

# SERVICE MANUAL

## Level 1&2

### NOKIA NOKIA 6300 6300b

RM-217

RM-222

#### Transceiver characteristics:

##### Band:

- RM-217: Tri-band EDGE phone for EGSM 900/1800/1900MHz
- RM-222: Tri-band EDGE phone for EGSM 850/1800/1900MHz

Camera: 2.0 Megapixel, 8x digital zoom

Display: 5.08cm (2inch) QVGA display with 16.7M true colors,  
resolution 240 x 320 pixel

Operating System: Series 40

Bluetooth

FM stereo radio

Memory card: microSD

Connector: mini USB Connector



#### Transceiver with BL-4c Li-Ion battery pack

Talk time	Standby	Note
up to 3.5h	up to 14.5days	Depends on network parameters

#### Environmental characteristics:

- Lead-free soldered

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## CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	24.Nov.2006	Initial draft
Approved	1.0	9.Jan.2007	Approval
Approved	2.0	19.Apr.2007	Exploded view & Spare Parts overview updated
Approved	3.0	31.May.2007	Disassy/Assy instruction updated (microSD card removal first)
Approved	4.0	12.Sept.2007	Exploded view & Spare Parts overview updated

## 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.

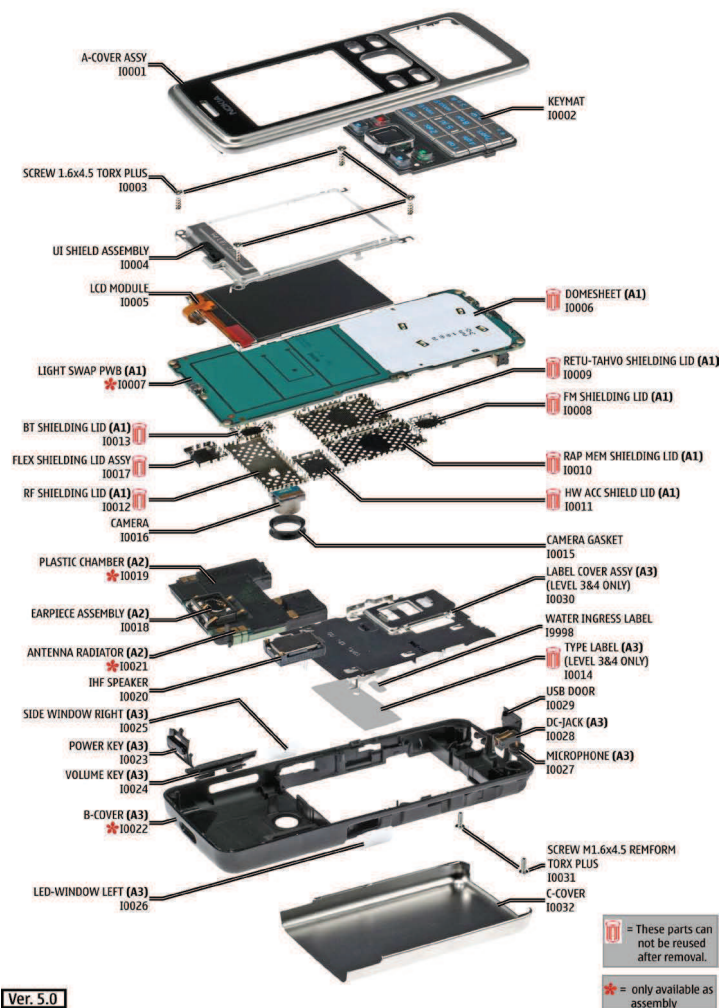


Electrostatic discharge can easily damage the sensitive components of electronic products. Therefore every Service Supplier has to take care of all precautions, which are mentioned in the service level related "Service Partner Requirements", available on NOKIA Online. Also see ESD Protection Requirements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

## 2. EXPLODED VIEW

See corresponding ITEM/CIRCUIT REF in the Spare Parts Service Bulletins on NOL.

### 6300 RM-217 / 6300b RM-222 EXPLODED VIEW



## 22. QUICK TROUBLE SHOOTER - CAMERA

12.2

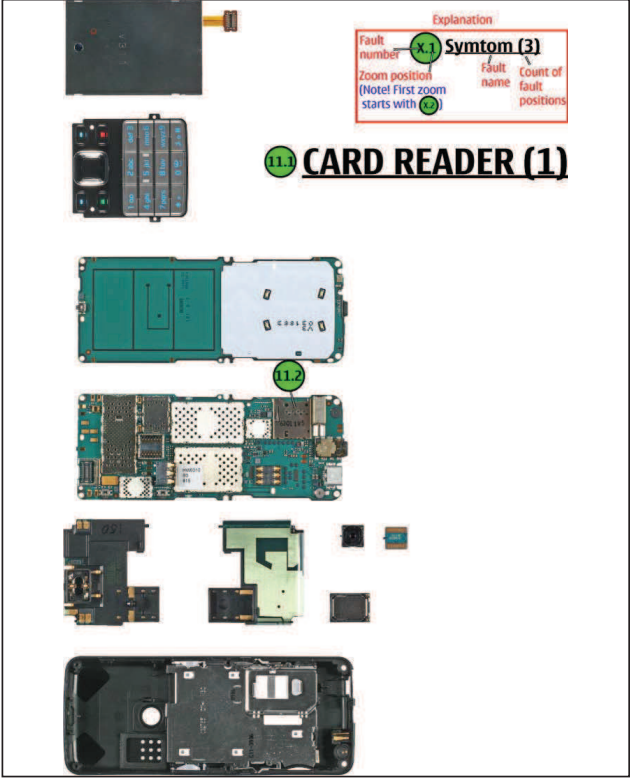
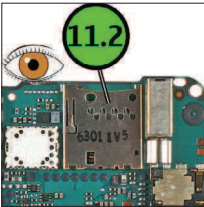
12.3

12.4

Explanation		
Fault number	Symptom (3)	Count of fault positions
X.1		

12.1 CAMERA (3)

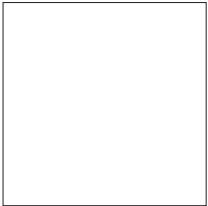
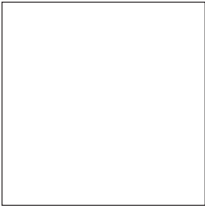
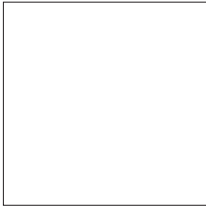
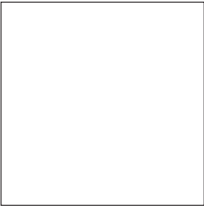
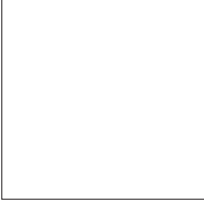

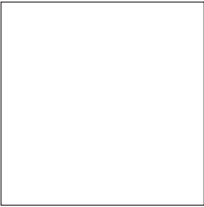
21. QUICK TROUBLE SHOOTER - CARD READER



Explanation

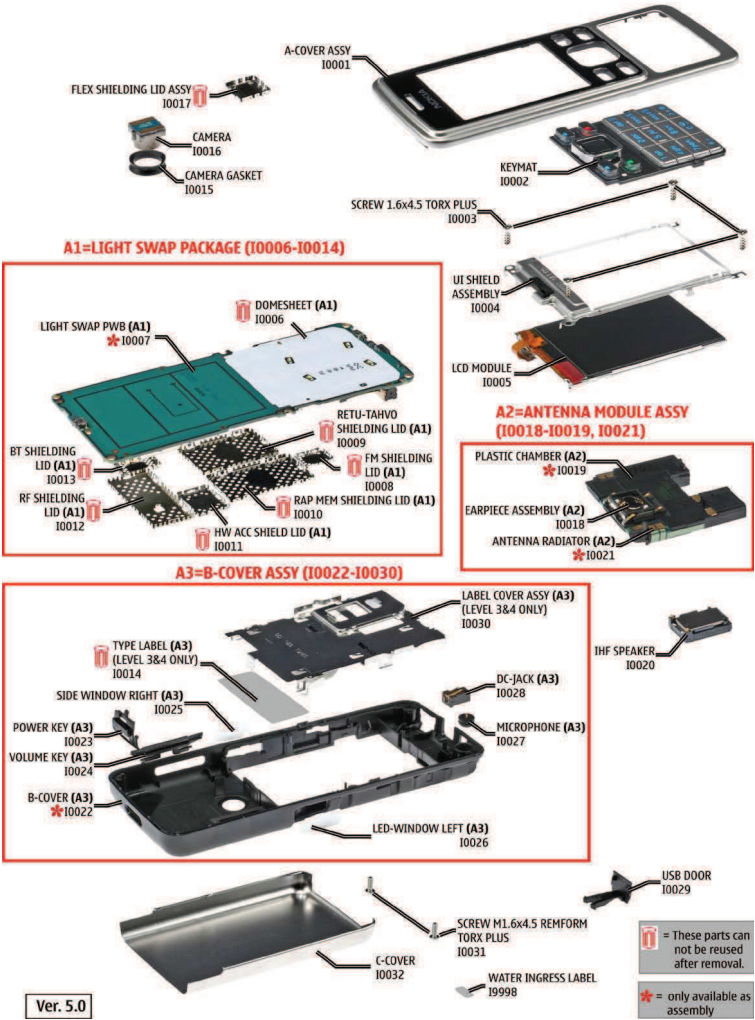
Fault number	X.1	Symtom (3)
Zoom position (Note! First zoom starts with 6)	6	Fault name
		Count of fault positions

**11.1 CARD READER (1)**



3. SPARE PARTS OVERVIEW

6300 RM-217 / 6300b RM-222 SPARE PARTS OVERVIEW



**A1=LIGHT SWAP PACKAGE (I0006-I0014)**

- LIGHT SWAP PWB (A1) I0007
- DOMESHEET (A1) I0006
- RETU-TAHVO SHIELDING LID (A1) I0009
- BT SHIELDING LID (A1) I0013
- RF SHIELDING LID (A1) I0012
- FM SHIELDING LID (A1) I0008
- RAP MEM SHIELDING LID (A1) I0010
- HW ACC SHIELD LID (A1) I0011

**A2=ANTENNA MODULE ASSY (I0018-I0019, I0021)**

- PLASTIC CHAMBER (A2) I0019
- EARPIECE ASSEMBLY (A2) I0018
- ANTENNA RADIATOR (A2) I0021

**A3=B-COVER ASSY (I0022-I0030)**



- TYPE LABEL (A3) (LEVEL 3&4 ONLY) I0014
- SIDE WINDOW RIGHT (A3) I0025
- POWER KEY (A3) I0023
- VOLUME KEY (A3) I0024
- B-COVER (A3) I0022
- LABEL COVER ASSY (A3) (LEVEL 3&4 ONLY) I0030
- DC-JACK (A3) I0028
- MICROPHONE (A3) I0027
- LED-WINDOW LEFT (A3) I0026

**Other parts:**

- A-COVER ASSY I0001
- FLEX SHIELDING LID ASSY I0017
- CAMERA I0016
- CAMERA GASKET I0015
- KEYMAT I0002
- SCREW 1.6x4.5 TORX PLUS I0003
- UI SHIELD ASSEMBLY I0004
- LCD MODULE I0005
- THF SPEAKER I0020
- SCREW M1.6x4.5 REMFORM TORX PLUS I0031
- WATER INGRESS LABEL I9998
- USB DOOR I0029
- C-COVER I0032

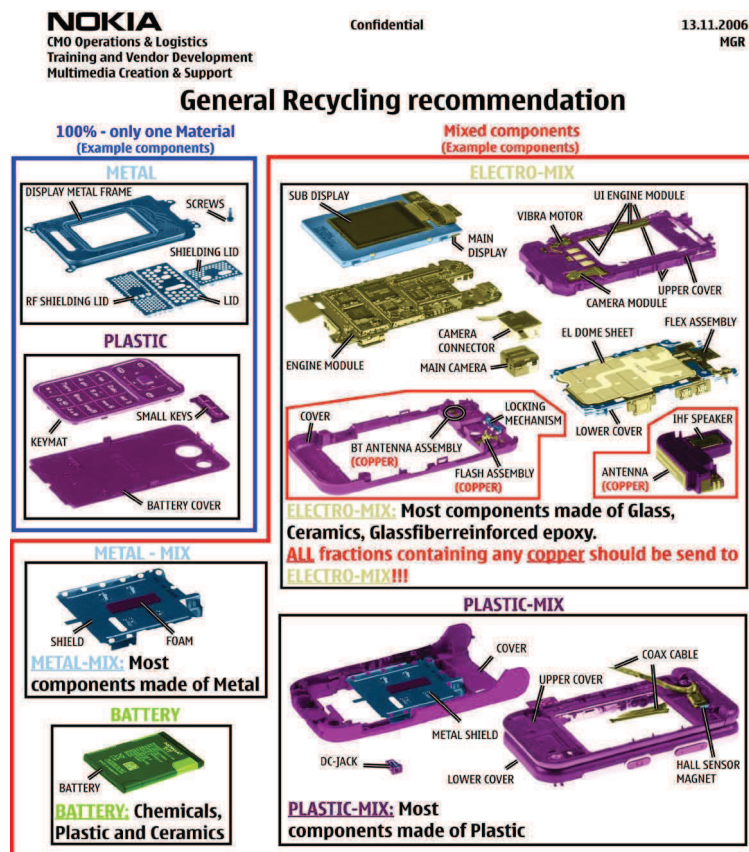
**Ver. 5.0**

**Legend:**

-  = These parts can not be reused after removal.
-  = only available as assembly



## 4. GENERAL RECYCLING RECOMMENDATION



## 20. QUICK TROUBLE SHOOTER - VOLUME KEYS

**10.2**

**10.3**

**LEVEL 2 ONLY**

**10.1**

**VOLUME KEYS (2)**

**Explanation**

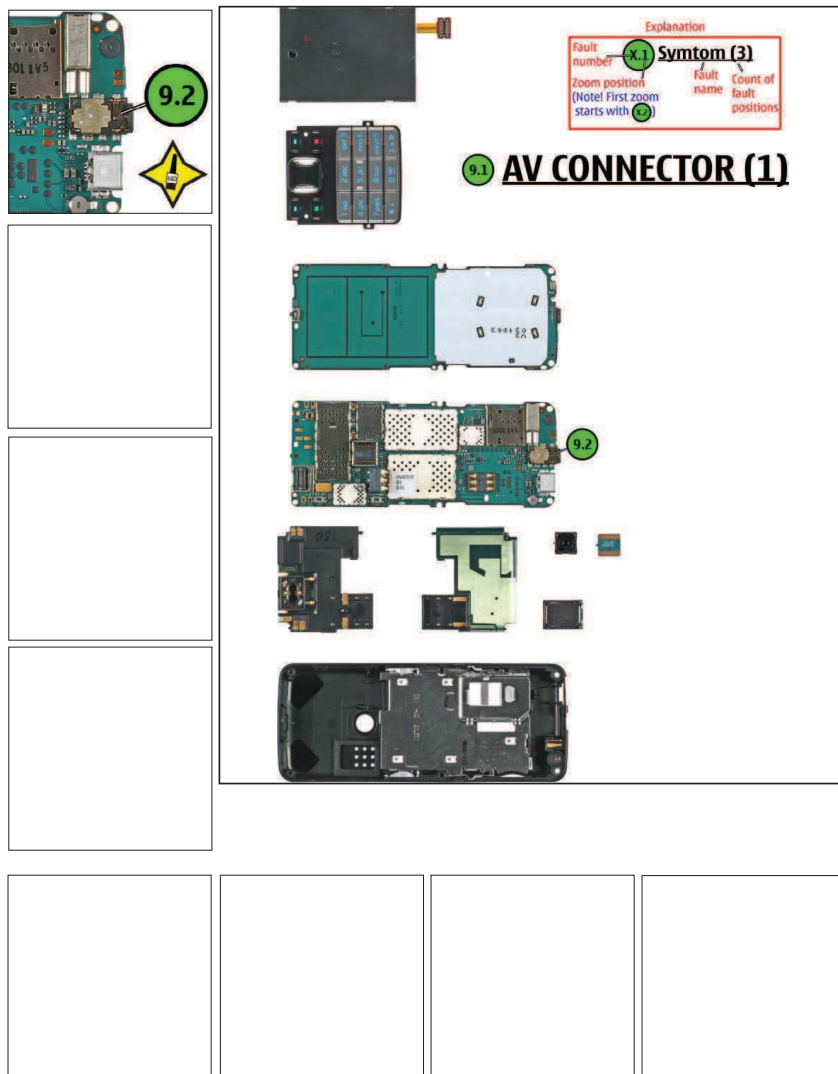
Fault number	Symptom (3)	Fault name	Count of fault positions
10.1	Zoom position (Note! First zoom starts with 10.1)		

10.2

10.3

10.2

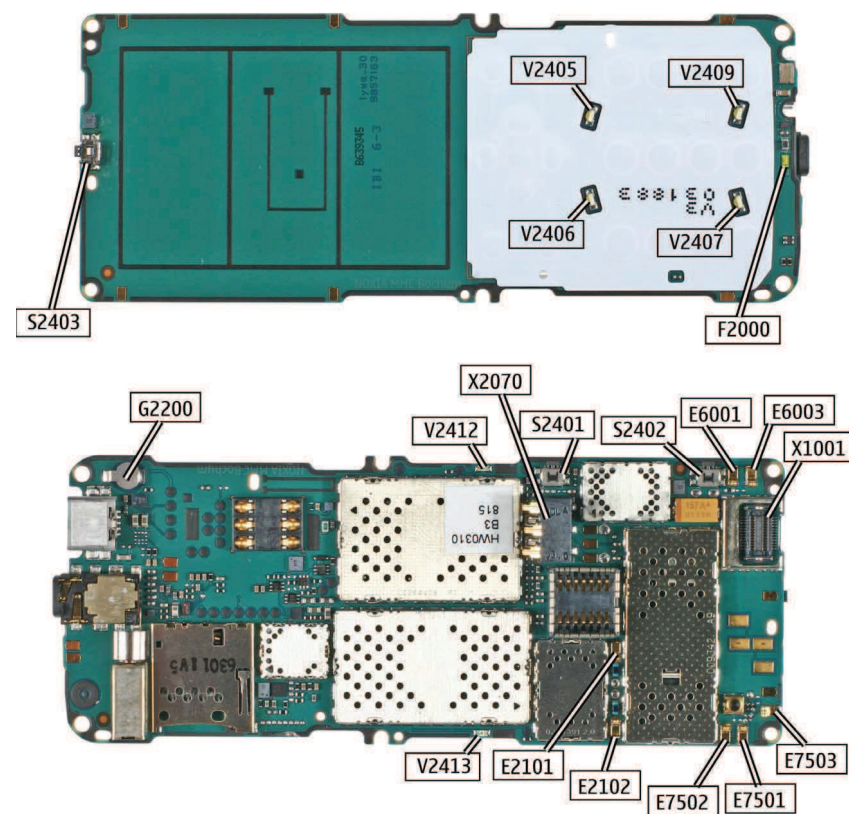
## 19. QUICK TROUBLE SHOOTER - AV CONNECTOR



## 5. LEVEL 2 SOLDER COMPONENTS

### N6300 RM-217/ 6300b RM-222 Components overview

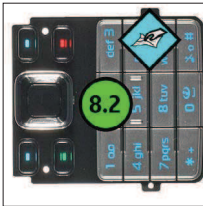
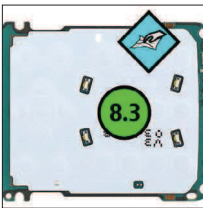
**Solder components only for LEVEL 2**

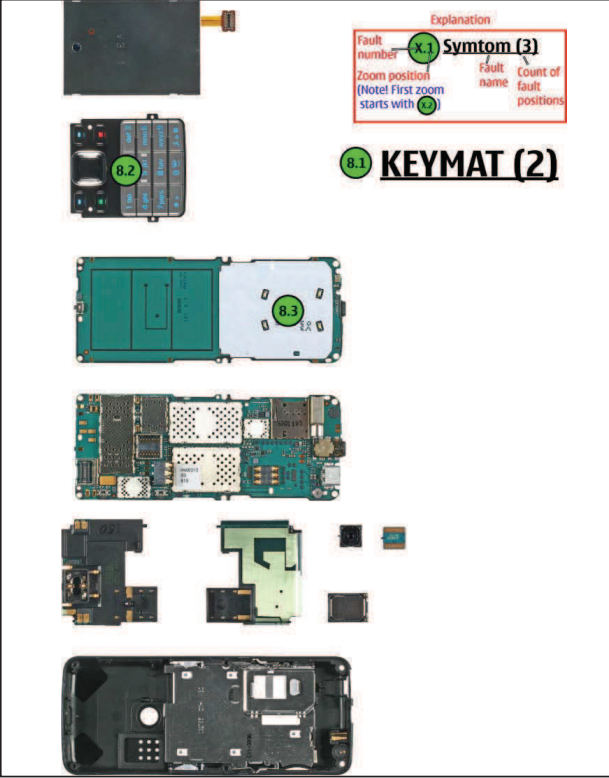


## 6. SERVICE DEVICES

	<b>FLS-5 incl. ACF-8, Driver and User Guide</b> Dongle and flash device incorporated into one package, developed specifically for POS use.
	<b>ACF-8</b> Universal Power Supply is used to power FLS-5.
	<b>Travel Charger AC-4</b> Small and lightweight charger for fast charging of your phone battery.
	<b>Internal Battery BL-4c</b> Inserted under the back cover, this Li-Ion battery provides power in a lightweight package.
	<b>SS-45</b> Camera removal tool.
	<b>DKE-2</b> Service Cable to connect the PC with the mini USB connector.
	<b>SS-101</b> Domesheet alignment jig

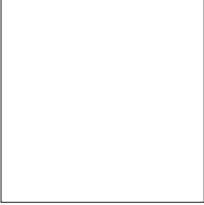


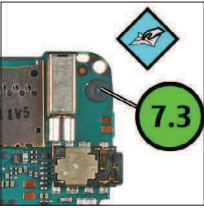
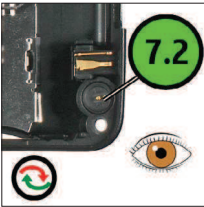
## 18. QUICK TROUBLE SHOOTER - KEYMAT


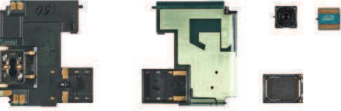
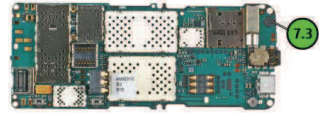
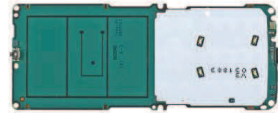








17. QUICK TROUBLE SHOOTER - MICROPHONE





Explanation

Fault number X.1 Symtom (3)

Zoom position (Note! First zoom starts with 0)

Fault name

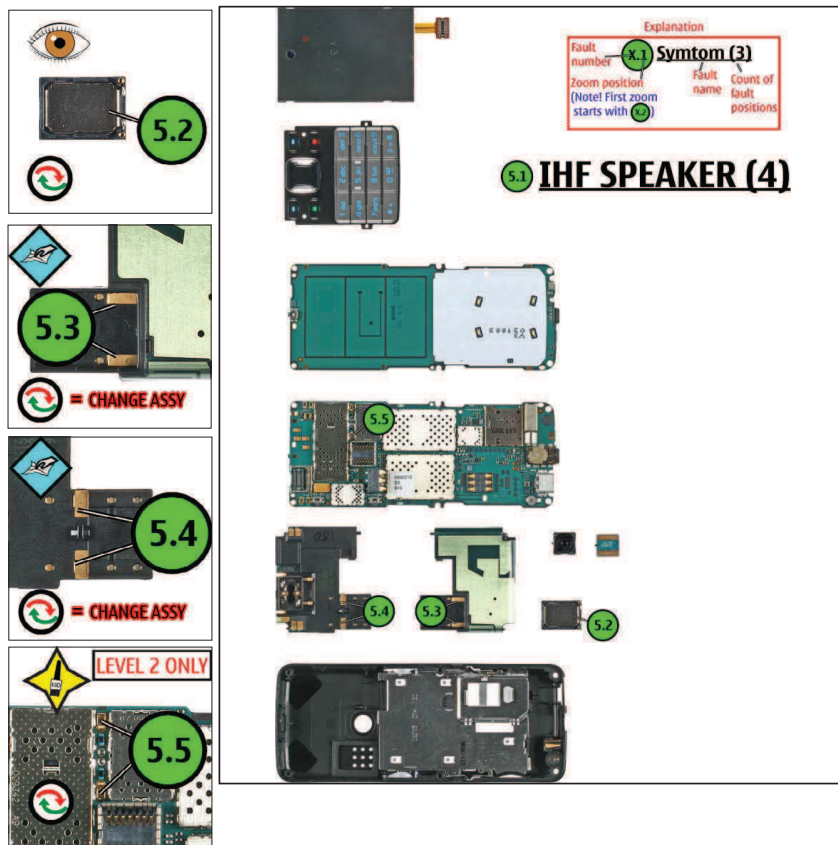
Count of fault positions

7.1 MICROPHONE (2)

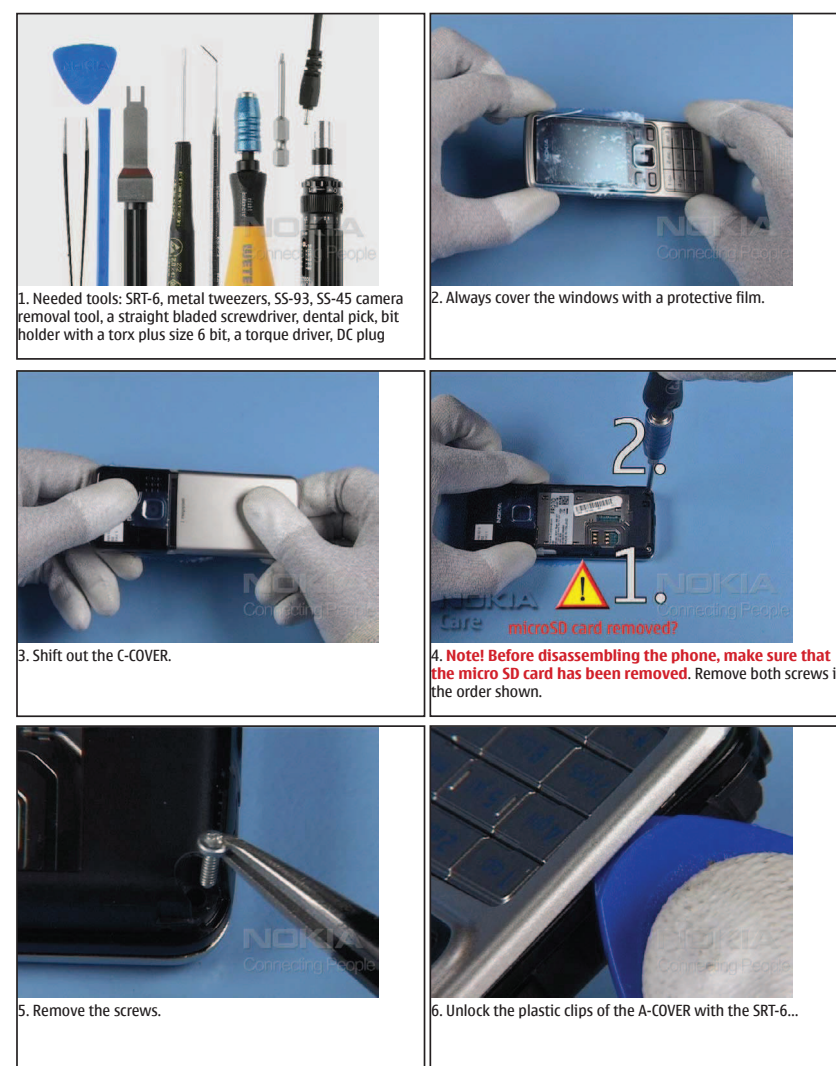
	<b>RJ-148</b> Soldering Jig
	<b>Lead-free Solder Wire</b> Mandatory for lead-free products (Level 2 only).
	<b>0772040 NMP Standard Toolkit (V2)</b>  For more informations refer to the Service Bulletin (SB-011) on NOKIA Online.  Supplier or manufacturer contacts for tool re-order can be found in "Recommended service equipment" document on NOKIA Online.



## 15. QUICK TROUBLE SHOOTER - IHF SPEAKER



## 8. DISASSEMBLY - HINTS







7. ...on both sides.



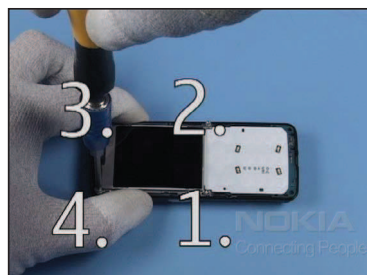
8. Lift up the cover now.



9. Remove the KEYMAT



10. Protect the window from inner side.

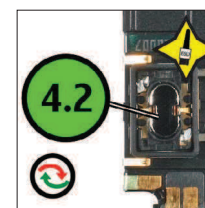


11. Unscrew the four screws in the order shown.

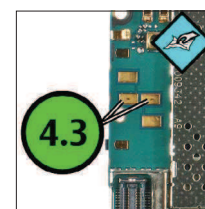


12. Remove the screws. Separate these screws, do not mismatch them with the others.

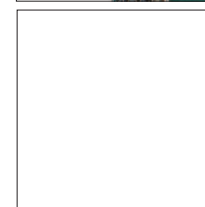
## 14. QUICK TROUBLE SHOOTER - EARPIECE



4.2



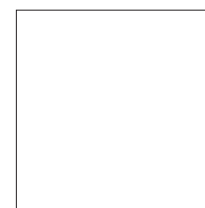
4.3



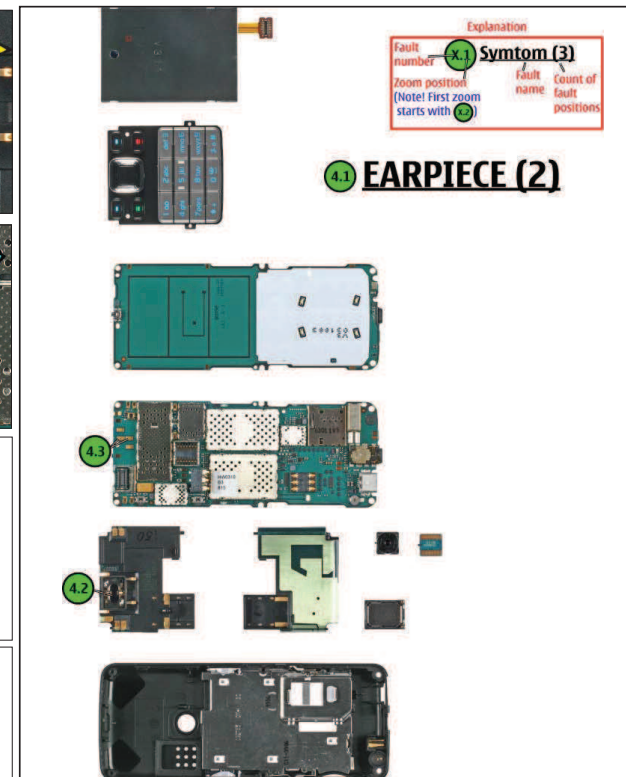
4.2



4.2



4.2

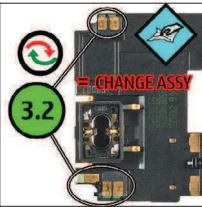


4.1 EARPIECE (2)

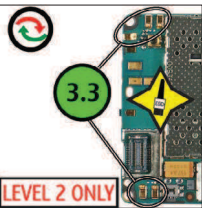
Explanation			
Fault number	Symptom (3)	Fault name	Count of fault positions
X.1	Zoom position (Note! First zoom starts with 0)		



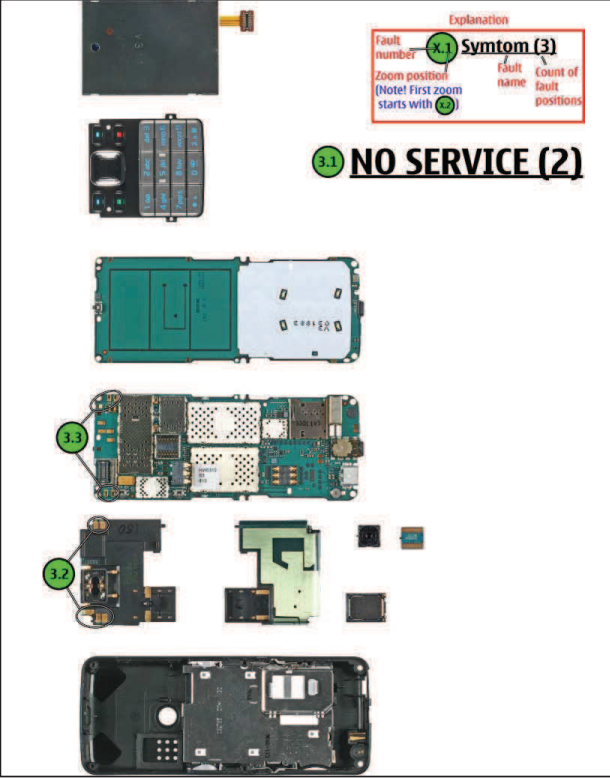
### 13. QUICK TROUBLE SHOOTER - NO SERVICE



3.2 = CHANGE ASSY




3.3 LEVEL 2 ONLY




**3.1 NO SERVICE (2)**

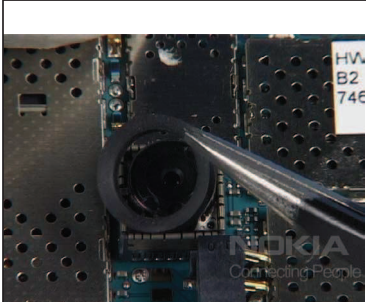
Explanation		
Fault number	3.1	Symptom (3)
Zoom position		Fault name
(Note! First zoom starts with 3)		
		Count of fault positions



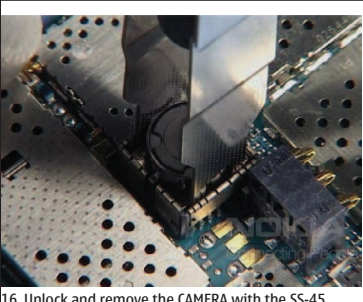
13. Cover the display with a film.



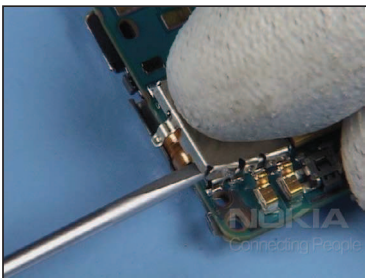
14. Note! Before removing the B-COVER, make sure that the microSD card has been removed. Turn the assembly, lift up the B-COVER.




15. Remove the CAMERA GASKET.



16. Unlock and remove the CAMERA with the SS-45.



17. Release the FLEX SHIELDING LID and discard it.



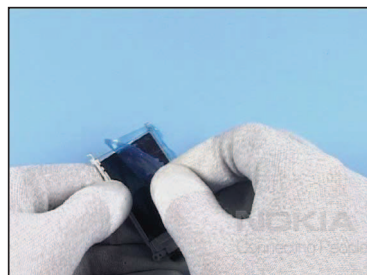
18. Do not use it again.



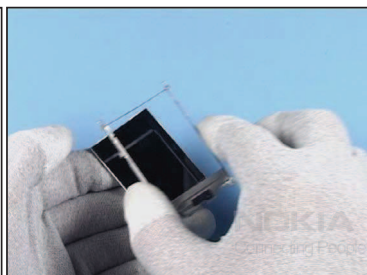
19. Unlock both metal clips of the UI SHIELD.



20. Carefully unlock the flex connector of the LCD MODULE.



21. Peel up the protective film.



22. Now separate the parts as shown.



23. Cover the display with a film again.



24. Remove the MICROPHONE and the DC JACK.

## 12. QUICK TROUBLE SHOOTER - CHARGING

2.2

2.3

LEVEL 2 ONLY

2.4

LEVEL 2 ONLY

2.5

Explanation

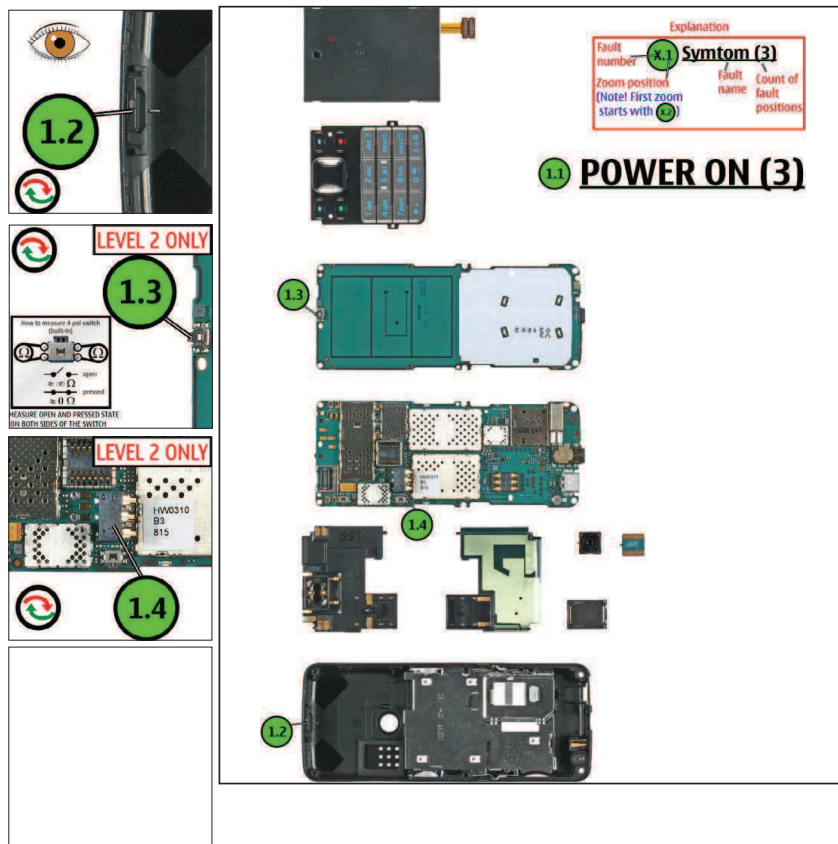
Fault number	Symptom (3)	Fault name	Count of fault positions
X.1			

Zoom position (Note! First zoom starts with 0)

**2.1 CHARGING (4)**



## 11. QUICK TROUBLE SHOOTER - POWER ON



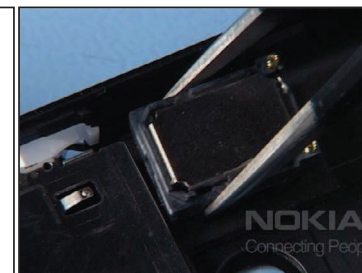
25. Carefully lever out the EARPIECE ASSEMBLY.



26. Carefully unlock the clip securing the PLASTIC CHAMBER.



27. Now remove it.



28. The IHF SPEAKER is not glued and can be removed easily.



29. Carefully release the clips of the LED- and the SIDE WINDOW.



30. The POWER- and the VOLUME KEY can be removed easily.



31. Release the shown metal snaps of the LABEL COVER ASSY with the dental pick.



32. Turn the assembly and open the SIM lid.



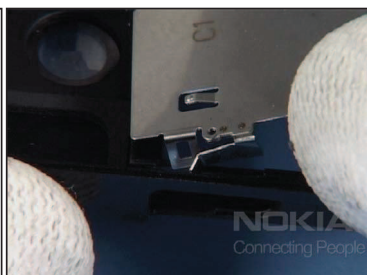
33. Now release these two latches.



34. Use the dental tool to push out the last clips.



35. Release the LABEL COVER ASSEMBLY, beginning from the bottom side.

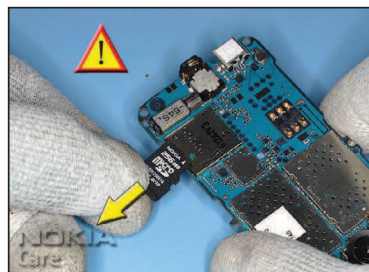


36. Mind these clips.

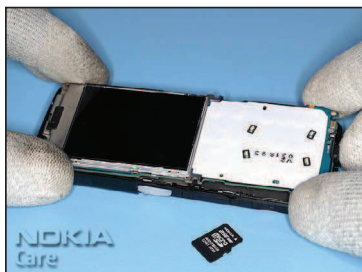
## 10.LEGEND FOR QUICK TROUBLE SHOOTER

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.	
	Check the mechanical condition of the component (bent, broken or missing).
	Only marked components can be replaced. If additionally " <b>=CHANGE ASSY</b> " appears, then change the whole assembly (e.g. A4=D-COVER ASSEMBLY).
	<b>Cloth usage:</b> 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)
	<b>ESD Brush usage:</b> Check contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.
	<div> <div>Explanation</div> <div> <div>Fault number</div> <div>Zoom position (Notel First zoom starts with X.1)</div> <div>Symtom (3)</div> <div>Fault name</div> <div>Count of fault positions</div> </div> </div>





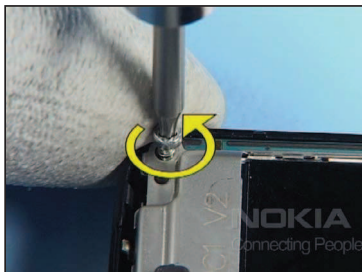
13. Make sure that the microSD card is not inserted, otherwise remove them.



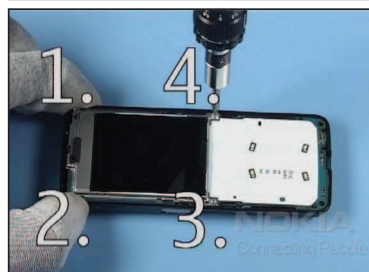
14. Place the assembly onto the B-COVER.



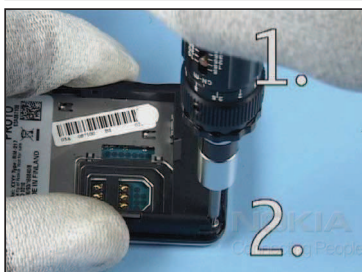
15. Set the correct torque.



16. Turn the screws to the left first to engage the threads, then tighten them slightly.



17. Apply the correct torque to all screws in the order shown.



18. Tighten both screws of the C-COVER in the order shown, too.

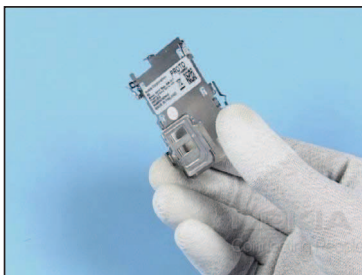


37. The disassembly procedure is now completed.

## 9. ASSEMBLY - HINTS



1. Assembly hints:



2. Keep in mind that the LABEL COVER ASSEMBLY with the TYPE LABEL must always be assembled together with the corresponding engine module.



3. Insert the LABEL COVER ASSEMBLY into the B-COVER as shown.



4. Carefully push all latches into their places.



5. Close the SIM lid.



6. Check the correct positioning of all these latches.



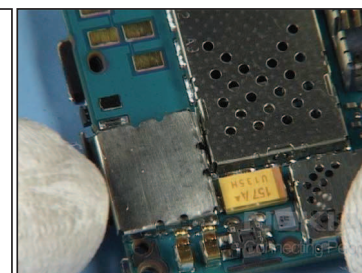
7. Insert the LED- and the SIDE- WINDOW. Note that they can't be interchanged.



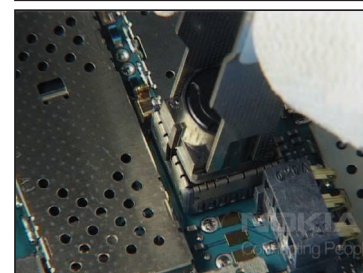
8. Note that the IHF SPEAKER contacts belongs to their pads.



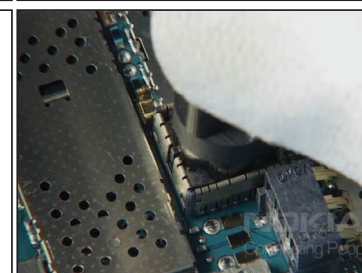
9. Secure all clips of the PLASTIC CHAMBER before going on.



10. Always use a new FLEX SHIELDING LID.



11. Mind the guiding tab while replacing the CAMERA.



12. Push it into its place.