

Disassembly & Assembly Guide

[Galaxy S8]

HHP Global CS team

Rev 2.0

Revision History

Date	Rev	Comments	Pages
2017.03.24	1.0	- Initial version	
2017.04.17	2.0	- Removed the battery tape attaching process. . Battery will be supplied with the tape.	Page 35
		- Removed Non-reusable parts for battery . Battery will be supplied with the tape.	Deleted

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1. Structure comparison of S7 edge and S8

2. Disassembly

- Pre-requisite
- Parts for disassembly

3. Assembly

- Pre-requisite
- Non-reusable parts for reassembly
- Parts for assembly

Structure comparison of S7 edge and S8

S7 edge



Front Ass'y

S8



Front Ass'y (include receiver)



- The S8 display also cannot be separated from the bracket as same as S7 edge.
- In addition, **the battery & receiver cannot be reused.**
- So, when the front ass'y is changed to the new one, the battery should be ordered together.

Rear Case

Rev2.0

S7 edge



3-pieces of plastic cases

- Speaker and main antenna in bottom piece
- MST, NFC and W/C pad in middle piece

S8



3-pieces of plastic cases

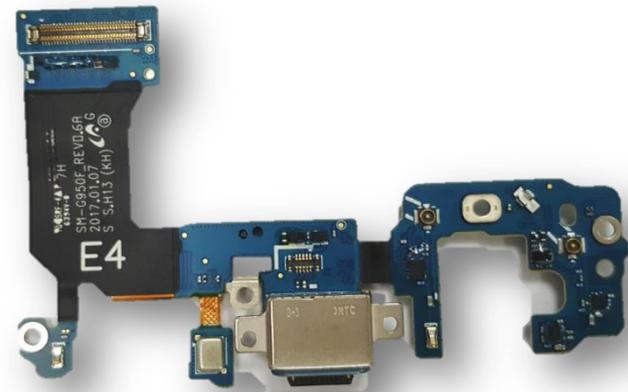
- Speaker and main antenna in bottom piece
- MST, NFC and W/C pad in middle piece
- Graphite sheet is located in left side piece

S7 edge



Touch key is included in the front ass'y.

S8



There are no touch-key in the Sub-PBA.

The S8 Sub PBA can be replaced without OCTA disassembling.

Back glass

S7 edge



Before re-assembling, **the outside tape & inside tape** should be changed.

S8



Before re-assembling, **the outside tape & inside tape & finger print sensor tape** should be changed.

Disassembly

Pre-requisite (Common)

Tweezers
(Rounded-Tip/Plastic)



GH81-14437A

Disassembly stick



GH81-11926A

Screw Driver



Anti-static gloves



Glass Absorber



GH81-11902D

Anti-static mat



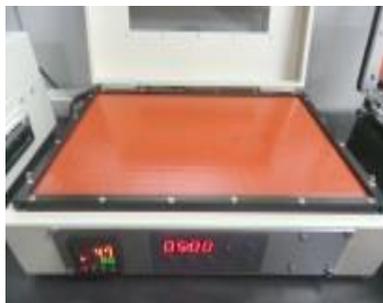
(Earth connection)

Pre-requisite (To disassemble)

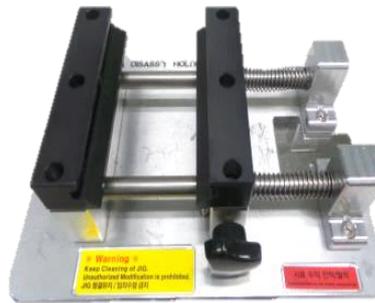
Automatic OCTA Disassembler	Disassembly Jigs (Manual type)		
	Hot plate	OCTA Disass'y Holder	OCTA Disass'y Upper



TBD



GH81-12712E (220V)
GH81-12712F (110V)



GH81-12119A



GH81-12833A

Battery disassembly vacuum



GH81-12712S (33pi)

Cotton Swab	Sput	Ethyl Alcohol (about 95%)
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GH81-12712N



GH81-12712P



IMK 1108948200

※ Ethyl Alcohol can be used only for battery detaching & swollen battery.

1. Back Glass

2. Rear Case

3. Main PBA

4. Ear Jack & Sub PBA

5. Parts on the Main PBA

- Main Camera

6. Parts on the Bracket

- Vibrator, Receiver and Sensor FPCB, IR Camera, Front Camera

7. Battery

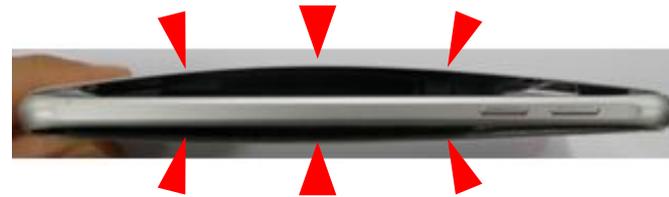
8. Front Ass'y

Disassembly - Back Glass (1/8)

Core process
for battery handling

Rev2.0

1) Check if the back glass/OCTA is swollen or not.



Back glass/OCTA status	
Normal	Swollen or deformed
The device can be heated under standard.	Never heat the device. Use ethyl alcohol only.

2) Input the device into the hot plate or mobile dryer.

Condition of pre-heat the device

- Case1 (with battery; SOC 68%↓) : 70 °C /10~20min(Hot plate and Mobile dryer)
- Case2 (with battery; SOC 68%↑) : 60 °C /10~20min(Hot plate and Mobile dryer)



Put the device into Mobile Dryer.(70°C/10mins)



Put the device in to HOT PLATE.(70°C/10mins)



Mobile Dryer 60°C/10mins



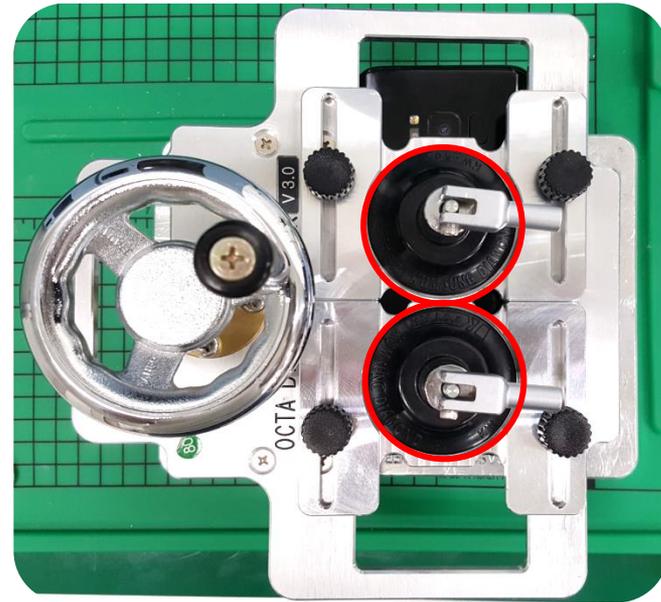
HOT PLATE 60 °C/10mins

- ※ Pre-heat under 60 °C for 10~20min in case cannot check SOC, such as No power or no display.
- ※ Keep the pre-heating condition to prevent quality issue during repair.

Disassembly - Back Glass (3/8)

3) Fix the device on the OCTA disassembly holder.

4) Align 2 absorbers(OCTA disassembly upper)along with the back glass edge.

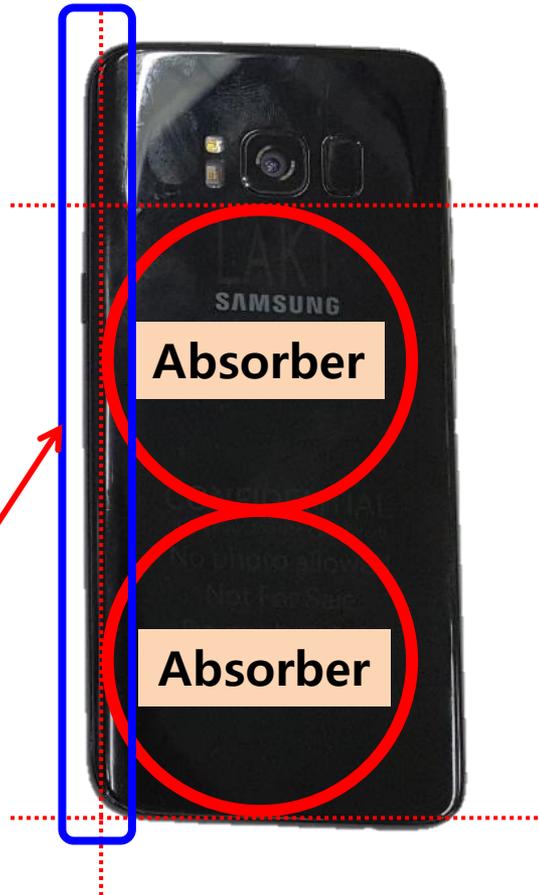


**※ Left side of the back glass must be detached firstly.
Please keep the direction of device on the disassembly holder.**

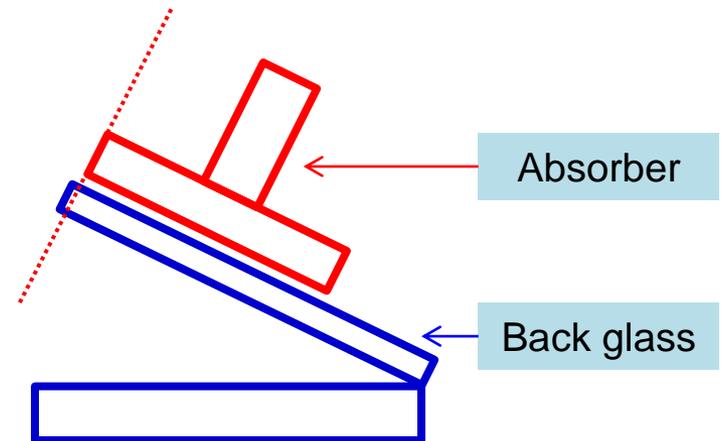
[Note]

Using OCTA disassembly upper is mandatory to prevent window crack, except for using the automatic OCTA disassembler.

The position of absorbers



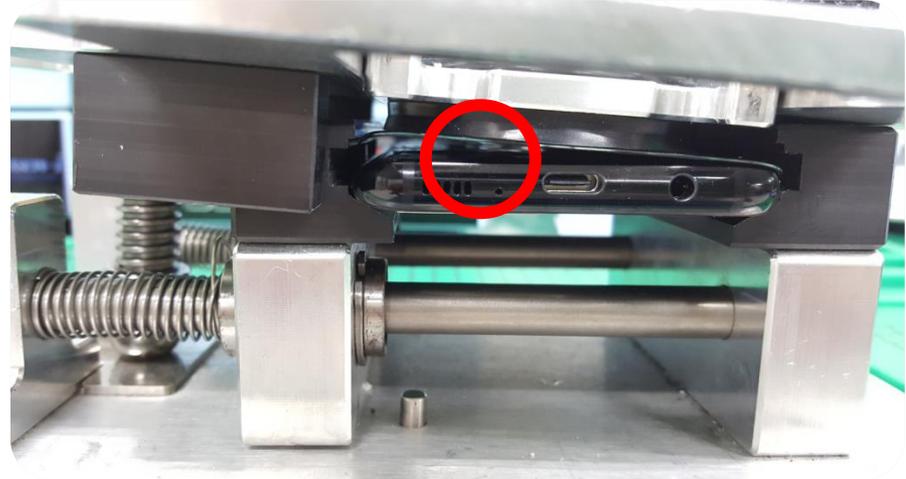
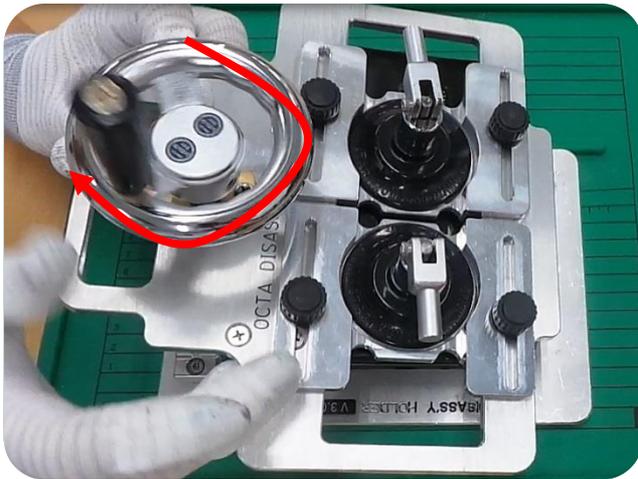
Close to camera window
(Do not cover camera window)



Close to the bottom of back glass
(Do not go out of the back glass)

※ Left side of the back glass must be detached firstly.
Please keep the direction of device on the disassembly holder.

- 5) Gently rotate the handle of OCTA disassembly upper.
- 6) When the back glass starts to be detached, carefully rotate handle with watching the back glass status.



[Note]

Do not use the ethyl alcohol to disassemble back-glass.
(except for battery swelling case)

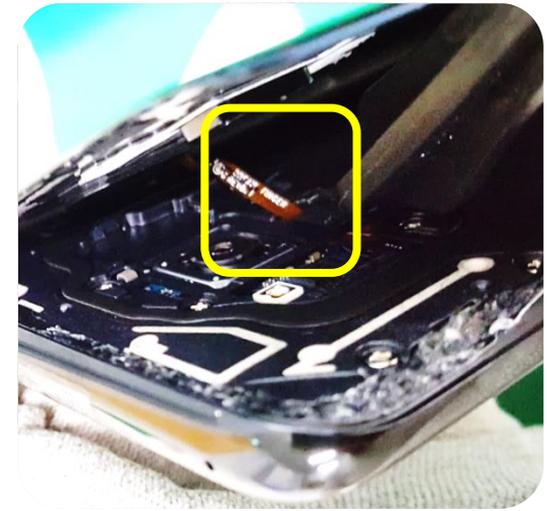
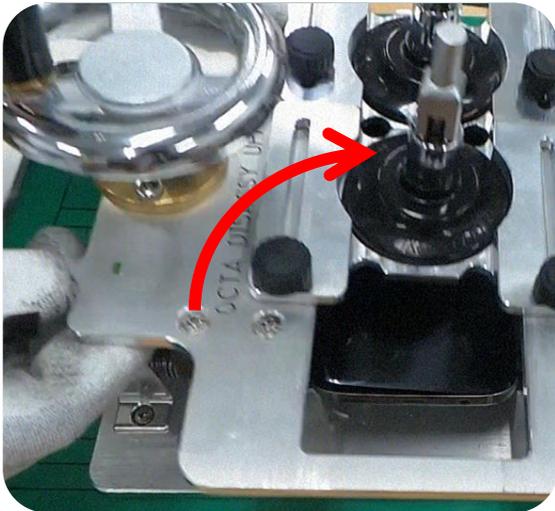
Disassembly - Back Glass (6/8)

Core process
for water resistance

Rev2.0

- 7) Lift up and release absorbers after detaching one side of back glass.
- 8) Take the device out and detach the back glass safely from left to right side.
- 9) During the lifting, **release the finger print sensor connector** from the PBA using the disassembly stick.
- 10) Check if the finger print sensor is damaged or not during detaching back glass.
- 11) Remove all tapes and residues on the back glass with tape residue.

☞ Back glass tapes **CAN NOT** be re-used.



Disassembly - Back Glass (7/8)

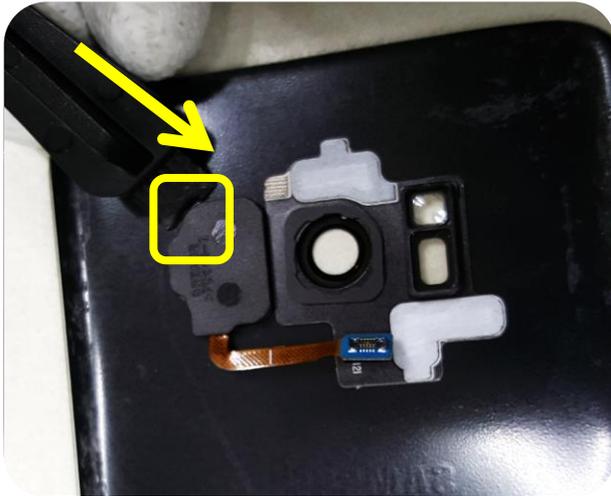
Core process
for water resistance

Rev2.0

12) Disassemble the finger print sensor from the back-glass.

13) Remove the finger print sensor tape and all residues.

 Finger print sensor tapes **CAN NOT** be re-used.



❖ Do not push the finger print sensor from the backside to detach the finger print sensor.



★ Important Back Glass Handling Guide ★

- a. Do NOT use disassembly stick when you detach back glass or tape residue.
- b. Do **NOT** place the back glass on the edge of the metal case.
- c. Printing area inside of back glass can be damaged by fingernails.
- d. Do NOT use rework tape when you remove residues on the back glass.

Disassembly stick



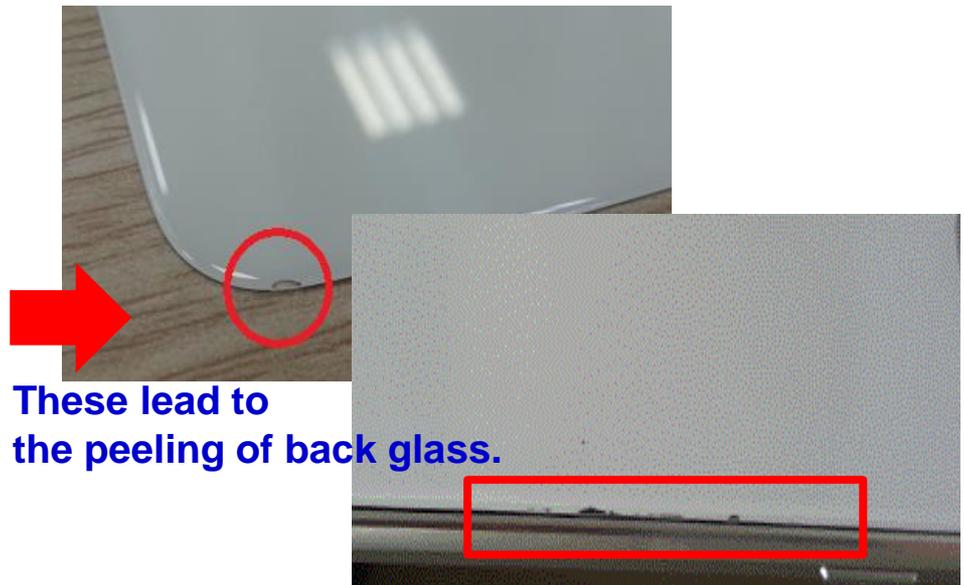
Fingernail



On metal edge



Rework tape

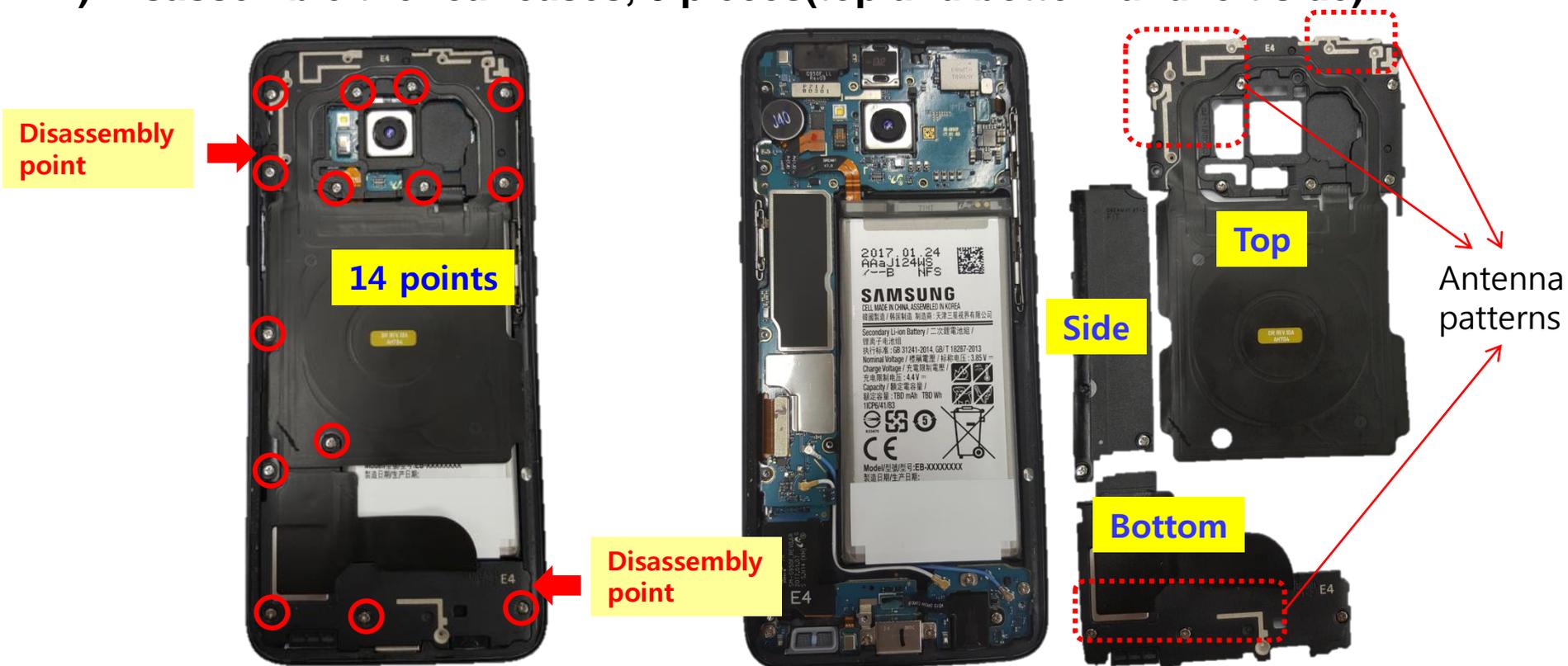


These lead to the peeling of back glass.

Disassembly - Rear Case

Rev2.0

- 1) Loosen 14 screws from the rear case.
- 2) Disassemble the rear cases, 3 pieces (top and bottom and left side).

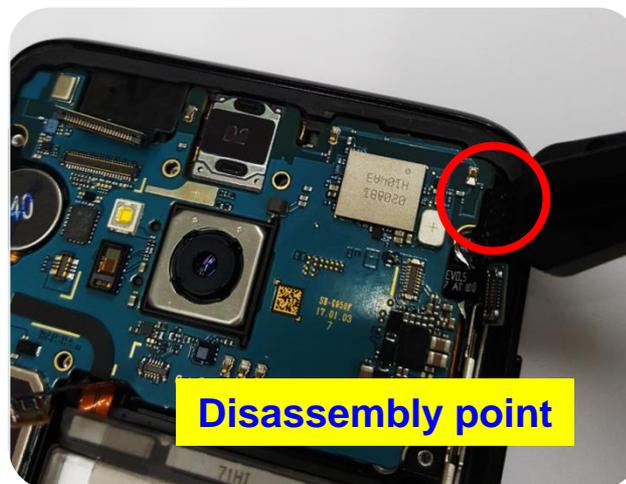


Note: Watch out not to give any damage on the antenna patterns in rear case.

Disassembly - Main PBA

- 1) Remove sim tray, open the all connectors.
- 2) Take the main PBA out from bracket, and then disconnect sub PBA.

↑ Remove sim tray

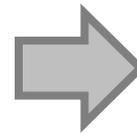


[Note]

Disassemble the main PBA from top(①) to bottom(②), and then disconnect sub PBA.

Disassembly - Ear Jack & Sub PBA (1/2)

- 1) Loosen 1 screw and disconnect the ear jack.
- 2) Take the ear jack out from bracket using disassembly stick.

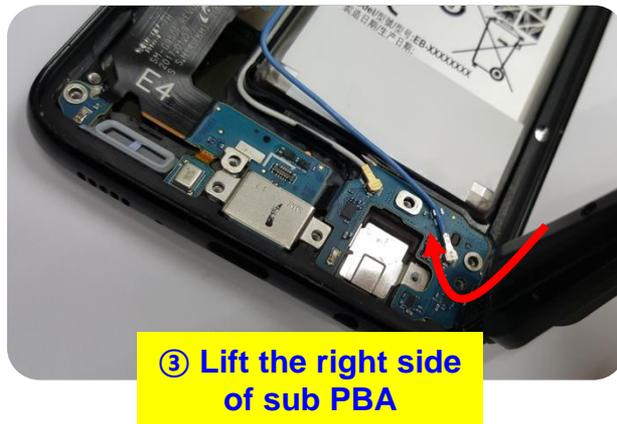
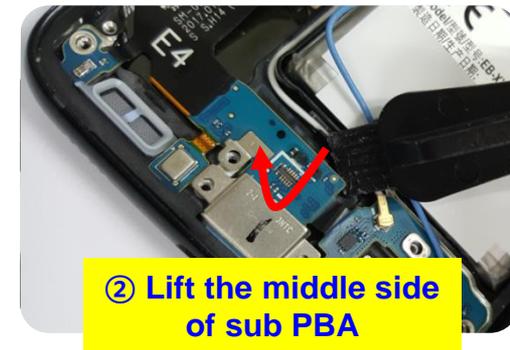
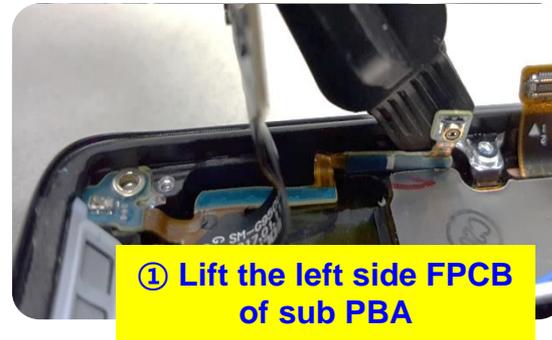
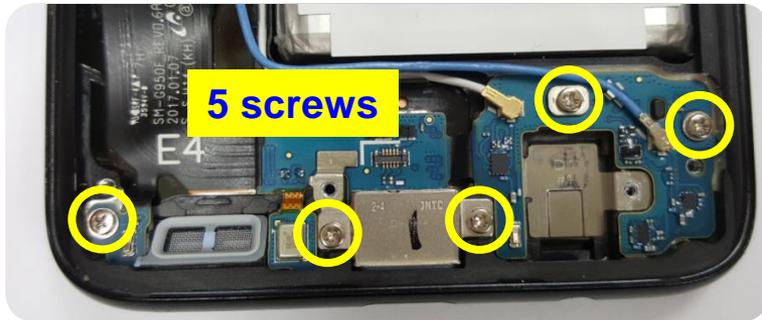


Disassembly - Ear Jack & Sub PBA (2/2)

Confidential

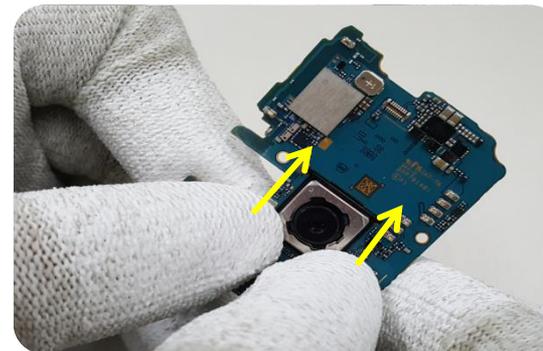
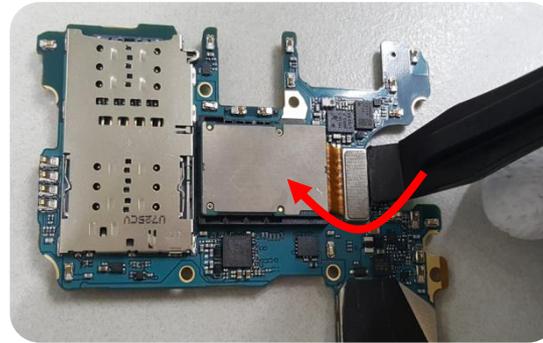
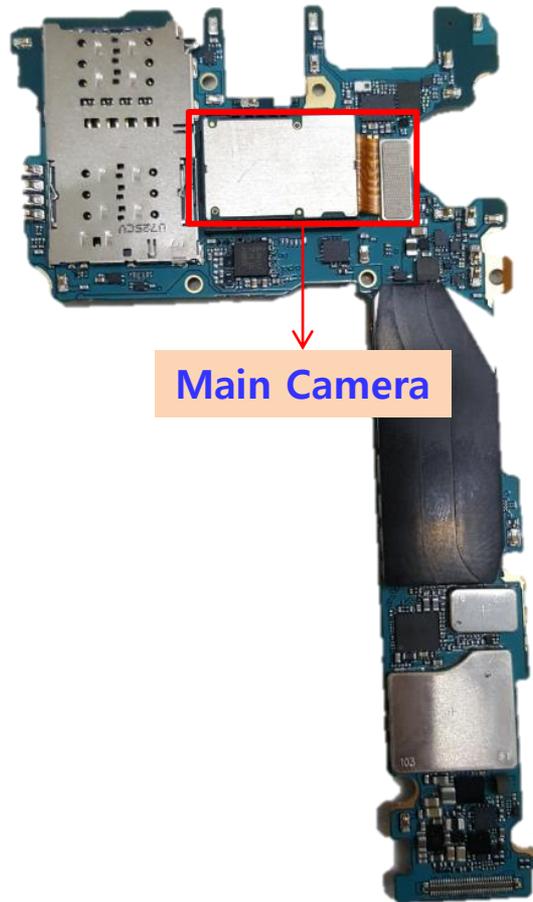
Rev2.0

3) Loosen 5 screws, and detach the sub PBA from bracket using the disassembly stick.



Disassembly - Parts on the Main PBA

1) Disconnect main camera from main PBA.



Disassembly - Parts on the Bracket

Rev2.0

- 1) Remove Front cam / IRIS cam module & sensor FPCB & motor using top-rounded tweezers.

Front CAM/IRIS CAM

Sensor FPCB

Motor



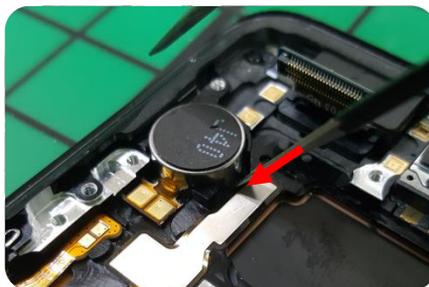
Front cam / Iris cam module :

Gently insert the tweezers to the hole for disassembly and lift the module slightly.

If the adhesive tapes are damaged, change the tape to the new one.



Sensor FPCB : Gently insert top-round tweezers to the left hole for disassembly and lift it up softly.



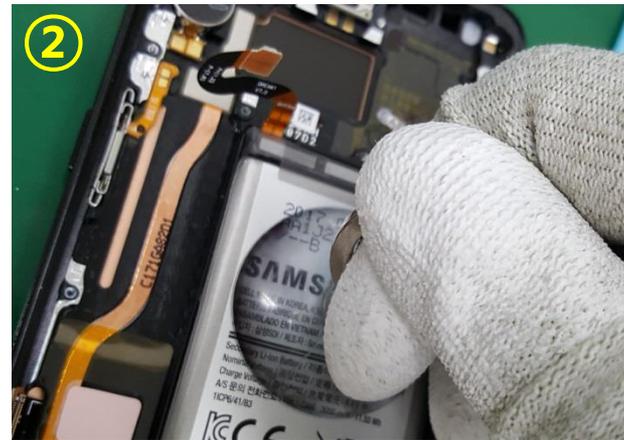
Motor: Gently insert top-round tweezers to the hole for disassembly and lift it up softly.

Disassembly - Battery (1/2)

Core process
for battery handling

Rev2.0

- 1) Put ethyl alcohol into the out side of battery with clean swab(①), and slightly tilt the front case to soak alcohol inside enough.
- 2) Lift battery using battery disassembly vacuum.
- 3) Remove all residues of tape (the battery tapes CAN NOT be re-used).



[Notice]

1. Do NOT use any sharp tools(disassembly stick, knife, any plastic or tweezers).
2. Do NOT reuse the battery and battery tapes.
3. In case of battery replacement, transfer the IMEI label on the old battery to the new battery.

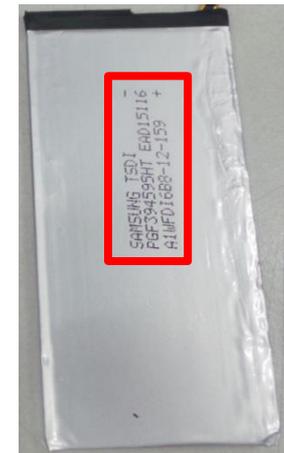
*If the battery is not properly removed, it may lead to damage to the phone and battery.
Only authorized service providers with the instructions provided can remove the battery.*

★ Caution of Handling Ethyl Alcohol ★

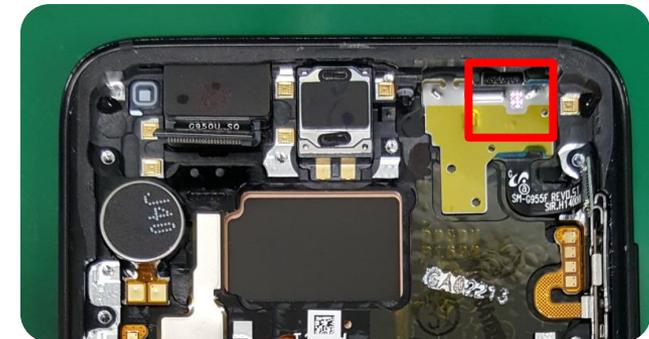
Do not touch any print area on the Battery pouch.

There are below information:

- Production vendor
- Production date
- Production line
- Serial number
- Lot / Batch Number



Do not touch LDI(Liquid Damage Indicator) on the Sensor FPCB(Entrance of Sim card tray).



1) When display part has a problem, Front Ass'y needs to be replaced.

- To replace Front Ass'y, all repairable parts on the main PBA - sensor FPCB, front camera, motor, and so on -, need to be disassembled, however there is no need to be changed to the new one.
- Ensure that battery & receiver can **NOT** be re-used, after detaching it from the bracket.
- It doesn't need to detach the receiver to replace front ass'y, but it needs to detach the battery for the return-logistic reason.

Assembly

Pre-requisite (To assemble and press)

Tweezers



GH81-14437A

Disassembly stick



GH81-11926A

Screw Driver



Anti-static gloves



Anti-static mat



(Earth connection)

Window pressing jig



GH81-11903A

Window pressing pad



GH81-14725A (S8)
GH81-14725B (S8+)

Battery pressing pad

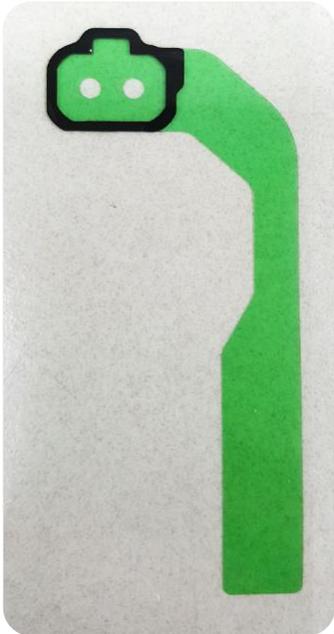
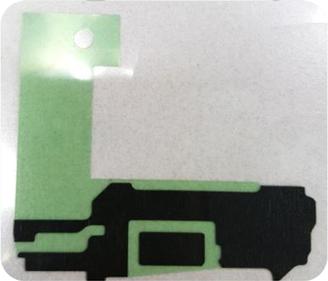


GH81-13044B

Non-reusable parts for reassembly

Below items must be changed to the new one in case of disassembly of back glass.

- When the back glass is reassembled,

Item (Non-reusable)	Back Glass Outside Tape	Back Glass Inner Tape		Finger print sensor tape
Part Code & pictures	Common	EUR	US/CA/JPN/CHN	Common
	GH81-14574A	TOP	Integrated	GH02-14440A
		GH81-14575A 	GH81-14577A 	
	BTM			
	GH81-14648A 			

1. Battery

2. Parts on the Bracket

- Vibrator, Receiver and Sensor FPCB, IR Camera, Front Camera

3. Ear Jack and Sub PBA

4. Parts on the Main PBA

- Main Camera

5. Main PBA

6. Rear Case

7. Back Glass

Assembly - Battery (1/2)

Rev2.0

- 1) Check the status of battery adhesive tape on the battery.
(Crumple, tilt, folds, gap, and so on)
- 2) Softly remove the release film of battery adhesive tape (①).
- 3) Attach the new battery from TOP to BOTTOM (②).
- 4) Check the battery assembly status. (Tilt, gap, and so on) (③).



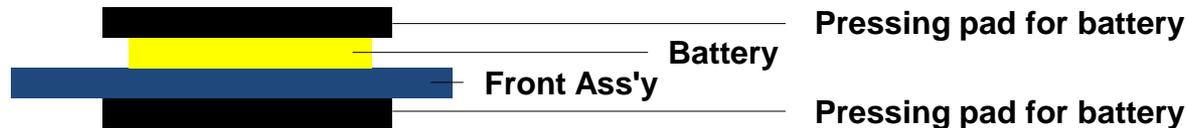
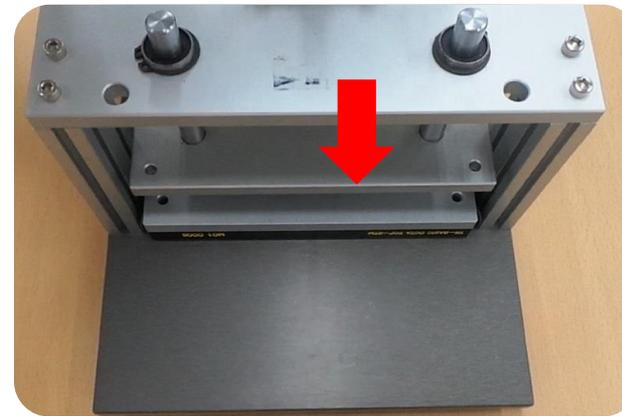
Assembly - Battery (2/2)

5) Confirm if there is any foreign materials on the pressing pad, and the force of torque wrench.

6) Press the battery using pressing jig and pad.

- Pressing force : **0.6 N** (It is set on the pressing jig in advance)
- Pressing time : **5 seconds**

Torque wrench 78,400KRW SVC Part of GH81-11903A		GH81-12712C (SEC) 1074720500 (IMK)	- Common usage - Use for Window press Jig body → Changeable part - 1N force
Torque wrench 72,100KRW SVC Part of GH81-11903A		GH81-14467A (SEC) 1166055300 (IMK)	- Common usage - Use for Window press Jig body → Changeable part - 0.6N force



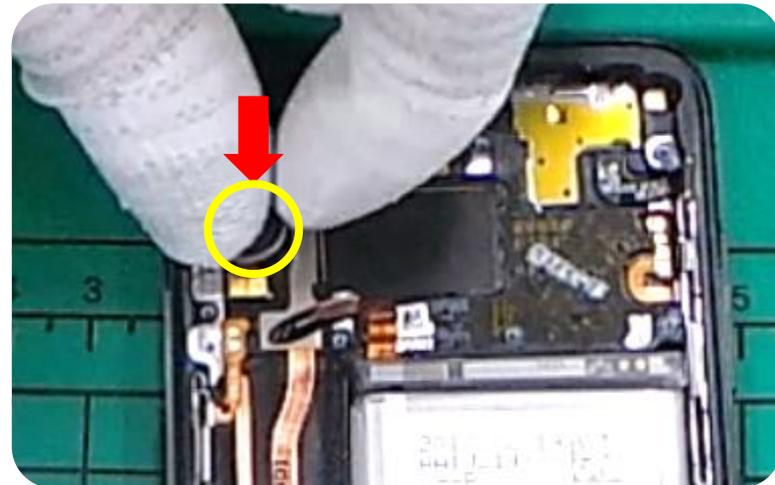
[Notice]

Do **NOT** press a battery over 5 seconds to prevent display damage.

1) Assemble sensor FPCB and motor

- Sensor FPCB : Assemble vibrator and press it one more with thumbs.

- Motor : Assemble receiver and press it with thumbs for 1 seconds.



1) Assemble receiver and Front / IRIS cam module.

- Front cam / IRIS cam module : Slide the camera module up to slot.

- Receiver : Assemble receiver and press it with thumbs for 3 seconds.

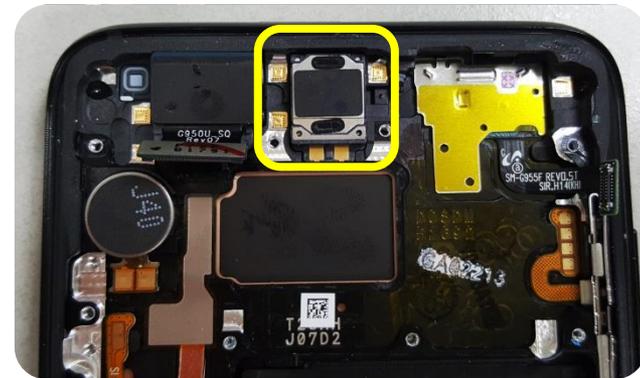
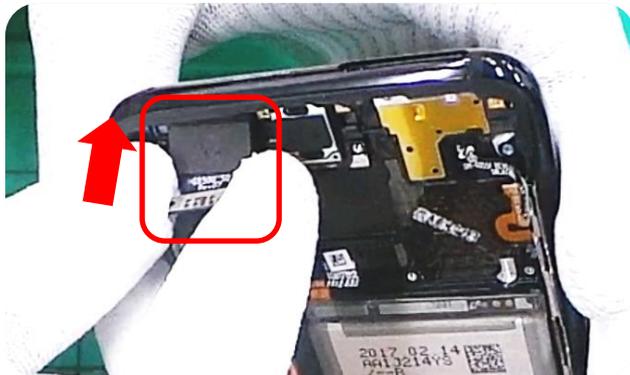
How to manage the "Receiver"

When Front Ass'y is replaced

The Receiver is attached on Front Ass'y in advance.
Do not reuse the receiver from old Front ass'y.

When receiver is needed to change

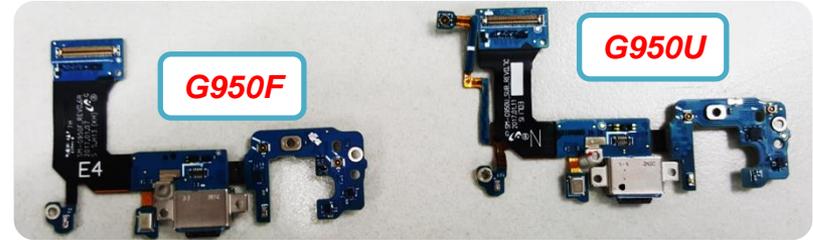
It needs to be ordered as a spare part, and then attach it to receiver hole of bracket.



Assembly - Ear Jack and Sub PBA (1/2)

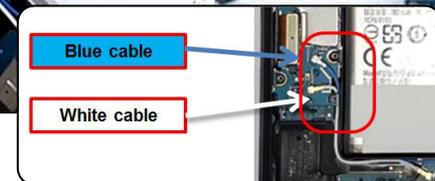
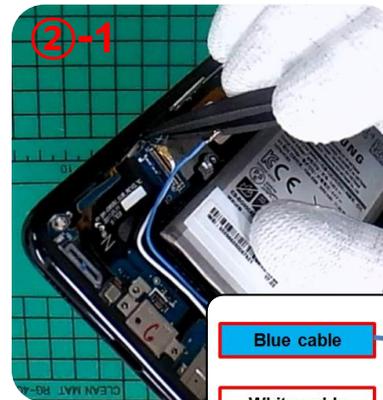
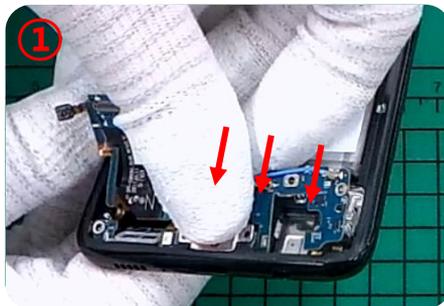
1) Assemble sub PBA.

- If it is a new sub PBA, remove all protection film and bend the outside of sub PBA to make a shape for assembly.



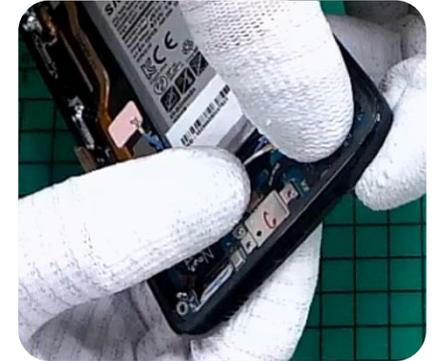
- Assemble IF connector part first(①), and then attach sub PBA on the bracket.
- Softly press sub PBA one more with thumbs(②).
- In case of some models(G950U), fix the left side FPCB on the left guide rib(②-1).
- Fix 2 RF PCBs on the guide rib of the bracket wall(③).

※ Different shapes for SUB PBA by region.



2) Assemble ear jack.

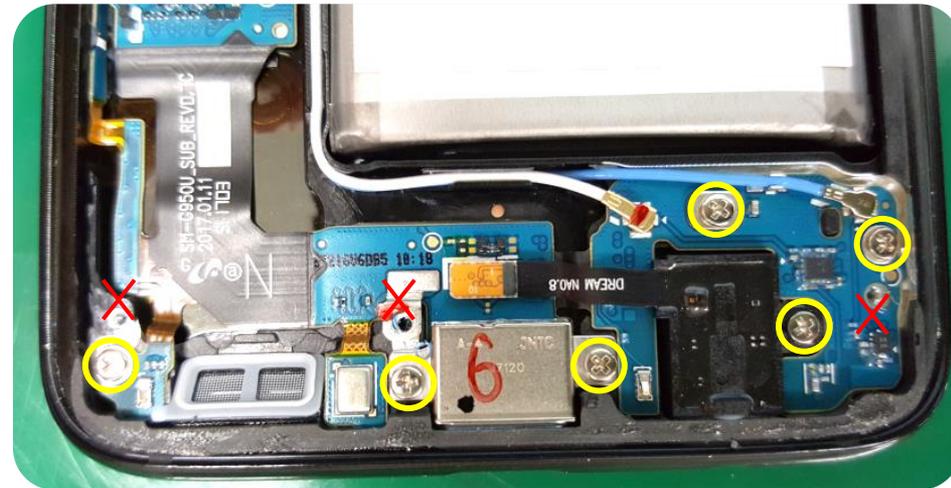
- Assemble ear jack hole part fist(④), and make a connection firmly.



3) Tighten 6 screws on the ear jack and sub PBA.

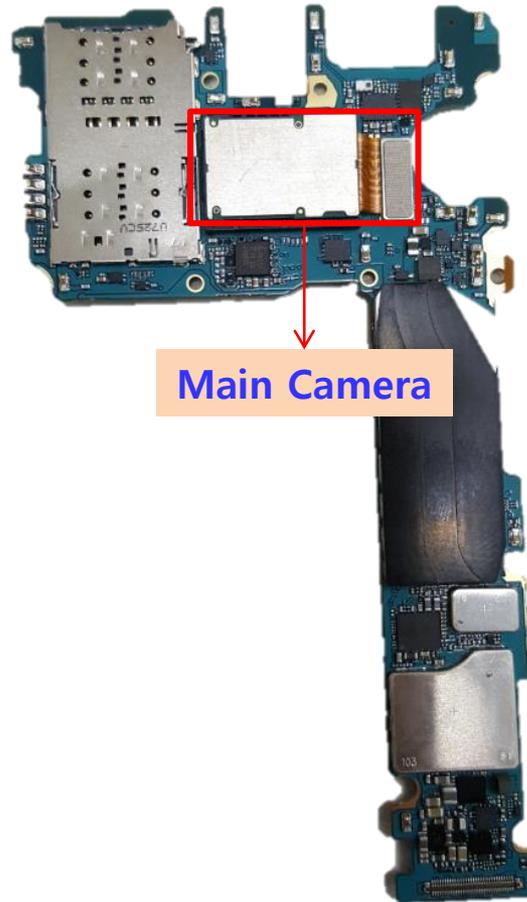
- Torque force : $1.3 \text{ kgf}\cdot\text{cm}^2 \pm 7\%$ (1.22~1.38)

Screw specification: 2.5mm, Silver



※ Do not confuse the screw holes for rear cases on the SUB-PBA.

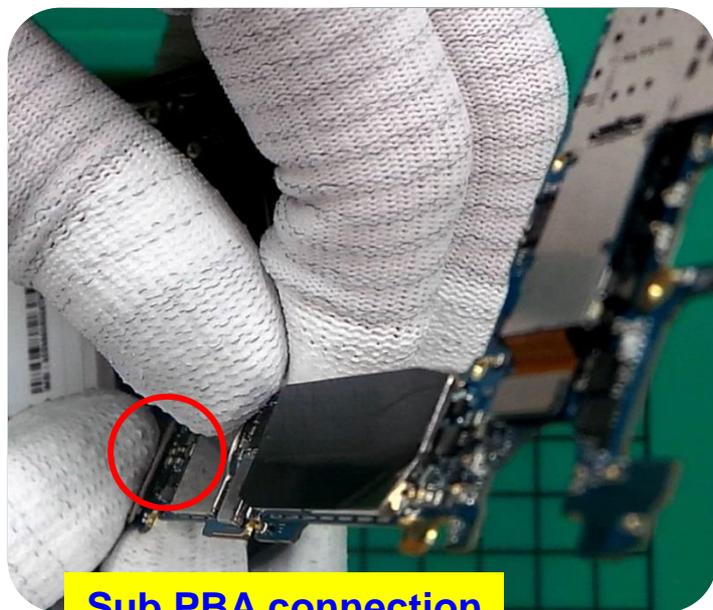
1) Connect main camera on the main PBA.



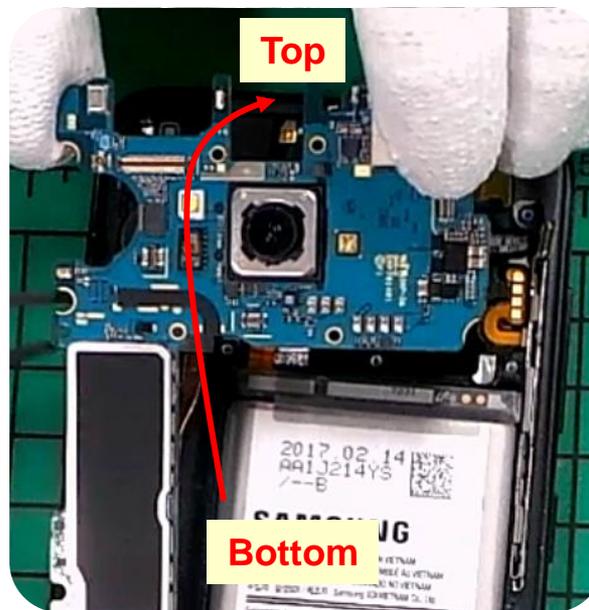
Assembly - Main PBA

Rev2.0

- 1) Connect the sub PBA first.
- 2) Place the main PBA on the bracket, and connect all connectors firmly.
 - Softly open all connectors to make assembly easy before placing main PBA.



Sub PBA connection



Bottom



4 connectors

2 coaxial cables

1 connector only for specific region model

[Notice]

Assemble the main PBA from bottom part after connecting sub PBA connector.

Assembly - Rear Case (1/2)

- 1) Assemble the rear case, bottom piece first.
- 2) Assemble the rear case, top/middle piece.
- 3) Tighten 14 screws on the rear case bottom.

Screw specification: 3.2 mm, Silver

- Torque force : $1.3 \text{ kgf}\cdot\text{cm}^2 \pm 7\%$ (1.22~1.38)



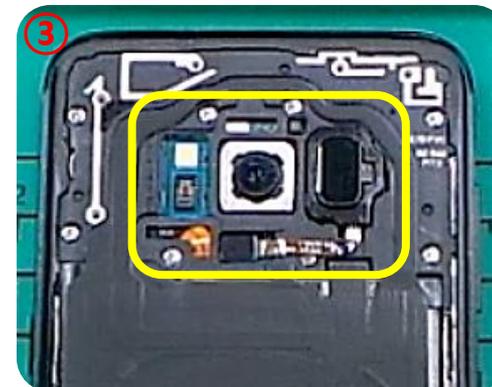
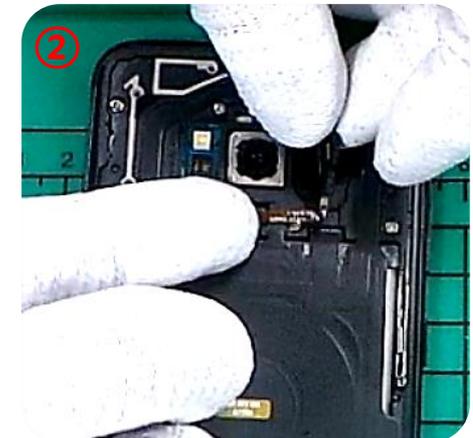
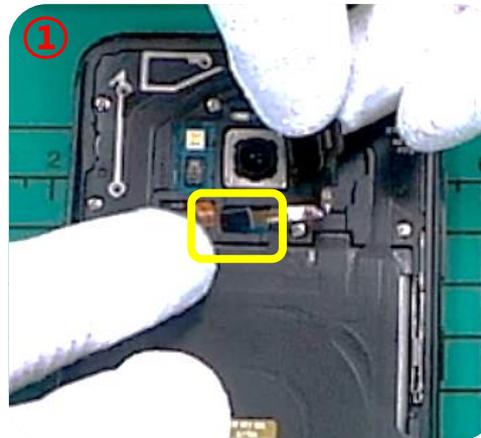
[Notice]

Watch out not to give any damage on the antenna patterns during screwing.

Assembly - Rear Case (2/2)

1) Assemble the finger print sensor module on the rear case.

- Connect the finger print sensor and place the sensor on the rear case.
- Gently press the connector of finger print sensor using thumb.



1) Attach the finger print sensor tape on the back glass.

- Attach the finger print sensor tape on the back glass by hands.

- Gently press on the adhesive parts of tape using thumb.



[Notice]

Fit the tapes precisely to the finger print sensor holes of the back glass.

Assembly - Back Glass (2/4)

2) Attach the back glass inner tape on the rear case.

- Attach the back glass inner tape on the rear case by hands.
- Gently press on the adhesive parts of tape using disassembly stick



[Notice]

Fit the tapes precisely to the screw holes of rear case.

Assembly - Back Glass (3/4)

Core process
for water resistance

Rev2.0

3) Attach the back glass outside tape on the rear case.

- Attach the back glass outside tape on the rear case by hands.
- Gently press all adhesive parts of tape using disassembly stick or hands.



[Notice]

Fit the tapes precisely to the screw holes of rear case.

Assembly - Back Glass (4/4)

Core process
for water resistance

Rev2.0

4) Assemble the back glass.

- Softly remove the protection film of outside and inner tapes on the rear cases.
- Softly remove the protection film of finger print sensor tape on the back glass.
- Hold a device with one hand, and put the back glass with another hand **from top to bottom**.
(Fingers holding the device can easily help to align the back glass.)
- **Press the outside of back glass with thumbs enough.**



[Notice]

Align left and right side of Back glass precisely during attaching with fingers.

Assembly - Back Glass (5/5)

Core process
for water resistance

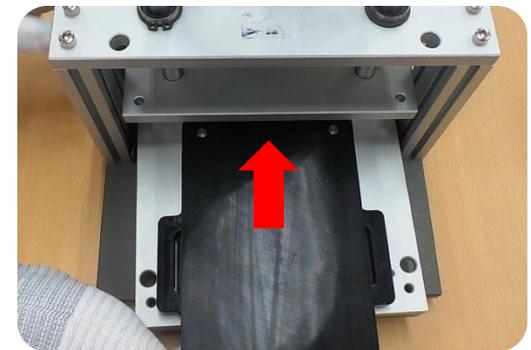
Rev2.0

5) Check if there is any gap or difference between back glass and metal frame.

6) Press the back glass using pressing jig and pad.

- Pressing force : **1N** (It is set on the pressing jig in advance)
- Pressing time : **1 minute**

7) Take the device out, and do the visual inspection again.



Water resistance test sealing points

Core process
for water resistance

Rev2.0

Whenever after reassembling the device,
check the water resistance performance using the MLC test mode in *#0*#.



Main MIC hole
(Bottom side)



Camera

Don't seal the finger print sensor area.



2nd MIC hole (Top side)



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