



Sony Ericsson

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# Troubleshooting Guide

## - mechanical -



*X10i, X10a, SO-01B*

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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 Keyboard illuminates after the power key is depressed

**Action:**

If activation of the Vibrator and the Main Key illuminates 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 Connector

**Action:**

1. If dirty or oxidized – clean the connector.
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 Key On/Off

**Action:**

1. If dirty or oxidized – clean it.
2. If damaged – replace it.



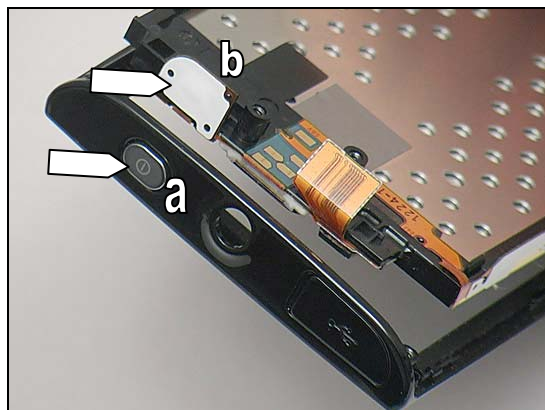
## Problem Areas: Power

### Check:

Check the connection between the Key On/Off (a) and the dome sheet on the Receiver FPC (b).

### Action:

Reinstall the Key On/Off (a) to ensure the key is properly located on the Receiver FPC (b).

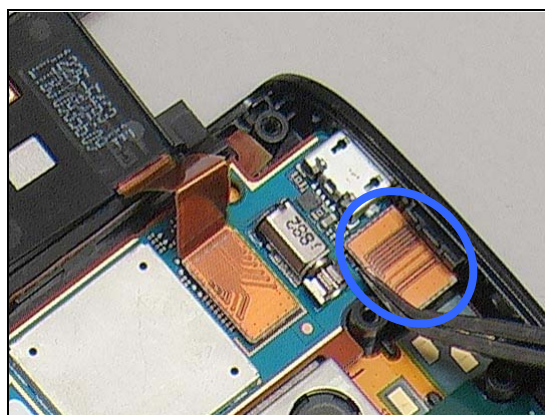


### Check:

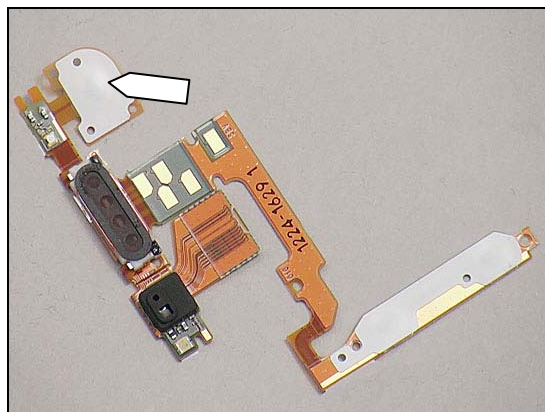
1. Check the BtB connector of Receiver FPC to the Main PBA
2. Inspect the Receiver FPC

### Action:

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



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





## Problem Areas

### 1.2 Keys

#### 1.2.1 Menu Home Back Keys

**Check:**

Inspect the Key Main

**Action:**

1. If clogged – clean it.

2. If damaged – replace it.

**Check:**

Check the connection between the Key Main and the Main Key FPC.

**Action:**

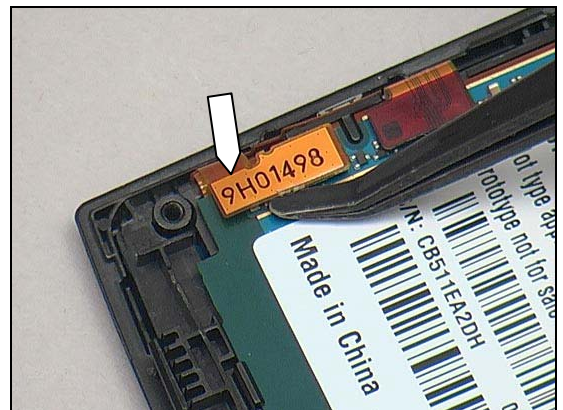
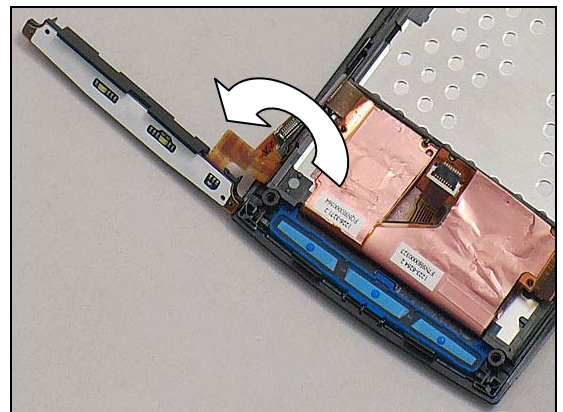
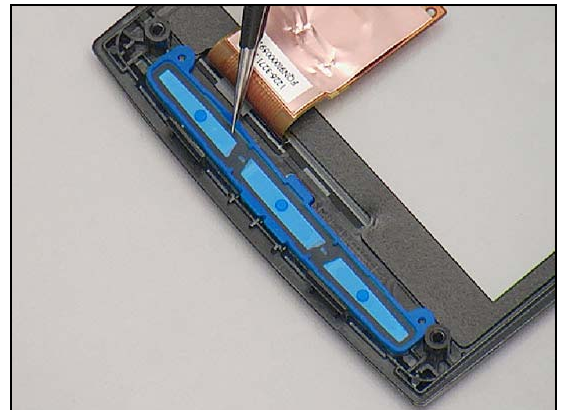
Reinstall the Key Main to ensure the key is properly located on the Main Key FPC.

**Check:**

Check the connection between the Main Key FPC and the Main PBA

**Action:**

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



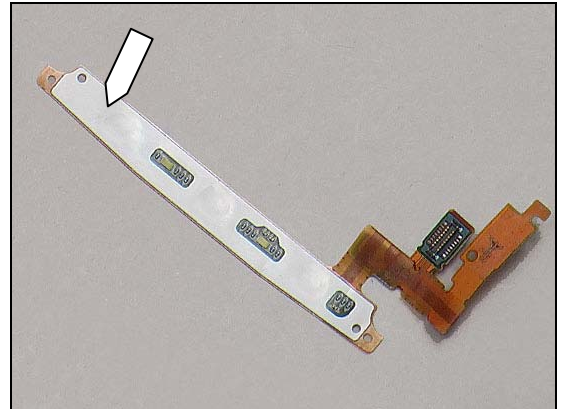
## Problem Areas: Keys

### Check:

Inspect the Main Key FPC

### Action:

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



### 1.2.2 Camera key

#### Check:

Inspect the Key Camera

#### Action:

1. If clogged – clean it.
2. If damaged – replace it.

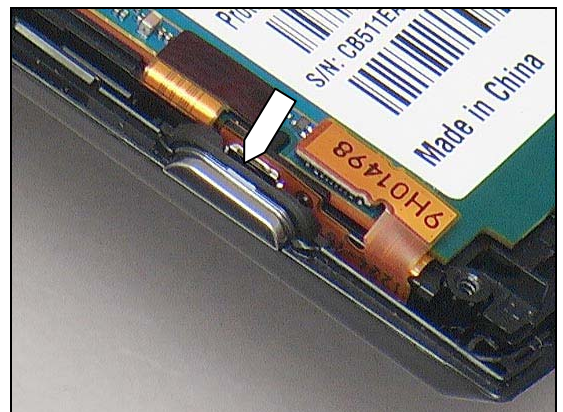


#### Check:

Check the connection between the Key Camera and the Main Key FPC.

#### Action:

Reconnect and reinstall the Key Camera to ensure the Key Camera is properly located on the dome sheet.



#### Check:

Check the connection between the Main Key FPC and the Main PBA

#### Action:

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



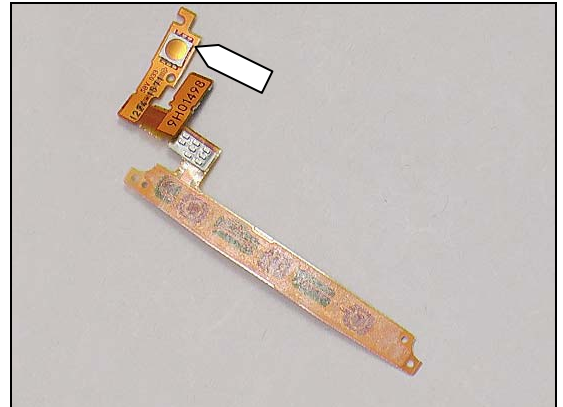
## Problem Areas: Keys

### Check:

Inspect the Main Key FPC

### Action:

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



### 1.2.3 On/Off key

#### Check:

Inspect the Key On/Off

#### Action:

1. If dirty or oxidized – clean it.
2. If the Key On/Off is damaged – replace it.

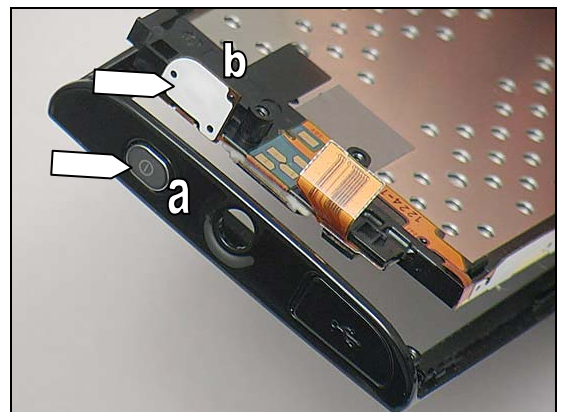


#### Check:

Check the connection between the Key On/Off (a) and the dome sheet on the Receiver FPC (b).

#### Action:

Reinstall the Key On/Off (a) to ensure the key is properly located on the Receiver FPC (b).

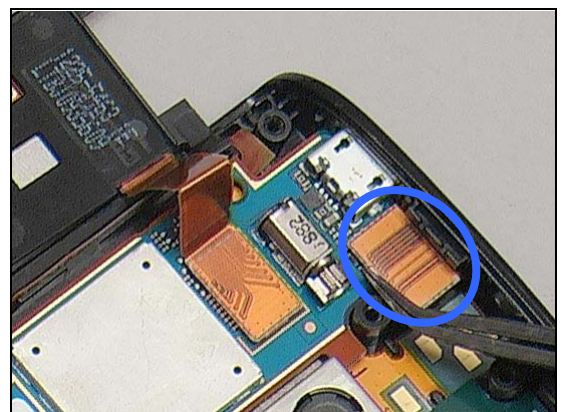


#### Check:

1. Check the BtB connector of Receiver FPC to the Main PBA
2. Inspect the Receiver FPC

#### Action:

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

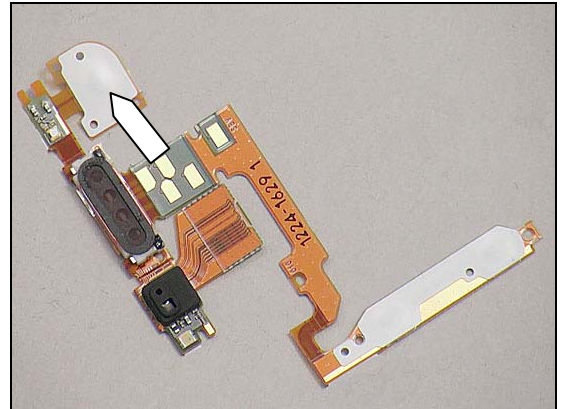






## Problem Areas: Keys

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



### 1.2.4 Volume key

**Check:**

Inspect the Key Volume

**Action:**

If damaged – replace it.

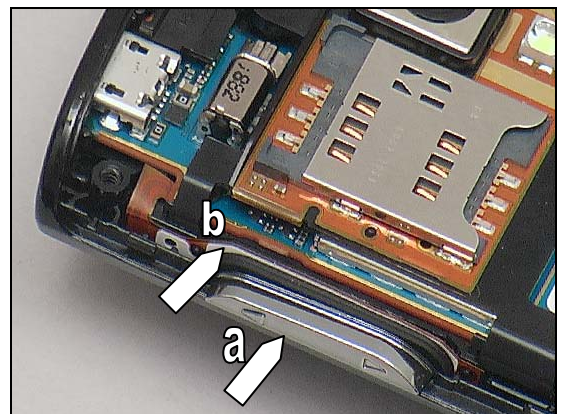


**Check:**

Check the connection between the Key Volume (a) and the Receiver FPC (b).

**Action:**

Reinstall the Key Volume (a) to ensure the key is properly located on the Receiver FPC (b).

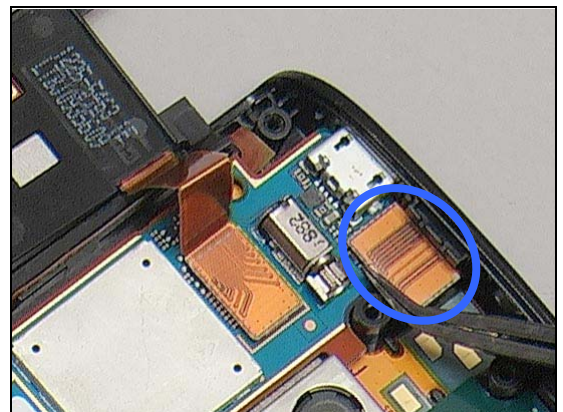


**Check:**

1. Check the BtB connector of Receiver FPC to the Main PBA.
2. Inspect the Receiver FPC

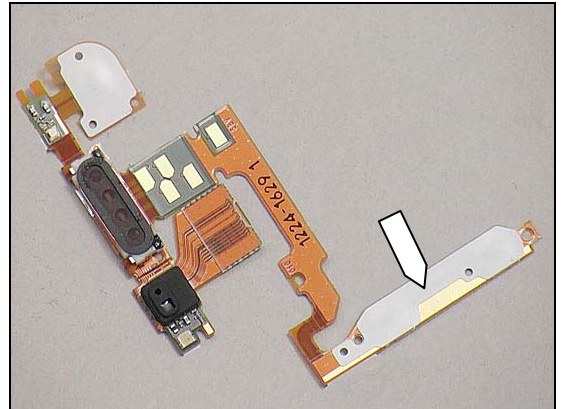
**Action:**

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



## Problem Areas: Keys

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



## Problem Areas

### 1.3 Key Illumination

#### 1.3.1 Key Illumination

**Check:**

Inspect the LED from the outside of the phone

**Action:**

1. If clogged – clean it.
2. If dirty or oxidized – clean it.

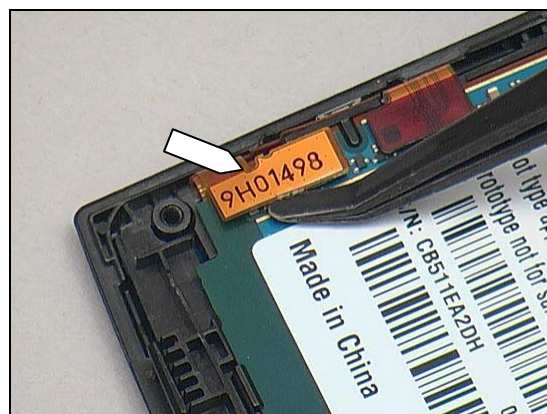


**Check:**

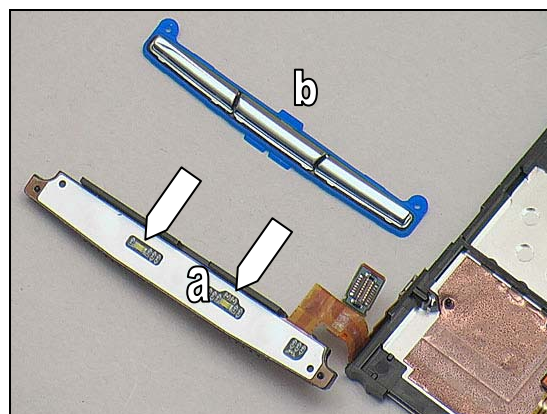
Check the BtB connectors on both side of Main Key FPC and Main PBA

**Action:**

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



3. If the Main Key FPC (a) is damaged – replace it
4. If the Key Main (b) is damaged – replace it.
5. Send to higher level of repair.





## Problem Areas: Key Illumination

### 1.3.2 Notification

**Check:**

Inspect the Notification LED from the outside of the phone

**Action:**

If dirty or oxidized – clean it.

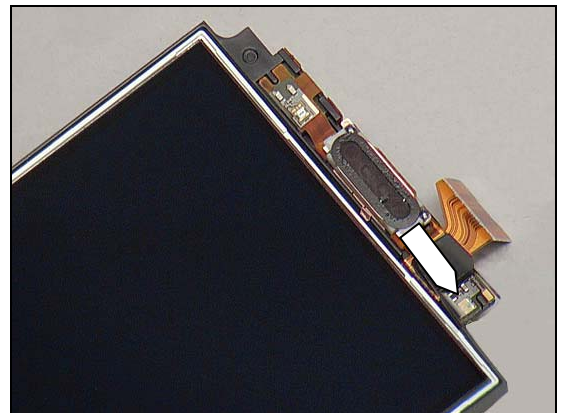


**Check:**

Inspect the Notification LED on the Receiver FPC

**Action:**

If dirty or oxidized – clean it.

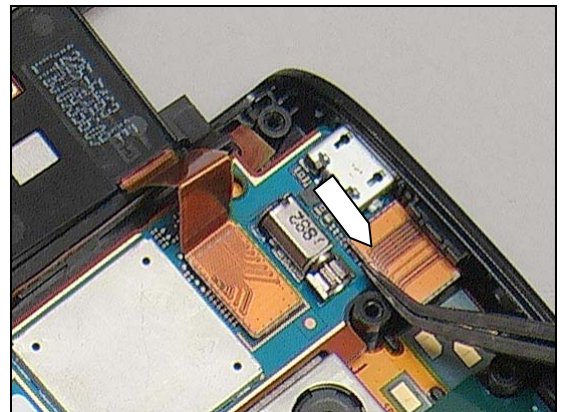


**Check:**

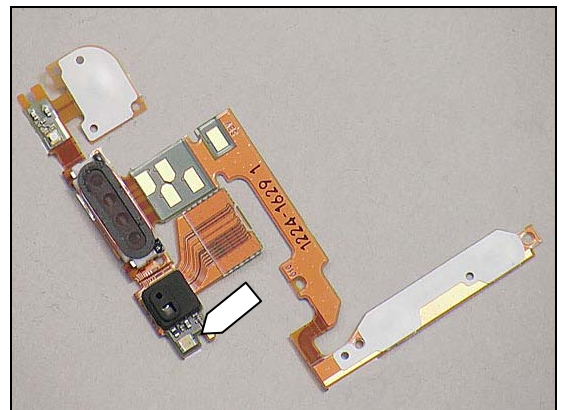
Check the BtB connector on both sides of the Receiver FPC and the Main PBA

**Action:**

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



2. Replace the Receiver FPC.
3. Send to higher level of repair.





## Problem Areas

### 1.4 Display

#### 1.4.1 Graphics & Illumination

**Check:**

Check whether the phone vibrates and the Keyboard illuminates after the power key is depressed

**Action:**

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

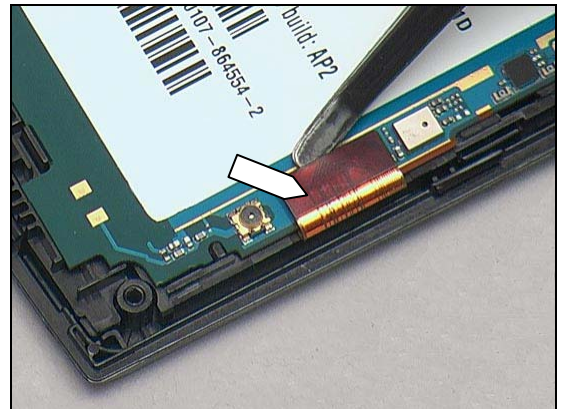


**Check:**

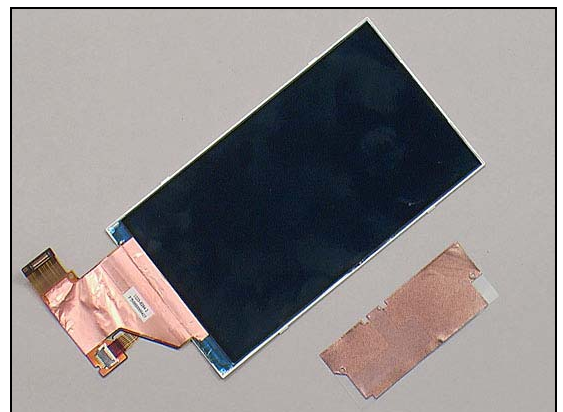
The connection between Display and Main PBA

**Action:**

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



3. If the Display is damaged – replace the Display and the Adhesive Frame Sub Assembly.
4. Send to higher level of repair.



#### 1.4.2 Touch Screen malfunction

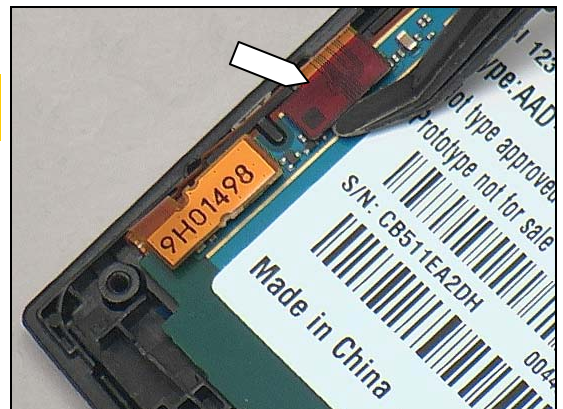
**Remove Extra Screen Protector attached on Front Cover Assy first if have before checking!**

**Check:**

Check the BtB connectors on both sides on Front Cover Assy and Main PBA

**Action:**

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



## Problem Areas: Display

***Remove Extra Screen Protector attached on Front Cover Assy first if have before checking!***

**Check:**

Inspect the Front Cover Assy.

**Action:**

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



## Problem Areas

### 1.5 Audio

#### 1.5.1 Microphone

**Check:**

Inspect the Microphone's external from outside

**Action:**

If clogged – clean the port.

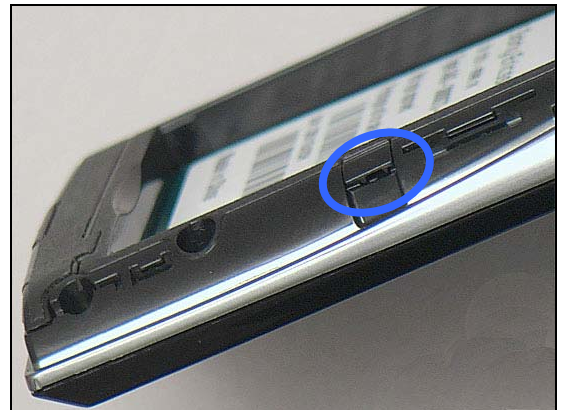


**Check:**

Inspect the Microphone's external port

**Action:**

If dirty or oxidized – clean it.



**Check:**

Inspect the Microphone's mesh

**Action:**

If damaged – replace the Rear Cover Assy.



**Check:**

Inspect the Microphone on the Main PBA

**Action:**

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



## Problem Areas: Audio

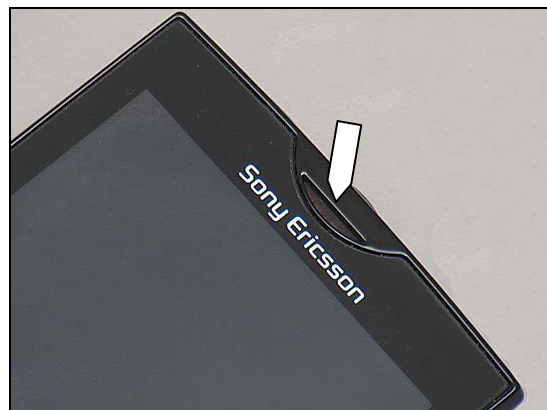
### 1.5.2 Ear Speaker

**Check:**

Inspect the Ear Speaker's external port

**Action:**

If clogged – clean it.

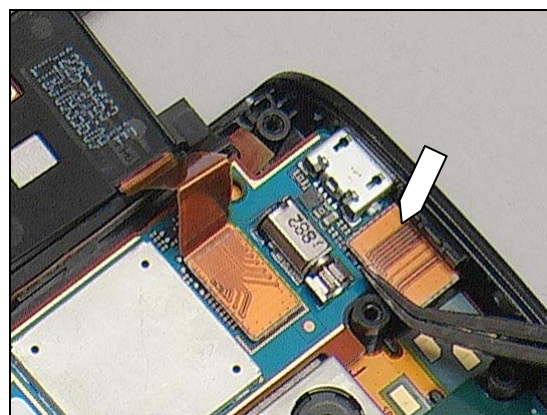


**Check:**

Check the connection between the Receiver FPC and the Main PBA

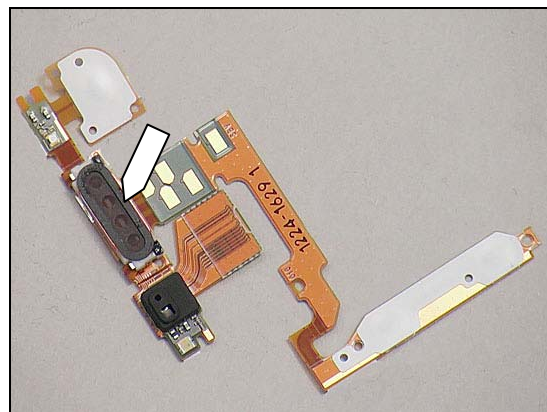
**Action:**

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



2. Replace the Receiver FPC.

3. Send to higher level of repair.







## Problem Areas: Audio

### 1.5.3 Loudspeaker

**Check:**

Inspect the Loudspeaker's external port

**Action:**

If clogged – clean the port.



**Check:**

Inspect the Loudspeaker's mesh

**Action:**

If damaged – replace the Rear Cover Assy.

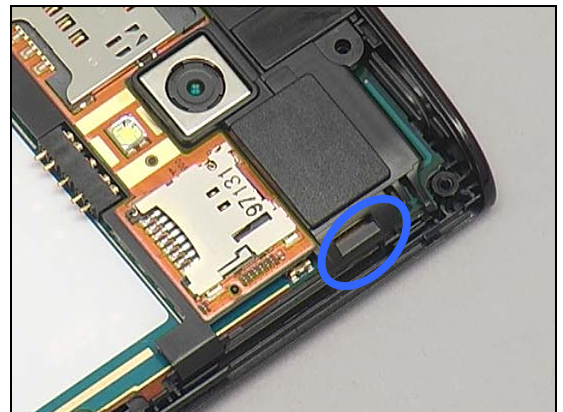


**Check:**

Inspect the Loudspeaker

**Action:**

If dirty or oxidized – clean it.

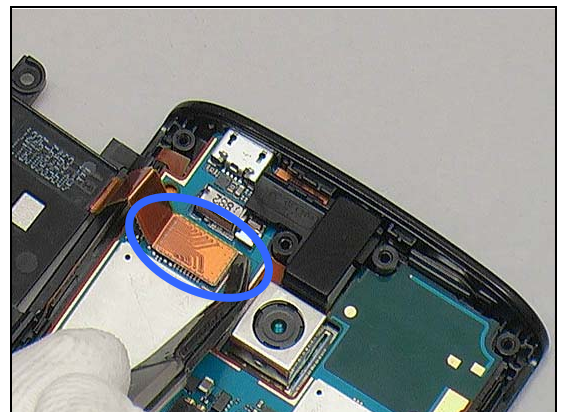


**Check:**

The connection between the SIM and MicroSD FPC and the Main PBA

**Action:**

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



## Problem Areas: Audio

**Check:**

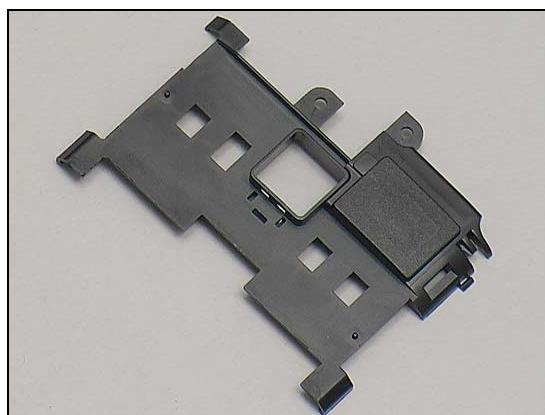
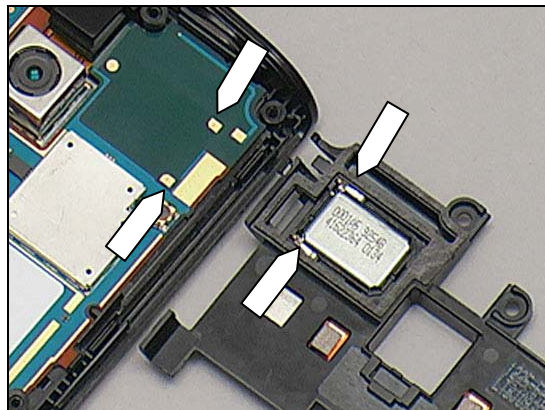
Inspect both sides of the Loudspeaker's contact pads and pins

**Action:**

1. If adhesive is detected on the contact pads/pins - use an eraser to gently rub off the adhesive.

2. Replace the Non-Celler Antenna Speaker Box.

3. 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

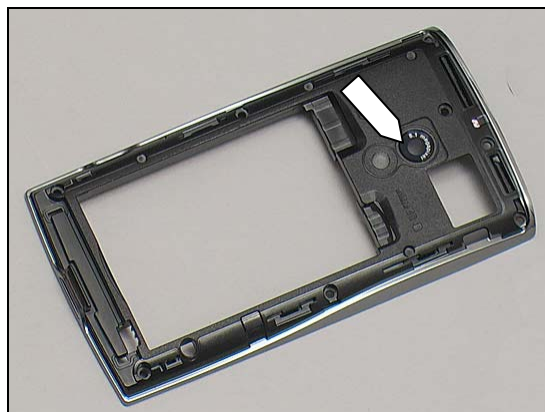
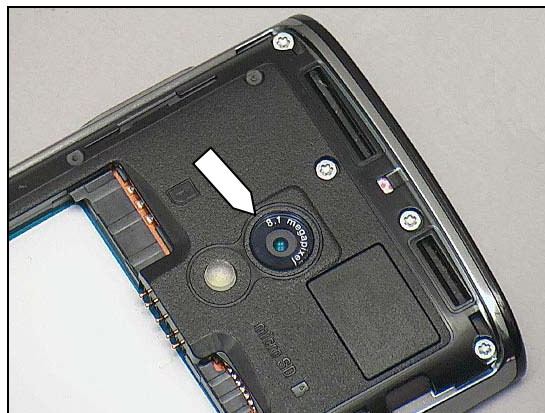
#### 1.7.1 Camera defects

**Check:**

Inspect the camera window

**Action:**

1. If dirty – clean the window.
2. If adhesive is detected - use an eraser to gently rub off the adhesive.



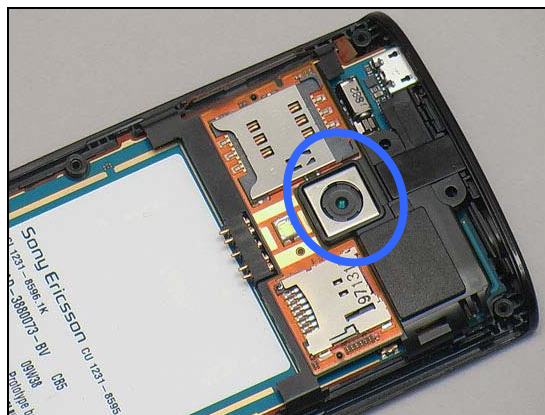
3. If scratched or damaged – replace the Rear Cover Assy.

**Check:**

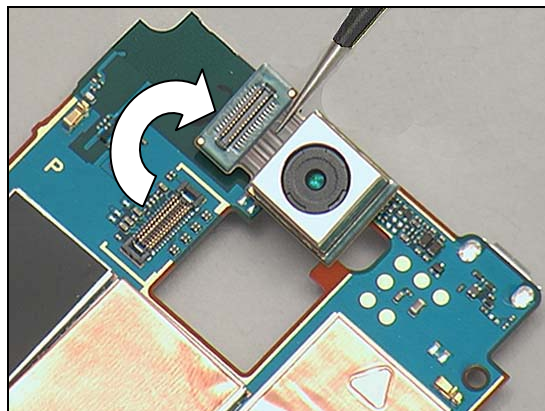
Inspect the Camera

**Action:**

1. If dirty – clean it.
2. If adhesive is detected - use an eraser to gently rub off the adhesive.



3. Replace the Camera 8 MPixel CMOS.
4. Send to higher level of repair.





## Problem Areas

### 1.8 Flash LED

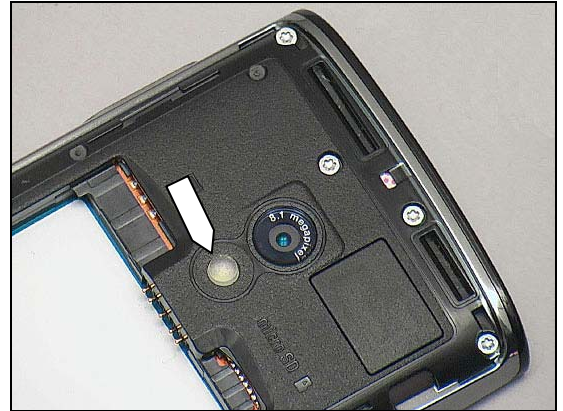
#### 1.8.1 Flash LED defects

**Check:**

Inspect Flash LED lens

**Action:**

If dirty – clean it gently.

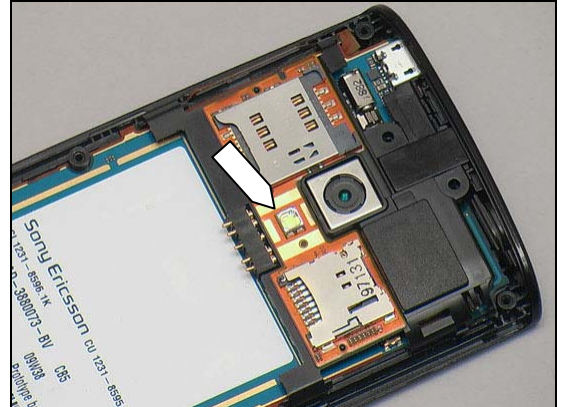


**Check:**

Inspect Flash LED

**Action:**

If adhesive is detected - use an eraser to gently rub off the adhesive.

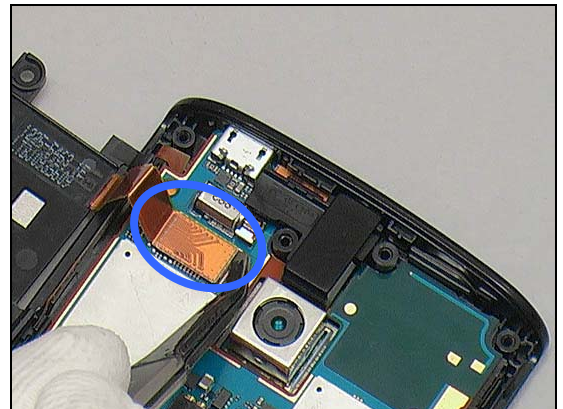


**Check:**

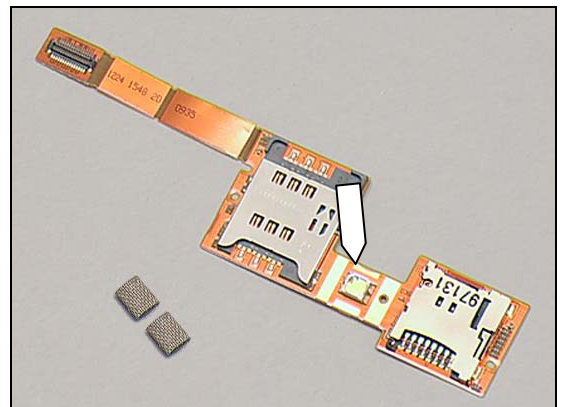
The connection between the SIM and MicroSD FPC and the Main PBA

**Action:**

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



3. If damaged – replace the SIM and MicroSD FPC and the two Conductive Gaskets.
4. Send to higher level of repair.



## Problem Areas

### 1.9 Memory Card

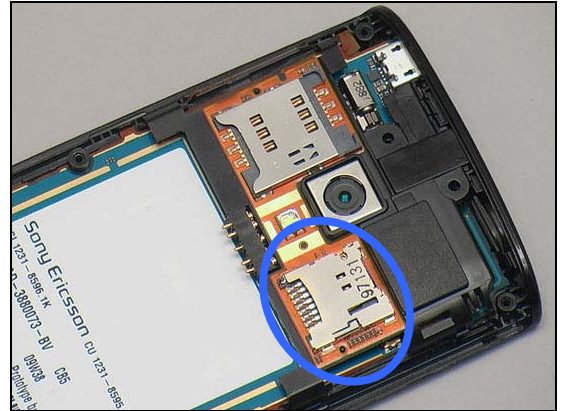
#### 1.9.1 Memory Card not detected

**Check:**

Inspect the Memory Card holder

**Action:**

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

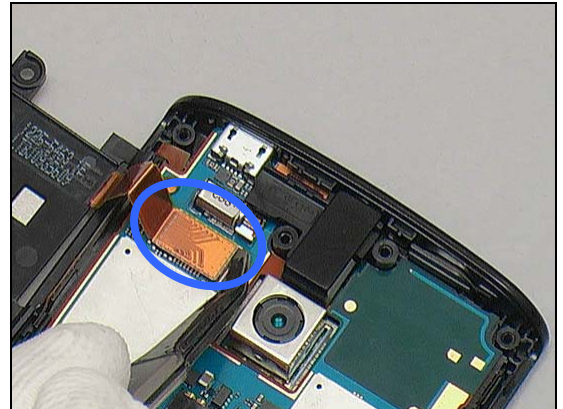


**Check:**

The connection between the SIM and MicroSD FPC and the Main PBA

**Action:**

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

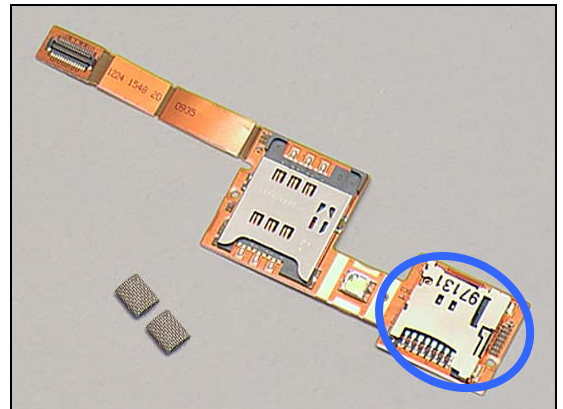


**Check:**

Inspect the SIM and MicroSD FPC

**Action:**

1. If damaged – replace the SIM and MicroSD FPC and the two Conductive Gaskets.
2. Send to higher level of repair.



## Problem Areas

### 1.10 SIM

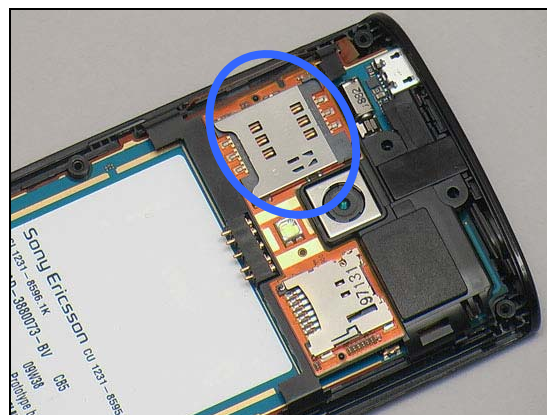
#### 1.10.1 SIM not detected

**Check:**

Inspect the SIM Card holder

**Action:**

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

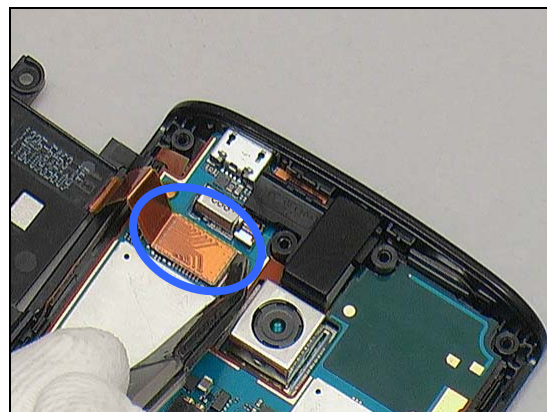


**Check:**

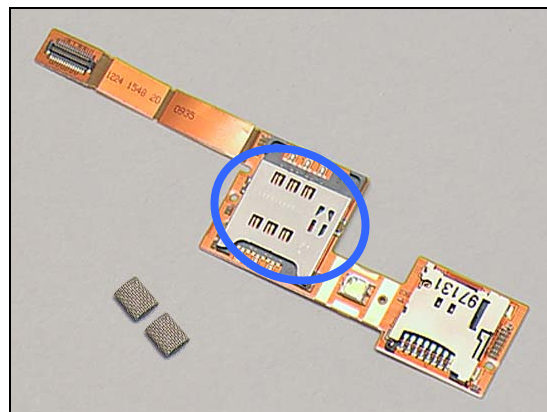
The connection between the SIM and MicroSD FPC and the Main PBA

**Action:**

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



3. If damaged – replace the SIM and MicroSD FPC and the two Conductive Gaskets.
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**

#### **1.11.1 Bluetooth, W-LAN, GPS malfunctions**

**Action:**

Send to higher level of repair



## **Problem Areas**

### **1.12 Accelerometer**

#### **1.12.1 Accelerometer test fails**

**Action:**

Send to higher level of repair

## Problem Areas

### 1.13 Sensor

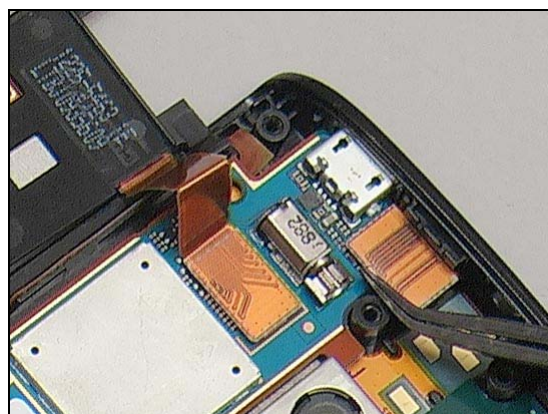
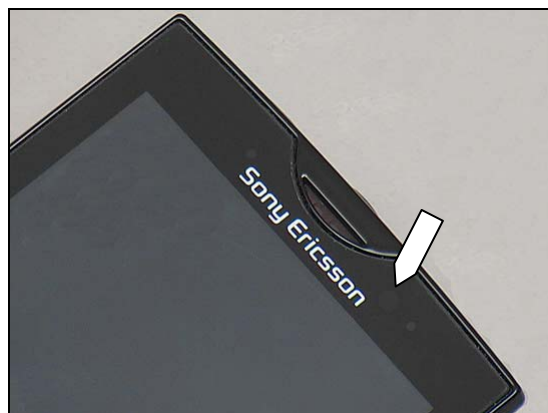
#### 1.13.1 Proximity Sensor malfunctions

**Check:**

Check the BtB connector on both sides of the Receiver FPC and the Main PBA

**Action:**

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

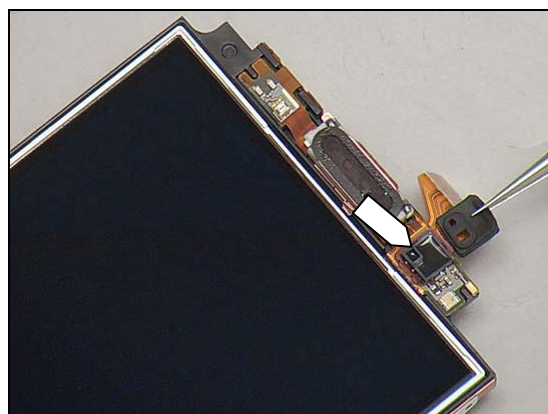


**Check:**

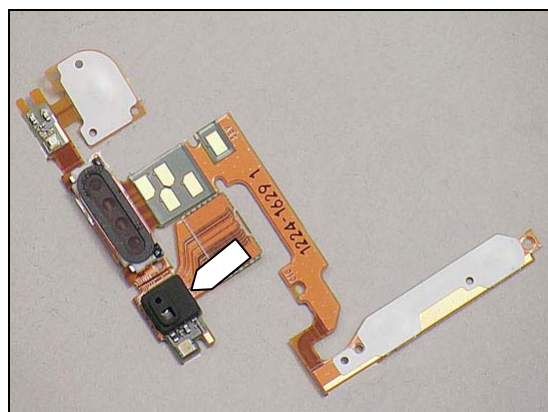
Inspect the Proximity Sensor on the Receiver FPC

**Action:**

1. If dirty or oxidized – clean it.



2. Replace the Receiver FPC.
3. Send to higher level of repair.



## Problem Areas: Sensor

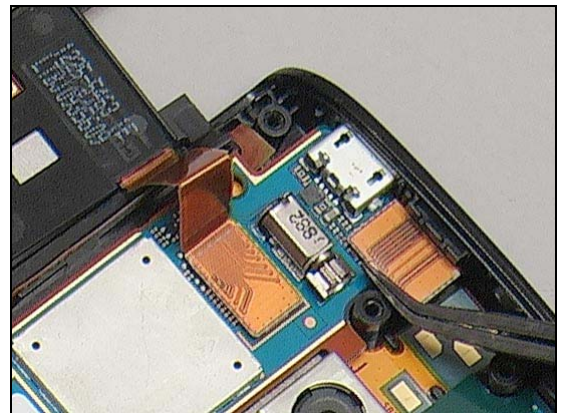
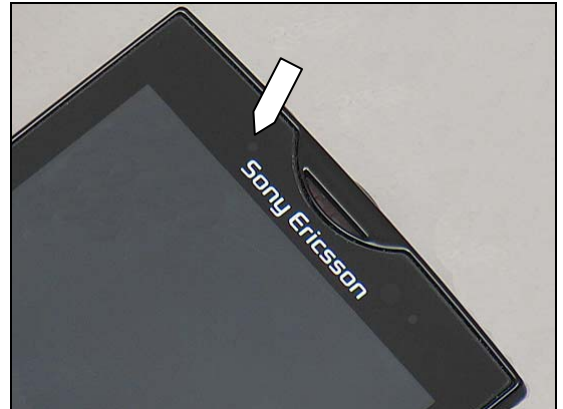
### 1.13.2 Light Sensor malfunctions

**Check:**

Check the BtB connector on both sides of the Receiver FPC and the Main PBA

**Action:**

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

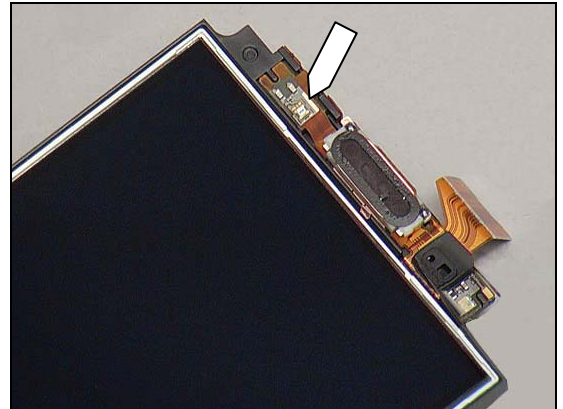


**Check:**

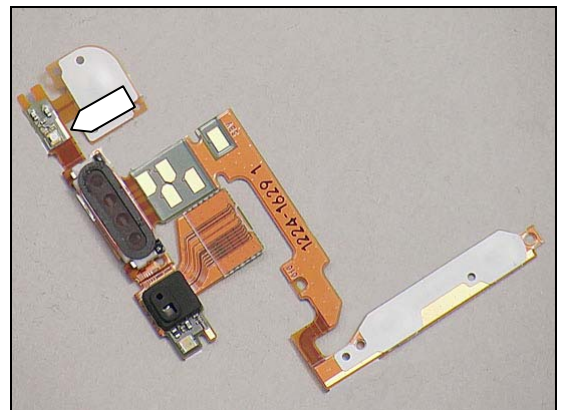
Inspect the Light Sensor on the Receiver FPC

**Action:**

1. If dirty or oxidized – clean it.



2. Replace the Receiver FPC.
3. 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 of the Battery

**Action:**

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



**Check:**

Inspect the Micro USB connector

**Action:**

- If dirty or oxidized – clean the connector.  
If damaged – send to higher level of repair.



**Check:**

Inspect the Battery Connector

**Action:**

1. If dirty or oxidized – clean the connector.
2. If adhesive is detected - use an eraser to gently rub off the adhesive.
3. If damaged – 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

Inspect the antenna contact pads/pins on the Main Antenna and the Main PBA

##### Action:

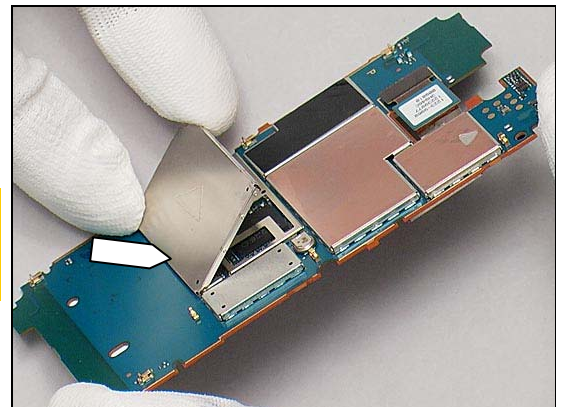
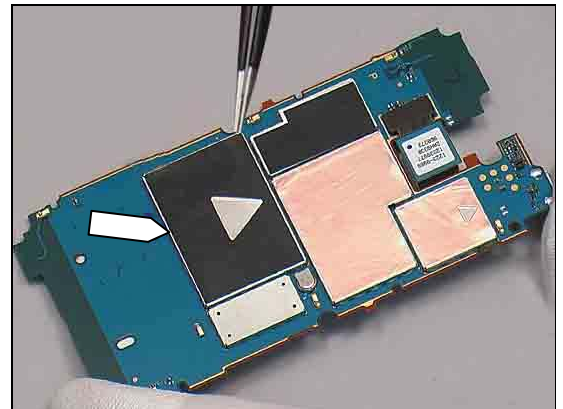
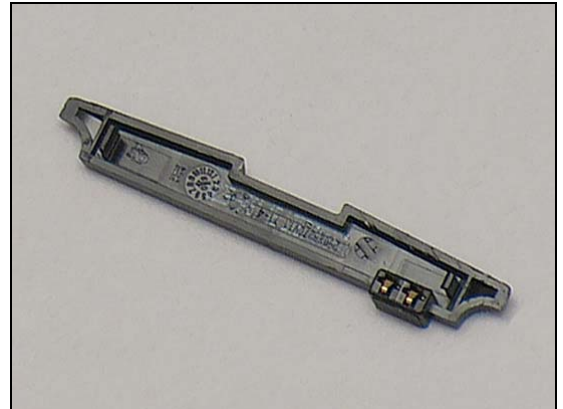
1. If dirty or oxidized – clean the pads/ pins.
2. If adhesive is detected - use an eraser to gently rub off the adhesive.

3. Replace the Main Antenna.

4. Check whether Shield Can Lid A1 is assembled well to connect Ground.

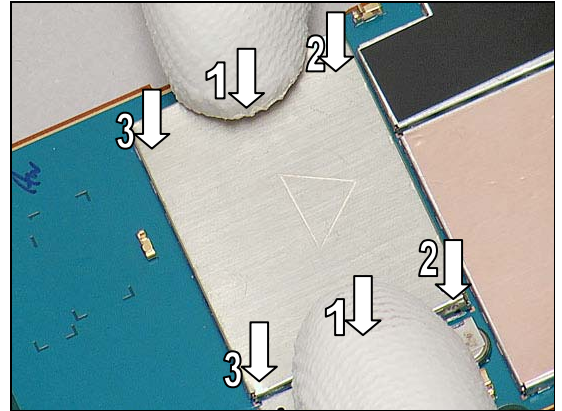
5. If Shield can lid A1 is not well connected to Ground, replace a new one!

**Follow shield can lid A1 replacement in WI firmly!**  
**A. can't reuse the old shield can lid after disassembly;**  
**B .assemble the new shield can lid from Down side;**

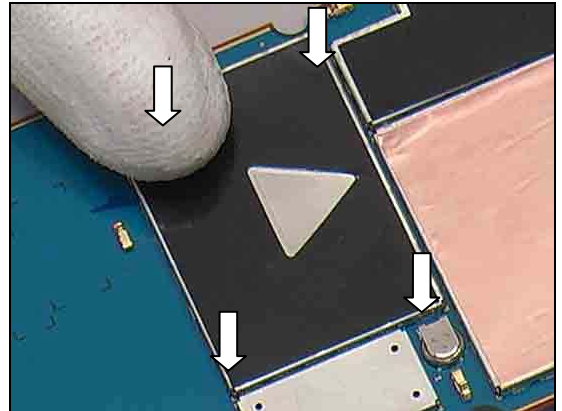


## Problem Areas

5. Follow the assembly sequence to press the lid;



6. Put a new Shield Can MComp Sheet Lid A1.  
7. 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 Connector

**Action:**

If dirty or oxidized – clean the connector.

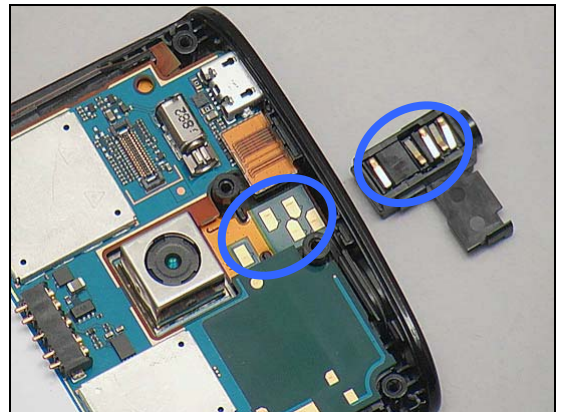


**Check:**

Check the contact between the Audio Jack Connector and Receiver FPC

**Action:**

1. If adhesive is detected - use an eraser to gently rub off the adhesive.



2. If the Audio Jack Connector is damaged – replace it.

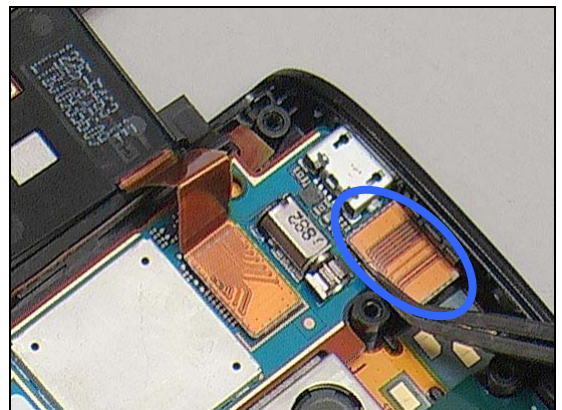


**Check:**

Check the BtB connector on both sides of the Receiver FPC and the Main PBA

**Action:**

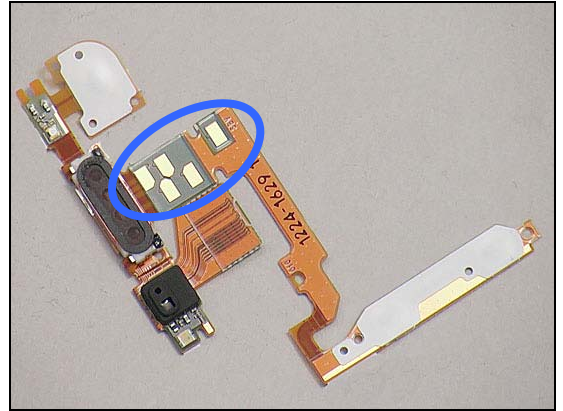
1. If not properly connected – disconnect and reconnect it.  
2. If dirty or oxidized – clean the connector.





## **Problem Areas: HandFree by Wire**

- 3. Replace the Receiver FPC.**
- 4. Send to higher level of repair.**



## Problem Areas

### 1.18 Data Communication

#### 1.18.1 Data transfer via Micro USB Connector fails

***Make sure the settings parameter is correct firstly!  
Drag the Status Bar menu downwards->USB connected-  
>Mount is selected.***

**Check:**

Inspect the Micro USB connector

**Action:**

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





## 2 Revision History

Rev.	Date	Changes / Comments
1	2010-Mar-25	Initial release
2	2010-04-20	updated
3	2010-05-31	Add some comments about extra screen protector for chapter 1.4.2 on page13.