



Working Instruction, Mechanical

Applicable for K530i

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1 Introduction

FRONT



REAR



1.1 Equipment

SPECIAL TOOLS

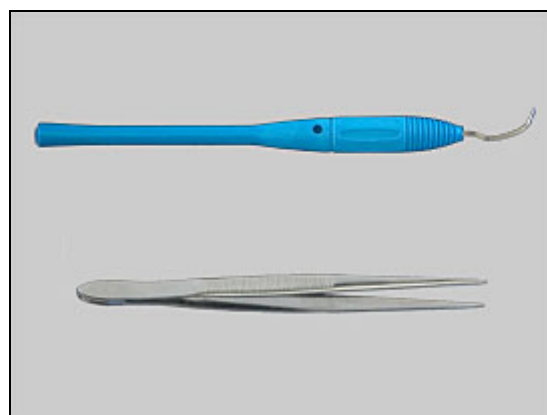
- NTZ 112 459 Torque screwdriver (or equivalent)
- NTZ 112 288 Torx bit no. 6
- NTZ 112 1052 JCIS Phillips Bit
- NTZ 112 302/2 Front opening tool
- NTZ 112 1067 Mega Camera Tool
- NTZ 112 1077 VGA Camera Tool
- NTZ 112 590 Guitar Pick "Plectrum"



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!***

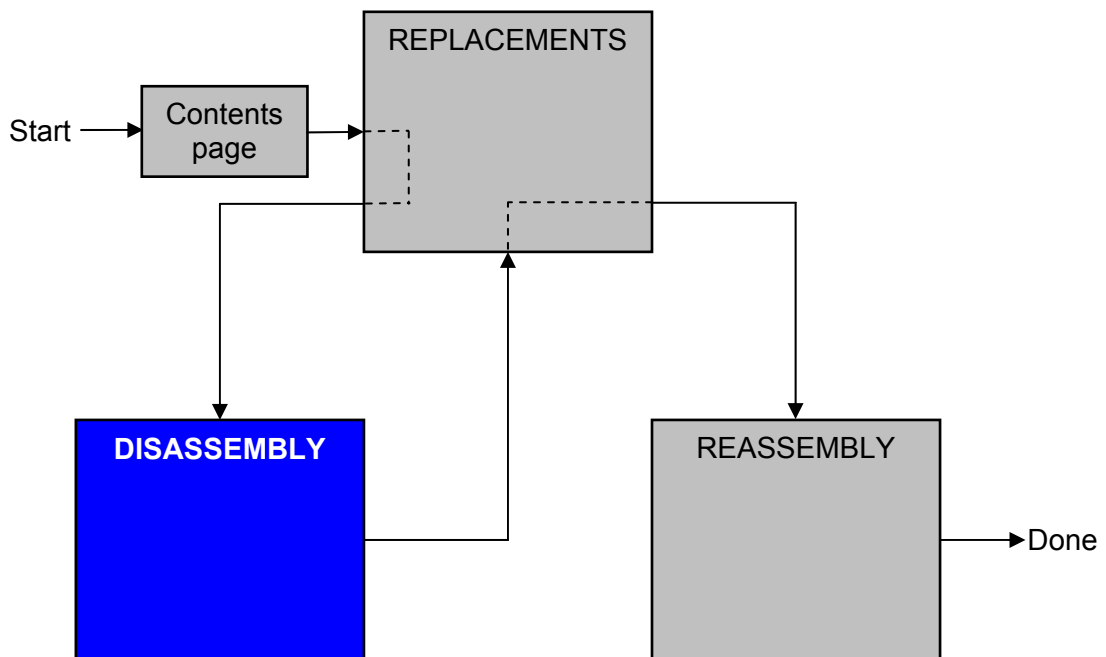
1.3 Adhesives

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. Antenna Plug (a) Speaker Mesh Cover Assy (b)
3. Antenna Cover
4. Front Cover
5. Frame Cover Assembly
6. Keypad
7. PCBA



2.1.1 Battery Cover & Battery

Press down with thumb 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 out from phone.

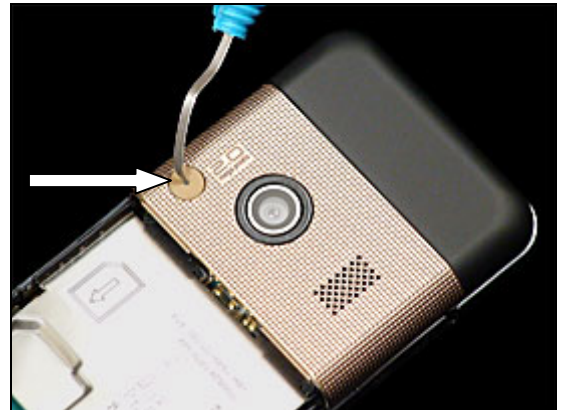


Overview picture of *Battery & Battery Cover* removed



2.1.2 Antenna Plug & Speaker Mesh Cover Assy

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



Overview picture.



Insert side opening tool as shown and unlock snap hook.



Repeat this for other side.



Antenna Plug & Speaker Mesh Cover Assy *continued*

Grip Speaker Mesh Cover with fingers and lift off.





2.1.3 Antenna Cover Assembly

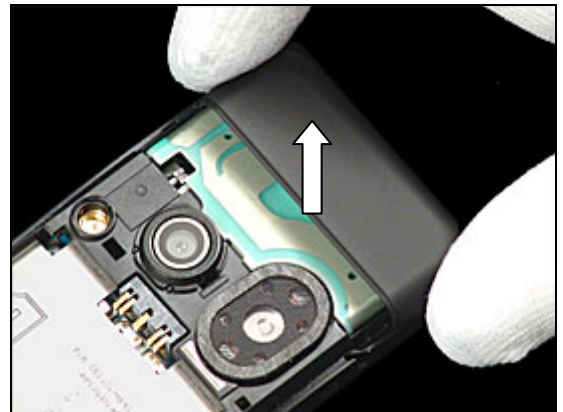
Insert side opening tool as shown and unlock snap hook.



Repeat this for other side.



Grip Antenna Cover with fingers and lift off.





2.1.4 Frame Cover Assembly & PCBA

Use torx bit no. 6 to remove the Screw.



Insert guitar pick tool as shown in picture and release snap hook.



Slide guitar pick along the side unlatching snap hooks.



Repeat for top end of phone.





Frame Cover Assembly & PCBA *continued*

Repeat for other side of the phone.



Grip *Front Cover* and lift away from phone.



Use tweezers to remove *Keypad*.





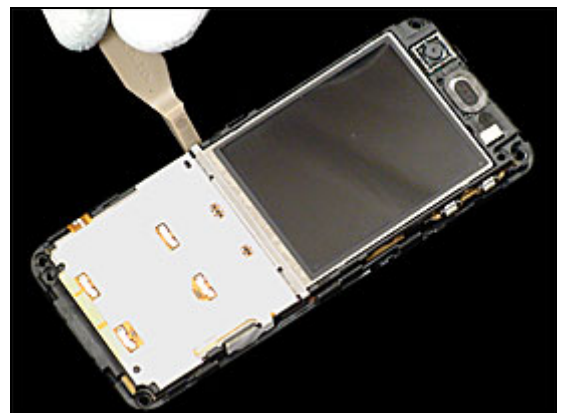
2.1.5 LCD Frame Assembly & PCBA

Use Phillips bit to remove the two Screws.



BE CAREFUL NOT TO TOUCH OR MARK THE LCD DISPLAY.

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



Repeat this step for other side.



Repeat again for top of phone.



LCD Frame Assembly & PCBA *continued*

Grip at top and lift away from the *Frame Assembly* as shown in picture.



Overview picture.





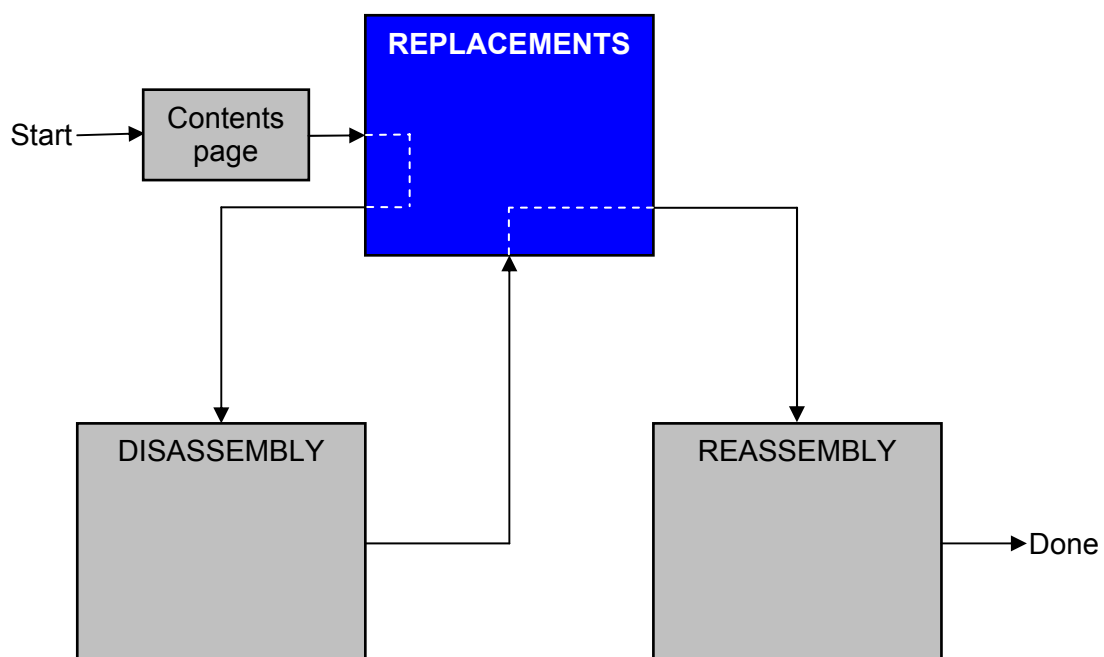
3 Replacements

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 & Battery

Follow the 2.1.1 Disassembly instructions!

Prepare the new battery cover.

Follow the 4.1.5 Reassembly instructions!

3.2 Antenna Plug & Speaker Mesh Cover Assy

Follow the 2.1.1– 2.1.2 Disassembly instructions!

Prepare the new Antenna Plug & Antenna Cover

Follow the 4.1.4 – 4.1.5 Reassembly instructions!

3.3 Antenna Cover

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Prepare the new Front Cover & Keypad

Follow the 4.1.3 – 4.1.5 Reassembly instructions!

3.4 Front Cover & Keypad

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Front Cover & Keypad

Follow the 4.1.2 – 4.1.5 Reassembly instructions!

3.5 Frame Assembly & PCBA

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Prepare the new Frame Assembly & PCBA

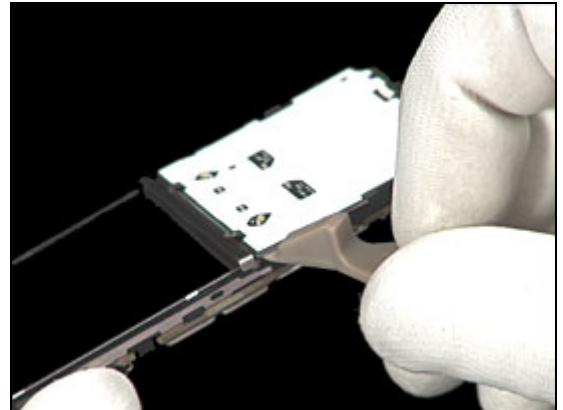
Follow the 4.1.1 – 4.1.5 Reassembly instructions!

3.6 Key Foil Assy & LCD

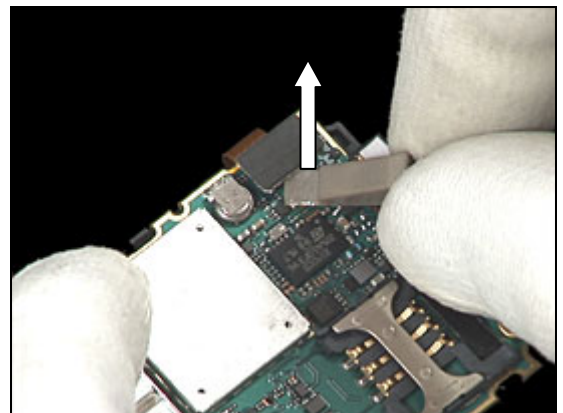
REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

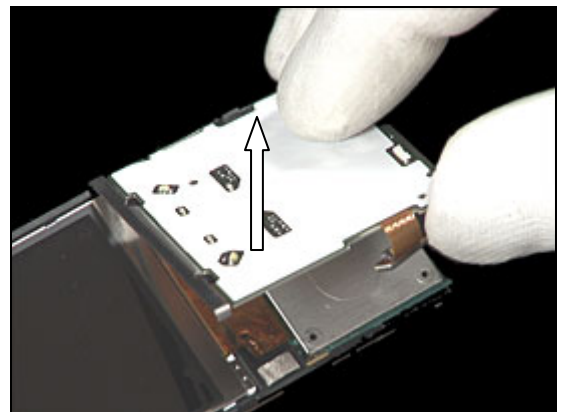
Insert side opening tool and lift up the *Key Foil Assy*.



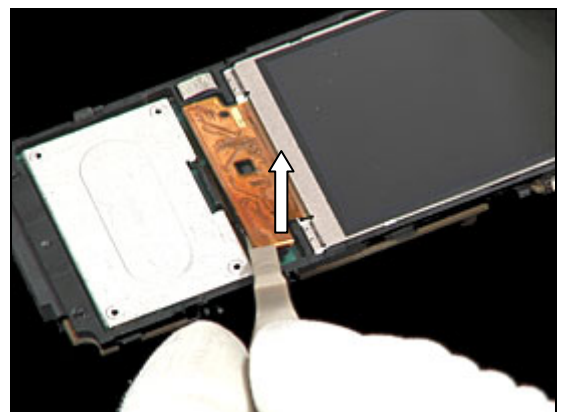
Release *Key Foil Assy* connector



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



Release *LCD* connector using side opening tool.





Key Foil Assy & LCD *continued*

BE CAREFUL NOT TO TOUCH OR MARK THE LCD!

Insert side opening tool and loosen the side.

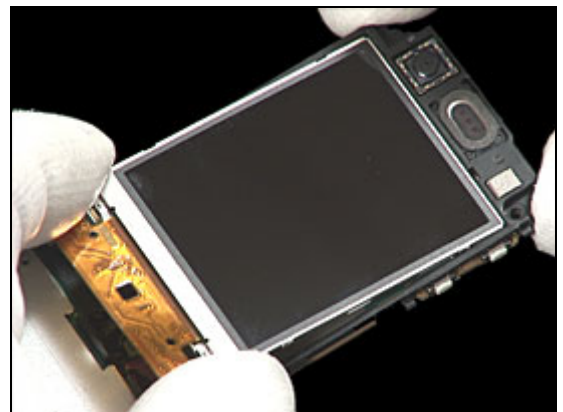


Repeat this step again for other side.



BE CAREFUL NOT TO TOUCH OR MARK THE LCD!

grip at bottom of *LCD* and lift out of *LCD Frame*



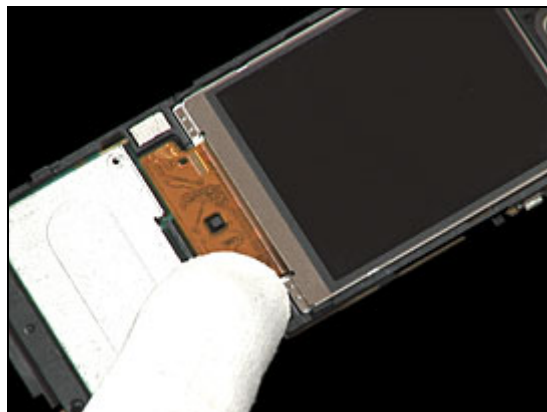
INSTALATION

Position into place the LCD and press down carefully.



Key Foli Assy & LCD *continued*

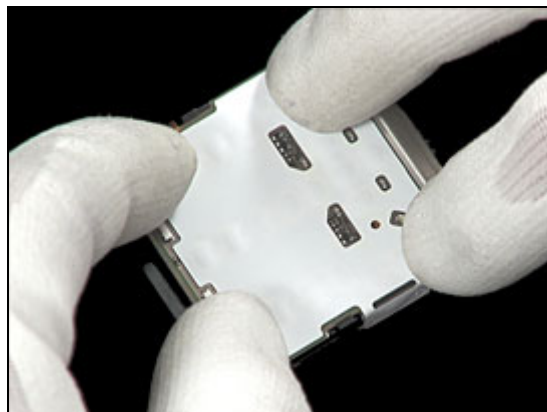
Press down on *LCD* connector and secure the connection.



Position the *Key Foil Assy* into place.

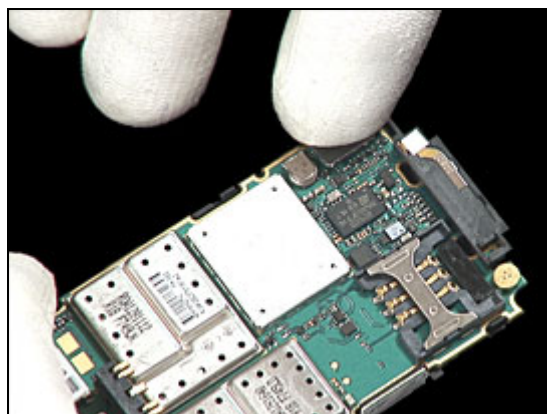


Press down and secure the *Key Foil Assy*.



Secure the *Key Foil Assy* connector by pressing it into position.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





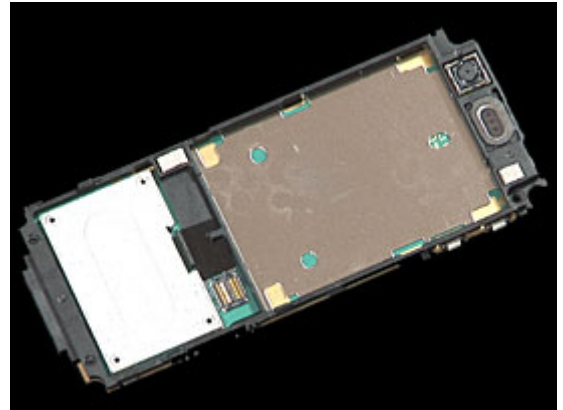
3.7 LCD Frame Assy

REMOVAL

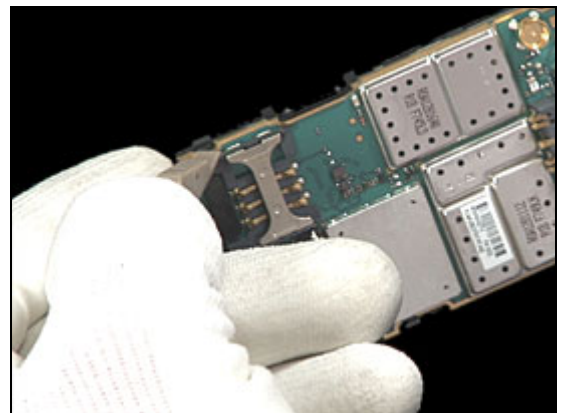
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Follow the 3.5 Removal instruction!

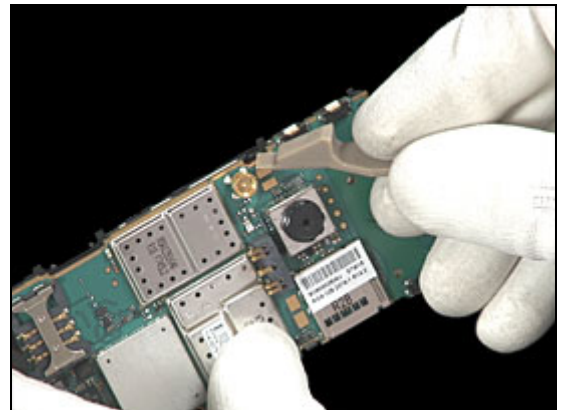
Overview picture.



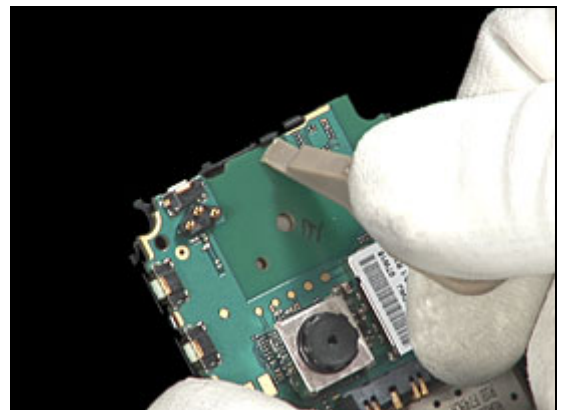
Use side opening tool to unlatch the snap hooks as shown in picture.



Repeat this step for all snap hooks.



Repeat this step for all snap hooks.



LCD Frame Assy *continued*

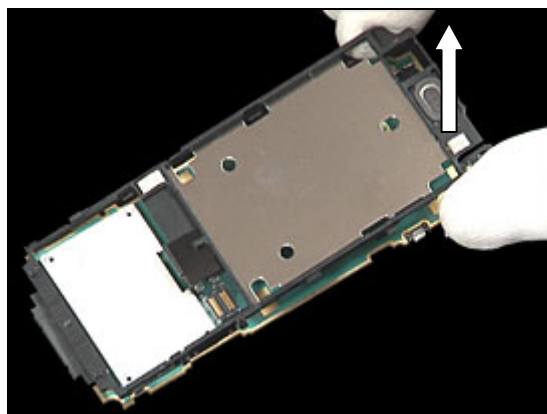
Repeat this step for all snap hooks.



Repeat this step for all snap hooks.

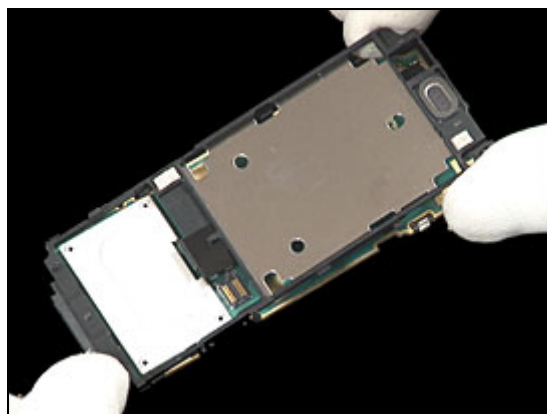


Grip *LCD Frame* and lift from PCBA.



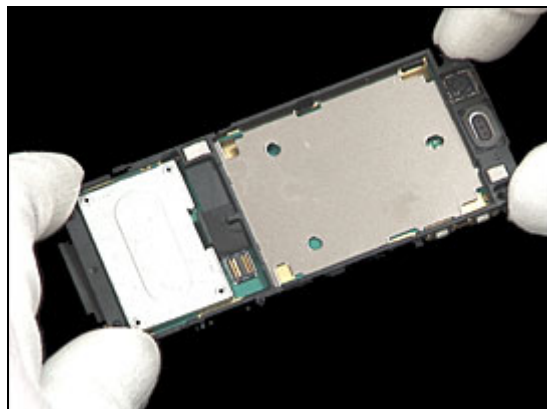
INSTALLATION

Position LCD frame into place.

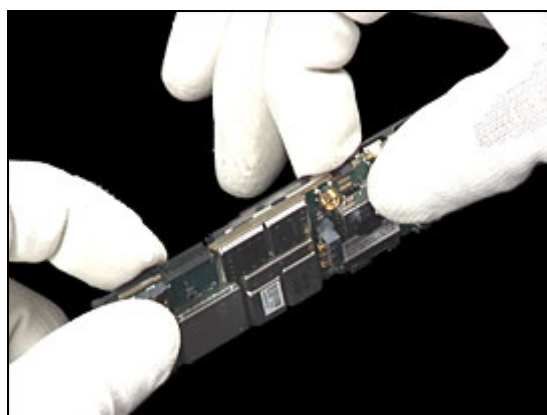


LCD Frame Assy *continued*

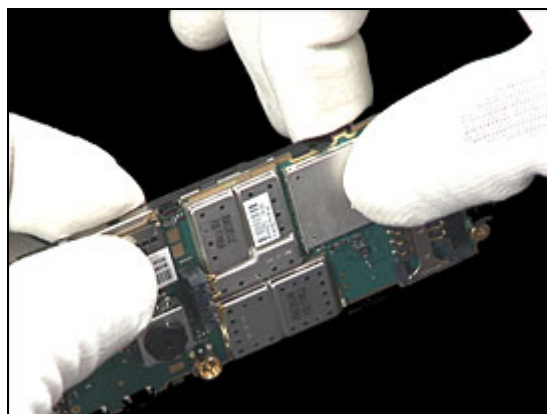
Press down and secure snap hooks.



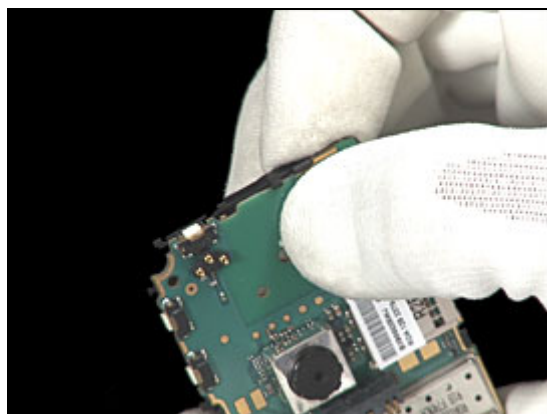
Press on all snap hooks to secure all snap hooks are fastened.



Repeat this step again.



Repeat this step again.



Follow the 3.5 Installation instruction!

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



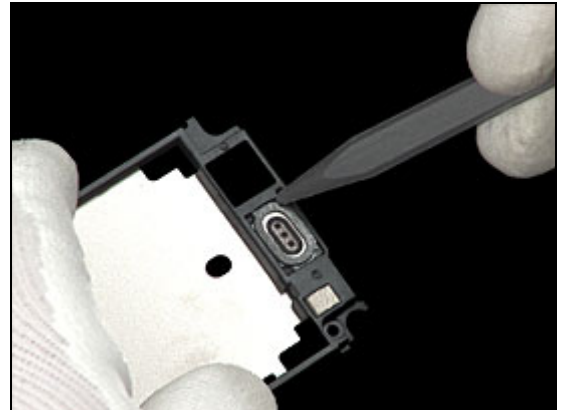
3.8 Receiver "Ear Speaker"

REMOVAL

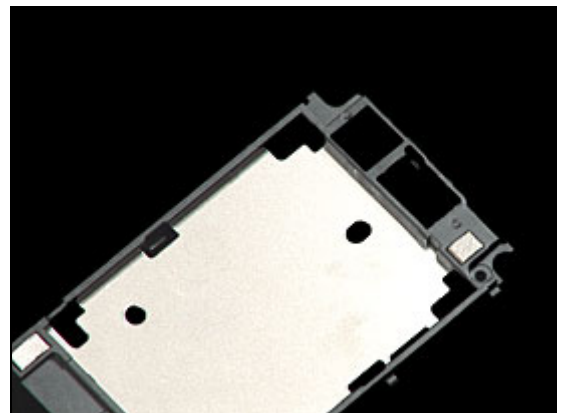
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Follow the 3.5 – 3.6 Removal instructions!

Use nylon pointer to push out receiver.

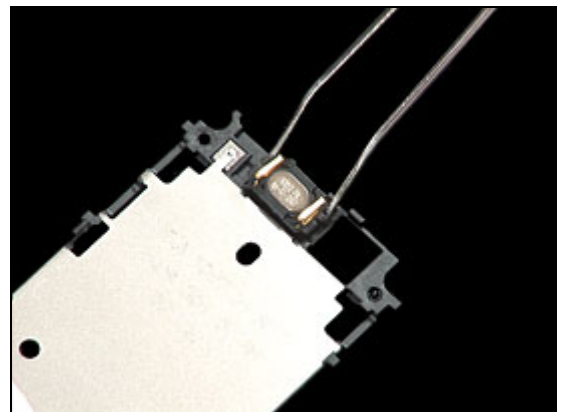


Overview picture.



INSTALLATION

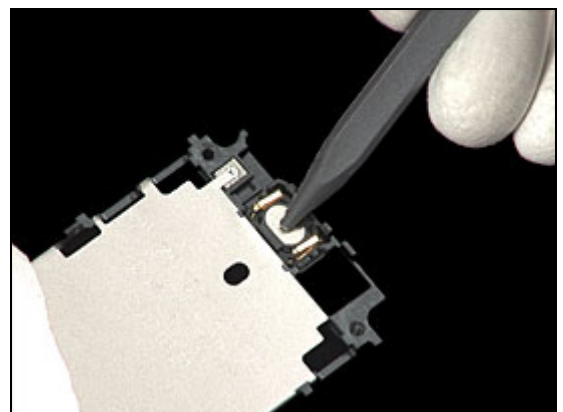
Use tweezers to position the *Receiver*.



Use nylon pointer to secure receiver.

Follow the 3.5 – 3.6 Installation instructions!

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





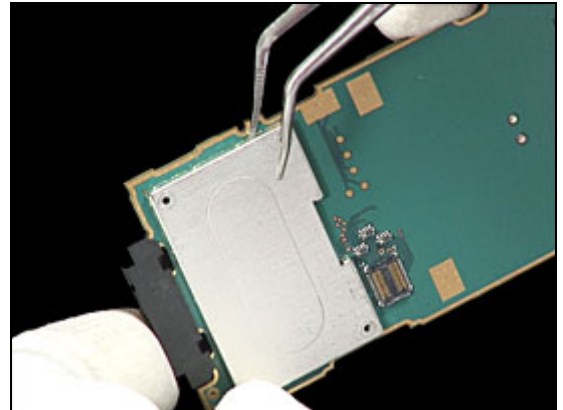
3.9 Shield Can Lid Wanda

REMOVAL

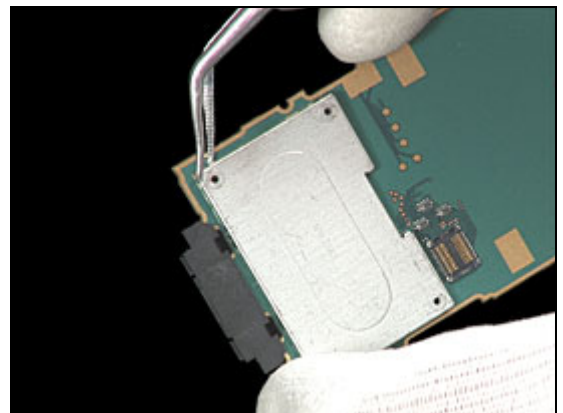
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Follow the 3.5 – 3.6 Removal instructions!

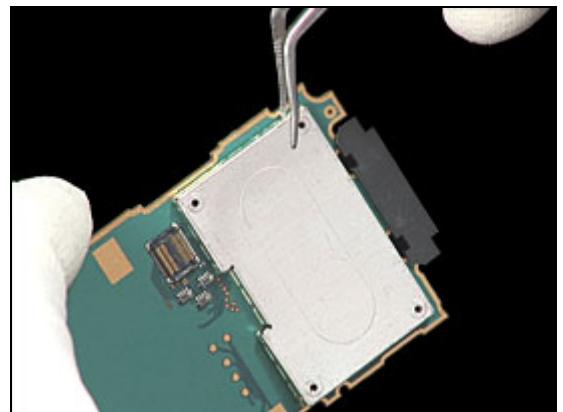
Use tweezers to loosen each side of *Shield Can Lid Wanda*.



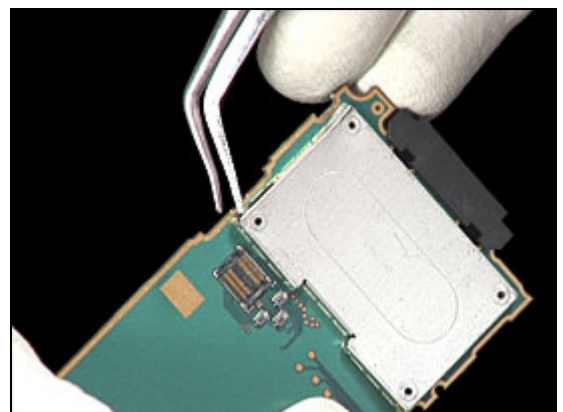
Repeat this step for all sides.



Repeat this step for all sides.



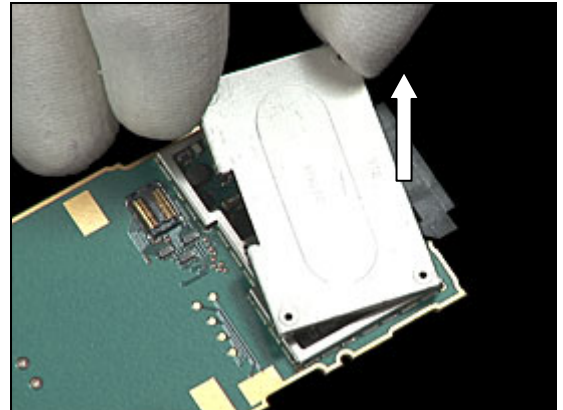
Repeat this step for all sides.





Shield Can Lid Wanda *continued*

Grip with fingers and lift off.

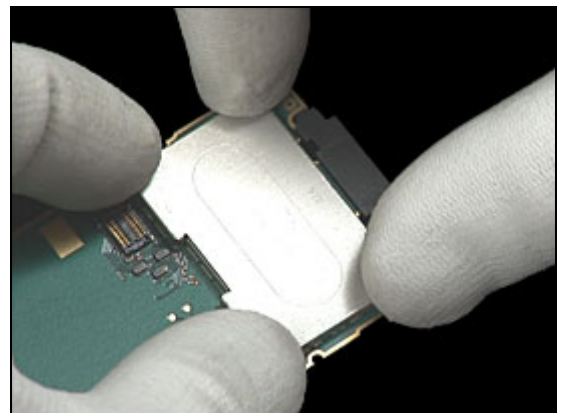


INSTALLATION

Position *Shield Can Lid Wanda* and press down on each corner to secure.

Follow the 3.5 – 3.6 Installation instructions!

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





3.10 Shield Can Lid

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

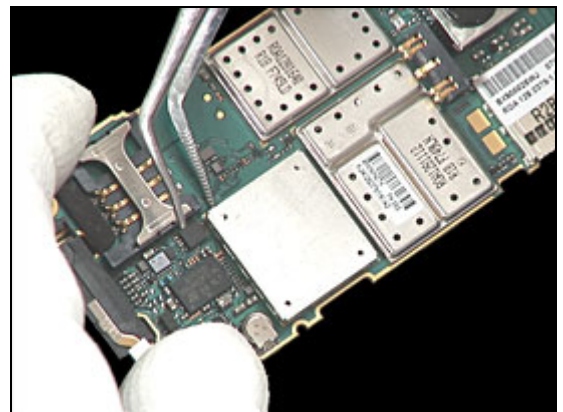
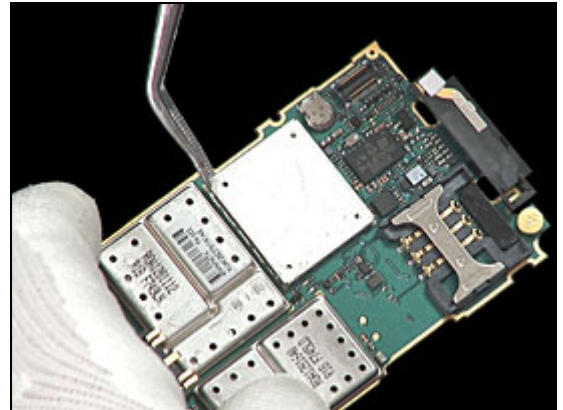
Follow the 3.5 – 3.6 Removal instructions!

Use tweezers to loosen each side of *Shield Can Lid*.

Repeat this step for all sides.

Repeat this step for all sides.

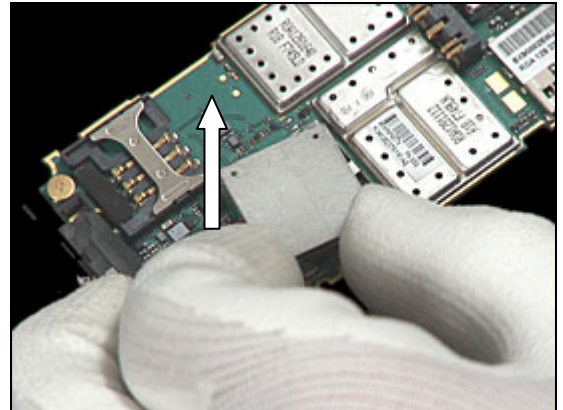
Repeat this step for all sides.





Shield Can Lid *continued*

Grip with fingers and lift off.

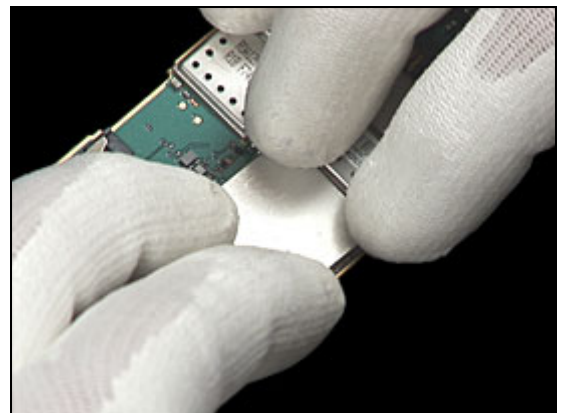


INSTALLATION

Position *Shield Can Lid* and press down on each corner to secure.

Follow the 3.5 – 3.6 Installation instructions!

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





3.11 2.0 Mega Pix Camera & Camera Shield

REMOVAL

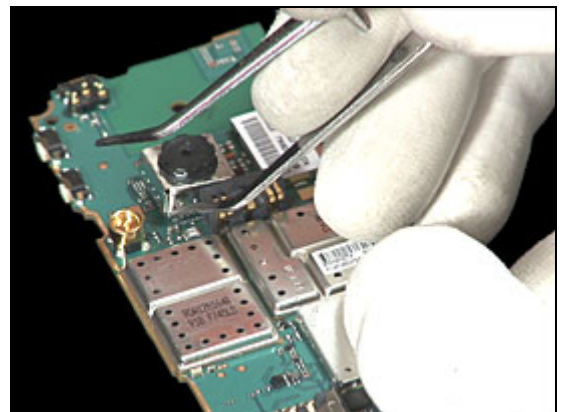
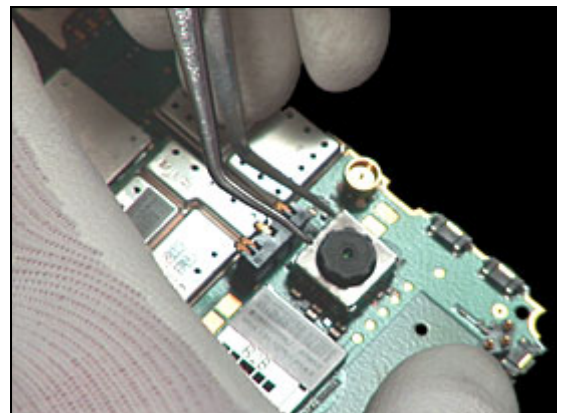
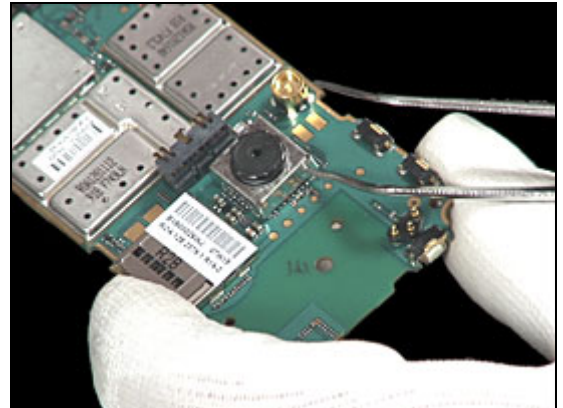
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Use tweezers to loosen each side of *Camera shield*.

Repeat this step for all sides

Repeat this step for all sides

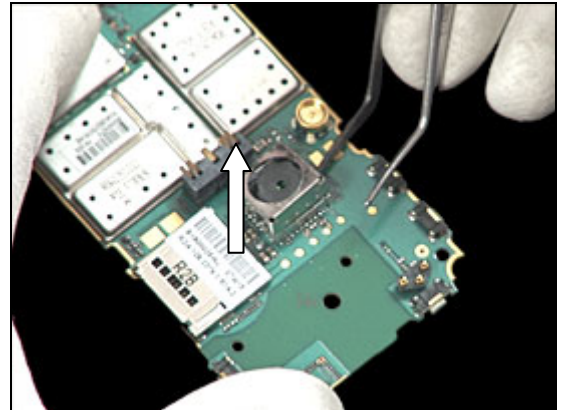
Repeat this step for all sides



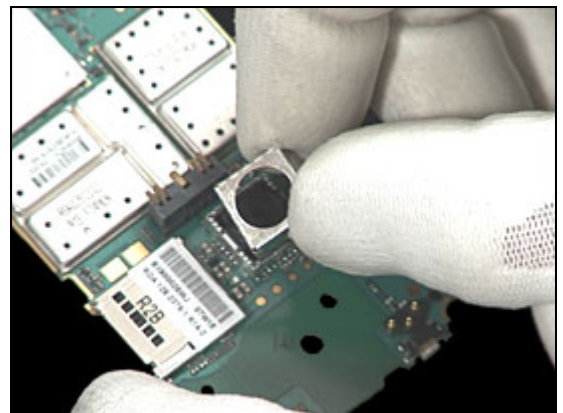


2.0 Mega Pix Camera & Shield *continued*

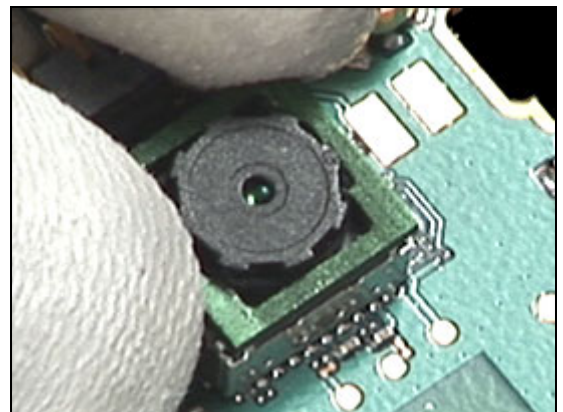
Use tweezers to lift up *Camera shield*.



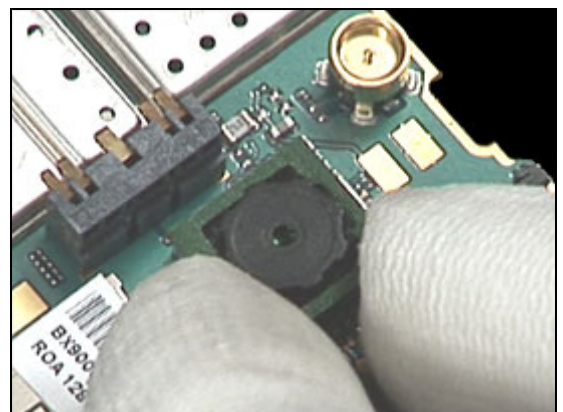
Grip with fingers and remove *camera shield*.



Use Mega camera removal tool and insert it into *camera socket* as shown in picture.



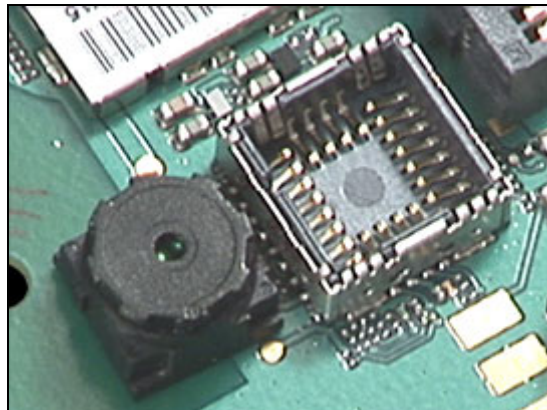
Lift out *camera*.



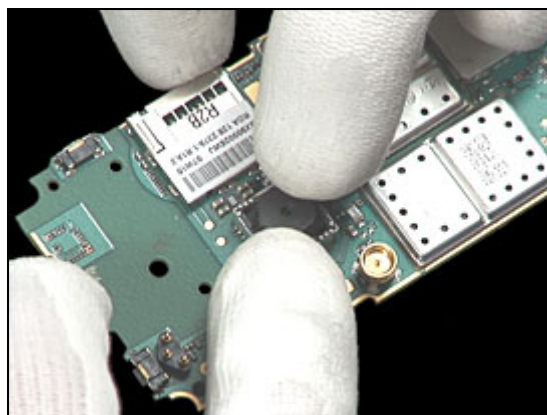
2.0 Mega Pix Camera & Shield *continued*

INSTALLATION

Overview picture.

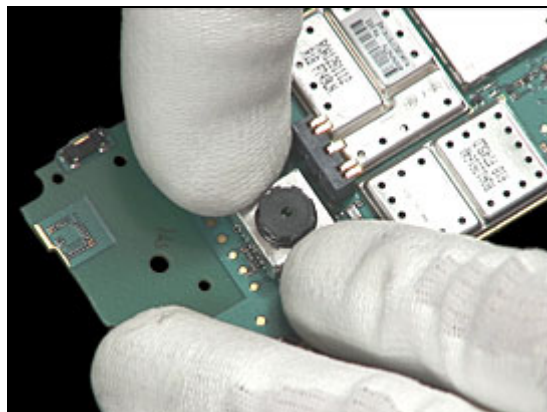


Position *camera* into socket and use fingers and push down on each edge to secure *camera*.



Use new camera shield part then position and press down to secure.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!

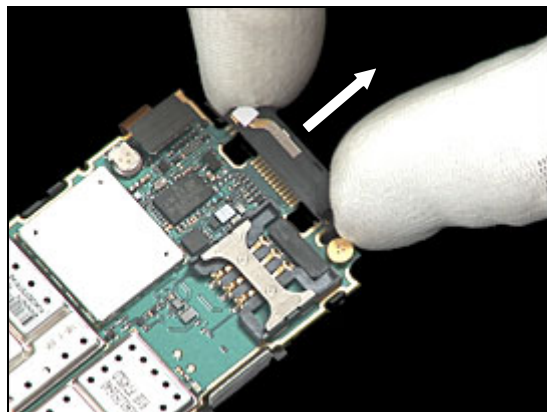


3.12 System Connector

REMOVAL

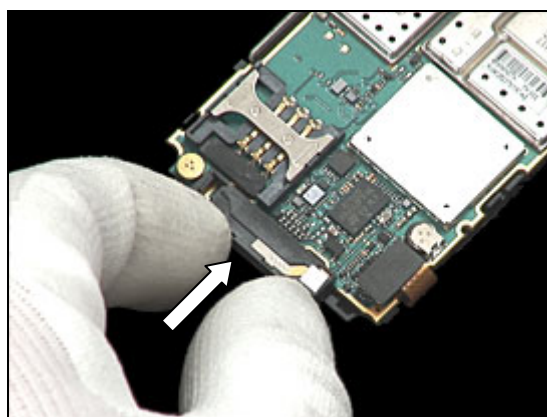
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Grip *System Connector* and pull away from *PCBA*



INSTALLATION

Push *System Connector* into place.



Overview picture.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!

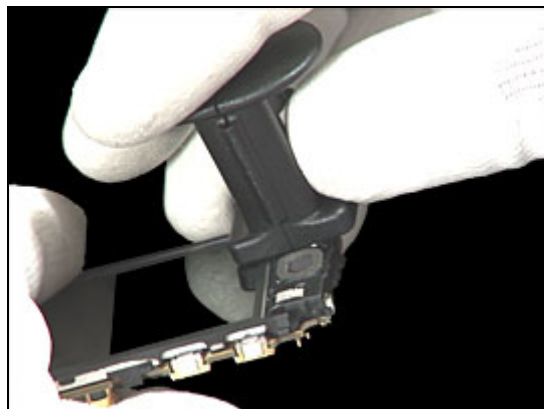


3.13 VGA Camera “QCIF”

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Insert *VGA camera* tool into *VGA socket*, then remove camera.



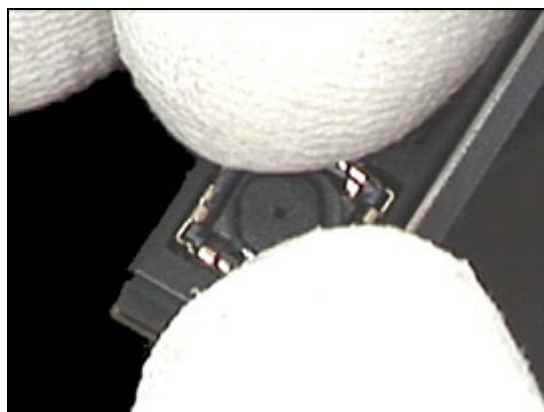
INSTALLATION

Overview picture.



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

Follow the 4.1.1 – 4.1.5 Reassembly instructions!

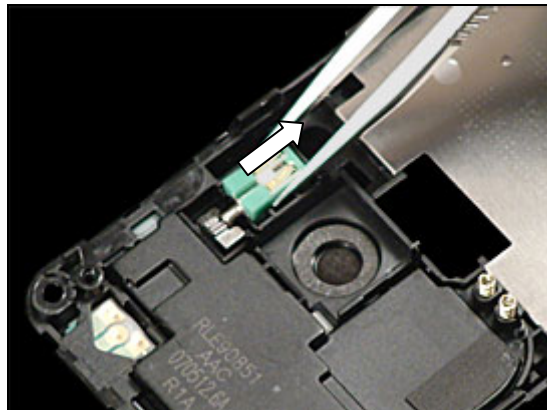


3.14 Vibrator

REMOVAL

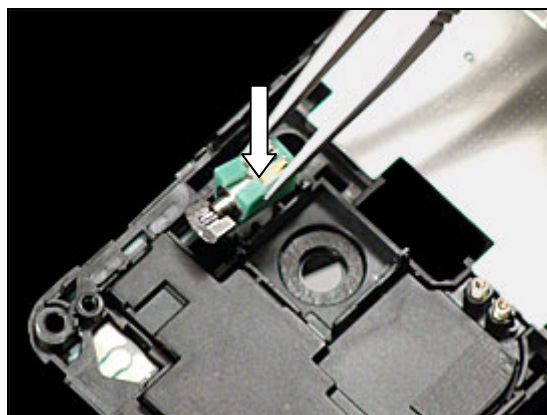
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Remove with tweezers gripping the side avoiding metal contacts.



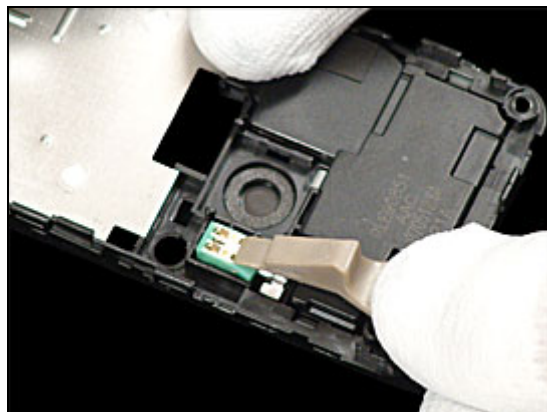
INSTALLATION

Place the *vibrator* in the cavity,



Use side opening tool to position into place

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



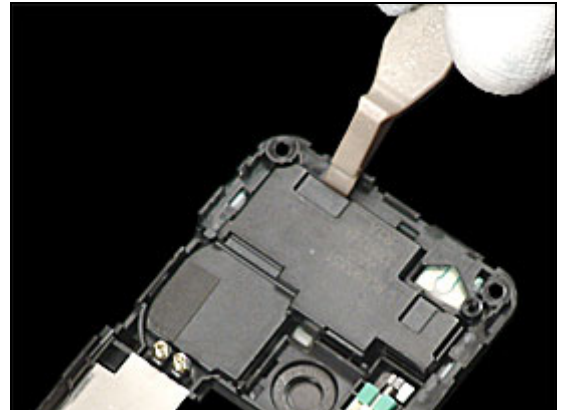


3.15 Speaker Box Assy

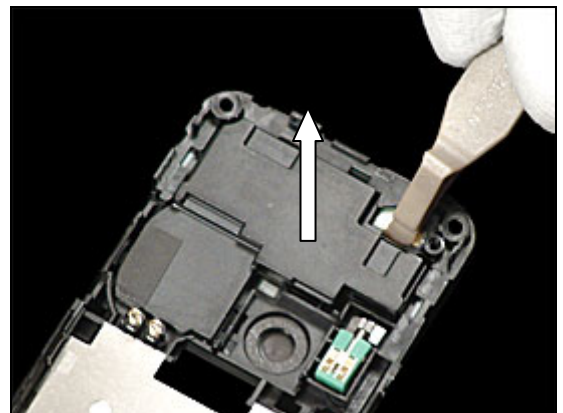
REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

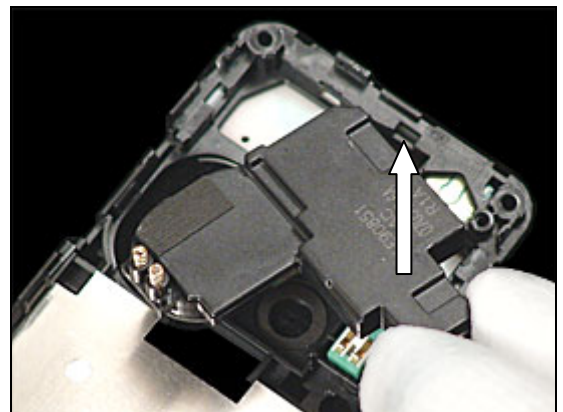
Insert side opening tool as shown in picture and unlatch snap hook.



Repeat this step for other snap hook.

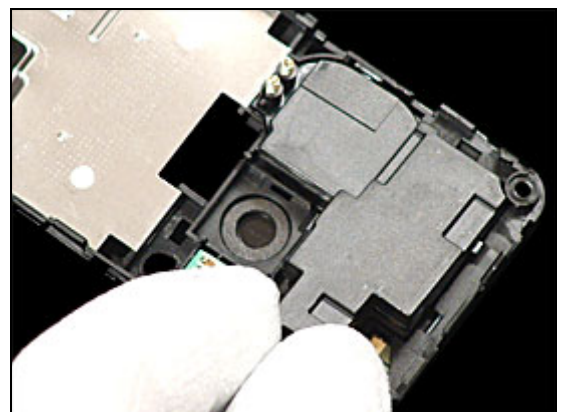


Grip with fingers and remove *Speaker Box Assembly*.



INSTALLATION

Position *Speaker Box Assembly* into *Frame Assembly*.



Speaker Box Assy *continued*

Press down with finger and secure.



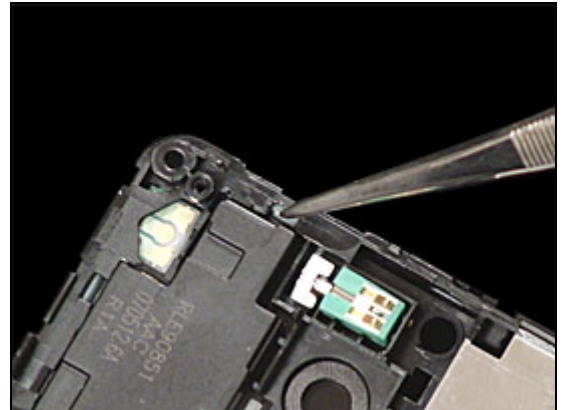


3.16 Antenna Assy

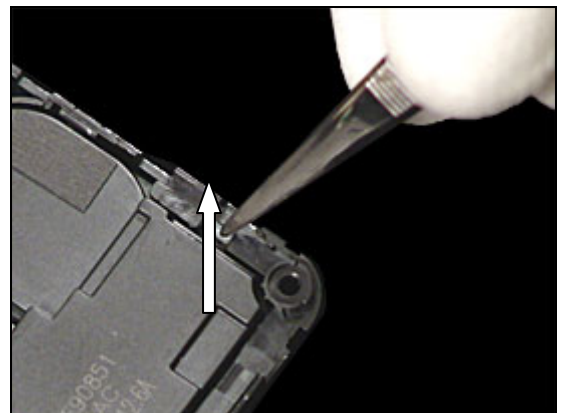
REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Use tweezers as shown in picture releasing snap hook.



Repeat this action for other side.



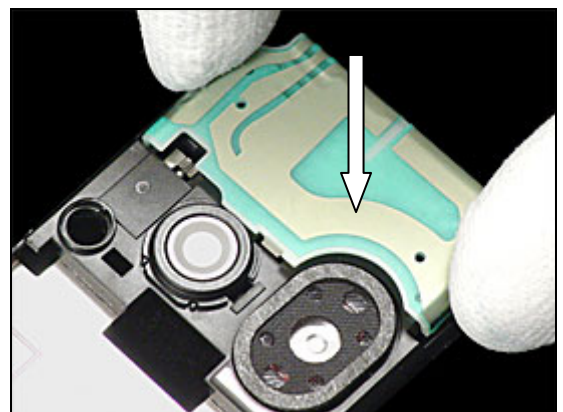
Grip *Antenna Assy* with fingers and lift off.



INSTALLATION

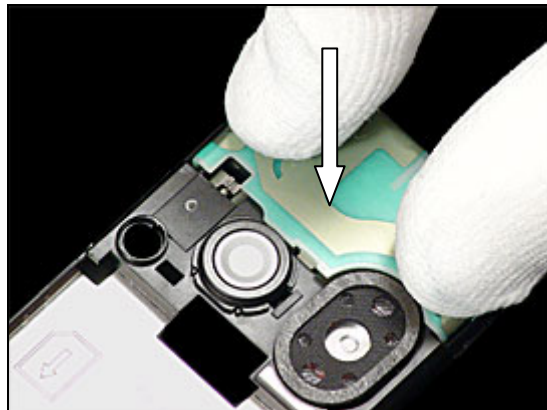
Position the *Antenna Assembly* into *Frame Assembly*.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



Antenna Assy *continued*

Use fingers and press down to secure *Antenna Assembly*.



3.17 Power Key

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Remove using tweezers.



INSTALLATION

Position into place with tweezers.



Check placement.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



3.18 Volume Key

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Remove using tweezers.

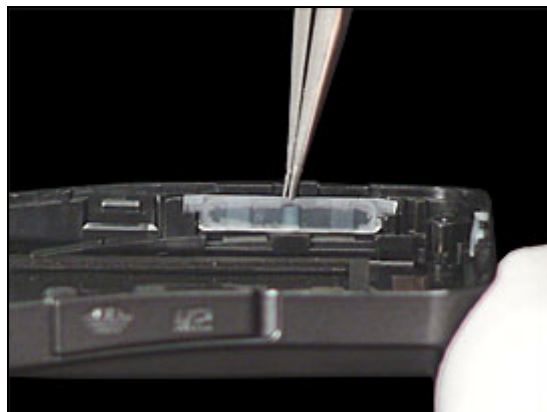


Position into place with tweezers.



Check placement.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!



3.19 Camera Key

REMOVAL

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Remove using tweezers.



Position into place with tweezers and check placement.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





3.20 M2 Memory Card Lid

REMOVAL

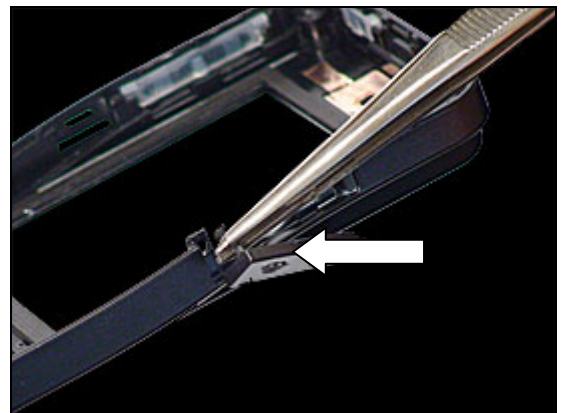
Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Push out *Memory Card Lid* using Tweezer.



INSTALLATION

Position into place with Tweezers.



Press in the *Memory Card Lid* until it's secure to *Frame Assembly*.

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





3.21 Liquid Intrusion Indicator

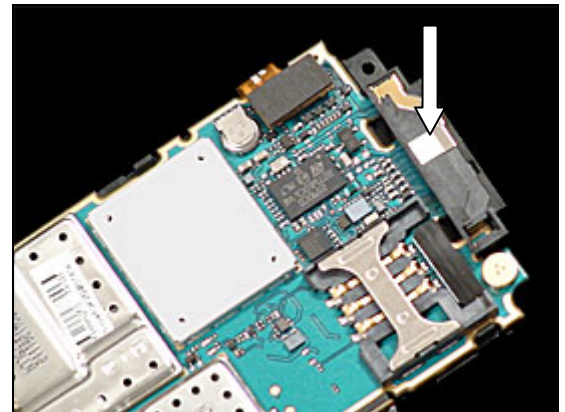
INSPECTION

There is one Liquid Intrusion Indicators located on the PCBA.

To get access to and to inspect the indicators:
Follow 2.1.1 – 2.1.5 Disassembly instructions!

REMOVAL

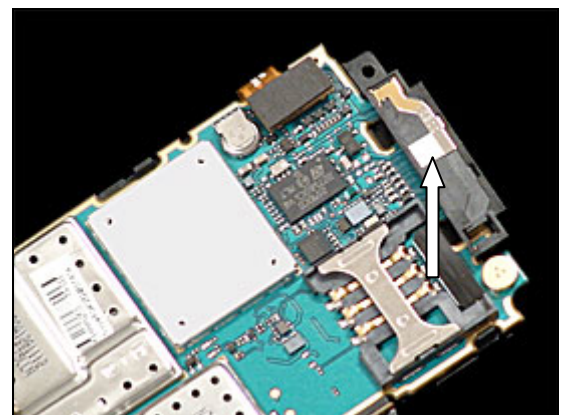
Remove the activated *liquid intrusion indicator* with the dentist hook and the tweezers.



INSTALLATION

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

Follow the 4.1.1 – 4.1.5 Reassembly instructions!





3.22 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.

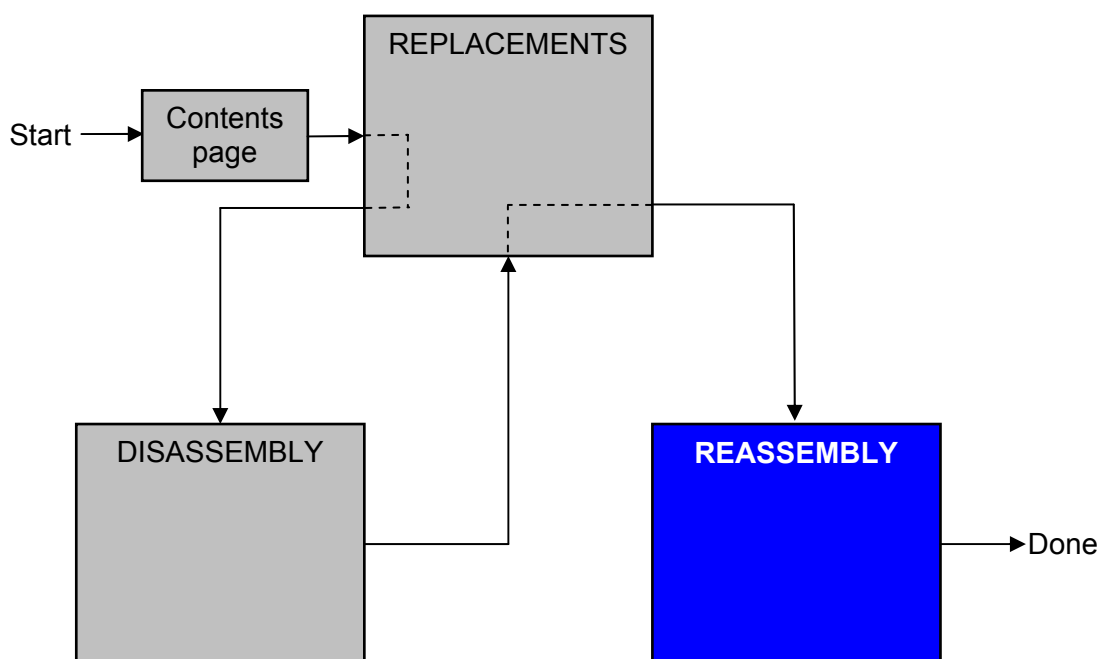
ONE LABEL ONLY IS ALLOWED!

Follow the 4.1.5 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:

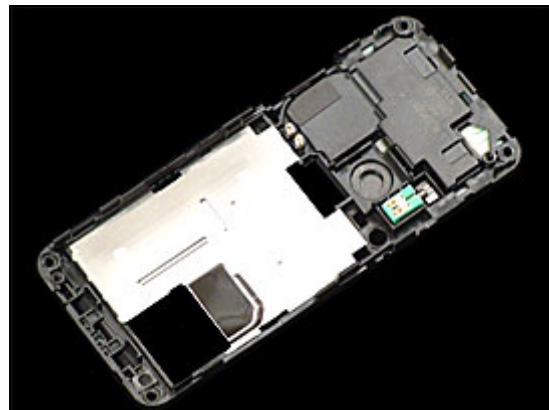
1. PCBA
2. Frame Cover Assembly
3. Front Cover
4. Keypad
5. Antenna Cover
6. Speaker Mesh Cover Assy (a) & Antenna Plug (b)
7. Battery Cover (a) Battery (b)



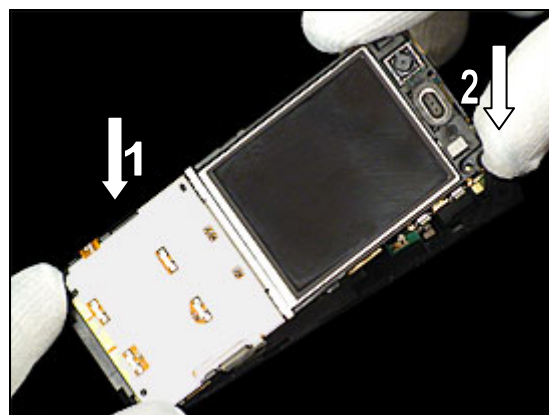


4.1.1 Frame Cover Assembly & PCBA

Overview Picture



1. Place *PCBA* into bottom position first.
2. Lower top end of *PCBA* into *Frame Assembly*.



BE CAREFUL NOT TO TOUCH OR MARK THE LCD!

Press down on each corner to secure the *PCBA*.



CLEAN LCD FROM ANY MARKS OR DUST BEFORE ASSEMBLING!

Use **20 Ncm** torque to tighten the screws with Phillips Bit.



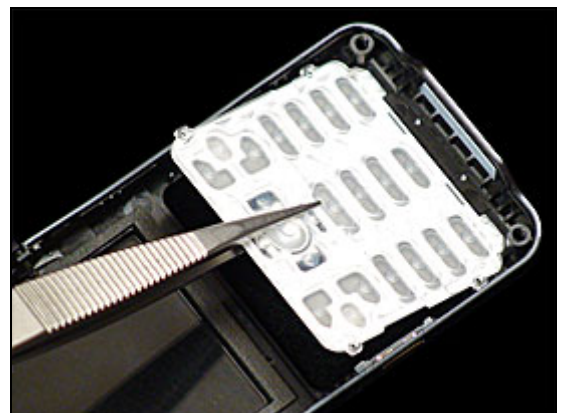


4.1.2 Front Cover & Keypad

Overview picture.



Use tweezers to place *keypad* into position.

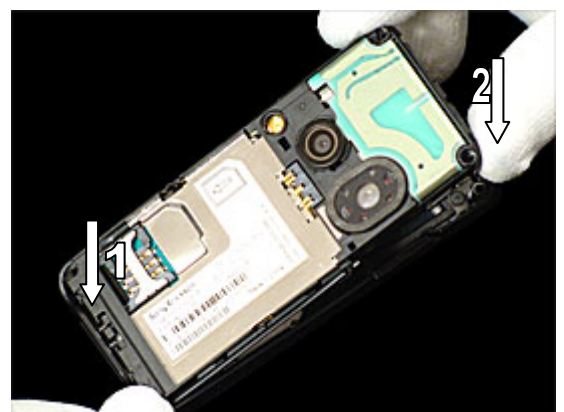


CLEAN ANY DUST OR MARKS FROM FRONT COVER WINDOW BEFORE PROCEEDING WITH NEXT STEP!

Like this.



1. Place *Frame Assembly & PCBA* into bottom position first.
2. Lower top end of *Frame Assembly & PCBA* into *Front Cover Assembly*.



Front Cover & Keypad *Continued*

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



Use **20 Ncm** torque to tighten the four screws with torx bit no. 6.

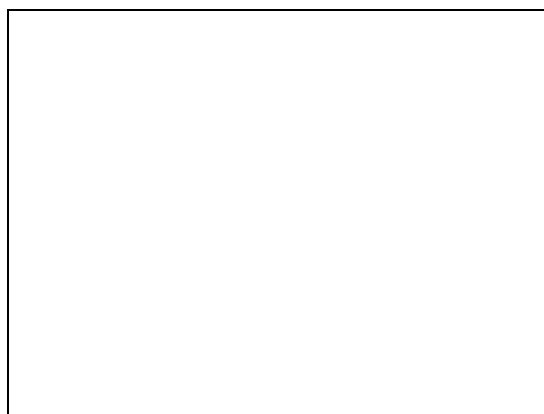


4.1.3 Antenna Cover Assembly

Place *Antenna Cover Assembly* into position.



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





4.1.4 Speaker Mesh Cover Assy & Antenna Plug

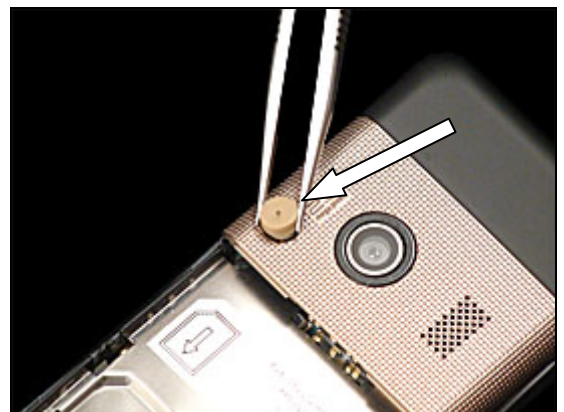
Place *Speaker Mesh Cover Assembly* into position.



Press down with fingers to secure *Speaker Mesh Cover Assembly*.



Place *Antenna Plug* into position with tweezers. .



Secure *Antenna Plug* with finger as shown in picture.



4.1.5 Battery & Battery Cover

Insert battery as shown in picture.



Press battery into position.



Slide on battery cover as shown in picture.



Secure battery cover as shown in picture.





5 Revision history

Rev.	Date	Changes / Comments
A	2007-07-06	1 st Release
B	2007-08-14	Page 9 Updated