



Working Instruction, Mechanical

Applicable for Z610i

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1 Introduction

Z610i



Z610i Luster Black



Z610i Rose Pink



Z610i Airy Blue





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 Mega 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
- 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 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, 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!**



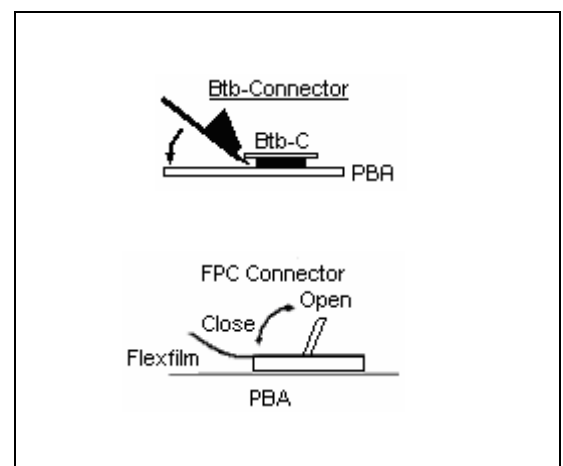
1.3 Adhesives

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

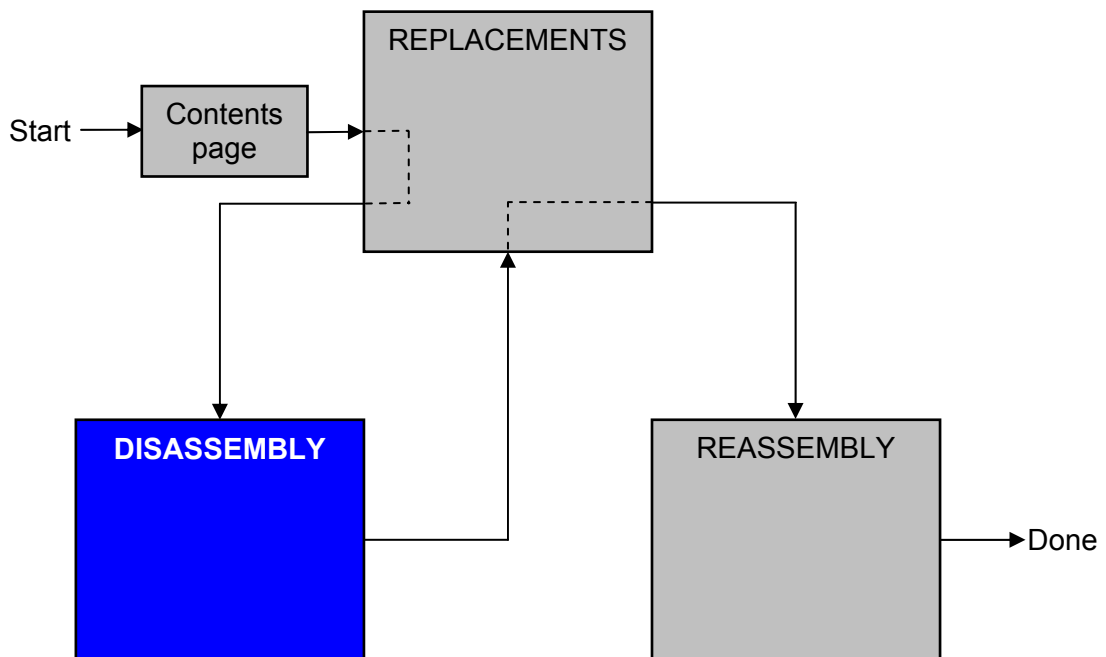
How to open a board-to-board connector with the front opening tool.

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 Lower unit

The disassembly is done in the following sequence:

1. Sub Assembly Lid (Battery), A and Battery, B
2. Cover (Screw) Lower
3. Sub Assembly Lower Case (Rear)
4. PCBA
5. Cover (Hinge)
6. Sub Assembly Lower Case (Front) with the Rubber key still inside.

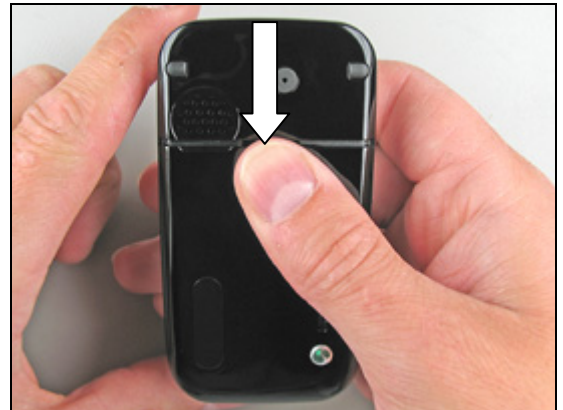




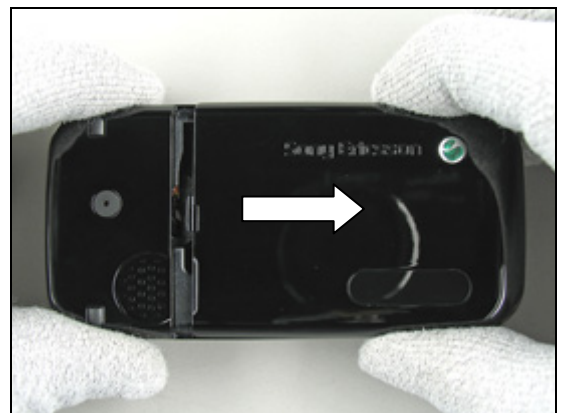
2.1.1 Sub Assembly Lid (Battery) and Battery

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

Press with your thumb on the *sub assembly lid (battery)* until you get a gap.



Remove the *sub assembly lid (battery)* completely.



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.

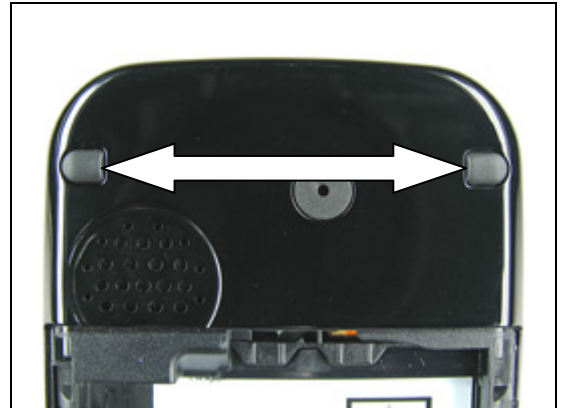




2.1.2 Cover (Screw) Lower

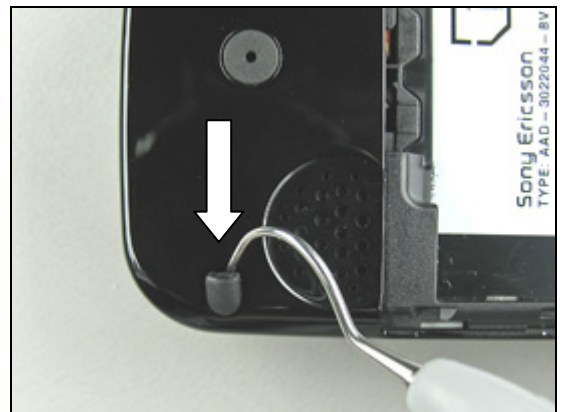
DO NOT SCRATCH THE PHONE WITH THE DENTIST HOOK!

These two cover (screw) lower should be removed.



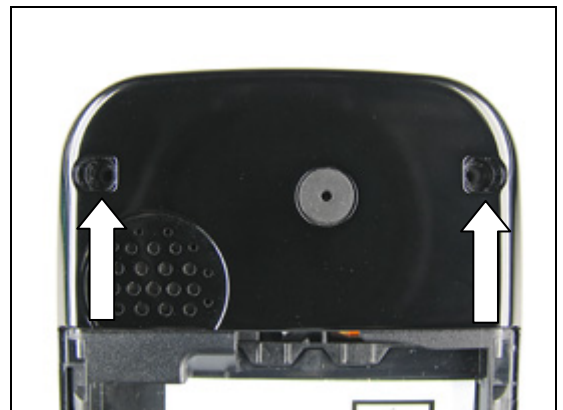
Carefully insert the dentist hook under the cover (screw) lower and bend until they become loose and remove them.

The screw cover cannot be reused and must be scrapped!



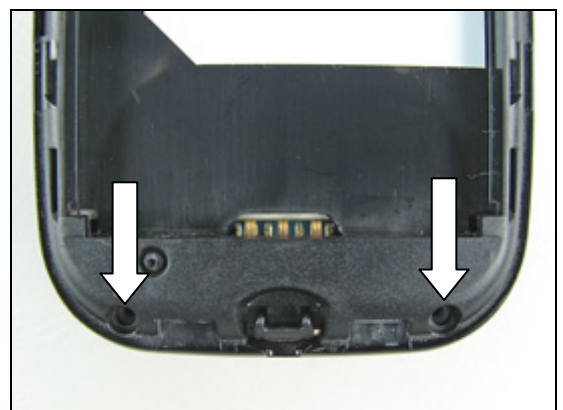
Remove the two screws under the cover (screw) lower by using with the NTZ 112 288 (torx bit no 6).

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



Continue and remove the two lower screws (torx bit no. 6).

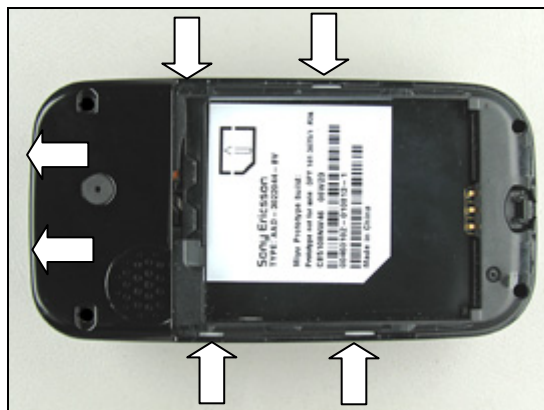
Replace the screw if it's damaged otherwise it can be reused.



2.1.3 Sub Assembly Lower Case (Rear)

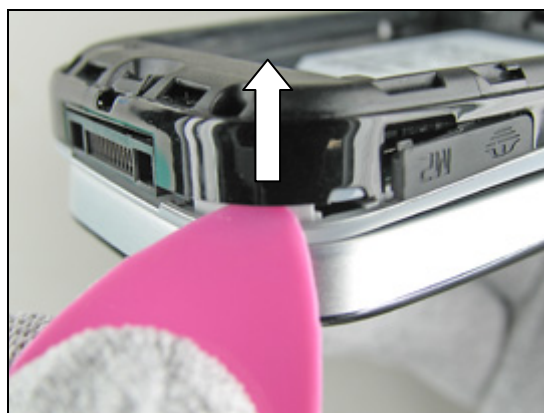
DO NOT INSERT THE GUITAR PICK TOO DEEP INTO THE PHONE!

All together there are six snap hooks that must be unlatched, placed by the arrows.



Carefully insert the guitar pick in the bottom end of the *sub assembly lower case (rear)*.

Continue to gently bend until the cover starts to become loose from the sub assembly lower case (front).



Move the guitar pick up and along the side until it becomes loose.



Then move the guitar pick and insert it to the other bottom corner.



Disassembly Instruction *continued*

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



And finally (around the corner) until the *sub assembly lower case (rear)* is loose on the top side.



Gently lift off the *sub assembly lower case (rear)* and remove it.



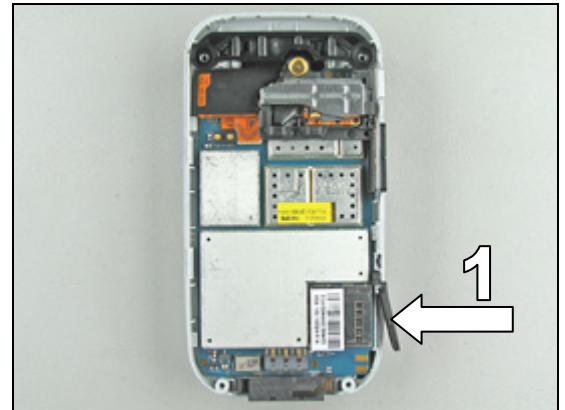
Disassembled *sub assembly lower case (rear)*.



2.1.4 PCBA

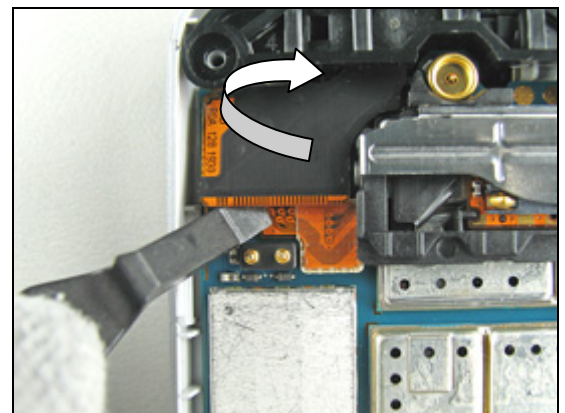
SOMETIMES THE COVER (MS), 1 COMES LOOSE FROM THE SUB ASSEMBLY LOWER CASE (FRONT) - DON'T LOOSE IT!

Start like this before removal off the *PCBA*.



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 (see page 6 for more information).



Gently bend with the front opening tool under the main *PCBA* until the main *PCBA* starts to become loose on this side of the sub assembly lower case (front).



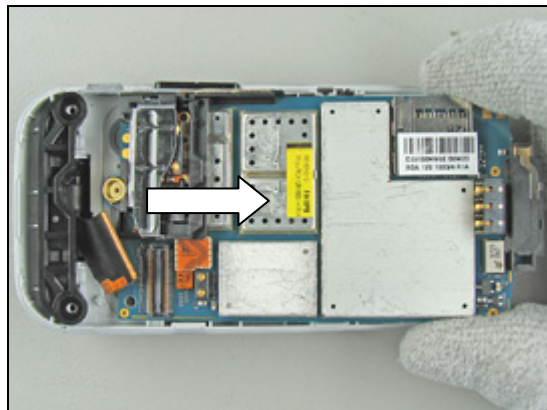
If necessary do the same thing on the other side.



Disassembly Instruction *continued*

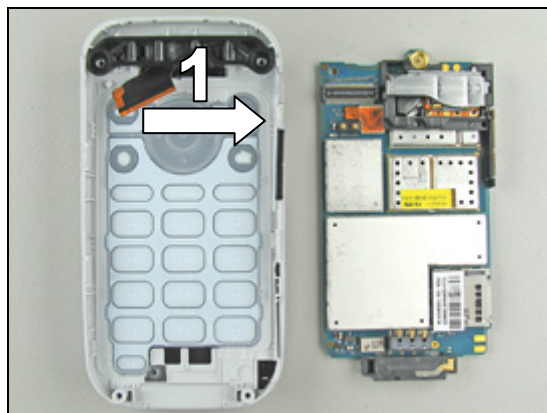
Start to remove the main *PCBA*.

If necessary, wiggle the main *PCBA* a little side to side while pulling it away from the sub assembly lower case (front).



SOMETIMES THE KEY (SIDE), 1 COMES LOOSE FROM THE SUB ASSEMBLY LOWER CASE (FRONT) - DON'T LOOSE IT!

Disassembled main *PCBA*.



2.1.5 Cover (Hinge)

Start like this before removal off the *cover (hinge)*.



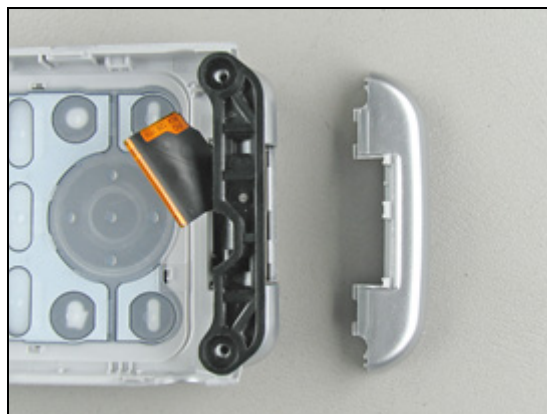
Carefully bend on the *cover (hinge)* with your finger until it starts to become loose.



Remove the *cover (hinge)* completely.



Removed *cover (hinge)*.



2.1.6 Sub Assembly Lower Case (Front)

First - remove the *rubber (key)*, use a blunt pair of tweezers or your fingers



Fold out the phone completely.



BE CAREFUL WITH THE SUB ASSEMBLY LOWER CASE (FRONT) WHEN IT SEPARATES FROM THE UPPER UNIT!

Start to slide out the *sub assembly lower case (front)* from the upper unit.

If necessary, wiggle the *sub assembly lower case (front)* a little side to side while pulling it away from the upper unit.



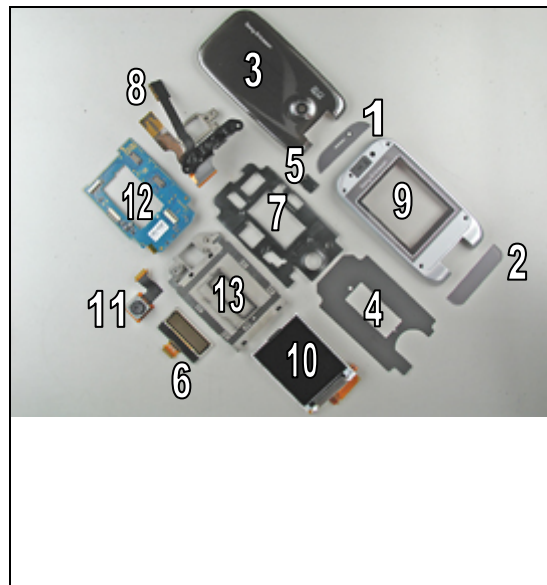
Now the *sub assembly lower case (front)* becomes totally separated from the upper unit.



2.2 Upper unit

The disassembly is done in the following sequence:

1. Sheet (Screw) Upper
2. Sheet (Co-Branding)
3. Sub Assembly Upper Case (Rear)
4. Sheet (Shade)
5. Spacer (Sub LCD)
6. Sub LCD
7. Holder (Sub LCD)
8. Hinge (with Hinge Flex Module)
9. Assembly Upper Case (Front)
10. LCD
11. Camera (2MEGA)
12. Upper PCBA
13. Frame (Main LCD)





2.2.1 Sheet (Screw) Upper

BE CAREFUL NOT TO DAMAGE OR SCRATCH THE ASSEMBLY UPPER CASE (FRONT) WITH THE DENTIST HOOK!

Insert the dentist hook where the arrow is to release the *sheet (screw) upper*.

Be careful with the sheet (screw) upper – it breaks easily.



Remove the *sheet (screw) upper* completely; use a blunt pair of tweezers.





2.2.2 Sheet (Co-Branding)

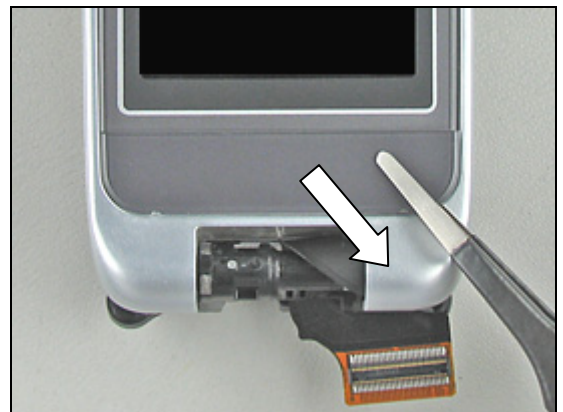
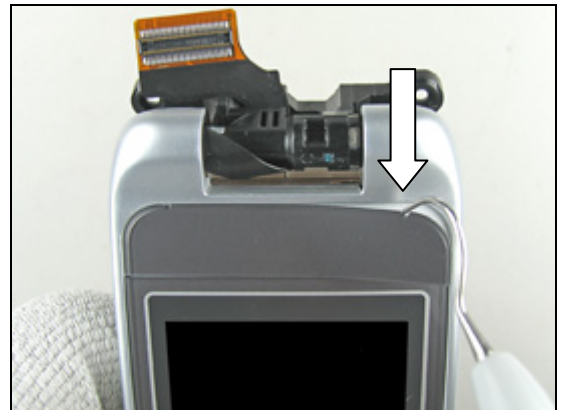
BE CAREFUL NOT TO DAMAGE OR SCRATCH THE ASSEMBLY UPPER CASE (FRONT) WITH THE DENTIST HOOK!

Turn the phone up side down.

Insert the dentist hook where the arrow is to release the *sheet (co-branding)*.

Be careful with the sheet (co-branding) – it breaks easily.

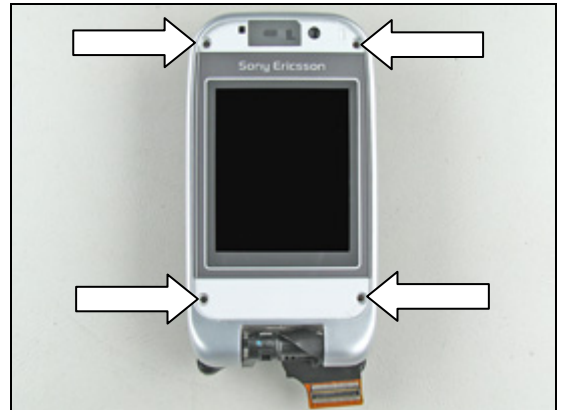
Remove the *sheet (co-branding)* completely; use a blunt pair of tweezers.



2.2.3 Sub Assembly Upper Case (Rear)

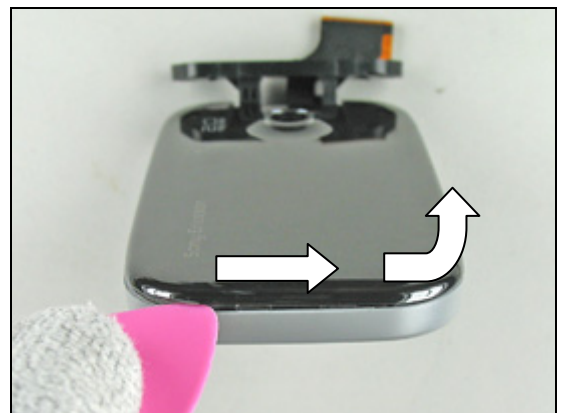
Remove the four inside screws from the sub assembly upper case (front) by using the NTZ 112 288 (torx bit no 6).

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



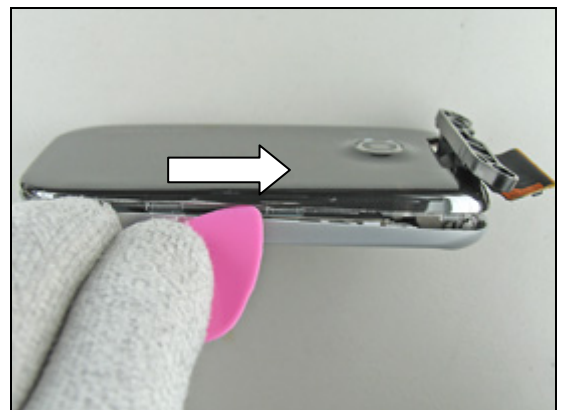
**DO NOT INSERT THE GUITAR PICK TO DEEP INTO THE PHONE;
IT'S EASY TO BREAK THE ELECTRICAL COMPONENTS THAT'S
MOUNTED JUST BEHIND THE UPPER CASE!**

Insert the guitar pick like the picture shows and slide it in the direction of the arrows to start releasing the *sub assembly upper case (rear)*.



Continue to slide the guitar pick all the way down to the end of the cover until it's becomes completely loose on this side.

If necessary do the same thing on the other side.



Remove the *sub assembly upper case (rear)* with your fingers.



Disassembly Instruction *continued*

Disassembled *sub assembly upper case (rear)*.

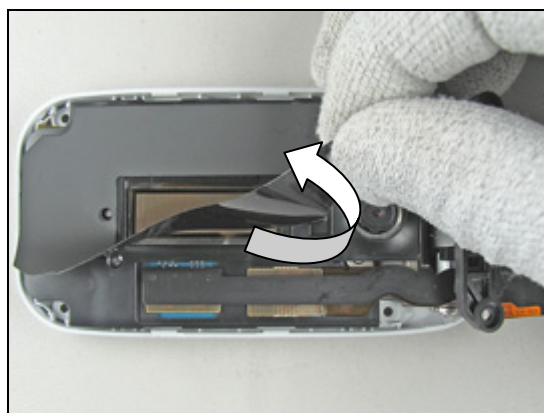


2.2.4 Sheet (Shade)

Start like this before removal off the *sheet (shade)*.



Remove the *sheet (shade)* with your fingers.



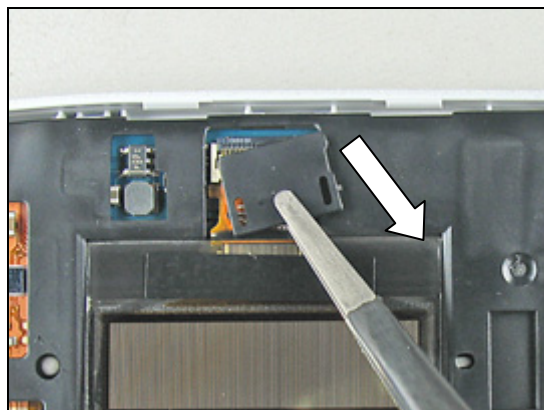
Disassembled *sheet (shade)*.



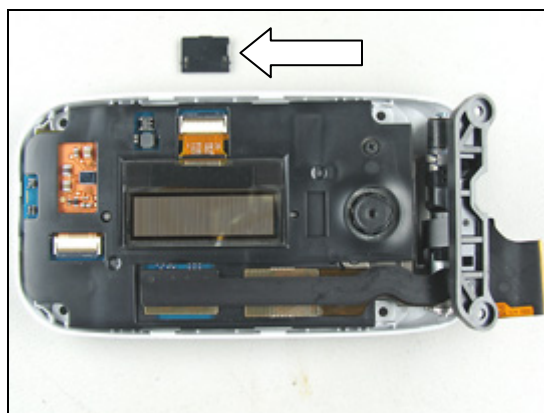
2.2.5 Spacer (Sub LCD)

BE CAREFUL WITH THE FLEX FILM UNDERNEATH!

Remove the *spacer (sub LCD)* with a blunt pair of tweezers.



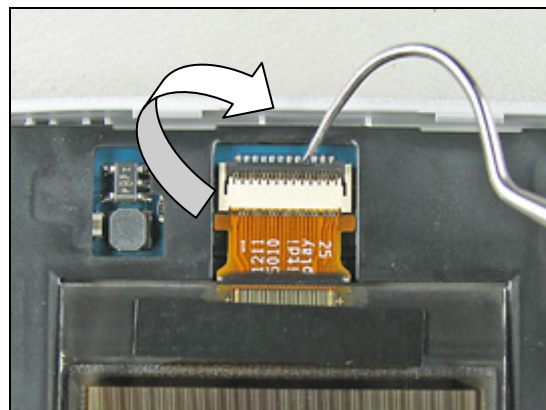
Disassembled *spacer (sub LCD)*.



2.2.6 Sub LCD

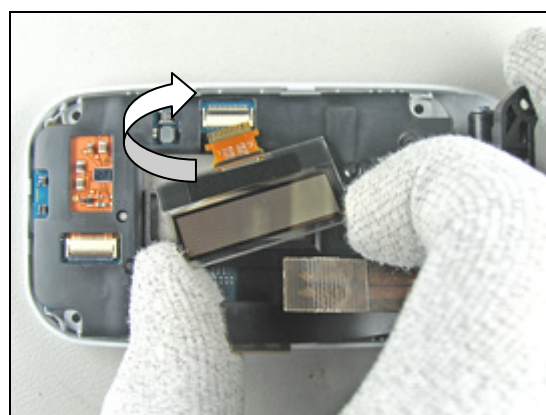
BE CAREFUL WITH THE DENTIST HOOK – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

Open the FPC connector with a dentist hook.



If necessary use the dentist hook to make the *sub LCD* become loose from the holder (*sub LCD*).

Gently pull and remove the *sub LCD* with your fingers.



Disassembled *sub LCD*.



2.2.7 Holder (Sub LCD)

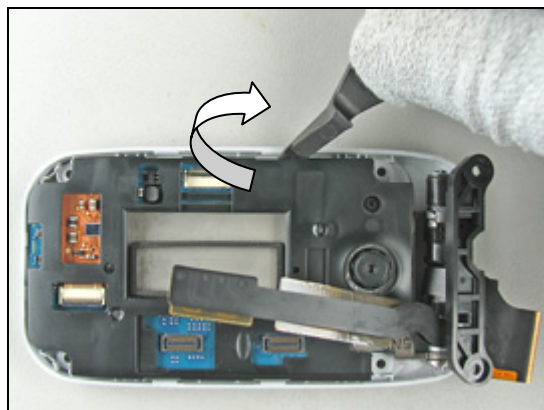
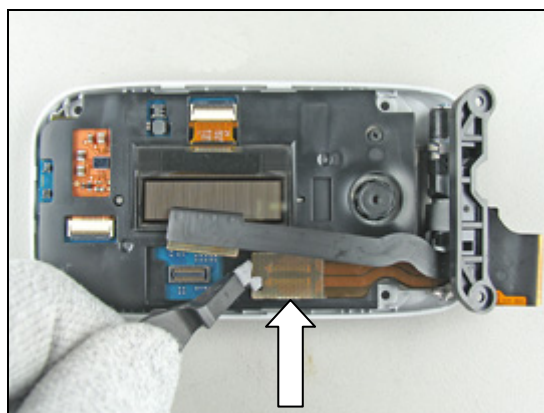
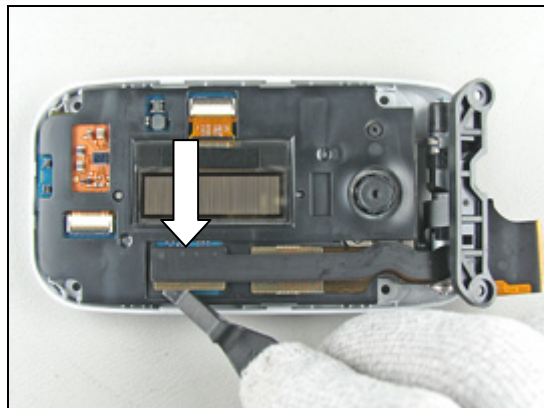
BE CAREFUL WITH THE FLEX FILM AND THE BOARD TO BOARD CONNECTOR!

Disconnect the flex film board to board connector from the PCBA with the front opening tool (see page 6 for more information).

Do the same thing again.

Gently bend with the front opening tool between the *holder (sub LCD)* and the PCBA until it becomes loose.

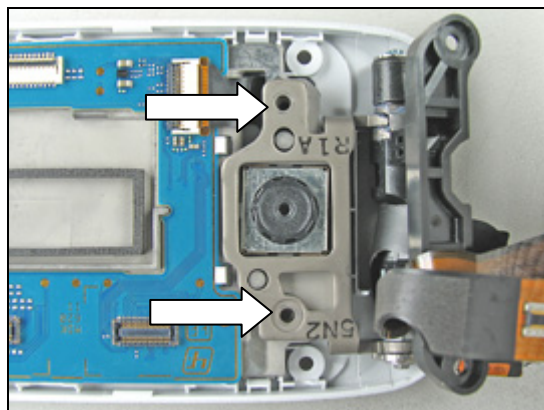
Disassembled *holder (sub LCD)*.



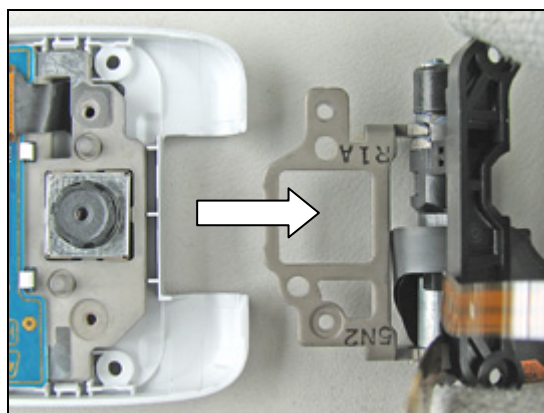
2.2.8 Hinge (with Hinge Flex Module)

Remove the two *hinge* screws using the NTZ 112 1052 (JCIS bit).

Replace the screw with new ones.



Remove the *hinge* (together with hinge flex module) from the upper unit, use your fingers.

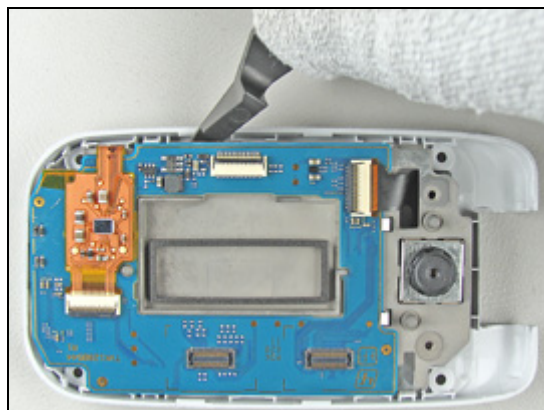


2.2.9 Assembly Upper Case (Front)

Gently bend with the front opening tool between the upper PCBA assembly and the *assembly upper case (front)* until it becomes loose and then completely remove it.

If necessary do the same thing on the other side.

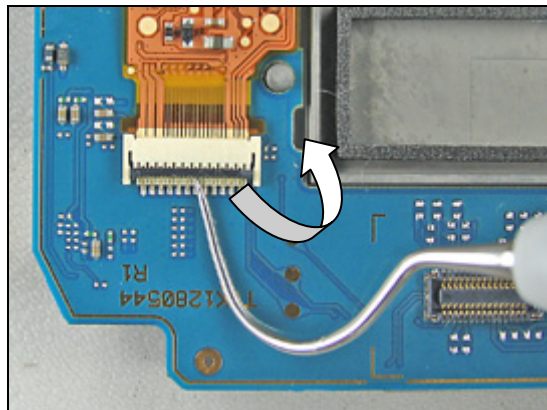
Disassembled *assembly upper case (front)*



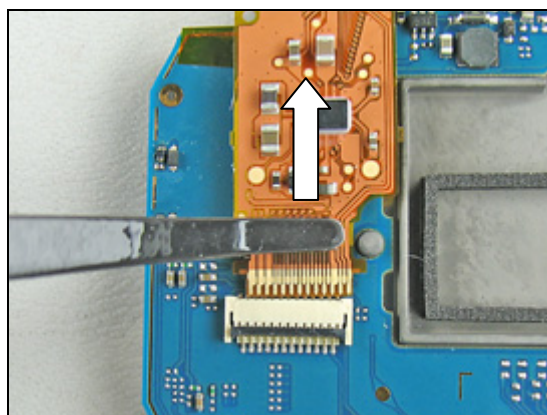
2.2.10 LCD

BE CAREFUL WITH THE DENTIST HOOK – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

Open the *LCD* FPC connector with a dentist hook.

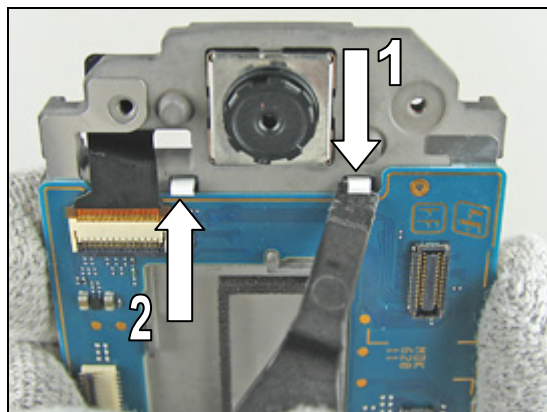


Pull back and remove the *LCD* flex film with the flex film assembly tool from the FPC connector.

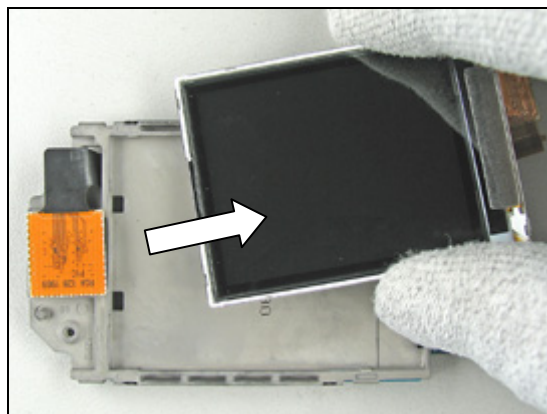


TURN THE PHONE AROUND!

Use the front opening tool to release the two *LCD* snap hooks.



Slide out and remove the *LCD* completely.



Disassembly Instruction *continued*

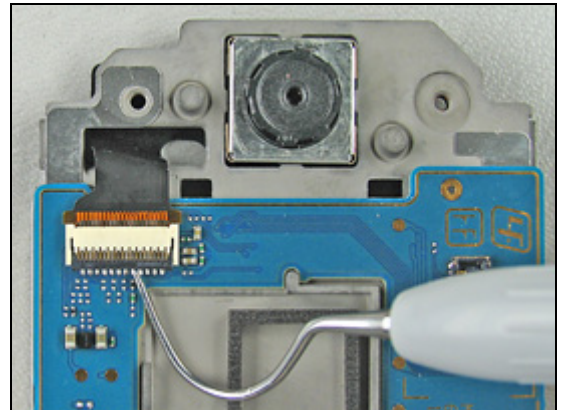
Disassembled *LCD*.



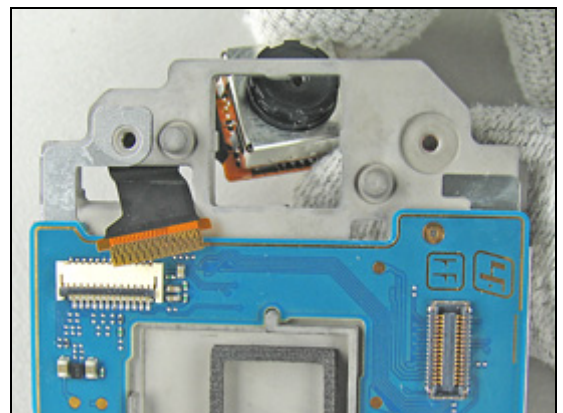
2.2.11 Camera (2MEGA)

BE CAREFUL WITH THE DENTIST HOOK – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

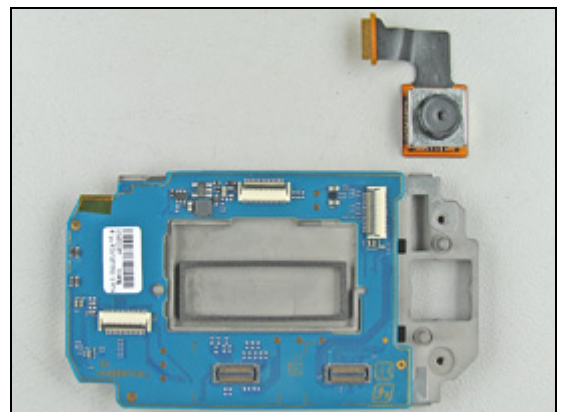
Open the *camera (2MEGA)* FPC connector with a dentist hook.



Slide out the *camera (2MEGA)* and remove it from the upper PCBA assembly – use your fingers.



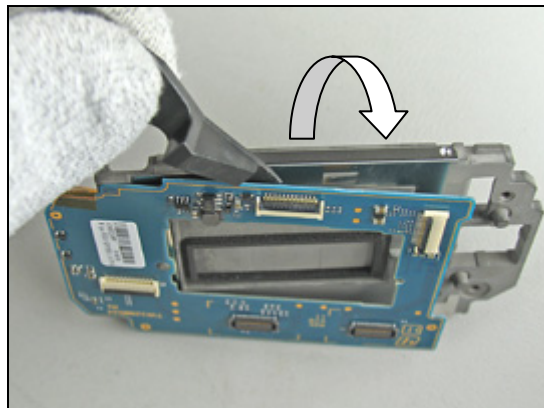
Disassembled *camera (2MEGA)*.



2.2.12 Upper PCBA

BE CAREFUL WITH FRONT OPENING TOOL!

Use the front opening tool to separate the *upper PCBA* from the frame (main LCD).



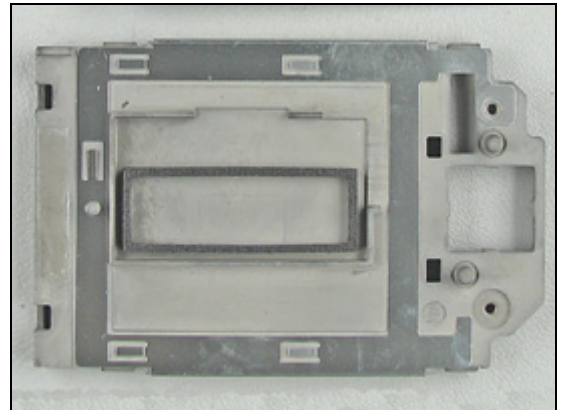
Disassembled *upper PCBA*.



2.2.13 Frame (Main LCD)

The phone is now disassembled.

There is only the frame (main LCD) left.





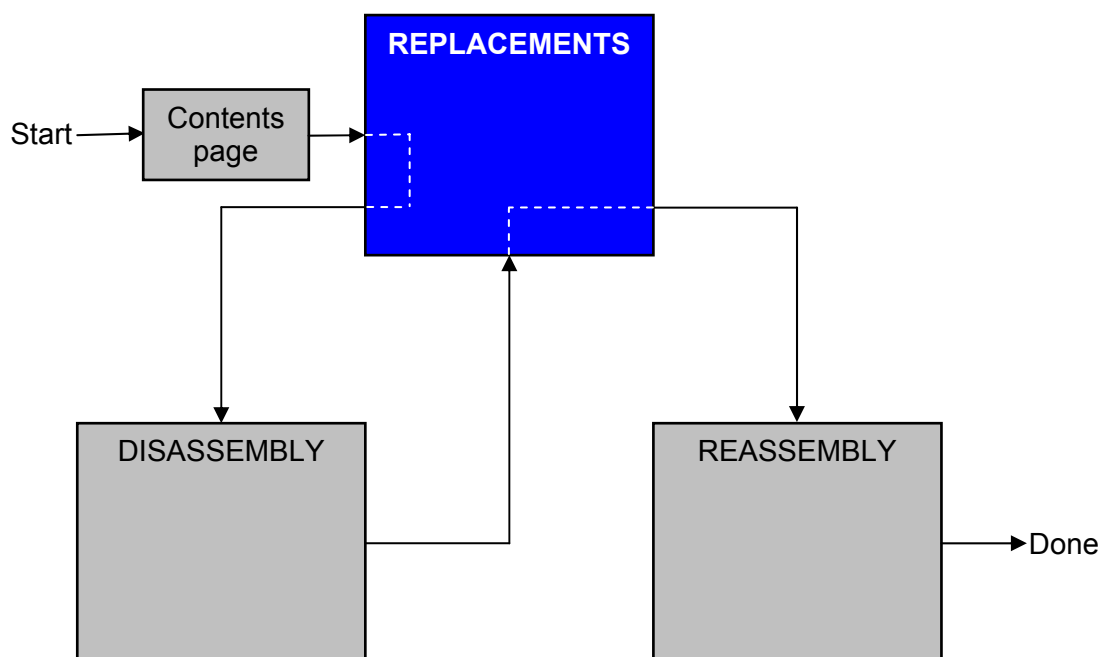
3 Replacements

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 Sub Assembly Lid (Battery) and Battery

Follow the 2.1.1 Disassembly instructions!

Prepare the new *Sub Assembly Lid (Battery)* and *Battery*.

Attach a new name plate as described in 3.20 *Label Co-Branding*).

Follow the 4.2.6 Reassembly instructions!

3.2 Cover (Screw) Lower

Follow the 2.1.1 – 2.1.2 Disassembly instructions!

Prepare the new *Cover (Screw) Lower*.

Follow the 4.2.5 – 4.2.6 Reassembly instructions!

3.3 Sub Assembly Lower Case (Rear)

Follow the 2.1.1 – 2.1.3 Disassembly instructions!

Prepare the new *Sub Assembly Lower Case (Rear)*.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!

3.4 PCBA

Follow the 2.1.1 – 2.1.4 Disassembly instructions!

Prepare the new *PCBA*.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!

3.5 Cover (Hinge)

Follow the 2.1.1 – 2.1.5 Disassembly instructions!

Prepare the new *Cover (Hinge)*.

Follow the 4.2.2 – 4.2.6 Reassembly instructions!

3.6 Sub Assembly Lower Case (Front)

Follow the 2.1.1 – 2.1.6 Disassembly instructions!

Prepare the new *Sub Assembly Lower Case (Front)*.

Follow the 4.2.1 – 4.2.6 Reassembly instructions!

3.7 Sheet (Screw) Upper

Follow the 2.2.1 Disassembly instructions!

Prepare the new *Sheet (Screw) Upper*.

Follow the 4.1.13 Reassembly instructions!



3.8 Sheet (Co-Branding)

Follow the 2.2.2 Disassembly instructions!

Prepare the new *Sheet (Co-Branding)*.

Follow the 4.1.12 Reassembly instructions!

3.9 Sub Assembly Upper Case (Rear)

Follow the 2.2.1 – 2.2.3 Disassembly instructions!

Prepare the new *Sub Assembly Upper Case (Rear)*.

Follow the 4.1.11 – 4.1.13 Reassembly instructions!

3.10 Sheet (Shade)

Follow the 2.2.1 – 2.2.4 Disassembly instructions!

Prepare the new *Sheet (Shade)*.

Follow the 4.1.10 – 4.1.13 Reassembly instructions!

3.11 Spacer (Sub LCD)

Follow the 2.2.1 – 2.2.5 Disassembly instructions!

Prepare the new *Spacer (Sub LCD)*.

Follow the 4.1.9 – 4.1.13 Reassembly instructions!

3.12 Sub LCD

Follow the 2.2.1 – 2.2.6 Disassembly instructions!

Prepare the new *Sub LCD*.

Follow the 4.1.8 – 4.1.13 Reassembly instructions!!

3.13 Holder (Sub LCD)

Follow the 2.2.1 – 2.2.7 Disassembly instructions!

Prepare the new *Holder (Sub LCD)*.

Follow the 4.1.7 – 4.1.13 Reassembly instructions!

3.14 Hinge (with Hinge Flex Module)

Follow the 2.2.1 – 2.2.8 Disassembly instructions!

Prepare the new *Hinge (with Hinge Flex Module)*.

Follow the 4.1.6 – 4.1.13 Reassembly instructions!



3.15 Assembly Upper Case (Front)

Follow the 2.2.1 – 2.2.9 Disassembly instructions!

Prepare the new *Assembly Upper Case (Front)*.

Follow the 4.1.5 – 4.1.13 Reassembly instructions!

3.16 LCD

Follow the 2.2.1 – 2.2.10 Disassembly instructions!

Prepare the new *LCD*.

Follow the 4.1.4 – 4.1.13 Reassembly instructions!!

3.17 Camera (2MEGA)

Follow the 2.2.1 – 2.2.11 Disassembly instructions!

Prepare the new *Camera (2MEGA)*.

Follow the 4.1.3 – 4.1.13 Reassembly instructions!

3.18 Upper PCBA

Follow the 2.2.1 – 2.2.12 Disassembly instructions!

Prepare the new *Upper PCBA*.

Follow the 4.1.2 – 4.1.13 Reassembly instructions!!

3.19 Frame (Main LCD)

Follow the 2.2.1 – 2.2.13 Disassembly instructions!

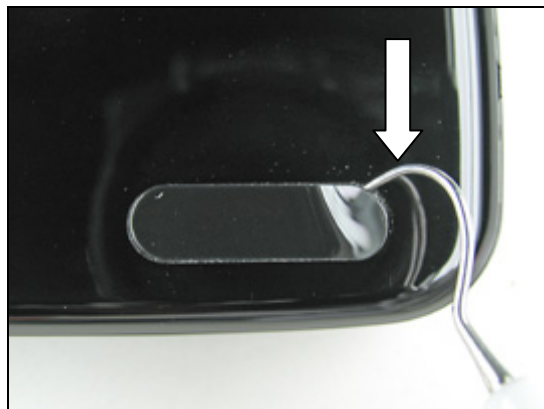
Prepare the new *Frame (Main LCD)*.

Follow the 4.1.1 – 4.1.13 Reassembly instructions!

3.20 Label (Co-Branding)

REMOVAL

Gently remove the old *label (Co-branding)* with a dentist hook.



INSTALLATION

Assemble a new *label (Co-branding)* with a blunt pair of tweezers or by hand.

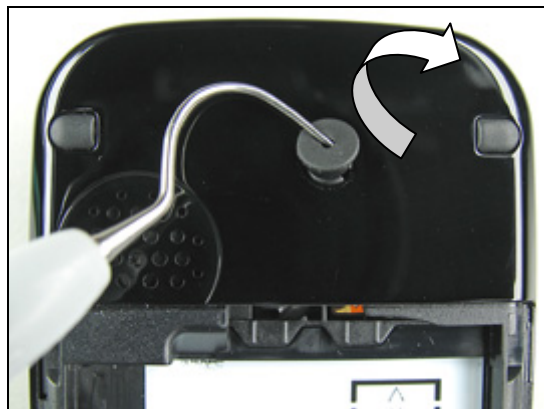
Keep the pressure on for a few seconds to secure a good fit.



3.21 Cap (RF)

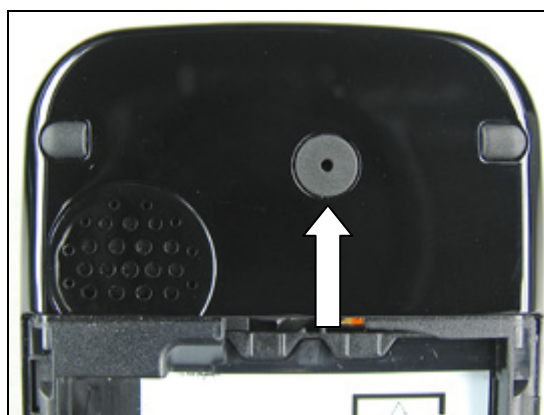
REMOVAL

Remove the *cap (RF)* with a dentist hook.



INSTALLATION

Assemble a new *cap (RF)* with your fingers.



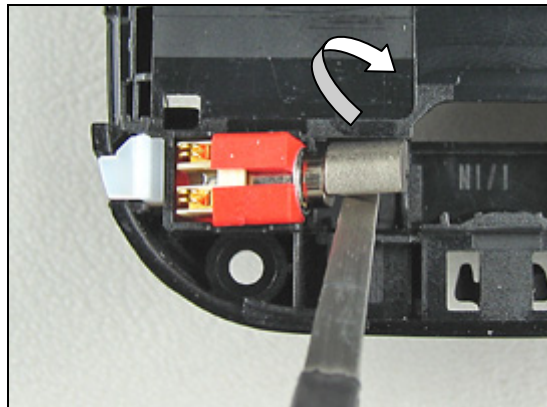
3.22 Vibrator

REMOVAL

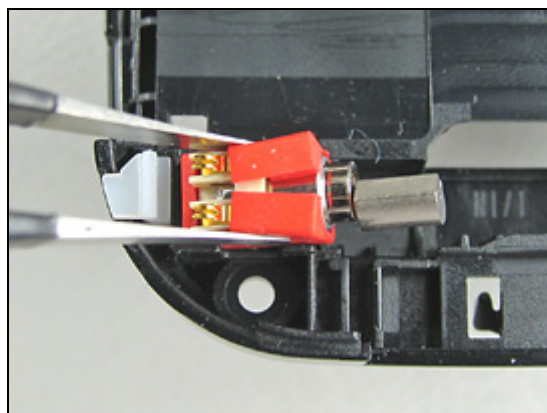
Follow the 2.1.1– 2.1.3 Disassembly instructions!

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

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

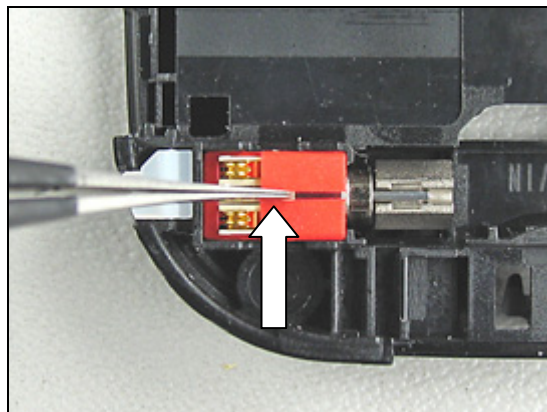


Remove the old *vibrator* with a blunt pair of tweezers.



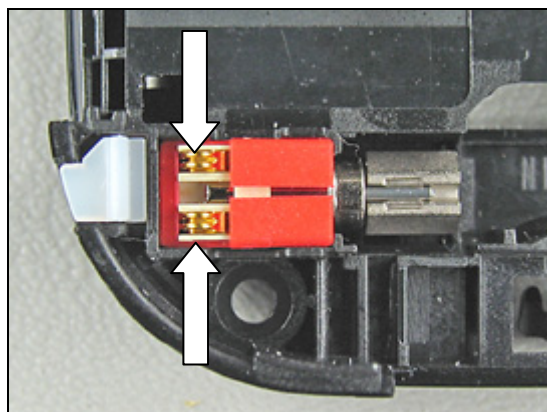
INSTALLATION

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 4.2.4 – 4.2.6 Reassembly instructions!

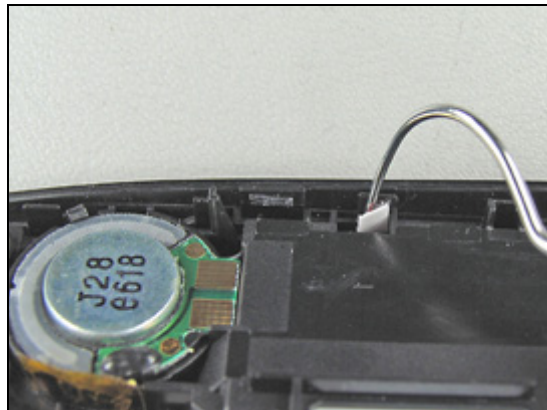


3.23 Water Indicator

REMOVAL

Follow the 2.1.1– 2.1.3 Disassembly instructions!

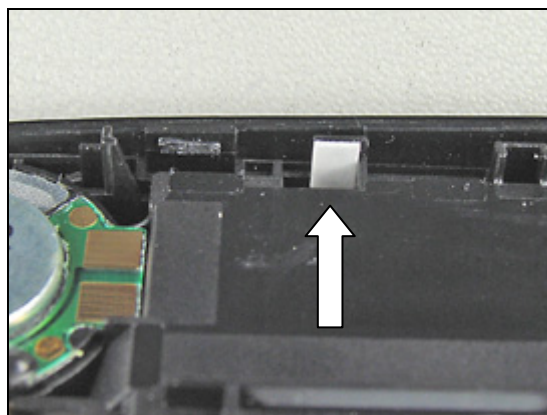
Remove the old *water indicator* with a dentist hook.



INSTALLATION

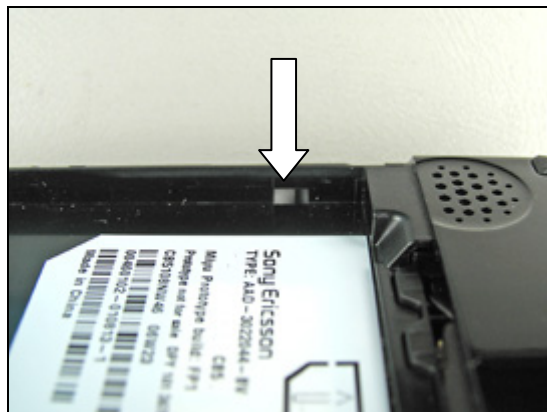
Assemble a new *water indicator* with a blunt pair of tweezers.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!



INSPECTION (FROM THE OUTSIDE)

Check for water damage on the *water indicator*.
With the sub assembly lid (battery) and the battery removed!



3.24 Loudspeaker

REMOVAL

Follow the 2.1.1– 2.1.3 Disassembly instructions!

THE LOCKING DEVICE THAT SECURE THE LOUDSPEAKER MUST BE RELEASED – SEE PICTURE NO 4 IN THIS INSTRUCTION

Start to remove the old *loudspeaker* with a dentist hook.

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

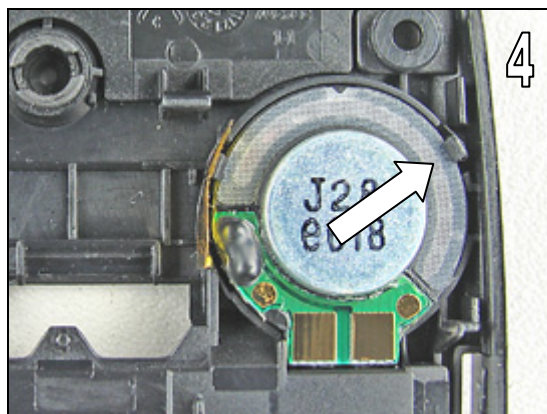
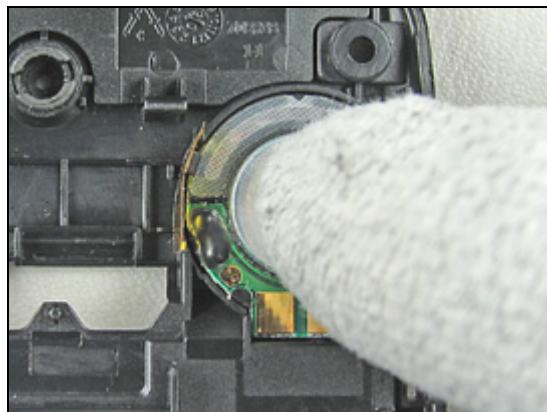
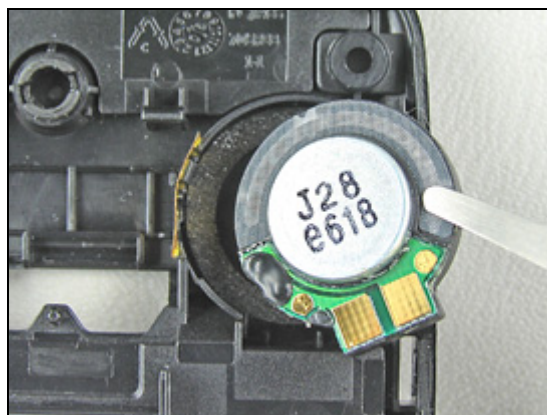
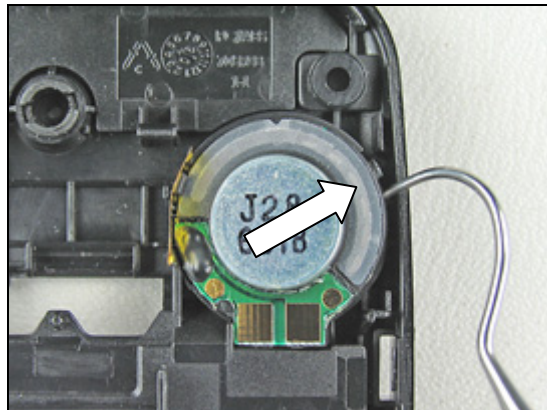
INSTALLATION

DO NOT TOUCH THE CONTACT SURFACE!

Slide in the new *loudspeaker* into the cavity (under the locking devices) and press gently on it with your finger and hold it for a few seconds to secure a good fit.

Make sure that the new *loudspeaker* is correctly assembled and that the locking device is properly locked.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!

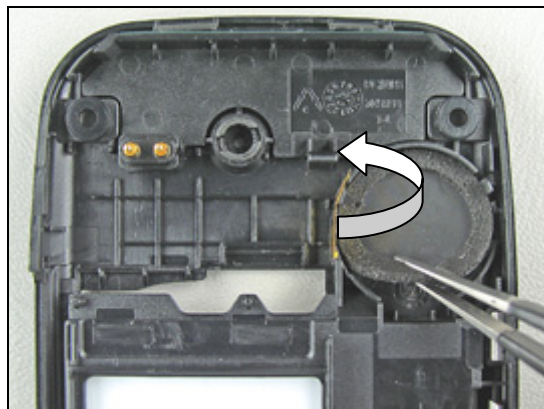


3.25 Cushion (Speaker)

REMOVAL

Follow the 2.1.1– 2.1.3 Disassembly instructions!

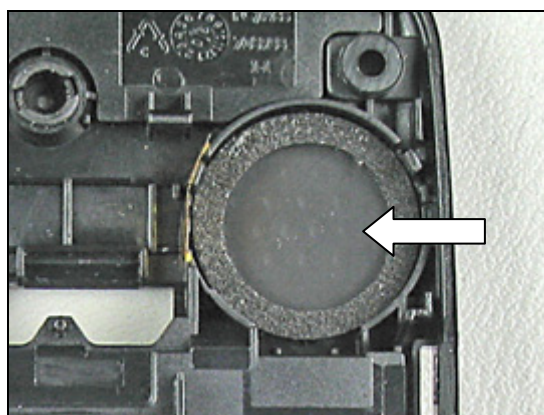
Remove the old *cushion (speaker)* with a blunt pair of tweezers.



INSTALLATION

Reassemble a new *cushion (speaker)* with the tweezers.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!

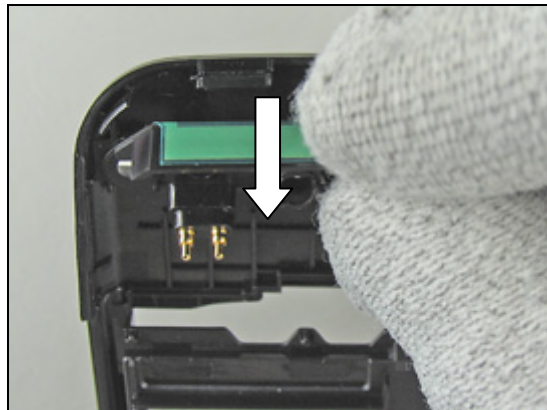


3.26 Main Antenna

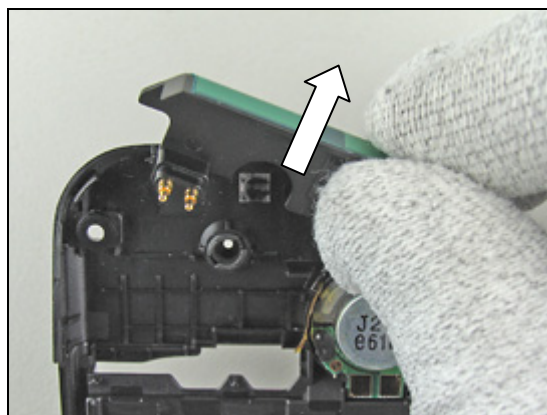
REMOVAL

Follow the 2.1.1– 2.1.3 Disassembly instructions!

Start to remove the *main antenna* by hand, just fold out the antenna from the sub assembly lower case (rear).



Remove the *main antenna* completely.



INSTALLATION

Start the reassembling of the *main antenna*.

Mount the *main antenna* by hand inside the sub assembly lower case (rear).



Main Antenna is now reassembled.

Make sure that the *main antenna* is mounted correctly in the sub assembly lower case (rear)

Follow the 4.2.4 – 4.2.6 Reassembly instructions!

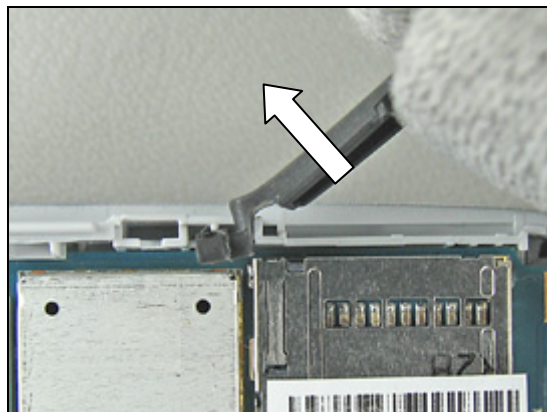


3.27 Cover (MS)

REMOVAL

Follow the 2.1.1– 2.1.3 Disassembly instructions!

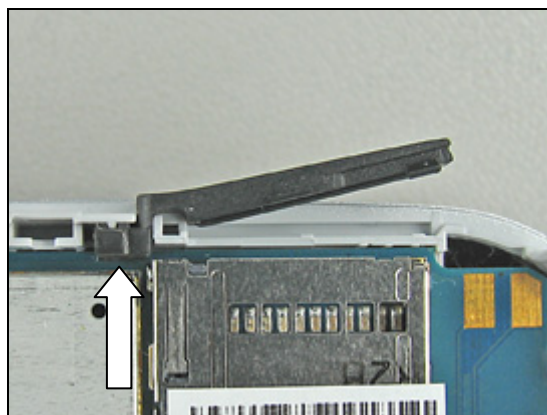
Remove the old cover (MS) with your fingers.



INSTALLATION

Assemble a new cover (MS) into the sub assembly lower case (rear) with your fingers. Make sure that the cover (MS) is assembled in the right position.

Follow the 4.2.4 – 4.2.6 Reassembly instructions!



3.28 Rubber (Key)

REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

Remove the old *rubber (key)* with a blunt pair of tweezers or by hand.

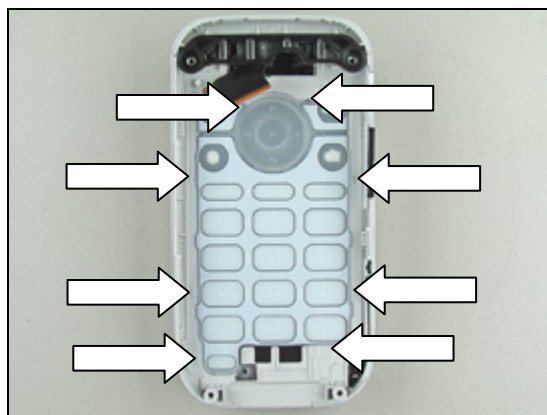


INSTALLATION

Assemble a new *rubber (key)* with your fingers.

Make sure that the *rubber (key)* is placed correctly on the eight guide pins.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!

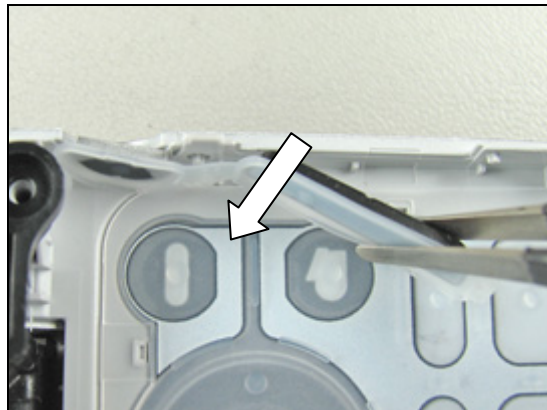


3.29 Key (Side)

REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

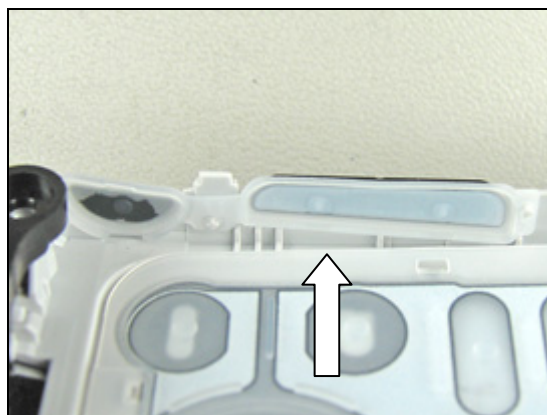
Remove the old *key (side)* with a blunt pair of tweezers.



INSTALLATION

Assemble a new *key (side)* into the sub assembly lower case (front) with the tweezers. Make sure that the *key (side)* is assembled in the right position.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!



3.30 Key (Main)

REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

Remove the old *key (main)* by pressing with your fingers from the back.



Remove the protection foil from the new *key (Main)*.



INSTALLATION

Assemble a new *key (main)* into the sub assembly lower case (front) with your fingers.

Begin the reassembly from the bottom of the sub assembly lower case (front)



Reassembled *key (main)*.

Make sure that the *key (main)* is assembled in the right position.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!

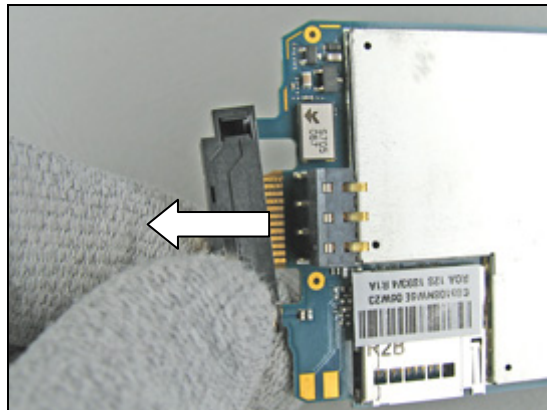


3.31 System Connector

REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

Remove the old *system connector* by hand.



INSTALLATION

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

Picture shows a correct assembled *system connector*.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!

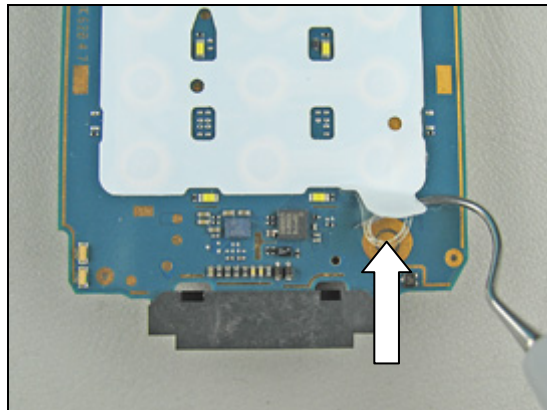


3.32 Sheet (key)

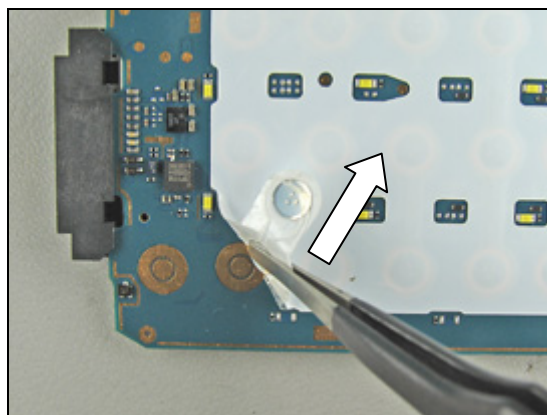
REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

Start to remove the *sheet (key)* with a dentist hook.



Remove the *sheet (key)* completely with a blunt pair of tweezers.

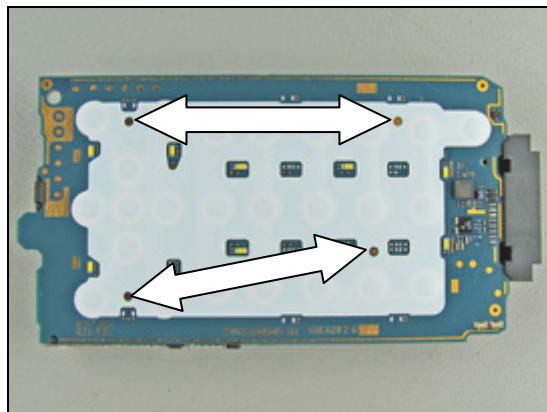


INSTALLATION

Reassemble a new *sheet (key)* with your fingers.

Make sure that the *sheet (key)* is assembled in the right position – use the holes in the *sheet (key)* to “aim”.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!





3.33 Frame (SIM) Assembly

REMOVAL

Follow the 2.1.1– 2.1.4 Disassembly instructions!

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 (see page 6 for more information).

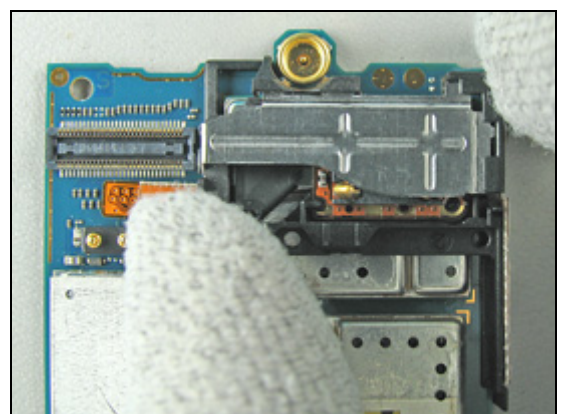
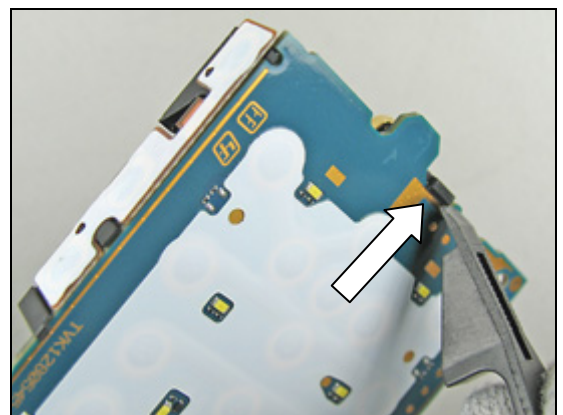
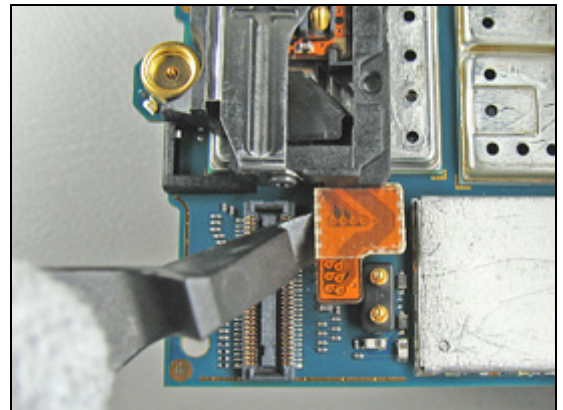
Use the front opening tool to unsnap the hook on the back of the *frame (SIM) assembly*.

Remove the whole *frame (SIM) assembly* by hand.

INSTALLATION

Begin by placing the new *frame (SIM) assembly* over the PCBA.

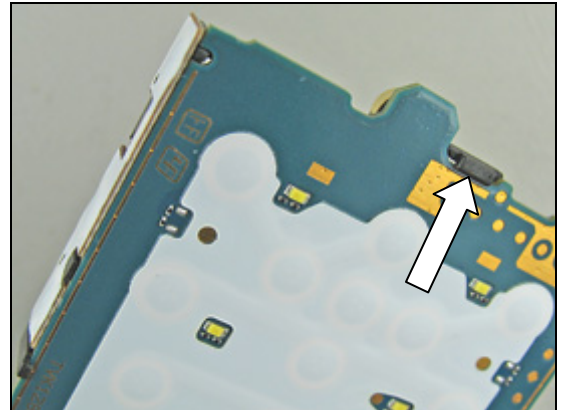
Make sure that the *frame (SIM) assembly* is mounted correctly.





Replacement Instruction *continued*

Assure that the snap hook on the back of the *frame (SIM)* assembly is locked correctly.

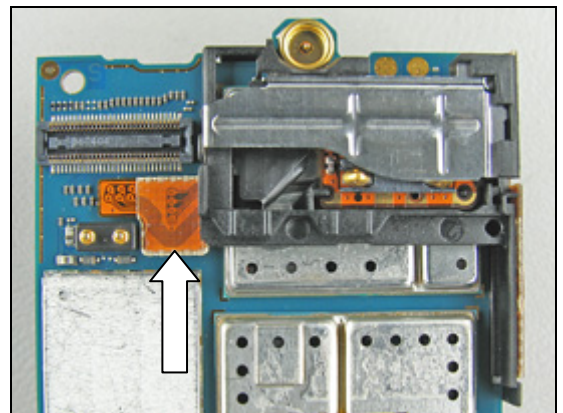


DON'T APPLY PRESSURE ON THE BOARD TO BOARD CONNECTOR UNTIL YOU ARE CERTAIN THAT YOU HAVE A "MATCH"!

Connect the board to board connector to the *PCBA* with your fingers.

Make sure that the board to board connector is closed.

Follow the 4.2.3 – 4.2.6 Reassembly instructions!

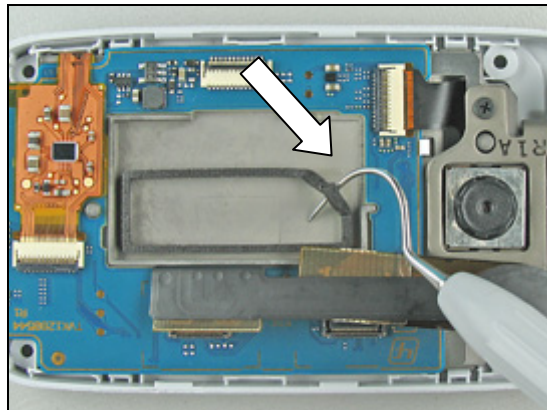


3.34 Cushion (Sub LCD) M

REMOVAL

Follow the 2.2.1 – 2.2.6 Disassembly instructions!

Remove the old *cushion (sub LCD) M* with a dentist hook.

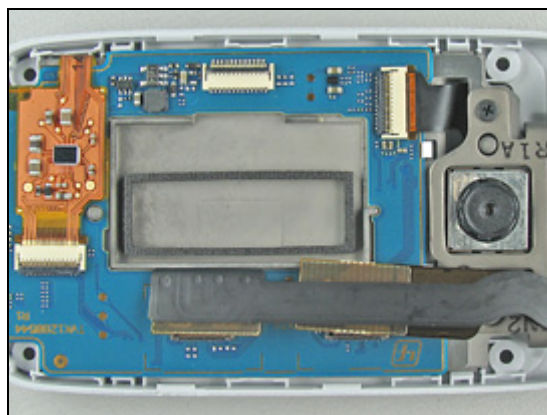


INSTALLATION

Assemble a new *cushion (sub LCD) M* with the help of a blunt pair of tweezers.

Make sure that the *cushion (sub LCD) M* is mounted correctly.

Follow the 4.1.8 – 4.1.13 Reassembly instructions!



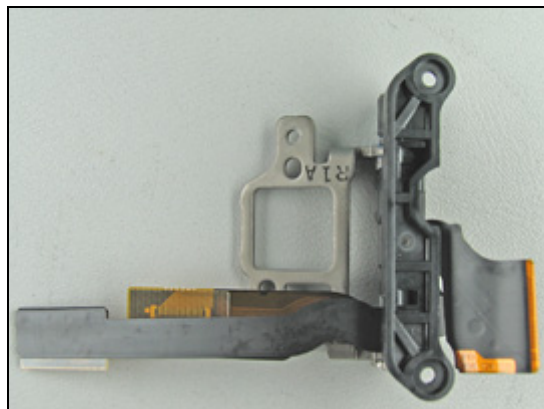
3.35 Hinge Flex Module

REMOVAL

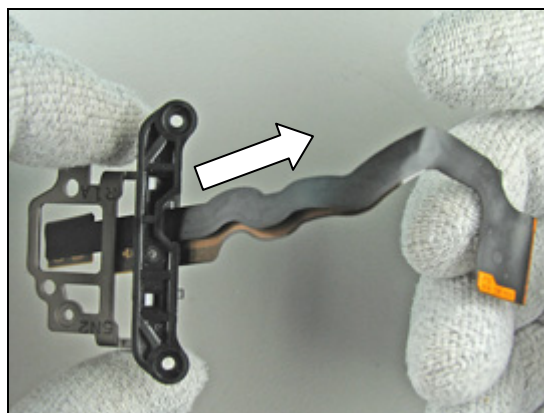
Follow the 2.1.1 – 2.1.6, 2.2.1 – 2.2.8 Disassembly instructions!

Start like this before exchanging the *hinge flex module*.

Notice how the *flex film* is placed around the hinge before removal!



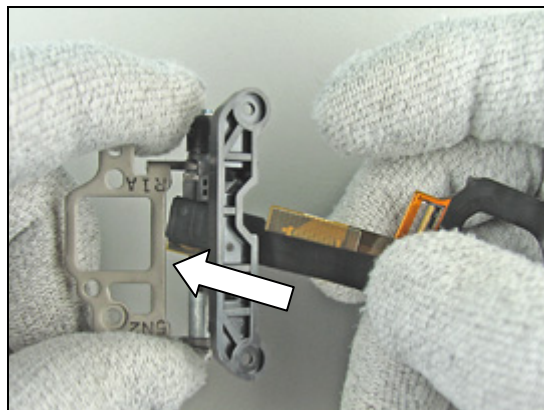
Slide out the old *hinge flex module* from the hinge.



INSTALLATION

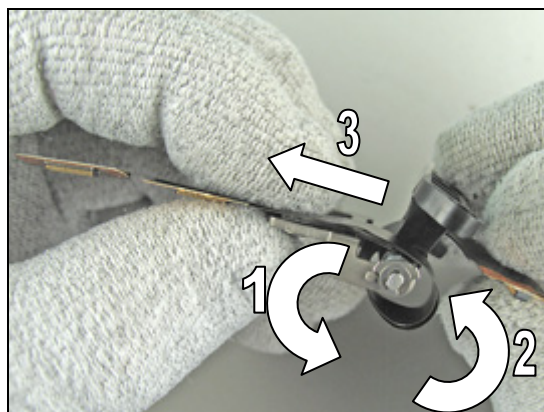
BE VERY CAREFUL WITH THE HINGE FLEX MODULE!

Slide in the new *hinge flex module* into the hinge in the reverse way.



Continue in order of the numbers until the *hinge flex module* is reassembled to the hinge again.

Follow the 4.1.6 – 4.1.13, 4.2.1– 4.2.6 Reassembly instructions!





3.36 Receiver

REMOVAL

Follow the 2.2.1 – 2.2.9 Disassembly instructions!

Remove the old *receiver* with a dentist hook.

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

Sometimes the old receiver gasket gets stuck into the bottom of the assembly upper case (front) - don't forget to remove it!

INSTALLATION

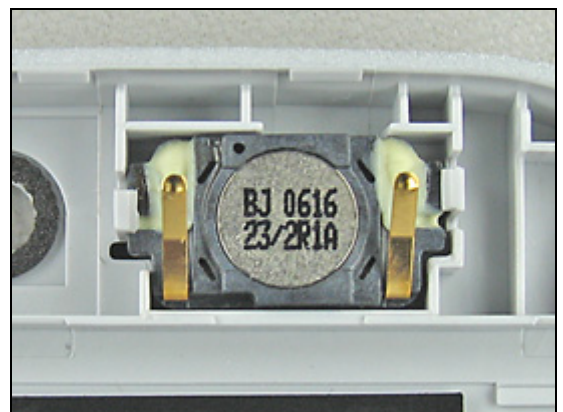
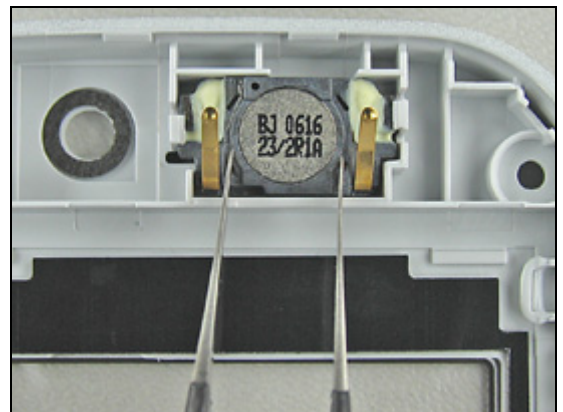
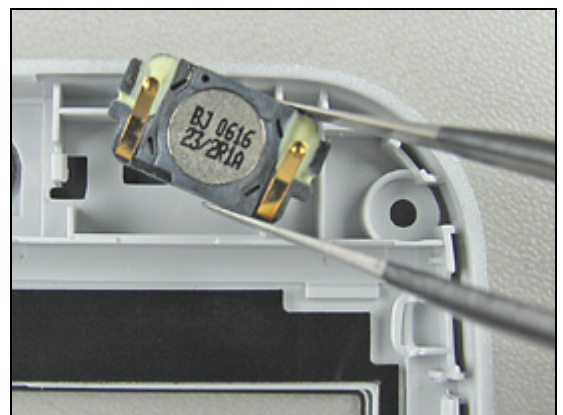
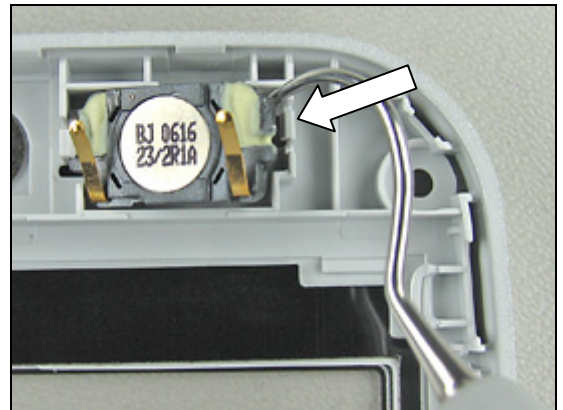
DO NOT TOUCH OR BEND THE CONTACT SPRINGS!

Assemble a new *receiver* 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 *receiver* is correctly assembled.

Check so there is no damage on the connection springs.

Follow the 4.1.5 – 4.1.13 Reassembly instructions!

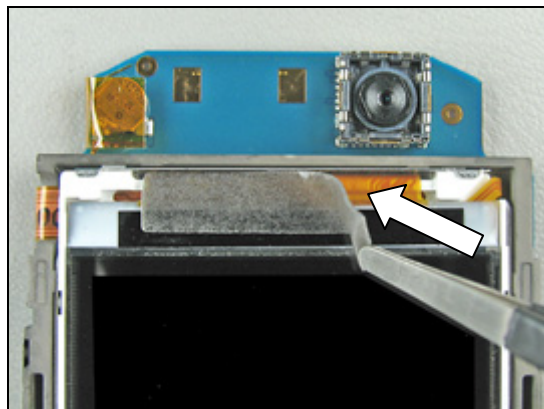


3.37 Sheet (G)

REMOVAL

Follow the 2.2.1 – 2.2.9 Disassembly instructions!

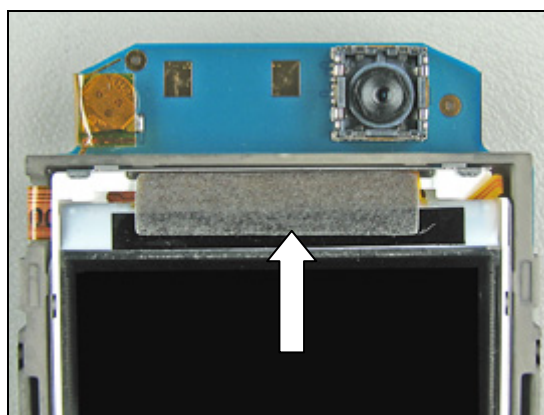
Remove the old *sheet (G)* with a blunt pair of tweezers.



INSTALLATION

Assemble a new *sheet (G)* with the help of the tweezers.

Follow the 4.1.5 – 4.1.13 Reassembly instructions!

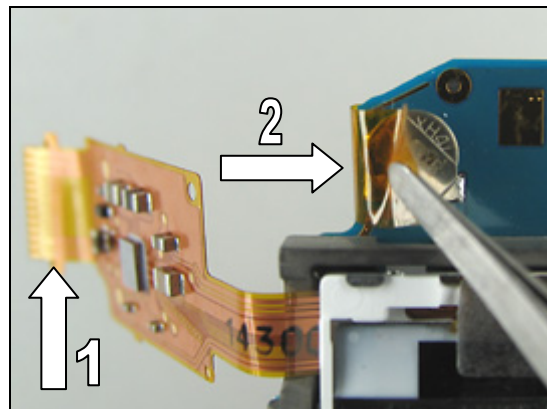


3.38 Sheet (Cap)

REMOVAL

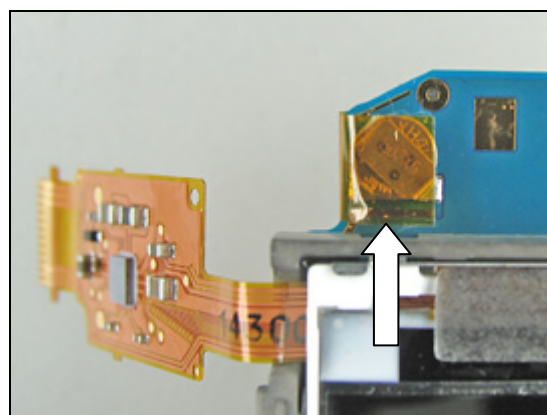
Follow the 2.2.1 – 2.2.9 Disassembly instructions!

1. Remove the LCD flex film (See 2.2.10)
2. Remove the old *sheet (cap)* with a blunt pair of tweezers or a dentist hook.

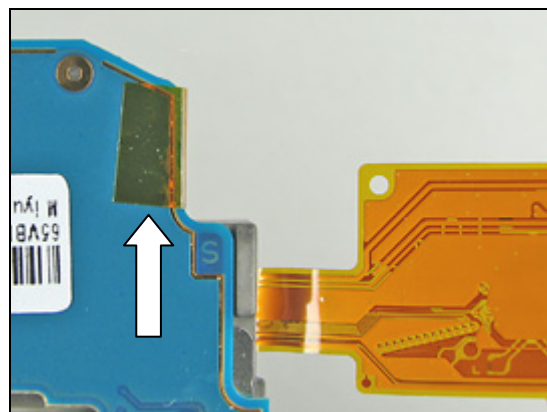


INSTALLATION

Assemble a new *sheet (cap)* with the help of the tweezers.

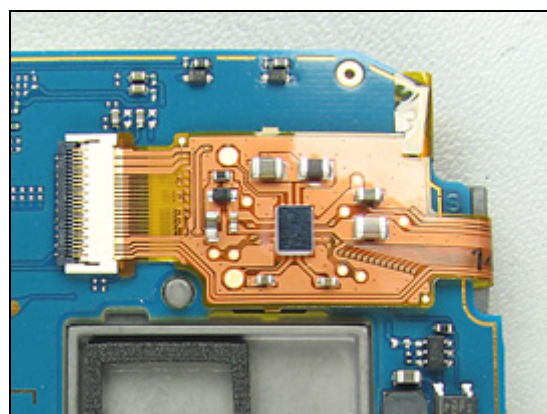


Don't forget to fold in the *sheet (cap)* on the back of the upper PCBA



Reassemble the LCD flex film (See 4.1.4)

Follow the 4.1.5 – 4.1.13 Reassembly instructions!



3.39 Camera (VGA)

REMOVAL

Follow the 2.2.1 – 2.2.9 Disassembly instructions!

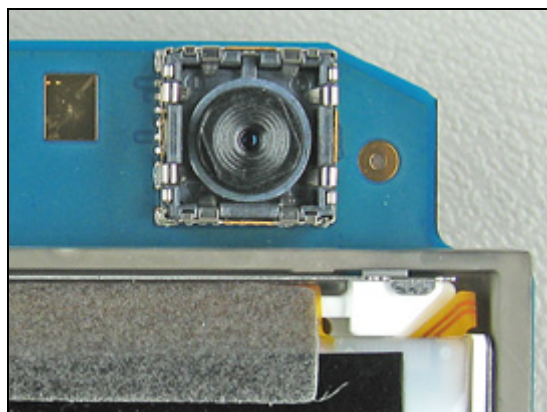
NEVER TOUCH THE CAMERA LENS!

This instruction will follow later as SI once VGA camera tool has been developed and approved!

INSTALLATION

Reassembled *camera (VGA)*.

Follow the 4.1.5 – 4.1.13 Reassembly instructions!





3.40 Shield Can (Cam R)

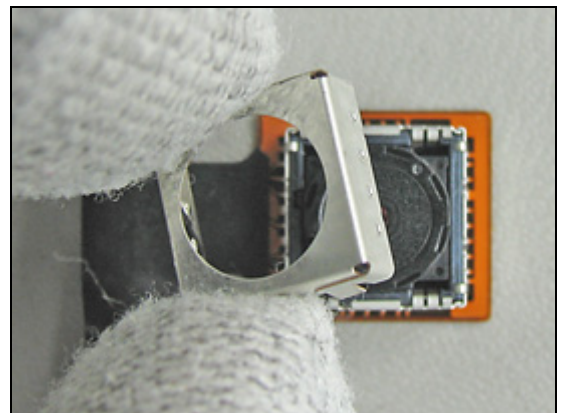
REMOVAL

Follow the 2.2.1 – 2.2.11 Disassembly instructions!

Gently release the *shield can (cam R)* with a dentist hook, work your way around the shield can until it becomes completely loose.

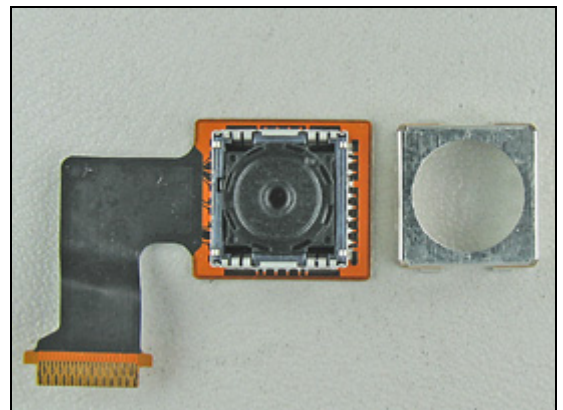


Remove the *shield can (cam R)* with your fingers.

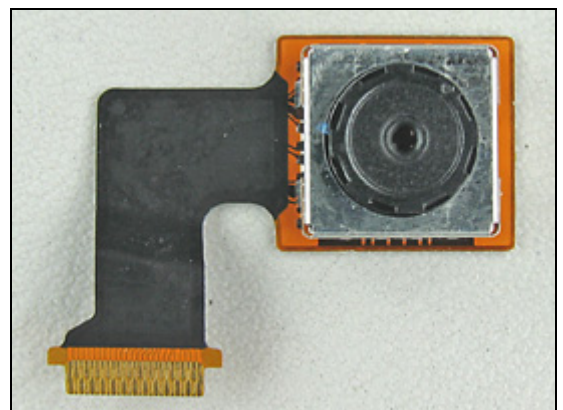


INSTALLATION

Reassemble a new *shield can (cam R)* with your fingers.



Reassembled *shield can (cam R)*.



Follow the 4.1.3 – 4.1.13 Reassembly instructions!

3.41 Camera (2MEGA)

REMOVAL

Follow the 2.2.1 – 2.2.11 Disassembly instructions!

NEVER TOUCH THE CAMERA LENS!

Start by pressing the mega camera removal tool over the camera (2MEGA) 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 (2MEGA) straight up (together with the tool) from the socket.

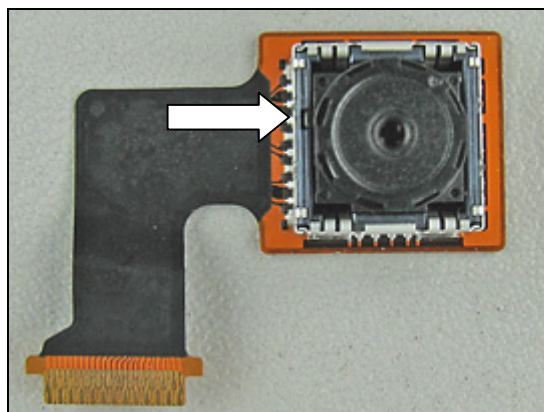
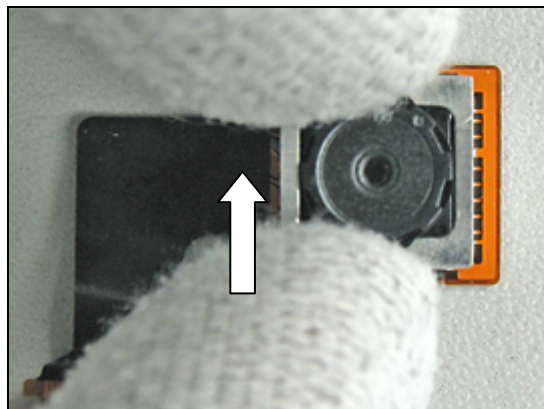
Remove (with your fingers) the old camera (2MEGA) from the camera tool.

INSTALLATION

Notice the small slot in the camera (2MEGA) socket. Press gently on the top (on the sides) of the camera (2MEGA) until it snaps into place.

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

Follow the 4.1.3 – 4.1.13 Reassembly instructions!



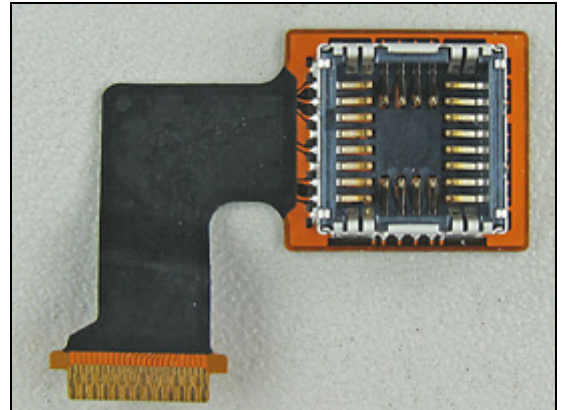


3.42 Camera Socket Flex Module

REMOVAL

Follow the 2.2.1 – 2.2.11 Disassembly instructions!

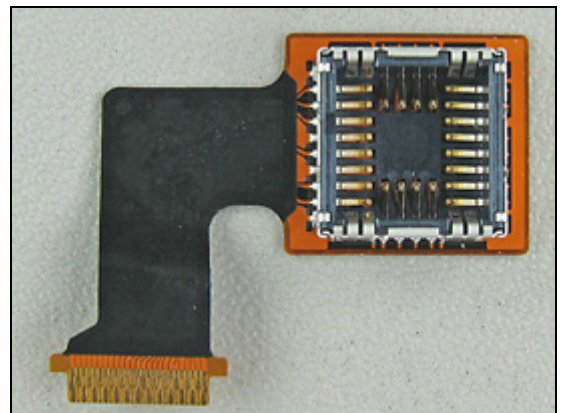
Remove the old *camera socket flex module*.



INSTALLATION

Assemble a new *camera socket flex module* (together with the camera (2MEGA)) with your fingers on the upper PCBA.

Follow the 4.1.3 – 4.1.13 Reassembly instructions!

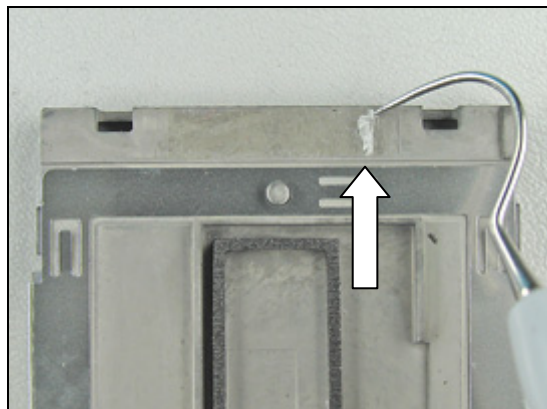


3.43 Adhesive, Upper PCBA

REMOVAL

Follow the 2.2.1 – 2.2.12 Disassembly instructions!

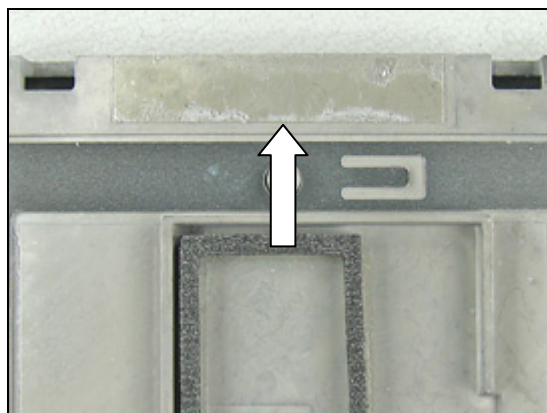
Remove the old *adhesive, upper PCBA* with a dentist hook.



INSTALLATION

Assemble a new *adhesive, upper PCBA* with the help of a blunt pair of tweezers.

Follow the 4.1.2 – 4.1.13 Reassembly instructions!

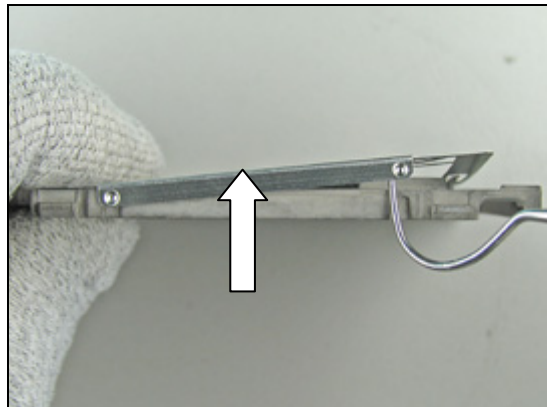


3.44 Plate (Contact)

REMOVAL

Follow the 2.2.1 – 2.2.13 Disassembly instructions!

Start to remove the *plate (contact)* by pushing it away from the frame (main LCD) with a dentist hook.



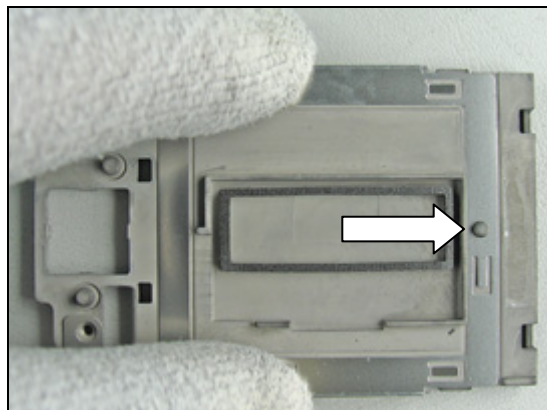
Remove the *plate (contact)* completely – use your fingers.



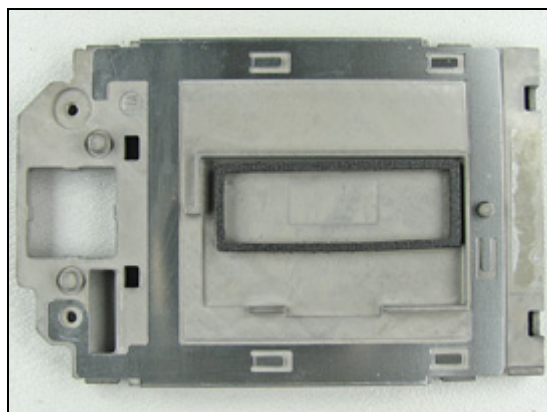
INSTALLATION

Reassemble a new *plate (contact)* over the frame (main LCD).

Press it into the correct position with your fingers – use the guide hole.



Reassembled *plate (contact)*.



Follow the 4.1.1 – 4.1.13 Reassembly instructions!

3.45 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.

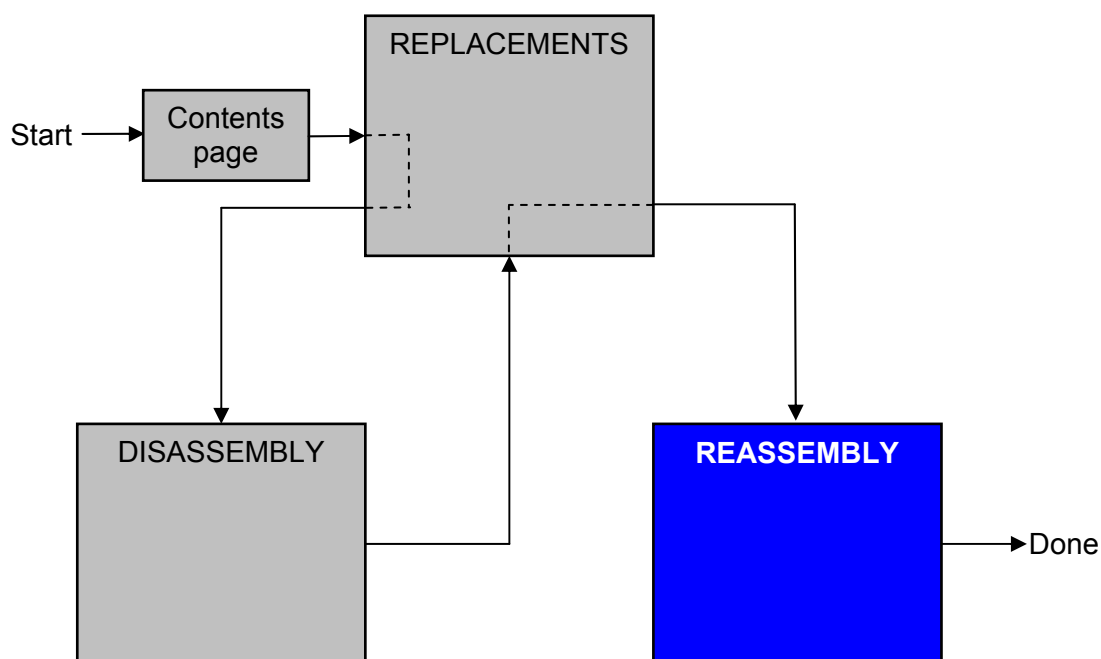
ONE LABEL ONLY IS ALLOWED!

Follow the 4.2.6 Reassembly instructions!



4 Reassembly

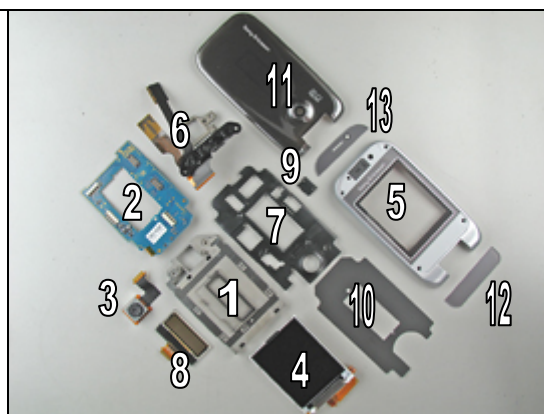
After replacing a part being listed in Replacements, the instruction of that section usually ends by directing you to this Reassembly section with a specification of the instructions you have to carry out in order to reassemble the phone.



4.1 Upper unit

The reassembly is done in the following sequence:

1. Frame (Main LCD)
2. Upper PCBA
3. Camera (2MEGA)
4. LCD
5. Assembly Upper Case (Front)
6. Hinge (with Hinge Flex Module)
7. Holder (Sub LCD)
8. Sub LCD
9. Spacer (Sub LCD)
10. Sheet (Shade)
11. Sub Assembly Upper Case (rear)
12. Sheet (Co-Branding)
13. Sheet (Screw) Upper

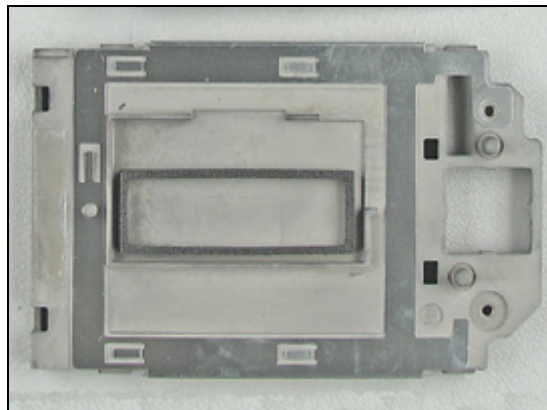




4.1.1 Frame (Main LCD)

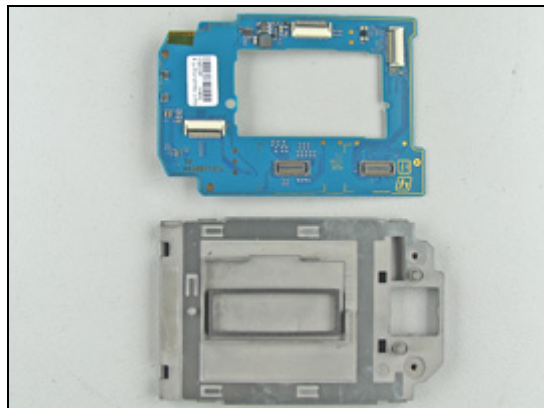
Start like this before reassembling of the upper unit.

Start with the *frame (main LCD)*.

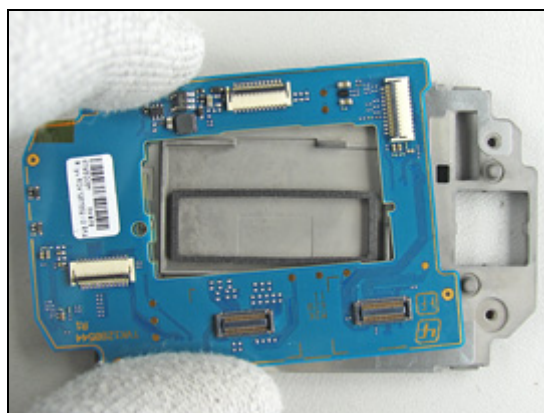


4.1.2 Upper PCBA

Start like this before reassembling of the *upper PCBA*.

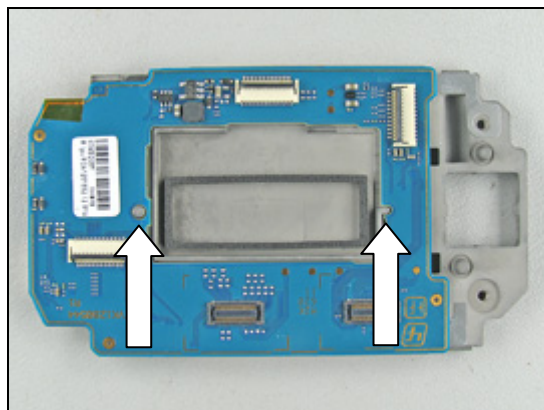


Take the *upper PCBA* and mount it on top off the frame (main LCD).



Notice the two guide pins by the arrows.

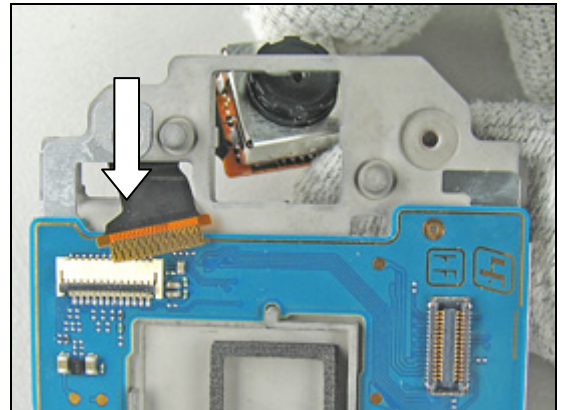
Now the *upper PCBA* is assembled and ready for the next step.



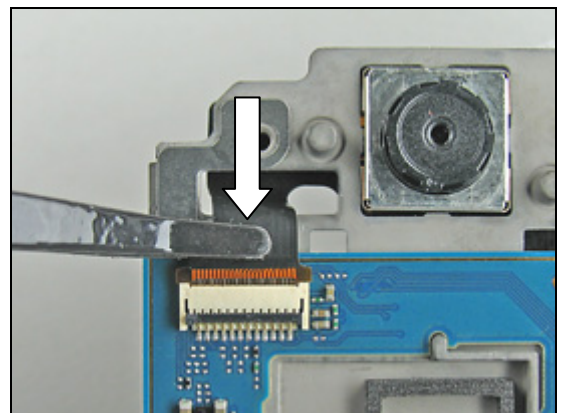


4.1.3 Camera (2MEGA)

Start to reassemble the *camera (2MEGA)* by sliding it into the frame (main LCD).

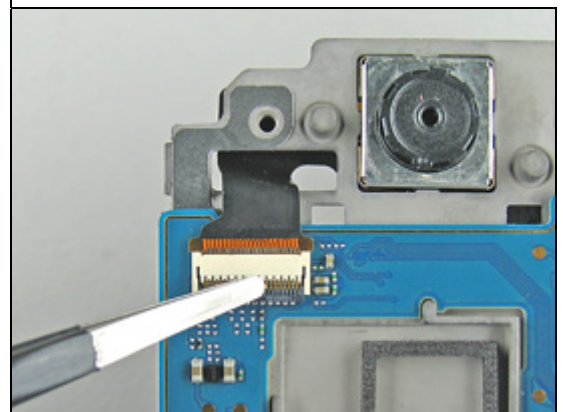


Reconnect the *camera (2MEGA)* flex film with the flex film assembly tool.



BE CAREFUL WITH THE TWEEZERS – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

Close the *camera (2MEGA)* FPC connector with a blunt pair of tweezers.



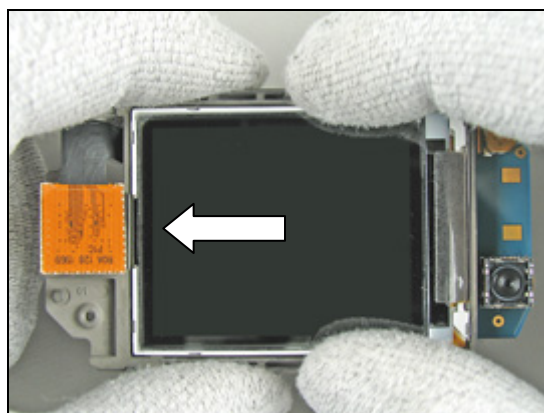
4.1.4 LCD

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

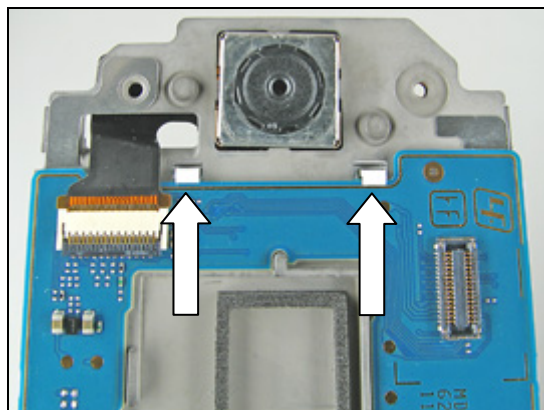


Slide in the *LCD* against the frame (main LCD).

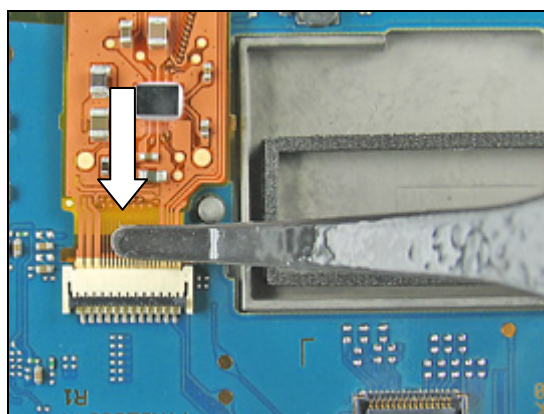
Gently fold the *LCD* towards the frame (main LCD).until the *LCD* is in the correct position.



Make sure that the two snap hooks on the back of the *LCD* are locked against the upper PCBA.



Reconnect the *LCD* flex film with the flex film assembly tool.

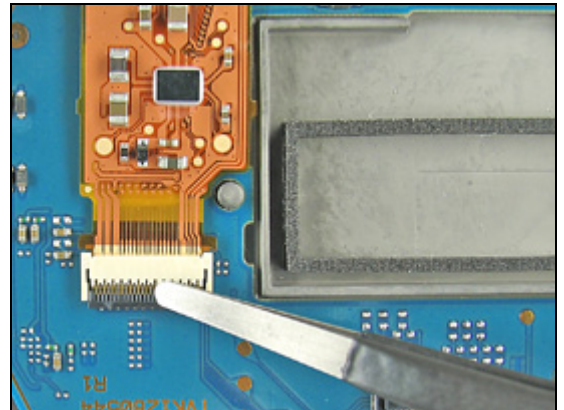




Reassembly Instruction *continued*

BE CAREFUL WITH THE TWEEZERS – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

Close the *LCD's* FPC connector with a blunt pair of tweezers.





4.1.5 Assembly Upper Case (Front)

Start like this before reassembling of the new *assembly upper case (front)*.

MAKE SURE EVERYTHING INSIDE THE ASSEMBLY UPPER CASE (FRONT) IS ASSEMBLED!

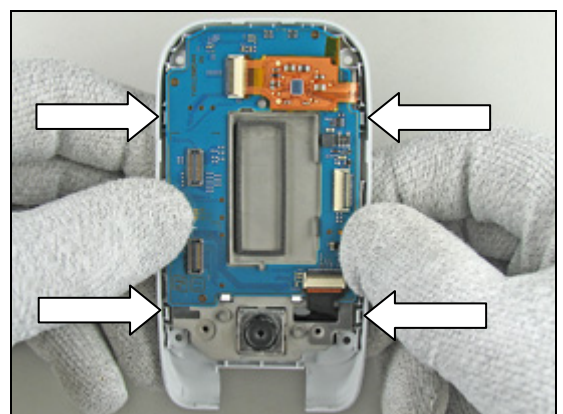
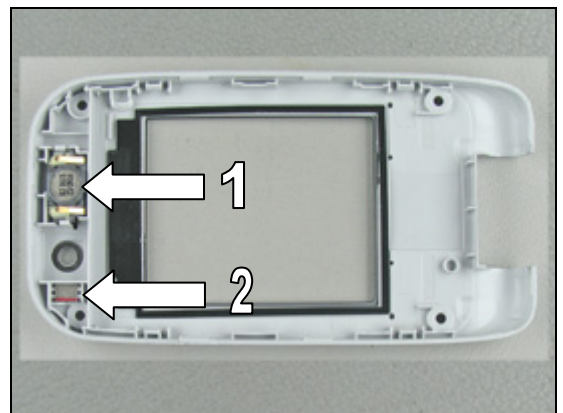
1. Receiver
2. Magnet

DON'T FORGET TO REMOVE THE PROTECTIVE TAPE FROM THE NEW LCD MODULE BEFORE REASSEMBLING OF THE ASSEMBLY UPPER CASE (FRONT)!

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

Carefully fold the upper PCBA assembly towards the *assembly upper case (front)*

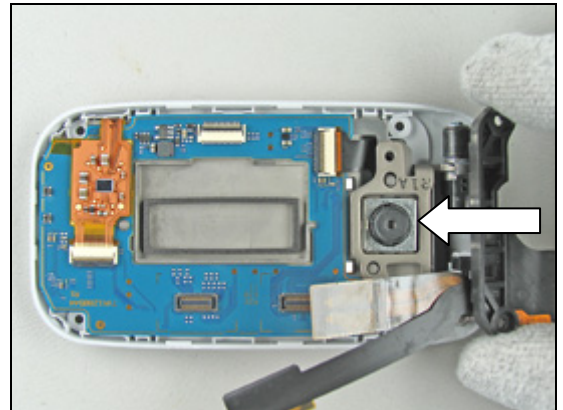
Make sure that the four snap fit hooks in the *assembly upper case (front)* are locked against the upper PCBA.





4.1.6 Hinge (with Hinge Flex Module)

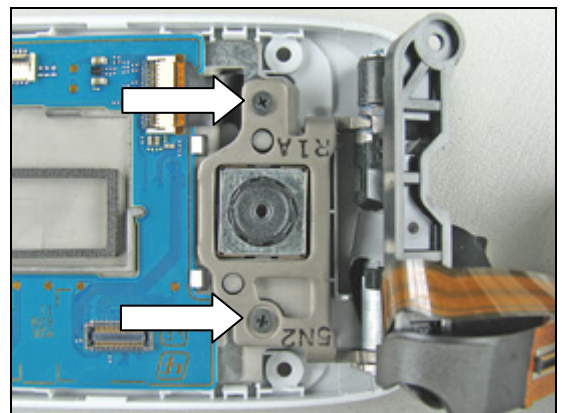
Slide the hinge (with hinge flex module) towards the upper unit and place it in the correct position like the picture shows.



APPLY 18 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREW USING NTZ 112 1052 (JCIS BIT)!

Assemble and tighten the two screws in the frame (main LCD).

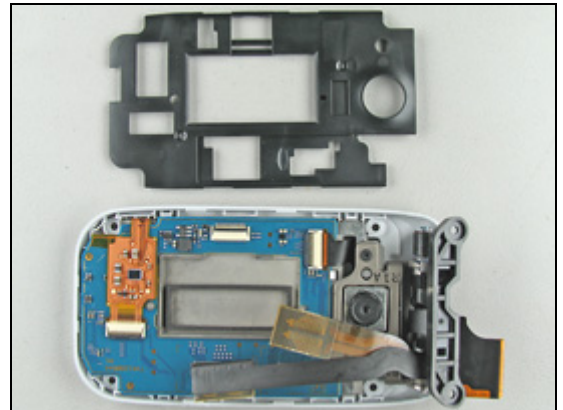
Replace the screws with new ones.





4.1.7 Holder (Sub LCD)

Start like this before reassembling of the new *holder (sub LCD)*.

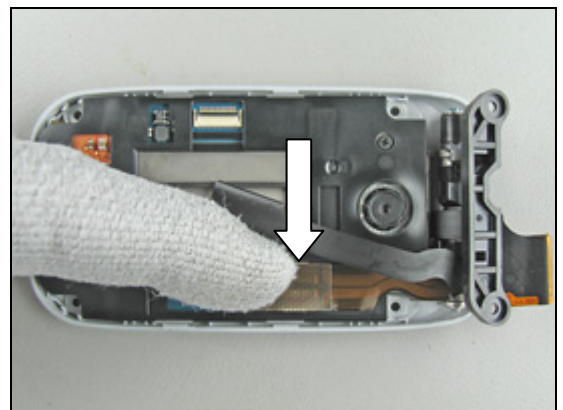


Place the *holder (sub LCD)* over the upper PCBA.



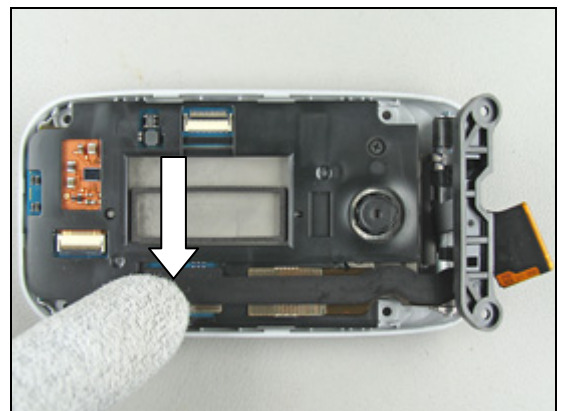
DON'T APPLY PRESSURE ON THE TWO BOARD TO BOARD CONNECTORS UNTIL YOU ARE CERTAIN THAT YOU HAVE A "MATCH"!

Connect the first hinge flex module's board to board connector to the upper PCBA with your fingers.



Do the same thing with the second board to board connector.

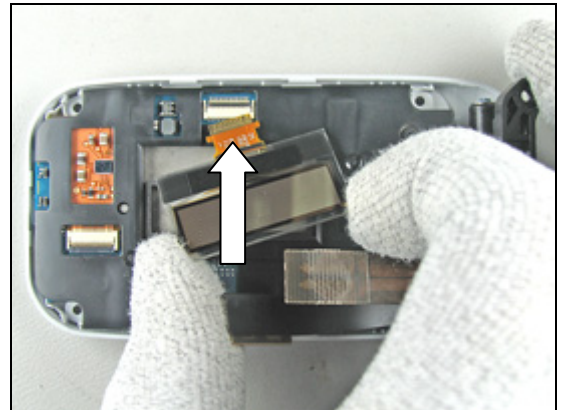
Make sure that the two board to board connectors are closed.



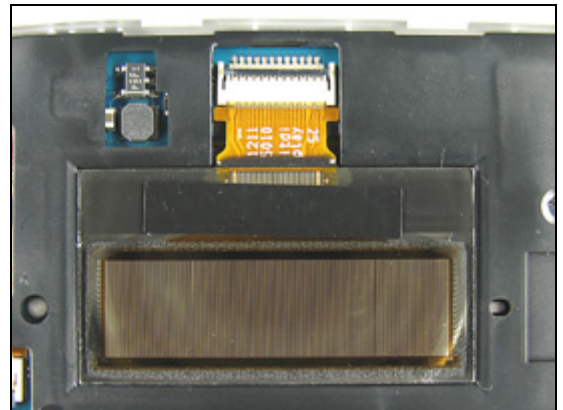


4.1.8 Sub LCD

Slide the *sub LCD* into the FPC connector on the upper PCBA, use your fingers.

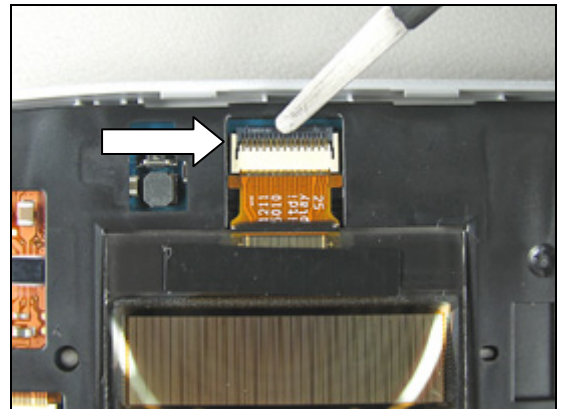


Fold down the *sub LCD* into the holder (sub LCD) cavity with your fingers.



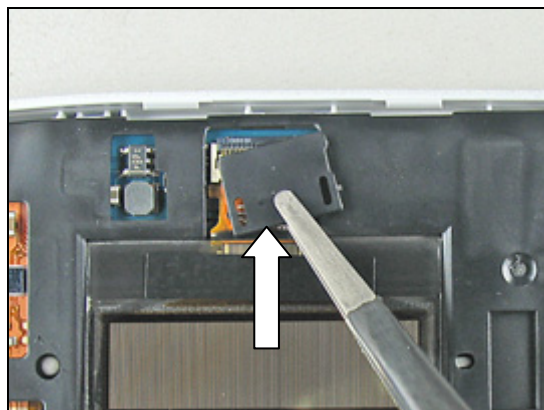
BE CAREFUL WITH THE TWEEZERS – THE FPC CONNECTOR HINGE MECHANISM EASILY BREAKS!

Close the *sub LCD*'s FPC connector with a blunt pair of tweezers.

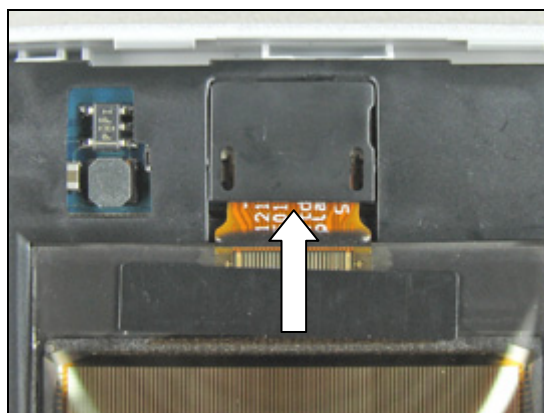


4.1.9 Spacer (Sub LCD)

Place the *spacer (sub LCD)* towards the cavity in the holder (sub LCD), use a blunt pair of tweezers or your fingers.



Correctly reassembled *spacer (sub LCD)*.



4.1.10 Sheet (Shade)

Start like this before reassembling of the *sheet (shade)* onto the upper unit.

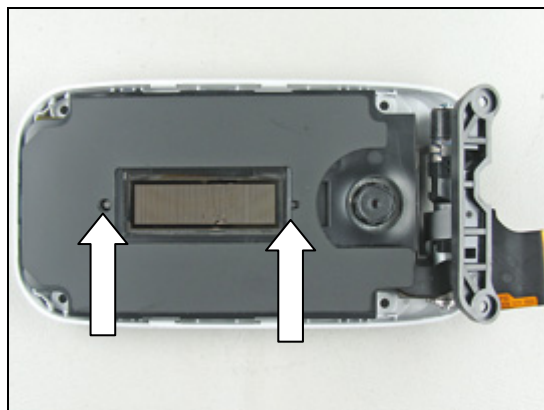


Place the *sheet (shade)* on top off the holder (sub LCD), use a blunt pair of tweezers.



USE THE GUIDE HOLES FOR CORRECT ALIGNMENT OF THE SHEET (SHADE)!

Correctly reassembled *sheet (shade)*.





4.1.11 Sub Assembly Upper Case (rear)

Start like this before reassembling of the *sub assembly upper case (rear)*.

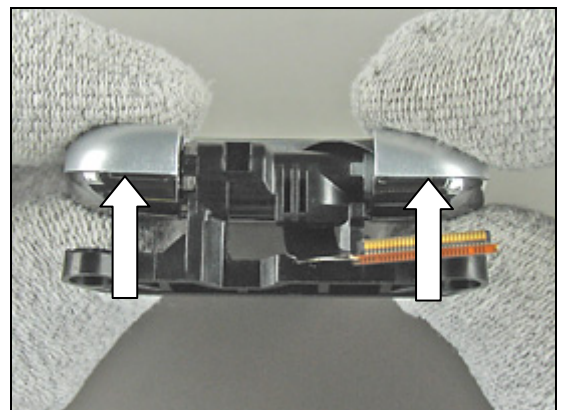


Place the *sub assembly upper case (rear)* over the assembly upper case (front).

Begin from the top of the hinge area then gently continue to squeeze the *sub assembly upper case (rear)* towards the bottom of the phone.



Continue to snap the upper unit together.



Reassembled *sub assembly upper case (rear)*.

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

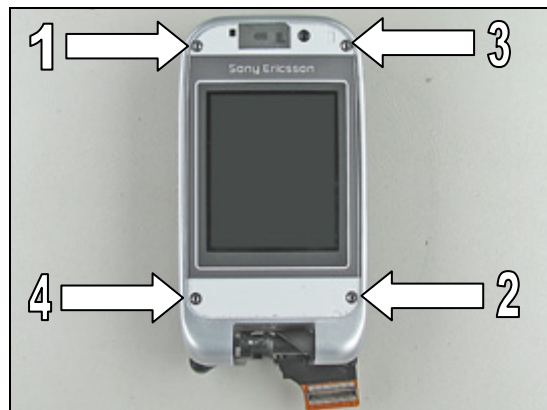


4.1.12 Sheet (Co-Branding)

APPLY 23 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREWS USING NTZ 112 288 (TORX BIT NO 6)!

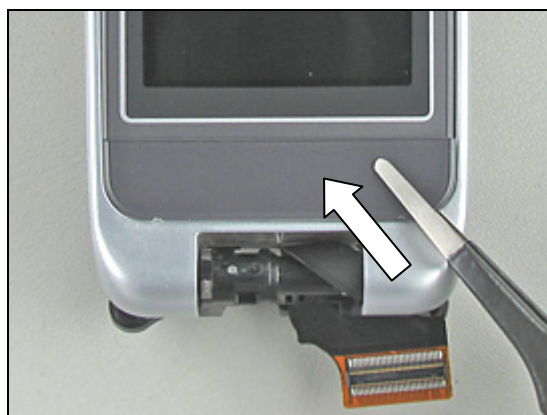
Assemble and tighten the four screws in the *assembly upper case (front)*

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



USE A NEW SHEET (CO-BRANDING)!

Assemble a new sheet (co-branding) with the help of a blunt pair of tweezers.



Reassembled sheet (co-branding).



4.1.13 Sheet (Screw) Upper

USE A NEW SHEET (SCREW) UPPER!

Assemble a new *sheet (screw) upper* with the help of a blunt pair of tweezers.



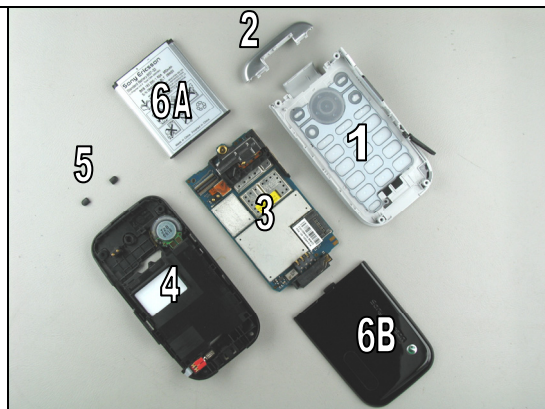
Reassembled *sheet (screw) upper* and also the hole upper unit is now reassembled.



4.2 Lower unit

The reassembly is done in the following sequence:

1. Sub Assembly Lower Case (Front) with the rubber (key) placed inside.
2. Cover (Hinge)
3. PCBA
4. Sub Assembly Lower Case (Rear)
5. Cover (Screw) Lower
6. Battery, A and Sub Assembly Lid (Battery), B





4.2.1 Sub Assembly Lower Case (Front)

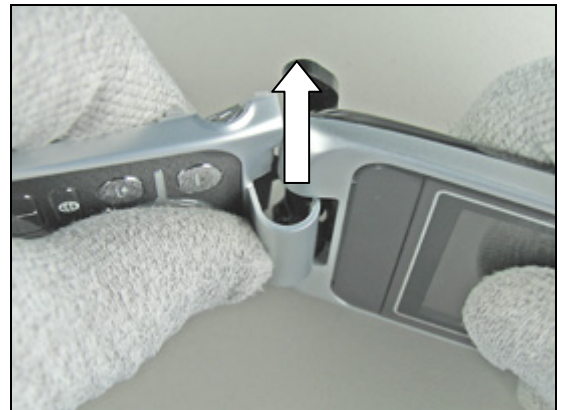
Start like this before reassembling of the *sub assembly upper case (front)* to the upper unit.



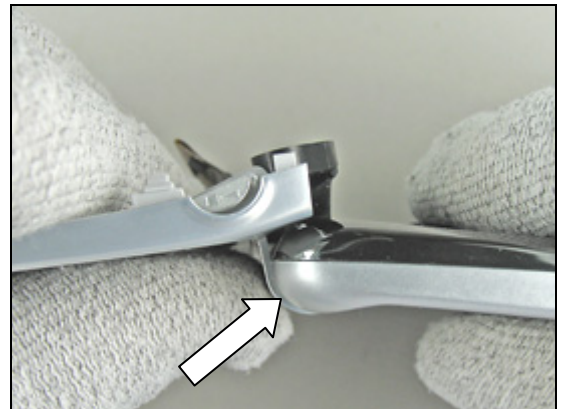
BE VERY CAREFUL WITH THE HINGE FLEX MODULE WHEN THE SUB ASSEMBLY UPPER CASE (FRONT) IS ASSEMBLED ONTO THE UPPER UNIT- IT'S EASY TO SQUEEZE OR DAMAGE THE FLEX FILM!

Start to slide in the *sub assembly upper case (front)* in the upper unit.

If necessary, wiggle the *sub assembly upper case (front)* a little side to side while pushing it into position.

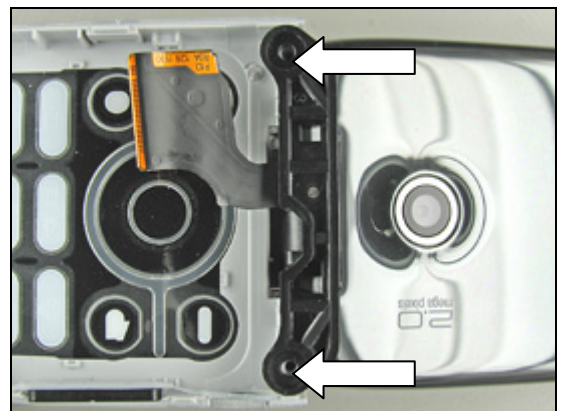


Give the *sub assembly upper case (front)* a little push with your thumb and it should slide into the correct position.



TURN THE PHONE AROUND!

Now you should see the two screw holes through the hinge mechanism.



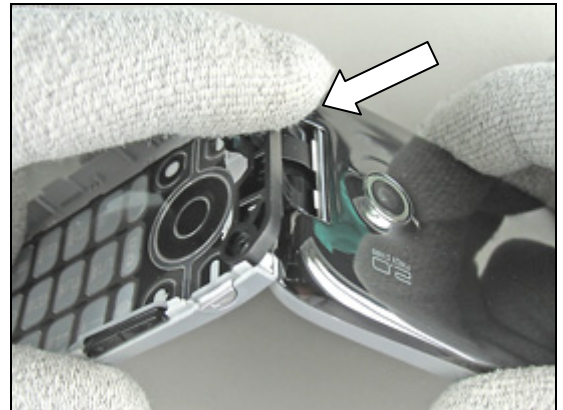


4.2.2 Cover (Hinge)

BE CAREFUL NOT TO BREAK THE SUB ASSEMBLY LOWER CASE (FRONT)!

Start to fold the phone into the position on the picture below.

Use a finger as support when you start to fold the phone together.

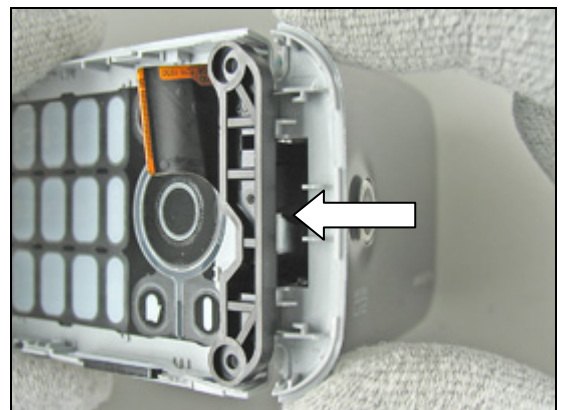


The phone should be in this position before reassembling of the cover (hinge) starts.



Reassemble the cover (hinge) by hand; slide it down then towards the sub assembly lower case (front).

Make sure that there is no gap between the cover (hinge) and the sub assembly lower case (front).



Reassembled cover (hinge).

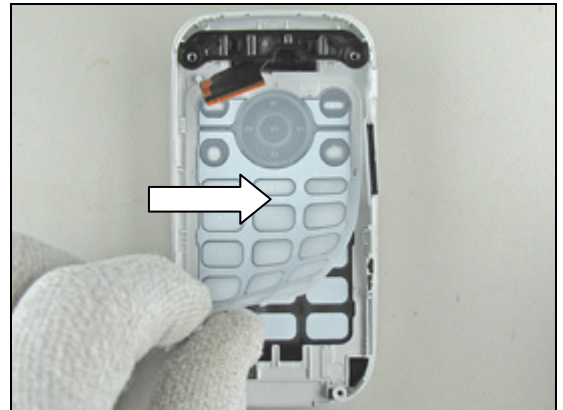
Fold the phone together completely.



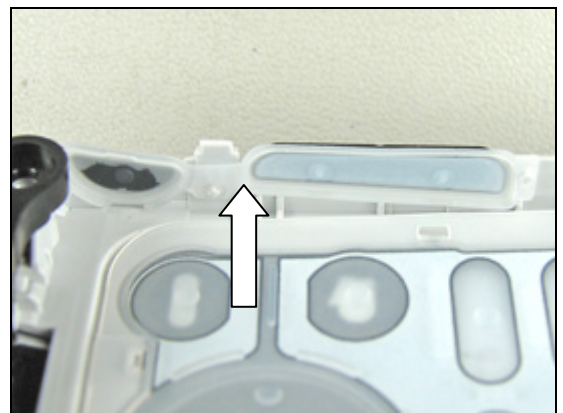


4.2.3 PCBA

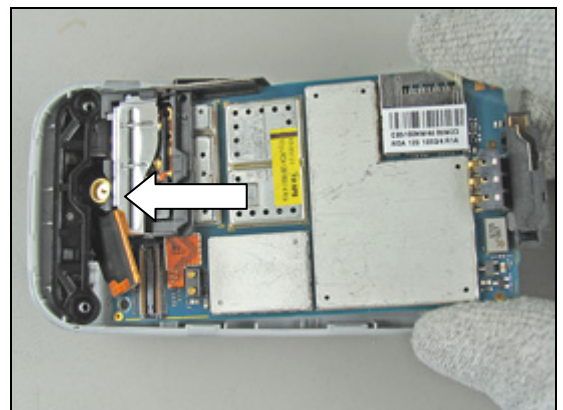
Don't forget to reassemble the rubber (key) into the sub assembly lower case (front) – make sure it's in the correct position, use the guide pins/ holes.



Make sure that the key (side) is correctly assembled into the sub assembly lower case (front); use the guide pins/ holes.



Sometime the key (side) is in the way when folding the PCBA into place in the sub assembly lower case (front). Gently push the key (side) into place (if necessary) by using a pair of tweezers or a dentist hook.

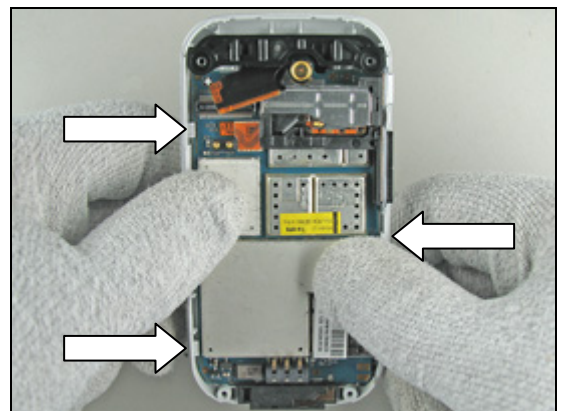


Gently fold the PCBA into the sub assembly lower case (front) – begin at the top of the phone.

Carefully snap down the PCBA into the sub assembly lower case (front) - use your fingers.

Make sure that the three snap fit hooks in the sub assembly lower case (front) are locked against the PCBA.

Check so the PCBA is correctly assembled in the sub assembly lower case (front).



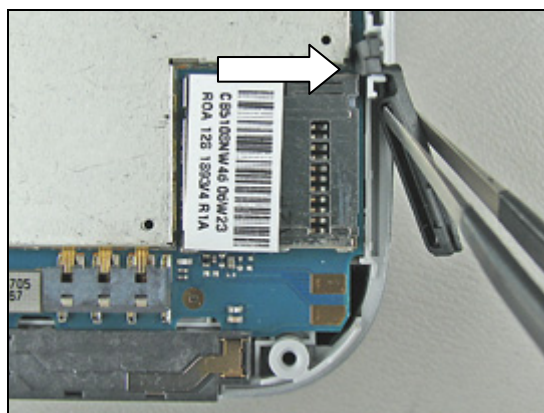
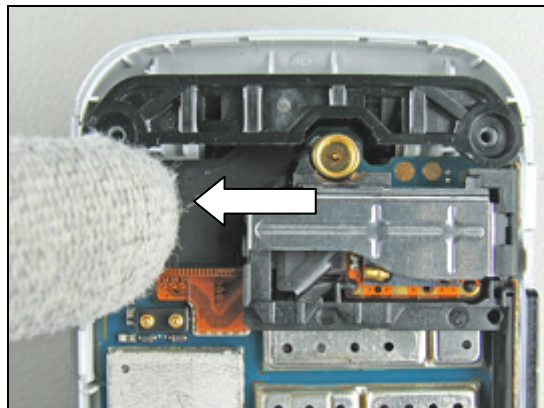
Reassembly Instruction *continued*

DON'T APPLY PRESSURE ON THE BOARD TO BOARD CONNECTOR UNTIL YOU ARE CERTAIN THAT YOU HAVE A "MATCH"!

Connect the board to board connector to the *PCBA* with your fingers.

Make sure that the board to board connector is closed.

Don't forget to reassemble the cover (MS) to the sub assembly lower case (front) – use a blunt pair of tweezers.





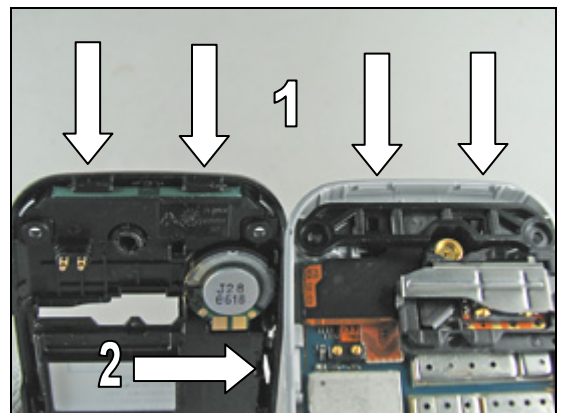
4.2.4 Sub Assembly Lower Case (Rear)

Start like this before reassembling of the *sub assembly lower case (rear)*.



Notice the two snap fit hooks in top of the phone, (1).

Don't forget to mount a new water indicator if you are assembling a new *sub assembly lower case (rear)*, (2).

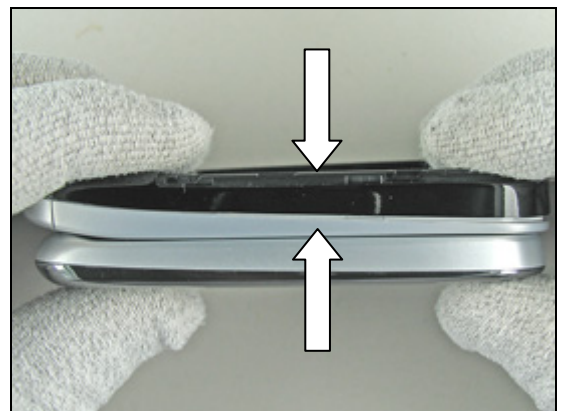


Gently fold the *sub assembly lower case (rear)* onto the *sub assembly lower case (front)* – start at the top with the two snap fit hooks.



Carefully snap down the *sub assembly lower case (rear)* against the *sub assembly lower case (front)* - use your fingers.

Check so the *sub assembly lower case (rear)* is correctly assembled and that there are no gaps around the lower unit.





4.2.5 Cover (Screw) Lower

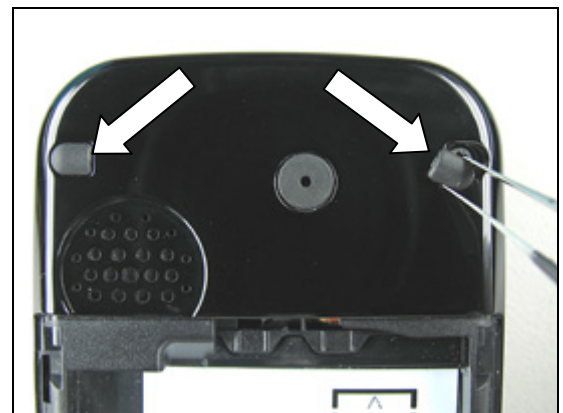
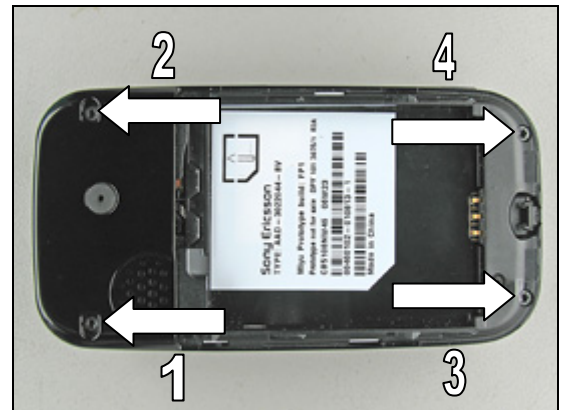
APPLY 23 NCM \pm 1.5 NCM OF TORQUE FOR THE SCREWS USING NTZ 112 288 (TORX BIT NO 6)!

Assemble and tighten the four screws in the sub assembly lower case (rear).

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

USE NEW COVERS (SCREW) LOWER!

Assemble new covers (screw) lower with a blunt pair of tweezers.





4.2.6 Battery, A and Sub Assembly Lid (Battery), B

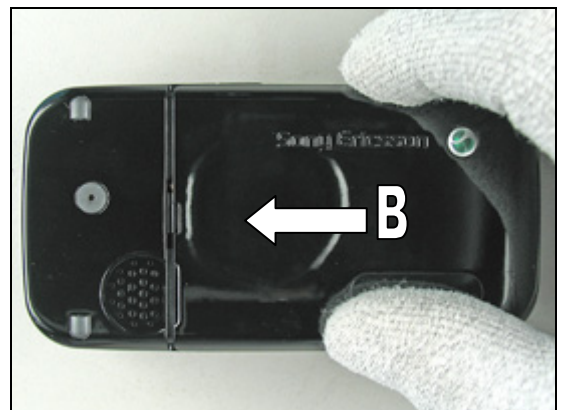
Lay down the top of the *battery* into the frame cavity.



Fold down the *battery* completely.



Start to slide on the *sub assembly lid (battery)*



With your fingers, push on the *sub assembly lid (battery)* until it is completely closed.



Reassembly Instruction *continued*

The phone is now reassembled.





5 Revision history

Rev.	Date	Changes / Comments
A	2006-09-04	Released Document