



Trouble Shooting Guide, Electrical

Applicable for R306

This document can be used for R306 version H" &"version I"

Contents

1	General	2
2	Repair Actions for Manual Test Failures	3
	Cannot charge	3
	Cannot hear or cannot speak	3
	No keypad backlight.....	4
3	Revision History.....	5



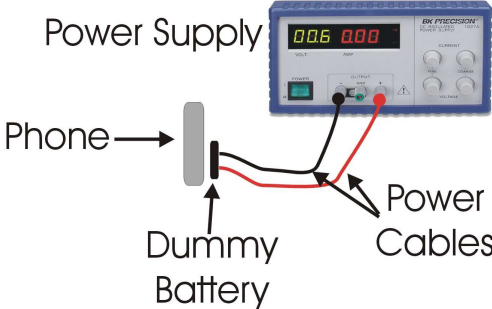

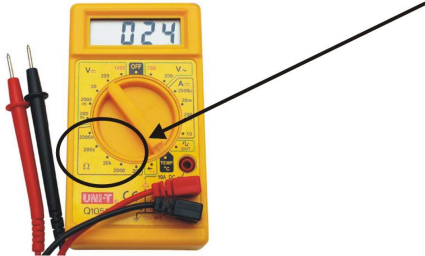
1 General

The purpose of this document is to indicate the electrical level repair actions associated with the different failure symptoms.

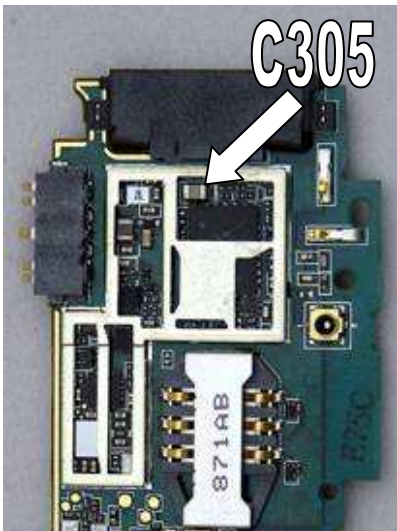
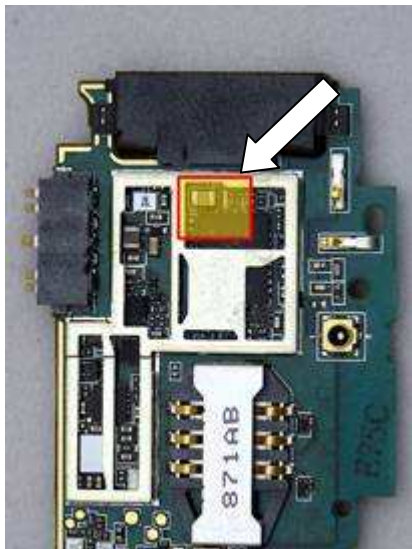
For symptoms that have multiple repair actions, the repair actions are listed in order of their probability of creating a successful repair. The first action has the highest probability, and subsequent actions have lower probabilities. The intention is for the repair technician to implement the first 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.

<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 Cannot Power On	Current draw greater than 300mAmps	<ul style="list-style-type: none"> • Replace CON602 if damaged • U501 • U502
	Current ok but no screen	<ul style="list-style-type: none"> • Z801, Z802 and Z803
	No response when pushing power key (no current)	<ul style="list-style-type: none"> • Replace CON602 if damaged
	Current hang at around 60mA	<ul style="list-style-type: none"> • Upgrade SW if possible
2.2 Power failures	Press on top of the Shield Can Lid over C305 and check for shortage (current will raise significantly) 	<ul style="list-style-type: none"> • Add isolation tape here: 
2.3 Charging	Cannot charge	<ul style="list-style-type: none"> • ESD705, ESD707 • U909, U910 • U911
2.4 Hands-Free connection (PHF)	Cannot hear or cannot speak	<ul style="list-style-type: none"> • ESD502 • U503
2.5 Display	Display ok but no backlight (Only for "version H")	<ul style="list-style-type: none"> • L201 • V201
	No display but backlight ok	<ul style="list-style-type: none"> • Z801, Z802 and Z803



Failure	Failure Symptom	Repair Action
2.6 Keypad backlight	No keypad backlight (Only for "versionH")	<ul style="list-style-type: none">• L201• V201
2.7 Speaker	No sound	<ul style="list-style-type: none">• U501• U502
2.8 Real Time Clock	RTC alarm malfunction	<ul style="list-style-type: none">• B201



3 Revision History

Rev.	Date	Changes / Comments
1	2008-08-15	1 st version
2	2009-07-22	Rephrased 2.1 action to "Upgrade SW if possible" Added Chapter 2.2, Power failures
3	2009-10-12	Mark on some repair solution only for "version H