

Working Instruction, Mechanical

Applicable for J110 and J120

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1 Introduction

J110

Note: There are three colors available for J110: Cream, Purple and Gray



J120



1.1 Equipment

SPECIAL TOOLS

- NTZ 112 459 Torque Screwdriver
- NTZ 112 478 Torx Bit #5
- NTZ 112 302/2 Front opening Tool



STANDARD TOOLS

Standard tools text:

- Pair of 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!***

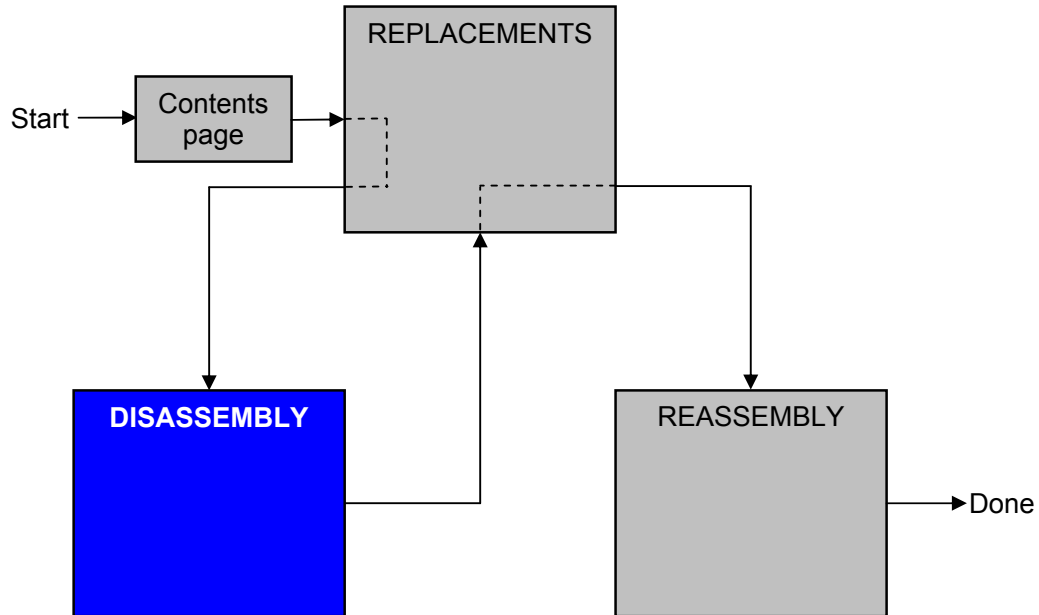
1.3 Adhesives

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. Rear Cover (1A) and Battery (1B)
2. Front Cover and Keypad
3. PCBA



2.1.1 Battery Cover and Battery

Pull down the latch on the Battery Cover



Pull the battery cover up



Lift and remove the Battery Cover

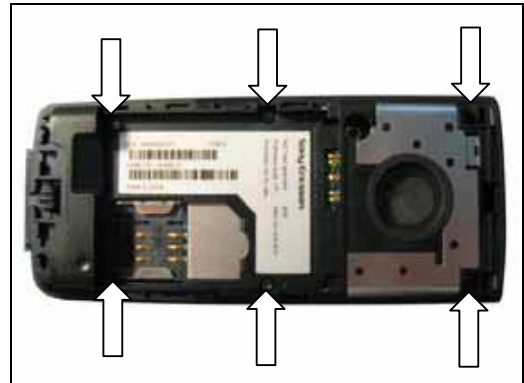


Pull up the Battery



2.1.2 Front Cover

Remove the six screws



THE FRONT COVER IS ATTACHED TO THE FRAME HOUSING WITH SNAP HOOKS!

Use a Front Opening Tool to release the Front Cover snap hook



Do the same on the opposite side



Lift the Front Cover and remove it



2.1.3 PCBA

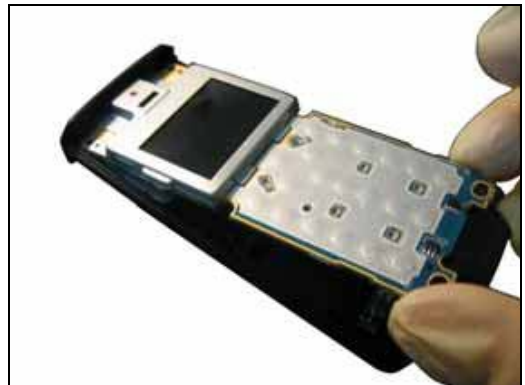
Unsnap the front from the Frame Housing by using the Front Opening Tool.



Do the same in the opposite side.



Lift up the PCBA carefully



MAKE SURE THAT GUIDE PIN IS NOT DAMAGED DURING THIS PROCEDURE!



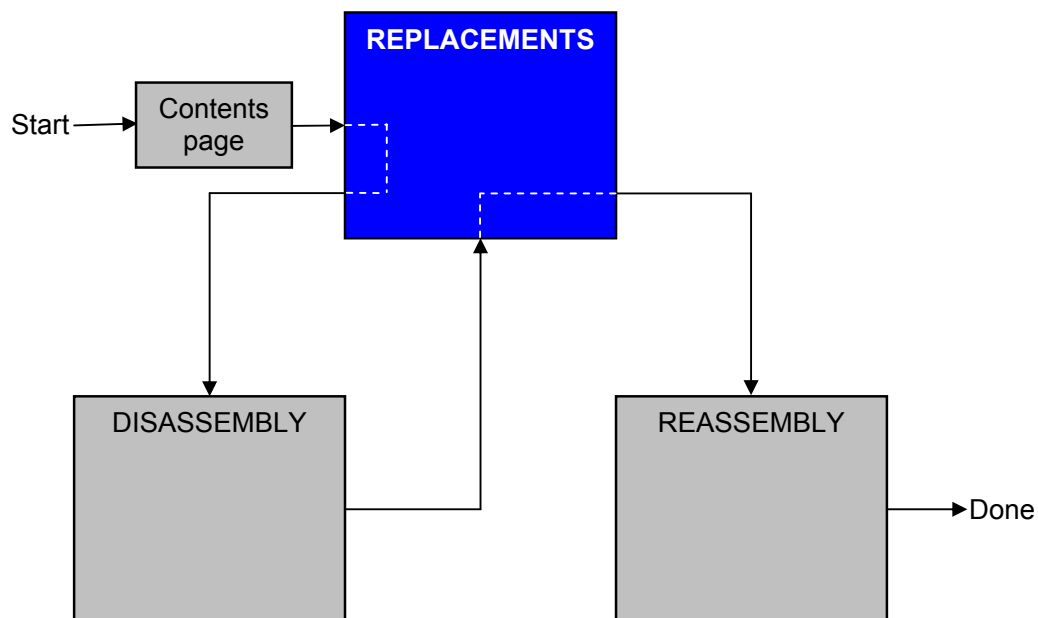
3 Replacements

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 4.1.3 Reassembly instructions!

3.2 Front Cover

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Remove the keypad as described in 3.11 Keypad.

Prepare the new Front Cover.

Attach a new name plate as described in 3.11 Keypad.

Follow the 4.1.2 – 4.1.3 Reassembly instructions!

3.3 Keypad

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

If the Keypad still is attached to the Front Cover, separate it by using your fingers.

Prepare the new Keypad.

Follow the 4.1.2 – 4.1.3 Reassembly instructions!

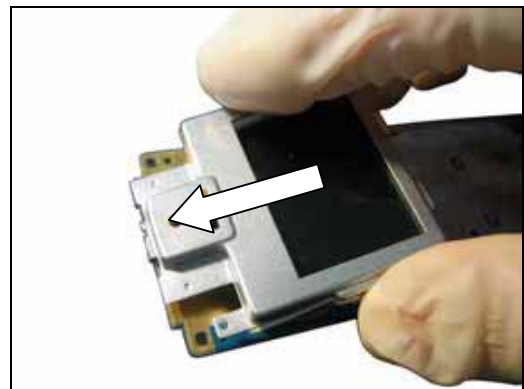
3.4 LCM Metal Frame

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

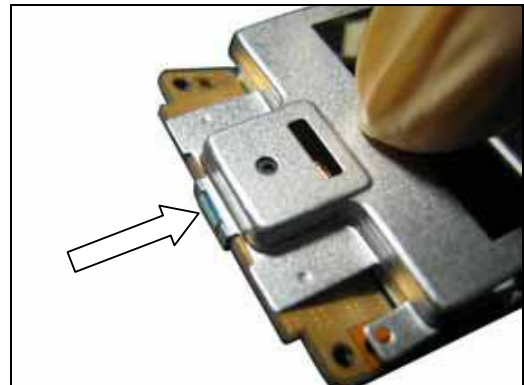
THE LCD IS SNAPPED TO THE PCBA WITH TWO SNAP HOOKS!
Unsnap the LCD with a Front Opening Tool



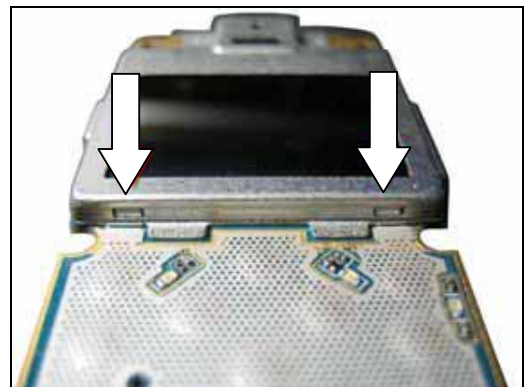
Release the LCM Metal Frame



Put the LCM Metal Frame in the guiding hole for the PCBA.



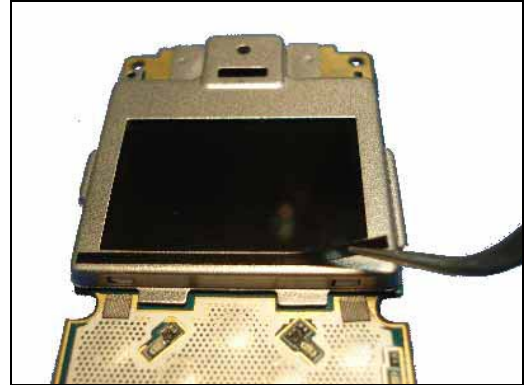
Press down on the bottom corners of LCM Metal Frame to snap two hooks onto the LCM.



LCM Metal Frame *continued*

Attach the new Mylar on the LCM Metal Frame

Follow the 4.1.1 – 4.1.3 Reassembly instructions!



3.5 Receiver

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use tweezers to raise the earphone out of metal carrier and remove it.



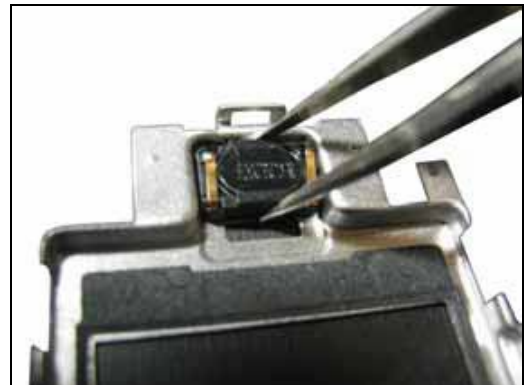
CLEAN THE CORRESPONDING SURFACE OF METAL CARRIER TO REMOVE ADHESIVE.

Use the tweezers to remove the protective tape on the receiver.



Use the tweezers to place the new earphone in its proper position and press gently, without touching the contacts.

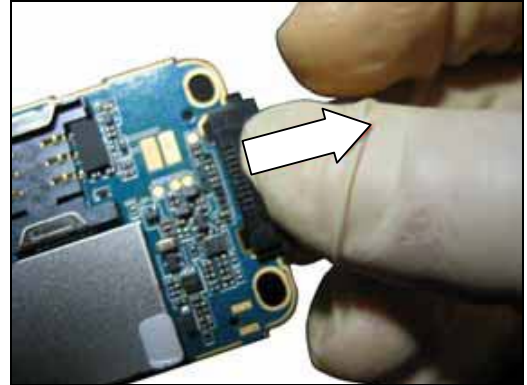
Follow the 4.1.1-4.1.3 Reassembly instructions!



3.6 System Connector

Follow the 2.1.1– 2.1.3 Disassembly instructions!

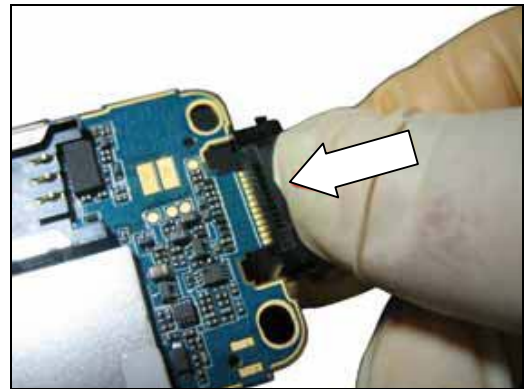
Pull the system connector away from the PCBA.



CLEAN THE SYSTEM CONNECTOR PINS BEFORE PROCEEDING!

Push the system connector onto the PCBA.

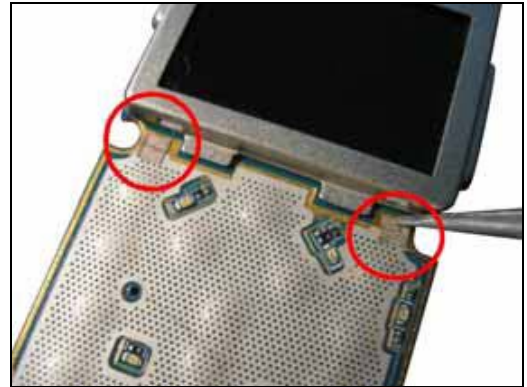
Follow the 4.1.1-4.1.3 Reassembly instructions!



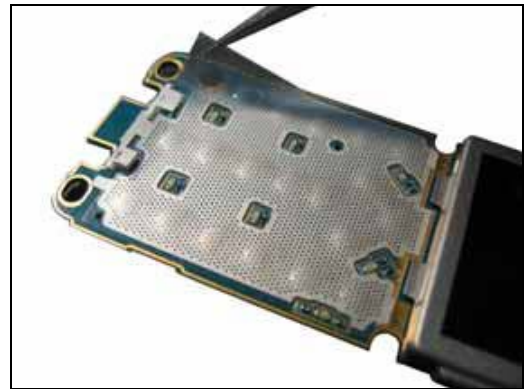
3.7 Metal Dome Array

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use the tweezers to peel off the Conductive Dome Gaskets from the PCBA.

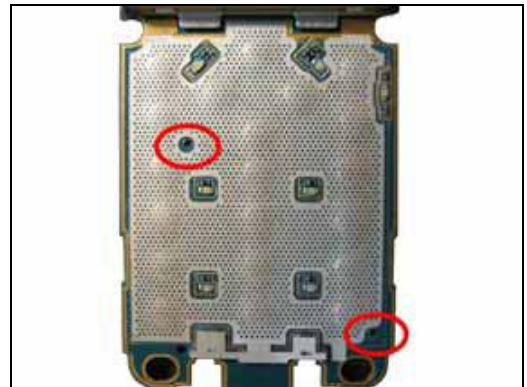


Use the tweezers to peel off the dome foil from the PCBA

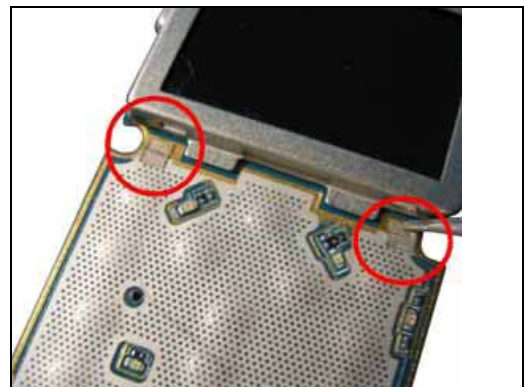


CLEAN THE PCBA SURFACE WITH ISOPROPYL ALCOHOL BEFORE PROCEEDING!

Attach the new dome foil so that the holes of PCBA and the dome foil are aligned.



Attach two **new** conductive gaskets.

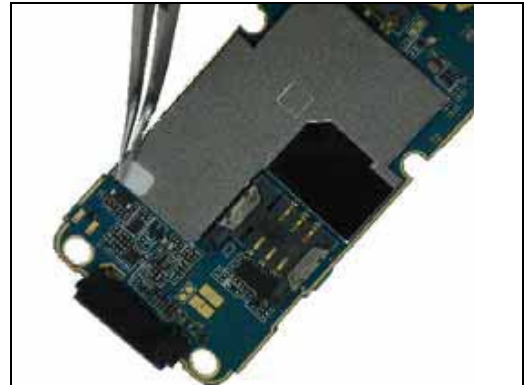


3.8 Liquid Intrusion Indicator

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Peel off the liquid intrusion indicator, **clean the surface**, and attach a new Liquid Intrusion Indicator.

Follow the 4.1.1-4.1.3 Reassembly instructions!



3.9 Vibrator

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use the tweezers to raise the vibrator out of its cavity and then remove it.



Use the tweezers to place the vibrator in its proper position and press gently, without touching the contacts, until it reaches the bottom of the cavity.

Follow the 4.1.1-4.1.3 Reassembly instructions!



3.10 Loud Speaker and Rubber Speaker Sealing

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use the tweezers to raise the Rubber Sealing out of its cavity and then remove it.



Use the tweezers to remove the loudspeaker out of its proper position, without touching the contacts.



Remove the protective tape on the loudspeaker.



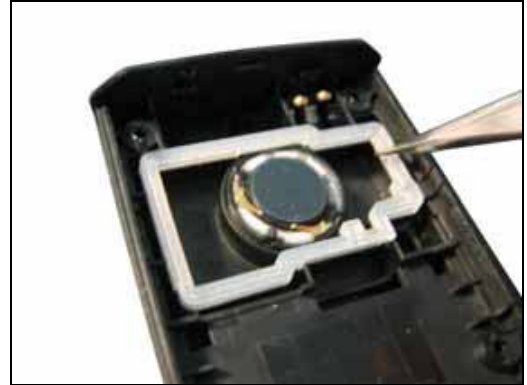
Use the tweezers to place a new loudspeaker in its proper position and press gently, guide pin into recession, without touching the contacts, until it reaches the bottom of the cavity.



Loud Speaker and Rubber Speaker Sealing *continued*

Use the tweezers to place the Rubber Speaker Sealing and press gently.

Follow the 4.1.1-4.1.3 Reassembly instructions!



3.11 Microphone

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use the tweezers to raise the microphone out of its cavity and then remove it.



CLEAN THE MICROPHONE PORT ON THE FRAME HOUSING BEFORE PROCEEDING!

Use the tweezers to place the microphone in its proper position and press gently, without touching the contacts, until it reaches the bottom of the cavity.

Follow the 4.1.1-4.1.3 Reassembly instructions!



3.12 Co-brand label

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Use a Front Opening Tool to remove the Co-Branding plate



YOU MUST USE A NEW FRONT COVER!

Attach the Co-brand to the **new** Front Cover with your fingers

Follow the 4.1.1-4.1.3 Reassembly instructions!



3.13 KRH Label

Follow the 2.1.1 – 2.1.3 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.

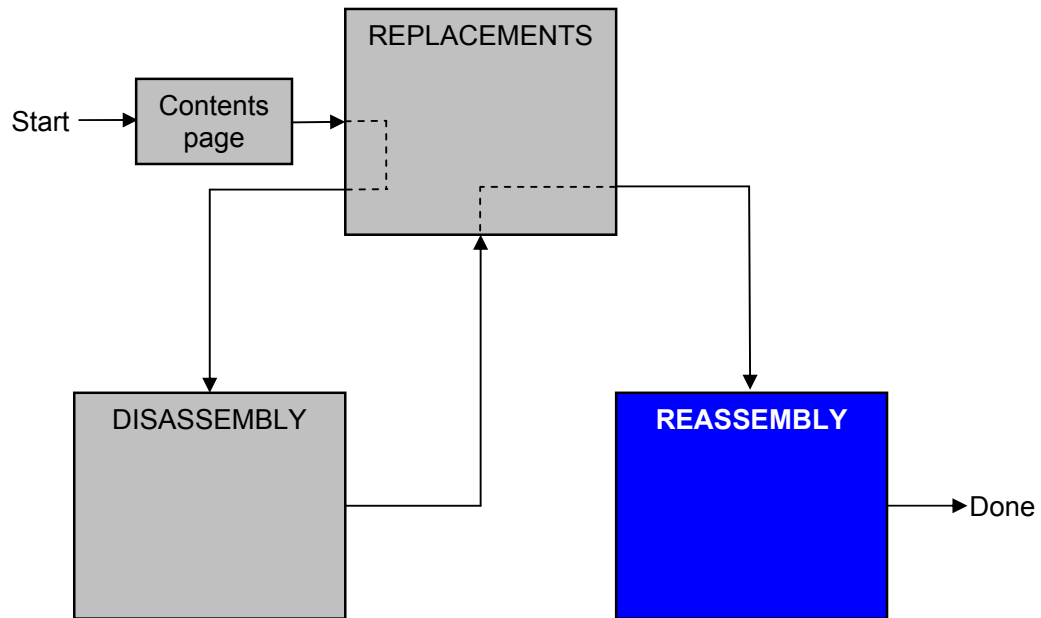
ONE LABEL ONLY IS ALLOWED!

Follow the 4.1.3 – 4.1.3 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. Front Cover and Keypad
3. Battery Cover (3A) and Battery (3B).

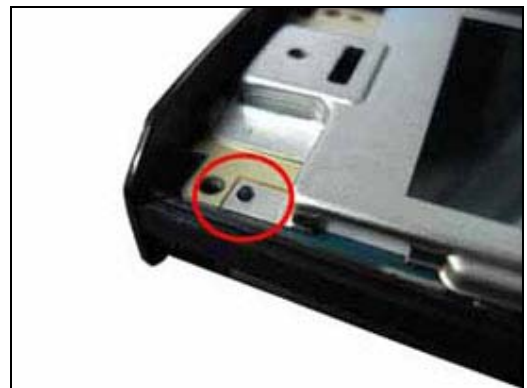


4.1.1 PCBA

Insert the PCBA into the top snaps



Make sure that the guide pin is inserted into guide holes of PCBA and metal carrier.



Press the PCBA down till snapped to the Frame Housing.



4.1.2 Front Cover and Keypad

Position the Front Cover onto the Frame Housing and press the two parts together.



Snap top hook to the Frame Housing.



Snap the side hooks to frame housing.



USE NEW SCREWS!

Tighten six T5 screws in the order 1-6 by using 11 ± 1 Ncm torque.



4.1.3 Battery Cover and Battery

Push the battery towards the battery connector.



And press it down to the bottom.



Position the battery cover into the frame housing at the top and put down the two parts together.



Push the latch in the lock position.



5 Revision history

Rev.	Date	Changes / Comments
A	2007-06-13	1 st release