

4. PERIODICAL MAINTENANCE PROCEDURE

NOTE

- The alcohol described in the cleaning procedure of maintenance represents the isopropyl alcohol.

4.1 Processing section

4.1.1 Replacing the developer

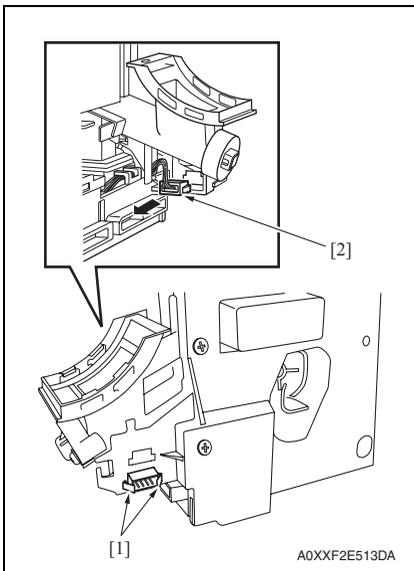
A. Periodically replacing parts/cycle

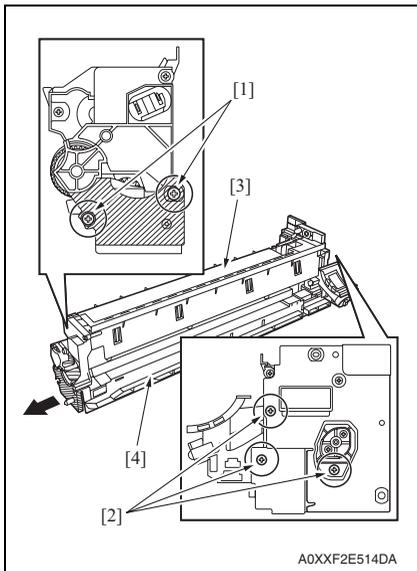
- Developer: Every 55,000 counts

B. Procedure

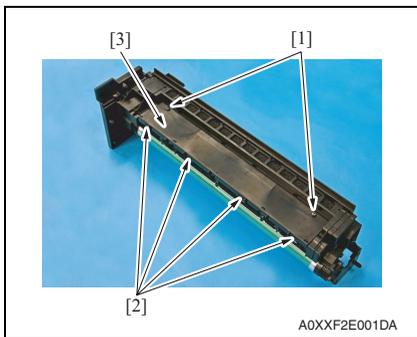
1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)

3. Release the tabs [1] and disconnect the connector [2] from the imaging unit.

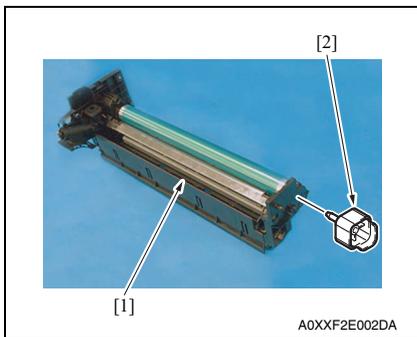




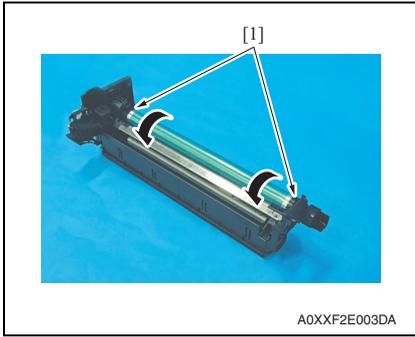
- 4. Remove two screws [1] in the rear of the imaging unit.
- 5. Remove three screws [2] at the front of the imaging unit.
- 6. While slightly pulling the area below the drum (diagonally shaded area) in the direction of arrow, separate the drum unit [3] from the developing unit [4].



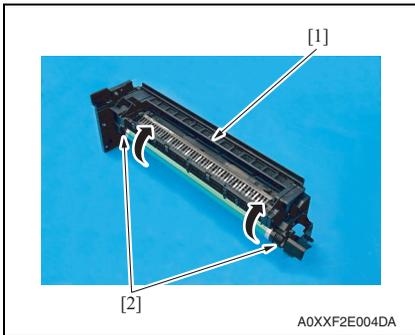
- 7. Remove two screws [1], release four tabs [2], and remove the plate [3].



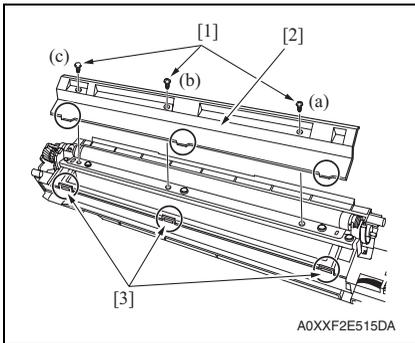
- 8. Turn the drum unit [1] over to place it as shown in the illustration.
- 9. Attach the PC positioning jig [2].



10. While turning the drum [1] in the direction of the arrow, dump the remaining developer from the screw.



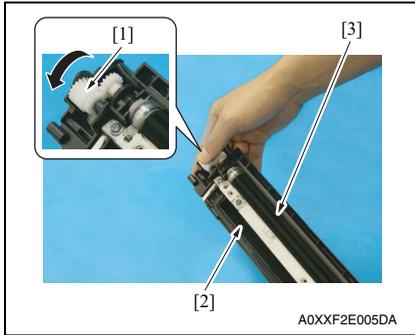
11. Turn the drum unit [1] over to place it as shown in the illustration.
 12. While turning the drum [2] in the direction of the arrow, dump the remaining developer from the screw.



13. Remove three screws [1], and remove the developer scattering prevention plate [2].

NOTE

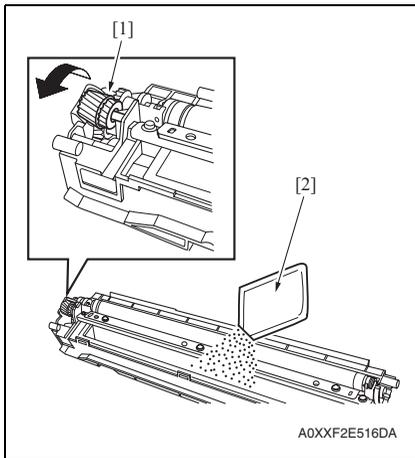
- When securing the developer scattering prevention plate, tighten screws in the order of one on one edge (a), one at the center (b), and one on the other edge (c).
- When attaching the developer scattering prevention plate, make sure that the tabs of the developer scattering prevention plate are inserted into the slots [3].



14. Tilt the developing unit as shown in the illustration. While turning the gear [1] in the direction of the arrow, dump the developer [2].

NOTE

- **Make sure that the magnet roller [3] is placed on the upper side of the developing unit when dumping the developer [2].**
Old developer adhering to the gears and rolls can cause their breakage.
- **Turning the gear backward at this time could damage the sheet for cleaning the TCR sensor.**
- **Dump developer until almost no developer sticks to the magnet roller.**



15. While turning the gear [1] in the direction of the arrow, pour a packet of developer [2].

NOTE

- **Shake the packet of developer well before pouring.**

16. To reinstall, reverse the order of removal.

NOTE

- **Do not install the toner bottle at this stage.**

17. Turn ON the power switch.

18. Perform [SERVICE MODE] - [FUNCTION] - [TCR AUTO ADJUST].

[See P.110](#)

NOTE

- **To obtain the correct adjustment value, make this adjustment while the toner bottle is removed.**

19. Install the toner bottle.

4.1.2 Replacing the drum

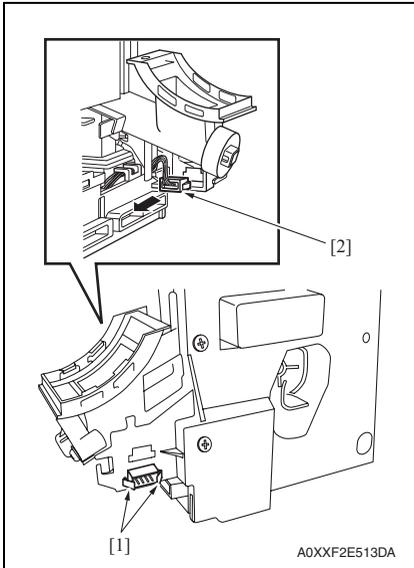
A. Periodically replacing parts/cycle

- Drum: Every 55,000 counts

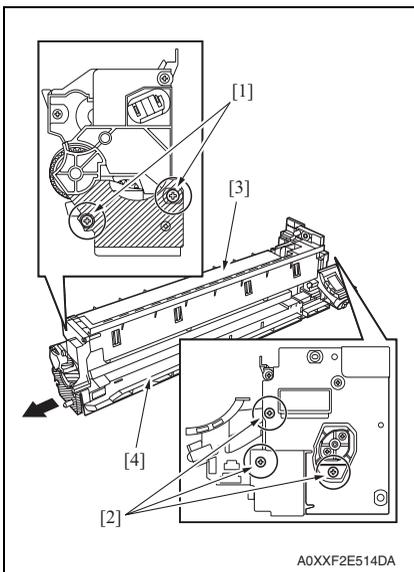
B. Procedure

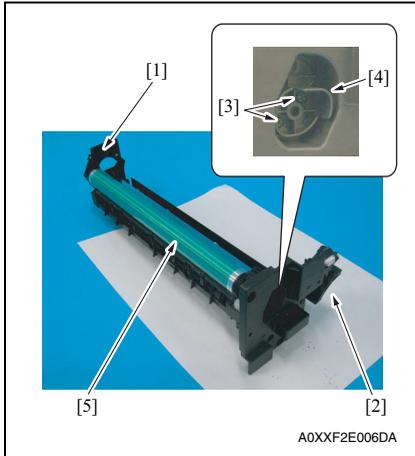
1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)

3. Release the tabs [1] and disconnect the connector [2] from the imaging unit.



4. Remove two screws [1] in the rear of the imaging unit.
5. Remove three screws [2] at the front of the imaging unit.
6. While slightly pulling the area below the drum (diagonally shaded area) in the direction of arrow, separate the drum unit [3] from the developing unit [4].





7. Place the drum unit [1] as shown in the illustration.

NOTE

- **Developer can spill from the portion [2] shown in the illustration. Place the drum unit on a sheet of paper to prevent developer from making the site dirty.**

8. Remove two screws [3] and remove the bracket [4] that holds the drum in place.

9. Remove the drum [5].

NOTE

- **Protect the drum that has been removed with a protective cloth.**
- **If the drum has been replaced with a new one, apply a coat of toner to the surface of the new drum.**

[See P.17](#)

10. To reinstall, reverse the order of removal.
11. Turn ON the power switch.
12. Select [SERVICE MODE] - [CLEAR DATA] - [SUPPLIES COUNTER] and clear the counter value of [I/U Life].

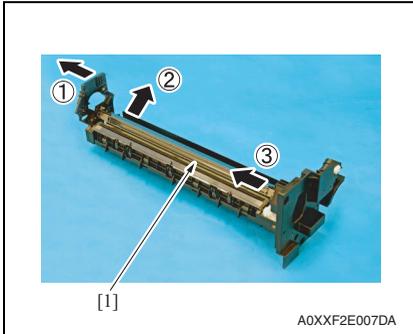
4.1.3 Replacing the drum charge corona assy

A. Periodically replacing parts/cycle

- Drum charge corona assy: Every 55,000 counts

B. Procedure

1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)
3. Remove the drum.
[See P.14](#)



4. Remove the drum charge corona [1] as shown in the illustration.

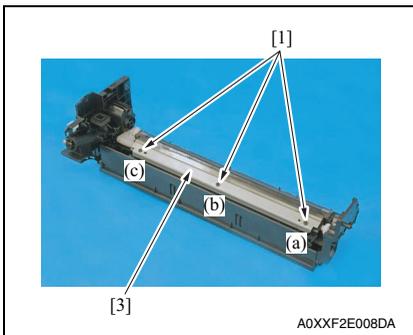
4.1.4 Replacing the cleaning blade

A. Periodically replacing parts/cycle

- Cleaning blade: Every 55,000 counts

B. Procedure

1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)
3. Remove the drum.
[See P.14](#)
4. Remove the drum charge corona assy.
[See P.16](#)



5. Remove three screws [1], and remove the cleaning blade [2].

NOTE

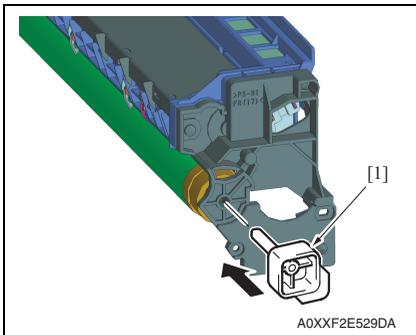
- When securing the cleaning blade, tighten screws in the order of one on one edge (a), one at the center (b), and one on the other edge (c).
- When the cleaning blade has been replaced, apply a coat of toner to the surface of the drum.

[See P.17](#)

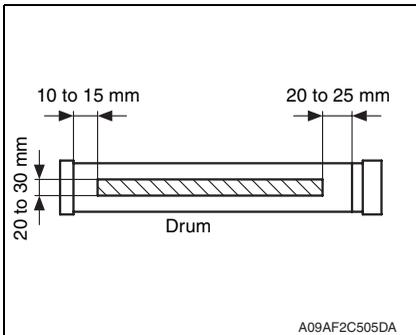
4.1.5 Application of toner

NOTE

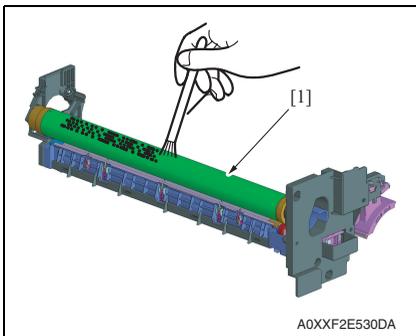
• Perform these steps when the drum and/or cleaning blade have been replaced.



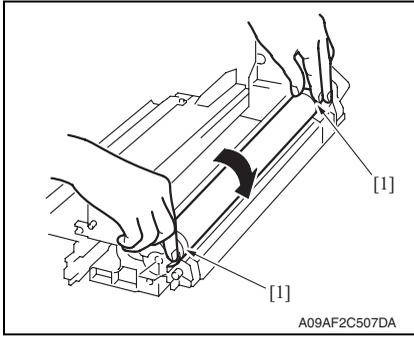
1. With the imaging unit divided into the drum assy and developing assy, install the drum positioning jig [1] in the rear of the drum assy.



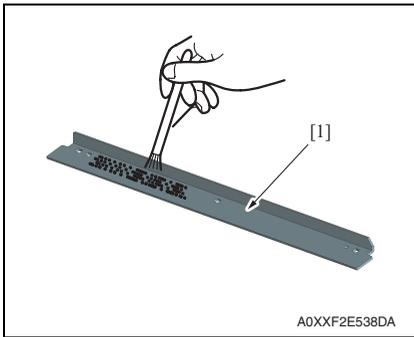
<<Area to which toner is to be applied>>



2. Using a brush, apply a light coat of toner to the surface of the drum [1].



- 3. Hold both ends [1] of the drum with your both hands and turn the drum a half turn in the direction of the arrow.



- 4. Using a brush, apply a light coat of toner to the surface of the cleaning blade [1].

4.1.6 Replacing the toner bottle

A. Periodically replacing parts/cycle

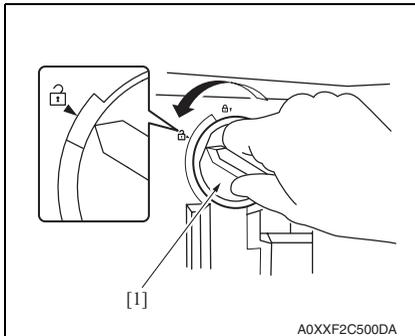
- Toner bottle (TN117): Every 5,000 prints
- Toner bottle (TN116): Every 11,000 prints

B. Procedure

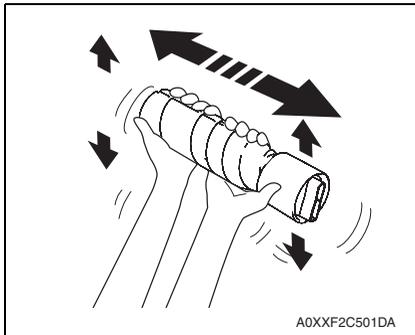
NOTE

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

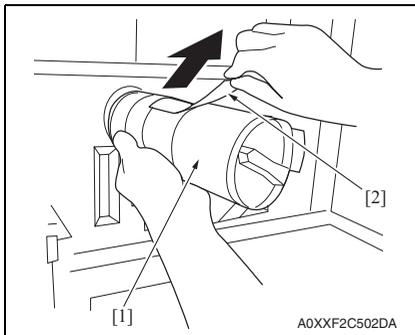
1. Open the front door.



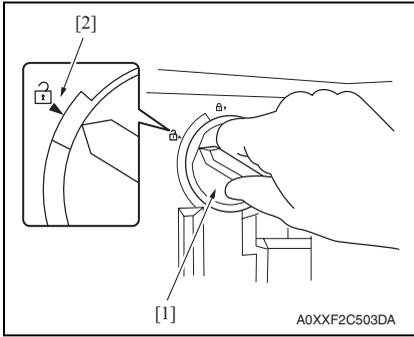
2. Rotate the empty toner bottle [1] counterclockwise to unlock it.
3. Pull out the toner bottle [1].



4. Remove the new toner bottle from its packaging, and shake it side to side 5 to 10 times.



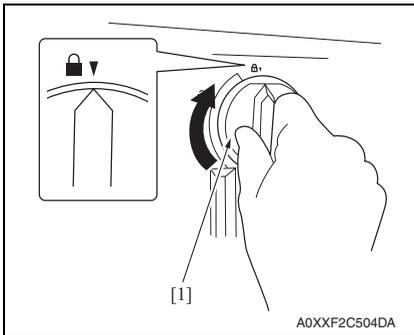
5. Insert the toner bottle [1] into the machine a little.
6. While holding the seal of the toner bottle up, slowly peel off the seal [2].



7. Insert the toner bottle [1] into the machine.

NOTE

- Align the tip of the knob of the toner bottle with the mark of ▼ [2] indicated on the machine as shown in the illustration.



8. Rotate the toner bottle [1] clockwise to lock it.

9. Close the front cover.

4.1.7 Cleaning of the Ds collars

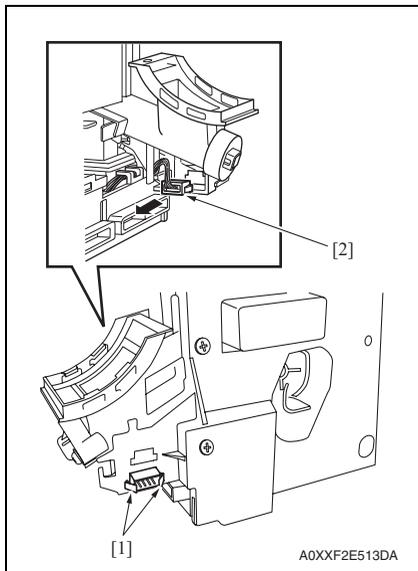
A. Periodically cleaning parts/cycle

- Ds collars: Every 55,000 counts

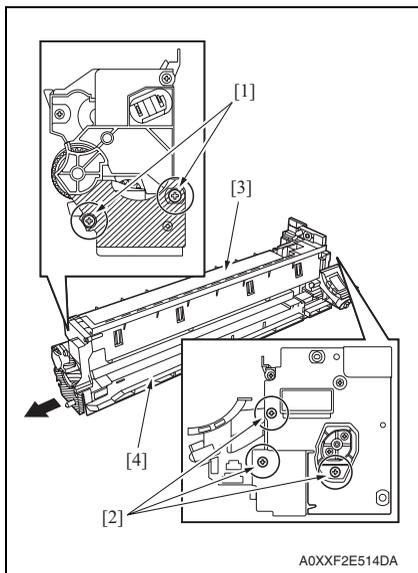
B. Procedure

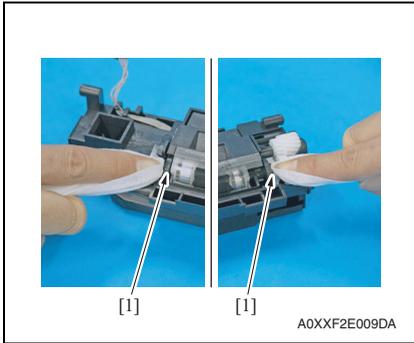
1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)

3. Release the tabs [1] and disconnect the connector [2] from the imaging unit.



4. Remove two screws [1] in the rear of the imaging unit.
5. Remove three screws [2] at the front of the imaging unit.
6. While slightly pulling the area below the drum (diagonally shaded area) in the direction of arrow, separate the drum unit [3] from the developing unit [4].





7. Using a cleaning pad with alcohol, wipe the two Ds collars [1] clean of dirt.

8. To reinstall, reverse the order of removal.

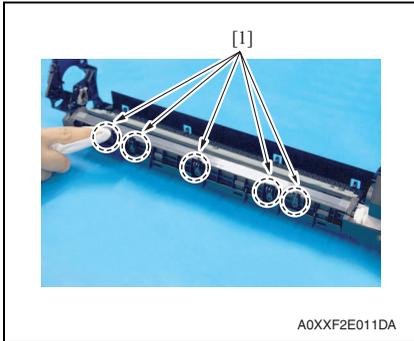
4.1.8 Cleaning of the drum separator fingers

A. Periodically cleaning parts/cycle

- Drum paper separator fingers: Every 55,000 counts

B. Procedure

1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)
3. Remove the drum.
[See P.14](#)



4. Using a cleaning pad with alcohol, wipe the five separator fingers [1] clean of dirt.

4.1.9 Cleaning of the developer scattering prevention plate

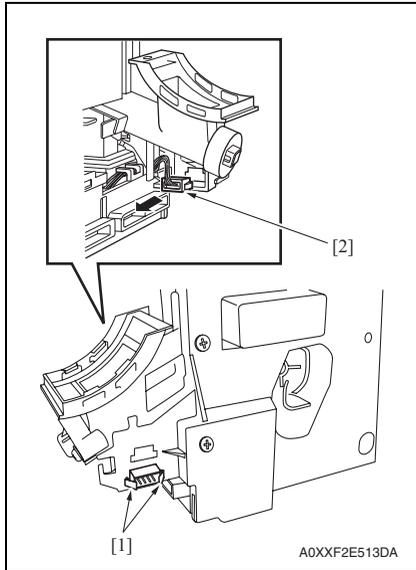
A. Periodically cleaning parts/cycle

- Developer scattering prevention plate: Every 55,000 counts

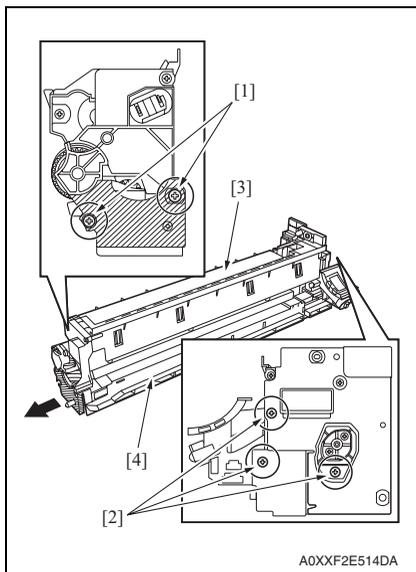
B. Procedure

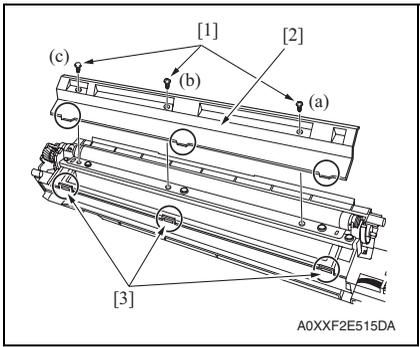
1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)

3. Release the tabs [1] and disconnect the connector [2] from the imaging unit.



4. Remove two screws [1] in the rear of the imaging unit.
5. Remove three screws [2] at the front of the imaging unit.
6. While slightly pulling the area below the drum (diagonally shaded area) in the direction of arrow, separate the drum unit [3] from the developing unit [4].

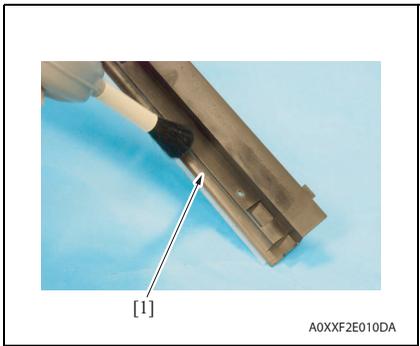




7. Remove three screws [1], and remove the developer scattering prevention plate [2].

NOTE

- When securing the developer scattering prevention plate, tighten screws in the order of one on one edge (a), one at the center (b), and one on the other edge (c).
- When attaching the developer scattering prevention plate, make sure that the tabs of the developer scattering prevention plate are inserted into the slots [3].



8. Using a brush, whisk dust and dirt off the surface of the developer scattering prevention plate [1].

9. To reinstall, reverse the order of removal.

4.2 Conveyance section

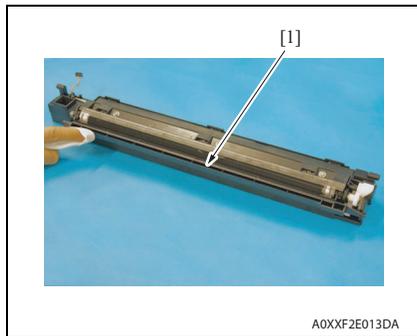
4.2.1 Cleaning of the timing roller

A. Periodically cleaning parts/cycle

- Timing roller: Every 55,000 counts

B. Procedure

1. Open the right door.



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

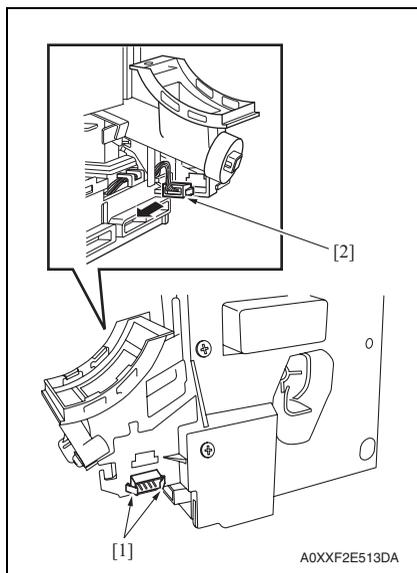
4.2.2 Cleaning of the pre-image transfer guide plate

A. Periodically cleaning parts/cycle

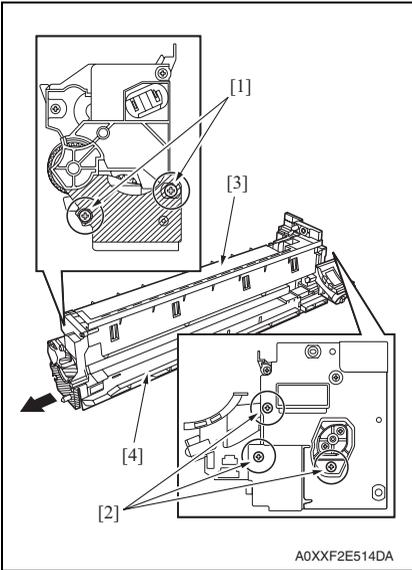
- Pre-image transfer guide plate: Every 55,000 counts

B. Procedure

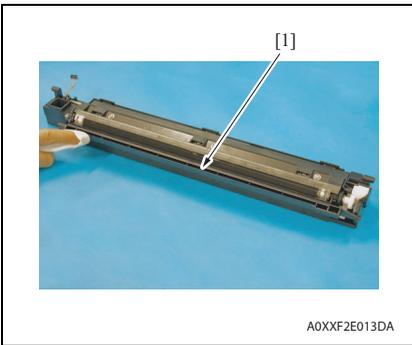
1. Remove the toner bottle.
[See P.19](#)
2. Remove the imaging unit.
[See P.40](#)



3. Release the tabs [1] and disconnect the connector [2] from the imaging unit.



4. Remove two screws [1] in the rear of the imaging unit.
5. Remove three screws [2] at the front of the imaging unit.
6. While slightly pulling the area below the drum (diagonally shaded area) in the direction of arrow, separate the drum unit [3] from the developing unit [4].



7. Using a cleaning pad with alcohol, wipe the pre-image transfer upper guide plate [1] clean of dirt.

4.3 Fusing section

4.3.1 Replacing the fusing unit

 **CAUTION**



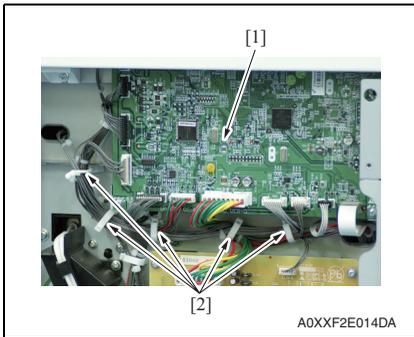
- The temperature gets high in the vicinity of the fusing unit. You may get burned when you come into contact with the area. Before replacement operations, make sure that more than 20 minutes have elapsed since the main and sub power switches were turned off.

A. Periodically replacing parts/cycle

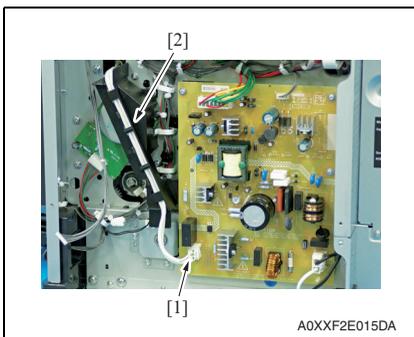
- Fusing unit: Every 100,000 counts

B. Procedure

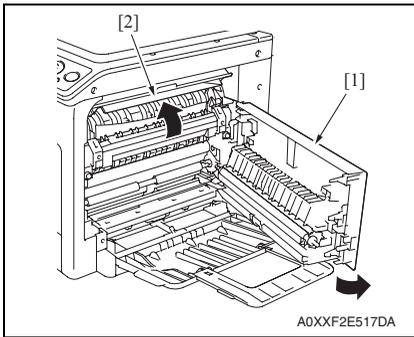
1. Remove the rear right cover/1.
[See P.34](#)
2. Remove the rear right cover/2.
[See P.34](#)
3. Remove the rear cover.
[See P.34](#)



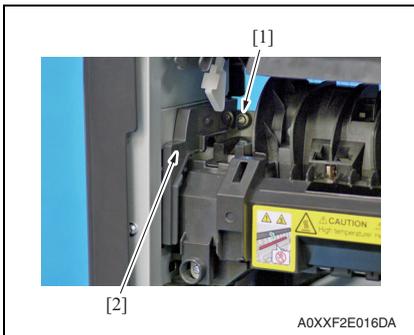
4. Disconnect the connector (P004) [1] on the printer control board.
5. Remove the harness from five wire saddles [2].



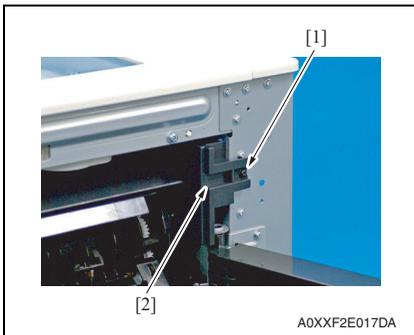
6. Disconnect the connector (CN2) [1] on the DC power supply.
7. Remove the harness from the harness guide [2].



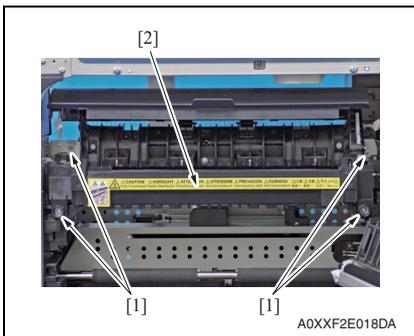
- 8. Open the right door [1].
- 9. Open the fusing unit cover [2].



- 10. Remove the screw [1], and remove the front side cover [2].



- 11. Remove the screw [1], and remove the rear side cover [2].



- 12. Remove four screws [1], and remove the fusing unit [2].
- 13. To reinstall, reverse the order of removal.
- 14. Turn ON the power switch.
- 15. Select [SERVICE MODE] - [CLEAR DATA] - [PM COUNTER] and clear the counter value of [FUSING].