

Equipment List, Electrical

Applicable for K750i / K750c

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1 General

This document describes the minimum required equipments for the Electrical Repair Process of the K750i / K750c mobile phone. Equipment listed without a part number is not orderable from Sony Ericsson and must be bought locally.

The matrix 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 signalling 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. |
| Calibration with SERP: | Equipment necessary to perform a calibration with SERP. Calibration can only be done by authorized repair centers. |

2 Repair Equipment, Electrical

Some of the required equipment will be provided by Sony Ericsson and some equipment has to be sourced locally. This chapter will separate these equipments.

2.1 Sony Ericsson Provided Repair Equipment




| Description | Part Number | Comments | Flash Upgrade | Go/No Go Test | Manual Test | Calibration in SERP | Repair |
|---|---------------|--|---------------|---------------|-------------|---------------------|--------|
| | | | | | | | |
| USB Service Card Reader | LZY 213 1191 | Software Package/CD+USB Reader. Only needed for offline use of EMMA III. | Z | | | | |
| Service Card | LZY 213 595 | Only needed for offline use of EMMA III. | Z | | | | |
| SonyEricsson programming interface - SEPI | LTN 214 1484 | USB/Interface Box+CD | | | | X | |
| SonyEricsson programming interface cable | KRY 101 1119 | SEPI cable | | | | X | |
| DCU-60/USB Cable | KRY 101 1413 | Interface cable between PC and phone for SW loading. | X | | | | |
| Torque Screwdriver * | NTZ 112 459 | Torque set to 9, 14, 17 and 20 Ncm +/- 6 % | | | | | X |
| Bits | NTZ 112 1052 | Spare part to screwdriver | | | | | X |
| Bits | NTZ 112 288 | Spare part to screwdriver | | | | | X |
| Front opening tool | NTZ 112 302/2 | Opening tool | | | | | X |
| Flex film assembly tool | NTZ 112 521 | Tweezers | | | | | X |
| Shield Fence Plier | NTZ 112 537 | For use when repair under shield fence is necessary | | | | | X |
| Lead-free labels (sheet of 24) | SVF 930 1379 | These lead-free labels must be applied to all materials and tools that contact the solder. | | | | | X |

| Description | Part Number | Comments | Flash Upgrade | Go/No Go Test | Manual Test | Calibration in SERP | Repair |
|---------------------------|-----------------|--|---------------|---------------|-------------|---------------------|--------|
| | | | | | | | |
| Battery eliminator | NTZ 112 542 | Dummy battery | Z | | | X | |
| Rework fixture | LTD 260 273 | For PBA (Printed Board Assembly) | | | | | X |
| Holder RF Connector | NTZ 112 553 | Used together with antenna connector and RF cable. | | Z | | X | |
| Antenna Connector | RNT 403 303/001 | | | Z | | X | |
| RF Test Cable Flexible 1M | RPM 119 855 | This is the only approved RF cable! | | X | | X | |

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

2.2 Pictures of equipments

| | | | |
|--|---|--|--|
|  |  |  | |
| LTN 214 1484 | LZY 213 1191 | LZY 213 595 | KRY 101 1119 |
|  |  |  |  |
| NTZ 112 302/2 | RNT 403 303/001 | NTZ 112 459 | NTZ 112 1052 |
|  |  |  |  |
| NTZ 112 288 | NTZ 112 521 | NTZ 112 542 | LTD 260 273 |

| | | | |
|---|--|---|---|
|  |  |  |  |
| KRY 101 1413 | NTZ 112 537 | RPM 119 855 | SVF 930 1379 |
|  | | | |
| NTZ 112 553 | | | |

2.3 Equipment Provided by Other Supplier

This is the list of equipments provided by other suppliers than Sony Ericsson

| Description | Comments | Flash Upgrade | Go/No Go Test | Manual Test | Calibration in SERP | Repair |
|--------------------------------------|--|---------------|---------------|-------------|---------------------|--------|
| | | | | | | |
| Battery | BKB 193 203/1 | X | X | X | | |
| - Battery Charger | Standard SonyEricsson charger applicable for K750i / K750c <i>Note! New systemconnector on the phone!</i> | | | X | | |
| Computer | Minimum Pentium III 500 Mhz 128 Mb RAM or better. At least 2 USB ports | X | Z | | X | |
| USB-PC Cable | Type A-B Plug-Plug Cable | | | | X | |
| Tweezers | ESD-safe | | | | | X |
| Dentist hook | To be used when removing adhesives. | | | | | X |
| Isopropyl Alcohol | To be used when removing 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 340-370° C. | | | | | X |
| Soldering Iron Tip Lead free | Temperature range 340-370° C. | | | | | X |

| | | Flash Upgrade | Go/No Go Test | Manual Test | Calibration in SERP | Repair |
|---|--|---------------|---------------|-------------|---------------------|--------|
| Description | Comments | | | | | |
| Flux | RMA, No-clean flux | | | | | X |
| Solder-wire | Lead free : SN 96%, Ag 3,5% and Cu 0,5% | | | | | X |
| Solder-paste | Lead free : SN 96%, Ag 3,5% and Cu 0,5% | | | | | X |
| Microscope | Minimum 10x magnification | | | | | X |
| Test Instrument – Willtek 42xx Or other Radio test instrument according to 1/131 30-2/FEA 209 544 | | | X | | | |
| - RF Shield Package Rohde&Schwarz | CMU Z11 | | X | | | |
| Test SIM-card | According to your Instrument supplier. | | X | | | |
| Operator SIM-card | To be used when making a landline call. | | | X | | |
| IR-device | To be used to make connection between the phone and the device | | | X | | |
| Bluetooth-device | To be used to make connection between the phone and the device | | | X | | |
| Hands free equipment | To be used to verify connection in the system connector. Applicable for K750i / K750c Note! New systemconnector on the phone! | | | X | | |
| GSM Radio Tester for calibration with SERP according to Instrument List 1/131 30-2/FEA 209 544 | Only instruments documentated in the Instrument list are supported. | | | | X | |
| GPIB Card – National/ Keithley | Either National or Keithley can be used. | | | | X | |
| GPIB Cable | | | | | X | |

| | | Flash Upgrade | Go/No Go Test | Manual Test | Calibration in SERP | Repair |
|--|---|---------------|---------------|-------------|---------------------|--------|
| Description | Comments | | | | | |
| Power supply NOTE! If using the Power Supply in conjunction with the (Battery Eliminator) 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. | NOTE: Only necessary if using the Battery Eliminator. Output Voltage: 0-5 volt minimum. Output Current: 0-2 amps minimum Transient response time: < 100 μ s | Z | Z | | X | |
| Power cables Red & Black | Minimum cross sectional area of conductor: 1.2 mm ² Maximum length: 1.5 m | Z | Z | | X | |

2.4 Pictures of equipments



Type A-B Plug-Plug Cable

3 Revision History

| Rev. | Date | Changes / Comments |
|------|------------|--------------------|
| A | 2005-05-13 | Initial release |
| B | 2005-05-19 | Minor changes |