

Trouble Shooting Guide, Electrical

Applicable for Z610i

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1 General

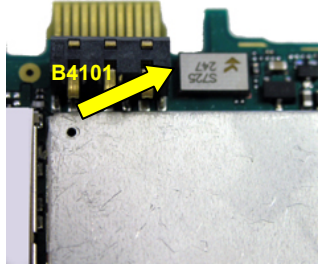
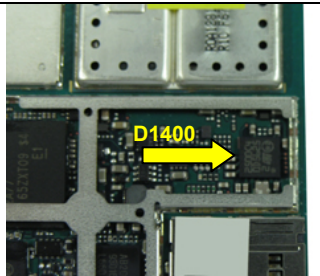
The purpose of this document is to indicate the electrical level repair actions associated with the different failure symptoms.

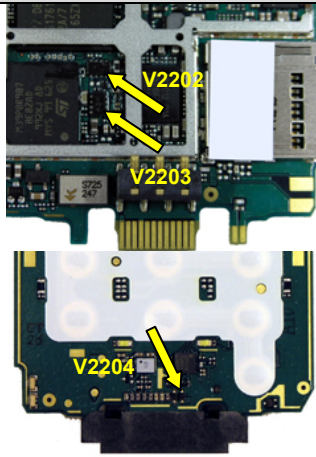
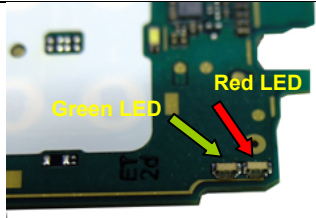
For symptoms that have multiple repair actions, the repair actions are listed in order of their probability of creating a successful repair. The first action has the highest probability, and subsequent actions have lower probabilities. The intention is for the repair technician to implement the first repair action and then retest the phone. If the phone continues to fail the same test, then the technician should continue to the second repair action. If the phone continues to fail the same test after all of the repair actions are exhausted, then the phone will be considered not reparable at this level.

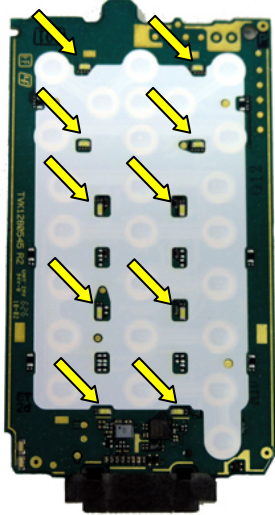
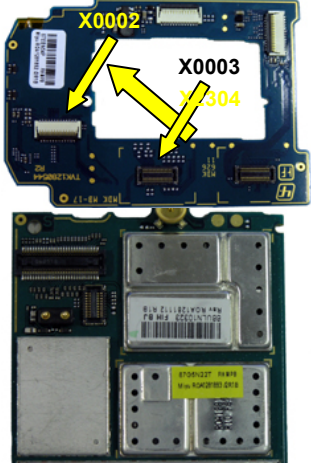
This document should be used only after the actions from the Mechanical Trouble Shooting Guide have been exhausted for the specific symptom.

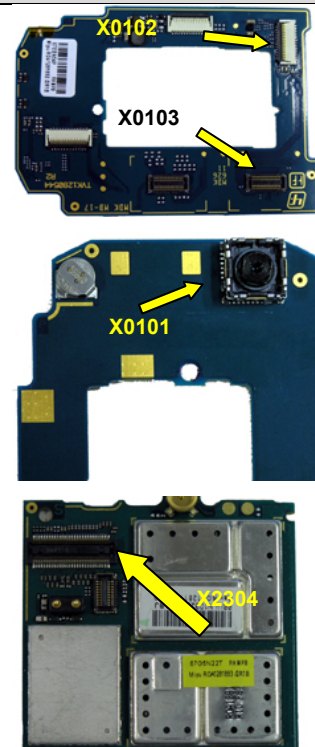

Voltage, current, and resistance information is provided for some symptoms to enable faster repairs. Perform current measurements using a dummy battery and power supply with digital current display. The phone should be fully assembled. Perform voltage and resistance measurements with a multimeter. Purchasing this equipment and performing these measurements is optional but recommended.

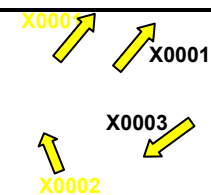
2 Repair Actions for Manual Test Failures

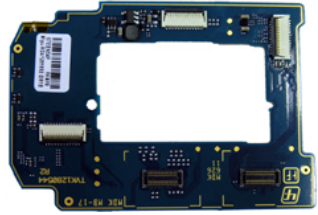
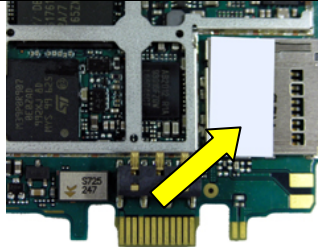
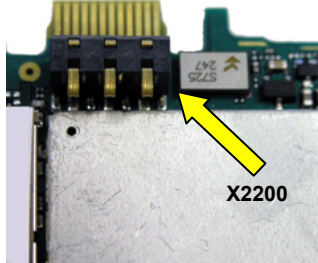
Failure	Failure Symptom	Repair Action	Pictures
2.1 Audio	No microphone or low gain	Replace B4100	
	Polyphonic Speaker (Alert, Speakerphone)	Replace N4100	
2.2 Bluetooth		Replace D1400	


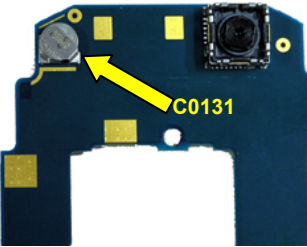
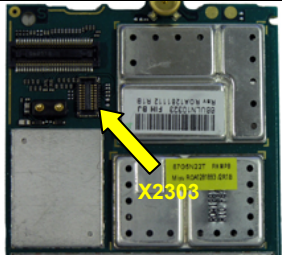
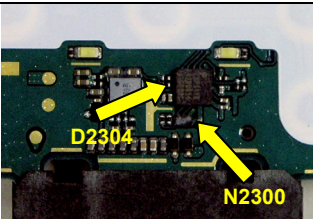
Failure	Failure Symptom	Repair Action	Pictures
2.3 Charging	Can't charge	Replace V2202, V2203 Replace V2204	
	Charging LED (RED)	Replace V3110	
2.4 LED's and illumination	Network status LED (GREEN)	Replace V3111	

Failure	Failure Symptom	Repair Action	Pictures
	Keyboard illumination	Replace V2527-2532 & V2535-2538	
	Display Illumination	Replace X0002 if damaged Replace X0003 if damaged Replace X2304 if damaged	


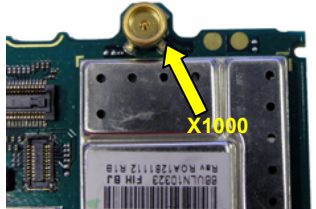
Failure	Failure Symptom	Repair Action	Pictures
2.5 Camera	Any problem with the Mega pixel camera	Replace X0102 if damaged Replace X0103 if damaged Replace X2304 if damaged	
	Any problem with the video call camera	Replace X0101 if damaged Replace X0103 if damaged Replace X2304 if damaged	
2.6 Display	Any problem with the OLED	Replace N0001 if damaged Replace X0001 if damaged Replace X0003 if damaged Replace X2304 if damaged	
	Any problem with the main LCD	Replace X0002 if damaged Replace X0003 if damaged Replace X2304 if damaged	



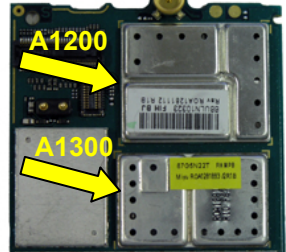
Failure	Failure Symptom	Repair Action	Pictures
			
2.7	Memory stick	Replace X2301 if damaged	
2.8	On/Off	Before continue please make sure you have tried to recover the phone in EMMA III with the SEPI A1 cable and by pressing 2 and 5 on the keypad and that you have followed the mechanical TSG.	
	Can't be power on, Cannot be detected on USB cable on EMMA III.	Log on to EMMA III as usual. Use SEPI A1 with power charger attached. Press keys 2 and 5 when you connect the phone	EMMA III RECOVERY
	Can't power on	Replace X2200 If damaged	
	Turns off by itself	Replace X2200 If damaged	

Failure	Failure Symptom	Repair Action	Pictures
	Current draw when powered off	Replace A1300 – Approved Centers Only	
2.9 RTC	The clock has to be set after the battery has been detached.	Replace C0131 Replace X0103 if damaged Replace X2304 if damaged	
2.10 SIM		Replace X2303 if damaged	
2.11 USB		Replace N2300 Replace D2304	

3 Repair Actions for Go/No Go Test Failures

Failure	Repair Action	Pictures
Fails any part of Go/No Go testing	Run the calibration routine.	
Fails Go/No Go test, but passes calibration	Replace the antenna. Rerun the phone through Go/No Go testing.	
Fails Go/No Go test after passing calibration	Change X1000 and re-test.	

4 Repair Actions for Calibration Failures

Failure	Repair Action	Pictures
Fails any part of the GSM calibration routine	Replace A1300 – Approved Centers Only Replace N2400	
Fails any part of the UMTS calibration routine	Replace A1200 – Approved Centers Only Replace A1300 – Approved Centers Only	

5 Revision History

Rev.	Date	Changes / Comments
A	2006-09-06	Released Document
B	2007-01-12	Added N4100 to Audio
C	2007-02-08	N2400 Added