



Working Instruction, Mechanical

Applicable for W850i

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1 Introduction

W850i Black



W850i Black



W850i White





1.1 Equipment

SPECIAL TOOLS

Requirements (no new tools):

- NTZ 112 459 Torque screwdriver (or equivalent)
- NTZ 112 288 Torx bit no. 6
- NTZ 112 1052 JCIS bit
- NTZ 112 1067 Camera tool
- NTZ 112 521 Flex film assembly tool
- NTZ 112 302/2 Front opening tool (Black or beige)



STANDARD TOOLS

The following tools have to be locally purchased:

- Dentist hook
- Blunt pair of tweezers
- Guitar pick



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

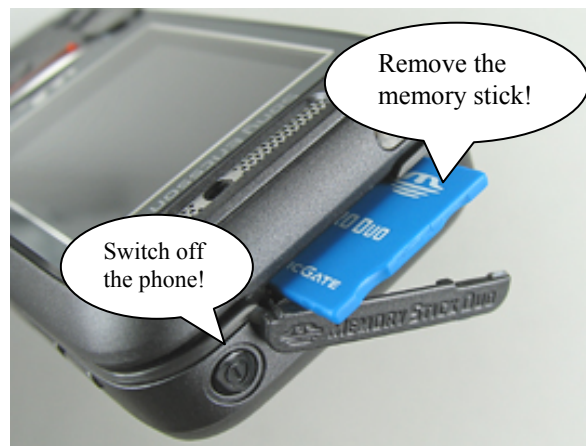




1.2 General cautions

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.

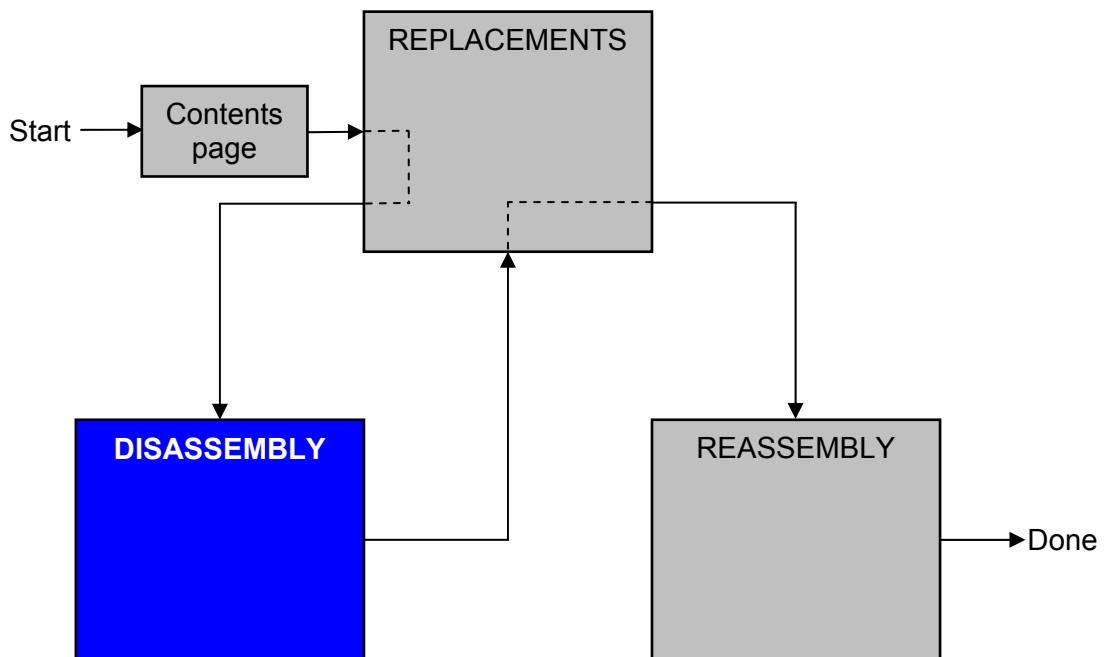
1.4 Recurrent Repair Actions

How to open a board-to-board connector with the front opening tool.



2 Disassembly

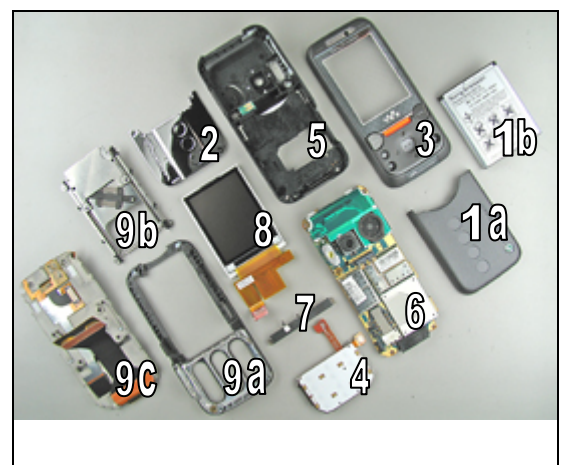
When you are going to replace a part being listed in *Replacements*, the instruction of that section usually begins by directing you to this *Disassembly* section with a specification of the instructions you have to carry out in order to disassemble the phone as far as needed before returning to *Replacements*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



2.1 Overview

The disassembly is done in the following sequence:

1. Battery Cover (a) and Battery (b)
2. Upper Rear Lid
3. Upper Front Assembly Complete
4. Numeric Key Foil Assembly
5. Lower Rear Cover Assembly
6. Main PBA
7. ESD Protection Sheet
8. LCD Module Assembly
9. Lower Front Assembly (a), Slide Mechanism (b) and Upper Carrier Assembly (c)



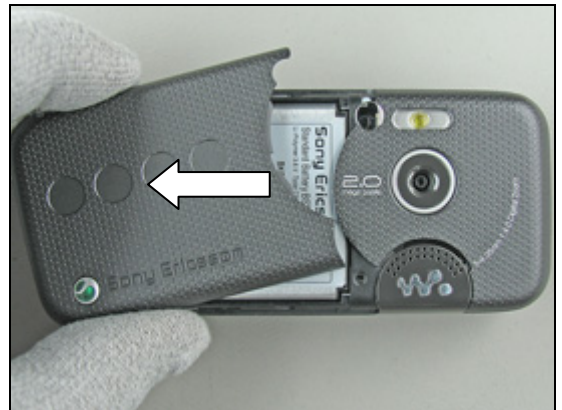


2.1.1 Battery Cover Assembly and Battery

Press with your thumbs (sometimes quite hard) on the *battery cover assembly* until you get a gap.



Remove the *battery cover assembly*.



Start to remove the *battery* from the phone with your fingers. Lift up the *battery* in the bottom end to unleash it.

If not released, turning the phone around at the same time will make it become released.



Remove the *battery* completely from the phone with your fingers.



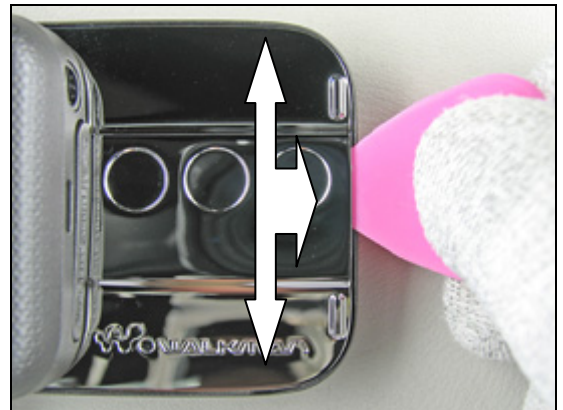


2.1.2 Upper Rear Lid Assembly

DO NOT INSERT THE GUITAR PICK TOO DEEP INTO THE PHONE!

Carefully insert the guitar pick in the middle of the *upper rear lid assembly*.

Continue to gently bend until the lid starts to become loose from the upper front assembly complete.



Move the plectrum along the gap (around the corner) until the lid is loose on this side.



Continue and do the same thing on the other side.



Remove the *upper rear lid assembly* completely.

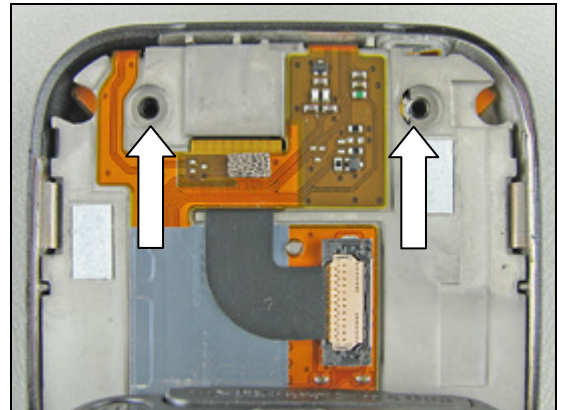




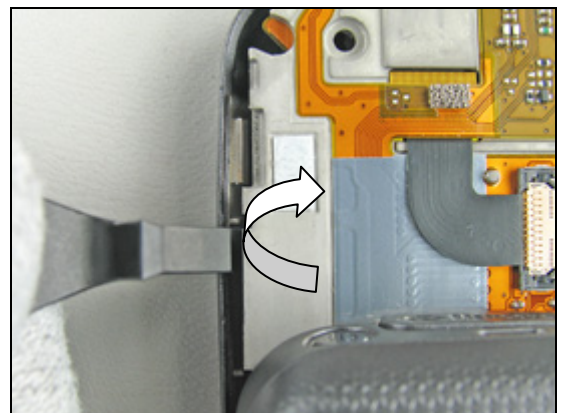
2.1.3 Upper Front Assembly Complete

Remove the two inside screws from the upper carrier assembly by using the NTZ 112 288 (torx bit no 6).

Replace the screw if it's damaged otherwise it can be reused.

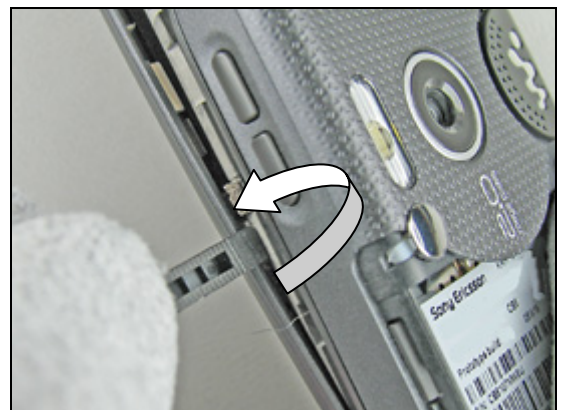


Use the front opening tool to bend and make the *upper front assembly complete* to start to become loose.

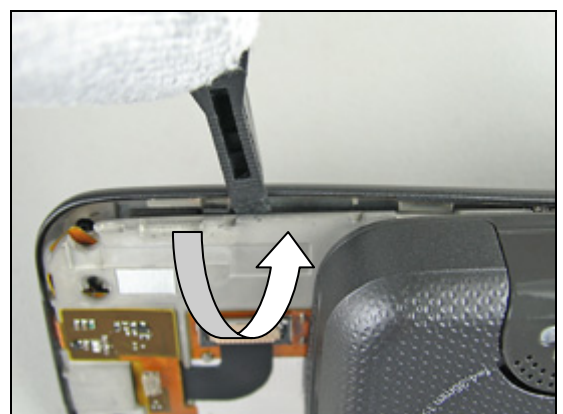


BE CAREFUL NOT TO BREAK THE FRONT!

Continue to bend further down on the *upper front assembly complete* until it's loose on this side.



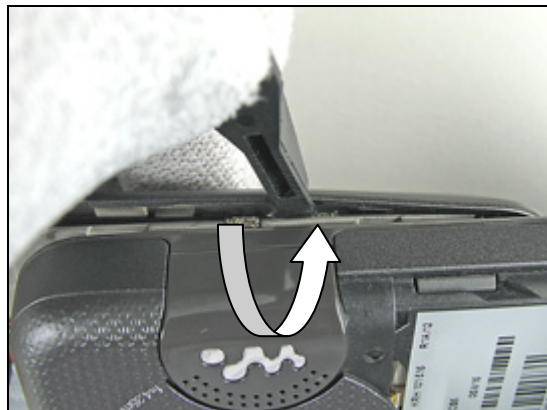
Start on the opposite side and do the same thing.



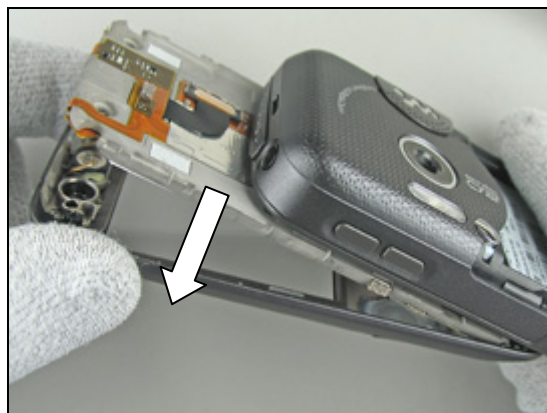
Disassembly Instruction *continued*

BE CAREFUL NOT TO BREAK THE FRONT!

And again.



Gently fold down the *upper front assembly complete* and remove it.



Disassembled *upper front assembly complete*.





2.1.4 Dividing the Phone into Upper and Lower half's

BE CAREFUL NOT TO DAMAGE THE FLEX FILM!

Gently bend away the flex film a little bit with a flex film assembly tool.

Close the phone and remove the two inside screws from the lower front assembly by using the NTZ 112 288 (torx bit no 6).

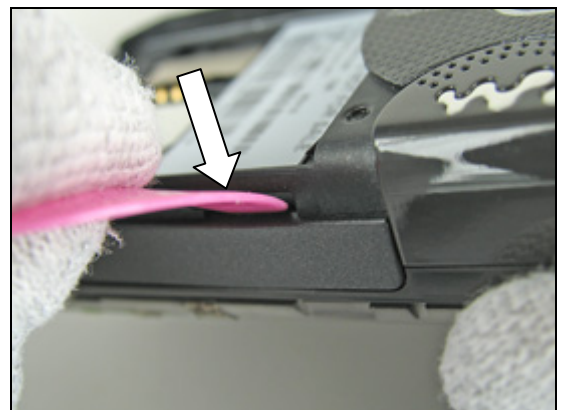
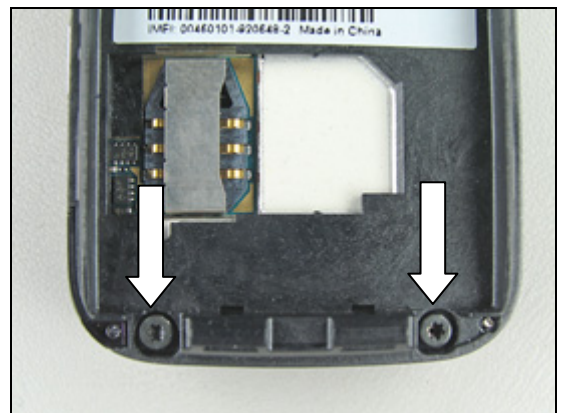
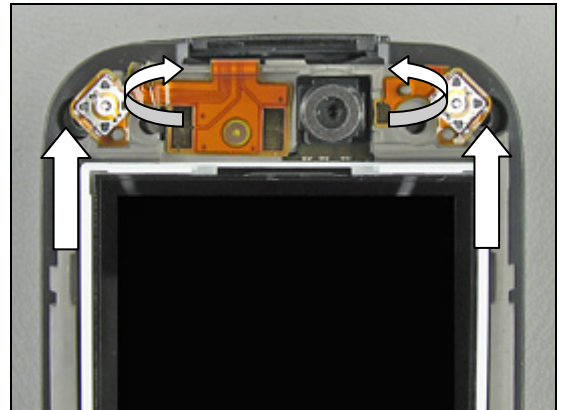
Replace the screw if it's damaged otherwise it can be reused.

Remove the two screws from the lower rear cover assembly by using the NTZ 112 288 (torx bit no 6).

Replace the screw if it's damaged otherwise it can be reused.

Use the guitar pick to unsnap the Lower Front Cover from the Lower Rear Cover.

Use a guitar pick and gently move it along the side until the front is loose.



Disassembly Instruction *continued*

DON'T BEND THE SIDE TOO MUCH DOWNWARDS!

Now should the whole side have become loose.



Repeat the same procedure on the other side.



By the camera button insert the guitar pick until you get a gap.

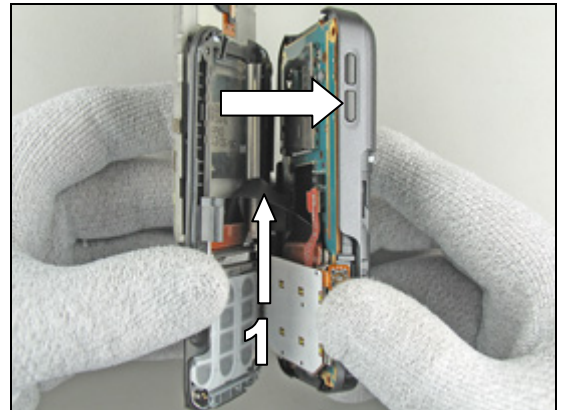


Disassembly Instruction *continued*

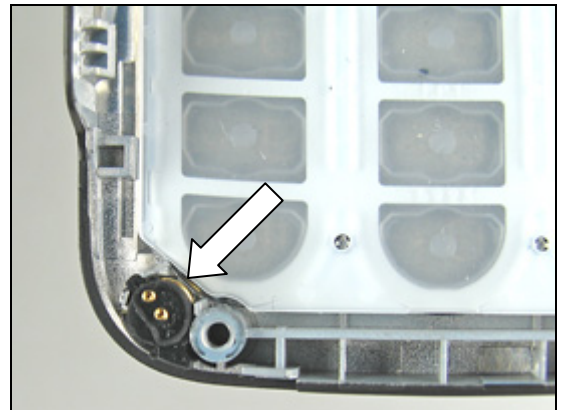
SLIDE OUT THE PHONE!

BE CAREFUL WITH THE HALF-HALF FLEX WITH COMPONENTS (1) WHEN THE TWO HALF'S SEPARATES FROM EACH OTHER!

Divide the phone into two half's.

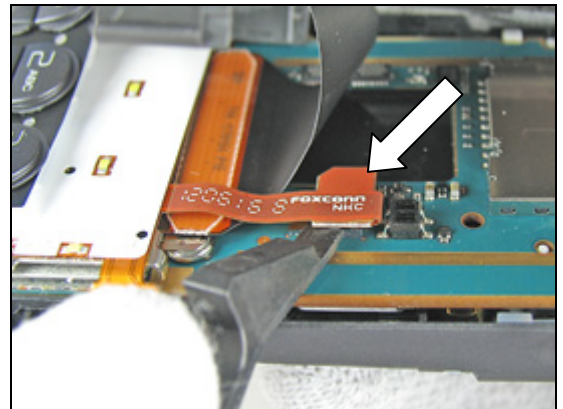


SOMETIMES THE MICROPHONE GROMMET COMES LOOSE FROM THE LOWER FRONT ASSEMBLY- DON'T LOOSE IT!

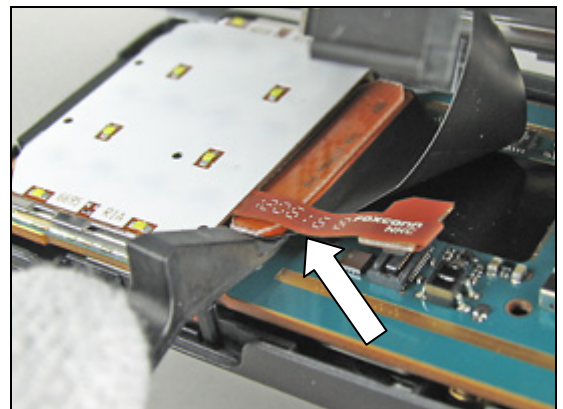


BE CAREFUL WITH THE FLEX FILM AND THE B T B CONNECTOR!

Gently bend with the front opening tool under the Numeric key foil assembly's board to board connector like the picture shows until the connector become loose from the main PBA.



Do the same thing with the half-half flex with components board to board connector.



Disassembly Instruction *continued*

The phone is now divided into upper and lower half's.

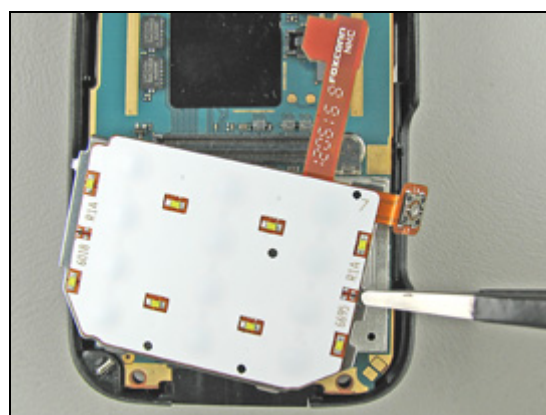


2.1.5 Numeric Key Foil assembly

OFTEN THE NUMERIC KEY FOIL ASSEMBLY BECOMES LOOSE WHEN THE PHONE IS DIVIDED INTO TWO HALF'S!



Remove the *numeric key foil assembly* with a blunt pair of tweezers or your fingers.



Removed *numeric key foil assembly*.



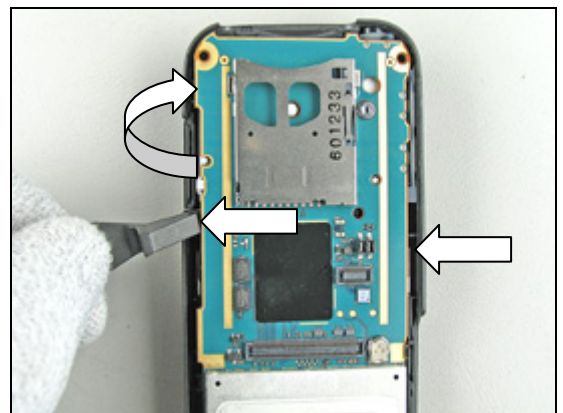
2.1.6 Lower Rear Cover Assembly (and Main PBA)

Start like this before removal of the *lower rear cover assembly*.

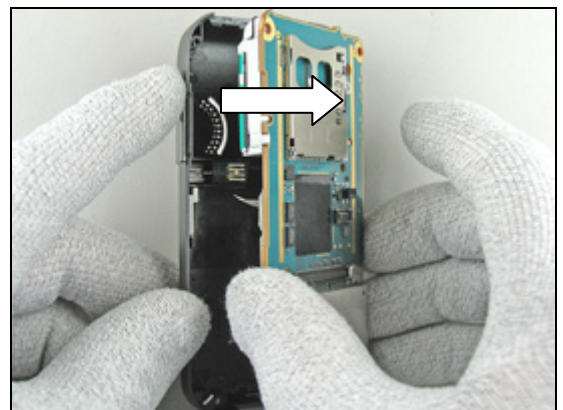


Gently bend with the front opening tool under the main PBA like the picture shows until the main PBA starts to become loose on this side of the *lower rear cover assembly*.

If necessary do the same thing on the other side.



Start to remove the main PBA.
If necessary, wiggle the main PBA a little side to side while pulling it away from the *lower front cover assembly*.

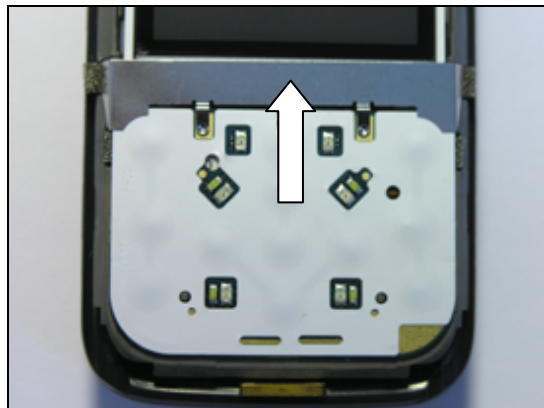


Remove the main PBA completely from the *lower rear cover assembly*.

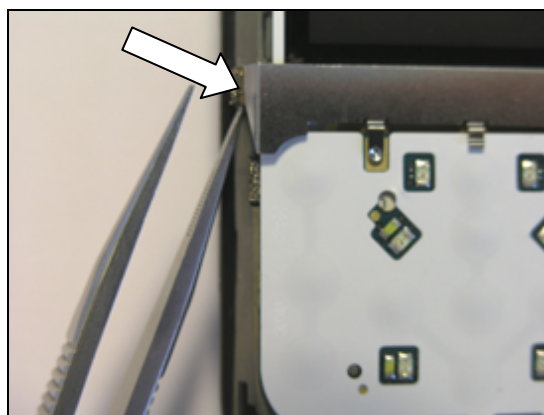


2.1.7 ESD Protection Sheet

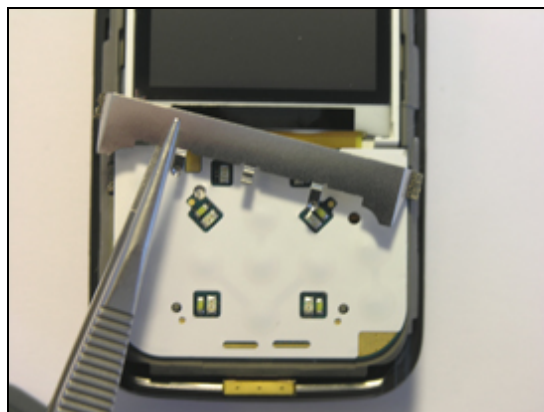
Start like this before removal of the *ESD protection sheet*.



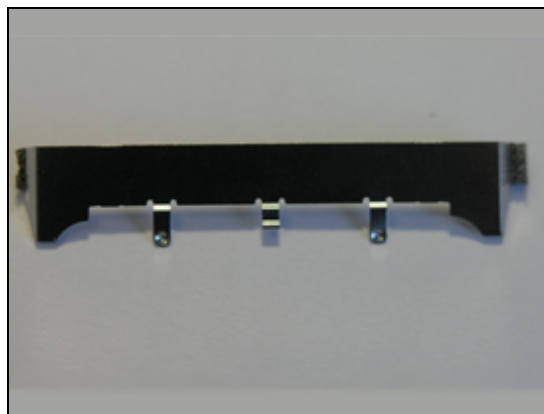
Use a blunt pair of tweezers to squeeze in between the *ESD protection sheet* and the upper carrier assembly until it's become loose (if necessary bend a little).



Completely remove the *ESD protection sheet* with the tweezers.

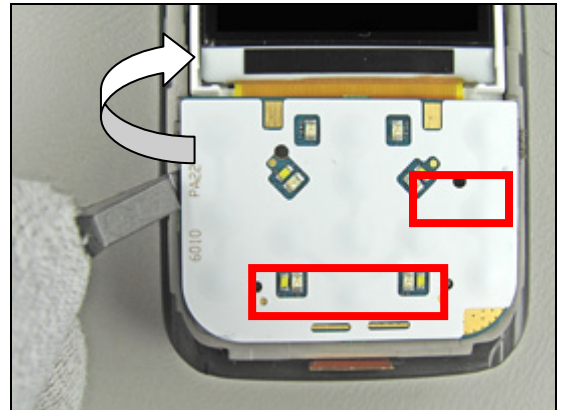


Removed *ESD protection sheet*.



2.1.8 LCD Module and Navigation Key Foil Assembly

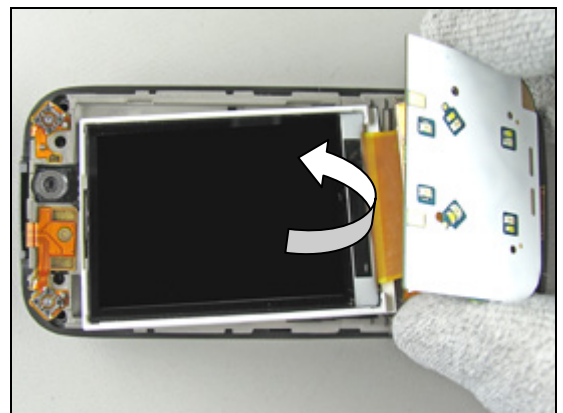
With the front opening tool gently bend until the *navigation key foil assembly's* two board to board connectors (marked with red) are loose.



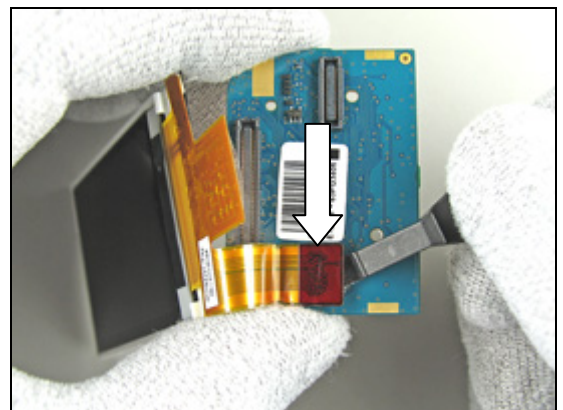
BE VERY CAREFUL WITH THE LCD MODULE ASSEMBLY!

Lift the *LCD module* together with the *navigation key foil assembly* straight up

Do not ever touch the LCD glass surface.



Gently bend with the front opening tool under the *LCD module* board to board connector like the picture shows until the connector become loose from the *navigation key foil assembly*.



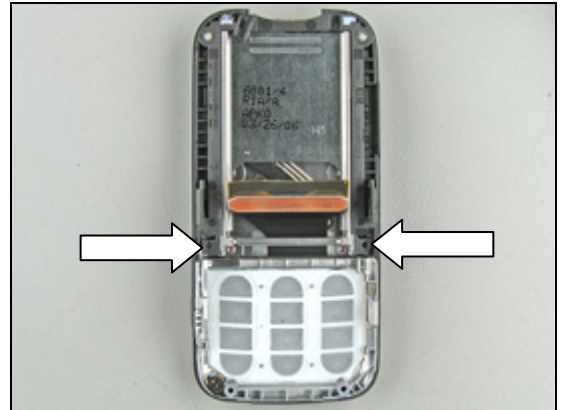
Removed *LCD module* and *navigation key foil assembly*.



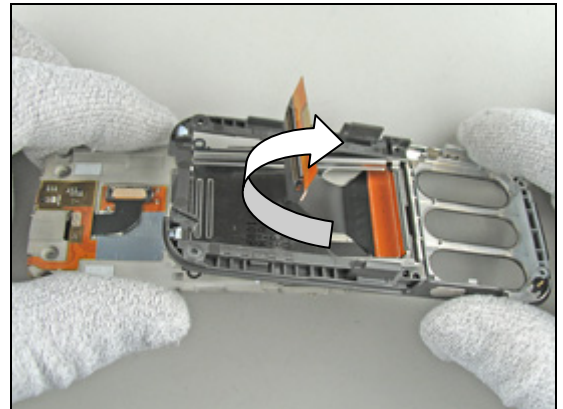
2.1.9 Lower Front Assembly, Upper Carrier Assembly and Slide Mechanism

Remove the two screws from the *lower front assembly* by using the NTZ 112 1052 (JCIS bit).

Replace the screw if it's damaged otherwise it can be reused.

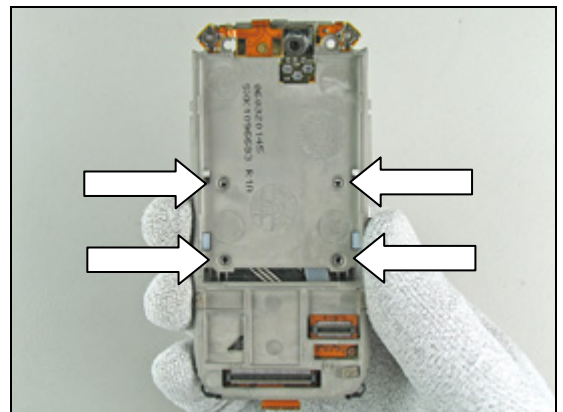


Slide out the *lower front assembly* and remove it from the *upper carrier assembly*.



Remove the four screws from the *upper carrier assembly* by using the NTZ 112 1052 (JCIS bit).

Replace the screw with new ones.

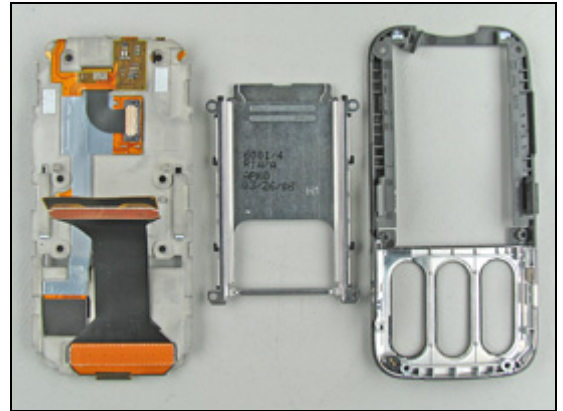


Remove the *slide mechanism* from the *upper carrier assembly*.



Disassembly Instruction *continued*

Disassembled *upper carrier assembly*, *slide mechanism* and *lower front assembly*.





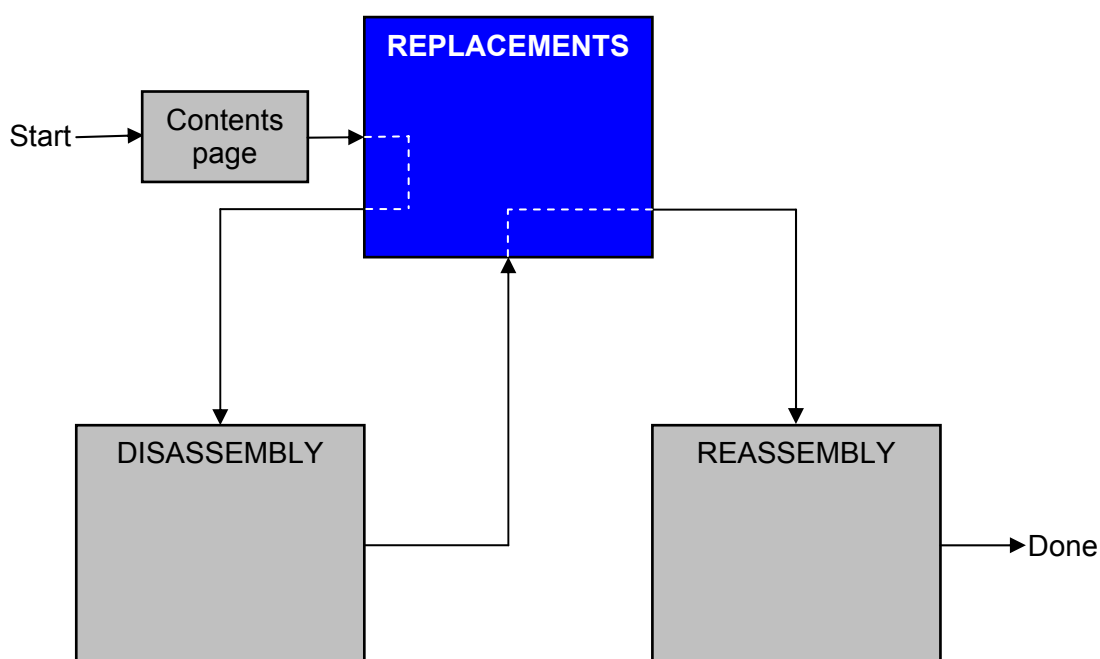
3 Replacements

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 4.1.8 Reassembly instructions!

3.2 Upper Rear Lid Assembly

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Prepare the new upper rear lid assembly.

Follow the 4.1.7 – 4.1.8 Reassembly instructions!

3.3 Upper Front Assembly Complete

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Remove the keypad as described in 3.15 Keyboard Navigation.

Prepare the new Upper front assembly Complete.

Attach a new name plate as described in 3.12 Co-Brand Label.

Install the Keyboard Navigation as described in 3.15 Keyboard Navigation.

Follow the 4.1.6 – 4.1.8 Reassembly instructions!

3.4 Numeric Key Foil Assembly

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Prepare the new Numeric Key Foil Assembly.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!

3.5 Lower Rear Cover assembly

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Prepare the new Lower Rear Cover Assembly.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!

3.6 ESD Protection Sheet

Follow the 2.1.1 – 2.1.3, 2.1.7 Disassembly instructions!

Prepare the new ESD Protection Sheet.

Follow the 4.1.3, 4.1.6 – 4.1.8 Reassembly instructions!!

3.7 LCD Module

Follow the 2.1.1 – 2.1.3, 2.1.8 Disassembly instructions!

Prepare the new LCD Module.

Apply a new LCD tape on the LCD Module according to the 3.47 Replacement instructions!

Follow the 4.1.2, 4.1.6- 4.1.8 Reassembly instructions!

3.8 Navigation Key Foil Assembly

Follow the 2.1.1 – 2.1.8 Disassembly instructions!

Prepare the new *Navigation Key foil Assembly*.

Follow the 4.1.2 – 4.1.8 Reassembly instructions!

3.9 Lower Front Assembly, Upper Carrier Assembly and Slide Mechanism

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Prepare the new *Lower Front Assembly, Upper Carrier Assembly and slide mechanism*.

Follow the 4.1.1 – 4.1.8 Reassembly instructions!



3.10 External Antenna Plug Assembly

Follow the 2.1.1 Disassembly instructions!

Remove the *external antenna plug assembly* with a dentist hook.

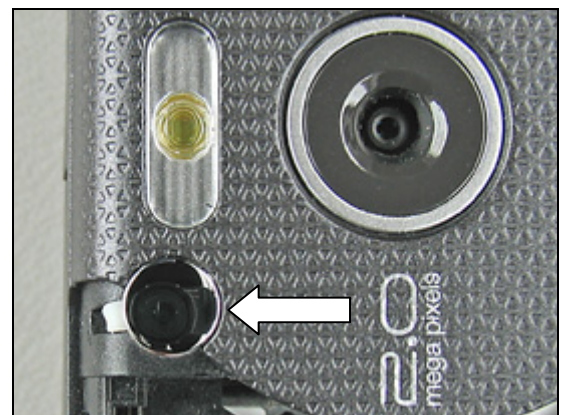
Skip this section if you only disassemble the phone.

Can be done without any previous disassembly



Assemble a new *external antenna plug assembly* with your fingers.

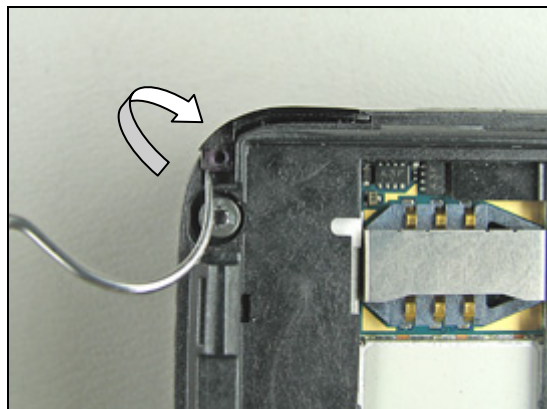
Follow the 4.1.8 Reassembly instructions!



3.11 IRDA Window

Follow the 2.1.1 Disassembly instructions!

Start to remove the old *IRDA window* with a dentist hook.



Remove the *IRDA window* completely.

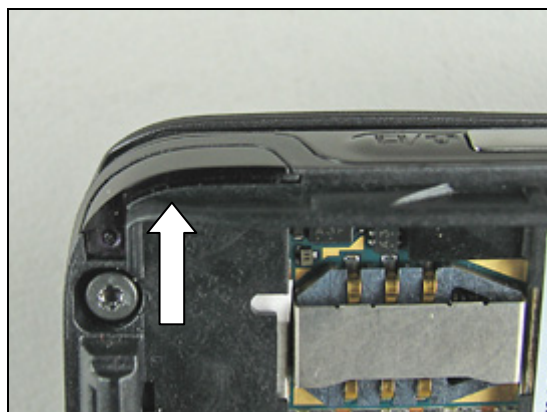


Press (quite hard) the new *IRDA window* into place with your fingers.



Correctly assembled *IRDA window*.

Follow the 4.1.8 Reassembly instructions!



3.12 Co-Brand Label

Gently remove the old *co-brand label* with a dentist hook.

*Skip this section if you only disassemble the phone.
Can be done without any previous disassembly!*

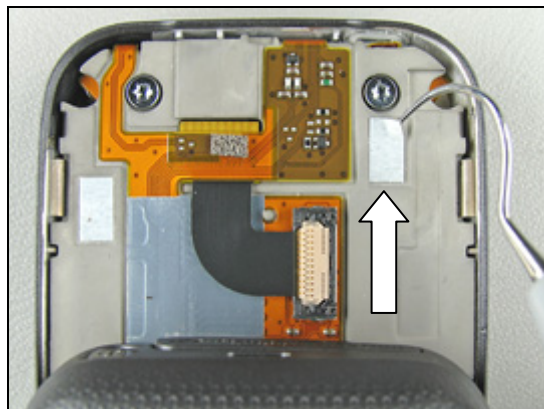
Assemble a new *co-brand label* with a blunt pair of tweezers or by hand.
Keep the pressure on for a few seconds to secure a good fit.



3.13 Tape Upper Rear Lid

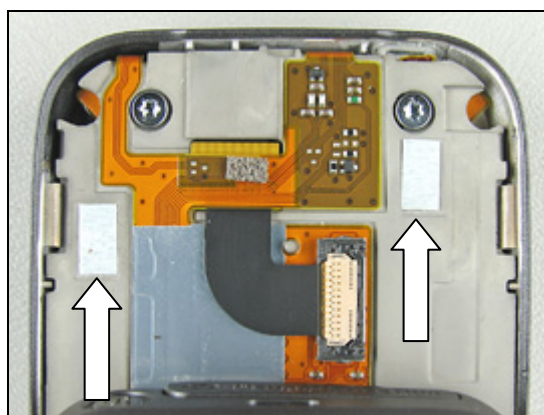
Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Remove the old *tape upper rear lid* with a dentist hook.



Assemble a new (or two) *tape upper rear lid* with the help of a blunt pair of tweezers.

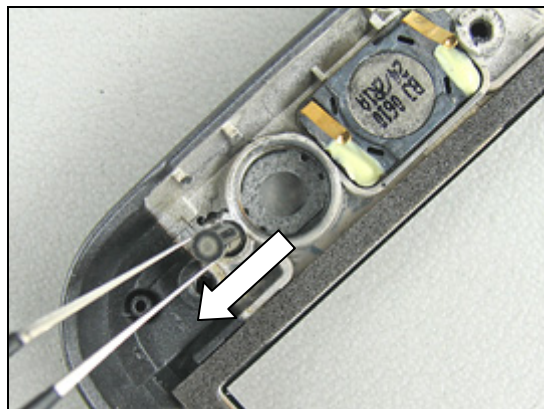
Follow the 4.1.7 – 4.1.8 Reassembly instructions!



3.14 Rubber Connector, Speaker Plate

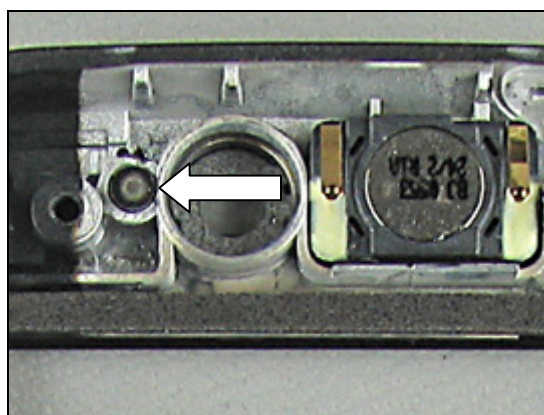
Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Remove the *rubber connector, speaker plate* with a blunt pair of tweezers.



Reassemble a new *rubber connector, speaker plate* with the tweezers.

Follow the 4.1.6 – 4.1.8 Reassembly instructions!



3.15 Keyboard Navigation

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Remove the old *keyboard navigation* with a blunt pair of tweezers or by hand.



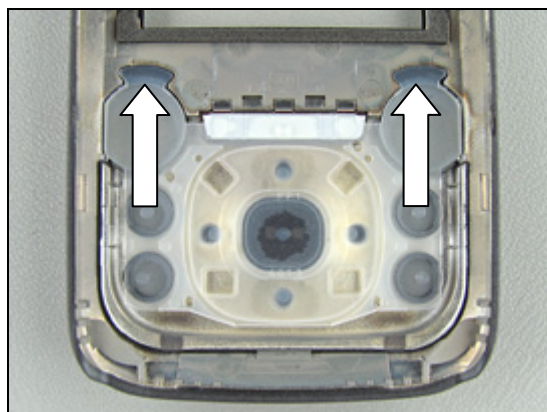
New *keyboard navigation*.



Assemble a new *keyboard navigation* by hand.

Make sure that the *keyboard navigation* is placed correctly in the two guide cavities.

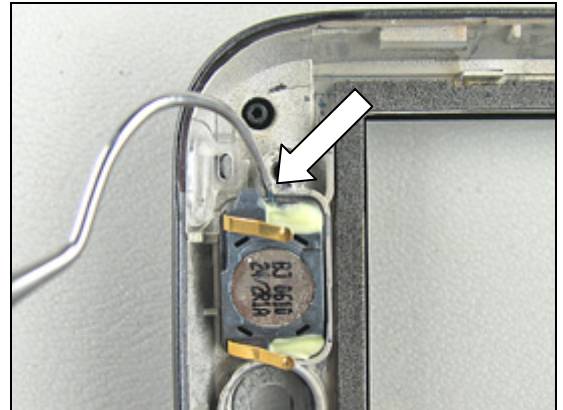
Follow the 4.1.6 – 4.1.8 Reassembly instructions!



3.16 Ear Speaker

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Remove the old *ear speaker* with a dentist hook.

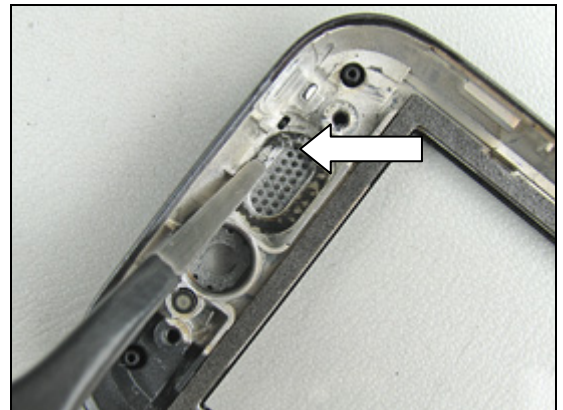


Remove the old *ear speaker* completely with a blunt pair of tweezers.



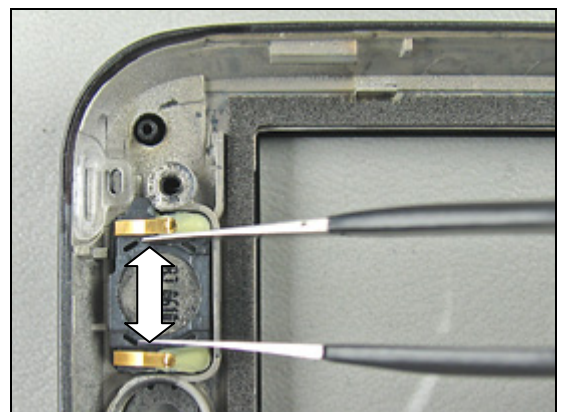
WHEN ASSEMBLING A NEW EAR SPEAKER DON'T FORGET TO REMOVE THE OLD EAR SPEAKER GASKET IN THE UPPER FRONT ASSEMBLY COMPLETE.

Use a blunt pair of tweezers or a dentist hook for removal of the old gasket.



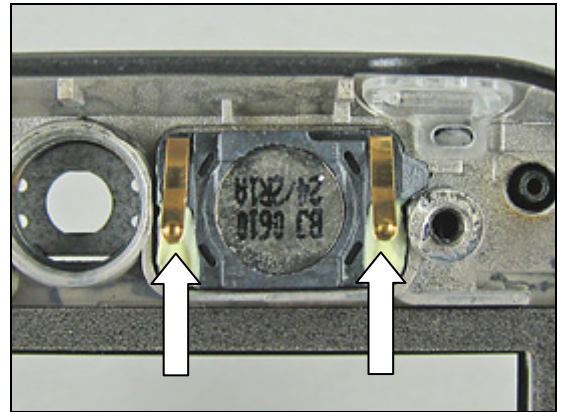
DO NOT TOUCH OR BEND THE CONTACT SPRINGS!

Assemble a new *ear speaker* into the cavity and press gently with the tweezers and hold it there for a few seconds to secure a good fit.



Make sure that the new *ear speaker* is correctly assembled.
Check so there is no damage on the connection springs.

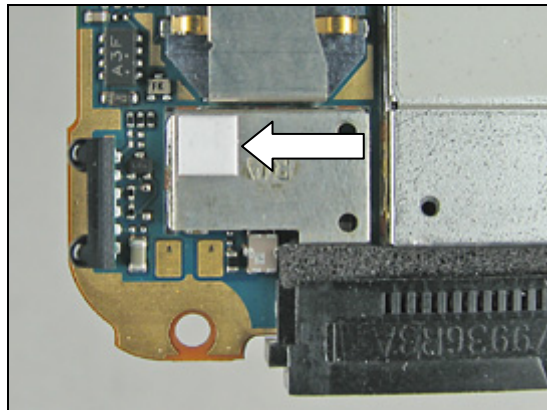
Follow the 4.1.6 – 4.1.8 Reassembly instructions!



3.17 Water Indicator

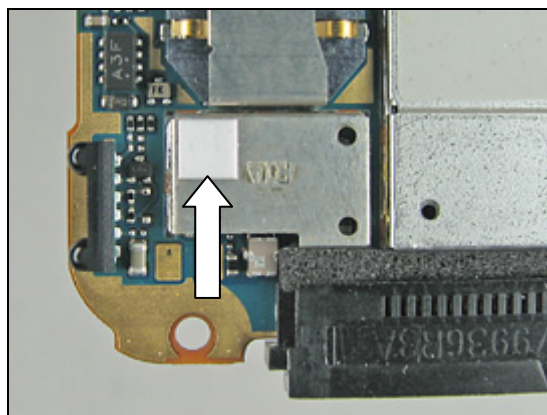
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *water indicator* with a dentist hook.



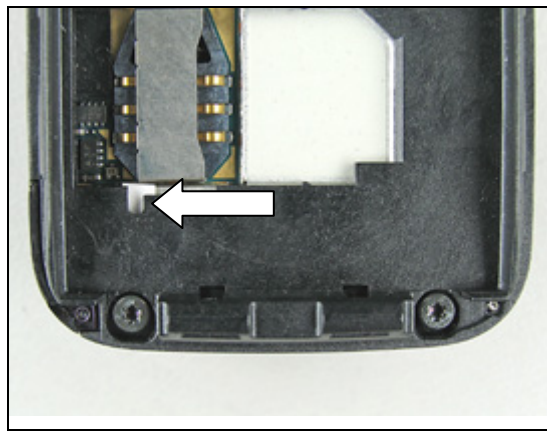
Assemble a new *water indicator* with a blunt pair of tweezers.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!



INSPECTION (FROM THE OUTSIDE)

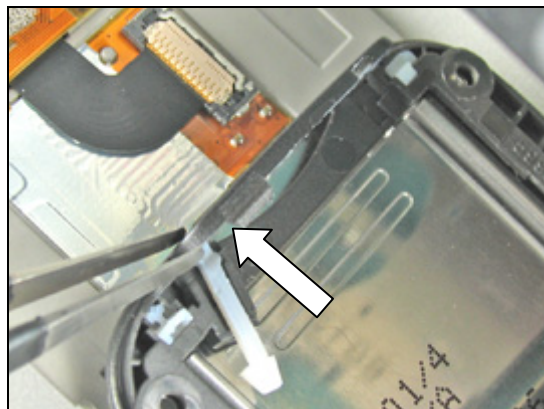
Check for water damage on the *water indicator*.
With the battery cover assembly and the battery removed!



3.18 Duo Lid

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Remove the old *duo lid* and replace it with a new one.
Use a blunt pair of tweezers during the assembly.



Correctly assembled *duo lid*.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!



3.19 Keyboard Numeric

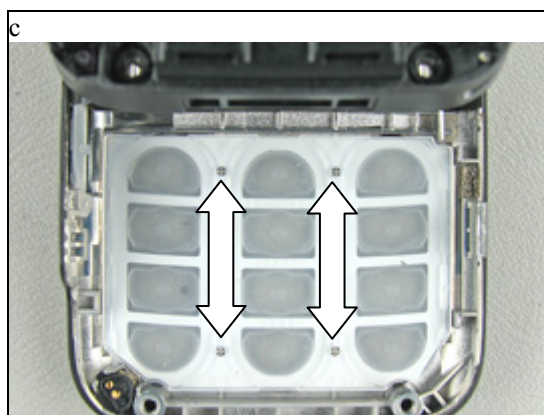
Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Remove the old *keyboard numeric*.



Assemble a new *keyboard numeric* with your fingers.
Make sure it's assembled in the correct position – notice the
guide pins in the lower front assembly.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!



3.20 Microphone Grommet

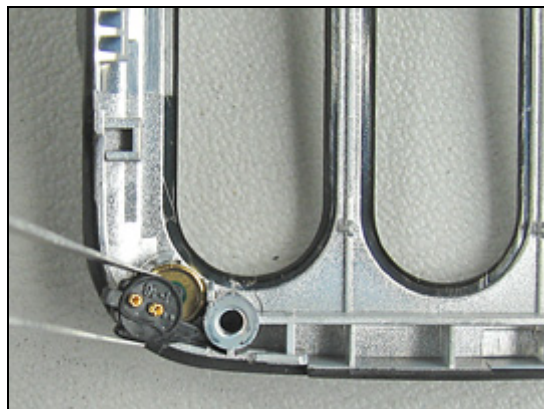
Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Remove the old *microphone grommet* with a blunt pair of tweezers.

Assemble a new *microphone grommet* into the lower front assembly with the tweezers.

Make sure that the *microphone grommet* is assembled in the right position.

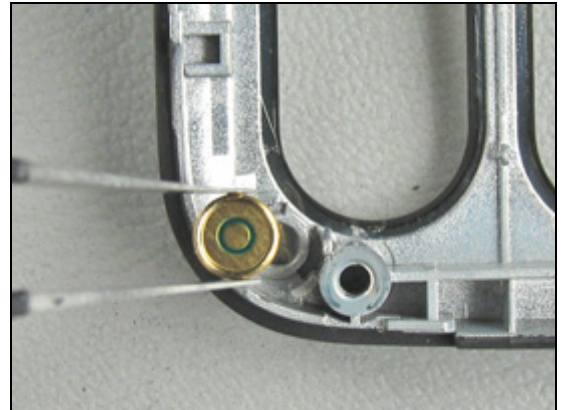
Follow the 4.1.5 – 4.1.8 Reassembly instructions!



3.21 Microphone

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

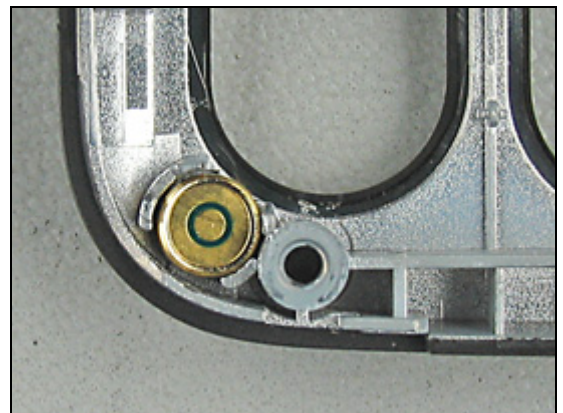
Remove the old *microphone* with a blunt pair of tweezers.



Assemble a new *microphone* into the lower front assembly with the tweezers.

Make sure that the *microphone* is assembled in the right position.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!



3.22 Camera Key

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

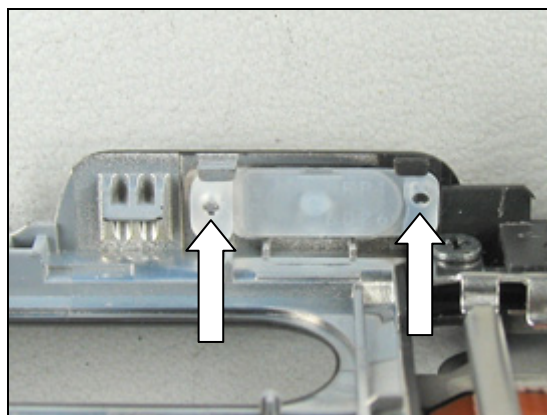
Remove the old *camera key* with a blunt pair of tweezers.



Assemble a new *camera key* into the lower front assembly with the tweezers.

Make sure that the *camera key* is assembled in the right position (use the guide pins).

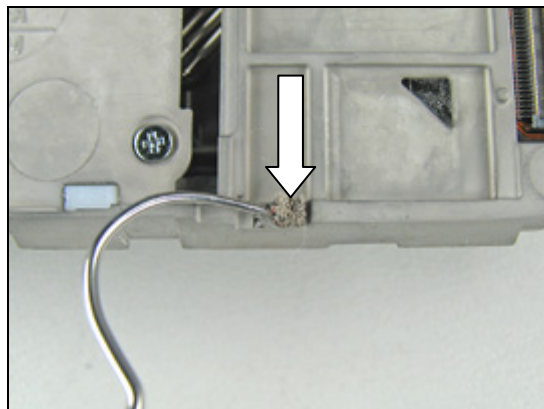
Follow the 4.1.5 – 4.1.8 Reassembly instructions!



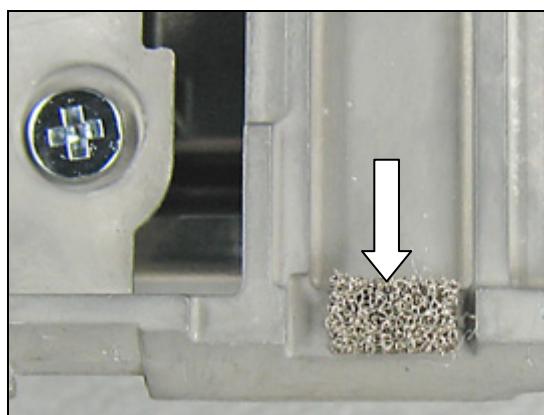
3.23 Conductive Gasket

NOTICE! THERE ARE SEVERAL CONDUCTIVE GASKETS INSIDE THE PHONE.

Remove the old *conductive gasket* with a dentist hook/ blunt pair of tweezers.



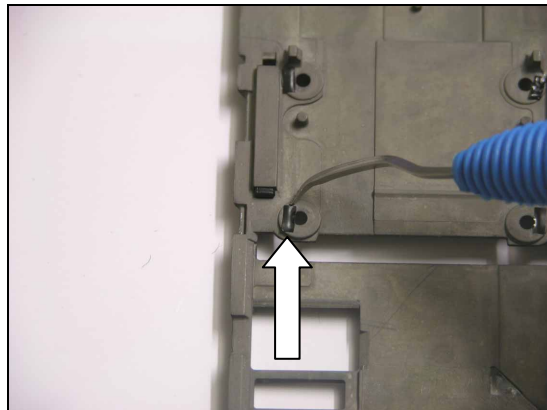
Assemble a new (or more) *conductive gasket* with the help of a blunt pair of tweezers.



3.24 Tape for Slider Mechanism

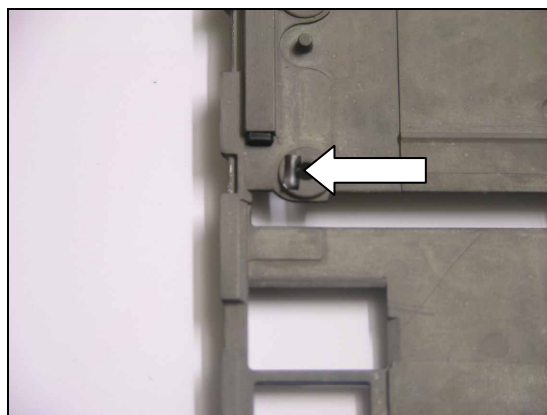
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Remove the old tape for slider mechanism with a dentist hook.



Assembly a new tape for slider mechanism with a blunt pair of tweezers.

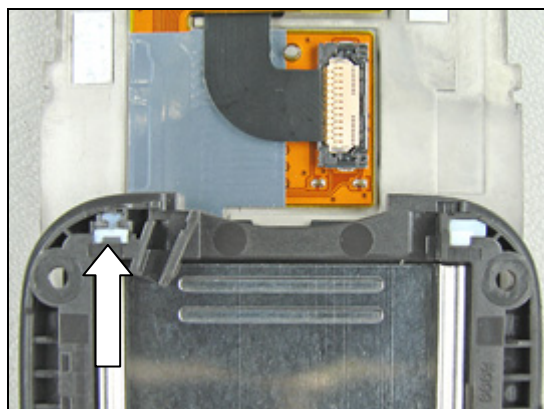
Follow the 4.1.1 Reassembly instructions!



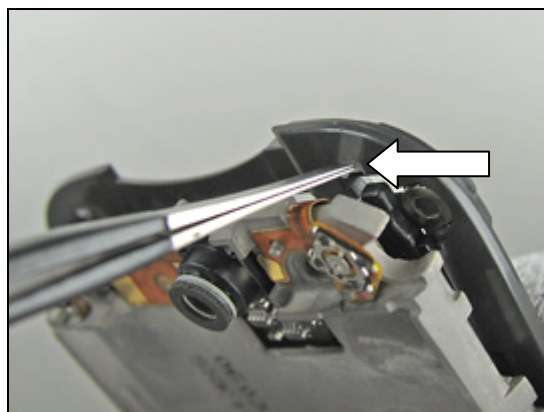
3.25 Damper for Lower Front (1)

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

This is the damper that shall be removed.

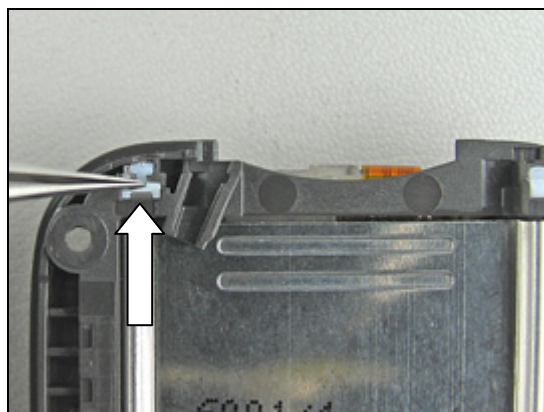


Start to remove the old *damper for lower front (1)* by pushing it out from the back with a blunt pair of tweezers.



Assemble a new *damper for lower front (1)* with the tweezers – push it into the correct position.

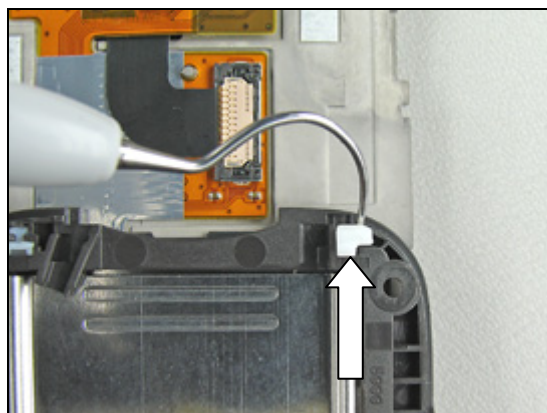
Follow the 4.1.5 – 4.1.8 Reassembly instructions!



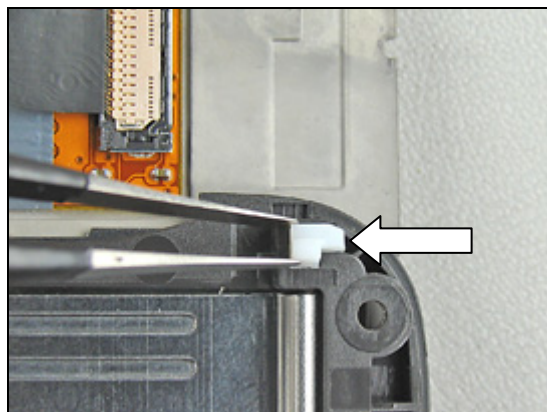
3.26 Damper for Lower Front (2)

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Start to remove the old *damper for lower front (2)* with a dentist hook.

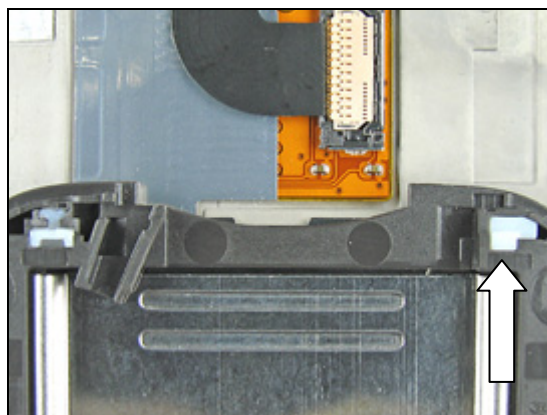


Remove the old damper with a blunt pair of tweezers



Assemble a new *damper for lower front (2)* with the tweezers – push it into the correct position.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!



3.27 VGA Camera Gasket

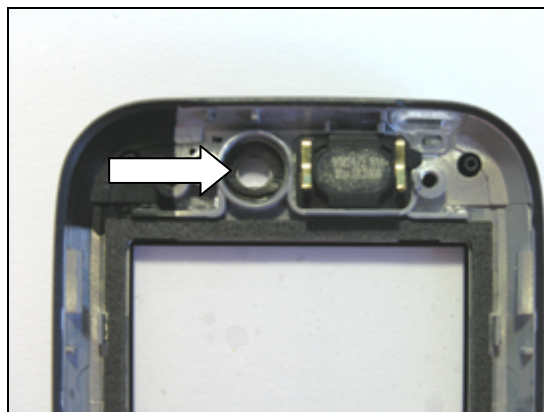
Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Remove the old VGA camera gasket with a dentist hook.



Assemble a new VGA camera gasket with the help of a blunt pair of tweezers.

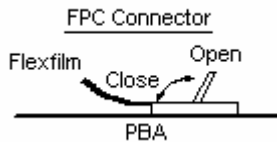
Follow the 4.1.6 – 4.1.8 Reassembly instructions!



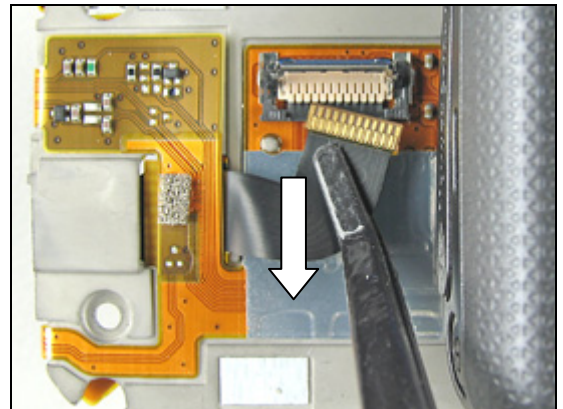
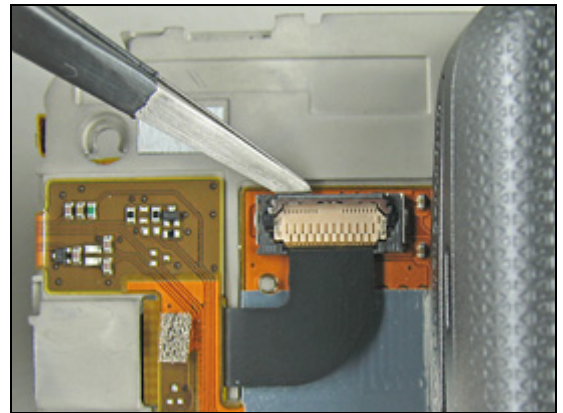
3.28 Camera Module (VGA) With Flex

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Open the FPC connector with a blunt pair of tweezers.

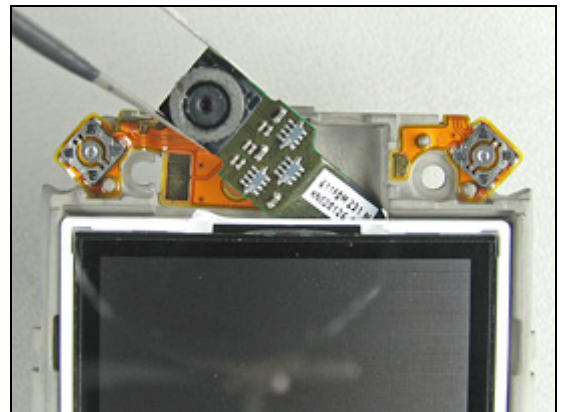


Disconnect the *camera module (VGA)* flex film with the flex film assembly tool.

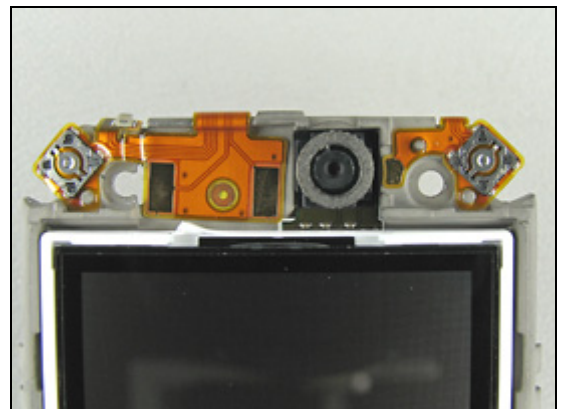


Remove the *camera module (VGA)*.

Gently lift the LCD Module assembly just enough to slide out the camera module (VGA).



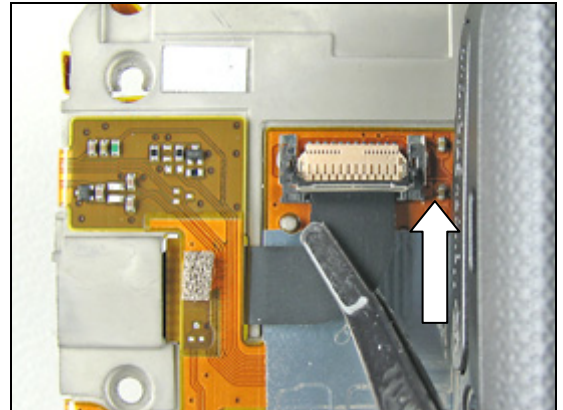
Slide in a new *camera module (VGA)* into the correct position on the upper carrier assembly.





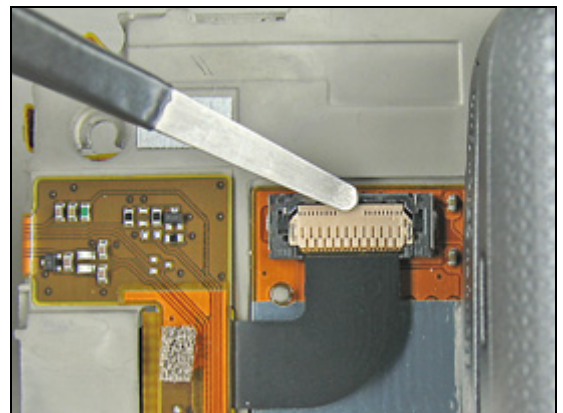
Replacement Instruction *continued*

Reconnect the *camera module (VGA)* flex film with the flex film assembly tool.



Close the FPC connector with a blunt pair of tweezers.

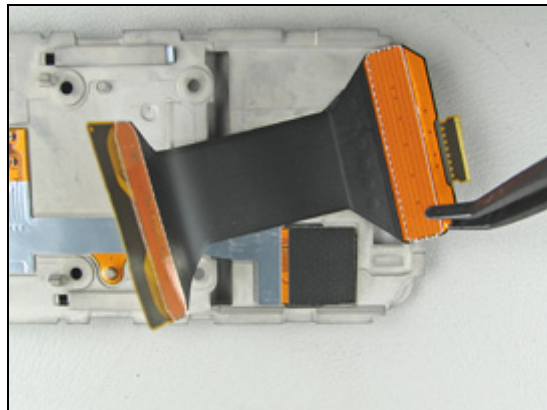
Follow the 4.1.6 – 4.1.8 Reassembly instructions!



3.29 Half- Half Flex with Components

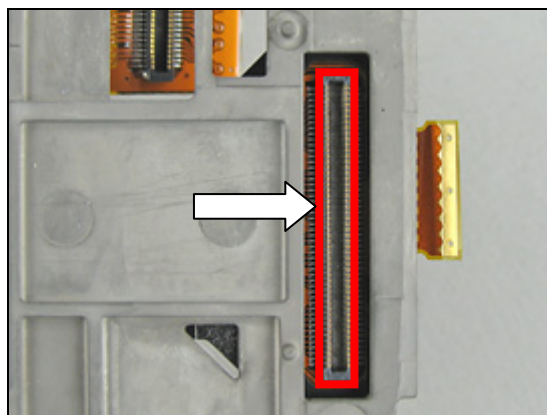
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Gently bend with a flex film assembly tool under the *half-half flex with components* board to board connector like the picture shows until the *half-half flex with components* become loose from the upper carrier assembly.



IF YOU HAVE EXCHANGED THE MAIN FLEX ASSEMBLY BEFORE, MAKE SURE THAT IS PLACED IN THE MIDDLE OF THE SLOT IN THE UPPER CARRIER ASSEMBLY.

OTHERWISE THE HALF-HALF FLEX WITH COMPONENTS WILL NOT FIT INTO THE SLOT!



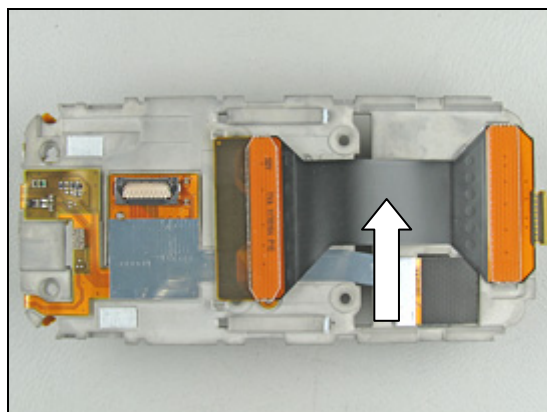
Assemble a new *half-half flex with components*.

Use your fingers to keep the pressure on for a few seconds to secure a good fit.



A new *half-half flex with components* mounted on an upper carrier assembly.

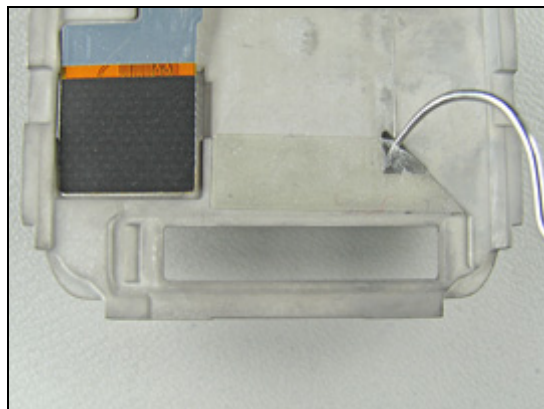
Follow the 4.1.1 – 4.1.8 Reassembly instructions!



3.30 Adhesive Half to Half

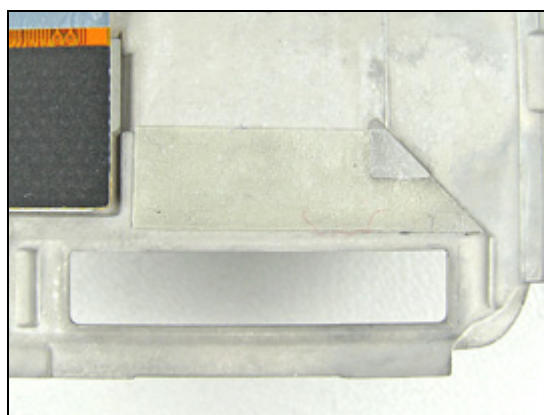
Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Remove the old *adhesive half to half* with a dentist hook or a blunt pair of tweezers.



Assemble a new *adhesive half to half* with the help of a blunt pair of tweezers.

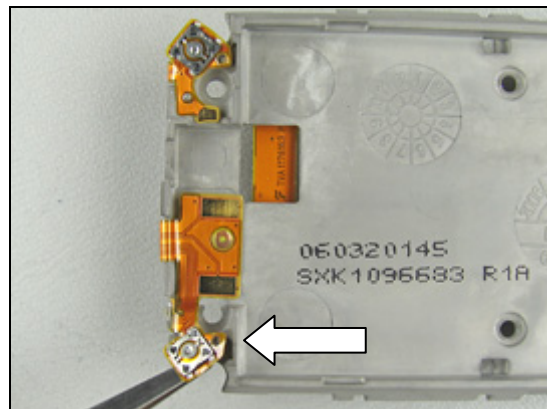
Follow the 4.1.1 – 4.1.8 Reassembly instructions!



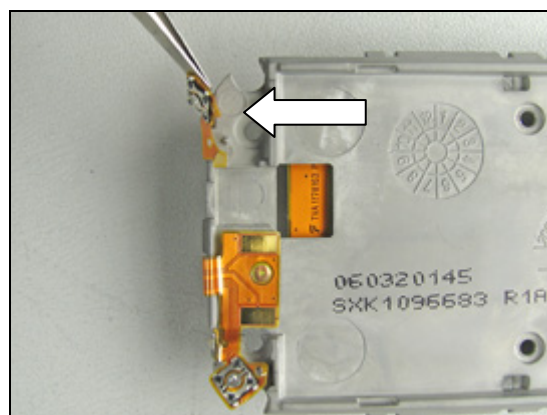
3.31 Main Flex Assembly

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

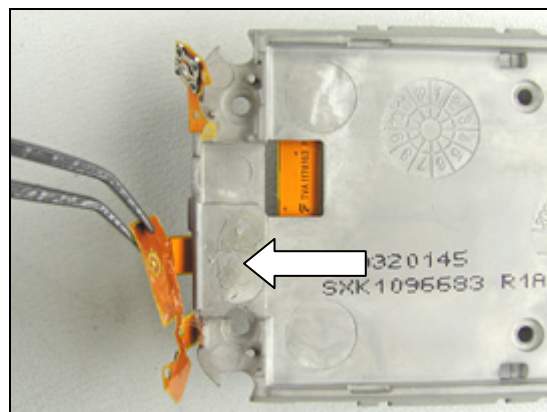
Gently bend with a blunt pair of tweezers under the *main flex assembly* like the picture shows until it becomes loose from the upper carrier assembly.



Do the same thing as above but now on the other side.

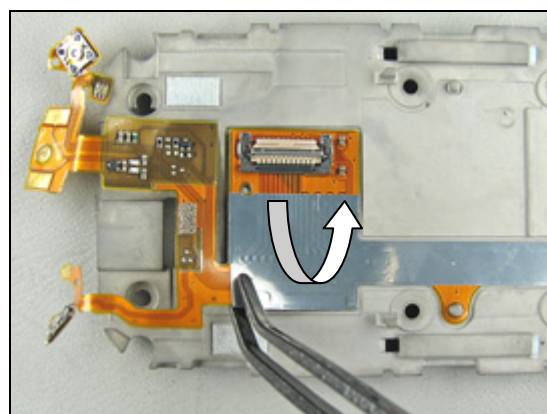


Fold away the flex film but this time use the flex film assembly tool.



BE VERY CAREFUL WITH THE MAIN FLEX ASSEMBLY!

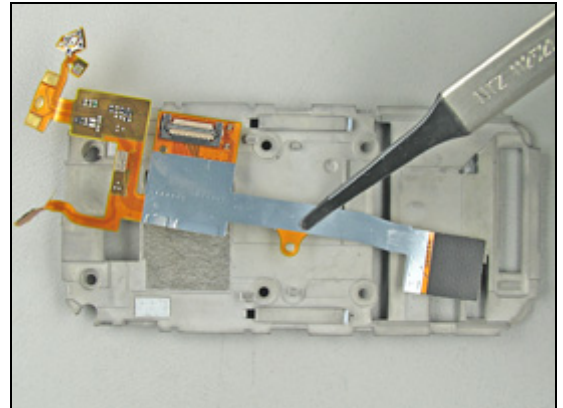
Continue to use the flex film assembly tool until the whole *main flex assembly* is totally free from the upper carrier assembly.





Replacement Instruction *continued*

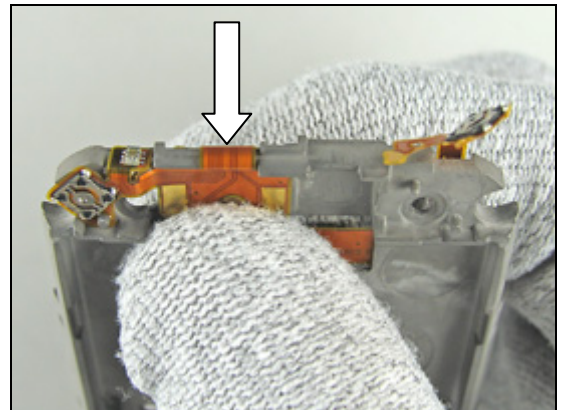
Remove the *main flex assembly* with the flex film assembly tool.



Start to reassemble a new *main flex assembly*.
Make sure that the *main flex assembly* is assembled in the right position (use the guide pin).

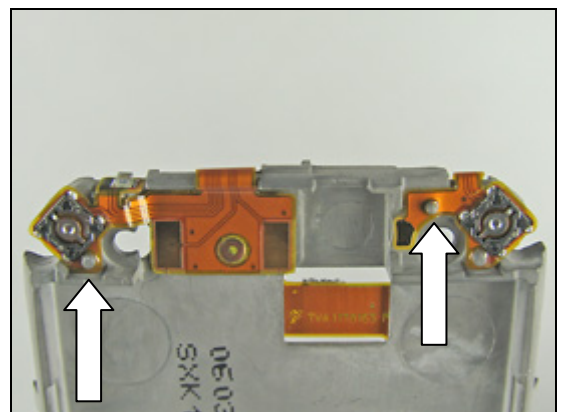


Gently fold the flex film into the correct position.



Check that all of the flaps on the *main flex assembly* are correctly assembled (use the guide pins by the arrows).

Follow the 4.1.1 – 4.1.8 Reassembly instructions!

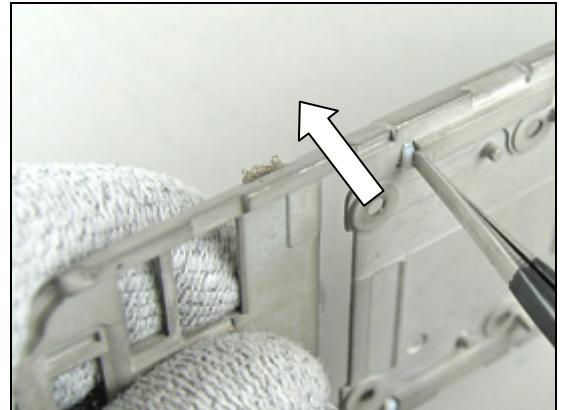




3.32 Lower Damper for Upper Carrier Assembly

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

Start to remove the old *lower damper for upper carrier assembly* by pushing them out from the back with a blunt pair of tweezers.

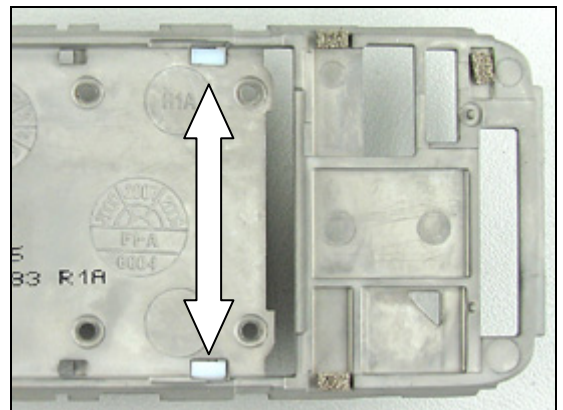


Completely remove the old dampers with the tweezers.



Assemble new dampers with the tweezers or your fingers.

Follow the 4.1.1 – 4.1.8 Reassembly instructions!

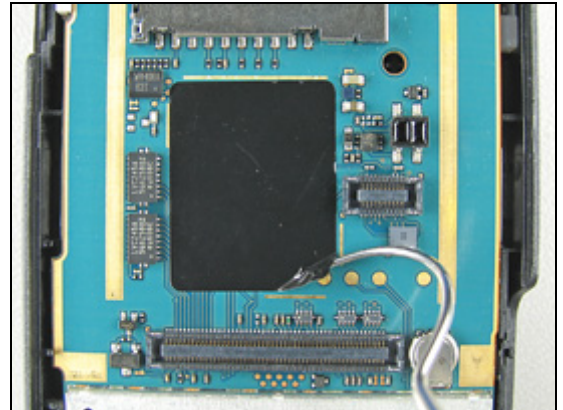




3.33 Protective Tape, Test Points

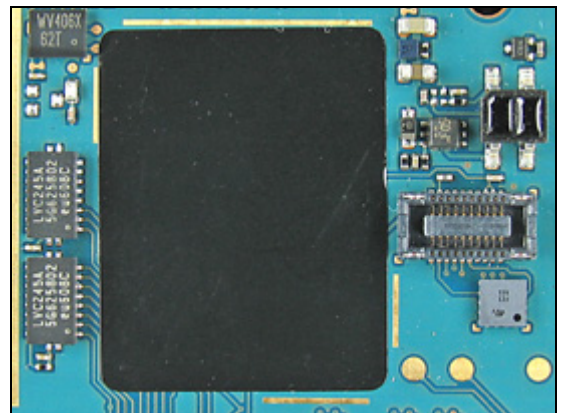
Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Remove the old *protective tape, test points* with a dentist hook.



Assemble a new *protective tape, test points* with the help of a blunt pair of tweezers.

Follow the 4.1.5 – 4.1.8 Reassembly instructions!





3.34 Vibrator

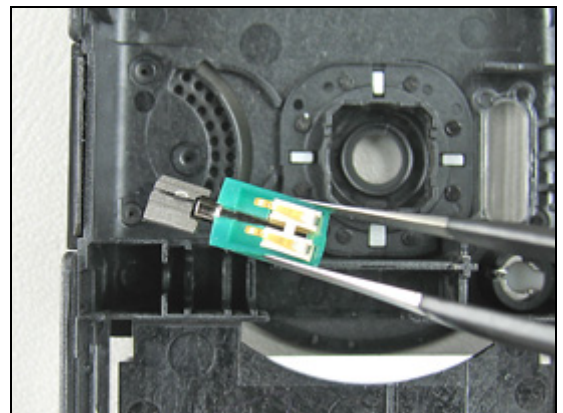
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

DO NOT TOUCH THE VIBRATOR CONTACT SPRINGS OR DAMAGE THE FLYWHEEL!

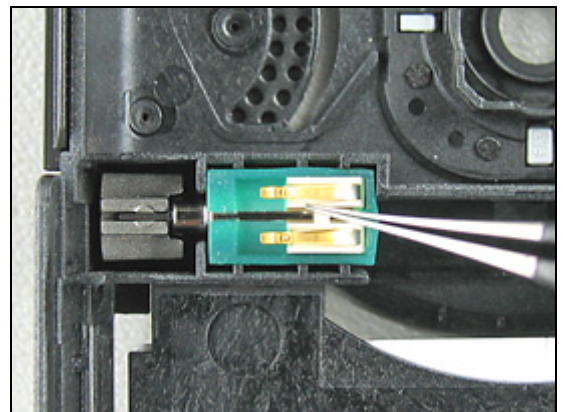
Start to lift up the *vibrator* with a blunt pair of tweezers.



Remove the old *vibrator* with a blunt pair of tweezers.

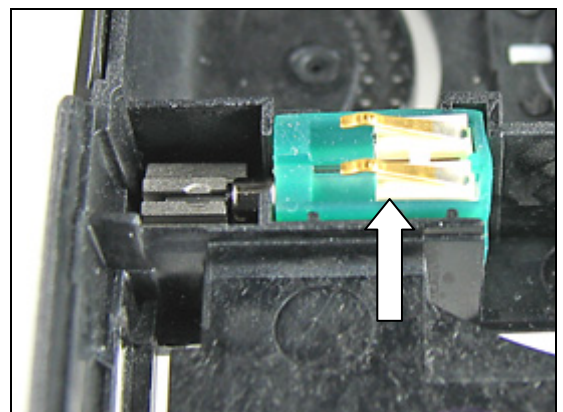


Press the *vibrator* to the *bottom* of the cavity gently with a blunt pair of tweezers (don't press on the contact springs).



Check the new contact springs that they are in good condition and that they are not bent.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.35 Volume Keys

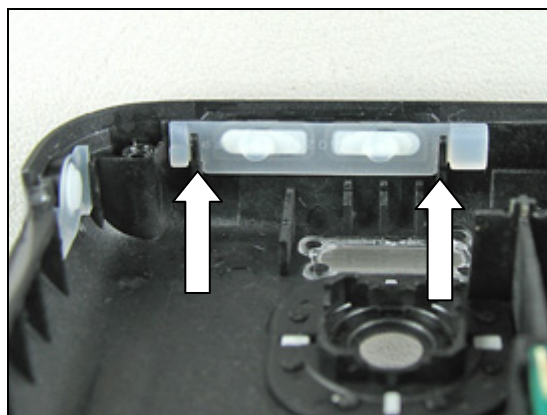
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *volume keys* with a blunt pair of tweezers.



Assemble a new *volume key* into the lower rear cover assembly with the tweezers. Make sure that the *volume key* is assembled in the right position.

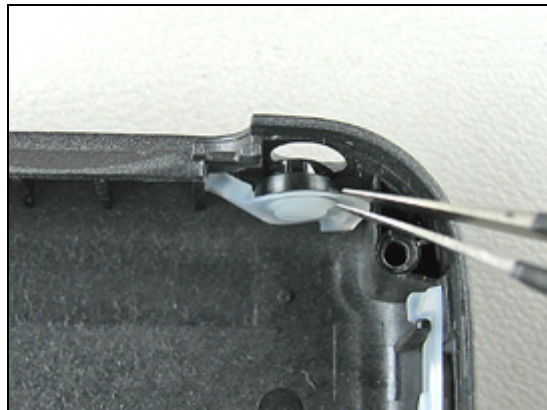
Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.36 On/Off Key

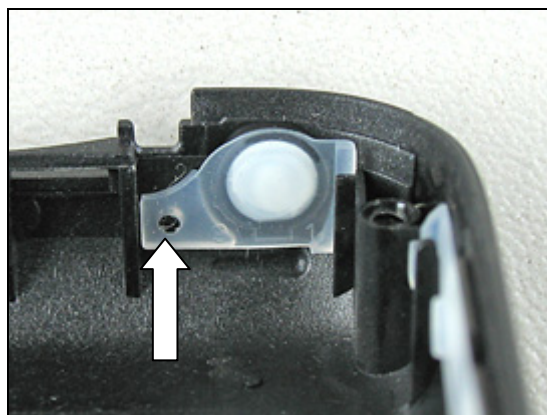
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *on/off* key with a blunt pair of tweezers.



Assemble a new *on/off* key into the lower rear cover assembly with the tweezers. Make sure that the *on/off* key is assembled in the right position.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!

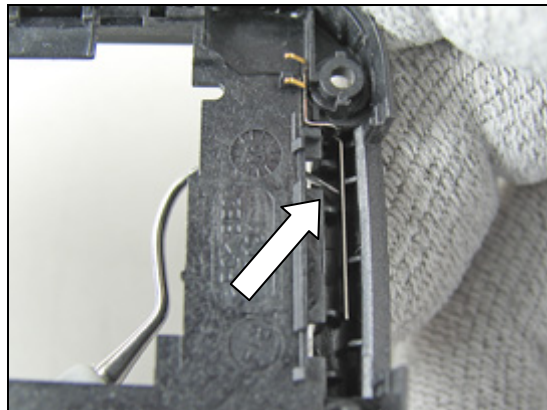


3.37 BT Antenna

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Insert the dentist hook from underneath and bend until the *BT antenna* becomes totally free.

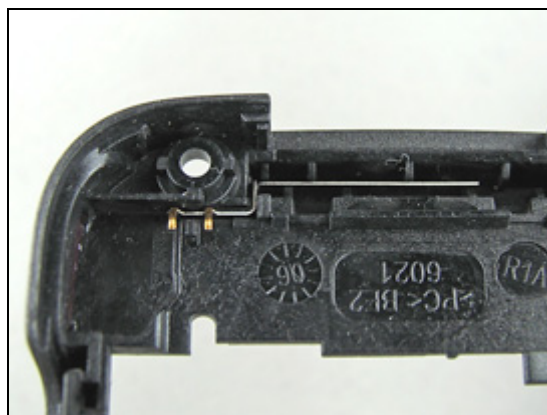
Remove the old *BT antenna* with a blunt pair of tweezers.



Assemble a new *BT antenna* with the tweezers.

Make sure that the *BT antenna* is assembled in the right position.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!





3.38 System Connector

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *system connector* by hand.

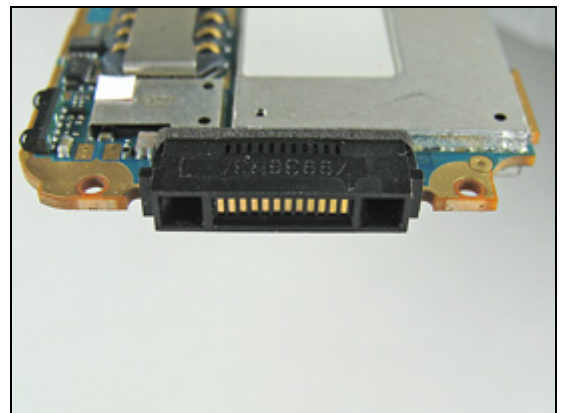
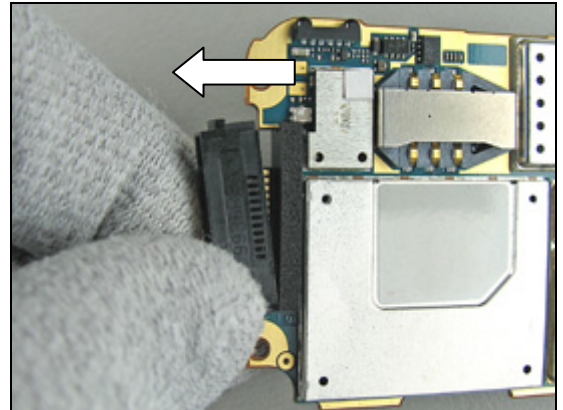
Skip this section if you only disassemble the phone.

Assemble a new *system connector* with your fingers.

Press the *system connector* firmly to the bottom of the main PBA.

Picture shows a correct assembled *system connector*.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!

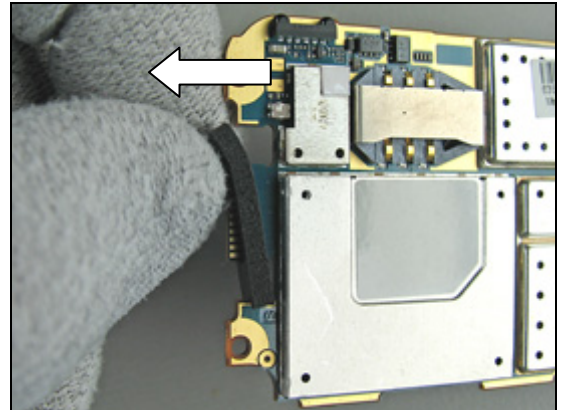




3.39 Dust Gasket, System Connector

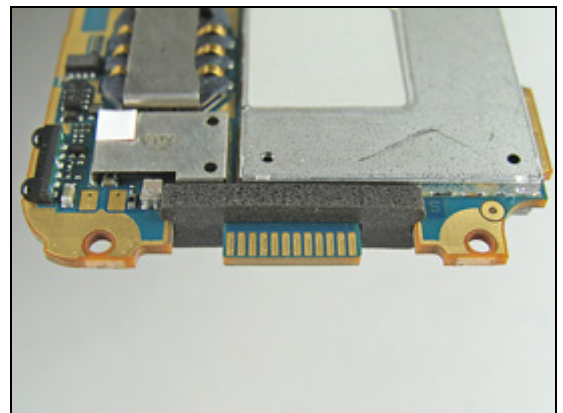
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *dust gasket* by hand.



Assemble a new *dust gasket* with your fingers.
Press the dust gasket firmly to the bottom of the main PBA.
Picture shows a correct assembled *dust gasket*.

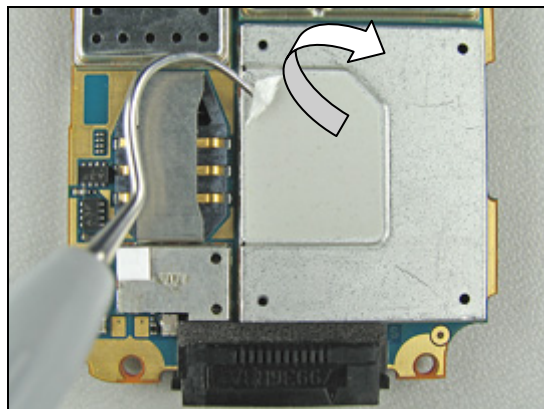
Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.40 Insulation Label

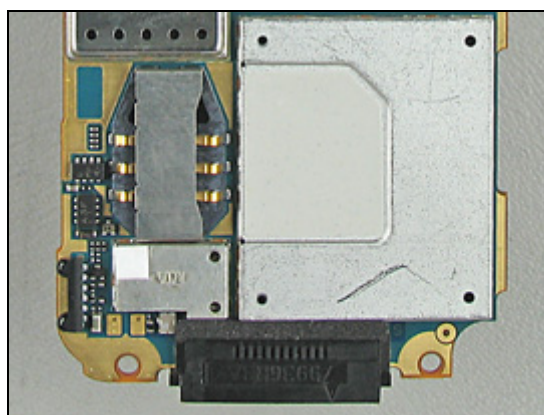
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *insulation label* with a dentist hook.



Assemble a new *insulation label* with the help of a blunt pair of tweezers.

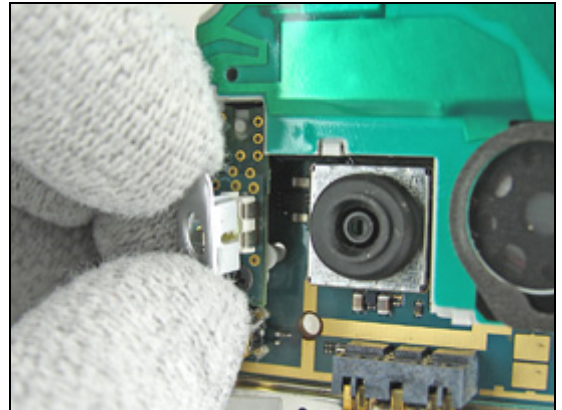
Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.41 Flash Reflector

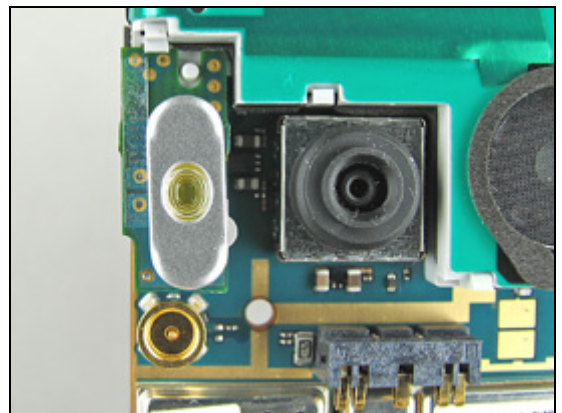
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *flash reflector* with your fingers.
Pull straight up.



Assemble a new *flash reflector* with your fingers.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.42 LED-Flash Assembly

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the inside screw from the loud speaker box assembly by using the NTZ 112 1052 (JCIS bit).

Replace the screw if it's damaged otherwise it can be reused.

Remove the *LED-flash assembly* with a blunt pair of tweezers.

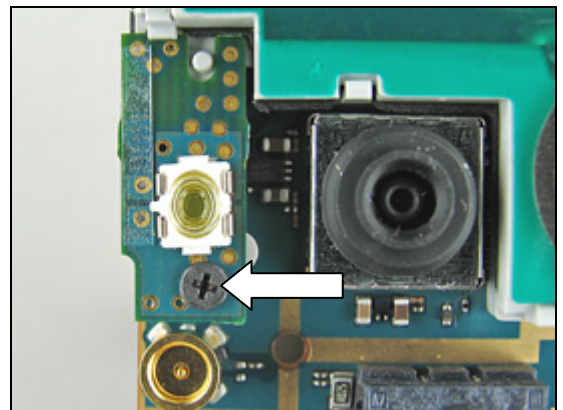
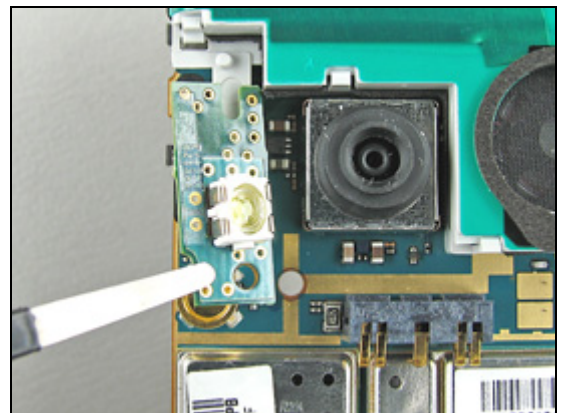
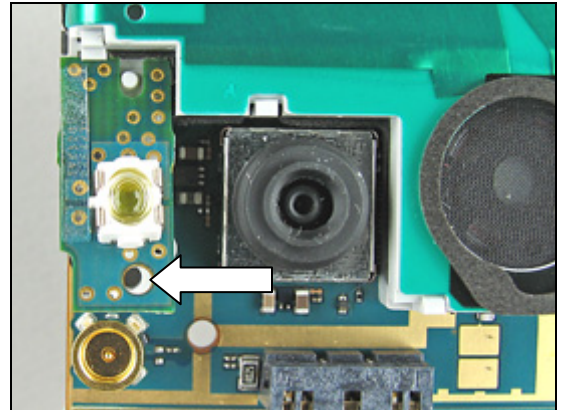
APPLY 7 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten the screw in the new *LED-flash assembly*.

The *LED-flash assembly* is now reassembled.

Replace the screws if it's damaged otherwise it can be reused.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!





3.43 Loud Speaker Box Assembly

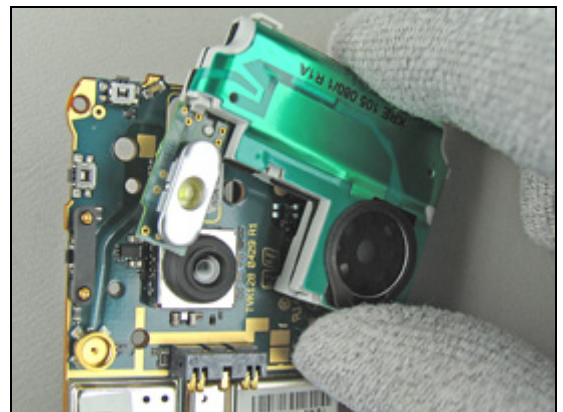
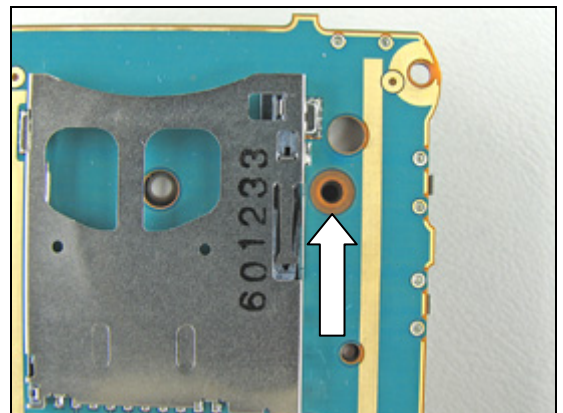
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Start like this before removal of the *loud speaker box assembly*.

Remove the inside screw from the main PBA by using the NTZ 112 288 (torx bit no 6).

Replace the screw if it's damaged otherwise it can be reused.

Remove the whole *loud speaker box assembly* by hand.





Replacement Instruction *continued*

Begin by placing the new *loud speaker box assembly* against the main PBA.

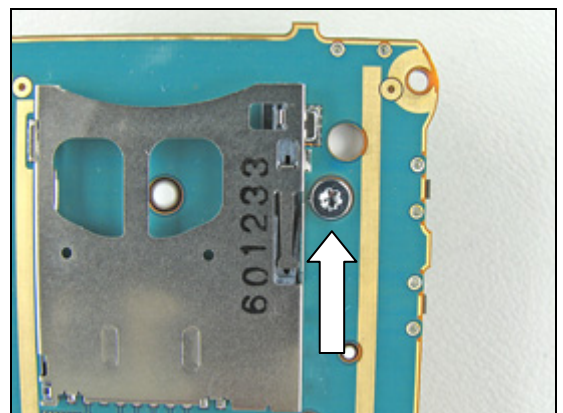
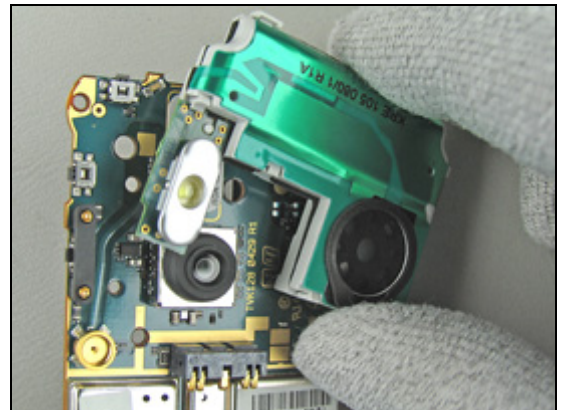
Make sure that the loud speaker box assembly is mounted correctly.

APPLY 15 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREW USING NTZ 112 288 (TORX BIT NO 6)!

Assemble and tighten the screw in the main PBA.
The *loud speaker box assembly* is now reassembled.

Replace the screws if it's damaged otherwise it can be reused.

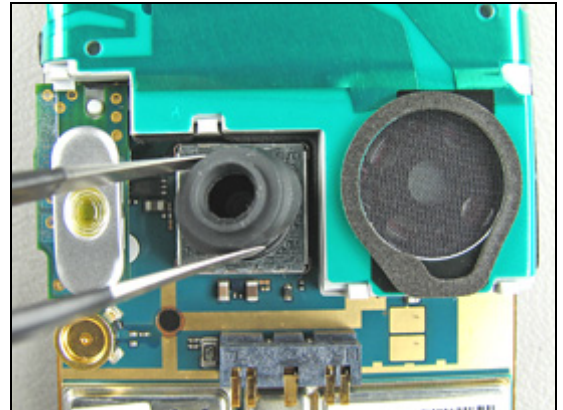
Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.44 Camera Rubber

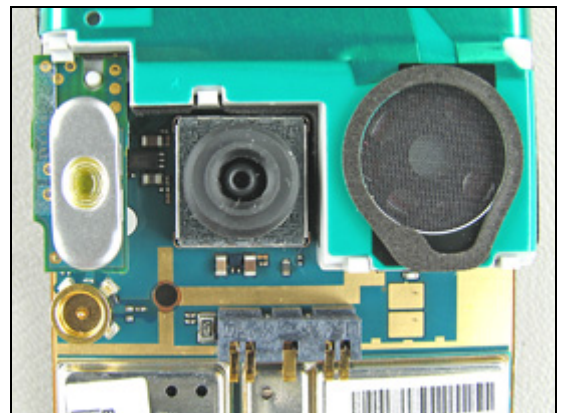
Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *camera rubber* with a blunt pair of tweezers.



Assemble a new *camera rubber* with your fingers.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!

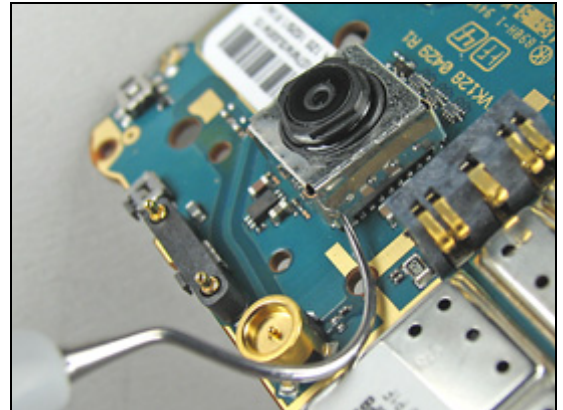




3.45 Shield Can Camera Module

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Gently release the *shield can camera module* with a dentist hook, work your way around the shield until it becomes completely loose.

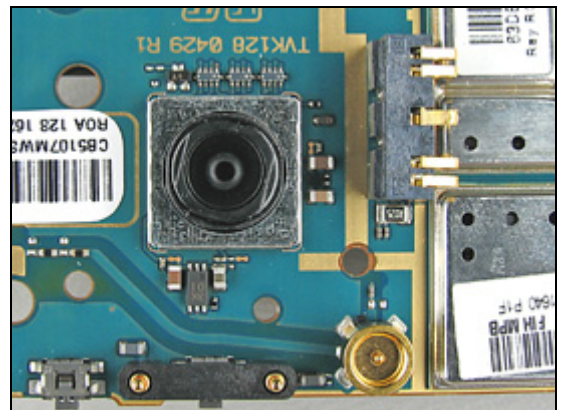


Remove the camera shield with your fingers.



Reassemble a new *shield can camera module* with your fingers.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!

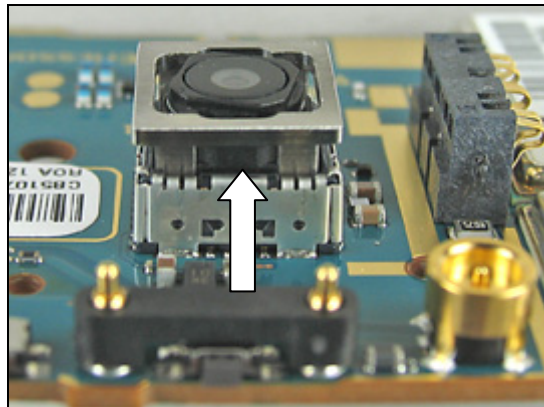


3.46 Camera Module 2M FF

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

NEVER TOUCH THE CAMERA LENS!

Start by pressing the mega camera removal tool over the camera module 2M FF all the way to the bottom.



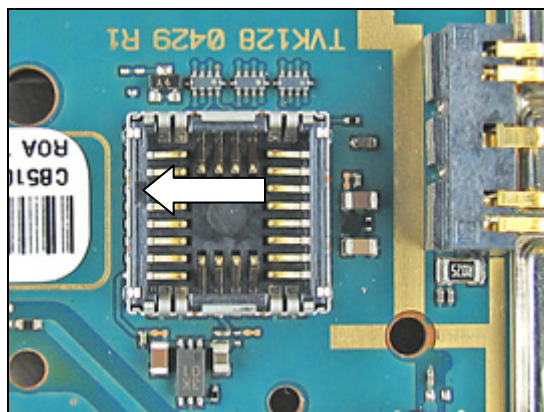
If necessary wiggle the camera tool a little side to side and at the same time pull the camera module 2M FF straight up (together with the tool) from the socket.



Remove (with your fingers) the old camera module 2M FF from the camera tool.



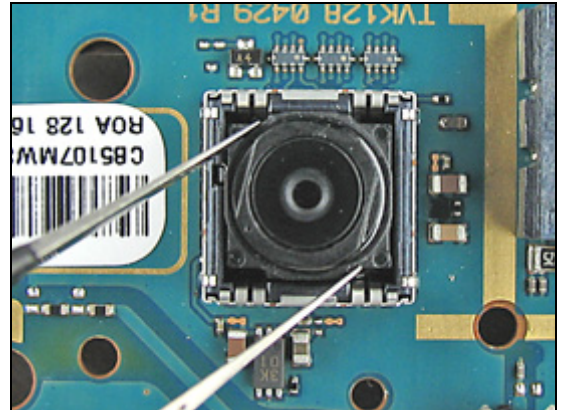
Notice the small slot in the Notice the small slot in the camera module 2M FF socket.





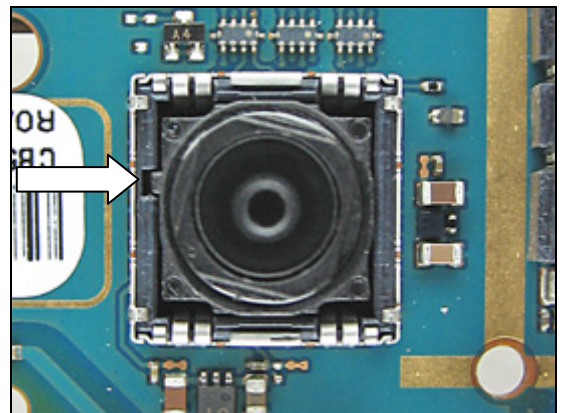
Replacement Instruction *continued*

Press gently on the top of the *camera module 2M FF* until it snaps into place.



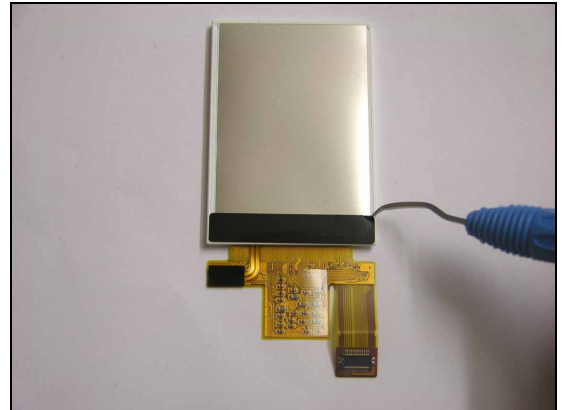
Make sure that the *camera module 2M FF* is in the right position (to the bottom of the socket and properly locked).

Follow the 4.1.4 – 4.1.8 Reassembly instructions!



3.47 LCD Tape

Follow the 2.1.1 – 2.1.3, 2.1.8 Disassembly instructions!
Remove the old *LCD tape* with a dentist hook.



Assemble a new *LCD tape* with the help of a blunt pair of tweezers.

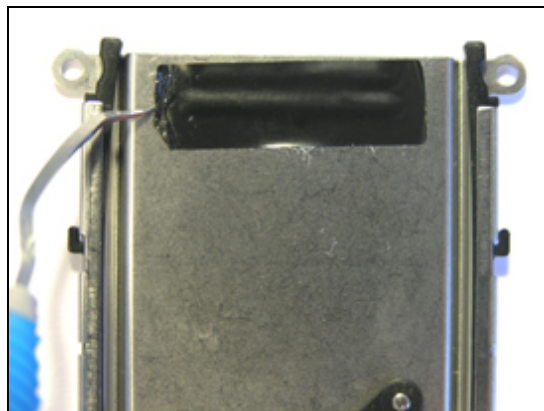
Follow the 4.1.2, 4.1.6- 4.1.8 Reassembly instructions!



3.48 Slide Mechanism Protection Tape

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Remove the old *slide mechanism protection tape* with a dentist hook.



Assemble a new *slide mechanism protection tape* with the help of a blunt pair of tweezers.

Follow the 4.1.4 – 4.1.8 Reassembly instructions!





3.49 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.

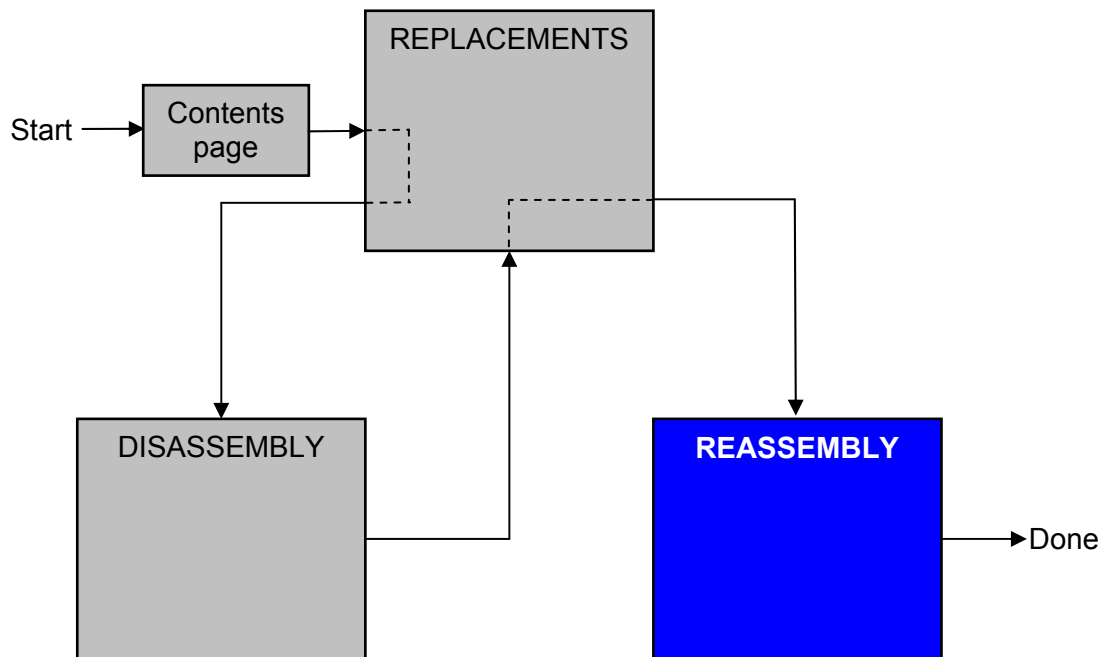
ONE LABEL ONLY IS ALLOWED!

Follow the 4.1.8 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:

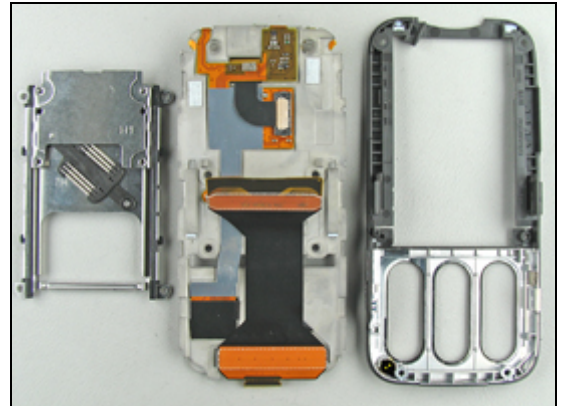
1. Upper Carrier Assembly (a), Slide Mechanism (b) and Lower Front Assembly (c)
2. LCD Module Assembly
3. ESD Protection Sheet
4. Main PBA
5. Lower Rear Cover Assembly
6. Numeric Key Foil Assembly
7. Upper Front Assembly Complete
8. Upper Rear Lid
9. Battery (a) and Battery Cover (b)



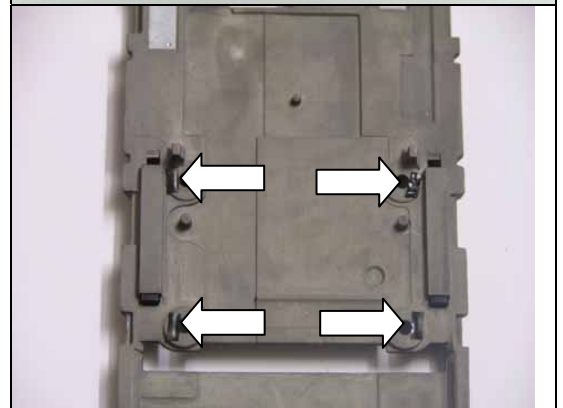


4.1.1 Upper Carrier Assembly, Slide Mechanism and Lower Front Assembly

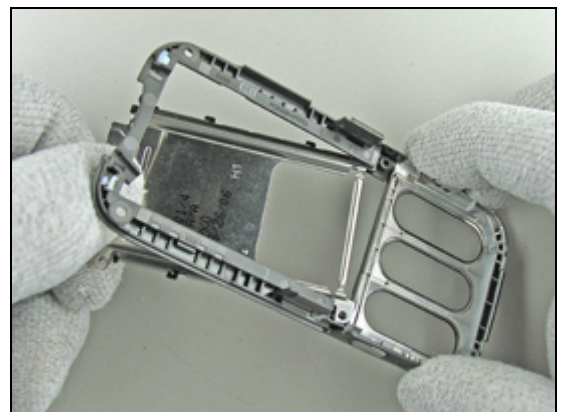
Start like this before reassembling of the *upper carrier assembly*, *slide mechanism* and *lower front assembly*.



If you are going to assembly a new *slide mechanism* remove these four tapes from the *upper carrier assembly*.



Start to assemble the *slide mechanism* in the *lower front assembly*.



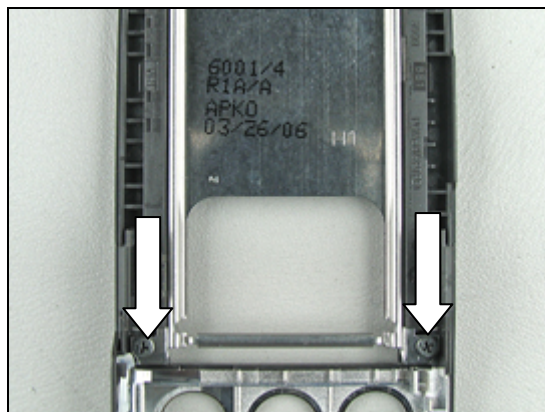
Hold the *slide mechanism* like this before installation of the two screws.



APPLY 10 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten the two screws in the *lower front assembly*.

Replace the screws if it's damaged otherwise it can be reused.



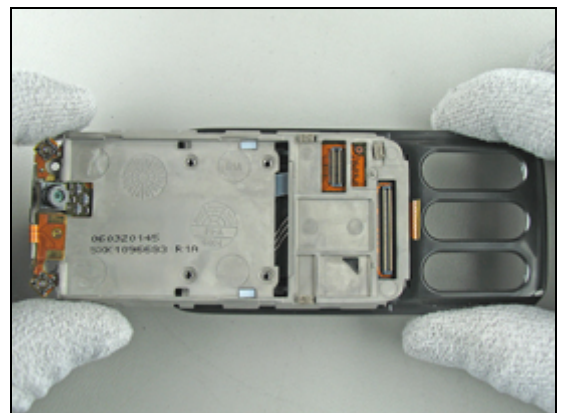


Reassembly Instruction *continued*

Take the *upper carrier assembly* and slide in the half –half flex into the *lower front assembly*.



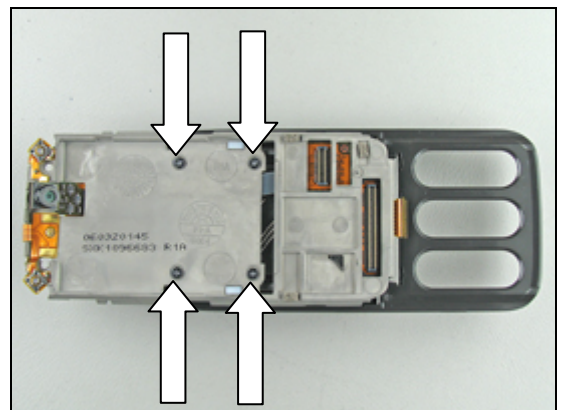
Put it in the correct position like the picture shows.



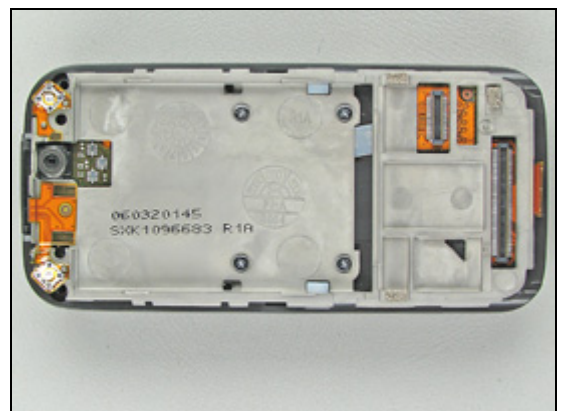
APPLY 15 NCM ± 1.5 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten four screws in the *upper carrier assembly*.

Replace the screws with new ones.



Slide the two half's together.



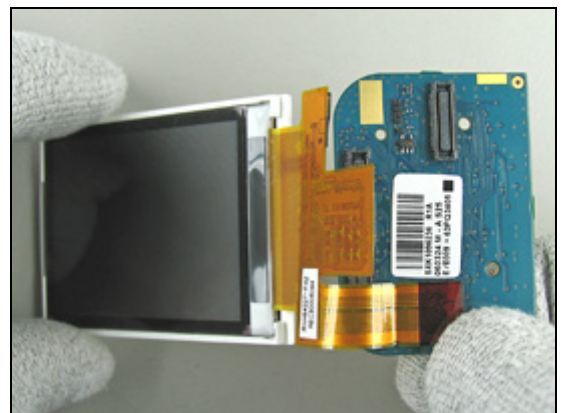


4.1.2 LCD Module Assembly and Navigation Key Foil Assembly

Start like this before reassembling of the new *LCD module assembly*.



Connect the *LCD module's* board to board connector to the *navigation key foil assembly*, use your fingers.

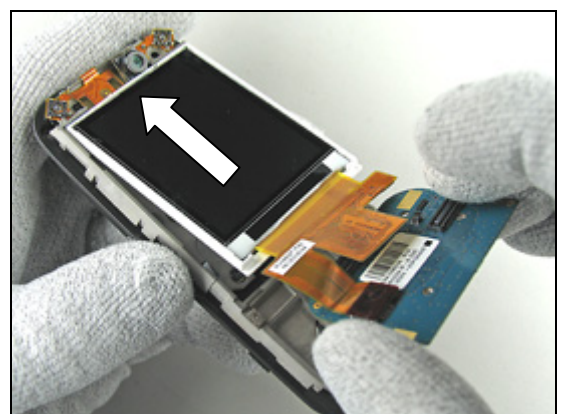


Now the *LCD module assembly* is ready for the next step.



Slide in the *LCD module assembly* against the upper carrier assembly.

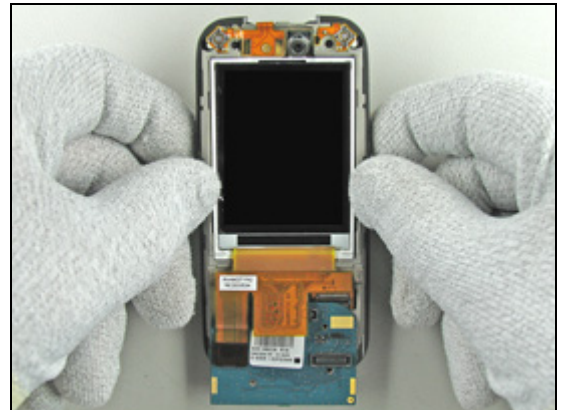
Gently fold the *LCD module assembly* towards the upper carrier assembly until the *LCD module assembly* is in the correct position.





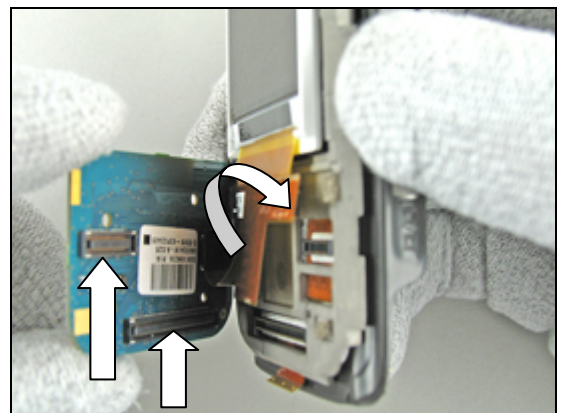
Reassembly Instruction *continued*

LCD module assembly correct assembled into the phone.



Gently fold the *navigation key foil assembly* over the upper carrier assembly.

Notice the two board to board connector's position!

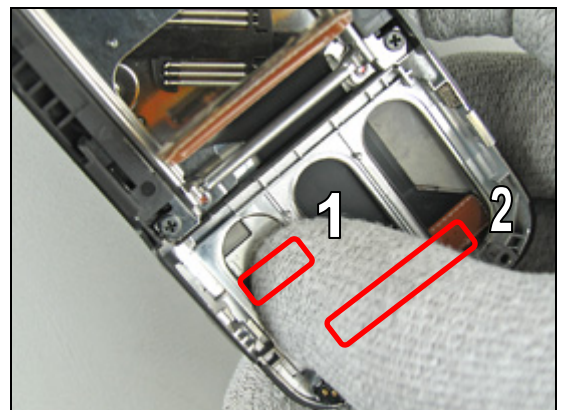


BE CAREFUL WITH THE LCD MODULE ASSEMBLY WHEN ROTATING THE PHONE BACK AND FORTH!

Press together the two board to board connectors with your fingers.

1. Start with the small one.
2. Continue then with the large one.

Don't apply pressure on the two b t b connectors until you are certain that you have a "match".

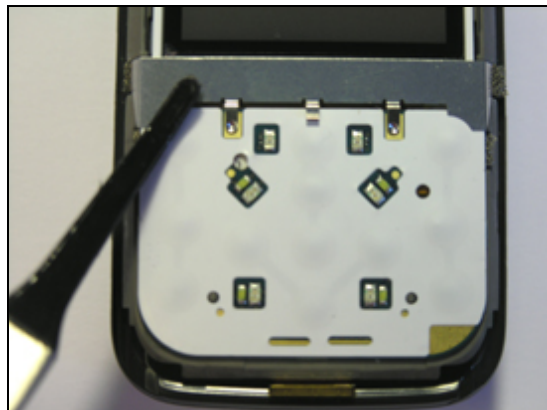


Make sure that the two board to board connectors are closed.



4.1.3 ESD Protection Sheet

Start to reassemble the *ESD protection sheet*.



Snap/click the *ESD protection sheet* into the correct position with your fingers.

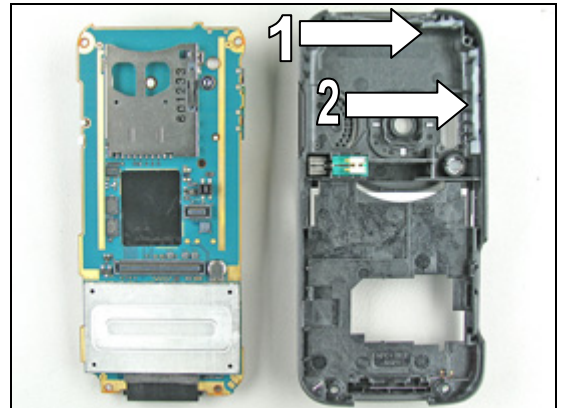




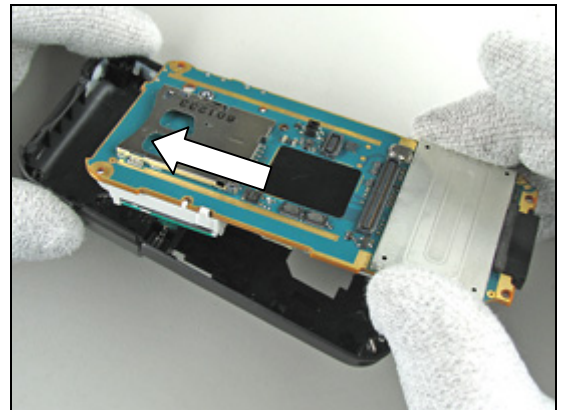
4.1.4 Lower Rear Cover Assembly (and Main PBA)

BE VERY CAREFUL WITH THE ON/OFF KEY (1), VOLUME KEY (2), WHEN THE MAIN PBA IS ASSEMBLED IN THE LOWER REAR COVER ASSEMBLY - IT'S EASY TO SQUEEZE OR DAMAGE THE KEY BUTTONS!

Start like this before reassembling of the main PBA in the lower rear cover assembly.

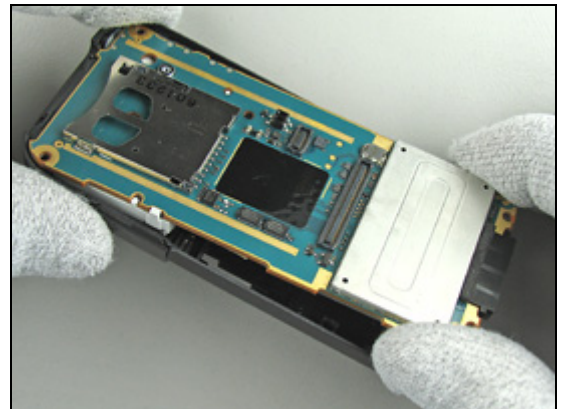


Place the main PBA assembly towards the front end of the lower rear cover assembly.



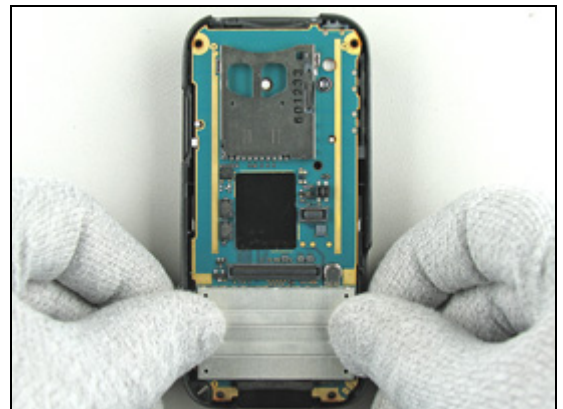
Sometimes the rubber keys are in the way when folding the main PBA into place in the lower rear cover assembly. Gently push the rubber keys into place (if necessary) by using a pair of tweezers or a dentist hook (See caution text above).

Gently fold the main PBA into the lower rear cover assembly.



Gently snap down the main PBA into the lower rear cover assembly (use your fingers).

Check so the main PBA is correctly assembled in the lower rear cover assembly.



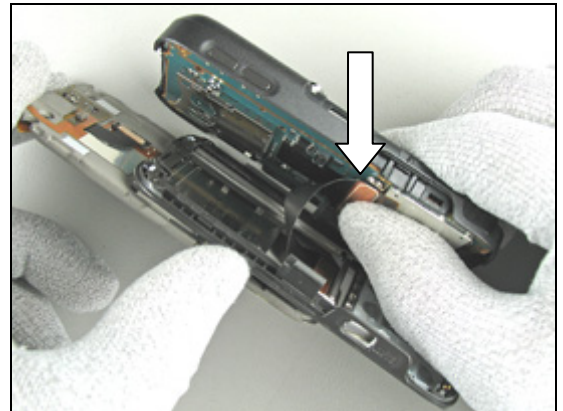


4.1.5 Reassembly of the Phones Upper and Lower half's Together with the Numeric Key Foil Assembly

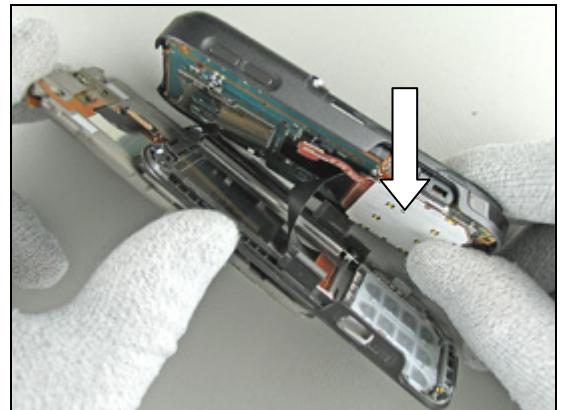
SLIDE OUT THE PHONE!

BE CAREFUL WITH THE FLEX FILM!

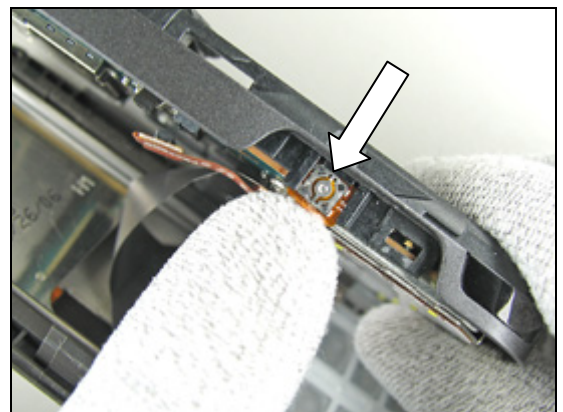
Hold the two half's of the phone like the picture shows and connect the half-half flex with components board to board connector to the main PBA with your fingers.



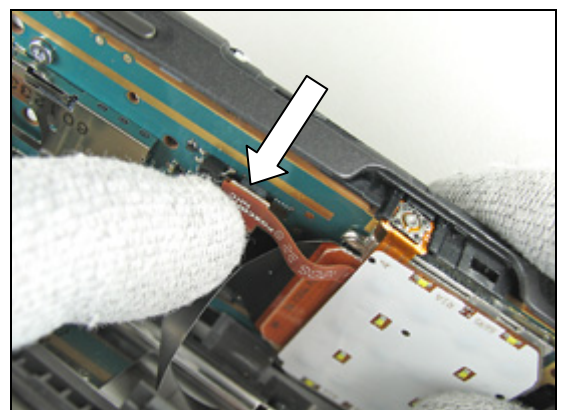
Put in the *numeric key foil assembly* into the lower half of the phone.



Slide in the camera button flex film into the correct position in lower rear cover assembly.



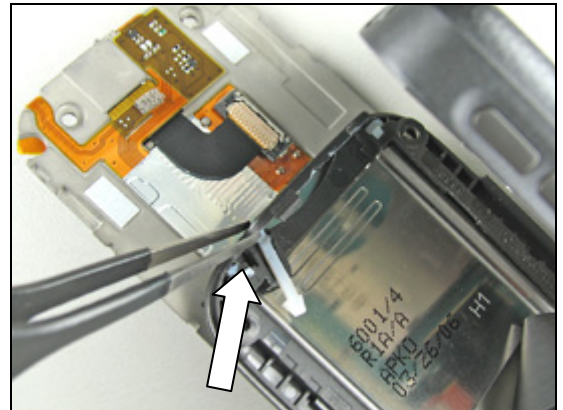
Connect the *numeric key foil assembly's* board to board connector to the main PBA with your fingers.



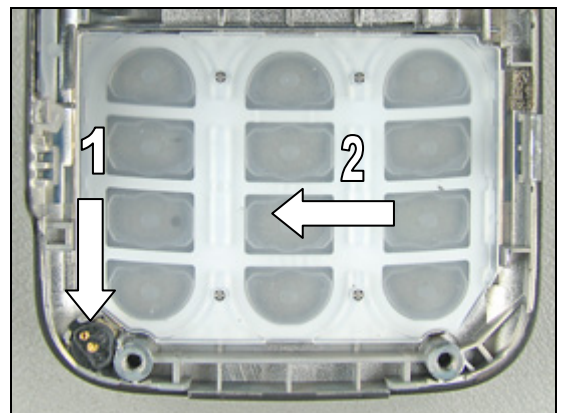


Reassembly Instruction *continued*

Take the duo lid and put it into the correct position on the lower front assembly– use a blunt pair of tweezers or your fingers.



Make sure that the microphone grommet (1) and the keyboard numeric (2) are correctly assembled.



Gently close the two half's of the phone together.



Turn the phone around.

MAKE SURE THAT THE KEYBOARD NUMERIC IS IN THE CORRECT POSITION BEFORE YOU START TO SQUEEZE THE TWO HALF'S TOGETHER!



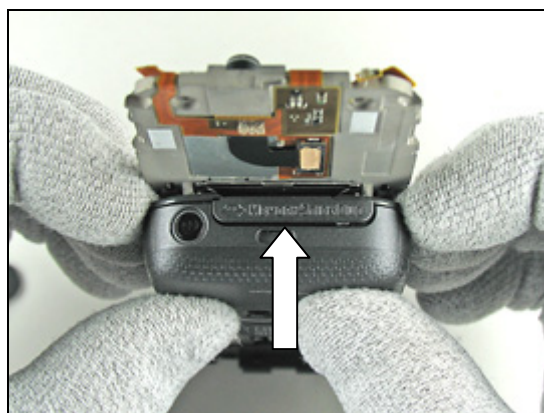
Reassembly Instruction *continued*

Continue to snap the phone together in the middle.



MAKE SURE THAT THE DUO LID IS ASSEMBLED IN THE CORRECT POSITION!

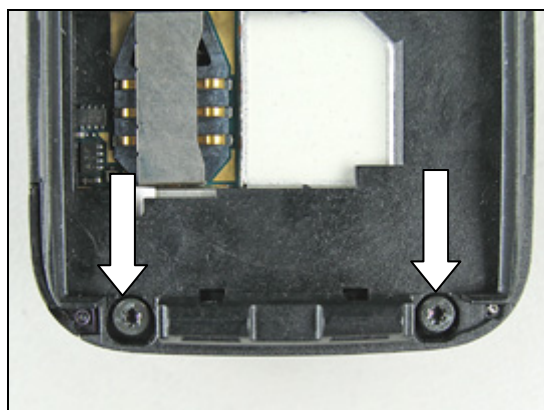
And finally, snap together the top of the phone.



APPLY 15 NCM ± 1.5 NCM OF TORQUE FOR THE SCREWS USING NTZ 112 288 (TORX BIT NO 6)!

Assemble and tighten the two screws in the lower rear cover assembly.

Replace the screw if it's damaged otherwise it can be reused.



Slide the phone together.





APPLY 15 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREWS USING NTZ 112 288 (TORX BIT NO 6)!

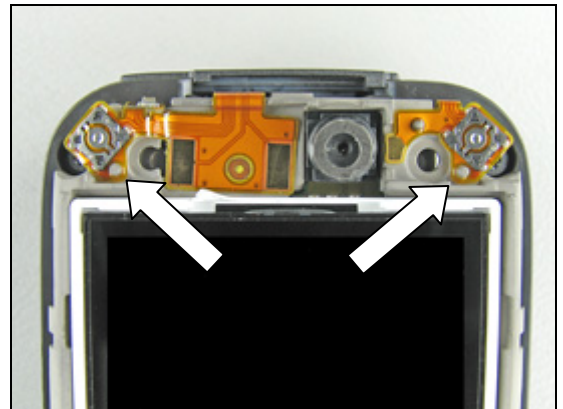
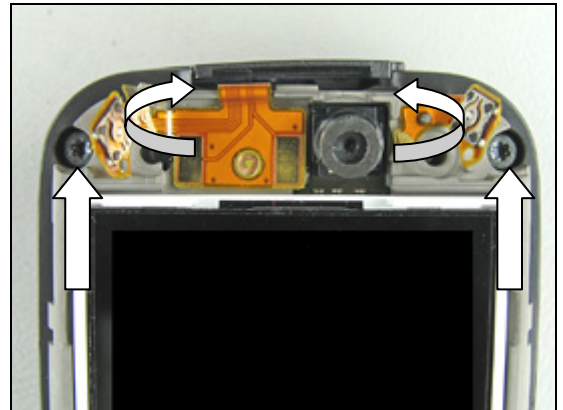
GENTLY BEND UP THE TWO FLEX FILMS WITH THE FLEX FILM ASSEMBLY TOOL!

Assemble and tighten the two screws in the lower rear cover assembly.

Replace the screw if it's damaged otherwise it can be reused.

BE CAREFUL WITH THE FLEX FILMS!

Gently fold back the two flex films with the flex film assembly tool towards the upper carrier assembly guide pins.





4.1.6 Upper Front Assembly Complete

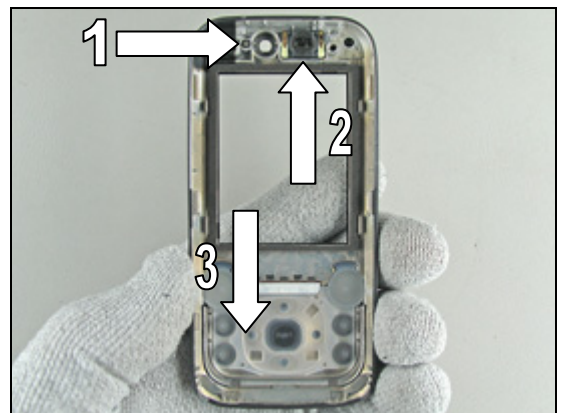
Slide out the phone.

Start like this before reassembling of the *upper front assembly complete*.



MAKE SURE EVERYTHING INSIDE THE UPPER FRONT COVER COMPLETE IS ASSEMBLED!

1. Rubber connector, speaker plate
2. Ear speaker
3. Keyboard navigation



DON'T FORGET TO REMOVE THE PROTECTIVE TAPE FROM THE NEW LCD MODULE BEFORE REASSEMBLING THE UPPER FRONT ASSEMBLY COMPLETE!

Do not touch the LCD glass surface. Blow away dust with an ionized air gun or blower.



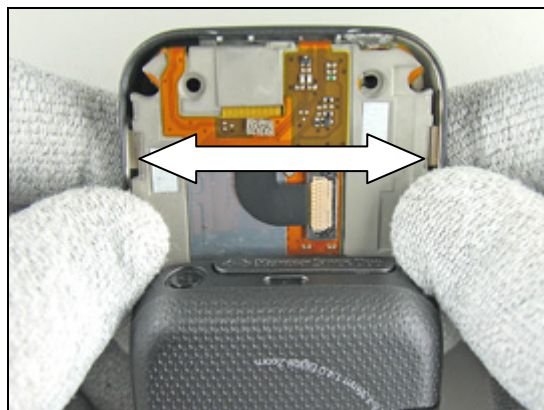
Start to reassemble the *upper front assembly complete*.

Begin from the bottom of the phone then gently continue to squeeze the *upper front assembly complete* towards the top of the phone.



Reassembly Instruction *continued*

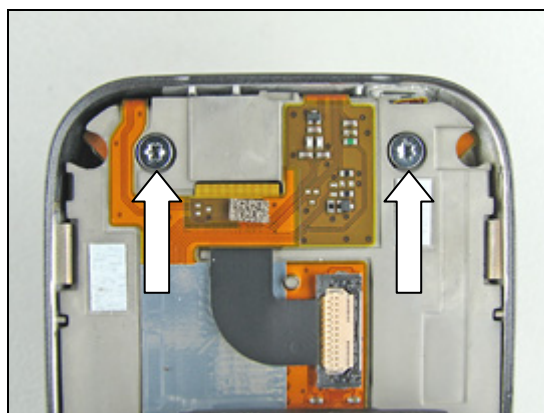
Make sure that the two snap fit hooks in the *upper front assembly complete* are locked against the upper carrier assembly.



APPLY 15 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREWS USING NTZ 112 288 (TORX BIT NO 6)!

Assemble and tighten the two screws in the upper carrier assembly.

Replace the screw if it's damaged otherwise it can be reused.



4.1.7 Upper Rear Lid Assembly

Start to assemble the *upper rear lid assembly*.



Slide in the *upper rear lid assembly* completely.



“Lock” the *upper rear lid assembly* by pressing it down until you hear a click sound.



Do the same thing on the other side.





Reassembly Instruction *continued*

Upper rear lid assembly reassembled.



4.1.8 Battery and Battery Cover

Start like this before reassembling of the *battery* and the *battery cover*.



Lay down the top of the *battery* into the frame cavity.



Start to slide on the *battery cover*.



With your fingers, push on the *battery cover* until it is completely closed.



Reassembly Instruction *continued*

The phone is now totally reassembled.





5 Revision history

Rev.	Date	Changes / Comments
A	2006-09-20	Initial release
B	2006-09-25	Added LCD tape and changed part LCD Module assembly to LCD Module part number RNH 942 271
C	2006-10-05	Removal of tapes