

Service Manual for L1 and L2

Nokia Lumia 820

RM-824, RM-825

Key features

- Windows Phone 8
- 1.5 GHz dual-core processor (Qualcomm Snapdragon S4)
- 8 GB internal flash memory, MicroSD card slot
- EGSM, WCDMA HSPA and 4G LTE
- Near Field Communication (NFC) technology
- Wireless charging (Qi standard) available with an accessory (Wireless Charging Shell for Lumia 820)

Check the repair policy before performing any mechanical repair on Service Level 1&2!



Version 1.0

Exploded view



More

Disassembly steps



More

Assembly hints



More

Solder components



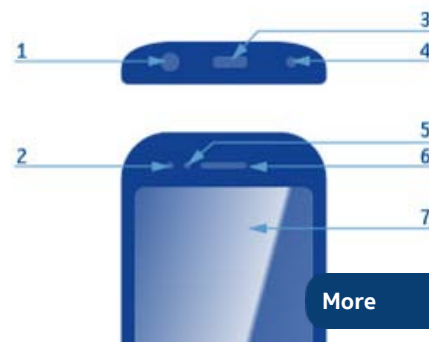
More

Service devices



More

Product controls and interfaces



More

Service concept

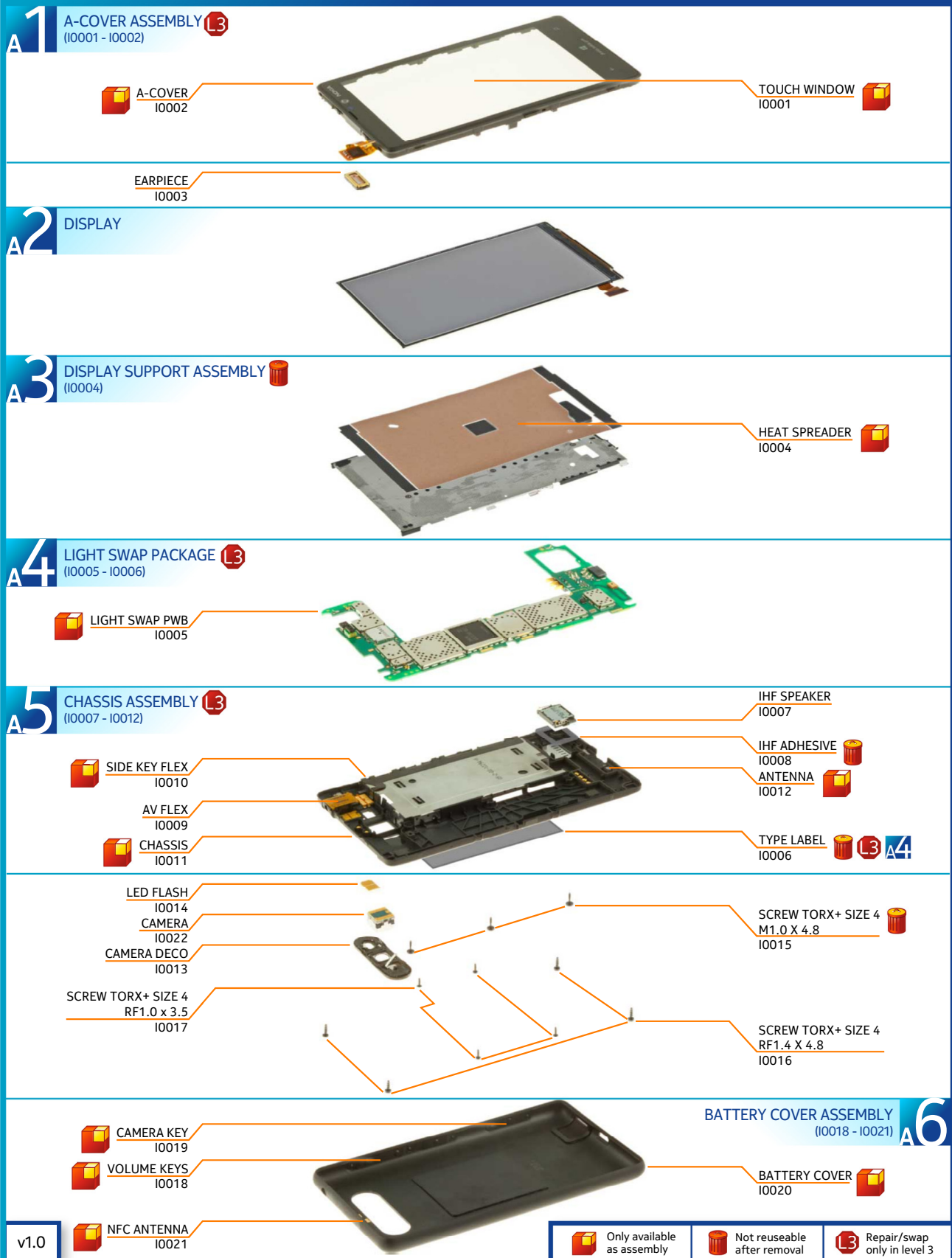


More

Phone reset



More





For disassembling you need the Nokia Standard toolkit version 2. You will also need the camera removal tool SS-210. If the device is brought to service due to problems with NFC or wireless charging, please collect the BATTERY COVER as well.



Before starting the disassembly, make sure that the device is powered off. Protect the TOUCH WINDOW with protective film.



Start releasing the BATTERY COVER by pushing down the top right corner.



Then release the top left corner so that the main body comes out of the BATTERY COVER ASSEMBLY.



Lift up the main body from the bottom end.



The BATTERY COVER can now be separated from the main body.



Unscrew the three TORX+ size 4 screws in the order shown. Do not use them again. Discard them.



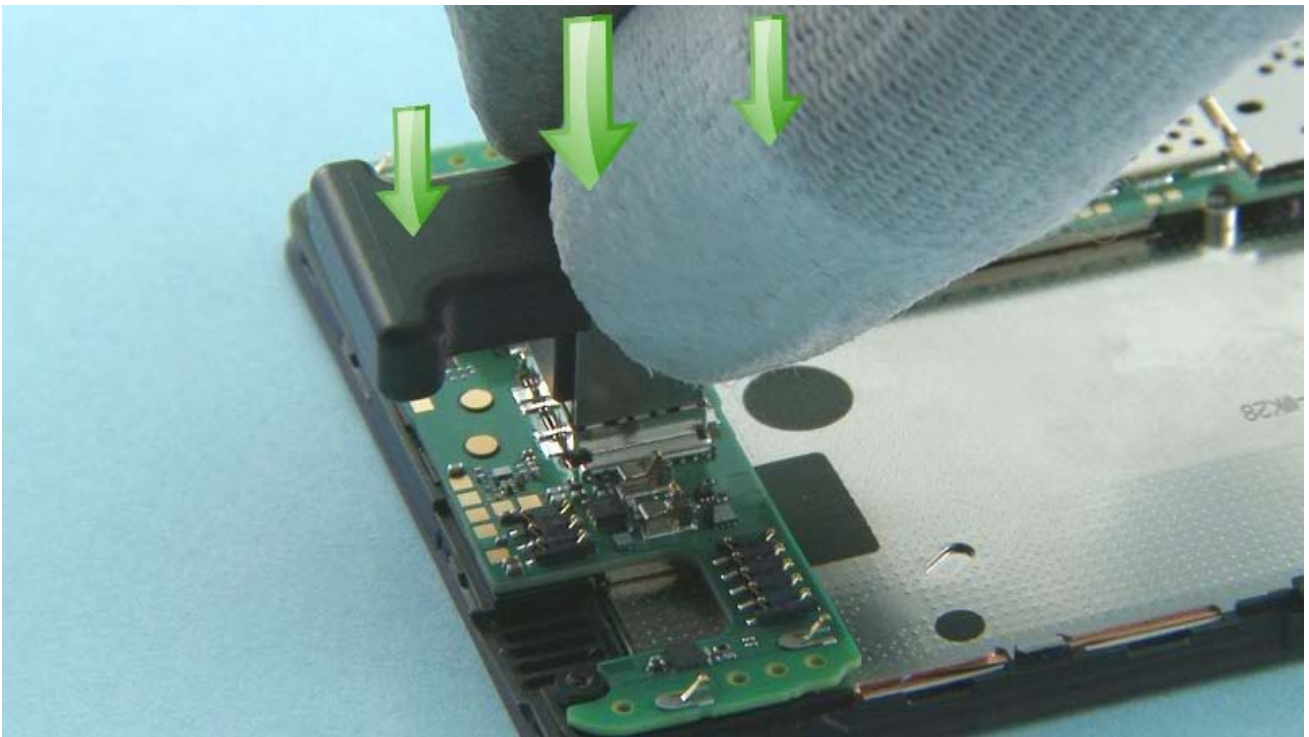
Unscrew the four TORX+ size 4 screws in the order shown.



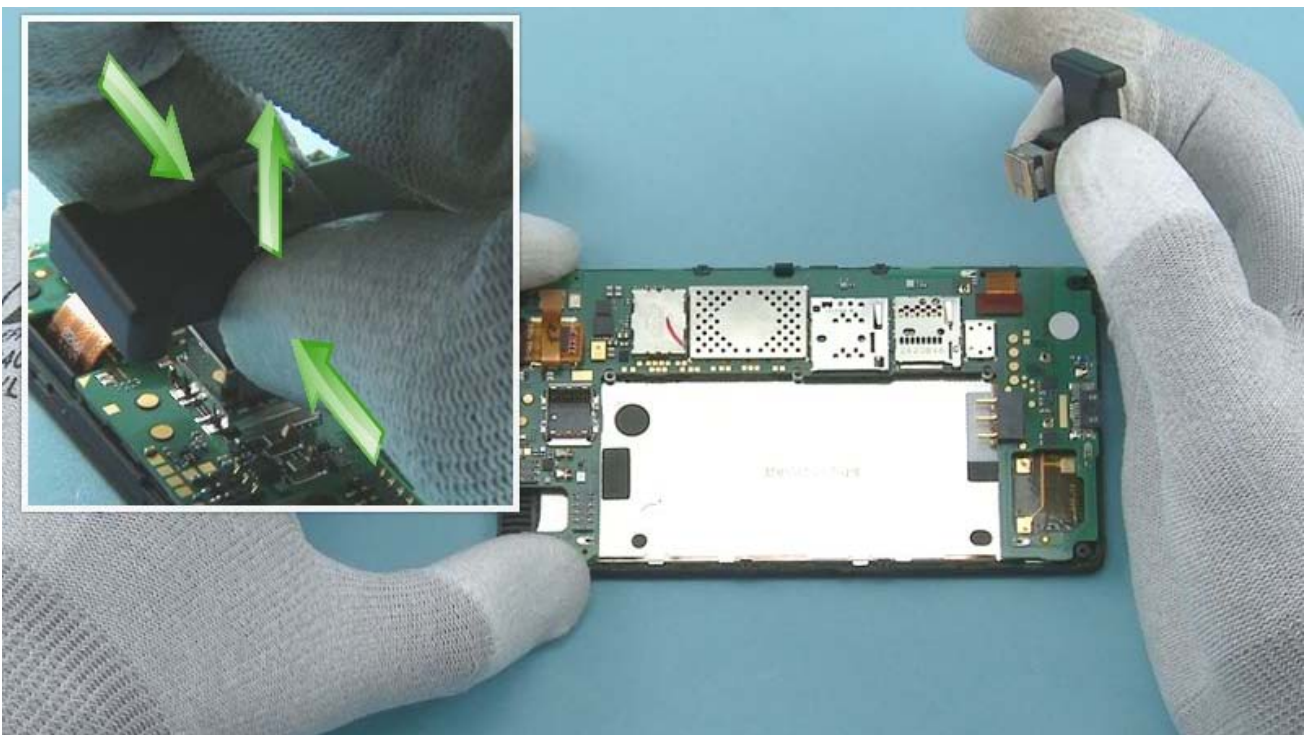
Unscrew the four TORX+ size 4 screws in the order shown.



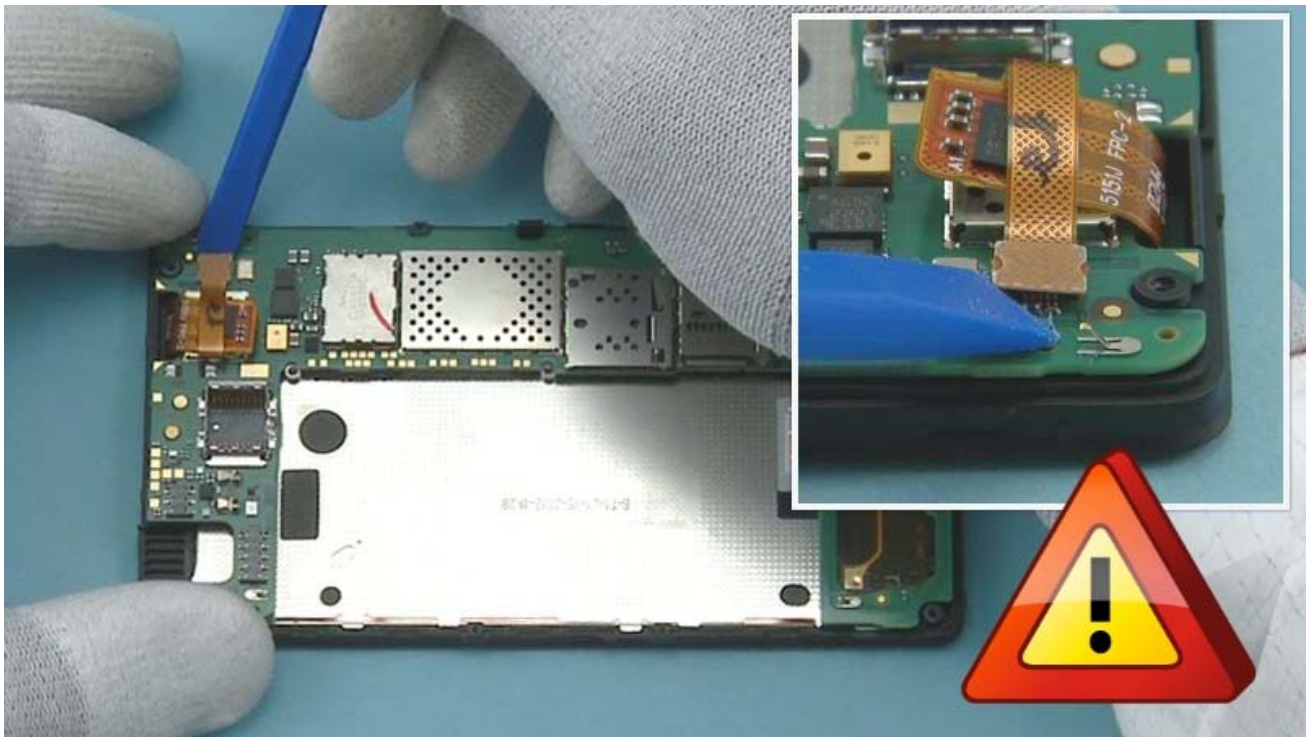
Lift up and remove the CHASSIS ASSEMBLY.



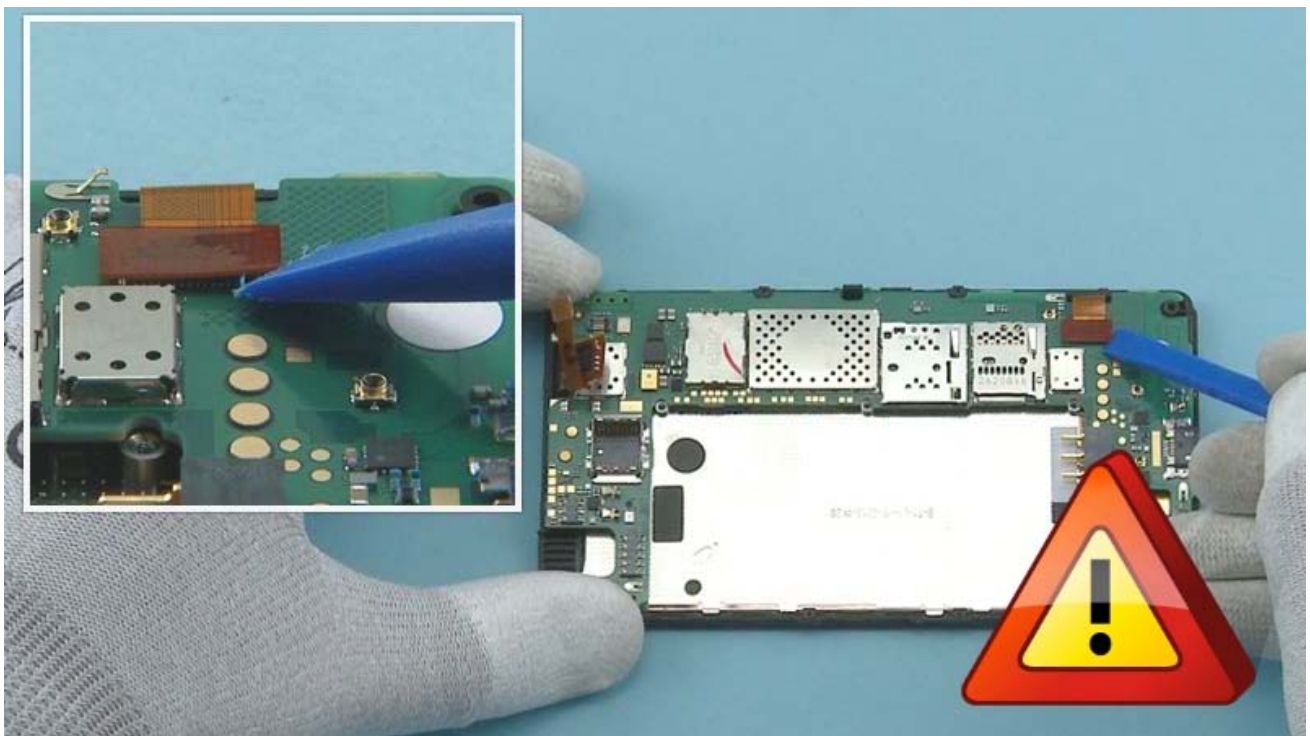
Remove the CAMERA by using the camera removal tool SS-210. First place the SS-210 on top of the CAMERA. Press down carefully the black plastic parts of the SS-210. And then press down the metal sheets until the camera retaining clips are released.



Grab the sides of the SS-210 and lift up to remove the CAMERA.



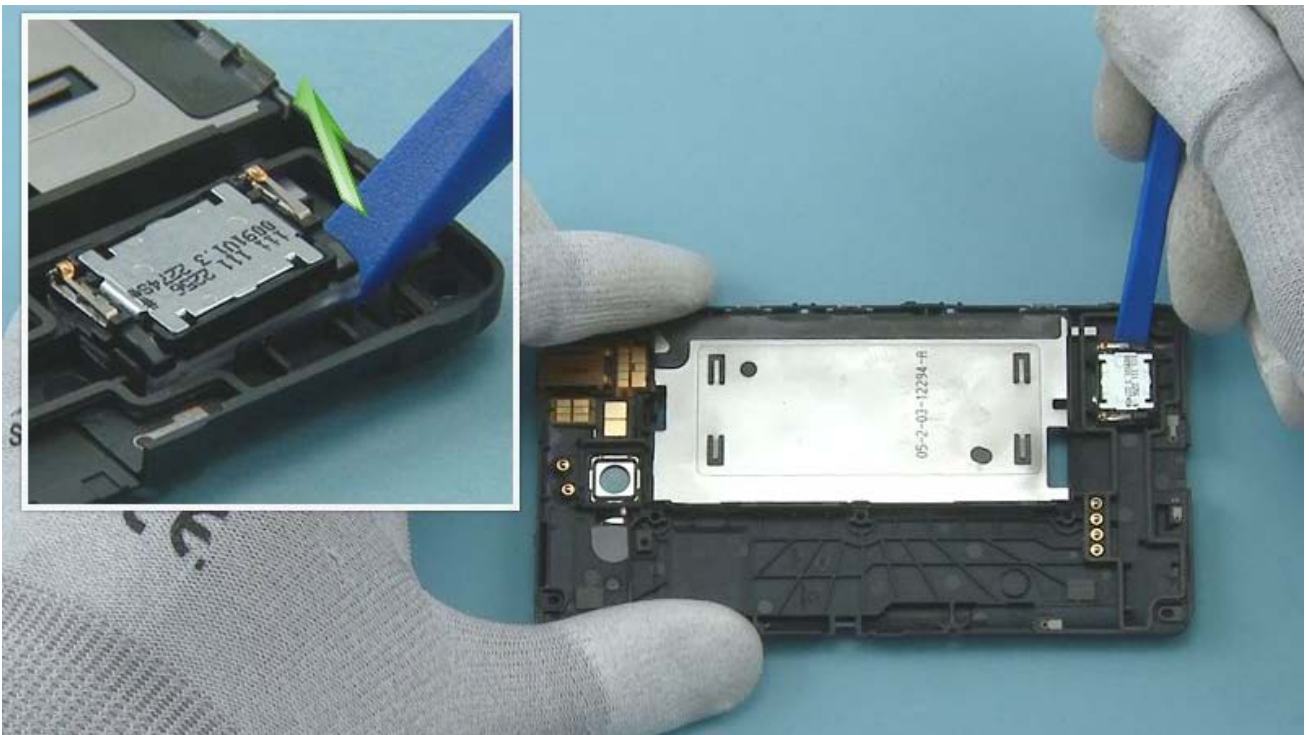
Open the TOUCH CONNECTOR with the SS-93. Be careful not to damage the connector or any nearby components.



Use the SS-93 to open the DISPLAY CONNECTOR. Be careful not to damage the connector or any nearby components.



The ENGINE BOARD can now be lifted up.



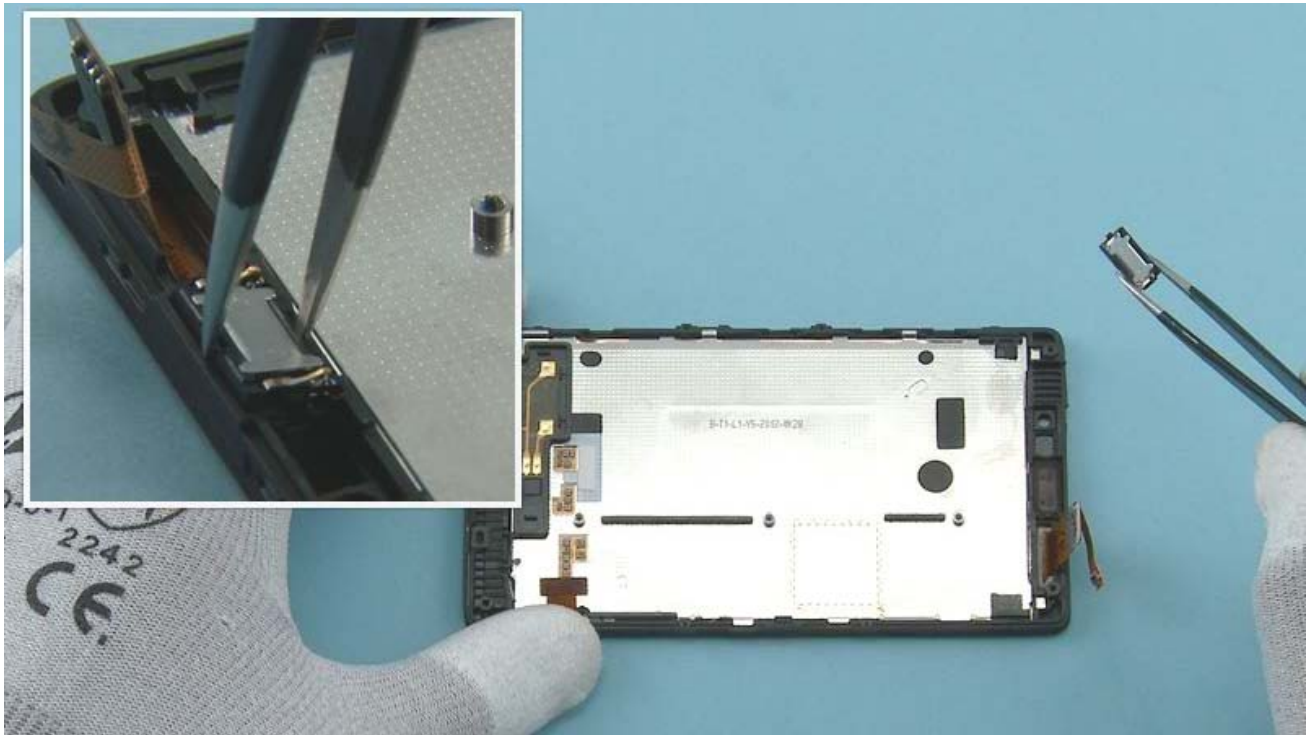
Use the SS-93 to lever out the IHF SPEAKER.



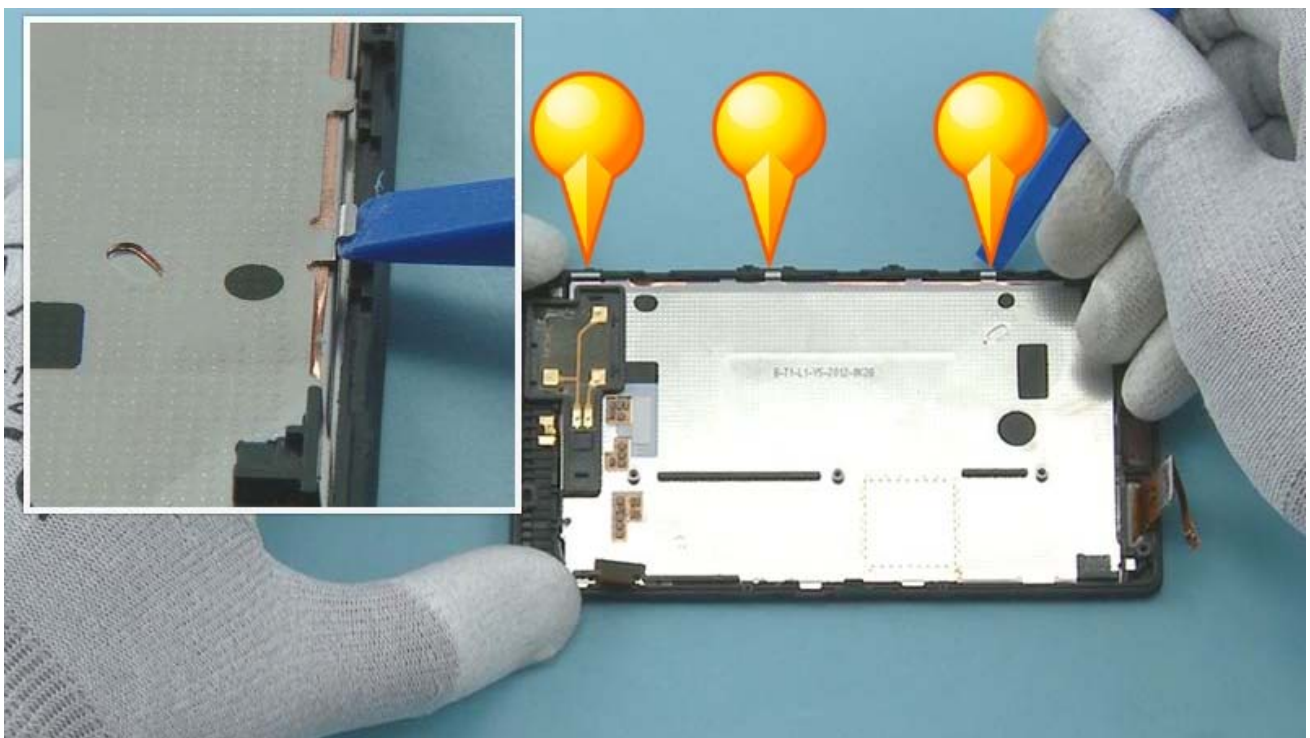
Use tweezers to remove the IHF SPEAKER.



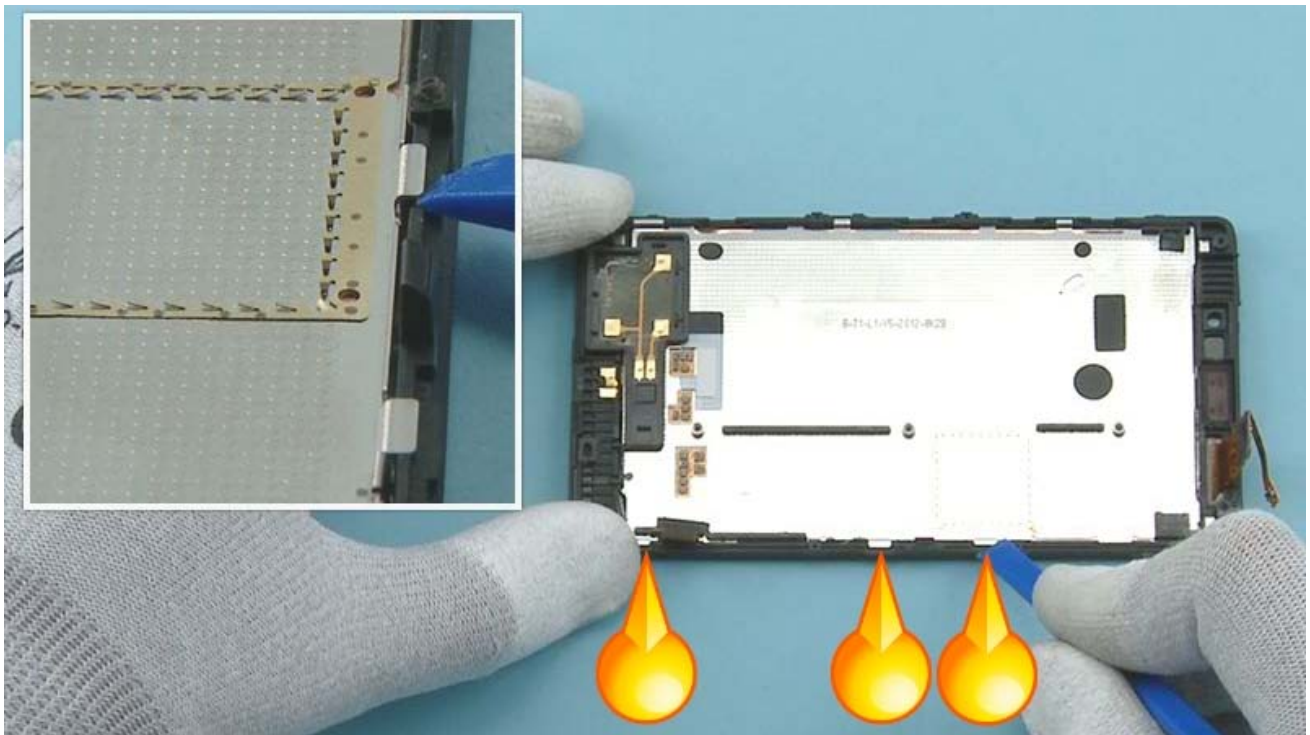
Remove and discard the adhesive remains from the speaker slot.



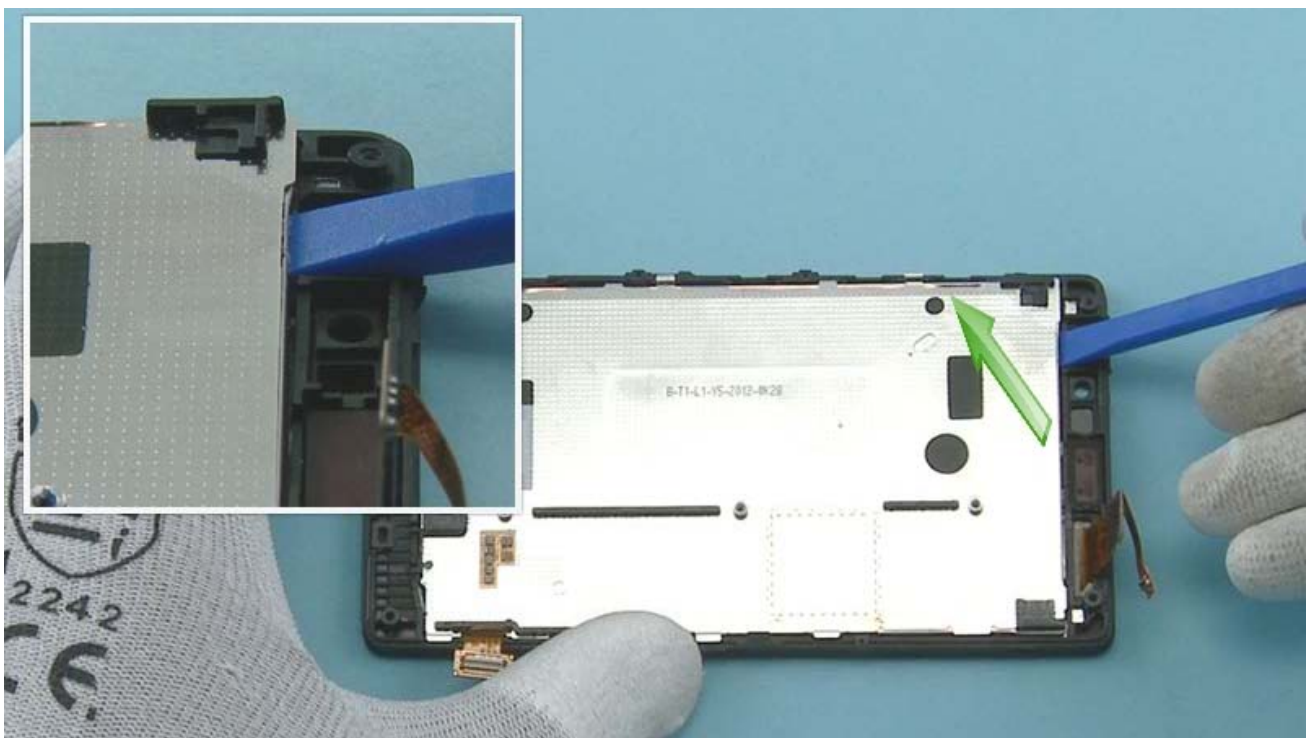
Use tweezers to remove the EARPIECE.



To separate the A-COVER and the DISPLAY, release the three shown clips.



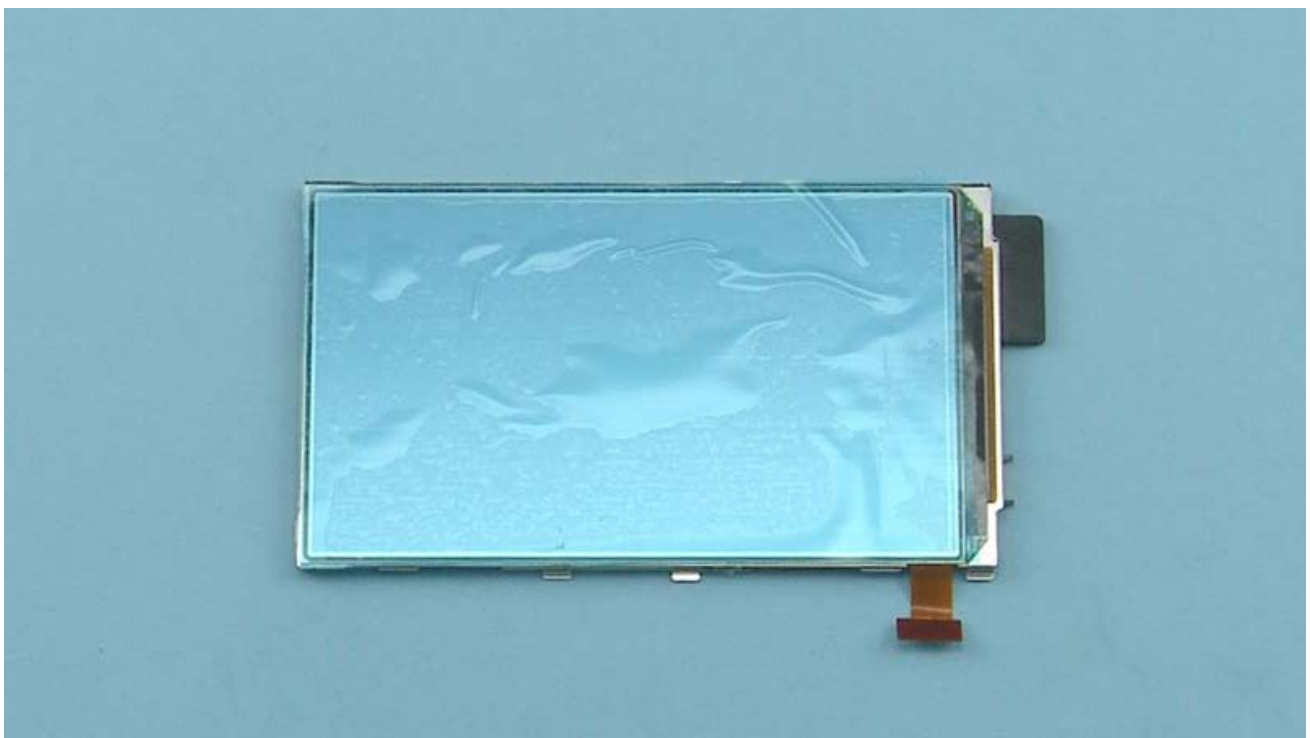
Release also the clips from the other side.



Carefully lever out the DISPLAY with the SS-93.



Lift up and remove the DISPLAY.



Protect the DISPLAY with protective film.



Use the SS-93 to detach the CAMERA DECO.



Remove the CAMERA DECO.



Make sure the adhesive residue is removed.



Release the LED FLASH from the CAMERA DECO with the SS-93 and remove it with tweezers.

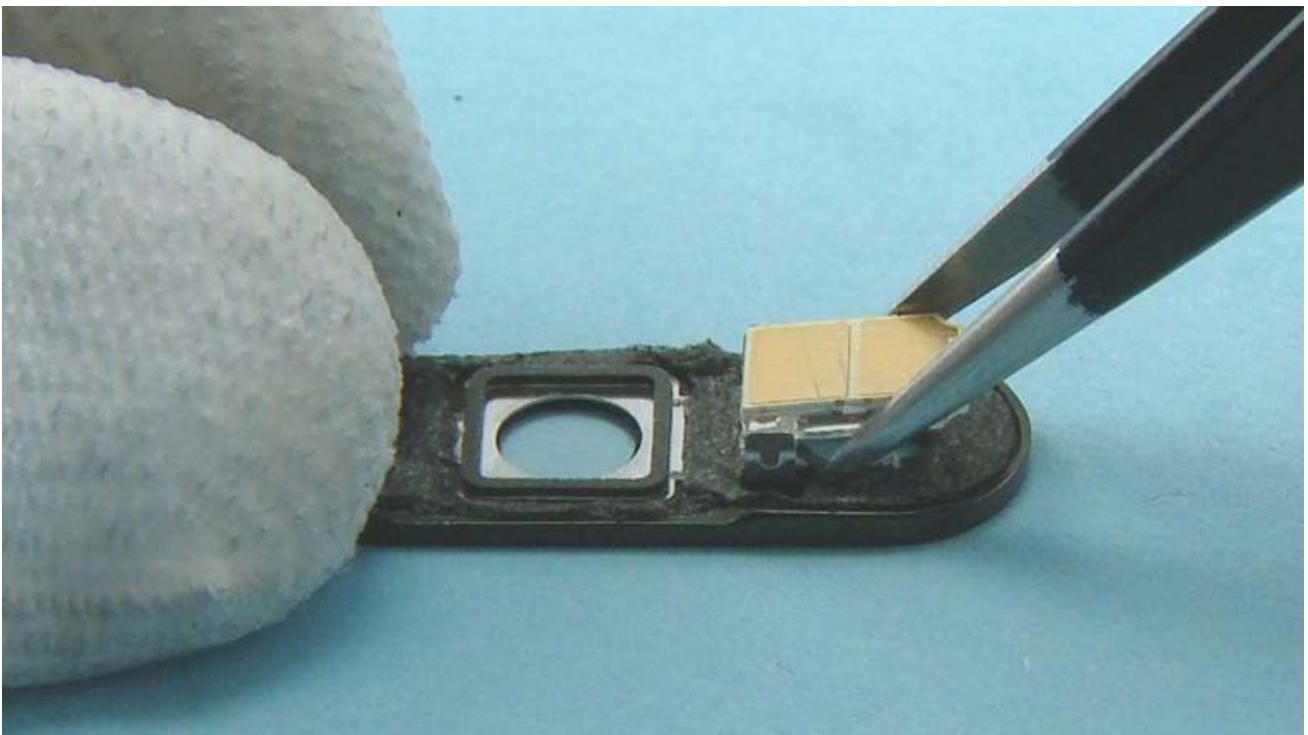


The Nokia Lumia 820 disassembly procedure is complete.

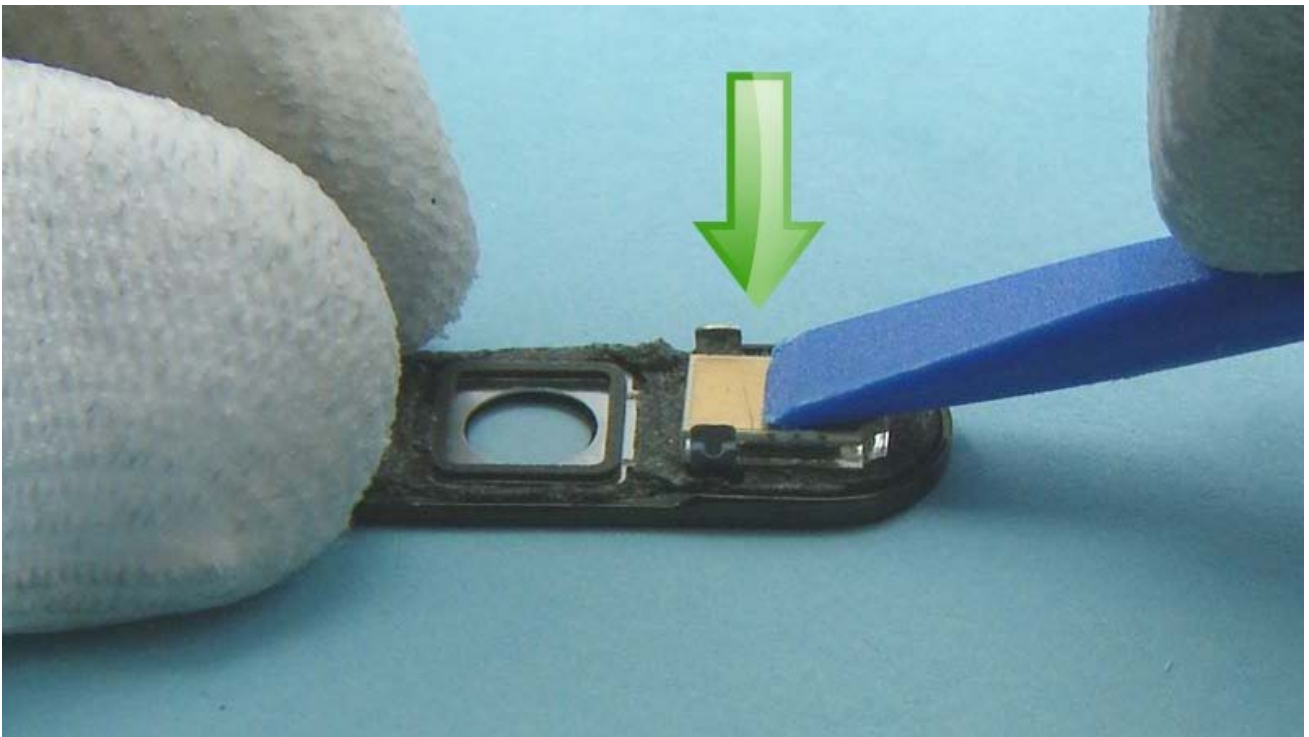
-END OF DISASSEMBLY-



For assembling you need the Nokia Standard toolkit version 2.



Place the LED FLASH to the CAMERA DECO with tweezers.



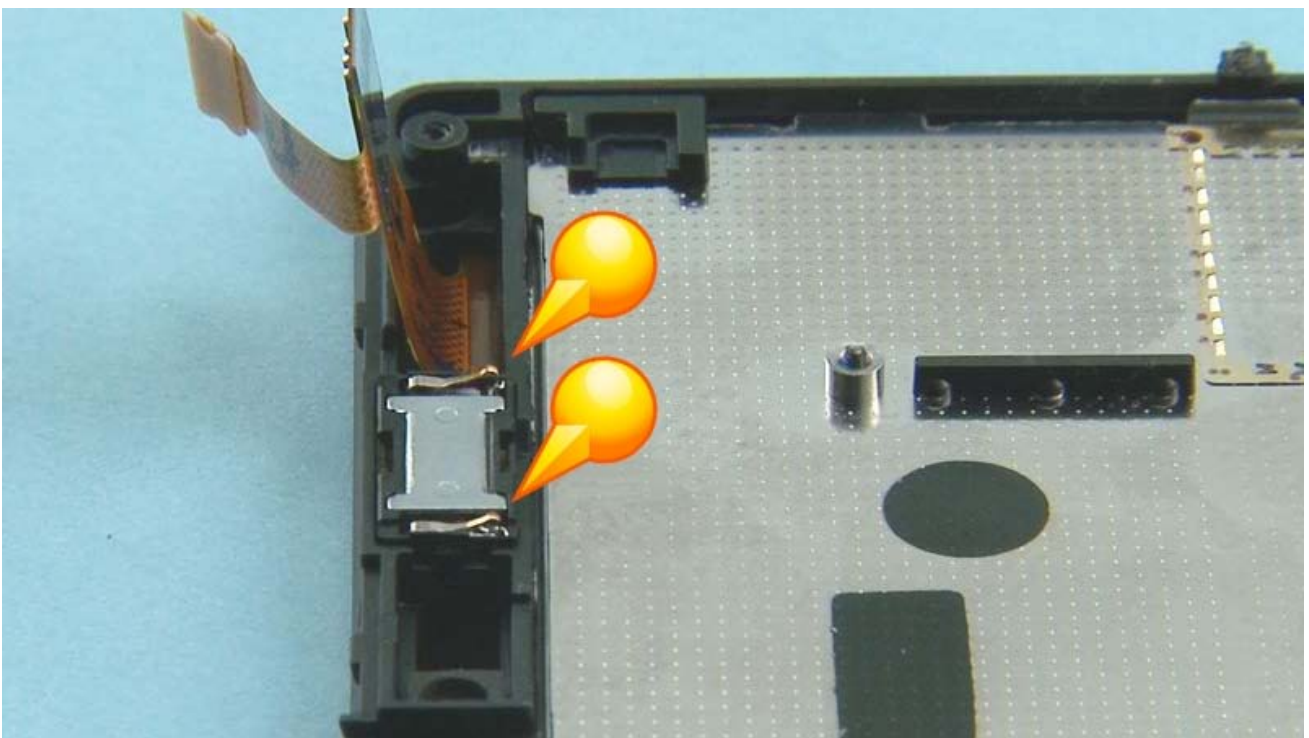
Gently press the LED FLASH to activate the adhesive.



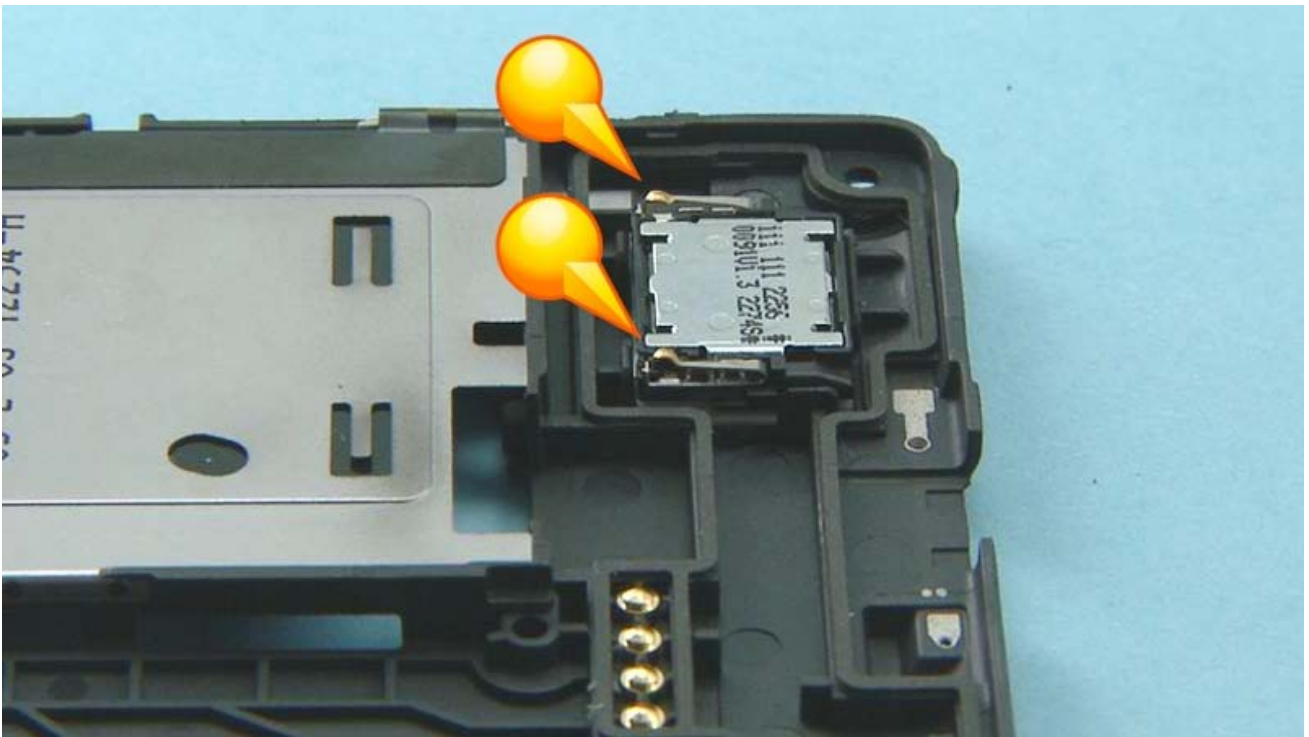
Place the CAMERA DECO to the CHASSIS and press down to activate the adhesive.



Check from the other side of the CHASSIS that the clip holding the CAMERA DECO is attached.



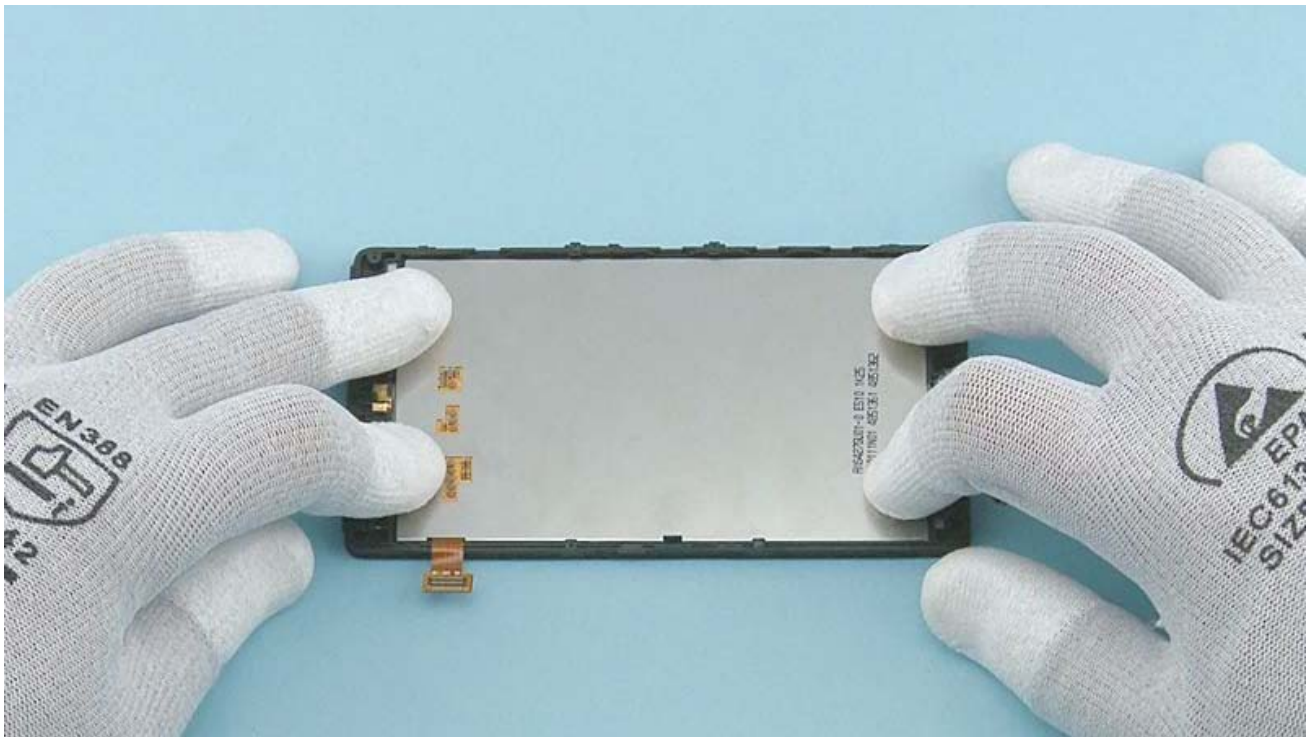
When assembling the EARPIECE, make sure it is correctly aligned and the shown pins are facing the right way.



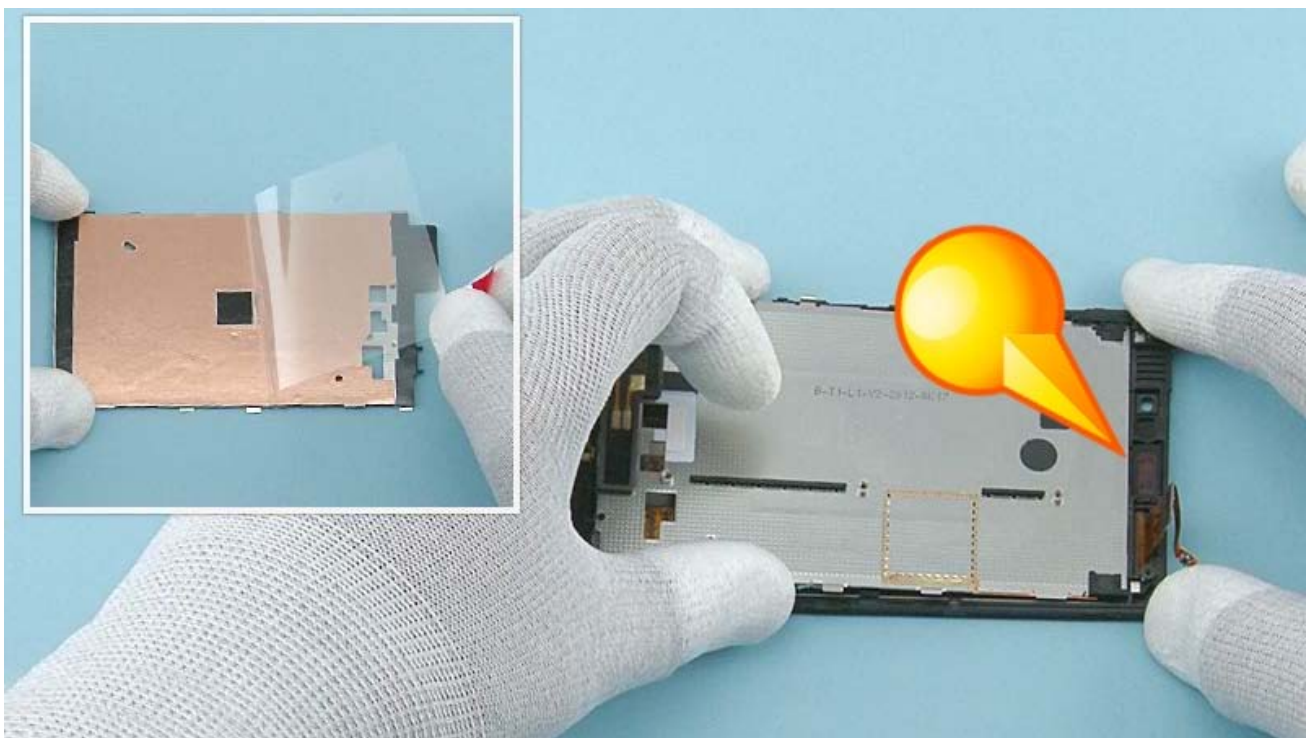
When assembling the IHF SPEAKER, make sure it is correctly aligned and the shown pins are facing the right way.



Remove the protective film from the DISPLAY. Place the top end of the DISPLAY to the A-COVER as shown.



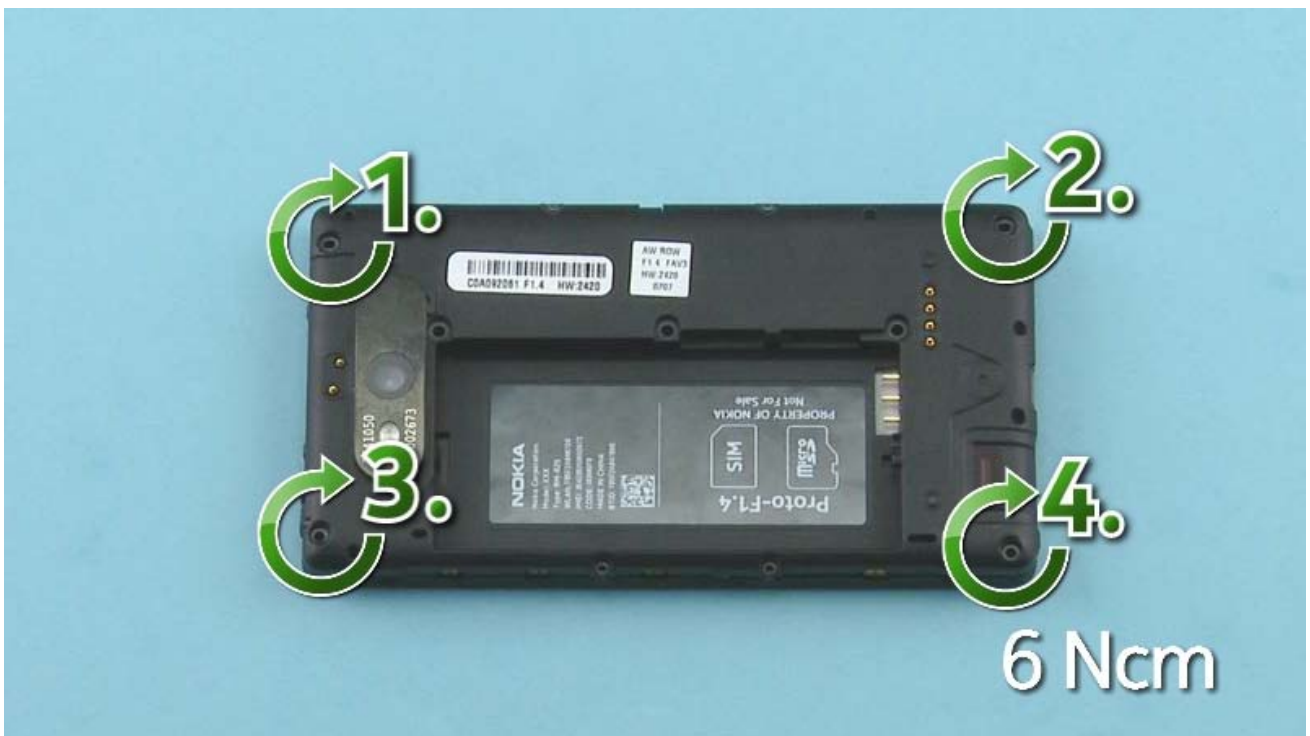
Lower down the bottom end of the DISPLAY and press it gently.



Remove the remaining protective film from the HEAT SPREADER. Place the top end of the DISPLAY SUPPORT to the A-COVER as shown.



Lower down the bottom end of the DISPLAY SUPPORT and press it gently.



Fasten the four TORX+ size 4 screws in the order shown to the torque of 6 Ncm.

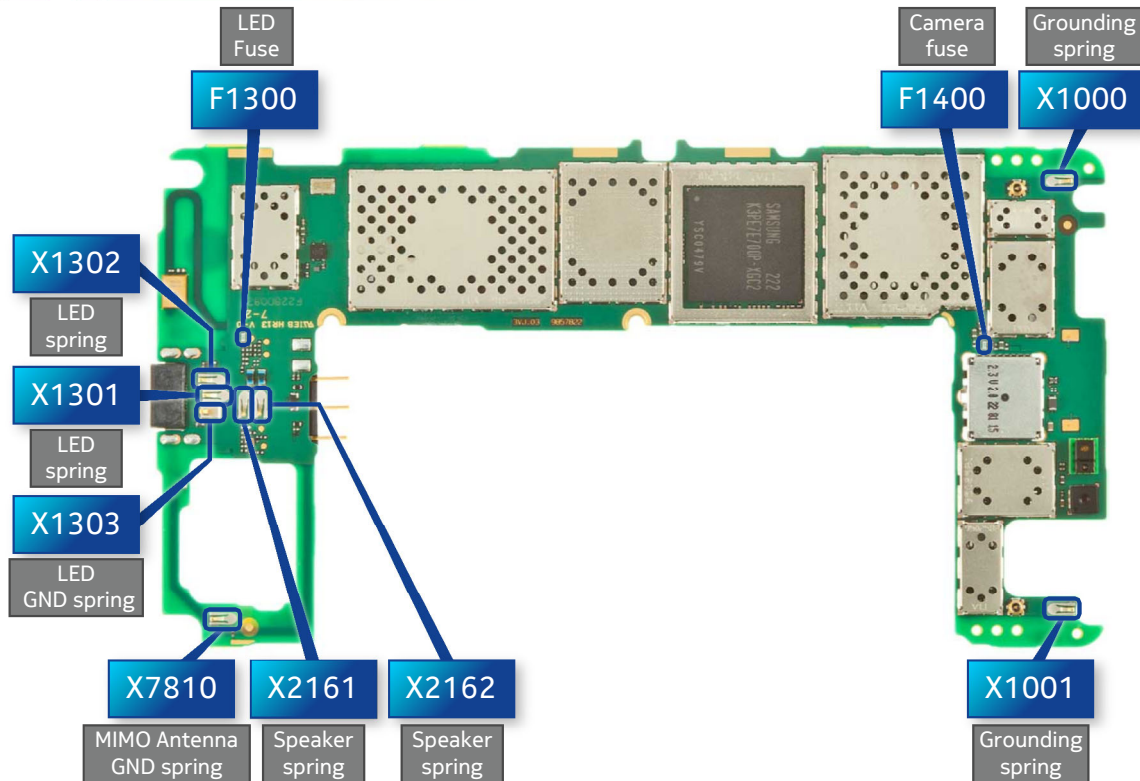


Fasten the four TORX+ size 4 screws in the order shown to the torque of 6 Ncm.

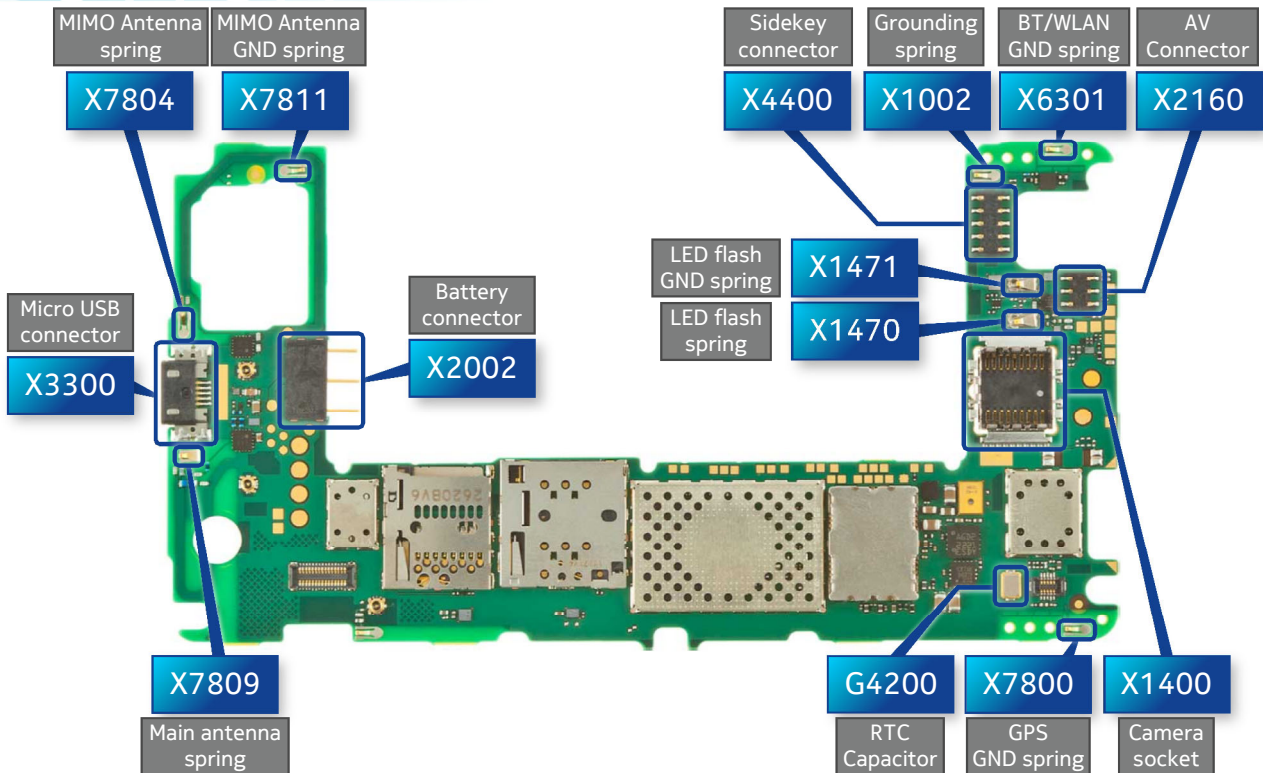


Fasten the four TORX+ size 4 screws in the order shown to the torque of 13 Ncm.

TOP



BOTTOM





CA-101 Service cable



AC-50 USB charger



BP-5T

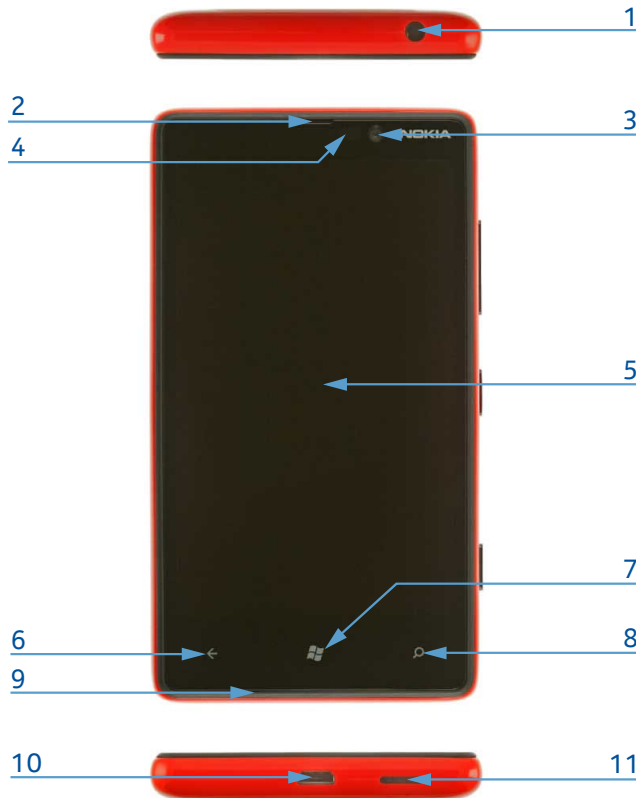


SS-210 Camera removal tool



Nokia Standard Toolkit (v2)

For more information, refer to the Service Bulletin (SB-011) on Nokia Online. Supplier or manufacturer contacts for tool re-order can be found in "Recommended service equipment" document on Nokia Online.

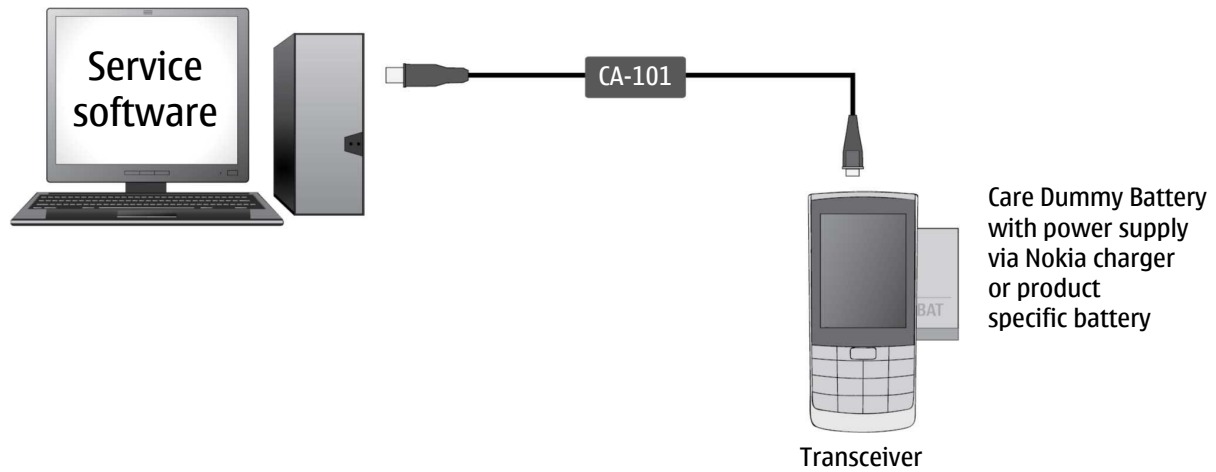


- 1 — 3.5 mm universal audio connector
- 2 — Earpiece
- 3 — Front camera
- 4 — Ambient light & Proximity sensors
- 5 — Touch screen
- 6 — Back key
- 7 — Start key
- 8 — Search key
- 9 — Microphone
- 10 — Micro USB connector
- 11 — Loudspeaker
- 12 — Camera
- 13 — Camera flash
- 14 — Volume keys
- 15 — Power/Lock key
- 16 — Camera key



Ver. 1.0

Flashing concept



Hardware reset

If the phone hardware is jammed, you should first recommend that the consumer performs a hardware reset. The hardware reset does not reset the Windows Live ID or remove any consumer data.

To perform a hardware reset remove the battery and reinsert it. Boot up the phone normally.

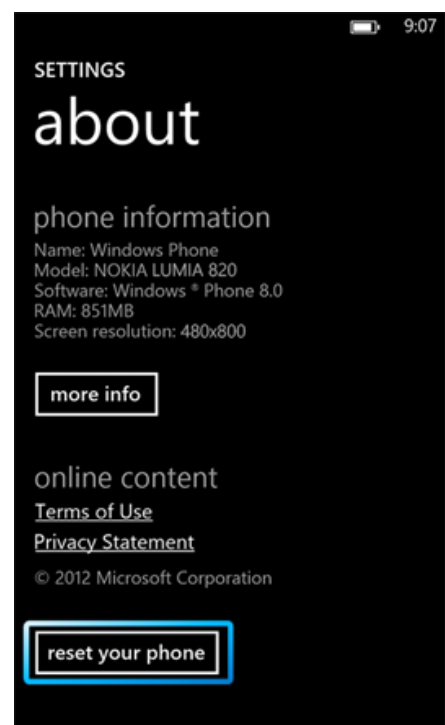


Software / operating system (OS) reset

The software / operating system (OS) reset returns the phone to its out-of-the-box state. Note that this procedure erases all consumer data! Always first try to perform a hardware reset.

Option 1: About menu

- Use this option if the consumer knows the lock code
- This option warns the consumer about data loss!
- Tap Settings > About > reset your phone



Option 2: Hardware key combination

- Use this option if the phone is locked and the consumer does not know the code
- Note: no warning about data loss!
- Do not advertise this feature to consumers!

Follow next steps to perform OS reset with phone keys.

Step 1

Make sure the phone is turned Off. Press and hold the Volume down and Power keys until an exclamation mark is shown on the screen



Step 2

Input the following key combination:

1. Volume up
2. Volume down
3. Power
4. Volume down



Step 3

The phone will reset and boot up automatically. Please note that this may take several minutes.



Version	Date	Description
1.0	10.10.2012	First published version