

Trouble Shooting Guide, Mechanical

Applicable for W880i

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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. Use the joystick.

The service menu options are:

Service info

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 LED/illumination

Keyboard

Speaker

Earphone

Microphone

Vibrator

Camera

Video Call Camera

Memory Stick

Real time clock

Total call time

Security

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

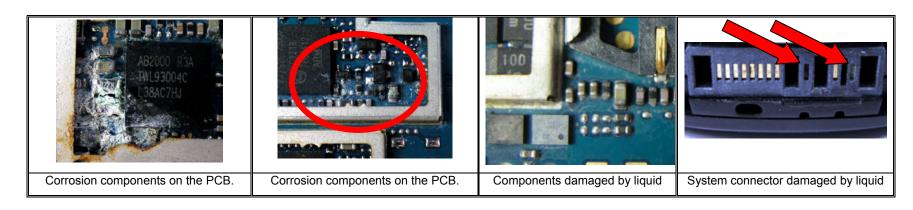


Misuse and other no warranty issues

A phone that is damaged due to misuse <u>is not covered</u> 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.

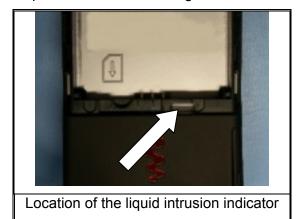




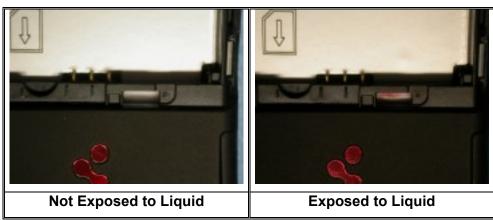


1.1.1 Liquid Damage Inspection

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 different between an indicator that has been in contact with liquid and one that has not.





2 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	If activation of the vibrator is detected, refer to the "Display Problems" section	
	Inspect battery connector	If dirty or oxidized – Clean the connector's contact pins	
		If adhesive is detected on the contact pins – use an eraser to rub off the adhesive	
		If damaged – Send to a repair location allowed to perform electrical repairs on this product	I tad sping on the tag to the tag
	Inspect the area between the power key portion of the keypad and the dome foil assembly	 If the keypad is damaged, replace it Replace the dome foil assembly 	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



3 Network/Signal Problems

Problem Area	Items to Inspect		Repair Action	Inspection Reference
No Signal or Poor Signal	Before proceeding →	•	Ensure the correct SIM (GSM) or USIM (UMTS) is installed. See Test Instruction for details.	
	Inspect antenna-to-board spring connectors	•	If dirty or oxidized – Clean the antenna-to-board spring connectors If damaged - Send to a repair location allowed to perform electrical repairs on this product	
	If the issue has not been resolved →	•	Replace the antenna	
	If the issue is still not resolved→	•	Send to a repair location allowed to perform electrical repairs on this product	



4 Audio Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Receiver:	Before proceeding →	Perform a setting reset	
No sound or poor quality sound	Inspect the receiver's external ports	If clogged – Clean the ports and receiver's dust cloth	Son Friesson
	Inspect the receiver's dust cloth	 If dirty – Clean If damaged – Replace the camera flex assembly 	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
	Inspect the two connections where the camera flex assembly connects to the circuit board	 If either connection is improperly connected - Reestablish proper connection If one or both of the connections is dirty or oxidized - Clean both halves of the connection(s) If any portion on the camera assembly flex film is damaged - replace the camera flex assembly If either of the camera flex assembly connections on the circuit board is damaged - Send to a repair location allowed to perform electrical repairs on this product 	ESCR 1991
	If the issue has not been resolved →	Replace the camera assembly, if it has not been replaced	
	If the issue is still not resolved →	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Rear Speaker:	Before proceeding →	Perform a setting reset	
No sound or poor quality sound	Inspect whether the rear speaker's external port is clogged	If clogged – Clean the port and rear speaker cloth	Sony Eritsson
	Inspect the rear speaker cloth	 If dirty – Clean If damaged – Replace the camera flex assembly 	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
	Inspect the two camera flex assembly connections to the circuit board	 If either connection is improperly connected - Reestablish proper connection If one or both of the connections is dirty or oxidized - Clean both halves of the connection(s) If any portion on the camera assembly flex film is damaged - replace the camera flex assembly If either of the camera flex assembly connections on the circuit board is damaged - Send to a repair location allowed to perform electrical repairs on this product 	BRQ ² 4992
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Microphone:	Before proceeding →	Perform a setting reset	
	Inspect the microphone's external port	If clogged – Remove the co-brand label and clean the microphone's port hole	E E E E E E E E E E E E E E E E E E E
	Inspect the microphone	If dirty - Clean the microphone If damaged - Send to a repair location allowed to perform electrical repairs on this product	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



5 Key Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Keypad: A key on the keypad is not	Inspect the area between the keypad and the dome foil assembly where the key is not functioning	If the keypad is damaged, replace it	
functioning or is	If the issue is not resolved→	Replace the dome foil assembly	
intermittent	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	
Entire keypad or a portion of the keypad is not	Inspect the dome foil assembly to circuit board connection	If the connector is improperly connected - Reestablish proper connection	
functioning or is intermittent		If the connection is dirty – Clean both halves of that connection	
		If dome foil assembly's half of the connection is damaged – replace the dome foil assembly	I fi.
		If the half of the connection on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product	
	If the issue is not resolved→	Replace the dome foil assembly	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Volume key:	Inspect the volume key	If dirty or damaged, replace the volume key	Raine Richard
	Inspect the volume switch on the camera flex assembly	If damaged, replace the camera flex assembly	
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Camera key	Inspect the area between the camera key and the dome foil assembly	 If the camera key is damaged, replace it If the camera key portion of the dome foil assembly is damaged, replace the dome foil assembly 	
	If the issue is not resolved→	Replace the dome foil assembly, if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	
Music Key	Inspect the Music key	If dirty or damaged, replace the Music key	
	Inspect the Music key's dome foil on the camera flex assembly	If damaged, replace the camera flex assembly	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	 Send to a repair location allowed to perform electrical repairs on this product 	



Display Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
If display is not functioning	Check whether the phone vibrates when you press the power key	If activation of the vibrator is not detected, refer to the "Power Problems" section	
	Inspect the display flex film's connection to the circuit board	If improperly connected - establish proper connection	
		If dirty or oxidized – Clean both halves of the connection	
		If the display's portion of the connection is damaged – replace the display assembly	
		If the portion of the connection on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product	
	If the issue has not been resolved →	Replace the display assembly if it has not been replaced	2304
	If the issue is still not resolved →	Send to a repair location allowed to perform electrical repairs on this product	
Display is not Illuminating properly	Refer to the "Illumination Problems" se	ection of this document	4



7 Illumination Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Keypad Illumination: The entire keypad will not illuminate	Before proceeding →	Perform a setting reset	
	Inspect both halves of the dome foil assembly to circuit board connection	 If dirty or oxidized – Clean both halves of the connection If the portion of the connection on the dome foil assembly is damaged - Replace the dome foil assembly If the portion of the connection on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product 	
	If the issue has not been resolved →	Replace the dome foil assembly, if it has not been replaced	
	If the issue has not been resolved →	Send to a repair location allowed to perform electrical repairs on this product	
Keypad Illumination: A portion of the keypad does not illuminate	Perform the following action →	Replace the dome foil assembly	
	If the issue has not been resolved →	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Display	Before proceeding →	Perform a setting reset	
Illumination:	Inspect the display flex film's connection to the circuit board	If improperly connected - establish proper connection	
		If dirty or oxidized – Clean both halves of the connection	
		If the display's portion of the connection is damaged – replace the display assembly	
		If the portion of the connection on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product	
	If the issue has not been resolved →	Replace the display assembly if it has not been replaced	540 470
	If the issue is still not resolved →	Send to a repair location allowed to perform electrical repairs on this product	



8 Alert Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Vibrator:	Before proceeding →	Perform a setting reset	
	If the issue is not resolved →	Send to a repair location allowed to perform electrical repairs on this product	
Rear speaker:	Before proceeding →	Perform a setting reset	
No sound or poor quality sound	Inspect whether the rear speaker's external port is clogged	If clogged – Clean the port and rear speaker cloth	Sony Erlesson
	Inspect the rear speaker cloth	If dirty – Clean If damaged – Replace the camera flex assembly	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
	Inspect the two camera flex assembly connections to the circuit board	 If either connection is improperly connected - Reestablish proper connection If one or both of the connections is dirty or oxidized – Clean both halves of the connection(s) If any portion on the camera assembly flex film is damaged – replace the camera flex assembly If either of the camera flex assembly connections on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product 	
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



9 Charging/Capacity Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Phone is not charging properly	Inspect the battery connector	 If dirty or oxidized – Clean the connector's contact pins If adhesive is detected on the contact pins – use an eraser to rub off the adhesive If damaged – Send to a repair location allowed to perform electrical repairs on this product 	Tray: my tong ton
	Inspect the system connector	 If dirty or oxidized – Clean the connector's contacts If damaged – Send to a repair location allowed to perform electrical repairs on this product 	
	If the issue has not been resolved →	Send to a repair location allowed to perform electrical repairs on this product	



10 SIM Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
SIM undetected	Inspect camera flex assembly to SIM flex connection	 If the connector is improperly connected - Reestablish proper connection If the connection is dirty - Clean both halves of that connection If SIM flex half of the connection is damaged - replace the SIM Flex If Camera flex half of the connection is damaged - replace the Camera Flex Assembly 	
	If the issue has not been resolved →	Replace the SIM Flex, if it has not been replaced	
	If the issue is still not resolved →	Send to a repair location allowed to perform electrical repairs on this product	
Unit indicates the incorrect SIM is inserted	Before proceeding →	Ensure the correct SIM (GSM) or USIM (UMTS) is installed. See Test Instruction for details.	
	Check whether the phone is locked to a particular carrier and whether the correct carrier's SIM is being used	Use Correct Carrier SIM or test SIM	



11 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	If dirty or oxidized – Clean the connector's contacts	The state of the s
	If the issue has not been resolved →	Send to a repair location allowed to perform electrical repairs on this product	

12 Hands-Free Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Hands-free not working	Inspect the system connector	If dirty or oxidized – Clean the connector's contacts	CEW STATE OF THE PARTY OF THE P
	If the issue has not been resolved →	Send to a repair location allowed to perform electrical repairs on this product	



13 Rear Camera Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Lines or marks in picture	Visually inspect the rear camera window	 If dirty – Clean the rear camera window If scratched or damaged – Replace the rear camera window 	Son Edices
	If the issue has not been resolved →	Replace the camera flex assembly	
	If the issue is still not resolved →	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Will not capture an image	To determine whether or not the problem is with the camera key, try capturing an image by pressing the navigation key	If pressing the navigation key does take a picture — Perform the steps listed in the camera key portion of the "Key Problems" section	
		If pressing the navigation key does not take a picture— Perform the remaining inspect/repair procedures in this section.	
	Inspect the two camera flex assembly connections to the circuit board	If either connection is improperly connected - Reestablish proper connection	
		If one or both of the connections is dirty or oxidized – Clean both halves of the connection(s)	735U 35U
		If any portion on the camera assembly flex film is damaged – replace the camera flex assembly	C n
		If either of the camera flex assembly connections on the circuit board is damaged – Send to a repair location allowed to perform electrical repairs on this product	
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



14 Video Call Camera Problems (W880 Only)

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Lines or marks in picture	Visually inspect the front camera's window	If dirty – Clean the front camera's window	9 480
		If scratched or damaged – Replace the front cover	Ing Ericsson Column Co
	If the issue has not been resolved →	Replace camera flex assembly	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



Problem Area	Items to Inspect	Repair Action	Inspection Reference
Do not see image when in video call mode	Inspect the two camera flex assembly connections to the circuit board	 If either connection is improperly connected - Reestablish proper connection If one or both of the connections is dirty or oxidized - Clean both halves of the connection(s) If any portion on the camera assembly flex film is damaged - replace the camera flex assembly If either of the camera flex assembly connections on the circuit board is 	
		damaged – Send to a repair location allowed to perform electrical repairs on this product	
	If the issue has not been resolved →	Replace camera flex assembly if it has not already been replaced	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



15 Bluetooth Problems

Problem Area	Items to Inspect	Repair Action	Inspection Reference
Will not connect with a functional Bluetooth device	Inspect Bluetooth antenna-to-board spring connectors	 If dirty or oxidized – Clean the Bluetooth antenna-to-board spring connectors If damaged - Send to a repair location allowed to perform electrical repairs on this product 	
	If the issue has not been resolved →	Replace the antenna	
	If the issue is still not resolved→	Send to a repair location allowed to perform electrical repairs on this product	



16 Revision History

Rev.	Date	Changes / Comments
Α	Feb. 8, 2007	Initial Release