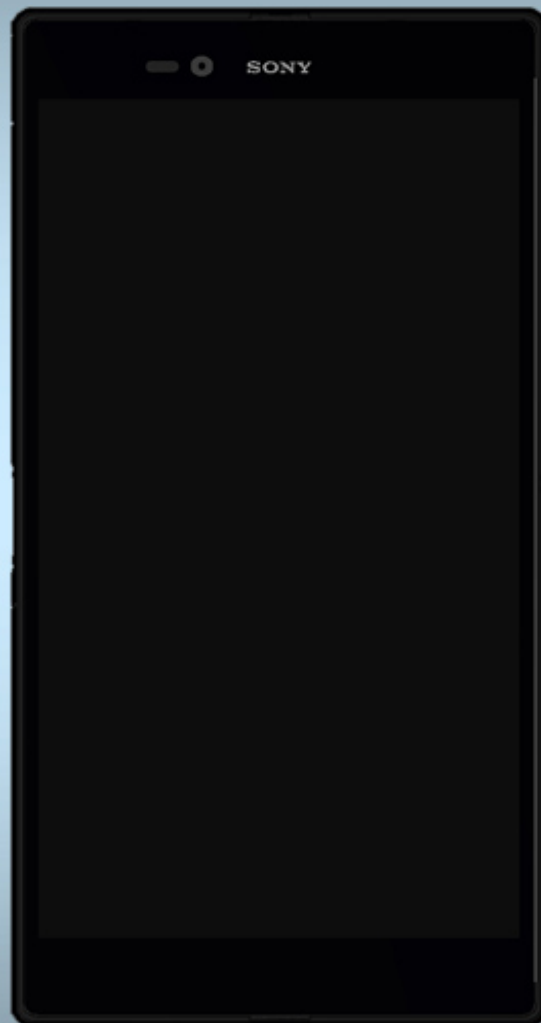


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Working Instructions

- mechanical -



Xperia™ Z Ultra

C6802, C6806, C6833, C6843, XL39h, SGP412

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Working Instruction Repair Instruction Mechanical/

**For general information about mechanical repair related issues, refer to
1220-1333: Generic Repair Manual - mechanical**

Always firstly disconnect the Battery FPC BtB connector to cut off power supply when the Antenna NFC Assy is disassembled.

Always finally connect the Battery FPC BtB connector before the Antenna NFC Assy is reassembled.

1 Exterior Views



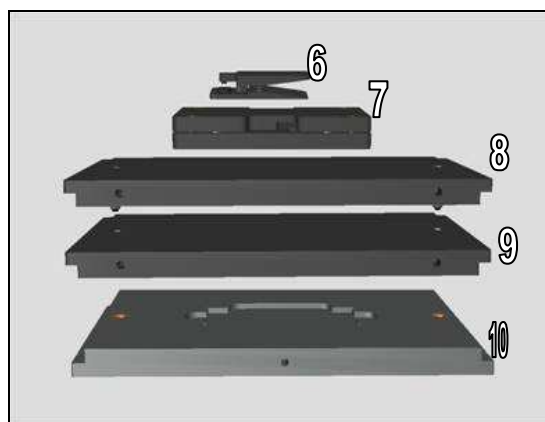
2 Tools

SPECIAL TOOLS

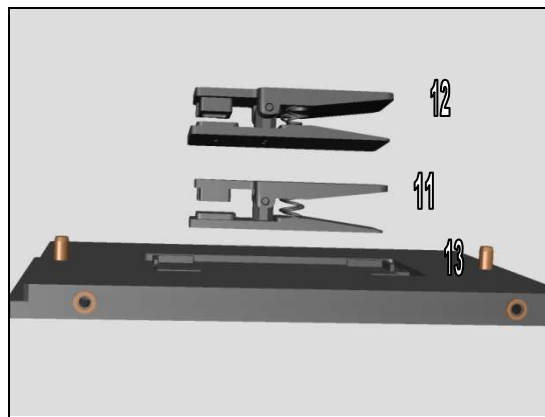
1. Torque Screwdriver
2. Front Opening Tool
3. Bits (JCIS No 0)
4. Flex Film Assembly Tool
5. Guitar Pick



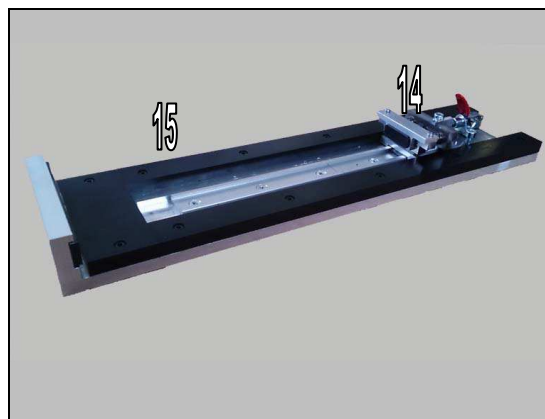
6. Press Tool Loudspeaker
7. Back Cover Adhesive alignment fixture
8. Back panel press top inlay
9. Battery press top inlay
10. Bottom press inlay



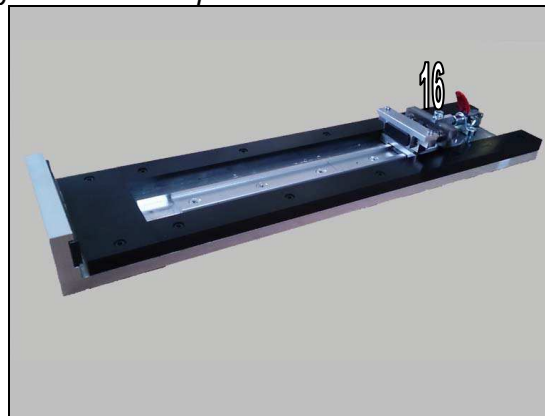
11. Press Tool Earspeaker
12. Speaker metal plate press pad
13. Back panel press top inlay corner



14. Side panel press pad
15. Side Panel Press Head Side



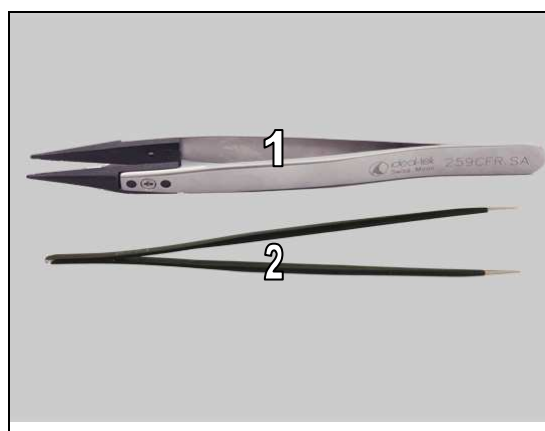
16. Charge connector press pad



For part no's on the tools above, refer to the 'Tools Catalogue/Matrix'!

STANDARD TOOLS

1. Plastic Tweezers
2. Pointed-tip Tweezers



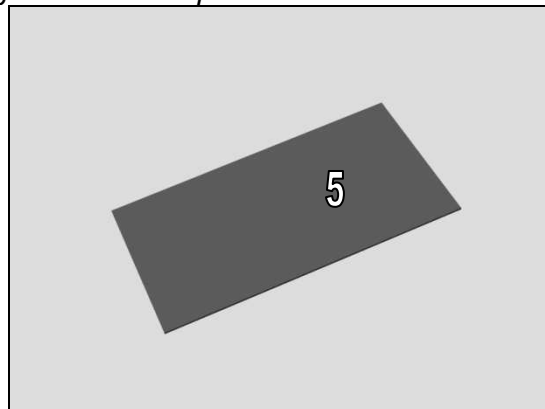
3. Suction Cup



4. Hot Air Device



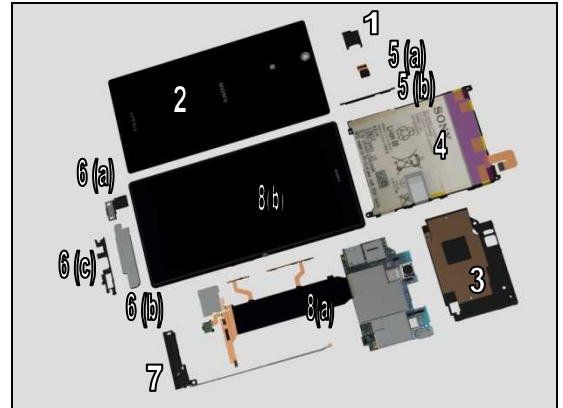
5. Battery Removal Tool



3 Disassembly

The disassembly is done in the following order:

1. SIM Tray
2. Back Panel Assy
3. Antenna NFC Assy
4. Battery 3000.0 mAh
5. Camera 2 MPixel CMOS(a) & Plate Key Side(b)
6. Carrier holder Mic Upper Sub Assy(a) & Shield Can Lid Bottom(b) & Carrier Holder LCD FPC(c)
7. Antenna Main Assy
8. Main PBA Assy(a) & Cover Front Assy(b)



3.1 SIM Tray (Skip for SGP412)

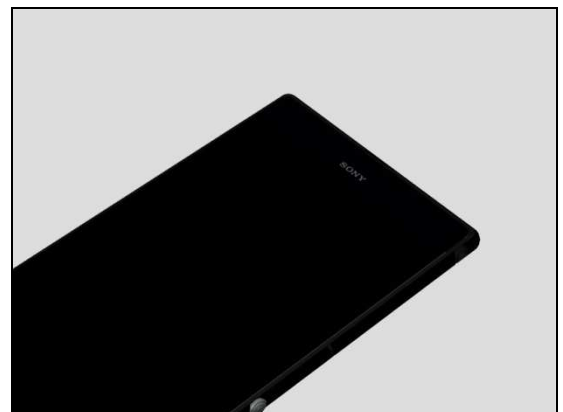
Open the Cap SD Sub Assy with fingers.



Remove SIM Tray by using fingers.



Closed the Cap SD Sub Assy with finger.



Disassembly

3.2 Back Panel Assy

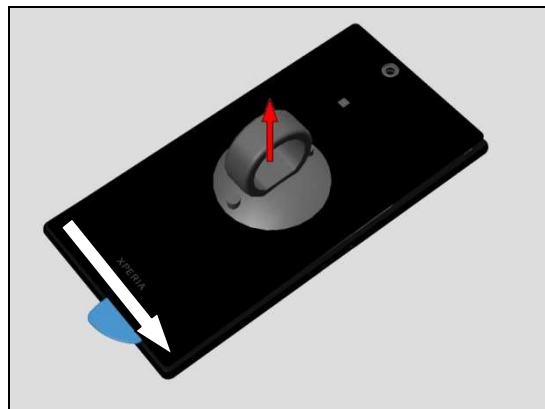
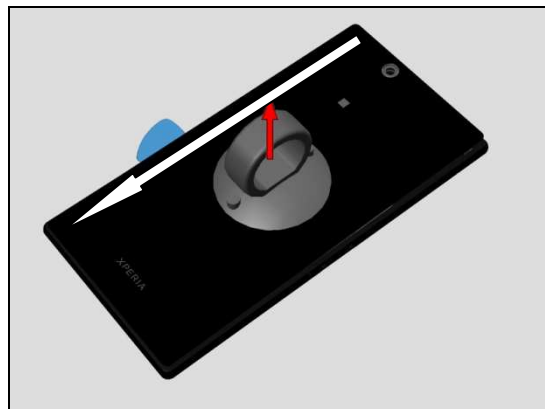
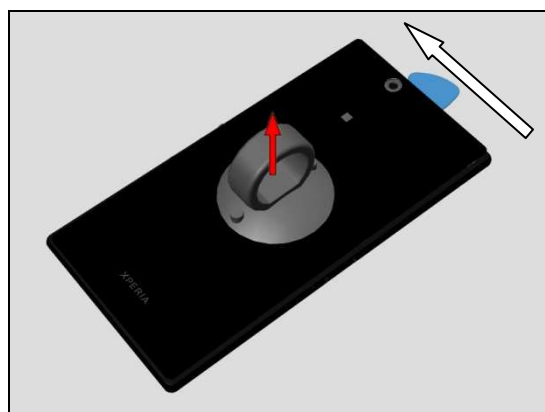
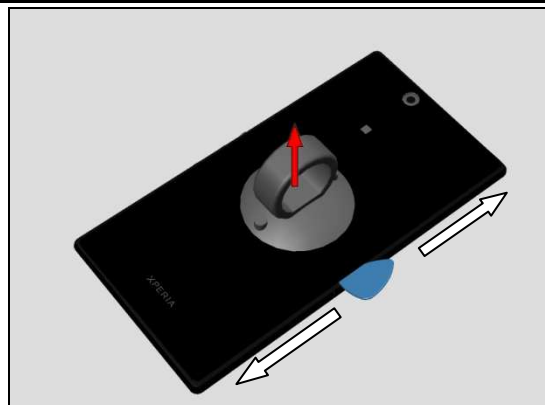
Use Suction cup to get space for inserting the Guitar Pick. Gently slide the Guitar Pick along to release right side of the Back Panel Assy.

Note! Start in the middle of the right long side!

Gently slide the Guitar Pick along to release top side of the Back Panel Assy as show in picture.

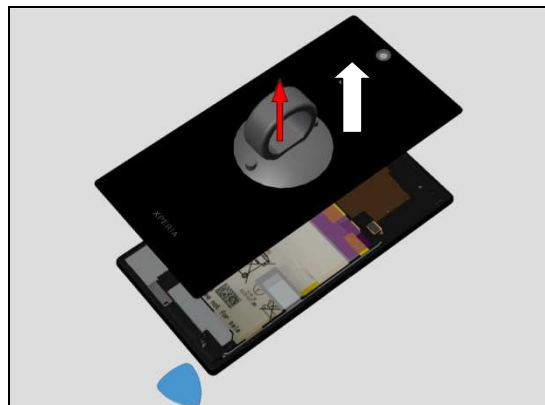
Do the same on the left side.

Do the same on the bottom side.



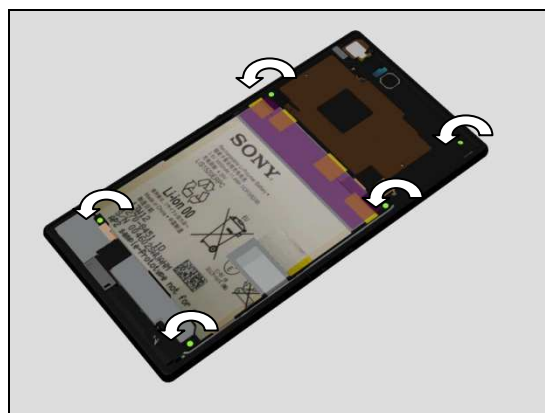
Disassembly

Remove the Back Panel Assy by using the Suction Cup.

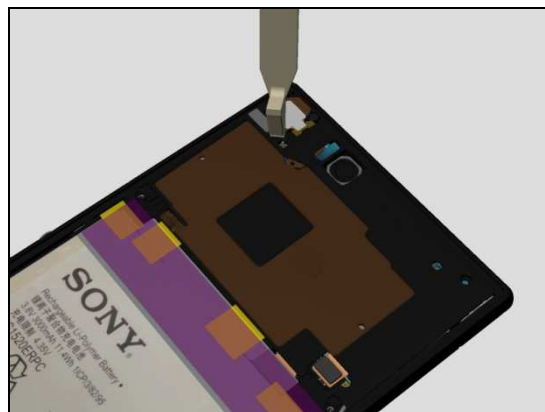


3.3 Antenna NFC Assy

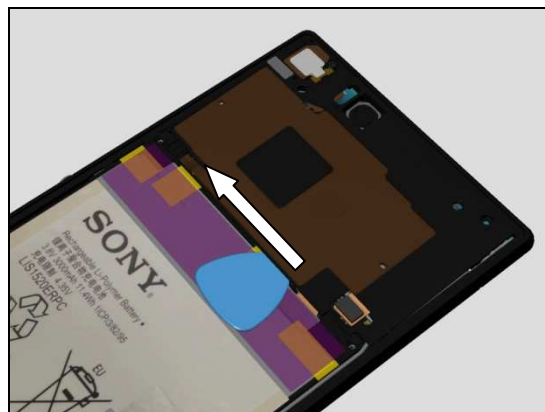
Remove the five Screw Other Len:2.6 Diam:1.4 M by using a screwdriver with Bits (JCIS No 0).



Insert the Front Opening Tool at this position as shown in picture and gently release the hooks.

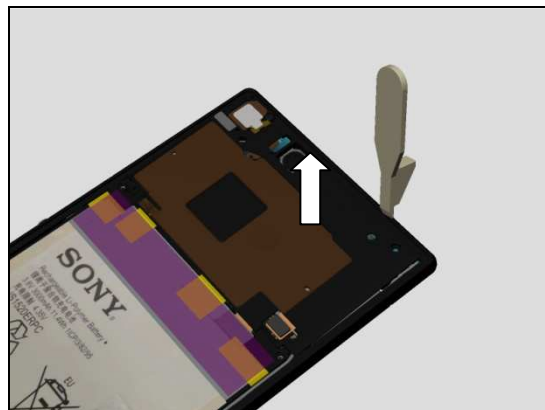


Gently slide the Guitar Pick along to release the hooks as show in picture.

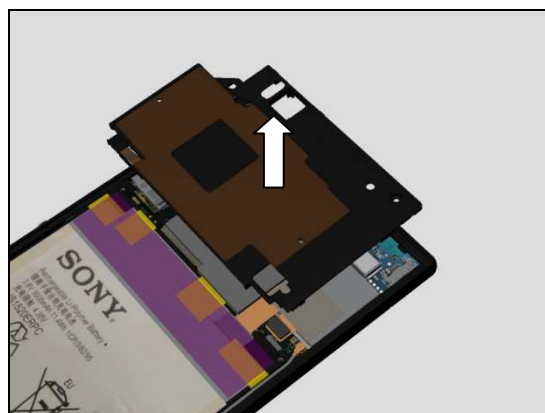


Disassembly

Insert the Front Opening Tool at this position as shown in picture and gently release the hooks.

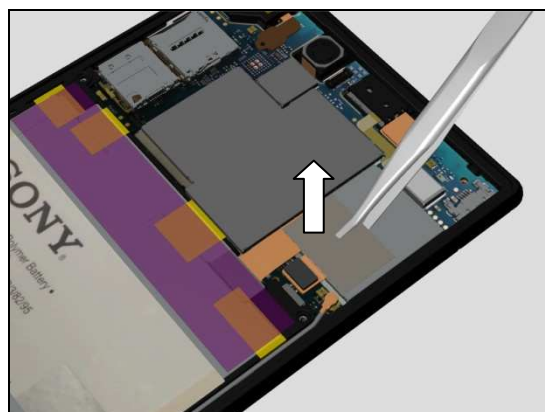


Remove the Antenna NFC Assy.

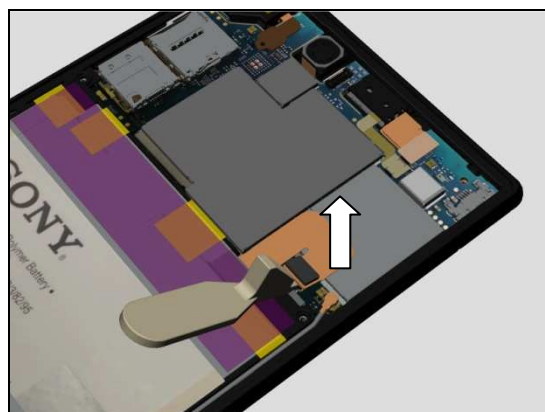


3.4 Battery 3000.0 mAh

Remove the Sheet FPC Battery by using Flex Film Assembly Tool.



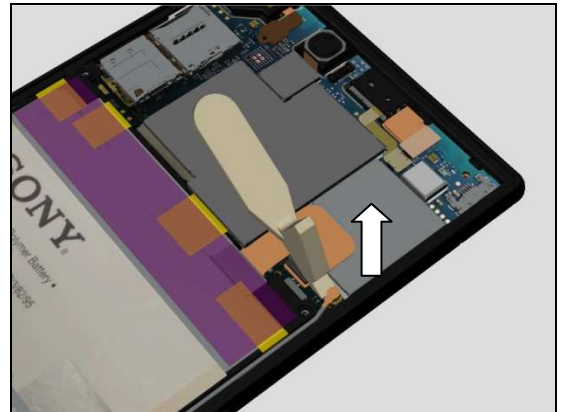
Disconnect the battery BtB connector by using the Front Opening Tool.



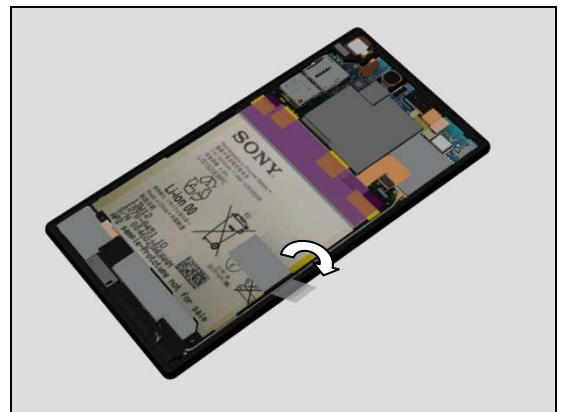
Disassembly

(Skip this step for SGP412)

Disconnect the Cable Assy BtB connector by using the Front Opening Tool.

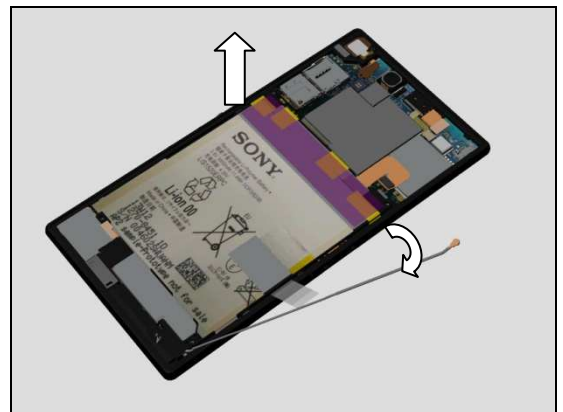


Rotated the sheet of adhesive battery as show in picture.

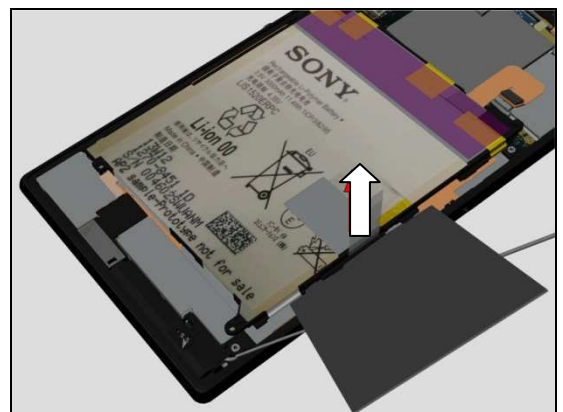


(Skip this step for SGP412)

Rotated the Cable Assy as shown in picture.



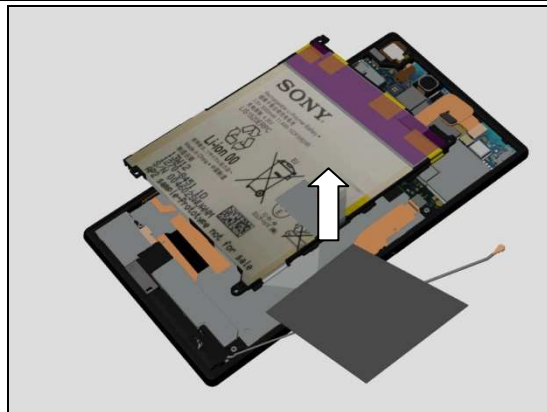
Lift up the sheet of adhesive battery and gently insert the battery removal tool as shown in the picture.



Disassembly

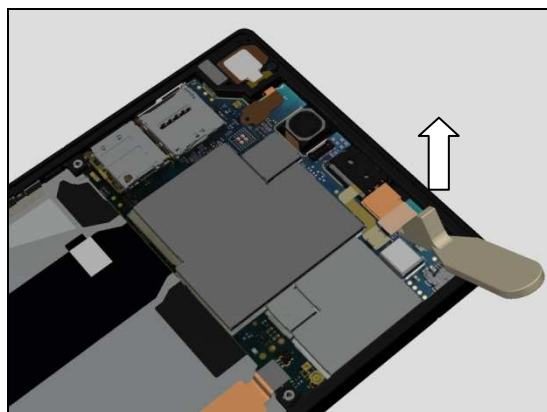
Remove the Battery 3000.0 mAh.

Do not reuse!

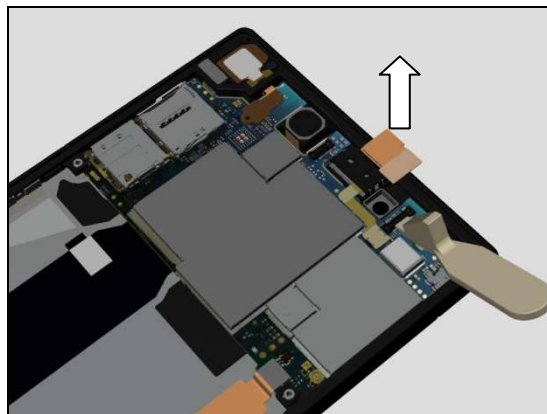


3.5 Camera 2 MPixel CMOS & Plate Key Side

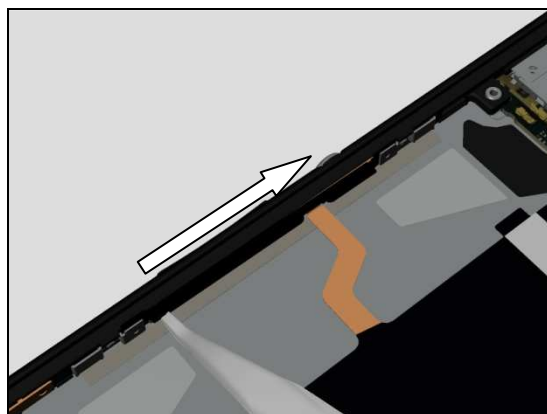
Disconnect the BtB connector of Camera 2 MPixel CMOS by using the Front Opening Tool.



Remove the Camera 2 MPixel CMOS.

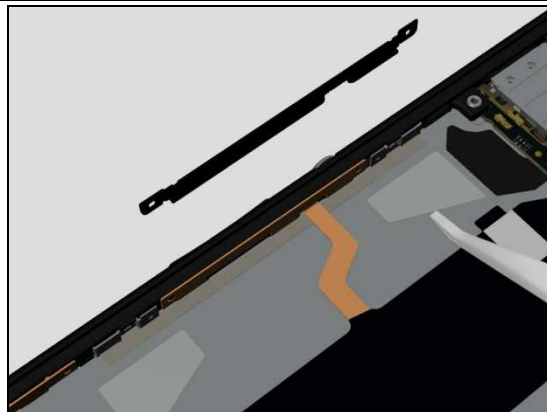


Insert the Flex Film Assembly Tool at this position as shown in picture and gently slide as shown in the picture.

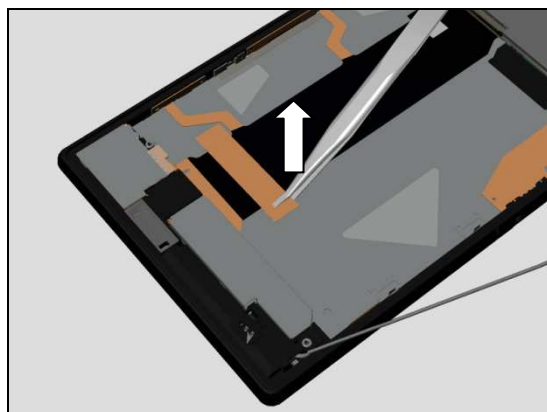


Disassembly

Remove the Plate Key Side.

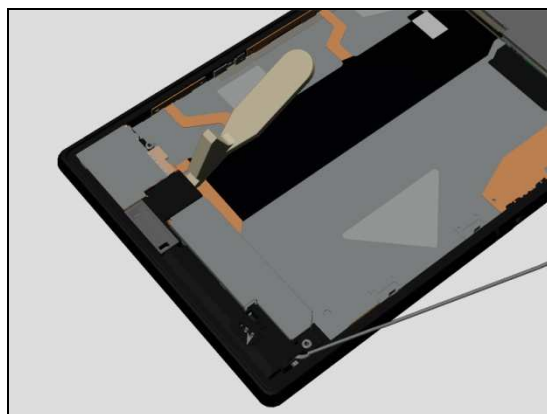


Remove the Sheet FPC Relay by using Flex Film Assembly Tool.

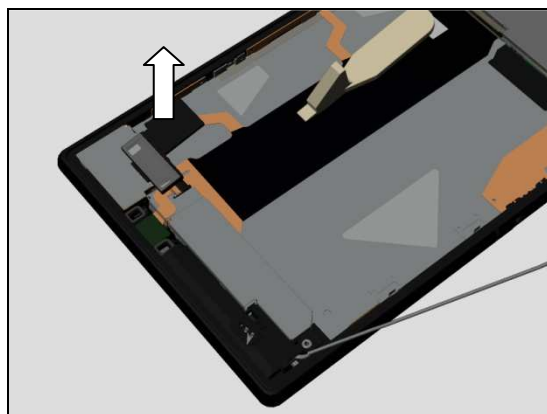


3.6 Carrier holder Mic Upper Sub Assy& Shield Can Lid Bottom& Carrier Holder LCD FPC

Insert the Front Opening Tool at this position as shown in picture and gently release the hooks.

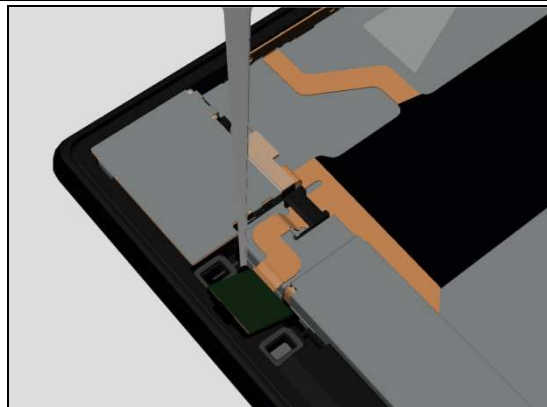


Remove the Carrier holder Mic Upper Sub Assy.

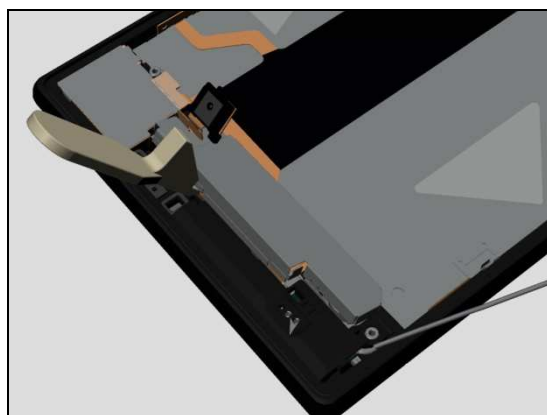


Disassembly

Insert the Flex Film Assembly Tool at this position as shown in picture and gently release the microphone holder.

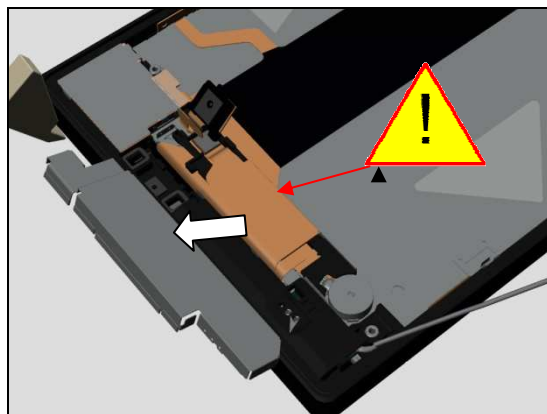


Insert the Front Opening Tool at this position as shown in picture and gently release the hooks.

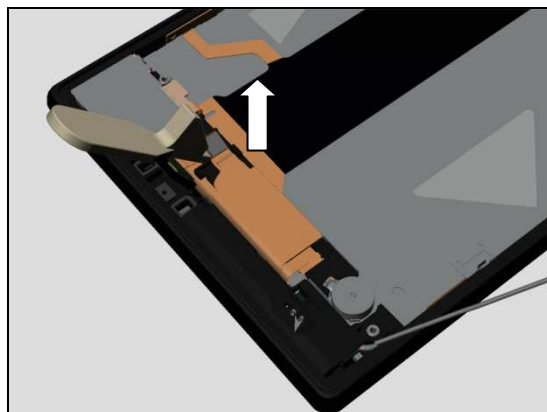


Remove the Shield Can Lid Bottom as show in the pictures.

Be careful! Do not damage the FPC!

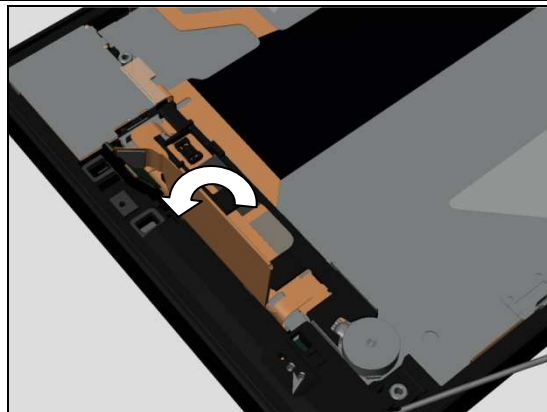


Disconnect the BtB connector of Touch panel as shown in the picture.

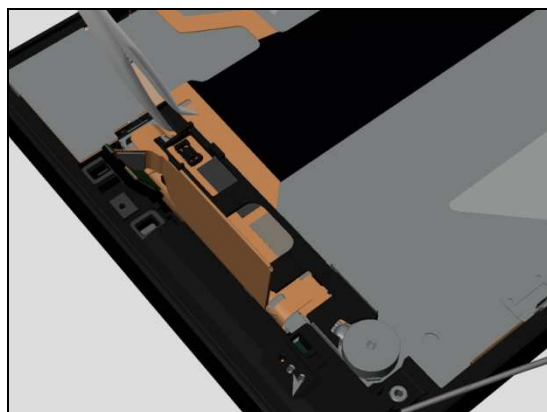


Disassembly

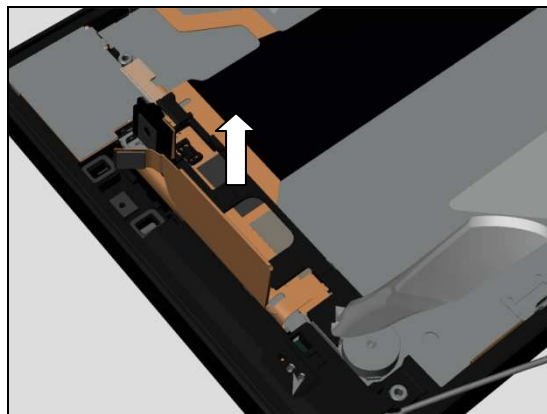
Rotate the FPC of Touch panel as shown in the picture.



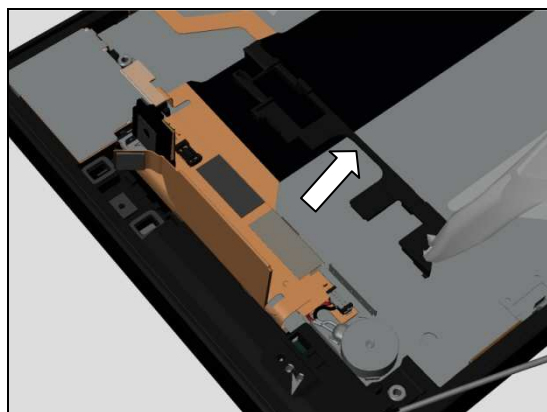
Lift up the Carrier Holder LCD FPC to release the hooks by using Flex Film Assembly Tool as shown in the picture.



Do the same on the other side.

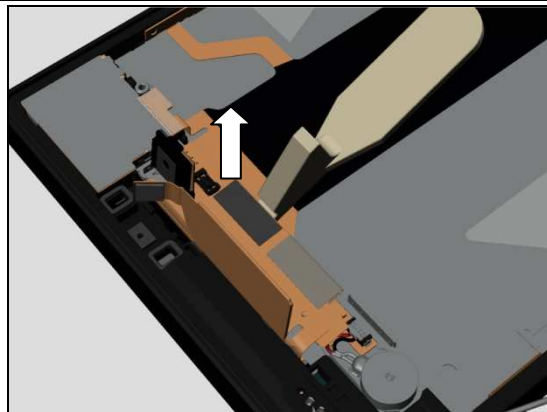


Remove the Carrier Holder LCD FPC.

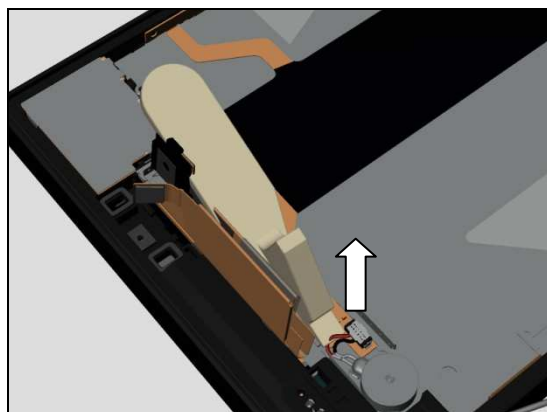


Disassembly

Disconnect the BtB connector of Display as shown in the picture.

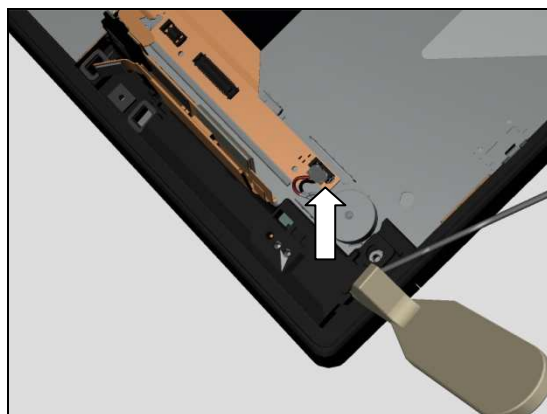


Disconnect the BtB connector of Display as shown in the picture.

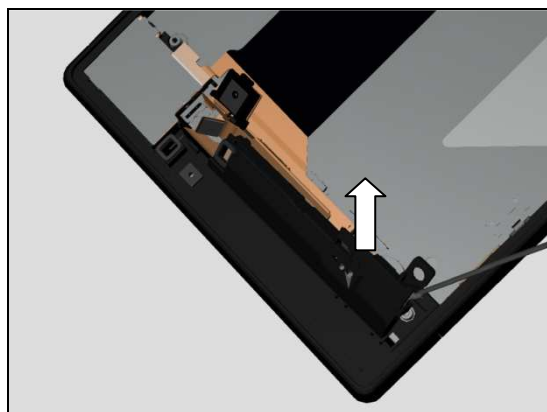


3.7 Antenna Main Assy

Insert the Front Opening Tool at this position as shown in picture and gently release the hooks.



Remove the Antenna Main Assy.

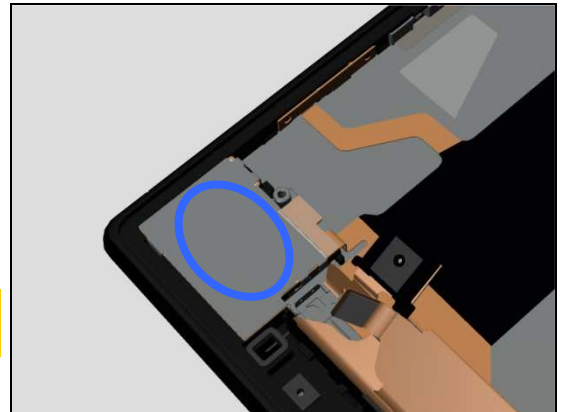


Disassembly

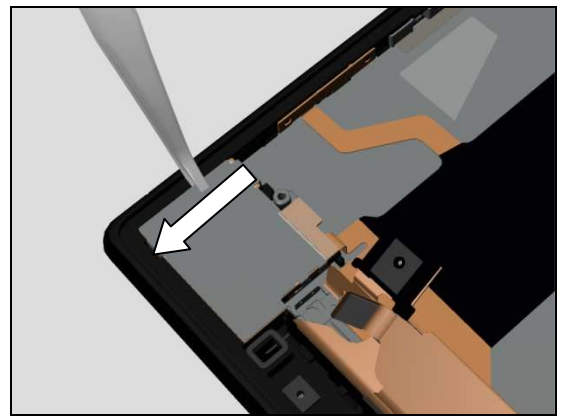
3.8 Main PBA Assy(a) & Cover Front Assy(b)

Heat the Speaker plate by using hot air within circle area indicated in the picture.

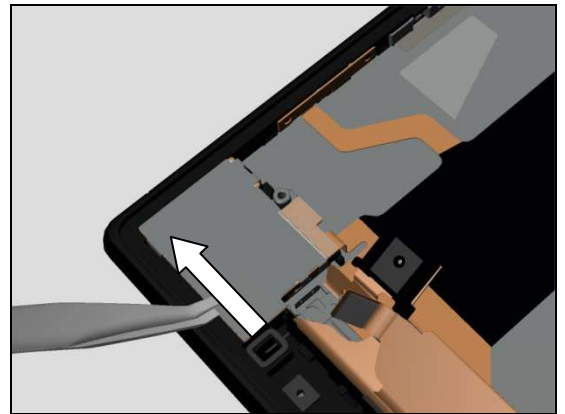
Temperature setting: 120 degree; Time: 10s; distance: 15cm



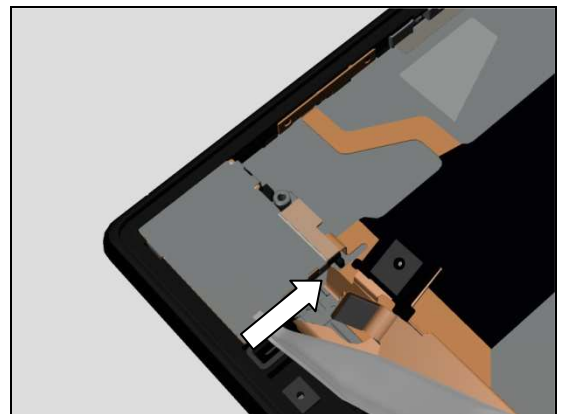
Insert the Flex Film Assembly Tool and Gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.



Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.



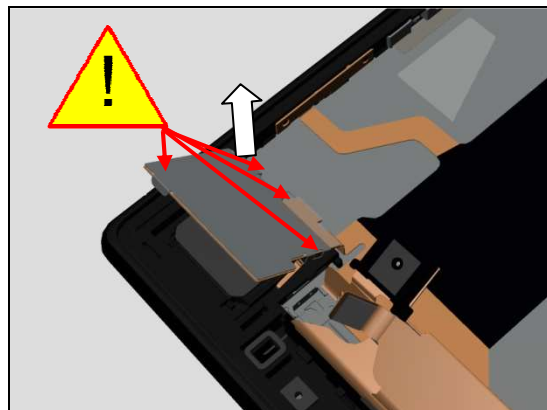
Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.



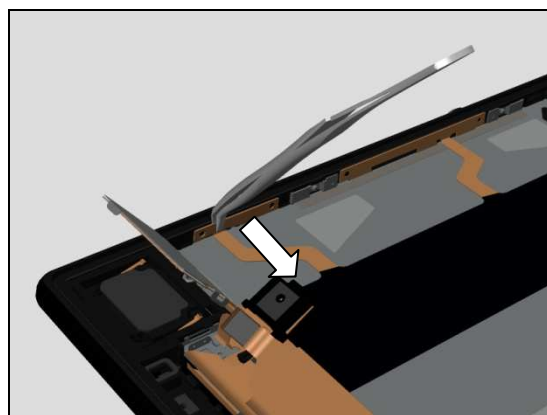
Disassembly

Remove the speaker plate as shown in picture.

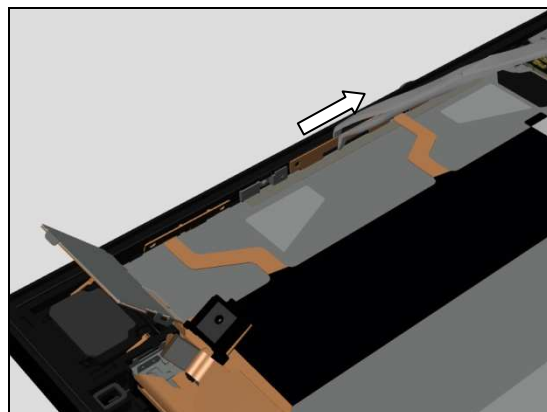
Be careful not to damage the component under the FPC.



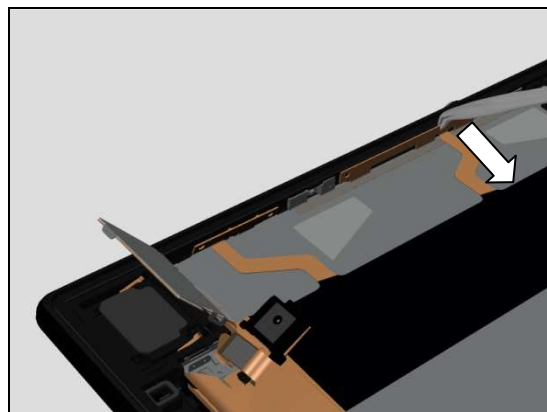
Release FPC adhesive by using Flex Film Assembly Tool as shown in picture.



Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.

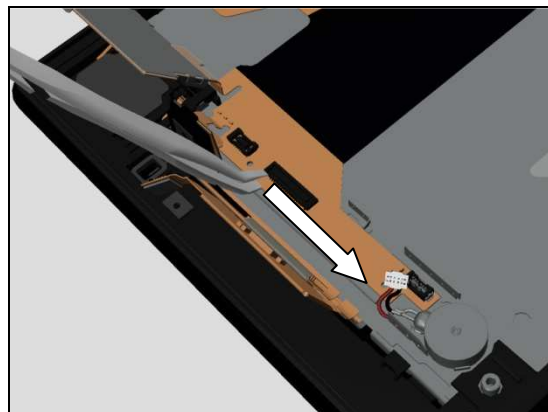


Release the side key FPC adhesive by using Flex Film Assembly Tool as shown in picture.

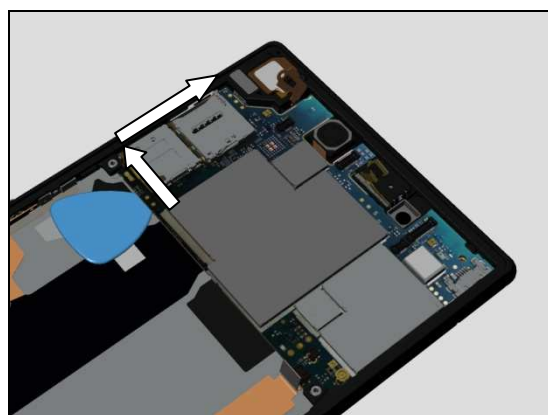


Disassembly

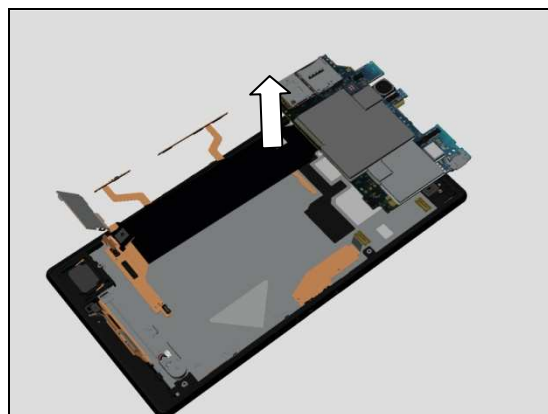
Gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.



Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the PBA adhesive as shown in picture.



Remove the Main PBA Assy.



4 Replacement

4.1 Adhesive Battery

Follow the 3.1 – 3.4 Disassembly instructions!

Prepare a new Adhesive Battery.

Follow the 5.5 – 5.8 Reassembly instructions!

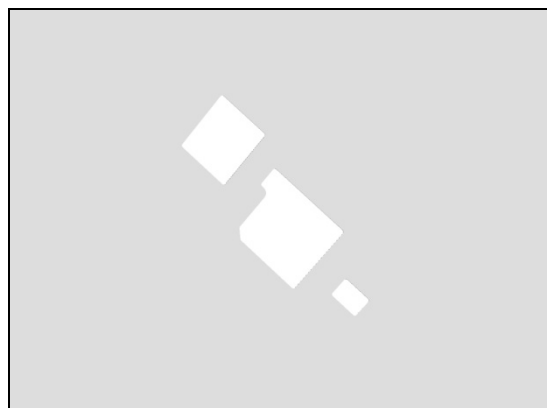
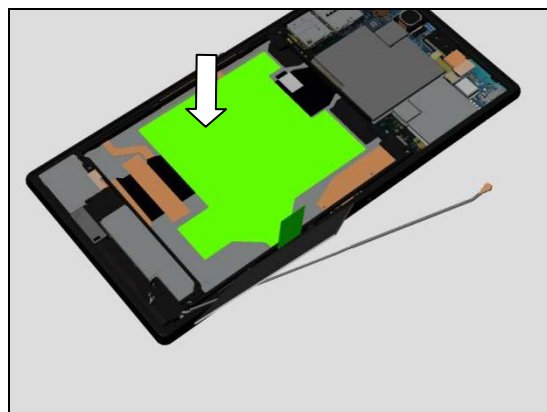
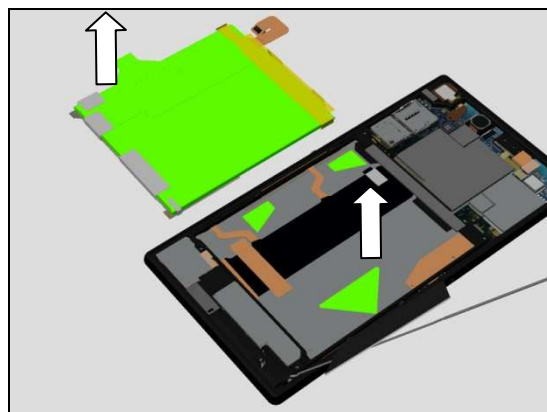
REMOVAL

Remove the adhesive as shown in pictures by using the Flex Film Assembly Tool.

Scrap! Not to be reused!

INSTALLATION

Attach a new Adhesive Battery by using the Flex Film Assembly Tool.



4.2 Adhesive Main PBA

Follow the 3.1 – 3.8 Disassembly instructions!

Prepare a new Adhesive Main PBA

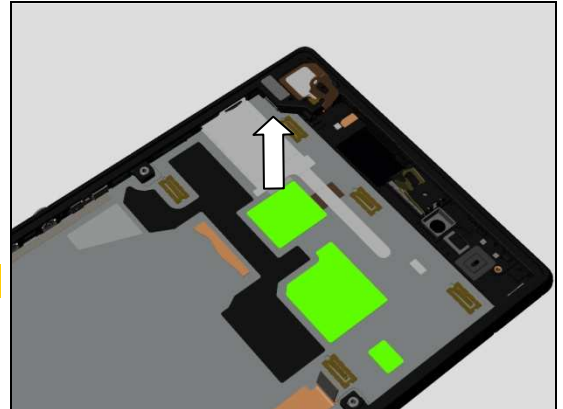
Follow the 5.1 – 5.8 Reassembly instructions!

Replacement

REMOVAL

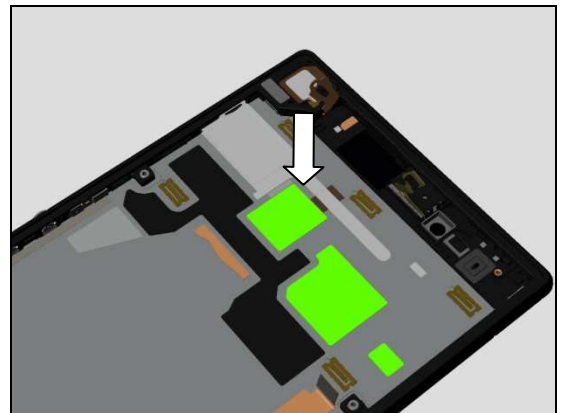
Remove the adhesive as shown in pictures by using the Flex Film Assembly Tool.

Scrap! Not to be reused!



INSTALLATION

Attach a new Adhesive Main PBA by using the Flex Film Assembly Tool.

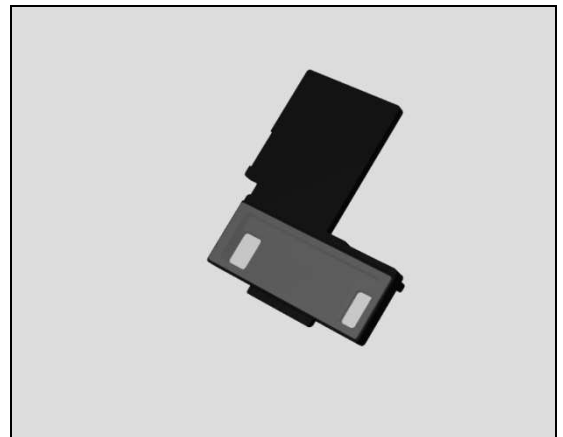


4.3 Carrier holder Mic Upper Sub Assy

Follow the 3.1 – 3.2 Disassembly instructions!

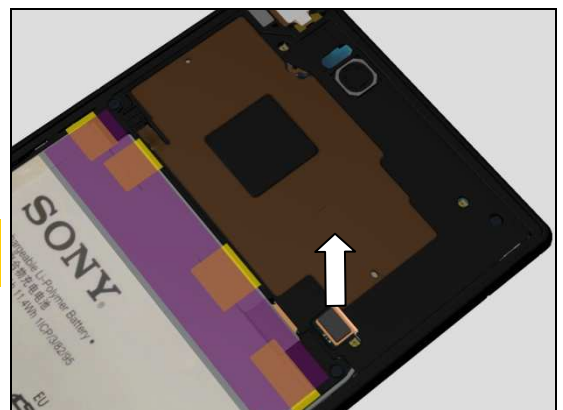
Prepare a new Carrier holder Mic Upper Sub Assy

Follow the 5.7 – 5.8 Reassembly instructions!



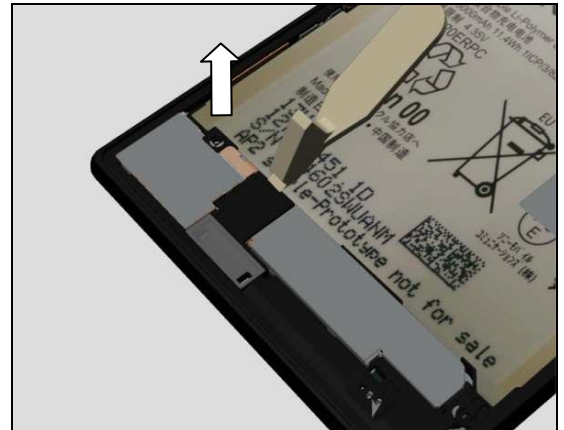
REMOVAL

Open the Battery connector by using Front Opening tool.



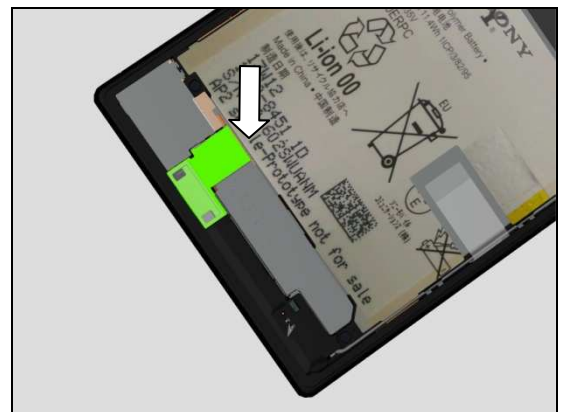
Replacement

Insert the Front Opening Tool and remove it as shown in picture.

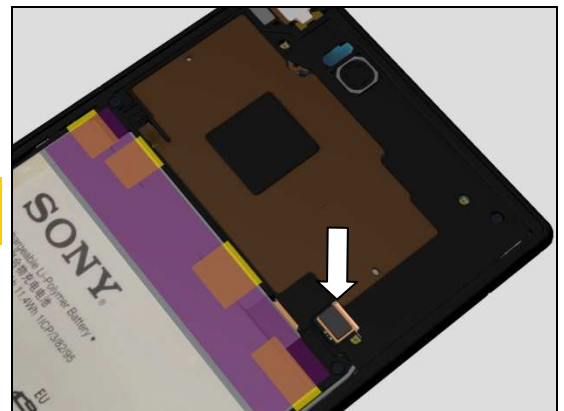


INSTALLATION

Attach a new Carrier holder Mic Upper Sub Assy and press it by fingers.



Lock the Battery connector by using the Front Opening Tool.



4.4 Adhesive Mic

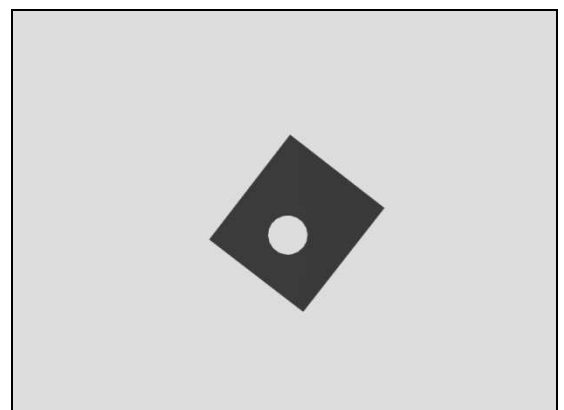
Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 Removal instructions!

Prepare a new Adhesive Mic

Follow the 4.3 Installation instructions!

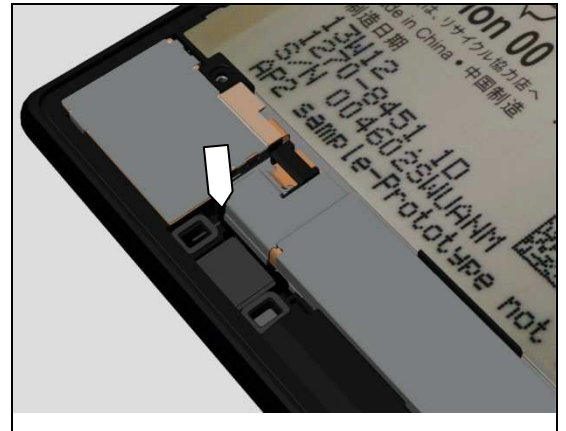
Follow the 5.7 – 5.8 Reassembly instructions!



Replacement

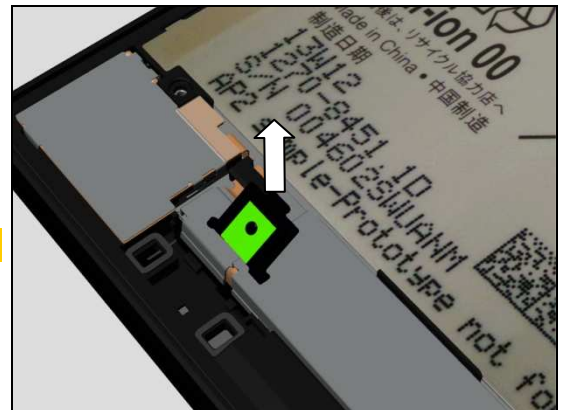
REMOVAL

Insert the tweezers and gently release the hooks as shown in picture.



Remove the Adhesive Mic as shown in pictures by using the Flex Film Assembly Tool.

Scrap! Not to be reused!



INSTALLATION

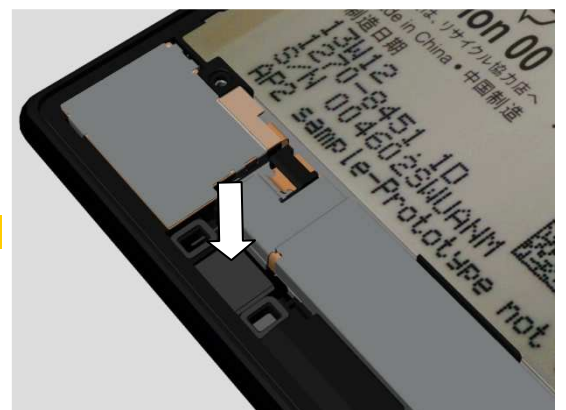
Attach a new Adhesive Mic by using tweezers.

Be careful! Do not cover the Mic hole!



Mount a new Mic holder to its cavity and press it by fingers.

Make sure it can be secured attached.



Replacement

4.5 Shield Can Lid Bottom & Sheet Shield Can Bottom

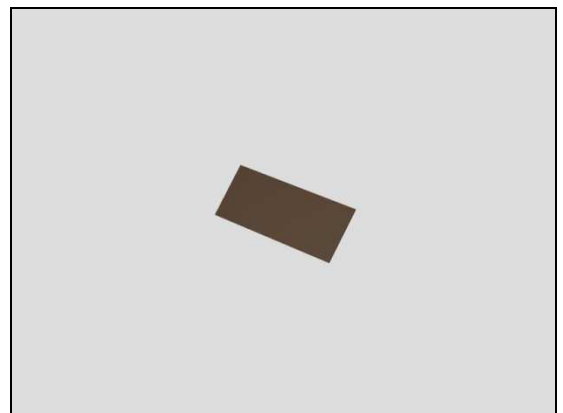
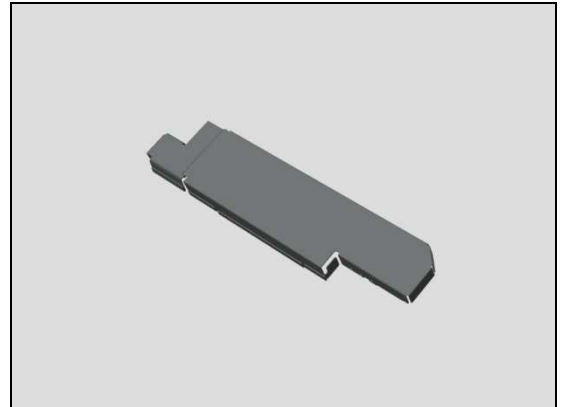
Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 and 4.4 Removal instructions!

Prepare a new Shield Can Lid Bottom & Sheet Shield Can Bottom.

Follow the 4.3 and 4.4 Installation instructions!

Follow the 5.7 – 5.8 Reassembly instructions!



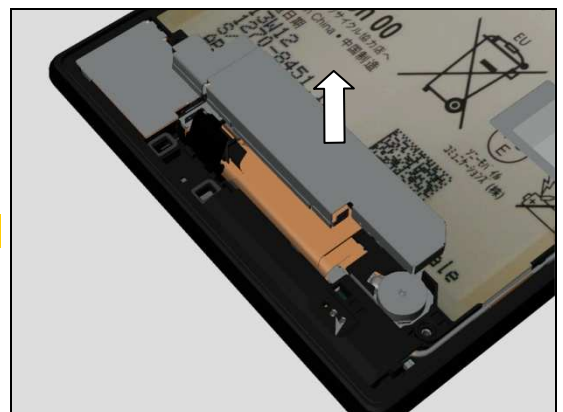
REMOVAL

Insert the Flex Film Assembly Tool as shown in picture and gently release the hooks.



Remove it by using Flex Film Assembly Tool.

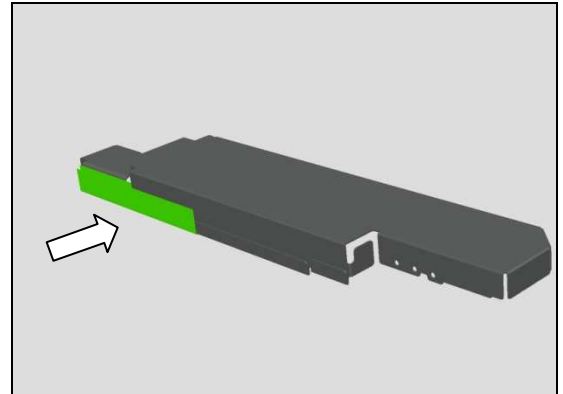
Be careful not to damage the FPCs underneath!



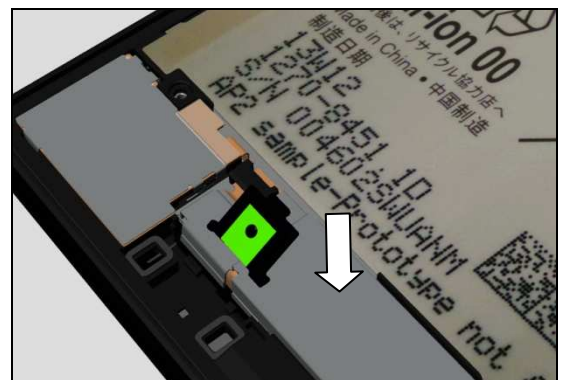
Replacement

INSTALLATION

Attach a new Sheet Shield Can Bottom to Shield Can Bottom as shown in pictures by using fingers.



Mount a new Shield Can Bottom as shown in the picture and press to it.



4.6 Carrier Holder LCD FPC

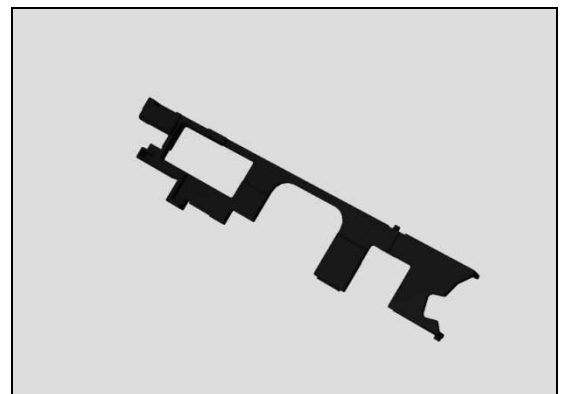
Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 -4.5 Removal instructions!

Prepare a new Carrier Holder LCD FPC.

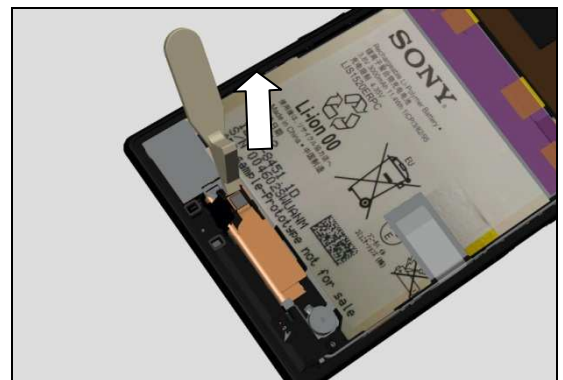
Follow the 4.3 - 4.5 Installation instructions!

Follow the 5.7 – 5.8 Reassembly instructions!



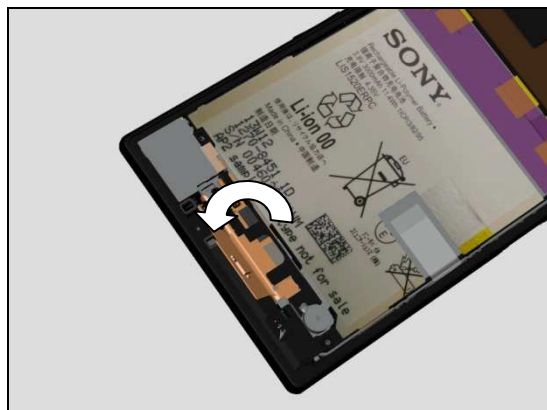
REMOVAL

Insert the Front Opening Tool as shown in picture and gently release the BtB connector.

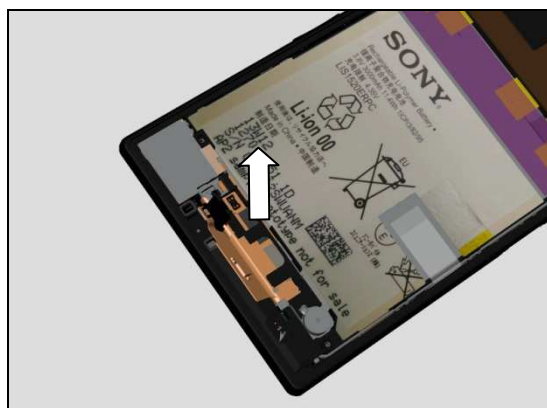


Replacement

Rotate the FPC Touch Panel as shown in the picture.

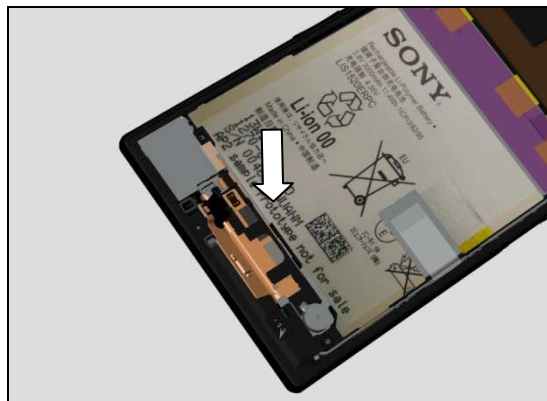


Remove the Carrier Holder LCD FPC as shown in pictures by using the Flex Film Assembly Tool.

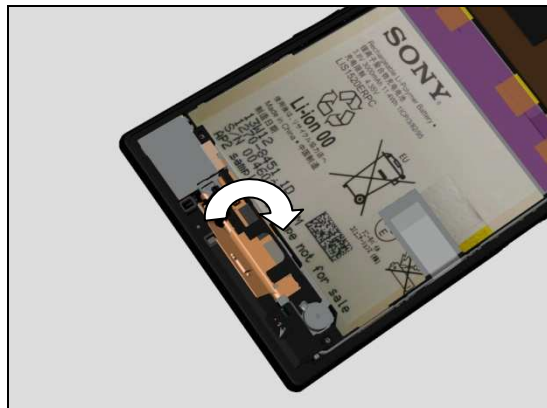


INSTALLATION

Mount a new Carrier Holder LCD FPC as shown in pictures by using the Flex Film Assembly Tool.

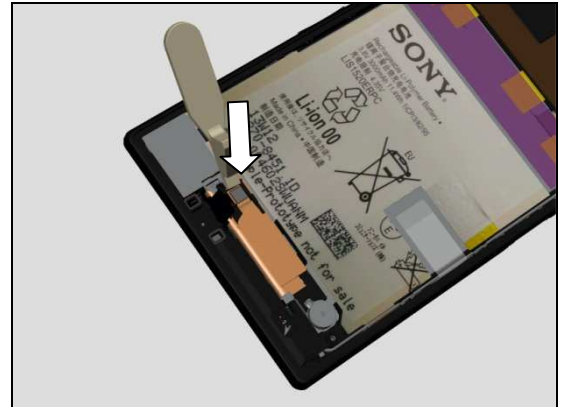


Rotated the FPC Touch Panel as shown in the picture.



Replacement

Lock the BtB connector by using the Front Opening Tool.



4.7 Vibrator and Adhesive Vibrator

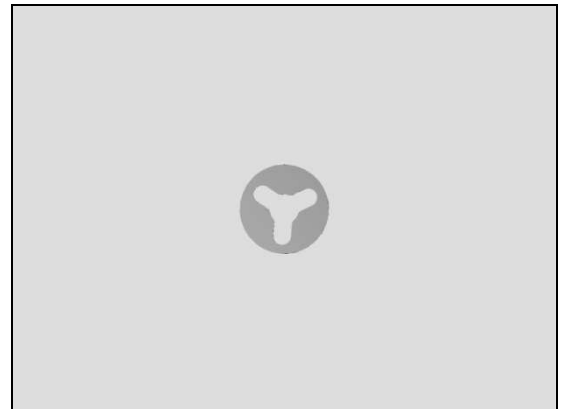
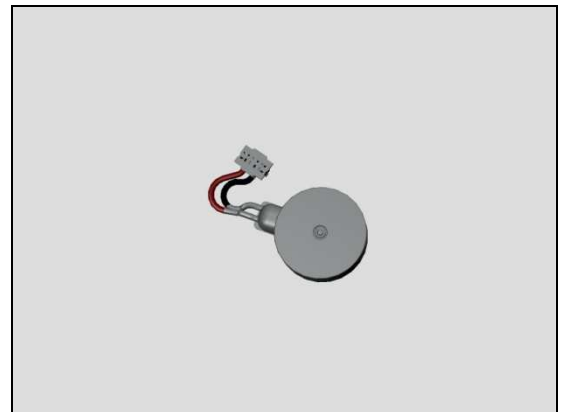
Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 -4.6 Removal instructions!

Prepare a new Vibrator & Adhesive Vibrator.

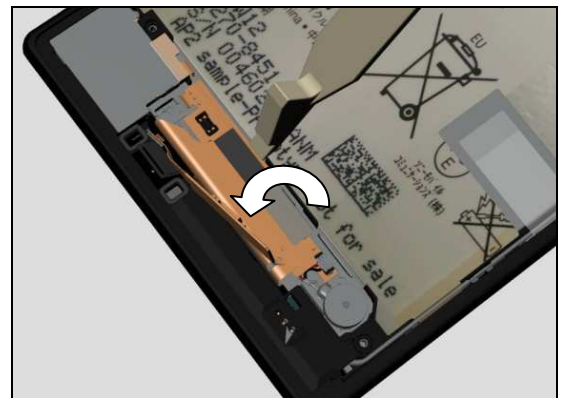
Follow the 4.3 - 4.6 Installation instructions!

Follow the 5.7 – 5.8 Reassembly instructions!



REMOVAL

Open the LCD BtB connector by using Front opening tool and rotated the LCD FPC as shown in the picture.



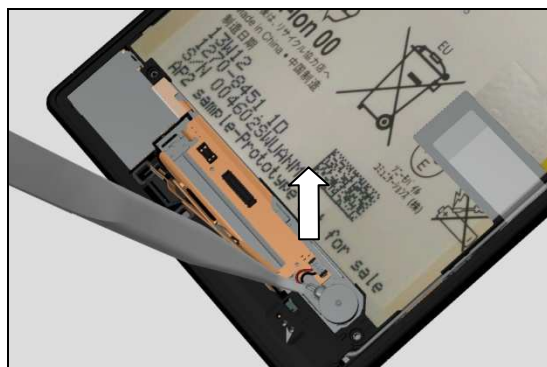
Replacement

Open the Vibrator BtB connector by using Front opening tool.



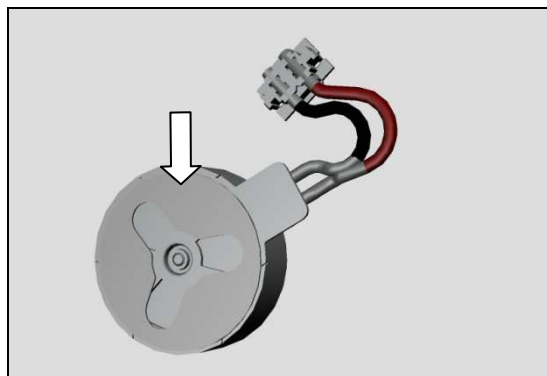
REMOVAL

Detach the Vibrator by using the Flex Film Assembly Tool and remove it.

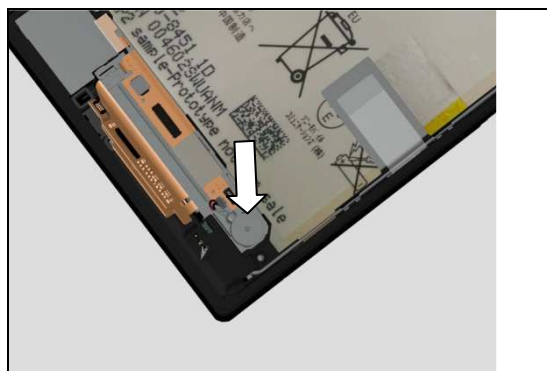


INSTALLATION

Attach the adhesive vibrator to vibrator as shown in the picture.

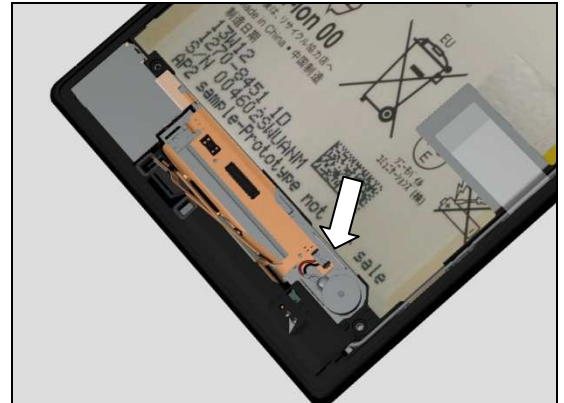


Mount a new vibrator as shown in the picture and press gently until it is securely attached.



Replacement

Lock the BtB connector by using the Front Opening Tool.

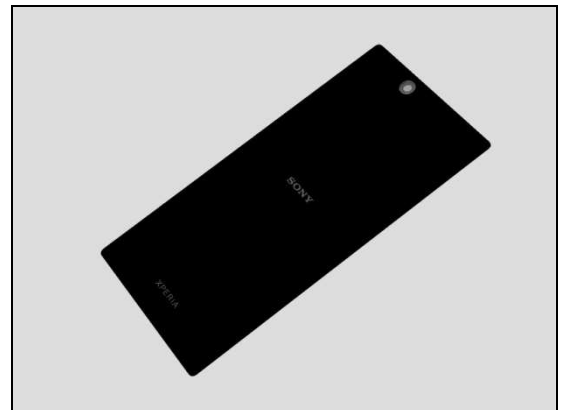


4.8 Panel Rear Sub Assy

Follow the 3.1-3.2 Disassembly instructions!

Prepare a new Panel Rear Sub Assy.

Follow the 5.7-5.8 Reassembly instructions!

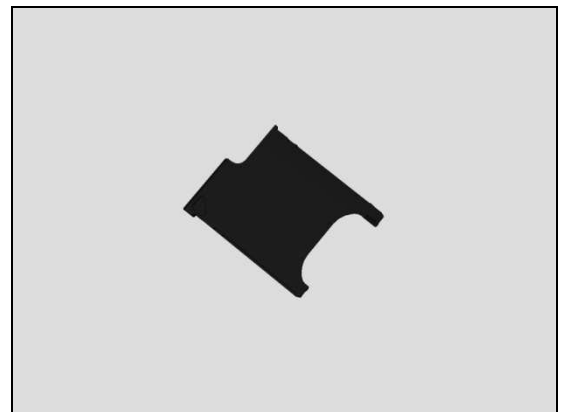


4.9 SIM Tray (Not valid for SGP412)

Follow the 3.1 Disassembly instructions!

Prepare a new SIM Tray.

Follow the 5.8 Reassembly instructions!

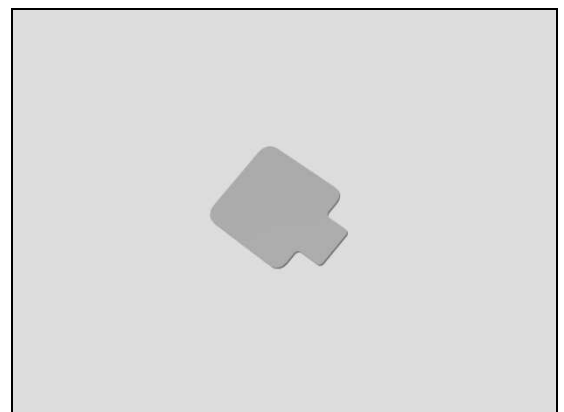


4.10 Spacer Jack R

Follow the 3.1-3.2 Disassembly instructions!

Prepare a new Spacer Jack R.

Follow the 5.7-5.8 Reassembly instructions!

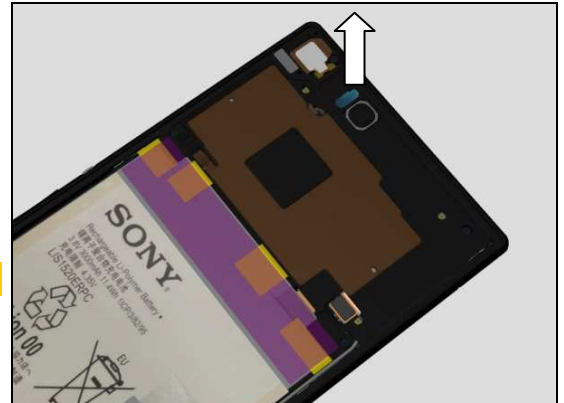


Replacement

REMOVAL

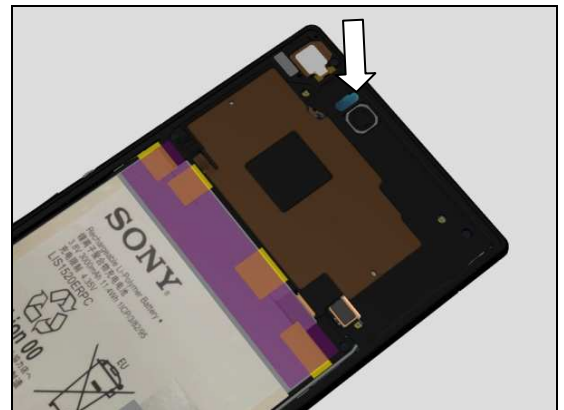
Detach the Spacer Jack R by using the Flex Film Assembly Tool and remove it.

Scrap! Not to be reused!



INSTALLATION

Attach the Spacer Jack R and press it as shown in the picture.



4.11 Sheet Cap SD Hinge

Follow the 3.1-3.2 Disassembly instructions!

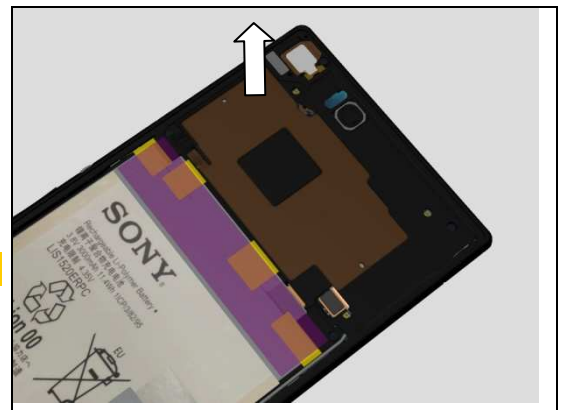
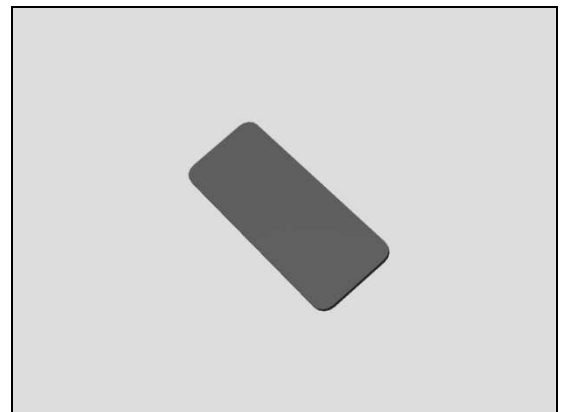
Prepare a new Sheet Cap SD Hinge.

Follow the 5.7-5.8 Reassembly instructions!

REMOVAL

Detach the Sheet Cap SD Hinge by using the Flex Film Assembly Tool and remove it.

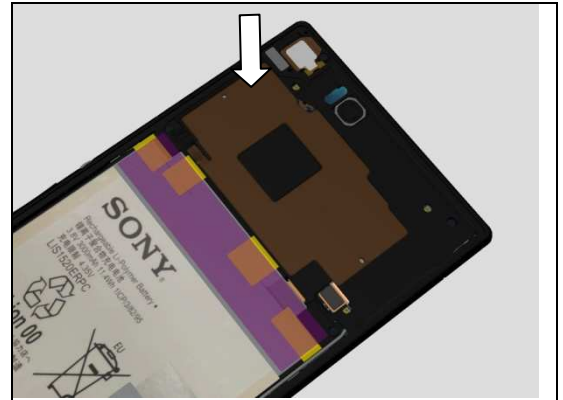
Scrap! Not to be reused!



Replacement

INSTALLATION

Attach the Sheet Cap SD Hinge and press it as shown in the picture.

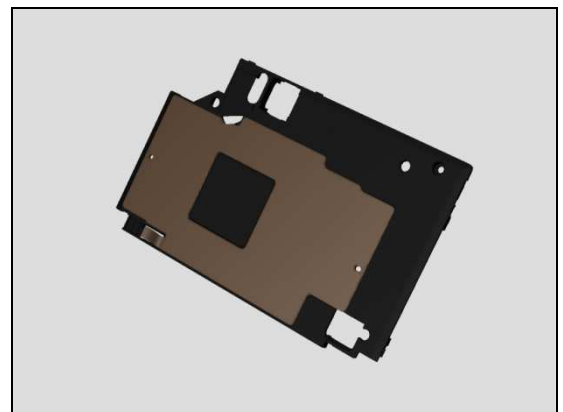


4.12 Antenna NFC Assy

Follow the 3.1-3.3 Disassembly instructions!

Prepare a new Antenna NFC Assy.

Follow the 5.6-5.8 Reassembly instructions!



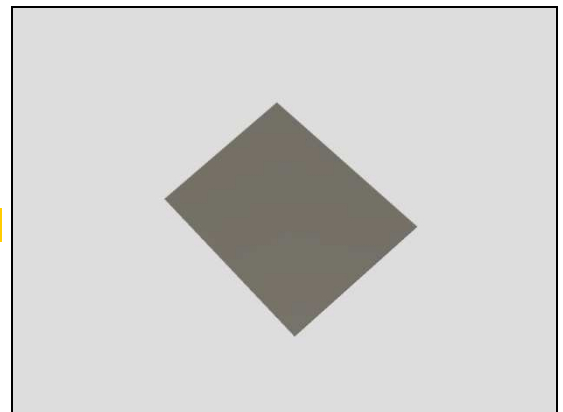
4.13 Sheet FPC Battery

Follow the 3.1-3.3 Disassembly instructions!

Scrap! Not to be reused!

Prepare a new Sheet FPC Battery.

Follow the 5.6-5.8 Reassembly instructions!



4.14 Battery 3000.0 mAh

Follow the 3.1-3.4 Disassembly instructions!

Scrap! Not to be reused!

Prepare a new Battery 3000.0 mAh.

Follow the 5.5-5.8 Reassembly instructions!



Replacement

4.15 Sheet Dummy MAG

Follow the 3.1-3.2 Disassembly instructions!

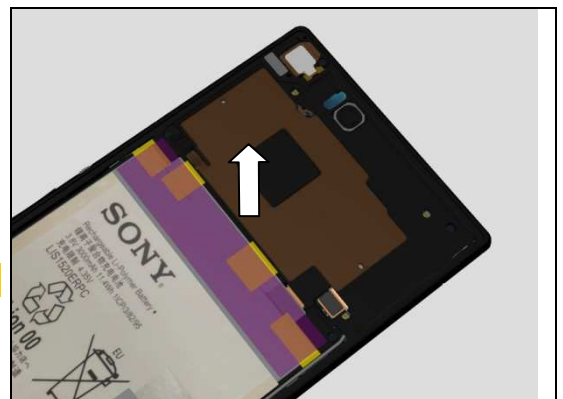
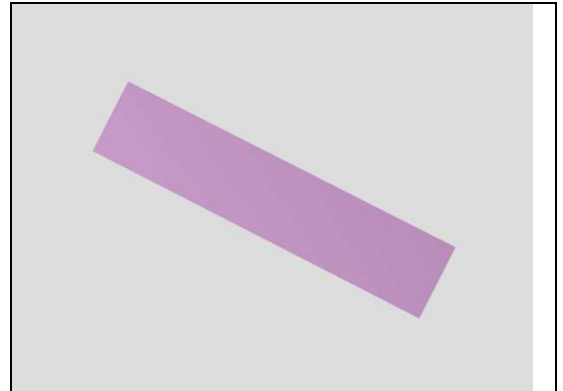
Prepare a new Sheet Dummy MAG.

Follow the 5.7-5.8 Reassembly instructions!

REMOVAL

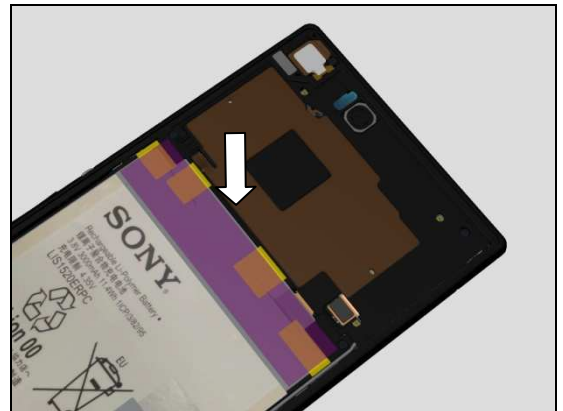
Detach the Sheet Dummy MAG by using a pair of Plastic Tweezers.

Scrap! Not to be reused!



INSTALLATION

Attach a new Sheet Dummy MAG by using a pair of Plastic Tweezers as shown in picture.

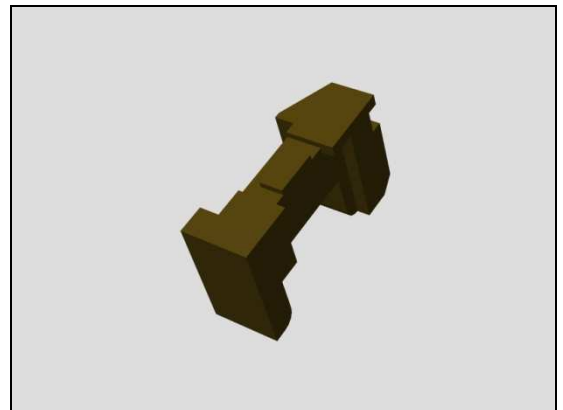


4.16 Carrier Holder Jack

Follow the 3.1-3.2 Disassembly instructions!

Prepare a new Carrier Holder Jack.

Follow the 5.7-5.8 Reassembly instructions!



Replacement

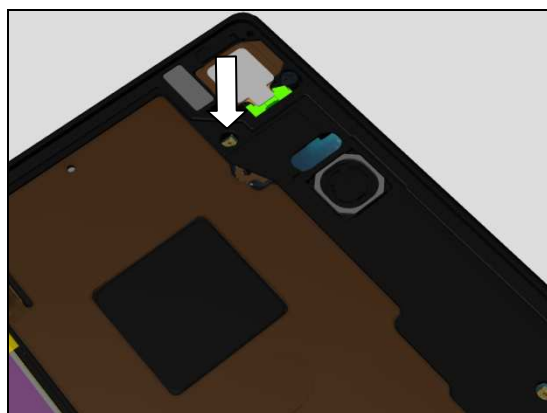
REMOVAL

Detach the Carrier Holder Jack by using a pair of Plastic Tweezers.



INSTALLATION

Attach a new Carrier Holder Jack by using a pair of Plastic Tweezers as shown in picture.

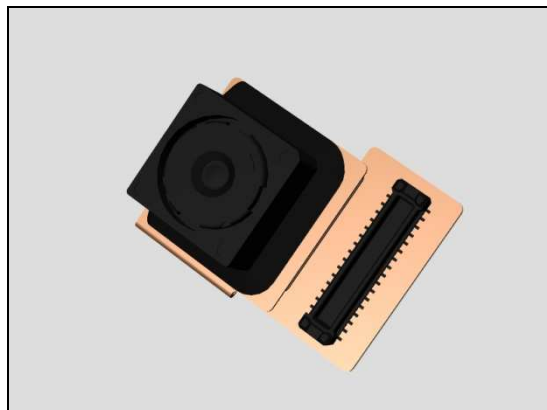


4.17 Camera 2 MPixel CMOS

Follow the 3.1-3.5 Disassembly instructions!

Prepare a new Camera 2 MPixel CMOS.

Follow the 5.4-5.8 Reassembly instructions!

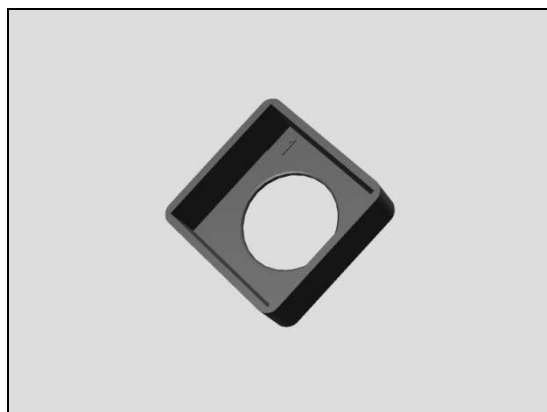


4.18 Grommet Camera

Follow the 3.1-3.5 Disassembly instructions!

Prepare a new Grommet Camera.

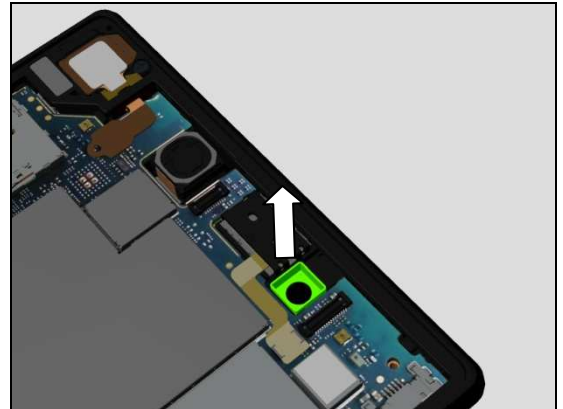
Follow the 5.4-5.8 Reassembly instructions!



Replacement

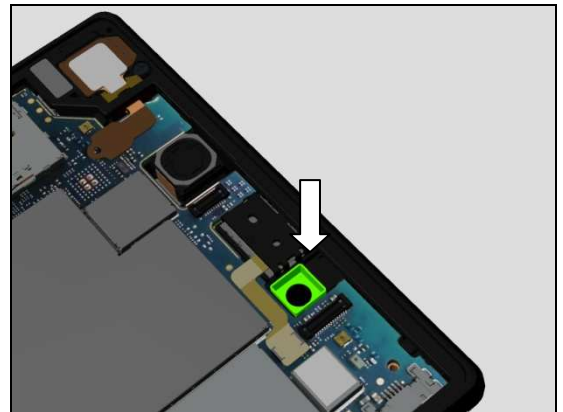
REMOVAL

Detach the Grommet Camera by using a pair of Plastic Tweezers.



INSTALLATION

Attach a new Grommet Camera by using a pair of Plastic Tweezers as shown in picture.

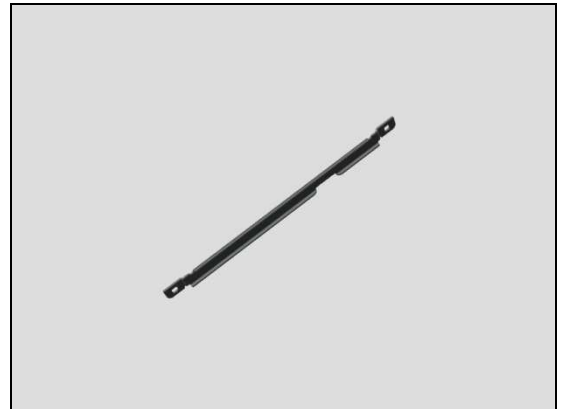


4.19 Plate Key Side

Follow the 3.1-3.5 Disassembly instructions!

Prepare a new Plate Key Side.

Follow the 5.4-5.8 Reassembly instructions!



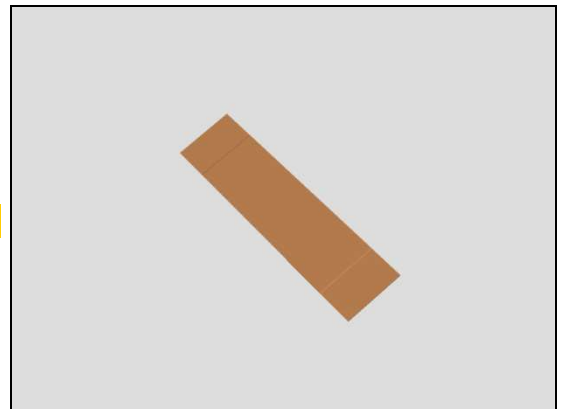
4.20 Sheet FPC Relay

Follow the 3.1-3.6 Disassembly instructions!

Scrap! Not to be reused!

Prepare a new Sheet FPC Relay.

Follow the 5.3-5.8 Reassembly instructions!



Replacement

4.21 Sheet LCD FPC

Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 -4.7 Removal instructions!

Scrap! Not to be reused!

Prepare a new Sheet LCD FPC.

Follow the 4.3 - 4.7 Installation instructions!

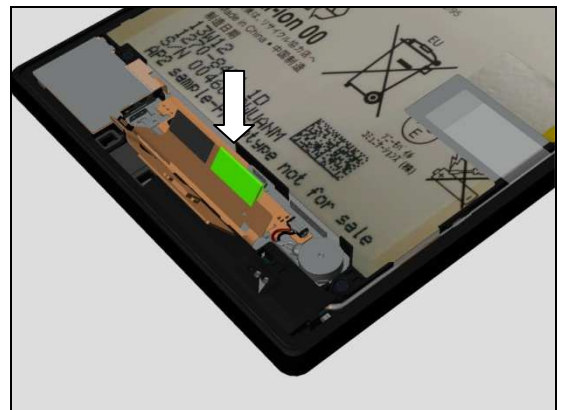
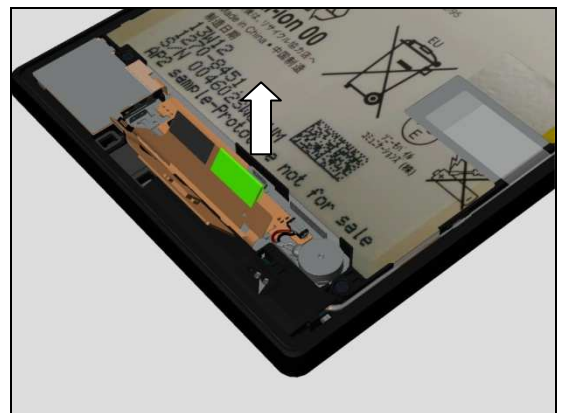
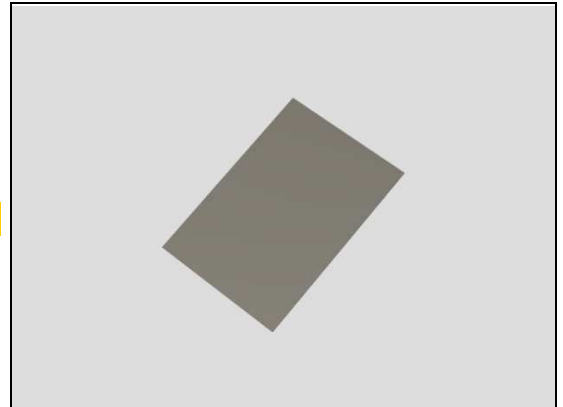
Follow the 5.7 – 5.8 Reassembly instructions!

REMOVAL

Detach the Sheet LCD FPC by using a pair of Plastic Tweezers.

INSTALLATION

Attach a new Sheet LCD FPC by using a pair of Plastic Tweezers as shown in picture.



4.22 Sheet LCD Connector

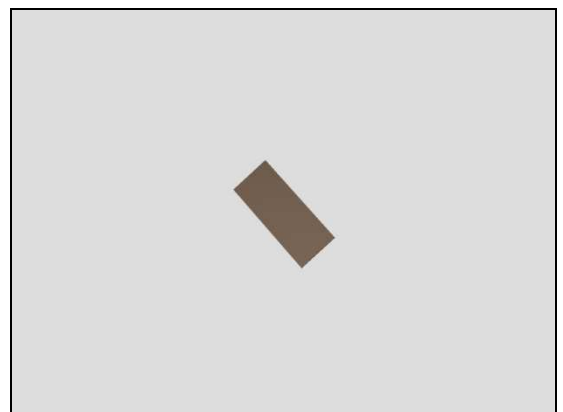
Follow the 3.1 – 3.2 Disassembly instructions!

Follow the 4.3 -4.7 Removal instructions!

Prepare a new Sheet LCD Connector.

Follow the 4.3 - 4.7 Installation instructions!

Follow the 5.7 – 5.8 Reassembly instructions!

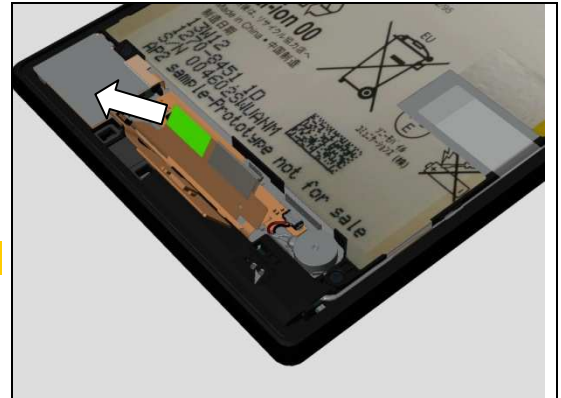


Replacement

REMOVAL

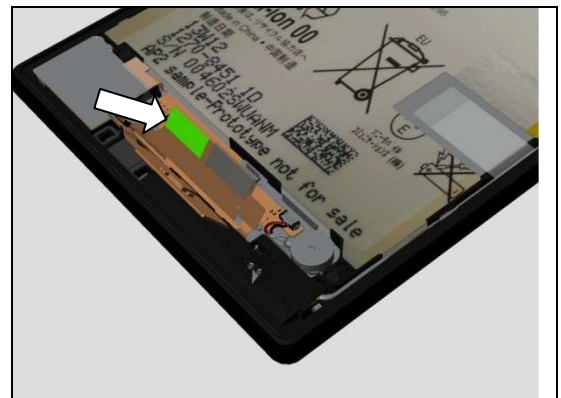
Detach the Sheet LCD Connector by using a pair of Plastic Tweezers.

Scrap! Not to be reused!



INSTALLATION

Attach a new Sheet LCD Connector by using a pair of Plastic Tweezers as shown in picture.



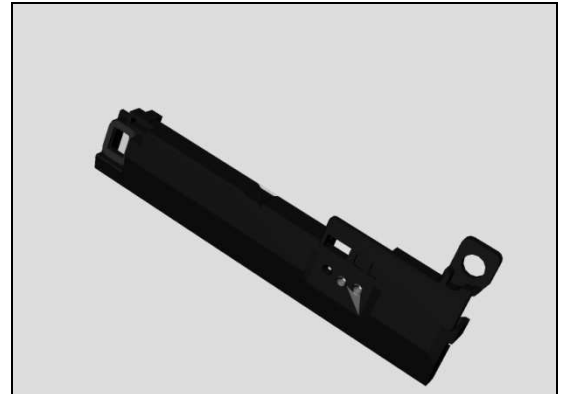
4.23 Antenna Main Assy

Follow the 3.1-3.7 Disassembly instructions!

Prepare a new Antenna Main Assy.

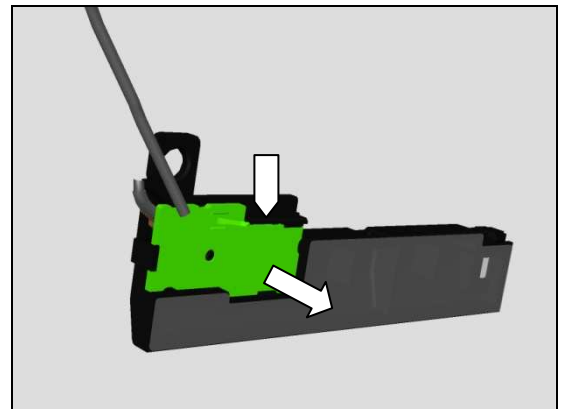
Follow the 4.36 Installation instructions!

Follow the 5.2-5.8 Reassembly instructions!



REMOVAL

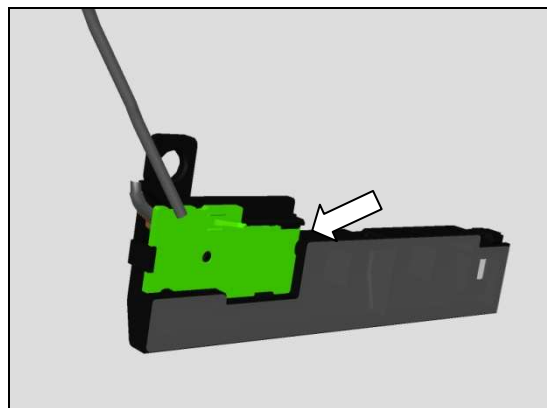
Insert the Front Opening Tool to release the hooks of Sub PBA Assy and remove it.



Replacement

INSTALLATION

Mount a new Antenna Main Assy and press it by fingers.



4.24 Sub PBA Assy (Not Valid for SGP412)

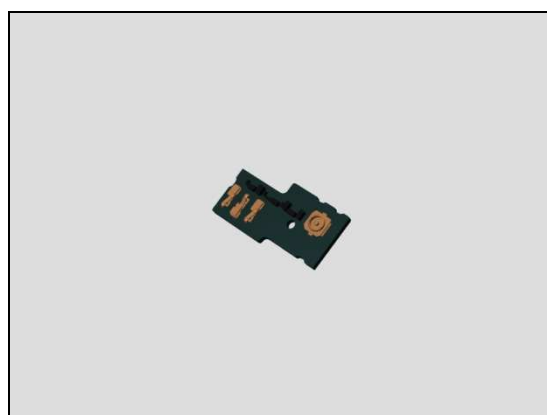
Follow the 3.1-3.7 Disassembly instructions!

Follow the 4.23 Removal instructions!

Prepare a new Sub PBA Assy

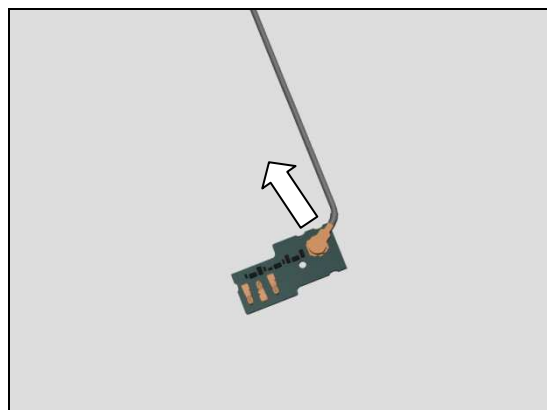
Follow the 4.23 Installation instructions!

Follow the 5.2-5.8 Reassembly instructions!



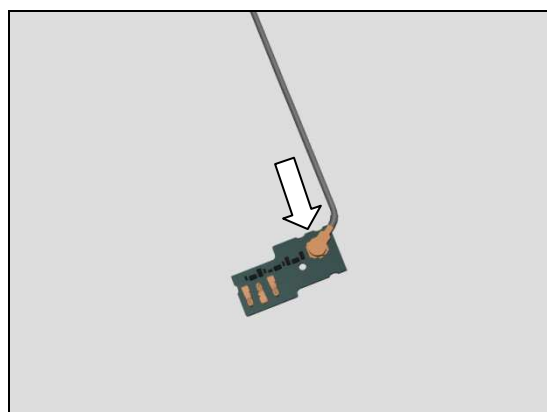
REMOVAL

Unlock the connector by using the Front Opening Tool.



INSTALLATION

Lock the connector by using the Front Opening Tool.



Replacement

4.25 Cable Assy (Not Valid for SGP412)

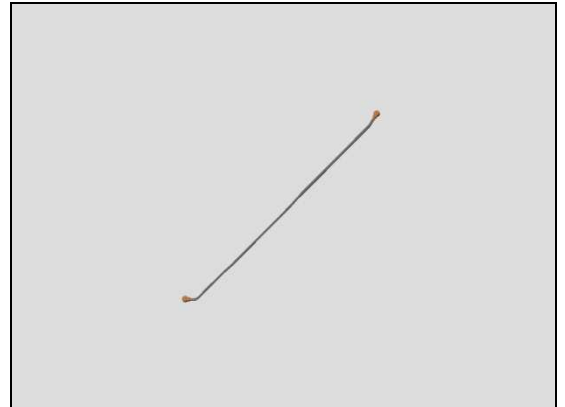
Follow the 3.1-3.7 Disassembly instructions!

Follow the 4.23&4.24 Removal instructions!

Prepare a new Cable Assy.

Follow the 4.23&4.24 Installation instructions!

Follow the 5.2-5.8 Reassembly instructions!

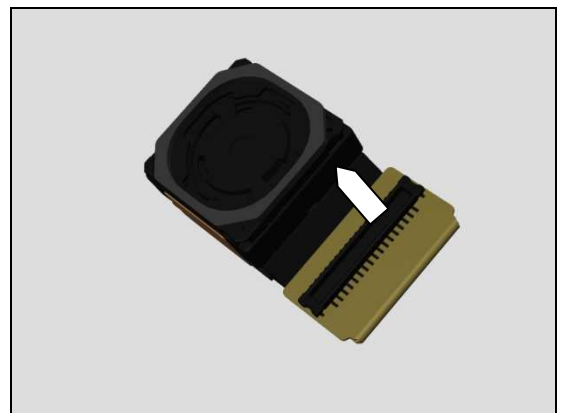


4.26 Camera 8 MPixel CMOS

Follow the 3.1-3.8 Disassembly instructions!

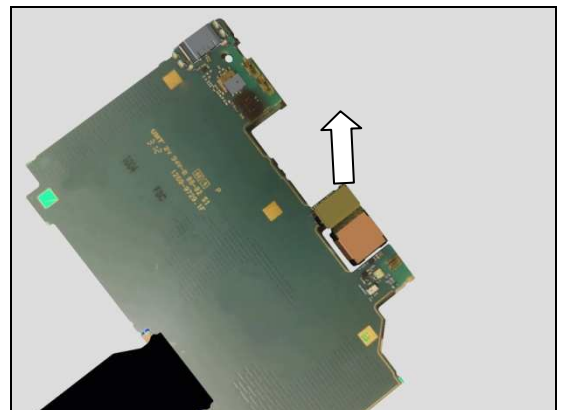
Prepare a new Camera 8 MPixel CMOS.

Follow the 5.1-5.8 Reassembly instructions!



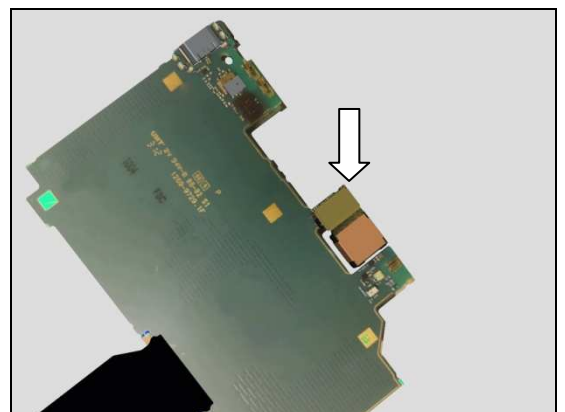
REMOVAL

Insert the Front Opening Tool to open the camera BtB connector and remove it.



INSTALLATION

Mount a new Camera 8 MPixel CMOS by fingers as shown in the pictures.



Replacement

4.27 FPC Receiver Assy

Follow the 3.1-3.8 Disassembly instructions!

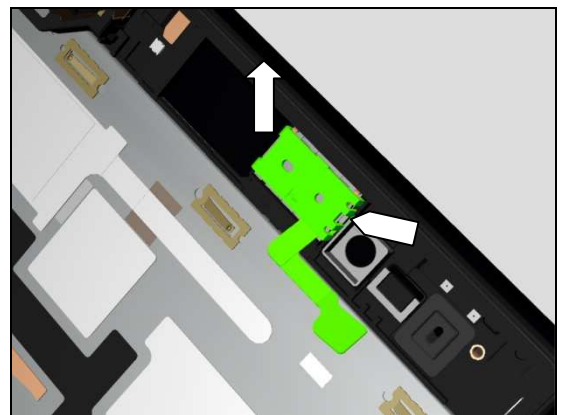
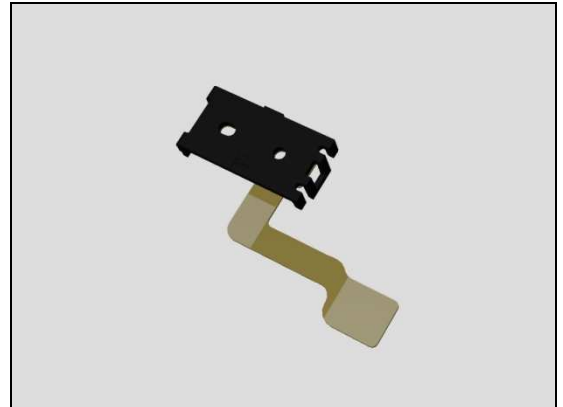
Prepare a new FPC Receiver Assy.

Follow the 4.35 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

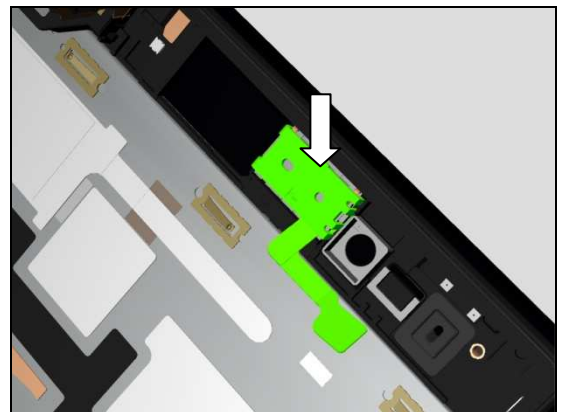
REMOVAL

Insert the Front Opening Tool to open the hooks of *FPC Receiver Assy* and remove it.



INSTALLATION

Mount a new *FPC Receiver Assy* by fingers as shown in the picture.



4.28 Ear Speaker 12.0 Rectangular_WR & Adhesive WP Receiver

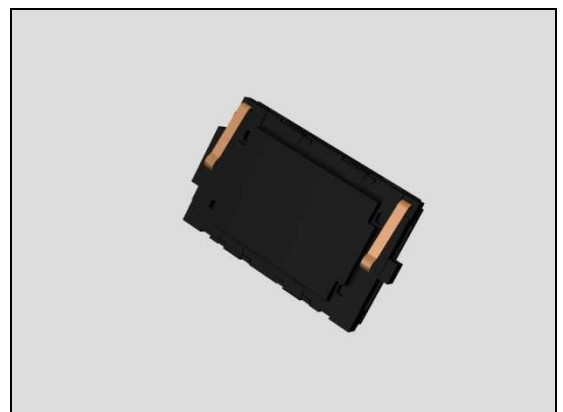
Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.27 Removal instructions!

Prepare a new Ear Speaker 12.0 Rectangular_WR & Adhesive WP Receiver.

Follow the 4.27 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

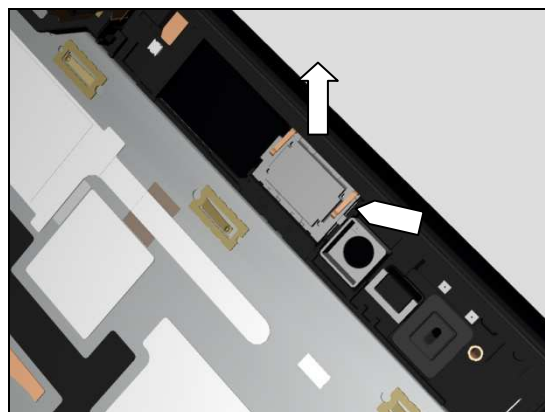
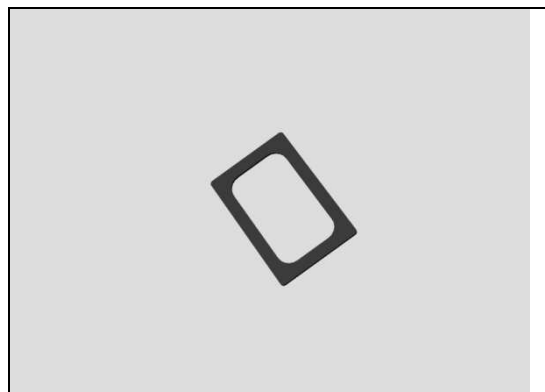


Replacement

REMOVAL

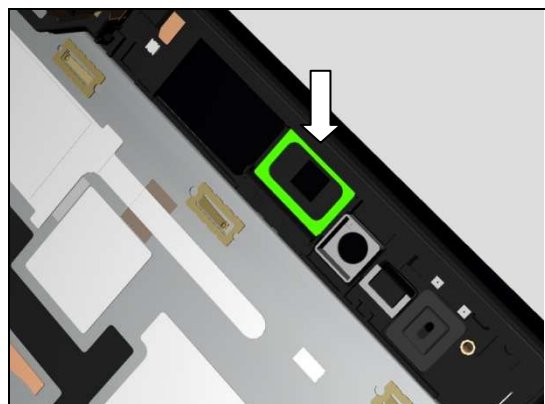
Insert the Front Opening Tool as shown in picture and gently remove the Ear Speaker 12.0 Rectangular_WR.

Scrap! Not to be reused!

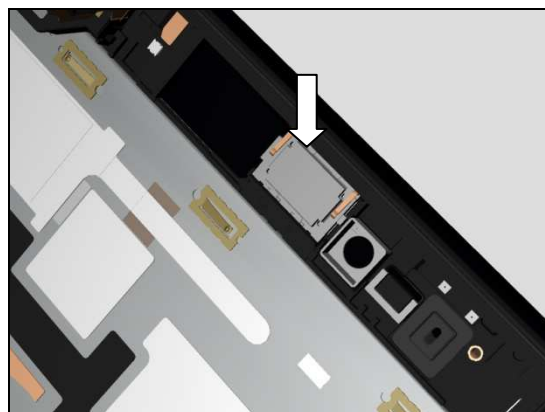


INSTALLATION

Attach a new *Adhesive WP Receiver* as shown in the picture.



Mount a new Ear Speaker 12.0 Rectangular_WR and Press to secure its attachment by using Press Tool Earspeaker with the force of 21N for ten seconds



Replacement

4.29 FPC Audio Jack

Follow the 3.1-3.8 Disassembly instructions!

Prepare a new FPC Audio Jack.

Follow the 4.34 Installation instructions!

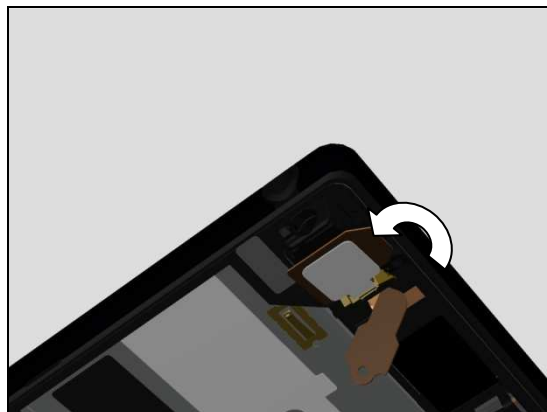
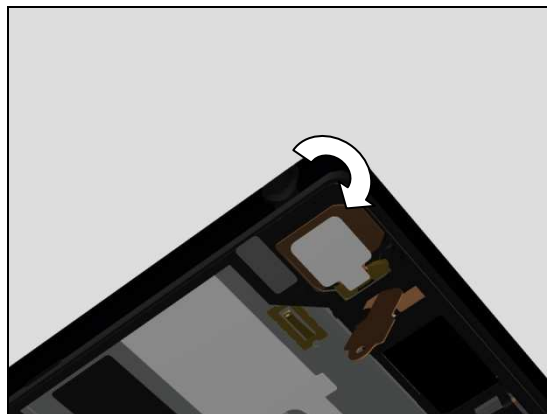
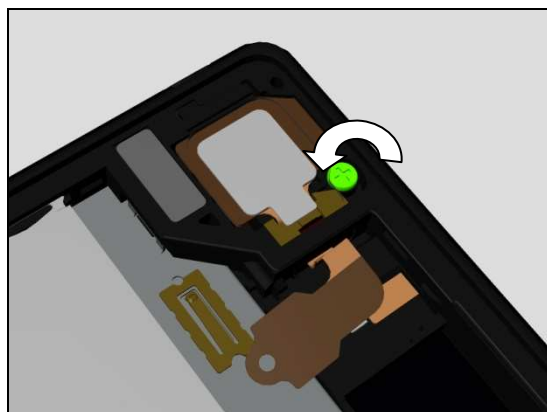
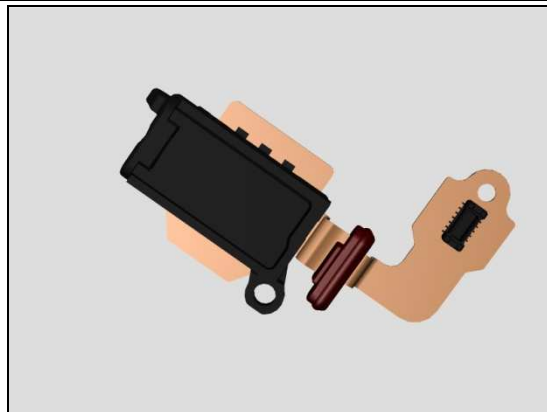
Follow the 5.1-5.8 Reassembly instructions!

REMOVAL

Remove the Screw 1.4X3.5 by using a screwdriver with Bits (JCIS No 0).

Insert the Plastic Tweezers from the outside of FPC Audio Jack and rotate to release it from its cavity.

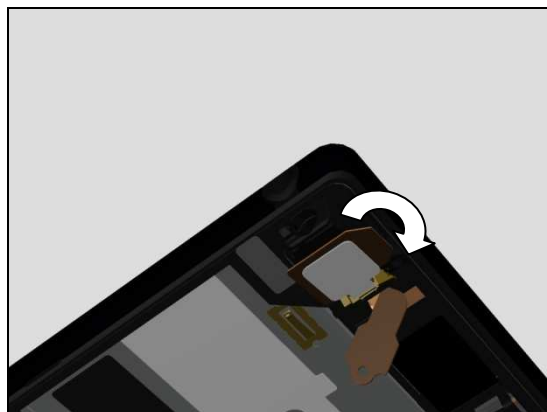
Rotate the FPC Audio Jack and remove it.



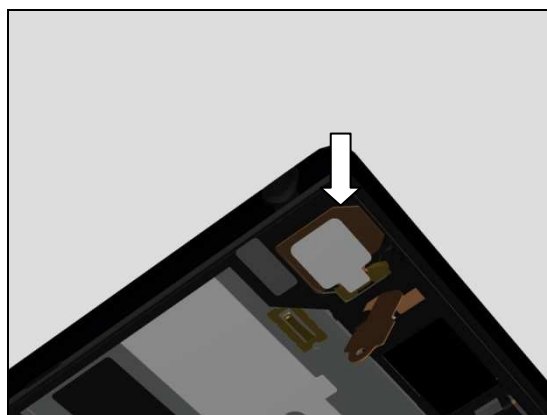
Replacement

INSTALLATION

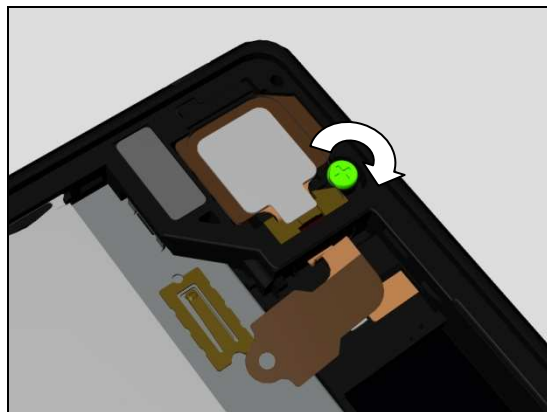
Insert the FPC Audio Jack to its cavity and rotate it as shown in the pictures.



Press to make it secured attached.



Apply 7 Ncm torque when tightening the Screw 1.4X3.5 with Bits (JCIS No 0).

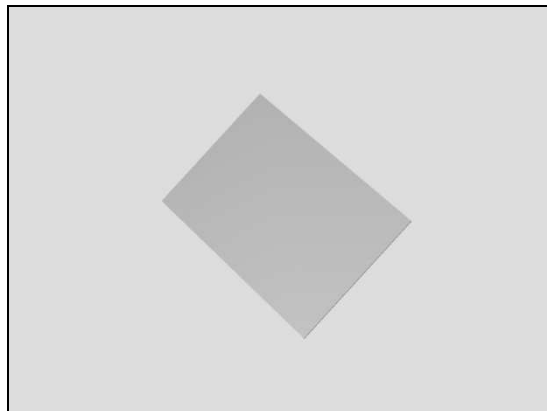


4.30 Label Core Unit

Follow the 3.1-3.8 Disassembly instructions!

Prepare a new Label Core Unit.

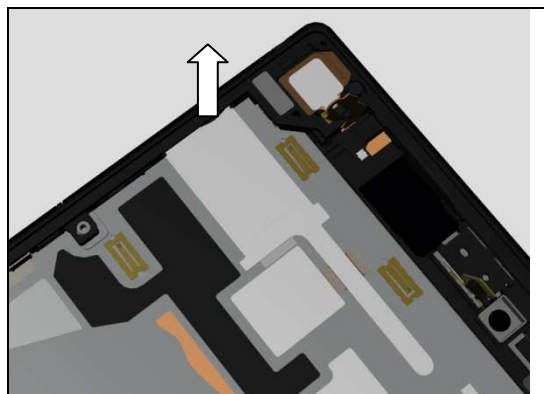
Follow the 5.1-5.8 Reassembly instructions!



Replacement

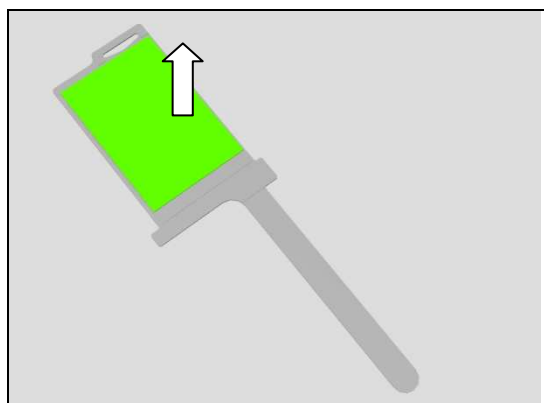
REMOVAL

Remove the Plate label by using the Flex Film Assembly Tool.



Gently detach the Label Core Unit by using the Flex Film Assembly Tool remove it as shown in picture.

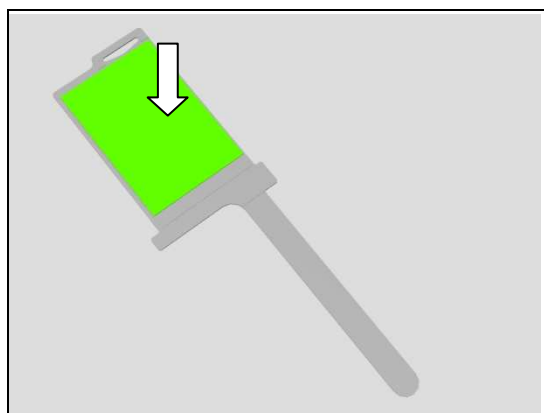
Scrap! Not to be reused!



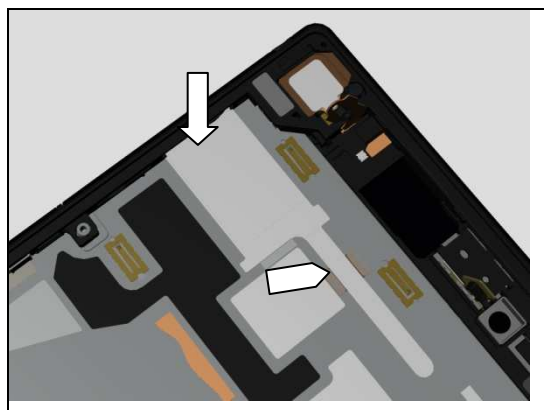
INSTALLATION

Check that the label format is properly loaded in the Zebra printer and write a new Label using the 'Label Print Solution' software.

Attach a new Core Unit Label by aligning with the guide lines on the Plate label.



Insert the Plate label to its cavity as shown in the picture.



Replacement

4.31 Plate label

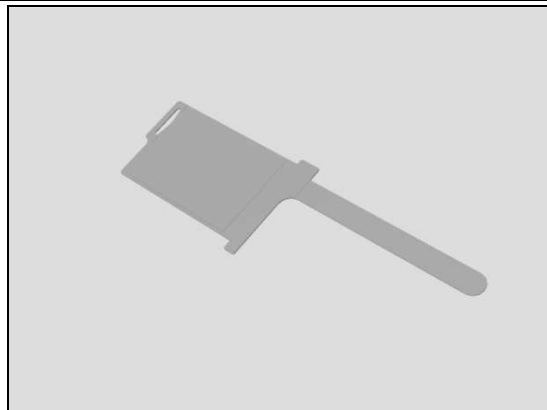
Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.30 Removal instructions!

Prepare a new Plate label.

Follow the 4.30 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

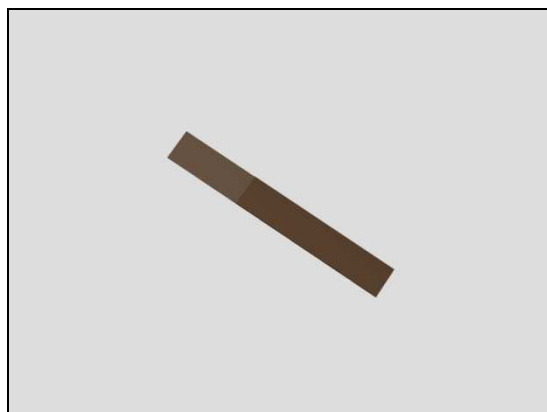


4.32 Adhesive relay FPC

Follow the 3.1-3.8 Disassembly instructions!

Prepare a new Adhesive relay FPC.

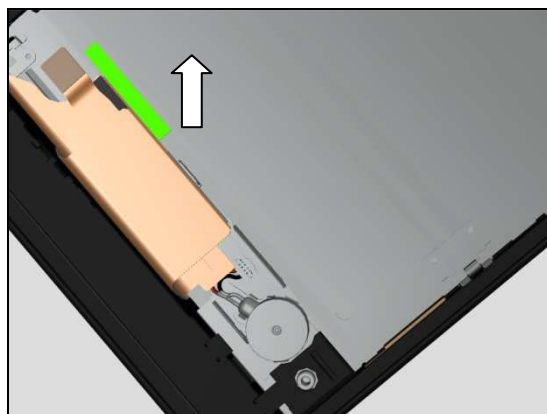
Follow the 5.1-5.8 Reassembly instructions!



REMOVAL

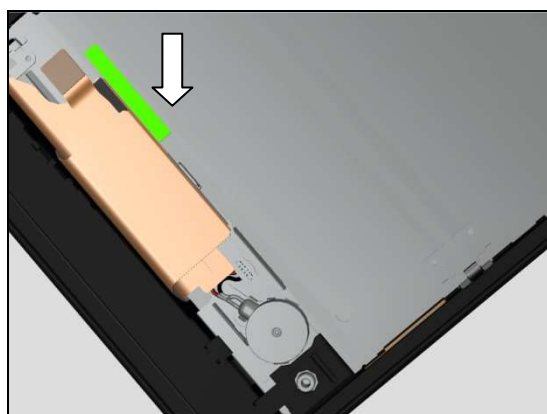
Detach the Adhesive relay FPC.

Scrap! Not to be reused!



INSTALLATION

Attach a new Adhesive relay FPC by aligning with the guiding lines on the Cover Front Assy.



Replacement

4.33 Antenna Sub (Not Valid for SGP412)

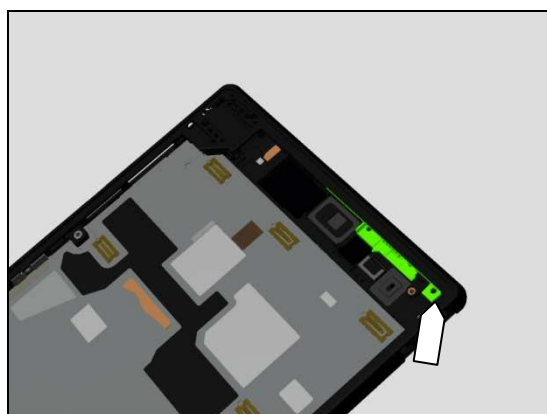
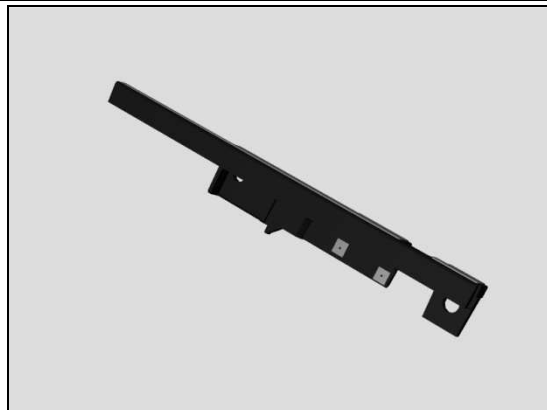
Follow the 3.1-3.8 Disassembly instructions!

Prepare a new Antenna Sub.

Follow the 5.1-5.8 Reassembly instructions!

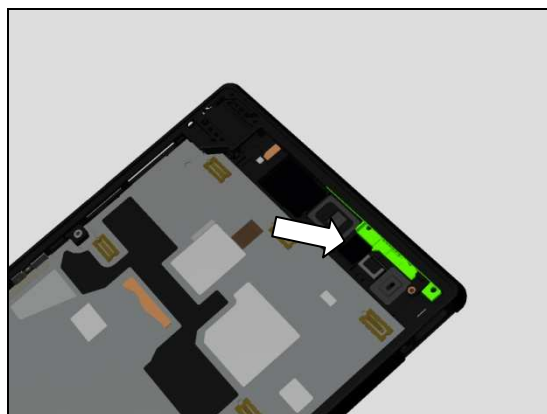
REMOVAL

Insert the Pointed-tip Tweezers to remove the Antenna Sub.



INSTALLATION

Attach a new Antenna by aligning with the guiding lines on the Cover Front Assy and press gently until it is securely attached.



4.34 Sheet Audio Jack FPC

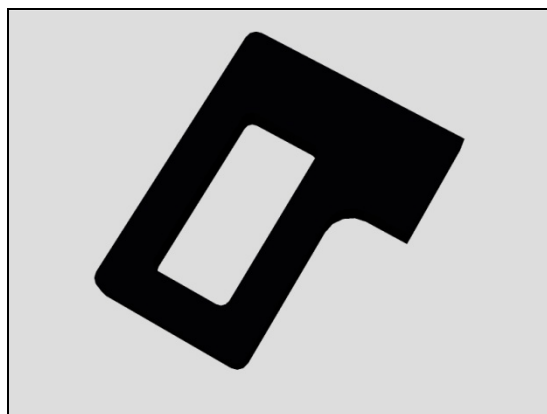
Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.29 Removal instructions!

Prepare a new Sheet Audio Jack FPC.

Follow the 4.29 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

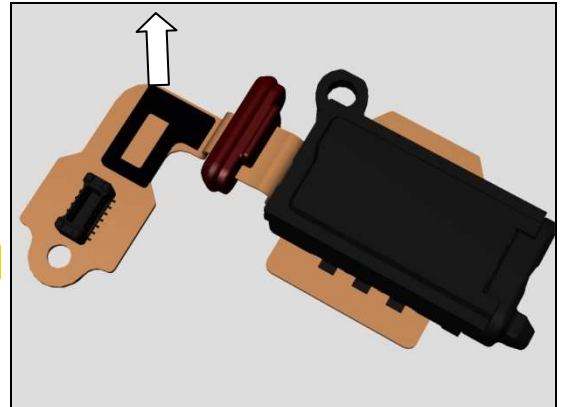


Replacement

REMOVAL

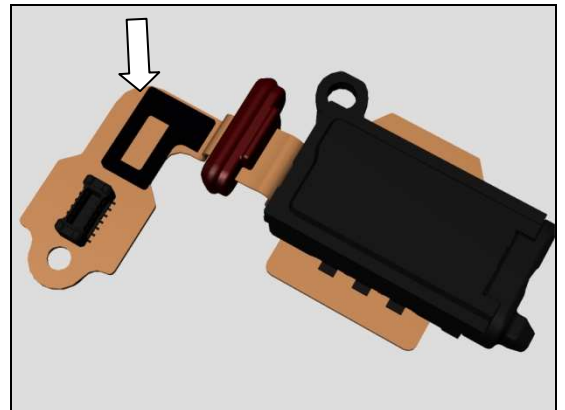
Detach to remove the Sheet Audio Jack FPC by using the Flex Film Assembly Tool.

Scrap! Not to be reused!



INSTALLATION

Attach a new Sheet Audio Jack FPC by using the Flex Film Assembly Tool.



4.35 Sheet Receiver FPC

Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.27 Removal instructions!

Prepare a new Sheet Receiver FPC

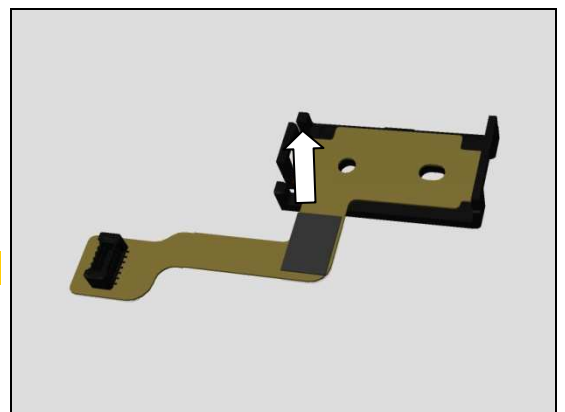
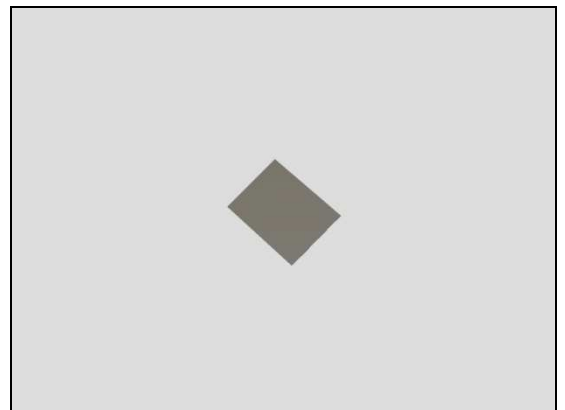
Follow the 4.27 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

REMOVAL

Detach to remove the Sheet Receiver FPC by using the Flex Film Assembly Tool.

Scrap! Not to be reused!



Replacement

INSTALLATION

Attach a new Sheet Receiver FPC by using the Flex Film Assembly Tool.



4.36 Spacer RF Main Antenna (Not Valid for SGP412)

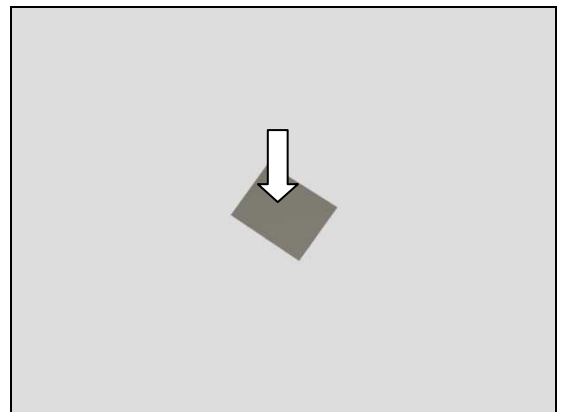
Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.23 Removal instructions!

Prepare a new Spacer RF Main Antenna.

Follow the 4.23 Installation instructions!

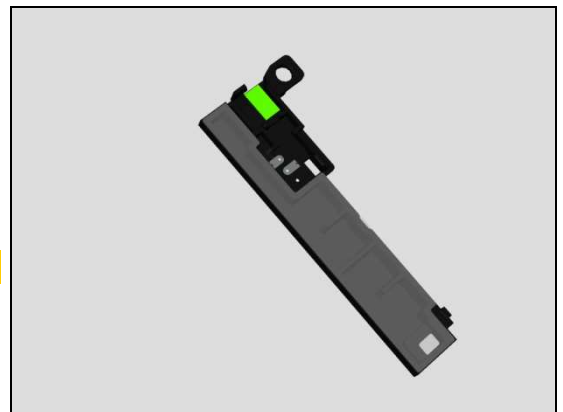
Follow the 5.1-5.8 Reassembly instructions!



REMOVAL

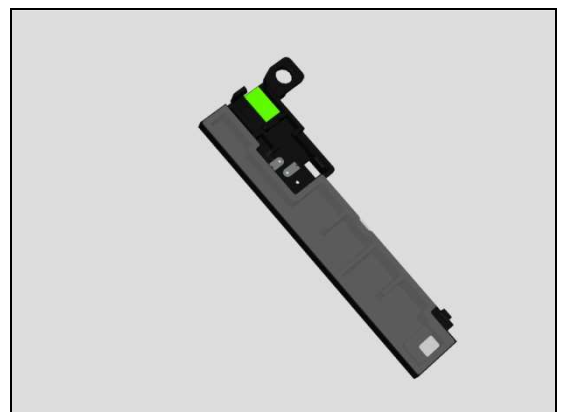
Detach to remove the Spacer RF Main Antenna by using the Flex Film Assembly Tool.

Scrap! Not to be reused!



INSTALLATION

Attach a new Spacer RF Main Antenna by using the Flex Film Assembly Tool.



Replacement

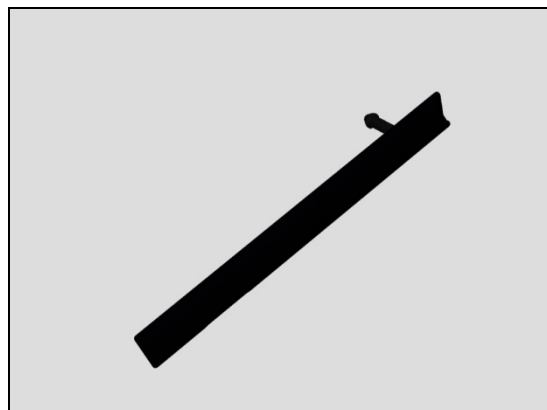
4.37 Cap SD Sub Assy

Prepare a new Cap SD Sub Assy.

REMOVAL

Detach to remove the Cap SD Sub Assy by fingers.

Scrap! Not to be reused!



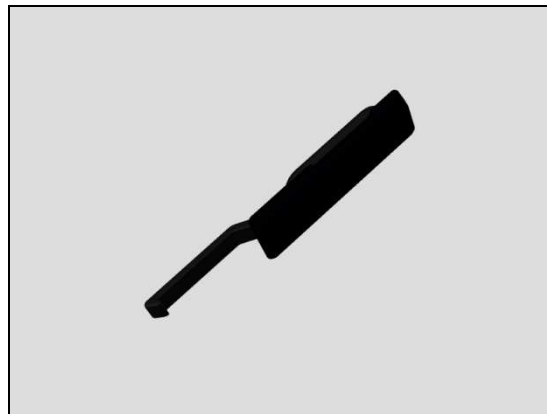
INSTALLATION

Insert a new Cap SD Sub Assy as shown in picture.



4.38 Cap USB Sub Assy

Prepare a new Cap USB Sub Assy.

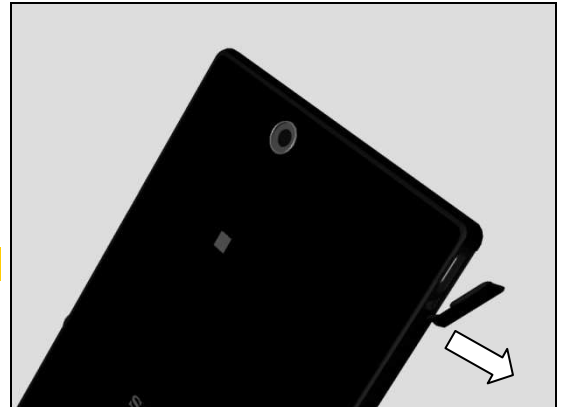


Replacement

REMOVAL

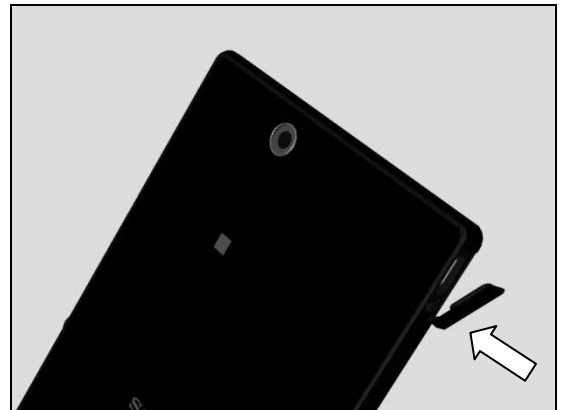
Detach to remove the Cap USB Sub Assy by fingers.

Scrap! Not to be reused!



INSTALLATION

Insert a new Cap USB Sub Assy as shown in picture.



4.39 Cushion FPC Touch

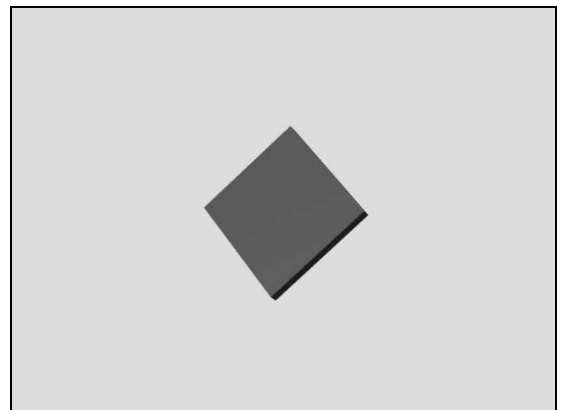
Follow the 3.1-3.8 Disassembly instructions!

Follow the 4.3-4.5 Removal instructions!

Prepare a new Cushion FPC Touch.

Follow the 4.3-4.5 Installation instructions!

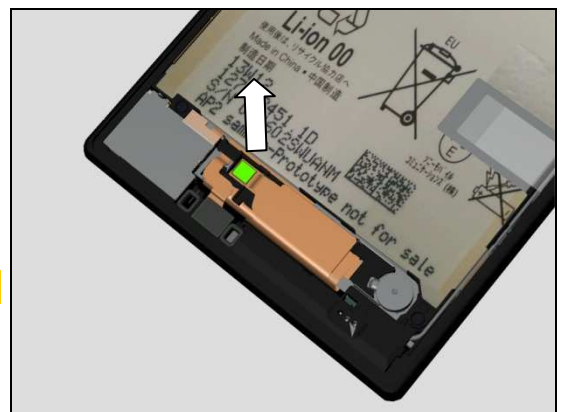
Follow the 5.1-5.8 Reassembly instructions!



REMOVAL

Detach to remove the Cushion FPC Touch by using Flex Film Assembly Tool.

Scrap! Not to be reused!



Replacement

INSTALLATION

Insert a new Cushion FPC Touch by using Flex Film Assembly Tool.

4.40 Adhesive Speaker metal plate

Follow the 3.1-3.2 Disassembly instructions!

Follow the 4.3 Removal instructions!

Prepare the Adhesive Speaker metal plate.

Follow the 4.3 Installation instructions

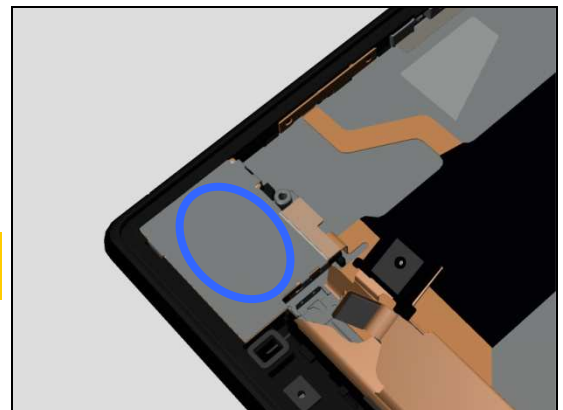
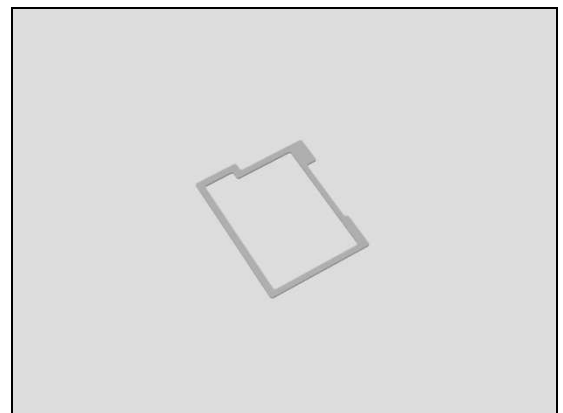
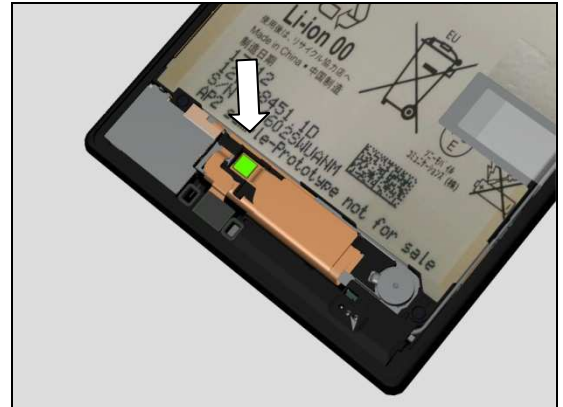
Follow the 5.7-5.8 Reassembly instructions!

REMOVAL

Heat the Speaker plate by using hot air within circle area indicated in the picture.

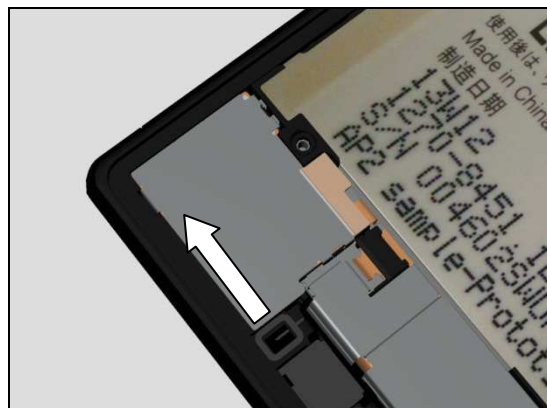
**Temperature setting:120 degree;Time:10s;
distance:15cm**

Insert the Flex Film Assembly Tool and Gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.



Replacement

Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.

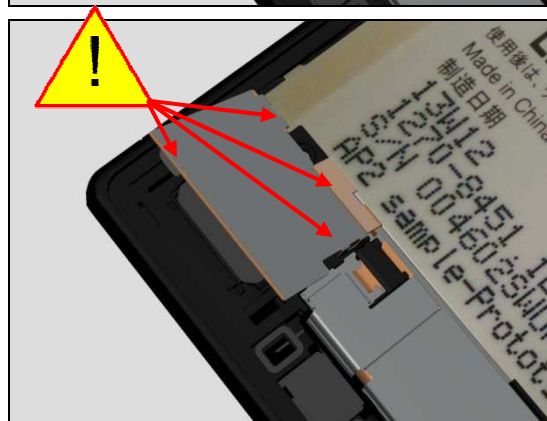


Insert the Flex Film Assembly Tool and gently slide the Flex Film Assembly Tool along to release the adhesive as shown in picture.

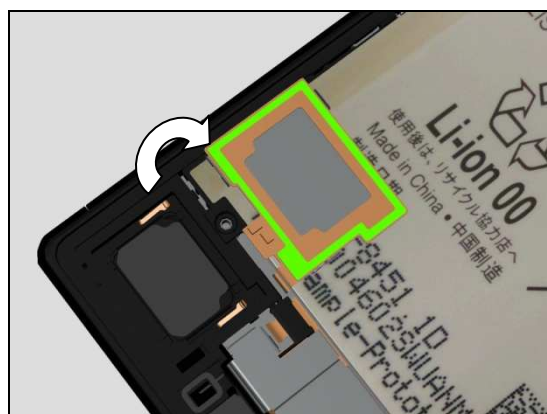


Remove the speaker plate as shown in picture.

Be careful not to damage the component under the FPC.



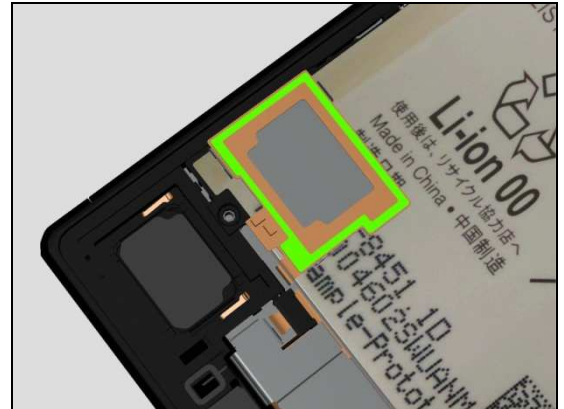
Rotate the speaker plate as shown in pictures and remove the adhesive by using Flex Film Assembly Tool.



Replacement

INSTALLATION

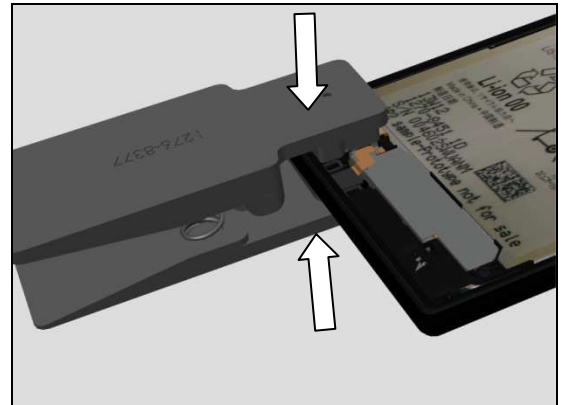
Attach a new Adhesive Speaker metal plate as shown in the pictures.



Rotate the speaker plate as shown in pictures and press it by fingers.

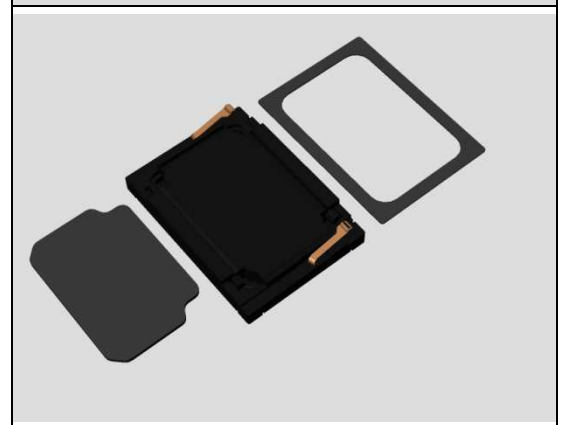


Press to secure its attachment by using Speaker metal plate press pad for five seconds.



4.41 Cushion Speaker& Adhesive WP Speaker& Loudspeaker 18.0 Rectangular_WR

Follow the 3.1-3.2 Disassembly instructions!
Follow the 4.40 Removal instructions!
Prepare the three parts as shown in the picture.
Follow the 4.40 Installation instructions!
Follow the 5.7-5.8 Reassembly instructions!



Replacement

REMOVAL

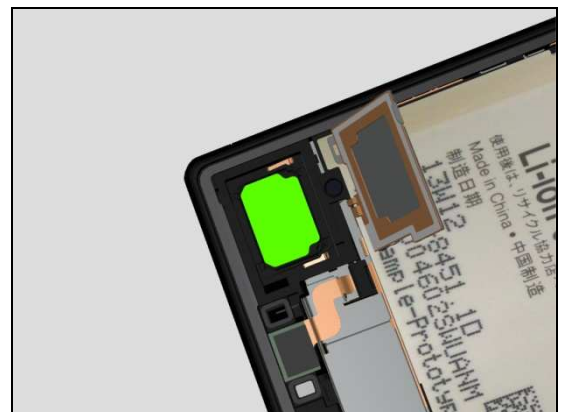
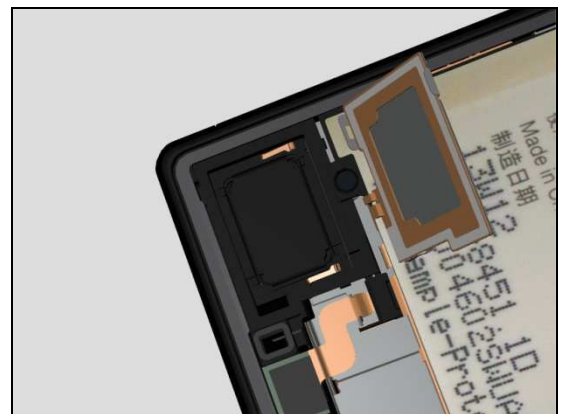
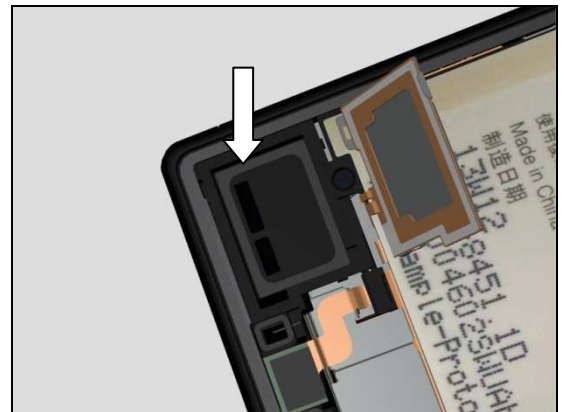
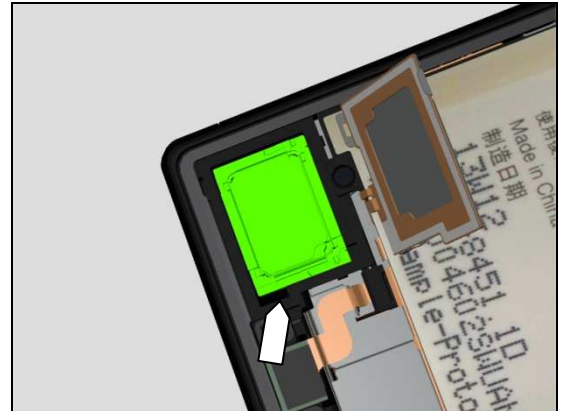
Detach to remove the speaker by using the Flex Film Assembly Tool as shown in pictures.

INSTALLATION

Attach a new Adhesive WP Speaker into its cavity as shown in the pictures.

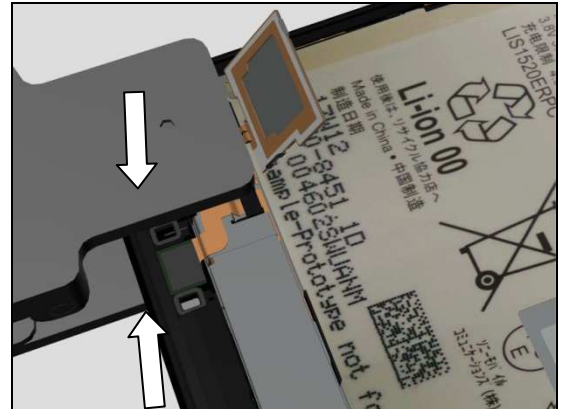
Mount a new Loudspeaker 18.0 Rectangular_WR into its cavity as shown in the pictures.

Attach a new Cushion Speaker as shown in the pictures.



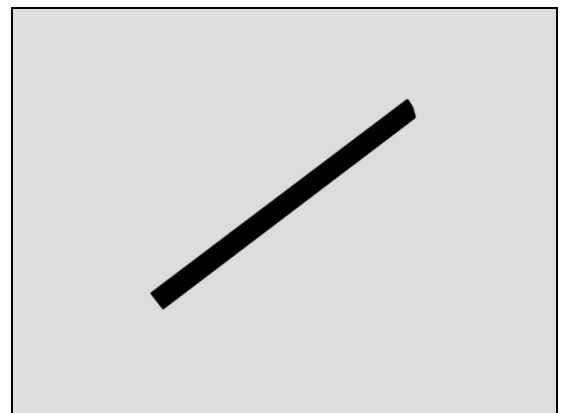
Replacement

Press to secure its attachment by using Press Tool Loudspeaker with the force of 21.5N for ten seconds



4.42 Panel Left Bottom

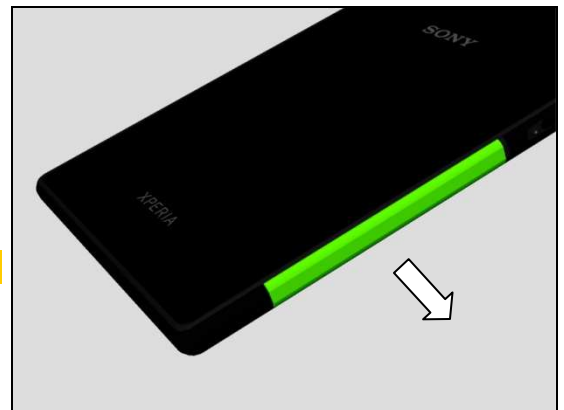
Prepare the Panel Left Bottom.



REMOVE

Insert the Flex Film Assembly Tool as shown in picture and remove the *Panel Left Bottom*.

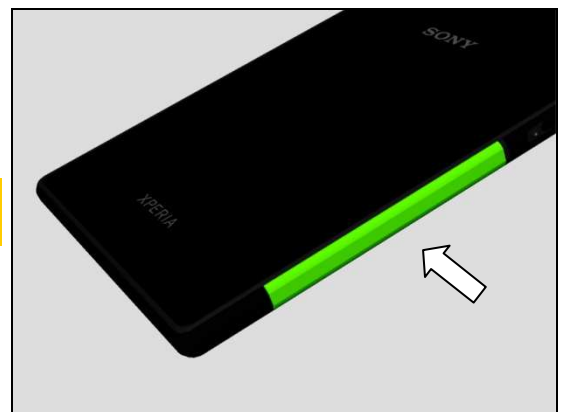
Scrap! Not to be reused!



INSTALLATION

Note! The Panel Left Bottom should be mounted after water test (according to Test Instruction: 1276-6434)

Attach a new *Panel Left Bottom* as shown in the pictures.



Replacement

Use Side Panel press with the force of 60N for ten seconds.
According to 1003-9107 Tool Catalogue – mechanical and
document Side Panel press Instruction for use.

4.43 Panel Bottom Sub Assy

Follow the 4.42 Removal instructions!
Prepare the Panel Bottom Sub Assy
Follow the 4.42 Installation instructions!

REMOVAL

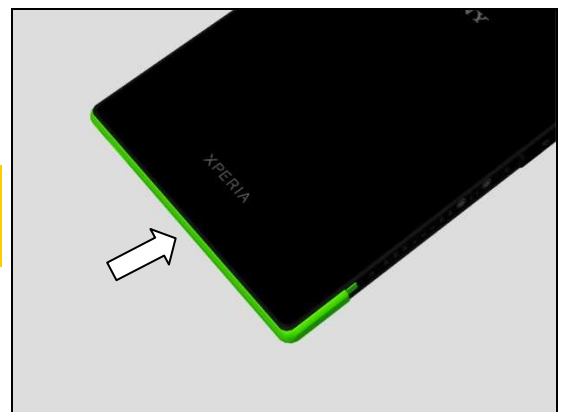
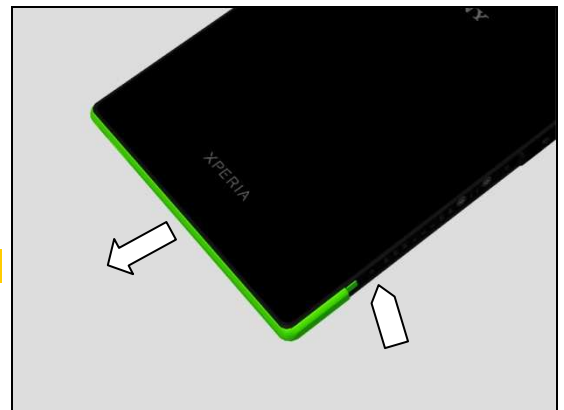
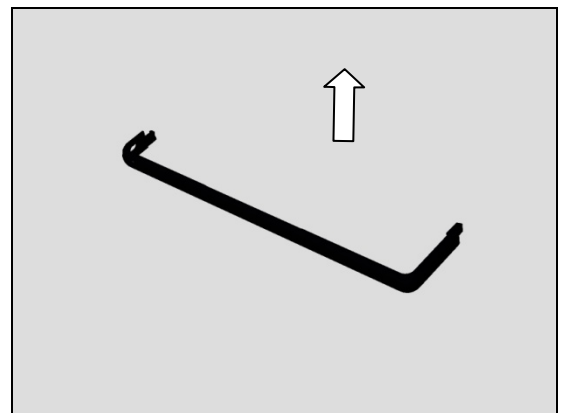
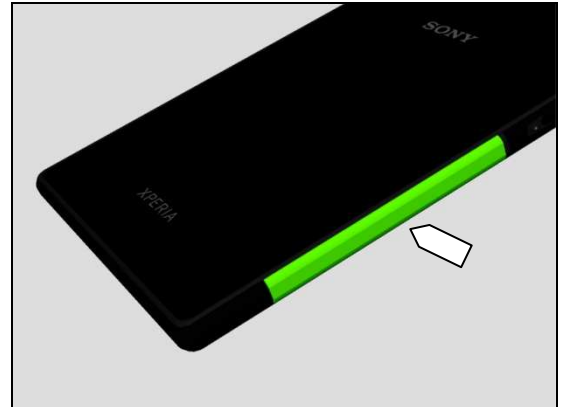
Insert the Flex Film Assembly Tool as shown in picture and
remove the *Panel Bottom Sub Assy*.

Scrap! Not to be reused!

INSTALLATION

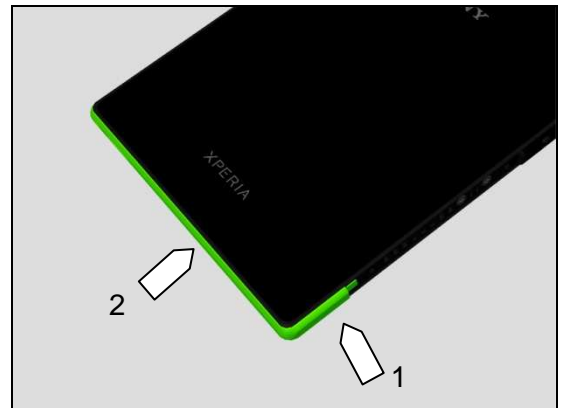
**Note! The Panel Bottom sub Assy should be mounted
after water test (according to Test Instruction: 1276-
6434)**

Attach a new *Panel Bottom Sub Assy* as shown in the
pictures.



Replacement

Use Side Panel press the two sides which pointed out by arrow 1 and arrow 2 according to 1003-9107 Tool Catalogue – mechanical and document Side Panel press Instruction for use. The side pointed by arrow 1 should be pressed three times with the force of 80N for ten seconds.



When pressing the side pointed by arrow 2, the side panel press tool should be adjusted to 80N force. Then the panel should be pressed with 3 press-steps over the hole according to the left pictures. The press time should be ten seconds. First press as shown in the left picture.



Second press as shown in the left picture.



Third press as shown in the left picture.



Replacement

4.44 Mesh WP Leak Check

Follow the 4.42&4.43 Removal instructions!

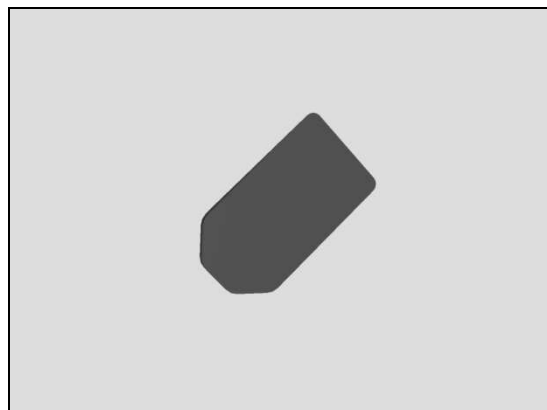
Prepare the Mesh WP Leak Check.

Follow the 4.42&4.43 Installation instructions!

REMOVAL

Insert the Flex Film Assembly Tool as shown in picture and remove the *Mesh WP Leak Check*.

Scrap! Not to be reused!



INSTALLATION

Note! The Mesh WP Leak Check should be mounted after water test (according to Test Instruction: 1276-6434)

Attach a new *Mesh WP Leak Check* as shown in the pictures.



Replacement: Key Camera Assy

4.45 Water indicator

Prepare the Water indicator.

REMOVAL

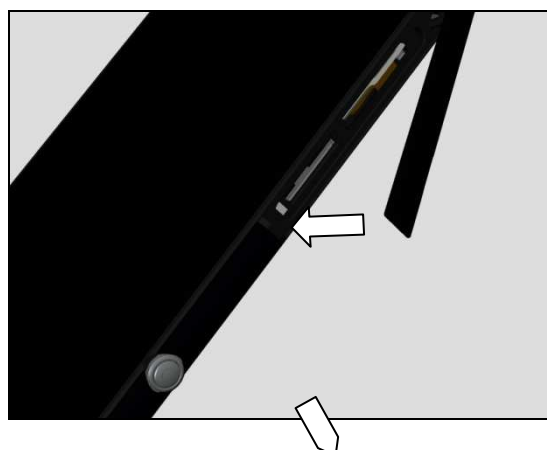
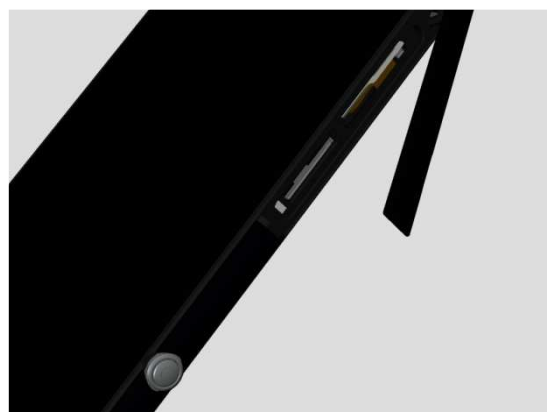
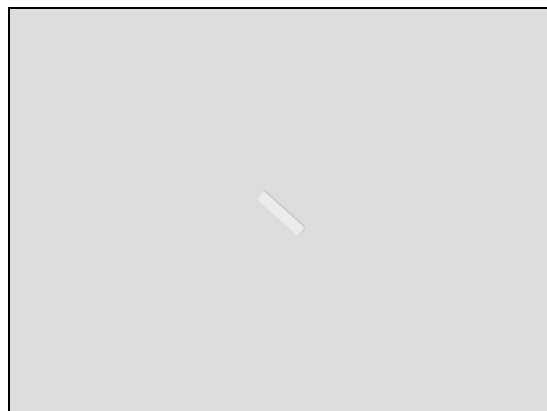
Open the Cap SD Sub Assy as shown in picture by fingers.

Scrap! Not to be reused!

Insert the Flex Film Assembly Tool as shown in picture and remove the *Water indicator*.

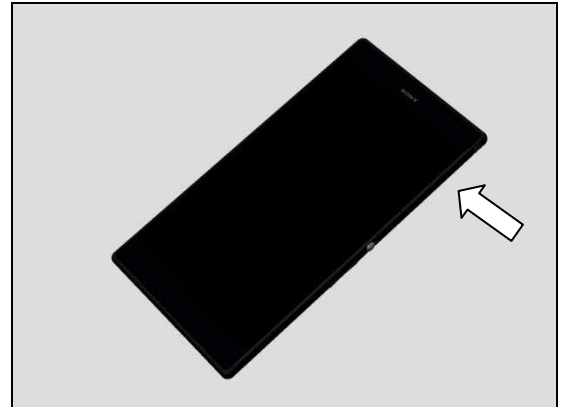
INSTALLATION

Attach a new *Water indicator* and press it by using Flex Film Assembly Tool.



Replacement

Closed the Cap SD Sub Assy as shown in picture by fingers.



4.46 Cover Front Assy

Follow the 3.1-3.8 Disassembly instructions!

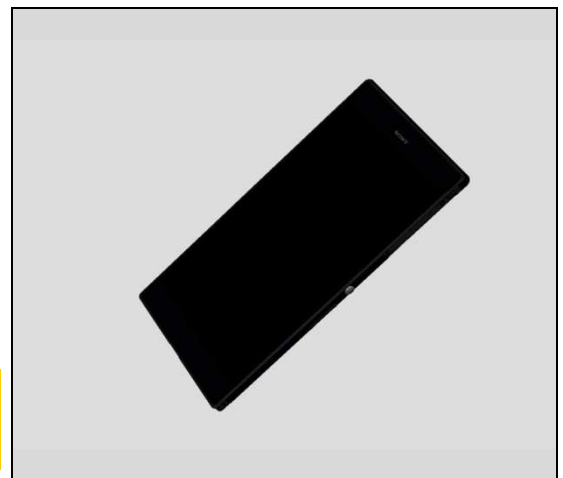
Follow the 4.7, 4.16, 4.18, 4.27, 4.29, 4.30, 4.31, 4.37, 4.38, 4.42, 4.43 Removal instructions!

Prepare a new Cover Front Assy.

Follow the 4.7, 4.16, 4.18, 4.21, 4.22, 4.27, 4.29, 4.30, 4.31, 4.32, 4.34, 4.35, 4.37, 4.38, 4.39, 4.42, 4.43 Installation instructions!

Follow the 5.1-5.8 Reassembly instructions!

Proximity Sensor Calibration must be performed for all replaced units; 1262-6643 Trouble Shooting Application – mechanical.

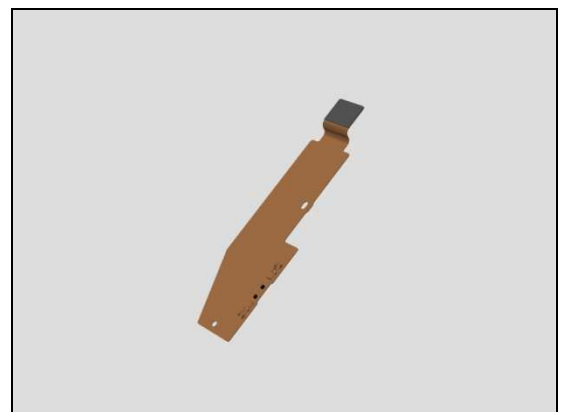


4.47 FPC Charger

Follow the 3.1-3.4 Disassembly instructions!

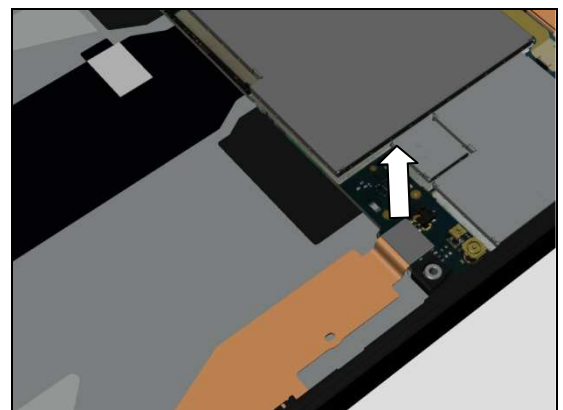
Prepare a new Cover Front Assy.

Follow the 5.5-5.8 Reassembly instructions!



REMOVAL

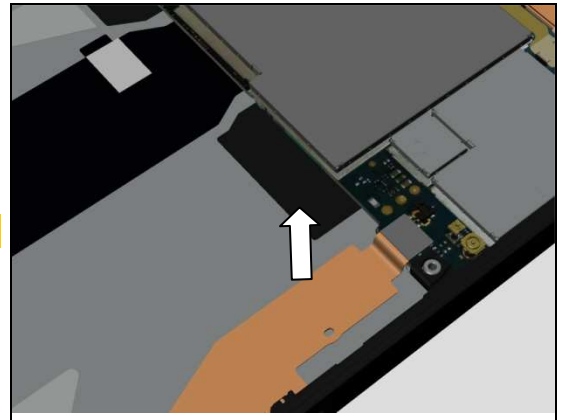
Open the FPC charger BtB connector by using Front Opening Tool as shown in picture.



Replacement: Key Volume Assy

Remove it by fingers.

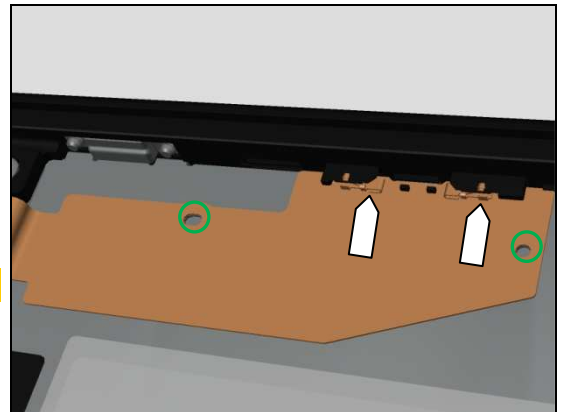
Scrap! Not to be reused.



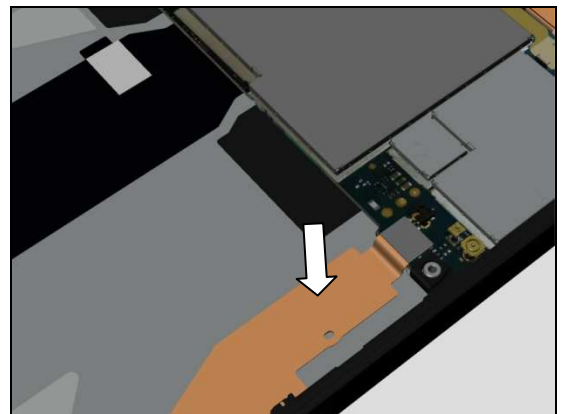
INSTALLATION

Insert the two pins of FPC charger, and aligned by two holes on the Cover Front Assy.

Be careful! Do not damage the two pins!

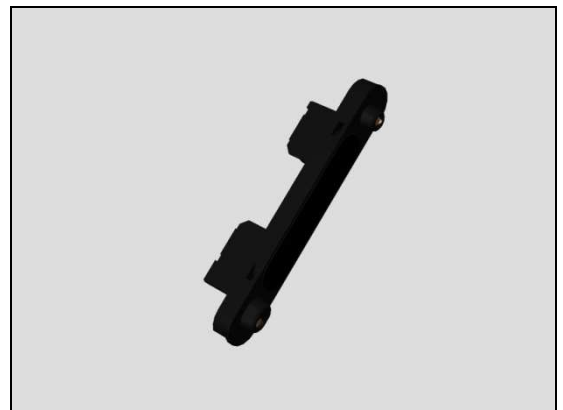


Press to make it secured attached.



4.48 Conn Receptacle 2p Magnetic

Follow the 3.1-3.4 Disassembly instructions!
Prepare a new Conn Receptacle 2p Magnetic.
Follow the 5.5-5.8 Reassembly instructions!



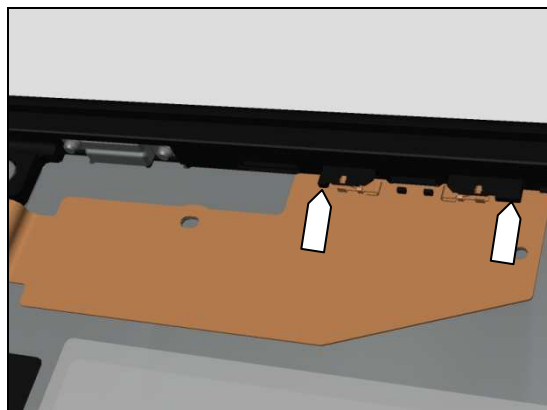
Replacement

REMOVAL

Push the two pads of *Conn Receptacle 2p Magnetic* by using Flex Film Assembly Tool.

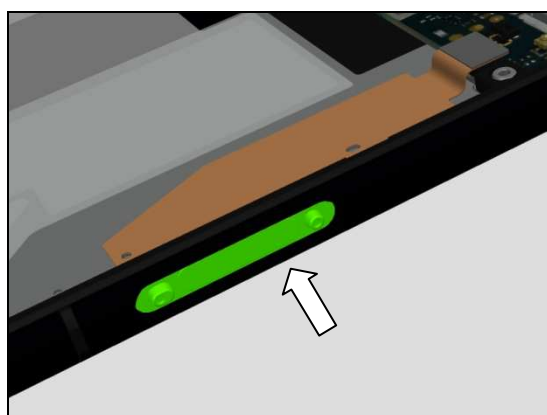
Scrap! Not to be reused.

Be careful! Do not damage the two pins of FPC charger.



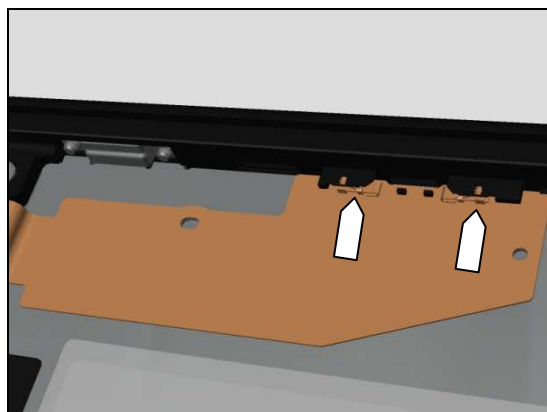
INSTALLATION

Mount a new *Conn Receptacle 2p Magnetic* by fingers.

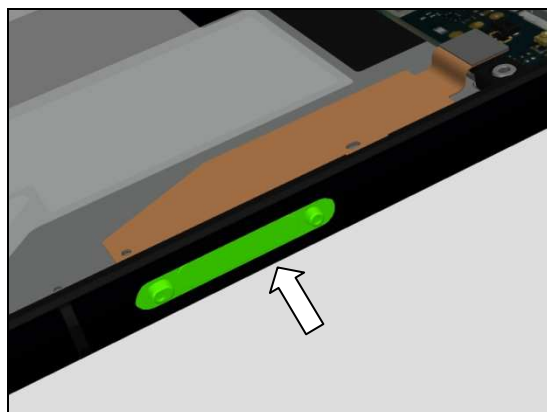


Check and press the two pins into its cavities by using the Front Opening Tool.

Be careful! Do not damage the two pins of FPC charger.



Use Side Panel press with the force of 60N for ten seconds. According to 1003-9107 Tool Catalogue – mechanical and document Side Panel press Instruction for use.



Replacement

4.49 Adhesive WP Panel Rear

Follow the 3.1-3.2 Disassembly instructions!

Prepare a new Adhesive WP Panel Rear.

Follow the 5.7-5.8 Reassembly instructions!

REMOVAL

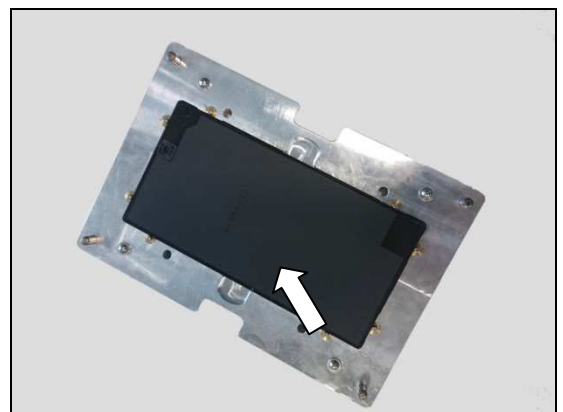
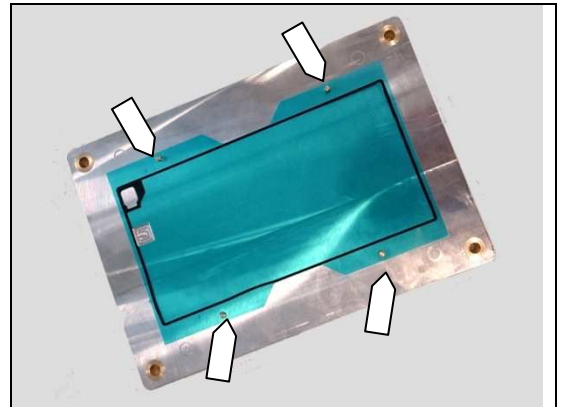
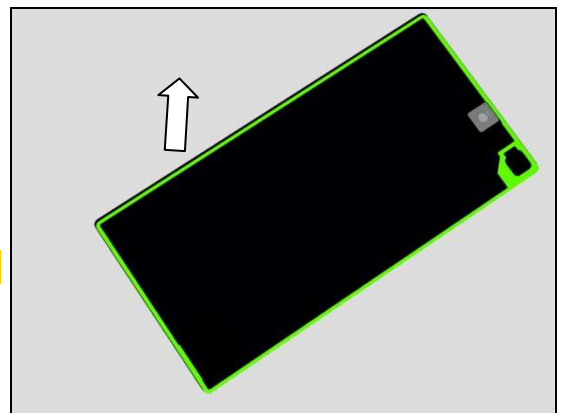
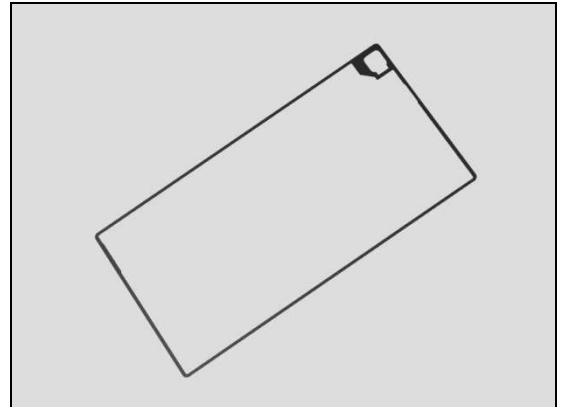
Remove the *Adhesive WP Panel Rear* with the Flex Film Assembly Tool.

Scrap! Not to be reused!

INSTALLATION

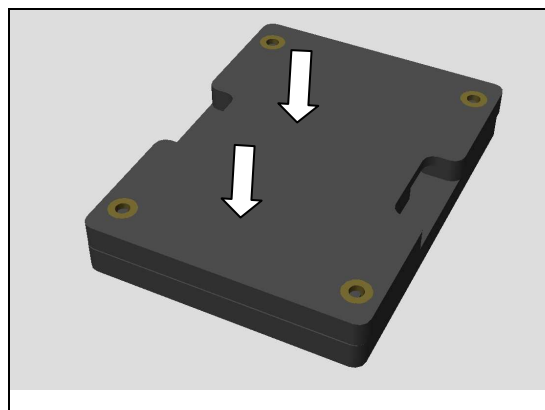
Place a new *Adhesive WP Panel Rear* with fingers in the Back Cover Adhesive alignment fixture (Bottom Part). Use the four guiding holes.

Then place the Panel Rear Sub Assy with fingers in the Back Cover Adhesive alignment fixture (Front Part).



Replacement

Place the Front to the Bottom and press by hand.



Replacement

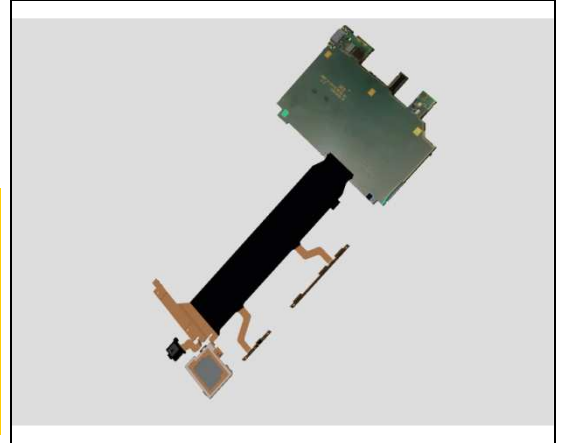
4.50 Board Swap – Replacement

Follow the 3.1-3.8 Disassembly instructions!
 Follow the 4.26 Removal instructions!
 Prepare the Main PBA Assy.
 Follow the 4.26 Installation instructions!
 Follow the 5.1-5.8 Reassembly instructions!

Reuse the Camera 8 MPixel CMOS.

Proximity Sensor Calibration must be performed for all replaced units; 1262-6643 Trouble Shooting Application – mechanical.

Clean the remain of Adhesive Main PBA on the original board and follow the 1278-9629 to packing the returned PBA.

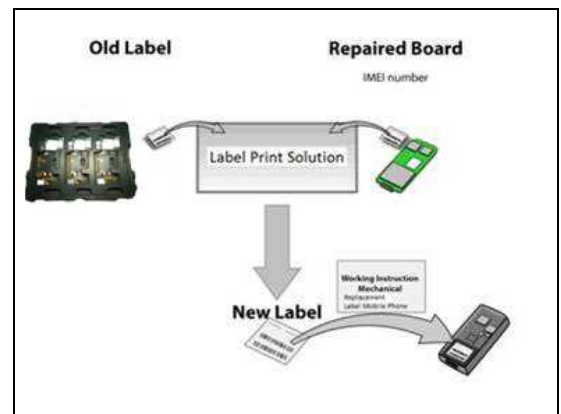


4.51 Board Swap – Change Label

CHANGE LABEL

Follow the instructions in the Generic Repair Manual – Build swap for change of label.

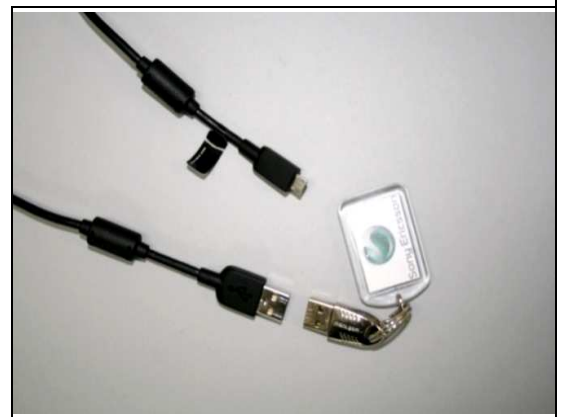
The Label Core unit need to paste on the shielding can of Main PBA Assy.



4.52 Board Swap – Customize of Software

CUSTOMIZE OF SOFTWARE

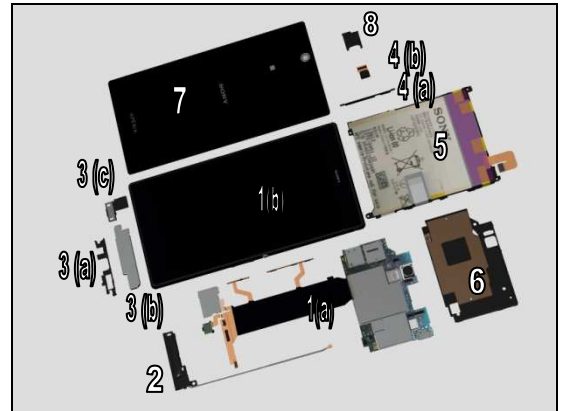
Follow the instructions in the Generic Repair Manual – Build swap for customization of the software.



5 Reassembly

The Re-assembly is done in the following order:

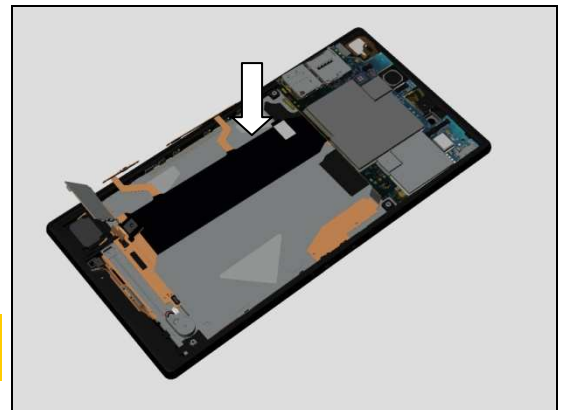
1. Main PBA Assy(a) & Cover Front Assy(b)
2. Antenna Main Assy
3. Carrier Holder LCD FPC (a) & Shield Can Lid Bottom(b) & Carrier holder Mic Upper Sub Assy (c)
4. Plate Key Side (a) & Camera 2 MPixel CMOS (b)
5. Battery 3000.0 mAh
6. Antenna NFC Assy
7. Back Panel Assy
8. SIM Tray (Not Valid for SGP412)



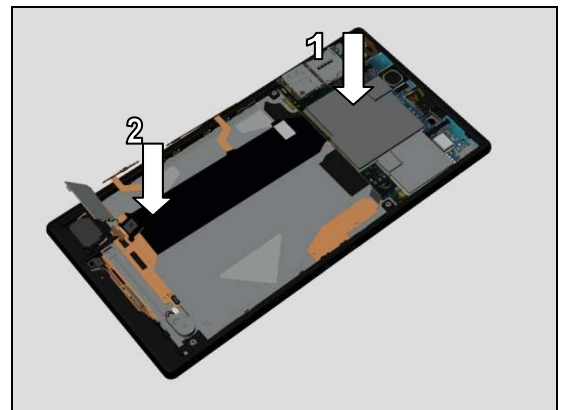
5.1 Main PBA Assy (a) & Cover Front Assy(b)

Place the Main PBA Assy to the Cover Front Assy as shown in the picture.

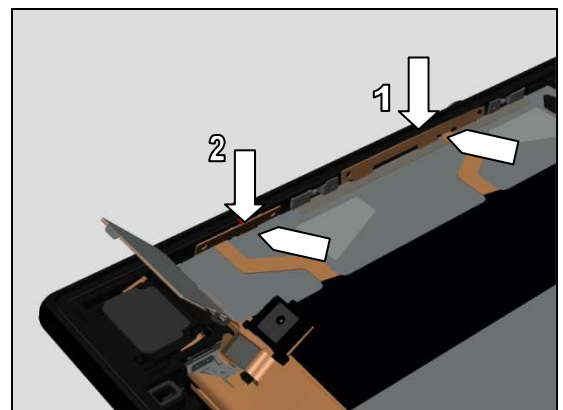
Follow the 4.1 removal and installation instruction to replace a new Adhesive PBA.



Insert the PBA USB port into the Cover Front Assy and press the PBA and FPC follow the sequence as shown in the picture.



Press the side key FPC to its cavities following the sequence as shown in the pictures.



Reassembly

Rotate the speaker plate and press it by fingers.

Follow the 4.40 removal and installation instruction to replace a new Adhesive Speaker metal plate.

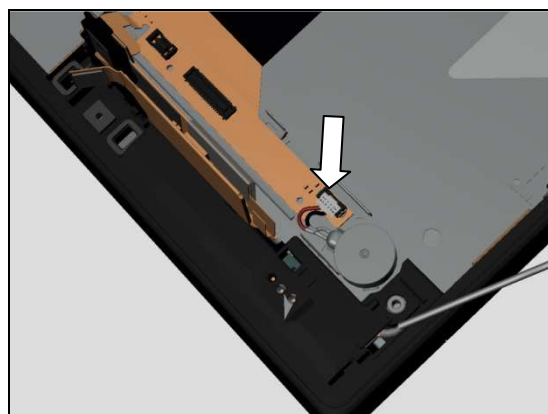
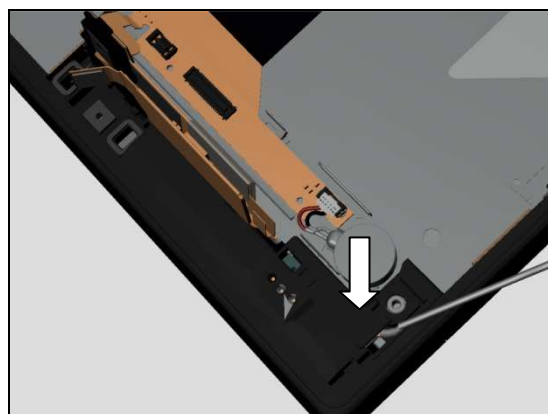
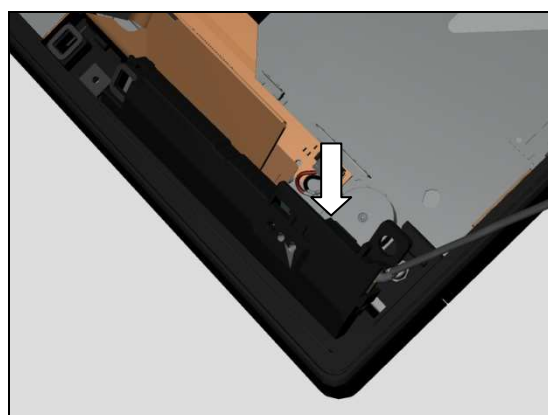
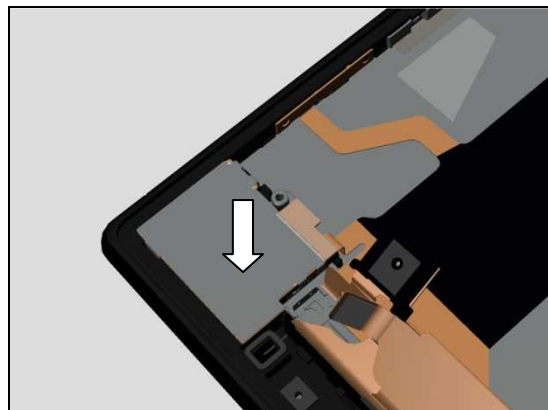
5.2 Antenna Main Assy

Insert the Antenna Main Assy as shown in the pictures.

Press to secure its attachment.

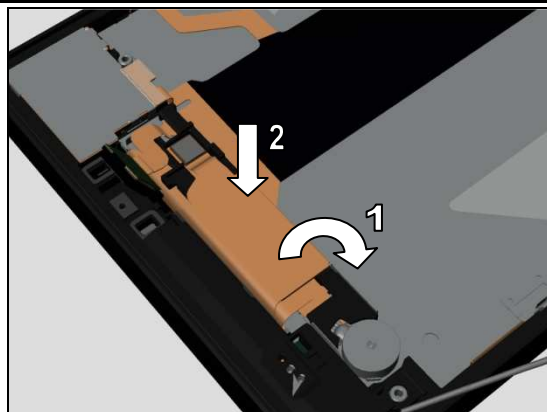
5.3 Carrier Holder LCD FPC (a) & Shield Can Lid Bottom(b) & Carrier holder Mic Upper Sub Assy (c)

Press with fingers to secure the Vibrator BtB connector.

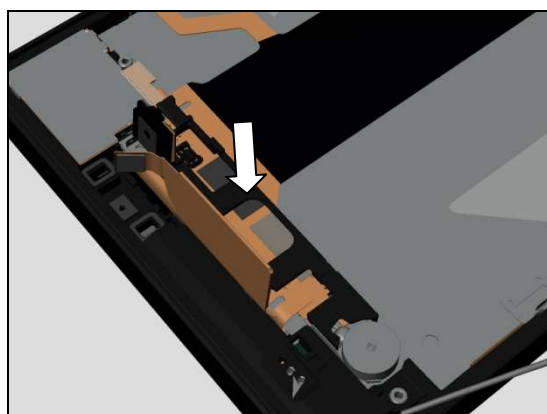


Reassembly

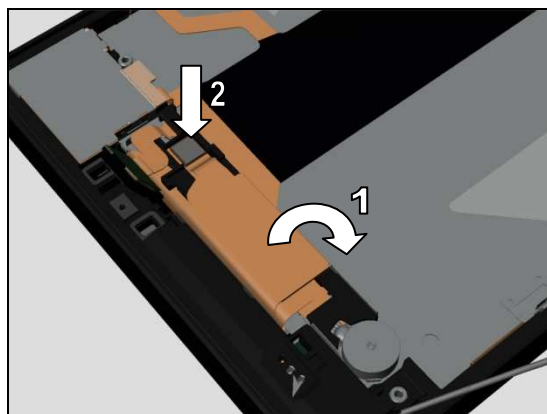
Rotate the LCD FPC and press with fingers to secure the LCD FPC BtB connector.



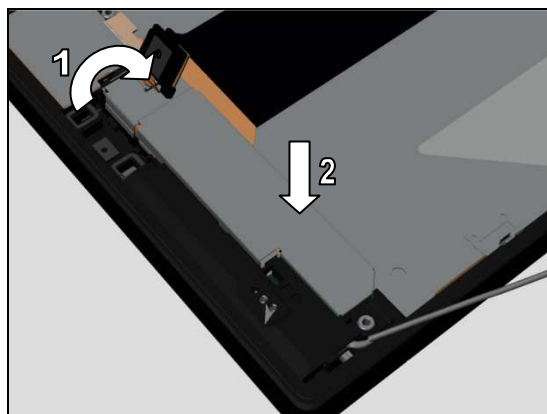
Place the Carrier Holder LCD FPC and press it as shown in the picture.



Rotate the Touch Panel FPC and press with fingers to secure the Touch Panel FPC BtB connector.



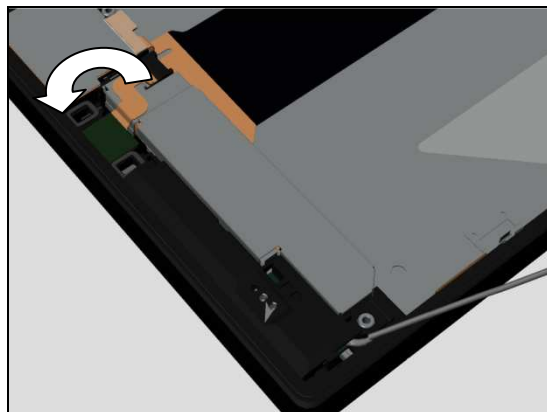
Rotate the Mic holder FPC and place the Carrier Holder LCD FPC as shown in the picture.



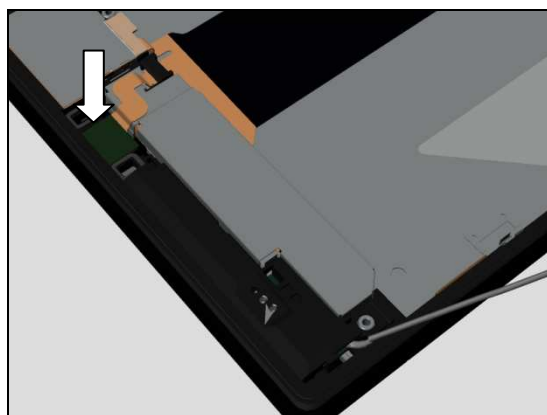
Reassembly

Rotate the Mic holder FPC as shown in the picture.

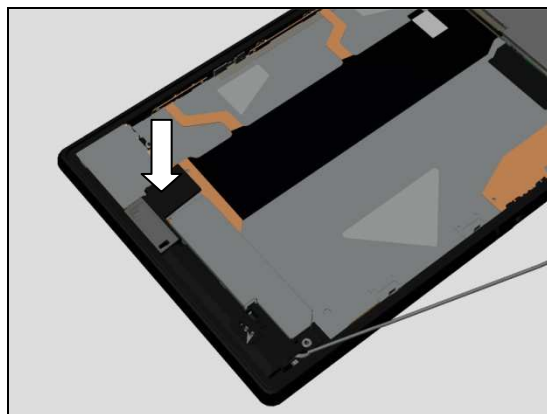
Follow the 4.4 removal and installation instruction to replace a new Adhesive Mic.



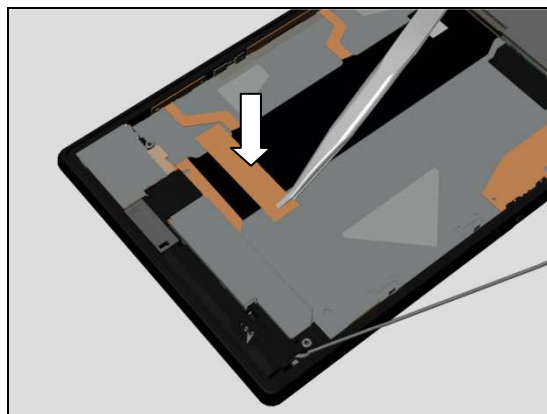
Press it and make sure it secured attached as shown in the picture.



Place the Carrier holder Mic Upper Sub Assy and press it as shown in the picture.



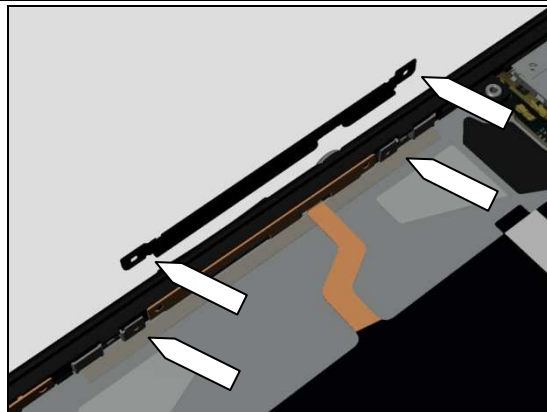
Place a new Sheet FPC Relay and press it as shown in the picture.



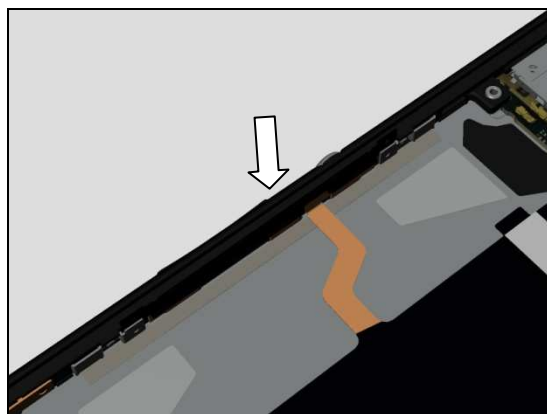
Reassembly

5.4 Plate Key Side(a) & Camera 2 MPixel CMOS(b)

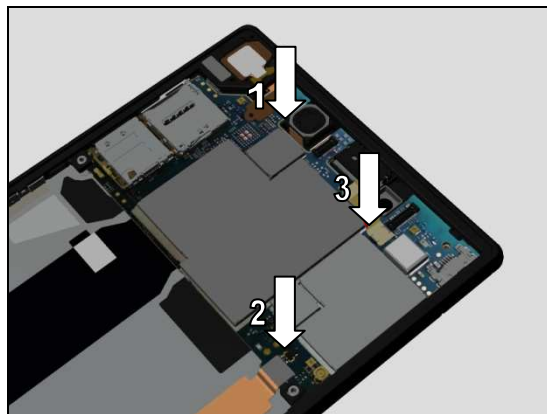
Place a new Plate Key Side by guiding holes as shown in the picture.



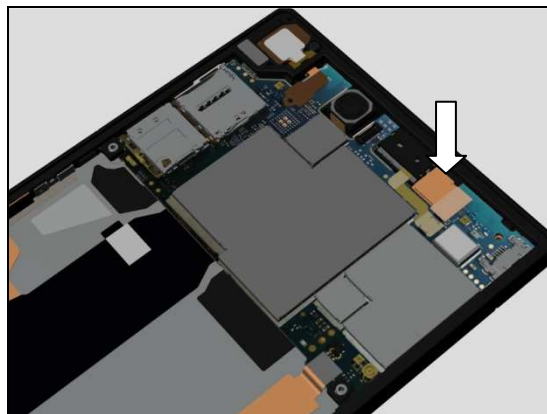
Press it and make sure it secured attached as shown in the picture.



Press with fingers to secure BtB connectors following the sequence.



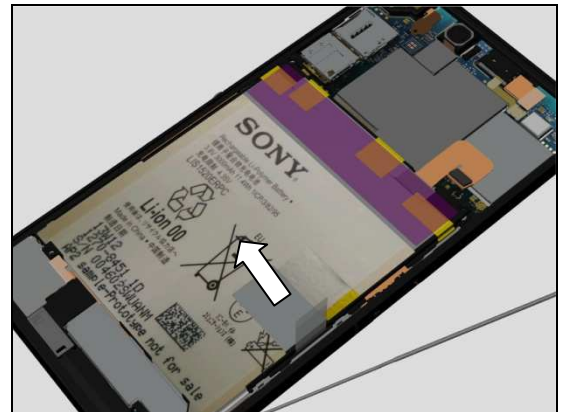
Place the Camera 2 MPixel CMOS to its cavities and press to close the BtB connector.



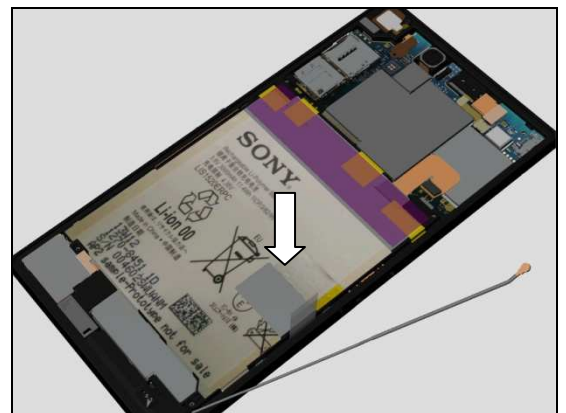
Reassembly

5.5 Battery 3000.0 mAh

Insert a new Battery 3000.0 mAh as shown in the picture.

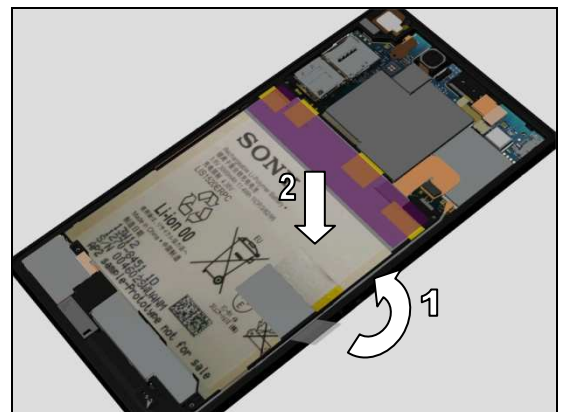


Press with fingers to secure Battery 3000.0 mAh as shown in the picture.

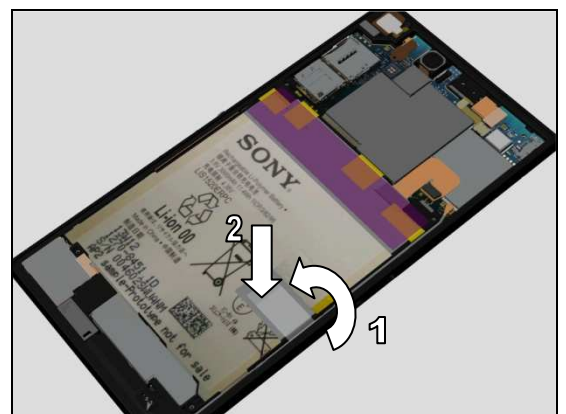


Skip this step for SGP412

Rotate the Cab Assy to its cavity as shown in the picture.



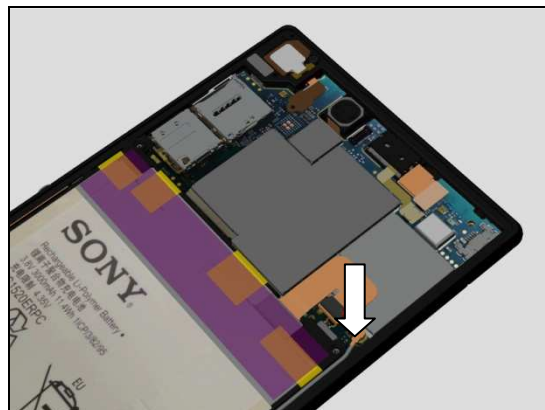
Rotate the sheet of battery and press to make it secured attached.



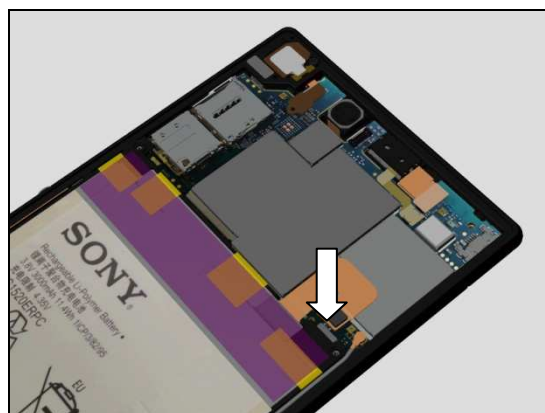
Reassembly

Skip this step for SGP412

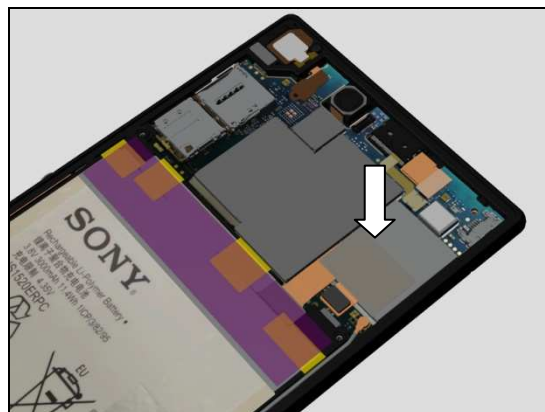
Press to snap the Cable Assy connector.



Press to snap the Battery 3000.0 mAh.

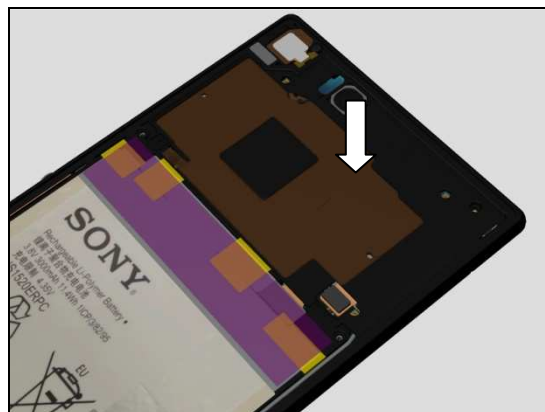


Attached a new Sheet FPC Battery as shown in the picture.



5.6 Antenna NFC Assy

Place the Antenna NFC Assy and press to make it properly snapped.

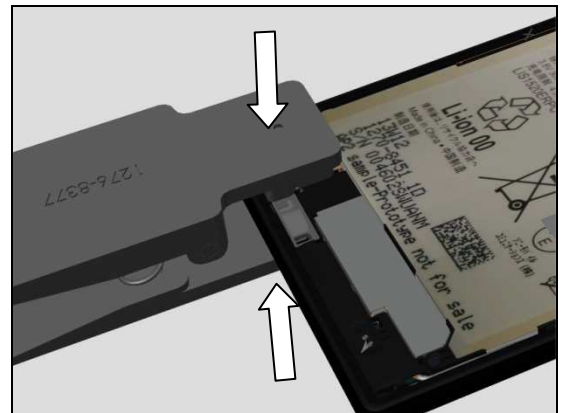


Reassembly

Apply 12 Ncm torque when tightening the Screw Other
Len:2.6 Diam:1.4 M with Bits (JCIS No 0).



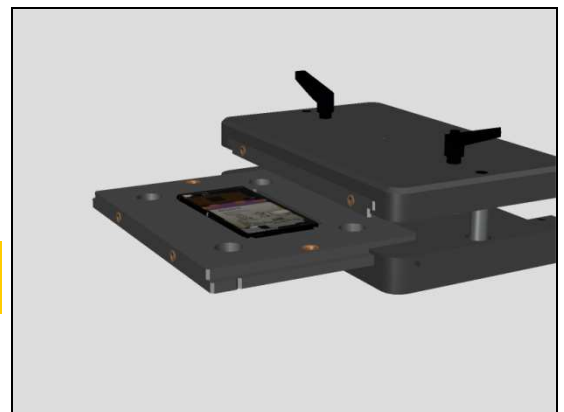
Press to secure its attachment by using Speaker metal plate
press pad with the force of 30N for ten seconds.



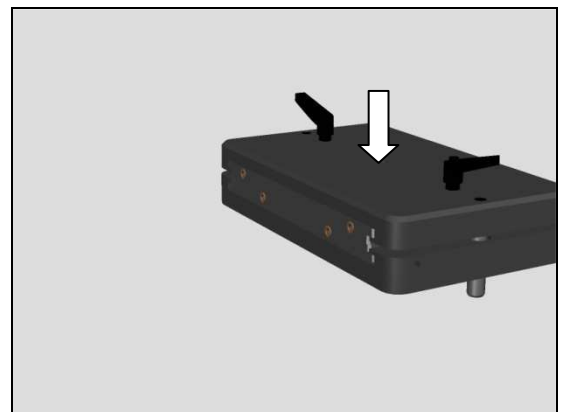
Place the phone front side down into the Bottom press inlay
and follow the instruction in 1003-9107 Tool Catalogue –
mechanical and document Toothed Rack Press Instruction
for use.

Upper inlay = Battery press top inlay

Lower inlay = Bottom press inlay



Press it with a pressure value of 130N (+/-15N) for five
seconds. (pressure value is adjust because of the weight of
the press fixture)



Reassembly

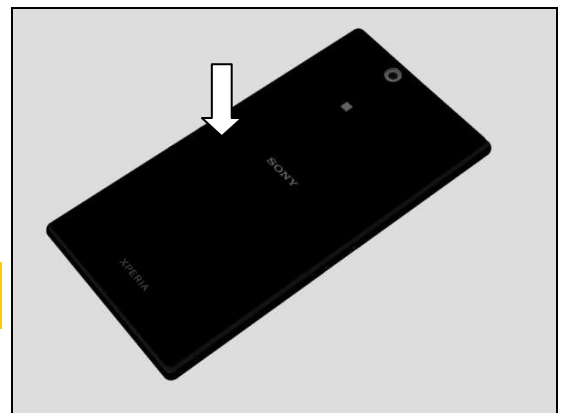
Open the fixture and remove the unit.



5.7 Back Panel Assy

Place the Ant Rear Cover Assy as shown in picture.

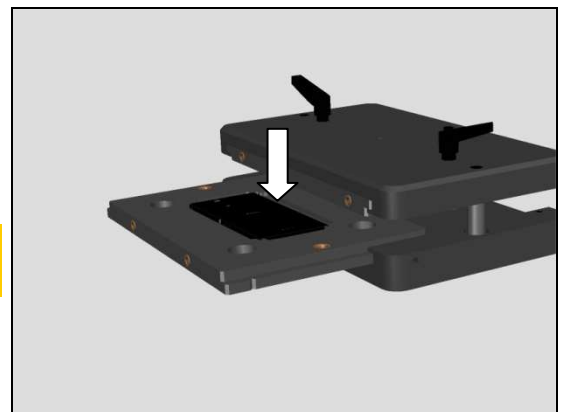
Follow the 4.49 removal and installation instruction to replace a new Adhesive WP Panel Rear.



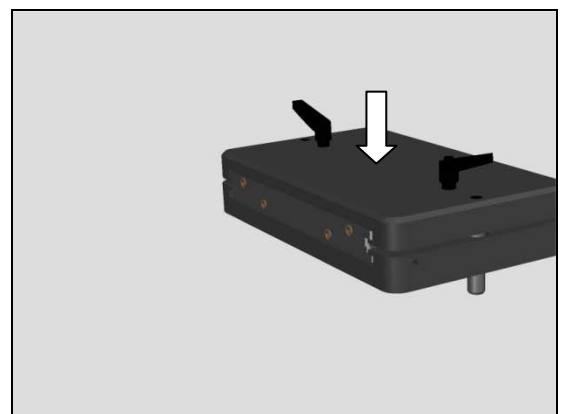
Place the phone front side down into the Bottom press inlay and follow the instruction in 1003-9107 Tool Catalogue – mechanical and document Toothed Rack Press Instruction for use.

Upper inlay = Back panel press top inlay

Lower inlay = Bottom press inlay

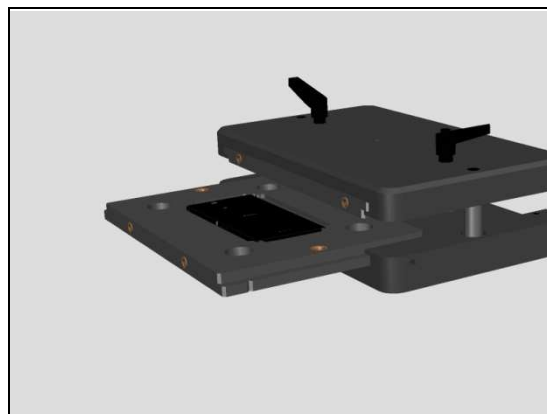


Press it with a pressure value of 590 N (+/- 60N) for ten seconds. (pressure value is adjust because of the weight of the press fixture).



Reassembly

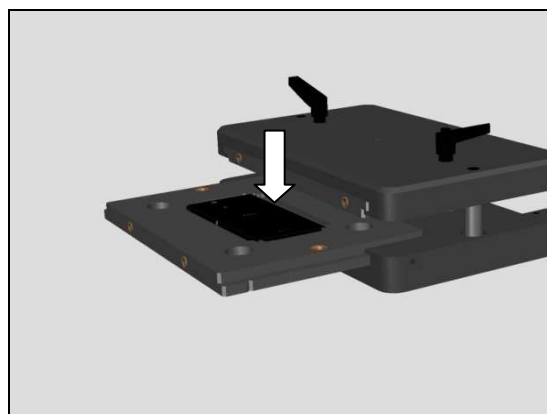
Open the fixture and remove the unit.



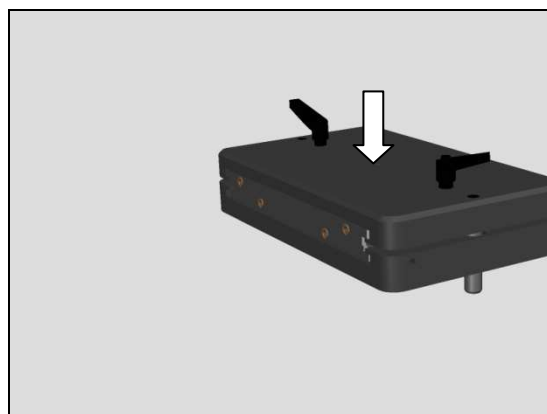
Place the phone front side down into the Bottom press inlay and follow the instruction in 1003-9107 Tool Catalogue – mechanical and document Toothed Rack Press Instruction for use.

Upper inlay = Back panel press top inlay corner

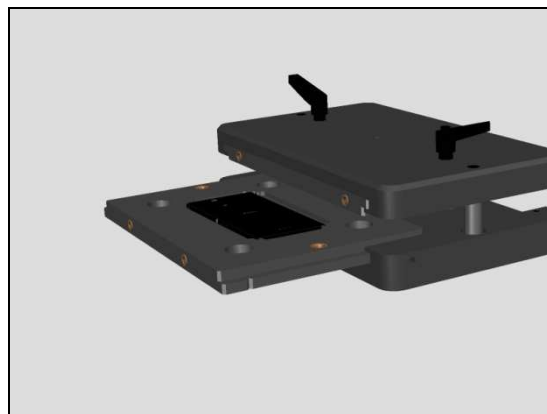
Lower inlay = Bottom press inlay



Press it with a pressure value of 130 N (+/- 15N) for ten seconds. (pressure value is adjusted because of the weight of the press fixture.)



Open the fixture and remove the unit.



Reassembly

5.8 SIM Tray (Skip for SGP412)

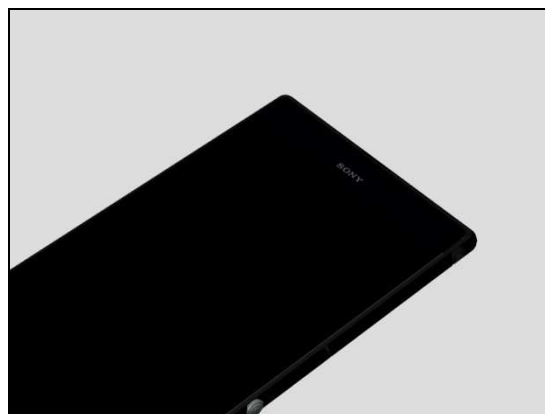
Open the Cap SD Sub Assy with fingers.



Insert the SIM Tray by using fingers.



Closed the Cap SD Sub Assy with fingers.



6 Revision History

Rev.	Date	Changes / Comments
1	2013-July-26	Initial release
2	2013-July-26	Pictures updated
3	2013-July-26	PBA tray added
4	2013-Aug-05	Update the footer
5	2013-Aug-08	Update the description: Press Tool Earspeaker
6	2013-Aug-29	Update the cover page
7	2013-Sep-03	Update the chapter 4.42, 4.43 and 4.44
8	2013-Sep-11	Update the cover page
9	2013-Oct-17	Update the cover page
10	2014-Jan-15	Add SGP412 information
11	2014-May-06	Update the chapter 4.43
12	2014-May-22	Update the chapter 4.50