

Working Instructions

- mechanical -



Xperia XZ3

H8416, H9436 (Dual SIM), H9493 (Dual SIM)

CONTENTS

1	Exterior Views.....	5
2	Tools	6
2.1	Special Tools	6
2.1.1	Special Tools	6
2.1.2	Optional Tools for Pressing.....	11
2.1.3	Tool Modification	12
2.1.4	WRT Fixture Maintenance.....	13
2.2	Standard Tools	14
3	Mandatory Replacement Parts List	15
4	Disassembly.....	16
4.1	Cap Combo	18
4.2	Panel Rear	18
4.3	Frame Rear	22
4.4	Antenna NFC	24
4.5	Sub Camera	24
4.6	Main Camera.....	25
4.7	PBA	26
4.8	Sheet Slider MOP	27
4.9	FPC TP Relay.....	28
4.10	Loudspeaker.....	29
4.11	FPC Key	29
4.12	Battery.....	30
4.13	Antenna WLC.....	32
4.14	Speaker Box	32
4.15	Vibrator LRA.....	33
4.16	FPC USB	33
4.17	Front Assy	33
5	Reassembly.....	34
5.1	FPC USB	36
5.2	Vibrator LRA.....	36
5.3	Speaker Box	37
5.4	Battery.....	38
5.5	Antenna WLC.....	40
5.6	Battery Assy	42
5.7	FPC Key	43
5.8	Loudspeaker.....	44
5.9	FPC TP Relay.....	45
5.10	Sheet Slider MOP	46
5.11	PBA	47

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Working Instruction Repair Instruction Mechanical/

5.11.1	Preparation for PBA installing.....	47
5.11.2	Apply the Thermal Gap Filler.....	49
5.11.3	PBA installing	52
5.12	Main Camera.....	55
5.12.1	Bending FPC.....	55
5.12.2	Installing Main Camera.....	56
5.13	Sub Camera	58
5.14	Antenna NFC	59
5.15	Frame Rear	61
5.16	Panel Rear	63
5.16.1	Affix Adhesive WR Panel Rear	63
5.16.2	Installing Panel Rear	64
5.16.3	Press for fixing the Panel Rear.....	66
5.17	Cap Combo.....	70
6	Battery Reuse Instruction.....	71
6.1	Battery Handling Notices.....	71
6.2	Battery Inspection Flow.....	72
6.3	Battery Assy Inspection	72
6.3.1	Dot Marking Check.....	72
6.3.2	Plate Battery Inspection.....	72
6.3.3	Antenna WLC Inspection	73
6.3.4	Battery Inspection	73
6.4	Battery Inspection.....	74
6.4.1	Dot Marking Check.....	74
6.4.2	Battery Inspection	74
6.5	Appearance Check of the Battery Surface	75
7	Revision History	78

General Notes

For general information about mechanical repair related issues, refer to 000154064.34: Generic Repair Manual - mechanical - (under the RE4250: Repair - Mechanical - Repair instructions).

Always firstly disconnect the Battery FPC BtB connector to cut off power supply once remove the Frame Rear.

Always finally connect the Battery FPC BtB connector before the Frame Rear is reassembled.

After repairing/reassembling the unit, calibration by CS-Everest, and flashing software Customize by Emma is required.

Calibration tool "CS-Everest 1309-7255" is available at Repair Information.

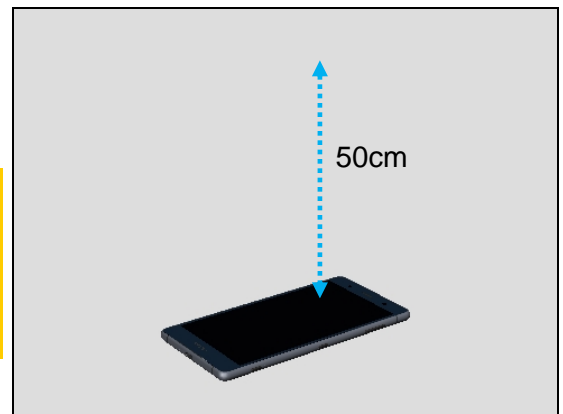
It is posted under the RE4251: Repair - Mechanical - Tools and Equipment (including Repair Software).

When perform calibration, put the unit on a stable place, facing up, and no any objects within 50cm.

Note!

Remove the protection film if sensor window is covered by it.

The sensor window shouldn't be covered by any materials for proximity sensor calibration.



Flashing Customize or Refurbish in Emma must be performed when replace Top Speaker and/or Bottom Speaker

Aged Battery Reset in EMMA must be performed when Battery is replaced (installed brand new Battery) in order to delete battery log data.

Camera (both Main Camera and Front Camera) is sensitive for the dust.

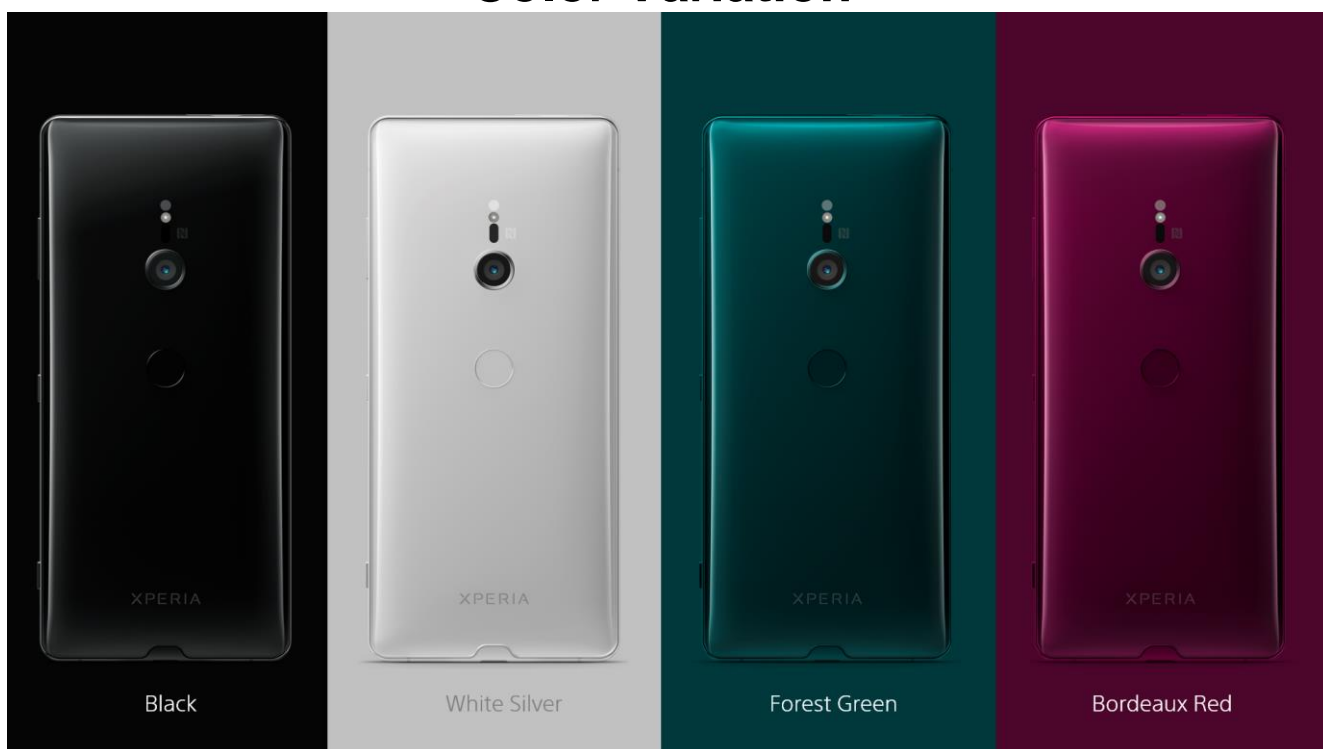
Don't touch the lens area of the camera during repairing.

1 Exterior Views

Exterior View



Color Variation

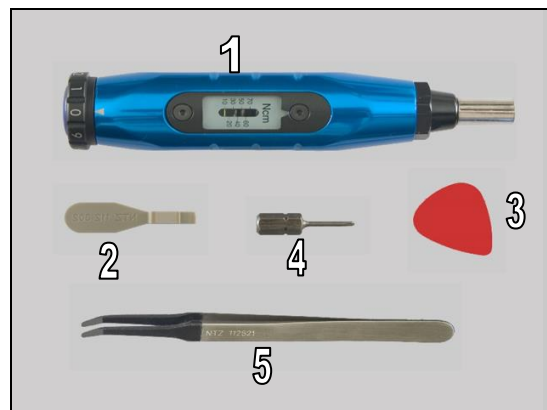


2 Tools

2.1 Special Tools

2.1.1 Special Tools

1. Torque Screwdriver 2-30Ncm (1233-2284)
2. Front Opening Tool (NTZ 112 302/2)
3. Guitar Pick (NTZ 112 590)
4. Bits (JCIS No 0) (NTZ 112 1052)
5. Flex Film Assembly Tool (NTZ 112 521)



Note!

To remove the Panel Rear, either 6a. Panel Disassemble Tool II (1313-6278), or 6b. Panel Disassembly Tool (1305-0361) is required.

The 6a. Panel Disassembly tool II (1313-6278) can be used as is, however the 6b. Panel Disassembly Tool (1305-0361) is required simple modification. Refer to the "2.1.3 Tool Modification" for detail.

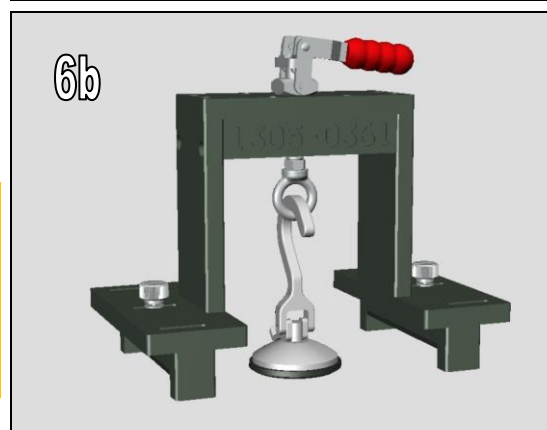
- 6a. Panel Disassembly Tool II (1313-6278)

For removing the Panel Rear.



- 6b. Panel Disassembly Tool (1305-0361)

For removing the Panel Rear.



Note!

Instead of Panel Disassembly Tool II (1313-6278), Panel Disassembly Tool (1305-0361) can be utilized.

However, in order to use it, simple modification is required.

Refer to the "2.1.3 Tool Modification" for detail.

Tools

7. Vacuum Cup for Tool (L) (1313-3658)

Maintenance part for Using with Panel Disassembly Tool II (1313-6278) and Panel Disassembly Tool (1305-0361).

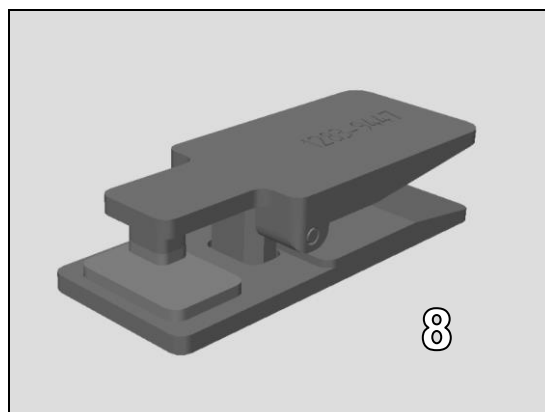
If you use Panel Disassembly Tool (1305-0361), must be replace with this vacuum cup.

Note! Refer to the "2.1.3 Tool Modification" for detail.



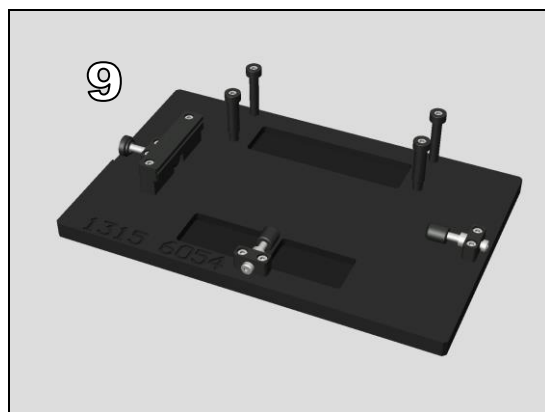
8. Earspeaker/Loudspeaker Top Press Tool (1283-9447)

For fixing the Loudspeaker on the unit.



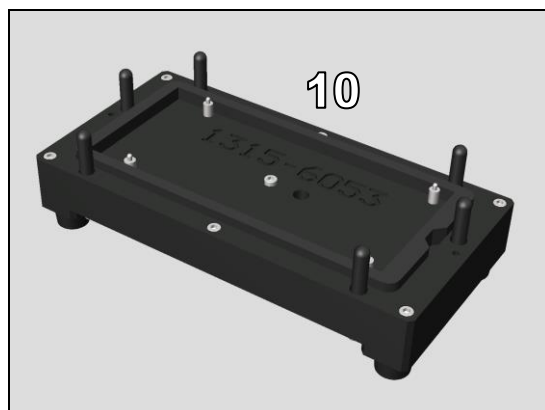
9. Positioning Tool for Panel Rear Assy (1315-6054)

For positioning the Panel Rear Assy on the unit.



10. Positioning Tool for Adhesive WR Panel Rear (1315-6053)

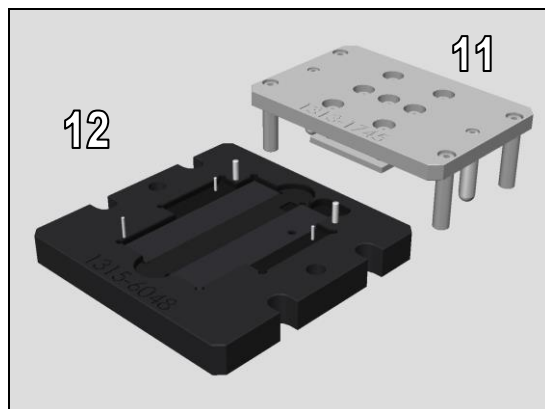
For positioning the Adhesive WR Panel Rear on the unit.



Tools

11. Press Battery Inlay (1313-1745)
12. Battery Press Tool Bottom (1315-6048)

*Press Battery Inlay (1313-1745), and Battery Press Tool Bottom (1315-6048) are used together for fixing the Battery on the Plate Battery.
And Battery Press Tool Bottom is used for positioning the Antenna WLC on the Plate Battery.*



13. Press Rubber Inlay (1315-6046)
(Include both Top and Bottom.)

*For fixing the Panel Rear on the unit.
Place the unit on the Press Rubber Inlay Bottom, and cover by Press Rubber Inlay Top.
Press it using with Generic Wheel Press Tool, or former type of Press Tool.*



14. Adapter for Panel Disassembly Tool (1315-6066)



15. Press Tool for Bending Camera FPC(1314-5945)

For bending the FPC of the Main Camera.



Tools

16. WRT Fixture (1315-6061)

For waterproof testing.

Includes Suction Pad for WRT Fixture (1313-3667).



17. Suction Pad for WRT Fixture (1313-3667)

This is maintenance part of WRT Fixture (1315-6061).

Can replace this part in case of damaged/worn out.

Refer to the 2.1.4 WRT Fixture Maintenance for replacing the Suction Pad for WRT Fixture.



18. Generic Wheel Press Tool (1311-1952)

Using with Press Rubber Inlay (1313-6380) for fixing the Panel Rear on the unit.

**Note! Former type of Press Tool can be utilized for pressing instead of this tool.
Refer to the 2.1.2 Optional Tools for Pressing.**



19. Wireless Charging Dock (1312-9940)

For testing wireless charging function.



20. Audio USB Conversion Cable (1310-9805)

This model doesn't have audio jack, and this conversion cable is required for analog audio test.

Connect the Audio USB Conversion Cable between headset and unit (USB connector) for testing analog audio output through USB connector.

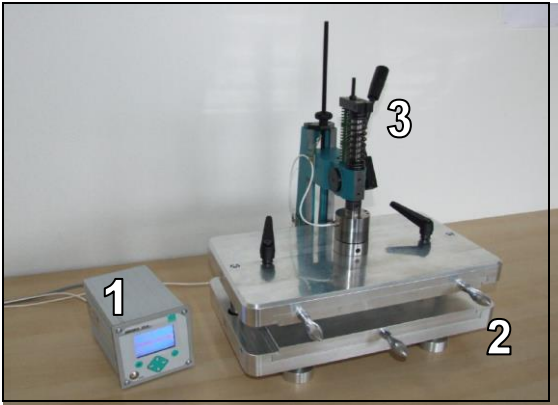


Tools

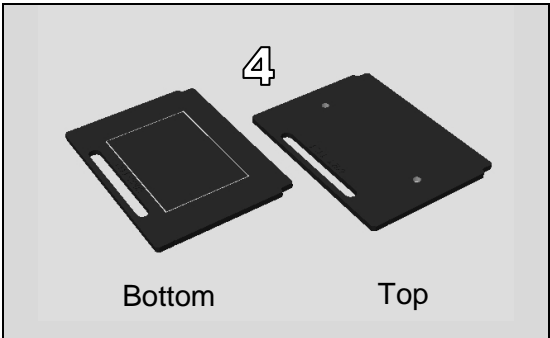
2.1.2 Optional Tools for Pressing

The tools for pressing (fixing the Panel Rear on the unit), the following tools (Former type of Press Tool) can be utilized instead of item 16 Generic Wheel Press Tool (1311-1952).




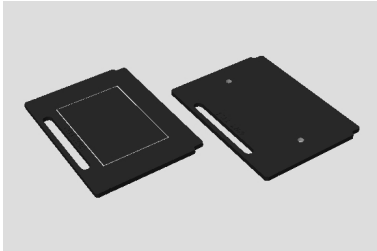
- 1. Load cell measurement kit (1274-3895)
- 2. Generic Fixture for Presstool (1273-4413)
- 3. Toothed Rack Press (1281-2676)



- 4. Inlay Adapter (1311-2202)
(Include both Top and Bottom.)



Requiring Tools matrix for Pressing (fixing the Panel Rear on the unit)

Press Tool	Press Rubber Inlay	Inlay Adapter
<div>Generic Wheel Press Tool</div> <div></div> <div>1311-1952</div>	<div></div> <div>1315-6046</div>	No Required
<div>Former type of Press Tool</div> <div></div>		<div></div> <div>1311-2202</div>

2.1.3 Tool Modification

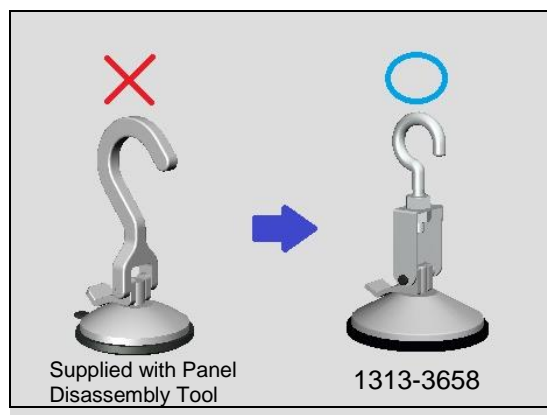
In order to use the Panel Disassembly Tool (1305-0361) for Panel Rear removing of this model, simple modification is required.

Follow below instruction for modification.

The Vacuum Cup for Tool (1305-7901) is supplied with Panel Disassembly Tool.

However, it won't be used for this model.

Use the Vacuum Cup for Tool (L) (1313-3658) instead.



2.1.4 WRT Fixture Maintenance

(Replacing the Suction Pad for WRT Fixture)

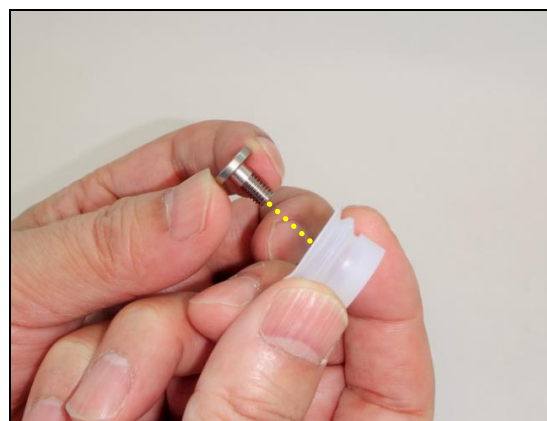
Insert the hex key wrench (3 mm) as shown in the picture, and untighten to remove the Suction Pad for WRT Fixture.



Remove the Suction Pad for WRT Fixture with screw.

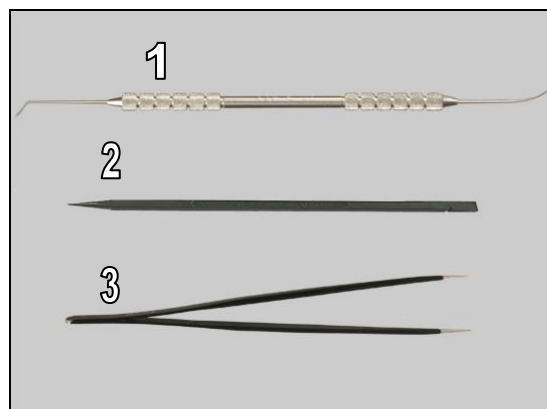


Remove the screw from the Suction Pad for WRT Fixture.
And replace to new Suction Pad for WRT Fixture.

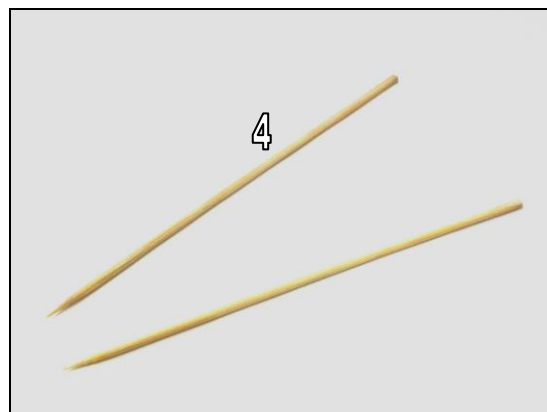


2.2 Standard Tools

1. Dentist Hook
2. Nylon Pointer
3. Tweezers



4. Bamboo Skewer



5. Hot Air Gun



Refer to the 1003-9107 Tools Catalogue for detail of standard tools.

3 Mandatory Replacement Parts List

The Mandatory Replacement Parts List is embedded.
Click the icon to open the file.



Targeted replacement parts are listed

H84, H94 Mandatory Replacement Parts List

		Target replacement part																
Mandatory replacement part	Part #	Refurbish	Front Assy	FPC USB	Vibrator LRA	Speaker Box	Antenna WLC	Battery	Loudspeaker	FPC Key	FPC TP Relay	Sheet Slider MOP	PBA	Main Camera	Sub Camera	Frame Rear	Antenna NFC	Panel Rear
Front Assy																		
Front Assy Black	1315-5026	1	1															
Front Assy White	1315-5027																	
Front Assy Green	1315-5028																	
Front Assy Red	1315-5029																	
Sheet WR Mic	1313-0478	2	2															
FPC USB	1313-7113	1		1														
Vibrator LRA	1309-9751				1													
Screw M1.2*1.2	1310-1854	6	6	6	6	4	4	4										
Speaker Box	1313-2851				1													
Antenna WLC	1315-7848						1											
Battery	1312-6095							1										
Adhesive Battery	1313-0483							2										
Adhesive FPC Key	1313-0511	1	1	1	1	1	1	1										
Loudspeaker	1313-2851	1	1						1									
Adhesive WR Speaker	1313-0475	1	1															
FPC Key	1314-4455									1								
FPC TP Relay	1312-7111			1	1	1	1	1	1		1							
Adhesive TP Relay FPC	1314-0618	1	1	1	1	1	1	1	1	1	1	1	1					
Screw M1.2x2.0	1313-1478	4	4	3	3	3	3	3			1							
Sheet Slider MOP																		
Sheet Slider MOP A1	1316-7104	1										1						
Sheet Slider MOP C2	1316-7179																	
Sheet Slider MOP C2 8G	1316-7180																	
PBA	n/a												1					
TPF Apply	n/a	1	1	1	1	1	1	1	1	1	1	1	1					
Screw M1.2x2.9	1313-3372	8	8	8	8	8	8	8	4	8	4	4	4	1				
Main Camera	1301-8332													1				
Sheet B2B Main Camera	1312-0900														1			
Sub Camera	1312-7418															1		
Plate B2B	1313-0691	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	
Frame Rear	1313-0222																	1
Antenna NFC	1315-7705																	1
Plate Sub Camera	1313-0568																1	
Cushion Thermal Sub Camera	1313-0570																1	
Screw M1.2x3.3	1313-1473	9	9	9	9	9	9	9	9	9	9	9	9	8	8	8	8	8
Screw M1.2x3.7	1313-3377	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Adhesive Panel Rear Top	1313-0571	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adhesive WR Panel Rear	1313-0575	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Panel Rear																		
Panel Rear Assy Black	1316-4783																	
Panel Rear Assy White	1316-4784	1																1
Panel Rear Assy Green	1316-4785																	
Panel Rear Assy Red	1316-4786																	
FPC FFS Relay	1312-7515																	
Sheet ZIF	1313-0581	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Label MOP	1313-0587	1											1	1				
Cap Combo																		
Cap Combo Black	1313-0582																	
Cap Combo White	1313-0583																	
Cap Combo Green	1313-0585																	
Cap Combo Red	1313-0587	1																
Cap Combo Black DS	1313-1474																	
Cap Combo White DS	1313-1477																	
Cap Combo Green DS	1313-1481																	
Cap Combo Red DS	1313-1483																	

Mandatory replacement parts for refurbishment.

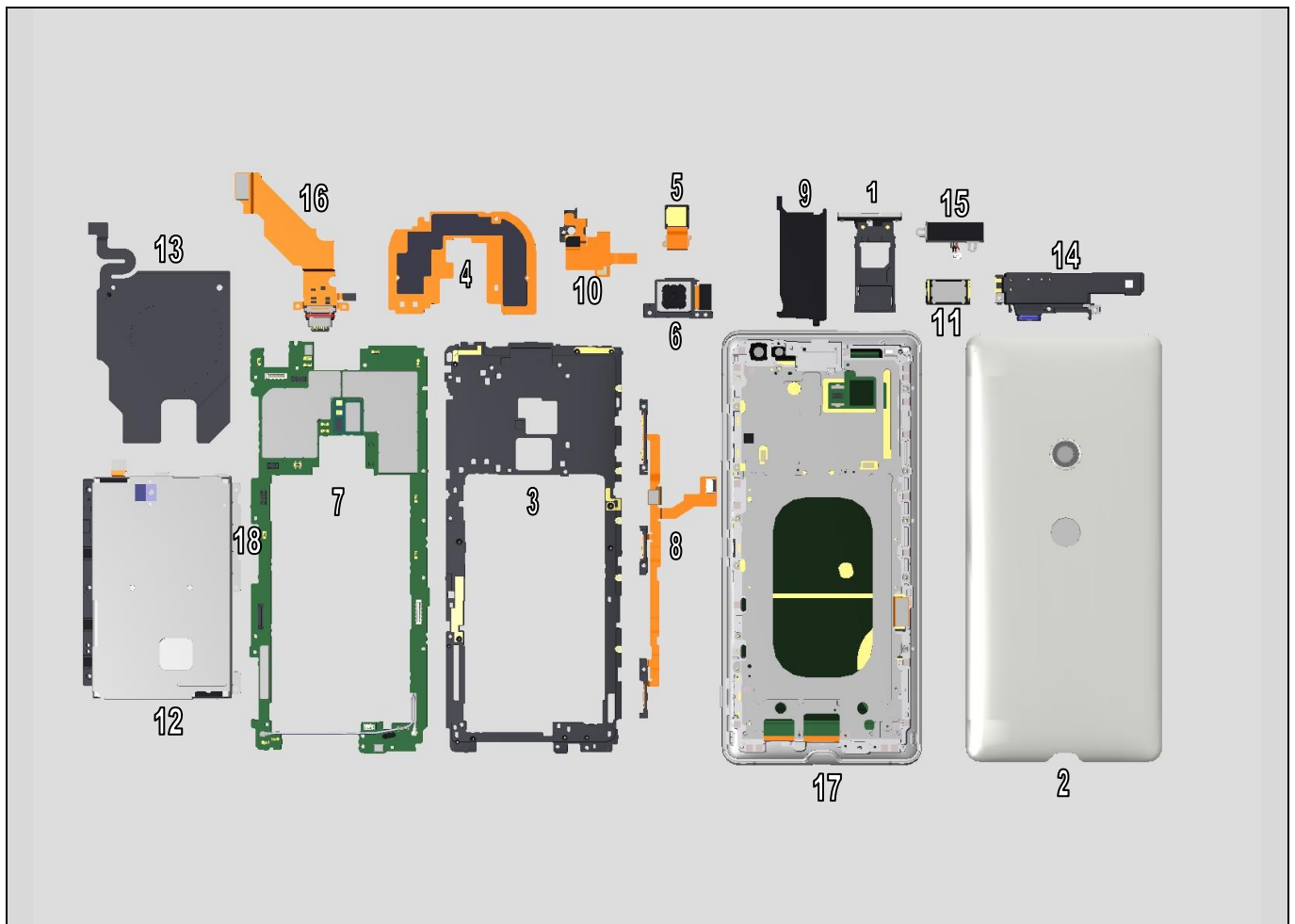
Parts that is required to replace in addition to target replacement parts.

Number in the cells indicates parts require replacing for target part.

4 Disassembly

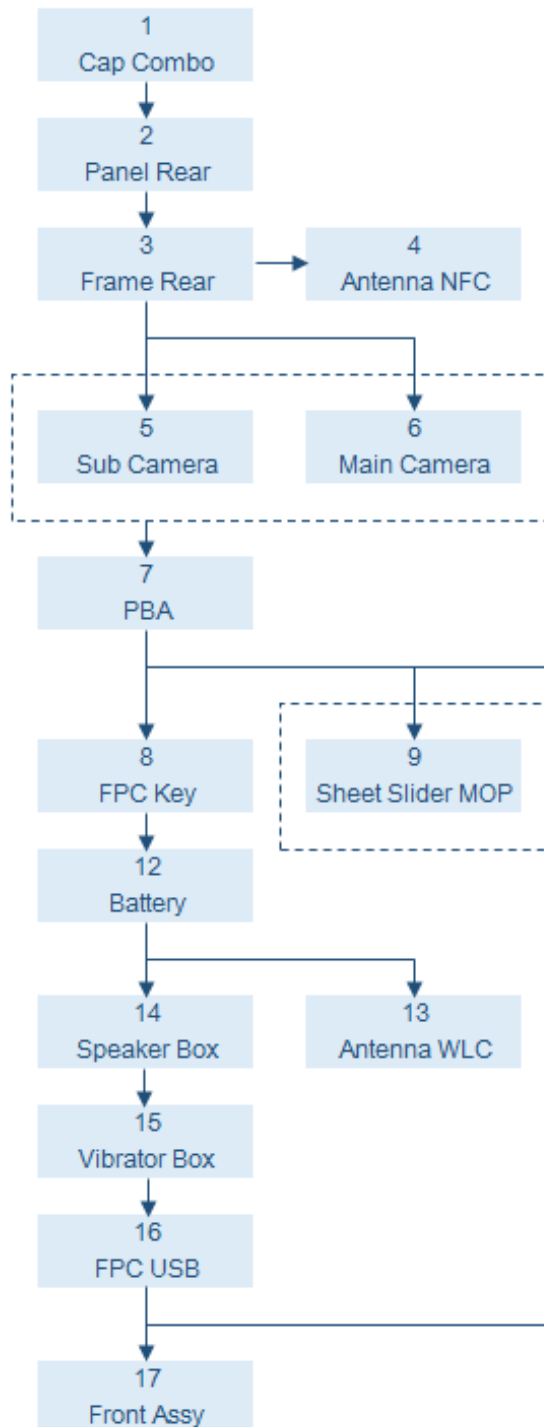
The disassembly is done in the following order:

1. Cap Combo
2. Panel Rear
3. Frame Rear
4. Antenna NFC
5. Sub Camera
6. Main Camera
7. PBA
8. Sheet Slider MOP
9. FPC TP Relay
10. Loudspeaker
11. FPC Key
12. Battery
13. Antenna WLC
14. Speaker Box
15. Vibrator LRA
16. FPC USB
17. Front Assy



Disassembly

Quick Reference for Disassembling



Replacement Target	Disassembly Procedure
1 Cap Combo	1
2 Panel Rear	1, 2
3 Frame Rear	1, 2, 3
4 Antenna NFC	1, 2, 3, 4
5 Sub Camera	1, 2, 3, 5
6 Main Camera	1, 2, 3, 6
7 PBA	1, 2, 3, 5, 6, 7
8 Sheet Slider MOP	1, 2, 3, 5, 6, 7, 8
9 FPC TP Relay	1, 2, 3, 5, 6, 7, 9
10 Loudspeaker	1, 2, 3, 5, 6, 7, 10
11 FPC Key	1, 2, 3, 5, 6, 7, 11
12 Battery	1, 2, 3, 5, 6, 7, 11, 12
13 Antenna WLC	1, 2, 3, 5, 6, 7, 11, 12, 13
14 Speaker Box	1, 2, 3, 5, 6, 7, 11, 12, 14
15 Vibrator Box	1, 2, 3, 5, 6, 7, 11, 12, 14, 15
16 FPC USB	1, 2, 3, 5, 6, 7, 11, 12, 14, 15, 16
17 Front Assy	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17

Required Disassembly Steps by Part

4.1 Cap Combo

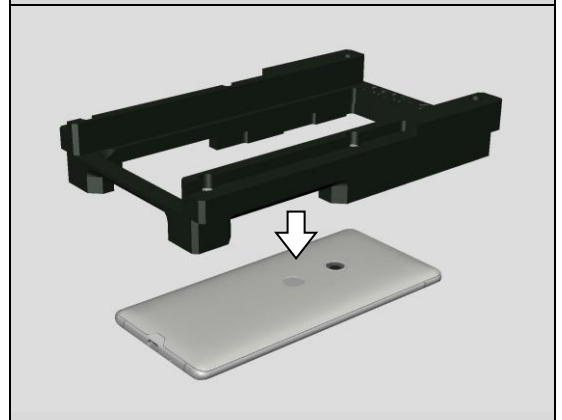
Remove the Cap Combo.

Note! Remove the Cap Combo to keep rear side of the unit up. Otherwise, SIM card and (or) micro SD card will be fallen down.

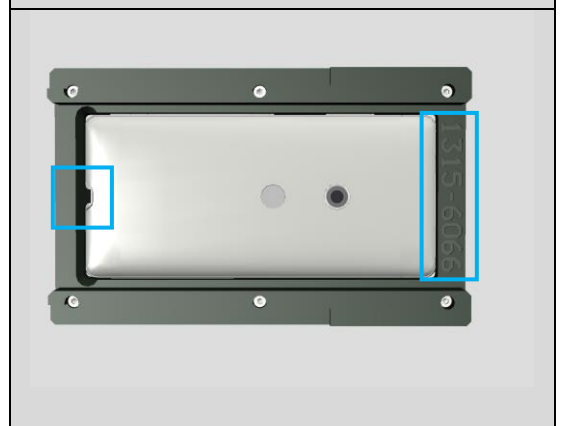


4.2 Panel Rear

Place the Adapter for Panel Disassembly Tool to the unit.



Align top of the unit and part number of the fixture or notch of the Panel Rear and projection of the fixture.



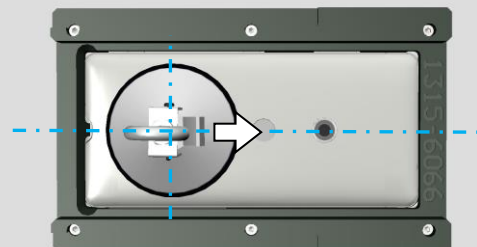
Place the Vacuum Cup for Tool (L) on the unit.



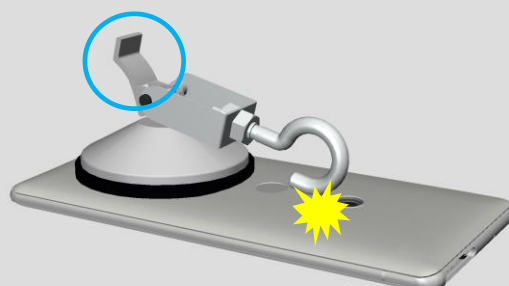
Disassembly

Place the Vacuum Cup for Tool (L) on center of the Finger Print Sensor and bottom of the unit.

And turn lock of the Vacuum Cup for Tool (L) to top side of the unit.

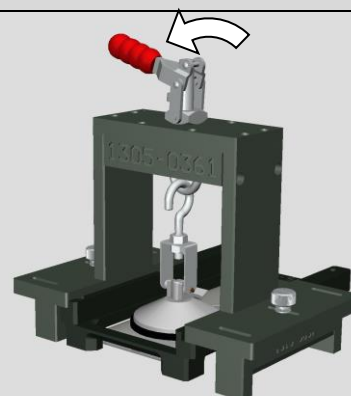


Note! If lock of the Vacuum Cup for Tool (L) is turned to bottom side, there is possibility that hook will damage to Panel Rear.

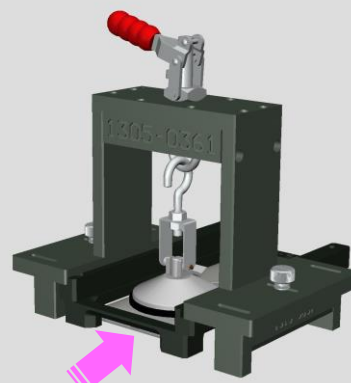


Install the unit with Adapter for Panel Disassembly Tool in the Panel Disassembly Tool II or modified Panel Disassembly Tool as shown in the illustration. And turn the handle.

Note! Refer to the “2.1.3 Tool Modification” for modifying the Panel Disassembly Tool.



Heat the bottom of the unit by 80 °C hot air of hot air gun. Panel Rear will be lifted up from the unit (make a gap between Panel Rear and unit) about 3 minutes later.



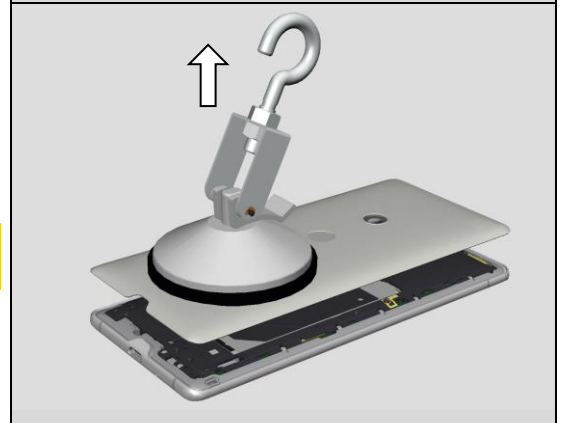
Disassembly

Insert the Guitar Pick into the gap between Panel Rear and unit.
And slide the Guitar Pick.

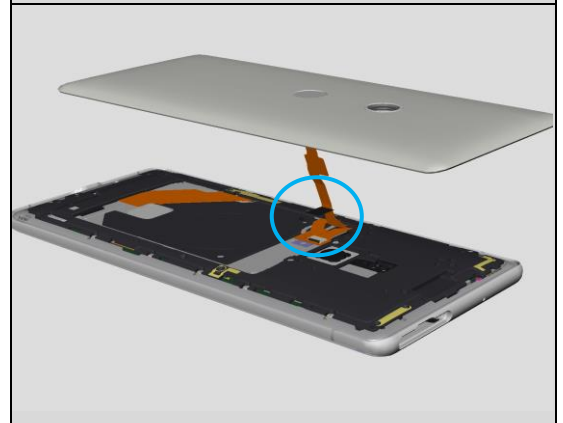


Remove the Panel Rear from unit gently.

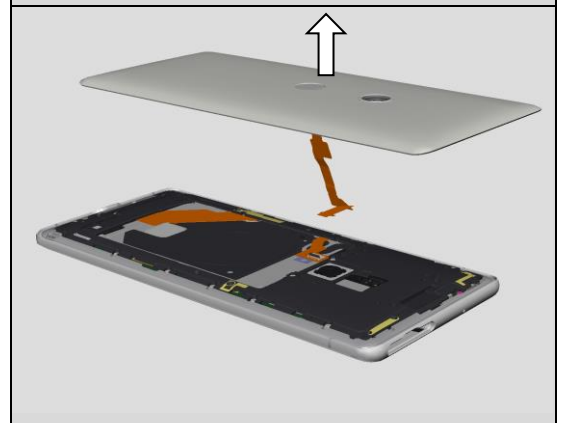
Note! Panel Rear is still connected to the unit by FPC FPS Relay.



Remove the Sheet ZIF from ZIF connector.
And unlock ZIF connector.



Remove the Panel Rear from the unit.



Disassembly

Note! Make sure to remove all residues of the Adhesive WR Panel Rear and Adhesive Panel Rear Top completely from both Panel Rear and unit (Green Highlighted Area).

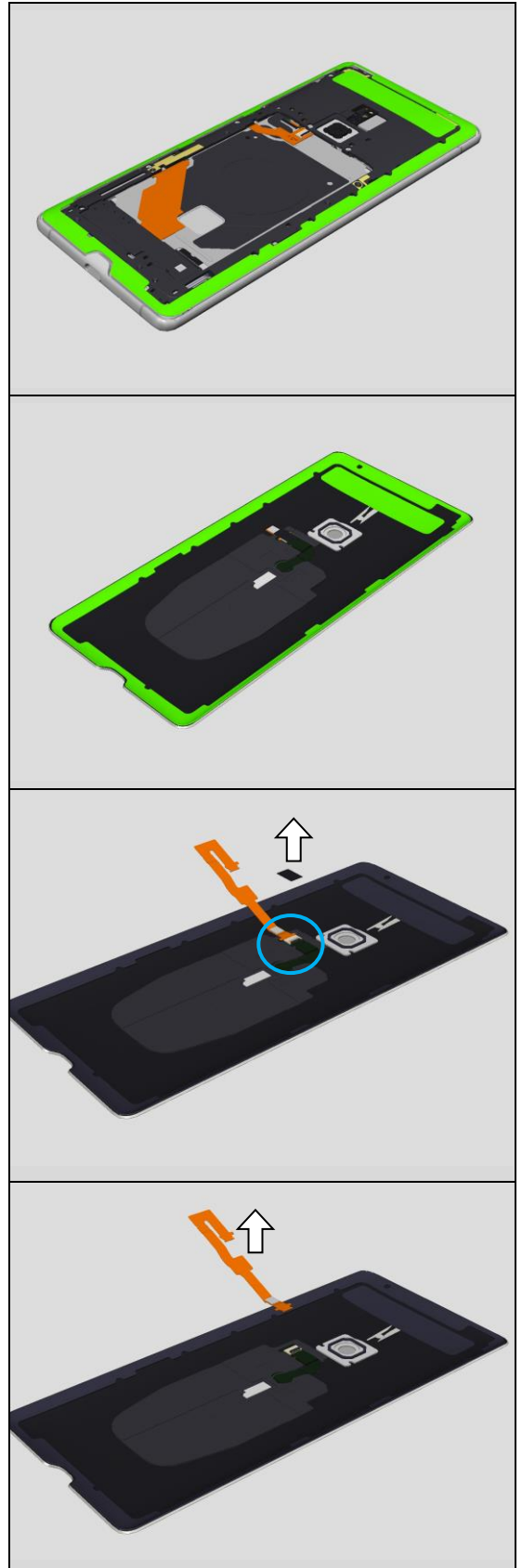
Scrap! Don't reuse the Adhesive WR Panel Rear and Adhesive Panel Rear Top.

Remove the Sheet ZIF from ZIF connector.
And unlock ZIF connector.

Note! If replacement of FPC FPS Relay is not required, skip this chapter.

Remove the FPC FPS Relay.

Note! If replacement of FPC FPS Relay is not required, skip this chapter.



4.3 Frame Rear

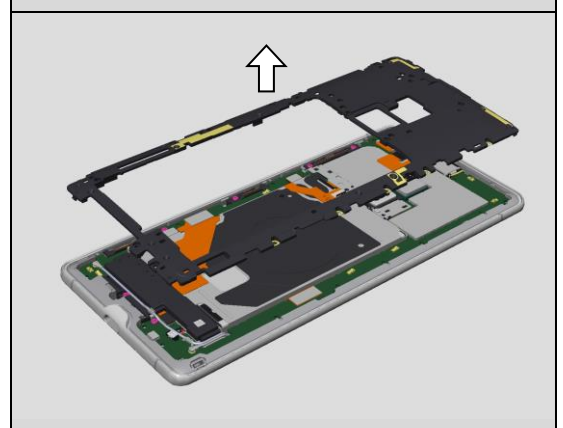
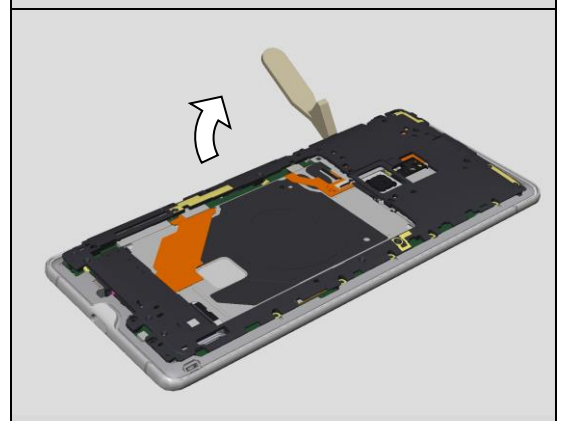
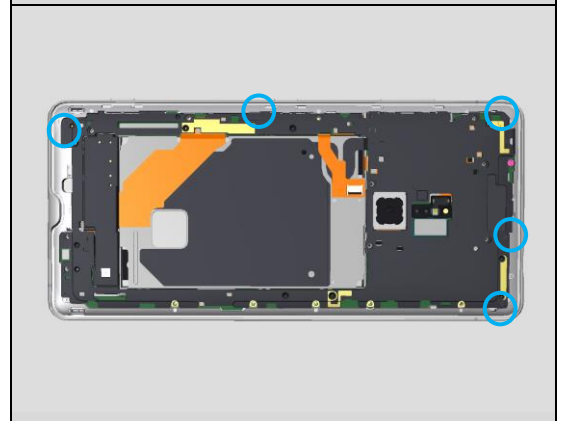
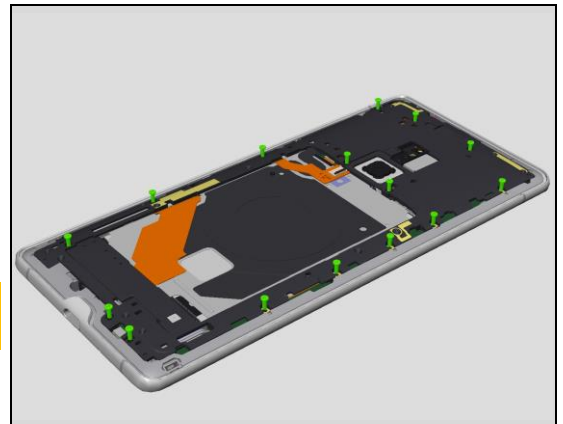
Remove the 15 pieces of Screw M1.2x3.3 and the Screw M1.2x3.7 by using a screwdriver with Bits (JCIS No 0).

Scrap! Don't reuse the Screw M1.2x3.3 and the Screw M1.2x3.7.

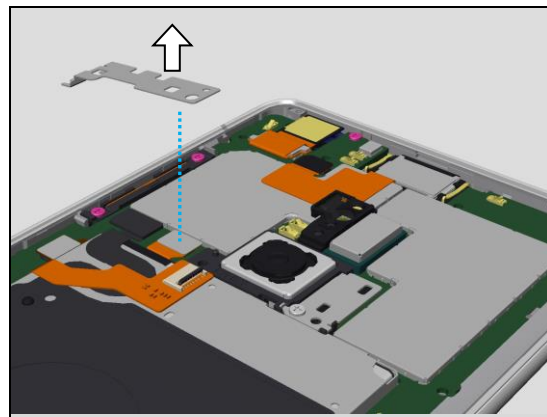
The Frame Rear is fixed by 5 hooks.

Unlock hooks of the Frame Rear by using a Front Opening Tool.

Remove the Frame Rear.

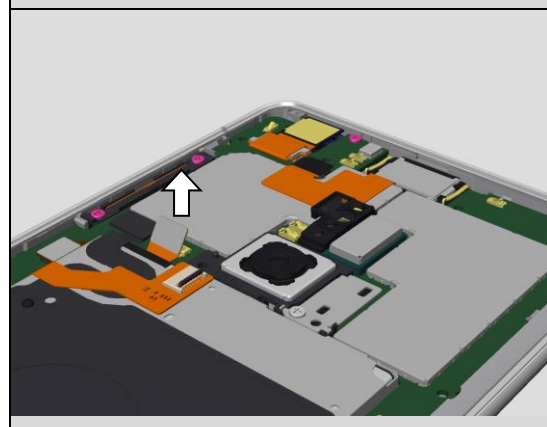


Remove the Plate B2B.



Disconnect the Battery BtB connector by using a Front Opening Tool.

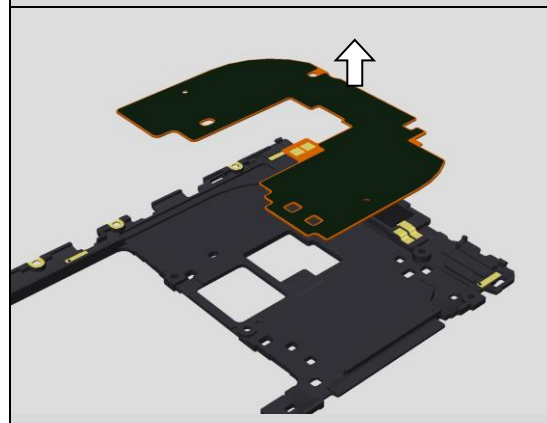
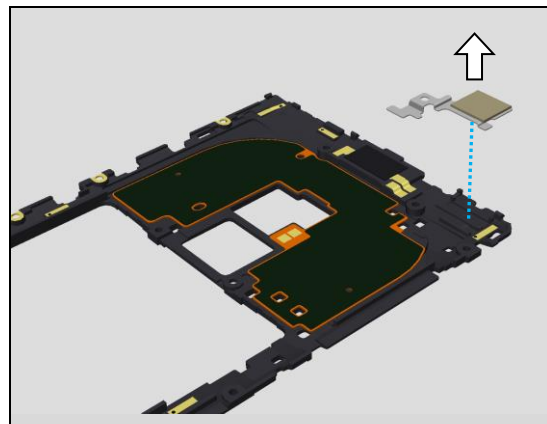
Note! BtB connector must be lifted straight it up.
If BtB connector is lifted by not straight it up in the upper direction, terminal of connector might be damaged.



4.4 Antenna NFC

Remove the Plate Sub Camera.

Remove the Antenna NFC.

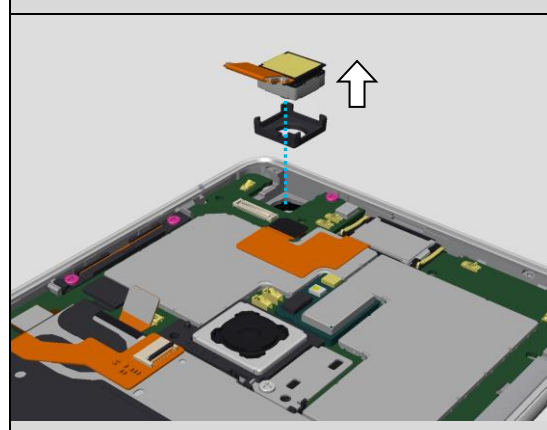
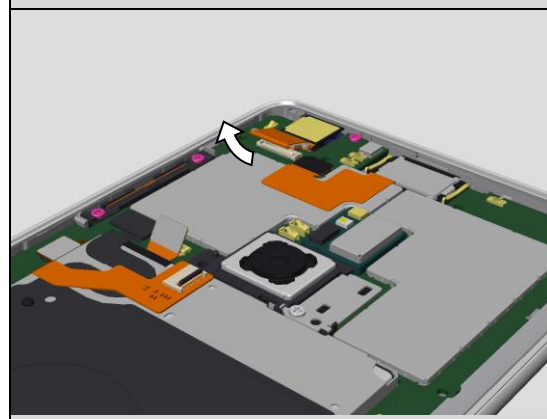


4.5 Sub Camera

Disconnect the Sub Camera BtB connector by using a Front Opening Tool.

Remove the Sub Camera with the Holder Sub Camera.

Note! If replacement of the Sub Camera is not required, Holder Sub Camera removing is not required.



4.6 Main Camera

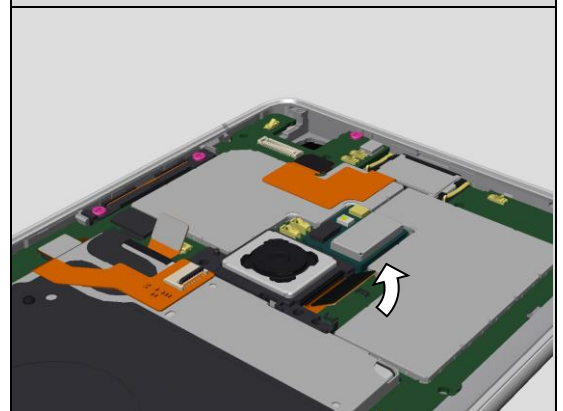
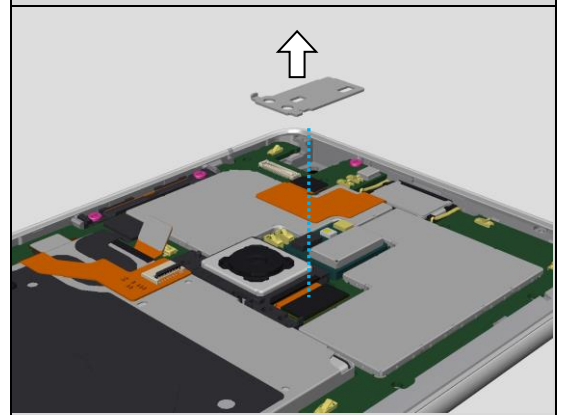
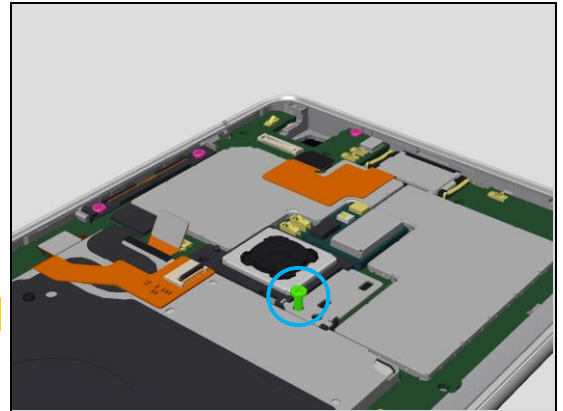
Remove the Screw M1.2x2.9 by using a screwdriver with Bits (JCIS No 0).

Scrap! Don't reuse the Screw M1.2x2.9.

Remove the Plate B2B Main Camera.

Disconnect the Main Camera BtB connector by using a Front Opening Tool.

Remove the Main Camera with the Holder Main Camera and the Plate Main Camera.



Remove the Holder Main Camera and the Plate Main Camera.

Note! If replacement of the Main Camera is not required, Holder Main Camera and Plate Main Camera removing are not required.

4.7 PBA

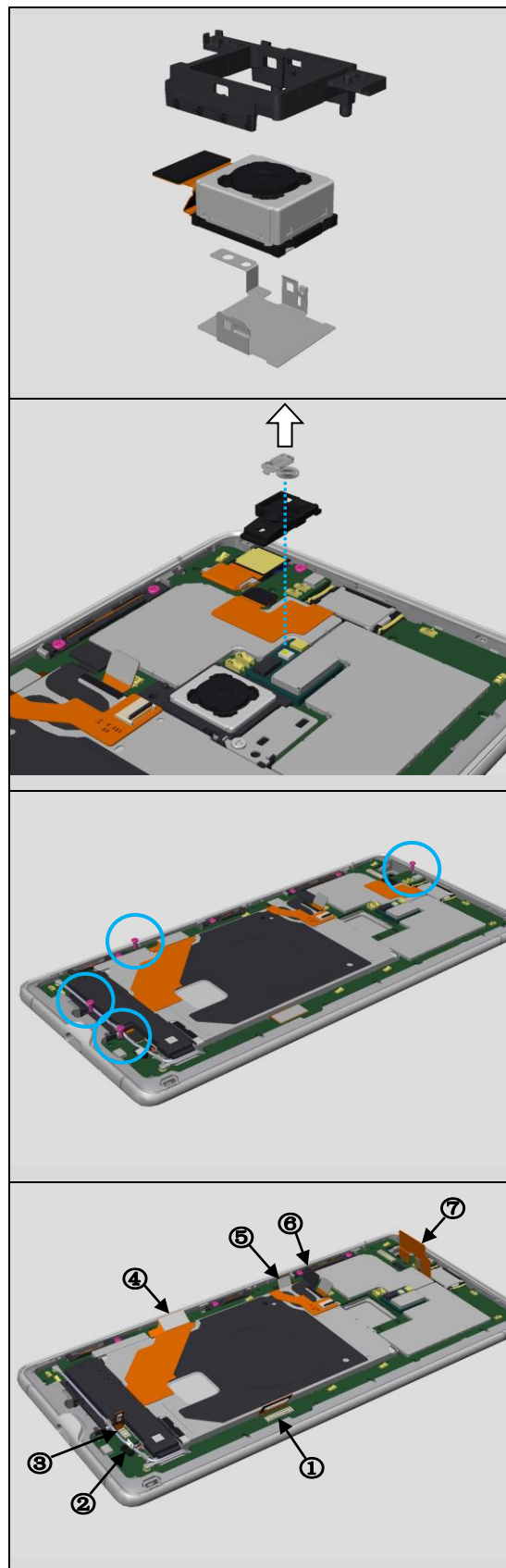
Remove Holder Sensor with Light Guide Flash.

Remove the 3 pieces of Screw M1.2x2.9 and a screw M1.2x3.3 by using a screwdriver with Bits (JCIS No 0).

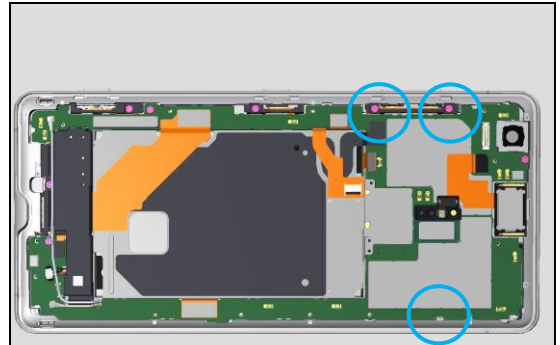
Scrap! Don't reuse the Screw M1.2x2.9 and the Screw M1.2x3.3.

Disconnect following BtB connectors.

1. Display
2. Vibrator
3. DTV
4. USB
5. Key
6. Wireless charge
7. Touch



The PBA is fixed by 3 hooks.



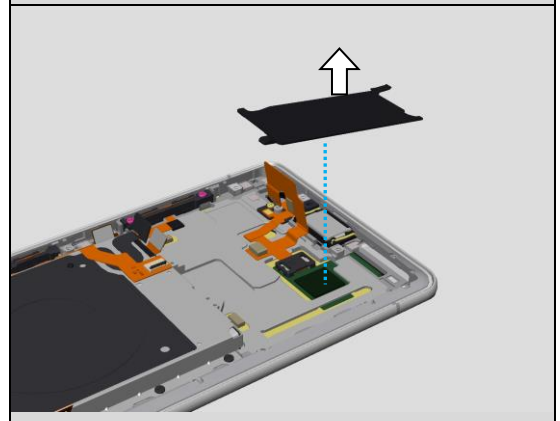
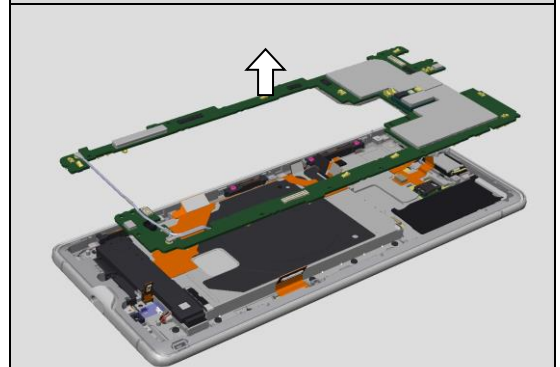
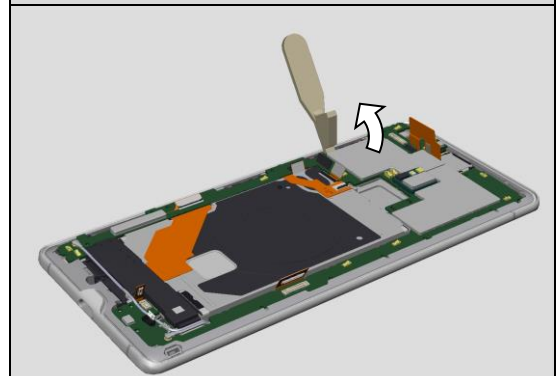
Remove the PBA by using a Front Opening Tool.

Note! When removing PBA, pay attention to connectors (① to ⑦) of two chapters ago.

Note! Before PBA is removed, make sure to remove the Cap Combo in advance.

Refer to the “4.1 Cap Combo”.

If it is remained on the PBA, connector on the PBA will be damaged.

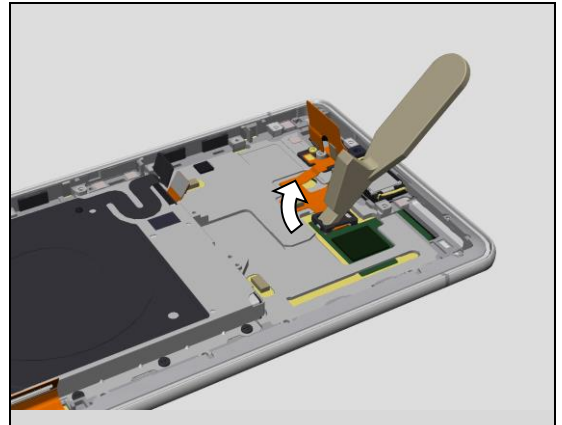


4.8 Sheet Slider MOP

Remove the Sheet Slider MOP.

4.9 FPC TP Relay

Remove the Holder B2B by using a Front Opening Tool.

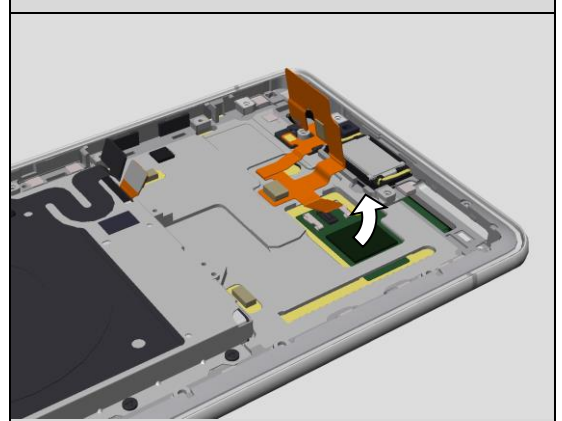


Remove the Screw M1.2x2.0 by using a screwdriver with Bits (JCIS No 0).

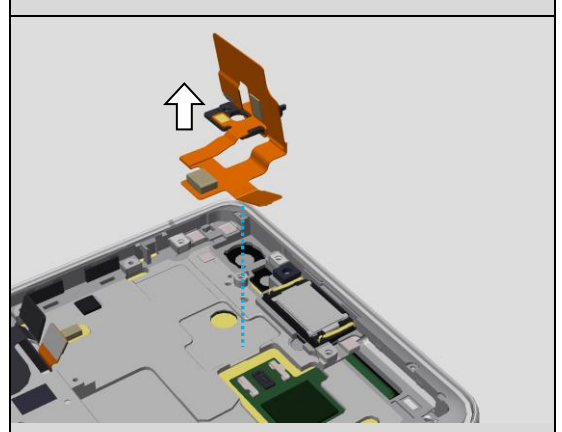
Scrap! Don't reuse the Screw M1.2x2.0.



Disconnect the FPC TP Relay connector by using a Front Opening Tool.



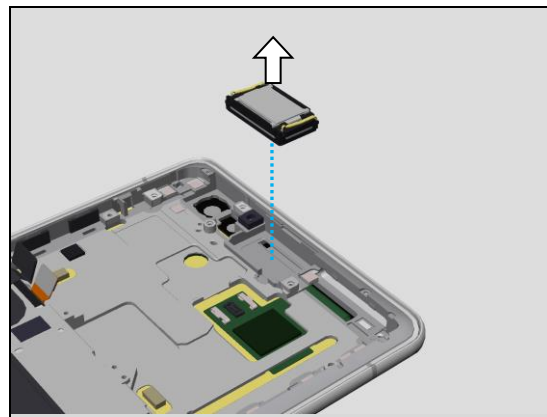
Remove the FPC TP Relay.



4.10 Loudspeaker

Remove the Loudspeaker.

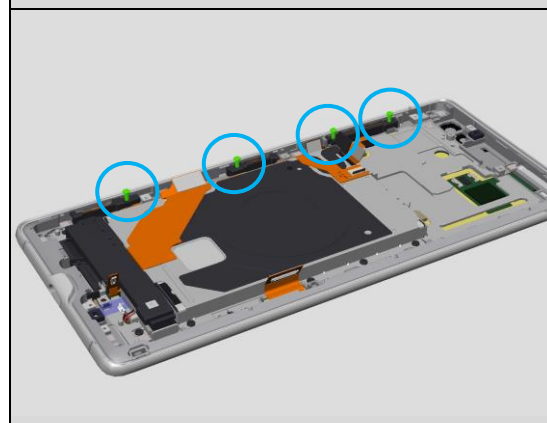
Scrap! Don't reuse the Loudspeaker.



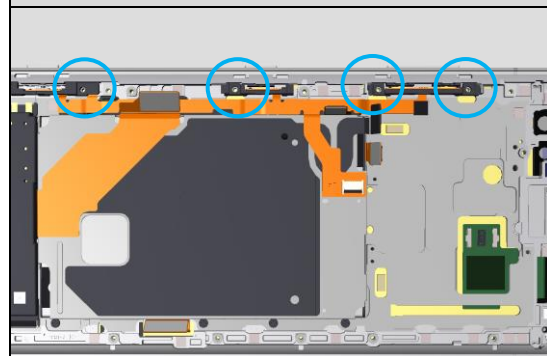
4.11 FPC Key

Remove the 4 pieces of Screw M1.2x2.9 by using a screwdriver with Bits (JCIS No 0).

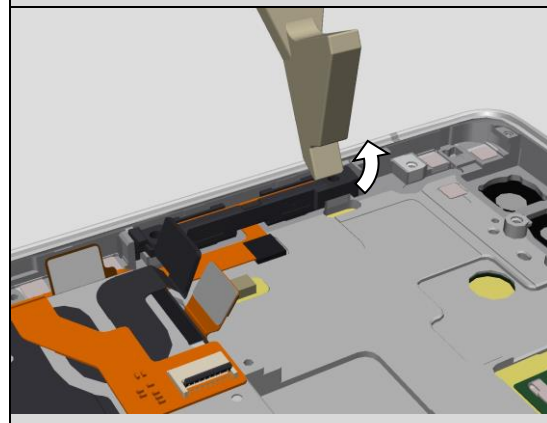
Scrap! Don't reuse the Screw M1.2x2.9.



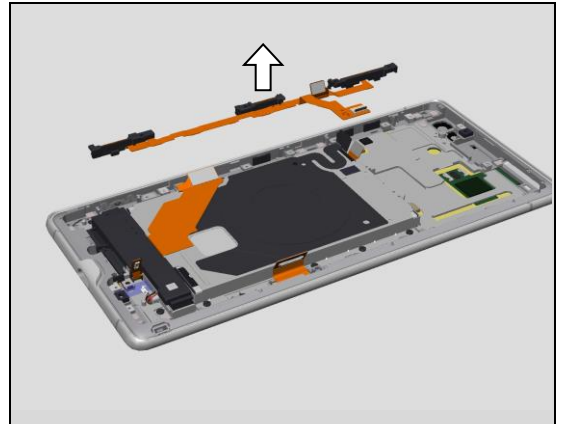
The FPC Key is fixed by 4 hooks.



Unlock the 4 hooks by using Front Opening Tool.



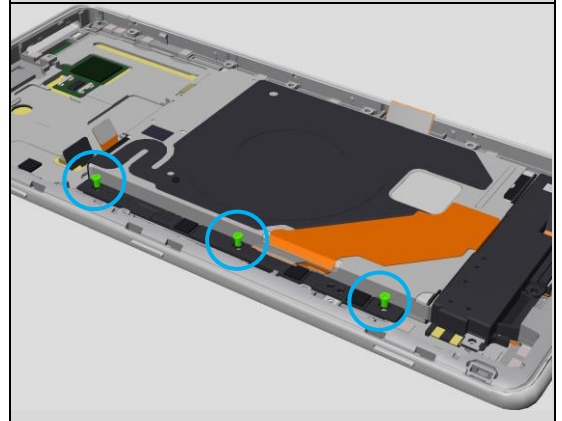
Remove the FPC Key.



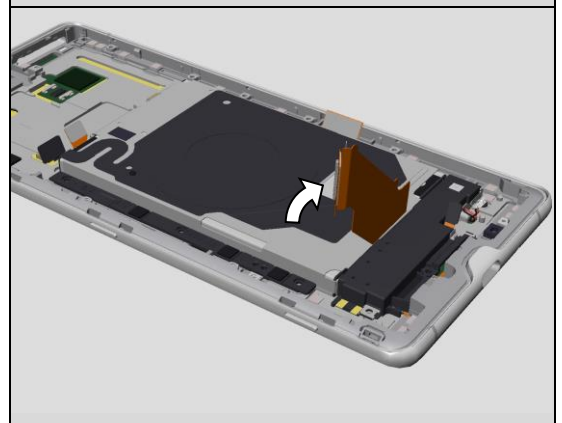
4.12 Battery

Remove the 3 pieces of Screw M1.2x2.0 by using a screwdriver with Bits (JCIS No 0).

Scrap! Don't reuse the Screw M1.2x2.0.

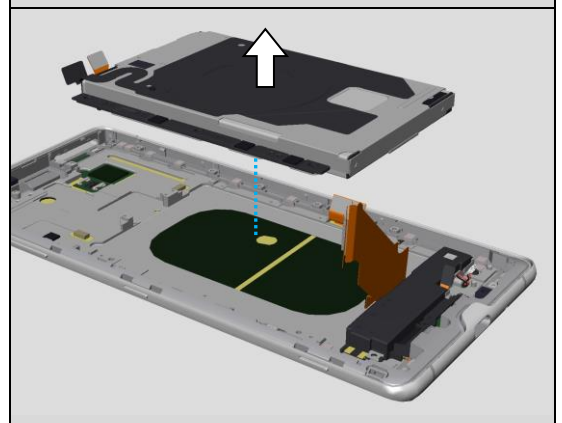


Turn the FPC USB.



Remove the Battery with Plate Battery and Antenna WLC.

Note! If reusing Battery Assy (Battery + Plate Battery + Antenna WLC) is required, follow the chapter 6.3 Battery Assy Inspection before re-installing the Battery Assy.

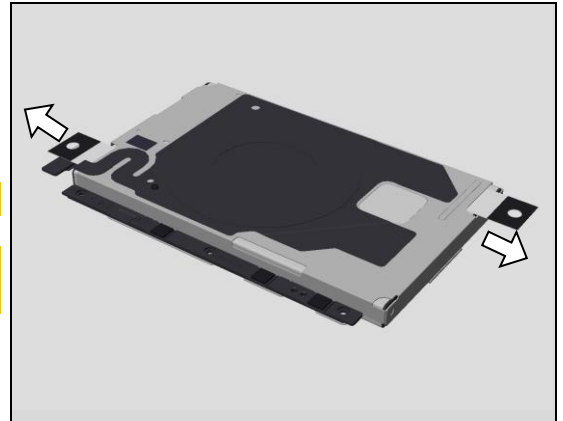


Disassembly

Pull out the 2 pieces of Adhesive Battery.

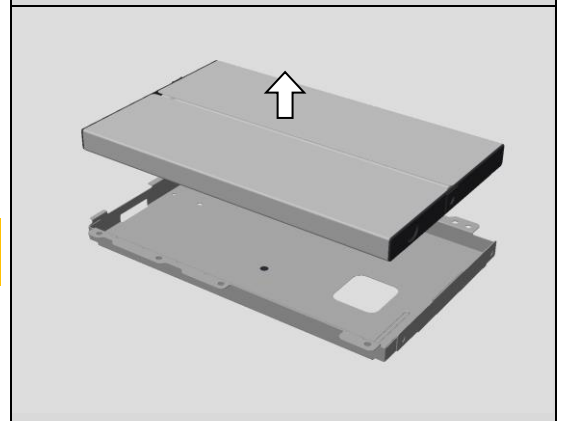
Scrap! Don't reuse the Adhesive Battery.

Note! If you don't plan to replace either Battery or Plate Battery, don't implement this process.



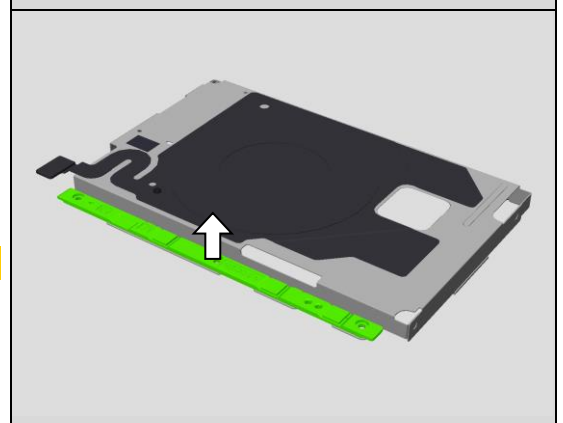
Remove the Battery

Note! If reusing Battery is required, follow the chapter 6.4 Battery Inspection before re-installing the Battery.



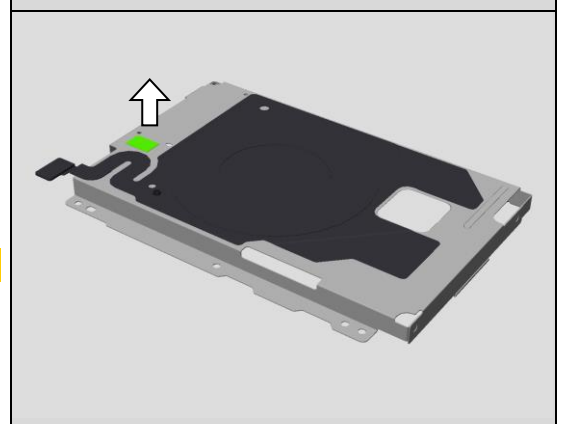
Remove the Holder Plate Battery.

Scrap! Don't reuse the Holder Plate Battery.



Remove the Adhesive FPC Key.

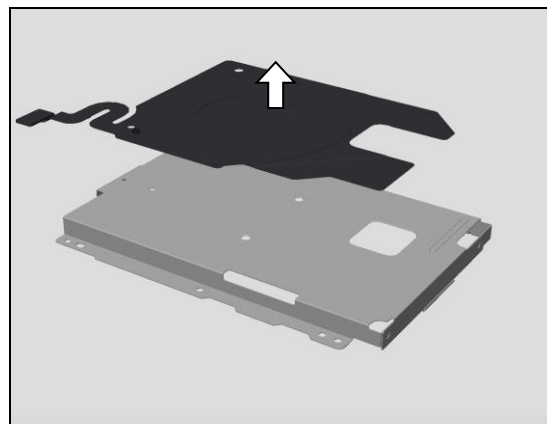
Scrap! Don't reuse the ADH FPC Key.



4.13 Antenna WLC

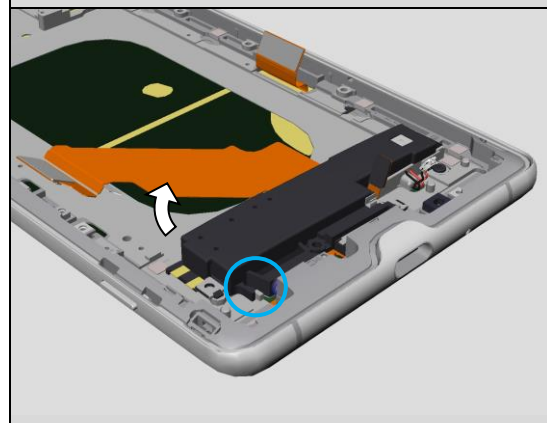
Remove Antenna WLC.

Scrap! Don't reuse the Antenna WLC.

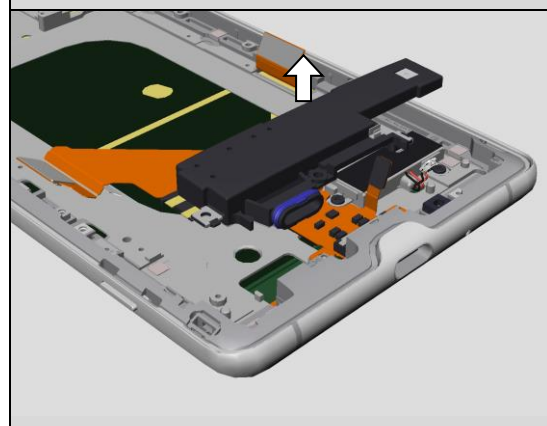


4.14 Speaker Box

Unlock the hook of Speaker Box.



Remove the Speaker Box.

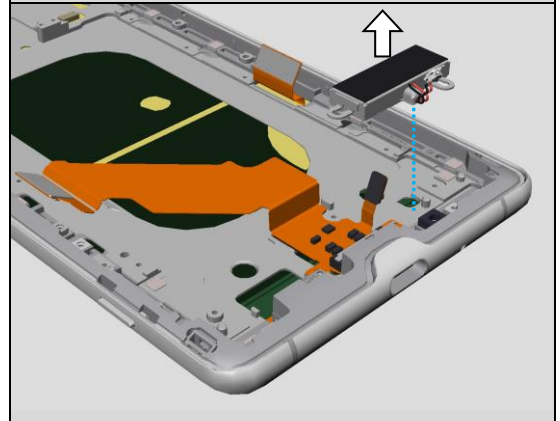


4.15 Vibrator LRA

Remove the 2 pieces of Screw M1.2*1.2 by using a screwdriver with Bits (JCIS No 0).

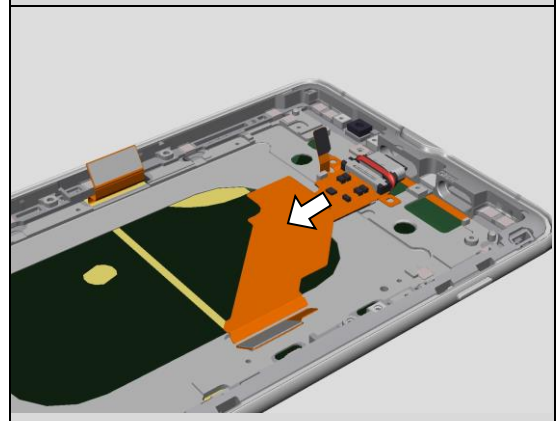
Scrap! Don't reuse the Screw M1.2*1.2.

Remove the Vibrator LRA.



4.16 FPC USB

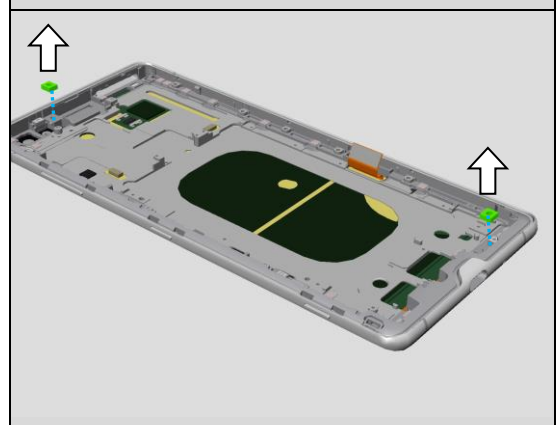
Remove the FPC USB.



4.17 Front Assy

Remove the 2 pieces of Sheet WR Mic.

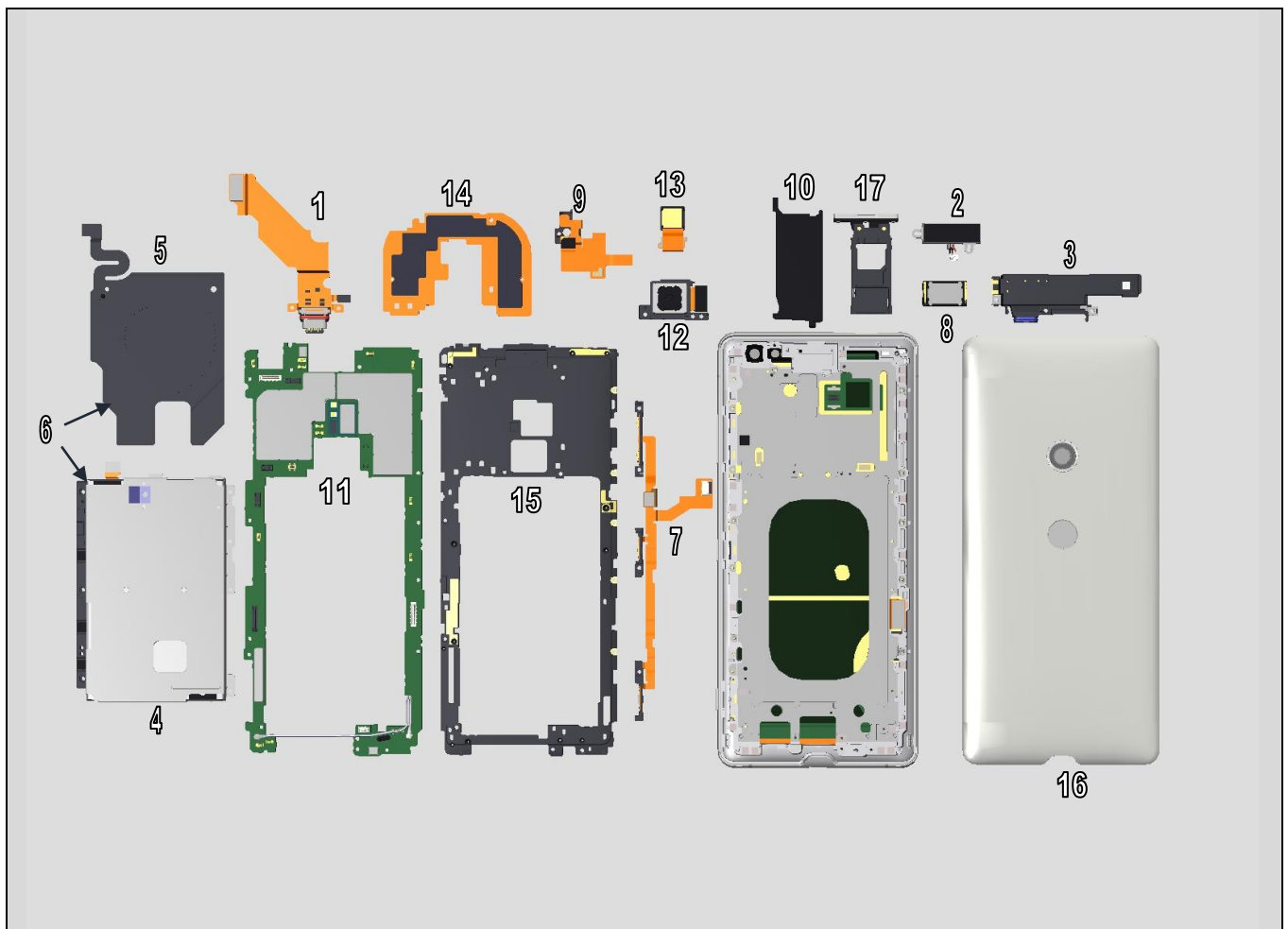
Scrap! Don't reuse the Sheet WR Mic.



5 Reassembly

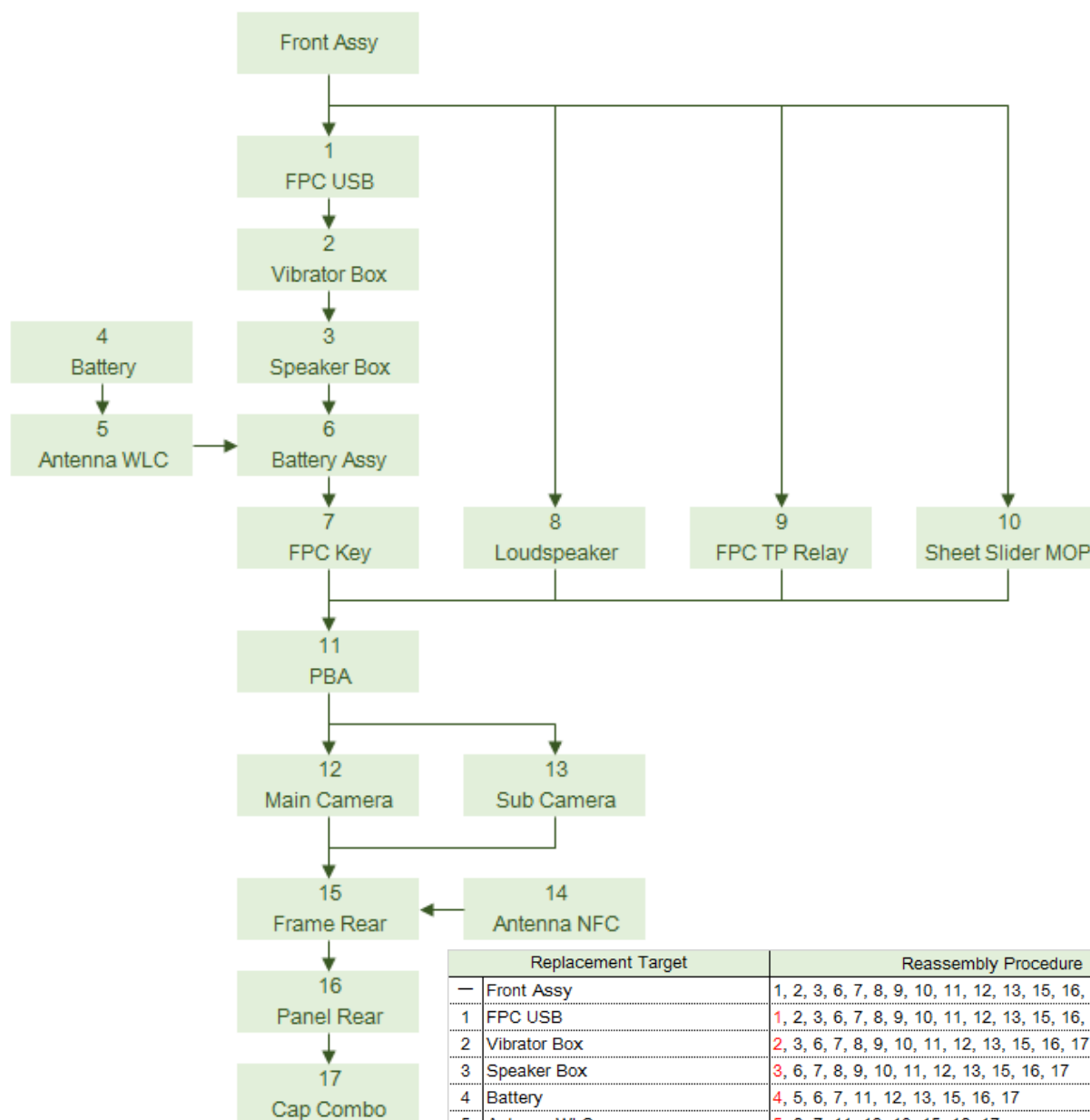
The reassembly is done in the following order:

1. FPC USB
2. Vibrator LRA
3. Speaker Box
4. Battery
5. Antenna WLC
6. Battery Assy
7. FPC Key
8. Loudspeaker
9. FPC TP Relay
10. Sheet Slider MOP
11. PBA
12. Main Camera
13. Sub Camera
14. Antenna NFC
15. Frame Rear
16. Panel Rear
17. Cap Combo



Reassembly

Quick Reference for Reassembling

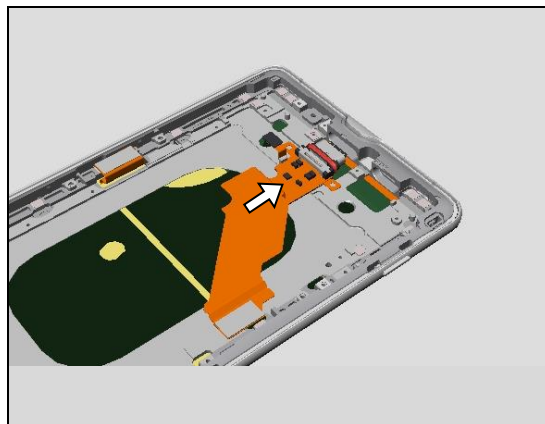


Replacement Target	Reassembly Procedure
— Front Assy	1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
1 FPC USB	1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
2 Vibrator Box	2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
3 Speaker Box	3, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
4 Battery	4, 5, 6, 7, 11, 12, 13, 15, 16, 17
5 Antenna WLC	5, 6, 7, 11, 12, 13, 15, 16, 17
6 Battery Assy	6, 7, 11, 12, 13, 15, 16, 17
7 FPC Key	7, 11, 12, 13, 15, 16, 17
8 Loudspeaker	8, 11, 12, 13, 15, 16, 17
9 FPC TO Relay	9, 11, 12, 13, 15, 16, 17
10 Sheet Slider MoP	10, 11, 12, 13, 15, 16, 17
11 PBA	11, 12, 13, 15, 16, 17
12 Main Camera	12, 15, 16, 17
13 Sub Camera	13, 15, 16, 17
14 Antenna NFC	14, 15, 16, 17
15 Frame Rear	14, 15, 16, 17
16 Panel Rear	16, 17
17 Cap Combo	17

Required Reassembly Steps by Part

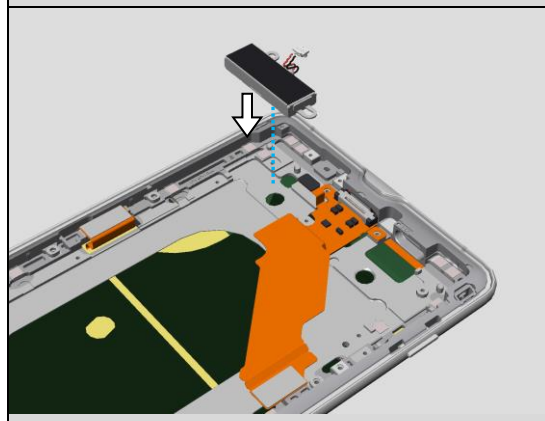
5.1 FPC USB

Install the FPC USB.

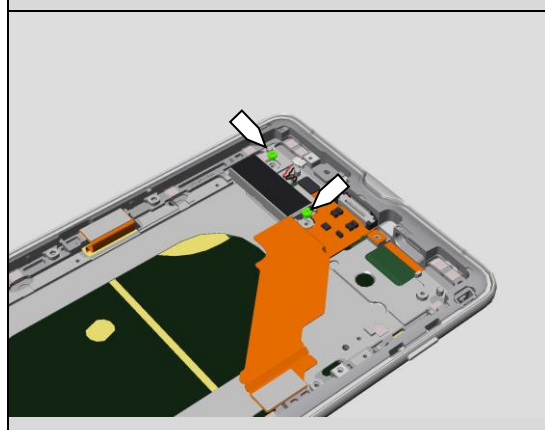


5.2 Vibrator LRA

Place the Vibrator LRA.



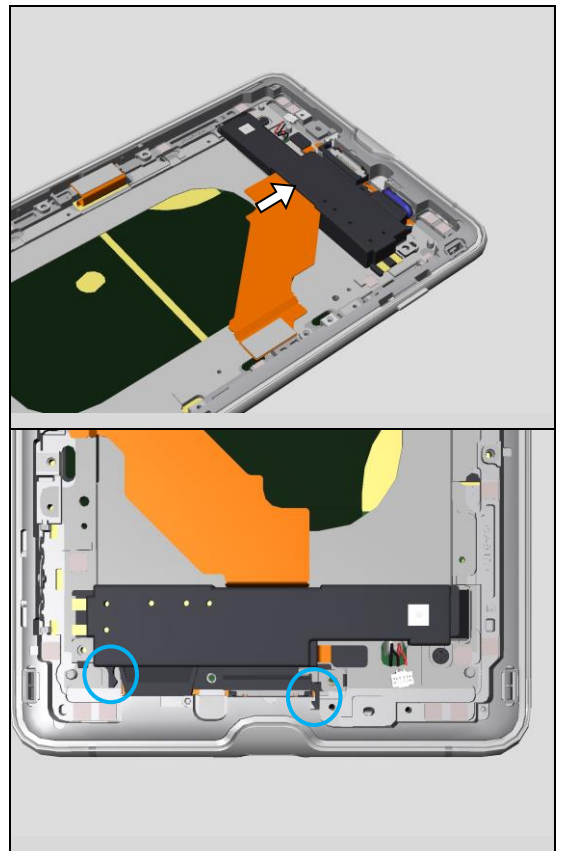
Tighten the 2 pieces of Screw M1.2*1.2 by using a screwdriver with Bits (JCIS No 0).
Torque : 5 ± 0.5 Ncm



5.3 Speaker Box

Install the Speaker Box.

The Speaker Box is fixed by 2 hooks.



5.4 Battery

Note! Clean the battery compartment of the Plate Battery by pressure air using an air duster spray can or ionized air blower.

Make sure NO foreign materials on the battery compartment.

Any foreign materials put into between Battery and Plate Battery will be the cause of battery damage.

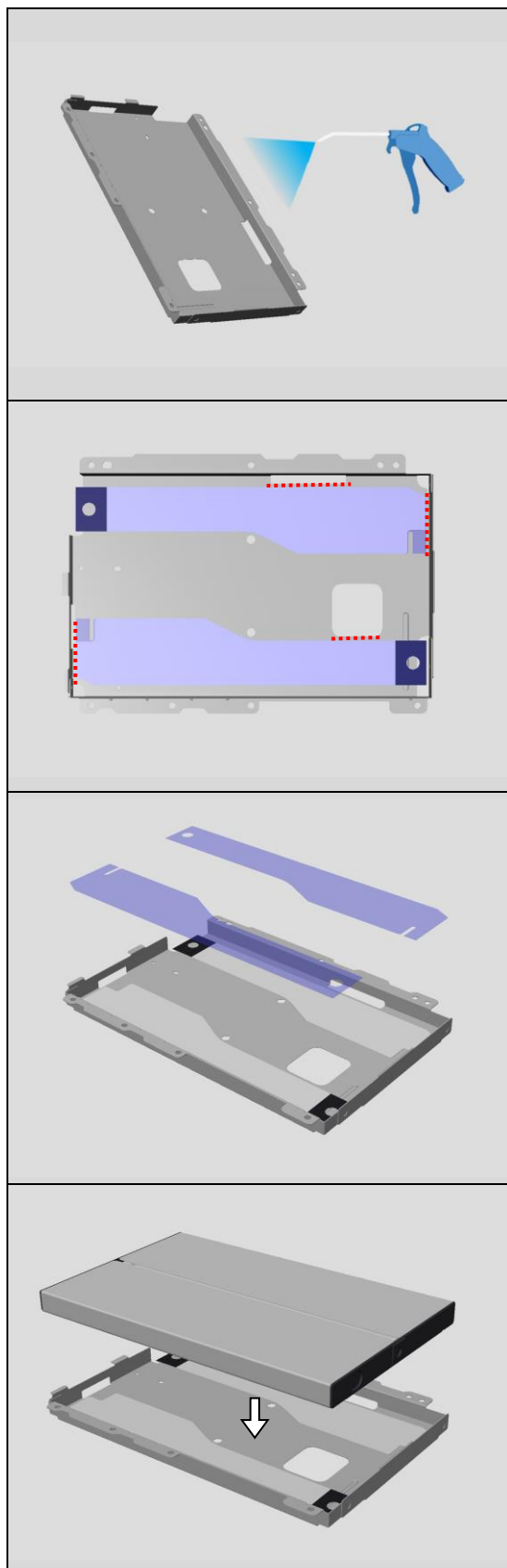
Affix the 2 pieces of Adhesive Battery on the Plate Battery along with red line.

If using new Plate Battery, affixing of Adhesive Battery is not required since Adhesive Battery is pre-assembled to Plate Battery.

Remove the 2 pieces of separator of Adhesive Battery.

Install the Battery on the Plate Battery gently.

Note! If Battery is reused, follow the 6.4 Battery Inspection before installing the Battery.



Reassembly

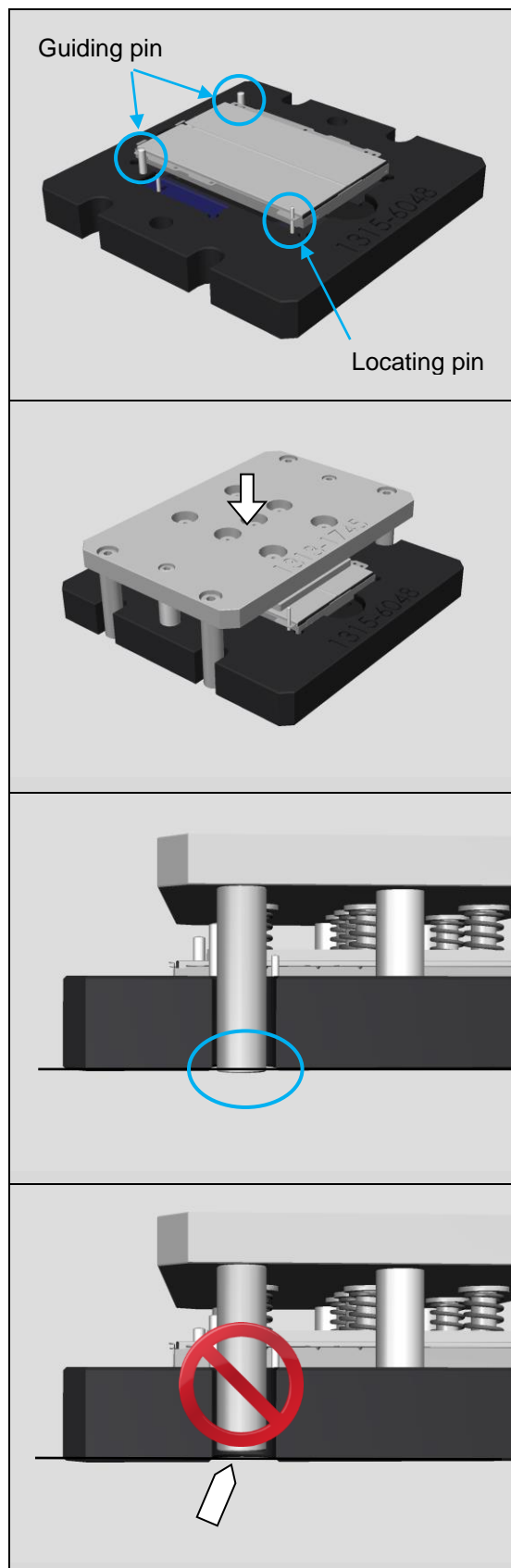
Place the Battery with Plate Battery on the Battery Press Tool Bottom along with a 1 locating pin and 2 guiding pins.

Note! If Antenna WLC is not affixed on the Plate Battery, affix the Antenna WLC before pressing battery.

Place the Press Battery Inlay on top.
And press it by hand to fix the Antenna NFC on the Plate Battery.

Duration of pressing is 8 seconds, and make sure that bottom of 4 cylinders is reached to the surface of work bench during pressing.

Failed pressing: Bottom of cylinder is not reached to the surface of work bench.



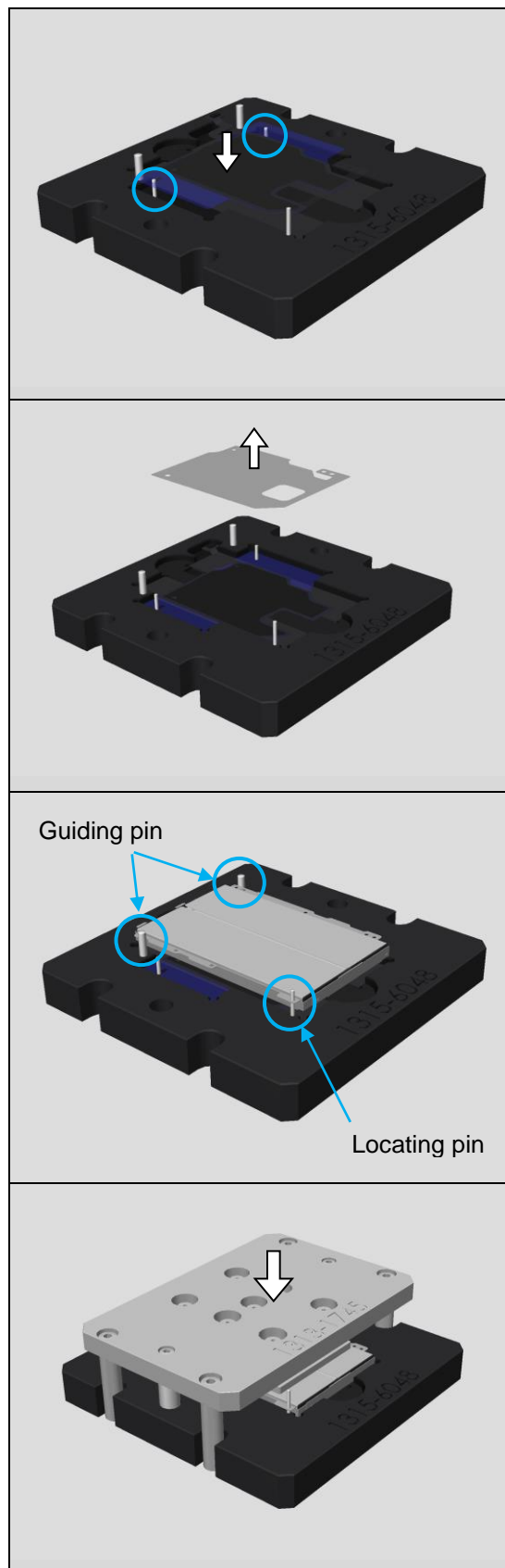
5.5 Antenna WLC

Place Antenna WLC on the Battery Press Tool Bottom along with 2 pins.

Remove the separator of the Antenna WLC.

Place the Battery with Plate Battery on the Battery Press Tool Bottom along with a 1 locating pin and 2 guiding pins.

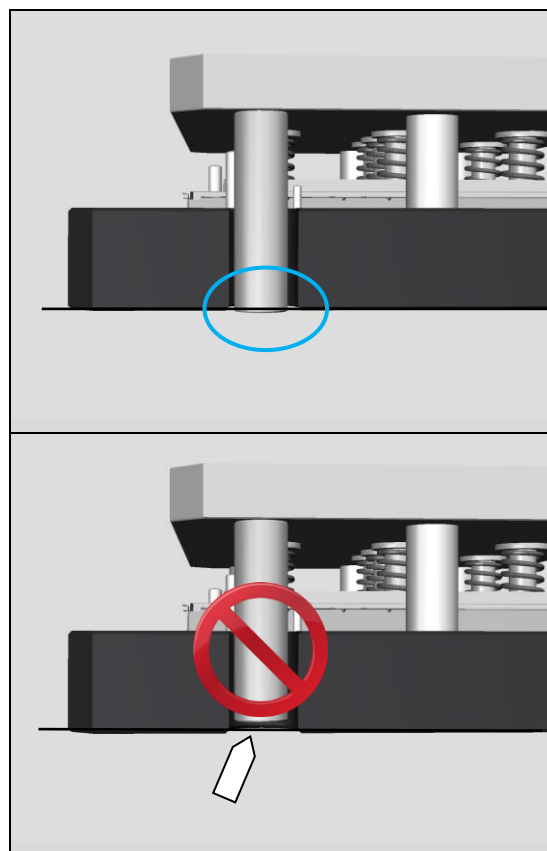
Place the Press Battery Inlay on top.
And press it by hand to fix the Antenna NFC on the Plate Battery.



Reassembly

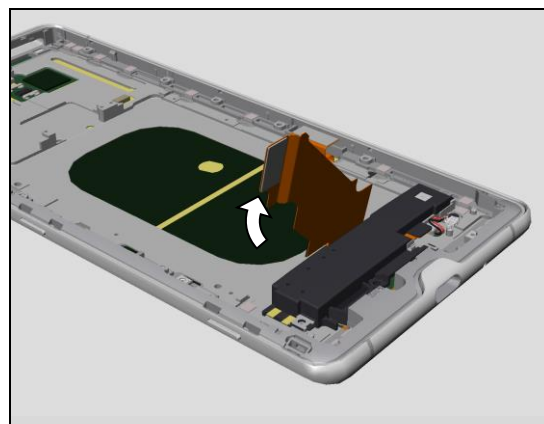
Duration of pressing is 8 seconds, and make sure that bottom of 4 cylinders is reached to the surface of work bench during pressing.

Failed pressing: Bottom of cylinder is not reached to the surface of work bench.

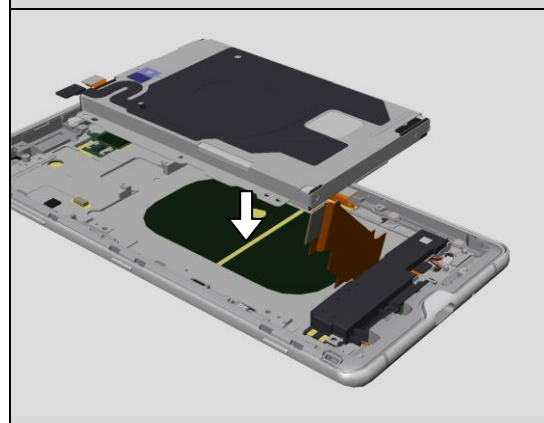


5.6 Battery Assy

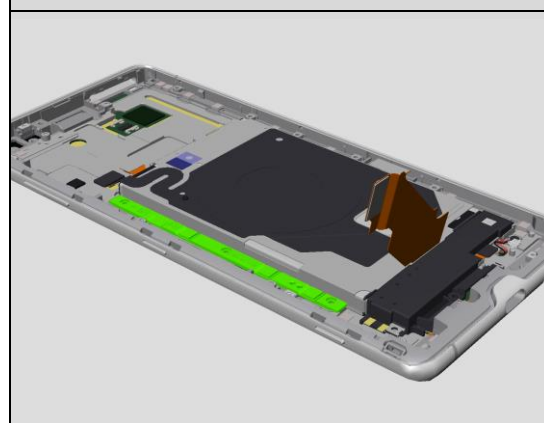
Turn the FPC USB.



Place the Battery on the unit.

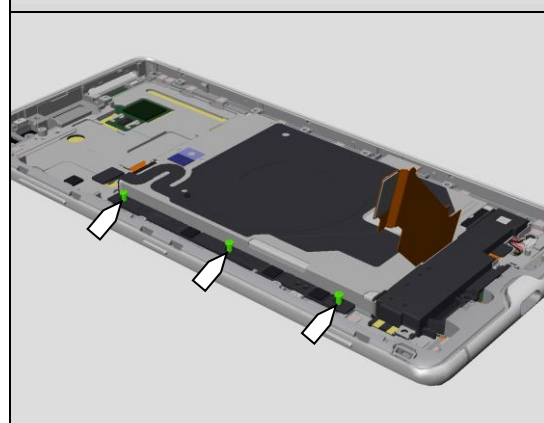


Affix the Holder Plate Battery.



Tighten the 3 pieces of Screw M1.2x2.0 by using a screwdriver with Bits (JCIS No 0).

Torque : 10.5 ± 1 Ncm



Tighten the 4 pieces of Screw M1.2*1.2 by using a screwdriver with Bits (JCIS No 0).

Torque : 10 ± 1 Ncm

5.7 FPC Key

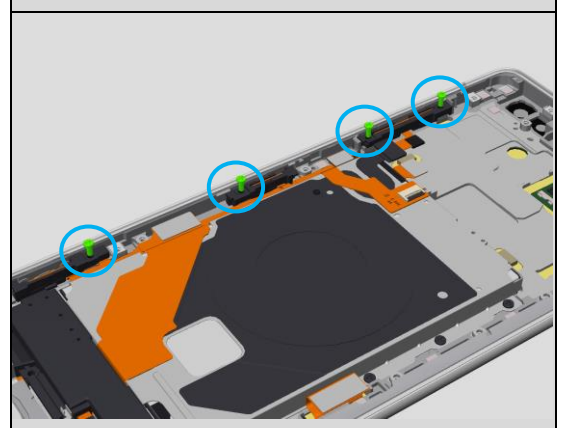
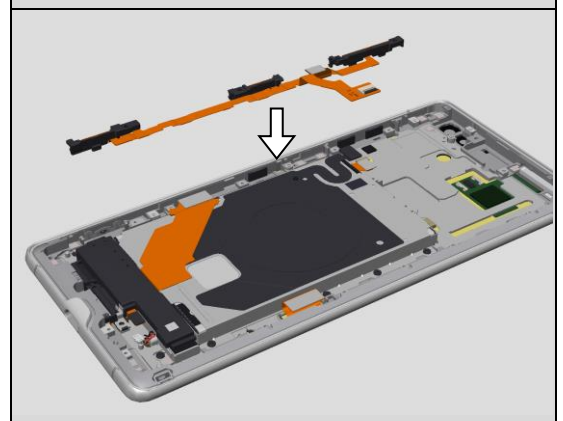
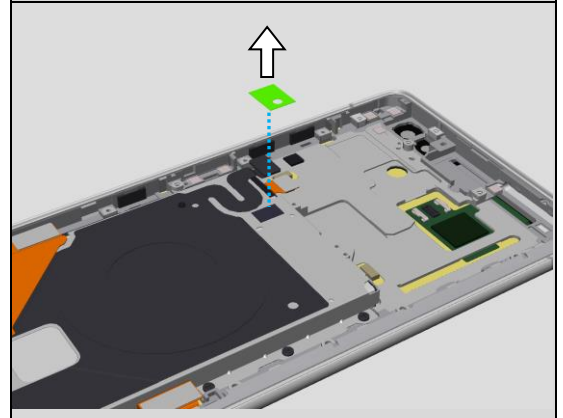
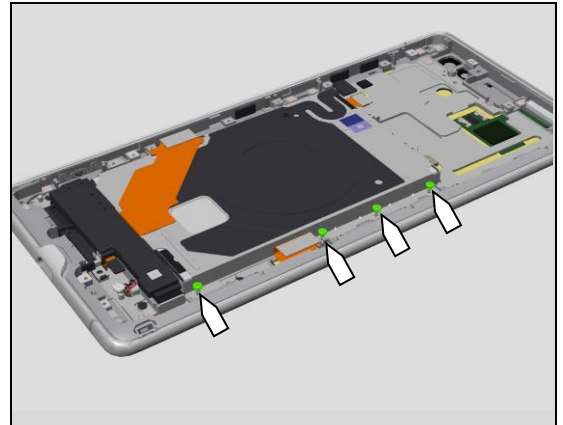
Remove the separator of Adhesive FPC Key.

Install the FPC Key.

And affix the ZIF connector area.

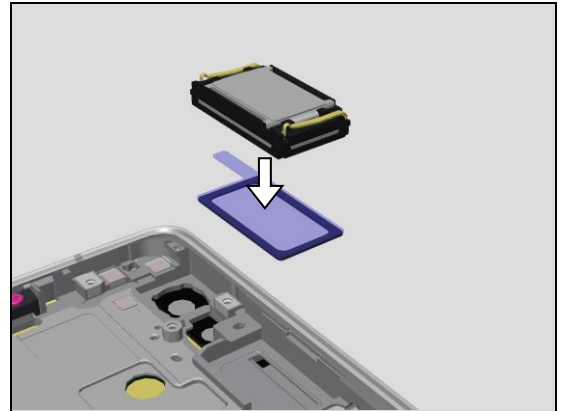
Tighten the 4 pieces of Screw M1.2x2.9 by using a screwdriver with Bits (JCIS No 0).

Torque : 11 ± 1 Ncm

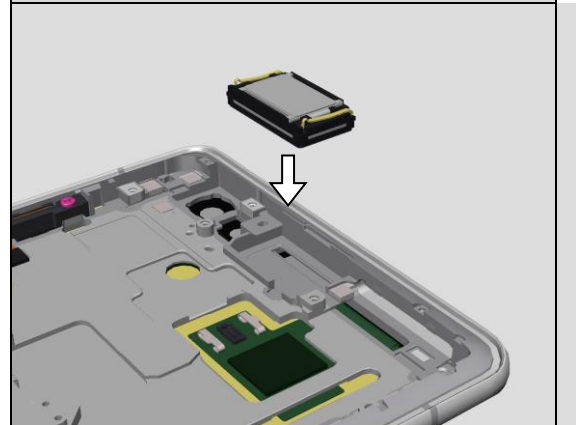


5.8 Loudspeaker

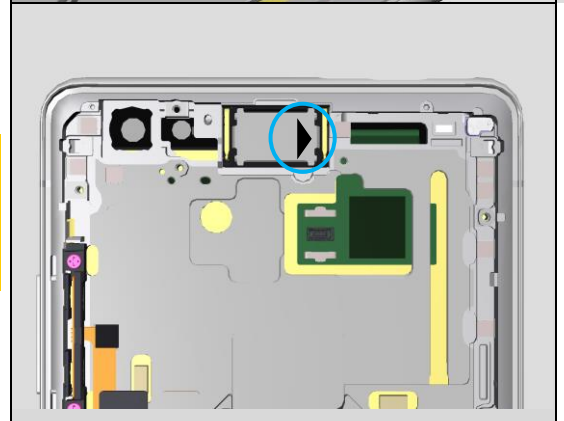
Affix the Adhesive WR Speaker to Loudspeaker.



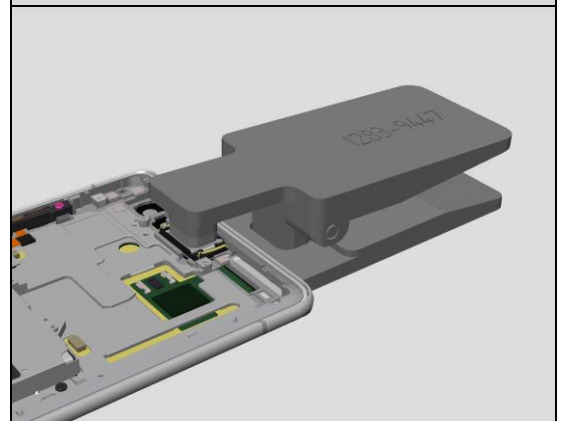
Install the Receiver.



Note! Make sure direction of the Loudspeaker that marking is directed toward the right.



Press the Loudspeaker by using an Earspeaker/Loudspeaker Top Press Tool.
Pressing time: 5 s



5.9 FPC TP Relay

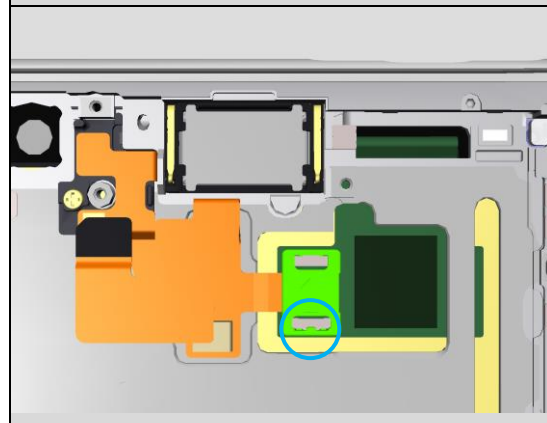
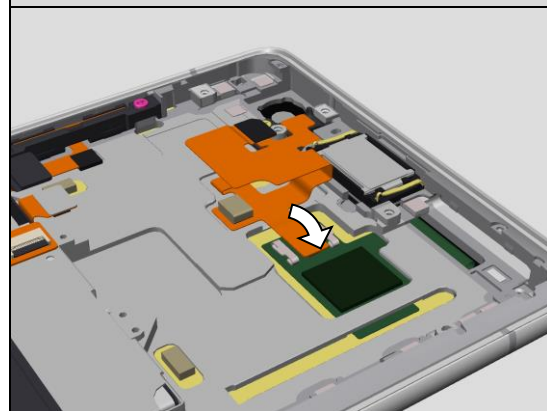
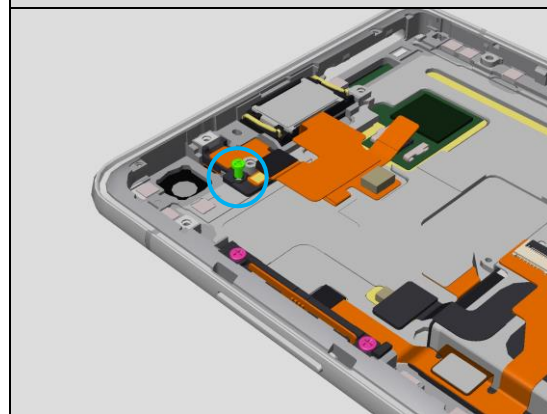
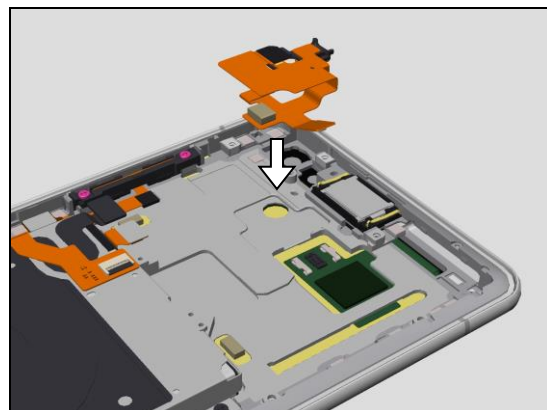
Place the FPC TP Relay.

Tighten the Screw M1.2x2.0 by using a screwdriver with Bits (JCIS No 0).

Torque : 10.5 ± 1 Ncm

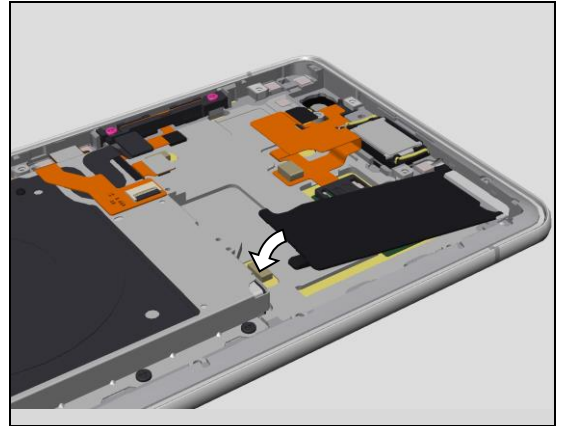
Connect the connector of the FPC TP Relay.

Install the Holder B2B on the connector with directing convex side to bottom side.



5.10 Sheet Slider MOP

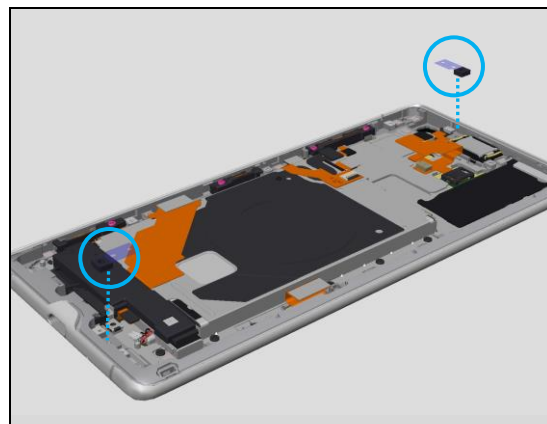
Install the Sheet Slider MOP.



5.11 PBA

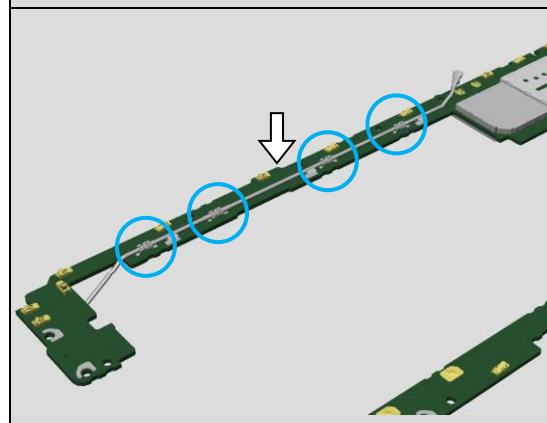
5.11.1 Preparation for PBA installing

Affix the 2 pieces of Sheet WR Mic.

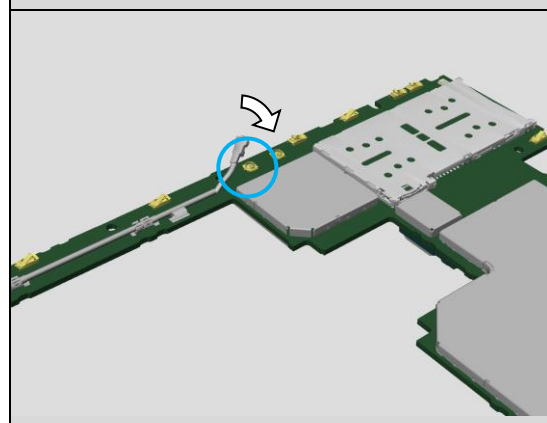


Install the RF Cable 1.

Assembly direction is vertical at all clamps.

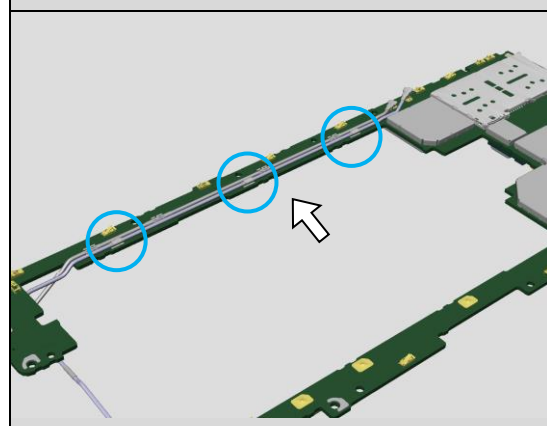


Connect the connector of top side of RF Cable 1.

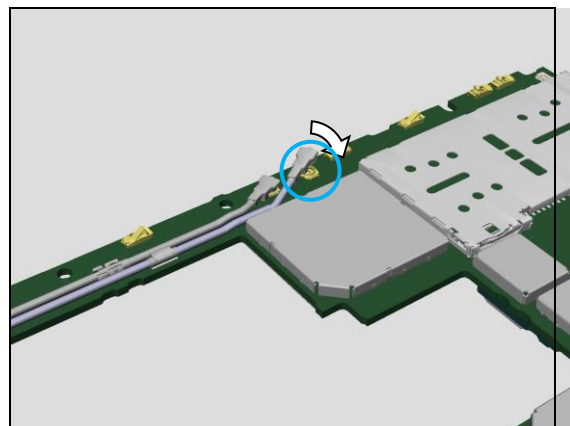


Install the RF Cable 2.

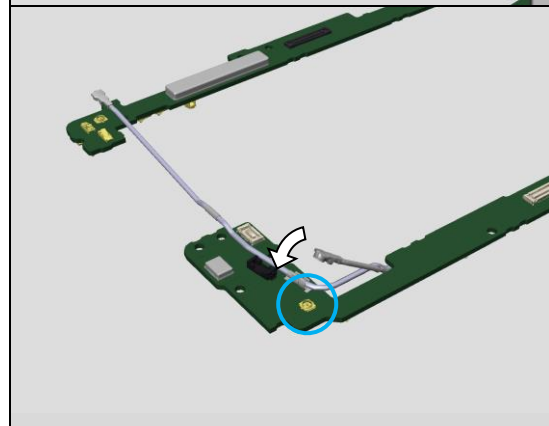
Assembly direction is horizontal at all clamps.



Connect the connector of top side of RF Cable 2.



Connect the connector of bottom side of RF Cable 1.



5.11.2 Apply the Thermal Gap Filler

Prepare the new Thermal Gap Filler Syringe and Thermal Gap Filler Tube.

Thermal Gap Filler applying is required when PBA or/and Front Assy is replaced.

Open the below embedded Thermal Gap Filler instruction, and make sure to go through it prior to use!



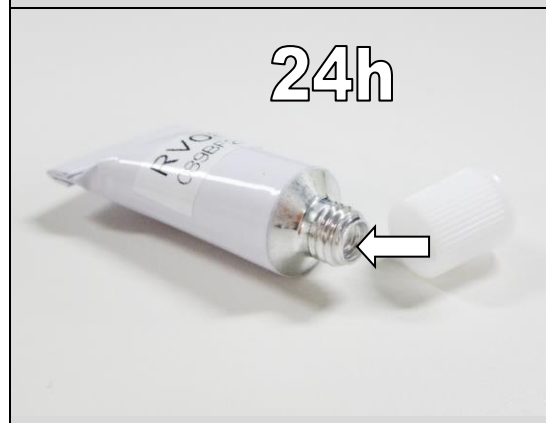
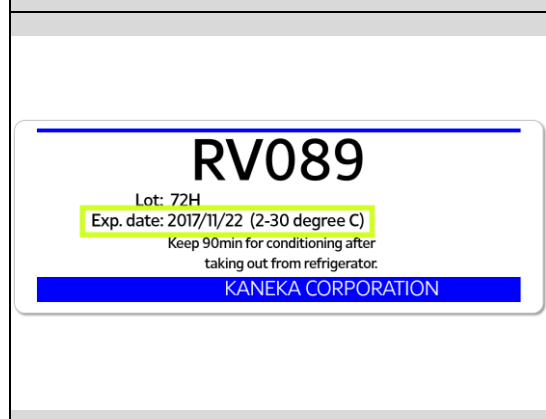
TGF_instruction_
for_Service_PA3.

Check expiration date of the thermal gap filler to refer to the date on the label where affix on the box.

Do not use if it had been expired.

Open the tube with cap head

**Material will start to set once it is exposed to air.
Scrap! Thermal Gap Filler Tube cannot be used in 24h
after opening.**



Reassembly

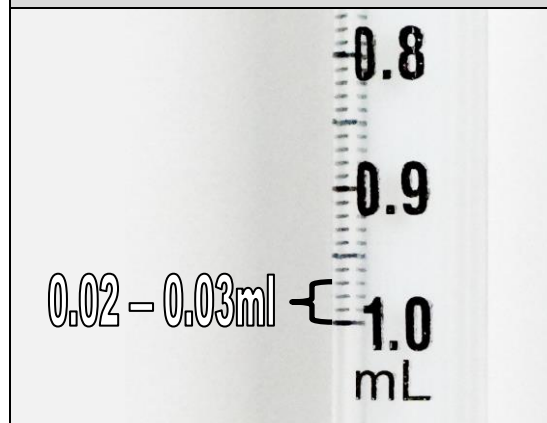
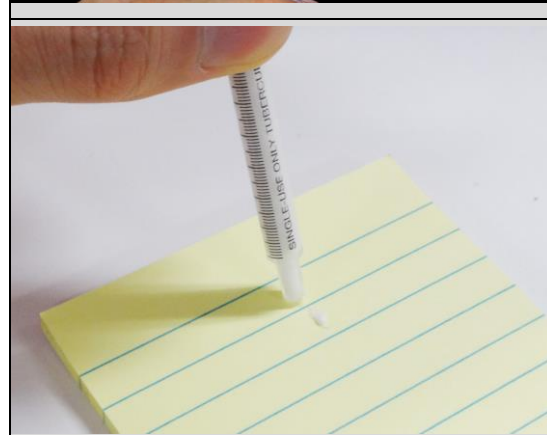
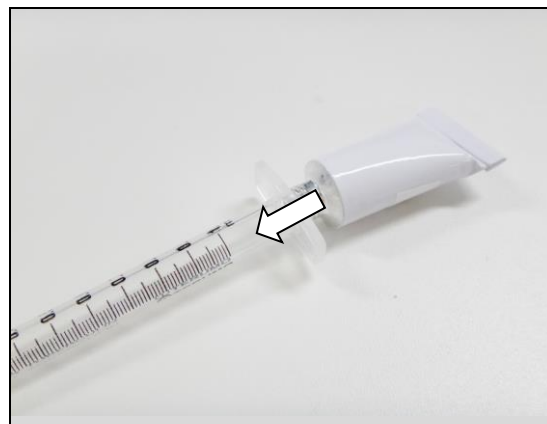
Fill the contents of the tube in to the syringe from the end of the syringe.

**Once filled in the syringe, must use within 1 hour.
Scrap! Thermal Gap Filler Syringe cannot be used 1 hour
after filling.**

Make sure the contents reach up to the tip of the syringe
and a small amount of the contents flows out as air is
released.

Wipe off the tip before using.

Measure applying amount from 0.02 to 0.03ml.



Reassembly

Carefully apply the Thermal Gap Filler to the PBA as shown in the picture.
Amount of TGF is from 0.02 to 0.03ml.

Note!

If the position or amount is not correct, wipe it off with a cotton swab, and apply another fresh Thermal Gap Filler.

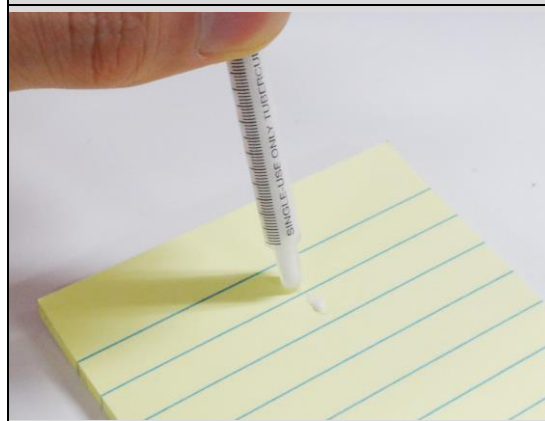
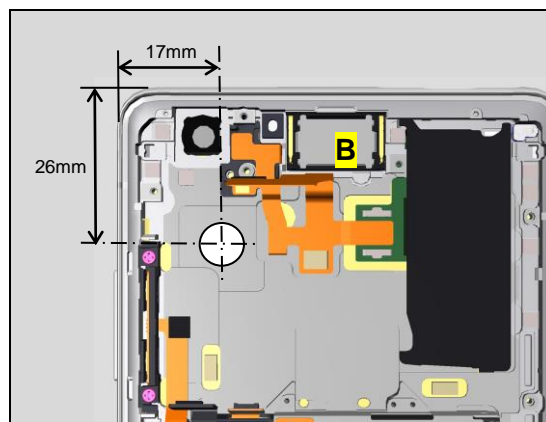
Note!

PBA must be installed immediately after applied Thermal Gap Filler (within 5 minutes).

Wipe off the tip of the syringe until next repair.

Scrap! Don't refill the Thermal Gap Filler to the used syringe.

Next time you use, let a small amount of contents flow out and wipe off the tip again.



5.11.3 PBA installing

Remove the 2 pieces of separator of Sheet WR Mic.

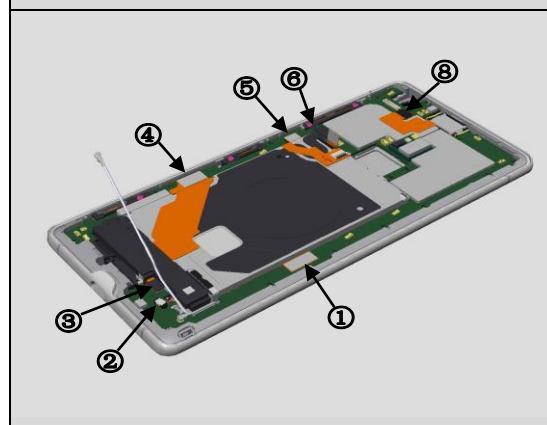
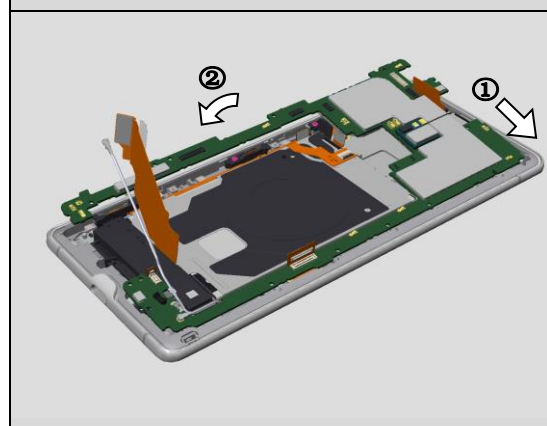
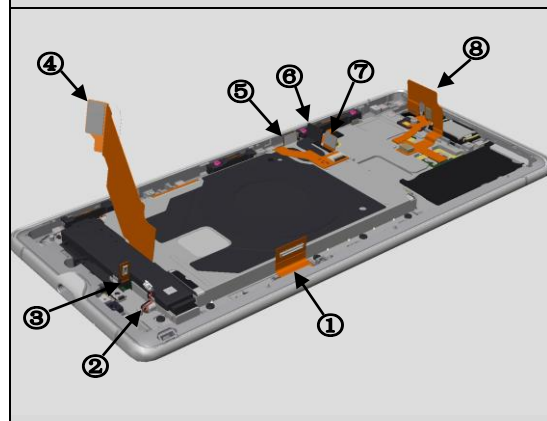
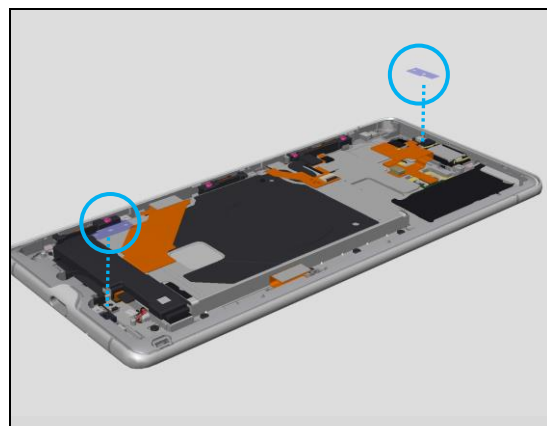
Turn following connectors.

1. Display
2. Vibrator
3. DTV
4. USB
5. Key FPC
6. Wireless charge
7. Battery
8. FPC TP Relay

Install the PBA with attention to above connectors gently.

Connect the following connectors without battery connector.

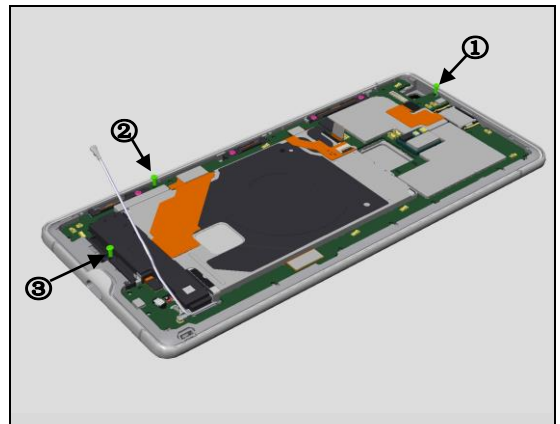
1. Display
2. Vibrator
3. DTV
4. USB
5. Key FPC
6. Wireless charge
7. FPC TP Relay



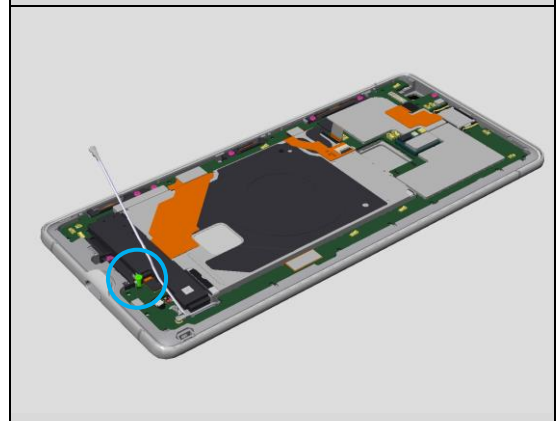
Reassembly

Tighten the 3 pieces of Screw M1.2x2.9 by using a screwdriver with Bits (JCIS No 0) in numerical order.
Torque : 10 ± 1 Ncm

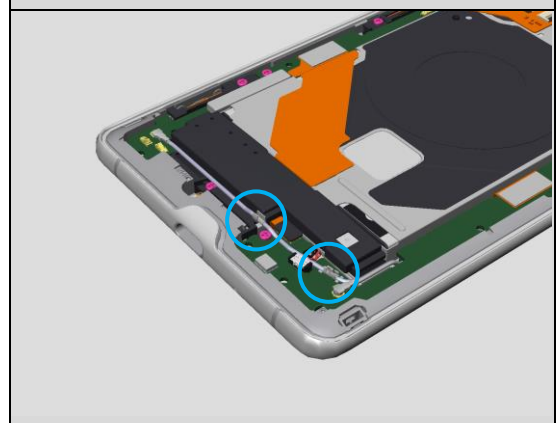
Note! When tighten screw ③, hold Speaker Box for anti-rotation.



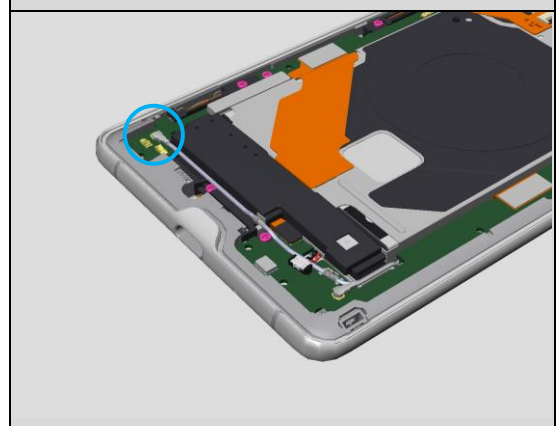
Tighten the Screw M1.2x3.3 by using a screwdriver with Bits (JCIS No 0).
Torque : 10 ± 1 Ncm



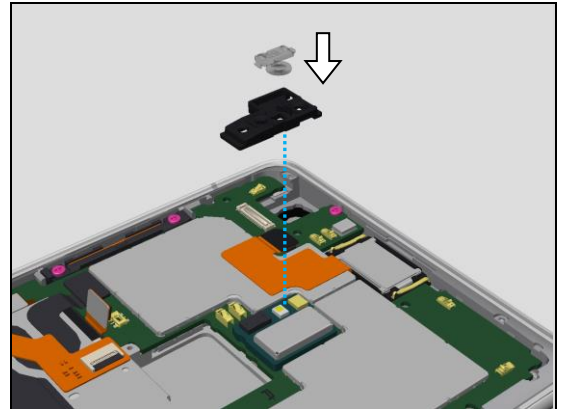
Install the RF Cable 2 to 2 clamps.
Assembly direction is vertical at all clamps.



Connect the RF connector.

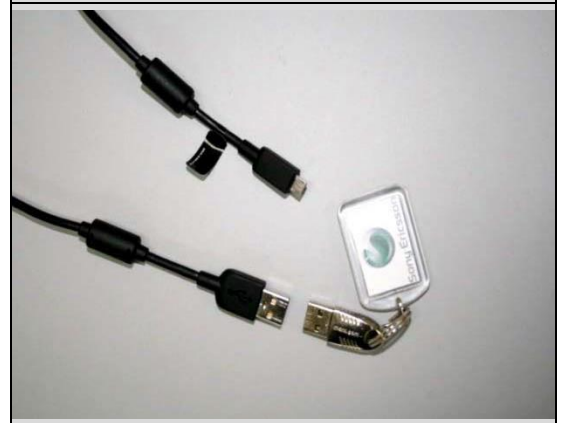
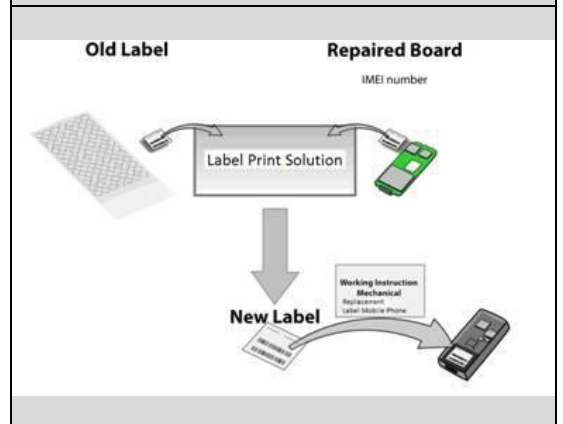


Install the Holder Sensor with Light Guide Flash.



CHANGE LABEL, CUSTOMIZE OF SOFTWARE

When PBA is replaced, replacement of MoP Label, and software customization is required.



5.12 Main Camera

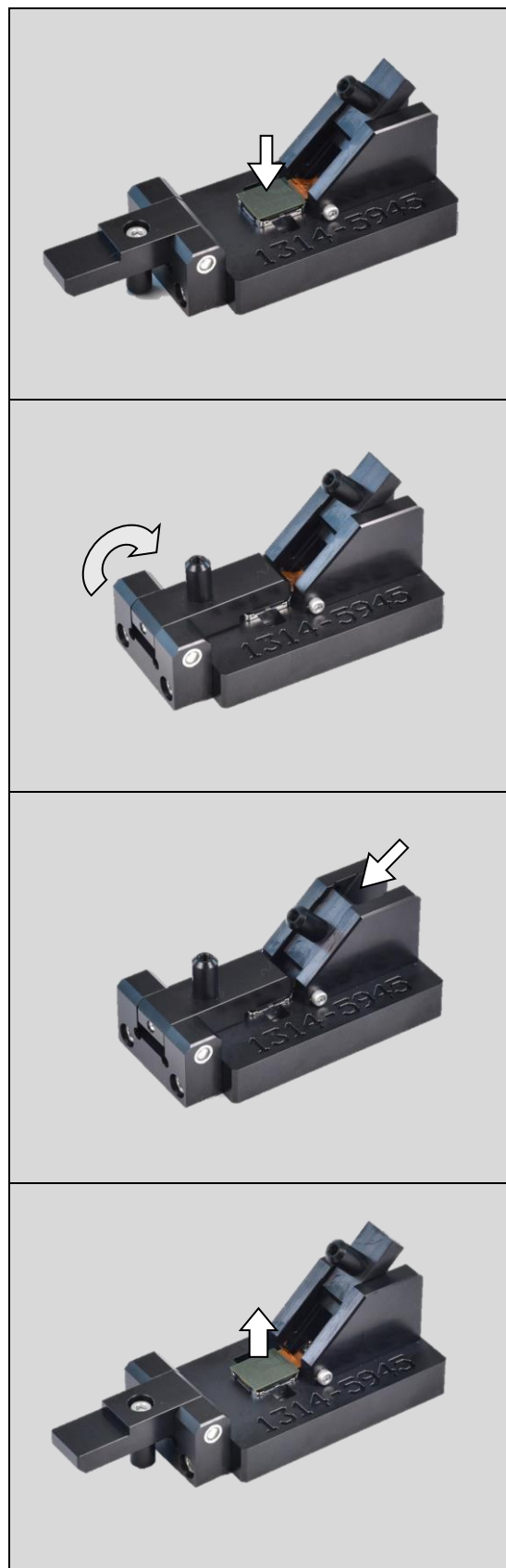
5.12.1 Bending FPC

Place the Main Camera on the Press Tool for Bending Camera FPC.

Clamp the Main Camera.

Slide the slider and bend the FPC of Main Camera.

Remove the Main Camera from the Press Tool for Bending Camera FPC.



5.12.2 Installing Main Camera

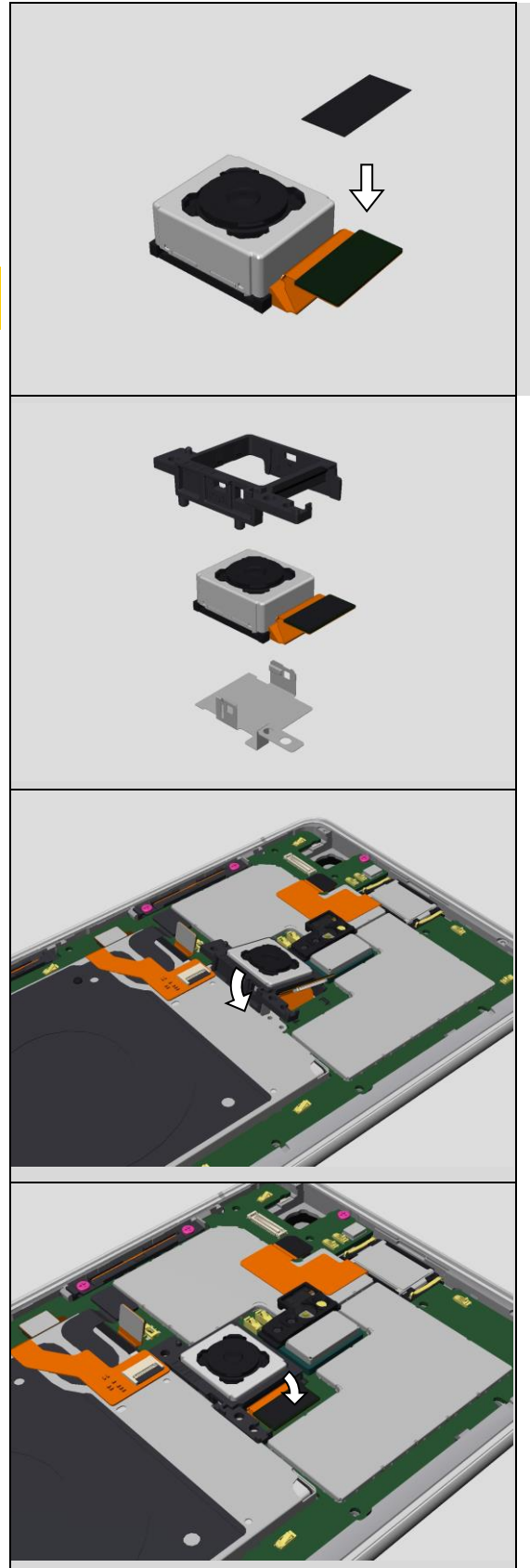
Affix the Sheet B2B Main Camera on the back side of BtB connector.

Note! Don't touch the lens to avoid the damage and keep no dust on the lens during installing Main Camera.

Install the Holder Main Camera and Plate Main Camera to Main Camera.

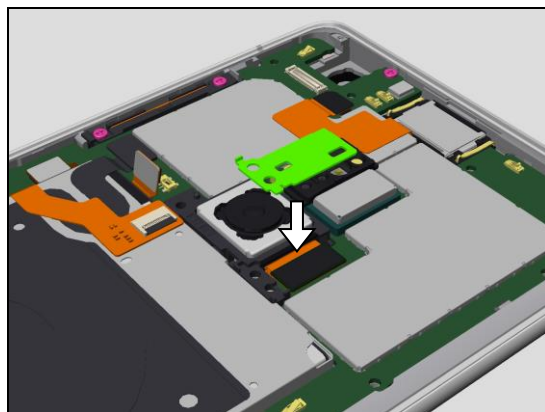
Install the Main Camera

Connect the Main Camera connector.



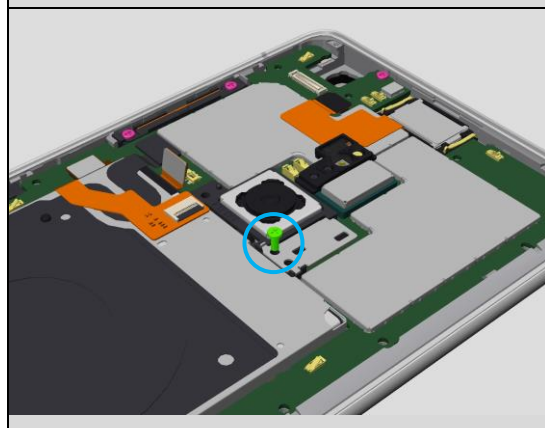
Reassembly

Place the Plate B2B Main Camera on the Main Camera BtB.



Tighten the Screw M1.2x2.9 by using a screwdriver with Bits (JCIS No 0).

Torque : 9 ± 1 Ncm



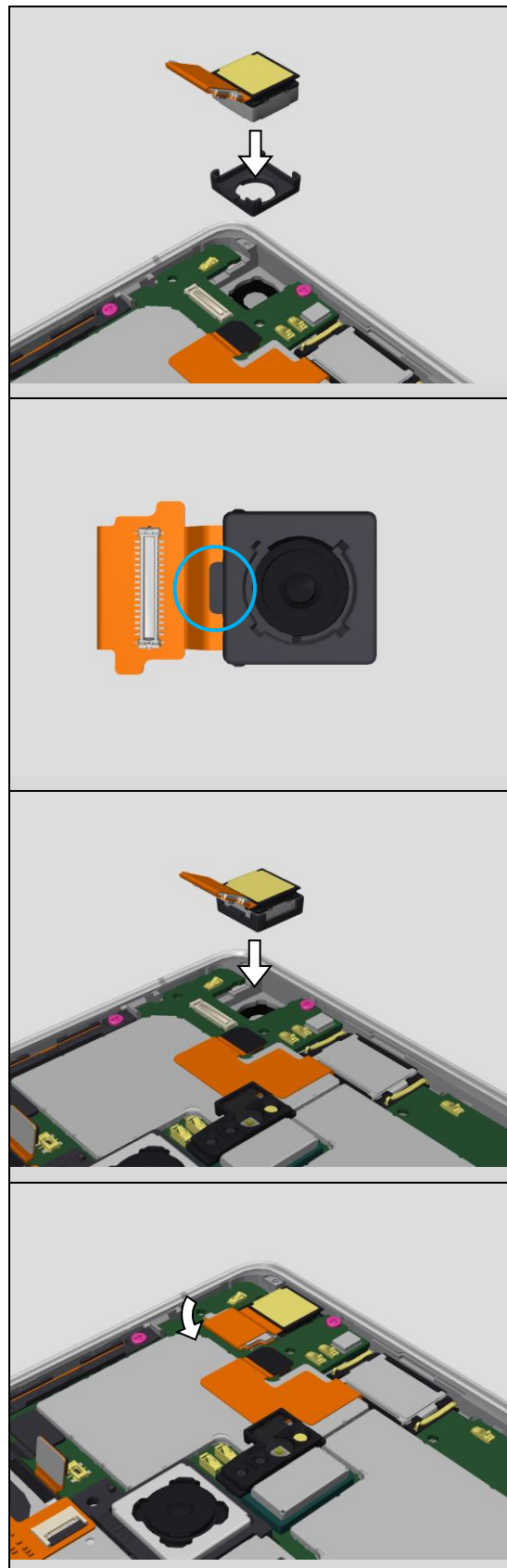
5.13 Sub Camera

Install the Holder Sub Camera to the Sub Camera.

Align projection of the Holder Sub Camera and FPC of the Sub Camera.

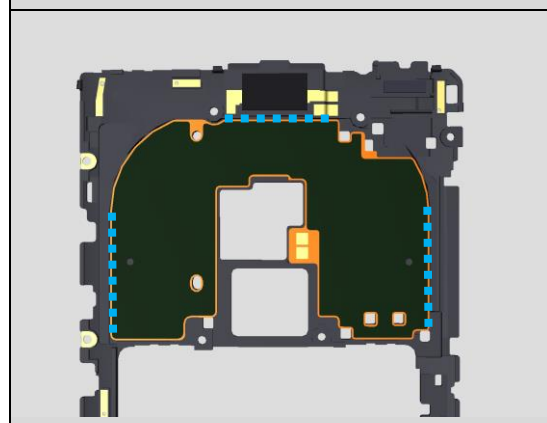
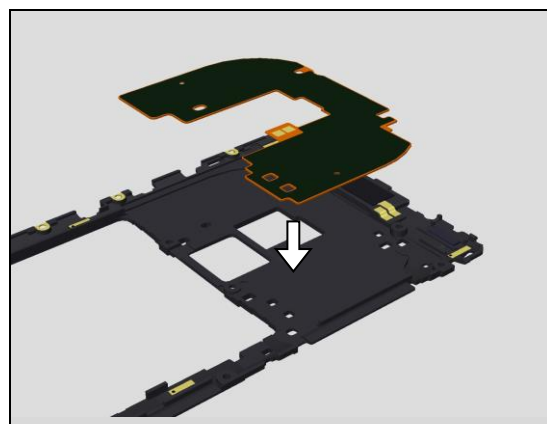
Install the Sub Camera with Holder Sub Camera.

Connect the Sub Camera connector.

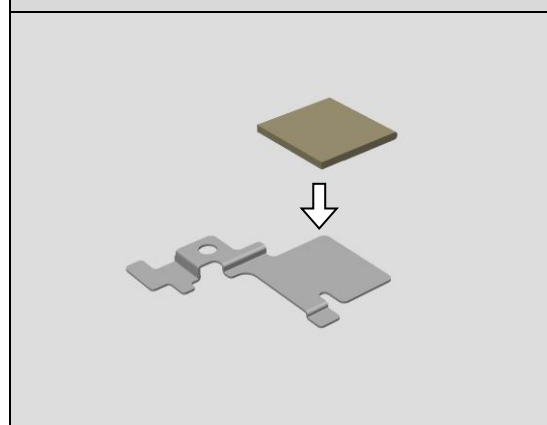


5.14 Antenna NFC

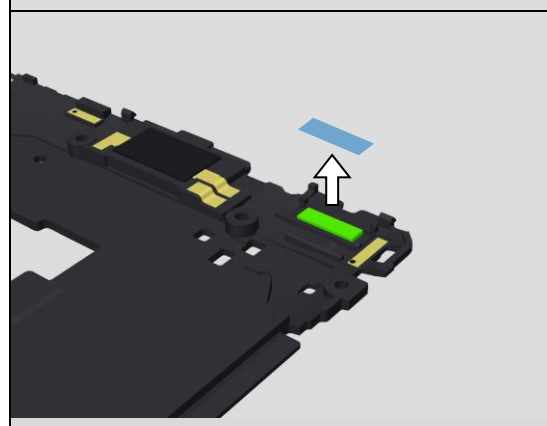
Affix the Antenna NFC to the Frame Rear along with blue dotted line of Frame Rear.



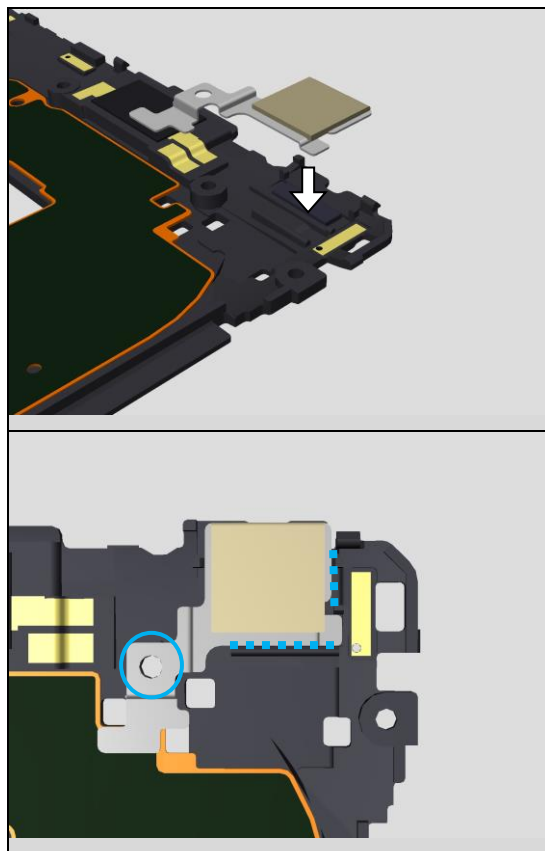
Affix the Cushion Thermal Sub Camera to Plate Sub Camera.



Remove the separator.



Affix the Plate Sub Camera with Cushion Thermal Sub Camera to the Frame Rear along with red dotted line and hole.



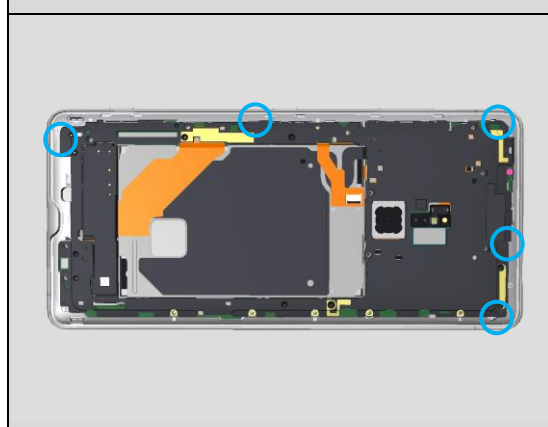
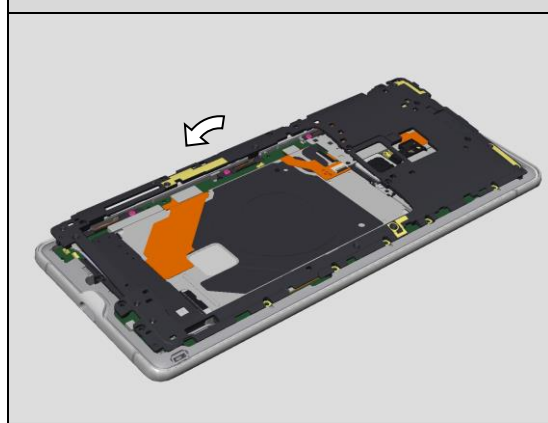
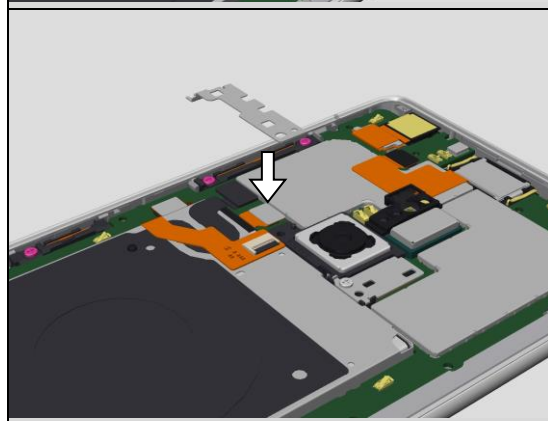
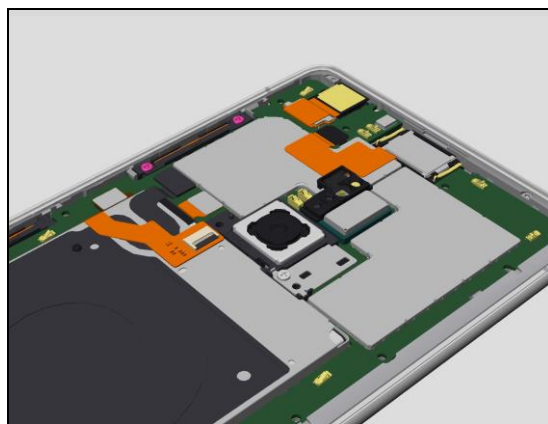
5.15 Frame Rear

Connect the Battery connector.

Remove the separator of Adhesive Plate B2B.
Then place the Plate B2B on the battery connector.

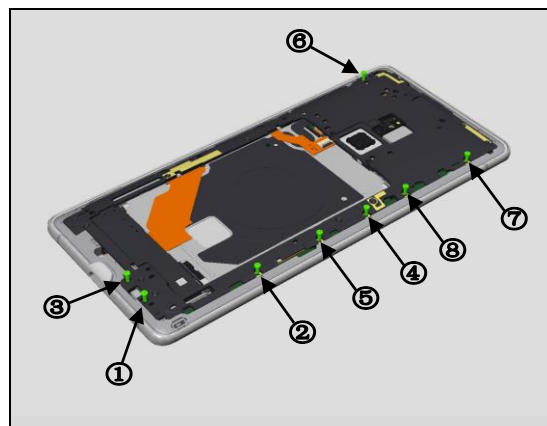
Install the Frame Rear.

The Frame Rear is fixed by 5 hooks.

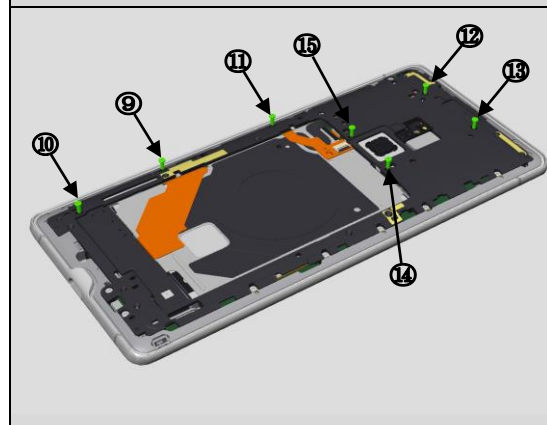


Reassembly

Tighten the 8 pieces of Screw M1.2x3.3 by using a screwdriver with Bits (JCIS No 0) in numerical order.
Torque : 10 ± 1 Ncm



Tighten the 7 pieces of Screw M1.2x3.7 by using a screwdriver with Bits (JCIS No 0) in numerical order.
Torque : 10 ± 1 Ncm



5.16 Panel Rear

5.16.1 Affix Adhesive WR Panel Rear

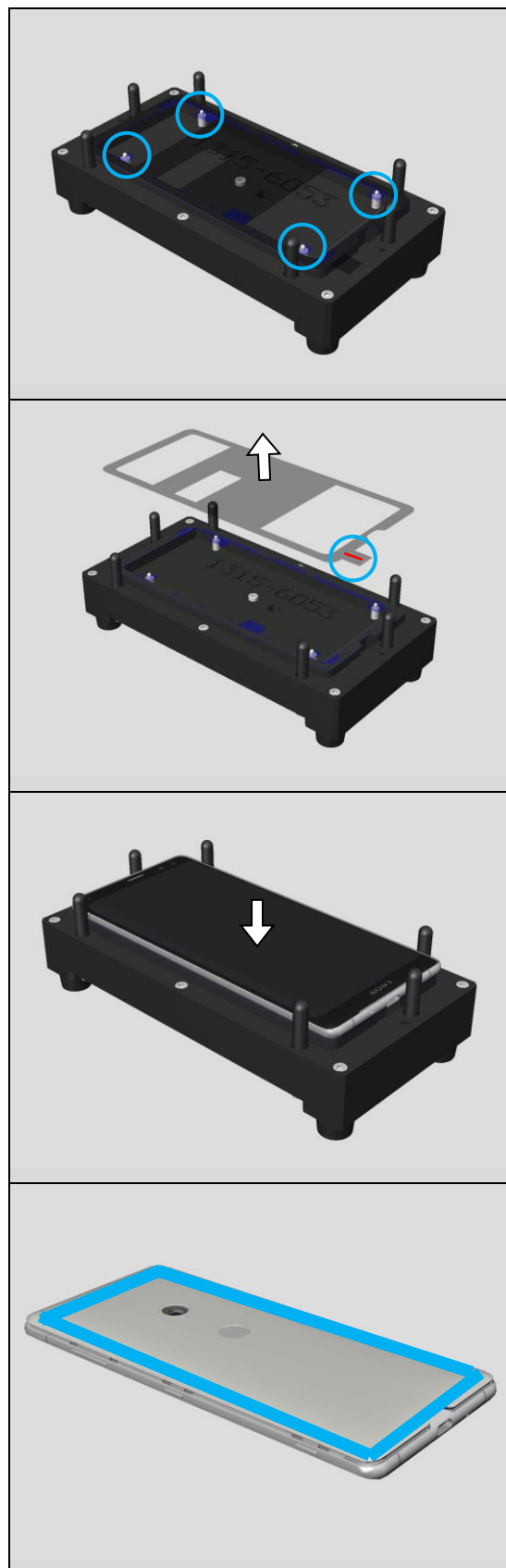
Place the Adhesive WR Panel Rear on the Positioning Tool for Adhesive WR Panel Rear along with 4 pins.

Remove the separator of Adhesive WR Panel Rear by cutting separator from snick.

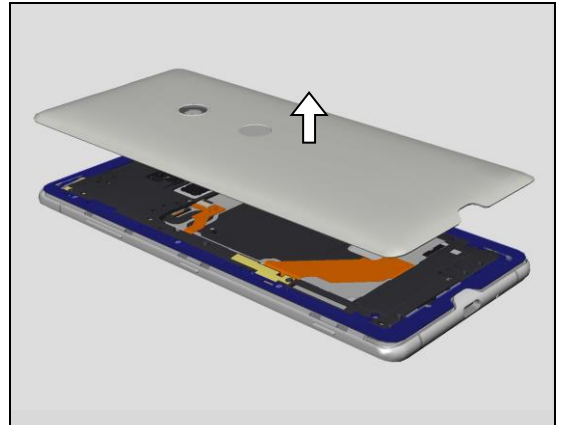
Place and press by hand the unit on the Adhesive WR Panel Rear from the back side of unit.

Place the Panel Rear on the separator of Adhesive WR Panel Rear.

Then press on the Adhesive WR Panel Rear area by hand in order to properly affix Adhesive WR Panel Rear to unit.

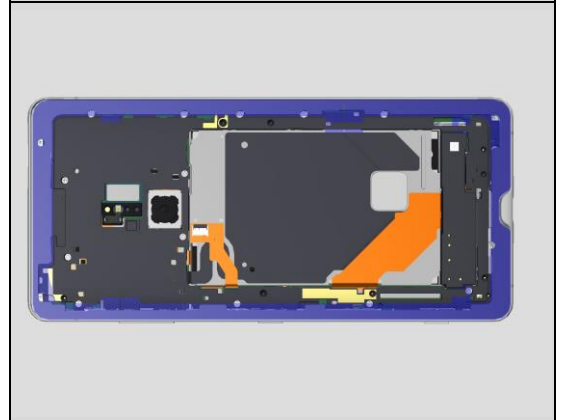


Remove the Panel Rear.



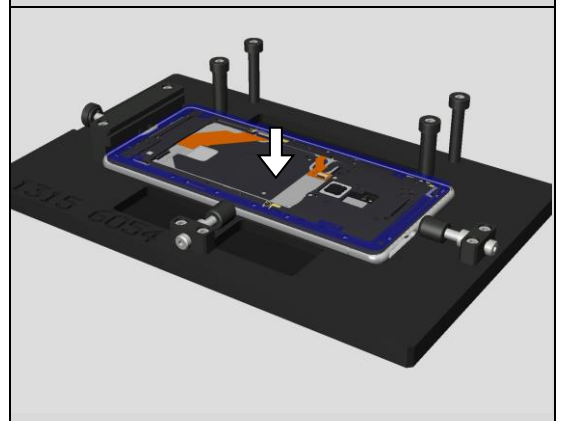
Check the Adhesive condition.

If there is bubble between Adhesive and unit, press additionally by hand.

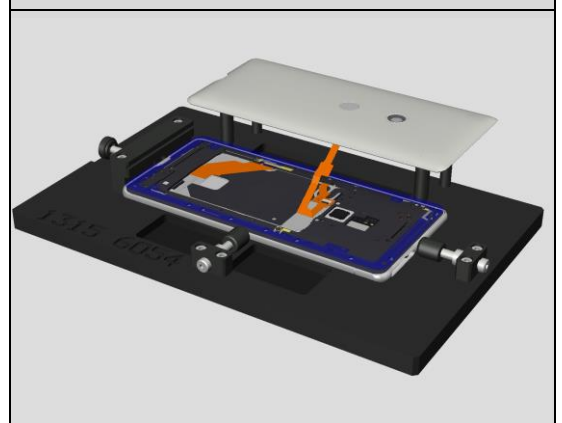


5.16.2 Installing Panel Rear

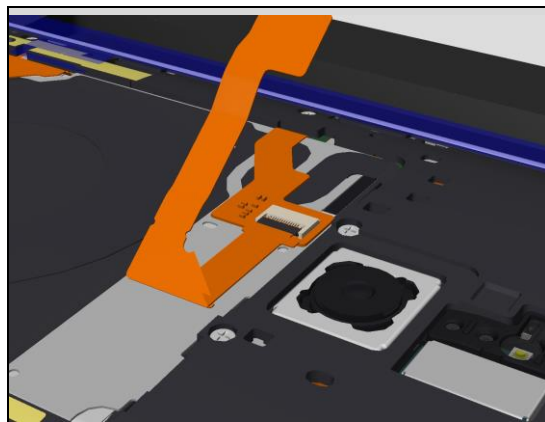
Place the unit on the Positioning Tool for Panel Rear Assy.



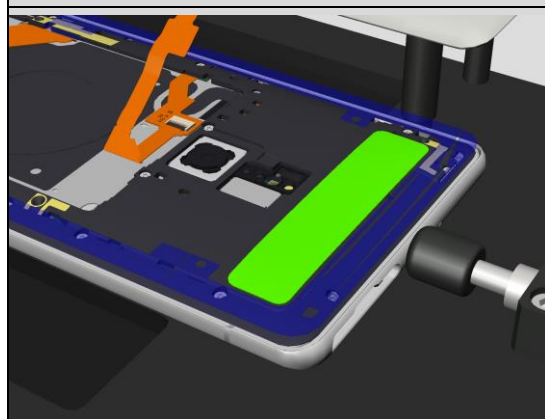
Place the Panel Rear on the 4 posts.



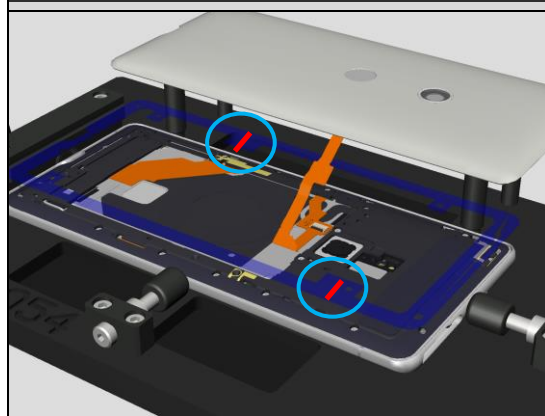
Connect the ZIF connector of FPC FPS Relay.



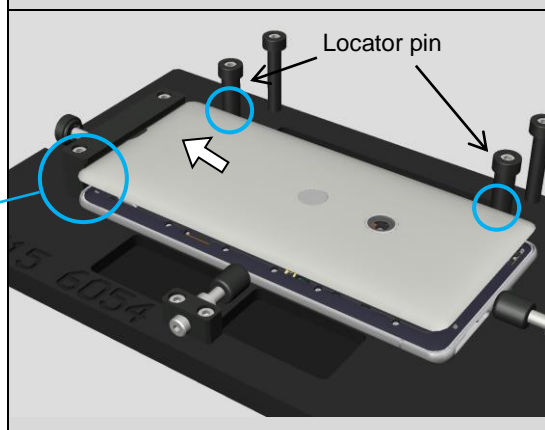
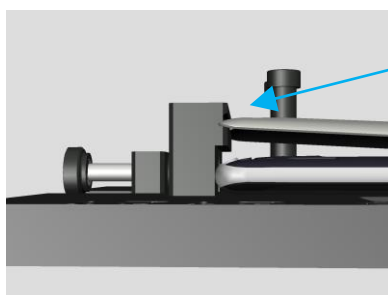
Affix the Adhesive Panel Rear Top along with separator of Adhesive WR Panel Rear.



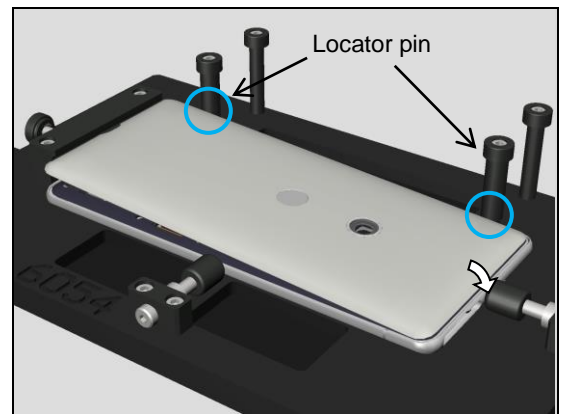
Remove the separator of Adhesive WR Panel Rear by cutting separator from snick.



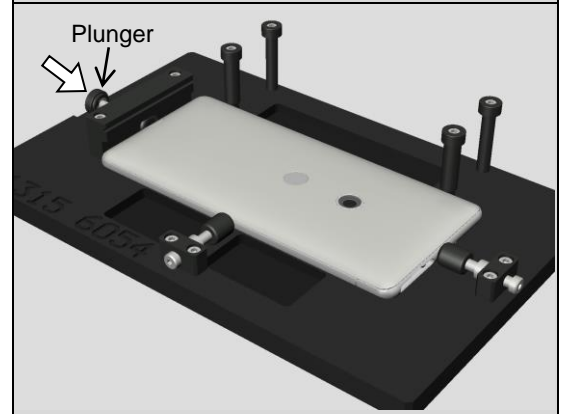
Inset the edge of bottom side of Panel Rear to the groove of fixture while touching to two locator pins.



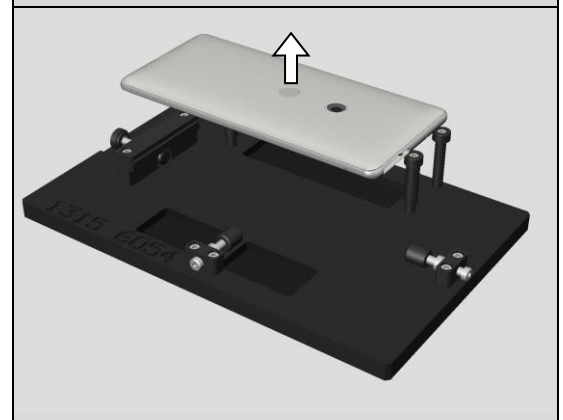
Place the top side of Panel Rear on the unit gently while touching to two locator pins.



Push the plunger gently and the Panel Rear is placed on the unit.

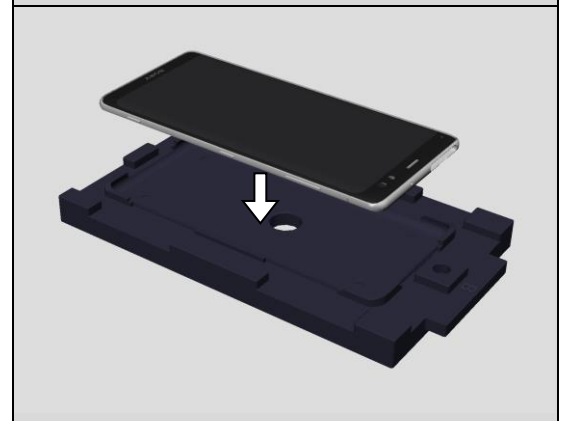


Remove the unit from fixture and press the adhesive area of Panel Rear by hand.

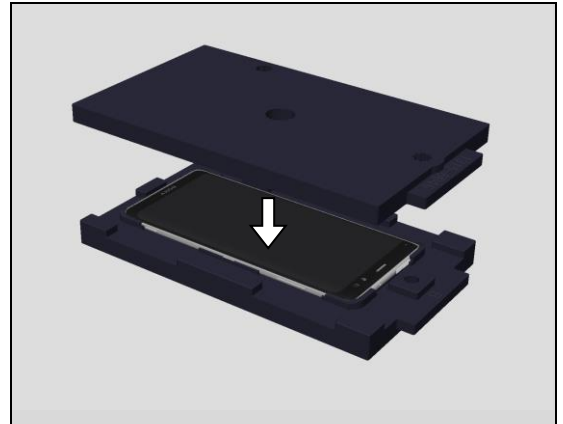


5.16.3 Press for fixing the Panel Rear

Place the unit on the Press Rubber Inlay Bottom from Panel Rear side.



Place the Press Rubber Inlay Top on the unit.



5.16.3.1 Press with Generic Wheel Press Tool

Place the Press Rubber Inlay (unit is installed) to the Generic Wheel Press Tool.



Align the Press Rubber Inlay with the edge of the base plate of the Generic Wheel Press Tool (red dotted line).



Rotate the wheel clockwise and press the unit.

Press Force: 1000 N
Duration: 30 seconds



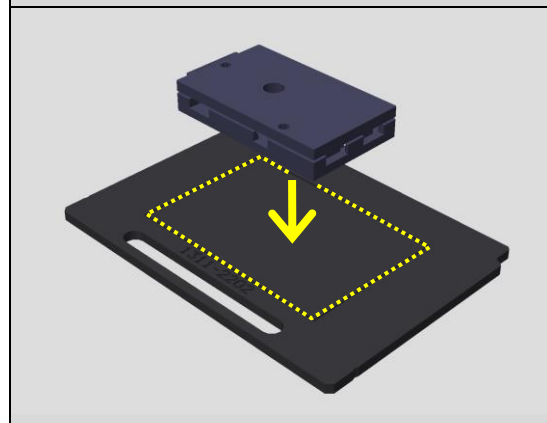
Rotate the wheel counterclockwise, and remove Press Rubber Inlay (unit is installed).



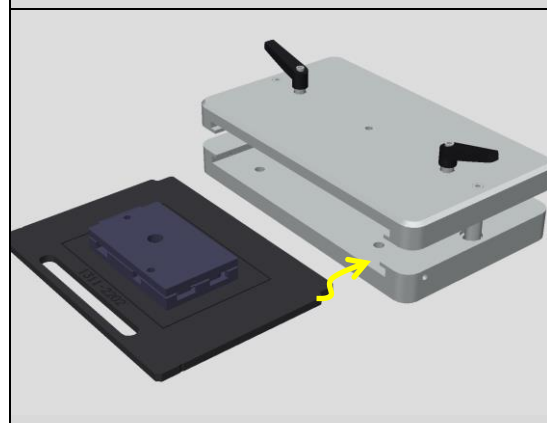
5.16.3.2 Press with former type of Press Tool

Note! This procedure (5.16.3.2) is option.
Instead of “Generic Wheel Press Tool”, you can use the former type of Press Tool for pressing.
Refer to 2.1.2 Optional Tools for detail.

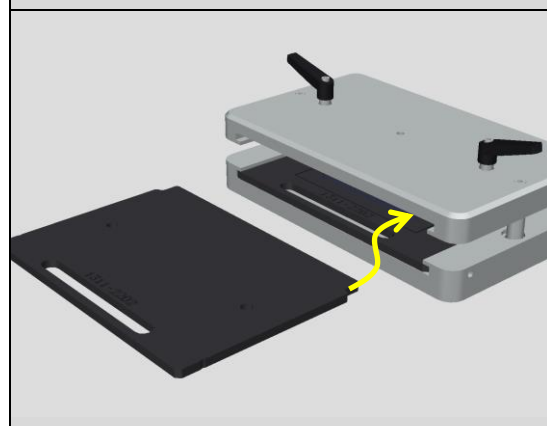
Place the Press Rubber Inlay (unit is installed) within the rectangle line of the Inlay Adaptor Bottom.



Insert the Inlay Adaptor Bottom (with unit installed Press Rubber Inlay) to the bottom slit of the Generic fixture for Press tool.



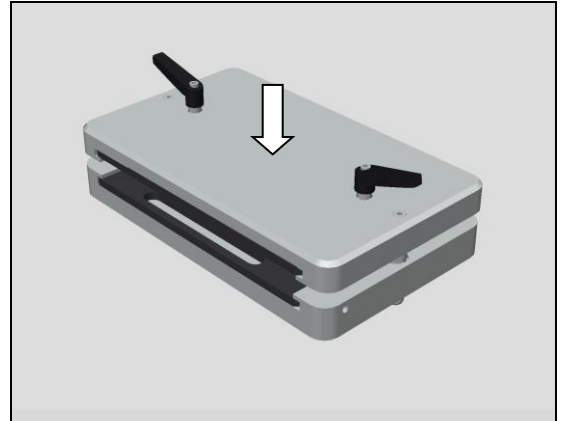
Insert the Inlay Adaptor Top to the top slit of the Generic fixture for Press tool.



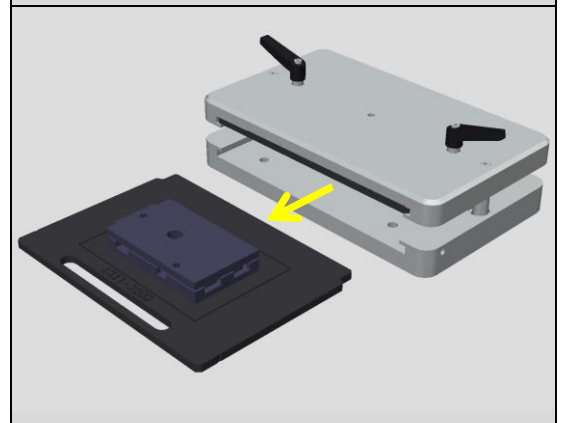
Reassembly

Press the unit.

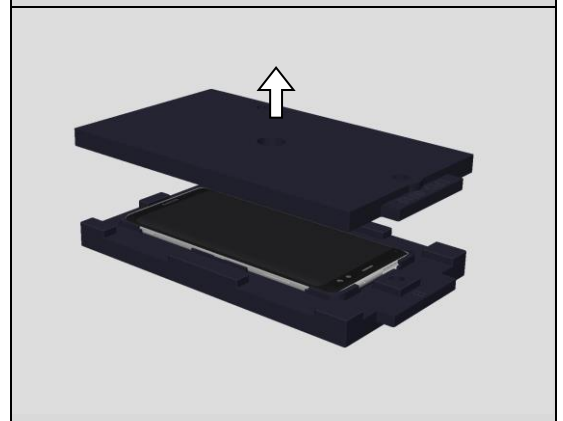
Press Force: 1000 N
Duration: 30 seconds



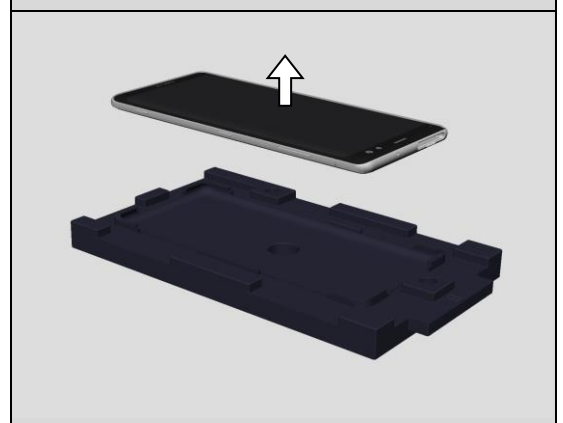
Remove the unit.



Remove the Press Rubber Inlay Top.

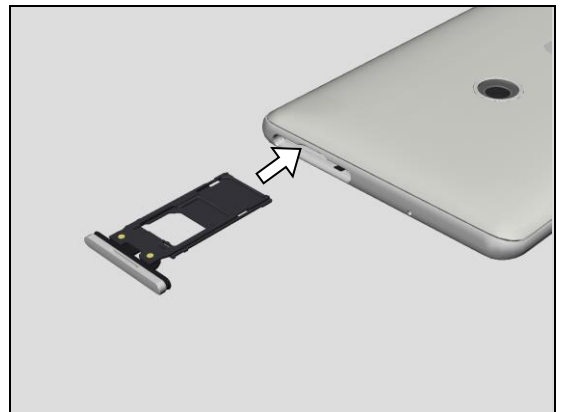


Remove the unit from Press Rubber Inlay Bottom.



5.17 Cap Combo

Install the Cap Combo in the unit.



6 Battery Reuse Instruction

**If you intend to reuse the Battery, carefully follow the Battery Reuse Instruction.
If it is failed, Don't reuse, and Scrap the Battery.**

6.1 Battery Handling Notices

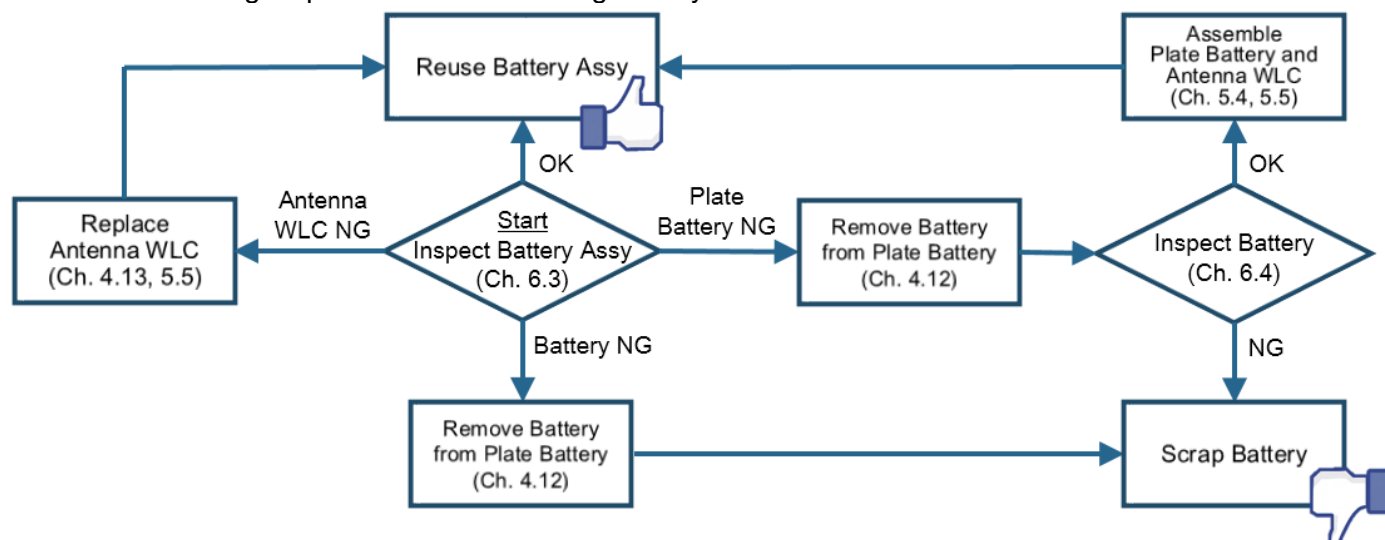
1. Don't damage the battery foil with sharp objects.
2. Don't twist or deform the battery.
3. If the battery is dropped, don't reuse, and scrap.
4. Hold the battery at the frame edges (left and right) of battery, or surface (front and back) as shown in below pictures.
Don't hold the Battery at top and bottom.



Battery Reuse Instruction

6.2 Battery Inspection Flow

Follow the following inspection flow for reusing battery.



6.3 Battery Assy Inspection

6.3.1 Dot Marking Check

Check:

Count dot marking.

Action:

If number of blue or black dot marking is 3 – scrap the Battery.

If number of blue or black dot marking is 0 to 2 – go to next inspection.

6.3.2 Plate Battery Inspection

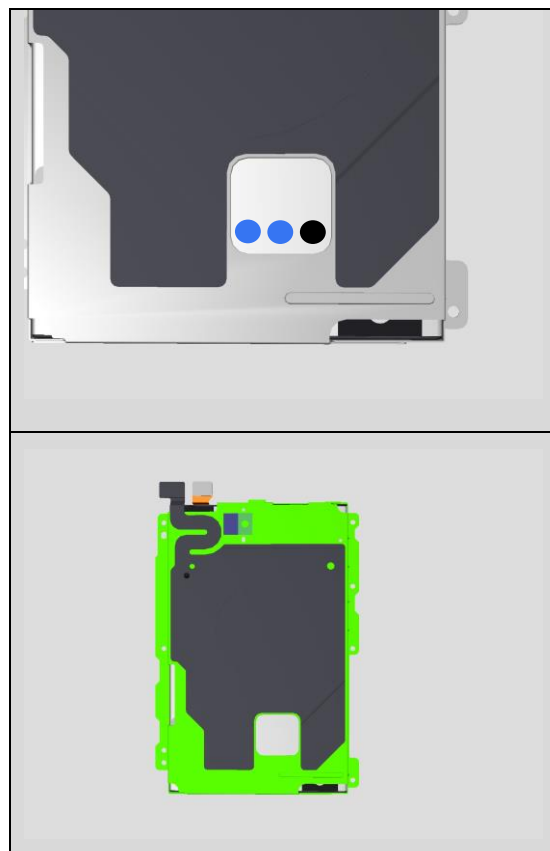
Check:

Inspect the Plate Battery.

Action:

If deformed or/and dent – remove the Battery from the Plate Battery.

If no damaged – go to next inspection.



Battery Reuse Instruction

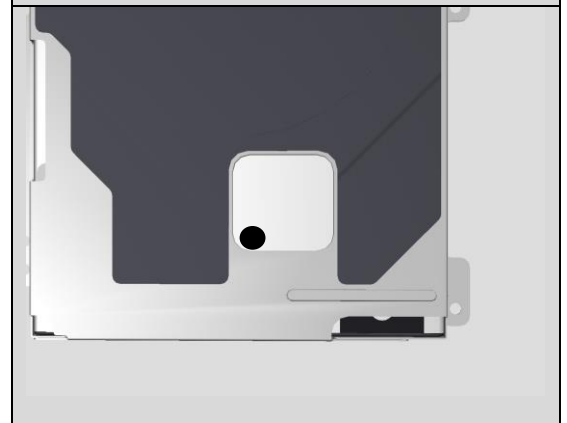
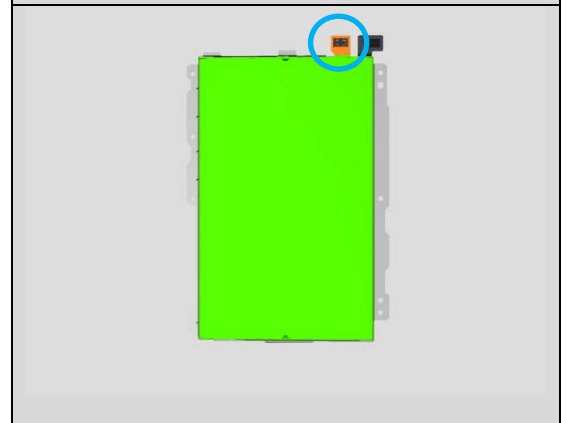
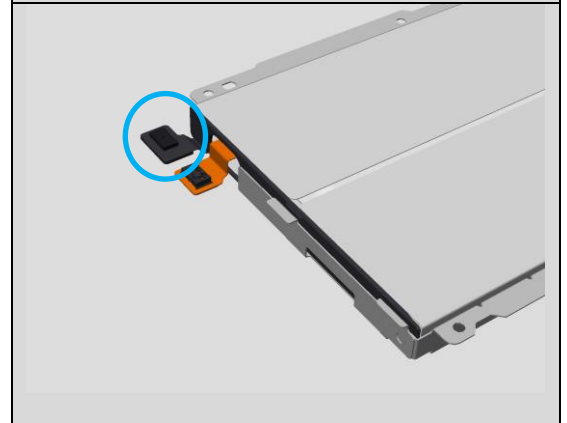
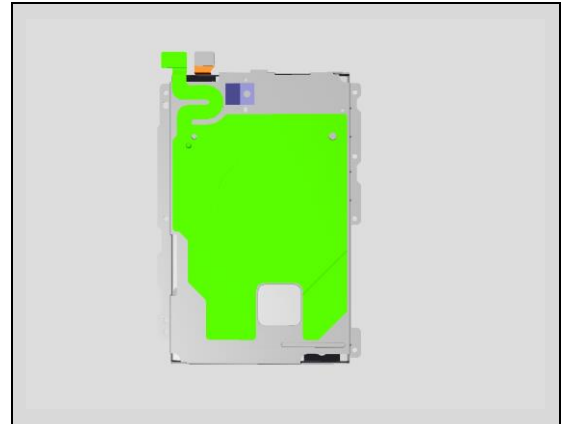
6.3.3 Antenna WLC Inspection

Check:

Inspect the external area of the Antenna WLC and the connector of the Antenna WLC.

Action:

If damaged – replace the Antenna WLC. (Chapter 4.13)
If no damaged –go to next inspection.



6.3.4 Battery Inspection

Check:

Inspect the external area (not printed side) and the connector of the Battery along with 6.5 Appearance Check of the Battery Surface.

Action:

If it is out of specification – don't reuse battery and scrap the battery.

If all Battery Assy Inspections are OK – mark black dot as shown.

And reuse the Battery Assy.

Battery Reuse Instruction

6.4 Battery Inspection

6.4.1 Dot Marking Check

Check:

Count the red dot marking.

Action:

If number of red dot marking is 2 – scrap the Battery.

If number of red dot marking is 0 or 1 – mark black dot and go to next inspection.

6.4.2 Battery Inspection

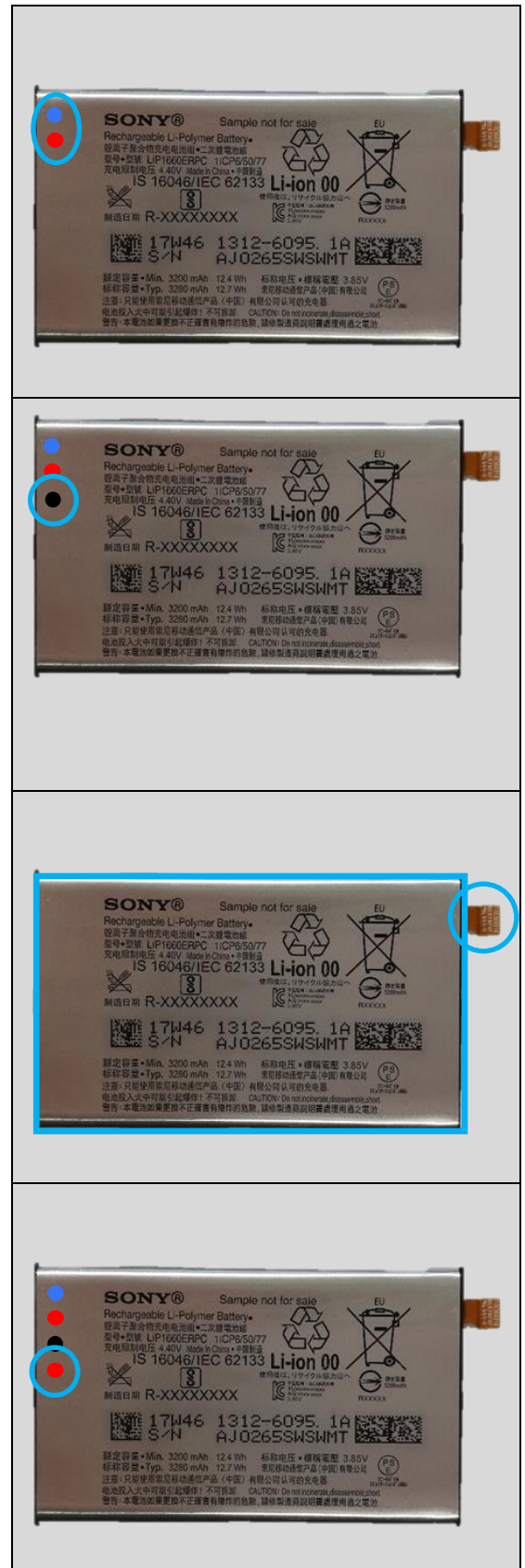
Check:

Inspect the external area and the connector of the Battery along with 6.5 Appearance Check of the Battery Surface.

Action:

If it is out of specification – Don't reuse battery and scrap the battery.

If Battery Inspection is OK – mark red dot as shown.
And reuse the Battery.



Battery Reuse Instruction

6.5 Appearance Check of the Battery Surface

Check if any damages on the battery such as Winkle, Bubble, Dent, Floating up the AL sheet, Twist, and/ or Line.

If it is out of below specification, do not reuse, and scrap the battery.

Item of Damage	Limit of size	Limit of quantity
Winkle	Length $\leq 5\text{mm}$	1 wrinkle per Al sheet
Mark	No mark is allowed.	
Bubble	Diameter $\leq \Phi 2\text{mm}$	3 bubble per Al sheet
Dent (*1)	Diameter $\leq \Phi 2\text{mm}$	3 dents per surface
Scratch	Scratch is allowed as far as printed characters are visible.	
Lift up Al Sheet	No lifting up of the Al sheet is allowed.	
Twist	Twist line is allowed.	
Line	No line is allowed.	
Glue contamination	No glue contamination is allowed on the bottom of battery.	

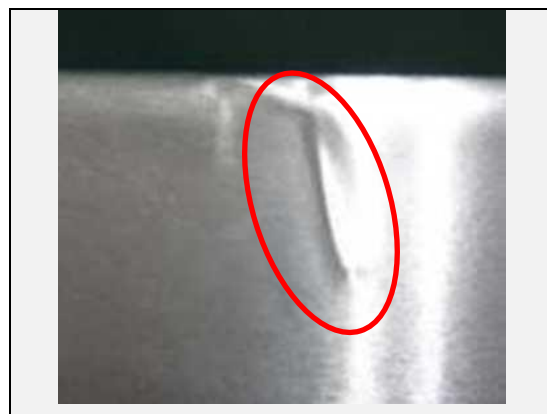
(*1)

This is applicable only for front and rear surface of the battery.
Refer to the 6.5 Dent specification for right and left side of the battery.

Definition of Damages and Sample Pictures

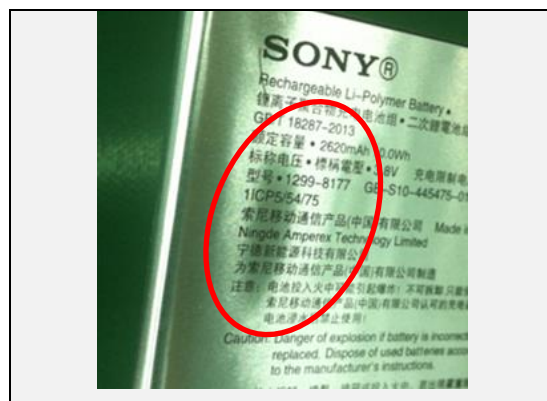
Wrinkle:

A slight line or fold on label or tape of the battery.



Mark:

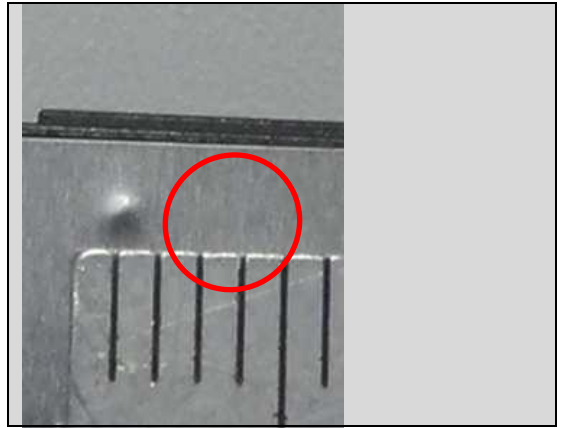
Surface is bulged as lined by foreign material is located between Al sheet and battery cell housing.



Battery Reuse Instruction

Bubble:

Surface is bulged as pointed by foreign material is located between Al sheet and battery cell housing.



Dent:

It is caused that is stuck by sharp pointed objects.



Scratch:

It is caused that scratched by sharp edge/pointed objects.



Lift up Al Sheet:

The edge of Al sheet is lifted caused by improper handling.



Battery Reuse Instruction

Twist:

Twisting line locates at the corner of battery pack that is created during Al sheet wrapping.



Line:

A slight line located at the border of battery cell and frame.



Glue Contamination:

No glue contamination is allowed in the bottom of battery.



7 Revision History

Rev.	Date	Changes / Comments
1	2018-Sep-14	Initial release