

Page 1 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

SERVICE MANUAL Level 1&2



RM-178

RM-106 / RM-199



Transceiver characteristics:

Band: Quad-band phone for GSM/EDGE 850/900/1800/1900MHz

Camera: Integrated 1.3-megapixel camera (resolution 1280 x 1024 pixels) with dedicated camera button, and 8x smooth zoom

Display:

-Main: active TFT 1.8" display supports up to 262,144 colors (128 x 160 pixels)

- External mini: 1.4" CSTN screen supports up to 65,536 colors (96 x 65 pixels)

Bluetooth (6125/RM-178 only)

WLAN (6136/RM-106 RM-199 only)

IRDA

FM radio

Connector: Pop-Port[™] Connector

Memory Card: MicroSD

Transceiver with BL-4c 820mAh Li-Ion battery pack

Talk time	Standby	Note
up to 5h	up to 11days	Depends on network parameters

Environmental characteristics:

Lead-free soldered



 Page 2 (42)
 Approved 3.0

 DJK
 O9.Aug.2006

TABLE OF CONTENTS Page 1. INTRODUCTION 3 2. **GENERAL REPAIR INFORMATION** 4 3. PATHFINDER FOR WORKSHOP STAFF 5 4. EXPLODED VIEW AND COMPONENT DISPOSAL 6 5. **SPARE PARTS OVERVIEW** 7 6. **SPARE PARTS LIST** 8 7. **SERVICE TOOLS** 9 8. **SW-UPDATE** 11 9. **UPPER BLOCK DISASSEMBLY** 12 **10**. **UPPER BLOCK ASSEMBLY** 18 11. **LOWER BLOCK DISASSEMBLY** 24 12. **LOWER BLOCK ASSEMBLY** 30 **13**. **LEGEND FOR QUICK TROUBLE SHOOTER** 36 14. **QUICK TROUBLE SHOOTER PART 1** 37 **15**. **OUICK TROUBLE SHOOTER PART 2** 38 **16**. **OUICK TROUBLE SHOOTER PART 3** 39

CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	16.Jan.2006	Initial draft
Approved	1.0	5.Apr.2006	Approval
Approved	2.0	6.Apr.2006	SS-84 added to tools chapter
Approved	3.0	9.Aug.2006	6136 RM-199 and (RM-106 US variant) added

QUICK TROUBLE SHOOTER PART 4

GONOGO TEST

BATTERY TEST

17.

18.

19.

40

41

42



Page 3 (42)

Approved 3.0 DJK

09.Aug.2006

CONFIDENTIAL

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 THE IMMUNITY OF VEHICLE ELECTRONIC SYSTEMS TO RF ENERGY.
- 2. 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.



Page 4 (42)

Approved 3.0 DIK

CONFIDENTIAL 09.Aug.2006

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.



Page 5 (42)

Approved 3.0 DJK 09.Aug.2006

CONFIDENTIAL

3. PATHFINDER FOR WORKSHOP STAFF

This is the NOL page (NOKIA Online) which is currently available in Europa, Middle East and Africa only!

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.

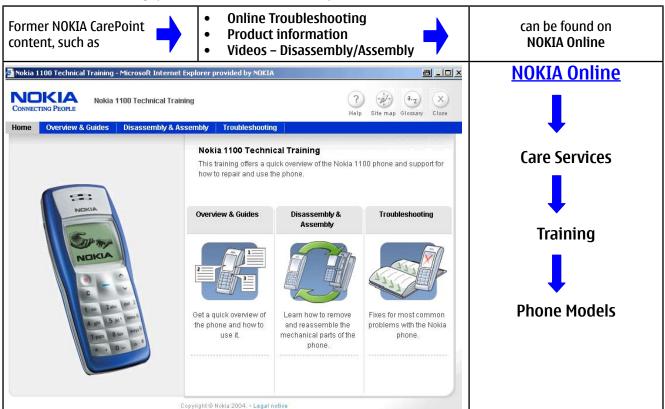
It is mandatory to watch for newest technical and organizational information on a daily basis to be updated as required (see "Latest files in Support Library"). Every new information has to be processed and implemented as soon as possible.

When logged into NOL you can also find needed information in different folder like:



Service Manuals Service Bulletins Software Repair Information

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



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,	Instructions how to disassemble and	Step-by-step instructions on how to
features and technologies	assemble the phone	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.



Page 6 (42)

Approved 3.0 DIK

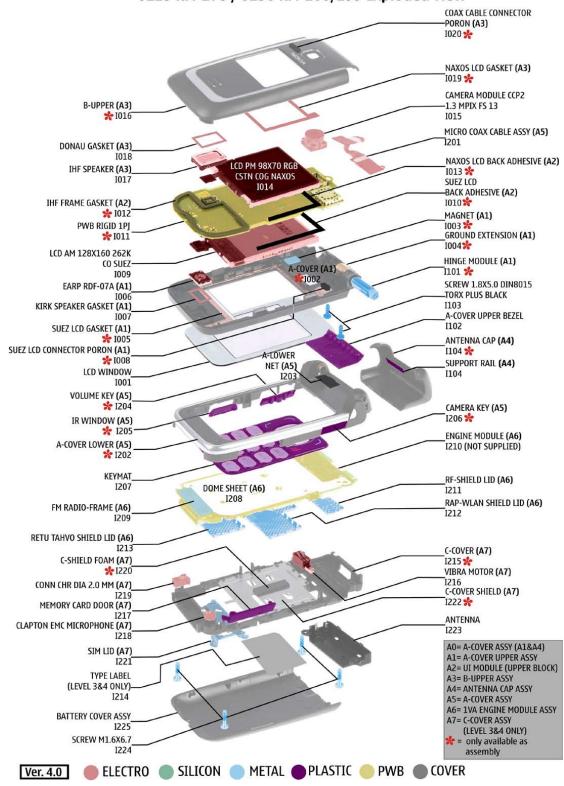
CONFIDENTIAL

09.Aug.2006

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.

6125 RM-178 / 6136 RM-106/199 Exploded view



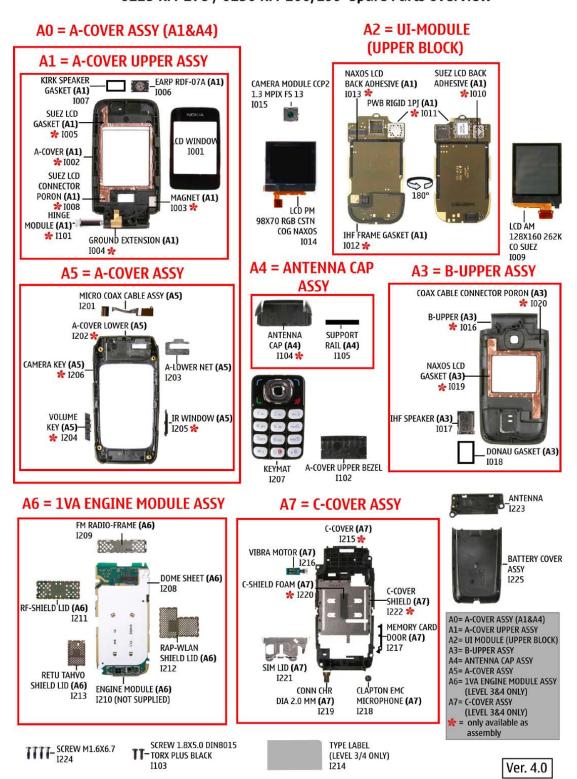
Page 7 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

5. SPARE PARTS OVERVIEW

6125 RM-178 / 6136 RM-106/199 Spare Parts overview





Page 8 (42)

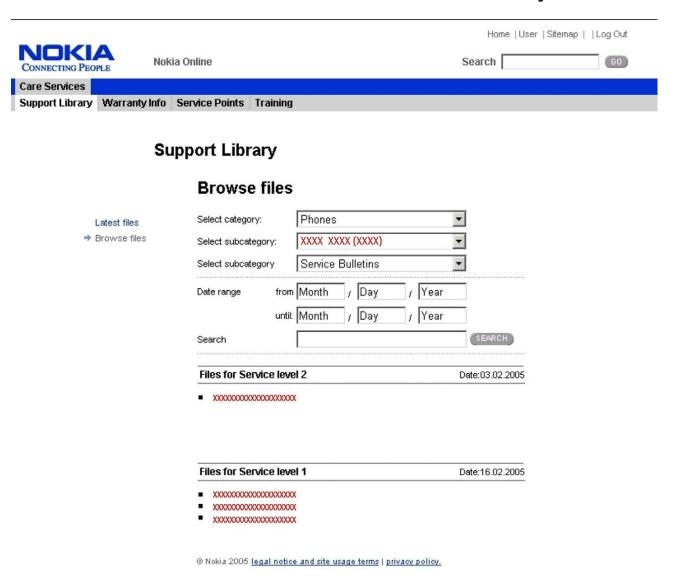
Approved 3.0 DIK 09.Aug.2006 **CONFIDENTIAL**

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.



Page 9 (42)

Approved 3.0 DJK

09.Aug.2006

CONFIDENTIAL

7. SERVICE TOOLS

FLS-4S User Guide	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 for fast charging of your phone battery.
ACHIAN S. A. T. S. A. T.	Internal Battery BL-4c Inserted under the back cover, this Li-Ion 850 mAh battery provides power in a lightweight package.
	Headset HS-23 Small and lightweight stereo headset with handsfree call handling, volume control, push to talk support, and comfortable earpieces for listening to the FM radio or music player.
	SS-45 Camera removal tool.
	CA-53 Service Cable to connect the PC with the Pop-Port™ connector.



Page 10 (42)

Approved 3.0 DJK 09.Aug.2006

CONFIDENTIAL

Trailineala creation a support	COMIDENTIAL
	SS-84 Display and Domesheet assembly jig.
	RJ-84 Soldering Jig
300 DIN P. 3 20 200 DIN P. 3 20	Lead-free Solder Wire Mandatory for lead-free products (Level 2 only).
	 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



Page 11 (42)

Approved 3.0 DJK

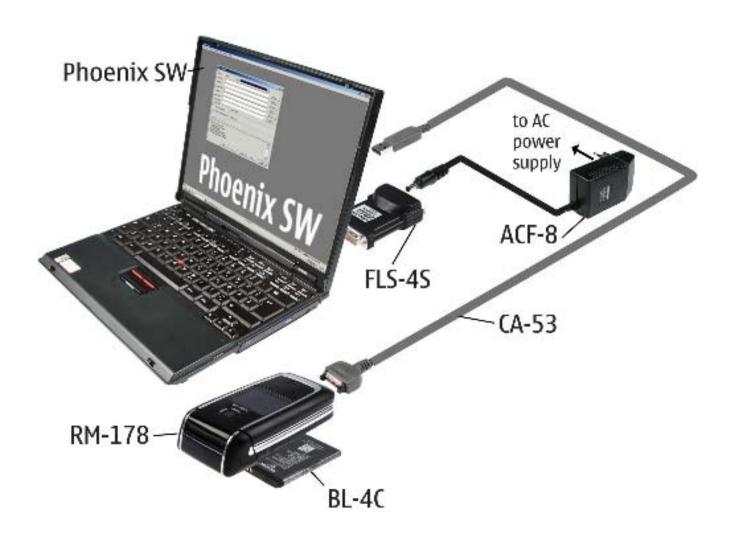
09.Aug.2006

CONFIDENTIAL

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**.



Page 12 (42)

DJK 09.Aug.2006 **CONFIDENTIAL**

Approved 3.0

9. UPPER BLOCK DISASSEMBLY



1. Needed tools



2. Cover the B-Upper Assembly window with protective film.



3. Unlock the Battery Cover and remove it.



4. The A-Cover Upper Bezel is glued down. Begin to release the adhesion with the SRT-6 as shown.



5. Open the unit.



6. Cover the LCD Window with protective film.



7. Complete the removal of the glued A-Cover Upper Bezel with the SS-93.



8. Ensure that no adhesive residue remains.



9. Unscrew the two screws in the order shown...



10. ... and remove them with tweezers.



11. Release the snaps of the B-Upper Assembly with the SRT-6. | 12. Note the positions of the snaps.

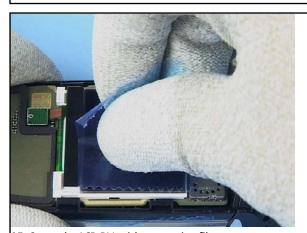




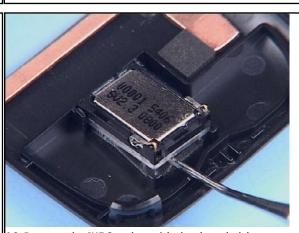
13. Note the positions of the snaps.



14. You can now remove the B-Upper Assembly.



15. Cover the LCD PM with protective film.



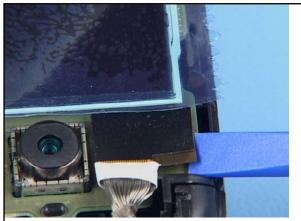
16. Remove the IHF Speaker with the dental pick.



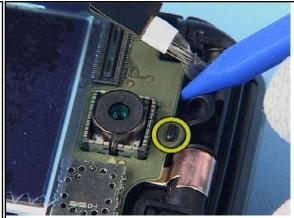
17. Remove the Donau Gasket with the dental pick. Do not reuse this gasket when re-assembling.



18. Remove all residual gasket adhesive.



19. Open the Micro Coax Cable Assembly connector with the



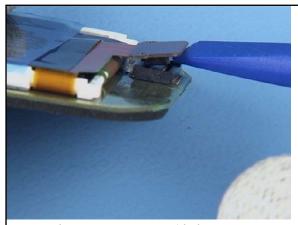
20. Lift up the UI-Module with the SS-93. Note the guide pin.



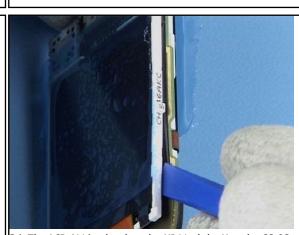
21. Remove the UI-Module and turn it over.



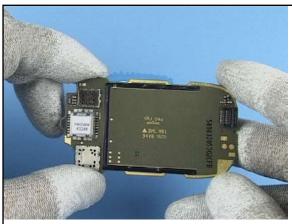
22. Cover the LCD AM with protective film.



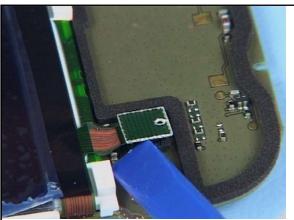
23. Open the LCD AM connector with the SS-93.



24. The LCD AM is glued to the UI-Module. Use the SS-93 and start releasing the adhesive bond from the connector side.



25. The SUEZ LCD Black Adhesive is reusable if it has not been damaged during the disassembly.



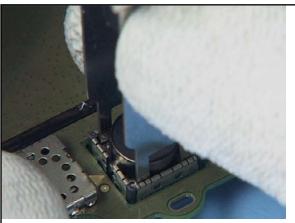
26. Open the LCD PM connector with the SS-93.



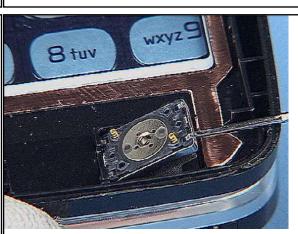
27. The LCD PM is glued to the UI-Module. Use the SS-93 and start releasing the adhesive bond from the connector side.



28. The NAXOS LCD Black Adhesive is also reusable if it has not been damaged during the disassembly.



29. Remove the Camera Module CCP2 with the SS-45 camera removal tool.



30. Remove the Earpiece with the dental pick.









32. Ensure that the surface is clean of any adhesive residue.



33. The disassembly procedure is now complete.

Page 18 (42)

Approved 3.0 DJK 09.Aug.2006

CONFIDENTIAL

10.UPPER BLOCK ASSEMBLY



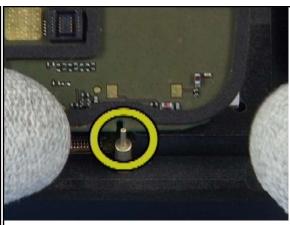
1. Needed tools.



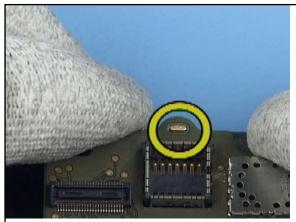
2. Place the LCDs AM and PM on the SS-84.



3. Then, starting with the LCD AM, ...



4. ... locate the PWB Rigid over the small guide pin on the SS-84.



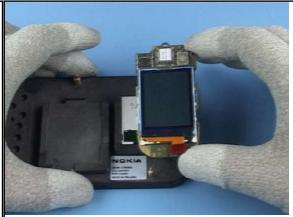
5. Do not drop the PWB Rigid on to the LCD AM before the long guide slot is also aligned over the second guide pin on the SS-84.



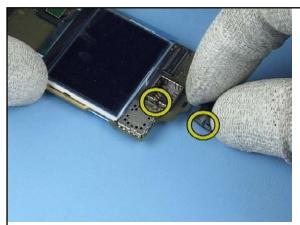
6. When the PWB Rigid is in the correct positon, press it down on to the LCD AM.



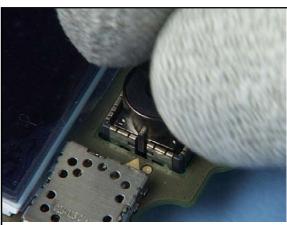
7. Remove the PWB Rigid include the LCD AM.



8. Repeat the same procedure with the LCD PM.



9. Check the correct position of the Camera Module...



10. ... place it into its connector.



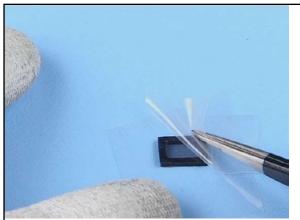
11. ... and press it smoothly into place with the back of the SS- 12. Remove the protective film from the LCD AM. 45 camera removal tool.



Page 20 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006



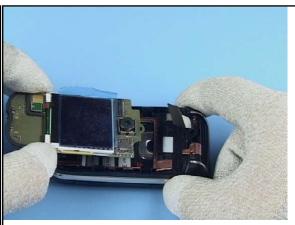
13. Remove the protective coating from a new Kirk Speaker Gasket.

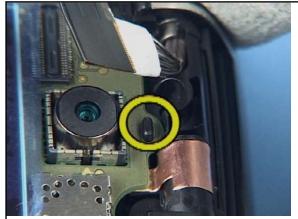


14. Align the Earpiece exactly over the Kirk Speaker Gasket and apply light pressure.



15. Place the Earpiece and gasket assembly into its housing in 16. Place the UI-Module in the A-Cover Assembly. the A-Cover.

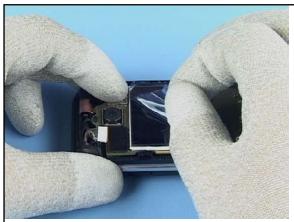




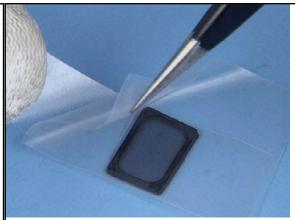
17. Start the assembly procedure at the guide pin located by the Hinge Module.



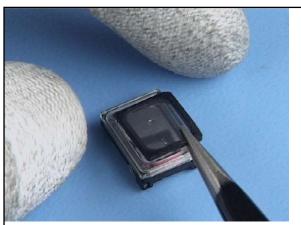
18. Close the Micro Coax Cable Assembly connector with your finger.



19. Remove the protective film from the LCD PM.



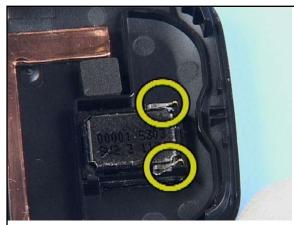
20. Take a new Donau Gasket and remove the protective coating.



21. Carefully position the Donau Gasket on the IHF Speaker.



22. Place the assembly in its housing in the B-Upper Assembly.



23. Note the direction of the IHF Speaker contact pins.



24. Place the B-Upper Assembly on the A-Cover Upper Assembly.



25. Start the assembly procedure at the pop port connector end.



26. Close all the snaps and check that there are no gaps remaining.



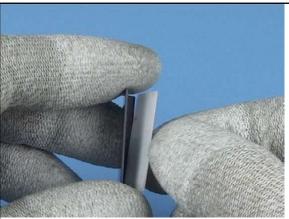
27. First insert the two screws with tweezers.



28. Set the correct torque.



29. To avoid damaging the plastic threads, first turn the screws left to engage the thread and then tighten them lightly. Then, apply the correct torque in the order shown.



30. Take a new A-Cover Upper Bezel and remove the protective coating.



31. Use tweezers to work the A-Cover Upper Bezel into its correct position on the B-Upper Assembly...



32. ... and smooth it down with your fingers.



33. Remove the protective film from the LCD Window.



34. Check the window for cleanliness.



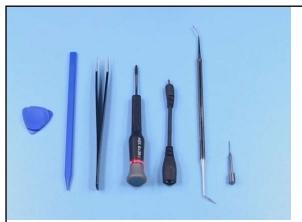
35. Complete the assembly by fitting the Battery Cover Assembly.

Page 24 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

11.LOWER BLOCK DISASSEMBLY



1. Needed tools.



2. Cover the B-Upper Assembly window with protective film.



3. Unlock the Battery Cover and remove it.



4. Cover the LCD Window with protective film.



5. Release the snaps on the left side of the Antenna Cap with the SRT-6.



6. Turn the phone over and release the snap in the middle.



7. Remove the Antenna Cap...



8. ... and check the condition of the snaps.



9. Unscrew the four screws in the order shown.



10. Remove the screws and discard them. These screws cannot be reused after disassembly.



11. First, use the SS-93 to release the snap of the C-Cover Assembly on the Memory Card Door side.



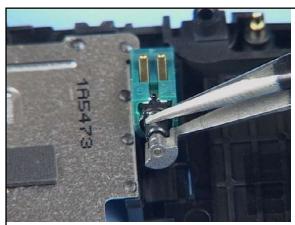
12. As the snap is released, the Memory Card Door automatically falls out and can be placed on one side.



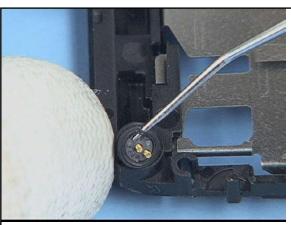
13. Now open the snap on the opposite side of the C-Cover Assembly.



14. Remove the C-Cover Assembly starting from the Pop-Port Connector end.



15. Lift out the Vibra Motor with tweezers.



16. Remove the Microphone with the dental pick.



17. Use the DC plug to remove the DC Jack.



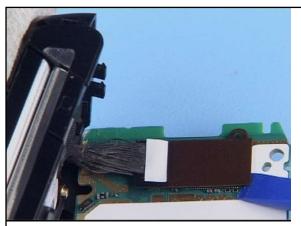
18. First open the SIM Lid with the SS-93 ...



19. ... and then flex it slightly to release one end. It can now be removed.



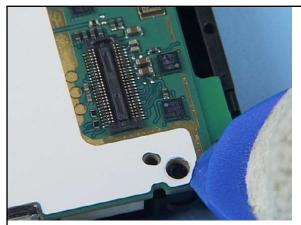
20. Raise the Engine Module slightly at the Pop-Port Connector end and then open it bookwise to a perpendicular position.



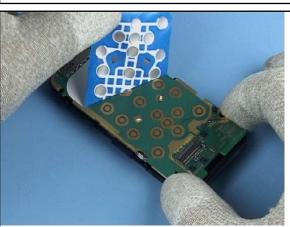
21. Hold the Engine Module in position and open the Micro Coax Cable Assembly connector with the SS-93.



22. Now remove the Engine Module and place it on the C-Cover Assembly.



23. Use the SRT-6 to peel up the Domesheet at one corner.



24. Now peel the Domesheet from the Engine Module and check the surface for adhesive residues.



25. Turn the phone over and the Keymat drops out easily.



26. Remove the A-Lower Net with tweezers and discard it.



27. Locate the small hole over the hinge in the A-Cover Assembly and insert the SS-6 as shown



28. Pushing down on the tool will release the hinge.



29. Hold the spring-loaded hinge pin down with your thumb while slowly separating one side of the hinge.



30. When separating the two parts, be very careful not to damage the Micro Coax Cable Assembly connector.



Page 29 (42)

2) Approved 3.0 DJK 09.Aug.2006



Page 30 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

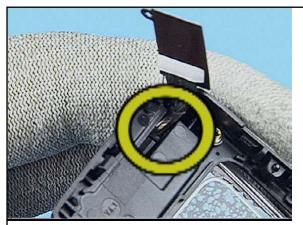
12.LOWER BLOCK ASSEMBLY



1. Needed tools.



2. Feed the Micro Coax Cable Assembly connector through the slot in the A-Cover Assembly.



3. Be sure that the cable is correctly routed.



4. Depress the end of the Hinge Module and connect the parts. Ensure that the Hinge Module expands completely.



5. Place the Keymat in the A-Cover Assembly.

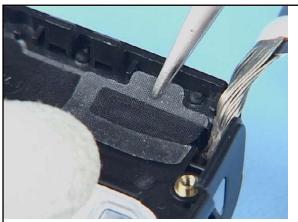


6. Check its correct position and orientation.

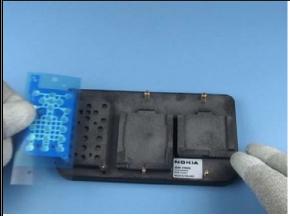
Page 31 (42)

CONFIDENTIAL

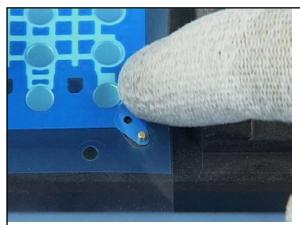
Approved 3.0 DJK 09.Aug.2006



smooth it into its position in the A-Cover Assembly.



7. Remove the protective coating from a new A-Lower Net and 8. Take a new Domesheet and position it on the SS-84 Domesheet and Display Assembly Jig.



9. There are guide pins in the lower right ...



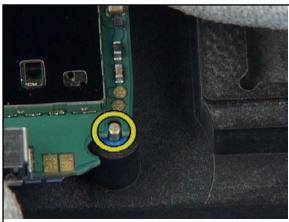
10. ... and upper left corners of the domesheet sectio



11. Remove the protective film of the new Domesheet with the help of tweezers.



12. Now position the Engine Module, with the correct side up, over the Domesheet but do not let them come into contact.



13.First, locate the Engine Module over the guide pin in the lower right ...



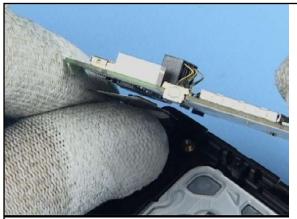
14. ... and then in the upper left corner.



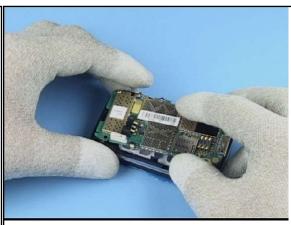
15. You can now press the Engine Module on to the Domesheet and remove the assembly.



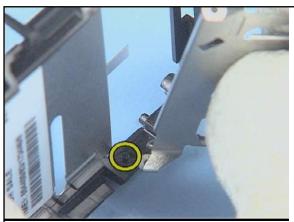
16. Finally check the correct positioning of the Domesheet on the Engine Module



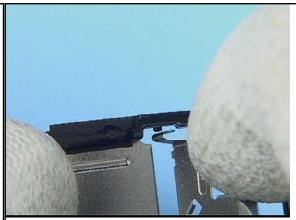
17. Take the Engine Module and connect the Micro Coax Cable Assembly connector.



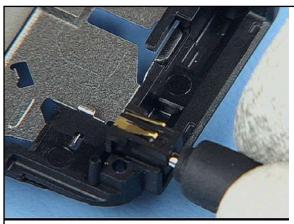
18. Fold the Engine Module over on to the A-Cover Assembly.



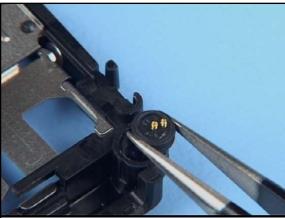
19. Place one end of the SIM Lid into position on its guide pin in the C-Cover Assembly.



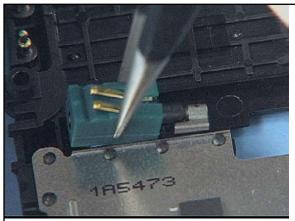
20. Flex the the SIM lid a little, slide it over the other pin and close it.



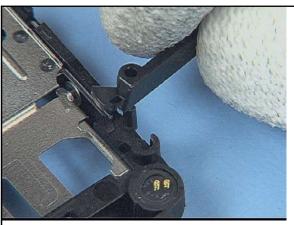
21. Use the DC plug to place the DC Jack into position.



22. Use tweezers to place the Microphone into its housing and press it into position.



23. Place the Vibra Motor into its housing and press it into position.



24. Assemble the Memory Card Door and leave it open



25. Take the unit and place it on to the C-Cover Assembly.



26. Turn the phone over and close the Memory Card Door.



27. First insert four new screws with tweezers.



28. Set the correct torque.



29. Tighten the four screws in the order shown.



30. Put the Antenna Cap into position and close the snaps on both sides.



31. Turn the phone over and close the snap on the back.



32. Remove the protective film from the LCD Window.



33. Check the window for cleanliness.



34. Complete the assembly by fitting the Battery Cover Assembly.



35. The assembly procedure is now complete.

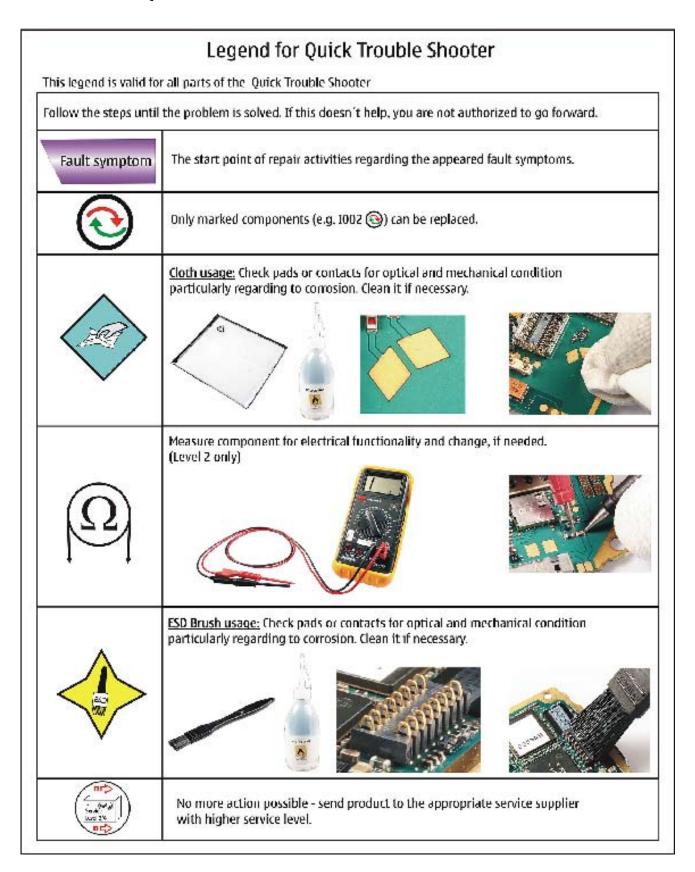
Multimedia Creation & Support

Page 36 (42)

Approved 3.0 DIK 09.Aug.2006

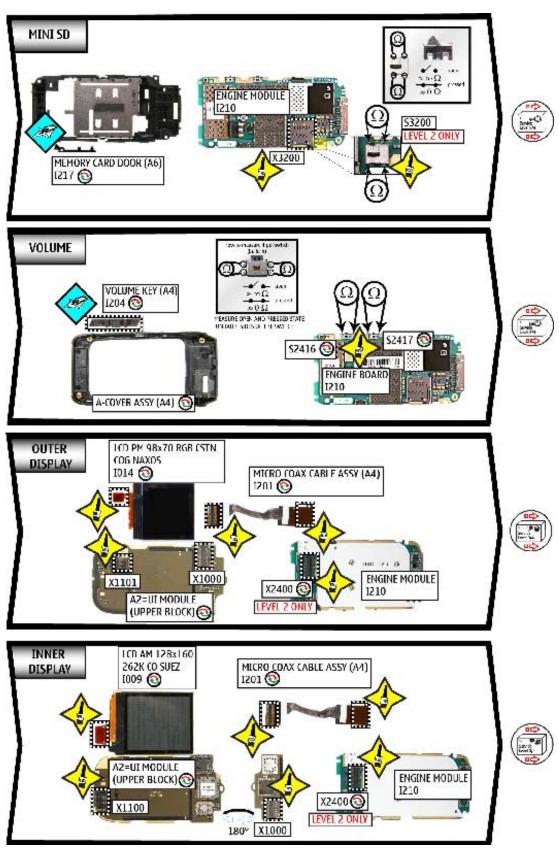
CONFIDENTIAL

13.LEGEND FOR QUICK TROUBLE SHOOTER



Page 37 (42)

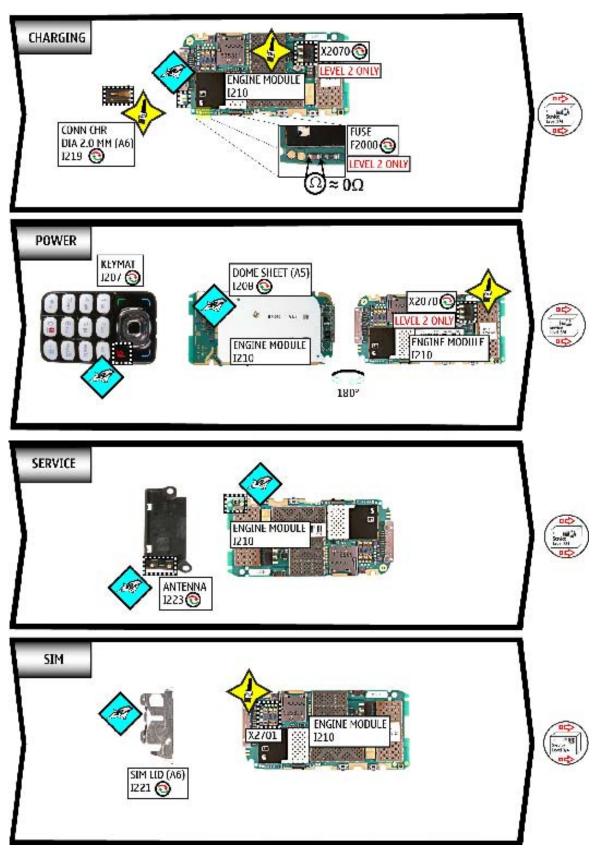
Approved 3.0 DJK 09.Aug.2006 **CONFIDENTIAL**



Page 38 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

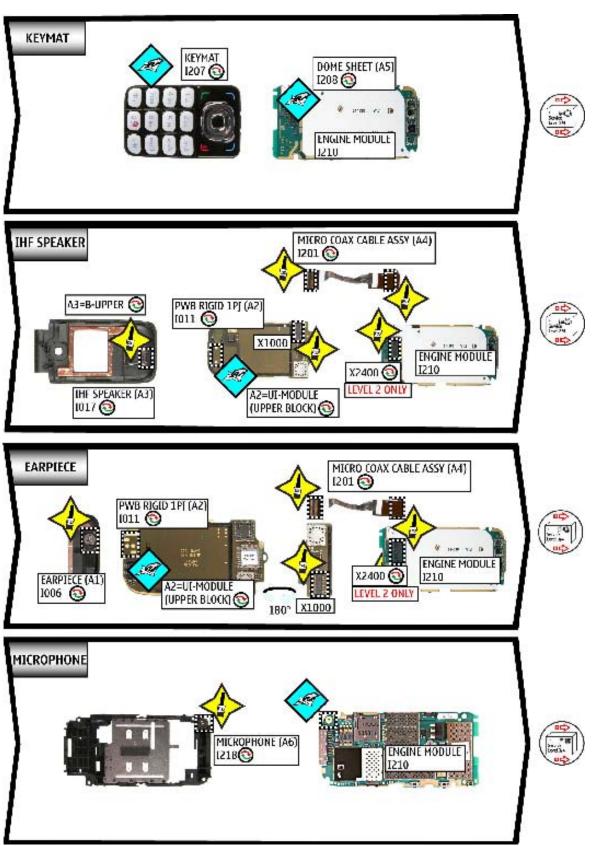




Page 39 (42)

CONFIDENTIAL

Approved 3.0 DJK 09.Aug.2006

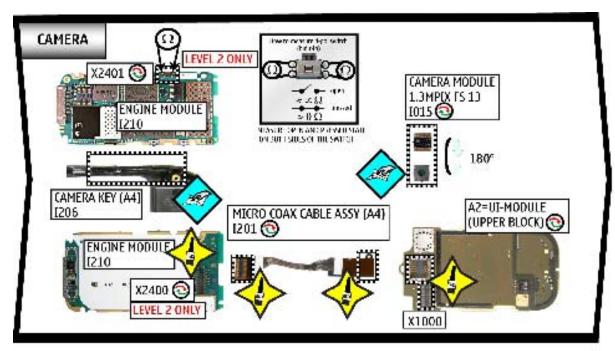


Page 40 (42)

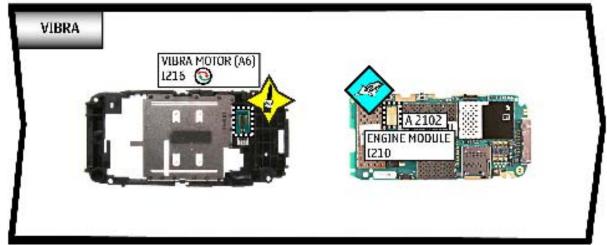
Approved 3.0 DJK

09.Aug.2006

CONFIDENTIAL











Page 41 (42)

Approved 3.0 DJK

CONFIDENTIAL

09.Aug.2006

18.GONOGO TEST

To test the Camera, Bluetooth and IRDA functionality refer to the 6125 User`s guide.

The User's Guide is available on www.nokia.com.

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



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



Page 42 (42)

Approved 3.0 DJK 09.Aug.2006

CONFIDENTIAL

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/