



Sony Ericsson

Troubleshooting Guide

- mechanical -



Zylo

W20, W20i

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1 Problem Areas

1.1 Power

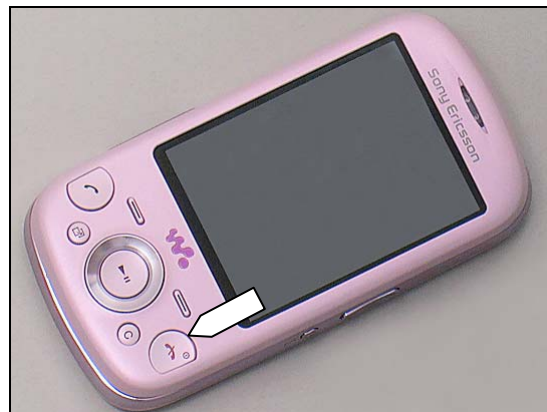
1.1.1 Will not power on or will switch off randomly

Check:

Check whether the phone vibrates and the Sub keypad illuminates after the power key is depressed.

Action:

If activation of the Vibrator and Sub keypad illumination is detected, refer to section 1.2 '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.

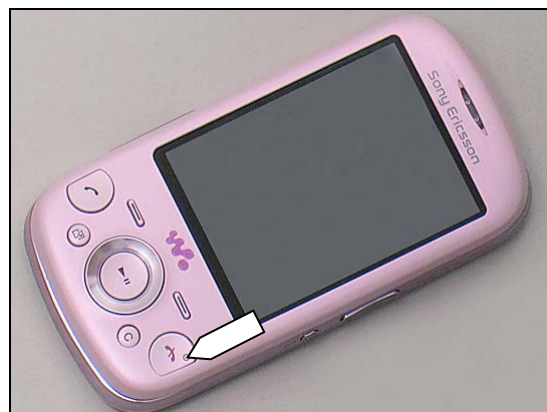
Action:

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 Sub keypad.



Problem Areas: Power

Action:

1. If dirty or clogged – clean the Sub keypad.
2. If damaged – replace the Sub keypad.



Check:

Inspect the Sub keyboard Dome.



Action:

If damaged – replace the Sub keyboard Dome.



Check:

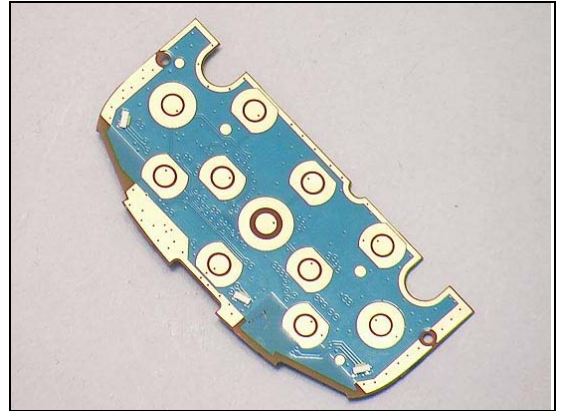
Inspect the Sub keyboard.



Problem Areas: Power

Action:

If damaged – replace the Sub keyboard.

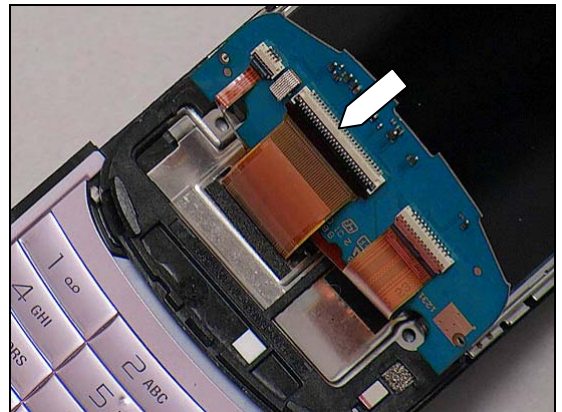


Check:

Inspect the ZIF connector of the Sub keyboard to the Hinge FPC.

Action:

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

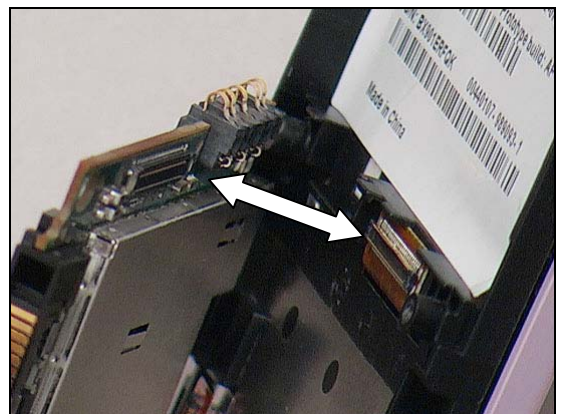


Check:

Inspect the BtB connector of the Hinge FPC to the Main PCBA.

Action:

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

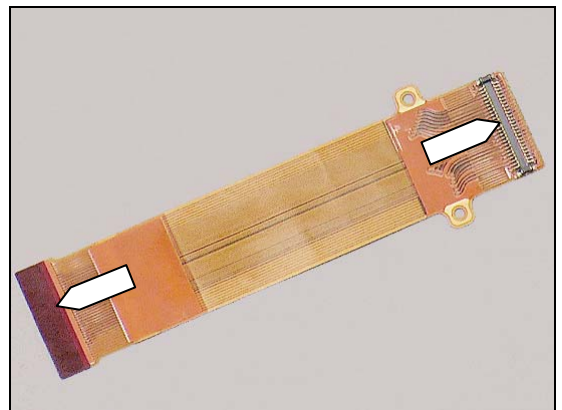


Check:

Inspect the Hinge FPC.

Action:

1. If the Hinge FPC or its connector is damaged – replace the Hinge FPC.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC.
3. Send to higher level of repair.



Problem Areas

1.2 Display

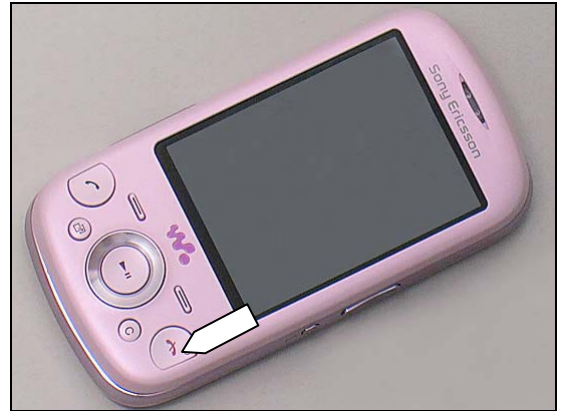
1.2.1 Graphics & Illumination

Check:

Check whether the phone vibrates and the Sub keypad illuminates after the power key has been pressed.

Action:

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

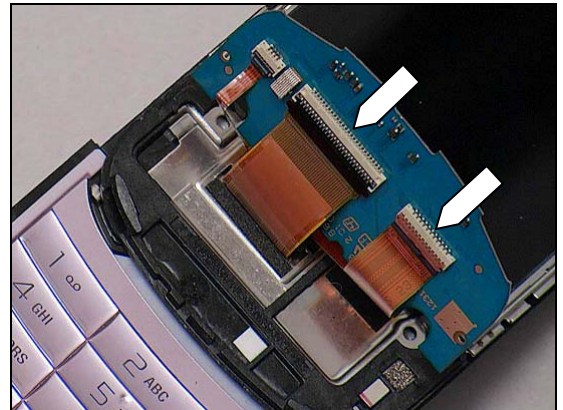


Check:

Inspect the two ZIF connectors of the Sub keyboard.

Action:

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



Check:

Inspect the Display.

Action:

If damaged – replace the Display.

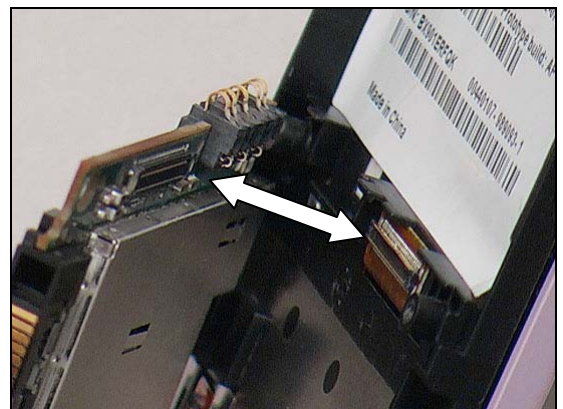


Check:

Inspect the BtB connector of the Hinge FPC to the Main PCBA.

Action:

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



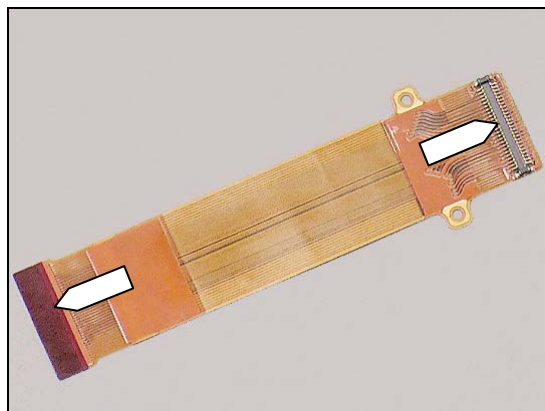
Problem Areas: Display

Check:

Inspect the Hinge FPC.

Action:

1. If the Hinge FPC or its connector is damaged – replace the Hinge FPC.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC.
3. Send to higher level of repair.



Problem Areas

1.3 Key Illumination

1.3.1 Main Keypad Illumination

Check:

Inspect the Main Keypad.

Action:

If damaged – replace the Main Keypad.



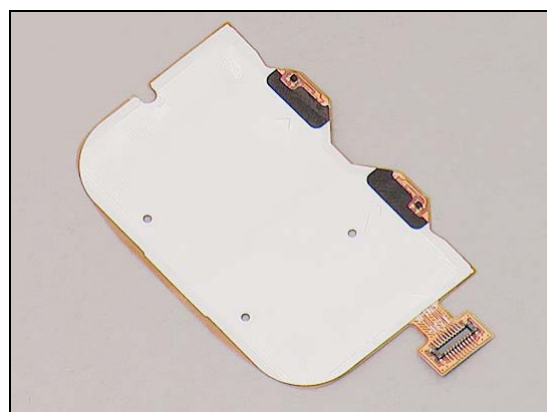
Check:

Inspect the light guides and LEDs on the Main Keyboard FPC.



Action:

If damaged – replace the Main Keyboard FPC.

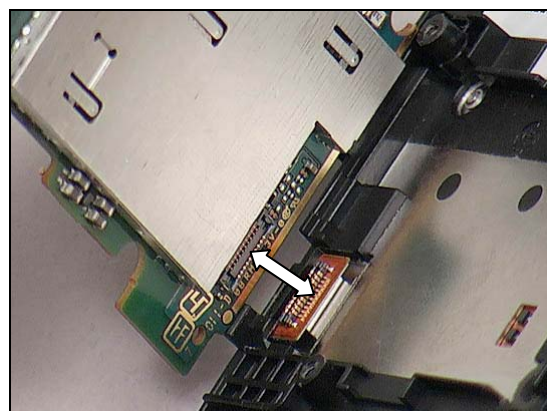


Check:

Inspect the BtB connector of the Main Keyboard FPC to the Main PCBA.

Action:

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



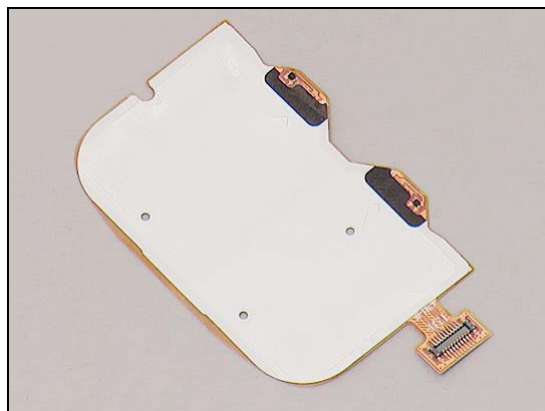
Problem Areas: Key Illumination

Check:

Inspect the Main Keyboard FPC.

Action:

1. If the Main Keyboard FPC or its BtB connector is damaged – replace the Main Keyboard FPC.
2. Send to higher level of repair.



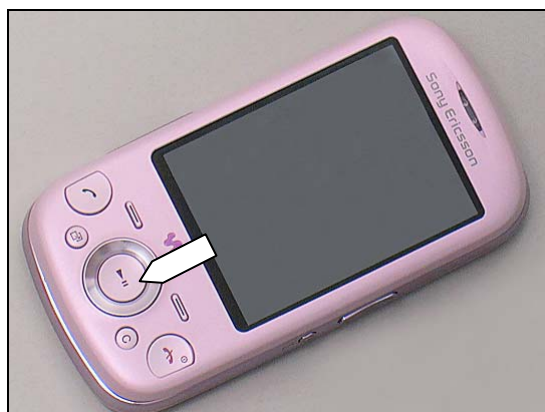
1.3.2 Sub Keypad Illumination

Check:

Inspect the Sub keypad.

Action:

1. If dirty or clogged – clean the Sub keypad.



2. If damaged – replace the Sub keypad.



Check:

Inspect the light guides on the Sub keyboard Dome.



Problem Areas: Key Illumination

Action:

If damaged – replace the Sub keyboard Dome.



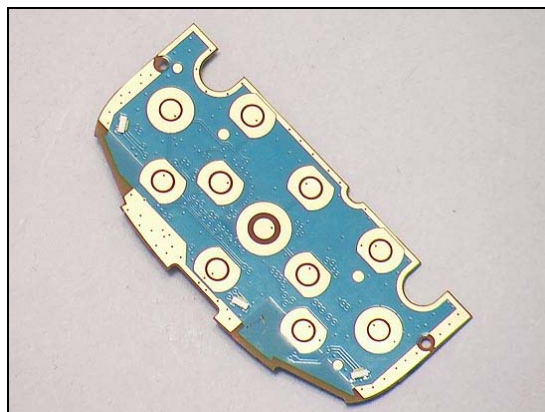
Check

Inspect the LEDs on the Sub keyboard.



Action:

If damaged – replace the Sub keyboard.

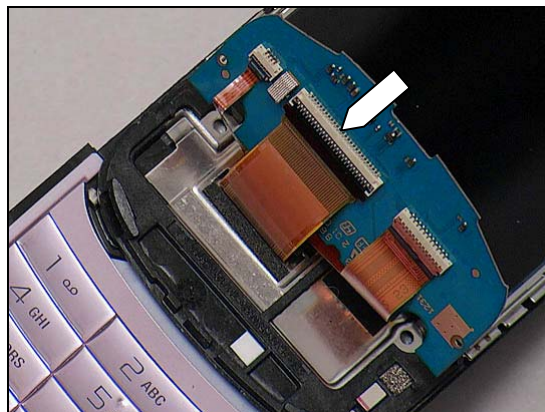


Check:

Inspect the ZIF connector of the Sub keyboard to the Hinge FPC.

Action:

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



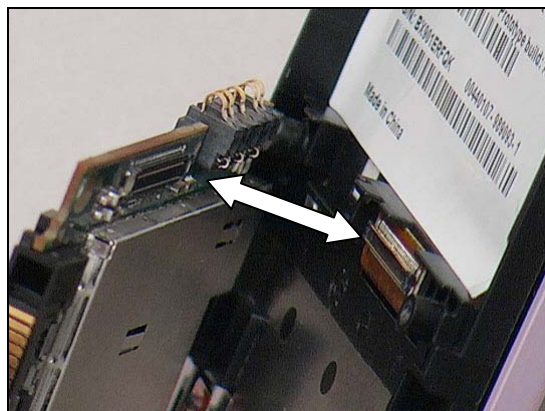
Problem Areas: Key Illumination

Check:

Inspect the BtB connector of the Hinge FPC to the Main PCBA.

Action:

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

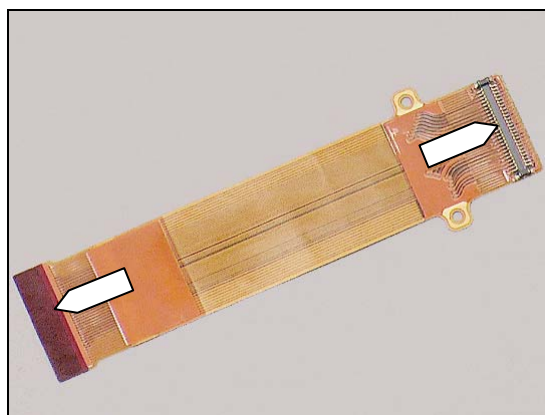


Check:

Inspect the Hinge FPC.

Action:

1. If the Hinge FPC or its connector is damaged – replace the Hinge FPC.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC.
3. Send to higher level of repair.





Problem Areas

1.4 Keys and Sensor

1.4.1 Main Keypad Keys

Check:

Inspect the Main Keypad.

Action:

If damaged – replace the Main Keypad.



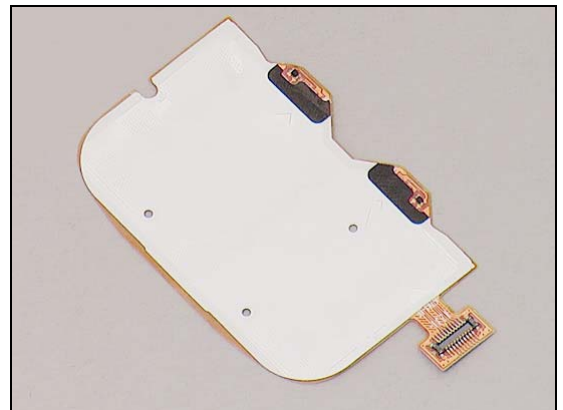
Check:

Inspect the Main Keyboard FPC.



Action:

If damaged – replace the Main Keyboard FPC.

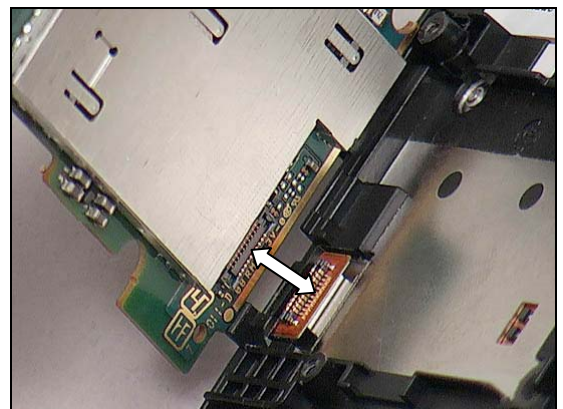


Check:

Inspect the BtB connector of the Main Keyboard FPC to the Main PCBA.

Action:

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



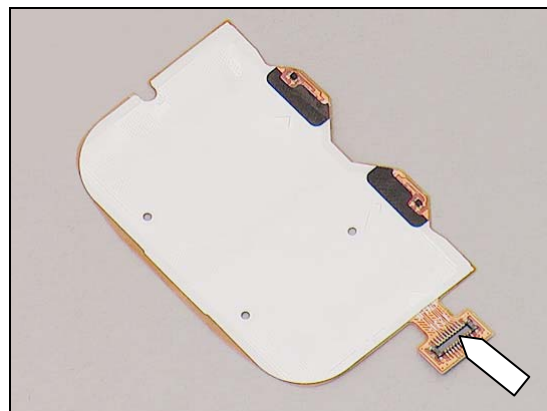
Problem Areas: Keys and Sensor

Check:

Inspect the Main Keyboard FPC.

Action:

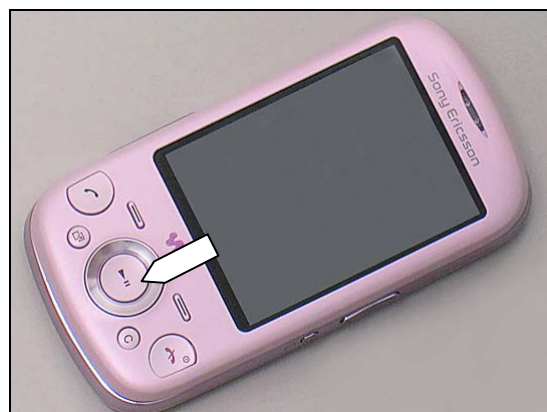
1. If the Main Keyboard FPC or its BtB connector is damaged – replace the Main Keyboard FPC.
2. Send to higher level of repair.



1.4.2 Sub keypad Keys

Check:

Inspect the Sub keypad.



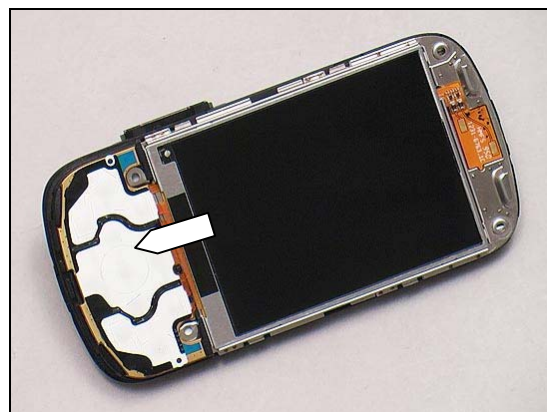
Action:

1. If dirty or clogged – clean the Sub keypad.
2. If damaged – replace the Sub keypad.



Check:

Inspect the key domes on the Sub keyboard Dome.



Problem Areas: Keys and Sensor

Action:

If damaged – replace the Sub keyboard Dome.



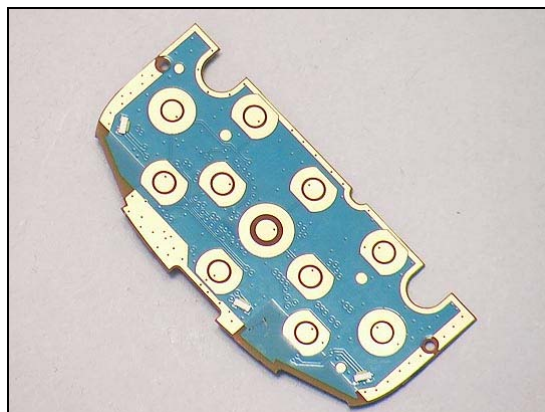
Check:

Inspect the Sub keyboard.



Action:

If damaged – replace the Sub keyboard.

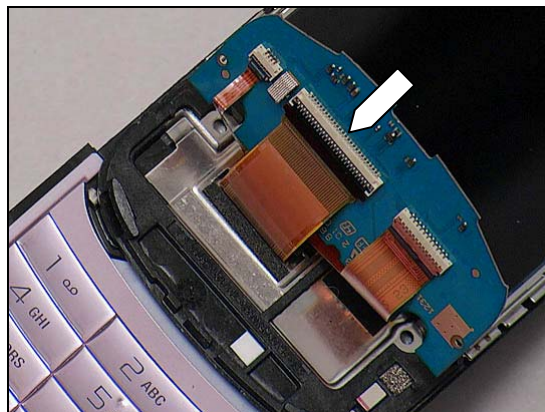


Check:

Inspect the ZIF connector of the Sub keyboard to the Hinge FPC.

Action:

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



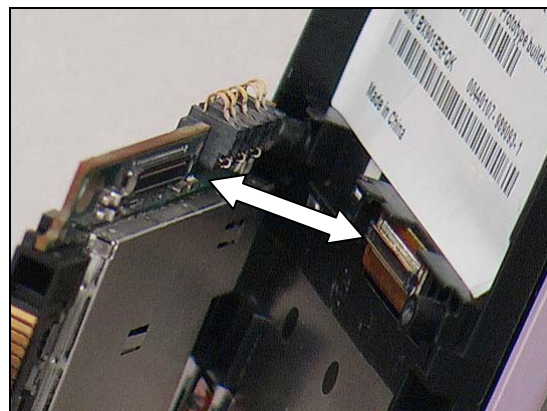
Problem Areas: Keys and Sensor

Check:

Inspect the BtB connector of the Hinge FPC to the Main PCBA.

Action:

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

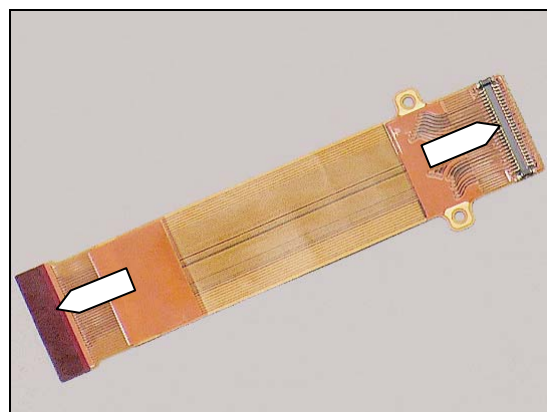


Check:

Inspect the Hinge FPC.

Action:

1. If the Hinge FPC or its connector is damaged – replace the Hinge FPC.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC.
3. Send to higher level of repair.



1.4.3 Side Keys

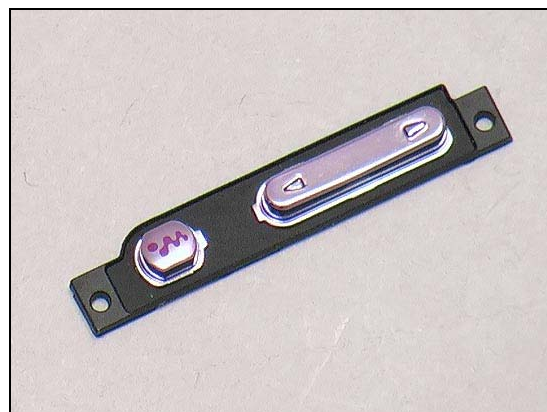
Check:

Inspect the Side Key.



Action:

1. If dirty or clogged – clean it.
2. If the Side key is damaged – replace the Side key.



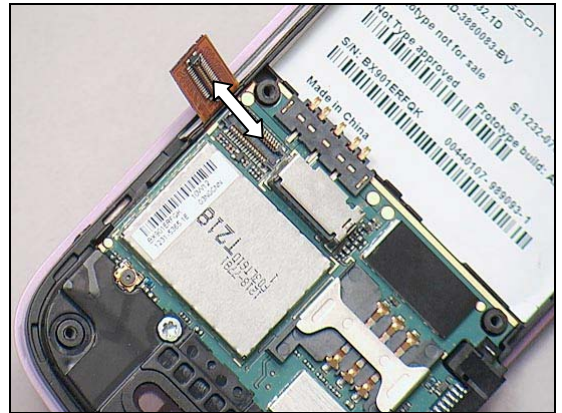
Problem Areas: Keys and Sensor

Check:

Inspect the BtB connector for the Main camera/side key/vib FPC and the Main PCBA.

Action:

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



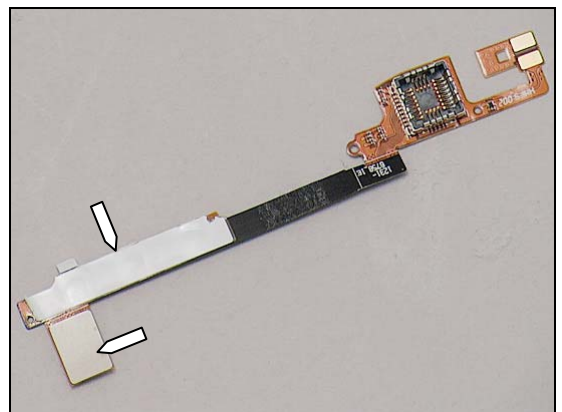
Check:

Inspect the Main camera/side key/vib FPC



Action:

1. If the Main camera/side key/vib FPC is damaged – replace it.
2. Send to higher level of repair.



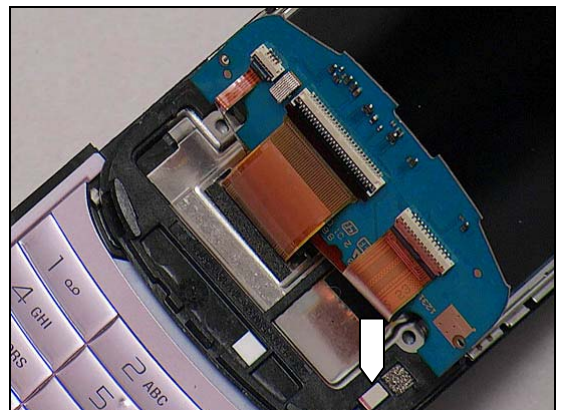
1.4.4 Slide Sensor

Check:

Inspect the magnet on the Hinge Metal Slider.

Action:

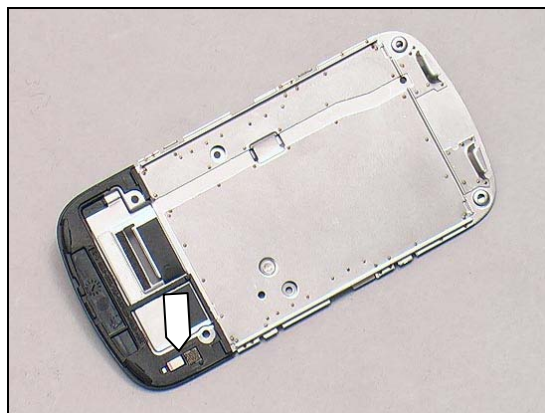
1. If dirty – clean it.
2. If not properly positioned – reinstall it.



Problem Areas: Keys and Sensor

3. If the magnet is missing or damaged – replace the Hinge Metal Slider.

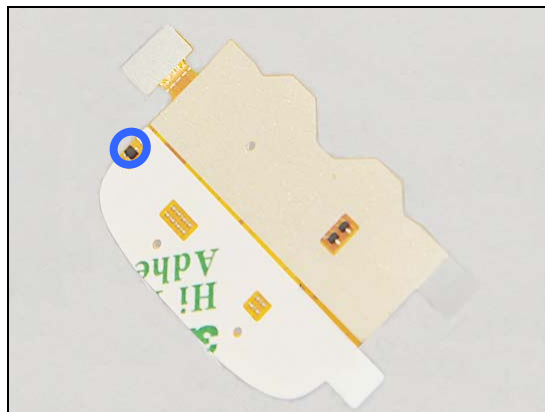
4. Add Insulation protection film on Hinge metal slider to protect Hinge FPC

**Check:**

Inspect the Slider Sensor IC on the Main Keyboard FPC.

Action:

1. If damaged – replace the Main Keyboard FPC.
2. Send to higher level of repair.



Problem Areas

1.5 Audio

1.5.1 Microphone

Check:

Inspect the Microphone's external port on the Main Keypad.

Action:

If clogged – clean the port.



Check:

Inspect the hole on the Lower Front Cover.

Action:

If clogged – clean the port.



Check:

Inspect the hole and the microphone on the Main PCBA.

Action:

If damaged – send to higher level of repair.



1.5.2 Ear Speaker

Check:

Inspect the Ear Speaker's external port.

Action:

1. If clogged – clean it.



Problem Areas: Audio

2. If the Upper Front Cover is damaged – replace it.

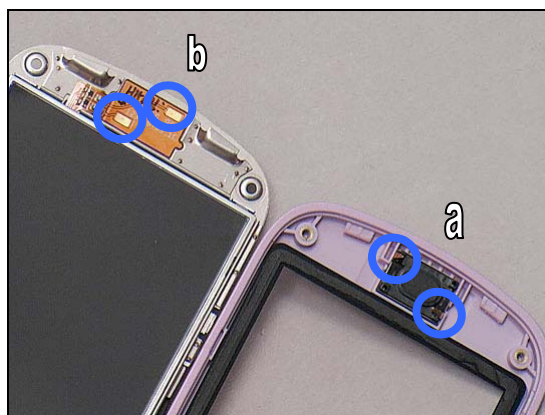


Check:

Inspect the Ear Speaker pins (a) and the pads on the Receiver FPC (b).

Action:

If dirty or oxidized – clean them.

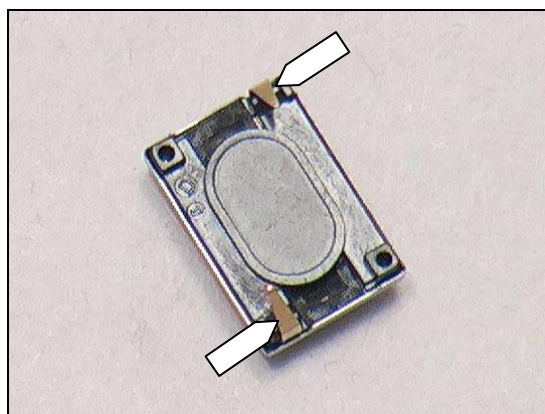


Check:

Inspect the Ear Speaker.

Action:

If the Ear Speaker is damaged – replace the Ear Speaker.

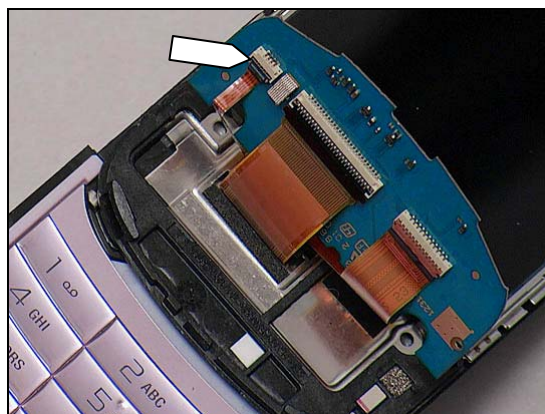


Check:

Inspect the ZIF connector of the Receiver FPC to the Sub keyboard.

Action:

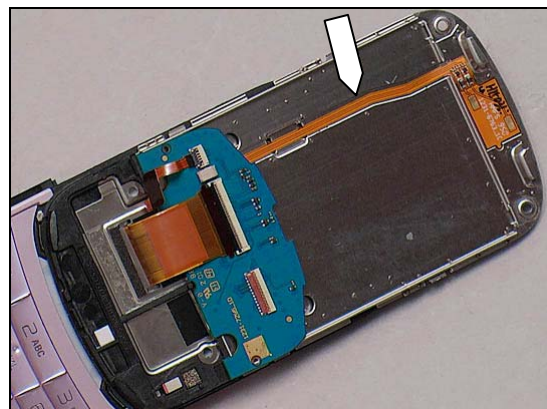
1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean both sides of the ZIF connector.



Problem Areas: Audio

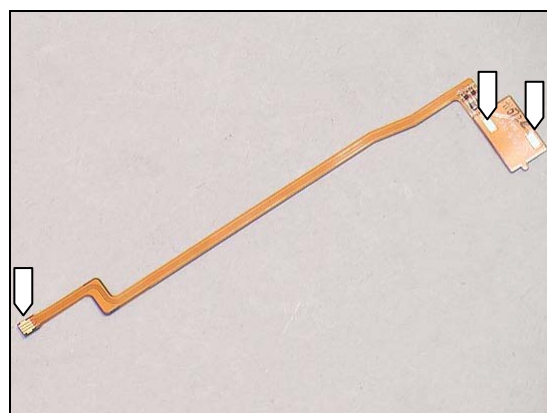
Check:

Inspect the Receiver FPC.



Action:

If the Receiver FPC or its ZIF connector is damaged – replace the Receiver FPC.

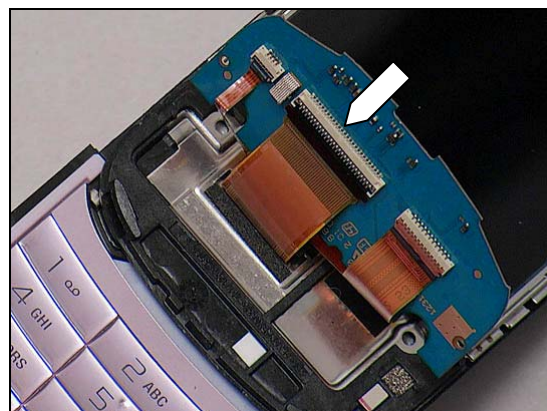


Check:

Inspect the ZIF connector of the Sub keyboard to the Hinge FPC.

Action:

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



Check:

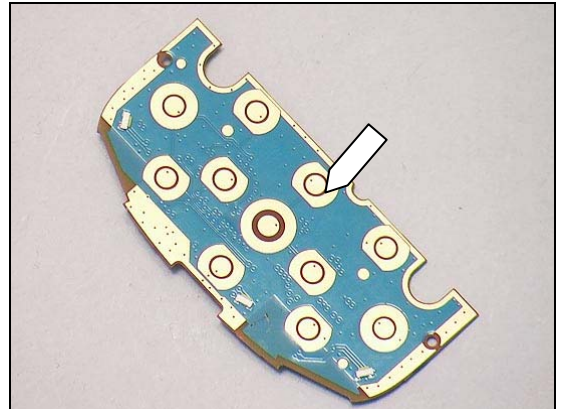
Inspect the Sub keyboard.



Problem Areas: Audio

Action:

If the Sub keyboard or its ZIF connector is damaged – replace the Sub keyboard.

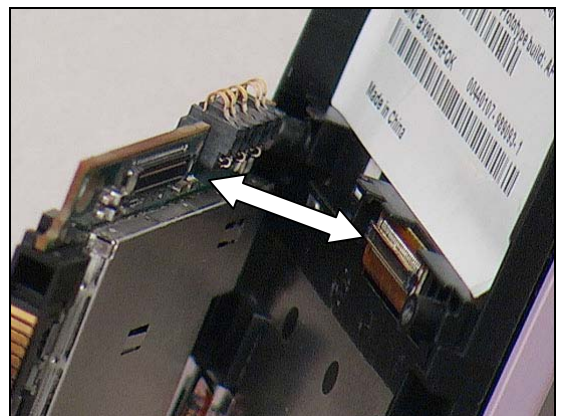


Check:

Inspect the BtB connector of the Hinge FPC to the Main PCBA.

Action:

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

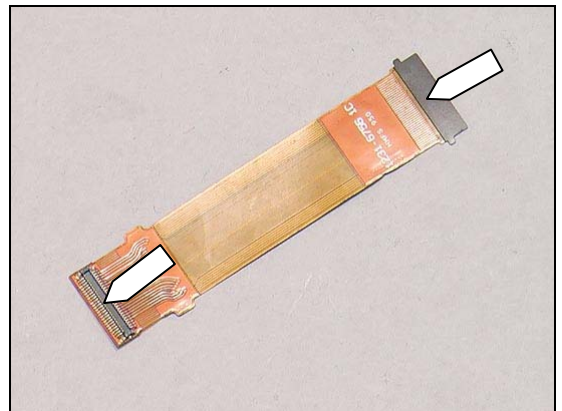


Check:

Inspect the Hinge FPC.

Action:

1. If the Hinge FPC or its connector is damaged – replace the Hinge FPC.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC
3. Send to higher level of repair.



1.5.3 Speaker

Check:

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

Action:

If clogged – clean the Speaker port or replace the Battery Cover.



Problem Areas: Audio

Check the Speaker with the Rear Cover.



Check:

Inspect the Speaker's mesh on the Main antenna/Speaker box.

Action:

1. If clogged – clean the mesh.



2. If the mesh is damaged – replace Main antenna/Speaker box.

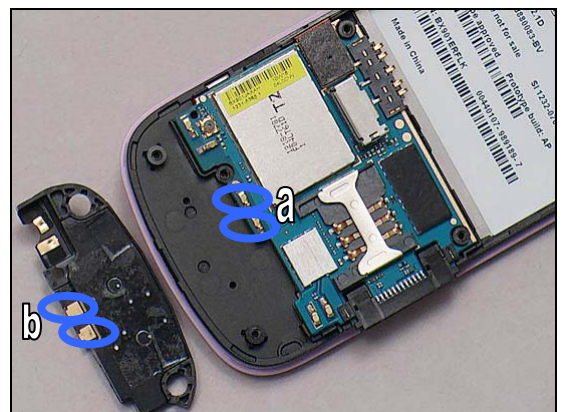


Check:

Inspect the pins on Main PCBA (a) and the pads on the Main antenna/Speaker box (b).

Action:

1. If dirty or oxidized – clean them.



Problem Areas: Audio

2. If the pads on the Main antenna/Speaker box are damaged – replace the Main antenna/Speaker box.
3. Send to higher level of repair.



Problem Areas

1.6 Vibrator

1.6.1 Vibrator not generating alerts

Check:

Inspect the Vibrator.

Action:

1. If dirty – clean it.
2. If the Vibrator is damaged – replace the Vibrator.

Check:

Inspect the pins on the Vibrator (a) and the pads on Main camera/side key/vib FPC (b).

Action:

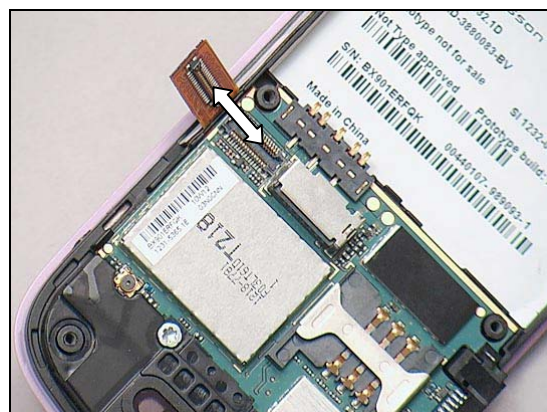
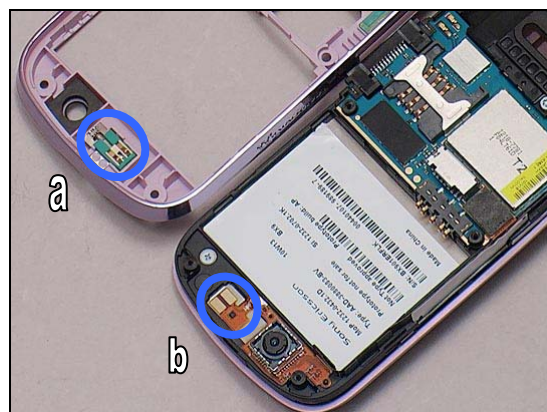
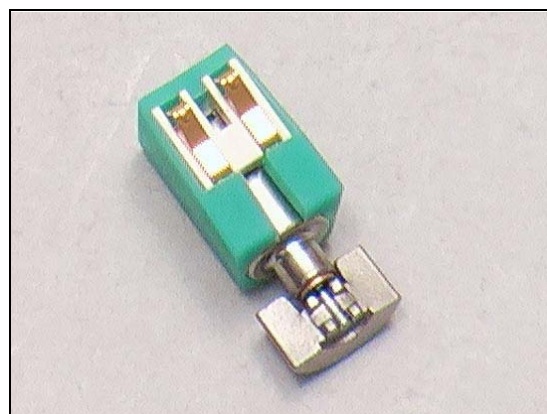
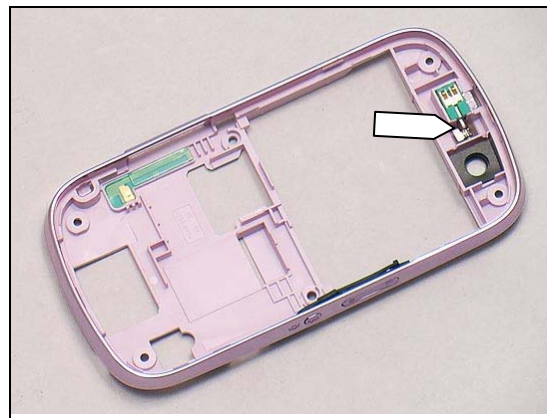
If dirty or oxidized – clean them.

Check:

Inspect the BtB connector for the Main camera/side key/vib FPC and the Main PCBA.

Action:

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



Problem Areas: Vibrator

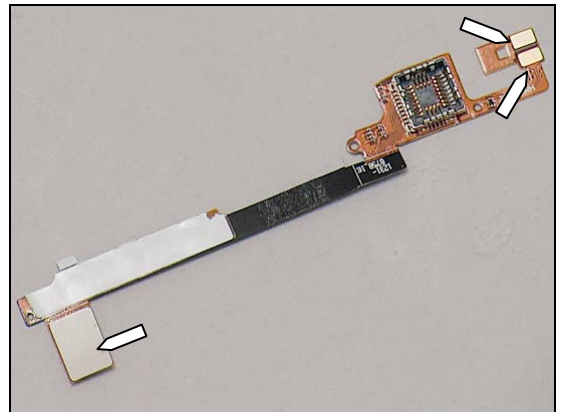
Check:

Inspect the Main camera/side key/vib FPC



Action:

1. If the Main camera/side key/vib FPC is damaged – replace it.
2. Send to higher level of repair.



Problem Areas

1.7 Camera

1.7.1 Main Camera defects

Check:

Inspect the Camera Window.



Check:

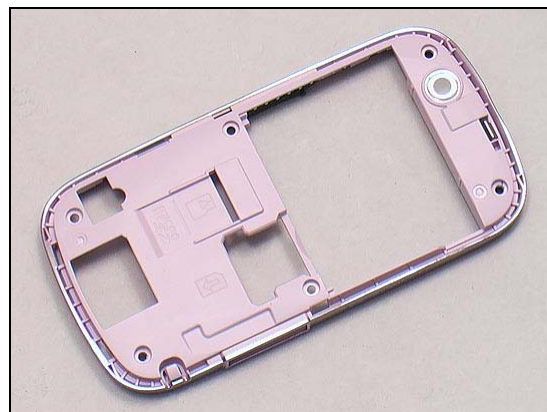
Inspect the camera window on the Lower Rear Cover.

Action:

1. If dirty – clean the window.

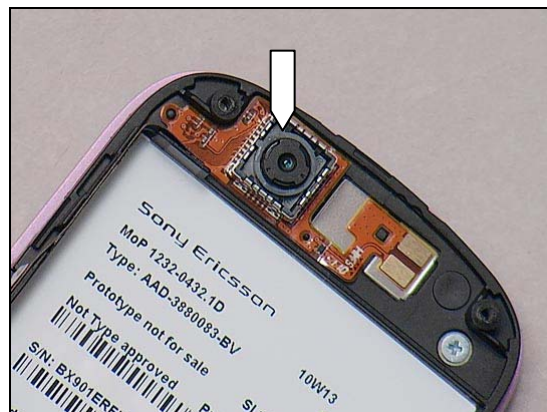


2. If scratched or damaged – replace the Lower Rear Cover.



Check:

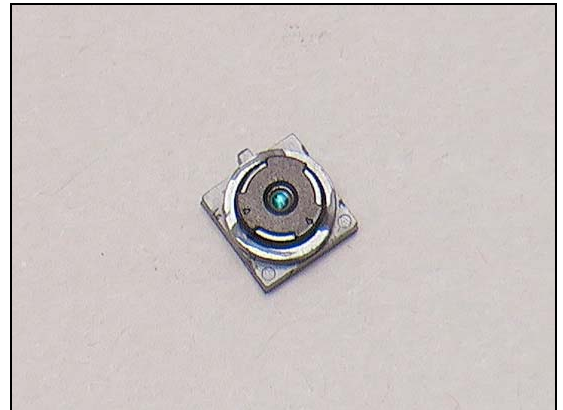
Inspect the Main Camera on the Main camera/side key/vib FPC.



Problem Areas: Camera

Action:

1. If not properly installed – reinstall it.
2. If dirty or dust on solder pad, blow off or clean it.
3. If damaged – replace the Main Camera.

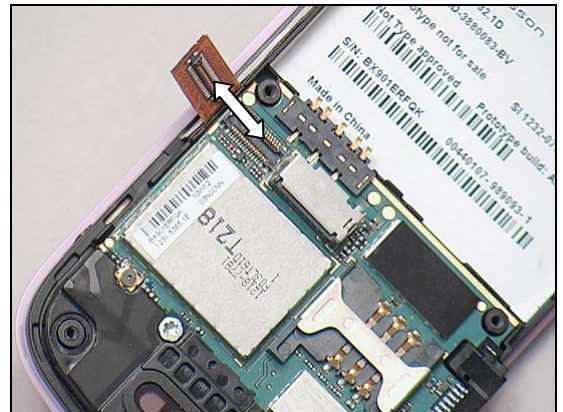


Check:

Inspect the BtB connector for the Main camera/side key/vib FPC and the Main PCBA.

Action:

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



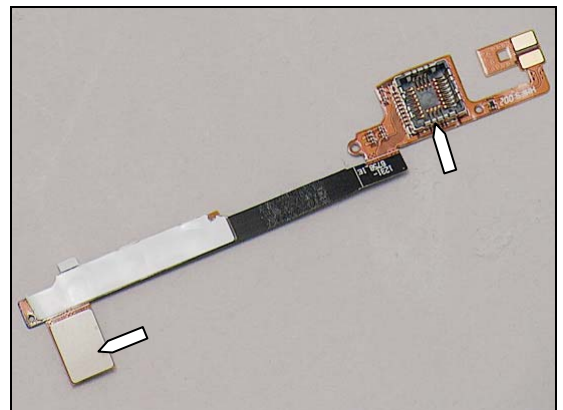
Check:

Inspect the Main camera/side key/vib FPC



Action:

1. If the Main camera/side key/vib FPC is damaged – replace it.
2. Send to higher level of repair.



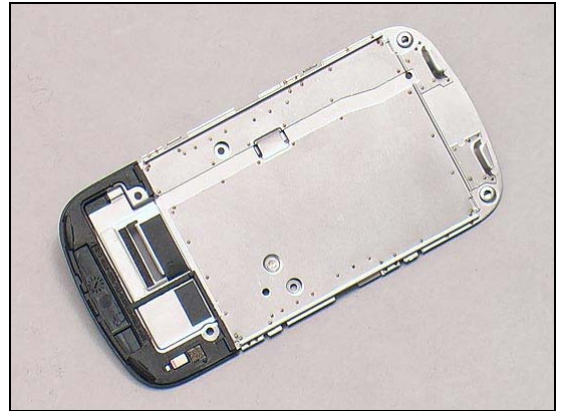
Problem Areas

1.8 Hinge Slider

1.8.1 Slider stiff or stuck

Action:

1. Replace the Hinge Metal Slider.
2. Add Insulation protection film on Hinge metal slider to protect Hinge FPC.



Problem Areas

1.9 Accelerometer

1.9.1 Accelerometer test fails

Action:

Send to higher level of repair.

Problem Areas

1.10 Memory Card

1.10.1 Memory Card not detected

Check the Memory Card Holder.

Check:

Inspect the Memory Card holder.

Action:

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



Problem Areas

1.11 FM Radio

1.11.1 No/Poor FM Radio reception

Check:

Inspect the system connector.

Action:

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



Problem Areas

1.12 Real Time Clock

1.12.1 Real Time Clock test fails

Action:

Send to higher level of repair.

Problem Areas

1.13 SIM

1.13.1 SIM not detected

Check the SIM holder.

Check:

Inspect the SIM holder.

Action:

If dirty or oxidized – clean the holder.



1.13.2 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

1.14 Charging

1.14.1 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 system connector.

Action:

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



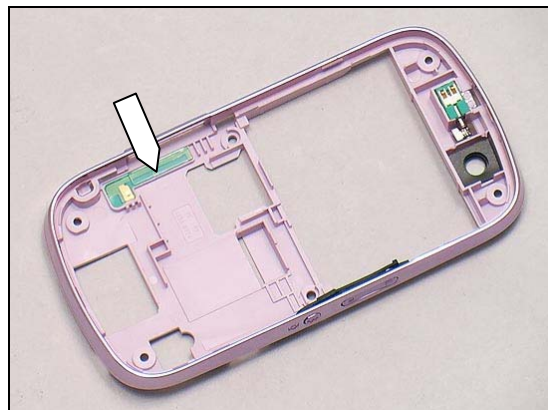
Problem Areas

1.15 Bluetooth

1.15.1 Bluetooth connection failure

Check:

Inspect the Bluetooth antenna on the Lower Rear Cover.

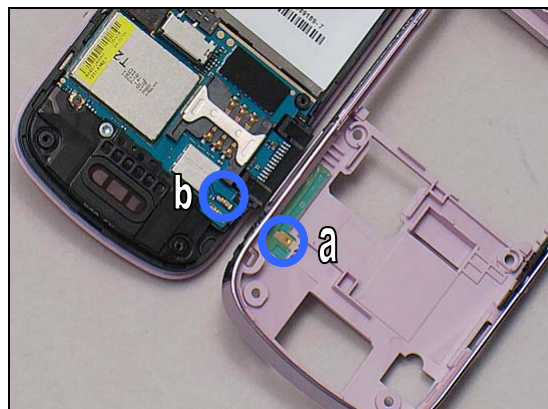


Check:

Inspect the Bluetooth antenna contact pad on the Lower Rear Cover (a) and the pin on the Main PCBA (b).

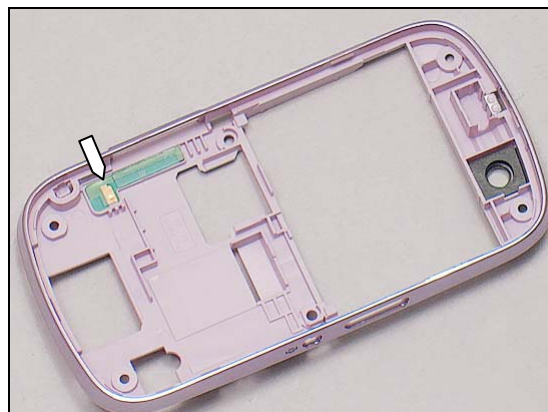
Action:

1. If dirty or oxidized – clean the pad and pin.



2. If the pad is damaged – replace the Lower Rear Cover.

3. Send to higher level of repair.



Problem Areas

1.16 Network & Signal

1.16.1 No/Poor signal

Check:

Inspect the Main Antenna on the Main antenna/Speaker box.

Check:

Inspect the Main Antenna contact pins on the Main PCBA (a) and pads on the Main antenna/Speaker box (b).

Action:

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

2. If the pads are damaged – replace the Main antenna/Speaker box.

3. Send to higher level of repair.



Problem Areas

1.17 HandsFree by Wire

1.17.1 Connection to Portable HandsFree fails

Check:

Inspect the system connector.

Action:

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



Problem Areas

1.18 Data Communication

1.18.1 Data transfer via System Connector fails

Check:

Inspect the system 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	2010-June-10	Initial release
2	2010-08-31	Add one step for main camera module on Page 28 to clean its solder Pad.
3	2010-09-18	Add Insulation protection film on Hinge metal slider to protect Hinge FPC.