

# Equipment List, Electrical

Applicable for J220 and J230

## Contents

<b>1</b>	<b>General .....</b>	<b>2</b>
<b>2</b>	<b>Repair Equipment, Electrical .....</b>	<b>3</b>
2.1	Sony Ericsson Provided Repair Equipment.....	3
2.2	Pictures of equipments .....	4
2.3	Equipment Provided by Other Supplier .....	5
2.4	Pictures of Equipments by Other Suppliers .....	8
<b>3</b>	<b>Revision History .....</b>	<b>9</b>

# 1 General

This document describes the minimum required equipments for the Electrical Repair Process of the Eva mobile phone. Equipment listed without a part number is not orderable from Sony Ericsson and must be bought locally.

The matrices in the end of the equipment tables describe where the actual equipment is needed (marked with an X) or may be needed/optional (marked with a Z).

Flash upgrade:	Equipment for downloading software to the unit, both signaling and test-program.
Manual test:	Equipment necessary to perform a manual test.
Repair:	Equipment necessary for replacing components.
Go/No Go test:	Equipment necessary for Go/No Go test.

## 2 Repair Equipment, Electrical

### 2.1 Sony Ericsson Provided Repair Equipment

Description	Part Number	Comments	Flash Upgrade	Go/No Go Test	Manual Test	Repair
USB Service Card Reader	LZY 213 1191	Software Package/CD+USB Reader	X			
Service Card	LZY 213 595		X			
SonyEricsson programming interface - SEPI	LTN 214 1484	USB/Interface Box+CD	X			
SonyEricsson programming interface cable – SEPI A1	KRY 101 1115	SEPI A1 Cable <b>NOTE! Valid for old SEPI A1 Cable also: KRY 101 1119 (together with charger)</b>	X			
Torque Screwdriver *	NTZ 112 459	Torque set to 11 Ncm ± 6%				X
Front opening tool	NTZ 112 302/2	Opening tool				X
Flex film assemble tool	NTZ 112 521					X
Dummy Battery	NTZ 112 542	Battery Eliminator	Z			
Rework fixture	LTD 260 273	For PBA (Printed Board Assembly)				X
RF Probe assembly	RPM 119 854/1			Z		
RF Test Cable Flexible 1M	RPM 119 855	<b>This is the only approved RF cable!</b>		Z		

\*Any screwdriver that fulfils the torque and bit demand can be used.

Note: The matrices describe where the actual equipment is needed (marked with an X) or may be needed/optional (marked with a Z).

## 2.2 Pictures of equipments

			
LTN 214 1484	LZY 213 1191	LZY 213 595	KRY 101 1119/1
			
NTZ 112 302/2	NTZ 112 459	NTZ 112 521	NTZ 112 542
			
LTD 260 273	RPM 119 854/1		

## 2.3 Equipment Provided by Other Supplier

		Flash Upgrade	Go/No Go Test	Manual Test	Repair
Description	Comments				
Battery	Standard Battery BST-36	X	X	X	
Battery Charger	Standard SonyEricsson charger <b>Note! New System connector on the phone</b>			X	
Computer	Minimum Pentium III 500 MHz 128 Mb RAM or better. At least 2 USB ports	X	Z		
USB-PC Cable	Type A-B Plug-Plug Cable	X			
Tweezers	ESD-safe. Blunt pair of tweezers				X
Flat nose pliers	ESD-safe				X
Dentist hook	ESD-safe				X
Guitar pick					X
Small screwdriver	ESD-safe				
Torx Bits No. 5	Spare part to screwdriver. Any torx bits 5 that fits the screwdriver can be used.				X
Isopropyl Alcohol	To be used when removing the glue.				X
Cotton Gloves	ESD-safe				X
Zebra Printer	90xi, 90xi II or 4000 deluxe				Z
Printer Cable	Standard RS 232 serial printer cable [referred to Zebra printer manual]				Z
Hot Air Flow Repair Station, Medium	Temperature range 360-380° C. Air-flow up to 9 l/min				X
Soldering Iron	Temperature range 340-360° C.				X
Microscope	Minimum 10x magnification				X





		Flash Upgrade	Go/No Go Test	Manual Test	Repair
Description	Comments				
RF Shield Package  <b>Rohde&amp;Schwarz RF Shield Package</b> <ul style="list-style-type: none"> <li>CMU-Z10 – Shield box</li> <li>CMU-Z11 – Antenna Coupler</li> </ul>	Using an RF shield package is one of the options for testing the applicable product(s). Testing of the applicable product(s) can also be preformed by using the combination of an RF Probe and an RF cable.  <i>Spare parts for mobile phone fixation for R&amp;S CMU-Z10 are available for purchase from Rohde&amp;Schwarz:</i> <ul style="list-style-type: none"> <li>Grid Positioning Plate – 1158.9789.00</li> <li>L-shaped bracket – 1158.9808.00</li> <li>Stabilizing pieces – 1158.9820.00</li> </ul> <b>NOTE: The Rohde &amp; Schwarz package will require the use of a precision N-type male to SMA female RF adapter to mate with the SEMC RF cable.</b>		X		
Test SIM-card	According to your Instrument supplier.		X		
Operator SIM-card	To be used when making a landline call.			X	
Hands free equipment	To be used to verify connection in the system connector. Applicable for Eva phone.			X	
Power supply <b>NOTE!</b> <b>If using the Power Supply in conjunction with the (Dummy Battery) to power the phone during the GNG test or Calibration routine, a high quality DC source that meets the following requirements <u>must</u> be used.</b>	<b>NOTE: Only necessary if using the Battery Eliminator.</b>  Output Voltage: 0-5 volt minimum. Output Current: 0-2 amps minimum Transient response time: < 100 µs	Z	Z		

*Equipment List, Electrical*

		Flash Upgrade	Go/No Go Test	Manual Test	Repair
Description	Comments				
Power cables Red & Black	Minimum cross sectional area of conductor: 1.2 mm <sup>2</sup> Maximum length: 1.5 m	Z	Z		
GPIB Card – National GPIB Card – Keithley	Either National or Keithley can be used.		Z		
GPIB Cable	This cable is only required if a GPIB card is used.		Z		
Test Instrument	If it is preferred to use a test instrument for GNG that is not specified, the test script must be written according Go/No Go Test Script Specification (to 2/1524-2/FEA 209 544/100 ) and approval of the test script <b><u>must</u></b> be obtained from Sony Ericsson.		X		

Note: The matrices describe where the actual equipment is needed (marked with an X) or may be needed/optional (marked with a Z).

## 2.4 Pictures of Equipments by Other Suppliers

			
Type A-B Plug-Plug	Flat nose pliers	Dentist hook	Blunt pair of tweezers



### 3 Revision History

Rev.	Date	Changes / Comments
A	2006-03-08	
B	2007-04-19	RF Probe assembly part number updated