C331 / C332 / C531 / MC562 / MPS2731 Second Tray Unit Maintenance Manual

120210A

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PREFACE

This manual describes the procedures for the maintenance of second tray unit optionally installed in the C331/C332/C531/MC562 series of printers and MPS2731.

The document is produced for maintenance personnel use. For details on the procedures for handling the C331/C332/C531/MC562 series of printers and MPS2731. see its user docu-mentation.

Note! • The descriptions in this manual are subject to change without prior notice.

• In preparing the document, efforts have been made to ensure that the information in it is accurate. However, errors may be crept into the document. Oki Data assumes no re-sponsibility for any damage resulting from, or claimed to be the results of, those repairs, adjustments or modifications to the printers which are made by users using the manual.

• The parts used for the printers are sensitive and, if handled improperly, may be damaged. It is strongly recommended that the products are maintained by maintenance men regis-tered with Oki Data.

CONTENTS

1. Overview

1.1 Function

The extended paper feed unit is installed under the printer. the device performs the auto paper feed by the operation of the pulse motor (hopping) to control a signal from the printer.
The main function is as follows:

• Available paper:

[Paper Type]
• Standard paper: A4, A5, B5, Custom, LETTER, Executive, LEGAL 13, LEGAL 13.5, LEGAL14, 16K (197 × 273, 195 × 270, 184 × 260)

* Tthe custom is 148 to 215.9mm for width and 210 to 355.6 mm for length.

[Weight/ Thickness]
• Standard paper: 64~176g/m^2

1.2 Exterior and Parts Name
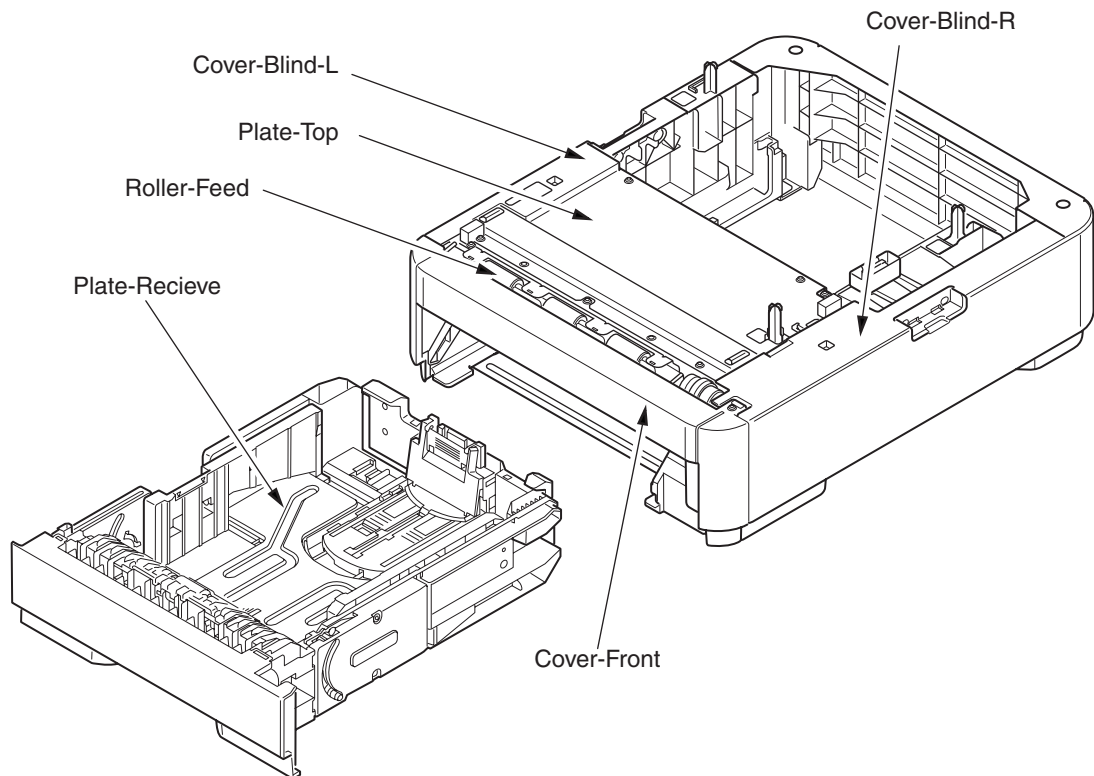
Figure.1-1 Exterior and Parts Name

2. Description for Operation of Second Tray unit

Second Tray unit receives a signal from the printer main body and feeds paper to the printer main body.

Paper Feed from the Second Tray unit (Tray2)

1. When a signal is received from the printer main body, the pulse motor is rotated (Counterclockwise rotation), and by setting the paper feed clutch to ON, the paper feed roller and pick-up roller are rotated. Therefore, paper in a tray is fed.

2. After hitting the entrance sensor lever and switching the sensor to ON, the paper runs into the conveying roller (Tray 2) that is at rest, and then it is conveyed further by a certain amount. (This action corrects the paper skew.)

3. By setting the regist clutch to ON, the paper is carried by the regist roller.

Printer Main Body

Conveying roller (Tray 2)

Clutch

Paper feed clutch

Pick-up roller

Entrance sensor

Second Tray unit

Paper feed roller

Paper

Pulse motor
(Counterclockwise rotation)

Clutch

Paper feed clutch

Pulse Motor (Motor-Pulse (Regist))
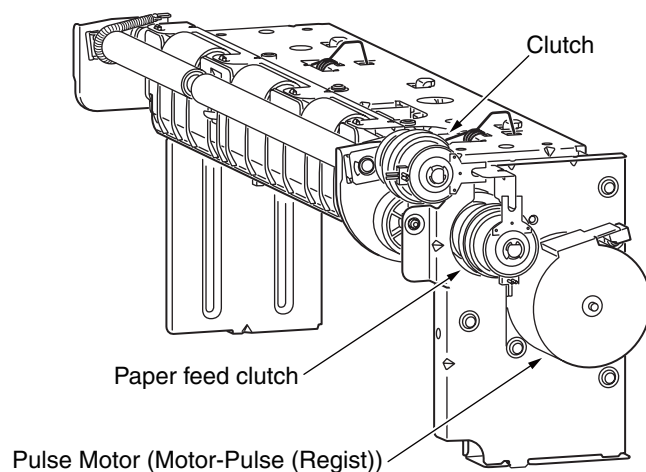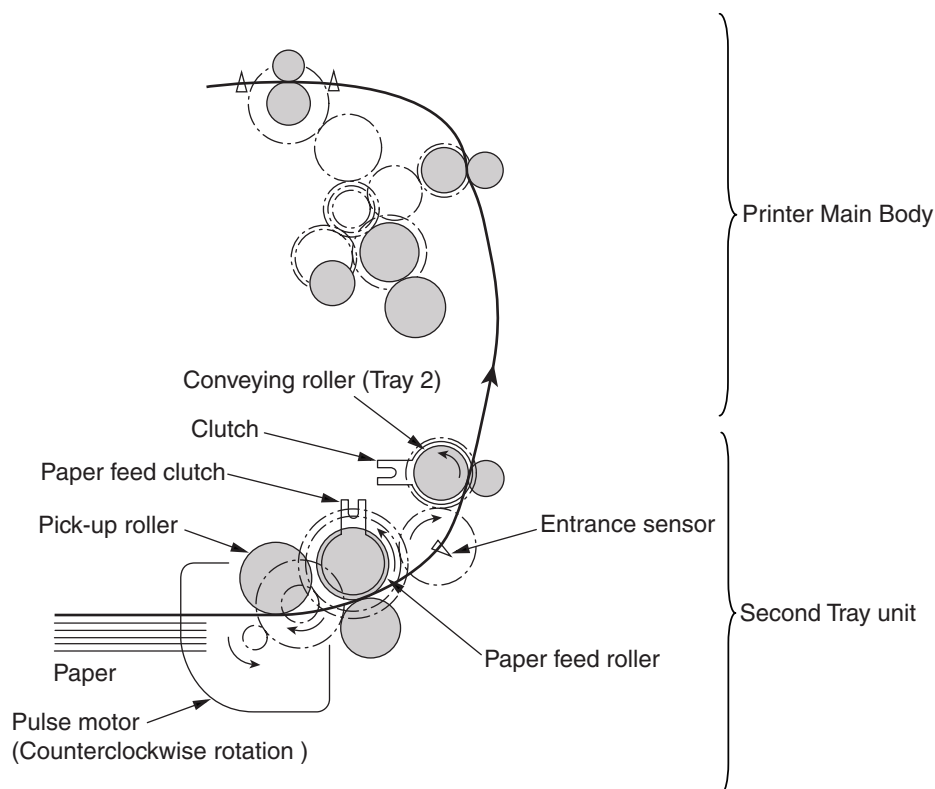
3. Part Replacement

This section describes how to disassemble/ assemble/ install in the field. This section describes how to disassemble, however, as for the assembly, take the opposite sequence to the disassembling procedure.

3.1 Precautions on replacing parts

(1) Make sure to turn off the printer switch and remove the printer from the device before the part replacement.

(2) Do not disassemble the printer while it operates normally.

(3) Do not disassemble beyond the range. (Do not remove parts other than parts shown in the part replacement procedure.)

(4) Use specified maintenance tools.

(5) Disassemble the parts in the specified order. Parts may be damaged if they are not disassembled in proper order.

(6) Set small items such as screws and collars in their original position temporarily since they can be lost easily.

(7) Do not use gloves that build up static electricity when treating a print circuit board

(8) Do not place the print circuit board on the device or floor directly.

[Maintenance Tool]
The following table shows the tools for the print board/ Assy/ Unit replacement in the field.

Table 3-1 Maintenance Tools

No.	Maintenance Tool		Amount	Purpose	Remarks
1		No.2-220 ⊕ Magnetic driver	1	3~5 mm screw	
2		No.3-200 driver	1		
3		Digital multi-meter	1		
4		Pliers	1		
5		E-ring plier	1	For E ring removing	

3.2 Arrangement of Parts

The arrangement of main parts is as shown in the following figure.
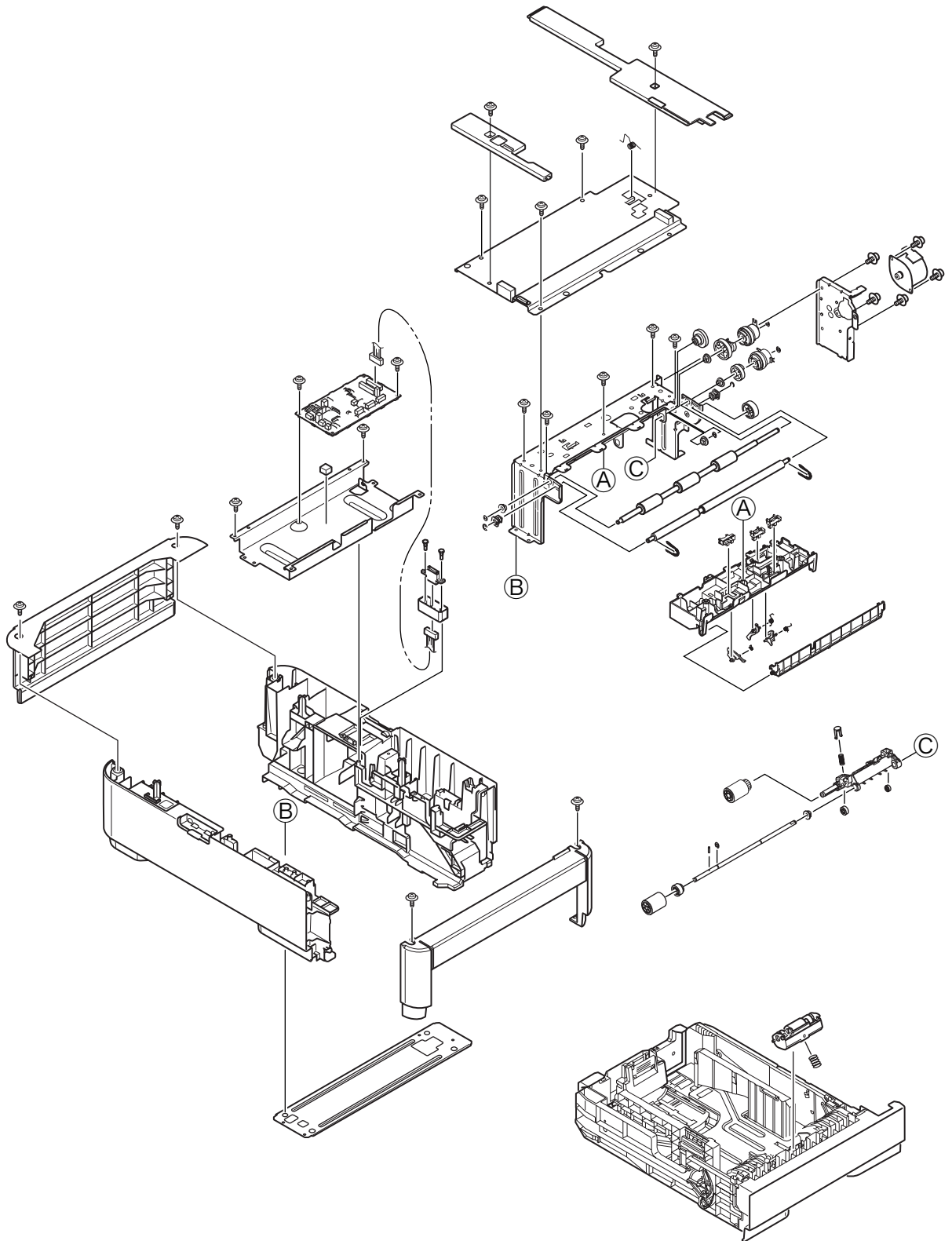
Figure 3-1

3.3 How to Replace Parts

This section describes how to replace parts shown in the following disassembling procedure.

Second Tray unit
— Roller-Pick-Up, Roller-Feed-Now (3.3.1)
— Guard-Connector, Connector(9715S-08Z02-G4C) (3.3.2)
— Board-GOG (3.3.3)
— CONN Cord-AMP8P-AMP8P (3.3.4)
— Gear-Assy-Clutch (Hop , Regist) , Motor - Pulse (3.3.5)
— Frame-Assy-Retard, Spring-Retard (3.3.6)

3.3.1 Roller-Pick-Up, Roller-Feed-Now

(1) Remove Cassette-Assy.

(2) Push the tab in the direction of the arrow to remove Roller-Pick-Up ①.

(3) Push the tab in the direction of the arrow to remove Roller-Feed-NOW ②.

(4) As for reinstalling, take the opposite sequence to removal sequence.

(Precautions on reinstalling)

 1. When reinstalling Roller-Pick-Up ①, push it until it clicks.

 2. When installing Roller-Feed-Now ②, push it until it clicks.
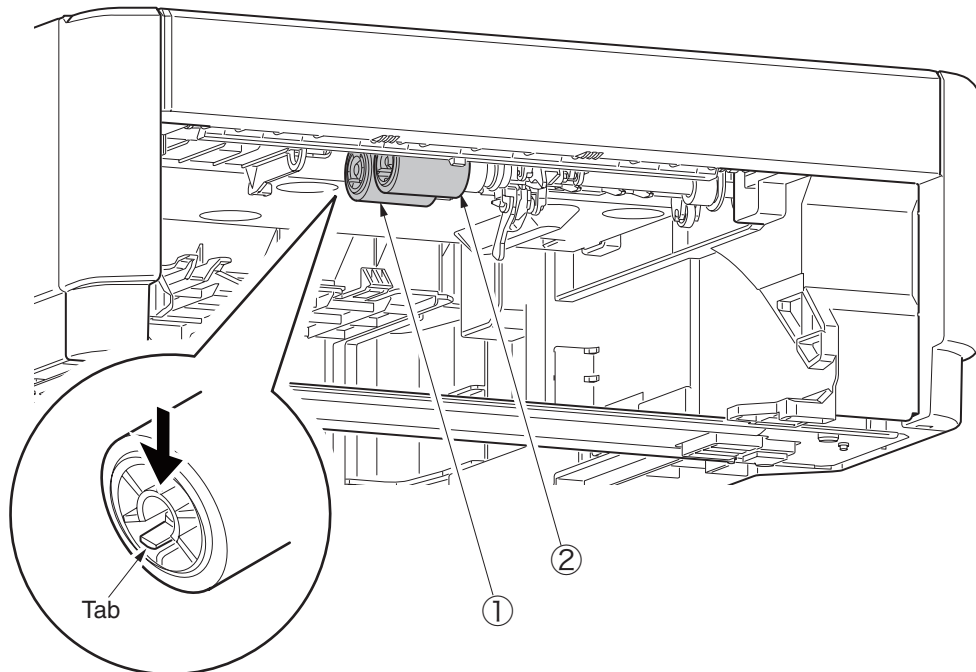
3.3.2 Guard-Connector, Connector (9715S-08Z02-G4C)

(1) Remove the two screws ①. Remove the two nuts ②.

(2) Disconnect the cable, and remove Guard-Connector ③ and Connector (9715S-08Z02-G4C) ④.

(3) Installing is performed by the inverse procedure with removing.

(Note on removing / installing)

1. Be careful not to lose the nuts ②.

Cable
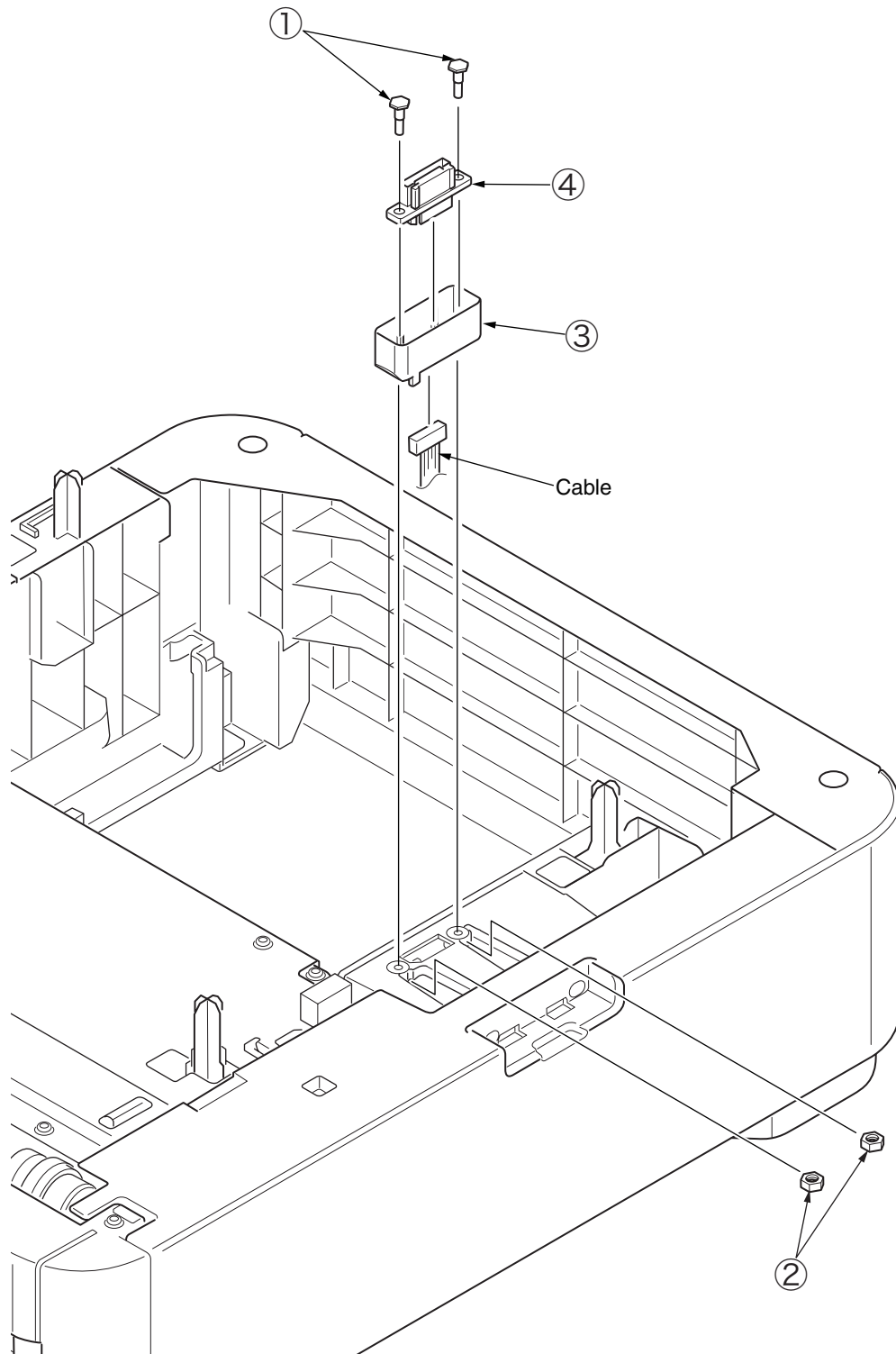
3.3.3 Board-GOG

(1) Remove the two screws (Black) ①. Remove the Cover-Rear ②.

(2) Remove the screws (silver) ③. Remove the Cover-Blind-R ④.

(3) Remove the screws (silver) ⑤. Remove the Cover-Blind-L ⑥.

(4) Remove the four screws (silver) ⑦. Remove the Plate-Top ⑧.

(5) Disconnect the six connectors, and remove the two screws (silver) ⑨ and Board-GOG ⑩.

(6) Installing is performed by the inverse procedure with removing.
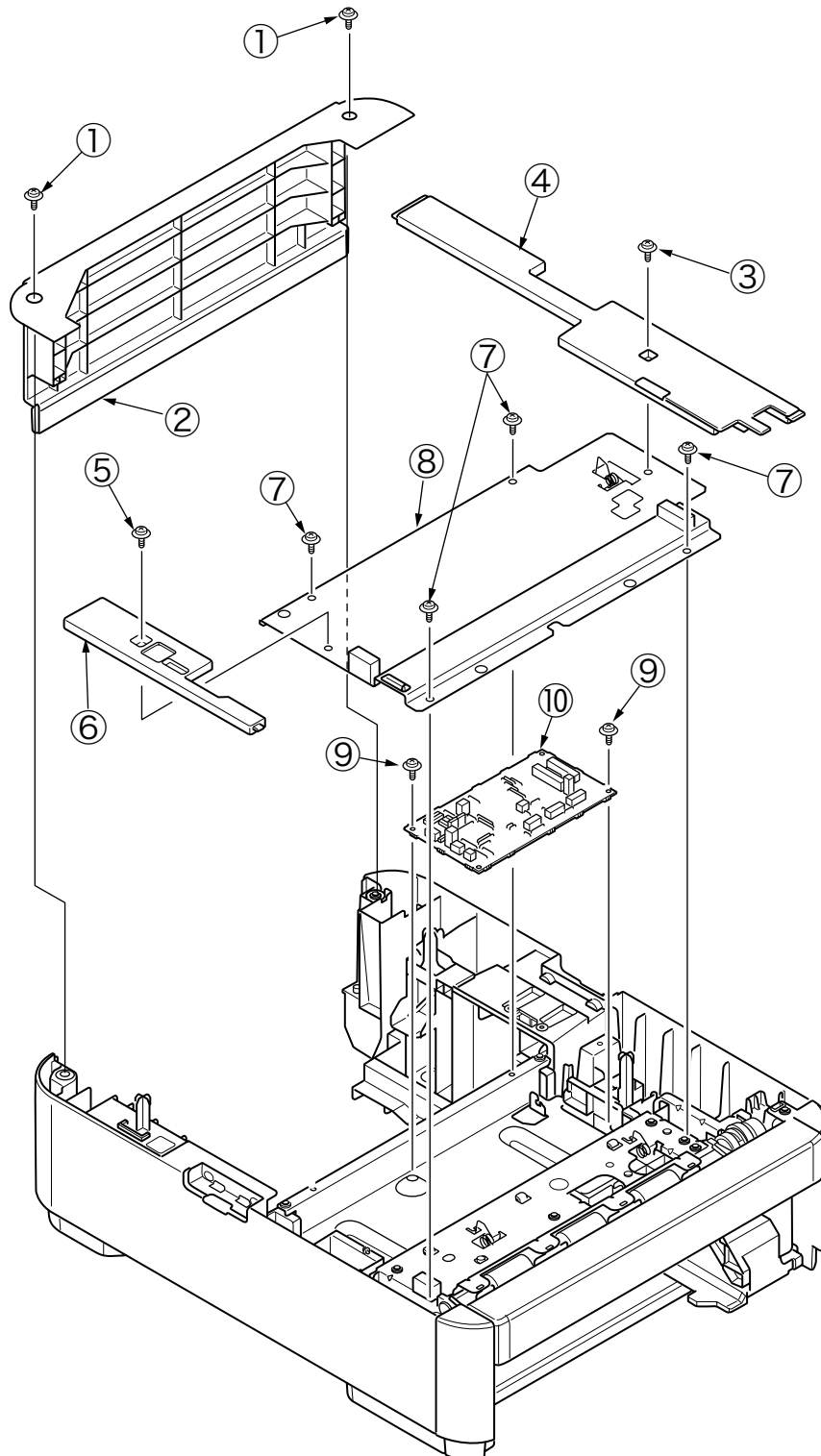
3.3.4 CONN Cord-AMP8P-AMP8P

(1) Remove the Guard-Connector ①. (Refer to 3.3.2)

(2) Remove the Cover-Rear, Cover-Blind-R/L, Plate-Top. (Refer to 3.3.3)

(3) Remove CONN-Cord-AMP8P-AMP8P ② from Board-GOG.

(4) Installing is performed by the inverse procedure with removing.

Board-GOG
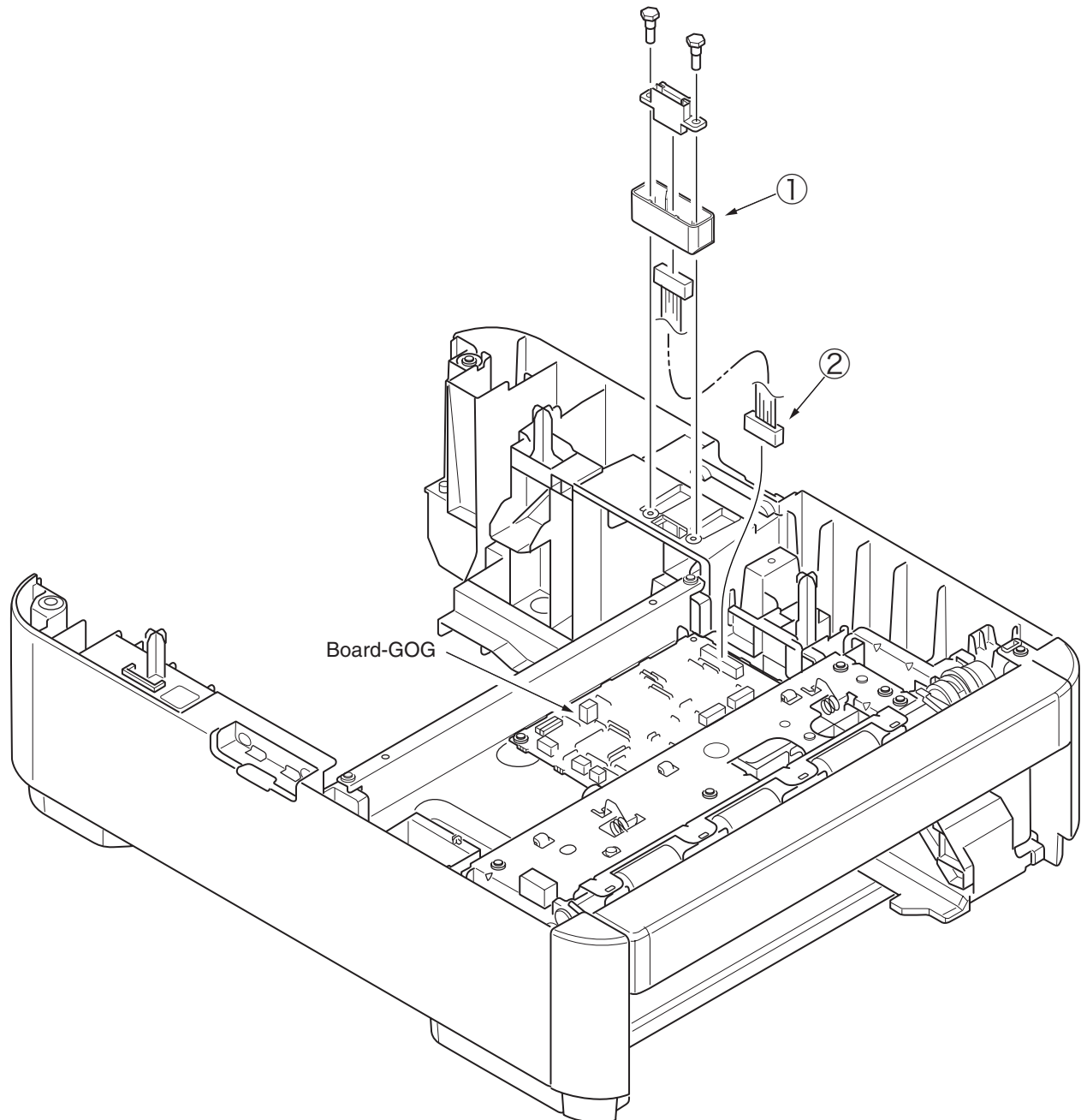
3.3.5 Gear-Assy-Clatch (Hop, Regist), Motor-Pulse

(1) Remove the Cover-Rear, Cover-Blind-R/L, Plate-Top. (Refer to 3.3.3)

(2) Remove the two screws (Black) ①, disengage the two tabs, and remove Cover-Front ②.
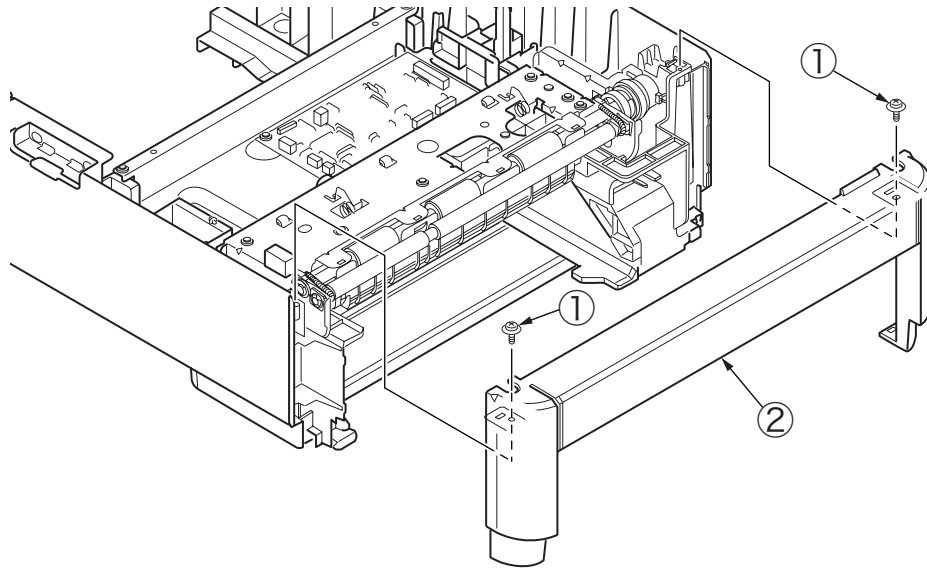
(3) Remove the four screws (Black) ③. Remove the two screws (Silver) ④.

(4) Disconnect the five connectors from Board-GOG, and remove Frame-Assy-Hop ⑤.
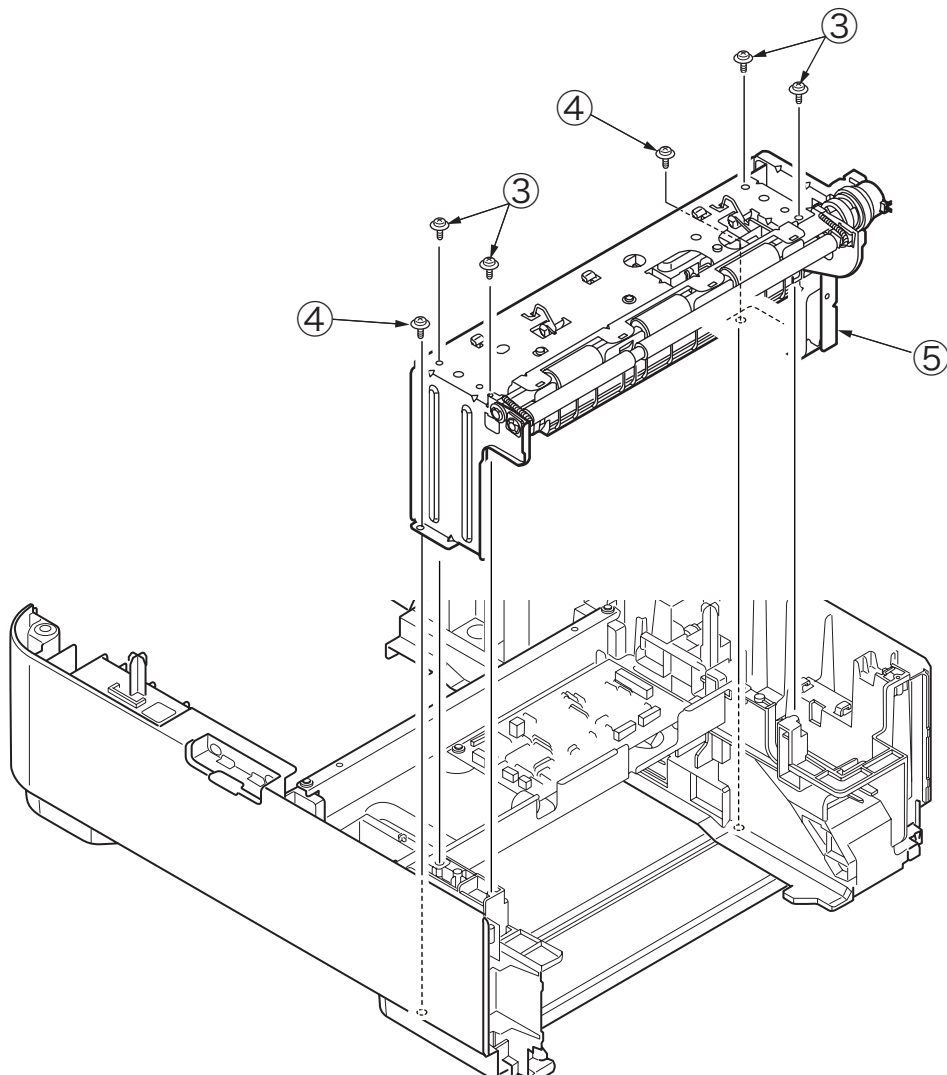
(5) Remove the E-ring ⑥, Gear-Assy-Clutch (Hop) ⑦ and Gear-Assy-Clutch (Regist) ⑧.

(6) Remove the two screws (Silver) ⑨. Remove the Motor-Pulse ⑩.

(7) Installing is performed by the inverse procedure with removing.
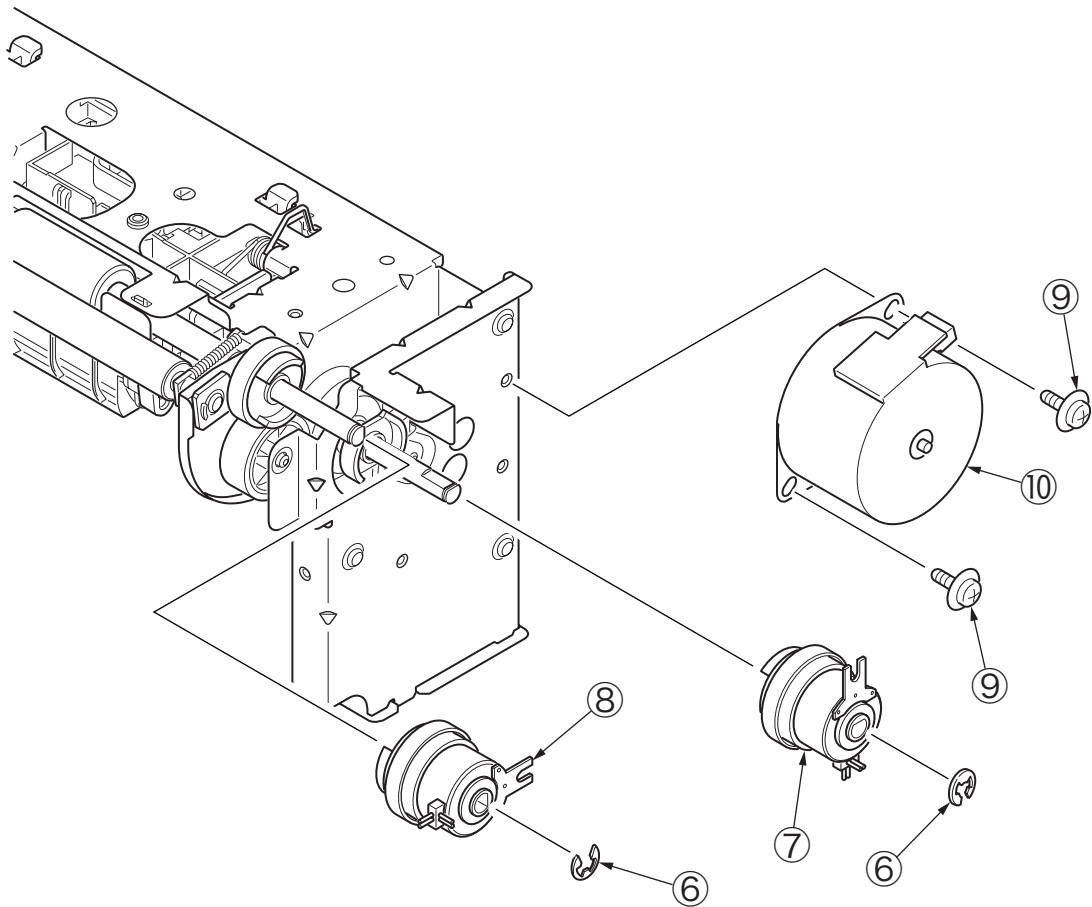
3.3.6 Frame-Assy-Retard, Spring-Retard

(1) Detach Cassette-Assy.

(2) Push two tabs in the direction of the arrow to remove Retard-Cover.

(3) Push Frame-Assy Retard ① in the direction of the arrow. (Spring-Retard ② is also removed together.)

(4) Installing is performed by the inverse procedure with removing.

Tab

Retard-Cover
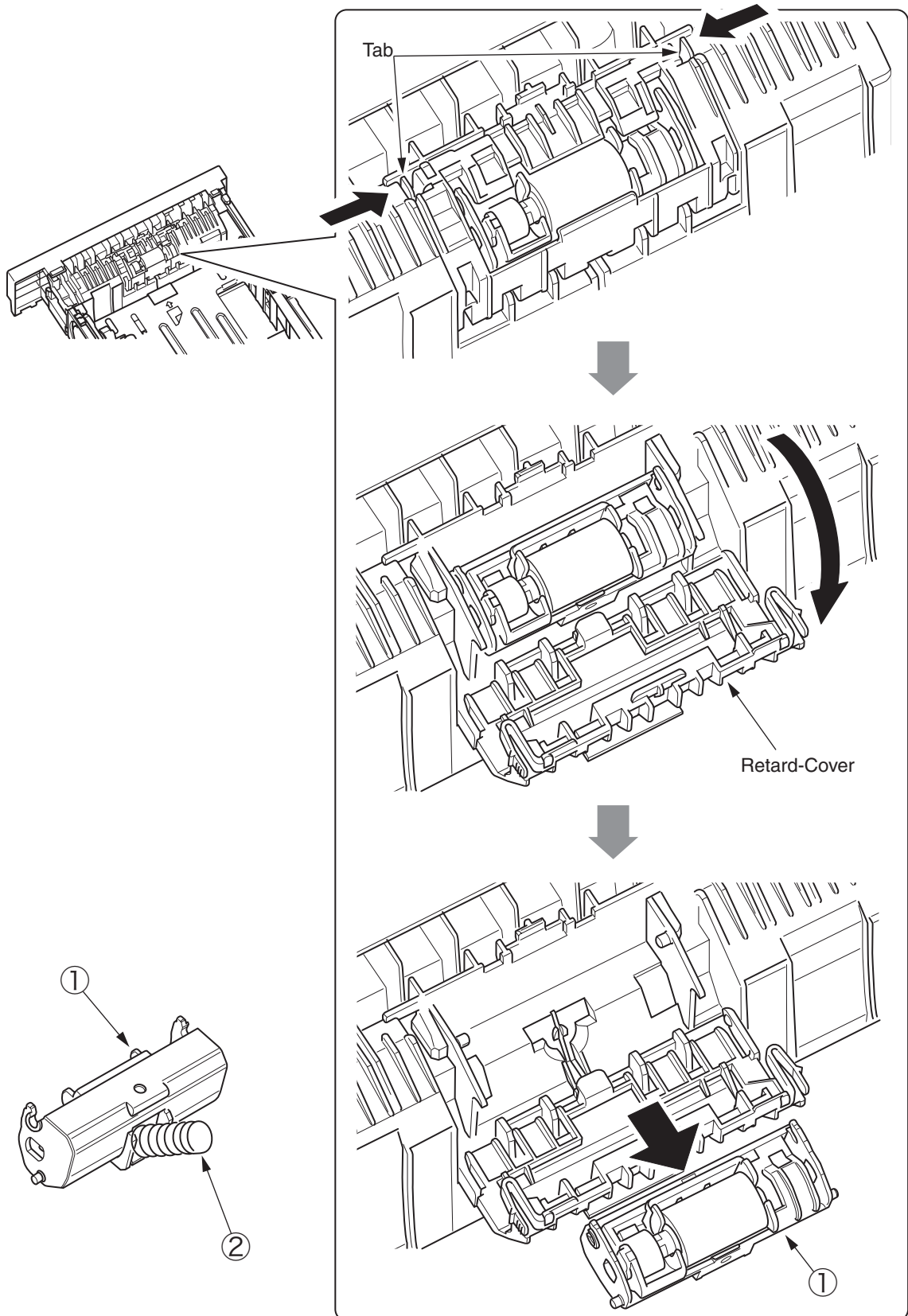
4. Cleaning of Paper Feed Roller and Separation Roller

Clean the rollers when [392: Paper Jam] often occurs.

(1) Pull the paper cassette.

(2) Wipe the two feed rollers with a tightly wrung cloth soaked in water through the opening for installation of a paper cassette.

Feed roller (Roller-Pick-Up)

Feed roller (Roller-Feed-NOW)
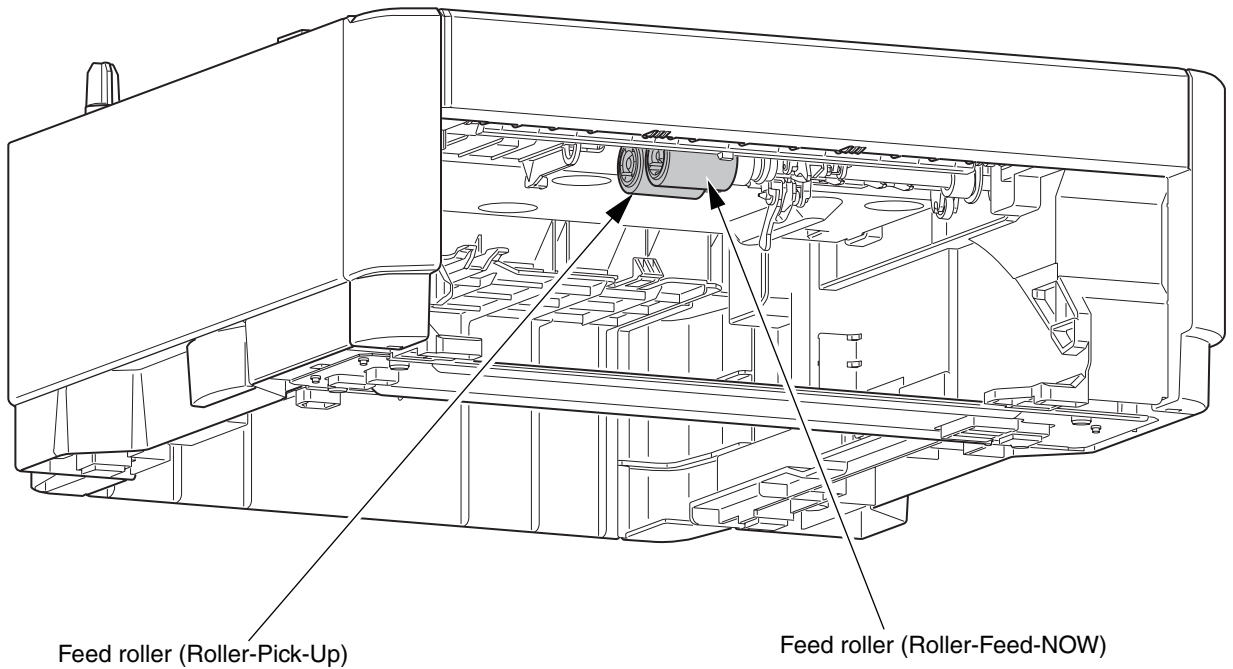
(3) Open Retard-Cover of the paper cassette and wipe the retard roller with a tightly wrung cloth soaked in water. (Refer to 3.3.6 for how to open Retard-Cover.)

Retard-Cover

Retard roller
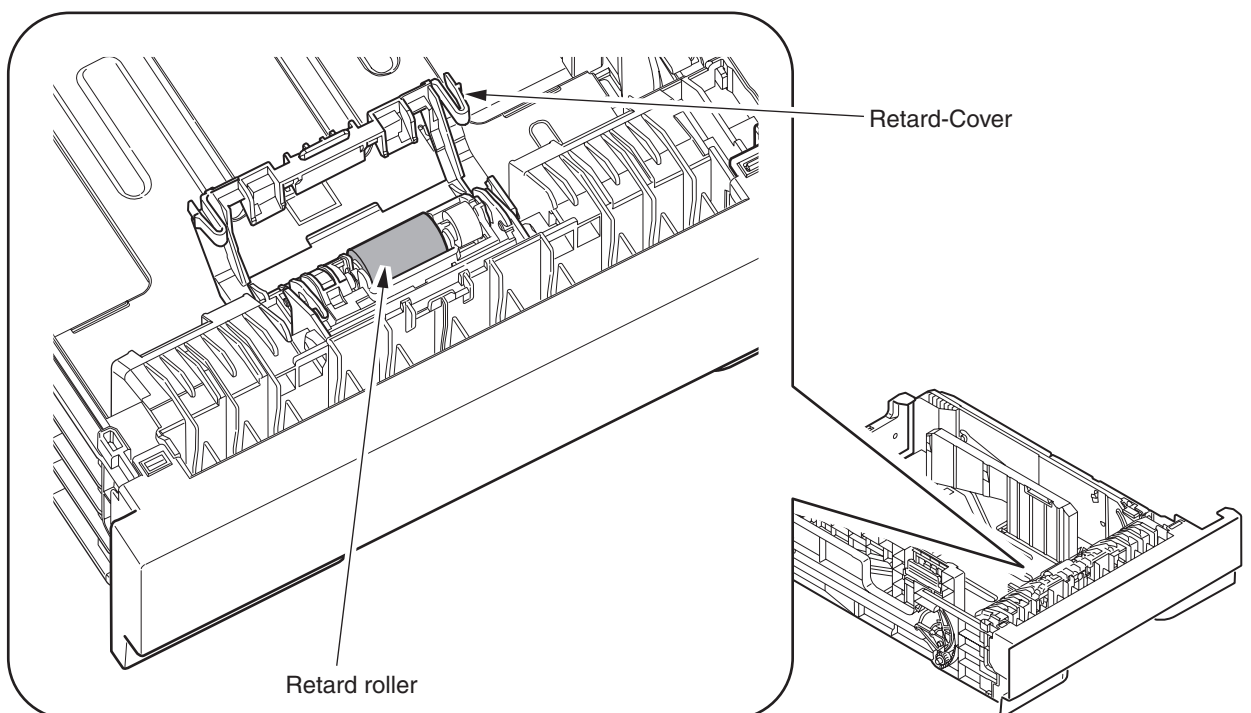
5. Procedure for Troubleshooting

5.1 Precautions for Troubleshooting

(1) Check the basic items to be checked in the user's manual.

(2) Obtain detail information at the failure from customers as much as possible.

(3) Inspect the status which is close to the status at the failure.

5.2 Preparation before Troubleshooting

(1) Display of Operator Panel

The failure status is displayed on the LCD (Liquid crystal display) of the operator panel. Follow the message displayed on LCD and make appropriate repairs.

5.3 Troubleshooting Method

When trouble occurs in the device, search the trouble with the following steps.

```
┌──────────────┐
│Trouble occurs.│
└──────┬───────┘
       │
       │     ┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐
       └────→│Trouble displayed on│──→│According to the  │──→│Perform the       │
             │the LCD message    │   │LCD status        │   │detailed search for│
             └──────────────────┘   │message list,     │   │trouble with the  │
                                     │search trouble.   │   │troubleshooting   │
                                     │(See 5.3.1)       │   │flow. (See 5.3.1.) │
                                     └──────────────────┘   └──────────────────┘
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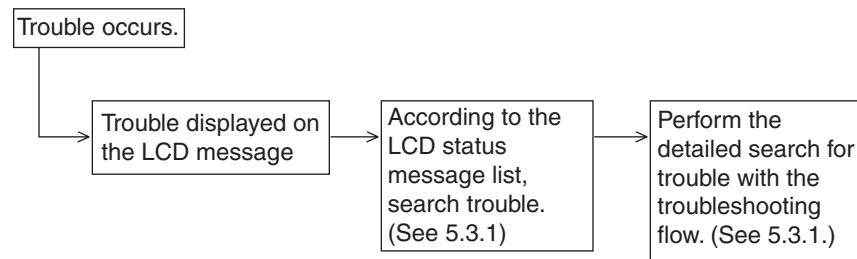
5.3.1 LCD Status Message List

The list of statuses and trouble displayed as the message format in LCD is outlined in Table 5-1.

Table 5-1 List of Statuses and Trouble of Second Tray unit

Category	LCD Status Message	LED		Trouble or Status	Handling
		Ready	Atten		
Jam Error (Paper Feeding)	OPEN UPPER COVER 392: PAPER JAM	OFF	Blinking	Notifies that a jam occurs during the paper feed from the Second Tray unit.	• Check paper in the Second Tray unit. Open and close the top cover to recover printing, and delete the error display. • If it occurs frequently, take action according to the troubleshooting flow.
Size Error	LOAD mmmm/pppp AND PRESS ONLINE SWITCH 462: TRAY2 MEDIA MISMATCH	OFF	Blinking	Notifies that the paper size during the paper feeding from the Second Tray unit is not correct.	• Check ht epaper in the Second Tray unit. In addition, check if the paper is not overlapped. Open and close the top cover to recover printing, and delete the error display.
	OPEN UPPER COVER nnn:PAPER JAM *nnn: 380/381/382/389	OFF	Blinking		
Media Error	LOAD mmmm/pppp AND PRESS ONLINE SWITCH 462: TRAY2 MEDIA MISMATCH	OFF	Blinking	The media type in the Second Tray unit is different from the edition media type.	• Load paper requested to the Second Tray unit.
Tray Paper Out	□ TRAY2 EMPTY	OFF	Blinking	Notifies that there is no paper in the Second Tray unit.	• Load paper in the Second Tray unit.
	LOAD mmmm 492: TRAY2 EMPTY	ON	OFF		

- (Jam Error)

Paper Feed Jam

- Does a jam occur around the entrance when turning on the power?

    - Yes   Is the paper on the entrance sensor lever?

        - Yes   Remove the paper.

    - No   Does the entrance sensor lever work normally?

        - No   Replace the entrance sensor lever.

    - Yes   Replace the main board or entrance sensor.

- NO   Does the paper inlet jam occur when paper is fed.

    - Yes   Is the paper on the entrance sensor lever?

        - Yes   Does the entrance sensor plate work normally?

            - No   Replace the entrance sensor lever.

        - Yes   Clean the entrance sensor, or replace the main board or entrance sensor.

    - No   Replace the hopping roller shaft Assy or paper cassette.

- No   Are the hopping roller and paper feed roller rotated?

    - Yes   Load the paper appropriately.

- No   Is the pulse motor rotated?

    - Yes   Replace the hopping roller shaft Assy or the one-way clutch gear of the paper-feed roller Assy.

- No   Is the connector appropriately connected?

    - No   Connect the connector appropriately.

- Yes   Check the coil resistance of the pulse motor. Is it normal (3.4Ω or 5Ω)?

    - No   Replace the stepping motor.

- Yes   Replace the GOG board.

6. Connection Diagram

6.1 Connection diagram

Connection to the printer

MAIN1

Entrance sensor — SNS12

MOTOR — M

Hopping sensor — SNS03
Paper end sensor —

CL2   CL1

Feed clutch   Regist clutch
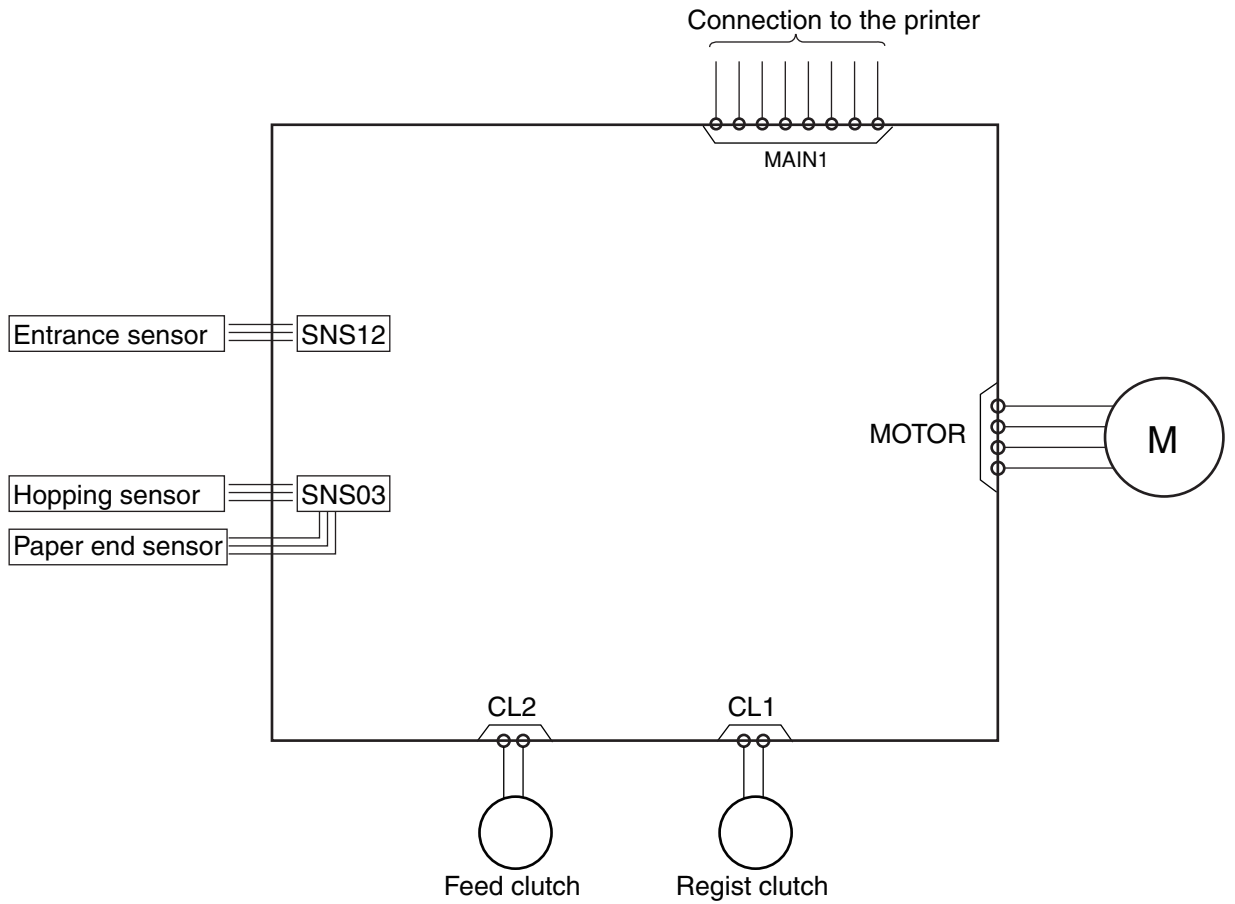
6.2 Board Arrangement

GOG board

SNS03   SNS12

7   1   3   1

CL1   2
       1

CL2   3
       1

8

MAIN1   MOTOR   4
       1   1

1   4
FLASH