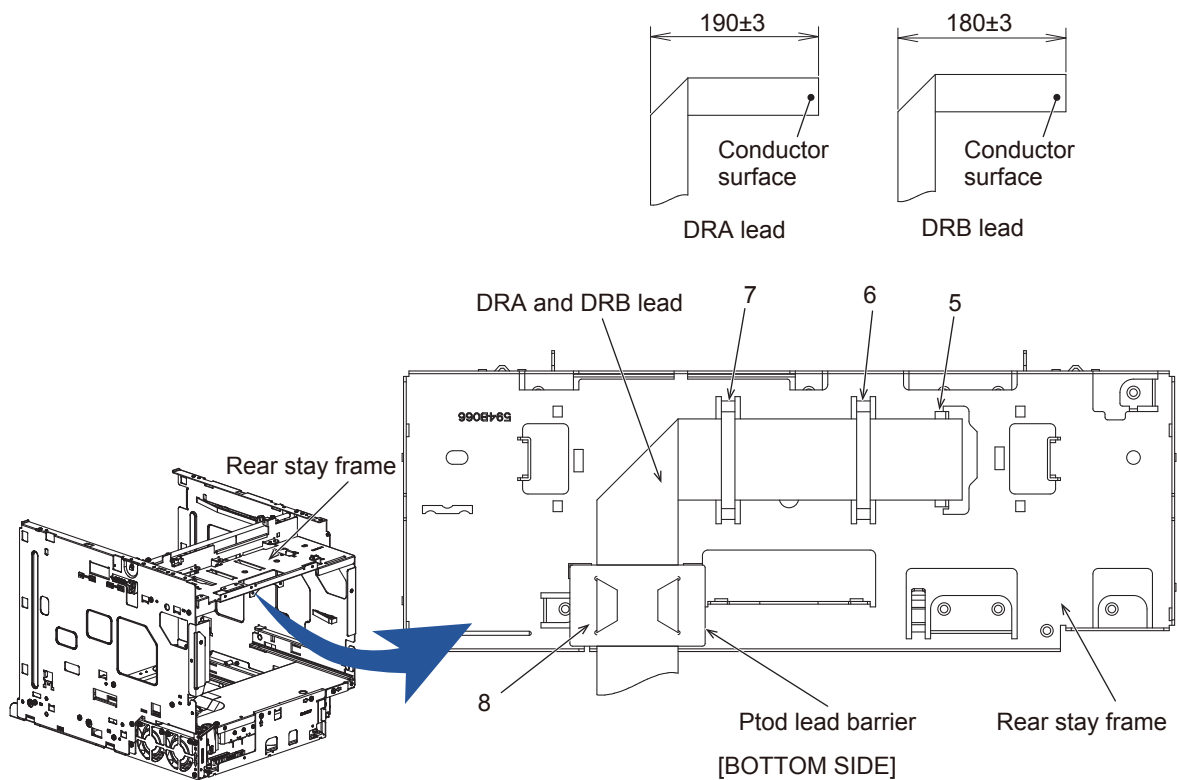
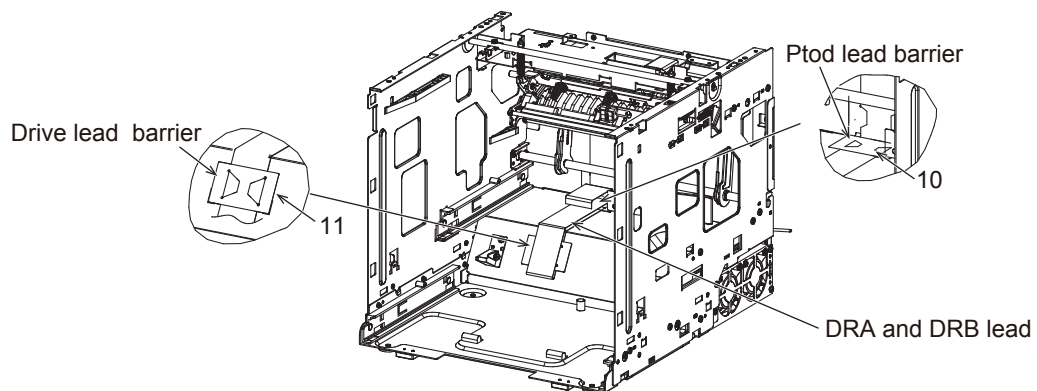


Fig2-1



DRA lead and DRB lead are stacked and fixed with 10 and 11

Fig2-2

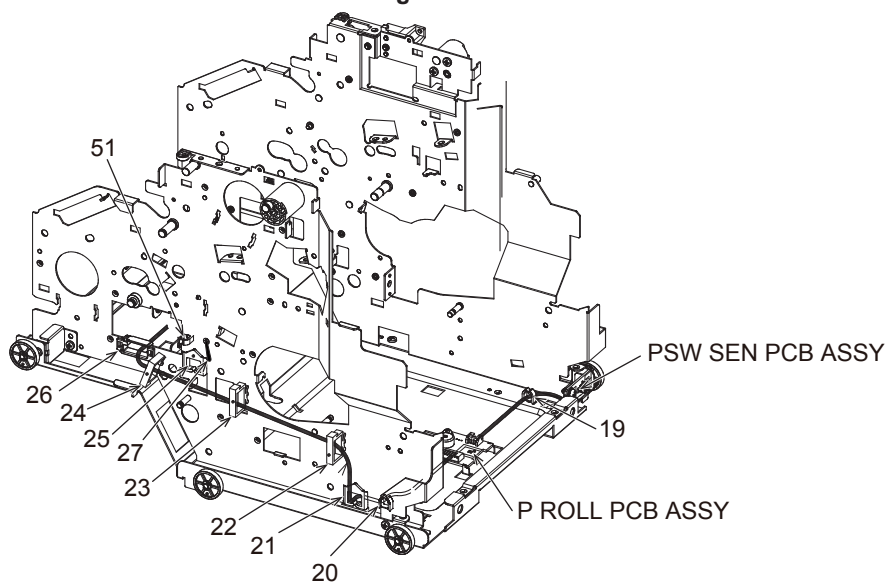
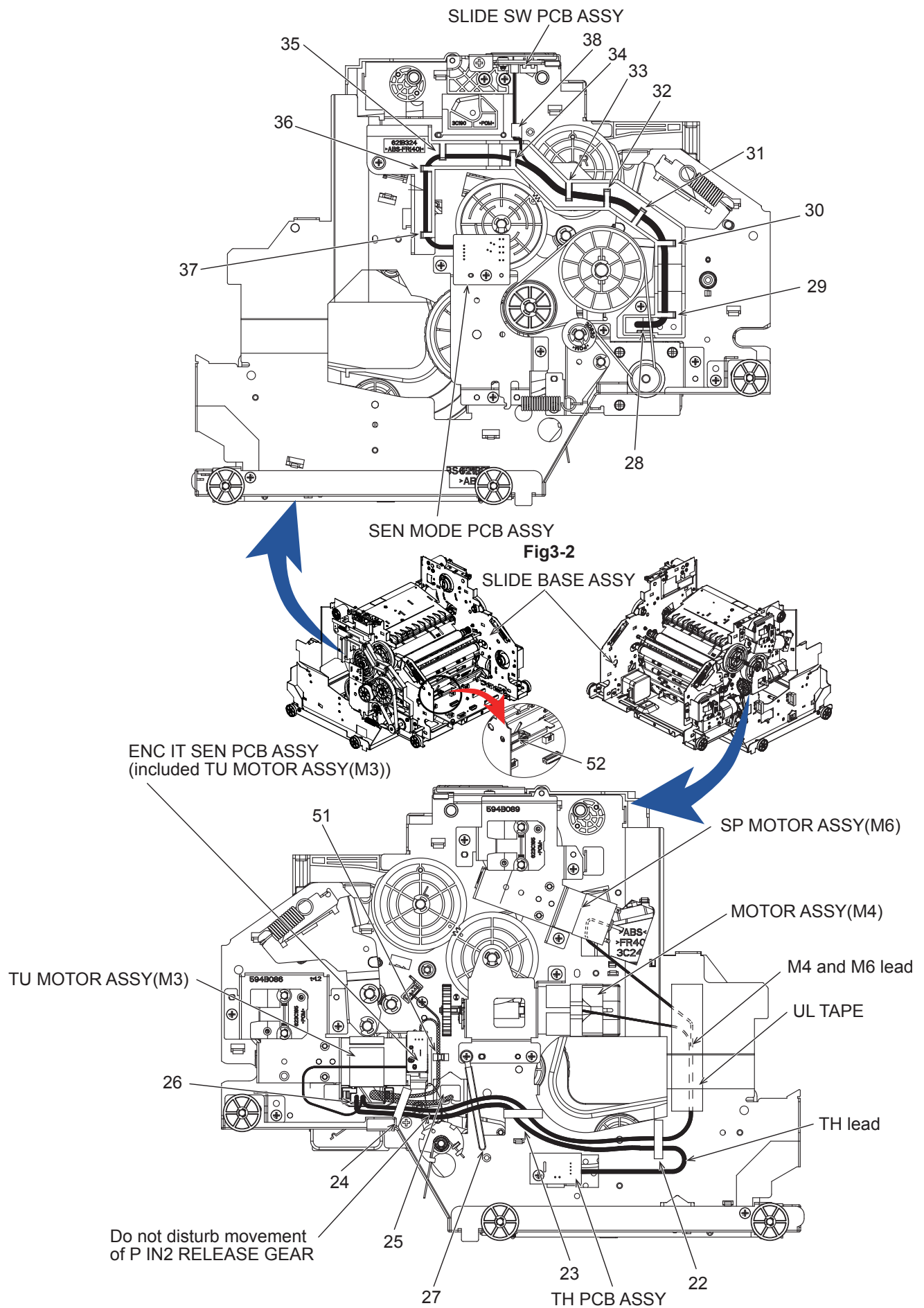
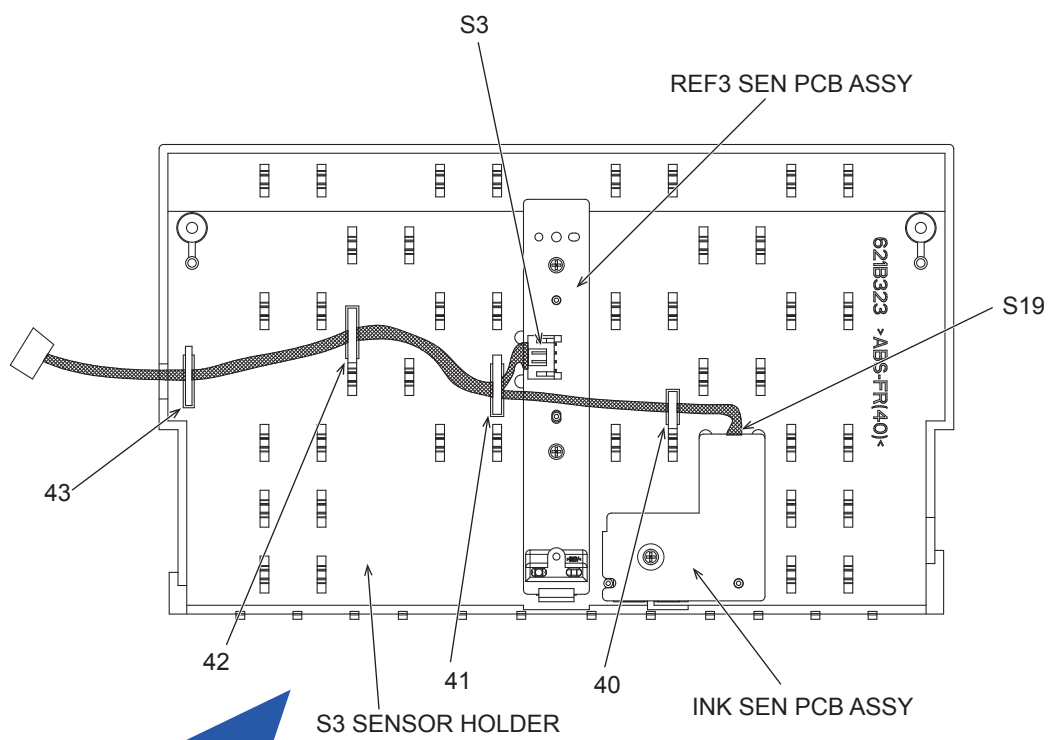


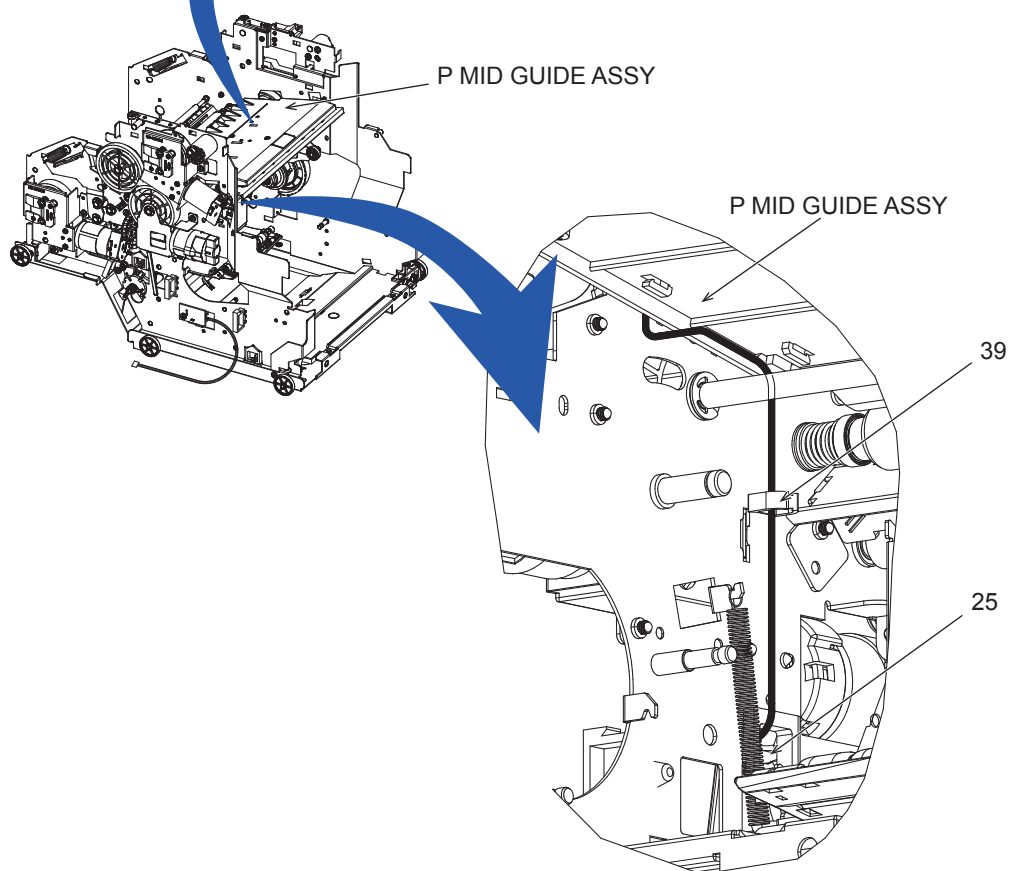
Fig3-1  
- 33 -



**Fig3-3**



**Fig4-1**



**Fig4-2**

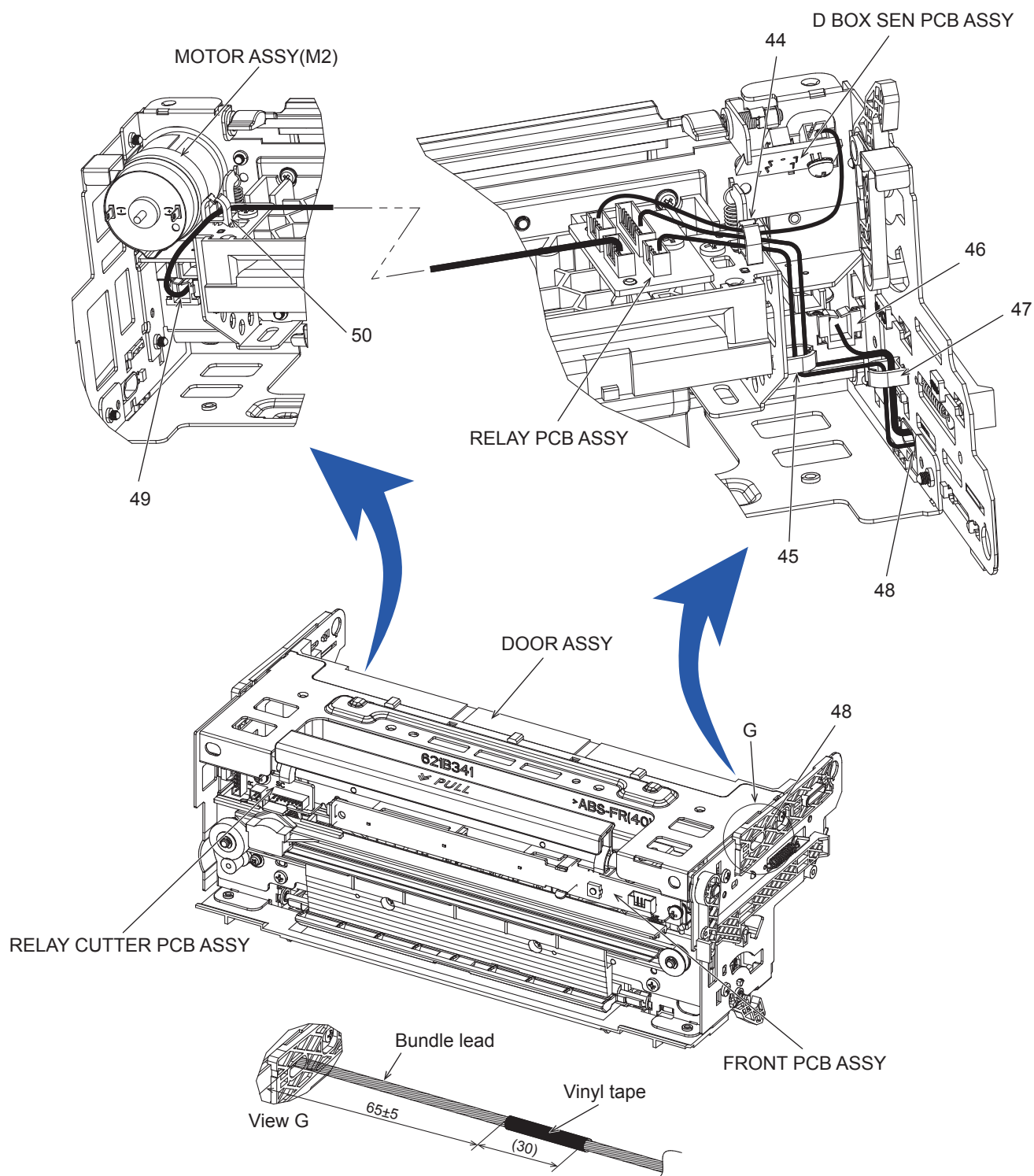


Fig5

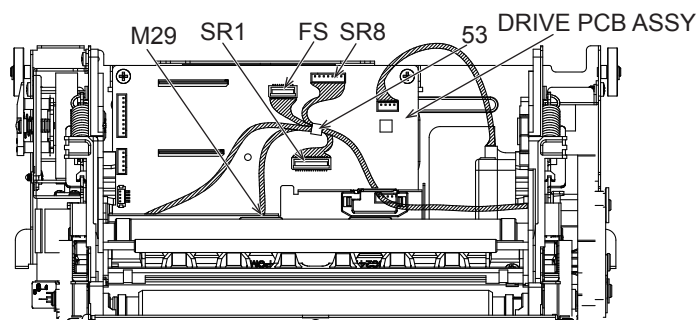


Fig6

## CLAMPS FOR CONNECTOR LEAD WIRES

| Name of connector | Name of clamper       |                                           |                                                     | Name of connector | Fig.              |
|-------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------------|-------------------|
| PR                | POWER PCB ASSY        | 12-1                                      | POWER2 PCB ASSY                                     | P2R               | Fig.1-4→1-1→1-2   |
| PU                | POWER PCB ASSY        | 12-1                                      | POWER2 PCB ASSY                                     | P2U               | Fig.1-4→1-1→1-2   |
|                   |                       | 12-1                                      |                                                     | P2G               | Fig.1-4→1-1→1-2   |
| PD                | POWER PCB ASSY        | 12-15-16-17-18                            | DRIVE PCB ASSY                                      | DP                | Fig.1-4           |
| PF2               | POWER PCB ASSY        | 14                                        | FAN MOTOR(for power)                                | PF2               | Fig.1-4           |
| P2D               | POWER2 PCB ASSY       | -                                         | DIGITAL PCB ASSY                                    | DS                | -                 |
| P2H               | POWER2 PCB ASSY       | 3                                         | HEAD 1 ASSY                                         | P2H               | Fig.1-2           |
| HF                | POWER2 PCB ASSY       | 1-13                                      | FAN MOTOR(for head)                                 | HF                | Fig.1-2→1-4       |
| RDA               | DRIVE PCB ASSY        | 11-10-9-8-7-6-5                           | DIGITAL PCB ASSY                                    | DRA               | Fig.2-1→1-4→2-2   |
| RDB               | DRIVE PCB ASSY        | 11-10-9-8-7-6-5                           | DIGITAL PCB ASSY                                    | DRB               | Fig.2-1→1-4→2-2   |
| RHM               | DRIVE PCB ASSY        | 26-24-27-23-22                            | TH PCB ASSY                                         | TH                | Fig.3-3           |
| M1                | DRIVE PCB ASSY        | -                                         | MOTOR UNIT(M1)                                      | M1                | Fig.1-3           |
| M34               | DRIVE PCB ASSY        | 26                                        | TU MOTOR ASSY(M3)                                   | M3                | Fig.3-3           |
|                   |                       | 26-24-27-23-22                            | MOTOR ASSY(M4)                                      | M4                | Fig.3-3           |
|                   |                       | 26-24-27-23-22                            | SP MOTOR ASSY(M6)                                   | M6                | Fig.3-3           |
| SR1               | DRIVE PCB ASSY        | 53-26-24--27-25-39-43-42-41-40            | INK SEN PCB ASSY                                    | S19               | Fig.6→3-3→4-2→4-1 |
| SR1               | DRIVE PCB ASSY        | 53-26-24-27-51                            | ENC IT SEN PCB ASSY<br>(included TU MOTOR ASSY(M3)) | S12               | Fig.6→3-3         |
| SR1               | DRIVE PCB ASSY        | 53-26-24-27-25-39-43-42-41                | REF3 SEN PCB ASSY                                   | S3                | Fig.6→3-3→4-2→4-1 |
| SR1               | DRIVE PCB ASSY        | 53-26-24-27-51                            | REF1 SEN PCB ASSY                                   | S1                | Fig.6→3-3         |
| SR8               | DRIVE PCB ASSY        | 53-52-28-29-30-31-32-33-38                | SLIDE SW PCB ASSY                                   | SD                | Fig.6→3-2         |
| SR8               | DRIVE PCB ASSY        | 53-52-28-29-30-31-32-33-34-35-36-37       | SEN MODE PCB ASSY                                   | S8                | Fig.6→3-2         |
| M29               | DRIVE PCB ASSY        | 53-52-28-29-30-31-32-33-34-35-48-47-45-44 | RELAY PCB ASSY                                      | RM                | Fig.6→3-2→5       |
| FS                | DRIVE PCB ASSY        | 53-52-28-29-30-31-32-33-34-35-48-47-45-44 | RELAY PCB ASSY                                      | RS                | Fig.6→3-2→5       |
| FS                | DRIVE PCB ASSY        | 53-52-28-29-30-31-32-33-34-35-48-47-46    | FRONT PCB ASSY                                      | RF                | Fig.6→3-2→5       |
| FP                | DRIVE PCB ASSY        | 26-24-27-23-22-21-20                      | P ROLL PCB ASSY                                     | RP                | Fig.3-1           |
| RL                | RELAY PCB ASSY        | 49-50                                     | RELAY CUTTER PCB ASSY<br>(included CUTTER ASSY)     | LR                | Fig.5             |
| SR5               | RELAY PCB ASSY        | 44                                        | D BOX SEN PCB ASSY                                  | SB                | Fig.5             |
| M2                | RELAY CUTTER PCB ASSY | 49                                        | MOTOR ASSY(M2)<br>(included CUTTER ASSY)            | M2                | Fig.5             |
| SC                | RELAY CUTTER PCB ASSY | 49                                        | CUTTER UNIT<br>(included CUTTER ASSY)               | SC                | Fig.5             |
| SP                | P ROLL PCB ASSY       | 19                                        | PSW SEN PCB ASSY                                    | PS                | Fig.3-1           |
| DA                | DIGITAL PCB ASSY      | 2                                         | ANTENNA PCB ASSY                                    | LS                | Fig.1-4           |
| DH                | DIGITAL PCB ASSY      | -                                         | HEAD 1 ASSY                                         | DH                | Fig.1-2           |
| DK                | DIGITAL PCB ASSY      | -                                         | HEAD 1 ASSY                                         | DK                | Fig.1-2           |

# ADJUSTMENT ITEM LIST

When you replace parts in ASK-500 adjust the following items.

| Replace parts      | Adjustment items        |                    |                                |                             |                            |                            |                                       |                                         |
|--------------------|-------------------------|--------------------|--------------------------------|-----------------------------|----------------------------|----------------------------|---------------------------------------|-----------------------------------------|
|                    | 34V adjustment          | Density adjustment | Adjustment of M1 motor current | Adjustment of M3 motor Duty | Adjustment of color sensor | Adjustment of paper sensor | Adjustment of vertical print position | Adjustment of horizontal print position |
| PCB-POWER          | ○                       |                    |                                |                             |                            |                            |                                       |                                         |
| PCB-POWER2         | ○                       |                    |                                |                             |                            |                            |                                       |                                         |
| Head               |                         | ○                  | △                              | △                           | △                          | △                          | △                                     | △                                       |
| PCB-DRIVE          | not necessary to adjust |                    |                                |                             |                            |                            |                                       |                                         |
| Sensor (S1)        |                         |                    |                                |                             |                            | ○                          |                                       |                                         |
| Sensor (S3)        |                         |                    |                                |                             |                            | ○                          | ○                                     |                                         |
| Color sensor (S19) |                         |                    |                                |                             | ○                          |                            |                                       |                                         |
| PCB-DIGITAL        | not necessary to adjust |                    |                                |                             |                            |                            |                                       |                                         |
| M1 motor           |                         |                    | ○                              |                             |                            |                            |                                       |                                         |
| M3 motor           |                         |                    |                                | ○                           |                            |                            |                                       |                                         |

○ : Adjustment is required.

△ : Copy of the adjustment values from old head to the new head is necessary.

Each adjustment value is stored to the EEPROM in the head.

When you replace the head, read the adjustment values stored in the old head before the replacement. And then, write the values read from the old head into the newly replaced head.

It is not necessary to readjust the adjustment values marked with “△”. For these values, copy the adjustment values from the old head to the new one as described above.

However, when the adjustment values cannot be read because of the EEPROM failure or other failures, readjustment is necessary.

## Procedure for replacing the head

- (1) Print the head pattern before replacing the head.
- (2) Read all the data using the EEPROM read/write menu in the service application.
- (3) Replace the head.
- (4) Write the data read in step (2) into the newly attached head using the EEPROM read/write menu in the service application.
- (5) Print the head pattern after replacing the head.
- (6) Adjust the density according to the density adjustment menu in the service application.

# SERVICE APPLICATION

## Available functions of the service application (adjustment/check items)

- 34V adjustment
- Density adjustment
- Adjustment of M1 motor current
- Adjustment of M3 motor Duty
- Adjustment of color sensor
- Adjustment of paper sensor
- Adjustment of vertical print position
- Adjustment of horizontal print position
- Printer information
- EEPROM Reading/Writing
- Sensor check
- Testing the motor alone
- Feed & Cut
- Test printing

\*Refer to the service application manual for details.

# ADJUSTMENT PROCEDURE USING THE SERVICE APPLICATION

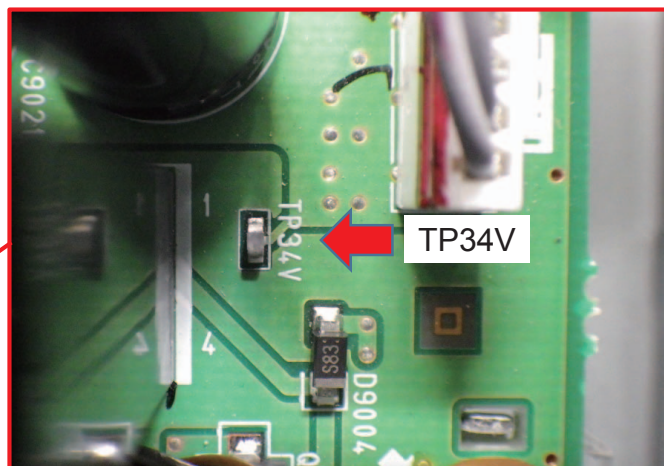
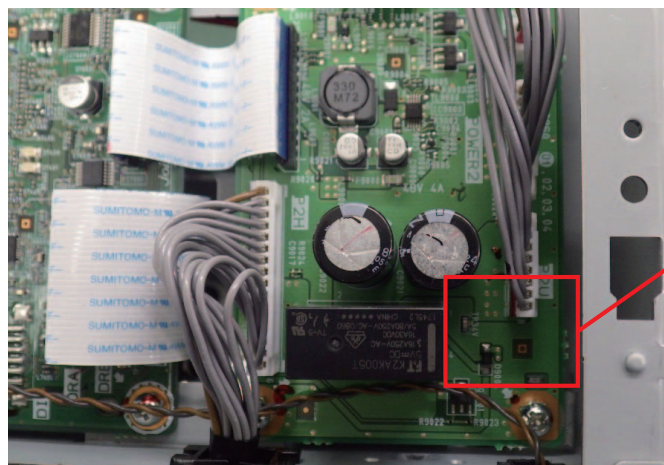
In this printer, adjustments are performed using the service application. The adjustment procedures are as follows. In addition, see the separately supplied operation manual of the service application for the adjustment procedure using the software.

## 1. 34V adjustment

The Set should be primary boost voltage should be  $380 \pm 6V$ .

### Adjustment procedure

1. Connect plus terminal of the digital multi-meter to TP34V on the PCB-POWER2 and minus terminal to the frame GND.
2. Send USB command as shown below and adjust the voltage as  $33.95 \pm 0.05V$ .



## 2. Density adjustment

This item is used to decrease the density variations caused by the head resistance variations. In case of an adjustment failure, black areas in the printing image become too light, too dark, burnt, or matte.

### Adjustment procedure

1. Printing before the head replacement (to compare the printings before and after replacement)  
Print the head pattern in 10x15 (4X6") size using the Density Adjustment menu in the service application.
2. Printing after the head replacement  
Set the density adjustment value to the default using the Density Adjustment menu in the service application, and print the head pattern (in 10x15 (4X6") size).
3. Comparing with the printing before the head replacement and performing the fine adjustment  
Compare the image printed in step (1) (before the head replacement) with that printed in step (2) (after the head replacement), and if necessary, perform the fine adjustment using the density adjustment menu in the service application.

## 3. Adjustment of M1 motor current

This item is used to decrease the uneven rotation of the motor caused by the variation of the M1 motor.  
In case of an adjustment failure, banding is happened in the printed image.

### Adjustment procedure

1. Printing images before adjustment  
Set the adjustment value in the Adjustment of M1 motor current of the service application to the default (B8h) and print a solid gray pattern (in 10x15 (4X6") size). The following adjustment isn't necessary when banding is not happened.
2. M1 motor current adjustment  
Print a solid gray pattern and, according to the printing result, adjust the Adjustment of M1 motor current of the service application to the value at which banding is not happened. Select from the following adjustment values.

BDh, C8h, C2h

## 4. Adjustment of M3 motor Duty

This item is used to adjust the tension to the ink ribbon caused by the variation of the M3 motor.

In case of an adjustment failure, the tension to the ink becomes insufficient, as a result, wrinkle is happened in the printed image.

### Adjustment procedure

#### 1. M3 motor duty adjustment

Set the adjustment value using the Adjustment of M3 motor Duty in the service application. Input the M3 motor duty value specified in the sheet supplied with the M3 motor.

## 5. Adjustment of color sensor

This item is used to adjust the sensor sensitivity of the ink ribbon.

In case of an adjustment failure, ink ribbon cannot be determined, resulting in the ink-related error.

### Adjustment procedure

#### 1. 1st Printer settings

Remove the ink ribbon and dust box from the printer.

Insert the paper until the LED [GREEN] light on and close the door.

#### 2. Current sensor values read

Read the current sensor in the service application.

#### 3. 2nd Printer settings

Insert the ink ribbon with the transparent overcoat side visible and close the door.

#### 4. Adjusting the color sensor

Adjust using the Adjustment of color sensor in the service application.

## 6. Adjustment of paper sensor

This item is used to adjust the paper sensor sensitivity.

In case of an adjustment failure, paper location cannot be determined, resulting in the paper-related error.

### Adjustment procedure

#### 1. Printer settings

Remove the ink ribbon from the printer and close the door.

#### 2. Adjusting the paper sensor

Adjust using the Adjustment of Ink-black mark sensor in the service application.

## 7. Adjustment of vertical print position

This item is used to adjust the vertical position of the printed image and the amount of the margin cut. In case of an adjustment failure, a white horizontal line appears on the top or bottom of an image (edge of an image isn't printed), or a paper jam occurs due to the margin cut.

### Adjustment procedure

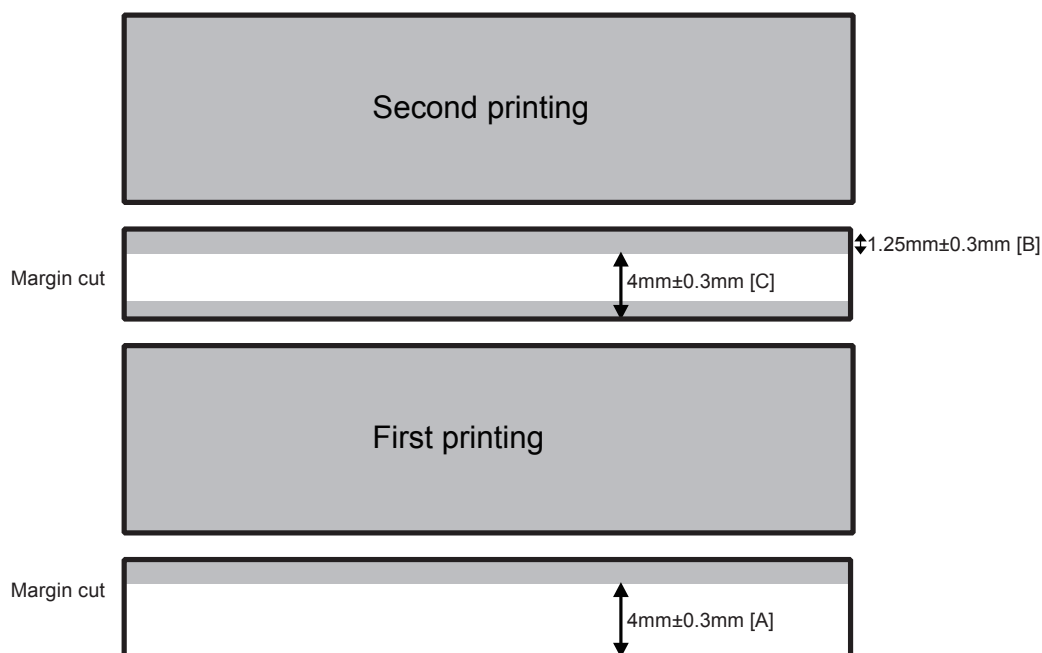
#### 1. Printing images before adjustment

Before adjusting the printing position, perform the Feed&Cut using the service application.

Print two sheets of a solid gray pattern continuously in 10x15 (4X6") size using the Adjustment of vertical print position in the service application.

#### 2. Checking the margin cut before adjustment

This adjustment is not necessary when the margin cut of two sheets is as follows.



\* When the margin cut isn't performed properly, adjust the following items.

#### 3. Adjusting the amount of the margin cut

Adjust the following parameters using the printing position adjustment (vertical) menu in the service application.

- First print (blank length).....Measure the length of Area [A] and input the Measured value.
- Second print (margin length) .....Measure the length of Area [B] and input the Measured value.
- Second print (blank length).....Measure the length of Area [C] and input the Measured value.

## 8. Adjustment of horizontal print position

Center the printing image horizontally.

When an adjustment error occurs, a white vertical line appears on the right or left edge of the printing image (edge of an image isn't printed).

### Adjustment procedure

#### 1. Checking the horizontal position of the printing image before adjustment

Print a solid gray pattern in 10x15 (4X6") size using the Adjustment of horizontal print position in the service application.

This adjustment isn't necessary when the printing image is centered horizontally.

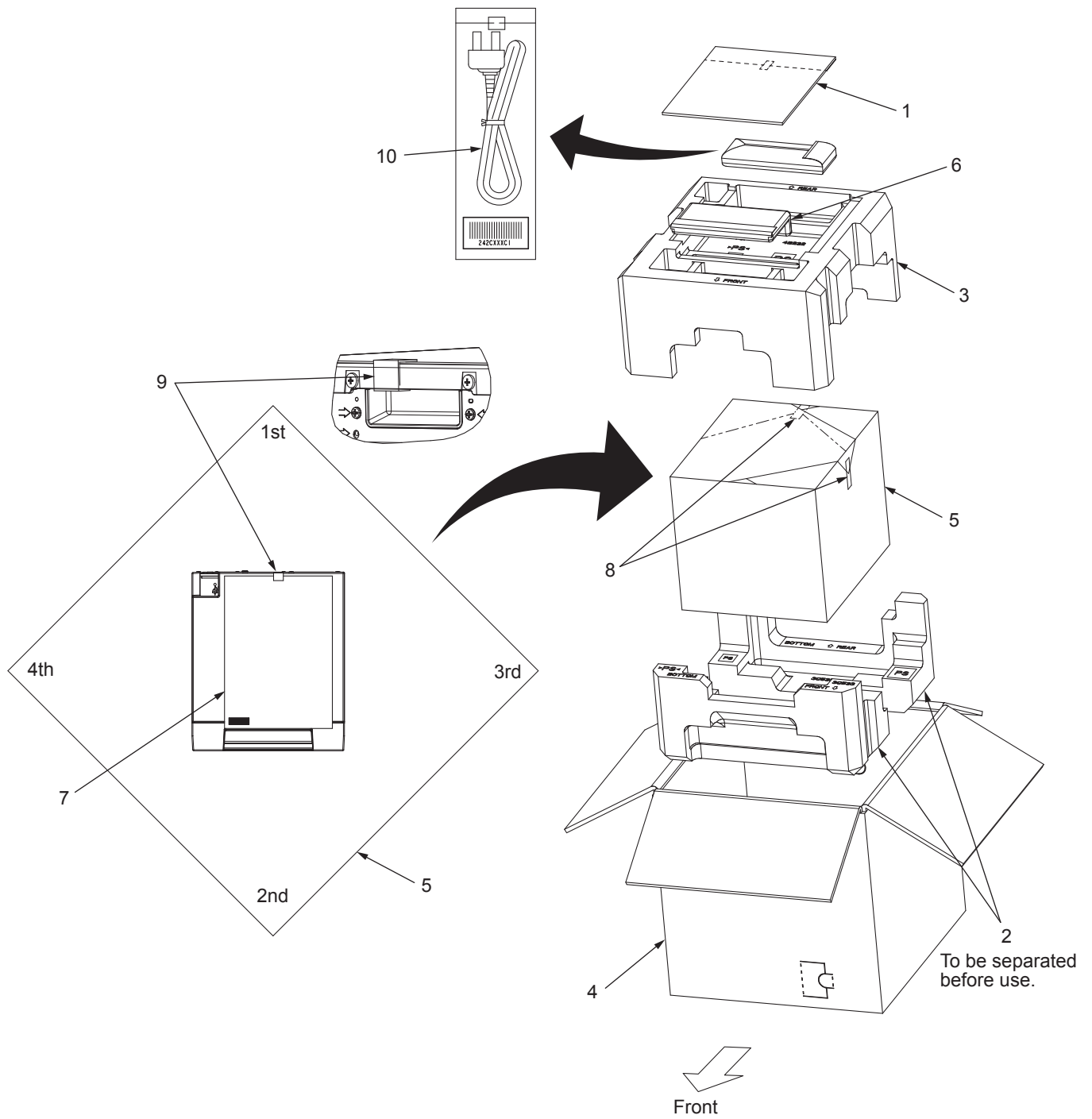
#### 2. Adjusting the horizontal position of the printing image

Center the printing image horizontally using the Adjustment of horizontal print position in the service application.



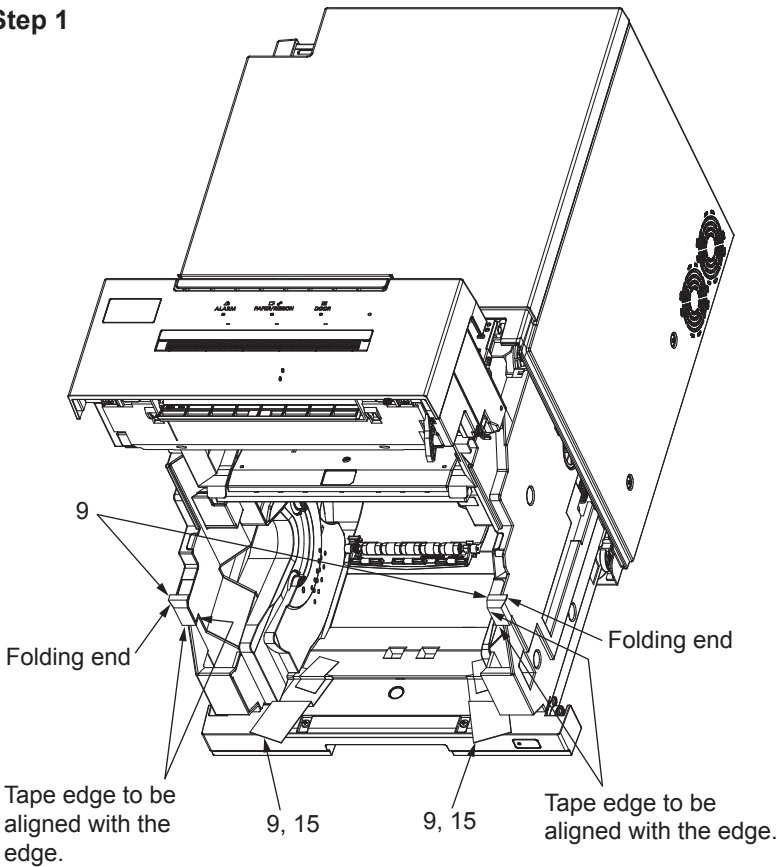
# PARTSLIST

# PACKING PARTS

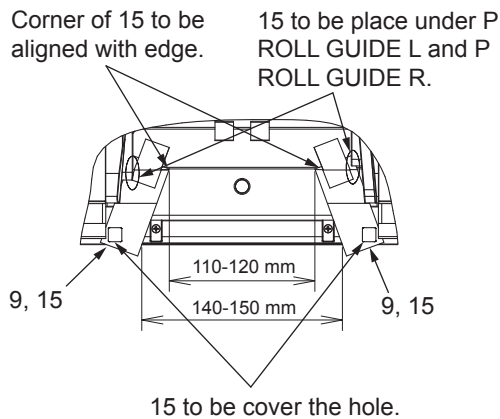


# PREPARATION FOR PACKING

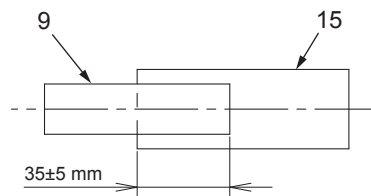
## Step 1



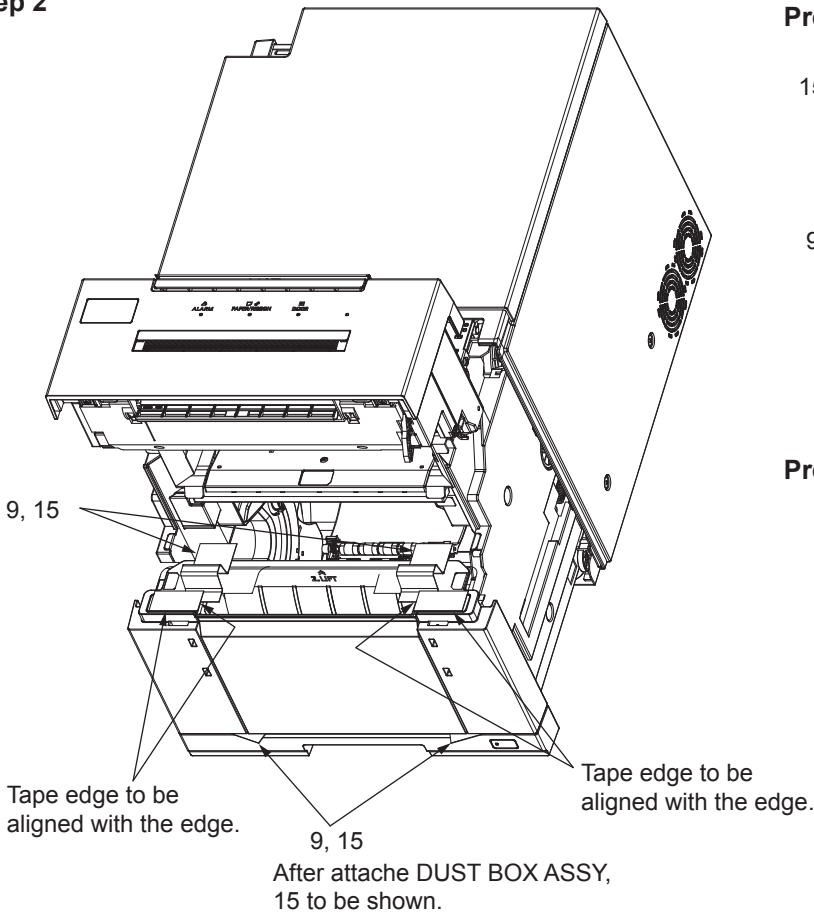
## Detail of 9 and 15 affix



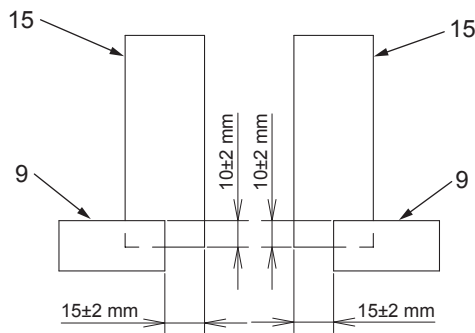
## Preparation of 9 and 15



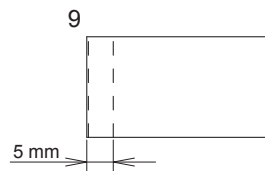
## Step 2



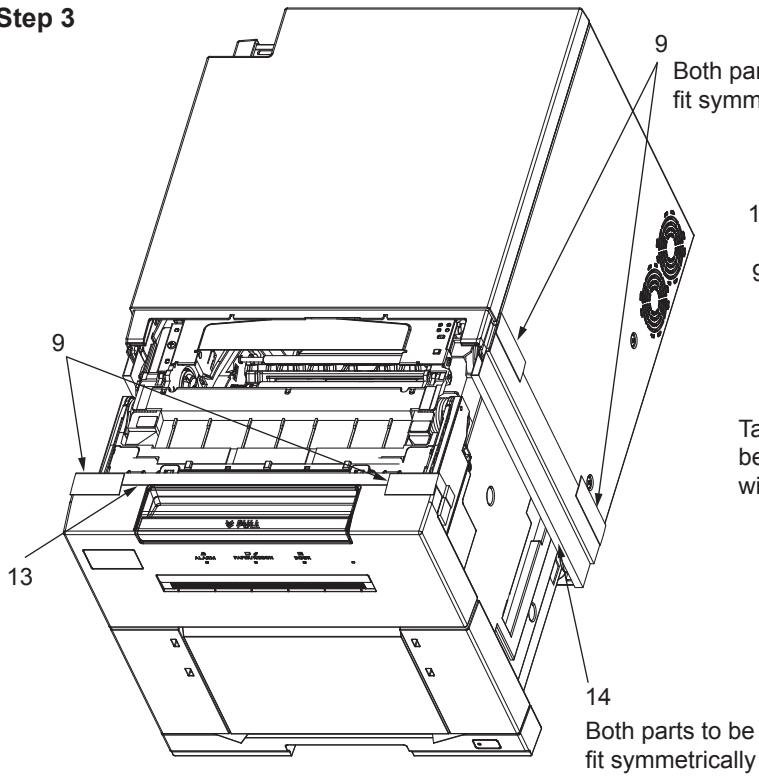
## Preparation of 9 and 15



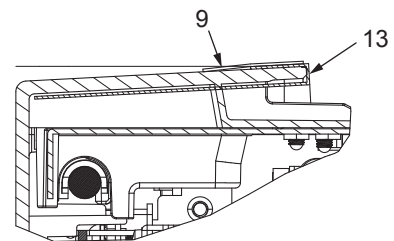
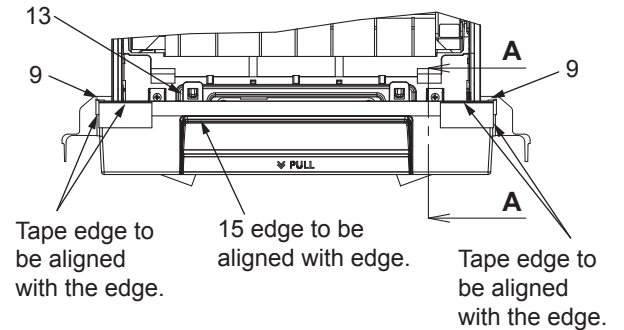
## Preparation of holding tape



### Step 3

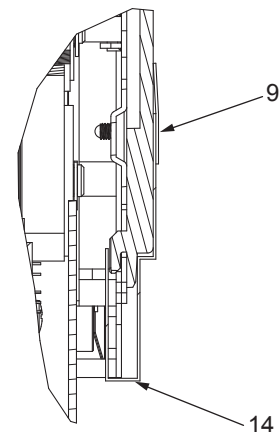
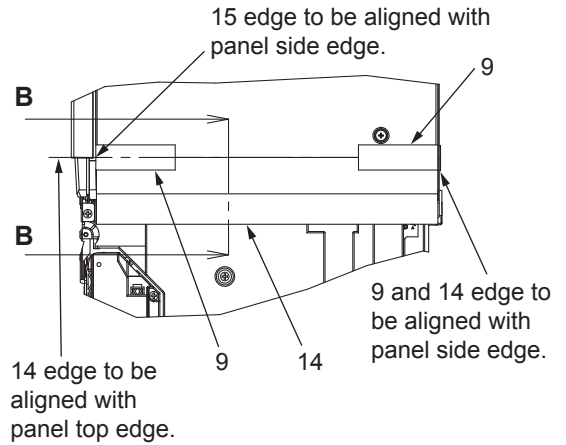


#### Detail of 9 and 13 affix



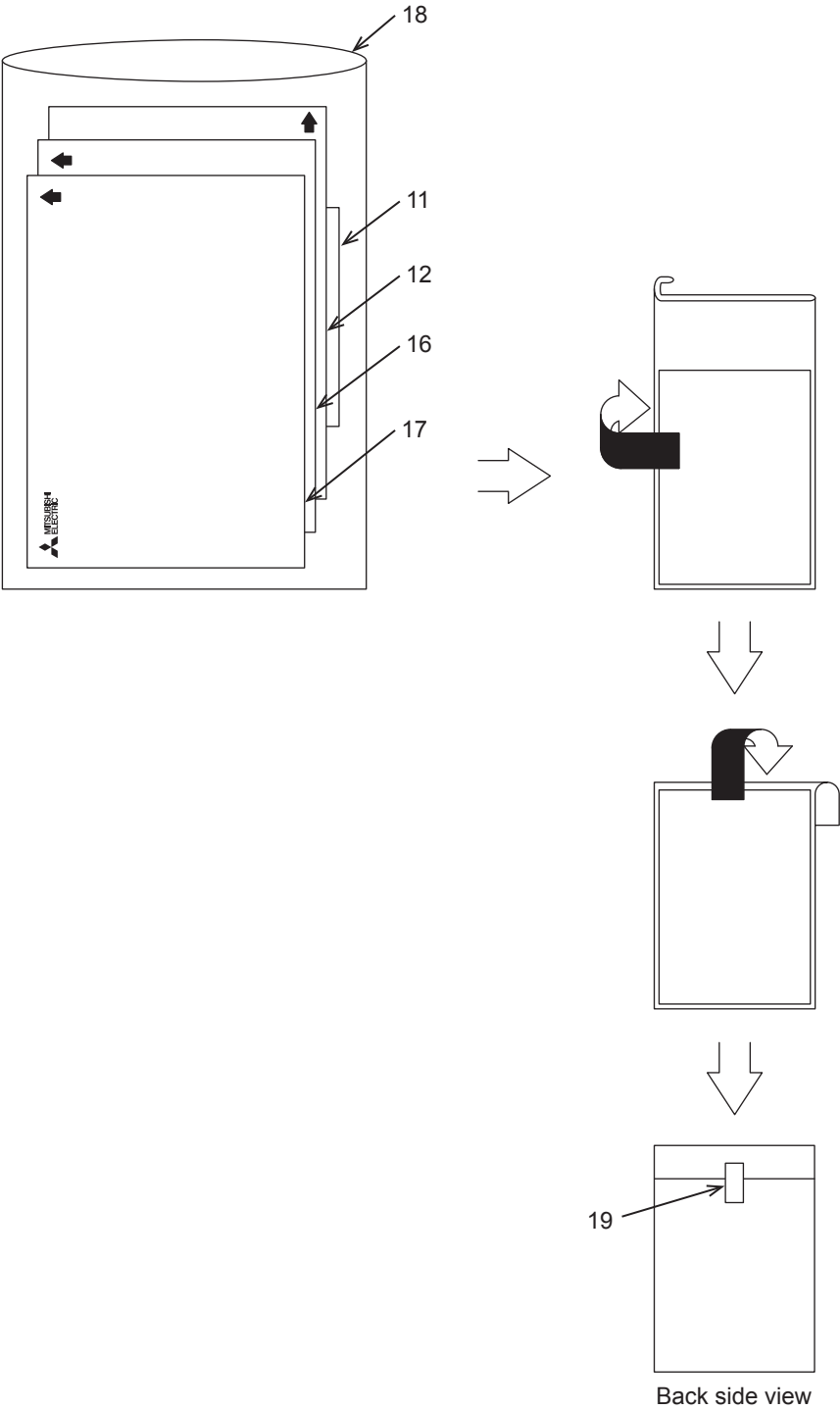
#### Section A-A

#### Detail of 9 and 14 affix



#### Section B-B

ACCESSORY



(RoHS-compliant model)

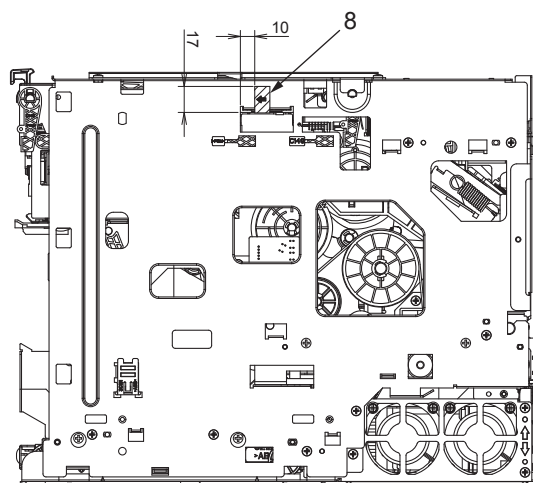
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

| ITEM No. | PARTS No.  | PARTS NAME       | DESCRIPTION |
|----------|------------|------------------|-------------|
| 1        | ◆          | ACCESSORY        |             |
| ⚠ 2      | 803C533O10 | CUSHION B        |             |
| ⚠ 3      | 804B232O10 | CUSHION T        |             |
| ⚠ 4      | 801C930O10 | PACKING CASE     |             |
| 5        | ◆          | PACKING SHEET    |             |
| 6        | 760C863O10 | TRAY UNIT        |             |
| 7        | ◆          | INST SHEET       |             |
| 8        | ◆          | MASKING TAPE     |             |
| 9        | ◆          | HOLDING TAPE     |             |
| 10       | ◆          | POWER CORD       |             |
| 11       | ◆          | GUIDE TRAY SHEET |             |
| 13       | ◆          | PACKING SHEET    |             |
| 14       | ◆          | PACKING SHEET    |             |
| 15       | ◆          | PACKING SHEET    |             |
| 16       | ◆          | QUICK GUIDE      |             |
| 17       | ◆          | SAFETY GUIDE     |             |
| 18       | ◆          | PACKING BAG      |             |
| 19       | ◆          | CELLO TAPE       |             |

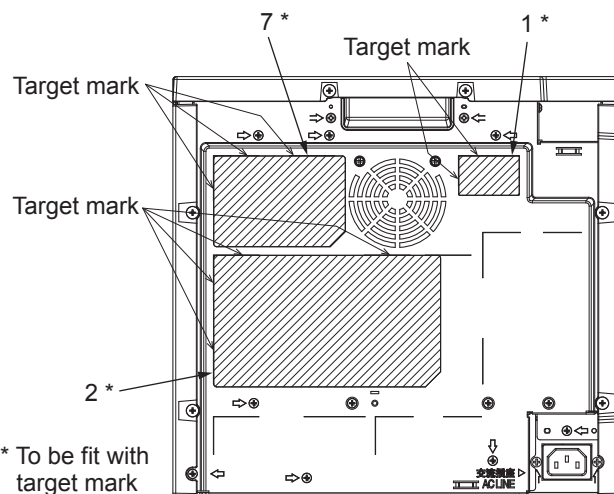
⚠ mark : Critical components

◆ mark : Not a stocked items

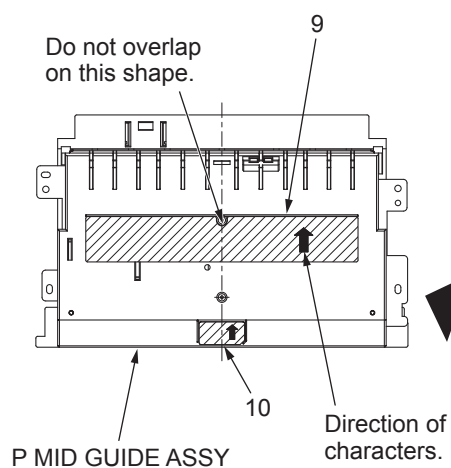
# LABEL ATTACHING POSITION



Right side

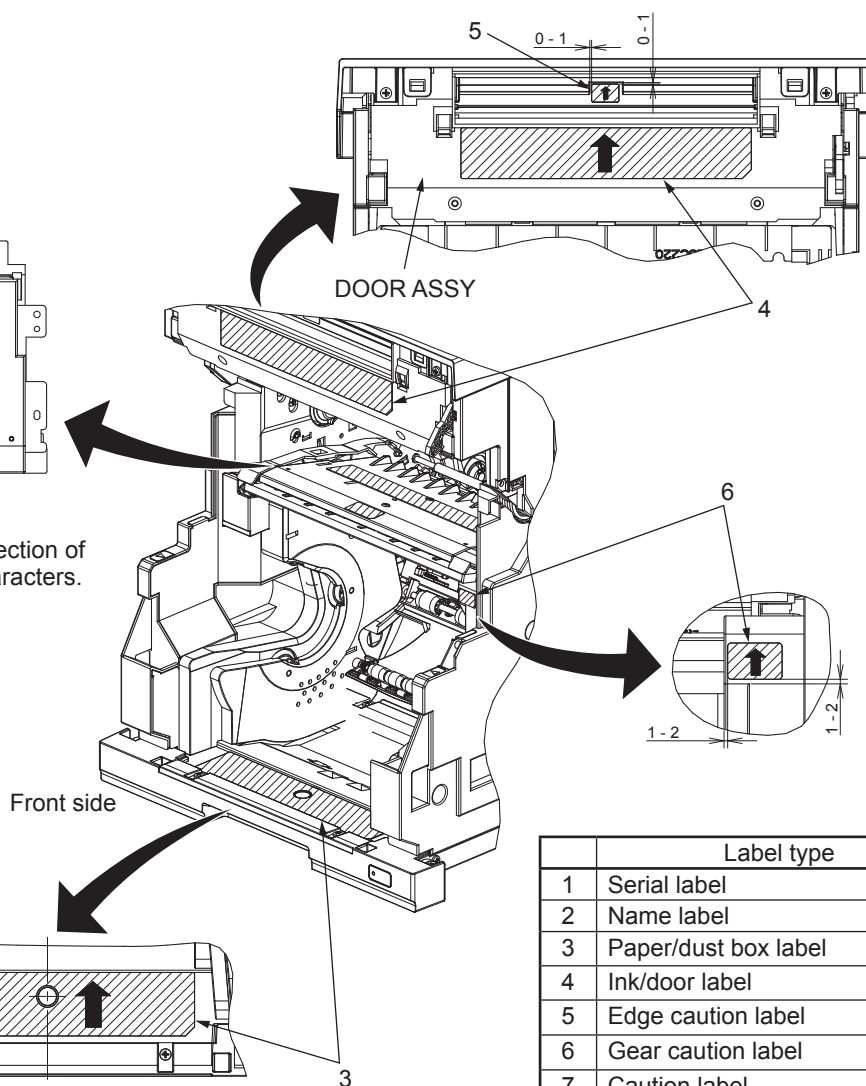


Back side

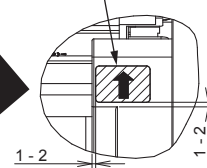


P MID GUIDE ASSY

Direction of characters.



Front side



|    | Label type           |
|----|----------------------|
| 1  | Serial label         |
| 2  | Name label           |
| 3  | Paper/dust box label |
| 4  | Ink/door label       |
| 5  | Edge caution label   |
| 6  | Gear caution label   |
| 7  | Caution label        |
| 8  | Protect label        |
| 9  | Hot caution label    |
| 10 | Ribbon label         |

# PARTS LIST

(RoHS-compliant model)

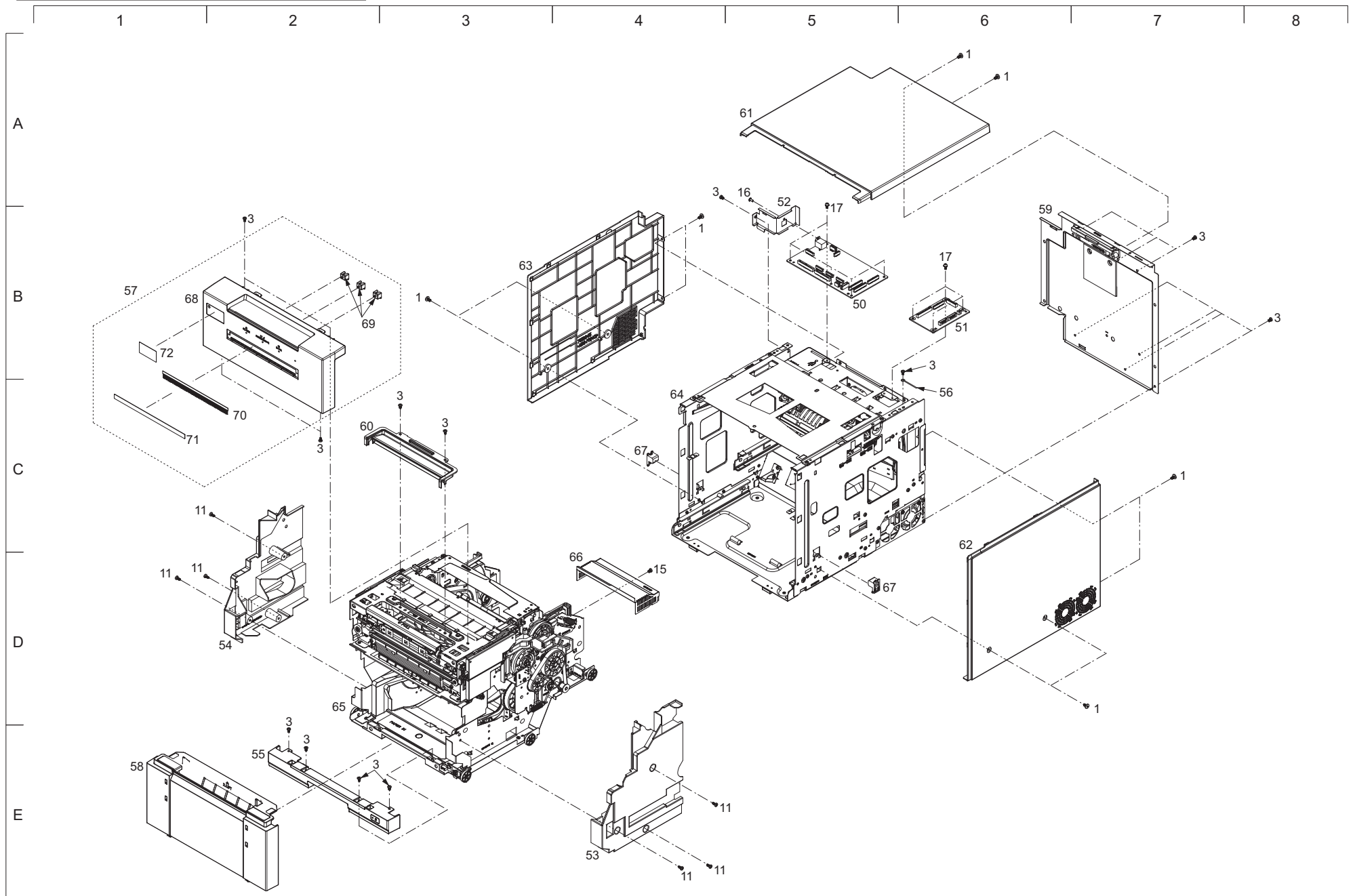
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

 : Critical components

| SYMBOL No.                                                                         | PART No. | PART NAME                        | DESCRIPTION         | SYMBOL No.                                                                          | PART No.                | PART NAME            | DESCRIPTION |
|------------------------------------------------------------------------------------|----------|----------------------------------|---------------------|-------------------------------------------------------------------------------------|-------------------------|----------------------|-------------|
| MISCELLANEOUS                                                                      |          |                                  |                     | 623C205010                                                                          | PICK ROLLER GEAR        | [HEAD GEAR CAM L]    |             |
|    | PF2      | 288P393020 FAN MOTOR             |                     | 623C227010                                                                          | PICK ROLLER GEAR        | [P ROLL GEAR JOINT1] |             |
|    |          | 288P389010 FAN MOTOR             |                     | 630C474010                                                                          | PINCH ROLLER            |                      |             |
|    |          | 283D207060 FUSE                  |                     | 630C468010                                                                          | PLATEN ROLLER           |                      |             |
| PRINTED CIRCUIT BOARD ASSY'S                                                       |          |                                  |                     | 623D660020                                                                          | R SEPARATOR BUSH        |                      |             |
|                                                                                    |          |                                  |                     | 668D118020                                                                          | SCREW                   |                      |             |
|    |          | 936D392002 ANTENNA PCB ASSY      |                     | 669D933010                                                                          | SCREW                   |                      |             |
|    |          | 936D399002 D BOX SEN PCB ASSY    |                     | 976C066002                                                                          | SI KNOB LEVER ASSY      |                      |             |
|    |          | 936B251002 DIGITAL PCB ASSY      |                     | 530D104010                                                                          | SLEEVE METAL            |                      |             |
|    |          | 936D384002 DRIVE PCB ASSY        |                     | 623C151010                                                                          | SLIDE STOPPER           |                      |             |
|    |          | 936D385002 FRONT PCB ASSY        |                     | 956D239002                                                                          | SP MOTOR ASSY           |                      |             |
|    |          | 936D401002 IT ENC SEN PCB ASSY   |                     | 956D197002                                                                          | SPACER ASSY S           |                      |             |
|    |          | 936D391002 P ROLL PCB ASSY       |                     | 521D116010                                                                          | TENSION BELT            | [BELT]               |             |
|    |          | 936D386002 POWER 2 PCB ASSY      |                     | 621C871020                                                                          | TORQUE LIMITER V        |                      |             |
|    |          | 936B248002 POWER PCB ASSY        |                     | 622C186010                                                                          | TORQUE LIMITER V        |                      |             |
|    |          | 936D397002 PSW SEN PCB ASSY      |                     | 956D238002                                                                          | TU MOTOR ASSY           |                      |             |
|    |          | 936D387002 REF1 SEN PCB ASSY     |                     | COSMETIC PARTS                                                                      |                         |                      |             |
|    |          | 936D388002 REF3 SEN PCB ASSY     |                     | 976C063002                                                                          | FRONT PANEL ASSY        |                      |             |
|    |          | 936D438002 RELAY CUTTER PCB ASSY |                     | 751B045020                                                                          | SIDE PANEL L            |                      |             |
|    |          | 936D393002 RELAY PCB ASSY        |                     | 751B044020                                                                          | SIDE PANEL R            |                      |             |
|    |          | 936D398002 SEN MODE PCB ASSY     |                     | 751B043020                                                                          | TOP PANEL               |                      |             |
|  |          | 936D396002 SLIDE SW PCB ASSY     |                     | PACKING PARTS AND ACCESSORY                                                         |                         |                      |             |
|  |          | 936D459002 TH PCB ASSY           |                     |  | 803C533010 CUSHION B    |                      |             |
| MECHANICAL PARTS                                                                   |          |                                  |                     |  | 804B232010 CUSHION T    |                      |             |
|                                                                                    |          | 530D080040 BUSH                  |                     |  | 801C930010 PACKING CASE |                      |             |
|                                                                                    |          | 530D080060 BUSH                  |                     | 760C863010                                                                          | TRAY SHEET UNIT         |                      |             |
|                                                                                    |          | 530D080080 BUSH                  |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C188010 BUSH                  |                     |                                                                                     |                         |                      |             |
|  |          | 956C382001 CUTTER ASSY           |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 976C069002 DOOR COVER ASSY       |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 976C065002 DUST BOX ASSY         |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 630C479010 GEAR PULLEY           |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 630C480010 GEAR PULLEY           | [SP INK WORM GEAR]  |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C171010 GRIP PULLEY           |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 630C469010 GRIP ROLLER           |                     |                                                                                     |                         |                      |             |
|  |          | 956C378001 HEAD 2 ASSY           |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 936D395002 INK MOTOR ASSY        | [INK SEN PCB ASSY]  |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C167010 INK SENPRISM B        |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C181010 LOAD ROLLER GEAR      |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 623D831010 LOAD ROLLER GEAR      | [P HOLDER ROLLER R] |                                                                                     |                         |                      |             |
|  |          | 956C371001 M4 BRACKET ASSY       |                     |                                                                                     |                         |                      |             |
|  |          | 288P392010 MOTOR UNIT            |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C172010 P ROLL PULLEY         |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 956C373001 PAPER IN ASSY         |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 685D033080 PARALLEL PIN          |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 685D048010 PARALLEL PIN          |                     |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C175010 PICK ROLLER GEAR      | [P ROLL GEAR 1B]    |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C177010 PICK ROLLER GEAR      | [P ROLL GEAR 1U]    |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C184010 PICK ROLLER GEAR      | [TU INK GEAR]       |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C200010 PICK ROLLER GEAR      | [SP2 INK GEAR]      |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C202010 PICK ROLLER GEAR      | [HEAD GEAR CAM R]   |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C203010 PICK ROLLER GEAR      | [M4 SYNC GEAR R]    |                                                                                     |                         |                      |             |
|                                                                                    |          | 623C204010 PICK ROLLER GEAR      | [M4 SYNC GEAR L]    |                                                                                     |                         |                      |             |

**EXPLODED**

# EXPLODED VIEW CHASSIS ASSY



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

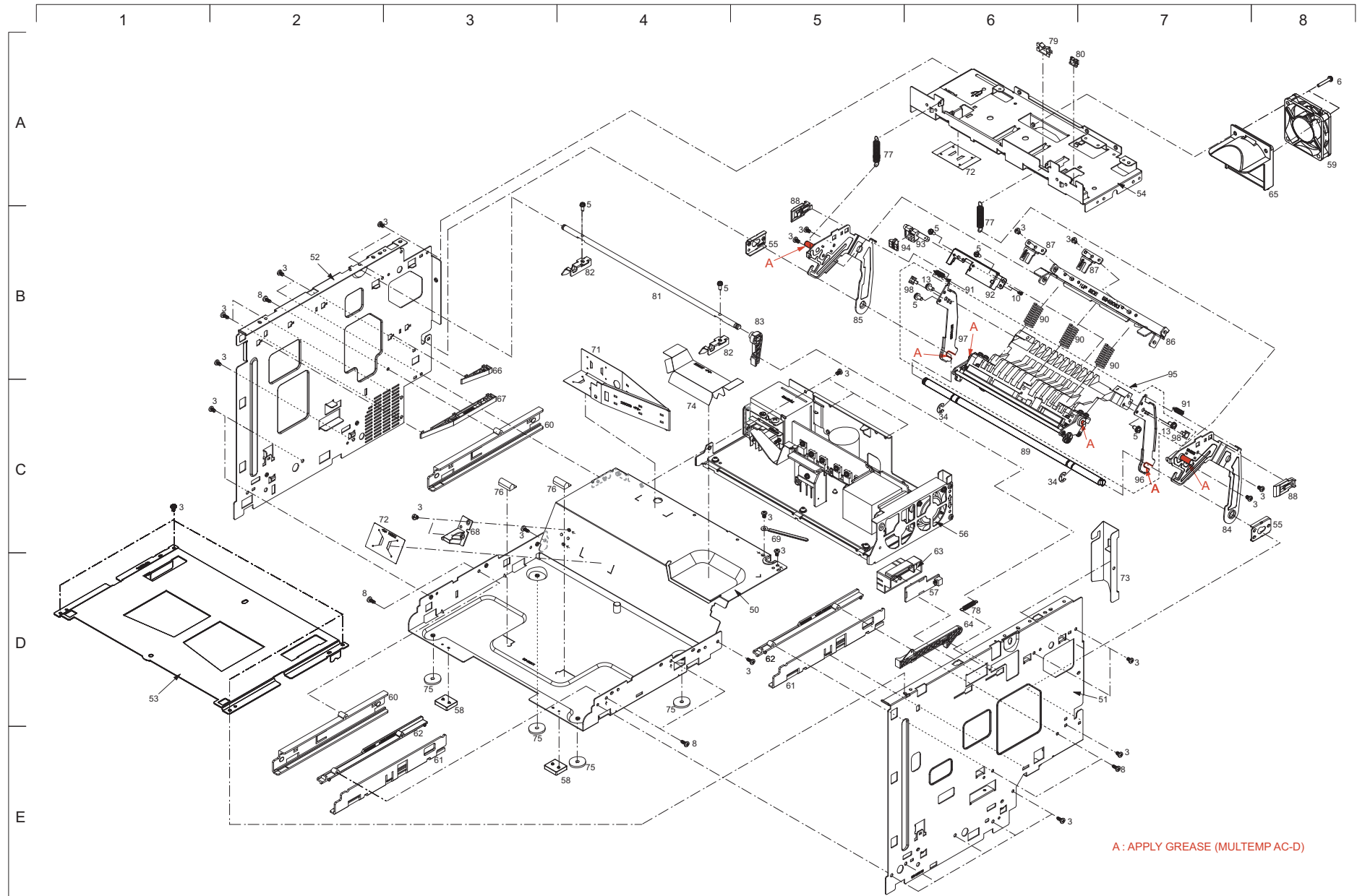
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## CHASSIS ASSY

| ITEM                                                                                   | PARTS NO.  | ADDRESS | PARTS NAME       | DESCRIPTION |
|----------------------------------------------------------------------------------------|------------|---------|------------------|-------------|
| 1                                                                                      | 668D118O20 |         | SCREW            |             |
| 3                                                                                      | ◆          |         | SCREW            | 3X6         |
| 11                                                                                     | ◆          |         | SCREW            | D=3 L=8     |
| 15                                                                                     | ◆          |         | SCREW            | 3-6 3W      |
| 16                                                                                     | ◆          |         | SCREW            | M3X0.5-6 3W |
| 17                                                                                     | 669D933O10 |         | SCREW            | 3X8         |
|  50 | 936B251O02 |         | DIGITAL PCB ASSY |             |
|  51 | 936D386O02 |         | POWER2 PCB ASSY  |             |
| 52                                                                                     | ◆          |         | USB COVER        |             |
| 53                                                                                     | ◆          |         | MECHA COVER R    |             |
| 54                                                                                     | ◆          |         | MECHA COVER L    |             |
| 55                                                                                     | 976C063O02 |         | FRONT PANEL ASSY |             |
| 56                                                                                     | ◆          |         | LEAD CLAMPER     |             |
| 57                                                                                     | 976C069O02 |         | DOOR COVER ASSY  |             |
| 58                                                                                     | 976C065O02 |         | DUST BOX ASSY    |             |
| 59                                                                                     | ◆          |         | REAR PLATE ASSY  |             |
| 60                                                                                     | ◆          |         | LEVER COVER      |             |
| 61                                                                                     | 751B043O20 |         | TOP PANEL        |             |
| 62                                                                                     | 751B044O20 |         | SIDE PANEL R     |             |
| 63                                                                                     | 751B045O20 |         | SIDE PANEL L     |             |
| 64                                                                                     | ◆          |         | MAIN FRAME ASSY  |             |
| 65                                                                                     | ◆          |         | SLIDE MECHA ASSY |             |
| 66                                                                                     | ◆          |         | DRIVE SHIELD     |             |
| 67                                                                                     | 623C151O10 |         | SLIDE STOPPER    |             |
| 68                                                                                     | ◆          |         | DOOR ASSY SI     |             |
| 69                                                                                     | ◆          |         | INDICATOR CHIP   |             |
| 70                                                                                     | ◆          |         | ELECTRIC BAR     |             |
| 71                                                                                     | ◆          |         | BAR PLATE        |             |
| 72                                                                                     | ◆          |         | LOGO PLATE       |             |
| 73                                                                                     | ◆          |         | POWER2 BARRIER   |             |

# MAIN FRAME ASSY

- 4 -



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

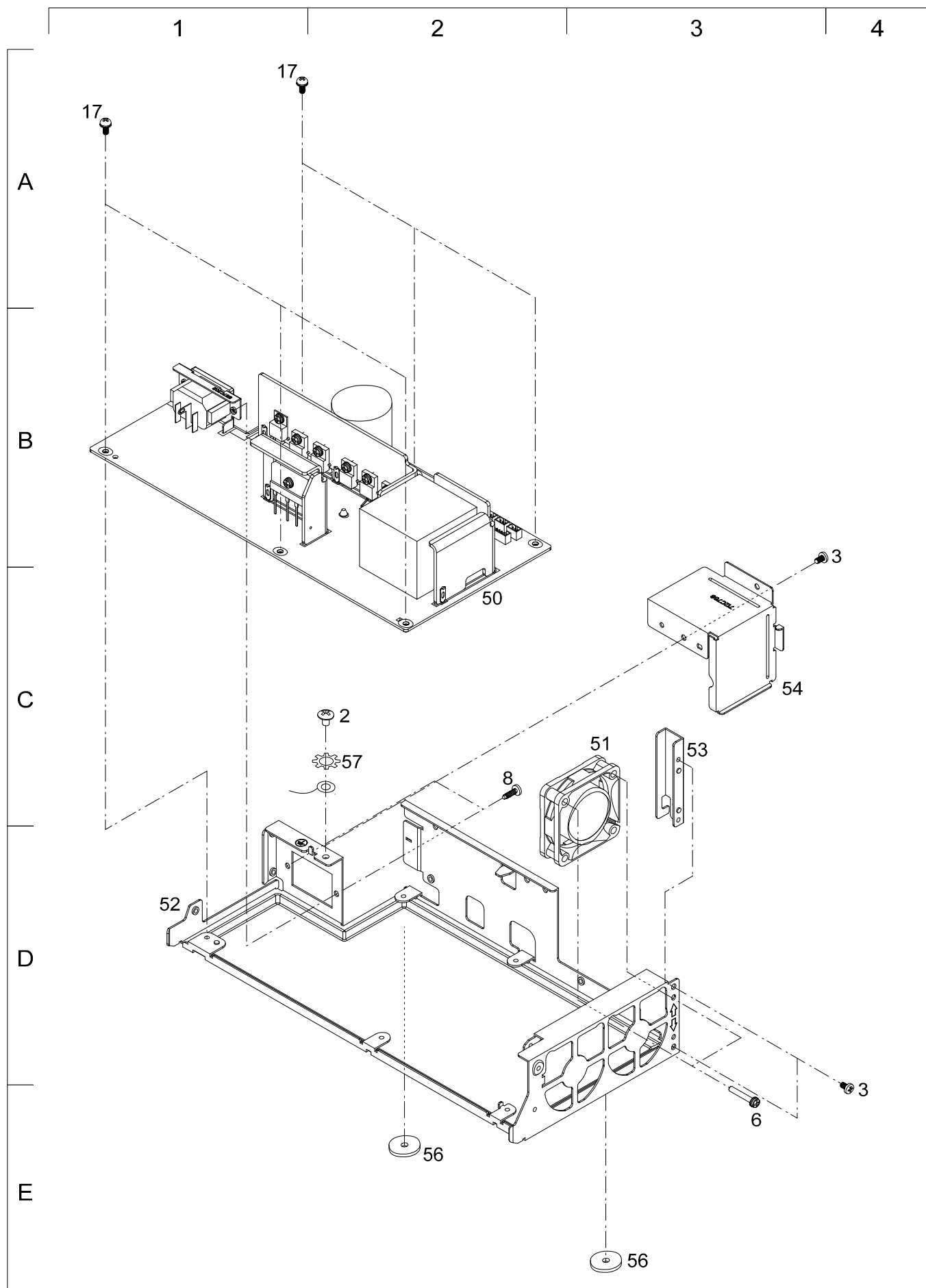
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## MAIN FRAME ASSY

| ITEM                                                                                   | PARTS NO.  | ADDRESS | PARTS NAME           | DESCRIPTION  |
|----------------------------------------------------------------------------------------|------------|---------|----------------------|--------------|
| 3                                                                                      | ◆          |         | SCREW                | 3X6          |
| 5                                                                                      | ◆          |         | SCREW                | M3X0.5-8     |
| 6                                                                                      | ◆          |         | SCREW                | M3X0.5-20    |
| 8                                                                                      | ◆          |         | SCREW                | 3X10         |
| 10                                                                                     | ◆          |         | SCREW                | 2-6 3W       |
| 13                                                                                     | ◆          |         | SCREW                | M4X0.7-8 3W  |
| 34                                                                                     | ◆          |         | RETAINING RING       | E-6 3W       |
| 50                                                                                     | ◆          |         | CHASSIS BASE         |              |
| 51                                                                                     | ◆          |         | M FRAME PLATE R      |              |
| 52                                                                                     | ◆          |         | M FRAME PLATE L      |              |
| 53                                                                                     | ◆          |         | M TOP PLETE          |              |
| 54                                                                                     | ◆          |         | REAR STAY FRAME      |              |
| 55                                                                                     | ◆          |         | A HEAD SHAFT PLATE   |              |
|  56 | ◆          |         | POWER ASSY           |              |
|  57 | 936D392O02 |         | ANTENNA PCB ASSY     |              |
| 58                                                                                     | 956D197O02 |         | SPACER ASSY S        |              |
|  59 | 288P389O10 |         | FAN MOTOR            | for head(M7) |
| 60                                                                                     | ◆          |         | GUIDE ROLLER SLIDE M |              |
| 61                                                                                     | ◆          |         | GUIDE ROLLER SLIDE R |              |
| 62                                                                                     | ◆          |         | GUIDE ROLLER S COVER |              |
| 63                                                                                     | ◆          |         | RFID HOLDER          |              |
| 64                                                                                     | ◆          |         | LINK LOCK LEVER      |              |
| 65                                                                                     | ◆          |         | HEAD FAN DUCT        |              |
| 66                                                                                     | ◆          |         | INK CAM SLIDER TU    |              |
| 67                                                                                     | ◆          |         | INK CAM SLIDER SP    |              |
| 68                                                                                     | ◆          |         | PICK RELEASE STOPPER |              |
| 69                                                                                     | ◆          |         | LEAD CLAMPER         |              |
| 71                                                                                     | ◆          |         | PTOD LEAD BARRIER    |              |
| 72                                                                                     | ◆          |         | DRIVE LEAD BARRIER   |              |
| 73                                                                                     | ◆          |         | WIRE BARRIER         |              |

| ITEM | PARTS NO.  | ADDRESS |  | PARTS NAME           | DESCRIPTION |
|------|------------|---------|--|----------------------|-------------|
| 74   | ◆          |         |  | POWER SLIT BARRIER   |             |
| 75   | ◆          |         |  | SPACER               |             |
| 76   | ◆          |         |  | SHIELD GASKET        |             |
| 77   | ◆          |         |  | HEAD UP SPRING       |             |
| 78   | ◆          |         |  | RETURN LOCK SPRING   |             |
| 79   | ◆          |         |  | EDGE SADDLE          |             |
| 80   | ◆          |         |  | EDGE SADDLE          |             |
| 81   | ◆          |         |  | LOCK LEVER SHAFT     |             |
| 82   | ◆          |         |  | SLIDE LOCK LEVER     |             |
| 83   | ◆          |         |  | LOCK SLIDE LEVER     |             |
| 84   | ◆          |         |  | A HEAD PLATE UNIT R  |             |
| 85   | ◆          |         |  | A HEAD PLATE UNIT L  |             |
| 86   | ◆          |         |  | HEAD PUSH PLATE      |             |
| 87   | ◆          |         |  | HEAD STAY PLATE      |             |
| 88   | ◆          |         |  | HEAD GUIDE ARM       |             |
| 89   | ◆          |         |  | HEAD ARM SHAFT       |             |
| 90   | ◆          |         |  | HEAD PUSH SPRING     |             |
| 91   | ◆          |         |  | HEAD ADJUST SPRING   |             |
| 92   | ◆          |         |  | SENSOR HOLDER PLATE  |             |
| 93   | ◆          |         |  | INK SENSOR HOLDER    |             |
| 94   | 623C167O10 |         |  | INK SENPRISM B       |             |
| ⚠ 95 | 956C378O01 |         |  | HEAD 2 ASSY          |             |
| 96   | ◆          |         |  | HEATSINK ARM PLATE R |             |
| 97   | ◆          |         |  | HEATSINK ARM PLATE L |             |
| 98   | ◆          |         |  | LEVER BOSS           |             |

# POWER ASSY



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

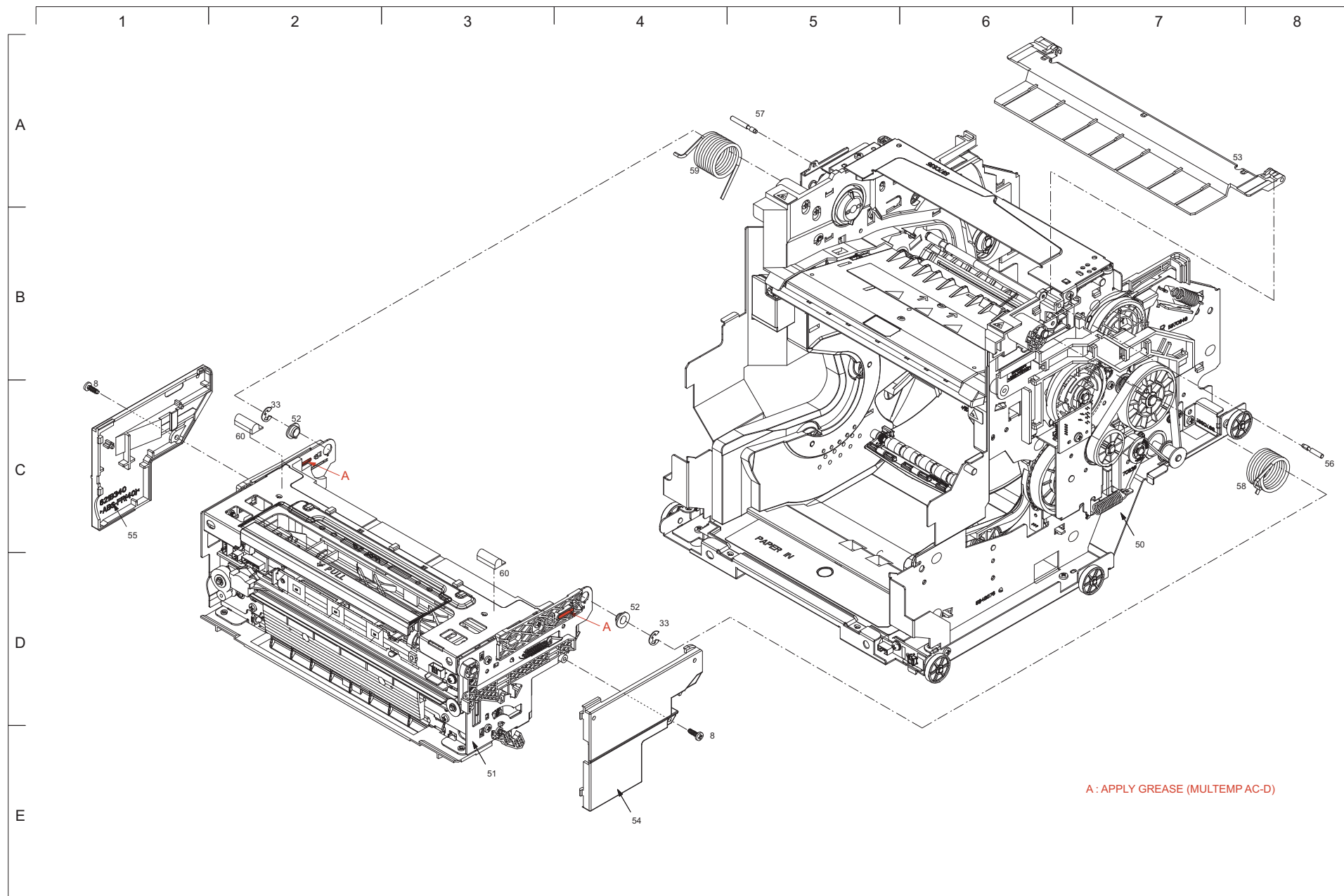
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## POWER ASSY

| ITEM                                                                                   | PARTS NO.  | ADDRESS |  | PARTS NAME     | DESCRIPTION   |
|----------------------------------------------------------------------------------------|------------|---------|--|----------------|---------------|
| 2                                                                                      | ◆          |         |  | SCREW          |               |
| 3                                                                                      | ◆          |         |  | SCREW          | 3X6           |
| 6                                                                                      | ◆          |         |  | SCREW          | M3X0.5-20     |
| 8                                                                                      | ◆          |         |  | SCREW          | 3X10          |
| 14                                                                                     | ◆          |         |  | SCREW          | M3X0.5-5 3W   |
| 17                                                                                     | 669D933O10 |         |  | SCREW          | 3X8           |
|  50 | 936B248O02 |         |  | POWER PCB ASSY |               |
|  51 | 288P393O20 |         |  | FAN MOTOR      | for power(M8) |
| 52                                                                                     | ◆          |         |  | POWER BASE     |               |
| 53                                                                                     | ◆          |         |  | POWER STAY     |               |
| 54                                                                                     | ◆          |         |  | INLET COVER    |               |
| 55                                                                                     | ◆          |         |  | FAN COVER      |               |
| 56                                                                                     | ◆          |         |  | SPACER         | T=2.0         |
| 57                                                                                     | ◆          |         |  | TOOTHED WASHER |               |

# SLIDE MECHA ASSY

- 6 -



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.



: Critical components



: Not a stocked items

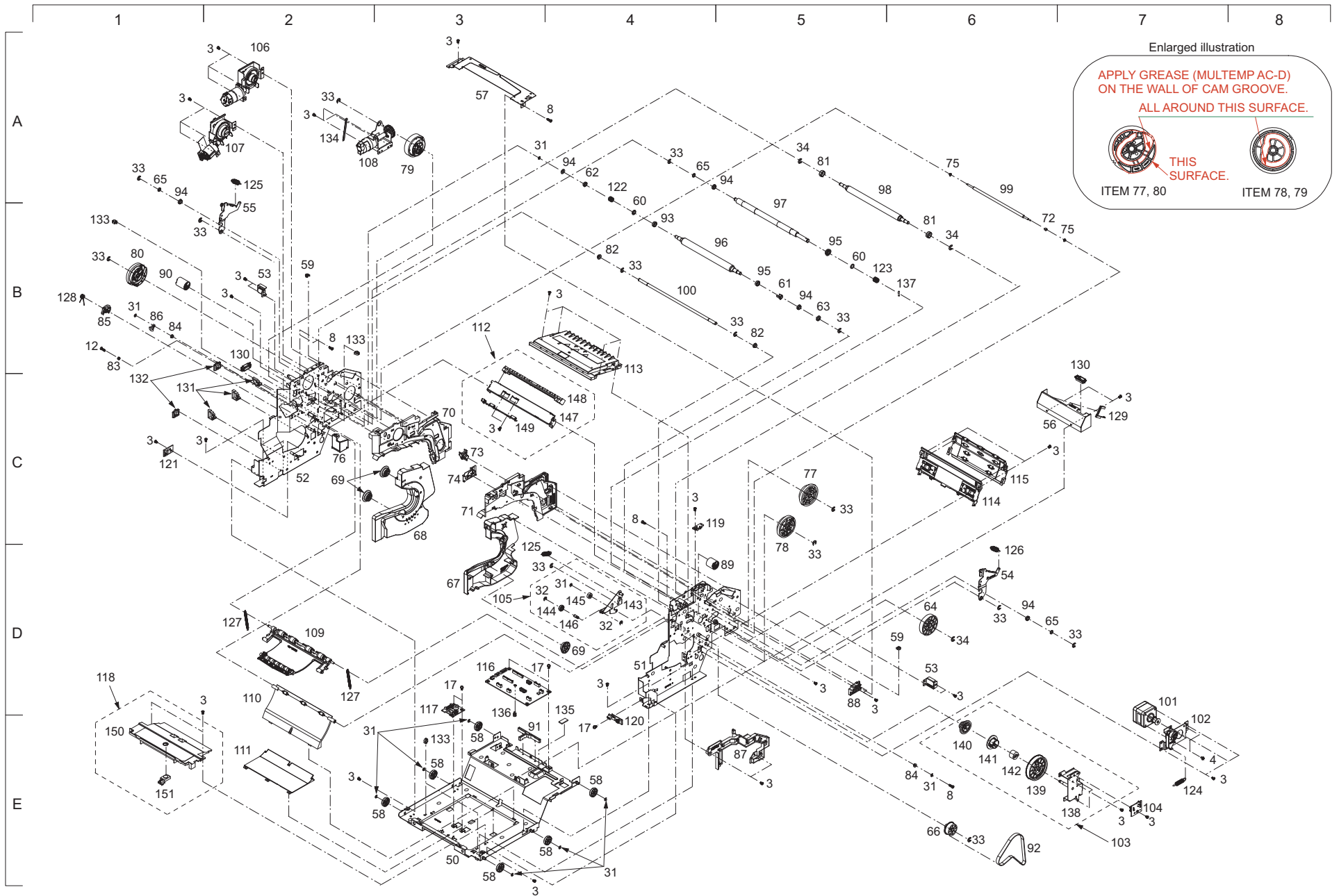
(RoHS-compliant model)

- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## SLIDE MECHA ASSY

| ITEM | PARTS NO. | ADDRESS |  | PARTS NAME        | DESCRIPTION |
|------|-----------|---------|--|-------------------|-------------|
| 8    | ◆         |         |  | SCREW             | 3X10        |
| 33   | ◆         |         |  | RETAINING RING    | E-5 3W      |
| 50   | ◆         |         |  | SLIDE BASE ASSY   |             |
| 51   | ◆         |         |  | DOOR ASSY         |             |
| 52   | ◆         |         |  | BUSH A            |             |
| 53   | ◆         |         |  | CASSETTE COVER    |             |
| 54   | ◆         |         |  | DOOR COVER R      |             |
| 55   | ◆         |         |  | DOOR COVER L      |             |
| 56   | ◆         |         |  | CAS COVER SHAFT R |             |
| 57   | ◆         |         |  | CAS COVER SHAFT L |             |
| 58   | ◆         |         |  | DOOR SPRING R     |             |
| 59   | ◆         |         |  | DOOR SPRING L     |             |
| 60   | ◆         |         |  | SHIELD GASKET     |             |

# SLIDE BASE ASSY



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## SLIDE BASE ASSY

| ITEM | PARTS NO.  | ADDRESS | PARTS NAME           | DESCRIPTION |
|------|------------|---------|----------------------|-------------|
| 3    | ◆          |         | SCREW                | 3X6         |
| 4    | ◆          |         | SCREW                | M3X0.5-6 3W |
| 8    | ◆          |         | SCREW                | 3X10        |
| 12   | ◆          |         | SCREW                | 3-12 3B     |
| 17   | 669D933O10 |         | SCREW                | 3X8         |
| 31   | ◆          |         | RETAINING RING       | E-3 3W      |
| 32   | ◆          |         | RETAINING RING       | E-4 3W      |
| 33   | ◆          |         | RETAINING RING       | E-5 3W      |
| 34   | ◆          |         | RETAINING RING       | E-6 3W      |
| 50   | ◆          |         | SL BOTTOM UNIT       |             |
| 51   | ◆          |         | S FRAME PLATE UNIT R |             |
| 52   | ◆          |         | S FRAME PLATE UNIT L |             |
| 53   | ◆          |         | SL BOTTOM STAY       |             |
| 54   | ◆          |         | PINCH PLATE ASSY R   |             |
| 55   | ◆          |         | PINCH PLATE ASSY L   |             |
| 56   | ◆          |         | FRONT DRIVE SHIELD   |             |
| 57   | ◆          |         | TOP B SLIDE STAY     |             |
| 58   | ◆          |         | SLIDER ROLLER D      |             |
| 59   | ◆          |         | PLATE CAP            |             |
| 60   | ◆          |         | BEARING SPACER 80    |             |
| 61   | ◆          |         | PLATEN COLLAR        |             |
| 62   | ◆          |         | PLATEN SPACER        |             |
| 63   | ◆          |         | PLATEN SPACER2       |             |
| 64   | 623C171O10 |         | GRIP PULLEY          |             |
| 65   | ◆          |         | GRIP SPACER          |             |
| 66   | 623C172O10 |         | P ROLL PULLEY        |             |
| 67   | ◆          |         | P ROLL GUIDE R       |             |
| 68   | ◆          |         | P ROLL GUIDE L       |             |
| 69   | 623C181O10 |         | P HOLDER ROLLER R    |             |
| 70   | ◆          |         | CAS GUIDE L          |             |

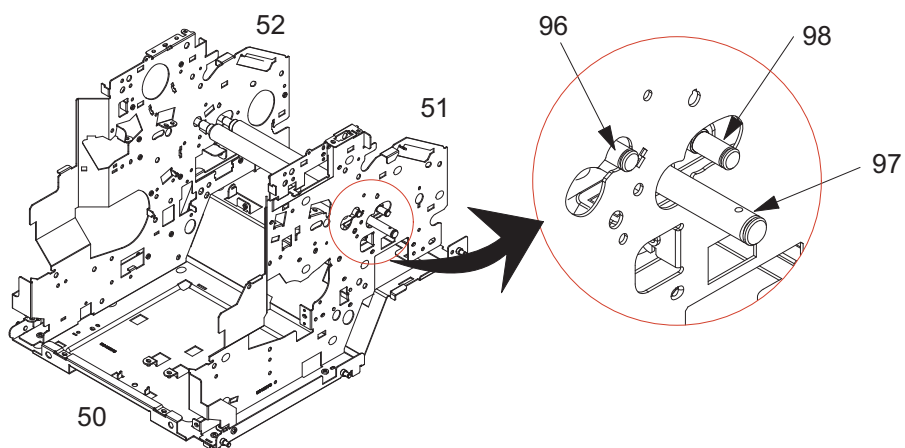
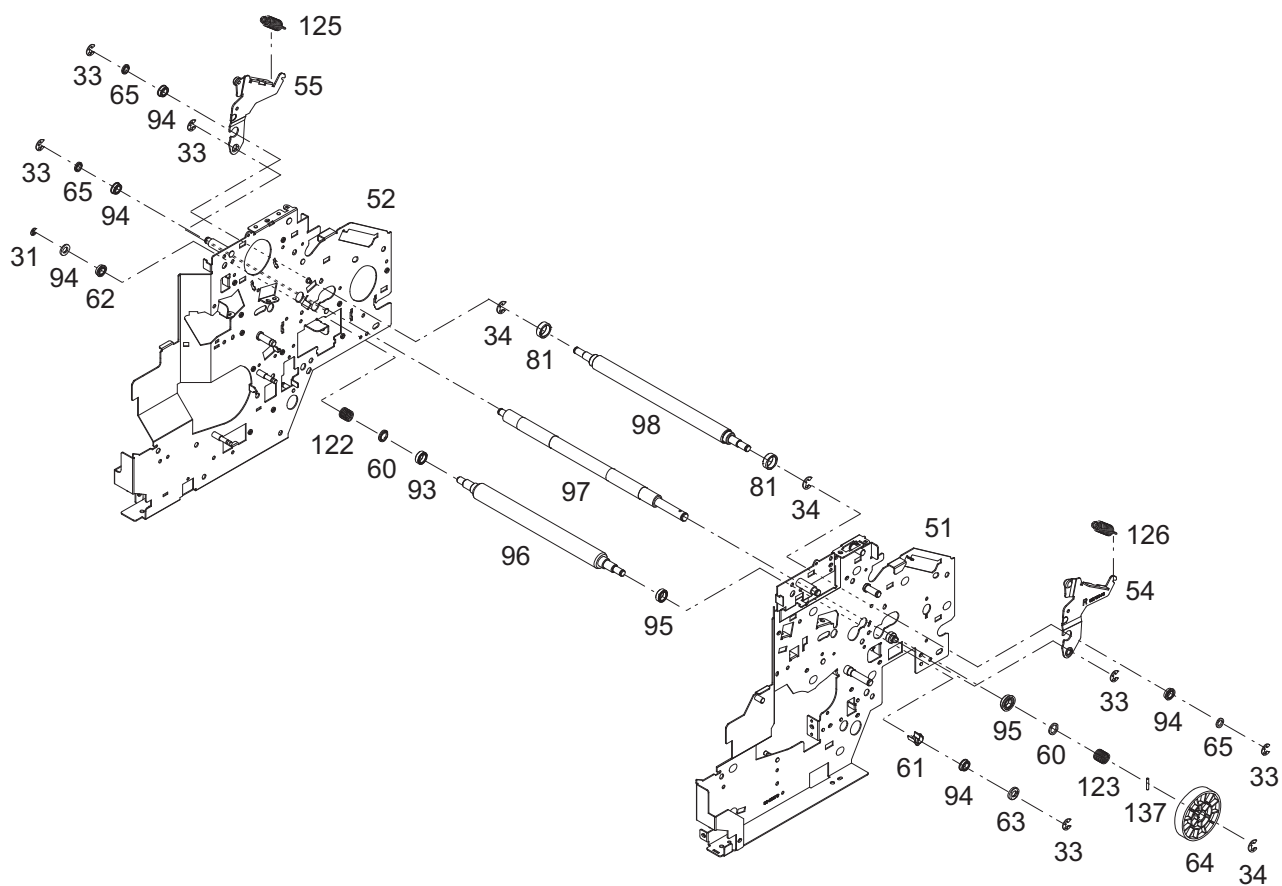
## SLIDE BASE ASSY

| ITEM  | PARTS NO.  | ADDRESS |  | PARTS NAME              | DESCRIPTION |
|-------|------------|---------|--|-------------------------|-------------|
| 71    | ◆          |         |  | CAS GUIDE R             |             |
| 72    | ◆          |         |  | BUSH STOPPER2           |             |
| 73    | ◆          |         |  | INK BOBBIN CATCH        |             |
| 74    | ◆          |         |  | INK BOBBIN CATCH2       |             |
| 75    | 623D660O20 |         |  | R SEPARATOR BUSH        |             |
| 76    | ◆          |         |  | MOTOR COVER SP          |             |
| 77    | 623C202O10 |         |  | HEAD GEAR CAM R         |             |
| 78    | 623C203O10 |         |  | M4 SYNC GEAR R          |             |
| 79    | 623C204O10 |         |  | M4 SYNC GEAR L          |             |
| 80    | 623C205O10 |         |  | HEAD GEAR CAM L         |             |
| 81    | ◆          |         |  | PINCH SLEEVE            |             |
| 82    | ◆          |         |  | HEAD BUSH               |             |
| 83    | ◆          |         |  | JOINT A                 |             |
| 84    | ◆          |         |  | ROLLER BUSH             |             |
| 85    | ◆          |         |  | P IN1 RELEASE GEAR      |             |
| 86    | ◆          |         |  | P IN2 RELEASE GEAR      |             |
| 87    | ◆          |         |  | LEAD GUIDE R            |             |
| 88    | ◆          |         |  | S SUPPORT FRAME R       |             |
| 89    | ◆          |         |  | DOOR SLEEVE R           |             |
| 90    | ◆          |         |  | DOOR SLEEVE L           |             |
| 91    | ◆          |         |  | DRIVE SPACER            |             |
| 92    | 521D116O10 |         |  | BELT                    |             |
| 93    | 530D104O10 |         |  | SLEEVE METAL            |             |
| 94    | 530D080O80 |         |  | BUSH                    |             |
| 95    | 530D080O40 |         |  | BUSH                    |             |
| 96    | 630C468O10 |         |  | PLATEN ROLLER           |             |
| 97    | 630C469O10 |         |  | GRIP ROLLER             |             |
| 98    | 630C474O10 |         |  | PINCH ROLLER            |             |
| 99    | ◆          |         |  | TU ROLLER               |             |
| 100   | ◆          |         |  | M4 SYNC SHAFT           |             |
| ⚠ 101 | 288P392O10 |         |  | MOTOR UNIT              | M1          |
| 102   | ◆          |         |  | M1 BRACKET ASSY         |             |
| 103   | ◆          |         |  | P GEAR BRACKET ASSY     |             |
| ⚠ 104 | 936D398O02 |         |  | SEN MODE PCB ASSY       | S8,S9,S10□  |
| 105   | ◆          |         |  | PAPER HOLDER ASSY R     |             |
| 106   | ◆          |         |  | TU INK BRACKET ASSY(M3) |             |
| 107   | ◆          |         |  | INK BRACKET SP ASSY     |             |
| ⚠ 108 | 956C371O01 |         |  | M4 BRACKET ASSY         | M4          |
| 109   | 956C373O01 |         |  | PAPER IN ASSY           |             |
| 110   | ◆          |         |  | P IN F GUIDE ASSY       |             |
| 111   | ◆          |         |  | P BOTTOM GUIDE          |             |
| 112   | ◆          |         |  | S1 STAY ASSY            |             |
| 113   | ◆          |         |  | P MID GUIDE ASSY        |             |
| 114   | ◆          |         |  | P GRIP GUIDE ASSY B     |             |
| 115   | ◆          |         |  | P GRIP GUIDE ASSY F     |             |
| ⚠ 116 | 936D384O02 |         |  | DRIVE PCB ASSY          |             |
| ⚠ 117 | 936D391O02 |         |  | P ROLL PCB ASSY         |             |
| 118   | ◆          |         |  | PAPER IN COVER ASSY     |             |
| ⚠ 119 | 936D396O02 |         |  | SLIDE SW PCB ASSY       | S24         |
| ⚠ 120 | 936D397O02 |         |  | PSW SEN PCB ASSY        |             |
| ⚠ 121 | 936D459O02 |         |  | TH PCB ASSY             |             |

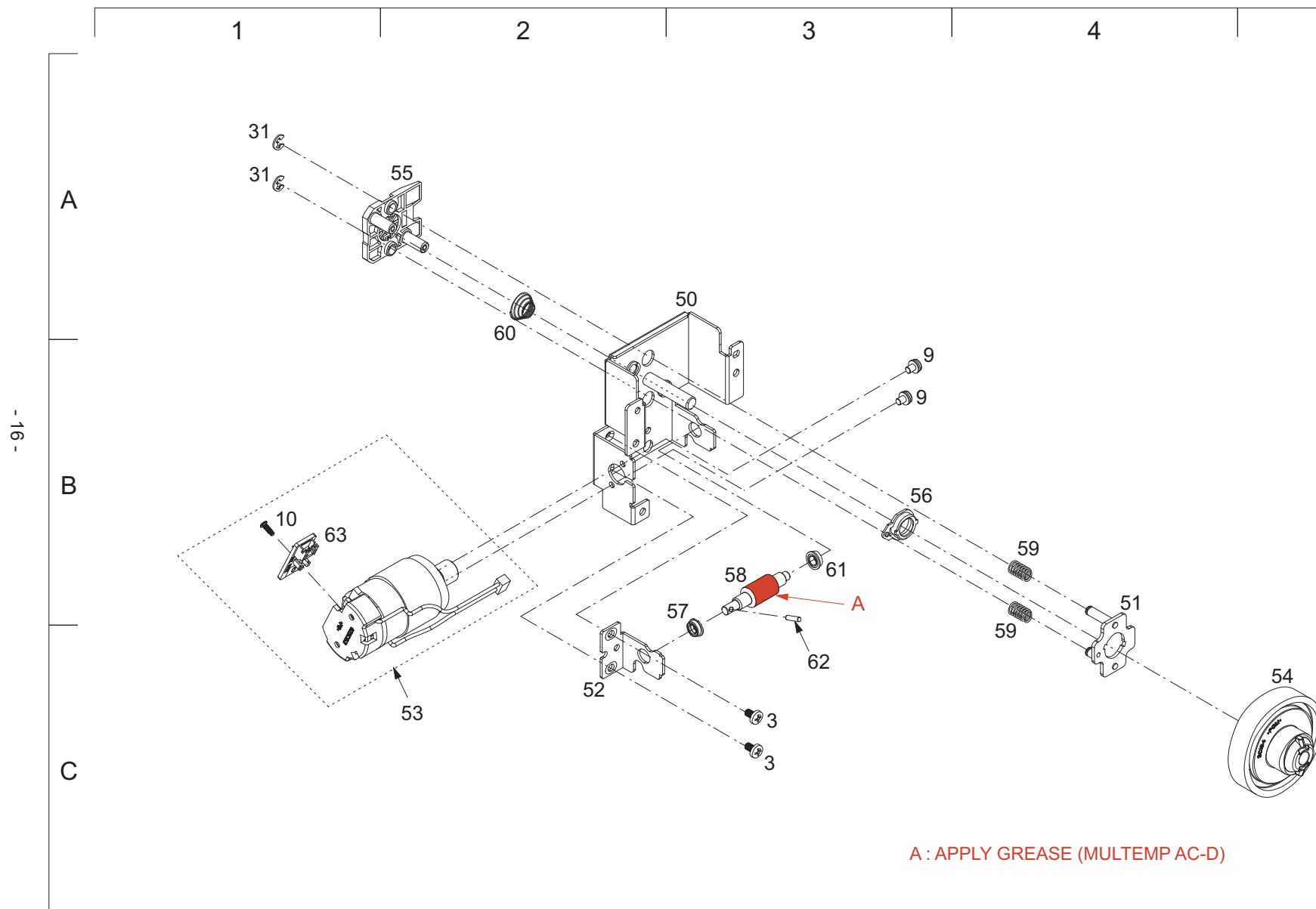
## SLIDE BASE ASSY

| ITEM  | PARTS NO.  | ADDRESS |  | PARTS NAME           | DESCRIPTION |
|-------|------------|---------|--|----------------------|-------------|
| 122   | ◆          |         |  | THRUST PLATEN SPRING |             |
| 123   | ◆          |         |  | THRUST GRIP SPRING   |             |
| 124   | ◆          |         |  | TENSION BELT SPRING  |             |
| 125   | ◆          |         |  | P HOLDER SPRING R    |             |
| 126   | ◆          |         |  | PINCH SPRING         |             |
| 127   | ◆          |         |  | PAPER IN2 SPRING     |             |
| 128   | ◆          |         |  | P IN RELEASE SPRING  |             |
| 129   | ◆          |         |  | EDGE SADDLE17        |             |
| 130   | ◆          |         |  | EDGE SADDLE          |             |
| 131   | ◆          |         |  | LEAD CLAMPER         |             |
| 132   | ◆          |         |  | LEAD CLAMPER         |             |
| 133   | ◆          |         |  | MINI CLAMP           |             |
| 134   | ◆          |         |  | LEAD CLAMPER         |             |
| 135   | ◆          |         |  | INSULATOR            |             |
| 136   | ◆          |         |  | WASHER               |             |
| 137   | 685D048O10 |         |  | PARALLEL PIN         |             |
| 138   | ◆          |         |  | P2 GEAR BRACKET ASSY |             |
| 139   | 623C175O10 |         |  | P ROLL GEAR 1B       |             |
| 140   | 623C177O10 |         |  | P ROLL GEAR 1U       |             |
| 141   | 623C227O10 |         |  | P ROLL GEAR JOINT1   |             |
| 142   | 621C871O20 |         |  | TORQUE LIMITER V     | OTLV6-700B  |
| 143   | ◆          |         |  | P HOLDER ASSY R      |             |
| 144   | 623D831O10 |         |  | P HOLDER U ROLLER    |             |
| 145   | ◆          |         |  | JOINT P ROLL 2 GEAR  |             |
| 146   | ◆          |         |  | P HOLDER SHAFT       |             |
| 147   | ◆          |         |  | S1 SENSOR STAY       |             |
| 148   | ◆          |         |  | REF1 SEN PCB ASSY    |             |
| ⚠ 149 | 936D387O02 |         |  | REF1 SEN PCB ASSY    | S1          |
| 150   | ◆          |         |  | PAPER IN COVER       |             |
| 151   | ◆          |         |  | P IN INDICATOR CHIP  |             |

## DETAILS OF ROLLER AREAS



# TU INK BRACKET ASSY(M3)



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

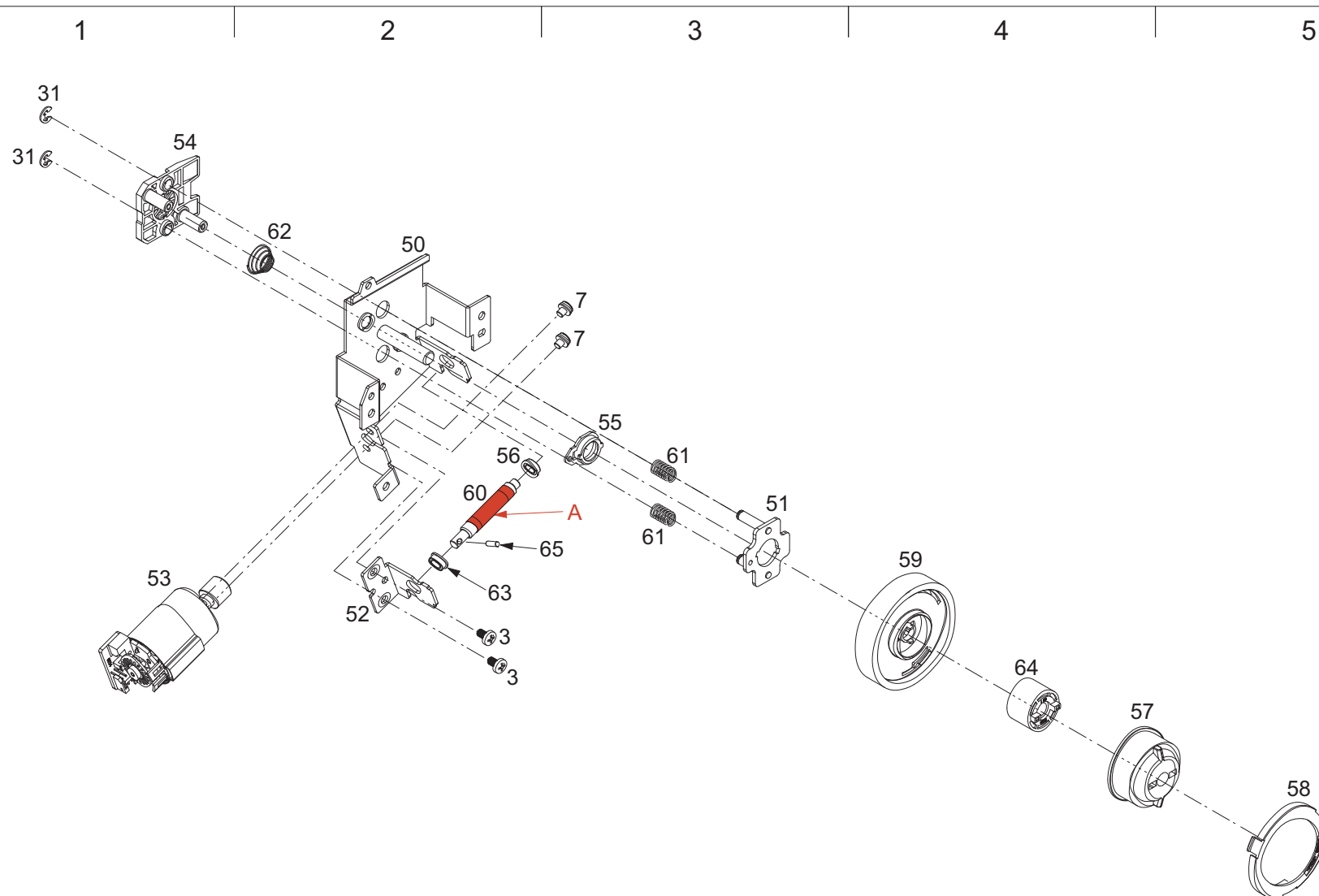
(RoHS-compliant model)

- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## TU INK BRACKET ASSY(M3)

| ITEM                                                                                   | PARTS NO.  | ADDRESS |  | PARTS NAME           | DESCRIPTION    |
|----------------------------------------------------------------------------------------|------------|---------|--|----------------------|----------------|
| 3                                                                                      | ◆          |         |  | SCREW                | 3X6            |
| 9                                                                                      | ◆          |         |  | SCREW                | M2.6X0.45-4 3W |
| 10                                                                                     | ◆          |         |  | SCREW                | 2-6 3W         |
| 31                                                                                     | ◆          |         |  | RETAINING RING       | E-3 3W         |
| 50                                                                                     | ◆          |         |  | TU INK BRACKET UNIT  |                |
| 51                                                                                     | ◆          |         |  | REEL GEAR PLATE ASSY |                |
| 52                                                                                     | ◆          |         |  | INK 2 BRACKET        |                |
| 53                                                                                     | 956D238O02 |         |  | TU MOTOR ASSY        | M3             |
| 54                                                                                     | 623C184O10 |         |  | TU INK GEAR          |                |
| 55                                                                                     | ◆          |         |  | REEL CAM SLIDE       |                |
| 56                                                                                     | ◆          |         |  | REEL GEAR BUSH       |                |
| 57                                                                                     | 623C188O10 |         |  | BUSH                 |                |
| 58                                                                                     | 630C479O10 |         |  | TU INK WORM GEAR     |                |
| 59                                                                                     | ◆          |         |  | PUSH REEL SPRING     |                |
| 60                                                                                     | ◆          |         |  | REEL RELEASE SPRING2 |                |
| 61                                                                                     | 530D080O60 |         |  | BUSH                 |                |
| 62                                                                                     | 685D033O80 |         |  | PARALLEL PIN         |                |
|  63 | 936D401O02 |         |  | IT ENC SEN PCB ASSY  | S12            |

# INK BRACKET SP ASSY



A : APPLY GREASE (MULTEMP AC-D)

# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

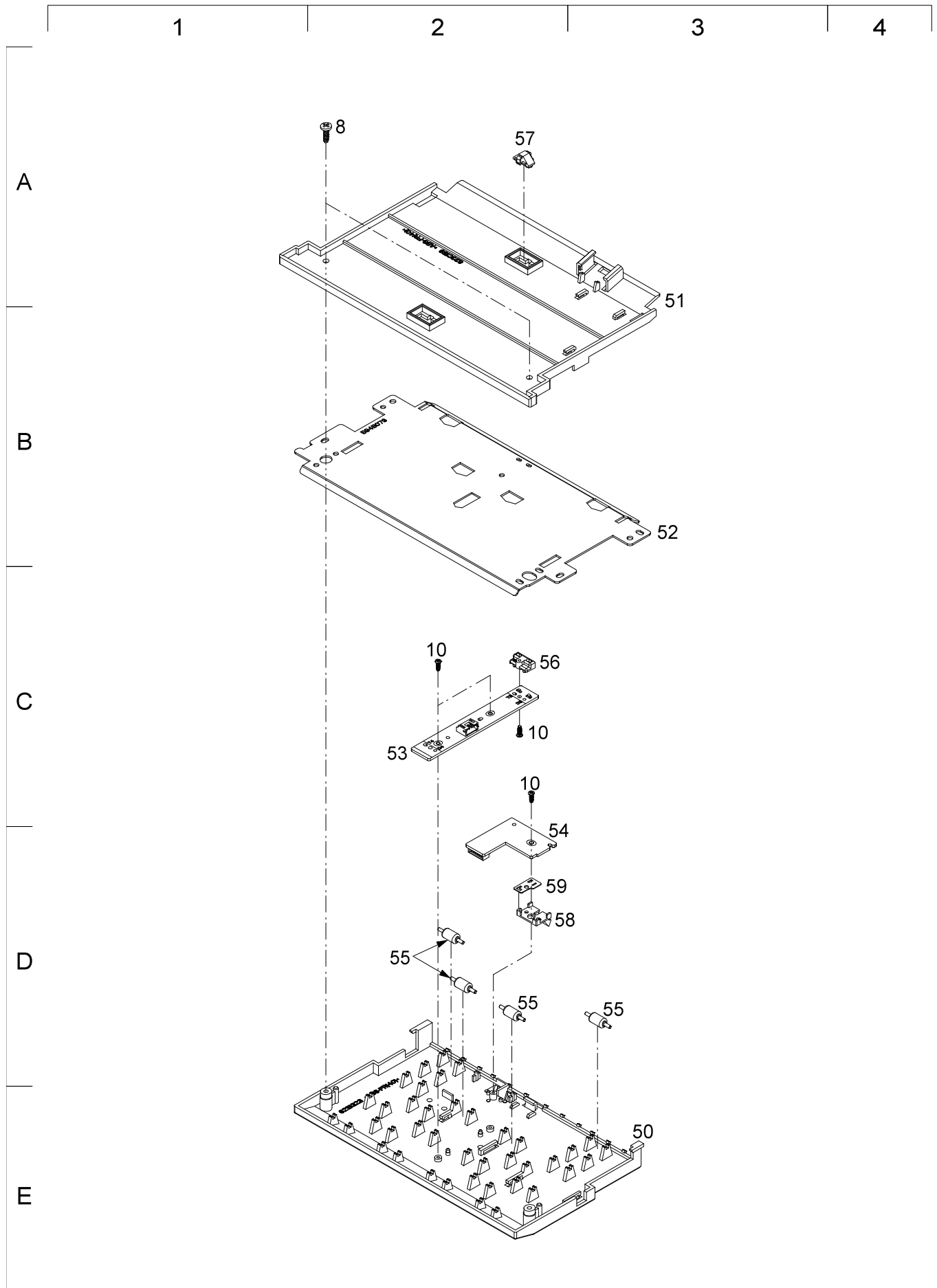
(RoHS-compliant model)

- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## INK BRACKET SP ASSY

| ITEM | PARTS NO.  | ADDRESS | PARTS NAME           | DESCRIPTION |
|------|------------|---------|----------------------|-------------|
| 3    | ◆          |         | SCREW                | 3X6         |
| 7    | ◆          |         | SCREW                | M3X0.5-4    |
| 31   | ◆          |         | RETAINING RING       | E-3 3W      |
| 50   | ◆          |         | SP INK BRACKET UNIT  |             |
| 51   | ◆          |         | REEL GEAR PLATE ASSY |             |
| 52   | ◆          |         | INK 2 BRACKET        |             |
| 53   | 956D239O02 |         | SP MOTOR ASSY        | M6          |
| 54   | ◆          |         | REEL CAM SLIDE       |             |
| 55   | ◆          |         | REEL GEAR BUSH       |             |
| 56   | 623C188O10 |         | POM BUSH740          |             |
| 57   | ◆          |         | SP REEL BOBBIN       |             |
| 58   | ◆          |         | REEL BOBBIN CAP      |             |
| 59   | 623C200O10 |         | SP2 INK GEAR         |             |
| 60   | 630C480O10 |         | SP INK WORM GEAR     |             |
| 61   | ◆          |         | PUSH REEL SPRING     |             |
| 62   | ◆          |         | REEL2 RELEASE SPRING |             |
| 63   | 530D080O60 |         | BUSH                 |             |
| 64   | 622C186O10 |         | TORQUE LIMITER V     |             |
| 65   | 685D033O80 |         | PARALLEL PIN         |             |

# P MID GUIDE ASSY



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

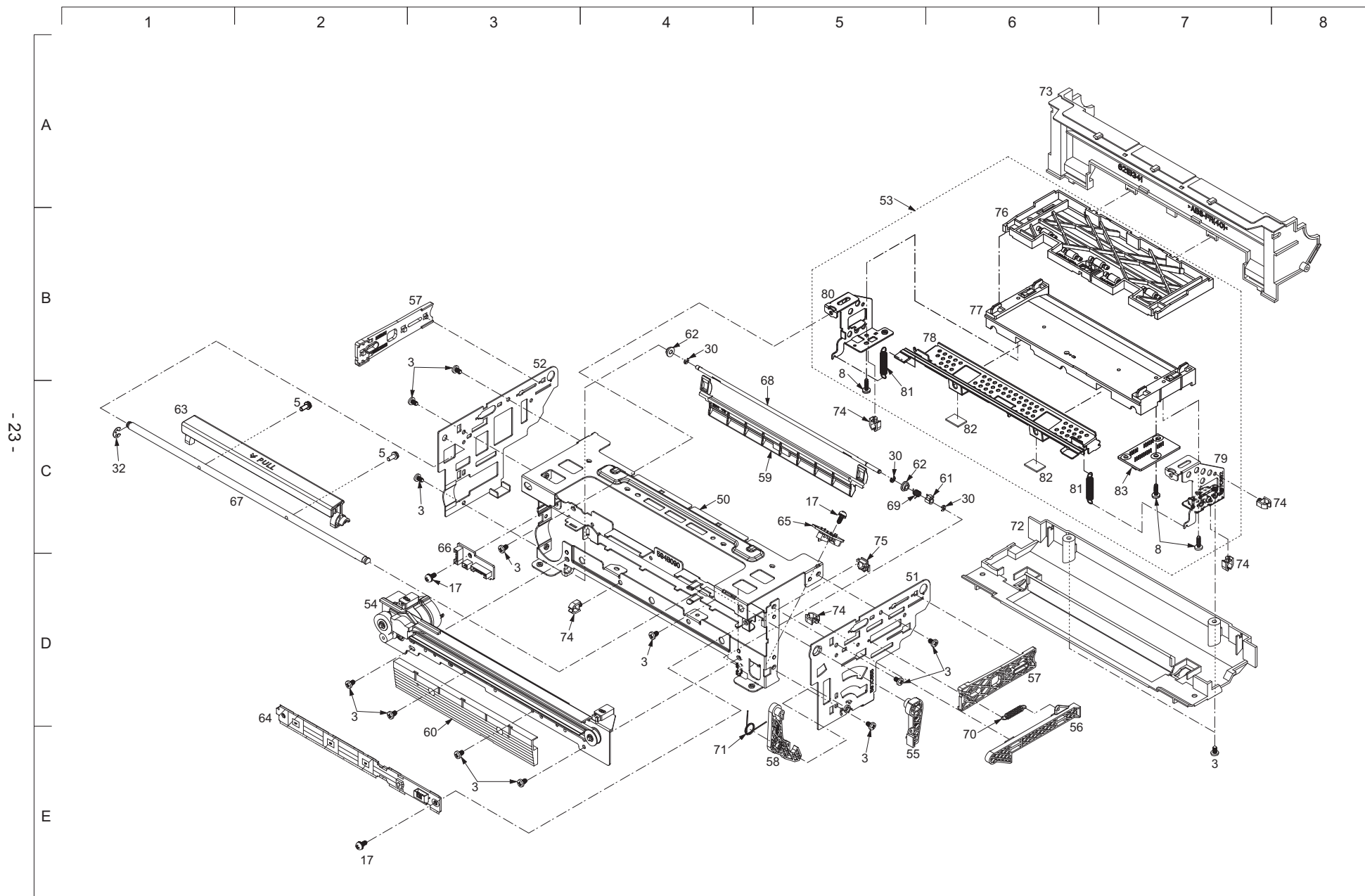
- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## P MID GUIDE ASSY

| ITEM                                                                                   | PARTS NO.  | ADDRESS | PARTS NAME               | DESCRIPTION |
|----------------------------------------------------------------------------------------|------------|---------|--------------------------|-------------|
| 8                                                                                      | ◆          |         | SCREW                    | 3X10        |
| 10                                                                                     | ◆          |         | SCREW                    | 2-6 3W      |
| 50                                                                                     | ◆          |         | S3 SENSOR HOLDER         |             |
| 51                                                                                     | ◆          |         | B MID P GUIDE            |             |
| 52                                                                                     | ◆          |         | F MID P GUIDE            |             |
|  53 | 936D388O02 |         | REF3 SEN PCB ASSY        | S3          |
| 54                                                                                     | 936D395O02 |         | INK SEN PCB ASSY         | S19         |
| 55                                                                                     | ◆          |         | 6PATH PAPER ROLLER       |             |
| 56                                                                                     | ◆          |         | REG SENSOR COVER         |             |
| 57                                                                                     | ◆          |         | S1 SENSOR PRISM          |             |
| 58                                                                                     | ◆          |         | A INK SENSOR PRISM       |             |
| 59                                                                                     | ◆          |         | A INK SENSOR PRISM COVER | T=0.5       |



# DOOR ASSY



# PARTS LIST

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
  2. Part number and Description
  3. Quantity

Unless full information is supplied, delay in execution of orders will result.

-  : Critical components  
 : Not a stocked items

(RoHS-compliant model)

- Parts listed below are all RoHS-compliant.
- When servicing this model, use RoHS-compliant parts only.

## DOOR ASSY

| ITEM                                                                                   | PARTS NO.  | ADDRESS | PARTS NAME            | DESCRIPTION |
|----------------------------------------------------------------------------------------|------------|---------|-----------------------|-------------|
| 3                                                                                      | ◆          |         | SCREW                 | 3X6         |
| 5                                                                                      | ◆          |         | SCREW                 | M3X0.5-8    |
| 8                                                                                      | ◆          |         | SCREW                 | 3X10        |
| 17                                                                                     | 669D933O10 |         | SCREW                 | 3X8         |
| 30                                                                                     | ◆          |         | RETAINING RING        | E-2 3W      |
| 32                                                                                     | ◆          |         | RETAINING RING        | E-4 3W      |
| 50                                                                                     | ◆          |         | TOP DOOR PLATE        |             |
| 51                                                                                     | ◆          |         | FRAME DOOR PLATE R    |             |
| 52                                                                                     | ◆          |         | FRAME DOOR PLATE L    |             |
| 53                                                                                     | ◆          |         | P EXIT GUIDE ASSY     |             |
|  54 | 956C382O01 |         | CUTTER ASSY           | M2          |
| 55                                                                                     | ◆          |         | LOCK SLIDE LEVER      |             |
| 56                                                                                     | ◆          |         | LINK LOCK LEVER       |             |
| 57                                                                                     | ◆          |         | DOOR OPEN GUIDE       |             |
| 58                                                                                     | ◆          |         | LOCK DOOR LEVER       |             |
| 59                                                                                     | ◆          |         | CUTTER COVER          |             |
| 60                                                                                     | ◆          |         | EXIT PAPER GUARD      |             |
| 61                                                                                     | ◆          |         | CUTTER COVER CAM      |             |
| 62                                                                                     | ◆          |         | 3-6BUSH               |             |
| 63                                                                                     | 976C066O02 |         | SI KNOB LEVER ASSY    |             |
|  64 | 936D385O02 |         | FRONT PCB ASSY        | S25         |
|  65 | 936D399O02 |         | D BOX SEN PCB ASSY    |             |
|  66 | 936D438O02 |         | RELAY CUTTER PCB ASSY |             |
| 67                                                                                     | ◆          |         | KNOB SHAFT            |             |
| 68                                                                                     | ◆          |         | CUTTER COVER SHAFT    |             |
| 69                                                                                     | ◆          |         | CUTTER COVER SPRING   |             |
| 70                                                                                     | ◆          |         | RETURN LOCK SPRING    |             |
| 71                                                                                     | ◆          |         | DOOR LOCK SPRING      |             |
| 72                                                                                     | ◆          |         | DOOR BOTTOM COVER     |             |
| 73                                                                                     | ◆          |         | DOOR BACK COVER       |             |

| ITEM                                                                                 | PARTS NO.  | ADDRESS |  | PARTS NAME           | DESCRIPTION |
|--------------------------------------------------------------------------------------|------------|---------|--|----------------------|-------------|
| 74                                                                                   | ◆          |         |  | MINI CLAMP           |             |
| 75                                                                                   | ◆          |         |  | EDGE SADDLE          |             |
| 76                                                                                   | ◆          |         |  | P EXIT GUIDE ASSY F  |             |
| 77                                                                                   | ◆          |         |  | P EXIT GUIDE B       |             |
| 78                                                                                   | ◆          |         |  | PAPER PRESS PLATE    |             |
| 79                                                                                   | ◆          |         |  | P EXIT GUIDE PLATE R |             |
| 80                                                                                   | ◆          |         |  | P EXIT GUIDE PLATE L |             |
| 81                                                                                   | ◆          |         |  | PAPER PRESS SPRING   |             |
| 82                                                                                   | ◆          |         |  | PAPER PRESS PAD      |             |
|  83 | 936D393O02 |         |  | RELAY PCB ASSY       |             |