



# Test Instruction - Electrical

Applicable for Z310

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# 1 Abstract

This document describes the process for functionally testing a mobile at the Electrical repair level. Mobiles repaired at the Electrical repair level must have all Mechanical and Electrical level tests performed and must pass without error to be considered a functional unit. If there are any failures, repair the mobile according to the Mechanical and the Electrical Troubleshooting Guides.

## 2 Test Preparations

It is possible to test either with antenna coupler from or a RF adapter. When using an RF probe a battery eliminator together with a power box can be used. It is very important that a fully charged battery is used otherwise there is a risk for wrong test results.

### 2.1 RF probe

- Insert a test-SIM and the battery eliminator or a fully charged standard battery and assemble the RF probe to the phone. Connect the RF cable between the Test set and the RF probe.

## 3 Go/No-Go Test

If all measurements are approved, this will be confirmed. If any faults are discovered, this will be presented either on the screen. Repair the unit according to the Troubleshooting guide or send the phone to higher repair level.

### 3.1 SERP Go/NoGo

**NOTE!** For complete and detailed user instructions see the SERP Users Manual that gets placed on the Desktop after SERP is installed.

1. On a PC with SERP installed, start the SERP program by double clicking on the "**RepairManager.exe**" icon on the desktop.
2. In the SERP window, click on "**Settings**" and verify that the test instrument and the GPIB address correspond. Also, verify that the "**cable**" (or the **coupler**) is selected under RF connection setting.
3. In the SERP window, enter (or scan) the IMEI number of the mobile to be tested into the "**Enter IMEI**" box and click on the "**Enter**" button. The appropriate phone model will be displayed.
4. In the SERP window, check the "**Arrival GoNogo Test**" box only. Click on the "**Start Test**" button and follow the instructions. (Power on the phone when the "**Call Connection**" dialog box appears.)
5. If a GoNogo routine fails, troubleshoot according to the Z310 Electrical Troubleshooting Guide.

### 3.2 Stand Alone GoNoGo

To be added later.

## 4 Calibration

**NOTE!** A Test Program must be loaded in the handset before performing the calibration routine. After calibration the handsets must be re-customized with signalling SW.

### 4.1 Flashing the Test Program (ITP) into the Mobile

**NOTE!** Flashing instructions may vary depending on the interface used.

Flash the Test Program software into the mobile by doing the following:

1. Attach a fully charged battery to the mobile.
2. Open the EMMA III application and log in.
3. Ensure the mobile is powered off.
4. While holding the "C" button, connect the mobile to the USB Flash cable. (Once the USB symbol appears in the lower left corner of the EMMA III window you may release the "C" button.)
5. Select the "Z310 ITP" protocol and follow the on screen instructions.

**NOTE!** Under most circumstances the display on the mobile will be blank when the Test Program is installed.



## 4.2 Calibration Instructions

**NOTE!** For complete and detailed user instructions see the SERP Users Manual that gets placed on the Desktop after SERP is installed.

1. On a PC with SERP installed, start the SERP program by double clicking on the "**RepairManager.exe**" icon on the desktop.
2. In the SERP window, verify the test instrument and the GPIB address matches the SERP settings by clicking on the "**Settings**" button. Click on "**Apply**" and then the "**OK**" button.
3. In the SERP window, enter (or scan) the IMEI number of the mobile to be calibrated into the "**Enter IMEI**" box and click on the "**Enter**" button.
4. In the SERP window, check the "**Calibration**" box.
5. Connect the mobile to the test instrument using the RF probe
6. Connect the Sony Ericsson Programming Interface Cable to the mobile's system connector.
7. To start the calibration routine click on the "**Start Test**" button in the SERP window (mobile will automatically turn on).
11. Monitor the progress of the calibration routine by viewing the information presented in the "**Test Manager**" window.
12. If a calibration routine fails, troubleshoot according to the Z310 Electrical Troubleshooting Guide.
13. After successful calibration, reinstall the antenna cover plug. Refer to the Working Instruction, Mechanical.

## 4.3 Updating the Commercial Software into the Mobile after Calibration

To be able to use the handset after calibration requires going through the Customization process which reloads the appropriate signalling code for the desired operator. Refer to the Z310 Build Swap Customization Instruction document for further details on the Customization process.

## 5 Revision History

Rev.	Date	Changes / Comments
A	2007-02-14	First release