End of Life Characterization Report

Model: imageFORMULA DR-S350NW

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Attached document:

1	EPEAT 4.3.3.1 / 4.3.4.1	page 18
2	DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment(WEEE) : Annex II	page 19

1. Overview

1. Objective
This report is prepared to provide necessary information to recyclers in accordance with following EPEAT and WEEE requirements.

・EPEAT
4.3.3.1 (Refer to page 18)
"Required—Notification regarding the identification of both materials and components that have hazardous characteristics or special handling needs"

4.3.4.1 (Refer to page 18)
"Required—Preparation of product end-of-life characterization report"

・WEEE (Refer to page 19)
"DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE Directive) Annex II"

2. Scope
The contents of this report are applied only to the following products.
Model : imageFORMULA DR-S350NW

3. How to use this report
①To know the existence and locations of the substances defined by WEEE Directive Annex II; (Except "toner cartridges, liquid and pasty, as well as color toner")

I	II	III						
		DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE); Annex II						
Fig. No.	Part Name	1 PCB containing capacitors	2 Mercury containing components	3 Battery	4 Printed circuit board	5 Plastic containing brominated flame retardants	6 Asbestos containing components	・・・
910	Main controller PCB ASSY	—	—	●(page 7/29)	●(page 7/29)	—	—	・・・

I : This number indicates the number assigned to each unit in the figure of unit placement.
II : This name indicates the name of each unit in the figure of unit placement.
III : This clause indicates the 15 clause written in the WEEE Directive Annex II.

"● (page No.)" : Used. See page No.
"—" : Not used

②About "Toner cartridges, liquid and pasty, as well as color toner".
See "Removing" instructions.

2. List of parts that require special handling (Parts corresponding to Annex II of WEEE)

		DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE) Annex II														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Part No.	Part Name	PCB containing capacitors	Mercury containing components	Battery	Printed circuit board (>10cm2)	Plastic containing brominated flame retardants	Asbestos containing components	Cathode ray tubes	CFC,HCFC,HFC,HC	Gas discharge lamps	Liquid crystal displays (>100cm2) and back-lighted with gas discharge lamps	External electric cables	Refractory ceramic fibers containing components	Radioactive substances	Capacitors containing substances of concern (height > 25mm, diameter > 25mm)	Toner (liquid & pasty toner, color toner)
1	Lock Lever Shaft	—	—	—	—	●(page 4/18)	—	—	—	—	—	—	—	—	—	—
2	Retard Roller Shaft	—	—	—	—	●(page 4/18)	—	—	—	—	—	—	—	—	—	—
3	CIS Sensor	—	—	—	●(page 5/18)	—	—	—	—	—	—	—	—	—	—	—
4	LCD Interface PCB	—	—	—	●(page 6/18)	—	—	—	—	—	—	—	—	—	—	—
5	Upper Unit PCB	—	—	—	●(page 6/18)	—	—	—	—	—	—	—	—	—	—	—
6	Wi-Fi antenna	—	—	—	●(page 6/19)	—	—	—	—	—	—	●(page 6/23)	—	—	—	—
6	Control PCB	—	—	—	●(page 6/18)	—	—	—	—	—	—	—	—	—	—	—
7	USB Cable	—	—	—	—	—	—	—	—	—	—	●(page 6/18)	—	—	—	—
8	Power Cord,100-120V	—	—	—	—	—	—	—	—	—	—	●(page 6/18)	—	—	—	—
9	AC Acaptor	—	—	—	●(page 6/18)	—	—	—	—	—	—	—	—	—	●(page 6/18)	—

3.Placement figure of parts requiring special handling (Parts corresponding to Annex II of WEEE)

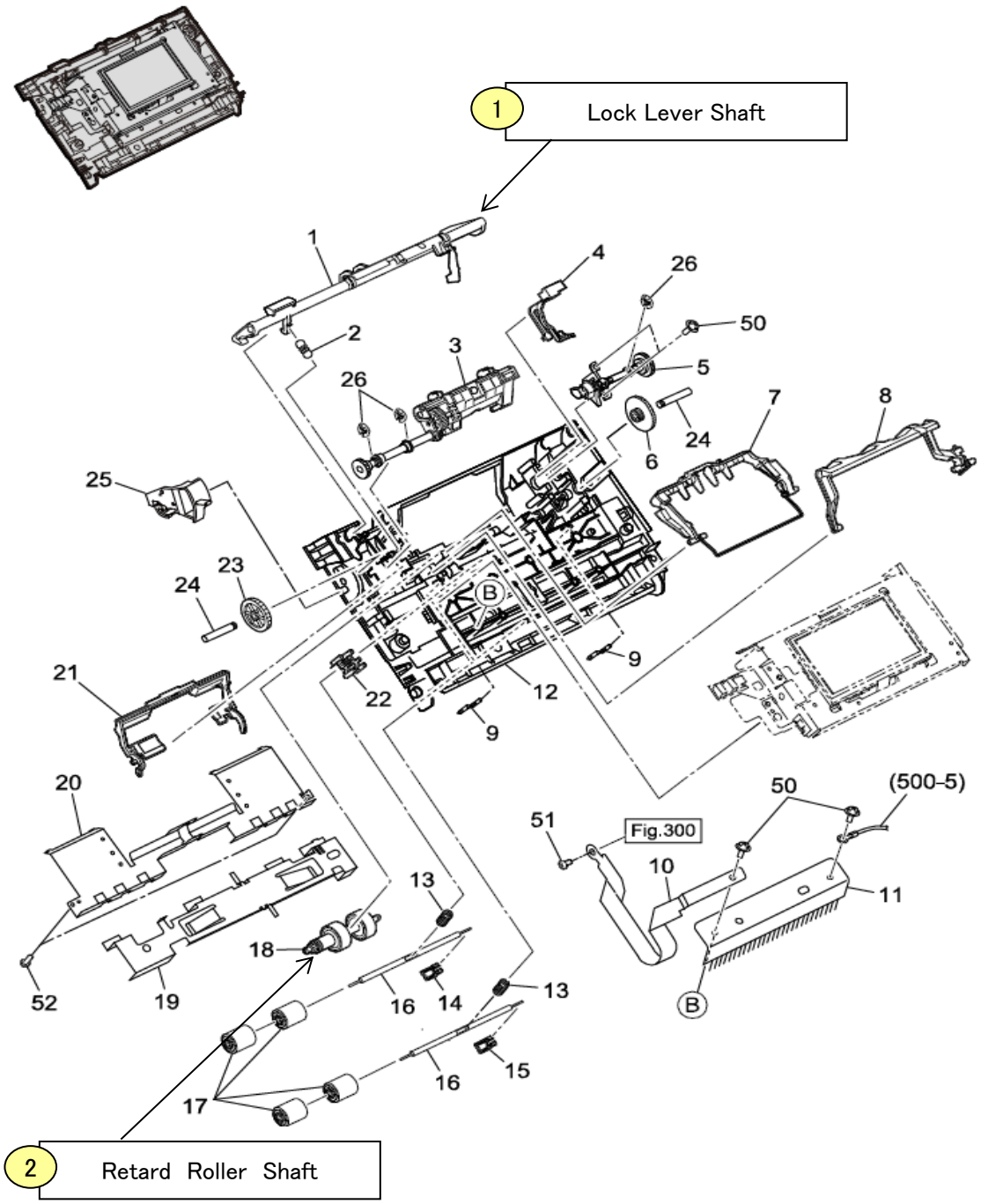

Figure 3-1

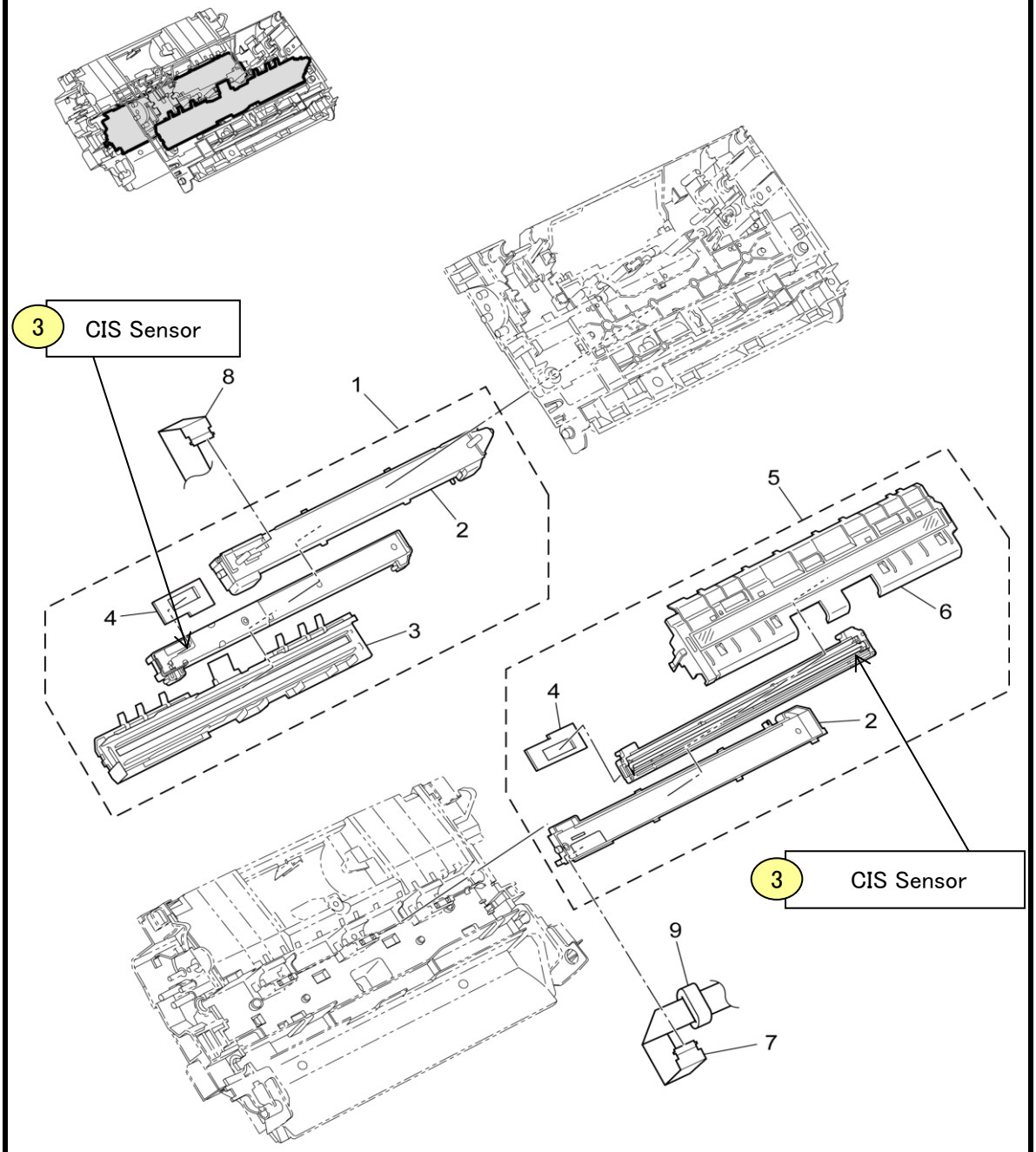

Figure 3-2

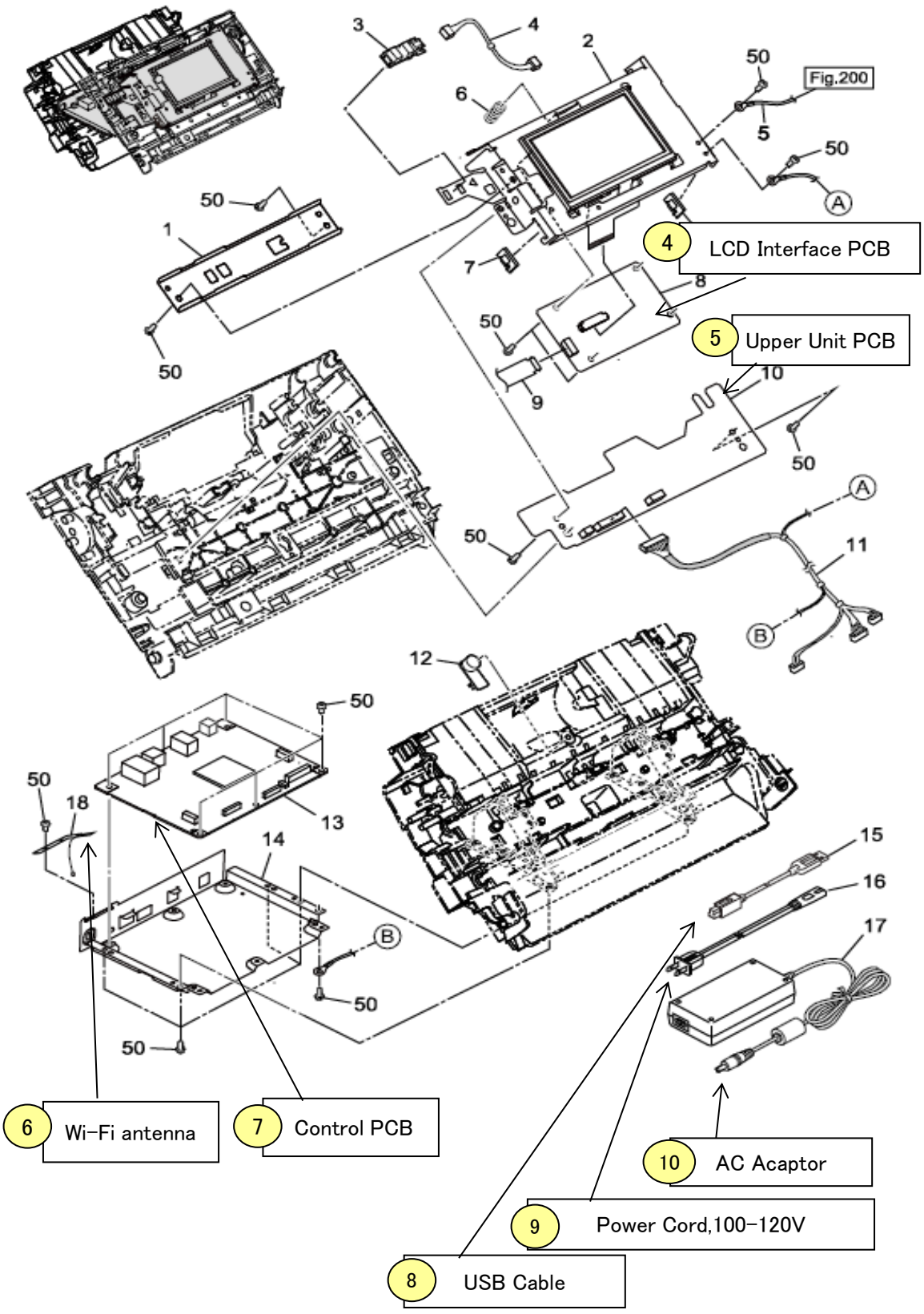
Fig.200
4 LCD Interface PCB
5 Upper Unit PCB
6 Wi-Fi antenna
7 Control PCB
8 USB Cable
9 Power Cord,100-120V
10 AC Acaptor

Figure 3-3

4. Disassembly Operation Sheet of parts requiring special handling (Parts corresponding to Annex II of WEEE) and external enclosures, chassis and electronic subassemblies.

■Removing Pickup Tray

1) Pull up the pickup tray①, and unhook the fitting parts② on the right and left sides then remove the pickup tray.

Note: When you disassemble this machine, it is better to remove this pickup tray at first.

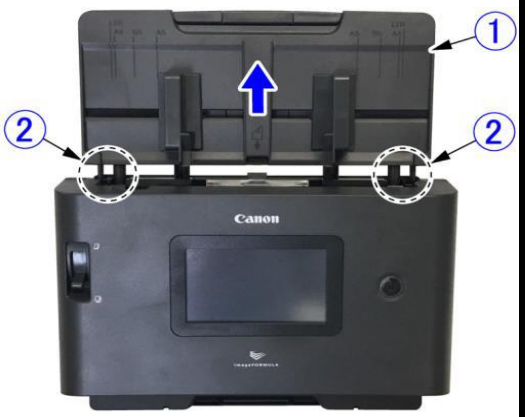

Figure 4-1

■Removing Upper Cover

1) Release the 4 fitting parts ⑫ (1 on left, 3 on right sides) and remove the upper cover⑪ by using a tool with the flat tip

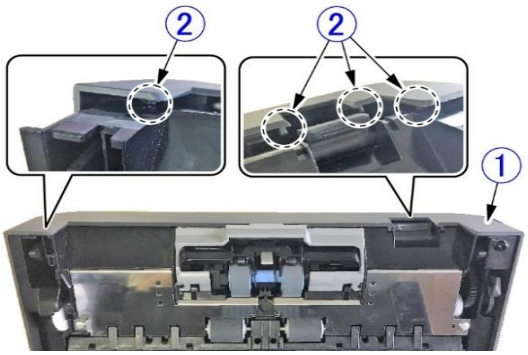

Figure 4-2

2) While push down the left and right sides □①of upper cover slowly, release the 4 fitting parts ⑫, and remove the upper cover.

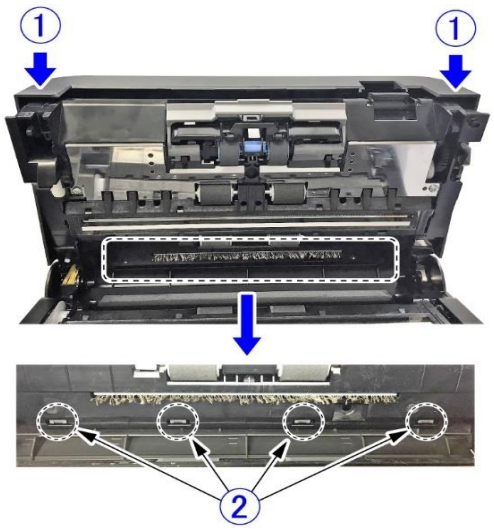

Figure 4-3

■Removing Lock Lever Shaft (Part No.1)

Note:
Remove the lock lever shaft when disassemble other parts since it is easy to be removed.

1) Remove the upper cover.(Page8/19)

2) Pull the roller cover① down and move the feed arm unit② backward. Next, lift up the document detection lever③ of the lock lever shaft, remove the lock lever shaft⑤ and the coil spring⑥ carefully not to touch to the document stopper④.

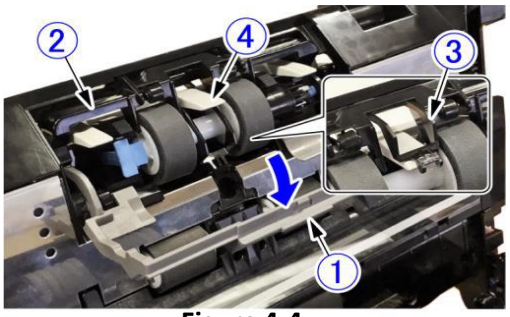

Figure 4-4

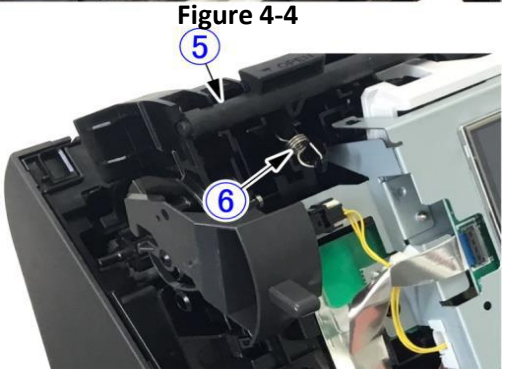

Figure 4-5

■Removing Retard Roller Shaft (Part No.2)

1) Open the front unit and open the retard roller cover①.

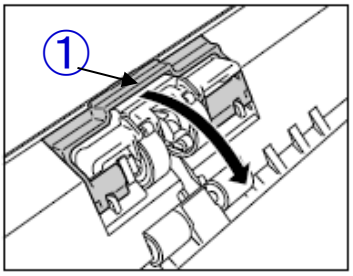

Figure 4-6

2) Remove the retard roller unit②.

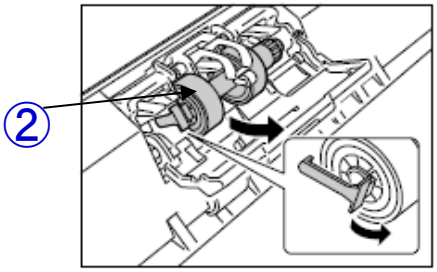

Figure 4-7

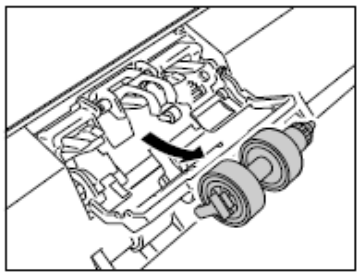

Figure 4-8

3) Unhook the fitting parts③, and remove the retard roller shaft④.

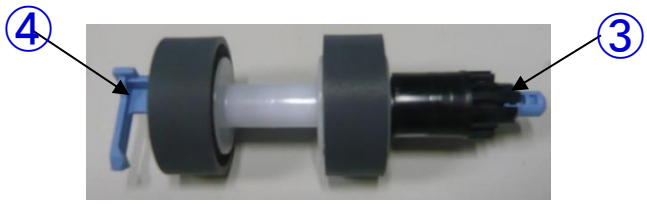

Figure 4-9

■Removing Upper Unit PCB (Part No.5)

1) Remove the upper cover. (Page8/19)

2) Remove the screw ⑪ (M3, BH, rounded tip) and remove the grounding cable ⑫ on the upper side(U).

Note:
When replacing the LCD unit, also remove the grounding cable on the lower side(L).

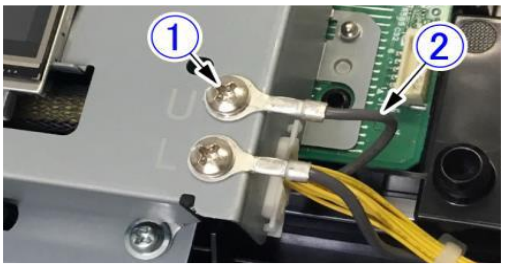

Figure 4-10

3) Remove the 2 fitting parts⑪ on the LCD unit and 2 fitting parts⑫. Next, remove the LCD unit⑬ (with the upper unit PCB) from the front unit. Then remove the cable band⑭.

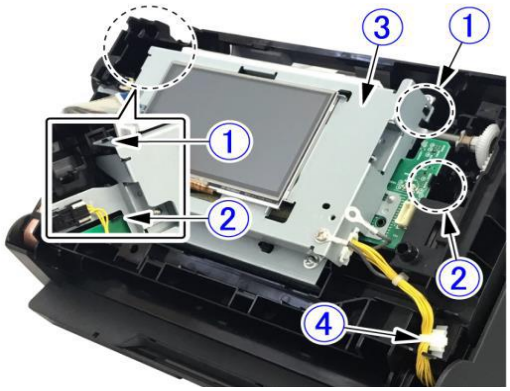

Figure 4-11

4) Remove the 2 screw⑪ (M3, bind head, round-end), pull the upper unit PCB⑫ up from the front side.

Note:
Do not pull the upper unit PCB excessively because the cables⑬ are connected to the rear side.
Do not lose the coil spring⑭ because it is removed easily.

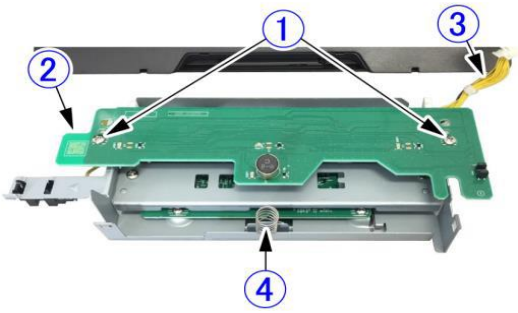

Figure 4-12

5) Remove the cables in order of ①and②. And remove the upper unit PCB.

Figure 4-13

■Removing LCD Interface PCB (Part No.4)

1) Remove the upper unit PCB.(Page11/19)

2) Remove the cable band⑪, and remove the fitting parts in order of ⑫ and ⑬. Then remove the paper feed switch sensor ⑭ (with cable).

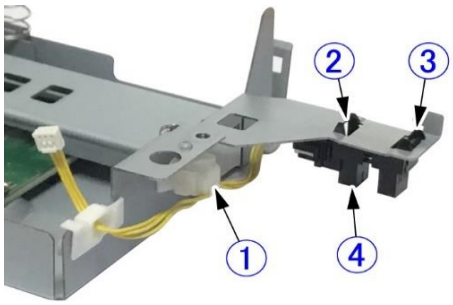

Figure 4-14

3) Remove the 2 screws ⑪ (M3, bind head, round-end), and remove the support plate ②.

Figure 4-15

4) Remove the 4 screws ⑪ (M3, bind head, round-end).

Figure 4-16

5) Pull the LCD interface PCB ⑪ up from the front side, unlock the connector ⑫, and remove the cable⑬ (FPC).

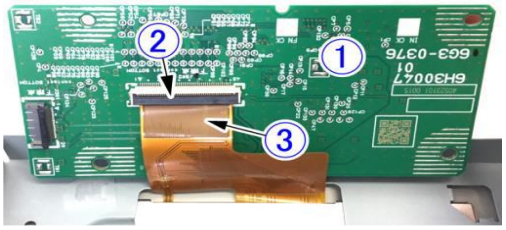

Figure 4-17

■Removing Lower Cover

1) Using a tool with the flat tip, release the 4 fitting parts⑪ (2 of each side), and remove the lower cover⑫ while opening the gap between the lower cover and the base unit.

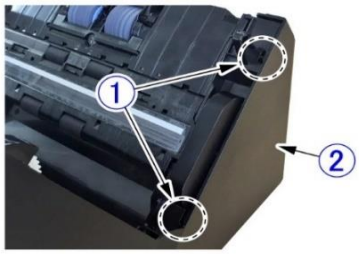

Figure 4-18

Figure 4-19

■Removing Left Pulley Cover

1) Remove the lower cover.(Page13/19)

2) Remove the left pulley cover⑪ while release the fitting parts in order of ⑫ and ⑬.

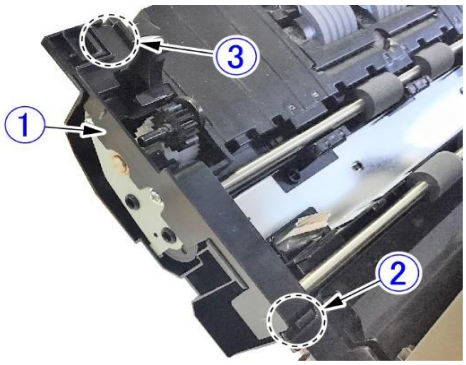

Figure 4-20

■Removing Wi-Fi antenna mount plate （Part No.6）

1) Remove the lower cover.(Page13/19)

2) Remove the screw⑪ (M3, bind head, round-end) and the grounding cable⑫. Next, remove the 4 screws⑬ (M3, bind head, round-end).

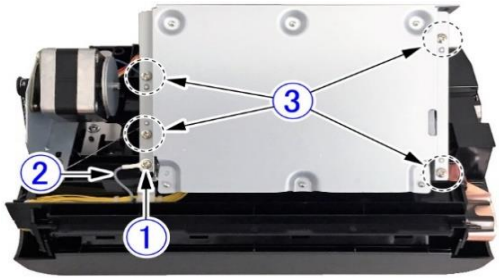

Figure 4-21

3) Turn the mount plate ① (with the control PCB) in front.

Figure 4-22

4) Release the plug on Wi-Fi antenna. And remove the screw⑫ (M3, bind head, round-end), and remove the Wi-Fi antenna mount plate ③ (with Wi-Fi antenna).

Note:
When remove the plug on Wi-Fi antenna., hold the plug ① to prevent the cable from breaking.

Notes on assembling

When insert the Wi-Fi antenna plug into the control PCB, be careful not to let the plug float or insert it at an angle

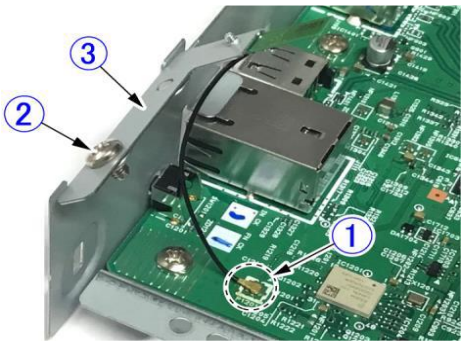

Figure 4-23

■Removing Control PCB （Part No.6）

1) Remove the lower cover.(Page13/19)

2) Remove the screw① (M3, bind head, round-end) and the grounding cable②. Next, remove the 4 screws③ (M3, bind head, round-end).

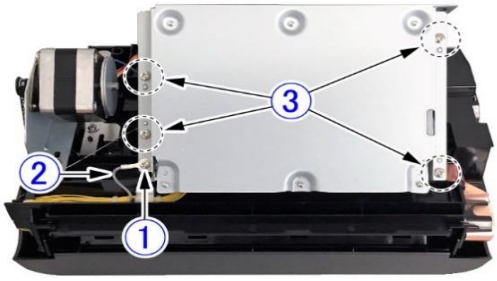

Figure 4-24

3) Turn the mount plate① (with Wi-Fi antenna and the control PCB) in front. Next, remove the cables② to ④ and ⑤ to⑦(FFC) from the control PCB to remove the mount plate (with Wi-Fi antenna and the control PCB).

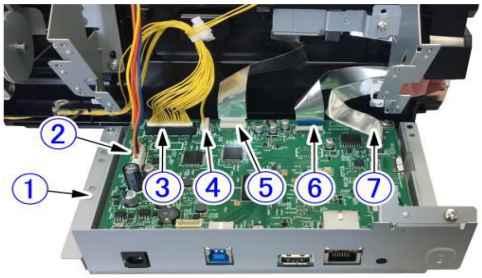

Figure 4-25

4) Remove the Wi-Fi antenna plug ①Next, remove the 6 screws ② (M3, bind head, round-end) and remove the control PCB ③.

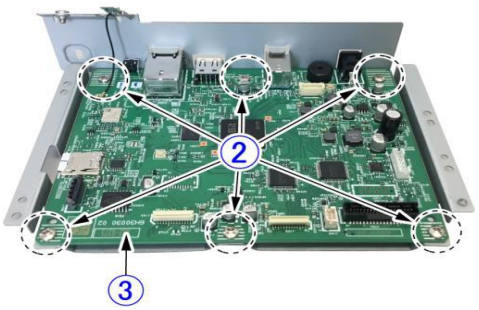

Figure 4-26

■Removing Upper CIS Sensor (Part No.3)

Note:
The shapes of the reading guides for the upper reading unit and the lower reading unit are different.

1) Insert a tool with thin and flat tip into the left and right gap①, and lift up the upper reading unit② a little bit using the tool while releasing the inside fitting parts. Next, pull out the reading unit straight and turn it over.

Note:
Do not pull the cable excessively be-cause it is connected to the rear side of the upper reading unit.

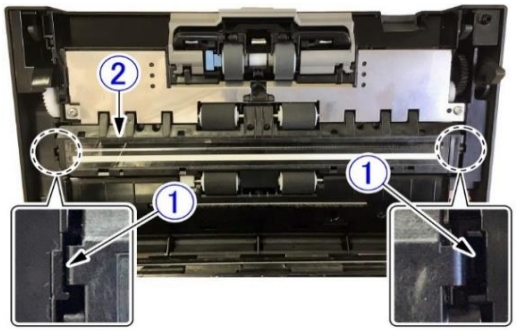

Figure 4-27

2) Unlock the connector①, remove the cable②(FFC), and upper reading unit③.

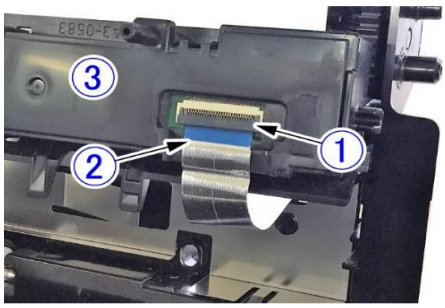

Figure 4-28

3) Using a tool with flat tip, release the 8 fitting parts① and then remove the case□② . And remove the CIS unit from the upper reading guide③.

Note:
Release the fitting parts without any damage of hooks. While removing the case, do not drop the CIS unit and dustproof rubber because they are detached.

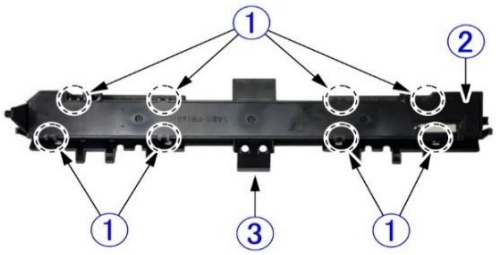

Figure 4-29

■Removing Lower CIS Sensor (Part No.3)

Note:
The shapes of the reading guides for the upper reading unit and the lower reading unit are different.

1) Insert a tool with thin and flat tip into the left and right holes①, and lift up the lower reading unit② a little bit using the tool while releasing the inside fitting parts. Next, pull out the reading unit straight and turn it over.

Note:
Do not pull the cable excessively because it is connected to the rear side of the lower reading unit.

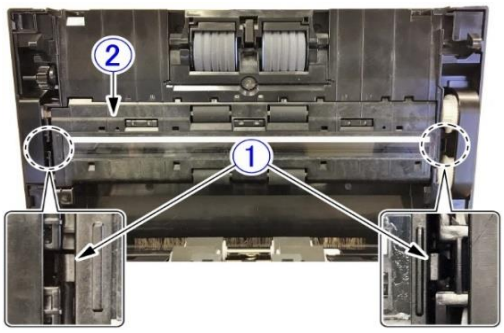

Figure 4-30

2) Unlock the connector①, remove the cable②(FFC), and lower reading unit③.

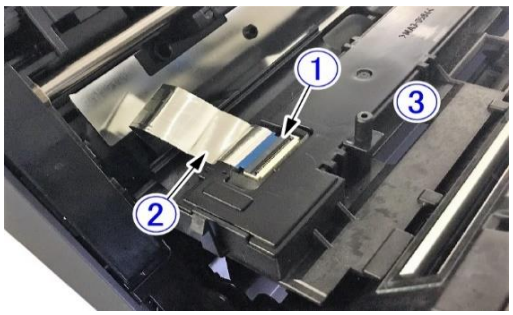

Figure 4-31

3) Using a tool with flat tip, release the 8 fitting parts① and then remove the case□②. And remove the CIS unit from the lower reading guide③.

Note:
Release the fitting parts without any damage of hooks. While removing the case, do not drop the CIS unit and dustproof rubber because they are detached.

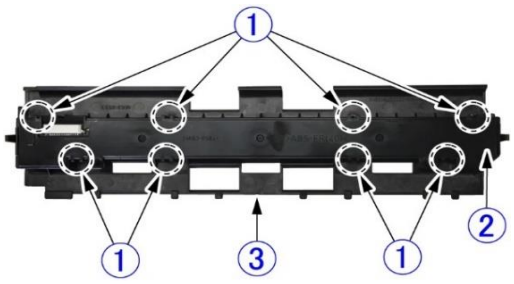

Figure 4-32

4.3.3 Materials with special handling needs
4.3.3.1 Required—Notification regarding the identification of both materials and components that have hazardous characteristics or special handling needs

Product Criterion: Manufacturer shall (a) within one year after the equipment is put on the market make available to reuse and recycling facilities information identifying the presence and location of all materials and components exhibiting hazardous characteristics or requiring special handling and (b) ensure that such materials and components are safely and easily identifiable. Manufacturers shall provide such information to a central information source that makes such information available to recyclers (if such central information source is referred to them by the PRE) or to a web site making information available to recyclers. If the manufacturer does not provide information to a central information source, but rather provides such information on another web site, the manufacturer shall declare the URL where the information regarding the declared product is located.

Applies to: All covered products.

Verification Requirements:

a) Declaration from manufacturer
b) Documentation as to how information is provided to reuse and recycling facilities, including, but not limited to, the URL of website and how reuse/recycling facilities gain access to the information
c) Documentation that identifies the presence and location of all materials and components demonstrating hazardous characteristics or requiring special handling and confirming that the applicable components are safely and easily identifiable,

References and Details: Materials exhibiting hazardous characteristics or those requiring special handling are those materials defined under Annex II of the European WEEE Directive, Directive 2012/19/EC of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE), and subsequent updates.

For further information see: Blue Angel; NIOSH Pocket Guide (A reference for lists of chemicals with hazards); US EPA IRIS Glossary

4.3.4 Product end-of-life analysis and planning
4.3.4.1 Required—Preparation of product end-of-life characterization report

Product Criterion: Manufacturer shall prepare and make available to reuse and recycling facilities, and upon request to other institutions and organizations, for each registered product, an end-of-life characterization report that provides guidance for the effective processing of the materials identified in Directive 2012/19/EC of the European Parliament and of the Council on Waste Electrical and Electronic Equipment Annex II within one year after the equipment is put on the market

Applies to: All covered products.

Verification Requirements:

a) Declaration by manufacturer
b) The end-of-life characterization report
c) Documentation as to how information is provided to reuse and recycling facilities
d) Identification of a point of contact for institutions and organizations to request the end-of-life report

References and Details: A WEEE Disassembly report, adapted to report on any additional elements from criteria from this standard that are declared to, shall meet the requirements of

Products whose designs are the same relative to the end-of-life processes may utilize a report in common, which shall list the applicable product names.

DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment(WEEE)

Annex II

As a minimum the following substances, preparations and components have to be removed from any separately collected WEEE:

1 — polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) (1)

2 — mercury containing components, such as switches or backlighting lamps,

3 — batteries,

4 — printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimeters,

5 — plastic containing brominated flame retardants,

6 — asbestos waste and components which contain asbestos,

7 — cathode ray tubes,

8 — chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC),

9 — gas discharge lamps,

10 — liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimeters and all those back-lighted with gas discharge lamps,

11 — external electric cables,

12 — components containing refractory ceramic fibers as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress Council Directive 67/548/EEC relating to the classification, packaging and labeling of dangerous substances (2),

13 — components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation (3),

14 — electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume)
These substances, preparations and components shall be disposed of or recovered in compliance with Article 4 of Council Directive 75/442/EEC.

15 — toner cartridges, liquid and pasty, as well as color toner,