



Trouble Shooting Guide, Electrical

Applicable for W380, Z555

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	Charging with USB	3
2.5	Hands-Free connection (PHF)	3
2.6	SIM	3
2.7	Main Display	3
2.8	Sub Display	3
2.9	Display Illumination	3
2.10	Flip Sensor	3
2.11	Main Keypad Illumination	3
2.12	Main Keypad Keys	3
2.13	Side Keys	3
2.14	Key Lock Switch (W380 ONLY)	3
2.15	Touch Keys (W380 ONLY)	3
2.16	Vibrator	3
2.17	Earphone (Receiver)	3
2.18	Polyphonic Speaker (rear speaker)	3
2.19	Microphone	3
2.20	Real Time Clock	3
2.21	Camera	3
2.22	Gesture Control	3
2.23	Bluetooth	3
2.24	Memory Card Reader	3
2.25	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
5	Revision History	4



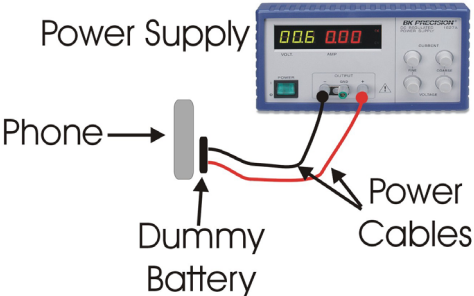
1 General

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 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.

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



2 Repair Actions for Manual Test Failures

Failure	Failure Symptom	Repair Action
2.1 Power On / Off	Current draw when powered off	• D2599 • N2503 • N2601, N2602
	Sustained current draw greater than 300 mAmps	• No Repair Action
	Will not power on AND will not flash	• No Repair Action
	Hangs with vibrator on	• No Repair Action
	Phone hangs in menus	• D2599
	Other symptoms	• Replace X0616 if damaged
	Back up battery	• C0661
2.2 Software Flash		• N2601, N2602 • V2698
2.3 Charging		• Replace X2600 if damaged • V0611 • V0674 • V0671
2.4 Charging with USB		• V0670 • V0671 • N2603
2.5 Hands-Free connection (PHF)		• N2203
2.6 SIM		• Replace X1102 if damaged
2.7 Main Display		• Replace X1201 if damaged
2.8 Sub Display		• Replace X1201 if damaged
2.9 Display Illumination		• Replace X1201 if damaged
2.10 Flip Sensor		• Replace X1101 if damaged
2.11 Main Keypad Illumination		• Replace X1101 if damaged
2.12 Main Keypad Keys		• Replace X1101 if damaged
2.13 Side Keys		• Replace X1102 if damaged
2.14 Key Lock Switch (W380 ONLY)		• Replace X1102 if damaged
2.15 Touch Keys (W380 ONLY)		• Replace X1201 if damaged
2.16 Vibrator		• Replace X1102 if damaged
2.17 Earphone (Receiver)		• Replace X1201 if damaged
2.18 Polyphonic Speaker (rear speaker)		• Replace X1201 if damaged
2.19 Microphone		• Replace X1101 if damaged
2.20 Real Time Clock		• No Repair Action
2.21 Camera		• Replace X1201 if damaged
2.22 Gesture Control		• Replace X1201 if damaged
2.23 Bluetooth		• D2599 • N2503
2.24 Memory Card Reader		• Replace X1102 if damaged
2.25 FM Radio		• 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 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

No Repair Actions Available

5 Revision History

Rev.	Date	Changes / Comments
1	2008-Feb-29	Initial Release