



Installation Instruction - Electrical

Applicable for P990i

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1 General

The Electrical Installation Instructions describes the procedures for installing all of the hardware and software needed to perform testing, calibration, software loading and repair activities at an Electrical level for the Sony Ericsson products specified.

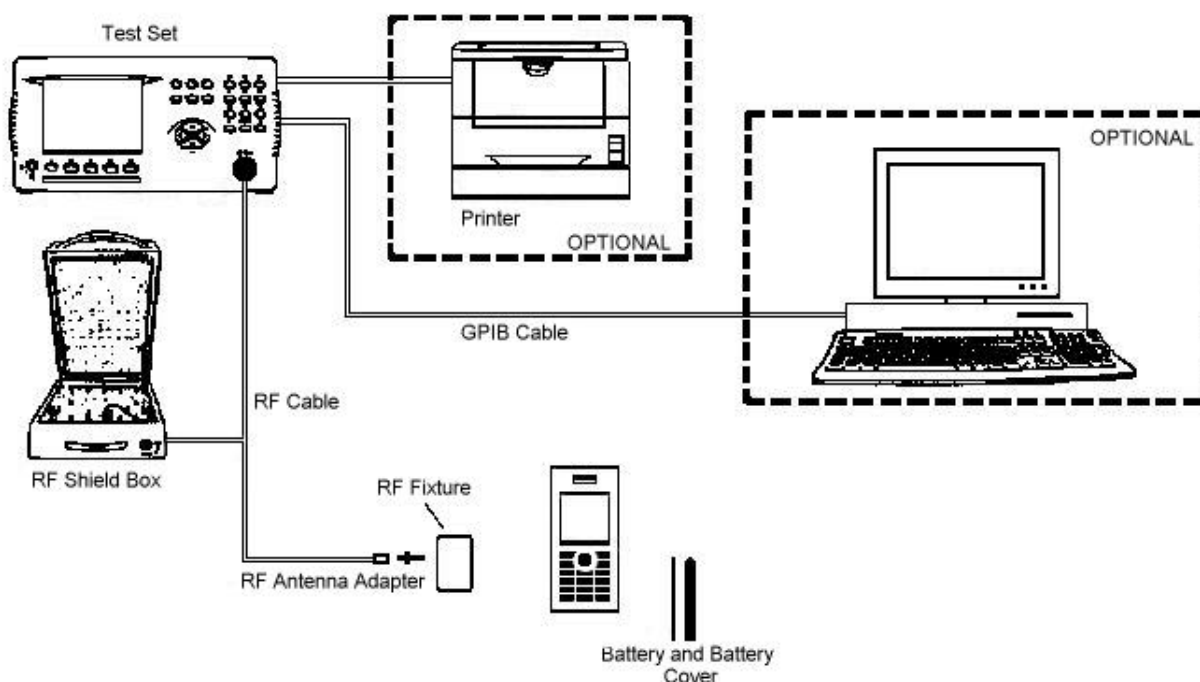
NOTE! This product is manufactured with lead-free solder and lead-free components. During electrical repair, it is critical to make sure that no lead is introduced into the product. For this reason, certain repair materials and equipment must be designated as lead-free and labelled accordingly. A lead-free work area must be setup that is completely separated from work areas that are used to make leaded repairs. Certain items must be designated for lead-free work only. Some of the items that need to be clearly labelled in this way are listed in the Equipment List Electrical. Note that any item that contacts the solder must be labelled and used for lead-free work only.

2 Go/No Go Testing

There are two options for performing a Go No/Go test. One is to use an RF Fixture and the other is to use an antenna coupler together with a shielding box.

2.1 Test Set-up Go/No Go test

All test hardware necessary for this test set up is documented in the Electrical Equipment List.





2.2 Test Set

An E-GSM, 900/GSM, 1800/GSM, 1900/GSM and WCDMA Test Set approved according to the Instrument List must be used.

It should be installed according to the Instrument Manufacturer Instructions.

2.3 RF Connections Antenna Coupler

Connect the RF Cable between the RF-port of the Test set and the RF Shield box. The Antenna Coupler should be installed into the RF Shield Box according to manufacturer instructions.

2.4 RF Connections Antenna adapter (optional)

Connect the RF-cable between the RF-port of the Test set and the Antenna adapter. Assemble the RF adapter to the RF-holder according to the information in the Test Instruction Electrical.

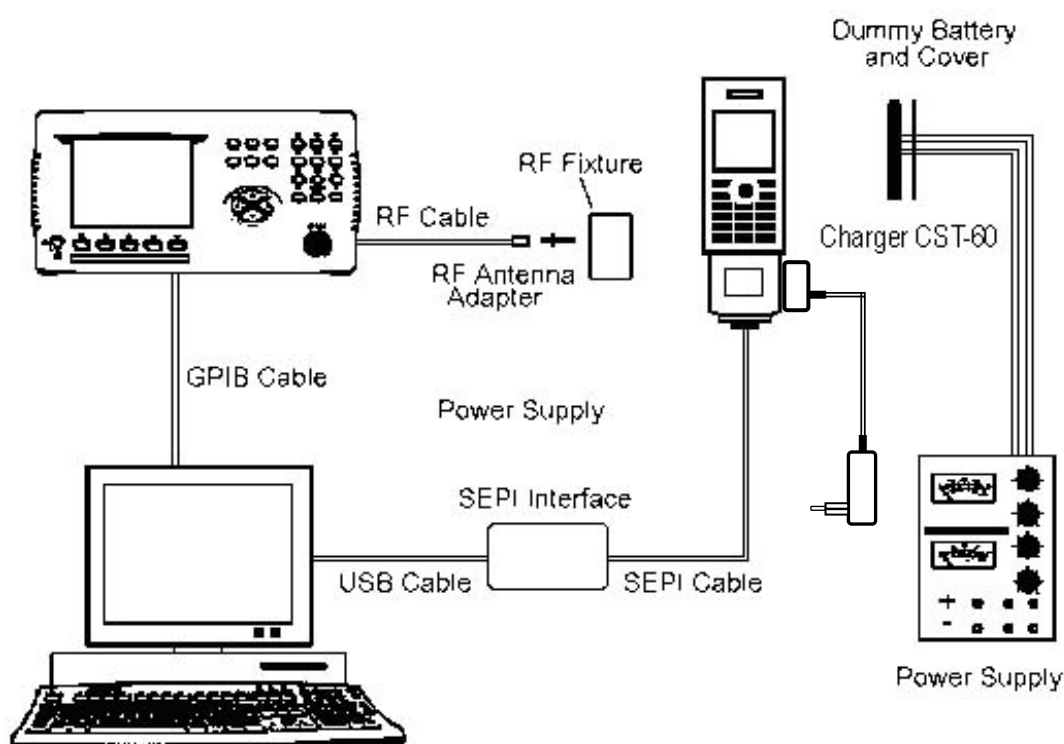
2.5 RF Shield box

The specified RF shield box according to the Electrical Equipment list shall be used.

3 Calibration

3.1 Test set up – SERP (only authorized centers)

All test hardware necessary for this test set up is documented in the Electrical Equipment and Instrument List.



3.2 Test Set

A Test Set approved according to the Instrument List must be used. It should be installed according to the Instrument Manufacturer Instructions.

3.3 Power Supply

Power Supply according to Instrument List must be used.



3.4 Battery eliminator

Battery eliminator is to be used together with a power supply to power the phone during the calibration. Connect the cables from the battery eliminator to the power supply, red cable to positive output terminal and black cable to negative output terminal.

3.5 GPIB card and cable

GPIB card and cable according to the Equipment List. Use the GPIB cable to connect the GPIB card to the test instrument.

3.6 RF Connection

RF-holder and RF adapter according to Equipment List. Connect the RF adapter to the RF cable. The RF adapter is held on the phone with the RF fixture.

3.7 SonyEricsson programming interface – SEPI

The USB programming interface is delivered with the necessary software and instruction for installation. The USB programming interface (SEPI) should be connected to an USB-port on the computer.

3.8 Sony Ericsson programming interface cable

The cable is the interface between the USB programming interface (SEPI) and the phone.

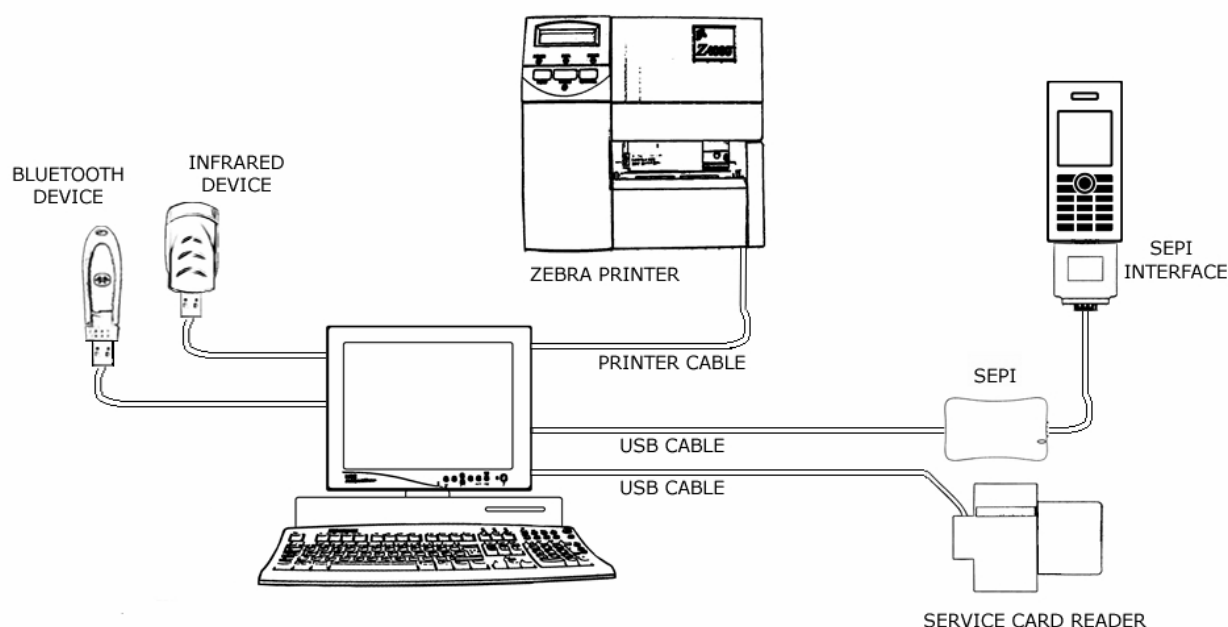
3.9 USB PC cable

The A-B Plug-Plug cable is the interface between the computer and the USB programming interface (SEPI). Connect the cable between the USB programming interface and the computer.

4 General Equipment

4.1 Test Set up

General Test set up to perform SW loading and manual test according to Test Instruction. All necessary hardware for this test set up is documented in the Electrical Equipment list.



4.2 Computer

IBM compatible computer is required. The computer should include at least two USB-ports. Refer to Equipment List for minimum requirements.

4.3 Service Card Reader and Service Card

The Service Card Reader is delivered with the necessary software and instructions for installation. The Service Card Reader should be connected to an USB-port on the computer.



4.4 Label Printer (optional)

A Zebra printer model 90xi, 90xill or 4000 deluxe shall be used. Connect the printer with a standard RS 232 serial printer cable [refer to the Zebra printer manual] to the serial port on the computer. Read the Zebra installation manual for more information about the installation.

4.5 Infrared Device

RS 232 or USB type infrared adapter may be used. Install according to the manufactures instructions.

4.6 Bluetooth Device

Any Bluetooth device as headset, other Bluetooth phone or other Bluetooth device can be used to verify the Bluetooth function in the phone. Set up the connection according to the chosen equipments manufacturer.

5 Software

5.1 EMMA III

EMMA III contains all software required to service the product. Installation and user manuals are available in the EMMA III start page.

<http://ma3.extranet.sonyericsson.com/ma3/>

5.2 Labelmake II software (optional)

LabelMake II is an application installed through Java Web Start.

Access the Labelmake software from [CSPN](#) Web page.

You will find LabelMake II in the dropdown menu on the CSPN web page.

<http://cspn.extranet.sonyericsson.com>

Press "START LabelMake II "button and you will be directed to the LABELMAKE II client page.

Product labels are downloaded on-line from a remote server database.



5.2.1 Go/No-Go Test Script

An approved Sony Ericsson Test Script must be installed in the Test Instrument. The Yokogawa VC 230 script can be downloaded from CSPN. The Test Script is located on CSPN under **Repair Instructions / Standard**.

The FEA number for the VC 230 test script is 11/03162-FEA 209 544/701 x when using the R&S Coupler or the RF Fixture.

NOTE! The “x” in the FEA number refers to the revision of the Test Script. Ensure the latest revision script posted to CSPN is installed.

Install the Test Script according to the Instrument Manufacturer’s Instructions.

5.2.2 SERP Go/No Go Test Script

SERP stands for “**S**ony **E**ricsson **R**epair **P**latform”. It is an application used for testing, calibrating and repairing Sony Ericsson mobile phones.

1. Download the latest revision of the SERP application from CSPN (**Repair Instructions/Standard/SERP Install Package**) or through the use of the SERP Online Update Tool (OUT).
2. Unzip the file and open the file “SERP_Installation.doc” for installation instructions.
3. After SERP is installed a file titled “SERPINFO.htm” will be placed on the Windows Desktop. This file contains numerous documents including:
 - SERP Users Manual – This document contains system requirements, release notes, fault reporting instructions, supported test instruments, installation procedures and detailed operating instructions.
 - SERP Troubleshooting Guide – This document contains a few troubleshooting steps that should be reviewed before reporting issues to Sony Ericsson.
 - SERP Trouble Report Form – This form should be filled out when reporting SERP issues to the regional support team.
 - SERP OUT Quick Guide – This document contains system requirements, registration information and general user guidelines for the OUT application.

5.3 SERP (only authorized centers)

Download the latest revision of SERP application from [CSPN](http://cspn.extranet.sonyericsson.com). This application is located under **Repair Instructions/Standard/SERP Install package**

<http://cspn.extranet.sonyericsson.com>

Unzip the file and open the Installation instructions.
Follow the Install instructions to install SERP.

6 Revision History

Rev.	Date	Changes / Comments
A	2006-07-07	Initial release
B	2006-08-21	No content changes. Revision B is created only to try and fix the document visibility on CSPN.