



# Trouble Shooting Guide, Electrical

Applicable for Z530c, Z530i

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5.2	Real Time Clock.....	Error! Bookmark not defined.



# **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. 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 mAmps	• 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
	Other symptoms	•
<b>2.3 Charging</b>	Charging from power outlet	• V2610, V2681 <i>“Only replace if not covered by Under-fill.”</i>
	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 Charging indicator (RED LED)</b>		• V2501
<b>2.7 Display</b>		•
<b>2.8 Display Illumination</b>		• N4138
<b>2.9 External Display Illumination</b>	Display is on, but dark	• V4133
	Display light comes on when battery is installed	• V4133
<b>2.10 Keypad LEDs</b>	Keys dark. Both displays work normally.	• V4132
	LEDs come on when battery is installed.	• V4132
	Individual LEDs are dark	• Individual LEDs H4101 – H4107, H4110 – H4112
<b>2.11 Keypad Keys</b>		• Z2450
<b>2.12 Volume Up Key</b>		• S2925 • Z2450
<b>2.13 Volume Down Key</b>		• S2923 • Z2450
<b>2.14 Vibrator</b>		•
<b>2.15 Earphone (Receiver, Flip Speaker)</b>		•
<b>2.16 Polyphonic Speaker (Loudspeaker, Base Speaker)</b>		• Replace X3260, X3261 if damaged • N2310 • N3211
<b>2.17 Microphone</b>		• B3202 • L3200, L3201
<b>2.18 Real Time Clock</b>		•
<b>2.19 Camera</b>		•
<b>2.20 Flip Sensor</b>		• B2440
<b>2.21 IR</b>		• H2410



Failure	Failure Symptom	Repair Action
2.22 Bluetooth		<ul style="list-style-type: none"><li>• N1520</li></ul>
2.23 Memory Card Reader		<ul style="list-style-type: none"><li>• Replace X2415 if damaged</li></ul>

## 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>• rerun 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-Mar-20	Initial Release
B	2006-Mar-30	Due to system problem. No changes made on content
C	2007-Oct-18	Bluetooth Updated
D	2007-Dec-14	V2610 & V2681 update