



Working Instruction, Mechanical

Applicable for P1i and P1c

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1 Introduction

P1i





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 112 583 Camera removal 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
- NTZ 112 590 Plectrum



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

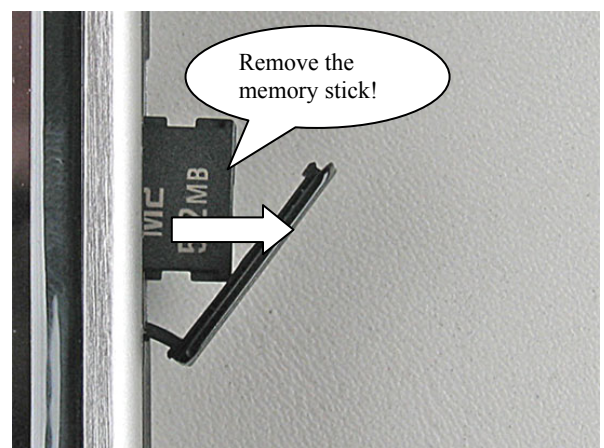
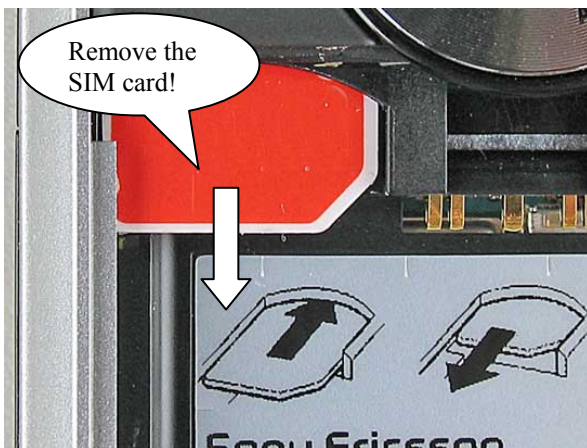




1.2 General cautions

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 SIM CARD AND MEMORY STICK BEFORE STARTING DISASSEMBLING THE PHONE!**
- **KEEP ALL CONTACT SURFACES CLEAN!**
- **BE CAREFUL WHEN USING TOOLS LIKE THE DENTIST HOOK, TWEEZERS, OPENING TOOLS, PLECTRUMK 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!**



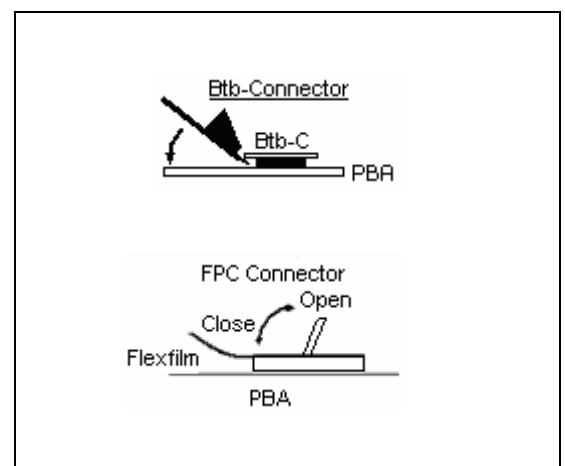
1.3 Adhesives

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

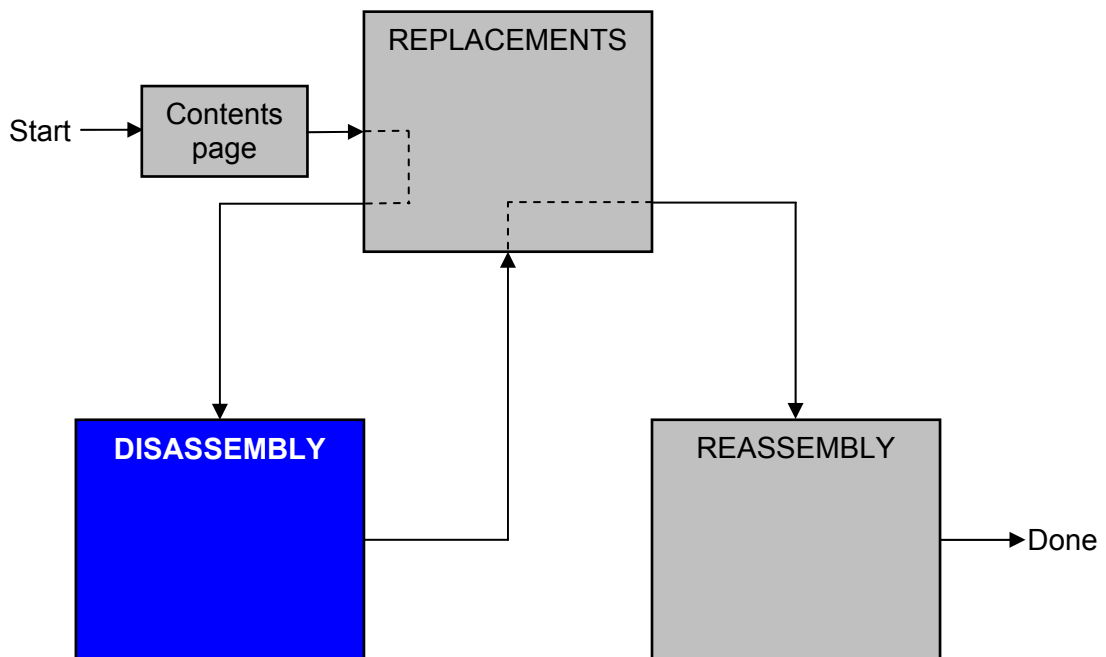
How to open a board-to-board connector with the front opening tool.

How to open and close a FPC connector – Be very careful with the hinge mechanism.



2 Disassembly

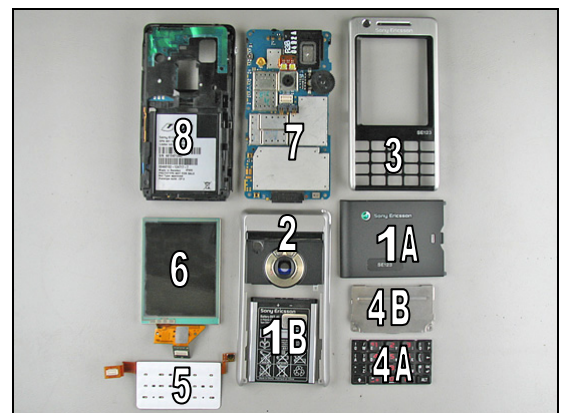
When you are going to replace a part being listed in *Replacements*, the instruction of that section usually begins by directing you to this *Disassembly* section with a specification of the instructions you have to carry out in order to disassemble the phone as far as needed before returning to *Replacements*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



2.1 Overview

The disassembly is done in the following sequence:

1. Battery Lid – A, and Battery - B
2. Antenna lid
3. Front
4. Keyboard A and Keyboard support, B
5. Keyboard flex
6. LCD
7. PCBA
8. Frame (with sub PCBA)



2.1.1 Battery lid and Battery

THERE IS NO NEED FOR ESD-GLOVES DURING THIS OPERATION!

Press with your thumb on the battery lid until you get a gap.



Remove the battery lid completely.



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

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



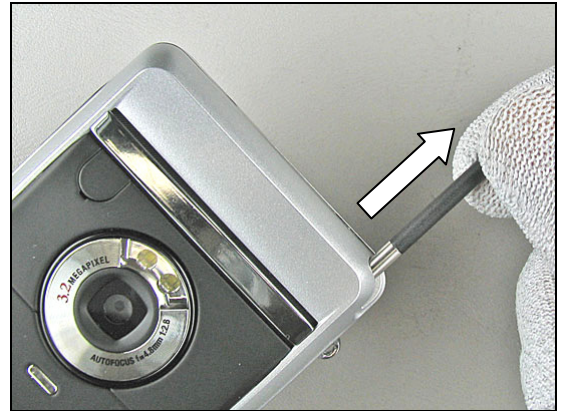
Remove the battery completely from the phone with your fingers.





2.1.2 Antenna lid

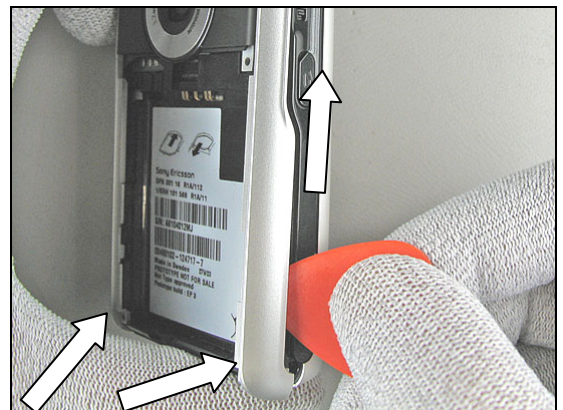
Remove the Stylus pen.



Remove the 3 screws under the battery cover by using the Use (NTZ 112 1052 JCIS bit) tool.



Carefully insert the plectrum (NTZ 112 590) under the antenna lid and bend until they become loose.
Start at the bottom corners and continue and work your way up on both sides until it becomes loose.

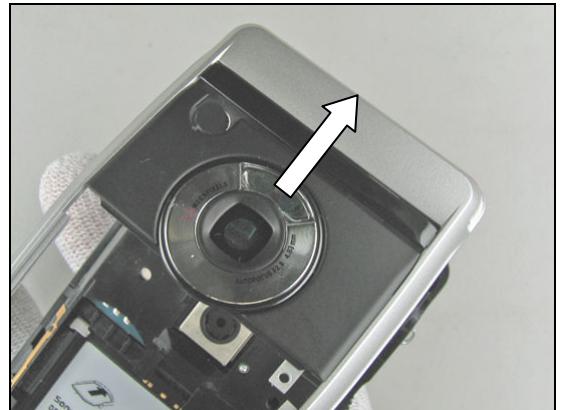


And finally (around the corner) until the antenna lid is loose on the top side.



Disassembly Instruction *continued*

Gently lift off the antenna.



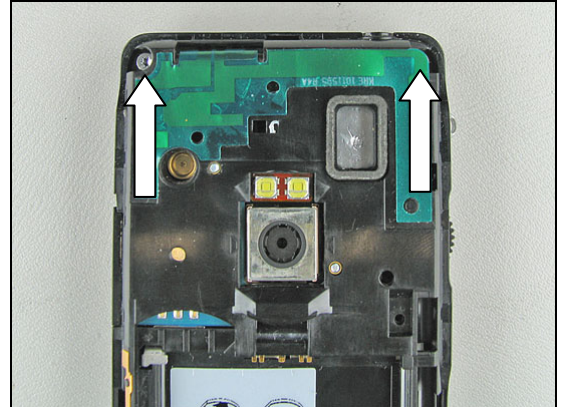
Disassembled antenna lid.



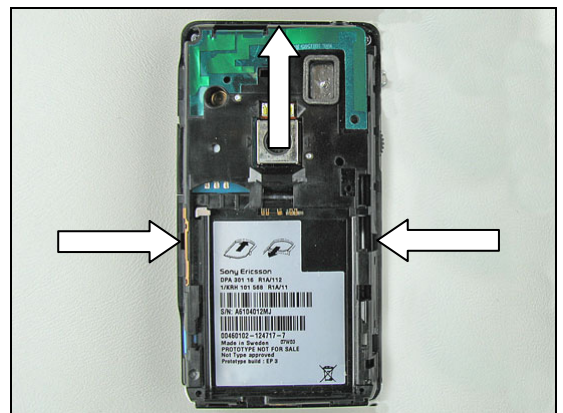
2.1.3 Front

Remove the 2 screws by using the NTZ 112 288 (torx bit no 6).

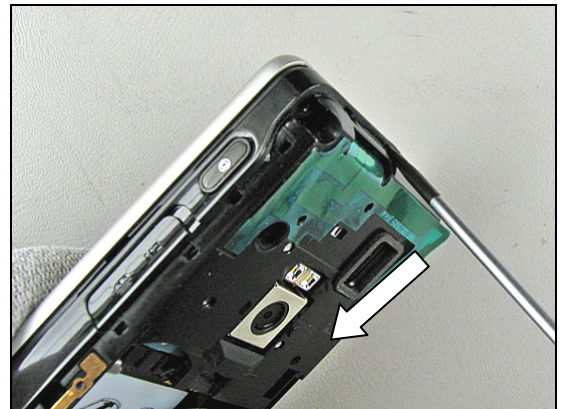
Gently fold the flexfilm to reach the right screw.



There are 3 latches that have to be released before the front can be removed.



Insert a flat screwdriver in the gap on the front.
Carefully bend in the arrow direction until the latch loosens.



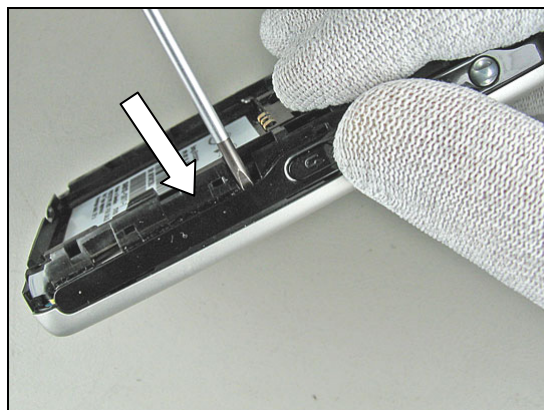
BE CAREFUL SO THE W-LAN ANTENNA DOESN'T GET DAMAGED !

Insert the screwdriver in the gap on the right side and bend carefully in the arrow direction until the latch loosens.



Disassembly Instruction *continued*

Insert the screwdriver in the gap on the left side and bend carefully in the arrow direction until the latch loosens.



Insert the plectrum at the top of the front cover.
Continue to gently bend until the cover starts to become loose from the frame.



Continue and move the plectrum up and along this side until it becomes loose.



Continue with the other side and move the plectrum up and along this side until it becomes loose.



Disassembly Instruction *continued*

Carefully bend the front cover upwards and forward until it looses from the frame.

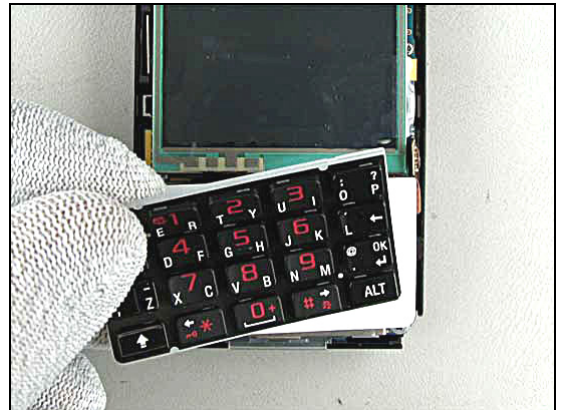


Disassembled Front cover.

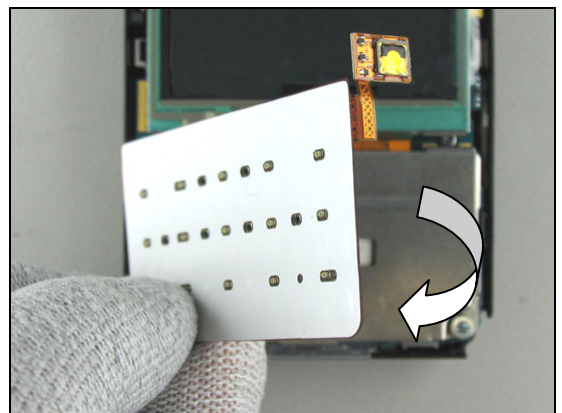


2.1.4 Keyboard and keyboard support

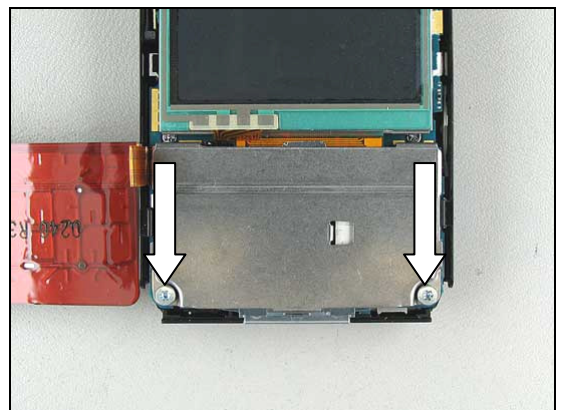
Remove the keyboard.



Fold the Keyboard flex.



Loosen the 2 screws.
Use (Use (NTZ 112 288 Torx 6 bit) tool.



Remove the Keyboard support.



Disassembly Instruction *continued*

Keyboard and Keyboard support disassembled.

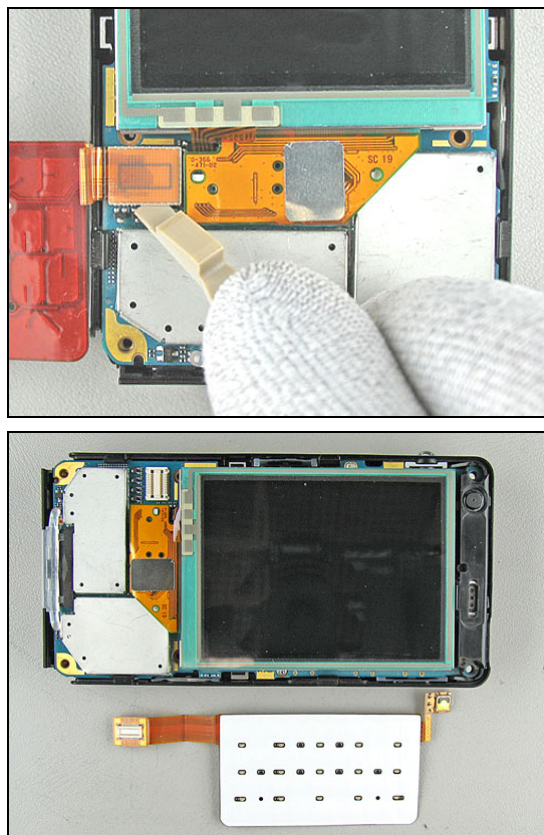


2.1.5 Keyboard flex

BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

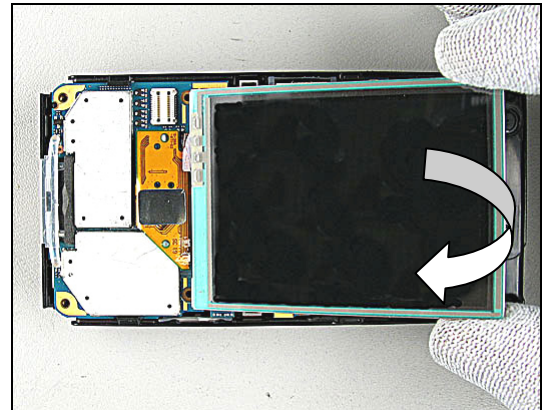
Disconnect the flex film board to board connector from the PCBA with the front opening tool and remove the keyboard flex.

Keyboard flex disassembled.



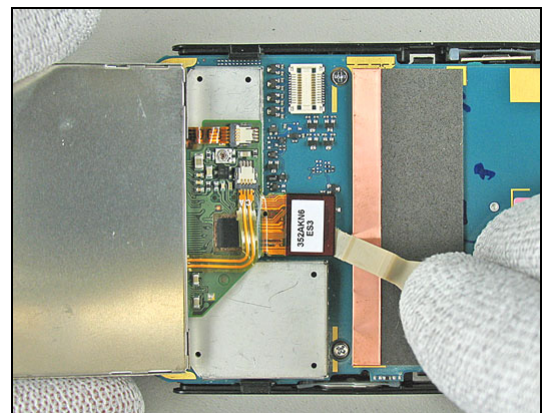
2.1.6 LCD

Fold the LCD forward.

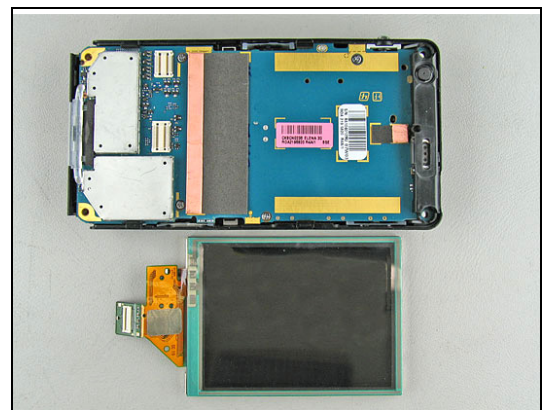


BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Disconnect the LCD flex film board to board connector from the PCBA with the front opening tool.



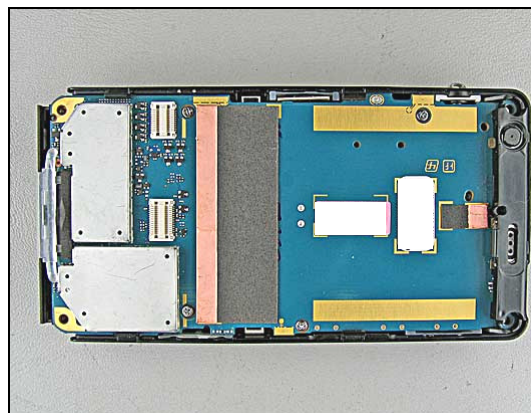
LCD disassembled.



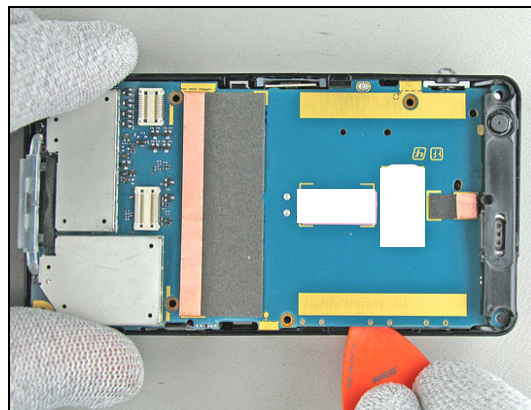
2.1.7 PCBA

Loosen the 5 screws.

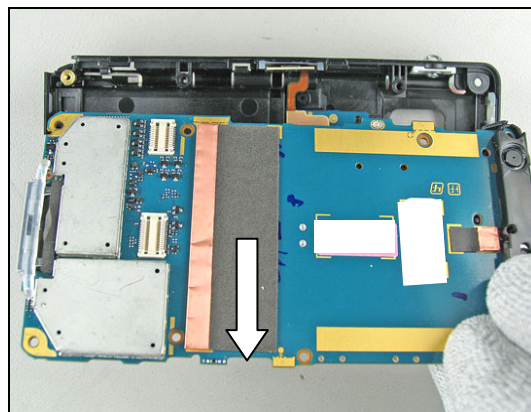
Use (NTZ 112 1052 JCIS bit) tool.



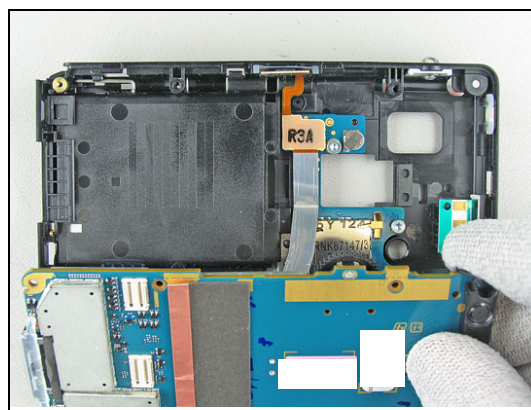
Insert the plectrum and carefully bend until the PCBA loosens from the frame.



Lift up the PCBA and remove it in the arrows direction



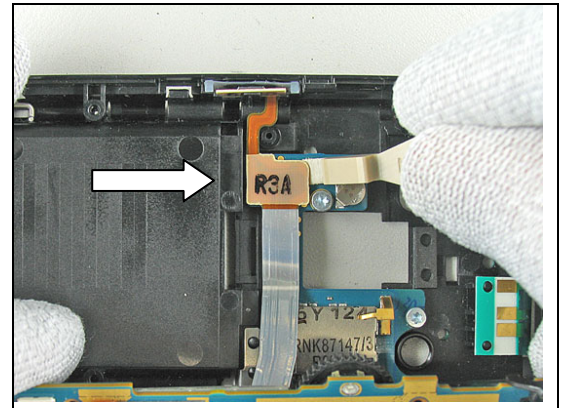
Hold the PCBA beside the frame.



Disassembly Instruction *continued*

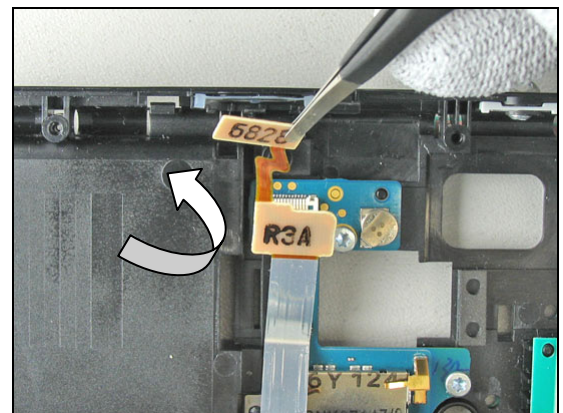
BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Disconnect the flex film board to board connector from the frame with the front opening tool.



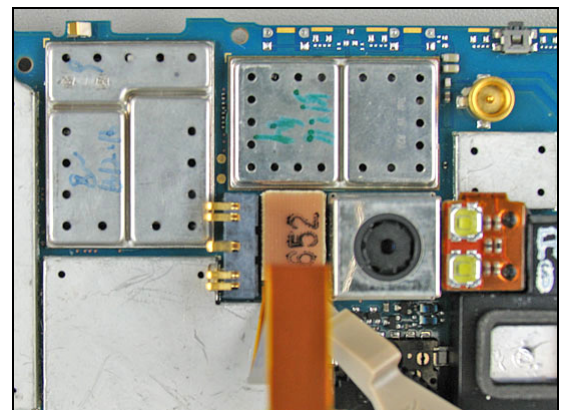
BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Remove the flexfilm. Use a pair of tweezers.



BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR ON THE PCBA!

Disconnect the flex film board to board connector from the PCBA with the front opening tool.



PCBA disassembled. The phone is now disassembled.





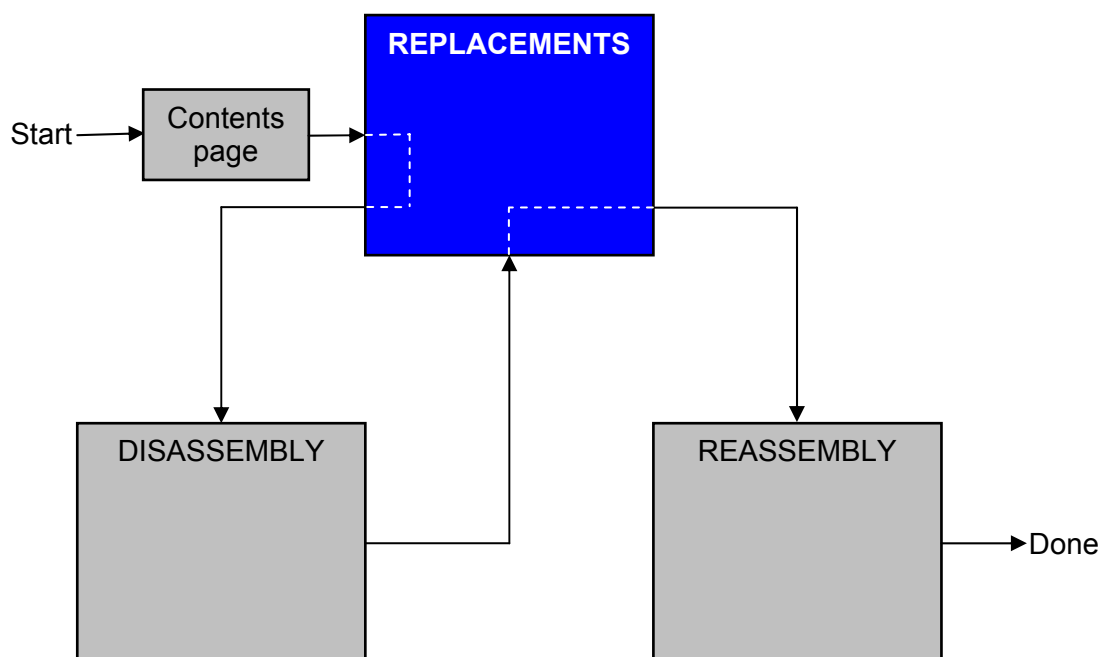
3 Replacements

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 Keyboard support

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Keyboard support.

Follow the 4.1.3 - 4.1.6 Reassembly instructions!

3.2 BtB flex

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Prepare the BtB flex.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

3.3 Keyboard flex

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Keyboard flex.

Follow the 4.2.3 – 4.1.6 Reassembly instructions!

3.4 Keyboard

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new Keyboard.

Follow the 4.1.3 – 4.2.6 Reassembly instructions!

3.5 Front

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Prepare the new Front.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

3.6 Frame

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Prepare the new Frame.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

3.7 LCD

Follow the 2.1.1 - 2.1.6 Disassembly instructions!

Prepare the new LCD.

Follow the 4.1.2 – 4.1.6 Reassembly instructions!

3.8 Antenna lid

Follow the 2.1.1 Disassembly instructions!

Prepare the new Antenna lid.

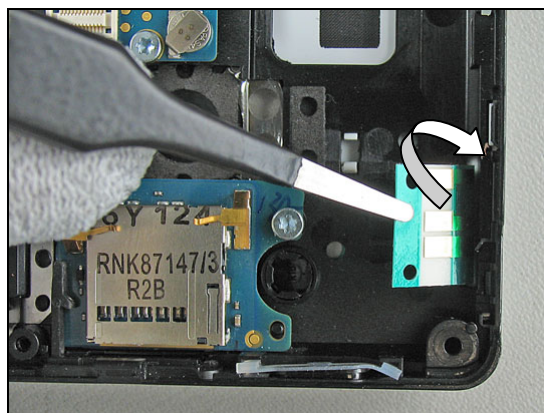
Follow the 4.1.1.2 Reassembly instructions!

3.9 Antenna flex

REMOVAL

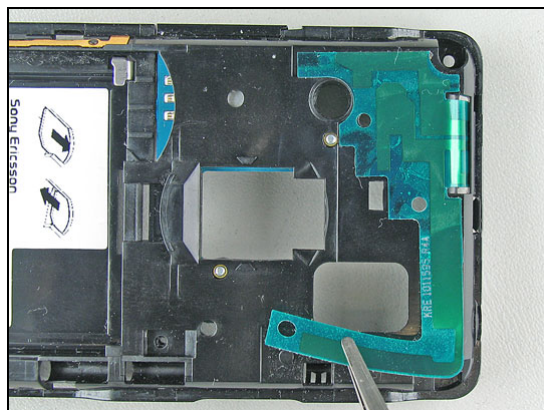
Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Start to carefully bend up the Antenna flex with a blunt pair of tweezers.



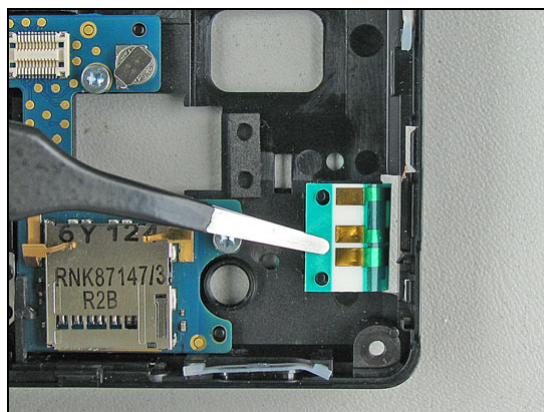
Turn the frame around.

Remove the old Antenna flex with a blunt pair of tweezers.



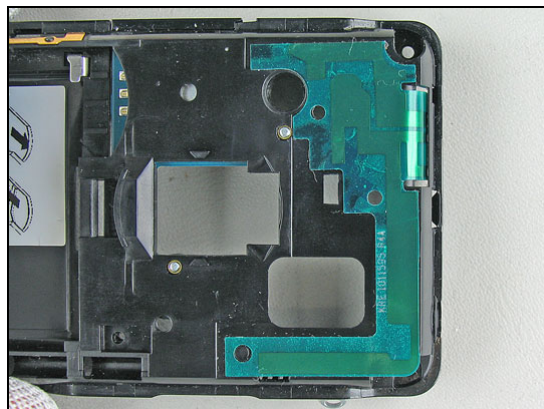
INSTALLATION

Fold down the Antenna flex over the guiding pins.



Press down the new Antenna flex onto the frame.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!



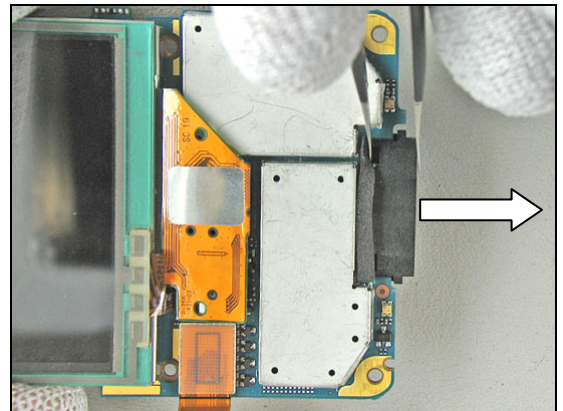


3.10 System connector

REMOVAL

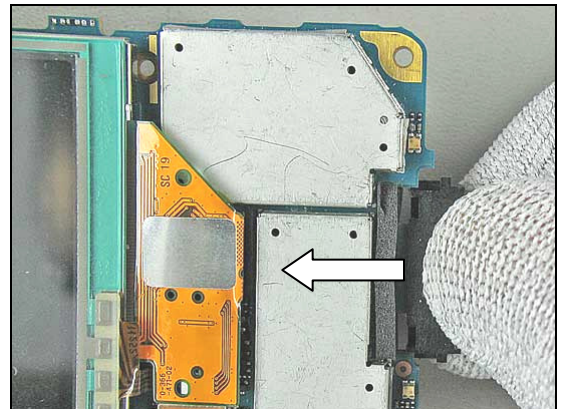
Follow the 2.1.1– 2.1.7 Disassembly instructions!

Remove the old system connector with a blunt pair of tweezers.

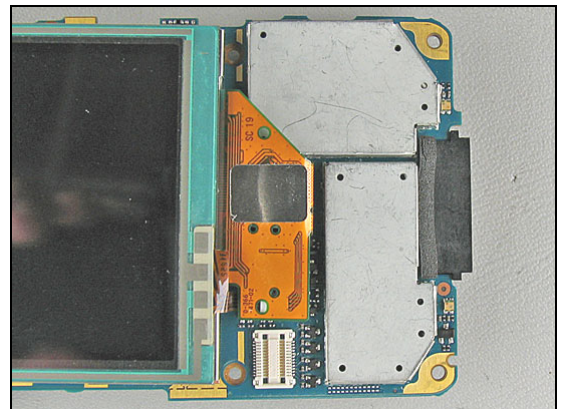


INSTALLATION

Assemble a new system connector with your fingers.
Press the system connector gently to the bottom of the PCBA.



The picture shows a correct mounted system connector.



Follow the 4.1.1 – 4.1.6 Reassembly instructions!



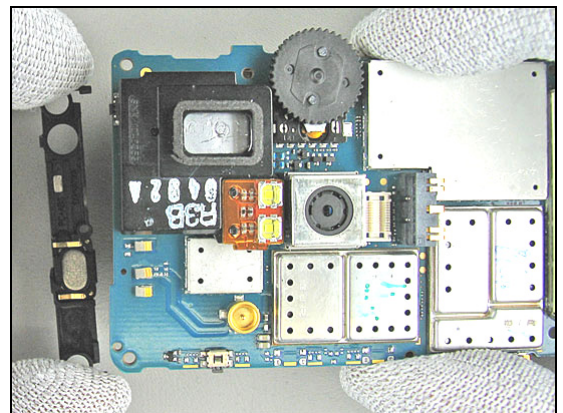
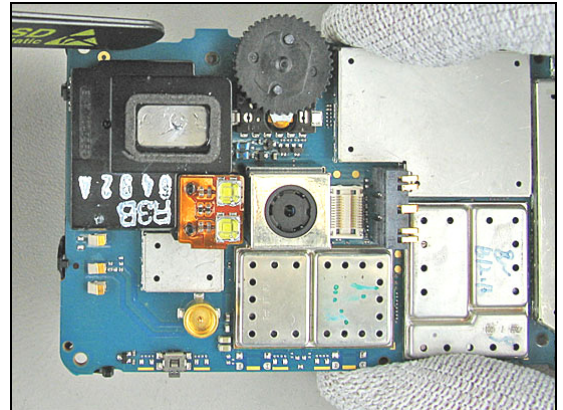
3.11 Ear speaker holder

REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Start to carefully bend up the latches that hold the Ear speaker holder with a blunt pair of tweezers.

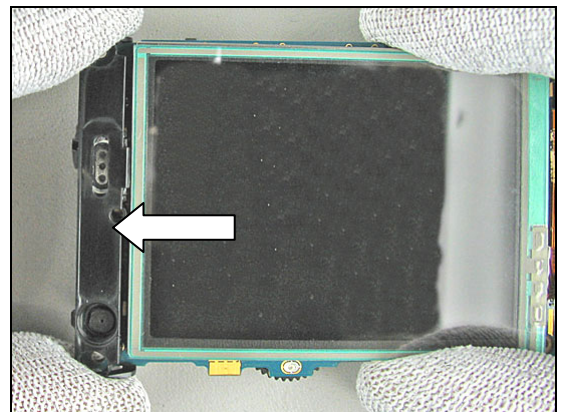
Remove the old holder.



INSTALLATION

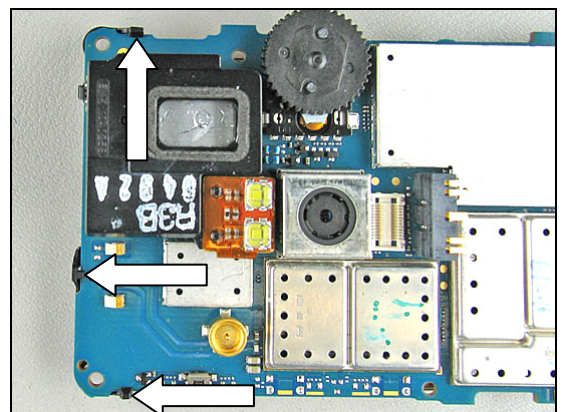
Turn the board around.

Press down the new Ear speaker holder.



Check that the three latches are in the correct position.

Follow the 4.1.4 – 4.1.6 Reassembly instructions!

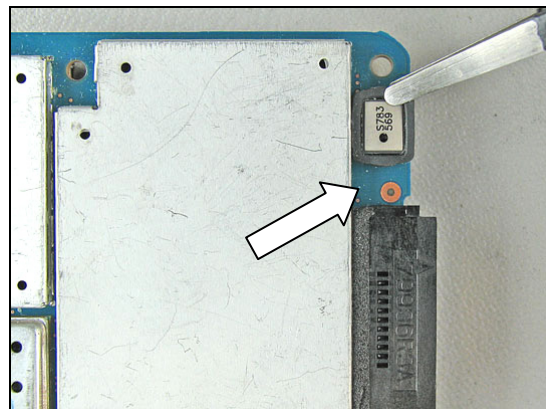


3.12 Microphone grommet

REMOVAL

Follow the 2.1.1– 2.1.6 Disassembly instructions!

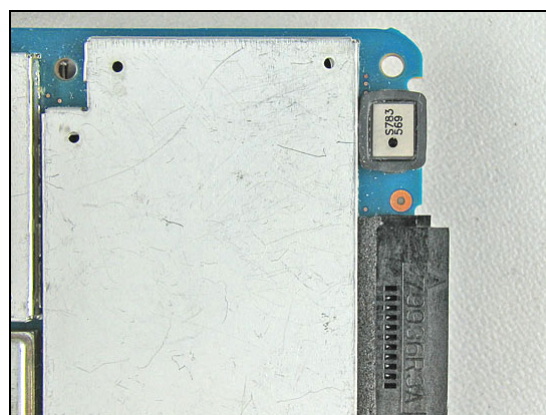
Remove the old Microphone grommet.
Use a blunt pair of tweezers



INSTALLATION

Assemble a new grommet.
Use your fingers to gently press down the grommet.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

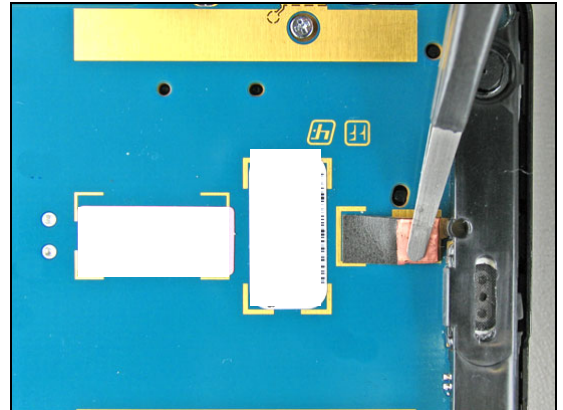


3.13 LCD gasket (small)

REMOVAL

Follow the 2.1.1– 2.1.6 Disassembly instructions!

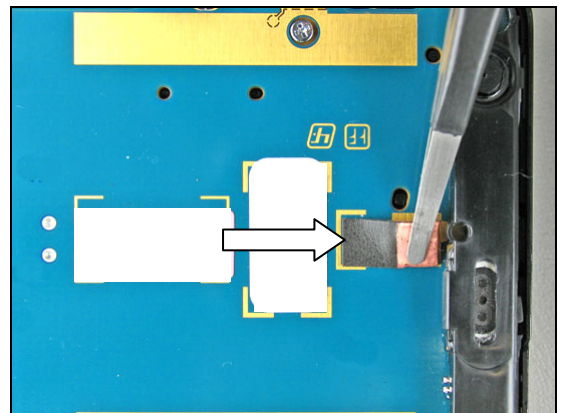
Remove the old gasket with a blunt pair of tweezers.



INSTALLATION

Reassemble a new gasket with the tweezers.
Gently press on the gasket with our fingers.

Follow the 4.1.2 – 4.2.6 Reassembly instructions!

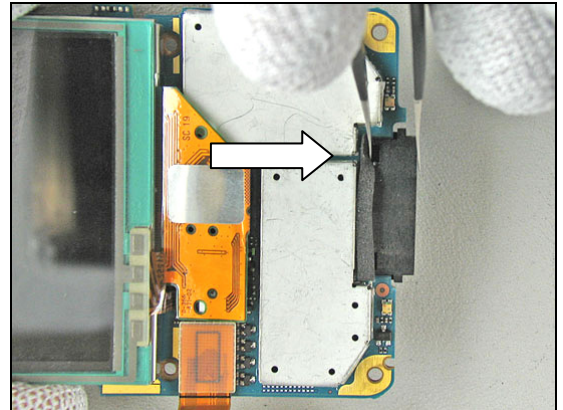


3.14 Dust gasket (system connector)

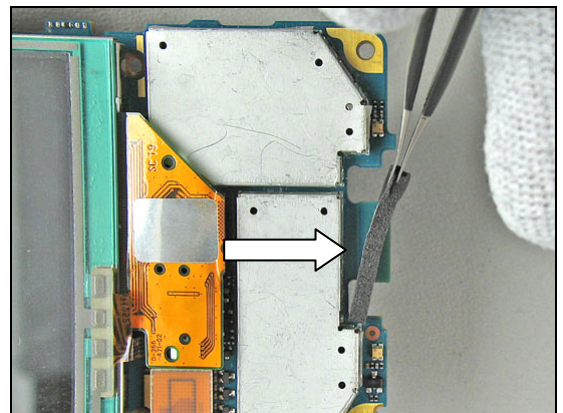
REMOVAL

Follow the 2.1.1– 2.1.7 Disassembly instructions!

Remove the system connector.
Use a blunt pair of tweezers.

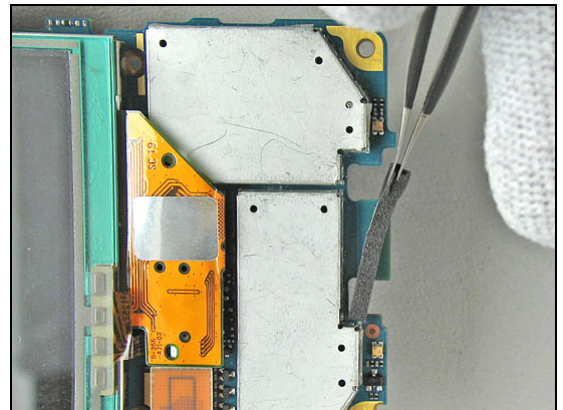


Remove the Dust gasket.
Use a blunt pair of tweezers.



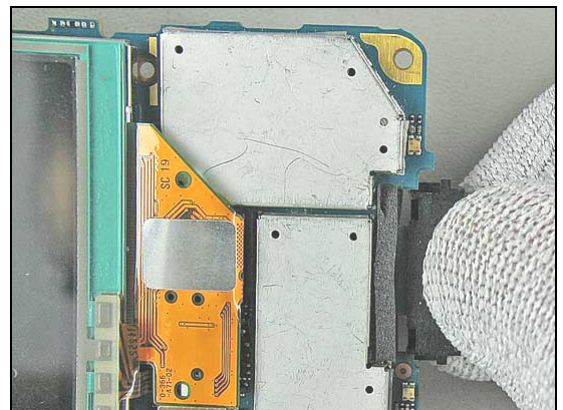
INSTALLATION

Assemble the Dust gasket.
Use a blunt pair of tweezers.



Assemble a new system connector with your fingers.
Press the system connector gently to the bottom of the PCBA.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



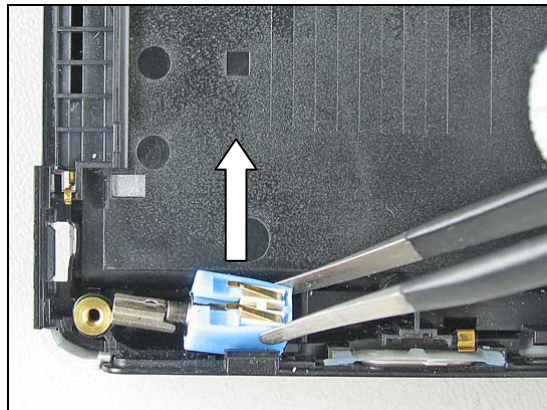
3.15 Vibrator

REMOVAL

Follow the 2.1.1– 2.1.7 Disassembly instructions!

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

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



INSTALLATION

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 damaged.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.16 Liquid intrusion indicator

REMOVAL

Follow the 2.1.2 Disassembly instructions!

Remove the old indicator with a dentist hook.



INSTALLATION

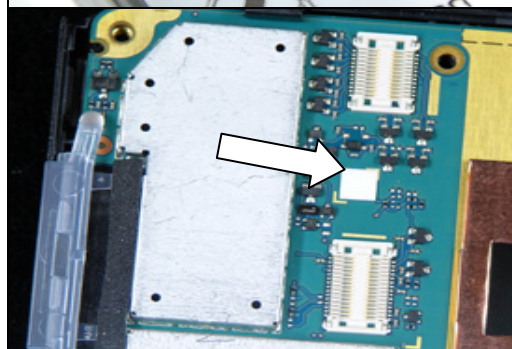
Assemble a new indicator with a blunt pair of tweezers.

Follow the 4.1.6 Reassembly instructions!



Liquid intrusion indicator position on PBA

Follow the 2.1.1 - 2.1.6 Disassembly instructions!

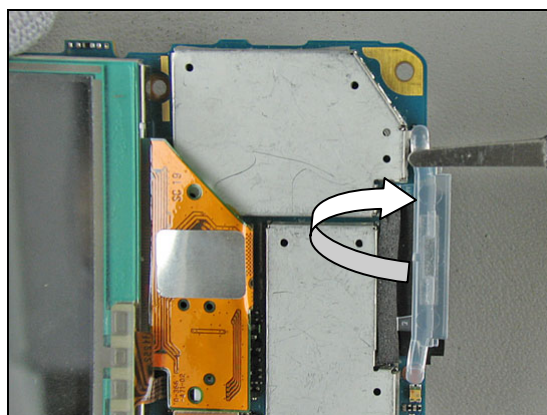


3.17 Light guide

REMOVAL

Follow the 2.1.1– 2.1.7 Disassembly instructions!

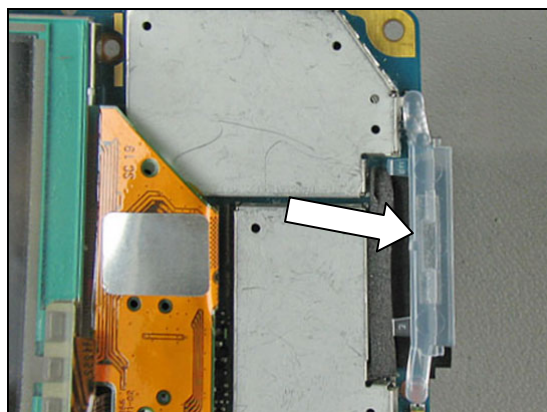
Remove the old Light guide by pulling it upwards.
Use a blunt pair of tweezers.



INSTALLATION

Assemble a new Light guide.
Gently press down the Light guide to the PCBA with your fingers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.18 Camera

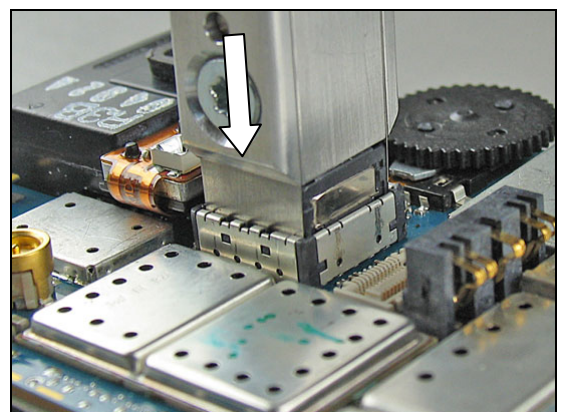
REMOVAL

Follow the 2.1.1– 2.1.7 Disassembly instructions!

Remove the camera shield with our fingers.

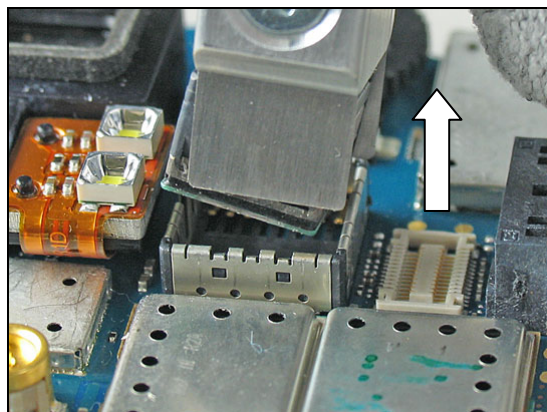


Press down the camera tool (NTZ 112 583).



INSTALLATION

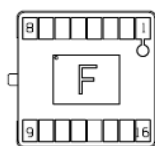
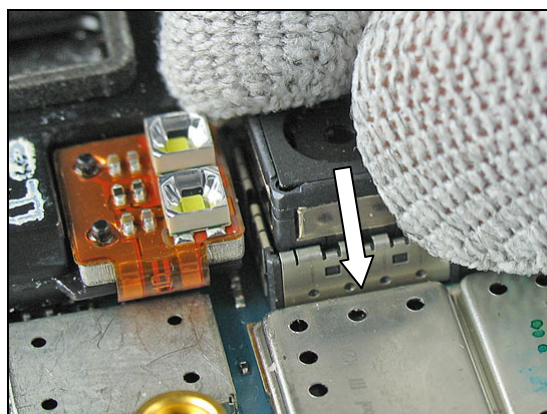
Pull up the camera.



INSTALLATION

DO NOT TOUCH THE CAMERA LENS!

Press down the new camera with your fingers.

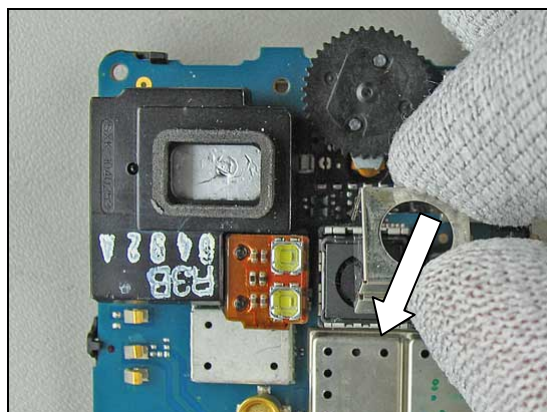


NOTE KEYING TAP ON CAMERA

Replacement Instruction *continued*

Press down camera shield with your fingers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

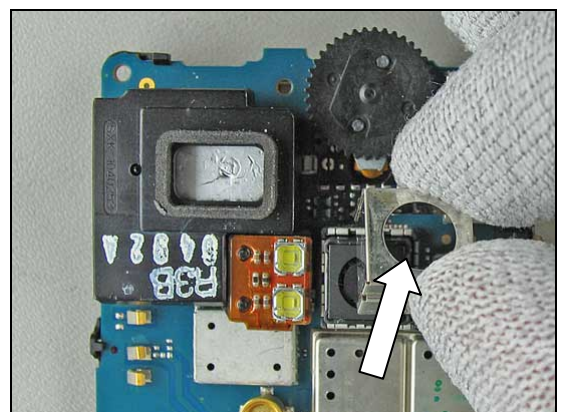


3.19 Shielding box

REMOVAL

Follow the 2.1.1– 2.1.6 Disassembly instructions!

Remove the shielding box with your fingers.



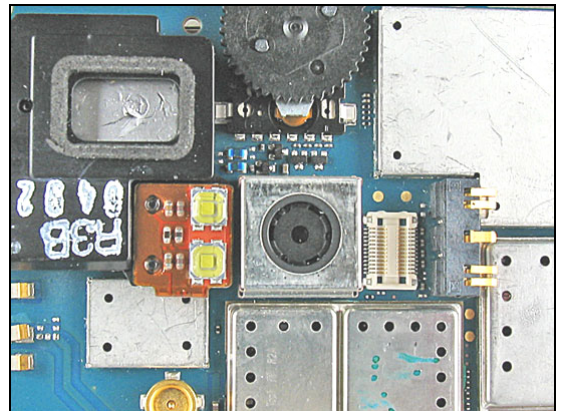
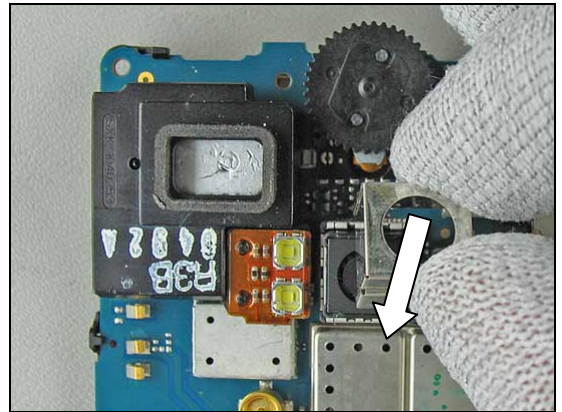
INSTALLATION

DO NOT TOUCH THE CAMERA LENS!

Reassemble a new Shield with your fingers.

Shielding box reassembled.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



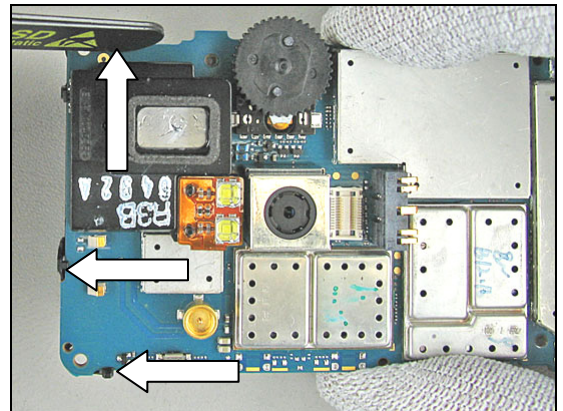


3.20 Shielding box (CIF camera)

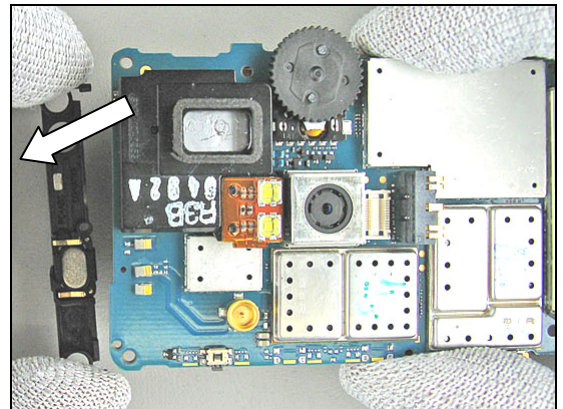
REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

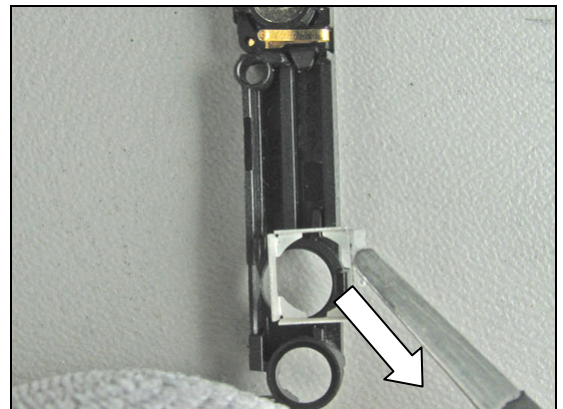
Start to carefully bend up the latches that hold the Ear speaker holder with the backside of a blunt pair of tweezers.



Remove the old holder.

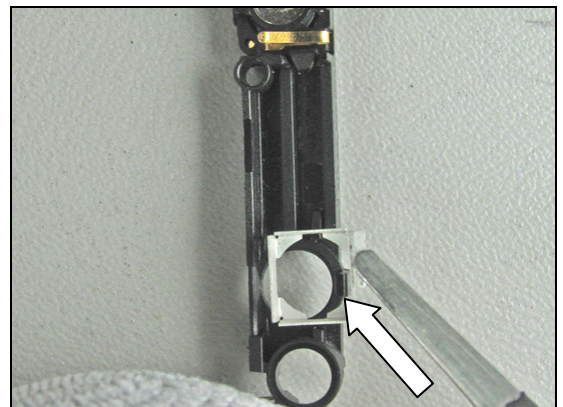


Remove the shielding box with a pair of tweezers.



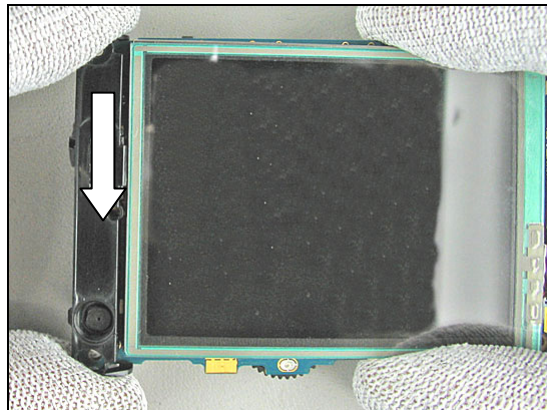
INSTALLATION

Reassemble a new shielding box with a pair of tweezers.



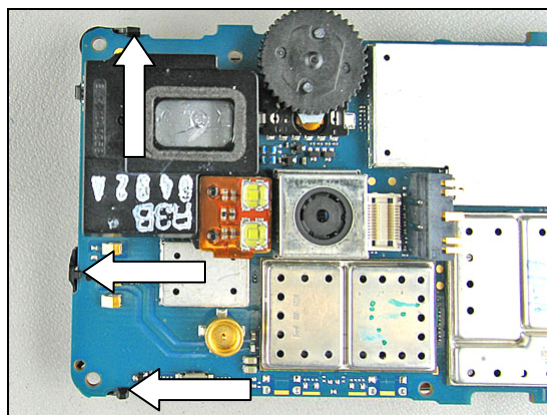
Replacement Instruction *continued*

Turn the board around.
Press down the Ear speaker holder.



Check that the three latches are in the correct position.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

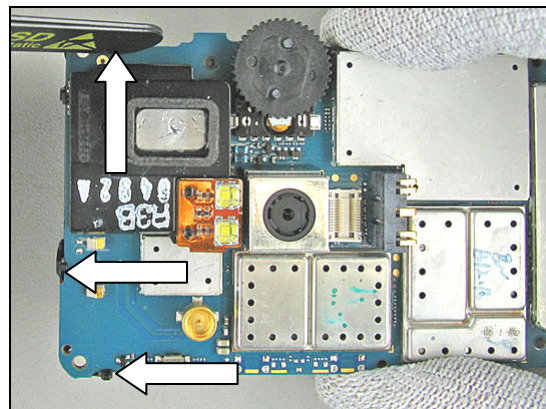


3.21 Camera module (CIF)

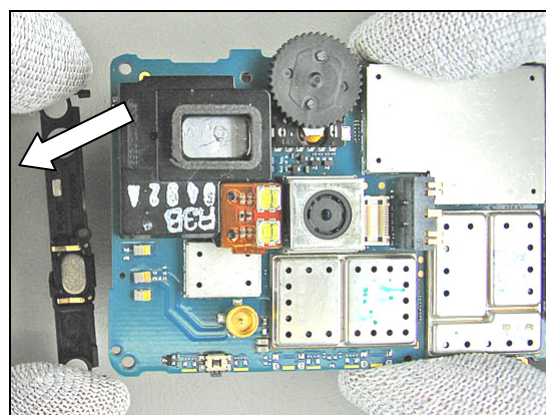
REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

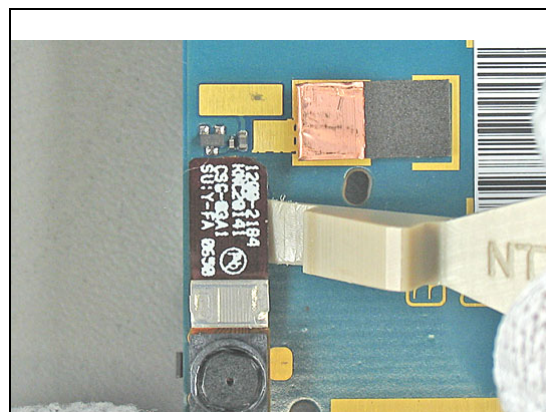
Start to carefully bend up the latches that hold the Ear speaker holder with the backside of a blunt pair of tweezers.



Remove the old holder.

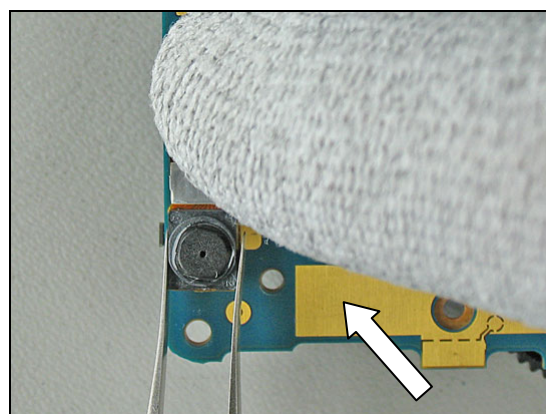


Open the Cif camera BtB connector with a front opening tool.



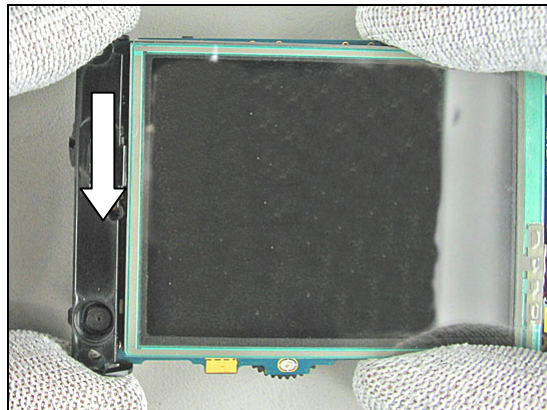
INSTALLATION

Hold the camera with a blunt pair of tweezers and press down the BtB connector with your fingers.



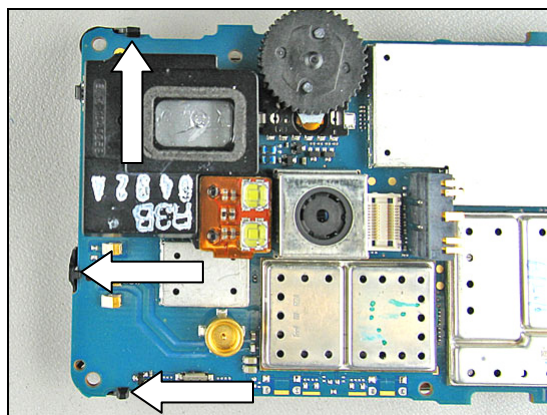
Replacement Instruction *continued*

Turn the board around.
Press down the Ear speaker holder.



Check that the three latches are in the correct position.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



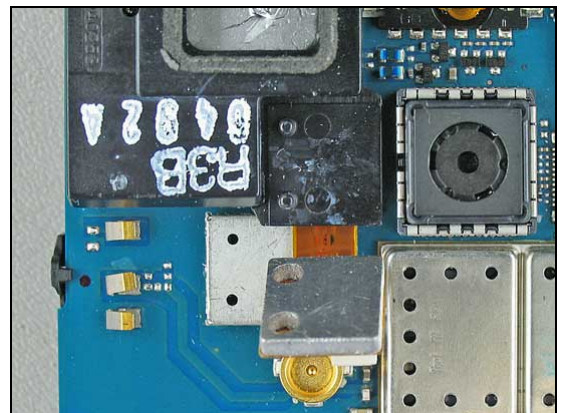
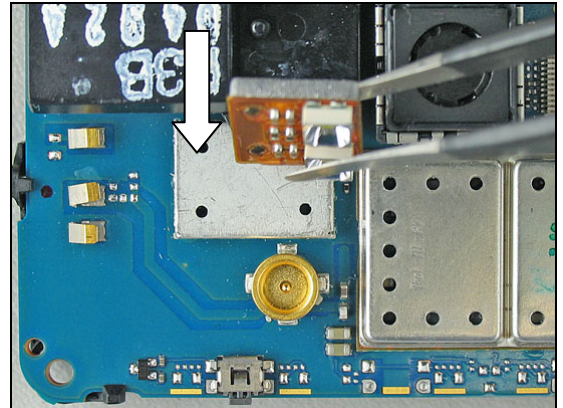


3.22 Flash flex

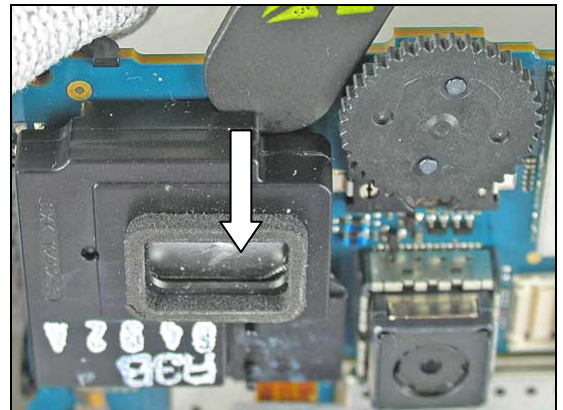
REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

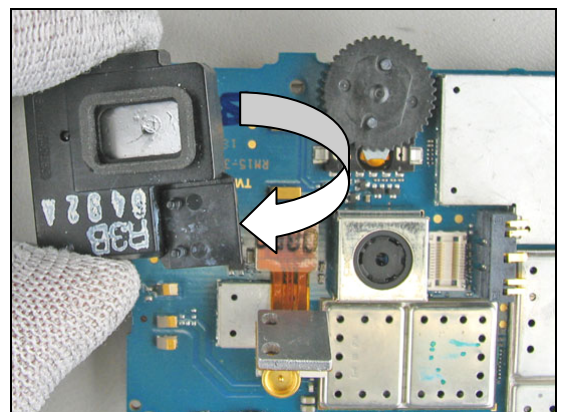
Loosen and fold the Flash flex with a blunt pair of tweezers.



Use the backside of a pair of tweezers and bend until the acoustic box loosen from the PCBA.

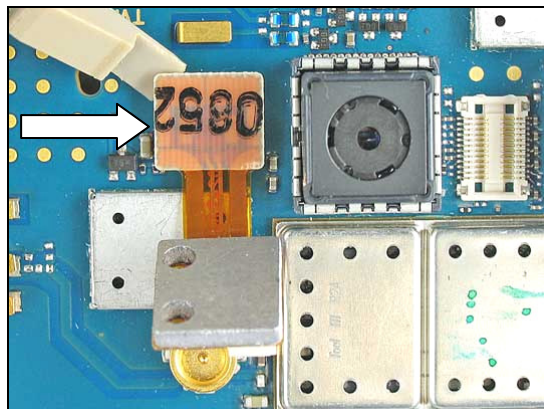


Lift up the acoustic box.



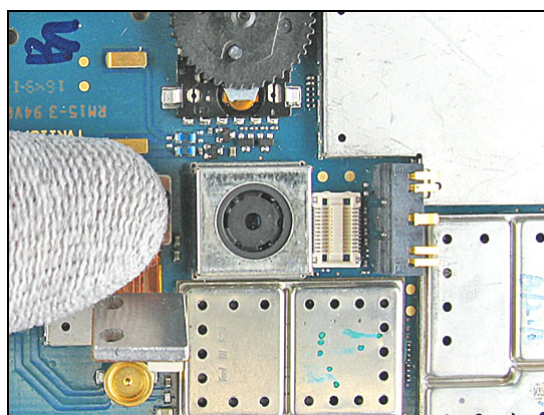
Replacement Instruction *continued*

Open the Flash flex BtB connector with a front opening tool.

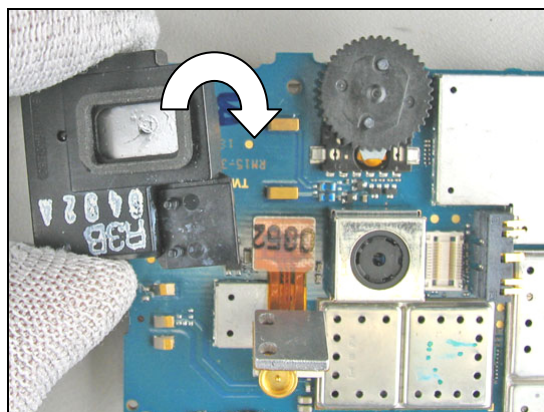


INSTALLATION

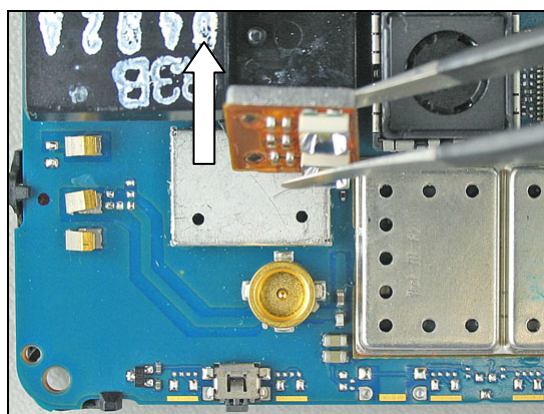
Connect the new Flash flex with your fingers.



Reassemble the acoustic box.



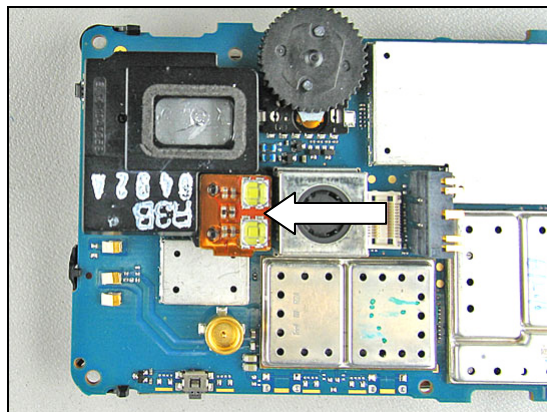
Fold down the Flash flex onto the guiding pins on the acoustic box.



Replacement Instruction *continued*

Flash flex reassembled.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

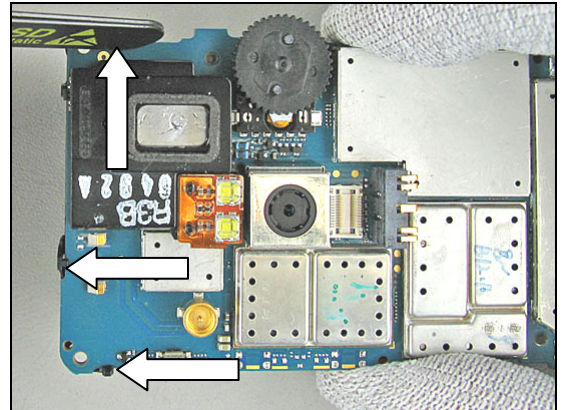


3.23 Ear speaker

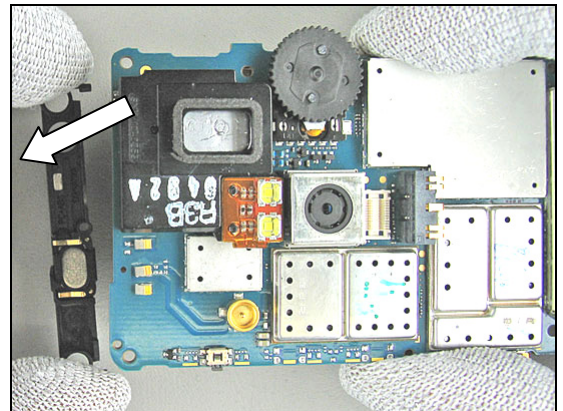
REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

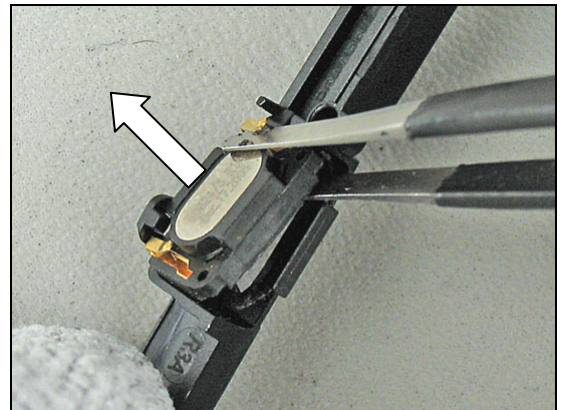
Start to carefully bend up the latches that hold the Ear speaker holder with the backside of a blunt pair of tweezers.



Remove the old holder.



Remove the Ear speaker with a pair of tweezers.

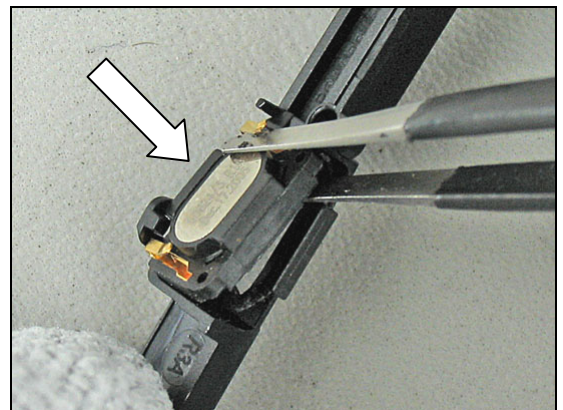


INSTALLATION

DO NOT TOUCH THE EAR SPEAKER CONTACT SPRINGS !

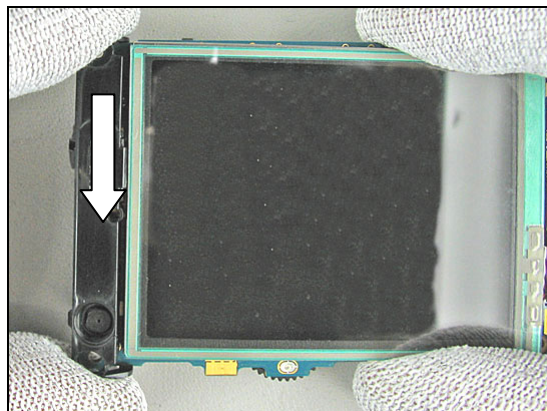
Reassemble a new Ear speaker and a new gasket with a pair of tweezers.

Then press down the Ear speaker with your fingers.



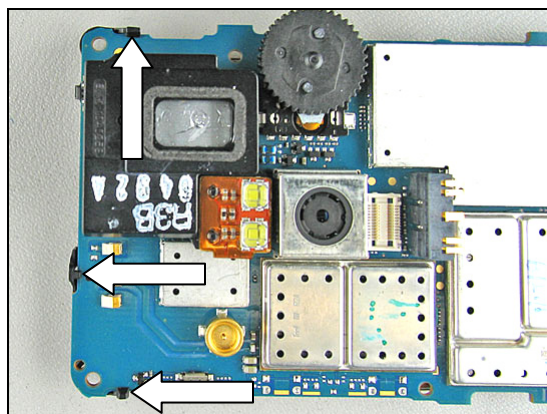
Replacement Instruction *continued*

Turn the board around.
Press down the Ear speaker holder.



Check that the three latches are in the correct position.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

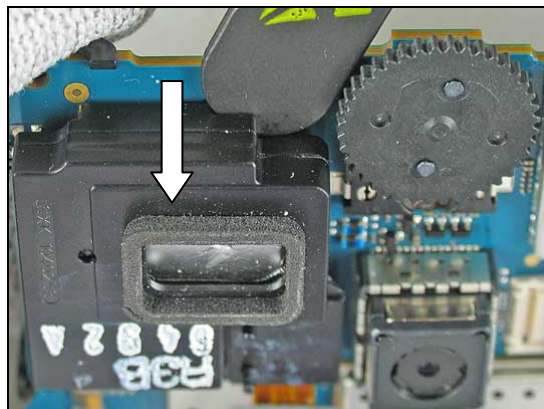


3.24 Acoustic box

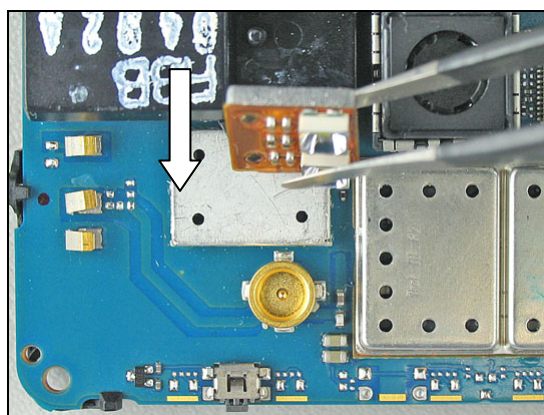
REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

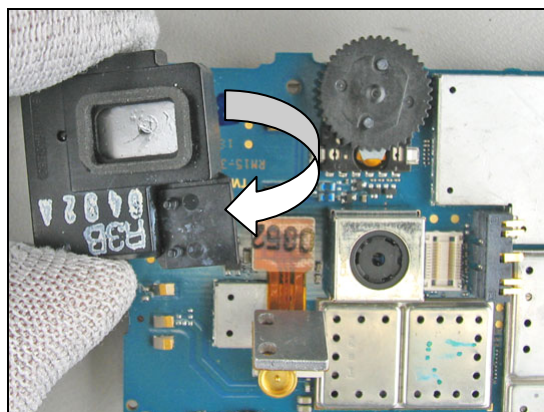
Use the backside of a pair of tweezers and bend until the acoustic box loosen from the PCBA.



Loosen and fold the Flash flex with a blunt pair of tweezers.

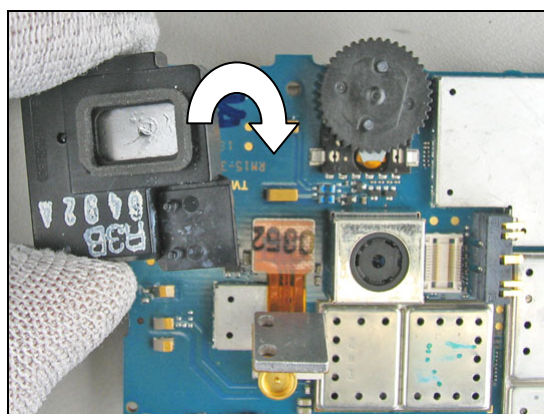


Lift up the acoustic box.



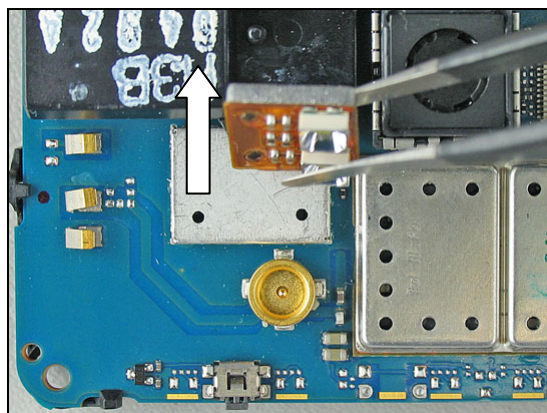
INSTALLATION

Assemble the new acoustic box.



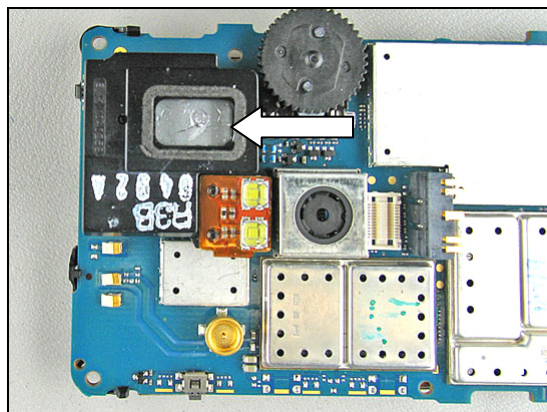
Replacement Instruction *continued*

Fold down the Flash flex onto the guiding pins on the acoustic box.



Acoustic box reassembled.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

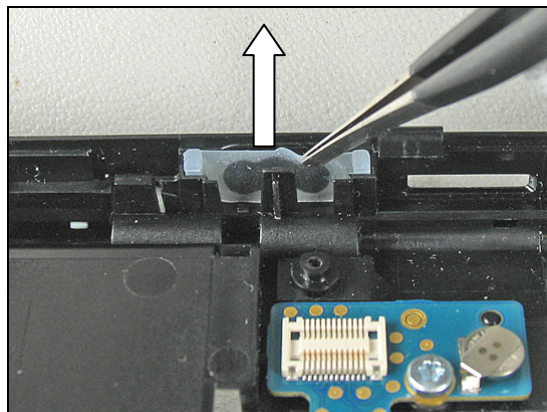


3.25 Back key

REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

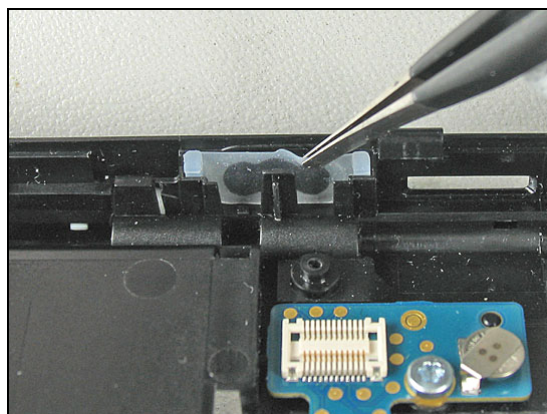
Remove the back key with a blunt pair of tweezers.



INSTALLATION

Assemble the back key with a blunt pair of tweezers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

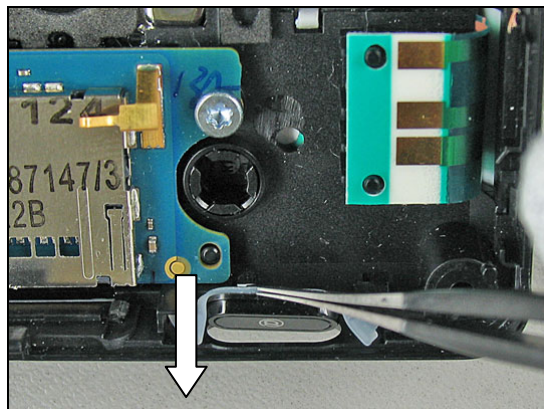


3.26 Operator key

REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

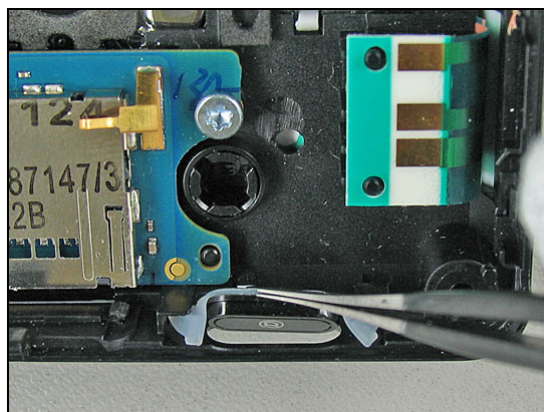
Remove the operator key with a blunt pair of tweezers.



INSTALLATION

Assemble the operator key with a blunt pair of tweezers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

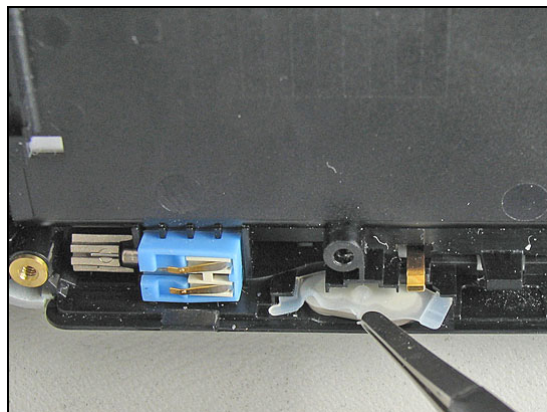


3.27 Camera key

REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

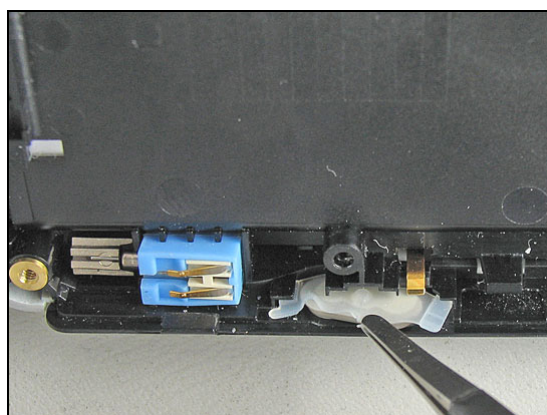
Remove the camera key with a blunt pair of tweezers.



INSTALLATION

Assemble the camera key with a blunt pair of tweezers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.28 On/Off key

REMOVAL

Follow the 2.1.1 – 2.1.7 Disassembly instructions!

Remove the On/Off key with a blunt pair of tweezers.



INSTALLATION

Assemble the On/Off key with a blunt pair of tweezers.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!

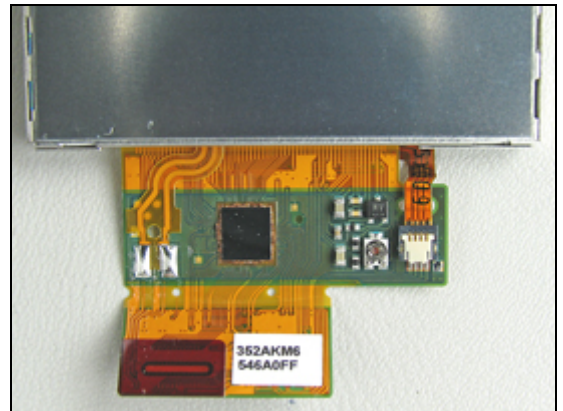




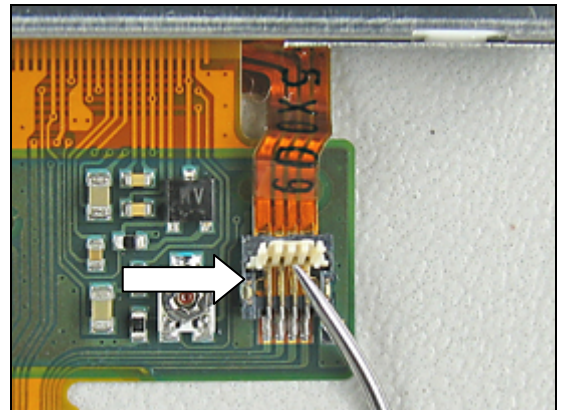
3.29 Touch Panel with Frame

Follow the 2.1.1 – 2.1.9 Disassembly instructions!

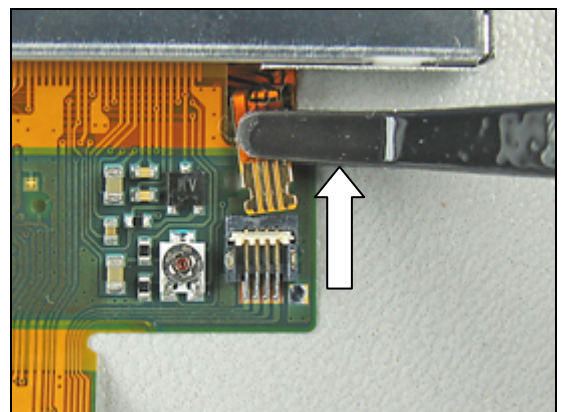
Place the *LCD* like this.



Open the FPC connector with the dentist hook.



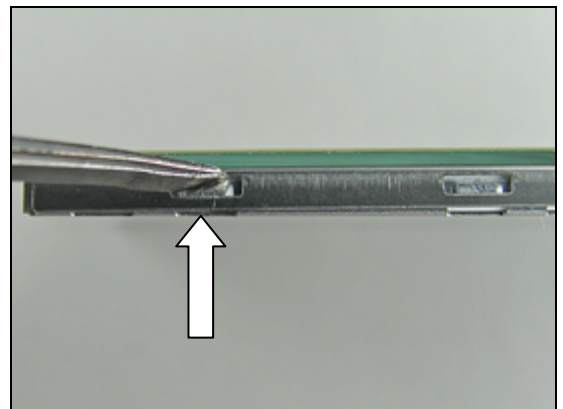
Disconnect the *touch panel* flex film with the flex film assembly tool.



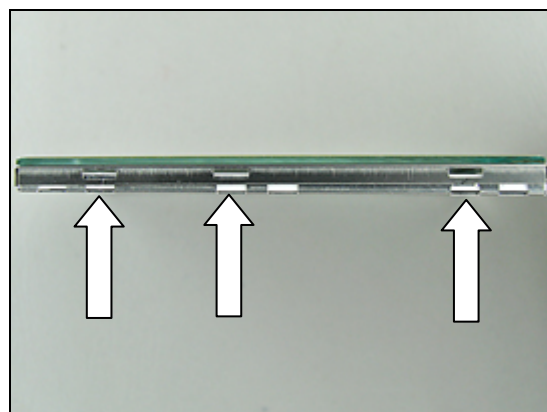
Use the tweezers, or a small screwdriver, to detach the *touch panel* from the *LCD*.

Start by pressing on one of the three small hooks that secures the *touch panel* to the *LCD*.

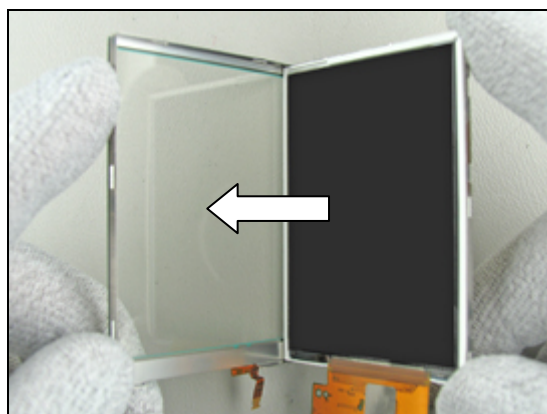
Continue until all three become released on this side.



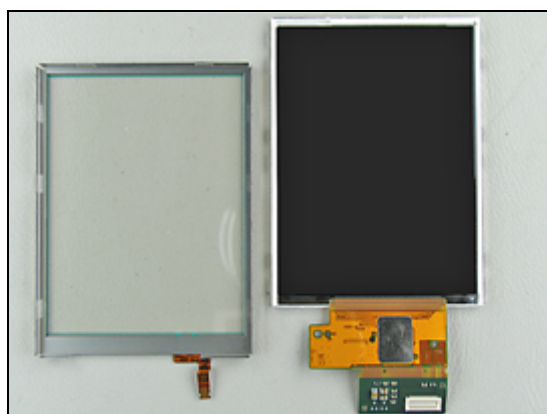
Continue to detach the other three hooks on the opposite side (six hooks in total on the *LCD* unit) until the *touch panel* is released on all sides.



Remove the *touch panel* by hand.



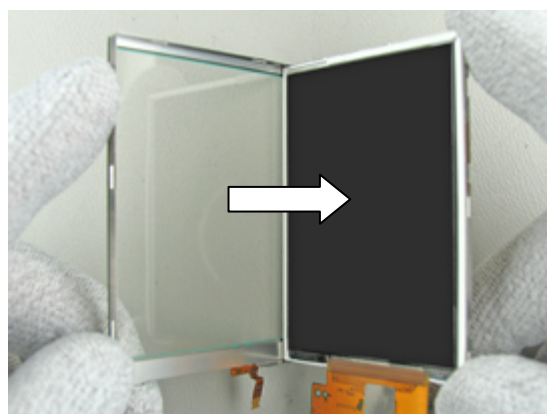
Touch panel removed.



Turn the new *touch panel* onto the *LCD* screen.

DO NOT TOUCH THE INSIDE OF THE TOUCH PANEL OR THE LCD SURFACE!

REMOVE ANY DUST WITH AN IONIZED AIRGUN OR A BLOWER!



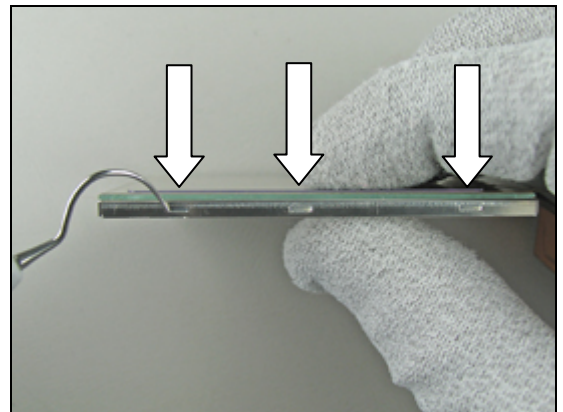


Mount the new *touch panel* on the *LCD*.

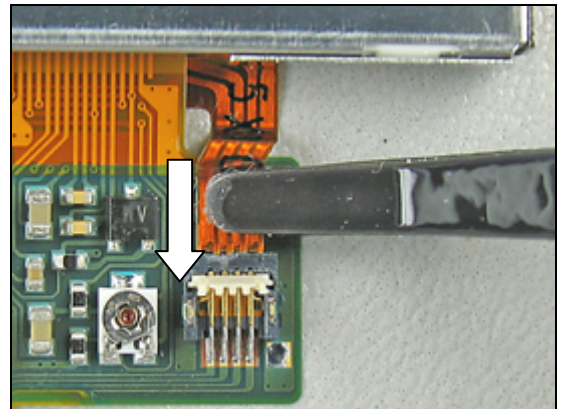
If it doesn't fit right on, it might help to press on one of the hooks with the dentist hook.

DO NOT USE EXCESSIVE FORCE!

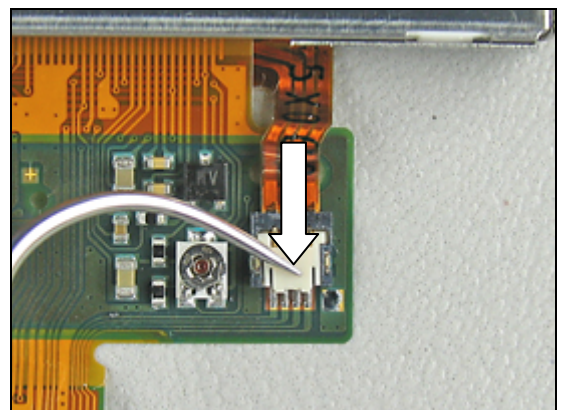
Make sure that the *touch panel* is properly mounted on the *LCD*.



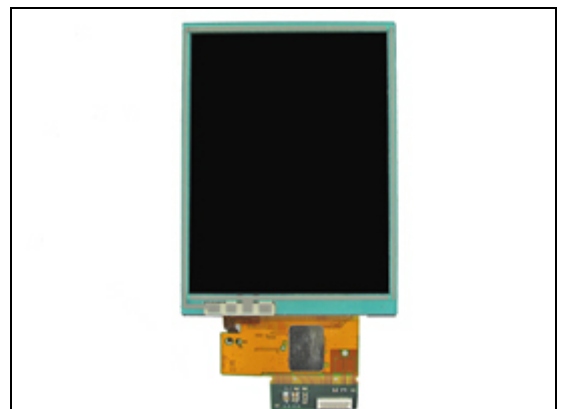
Connect the *touch panel* flex film with the flex film assembly tool.



Close the FPC connector with the dentist hook.



Properly assembled *touch panel* and *LCD*.





Don't forget to remove the protective tape from the new LCD before the *front sub* is installed.

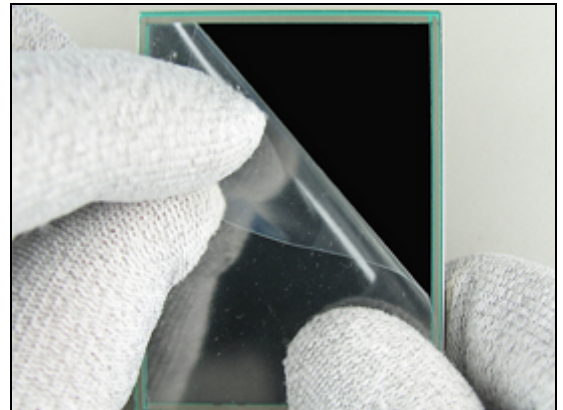
DO NOT TOUCH THE LCD GLASS SURFACE!
REMOVE ANY DUST WITH AN IONIZED AIRGUN OR BLOWER!

Follow the 4.1.2 – 4.1.10 Reassembly instructions!

Do these seven tests when the phone is reassembled to check that the LCD assembly works properly.

(2_00021-1_FEA209544_126 Test instruction mechanical):

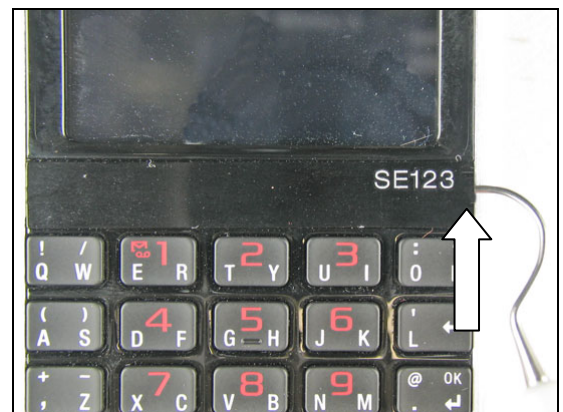
- Touch screen test
- Backlight brightness uniformity
- Contrast
- Display position to check correctly aligned
- Dust inspection
- Dot inspection
- Color check



3.30 Co brand plate

REMOVAL

Remove the Co brand plate with a dentist hook.



INSTALLATION

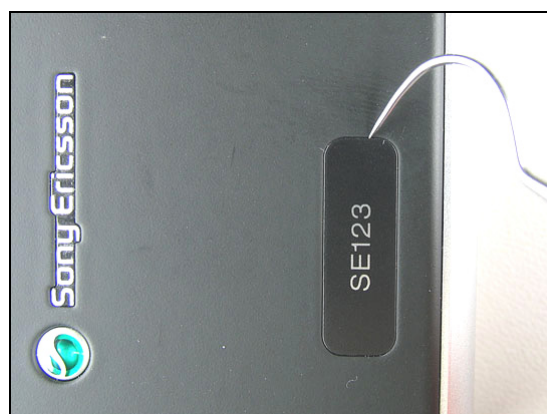
Assemble a new Co brand plate onto the frame.
Press it into the correct position with your fingers.



3.31 Co brand label

REMOVAL

Remove the Co brand label with a dentist hook.



INSTALLATION

Assemble the new Co brand label and press down with your fingers.



3.32 External antenna cap

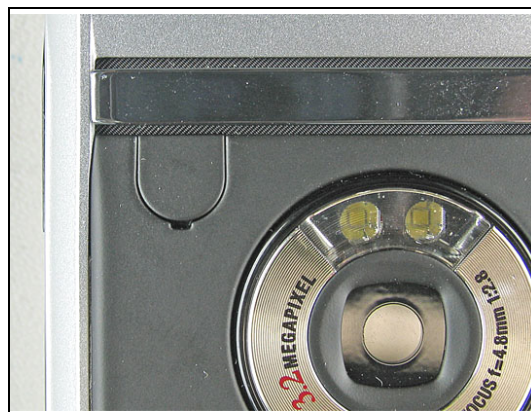
REMOVAL

Remove the External antenna cap with a dentist hook.



INSTALLATION

Reassemble a new External antenna cap with your fingers.

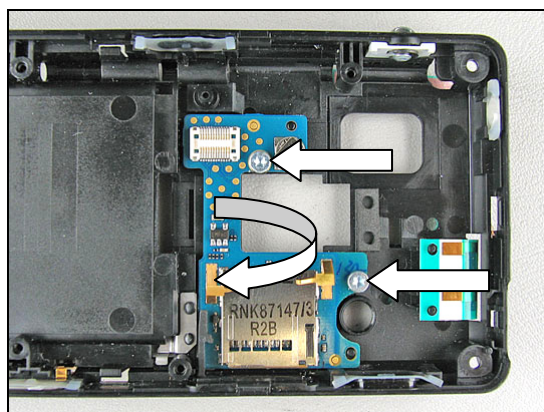


3.33 Sub Pcba

REMOVAL

Follow the 2.1.1– 2.1.7 Disassembly instructions!

Loosen the two screws with a screwdriver (Torx 6).
Remove the Sub pcba.



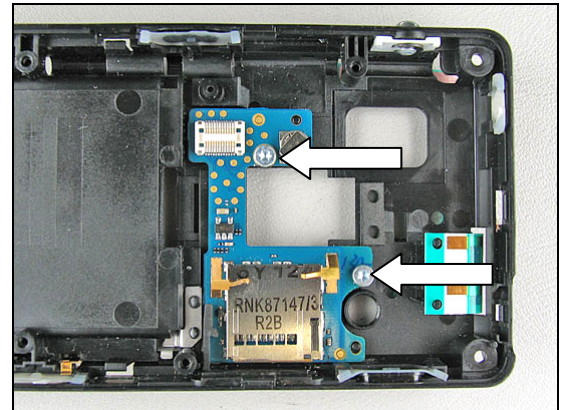
INSTALLATION

APPLY 17 NCM $\pm$ 2,0 NCM OF TORQUE FOR THE SCREW USING NTZ 112 288 (TORX BIT)!

Place the Sub pcba in the frame.

Assemble and tighten the two screws in the Frame.

Follow the 4.1.1 – 4.1.6 Reassembly instructions!



3.34 Label

REMOVAL

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.



INSTALLATION

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.

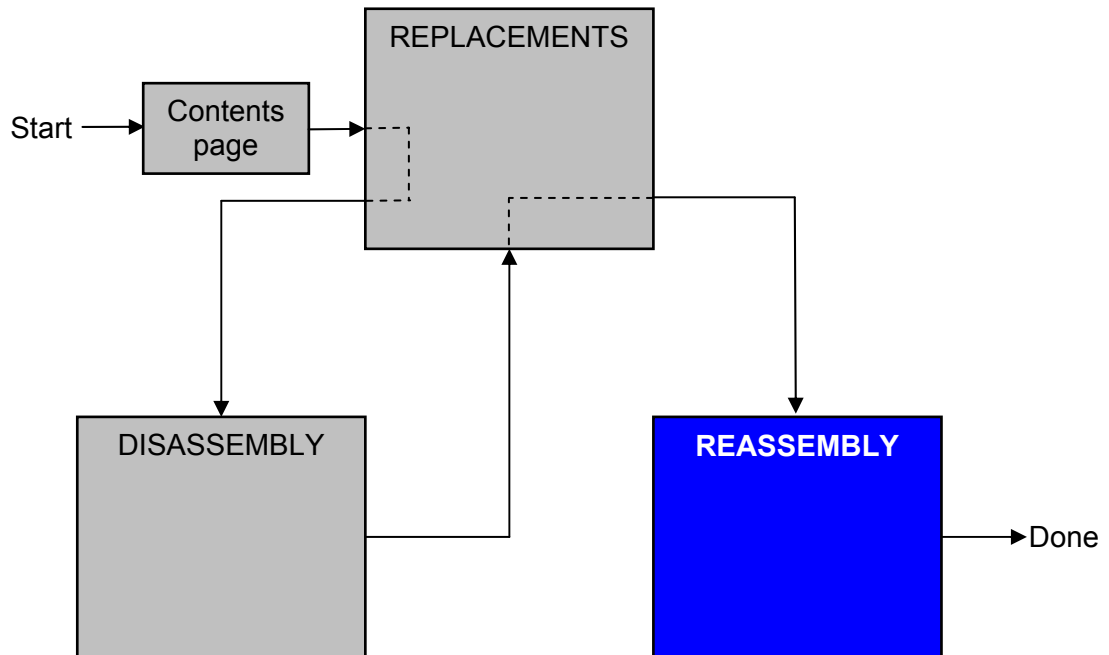
ONE LABEL ONLY IS ALLOWED!

Follow the 4.2.6 Reassembly instructions!



4 Reassembly

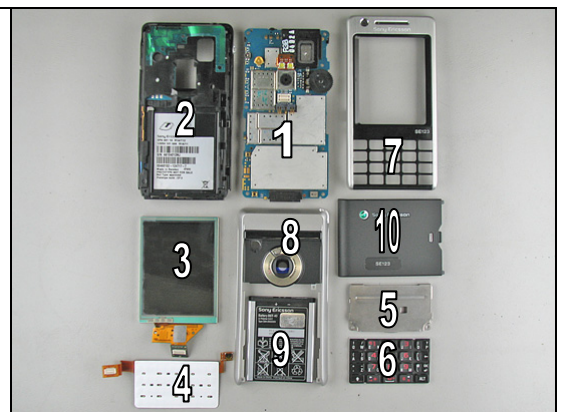
After replacing a part being listed in Replacements, the instruction of that section usually ends by directing you to this Reassembly section with a specification of the instructions you have to carry out in order to reassemble the phone.



4.1 Overview

The reassembly is done in the following sequence:

1. PCBA
2. Frame
3. LCD
4. Keyboard flex
5. Keyboard support
6. Keyboard
7. Front
8. Antenna lid
9. Battery
10. Battery lid



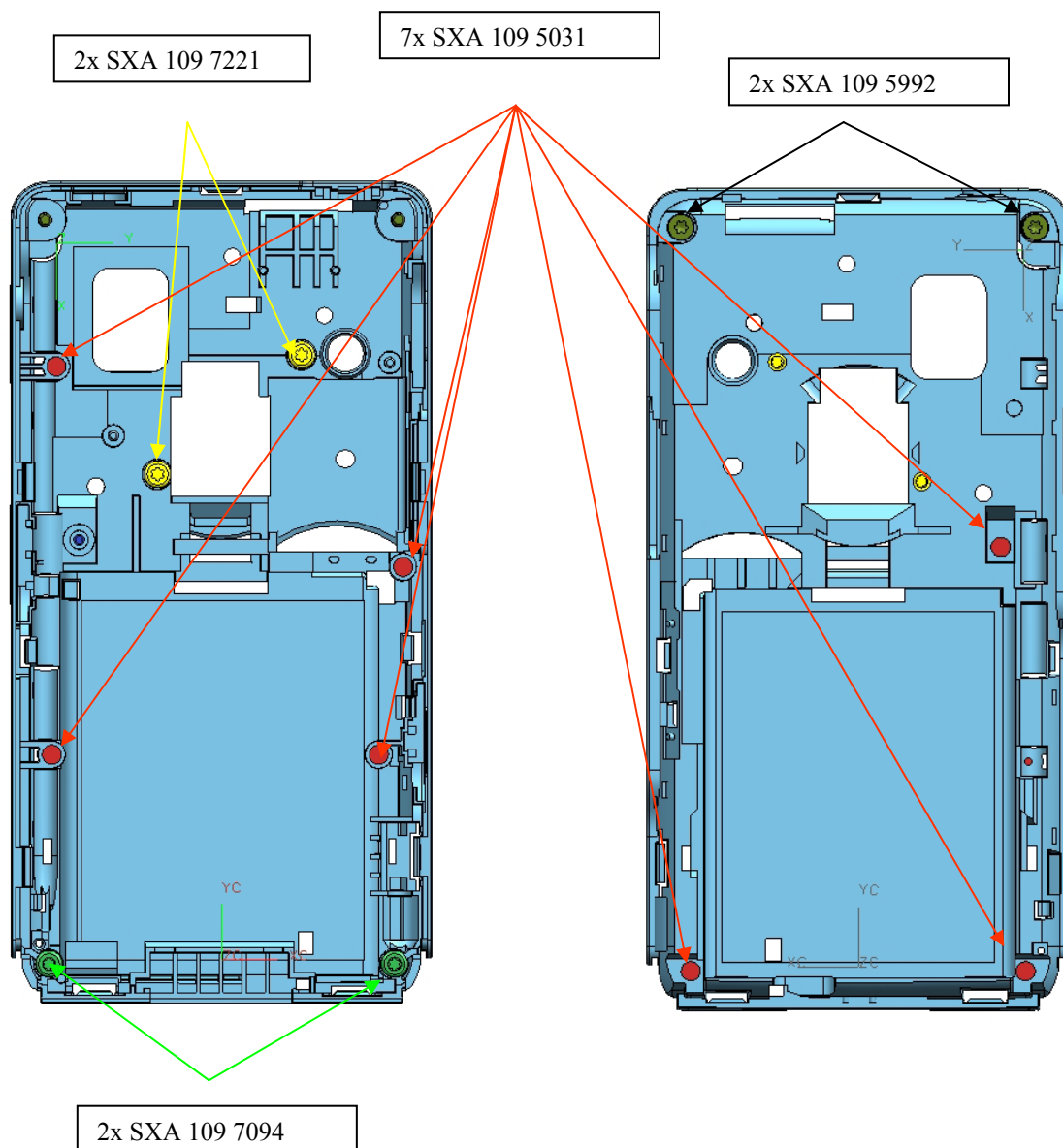


4.1.1 Torque overview

TIGHTNING TORQUE

Speed set max. 800 rpm

Unit	Torque	No of screws
Screw SXA 109 5031 (Ø1.4 x 4)	0,11 +/- 0,02 Nm	7
Screw SXA 109 5992 (M1,7 x 6,5)	0,17 +/- 0,02 Nm	2
Screw SXA 109 7094 (M1.6 x 4)	0,17 +/- 0,02 Nm	2
Screw SXA 109 7221 (M1.6 x 3.0)	0,17 +/- 0,02 Nm	2



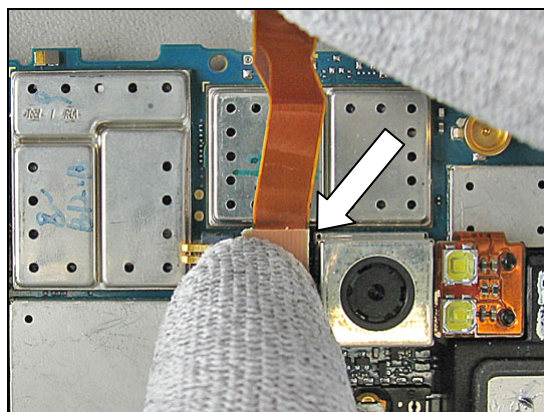
4.1.2 PCBA and Frame

Place the PCBA and Frame beside each other.

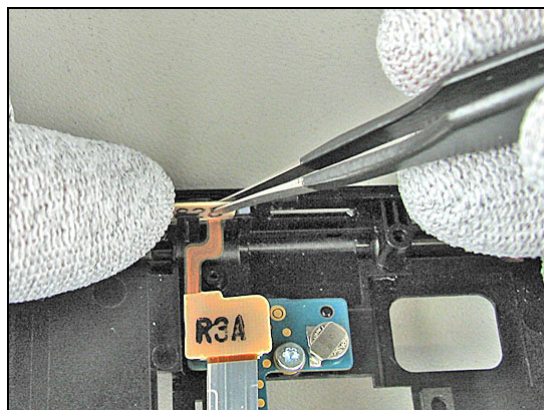


BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

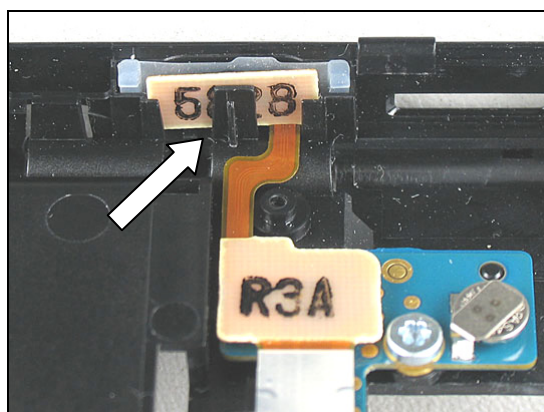
Connect the BtB connector to the PCBA.



Start to mount the back key flexfilm.

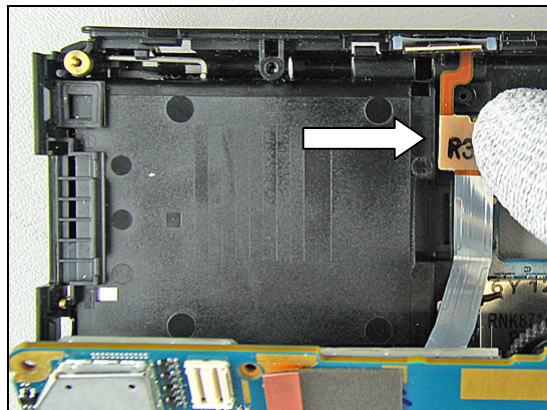


Back key flexfilm assembled.

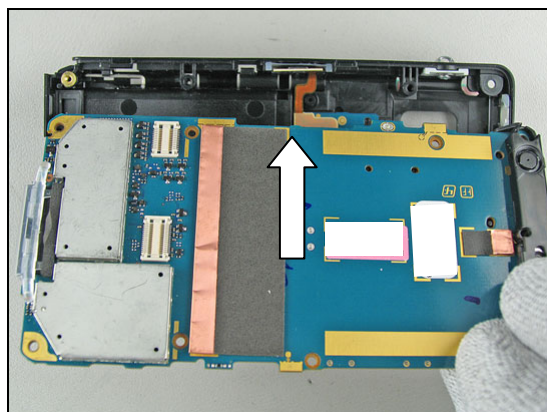


Reassembly Instruction *continued*

Connect the BtB connector to the frame.



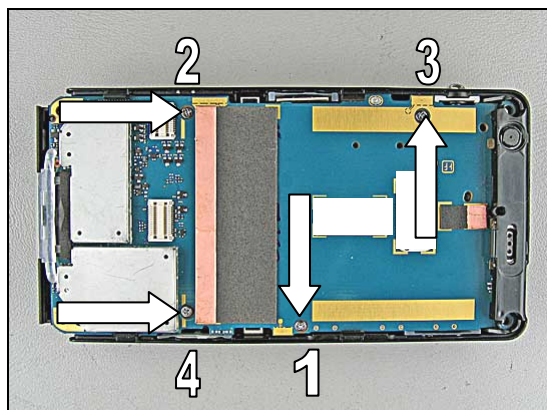
Place the PCBA into the frame.



APPLY 11 NCM $\pm$ 2,0 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten the four screws in the Frame.

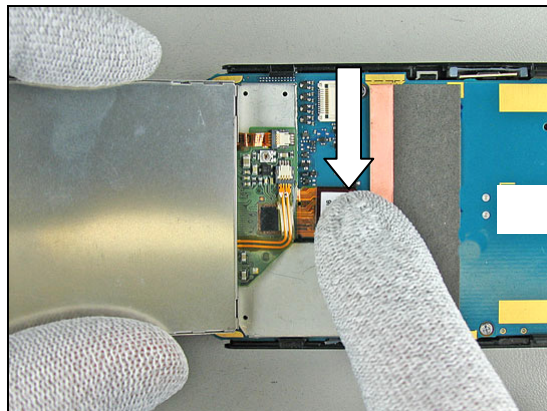
Replace the screw if it's damaged otherwise it can be reused.



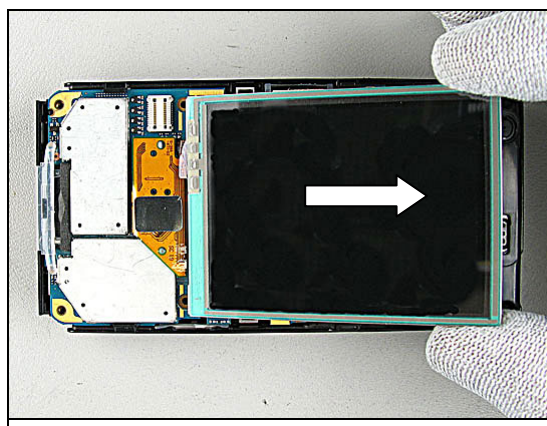
4.1.3 LCD

BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Connect the LCD BtB connector to the PCBA.



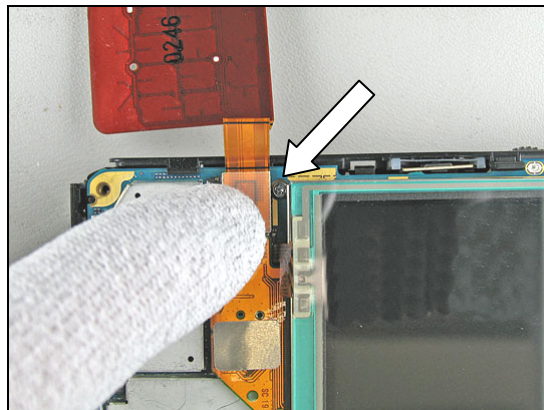
Gently fold the LCD towards the frame until the LCD is in the correct position.



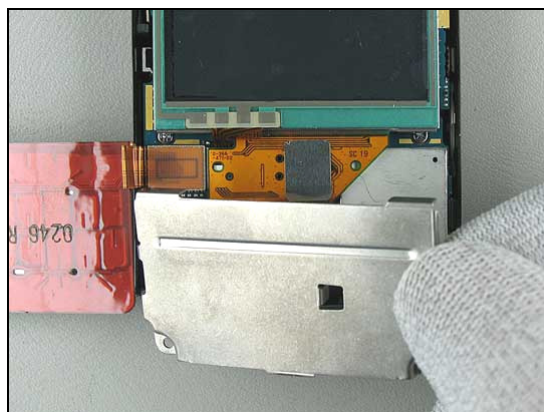
4.1.4 Keyboard flex

BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Connect the Keyboard flex BtB connector to the PCBA.



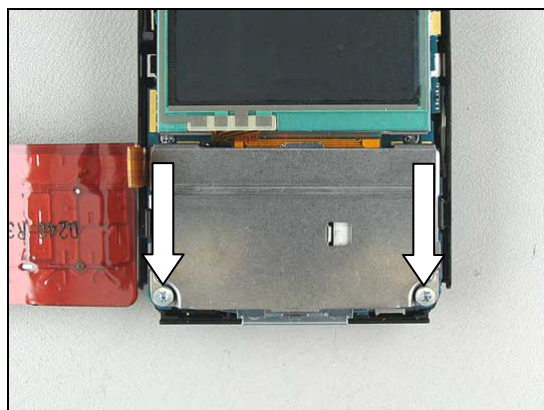
Place the keyboard support onto the PCBA.



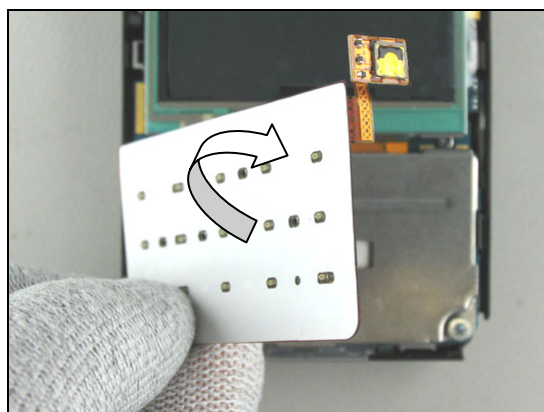
APPLY 17 NCM $\pm 2,0$ NCM OF TORQUE FOR THE SCREW USING NTZ 112 288 (TORX BIT)!

Assemble and tighten the four screws in the Frame.

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

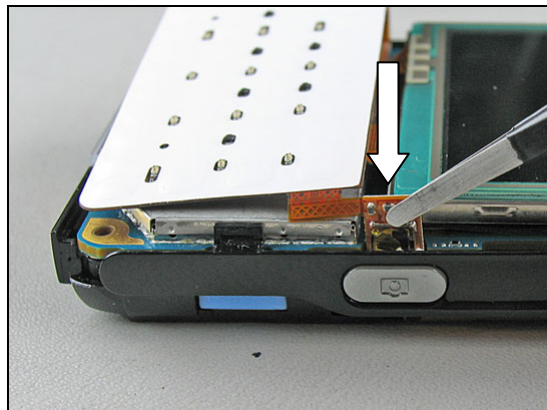


Gently fold down the Keyboard flexfilm.

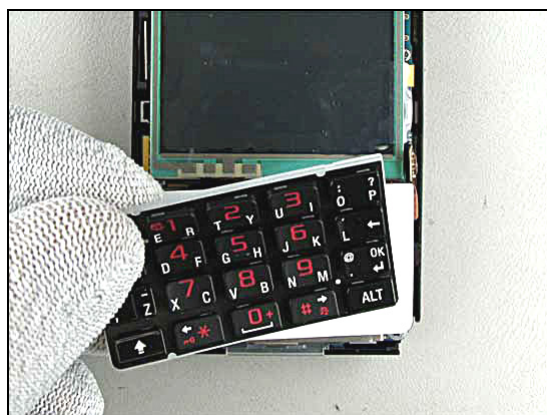


Reassembly Instruction *continued*

Place the camera key flex into the frame.



Place the Keyboard onto the Keyboard flex.





4.1.5 Front

DON'T FORGET TO REMOVE THE PROTECTIVE TAPE FROM THE LCD MODULE IF YOU HAVE A NEW LCD MODULE BEFORE REASSEMBLING OF THE FRAME

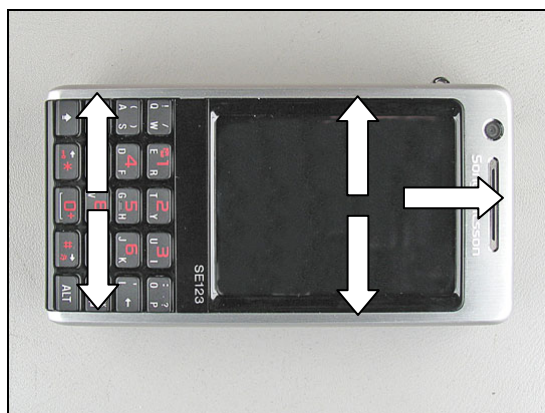
Do not touch the LCD glass surface. Blow away dust with an ionized air gun or blower.

Place the Front onto the frame, start at the keyboard side.



Press down the frame so that the frame and the Front snap together.

Make sure that there is no gap between the two half's - Visually inspect all around the unit.





4.1.6 Antenna Lid

Place the Antenna lid onto the frame and snap together with the frame. Start at the top end.

Make sure that there is no gap between the two half's - Visually inspect all around the unit.

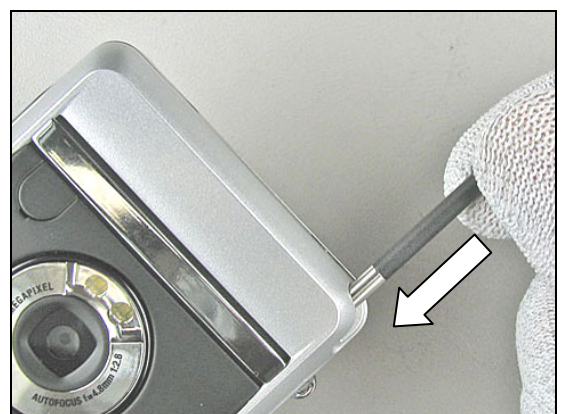
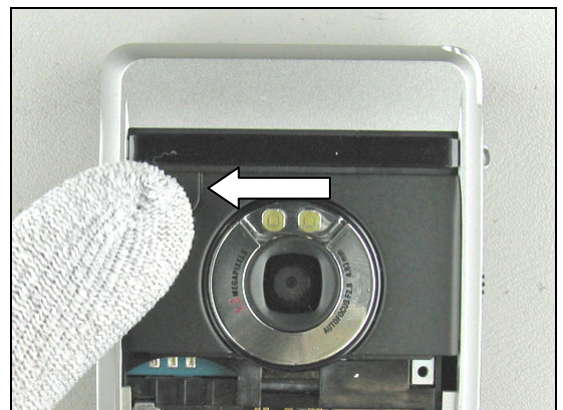
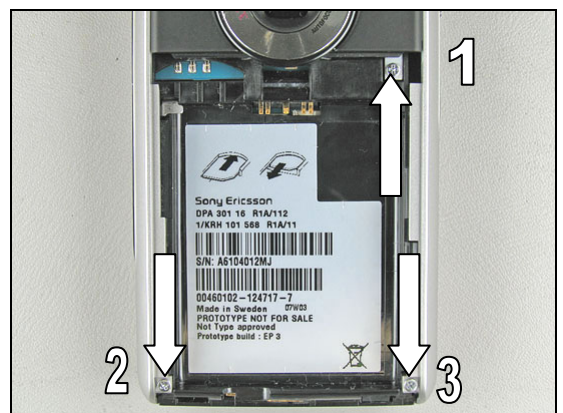
APPLY 11 NCM $\pm$ 2,0 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten the three screws in the Frame.

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

Assemble the External antenna cap.

Assemble the Stylus pen.



4.1.7 Battery lid and Battery

Insert the battery into the frame cavity.
Start at top side, then fold down the battery into the cavity.



Slide on the Battery lid.



The phone is now reassembled.





5 Revision history

Rev.	Date	Changes / Comments
A	2007-06-24	1 st preliminary release