



Trouble Shooting Guide, Electrical

Applicable for W380, Z555

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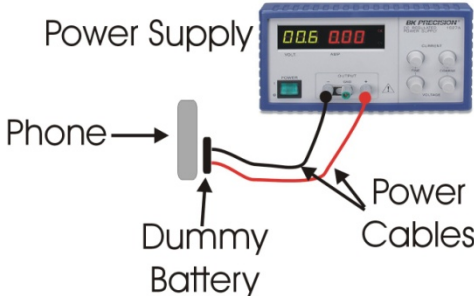


1 General

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. 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 when powered off	<ul style="list-style-type: none"> • D2599 • N2503 • N2601, N2602
	Sustained current draw greater than 300 mAmps	<ul style="list-style-type: none"> • No Repair Action
	Will not power on. No lights flash. No vibration. No action on the display. AND Will not flash. EMMA does not respond. Computer does not respond. When trying to power on using a dummy battery, current draw quickly rises to between 40 to 70 mAmps, and they stays at that level.	<ul style="list-style-type: none"> • No Repair Action <p>Do not try to replace components. This unit cannot be repaired.</p>
	Hangs with vibrator on	<ul style="list-style-type: none"> • No Repair Action
	Phone hangs in menus	<ul style="list-style-type: none"> • D2599
	Other symptoms	<ul style="list-style-type: none"> • Replace X0616 if damaged
	Back up battery	<ul style="list-style-type: none"> • C0661
2.2 Software Flash		<ul style="list-style-type: none"> • N2601, N2602 • V2698
2.3 Charging		<ul style="list-style-type: none"> • Replace X2600 if damaged • V0611 • V0674 • V0671
2.4 Charging with USB		<ul style="list-style-type: none"> • V0670 • V0671 • N2603
2.5 Hands-Free connection (PHF)		<ul style="list-style-type: none"> • N2203
2.6 SIM		<ul style="list-style-type: none"> • Replace X1102 if damaged
2.7 Main Display		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.8 Sub Display		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.9 Display Illumination		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.10 Flip Sensor		<ul style="list-style-type: none"> • Replace X1101 if damaged
2.11 Main Keypad Illumination		<ul style="list-style-type: none"> • Replace X1101 if damaged
2.12 Main Keypad Keys		<ul style="list-style-type: none"> • Replace X1101 if damaged
2.13 Volume Up key		<ul style="list-style-type: none"> • R0322 if damaged • Replace X1102 if damaged
2.14 Volume Down key		<ul style="list-style-type: none"> • R0323 if damaged • Replace X1102 if damaged
2.15 Key Lock Switch (W380 ONLY)		<ul style="list-style-type: none"> • R0324 if damaged • Replace X1102 if damaged
2.16 Touch Keys (W380 ONLY)		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.17 Vibrator		<ul style="list-style-type: none"> • Replace X1102 if damaged
2.18 Earphone (Receiver)		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.19 Polyphonic Speaker (rear speaker)		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.20 Microphone		<ul style="list-style-type: none"> • Replace X1101 if damaged
2.21 Real Time Clock		<ul style="list-style-type: none"> • No Repair Action
2.22 Camera		<ul style="list-style-type: none"> • Replace X1201 if damaged
2.23 Gesture Control		<ul style="list-style-type: none"> • Replace X1201 if damaged



Failure	Failure Symptom	Repair Action
2.24 Bluetooth		<ul style="list-style-type: none">• D2599• N2503
2.25 Memory Card Reader		<ul style="list-style-type: none">• Replace X1102 if damaged
2.26 FM Radio		<ul style="list-style-type: none">• D2599

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	• Use RF probe and fixture to perform conducted Go / No Go test
Phone fails conducted (RF probe) Go / No Go test	• Run Calibration Routine
Phone fails Calibration Routine	• Replace N5700 and calibrate again
Phone passes conducted (RF cable) Go / No Go test	• Replace Antenna and repeat radiated test
Phone still fails radiated (wireless) Go / No Go test	• Replace X5300 or W5301 if they appear damaged and repeat radiated test

3.2 Other Failures

Phone fails any other portion of Go/No Go testing	• Run Calibration Routine
Phone that failed Go/No Go test passes calibration	• Repeat radiated (wireless) Go/No Go test

4 Repair Actions for Calibration Routine Failures

Replace **N5700** and calibrate again

5 Revision History

Rev.	Date	Changes / Comments
1	2008-Feb-29	Initial Release
2	2008-Sep-23	Added detailed symptom description in Power On section.
3	2009-03-06	Added N5700 to Phone fails Calibration Routine
4	2009-03-23	Added R0322 to Volume up key,R0323 to Volume down key and R0324 to Key Lock Switch.
5	2009-06-10	N5700 added to 4.Repair Actions for Calibration Routine failures
6	2009-06-10	Bookmark updated