CHAPTER 3. MECHANISM BLOCKS

[1] General description

1. Document feed block and diagram

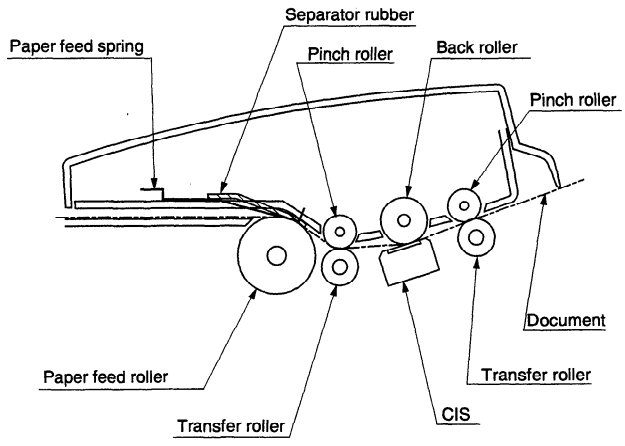


Fig. 1

2. Document feed operation

1) The document placed in the hopper actuates the document sensor. After one second, the pulse motor starts to the paper feed roller. The document is automatically taken up into the mashine, and stopped at the document sensor.
2) When a specified number of pulses are received from the document sensor after the document lead edge is sensed.scanning is started.
3) When a specified number of pulses are received from the document sensor after the document rear edge is sensed. Scanning is terminated and the document is fed through.
4) If the document sensor is active (i.e.,another document is in the hopper), when the preceding document scanning is completed and it is fed out, the next document is taken up into the machine. If the document sensor is not active (i.e.,there is no document in the hopper), when the document is fed out , the operation is terminated.

3. Hopper mechanism

3-1. General view

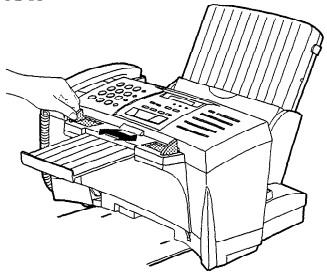


Fig. 2

The hopper is used to align documents with the document guides adjusted to the paper width.
NOTE: Adjust the document guide after setting up the document.

3-2. Automatic document feed

1) Use of the paper feed roller and separation rubber plate ensures error-free transport and separation of documents. The plate spring presses the document to the paper feed roller to assure smooth feeding of the document.
2) Document separation method: Separation rubber plate

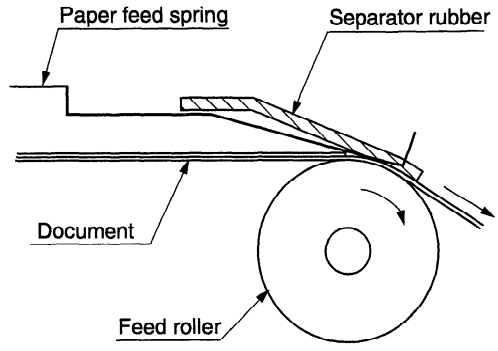


Fig. 3

3-3. Documents applicable for automatic feed

	Minimum	Maximum
Weight	45kg 52g/m² 14LB	70kg 80(81)g/m² 20(21.7)LB
Thickness	0.06mm 0.0024"	0.1(0.09)mm 0.0035"
Document size	B6(148mmx128mm) ~ LGL(216mmx355.6mm) A4(210mmx297mm) LTR(216mmx279mm)	
Capacity	B6 ~ LTR/A4	20sheets
Manual	More than 90kg(104g/m²) 1sheet Below 135kg(157kg/m²) 1sheet *One page is supported for 1m length paper max.(hold paper by hand)	

NOTE: Double-side coated documents and documents on facsimile recording paper should be inserted manually. The document feed quantity may be changed according to the document thickness.

Documents corresponding to a paper weight heavier than 64.3kg (74.3g/m²) and lighter than 135kg (157g/m²) are acceptable for manual feed.

Documents heavier than 135kg in terms of the paper weight must be duplicated on a copier to make it operative in the facsimile.

3-4. Loading the documents

1) Make sure that the documents are of suitable size and thickness, and free from creases, folds, curls, wet glue, wet ink, clips, staples and pins.
2) Place documents face down in the hopper.
   i) Adjust the document guides to the document size.
   ii) Align the top edge of documents and gently place them into the hopper. The first page under the stack will be taken up by the feed roller to get ready for transmission.

NOTES: 1) Curled edge of documents, if any, must be straighten out.
2) Do not load the documents of different sizes and/or thicknesses together.

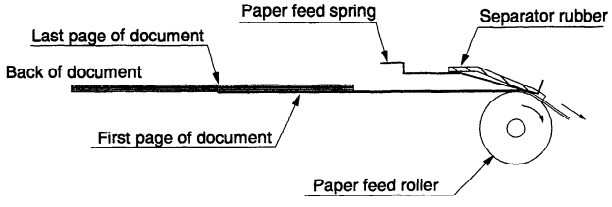


Fig. 4

3-5. Documents requiring use of document carrier

1) Documents smaller than B6 (128mm x 182mm).
2) Documents thinner than the thickness of 0.06mm.
3) Documents containing creases, folds, or curls, especially those whose surface is curled (maximum allowable curl is 5mm).
4) Documents containing tears.
5) Carbon-backed documents. (Insert a white sheet of paper between the carbon back and the document carrier to avoid transfer of carbon to the carrier.)
6) Documents containing an easily separable writing material (e.g., those written with a lead pencil).
7) Transparent documents.
8) Folded or glued documents.

Document in document carrier should be inserted manually into the feeder.

4. Document release

4-1. General

When the release lever is pulled by hand in the direction of arrow, the latch is released and the upper document guide moves on its axis in the derection of the arrow. The feed rollers, the separation rubber plate, and the pinch rollers become free to make it possible to remove the document.

4-2. Cross section view

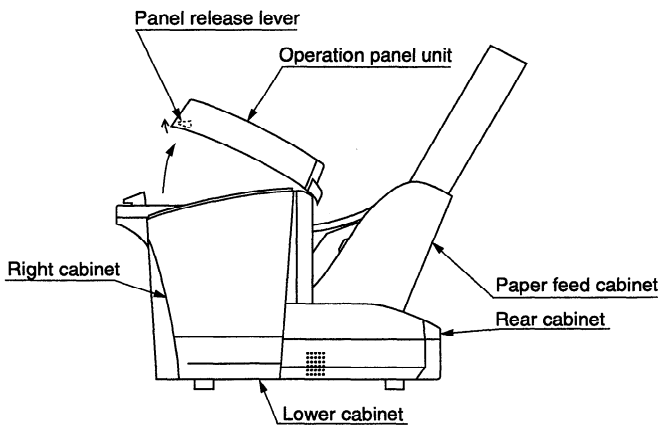


Fig. 5

5. Paper feed

5-1. ASF

As a result of reception motor drive the reduction gear, idler gear, planetary gear, and paper feed gear are synchronized. Since the Pu roller rotates, the paper sensor is turned on and advanced until it engages with the feed roller, Then, the motor is inverted to feed to the print position with the feed roller.

5-2. Manual paper feed

Insert the paper, aligning with the right side of paper feed cab until the paper sensor is turned on and the feed roller catches. It is sent to the print position by the feed roller.

5-3. Print

The ink cartridge is moved from the right side to the left side by the carriage motor. At this time ink is ejected from the ink cartridge to print on the paper.

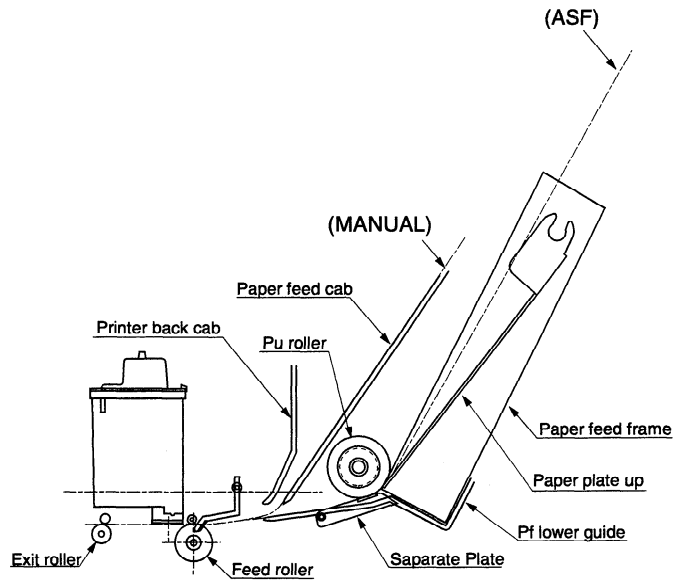


Fig. 6

5-4. ASF sequence

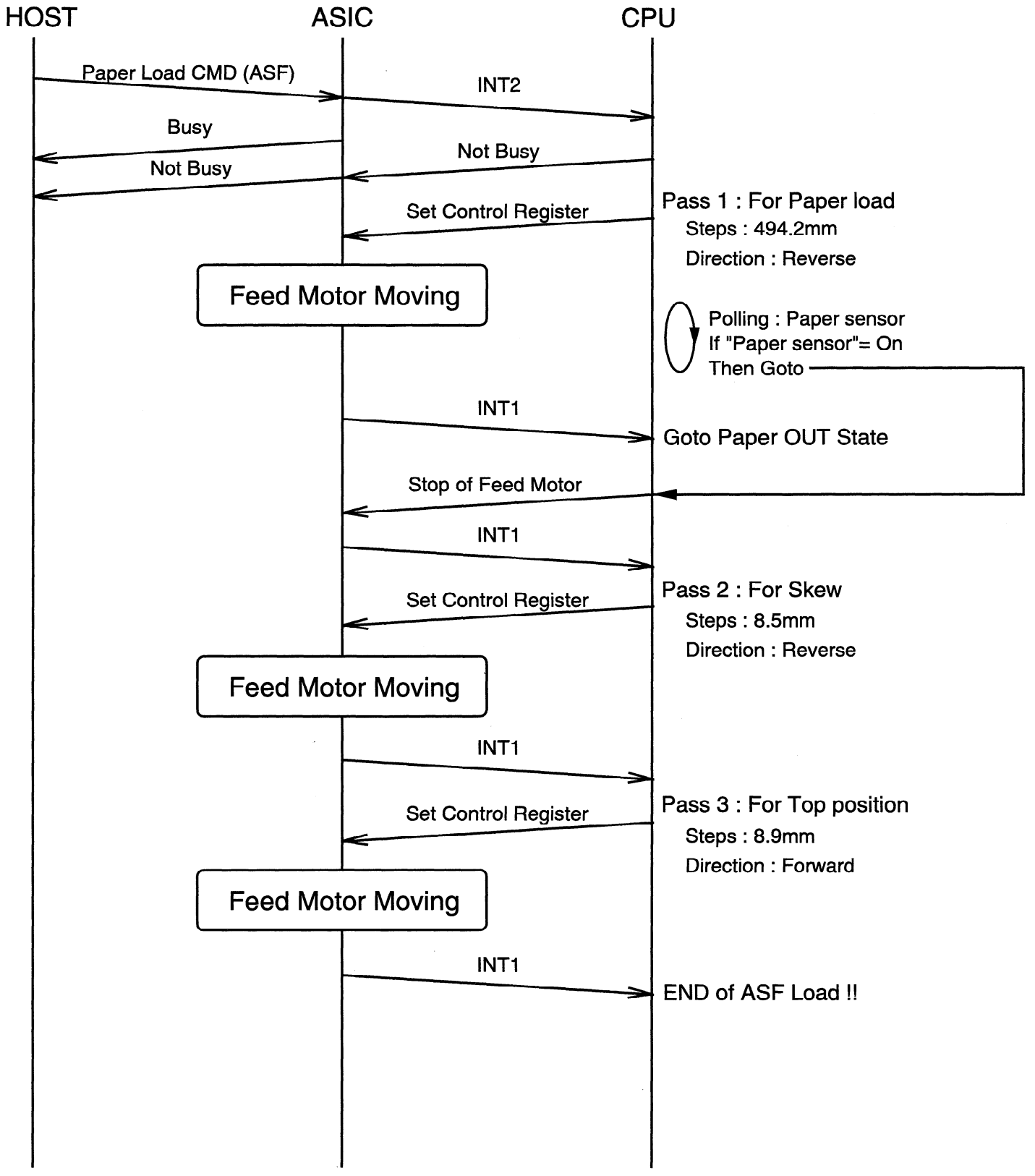


Fig. 7

[2] Disassembly and assembly procedures

- This chapter mainly describes the disassembly procedures. For the assembly procedures, reverse the disassembly procedures.
- Easy and simple disassembly/assembly procedures of some parts and units are omitted. For disassembly and assembly of such parts and units, refer to the Parts List.
- The numbers in the illustration, the parts list and the flowchart in a same section are common to each other.
- To assure reliability of the product, the disassembly and the assembly procedures should be performed carefully and deliberately.
- Note on changing cartridges : To prevent the used print cartridge from drying out, be sure to store it in the cartridge holder.

1 Rear Cabinet, Paper Feed Unit Handdet Holder,Printer Back Cabinet

Disassembly procedures (Fig. 1)

STEP	REMOVAL	PROCEDURE
1	Rear Cabinet	1. Screw (3x12) ..... (A1) x 2
2	Document Tray	1. Push inside the Document Tray arms ....ⓐ
3	Paper Feed Unit	1. Screw (3x6) ..... (B1) x 1
4	Handset Holder	1. Open the Operation Panel Unit 2. Screw (3x12) ..... (C1) x 1 3. Release the Handset Holder lock nails ...ⓑ
5	Printer Back Cabinet	1. Screw (3x10) ..... (D1) x 2

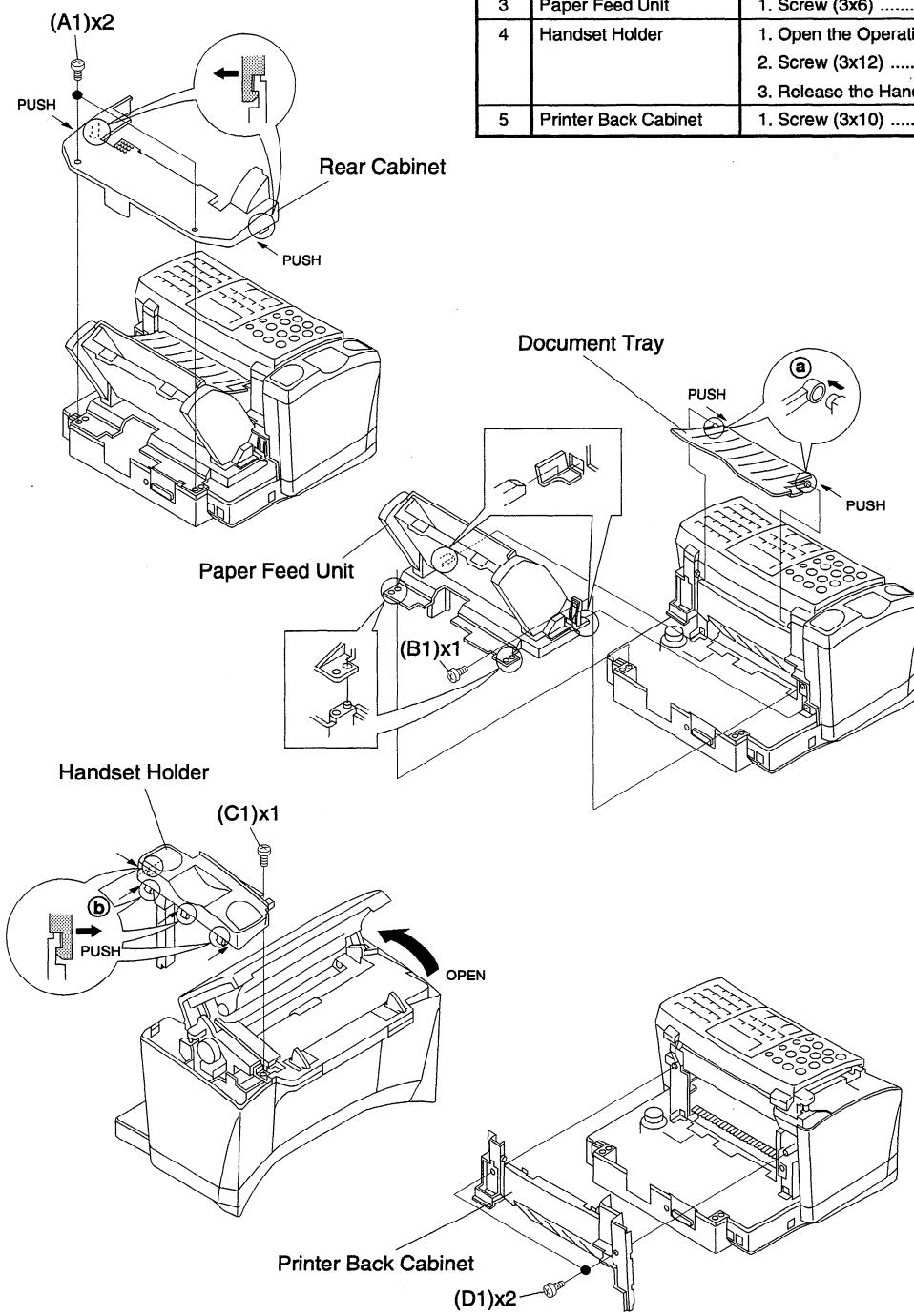


Fig. 1

2 Left Cabinet, Right Cabinet, Front cover

Disassembly procedures (Fig. 2)

STEP	REMOVAL	PROCEDURE
1	Left Cabinet	1. Screw (3x12) ..... (A1) x 2 2. Release the Left Cabinet lock nails .....ⓐ
2	Right Cabinet	1. Screw (3x12) ..... (B1) x 1 2. Release the Right Cabinet lock nails .....ⓑ
3	Front Cover	1. Push inside the Front Cover arms .....ⓒ

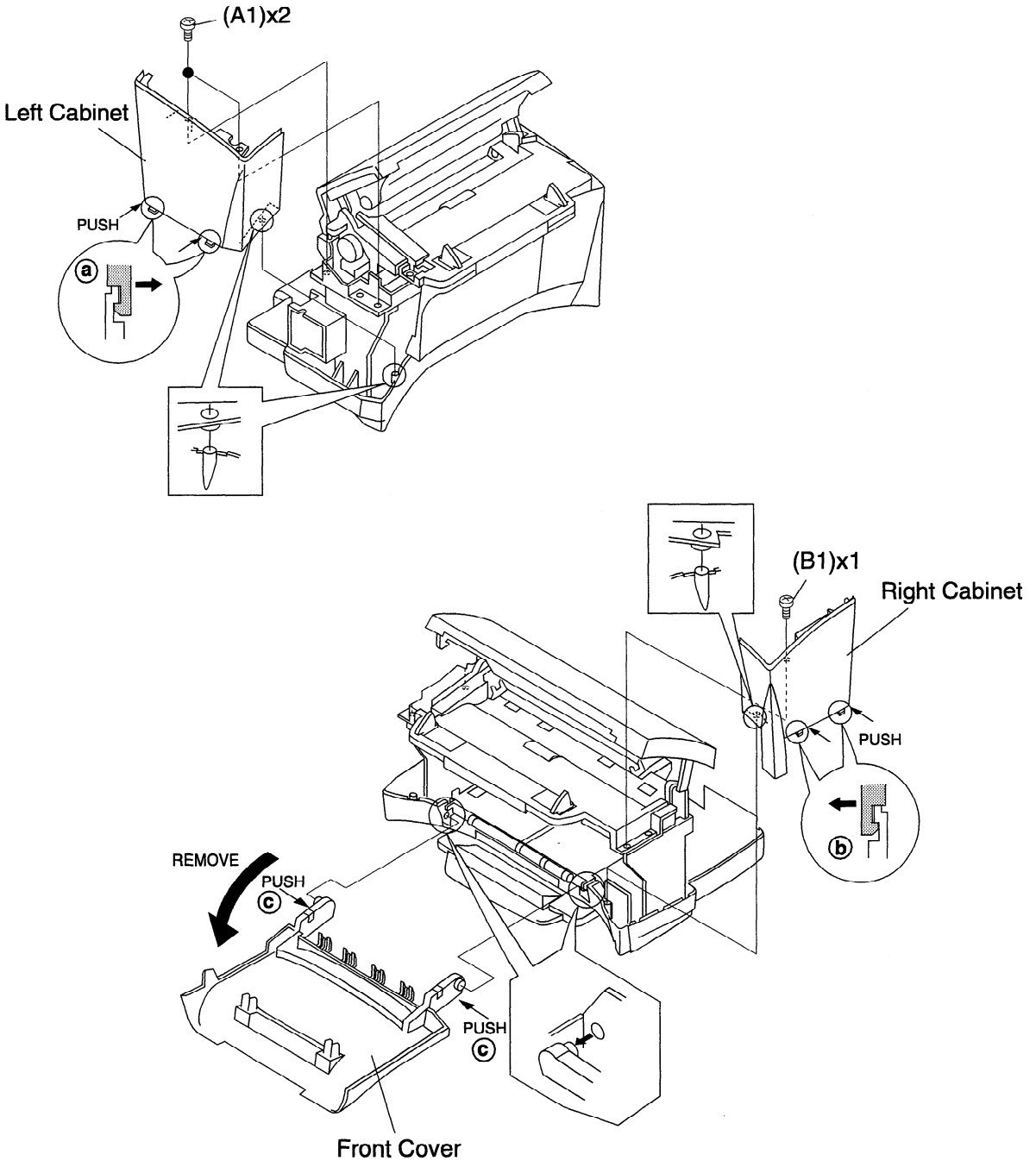


Fig. 2

3 Operation panel Unit

Disassembly procedures (Fig. 3)

STEP	REMOVAL	PROCEDURE
1	Operation Panel Unit	1. Push the Operation Panel Unit arms .....ⓐ
2	Panel Cabinet Upper Document Guide	1. Screw (3x10) ..... (B1) x 3 2. Socket ..... (B2) x 1 3. Push the Upper Document Guide arms .ⓑ
3	Panel PWB Unit, 12Key, Direct Key, Start Key, Stop Key, Mode Key, Insulation Sheet, LCD PWB Unit	1. Screw (2x6) ..... (C1) x 6 2. Push outside the LCD PWB Hook .....ⓒ

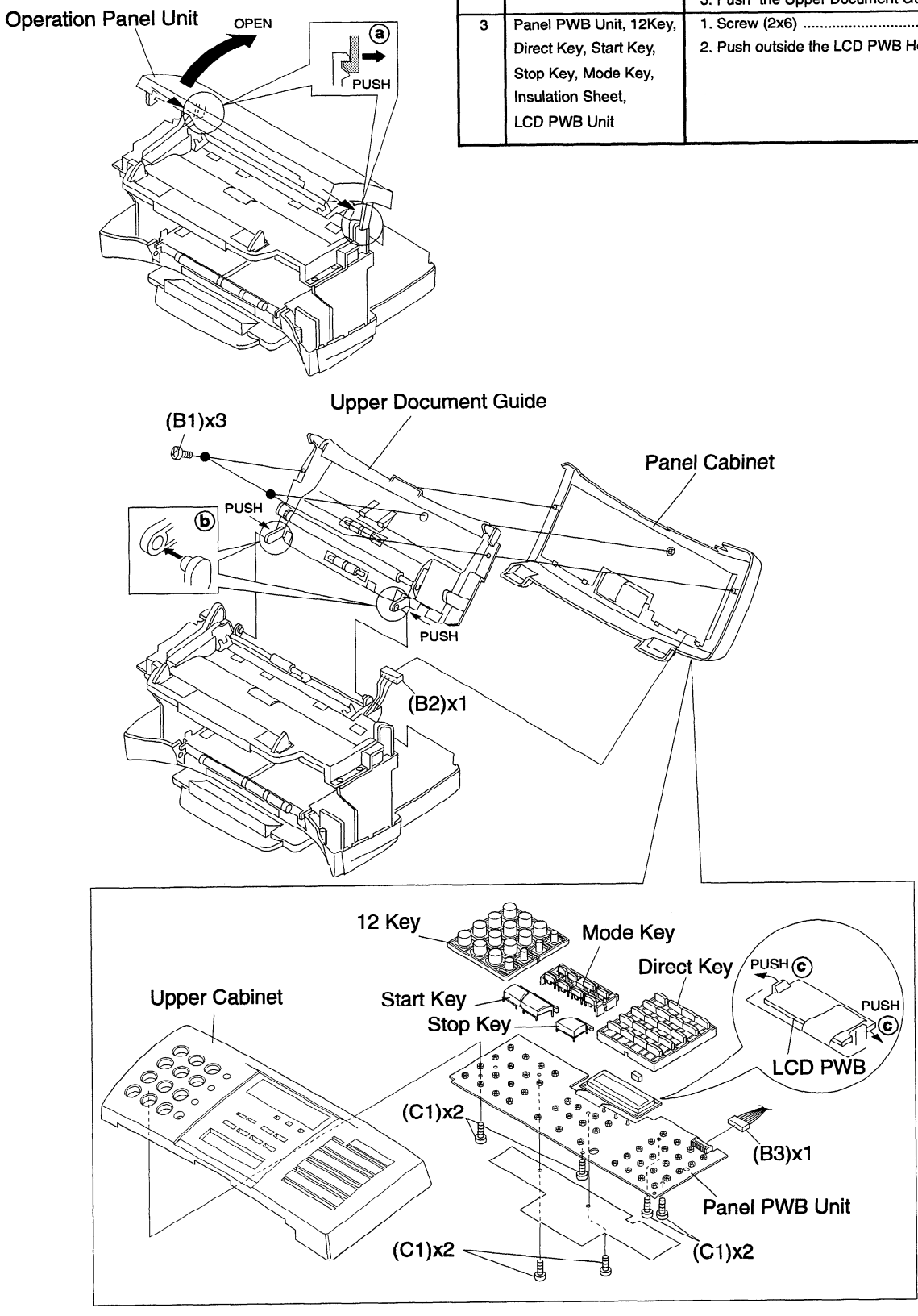


Fig. 3

4 Paper Feed Cabinet

Disassembly procedures (Fig. 4)

STEP	REMOVAL	PROCEDURE
1	Paper Feed Cabinet	1. Screw (3x10) ..... (A1) x 2
2	Paper Feed Roller Holder	1. Screw (3x10) ..... (B1) x 2
3	Paper Up Roller Ass'y	1. Remove the Paper Feed Gear 2. Pull forward the shaft holder ..... ⓐ 3. Remove the Paper Up Roller Shaft
4	Paper Feed Frame	1. Screw (3x10) ..... (C1) x 2 2. Screw (3x10) ..... (C2) x 2 3. Remove the RP Release Gear 4. Remove the RP Release Plate 5. Remove the Paper Up Plate

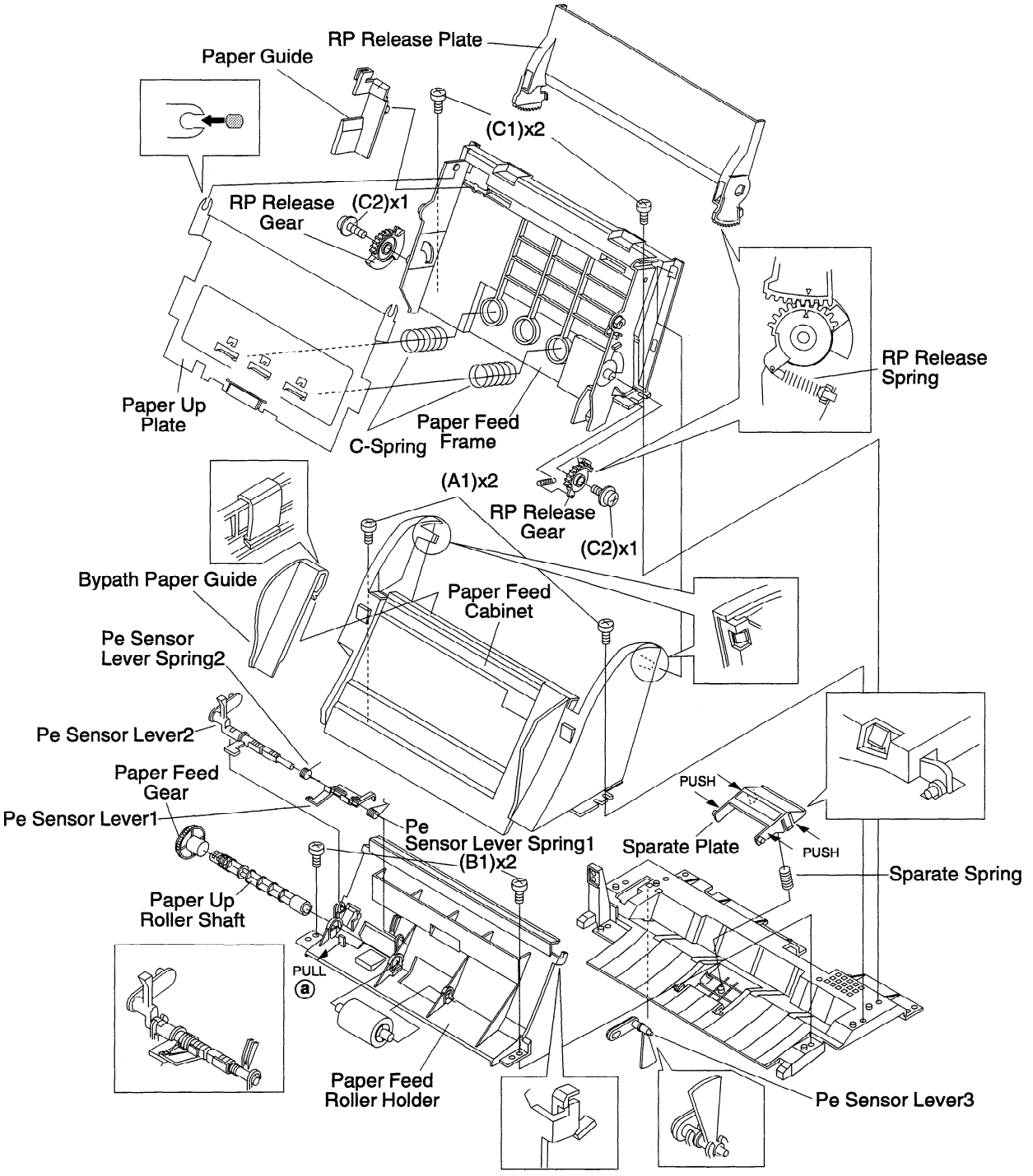


Fig. 4

5 Upper Document Guide

Disassembly procedures (Fig. 5)

STEP	REMOVAL	PROCEDURE
1	Strength Angle	1. Screw (3x10) ..... (A1) x 1 2. Screw (3x10) ..... (A2) x 1
2	Strengthen Plate	1. Screw (3x10) ..... (A3) x 2
3	Pinch Roller Shaft Pinch Roller	1. Remove springs ..... ⓐ
4	Document Out Spring	1. Screw (3x6) ..... (A4) x 1
5	Panel Lock Lever	1. Remove spring ..... ⓑ 2. Remove the Panel Lock Lever ..... ⓒ

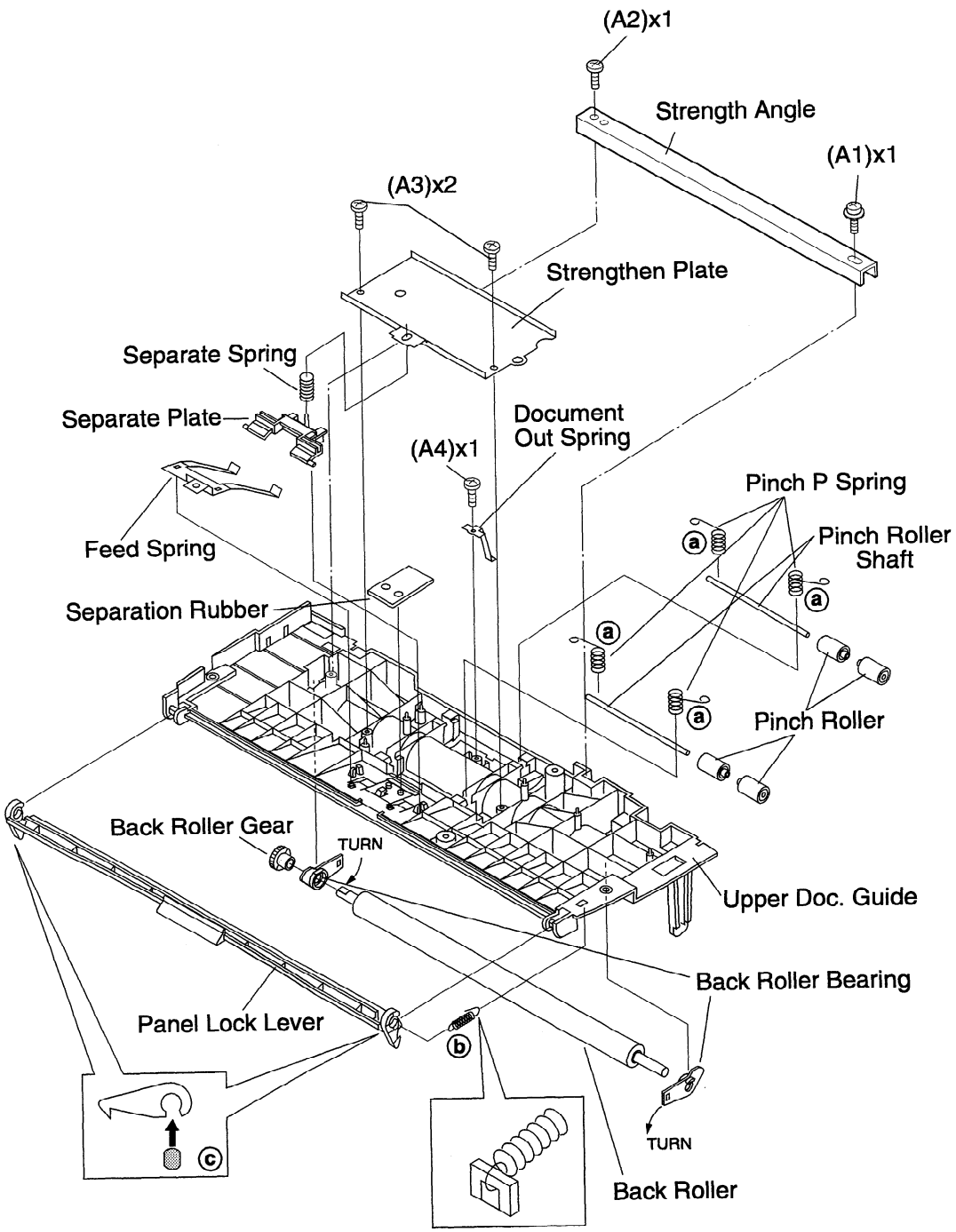
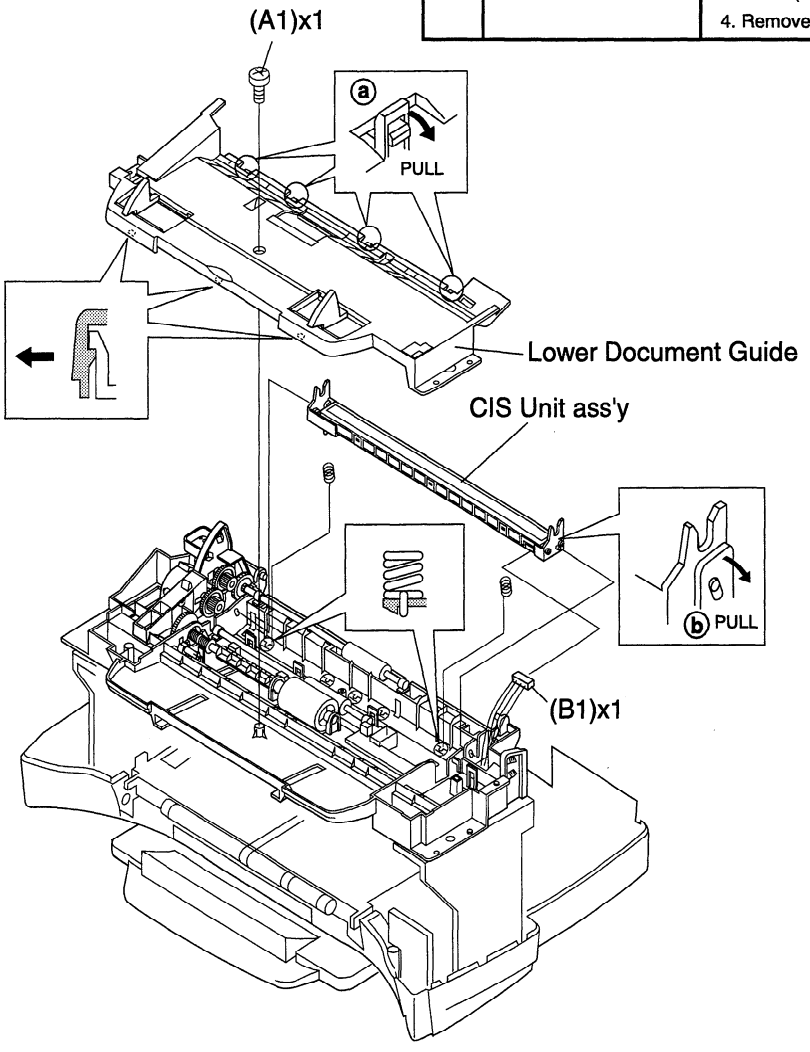


Fig. 5

6 Lower Document Guide, CIS Unit

Disassembly procedures (Fig. 6)

STEP	REMOVAL	PROCEDURE
1	Lower Document Guide	1. Screw (3x10) ..... (A1) x 1 2. Pull the Lower Document Guide latch ....ⓐ
2	CIS Unit Ass'y	1. Pull outside the CIS Unit hook .....ⓑ 2. Socket ..... (B1) x 1 3. Screw(2.6x6) ..... (B2) x 4 4. Remove the CIS Holder



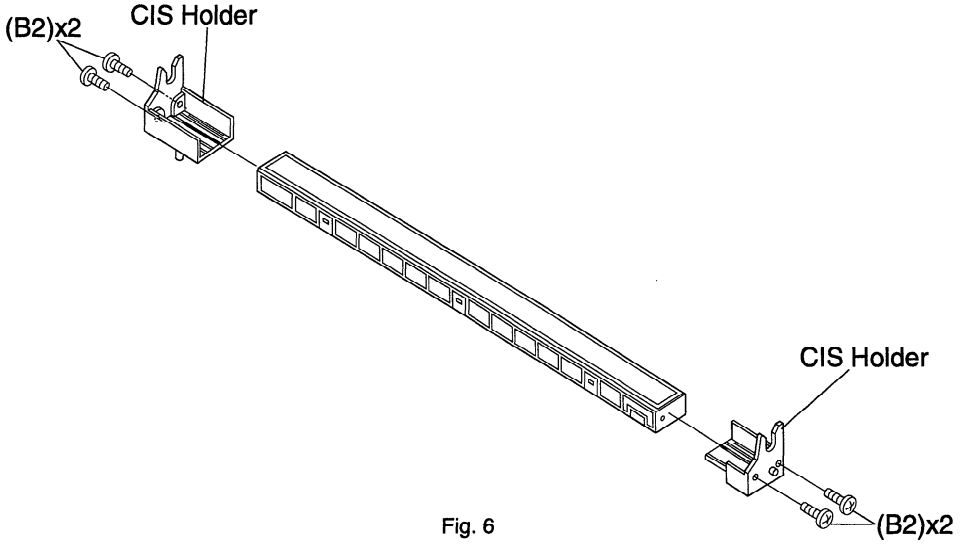
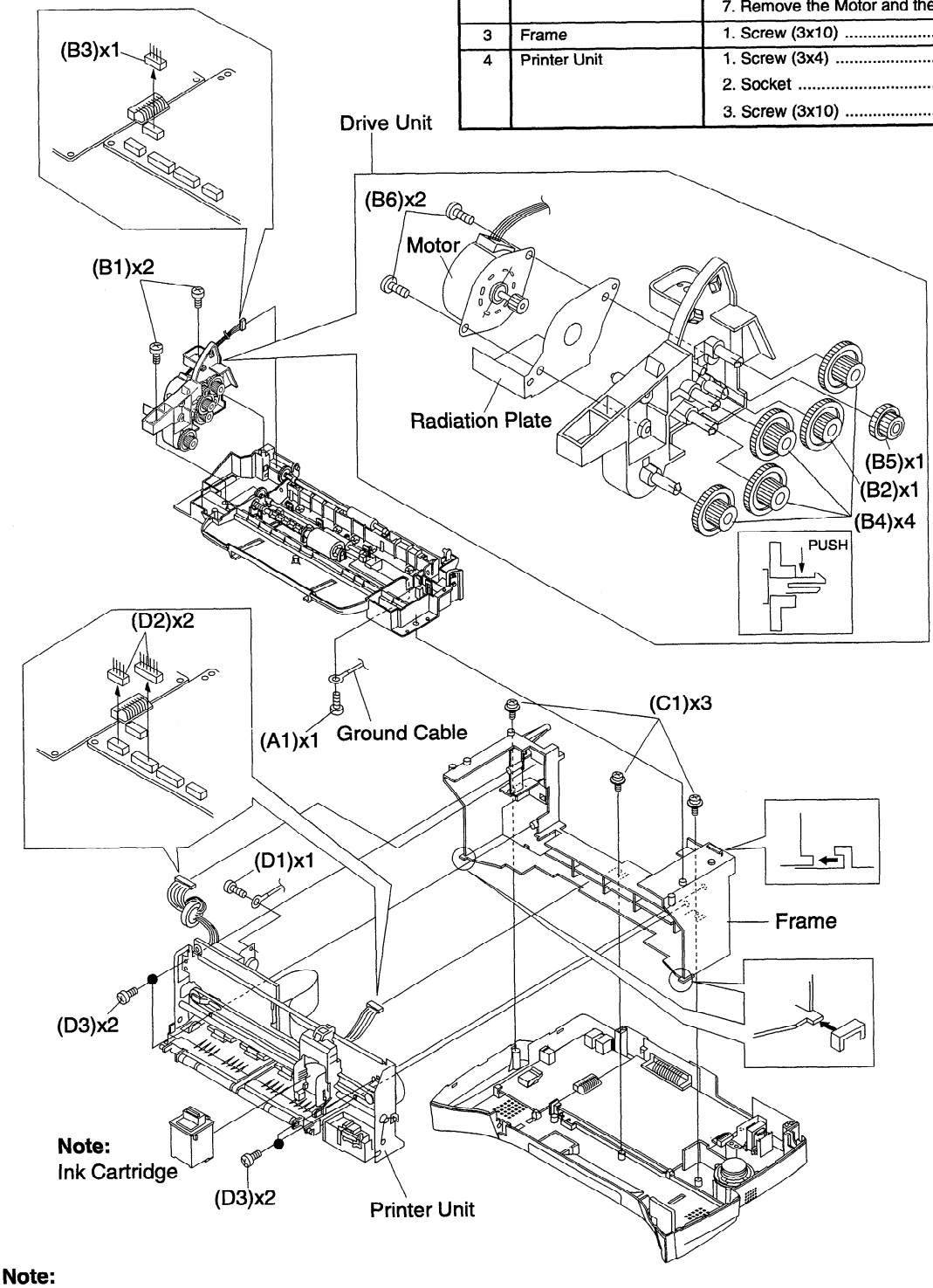


Fig. 6

7 Drive Unit, Printer Unit

Disassembly procedures (Fig. 7)

STEP	REMOVAL	PROCEDURE
1	Ground Cable	1. Screw (3x4) ..... (A1) x 1
2	Drive Unit	1. Screw (3x10) ..... (B1) x 2 2. Gear (18/35z) ..... (B2) x 1 3. Socket ..... (B3) x 1 4. Gear (18/36z) ..... (B4) x 4 5. Gear (15/23z) ..... (B5) x 1 6. Screw (3x10) ..... (B6) x 2 7. Remove the Motor and the Radiation Plate
3	Frame	1. Screw (3x10) ..... (C1) x 3
4	Printer Unit	1. Screw (3x4) ..... (D1) x 1 2. Socket ..... (D2) x 2 3. Screw (3x10) ..... (D3) x 4



Note:
To prevent the used print cartridge from drying out, be sure to store it in the cartridge holder.

Fig. 7

8 Scaner Unit

Disassembly procedures (Fig. 8)

STEP	REMOVAL	PROCEDURE
1	Transfer Roller	1. Remove the Transfer Roller
2	Feed Roller	1. Screw (3x30) ..... (A1) x 1
3	Extension Hopper	1. Slide the Extension Hopper
4	Sub Base Plate	1. Push the Sub Base Plate latch .....ⓐ 2. Slide the Sub Base Plate .....ⓑ

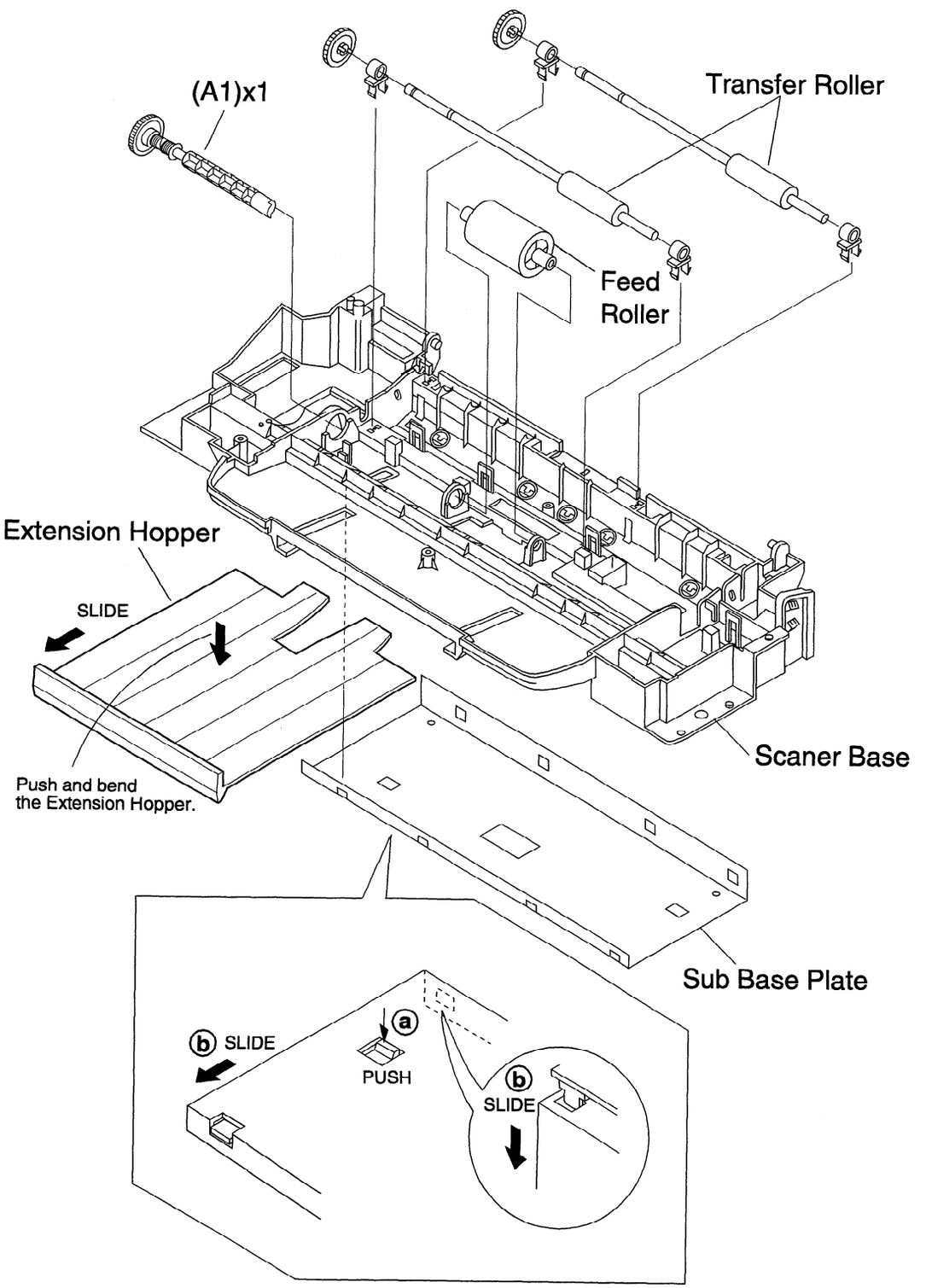


Fig. 8

9 Printer Unit

Disassembly procedures (Fig. 9)

STEP	REMOVAL	PROCEDURE
1	Steping CR Motor	1. Socket ..... (A1) x 1
		2. Screw (2x5) ..... (A2) x 2
2	Ink Carrier	1. Socket ..... (B1) x 2
		2. Holder ..... (B2) x 1
		3. Remove the Main Shaft
		4. Screw (2x5) ..... (B3) x 1
3	Paper Feed Motor	1. Socket ..... (C1) x 1
		2. Screw (3x4) ..... (C2) x 2
4	Maintenance Base	1. Screw (1x6) ..... (D1) x 1
5	Motor Bracket	1. Screw (3x6) ..... (E1) x 1
	Base Frame	2. Screw (3x4) ..... (E2) x 2
	INK PWB Unit	3. Remove Bearing ..... ⓐ
		4. Screw (3x10) ..... (E3) x 1
6	Printer PWB Unit	1. Screw (3x4) ..... (F1) x 3

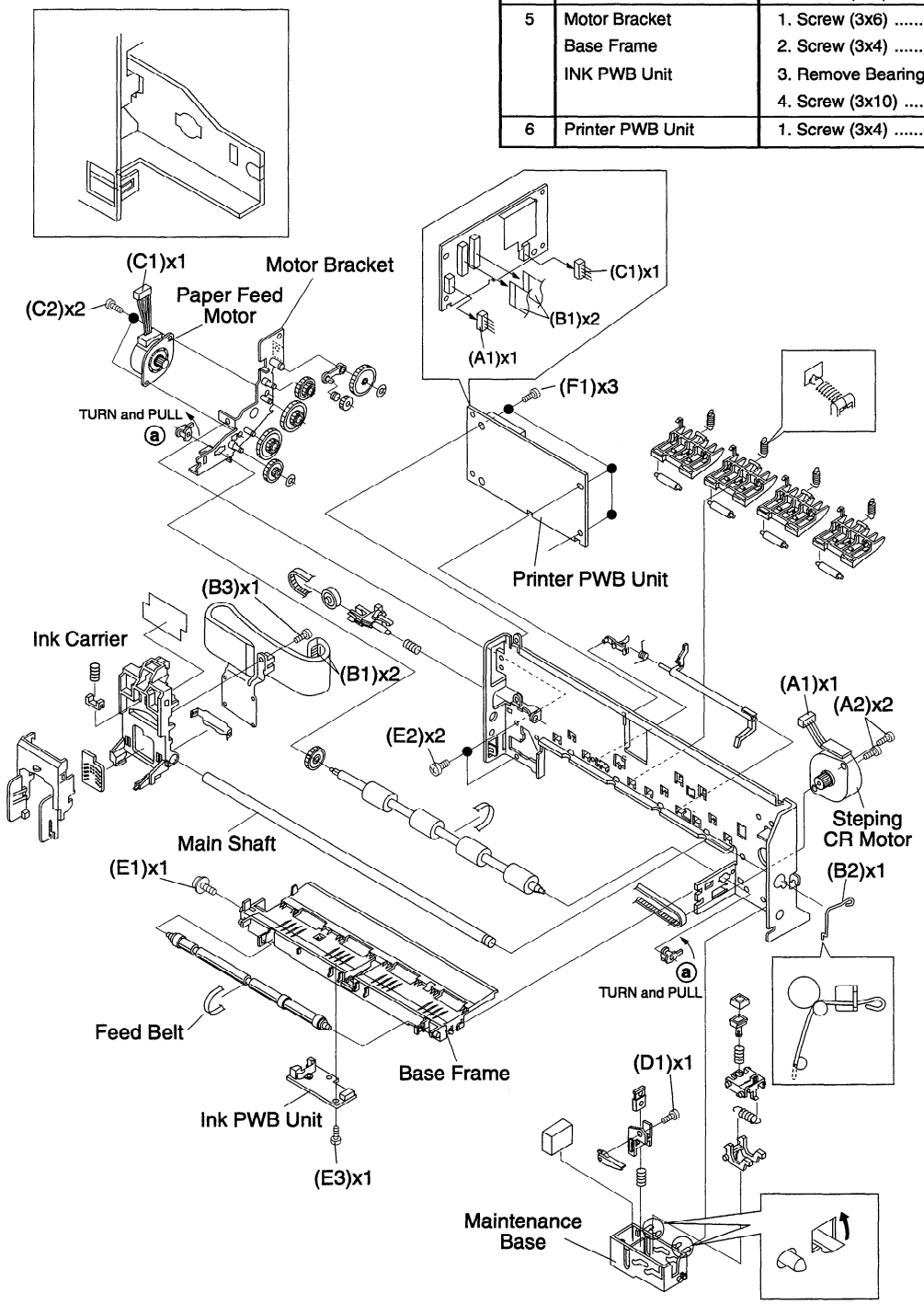


Fig. 9

10	**IrDA PWB Unit, Control PWB Unit, TEL/Liu PWB Unit, Power Supply PWB Unit**

Disassembly procedures (Fig. 10)

STEP	REMOVAL	PROCEDURE
1	IrDA PWB Unit	1. Socket ..... (A1) x 1
		2. Screw (3 x 10) ..... (A2) x 1
2	Speaker Ass'y	1. Socket ..... (B1) x 1
		2. Screw (3 x 10) ..... (B2) x 3
3	Control PWB Unit	1. Screw (3 x 10) ..... (C1) x 7
	TEL/Liu PWB Unit	2. Screw (3 x 6) ..... (C2) x 1
	Power Supply PWB Unit	3. Screw (3 x 6) ..... (C3) x 2
	Shield Plate	4. Screw (3 x 6) ..... (D1) x 1
		5. Screw (4 x 6) ..... (D2) x 1
		6. Screw (3 x 6) ..... (D3) x 1
		7. Socket ..... (D4) x 1

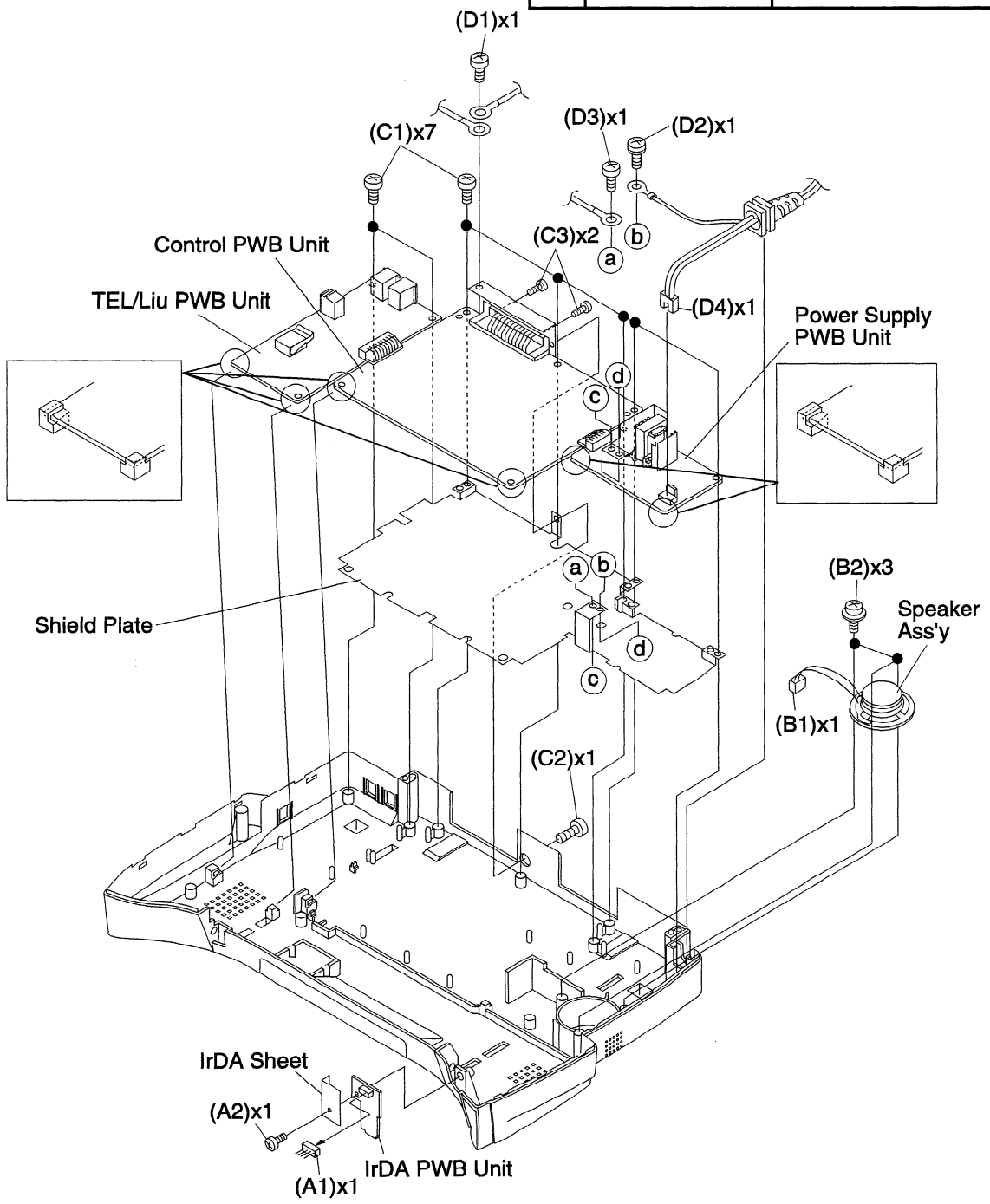


Fig. 10

11 Wire treatment

Parts list (Fig. 11)

No.	Part name	Q'ty
1	Band	3
2	Core (RCORF2064XHZZ)	2
3	Core (RCORF2096FFZZ)	1
4	Core (RCORF2063XHZZ)	2

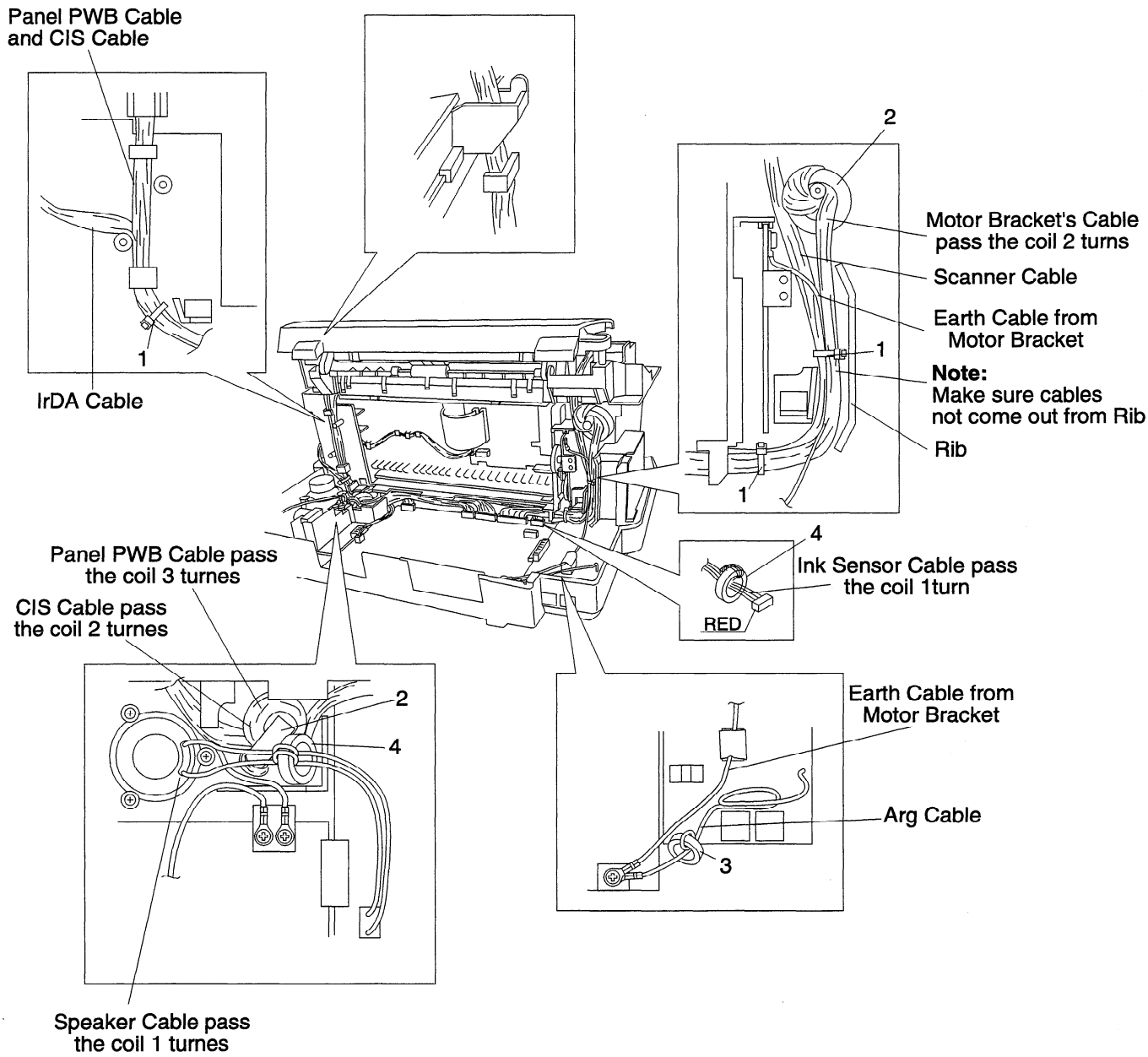


Fig. 11