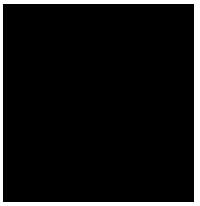
DIS/REASSEMBLY, ADJUSTMENT



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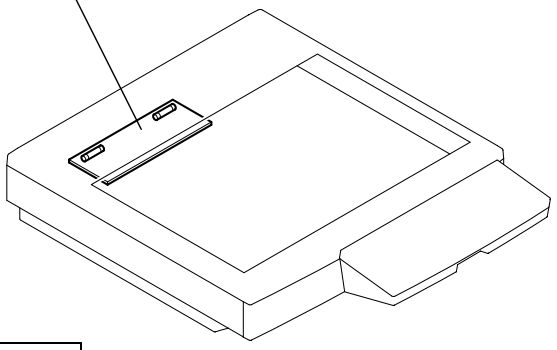
1. SERVICE INSTRUCTIONS

1-1. IDENTIFICATION OF FUSES

DC Power Supply 3 PU201

F1: 250 V 5 A
F100: 250 V 3.15 A



4025D001AA

DC Power Supply 2 PU2

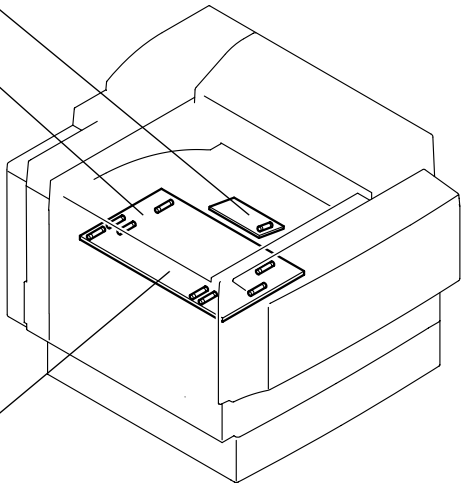
100 V Area
F1: 125 V 4 A
200 V Area
F1: 250 V 4 A

DC Power Supply 1 PU1

100 V Area
F1: 250 V 15 A
F2: 250 V 15 A
F3: 250 V 15 A
F4: 250 V 15 A
200 V Area
F1: 250 V 8 A
F2: 250 V 8 A
F3: 250 V 8 A
F4: 250 V 8 A

DC Power Supply 1 PU1

F101: 250 V 3.15 A
F102: 250 V 3.15 A
F103: 250 V 3.15 A
F104: 250 V 3.15 A



4025D002AB

1-2. PARTS WHICH MUST NOT BE TOUCHED

(1) Red painted Screws

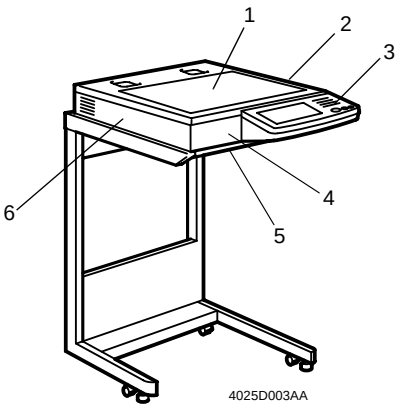
Purpose of Application of Red Paint
Red painted screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be adjusted, set, or removed in the field.
Note that when two or more screws are used on the part in questions, only one representative screw may be marked with red paint.

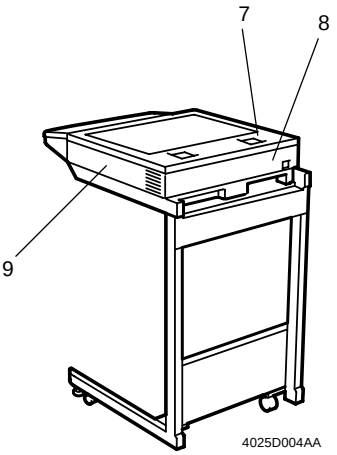
(2) Variable Resistors on Board

Do not turn the variable resistors on boards for which no adjusting instructions are given in "ADJUSTMENT."

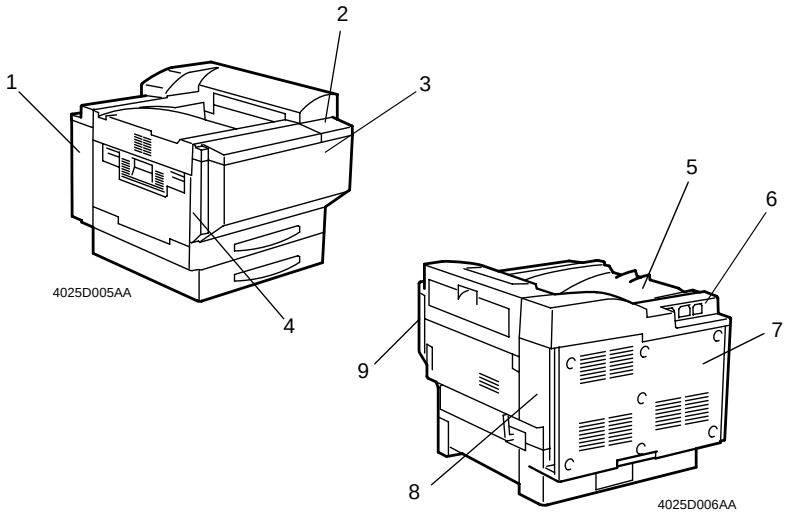
2. DISASSEMBLY/REASSEMBLY

2-1. DOORS, COVERS, AND EXTERIOR PARTS: IDENTIFICATION AND REMOVAL PROCEDURES





No.	Name	Removal Procedure
1	Original Glass	Remove the IR Upper Right Cover. → Remove one screw and the Original Glass fixing brackets (front and rear). → Remove the Original Glass.
2	IR Upper Right Cover	Remove three screws and the IR Upper Right Cover.
3	Control Panel	Remove the four caps on both sides of the control panel. → Remove four screws and the flat cable. → Remove the control panel.
4	IR Front Cover	Remove the IR Lower Front Cover. → Loosen three screws and remove the IR Front Cover.
5	IR Lower Front Cover	Remove the pipe ends (left and right). → Remove two screws and the IR Lower Front Cover.
6	IR Left Cover	Remove the IR Upper Cover. → Remove the IR Rear Cover. → Demount the IR Unit from the Copier Stand. → Remove four screws and the IR Left Cover.
7	IR Upper Cover	Remove the Original Cover. → Remove six screws and the IR Upper Cover.
8	IR Rear Cover	Disconnect the power cable and ADF cable. → Remove the IR Upper Cover. → Remove two screws and the IR Rear Cover.
9	IR Right Cover	Remove the IR Upper Cover. → Remove the IR Rear Cover. → Demount the IR Unit from the Copier Stand. → Remove four screws and the IR Right Cover.

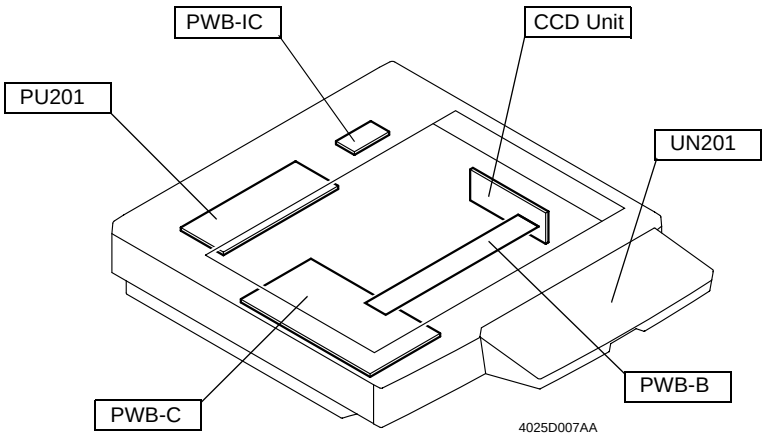


No.	Name	Removal Procedure
1	Rear Left Cover	Open the Left Door. → Remove the Waste Toner Bottle. → Remove the Ozone Filter. → Remove two screws and the Rear Left Cover.
2	Panel Cover	Open the Front Door. → Remove one screw and the Panel Cover.
3	Front Door	Open the Front Door. → Lift the Front Door off the copier.
4	Hopper Left Cover	Open the Front Door. → Remove one screw and lift the Hopper Left Cover upward to take it off.
5	Paper Output Cover	Open the Upper Right Door. → Remove two screws and the Paper Output Cover.
6	Rear Upper Cover	Remove the Paper Output Cover. → Remove the Rear Cover. → Remove the deodorant filter. → Remove three screws and the Rear Upper Cover.
7	Rear Cover	Remove seven screws and the Rear Cover.
8	Rear Right Cover	Open the Right Door. → Remove the Rear Upper Cover. → Remove one screw and the Rear Right Cover.
9	Front Right Cover	Open the Right Door. → Open the Upper Right Door. → Remove the Panel Cover. → Remove one screw and the Front Right Cover.

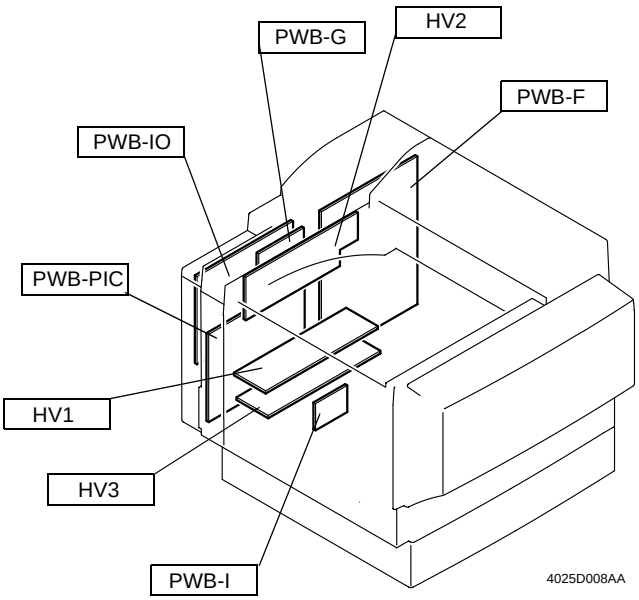
2-2. REMOVAL OF CIRCUIT BOARDS AND OTHER ELECTRICAL COMPONENTS

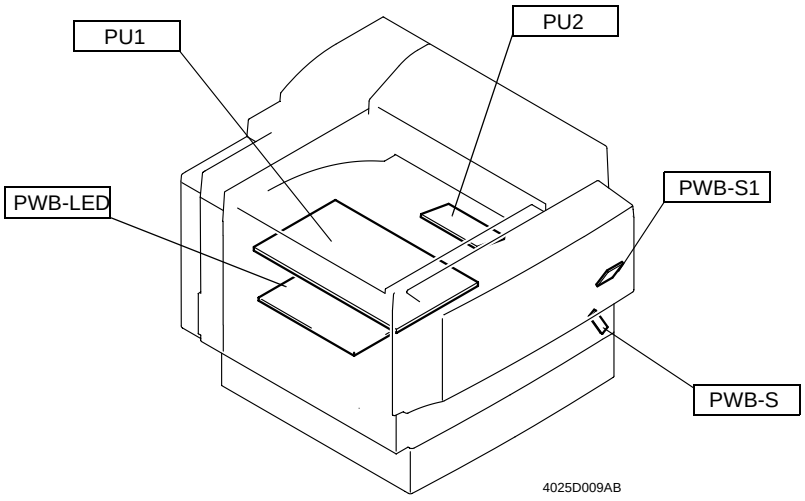
NOTES

- *When removing a circuit board or other electrical component, refer to "Handling of PWBs" and follow the corresponding removal procedures.*
- *The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.*
- *Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.*



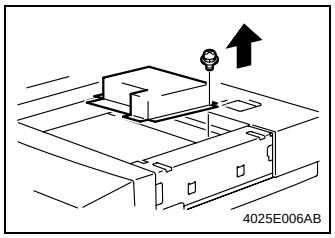
Symbol	Name	Removal Procedure
-	CCD Unit	☞ D-8
PWB-B	Image Processing Interface Board	☞ D-10
PWB-C	Image Processing Board	☞ D-10 ✻ Upgrade the firmware after the replacement.
PWB-IC	Scanner Motor Drive Board	Remove the IR Rear Cover. ⟶ Remove 11 screws and the reinforcement frame. ⟶ Remove the Scanner Motor Drive Board.
UN201	Control Panel	Remove the four rubber caps on the right and left and remove four screws. ⟶ Remove the control panel and then remove the flat cable from the control panel.
PU201	DC Power Supply 3	Remove the IR Rear Cover.⟶ Remove 11 screws and the reinforcement frame. ⟶ Remove five screws and DC Power Supply 3.


PWB-G
HV2
PWB-F
PWB-IO
PWB-PIC
HV1
HV3
PWB-I
4025D008AA

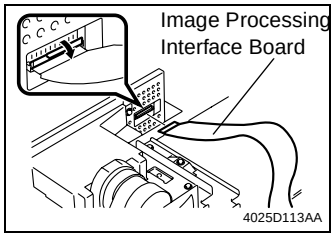

PU1
PU2
PWB-LED
PWB-S1
PWB-S
4025D009AB

Symbol	Name	Removal Procedure
PWB-IO	IO Board	Remove the Rear Upper Cover. → Remove the Rear Left Cover.→ Remove three screws and the upper rear left metal bracket. → Remove five screws and the IO Board.
PWB-G	Option Interface Board	Remove the Main Board. → Remove four screws and slide the Option Interface Board off the copier.
PWB-PIC	PIC Board	Remove the Main Board. → Remove five screws and the harness protective metal bracket. → Remove nine screws and the rear left metal bracket. → Remove PWB-F. → Remove eight screws and the PIC Board. ✻ Upgrade the firmware after the replacement.
PWB-F	Image Control Board	☞ D-12 ✻ Upgrade the firmware after the replacement.
HV1	High Voltage Unit (PC DRUM CH.)	☞ D-13
Have	High Voltage Unit (Image Transfer, Neu-tralizing)	☞ D-13
Have	High Voltage Unit (Developing Bias)	☞ D-13
Put	DC Power Supply 1	☞ D-15
Put	DC Power Supply 2	Remove the Paper Output Cover and Rear Upper Cover. → Remove four screws and the PWB cover. → Remove three screws and DC Power Supply 2.
PWB-LED	LED Drive Board	☞ D-41
PWB-I	Paper Size Detecting Board	☞ D-13
PWB-So	Paper Type Detection Board	Open the Front Door. → Slide out the paper drawer. → Remove one screw and the Paper Type Detection Board cover.→ Remove one screw and the Paper Type Detection Board. ✻ There are locking tabs inside the Paper Type Detection Board cover. Try to expand both sides of the cover when removing it.
PWB-So	Tech. Rep. Setting Switches Board	Open the Front Door. → Remove the Panel Cover. → Remove two screws and the Right Front Cover. → Remove one screw and the Tech. Rep. Setting Switches Board.

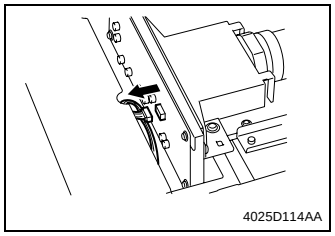
(1) Removal of the CCD Unit



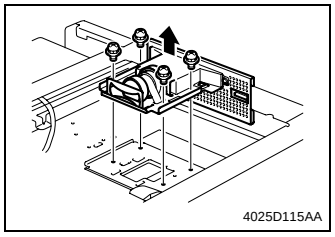
1. Remove the Original Glass.
2. Remove 14 screws and optical cover.



3. Remove the Image Processing Interface Board from the CCD Unit.



4. Unplug connector

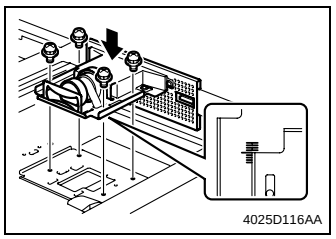


5. Remove four screws and the CCD Unit.

NOTE

- *Make doubly sure that you remove the correct screws. If any screw that should not be removed is removed, it results in the distance between the lens and the CCD sensor or tilt in these parts being varied.*

Reinstallation Procedure



1. Align the CCD Unit with the center of the graduations as illustrated on the left and then tighten the four screws.
2. Reinstall the Original Glass.
3. Turn ON the Power Switch.
4. Carry out the adjustment procedure for CD-Mag. (see D-67). If the specifications are not met, loosen the CCD Unit mounting screws and move the CCD Unit in the FD direction as necessary.

NOTE

- *Hold the CCD Unit by hand when moving it. NEVER use a screwdriver or similar tool to tap to move it, as a varied distance between the CCD sensor and lens results.*

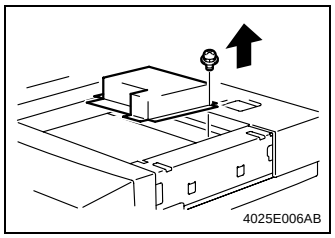
<Adjustment Procedure>

- If the specified width on the copy is less than the specifications, move the CCD Unit to the left.
- If the specified width on the copy is longer than the specifications, move the CCD Unit to the right.

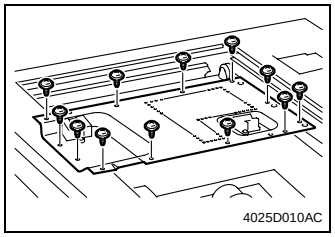
✻ Moving the CCD Unit over 1 mm results in the zoom ratio being varied about 2%.

5. Reversing the order of removal, reinstall all parts that have been removed.

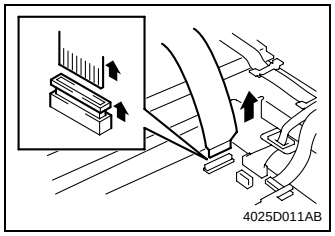
(2) Removal of the Image Processing Board and Image Processing Interface Board



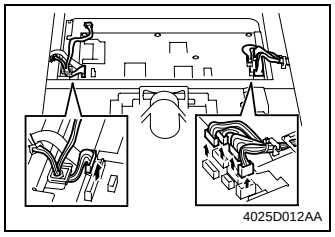
1. Remove the Original Glass.
2. Remove 14 screws and optical cover.



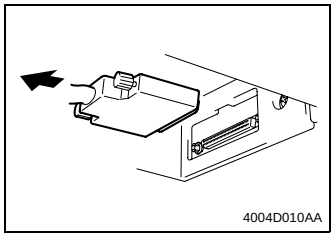
3. Unplug the connectors and remove the cord clamps of the Original Size Detecting Sensors.
4. Remove 12 screws and the Image Processing Board lid.



5. Remove the Image Processing Interface Board.



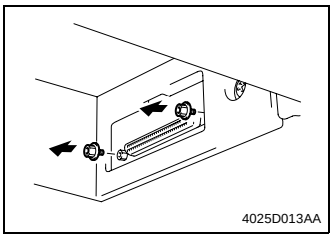
6. Unplug all connectors of the Image Processing Board.



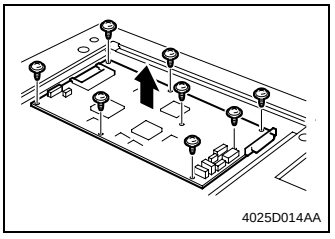
7. Remove the IR hookup cable.

NOTES

- *Be sure to hold onto the connector of the cable when removing or reinstalling the cable. NEVER pull on the cable.*
- *At reinstallation, make sure that the connector is not tilt.*



8. Remove two screws.

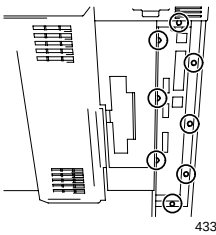


9. Remove eight screws and the Image processing Board.

✻ Upgrade the firmware after the replacement.

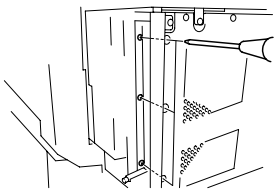
(3) Removal of the Image Control Board

<Copier Side Face>



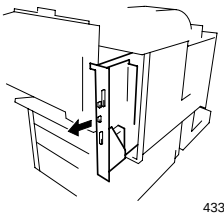
4334O014AA

<Copier Rear Face>



4334O015AA

1. Remove the Rear Cover.
2. Remove eight screws at the I/F cable connection (five on the side face and three on the rear face of the copier).



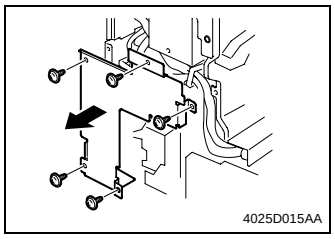
4334O016AA

3. Slide the Image Control Board to the left off the copier.

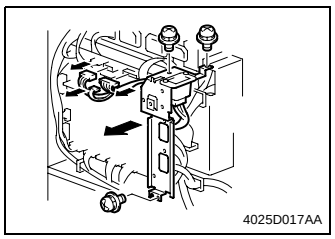
✻ Remount IC202 and upgrade the firmware after the replacement.

(4) Removal of the High Voltage Unit (PC Drum CH.), High Voltage Unit (Image Transfer, Neutralizing), High Voltage Unit (Developing Bias), and Paper Size Detecting Board

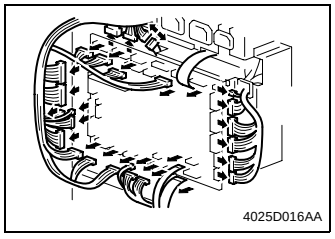
1. Remove the Rear Upper Cover.
2. Remove the Rear Left Cover.
3. Remove the Rear Right Cover.



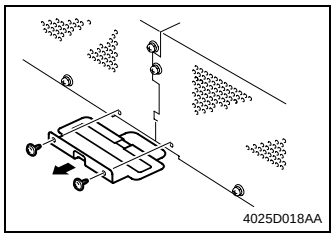
4. Remove five screws and the harness protective metal bracket.



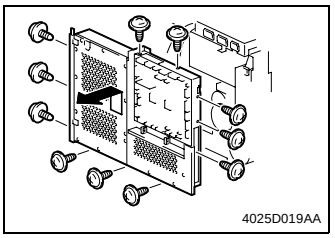
5. Remove three screws and unplug three connectors. Then, remove the rear left metal bracket.



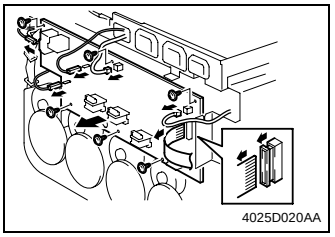
6. Unplug all connectors from the Main Board.
7. Unplug the two connectors from the Option Interface Board.
8. Unplug the two connectors from the PIC Board.



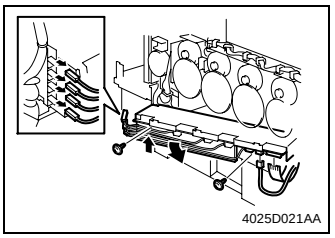
9. Remove two screws and the 2nd Drawer power line mounting bracket.



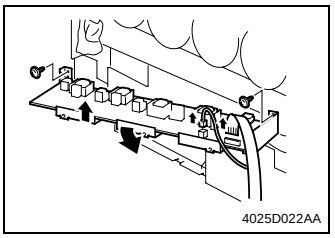
10. Remove 11 screws and lift the PWB box upward and off the copier.



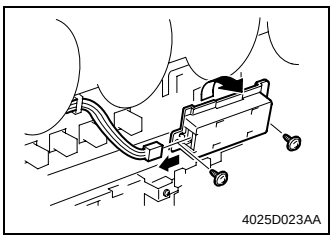
11. Disconnect connectors, terminals, and flat cable from the High Voltage Unit (Image Transfer, Neutralizing).
12. Remove six screws and the High Voltage Unit (Image Transfer, Neutralizing).



13. Disconnect connectors, terminals, and flat cable from the High Voltage Unit (PC Drum CH.).
14. Remove two screws. Then, lift the High Voltage Unit (PC Drum CH.) and take it out to the front.

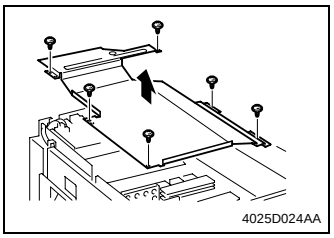


15. Disconnect the connectors and flat cable from the High Voltage Unit (Developing Bias).
16. Remove two screws. Then, lift the High Voltage Unit (Developing Bias) and take it out to the front.

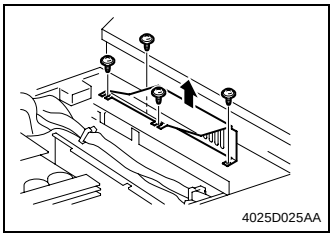


17. Slide out the paper drawer.
18. Remove two screws, unplug the connector, and remove the Paper Size Detecting Board.

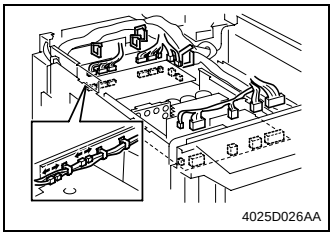
(5) Removal of DC Power Supply 1



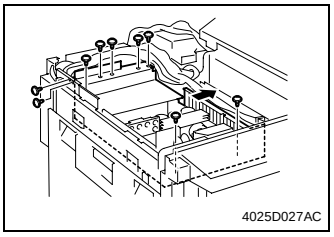
1. Remove the Rear Upper Cover.
2. Remove six screws and the PWB cover.



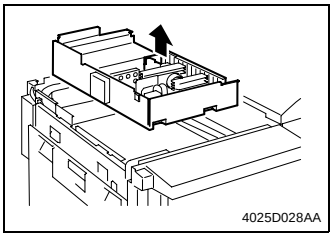
3. Remove four screws and the PWB cover.



4. Unplug all connectors from DC Power Supply 1.



5. Remove nine screws and slide DC Power Supply 1 to the right.



6. Remove DC Power Supply 1.

2-3. Removal of Units

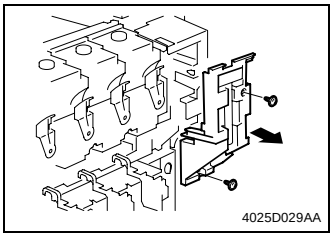
(1) Removal of the Toner Hopper Unit

1. Open the Front Door.
2. Remove the Toner Cartridge (C, M, Y, Bk).
3. Remove the IU (C, M, Y, Bk).

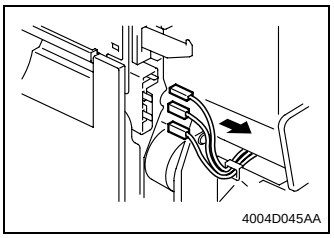
NOTE

- *After the IU has been slid out, be sure to place it in the aluminum pack for packing or wrap it in the light shielding cloth and store it in a dark place. Do not leave the IU to stand for a long time.*

4. Remove the hopper left cover.
5. Remove the Front Right Cover.

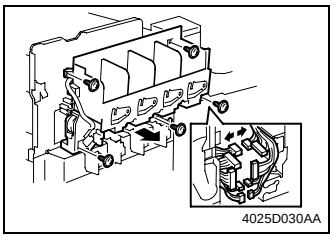


6. Remove two screws and the Front Door Switch cover.



7. Disconnect terminals.

✻ Terminals (from top downward): blue, white, and green



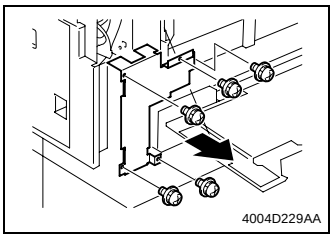
8. Disconnect five connectors.
9. Remove five screws and the Toner Hopper Unit.

(2) Removal of the LPH Unit

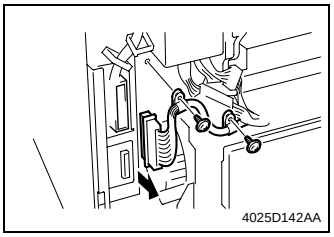
1. Open the Front Door.
2. Slide out the IU (C, M, Y, Bk).

NOTES
- *After the IU has been pulled out, place the IU lock lever back into the locked position.*
- *When sliding the IU back in, make sure that the shutter is opened if the IU Lower Cover is not to be used.*

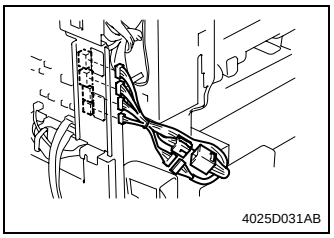
3. Removed the Rear Left Cover.



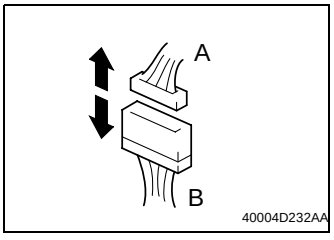
4. Remove five screws and the harness protective metal bracket.



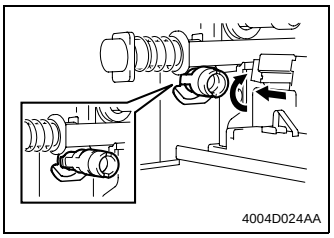
5. Remove two screws and unplug one connector on the PIC Board.



6. Unplug four connectors from the IO Board.
7. Disconnect two hookup connectors.

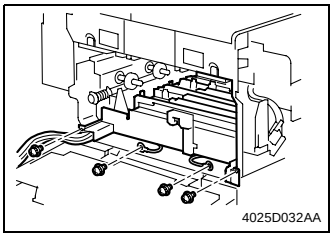


NOTE
- *When unplugging the connector, make sure that connector A (on the copier side) is disconnected. Connector B (on the LPH Unit side) should not be disconnected.*



8. Open the Right Door and Left Door and remove the Waste Toner Bottle and Transfer Belt Unit.
9. Turning the IU (C, M, Y, Bk) drive hub, push it into the locked position (at four places).

NOTES
- *During the locking procedure, use care not to touch the LED surface.*
- *Should the LED surface be touched, clean it with the LED Cleaning Jig.*

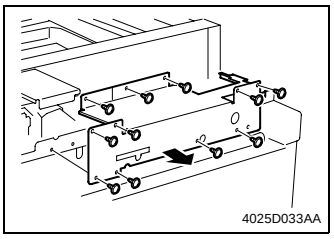


10. Remove four screws and slide out the LPH Unit.

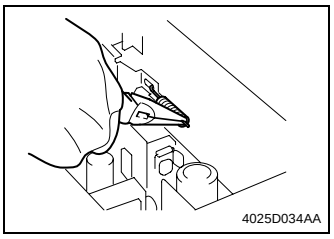
NOTE
- *When the LPH Unit is to be replaced, remove the ATDC Sensor from the old LPH Unit and remount it on the new one. This step is not, however, necessary if the IU is replaced at the same time.*

2-4. Disassembly of the IR Unit

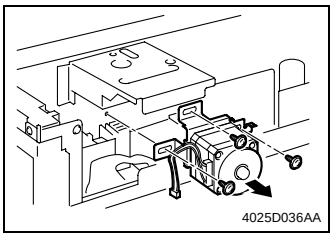
(1) Removal of the Scanner Motor



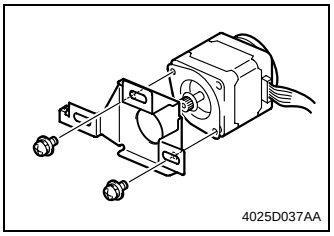
1. Remove the IR Rear Cover.
2. Remove 11 screws and the reinforcement frame.



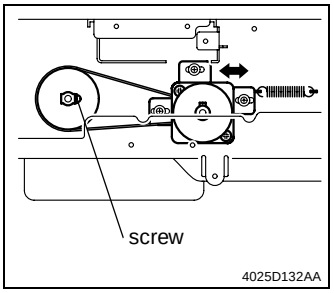
3. Remove the tension spring for the Scanner Motor timing belt.



4. Remove three screws and the Scanner Motor Assy.



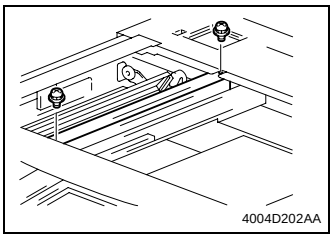
5. Remove two screws and the Scanner Motor.



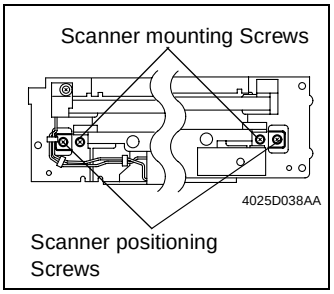
<Reinstallation of the Scanner Motor Assy>

1. Temporarily secure the Scanner Motor Assy using three screws.
2. Hook the spring.
3. With the Scanner drive gear set screw located on the right-hand side as shown on the left, slide the Scanner Motor Assy to the left and check that it is returned to the original position by the tension of the spring. Perform this step three times.
4. Securely tighten the three screws to fix the Scanner Motor Assy into position.

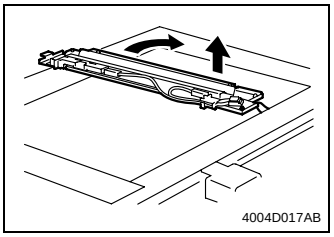
(2) Remove of the Scanner Assy



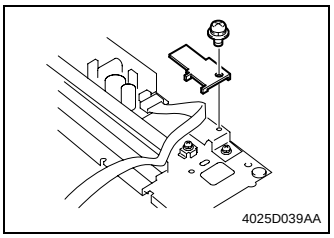
1. Remove the Original Glass.
2. Move the Scanner Assy to the location shown and remove one mounting screw each at the front and rear end.



NOTE
- *Do not remove the Scanner Positioning Screw.*

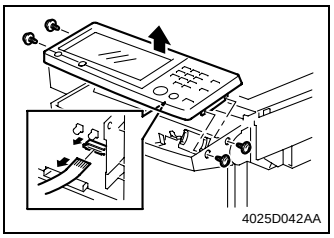


3. Take out the Scanner Assy by turning it in the direction of the arrow shown.

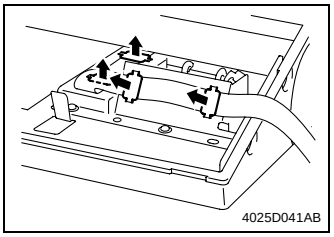


4. Remove one screw and the holder.
5. Remove the flat cable.
6. Remove the Scanner Assy.

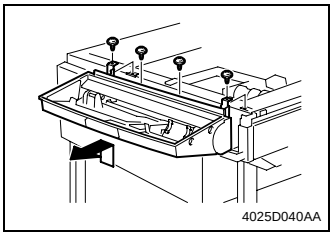
(3) Removal of the Scanner Drive Cables



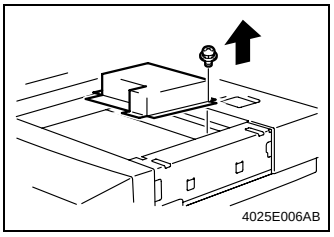
1. Remove the IR Rear Cover.
2. Remove four screws and Control Panel.



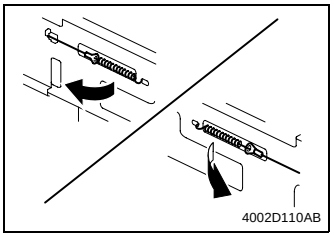
3. Remove the holding bracket and flat cable.



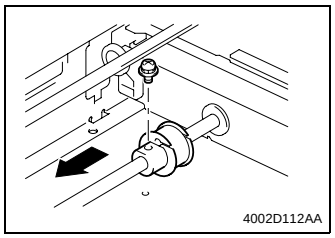
4. Remove four screws and the control panel base.



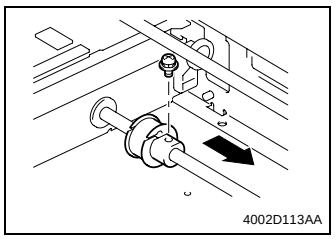
5. Remove the IR Front Cover.
6. Remove the Original Glass.
7. Remove 14 screws and the Optical Cover.



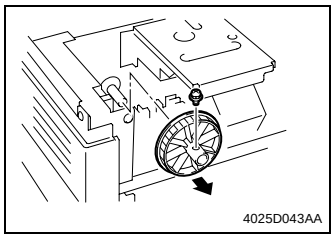
8. Remove the Scanner Assy.
☞ D-20
9. Remove the IR Right Cover and the IR Left Cover.
10. Unhook the springs of the Scanner Drive Cables on the hook side, one each at the front and in the rear.



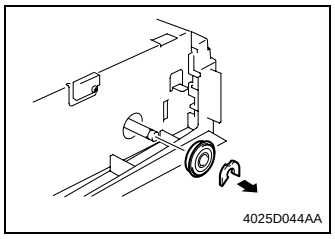
11. Remove the Scanner Motor Assy.
☞ D-19
12. Remove one screw and then slide the front pulley toward the front.



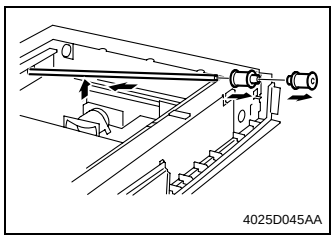
13. Remove one screw and then slide the rear pulley toward the front.



14. Remove one screw and the Scanner drive gear.

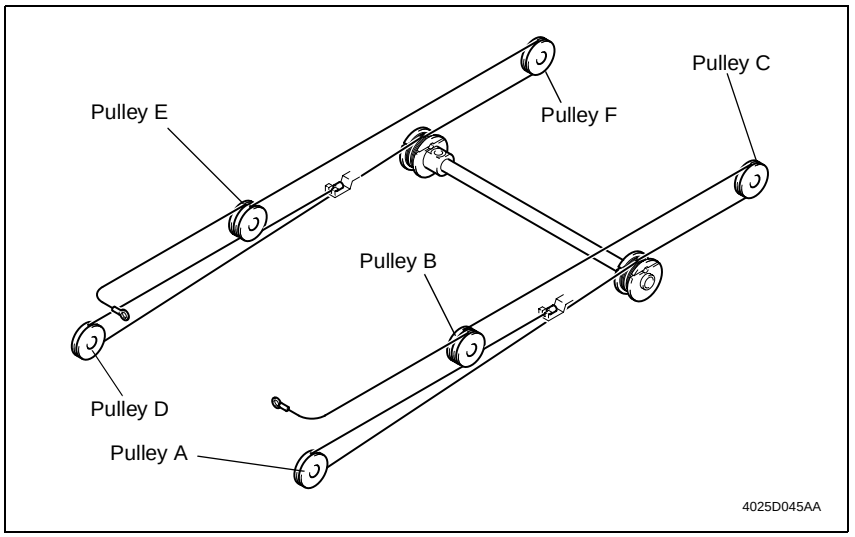


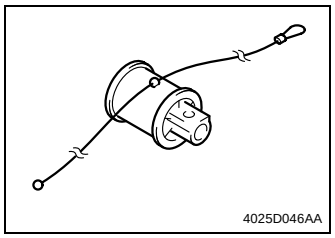
15. Snap off the C-clip and remove the bushing (front).



16. Slide the shaft toward the rear and lift it. Then, remove the front and rear pulleys.
17. Remove the Scanner Drive Cables.

(4) Winding of the Scanner Drive Cables



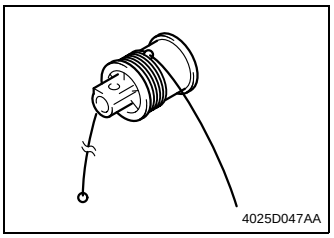


Front

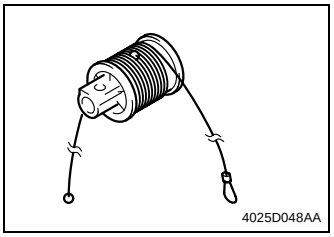
1. Position the round bead of the Scanner Drive Cable in the pulley as shown.

NOTE

- *Make sure that the bead snugly rests in the slit in the pulley.*

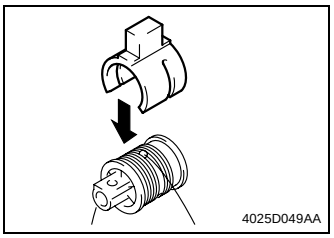


2. Wind the fixed bead end of the cable around the pulley five turns clockwise, from the rear toward the front side.

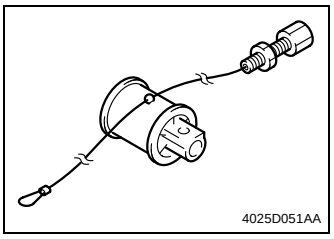


3. Wind the hook end of the cable around the pulley five turns counterclockwise, from the front toward the rear side.

NOTE
- *Make sure that no part of the cable rides on the other.*



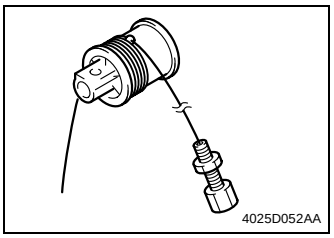
4. Slip the Cable Holding Jig onto the pulley to secure the cable in position.



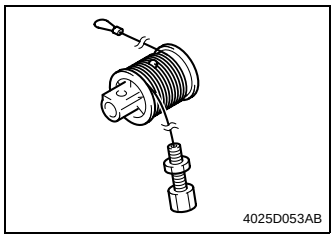
Rear

5. Position the round bead of the Scanner Drive Cable in the pulley as shown.

NOTE
- *Make sure that the bead snugly rests in the slit in the pulley.*

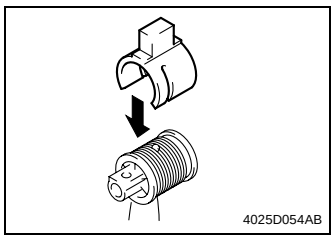


6. Wind the fixed bead end of the cable around the pulley five turns clockwise, from the front toward the rear side.

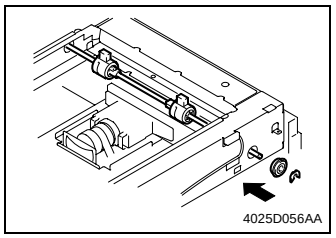

4025D053AB

7. Wind the hook end of the cable around the pulley five turns counterclockwise, from the rear toward the front side.

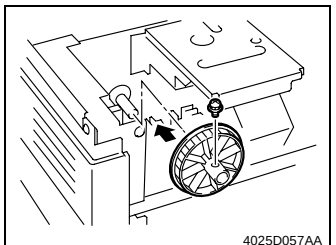
NOTE
- *Make sure that no part of the cable rides on the other.*


4025D054AB

8. Slip the Cable Holding Jig onto the pulley to secure the cable in position.


4025D056AA

9. Install the front and rear pulleys and bushings onto the shaft and fit the C-clip.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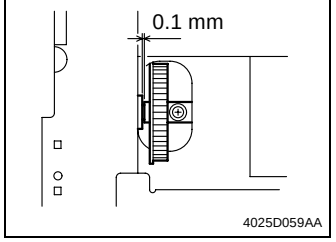

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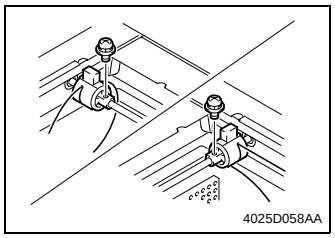
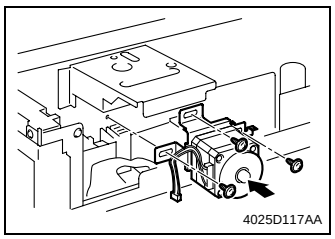
10. Mount the Scanner drive gear on the shaft and secure it using one screw.

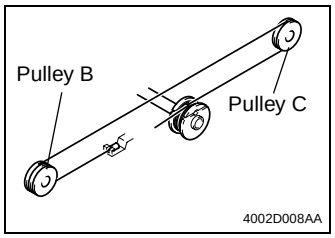
NOTE
- *Allow a clearance of about 0.1 mm between the Scanner drive gear and bushing.*



11. Secure the front and rear pulleys using one screw each.

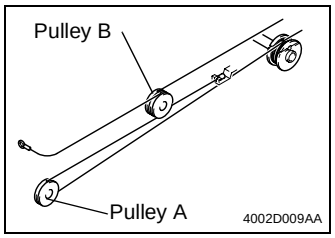


12. Mount the Scanner Motor Assy.
☞ D-19

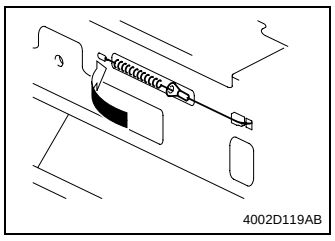


Front

13. Wind the bead end of the cable around pulley C and pulley B, then hook the bead onto the Adjustable Anchor.



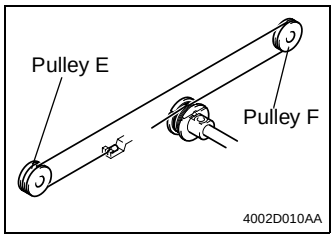
14. Wind the hook end of the cable around pulley A and pulley B.



15. Fit the hook end of the cable to the spring and then hook the spring to the catch in the frame.

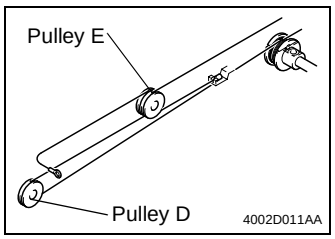
NOTE

- *Select the appropriate catch in the frame (from among three) so that the spring measures 64.2 mm ±1 mm.*

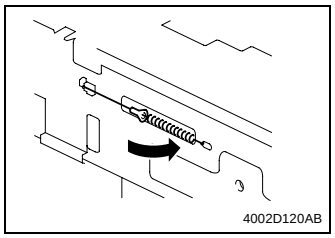


Rear

16. Wind the bead end of the cable around pulley F and pulley E, then hook the bead onto the Adjustable Anchor.



17. Wind the hook end of the cable around pulley D and pulley E.



18. Fit the hook end of the cable to the spring and then hook the spring to the catch in the frame.

NOTE
- *Select the appropriate catch in the frame (from among three) so that the spring measures 64.2 mm ±1 mm.*

19. Remove the Cable Holding Jigs from the front and rear pulleys.
20. Mount the Scanner Assy and Flat Cable.
21. Reinstall the optical cover.
22. Reinstall the Original Glass.
23. Reinstall all covers which have been removed.
24. Reinstall the Control Panel.
25. Adjust the position of the Scanner and 2nd/3rd Mirrors Carriage.

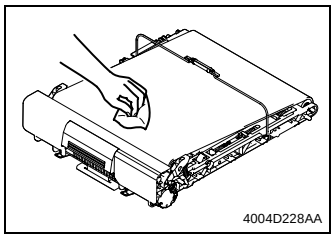
☞ D-44

NOTE
- *Whenever the Scanner Drive Cables have been removed, be sure to carry out the "FD-Mag" adjustment procedure.*

☞ D-68

2-5. CLEANING AND DISASSEMBLY OF THE ENGINE PARTS

(1) Cleaning of the Transfer Belt Unit



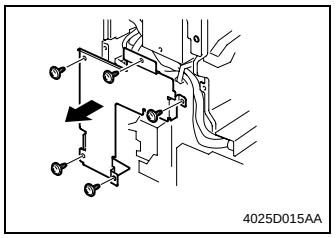
1. Remove the Transfer Belt Unit.
☞ Maintenance Schedule Section
2. Wipe the surface of the Transfer Belt with a dry cloth.

NOTES

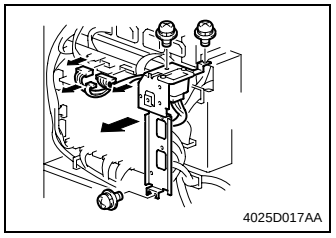
- *If the dry cloth is not effective in removing dirt, dampen it with alcohol.*
- *Do not use a cloth wet with water.*
- *If any solvent is to be used, select one from among the following: IPA, ethyl alcohol, PPC Cleaner, and Solmix AP-7.*
- *When the solvent has been used for cleaning, make 28 or more copies using A3 blank sheets of paper to remove image noise.*

(2) Removal of the Imaging Unit Motor C/M/Y/Bk

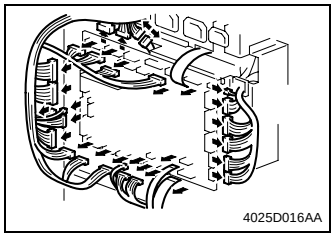
1. Remove the Rear Upper Cover.
2. Remove the Rear Left Cover.
3. Remove the Rear Right Cover.



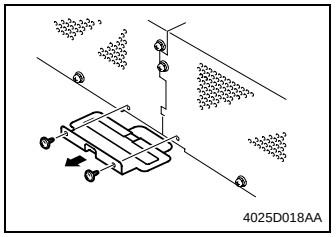
4. Remove five screws and the harness protective metal bracket.



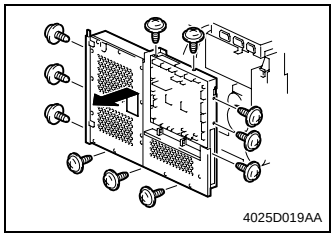
5. Remove three screws, unplug three connectors, and remove the rear left metal bracket.



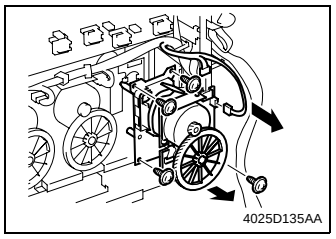
6. Unplug all connectors of the IO Board.
7. Unplug two connectors of the Option Interface Board.
8. Unplug two connectors of the PIC Board.



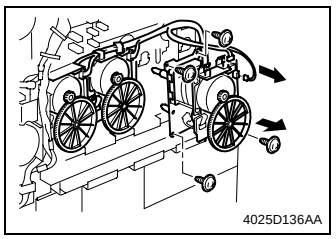
9. Remove two screws and the power line mounting bracket for the 2nd Drawer.



10. Remove 11 screws and lift the PWB box upward and off the copier.

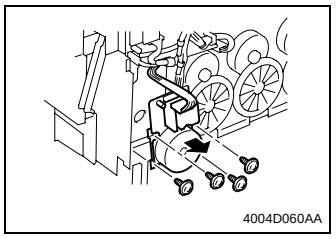


11. Remove the LPH Unit.
☞ D-17
12. Unplug two connectors.
13. Remove four screws and Imaging Unit Motor Y.



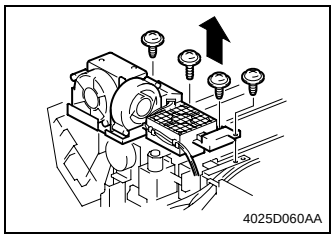
14. Unplug two connectors each.
15. Remove four screws each and Imaging Unit Motor M/C/Bk.

(3) Removal of the Main Motor

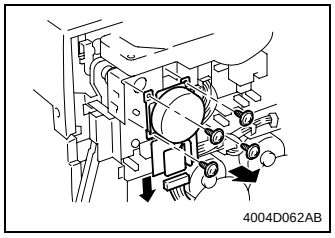


1. Remove the PWB Box.
☞ D-13 (steps 1 through 10)
2. Unplug one connector.
3. Remove four screws and the Main Motor.

(4) Removal of the Fusing Drive Motor

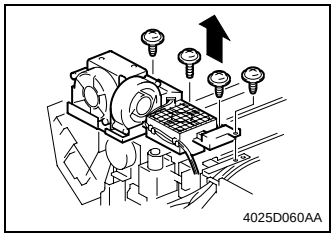


1. Remove the PWB Box.
☞ D-13 (steps 1 through 10)
2. Remove four screws and the Cooling Fan Assy.

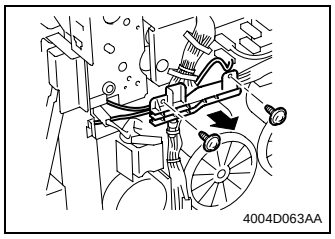


3. Unplug one connector.
4. Remove four screws and the Fusing Drive Motor.

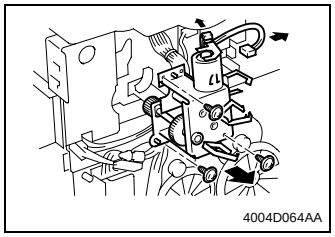
(5) Removal of the Fusing Pressure/Retraction Motor



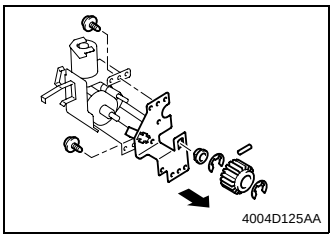
1. Remove the PWB Box.
☞ D-13 (steps 1 through 10)
2. Remove four screws and the Cooling Fan Assy.



3. Remove two screws and the harness holder.



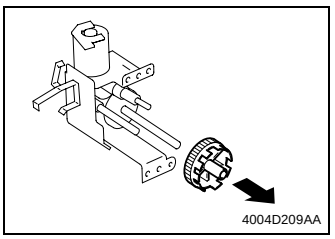
4. Unplug two connectors.
5. Remove three screws and the Fusing Pressure/ Retraction Motor Assy.


4004D125AA

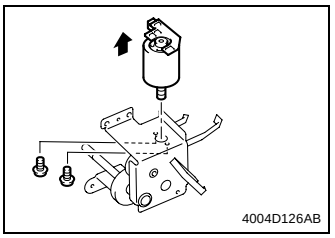
6. Snap off one E-ring and remove the gear and pin.

NOTE
- *Use care not to lose the pin.*

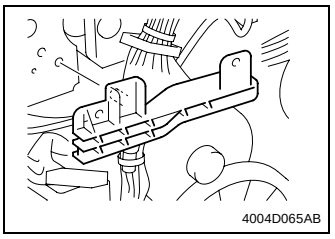
7. Snap off one E-ring and remove the bushing.
8. Remove two screws and the Fusing Retraction Position Sensor mounting bracket.


4004D209AA

9. Remove the gear (black).

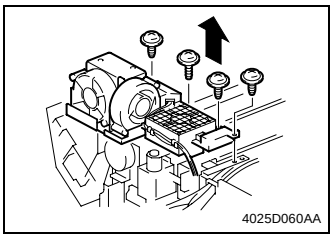

4004D126AB

10. Remove two screws and the Fusing Pressure/ Retraction Motor.

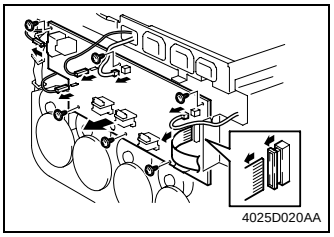

4004D065AB

Precaution for Reinstallation
- *When reinstalling the harness holder, make sure that the protrusion on the backside of the holder fits into the hole in the metal bracket.*

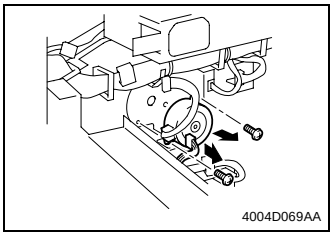
(6) Removal of the 1st Image Transfer Pressure/Retraction Motor



1. Remove the PWB Box.
☞ D-13 (steps 1 through 10)
2. Remove four screws and the Cooling Fan Assy.

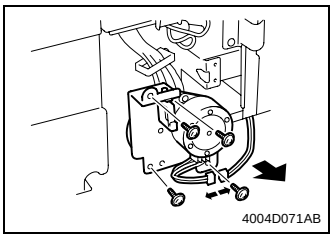


3. Disconnect connectors, terminals, and flat cable.
4. Remove six screws and slide the High Voltage Unit (Image Transfer, Neutralizing) to the left and off the copier.



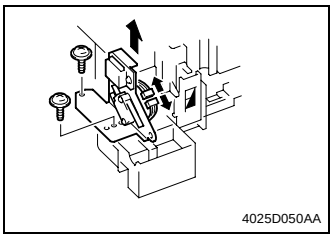
5. Unplug one connector.
6. Remove two screws and the 1st Image Transfer Pressure/Retraction Motor.

(7) Removal of Toner Replenishing Motor C/Bk

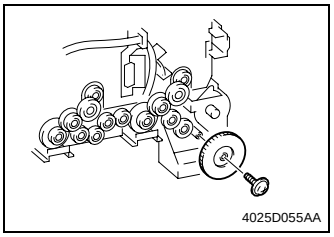


1. Remove the Right Front Cover.
2. Unplug one connector.
3. Remove four screws and the Toner Replenishing Motor C/Bk Assy.

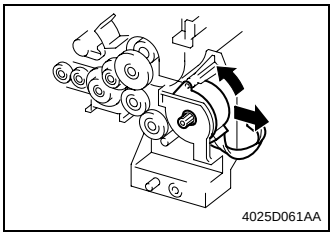
(8) Removal of Toner Replenishing Motor Y/M



1. Remove the Toner Hopper.
☞ D-16
2. Unplug one connector.
3. Remove two screws and the Front Door Switch Assy.

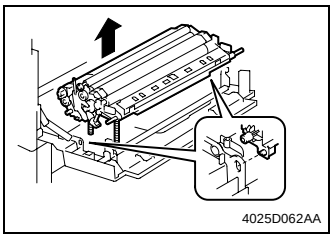


4. Remove one screw and the gear.

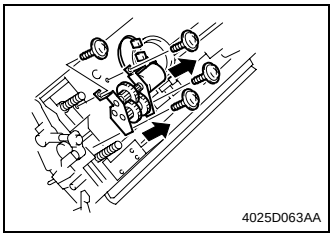


5. Remove two screws. Then, turn the Toner Replenishing Motor Y/M counterclockwise and take it off the copier.

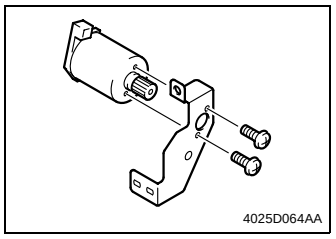
(9) Removal of the 2nd Image Transfer Pressure/Retraction Motor



1. Open the Right Door.
2. Unlock the tab and remove the Transport Unit Assy.

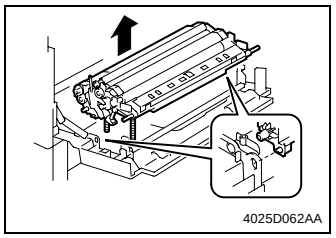


3. Remove four screws, unplug one connector, and remove the gear assy and motor assy.

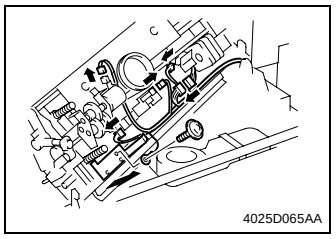


4. Remove two screws and the 2nd Image Transfer Pressure/Retraction Motor.

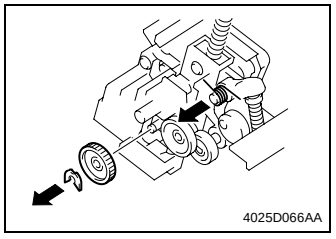
(10) Removal of the Transport Roller Motor



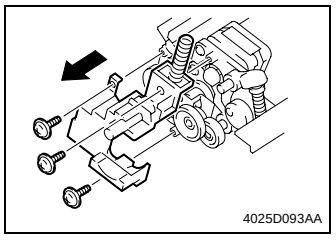
1. Open the Right Door.
2. Unlock the tab and remove the Transport Unit Assy.



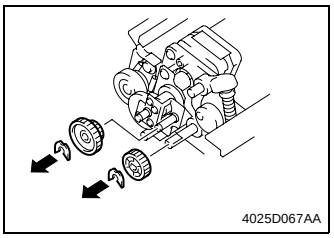
3. Remove one screw, ground wire, and ground plate.
4. Unplug five connectors and remove the Transport Unit Assy.



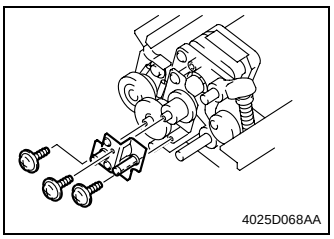
5. Snap off the C-clip and remove the gear.
6. Unhook the spring.



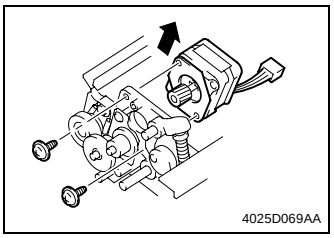
7. Remove three screws and the holder.



8. Snap off the C-clip and remove two gears.

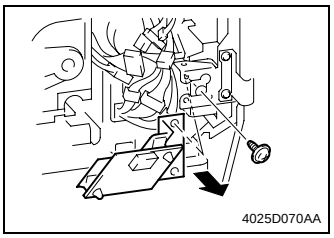


9. Remove three screws and the mounting bracket.

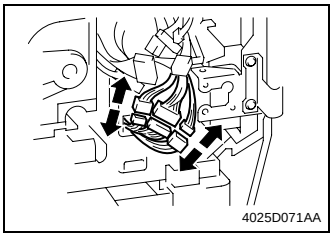


10. Remove two screws and the Transport Roller Motor.

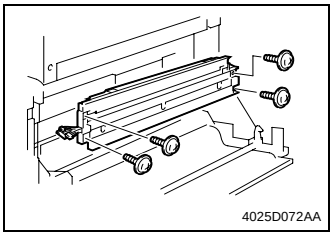
(11) Removal of AIDC/Registration Sensor 1/2



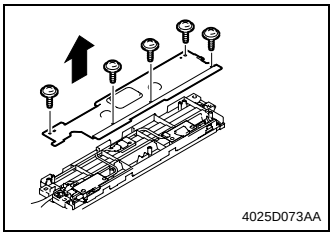
1. Remove the Front Right Door.
2. Remove one screw and the Tech. Rep. Setting Switches Board Assy.



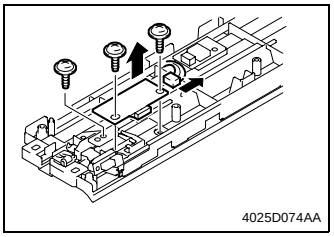
3. Unplug three connectors



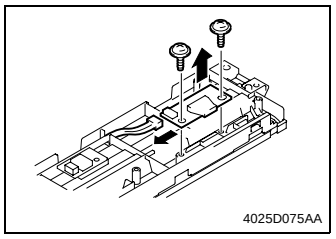
4. Open the Right Door.
5. Remove four screws and the Synchronizing Roller entrance guide.



6. Remove five screws and the cover.

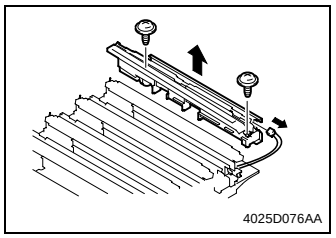


7. Remove three screws, unplug one connector, and remove AIDC/Registration Sensor 1.

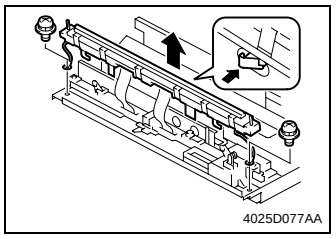


8. Remove two screws, unplug one connector, and remove AIDC/Registration Sensor 2.

(12) Removal of the LPH Assy

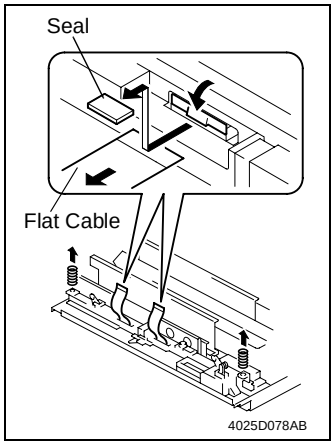


1. Remove the LPH Unit.
☞ D-17
2. Remove two screws, unplug one connector, and remove the Guide Assy.



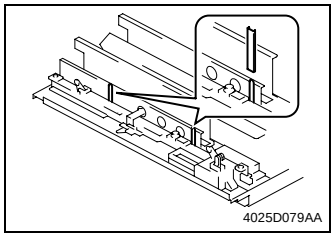
3. Remove two screws and, holding the LPH Assy with hands, unlock it.

NOTES
- *Do not touch the LED by hand. Clean the LED, if touched by hand, using the LED cleaning jig.*
- *Be careful about the spring that can spring off when the LPH Assy is unlocked.*

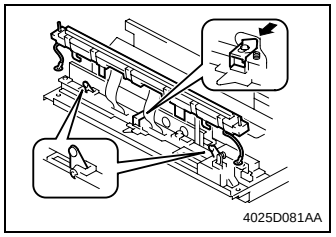


4. Peel off the seal, unlock the LPH Assy, and remove the flat cable.
5. Unhook the springs.
6. Perform the same procedure for each of different colors of LPH Assy.

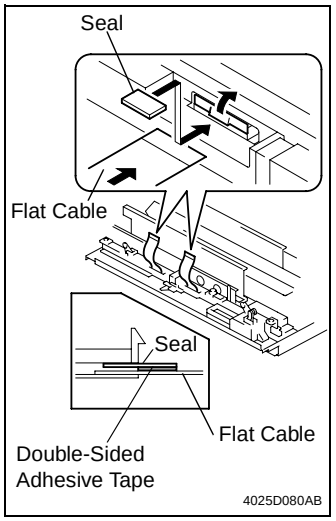
Reinstallation Procedure



1. Install the LPH Assy mounting jigs.



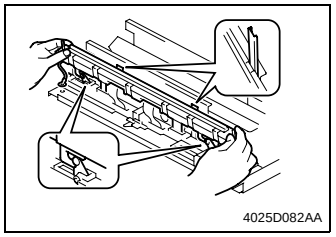
2. Unlock the LPH Assy and place the pivot tabs (at two places) at the upper position.



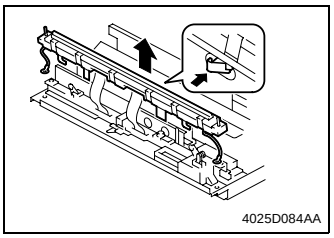
3. Insert the flat cable into the LPH Assy and lock the LPH Assy.
4. Affix the seal that comes with the LPH Assy to the location shown on the left.

NOTE

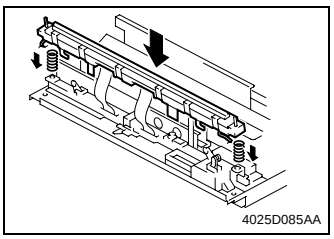
- *Failure to affix the seal could cause the flat cable to come off the LPH Assy.*



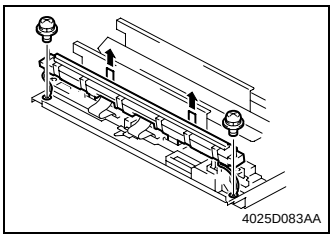
5. Holding onto both ends of the LPH Assy, align the portions shown on the left and then press it down into the locked position.



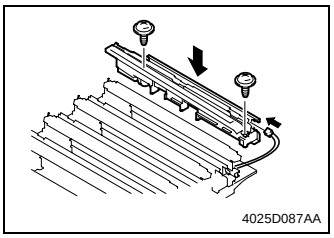
6. Unlock the LPH Assy.



7. Hook the springs and press the LPH Assy down into the locked position.

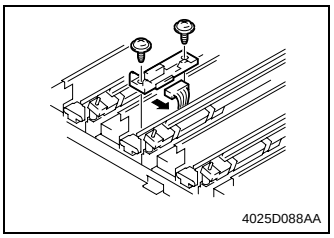


8. Remove the LPH Assy mounting jigs.
9. Install the two screws.



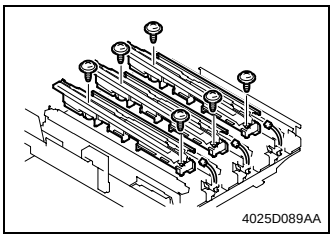
10. Install the two screws to secure the guide assy.
11. Connect the connector.

(13) Removal of ATDC Sensor Y/M/C

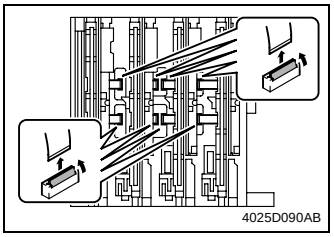


1. Remove the LPH Unit.
☞ D-17
2. Remove two screws, unplug the connector, and remove the ATDC Sensor.

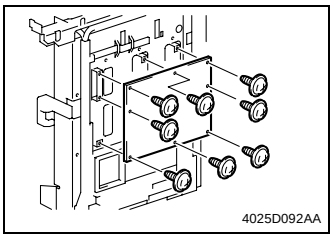
(14) Removal of the LED Drive Board



1. Remove the LPH Unit.
☞ D-17
2. Remove two screws each, unplug one connector each, and remove each guide assy.



3. Remove the flat cables (eight).



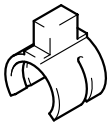
4. Remove eight screws, unplug two connectors, and remove the LED Drive Board.

3. ADJUSTMENTS

• The adjustment procedures must be carried out in the order of printer and IR.

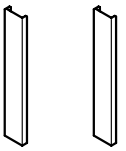
3-1. ADJUSTMENT JIGS AND TOOLS USED (SPECIAL TOOLS)

Part No. 65FA5111✻
Part No. 65FA5112✻



Scanner Drive Cable Holding Jig Note1

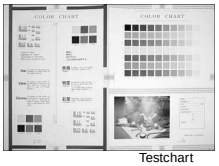
Part No. 65FA9905✻



LPH Assy Mounting Jigs Note2

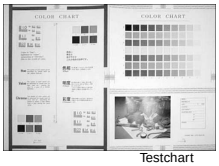
Note1 The shapes of the parts differ between front and rear wires.
Note2 One pair is necessary for jig use though one piece is the spare part shipping unit.

Part No. 25TU0048✻



Test Chart (A3)

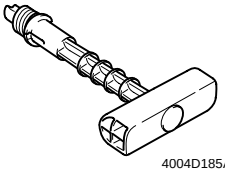
Part No. 111T9611✻



Test Chart (11×17)

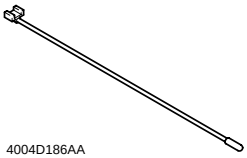
3-2. OTHER TOOLS USED (ACCESSORY PARTS OF MACHINE)

Part No. 111T0013✻



Imaging Unit Pull-out Jig

Part No. 111T5502✻



LED Cleaning Jig

Part No. 111T5503✻



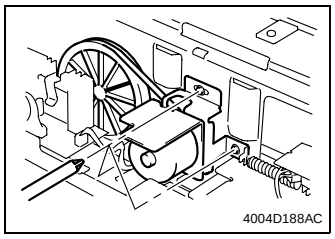
LED Cleaning Jig Pad

3-3. MECHANICAL ADJUSTMENT

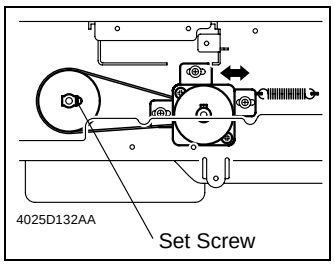
(1) Adjustment of the Scanner Motor Timing Belt

This adjustment must be made in the following case:
- *The Scanner Motor Assy has been removed.*
- *The Scanner Drive Cables have been rewound.*

1. Remove the IR Rear Cover.
2. Remove 11 screws and the reinforcement frame.



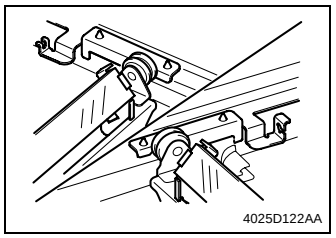
3. Loosen the three screws that secure the Scanner Motor mounting bracket.



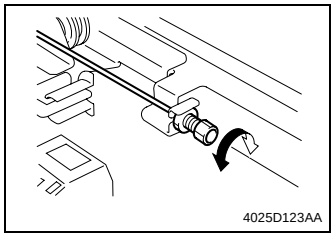
4. With the Scanner drive gear set screw located on the right-hand side as shown on the left, slide the Scanner Motor Assy to the left and check that it is returned to the original position by the tension of the spring. Perform this step three times.
5. Tighten the three screws to fix the Scanner Motor Assy into position.

(2) Focus Positioning of the Scanner and 2nd/3rd Mirrors Carriage

This adjustment must be made in the following case:
- *The Scanner Drive Cables have been rewound*



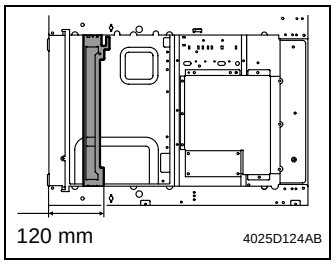
1. Slide the 2nd/3rd Mirrors Carriage to the center until it is pressed up against the cutouts in the rails.



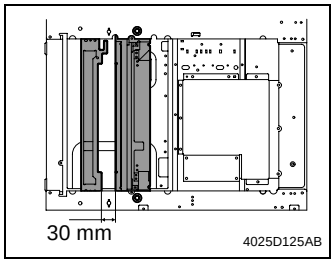
2. Turn the cable length adjusting screw so that the 2nd/3rd Mirrors Carriage contacts the cutouts in the rails.

(3) Scanner Position Adjustment

This adjustment must be made in the following case:
- *The Scanner Drive Cables have been rewound.*
- *Focus Positioning of the Scanner and 2nd/3rd Mirrors Carriage must be completed.*



1. Slide the 2nd/3rd Mirrors Carriage to the position shown on the left.



2. Secure the Scanner in the position shown on the left using Scanner positioning Screws.
☞ D-20
3. Make the FD-Mag. adjustment.
☞ D-68

3-4. ELECTRICAL/IMAGE ADJUSTMENT

(1) Accessing the Tech. Rep. Mode

1. Press the Utility key.
2. Touch [Meter Count].
3. Press the following keys in this order:
   Stop → 0 → 0 → Stop → 0 → 1

NOTE

- *Ensure appropriate security for Tech. Rep. mode setting procedures. They should never be known to any unauthorized person not involved with service jobs.*

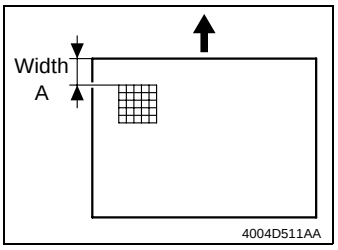
(2) Producing a Test Print

1. Call the Tech. Rep. Mode to the screen.
2. Touch [Test Print].
3. Select the desired test pattern type.
4. Make the necessary settings.
5. Press the Start key.

✻ Printer

(3) Top Margin

Requirement



Width A on the test pattern produced should fall within the following range.

Specifications	Adjustment Mode	Setting Range
5.0 or 7.0 ± 1.0 mm	Top Margin	-2.0 mm to +2.0 mm

✻ The leading edge erase width is set to 5 mm or 7 mm by “Erase” under “Administrator Mode.”

This adjustment must be made in the following case:

- *The LPH Unit has been replaced.*
- *The paper type has been changed.*
- *The image on the copy deviates in the FD direction.*
- *A faint image occurs on the leading edge of the image.*
- *A misfeed occurs at the 2nd image transfer section.*

Adjustment Procedure

1. Load the 1st Drawer with A3 plain paper.
2. Select plain paper on the Paper Type Setting Dial.
3. Select the 1st Drawer.
4. Call the Tech. Rep. Mode to the screen.
5. Touch these keys in this order: “Machine Adjust” → “PRT Area” → “Top Margin.”
6. Press the Start key to let the copier produce a test pattern.
7. Check the dimension of width A on the test pattern.
8. If width A falls outside the specified range, change the setting using the Up/Down key.

- *If width A is longer than the specifications, make the setting value smaller than the current one.*
- *If width A is shorter than the specifications, make the setting value greater than the current one.*

9. Press the Start key to let the copier produce a test pattern.
10. Check the dimension of width A on the test pattern.
11. If width A is outside the specified range, change the setting again and make a check again.
12. If width A falls within the specified range, touch “END.”
13. Following the same procedure, adjust for thick paper and OHP.
14. Go back to the initial Tech. Rep. Mode screen.
15. Touch “Test Print.”
16. Select “Halftone Pattern.”

17. Select “Cyan,” “SINGLE,” and “HYPER.”
18. Press the Clear key to clear the density setting.
19. Enter “255” from the 10-Key Pad.
20. Press the Start key to let the copier produce a test pattern.
21. Check to see if the image on the leading and trailing edges of the test pattern is faint.

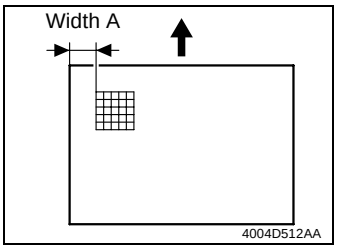
✻ If the image is faint:
22. Touch these keys in this order: “Machine Adjust” → “PRT Area” → “Top Margin.”
23. Touch “2nd Transfer Timing” and then use the Down key to decrease the setting.

NOTE
- *Decreasing the setting makes transfer timing faster. An abnormally low setting could, however, result in a paper misfeed.*

24. Touch “END.”
25. Produce a halftone test pattern again.
26. Check the image on the leading and trailing edges of the test pattern.
27. If the image on the leading and trailing edges of the test pattern is faint, change the setting and make a check again.

(4) Left Margin

Requirement



Width A on the test pattern produced should fall within the following range.

Specifications	Adjustment Mode	Setting Range
3.0 ± 1.0 mm	Left Margin	-3.0 mm to +3.0 mm

This adjustment must be made in the following case:
- *The LPH Unit has been replaced.*
- *A paper feed unit has been added.*
- *The image on the copy deviates in the CD direction.*

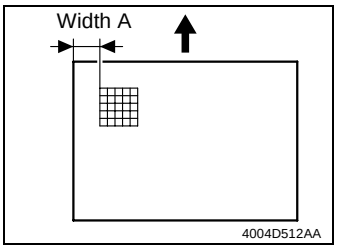
Adjustment Procedure
1. Load the 1st Drawer with A3 plain paper.
2. Select plain paper on the Paper Type Setting Dial.
3. Select the 1st Drawer.
4. Call the Tech. Rep. Mode to the screen.
5. Touch these keys in this order: “Machine Adjust” → “PRT Area” → “Left Margin.”
6. Press the Start key to let the copier produce a test pattern.
7. Check the dimension of width A on the test pattern.
8. If width A falls outside the specified range, change the setting using the Up/Down key.

- *If width A is longer than the specifications, make the setting value smaller than the current one.*
- *If width A is shorter than the specifications, make the setting value greater than the current one.*

9. Press the Start key to let the copier produce a test pattern.
10. Check the dimension of width A on the test pattern.
11. If width A is outside the specified range, change the setting again and make a check again.
12. If width A falls within the specified range, touch “END.”
13. Following the same procedure, adjust for all other paper sources. (Use A4 plain paper for the Manual Bypass Tray.)

(5) Dup. Left Margin

Requirement



Width A on the test pattern produced should fall within the following range.

Specifications	Adjustment Mode	Setting Range
3.0 ± 1.0 mm	Dup. Left Margin	-3.0 mm to +3.0 mm

This adjustment must be made in the following case:
- *The Duplex Unit has been set up.*
- *The image on the backside of the 2-sided copy deviates in the CD direction.*

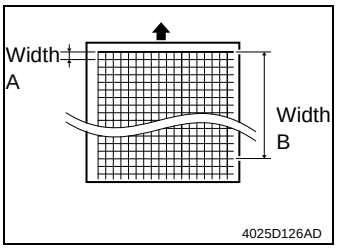
Adjustment Procedure
1. Load the 1st Drawer with A3 plain paper.
2. Select plain paper on the Paper Type Setting Dial.
3. Select the 1st Drawer.
4. Call the Tech. Rep. Mode to the screen.
5. Touch these keys in this order: “Machine Adjust” → “PRT Area” → “Dup. Left Margin.”
6. Press the Start key to let the copier produce a test pattern.
7. Check the dimension of width A on the test pattern.
8. If width A falls outside the specified range, change the setting using the Up/Down key.

- *If width A is longer than the specifications, make the setting value smaller than the current one.*
- *If width A is shorter than the specifications, make the setting value greater than the current one.*

9. Press the Start key to let the copier produce a test pattern.
10. Check the dimension of width A on the test pattern.
11. If width A is outside the specified range, change the setting again and make a check again.
12. If width A falls within the specified range, touch “END.”
13. Following the same procedure, adjust for all other paper sources.

(6) Zoom for FD

Requirement



Width A and width B on the test pattern produced should fall within the following ranges.

Width A : equivalent to one grid
Width B : equivalent to 48 grids

Specifications	Adjustment Mode	Setting Range
Width A: 7.9 to 8.3 mm Width B: 389.1 to 392.1 mm	Zoom for FD	-10 to +10 (0.2 mm/step)

This adjustment must be made in the following case:
- *The CD-Mag. or FD-Mag. adjustment becomes necessary.*
- *The image on the copy distorts (stretched, shrunk).*

Adjustment Procedure
1. Load the 1st Drawer with A3 plain paper.
2. Select plain paper on the Paper Type Setting Dial.
3. Select the 1st Drawer.
4. Call the Tech. Rep. Mode to the screen.
5. Touch these keys in this order: "Test Print" → "Lattice Pattern."
6. Select "Black," "SINGLE," "FEET," "SINGLE," "CD Width:2," "FD Width:2," "Density:255," and "Normal."
7. Press the Start key to let the copier produce a test pattern.
8. Check width A (equivalent to one grid) and width B (equivalent to 48 grids) on the test pattern.
9. Touch these keys in this order: "Machine Adjust" → "PRT Area" → "Zoom for FD."
10. If width A or width B falls outside the specified range, Change the setting value using the 10-Key Pad.

- *If width A or B is longer than the specifications, make the setting value smaller than the current one.*
- *If width A or B is shorter than the specifications, make the setting value greater than the current one.*

11. Press the Start key to let the copier produce a test pattern.
12. Check width A and width B on the test pattern.
13. If width A or B falls outside the specified range, change the setting value and make a check again.
14. If width A or B falls within the specified range, touch "END."
15. Following the same procedure, adjust for "Thick 1," "Thick 2," "Thick 3," "OHP," and "Envelope." (Check width A only for "OHP" and "Envelope.")

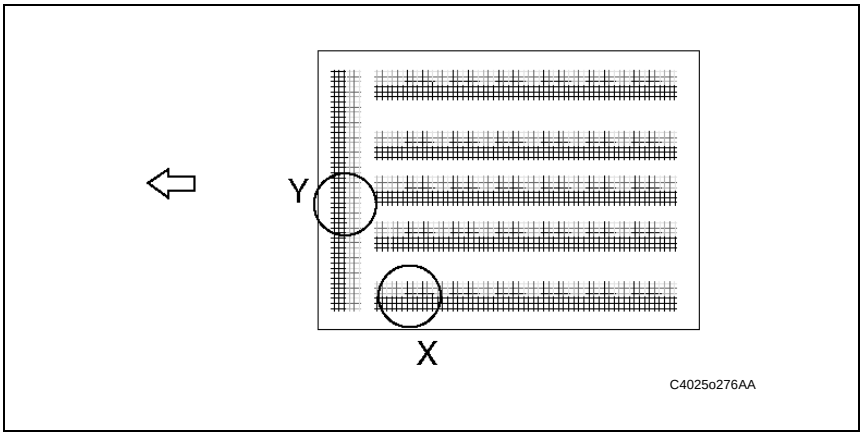
(7) Color Shift Correction

This adjustment must be made in the following case:
- *Color shift occurs.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “Color Shift Correction.”
3. Select “Cyan,” and “SINGLE.”
4. Press the Start key to let the copier produce a test pattern.
5. Check to see if the black cross at the location shown below deviates or not.
6. If it deviates, change the setting using the Up/Down key.

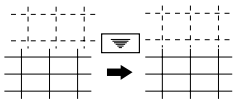
Setting Instructions



Adjustment for X direction: Check point X

- *If the cross deviates in the direction of C, decrease the setting.*
- *If the cross deviates in the direction of D, increase the setting.*

Direction of C



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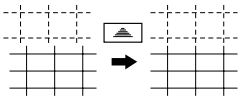
Direction of D

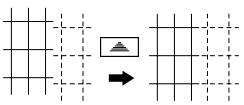


C4025s314AA

Adjustment for Y direction: Check point Y

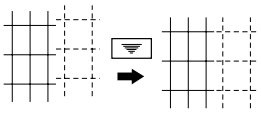
- *If the cross deviates in the direction of C, increase the setting.*
- *If the cross deviates in the direction of D, decrease the setting.*

Direction of C



C4025s315AB

Direction of D



C4025s316AB

(8) Leading Edge Tilt Adjustment

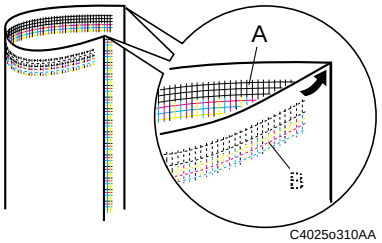
This adjustment must be made in the following case:
- *Leading edge tilt occurs.*
- *The LPH Assy Bk has been replaced.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “Color Shift Correction.”
3. Select “SINGLE.”
4. Press the Start key to let the copier produce a test pattern.
5. Fold the test pattern in half lengthwise.
6. Check black lines A and B for deviation.
7. Touch the “Black” key and change the setting using the Up/Down key.

Setting Instructions

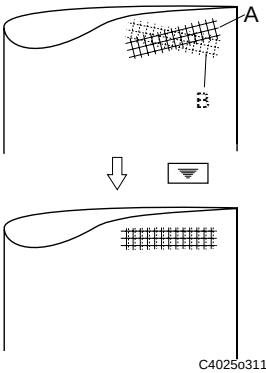
Check point A,B



C4025o310AA

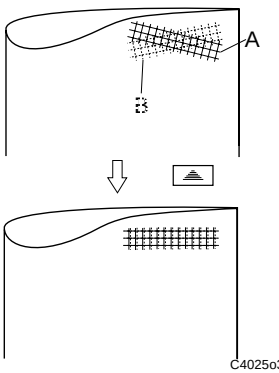
- *If the lines deviate in the C direction, decrease the setting.*
- *If the lines deviate in the D direction, increase the setting.*

Direction of C



C4025o311AA

Direction of D



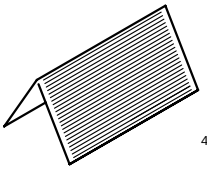
C4025o312AA

(9) LPH Chip Adjust

This adjustment must be made in the following case:
- *White lines or black lines in FD occur*
- *The LPH Assy has been replaced.*
- *The LPH Unit has been replaced.*

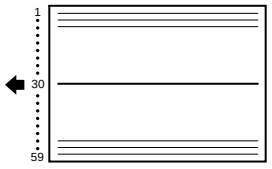
Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Test Print” → “LPH Pattern.”
3. Select “SINGLE,” “HYPER,” “Gradation,” and “Border Line: ON.”
4. Press the Start key to let the copier produce a test pattern.
5. Check the test pattern for the location, at which white lines or black lines in FD occur.
6. Touch these keys in this order: “Machine Adjust” → “LPH Chip Adjust.”
7. Fold the test pattern in half (with the pattern face on the outside).



4025D127AA

8. The chip boundary line on the crease (the center) of the test pattern corresponds to “30” on the panel.



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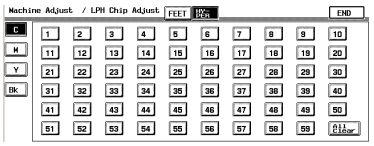


4025D503CA

9. Find the number on the panel, to which the location of white lines or black lines in FD checked in step 5 corresponds.
10. Select the color (C, M, Y, or Bk) in which white lines or black lines in FD occur.

✻ If the lines occur only in green on the test pattern, select Y.

11. Touch the corresponding number on the panel. (It is then highlighted and the setting value is displayed besides the highlighted number.)
12. Change the setting value using the 10-Key Pad.

Black lines in FD: Decrease the setting value.
White lines in FD: Increase the setting value.

✻ When a new LPH Unit has been installed, corrections can be made for up to eight locations.

✻ Corrections for up to five locations can be made through factory adjustments. If white lines or black lines in FD occur, therefore, corrections can therefore be made in the field for three to eight locations.

✻ If lines persist even after the correction procedures, change the LPH Unit.

13. Select HYPER and color.
14. Press the Start key to let the copier produce a test pattern and check for lines.

(10) Gradation Adjust

This adjustment must be made in the following case:
- *Color reproduction performance becomes poor.*
- *The IU has been replaced.*
- *The Image Transfer Belt Unit has been replaced.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch “Gradation Adjust.”
3. Press the Start key to let the copier produce a test pattern.
4. Place the test pattern produced on the Original Glass.
5. Place ten blank sheets of A3 paper on the test pattern and then lower the Original Cover.
6. Press the Start key (to let the copier start scanning the original).
7. Repeat steps from 2 to 6 twice (a total of three cycles).
8. The Adj. Value and Conv. Value will be displayed for Max and Highlight of each color (C, M, Y, Bk).
9. Check the Conv. Value according to the following procedure.

- *Max 0 ± 100 and Highlight 0 ± 60: It completes the adjustment procedure.*
- *If neither Max nor Highlight falls outside the ranges specified above: Perform steps from 2 to 6.*

✻ If a fault is detected, “0” is displayed for all values. In this case, turn OFF and ON the Power Switch and perform Gradation Adjust once again.

✻ If neither Max nor Highlight still remains outside the specified ranges, perform PRT Max Density or PRT Highlight.

(11) PRT Max Density

This adjustment must be made in the following case:
- *An image quality problem is not corrected even after Gradation Adjust has been run.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “PRT Max Density.”
3. Select the color to be adjusted.
4. Enter the new setting from the 10-Key Pad.

- *To increase the maximum amount of toner sticking, increase the setting value.*
- *To decrease the maximum amount of toner sticking, decrease the setting value.*

5. Touch “END” to return to the “Image Adjust” menu screen.
6. Touch “Stabilizer.”
7. Touch “Stabilizer Mode.”
8. Press the Start key to validate the adjustment value.
9. Check the copy image for any image problem.

(12) PRT Highlight

This adjustment must be made in the following case:
- *An image quality problem is not corrected even after Gradation Adjust has been run.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “PRT Highlight.”
3. Select the color to be adjusted.
4. Enter the new setting from the 10-Key Pad.

- To make the Highlight portion darker, increase the setting value.
- To make the Highlight portion lighter, decrease the setting value.

5. Touch “END” to return to the “Image Adjust” menu screen.
6. Touch “Stabilizer.”
7. Touch “Stabilizer Mode.”
8. Press the Start key to validate the adjustment value.
9. Check the copy image for any image problem.

(13) Background Voltage Margin

This adjustment must be made in the following case:
- *Foggy background occurs.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “PRT Highlight.”
3. Select the color to be adjusted.
4. Enter the new setting from the 10-Key Pad.

- To make the background level foggier, increase the setting value.
- To make the background level less foggy, decrease the setting value.

5. Touch “END” to return to the “Image Adjust” menu screen.
6. Touch “Stabilizer.”
7. Touch “Stabilizer Mode.”
8. Press the Start key to validate the adjustment value.
9. Check the copy image for any image problem.

(14) ATDC Level Setting

This adjustment must be made in the following case:
- *T/C is changed as a result of changes in environmental conditions.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “ATDC Level Setting.”
3. Select the color to be adjusted.
4. Enter the new setting from the 10-Key Pad.

- *To increase T/C, increase the setting value.*
- *To decrease T/C, decrease the setting value.*

5. Touch “END” to validate the adjustment value.
6. Check the copy image for any image problem.

(15) AE Adjust

This adjustment must be made in the following case:
- *Foggy background occurs in the Auto Exposure mode.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “AE Adjust.”
3. Enter the new setting from the 10-Key Pad.

- *To make the background level foggier, change the setting value to 3 or 4.*
- *To make the background level less foggy, change the setting value to 0 or 1.*

4. Touch “END” to validate the adjustment value.
5. Check the copy image for any image problem.

(16) 2nd Transfer Adjust

This adjustment must be made in the following case:
- *A transfer failure occurs at the trailing edge (only with plain paper).*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Image Adjust” → “2nd Transfer Adjust.”
3. Select the side of the image (First side or Second side), on which the transfer failure at the trailing edge occurs.
4. Enter the new setting from the 10-Key Pad.

- *To increase the ATVC value (in the direction of a foggier image), decrease the setting value.*
- *To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.*

5. Touch “END” to validate the adjustment value.
6. Check the copy image for any image problem.

(17) Fuser Temp.

This adjustment must be made in the following case:

- *Fusing performance is poor or offset occurs when the paper type or environmental conditions are changed.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: "Machine Adjust" → "Fuser Temp."
3. Select the paper type and Fusing Roller type.
4. Enter the new setting from the 10-Key Pad.

If fusing performance is poor, increase the setting.

✻ *The temperature does not change immediately when the setting is change. Wait a while before performing the subsequent steps.*

5. Touch "END" to validate the adjustment value.
6. Check the copy image for any image problem.

(18) Fuser Speed

This adjustment must be made in the following case:

- *Brush effect or blurred image is evident as a result of changes in environmental conditions or degraded durability.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: "Machine Adjust" → "Fuser Speed."
3. Select the transport speed, at which the brush effect or blurred image has occurred.

Transport Speed	8031	8020
135 mm/s	Plain paper: monochrome, color	Plain paper: monochrome
90 mm/s	—	Plain paper: color
60 mm/s	Thick paper, OHP, envelope, postcard, labels: monochrome, color	

4. Enter the new setting from the 10-Key Pad.

- *If brush effect is evident, decrease the setting.*
- *If a blurred image occurs, increase the setting.*

5. Touch "END" to validate the adjustment value.
6. Check the copy image for any image problem.

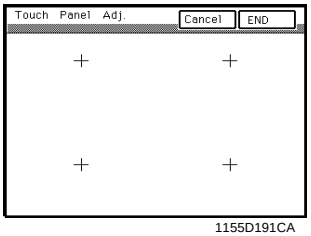
✻ IR

(19) Touch Panel Adj.

NOTE

- *Make this adjustment if the Touch Panel is slow to respond to a pressing action.*

1. Press the following keys:
   Stop → 0 → Stop → 3

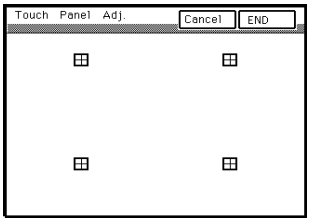


1155D191CA

2. Using the tip of a pen or similar object, touch the four crosses (+) on the screen in sequence.

NOTES

- *These crosses may be touched in any order; but be sure to touch the center of each cross.*
- *Use care not to damage the screen surface with the tip of the pen.*

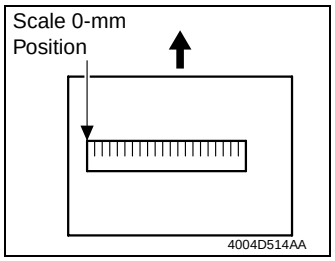


1155D192CA

3. The cross touched changes into a grid marker that consists of a square with a cross superimposed.
4. Touch [END].

(20) Left Image

Requirement



- The position of 0 mm of the scale on the sample copy produced should fall within the following range.
- The adjustment of Left Margin on the printer side must have been made to meet the specifications.

☞ D-48

Specifications	Adjustment Mode	Setting Range
0 ± 1.0 mm	Left Image	-10.0 to +10.0

This adjustment must be made in any of the following cases:
- *The Original Glass has been replaced.*
- *The Scanner Home Sensor has been replaced.*

Adjustment Procedure

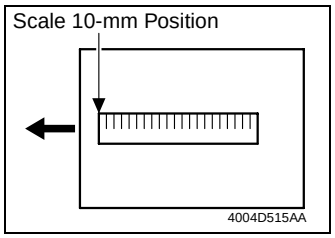
1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “IR Area.”
3. Touch “Left Image.”
4. Place a scale on the Original Glass so that it runs parallel with the Original Width Scale and its leading edge is aligned with the Original Length Scale.
5. Press the Start key to make a copy.
6. Check the image on the copy produced.
7. If the image does not meet the specifications, change the setting using the Up/Down key.

- *If the 0-mm position on the sample copy is on the right side of the correct 0-mm position perpendicularly to the feeding direction (less than -1 mm), decrease the setting.*
- *If the 0-mm position on the sample copy is on the left side of the correct 0-mm position perpendicularly to the feeding direction (exceeding 1 mm), increase the setting.*

8. Press the Start key to make a copy.
9. Check the image on the copy to see if the specifications are met.
10. If it fails to meet the specifications, change the setting and make a check again.
11. If it meets the specifications, touch “END.”

(21) Top Image

Requirement



- The position of 10 mm of the scale on the sample copy produced should fall within the following range.
- The adjustment of Top Margin on the printer side must have been made to meet the specifications.

☞ D-46

Specifications	Adjustment Mode	Setting Range
10.0 ± 1.0 mm	Top Image	-5.0 to +5.0

This adjustment must be made in any of the following cases:

- *The CCD Unit has been replaced.*
- *The Original Glass has been replaced.*
- *The Original Scale has been replaced.*

Adjustment Procedure

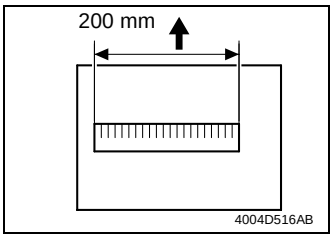
1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “IR Area.”
3. Touch “Top Image.”
4. Place a scale on the Original Glass so that it runs parallel with the Original Length Scale and its leading edge is aligned with the Original Width Scale.
5. Press the Start key to make a copy.
6. Check the image on the copy produced.
7. If the image does not meet the specifications, change the setting using the Up/Down key.

- If the 10-mm position on the sample copy is on the right side of the correct 10-mm position parallel to the feeding direction (less than 9 mm), decrease the setting.
- If the 10-mm position on the sample copy is on the left side of the correct 10-mm position parallel to the feeding direction (exceeding 11 mm), increase the setting.

8. Press the Start key to make a copy.
9. Check the image on the copy to see if the specifications are met.
10. If it fails to meet the specifications, change the setting and make a check again.
11. If it meets the specifications, touch “END.”

(22) CD-Mag.

Requirement



- The 200-mm width of the scale on the sample copy produced should fall within the following range.
- The adjustment of Zoom for FD on the printer side must have been made to meet the specifications.

☞ D-50

Specifications	Adjustment Mode	Setting Range
200 ± 1.0 mm	CD-Mag.	0.990 to 1.010

This adjustment must be made in any of the following cases:

- *The CCD Unit has been replaced.*
- *The lens has been replaced.*

Adjustment Procedure

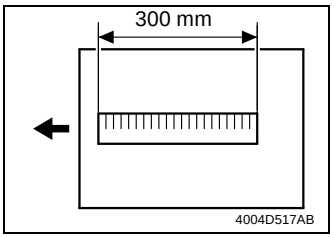
1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “IR Area.”
3. Touch “CD-Mag.”
4. Place a scale on the Original Glass so that it runs parallel with the Original Width Scale and its leading edge is aligned with the Original Length Scale.
5. Press the Start key to make a copy.
6. Check the image on the copy produced.
7. If the image does not meet the specifications, change the setting using the Up/Down key.

- If the specified width on the copy is less than 199 mm, increase the setting.
- If the specified width on the copy exceeds 201 mm, decrease the setting.

8. Press the Start key to make a copy.
9. Check the image on the copy to see if the specifications are met.
10. If it fails to meet the specifications, change the setting and make a check again.
11. If it meets the specifications, touch “END.”

(23) FD-Mag.

Requirement



- The 300-mm width of the scale on the sample copy produced should fall within the following range.
- The adjustment of Zoom for FD on the printer side must have been made to meet the specifications.

☞ D-50

Specifications	Adjustment Mode	Setting Range
300 ± 1.5 mm	FD-Mag.	0.990 to 1.010

This adjustment must be made in any of the following cases:

- *The Scanner Assy has been replaced.*
- *The Scanner Motor has been replaced.*
- *The Scanner Drive Cables have been replaced.*

Adjustment Procedure

1. Call the Tech. Rep. Mode to the screen.
2. Touch these keys in this order: “Machine Adjust” → “IR Area.”
3. Touch “FD-Mag.”
4. Place a scale on the Original Glass so that it runs parallel with the Original Length Scale and its leading edge is aligned with the Original Width Scale.
5. Press the Start key to make a copy.
6. Check the image on the copy produced.
7. If the image does not meet the specifications, change the setting using the Up/Down key.

- *If the specified width on the copy is less than 298.5 mm, increase the setting.*
- *If the specified width on the copy exceeds 301.5 mm, decrease the setting.*

8. Press the Start key to make a copy.
9. Check the image on the copy to see if the specifications are met.
10. If it fails to meet the specifications, change the setting and make a check again.
11. If it meets the specifications, touch “END.”

(24) Org. Detect Sensor

This adjustment must be made in any of the following cases:
- *The Original Size Detecting Sensor has been replaced.*
- *The optional Original Size Detecting Sensors have been added.*
- *The copier fails to detect the size of the original correctly.*

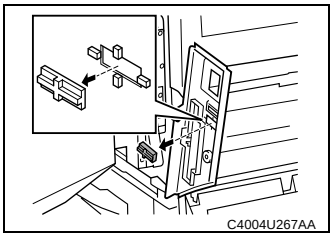
Adjustment Procedure
1. Place a blank sheet of A3 paper on the Original Glass and lower the Original Cover.
2. Call the Tech. Rep. Mode to the screen.
3. Touch these keys in this order: “Machine Adjust” → “Org. Detect Sensor.”
4. Press the Start key.

- *If the adjustment has been successfully made, it completes the adjustment procedure.*
- *If the adjustment has turned out to be unsuccessful, check the optional Original Size Detecting Sensors for correct installation and change the defective sensor or harness.*

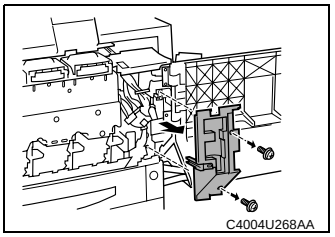
4. OTHER ADJUSTMENTS

4-1. INSTALLATION OF THE MECHANICAL COUNTER (OPTION)

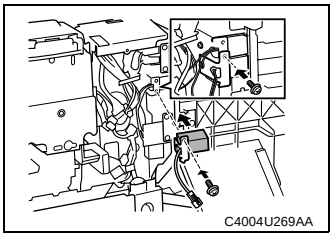
1. Open the Front Door.
2. Remove the Panel Cover.
3. Open the Right Door.



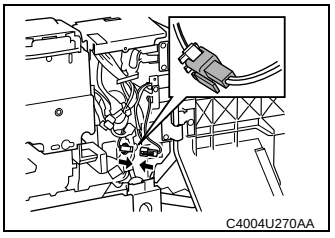
4. Cut out the knockout in the Front Right Cover.



5. Remove two screws and the Right Front Cover.

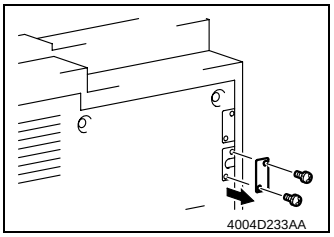


6. Secure the mechanical counter with one screw.

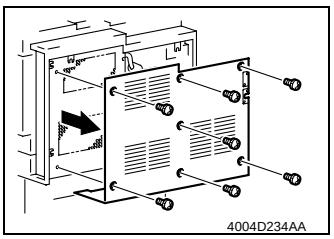


7. Connect one connector.

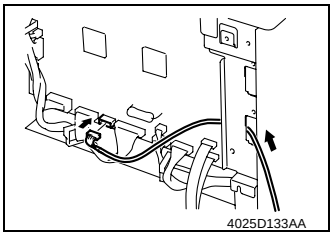
4-2. HOW TO INSTALL THE KEY COUNTER (OPTION)



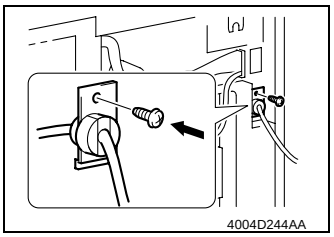
1. Remove the lower cover.



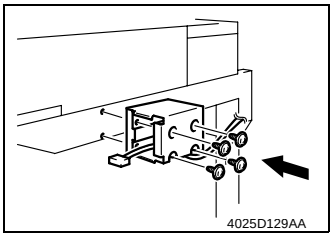
2. Remove the rear cover.



3. Let the wiring through the hole in figure and seat it.

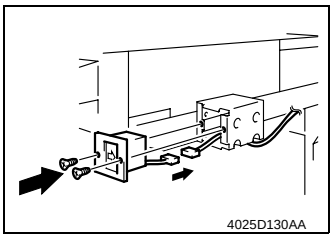


4. Mount the cord bushing and cord holder and fix them with a setscrew.
5. Connect connector to PJ14 on PWB-IO.
6. Install the rear cover.

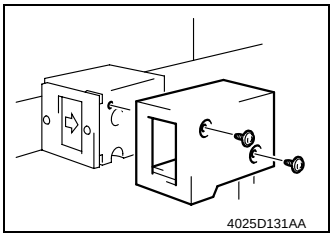


7. Install the key counter mounting plate on the right side of the copier stand with 4 setscrews.

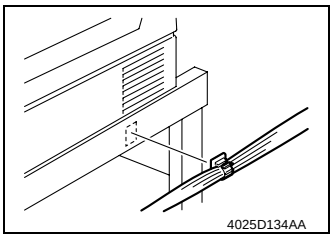
NOTE
Install the plate with the connector inside the plate.



8. Connect a connector of the key counter socket.
9. Install the key counter socket with 4 setscrews.



10. Install the key counter cover with 2 setscrews.



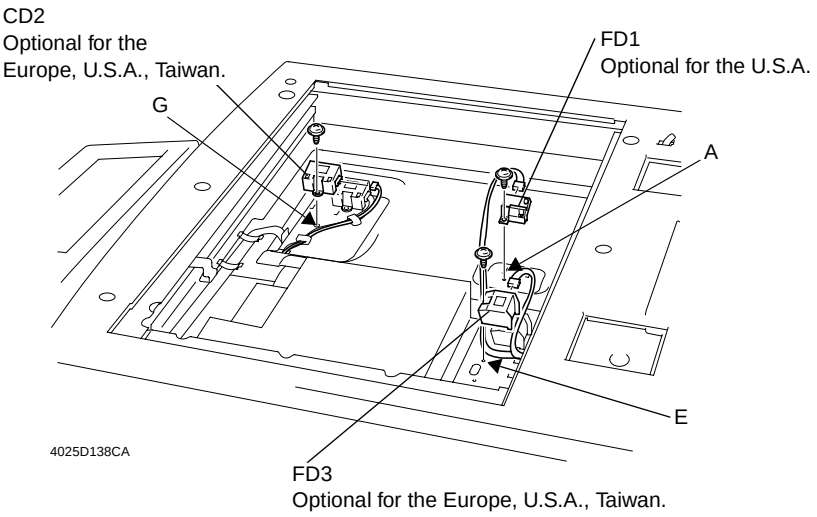
11. Attach the cord clamp on the copier stand and fix the wiring.
12. Access the Security mode, select Management Function Choice, Key counter, and then set “Set”.

4-3. MOUNTING OF THE ORIGINAL SIZE DETECTING SENSORS (OPTION)

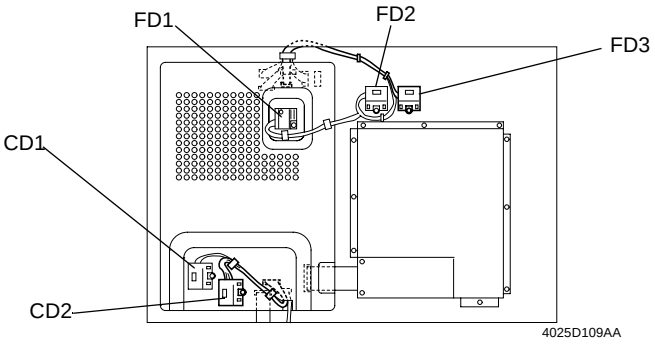
NOTE

- *When an Original Size Detecting Sensor has been added, select "SET" in "Org. Detect Option Sensor" of "System Input" available from the "Tech. Rep. Mode" and run "Org. Detect Sensor" of "Machine Adjust."*

1. Remove the IR Right Cover and Original Glass.
2. Remove the PWB Cover.
3. Connect the connector of the Original Size Detecting Sensor to be added to the Image Processing Board.
4. Replacing the PWB Cover.
5. Mount the Original Size Detecting Sensor (option).



How the Harness should be Placed

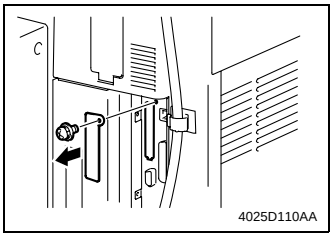


4-4. FLASH MEMORY

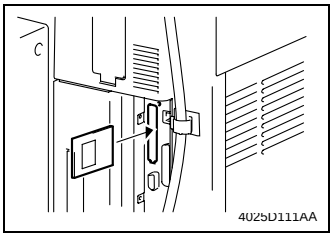
• Firmware is upgraded by means of the memory card (IC card).

NOTE
• *NEVER remove or insert the memory card with the copier power turned ON.*

1. With the Power Switch in the OFF position, unplug the power cord from the power outlet.



2. Remove one screw and the metal bracket.

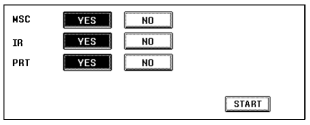


3. Insert the memory card into the slot.

4. Plug the power cord into the power outlet and turn ON the Power Switch.

✻ Three different types of F/W appear on the Touch Panel.

5. Select the particular type of F/W to be updated.



4025P036CB

MSC	Image Control Board PWB-F
IR	Image Processing Board PWB-C
PRT	PIC Board PEB-PIC

6. Press the Start key.

✻ This starts the data rewriting sequence. (At this time, the Start key starts blinking red.)

	Time Required for Rewriting
Three types at once	approx. 20 min.
MSC	approx. 1 min. 30 sec.
IR	approx. 6 min.
PRT	approx. 18 min. 30 sec.

7. Check that the Touch Panel shows the message indicating that the data has been rewritten correctly (“Downloading Completed”). Check also the Check Sum value (“Check Sum XXXX”) shown on the Touch Panel. (The Start key lights green.)
8. Unplug the power cord from the power outlet.

NOTE

- Do not turn OFF the Power Switch.

9. Remove the memory card from the slot
10. Turn OFF the Power Switch.
11. Turn ON the Power Switch.
12. Call the Tech. Rep. mode to the screen.
13. Select ROM Version.
14. Check that the ROM version matches the version marked on the memory card.

✻ Action When Data Transfer Fails

If “NG” appears on the Touch Panel, indicating that rewriting has been unsuccessful (in which case the Start key lights up red), take the following steps.

1. Perform the data rewriting procedure again.
2. If the procedure is abnormally terminated, change the memory card for a new one and try another rewriting sequence.
3. If the procedure is still abnormally terminated, change the board that has caused “NG” and carry out data rewriting procedure.

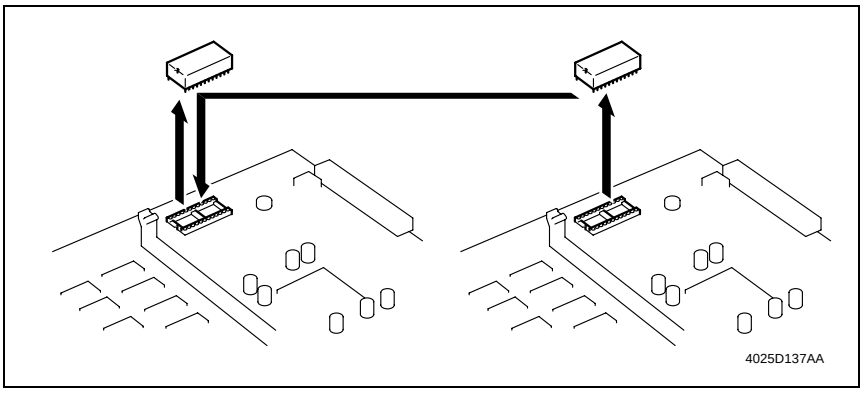
MSC	Image Control Board PWB-F
IR	Image Processing Board PWB-C
PRT	PIC Board PEB-PIC

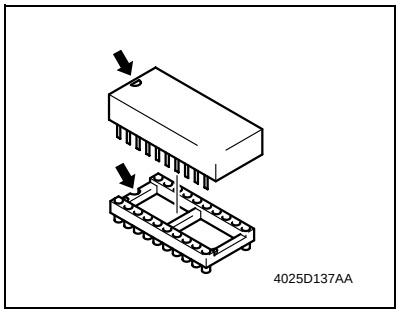
4-5. REMOUNTING RAM IC (IC202)

1. Remove the Image Control Board (PWB-F) from the copier.
2. Demount RAM IC (IC202) from the old Image Control Board (PWB-F).
3. Demount RAM IC (IC202) from the new Image Control Board (PWB-F) and then remount the old RAM IC (IC202) on the new Image Control Board (PWB-F).

NOTE

- *If the Image Control Board (PWB-F) has been replaced and RAM IC (IC202) is not to be remounted, be sure to record all data of Utility mode and Tech. Rep. mode functions and make the entries again of these numeric values.*





NOTE

- *Note the alignment notch (A) on RAM IC when mounting it.*