



Sony Ericsson

Troubleshooting Guide

- mechanical -



Sony Ericsson Live with Walkman

WT19a, WT19i

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1 Problem Areas

1.1 Power

1.1.1 Will not power on or will switch off randomly

Check:

Check whether the phone vibrates after the on/off key is depressed.

Action:

If activation of the Vibrator is detected, refer to section 1.4 'Display'.



Check:

Inspect the contact pads on the Battery.

Action:

1. If dirty or oxidized – clean the pads.
2. If damaged – replace the Battery.



Check:

Inspect the Battery Contact pins.

Action:

1. If dirty or oxidized – clean the contact pins.
2. If adhesive is detected on the contact pins, use an eraser to gently rub off the adhesive.
3. If damaged – send to higher level of repair.

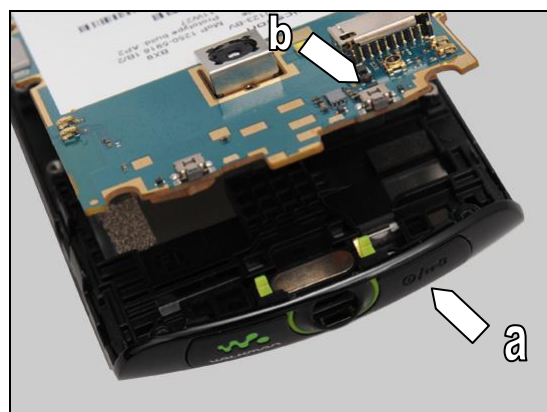


Check:

Inspect the on/off key (a) and the on/off switch (b) on the Main PBA.

Action

1. If the on/off key (a) or the on/off switch (b) is dirty or clogged – clean them.



Problem Areas: Power

2. If the on/off key (a) is damaged – replace the Front Cover.
3. Send to higher level of repair.



Problem Areas

1.2 Keys

1.2.1 Home Key

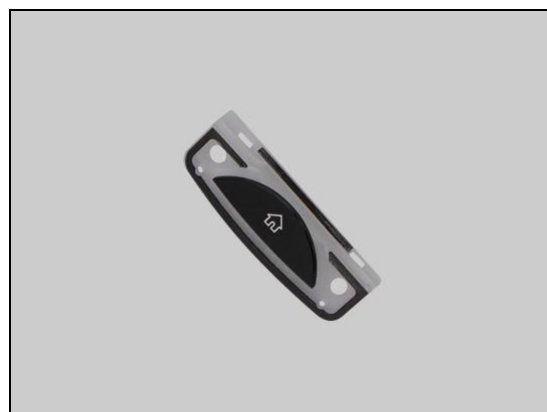
Check:

Inspect the Key Home on the Front Cover.

Action:

1. If the Key Home is clogged – clean it.

2. If the Key Home is damaged – replace it.



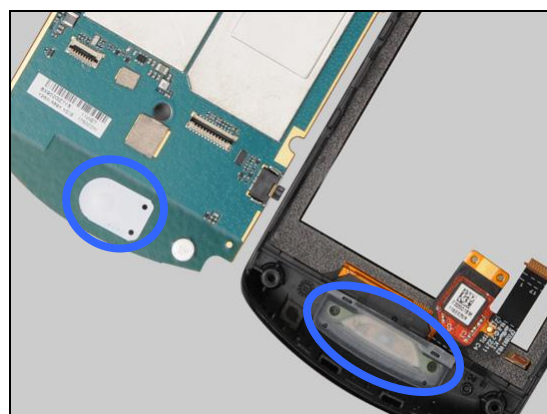
Check:

Inspect the Dome Sheet on the PBA and the back side of the Key Home.

Action:

1. If dirty or clogged – clean them.

2. If the Key Home is damaged – replace it.

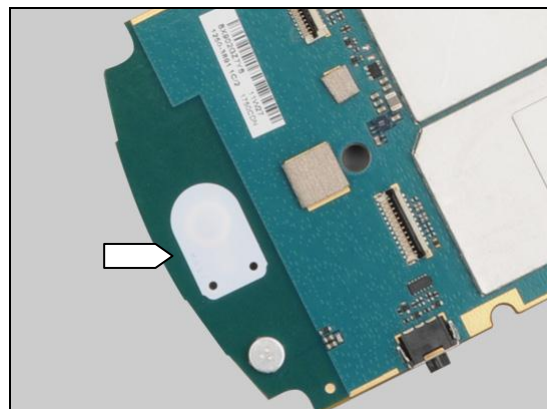


Check:

Inspect the Dome Sheet on the PBA.

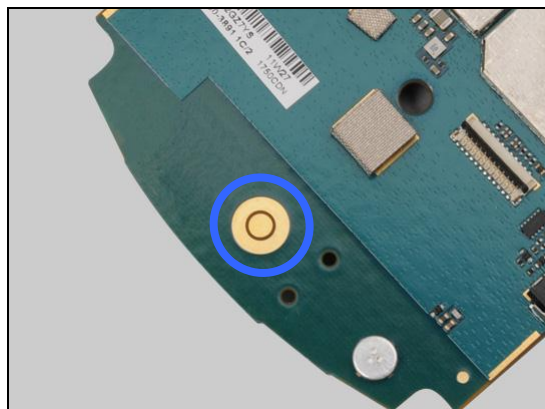
Action:

1. If Dome sheet is not properly attached or damaged – replace it.



Problem Areas: Keys

2. If the golden area is dirty – clean it.
3. Send to higher level of repair.



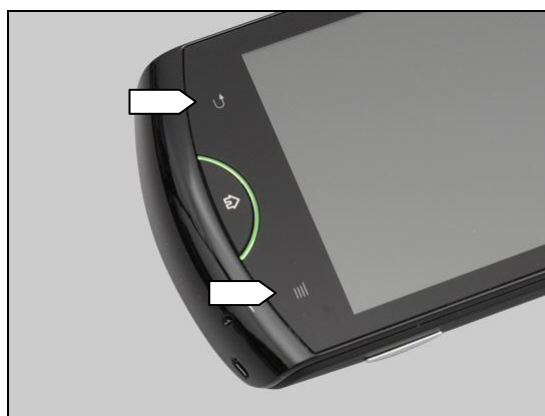
1.2.2 Menu and Back Keys

Check:

Inspect the touch area of the menu key and back key on the Front Cover.

Action

Refer to section 1.3 'Touch Screen'.



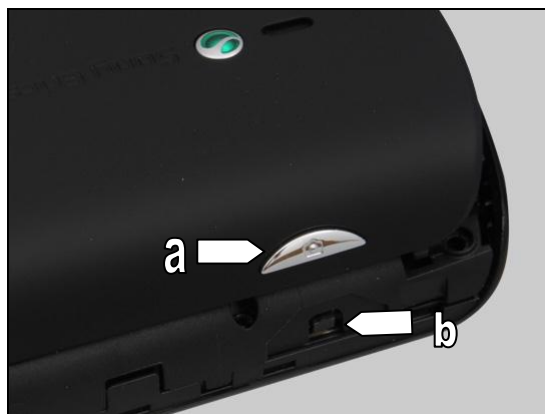
1.2.3 Camera Key

Check:

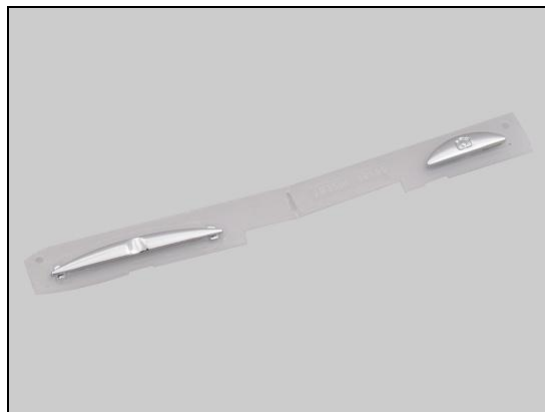
Inspect the Key Side (a) on the Front Cover and the camera switch (b) on the PBA.

Action:

1. If the Key Side (a) or the camera switch (b) is dirty or clogged – clean them.



2. If the Key Side (a) is damaged – replace it.
3. Send to higher level of repair.



Problem Areas: Keys

1.2.4 Volume Key

Check:

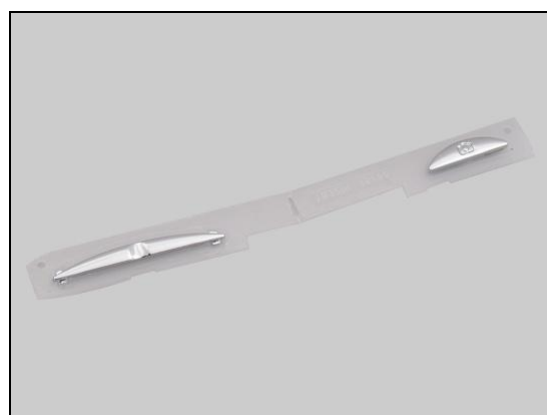
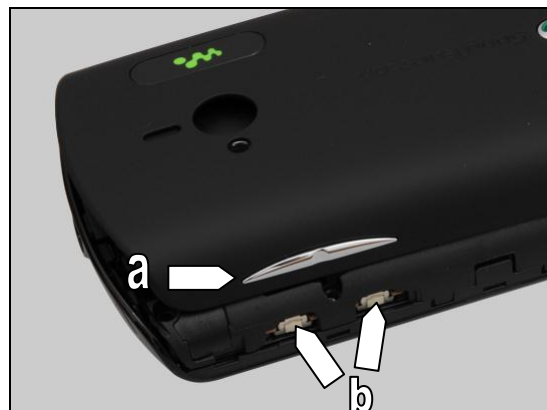
Inspect the Key Side (a) on the Front Cover and the volume switches (b) on the PBA.

Action:

1. If the Key Side (a) or the volume switches (b) is dirty or clogged – clean them.

2. If the Key Side (a) is damaged – replace it.

3. Send to higher level of repair.



1.2.5 On/Off key

Check:

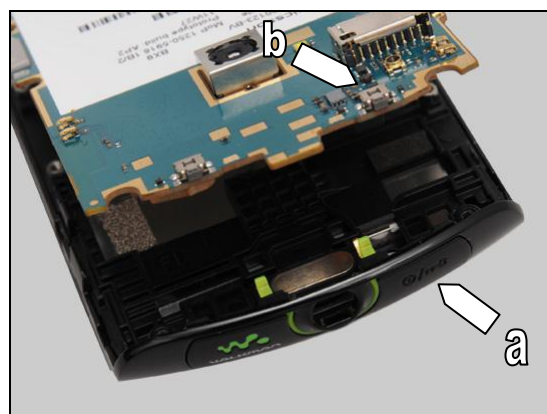
Inspect the on/off key (a) on the Front Cover and the on/off switch (b) on the PBA.

Action:

1. If the on/off key (a) or the on/off switch (b) is dirty or clogged – clean them.

2. If the on/off key (a) is damaged – replace the Front Cover.

3. Send to higher level of repair.



Problem Areas: Keys

1.2.6 Walkman Key

Check:

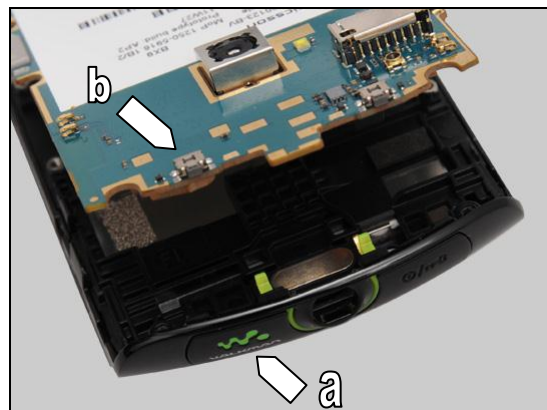
Inspect the walkman key (a) on the Front Cover and the walkman switch (b) on the PBA.

Action:

1. If the walkman key (a) or the walkman switch (b) is dirty or clogged – clean them.

2. If the walkman key (a) is damaged – replace the Front Cover.

3. Send to higher level of repair.





Problem Areas

1.3 Touch Screen

1.3.1 Touch Screen malfunction

Check:

Inspect the touch screen.

Action:

If dirty – clean it.

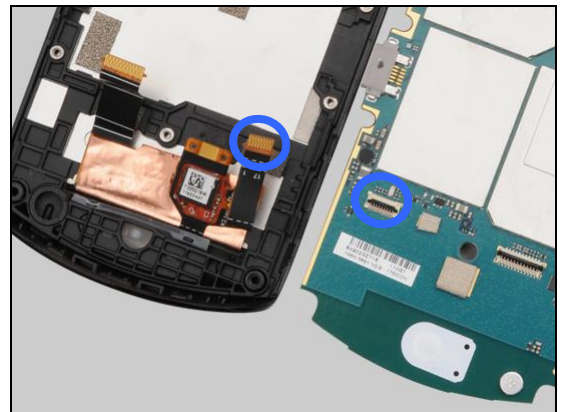


Check:

Inspect the both sides of the ZIF connector on the Main PBA and the touch panel FPC.

Action:

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean it.



Check:

Inspect the touch panel FPC of the Front Cover.

Action:

1. If the touch panel FPC or the touch screen is damaged – replace the Front Cover.
2. Send to higher level of repair.





Problem Areas

1.4 Display

1.4.1 Graphics & Illumination

Check:

Check whether the phone vibrates after the on/off key has been pressed.

Action:

If the activation described above is not detected, refer to section 1.1 'Power'.

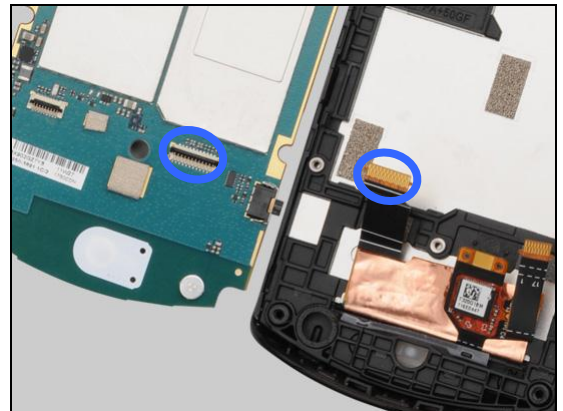


Check:

Inspect the both sides of the ZIF connector on the Main PBA and the LCD FPC.

Action:

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean it.



Check:

Inspect the LCD FPC of the Display.

Action:

If dirty – clean it.

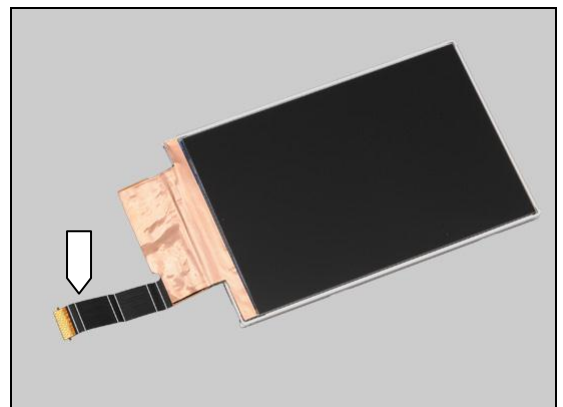


Check:

Inspect the Display.

Action:

1. If the Display or its FPC is damaged – replace the Display.
2. Send to higher level of repair.





Problem Areas:

1.5 LED/Illumination

1.5.1 LED/Illumination

Check:

Inspect the external window area of the RGB LED on the Front Cover.

Action:

1. If dirty – clean it.



2. If the external window area is damaged – replace the Front Cover.

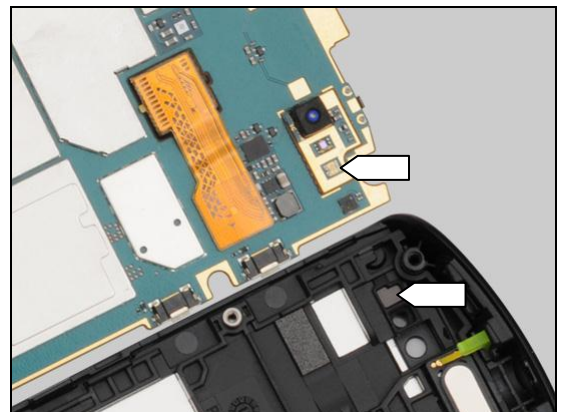


Check:

Inspect the RGB LED on the PBA and the gasket RGB LED on the Carrier Frame Assy.

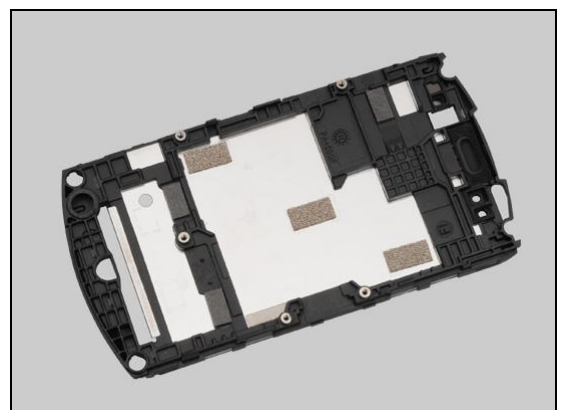
Action:

1. If dirty or clogged – clean them.



2. If the gasket RGB LED is damaged – replace the Carrier Frame Assy.

3. Send to higher level of repair.





Problem Areas: Illumination

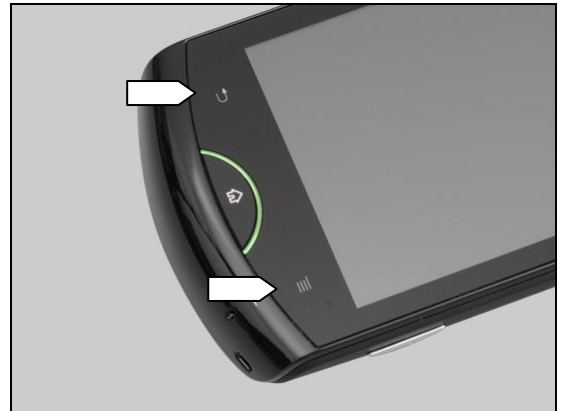
1.5.2 Menu key and Back key Illumination

Check:

Inspect the illumination window of the menu key and back key on the Front Cover.

Action:

If dirty – clean them.

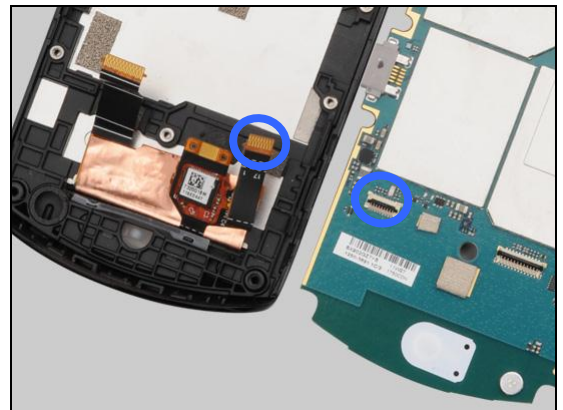


Check:

Inspect the both sides of the ZIF connector on the Main PBA and the touch panel FPC.

Action:

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean it.



3. If the touch panel FPC is damaged – replace the Front Cover.
4. Send to higher level of repair.





Problem Areas: Illumination

1.5.3 Walkman Ring Illumination

Check:

Inspect the illumination area of the walkman ring on the Front Cover.

Action:

If dirty – clean it.

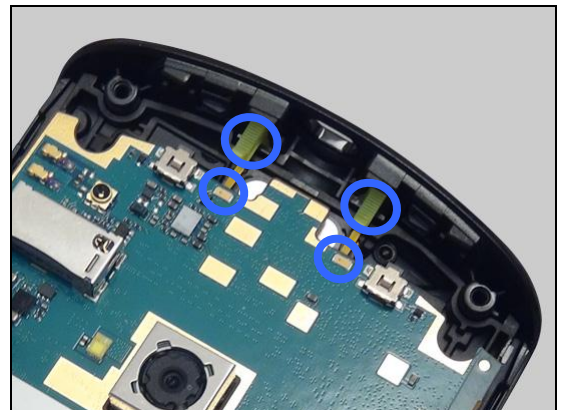


Check:

Inspect the two light guide poles on the Front Cover and the two LEDs on the PBA.

Action:

1. If dirty – clean them.



2. If the walkman ring or the light guide poles are damaged – replace the Front Cover.
3. Send to higher level of repair.



Problem Areas

1.6 Speaker

1.6.1 Upper Loudspeaker

Check:

Inspect the upper Loudspeaker's external port on the Battery Cover.

Action:

1. If clogged – clean the upper loudspeaker port.



2. If the upper loudspeaker mesh is damaged – replace the Battery Cover.



Check:

Inspect the mesh loudspeaker on the Rear Cover.

Action:

1. If dirty – clean it.



2. If the mesh is damaged – replace the Rear Cover.



Problem Areas: Speaker

Check:

Inspect the upper Loudspeaker's pins and the pads on the Main PBA.

Action:

1. If dirty – clean them.



2. If the pins of the Loudspeaker are damaged – replace the upper Loudspeaker and its gasket.

3. Send to higher level of repair.



1.6.2 Lower Loudspeaker

Check:

Inspect the lower Loudspeaker's external port on the Battery Cover.

Action:

1. If clogged – clean the lower loudspeaker port.



2. If the lower loudspeaker mesh is damaged – replace the Battery Cover.





Problem Areas

Check:

Inspect the mesh loudspeaker on the Rear Cover.

Action:

1. If dirty – clean it.



2. If the mesh is damaged – replace the Rear Cover.

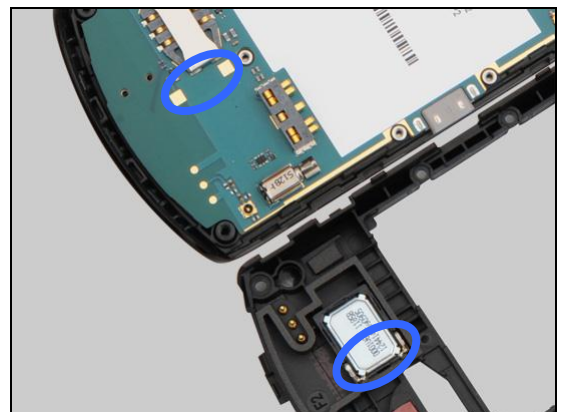


Check:

Inspect the lower Loudspeaker's pins and the pads on the PBA.

Action:

1. If dirty – clean them.



2. If the pins of the Loudspeaker are damaged – replace the lower Loudspeaker and its gasket.

3. Send to higher level of repair.



Problem Areas

1.7 Earphone

1.7.1 Earphone

Check:

Inspect the Ear Speaker's external port on the Front Cover.

Action:

1. If clogged – clean it.



2. If the port is damaged – replace the Front Cover.

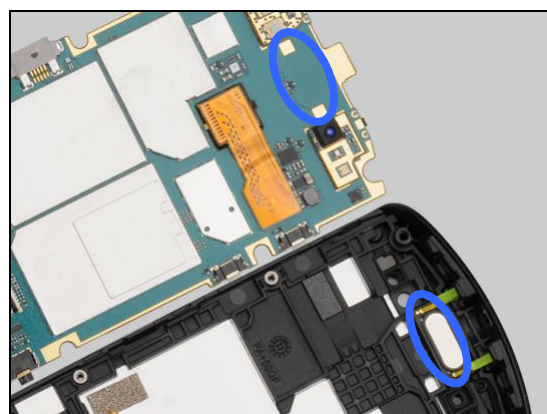


Check:

Inspect the Ear Speaker pins and the pads on the PBA.

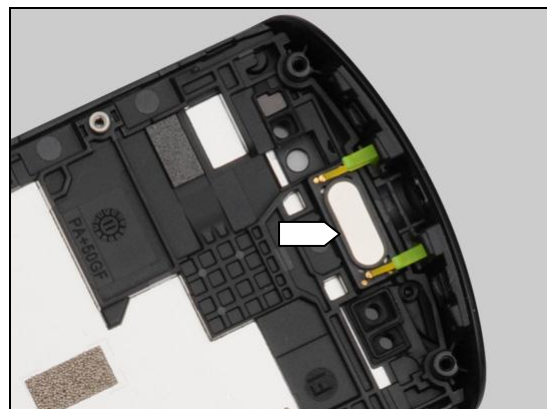
Action:

1. If the Ear Speaker pins and the pads are dirty – clean them.



Check:

Inspect the Ear Speaker on the Carrier Frame Assy.



Problem Areas: Earphone

Action:

If the Ear Speaker is damaged – replace the Ear Speaker and its gasket.

**Check:**

Inspect the Net Receiver on the Carrier Frame Assy.

**Action:**

1. If the Net Receiver is damaged – replace it.
2. Send to higher level of repair.



Problem Areas

1.8 Microphone

1.8.1 Microphone

Check:

Inspect the Microphone's external port on the Front Cover.

Action:

1. If clogged – clean the port.



2. If the port is damaged – replace the Front Cover.



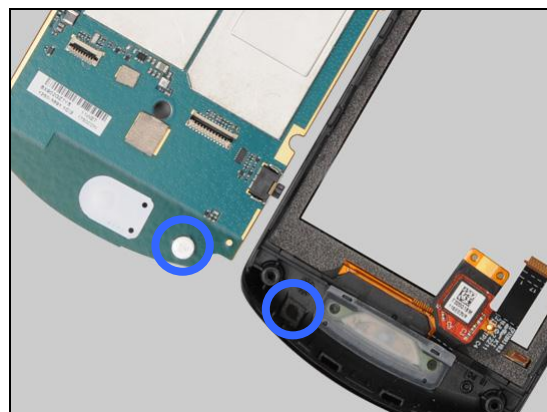
Check:

Inspect the Net Microphone and Microphone on the PBA.

Liquid is not allowed!

Action:

1. If dirty – clean them.



2. If the Net Microphone is damaged – replace the Gasket Microphone.
3. Send to higher level of repair.



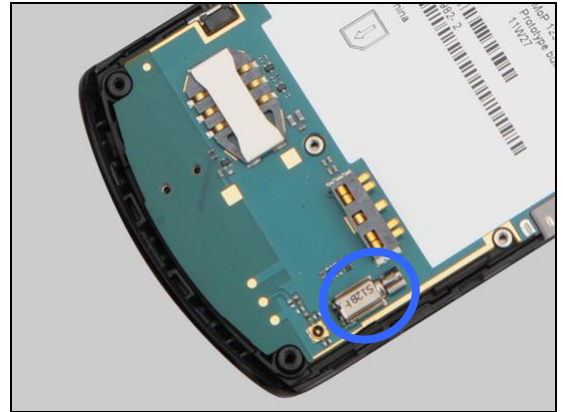
Problem Areas

1.9 Vibrator

1.9.1 Vibrator not generating alerts

Action:

Send to higher level of repair.



Problem Areas

1.10 Camera

1.10.1 Camera defects

Check:

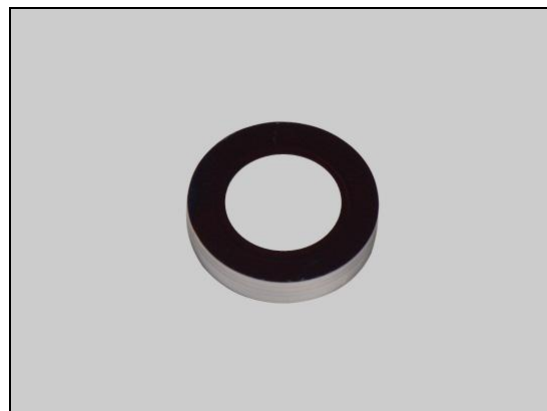
Inspect the Window Camera on the Rear Cover.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace it.

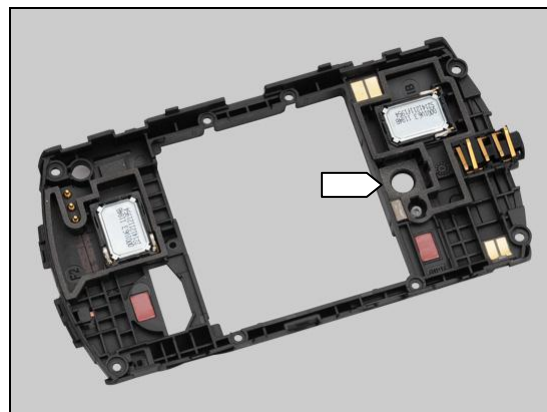


Check:

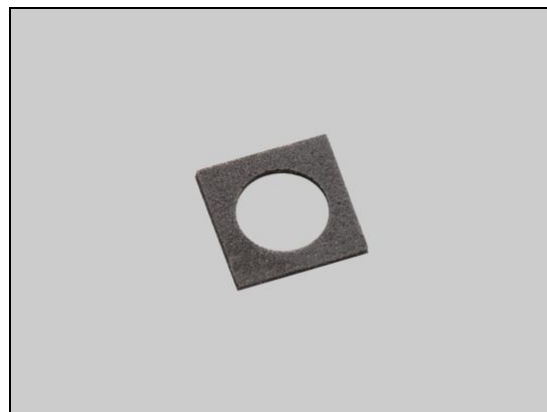
Inspect the Gasket Camera on the Rear Cover.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace it.



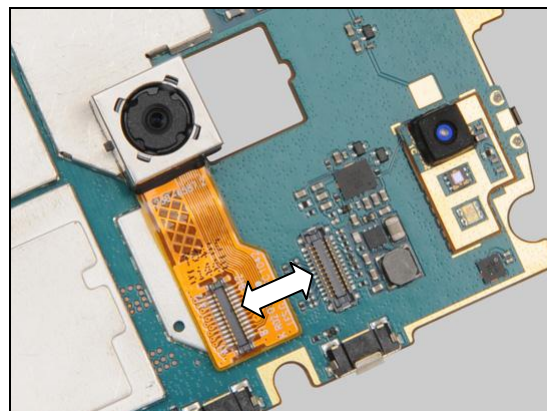
Problem Areas: Camera

Check:

Inspect the BtB connector of the Camera to the PBA.

Action:

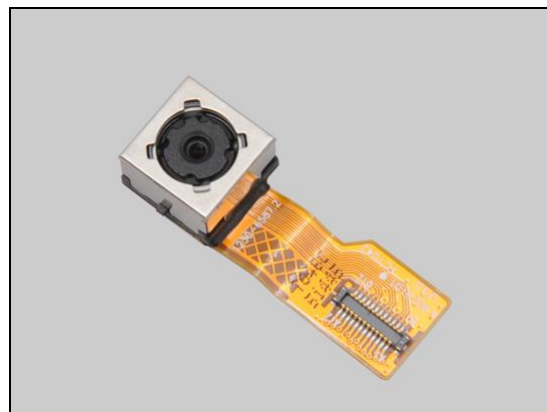
1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean both sides of the BtB connector.

**Check:**

Inspect the Camera.

Action:

1. If the Camera is damaged – replace it.
2. Send to higher level of repair.





Problem Areas

1.10.2 Video Call Camera defects

Check:

Inspect the video camera window on the Front Cover.

Action:

1. If dirty – clean the window area.

2. If scratched or damaged – replace the Front Cover.



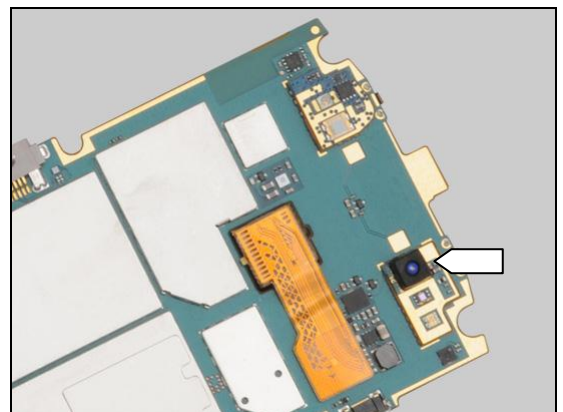
Check:

Inspect the Cushion 0.0 mm Rubber Camera on the VGA camera.

Action:

1. If dirty or clogged – clean it.

2. If not properly mounted – remount it.



3. If damaged – replace it.

4. Send to higher level of repair.



Problem Areas

1.11 Flash LED

1.11.1 Flash LED not flashing

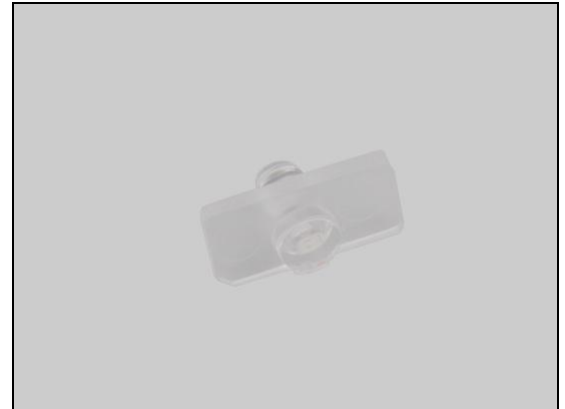
Check:

Inspect the Window Flash LED on the Rear Cover.

Action:

1. If dirty – clean the window.

2. If scratched or damaged – replace it.



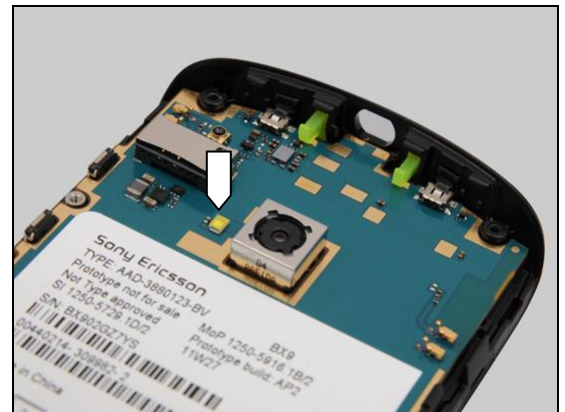
Check:

Inspect the Flash LED on the PBA.

Action:

1. If dirty – clean it.

2. If damaged – Send to higher level of repair.



Problem Areas

1.12 Bluetooth and WLAN

1.12.1 Bluetooth or WLAN connection failure

Check:

Inspect the WLAN and Bluetooth antenna on the Rear Cover.

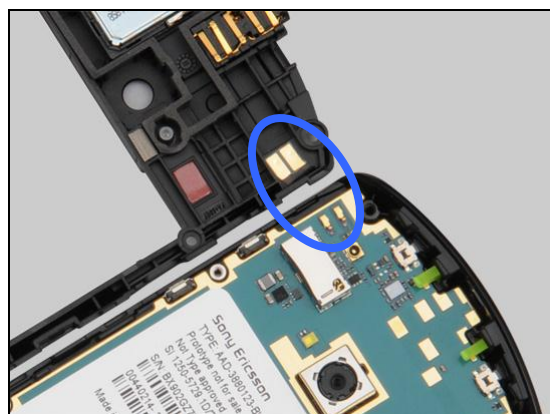


Check:

Inspect the WLAN and Bluetooth antenna contact pads on the Rear Cover and the contact pins on the PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.



2. If the pads are damaged – replace the Rear Cover.

3. Send to higher level of repair.





Problem Areas

1.13 GPS

1.13.1 GPS malfunctions

Check:

Inspect the GPS antenna on the Rear Cover.



Check:

Inspect the GPS antenna contact pads on the Rear Cover and the contact pins on the PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.



2. If the pads are damaged – replace the Rear Cover.

3. Send to higher level of repair.





Problem Areas

1.14 Compass

1.14.1 Compass fails

Action:

Send to higher level of repair.

Problem Areas

1.15 Accelerometer

1.15.1 Accelerometer test fails

Action:

Send to higher level of repair.

Problem Areas

1.16 Ambient Light Sensor

1.16.1 Light Sensor malfunctions

Check:

Inspect the external window area of light sensor on the Front Cover.

Action:

1. If clogged – clean it.

2. If scratched or damaged – replace the Front Cover.

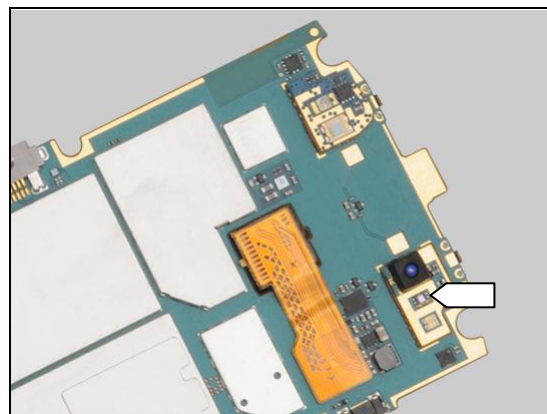
Check:

Inspect the light sensor on the PBA.

Action:

1. If dirty or clogged – clean it.

2. Send to higher level of repair.



Problem Areas

1.17 Proximity switch

1.17.1 Proximity switch malfunctions

Check:

Inspect the Proximity switch window area and the Proximity sensor window area on the Front Cover.

Action:

1. If dirty – clean it.

2. If scratched or damaged – replace the Front Cover.

Check:

Inspect the gasket proximity on the Carrier Frame Assy and the proximity switch and proximity sensor on the PBA.

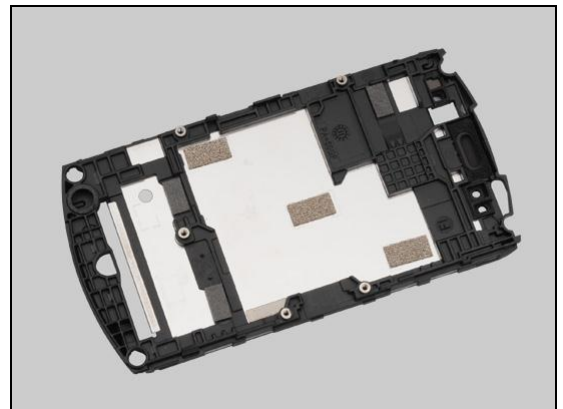
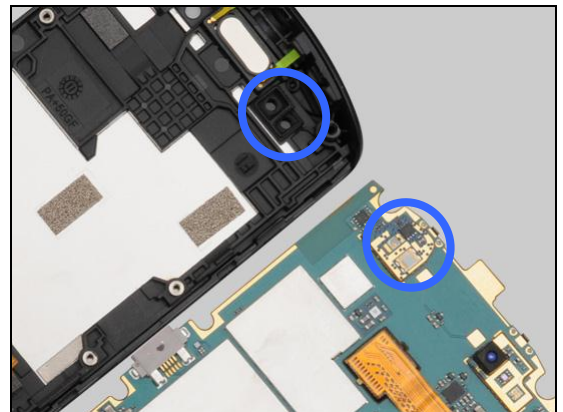
Action:

1. If dirty or clogged – clean them.

2. If the gasket proximity is not properly mounted – remount it.

3. If the gasket proximity is damaged – replace the Carrier Frame Assy.

4. Send to higher level of repair.



Problem Areas

1.18 Water Proof

1.18.1 Water Proof fails

Action:

N/A. No water proof function in the phone.

Problem Areas

1.19 Real Time Clock

1.19.1 Real Time Clock test fails

Action:

Send to higher level of repair.

Problem Areas

1.20 Total call time

1.20.1 Total call time fails

Action:

Send to higher level of repair.

Problem Areas

1.21 External Memory

1.21.1 Memory Card not detected

Check:

Inspect the memory card holder and check if a memory card can be properly inserted.

Action:

1. If dirty or clogged – clean the holder.
2. Send to higher level of repair.



Problem Areas

1.22 Security

1.22.1 Security fails

Action:

Send to higher level of repair.

Problem Areas

1.23 FM Radio

1.23.1 No/Poor FM Radio reception

Check:

Inspect the Audio Jack Connector.

Action:

If dirty or oxidized – clean the connector.

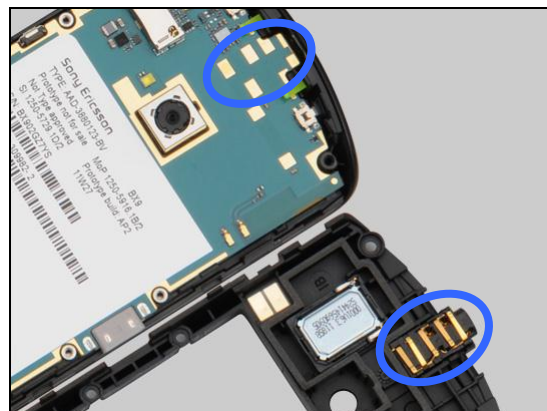


Check:

Inspect the contact pins on the Audio Jack Connector and the contact pads on the PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.



2. If the pins are damaged – replace the Audio Jack Connector and its adhesive.

3. Send to higher level of repair.





Problem Areas

1.24 Battery test

1.24.1 Battery test fails

N/A. No embedded battery in this product.

Problem Areas

1.25 Flip slider counter

1.25.1 Flip slider counter fails

Action:

N/A. No slider phone.

Problem Areas

1.26 Verify Certificates

1.26.1 Verify certificates fails

Action:

Send to higher level of repair.

Problem Areas

1.27 IrDA Test

1.27.1 IrDA test fails

Action:

N/A. No IrDA in the phone.

Problem Areas

1.28 HDMI Test

1.28.1 HDMI test fails

N/A. No HDMI in the phone.

Problem Areas

1.29 Connector Ground Test

1.29.1 Connector ground test fails

Action:

N/A. This test is not applicable for this product.



Problem Areas

1.30 Network & Signal

1.30.1 No/Poor signal

Check:

Inspect the main antenna on the Rear Cover.

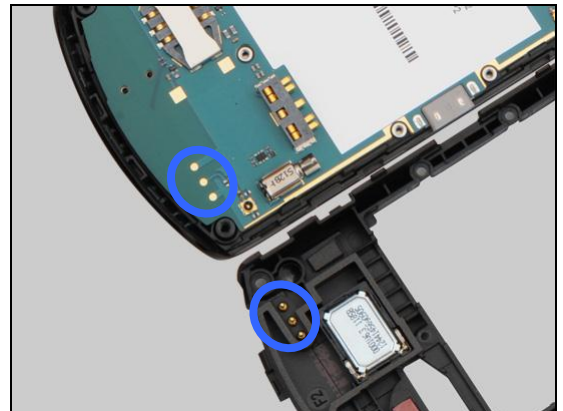


Check:

Inspect the main antenna contact pins on the Rear Cover and contact pads on the PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.



2. If the pads are damaged – replace Rear Cover.

3. Send to higher level of repair.



Problem Areas

1.31 SIM

1.31.1 SIM not detected

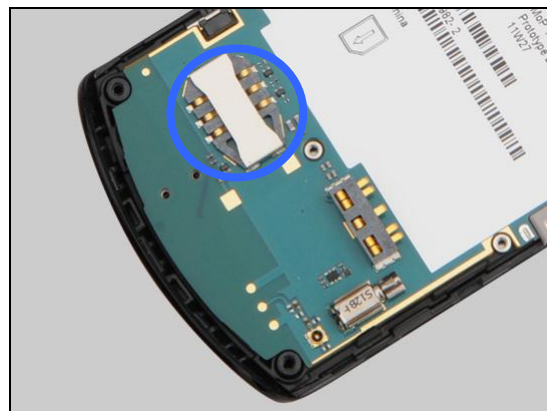
Check the SIM card holder.

Check:

Inspect the SIM card holder.

Action:

1. If dirty or oxidized – clean the holder.
2. Send to higher level of repair.



1.31.2 Incorrect SIM indicated

Check:

Check whether the phone is locked to a particular operator and whether the correct operator SIM is being used.

Action:

1. Use a proper operator SIM or test SIM.
2. Send to higher level of repair.



Problem Areas

1.32 Charging

1.32.1 Battery will not charge

Check:

Inspect the contact pads of the Battery.

Action:

1. If dirty or oxidized – clean the pads.
2. If damaged – replace the Battery.



Check:

Inspect the Battery Contact pins.

Action:

1. If dirty or oxidized – clean the contact pins.
2. If adhesive is detected on the contact pins – use an eraser to gently rub off the adhesive.



Check:

Inspect the USB connector.

Action:

1. If dirty or oxidized – clean the connector.
2. Send to higher level of repair.





Problem Areas

1.33 HandsFree by Wire

1.33.1 Connection to Portable HandsFree fails

Check:

Inspect the Audio Jack Connector.

Action:

If dirty or oxidized – clean the connector.

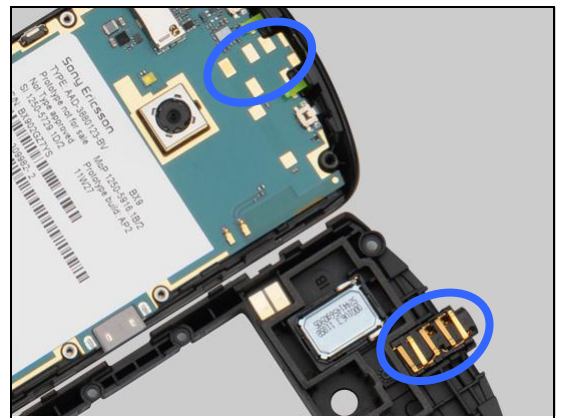


Check:

Inspect the contact pins on the Audio Jack Connector and the contact pads on the PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.



2. If the pins are damaged – replace the Audio Jack Connector and its adhesive.

3. Send to higher level of repair.



Problem Areas

1.34 Data Communication

1.34.1 Data transfer via System Connector fails

Check:

Inspect the USB connector.

Action:

1. If dirty or oxidized – clean the connector.
2. Send to higher level of repair.





2 Revision History

| Rev. | Date | Changes / Comments |
|------|-------------|--------------------|
| 1 | 2011-Sep-26 | Initial release |