



Sony Ericsson

Troubleshooting Guide

- mechanical -



R800i, R800a, R800x, R800at, Z1



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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 Key Power 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.

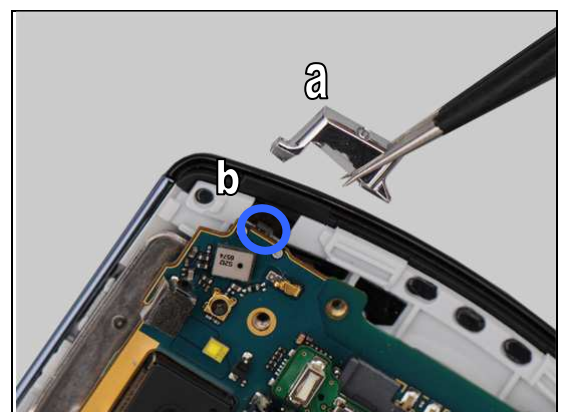


Check:

Inspect the Key Power (a) and the input switch (b) on the Main PBA.

Action:

1. If Key Power (a) or input switch (b) is dirty or clogged – clean them.
2. If Key Power (a) is damaged – replace the Key Power
3. Send to higher level of repair.



Problem Areas

1.2 Keys and Sensors

1.2.1 Back, Menu, Home and Search keys

Check:

Inspect the back, menu, home and search keys in the A-Cover.

Action:

1. If the back, menu, home and search keys are clogged – clean them.

2. If back, menu, home and search keys are damaged – replace the Keyboard Navigation.



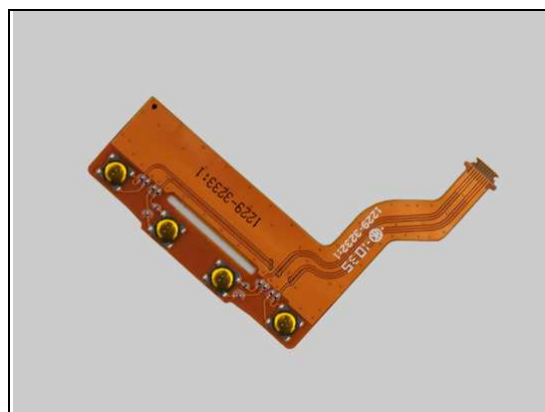
Check:

Inspect the PBA Top Keypad Flex on the B-Cover.

Action:

1. If the PBA Top Keypad Flex is dirty – clean it.

2. If the PBA Top Keypad Flex is damaged – replace the PBA Top Keypad Flex.





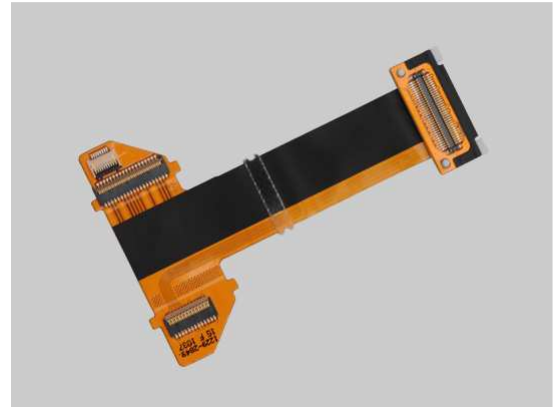
Problem Areas: Keys and Sensors

Check:

Inspect the ZIF connector of the PBA Top Keypad Flex to the PBA Zeus Hinge Flex.

Action:

Refer to chapter 1.16.2 Hinge Flex.



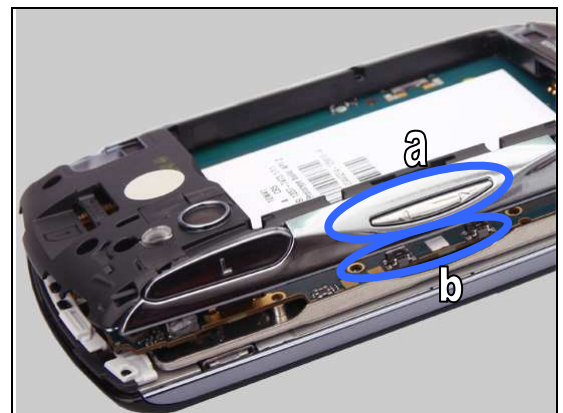
1.2.2 Volume key

Check:

Inspect the Key Volume (a) on the D-Cover.

Action:

1. If the volume key is dirty or clogged – clean Key Volume (a) and the switches (b).



2. If the volume key is damaged – replace the Keys Volume.
3. Send to higher level of repair.



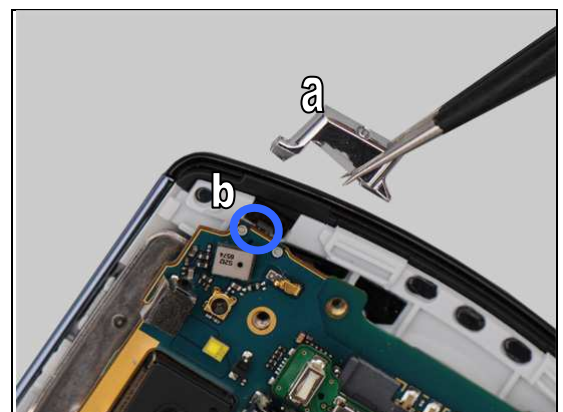
1.2.3 Power key

Check:

Inspect the Key Power (a) on the top of unit and the input switch (b) on the Main PBA.

Action:

1. If Key Volume (a) or input switch (b) is dirty or clogged – clean them.



Problem Areas: Keys and Sensors

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



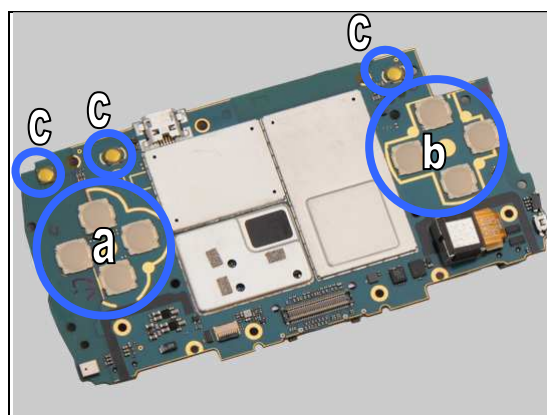
1.2.4 Play Keys

Check:

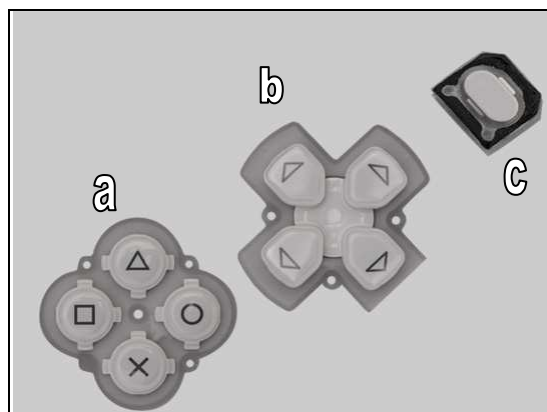
Inspect the play keys on the PBA.

Action:

1. If the play Keys are dirty or clogged – clean them.



2. If the play keys are damaged – replace the Key 4 (a), Key Direction (b) and the Key SSH (c) correspondingly.
3. Send to higher level of repair.



1.2.5 Touch play keys

Check:

Inspect the Touch Pad Flex Assembly on the C-Cover.

Action:

1. If the flex is damaged – replace the C-Cover.





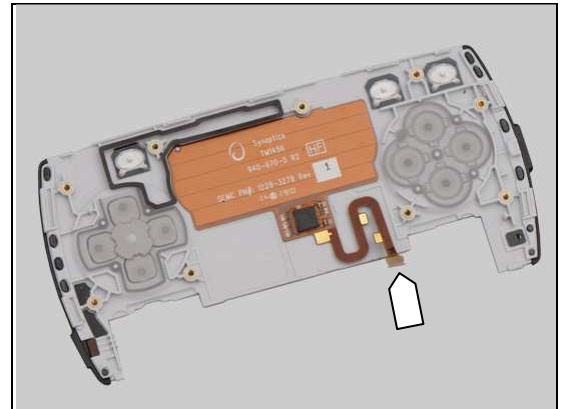
Problem Areas: Keys and Sensors

Check:

Inspect the ZIF connector of flex to the PBA.

Action:

1. If not properly connected – disconnect and reconnect
2. If dirty or oxidized – clean both sides of the ZIF connector.
3. Send to higher level of repair.



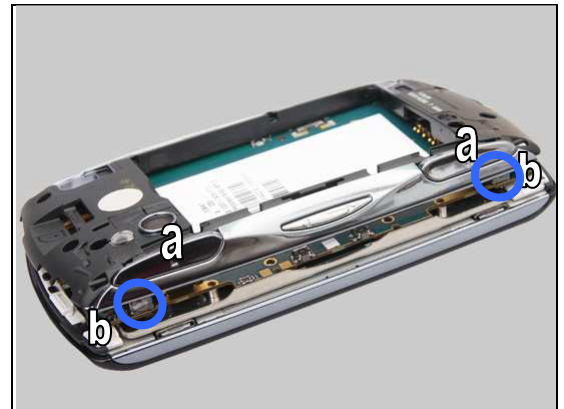
1.2.6 Left/Right keys

Check:

Inspect the Left/Right keys on the D-Cover.

Action:

1. If the Left & Right key is dirty or clogged – clean the Key L/R (a) and the switches (b).



2. And replace the Gasket Trigger Switch.



2. If the Left/Right key is damaged – replace the D-Cover.



Problem Areas

1.3 Touch Screen

1.3.1 Touch screen malfunction

Check:

Inspect the touch screen of the A-Cover assy.

Action:

1. If dirty – clean it.



2. If the touch screen is damaged – replace the A-Cover.



Check:

Inspect the ZIF connector of the A-Cover.

Action:

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



Check:

Inspect the touch screen FPC on the A-Cover.

Action:

1. If the touch screen FPC is damaged – replace the A-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 power key has been pressed.

Action:

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

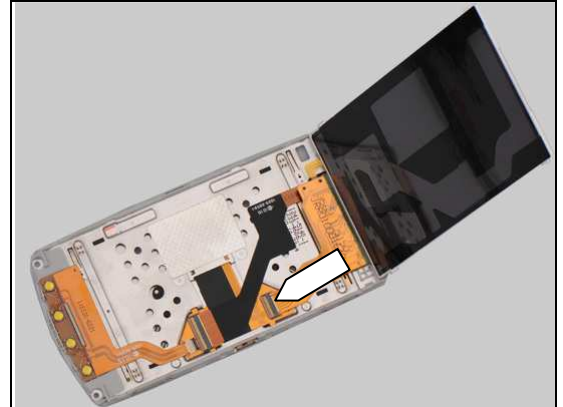


Check:

Inspect the ZIF connector of the Display to the PBA Zeus Hinge Flex.

Action:

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

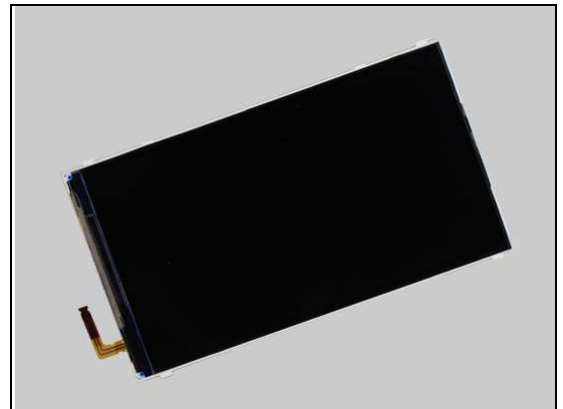


Check:

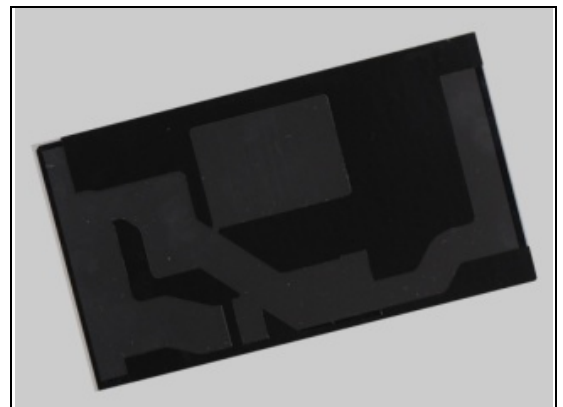
Inspect the Display.

Action:

1. If the Display is damaged – replace the Display.



2. Reuse/replace Cushion LCD Shim Black.
3. Send to higher level of repair.



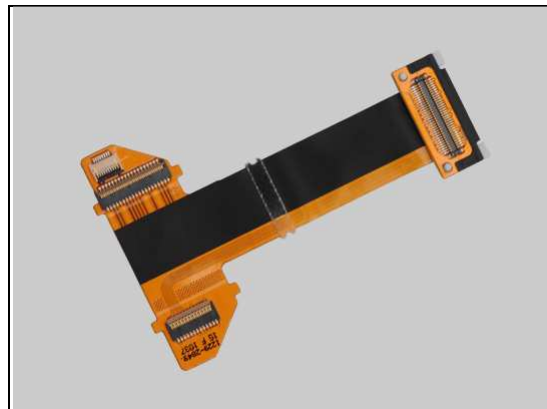
Problem Areas: Display

Check:

Inspect the ZIF connector of the PBA Zeus Hinge Flex.

Action:

Refer to chapter 1.16.2 Hinge Flex.





Problem Areas

1.5 LED/Illumination

1.5.1 LED Red/Green/Blue

Check:

Inspect the external port of LED red/green/blue on the A-Cover.

Action:

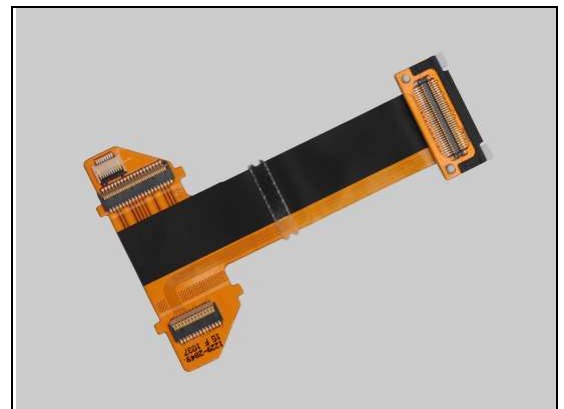
1. If dirty – clean it.
2. If the external port is damaged – replace the A-Cover.
3. If the LED is damaged – replace the PBA Receiver Flex.
4. Send to higher level of repair.

Check:

Inspect the ZIF connector of the PBA Zeus Hinge Flex.

Action:

Refer to chapter 1.16.2 Hinge Flex.



Problem Areas

1.6 Speaker

1.6.1 Loudspeaker

Check:

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

Action:

If clogged or damaged– clean the speaker port or replace the Battery Cover.



Check:

Inspect the both Loudspeaker's meshes on the top and Bottom of D-Cover.

Action:

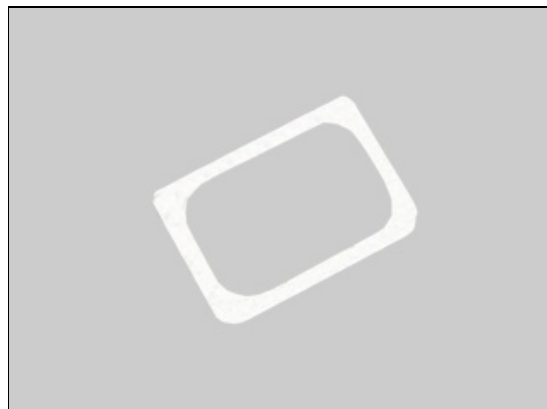
1. If clogged – clean the speaker mesh.



2. If the mesh is damaged – replace the Net Speaker cloth.



3. If the mesh is damaged – replace the Foil 0.0 mm Speaker adhesive.





Problem Areas: Speaker

Check:

Inspect the gasket on D-Cover.



Action:

If the gasket damaged – replace the Gasket Speaker, Left.



Check:

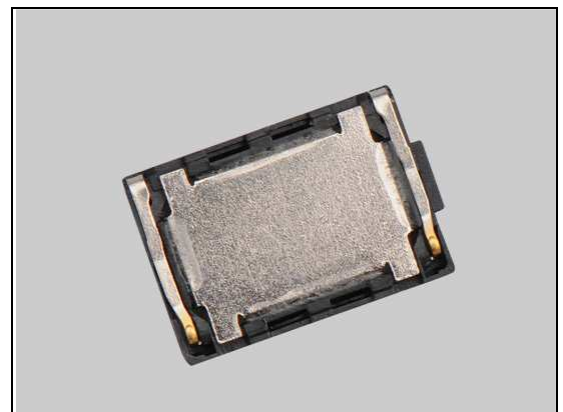
Inspect the Loudspeaker's pads on the D-Cover and the pins on the PBA.

Action:

1. If dirty – clean them.



2. If the pads on the Loudspeaker damaged – replace the Loud Speaker and Foil 0.0 mm Speaker adhesive.
3. Send to higher level of repair.





Problem Areas

1.7 Earphone

1.7.1 Ear Speaker

Check:

Inspect the Ear Speaker's external port.

Action:

1. If clogged – clean it.



2. If the A-Cover Assembly is damaged – replace it.



Check:

Inspect the Ear Speaker on the PBA Receiver Flex.

Action:

If dirty – clean it.



Check:

Inspect the Ear Speaker.

Action:

If the Ear Speaker damaged – replace the PBA Receiver Flex.





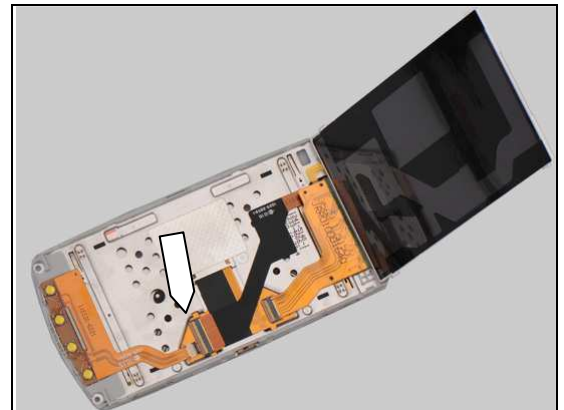
Problem Areas: Ear phone

Check:

Inspect the ZIF connector of the PBA Receiver Flex to the PBA Zeus Hinge Flex.

Action:

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

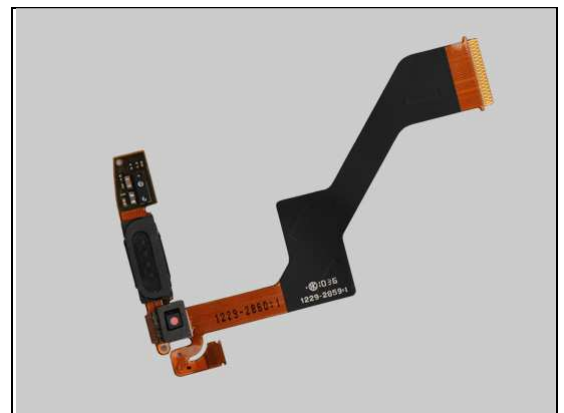


Check:

Inspect the PBA Receiver Flex.

Action:

1. If the PBA Receiver Flex or its ZIF connector is damaged – replace the PBA Receiver Flex.
2. Send to higher level of repair.

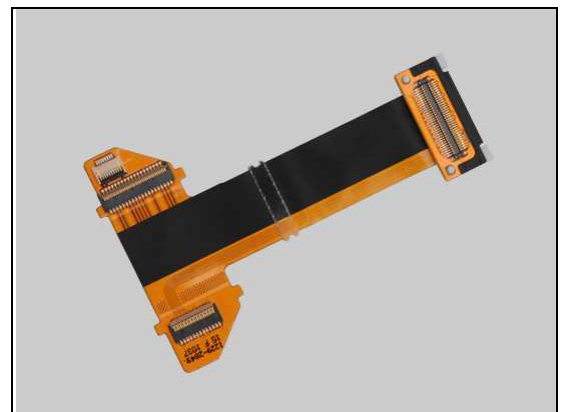


Check:

Inspect the ZIF connector of the PBA Zeus Hinge Flex.

Action:

Refer to chapter 1.16.2 Hinge Flex.



Problem Areas

1.8 Microphone

1.8.1 Microphone

Check:

Inspect the Microphone's external port on the battery cover.

Action:

If clogged – clean the port.



Check:

Inspect the Microphone's external port on the D-cover.

Action:

If clogged – clean the port.



Check:

Inspect the gasket on the D-Cover (a) and the Microphone (b) on the PBA.

Action:

1. If (b) is clogged – clean the gasket.



2. If mesh (a) is damaged – replace the D-Cover.

3. Send to higher level of repair.



Problem Areas

1.9 Microphone

1.9.1 Secondary Microphone

Check:

Inspect the Microphone's external port on the Keypad.

Action:

If clogged – clean the port.

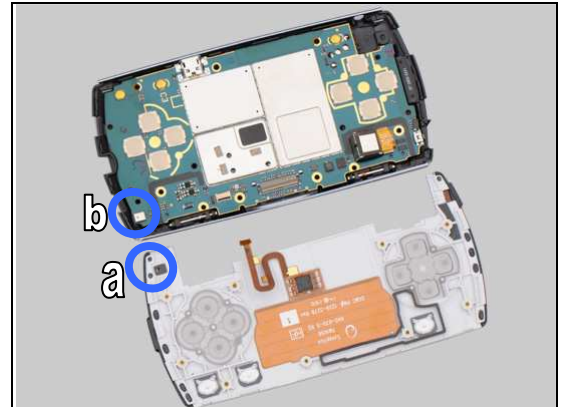


Check:

Inspect the gasket on the C-Cover (a) and the Microphone (b) on the PBA.

Action:

1. If gasket (a) is clogged – clean the gasket.



2. If gasket (a) is damaged – replace the C-Cover.

3. Send to higher level of repair.



Problem Areas

1.10 Vibrator

1.10.1 Vibrator not generating alerts

Check:

Inspect the vibrator on the Main PBA.

Action:

Send to higher level of repair.





Problem Areas

1.11 Camera

1.11.1 Main Camera defects

Inspect the Camera Window.

Check:

Inspect the camera window on the D-Cover.

Action:

1. If dirty – clean the window.

2. If scratched or damaged – replace the Camera Lens.

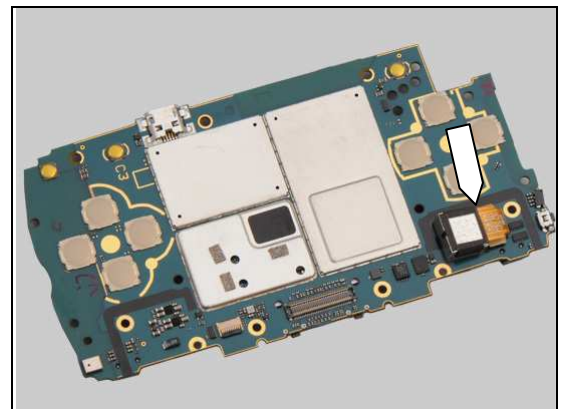
Check:

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 the both sides of the BtB connector.





Problem Areas: Camera

3. If damaged – replace the Camera.
4. Send to higher level of repair.

1.11.2 Video Call Camera defects

Check:

Inspect the camera window on the A-Cover.

Action:

1. If dirty or clogged – clean the window

2. If scratched or damaged – replace the A-Cover.

Check:

Inspect the gasket on PBA Receiver Flex.

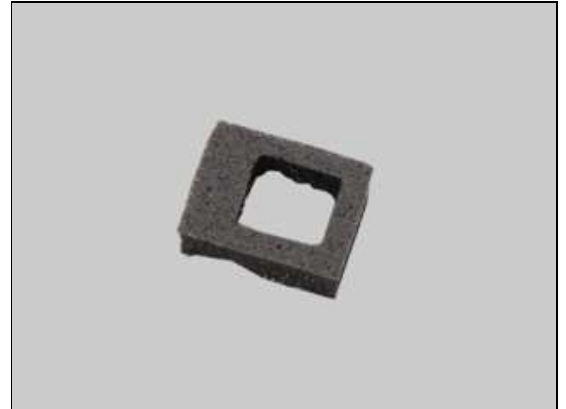




Problem Areas: Camera

Action:

If the gasket damaged – replace the Gasket VT.

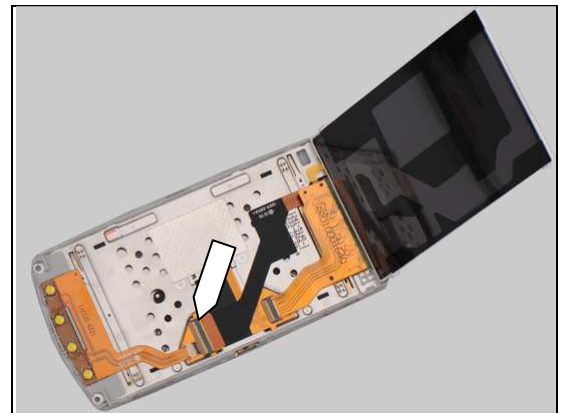


Check:

Inspect the ZIF connector of the PBA Receiver Flex to the PBA Zeus Hinge Flex.

Action:

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

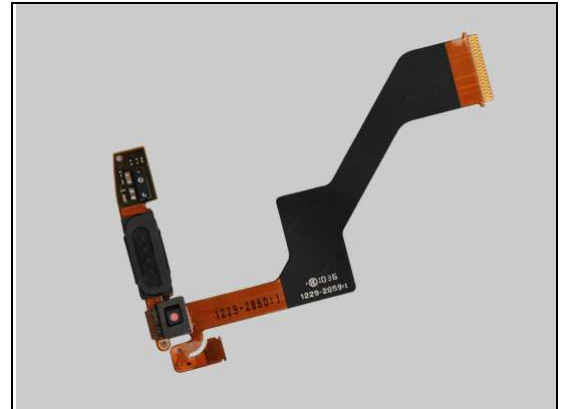


Check:

Inspect the Sub Camera on the PBA Receiver Flex.

Action:

1. If the Sub Camera or the ZIF connector is damaged – replace the PBA Receiver Flex.
2. Send to higher level of repair.

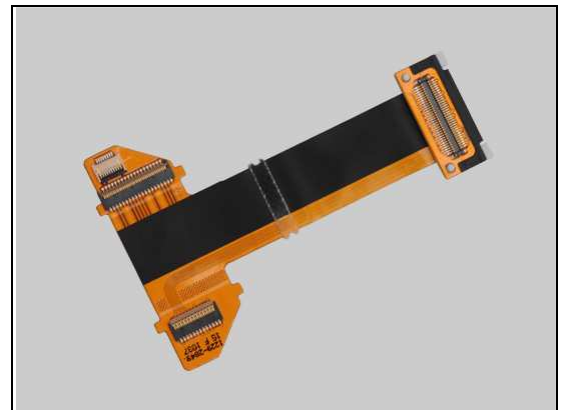


Check:

Inspect the ZIF connector of the PBA Zeus Hinge Flex.

Action:

Refer to chapter 1.16.2 Hinge Flex.





Problem Areas

1.12 Flash LED

1.12.1 Flash LED not flashing

Check:

Inspect the Flash Window on the Battery Cover.



Check:

Inspect Flash window on the D-Cover.



Action:

If scratched or damaged – replace the D-Cover.



Check:

Inspect the Flash on the PBA.

Action:

Send to higher level of repair.



Problem Areas

1.13 Bluetooth and W-LAN

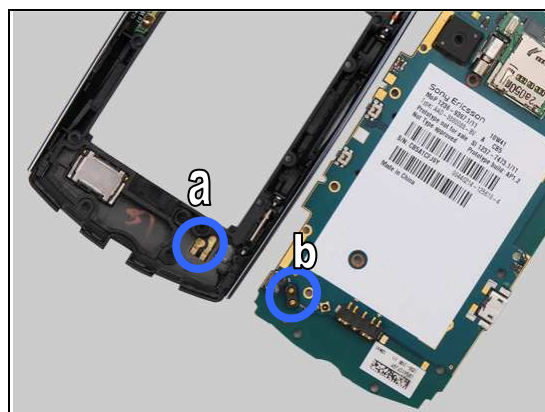
1.13.1 Bluetooth and W-LAN malfunctions

Check:

1. Inspect the antenna foil on the D-Cover.



2. Inspect the contact pad (a) on the antenna foil and the pin (b) on the PBA.



Action:

1. If the Ant BT/WLAN is damaged – replace the Ant BT/WLAN
2. Send to higher level of repair.





Problem Areas

1.14 GPS

1.14.1 GPS malfunctions

Check:

Inspect the FPC Zeus GPS Antenna on the inside of D-Cover.



Check:

Inspect the FPC Zeus GPS Antenna contact pads on the D-Cover and the contact pins on the PBA.

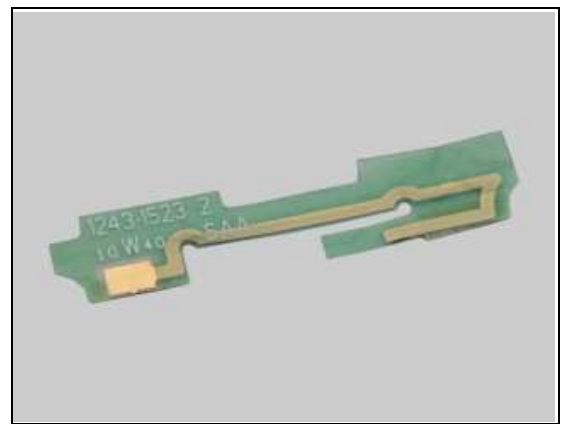
Action:

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



2. If the pads are damaged – replace the FPC Zeus GPS Antenna.

3. Send to higher level of repair.





Problem Areas

1.15 Compass

1.15.1 Compass fails

Action:

Send to higher level of repair.



Problem Areas

1.16 Accelerometer

1.16.1 Accelerometer test fails

Action:

Send to higher level of repair.

Problem Areas

1.17 Ambient Light Sensor

1.17.1 Light Sensor malfunctions

Check:

Inspect the Light Sensor window on the A - Cover.

Action:

1. If clogged – clean it.

2. If scratched or damaged – replace the A - Cover.

Check:

Inspect the cap on the A - Cover.

Action:

1. If clogged – clean it.

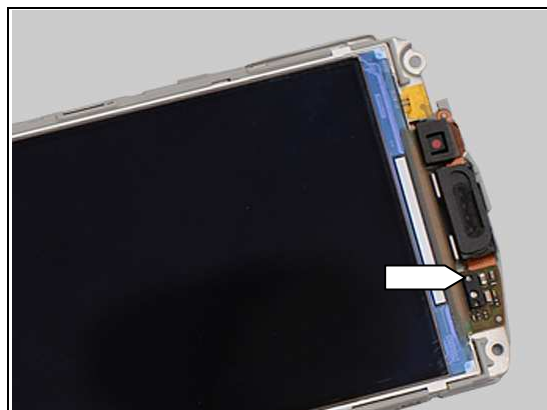
2. If damaged – replace the Cap Proximity Grommet.



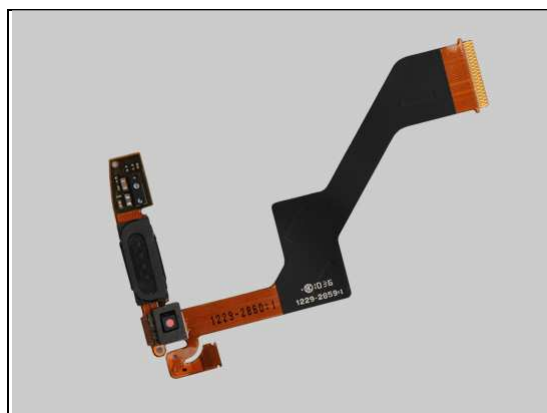
Problem Areas: Ambient Light Sensor

Check:

Inspect the Light Sensor on the PBA Receiver Flex.

**Action:**

1. If the light sensor is dirty or clogged – clean it.
2. If the light sensor is damaged – replace the PBA Receiver Flex.
3. Send to higher level of repair.



Problem Areas

1.18 Proximity switch

1.18.1 Proximity switch malfunctions

Check:

Inspect the Proximity switch window on the A - Cover.

Action:

1. If clogged – clean it.

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

Check:

Inspect the Cap Proximity Grommet on the A - Cover.

Action:

1. If clogged – clean it.

2. If the Cap Proximity Grommet is damaged – replace the Cap Proximity Grommet.



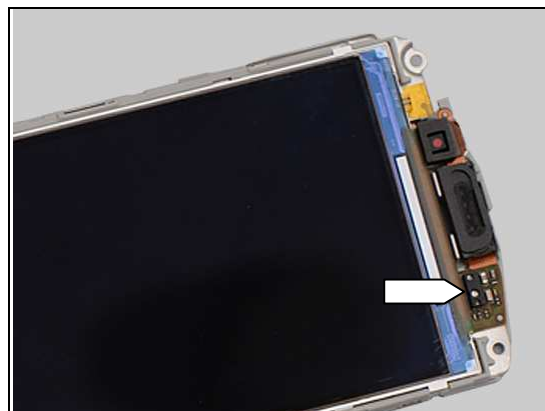
Problem Areas: Proximity switch

Check:

Inspect the Proximity switch on the RCV Flex PBA.

Action:

1. If the Proximity switch is dirty or clogged – clean it.
2. If the Proximity switch is damaged – replace the PBA Receiver Flex.
3. Send to higher level of repair.



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 (blue circle).

Check:

Inspect if the Battery Cover is correct mounted so the switch is pressed (red arrow).



Check:

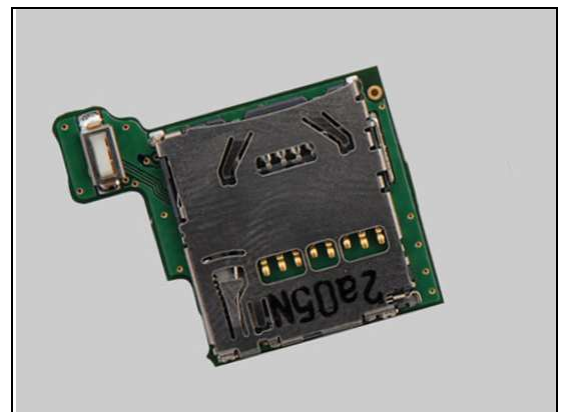
Inspect the switch on the PBA Zeus USD Board.

Action:

1. If dirty – clean the switch.



2. If damaged – replace the PBA Zeus USD Board and the Foil Adhesive conductive.



Check:

Inspect the Memory Card holder of the PBA Zeus USD Board.

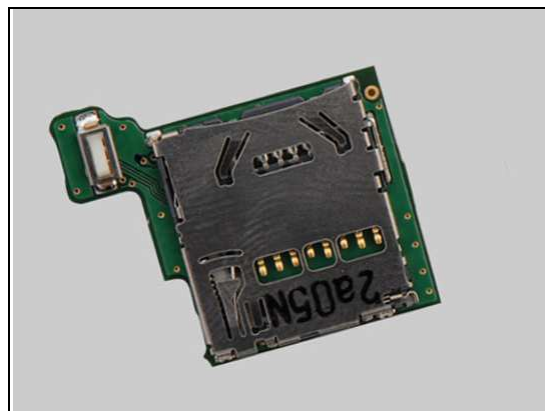
Action:

1. If dirty or oxidized – clean the holder.



Problem Areas: External Memory

2. If the holder is damaged – replace the PBA Zeus USD Board and the Foil Adhesive conductive.
3. 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 FM Radio test fails

Action:

N/A. No FM Radio in the phone

Problem Areas

1.24 Battery test

1.24.1 Battery test fails

Action:

Send to higher level of repair.



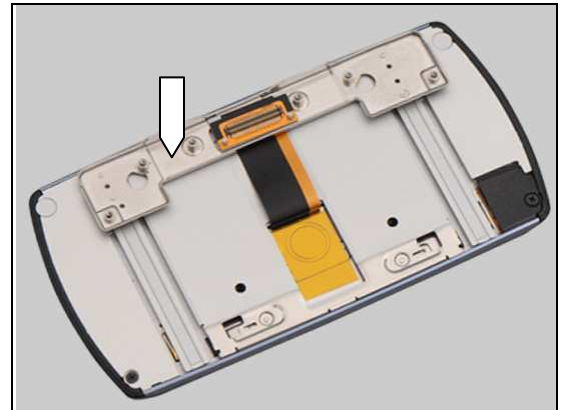
Problem Areas

1.25 Sliding

1.25.1 Hinge Slider & Magnet

Check:

1. Inspect the hinge on the B-Cover.

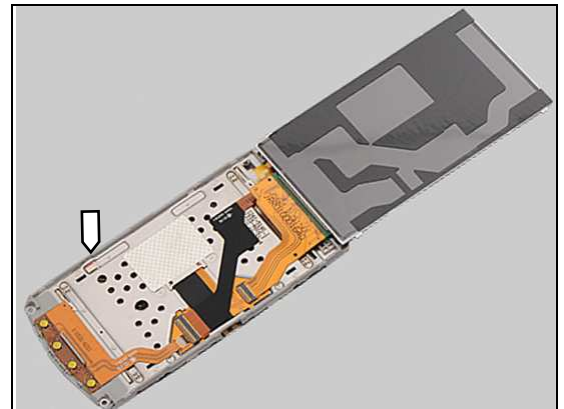


2. If the hinge is damaged – replace the B-Cover.



Check:

1. Inspect the Magnet on the C-Cover.



Action:

1. If the Magnet is damaged or missed – replace the Magnet.
2. Send to higher level of repair.





Problem Areas: Sliding

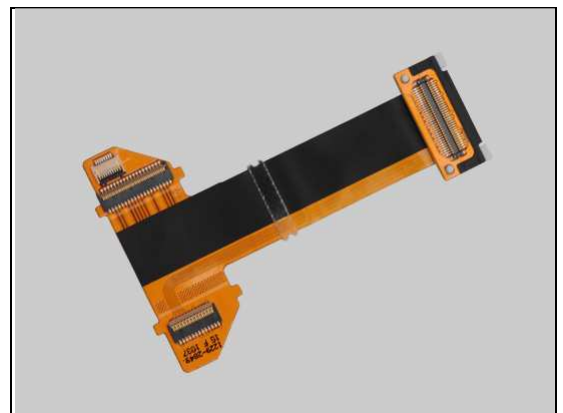
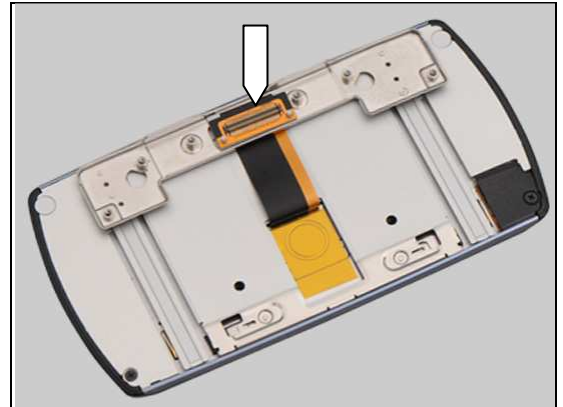
1.25.2 Hinge Flex

Check:

1. Inspect the PBA Zeus Hinge Flex.

Action:

1. If the PBA Zeus Hinge Flex or its BtB connector damaged – replace the PBA Zeus Hinge Flex.
2. Send to higher level of repair.



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

Action:

N/A. No HDMI in the phone



2 Revision History

Rev.	Date	Changes / Comments
1	2011-Mar-23	Initial release
2	2011-April-07	Changes in 1.21.1
3	2011-April-20	Changes in Chapter 1.23 FM Radio