

# Nokia Lumia 920

## RM-820, RM-821

### Key features

- Windows Phone 8
- 1.5 GHz dual-core processor (Qualcomm Snapdragon S4)
- 32 GB internal flash memory
- EGSM, WCDMA HSPA and 4G LTE
- Near Field Communication (NFC) technology
- Wireless charging (Qi standard)

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

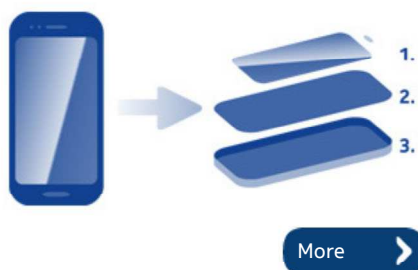


Version 1.0

### Exploded view



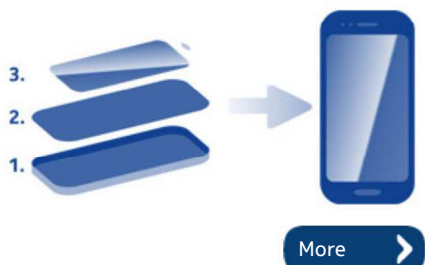
### Disassembly steps



### Disassembly video



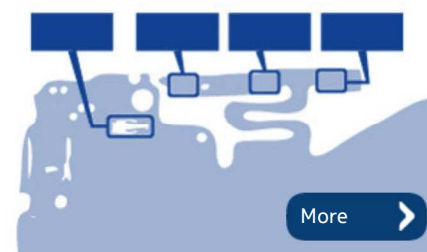
### Assembly steps



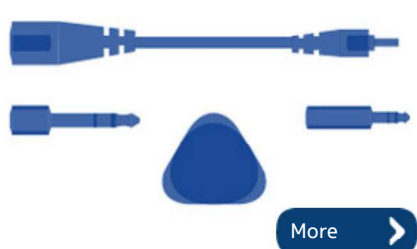
### Assembly video



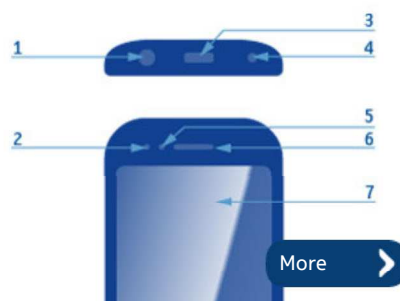
### Solder components



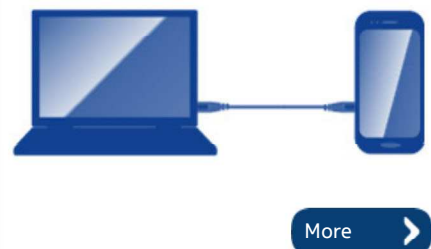
### Service devices



### Product controls and interfaces

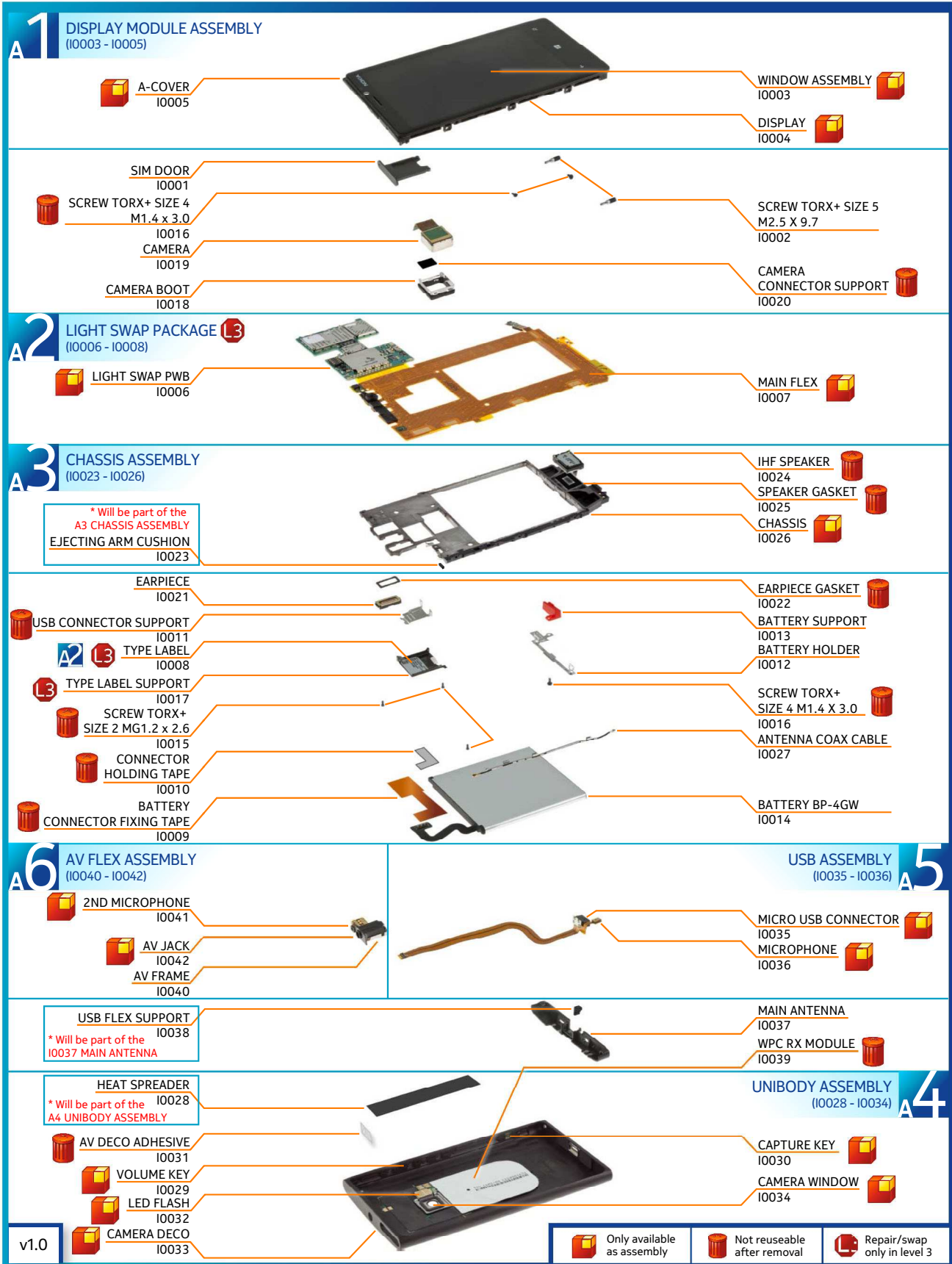


### Service concept



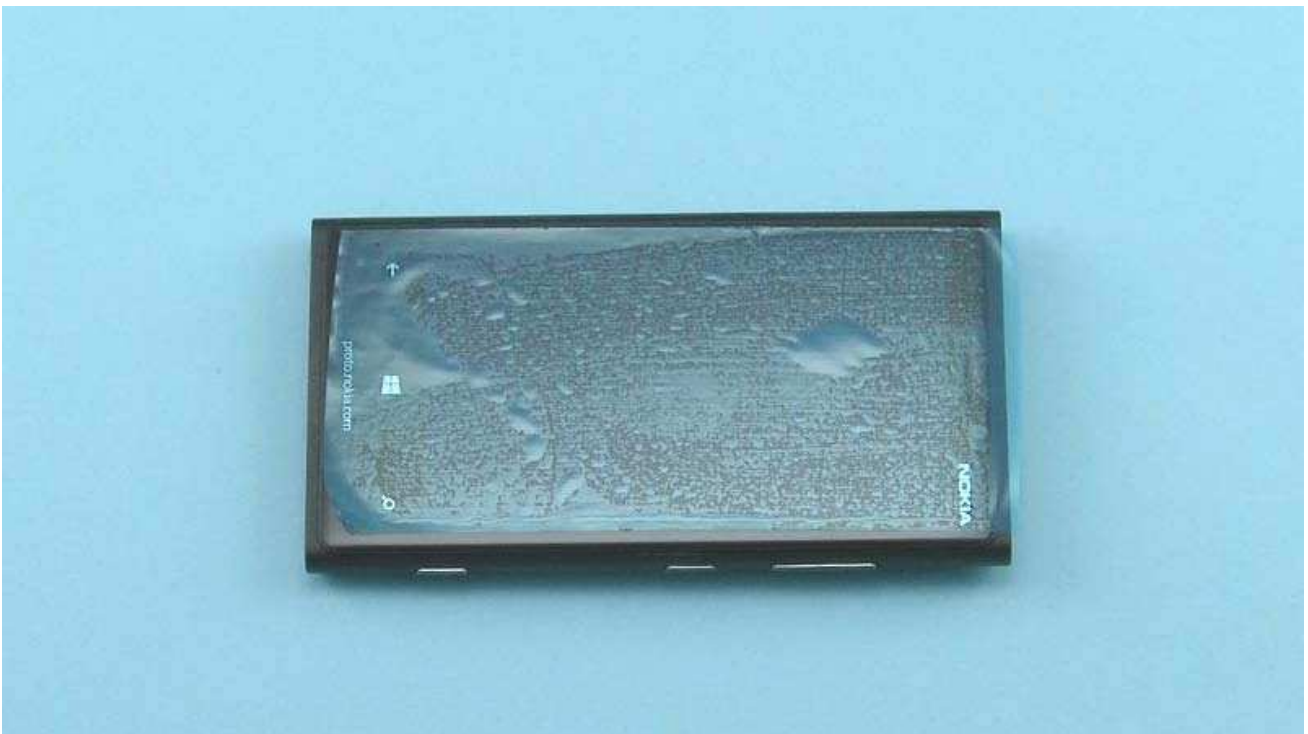
### Phone reset







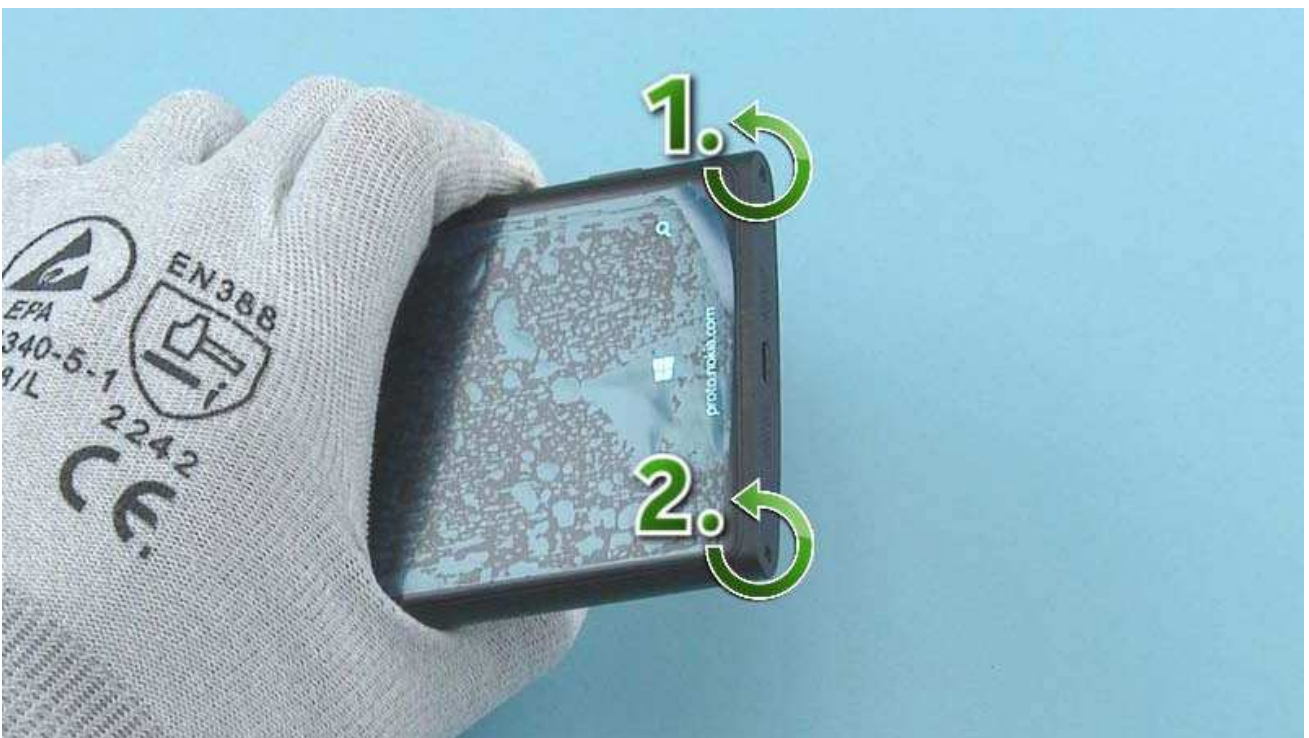
For disassembling you need the Nokia Standard Tool kit version 2. You will also need the SIM door key, the RF connector disassembly/assembly tool SS-231, the SS-299 screwdriver and the Care chassis assembly jig SS-289.



Protect the TOUCH SCREEN with protective film.



Release the SIM DOOR with the SIM door key and remove it.



Unscrew the two TORX+ size 5 screws from the bottom of the device in the order shown.



Push from the bottom corners of the UNIBODY ASSEMBLY so that the DISPLAY MODULE ASSEMBLY comes out of the UNIBODY ASSEMBLY.



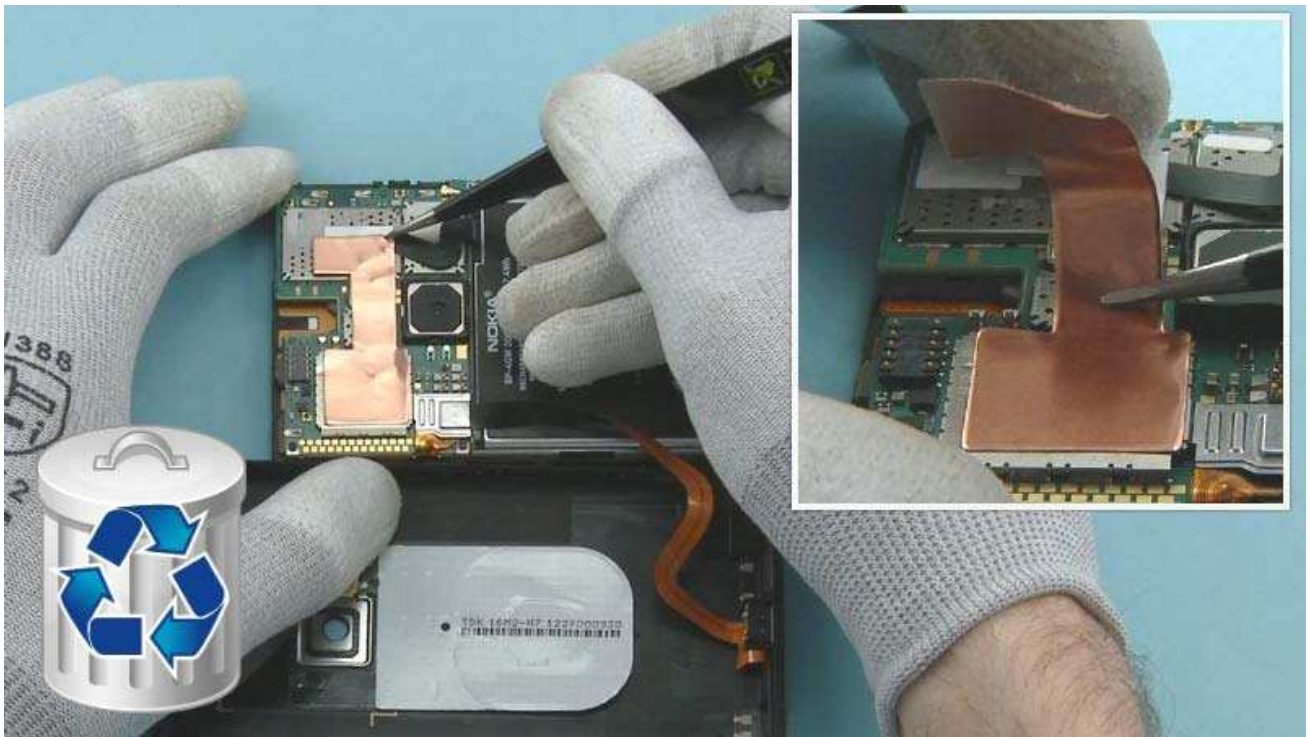
There are differences in material tightness between color variants. If the UNIBODY ASSEMBLY sides are hard to remove with fingers, use SRT-6 to release the sides to avoid scratches in the UNIBODY ASSEMBLY.



Lift the DISPLAY MODULE ASSEMBLY out of the UNIBODY ASSEMBLY bottom end first.



Turn the DISPLAY MODULE ASSEMBLY so that the ENGINE BOARD side is facing up and place it next to the UNIBODY ASSEMBLY. Be careful not to bend the USB flex.



Remove the BATTERY CONNECTOR FIXING TAPE with tweezers. Do not use it again. Discard it.



If the device has the CONNECTOR HOLDING TAPE assembled, remove it with tweezers. Do not use it again. Discard it.



Open the BATTERY connector with the SRT-6. Be careful not to damage the connector or any components nearby.



Release the USB CONNECTOR SUPPORT from the left side with the sharp end of the SS-93.





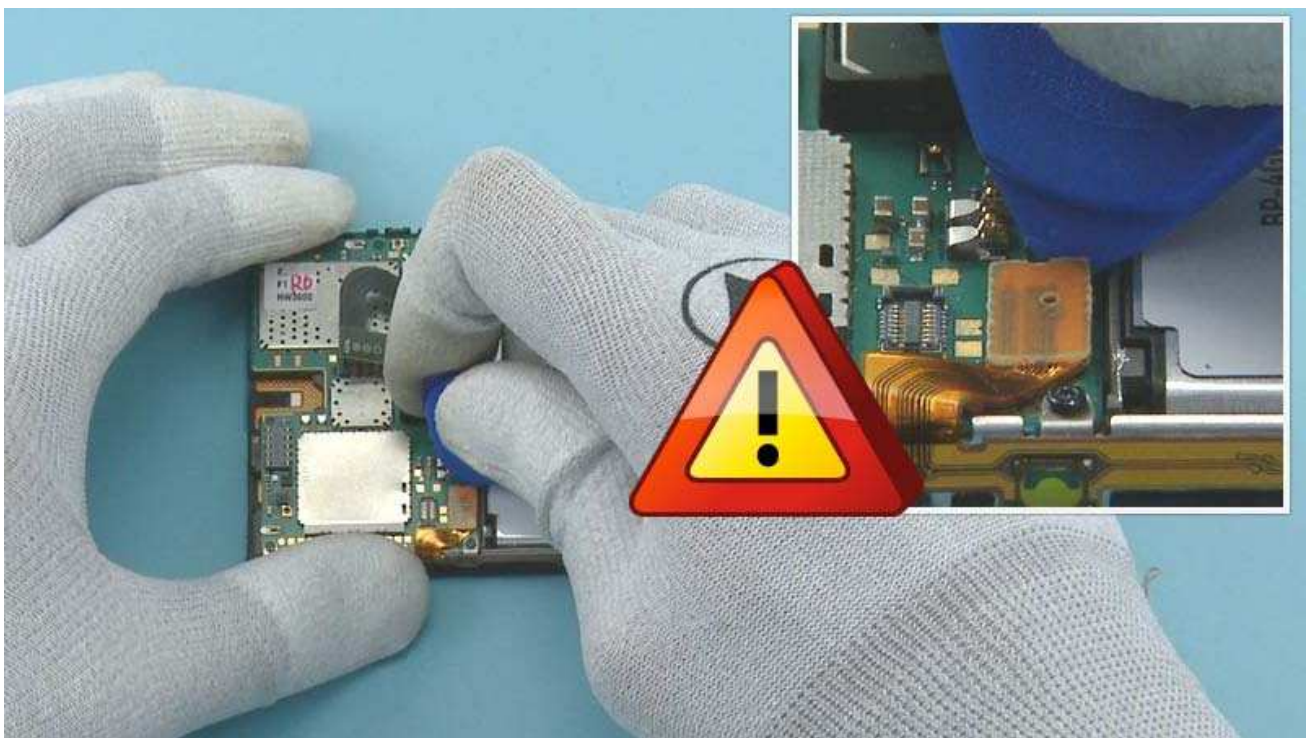
Remove the USB CONNECTOR SUPPORT by lifting it up with tweezers. Be careful not to insert the tweezers under the connectors located beneath the USB CONNECTOR SUPPORT. The USB CONNECTOR SUPPORT is not reusable. Discard it.



Open the USB flex connector with the SRT-6. Be careful not to damage the connector or any components nearby.



The UNIBODY ASSEMBLY can now be removed.



Open the side key connector with the SRT-6. Be careful not to damage the connector or any components nearby.





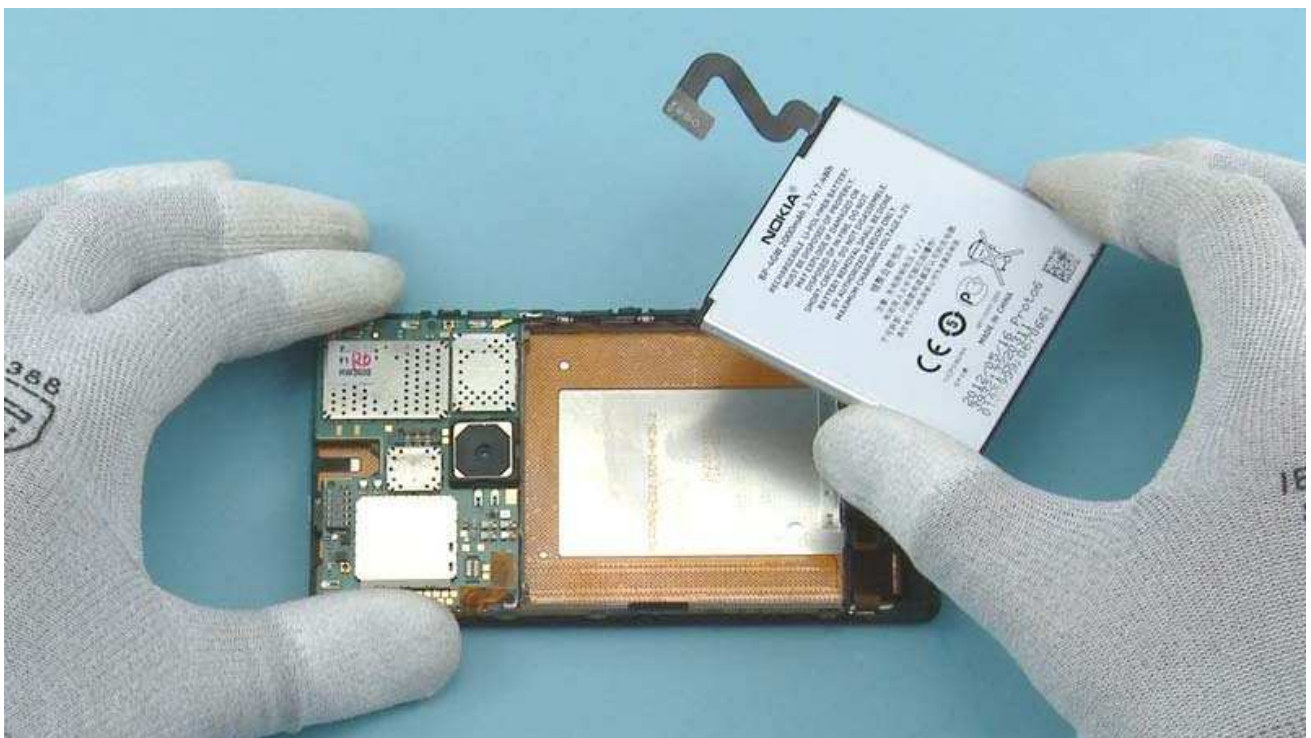
Remove the BATTERY HOLDER with tweezers.



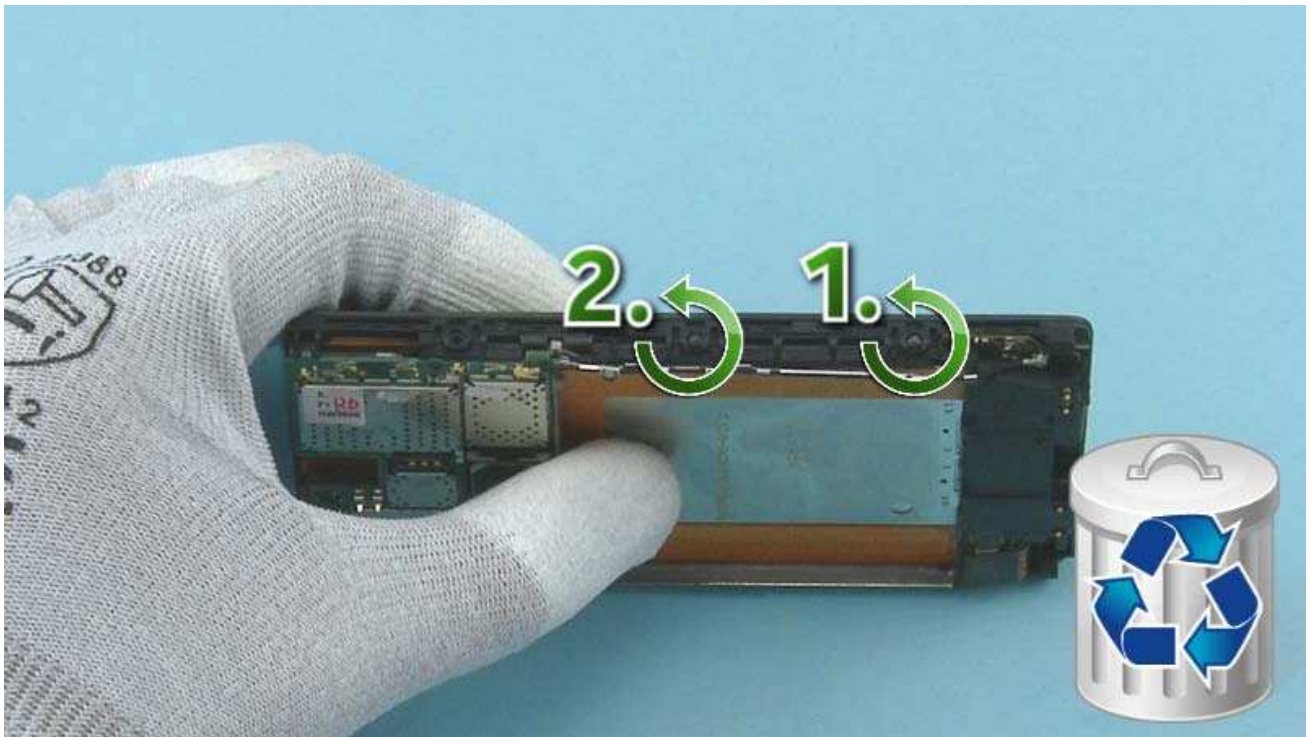
Remove the BATTERY SUPPORT with tweezers.



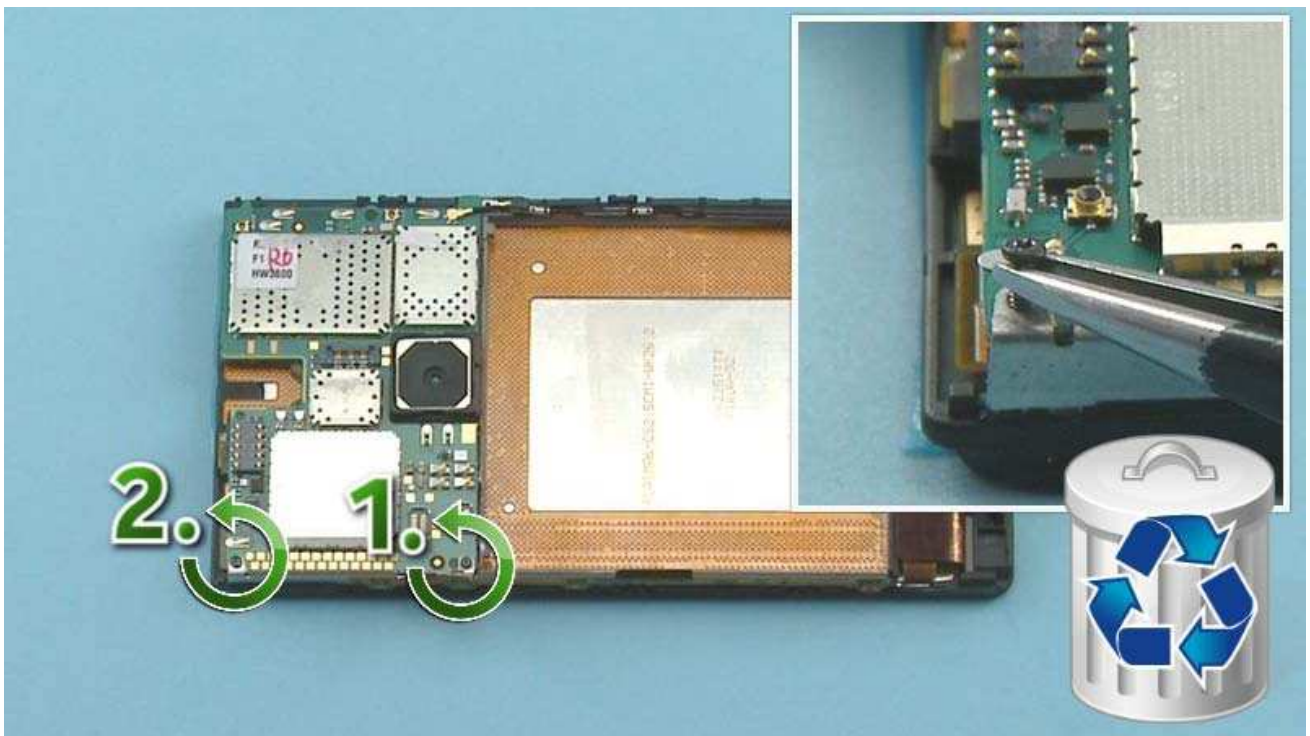
Lift up the BATTERY from the bottom end with the SS-93.



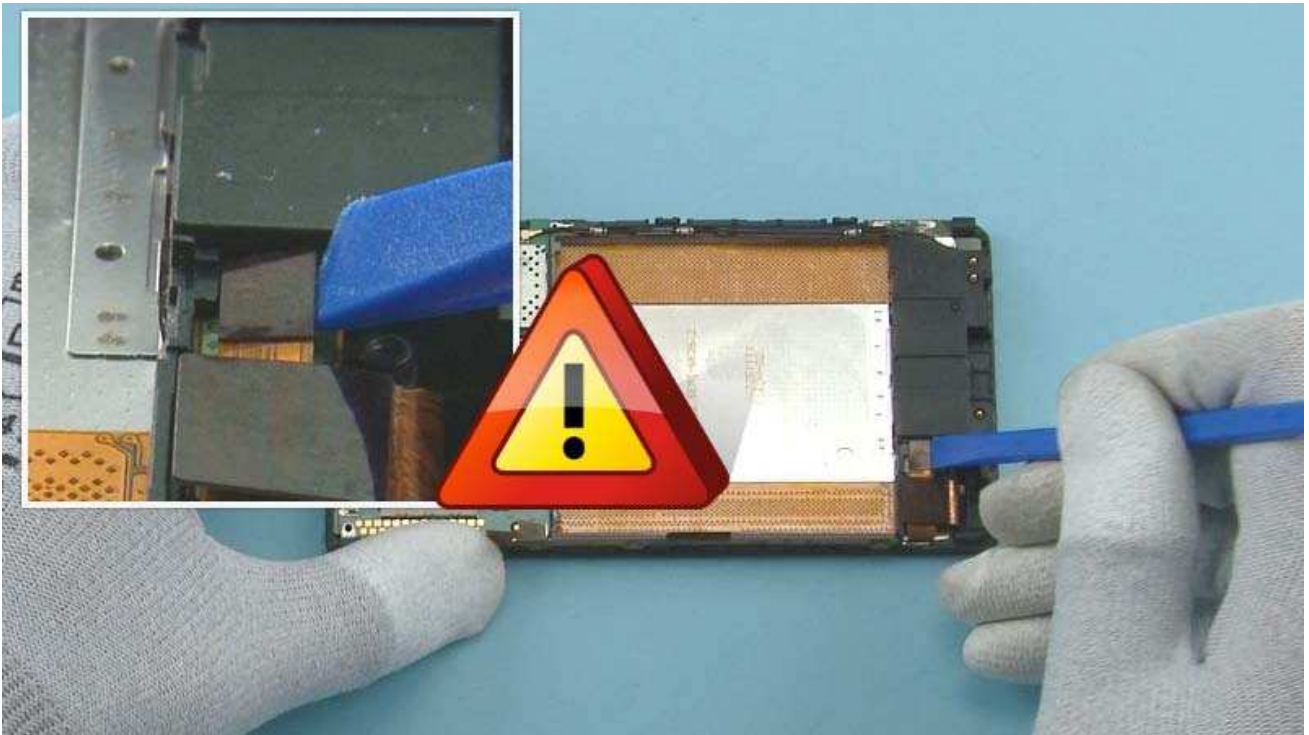
Remove the BATTERY.



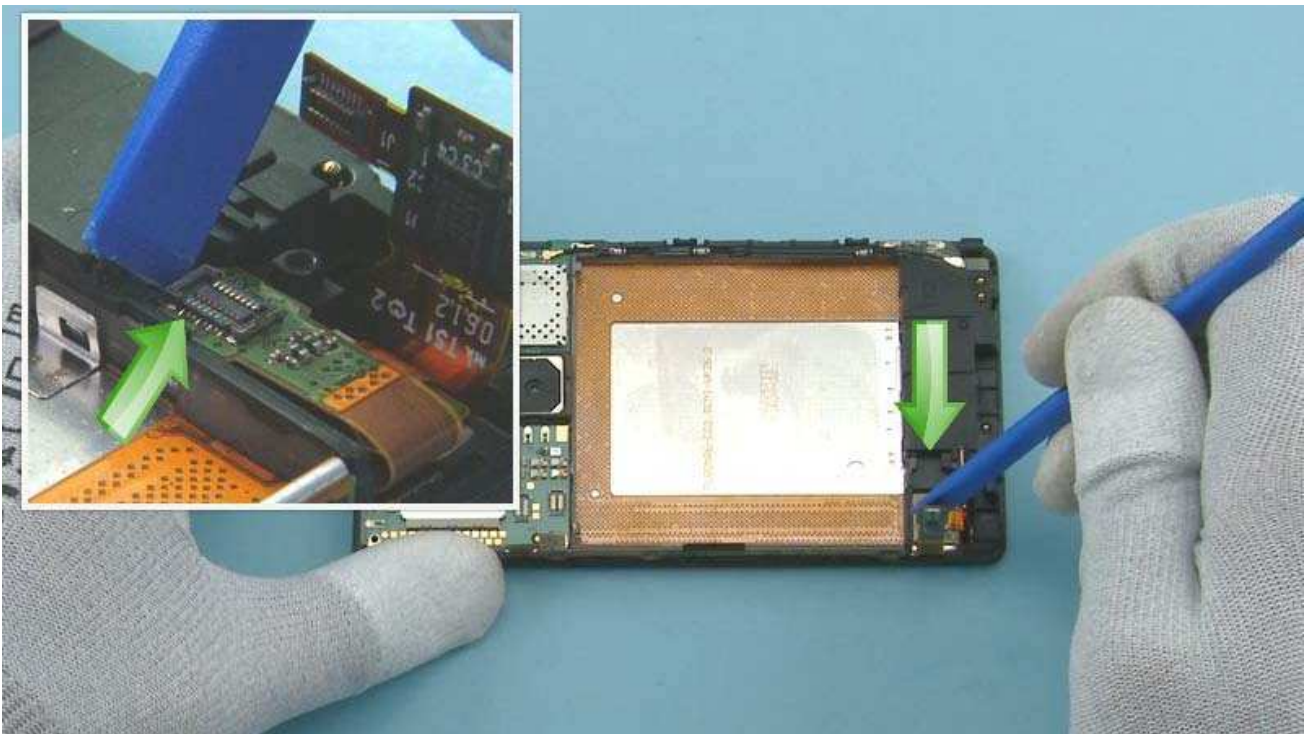
Unscrew the two TORX+ size 4 screws on the shown side of the CHASSIS in the order shown. Do not use them again. Discard them.



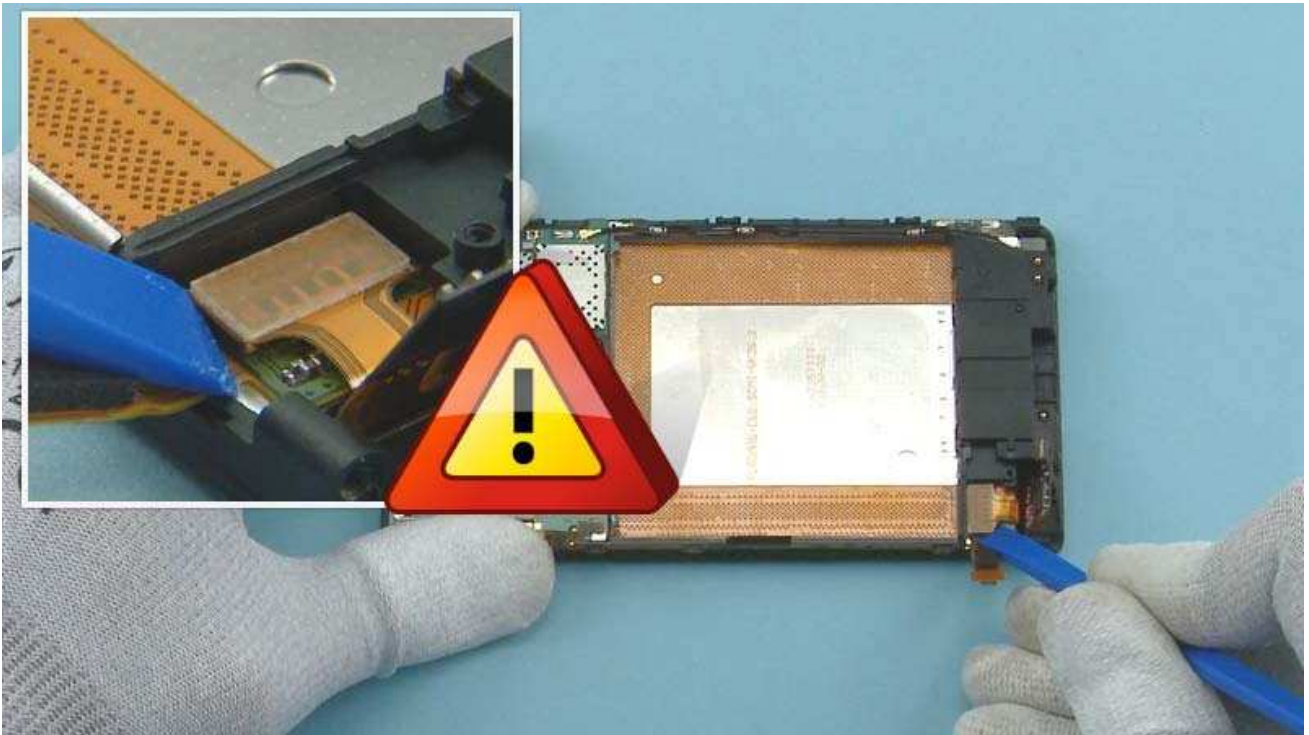
Unscrew the two TORX+ size 2 screws with the SS-299 screwdriver in the order shown. Use tweezers to remove the screw to avoid bending the springs on the ENGINE BOARD. Do not use the screws again. Discard them.



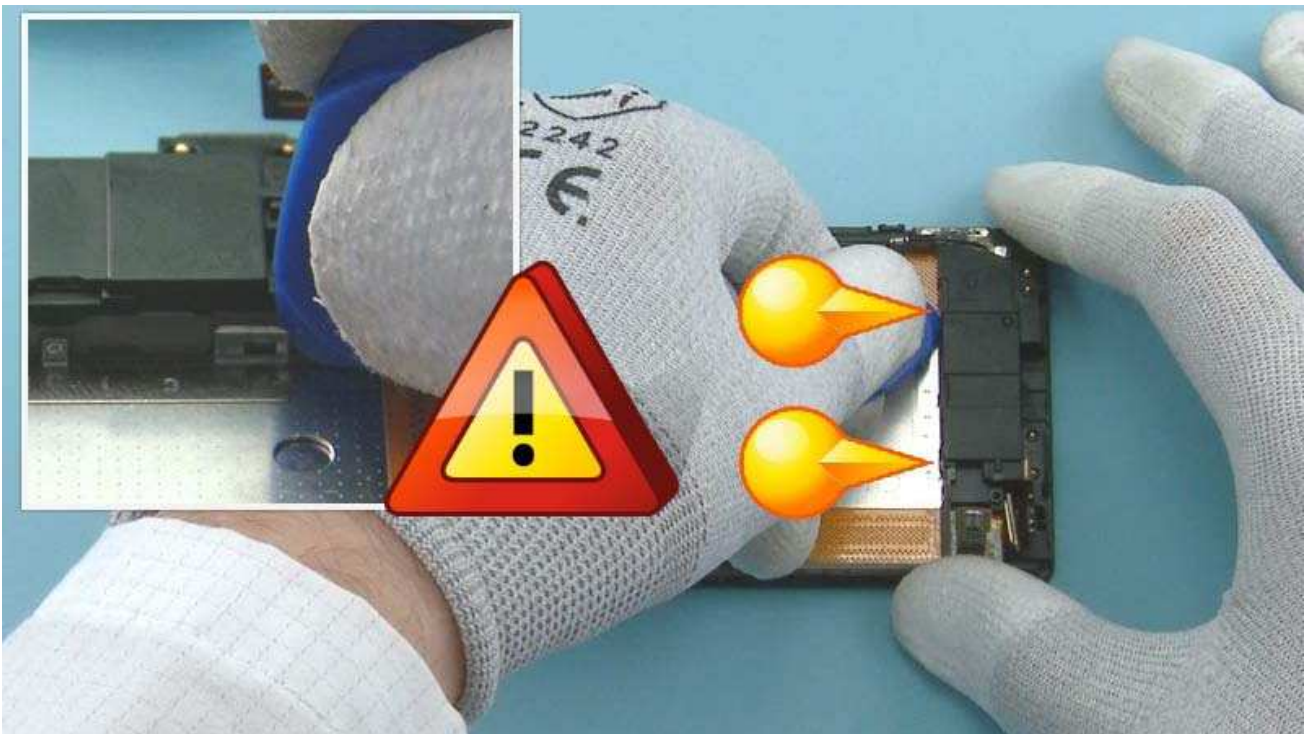
Open the touch connector with the SS-93. Be careful not to damage the connector or any components nearby.



Slide the touch connector out of the CHASSIS as shown with the SS-93.



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



To release the CHASSIS first open the two clips at the bottom of the battery compartment with the SRT-6. Be careful not to bend the clips too much.

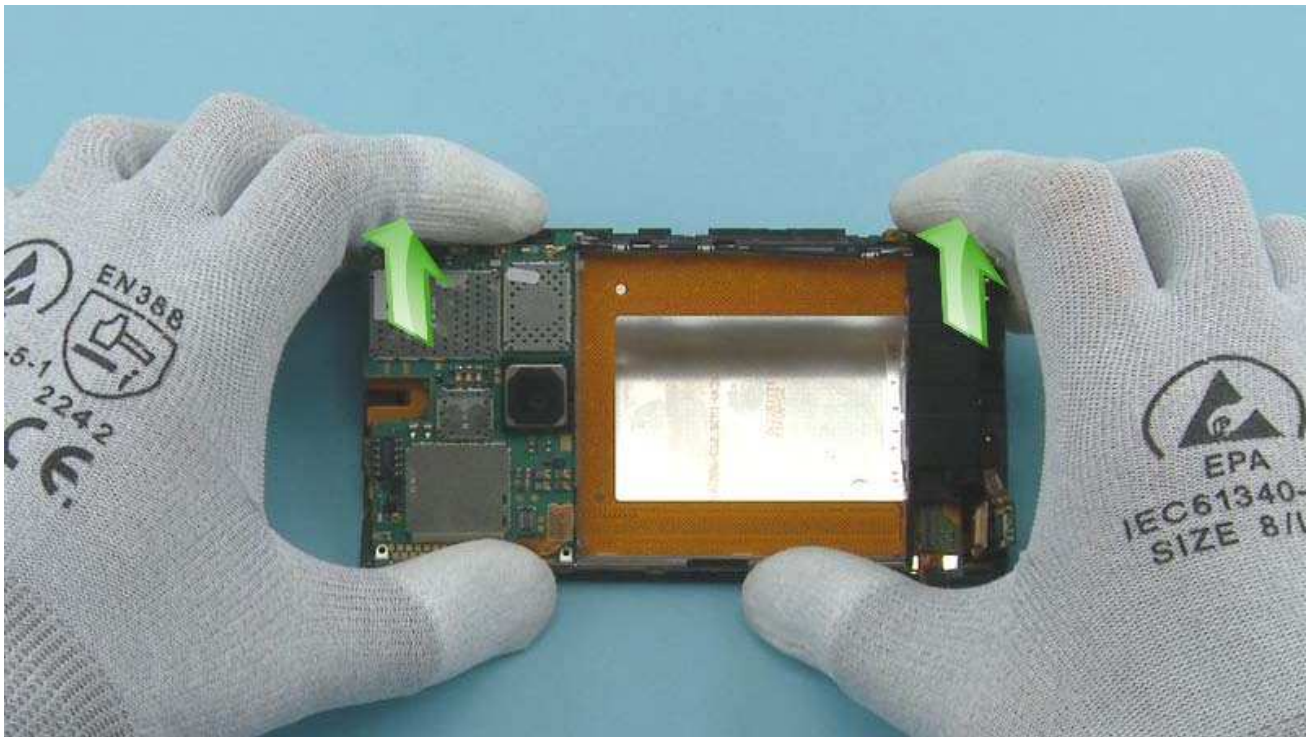




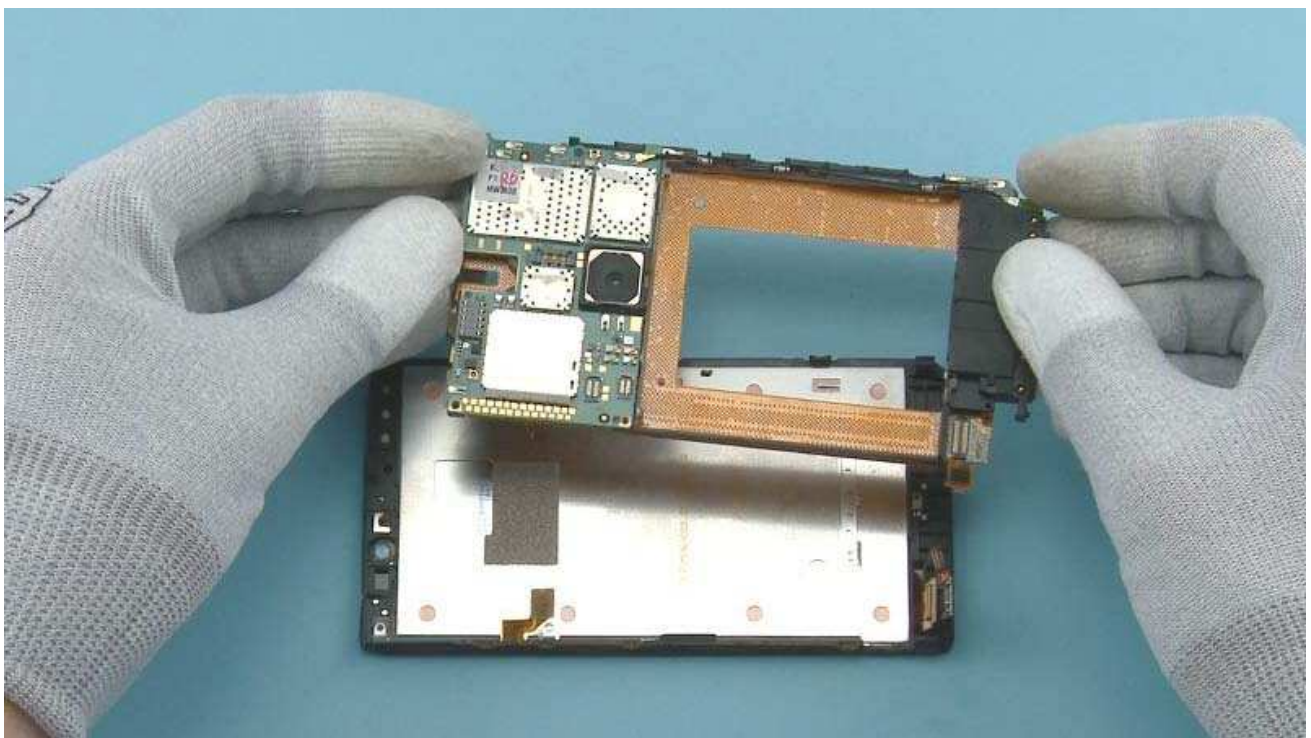
Then release the clips from the shown side of the CHASSIS starting from the top.



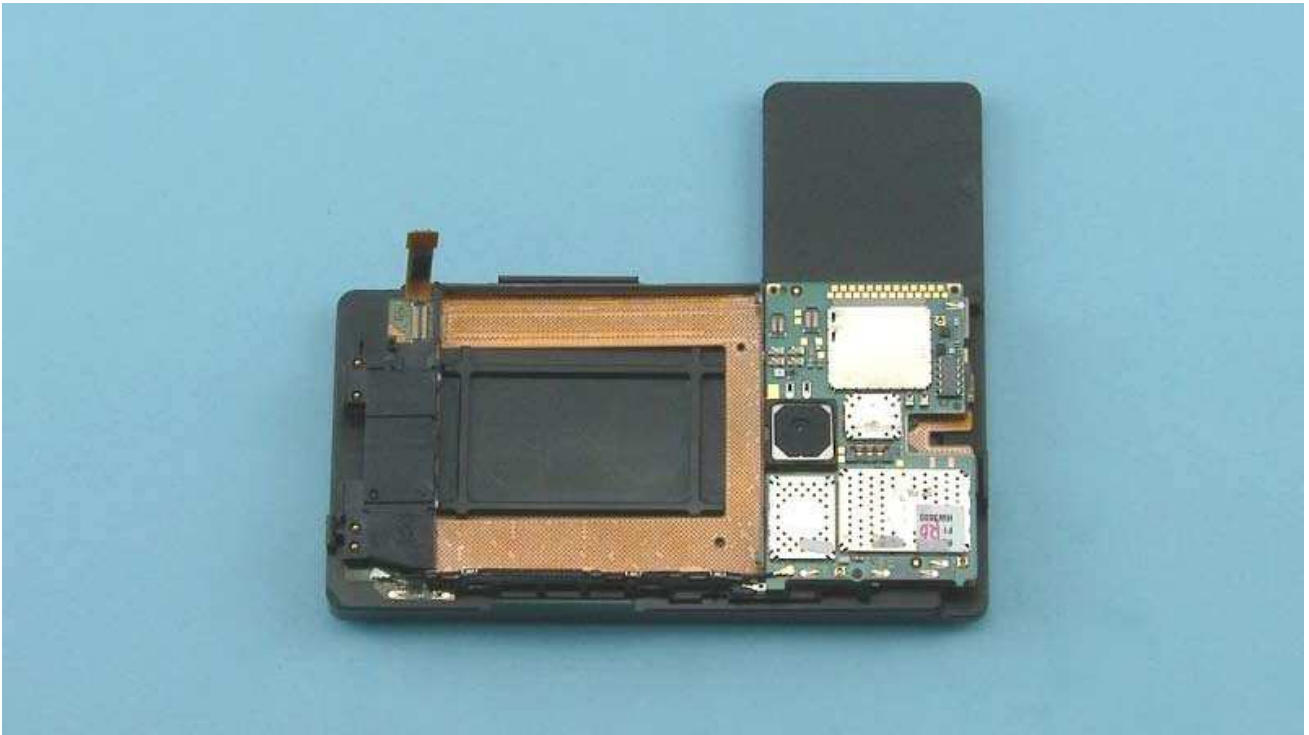
Then open the two clips at the bottom end starting from the shown side. Be careful not to break the clips.



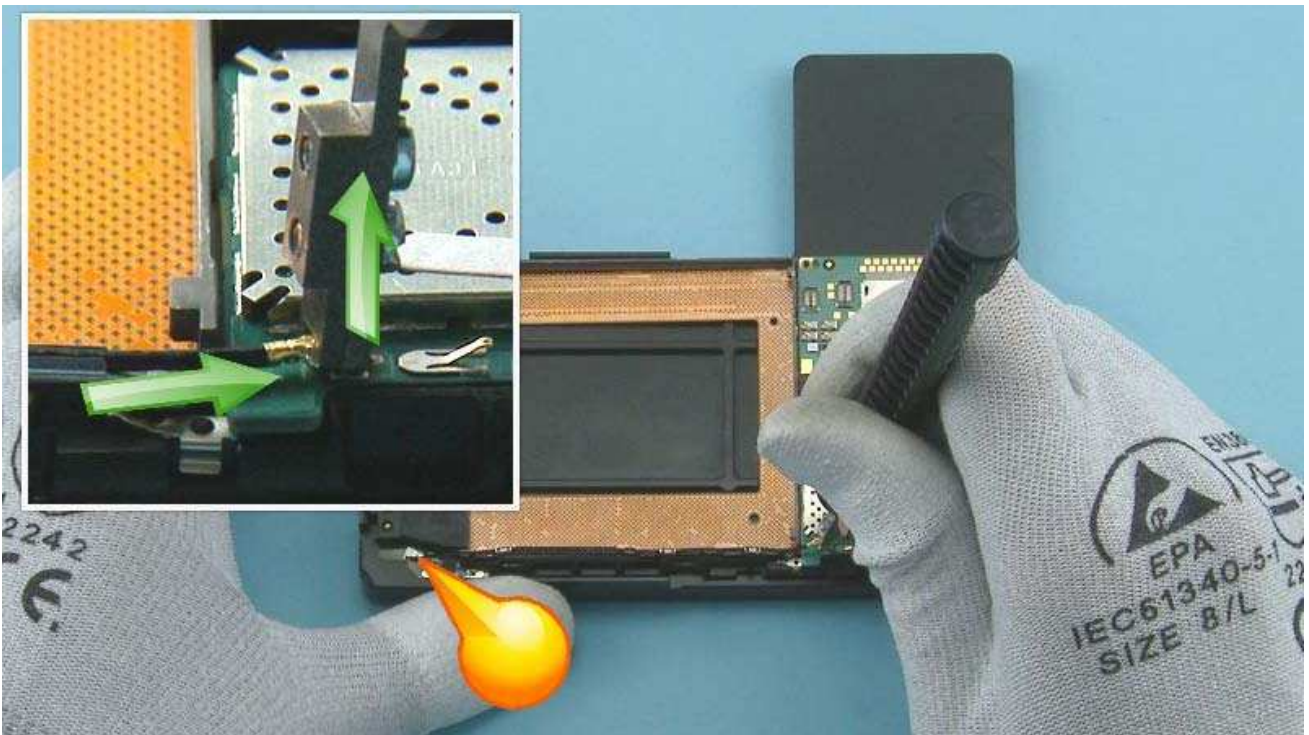
Lift up the CHASSIS including the ENGINE BOARD from the shown side.



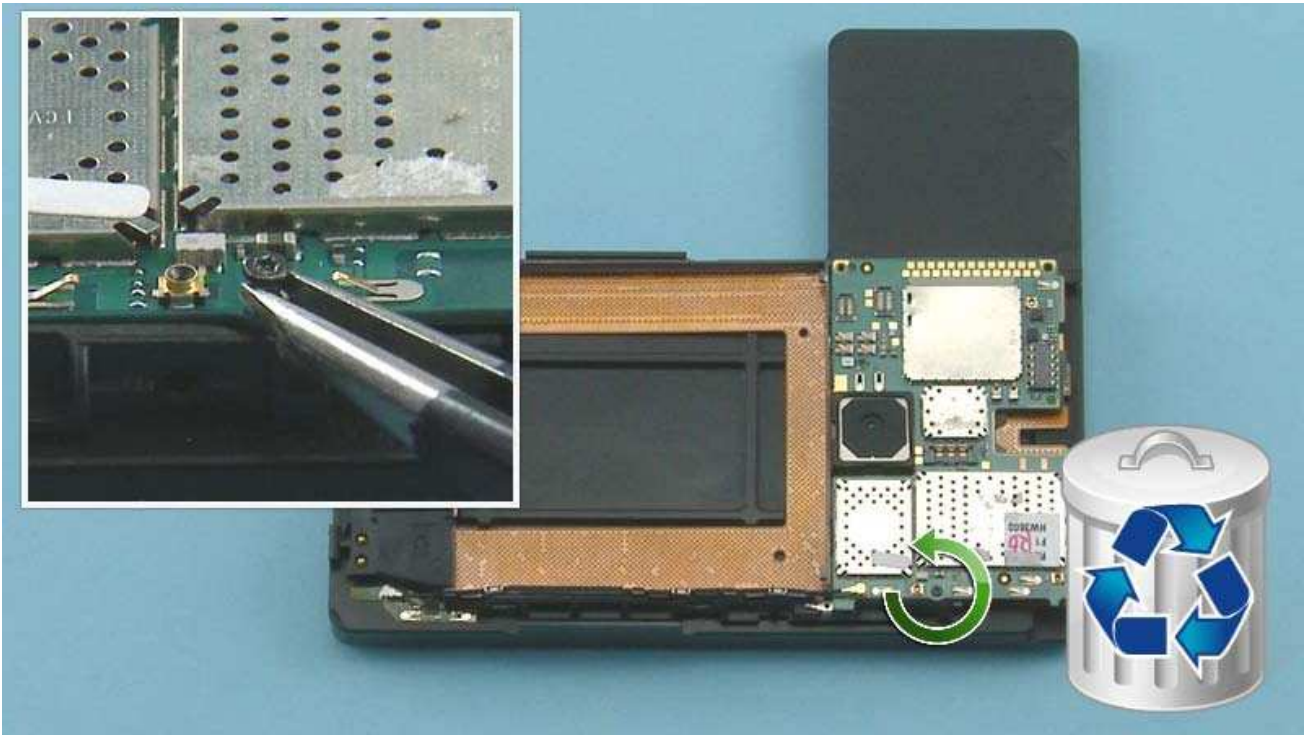
Remove the CHASSIS including the ENGINE BOARD.



Place the CHASSIS including the ENGINE BOARD on the Care chassis assembly jig.



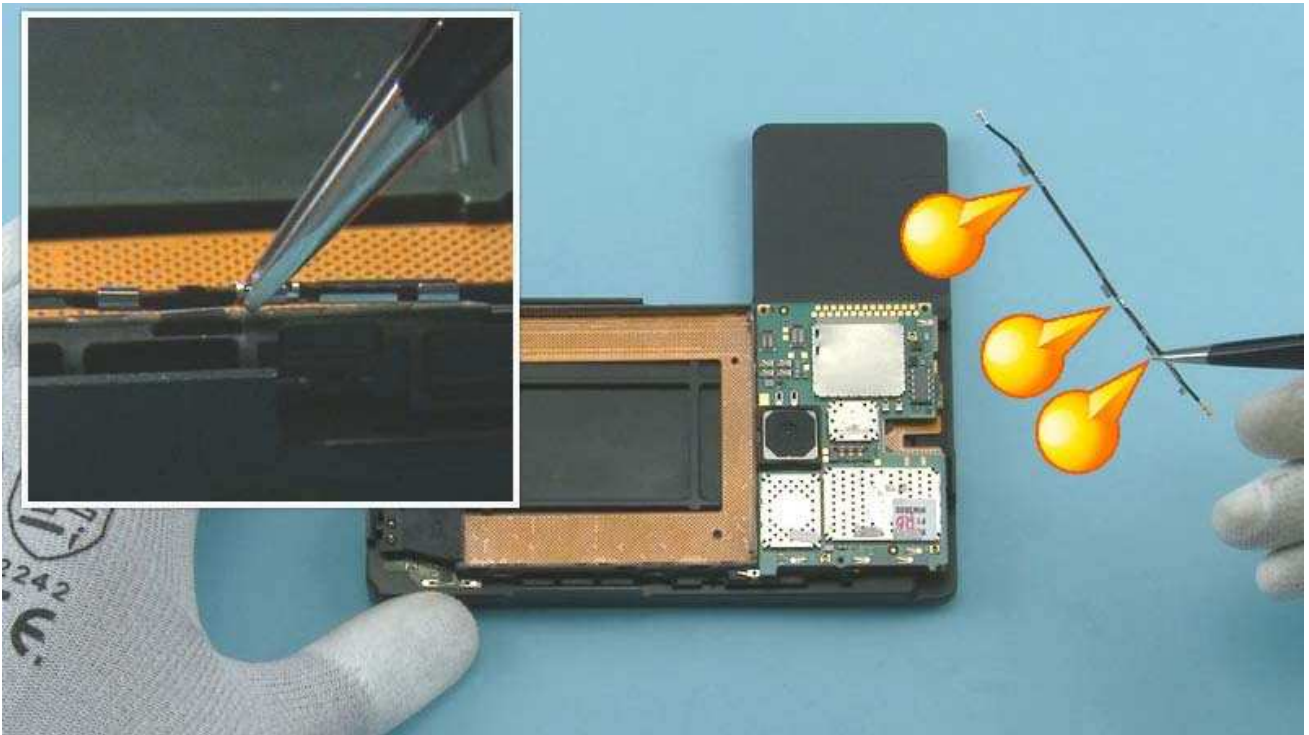
Open the ANTENNA COAX CABLE connector from the main ENGINE BOARD side with the SS-231. Lock the SS-231 to the top of the connector as shown and lift it up carefully. Keep the other end of the ANTENNA COAX CABLE connected.



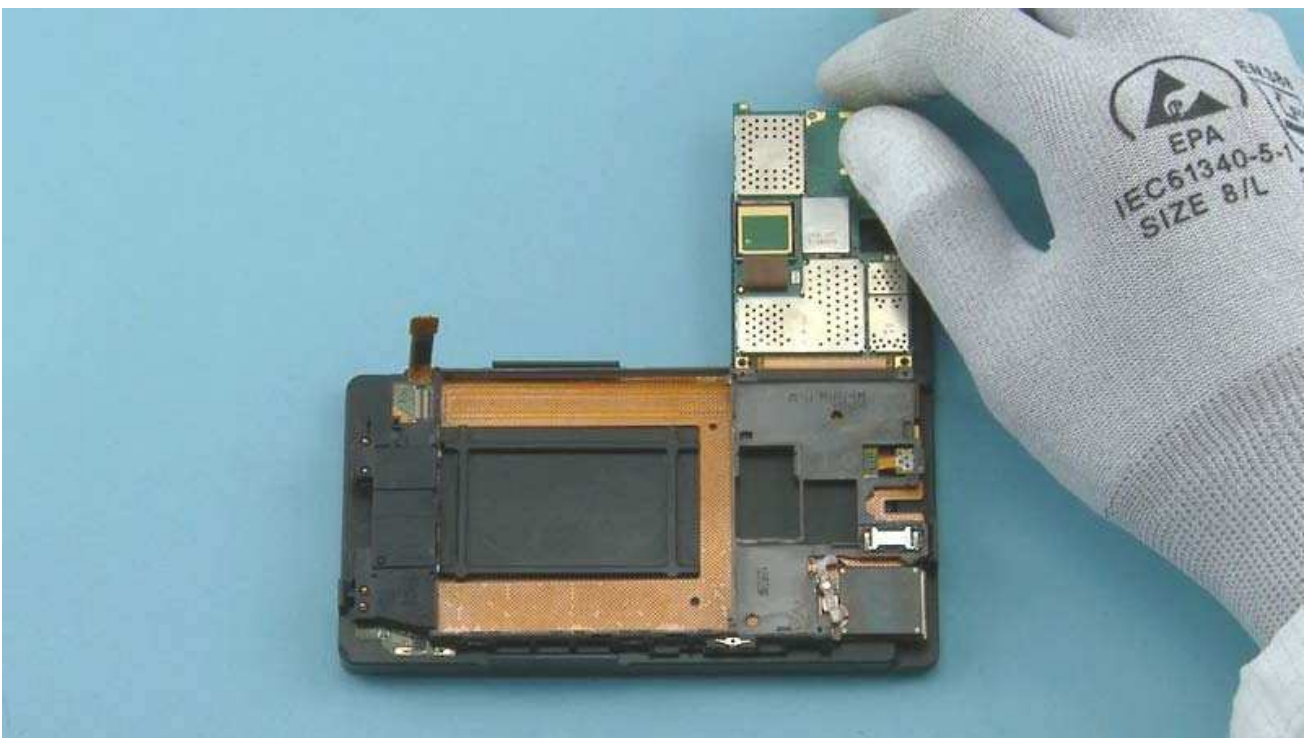
Unscrew the TORX+ size 2 screw with the SS-299 screwdriver. Use tweezers to remove the screw to avoid bending the springs on the ENGINE BOARD. Do not use the screw again. Discard it.



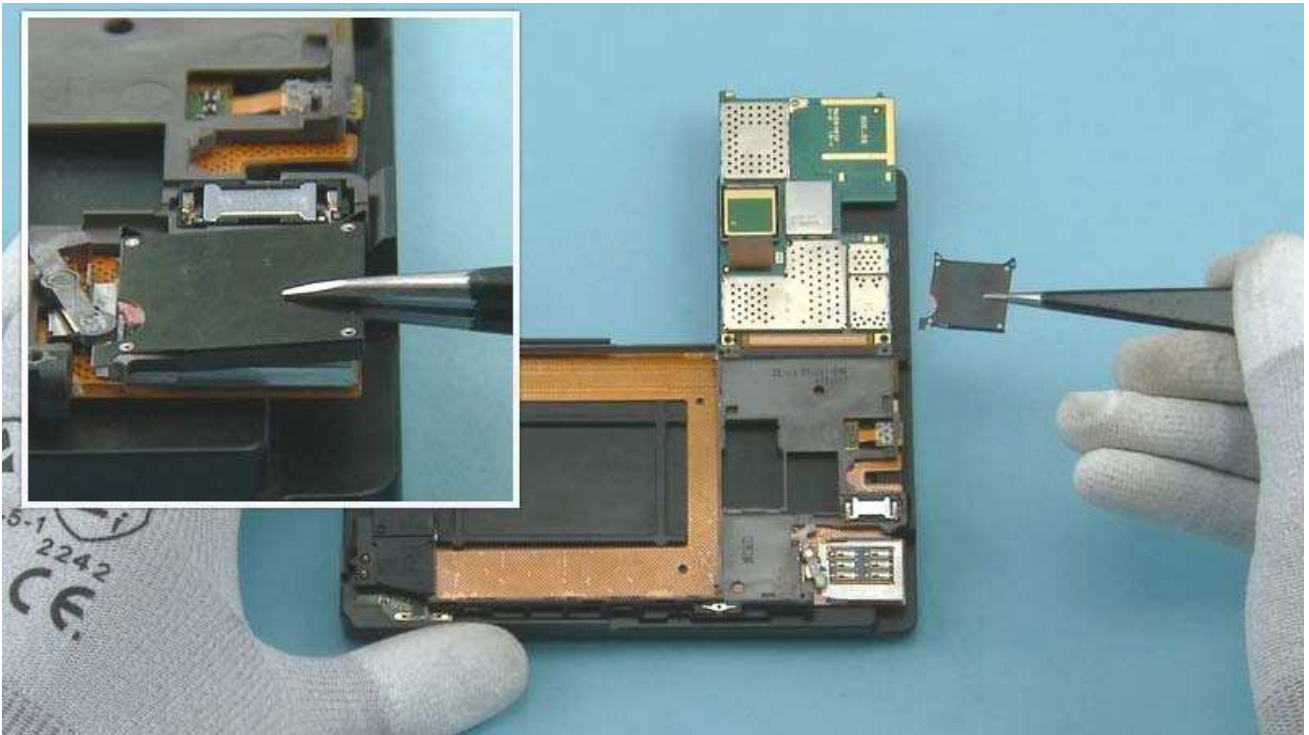
Open the ANTENNA COAX CABLE connector from the bottom end with the SS-231.



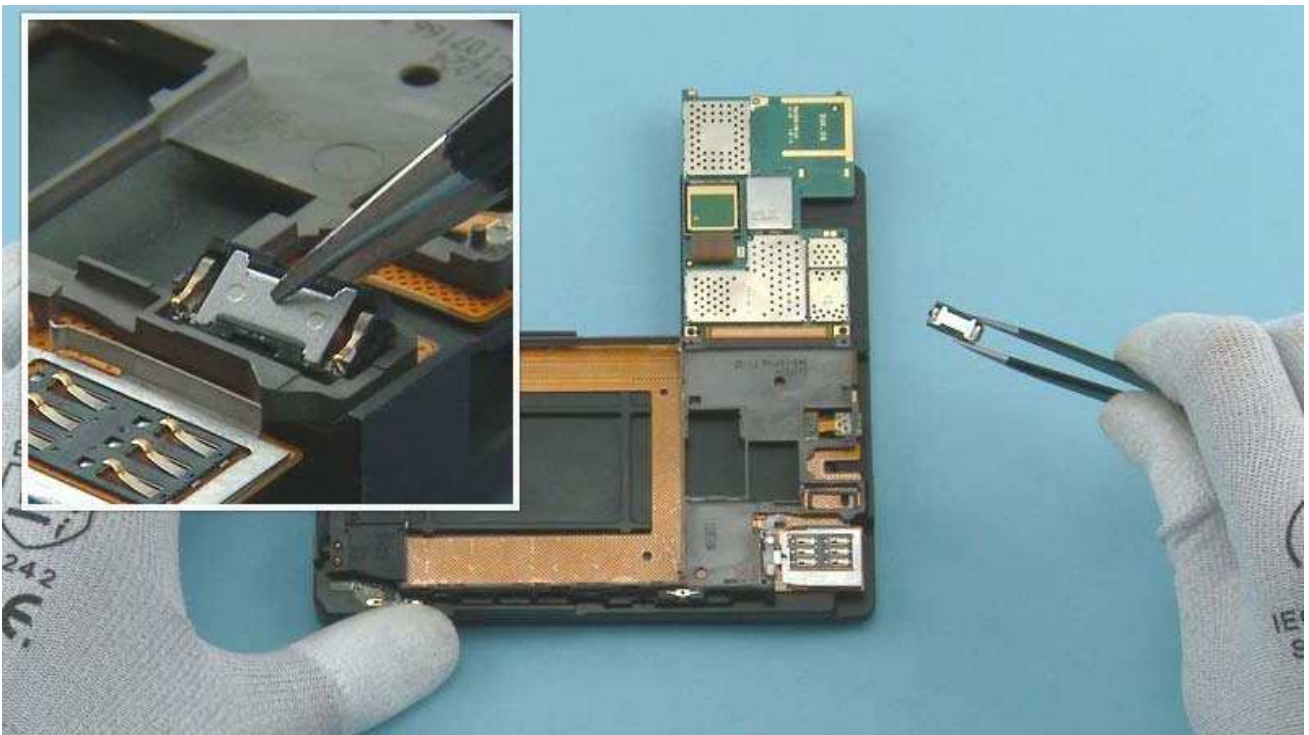
Remove the ANTENNA COAX CABLE by lifting it from the metal sheets with tweezers.



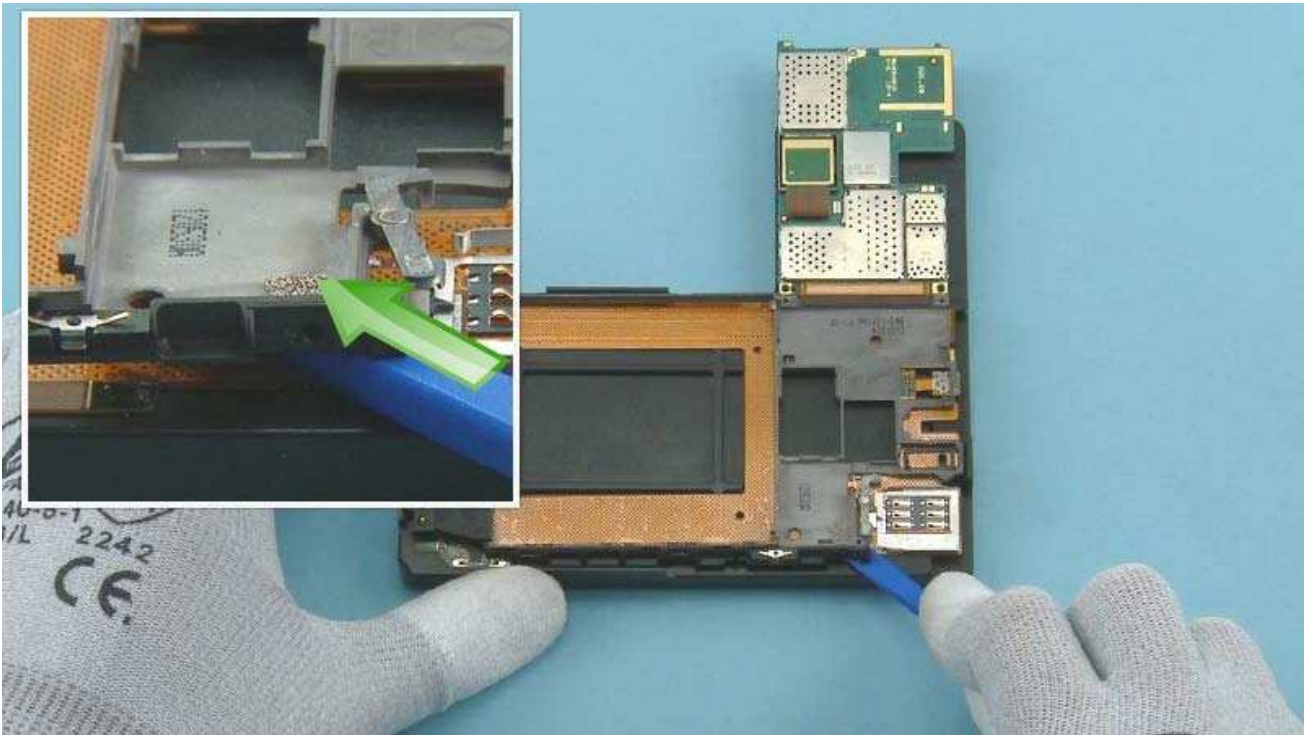
Turn over the ENGINE BOARD as shown.



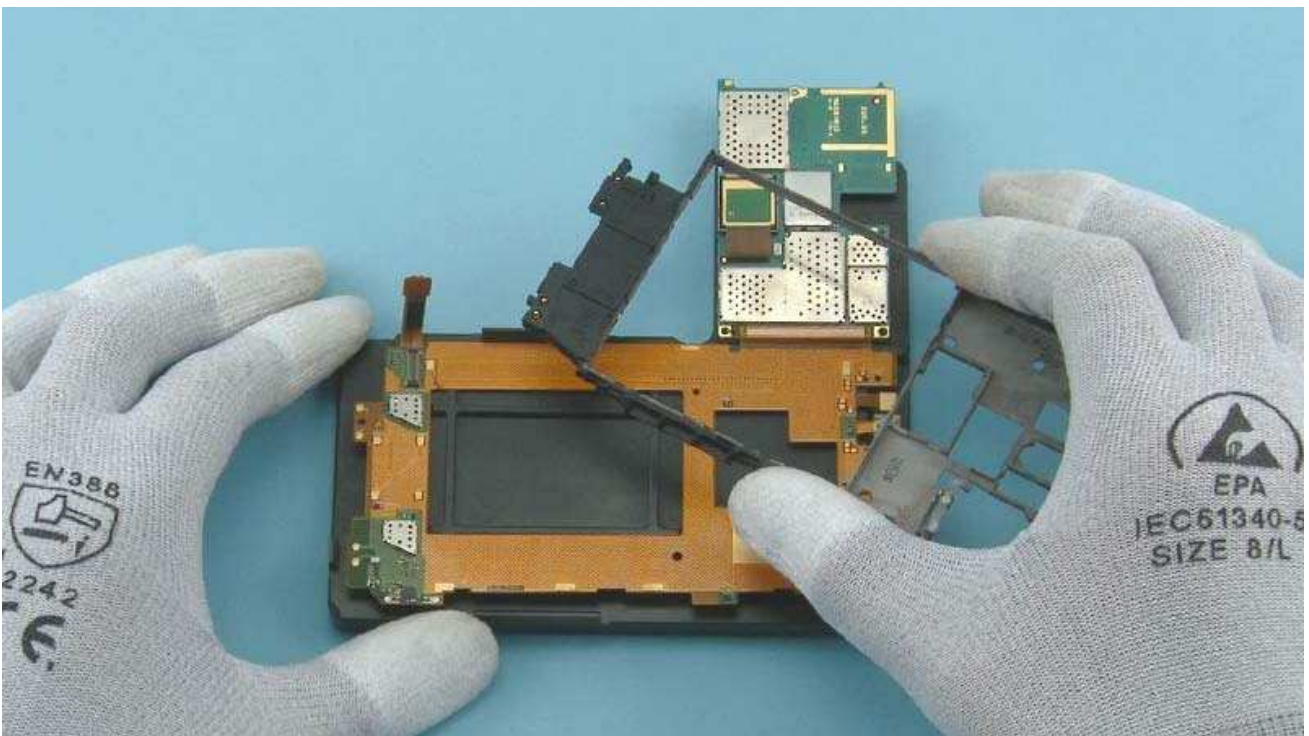
Remove the TYPE LABEL SUPPORT with tweezers.



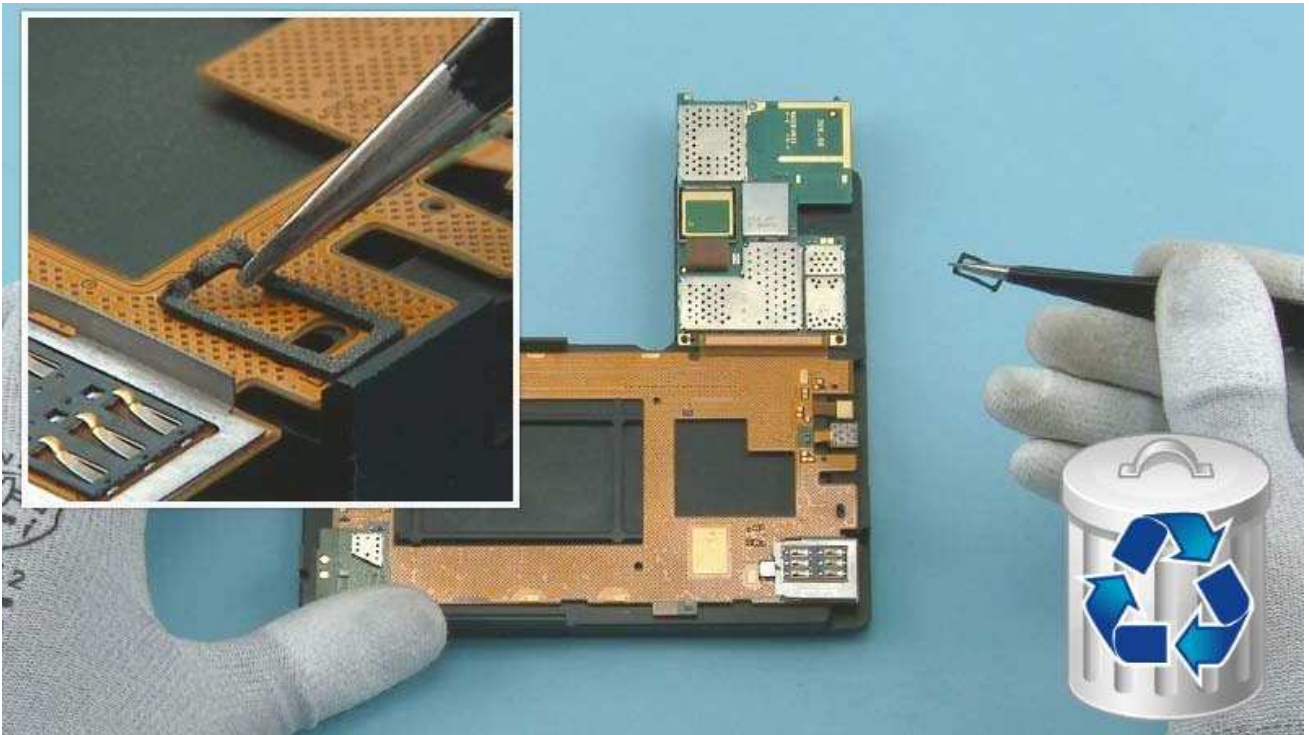
Remove the EARPIECE with tweezers.



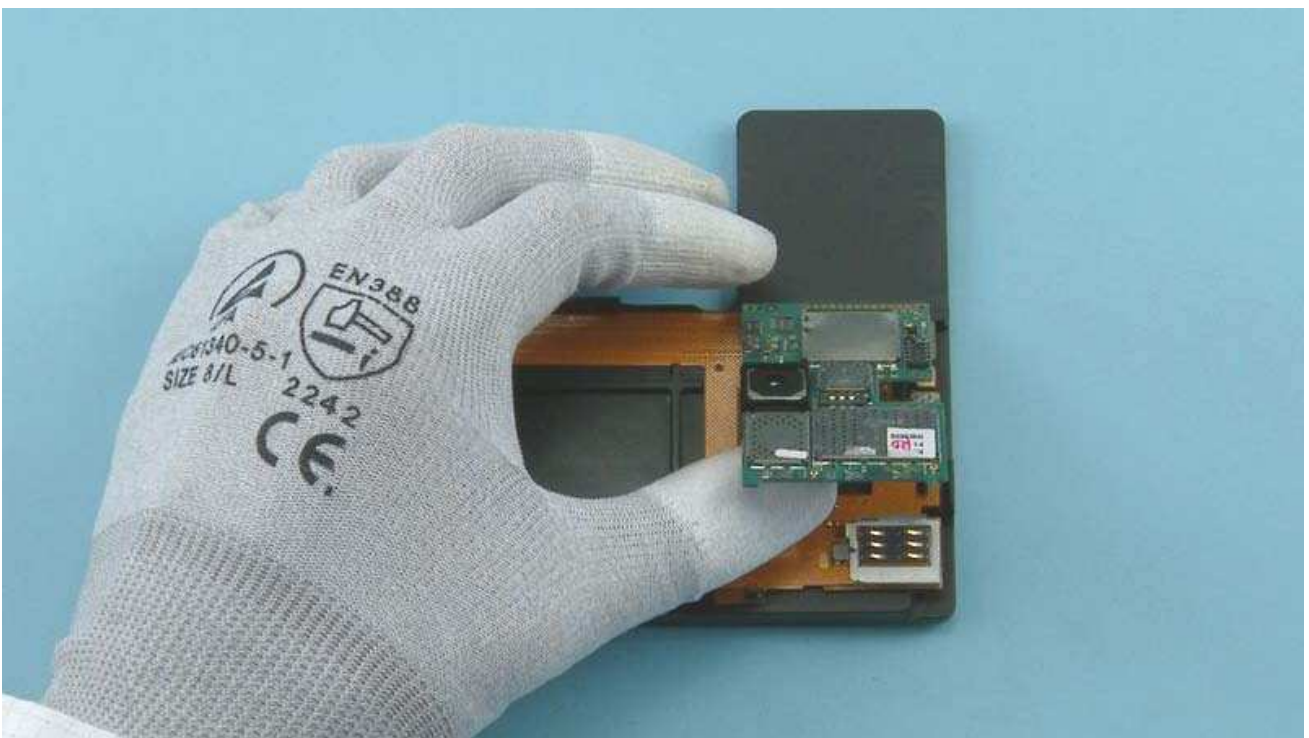
Release the adhesive holding the CHASSIS and the MAIN FLEX together by sliding the SS-93 under the CHASSIS.



Remove the CHASSIS.

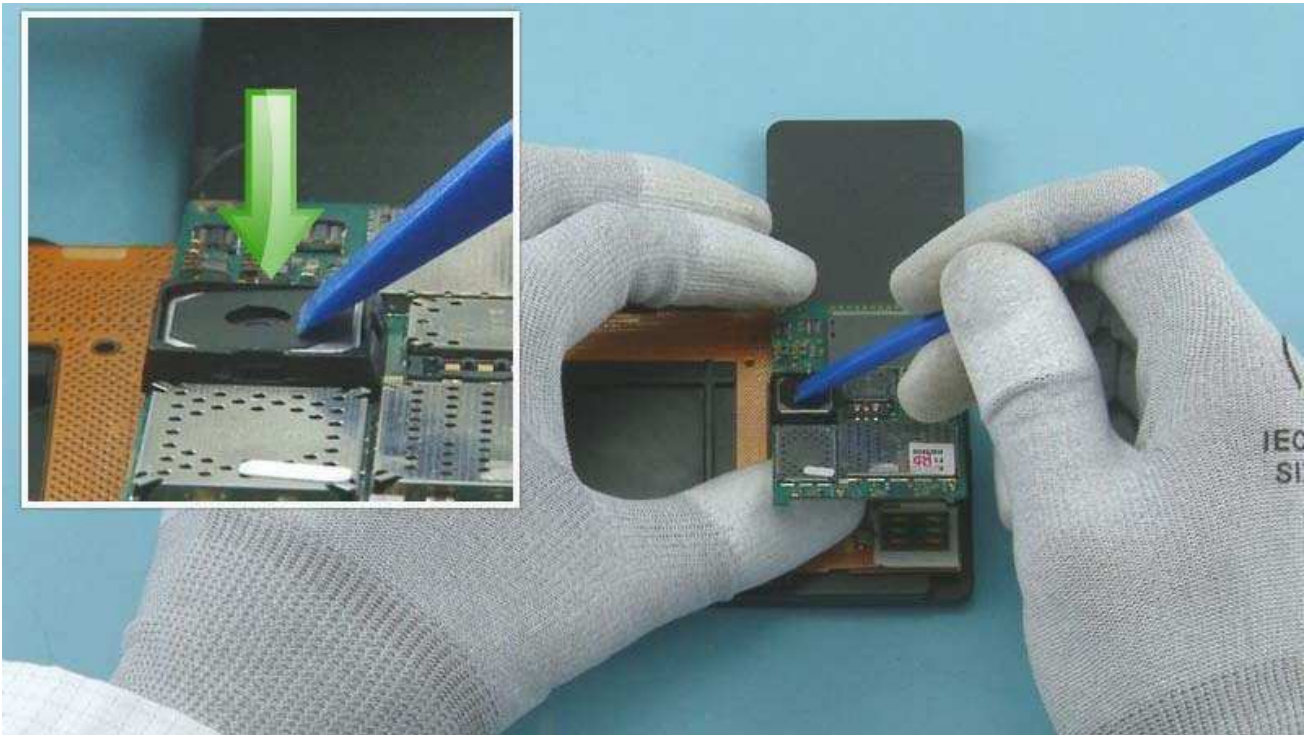


Remove the EARPIECE GASKET with tweezers. Do not use it again. Discard it.

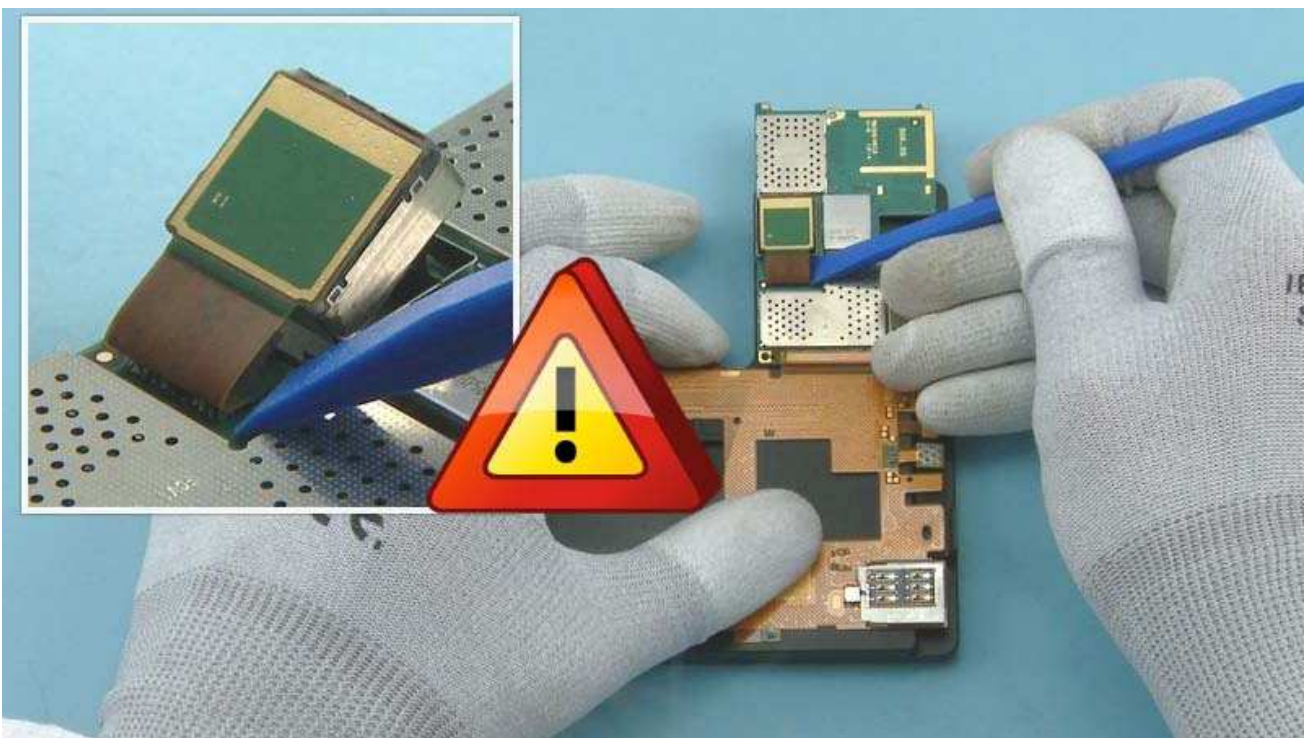


Turn the ENGINE BOARD over and hold it as shown.

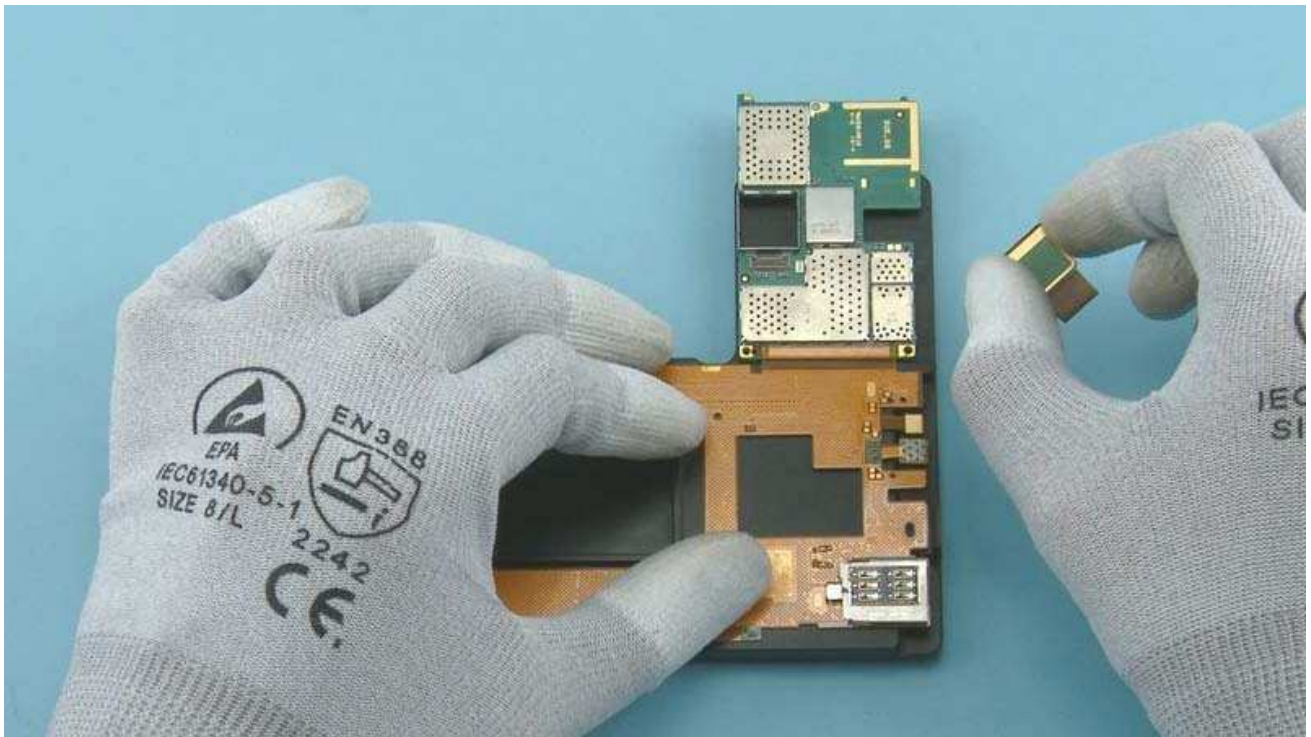




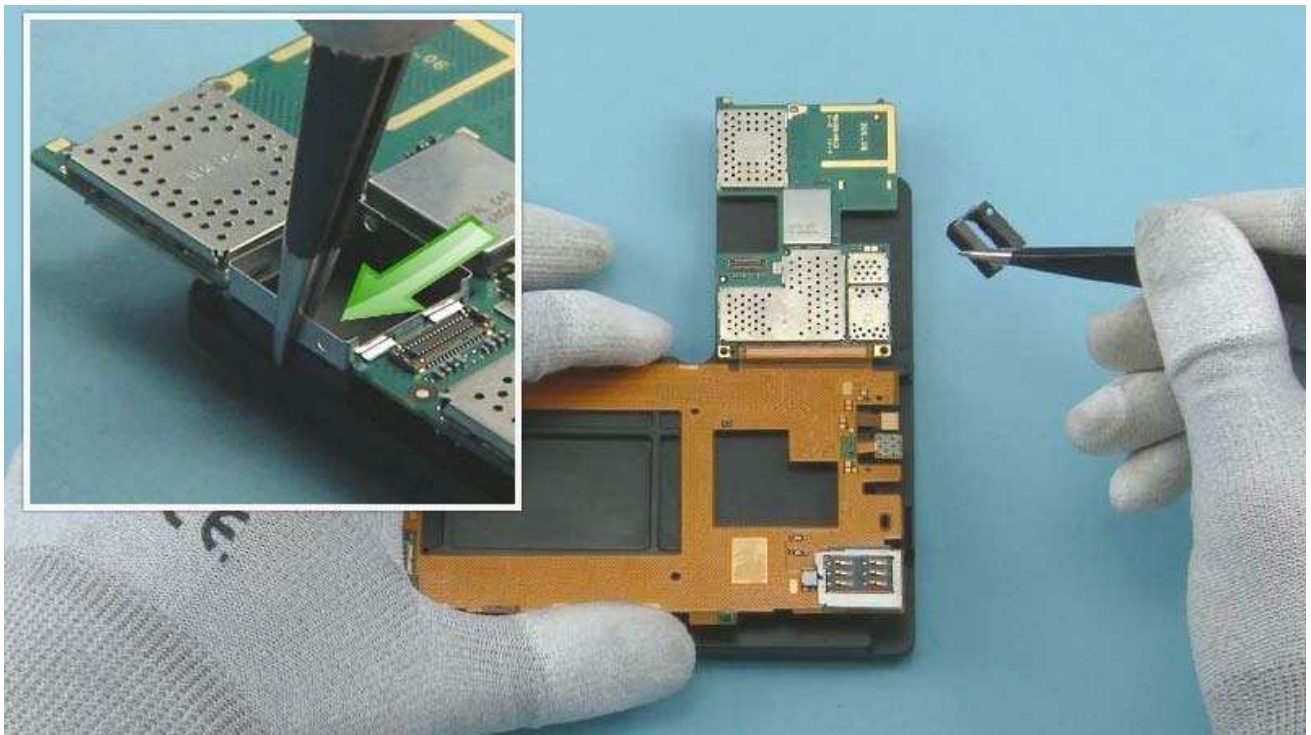
Gently PUSH the CAMERA through the CAMERA BOOT with the SS-93.



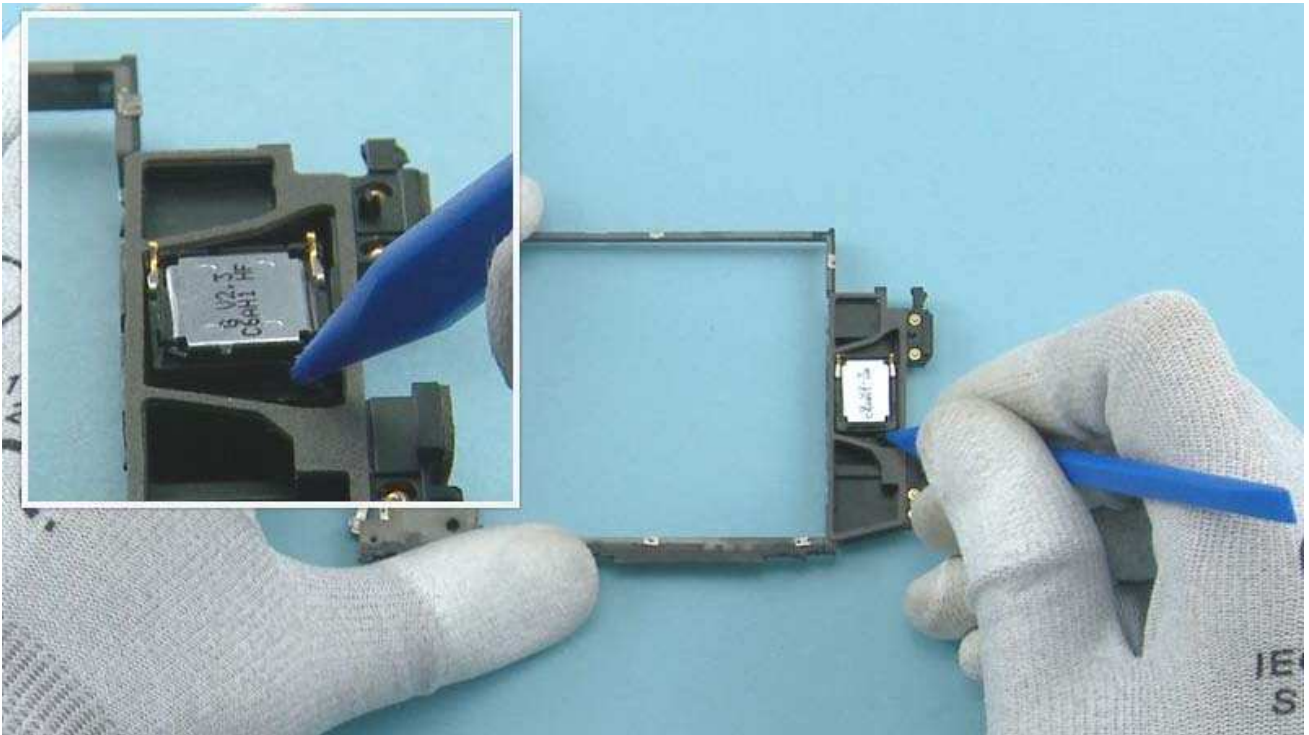
Turn over the ENGINE BOARD and open the CAMERA connector with the SS-93. Be careful not to damage the connector or any components nearby.



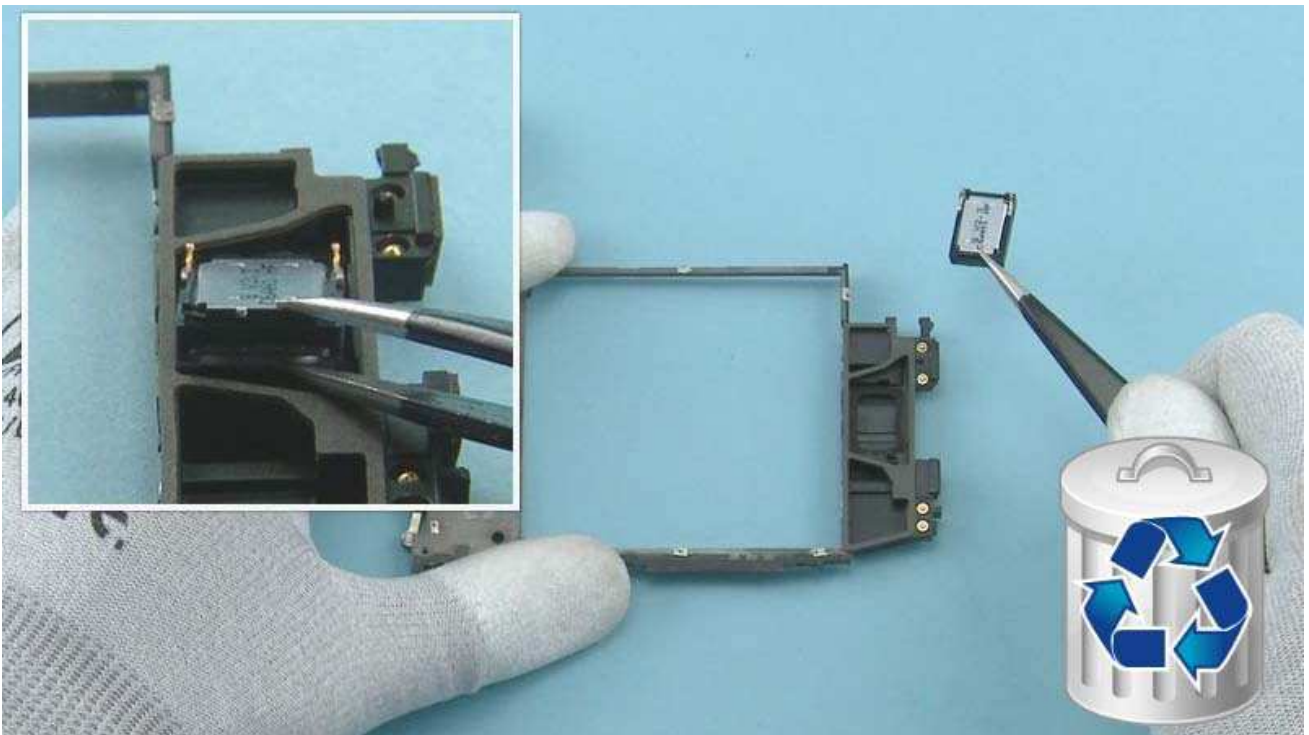
Remove the CAMERA.



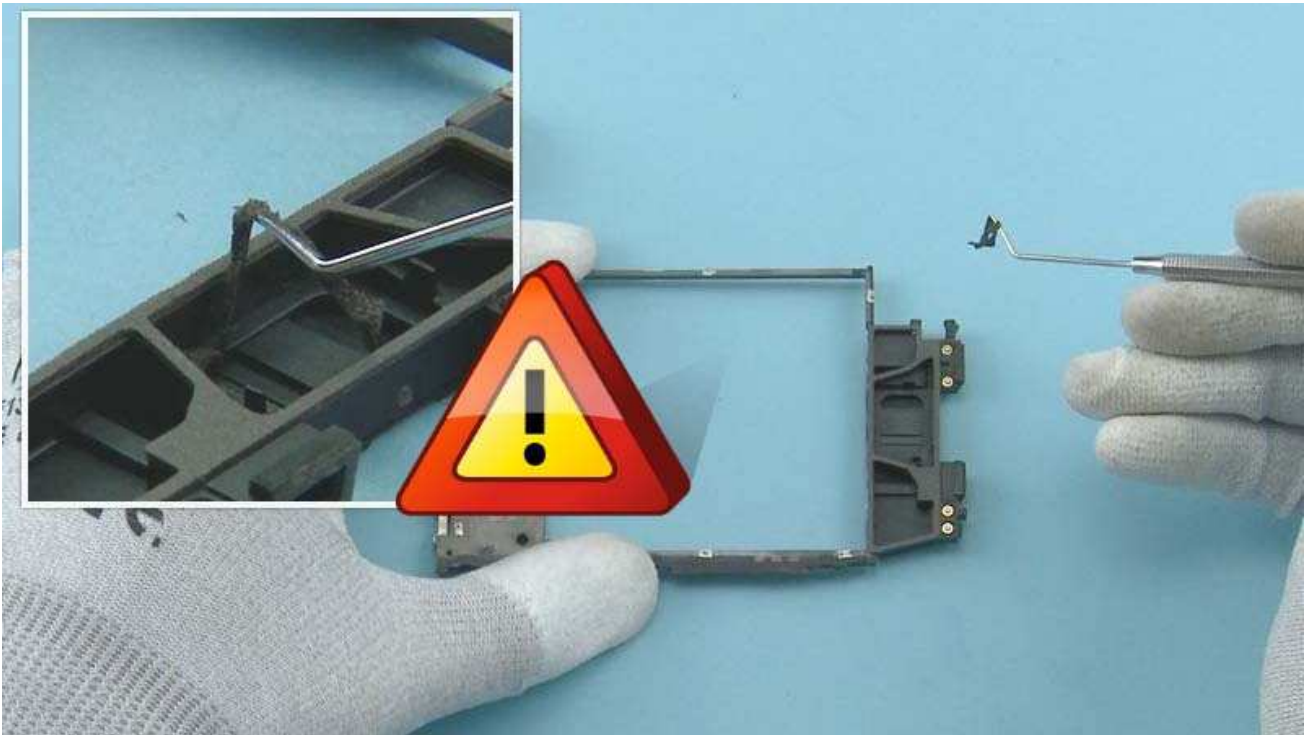
Remove the CAMERA BOOT by sliding it out as shown with tweezers.



Release the IHF SPEAKER with the sharp end of the SS-93.



Remove the IHF SPEAKER with tweezers. Do not use it again. Discard it.



Remove the adhesive remains from the CHASSIS with the dental tool. Be careful not to injure yourself with the sharp end of the dental tool.



Release the AV FLEX ASSEMBLY with the SS-93.



Remove the AV FLEX ASSEMBLY.



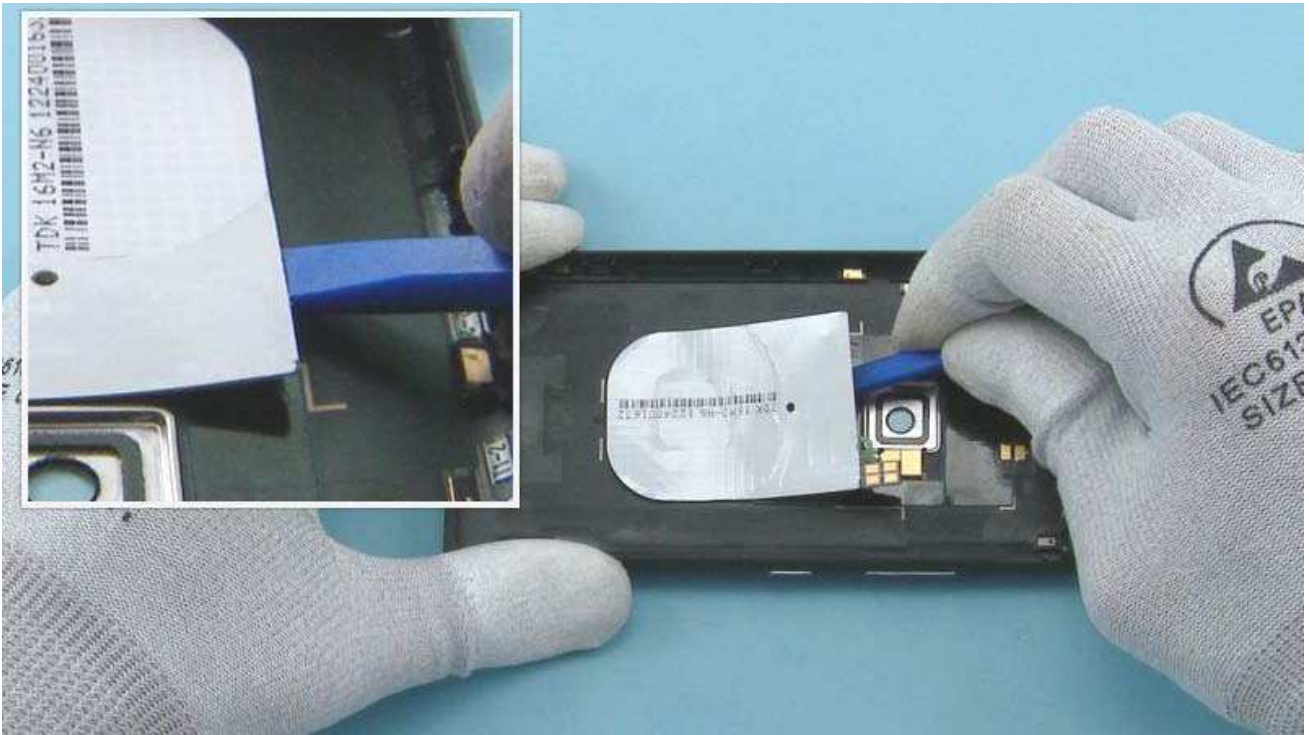
To remove the MAIN ANTENNA first push the other side out slightly with the SS-93.



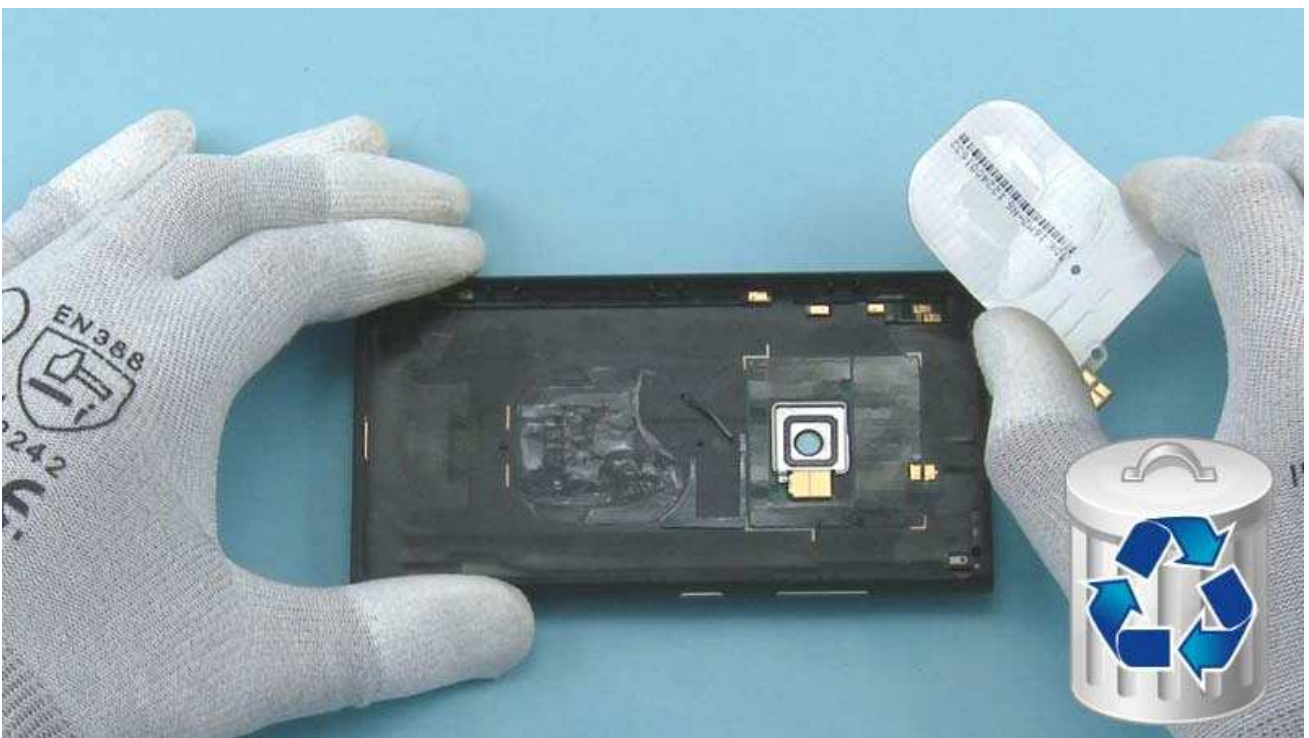
Then insert the SRT-6 between the MAIN ANTENNA and the UNIBODY ASSEMBLY and lift out the MAIN ANTENNA with the SS-93.



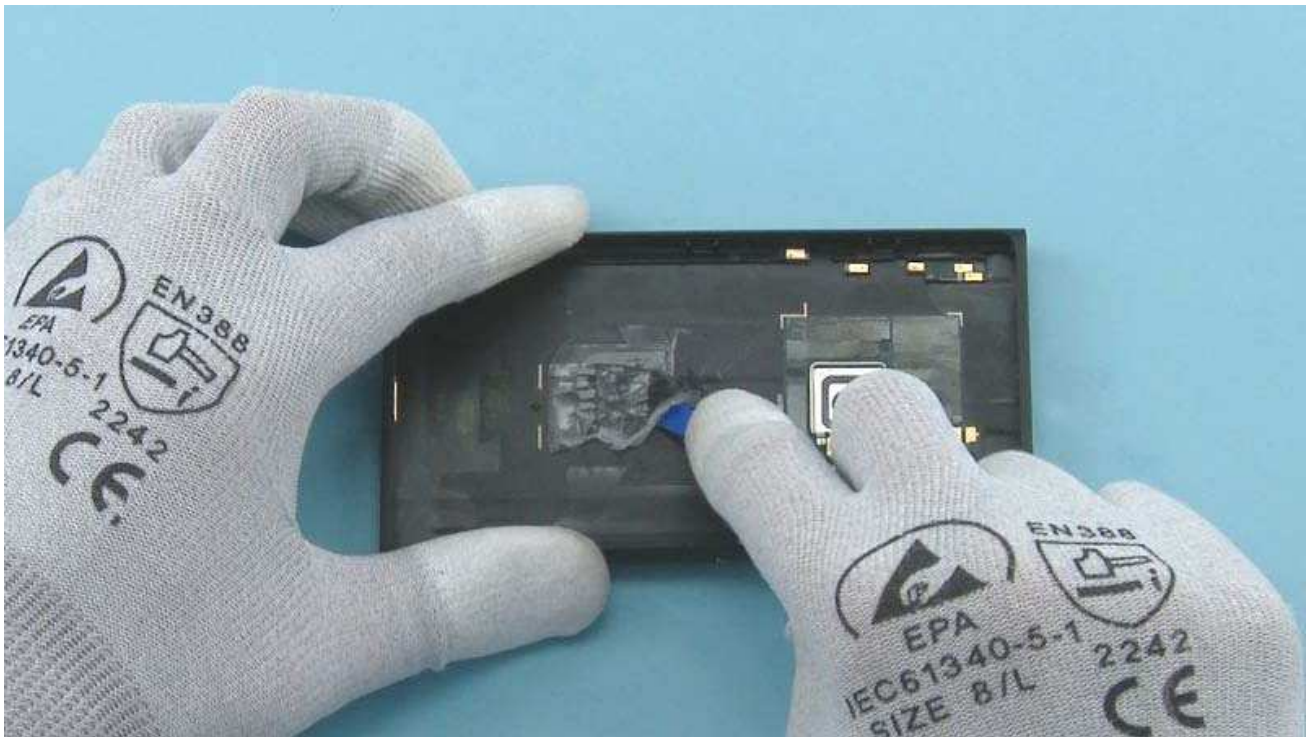
Remove the MAIN ANTENNA including the USB ASSEMBLY.



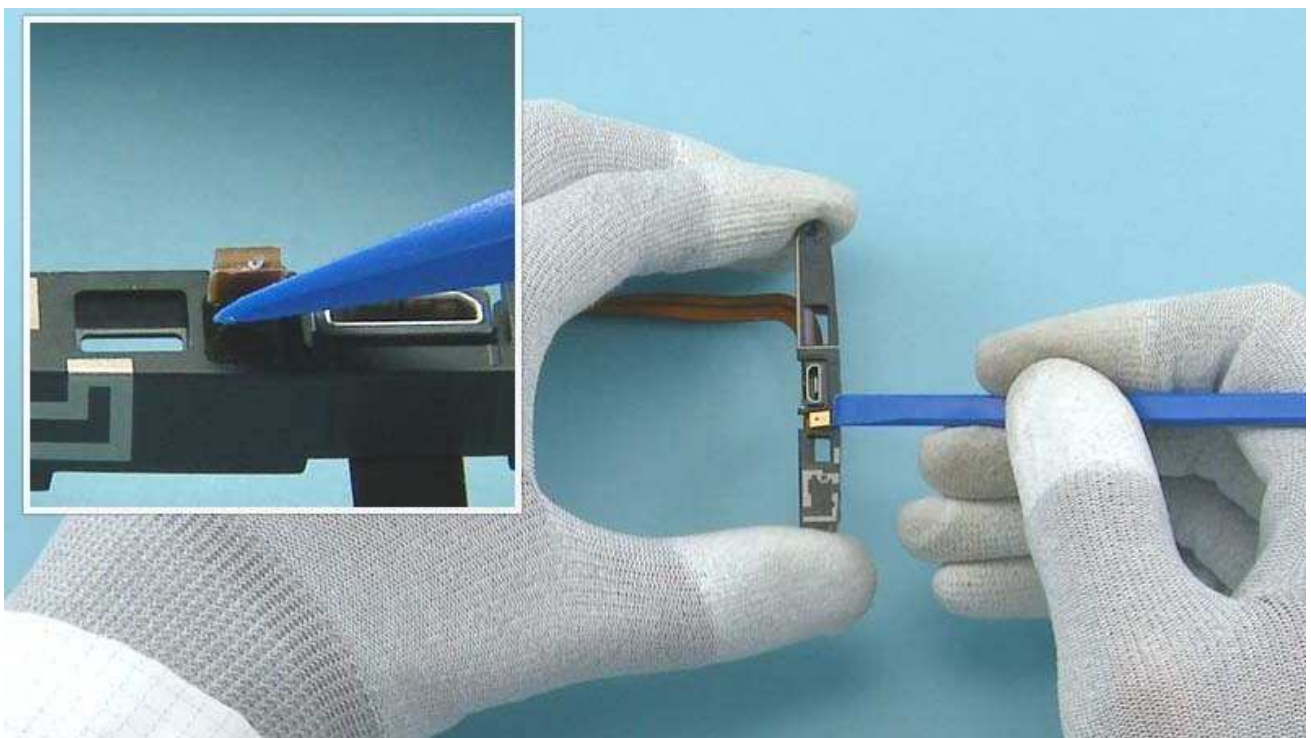
Release the WPC RX MODULE from the UNIBODY ASSEMBLY with the SS-93.



Remove the WPC RX MODULE. Do not use it again. Discard it.

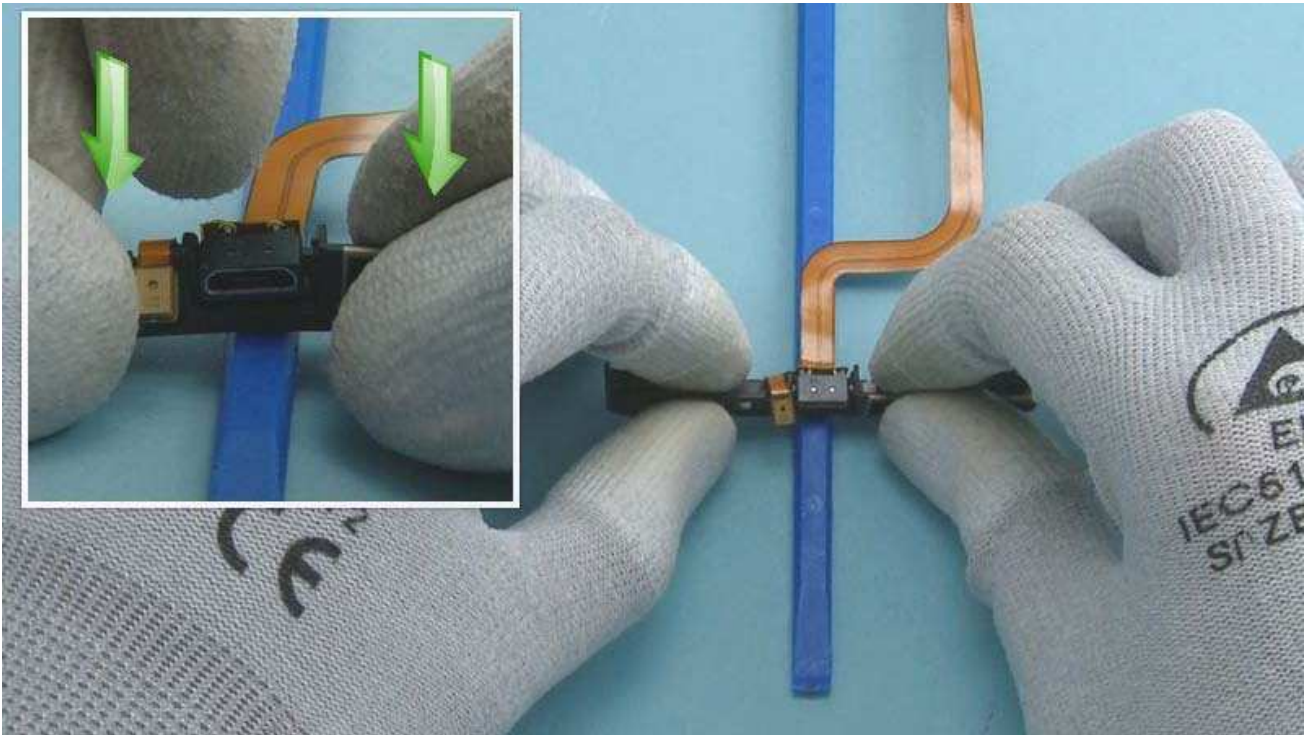


Peel off and remove the adhesive remains from the UNIBODY ASSEMBLY.

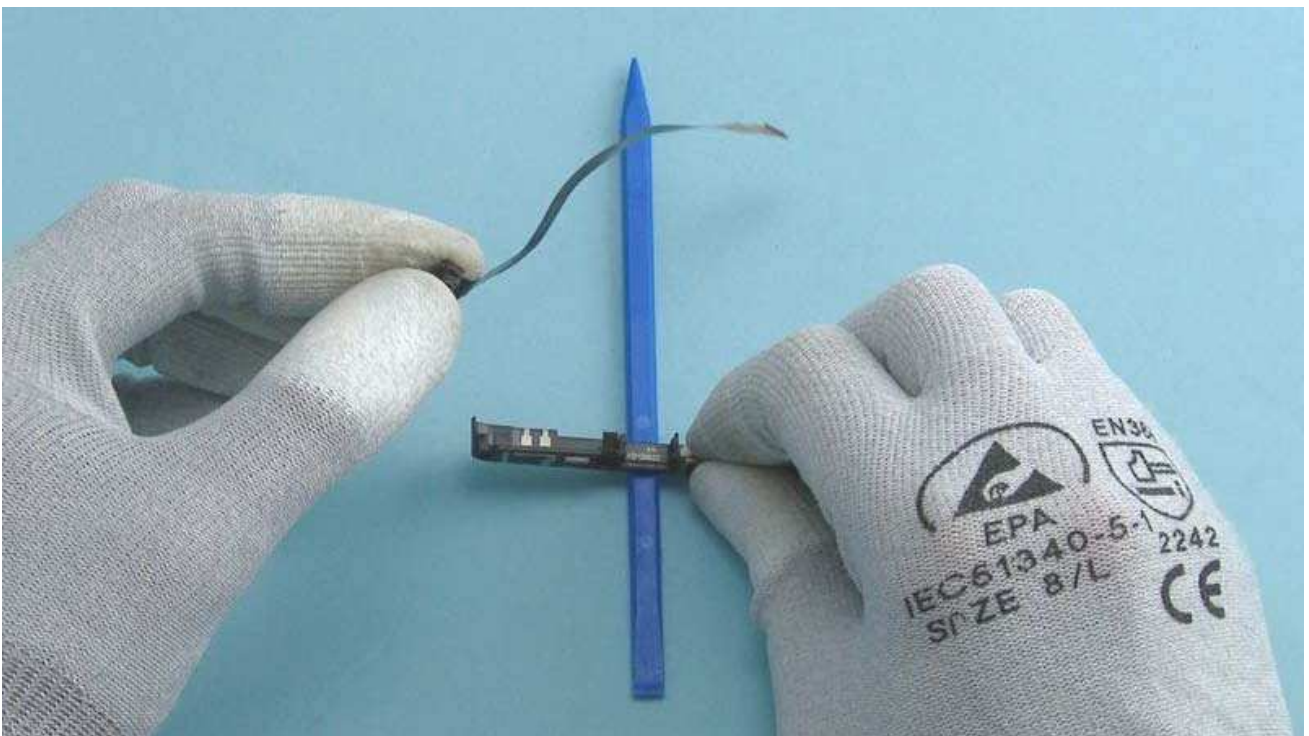


Release the SECONDARY MICROPHONE from the USB ASSEMBLY with the SS-93.





To separate the USB ASSEMBLY from the MAIN ANTENNA, place the SS-93 on the table. Then gently bend the MAIN ANTENNA against it...



...and lift up the USB ASSEMBLY

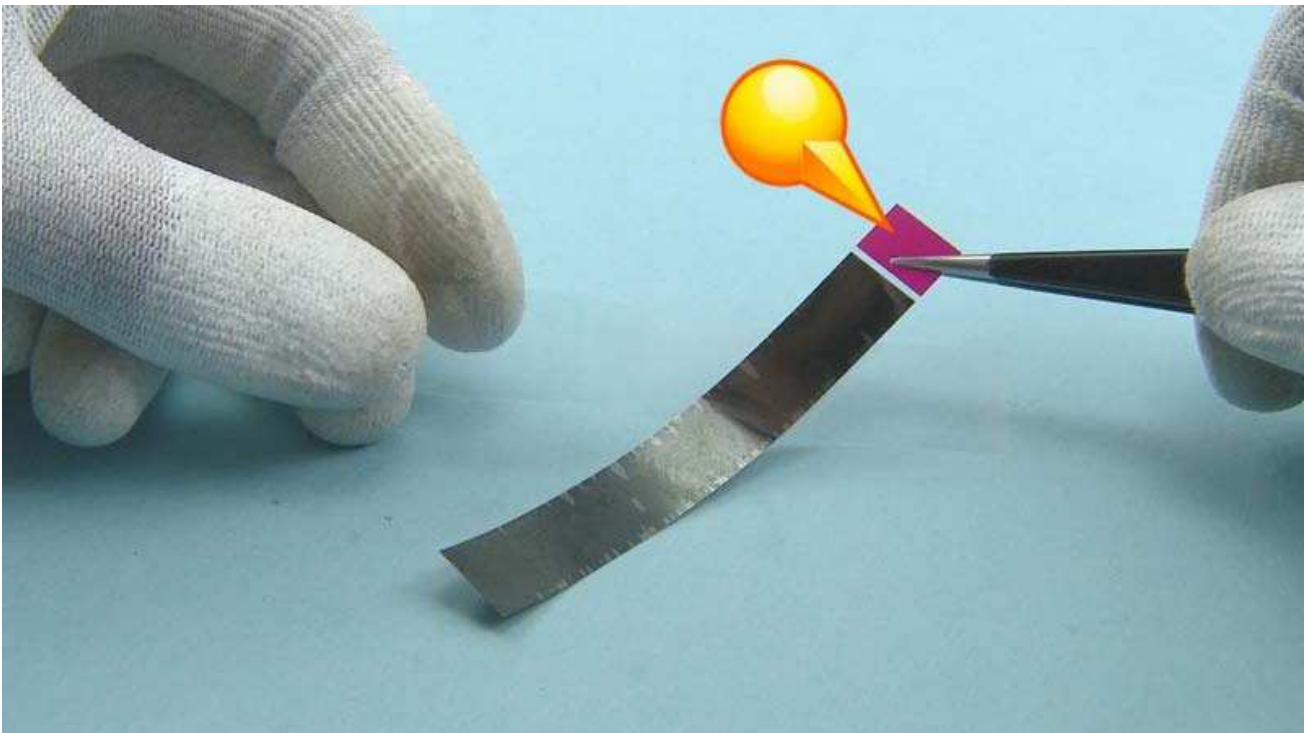


The Nokia Lumia 920 disassembly procedure is complete.

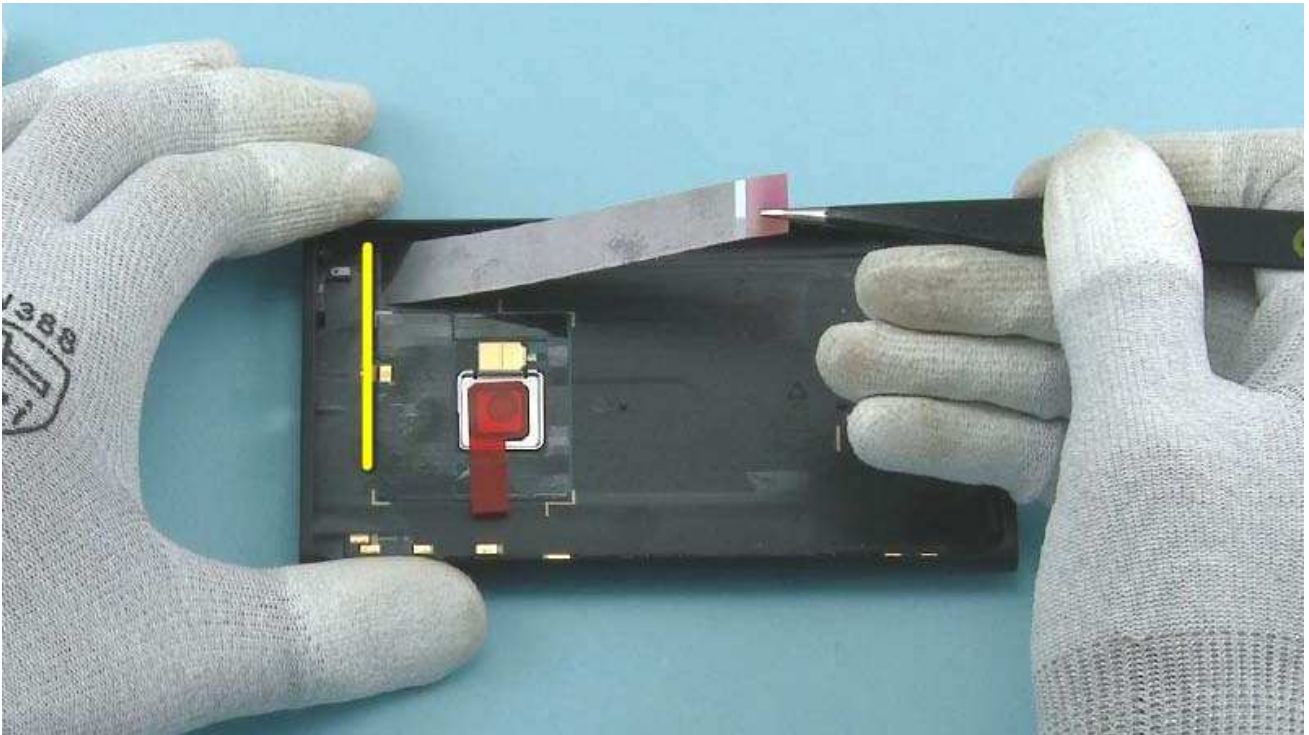
-END OF DISASSEMBLY-



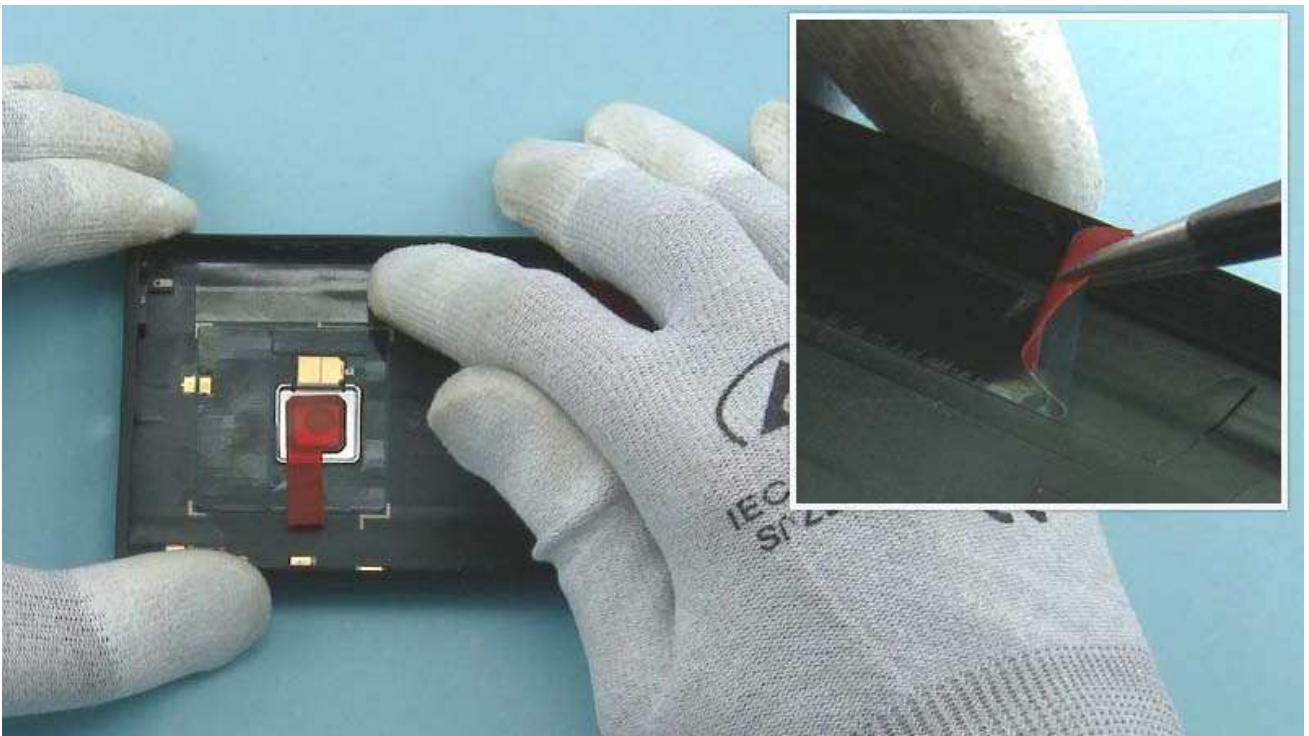
For assembling you need the Nokia Standard Tool kit version 2. You will also need the RF connector disassembly/assembly tool SS-231, the Care chassis assembly jig SS-289 and the SS-299 screwdriver.



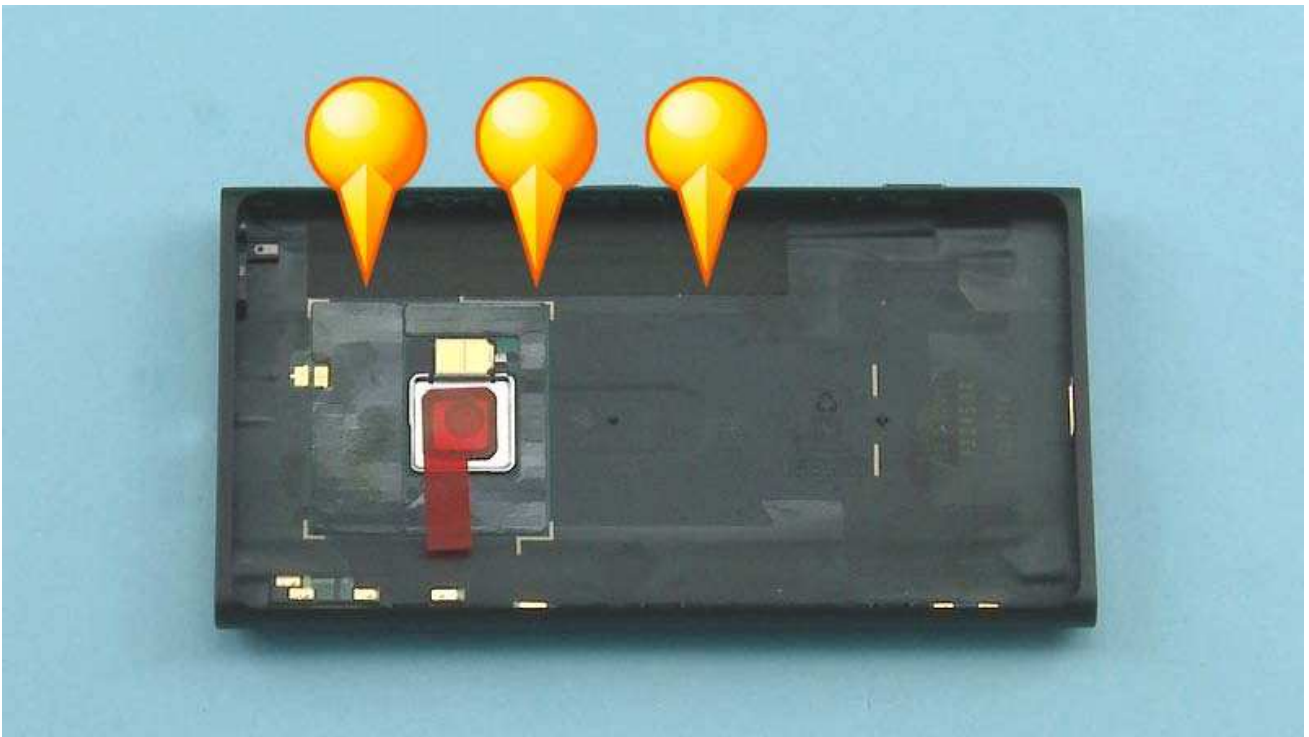
If the HEAT SPREADER is not already assembled to the UNIBODY ASSEMBLY, first peel off the protective film. Leave the other part of the protective film attached.



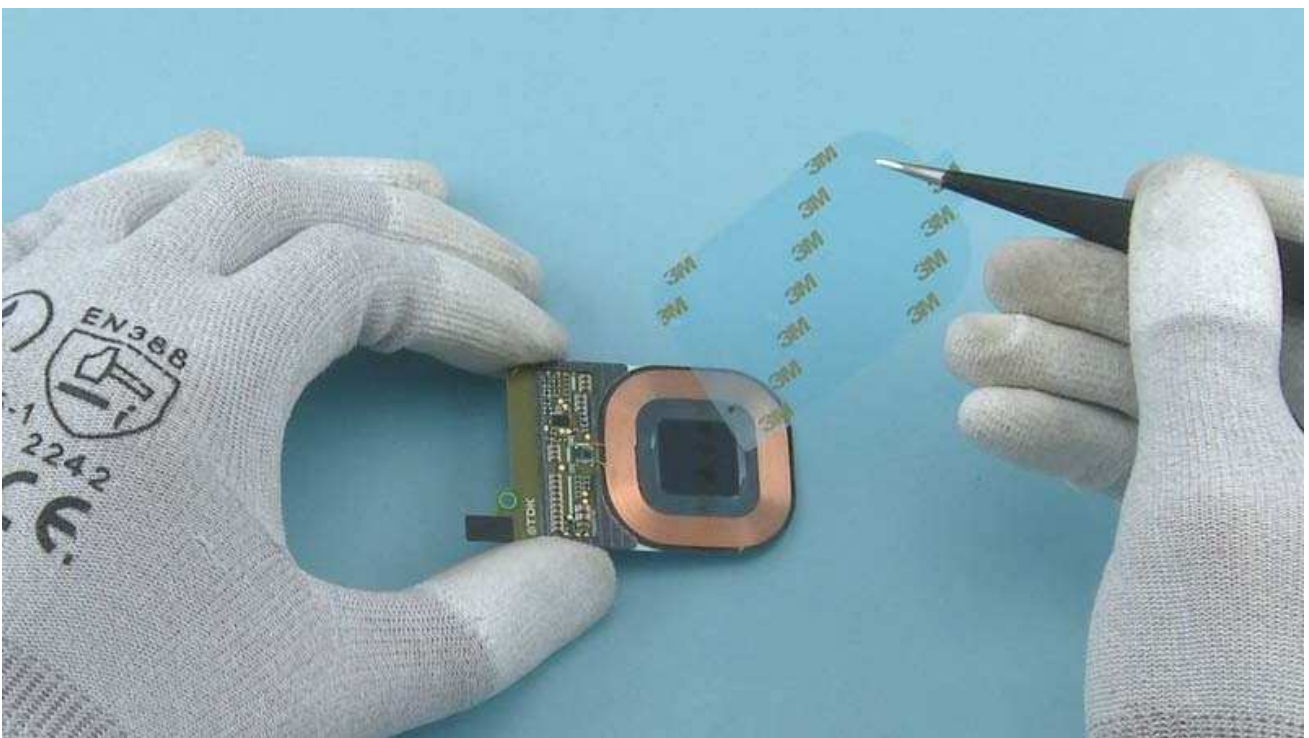
Place the HEAT SPREADER to the UNIBODY ASSEMBLY. Align the top edge with the top edge of the NFC area.



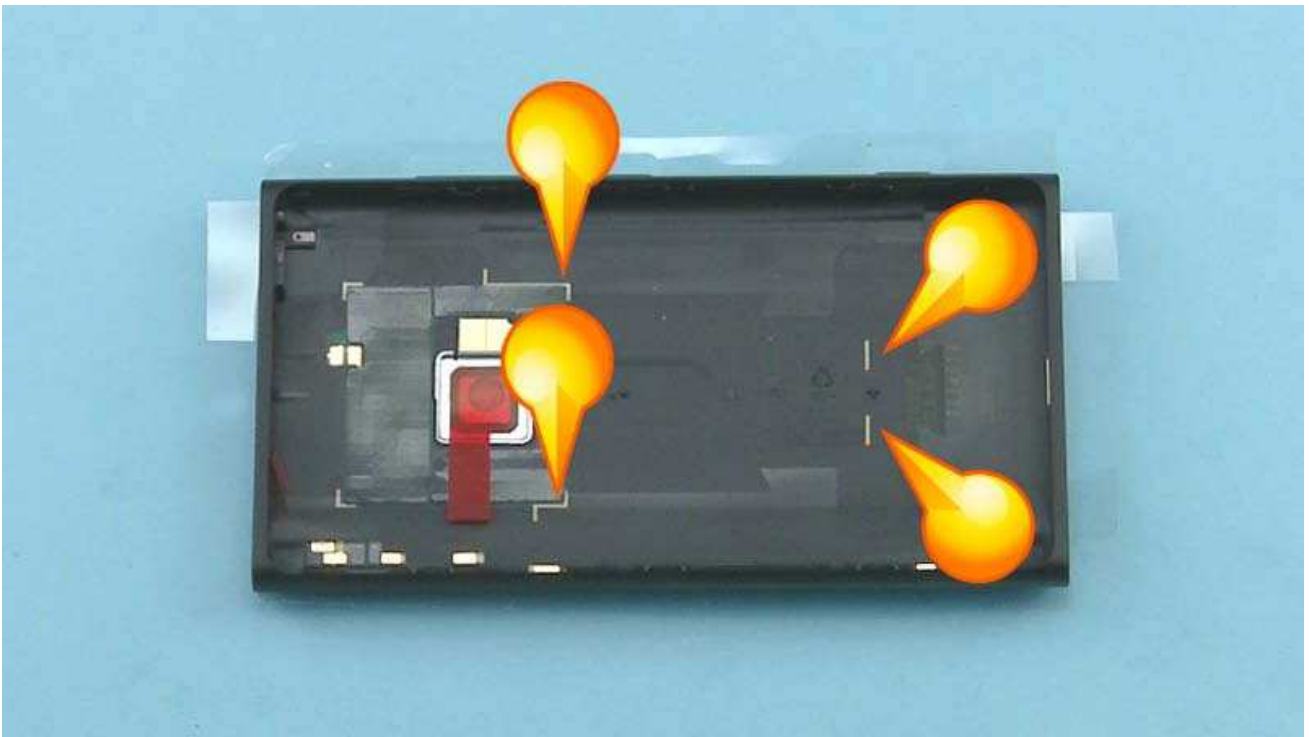
Press the HEAT SPREADER to get it firmly attached. Peel off the remaining protective film.



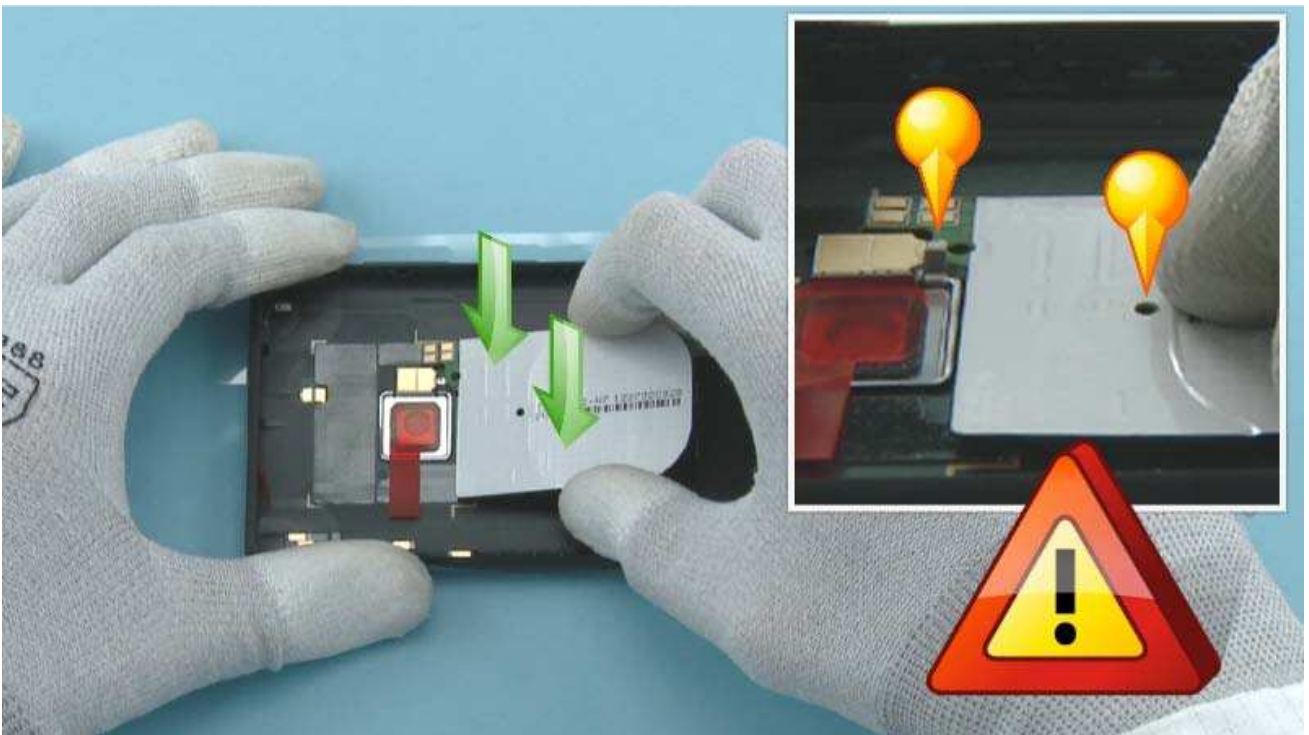
Make sure the HEAT SPREADER does not overlap the NFC area and there is a small gap between.



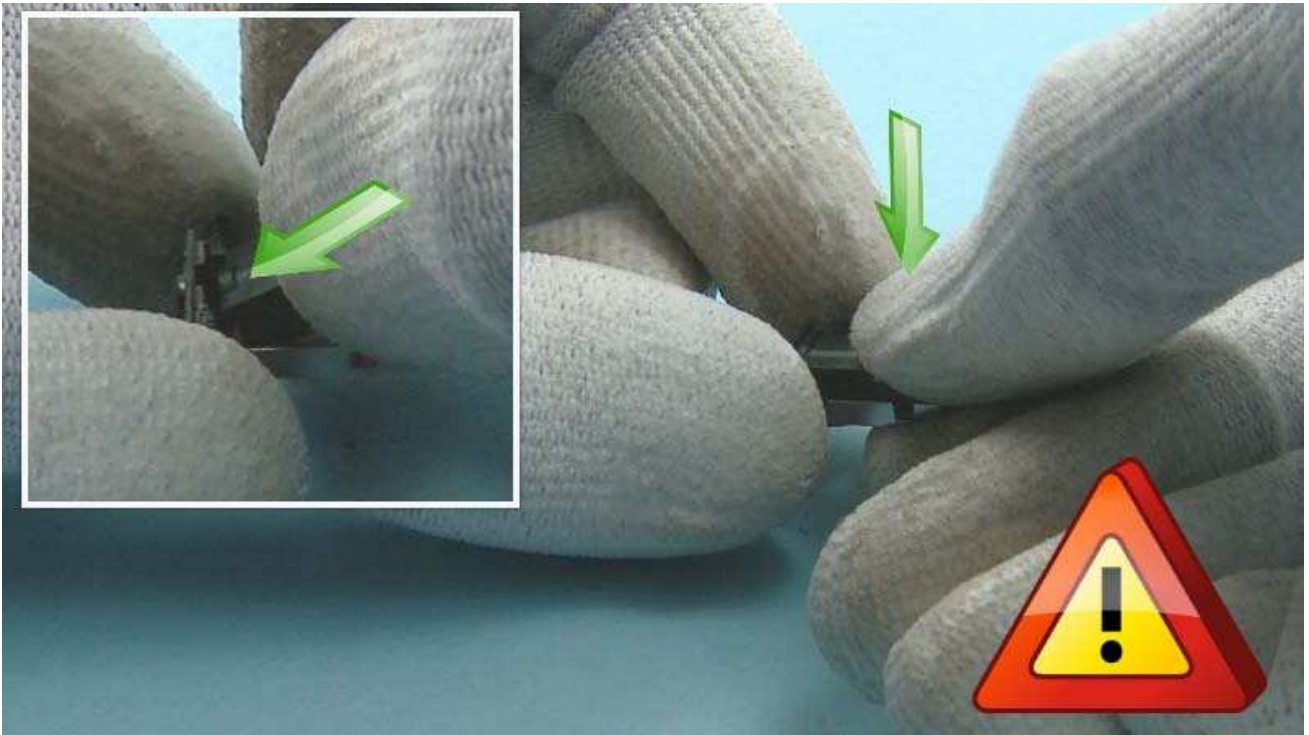
Remove the WPC RX MODULE protective film.



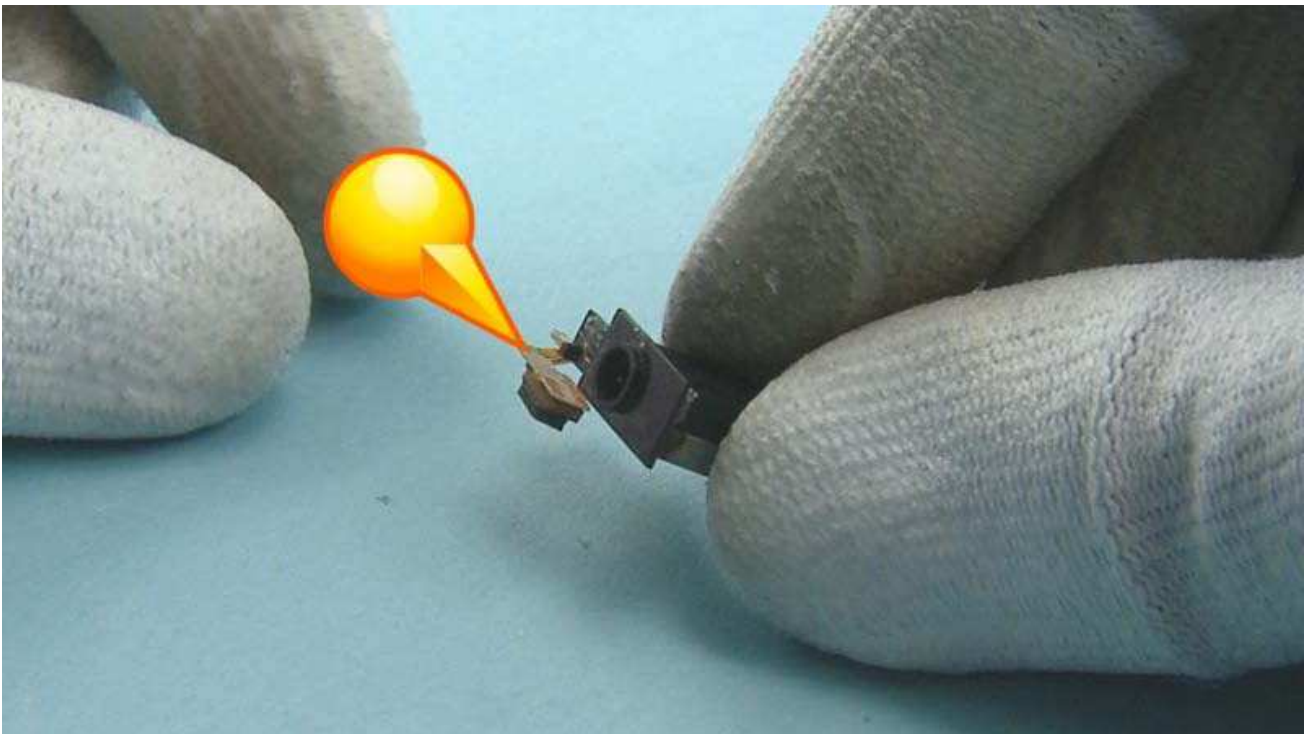
When placing the WPC RX MODULE, use the shown guiding lines to get the right alignment.



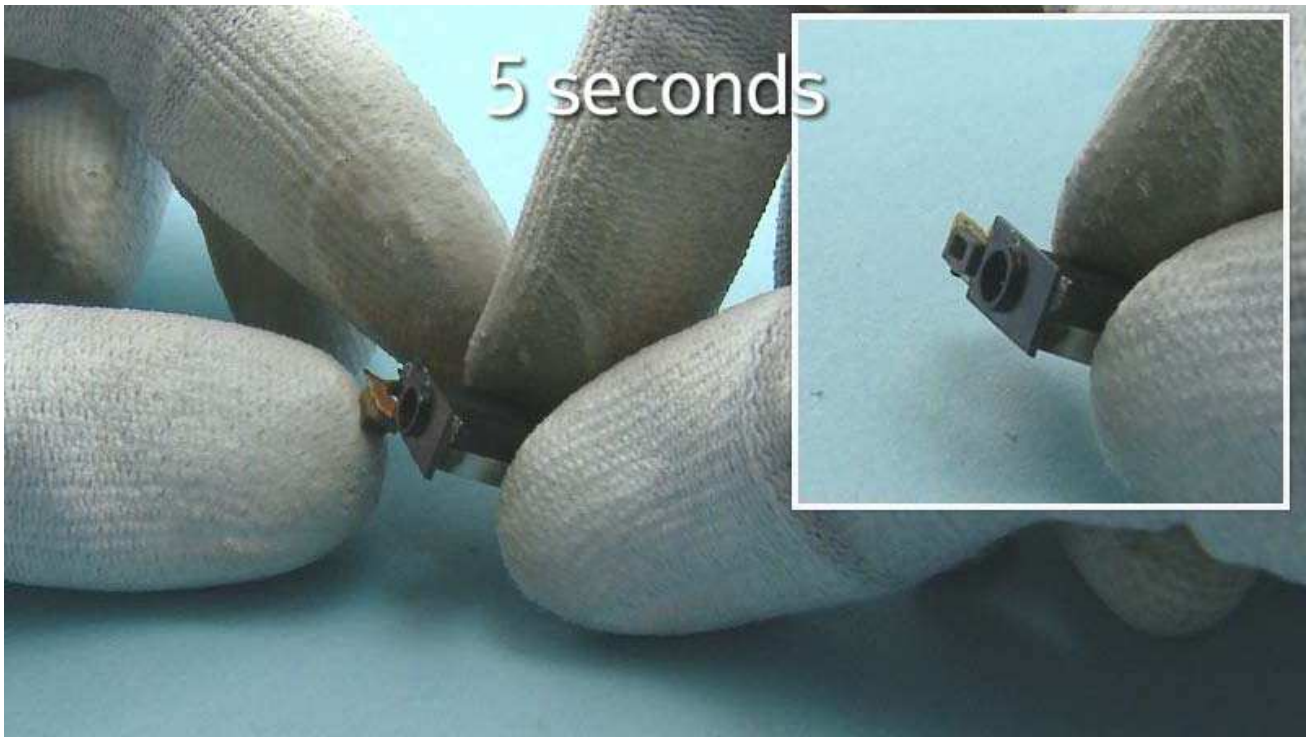
Place the WPC RX MODULE to the UNIBODY ASSEMBLY and press down to activate the adhesive. Make sure to align the shown WPC RX MODULE hole and the pin on the UNIBODY ASSEMBLY. Do not place the WPC RX MODULE on the shown part of the camera support!



Place the AV FLEX ASSEMBLY to the AV FRAME top end first and press down the bottom end. Be careful not to damage the AV FLEX ASSEMBLY!



Make sure the SECONDARY MICROPHONE goes under the edge of the AV FRAME.



Gently bend and press the SECONDARY MICROPHONE for 5 seconds to the AV FRAME to activate the adhesive.

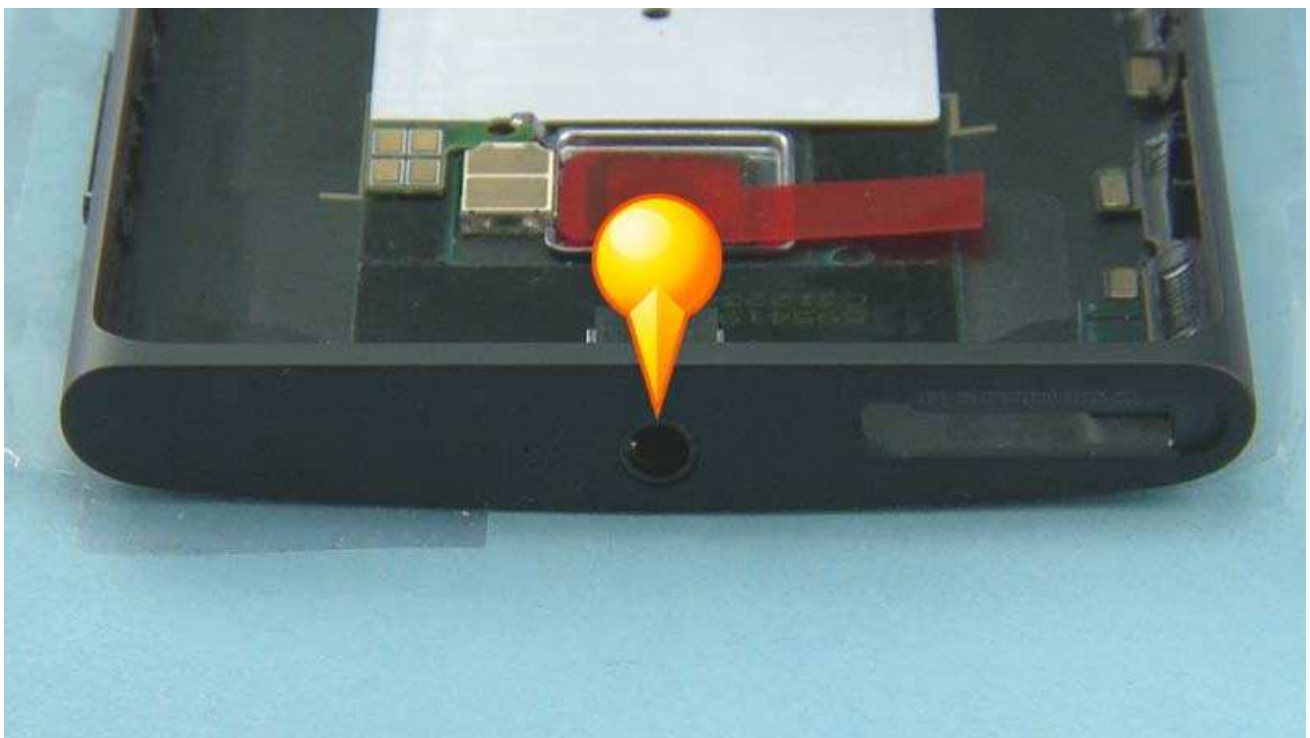


Remove the AV FLEX ASSEMBLY protective film from the UNIBODY ASSEMBLY.

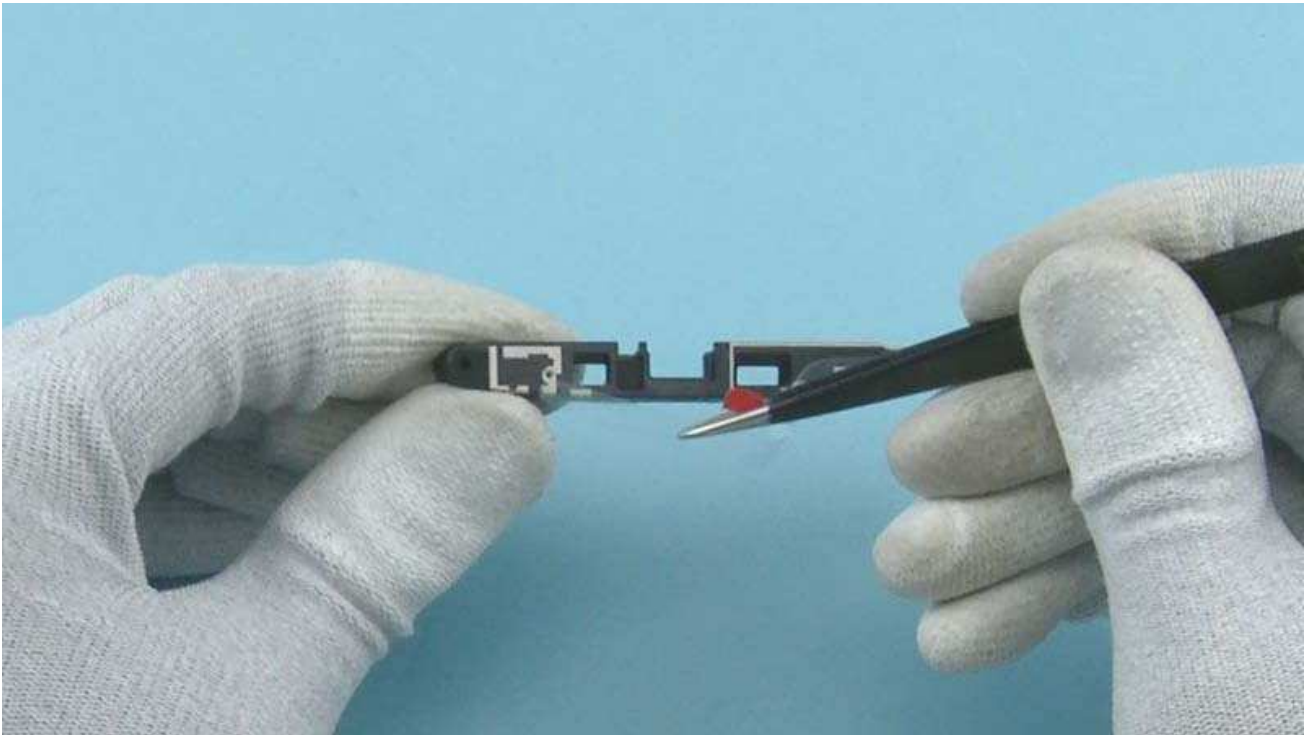




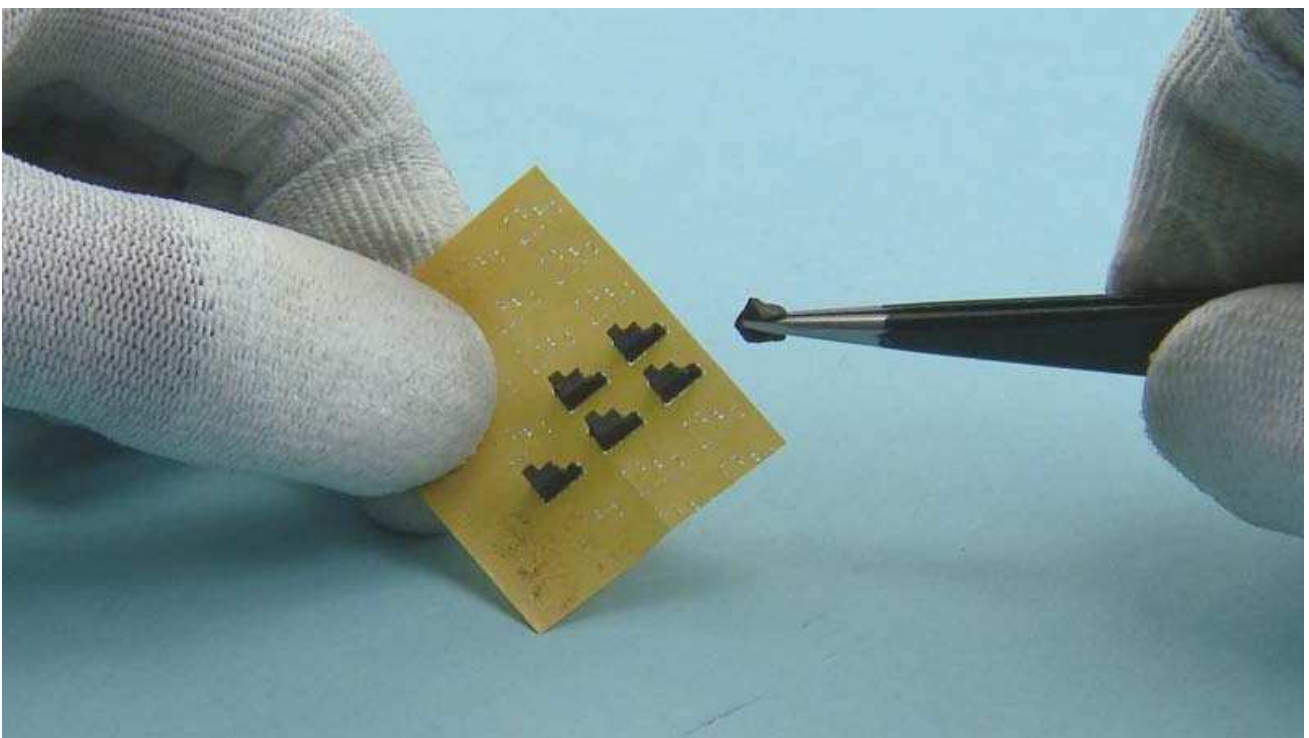
Place the AV FLEX ASSEMBLY to its place and press it gently to activate the adhesive.



Check that the AV FLEX ASSEMBLY is correctly placed from the other side.



Remove the protective film from the MAIN ANTENNA.



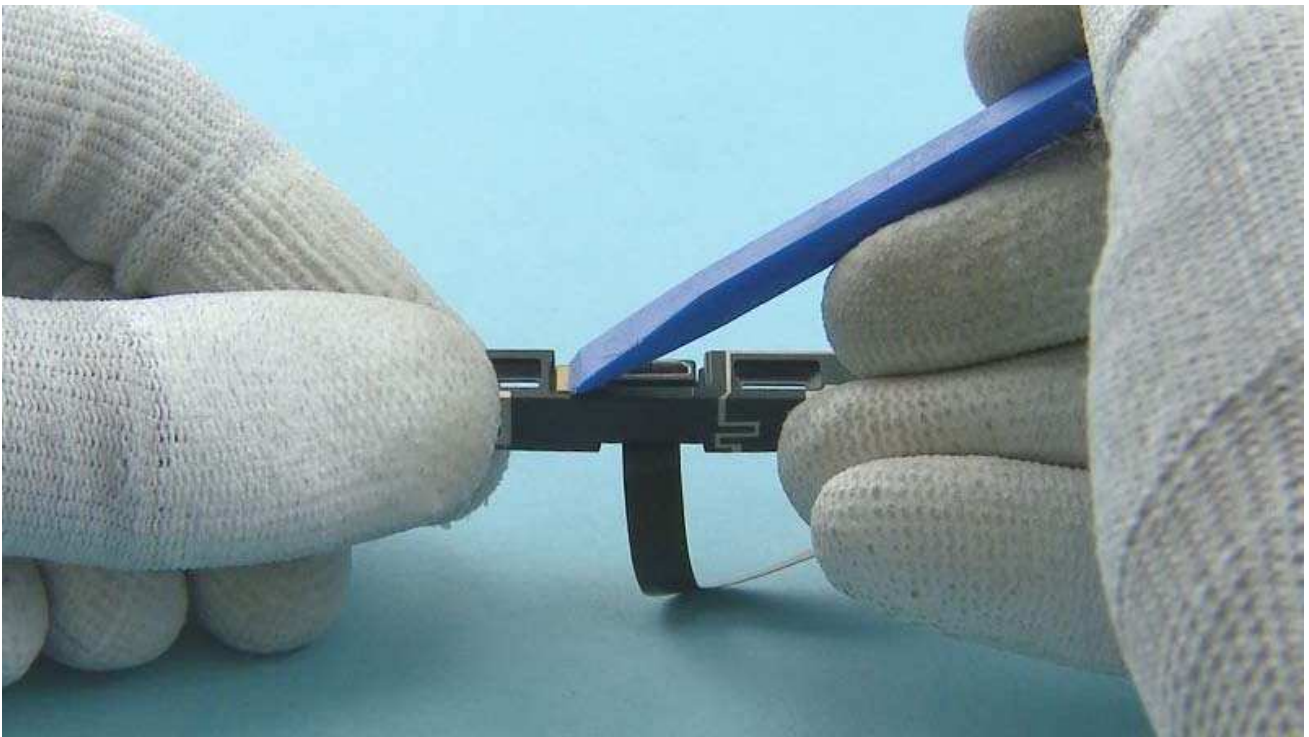
If the USB FLEX SUPPORT is not already assembled to the MAIN ANTENNA, first peel off the protective film.



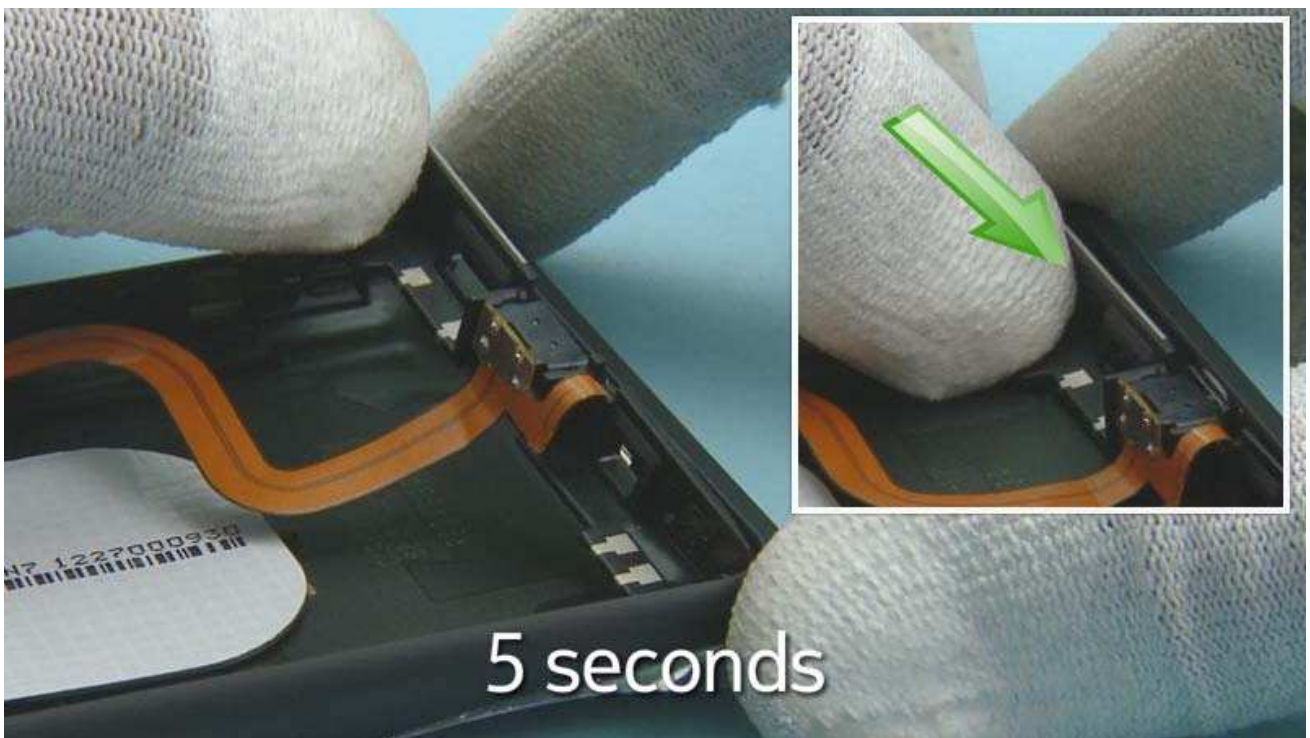
Place the USB FLEX SUPPORT to the MAIN ANTENNA.



Attach the USB ASSEMBLY to the MAIN ANTENNA shown side first. Then gently bend the MAIN ANTENNA and push in the other side of the USB ASSEMBLY.



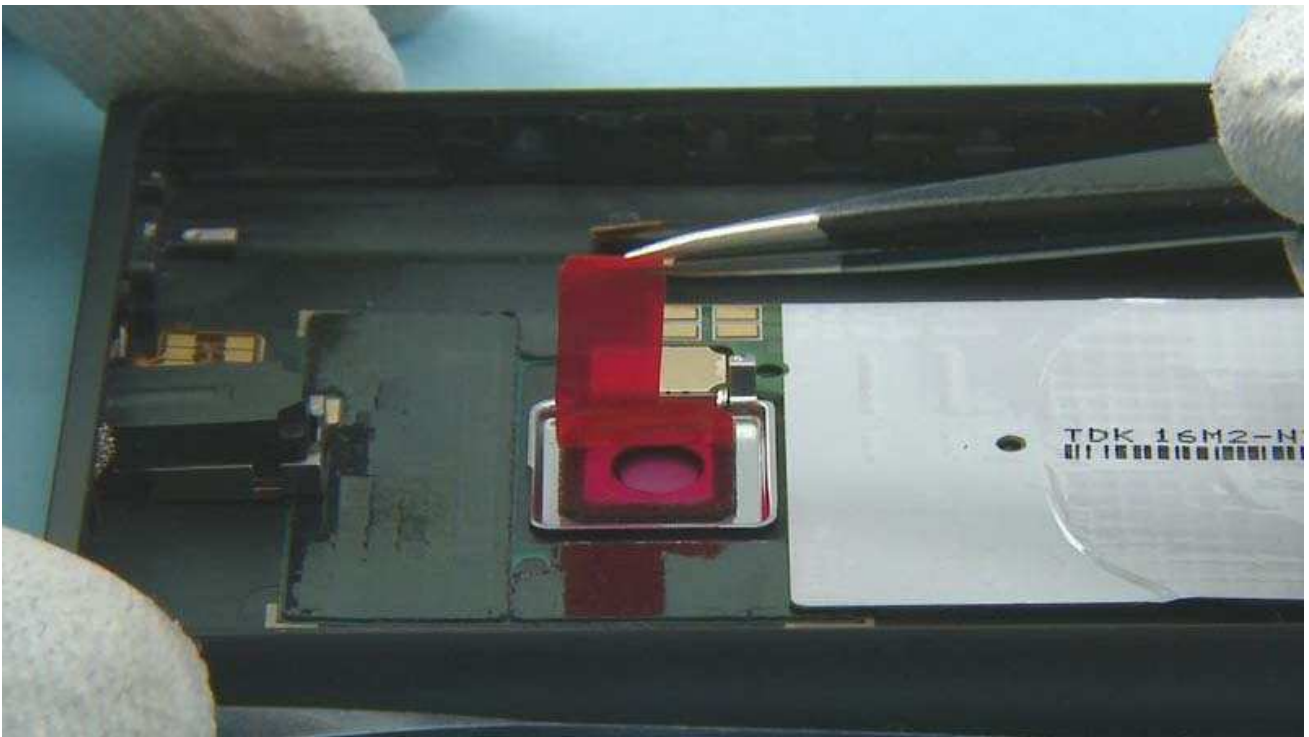
Attach the MICROPHONE to the MAIN ANTENNA with the SS-93.



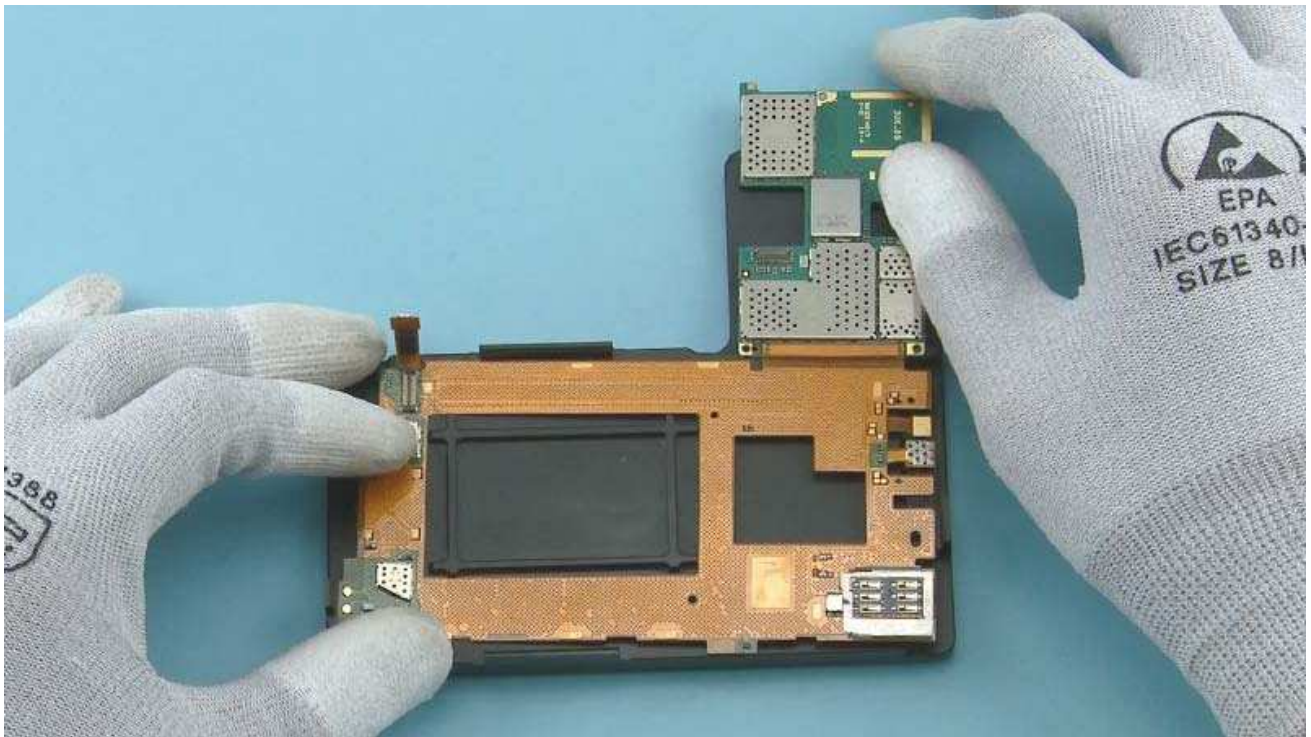
Place the MAIN ANTENNA including the USB ASSEMBLY to the UNIBODY ASSEMBLY shown side first. Then push in the other side of the MAIN ANTENNA. Press the MAIN ANTENNA for 5 seconds with slight force to activate the adhesive.



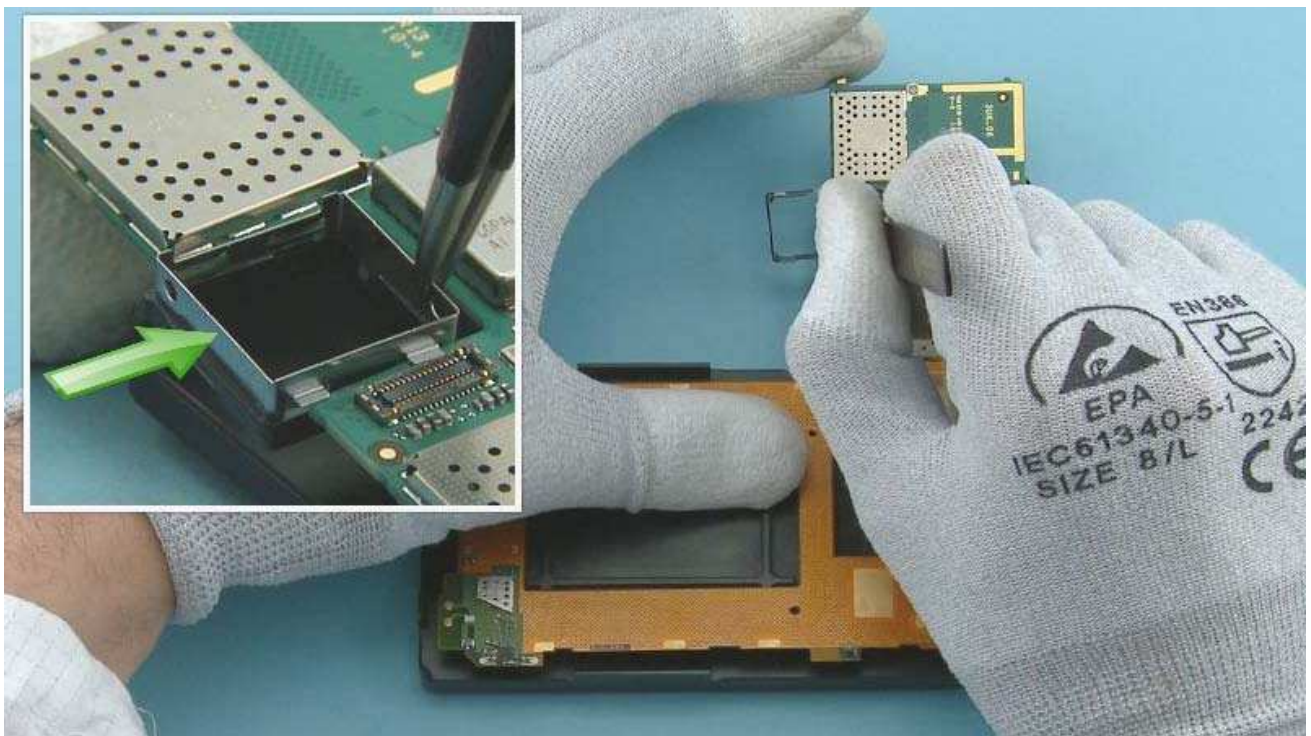
Check from the other side that the USB ASSEMBLY is correctly placed.



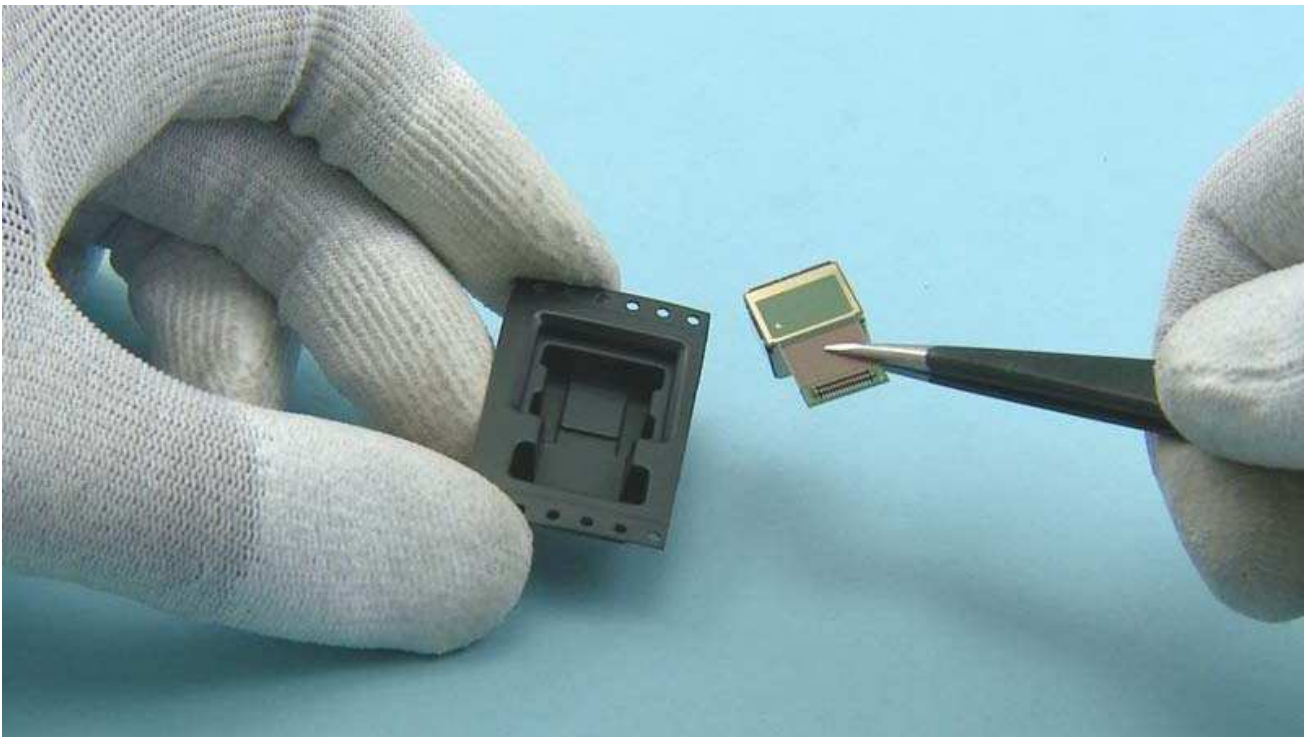
Remove the CAMERA WINDOW protective film.



Place the ENGINE BOARD including the MAIN FLEX on the Care chassis assembly jig and turn over the ENGINE BOARD as shown.



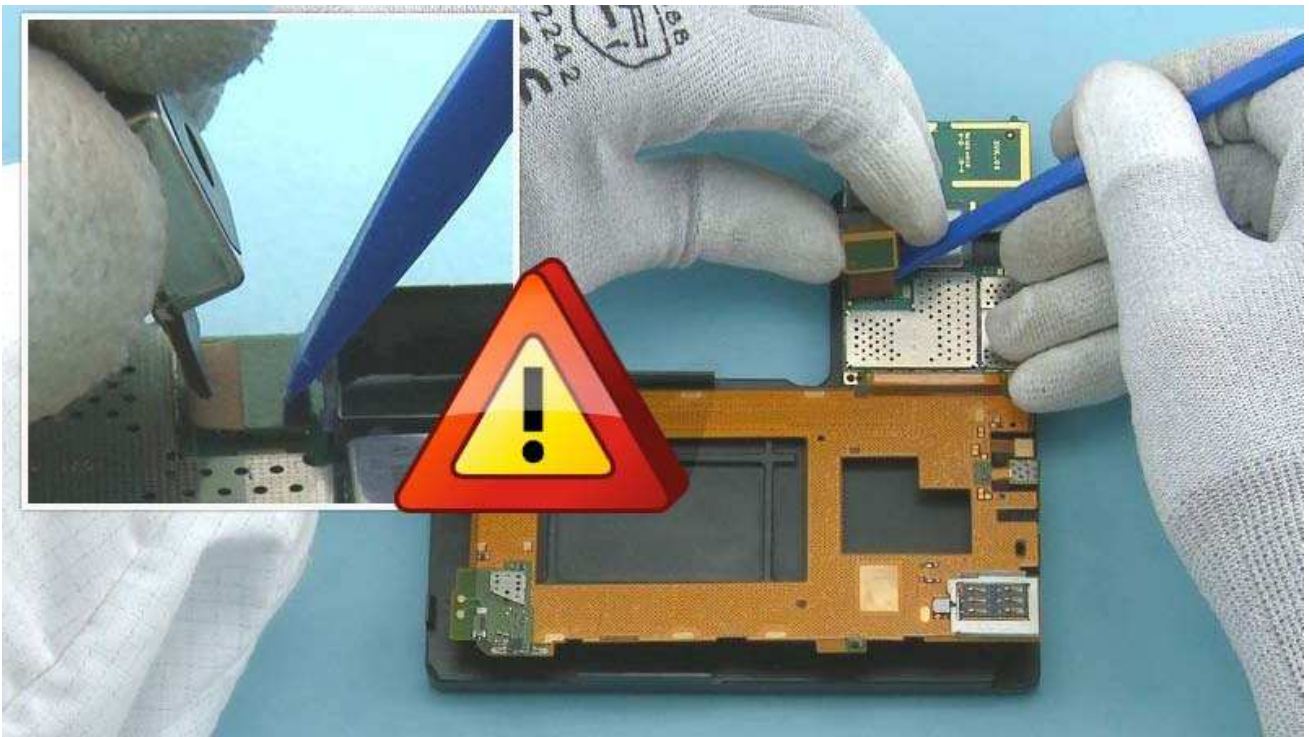
Place the CAMERA BOOT to the ENGINE BOARD by sliding it in from the side.



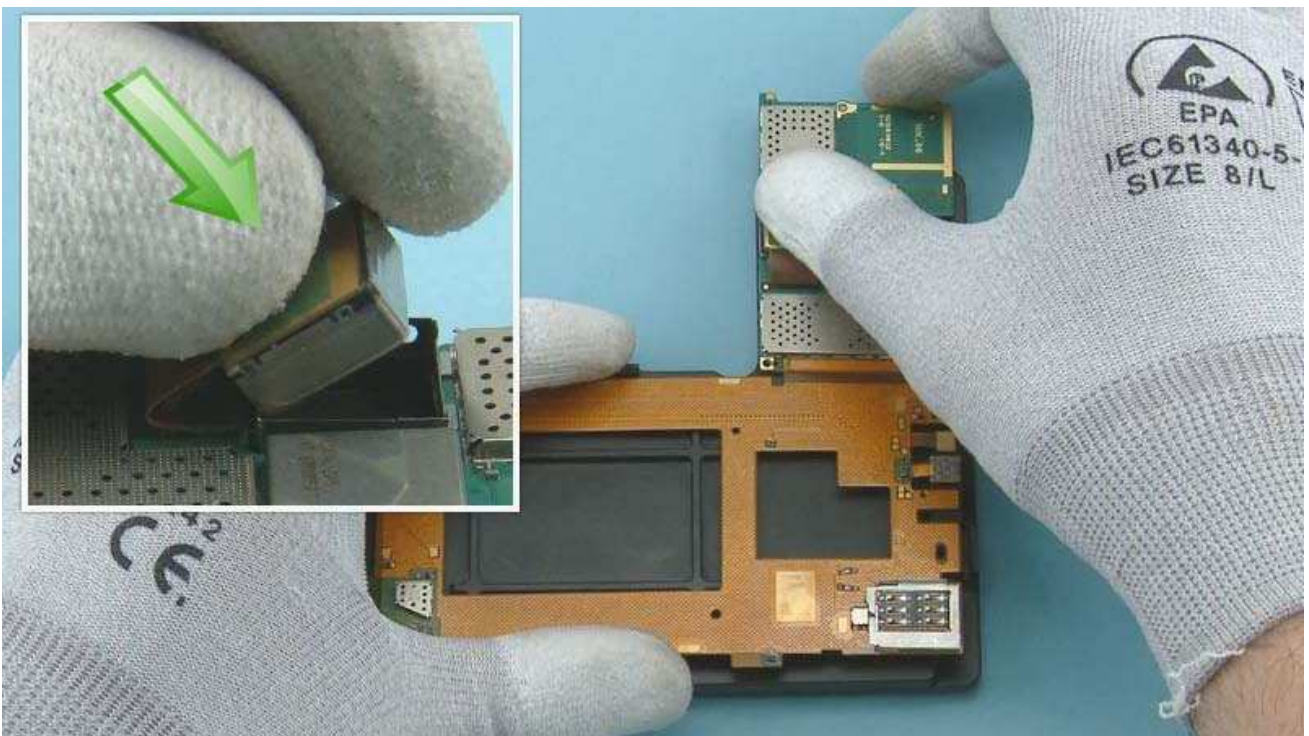
Remove the CAMERA from its packing.



Place the CAMERA CONNECTOR SUPPORT to the CAMERA flex and press down gently to activate the adhesive.

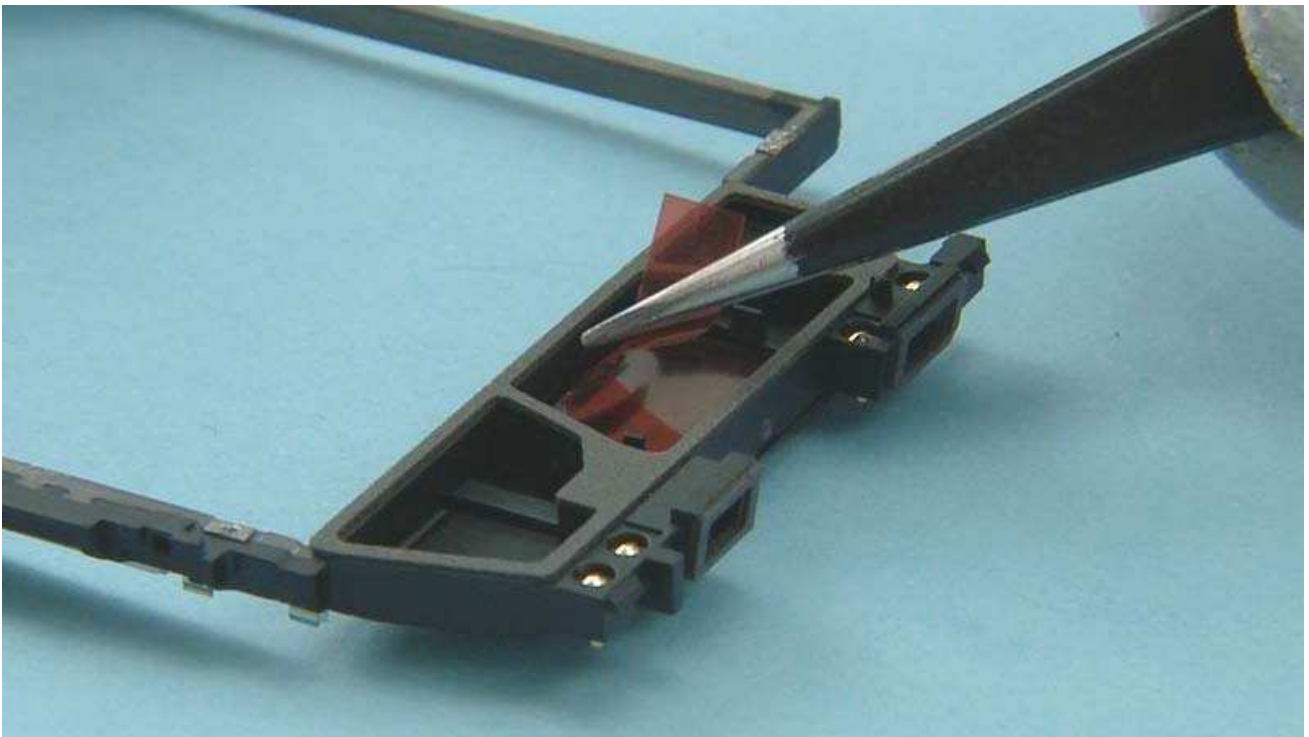


Assemble the CAMERA to the ENGINE BOARD by first connecting the CAMERA connector with the SS-93. Be careful not to damage the connector or any nearby components.

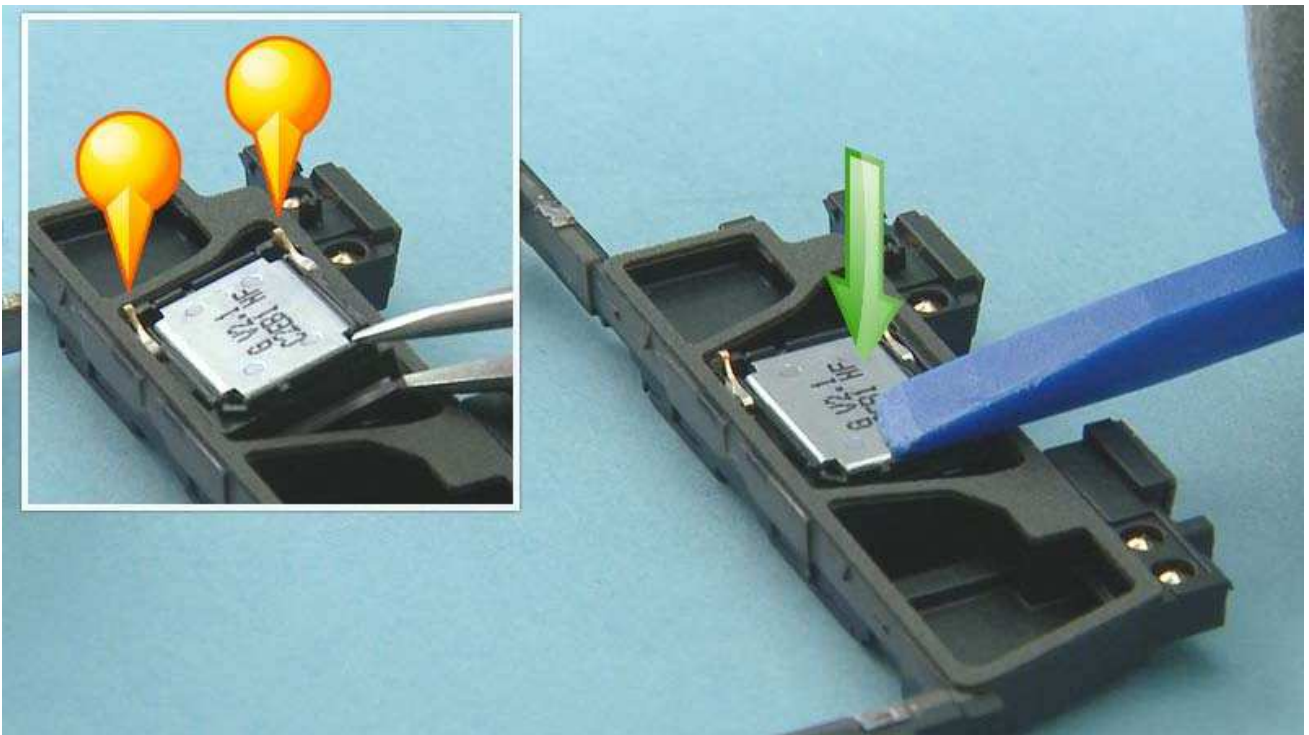


Bend the CAMERA flex and push the CAMERA into the CAMERA BOOT.

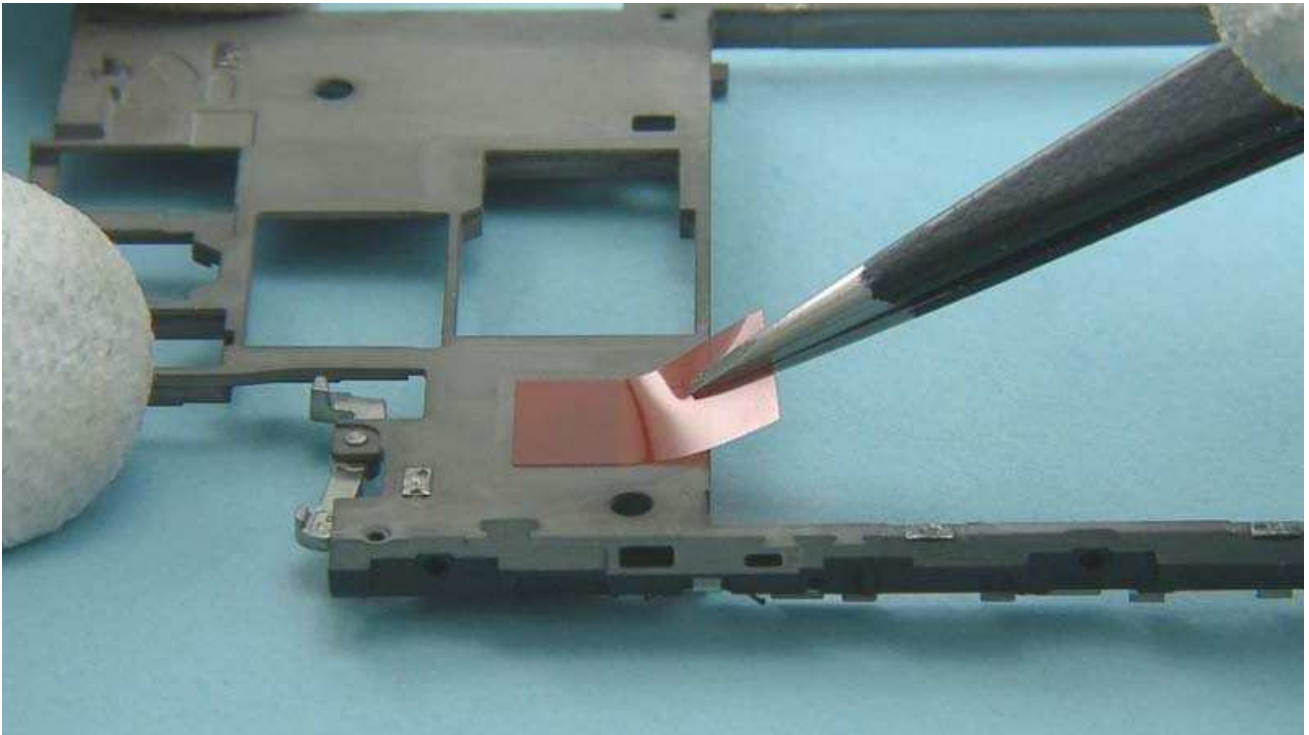




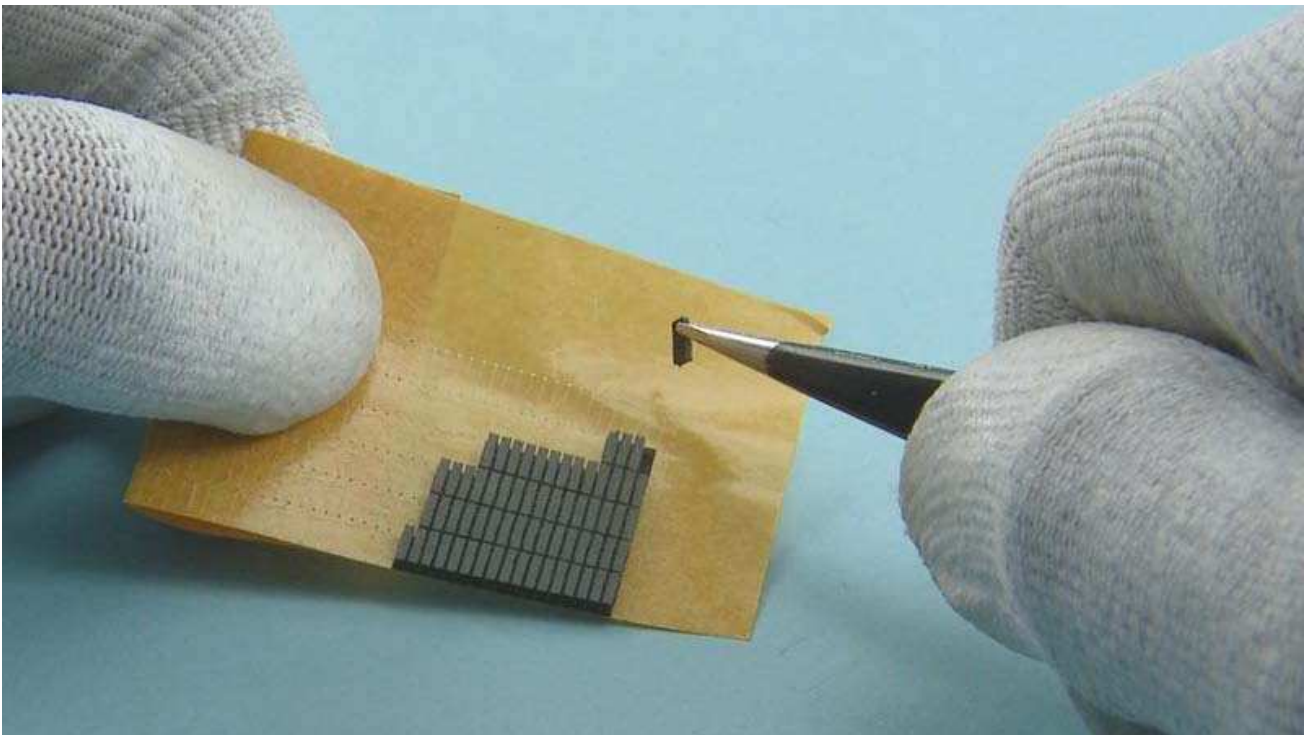
Remove the SPEAKER GASKET protective film from the CHASSIS.



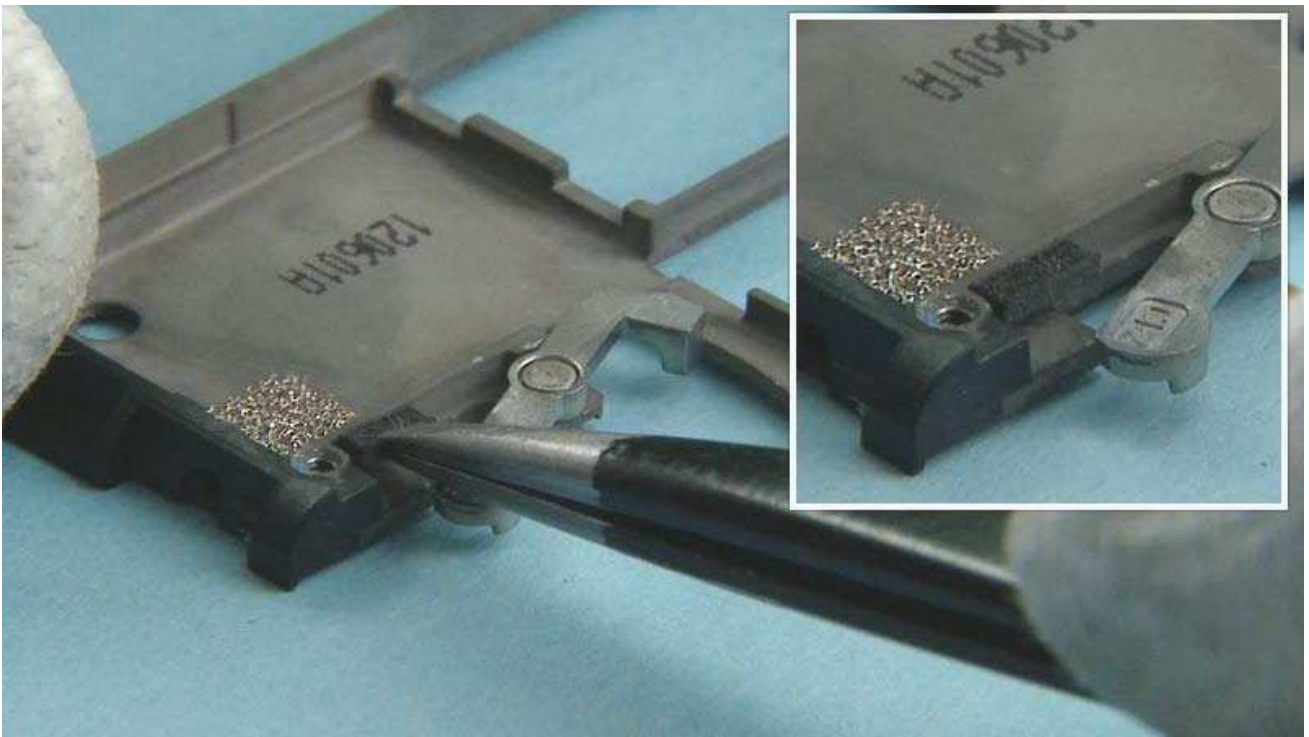
Place the IHF SPEAKER to the CHASSIS and press down gently to activate the adhesive. Make sure that the IHF SPEAKER is aligned correctly and the shown pins are facing the right way.



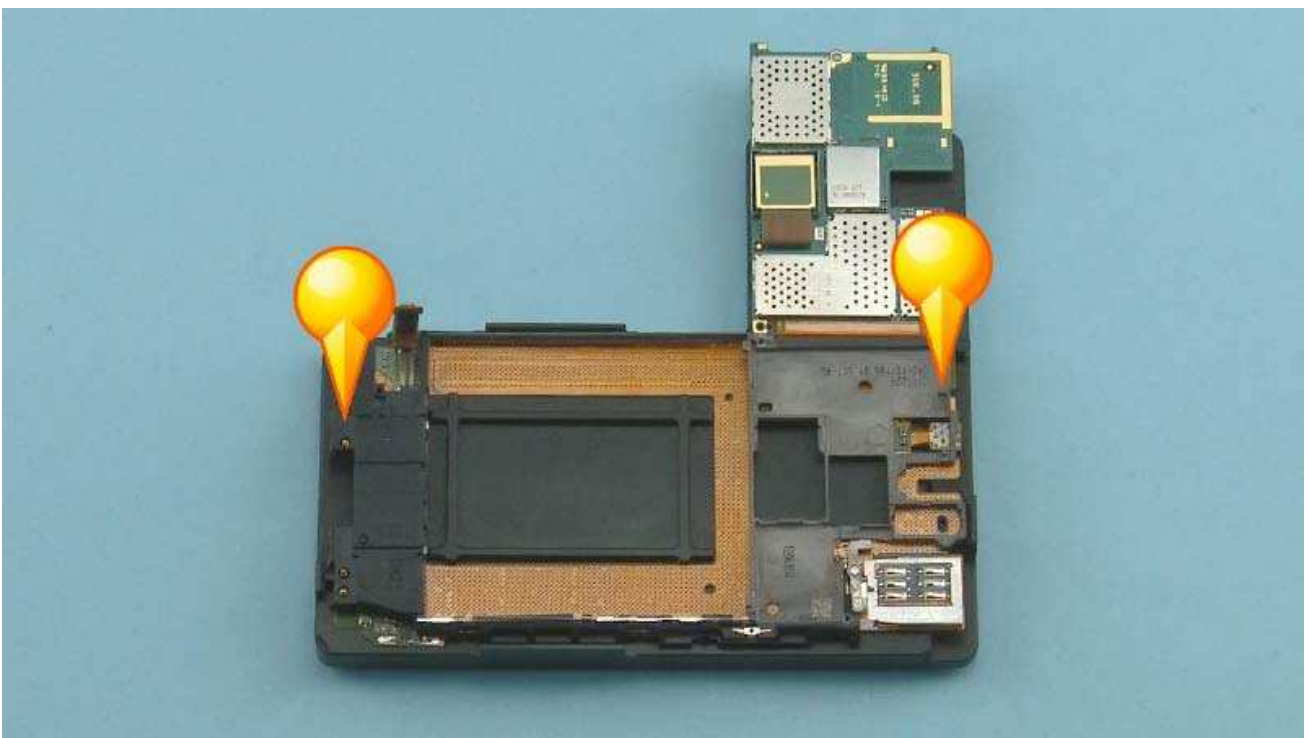
Remove the protective film from the CHASSIS.



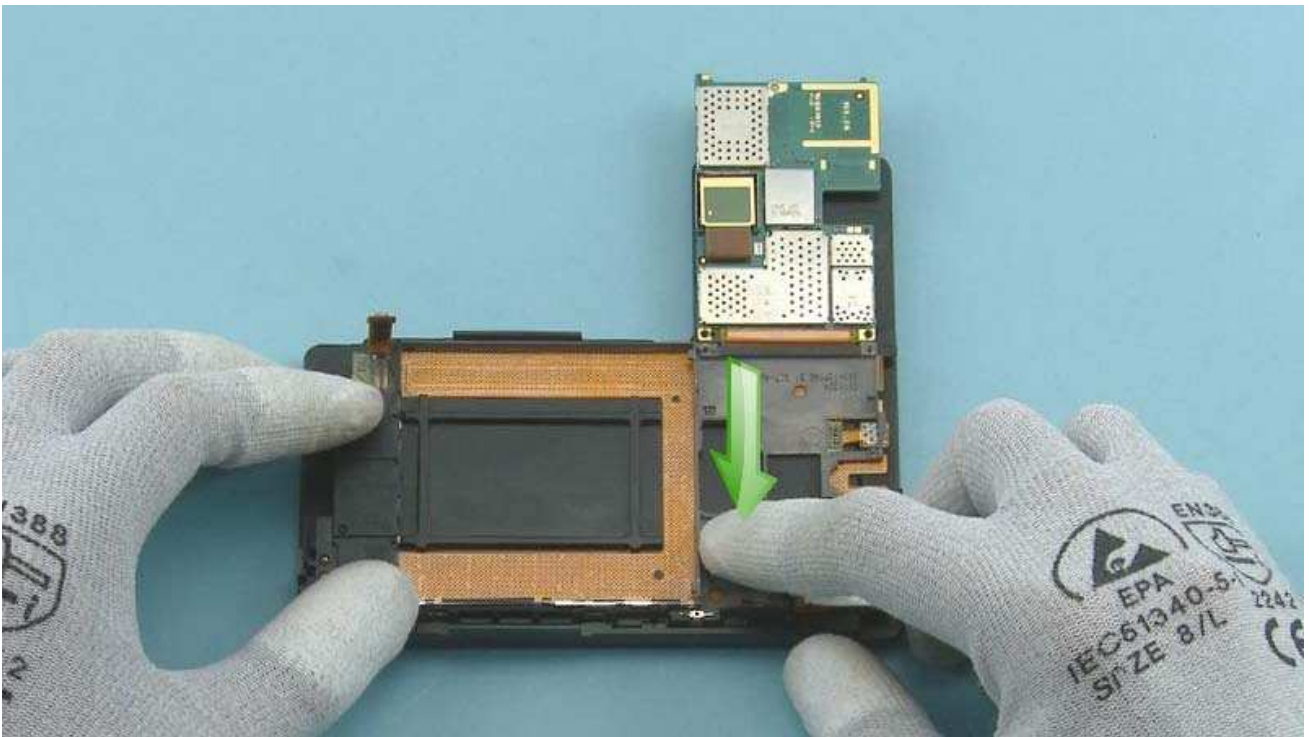
If the EJECTING ARM CUSHION is not already assembled to the CHASSIS, first peel off the protective film.



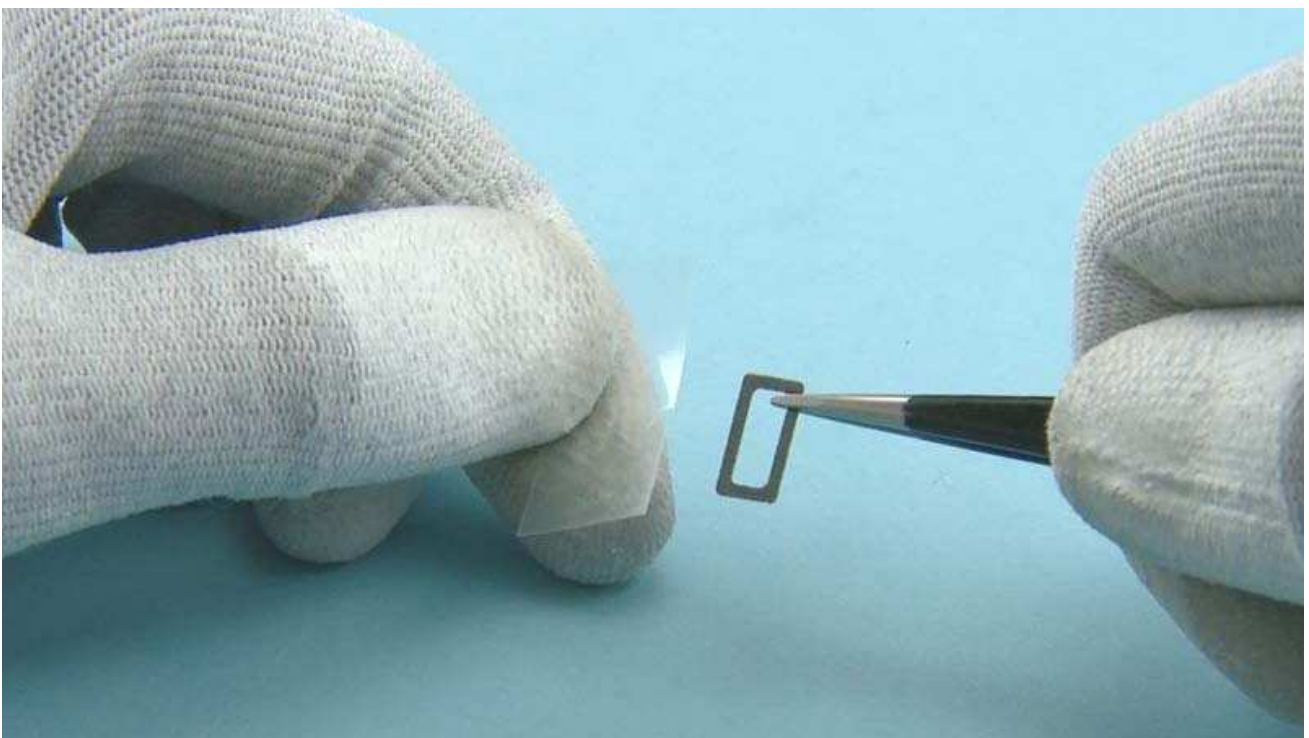
Place the EJECTING ARM CUSHION to the CHASSIS.



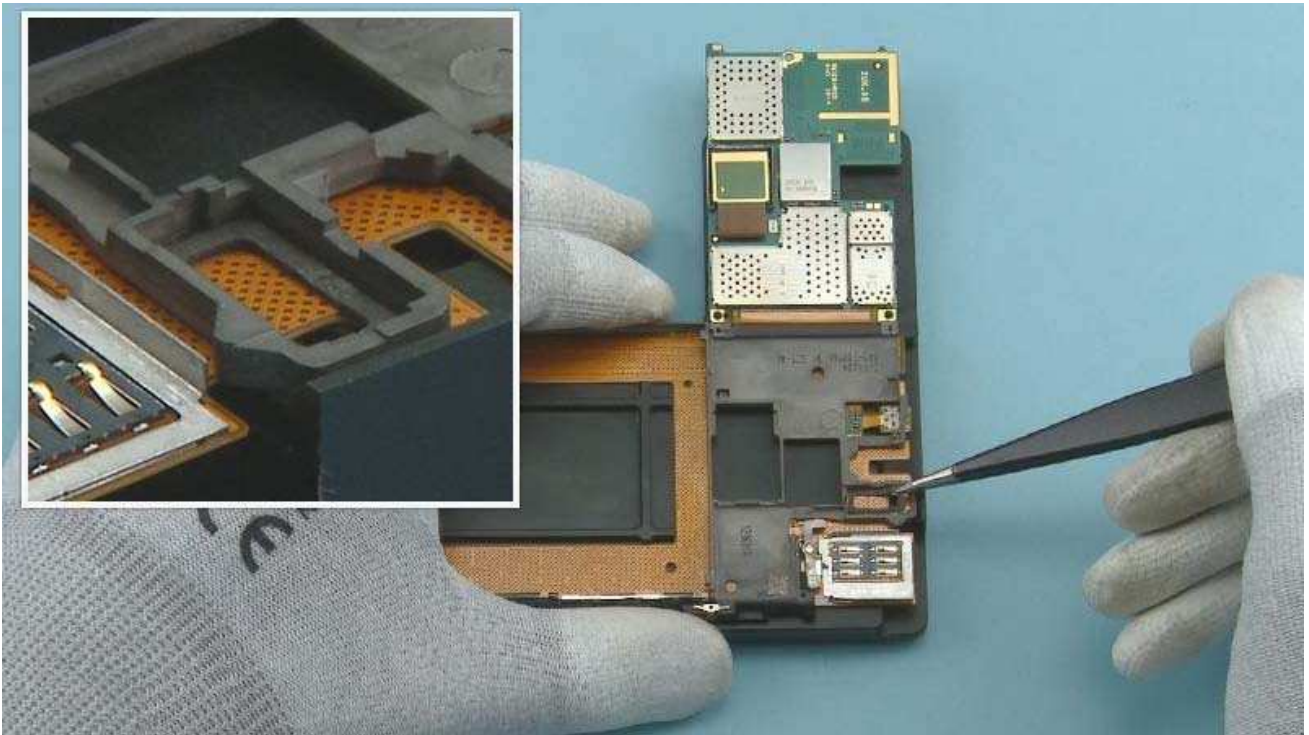
When placing the CHASSIS make sure to align the pins of the CHASSIS to the holes in the MAIN FLEX.



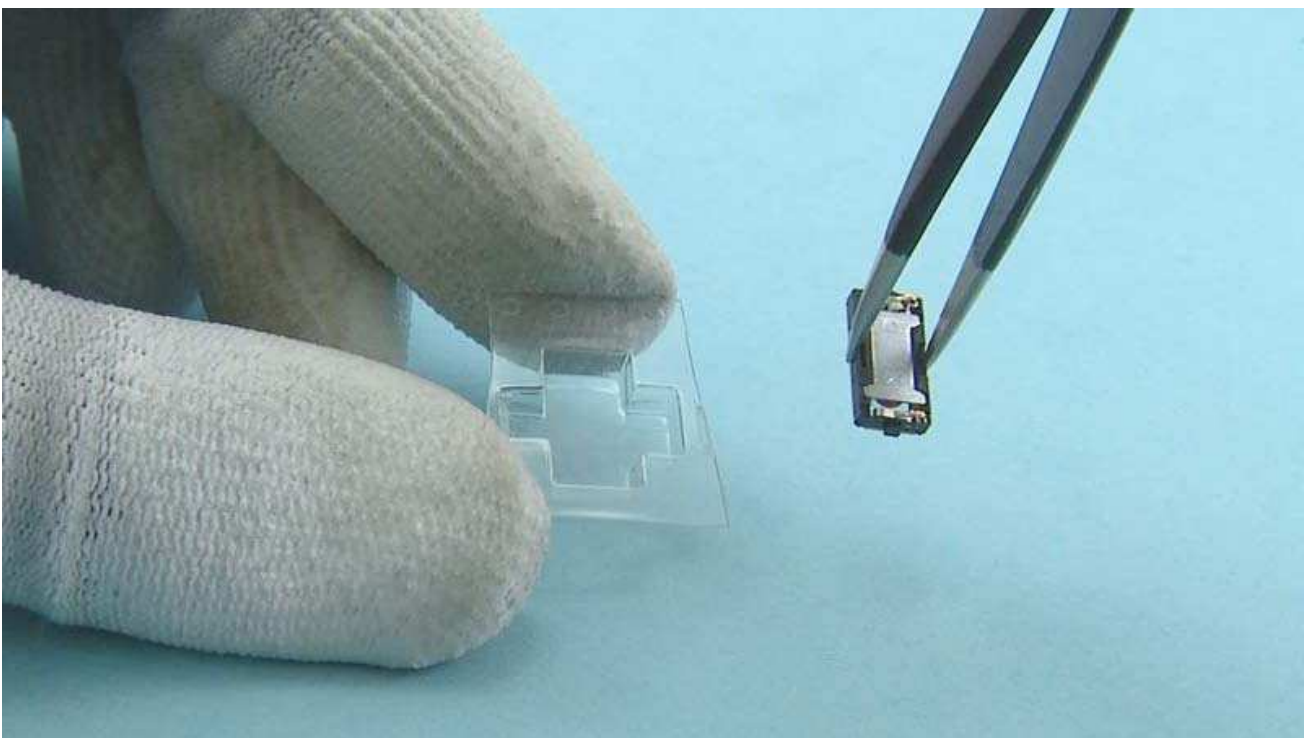
Place the CHASSIS on the MAIN FLEX and press down to activate the adhesive.



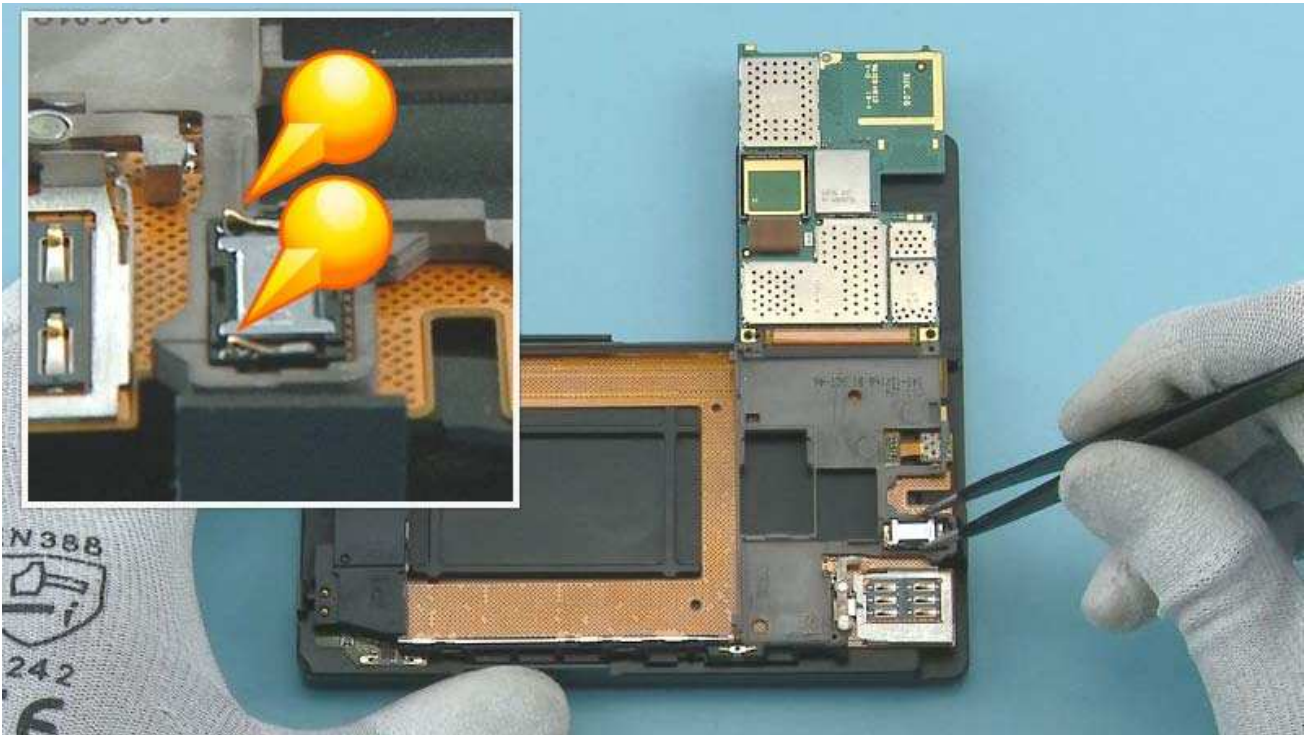
Remove the EARPIECE GASKET protective film.



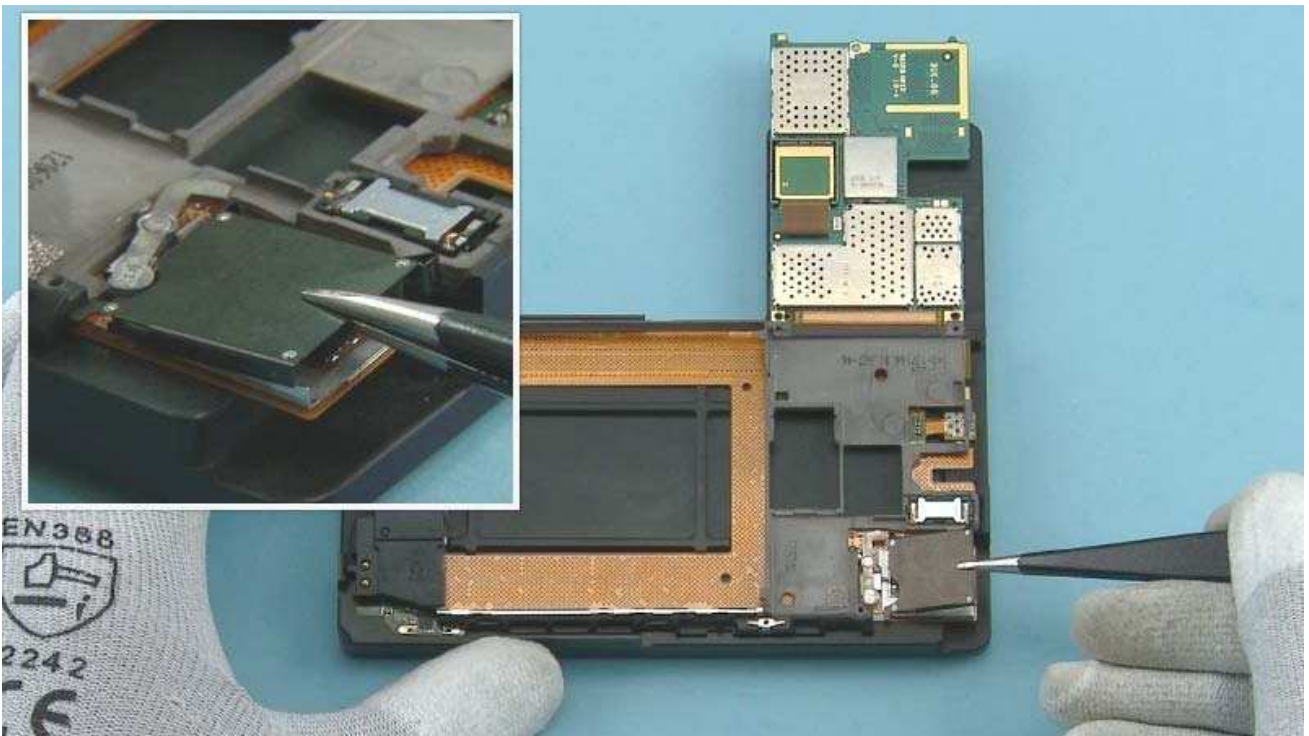
Place the EARPIECE GASKET to the MAIN FLEX.



Remove the EARPIECE from its packing.



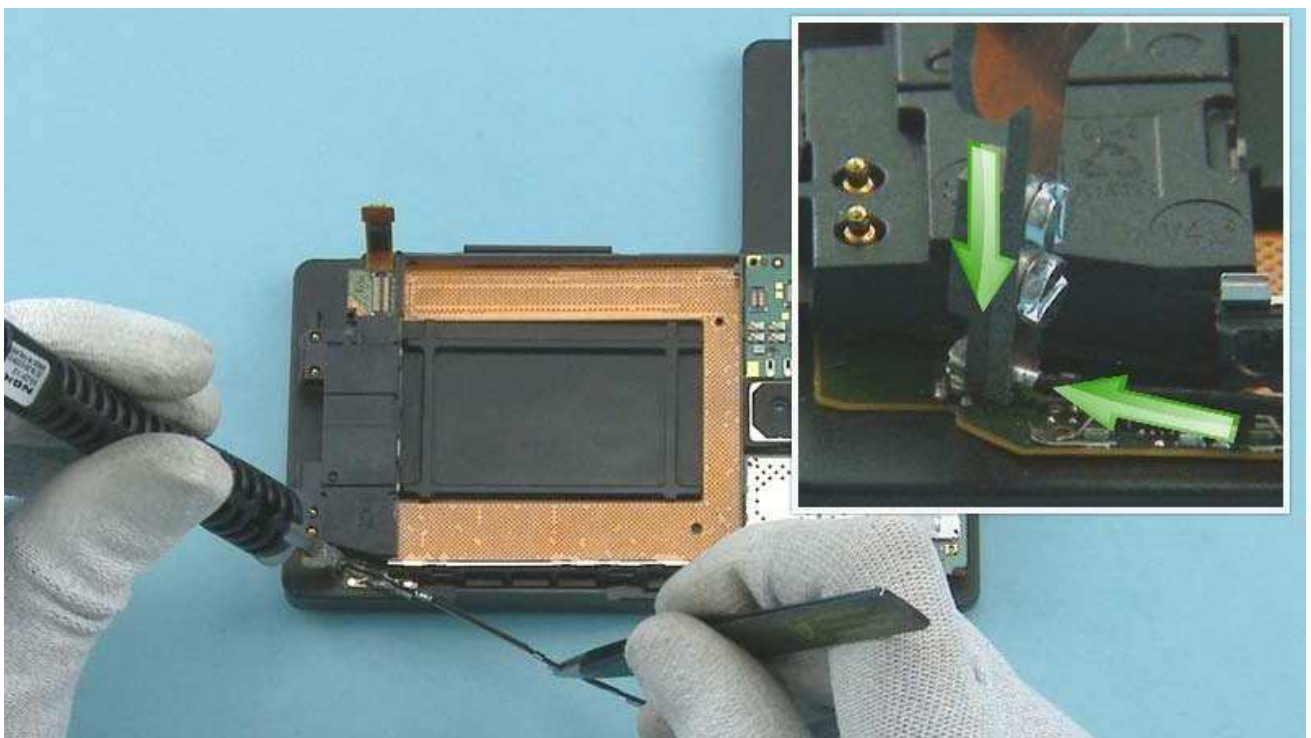
Place the EARPIECE to its place. Make sure it is aligned correctly and the shown pins are facing the right way.



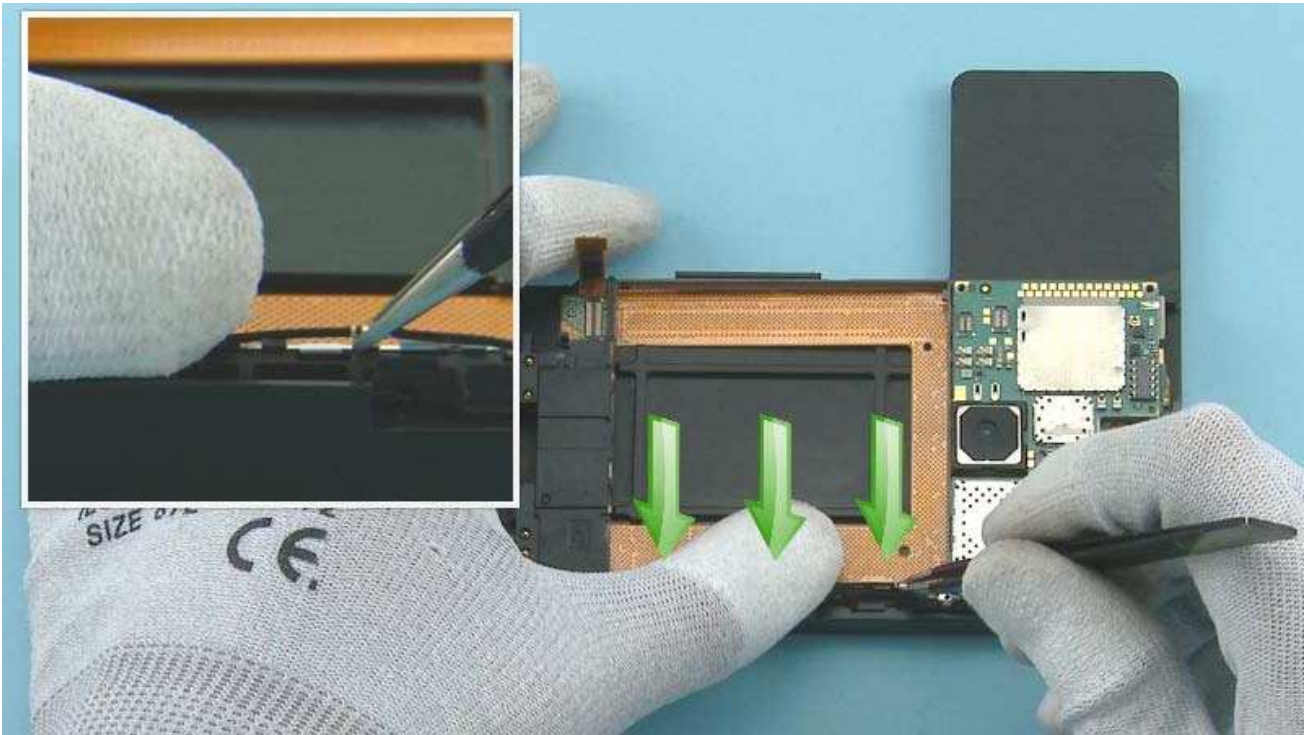
Place the TYPE LABEL SUPPORT to its place.



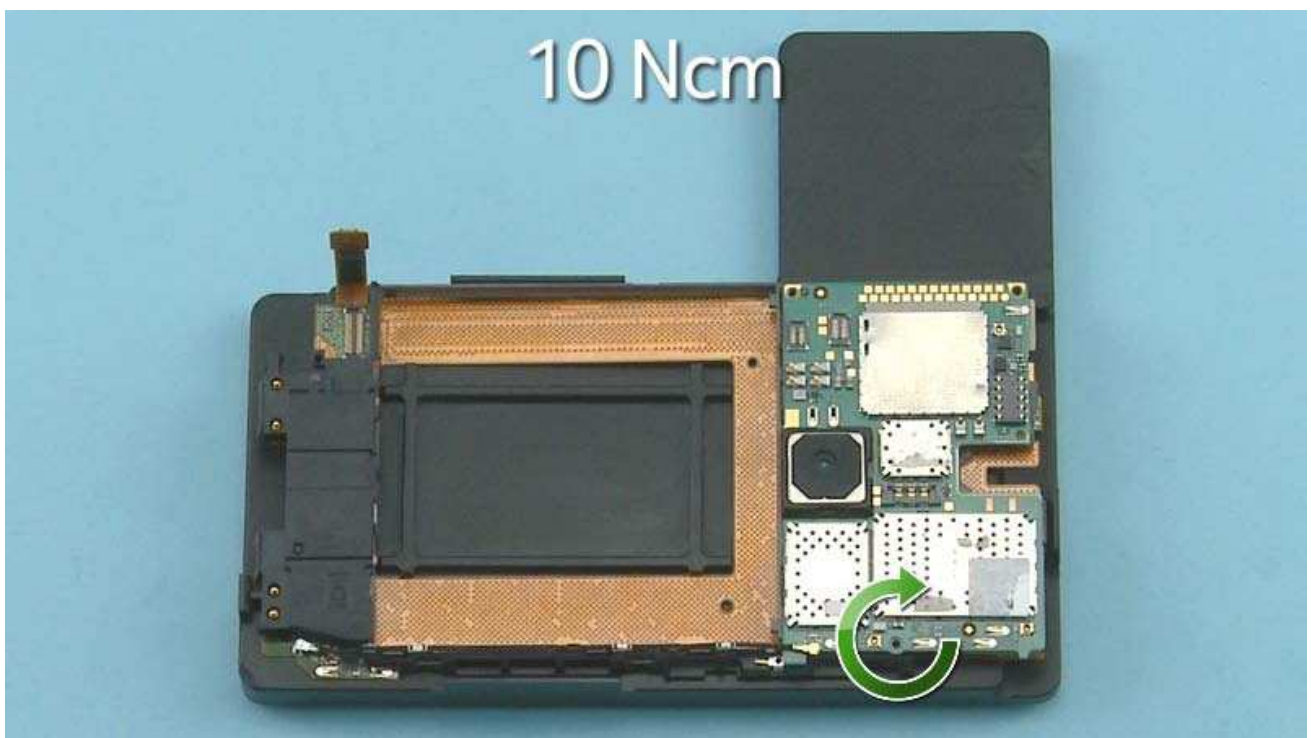
Turn over the ENGINE BOARD.



Connect the ANTENNA COAX CABLE from the MAIN FLEX side with the SS-231. Lock the SS-231 to the top of the connector as shown and press down.

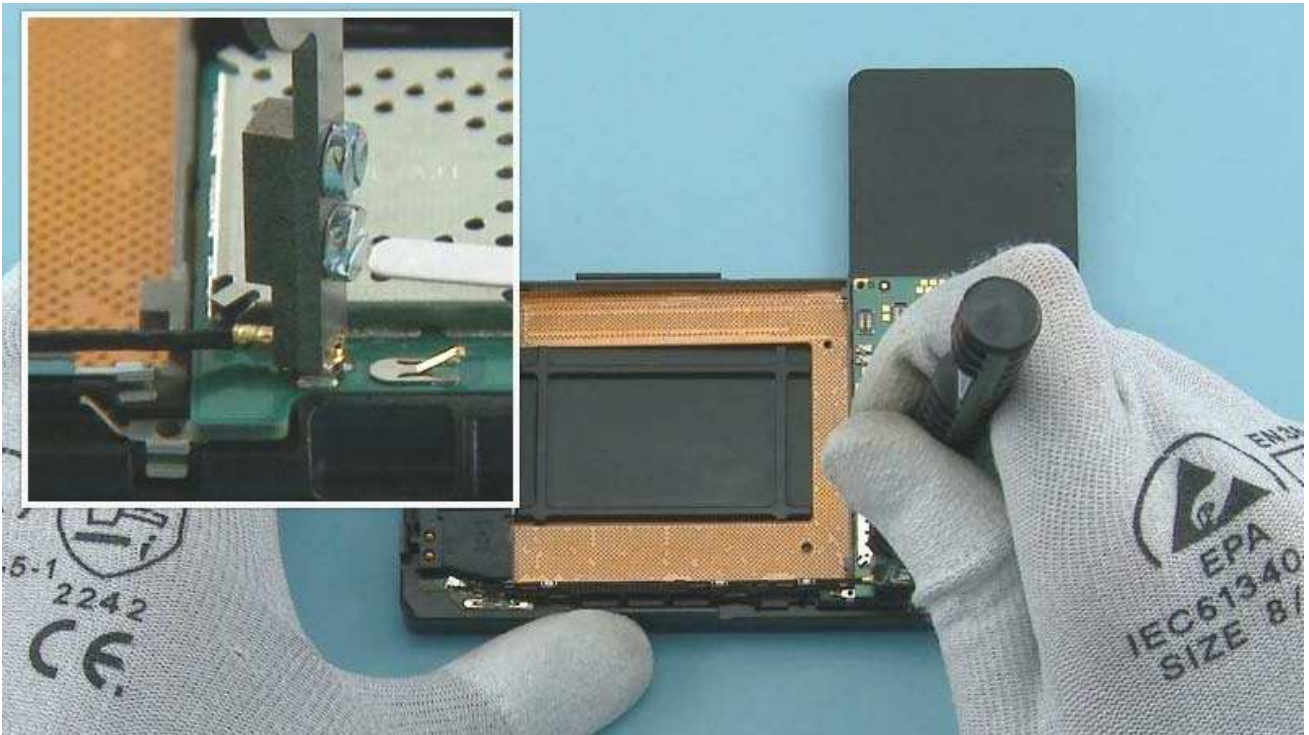


Assemble the ANTENNA COAX CABLE to the CHASSIS by pushing it between the metal sheets.

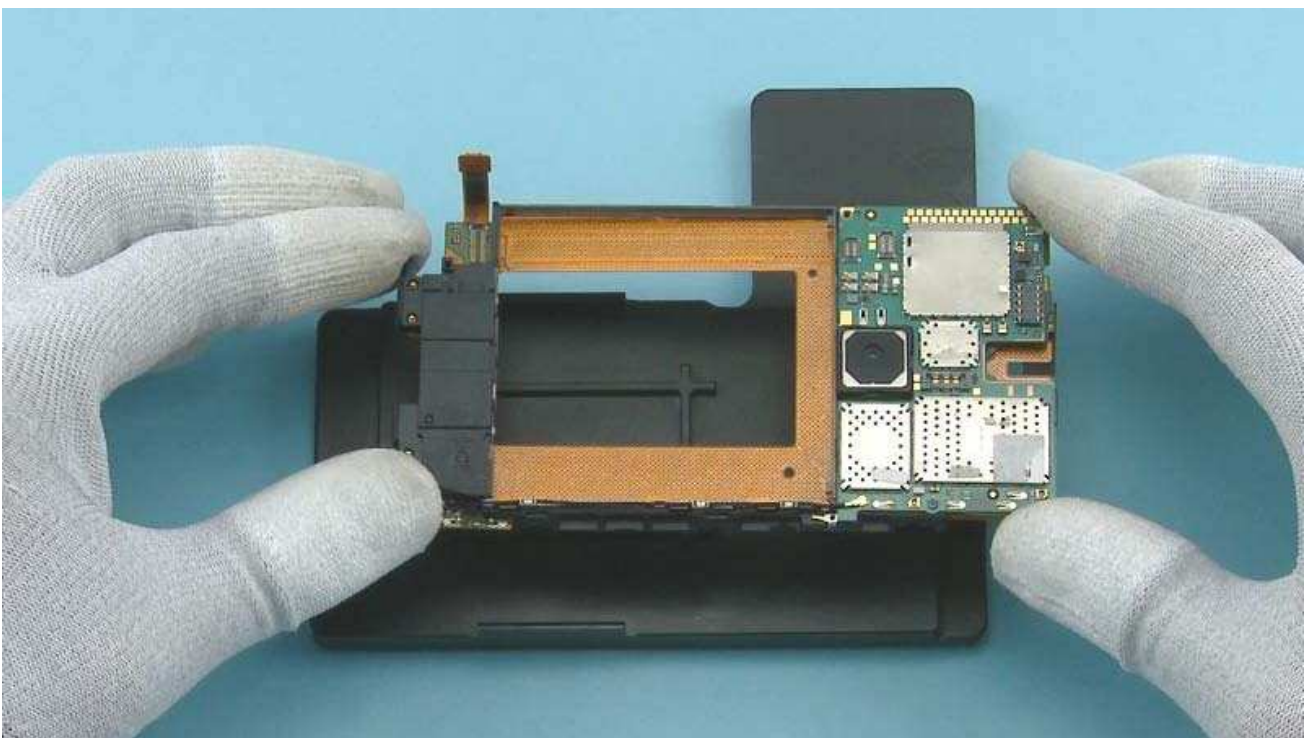


Fasten the TORX+ size 2 screw with the SS-299 screwdriver to the torque of 10 Ncm.

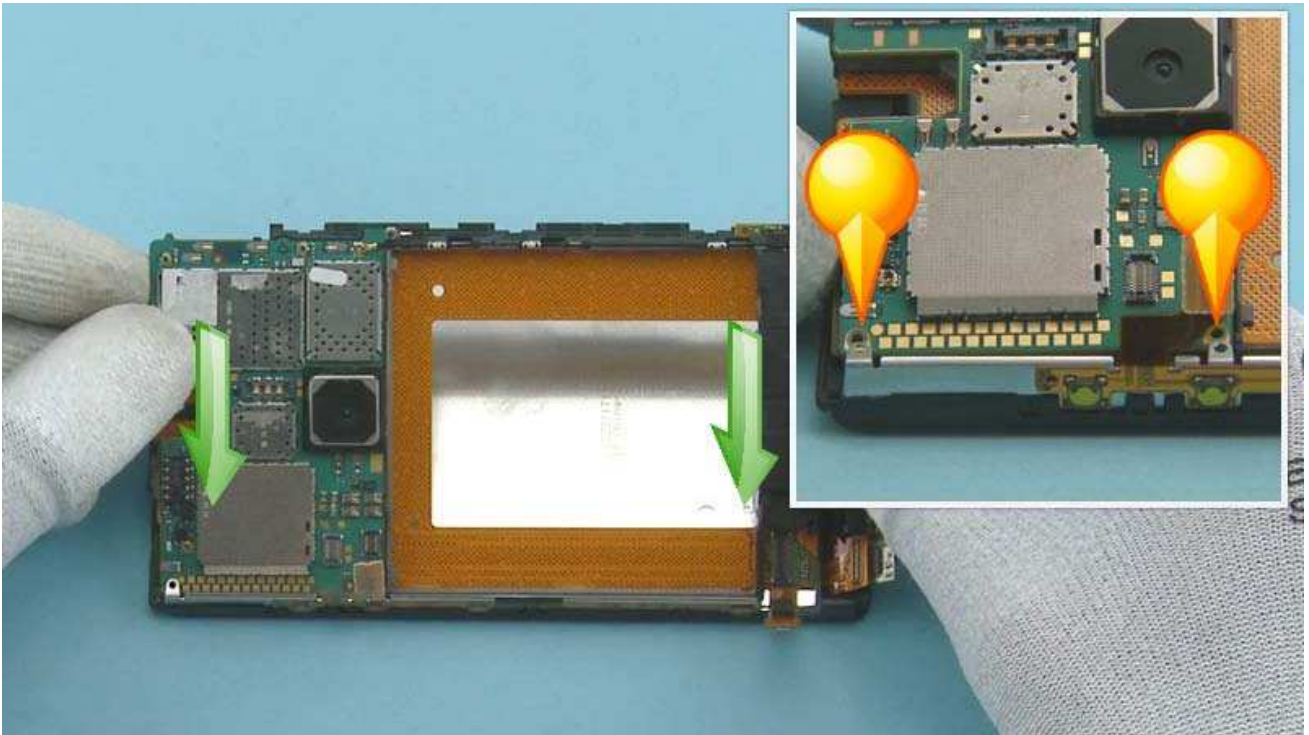




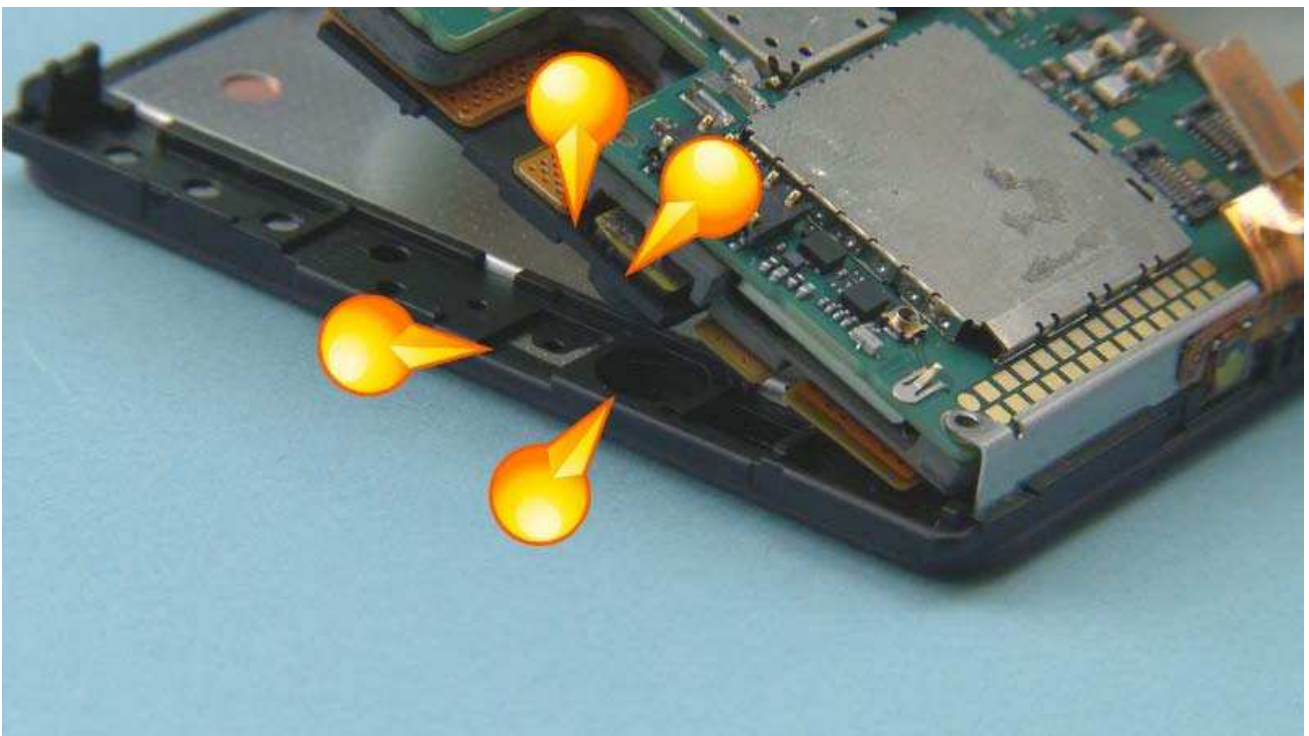
Connect the other end of the ANTENNA COAX CABLE to the ENGINE BOARD with the SS-231.



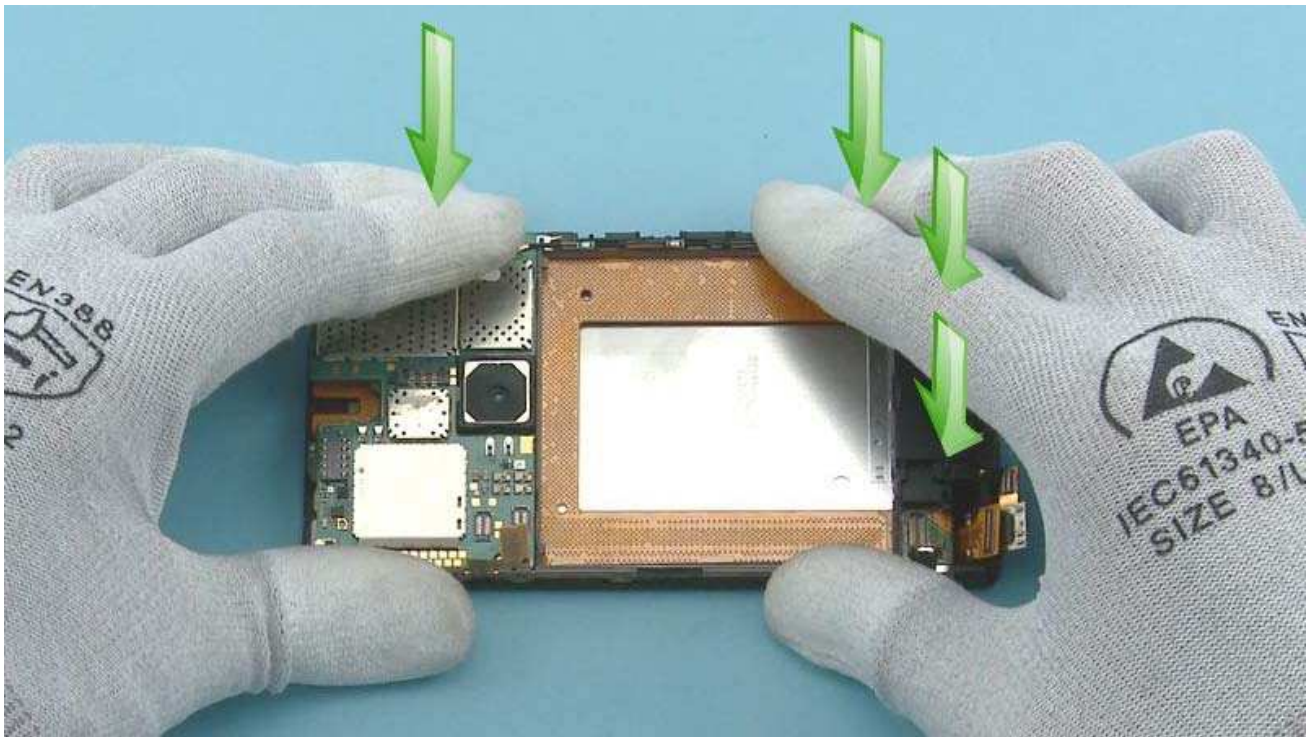
The ENGINE BOARD including the CHASSIS can now be removed from the Care chassis assembly jig.



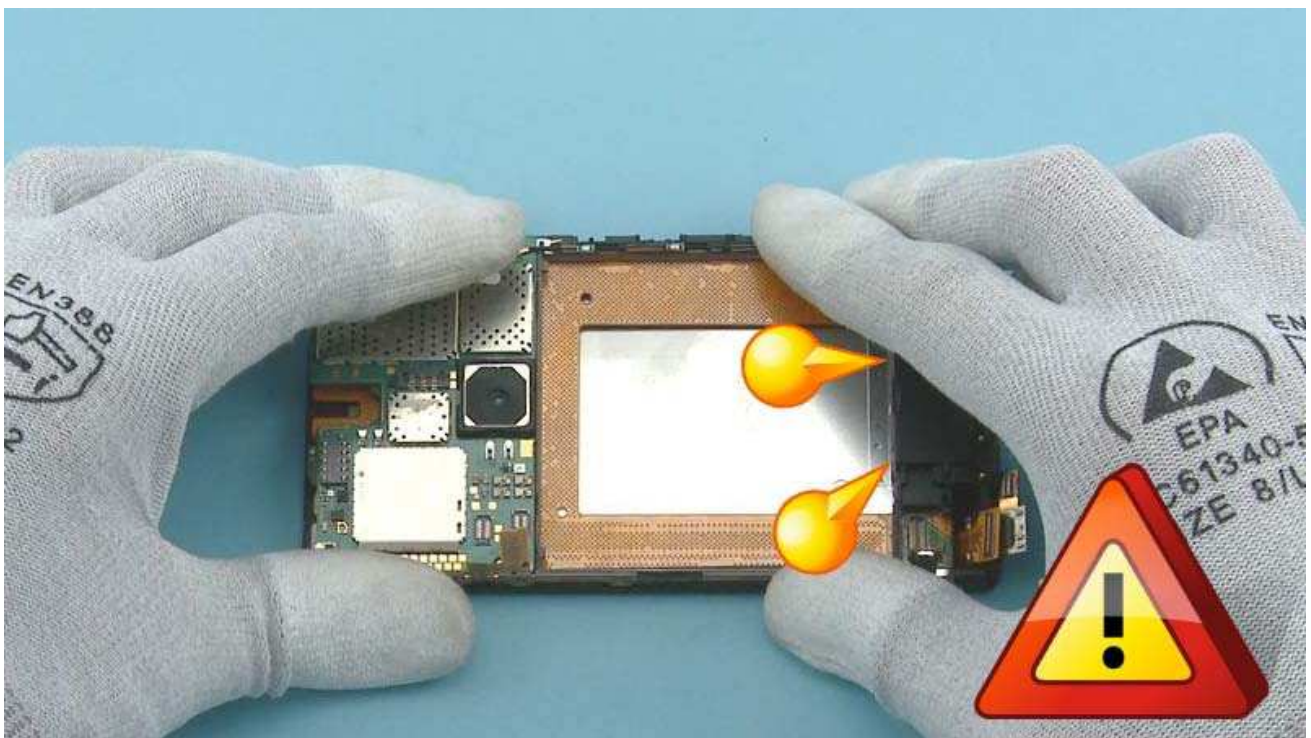
Assemble the ENGINE BOARD including the CHASSIS to the DISPLAY MODULE ASSEMBLY shown side first. Use the shown screw holes to get the right alignment.



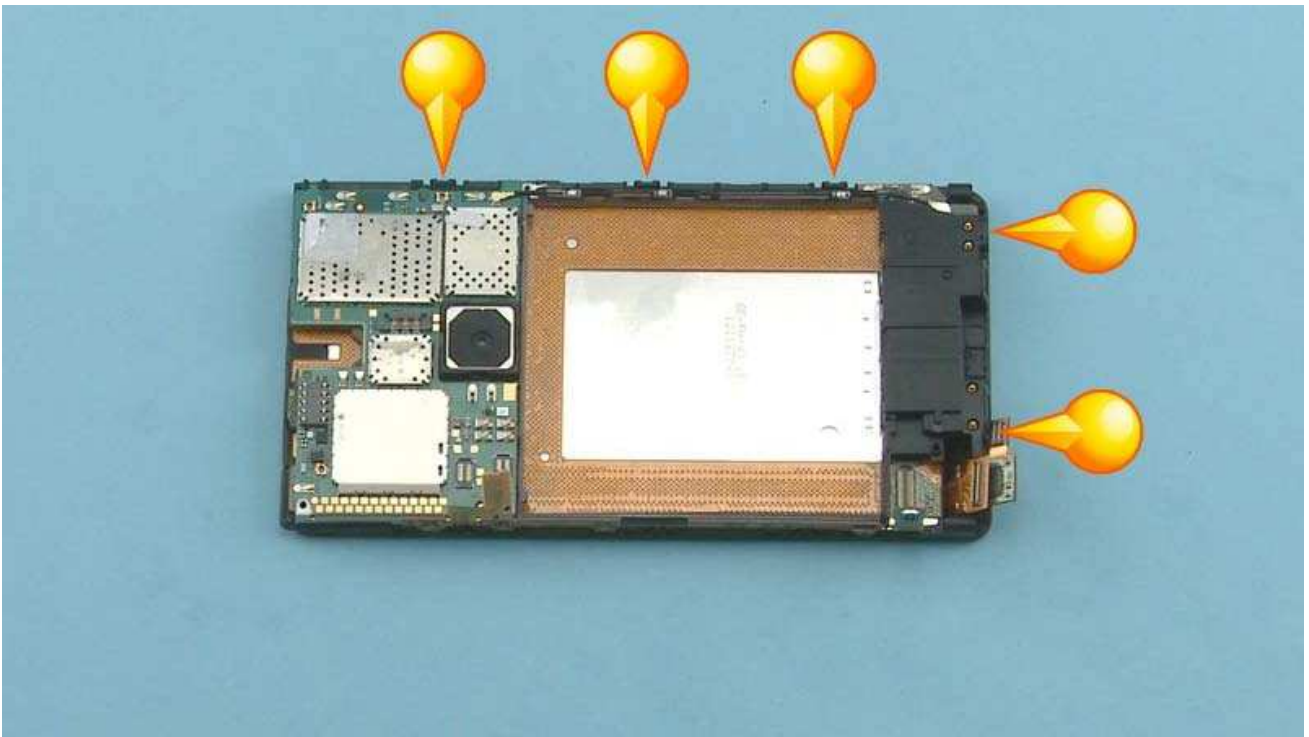
Make sure that the front camera and the microphone are aligned correctly.



Press down the other side and the bottom of the CHASSIS to get the clips attached.



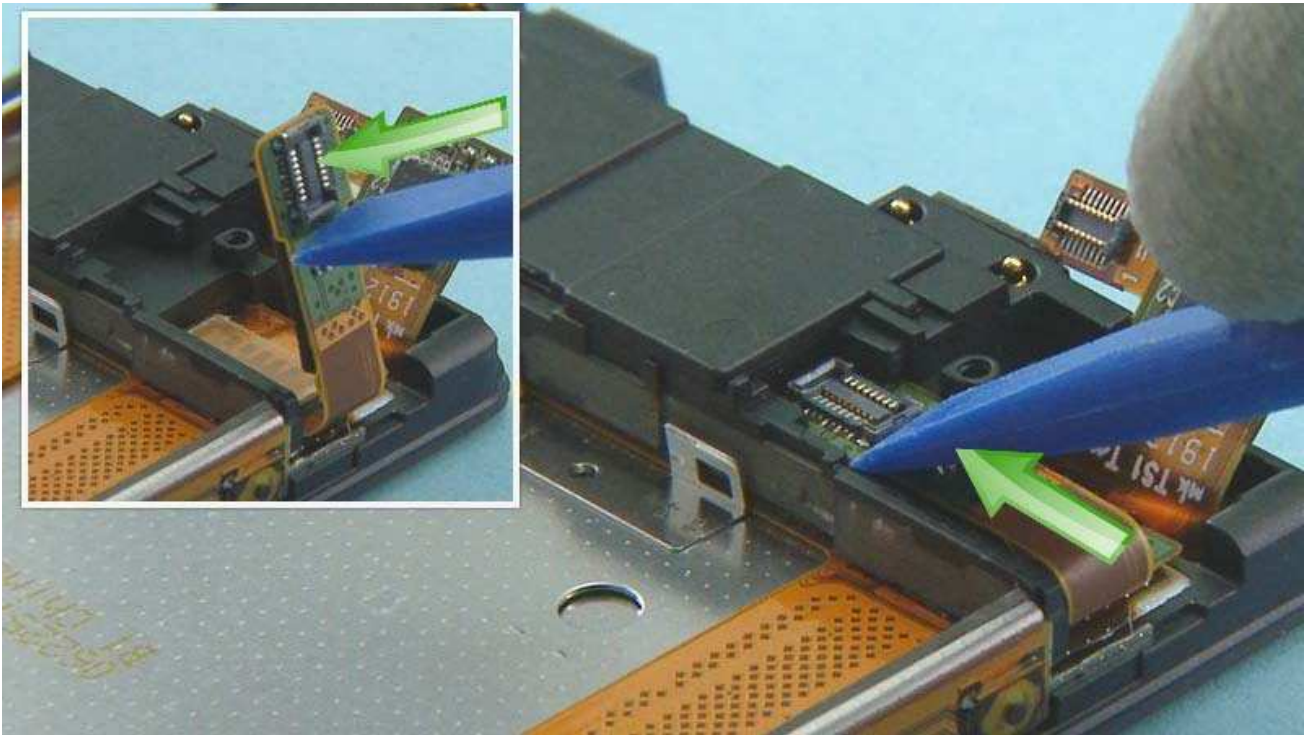
Make sure that the clips on the DISPLAY MODULE ASSEMBLY are not left under the CHASSIS!



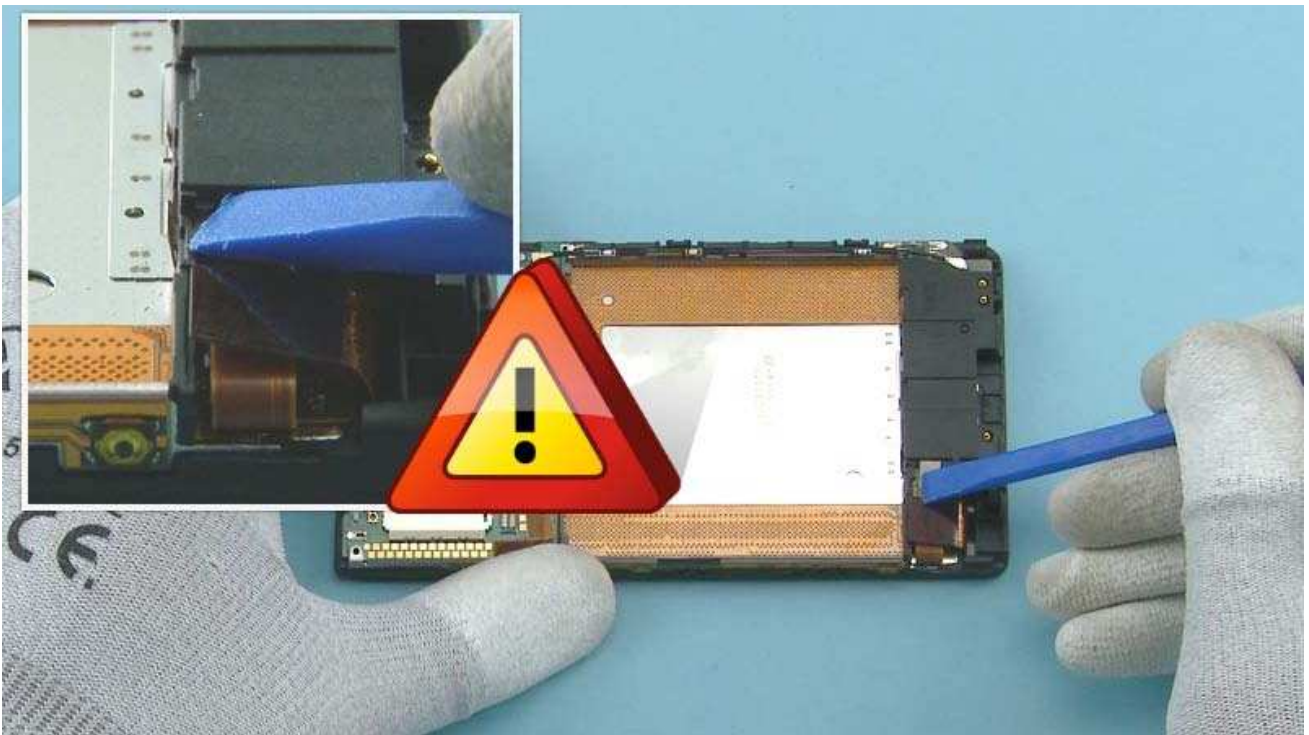
Check that all the shown clips are attached.



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



Bend the TOUCH SCREEN connector as shown and slide it into the notch on the CHASSIS.



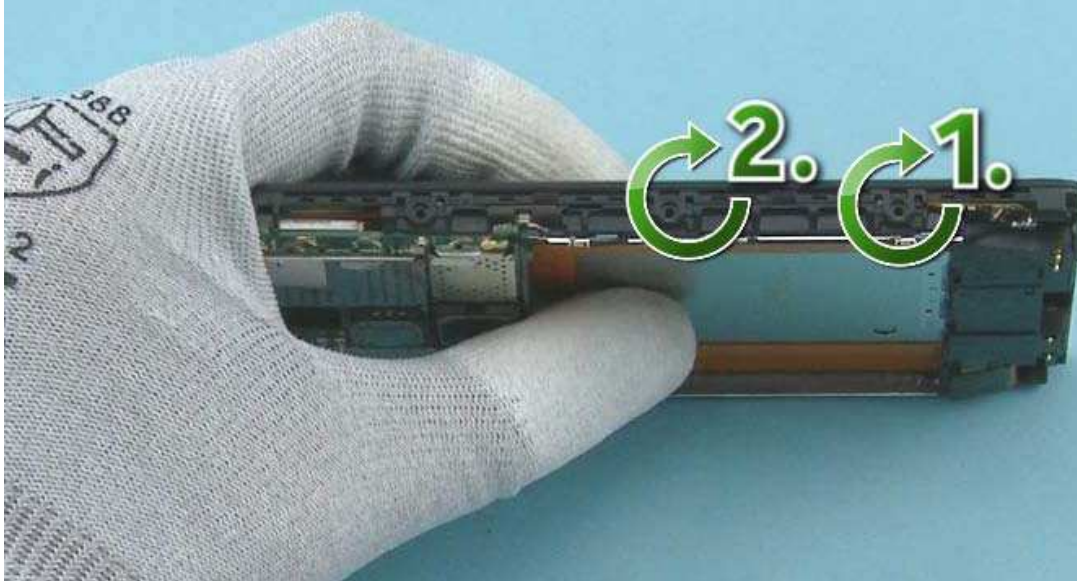
Connect the TOUCH SCREEN connector with the SS-93. Be careful not to damage the connector or any nearby components.

10 Ncm



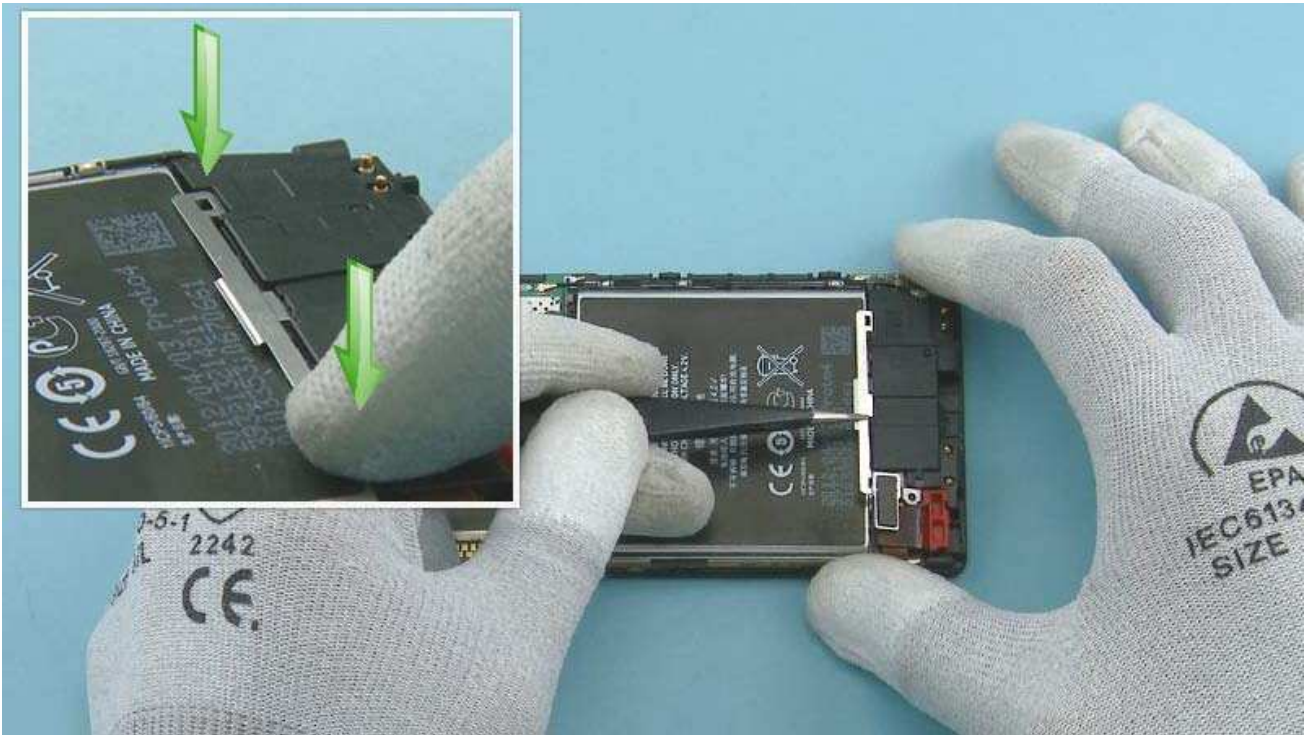
Fasten the two TORX+ size 2 screws with the SS-299 screwdriver in the order shown to the torque of 10 Ncm.

10 Ncm



Fasten the two TORX+ size 4 screws in the order shown to the torque of 10 Ncm.





Place the BATTERY HOLDER to its place and press down to attach the clips.



Fasten the TORX+ size 4 screw to the torque of 10 Ncm.

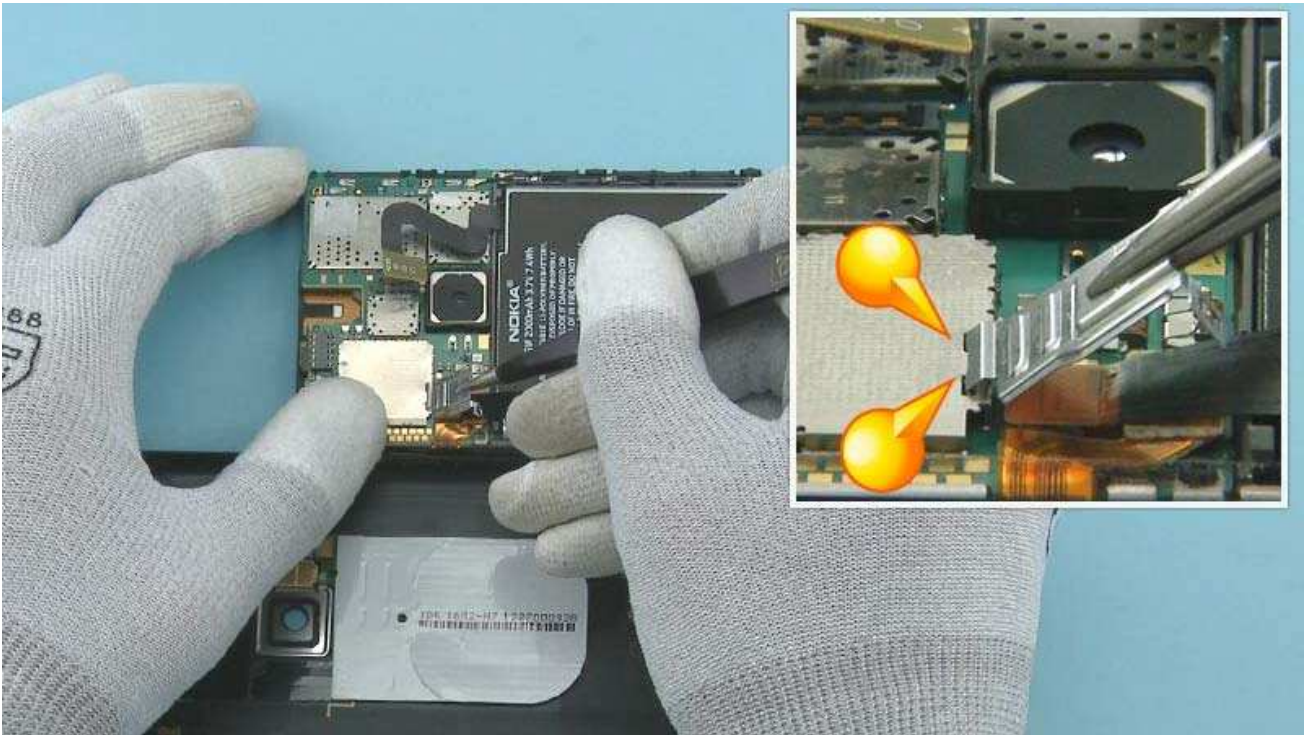




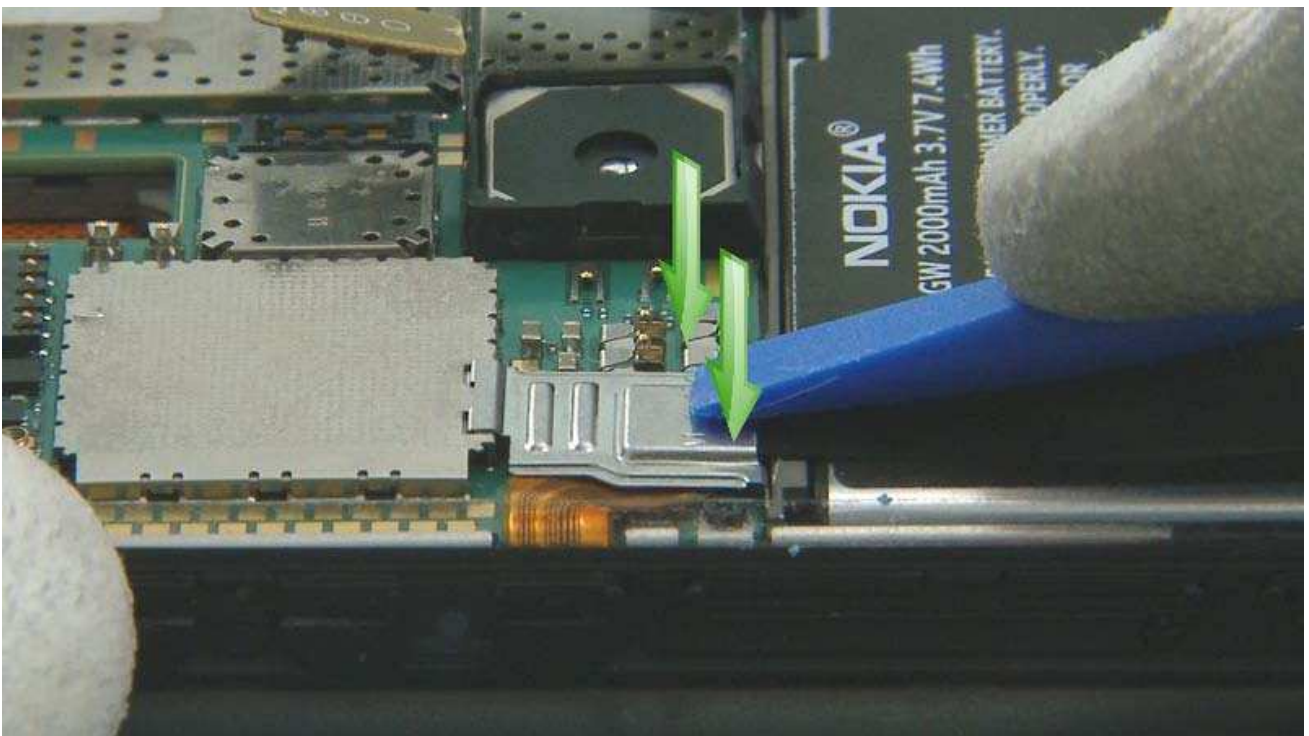
Connect the side key connector with the SS-93. Be careful not to damage the connector or any nearby components.



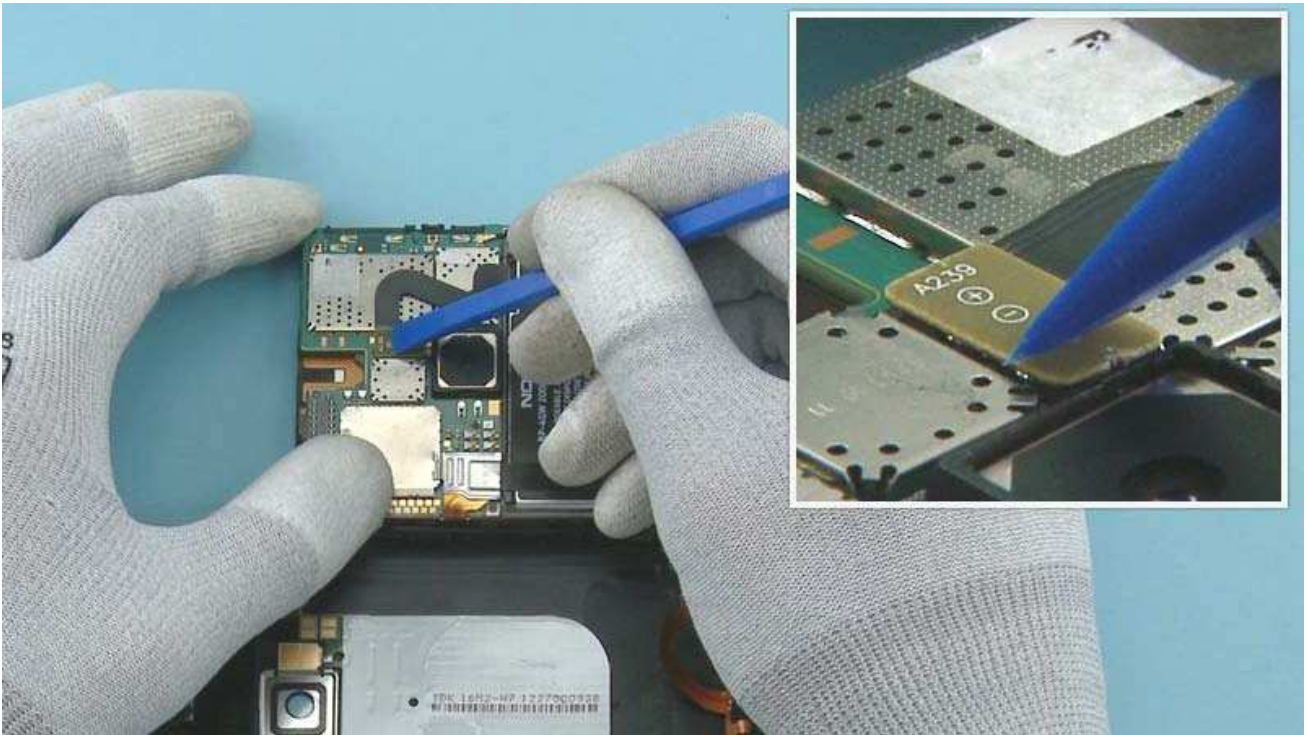
Place the UNIBODY ASSEMBLY next to the DISPLAY MODULE ASSEMBLY as shown. Hold the USB flex with tweezers as shown and connect the USB connector with the SS-93. Be careful not to bend the flex or damage the connector or any nearby components.



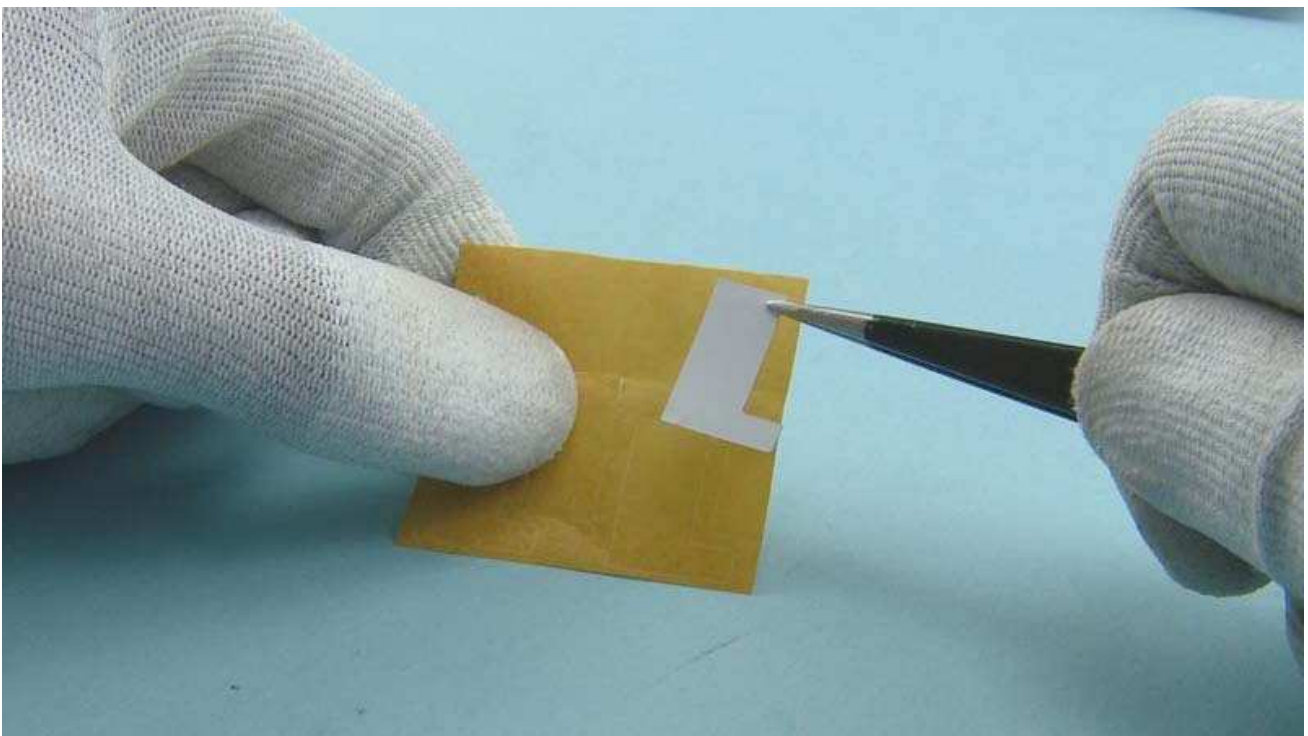
Place the USB CONNECTOR SUPPORT on top of the connectors by first inserting it to the shown holes on the ENGINE BOARD shielding.



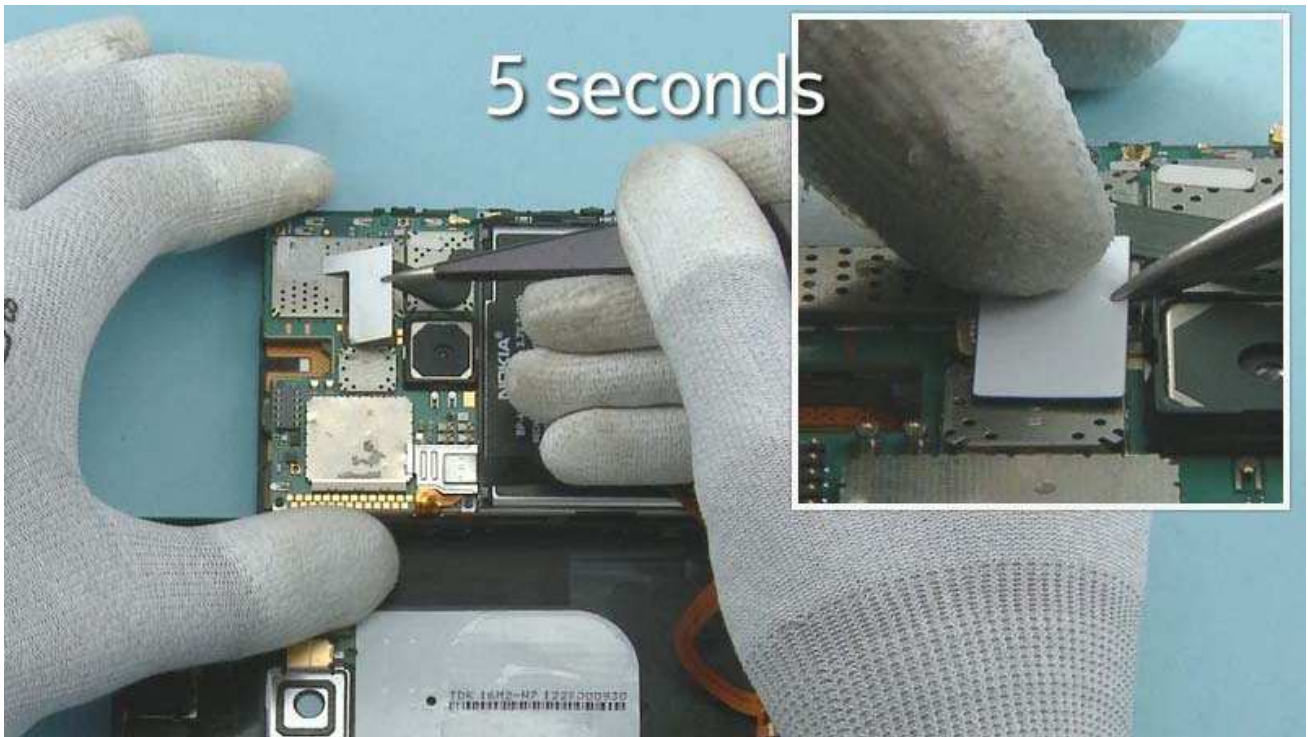
Then press it down from the sides to attach the clips.



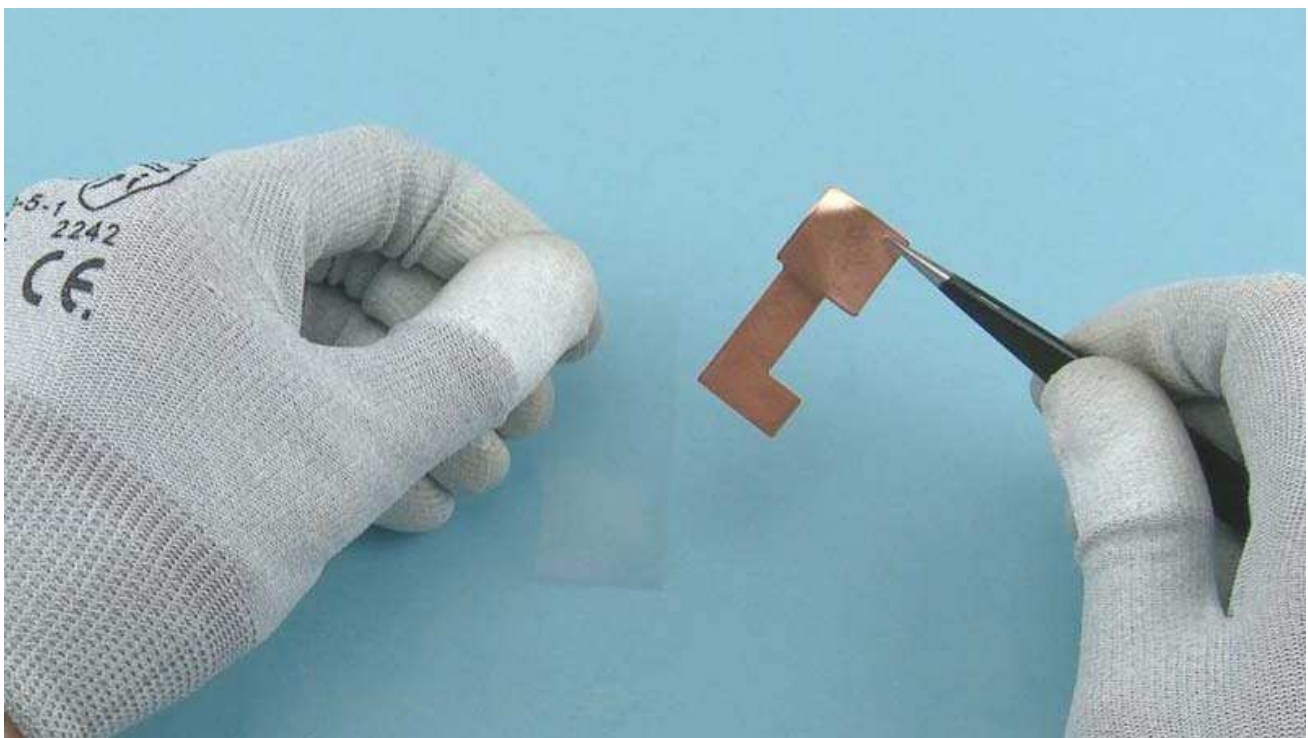
Connect the BATTERY connector with the SS-93. Be careful not to damage the connector or any nearby components.



Remove the CONNECTOR HOLDING TAPE protective film.



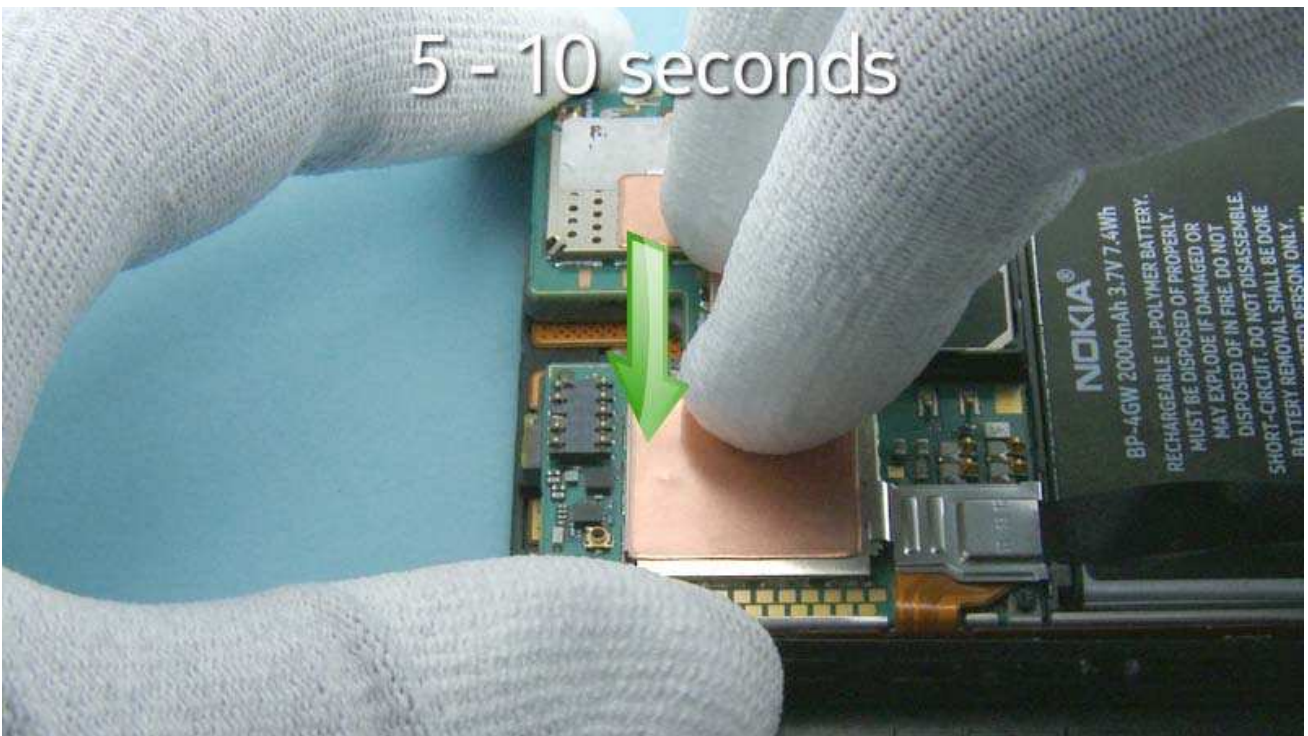
Place the CONNECTOR HOLDING TAPE to its place and press it gently for 5 seconds.



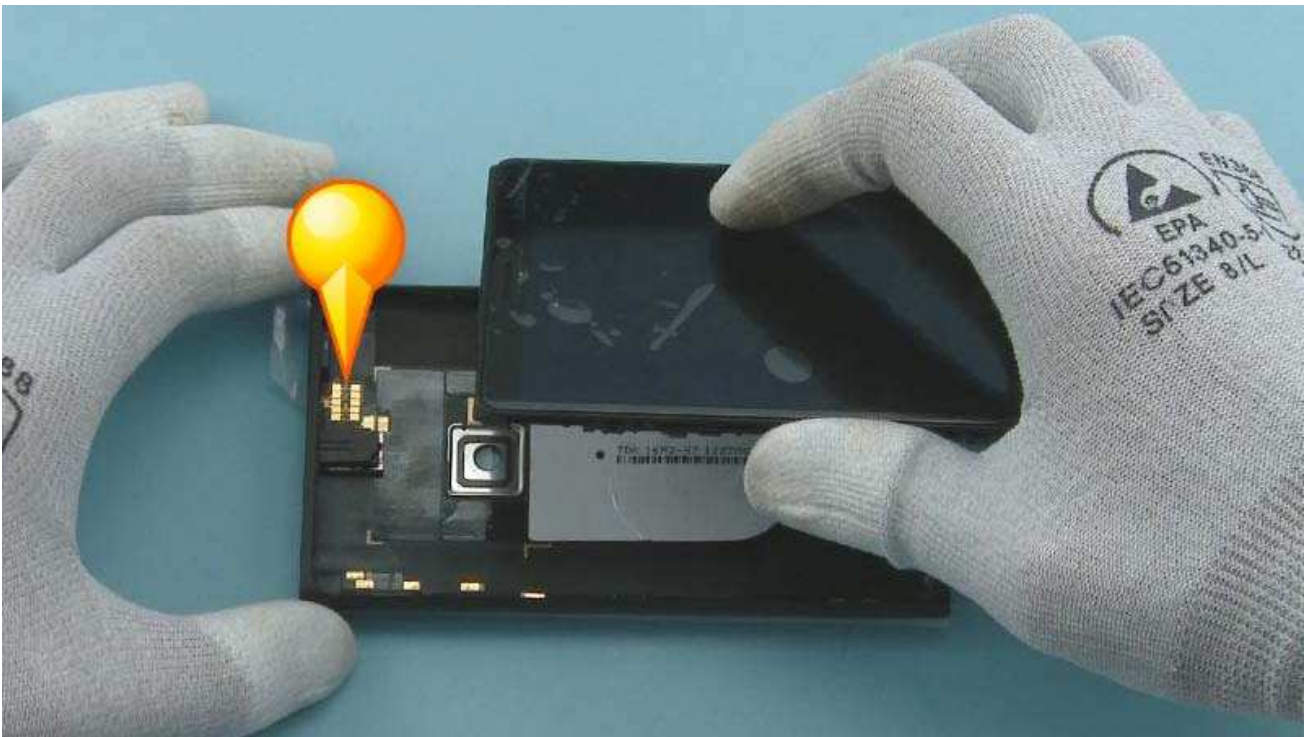
Remove the BATTERY CONNECTOR FIXING TAPE protective film.



Place the BATTERY CONNECTOR FIXING TAPE on top of the ENGINE BOARD shieldings and the BATTERY connector. Use the edges of the shown shielding to get the right alignment.



Press for 5-10 seconds to activate the adhesive.



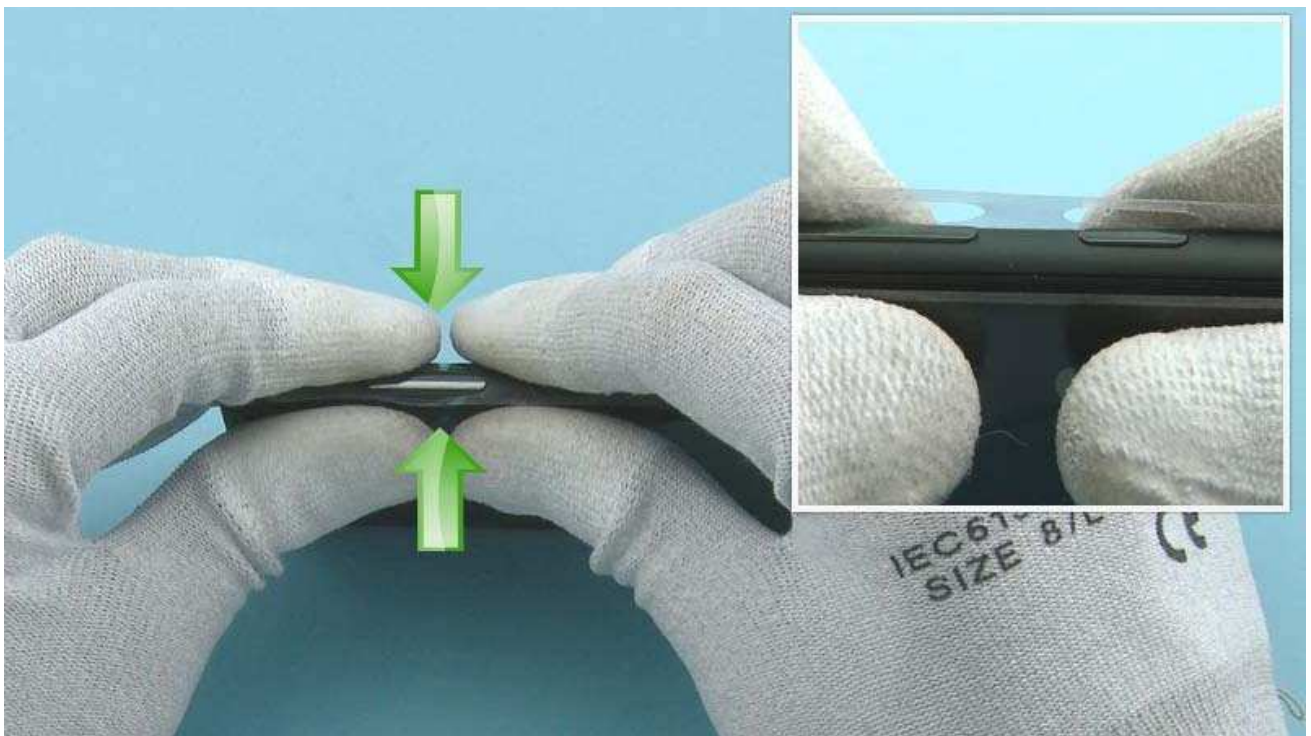
Before assembling the DISPLAY MODULE ASSEMBLY to the UNIBODY ASSEMBLY make sure that the AV FLEX ASSEMBLY is properly attached and aligned to the UNIBODY ASSEMBLY.



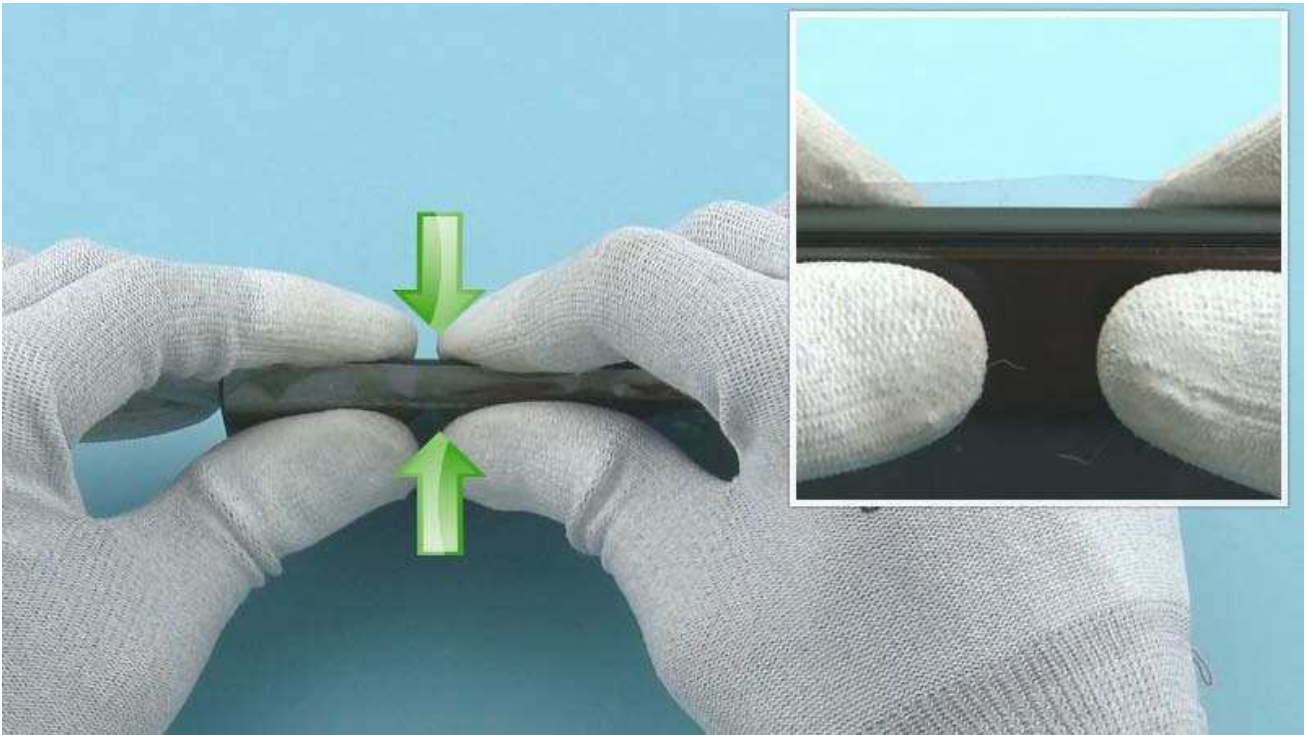
Assemble the DISPLAY MODULE ASSEMBLY to the UNIBODY ASSEMBLY top end first. Do not slide the DISPLAY MODULE ASSEMBLY towards top end as it might damage the AV FLEX ASSEMBLY!



Then press down the bottom end. Before pressing the bottom end make sure the DISPLAY MODULE ASSEMBLY is aligned correctly! Wrong alignment might damage the springs on the ENGINE BOARD!



Then press the right side together.



Then press the left side together and make sure that the DISPLAY MODULE ASSEMBLY is firmly attached to the UNIBODY ASSEMBLY.



Fasten the two TORX+ size 5 screws in the order shown to the torque of 11 Ncm.





Insert the SIM DOOR.



Remove the UNIBODY ASSEMBLY protective film.



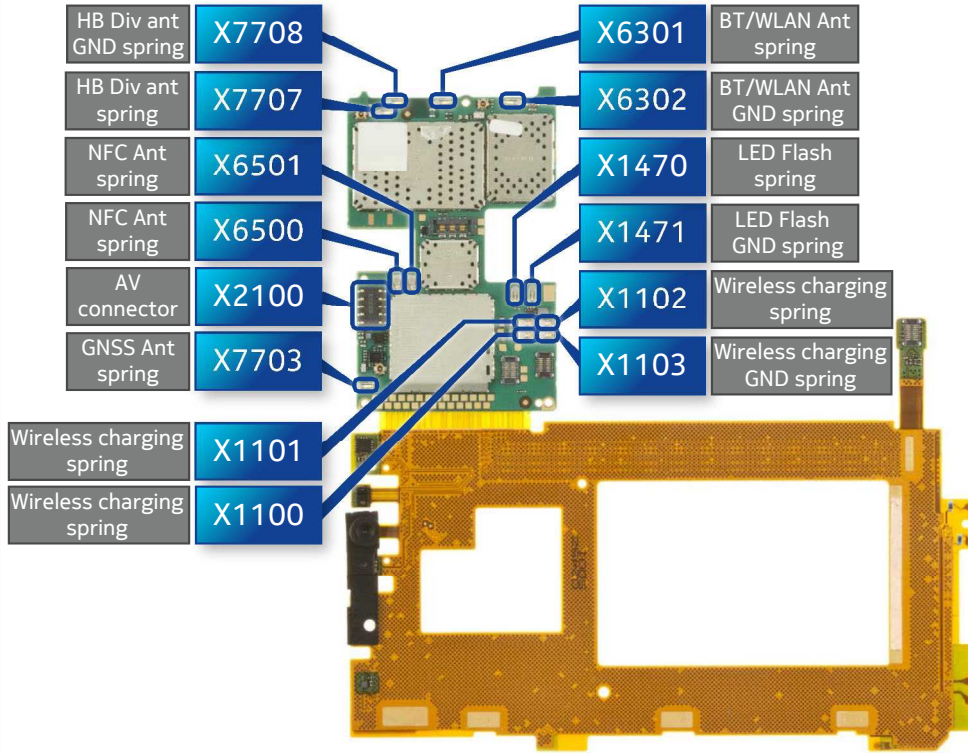
Remove the CAMERA DECO protective film.



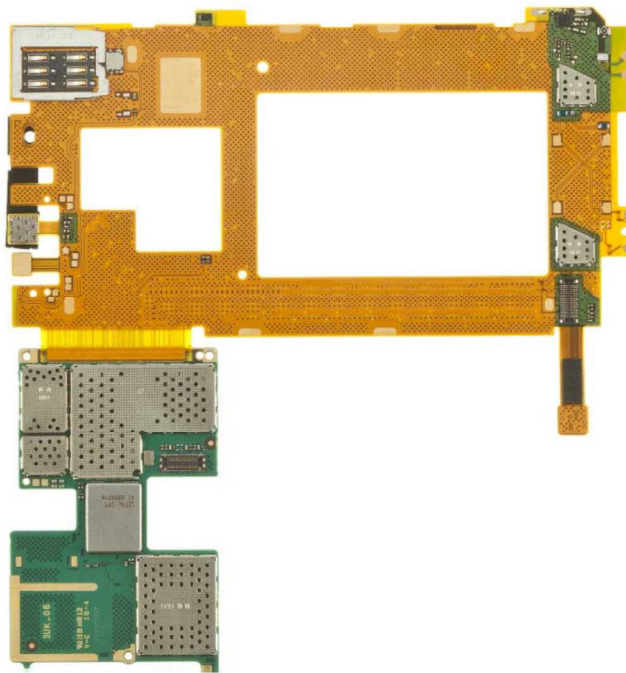
The Nokia Lumia 920 assembly procedure is complete.

-END OF ASSEMBLY-

TOP



BOTTOM





CA-101 Service cable



AC-16 USB Charger  
(ROW and HSPA Variants)



AC-50 USB Charger  
(AT&T Variant)



SIM Door key



SS-231

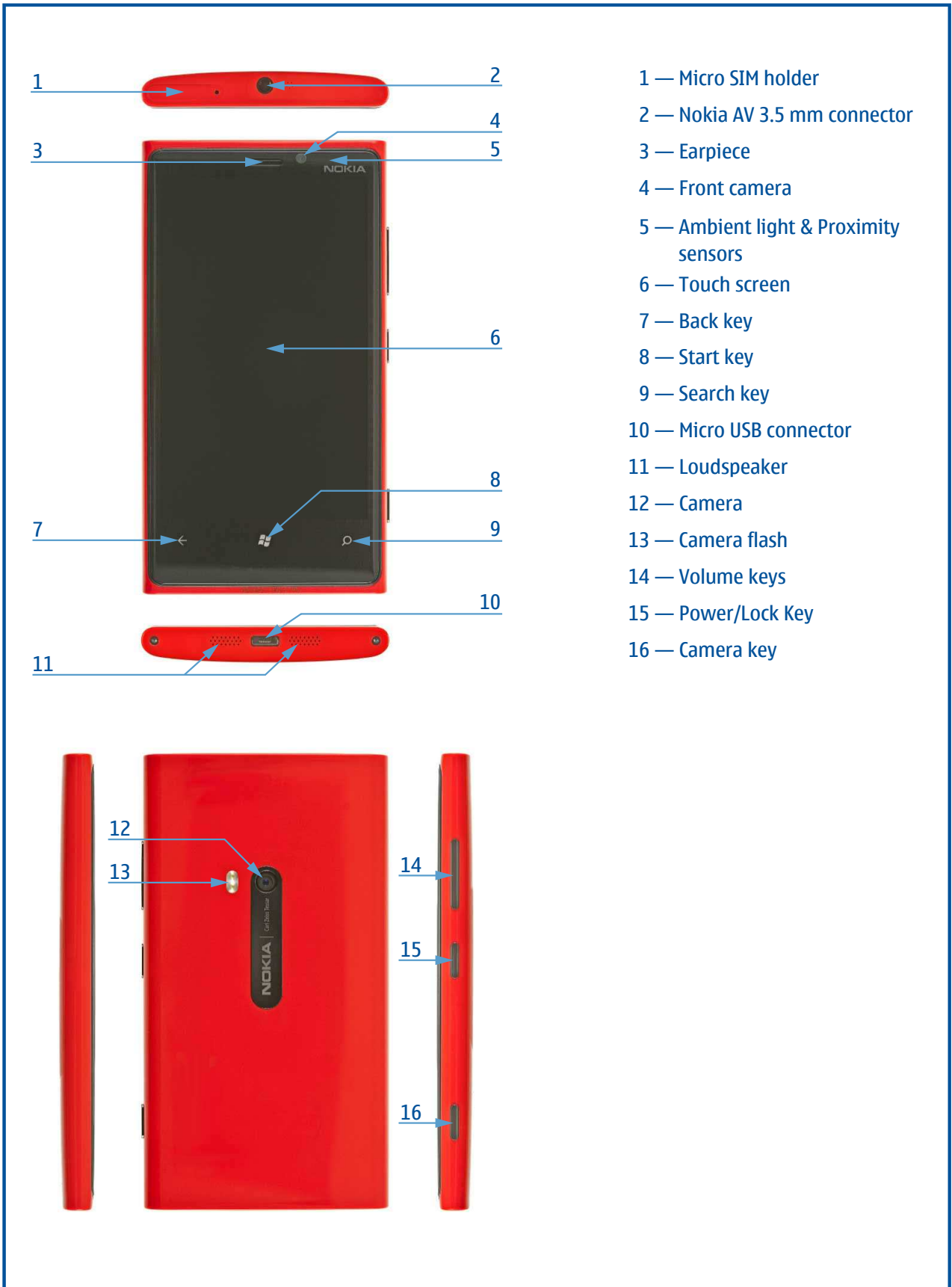


SS-289

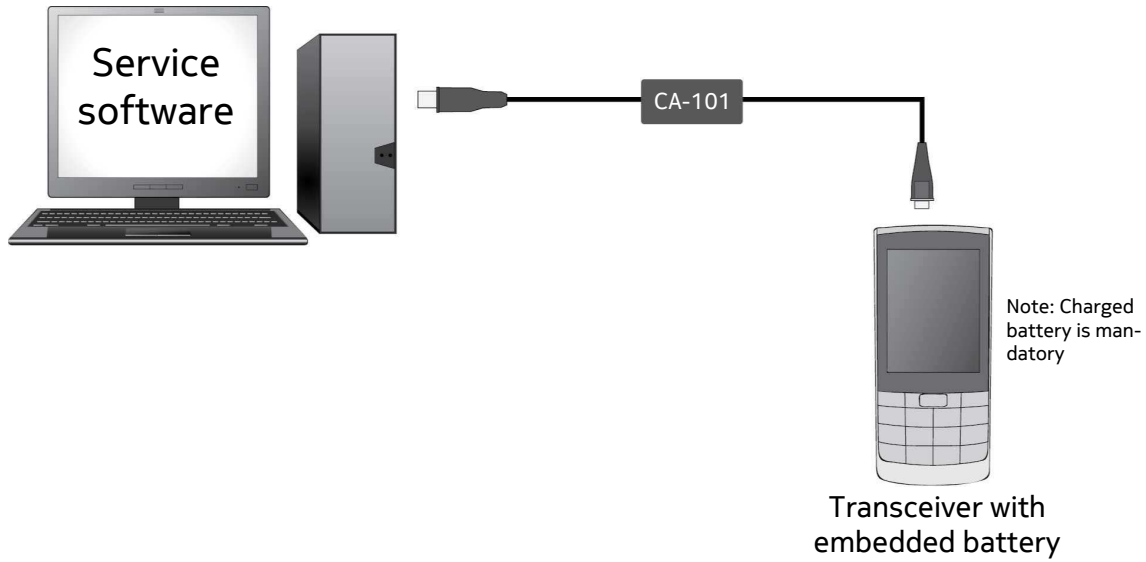


Nokia Standard Toolkit (v2)

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.



## 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. Because the consumer cannot remove the battery to reset the phone the phone has a special electronic circuit which cuts the phone power when the volume down and power keys are pressed for 5 seconds.

To perform the hardware reset press the Volume down and Power keys and hold them for 5 seconds. The phone screen will turn black (phone is off). Then press the Power key to turn on the phone.

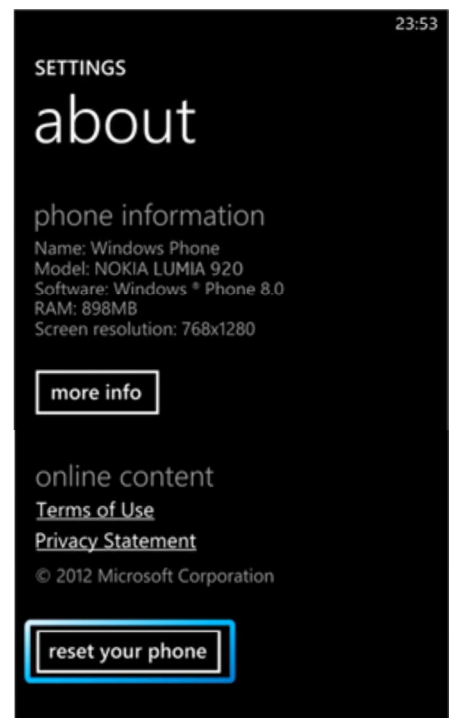


### Software / operating system (OS) reset

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





Version	Date	Description
1.0	11.10.2012	First published version

[www.s-manuals.com](http://www.s-manuals.com)