



Trouble Shooting Guide, Electrical

Applicable for Z750

Contents

1	General	2
2	Repair Actions for Manual Test Failures	3
2.1	Power On / Off.....	3
2.2	Software Flash	3
2.3	Charging.....	3
2.4	Hands-Free connection (PHF)	3
2.5	SIM	3
2.6	Main Display	3
2.7	External Display	3
2.8	Display Illumination.....	3
2.9	Flip Sensor.....	3
2.10	Main Keypad Illumination	3
2.11	Main Keypad Keys.....	3
2.12	Side Keys	3
2.13	Vibrator	3
2.14	Earphone (Receiver)	3
2.15	Polyphonic Speaker (rear speaker)	3
2.16	Microphone	3
2.17	Real Time Clock.....	3
2.18	Camera.....	3
2.19	Bluetooth	3
2.20	Memory Card Reader.....	3
2.21	FM Radio.....	3
3	Repair Actions for Go/No Go Test Failures	4
3.1	Network Connection	4
3.2	Other Failures.....	4
4	Repair Actions for Calibration Routine Failures.....	4
4.1	GSM / EDGE	4
4.2	WCDMA	4
5	Revision History	4



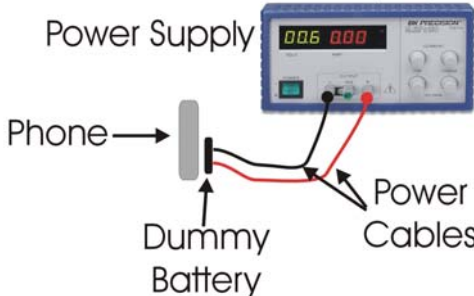


1 General

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 repairable 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. Purchasing this equipment and performing these measurements is optional but recommended.

<p>Measure Current in Milliamps (mA)</p>  <p>Power Supply</p> <p>Phone</p> <p>Dummy Battery</p> <p>Power Cables</p>	<p>Perform current measurements using a dummy battery and power supply with digital current display. The phone should be fully assembled.</p>
<p>Measure Diode Voltage (VDC →)</p>  <p>Multimeter</p>	<p>Perform voltage measurements with a multimeter.</p>
<p>Measure Resistance in Ohms (Ω)</p>  <p>Multimeter</p>	<p>Perform resistance measurements with a multimeter.</p>

2 Repair Actions for Manual Test Failures

Failure	Failure Symptom	Repair Action
2.1 Power On / Off	Current draw greater than 300 mAmps	• N1200
	Current draw when powered off	• N1200
	Draws current when pushing On/Off key ,returns to zero	• B2101 • N1400 • N1200
	Other symptoms	• Replace X2200 if damaged
2.2 Software Flash		• D2404
2.3 Charging		• Replace X2200 if damaged
2.4 Hands-Free connection (PHF)		• N3101
2.5 SIM		• Replace X2410 if damaged
2.6 Main Display		• Replace X4200 if damaged
2.7 External Display		• Replace X4200 if damaged
2.8 Display Illumination		• Replace X4200 if damaged
2.9 Flip Sensor		• B2400
2.10 Main Keypad Illumination	All LEDs fail	• N4100
	Individual LEDs fail	• V4130 – V4143
2.11 Main Keypad Keys		• No Electrical Repair Action
2.12 Side Keys		• Replace X2410 if damaged
2.13 Vibrator		• No Electrical Repair Action
2.14 Earphone (Receiver)		• Replace X4200 if damaged
2.15 Polyphonic Speaker (rear speaker)		• Replace X3102 if damaged
		• N3100
2.16 Microphone		• B3100
2.17 Real Time Clock		• B2101
2.18 Camera		• Replace X4200 if damaged
2.19 Bluetooth		• N1400
2.20 Memory Card Reader		• Replace X2405 if damaged
2.21 FM Radio		• N1400

3 Repair Actions for Go/No Go Test Failures

3.1 Network Connection

Phone fails to lock on to network during radiated (wireless) Go / No Go test	<ul style="list-style-type: none"> • Use RF probe and fixture to perform conducted Go / No Go test
Phone fails conducted (RF probe) Go / No Go test	<ul style="list-style-type: none"> • Run Calibration Routine
Phone passes conducted (RF cable) Go / No Go test	<ul style="list-style-type: none"> • Replace Antenna and repeat radiated test
Phone still fails radiated (wireless) Go / No Go test	<ul style="list-style-type: none"> • Replace X1200 and repeat radiated test

3.2 Other Failures

Phone fails any other portion of Go/No Go testing	<ul style="list-style-type: none"> • Run Calibration Routine
Phone that failed Go/No Go test passes calibration	<ul style="list-style-type: none"> • Repeat radiated (wireless) Go/No Go test

4 Repair Actions for Calibration Routine Failures

4.1 GSM / EDGE

Routine	Repair Action
Any failures in the GSM routine.	<ul style="list-style-type: none"> • N1200

4.2 WCDMA

Routine	Repair Action
Any failures in the Wideband CDMA routine.	<ul style="list-style-type: none"> • N1210

5 Revision History

Rev.	Date	Changes / Comments
A	2007-Sep-26	Initial Release
B	2007-Nov-20	Added GSM Calibration section.
C	2008-Jan-11	Added WCDMA Calibration section.
D	2008-Dec-01	Added some On/Off components