Chapter 5 Disassembly

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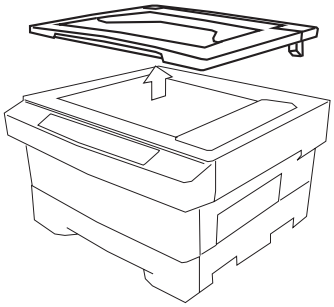
Cautions for disassembly and assembly work:

1) Always disconnect the power plug as protection against electric shocks and to prevent damaging the internal circuit.
2) If the work time with the upper unit opened becomes long, pull out the drum unit and store it in a dark place. (Prevention of the light fatigue and scratches.)

5-1. Cover

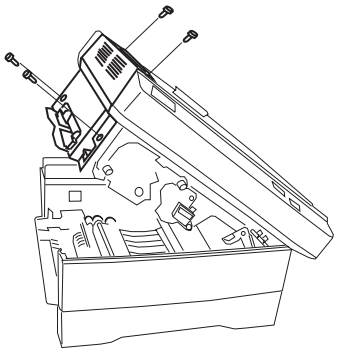
5-1-1. Platen cover

Pull off the platen cover.



5-1-2. Left cover

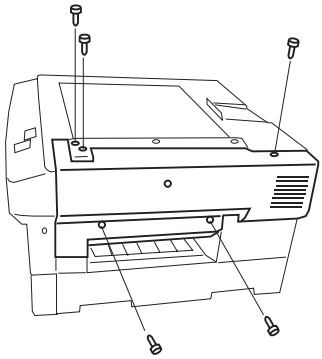
Remove the four screws, open the upper unit and remove the left cover.



5-1-3. Right cover

Remove the five screws (two of the five screws are also used to fix the document scale). Then remove the right cover.

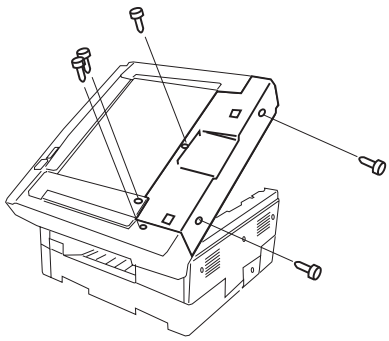
Note: Do not loosen the other document scale fixing screws as the center position is deviated by loosing them.



5-1-4. Upper rear cover

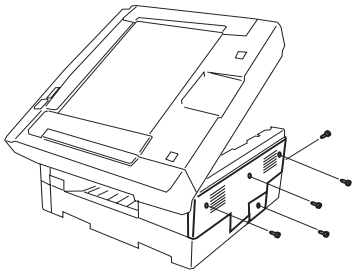
Remove the five screws (one of the five screws is also used to fix the document scale). Then open the upper unit and remove the upper rear cover.

Note: Do not loosen the other document scale fixing screws as the center position is deviated by loosing them.



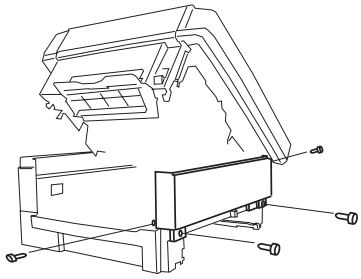
5-1-5. Lower rear cover

Loosen the five screws, and remove the lower rear cover.

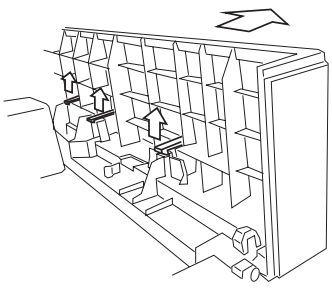


5-1-6. Front cover

1) Pull out the cassette and remove the three screws. Then open the upper unit and remove the screw on the left side.



2) Unhook the three hooks on the back side of the cover and remove the front cover.

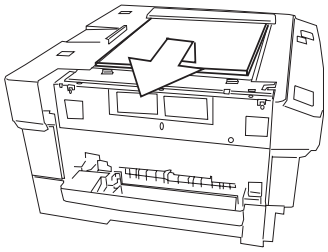


5-2. Platen glass

1) Remove the left cover. (Refer to section 5-1.)
2) Lift the edge of the glass slightly, and pull the glass out in the direction of the arrow.

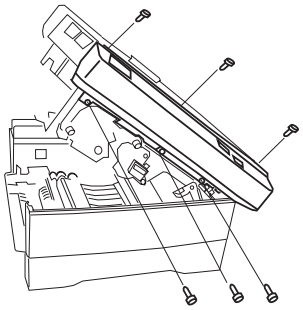
Note 1: If the edge of the glass is lifted too high, the corners could be broken.

Note 2: The platen glass can also be removed by removing the right cover and document scale. However, as the center position will be deviated, the glass could drop when the upper unit is opened.



5-3. Operation panel

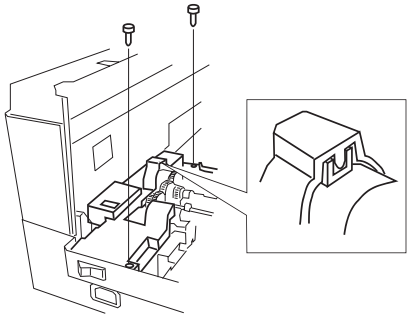
1) Remove the right cover, platen glass and left cover. (Refer to sections 5-1 and 5-2.)
2) Open the upper unit, and remove the six screws. Disconnect the flat cable connector inside and remove the operation panel.



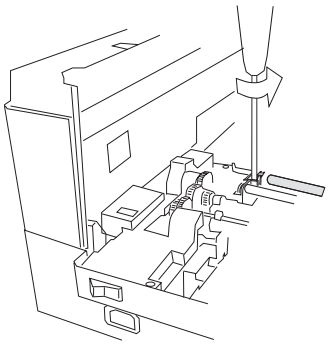
5-4. Paper feed unit

1) Open the upper unit, and remove the protection cover (two screws) on the rear side.

Note: As the protection cover also acts as the regist roller clutch stopper, make sure to align with the clutch unit stopper position when assembling.

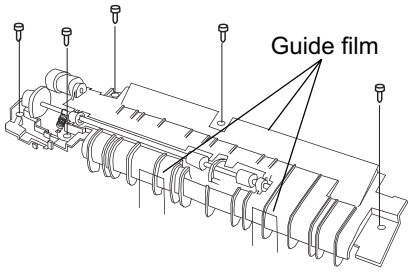


2) Loosen the fixing screws on the rear side of the TC roller by two or three turns.



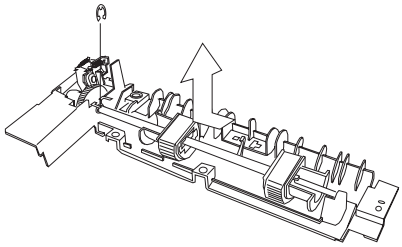
3) Remove the five fixing screws, disconnect the three connectors, and remove the paper feed unit.

Note: Take care not to scratch the guide film when installing or removing the paper feed unit.



△1 5-4-1. Paper feed (segment) roller (Main unit)

1) Remove the E-ring and the paper feed roller assembly.



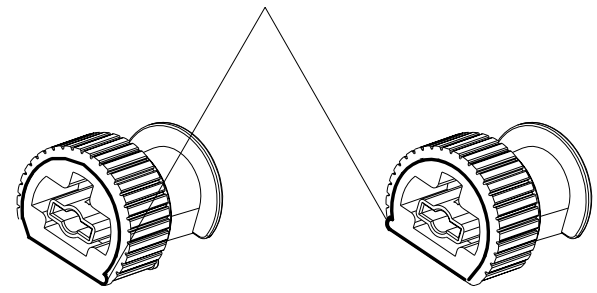
2) Unhook and pull out the gears and paper feed rollers rom the shaft.

Paper feed roller/F

Paper feed roller/R

Note1: Take care not to lose the bearing and the spacer washer.
Note2: Take care not to mix the paper feed roller/F up with the rear paper feed roller/R, because they are different.

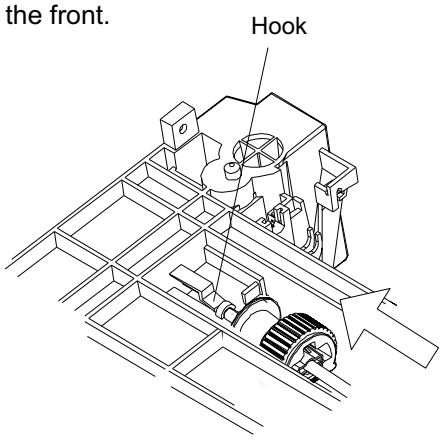
A projection is on the one side of the paper feed roller



Paper feed roller/R Paper feed roller/F

5-4-1'. Paper feed (segment) roller (Optional cassette feeder)

1) Remove the main unit from the optional cassette feeder.
2) Push down the hook, and pull the paper feed roller to the front.

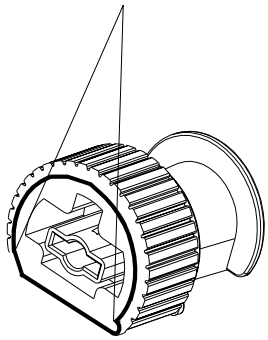


3) Remove the paper feed roller from the rear bearing, and remove the roller from the front holder.

4) Unhook and pull out the paper feed roller from the shaft, as same procedure as the roller of the main unit.

Note1: The paper feed rollers of the optional cassette feeder are differed with the rollers of the main unit.
Note2: The front and rear paper feed roller of the optional cassette feeder are same.

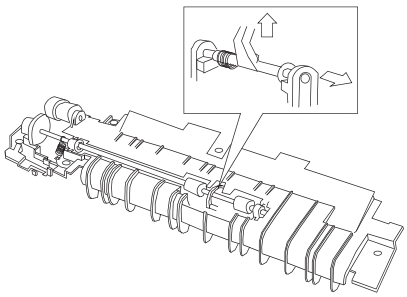
There are projections on each side of the paper feed roller.



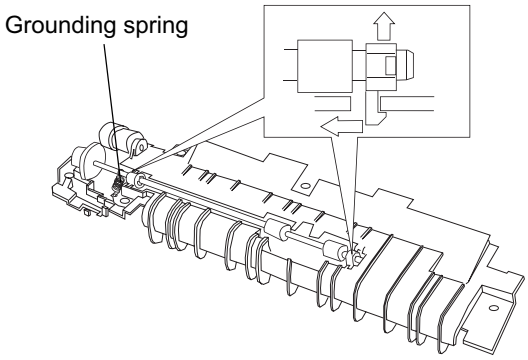
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5-4-2. Slip roller

1) Remove the JAM1 sensor lever.
Note: Take care not to lose the spring or resin washer.

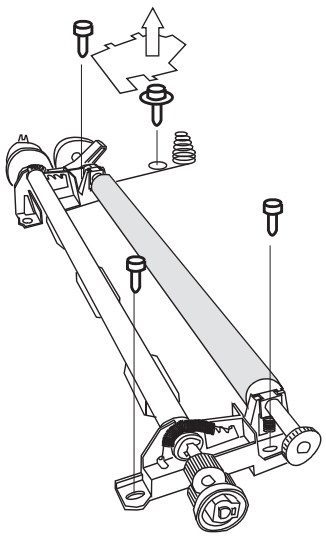


2) Unhook the grounding spring catch and the hook, then remove the slip roller.



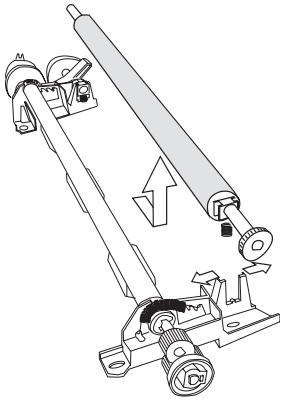
5-5. Conveyance and transfer unit

1) Remove the paper feed unit. (Refer to section 5-4.)
2) Remove the one screw fixing the electrode spring under the insulation film, then remove the other three screws to remove the conveyance and transfer unit.



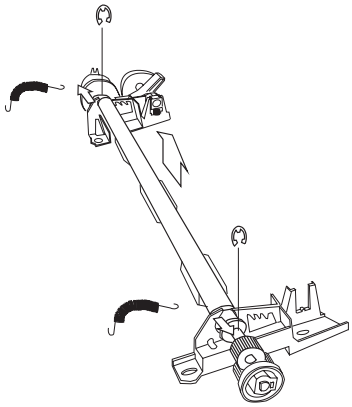
5-5-1. Transfer roller

Unhook the bearing catch on the front and remove the transfer roller.
Note: Take care not to lose the springs under the bearings.



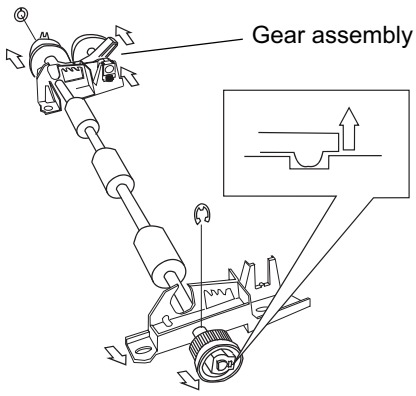
5-5-2. Upper regist roller

Remove the springs and E-rings on both sides, then remove the upper regist roller.



5-5-3. Lower regist roller

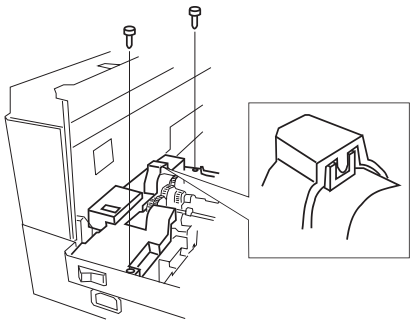
1) Remove the special washer (resin washer) on the rear side, and remove the regist roller clutch and gear assembly.
Note: Always confirm how the springs in the gear assembly are set before disassembling.
2) Remove the gears and E-rings on the front, then remove the lower regist roller.



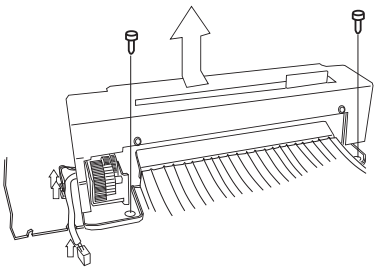
5-6. Fixing unit

1) Open the upper unit and remove the protection cover (two screws) on the rear side.

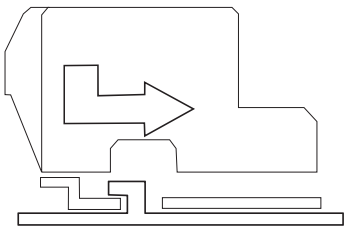
Note: As the protection cover also acts as the regist roller clutch stopper, make sure to align with the clutch unit stopper position when assembling.



2) Remove the two fixing screws, pull out the three connectors, and remove the fusing unit.

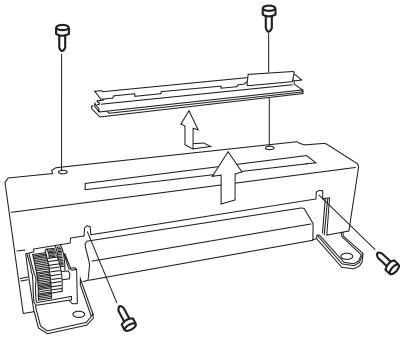


Note: As the paper exit side is caught on the rib and fixed, make sure to securely insert when assembling.



5-6-1. Fixing upper cover

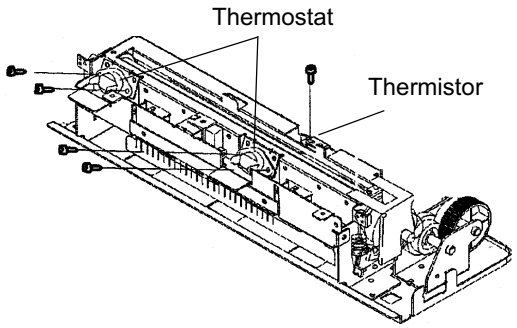
Pull out the cleaning pad and remove the four screws. Then remove the fixing upper cover.



5-6-2. Thermistor and thermostat

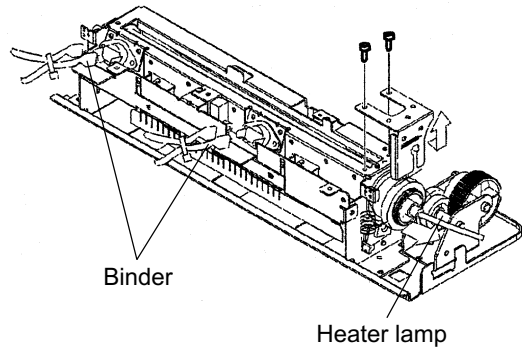
1) Thermistor
   Remove one screw, then remove the thermistor.
2) Thermostat
   Remove the two screws to undo the thermostat from the holder, then pull out the terminal and remove the thermostat.

Note: As this thermostat is not a self-recovering type, replace the part when it worked.



5-6-3. Heater lamp

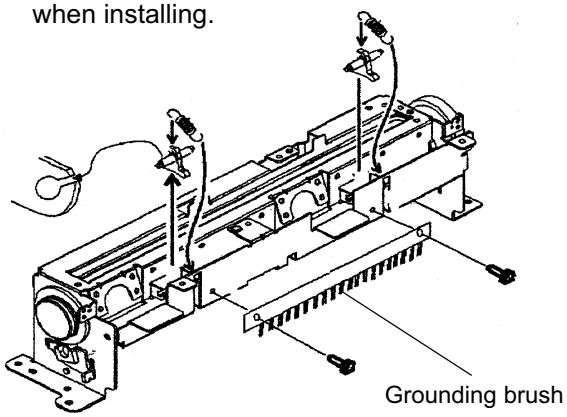
1) After undoing the thermostat from the holder, pull out the thermostat terminal and cut the binder to undo the lamp lead wire from each harness clamp.
2) Remove the lamp fixing holder (two screws) and remove the heater lamp.



5-6-4. Separation claws

Remove the grounding brush (two screws), and the springs to remove the separation claws.

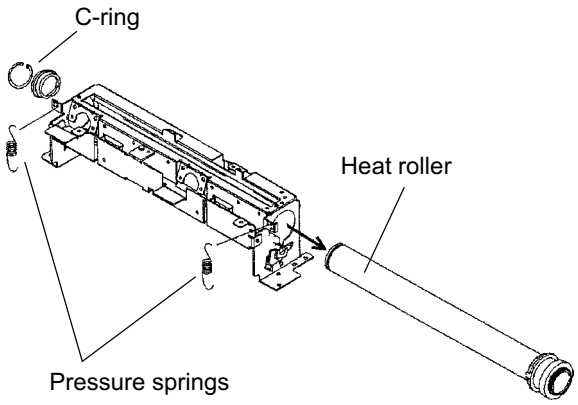
Note: Install the separation claws after the heat roller when installing.



5-6-5. Heat roller

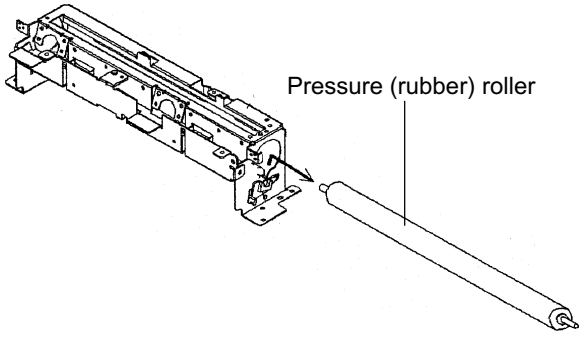
1) Remove the pressure springs.
2) Remove the C-ring, and pull out the heat roller.

Note: Always remove the separation claws and thermistor first to prevent the roller surface from being scratched.



5-6-6. Pressure (rubber) roller

After pulling out the heat roller, pull out the pressure (rubber) roller.

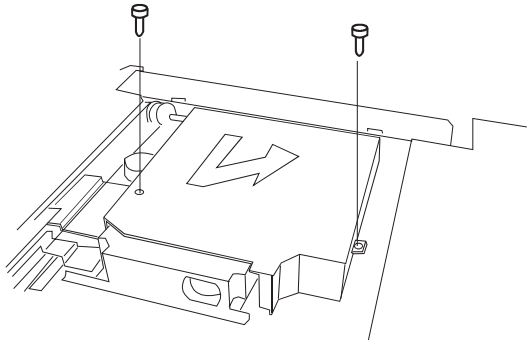


5-7. Optical section

Remove the platen cover, left cover, right cover and platen glass. (Refer to sections 5-1 and 5-2.)

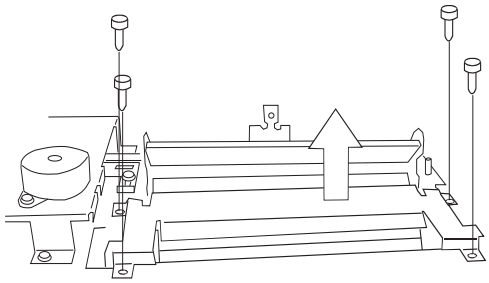
5-7-1. Lens cover

Remove the two screws, and remove the lens cover.



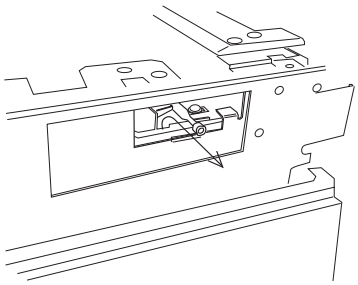
5-7-2. No. 6 mirror unit

Remove the four screws, and remove the No.6 mirror unit.

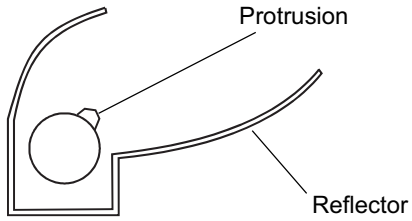


5-7-3. Exposure lamp

1) Remove the operation panel. (Refer to section 5-3.)
2) Move the No. 1 scanner to the square hole position of the frame on the front, and then pull out the exposure lamp.



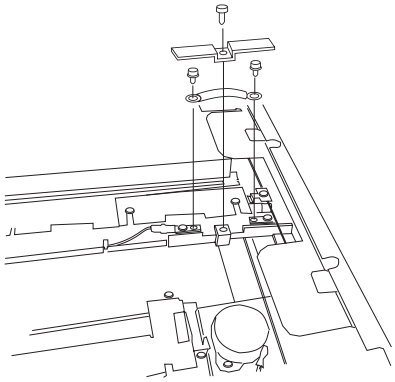
Note: When installing the exposure lamp, make sure that the lamp protrusion faces the opposite side of the reflector and manufacturer's mark is on the rear side of the main unit.



5-7-4. Temperature fuse

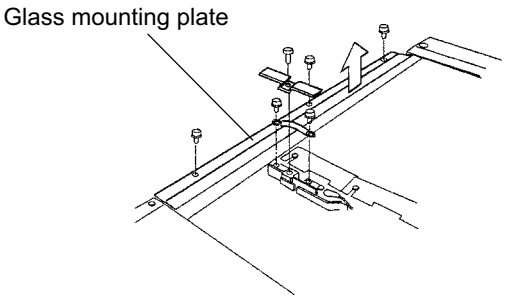
(Front side fuse)

Remove the fuse cover (one screw), and remove the temperature fuse (two screws)



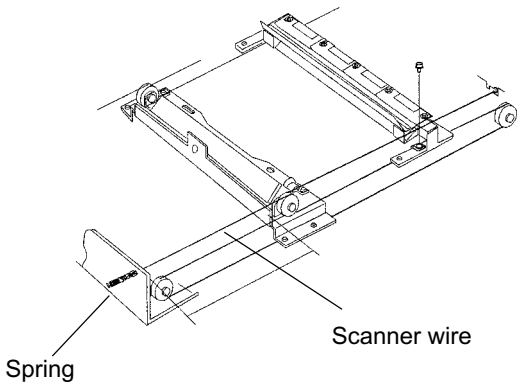
(Rear side fuse)

1) Remove the upper rear cover. (Refer to section 5-1.)
2) Remove the glass mounting plate (three screws) and fuse cover (one screw). Then remove the temperature fuse (two screws).



5-7-5. Scanner wire

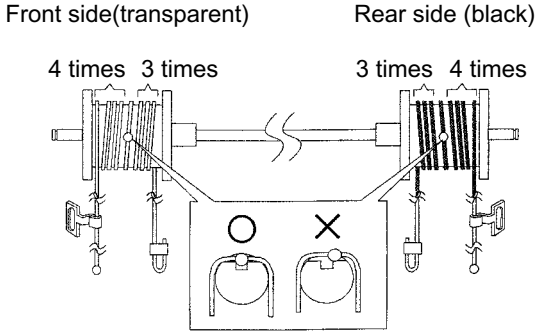
Remove the No. 1 scanner fixing screw and spring. Then, remove the scanner wire



(No. of turns for the drive pulley wire)

Note 1: The scanner must be at the position shown above.

Note 2: After turning the wire, temporarily fix the drive pulley with tape, etc., so that the wire will not come undone until the installation is completed.

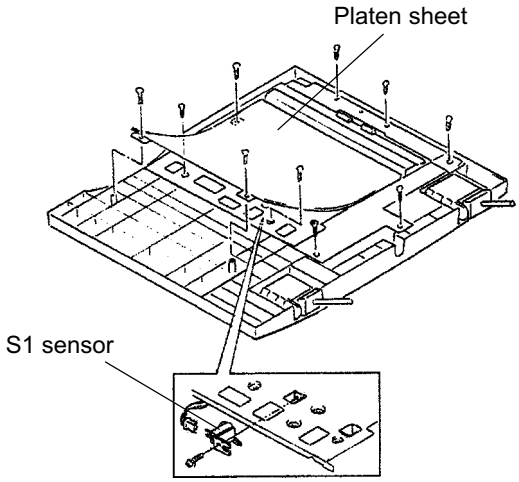


5-8. SDH unit

1) Disconnect the connector, and remove the SDH unit from the main unit.
2) Reverse the SDH unit, and remove the two screw fixing the platen sheet.
3) Remove the eight fixing screws, and remove the SDH unit from the cover.

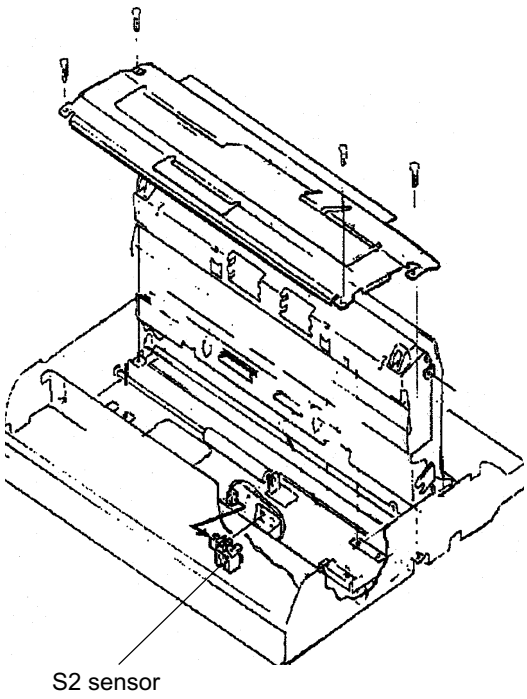
5-8-1. S1 sensor

1) Remove the fixing screw, disconnect the connector, and remove the S1 sensor.



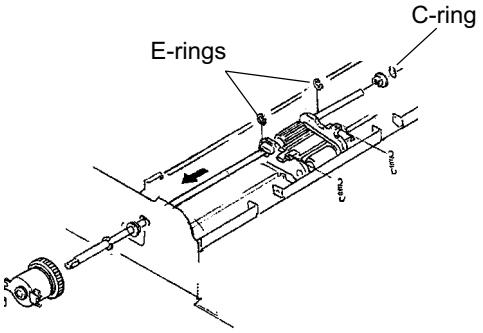
5-8-2. S2 sensor

1) Open the top cover.
2) Remove the paper guide (four screws).
3) Disconnect the connector, unhook, and remove the S2 sensor.



5-8-3. Paper feed clutch, paper feed roller

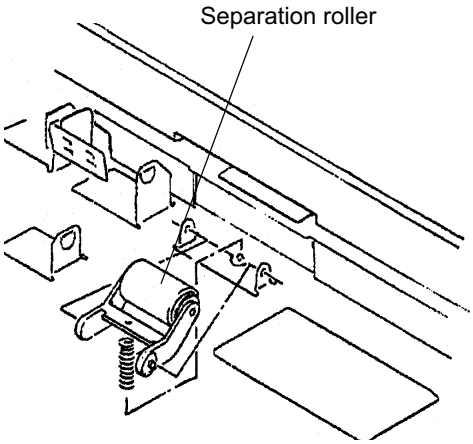
1) Remove the two pressure springs.
2) Remove the C-ring, and then remove the paper feed clutch.
3) Remove the C-ring (one ring) and E-rings (two rings), and then pull out the roller shaft.
4) Remove the paper feed roller.



5-8-4. Separation roller

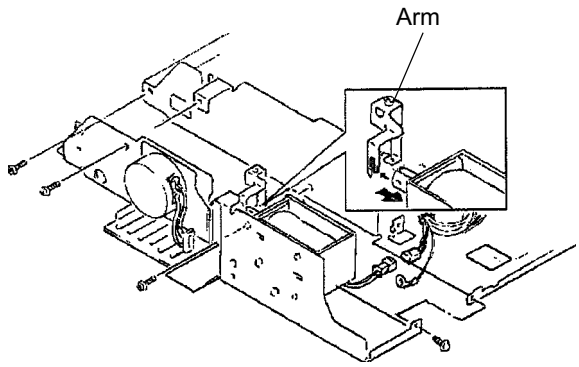
1) Unhook the separation roller and remove it.

Note: Take care not to lose the pressure springs.



5-8-5. Gear frame

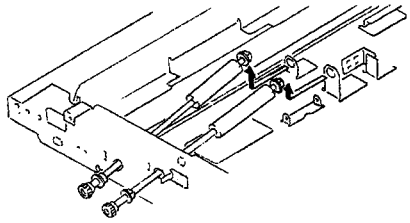
1) Remove the arm from the paper feed solenoid.
2) Remove the four fixing screws, and remove the gear frame.



5-8-6. Lower conveyance roller

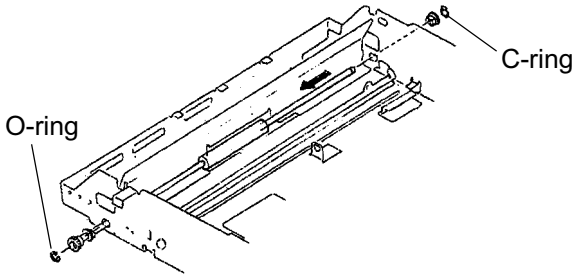
1) Shift the roller in the direction of the arrow and remove it.

Note: Take care not to lose the metal.



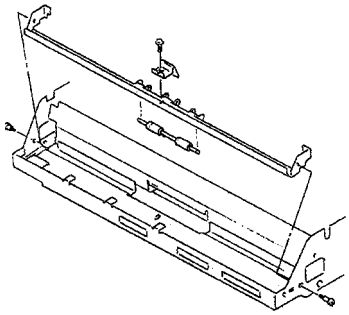
5-8-7. Lower turn roller

1) Remove the O-ring and C-ring, and pull out the roller.



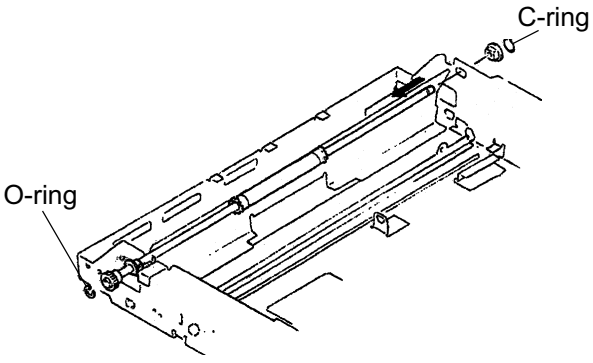
5-8-8. Upper turn roller

1) Remove the two screws, and remove the roller frame.
2) Remove the plate spring (one screw), and remove the roller.



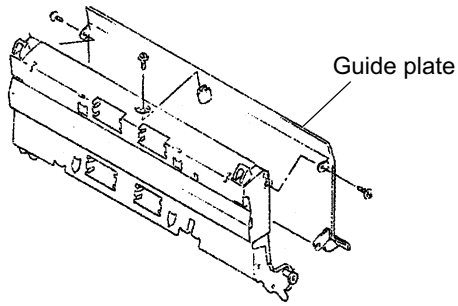
5-8-9. Paper exit roller

1) Remove the O-ring and C-ring, shift the roller in the direction of the arrow, and remove it.

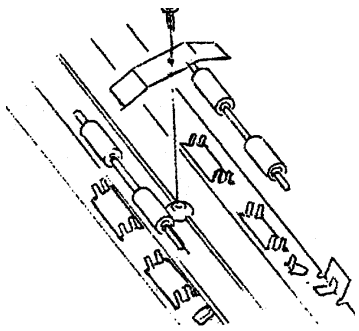


5-8-10.Upper conveyance roller

1) Remove the guide plate (three screws).



2) Remove the plate spring (one screw), and remove the roller.

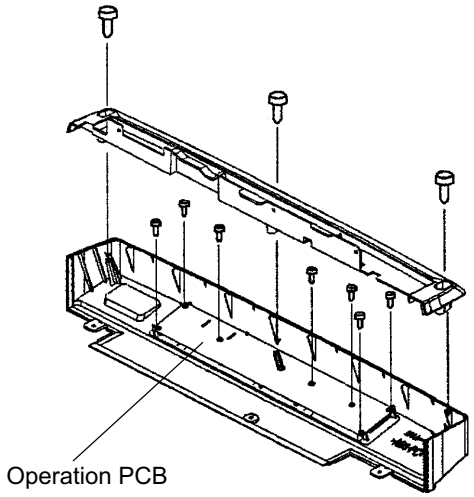


5-9. PCB

5-9-1. Operation PCB

1) Remove the operation panel. (Refer to section 5-3.)
2) Reverse the operation panel, and remove the lower cover (three screws).
3) Remove the seven fixing screws, and remove the operation PCB.

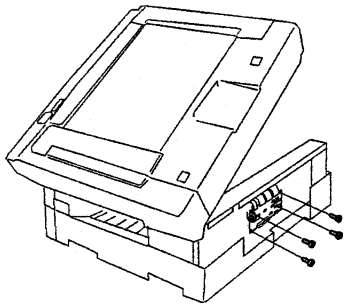
Note: Take care not to lose the key buttons.



5-9-2. Main PCB

1) Remove the lower rear cover. (Refer to section 5-1.)
2) Disconnect each connector, and remove the main PCB (four screws).

Note 1: Insert the FPC lead wire in straight, and take care not to damage the connection section.



Note 2: When replacing the main PCB, re-input all of the adjustment data in 25 mode and 36 mode. The developing unit must also be reinitialized.

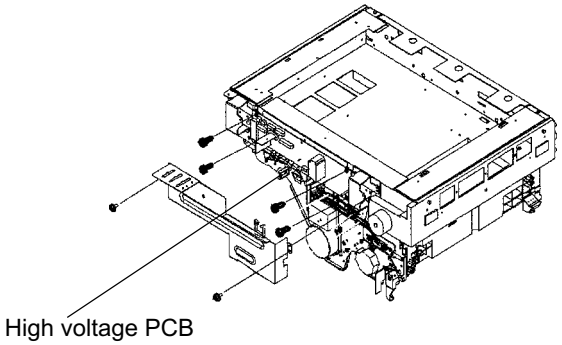
Note 3: When reinitializing the developing unit, the developer's density must be at an optimum value. If it is not, F26 (initialize error) will occur. Thus, initialize the unit after adjusting the toner density. When initializing it, developing count value(mode C-42) is cleared. For that reason, re-input the count value by using the 25 mode (85~90).

Reference:Comfirm the toner density of the solid black part using a test chart. In case it is not proper, the developing unit must be reinitialized after adjusting item shown below.

* When toner density is high:
  Copy with the service mode 36-02, to consume the toner.
* When toner density is low:
  Forcibly supply the toner with the service mode 47-01.
* Refer to Chapter 8 for details on the service modes.

5-9-3. High voltage PCB

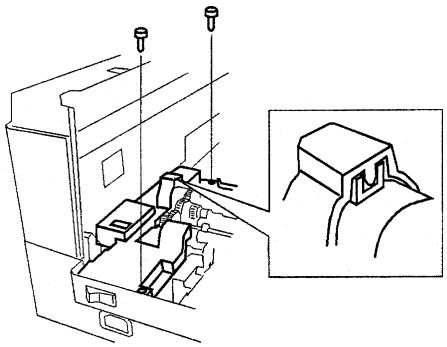
1) Remove the upper rear cover. (Refer to section 5-1.)
2) Remove the protection plate (two screws).
3) Disconnect each connector, and remove the high voltage PCB (four screws).



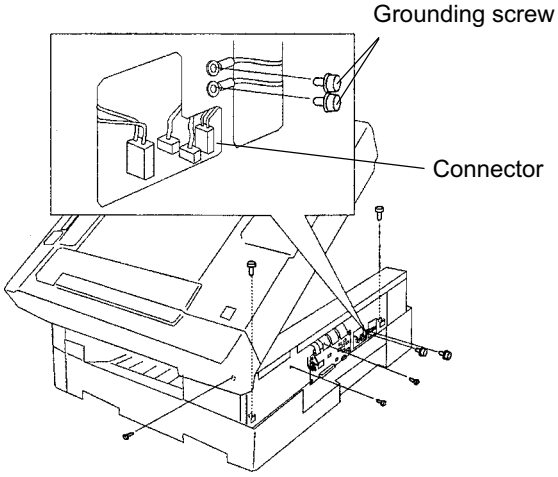
5-9-4. Power PCB

1) Open the upper unit, and remove the protection cover (two screws) on the rear side.

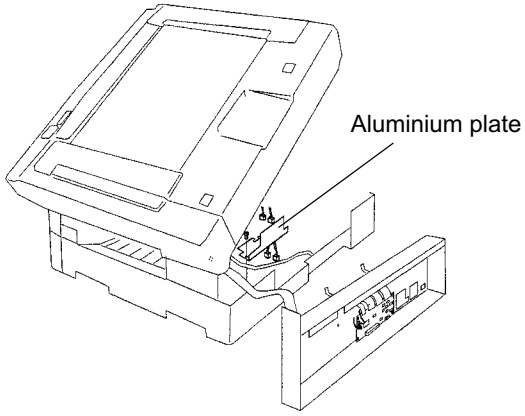
Note: The protection cover also acts as the regist roller clutch stopper, so when assembling, make sure to align with the clutch unit stopper position.



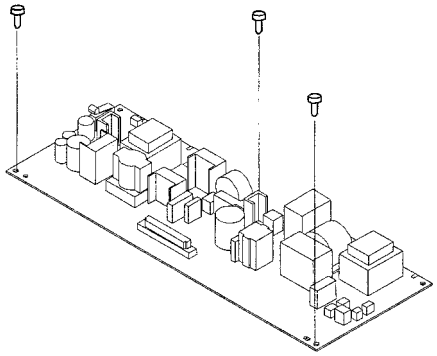
2) Remove the lower rear cover. (Refer to section 5-1.)
3) Remove the two grounding screws, and disconnect the interlock switch connector.
4) Remove the five screws for fixing the main PCB's installation plate.



5) Disconnect the lamp lead wire from the binder inside the plate, and pull the plate to the outer side of the main unit.
6) Disconnect the connector on the power PCB, and the two connectors on the aluminium plate, and then remove the aluminium plate (one screw).

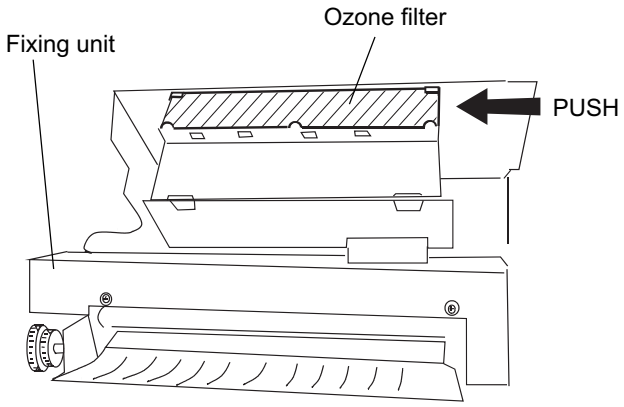


6) Disconnect each connector, and remove the power PCB (three screws).



5-10. Replacement of the Ozone filter

1) Open the upper unit and remove the developing unit and the drum unit.
2) Push the edge of the front side of the ozone filter to take it out from hooks of the holder, then remove the ozone filter.



3) Install the new ozone filter by catching it on the hooks of the holder. (It is easy to install the new ozone filter from the upper side of the holder.)