



Working Instructions - mechanical

Applicable for J300

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1 Read this first!

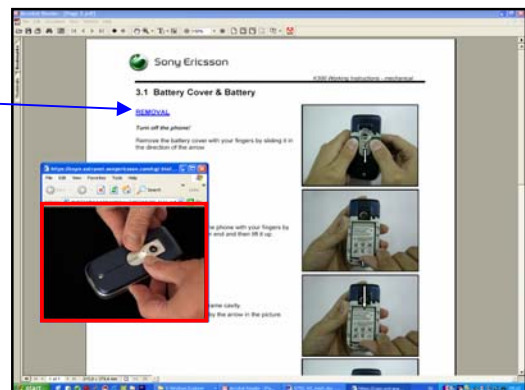
After reading section 2 'Introduction' and the first page of section 3 'Repair Actions', do as follows when a mechanical part needs to be replaced:

- Search for the part name on the contents page and go to the page number where the instruction is found
- Disassemble the phone as far as needed by moving to the instructions stated as e.g. *Follow the Removal instructions of sections 3.1 – 3.6*
- Carry out the actual repair action as described
- Assemble the phone by moving to the instructions stated as e.g. *Follow the Assembly instructions of sections 3.6 – 3.1* (pls. note the reverse order)

When watching the document on-line (connected to CSPN), most of the Removal/Assembly headings are blue-coloured and underlined.

By clicking on such a heading, an Internet Explorer window opens, showing a video clip of the actual removal/assembly.

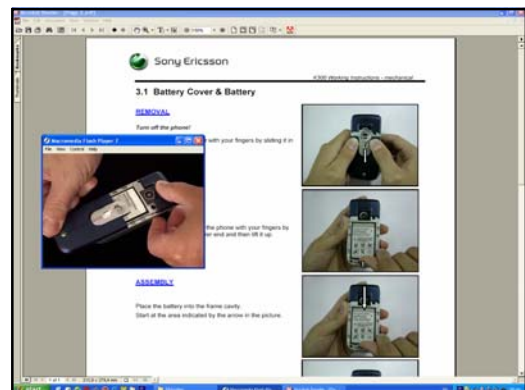
To shrink the video window to its proper size, drag the bottom right corner of the Internet Explorer until the video is shown without blur and edges, which occurs when the video window is approx. 12 x 9 cm (indicated by the red frame in the adjacent picture).



When watching the document off-line (after downloading and extracting the ZIP-file) and clicking on the heading, this results in the start of a flash movie. In this case the window size does not need to be adjusted.

The flash movie can be controlled from the keyboard by holding down the Ctrl-key and pressing another key as follows:

- | | |
|--------------------------------|--------------------|
| - Start and Stop: | Ctrl – Enter |
| - Rewind to start position: | Ctrl – R |
| - Move one small step forward: | Ctrl – right arrow |
| - Move one small step back: | Ctrl – left arrow |



When watching the movies on-line as well as off-line, Flash Player ver. 6 or later must be installed on the computer.

The Flash Player can be downloaded free of charge from www.macromedia.com.

2 Introduction

Special Tools

No new special tools are introduced but a few other Sony Ericsson tools are required:

- NTZ 112 459 Torque screwdriver (or equivalent) set to 10 Ncm \pm 6%
- NTZ 112 288 Torx bit no. 6
- NTZ 112 544 Snap opening tool
- NTZ 112 521 Flexfilm assembly tool
- NTZ 112 302/2 Front opening tool



Standard Tools

The following tools have to be locally purchased:

- Dentist hook
- Blunt pair of tweezers



ESD Equipment

Protect the phone from ESD damages whenever it has been opened by using:

- ESD-gloves (cotton gloves)
- ESD-wristband

Adhesives

Use a dentist hook or a blunt pair of tweezers to remove old adhesives.

If necessary, clean the surface with isopropyl alcohol before attaching new adhesives.

Cautions

- **Keep all contact surfaces clean, no dirt or hand grease**
- **Be careful when using tools like the dentist hook, tweezers, opening tools etc. to avoid scratches or damages to the exterior and interior parts of the phone**
- **Removed screws cannot be reused and must be scrapped**
- **Be careful not to damage the contact springs on parts like the receiver and vibrator**
- **Remember to remove the protection foils on new parts such as the front cover and the display**
- **Never touch the display glass**
- **Use air blow equipment to keep the front window and display module dust free**

3 Repair actions

FRONT & REAR VIEWS



PRECAUTIONARY ACTIONS

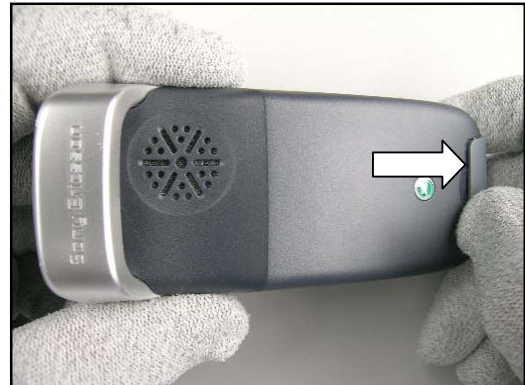
Turn off the phone!



3.1 Battery Cover ass'y & Battery

REMOVAL

Release the battery cover blocking element at the end of the phone.

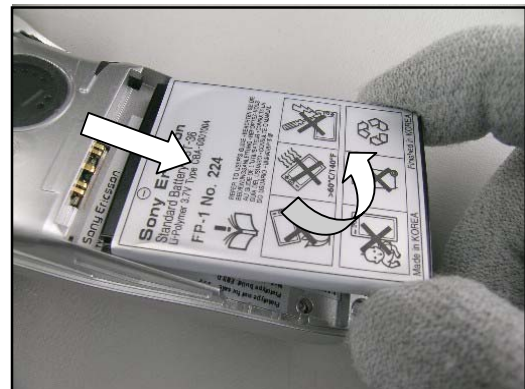


Lift battery cover up at the bottom and carefully release it at the top to remove it from the frame.



Release the battery at the bottom and lift it up to remove it.

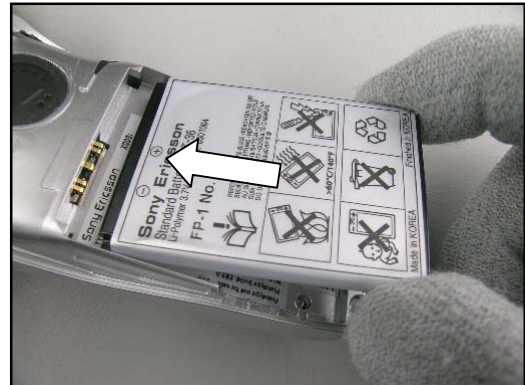
Turning the phone upside down will make it easier to get the battery released.



Battery Cover ass'y & Battery *continued*

ASSEMBLY

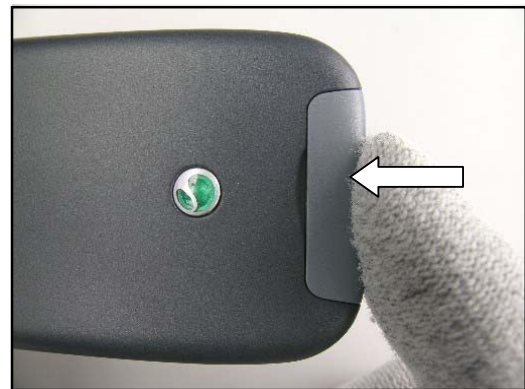
Put the top of the battery into the frame cavity and press on the bottom until it is in a secure position.



Hold the bottom of the battery cover in a raised position and push the top into the frame. Then fold down the bottom part.



Push on the battery cover blocking element at the bottom of the phone to secure the locking of the battery cover.

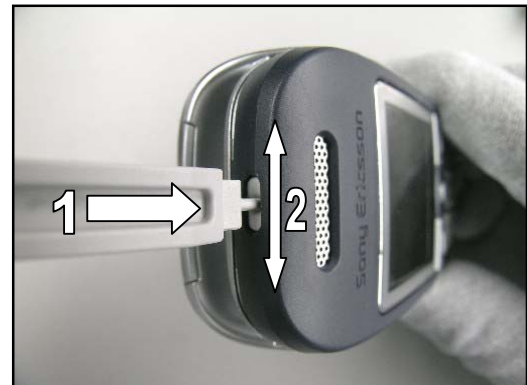


3.2 Front Cover (A-cover)

REMOVAL

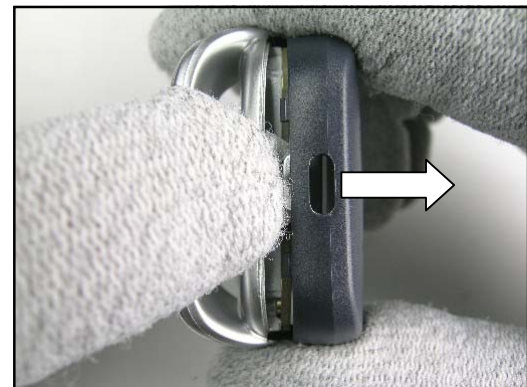
Follow the Removal instructions of section 3.1

Press with the snap opening tool on the top release button (1) until you can see a small gap (2) between the front cover and the frame.



Do not bend the front cover too much apart from the frame!

Continue to press with your finger on the release button until it becomes released from the front cover.



Gently wiggle the front cover side to side while pulling it away from the frame.

Note that the keyboard may come loose from the front cover.



Front Cover (A-cover) *continued*

ASSEMBLY

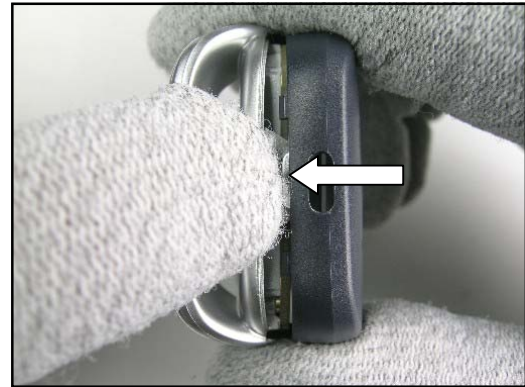
Check that the keyboard is in its proper position before the assembly is begun!

Do not bend the front cover too much upwards!

Raise the front cover and slide it against the bottom cover.



Press down the release button with your finger,



and snap the front cover onto the frame.



Continue to press with your finger until the front cover is completely locked by the button (1).

***Make sure that there are no gaps around the phone (2).
If there still is a gap somewhere, gently press the two halves together with your fingers.***

Follow the Assembly instructions of section 3.1

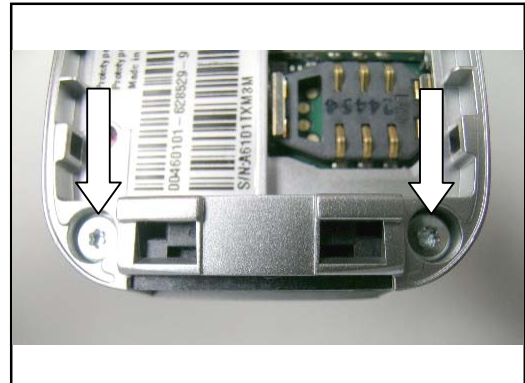


3.3 Bottom Cover

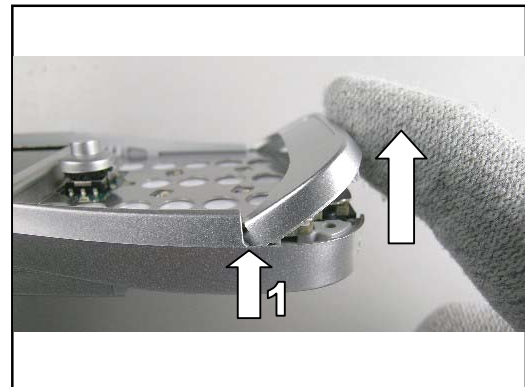
REMOVAL

Follow the Removal instructions of section 3.1 – 3.2

Use torx bit no. 6 to remove the two screws at the bottom of the phone.



Carefully lift the bottom cover approximately 40°-45° with your finger, this because of the hooks in the bottom cover (1).



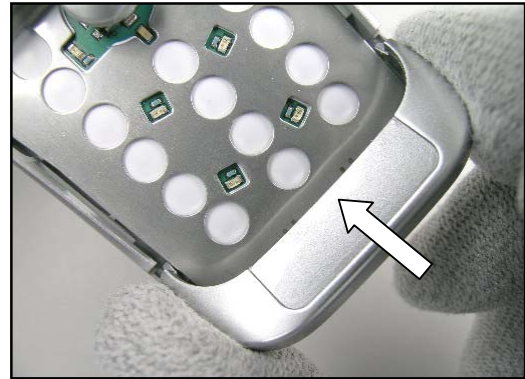
Pull the bottom cover away from the frame with your fingers.



Bottom Cover *continued*

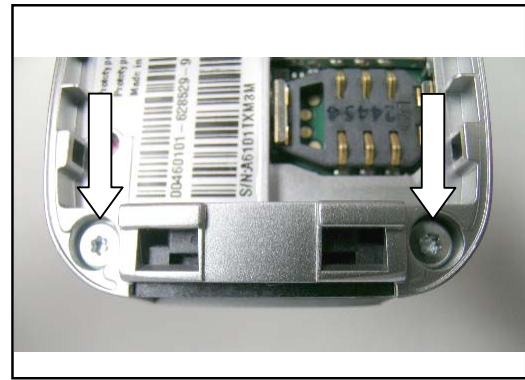
ASSEMBLY

Push the bottom cover with your fingers onto the frame in a slight angle.



Apply **10 Ncm** of torque when tightening two **new** screws with torx bit no. 6.

Follow the Assembly instructions of sections 3.2 - 3.1

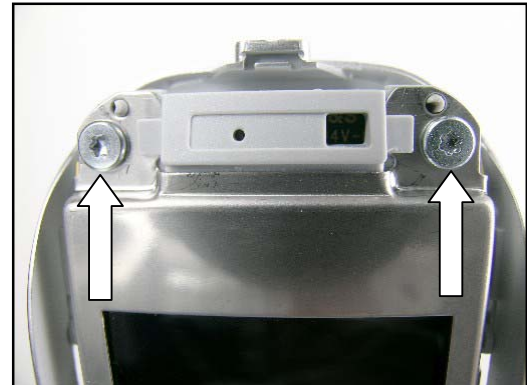


3.4 PBA with metal frame

REMOVAL

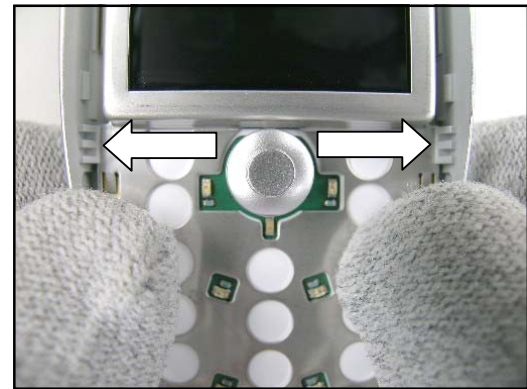
Follow the Removal instructions of sections 3.1 – 3.3

Use torx bit no. 6 to remove the two screws at the top of the metal frame.



Be careful not to bend the PBA too much apart from the frame!

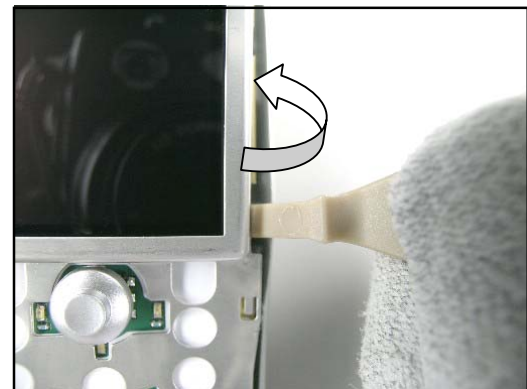
Gently release the PBA and the metal frame from the two snap fit hooks located in the middle of the frame with your fingers.



Place the front opening tool in the position shown in the picture and gently turn the tool until the PBA and the metal frame are released from the frame.

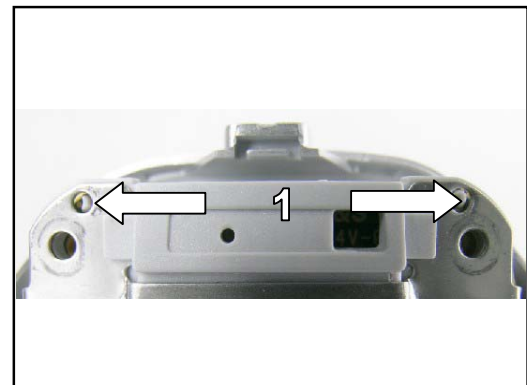
If necessary, do the same thing on the opposite side.

Note that the speaker may fall out of the frame.



ASSEMBLY

Put the system connector of the PBA into the bottom of the frame and then gently fold down the PBA into the frame until it reaches the two guide pins at the top of the frame (1).

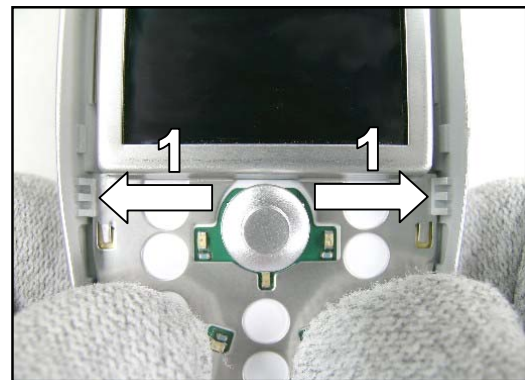


PBA with metal frame *continued*

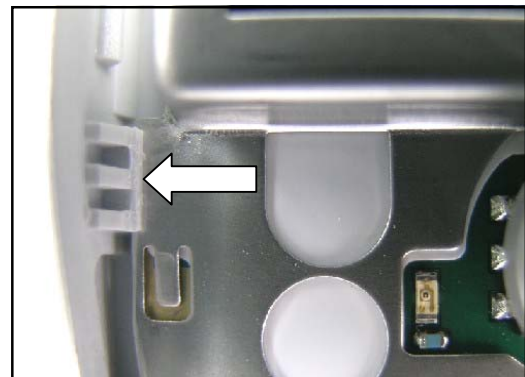
After putting the PBA and its metal frame properly into the frame, they have to be secured.



Gently press the frame wall out to make it easier for the metal frame to pass the hooks (1).
Then press the PBA and its metal frame against the frame until they are snapped by the two hooks.

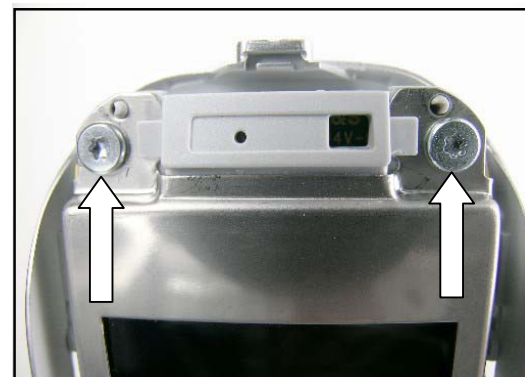


Check that the two hooks are securely holding the PBA and metal frame as shown in the adjacent picture.



Apply **10 Ncm** of torque when tightening two **new** screws with torx bit no. 6.

Follow the Assembly instructions of sections 3.3 – 3.1

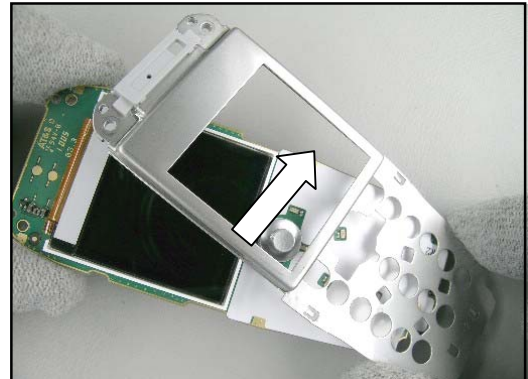


3.5 Metal Frame ass'y

REMOVAL

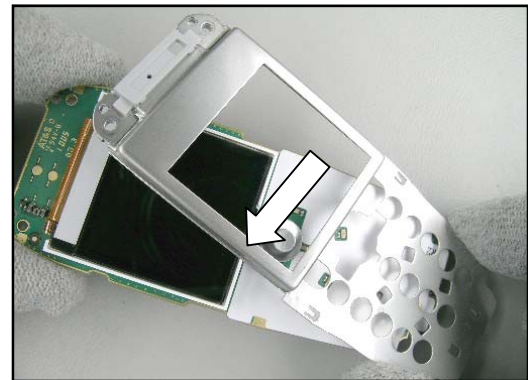
Follow the Removal instructions of section 3.1 – 3.4

Remove the metal frame from the PBA by lifting it up.



ASSEMBLY

Check that the display is in its proper position and fold the metal frame down,



until the entire metal frame covers the display and the PBA.

Follow the Assembly instructions of sections 3.4 – 3.1



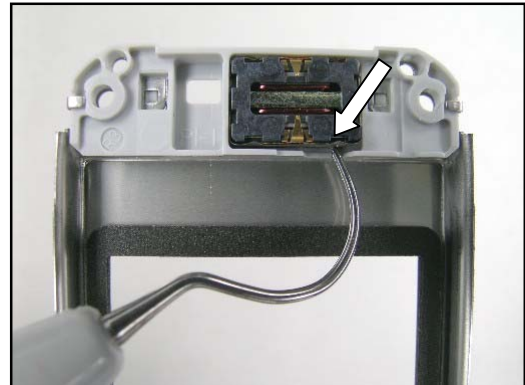
3.6 Receiver & Receiver Gasket

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.5

Gently bend with the dentist hook under the receiver until it starts to become loose.

Remove the receiver by using the tweezers.



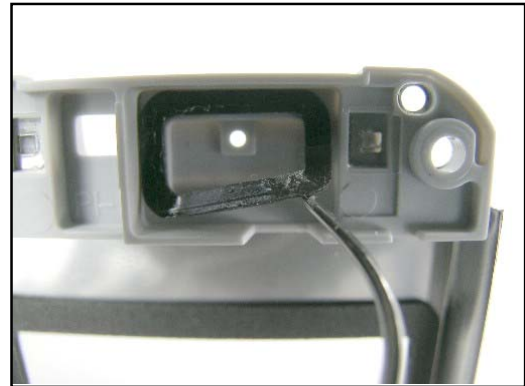
Never re-use an old receiver gasket!

Remove the receiver gasket with the dentist hook.

ASSEMBLY

Remove adhesive remains from the cavity!

Attach a **new** receiver gasket into the receiver holder with the tweezers.



Do not press in the center of the receiver!

The receiver has to be mounted as shown in the picture!

Mount the receiver by using the tweezers or your fingers and press gently until the receiver reaches the bottom of the cavity.

Follow the Assembly instructions of sections 3.5 - 3.1



3.7 Receiver Holder (plastic frame)

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.5

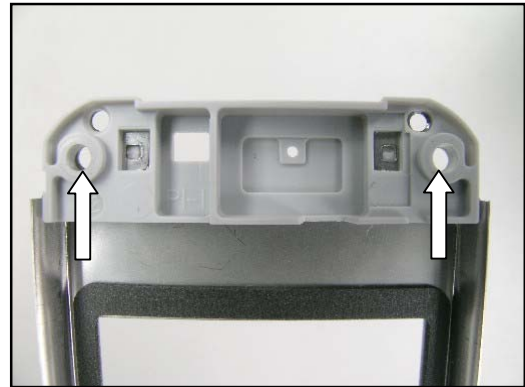
Gently bend with the tweezers between the metal frame and the receiver holder until the holder is moved and then remove it with your fingers.



ASSEMBLY

Slide the receiver holder onto the metal frame using your fingers.
The picture shows a correctly mounted receiver holder, i.e. you should be able to see through the two screw holes.

Follow the Assembly instructions of sections 3.5 – 3.1



3.8 Display Module

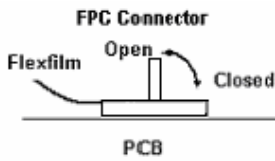
REMOVAL

Follow the Removal instructions of section 3.1 – 3.5

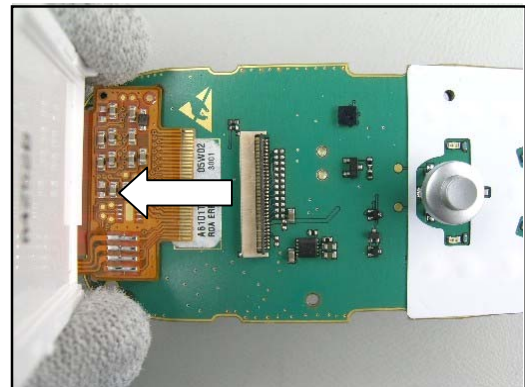
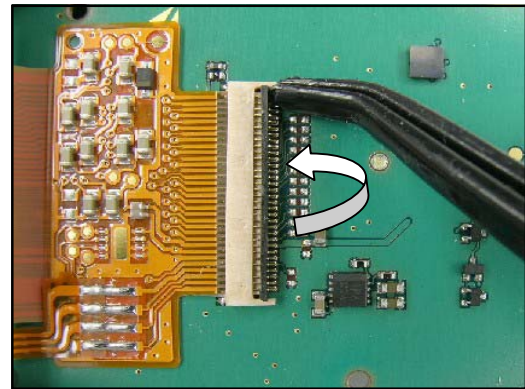
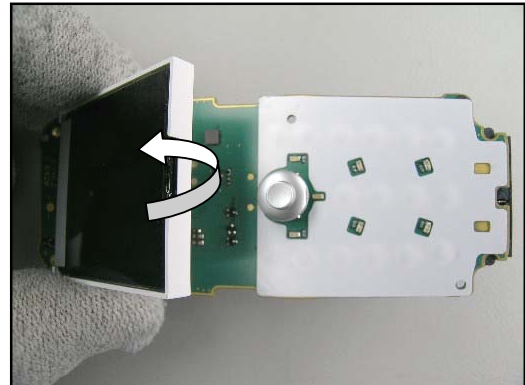
Gently lift the display module with your fingers or with the flexfilm assembly tool.

Be most careful not to damage the FPC connector clamp when opening it since the clamp may fall off, resulting in a connector replacement to be done by electrical repair!

Open the FPC connector with the flexfilm assembly tool.



Remove the display module from the PBA.

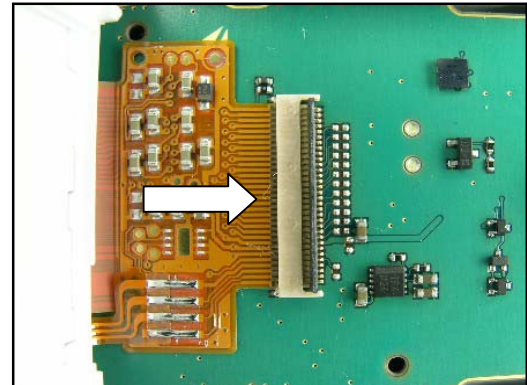


Display Module *continued*

ASSEMBLY

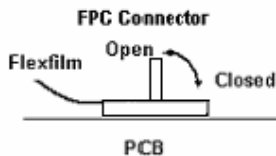
Make sure the FPC connector clamp is open!

Gently slide the display flexfilm into the FPC connector by hand.

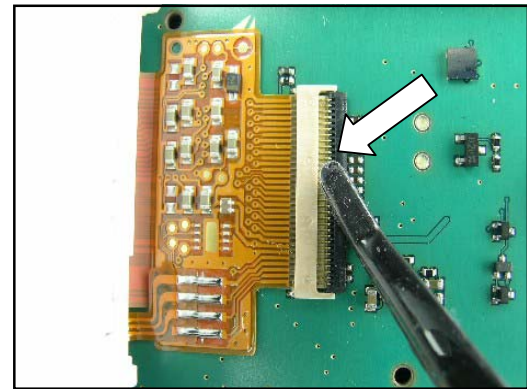


Be most careful not to damage the FPC connector clamp when closing it since the clamp may fall off, resulting in a connector replacement to be done by electrical repair!

Close the FPC connector with the flexfilm assembly tool.



Follow the Assembly instructions of sections 3.5 – 3.1

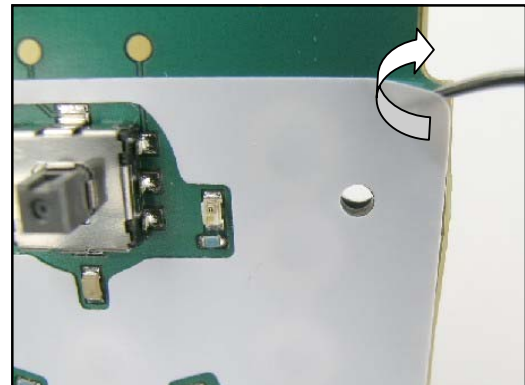


3.9 Dome Sheet

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.5

Remove the dome sheet with a dentist hook and tweezers.



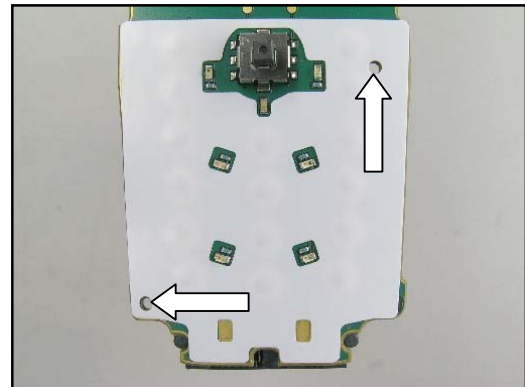
ASSEMBLY

If necessary, clean the surface of the PBA with isopropyl alcohol!

The dome sheet should be aligned to the markings and the holes on the PBA!

Attach a **new** dome sheet with your fingers or tweezers by starting with the upper part.

Follow the Assembly instructions of sections 3.5 – 3.1



3.10 Protection Tape (under SIM-card)

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4

Remove the protection tape by using a dentist hook and tweezers.

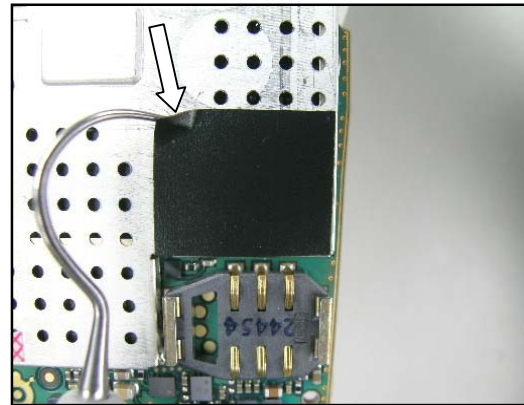
ASSEMBLY

If necessary, clean the shield can lid with isopropyl alcohol!

Attach a new protection tape with the tweezers.

Be careful with the tape alignment since the edge of the tape must be in line with the edge of the shield can lid!

Follow the Assembly instructions of sections 3.4 – 3.1



3.11 Water Indicator

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4

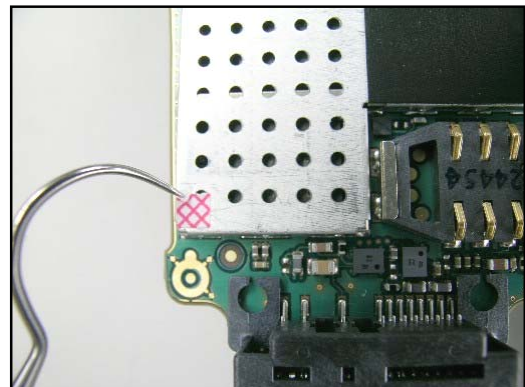
Remove the water indicator by using a dentist hook.

ASSEMBLY

If necessary, clean the shield can lid with isopropyl alcohol!

Attach a **new** water indicator.

Follow the Assembly instructions of sections 3.4 – 3.1

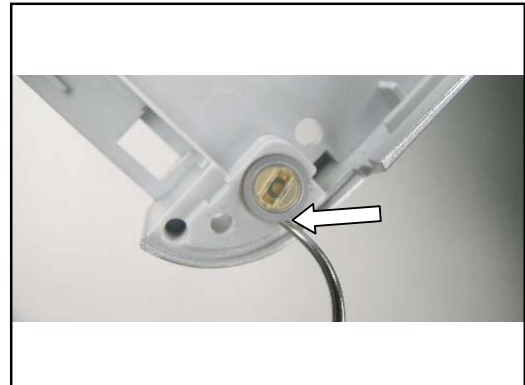


3.12 Microphone

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4

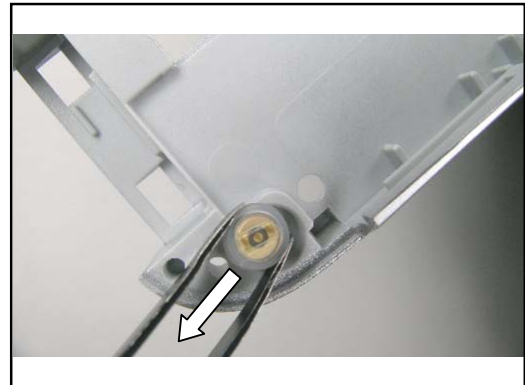
Gently bend the microphone up and away from the frame with a dentist hook until it can be gripped and removed by the tweezers.



ASSEMBLY

Use tweezers to mount the microphone and press gently until it reaches the bottom of the cavity.

Follow the Assembly instructions of sections 3.4 – 3.1



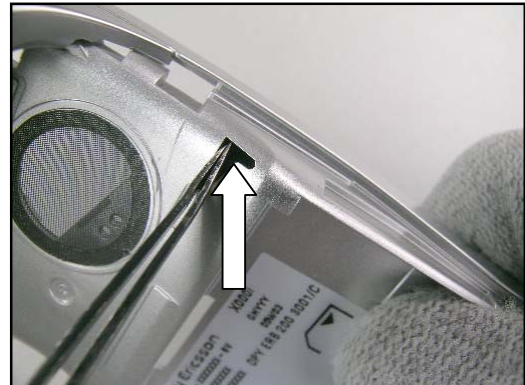
3.13 Vibrator

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4

Do not pull or push by holding the flywheel!

Push the vibrator with the tweezers through the hole from the opposite side of the frame until it comes loose and can be removed.

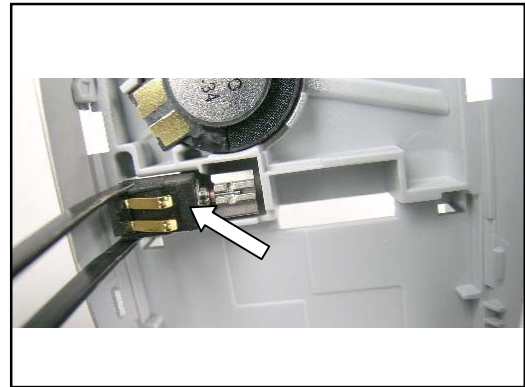


ASSEMBLY

Mount the vibrator by holding the rubber part with the tweezers.

Gently press with the tweezers on the rubber part of the vibrator until it has reached the bottom of the cavity!

Follow the Assembly instructions of sections 3.4 – 3.1



3.14 Speaker

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4

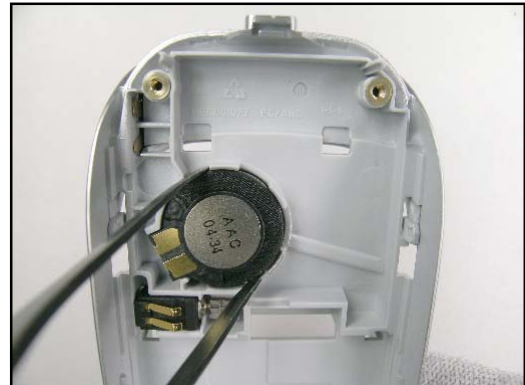
Remove the speaker with the tweezers.

ASSEMBLY

Do not press in the center of the speaker!

Mount the speaker with the tweezers.

Follow the Assembly instructions of sections 3.4 – 3.1



3.15 Speaker Gasket

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.4 & 3.14

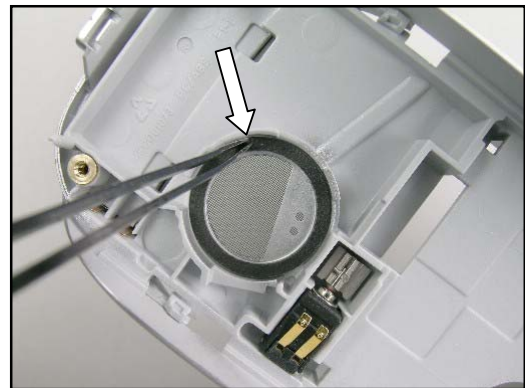
Remove the speaker gasket with the tweezers.

ASSEMBLY

Remove adhesive remains from the speaker cavity!

Assemble a **new** speaker gasket by using tweezers or your fingers.

Follow the Assembly instructions of sections 3.14 & 3.4 – 3.1



3.16 Speaker Dust Mesh

REMOVAL

Follow the Removal instructions of section 3.1

Remove the old speaker dust mesh with the tweezers. If the frame is removed, the speaker dust mesh can easily be removed by pushing through the speaker hole from the opposite side of the frame.

ASSEMBLY

Remove adhesive remains from the frame!

Attach a **new** speaker dust mesh by using tweezers or your fingers.

Follow the Assembly instructions of section 3.1



3.17 Frame ass'y

REMOVAL & ASSEMBLY

Follow the Removal instructions of sections 3.1 – 3.4 & 3.12 – 3.15

Replace the frame.

Follow the Assembly instructions of sections 3.15 – 3.12 & 3.4 – 3.1



3.18 Joystick Plastic Cap

REMOVAL

Follow the Removal instructions of sections 3.1 – 3.2

Remove the joystick plastic cap with your fingers by pulling straight upwards.

The joystick plastic cap cannot be reused due to the inside crash-ribs!

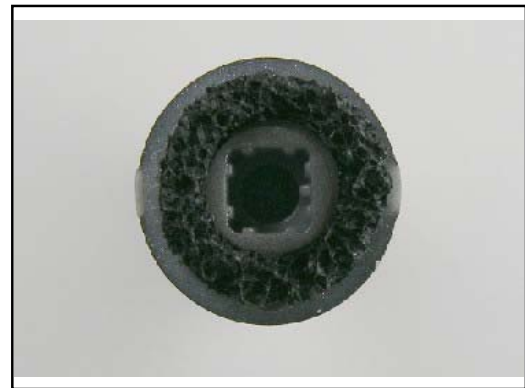
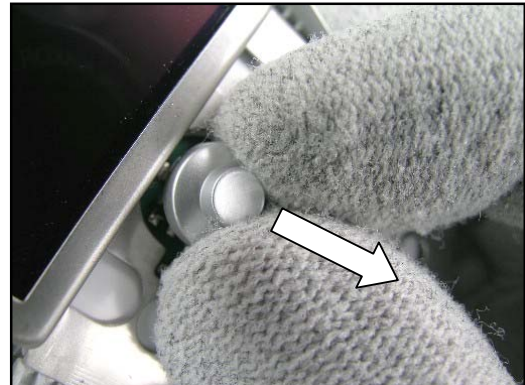
ASSEMBLY

Assemble a **new** dust gasket with the tweezers onto the **new** joystick plastic cap in the position shown in the picture.

Mount the joystick plastic cap.

The joystick button bevel (flat part) must be pointing downwards!

Follow the Assembly instructions of sections 3.2 – 3.1



3.19 Keypad

REMOVAL

Follow the Removal instructions of section 3.1 – 3.2

Remove the keypad by hand or with the tweezers.

ASSEMBLY

Mount the keypad by hand or with the tweezers.

Follow the Assembly instructions of section 3.2 – 3.1



3.20 Front (co-brand) Label

REMOVAL

Gently remove the front label with a dentist hook .

In case the bottom cover is removed it is easier to remove the label by pushing from the inside of the bottom cover through the hole in the cover using the snap opening tool.

ASSEMBLY

If necessary, clean the surface of the label cavity with isopropyl alcohol!

Attach a **new** front label by hand or with tweezers.



4 Label

TOOLS

- Hot air flow solder station
- Blunt pair of tweezers
- Zebra printer and computer

INSTRUCTION

This instruction should be used when exchanging an old label or assembling a new one.

***Note the position of the label before removal!
One label only is allowed on the frame!***

1. Read the old label and/or write the information into the "Labelmake" program.
2. Heat up the label with a hot air flow solder station, if needed.
3. Carefully remove the label and make sure that all residues are gone.
If necessary, clean the surface with isopropyl alcohol.
Do not scratch the frame.
4. Check that the right label format is loaded in the Zebra printer.
5. Write a new label by using the program "Labelmake".
Check that the printing is ok.
6. Take the new label and place it onto the frame as in the picture.
Make sure the label is placed in its proper position.





5 Revision History

Rev.	Date	Changes / Comments
A	2005-05-27	Initial release