

# Trouble Shooting Guide, Mechanical

Applicable for W380, Z555

## Contents

1	General .....	2
	Service functions in the software .....	3
	Misuse and other no warranty issues .....	4
	Liquid Damage.....	5
2	Bluetooth Problems.....	6
3	Camera Problems .....	7
4	Charging/Capacity Problems .....	9
5	Data Transfer Problems using a Data Cable .....	9
6	Display Problems .....	10
7	Ear Speaker (Receiver) Problems .....	16
8	FM Radio Problems .....	17
9	Hands-Free Problems .....	18
10	Illumination Problems.....	19
11	Key Problems.....	23
	Keyboard: .....	23
	Volume Key: .....	25
	Key lock: .....	26
	Touch Keys:.....	27
12	Memory Card Problems .....	29
13	Microphone Problems .....	30
14	Network/Signal Problems.....	31
15	Power Problems.....	32
16	Rear Speaker Problems.....	33
17	SIM Problems.....	35
18	Vibrator Problems .....	36
19	Revision History .....	37

# 1 General

This document outlines the mechanical repairs that should be made in an attempt to fix the common failures that are seen in the field. To gain a complete understanding of how to test and repair a unit, this document should be used in conjunction with the Test Instructions, Mechanical and the Working Instructions, Mechanical.

**NOTE!** *A unit should always be inspected for liquid damage and flashed with latest software before using the Mechanical Trouble Shooting Guide. Refer to the Mechanical Test Instructions for details regarding upgrading software.*

**NOTE!** *If all of the repair actions listed in this document for addressing a problem have been performed and a unit still is not working, handle the unit according to your local Sony Ericsson Representative.*

## Service functions in the software

The service menu will be accessed with the following key combination.

⇒\*←←\*←\*

The service menu options are:

**Service info**

**Service Settings**

**Service tests**

**Text labels**

Under the “**Service tests**” option, the phone’s software has a built in service functionality that allows you to test some of the phones functions. It looks like this:

**Main display**

**External display**

**LED/illumination**

**Keyboard**

**Speaker**

**Earphone**

**Microphone**

**Vibrator**

**Camera**

**Memory Stick**

**FM Radio**

**Real time clock**

**Total call time**





**Security**


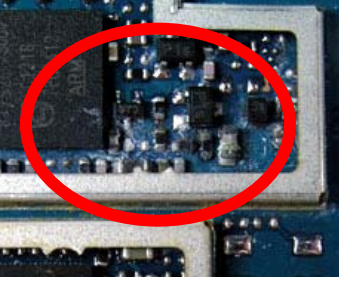

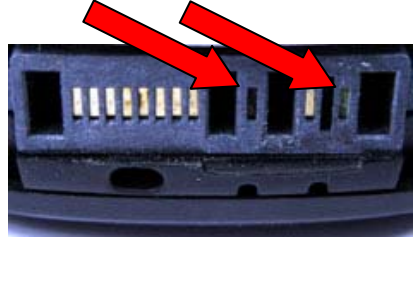
**NOTE: Different names may occur depending on language setting and customization.**

## Misuse and other no warranty issues

A phone that is damaged due to misuse is not covered by warranty. This section shows many of the signs of misuse that are seen in the field. Please refer to local directives on how a phone that appears to be damaged due to misuse should be handled.

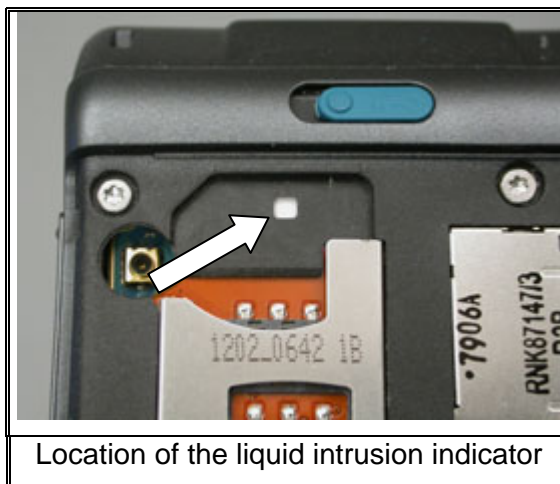
Below are some **examples** of damage due to misuse that are not covered by warranty.

			
Front window broken due to misuse.	LCD cracked due to drop.	Clear scratches	Mark after drop

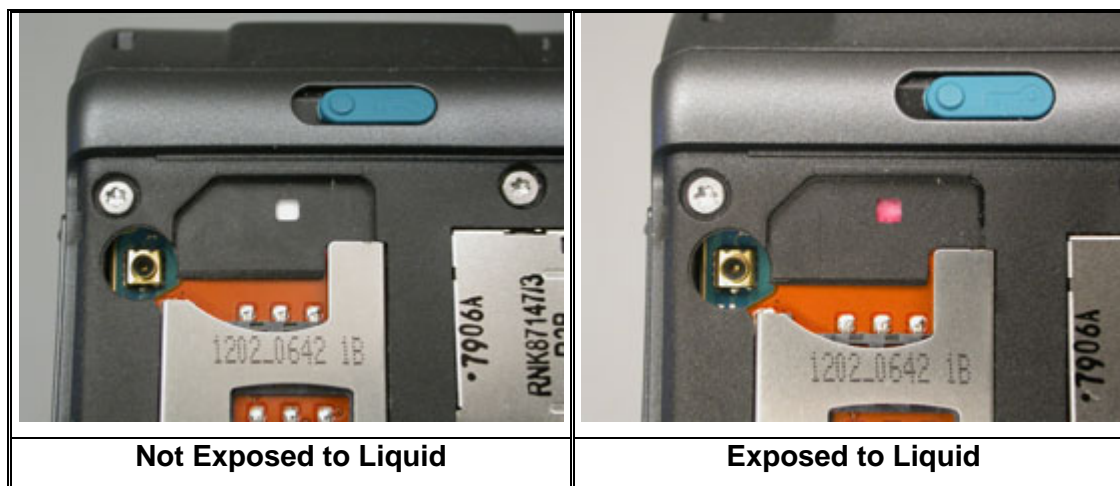
			
Corrosion components on the PCB.	Corrosion components on the PCB.	Components damaged by liquid	System connector damaged by liquid

## Liquid Damage

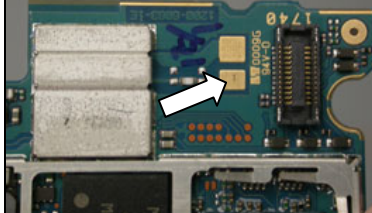
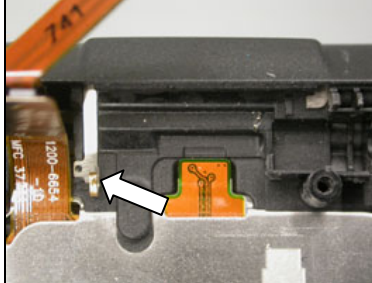

Before any tests are performed, an inspection of the liquid intrusion indicator should be made. If the liquid intrusion indicator is red, this is an indication of possible liquid exposure. If the liquid intrusion indicator suggests liquid exposure, please consult your local SEMC representative for handling instructions.





The following pictures show the difference between an indicator that has been in contact with liquid and one that has not.



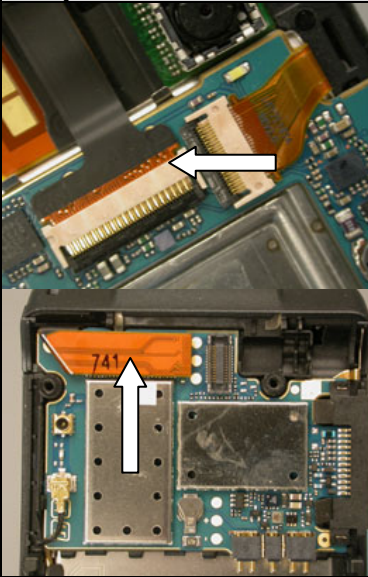

## 2 Bluetooth Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Will not connect with a functional Bluetooth device	Inspect the Bluetooth antenna contact pads on the circuit board and the Bluetooth antenna	<ul style="list-style-type: none"> <li>• If the contact pads are dirty or oxidized, clean them</li> <li>• If the contact pads are damaged, escalate to an electrical repair level</li> <li>• If the Bluetooth antenna is dirty or damaged, replace the lower front cover</li> </ul>	 
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the lower front cover assembly, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	

### 3 Camera Problems

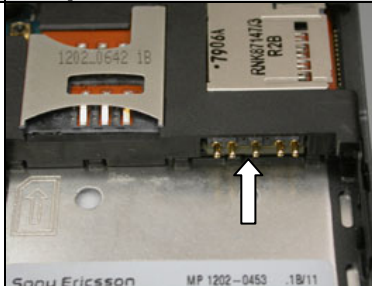
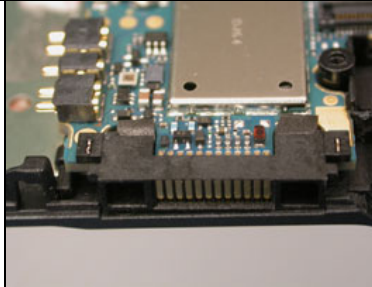
Problem Area	Items to Inspect	Repair Action	Inspection Reference
Lines or marks in picture	Visually inspect the camera window	<ul style="list-style-type: none"> <li>If dirty, clean the camera window</li> <li>If scratched or damaged, replace upper back cover</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the hinge FPC</li> </ul>	
	If the issue is still not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	



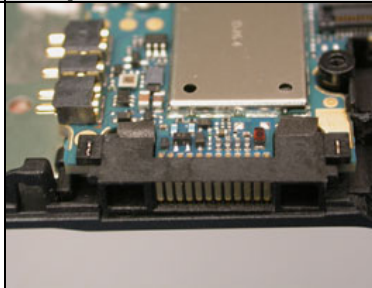
Problem Area	Items to Inspect	Repair Action	Inspection Reference
Camera not functioning properly	Inspect hinge FPC and its connections to the upper and lower circuit boards	<ul style="list-style-type: none"> <li>• If the hinge FPC is damaged, replace it</li> <li>• If the hinge FPC's connection to the upper PBA is damaged, replace the upper PBA</li> <li>• If the hinge FPC's connection to the main circuit board is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the hinge FPC, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	



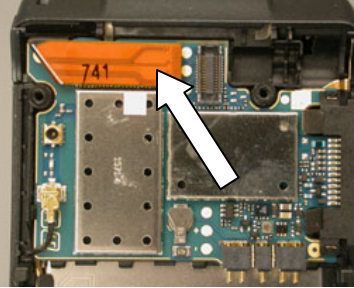
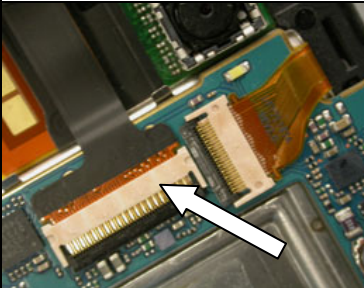
## 4 Charging/Capacity Problems

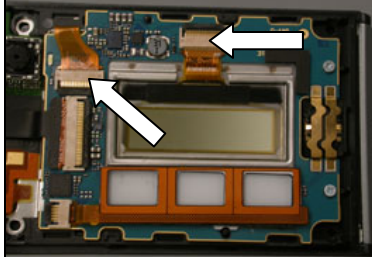
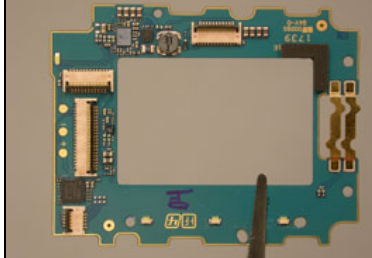

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Phone is not charging properly	Inspect the battery connector	<ul style="list-style-type: none"> <li>If dirty or oxidized, clean the battery connector's contact pins</li> <li>If damaged, escalate to an electrical repair level</li> </ul>	
	Inspect the system connector	<ul style="list-style-type: none"> <li>If the system connector is dirty or oxidized, clean it</li> <li>If the system connector is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 5 Data Transfer Problems using a Data Cable

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Problem transferring data using a direct connection	Inspect the system connector	<ul style="list-style-type: none"> <li>If the system connector is dirty or oxidized, clean it</li> <li>If the system connector is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 6 Display Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Neither display is functioning	Check whether the phone vibrates when you press the power key and whether the keyboard illuminates after the phone vibrates	If activation of the vibrator and illumination of the keyboard are <b>not detected</b> , refer to the “Power Problems” section	
	Inspect the hinge FPC's connection to the lower circuit board	<ul style="list-style-type: none"> <li>• If improperly connected, establish proper connection</li> <li>• If dirty or oxidized, clean both halves of the connection</li> <li>• If the portion of the connection on the hinge FPC is damaged, replace the hinge FPC</li> <li>• If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	Inspect the hinge FPC's connection to the Upper PBA	<ul style="list-style-type: none"> <li>• If improperly connected, establish proper connection</li> <li>• If dirty or oxidized, clean both halves of the connection</li> <li>• If the portion of the connection on the hinge FPC is damaged, replace the hinge FPC</li> <li>• If the portion of the connection on the Upper PBA is damaged, replace the Upper PBA</li> </ul>	

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Neither display is functioning (Cont'd)	Inspect each display's connection to the Upper PBA	<ul style="list-style-type: none"> <li>Make sure each display is properly connected and secured</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Upper PBA, if it has not already been replaced</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the hinge FPC, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

**W380 only:** The outer display is not functioning when the phone is closed, but the touch keys **do illuminate** when touched.

Check the function of the outer display, by placing a loudspeaker as shown in picture

- If the outer display is working with the speaker in place, then replace the internal loudspeaker in the phone.

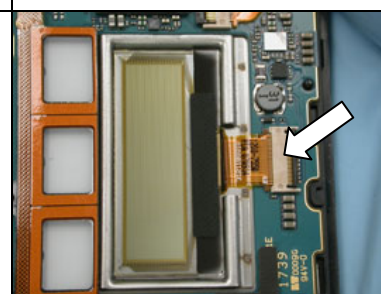


If the issue is not resolved →

- Send to electrical repair level

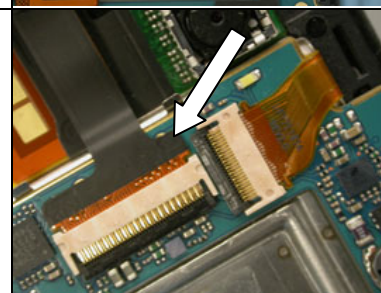
Inspect outer display's connection to the Upper PBA

- Make sure the outer display's ZIF connection is properly connected and secured
- If the outer display's flex is damaged, replace the outer display
- If the ZIF connector is damaged, replace the Upper PBA



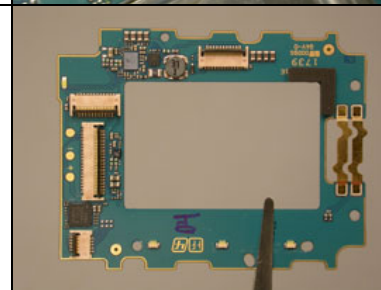
Inspect the hinge FPC's connection to the Upper PBA

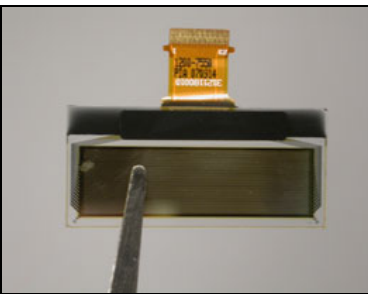

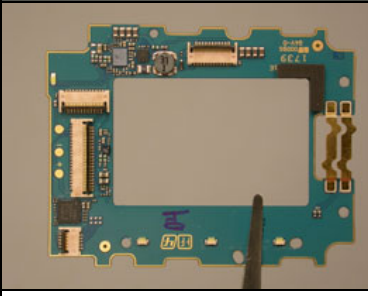

- If either half of the connection is damaged, replace the hinge FPC or Upper PBA as necessary.

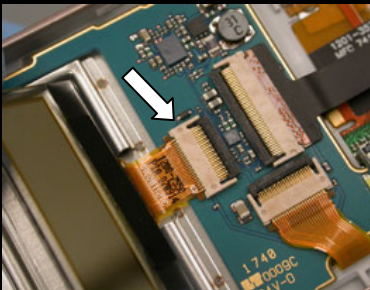
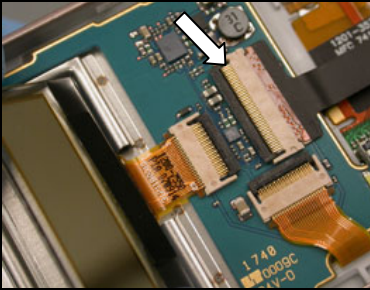
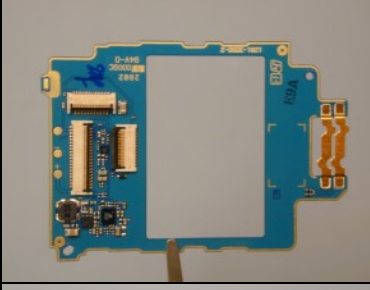
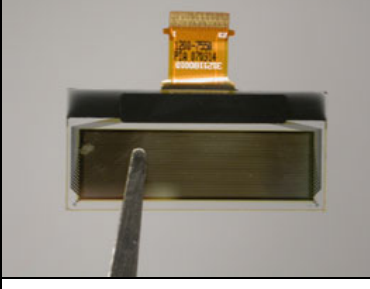


If the issue is not resolved →


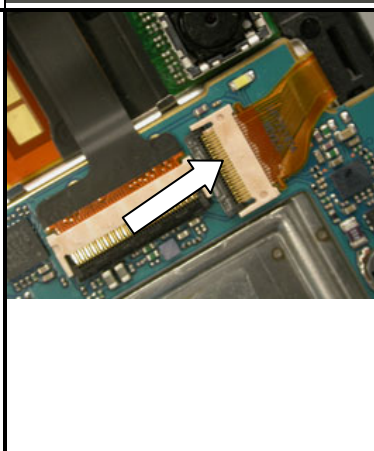
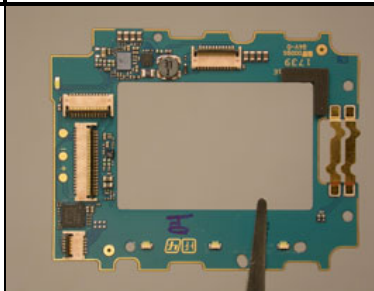
- Replace the upper PBA, if it has not already been replaced




	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the outer display, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	
<b>W380 only:</b> The outer display is not functioning when the phone is closed and the touch keys <b>do not illuminate</b> when touched. (Make sure the key lock is turned off)	With the phone in the closed position, check to see if the inner display is on.	<ul style="list-style-type: none"> <li>If the inner display is on when the phone is closed, replace the Keyboard FPC assembly</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Upper PBA</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	
<b>Z555 only:</b> The outer display is not functioning when the phone is closed.	With the phone in the closed position, check to see if the inner display is on.	<ul style="list-style-type: none"> <li>If the inner display is on when the phone is closed, replace the Keyboard FPC assembly</li> </ul>	

	Inspect outer display's connection to the Upper PBA	<ul style="list-style-type: none"> <li>• Make sure the outer display's ZIF connection is properly connected and secured</li> <li>• If the outer display's flex is damaged, replace the outer display</li> <li>• If the ZIF connector is damaged, replace the Upper BPA</li> </ul>	
<b>Z555 only:</b> The outer display is not functioning when the phone is closed. (Cont'd)	Inspect the hinge FPC's connection to the Upper PBA	<ul style="list-style-type: none"> <li>• If either half of the connection is damaged, replace the hinge FPC or Upper PBA as necessary.</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the Upper PBA</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Replace the Outer Display</li> </ul>	
	If the issue remains unresolved→	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	





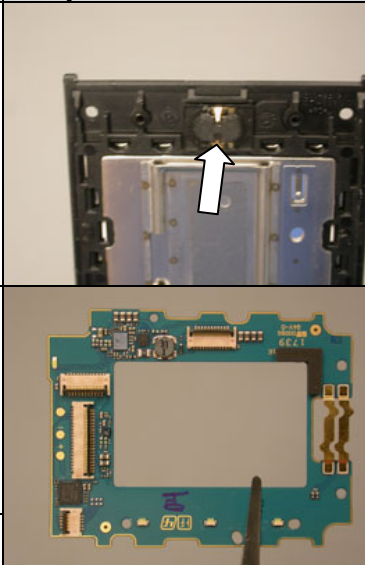
<p>The inner display is not functioning and the outer display remains on no matter whether the phone is opened or closed</p>	<p>Perform the following action→</p>	<ul style="list-style-type: none"> <li>Replace the Keyboard FPC assembly</li> </ul>	
<p>The inner display is not functioning and the outer display turns off when the phone is in the open position</p>	<p>Check the inner display's connection to the Upper PBA</p>	<ul style="list-style-type: none"> <li>Make sure the inner display's ZIF connection is properly connected and secured</li> <li>If the display's flex is damaged, replace the upper front cover assembly</li> </ul> <p><b>NOTE: A protective plate tape must be installed whenever a new upper front cover assembly is installed.</b></p> <ul style="list-style-type: none"> <li>If the ZIF connector is damaged, replace the upper PBA</li> </ul>	
	<p>If the issue is not resolved →</p>	<ul style="list-style-type: none"> <li>Replace the upper PBA, if it has not already been replaced</li> </ul>	



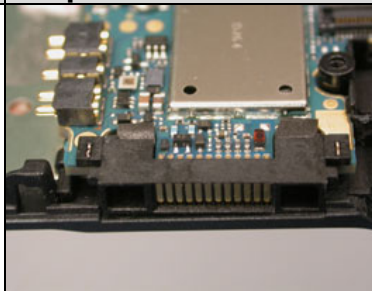
	If the issue remains unresolved →	<ul style="list-style-type: none"><li>Replace the upper front cover assembly, if it has not already been replaced</li></ul> <p><b><i>NOTE: A protective plate tape must be installed whenever a new upper front cover assembly is installed.</i></b></p>	
	If the issue is still not resolved →	<ul style="list-style-type: none"><li>Escalate to an electrical repair level</li></ul>	
A display is not illuminating properly	Refer to the “Illumination Problems” section of this document		

## 7 Ear Speaker (Receiver) Problems

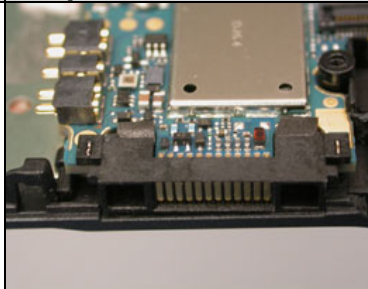
Problem Area	Items to Inspect	Repair Action	Inspection Reference
No sound or poor quality sound	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Inspect the ear speaker's external port	<ul style="list-style-type: none"> <li>If clogged, remove the ear speaker, clean the port, and install a new ear speaker</li> </ul>	
	Inspect the connections between the ear speaker and upper PBA	<ul style="list-style-type: none"> <li>If any of the contacts are dirty, replace the ear speaker and clean the contacts on the upper PBA</li> <li>If a contact on the ear speaker is damaged, replace the ear speaker.</li> <li>If a contact on the upper PBA is damaged, replace the upper PBA</li> </ul>	

Problem Area	Items to Inspect	Repair Action	Inspection Reference
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the ear speaker, if it has not already been replaced</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the upper PBA, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

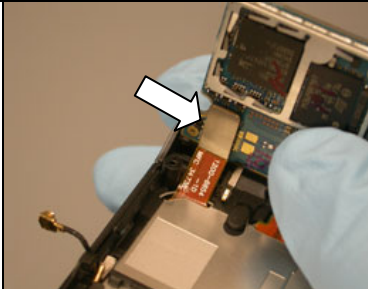


## 8 FM Radio Problems


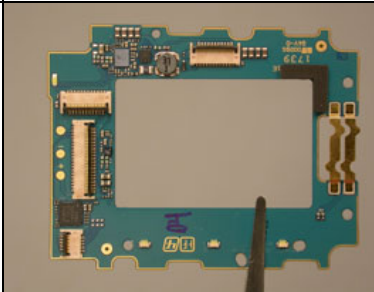

Problem Area	Items to Inspect	Repair Action	Inspection Reference
FM Radio not working	Perform the following action→	<ul style="list-style-type: none"> <li>If the system connector is dirty or oxidized, clean it</li> <li>If the system connector is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

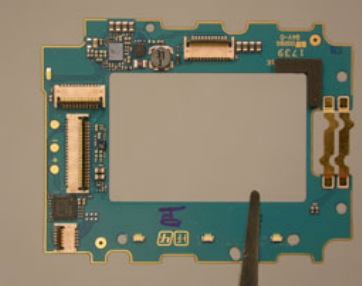
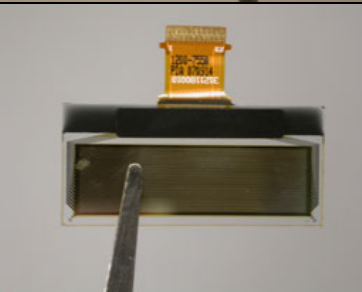

## 9 Hands-Free Problems

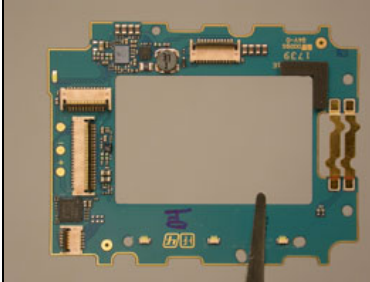
Problem Area	Items to Inspect	Repair Action	Inspection Reference
Hands-free not working	Perform the following action→	<ul style="list-style-type: none"> <li>• If the system connector is dirty or oxidized, clean it</li> <li>• If the system connector is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved→	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	

## 10 Illumination Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Keyboard Illumination:</b>  The entire keyboard will not illuminate	Perform the following action→	<ul style="list-style-type: none"> <li>• Perform a setting reset</li> </ul>	
	Inspect the Keyboard FPC Assembly's connection to the lower circuit board	<ul style="list-style-type: none"> <li>• If improperly connected, establish proper connection</li> <li>• If dirty or oxidized, clean both halves of the connection</li> <li>• If the portion of the connection on the Keyboard FPC Assembly is damaged, replace the Keyboard FPC Assembly</li> <li>• If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the Keyboard FPC Assembly, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	
<b>Keyboard Illumination:</b>  A portion of the keyboard does not illuminate	Perform the following action→	<ul style="list-style-type: none"> <li>• Replace the Keyboard FPC Assembly, if it has not already been replaced</li> </ul>	

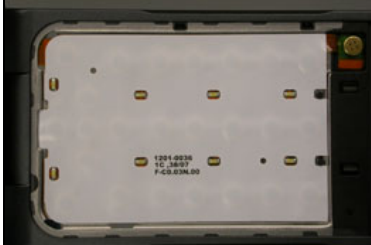
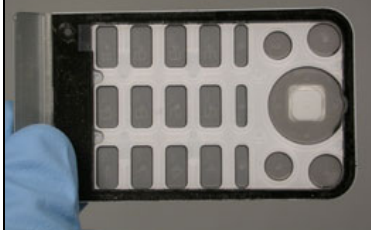

Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Inner Display Illumination:</b>  Inner Display's illumination is irregular	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Perform the following action→	<ul style="list-style-type: none"> <li>Replace the upper front cover assembly</li> </ul> <p><b>NOTE: A protective plate tape must be installed whenever a new upper front cover assembly is installed.</b></p>	
	If the issue has not been resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	
<b>Inner Display Illumination:</b>  Inner Display's illumination is dim	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Perform the following action→	<ul style="list-style-type: none"> <li>Replace upper PBA</li> </ul>	
	Perform the following action→	<ul style="list-style-type: none"> <li>Replace the upper front cover assembly</li> </ul> <p><b>NOTE: A protective plate tape must be installed whenever a new upper front cover assembly is installed.</b></p>	
	If the issue has not been resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

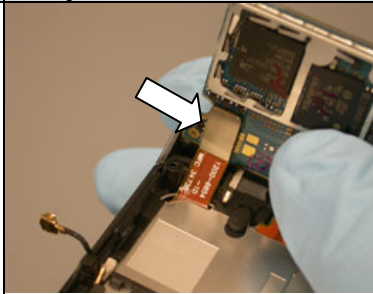

Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Outer Display Illumination:</b> Outer Display's illumination is dim	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Perform the following action→	<ul style="list-style-type: none"> <li>Replace upper PBA</li> </ul>	
	Perform the following action→	<ul style="list-style-type: none"> <li>Replace the outer display</li> </ul>	
	If the issue has not been resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	
<b>W380 only:</b> <b>Touch key Illumination:</b> If touch keys are dim, only partially illuminate, or do not illuminate but vibrate when touched	Perform the following action→	<ul style="list-style-type: none"> <li>Replace the Light Guide/Flex Touch Keys Assembly</li> </ul>	

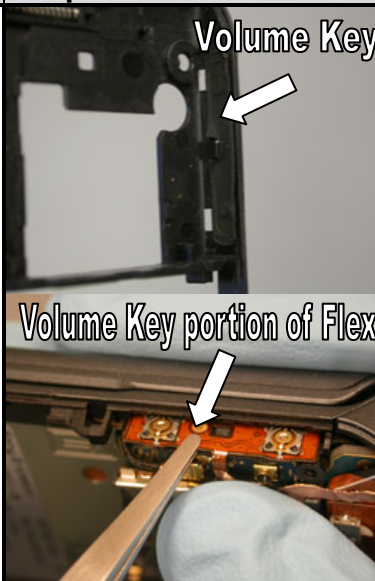
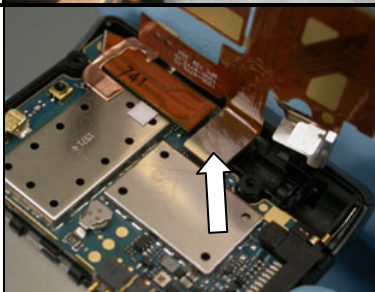
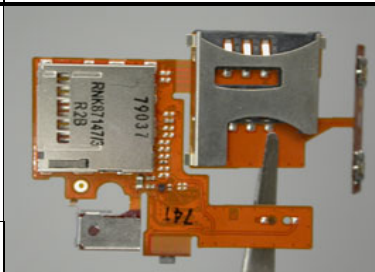
Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>W380 only:</b> <b>Light Panel Illumination:</b> If the Light Panel does not illuminate or only partially illuminates	Perform the following action→	<ul style="list-style-type: none"> <li>Replace the Upper PBA</li> </ul>	



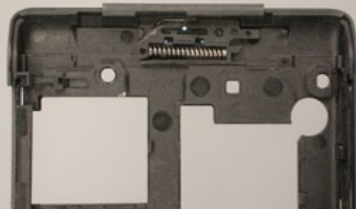
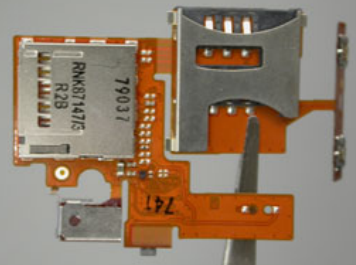
## 11 Key Problems

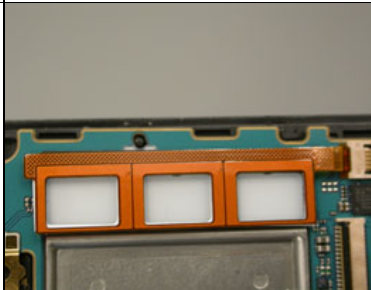

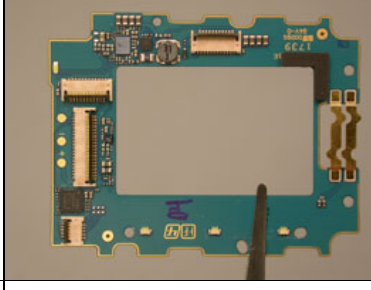
Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Keyboard:</b> A key on the keyboard is not functioning or is intermittent	Remove the keyboard (and keyboard base on W380) and inspect for debris on the Keyboard FPC assembly.	<ul style="list-style-type: none"> <li>If debris is present clean and/or replace Keyboard FPC assembly as necessary</li> <li><b>W380 only:</b> If debris is present on the keyboard base, clean and/or replace it as necessary</li> </ul> <p><b>NOTE: A keyboard should never be reused once removed.</b></p>	 
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Keyboard FPC assembly, if it has not been replaced (On W380, also replace the Keyboard base)</li> </ul> <p><b>NOTE: Thoroughly clean all adhesive off the Keyboard FPC assembly area on the lower front cover before installing a new Keyboard FPC assembly.</b></p>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	


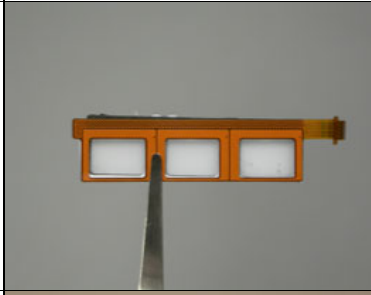
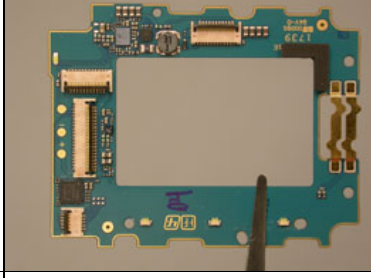
Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Keyboard:</b> Entire keyboard is not functioning	Inspect the Keyboard FPC Assembly's connection to the lower circuit board	<ul style="list-style-type: none"> <li>• If improperly connected, establish proper connection</li> <li>• If dirty or oxidized, clean both halves of the connection</li> <li>• If the portion of the connection on the Keyboard FPC Assembly is damaged, replace the Keyboard FPC Assembly</li> <li>• If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the Keyboard FPC Assembly, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	

Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>Volume Key:</b> If the volume key is not functioning in one or both directions	Inspect for debris between and/or damage to volume key and the volume key portion of the SIM/M2 Flex	<ul style="list-style-type: none"> <li>• If debris is found between volume key and the volume key portion of the SIM/M2 Flex, clean and/or replace parts as necessary</li> <li>• If the volume key is damaged, replace the volume key</li> <li>• If the volume key portion of the SIM/M2 Flex is damaged, replace the SIM/M2 Flex</li> </ul>	
	Inspect the SIM/M2 Flex connection to the circuit board	<ul style="list-style-type: none"> <li>• If improperly connected, establish proper connection</li> <li>• If dirty or oxidized, clean both halves of the connection</li> <li>• If the SIM/M2 Flex portion of the connection is damaged, replace it</li> <li>• If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>• Replace the SIM/M2 Flex, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>• Escalate to an electrical repair level</li> </ul>	

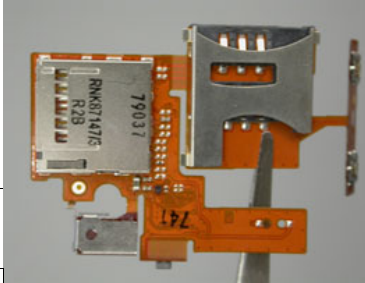


Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>W380 only:</b>  <b>Key lock:</b> If the key lock is not functioning	Inspect the lock key →	<ul style="list-style-type: none"><li>If dirty or damaged – Clean/replace the key lock as necessary</li></ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"><li>Replace the SIM/M2 Flex</li></ul>	
	If the issue has not been resolved→	<ul style="list-style-type: none"><li>Escalate to an electrical repair level</li></ul>	

Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>W380 only:</b>  <b>Touch Keys:</b> None of the touch keys are not functioning	Before proceeding →	<ul style="list-style-type: none"> <li>Make sure the key lock is turned off</li> </ul>	
	Check the Light Guide/Flex Touch Keys Assembly's connection to the Upper PBA	<ul style="list-style-type: none"> <li>Make sure the Light Guide/Flex Touch Keys Assembly's ZIF connection is properly connected and secured</li> <li>If the Light Guide/Flex Touch Keys Assembly is damaged, replace it</li> <li>If the ZIF connector is damaged, replace the upper PBA</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Light Guide/Flex Touch Keys Assembly, if it has not already been replaced</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the upper PBA, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	


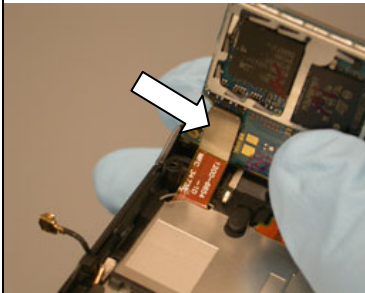
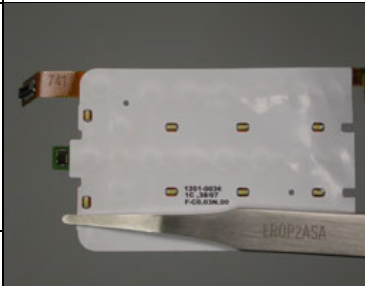
Problem Area	Items to Inspect	Repair Action	Inspection Reference
<b>W380 only:</b> <b>Touch Keys:</b> If one or two of the touch keys are not functioning	Check the Light Guide/Flex Touch Keys Assembly's connection to the Upper PBA	<ul style="list-style-type: none"> <li>Make sure the Light Guide/Flex Touch Keys Assembly's ZIF connection is properly connected and secured</li> <li>If the Light Guide/Flex Touch Keys Assembly is damaged, replace it</li> <li>If the ZIF connector is damaged, replace the upper PBA</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Light Guide/Flex Touch Keys Assembly, if it has not already been replaced</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the upper PBA, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 12 Memory Card Problems

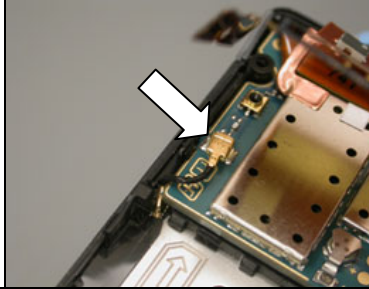


Problem Area	Items to Inspect	Repair Action	Inspection Reference
Memory card undetected	Inspect memory card reader	<ul style="list-style-type: none"> <li>If dirty or oxidized, clean</li> <li>If damaged, replace the SIM/M2 Flex</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the SIM/M2 Flex, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	



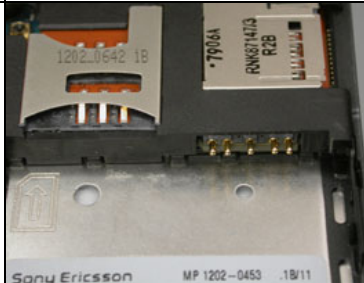

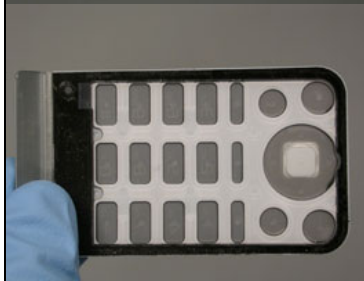
## 13 Microphone Problems


Problem Area	Items to Inspect	Repair Action	Inspection Reference
Microphone	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Inspect the microphone's external port	<ul style="list-style-type: none"> <li>If clogged, clean microphone's external port or replace keyboard as necessary.</li> </ul>	
	Inspect the Keyboard FPC assembly's connection to the circuit board	<ul style="list-style-type: none"> <li>If improperly connected, establish proper connection</li> <li>If dirty or oxidized, clean both halves of the connection</li> <li>If the Keyboard FPC assembly portion of the connection is damaged, replace it</li> <li>If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Keyboard FPC assembly, if it has not already been replaced.</li> </ul>	
	If the issue is still not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 14 Network/Signal Problems


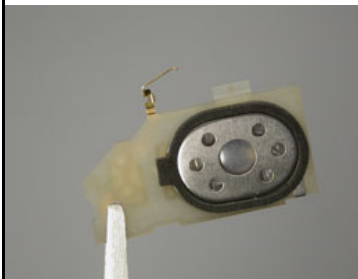
Problem Area	Items to Inspect	Repair Action	Inspection Reference
No Signal or Poor Signal	Inspect antenna coax cable-to-board connection	<ul style="list-style-type: none"> <li>If the connector on the circuit board is damaged, send to an electrical level repair location</li> <li>If the coax cable is damaged, replace the antenna assembly</li> </ul>	
	If the issue has not been resolved →	<ul style="list-style-type: none"> <li>Replace the coax cable conductive cushion, if it has not already been replaced.</li> </ul>	 
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Send to an electrical level repair location</li> </ul>	

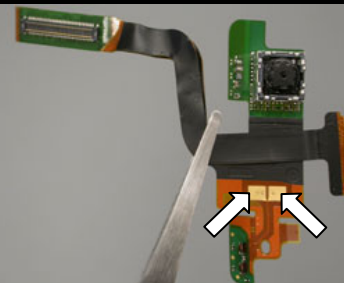
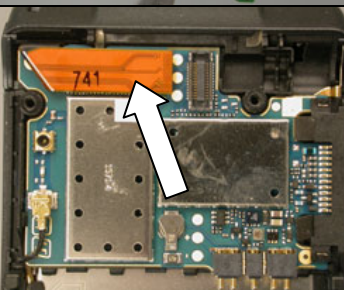

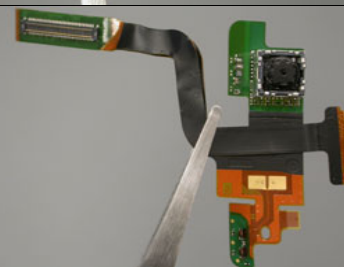
## 15 Power Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Unit will not Power On	Check whether the phone vibrates when you press the power key and whether the keyboard illuminates after the phone vibrates	If activation of the vibrator and illumination of the keyboard are detected, refer to the "Display Problems" section	
	Inspect battery connector	<ul style="list-style-type: none"> <li>If dirty or oxidized, clean the battery connector's contact pins</li> <li>If damaged, escalate to an electrical repair level</li> </ul>	
	Remove the keyboard (and keyboard base on W380) and inspect for debris and/or damage to the power key area on the keyboard, keyboard FPC assembly, and keyboard base (if applicable).	<ul style="list-style-type: none"> <li>If debris is present clean and/or replace Keyboard FPC assembly as necessary</li> <li><b>W380 only:</b> If debris is present on the keyboard base, clean and/or replace it as necessary</li> </ul> <p><b>NOTE: A keyboard should never be reused once removed.</b></p>	 

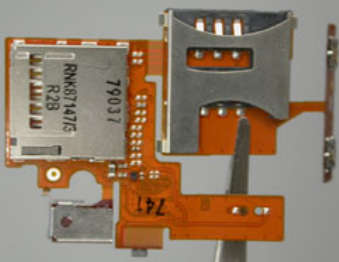
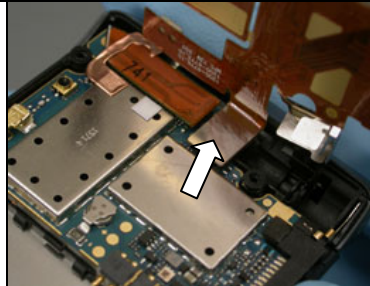
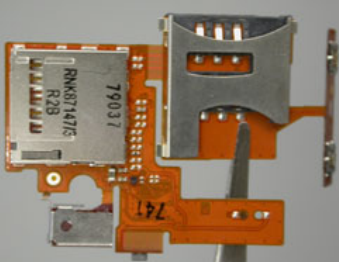
Problem Area	Items to Inspect	Repair Action	Inspection Reference
Unit will not Power On (Cont)	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the Keyboard FPC assembly, if it has not been replaced (On W380, also replace the Keyboard base)</li> </ul> <p><b>NOTE: Thoroughly clean all adhesive off the Keyboard FPC assembly area on the lower front cover before installing a new Keyboard FPC assembly.</b></p>	
	If the issue is still not resolved→	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 16 Rear Speaker Problems

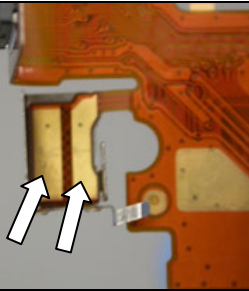
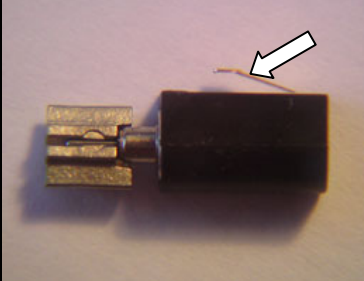
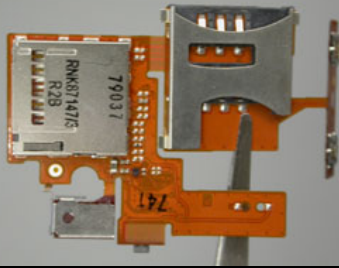
Problem Area	Items to Inspect	Repair Action	Inspection Reference
No sound or poor quality sound	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	 
	Inspect whether the rear speaker's external port is clogged	<ul style="list-style-type: none"> <li>If clogged – Clean or replace the upper back cover and replace the Loudspeaker.</li> </ul>	

Problem Area	Items to Inspect	Repair Action	Inspection Reference
No sound or poor quality sound (Cont)	Inspect the loudspeaker's connection to the hinge FPC	<ul style="list-style-type: none"> <li>If any of the contacts are dirty or damaged, replace the loudspeaker and the hinge FPC</li> </ul>	
	Inspect the hinge FPC's connection to the lower circuit board	<ul style="list-style-type: none"> <li>If improperly connected, establish proper connection</li> <li>If dirty or oxidized, clean both halves of the connection</li> <li>If the portion of the connection on the hinge FPC is damaged, replace the hinge FPC</li> <li>If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not resolved →	<ul style="list-style-type: none"> <li>Replace the loudspeaker, if it has not already been replaced</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the hinge FPC, if it has not already been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	

## 17 SIM Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
SIM undetected	Inspect the SIM holder	<ul style="list-style-type: none"> <li>If dirty or oxidized, clean</li> <li>If damaged, replace the SIM/M2 Flex</li> </ul>	
	Inspect the SIM/M2 Flex's connection to the circuit board	<ul style="list-style-type: none"> <li>If improperly connected, establish proper connection</li> <li>If dirty or oxidized, clean the connection on the circuit board and replace the SIM/M2 Flex</li> <li>If the SIM/M2 Flex's portion of the connection is damaged, replace it</li> <li>If the circuit board portion of the connection is damaged, escalate to an electrical repair level</li> </ul>	
	If the issue is not been resolved →	<ul style="list-style-type: none"> <li>Replace the SIM/M2 Flex, if it has not been replaced</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	
Unit indicates the incorrect SIM is inserted	Check whether the phone is locked to a particular carrier and whether the correct carrier's SIM is being used	<ul style="list-style-type: none"> <li>Use Correct Carrier SIM or test SIM</li> </ul>	

## 18 Vibrator Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Vibrator not working	Before proceeding →	<ul style="list-style-type: none"> <li>Perform a setting reset</li> </ul>	
	Inspect the vibrator's connection to the SIM/M2 Flex	<ul style="list-style-type: none"> <li>If dirty, clean the pads</li> <li>If the vibrator's contact pads on the SIM/M2 Flex are oxidized or damaged, replace the SIM/M2 Flex</li> </ul>	
	If the issue is not been resolved →	<ul style="list-style-type: none"> <li>Check that the contact springs have the correct angle as shown in picture. If they have been pressed down, lift them up with a pair of tweezers.</li> </ul>	
	If the issue remains unresolved →	<ul style="list-style-type: none"> <li>Replace the Vibrator, if it has not already been replaced.</li> <li>Replace the SIM/M2 Flex, if it has not already been replaced.</li> </ul>	
	If the issue is still not resolved →	<ul style="list-style-type: none"> <li>Escalate to an electrical repair level</li> </ul>	



## 19 Revision History

Rev.	Date	Changes / Comments
1	2008-March 3	Initial Release
2	2008-March 25	Updated document so that it covers both W380 and Z555
3	2008-06-25	- Added notes regarding adding a protective plate tape whenever the upper front cover is replaced. - Added replacing the two coax cable conductive cushions if a unit has network problems
4	2008-7-10	- Adjusted notes regarding adding a protective plate tape whenever the upper front cover is replaced so that they apply to both W380 and Z555
5	2008-10-31	- Updated Area 6,10 and 14
6	2008-11-03	- New rev. due to system error