Service Manual for L1 and L2

Nokia Lumia 520

RM-914, RM-915

Key features

- Full WP8 Experience in affordable package
- 1 GHZ Dual core CPU
- 4.0" LCD Display (800 x 480 pixels)
- 720P HD Video recording
- MicroSD card support up to 64GB

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



version 1.0

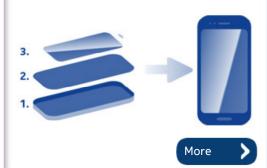
Exploded view



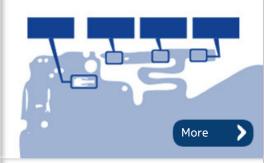
Disassembly steps



Assembly hints



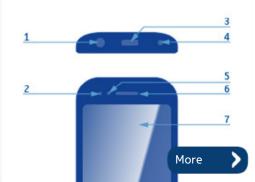
Solder components



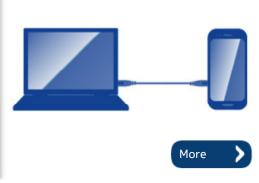
Service devices



Product controls and interfaces



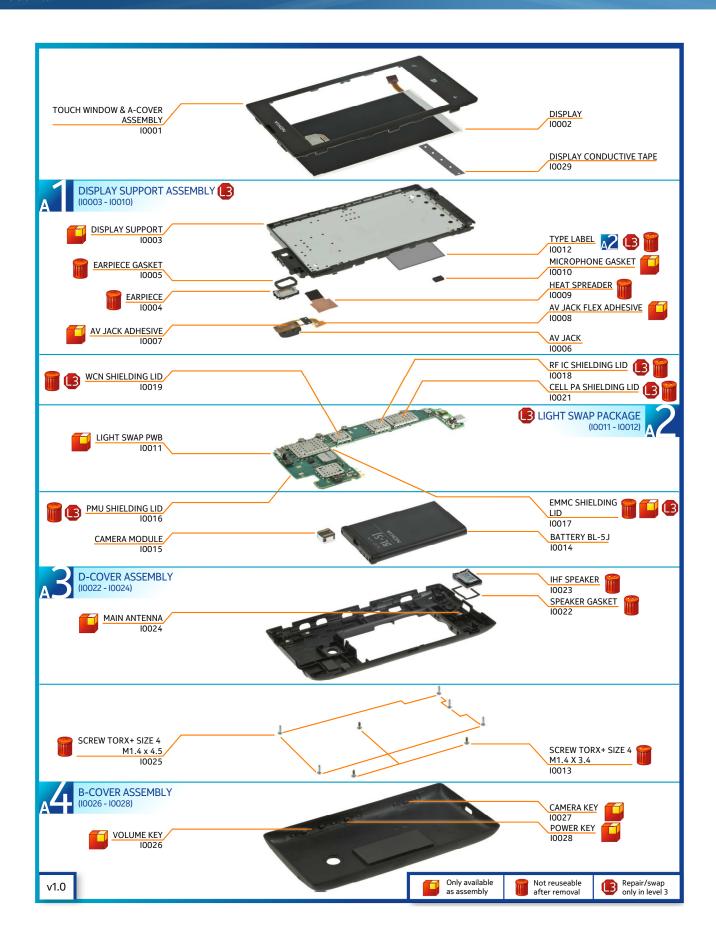
Service concept



Phone reset



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1) For disassembling you need the Nokia Standard toolkit version 2. You will also need the camera removal tool SS-305 and an AV plug.



2) Protect the TOUCH WINDOW with protective film.



3) Release the BACK COVER by pushing from the top.



4) Remove the BACK COVER.



5) Lift up the BATTERY from the bottom and remove it.



6) Unscrew the five Torx+ size 4 screws in the order shown. Do not use them again. Discard them.



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



8) Release the two clips on the left side of the D-COVER with the SRT-6, starting from the bottom.



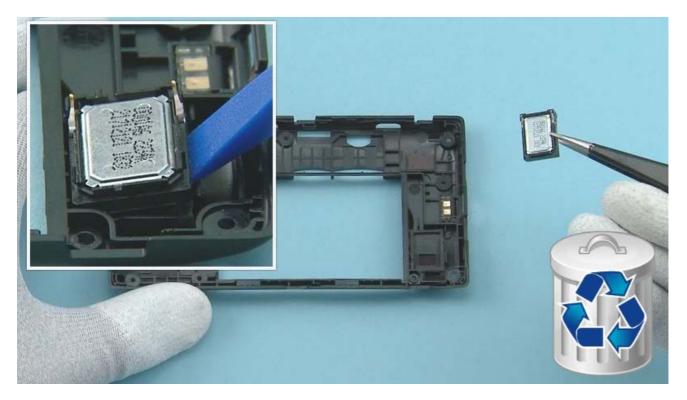
9) Then release the two clips on the right side of the D-COVER, starting from the bottom.



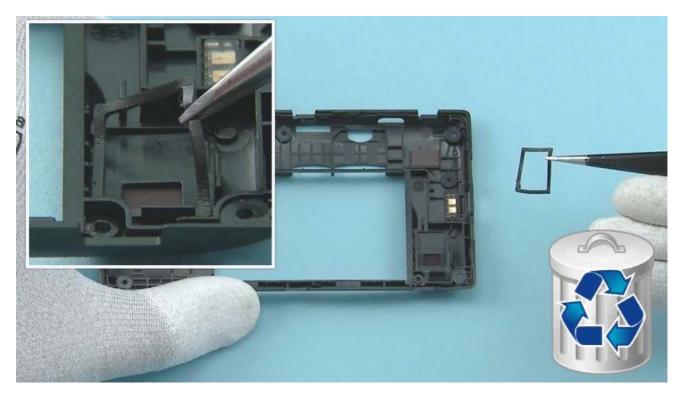
10) Release also the top side of the D-COVER from the shown place.



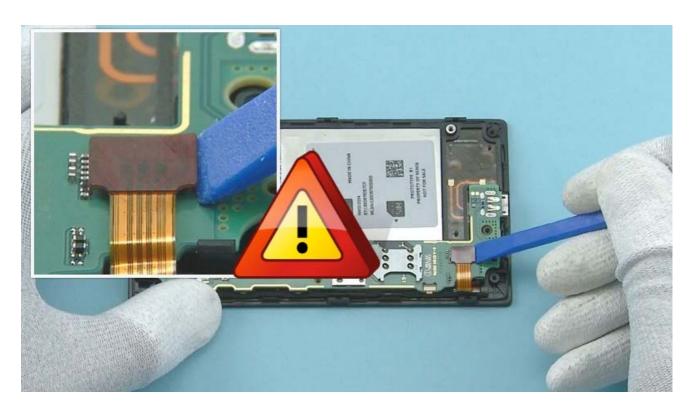
11) Lift up and remove the D-COVER.



12) Release the IHF SPEAKER with the SS-93 and remove it with tweezers. Do not use it again. Discard it.



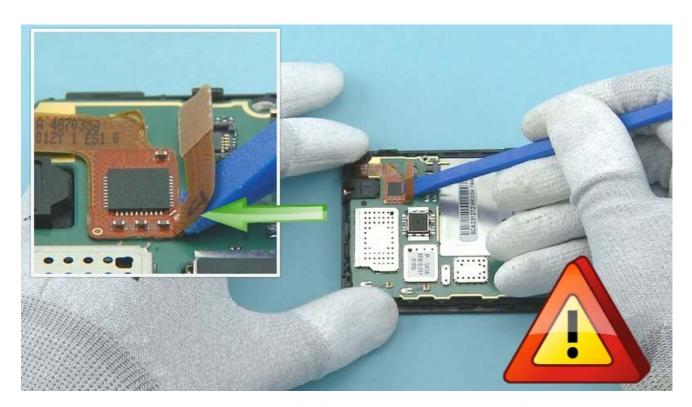
13) Remove the SPEAKER GASKET with tweezers. Do not use it again. Disard it.



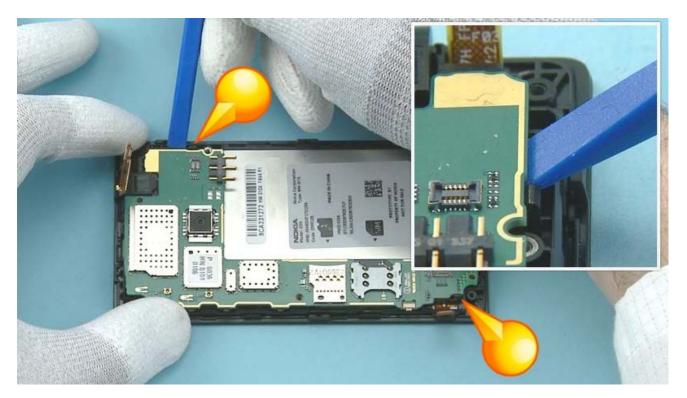
14) Open the DISPLAY connector with the SS-93. Be careful not to damage the connector or any components nearby.



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



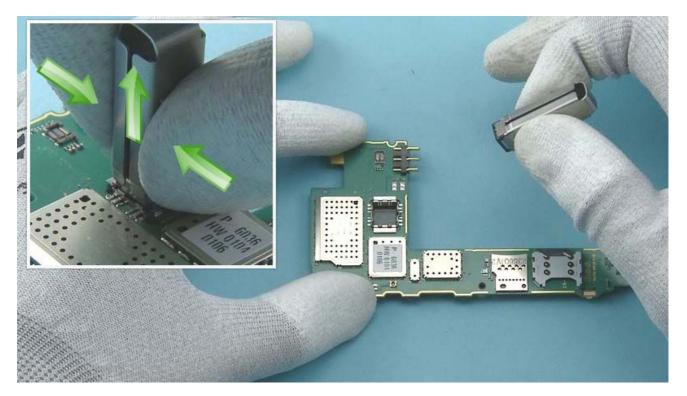
16) Release the TOUCH WINDOW connector flex from the ENGINE BOARD by carefully pushing it with the SS-93. Be careful not to damage the flex.



17) Release the two clips holding the ENGINE BOARD with the SS-93.



18) Lift up and remove the ENGINE BOARD.



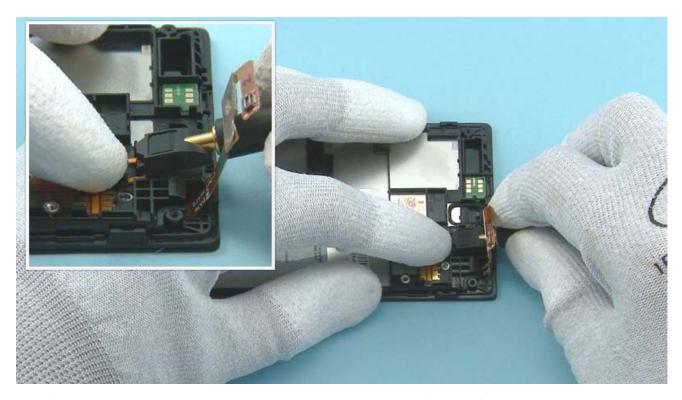
19) Remove the CAMERA with the SS-305 camera removal tool. Insert the tool to the CAMERA socket. Then press and hold from the sides and pull up the CAMERA.



20) Release the EARPIECE with the sharp end of the SS-93 and remove it with tweezers. Do not use it again. Discard it.



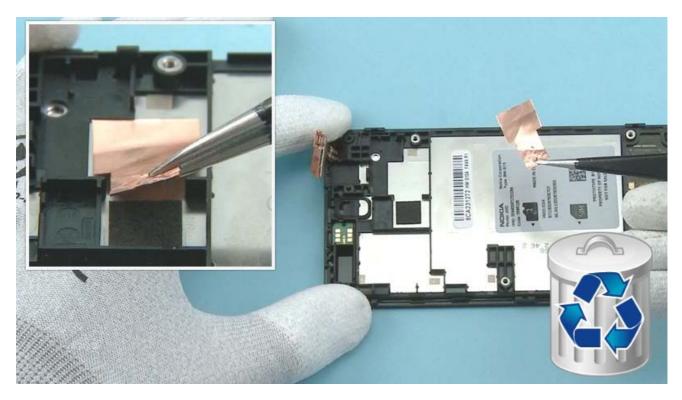
21) Remove the EARPIECE GASKET with tweezers. Do not use it again. Discard it.



22) Lift up the AV JACK with an AV plug while holding the AV JACK flex with finger.



23) Then carefully release the AV JACK flex with the SS-93 and remove the AV JACK.



24) Remove the HEAT SPREADER with tweezers. Do not use it again. Discard it.



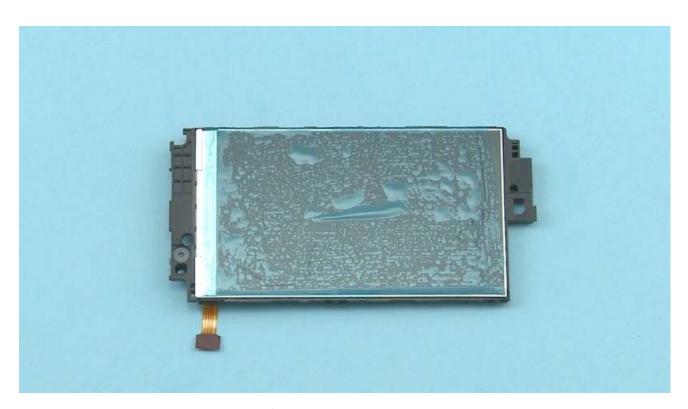
25) Release the DISPLAY SUPPORT from the shown place with the SRT-6.



26) Separate the DISPLAY SUPPORT including the DISPLAY from the TOUCH WINDOW.



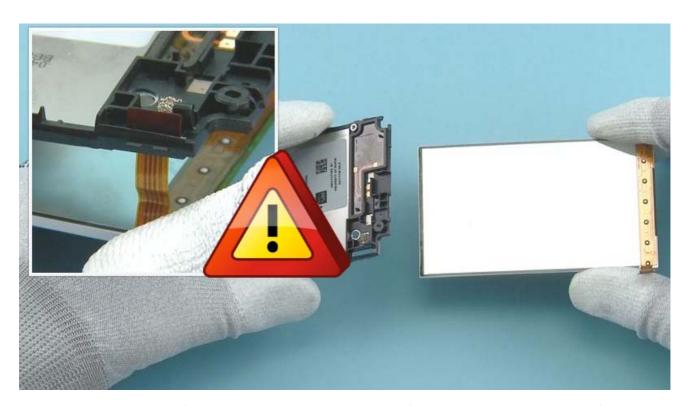
27) Protect the other side of the TOUCH WINDOW with protective film.



28) Protect the DISPLAY with protective film.



29) Carefully release the DISPLAY from the DISPLAY SUPPORT by pushing from the hole next to the DISPLAY flex with the sharp end of the SS-93. Note that releasing the DISPAY is allowed ONLY from the shown place.

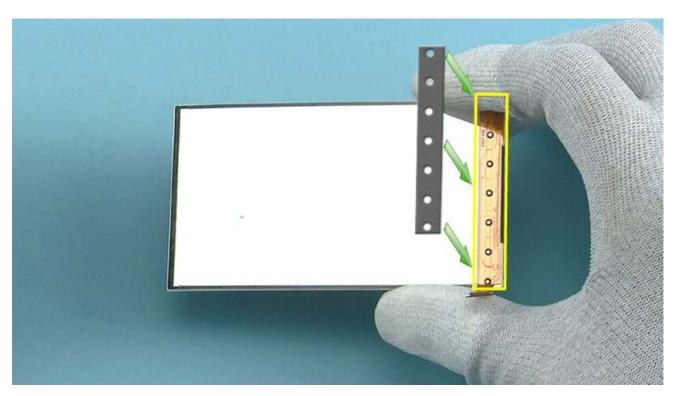


30) Separate the DISPLAY from the DISPLAY SUPPORT. Be careful not to damage the DISPLAY flex while guiding it through the DISPLAY SUPPORT.

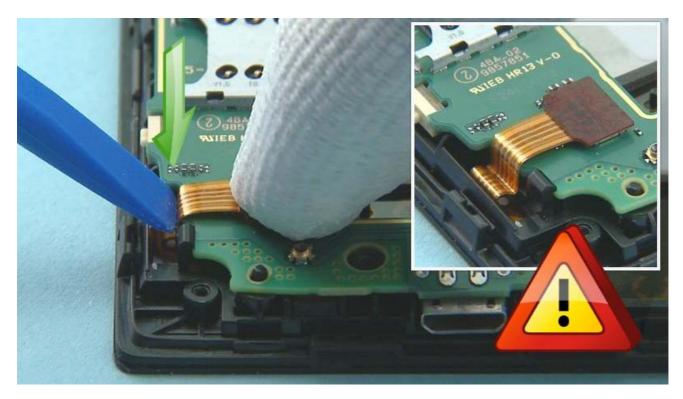


31) The Nokia Lumia 520 disassembly procedure is complete.

-END OF DISASSEMBLY-



1) Before assembling the DISPLAY attach the DISPLAY CONDUCTIVE TAPE to the bottom back side of the DISPLAY as shown.



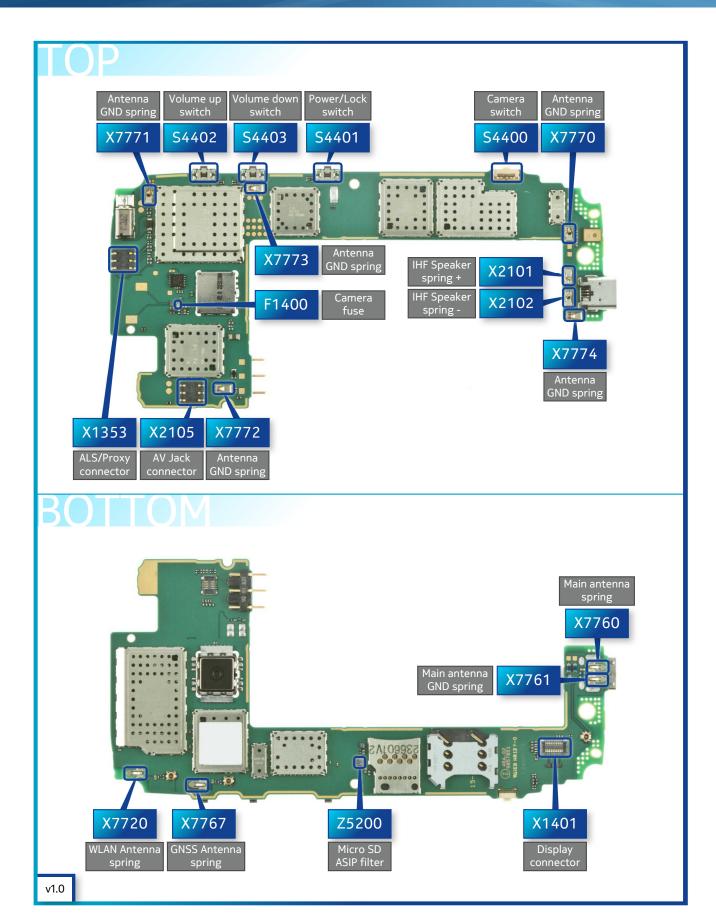
2) After the DISPLAY connector is connected, hold the connector with a finger and use the SS-93 to bend the flex down from the edge of the ENGINE BOARD, so that the result is as shown. Be careful not to damage the flex when bending it!



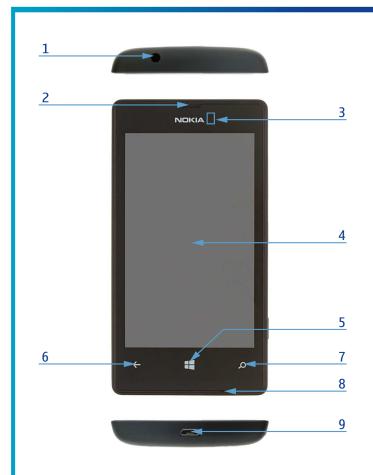
3) Fasten the three Torx+ size 4 screws in the order shown to the torque of 12 Ncm.



4) Fasten the five Torx+ size 4 screws in the order shown to the torque of 14 Ncm.





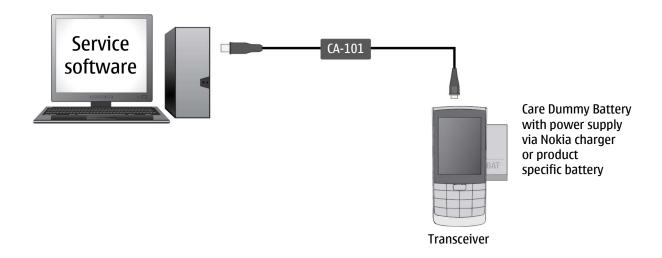


- 1 3.5 mm AHJ connector
- 2 Earpiece
- 3 Ambient light & Proximity sensors
- 4 Touch screen
- 5 Home key
- 6 Back key
- 7 Search key
- 8 Microphone
- 9 Micro USB connector
- 10 Camera
- 11 Volume keys
- 12 Power/Lock key
- 13 Camera key
- 14 Loudspeaker
- 15 GNSS antenna
- 16 Cellular antenna



v1.0

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 wait for one minute before reinserting 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

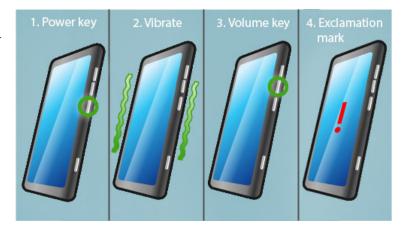
- Use this option if the phone is locked and the consumer does not know the code
- Note: no warning about data loss!
- Do not advertise this feature to consumers!

Follow next steps to perform OS reset with phone keys.

Step 1

Make sure the phone is turned Off.

- 1. Press and hold the power key
- 2. Phone vibrates (release the power key)
- 3. Press and hold the volume down key
- 4. Exclamation mark is shown on the screen (release the volume down key)



Step 2

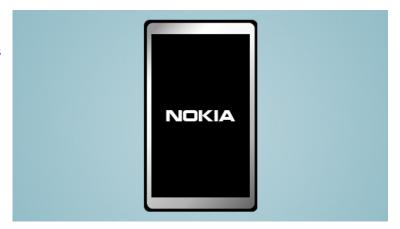
Input the following key combination:

- 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 history

Version	Date	Description
1.0	28.02.2013	First published version