



Sony Ericsson

# Troubleshooting Guide

## - mechanical -



*Hazel*

*J20, J20i*

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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.

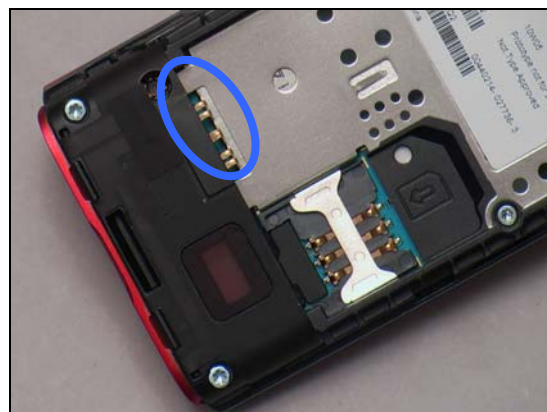


**Check:**

Inspect the Battery 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 Sub Keypad.



## Problem Areas: Power

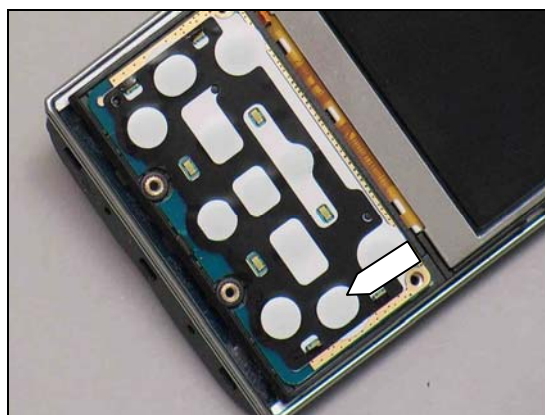
**Action:**

If damaged – replace the Sub Keypad.



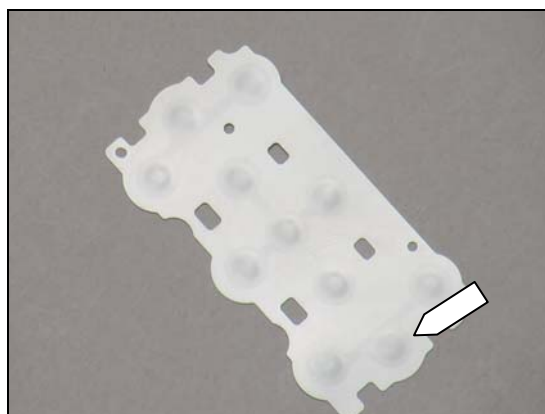
**Check:**

Inspect the Sub Keyboard Domesheet.



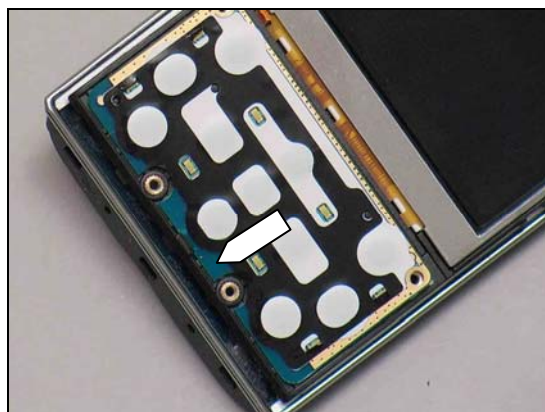
**Action:**

If damaged – replace the Sub Keyboard Domesheet.



**Check:**

Inspect the Sub Keyboard.

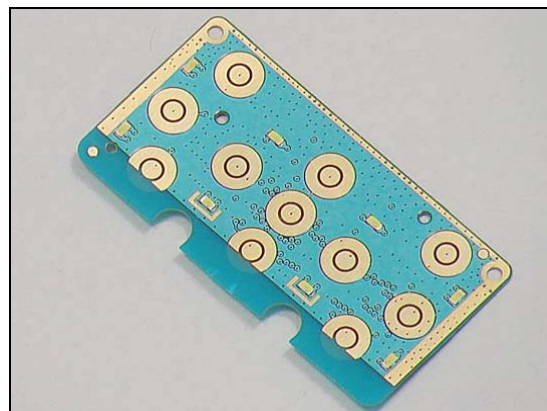




## Problem Areas: Power

**Action:**

If damaged – replace the Sub Keyboard.

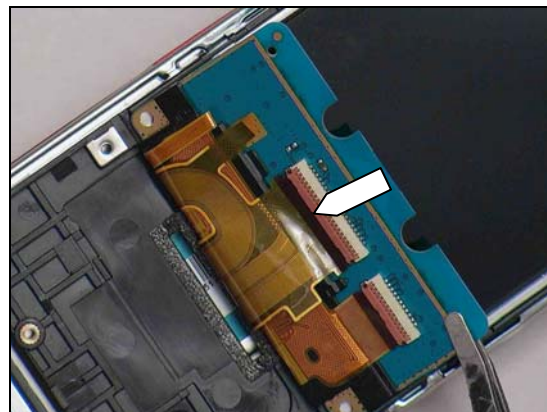


**Check:**

Inspect the ZIF connector of the Sub Keyboard to the Main FPC.

**Action:**

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

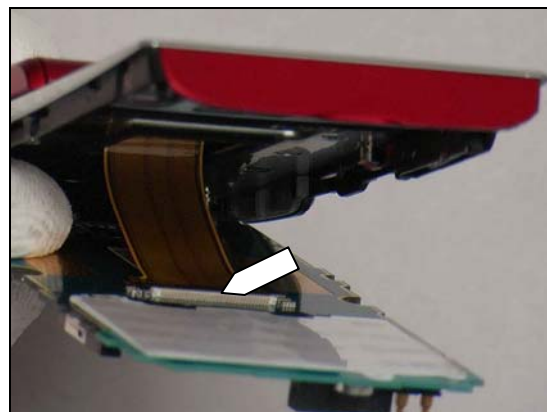


**Check:**

Inspect the ZIF connector of the Main FPC to the Main PCBA.

**Action:**

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

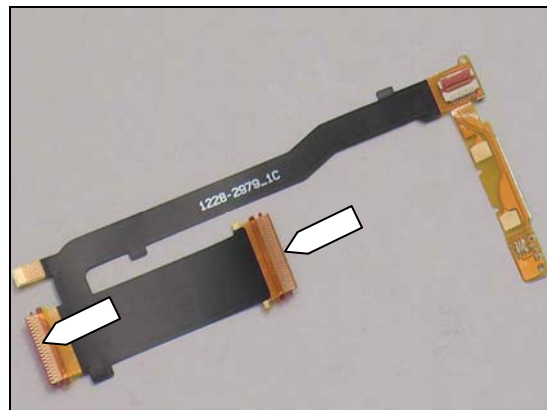


**Check:**

Inspect the Main FPC.

**Action:**

1. If the Main FPC or its ZIF connector is damaged – replace the Main FPC.
2. 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'.

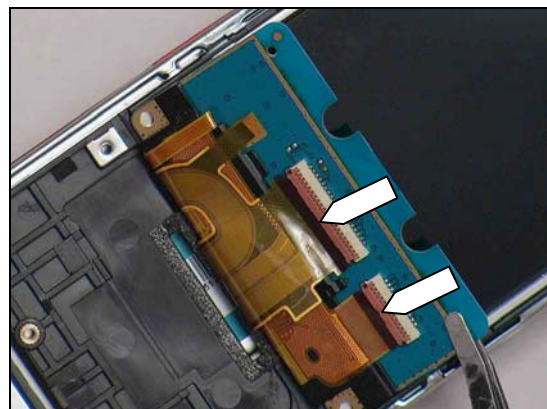


**Check:**

Inspect the two ZIF connectors of the Sub Keyboard.

**Action:**

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

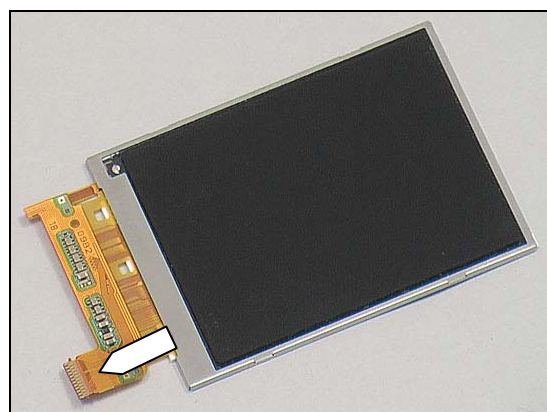


**Check:**

Inspect the Display.

**Action:**

If damaged – replace the Display.

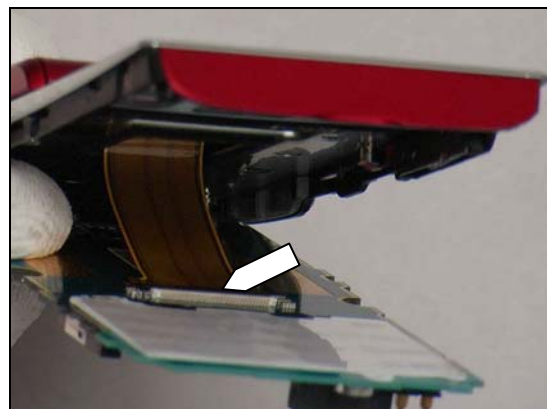


**Check:**

Inspect the ZIF connector of the Main FPC to the Main PCBA.

**Action:**

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



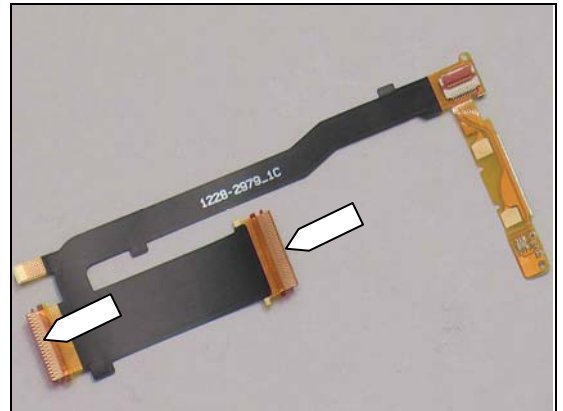
## Problem Areas: Display

**Check:**

Inspect the Main FPC.

**Action:**

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





## Problem Areas

### 1.3 Key Illumination

#### 1.3.1 Main Keypad Illumination

**Check:**

Inspect the Main Keypad.

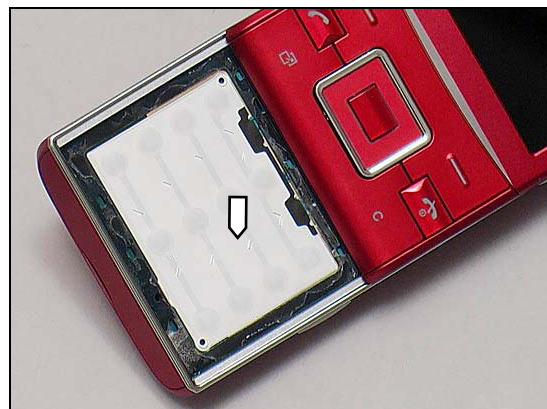
**Action:**

If damaged – Replace the Main Keypad.



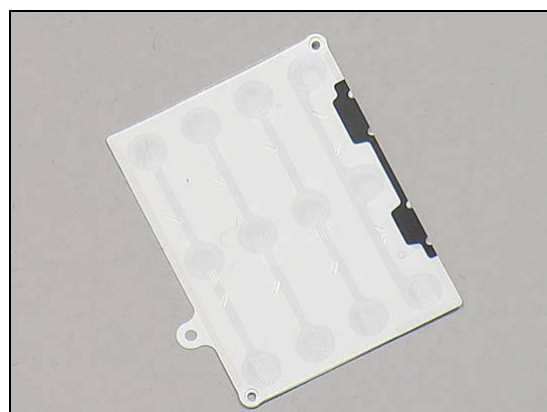
**Check:**

Inspect the Main Key Dome with Light Guide.

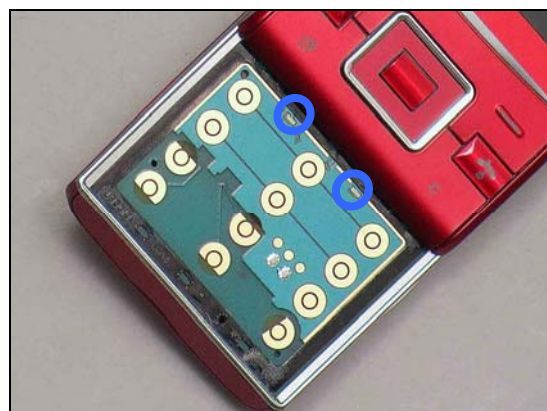


**Action:**

1. If damaged – Replace Main Key Dome with Light Guide.
2. Send to higher level of repair.



Check the LED on the Main PCBA.



## Problem Areas: Key Illumination

### 1.3.2 Sub Keypad Illumination

**Check:**

Inspect the Sub Keypad.

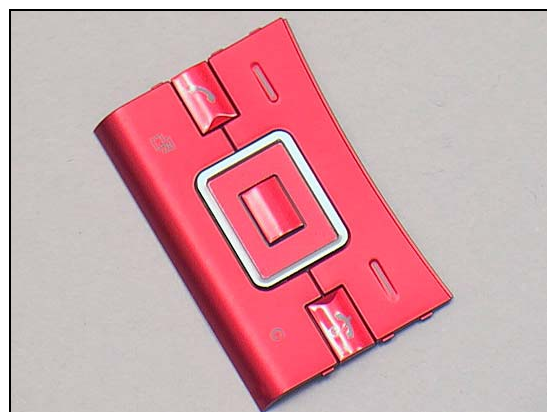


**Check:**

Inspect the Sub Keypad.

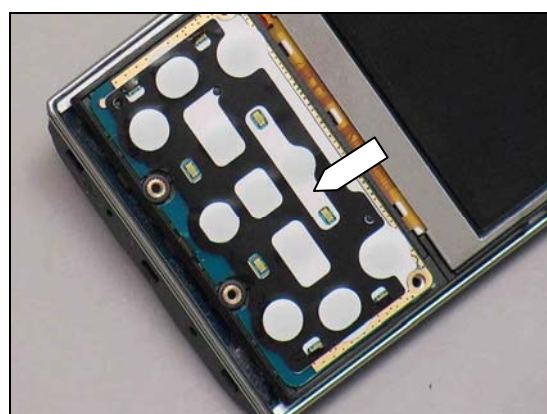
**Action:**

If damaged – replace the Sub Keypad.



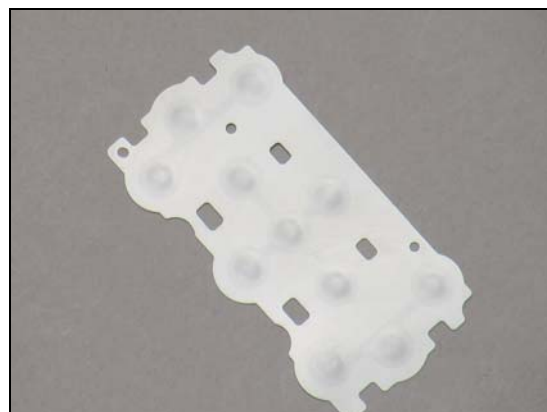
**Check:**

Inspect the Sub Keyboard Domesheet.



**Action:**

If damaged – replace the Sub Keyboard Domesheet.



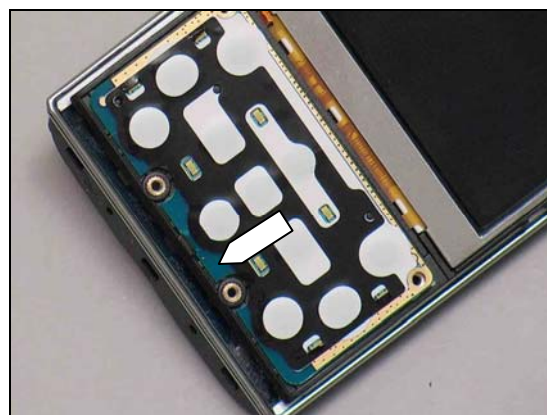
## Problem Areas: Key Illumination

Check the LED on the Sub Keyboard.



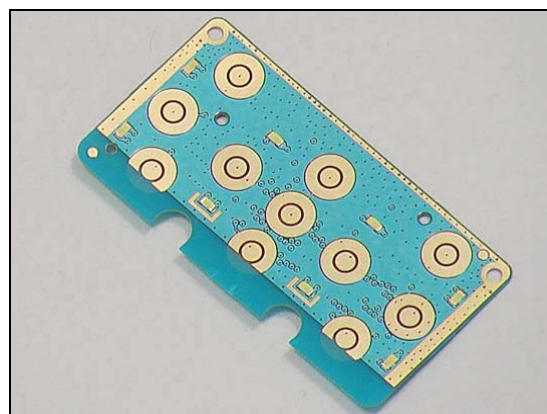
**Check:**

Inspect the Sub Keyboard.



**Action:**

If damaged – replace the Sub Keyboard.

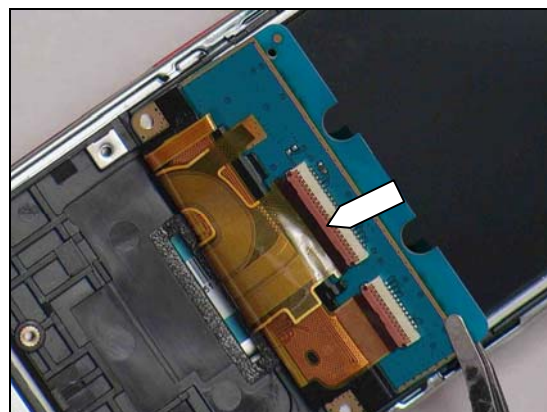


**Check:**

Inspect the ZIF connector of the Sub Keyboard to the Main FPC.

**Action:**

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



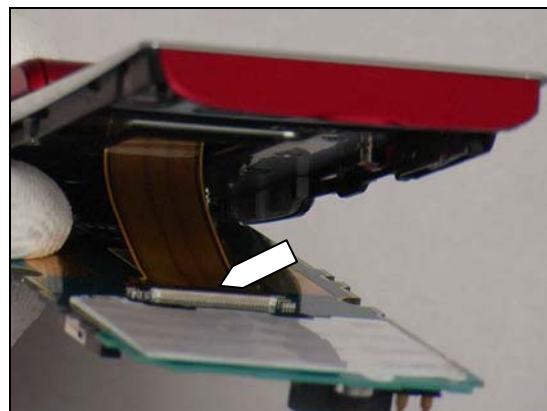
## Problem Areas: Key Illumination

### Check:

Inspect the ZIF connector of the Main FPC to the Main PCBA.

### Action:

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

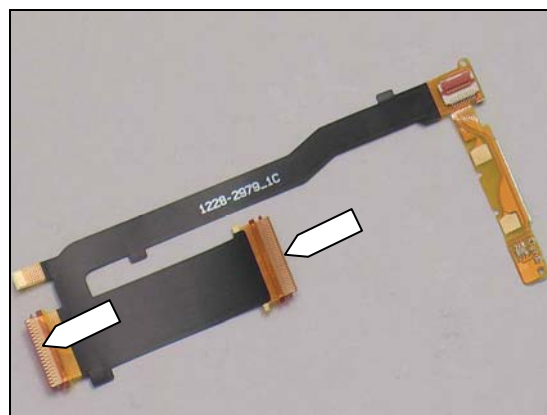


### Check:

Inspect the Main FPC.

### Action:

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





## Problem Areas

### 1.4 Keys and Sensors

#### 1.4.1 Main Keypad

**Check:**

Inspect the Main Keypad.

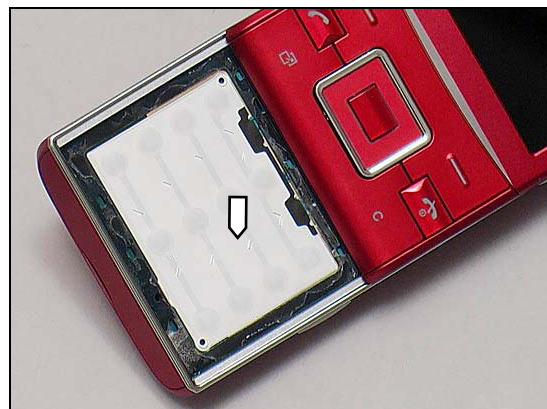
**Action:**

If damaged – Replace the Main Keypad.



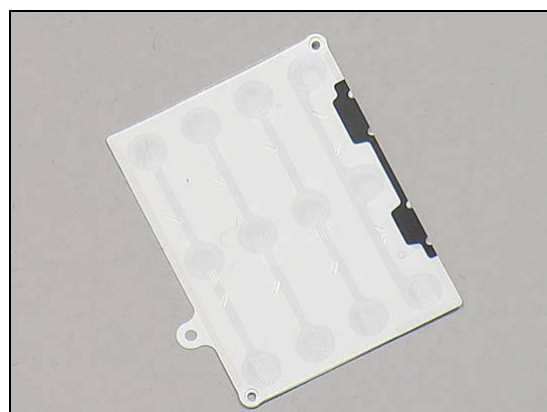
**Check:**

Inspect the Main Key Dome with Light Guide.



**Action:**

1. If damaged – Replace Main Key Dome with Light Guide.
2. Send to higher level of repair.



#### 1.4.2 Sub Keypad

**Check:**

Inspect the Sub Keypad.





## Problem Areas: Keys and Sensors

**Check:**

Inspect the Sub Keypad.

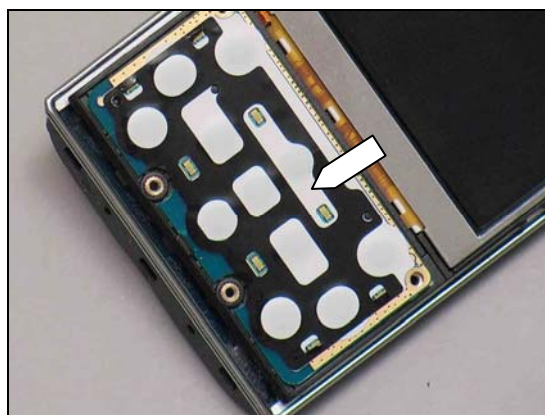
**Action:**

If damaged – replace the Sub Keypad.



**Check:**

Inspect the Sub Keyboard Domesheet.



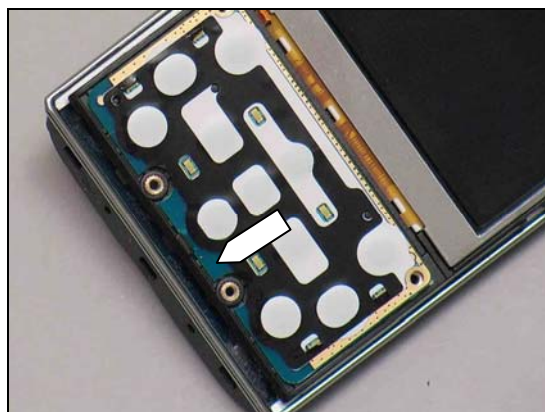
**Action:**

If damaged – replace the Sub Keyboard Domesheet.



**Check:**

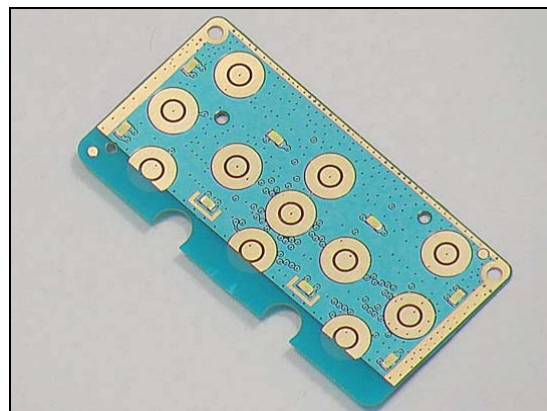
Inspect the Sub Keyboard.



## Problem Areas: Keys and Sensors

**Action:**

If damaged – replace the Sub Keyboard.

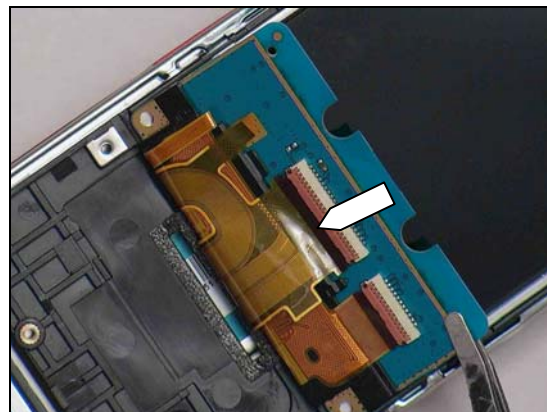


**Check:**

Inspect the ZIF connector of the Sub Keyboard to the Main FPC.

**Action:**

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

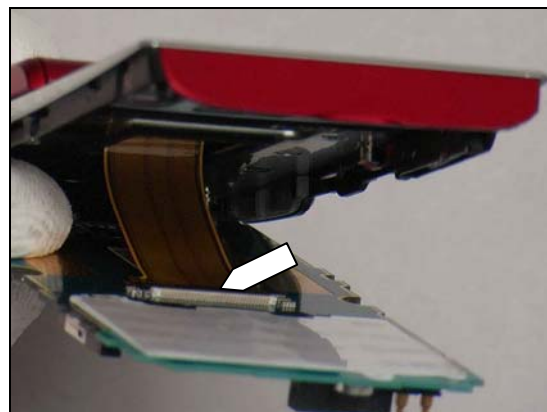


**Check:**

Inspect the ZIF connector of the Main FPC to the Main PCBA.

**Action:**

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

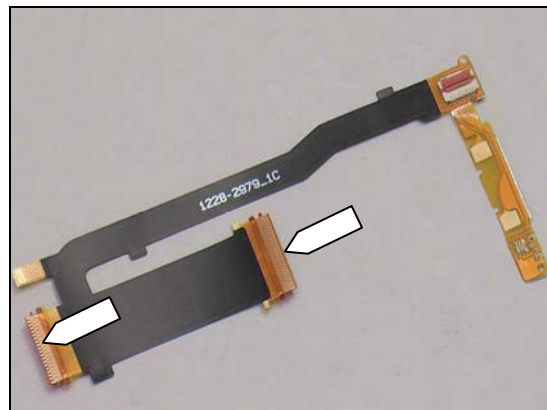


**Check:**

Inspect the Main FPC.

**Action:**

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



## Problem Areas: Keys and Sensors

### 1.4.3 Camera Key

**Check:**

Inspect the Camera Key.



**Action:**

If the Camera key is damaged – replace the key.

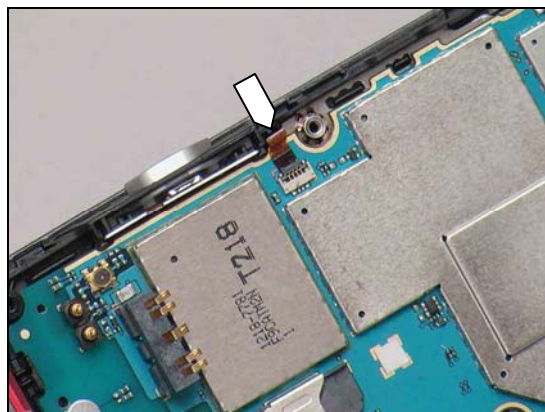


**Check:**

Inspect the ZIF connector for the Camera Key FPC and the Main PCBA.

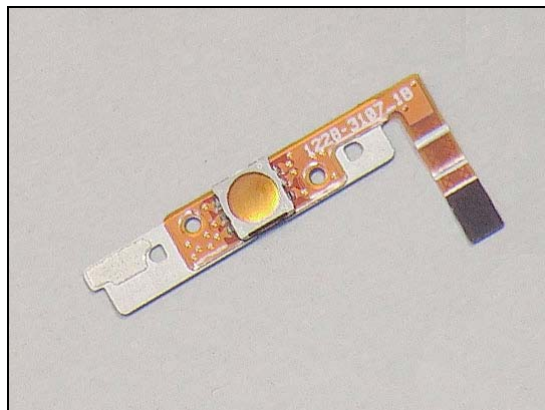
**Action:**

1. If not properly connected – disconnect and reconnect it.



2. If the Camera Key FPC is damaged – replace it.

3. Send to higher level of repair.





## Problem Areas: Keys and Sensors

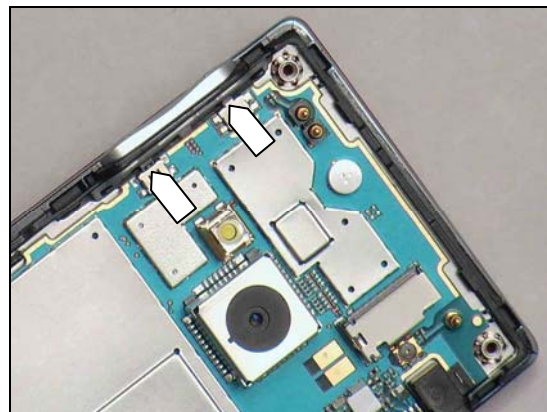
### 1.4.4 Volume Key

**Check:**

Inspect the Volume Key.



Check the pads on the Main PCBA.



**Action:**

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



### 1.4.5 Light Sensor

**Check:**

Inspect the Light Sensor window on the Upper Front Cover.

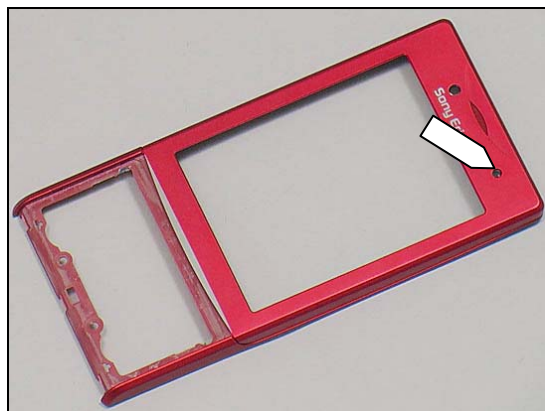
**Action:**

1. If clogged – clean it.

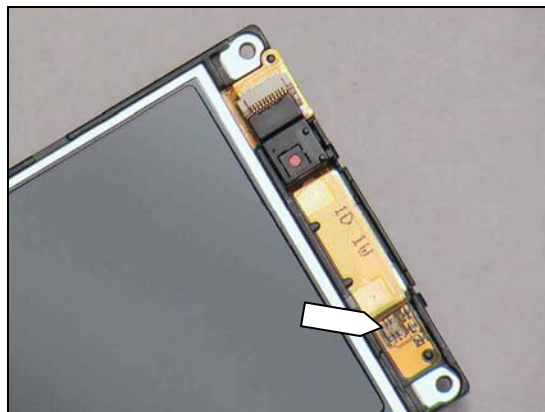


## Problem Areas: Keys and Sensors

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



Check the Light Sensor on the Main FPC.

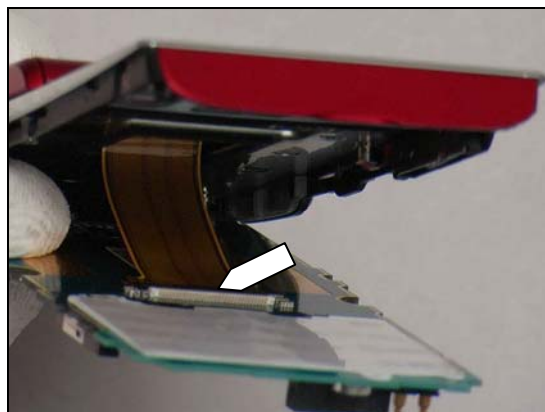


**Check:**

Inspect the ZIF connector of the Main FPC to the Main PCBA.

**Action:**

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

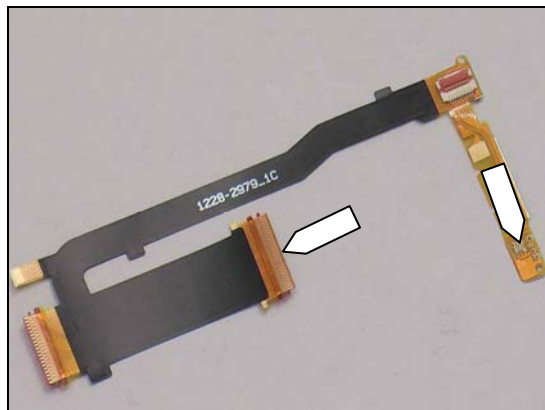


**Check:**

Inspect the Main FPC connection to the Main PCBA.

**Action:**

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





## Problem Areas: Keys and Sensors

### 1.4.6 Slide Sensor

**Check:**

Inspect the Magnet on the Upper Front Cover.

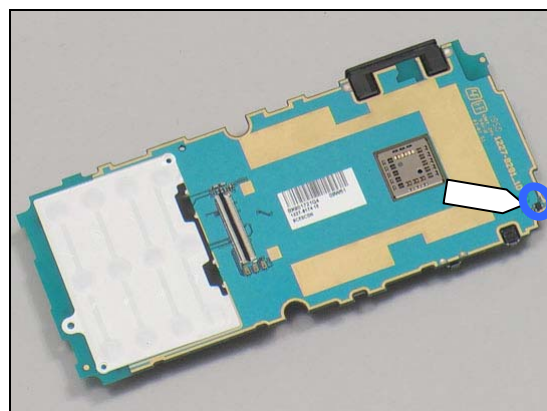
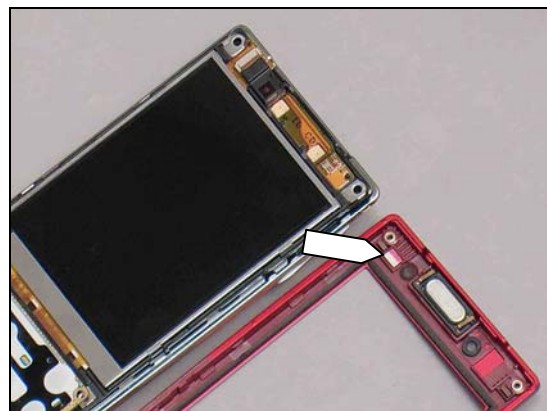
**Action:**

1. If dirty – clean it.

2. If damaged – replace the Upper Front Cover.

Check the Hall IC on the Main PCBA.

Send to higher level of repair.



## Problem Areas

### 1.5 Audio

#### 1.5.1 Microphone 1

**Check:**

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

**Action:**

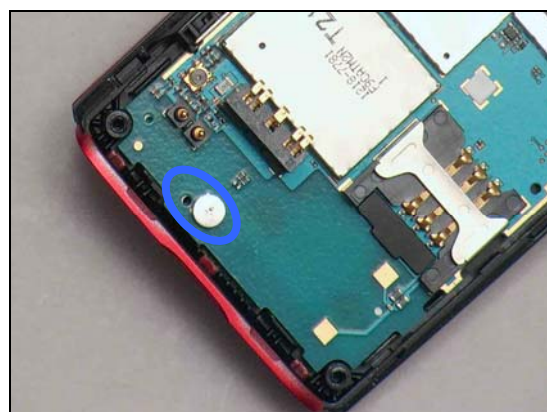
If clogged – clean the port.



Check the hole on the Lower Front Cover.



Check the hole and the Microphone on the Main PCBA.  
Send to higher level of repair.



#### 1.5.2 Microphone 2

**Check:**

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

**Action:**

If clogged – clean the port.



## Problem Areas: Audio

### Check:

Inspect the Microphone's mesh on the Lower Rear Cover.

### Action:

1. If clogged – clean the mesh.

2. If the mesh damaged – replace the Lower Rear Cover Frame with ANT.

3. Send to higher level of repair.

Check Microphone on the Main PCBA.

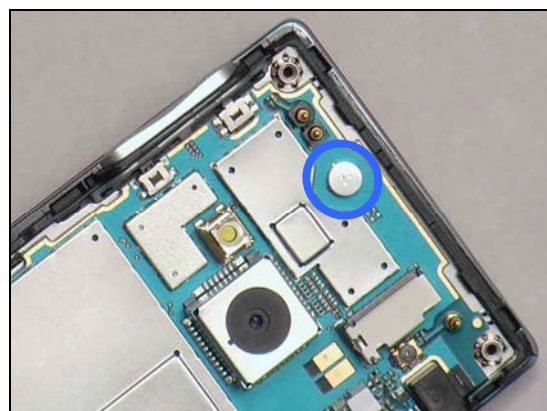
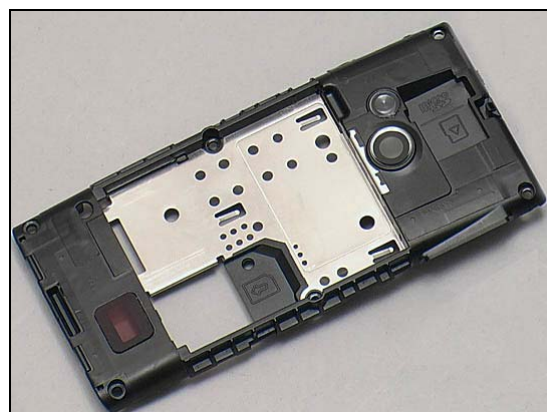
### 1.5.3 Receiver

#### Check:

Inspect the Receiver's external port.

#### Action:

1. If clogged – clean it.



## Problem Areas: Audio

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

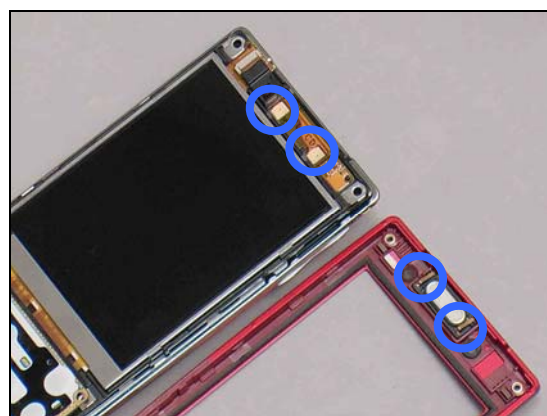


**Check:**

Inspect the Receiver pins and the pads on the Main FPC.

**Action:**

If dirty – clean them.

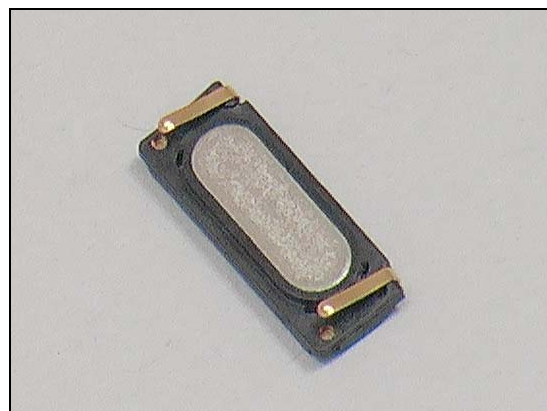


**Check:**

Inspect the Receiver.

**Action:**

If the Receiver is damaged – replace the Receiver.

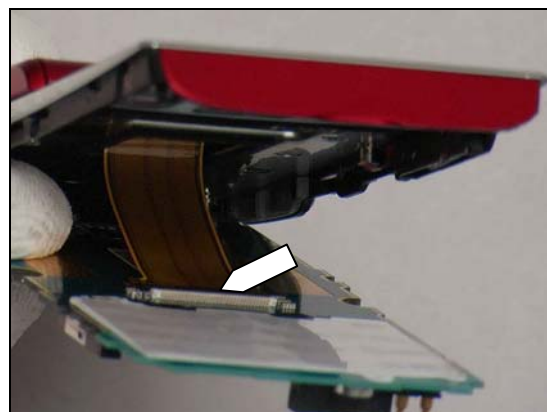


**Check:**

Inspect the ZIF connector of the Main FPC to the Main PCBA.

**Action:**

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





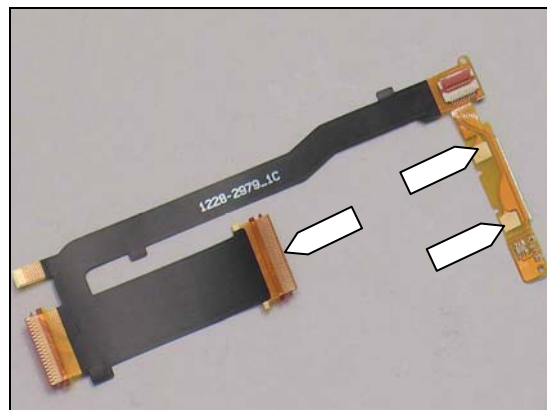
## Problem Areas: Audio

### Check:

Inspect the Main FPC.

### Action:

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



## 1.5.4 Speaker

### Check:

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

### Action:

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

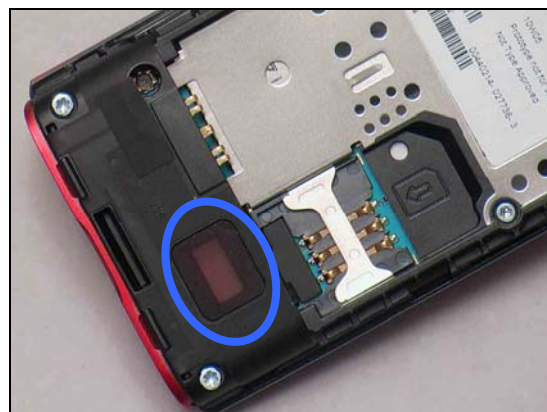


### Check:

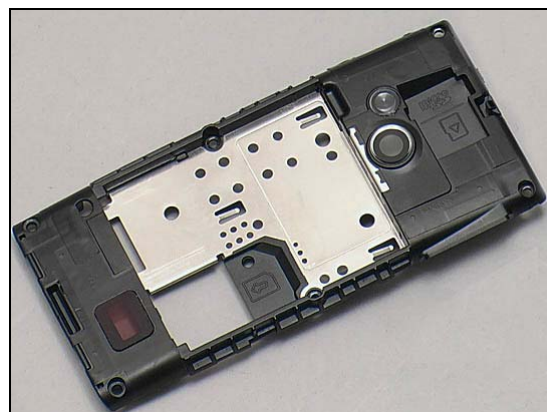
Inspect the Loudspeaker's mesh on the Lower Rear Cover Frame with ANT.

### Action:

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



2. If the mesh damaged – replace the Lower Rear Cover Frame with ANT.





## Problem Areas: Audio

**Check:**

Inspect the Loudspeaker's pins and the pads on the Main PCBA.

**Action:**

1. If dirty – clean them.

2. If the pins on the Loudspeaker damaged – replace the Loudspeaker.

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 damaged – replace it.

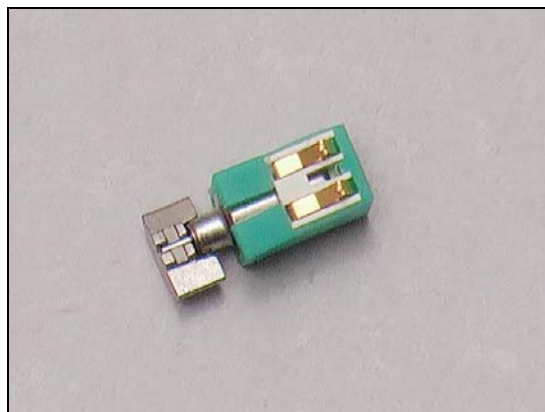
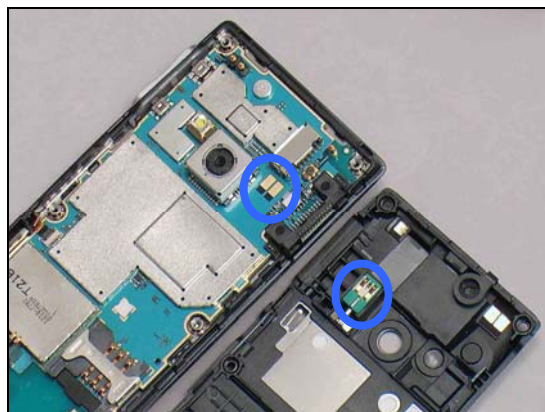
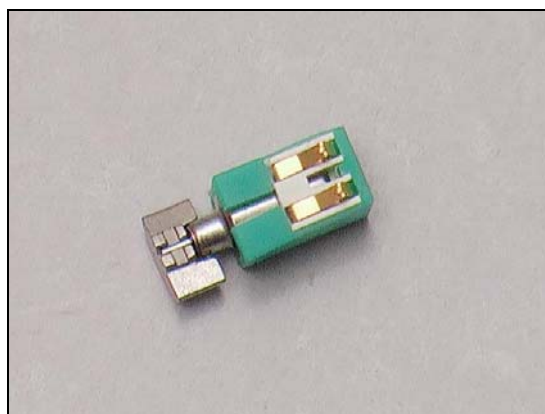
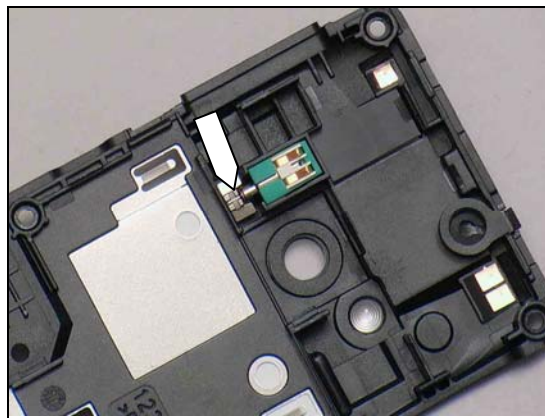
**Check:**

Inspect the pins on the Vibrator and the pads on the Main PCBA.

**Action:**

1. If dirty – clean them.

2. If the pins on the Vibrator damaged – replace the Vibrator.



## Problem Areas

### 1.7 Camera

#### 1.7.1 Main Camera defects

Inspect the Camera Window.

**Check:**

Inspect the camera window.

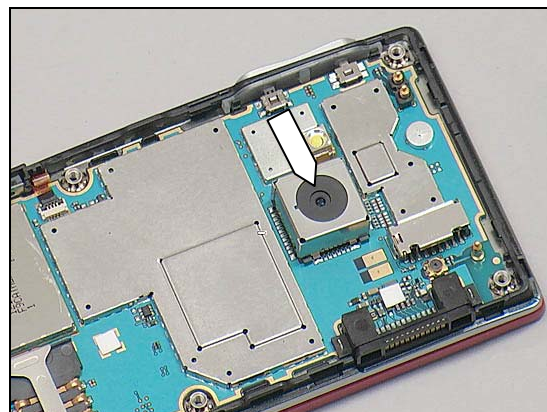
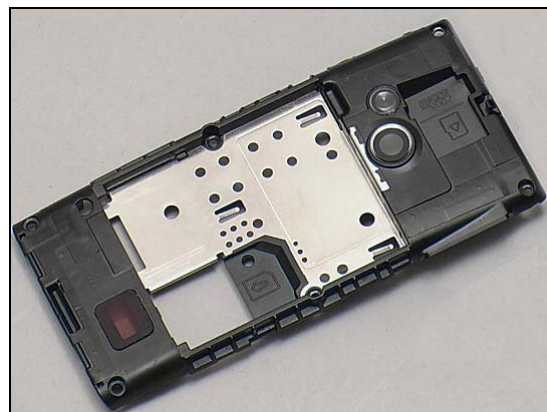
**Action:**

1. If dirty – clean the window.

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

**Check:**

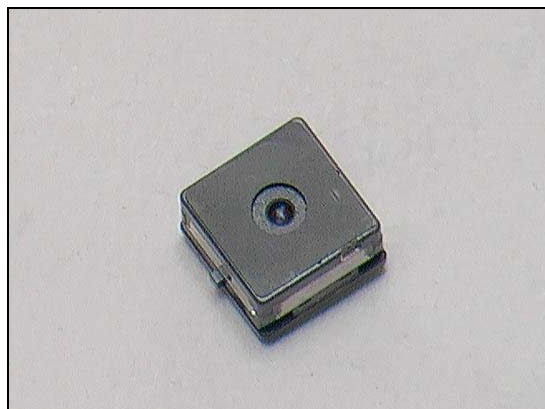
Inspect the Main Camera on the Main PCBA.



## Problem Areas: Camera

### Action:

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



### 1.7.2 Video Call Camera defects

Check the camera window.

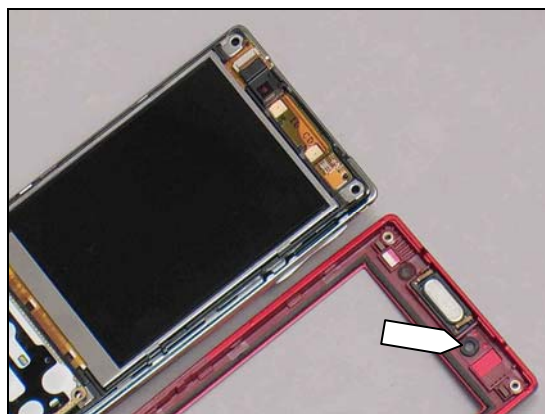


### Check:

Inspect the camera window.

### Action:

1. If dirty – clean the window.



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





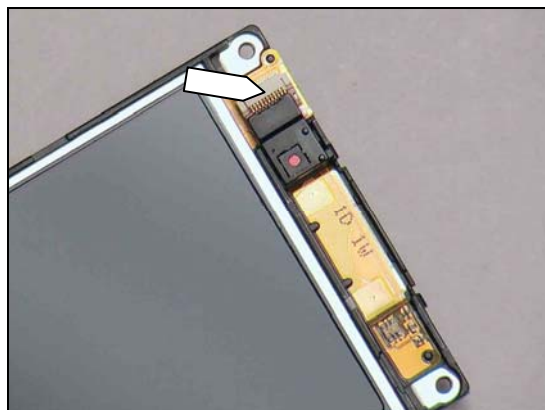
## Problem Areas: Camera

### Check:

Inspect the ZIF connector of the Sub Camera to the Main FPC.

### Action:

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

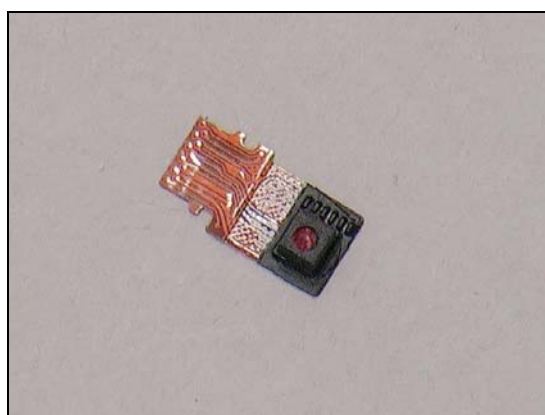


### Check:

Inspect the Sub Camera.

### Action:

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

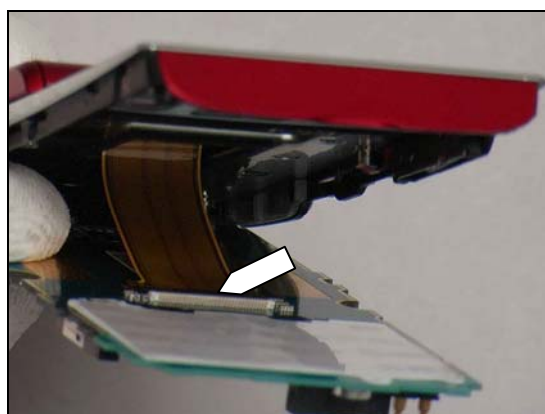


### Check:

Inspect the ZIF connector of Main FPC to the Main PCBA.

### Action:

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

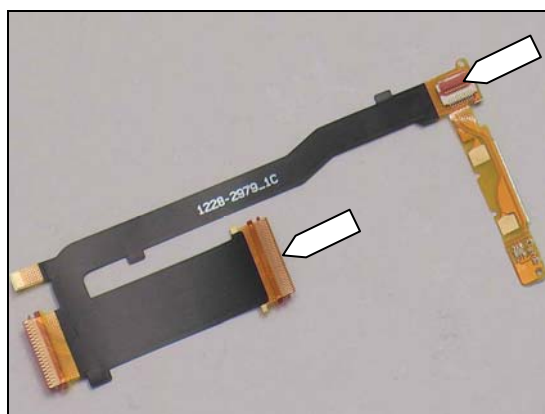


### Check:

Inspect the Main FPC connection to the Main PCBA.

### Action:

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





## Problem Areas

### 1.8 Flash LED

#### 1.8.1 Flash LED not flashing

Inspect the Flash Window.

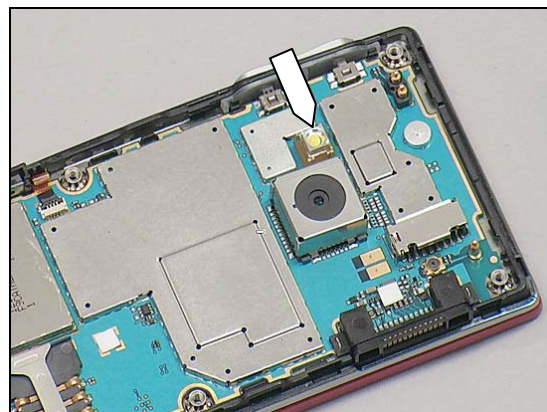
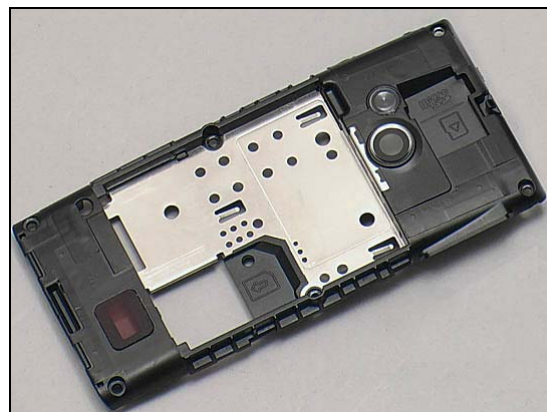
**Check:**

Inspect Flash window on Lower Rear Cover.

**Action:**

1. If scratched or damaged – replace the Front Cover.
2. Send to higher level of repair.

Check the Flash on the Main PCBA.



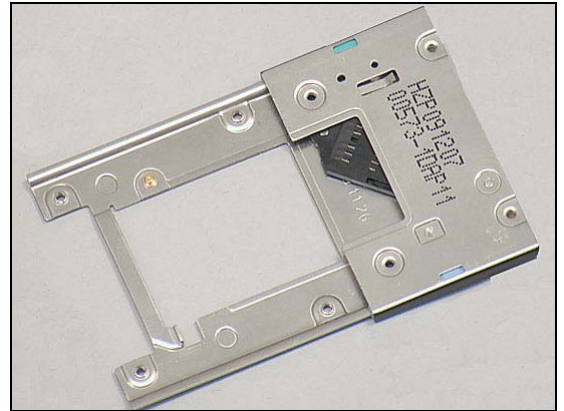
## Problem Areas

### 1.9 Hinge Slider

#### 1.9.1 Slider stiff or stuck

**Action:**

Replace the Hinge Slider.



## **Problem Areas**

### **1.10 Accelerometer**

#### **1.10.1 Accelerometer test fails**

**Action:**

Send to higher level of repair.

## Problem Areas

### 1.11 Memory Card

#### 1.11.1 Memory Card not detected

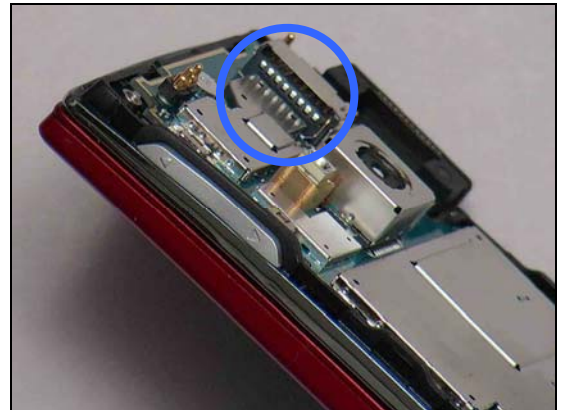
Check the Memory Card Holder.

**Check:**

Inspect the Memory Card holder.

**Action:**

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





## Problem Areas

### 1.12 FM Radio

#### 1.12.1 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**

### **1.13 Real Time Clock**

#### **1.13.1 Real Time Clock test fails**

**Action:**

Send to higher level of repair.

## Problem Areas

### 1.14 SIM

#### 1.14.1 SIM not detected

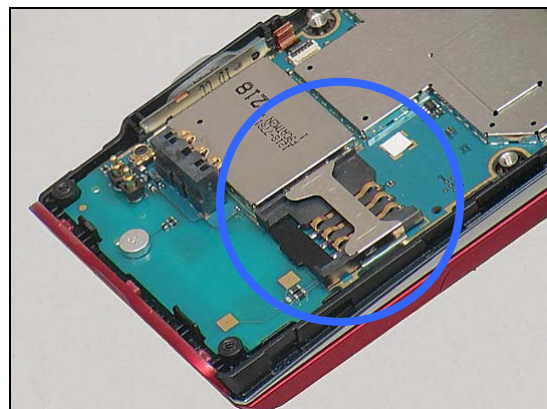
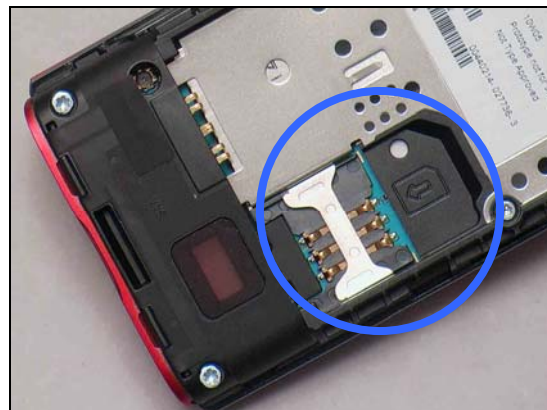
Check the SIM holder.

**Check:**

Inspect the SIM holder.

**Action:**

If dirty or oxidized – clean the holder.



#### 1.14.2 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

### 1.15 Charging

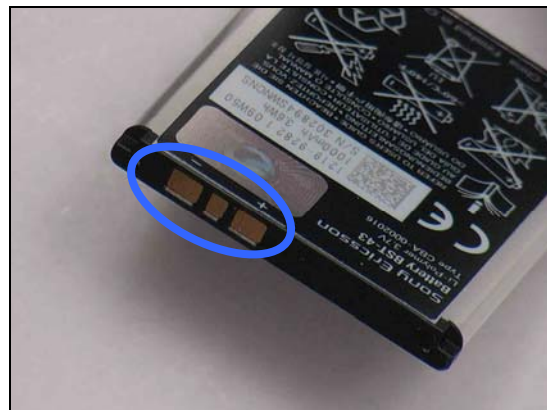
#### 1.15.1 Battery will not charge

**Check:**

Inspect the contact pads of the Battery.

**Action:**

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

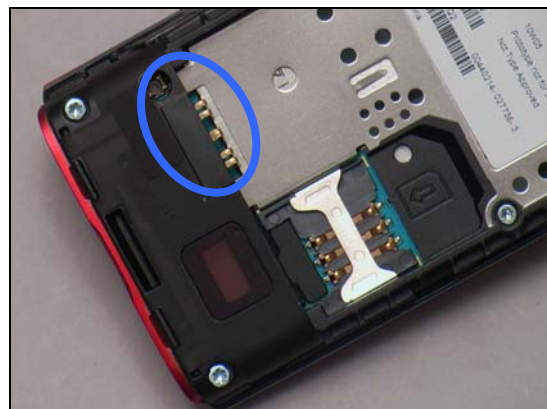


**Check:**

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.



**Check:**

Inspect the system connector.

**Action:**

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





## Problem Areas

### 1.16 GPS

#### 1.16.1 GPS malfunctions

**Check:**

Inspect the GPS antenna on the Lower Rear Cover.

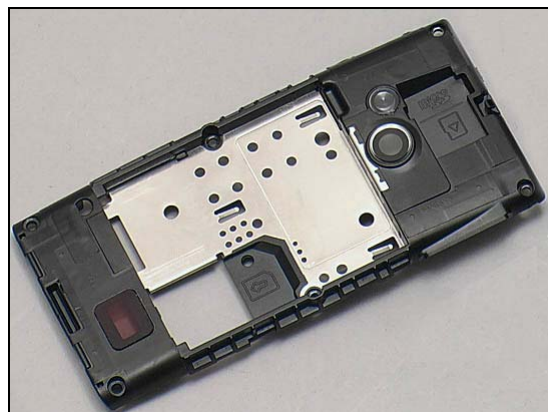
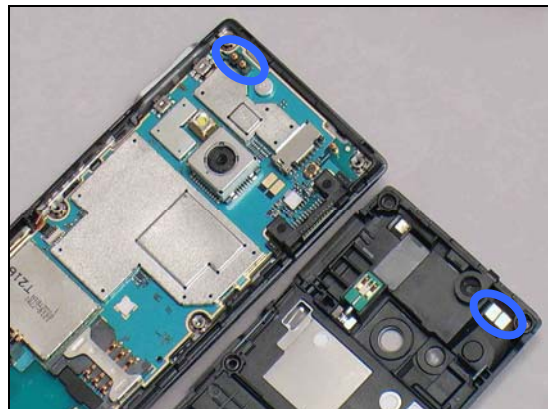


**Check:**

Inspect the GPS antenna contact pads/pins on the Main PCBA and Lower Rear Cover.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. If the pads damaged – replace the Lower Rear Cover.
3. Send to higher level of repair.



## Problem Areas

### 1.17 Wi-Fi and Bluetooth

#### 1.17.1 Wi-Fi or Bluetooth connection failure

**Check:**

Inspect the Wi-Fi and Bluetooth antenna on the Lower Rear Cover.

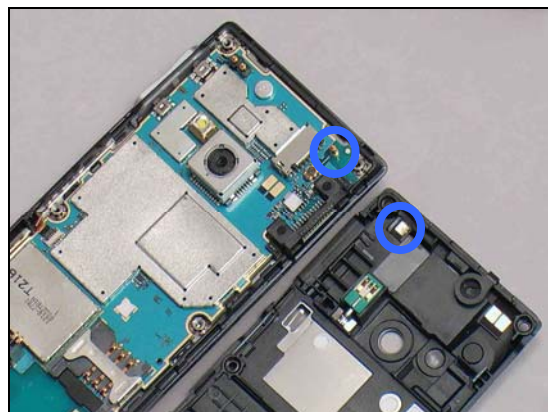


**Check:**

Inspect the Wi-Fi and Bluetooth antenna contact pads/pins on the Main PCBA and Lower Rear Cover.

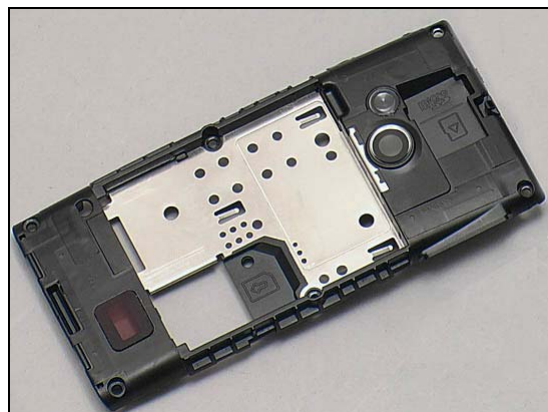
**Action:**

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



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

3. Send to higher level of repair.



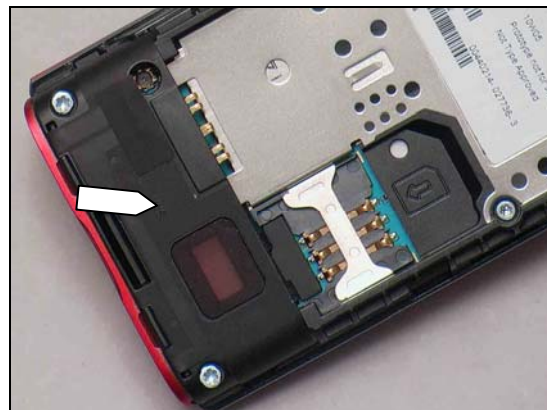
## Problem Areas

### 1.18 Network & Signal

#### 1.18.1 No/Poor signal

**Check:**

Inspect the Main Antenna on the Lower Rear Cover.



**Check:**

Inspect the Main Antenna contact pads/pins on the Main PCBA and Lower Rear Cover.

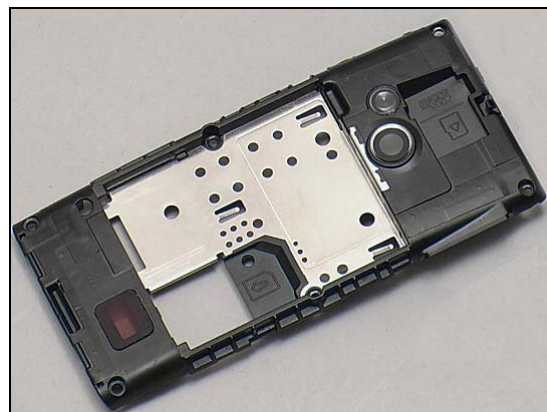
**Action:**

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



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

3. Send to higher level of repair.



## Problem Areas

### 1.19 HandsFree by Wire

#### 1.19.1 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

### 1.20 Data Communication

#### 1.20.1 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-Apr-13	Initial release