



Sony Ericsson

Troubleshooting Guide

- mechanical -



Vivaz Pro

U8i, U8a



CONTENTS

1	Problem Areas	4
1.1	Power	4
1.1.1	Will not power on or will switch off randomly.....	4
1.2	Keys	5
1.2.1	Key Front.....	5
1.2.2	Key Camera.....	6
1.2.3	On/off Key	7
1.2.4	Key Volume	8
1.3	Illumination.....	9
1.3.1	Keyboard Illumination	9
1.3.2	Ambient Light Malfunction	9
1.3.3	Notification.....	10
1.3.4	Tally LED	11
1.4	Display	13
1.4.1	Graphics & Illumination	13
1.4.2	Touch Panel malfunction	14
1.5	Audio.....	15
1.5.1	Microphone	15
1.5.2	Ear Speaker.....	16
1.5.3	Loudspeaker	17
1.6	Vibrator	19
1.6.1	Vibrator not generating alerts	19
1.7	Camera.....	20
1.7.1	Photo Defects	20
1.7.2	Video failure	21
1.8	Flash LED	22
1.8.1	Flash LED defects	22
1.9	Memory Card	23
1.9.1	Memory Card not detected	23
1.10	SIM	24
1.10.1	SIM not detected.....	24
1.10.2	Incorrect SIM indicated	24
1.11	Bluetooth, W-LAN, GPS,Wi-Fi	25
1.11.1	Bluetooth, W-LAN, GPS,Wi-Fi malfunctions	25
1.12	FM Radio.....	26
1.12.1	FM Radio fails	26
1.13	Accelerometer	27
1.13.1	Accelerometer test fails	27
1.14	Real Time Clock	28
1.14.1	Real Time Clock test fails	28
1.15	Charging	29
1.15.1	Battery will not charge	29
1.16	Network & Signal.....	30



1.16.1	No/Poor signal	30
1.17	HandsFree by Wire.....	31
1.17.1	Connection to Portable HandsFree fails.....	31
1.18	Data Communication	32
1.18.1	Data transfer via USB Connector fails.....	32
2	Revision History	33



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, refer to section 1.4 'Display'.

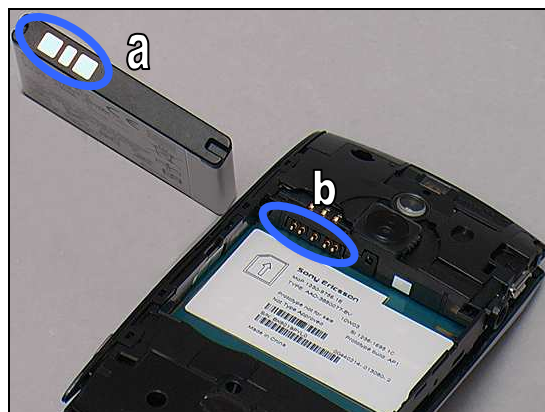


Check:

Inspect the contact pads (a) on the Battery and the contact pins (b).

Action:

1. If (a) or (b) is dirty or oxidized – clean them.
2. If the pads are damaged – replace the Battery.
3. If the pins are damaged – send to higher level of repair.



For the on/off Key, refer to Chapter 1.2.3.

Problem Areas

1.2 Keys

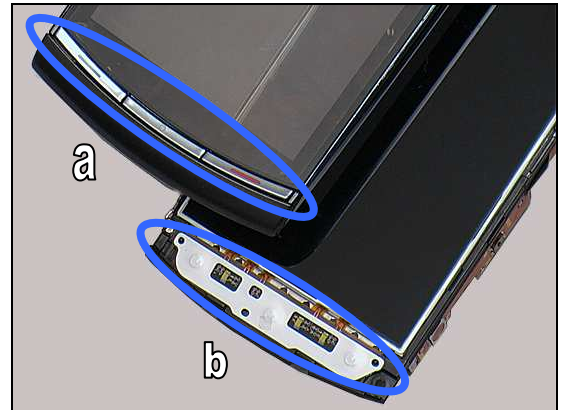
1.2.1 Key Front

Check:

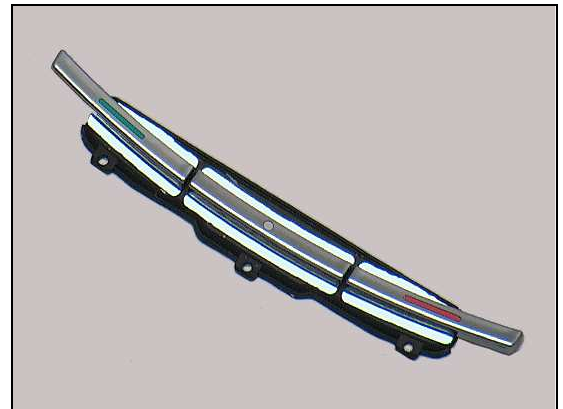
Inspect the Key Front (a), the key dome on the PBA Slider Flex (b) and their connection.

Action:

1. If (a) or (b) is clogged – clean them.



2. If the Key Front is damaged – replace the Key Front.



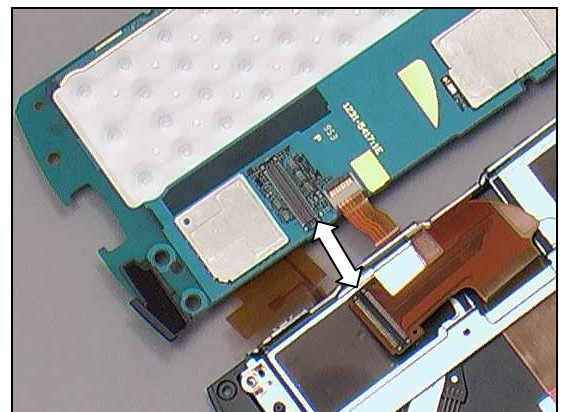
Check:

Inspect and the connection between the PBA Slider Flex to the PBA.

Action:

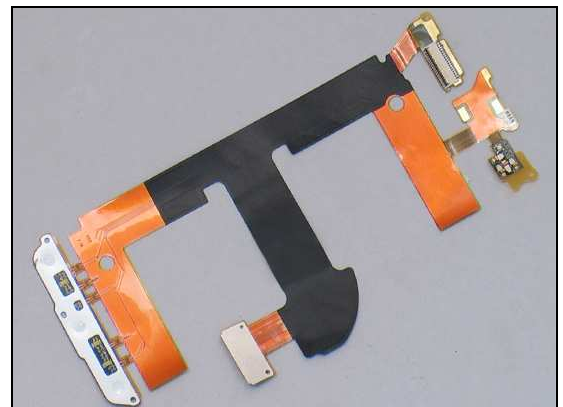
1. If the BtB connector is not properly connected – reconnect it.

2. If the connector is dirty or oxidized – clean it.



3. Replace the PBA Slider Flex.

4. Send to higher level of repair.





Problem Areas: Keys

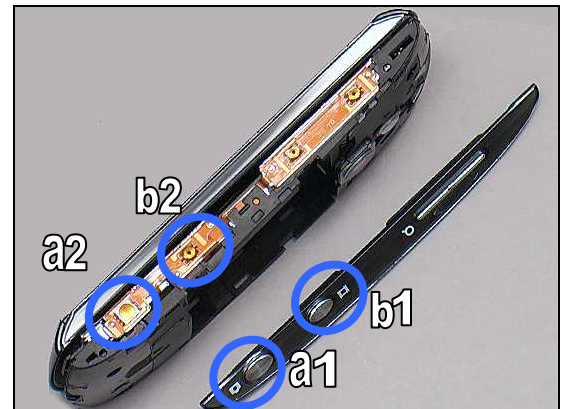
1.2.2 Key Camera

Check:

Inspect Shutter Key (a) and Video Key (b) on the Key Camera (part 1), key dome (part 2) on the PBA Side Key Flex and their connection.

Action:

1. If clogged – clean them.
2. If the Key Camera is damaged – replace it.

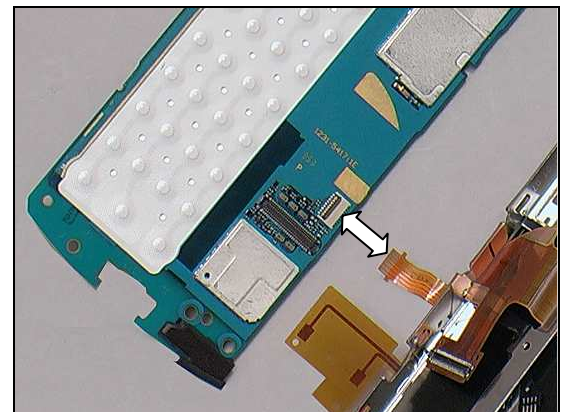


Check:

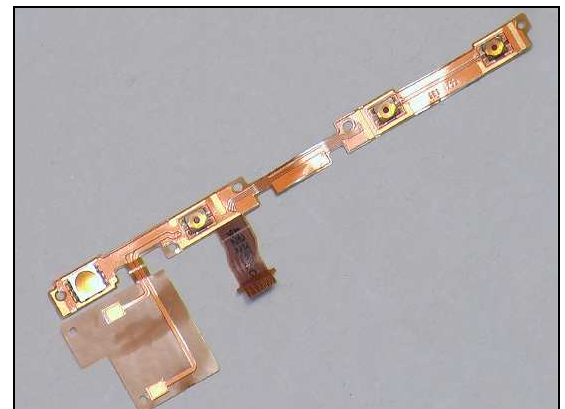
Check the connection between the PBA Side Key Flex to the PBA.

Action:

1. If the ZIF connector is not properly connected – reconnect it.
2. If dirty or oxidized – clean the connector.



3. Replace the PBA Side Key Flex.
4. Send to higher level of repair.





Problem Areas: Keys

1.2.3 On/off Key

Check:

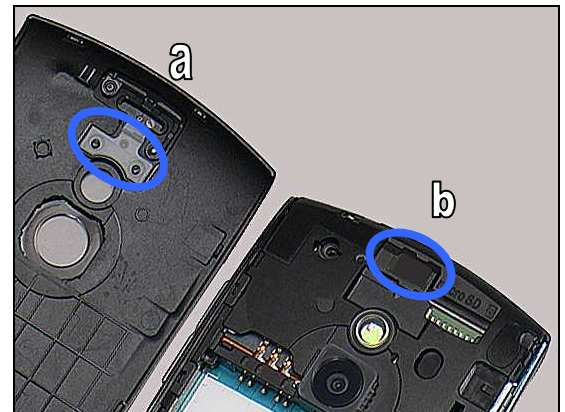
Inspect the on/off key (a) on the Battery Cover, the key dome foil (b) on the Antenna Assembly and their connection.

Action:

1. If (a) or (b) is dirty or clogged – clean it.

2. If the on/off key on the Battery Cover is damaged – replace the Battery Cover.

3. If the key dome foil on the Antenna Assembly is damaged – replace the Antenna Assembly.



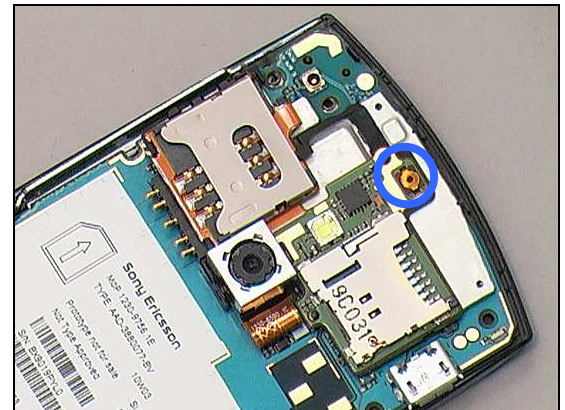
Check:

Inspect the key dome on the PBA SIM FPC.

Action:

1. If dirty or oxidized – clean it.

2. If the key dome is damaged – replace the PBA SIM Flex.



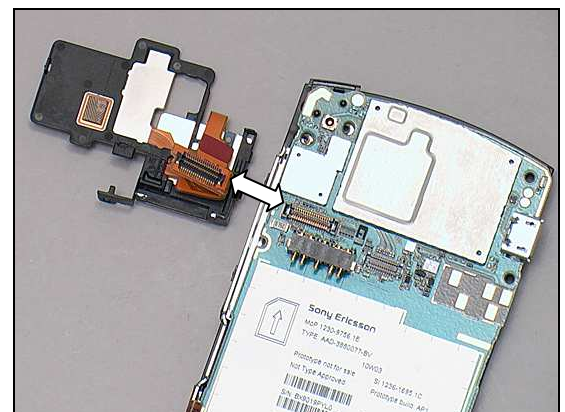
Check:

Inspect the BtB connector of the PBA SIM Flex to the PBA.

Action:

1. If the BtB connector is not properly connected – disconnect and reconnect it.

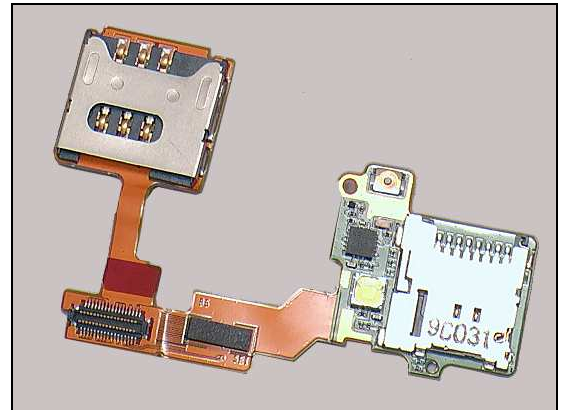
2. If the BtB connectors are dirty or oxidized – clean them.





Problem Areas

3. If the BtB connector on the PBA SIM Flex is damaged – replace the PBA SIM Flex.
4. Send to higher level of repair.



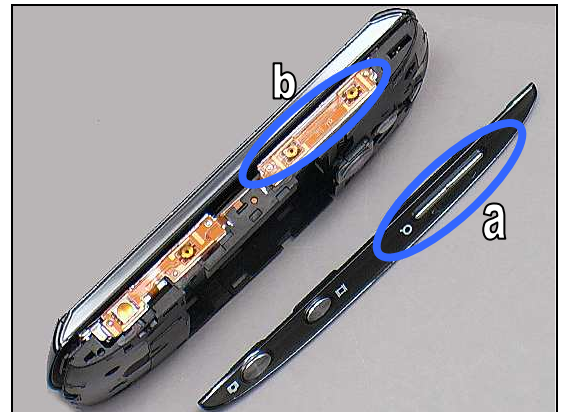
1.2.4 Key Volume

Check:

Inspect the Key Volume (a), key dome (b) on the Side FPC and their connection.

Action:

1. If clogged – clean them.
2. If the Key Volume is damaged – replace it.

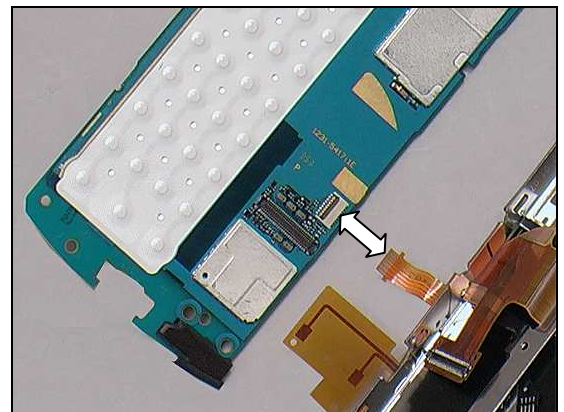


Check:

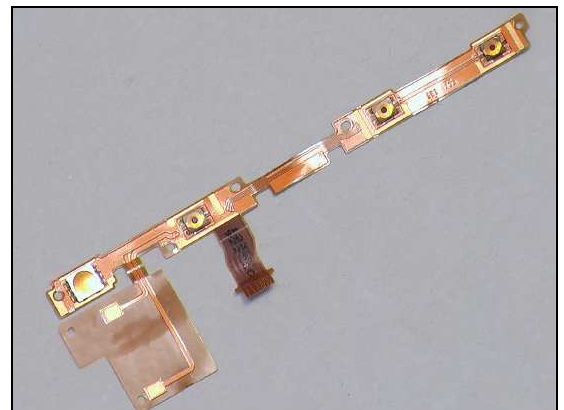
Check the connection between the PBA Side Key Flex to the PBA. FPC.

Action:

1. If the ZIF connector is not properly connected – reconnect it.
2. If dirty or oxidized – clean the connector.



3. Replace the PBA Side Key Flex.
4. Send to higher level of repair.



Problem Areas

1.3 Illumination

1.3.1 Keyboard Illumination

Check:

Inspect whether the Light Guide + Key domes is in right position.

Action:

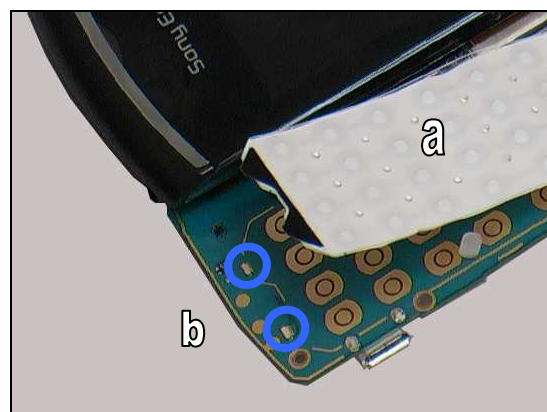
1. If it is in wrong position and does not cover the LEDs – replace it.



Check:

Inspect the Light Guide + Key domes (a) and the two LEDs (b) on the PBA.

2. If (a) is damaged – replace it.
3. If LEDs are damaged – send to higher level of repair.



1.3.2 Ambient Light Malfunction

Check:

Inspect the light sensor window on the Touch Panel.

Action:

If the window is scratched or damaged – replace the Touch Panel.

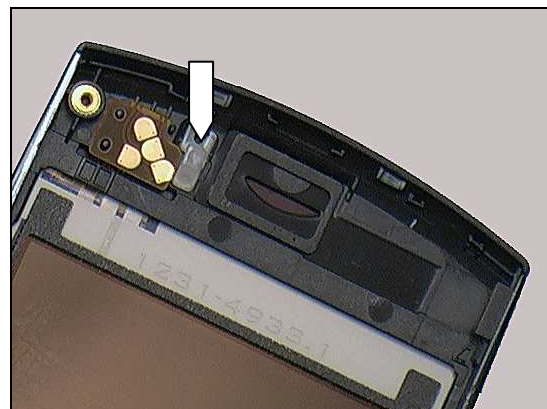


Check:

Inspect the light sensor window on the Upper Front Cover the light sensor on PBA Slider Flex.

Action:

1. If the window is dirty – clean it.
2. If the window is damaged – replace the Upper Front Cover.





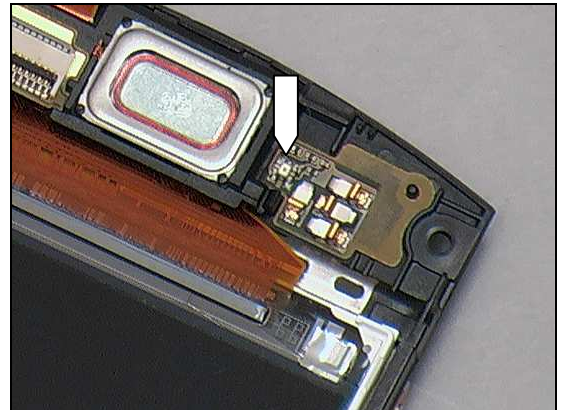
Problem Areas: Illumination

Check:

Inspect the light sensor on the PBA Slider Flex.

Action:

1. If the light sensor is dirty – clean it.
2. If the light sensor on the PBA Slider Flex is damaged – replace the PBA Slider Flex.

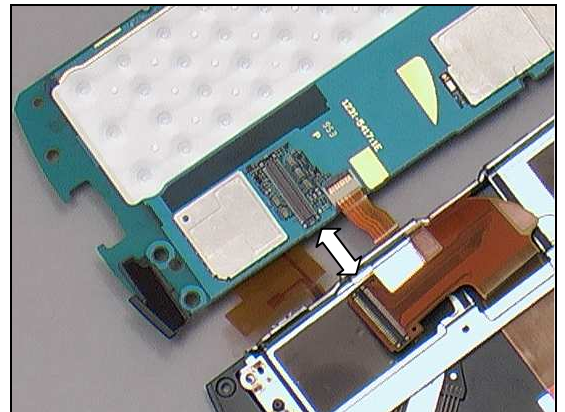


Check:

Check the BtB connection between the PBA Slider FPC and the PBA.

Action:

1. If the connection is not properly connected – disconnect and reconnect it.
2. If the connectors are dirty or oxidized – clean them.



3. If the BtB connector of the PBA is damaged – replace the PBA Slider Flex.
4. Send to higher level of repair.



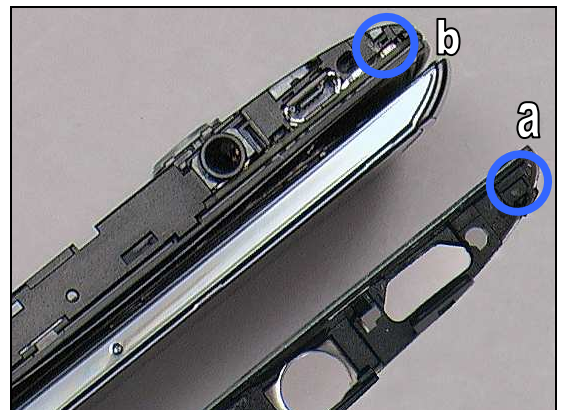
1.3.3 Notification

Check:

Inspect the notification LED window (a) on the Lower Left Panel and the hole (b) on the Antenna Assembly.

Action:

1. If (a) or (b) is dirty or clogged – clean it.
2. If (a) or (b) is damaged – replace the Lower Left Panel or the Antenna Assembly.





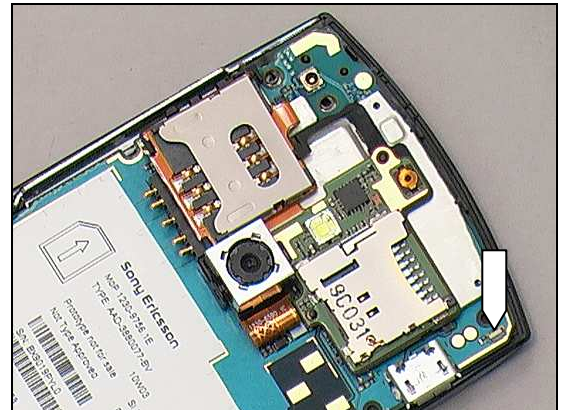
Problem Areas: Illumination

Check:

Inspect the notification LED on the PBA.

Action:

1. If dirty – clean it.
2. Send to higher level of repair.



1.3.4 Tally LED

Check:

Inspect the Tally LED window on the Antenna Assembly.

Action:

1. If dirty – clean it.
2. If the LED window is damaged – replace the Battery Cover.

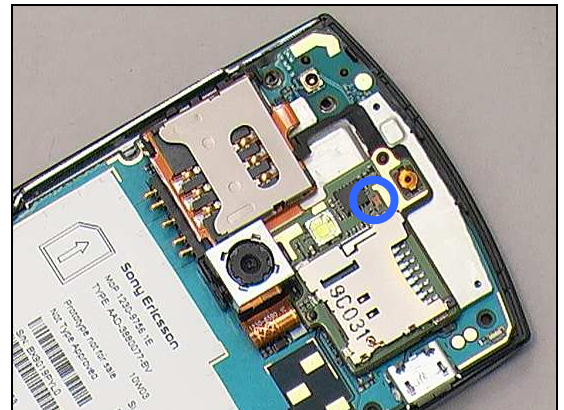


Check:

Inspect the red LED on the PBA SIM Flex.

Action:

If the red LED is damaged – replace the PBA SIM Flex.

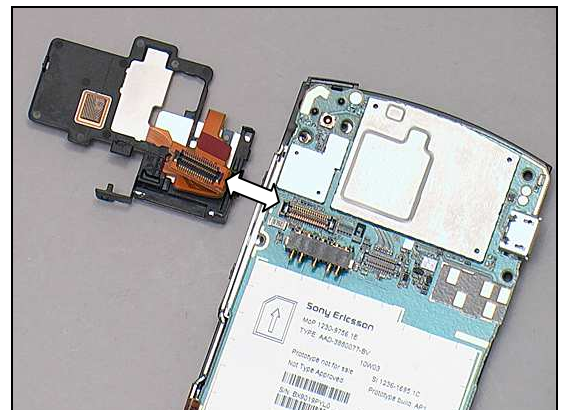


Check:

The connection between the PBA SIM Flex and the PBA.

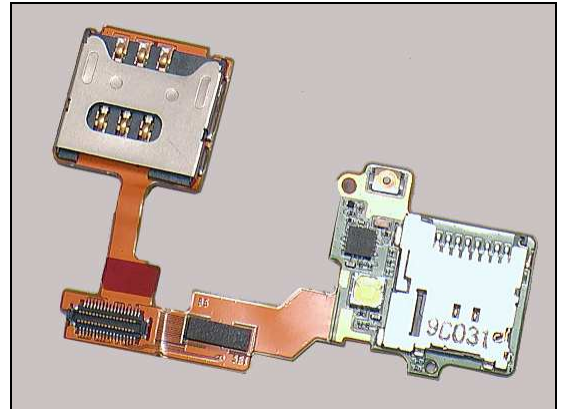
Action:

1. If the BtB connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.



Problem Areas: Illumination

3. If the connector of the PBA SIM Flex is damaged – replace the PBA SIM Flex.
4. 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 is depressed

Action:

If activation of the Vibrator is not detected, refer to section 1.1 'Power'.

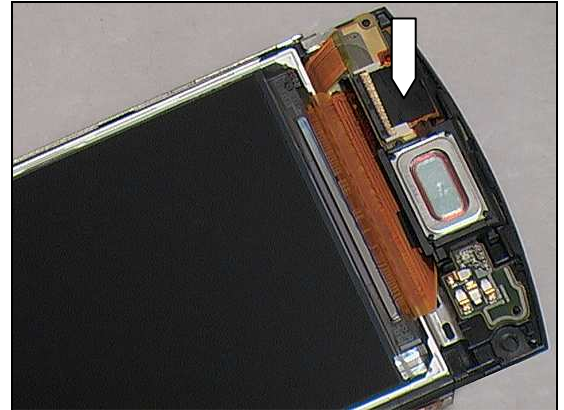


Check:

Inspect the Sheet Connector (LCD).

Action:

1. If the Sheet Connector (LCD) is in wrong position or damaged – replace the Sheet Connector (LCD).

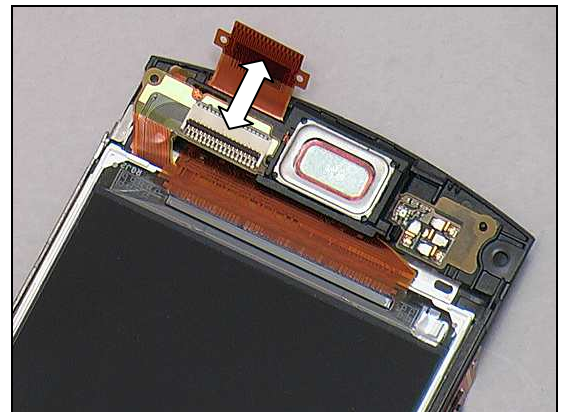


Check:

Inspect the ZIF connectors between the Display and the PBA Slider FPC.

Action:

1. If the connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.
3. If the connector of the Display is damaged – replace the Display.

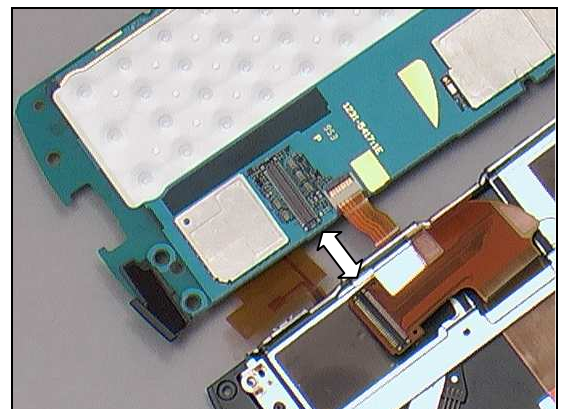


Check:

Check the BtB connectors between the PBA Slider FPC and the PBA.

Action:

1. If the connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.





Problem Areas

3. If the connector of the PBA Slider FPC is damaged – replace the PBA Slider FPC.
4. Send to higher level of repair.



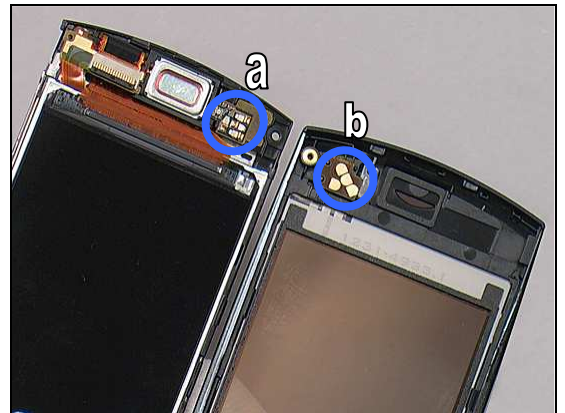
1.4.2 Touch Panel malfunction

Check:

Check the contact pins on the PBA Slide FPC (a) and the contact pads (b) on the Touch Panel.

Action:

1. If dirty or oxidized – clean them.
2. If the pins are damaged – replace the PBA Slider FPC.



3. If the pads are damaged – replace the Touch Panel.

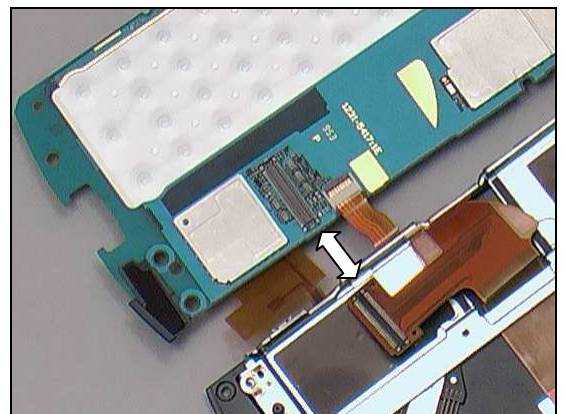


Check:

Check the BtB connectors between the PBA Slider FPC and the PBA.

Action:

1. If the connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.
3. If the connector on the PBA Slider FPC is damaged – replace the PBA Slider FPC.
4. Send to higher level of repair.





Problem Areas

1.5 Audio

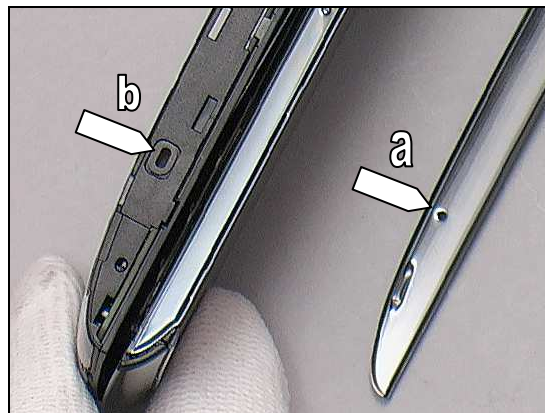
1.5.1 Microphone

Check:

Inspect the microphone's external port (a) on the Lower Left Panel and the microphone's mesh and port (b) on the Antenna Assembly.

Action:

1. If the ports are clogged – clean them.
2. If (a) is damaged – replace the Lower Left Panel.
3. If (b) is damaged – replace the Antenna Assembly.
4. Send to higher level of repair.





Problem Areas: Audio

1.5.2 Ear Speaker

Check:

Inspect the Ear Speaker's external port

Action:

1. If clogged – clean it.
2. If damaged – replace the Upper Front Cover.

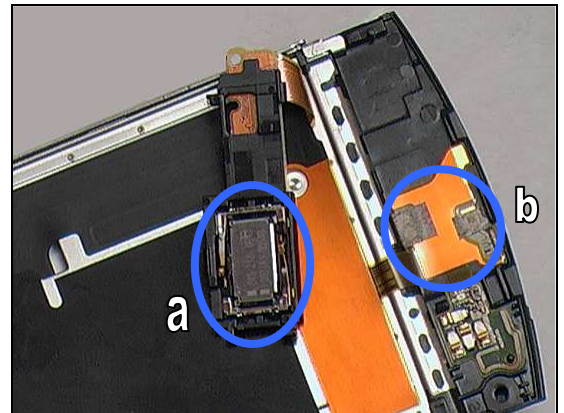


Check:

Inspect the Ear Speaker pins (a) and Adhesive Receiver (b) on the PBA Slider FPC.

Action:

1. If the pins are dirty or oxidized – clean them.
2. If the pins are damaged – replace the Ear Speaker.
3. If the Adhesive Receiver is damaged – replace it.

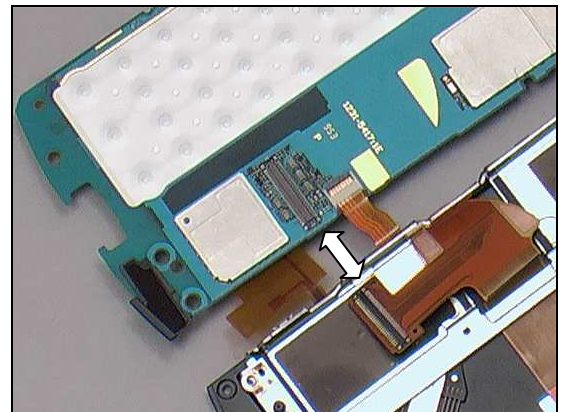


Check:

Check the connection between the PBA Slider FPC and the PBA.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If the BtB connectors are dirty or oxidized – clean them.



3. If the PBA Slider FPC is damaged – replace the PBA Slider FPC.
4. Send to higher level of repair.





Problem Areas: Audio

1.5.3 Loudspeaker

Check:

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

Action:

1. If the port is clogged – clean it.
2. If the port is damaged – replace the Battery Cover.



Check:

Inspect the loudspeaker's mash on the Antenna Assembly.

Action:

If the mash is dirty – clean it.

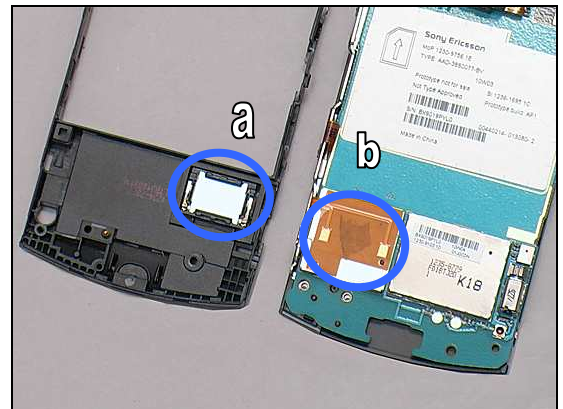


Check:

Inspect the pins (a) on the loudspeaker in the Antenna Assembly, the pads (b) on the PBA Side Key Flex.

Action:

1. If the pins or the pads are dirty or oxidized – clean them.
2. If the pins are damaged – replace the Antenna Assembly.

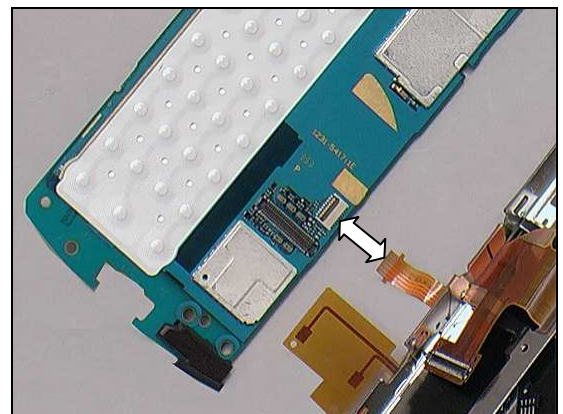


Check:

Check the connection between the PBA Side Key Flex and the PBA.

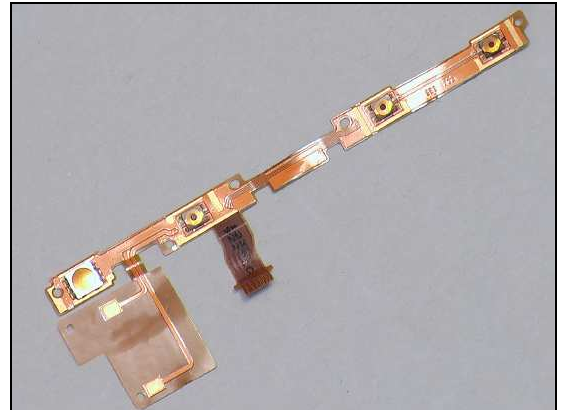
Action:

1. If the ZIF connectors are dirty or oxidized – clean them.
2. If the connectors are not properly connected – disconnect and reconnect them.



Problem Areas: Audio

3. If the connector of the PBA Side Key Flex is damaged – replace the PBA Side Key Flex.
4. Send to higher level of repair.



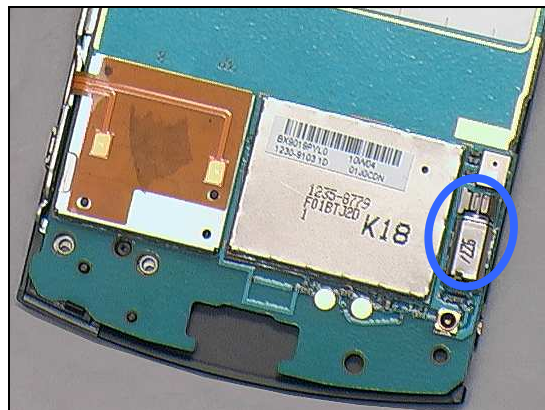
Problem Areas

1.6 Vibrator

1.6.1 Vibrator not generating alerts

Action:

Send to higher level of repair



Problem Areas

1.7 Camera

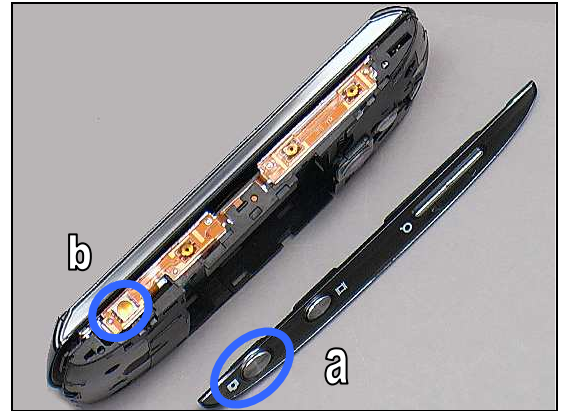
1.7.1 Photo Defects

Check:

Inspect part (a) on the Key Camera and (b) on the PBA Side Key Flex and their connection.

Action:

1. If part (a) or (b) is dirty or clogged – clean them.
2. If part (a) is damaged – replace the Key Camera.
3. If part (b) is damaged – replace the PBA Side Key Flex.



Check:

Inspect the camera window in the Antenna Assembly.

Action:

1. If dirty – clean the window.
2. If scratched or damaged – replace the Antenna Assembly.

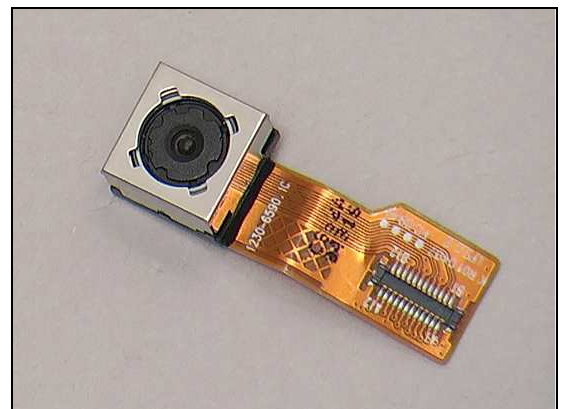
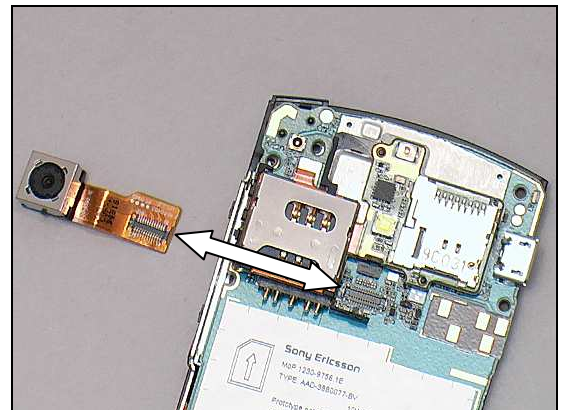


Check:

Inspect the Camera and its connection to the PBA.

Action:

1. If the BtB connectors are not properly connected – disconnect and reconnect it.
2. If the Camera is damaged – replace the Camera.
3. Send to higher level of repair.





Problem Areas

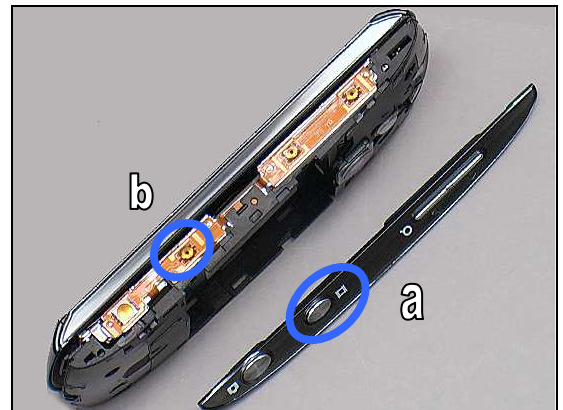
1.7.2 Video failure

Check:

Inspect part (a) on the Key Camera and (b) on the PBA Side Key Flex and their connection.

Action:

1. If part (a) or (b) is dirty or clogged – clean them.
2. If part (a) is damaged – replace the Key Camera.
3. If part (b) is damaged – replace the PBA Side Key Flex.



Check:

Inspect the camera window in the Antenna Assembly.

Action:

1. If dirty – clean the window.
2. If scratched or damaged – replace the Antenna Assembly.

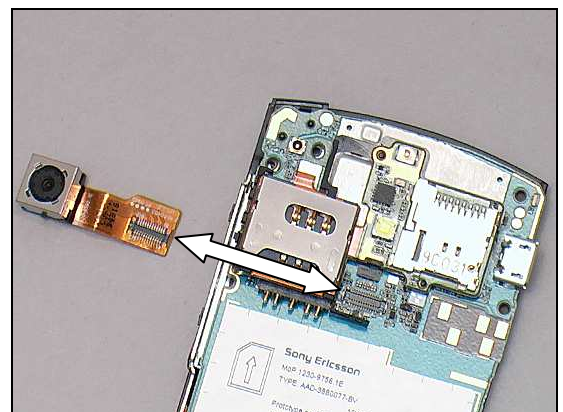


Check:

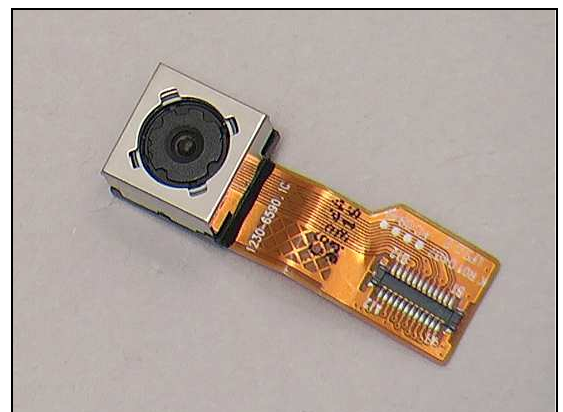
Inspect the Camera and its connection to the PBA.

Action:

1. If the BtB connectors are not properly connected – disconnect and reconnect it.



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





Problem Areas

1.8 Flash LED

1.8.1 Flash LED defects

Check:

Inspect Flash LED len in the Antenna Assembly.

Action:

1. If dirty – clean it gently.
2. If scratched or damaged – replace the Antenna Assembly.

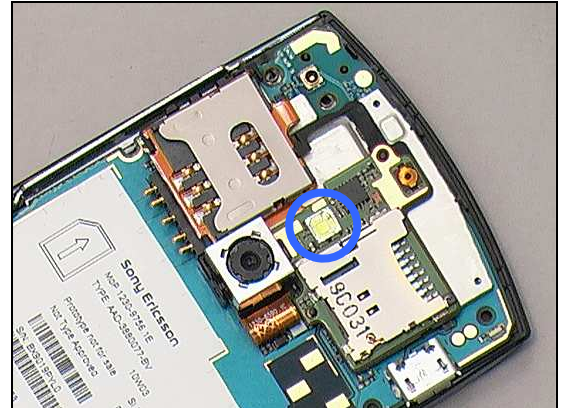


Check:

Inspect Flash LED on the PBA SIM Flex.

Action:

If the Flash LED is damaged – replace the PBA SIM Flex.

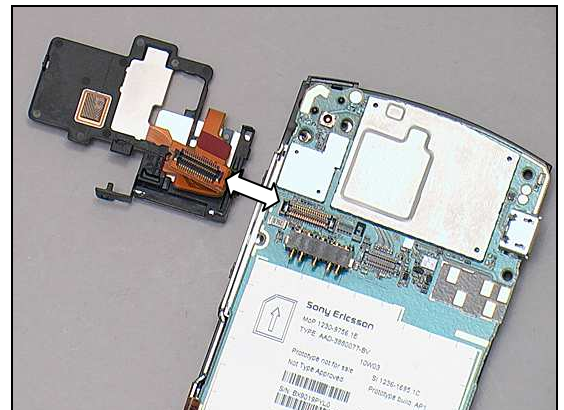


Check:

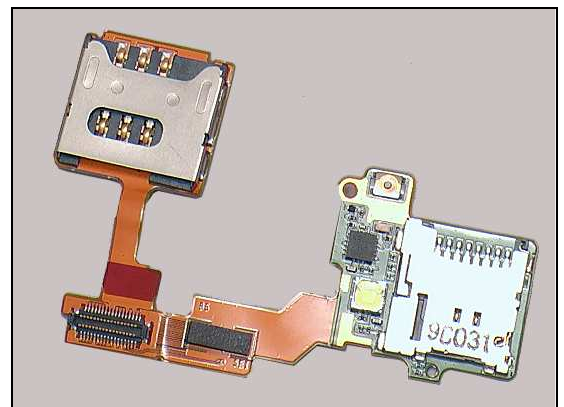
The connection between the PBA SIM Flex and the PBA.

Action:

1. If the BtB connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.



3. If the connector of the PBA SIM Flex is damaged – replace the PBA SIM Flex.
4. Send to higher level of repair.





Problem Areas

1.9 Memory Card

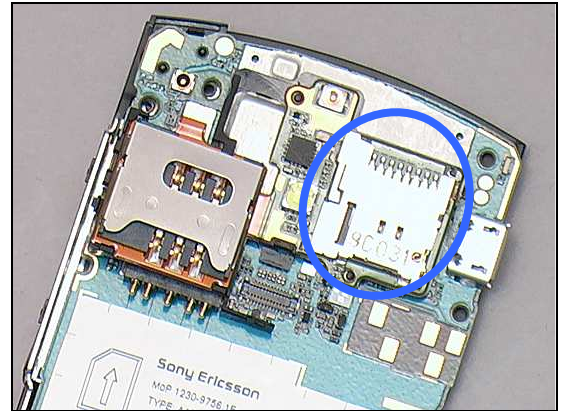
1.9.1 Memory Card not detected

Check:

Inspect the memory card holder

Action:

If the holder is clogged or oxidized – clean it.



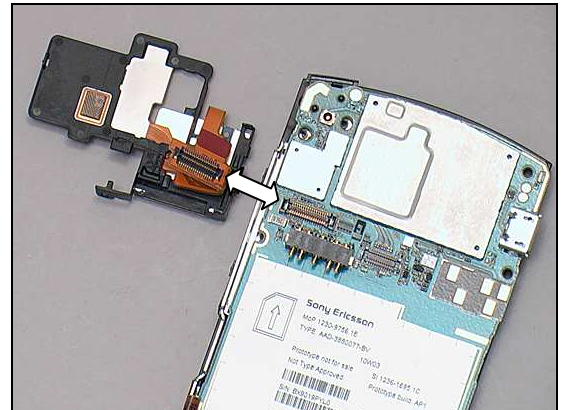
Check:

The connection between the PBA SIM Flex. and the PBA

Action:

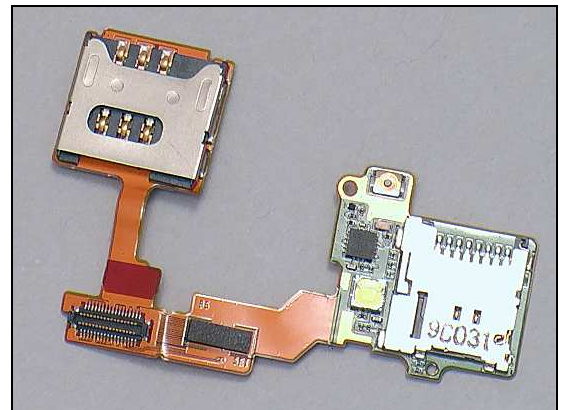
1. If the connectors are not properly connected – disconnect and reconnect them.

2. If the connectors are dirty or oxidized – clean them.



3. If the PBA SIM Flex is damaged – replace the PBA SIM Flex.

4. Send to higher level of repair.





Problem Areas

1.10 SIM

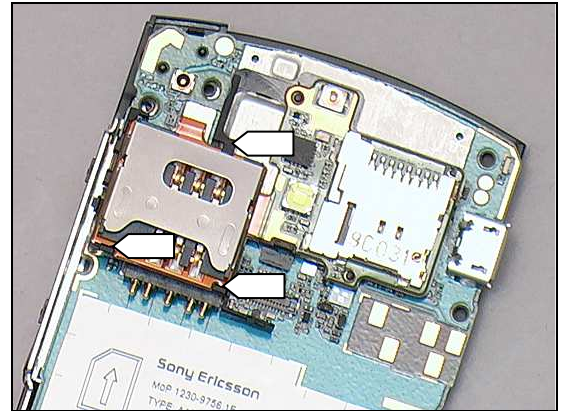
1.10.1 SIM not detected

Check:

Inspect SIM card holder on the PBA SIM Flex and the three hooks of it.

Action:

1. If the holder is not properly installed – reinstall it.
2. If the holder is clogged or oxidized – clean it.

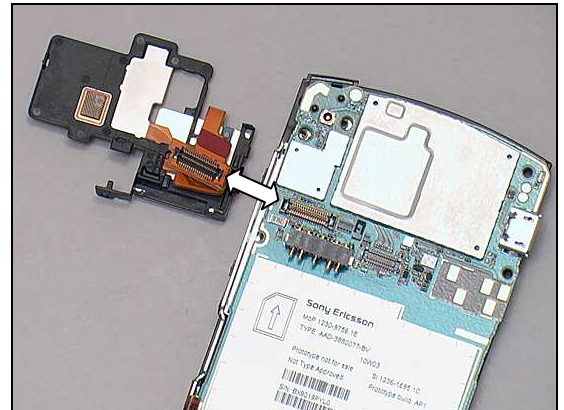


Check:

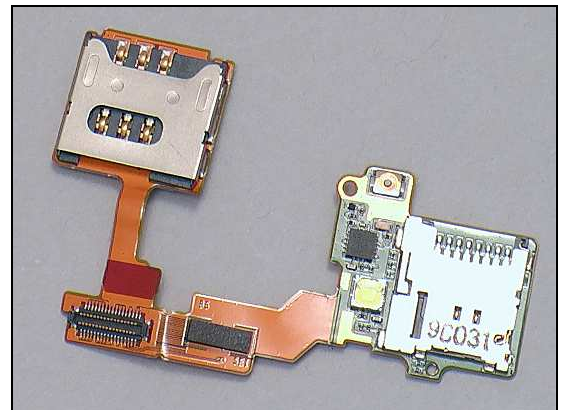
The connection between the PBA SIM Flex and the PBA.

Action:

1. If the connectors are not properly connected – disconnect and reconnect them.
2. If the connectors are dirty or oxidized – clean them.



3. If the PBA SIM Flex is damaged – replace the PBA SIM Flex.
4. Send to higher level of repair.



1.10.2 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

1.11 Bluetooth, W-LAN, GPS,Wi-Fi

1.11.1 Bluetooth, W-LAN, GPS,Wi-Fi malfunctions

Check:

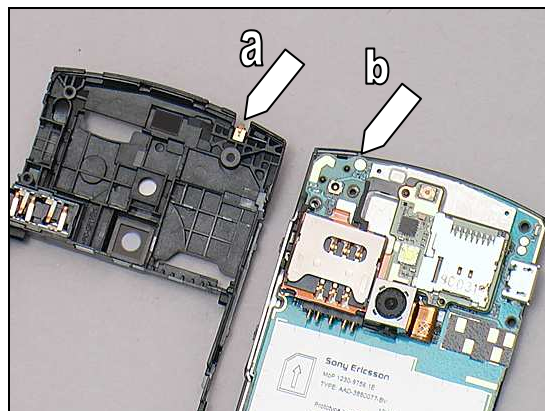
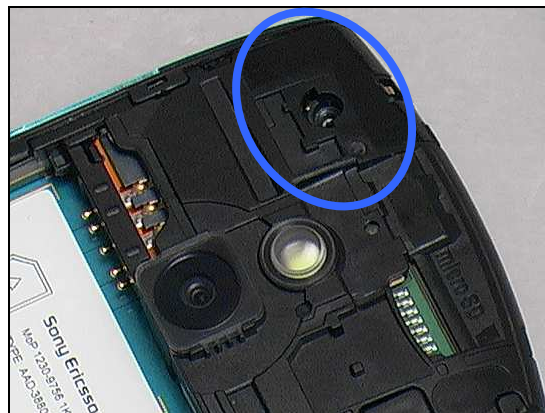
Inspect the antenna foil in the Antenna Assembly.

Check:

Check the pin (a) on the Antenna Assembly and the pad (b) on the PBA

Action:

1. If the pins or the pads are dirty or oxidized – clean them.
2. If the antenna foil or the pins are damaged – replace the Antenna Assembly.
3. Send to higher level of repair



Problem Areas

1.12 FM Radio

1.12.1 FM Radio fails

Check:

Inspect the Audio Jack.

Action:

1. If the Audio Jack connector is dirty or oxidized – clean it.
2. If the Audio Jack is damaged – replace an Audio Jack.
3. Send to higher level of repair





Problem Areas

1.13 Accelerometer

1.13.1 Accelerometer test fails

Action:

Send to higher level of repair

Problem Areas

1.14 Real Time Clock

1.14.1 Real Time Clock test fails

Action:

Send to higher level of repair

Problem Areas

1.15 Charging

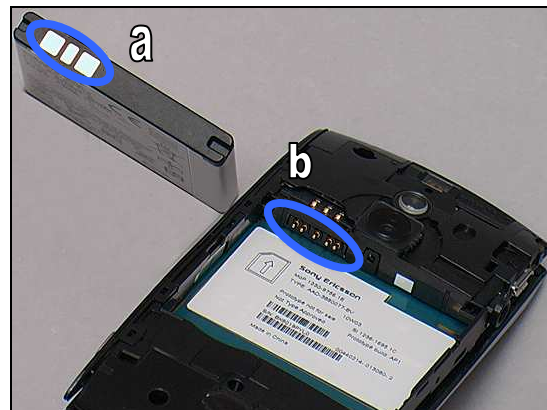
1.15.1 Battery will not charge

Check:

Inspect the contact pads (a) of the Battery and the pins (b) on the PBA.

Action:

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



Check:

Inspect the USB connector.

Action:

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



Problem Areas

1.16 Network & Signal

1.16.1 No/Poor signal

Check:

Ensure that a correct SIM is installed

1. Inspect the antenna foil on the Antenna Assembly.

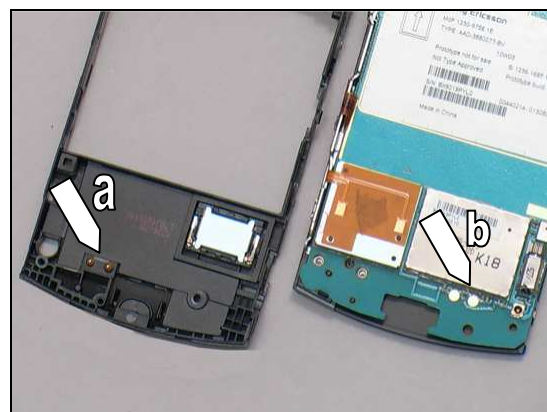


Check:

2. Inspect the antenna contact pins (a) on the Antenna Assembly and pads (b) on the PBA.

Action:

1. If the pins or the pads are dirty or oxidized – clean them.



3. If the antenna foil or the pins are damaged – replace the Antenna Assembly.
4. Send to higher level of repair.



Problem Areas

1.17 HandsFree by Wire

1.17.1 Connection to Portable HandsFree fails

Check:

Inspect the Audio Jack.

Action:

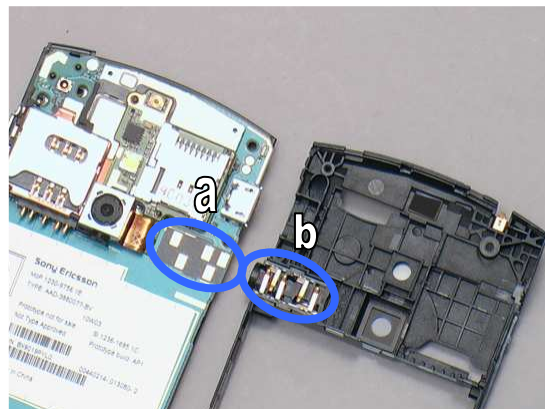
If the Audio Jack is dirty – clean it.

Check:

Check the Audio Jack contact pins (a) and the pads (b) on the PBA.

Action:

1. If the pins or the pads are dirty or oxidized – clean them.
2. If the pins are damaged – replace the Audio Jack.
3. Send to higher level of repair



Problem Areas

1.18 Data Communication

1.18.1 Data transfer via USB Connector fails

Check:

Inspect the USB connector

Action:

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





2 Revision History

Rev.	Date	Changes / Comments
1	2010-May	Initial release