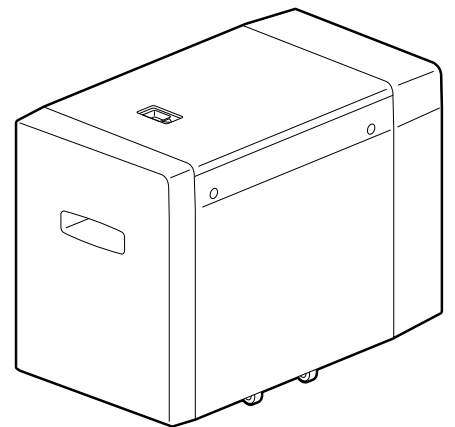


TOSHIBA

SERVICE MANUAL

LARGE CAPACITY FEEDER

MP-2503



Model: MP-2503
Publish Date: November 2022
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R220421Z1300-TTEC
Ver01 F 2023-02

Trademarks

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General Precautions for Installation, Servicing and Maintenance for this Option

The installation and service shall be done by a qualified service technician.

1. When installing this option to the MFP, be sure to follow the instructions described in the "Unpacking/Set-Up Procedure for the Equipment" booklet which comes with this option.
2. This option should be installed by an authorized or qualified service technician.
3. This option weighs approx. 28.5kg (62.83 lbs), therefore pay full attention when handling it.
4. Before starting installation, servicing or maintenance work, be sure to unplug the power cable of the MFP first.
5. The MFP with this option connected shall be installed near the socket outlet and shall be easily accessible.
6. Be sure to fix and plug in the power cable securely after the installation so that no one trips over it.
7. When selecting the installation site, avoid placing this option and the MFP on different levels or inclined floors.
8. When servicing or maintaining the MFP with this option connected, be careful about the rotating or operating sections such as gears, pulleys, sprockets, cams, belts, etc.
9. When the parts of this option are disassembled, reassembly is the reverse of disassembly unless otherwise noted in this manual or other related documents. Be careful not to install small parts such as screws, washers, pins, E-rings, star washers, harnesses in the wrong places.
10. Basically, the MFP with this option connected should not be operated with any parts removed or disassembled.
11. When servicing the MFP with this option connected while the power is turned ON, be sure not to touch live sections and rotating/operating sections.
12. Delicate parts for preventing safety hazard problems (such as fuses, thermofuses, door switches, sensors, etc. if any) should be handled, installed and adjusted correctly.
13. Tools and instruments
 - Use designated jigs and tools.
 - Use recommended measuring instruments or equivalents.
14. During servicing or maintenance work, be sure to check the nameplate and other cautionary labels (if any) to see if they are clean and firmly stuck. If not, take appropriate actions.
15. The ICs on the PC boards tend to be damaged by static electricity. Therefore, the PC boards must be stored in an antistatic bag and handled carefully using a wristband. Before using the antistatic wrist strap, unplug the power cable of the MFP and make sure that there are no charged objects which are not insulated in the vicinity.
16. Regarding the recovery and disposal of the MFP with this option connected, supplies, packing materials, follow the relevant local regulations or rules.
17. Return the MFP with this option connected to the original state and check the operation when the service is finished.

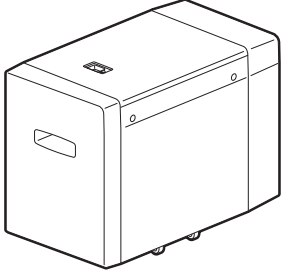
18. When the MFP is used after this option is removed, be sure to install the parts or the covers which have been taken off so that the inside of the MFP is not exposed.
19. Unplug the power cable and clean the area around the prongs of the plug and socket outlet once a year or more. A fire may occur when dust lies on this area.

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1. SPECIFICATIONS

Item	MP-2503
Appearance	
Replenishing method	Front loading method
Paper	Size: A4, LT Thickness: 64 g/m ² to 300 g/m ² (17 lbs. Bond to 150 lbs. Index)
Capacity	2,500 sheets (Stacking height: 290 mm or below) (80 g/m ²)
Dimensions	326 (W) x 610.5 (D) x 464.5 (H) mm (when a single unit is installed in an MFP)
Weight	Approx. 28.5 kg (62.83 lbs.)
Power supply	5 V, 24 V (supplied from an MFP)
Accessories	Unpacking/Setup Instructions (1 set) Attachment base (1 pc.) Latch bracket (F) (1 pc.) Latch bracket (R) (1 pc.) Harness cover (1 pc.) Harness (1 pc.) Screw: TBID M4x8 (10 pcs.) Screw with a washer: M4x6 (4 pcs.)
Appearance color	Jet black

2. OVERVIEW

2.1 Front Sectional View

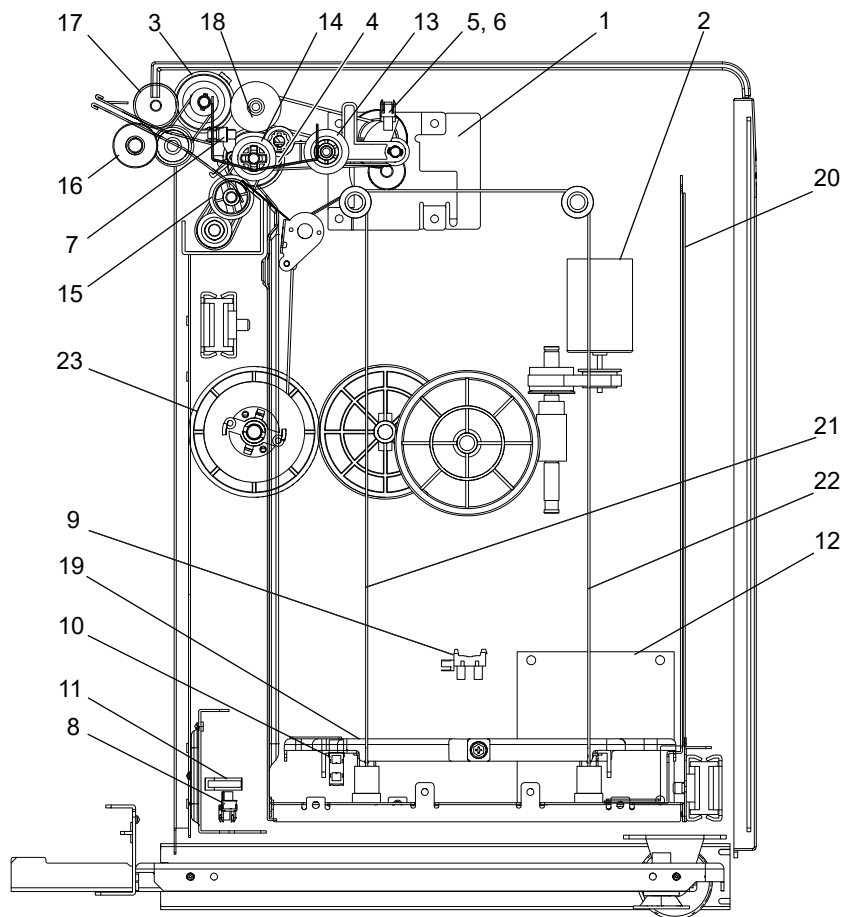


Fig. 2-1

Symbol	Name	Symbol	Name
1	Ex-LCF transport motor (M1)	12	Ex-LCF board (PWA)
2	Ex-LCF tray motor (M2)	13	Ex-LCF pickup roller
3	Ex-LCF transport clutch (CL1)	14	Ex-LCF paper feed roller
4	Ex-LCF paper feed clutch (CL2)	15	Ex-LCF separation roller
5	Ex-LCF paper empty sensor (S1)	16	Ex-LCF transport roller
6	Ex-LCF tray-up sensor (S2)	17	Ex-LCF transport idling roller
7	Ex-LCF paper feed sensor (S3)	18	Ex-LCF tray
8	Ex-LCF set sensor (S4)	19	Ex-LCF end guide
9	Ex-LCF tray sensor (S5)	20	Short wire
10	Ex-LCF tray bottom sensor (S6)	21	Long wire
11	Ex-LCF door switch (SW1)	22	Brake unit

2.2 Electric Parts Layout

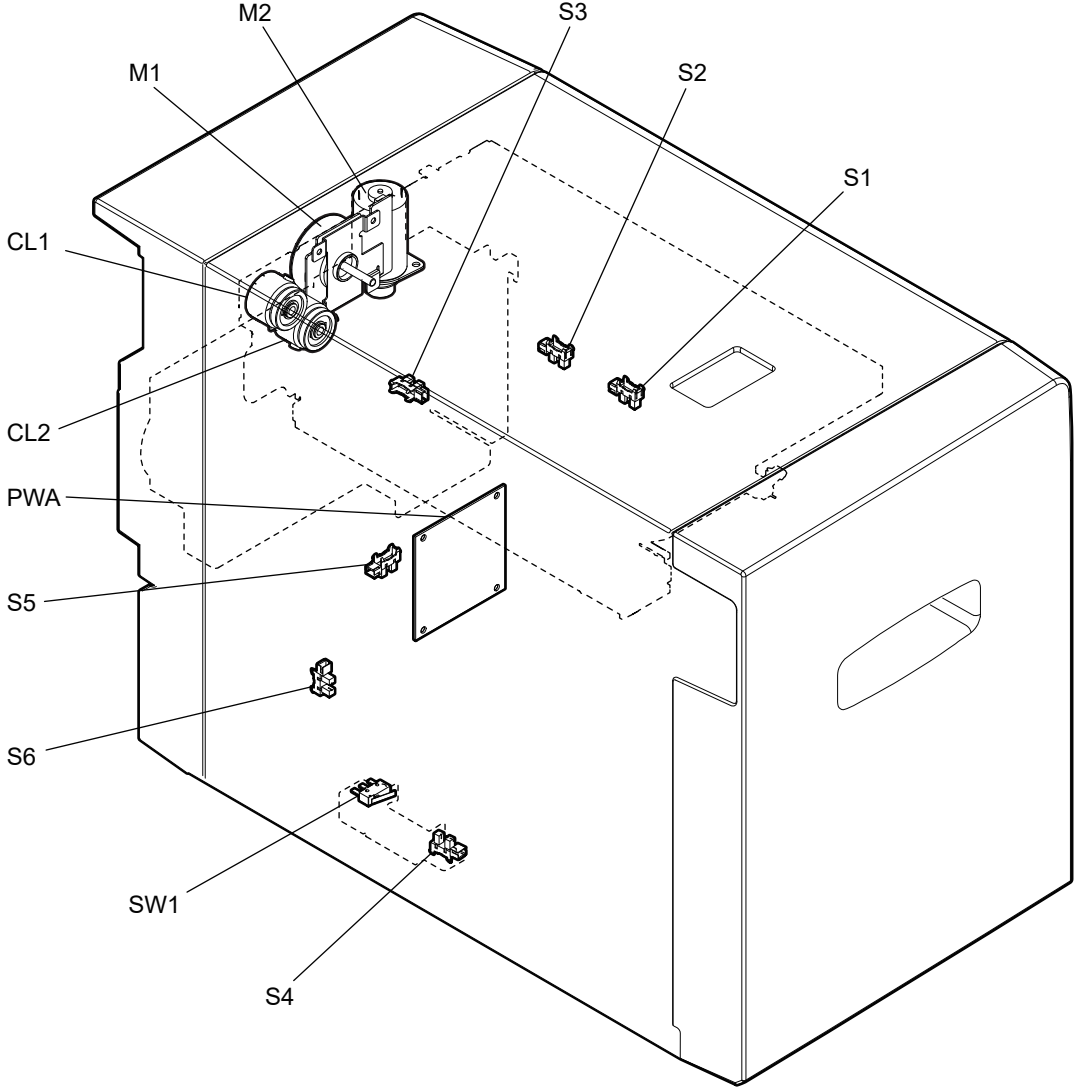


Fig. 2-2

2.3 Electric Parts

- Motor

Symbol	Name	Function	P-I
M1	Ex-LCF transport motor	Drives the paper feeding and transport system.	1-16
M2	Ex-LCF tray motor	Shifts the tray.	3-2

- Electromagnetic clutch

Symbol	Name	Function	P-I
CL1	Ex-LCF transport clutch	Drives the transporting system.	5-7
CL2	Ex-LCF paper feed clutch	Drives the paper feeding system.	4-4

- Switch and Sensor

Symbol	Name	Function	P-I
S1	Ex-LCF paper empty sensor	Detects the paper loading level.	4-36
S2	Ex-LCF tray-up sensor	Detects the upper limit position of the tray.	4-36
S3	Ex-LCF paper feed sensor	Detects paper transportation.	5-17
S4	Ex-LCF set sensor	Detects installing in the MFP.	2-3
S5	Ex-LCF tray sensor	Detects the installation of the tray unit.	2-3
S6	Ex-LCF tray bottom sensor	Detects the lower limit position of the tray.	2-3
SW1	Ex-LCF door switch	Safety switch	2-4

- PC board

Symbol	Name	Function	P-I
PWA	Ex-LCF board	Drives the paper feeding system and controls the tray driving.	1-26

3. GENERAL OPERATION

3.1 Operation Description

3.1.1 From power-ON to the ready status

1. When the MFP is turned ON, the power is also supplied from the MFP to the Ex-LCF. The Ex-LCF tray motor (M2) starts to rotate forward to lift the tray.
When the tray has been lifted and the Ex-LCF tray-up sensor (S2) has been turned ON (H: Sensor light path blocked by the actuator sensor), the Ex-LCF tray motor (M2) stopped rotating and lifting the tray. When the Ex-LCF paper empty sensor (S1) is turned ON (L: Passing the sensor light path), it is judged that there is paper in this option. On the other hand, when the Ex-LCF paper empty sensor (S1) is turned OFF, it is judged that there is no paper in this option.
2. When the Ex-LCF is not installed in the MFP (Ex-LCF set sensor (S4): OFF) or when the tray unit is being pulled out (Ex-LCF tray sensor (S5): OFF), the tray lifting operation is not carried out. In this case, when the Ex-LCF is installed in the MFP and the tray unit is inserted, the tray starts to be lifted up and the series operation until the detection of the paper loading level is carried out.
3. At the time of power is turned ON, when the Ex-LCF paper feed sensor (S3) is turned ON (L: Passing the sensor light path), that is, when the paper is remaining at the transport path, this option detects it as a paper misfeed and cannot operate.

3.1.2 Ready status

1. When the presence of paper has been detected by means of the above operation, this option gets into a ready state.
2. When the tray unit is pulled out, it is automatically lowered because of its structure. When it is inserted once again, it is lifted.

3.1.3 Paper feeding and transporting operation from the start to the finish of printing

1. When it is judged that paper feeding from the Ex-LCF is possible and the [START] button is pressed, the paper feed motor in the MFP is turned ON and the Ex-LCF transport motor (M1) is driven.
2. The Ex-LCF paper feed clutch (CL2) is turned ON and the Ex-LCF pickup roller and Ex-LCF paper feed roller start to drive to feed the paper from the tray.
3. After the feeding starts, the Ex-LCF transport clutch (CL1) is turned ON and the Ex-LCF transport roller starts to drive to transport the paper.
4. When the leading edge of the paper has turned ON the Ex-LCF paper feed sensor (S3), the Ex-LCF paper feed clutch (CL2) is turned OFF and the paper feeding operation is stopped. The paper transported by the Ex-LCF transport roller is sent to the MFP side and is transported by the paper feed unit.
5. When the trailing edge of the paper has turned OFF the Ex-LCF paper feed sensor (S3), the Ex-LCF transport clutch (CL1) is turned OFF after a specified time has passed and the next sheet can be fed.
6. When continuous printing is performed, the above steps from 2 to 5 are repeated for as many sheets of paper as printed.
7. When printing has been finished, the paper feed motor of the MFP stops rotating and the Ex-LCF transport motor (M1) is turned OFF to finish the feeding and transporting operation.

3.1.4 Tray operation during printing

When 10 to 20 sheets of paper have been fed from the tray, the Ex-LCF pickup roller is lowered to a specified height. The Ex-LCF tray-up sensor (S2) detects this and the Ex-LCF tray motor (M2) rotates forward to lift the tray.

3.2 Error Detection

3.2.1 Paper misfeeding detection

Paper misfeeding will occur in the following cases.

- The Ex-LCF paper feed sensor (S3) is not turned ON within a specified period of time after the paper feeding is started.
- Each transport sensor of the MFP does not operate (ON/OFF) within a specified period of time after the feeding has started at the MFP side.

3.2.2 Call for service

The Ex-LCF tray-up sensor (S2) is not turned ON within a specified period of time after the tray has started to be lifted.

4. DISASSEMBLY AND REPLACEMENT

4.1 Cover

4.1.1 Front cover

- (1) Pull out the tray unit.
- (2) Remove 4 screws and take off the front cover [1].

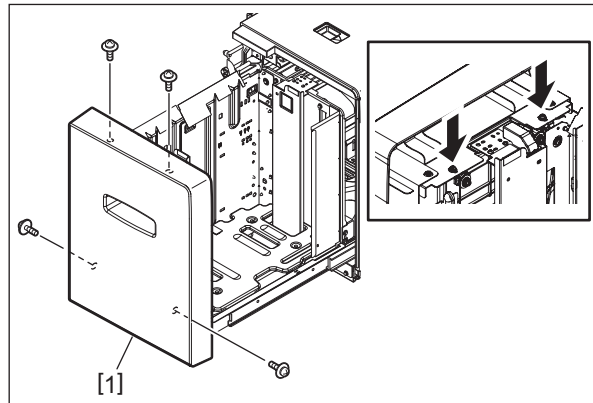


Fig. 4-1

Notes:

- When installing, be sure to hook the arm [2] on the holder [3].
- When installing, adjust the gap between the front cover [1] and upper cover, and the front cover [1] and right cover to 3 mm respectively.

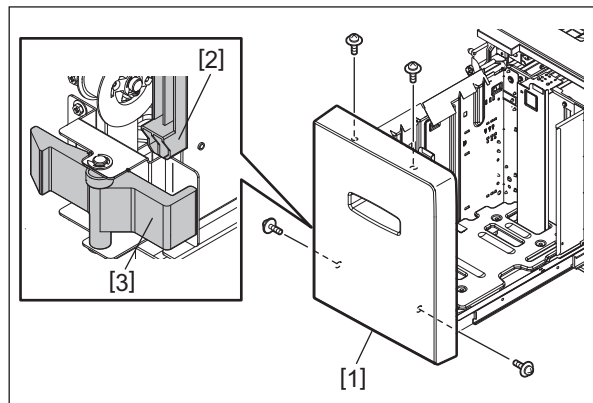


Fig. 4-2

4.1.2 Rear cover

- (1) Remove the spacer [1] toward you and slide the harness [2] to the right-hand side.
- (2) Remove 4 screws and take off the rear cover [3].

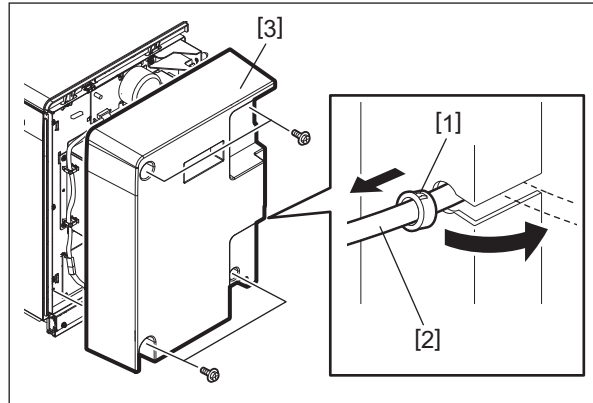


Fig. 4-3

4.1.3 Top cover

- (1) Take off the rear cover.
P. 4-2 "4.1.2 Rear cover"
- (2) Pull out the tray unit.
- (3) Loosen 5 screws and take off the top cover [1].

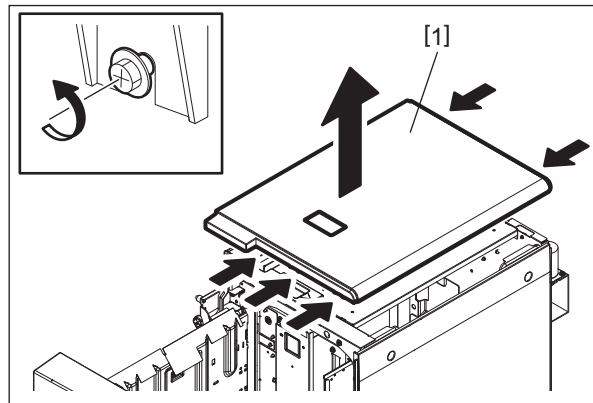


Fig. 4-4

4.1.4 Right cover

- (1) Pull out the tray unit.
- (2) Remove 2 screws and take off the right cover [1] by sliding it to the front side.

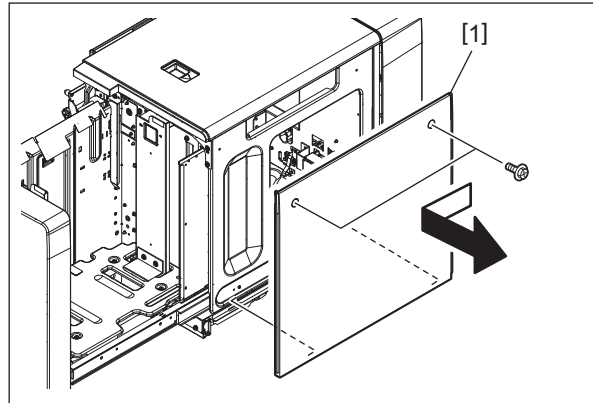


Fig. 4-5

Notes:

When installing, align 2 latches of the right cover [1] to the holes of the frame.

4.2 Paper Feed Unit

- (1) Take off the top cover.
📖 P. 4-2 “4.1.3 Top cover”
- (2) Remove the lever [1].

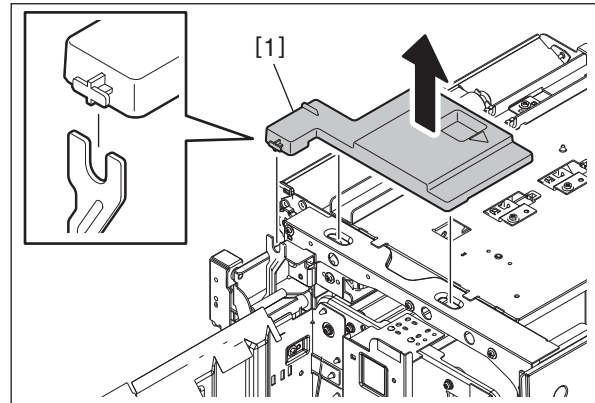


Fig. 4-6

Notes:

Be careful not to install the lever [1] in the wrong position.

- (3) Disconnect 1 connector [2] from the Ex-LCF board.
- (4) Release the harness from 2 harness clamps [3].

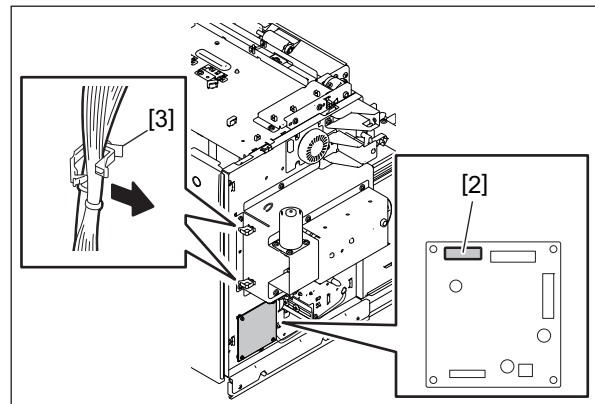


Fig. 4-7

- (5) Remove the Ex-LCF transport motor.
📖 P. 4-6 “4.3.3 Ex-LCF transport motor (M1)”
- (6) Remove 5 screws and take off the paper feed unit [4] by lifting it up.

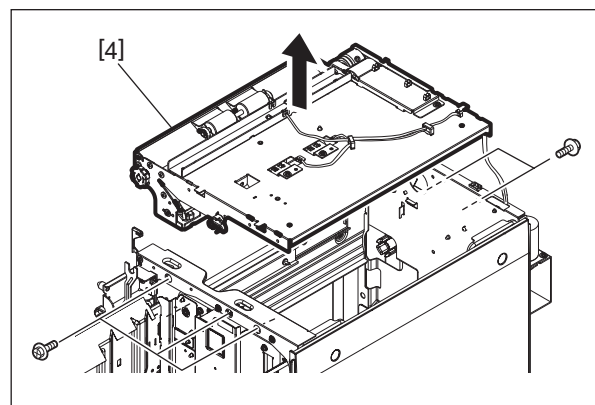


Fig. 4-8

4.3 Electric Parts

4.3.1 Ex-LCF board

- (1) Take off the rear cover.
📖 P. 4-2 “4.1.2 Rear cover”
- (2) Disconnect all connectors from the Ex-LCF board [1].
- (3) Remove 1 screw. Release 3 locking supports and take off the Ex-LCF board [1].

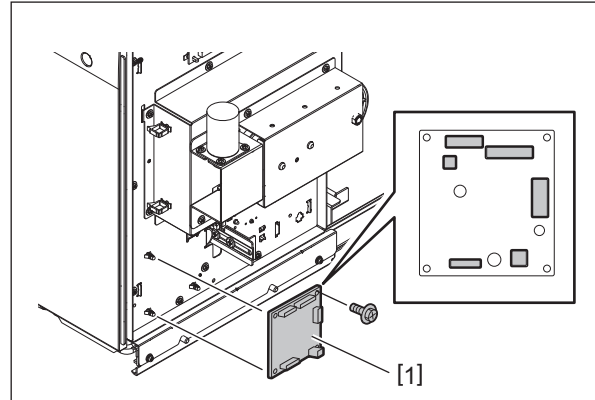


Fig. 4-9

4.3.2 Ex-LCF tray motor (M2)

- (1) Take off the rear cover.
📖 P. 4-2 “4.1.2 Rear cover”
- (2) Disconnect 1 connector [2] from the Ex-LCF tray motor [1].
- (3) Remove 3 screws from the Ex-LCF tray motor [1].
- (4) Remove the belt [3] and take off the Ex-LCF tray motor [1].

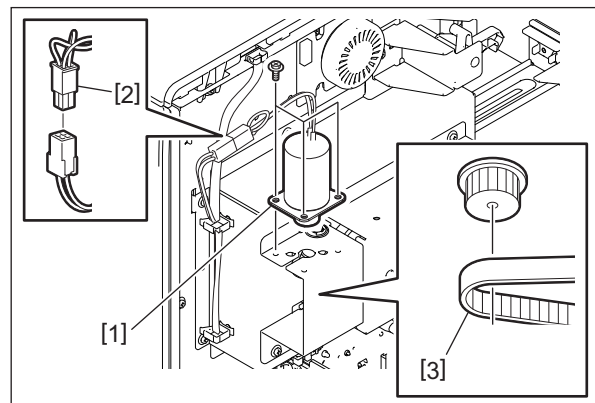



Fig. 4-10

Notes:

Be careful not to let grease adhere to the belt [3] after you have removed the Ex-LCF tray motor [1].

4.3.3 Ex-LCF transport motor (M1)

- (1) Take off the rear cover.
 P. 4-2 "4.1.2 Rear cover"
- (2) Disconnect 1 connector [2] from the PC board of the Ex-LCF transport motor [1].
- (3) Remove 2 screws and take off the Ex-LCF transport motor [1].

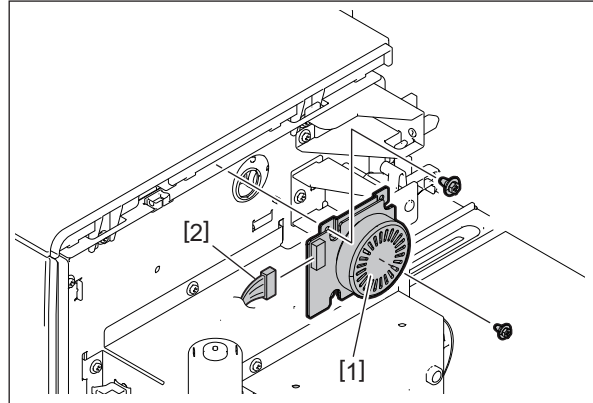



Fig. 4-11

4.3.4 Ex-LCF tray sensor (S5)

- (1) Take off the rear cover.
 P. 4-2 "4.1.2 Rear cover"
- (2) Disconnect 1 connector from the Ex-LCF tray sensor [1].
- (3) Release the latch and take off the Ex-LCF tray sensor [1].

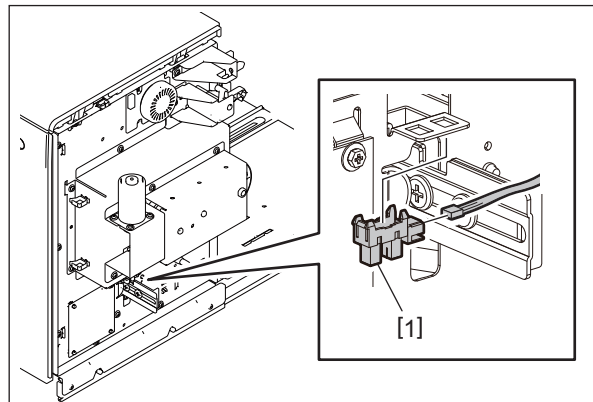


Fig. 4-12

4.3.5 Ex-LCF tray-up sensor (S2), Ex-LCF paper empty sensor (S1)

- (1) Take off the top cover.
P. 4-2 "4.1.3 Top cover"
- (2) Release the harness from the harness clamp.
- (3) Remove 1 screw from each bracket [1] of the Ex-LCF tray-up sensor and the Ex-LCF paper empty sensor. While lifting up the bracket [1], disconnect the connector of the Ex-LCF tray-up sensor [2] and the Ex-LCF paper empty sensor [3] from each bracket respectively.

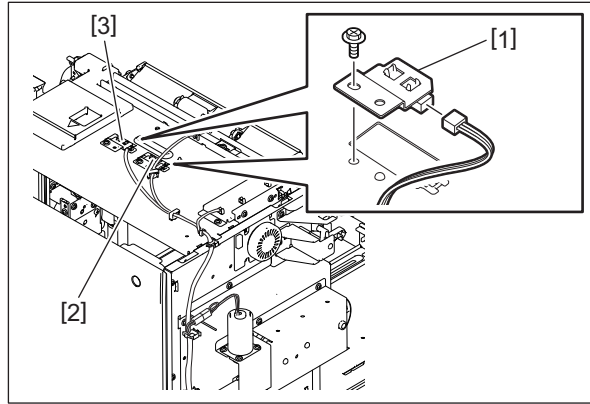


Fig. 4-13

- (4) Release the latch and take off the sensor from the bracket [1].

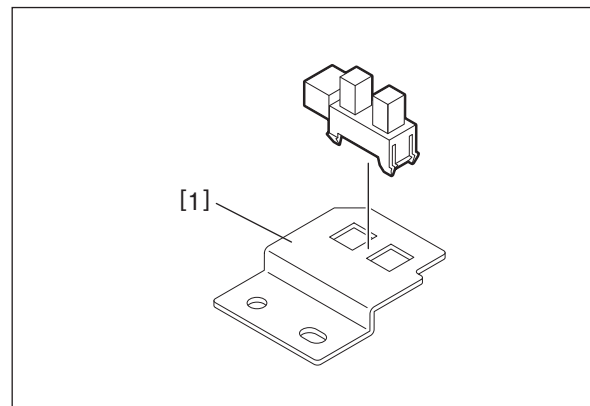


Fig. 4-14

4.3.6 Ex-LCF paper feed sensor (S3)

- (1) Take off the top cover.
P. 4-2 "4.1.3 Top cover"
- (2) Release the harness from 3 harness clamps [1].
- (3) Remove 1 screw. Take off the bracket [2] and disconnect 1 connector [3].

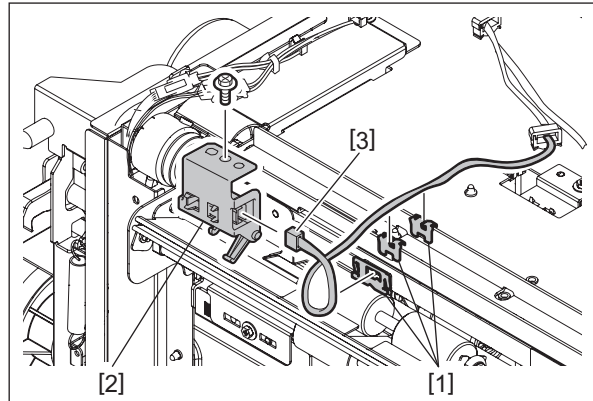


Fig. 4-15

- (4) Release the latch and take off the Ex-LCF paper feed sensor [4] from the bracket.

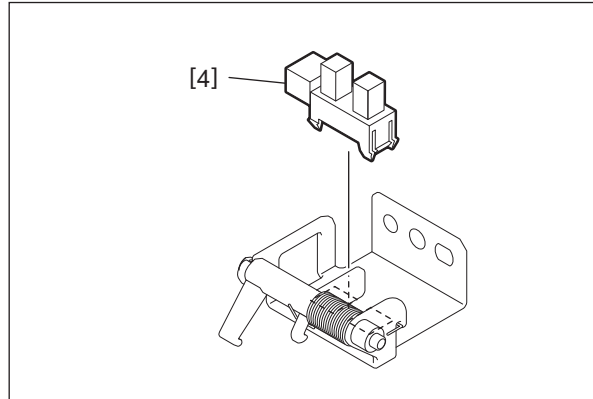


Fig. 4-16

4.3.7 Ex-LCF set sensor (S4), Ex-LCF door switch (SW1)

- (1) Take off the right cover.
P. 4-3 "4.1.4 Right cover"
- (2) Remove 1 screw and lift up the cover [1].
- (3) Release the harness from the harness clamp [2] and take off the cover [1].

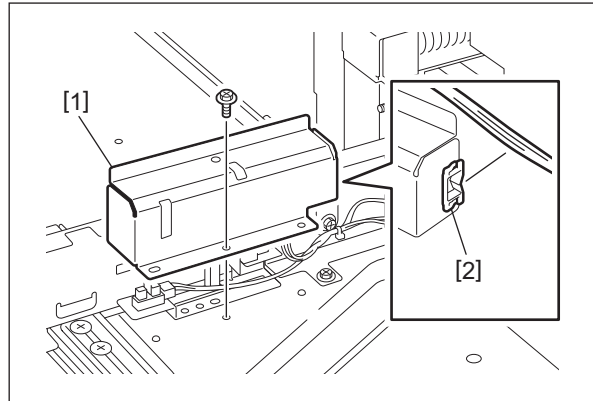


Fig. 4-17

- (4) Remove 1 screw and lift up the bracket [3].
- (5) Disconnect the connector [8] from the Ex-LCF set sensor [4]. Disconnect the connectors [6], [7] from the Ex-LCF door switch [5].

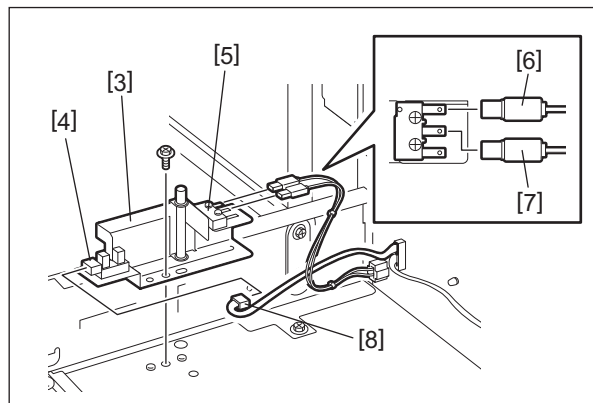


Fig. 4-18

- [6] Red
- [7] Orange

Notes:

Be careful not to connect the connectors [6], [7] of the Ex-LCF door switch [5] to the wrong terminals.

- (6) Release the latch and take off the Ex-LCF set sensor [4] from the bracket [3].
- (7) Remove 2 screws and take off the Ex-LCF door switch [5] from the bracket [3].

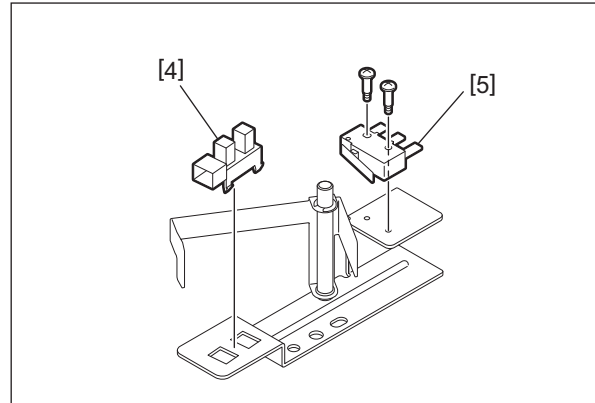


Fig. 4-19

4.3.8 Ex-LCF tray bottom sensor (S6)

- (1) Take off the rear cover.
 📖 P. 4-2 "4.1.2 Rear cover"
- (2) Take off the right cover.
 📖 P. 4-3 "4.1.4 Right cover"
- (3) Release the harness [1] from 1 harness clamp and disconnect the connector from the Ex-LCF tray bottom sensor [2].
- (4) Release the latch and take off the Ex-LCF tray bottom sensor [2] from the frame.

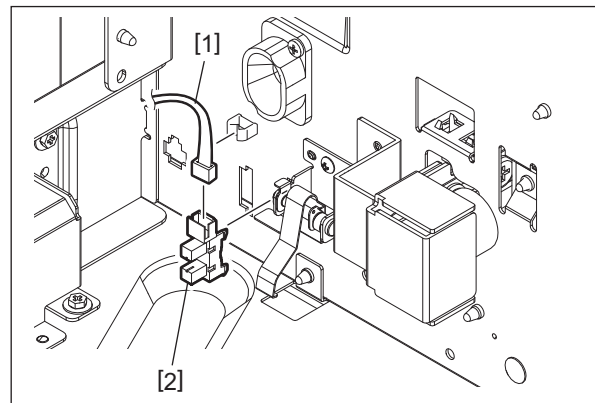


Fig. 4-20

4.3.9 Ex-LCF transport clutch (CL1), Ex-LCF paper feed clutch (CL2)

- (1) Remove the paper feed unit.
P. 4-4 "4.2 Paper Feed Unit"
- (2) Remove 2 screws and 2 stoppers [1].

Notes:

When installing 2 stoppers [1], secure them with the screws while the hooks of the Ex-LCF transport clutch and the Ex-LCF paper feed clutch are caught.

- (3) Release the harness from 3 harness clamps [2].

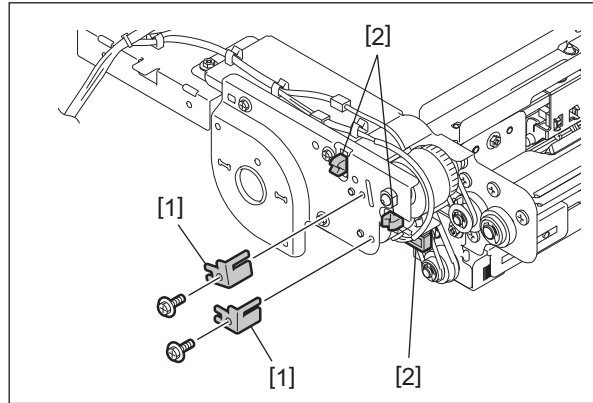


Fig. 4-21

- (4) Remove 4 screws. Take off the bracket [3] and remove the bushing [4].

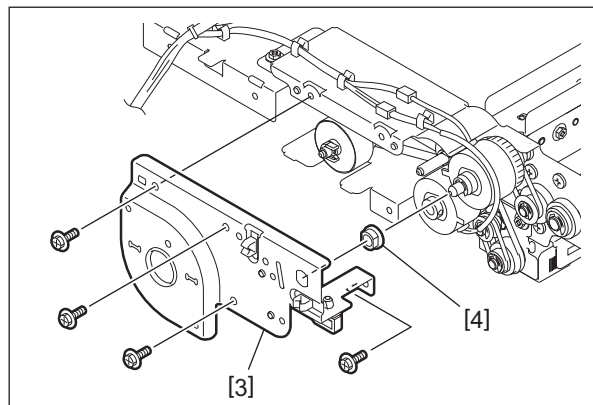


Fig. 4-22

- (5) Disconnect 1 connector. Loosen the setscrew [6] with a hex wrench and take off the Ex-LCF paper feed clutch [5].

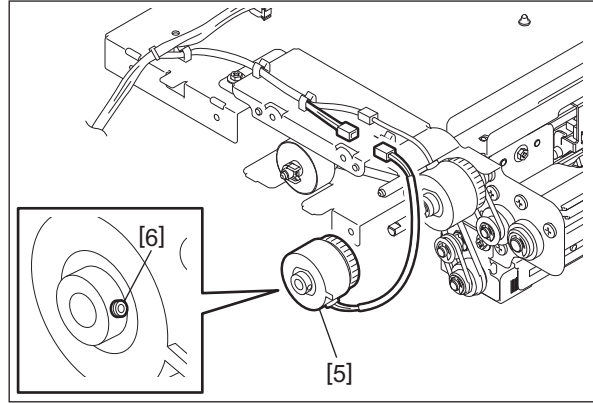


Fig. 4-23

- (6) Disconnect 1 connector and take off the Ex-LCF paper feed clutch [7] and the belt [8].

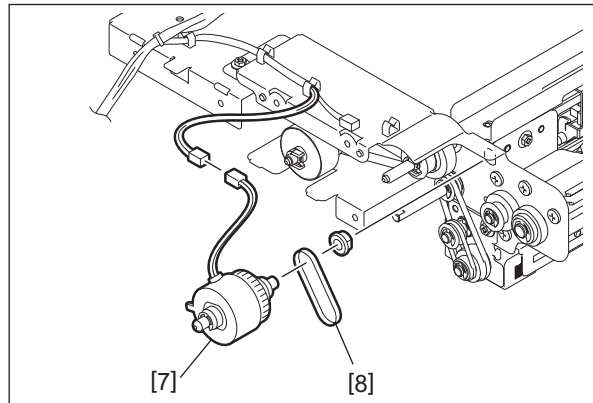


Fig. 4-24

4.4 Roller

4.4.1 Ex-LCF separation roller

- (1) Separate the Ex-LCF from the MFP.
- (2) Remove 1 clip [1] and take off the Ex-LCF separation roller [3] while the shaft [2] being pushed down.

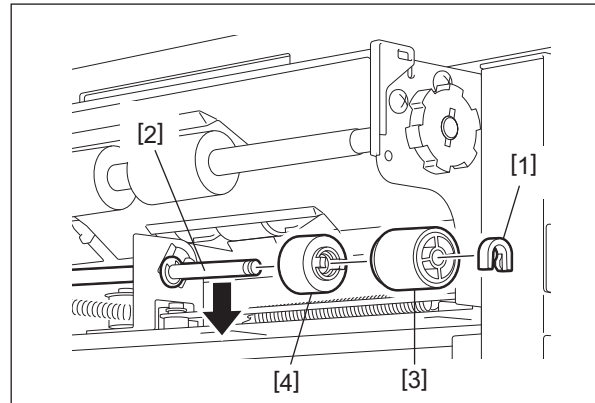


Fig. 4-25

Notes:

Be careful not to have the torque limiter [4] come off, as it becomes removable after the Ex-LCF separation roller [3] has been removed.

4.4.2 Ex-LCF pickup roller

- (1) Take off the right cover.
P. 4-3 "4.1.4 Right cover"
- (2) Close the tray unit.
- (3) Remove 2 clips [1] and take off the Ex-LCF pickup roller [2].

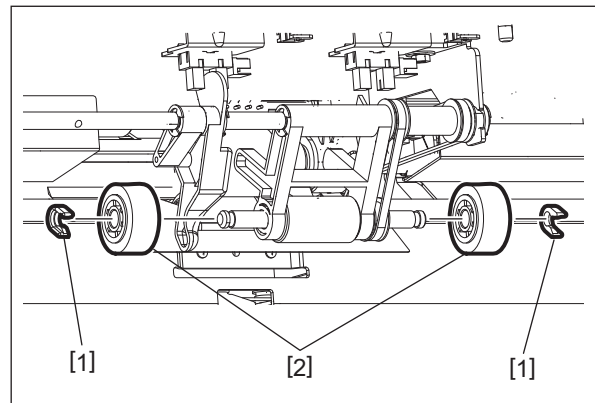


Fig. 4-26

Notes:

Be careful not to install the Ex-LCF pickup roller [2] to the wrong direction.

4.4.3 Ex-LCF paper feed roller

- (1) Remove the paper feed unit.
P. 4-4 "4.2 Paper Feed Unit"
- (2) Take off the Ex-LCF paper feed roller [2] while the Ex-LCF separation roller [1] being pushed upward.

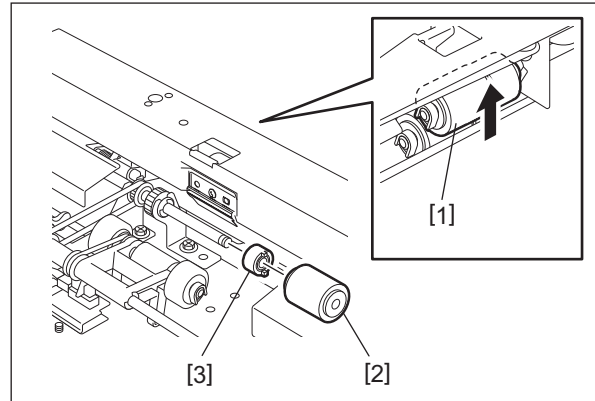


Fig. 4-27

Notes:

- Be careful not to install the Ex-LCF paper feed roller to the wrong direction.
- Be careful not to have the clutch [3] come off, as it becomes removable after the Ex-LCF paper feed roller has been removed.

4.4.4 Ex-LCF transport idling roller

- (1) Take off the top cover.
P. 4-2 "4.1.3 Top cover"
- (2) Remove 2 springs [1] and take off the Ex-LCF transport idling roller [2].
- (3) Remove 2 E-rings [3] and 2 bushings [4] from the Ex-LCF transport idling roller [2].

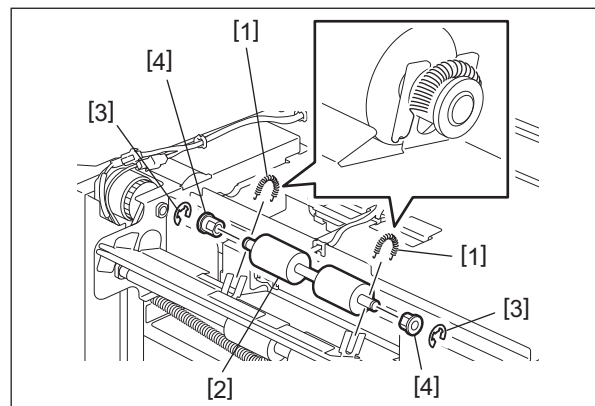


Fig. 4-28

4.4.5 Ex-LCF transport roller

- (1) Remove the Ex-LCF transport idling roller.
☞ P. 4-14 "4.4.4 Ex-LCF transport idling roller"
- (2) Remove 1 E-ring [1] and 1 gear [2].
- (3) Move the Ex-LCF transport roller [3] to the front side and remove the pin [4] and handle [5].

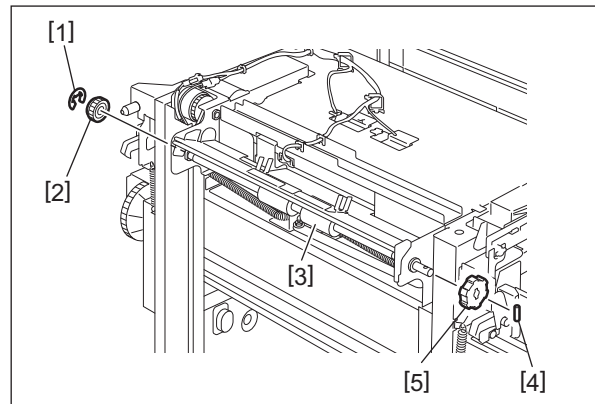


Fig. 4-29

- (4) Remove 2 bushings [6] and take off the Ex-LCF transport roller [3].

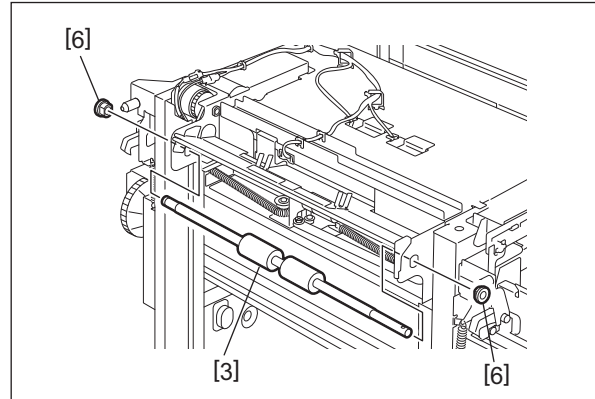


Fig. 4-30

4.5 Tray-up Driving Section

4.5.1 Pulley

- (1) Take off the Ex-LCF tray motor.
P. 4-5 “4.3.2 Ex-LCF tray motor (M2)”
- (2) Remove 3 screws and take off the bracket [1].

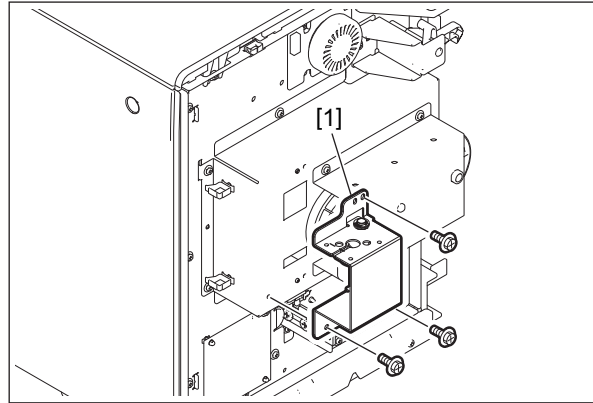


Fig. 4-31

- (3) Remove 1 E-ring [2] and 1 bearing [3].
- (4) Loosen 2 setscrews [4]. Remove 1 stopper [5] and the bearing [6].
- (5) Remove the relay gear shaft [7] and belt [8].

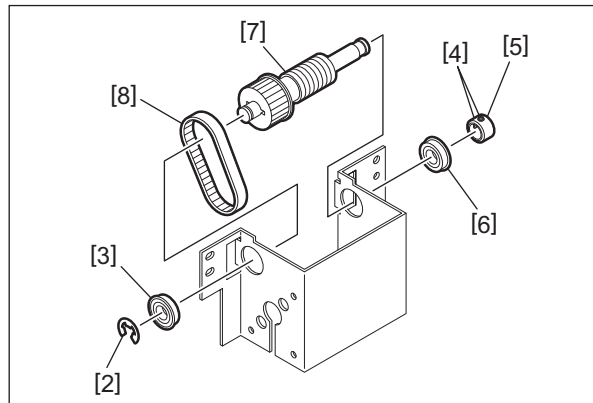


Fig. 4-32

- (6) Remove 1 setscrew [9]. Remove the gear [10] from the shaft.
- (7) Remove the E-ring [11] and move the pulley [12] to the left-hand side.
- (8) Remove the pin [13] and pulley [12] from the shaft.

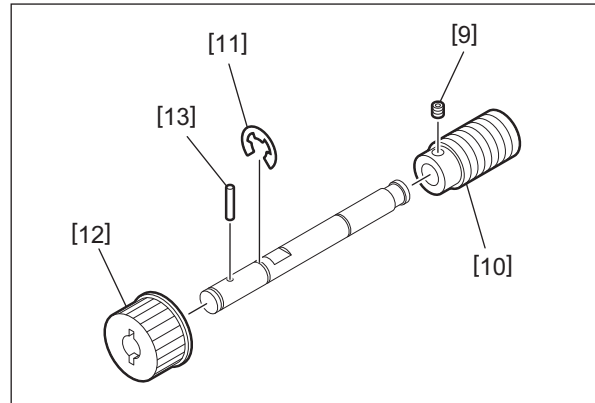


Fig. 4-33

4.5.2 Gear, Coupling

- (1) Take off the Ex-LCF tray motor.
 P. 4-5 "4.3.2 Ex-LCF tray motor (M2)"
- (2) Take off the bracket of the pulley.
 P. 4-16 "4.5.1 Pulley"
- (3) Remove 3 screws. Take off the cover [1] and 1 bushing [2].

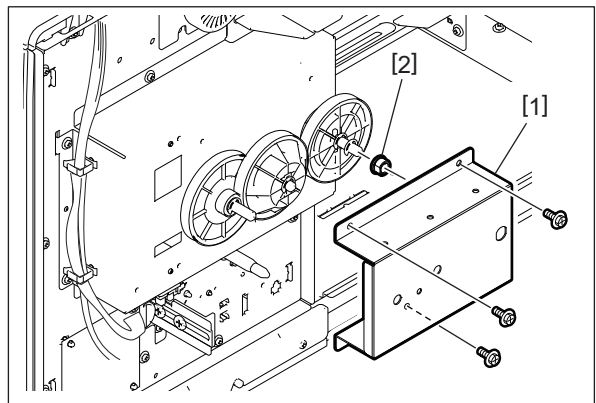


Fig. 4-34

- (4) Remove 2 E-rings [3] and 2 gears [4].

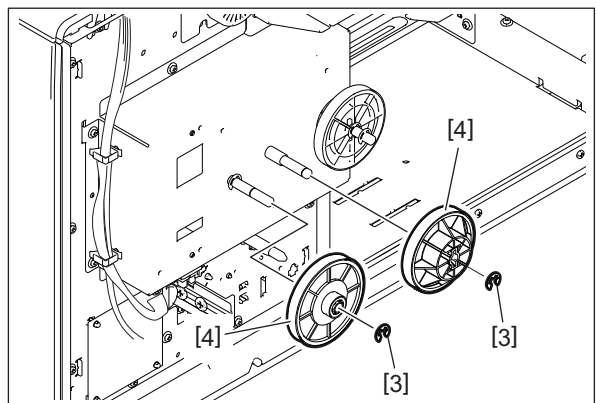


Fig. 4-35

- (5) Remove 2 E-rings [5], 1 gear [6] and 1 pin [7].

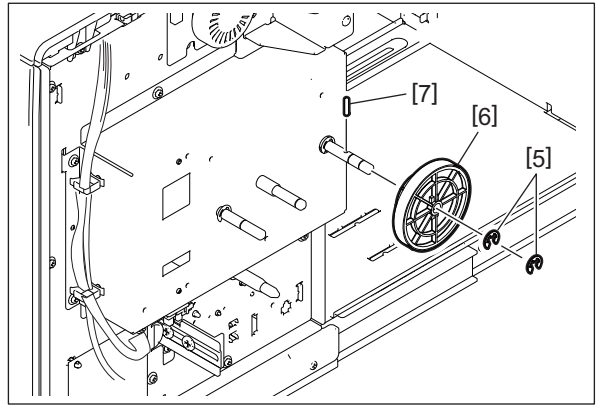


Fig. 4-36

- (6) Remove 1 E-ring [8], 1 bushing [9], 1 spring [10] and the shaft [11].
(7) Remove 1 coupling [12] and 1 pin [13] from the shaft [11].

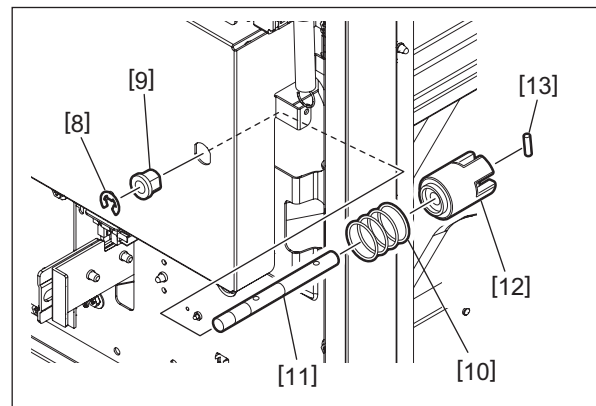


Fig. 4-37

4.6 Transport Motor Driving Section

4.6.1 Gear, Pulley

- (1) Remove the Ex-LCF transport clutch and the Ex-LCF paper feed clutch.
P. 4-11 “4.3.9 Ex-LCF transport clutch (CL1), Ex-LCF paper feed clutch (CL2)”
- (2) Remove 2 clips [1], 2 gears [2] and 1 belt [3].

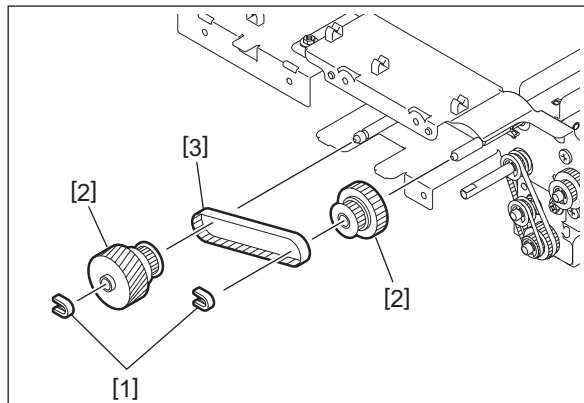


Fig. 4-38

- (3) Remove 1 E-ring [4] and 1 gear [5].

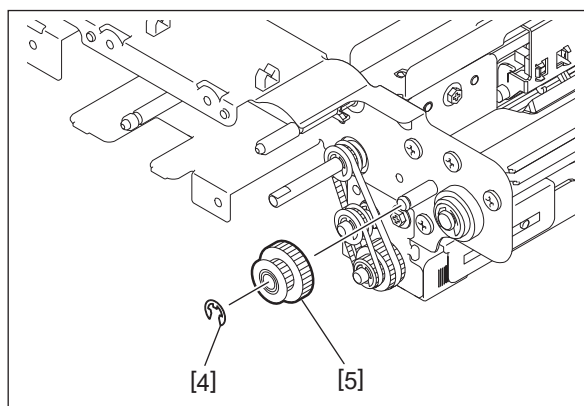


Fig. 4-39

- (4) Remove 3 E-rings [6], 3 gears [7], 2 belts [8] and 2 pins [9].

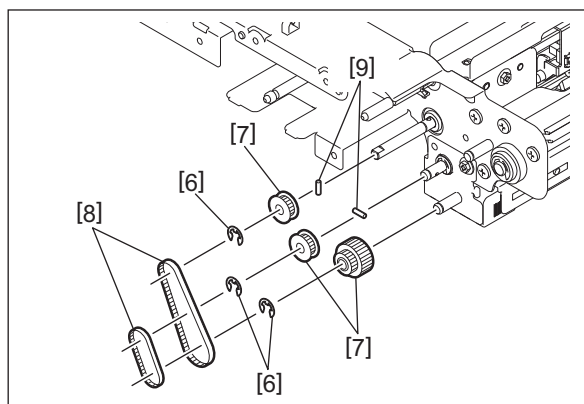


Fig. 4-40

4.7 Tray Unit Section

4.7.1 Tray unit

- (1) Pull out the tray unit.
- (2) Remove 2 screws and the stopper [1].

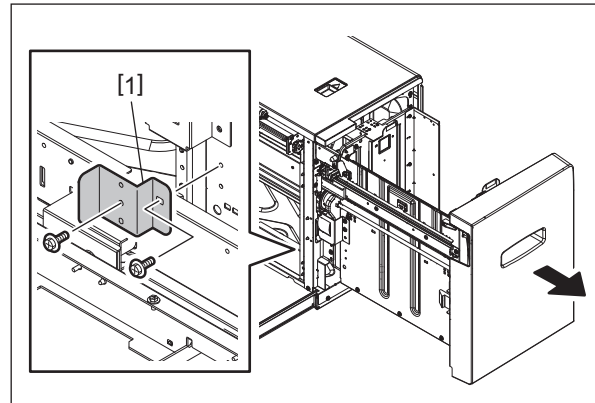


Fig. 4-41

- (3) Take off the right cover.
P. 4-3 “4.1.4 Right cover”
- (4) Remove 1 screw and the stopper [2].

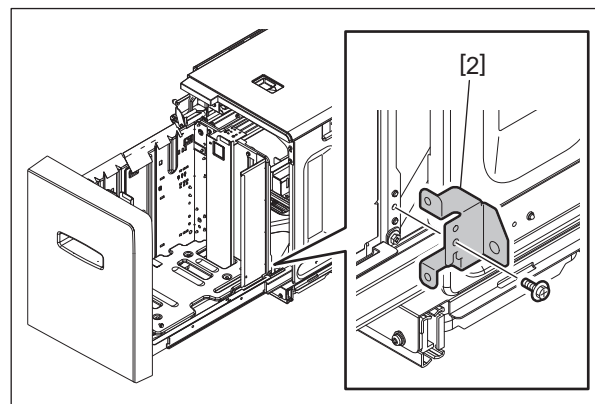


Fig. 4-42

- (5) Pull out the tray unit completely.
- (6) Remove 2 screws each from the left and right rails. Take off the tray unit by lifting it up.

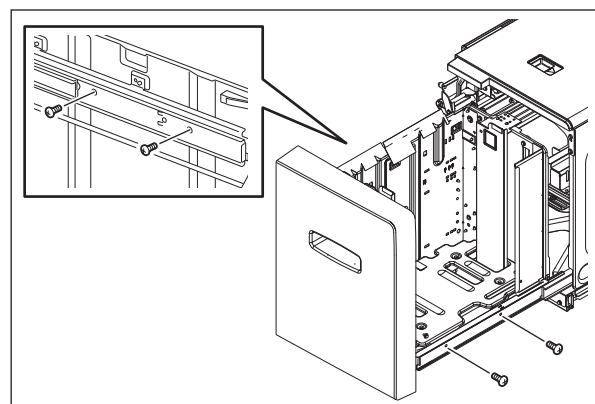


Fig. 4-43

4.7.2 Tray wire

- (1) Take off the tray unit.
📖 P. 4-20 “4.7.1 Tray unit”
- (2) Take off the front cover.
📖 P. 4-1 “4.1.1 Front cover”
- (3) Remove 1 screw and take off the pickup lever guide [1].
- (4) Remove 2 screws and take off the front side guide [2].

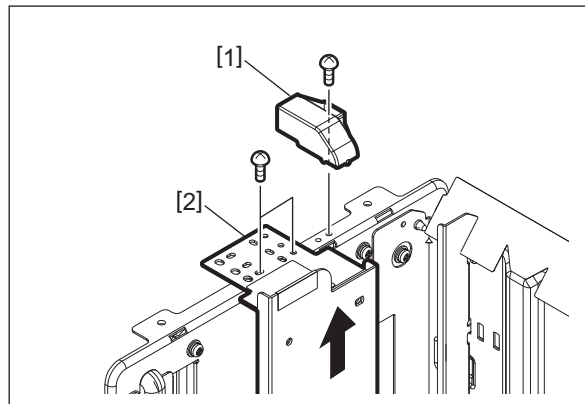


Fig. 4-44

Notes:

When installing, adapt the groove and screw hole to the paper size.

📖 P. 4-27 “4.8.2 Front side guide”

- (5) Remove 2 screws and take off the rear side guide [3].

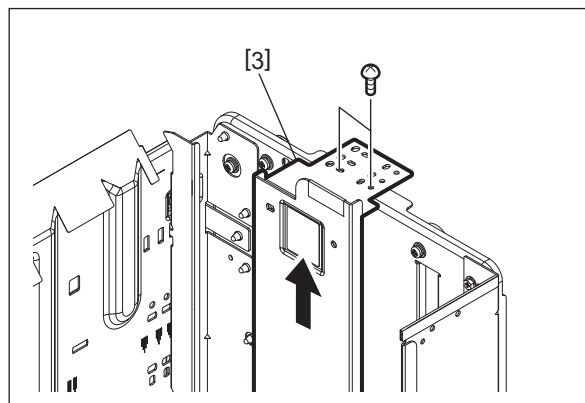


Fig. 4-45

Notes:

When installing, adapt the groove and screw hole to the paper size.

📖 P. 4-26 “4.8.1 Rear side guide”

- (6) Remove 1 screw. Remove the stopper plate [4], spring [5] and clip [6] from the front wire tensioner. (Same for the rear side)

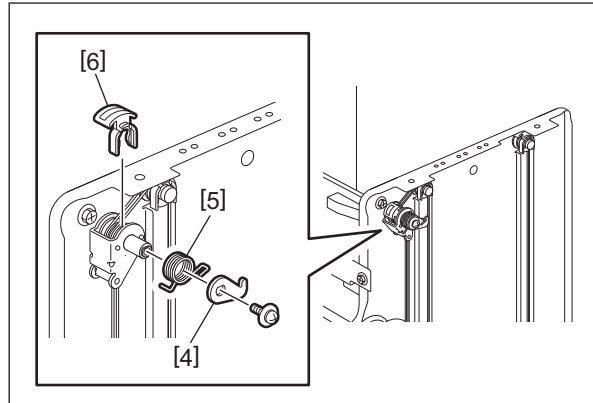


Fig. 4-46

Notes:

When installing the stopper plate [4], screw it shut after aligning the hole of the stopper plate with the shaft.

- (7) Remove 2 clips [7], the wire tensioner [8] and 2 pulleys [9]. (Same for the rear side)

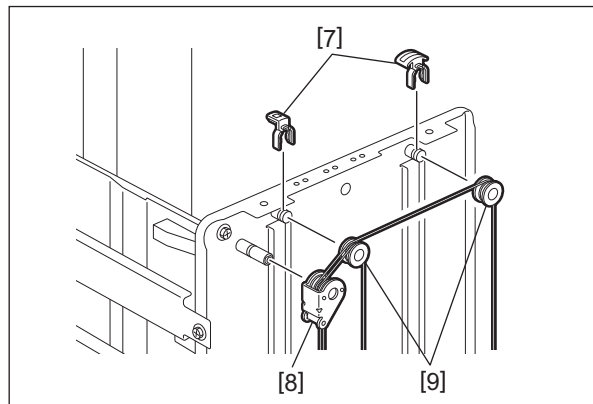


Fig. 4-47

Notes:

When installing the wire tensioner [8] and pulley [9], be sure that the wires are attached in them as shown in the figure.

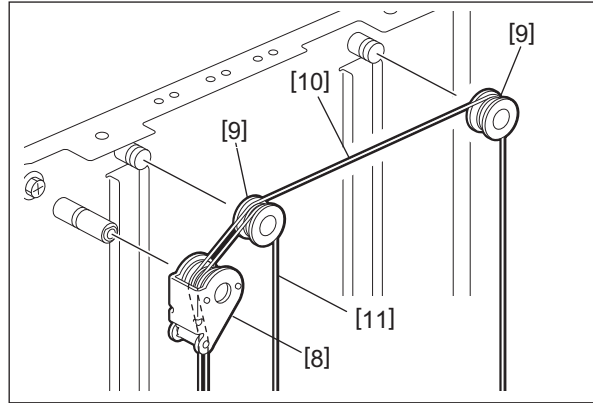


Fig. 4-48

[10] Long wire
[11] Short wire

- (8) Take off the tray [12].
- (9) Release the latch and remove 4 wire stoppers [13].

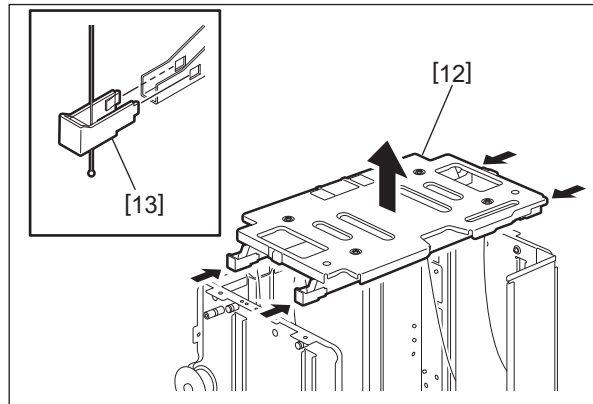


Fig. 4-49

- (10) Release the latch. Remove the wire clamps [14] from the wire tensioners on the front [A] and rear [B] sides.

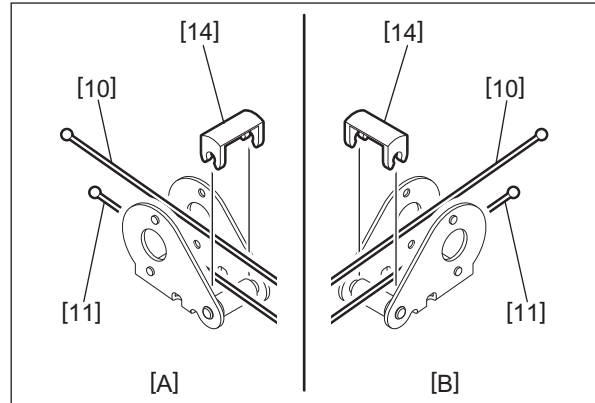


Fig. 4-50

[10] Long wire
[11] Short wire

Notes:

Pay attention to the wire position when installing the wire clamps [14].

- (11) Remove the E-ring [15]. Remove the wire pulley [16] and pin [17] on the front side.

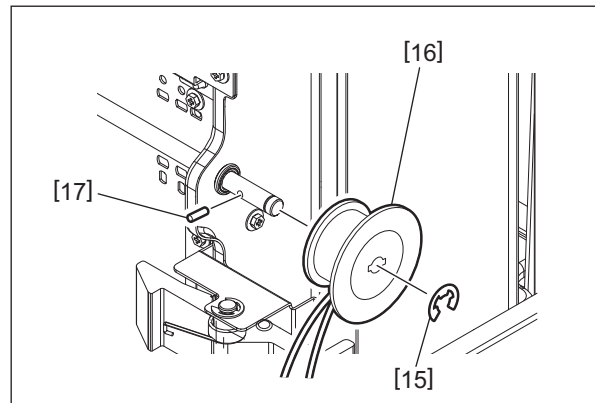


Fig. 4-51

- (12) Remove 6 screws and take off the brake unit [18].

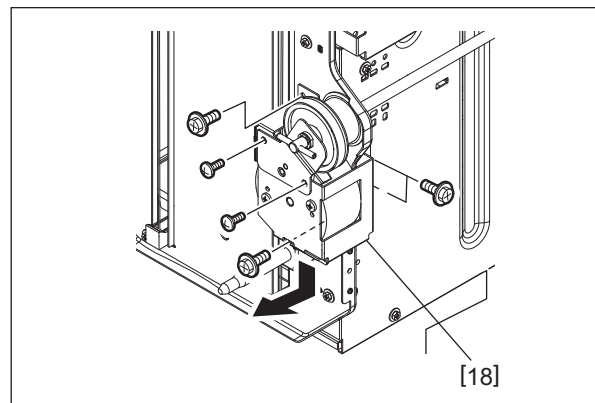


Fig. 4-52

(13) Remove the bushing [19]. Pull out the pulley on the rear side with the shaft [20].

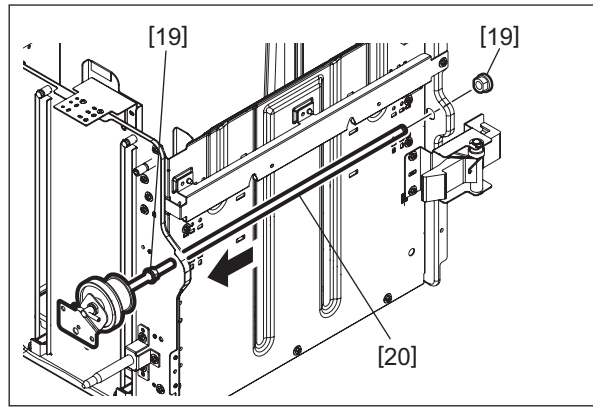


Fig. 4-53

(14) Remove the wire pulley [21] and pin [22] from the shaft [20].

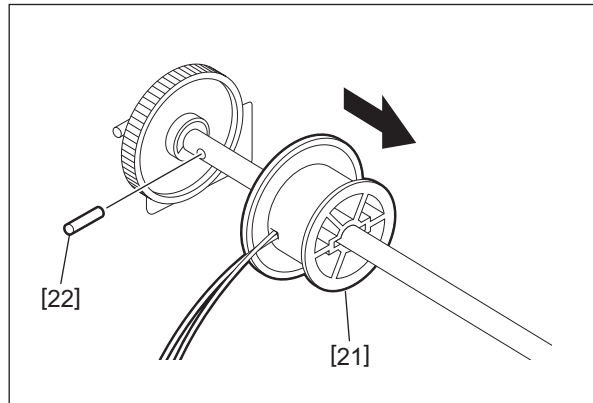


Fig. 4-54

(15) Remove 2 screws. Release 2 latches and remove the pulley flange [23].

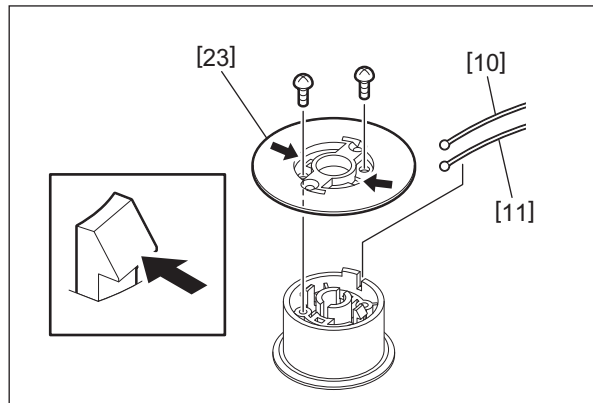


Fig. 4-55

[10] Long wire

[11] Short wire

Notes:

Pay attention to the wire installation order when installing the pulley flange [23].

4.8 Paper Guide Setting

To change the paper size, arrange the installation position of the front and rear side guides and the end guide.

4.8.1 Rear side guide

- (1) Pull out the tray unit.
- (2) Remove 2 screws and the stopper [1].

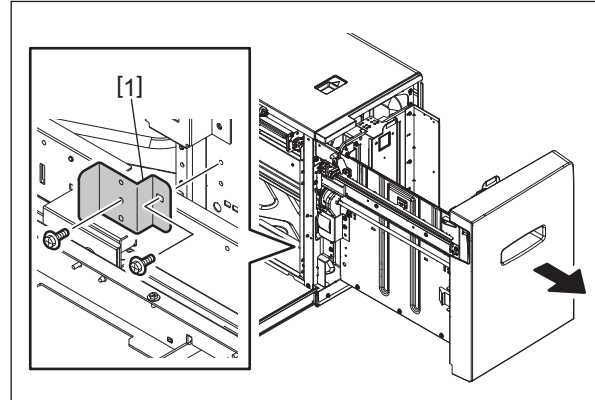


Fig. 4-56

- (3) Take off the right cover.
P. 4-3 "4.1.4 Right cover"
- (4) Remove 1 screw and the stopper [2].

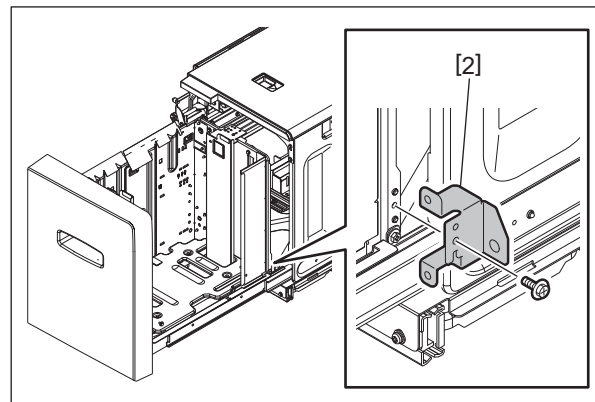


Fig. 4-57

- (5) Remove 2 screws. Arrange the rear side guide [3] and secure it with the screws by adapting the groove and screw holes to the paper size to be matched.

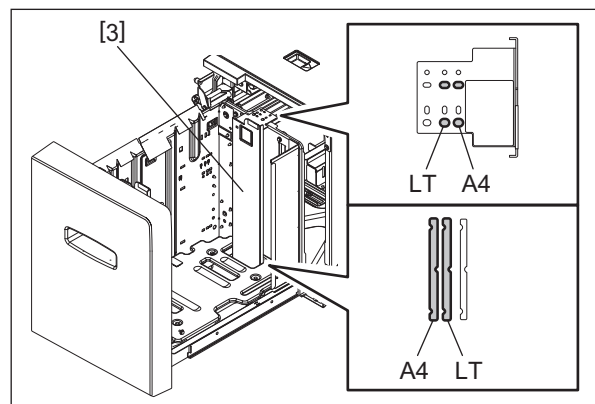


Fig. 4-58

4.8.2 Front side guide

- (1) Pull out the tray unit.
- (2) Remove 1 screw and take off the pickup lever guide [1].

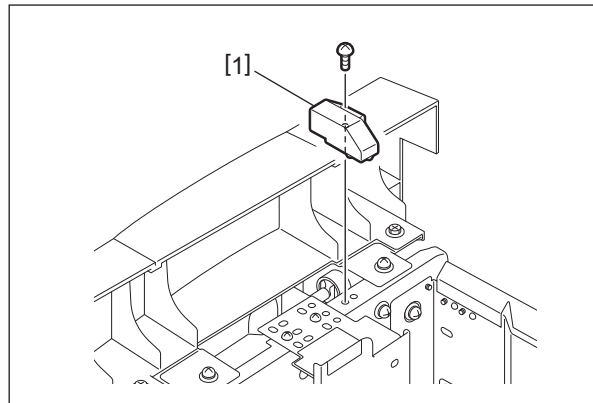


Fig. 4-59

- (3) Remove 2 screws. Arrange the front side guide [2] and secure it with the screws by adapting the groove and screw holes to the paper size to be matched.

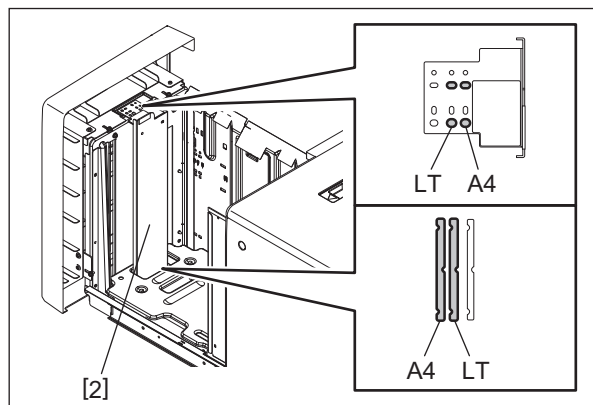


Fig. 4-60

4.8.3 End guide

- (1) Pull out the tray unit.
- (2) Remove 3 screws of the end guide [1].

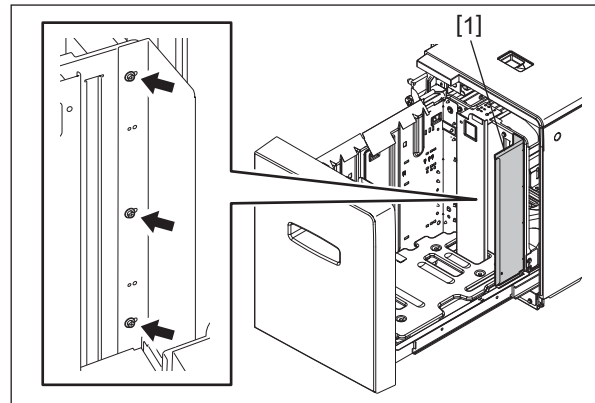


Fig. 4-61

- (3) Remove 2 screws while lifting up the tray [2].

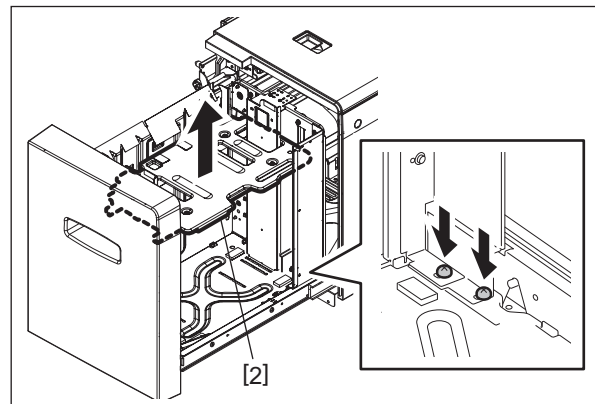


Fig. 4-62

- (4) Arrange the end guide [1] and secure it with the screws by adapting the groove and screw holes to the paper size to be matched.

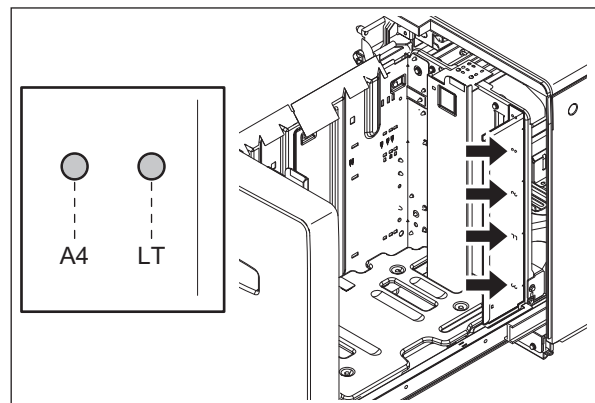


Fig. 4-63

4.8.4 Sub guides

- (1) Remove 2 screws and take off the rear sub guide [1].

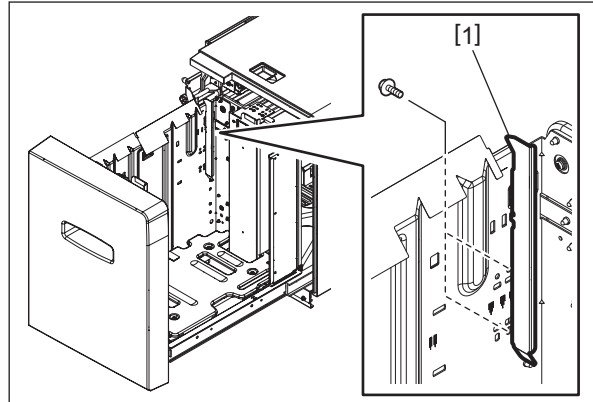


Fig. 4-64

- (2) Arrange the rear sub guide and secure it with the screws by adapting the screw holes to the paper size to be matched.

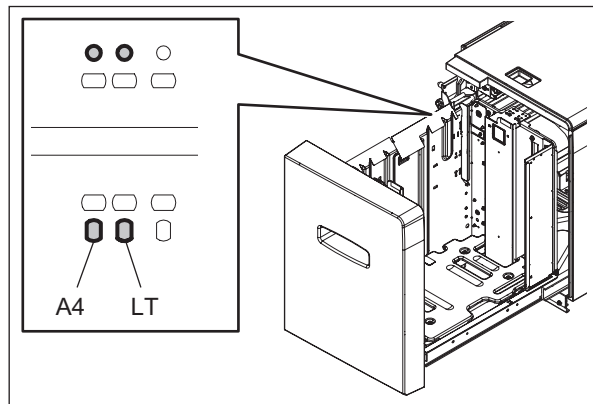


Fig. 4-65

- (3) Remove 2 screws and take off the front side guide [2].

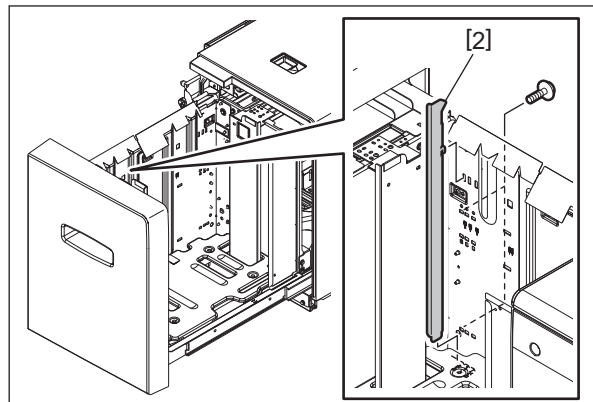


Fig. 4-66

- (4) Arrange the front sub guide and secure it with the screws by adapting the screw holes to the paper size to be matched.

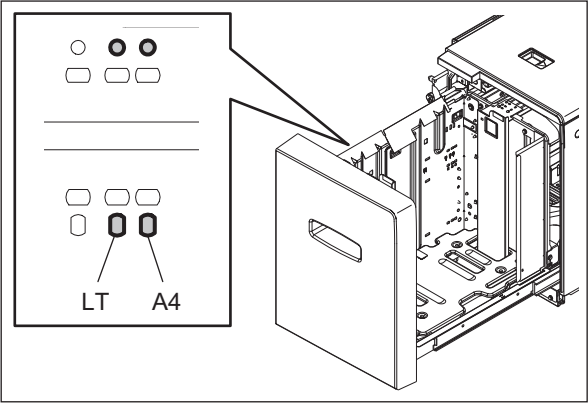


Fig. 4-67

5. ADJUSTMENT

5.1 Sideways Adjustment

When the center of the printed image shifts to the front or rear side, perform the adjustment using the following procedure.

<Adjustment procedure>

- (1) Pull out the tray unit.
- (2) Loosen 4 screws [1]. Move the adjustment plate [2] to the position to be adjusted and tighten it with the screws.

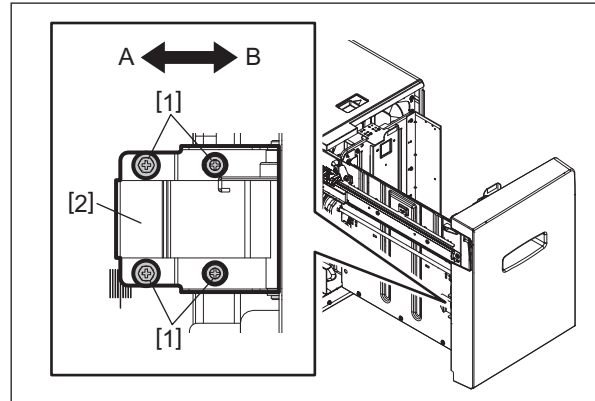


Fig.5-1

- When the center of the printed image shifts to the front side [D], move the adjustment plate [2] to the direction B.

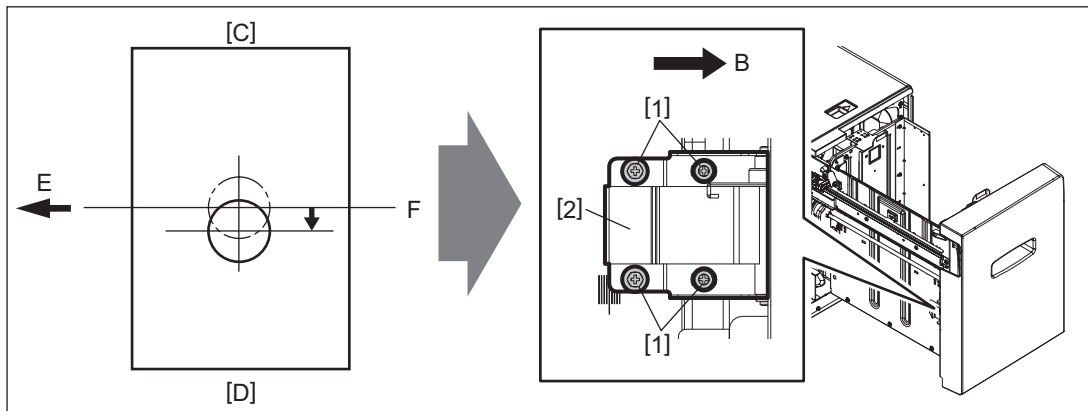


Fig.5-2

- C: Rear side
- D: Front side
- E: Paper feeding direction
- F: Center

- When the center of the printed image shifts to the rear side [C], move the adjustment plate [2] to the direction A.

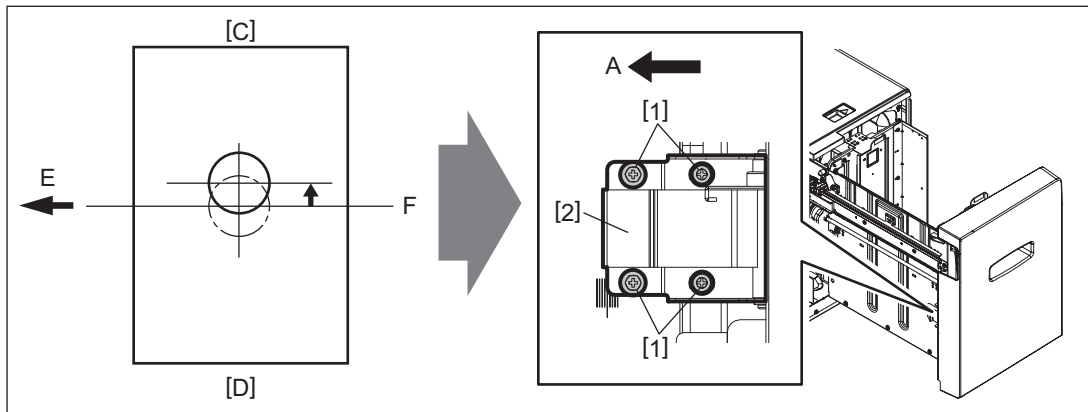


Fig.5-3

C: Rear side
 D: Front side
 E: Paper feeding direction
 F: Center

Notes:

After the tray position adjustment, readjust the front cover [3] position. For adjustment, loosen the 4 screws of the front cover [3] and adjust the gap between the front cover [3] and top cover, and the front cover [3] and right cover to 3 mm, respectively.

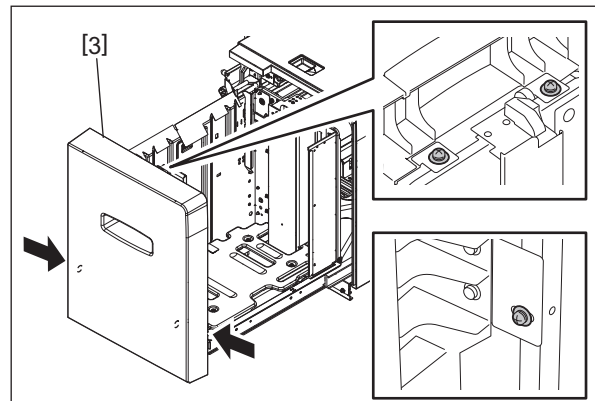


Fig.5-4

5.2 Tilted Volume Adjustment

When the Ex-LCF is tilted, perform the adjustment using the following procedure.

<Adjustment procedure>

- (1) Separate the Ex-LCF from the MFP.
- (2) Turn the screws to adjust the stoppers.
Turn to the right: Stoppers move downward.
Turn to the left: Stoppers move upward.

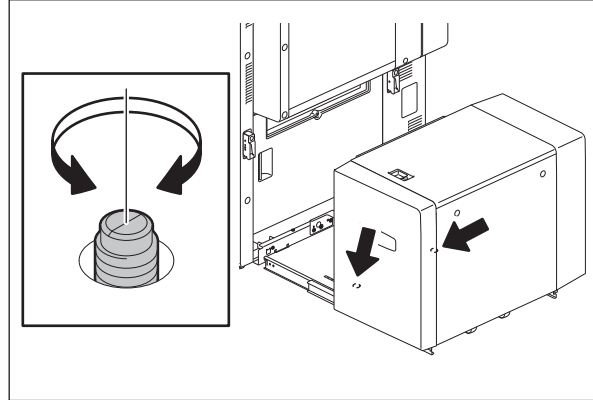


Fig.5-5

Notes:

When the MPF needs to be moved, be sure to move the stoppers upward.

5.3 Separation Roller Pressure Force Adjustment

The life of the Ex-LCF separation roller may be shortened or paper misfeeding or multiple feeding (EB50) may occur regardless of the operation frequency of this option. This comes from the weight or edge status of the paper used and the amount of paper dust. Generally, paper misfeeding and multiple feeding often occur as the life end of the Ex-LCF separation roller approaches. However, if they often occur even though its life has not yet reached its replacement timing, or if the life end comes much earlier than the scheduled replacement timing, the paper misfeeding and multiple feeding can be suppressed by adjusting the pressure force of the Ex-LCF separation roller.

In this method; however, when its life becomes longer, paper misfeeding and multiple feeding may occur frequently, and when they are suppressed, its life may become shorter. Therefore, perform this adjustment while checking the status carefully. If necessary, give sufficient explanation to the users.

<Adjustment procedure>

- (1) Check that the screw is tightened in the oblong hole.
- (2) If it is tightened in the round hole, remove it and temporarily tighten it in the neighboring oblong hole.

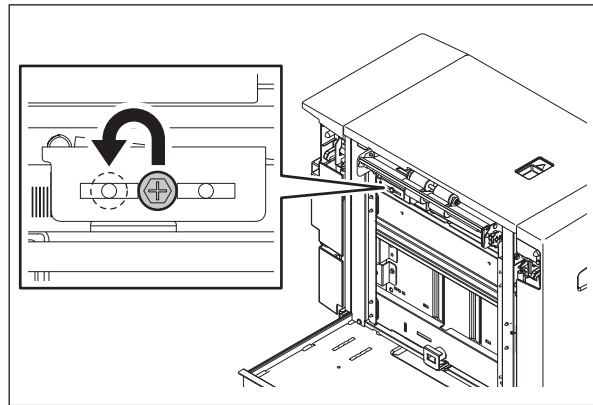


Fig.5-6

Notes:

Make a mark for the installation position of the bracket in advance.

- (3) Move the bracket.
Move to the direction A: The roller life will become longer (but multiple feeding may occur frequently).
Move to the direction B: Multiple feeding will be suppressed (but the roller life may become shorter).

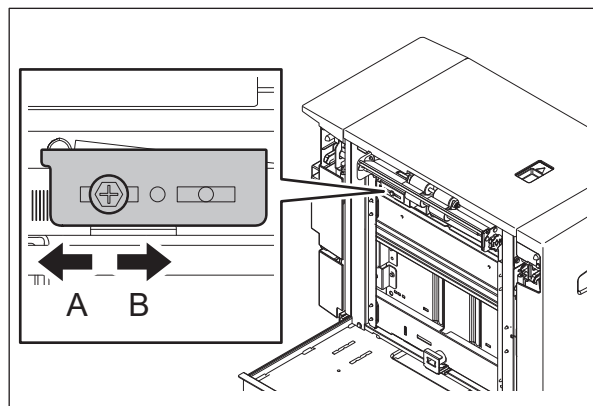


Fig.5-7

Notes:

The recommended moving distance of the bracket is within 1 or 2 scale marks.

6. PREVENTIVE MAINTENANCE (PM)

Symbols used in the checklist

Cleaning	Coating	Replacement
A: Clean with alcohol B: Clean with a soft pad, cloth or vacuum cleaner	W1: White grease (Molykote)	The number of sheets for the replacement is described in the value. Replacement should be performed by every number of the value x 1000. R: Replace if deformed or damaged.

Preventive Maintenance Checklist

Item	Cleaning	Coating	Replacement x1,000	Remarks
Ex-LCF pickup roller	A		500	
Ex-LCF paper feed roller	A		500	
Ex-LCF separation roller	A		500	
Drive gear (tooth face)		W		
Paper transport section *	B			
Sensor section	B			

Notes:

- Perform preventive maintenance in accordance with the checklist.
- Perform preventive maintenance at the same intervals as for the MFP to which this option is connected.
- Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.
- If too much paper dust has adhered at the time of preventive maintenance, take off the Ex-LCF paper feed roller and remove the paper dust from the paper path section and the shaded area [1] of figure below. *

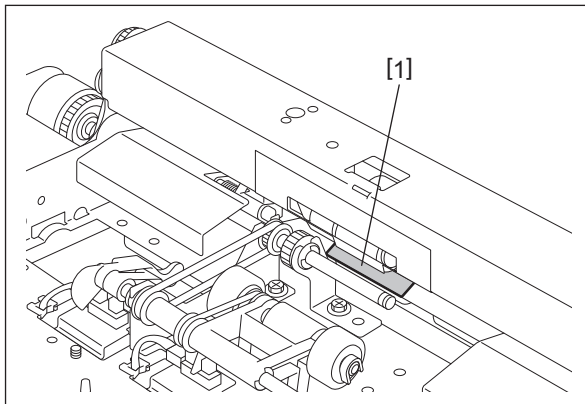


Fig.6-1

7. HARNESS DIAGRAM

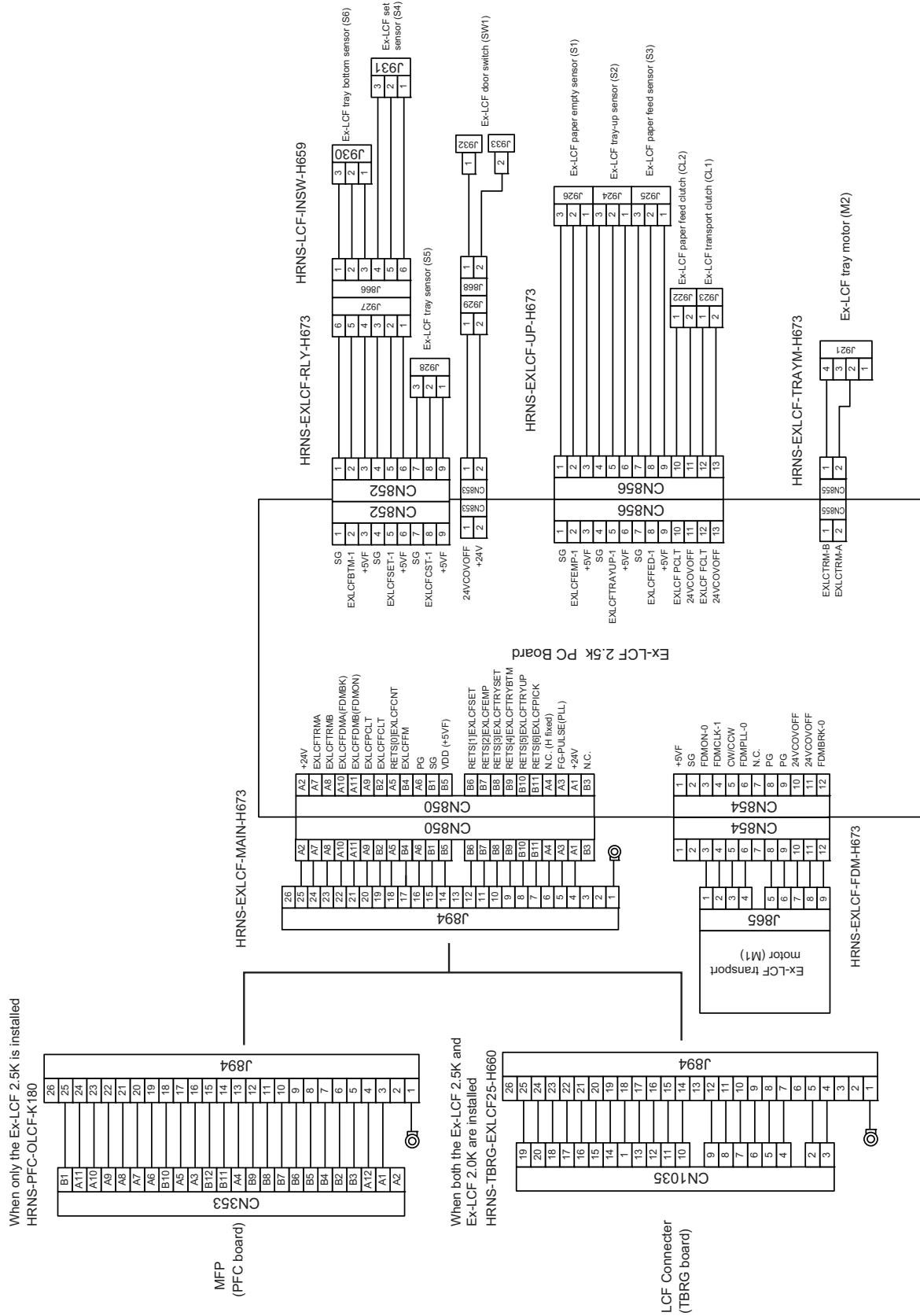


Fig. 7-1

REVISION RECORD

Ver01

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2-3	The numbers for P-I have been added.

Ver00

Ver00 <2022/11/22>	
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	Initial release

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