



Working Instruction, Mechanical

Applicable for V640i & K630i

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1 Introduction

FRONT



BACK



1.1 Equipment

SPECIAL TOOLS

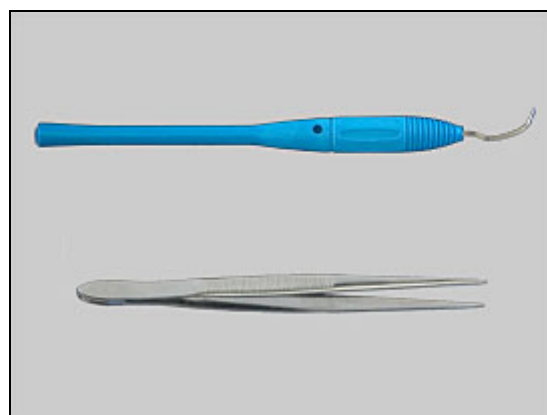
- NTZ 112 459 Torque screwdriver (or equivalent)
- NTZ 112 288 Torx bit no. 6
- NTZ 112 302/2 Front opening tool
- NTZ 112 1067 Mega Camera Tool
- NTZ 112 1077 VGA Camera Tool
- NTZ 112 590 Guitar Pick "Plectrum"



STANDARD TOOLS

Standard tools text:

- Dentist hook
- ESD tweezers



ESD EQUIPMENT

Protect the phone from ESD damages whenever it has been opened by using:

- ESD-wristband
- ESD-gloves



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





1.2 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:

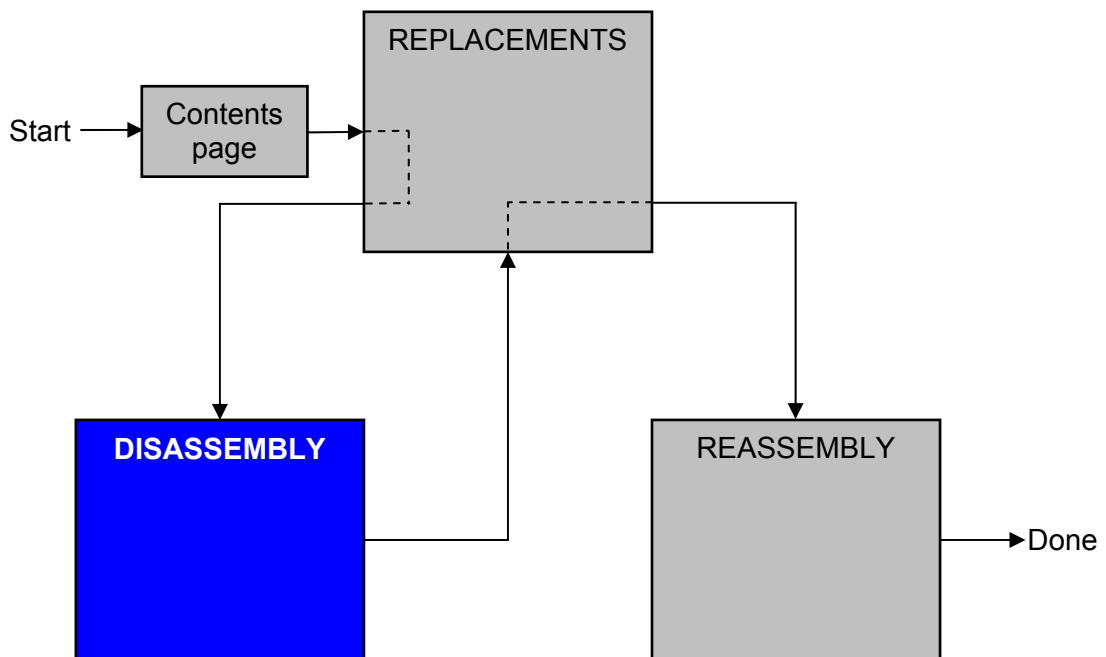
- ***SWITCH OFF THE PHONE AND REMOVE ANY MEMORY STICK BEFORE THE START OF THE DISASSEMBLY!***
- ***KEEP ALL CONTACT SURFACES CLEAN!***
- ***BE CAREFUL WHEN USING TOOLS LIKE THE DENTIST HOOK, TWEEZERS, OPENING TOOLS, GUITAR PICK ETC. TO AVOID SCRATCHES OR DAMAGES TO THE EXTERIOR AND INTERIOR PARTS OF 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!***

1.3 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

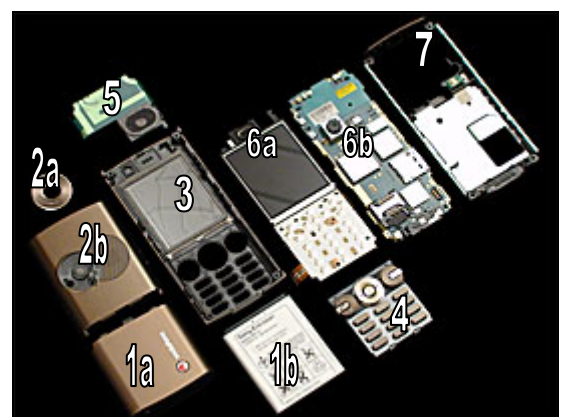
When you are going to replace a part being listed in *Replacements*, the instruction of that section usually begins by directing you to this *Disassembly* section with a specification of the instructions you have to carry out in order to disassemble the phone as far as needed before returning to *Replacements*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



2.1 Overview

The disassembly is done in the following sequence:

1. Battery Cover (a) Battery (b)
2. Camera Inlay Assy (a) Antenna Cover (b)
3. Front Cover
4. Keypad
5. Speaker Box & Antenna Assy
6. LCD Frame Assy (a) PCBA (b)
7. Back Cover Complete Assy





2.1.1 Battery Cover

Press down with both thumbs on *Battery Cover* and push in the direction shown by the arrow.



Grip *Battery Cover* with fingers and lift off *Battery Cover*.



Grip *Battery* as shown in picture and lift up to release the battery.



Grip *Battery* as shown in picture and lift out from phone.





2.1.2 Camera Inlay & Antenna Cover Assy

BE CAREFUL NOT TO SCRATCH THE ANTENNA COVER!

Insert dentist hook at the slot shown in picture and lift out.



Use torx bit no. 6 to remove the Screw.



Insert side Guitar pick as shown and unlatch snap hooks and run the Guitar pick along the side of Antenna Cover shown by the arrow.



Repeat this for other side of phone.



Camera Inlay Assy & Antenna Cover Assy *continued*

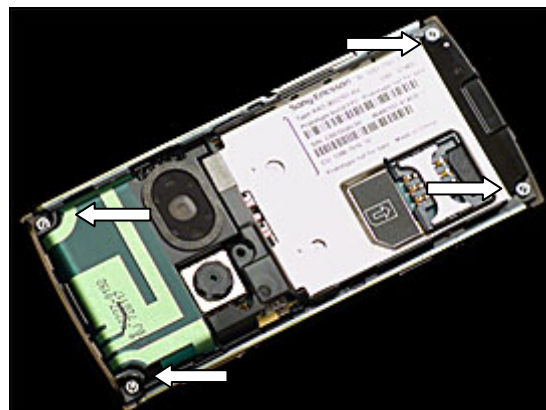
Grip Antenna Cover with fingers and lift off from phone.



2.1.3 Front Cover

CHECK FIRST IF M2 MEMORY HAS BEEN REMOVED BEFORE CONTINUING!

Use torx bit no. 6 to remove the 4 Screws.



Insert guitar pick tool as shown in picture and unlatch snap hooks along the side of the phone as shown by the arrow.



Repeat this again for other side.



Grip *Front Cover* and lift away from phone.





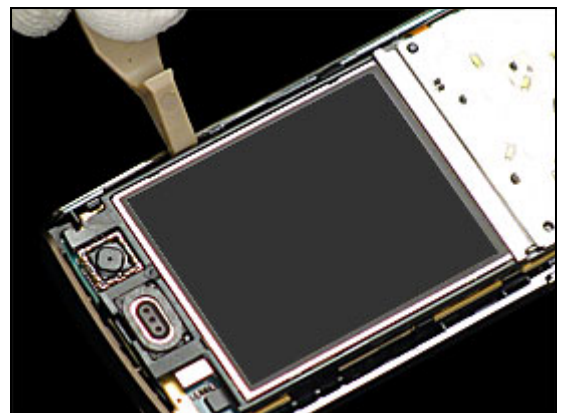
2.1.4 Keypad & PCBA

Use tweezers to remove *Keypad*.

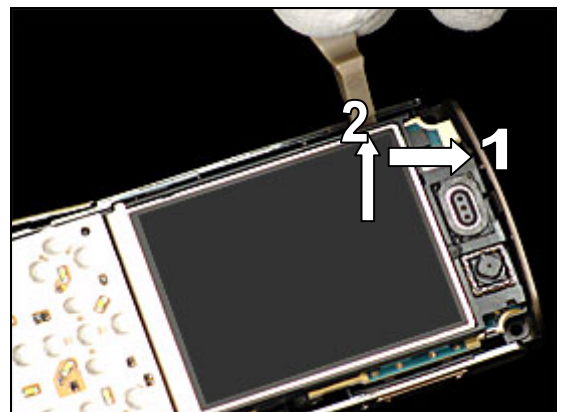


BE CAREFUL NOT TO TOUCH OR MARK THE LCD DISPLAY!

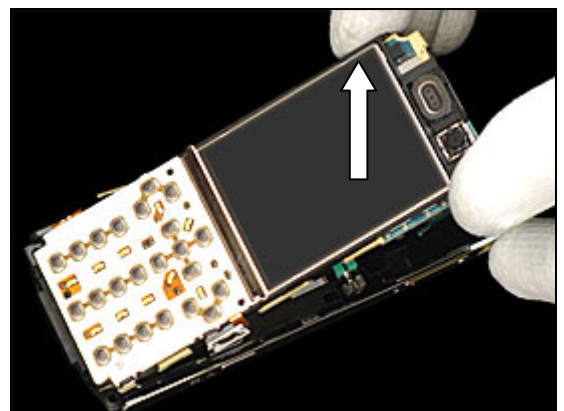
Insert side opening tool as shown in picture and unlatch snap hook.



Repeat this step for (1) top and (2) other side *PCBA* Assy.



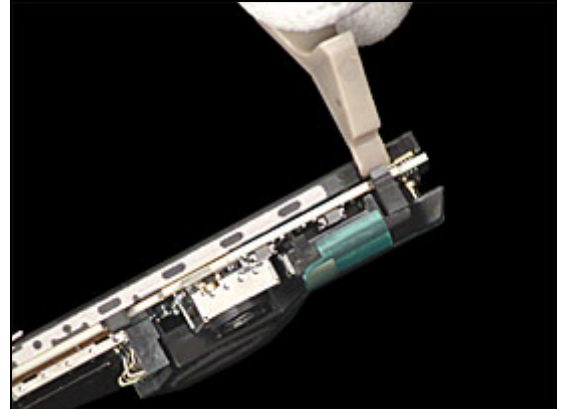
Grip at top and lift the *LCD Frame Assembly* to remove it from *PCBA* as shown in picture.





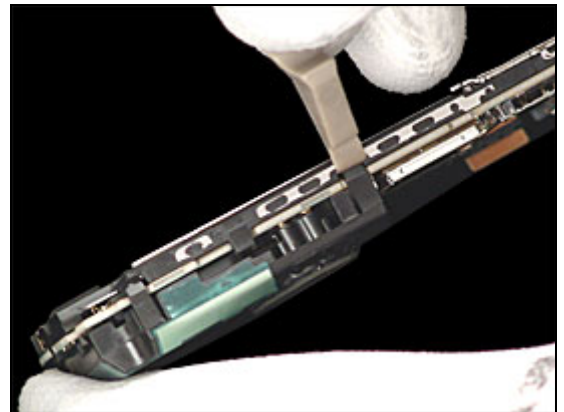
2.1.5 Speaker Box & Antenna Assy

Insert side opening tool as shown in picture and unlatch snap hook.

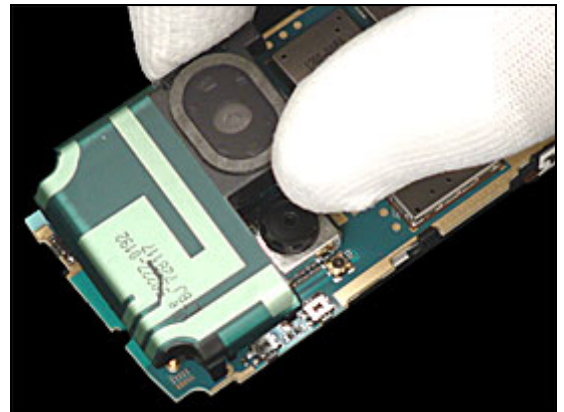


BE CAREFUL WHEN ULATCHING LAST HOOK THE SPEAKER BOX & ANTENNA ASSY CAN JUMP OFF THE PCBA!

Repeat this step for other side.



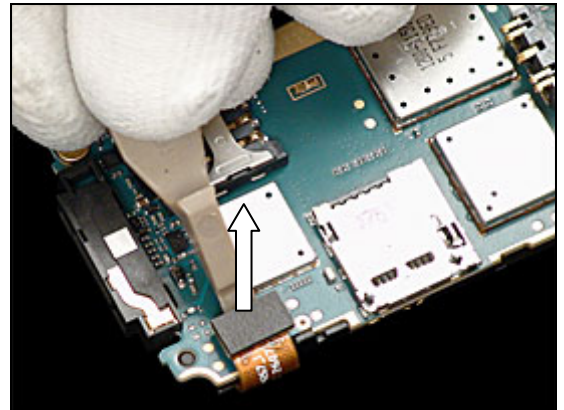
Grip *Speaker Box & Antenna Assy* and lift away from PCBA.



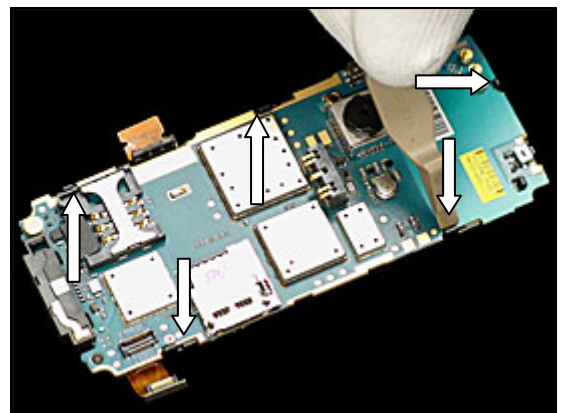


2.1.6 LCD Frame Assy

Release *Key Foil Assy connector* using side opening tool.

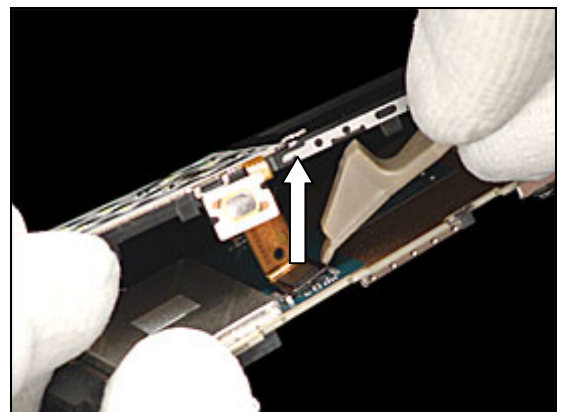


Use side opening tool to unlatch all 5 snap hooks as shown in picture by the arrows.

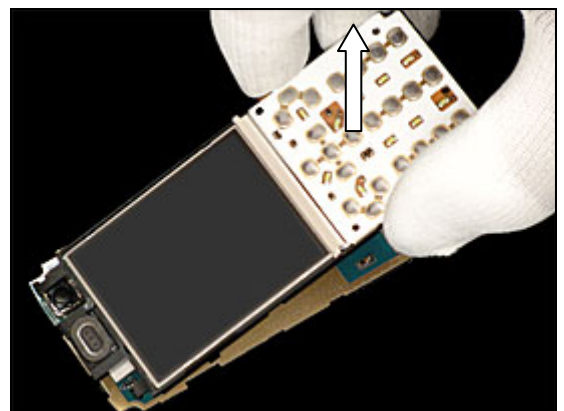


BE CAREFUL NOT TO DAMAGE LCD FLEX!

Release *LCD Connector* using side opening tool.



Grip *LCD Frame Assy* with fingers and lift from *PCBA*.





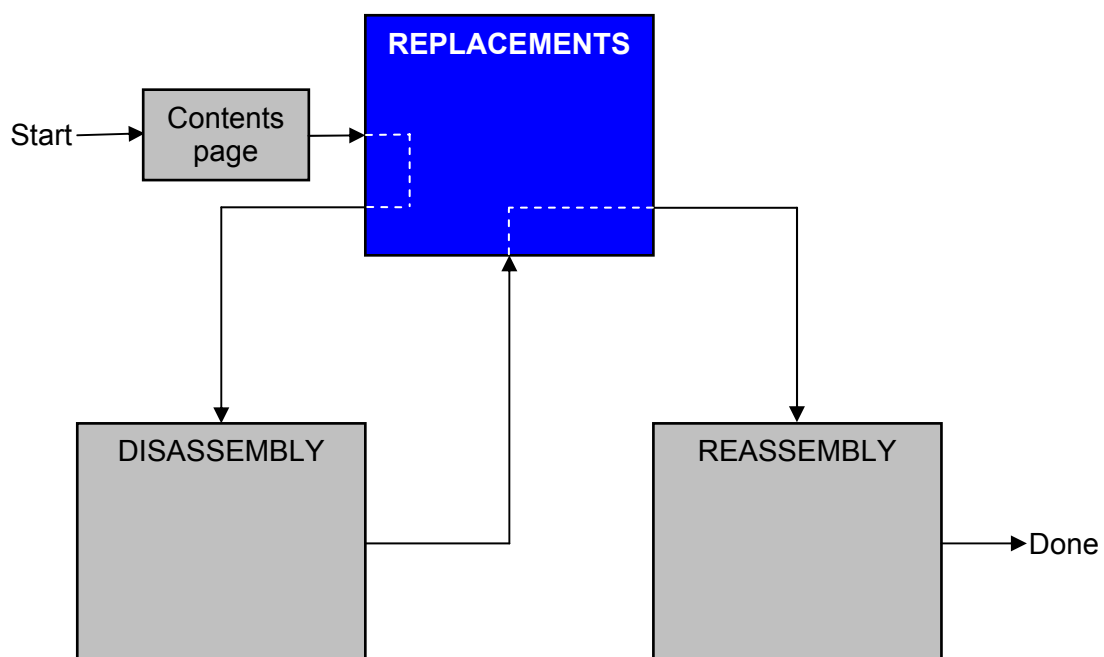
3 Replacements

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 Battery Cover

Follow the 2.1.1 Disassembly instructions!

Prepare the new battery cover.

Follow the 4.1.6 Reassembly instructions!

3.2 Camera Inlay & Antenna Cover Assy

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Instruction text

Follow the 4.1.5 – 4.1.6 Reassembly instructions!

3.3 Front Cover

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Instruction text

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.4 Keypad & PCBA

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Instruction text

Follow the 4.1.3 – 4.1.6 Reassembly instructions!

3.5 Speaker Box & Antenna Assy

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Instruction text

Follow the 4.1.2 – 4.1.6 Reassembly instructions!

3.6 LCD Frame Assy

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Instruction text

Follow the 4.1.1 – 4.1.6 Reassembly instructions!!



3.7 Camera Key

REMOVAL

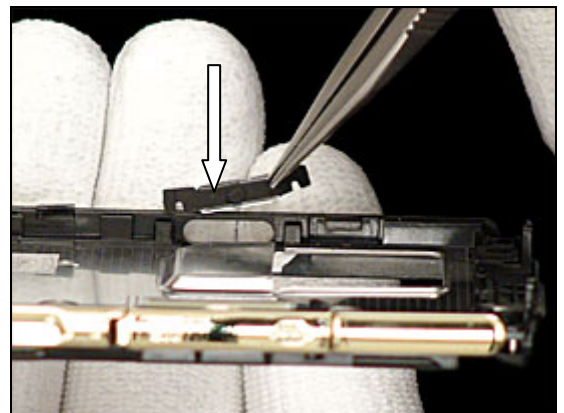
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove using tweezers.



INSTALLATION

Position into place with Tweezers.



Check placement using the tweezers to secure the *Camera Key*.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



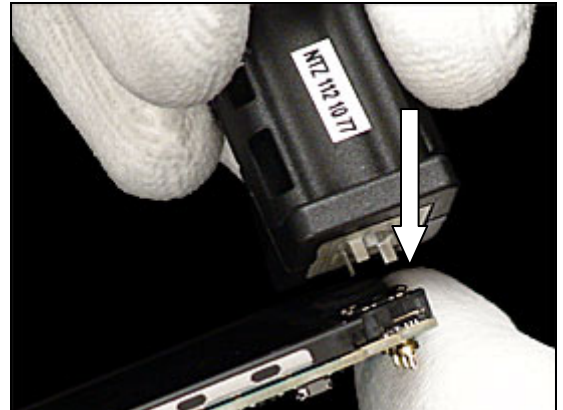


3.8 QCIF VGA Camera

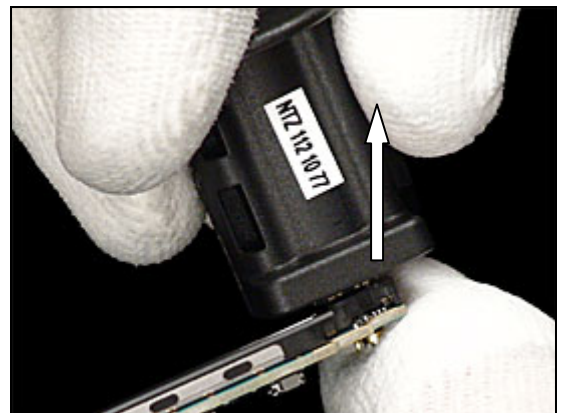
REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

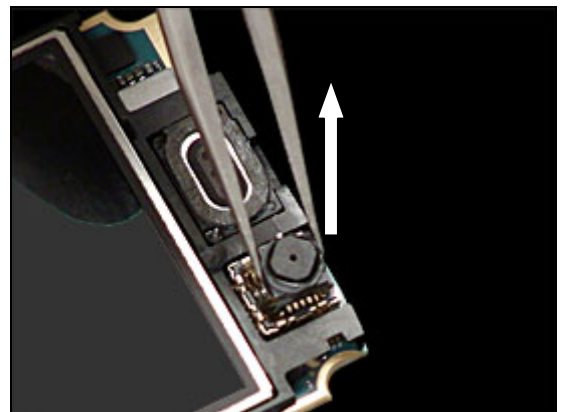
Insert *VGA camera tool* into *VGA socket* as shown in picture



Loosen the camera from socket by lift tool upwards.

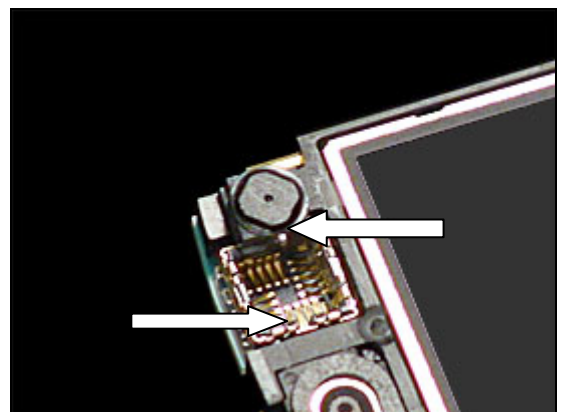


Remove *QCIF VGA Camera* by tweezers.



INSTALLATION

Overview picture showing alignment markings.

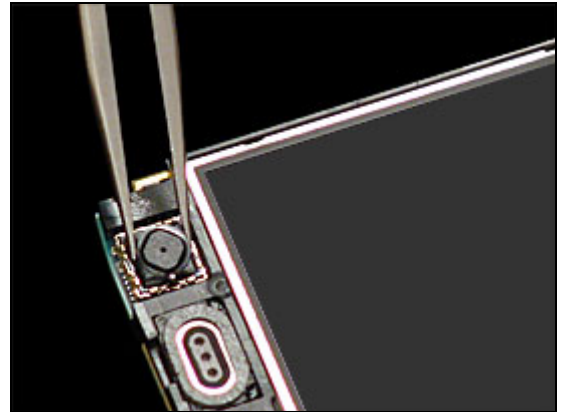




Qcif VGA Camera *continued*

Press down on each corner of VGA “QCIF” camera and secure using tweezers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



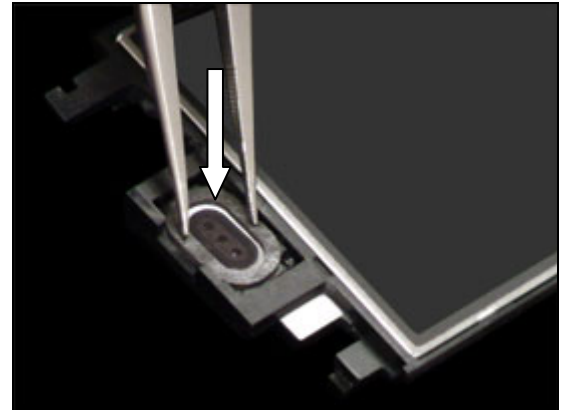


3.9 Receiver “Ear Speaker”

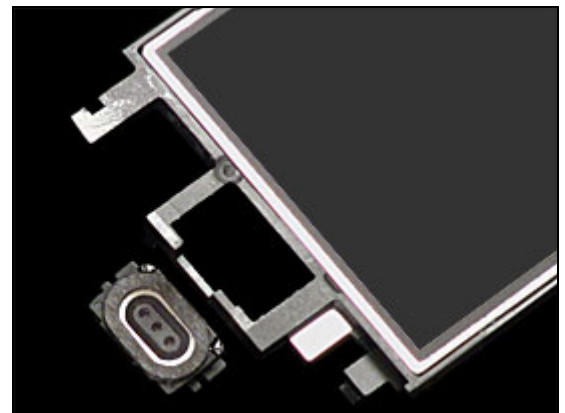
REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Use tweezers to push out receiver.

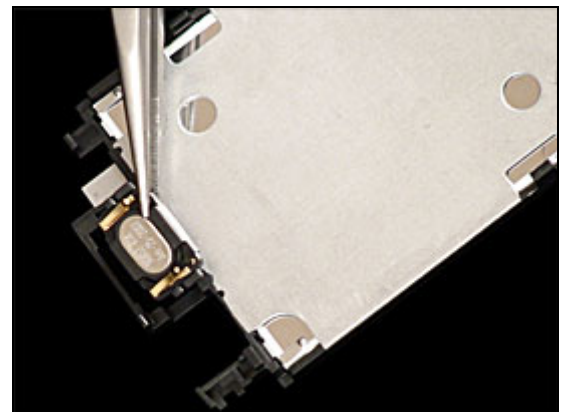


Overview picture.



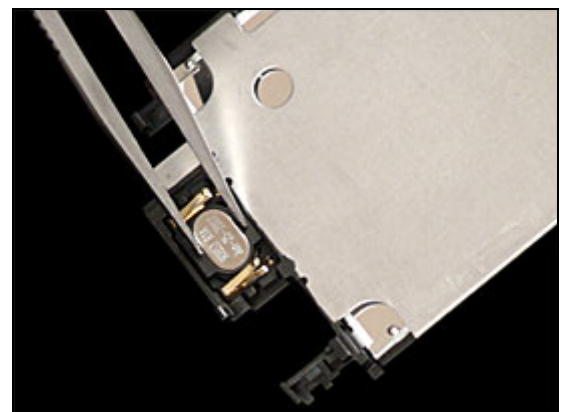
INSTALLATION

Use tweezers to position the *Receiver*.



Use Tweezers to secure receiver.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



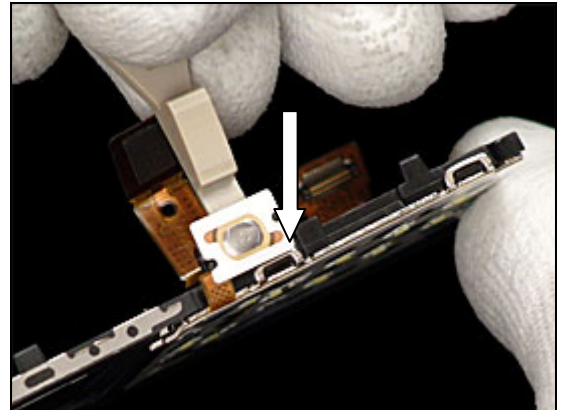


3.10 Key Foil Assy & LCD

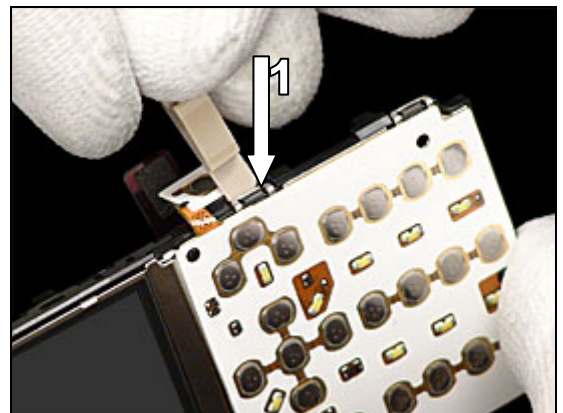
REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

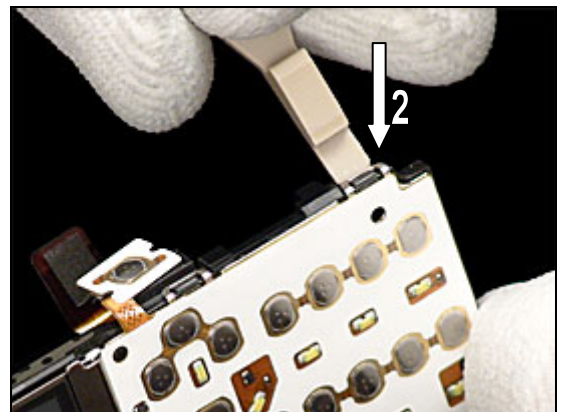
Insert side opening tool at the snap hook as shown in picture.



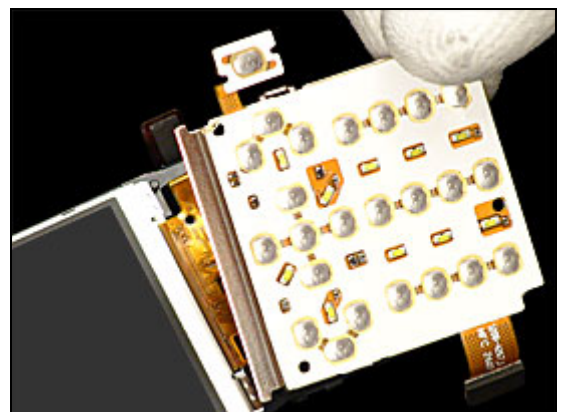
Loosen 1st snap hooks using side opening tool.



Repeat this step for 2nd snap hook



Lift off the *Key Foil Assy* as shown in picture.

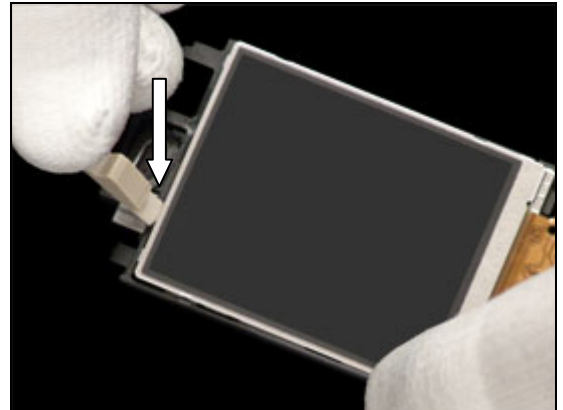




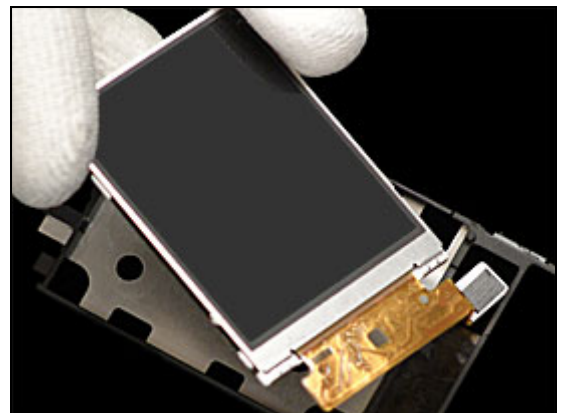
Key Foil Assy & LCD *continued*

BE CAREFUL NOT TO TOUCH OR MARK THE LCD!

Insert side opening tool and loosen the top of LCD

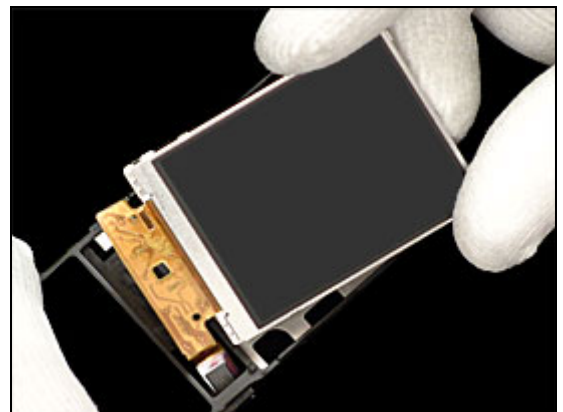


grip at top of LCD and lift out of LCD Frame



INSTALATION

Position into place the LCD and press down carefully.



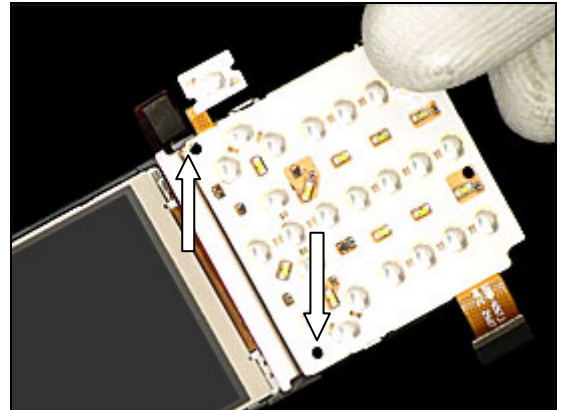
Check placement of LCD and flex location pin is positioned correctly.



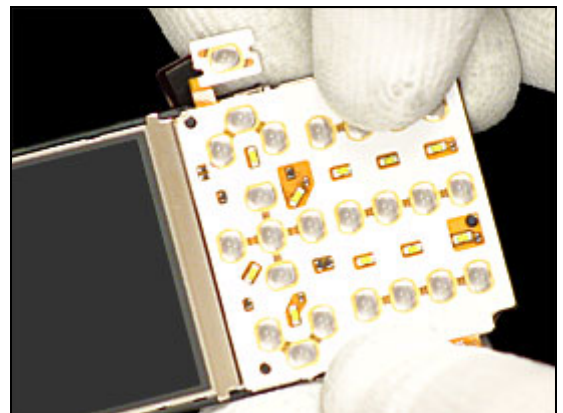


Key Foil Assy & LCD *continued*

Position *Key Foil Assy* into place and check alignment pins.

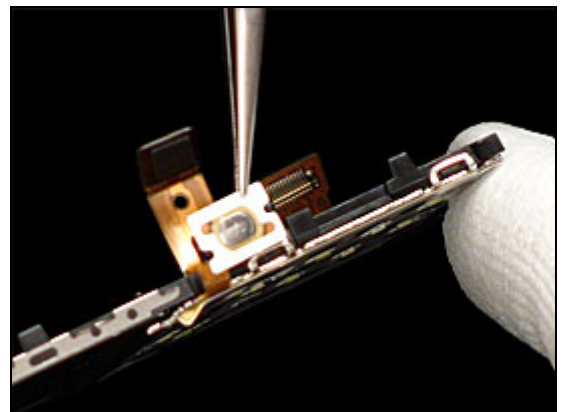


Press down and secure the *Key Foil Assy*.



Use Tweezers to secure the positioning of camera button.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!





3.11 M2 Cover

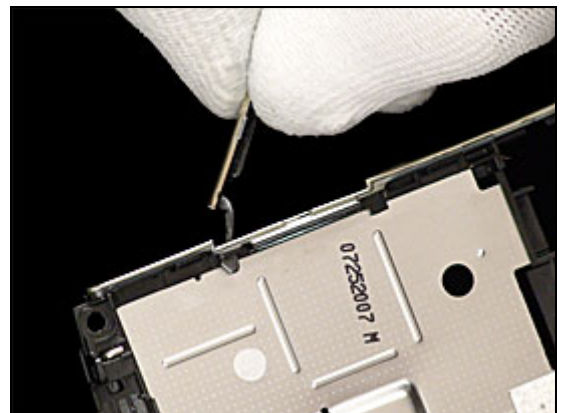
REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Overview picture.



Pull out M2 Cover using fingers.



INSTALLATION

Position into place with Tweezers then press in the *Memory Card Lid* until it's secure to *Frame Assembly*.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!





3.12 On/Off Key

REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Overview picture.



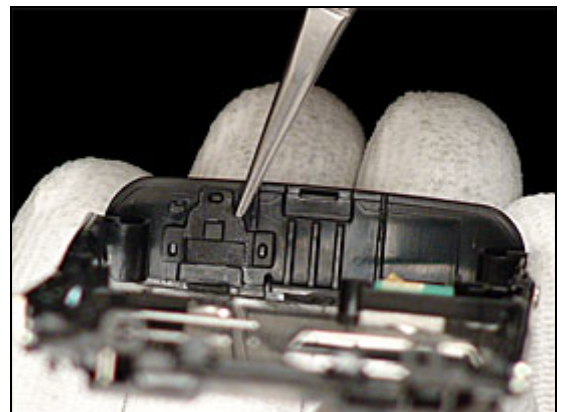
Remove using tweezers.



INSTALLATION

Position into place with tweezers, then Check placement.

Follow the 4.1.1 – 4.1.6 Reassembly instructions

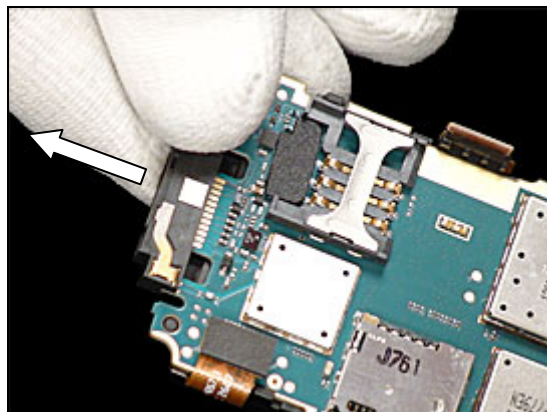


3.13 System Connector with Bluetooth Antenna

REMOVAL

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

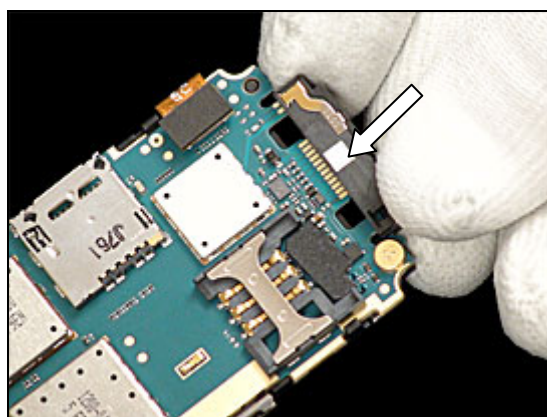
Grip with fingers the *System Connector* and pull away from *PCBA*.



INSTALLATION

Push *System Connector* into place and secure to *PCBA*.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!





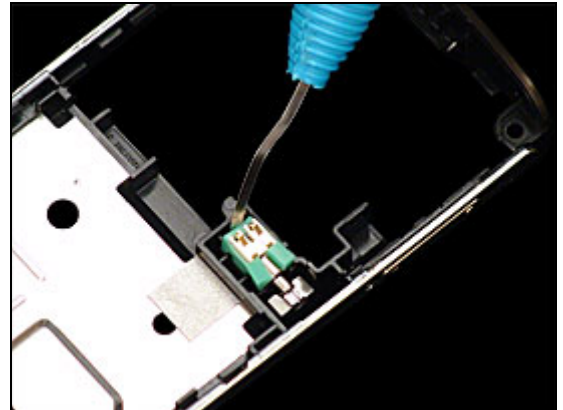
3.14 Vibrator

REMOVAL

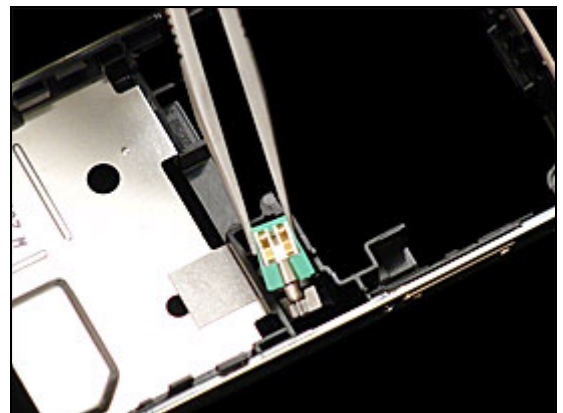
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Loosen *Vibrator* with Dentist hook.

AVOID TOUCHING METAL CONTACTS!

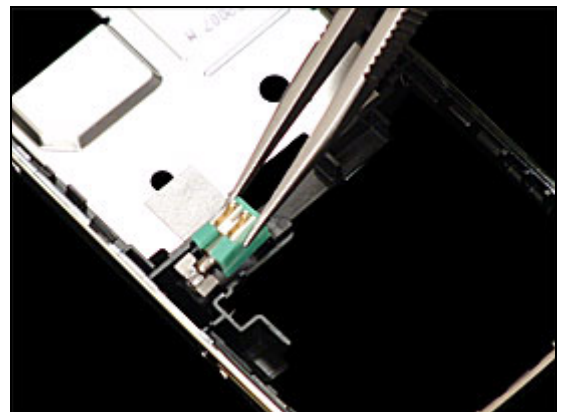


Remove with tweezers gripping the side avoiding the metal contacts pins.



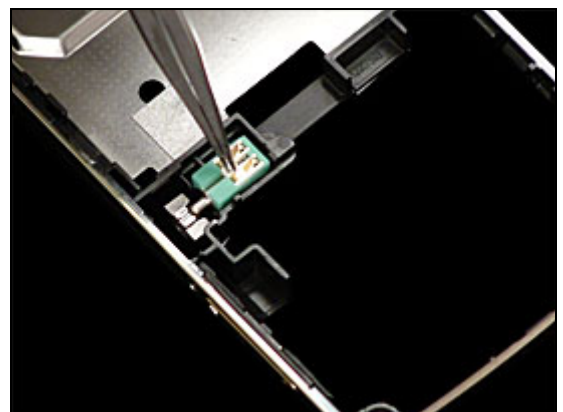
INSTALLATION

Place the *vibrator* in the cavity,



Use side tweezers to position into place.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.15 Volume Key

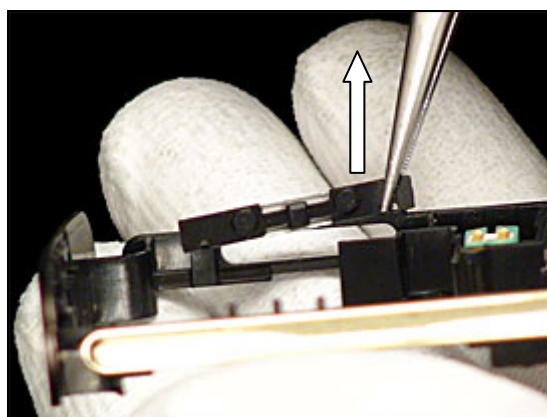
REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Overview picture.

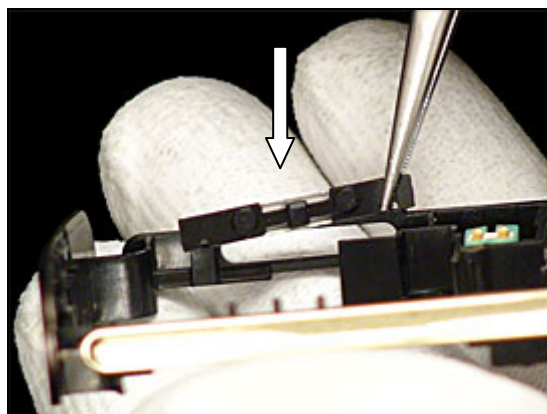


Remove using tweezers.



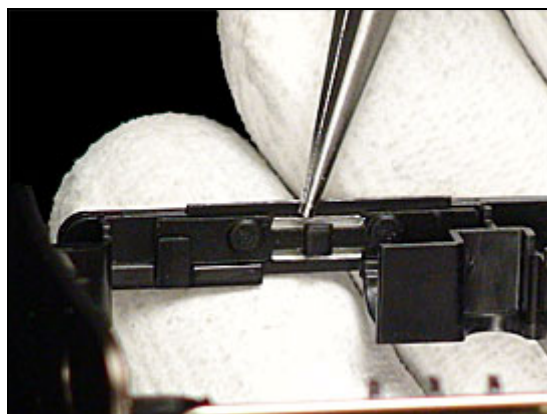
INSTALLATION

Position into place with tweezers.



Check placement.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!





3.16 Liquid Intrusion Indicator

INSPECTION

There is one Liquid Intrusion Indicators located on the PCBA.

To get access to and to inspect the indicators:
Follow 2.1.1 – 2.1.6 Disassembly instructions!

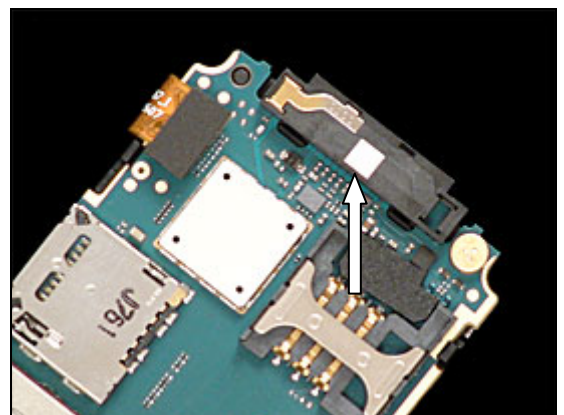
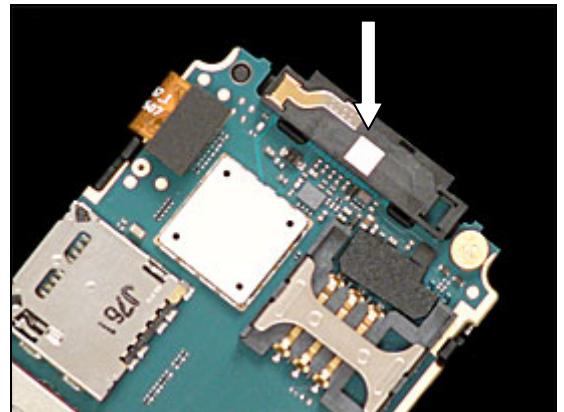
REMOVAL

Remove the activated *liquid intrusion indicator* with the dentist hook and the tweezers.

INSTALLATION

Attach the new *liquid intrusion indicator* with the tweezers and the dentist hook.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.17 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.

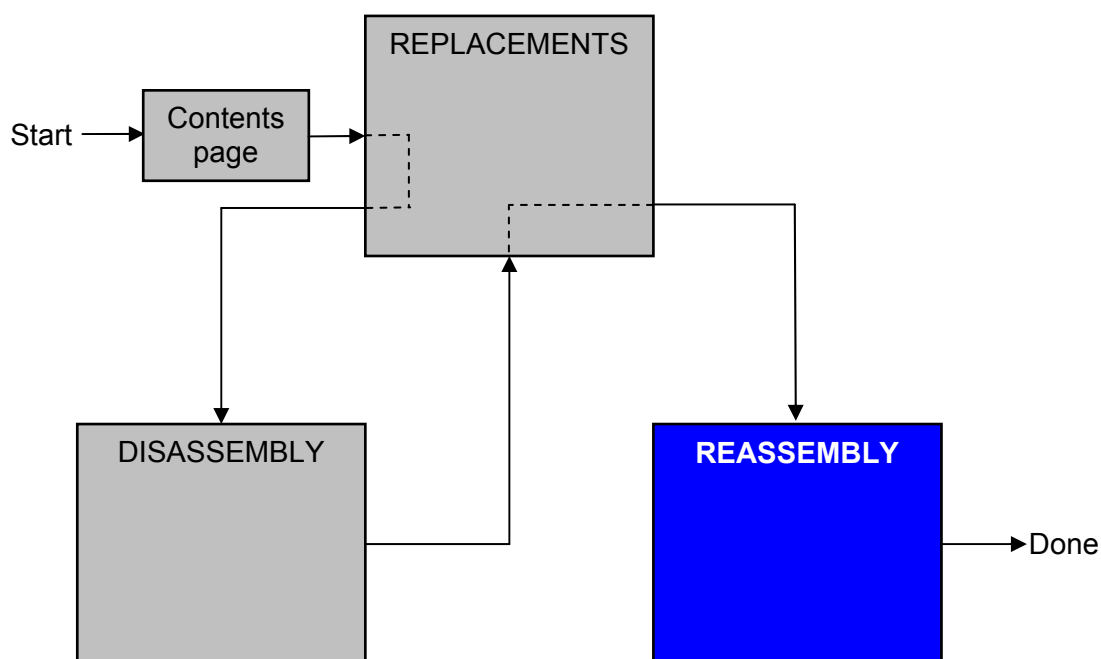
ONE LABEL ONLY IS ALLOWED!

Follow the 4.1.6 Reassembly instructions!



4 Reassembly

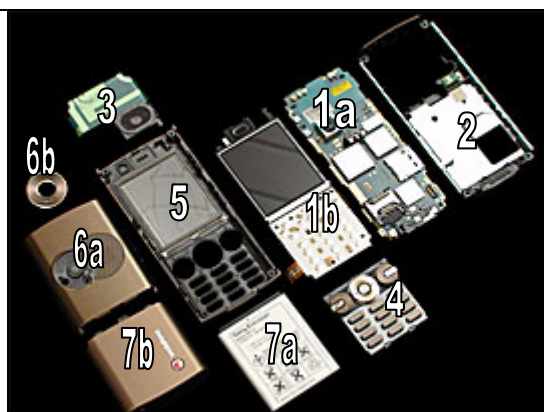
After replacing a part being listed in Replacements, the instruction of that section usually ends by directing you to this Reassembly section with a specification of the instructions you have to carry out in order to reassemble the phone.



4.1 Overview

The reassembly is done in the following sequence:

1. PCBA (a) LCD Frame Assy (b)
2. Back Cover Complete Assy
3. Speaker Box & Antenna Assy
4. Keypad
5. Front Cover
6. Antenna Cover Assy (a) Camera Inlay Assy (b)
7. Battery (a) Battery Cover (b)

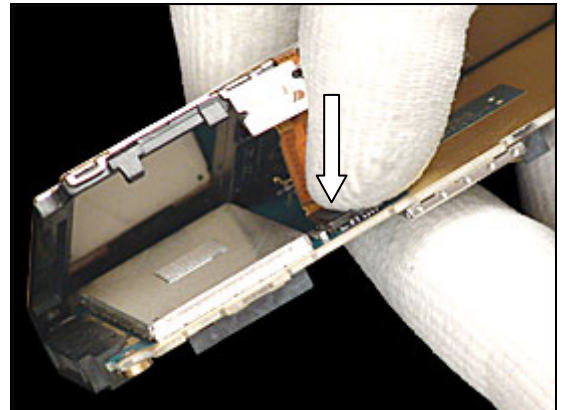




4.1.1 LCD Frame Assy

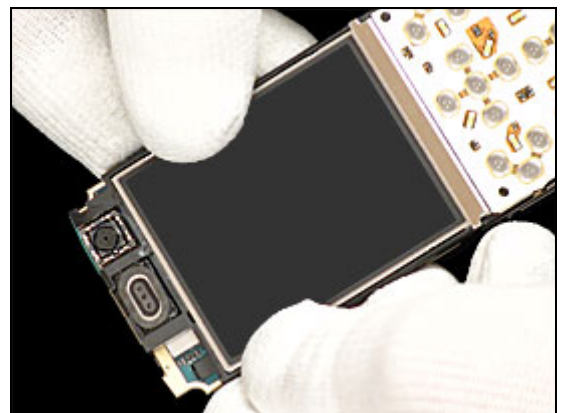
BE CAREFUL NOT TO TWIST OR DAMAGE LCD FLEX!

Position the LCD Frame Assy then secure LCD connector using fingers.

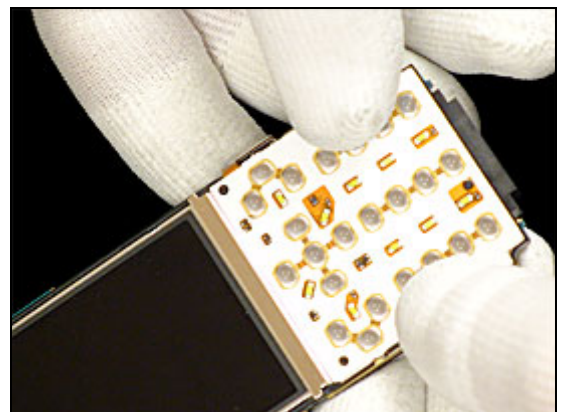


BE CAREFUL NOT TO TOUCH OR MARK THE LCD!

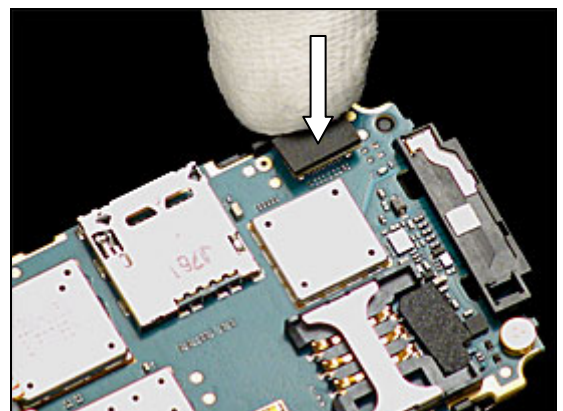
Press down and secure snap hooks at top end of PCBA.



Press down and secure snap hooks at bottom end of PCBA.

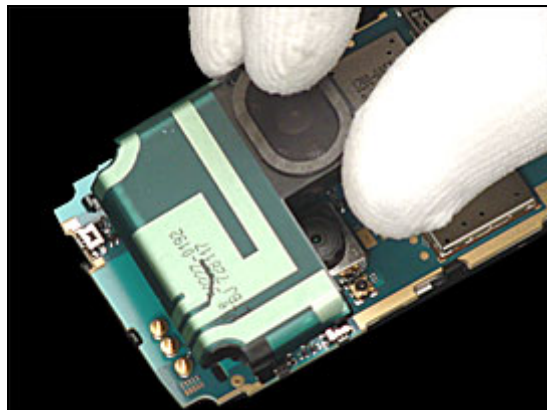


Secure Key Foil connector using finger.

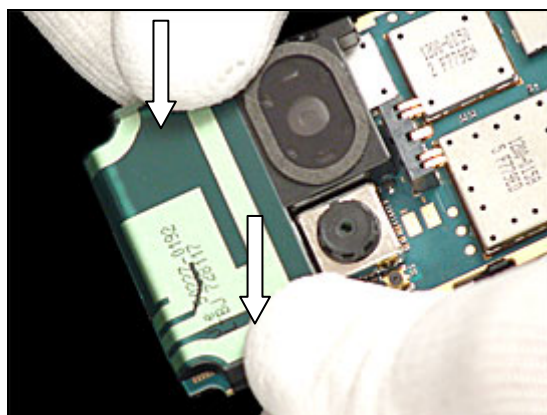


4.1.2 Speaker Box & Antenna Assy

Position *Speaker Box & Antenna Assy* into place.



Press down on both sides using fingers to secure the Assy.



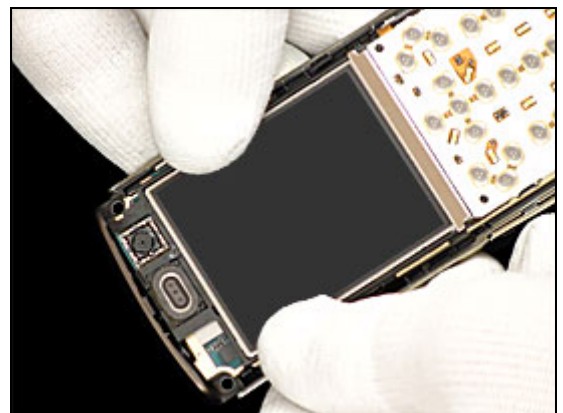


4.1.3 PCBA & Keypad

Position *PCBA Assy* into the *Back Cover Assy* at bottom end first.



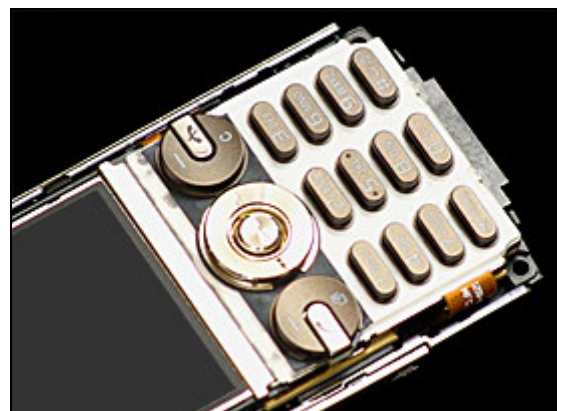
Press down on *PCBA Assy* to secure into the *Back Cover Assy*.



Position *Keypad* into place onto to the *Key Foil Assy*.



Check alignment of *Keypad*.





4.1.4 Front Cover

CLEAN ANY DUST OR MARKS FROM FRONT COVER WINDOW & LCD BEFORE PROCEEDING WITH NEXT STEP!

1. Place *Front Cover* into top position first.
2. Lower bottom end of *Front Cover* onto *PCBA & Back Cover Assy.*



Press down on *phone* to secure snap hooks as shown in picture.

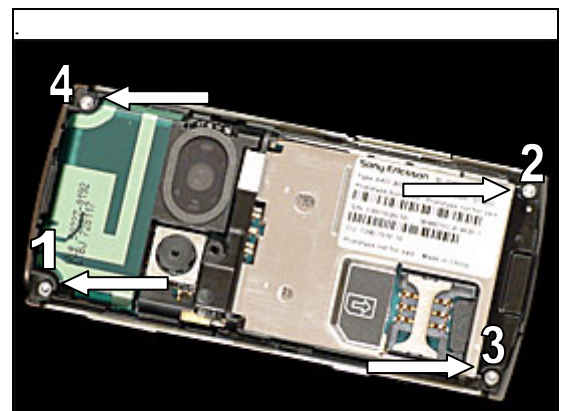


Press down to secure snap hooks at bottom end of phone then check Keypad that all buttons are functioning.



TIGHTEN THE SCREWS ACCORDING TO THE SCREWING SEQUENCE SHOWN BY THE NUMBERS IN THE PICTURE!

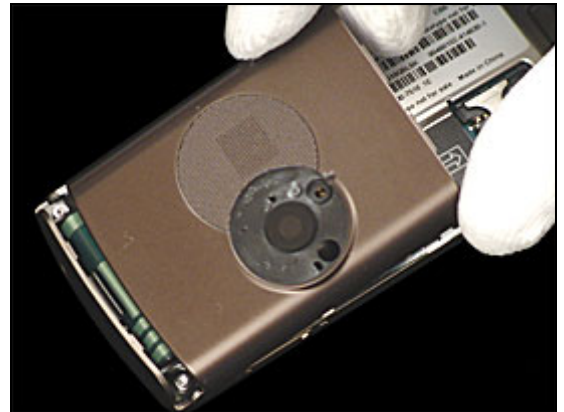
Use **22NCM** torque pressure to tighten all four screws using torx bit no.6.





4.1.5 Antenna Cover Assy & Camera Inlay Assy

Place *Antenna Cover Assembly* into position.



Press down with fingers to secure *Antenna Cover Assembly*.



Use **22NCM** torque pressure to tighten the screw using torx bit no.6.



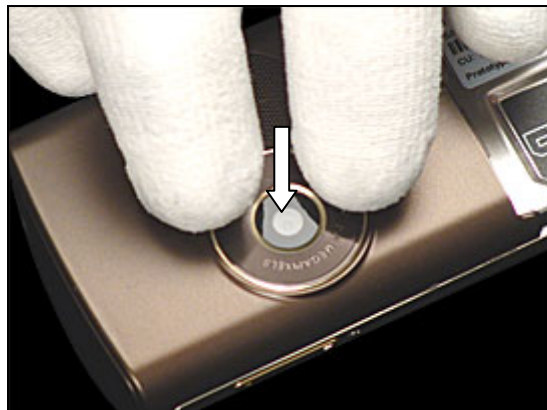
ALWAYS USING NEW CAMERA INLAY WHEN RE-ASSEMBLING THE PHONE!

Position *Camera Inlay* into position using tweezers.



Antenna Cover Assy & Camera Inlay Assy *continued*

Press down with fingers to secure *Camera Inlay*.



4.1.6 Battery & Battery Cover

Insert battery as shown in picture.



Press battery into position.



Slide on *Battery Cover* as shown in picture.



Secure *Battery Cover* by pushing it in the direction shown in the picture until fully closed.





5 Revision history

Rev.	Date	Changes / Comments
A	2007-09-20	1 st Release