



# Trouble Shooting Guide, Electrical

Applicable for Z550i, Z55c, Z55a, Z558i and Z558c,

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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
<b>2.1 Power On / Off</b>	Current draw when powered off	• N1200 – Approved Centers Only
	Current draw greater than 300 mA.	• N1200 – Approved Centers Only
	Other symptoms	• Replace X2600 if damaged
<b>2.2 Software Flash</b>	EMMA gives “unrecognized device” error and phone powers on	• N2301, N2302
	EMMA gives no response at all and phone powers on	• N2670
<b>2.3 Charging</b>	Charging from power outlet	• V2610, V2681
	Charging from computer via USB Measure V2628 from pin 1 to pin 3 with positive lead on pin 3 VDC should equal 0.20 to 0.23.	• If VDC is outside of range, then replace V2628 • N2670
<b>2.4 Hands-Free connection (PHF)</b>		• N2300
<b>2.5 SIM</b>		• Replace J2401 if damaged
<b>2.6 Illumination</b>	No illumination in keyboard	• V4132
	Uneven illumination in keyboard (Individual LED's are dark)	• Individual LED's H4101 – H4107, H4110
<b>2.7 Volume Up Key</b>		• S2925
<b>2.8 Volume Down Key</b>		• S2923
<b>2.9 FM Radio</b>		• Replace N3301 • Replace N3300
<b>2.10 Polyphonic Speaker (Loudspeaker, Base Speaker)</b>		• N2310 • N3211
<b>2.11 Microphone</b>		• B3202 • L3200, L3201
<b>2.12 Flip Sensor</b>		• B2440
<b>2.13 Bluetooth</b>		• Replace X1530, X1531 if damaged • N1520
<b>2.14 Memory Card Reader</b>		• Replace X2415 if damaged

### 3 Repair Actions for Go/No Go Test Failures

Failure	Repair Action
Fails any part of Go/No Go testing	<ul style="list-style-type: none"><li>• Run the calibration routine</li></ul>
Fails Go/No Go test, but passes calibration	<ul style="list-style-type: none"><li>• Replace the antenna</li><li>• Check X1202 for damage and replace if necessary</li><li>• Re-run the phone through Go/No Go testing</li></ul>
Fails Go/No Go test after passing calibration	<ul style="list-style-type: none"><li>• Change X1200 and retest</li></ul>

### 4 Repair Actions for Calibration Failures

Failure	Repair Action
Fails any part of the calibration routine	<ul style="list-style-type: none"><li>• Replace X1202 if damaged</li><li>• Replace X1200 if damaged</li><li>• N1200 – Approved Centers Only</li></ul>



## 5 Revision History

Rev.	Date	Changes / Comments
A	2006-07-03	Released
B	2006-09-28	Z550a Released
C	2006-10-12	Z558 Released
D	2007-10-18	Bluetooth Updated