



Trouble Shooting Guide, Electrical

Applicable for J110 and J120

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	Hands-Free connection	3
2.5	SIM	3
2.6	Charging indicator (RED LED)	3
2.7	Display.....	3
2.8	Display Illumination	3
2.9	Keypad LEDs	3
2.10	FM Radio (J120 only)	3
2.11	Network	3
3	Repair Actions for Go/No Go Test Failures	4
4	Revision History	5



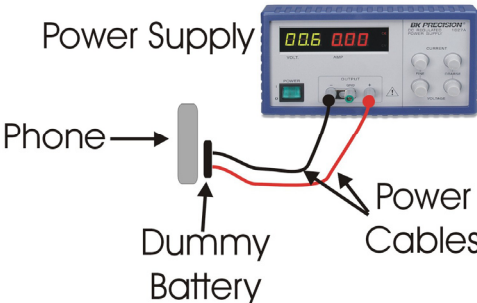
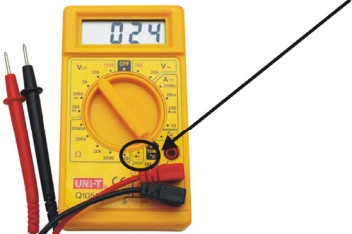
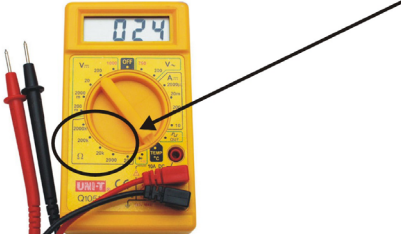
1 General

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 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		<ul style="list-style-type: none"> • CON802 if damaged
2.2 Software Flash	EMMA gives “unrecognized device” error	<ul style="list-style-type: none"> • R618 if pin 9 and 11 at system connector is short circuit • U811
	EMMA gives no response at all	<ul style="list-style-type: none"> • R617 if pin 9 and 10 at system connector is short circuit • U811
2.3 Charging		<ul style="list-style-type: none"> • ESD606 if pin 9 and 12 at system connector is short circuit • U604 • U603
2.4 Hands-Free connection	Phone stuck in PHF mode when PHF is not attached	<ul style="list-style-type: none"> • U601
2.5 SIM		<ul style="list-style-type: none"> • CON301 if damaged
2.6 Charging indicator (RED LED)		<ul style="list-style-type: none"> • LED601
2.7 Display		<ul style="list-style-type: none"> • LCD Module
2.8 Display Illumination		<ul style="list-style-type: none"> • LCD Module • U813
2.9 Keypad LEDs		<ul style="list-style-type: none"> • LED401 LED402 LED403 LED404 LED405 LED406
2.10 FM Radio (J120 only)		<ul style="list-style-type: none"> • U814
2.11 Network	No network at all	<ul style="list-style-type: none"> • U808
	Bad network	<ul style="list-style-type: none"> • CON801



3 Repair Actions for Go/No Go Test Failures

Failure	Repair Action
Fails any part of Go/No Go testing	• CON801
	• Replace the antenna/frame



4 Revision History

Rev.	Date	Changes / Comments
A	2007-06-12	1 st release