



Working Instruction, Mechanical

Applicable for G900

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1 Introduction

1.1 G900



1.2 Equipment

SPECIAL TOOLS

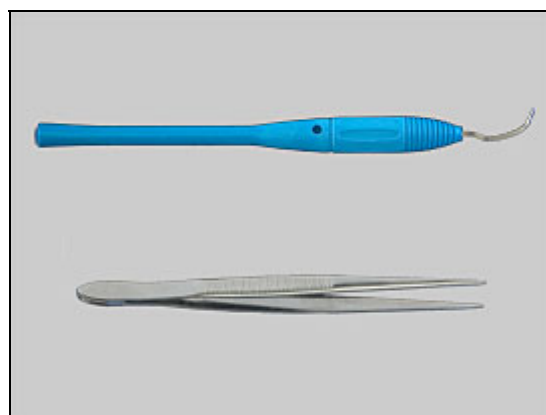
- NTZ 122 459 Torque screwdriver (or equivalent)
- NTZ112478 Torx bit no. 5
- NTZ 122 288 Torx bit no. 6
- NTZ 112 302/2 Front opening tool
- NTZ 122 521 Flex film assembly tool
- NTZ 112 590 Guitar pick



STANDARD TOOLS

Standard tools have to be locally purchased

- Dentist hook
- ESD tweezers



LABEL EQUIPMENT

The following special equipment is required when replacing or installing a new label:

- Hot air flow solder station
- Zebra printer connected to computer



OTHER EQUIPMENT

- ESD-wristband
- ESD-gloves
- Isopropyl alcohol
- Air blower



1.3 General cautions

The following cautions are considered to be generic for all phone models and will not be repeated in the Disassembly, Replacements and Reassembly sections:

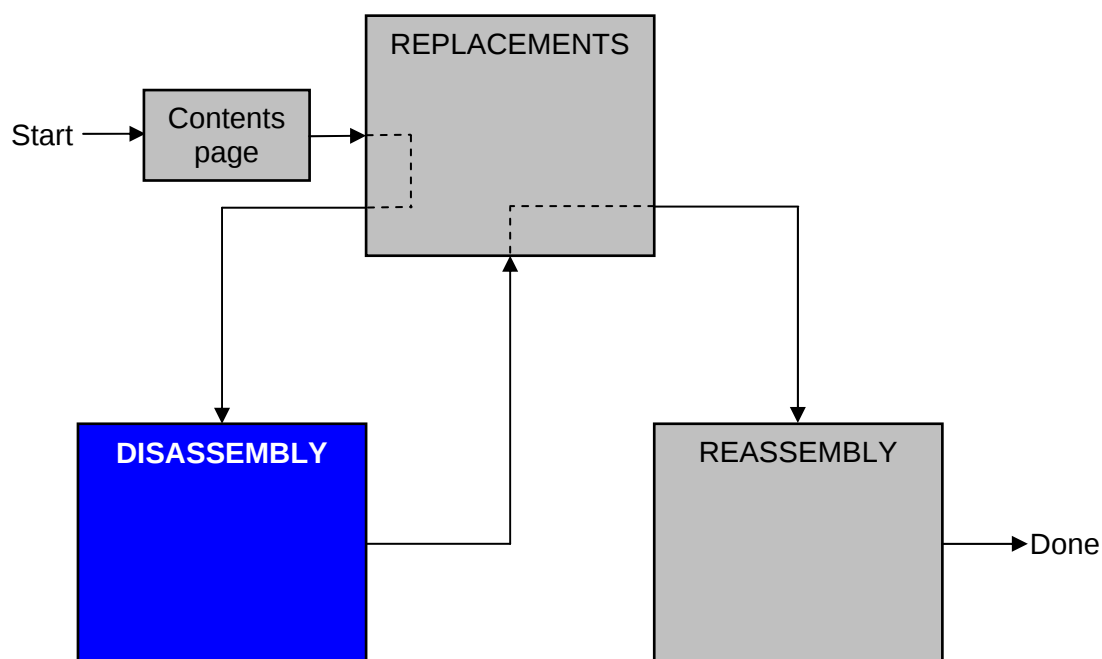
- ***SWITCH OFF THE PHONE AND REMOVE ANY MEMORY STICK BEFORE THE START OF THE DISASSEMBLY!***
- ***KEEP ALL CONTACT SURFACES CLEAN!***
- ***BE CAREFUL WHEN USING TOOLS LIKE THE DENTIST HOOK, TWEEZERS, OPENING TOOLS, GUITAR PICK ETC. TO AVOID SCRATCHES OR DAMAGES TO THE EXTERIOR AND INTERIOR PARTS OF THE PHONE!***
- ***BE CAREFUL NOT TO DAMAGE ANY CONTACT SPRINGS!***
- ***REMEMBER TO REMOVE THE PROTECTION FOILS ON NEW PARTS SUCH AS THE FRONT COVER AND LCD!***
- ***NEVER TOUCH THE DISPLAY GLASS!***
- ***USE AIR BLOW EQUIPMENT TO KEEP THE FRONT WINDOW AND DISPLAY MODULE DUST FREE!***

1.4 Adhesives

Use a dentist hook and/or the tweezers to remove old adhesives.
Clean the surface with isopropyl alcohol before attaching new adhesives.

2 Disassembly

When you are going to replace a part being listed in *Replacements*, the instruction of that section usually begins by directing you to this *Disassembly* section with a specification of the instructions you have to carry out in order to disassemble the phone as far as needed before returning to *Replacements* for the actual replacement.



2.1 Overview

The disassembly is done in the following order:

1. Stylus
2. Battery Cover Assy (a) & Battery (b)
3. Camera Cover Assy
4. Front Assy and keyboard
5. Fame Assy
6. Loudspeaker Box
7. M2/SIM Sub PBA
8. Upper Flex Holder
9. LCD Carrier
10. Display
11. PBA



2.1.1 Stylus

Use your fingers to slide out the Stylus



2.1.2 Battery Cover Assy & Battery

Use your fingers to lift up the Battery Cover



Use your fingers to lift out the Battery



2.1.3 Camera Cover Assy

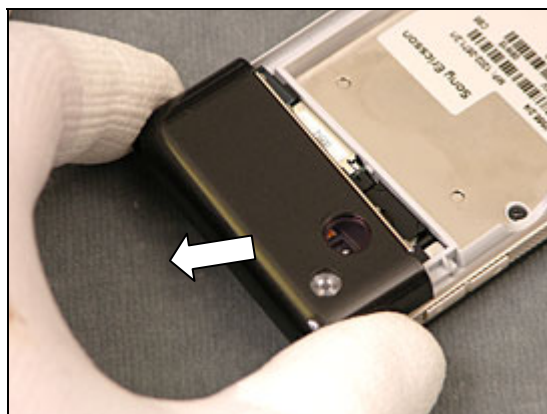
Use a guitar pick and slide it in as the picture shows.



Use a guitar pick and slide it upwards and around

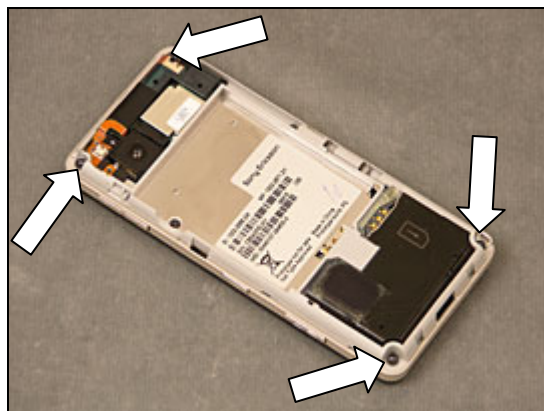


Lift out the camera cover.

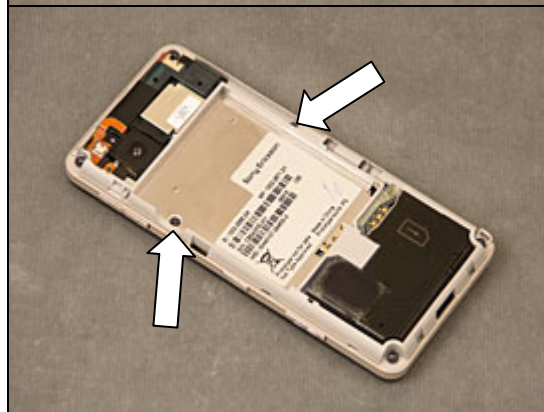


2.1.4 Front Assy and Keyboard

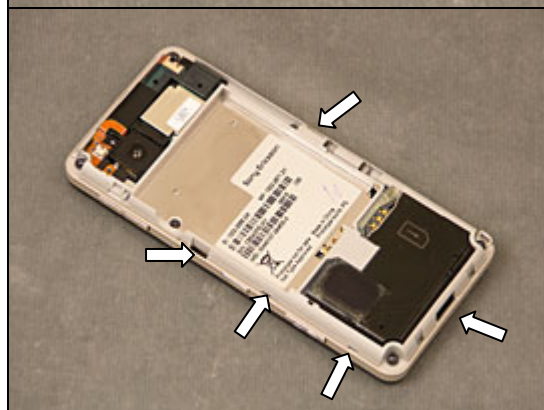
Use Torx bit no 6 to remove the four screws.



Use Torx bit no 5 to remove the two screws.



Use a screw driver to unsnap the 5 internal hooks.



Use a guitar pic to unsnap the front.



Lift out the Front and the Keyboard



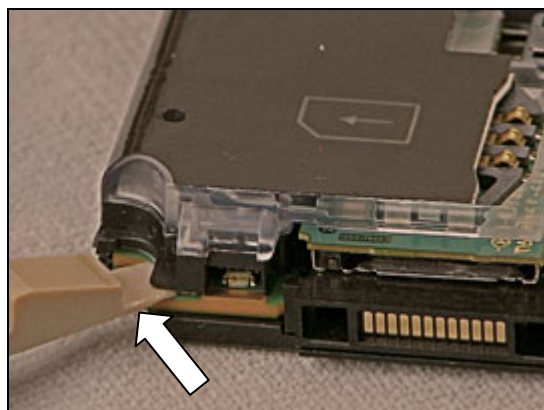
2.1.5 Frame Assy

Turn the phone around and lift of the Frame Assy

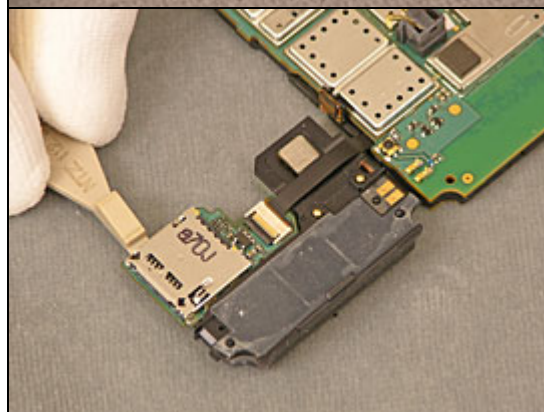


2.1.6 Loudspeaker box and Sub PBA M2/SIM

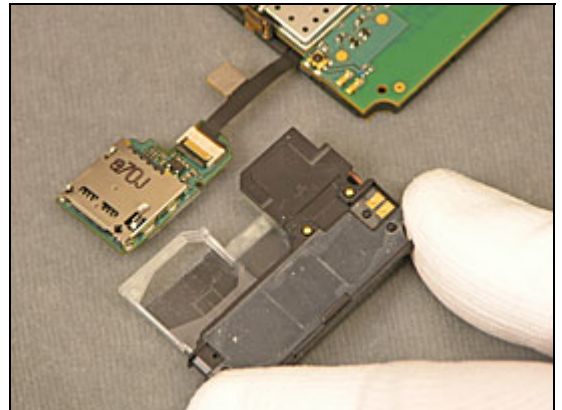
Go in over the Red/green LED with the Front Opening Tool and bend up the speaker box from the PCB
Mind the Red/Green LED.



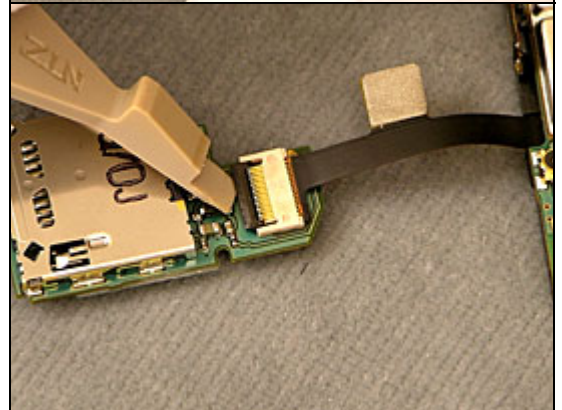
Bend up the M2/SIM Sub PBA with the Front Opening Tool from the Speaker box



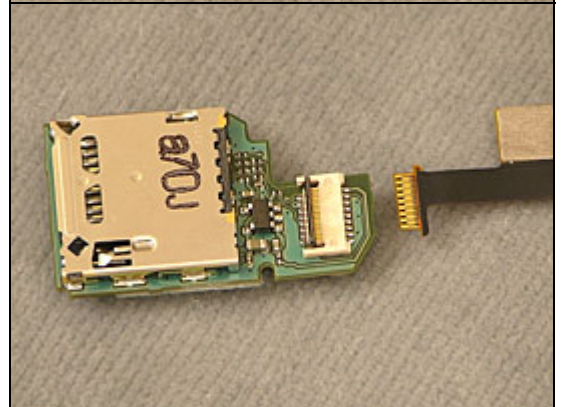
Remove the Speaker box



Open the latch on the Sub PBA M2/SIM

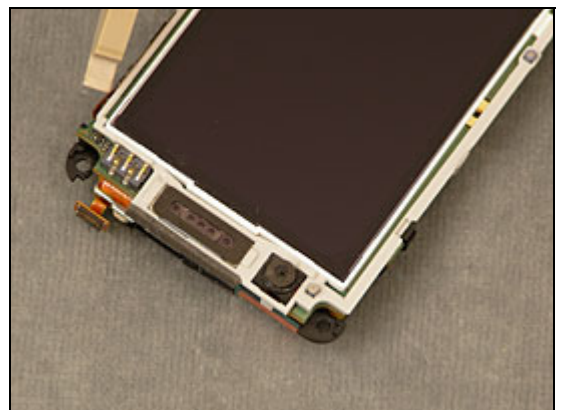


Remove the Sub PBA M2/SIM

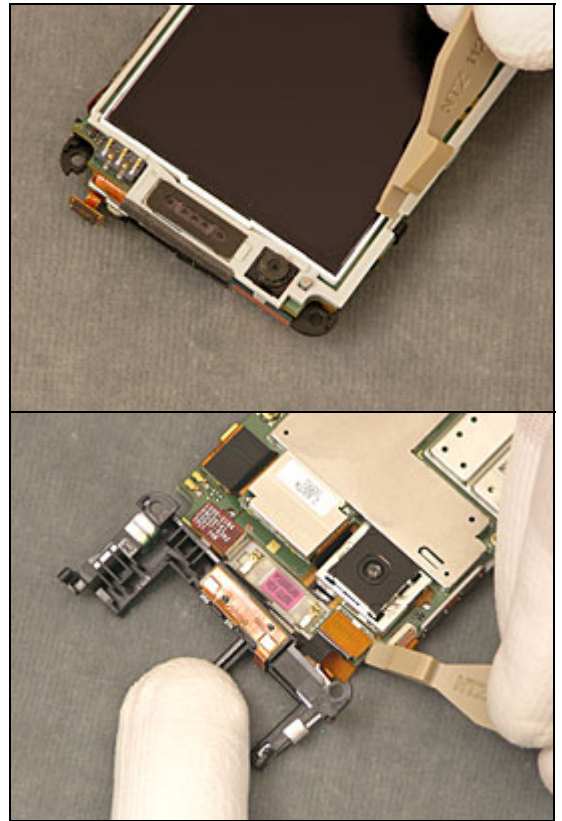


2.1.7 Upper Flex Holder

Unsnap the 2 hooks on the Holder
with the Front opening tool

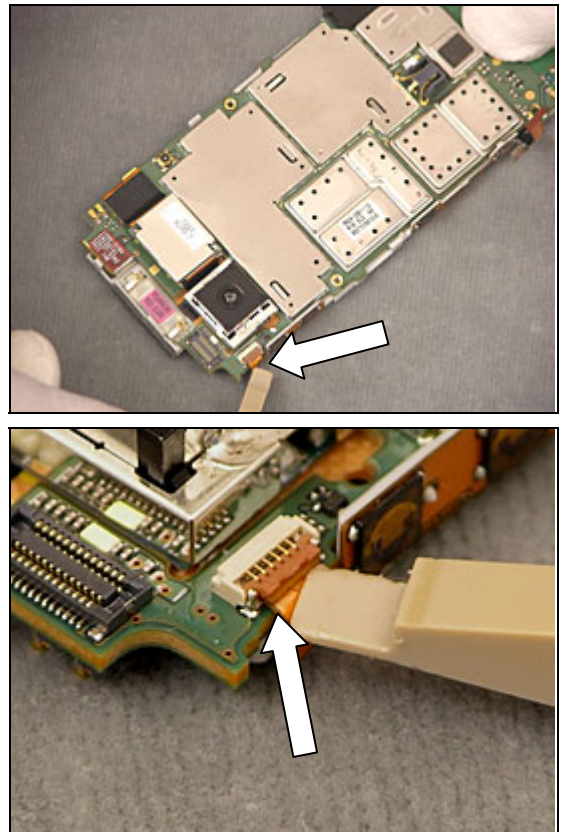


Turn the phone around and lift of the Holder and unsnap the BtB connector with the front opening tool

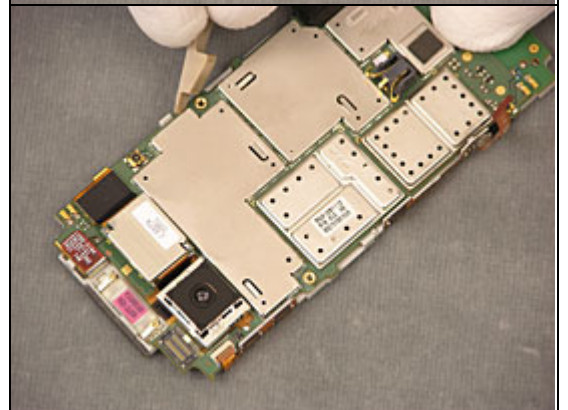
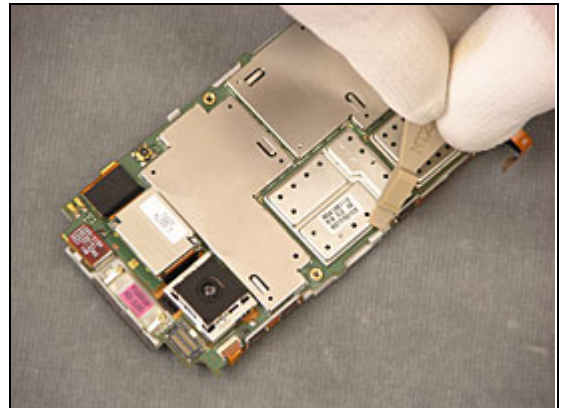


2.1.8 Carrier LCD

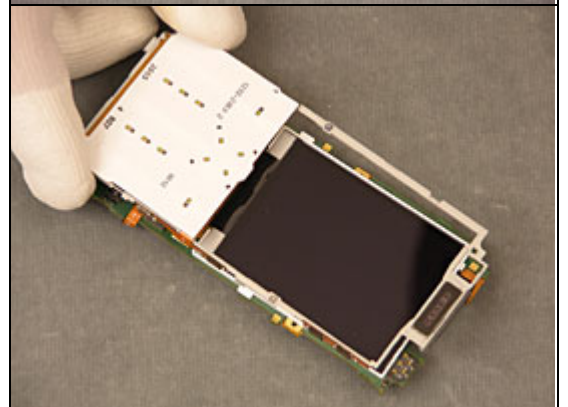
Open the latch for the volume flex with a front opening tool



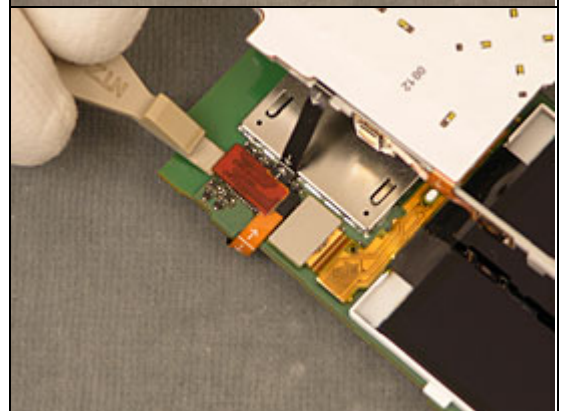
Unsnap the carrier from the PBA



Lift out the Carrier Assy and



unsnap the b2b connector to the LCD Carrier



2.1.9 Display

Unsnap the b2b connector to the LCD



Lift out the LCD



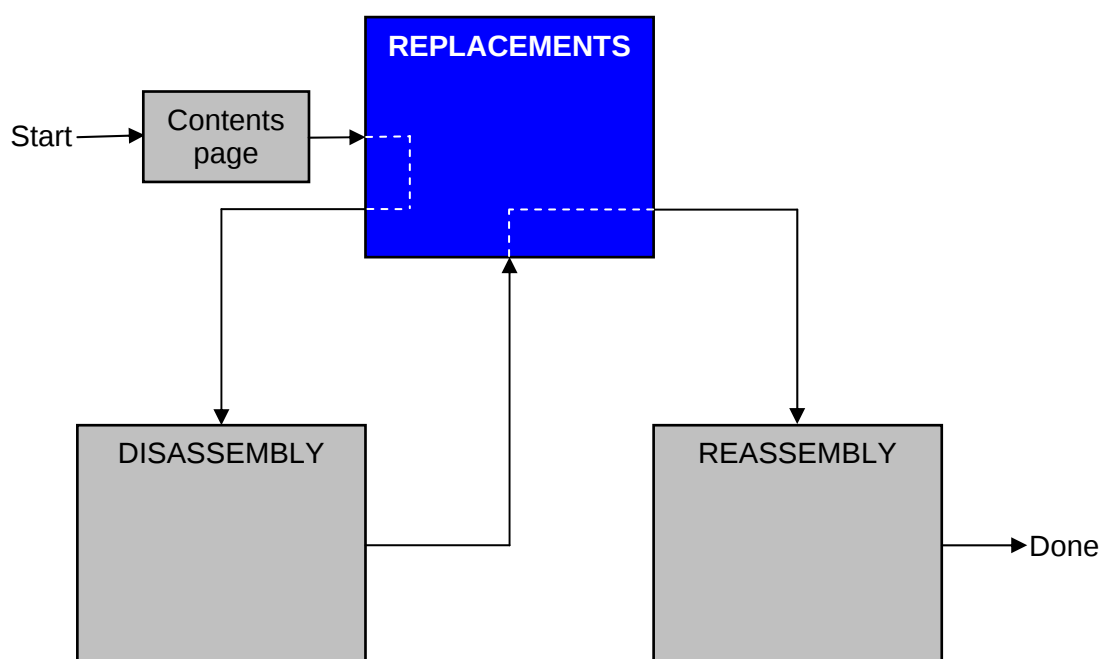
3 Replacements

Search for the part to be replaced on the Contents page and go to that instruction to be found in this *Replacements* section.

The instruction usually begins by directing you to the *Disassembly* section with a specification of the instructions you have to carry out in order to disassemble the phone as far as needed before the actual replacement.

Go back to this *Replacements* section and carry out the instruction.

The instruction usually ends by directing you to the *Reassembly* section with a specification of the instructions you have to carry out in order to reassemble the phone.



3.1 Stylus

Follow the 2.1.1 Disassembly instructions!

Prepare the new Battery Lid Assy.

Follow the 4.1.6 Reassembly instructions!

3.2 Battery Cover Assy

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Prepare the new Battery.

Follow the 4.1.6 Reassembly instructions!

3.3 Battery

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Prepare the new Stylus.

Follow the 4.1.3 – 4.1.6 Reassembly instructions!

3.4 Camera Cover Assy

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Prepare the new Camera Cover Assy.

Follow the 4.1.3 – 4.1.6 Reassembly instructions!

3.5 Front Assy

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Frame Sub Assem Cover.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

3.6 Frame Assy

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Prepare the new Front Cover.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

3.7 Keyboard

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Key Pad

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

3.8 Loudspeaker Box

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Prepare the new Speaker Box.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.9 M2/SIM Sub PBA

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Prepare the new M2/SIM Sub PBA.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.10 Upper Flex Holder

Follow the 2.1.1 – 2.1.5 – 2.1.7 Disassembly instructions!

Prepare the new Flash Flex Carrier.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.11 Carrier LCD

Follow the 2.1.1 – 2.1.5 – 2.1.7– 2.1.8 Disassembly instructions!

Prepare the new Flash Flex Carrier.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.12 Display

Follow the 2.1.1 – 2.1.5 – 2.1.7– 2.1.9 Disassembly instructions!

Prepare the new Flash Flex Carrier.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.13 Gasket Loudspeaker

REMOVAL

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Use a Dentist Hook to remove the Loudspeaker Gasket



INSTALLATION

Use your fingers to position the Loudspeaker Gasket.

Follow the 4.1.7 – 4.1.9 Reassembly instructions!



3.14 Gasket Camera

REMOVAL

Follow the 2.1.3 Disassembly instructions!

Use a Dentist Hook to remove the gasket



INSTALLATION

Use a pair of tweezers to position the Gasket.

Follow the 4.1.9 Reassembly instructions!



3.15 Gasket Flash

REMOVAL

Follow the 2.1.3 Disassembly instructions!

Use a Dentist Hook to remove the gasket



INSTALLATION

Use a pair of tweezers to position the Gasket.

Follow the 4.1.9 Reassembly instructions!



3.16 Gasket Mic

REMOVAL

Follow the 2.1.4 Disassembly instructions!

Use a Dentist Hook to remove the Gasket



INSTALLATION

Use a pair of tweezers to apply the Gasket.

Follow the 4.1.7 – 4.1.9 Reassembly instructions!



3.17 Gasket Q-Sif Camera

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

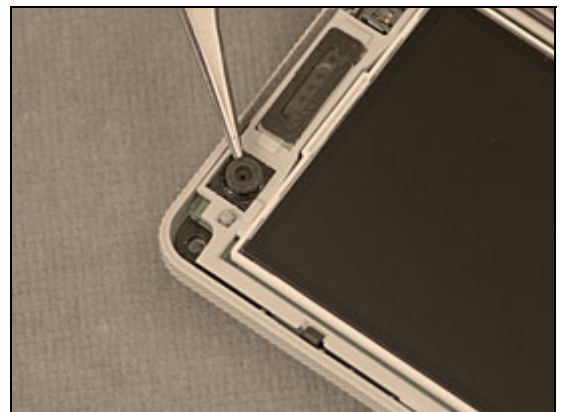
Use a Dentist Hook to remove the QSIF Gasket



INSTALLATION

Use a pair of tweezers to apply the QSIF Gasket.

Follow the 4.1.7– 4.1.9 Reassembly instructions!

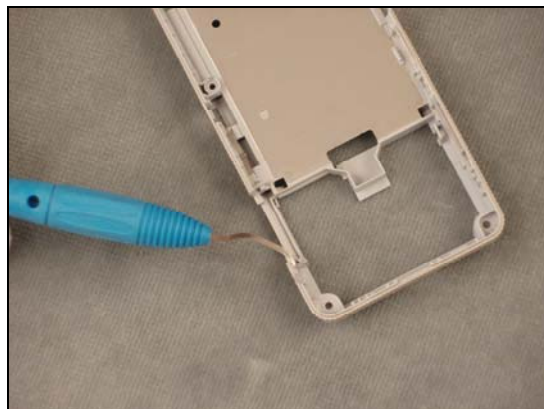


3.18 Light Guide

REMOVAL

Follow the 2.1.5 Disassembly instructions!

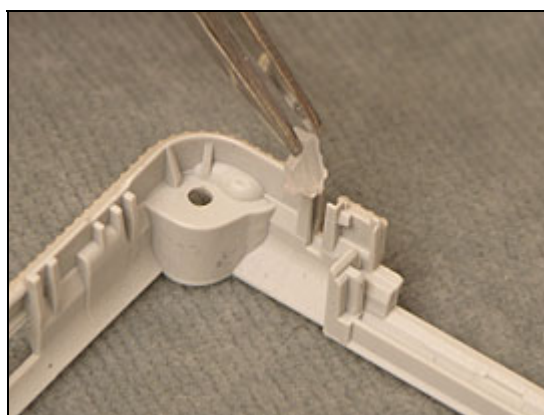
Use a Dentist hook to remove the Light Guide.



INSTALLATION

Use your fingers to position the Light Guide.

Follow the 4.1.6 – 4.1.9 Reassembly instructions!



3.19 Key On/Off

REMOVAL

Follow the 2.1.5 Disassembly instructions!

Use Tweezers and your finger to remove the Key.



INSTALLATION

Use Tweezers insert the Key

Follow the 4.1.6 – 4.1.9 Reassembly instructions!



3.20 Key Hold

REMOVAL

Follow the 2.1.5 Disassembly instructions!

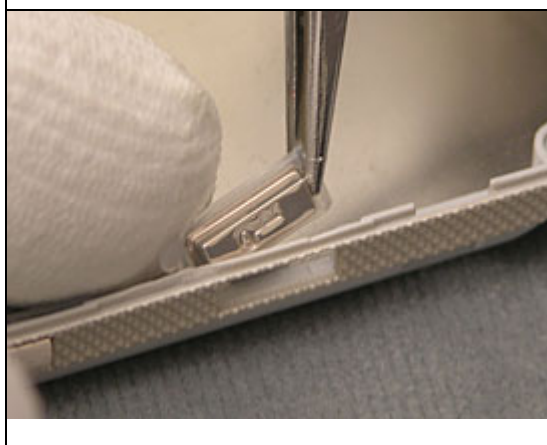
Use Tweezers and your fingersto remove the Key



INSTALLATION

Use Tweezers and your fingers to insert the Key

Follow the 4.1.6 – 4.1.9 Reassembly instructions!



3.21 Key Camera

REMOVAL

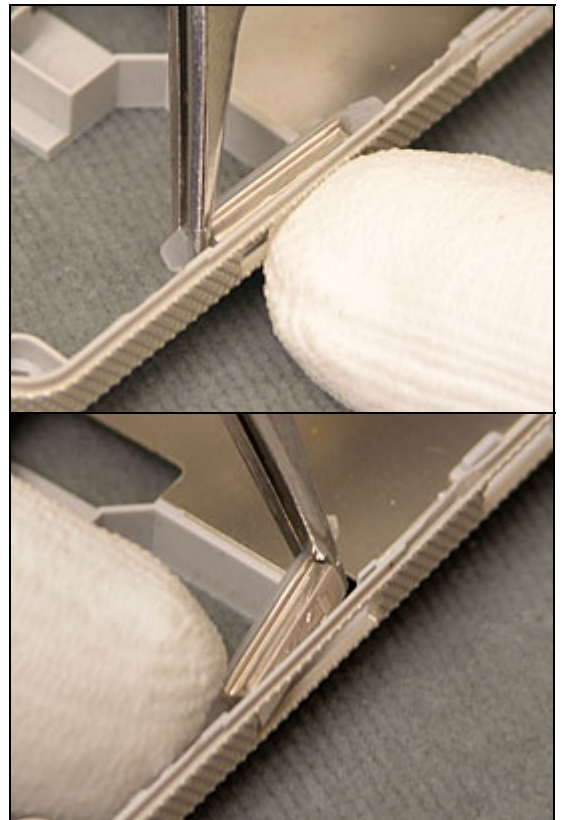
Follow the 2.1.5 Disassembly instructions!

Use Tweezers and your fingers to remove the Key

INSTALLATION

Use Tweezers and your fingers to insert the Key

Follow the 4.1.6 – 4.1.9 Reassembly instructions!



3.22 Key Volume

REMOVAL

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

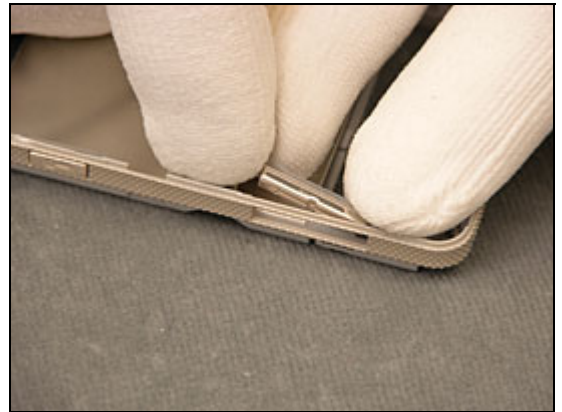
Use Tweezers to remove the Key



INSTALLATION

Use Tweezers and your fingers to insert the Key

Follow the 4.1.6 – 4.1.9 Reassembly instructions!

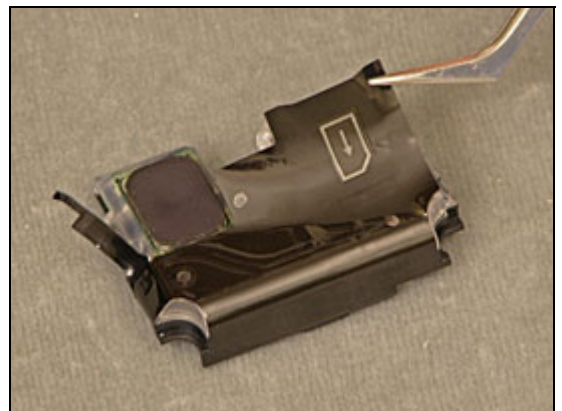


3.23 Antenna Main Flex

REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

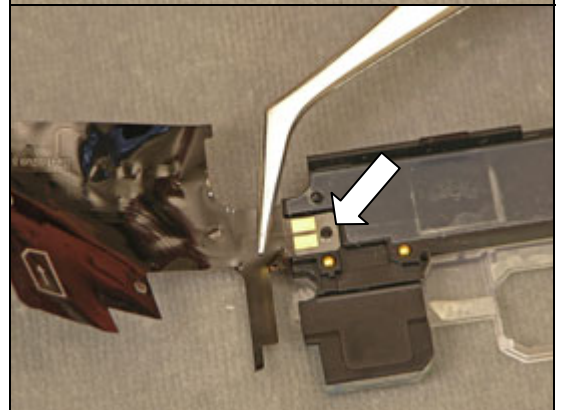
Use a tweezers to remove the Antenna Flex



INSTALLATION

Use the guiding pin on the speaker box to align the antenna flex.

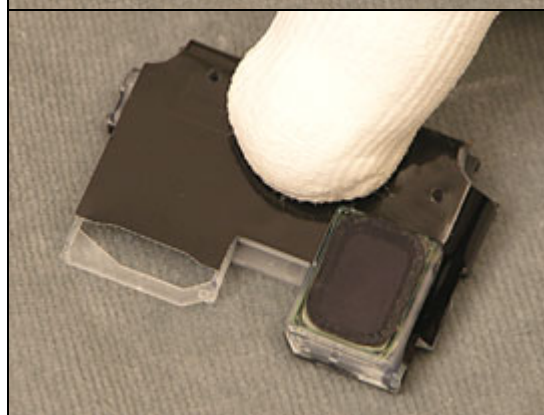
Follow the 4.1.4 – 4.1.9 Reassembly instructions!



Turn the speaker box around and roll out the antenna flex



Make sure there is no air bubbles on the new flex



3.24 Vibrator

REMOVAL

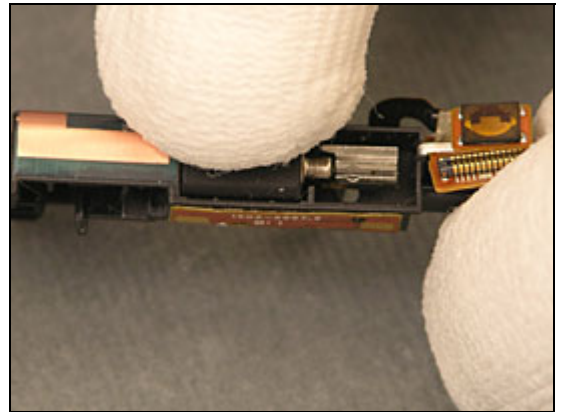
Follow the 2.1.1 – 2.1.5—2.1.7 Disassembly instructions!
Remove the vibrator with a dentist hook.



INSTALLATION

Use your fingers to insert the new vibrator.

Follow the 4.1.3 – 4.1.9 Reassembly instructions!



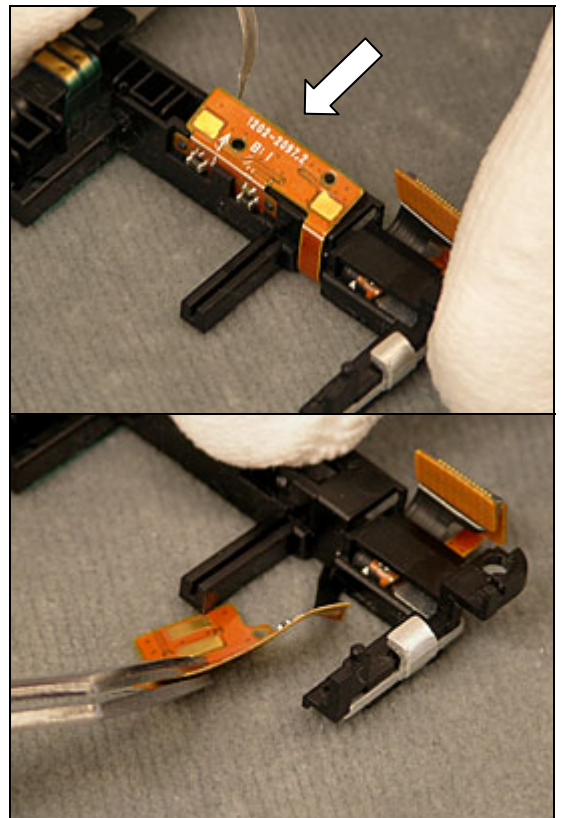
3.25 Flash Flex Assy

REMOVAL

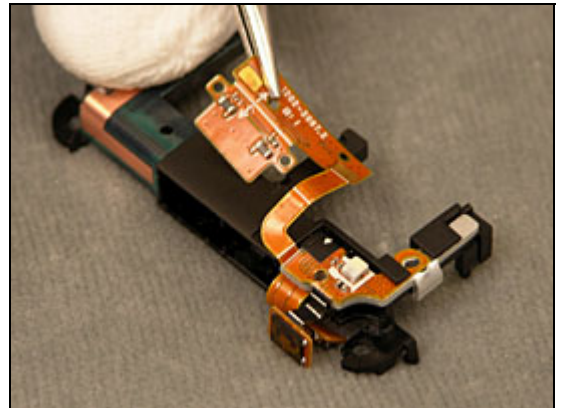
Follow the 2.1.1 –2.1.6—2.1.8 Disassembly instructions!

Use a Dentist hook to lift the flex at the Vibrator contact area.

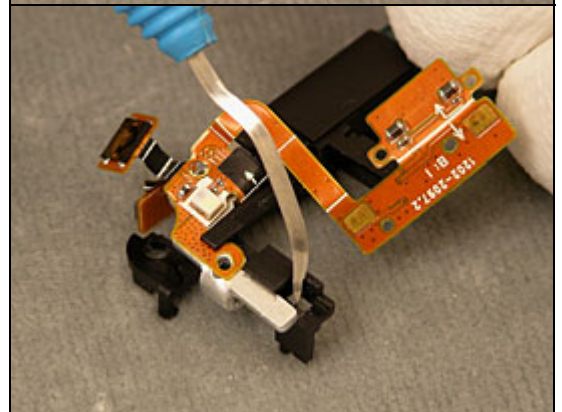
Fold down the flex.



Turn the carrier around.



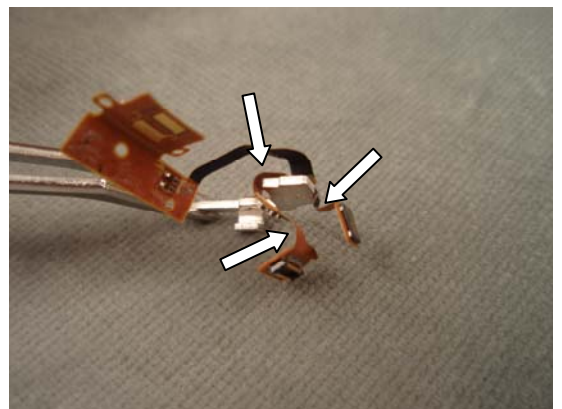
Release the flash cooling plate from the carrier and lift out the flex.



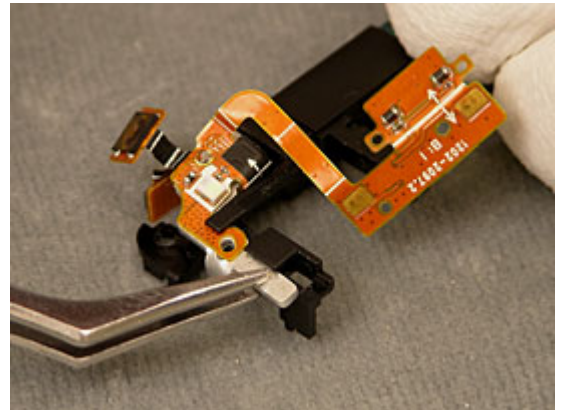
INSTALLATION

Use your fingers and the Flex Film Assembly Tool to pre bend the flex at the markings.

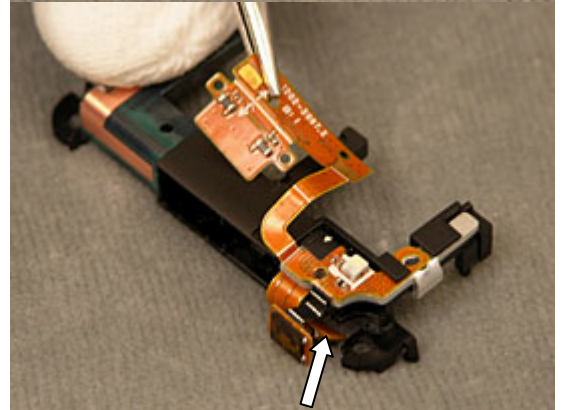
Follow the 4.1.3 – 4.1.9 Assembly instructions!



Insert the cooling plate in the slot



Push in the BtB bend in the pocket



Turn the Holder around



Push in the vibrator connector part in the slot



Use the guiding pins to align the flex and press it in place with your fingers

Follow the 4.1.3 – 4.1.9 Assembly instructions!

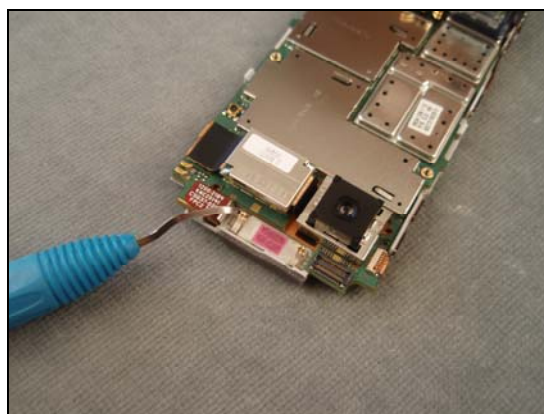


3.26 Ear speaker

REMOVAL

Follow the 2.1.1 – 2.1.5—2.1.7 Disassembly instructions!

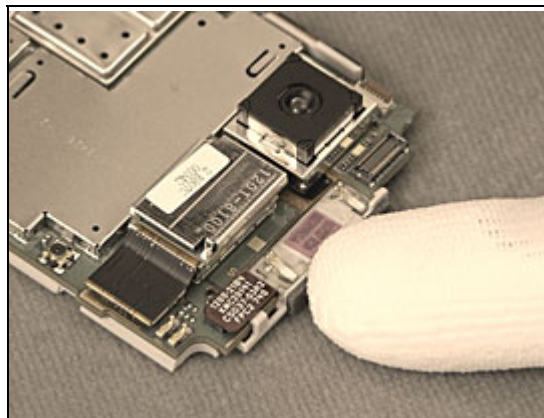
Remove the ear speaker with a your fingers or an Dentist hook.



INSTALLATION

Use your fingers to install the new earspeaker

Follow the 4.1.3 – 4.1.9 Reassembly instructions!

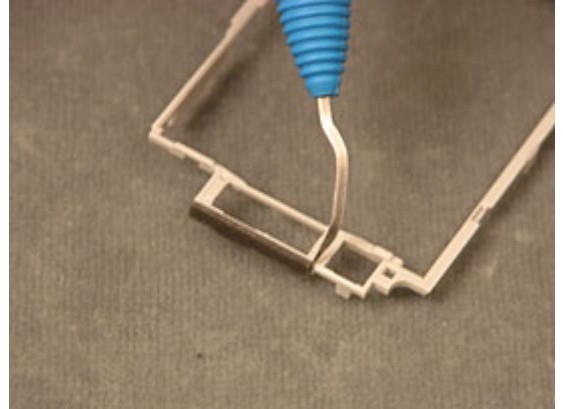


3.27 Gasket ESD Top

REMOVAL

Follow the 2.1.1 – 2.1.8 Disassembly instructions!

Remove the gasket with a Dentist hook.



INSTALLATION

Use a pair of tweezers to install the new gasket

Follow the 4.1.3 – 4.1.9 Reassembly instructions!

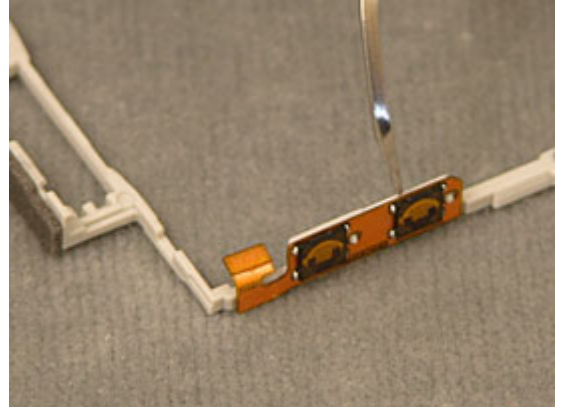


3.28 Volume Flex Assy

REMOVAL

Follow the 2.1.7 Disassembly instructions!

Remove the flex with a Dentist hook.



INSTALLATION

Pre bend the flex and use the guiding pins to apply it correctly.

Follow the 4.1.3 – 4.1.9 Reassembly instructions!

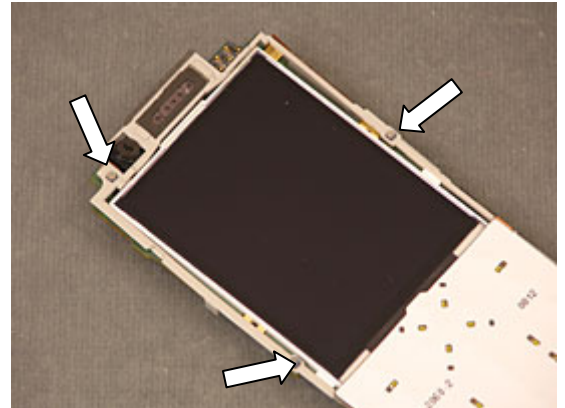


3.29 Grounding Cushions

REMOVAL

Follow the 2.1.5 Disassembly instructions!

Remove the Grounding Cushions with a pair of tweezers



INSTALLATION

Use pair of tweezers to install the new Grounding Cushions

Follow the 2.1.5 – 2.1.9 Reassembly instructions!



3.30 Camera 5 MPixel

REMOVAL

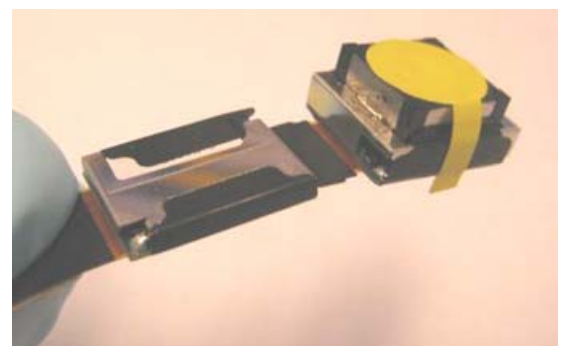
Follow the 2.1.1 – 2.1.5 —2.1.8 Disassembly instructions!

Use a front opening tool to remove the Camera



INSTALLATION

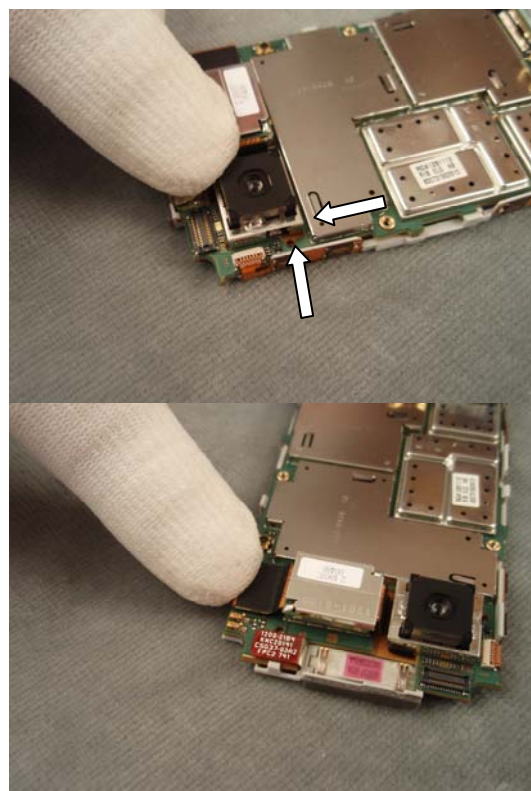
Apply the adhesive and pre bend the flex



Use your fingers to place the Camera in the corner off the recess.

Follow the 4.1.5 – 4.1.9 Reassembly instructions!

Use your fingers to snap on the BtB connector

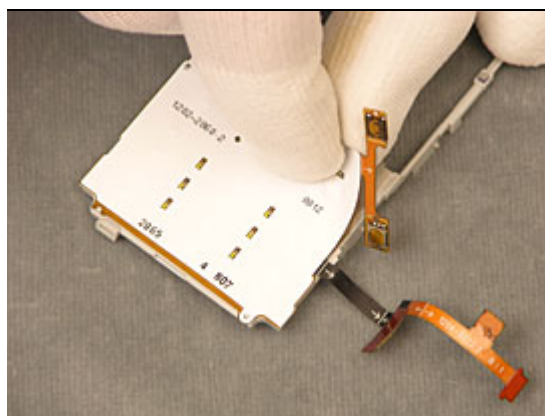


3.31 Flex Keyboard Assy

REMOVAL

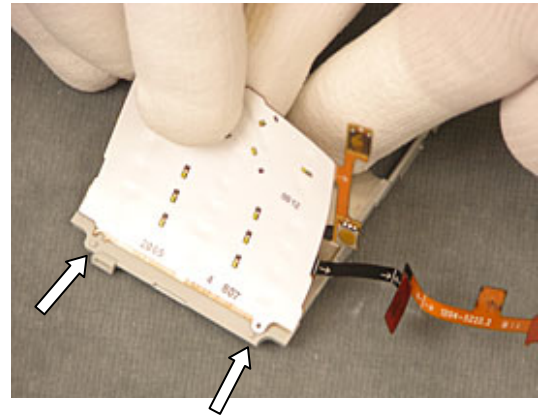
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Use a dentist hook and your fingers to remove the Dome Sheet Flex



INSTALLATION

Clean up the surface from adhesive residues
And use the guiding pins to align the new Dome Sheet Flex



Roll on the flex to avoid air bubbles

Follow the 4.1.1 – 4.1.9 Reassembly instructions!

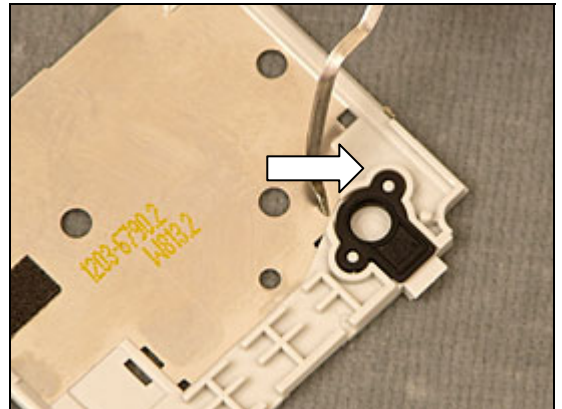


3.32 Mic Gasket

REMOVAL

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Use a dentist hook to remove the gasket



INSTALLATION

Use a pair of tweezers to place the gasket
Make shore the gasket is in place by pushing it down with your fingers

Follow the 4.1.1 – 4.1.9 Reassembly instructions!



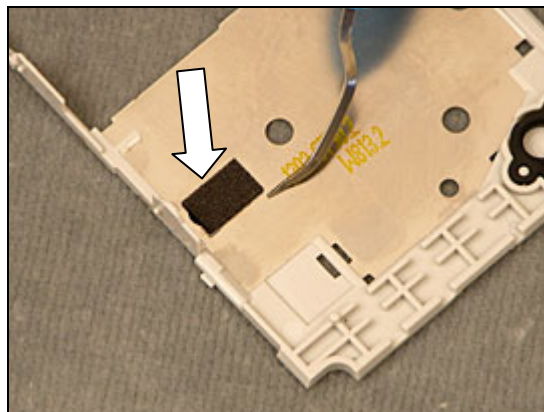
3.33 BtB Gasket

REMOVAL

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Use a Dentist Hook to remove the Gasket

Clean up the surface from adhesive residues



INSTALLATION

Use a pair of tweezers to place the gasket within the markings

Follow the 4.1.1 – 4.1.9 Reassembly instructions!



3.34 Camera Module QSIF

REMOVAL

Follow the 2.1.1 – 2.1.6—2.1.8–2.1.9 Disassembly instructions!

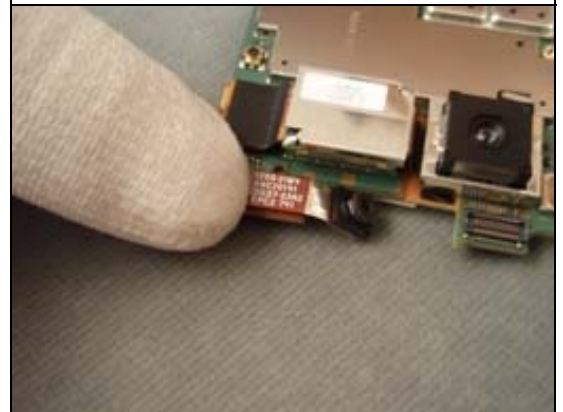
Use a Front Opening Tool to disconnect the Camera



INSTALLATION

Use your fingers to apply the new camera

Follow the 4.1.1 – 4.1.9 Reassembly instructions!

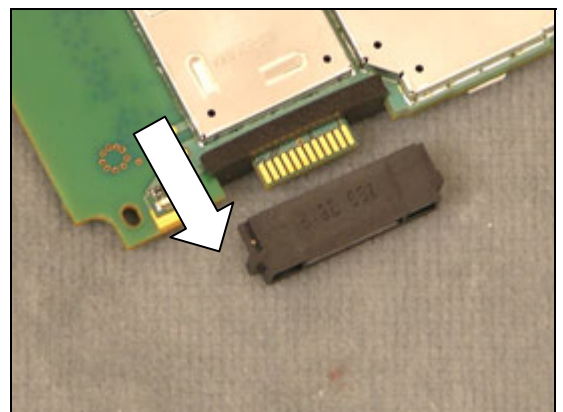


3.35 I/O Connector/Dust Gasket

REMOVAL

Follow the 2.1.1 –2.1.9 Disassembly instructions!

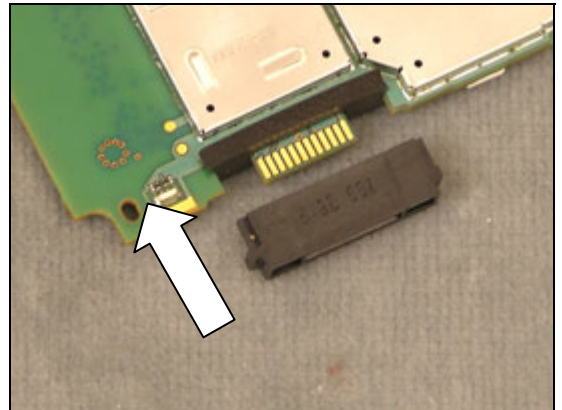
Use Your fingers to remove the Connector/Gasket



INSTALLATION

Use your fingers to insert the new Connector/Gasket

Follow the 4.1.1 – 4.1.9 Reassembly instructions!

**3.36 Thread Inserts****REMOVAL**

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

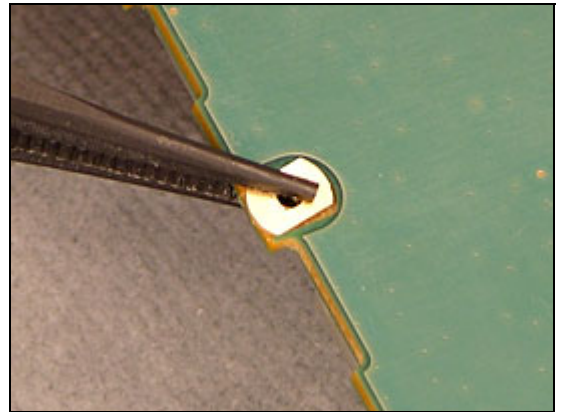
Use a Philip screwdriver to press out the inserts



INSTALLATION

Use a pair of pliers to insert the new inserts

Follow the 4.1.1 – 4.1.9 Reassembly instructions!

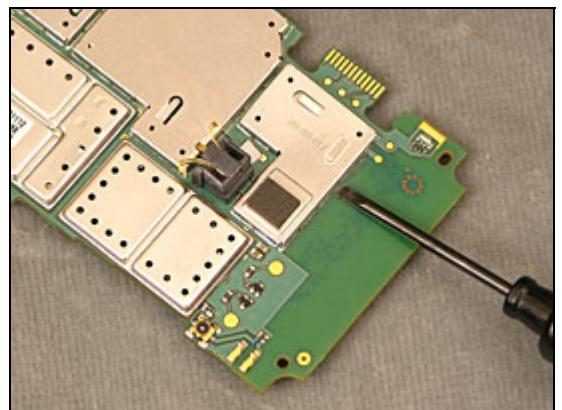


3.37 Shield Cans x 5

REMOVAL

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

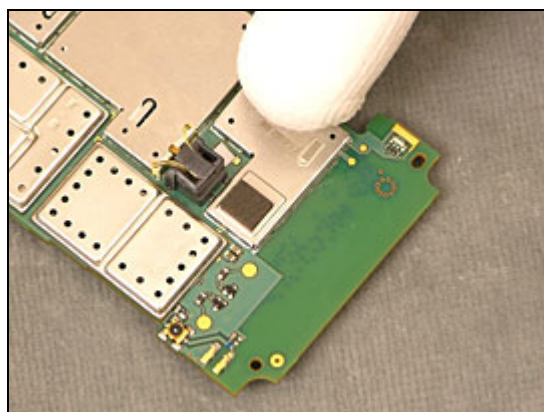
Use a screwdriver to release the shield cans



INSTALLATION

Use your finger to inert the new shield cans

Follow the 4.1.1 – 4.1.9 Reassembly instructions!



3.38 Liquid Intrusion Indicator

REMOVAL

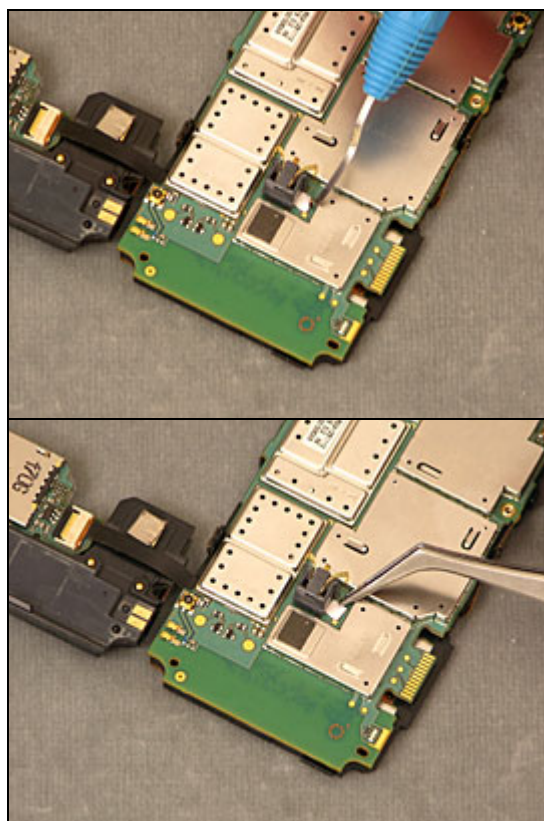
Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Use a dentist hook to remove the label

INSTALLATION

Use a pair of tweezers to apply the new label

Follow the 4.1.4– 4.1.9 Reassembly instructions!



3.39 Cushion 1,05 mm

REMOVAL

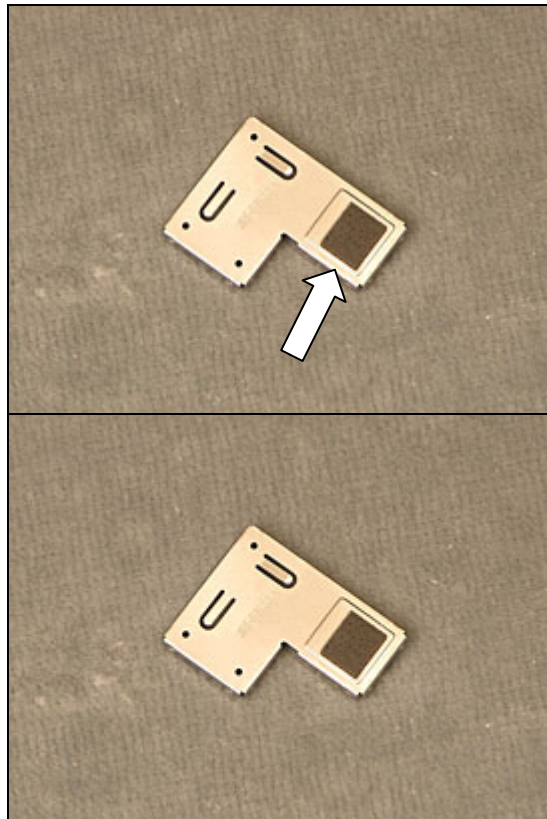
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Use a Dentist hook to remove the Cushion

INSTALLATION

Use a pair of tweezers to apply the new Cushion

Follow the 4.1.1 – 4.1.9 Reassembly instructions!



3.40 ISP Cushion

REMOVAL

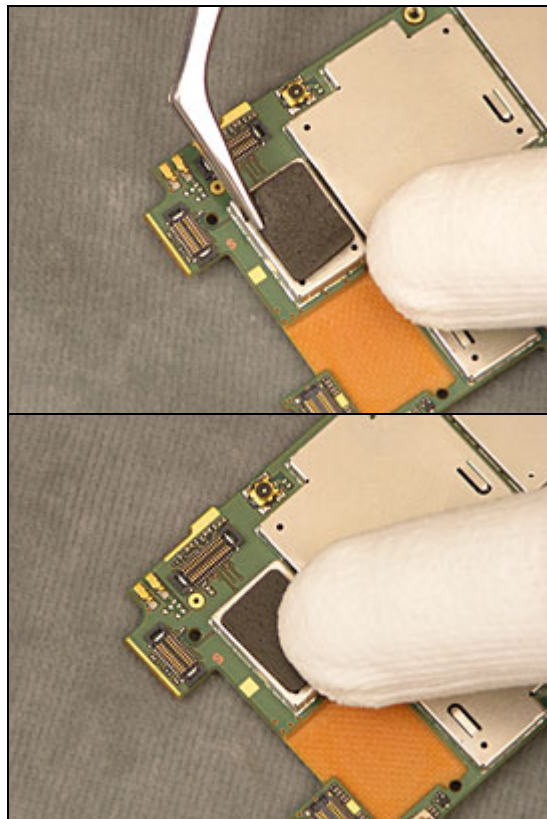
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Use a Dentist hook or a pair of tweezers to remove the Cushion

INSTALLATION

Use your fingers to apply the new Cushion

Follow the 4.1.1 – 4.1.9 Reassembly instructions!



3.41 KRH Label

Follow the 2.1.1 Disassembly instructions!

- Read the old label and/or write the information into the "Label make" program before removal
- Note the position of the label before removal
- Heat up the label by using hot air, if needed
- Carefully remove the label without causing scratches
- If there still are residues, clean the surface with isopropyl alcohol



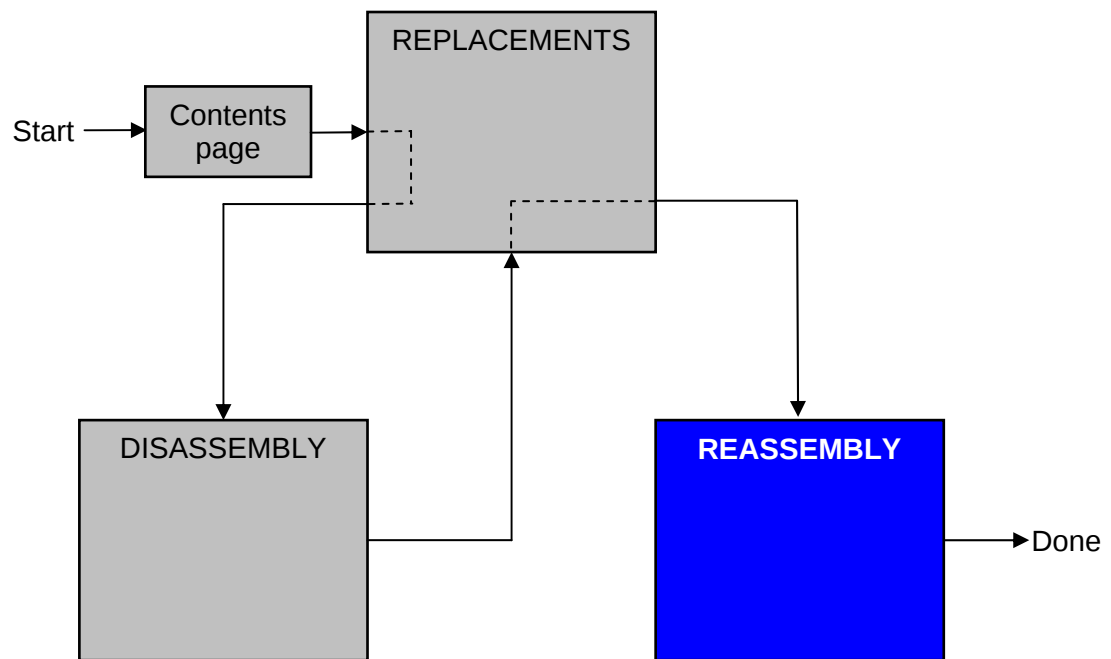
- Check that the proper label format is loaded in the Zebra printer
- Write a new label by using the program "Label make" and check that the printing is OK
- Take the new label and place it onto the frame as in the adjacent picture

ONE LABEL ONLY IS ALLOWED!

Follow the 4.1.6 Reassembly instructions!

4 Reassembly

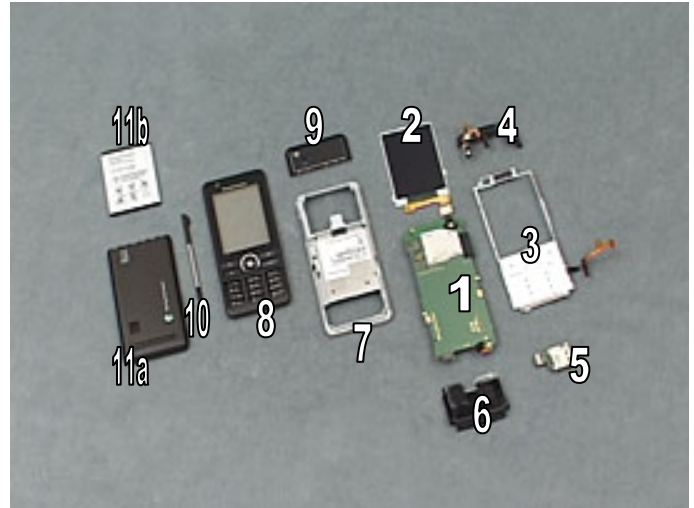
After replacing a part being listed in Replacements, the instruction of that section usually ends by directing you to this Reassembly section with a specification of the instructions you have to carry out in order to reassemble the phone.



4.1 Overview

The reassembly is done in the following order:

1. PBA
2. Display
3. LCD Carrier
4. Upper Flex Holder
5. M2/SIM Sub PBA
6. Loudspeaker Box
7. Frame Assy
8. Front Assy and Keyboard
9. Camera Cover Assy
10. Stylus
11. Battery Cover Assy (a) & Battery (b)

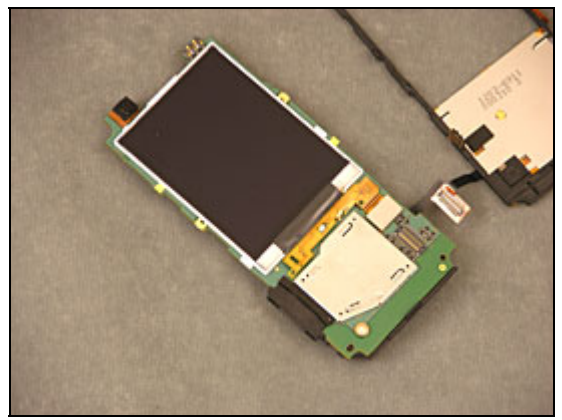


4.1.1 Display

Use your fingers to install the LCD BtB connector

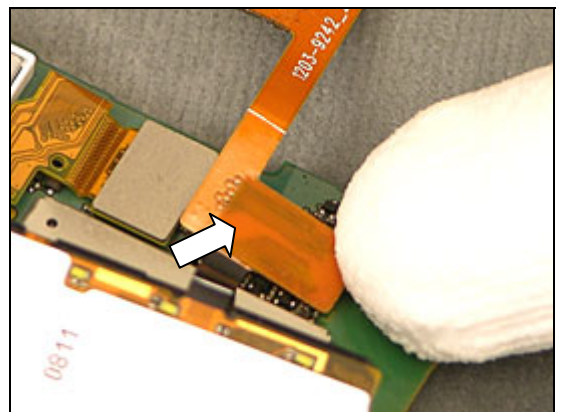


Use your fingers to position Frame LCD



4.1.2 Carrier LCD

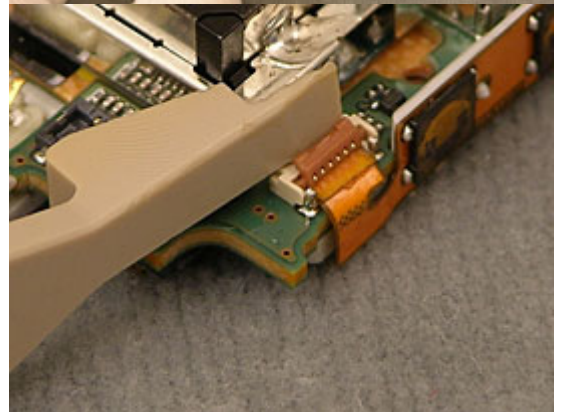
Use your fingers to install the BtB connector



Use your fingers to position the Carrier and snap it on

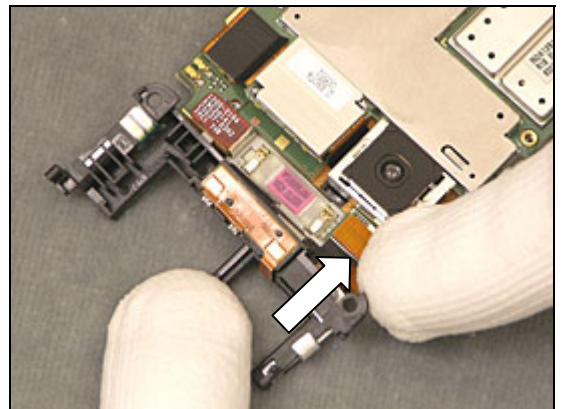


Secure the volume flex

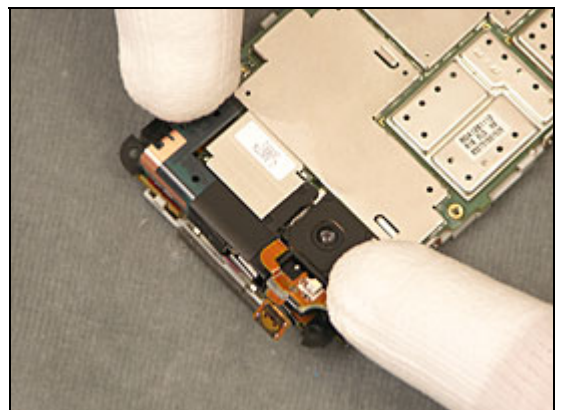


4.1.3 Upper Flex Holder

Use your fingers to position the BtB connector

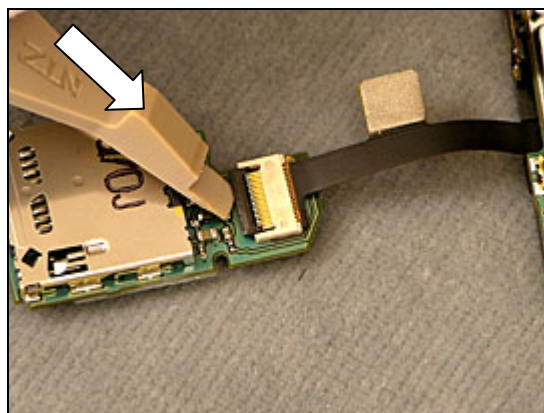


Use your fingers to snap on the Holder

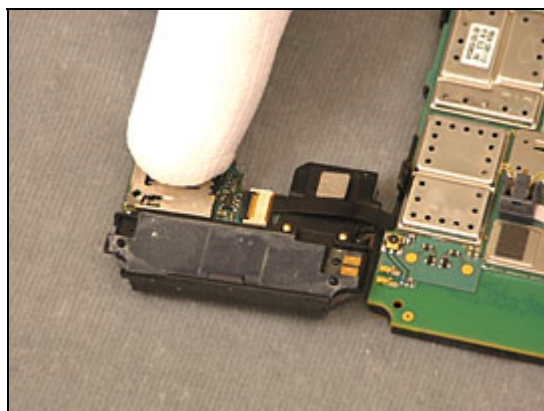


4.1.4 M2/SIM Sub PBA and Loudspeaker box

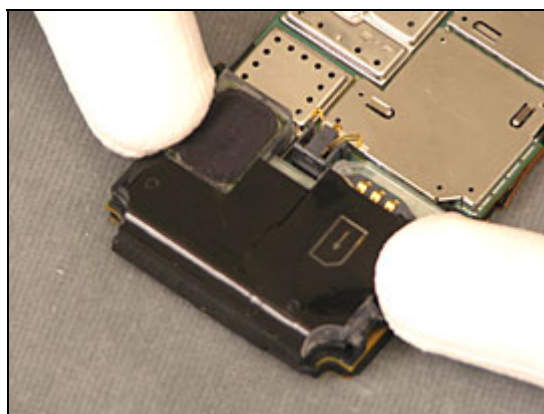
Put in the flex in to the M2/SIM BPA and lock the latch with a front opening tool



Snap the M2/SIM BPA in to the speaker box

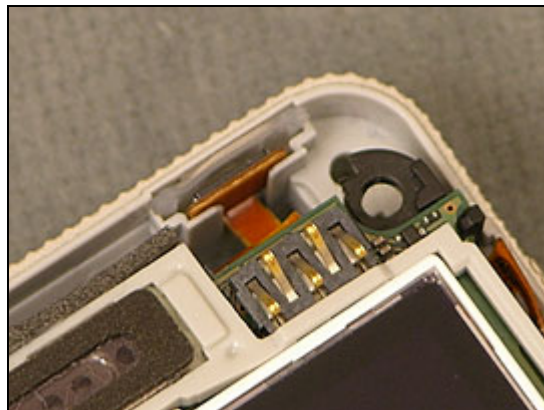


Turn the speakerbox around and press it on to the PBA



4.1.5 Frame Assy

Place the On/Off dome flex in the key slot

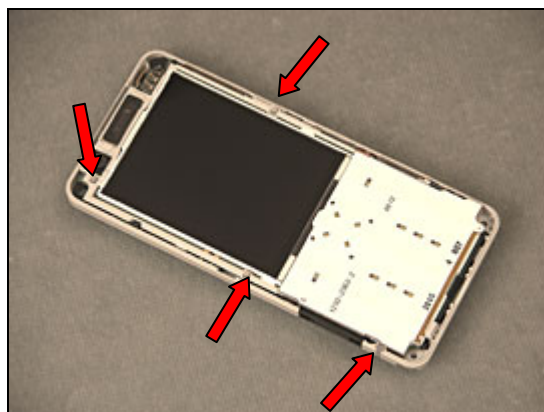


Use your fingers to place the Core Unit in the frame



4.1.6 Front Assy

Make sure the grounding cushions and the light guide are in place



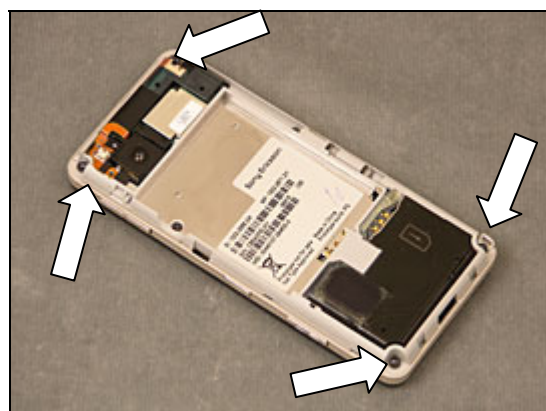
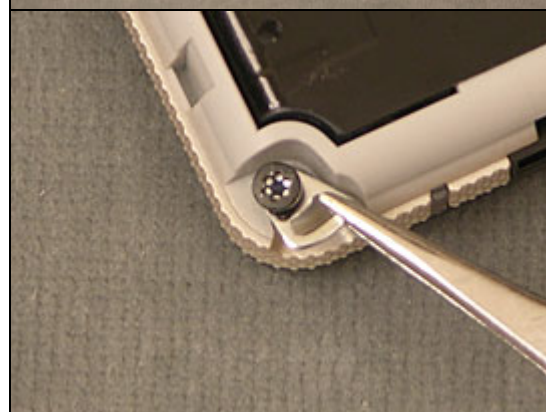
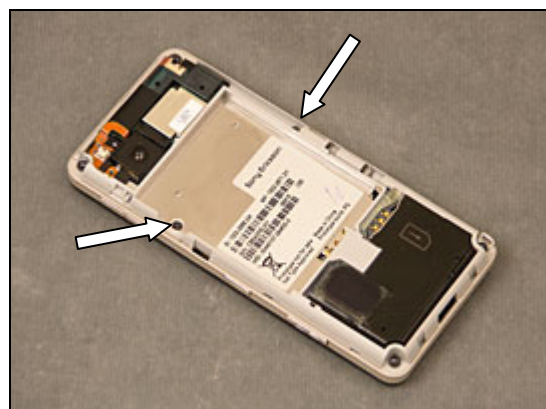
Use your fingers to snap on the Front



Take new screws and use the Torx bit No 5 for the small screws and tightened them to with the torque 11 Ncm

Place the strap holder on the lower right screw.

Take new screws and use the Torx bit No 6 for the large screws and tightened them to with the torque 16 Ncm



4.1.7 Camera Cover

Use your fingers to snap on the cover



4.1.8 Battery and battery cover Assy

Use your fingers to insert the Battery and the battery lid



4.1.9 Stylos

Use your fingers to insert the Stylus



5 Revision history

Rev.	Date	Changes / Comments
1	2008-04-24	Initial release