5.2 Disassembly/reassembly parts list

Section	Part name	Ref. page
Exterior parts	Front door	P.32
	Front cover	P.33
	Left cover	P.33
	Rear right cover/1	P.34
	Rear right cover/2	P.34
	Rear cover	P.34
	Scanner right cover	P.35
	Scanner rear cover	P.35
	Paper exit tray (left) / Paper exit tray (right)	P.36
	Operation panel	P.38
	Original glass	P.37
Units	Tray 1	P.38
	Multi bypass tray (MB-503)	P.39
	Imaging unit	P.40
	PH unit	P.41
	CIS module (CIS)	P.43
	Transfer roller unit	P.44
	Scanner unit	P.45
Boards	Printer control board (PRCB)	P.46
	High voltage unit (HV1)	P.47
	DC power supply (DCPU)	P.48
Other parts	Tray 1 feed roller	P.48
	Tray 1 separation pad	P.49
	Ozone filter	P.50
	Multi bypass tray feed roller	P.50
	Multi bypass tray separation roller assy	P.52
	Main motor (M1)	P.53
	Toner supply motor (M2)	P.54
	Scanner motor (M4)	P.55
	DC power supply fan motor (FM5)	P.56
	Registration clutch (CL1)	P.57
	Tray1 paper feed clutch (CL2)	P.57
	Bypass paper feed clutch (CL3)	P.58
	Bypass pick-up solenoid (SD1)	P.59

5.3 Cleaning parts list

Section	Part name	Ref. page
Trov 1	Tray 1 feed roller	P.60
llay l	Tray 1 Separation pad	P.60
Scanner section	Original glass	P.61
Manual hypacs tray	Multi bypass tray separation roller	P.61
Manual Dypass tray	Multi bypass tray feed roller	P.61

5.4 Disassembly/reassembly procedure

5.4.1 Front door

1. Open the front door.



3. To reinstall, reverse the order of removal.

2. While releasing the tab [1], remove the front door [2].

5.4.2 Front cover

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- 3. Open the front door.
- 4. Slide out the tray 1.



6. To reinstall, reverse the order of removal.

5.4.3 Left cover

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- *3.* Remove the front cover. See P.33



5. To reinstall, reverse the order of removal.

5. Remove seven screws [1], and remove the front cover [2].

4. Remove four screws [1], and remove the left cover [2].

5.4.4 Rear right cover/1, Rear right cover/2



3. To reinstall, reverse the order of removal.

5.4.5 Rear cover



2. To reinstall, reverse the order of removal.

- Remove the screw [1], and remove the rear right cover/1 (lower) [2].
 NOTE
- If the multi bypass tray is installed, remove two screws [3].
- Remove the harness that is hung on the guide [4].
- 2. Remove two screws [5], and remove the rear right cover/2 (upper) [6].

1. Remove seven screws [1], and remove the rear cover [2].

NOTE

 When reinstalling the rear cover, note that only the circled screw is different from the other screws.

5.4.6 Scanner right cover



2. To reinstall, reverse the order of removal.

5.4.7 Scanner rear cover

1. Remove the rear cover. See P.34



3. To reinstall, reverse the order of removal.

1. Remove two screws [1], and remove the scanner right cover [2].

NOTE

• While releasing the tab [3], remove the cover as shown in the illustration.

- Remove three screws [1], and remove the scanner rear cover [2].
 NOTE
- When reinstalling the scanner rear cover, completely insert its two tabs [2] into the holes of the scanner.

5.4.8 Paper exit tray (left) / Paper exit tray (right)

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- 3. Remove the front cover. See P.33



- 6. To reinstall, reverse the order of removal.

4. Remove two screws [1], and remove the paper exit tray (left) [2].

NOTE

• When reinstalling the paper exit tray (left), make sure that the rib [3] of the paper exit tray (left) sits on the top of the left rear cover [4].

5. Remove two screws [1], and remove the paper exit tray (right) [2].

1. Remove the left cover. See P.33

4. Remove the rear cover.

See P.35

See P.38

See P.34

See P.35

Original glass

2. Remove the scanner right cover.

3. Remove the operation panel.

5.4.9

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 Remove the toner bottle. See P.19
 Remove the imaging unit. See P.40

5. Remove the scanner rear cover.

- 8. Remove the front cover. See P.33
- 9. Remove the paper exit tray (left) and paper exit tray (right). See P.36



11. To reinstall, reverse the order of removal.

10. Remove twelve screws [1], and remove the original glass [2].

5.4.10 Operation panel

1. Remove the scanner right cover. See P.35



4. To reinstall, reverse the order of removal.

5.4.11 Tray 1

1. Slide out the tray 1.



4. To reinstall, reverse the order of removal.

- 2. Unlock two tabs [1].
- *3.* Disconnect the flat cable [2], and remove the operation panel [3].

- 2. Remove the screw [1], and remove the fixed sheet metal [2].
- 3. Remove the tray 1 [3].

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5.4.12 Multi bypass tray

1. Remove the rear right cover/1. See P.34







6. To reinstall, reverse the order of removal.

2. Remove the screw [1], and remove the cover [2].

- 3. Remove the harness from the wire saddle [1].
- 4. Disconnect the connector [2].

5. Remove four screws [1], and remove the multi bypass tray [2].

5.4.13 Imaging unit

- 1. Open the right door.
- Open the front door.
 Remove the toner bottle.
- See P.19

NOTE

• Do not install or remove the toner bottle while the imaging unit is not installed. Doing so can cause a toner spill.





- 4. Remove the screw [1], and remove the cover [2].
- 5. Disconnect the connector [3].
- 6. Remove the harness from guide [4].

7. Remove two screws [1], and remove the imaging unit [2].

NOTE

- Do not install the toner bottle while the imaging unit is not installed.
- When installing the imaging unit, use care not to damage the drum.
- Before attempting to install the imaging unit, be sure to fully open the right door. Take care that, if the imaging unit is installed with the right door locked halfway, it may interfere with the transfer roller.
- When inserting the imaging unit, do that slowly and, when you are sure that the drum gear contacts the mating part, push the imaging unit all the way into position. If this step is done all at once, the drum gear could be damaged.

5.4.14 PH unit

<u>^</u>	•	Do not replace the printer head unit while the power is ON. Laser beam generated during the above mentioned activity may cause blindness.
	•	Do not disassemble or adjust the printer head unit. Laser beam generated during the above mentioned activity may cause

A. Removal procedure

blindness.

- 1. Remove the left cover. See P.33
- 2. Remove the rear cover. See P.34
- 3. Remove the toner bottle. See P.19
- 4. Remove the imaging unit. See P.40
- 5. Remove the front cover. See P.33
- 6. Remove the paper exit tray (left) and paper exit tray (right). See P.36
- 7. Remove the scanner unit. See P.45



8. Remove three screws that have a spring [1].

NOTE

- Be careful not to lose spring at this time.
- When reinstalling the screws, tighten them in the following order: $a \rightarrow b \rightarrow c.$
- 9. Remove four flat cable clamps [2].
- *10.* Remove the harness from five wire saddles [3].





- 14. To reinstall, reverse the order of removal.
- 15. Turn ON the power switch.
- 16. Select [SERVICE MODE] [CLEAR DATA] [SUPPLIES COUNTER] and clear the counter value of [PH Start].
- 17. Select [SERVICE MODE] [CLEAR DATA] [SUPPLIES COUNTER] and clear the counter value of [PH Turn].

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- 11. Disconnect the flat cable (P001) [1] and the connector (P002) [2].

12. Remove the screw [1] and the bracket [2].

13. Pull out the flat cable [1] and the harness [2], and remove the PH unit [3].

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5.4.15 CIS module (CIS)

1. Remove the original glass. See P.37







6. To reinstall, reverse the order of removal.

2. Remove the screw [1], and remove the cover [2].

- 3. Disconnect the connector (P102) [1] on the printer control board.
- 4. Pull out the flat cable [2].

5. Remove the CIS module [2] from the belt [1].

NOTE

• When installing the CIS module, make sure that the belt is held in place by the two tabs [3] as shown in the illustration.

2. Remove the transfer roller unit [1] as

 Indentations or dirt on the surface of the image transfer roller adversely affect the printed image. Do not therefore touch or dirty with toner the surface of the image

• When handling the image transfer roller, hold onto the shaft or bear-

• Do not place a new image transfer roller directly on the floor.

shown in the illustration.

transfer roller.

ings of the roller.

NOTE

5.4.16 Transfer roller unit

1. Open the right door.



- 3. To reinstall, reverse the order of removal.
- 4. Turn ON the power switch.
- 5. Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [TRANSFER].

5.4.17 Scanner unit

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- *3.* Remove the front cover. See P.33
- 4. Remove the left cover. See P.33
- 5. Remove the scanner right cover. See P.35
- 6. Remove the rear cover. See P.34
- 7. Remove the scanner rear cover. See P.35



- 8. Disconnect three connectors [1].
- 9. Remove two shoulder screws [2] and six screws [3], and remove the scanner unit [4].

NOTE

- To reinstall the scanner unit, place the machine on the top of a flat table.
- Tighten the screws in the following order: (a) \rightarrow (b) \rightarrow (c) \rightarrow (d)

5.4.18 Printer control board (PRCB)

- 1. Remove the rear cover. See P.34
- 2. Remove the scanner rear cover. See P.35



- *3.* Disconnect all connectors from the printer control board.
- 4. Remove five screws [1], and remove the printer control board [2].



NOTE

• When the printer control board (PRCB) is replaced with a new one, EEPROM (U8) [1] must be demounted from the old PRCB and remounted on the new PRCB. Mount the EEPROM (U8) [1] of the old PRCB on the new PRCB.

NOTE

• Note the alignment notch marked with A on the EEPROM (U8) when mounting the IC.



5. To reinstall, reverse the order of removal.

NOTE

• When the printer control board is to be replaced, rewriting both the controller and engine firmware to the latest one.

See P.63

5.4.19 High voltage unit (HV1)

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- 3. Remove the front cover. See P.33
- 4. Remove the paper exit tray (left) and paper exit tray (right). See P.36
- 5. Remove the rear right cover/1. See P.34
- 6. Remove the rear right cover/2. See P.34
- 7. Remove the rear cover. See P.34
- 8. Remove the fusing unit. See P.30
- 9. Remove the scanner unit. See P.45





13. To reinstall, reverse the order of removal.

10. Remove two screws [1], and remove the paper exit inside cover [2].

- 11. Disconnect four connectors [1].
- 12. Remove two screws [1], and remove the high voltage unit [2].

5.4.20 DC power supply (DCPU)

1. Remove the rear cover. See P.34



4. To reinstall, reverse the order of removal.

5.4.21 Tray 1 feed roller

1. Slide out the tray 1.





- 2. Disconnect all connectors from the DC power supply.
- 3. Remove three screws [1] and two card spacers [2], and remove the DC power supply [3].

NOTE

When reinstalling the DC power supply, be sure to note the following points.

- Make sure that no harness is caught on the back of the board.
- Make sure that no harness is caught in the notch on the plate.
- 2. Press down the paper lifting plate.
- 3. Snap off the E-ring [2] from the feed roller assy [1].
- Slide the feed roller assy [1] to the rear and pull it off the bushing at the front.

 Loosen the set screw [1] with the hexagon wrench (2.5 mm), and remove the weight [2].

NOTE

• When reinstall the weight, tighten the set screw with the weight slightly pushed against the feed roller.



- 7. To reinstall, reverse the order of removal.
- 8. Turn ON the power switch.
- Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [TRAY1].

5.4.22 Tray 1 separation pad

1. Slide out the tray 1.





- 6. To reinstall, reverse the order of removal.
- 7. Turn ON the power switch.
- 8. Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [TRAY1].

5. OTHER MAINTENANCE ITEMS

6. Snap off the E-ring [1], and remove

the tray1 feed roller [2].

- 2. Press down the paper lifting plate.
- 3. Snap off the E-ring [2] from the feed roller assy [1].
- Slide the feed roller assy [1] to the rear and pull it off the bushing at the front.

Remove the tray 1 separation pad [1].

NOTE

• Be careful not to lose spring at this time.

5.4.23 Ozone filter

- 1. Remove the toner bottle. See P.19
- Remove the imaging unit. See P.40
 Remove the drum.
- See P.14
- 4. Remove the drum charge corona assy. See P.16



- 6. To reinstall, reverse the order of removal.
- 7. Turn ON the power switch.
- 8. Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [OZONE].

5.4.24 Multi bypass tray feed roller

- 1. Remove the multi bypass tray. See P.39
- 2. Remove the bypass paper feed clutch. See P.58



5. While releasing four tabs [1], remove the ozone filter [2].

3. Remove four screws [1], and remove the multi bypass tray upper cover [2].







- 9. To reinstall, reverse the order of removal.
- 10. Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [BYPASS].

- 4. Remove two E-rings [1] and two bearings [2].
- 5. Remove the multi bypass tray feed roller assy [3].

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6. While releasing the tab [1], remove the collar [2].

NOTE

• Be careful not to lose shaft [3] at this time.

- 7. Remove the E-ring [1], and remove the weight [2].
- 8. Remove the multi bypass tray feed roller [3].

NOTE

• Be careful not to lose shaft [4] at this time.

5.4.25 Multi bypass tray separation roller assy

1. Remove the multi bypass tray. See P.39







- 2. Remove the screw [1].
- 3. Remove the fixed sheet metal [2] and the spring [3].

4. Remove the multi bypass tray separation roller assy [1].

5. Remove the C-clip [1], and remove the multi bypass tray separation roller assy [2].

NOTE

• Take care to avoid scratching or creasing the film [3].

- 6. To reinstall, reverse the order of removal.
- Select [SERVICE MODE] [CLEAR DATA] [PM COUNTER] and clear the counter value of [BYPASS].

1. Remove the rear cover.

See P.34

Main motor (M1)

[2]

5.4.26







7. To reinstall, reverse the order of removal.

- 2. Disconnect the connector (CN2) [1] on the DC power supply.
- 3. Remove the harness from the harness guide [2].

4. Remove two screws [1], and remove the harness guide [2].

- 5. Disconnect the connector [1].
- 6. Remove four screws (M3x 6) [2], and remove the main motor [3].

NOTE

• When reinstalling the main motor, be sure to use the removed screws [2]. If you use a longer screw, it may interfere with the gear.

5.4.27 Toner supply motor (M2)

- 1. Remove the toner bottle. See P.19
- 2. Remove the imaging unit. See P.40
- 3. Remove the front cover. See P.33
- 4. Remove the paper exit tray (left) and paper exit tray (right). See P.36
- 5. Remove the scanner unit. See P.45





9. To reinstall, reverse the order of removal.

- 6. Disconnect the connector [1].
- 7. Remove two screws [2], and remove the toner supply motor assy [3].

8. Remove two screws [2], and remove the toner supply motor [3].

5.4.28 Scanner motor (M4)

1. Remove the original glass See P.37







2. Remove the screw [1], and remove the cover [2].

- 3. Disconnect the connector (P101) [1] on the printer control board.
- 4. Pull out the harness [2].

5. Remove the spring [1] to reduce the tension of the belt [2].





9. To reinstall, reverse the order of removal.

5.4.29 DC power supply fan motor (FM5)



- 6. Remove the belt [1].
- Remove three screws [2], and remove the scanner motor assy [3].

8. Remove two screws [1], and remove the scanner motor [2].

1. Remove four screws [1], and remove the fan motor cover [2].

NOTE

• As the spring [4] attached to the lock lever [3] comes off, take care not to lose the spring.

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4. To reinstall, reverse the order of removal.

5.4.30 Registration clutch (CL1)

- 1. Remove the rear cover. See P.34
- 2. Remove the main motor. See P.53



6. To reinstall, reverse the order of removal.

5.4.31 Tray1 paper feed clutch (CL2)

1. Remove the rear cover. See P.34



- 5. OTHER MAINTENANCE ITEMS
- 2. Disconnect the connector [1].
- 3. Remove two screws [2], and remove the DC power supply fan motor [3].

- 3. Remove the harness from two wire saddles [1] and edge cover [2].
- 4. Disconnect the connector [3].
- 5. Remove the E-ring [4], and remove the registration clutch[5].

- 2. Remove the E-ring [1] and bearing [2].
- 3. Remove the harness from the edge cover [3] and wire saddle [4].
- 4. Remove three screws [5], and remove the sheet metal [6].

5. OTHER MAINTENANCE ITEMS



6. To reinstall, reverse the order of removal.

5.4.32 Bypass paper feed clutch (CL3)

1. Remove the multi bypass tray. See P.39





5. To reinstall, reverse the order of removal.

 Disconnect the connector [1], and remove the tray paper feed clutch [2].

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2. Remove three screws [1], and remove the fixed sheet metal [2].

- 3. Disconnect the connector [1].
- 4. Remove the E-ring [2], and remove the bypass paper feed clutch [3].

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5.4.33 Bypass pick-up solenoid (SD1)

1. Remove the multi bypass tray. See P.39







8. To reinstall, reverse the order of removal.

2. Remove three screws [1], and remove the fixed sheet metal [2].

- 3. Disconnect the connector [1].
- 4. Remove the harness from the wire saddle [2].
- 5. Remove two screws [3], and remove the solenoid assy [4].

- 6. Disconnect the connector [1].
- 7. Remove the screw [2], and remove the bypass pick-up solenoid [3].

5.5 Cleaning procedure

NOTE

• The alcohol described in the cleaning procedure represents the ethanol isopropyl alcohol.

5.5.1 Tray 1 feed roller

1. Slide out the tray 1.



2. Using a cleaning pad dampened with alcohol, wipe the tray 1 feed roller [1] clean of dirt.

5.5.2 Tray 1 separation pad

- 1. Slide out the tray 1.
- 2. Remove the tray 1 feed roller. See P.48



3. Using a cleaning pad dampened with alcohol, wipe the tray 1 separation pad [1] clean of dirt.

5.5.3 **Original glass**



5.5.4 Multi bypass tray separation roller

- 1. Remove the multi bypass tray. See P.39
- 2. Remove the multi bypass tray separation roller assy. See P.52



5.5.5 Multi bypass tray feed roller

- 1. Remove the multi bypass tray. See P.39
- 2. Remove the multi bypass tray separation roller assy. See P.52



1. Using a cleaning pad, wipe the original glass [1].

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3. Using a cleaning pad dampened with alcohol, wipe the multi bypass tray separation roller [1] clean of dirt.

3. Using a cleaning pad dampened with alcohol, wipe the multi bypass tray feed roller [1] clean of dirt.

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