



# Working Instructions

## - mechanical -

*Vivaz*



*U5i, U5a*



*U5at*



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



# 1 Exterior Views

## 1.1 Vivaz



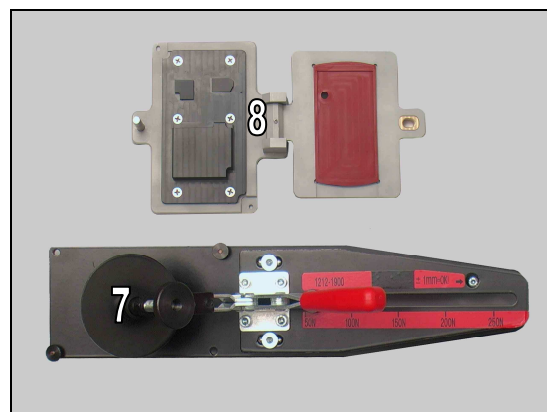
## 2 Tools

### SPECIAL TOOLS

1. Torque Screwdriver
2. Bits (T4)
3. Bits (JCIS No.0)
4. Front Opening Tool
5. Plectrum
6. Flex Film Assembly Tool



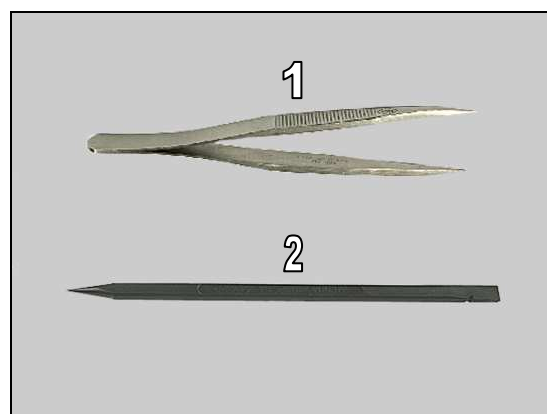
7. Pressure Tool
8. Touch Panel Pressure Insert



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

### STANDARD TOOLS

1. Tweezers
2. Nylon Pointer





## 3 Disassembly

The disassembly is done in the following order:

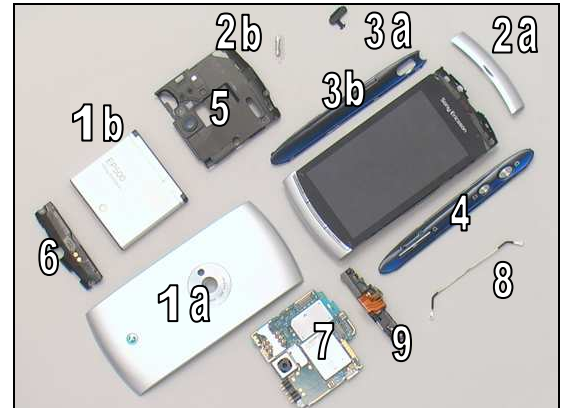
1. Cover Battery Sub Assembly (a) & Battery (b)
2. Cover Front Top (a) & Key On/Off (b)
3. Cap Micro USB (a) & Panel Side Left Sub Assembly (b)
4. Panel Side Right Sub Assembly incl Key Volume & Key Camera
5. Ant Non-cellular Assy
6. Main Antenna
7. PBA
8. RF Cable
9. Receiver FPC Assembly with Carrier Holder Receiver Flex

### 3.1 Cover Battery Sub Assembly & Battery

Unsnap the two hooks beside the bottom slot of the Cover Battery Sub Assembly with a front opening tool.

Pull upwards to unsnap other four hooks with fingers and remove it.

Lift the Battery bottom up from the slot with a front opening tool.





## Disassembly

Remove the Battery.



### 3.2 Cover Front Top & Key On/Off

Remove the three screws with a screwdriver with a T4 bit.



Remove the two screws at the upper right corner with a screwdriver with a JCIS No.0 bits.



Unsnap one of the two hooks fastening the Cover Front Top with a front opening tool.



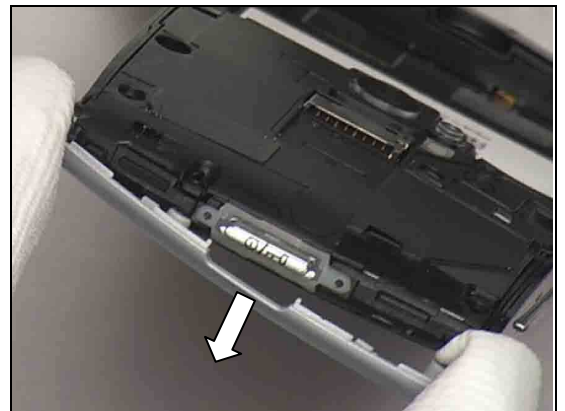


## Disassembly

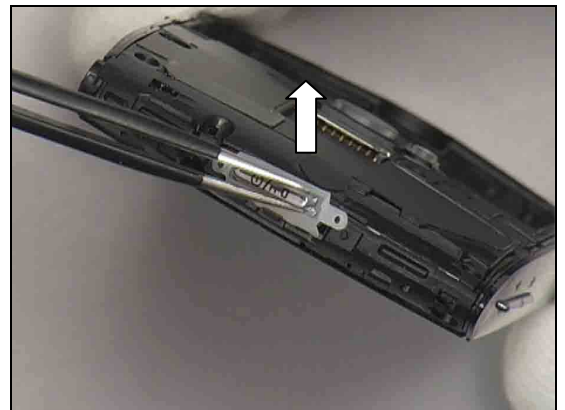
Unsnap the other hook.



Remove the Cover Front Top with fingers.



Remove the Key On/Off with a pair of tweezers.



### 3.3 Cap Micro USB & Panel Side Left Sub Assembly

Pull to remove the Cap Micro USB with fingers.



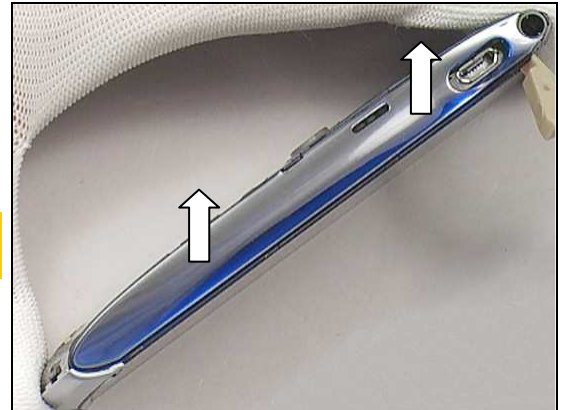




## Disassembly

Unsnap along the Panel Side Left Sub Assembly with a front opening tool.

***Don't destroy the hooks underneath the panel and damage the edge of Touch Panel!***



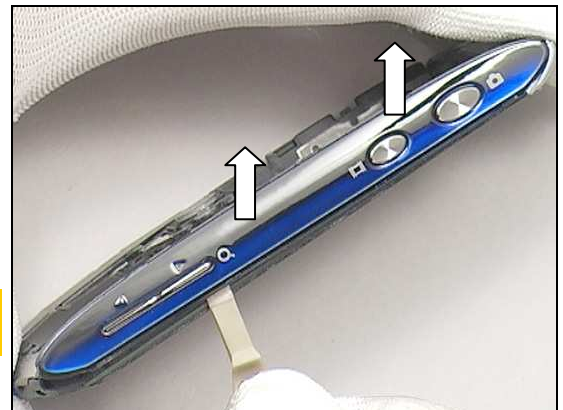
Rotate in the arrow direction to release it from the two hooks with fingers.



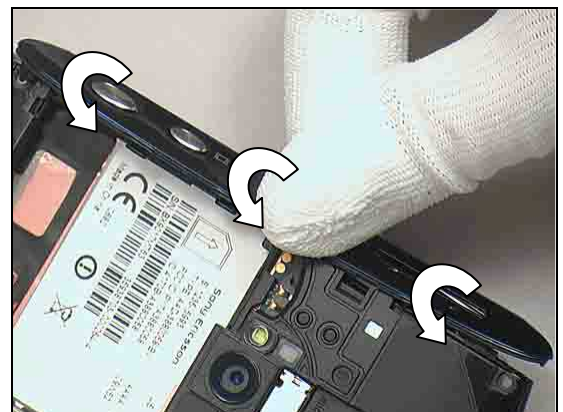
### 3.4 Panel Side Right Sub Assembly incl. Key Volume & Key Camera

Unsnap along the Panel Side Right Sub Assembly with a front opening tool.

***Don't destroy the hooks underneath the panel and damage the edge of Touch Panel!***



Rotate in the arrow direction to release it from the three hooks with fingers.

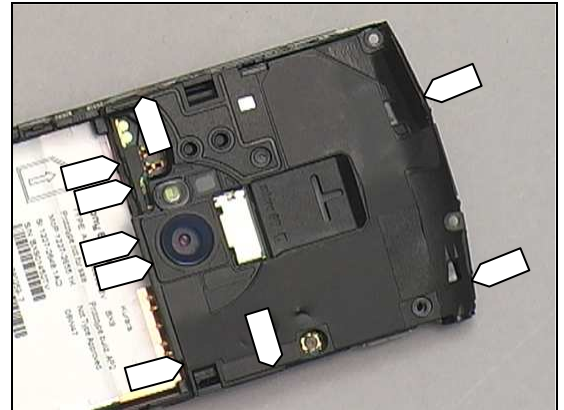




## Disassembly

### 3.5 Ant Non-cellular Assy

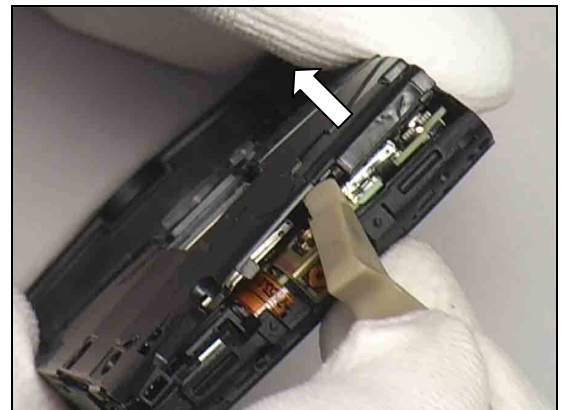
There are nine hooks located around as shown.



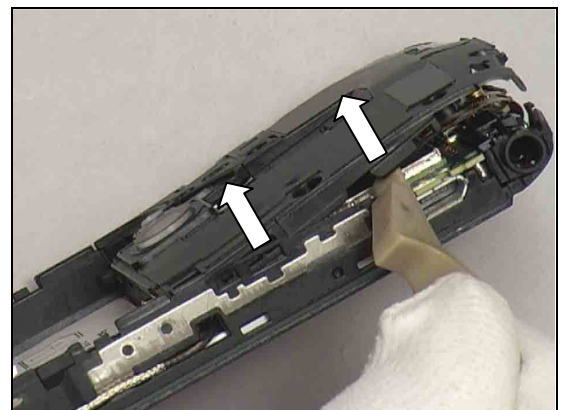
Unsnap one top hook with a front opening tool.



Unsnap the other top hook with a front opening tool.



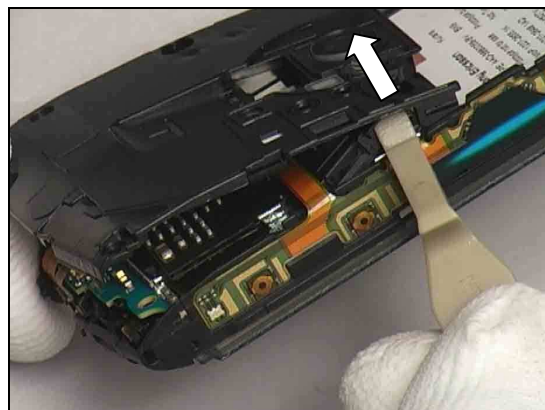
Unsnap the side hooks with a front opening tool as shown.



## Disassembly

Unsnap the other side hooks.

**Don't damage the Ant Non-cellular Assy.**



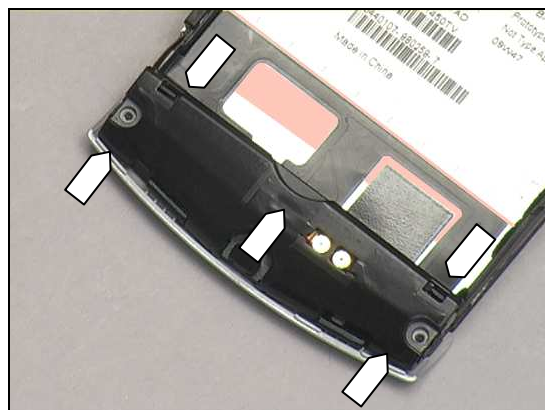
Release the five bottom hooks and remove it by hands.



### 3.6 Main Antenna

There are five hooks located underneath the Main Antenna as shown by the arrows.

**One of the hooks is underneath the middle of the Main Antenna.**



Unsnap one long hook with a flex film assembly tool.

**Don't damage the long hooks.**







## Disassembly

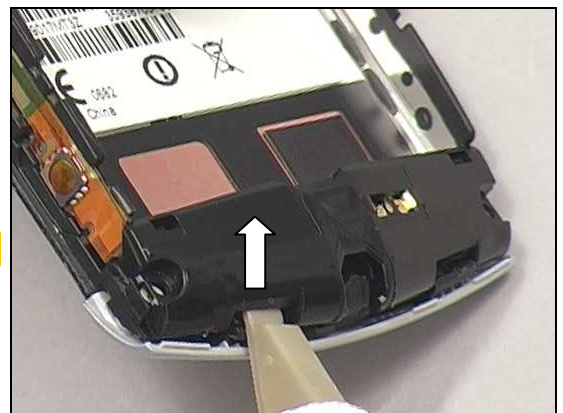
Unsnap the other long hooks.

**Don't damage the long hooks.**



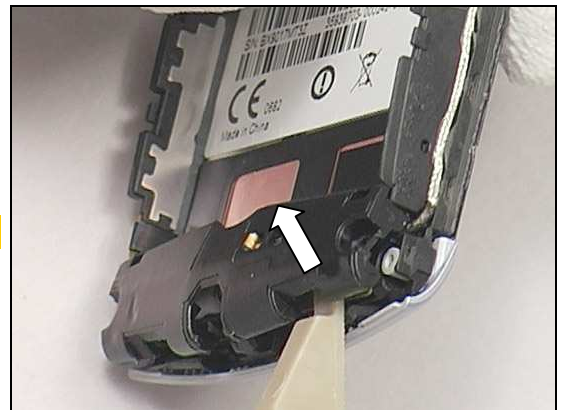
Unsnap the left bottom side to loosen the Main Antenna with a front opening tool as shown.

**Don't damage the parts on the Key FPC Assembly.**



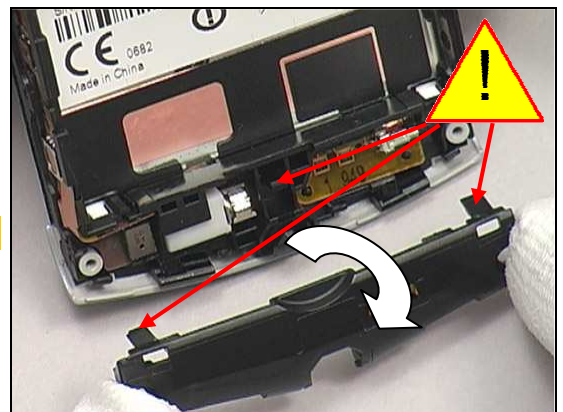
Unsnap the right bottom side to loosen the Main Antenna.

**Don't damage the parts on the Antenna FPC Assembly.**



Turn it in the arrow direction and remove it with fingers.

**Don't deform the three long hooks in this operation!**

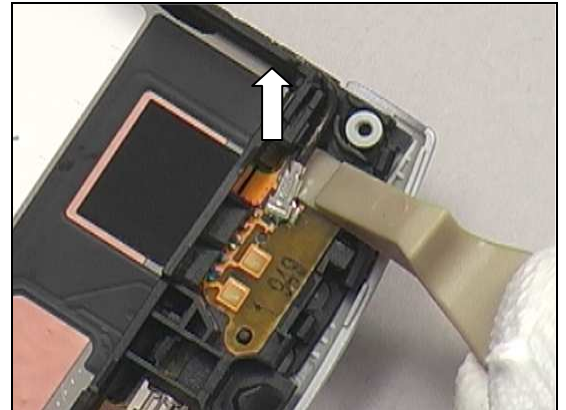




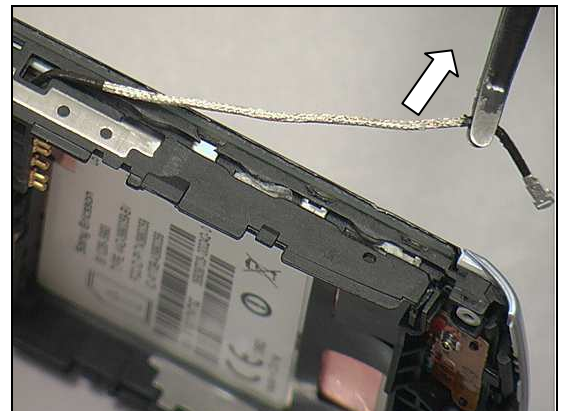
## Disassembly

### 3.7 PBA

Disconnect the RF Cable with a front opening tool.

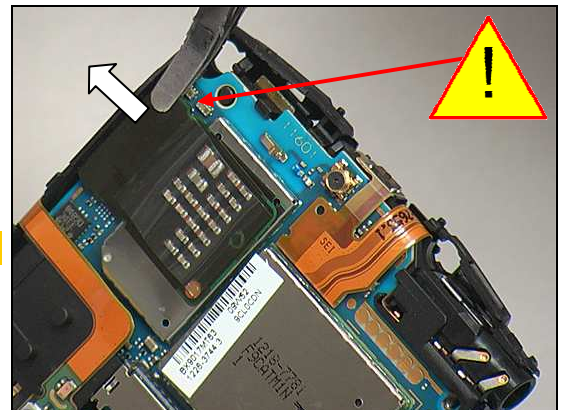


Release the RF cable from its groove with a flex film assembly tool as shown.



Insert a flex film assembly tool underneath the Display flex as shown to loosen the connector gently.

**Don't damage the parts on the PBA!**



Disconnect the Display flex BtB connector.

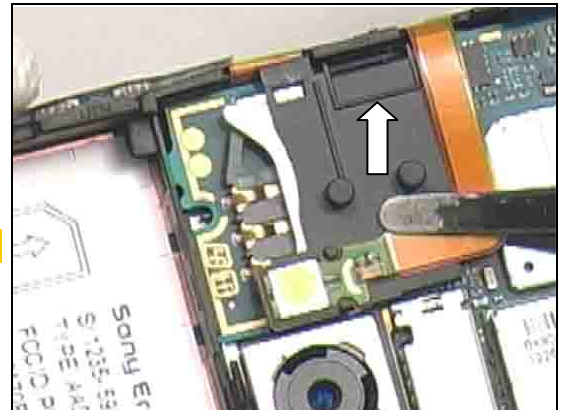




## Disassembly

Lift upwards the Carrier Holder P-light with the P-light part of Key FPC Assembly from the PBA.

**Don't damage the parts on the PBA!**

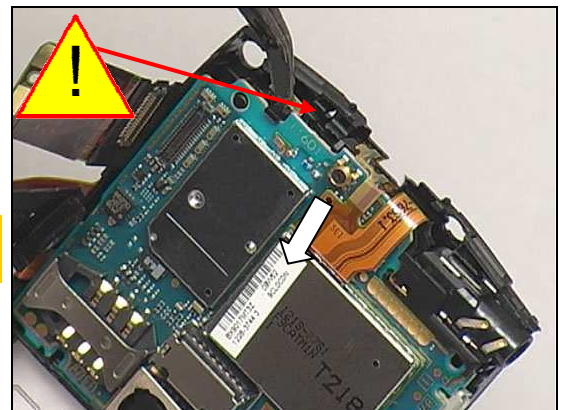


Release it.



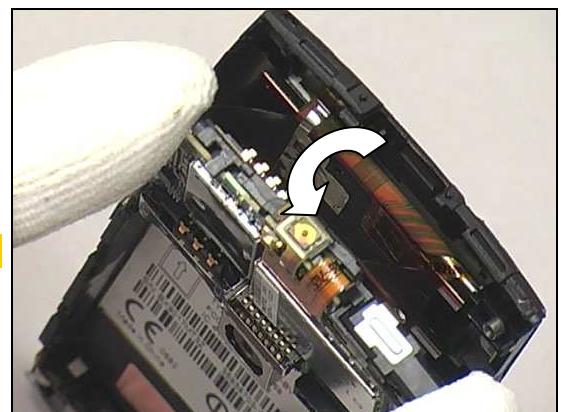
Unsnap the hook fastening Carrier Holder Receiver Flex with a flex film assembly tool.

**Make sure the right hook is unsnapped as shown by the arrow.**



Lift up the PBA to a certain angle for the access to the Key FPC assembly BtB connector underneath.

**Don't destroy the RF cable connected to the PBA.**

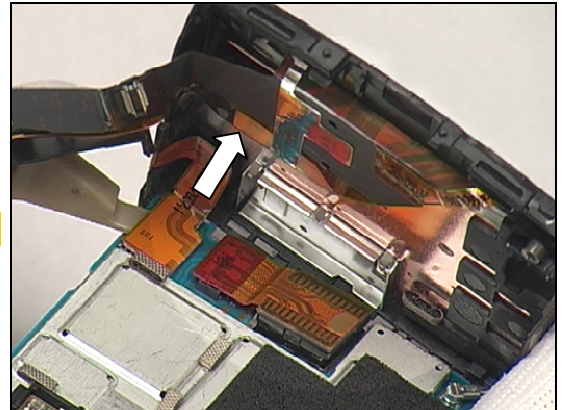




## Disassembly

Disconnect the BtB connector with a front opening tool.

**Don't damage the parts on the PBA!**

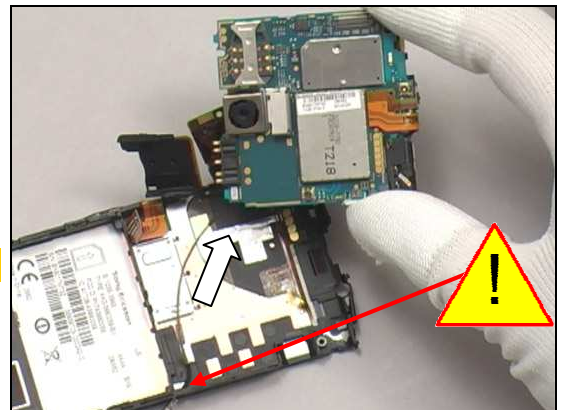


Release the PBA from two bottom hooks as shown by the arrows.



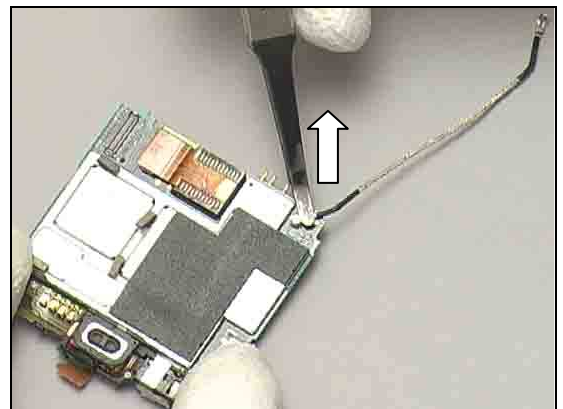
Tread the RF cable through the hole as shown by the arrow and remove the PBA together with RF cable and the Receiver FPC Assembly & the Carrier Holder Receiver Flex.

**Don't destroy the RF cable in this operation.**



### 3.8 RF Cable

Disconnect the RF cable from the PBA with a flex film assembly tool.





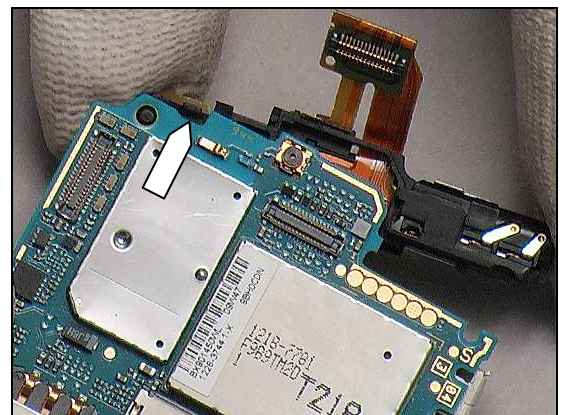
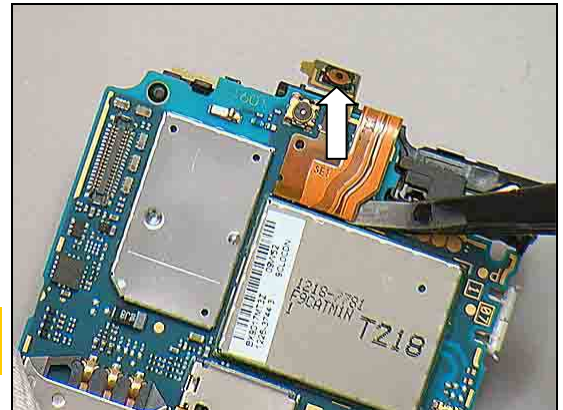
## Disassembly

### 3.9 Receiver FPC Assembly with Carrier Holder Receiver Flex

Disconnect Receiver FPC Assembly BtB connector with a flex film assembly tool gently as shown.

***Don't destroy the connector and parts on PBA in this operation.***

Unsnap the hook as shown and remove the Receiver FPC Assembly together with the Carrier Holder Receiver Flex by fingers.





## 4 Replacement

### 4.1 Cover Battery Sub Assembly

*Follow the 3.1 Disassembly Instructions!*

Prepare a new Cover Battery Sub Assembly.

*Follow the 5.9 Reassembly Instructions!*



### 4.2 Cover Front Top

*Follow the 3.1 – 3.2 Disassembly Instructions!*

Prepare a new Cover Front Top.

*Follow the 5.8 – 5.9 Reassembly Instructions!*



### 4.3 Key On/Off

*Follow the 3.1 – 3.2 Disassembly Instructions!*

Prepare a new Key On/Off.

*Follow the 5.8 – 5.9 Reassembly Instructions!*

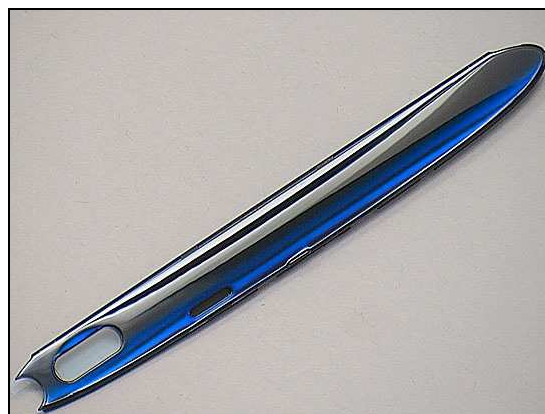


### 4.4 Panel Side Left Sub Assembly

*Follow the 3.1 – 3.3 Disassembly Instructions!*

Prepare a new Panel Side Left Sub Assembly.

*Follow the 5.6 & 5.8 – 5.9 Reassembly Instructions!*







## Replacement

### 4.5 Panel Side Right Sub Assembly

*Follow the 3.1 – 3.2 & 3.4 Disassembly Instructions!*

*Follow the 4.21 & 4.26 Removal Instructions!*

Prepare a new Panel Side Right Sub Assembly.

*Follow the 4.21 & 4.26 Installation Instructions!*

*Follow the 5.7 – 5.9 Reassembly Instructions!*



### 4.6 Main Antenna

*Follow the 3.1 – 3.4 & 3.6 Disassembly Instructions!*

Prepare a new Main Antenna.

*Follow the 5.4 & 5.6 – 5.9 Reassembly Instructions!*



### 4.7 Main Frame

*Follow the 3.1 – 3.7 Disassembly Instructions!*

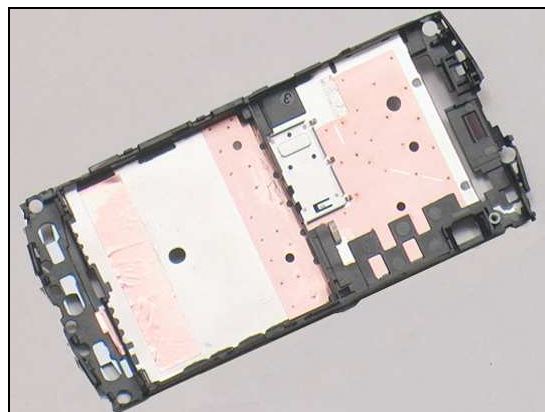
*Follow the 4.34, 4.18, 4.19, 4.14, 4.28, and 4.23 Removal Instructions!*

Prepare a new Main Frame.

*Follow the 4.23, 4.28, 4.19, 4.18 and 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Install new Touch Panel and new Key FPC Assembly!**



### 4.8 Carrier Holder Receiver Flex

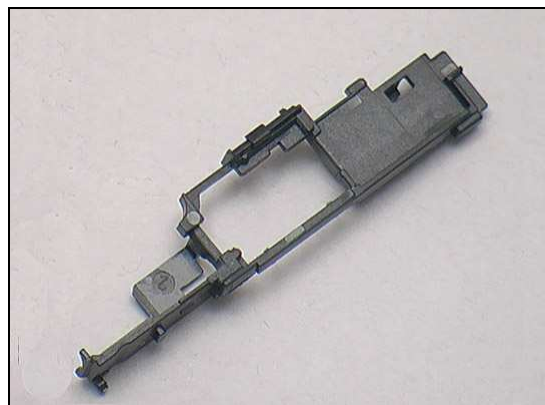
*Follow the 3.1 – 3.7 & 3.9 Disassembly Instructions!*

*Follow the 4.13, 4.17 and 4.31 Removal Instructions!*

Prepare a new Carrier Holder Receiver Flex.

*Follow 4.31, 4.17 and 4.13 Installation Instructions!*

*Follow the 5.1 & 5.3 – 5.9 Reassembly Instructions!*



## Replacement

### 4.9 RF Cable

*Follow the 3.1 – 3.8 Disassembly Instructions!*

Prepare a new RF Cable.

*Follow the 5.2 – 5.9 Reassembly Instructions!*



## Replacement

### 4.10 Ant Non-cellular Assy and Protection Foil

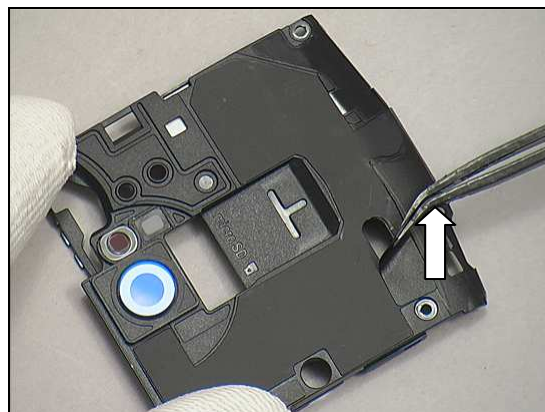
*Follow the 3.1 – 3.5 Disassembly Instructions!*

Prepare a new Ant Non-cellular Assy.

*Follow the 5.5 – 5.9 Reassembly Instructions!*

#### REMOVAL

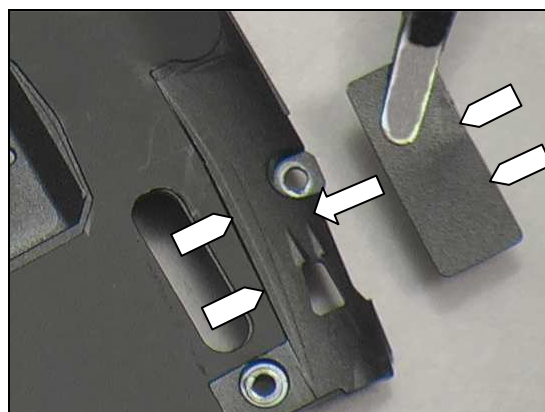
Peel off the Protection Foil with a flex film assembly tool.



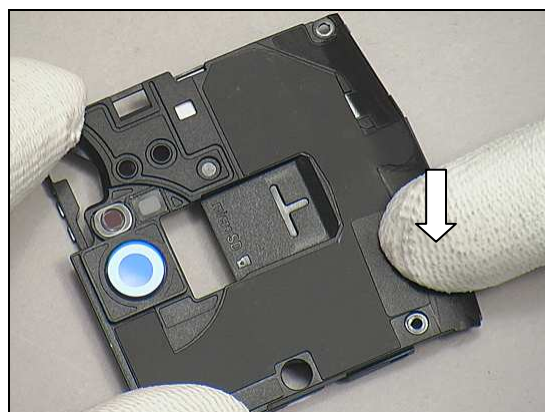
#### INSTALLATION

Install the Protection Foil onto the new Ant Non-cellular Assy in the alignment of the border line as shown.

**Check the adhesive of the Protection Foil before the installation. Change a new foil in case of the adhesive missing or failure.**



Press to secure the attachment with finger.





## Replacement

### 4.11 Camera

*Follow the 3.1 – 3.7 Disassembly Instructions!*

Prepare a new Camera.

*Follow the 5.3 – 5.9 Reassembly Instructions!*

#### REMOVAL

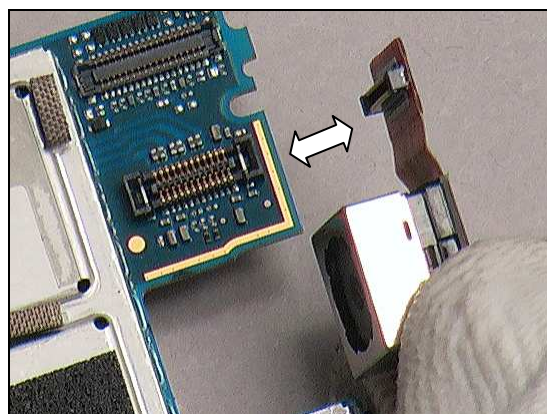
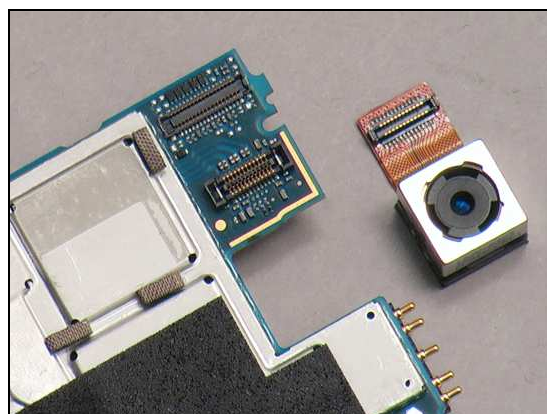
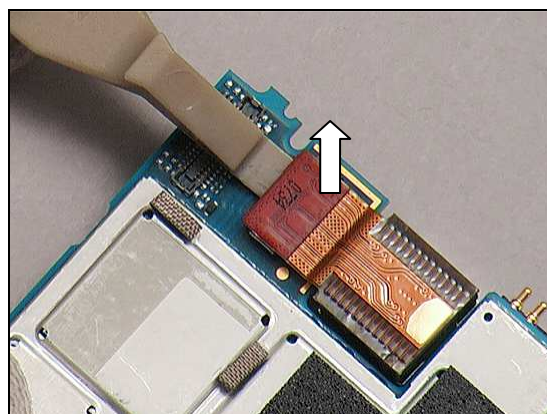
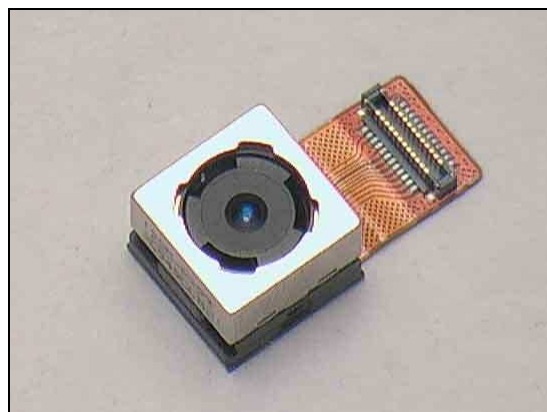
Disconnect the Camera BtB connector with a front opening tool.

**Don't damage the parts on the PBA!**

Remove the Camera.

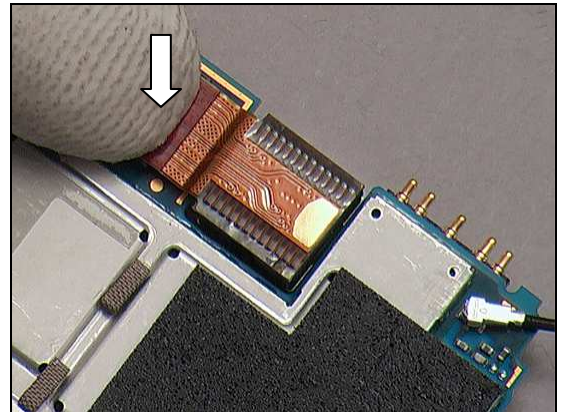
#### INSTALLATION

Connect a new Camera to the PBA.



## Replacement: Camera

Press on the BtB connector to secure solid connection.



## Replacement

### 4.12 Cap Micro USB

Prepare a new Cap Micro USB.

#### REMOVAL

Open the Cap Micro USB with a front opening tool.

Pull it outwards by fingers.

#### INSALLATION

Install a new one in the slot as shown.



## Replacement: Cap Micro USB

Press to snap it with a finger.





## Replacement

### 4.13 Carrier Holder Audio Jack

*Follow the 3.1 – 3.7 & 3.9 Disassembly Instructions!*

Prepare the new Carrier Holder Audio Jack.

*Follow the 5.1 & 5.3 – 5.9 Reassembly Instructions!*

#### REMOVAL

Unsnap the hook fastening the Carrier Holder Audio Jack to the Carrier Holder Receiver Flex with a front opening tool.

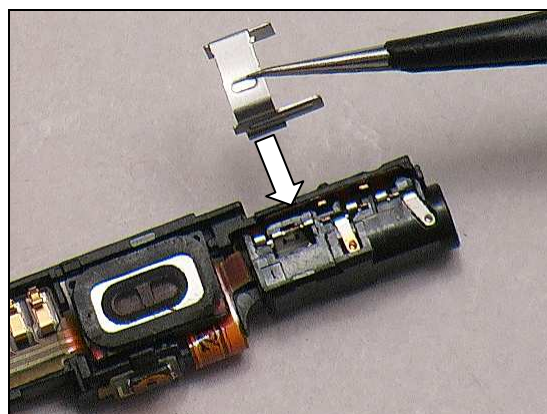
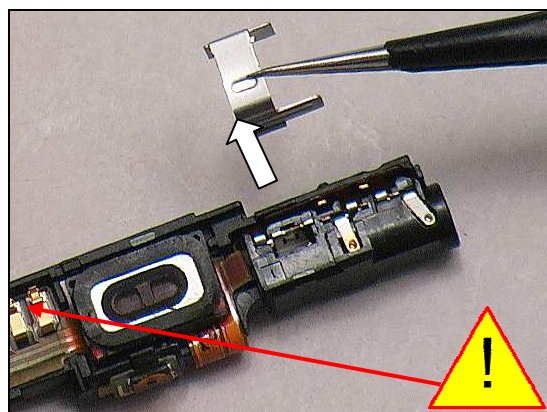
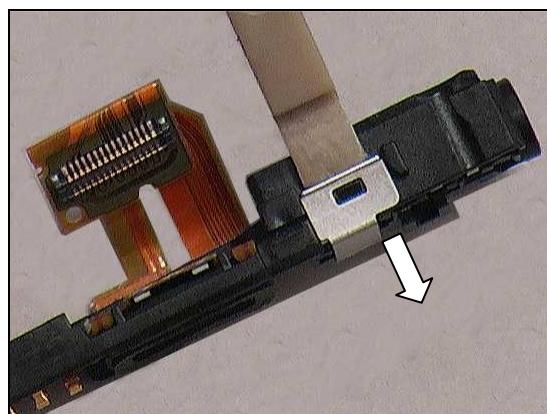
Remove it with a pair of tweezers.

**Don't touch the pins of the Touch Panel!**

#### INSTALLATION

Attach a new Carrier Holder Audio Jack.

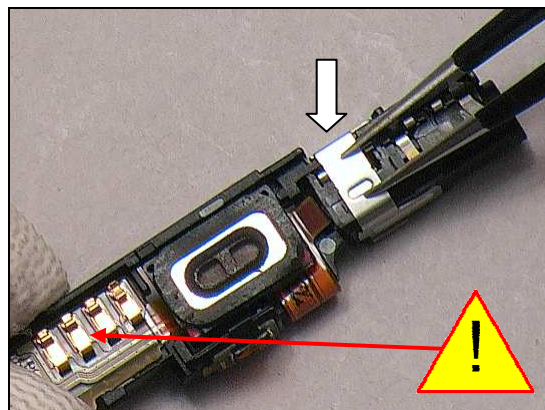
**Make sure the right direction of the Audio Jack Connector and the Carrier Holder Audio Jack.**



## Replacement: Carrier Holder Audio Jack

Press to snap the Carrier Holder Audio Jack.

**Don't touch the pins of the Touch Panel!**





## Replacement

### 4.14 Carrier Holder Key Flex

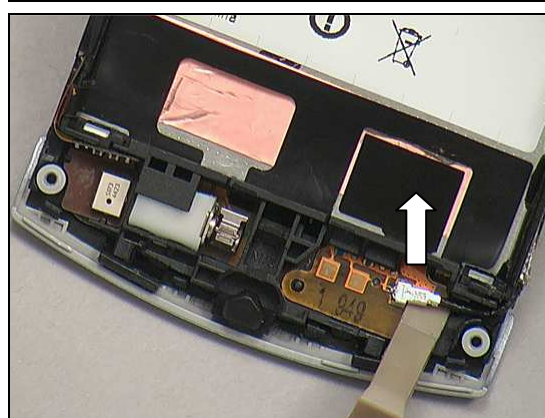
*Follow the 3.1 – 3.4 & 3.6 Disassembly Instructions!*

Prepare a new Carrier Holder Key Flex.

*Follow the 5.4 & 5.6 – 5.9 Reassembly Instructions!*

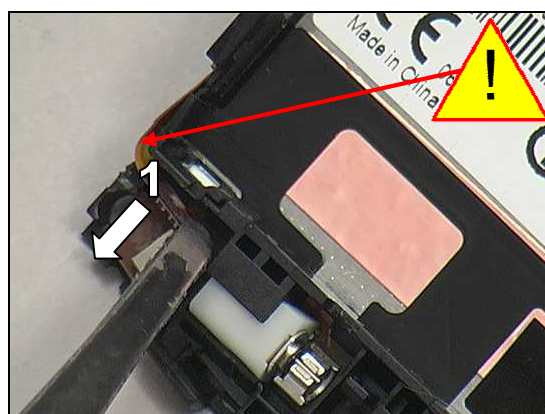
#### REMOVAL

Disconnect the RF cable from the Antenna FPC Assembly with a front opening tool.

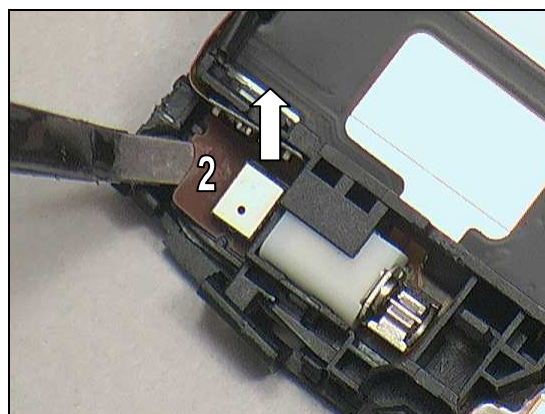


Detach the flex part (1) of the Key FPC assembly with a flex film assembly tool.

**Don't break the flex shown by the arrow!**

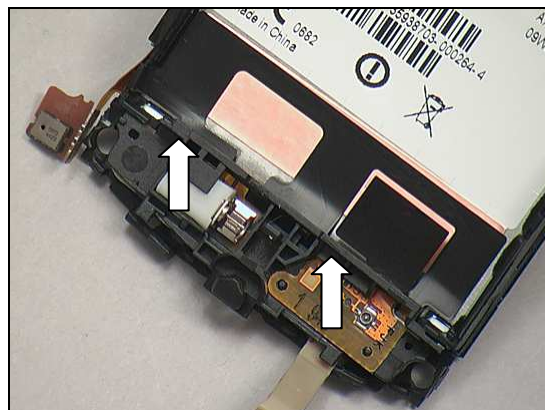


Detach the flex part (2) of the Key FPC assembly with a flex film assembly tool.



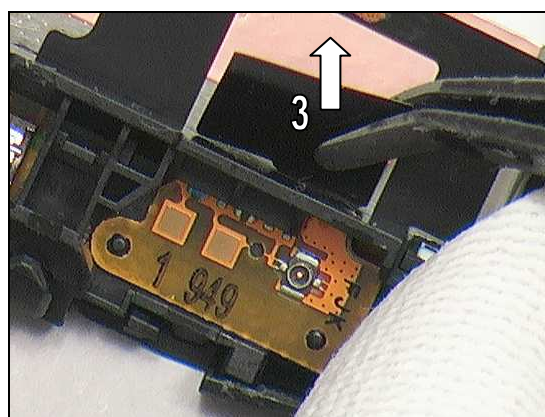
## Replacement: Carrier Holder Key Flex

Insert the front opening tool into the gap between the Carrier Holder Key Flex and the Main Frame to unsnap the two hooks fastening the Carrier Holder Key Flex as shown.



Detach the black foil (3) of the Main Antenna Assembly by a flex film assembly tool.

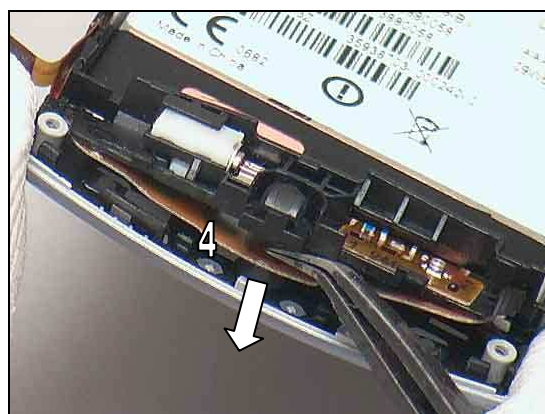
**Don't destroy the copper tape underneath!**



Turn over the Carrier Holder Key Flex.

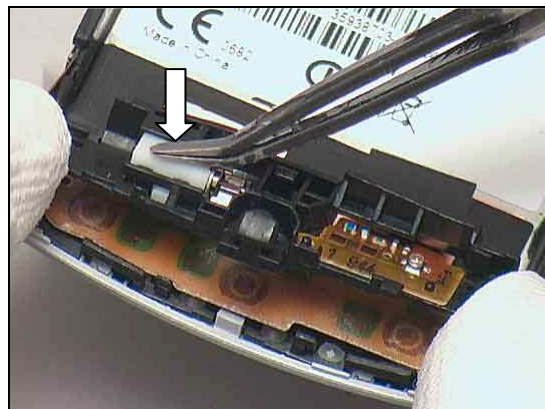


Detach the key dome flex (4) of the Key FPC Assembly with a flex film assembly tool.

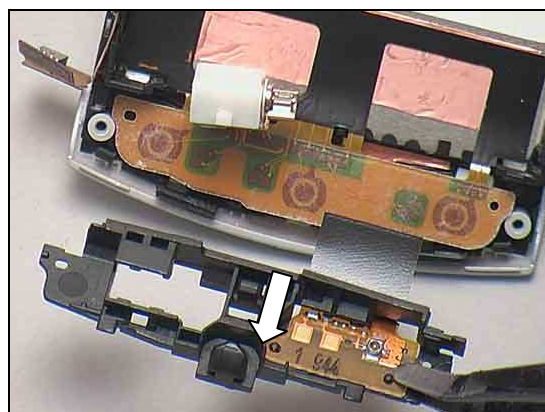


## Replacement: Carrier Holder Key Flex

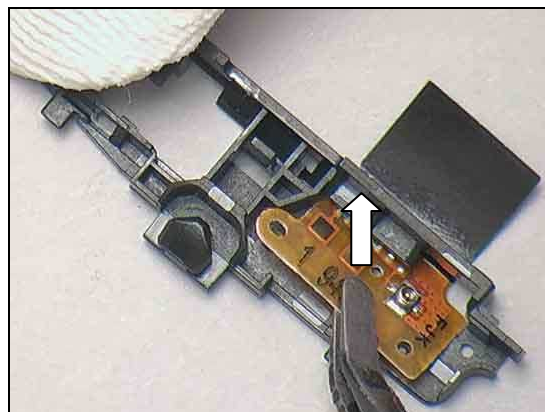
Press to remove the vibrator from its cavity with a flex film assembly tool.



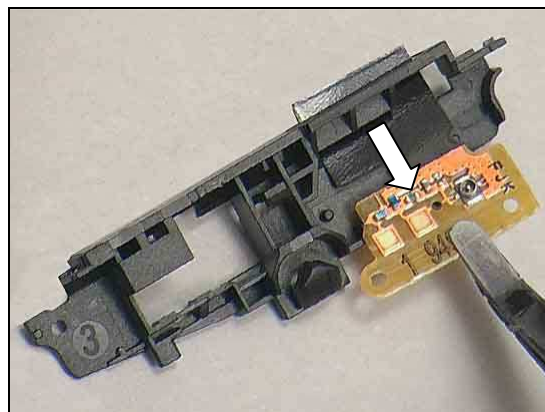
Detach the Carrier Holder Key Flex with the Antenna FPC Assembly.



Detach the Antenna FPC Assembly.



Remove the Antenna FPC Assembly.





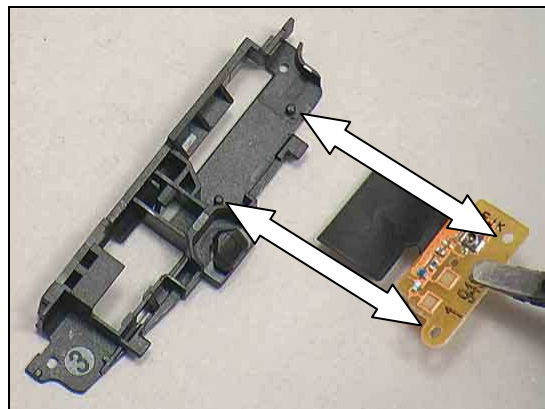


## Replacement: Carrier Holder Key Flex

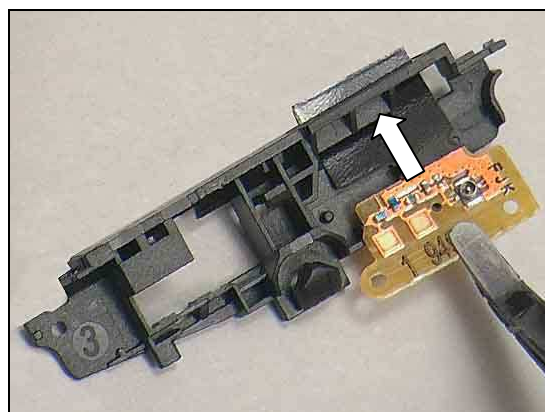
### INSTALLATION

Align a new Antenna FPC Assembly with the two guiding holes to a new Carrier Holder Key Flex bolts as shown.

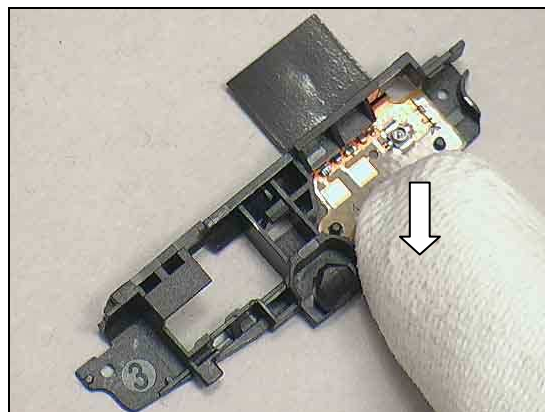
***Install a new Antenna FPC Assembly!***



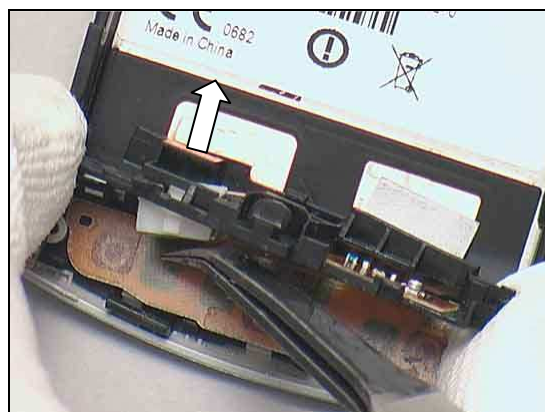
Attach the Antenna FPC Assembly with a flex film assembly tool.



Press to secure the attachment with a finger.



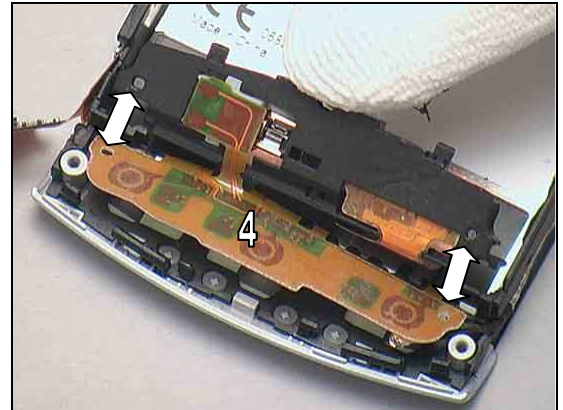
Put the vibrator in its cavity with a flex film assembly tool.





## Replacement: Carrier Holder Key Flex

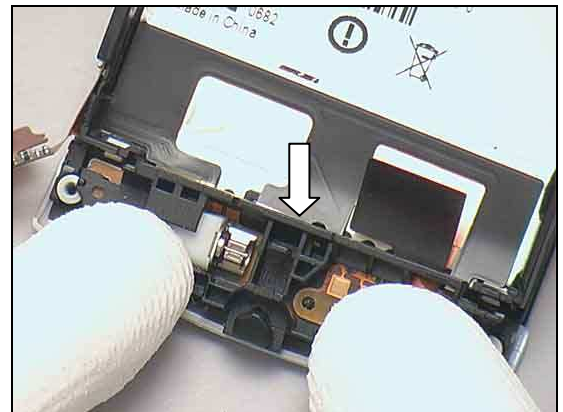
Attach the key dome flex (4) to the Carrier Holder Key Flex in the alignment of the guiding holes as shown.



Press to secure the attachment with fingers.

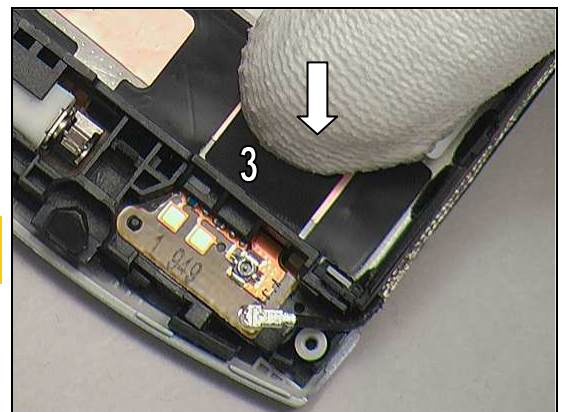


Position the Carrier Holder Key Flex and press to snap the two hooks with fingers.



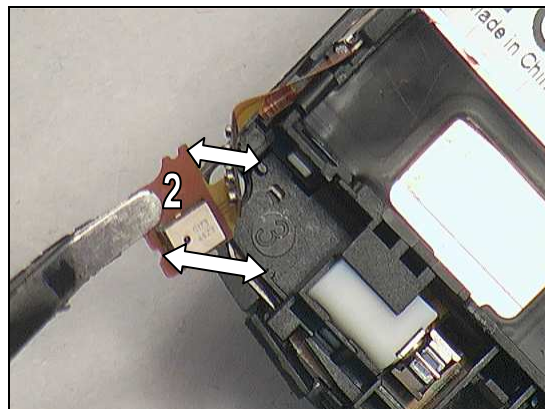
Press to attach the black foil (3) of the Main Antenna Assembly with a finger.

**Make sure to secure solid attachment onto the copper tape!**

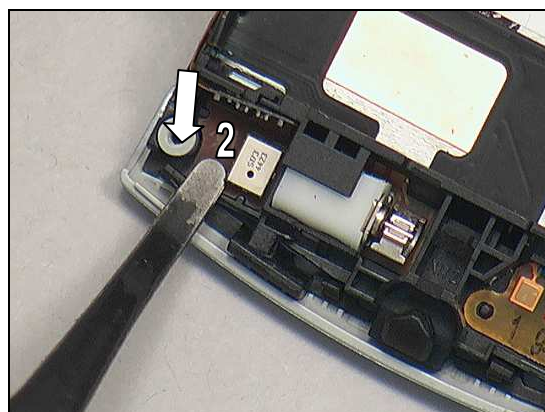


## Replacement: Carrier Holder Key Flex

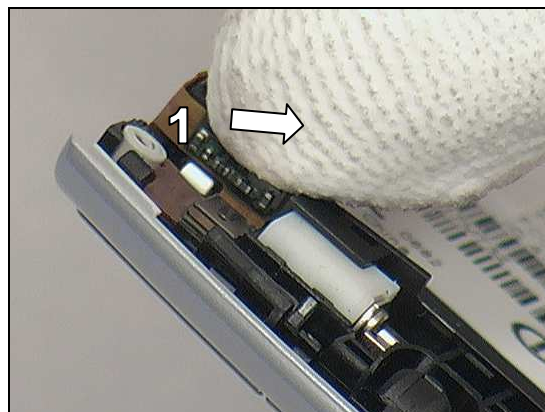
Position the flex part (2) of the Key FPC assembly with a flex film assembly tool in the alignment of the two guiding holes as shown.



Attach the flex part (2) of the Key FPC assembly in place with a flex film assembly tool to secure attachment.



Attach the flex part (1) of the Key FPC assembly in place with a finger.





## Replacement

### 4.15 Carrier Holder P-light

*Follow the 3.1 – 3.5 Disassembly Instructions!*

Prepare a new Carrier Holder P-light.

*Follow the 5.5 – 5.9 Reassembly Instructions!*

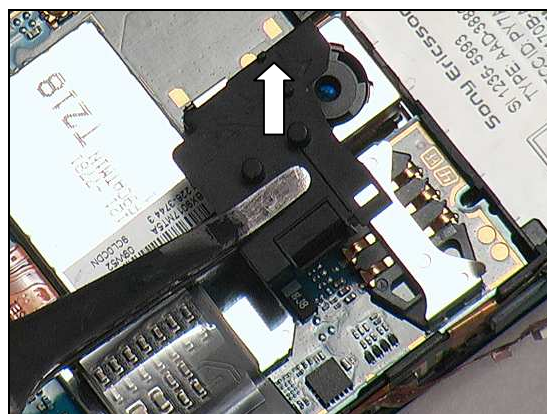
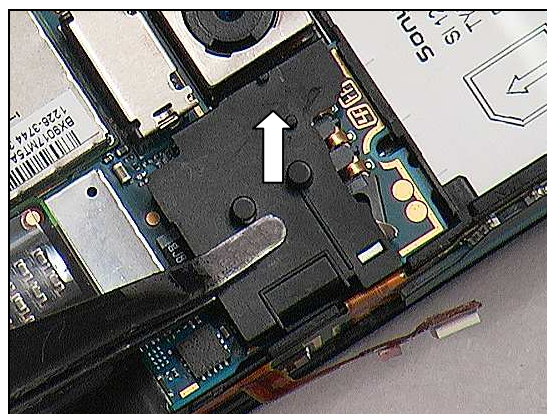
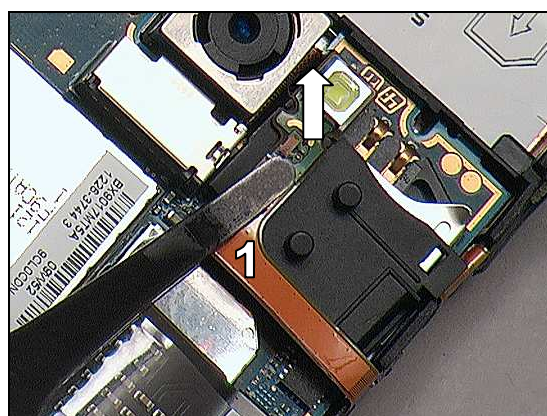
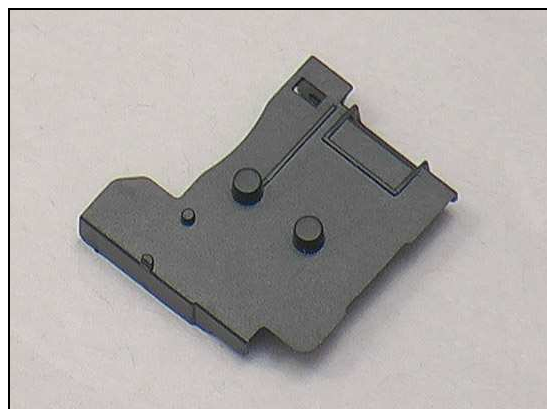
#### REMOVAL

Detach the P-light part (1) of the Key Flex Assembly with a flex film assembly tool.

Unsnap the Carrier Holder P-light by a flex film assembly tool.

**Don't damage the parts on PBA!**

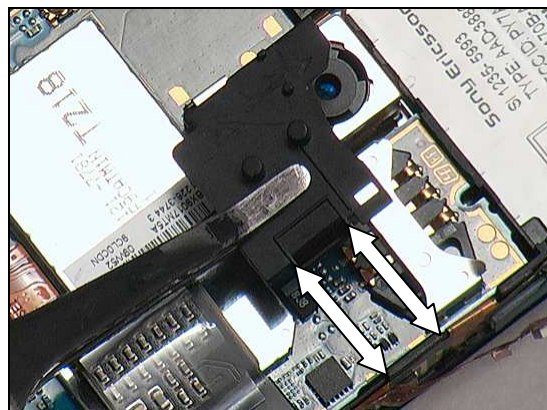
Remove it.



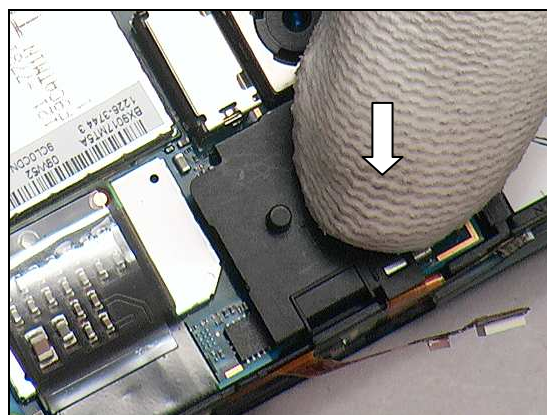
## Replacement: Carrier Holder P-light

### INSTALLATION

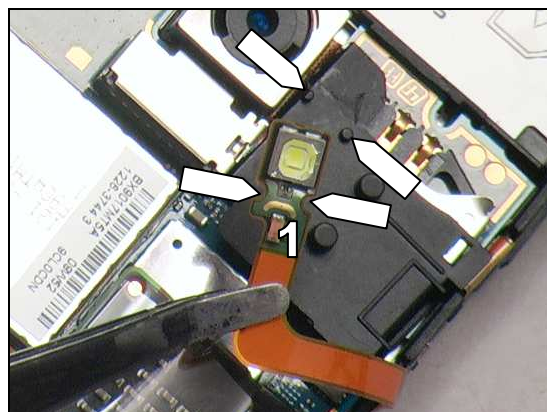
Attach a new Carrier Holder P-light in alignment with the two guiding lines as shown.



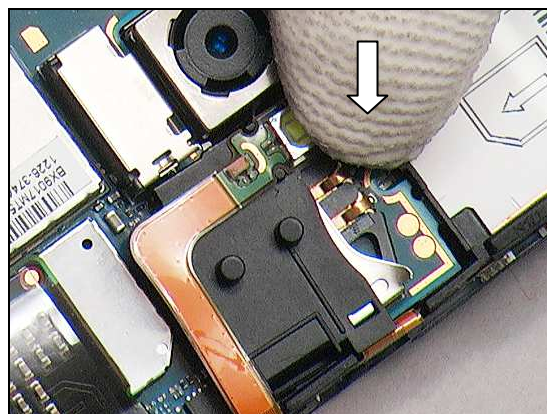
Press to snap it with a finger.



Attach the P-light part (1) of the Key FPC assembly onto the Carrier Holder P-light in alignment with the two guiding bolts as shown.



Press it to make sure its attachment.





## Replacement

### 4.16 Carrier Holder Vibrator

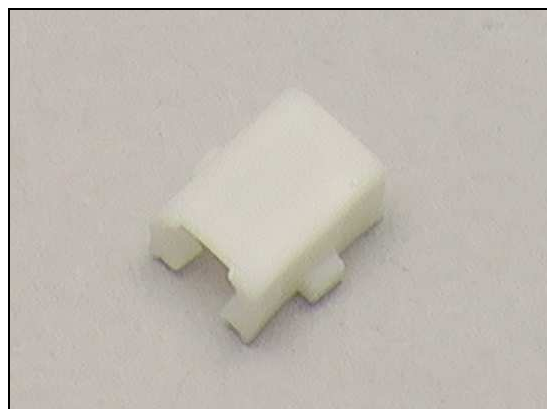
*Follow the 3.1 – 3.4 & 3.6 Disassembly Instructions!*

*Follow the 4.14 Removal Instructions!*

Prepare a new Carrier Holder Vibrator.

*Follow the 4.14 Installation Instructions!*

*Follow the 5.4 & 5.6 – 5.9 Reassembly Instructions!*



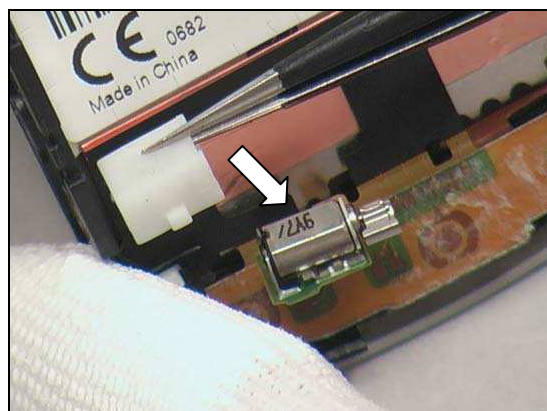
#### REMOVAL

Remove the Carrier Holder Vibrator with a pair of tweezers.

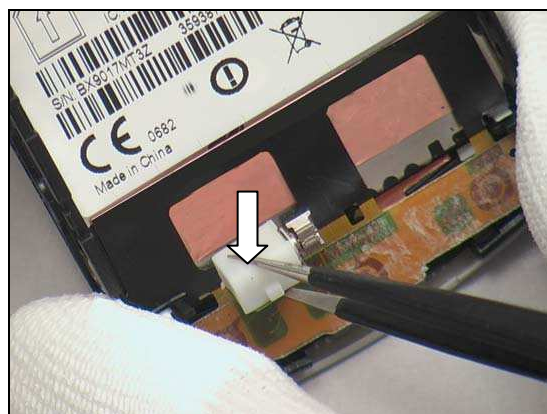


#### INSTALLATION

Install a new Carrier Holder Vibrator with a pair of tweezers.



Press to snap it to the vibrator.



## Replacement

### 4.17 Audio Jack Connector

*Follow the 3.1 – 3.7 & 3.9 Disassembly Instructions!*

*Follow the 4.13 Removal Instructions!*

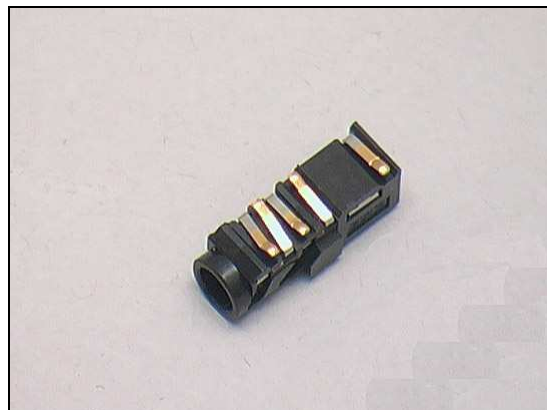
Prepare a new Audio Jack Connector.

*Follow the 4.13 Installation Instructions!*

*Follow the 5.1 & 5.3 – 5.9 Reassembly Instructions!*

#### REMOVAL

Remove the Audio Jack Connector with fingers.



#### INSTALLATION

Position a new Audio Jack Connector in place.

***Make sure the appropriate contact between the pins of Audio Jack Connector and the pads on the Receiver FPC Assembly.***





## Replacement

### 4.18 Cover Front Bottom

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.34 Removal Instructions!*

Prepare a new Cover Front Bottom.

*Follow the 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Install a new Touch Panel!**

#### REMOVAL

Push the Front Cover Bottom with front opening tool and insert the front opening tool into the gap between the Front Cover Bottom and the Main Frame to unsnap the hook in the middle underneath as shown.

**Don't touch the Display in this action and make sure the right gap inserted!**

Remove it with fingers.

*Follow 4.24, 4.22 and 4.25 Removal Instructions!*

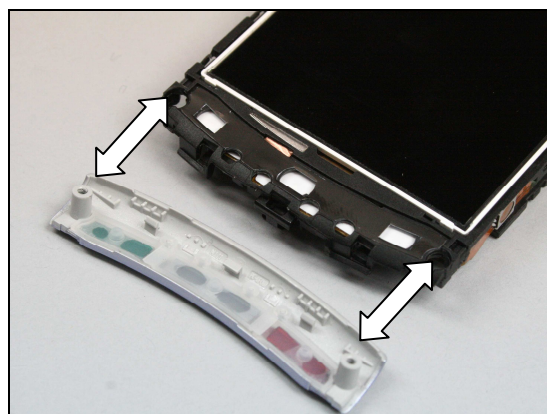
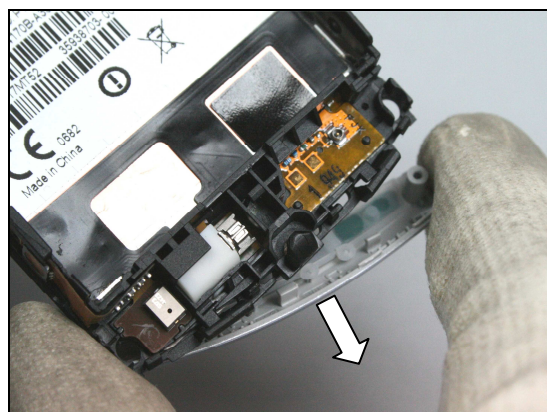
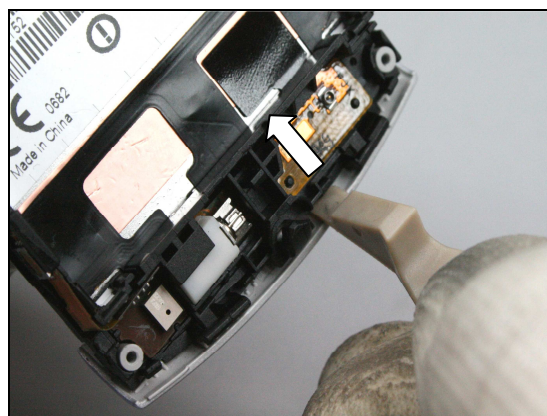
**Don't touch the Display!**

#### INSTALLATION

Prepare a new Cover Front Bottom.

*Follow 4.25, 4.22 and 4.24 Installation Instructions!*

Two guiding bolts on the Cover Front Bottom are in alignment with two guiding holes on the Main Frame as shown by the arrows.



## Replacement: Cover Front Bottom

Align the Front Cover Bottom and the Main Frame with the guiding bolts and guiding holes and press to snap it with finger.

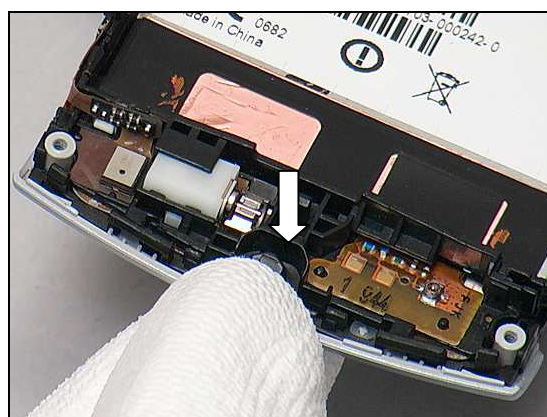
***Make sure the Key Send, Key End and the Key Menu are in place.***



Turn over the phone.

Press to make sure the hook is snapped.

***Don't touch the Display!***





## Replacement

### 4.19 Display

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.34 Removal Instructions!*

Prepare a new Display.

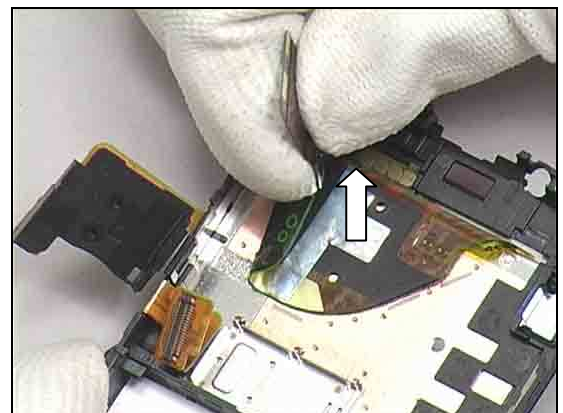
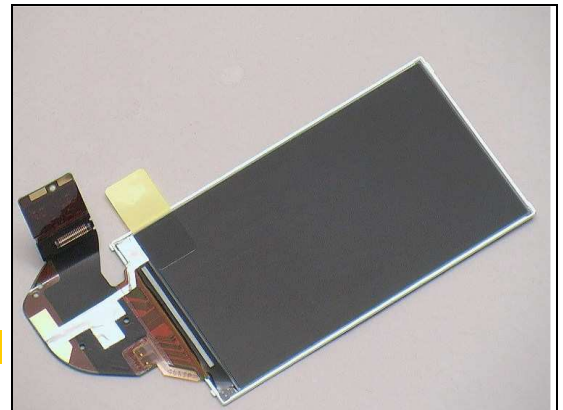
*Follow the 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

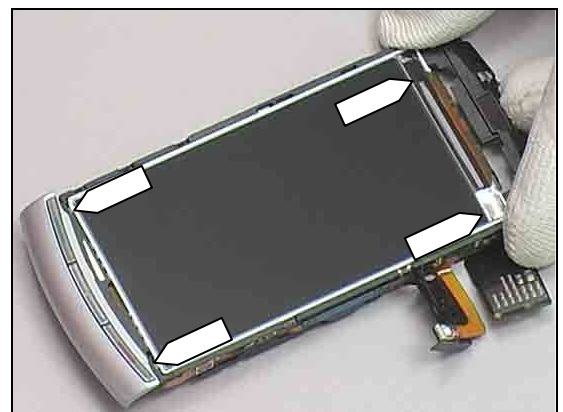
**Install a new Touch Panel!**

#### REMOVAL

Detach the flex of the Display by fingers.



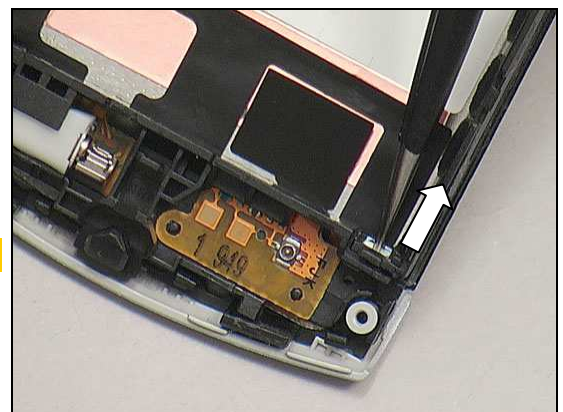
There are four hooks located as shown by the arrows.



Turn over the phone.

Pull to loosen one hook with a pair of tweezers as shown.

**Do not damage the hook!**



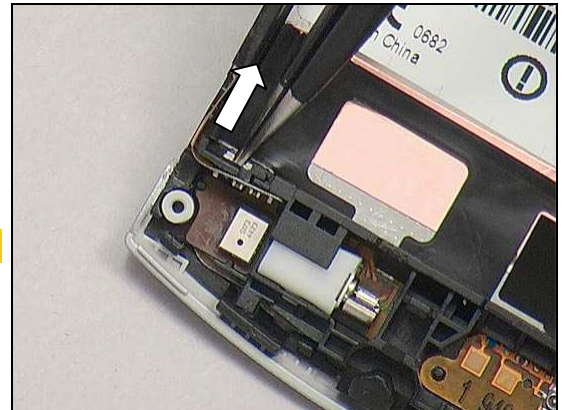




## Replacement: Display

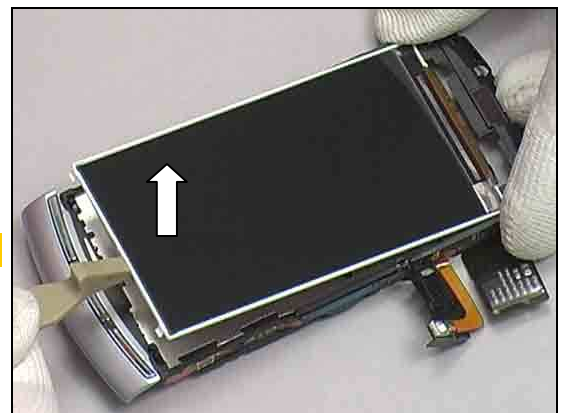
Pull to loosen the other hook with a pair of tweezers as shown.

***Do not damage the hook!***

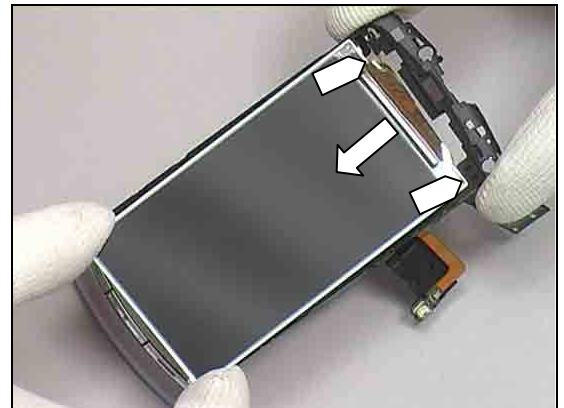


Insert a front opening tool in the middle bottom of the Display to release the Display.

***Don't destroy the Display!***

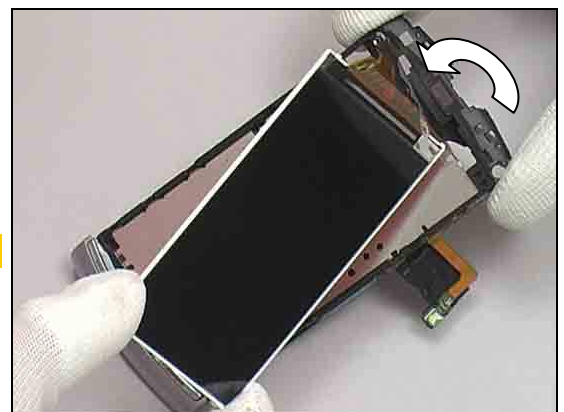


Release the two top hooks by pulling the Display as shown by the arrow.



Turn and thread the Display flex from the slot at top of the Main Frame in the arrow direction and remove it.

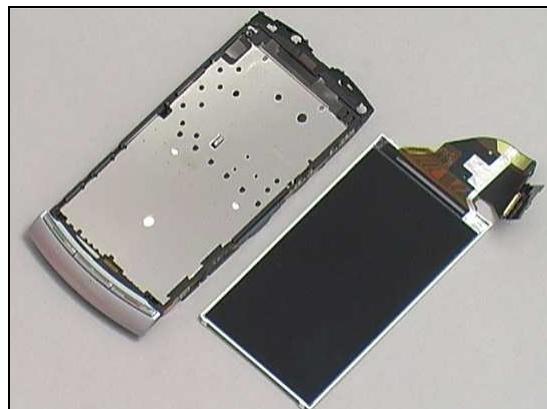
***Don't destroy the Display flex in this operation!***





## Replacement: Display

Separate the Display and the Main Frame.



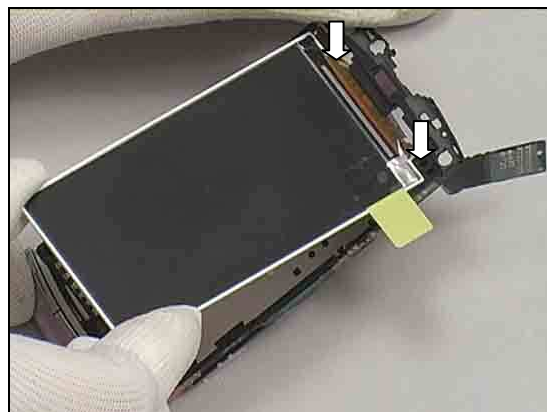
### INSTALLATION

Prepare a new Display.

Thread the Display flex through the slot as shown.



Insert the two hooks in place.



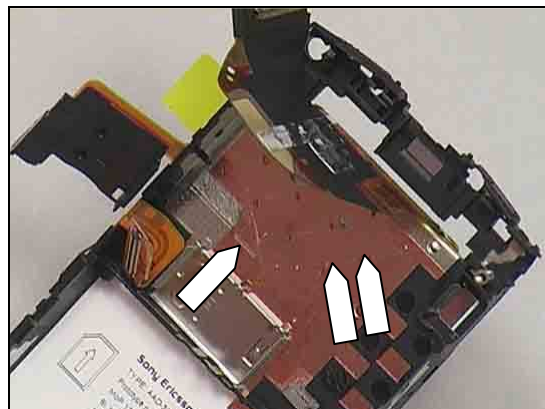
Press to snap the two bottom hooks of the Display.



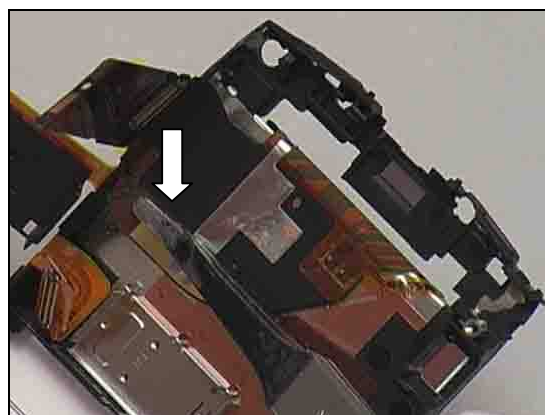
## Replacement: Display

Turn over the phone.

Attach the Display flex in the alignment with the guiding line on the Main Frame as indicated by the arrows.



Press to attach it with a flex film assembly tool and peel off the Display protection foil.





## Replacement

### 4.20 Gasket Shield Can Lid

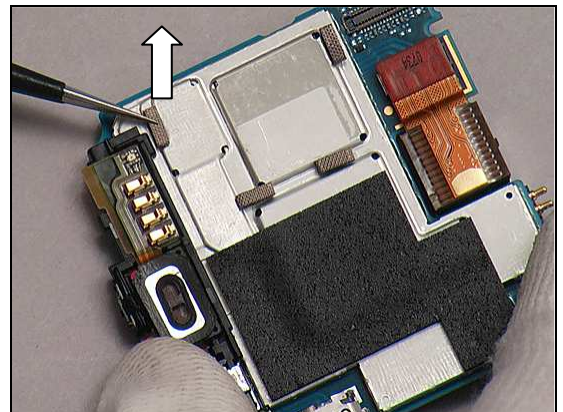
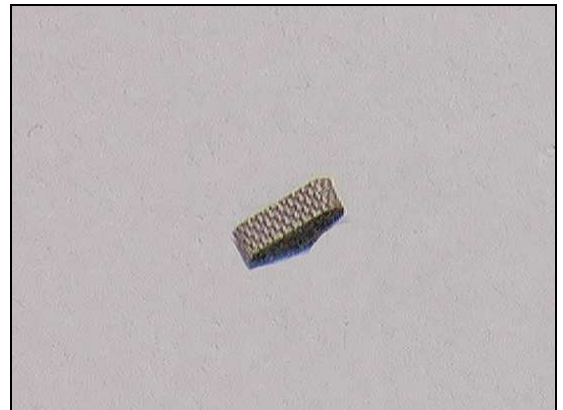
*Follow the 3.1 – 3.7 Disassembly Instructions!*

Prepare four pieces of new Gasket Shield Can Lid.

*Follow the 5.3 – 5.9 Reassembly Instructions!*

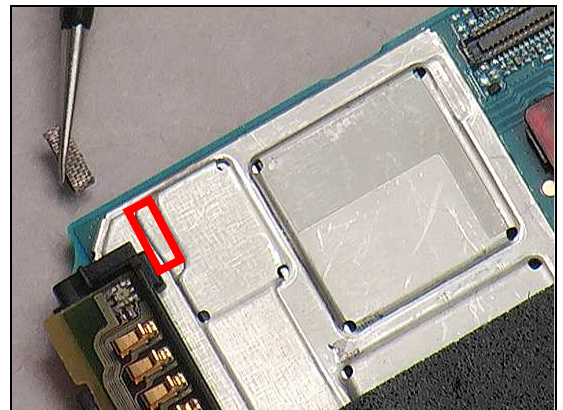
#### REMOVAL

Remove the four pieces of Gasket Shield Can Lid one by one with a pair of tweezers.



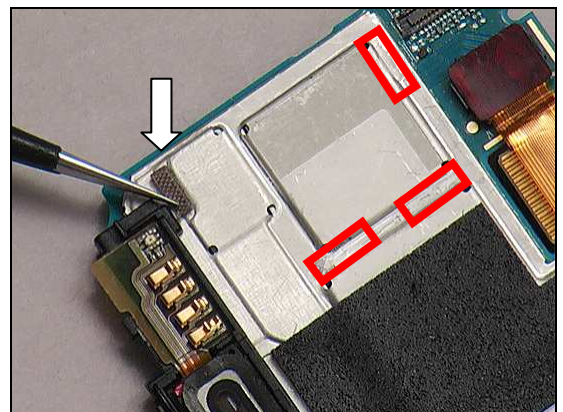
#### INSTALLATION

Align a piece of new gasket to the position as shown.



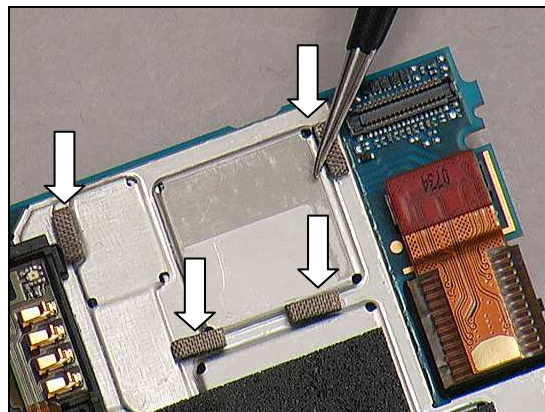
Attach the gasket with a pair of tweezers.

Do the same with other three new pieces of gaskets in the red alignment indications.



## Replacement: Gasket Shield Can Lid

Press to secure the attachment with a pair of tweezers.







## Replacement

### 4.21 Key Camera

*Follow the 3.1 – 3.2 & 3.4 Disassembly Instructions!*

*Follow the 4.26 Removal Instructions!*

Prepare a new Key Camera.

*Follow the 4.26 Installation Instructions!*

*Follow the 5.7 – 5.9 Reassembly Instructions!*

#### REMOVAL

Remove the Key Camera with a pair of tweezers.

*Follow the 4.37 Removal Instructions!*

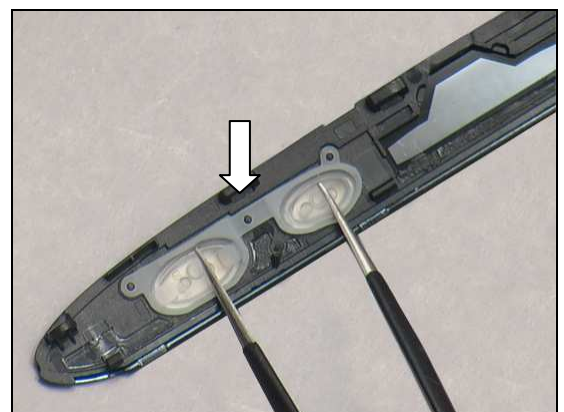
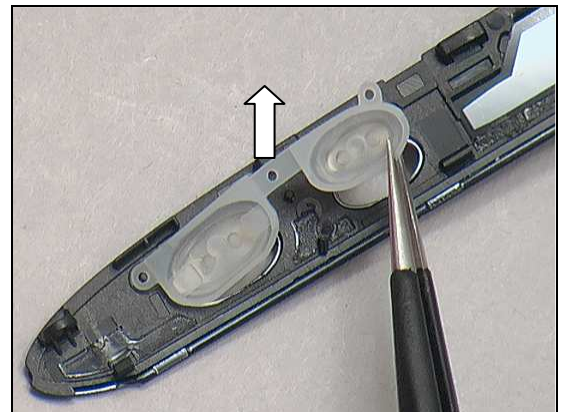
#### INSTALLATION

*Follow the 4.37 Installation Instructions!*

Align a new Key Camera with the three guiding bolts as shown.

***Install a new Right Panel Foil!***

Press to snap the Key Camera with a pair of tweezers.



## Replacement

### 4.22 Key End

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.34, 4.18 and 4.24 Removal Instructions!*

Prepare a new Key End.

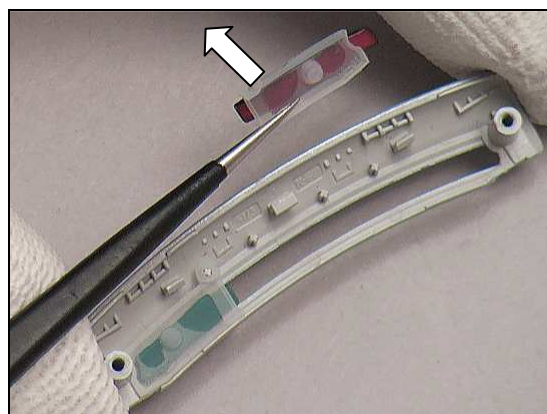
*Follow the 4.24, 4.18 and 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Install a new Touch Panel!**

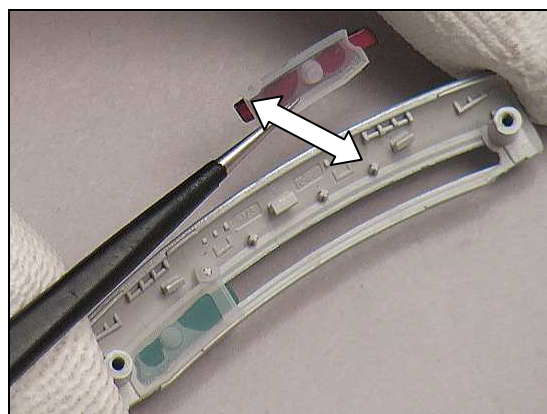
#### REMOVAL

Remove the Key End with a pair of tweezers.

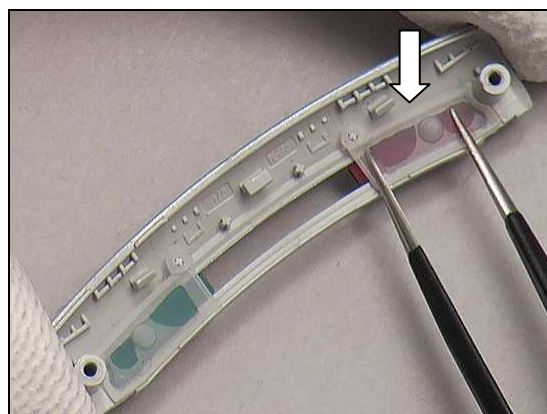


#### INSTALLATION

Install the Key End in place in the alignment with the guiding bolt as shown.



Snap it to the guiding bolt on the Cover Front Bottom as shown.





## Replacement

### 4.23 Key FPC Assembly

*Follow the 3.1 – 3.4 Disassembly Instructions!*

*Follow 4.28 Removal Instructions!*

*Follow the 3.5 – 3.7 Disassembly Instructions!*

*Follow 4.14 Removal Instructions!*

Prepare a new Key FPC Assembly.

#### REMOVAL

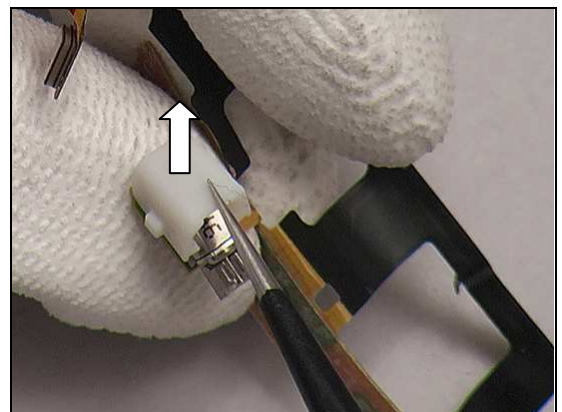
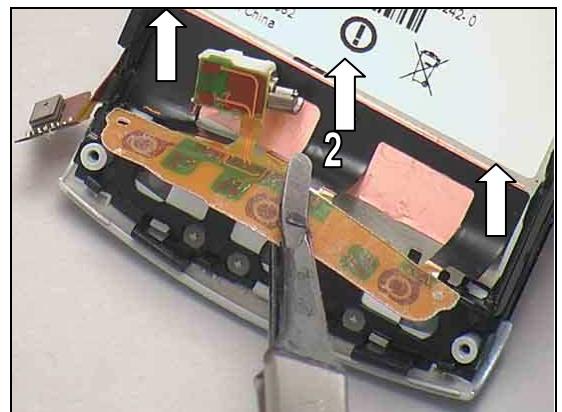
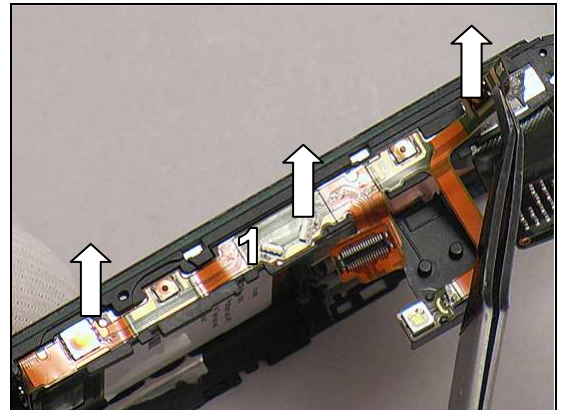
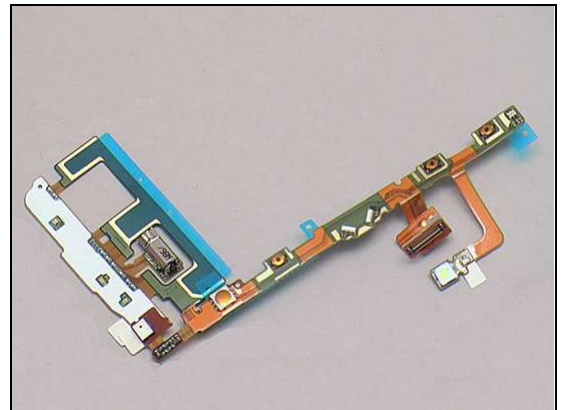
Detach the flex part (1) of the Key FPC Assembly with a flex film assembly tool as shown.

**Clear the ESD adhesive remains!**

Detach the black foil (2) with a flex film assembly tool as shown.

Remove the Key FPC Assembly with a flex film assembly tool from the Main Frame.

Remove the Carrier Holder Vibrator with a pair of tweezers.

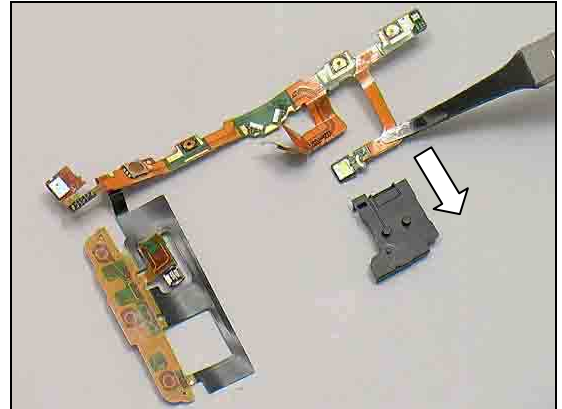






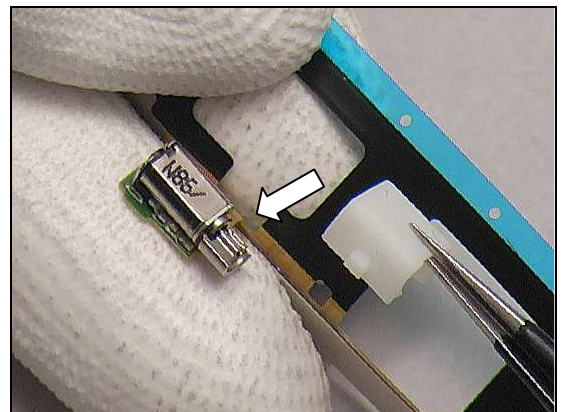
## Replacement: Key FPC Assembly

Detach the Carrier Holder P-light from the Key FPC Assembly with a flex film assembly tool.

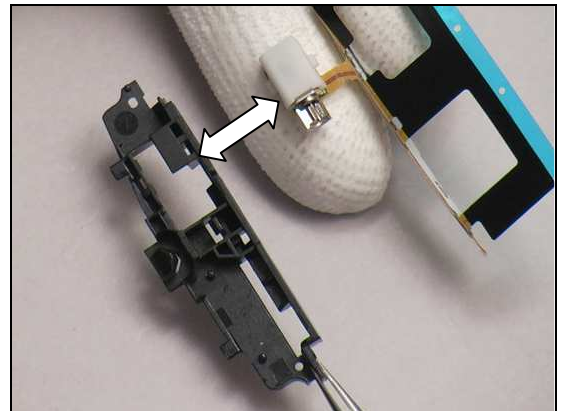


### INSTALLATION

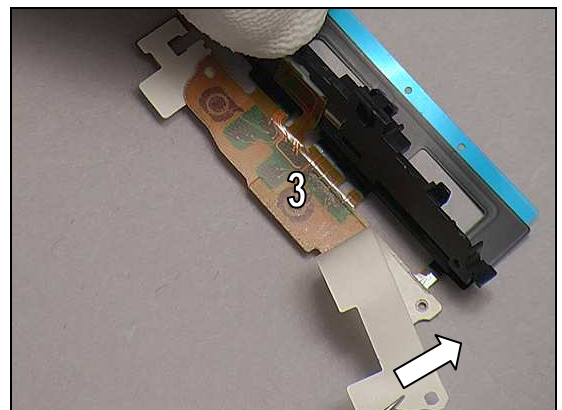
Attach the Carrier Holder Vibrator onto the vibrator on a new Key FPC Assembly.



Position the vibrator into the Carrier Holder Key Flex in the direction as shown.



Remove the protection paper of the key dome flex (3) of the Key FPC Assembly as shown.

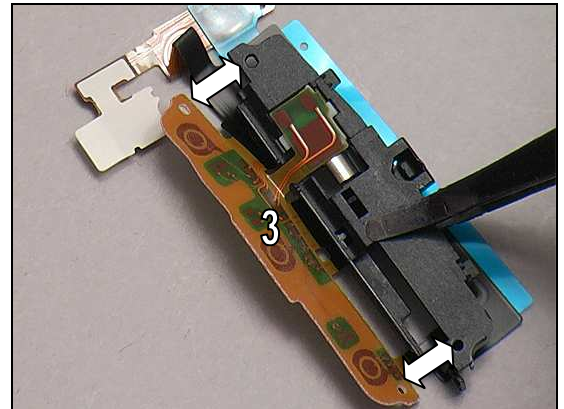




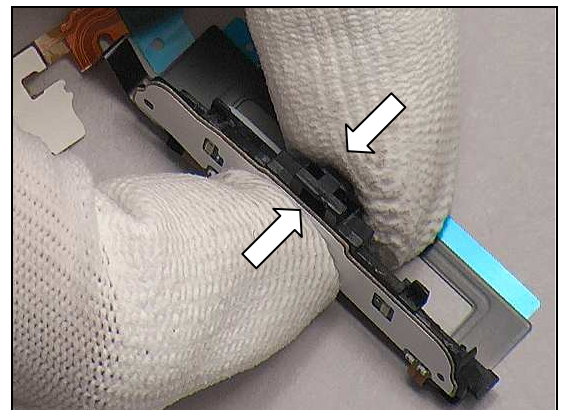


## Replacement: Key FPC Assembly

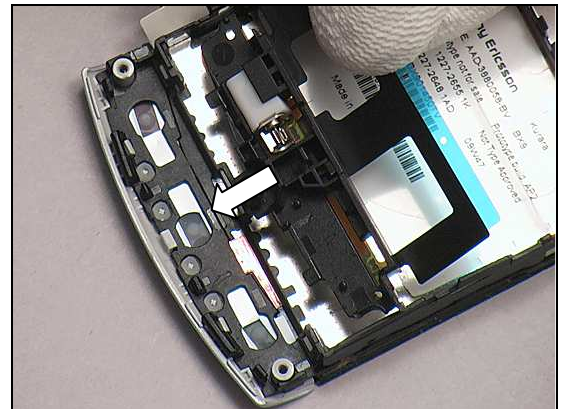
Align guiding holes on the Carrier Holder Key Flex to the key dome flex (3) of the Key FPC Assembly as shown.



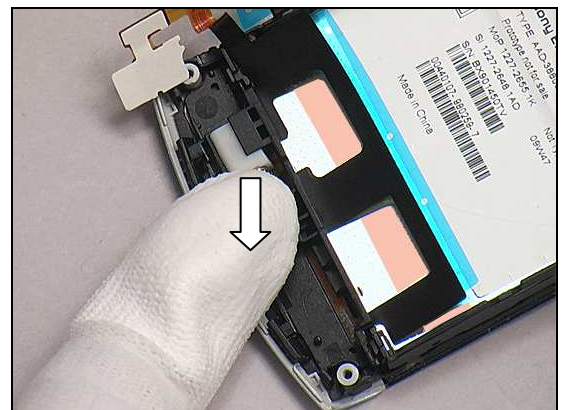
Press to make sure the attachment.



Position the Carrier Holder Key Flex in place.

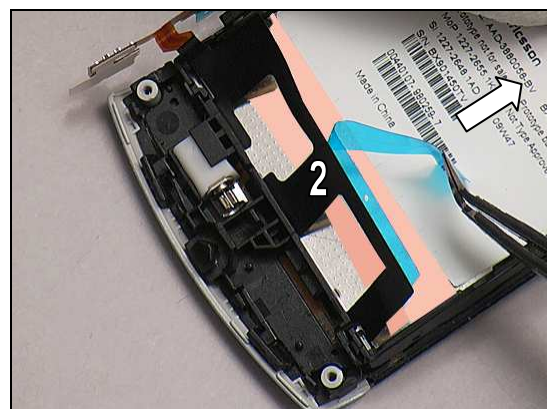


Press to snap it.



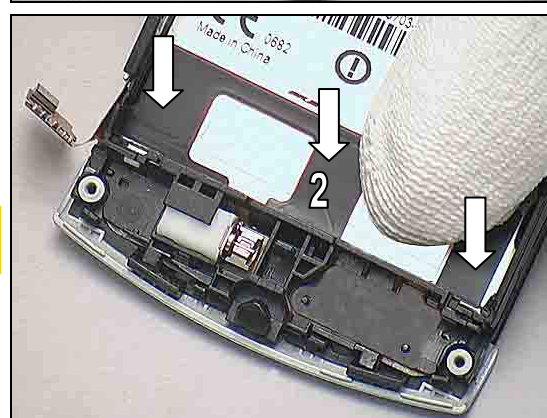
## Replacement: Key FPC Assembly

Peel off the protection foil of the black foil (2) of the Key FPC Assembly.

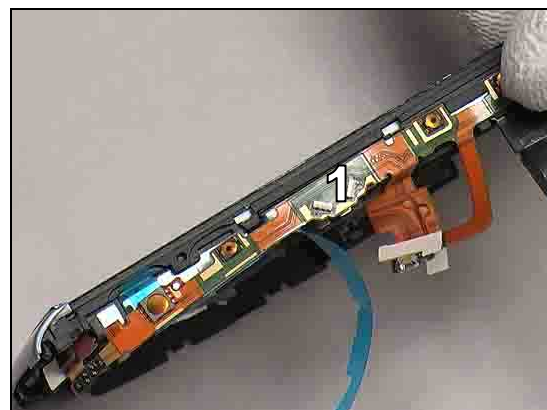


Attach the black foil (2) with fingers as shown.

**Make sure to secure solid attachment onto the copper tape!**

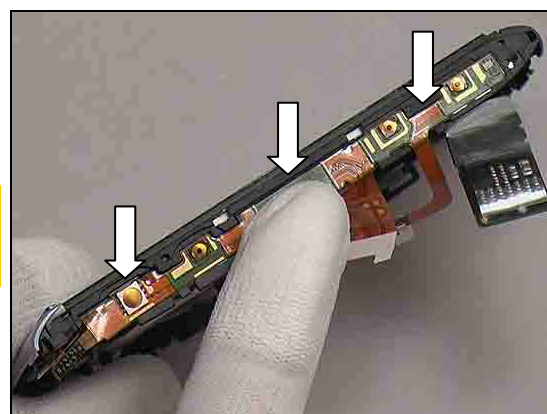


Peel off the protection foil and attach the flex part (1) of the Key FPC Assembly in place.



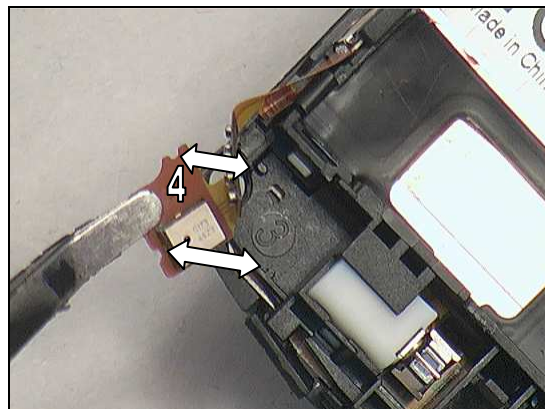
Press on it with a finger to make sure the attachment.

**Do not damage the parts on the Key FPC Assembly. Make sure to secure solid attachment onto the Main Frame!**

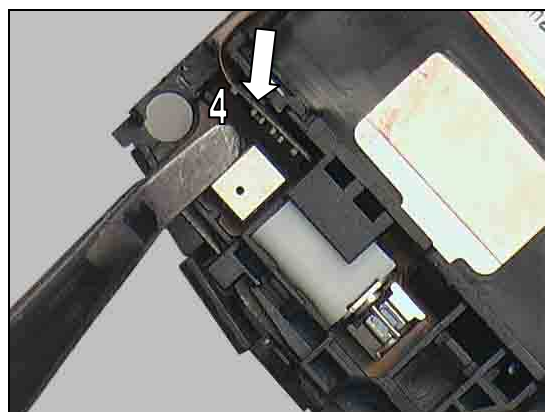


## Replacement: Key FPC Assembly

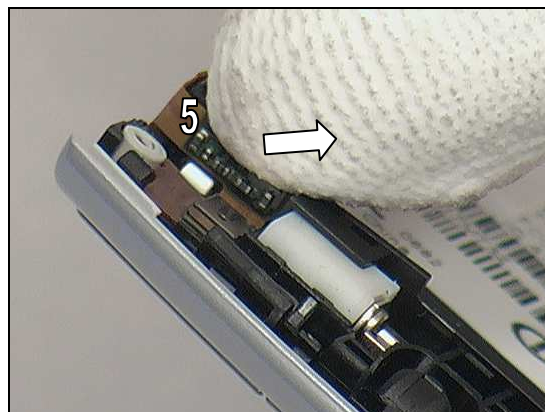
Attach the flex part (4) with a flex film assembly tool in the alignment of the two guiding poles as shown.



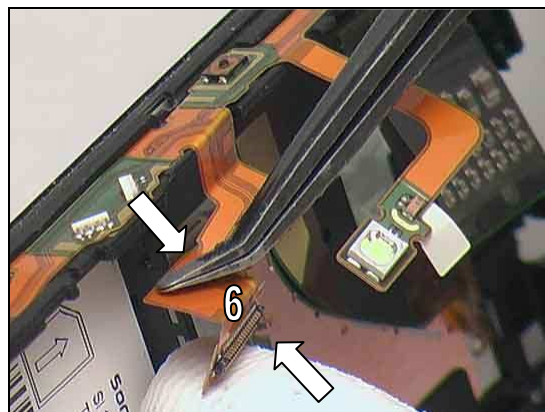
Attach the flex part (4) in place with a flex film assembly tool.



Attach the flex part (5) in place with a finger.



Fold to attach the flex part (6) as shown with a flex film assembly tool.

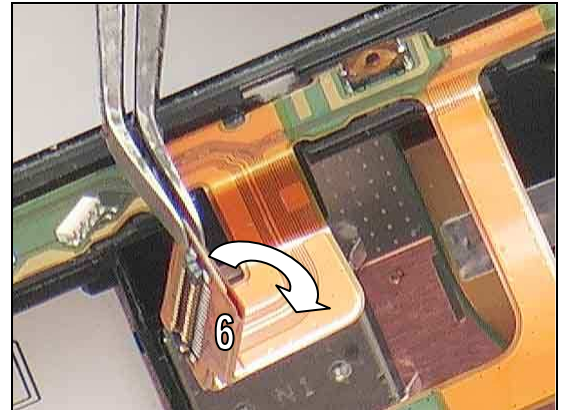






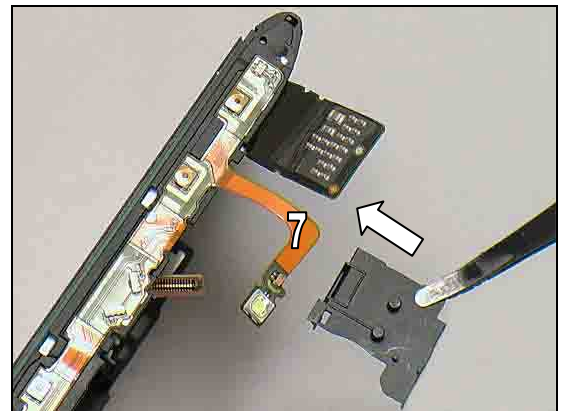
## Replacement: Key FPC Assembly

Fold the flex part (6) in the direction as shown.



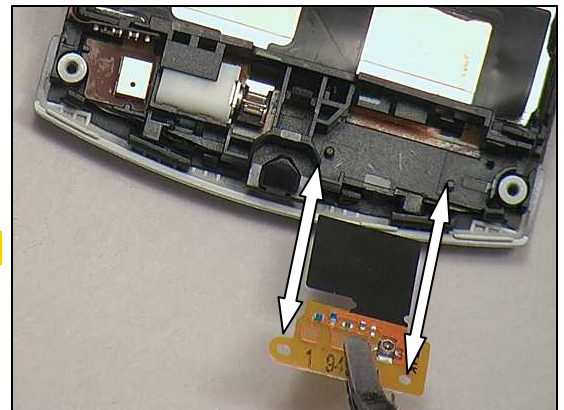
Attach the Carrier Holder P-light to the P-light part (7) of the Key FPC assembly with a flex film assembly tool.

*Follow the 5.3 Reassembly Instructions!*

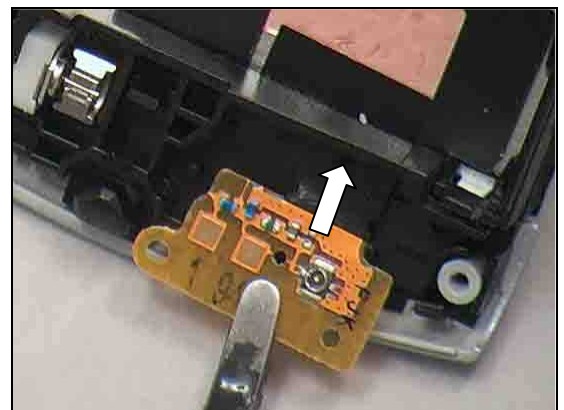


Install a new Antenna FPC Assembly in the alignment with the two guiding bolts as shown.

***Install a new Antenna FPC Assembly!***



Thread it from underneath of the Carrier Holder Key Flex.

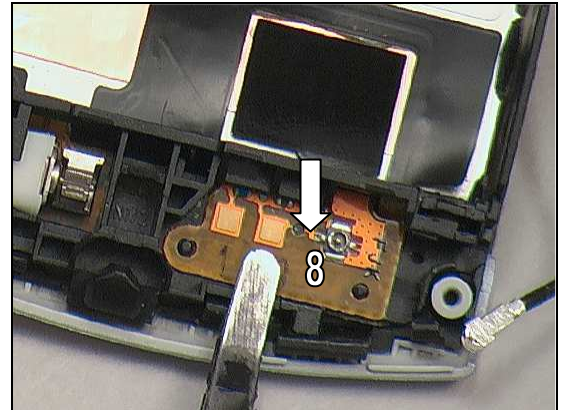






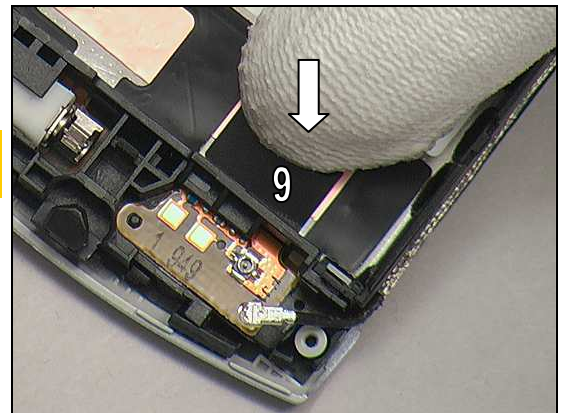
## Replacement: Key FPC Assembly

Press to attach flex part (8) of the Antenna FPC Assembly in alignment with the two guiding bolts.



Press to attach black foil (9) of the Antenna FPC Assembly with a finger.

**Make sure to secure solid attachment onto the copper tape!**



*Follow the 5.4 – 5.6 Reassembly Instructions!*

*Follow 4.28 Installation Instructions!*

*Follow the 5.7 – 5.9 Reassembly Instructions!*

## Replacement

### 4.24 Key Menu

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.34 and 4.18 Removal Instructions!*

Prepare a new Key Menu.

*Follow the 4.18 and 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Install a new Touch Panel!**

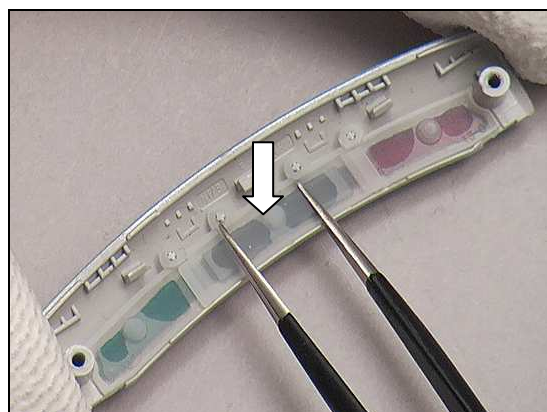
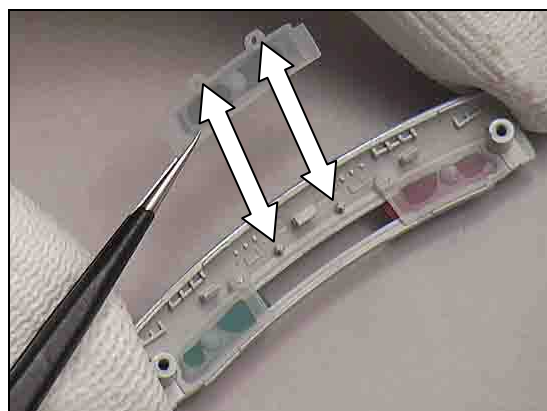
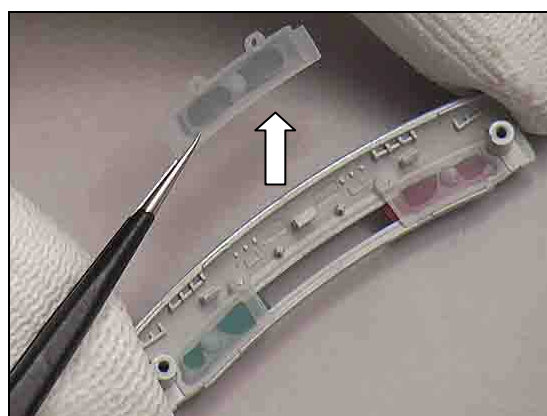
#### REMOVAL

Remove the Key Menu with a pair of tweezers.

#### INSTALLATION

Position a new Key Menu in place in the alignment of the two guiding bolts.

Press to snap it.



## Replacement

### 4.25 Key Send

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.34, 4.18 and 4.24 Removal Instructions!*

Prepare a new Key Send.

*Follow the 4.24, 4.18 and 4.34 Installation Instructions!*

*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Install a new Touch Panel!**

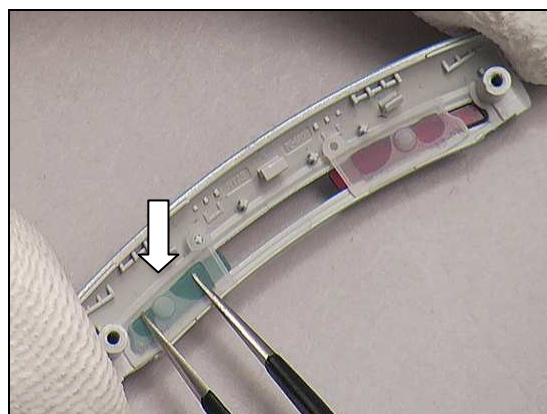
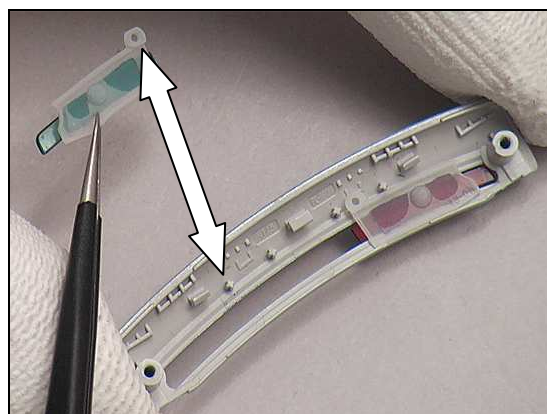
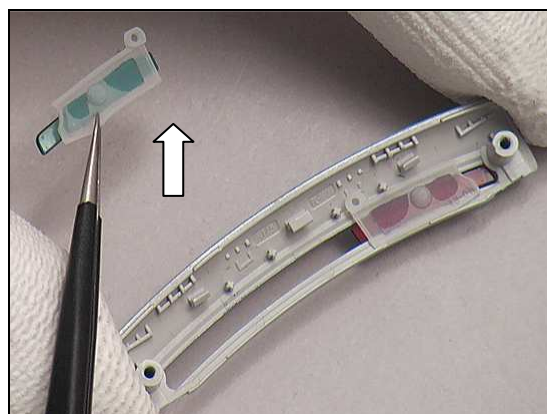
#### REMOVAL

Remove the Key Send with a pair of tweezers.

#### INSTALLATION

Install a new one in the alignment with the guiding pole.

Press to snap it.



## Replacement

### 4.26 Key Volume

*Follow the 3.1 – 3.2 & 3.4 Disassembly Instructions!*

*Follow the 4.21 Removal Instructions!*

Prepare a new Key Volume.

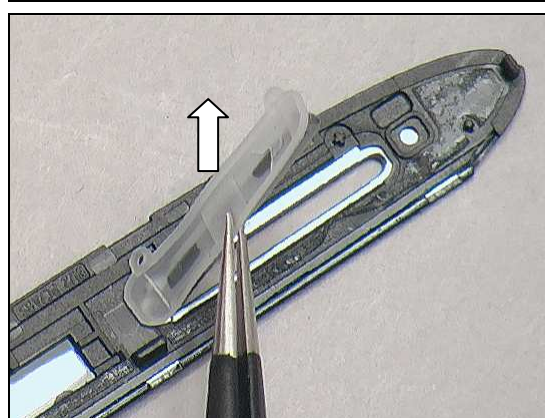
*Follow the 4.21 Installation instructions!*

*Follow the 5.7 – 5.9 Reassembly Instructions!*

#### REMOVAL

Remove the Key Volume by a pair of tweezers.

*Follow the 4.37 Removal Instructions!*

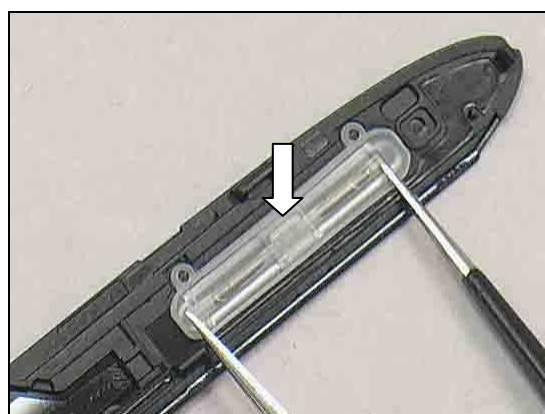


#### INSTALLATION

*Follow the 4.37 Installation Instructions!*

Install a new Key Volume in the alignment of the two guiding poles as shown.

***Install a new Right Panel Foil!***



Press to snap it.



## Replacement

### 4.27 Label Core Unit

*Follow the 3.1 Disassembly Instructions!*

Prepare a new Label Core Unit.

*Follow the 5.9 Reassembly Instructions!*

#### REMOVAL

Read the old Core Unit Label and/or write the information into the 'LabelMake' program before removal.

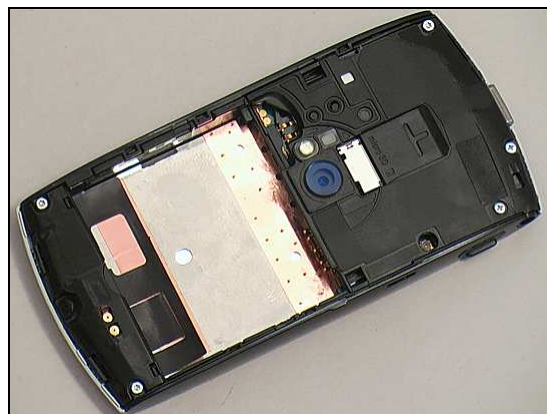
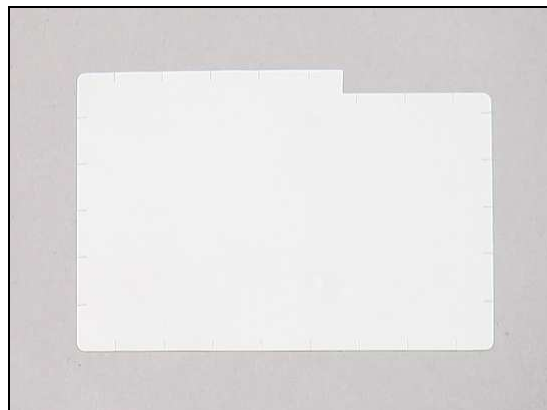
Remove the Label Core Unit.

#### INSTALLATION

Check that the proper label format is loaded in the Zebra printer and write a new Label by using the 'LabelMake' software.

Position the Label Core Unit in place as shown.

**One label only is allowed!**



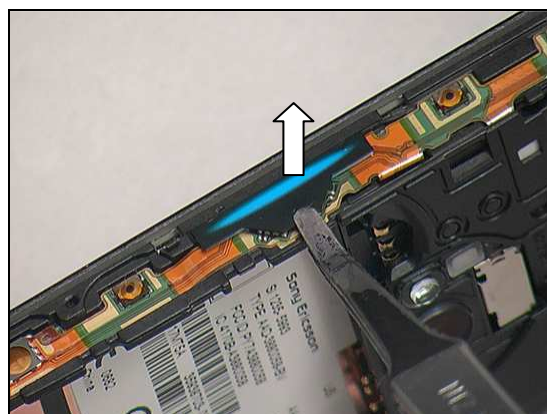
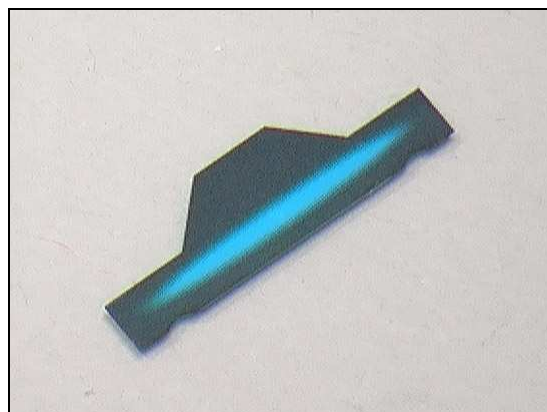
## Replacement

### 4.28 Light Gu Side

*Follow the 3.1 – 3.2 & 3.4 Disassembly Instructions!*  
 Prepare a new Light Gu Side.  
*Follow the 5.7 – 5.9 Reassembly Instructions!*

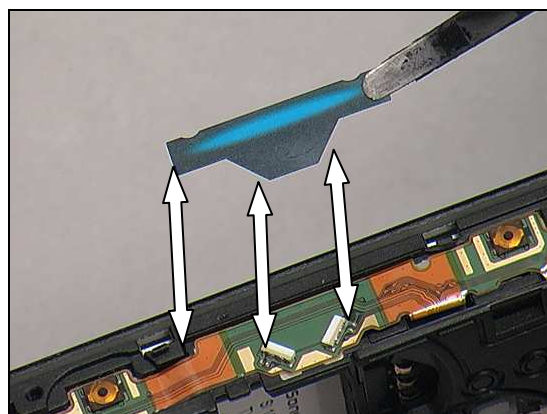
#### REMOVAL

Detach the Light Gu Side with a flex film assembly tool.

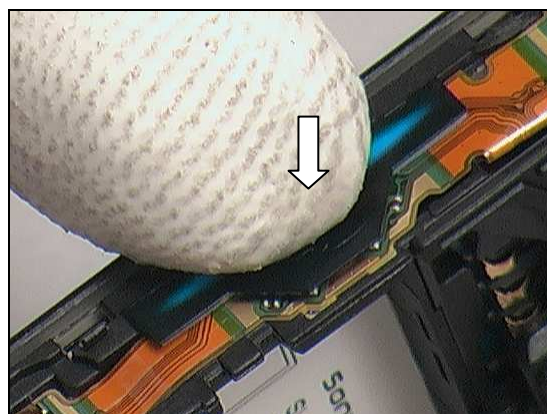


#### INSTALLATION

Install a new one in place in the alignment of the Main Frame and 2 LEDs as shown by three arrows.



Press it with finger to secure the attachment.



## Replacement

### 4.29 Liquid Intrusion Indicator

#### INSPECTION

To check whether the Liquid Intrusion Indicator has been activated (reddish color), just remove the Cover Battery Sub Assembly.

If activated:

*Follow the 3.1 – 3.5 Disassembly Instructions!*

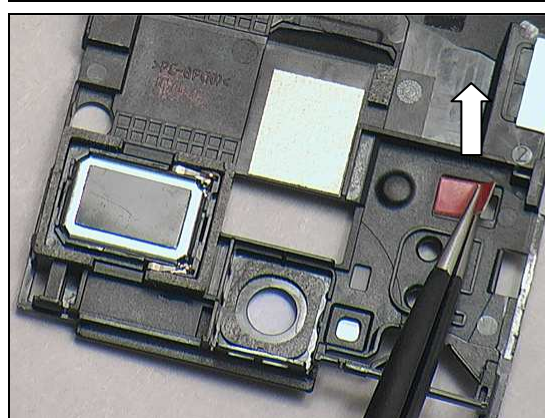
Carry out the replacement as described below.

*Follow the 5.5 – 5.9 Reassembly Instructions!*



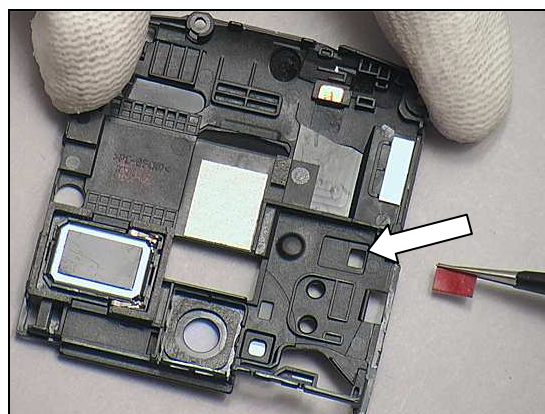
#### REMOVAL

Detach the Liquid Intrusion Indicator with a pair of tweezers.

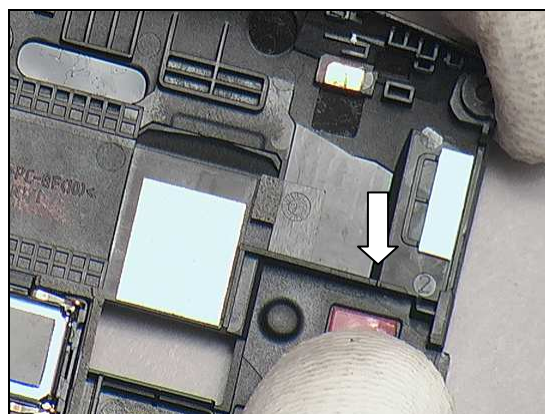


#### INSTALLATION

Install a new one in its cavity as shown.



Press it with finger to secure the attachment.





## Replacement

### 4.30 Antenna FPC Assembly

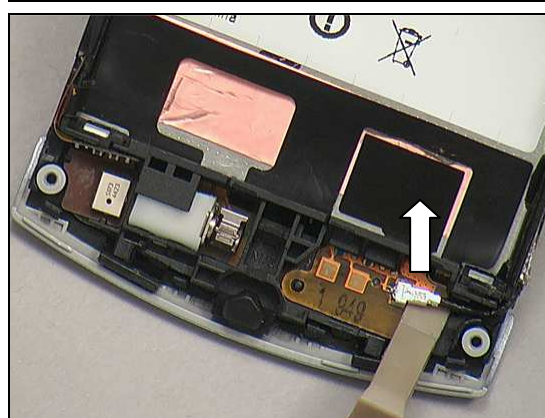
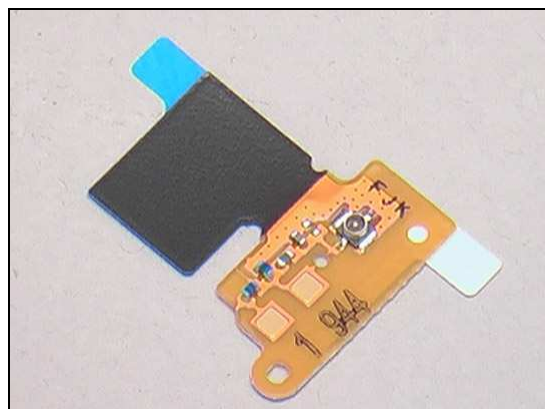
*Follow the 3.1 – 3.4 & 3.6 Disassembly Instructions!*

Prepare a new Antenna FPC Assembly.

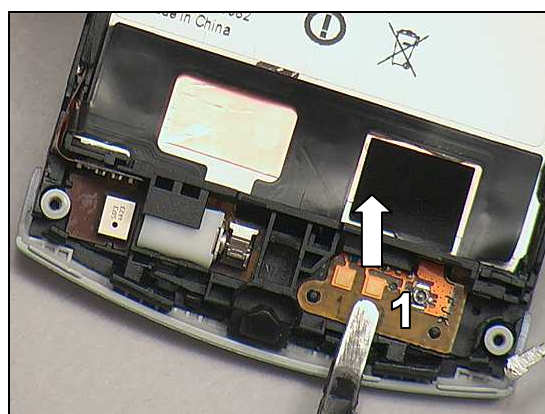
*Follow the 5.4 & 5.6 – 5.9 Reassembly Instructions!*

#### REMOVAL

Disconnect the RF cable from the Antenna FPC Assembly with a front opening tool.

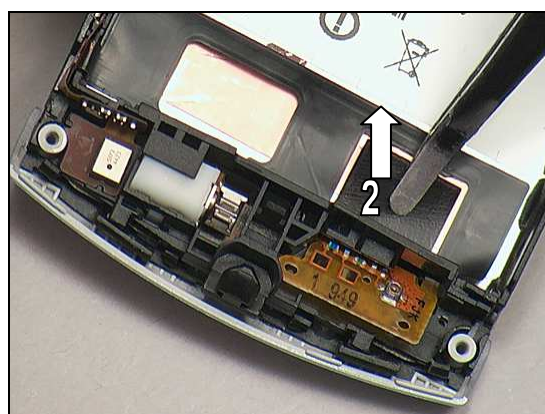


Detach the flex part (1) of the Antenna FPC Assembly with a flex film assembly tool.



Detach the black foil (2) of the Antenna FPC Assembly with a flex film assembly tool.

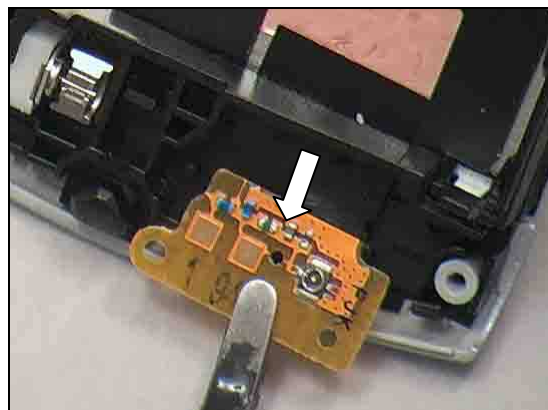
**Don't destroy the copper tape underneath!**





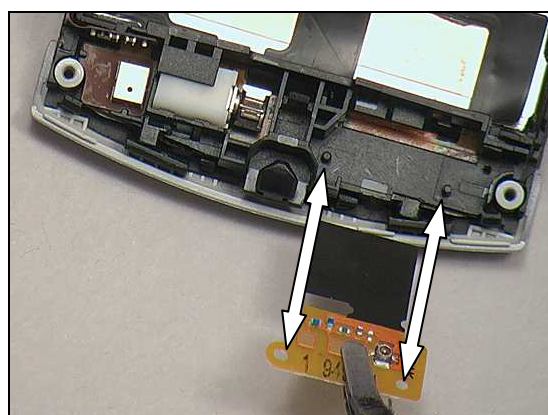
## Replacement: Antenna FPC Assembly

Remove the Antenna FPC Assembly.

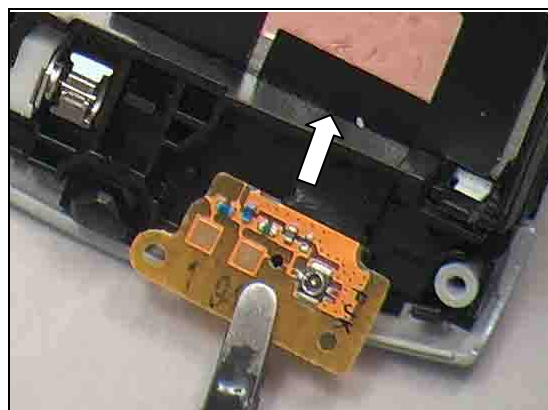


### INSTALLATION

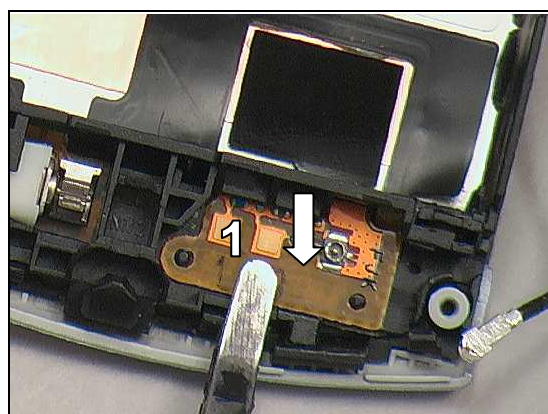
Install a new Antenna FPC Assembly in the alignment with the two guiding holes as the arrows shown.



Thread it from underneath of the Carrier Holder Key Flex.



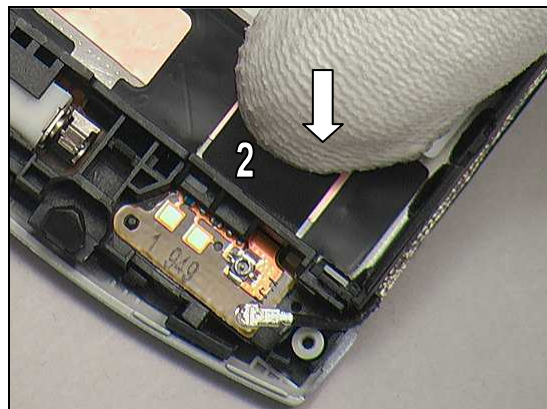
Press to attach flex part (1) of the Antenna FPC Assembly in alignment with the two guiding bolts as shown.



## Replacement: Antenna FPC Assembly

Press to attach black foil (2) of the Antenna FPC Assembly with a finger.

***Make sure to secure solid attachment onto the copper tape!***



## Replacement

### 4.31 Receiver FPC Assembly

*Follow the 3.1 – 3.7 & 3.9 Disassembly Instructions!*

*Follow the 4.13 Removal Instructions!*

*Follow the 4.17 Removal Instructions!*

Prepare a new Receiver FPC Assembly.

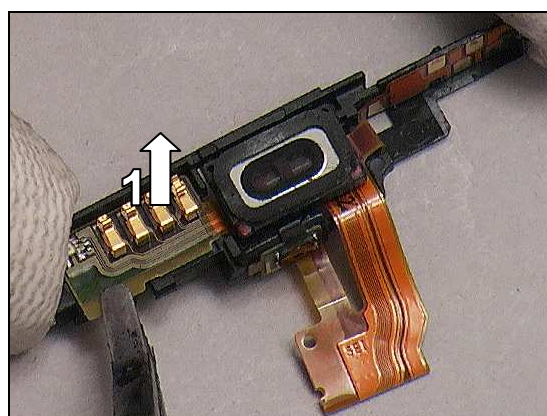
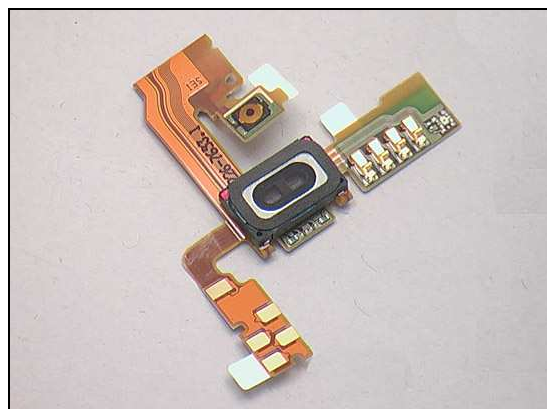
*Follow the 4.17 Installation Instructions!*

*Follow the 4.13 Installation Instructions!*

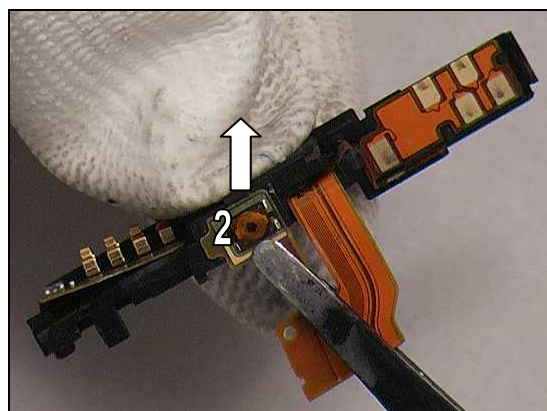
*Follow the 5.1 & 5.3 – 5.9 Reassembly Instructions!*

#### REMOVAL

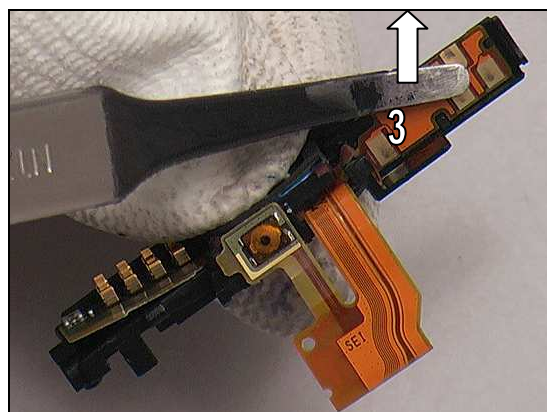
Detach flex part (1) of the Receiver FPC Assembly from the Carrier Holder Receiver Flex with a flex film assembly tool as shown.



Detach flex part (2) of the Receiver FPC Assembly from the Carrier Holder Receiver Flex with a flex film assembly tool as shown.



Detach flex part (3) of the Receiver FPC Assembly from the Carrier Holder Receiver Flex with a flex film assembly tool as shown.

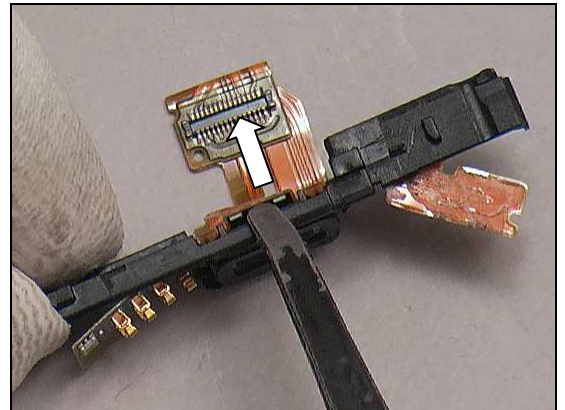




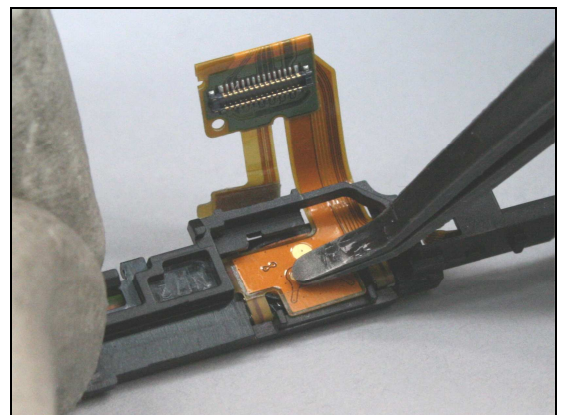


## Replacement: Receiver FPC Assembly

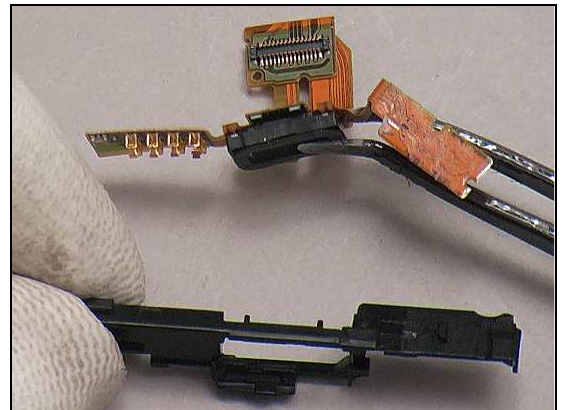
Push the flex gently to loosen the receiver from the Carrier Holder Receiver Flex with a flex film assembly tool as shown.



Push the receiver from its cavity.

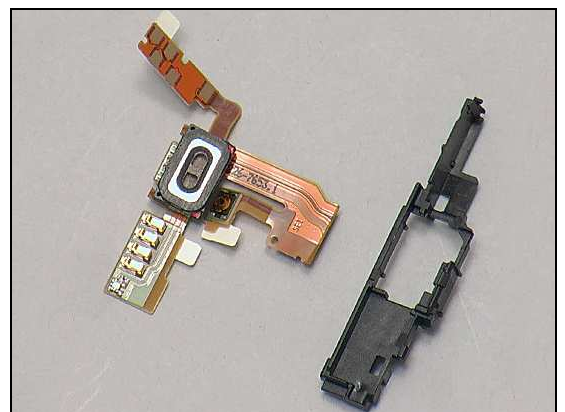


Separate the Receiver FPC Assembly and the Carrier Holder Receiver Flex.



### INSTALLATION

Prepare a new Receiver FPC Assembly.

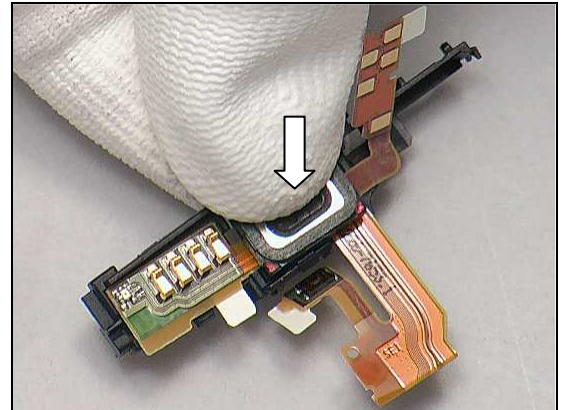






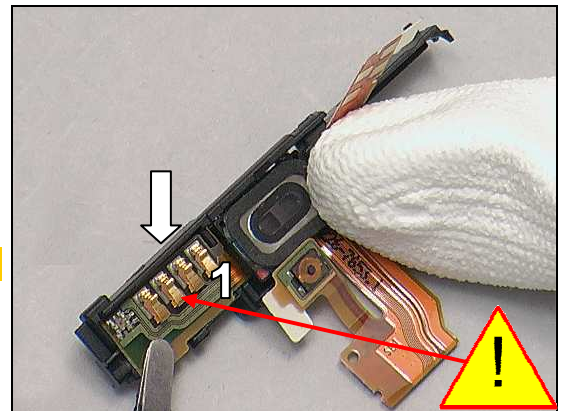
## Replacement: Receiver FPC Assembly

Position the receiver in its cavity and press gently to snap the receiver in place.

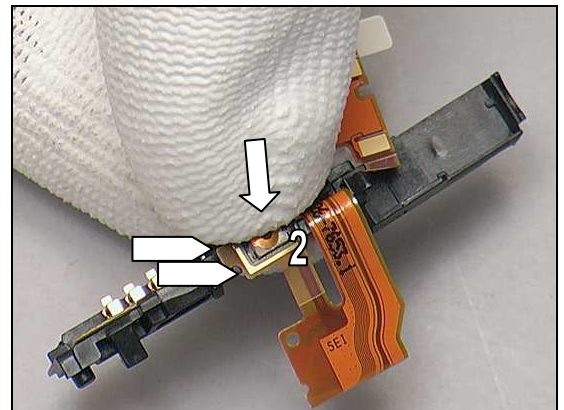


Remove the protection paper on flex part (1) of the Receiver FPC Assembly and press to attach it with a flex film assembly tool as shown.

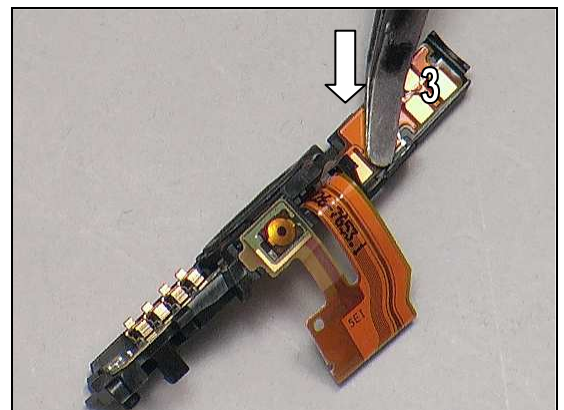
**Don't touch the Touch Panel pins. Warning!**



Remove the protection paper and attach the flex part (2) of the Receiver FPC Assembly in the alignment with the two guiding bolts as shown by the arrows.



Remove the protection paper on flex part (3) of the Receiver FPC Assembly and press to attach it with a flex film assembly tool.



## Replacement

### 4.32 Shield Can Lid BB

*Follow the 3.1 – 3.7 Disassembly Instructions!*

*Follow the 4.20 Removal Instructions!*

*Follow the 3.9 Disassembly Instructions!*

Prepare a new Shield Can Lid BB.

*Follow the 5.1 Reassembly Instructions!*

*Follow the 4.20 Installation Instructions!*

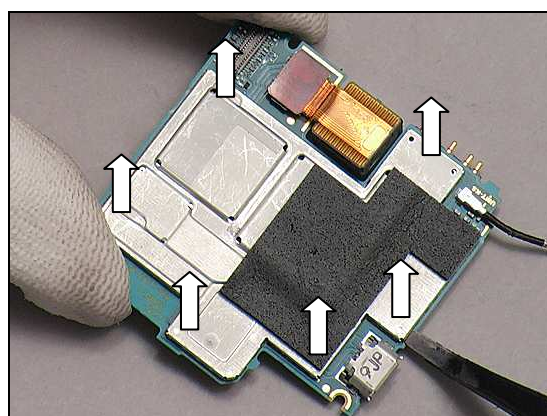
*Follow the 5.3 – 5.9 Reassembly Instructions!*

**Check the adhesive of the Gasket Shielding Can Lid before the installation. Change a new gasket in case of the adhesive missing or failure.**



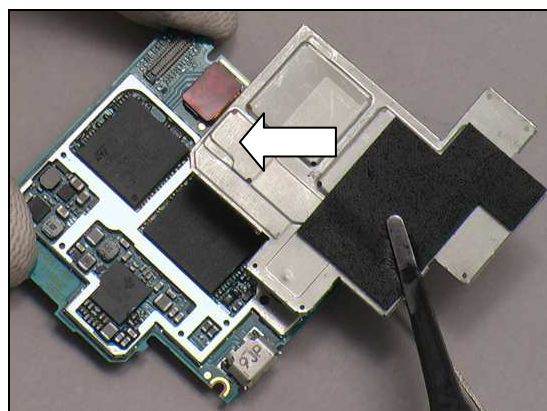
#### REMOVAL

Insert the flex film assembly tool in corners of the Shield Can Lid BB and pull upwards to release it.

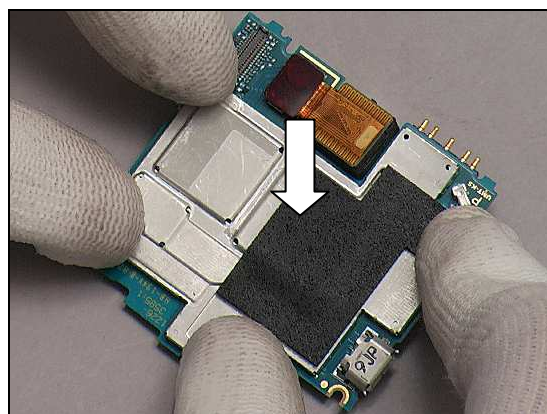


#### INSTALLATION

Install a new Shield Can Lid BB in place.



Press with fingers to secure the attachment.



## Replacement

### 4.33 Shield Can Lid Non Cell

*Follow the 3.1 – 3.5 Disassembly Instructions!*

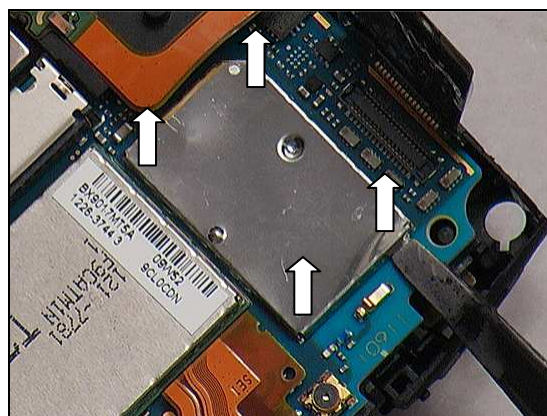
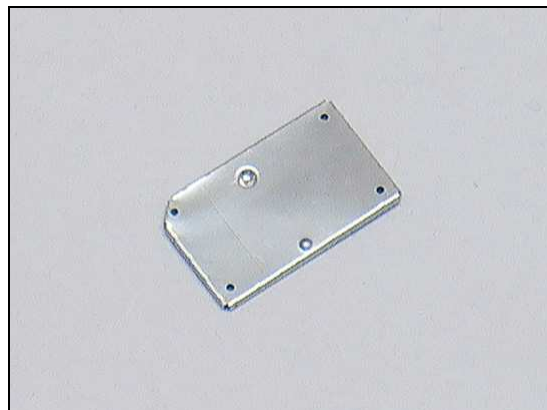
Prepare a new Shield Can Lid Non Cell.

*Follow the 5.5 – 5.9 Reassembly Instructions!*

#### REMOVAL

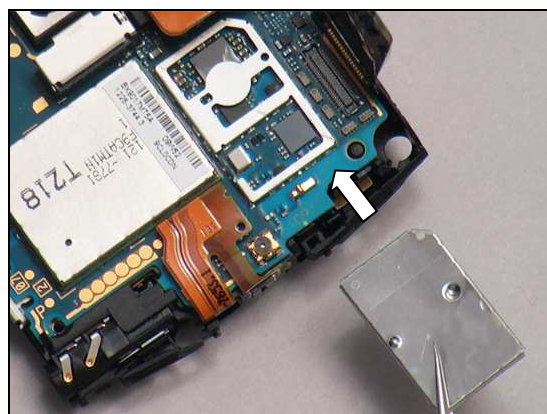
Disconnect the Display flex BtB connector.

Insert the flex film assembly tool in corners of the Shield Can Lid Non Cell and pull upwards to release it.



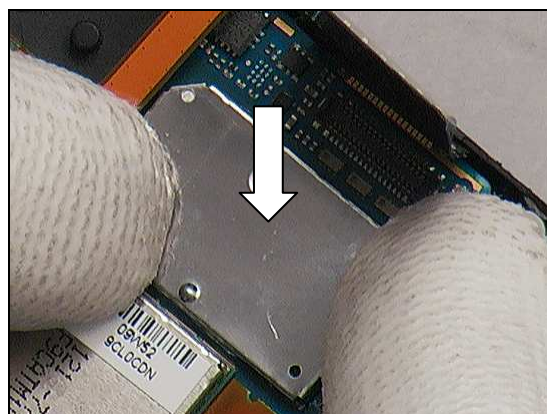
#### INSTALLATION

Install a new Shield Can Lid Non Cell in place.



Press to secure the attachment with fingers.

Connect the Display flex BtB connector.





## Replacement

### 4.34 Touch Panel

*Follow the 3.1 – 3.7 Disassembly Instructions!*  
Prepare a new Touch Panel.

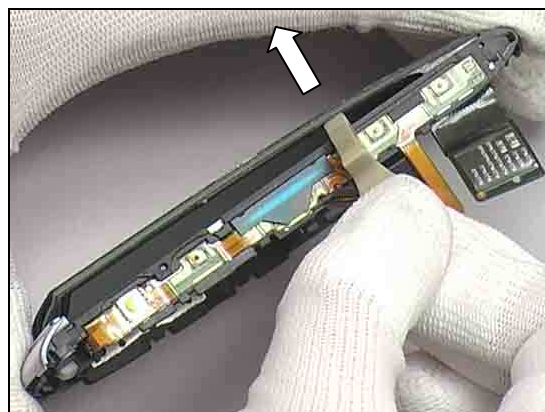
#### REMOVAL

Insert the front opening tool in the cavity and push the Touch Panel outwards to detach it on one side.

***Don't destroy the Touch Panel and the Display in this operation!***

Insert the front opening tool in the other cavity and push it.

Do the same on the other side.





## Replacement: Touch Panel

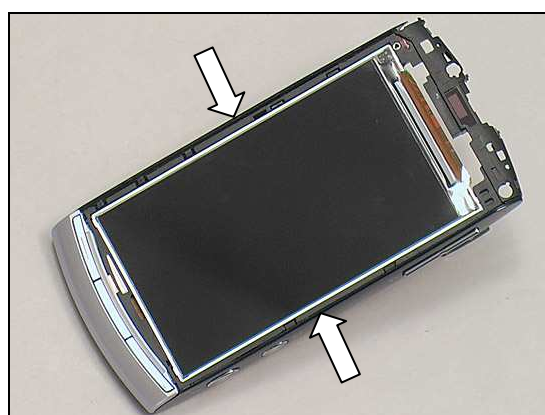
Lift up the Touch Panel and remove it.



### INSTALLATION

Reinstall the used pair of the Panel Side Left Sub Assembly and Panel Side Right Sub Assembly for the alignment of the new Touch Panel.

**Don't destroy the Display in this operation.**



Attach a new Touch Panel in place in alignment with the Cover Front Bottom as shown.



Press on the four edges of the Touch Panel with fingers to make sure the attachment.



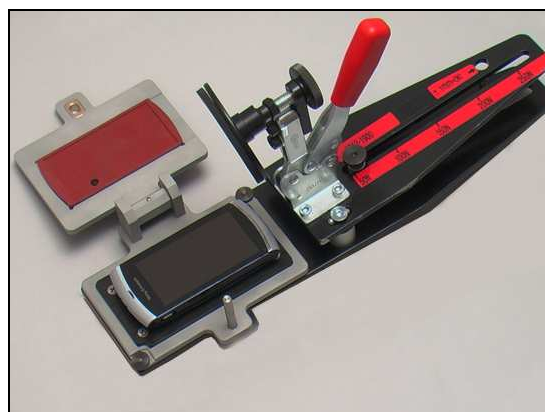
## Replacement: Touch Panel

Remove the used pair of the Panel Side Left Sub Assembly and Panel Side Right Sub Assembly.



*Follow the 5.3 – 5.8 Reassembly Instructions!*

Put the phone onto the Touch Panel Pressure Insert of the pressure tool.



Press the Touch Panel with the pressure tool with a preset strength value of  $150 \pm 15\text{N}$  for five to seven seconds.

*Follow the 5.9 Reassembly Instructions!*



## Replacement

### 4.35 Camera Window

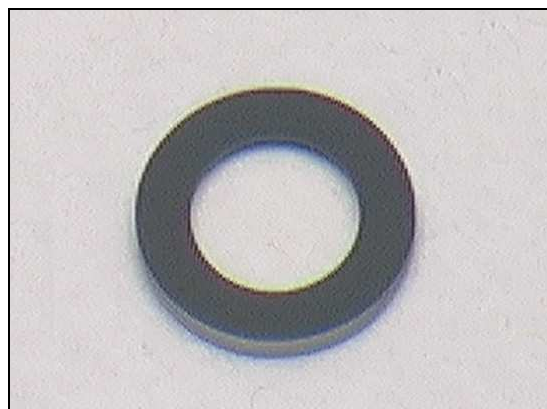
*Follow the 3.1 – 3.5 Disassembly Instructions!*

Prepare a new Camera Window.

*Follow the 5.5 – 5.9 Reassembly Instructions!*

#### REMOVAL

Push against the Camera Window with a nylon pointer.

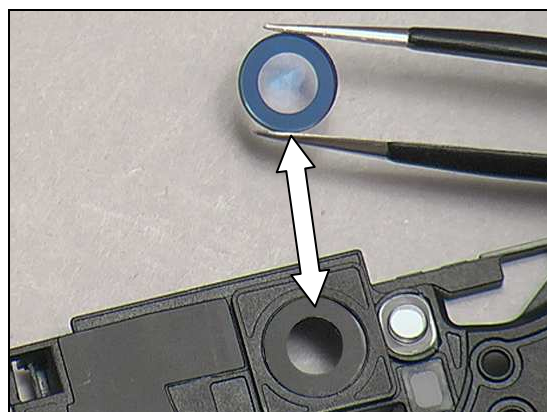


Detach to remove it with a flex film assembly tool.



#### INSTALLATION

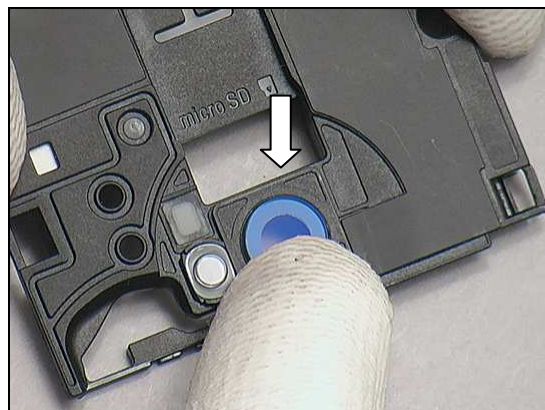
Install a new Camera Window in place with a pair of tweezers.





## Replacement: Camera Window

Press to secure its attachment with a finger.



## Replacement

### 4.36 Flash Window

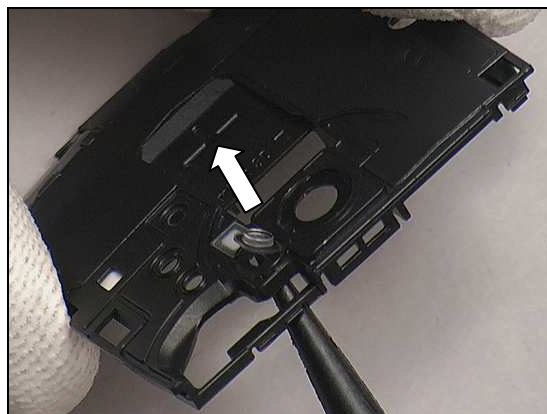
*Follow the 3.1 – 3.5 Disassembly Instructions!*

Prepare a new Flash Window.

*Follow the 5.5 – 5.9 Reassembly Instructions!*

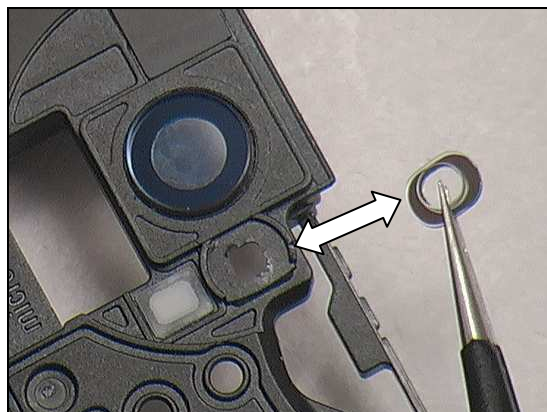
#### REMOVAL

Push against the Flash Window with a nylon pointer.



#### INSTALLATION

Install a new Flash Window.

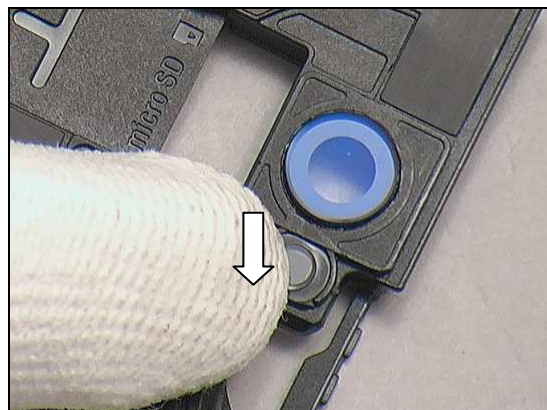


Position it in place.



## Replacement: Flash Window

Press to secure its attachment with a finger.





## Replacement

### 4.37 Right Panel Foil

*Follow the 3.1 – 3.2 & 3.4 Disassembly Instructions!*

*Follow the 4.21 & 4.26 Removal Instructions!*

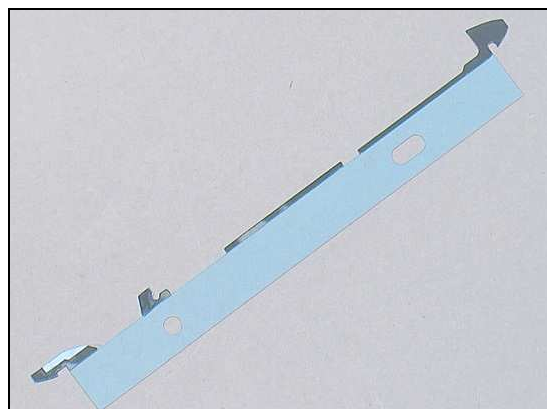
Prepare a new Right Panel Foil.

*Follow the 4.21 & 4.26 Installation Instructions!*

*Follow the 5.7 – 5.9 Reassembly Instructions!*

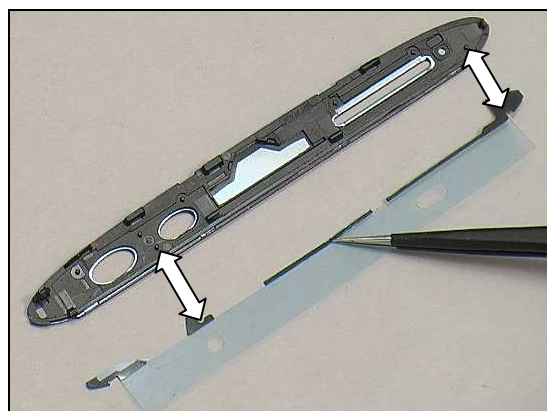
#### REMOVAL

Remove the old Right Panel Foil.

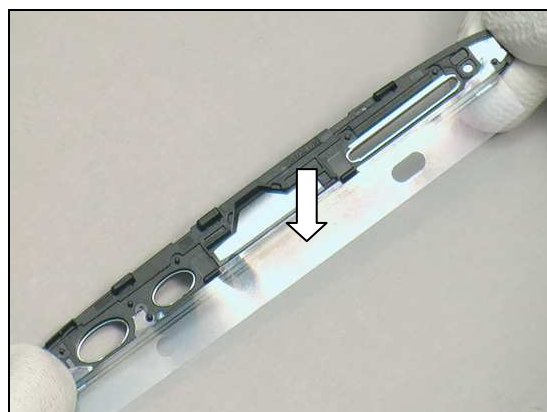


#### INSTALLATION

Position the new Right Panel Foil in the right direction and in the alignment of two guiding poles as shown.

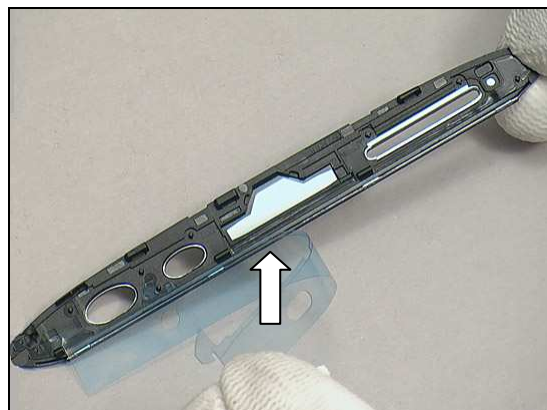


Attach it onto the Panel Side Right Sub Assembly and press to secure its attachment with fingers.



## Replacement: Right Panel Foil

Remove the protection foil.



## Replacement

### 4.38 Left Panel Foil

*Follow the 3.1 – 3.3 Disassembly Instructions!*

Prepare a new Left Panel Foil.

*Follow the 5.6 & 5.8 – 5.9 Reassembly Instructions!*

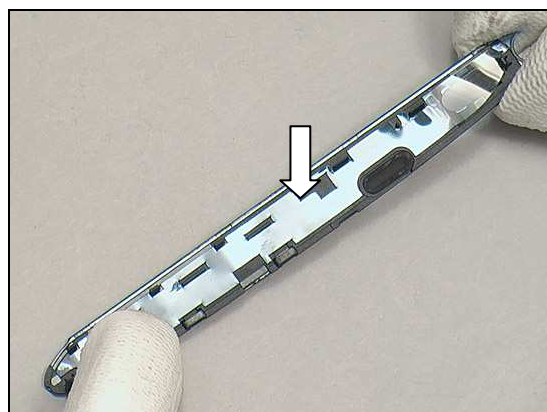
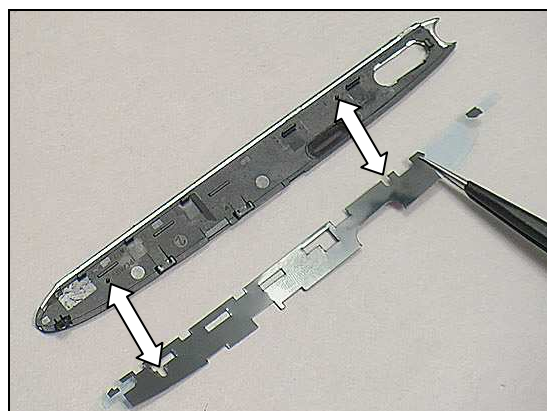
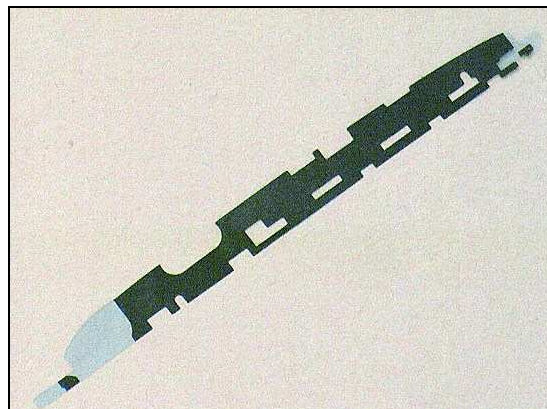
#### REMOVAL

Remove the old Left Panel Foil.

#### INSTALLATION

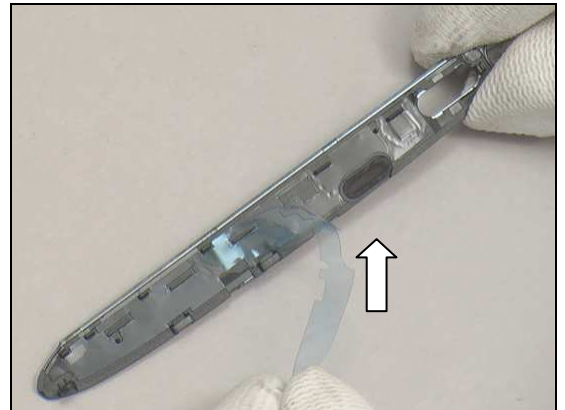
Position the new Left Panel Foil in the right direction and in the alignment of the two guiding poles as shown.

Attach it onto the Panel Side Left Sub Assembly and press to secure its attachment with a finger.



## Replacement: Left Panel Foil

Remove the protection foil.







## Replacement

### 4.39 Board Swap — Replace a Swap Board

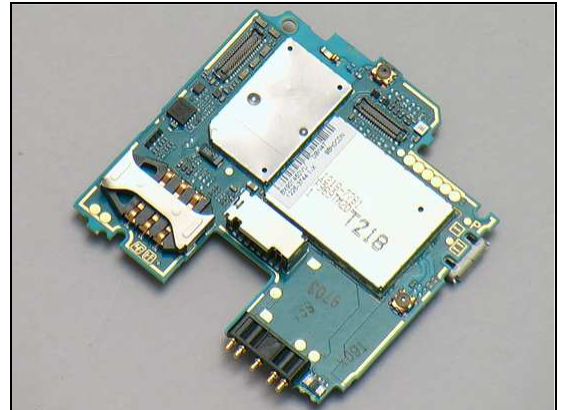
*Follow the 3.1 – 3.9 Disassembly Instructions!*

*Follow the 4.11 Removal Instructions!*

Prepare a new Board.

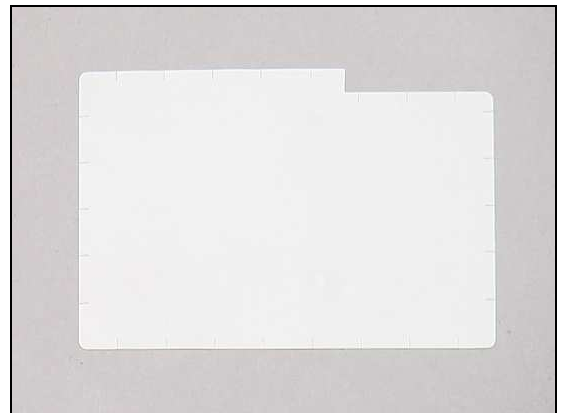
*Follow the 4.11 Installation Instructions!*

*Follow the 5.1 – 5.9 Reassembly Instructions!*



### 4.40 Board Swap — Change Label

*For change a Label, follow the instructions in the Generic Repair Manual – Build swap for change of label.*



### 4.41 Board Swap — Customize Software

*For Customization of software, follow the instructions in the Generic Repair Manual – Build swap for customization of the software.*

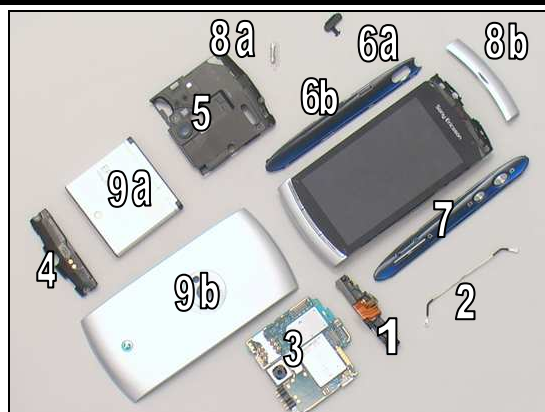
**Start up the unit to initialize settings, before perform Customize Phone in Emma.**



## 5 Reassembly

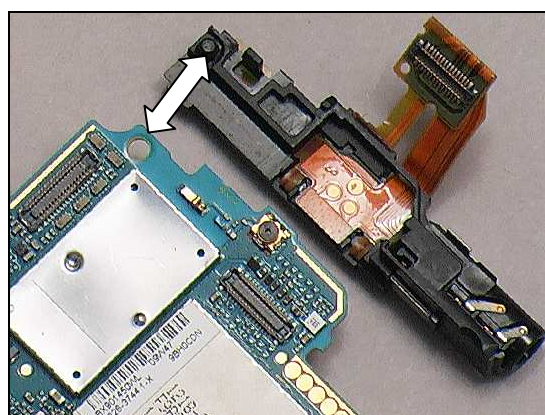
The reassembly is done in the following order:

1. Receiver FPC Assembly with Carrier Holder Receiver Flex
2. RF Cable
3. PBA
4. Main Antenna
5. Ant Non-cellular Assy
6. Cap Micro USB (a) & Panel Side Left Sub Assembly (b)
7. Panel Side Right Sub Assembly incl Key Volume & Key Camera
8. Key On/Off (a) & Cover Front Top (b)
9. Battery (a) & Cover Battery Sub Assembly (b)



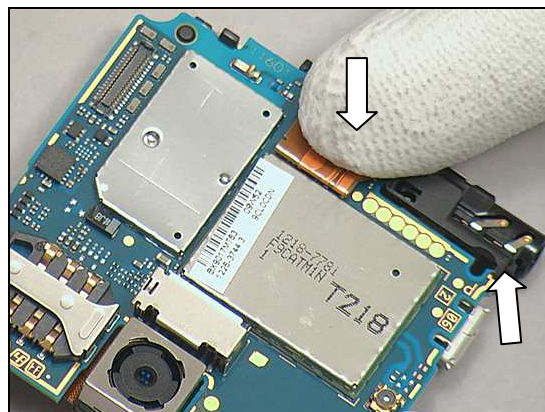
### 5.1 Receiver FPC Assembly with Carrier Holder Receiver Flex

Attach the Receiver FPC Assembly together with the Carrier Holder Receiver Flex in alignment with the guiding bolt as shown.



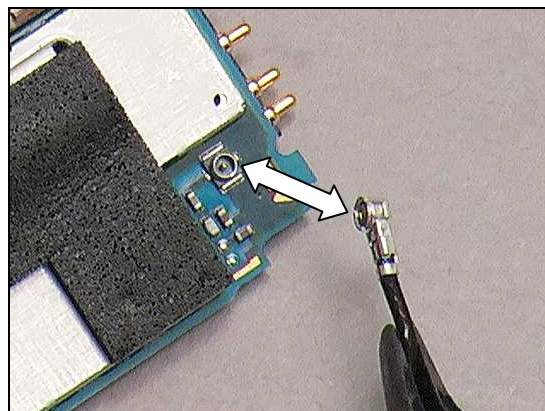
Press to connect the Receiver FPC Assembly BtB connector with a finger.

**Check projection of the Carrier Holder Receiver Flex as shown by the arrow is above the PBA before this action.**



### 5.2 RF Cable

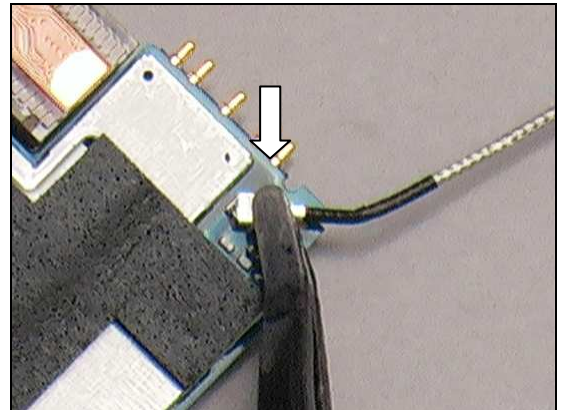
Position the RF cable as shown.





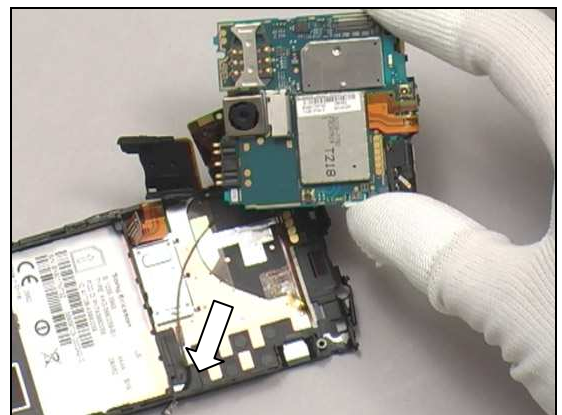
## Reassembly

Connect the RF cable to the connector on the PBA with a flex film assembly tool.



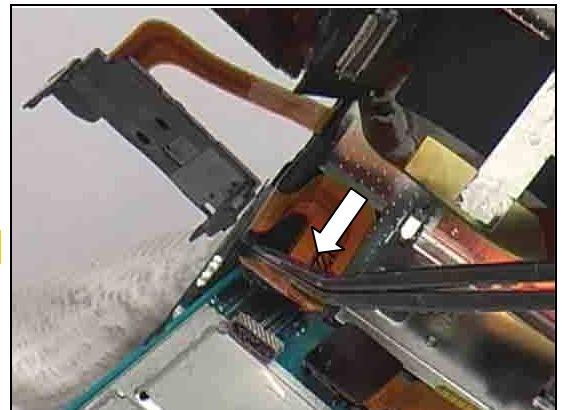
### 5.3 PBA

Thread the RF cable through the hole on the Main Frame.



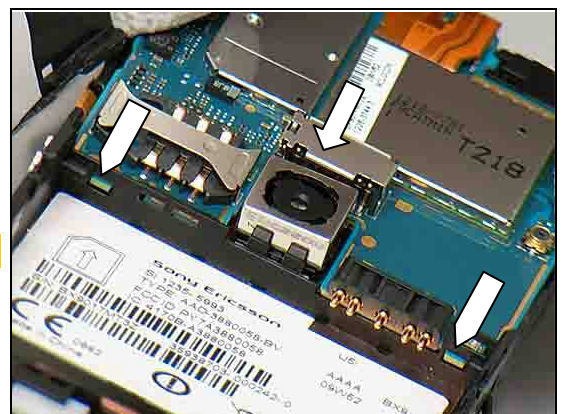
Connect the Key FPC male connector into female connector on the PBA with a flex film assembly tool as shown.

**Make sure the connector is fully snapped.**



Insert the two fastening bolts on the PBA in place as shown by the arrows.

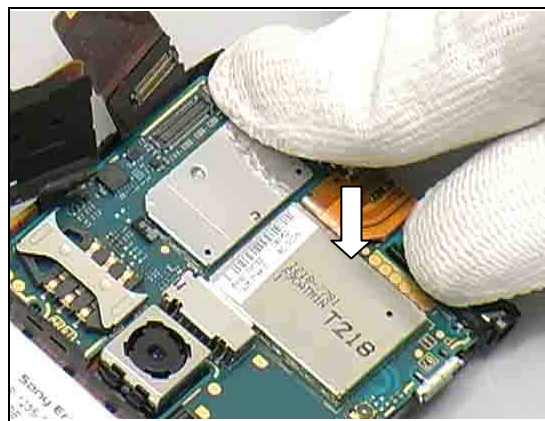
**Make sure the RF cable is positioned properly.**



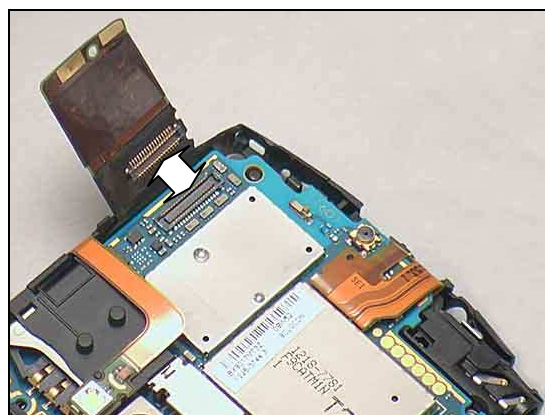


## Reassembly

Press on the top of PBA (incl. the Receiver FPC Assembly together with the Carrier Holder Receiver Flex) to snap it.

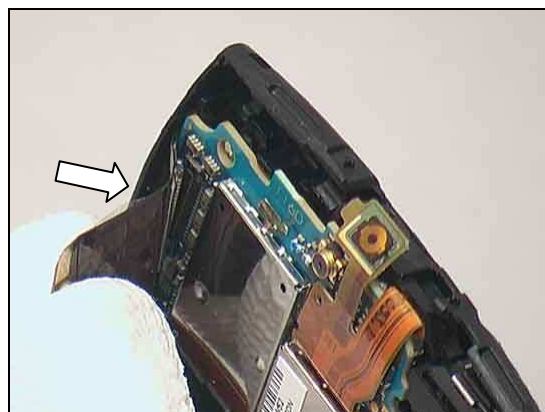


Connect the Display flex BtB connector.

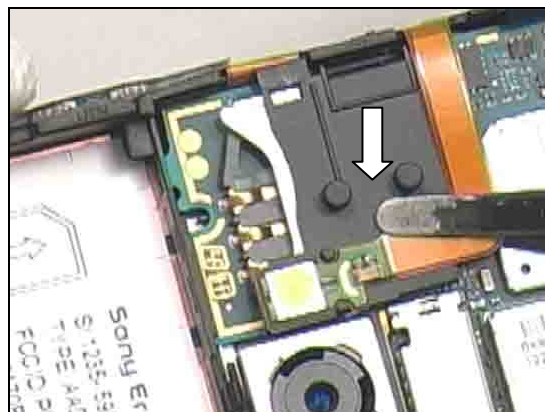


Align the female and male connector with fingers and then press on the Display flex to secure its connection.

**Push evenly to secure the solid connection.**



Push to snap the Carrier Holder P-light assembly in place with a flex film assembly tool.

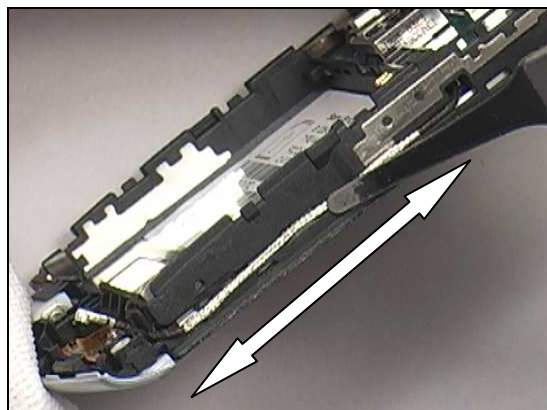




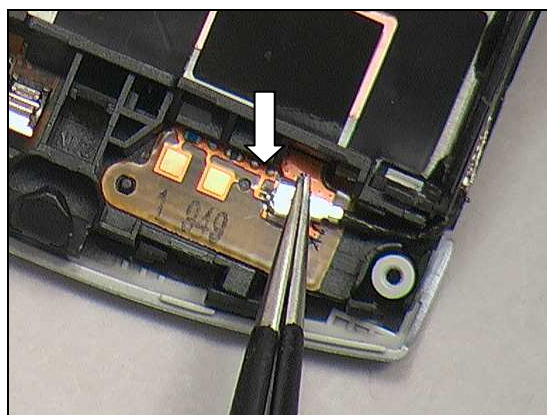
## Reassembly

### 5.4 Main Antenna

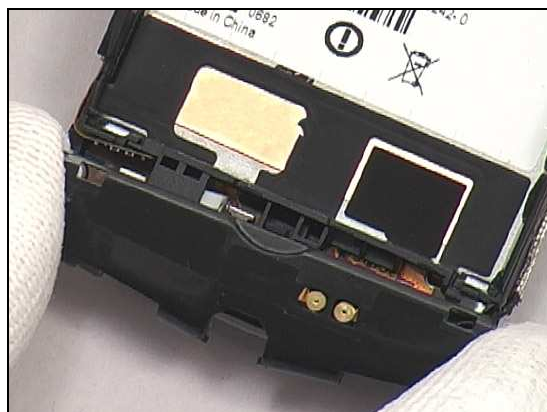
Press along the RF Cable into its groove with a flex film assembly tool.



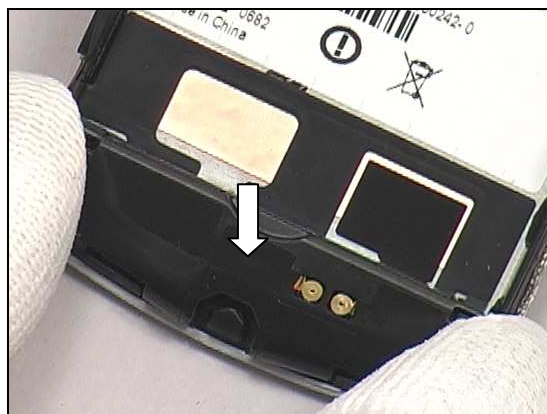
Connect the RF cable to the connector on the Antenna FPC assembly with a pair of tweezers.



Attach the Main Antenna in place.



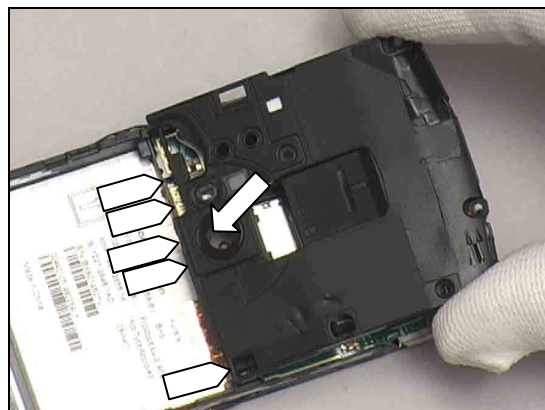
Press to snap the hooks with fingers.



## Reassembly

### 5.5 Ant Non-cellular Assy

Position the five bottom hooks of the Ant Non-cellular Assy in place as shown.



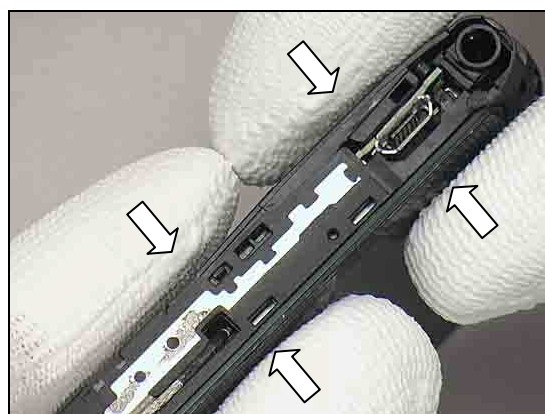
Press to snap the hooks one side.



Press to snap the two hooks on top.



Press to snap hooks on the other side.





## Reassembly

### 5.6 Cap Micro USB & Panel Side Left Sub Assembly

Make sure the right position to insert the Cap Micro USB as shown.

Insert the Cap Micro USB in place with a flex film assembly tool.

**Make sure the RF Cable is properly installed in its groove.**

Follow 4.38 Left Panel Foil Removal Instructions!  
Follow 4.38 Left Panel Foil Installation Instructions!  
There are two hooks fastening the Panel Side Left Sub Assembly as shown.

**Replace a new piece of Left Panel Foil before installation of the Panel Side Left Sub Assembly.**



## Reassembly

Press on the hooks of the panel.



Press on the surface forth and back to snap and attach it properly.

**Make sure the solid attachment of the Panel.**



### 5.7 Panel Side Right Sub Assembly incl Key Volume & Key Camera

*Follow 4. 37 Right Panel Foil Removal Instructions!*

*Follow 4. 37 Right Panel Foil Installation Instructions!*

There are three hooks fastening the Panel Side Right Sub Assembly.

**Replace a new piece of Right Panel Foil before installation of the Panel Side Right Sub Assembly.**



Press on the hooks of the panel.

**Make sure the Key Volume and the Key Camera are properly installed in the panel before installation.**





## Reassembly

Press on the surface forth and back to snap and attach it properly.

**Make sure the solid attachment of the Panel.**



### 5.8 Key On/Off & Cover Front Top

Attach the Key On/Off in alignment with the two guiding bolts.

**Make sure to attach it in the right direction as shown.**



Attach the Cover Front Top in place.



Press to snap it.





## Reassembly

Tighten the three screws with a screwdriver with T4 to a torque of  $14\pm1$  Ncm.

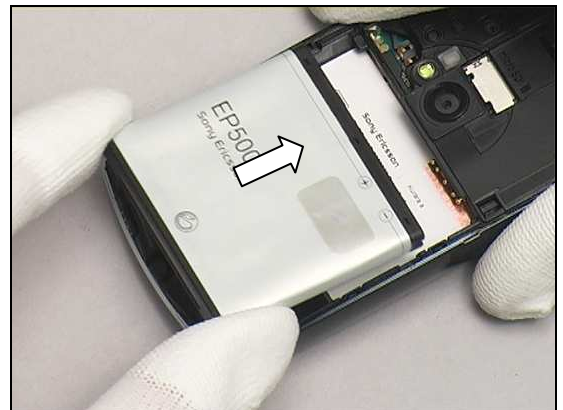


Tighten the two screws with a screwdriver with JASIC 0 to a torque of  $11\pm1$  Ncm.



### 5.9 Battery & Cover Battery Sub Assembly

Position the Battery in its cavity.



Place the Battery in place.

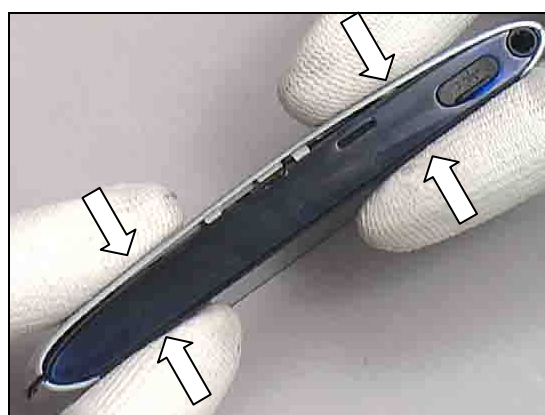


## Reassembly

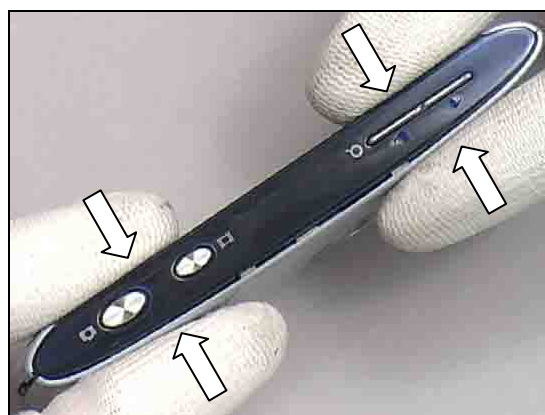
Position two top hooks of the Cover Battery Sub Assembly in place.



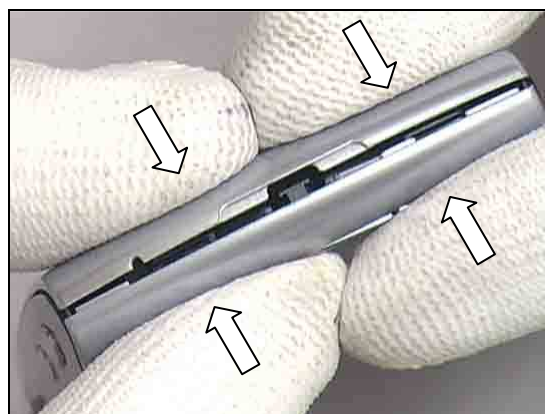
Press to snap the left side.



Press to snap the right side.



Press to snap the bottom side.





## **6 Country of Origin Barcodes for Brazil/VIVO Labels**

Below is a link to a list of countries of origin. If you are printing a Brazil or VIVO label, scan the barcode corresponding to the correct country of origin for the “Fabricado” field.







## 7 Revision History

Rev.	Date	Changes / Comments
1	2010-Feb-25	Initial release
2	2010-Mar-15	Modify some descriptions in consistent with other FEA documents and for better understanding. Modify some minor errors. Add more cautions.
3	2010-Apr-02	Add cautions of install new right/left panel foil when reinstall panel side right/left sub assembly in chapter 5.6, 5.7, 4.21, 4.26.
4	2010-Jul-28	Front page is updated with U5at information. Add two cautions in chapter 3.6. Modify chapter 4.10.
5	2011-Feb-09	Add caution "Start up the unit to initialize settings, before perform Customize Phone in Emma." in chapter 4.41. Add caution "Do not damage the hook!" in chapter 4.19.