

**CCS Technical Documentation
NHL-2NA Series Transceivers**

Disassembly Instructions

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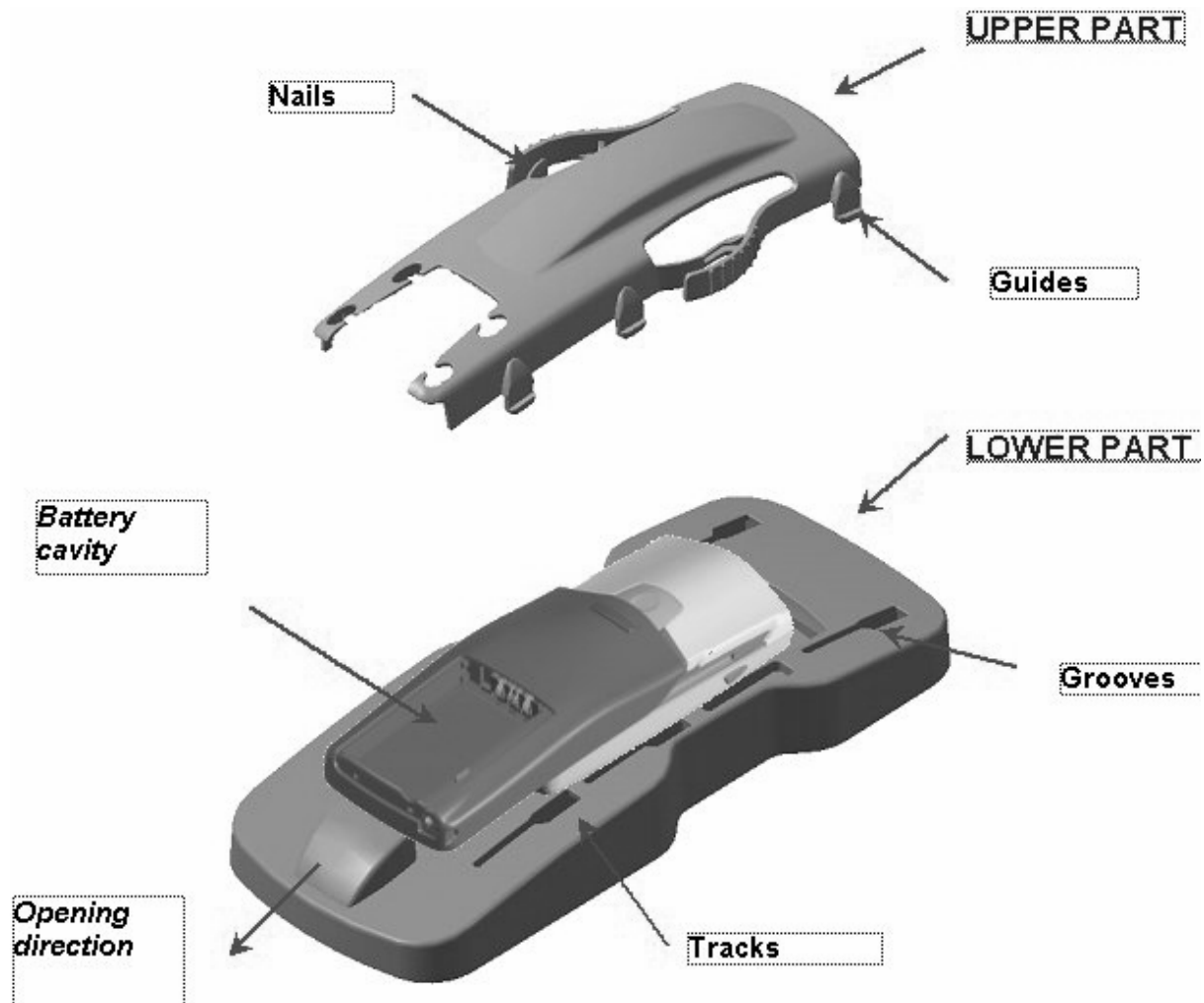
Disassembly jig opened

Install phone onto disassembly jig with grip opened.

NOTE: Remember to wear gloves or finger covers when working!!

Phone with grip opened onto disassembly jig

- 1 Place the phone onto lower tool cavity upside down.
- 2 Install upper part on the lower part so that the nails are in the phone tracks.
- 3 And in the same time put the upper part guides to the lower part grooves.
- 4 Push the upper part till end of the grooves (opening direction).
- 5 Pull with your thumb from battery cavity to completely disassemble phone.
- 6 Push the upper part back to the starting point.
- 7 Remove the upper part.



Push transceiver module to separate module from grip

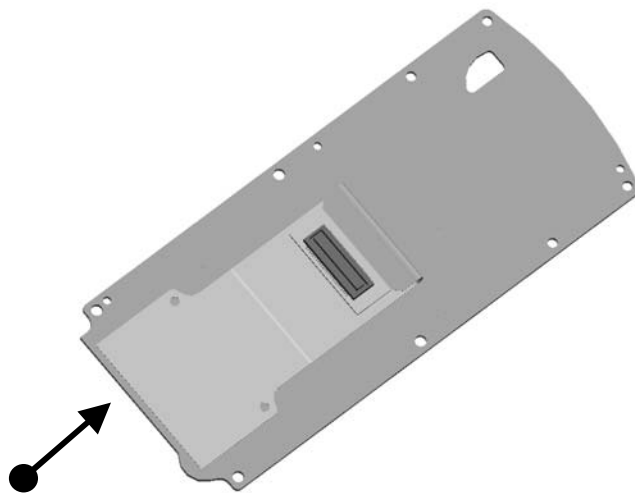


Be careful when sliding transceiver away from grip module, preventing damage to flex assembly.

Attention:

Be very careful not to break the flex!

Solder joints to main PWB.



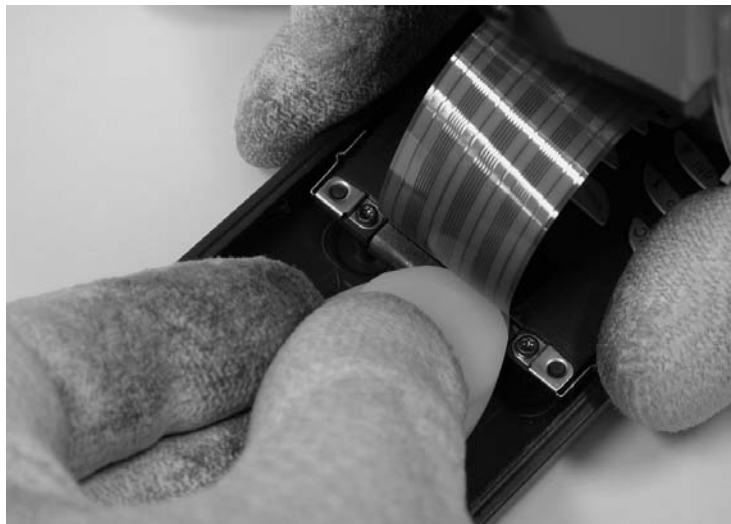
Protective tape disassembly from grip

- 1 Take with tweezers protective tape from one corner and drag the tape away.
- 2 At the same time do hold the connector at its place with other hand, preventing-connector to be damaged.



Flex connector disassembly from grip

- 1 Take away battery cover.
- 2 Dismantle battery from transceiver.
- 3 Take the plastic SRT-6 opening tool.
- 4 Put one corner under the longer side of connector.
- 5 Gently rotate the plastic plate first from one side of connector then the other side.
- 6 Connector will be released from grip.
- 7 Put Grip module to place where dust cannot reach the module.



Transceiver module onto jig upside down, removing screws from A-cover and Acoustic chamber.

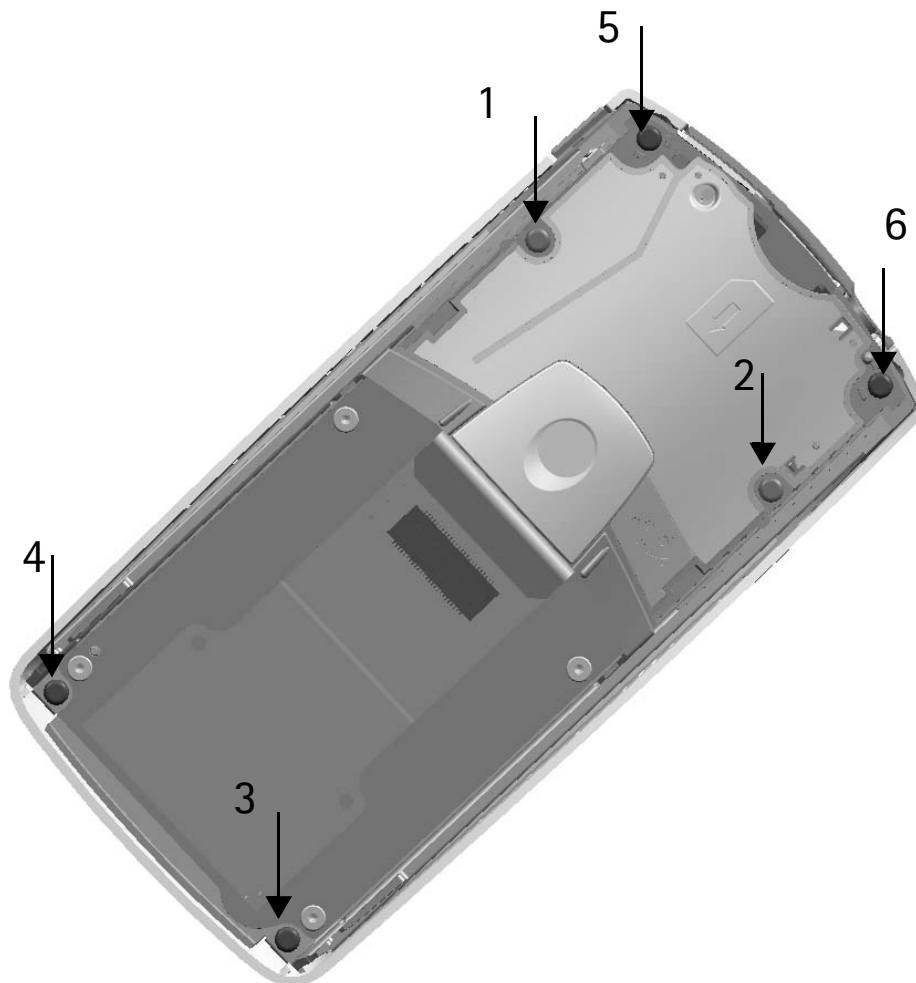
- 1 Take B-cover away from transceiver in hand.
- 2 Put transceiver onto table.
- 3 Remove screws RF 1,8x8,0 T6+ No. 5,6
- 4 Remove screws RF 1.8x6.0 T6+ No. 1,2,3,4



Note: Arrange screws so that you can remember where to place them when assembling.

- 5 Remove Acoustic Chamber from transceiver put it to a place where dust cannot reach camera cavity.

Lift from sides!



Note for assembly! Screws must be tightenend as illustrated in the picture above, correct tightening sequence is 1,2,3,4,5,6.

1.Screws RFF 1.8x6.0 T6+ to acoustic chamber (2 pcs).

2.Screws RFF 1.8x6.0 T6+ to chassis assembly (2 pcs, bottom corners).

3.Screws RF 1.8x8.0 T6+ to acoustic chamber (2 pcs, top corners).

Note! If only acoustic chamber is removed and replaced, tightening sequence is then 1,2,5,6.

Detaching A-cover from transceiver

- 1 Take the plastic SRT-6 opening tool put it between the A-cover and chassis assembly from side 1 gently turning the blade.
- 2 Turning the transceiver upside, separate the A-cover from transceiver in hand.
- 3 Put transceiver onto jig, attention not to drop UI-module UI-module faces upwards.

Figure 1: Detaching sequence 1

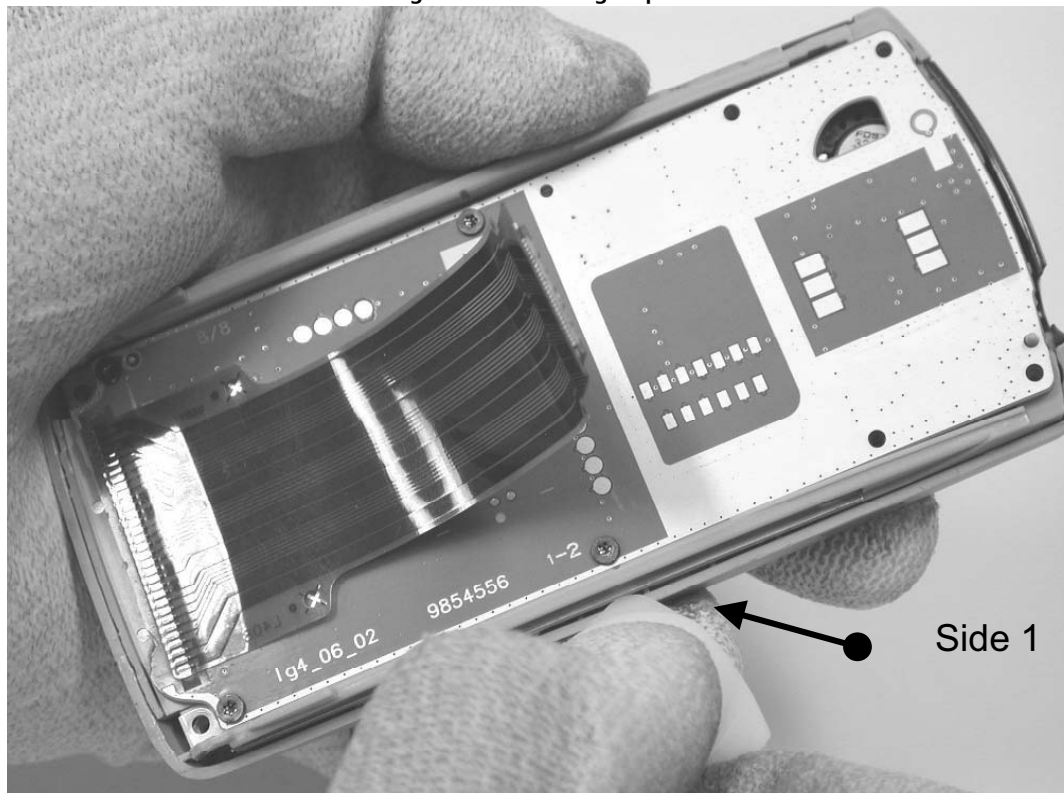


Figure 2: Detaching sequence 2

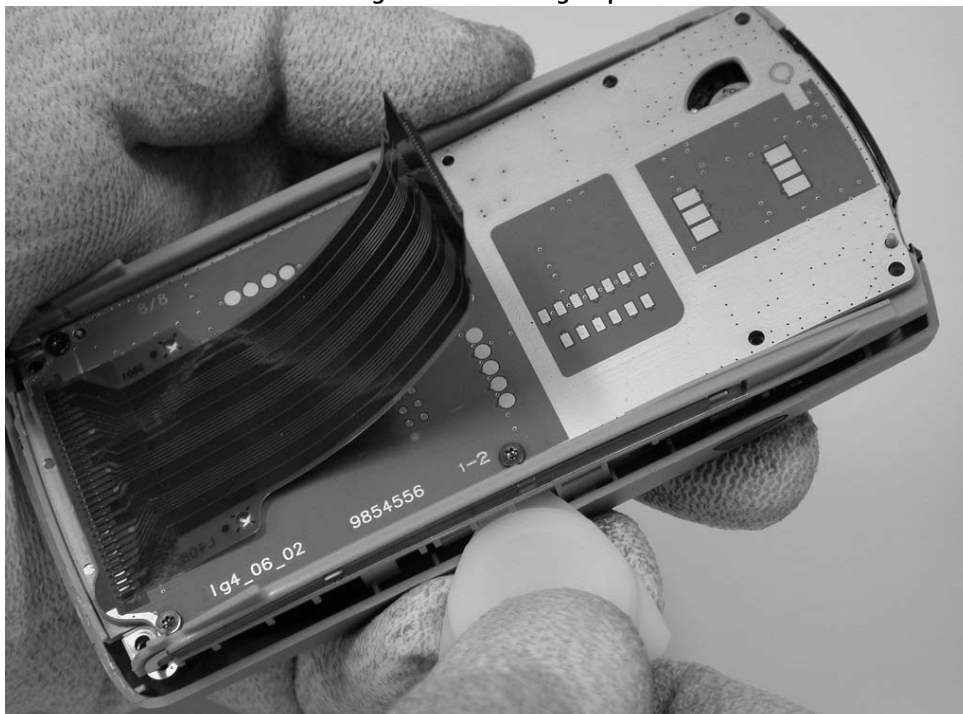
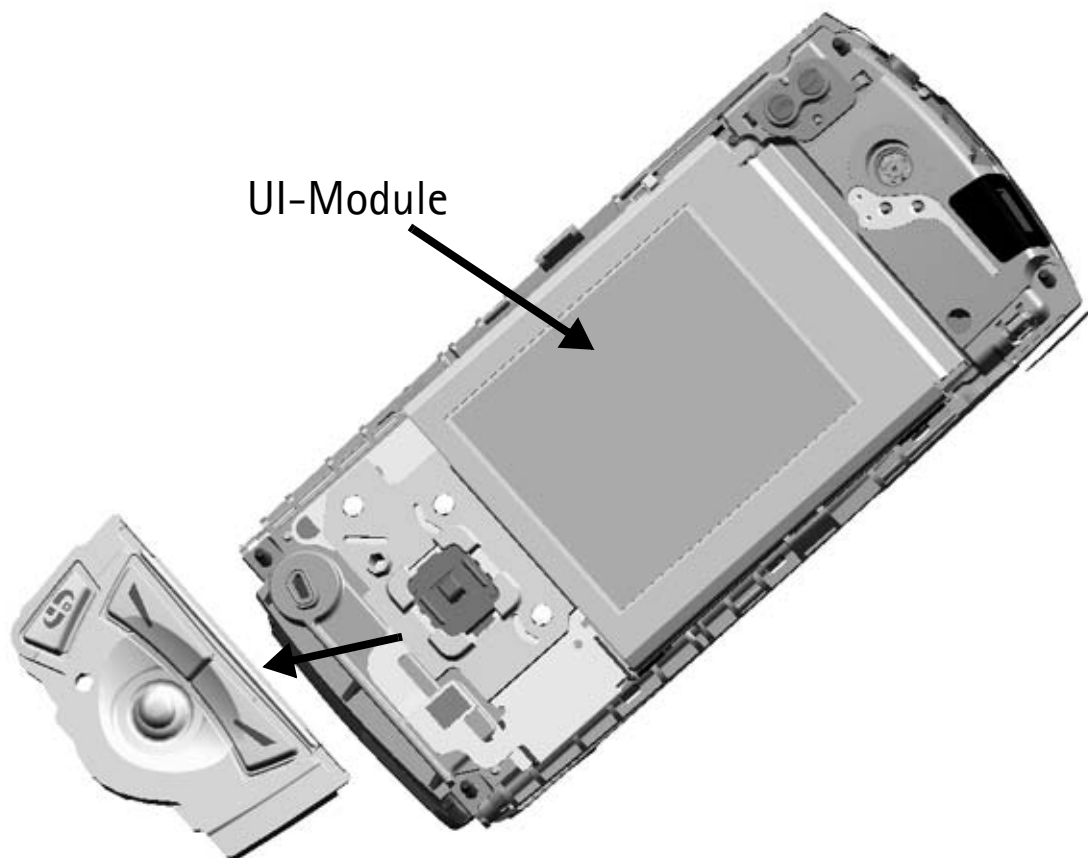


Figure 3: Detaching sequence 3



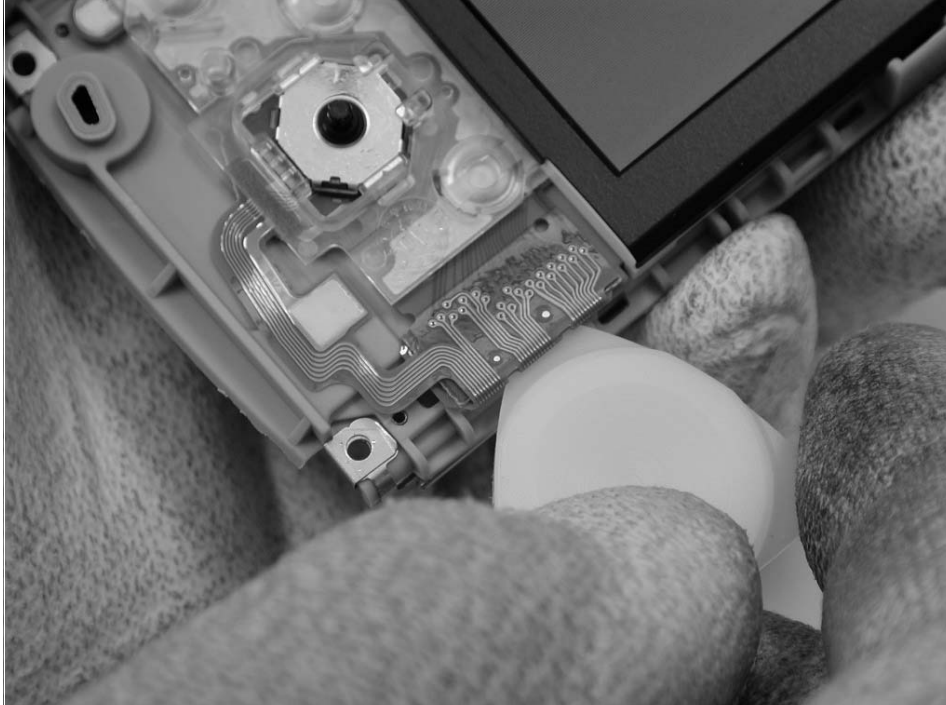
Transceiver keymat from transceiver

- 1 Take away transceiver keymat.
- 2 Check that inner plastic part (white) of rocker will remain on keymat.

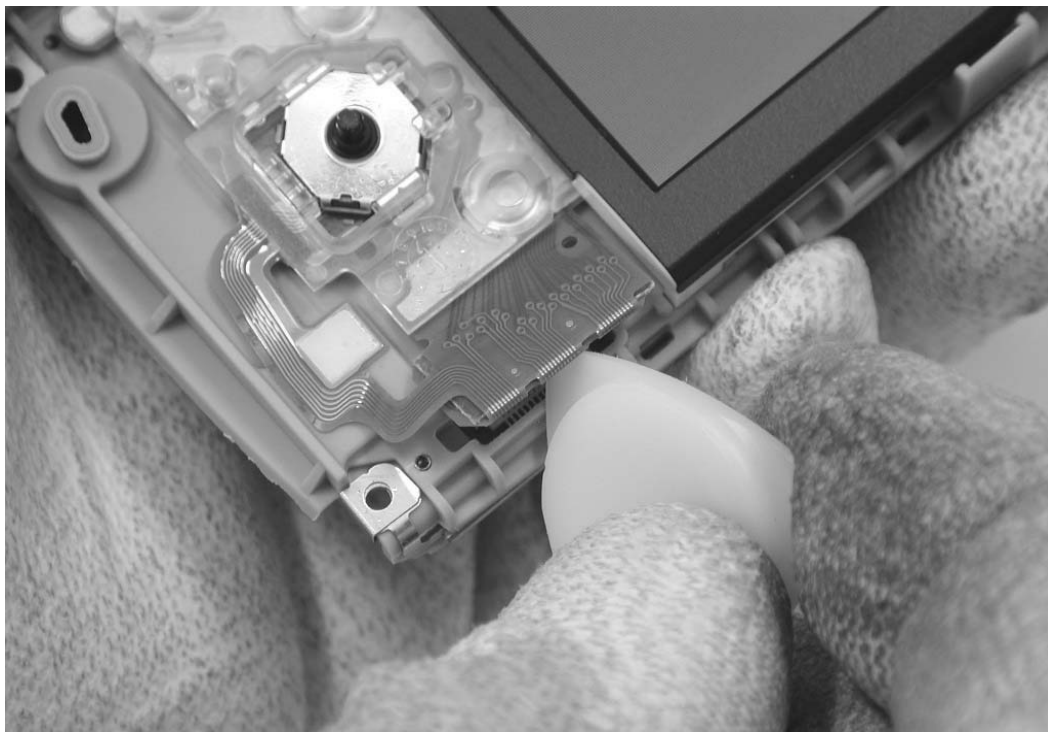


UI-module B&B connector

- 1 Use plastic SRT-6 opening tool.
- 2 Put plastic SRT-6 opening tool under longer side of UI-module connector..



- 3 Gently separate B&B connector form UI-module by turning the tool



UI-module from chassis assembly

- 1 Lift off the UI-module by hand from chassis assembly.
- 2 Place the UI-module (facing upwards) to a place where dust cannot reach UI-module.

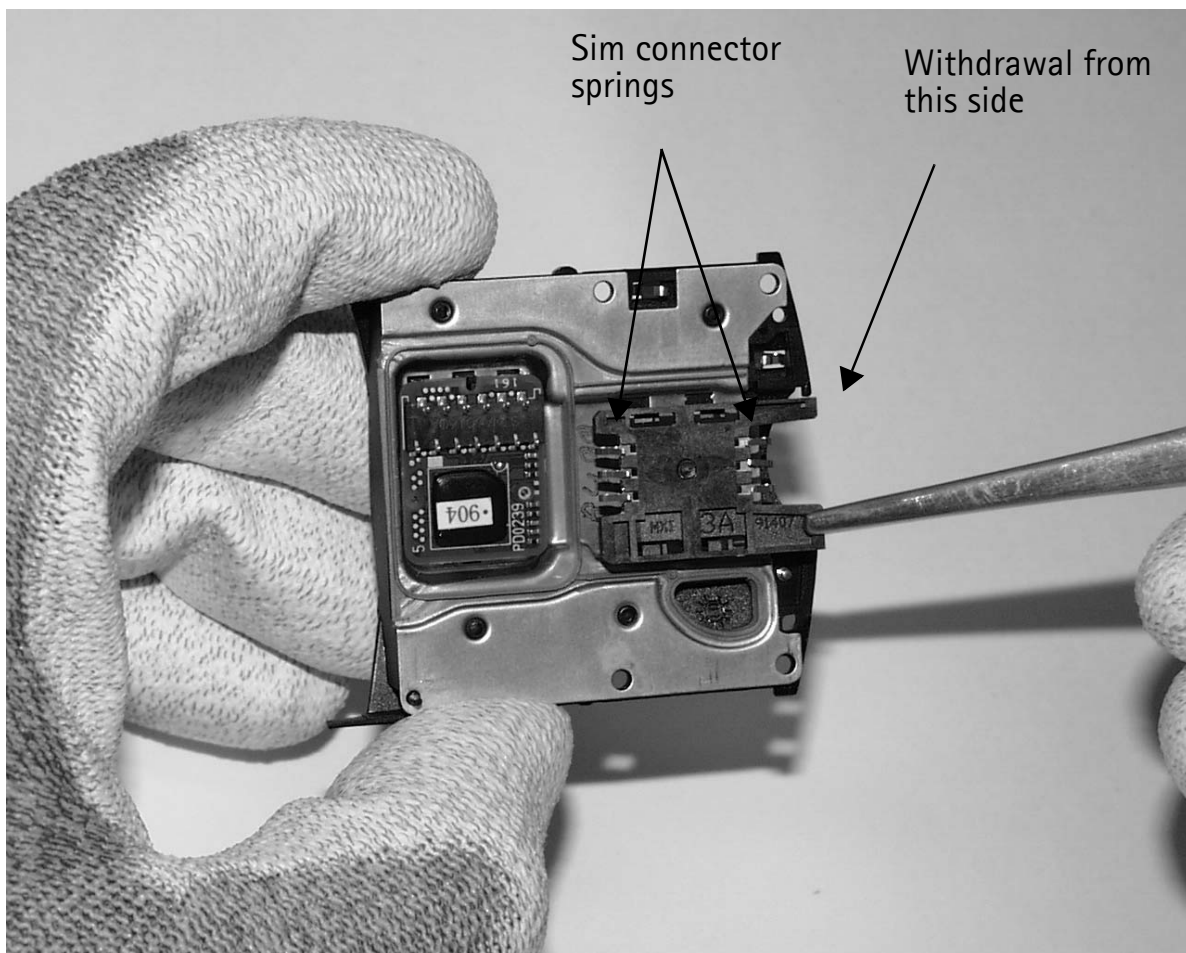


SIM connector from acoustic chamber

- 1 Take acoustic chamber to hand.
- 2 Disconnect the sim connector with tweezers from front side.
- 3 Withdraw the sim connector from acoustic chamber.

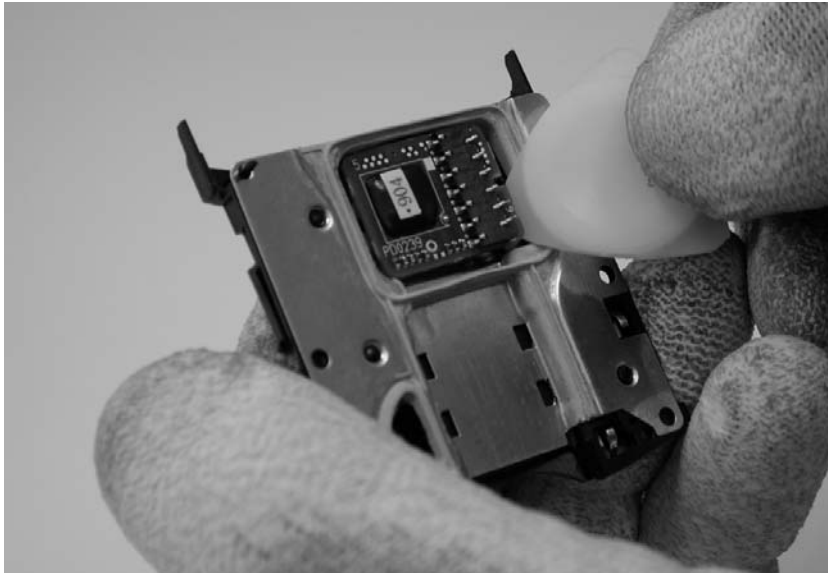
Note! Sim connector can be loose in its cavity when assembled!

- 4 Be careful not to bend springs

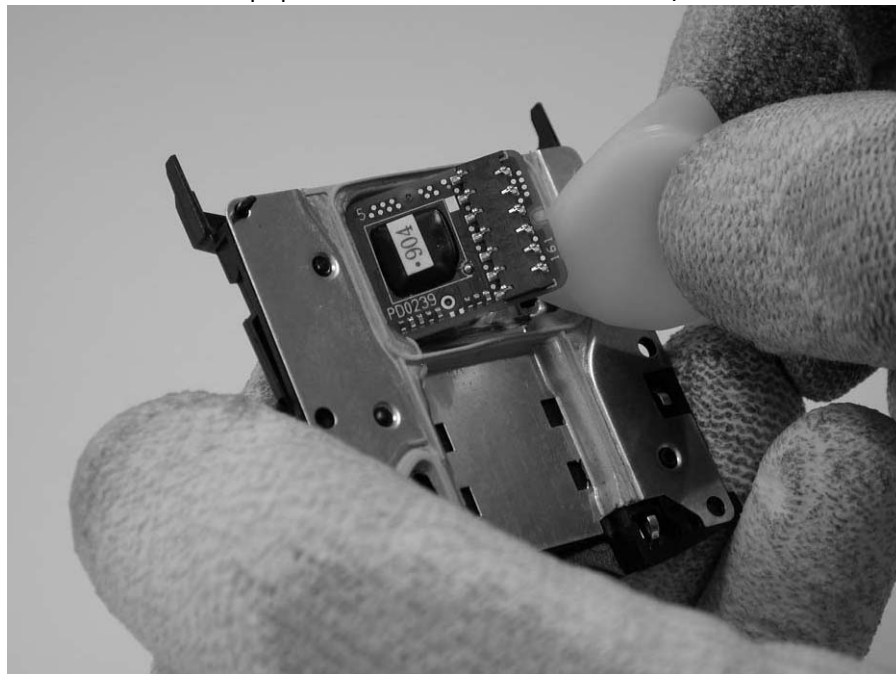


Camera module from acoustic chamber

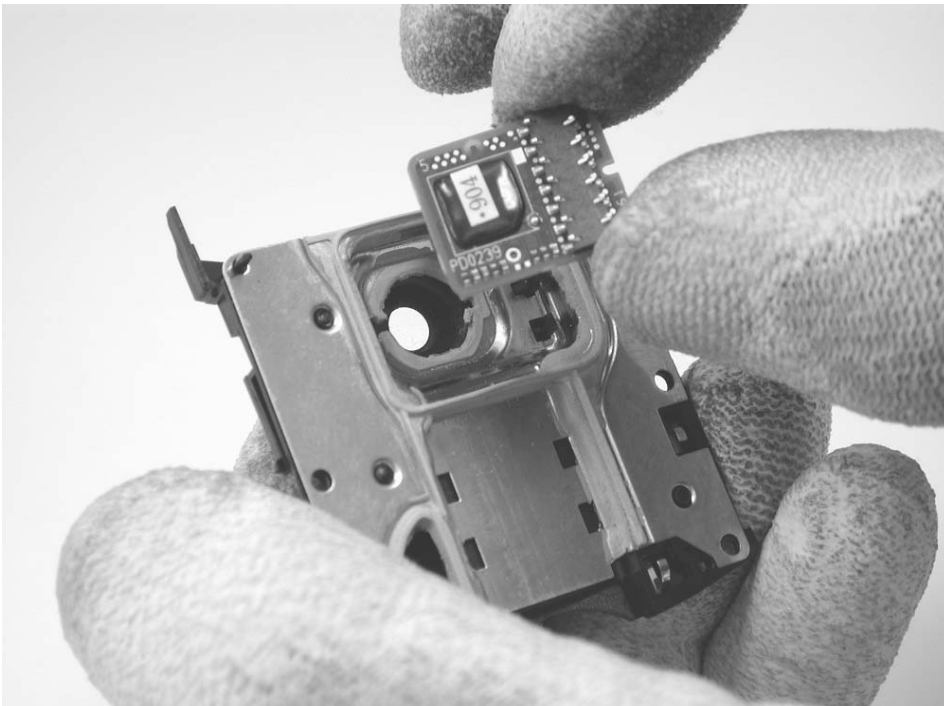
- 1 Put plastic SRT-6 opening tool under the camera PWB



- 2 With plastic SRT-6 opening tool gently pry out the camera from its housing by turning tool (as in picture)
- 3 Be careful not to pop out the camera from its cavity.



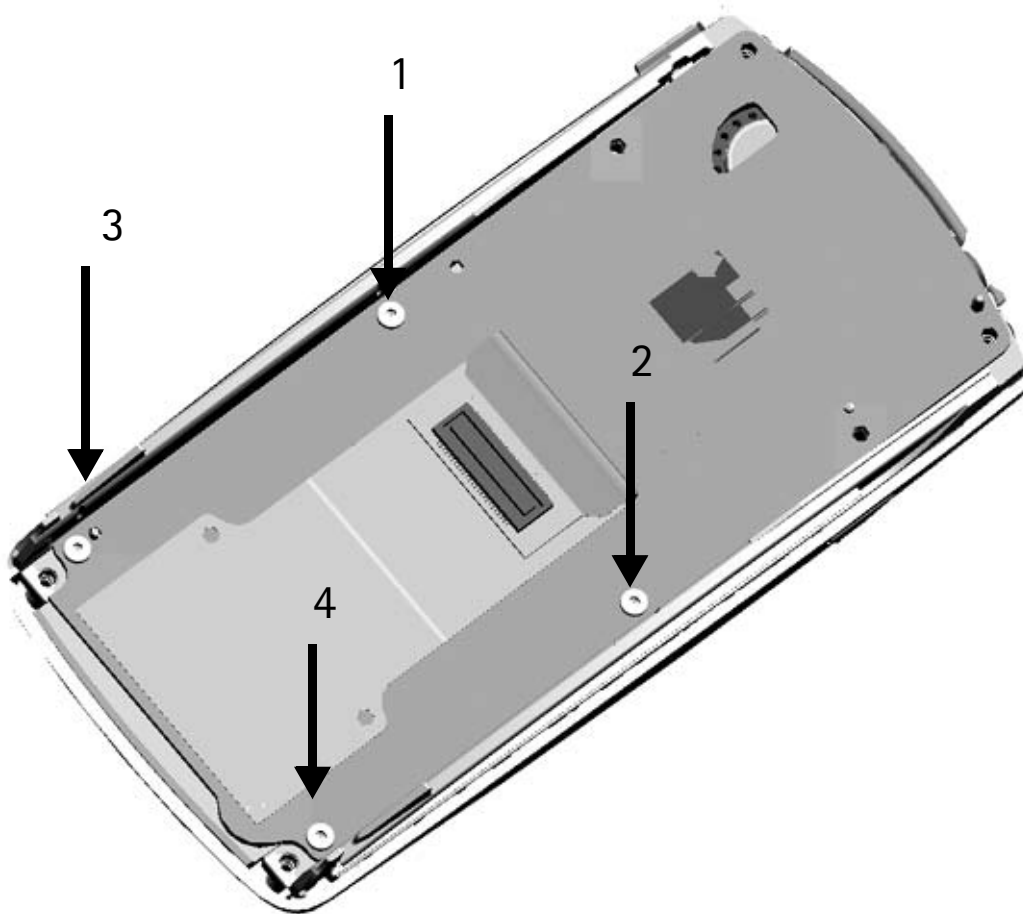
- 4 Put camera to place where dust cannot access camera module.
- 5 If gasket is damaged replace acoustic chamber.
- 6 If guiding pin in acoustic chamber (for camera) is broken replace acoustic chamber.
- 7 Acoustic chamber shall be put to place where dust cannot reach camera cavity.



Dismantling main PWB from chassis assembly

- 1 Remove screws RF 1.6x4.4 T5+ 1,2,3,4

Note: Do not scratch PWB with screwdriving tool.



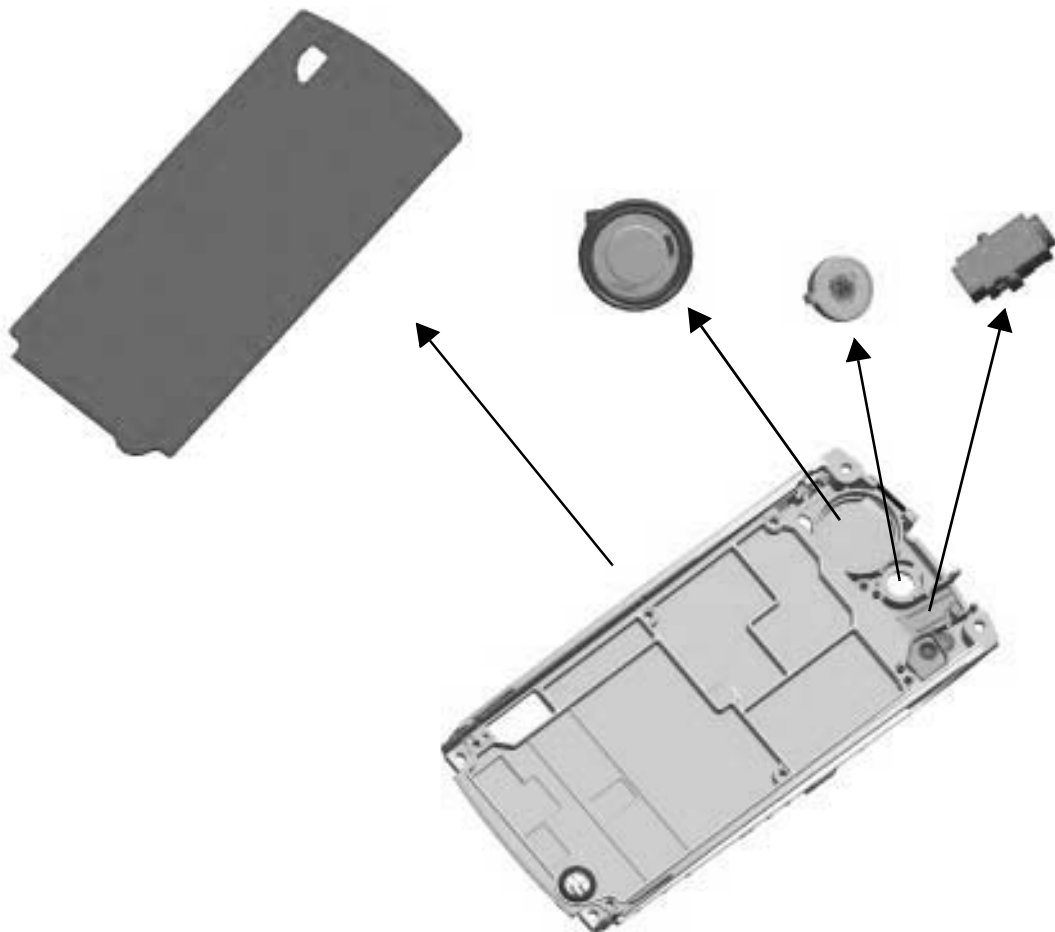
Note: Assembly sequence for screws is as numbered. 1,2,3,4. Only one step:

1. Screws RFF 1.6x4.4 T5+ to Main PWB (4pcs).

Main PWB from chassis assembly

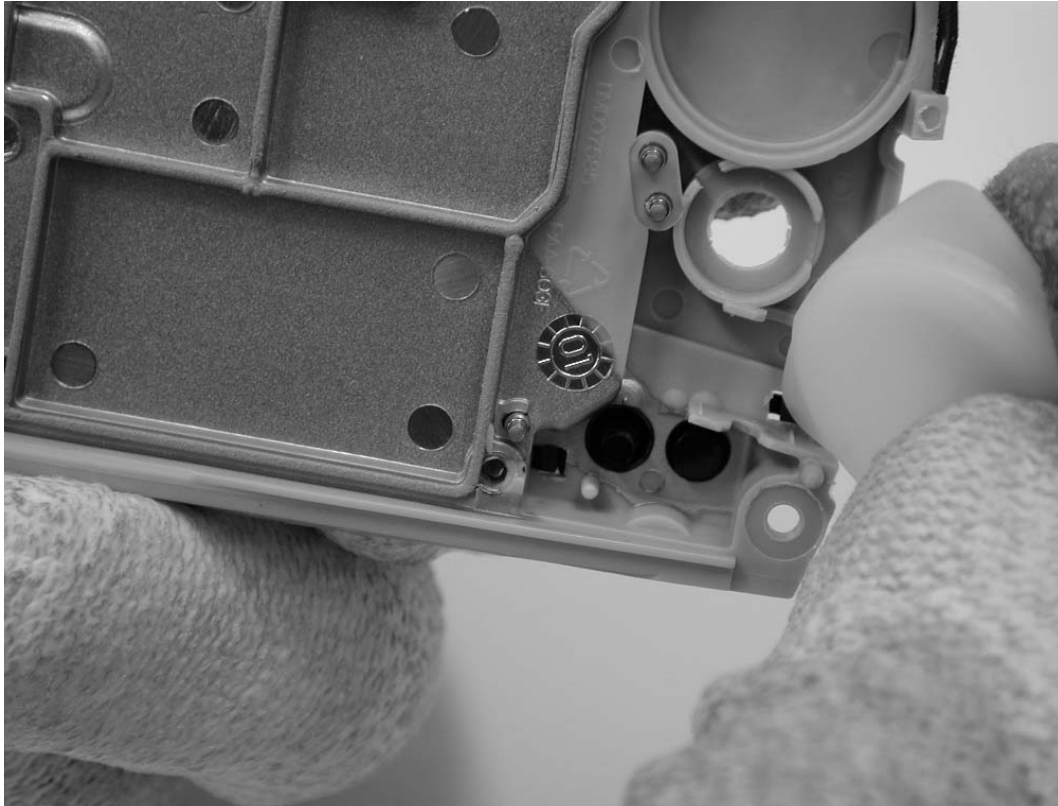
- 1 Take main PWB from chassis assembly by hand and put it onto table.
- 2 Take Hf-speaker from chassis put it onto table, be careful not to damage spring or membrane.
- 3 Take earpiece from chassis with earpiece tool put it onto table.
- 4 Take headset from chassis with tweezers.
- 5 Microphone can also be removed with a sharp object.

Note: Magnetism in both HF speaker and earpiece pulls them together so be careful.



Proximity sensor from chassis assembly:

- 1 Use plastic SRT-6 opening tool.
- 2 Push proximity sensor snap to release it from chassis assembly.



Proximity sensor from chassis assembly:

- 1 Lift away proximity sensor



Power key from chassis assembly:

- 1 Use plastic SRT-6 opening tool
- 2 Push power key downwards to release it from chassis assembly.



Dismantling keymat cover assembly from grip:

- 1 Grip to hand; remove screws PT 1.8x8.0 (2pcs). 1,2
- 2 Put fingers on both sides of battery connector
- 3 Pull upwards until battery connector is completely free from housing.
- 4 Slide keymat cover forward to release bottom from Grip.
- 5 Put Grip on pallet.



Dismantling of keymat cover

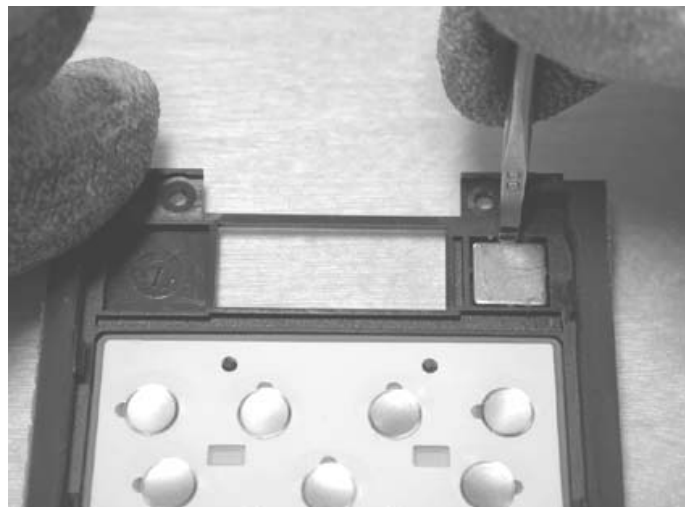
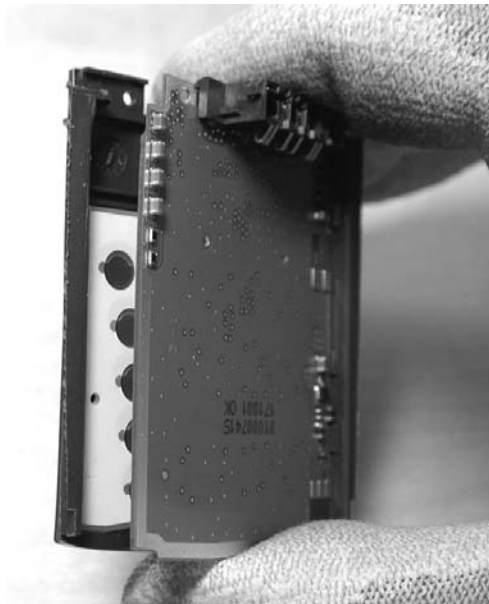
- 1 Take keymat cover in hand so that battery connector is facing upwards.
- 2 Gently pry out the grip pwb Left side (first from upper side then bottom) from keymat cover locking clips. Dismantle grip PWB sliding it to left side direction.

Note! When assembling grip PWB assemble first right side then left side.

- 3 Put grip PWB to a dust free place.
- 4 Lift away keymat from keymat cover.

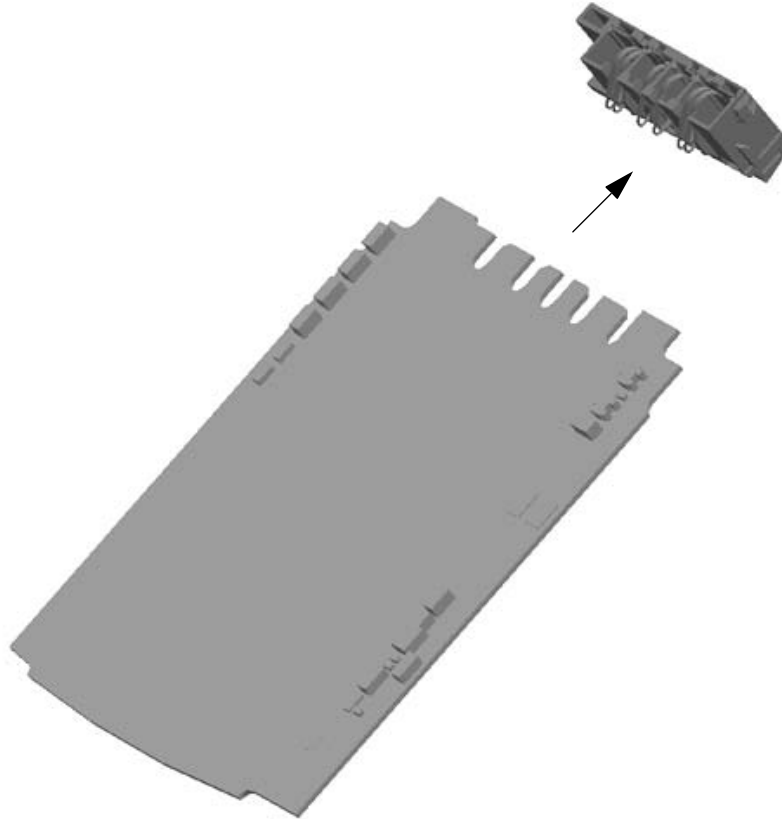
Note! If new keymat is assembled remember to take protective tape away from key mat.

- 5 Pry out magnet with a sharp tool from keymat cover (be careful not to scratch keymat cover).



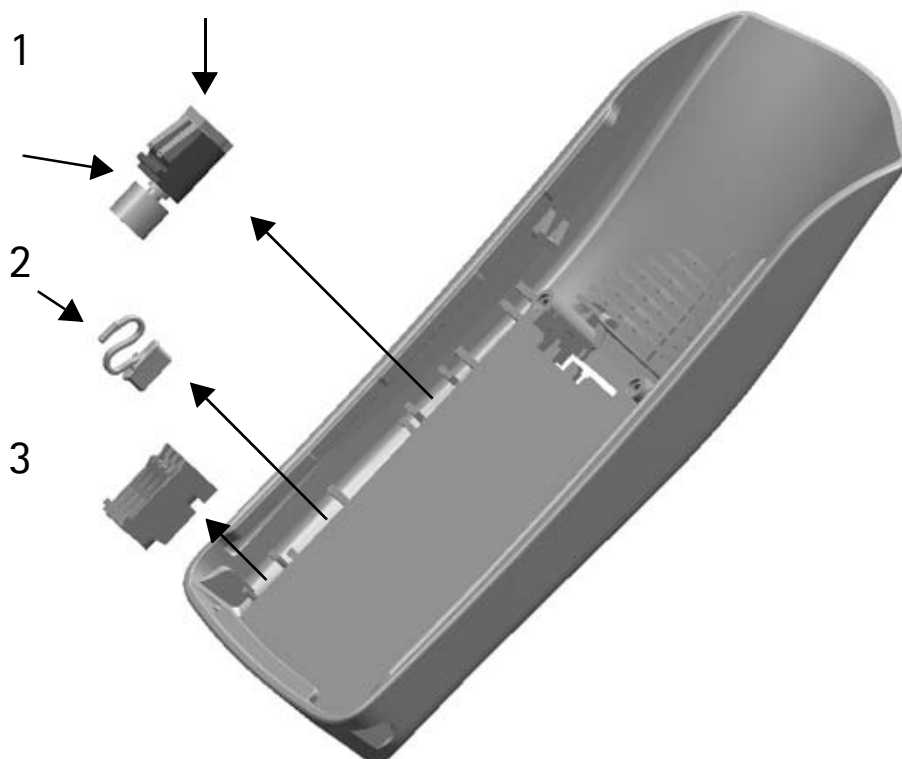
Dismantling of Battery connector from PWB

- 1 Take grip PWB in hand so that battery connector is facing to the right side.
- 2 Withdraw battery connector straight out from grip PWB



Take Grip from pallet to hand

- 1 With tweezers remove vibra from grip. Grip with tweezers at shorter sides of vibra.
- 2 Remove with tweezers battery cover locking latch.
- 3 Connect the charger plug to Dc-jack; carefully pry upwards the Dc-jack from front side. Dc-jack will be released from grip.



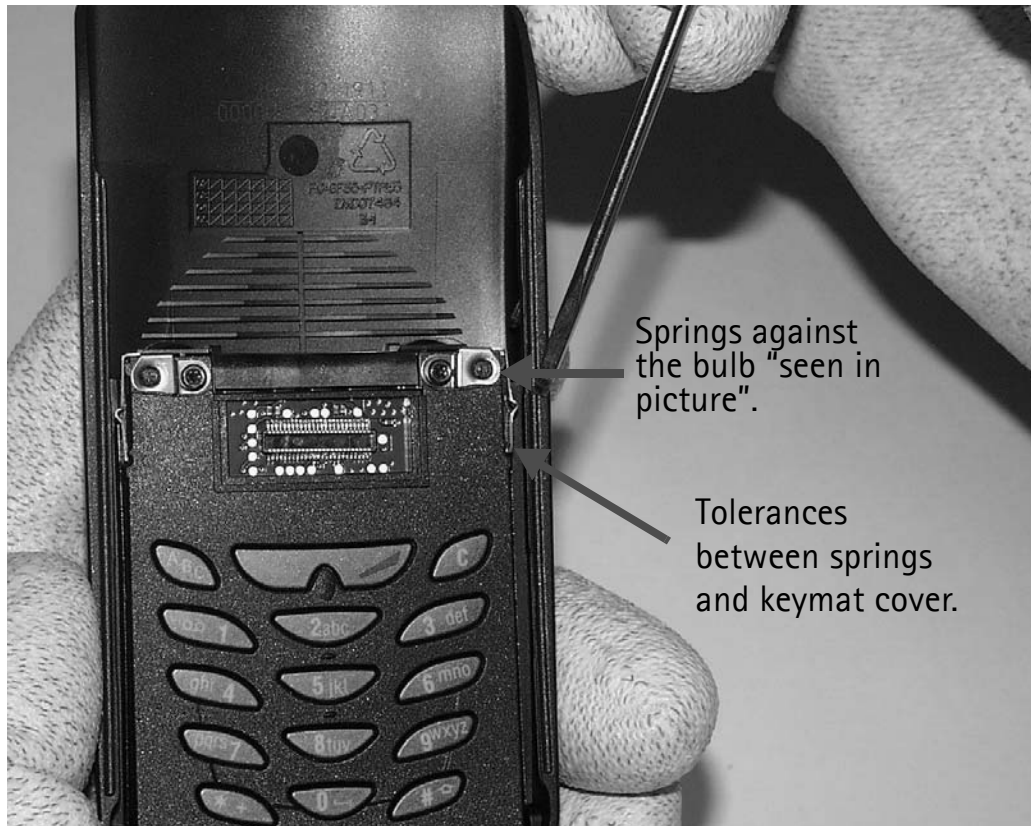
DC-jack released from grip sequences





Grip module positioning springs

- 1 Positioning spring must be as showed in the picture.
- 2 End of the springs shall be toward keymat cover approx. $\pm 0,5\text{mm}$.



Things to remember when assembling

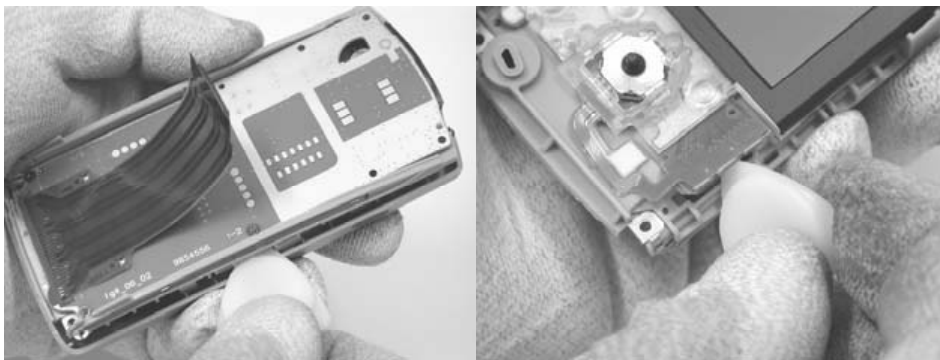
- Assembling instructions are dismantling instructions backwards.
- You do not need any extra force.
- Screwdriving order is as screws are numbered.
- Tightening torque for all screws is 22Ncm, use torque wrench.
- Installing parts from pushing springs is forbidden.
- Do not touch springs when dismantling or assembling.
- All spring contacts and PWB pads are sensitive to dirt and grease for instance from hands.
- Be careful not to touch spring contacts or PWB pads with bare hands. Always use gloves.
- New protective tape needed for grip flex.

Plastic SRT-6 opening tool (for all disassembly sequences)

SRT-6 opening tool:



A-cover and UI-module



Gripflex



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