NOKIA
Connecting People

Page   1   (27)

Approved 3.0

MGR

16.11.2005

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

CONFIDENTIAL

SERVICE MANUAL
Level 1&2

NOKIA 6280

RM-78

Transceiver characteristics:

Dual Band: EGSM and WCDMA

- GSM: Tri-band phone for GSM 900/1800/1900MHz

- WCDMA: 2100MHz

Camera:

- Backside camera 2 Megapixel with 8x digital zoom

- Frontside VGA camera

Display: Active matrix color display with 262.144 colors,

resolution 320 x 240 pixel

Bluetooth

IRDA

Visual radio

Vibra Alert: Small round Vibra motor

Connector: Easy Flash connector

Transceiver with BP-6m 970mAh Li-Ion battery pack

Talk time		Standby		Note
EGSM	WCDMA	EGSM	WCDMA	Depends on network parameters
up to 3h	up to 2.5h	up to 250h	up to 200h	

Environmental characteristics:

• Lead-free soldered

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   2   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

TABLE OF CONTENTS

Page

CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	21.09.2005	Initial draft
Approved	1.0	12.10.2005	Approval
Approved	2.0	08.11.2005	File quality update
Approved	3.0	16.11.2005	Disassembly lower part picture 14 changed

NOKIA
Connecting People

Page   3   (27)

Approved 3.0

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

MGR

CONFIDENTIAL

16.11.2005

1. INTRODUCTION

The purpose of this document is to help NOKIA service levels 1 and 2 workshop technicians to carry out service to NOKIA products. This Service Manual is to be used only by authorized NOKIA service suppliers, and the content of it is confidential. Please note that NOKIA provides also other guidance documents (e.g. Service Bulletins) for service suppliers, follow these regularly and comply with the given instructions.

While every endeavor has been made to ensure the accuracy of this document, some errors may exist.
If you find any errors or if you have further suggestions, please notify NOKIA using the address below:
mailto:cc-ts-rc.documentation@nokia.com

Please keep in mind also that this documentation is continuously being updated and modified, so watch always out for the newest version.

Warnings and Cautions
Please refer to the phone's user guide for instructions relating to operation, care and maintenance including important safety information. Note also the following:

Warnings:
1. CARE MUST BE TAKEN ON INSTALLATION IN VEHICLES FITTED WITH ELECTRONIC ENGINE MANAGEMENT SYSTEMS AND ANTI–SKID BRAKING SYSTEMS. UNDER CERTAIN FAULT CONDITIONS, EMITTED RF ENERGY CAN AFFECT THEIR OPERATION. IF NECESSARY, CONSULT THE VEHICLE DEALER/MANUFACTURER TO DETERMINE
2. THE IMMUNITY OF VEHICLE ELECTRONIC SYSTEMS TO RF ENERGY.THE HANDPORTABLE TELEPHONE MUST NOT BE OPERATED IN AREAS LIKELY TO CONTAIN POTENTIALLY EXPLOSIVE ATMOSPHERES EG PETROL STATIONS (SERVICE STATIONS), BLASTING AREAS ETC.
3. OPERATION OF ANY RADIO TRANSMITTING EQUIPMENT, INCLUDING CELLULAR TELEPHONES, MAY INTERFERE WITH THE FUNCTIONALITY OF INADEQUATELY PROTECTED MEDICAL DEVICES. CONSULT A PHYSICIAN OR THE MANUFACTURER OF THE MEDICAL DEVICE IF YOU HAVE ANY QUESTIONS. OTHER ELECTRONIC EQUIPMENT MAY ALSO BE SUBJECT TO INTERFERENCE.

Cautions:
1. Servicing and alignment must be undertaken by qualified personnel only.
2. Ensure all work is carried out at an anti–static workstation and that an anti–static wrist strap is worn.
3. Use only approved components as specified in the parts list.
4. Ensure all components, modules screws and insulators are correctly re–fitted after servicing and alignment.
5. Ensure all cables and wires are repositioned correctly.

Electrostatic discharge can easily damage the sensitive components of electronic products. Therefore every Service Supplier has to take care of all precautions, which are mentioned in the service level related "Service Partner Requirements", available on NOKIA Online. Also see ESD Protection Requirements in this Service Manual.

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   4   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

2. GENERAL REPAIR INFORMATION

In this section the technician will get some general hints how to carry out repairs:

- To familiarize oneself with NOKIA product read the tutorials or user guide on www.nokia.com -->Support--> Phones, by selecting the Phone Model.
- Before starting the repair you must take care of ESD precautions like being in your ESD Protected Area and connecting your wristband.
- Use gloves to avoid corrosion and fingerprints.
- Protect windows and displays with a film to avoid dust and scratches.
- When cleaning the LCD Module any lint-free cloth can be used (e.g. Micro-Fibre cloth).
- When cleaning the pads you have to use a soft cloth/ESD brush and Isopropanol. It is not allowed to use a glass fiber pencil because it scratches the surface and will lead later on to corrosion.
- Mechanical parts (except shielding lids and bent parts), which didn't repair the failure, can be reused, if they are not soldered.
- When removing the shielding lids make sure to replace them with new ones, otherwise the high-frequency leakage can have an influence on the device.
- Always use original NOKIA spare parts.
- Check the soldering joints of the parts, which are concerned regarding the indicated error (e.g. soldered connectors or switches) and resolder them if necessary (Level 2 only).
- Remove redundant soldering flux after repair.
- Meet the torque requirements when assembling the unit (see also the document "torques for transceiver assembly" on NOKIA Partner Web Site/NOKIA Online).
- Always use your own equipment for testing where you are sure that it works. E.g. if the customer complains about charger function, please test the phone with your own charger to be sure if phone or charger causes the malfunction.
- A SIM card is needed for all GoNoGo tests.
- When doing the fault log entries, always note the Item code, which caused the malfunction. Also, fill in the appropriate part code from the assembly, if needed.
- Please be aware that some malfunctions could be software related and solved by an update.

- There are several documents available on NOL, which have to be followed:
-
- First, take care for the latest content pages of Service Bulletins, which are always available for each folder on NOKIA Online. This is also important to recognize, if existing documents have become invalid.
-
- The service level indicator at the bottom of each document tells the appropriate destination.

Downloads > Support Library >

1.   Instructions
2.   General Service Bulletins
3.   Product related documents
4.   Spare Part Service Bulletins
5.   Service Tools Service Bulletins
6.   Common Software Service Bulletins
   etc,...

Use General SB-217 as a reference or overview.

Please also check NOKIA Online (NOL) for latest news and files on a regular basis.

NOKIA
Connecting People
CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   5   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

3. PATHFINDER FOR WORKSHOP STAFF

In addition to the information in this Service Manual, there are several instructions and information, which have to be followed. Main documentation database is **NOKIA Online** with the purpose of serving different multimedia content, like video clips or interactive tutorials.

It is mandatory to watch for newest technical and organizational information on a daily basis to be updated as required (see "**Latest files in Support Library**"). Every new information has to be processed and implemented as soon as possible. When logged into NOL you can also find needed information in different folder like:

Support Library

Phones
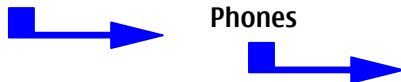
Service Manuals
Service Bulletins
Software
Repair Information

Level 1&2 e-learning (former NOKIA CarePoint) on NOKIA Online

Former NOKIA CarePoint content, such as	• Online Troubleshooting • Product information • Videos – Disassembly/Assembly	can be found on **NOKIA Online**
		NOKIA Online Care Services Training Phone Models

Level 1&2 e-learning courses offer a quick overview of the NOKIA phone and support for how to repair and use the phone:

Overview & Guides	Disassembly & Assembly	Troubleshooting
Basic information about the phone, features and technologies	Instructions how to disassemble and assemble the phone	Step-by-step instructions on how to locate and repair the most common problems with the phone

To reduce the server traffic it is recommended to download newest version of huge files like videos, Phoenix packages or Service Manuals only once and distribute it internally for further use.

NOKIA
Connecting People

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

CONFIDENTIAL

4. EXPLODED VIEW AND COMPONENT DISPOSAL

Recommendation for the ecologically friendly disposal of components. Colorized components show the different categories. See corresponding ITEM/CIRCUIT REF in the Spare Parts Service Bulletins on NOL.
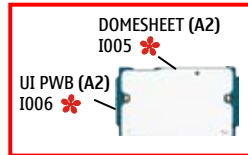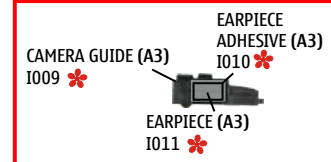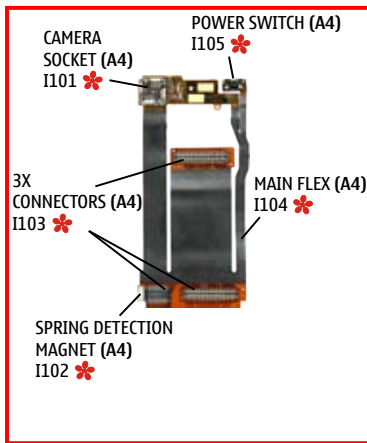
POWER KEY (A1)
✳ I002

A-COVER (A1)
I001 ✳

DISPLAY METAL SHIELD
I004

UI KEYMAT
I003

LCD MODULE
I007

DOMESHEET (A2)
I005 ✳

CAMERA GUIDE (A3)
✳ I009

UI PWB (A2)
I006 ✳

EARPIECE (A3)
✳ I011

EARPIECE
ADHESIVE (A3)
I010

UI PWB
ADHESIVE (A5)
I106

VGA CAMERA
I008

3X CONNECTORS (A4)
✳ I103

POWER SWITCH (A4)
✳ I105

KEYMAT (A6)
I201 ✳

MAIN FLEX (A4)
✳ I104

POWER KEY
ADHESIVE (A5)
✳ I107

CAMERA
SOCKET (A4)
I101 ✳

SPRING DETECTION
MAGNET (A4)
I102 ✳

MAIN KEYMAT
ADHESIVE (A6)
I202 ✳

C-COVER UPPER PART (A5)
✳ I108

SPRING (A5)
I109 ✳

C-COVER FIXED
LOWER PART (A5)
I111 ✳

BACKPLATE
STICKER (A5)
✳ I112

SLIDE
MECHANICS (A5)
I110 ✳

MAIN
DOMESHEET (A7)
I203

SMIA CAMERA
I209

WCDMA SHIELDING LID (A7)
I208

ENGINE
MODULE (A7)
I204 ✳

RF SHIELDING LID (A7)
I206

BB SHIELDING
LID (A7)
I207

IHF LABEL (A8)
I220

IHF LID INCL. POGO PINS (A8)
I221

IHF SPEAKER (A8)
I222

CAMERA KEY (A8)
I212 ✳

VOLUME KEY (A8)
✳ I211

IHF GASKET (A8)
I223

MICROPHONE (A8)
I216

LED FLASH LIGHT (A8)
✳ I218

DC-JACK (A8)
I215

ANTENNA (A8)
✳ I224

SIM LID (A8)
I219 ✳

POC KEY (A8)
✳ I210

TYPE LABEL (A7)
(LEVEL 3/4 only)
I205

SD LID (A8)
I213 ✳

BT ANTENNA (A8)
I225 ✳

D-COVER (A8)
I217 ✳

IRDA
WINDOW (A8)
I214 ✳

4XSCREWS T6+
M1.6X4.0
I226

B-COVER
I227

A1= A-COVER ASSY
A2= UI PWB ASSY
A3= CAMERA GUIDE ASSY
A4= MAIN FLEX ASSY
A5= C-COVER ASSY
A6= KEYMAT ASSY
A7= LIGHT SWAP ENGINE
     MODULE ASSY
A8= D-COVER ASSY

✳ = only available as
      assembly

● ELECTRO ● SILICON ● METAL ● PLASTIC ● PWB ● COVER

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

5. SPARE PARTS OVERVIEW

A1 = A-COVER ASSY

POWER KEY (A1)
I002 ✳

A-COVER (A1)
I001 ✳

A2 = UI PWB ASSY

DOMESHEET (A2)
I005 ✳

UI PWB (A2)
I006 ✳

A3 = CAMERA GUIDE ASSY

CAMERA GUIDE (A3)
I009 ✳

EARPIECE ADHESIVE (A3)
I010 ✳

EARPIECE (A3)
I011 ✳

A7 = LIGHT SWAP ENGINE MODULE ASSY

WCDMA SHIELDING LID (A7)
I208 ✳

RF SHIELDING LID (A7)
I206 ✳

ENGINE MODULE (A7)
I204 ✳

BB SHIELDING LID (A7)
I207

MAIN DOMESHEET (A7)
I203

TYPE LABEL (A7)
(LEVEL 3/4 only)
I205

A4 = MAIN FLEX ASSY

CAMERA SOCKET (A4)
I101 ✳

POWER SWITCH (A4)
I105 ✳

3X CONNECTORS (A4)
I103 ✳

MAIN FLEX (A4)
I104 ✳

SPRING DETECTION MAGNET (A4)
I102 ✳

A5 = C-COVER ASSY

BACKPLATE STICKER (A5)
I112 ✳

POWER KEY ADHESIVE (A5)
I107 ✳

C-COVER UPPER PART (A5)
I108 ✳

SPRING (A5)
I109 ✳

SLIDE MECHANICS (A5)
I110 ✳

UI PWB ADHESIVE (A5)
I106

C-COVER FIXED LOWER PART (A5)
I111 ✳

A6 = KEYMAT ASSY

KEYMAT (A6)
I201 ✳

MAIN KEYMAT ADHESIVE (A6)
I202 ✳

4XSCREWS T6+
M1.6X4.0
I226

UI KEYMAT
I003

A8 = D-COVER ASSY

IHF LABEL (A8)
I220

IHF LID INCL. POGO PINS (A8)
I221

D-COVER (A8)
I217 ✳

ANTENNA (A8)
I224 ✳

VOLUME KEY (A8)
I211 ✳

POC KEY (A8)
I210 ✳

IRDA WINDOW (A8)
I214 ✳

LED FLASH LIGHT (A8)
I218 ✳

IHF GASKET (A8)
I223

IHF SPEAKER (A8)
I222

SIM LID (A8)
I219 ✳

SD LID (A8)
I213 ✳

CAMERA KEY (A8)
I212 ✳

BT ANTENNA (A8)
I225 ✳

DC-JACK (A8)
I215

MICROPHONE (A8)
I216

LCD MODULE
I007

DISPLAY METAL SHIELD
I004

B-COVER
I227

VGA CAMERA
I008

SMIA CAMERA
I209

A1= A-COVER ASSY
A2= UI PWB ASSY
A3= CAMERA GUIDE ASSY
A4= MAIN FLEX ASSY
A5= C-COVER ASSY
A6= KEYMAT ASSY
A7= LIGHT SWAP ENGINE MODULE ASSY
A8= D-COVER ASSY

✳ = only available as assembly

6. SPARE PARTS LIST

Please exchange this page (placeholder) with latest corresponding Service Bulletins (spare parts, SWAP units and service tools) from NOL!

This will ensure, that you are using up-to-date order codes only.

Therefore Service Bulletins have to be checked from NOL on daily basis.

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

7. SERVICE TOOLS

	FLS-4S incl. ACF-8, Driver and User Guide Dongle and flash device incorporated into one package, developed specifically for POS use.
	ACF-8 Universal Power Supply is used to power FLS-4S.
	Travel Charger AC-4 Small and lightweight charger with smaller charging plug to charge your phone battery fast.
	Internal Battery BP-6M Inserted under the back cover, this Li-Ion 970 mAh battery provides power in a lightweight package.
	Headset HS-23 Small and lightweight stereo headset with handsfree functionality, volume control, Push to talk support, and comfortable earpieces for listening to the FM radio or MP3 player in compatible phones.
	SS-51 Camera removal tool for VGA camera (Frontside)
	SS-45 Camera removal tool for 2 Megapixel camera (Backside)

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   10   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

	RJ-88 Soldering Jig
	Lead-free Solder Wire Mandatory for lead-free products (Level 2 only).
	0772040 NMP Standard Toolkit • NOKIA opening tool SRT-6 NOKIA No. 0770431 • Tonichi torque driver NOKIA No. 6901525 • Hoya micro Fibre cloth MX304 • Dastex gloves S, M, XL • Artilux goggles AH166 • Wera bit T5 867/4TX 5x50 • Wera 867/4 6IP; 50mm (Torx 6 PLUS®) • Wera bit T6 867/4TX 6x50 • Wera 867/1 5IP; 25mm (Torx 5 PLUS®) • Wera bit T6 PLUS® 867/4TX 6IP • Facom side cutter 416E • Facom T5 driver SP.14032 • Facom T6 driver SP.14033 • Facom slot screwdriver AEF. 2x35.E • Wetec tweezers 7abb SA-ESD • Wetec tweezers 22 SA-ESD • Wetec tweezers 13 SA-SMD ESD • Wetec tweezers PSF SA-ESD • Wetec ESD brush E1211 • Kaiser Fototechnik airbrush 6315 • Wetec dental tool DEM83266/0 • RS Components Scissors 323-5732

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   11 (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

8. SW-UPDATE

Flash Concept – (Point of Sales)

To use FLS-4S Flash Dongle you have to follow the user guide inside the sales package. Please check always for the latest version of flash software, which is available on
[NOKIA Online](#).

NOKIA
Connecting People

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   12   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005
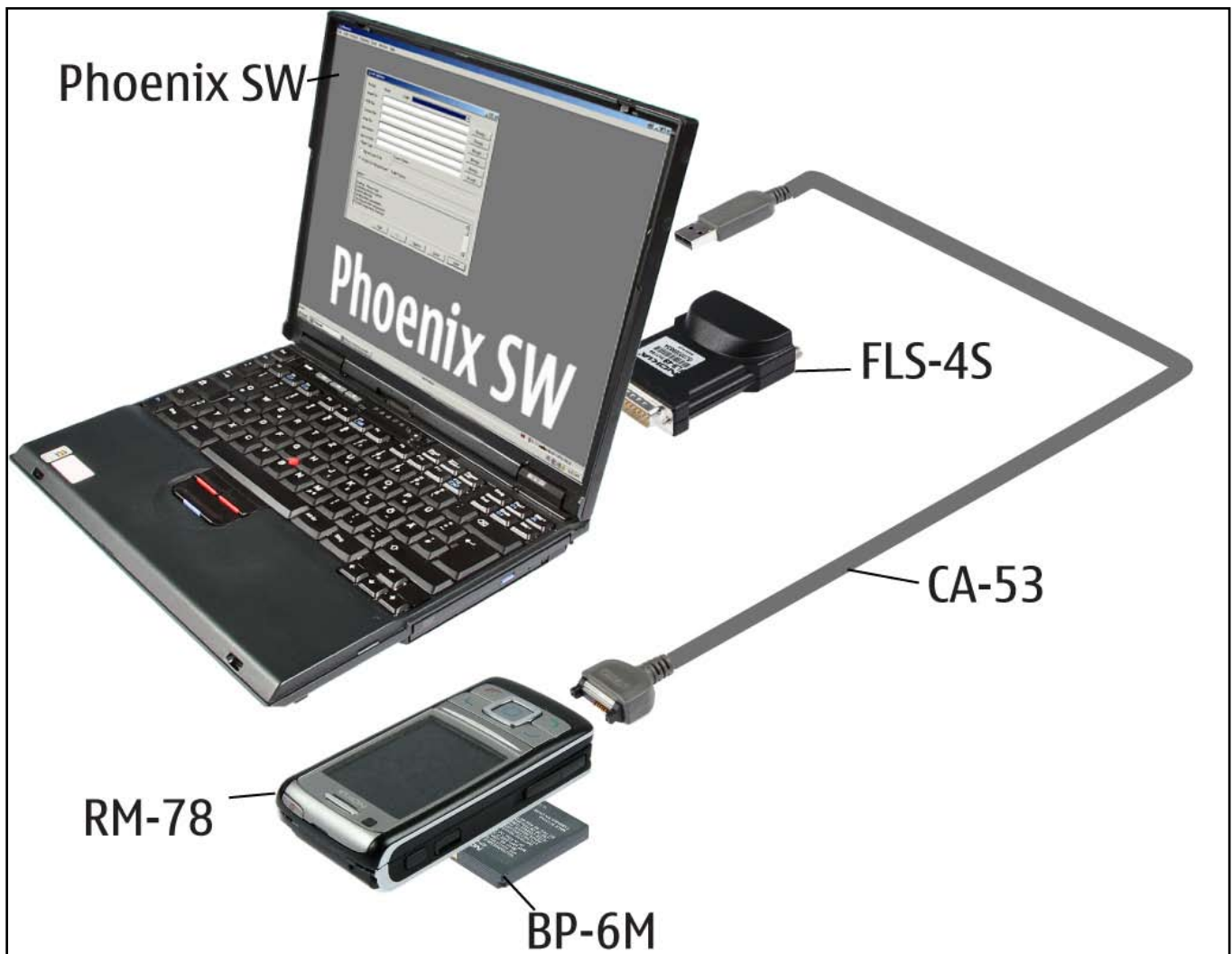
9. DISASSEMBLY INSTRUCTION (UPPER PART)

1.) You need the following tools.

2.) Protect the window with a plastic film.

3.) Protect the camera window with a plastic film.

4.) Release the **B-Cover.**

5.) Remove the **Battery Cover**. Ensure that no battery is inserted before continue.

6.) Shift out the unit. Release the clips of the top side first.

7.) Slide along on both sides of the **A-Cover** to release all clips.

8.) Lift up the **A-Cover.**

CONFIDENTIAL

9.) Protect the inner side window with a plastic film. Remove the **Keymat** as shown.

10.) Protect the **LCD** with a plastic film.

11.) Shift together the unit. Lift up the glued **UI PWB Assy** carefully with the SRT-6.

12.) Lift the **UI PWB** together with the **LCD Module.**

13.) Carefully release the flex connector at one side first.

14.) Now release the other side of the flex connector.
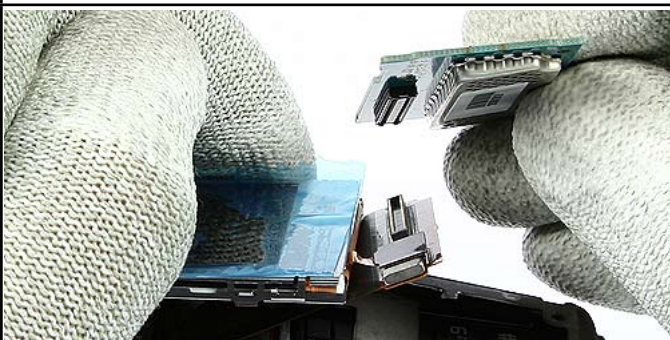
15.) Take away the **UI PWB Assy.**

16.) Release the connector of the **LCD Module** carefully while fixing the flex foil. Remove the **LCD Module** now.

Service Manual 6280

Approved 3.0

MGR

CONFIDENTIAL

16.11.2005

17.) Separate the **LCD Module** from the **Display Metal Shield.**

18.) Release the **Camera Guide Assy** with the SRT-6.

19.) Release the **VGA Camera** with the **SS-51**. Hold the **Main Flex** near the **Camera Socket** while removing the
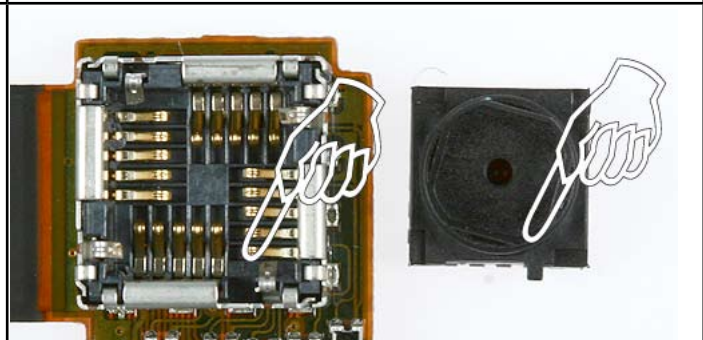
20.) For Assembly: Mind the correct positioning of the **VGA Camera.**
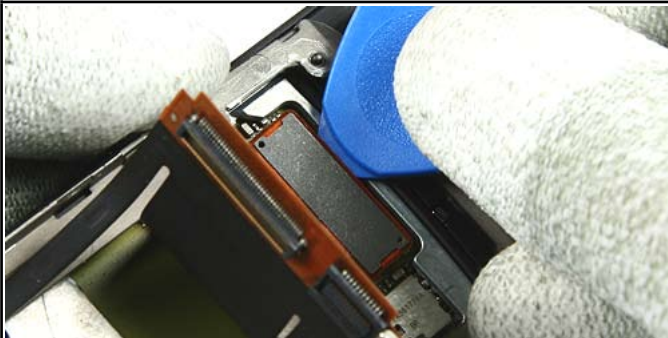
21.) Shift the unit into mid position. Release the connector of the **Main Flex Assy.**
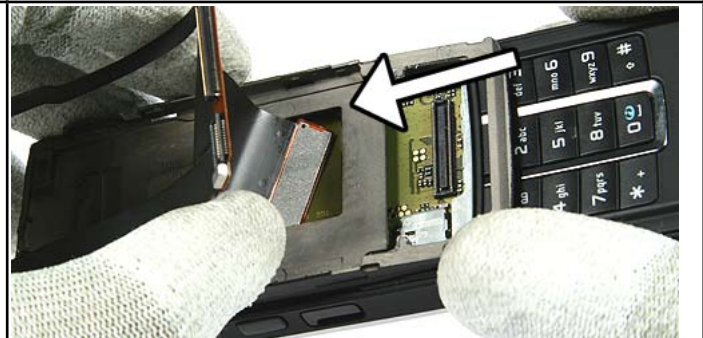
22.) Slot the flex connector through the **C-Cover Assy** carefully.
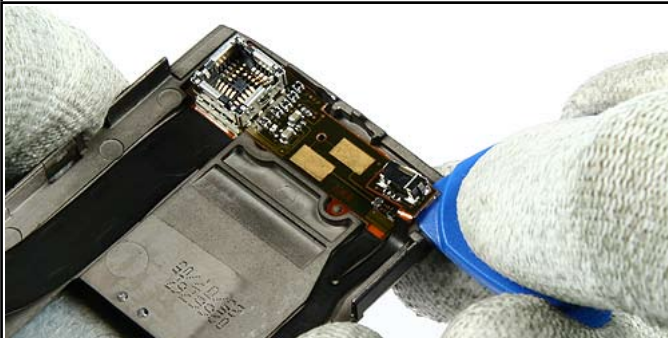
23.) Lift the glued **Power Switch** carefully.

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

10. DISASSEMBLY INSTRUCTION (LOWER PART)

1.) Open the **B-Cover** by pressing it from the bottom side.

2.) Ensure that no battery is inserted.

3.) Unscrew all Torx size 6 plus screws in the shown order. For Assembly use the reverse order and a torque of 25 Ncm.

4.) Once removed, the screws can't be used again. Always use new screws for assembly.

5.) Release the clips of the **D-Cover.**

6.) Remove the **D-Cover**.
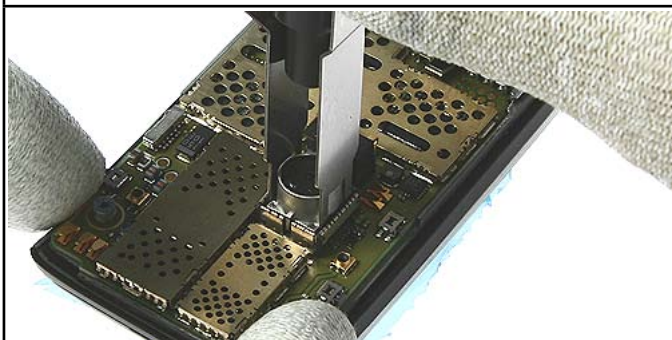
7.) Remove the **SMIA Camera** with the SS-45.
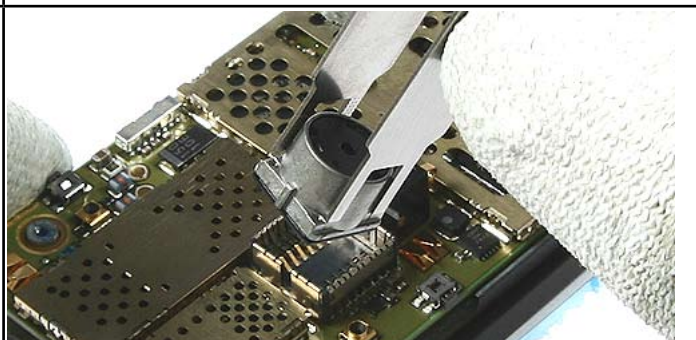
8) Mind the correct position while assembling.

Approved 3.0

MGR

16.11.2005
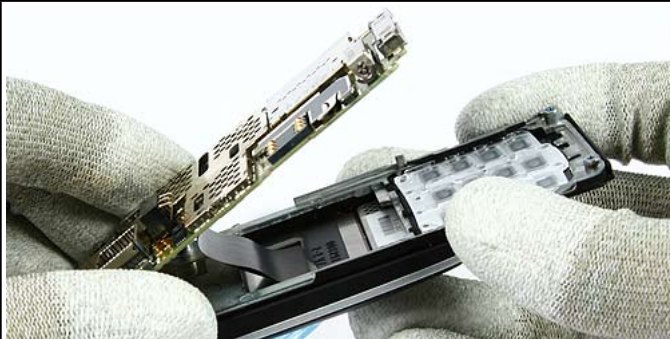
9.) Lift up the **Engine Module**, but bear in mind that the flex connector is still connected.

10.) Open the flex connector carefully.

11.) Lever out the glued **Keymat Assy.**

12.) Ensure that no residue of the adhesive remains. Always use new adhesive when reassemble.

13.) Remove the **DC Jack** with the DC Plug.

14.) Release the **IHF Label** with the SRT-6.

15.) Remove the **IHF Lid.**

16.) Peel up the **IHF Label** completely. Always use a new one when reassembly. Ensure that no residues remain.

Service Manual 6280

NOKIA
Connecting People
CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page 17 (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

17.) Lever out the **IHF Speaker.**
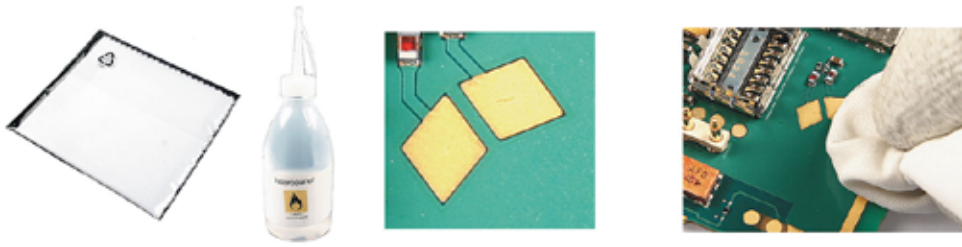
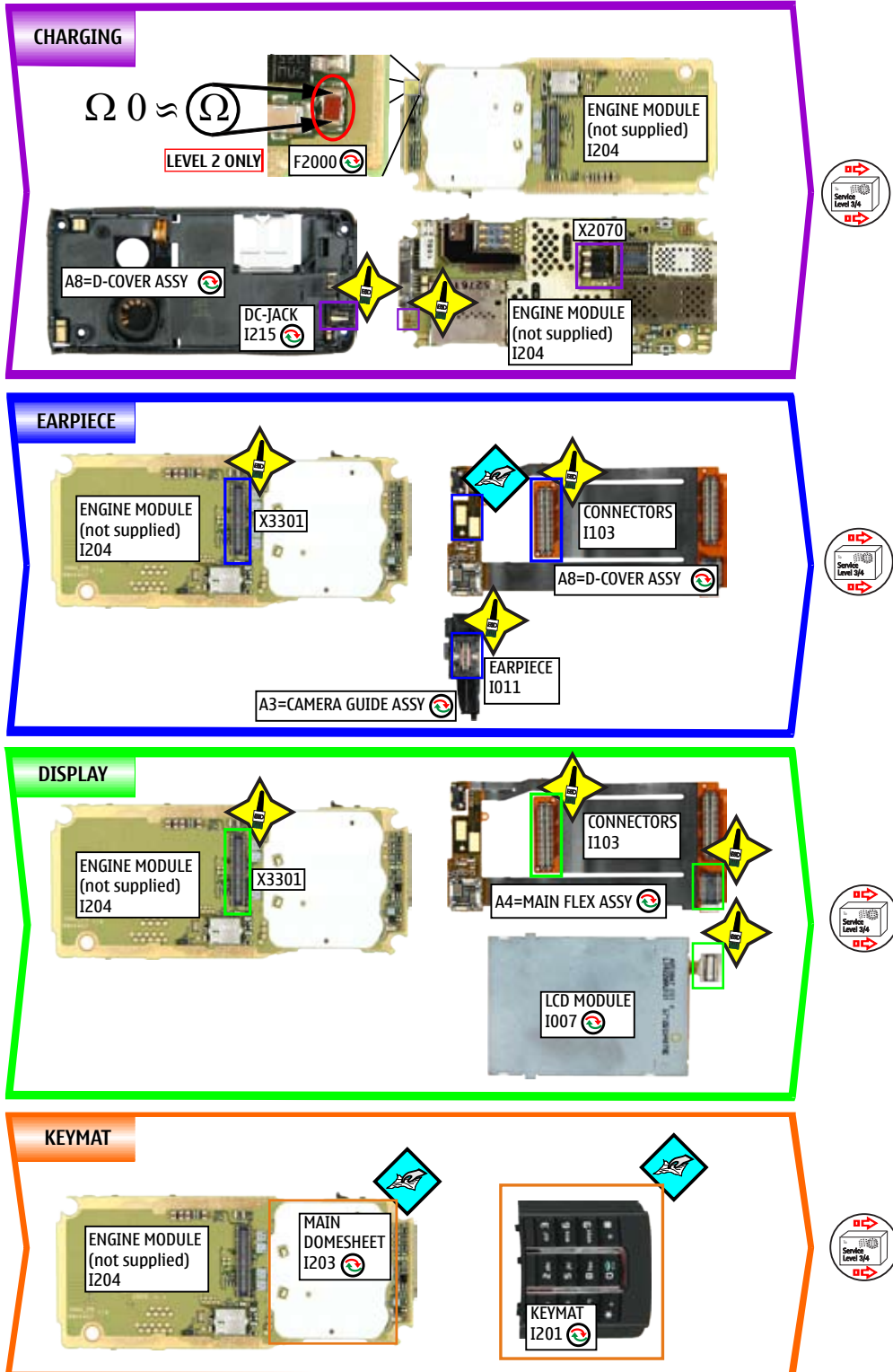18.) Always remove the residues of the **IHF Gasket.** Use a new one when reassemble.
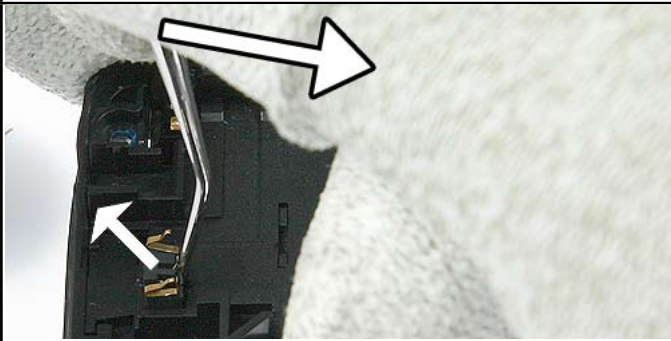
19.) Place the dental tool in the gap between **Microphone** and **Cover**. Ease out the **Microphone** as shown. Once removed, it can't be reused again.

11. LEGEND FOR QUICK TROUBLE SHOOTER

Legend for Quick Trouble Shooter

This legend is valid for all parts of the Quick Trouble Shooter

Follow the steps until the problem is solved. If this doesn´t help, you are not authorized to go forward.

Fault symptom — The start point of repair activities regarding the appeared fault symptoms.

Only marked components (e.g. I002) can be replaced.

Cloth usage: Check pads or contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.

Measure component for electrical functionality and change, if needed. (Level 2 only)

ESD Brush usage: Check pads or contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.

No more action possible - send product to the appropriate service supplier with higher service level.

Approved 3.0

MGR

16.11.2005

CONFIDENTIAL

12. QUICK TROUBLE SHOOTER PART 1

CHARGING

$\Omega\ 0 \leftrightharpoons (\Omega)$

LEVEL 2 ONLY

F2000

ENGINE MODULE (not supplied) I204

X2070

A8=D-COVER ASSY

DC-JACK I215

ENGINE MODULE (not supplied) I204

Service Level 3/4

EARPIECE

ENGINE MODULE (not supplied) I204

X3301

CONNECTORS I103

A8=D-COVER ASSY

A3=CAMERA GUIDE ASSY

EARPIECE I011

Service Level 3/4

DISPLAY

ENGINE MODULE (not supplied) I204

X3301

CONNECTORS I103

A4=MAIN FLEX ASSY

LCD MODULE I007

Service Level 3/4

KEYMAT

ENGINE MODULE (not supplied) I204

MAIN DOMESHEET I203

KEYMAT I201

Service Level 3/4

NOKIA
Connecting People

Page   20 (27)   Approved 3.0

CMO Operations & Logistics   MGR
WW Competence Transfer
MMultimedia Creation & Support   CONFIDENTIAL   16.11.2005

13. QUICK TROUBLE SHOOTER PART 2

IHF SPEAKER

ENGINE MODULE (not supplied) I204

IHF SPEAKER I222

180°

SERVICE GSM

ENGINE MODULE (not supplied) I204

LEVEL 2 ONLY
X8001
X8002
X8006

A8=D-COVER ASSY

ANTENNA I224

SERVICE WCDMA

X8004
LEVEL 2 ONLY
X8005

ENGINE MODULE (not supplied) I204

A8=D-COVER ASSY

ANTENNA I224

UI KEYMAT

ENGINE MODULE (not supplied) I204

X3301

180°

UI KEYMAT I003

CONNECTORS I103

A4=MAIN FLEX ASSY

A2=UI PWB ASSY

DOMESHEET I005

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

CONFIDENTIAL

14. QUICK TROUBLE SHOOTER PART 3

VOLUME

LEVEL 2 ONLY

Ω Ω
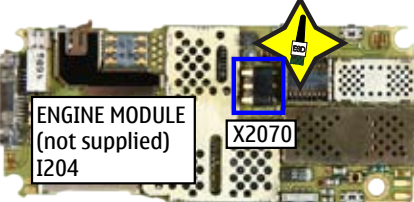
How to measure 4-pol switch (built-in)

Ω Ω
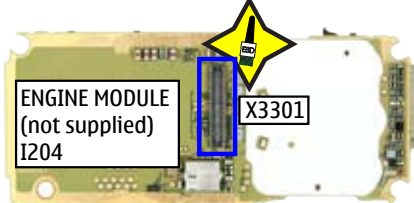
→ • —• open
$\approx \infty\ \Omega$
$\approx 0\ \Omega$ pressed

MEASURE OPEN AND PRESSED STATE
ON BOTH SIDES OF THE SWITCH

S2595   S2591

Service Level 3/4

POWER
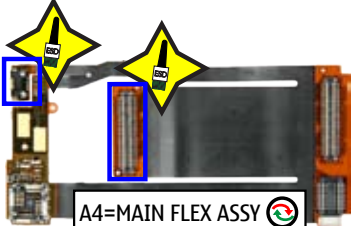
ENGINE MODULE (not supplied) I204   X2070
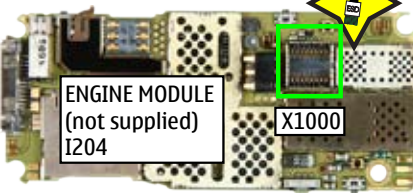
ENGINE MODULE (not supplied) I204   X3301

A4=MAIN FLEX ASSY

Service Level 3/4
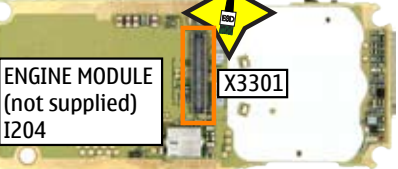
SMIA CAMERA

ENGINE MODULE (not supplied) I204   X1000

SMIA CAMERA I209

Service Level 3/4

VGA CAMERA

VGA CAMERA I008

ENGINE MODULE (not supplied) I204   X3301

CONNECTORS I103

A4=MAIN FLEX ASSY

Service Level 3/4

Service Manual 6280

NOKIA
Connecting People
CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

CONFIDENTIAL
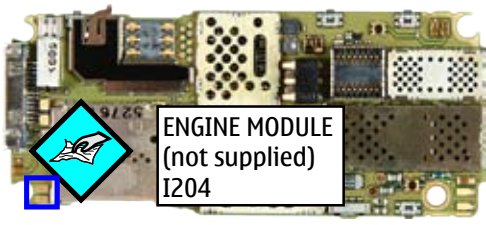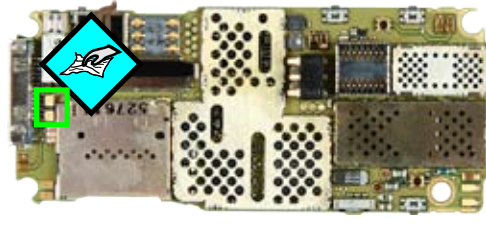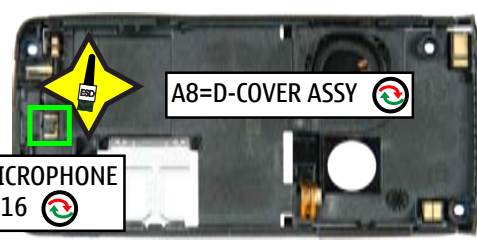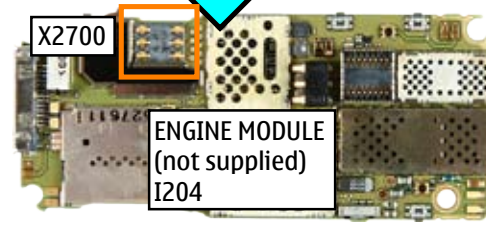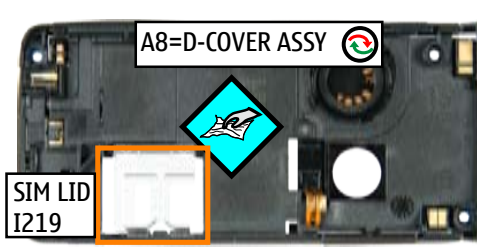
15. QUICK TROUBLE SHOOTER PART 4

LED FLASH

LEVEL 2 ONLY

X2530

X2531

ENGINE MODULE
(not supplied)
I204

A8=D-COVER ASSY

LED FLASH LIGHT
I218

To Service Level 3/4

BLUETOOTH

ENGINE MODULE
(not supplied)
I204

BT ANTENNA
I225

A8=D-COVER ASSY

To Service Level 3/4

MICROPHONE

A8=D-COVER ASSY

MICROPHONE
I216

To Service Level 3/4

SIM

X2700

ENGINE MODULE
(not supplied)
I204

A8=D-COVER ASSY

SIM LID
I219

To Service Level 3/4

Service Manual 6280

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   23   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

16. CAMERA GONOGO TEST

Before starting the GoNoGo
test, check that camera
window is clean. If not,
clean the window with
cloth.

SMIA CAMERA TEST

- Press the red receiver button to reach the Home Menu
- Select **Menu**
- Select **Media**
- Select **Camera**
- Press **Capture** to take a photo

  This Image will be saved to Gallery into the Photos folder automatically.

  Test was successful, if the Image appears on your Display. The camera is ok.
- Select **Options**
- Select **Delete**
- Select **Yes**
- Press the red receiver button to reach the Home Menu

If the test is failed see Quick Trouble Shooter.

Connecting People

CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

Page   24   (27)

CONFIDENTIAL

Approved 3.0

MGR

16.11.2005

17. BLUETOOTH & INFRARED TEST
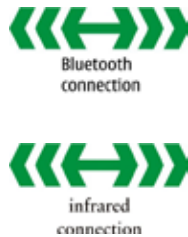
Bluetooth test
You need another Bluetooth device (e.g. 6230) to do a GoNoGo test.
Make sure that Bluetooth is activated in the reference unit. The distance of the devices should be not more than 5m from each other.

Infrared test
You need another infrared device (e.g. 6230) to do a GoNoGo test. The infrared windows of the devices must be directed to each other and should have a distance of approximate 15 cm. Make sure that infrared is activated in receiver device.

Warning: Do not point the IR (infrared) beam at anyone's eye or allow it to interfere with other IR devices. This device is a Class 1 Laser product.

Reference unit, Bluetooth /infrared activated   Test unit

Settings on the test unit:

- Press the red **End** key to reach the Home Menu
- Select **Names** and select **Search** for an entry
  If phone and SIM memory is empty, create one new entry.
- **Select** an entry and select **Details**
- Select **Options**
- Select **Send business card**
  A) - for infrared test: Select **Via infrared**
     If sending of business card fails, make sure again that infrared windows are directed to each other and infrared is activated in reference device. Then try again sending.
     Test was successful, if you get this message on receiver device.
     You will <u>not</u> get a confirmation on sender device.
  B) - for Bluetooth test: Select **Via Bluetooth**
     If needed (for e.g. after a sw-update), enter a name for this device
- select **Options**
- select **Accept**
   Search window appears, if all Bluetooth devices in range will be displayed, the test is successful!
- Press red **End** key to reach the Home Menu

Note: If the Bluetooth is activated, switch it off!

18. GONOGO TEST

After the optical check, a GoNoGo test has to be carried out if the unit has been unscrewed to guarantee the functionality of the phone.

Please refer to the actual information on NOKIA Online. When using delivered tester support files, take care of the right setup according to the tester type and product type.
Please refer to "Recommended Service Equipment" on NOKIA Online.
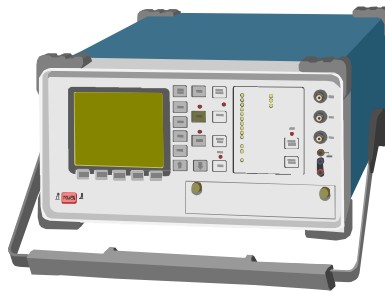
Mobile Phone Tester

19. BATTERY TEST

A battery tester lets you test the capacity of NOKIA batteries.

Please refer to the actual information on NOKIA Online.

http://www.astratec.co.uk/   http://www.cadex.com/

Approved 3.0

MGR
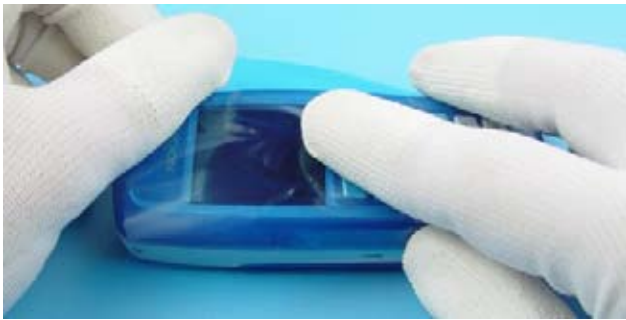
CONFIDENTIAL

16.11.2005

20. FORWARDING OF REPAIRS

When it is necessary to forward of repairs to appropriate service supplier with higher service level we recommend using the offered swap phone cartons as described in Spare Parts SB-004.

Always Protect the window with a protection film.

Put the unit under the stretch film.

Add repair documentation e.g. filled-in service note into the swap carton.

Fold the swap carton as shown in Spare Parts SB-004.

There are two different sizes of swap cartons for common mobile phones.

NOKIA
Connecting People
CMO Operations & Logistics
WW Competence Transfer
MMultimedia Creation & Support

CONFIDENTIAL

21. ESD PROTECTION REQUIREMENTS

Please refer to the NOKIA Online document Service Supplier Requirements in folder General instructions.
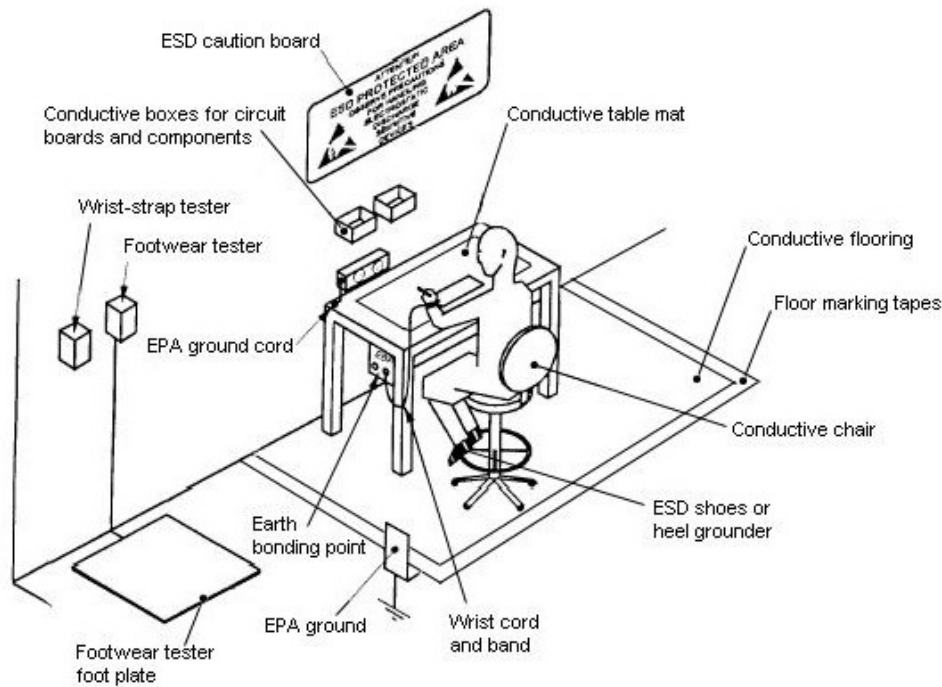
USE Conductive bags and boxes
USE ESD compatible service tools
USE Conductive wastebaskets
USE ESD gloves when handling PWBs/PCBs
USE Cleaning material without changing el. Characteristics
USE Grounded service equipment, i.e. soldering station
USE ESD clothes such as coat or frock

NO Smoking
NO Drinking
NO Eating
NO Dust
NO Useless Items
NO Normal pressured air for cleaning modules/
displays

The video covers general issues concerning Electro-Static Discharge (ESD)

Service Manual 6280