

# SERVICE MANUAL

## Level 1&2

# NOKIA N73-1 NOKIA N73-5

RM-133

RM-132



### Transceiver characteristics:

#### Band:

- RM-133: Dual Mode WCDMA2100/EGSM 850/900/1800/1900MHz
- RM-132: Quadband EDGE GSM phone for 850/900/1800/1900MHz

**Camera:** 3.2 Megapixel (2048x1536 pixels) with 20x digital zoom

**Display:** QVGA color TFT display with 262.144 colors,  
resolution 240 x 320 pixel

**Bluetooth**

**IrDA**

**FM radio**

**Memory Card:** miniSD™

**Connector:** Pop-Port™ connector

### Transceiver with BP-6M Li-Ion battery pack

Talk time	Standby	Note
GSM: up to 4.1 h WCDMA: up to 3.8 h	GSM: up to 14.6 days WCDMA: up to 15.4 days	Depends on network parameters

### Environmental characteristics:

- Lead-free soldered

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**CHANGE HISTORY**

Status	Version No.	Date	Comments
Draft	0.1	13.Jun.2006	Initial draft
Approved	1.0	13.Jul.2006	Approval
Apporved	2.0	5.Sep.2006	Exploded view updated
Approved	3.0	26.Apr.2007	Exploded view updated - I047 B-Cover added

## 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.

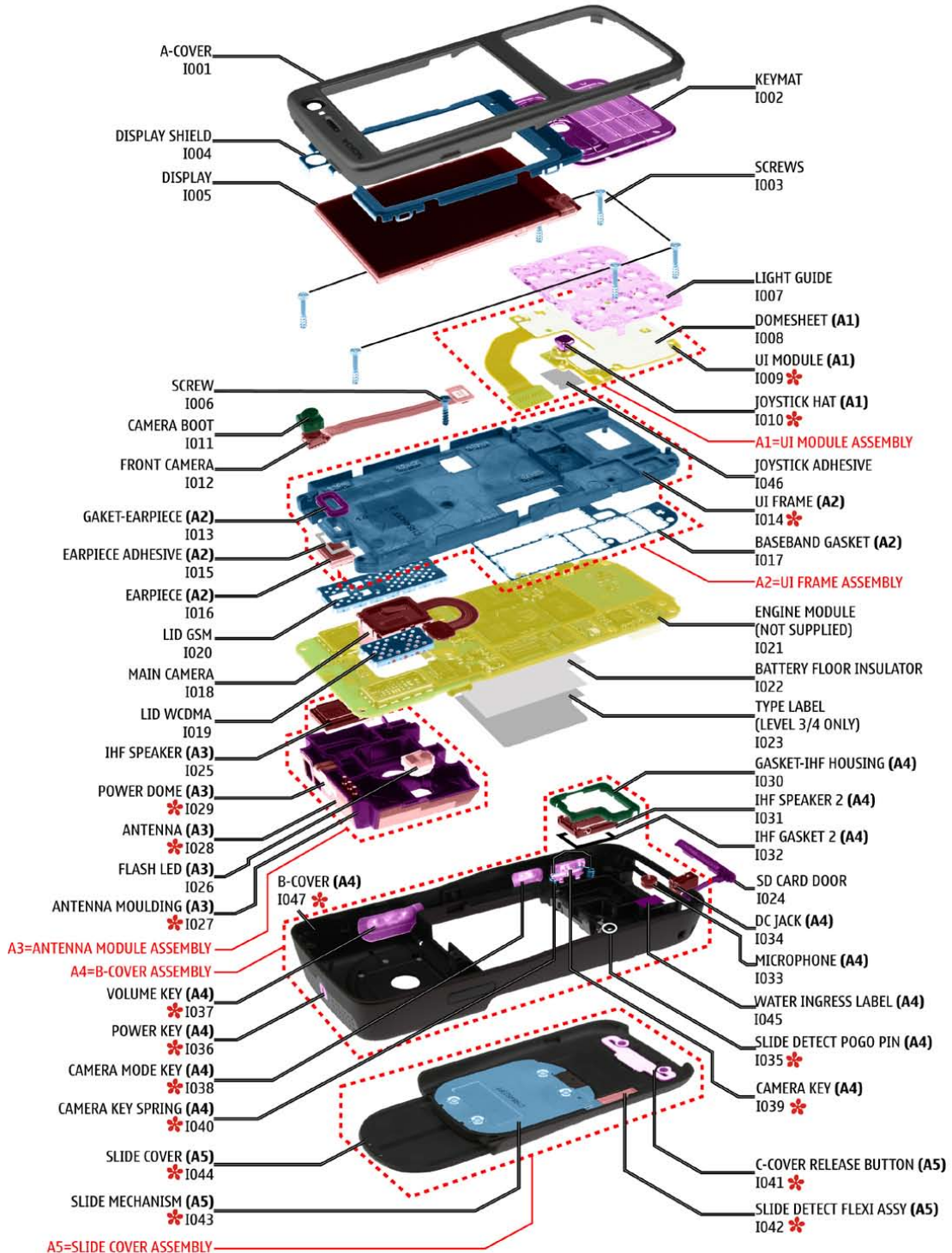


Electrostatic discharge can easily damage the sensitive components of electronic products. Therefore every Service Supplier has to take care of all precautions, which are mentioned in the service level related "Service Partner Requirements", available on NOKIA Online. Also see ESD Protection Requirements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

## 2. EXPLODED VIEW 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.

N73-1 RM-132/ N73-5 133 Exploded view



Ver. 5.0

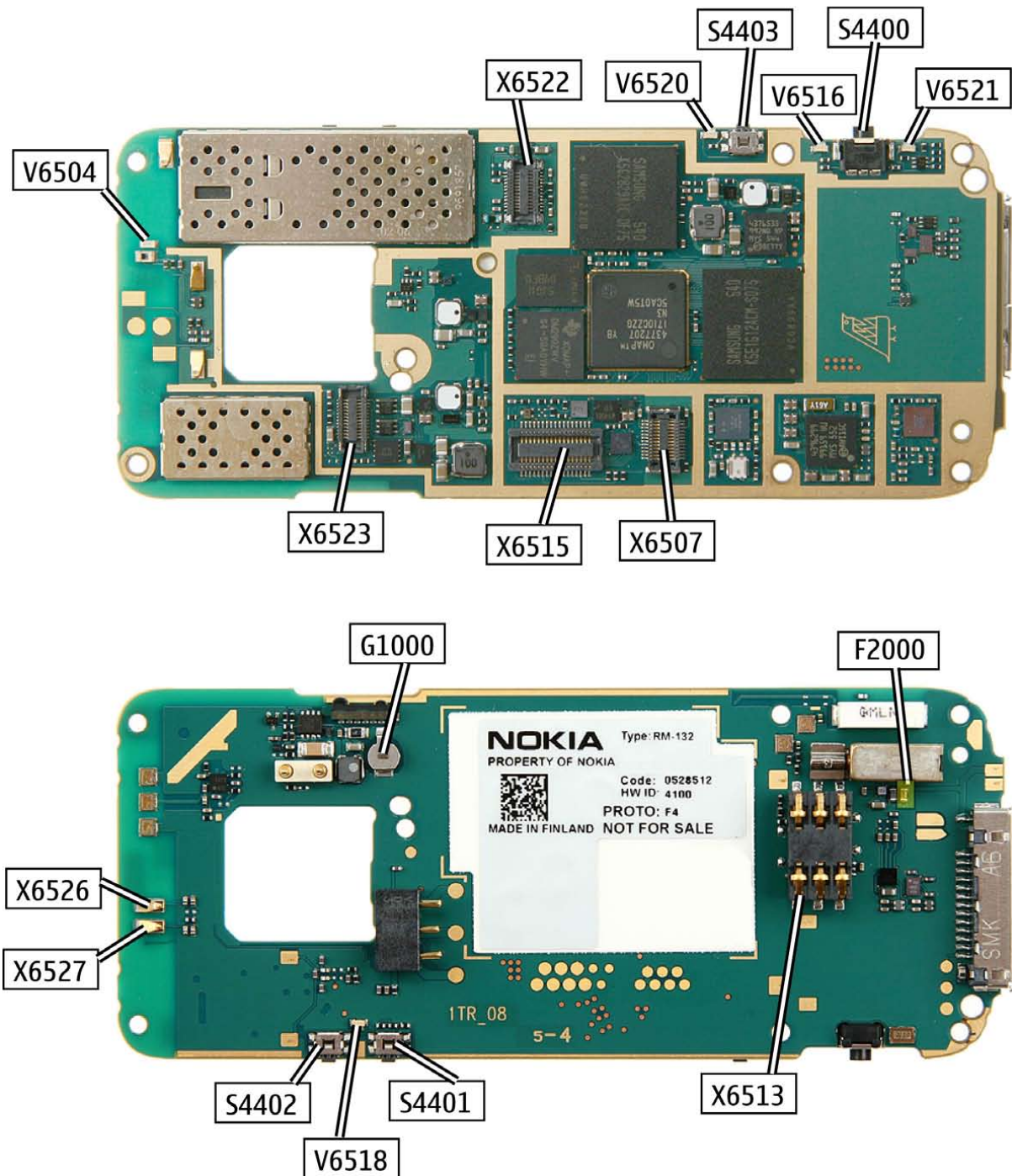
● ELECTRO ● SILICON ● METAL ● PLASTIC ● PWB ● COVER

\* = only available as assembly


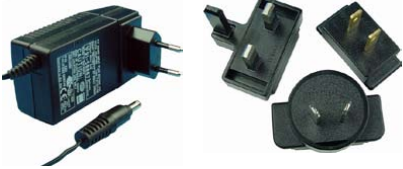





### 3. LEVEL 2 SOLDER COMPONENTS

#### N73 RM-132/133 Components overview

#### LEVEL 2 SOLDER COMPONENTS



## 4. SERVICE DEVICES

	<p><b>FLS-45 incl. ACF-8, Driver and User Guide</b> Dongle and flash device incorporated into one package, developed specifically for POS use.</p>
	<p><b>ACF-8</b> Universal Power Supply is used to power FLS-45.</p>
	<p><b>Travel Charger AC-4</b> Small and lightweight charger for fast charging of your phone battery.</p>
	<p><b>Internal Battery BP-6M</b> Inserted under the back cover, this Li-Ion battery provides power in a lightweight package.</p>
	<p><b>Headset HS-23</b> 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.</p>
	<p><b>CA-53</b> Service Cable to connect the PC with the Pop-Port™ connector.</p>
	<p><b>RJ-132</b> Soldering Jig</p>



**Lead-free Solder Wire**  
Mandatory for lead-free products (Level 2 only).



**0772040 NMP Standard Toolkit (V2)**

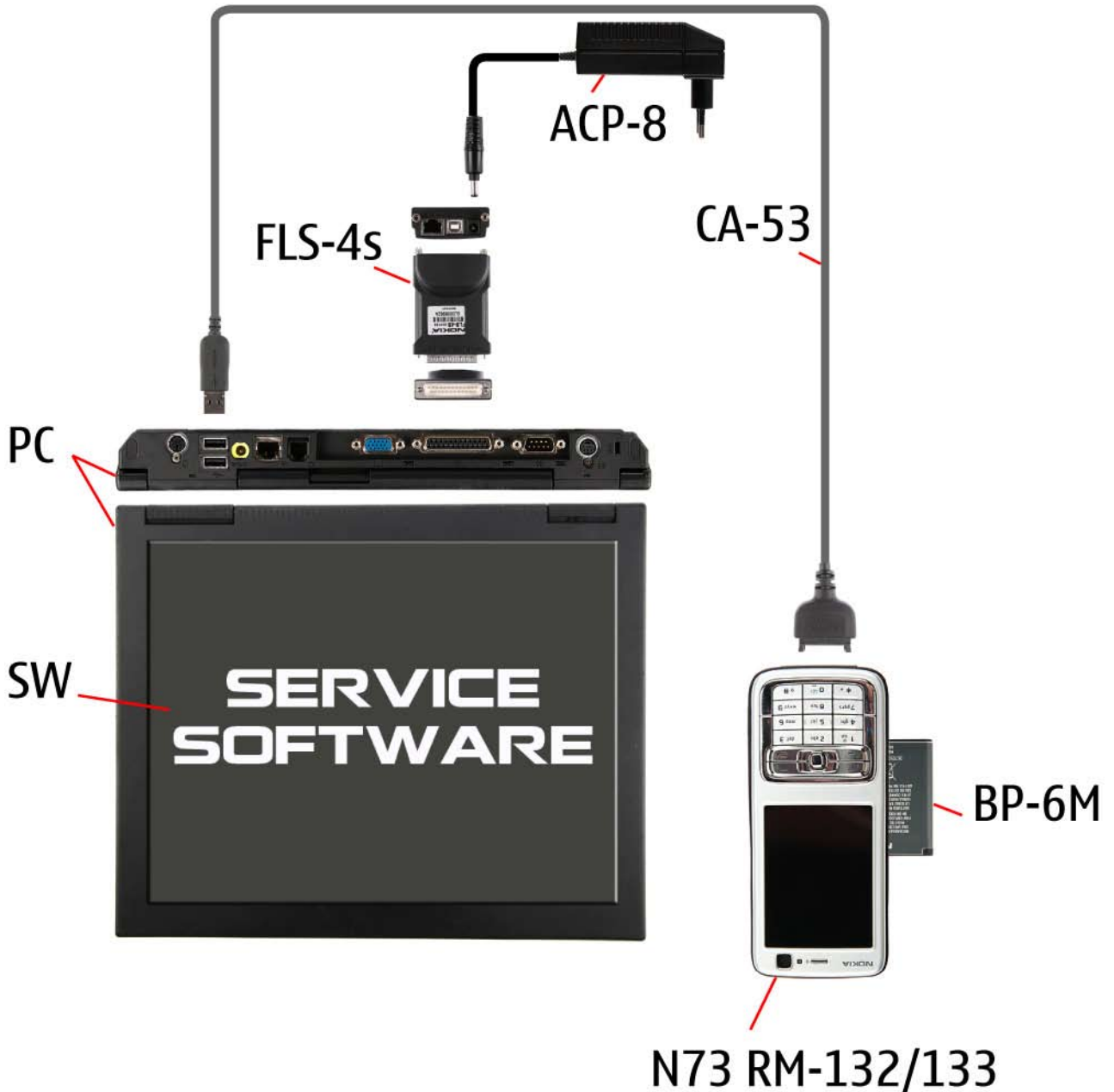
For more informations refer to the Service Bulletin (SB-011) on NOKIA Online.

Supplier or manufacturer contacts for tool re-order can be found in "**Recommended service equipment**" document on NOKIA Online.

## 5. 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](#).



## 6. DISASSEMBLY INSTRUCTION



1. Needed tools: a Torx Plus size 6 screwdriver, metal tweezers, a DC plug, the SS-93 opening tool, a dental pick and the SRT-6.



2. Cover the window with a protective film.



3. Unlock and open the SLIDE COVER ASSEMBLY.



4. Cover the CAMERA WINDOW with a protective film.



5. Place the SS-93 between the KEYMAT and the edge of the A-COVER and unlock the button clip first.



6. Hold the SS-93 in the shown position and unlock the side clip with SRT-6 by pressing it between the A-COVER and the B-COVER.



7. Do the same on the other side.



8. Slide the SRT-6 along the marked edges to unlock the snaps.



9. Do the same on the other side.



10. Lift the A-COVER a bit and unlock its top side from the B-COVER with the SS-93.



11. Remember to protect the inner side of the window with a protective film.



12. Unlock and remove the KEYMAT.



13. Carefully unlock and remove the DISPLAY SHIELD by using the dental tool.



14. Cover the DISPLAY with a protective film.



15. Gently lift out the DISPLAY with the SS-93 from the UI FRAME...



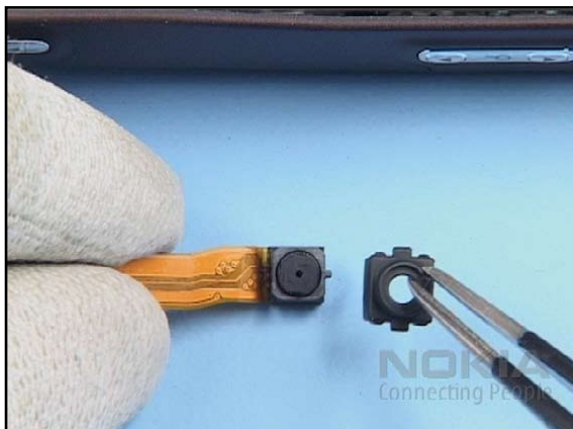
16. ...and disconnect it from the ENGINE MODULE.



17. Open the FRONT CAMERA connector.



18. Remove the FRONT CAMERA from the UI-FRAME.



19. The CAMERA BOOT can now be separated from the FRONT CAMERA.



20. Carefully open the UI MODULE connector taking special care to the surrounding components.



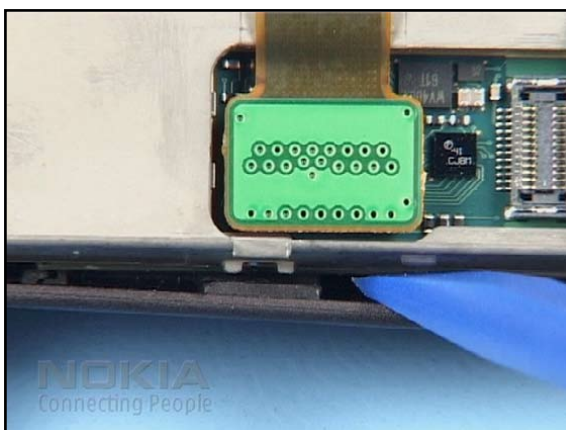
21. Undo the screws in the order shown.



22. Remove the screws and discard them.



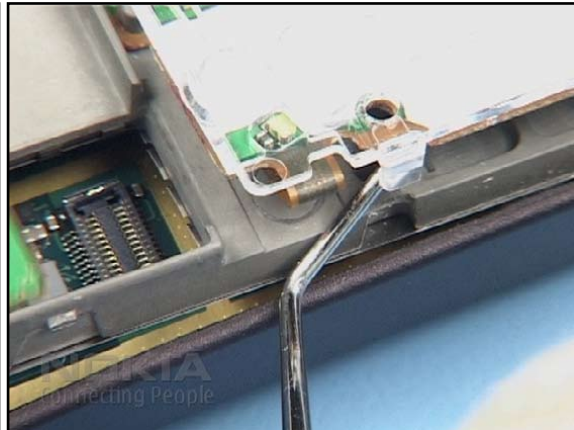
23. The UI FRAME is attached with two snaps to the B-COVER.



24. Unlock the UI FRAME with the SS-93.



25. Open the SD DOOR but do not remove it yet.



26. Lift the UI FRAME a bit and unsnap the LIGHT GUIDE.



27. Now remove the SD DOOR.



28. Remove the UI FRAME with the UI MODULE from the B-COVER.



29. Take special care to the BASEBAND GASKET.



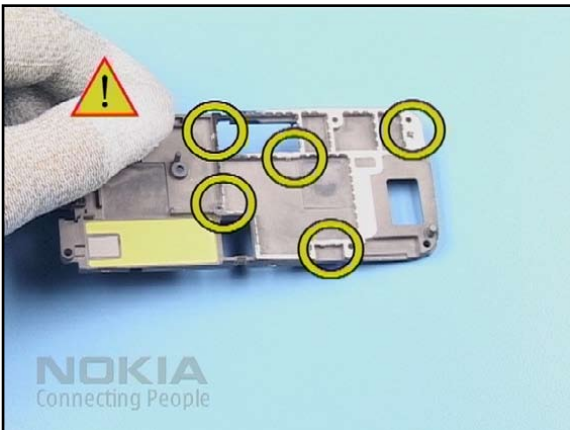
30. Open the snap if it snapped back and remove the LIGHT GUIDE.



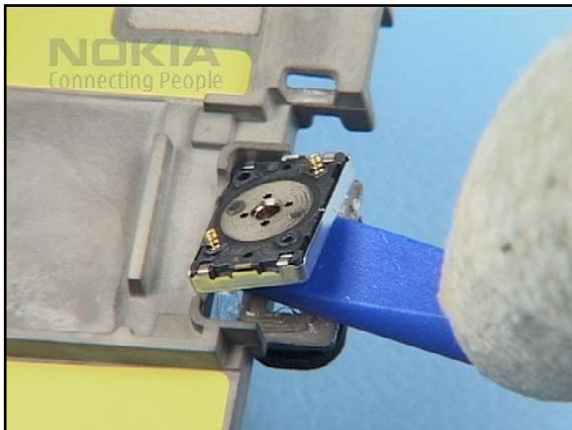
31. Place the UI MODULE over the JOYSTICK HAT and carefully lever out the MODULE from the UI FRAME with SS-93.



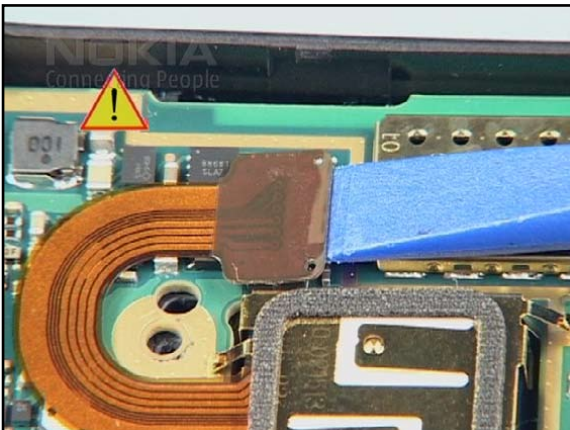
32. Move the UI MODULE to the primary position and then remove the UI MODULE by using the SS-93 as a support.



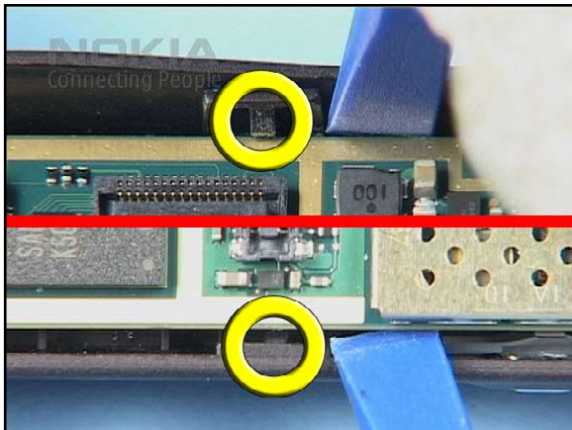
33. Gently, unlock the BASEBAND GASKET as shown and remove it from the UI FRAME.



34. Replace the EARPIECE when necessary. Keep in mind to remove the EARPIECE ADHESIVE residues before assembling a new EARPIECE with a new EARPIECE ADHESIVE.



35. Disconnect the MAIN CAMERA from the ENGINE MODULE and remove it carefully from its housing.



36. The ENGINE MODULE is snapped to the B-COVER with two snaps. Unlock the ENGINE MODULE with the SS-93 ...



37. ... and remove it as shown taking care to all spring contacts.



38. Unlock the ANTENNA MODULE ASSEMBLY with the SS-93 ...



39. ... and remove it from the B-COVER.



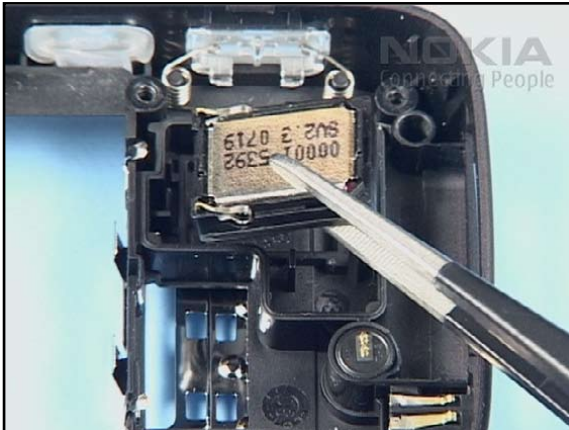
40. Lift the IHF SPEAKER from its housing and remove it easily.



41. Gently push down the FLASH LED from the ANTENNA MOULDING.



42. Remove the GASKET IHF HOUSING.



43. Remove the IHF SPEAKER 2 remember to remove whole IHF GASKET 2 residues.



44. Remove the MICROPHONE with the dental pick.



45. Use the DC plug to release the DC-JACK.

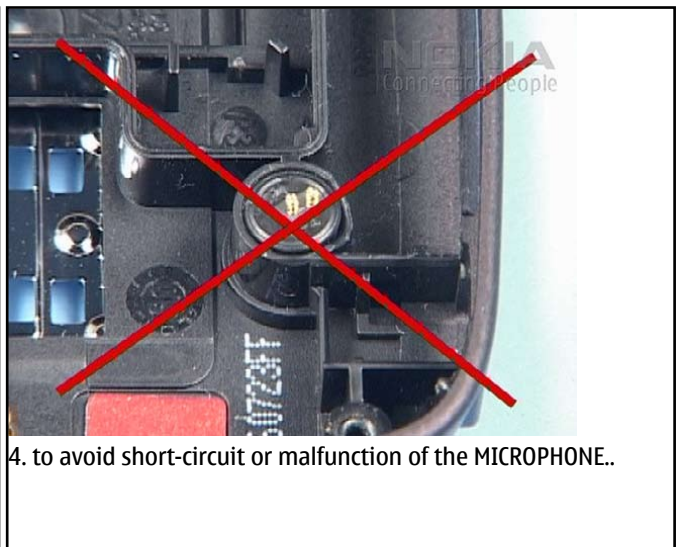
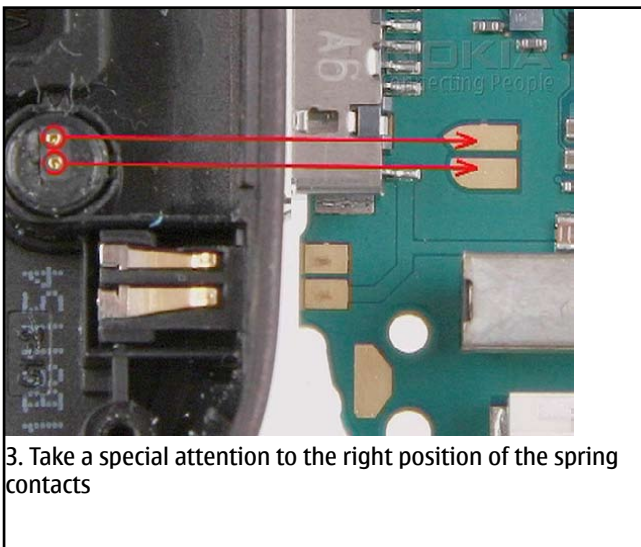
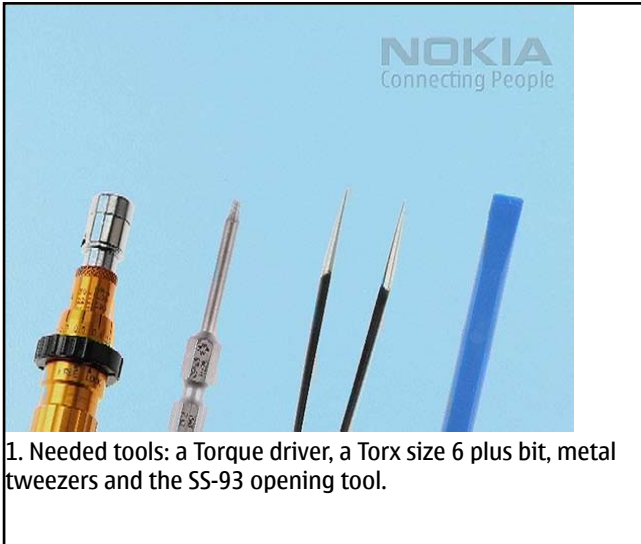


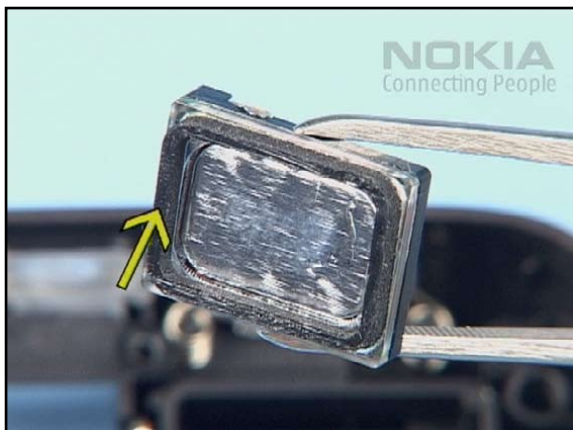
46. The DC-JACK drops out easily when turning the B-COVER.



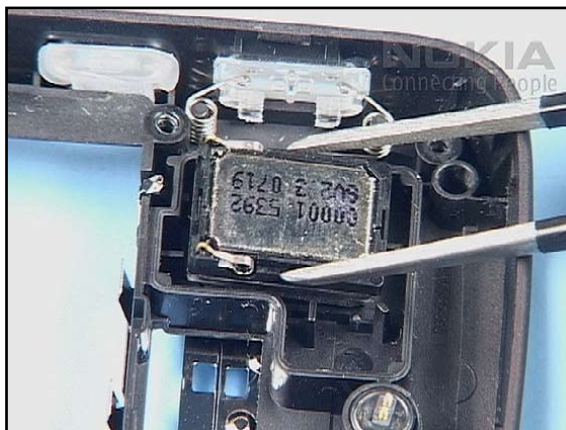
47. The disassembly procedure is now finished.

## 7. ASSEMBLY INSTRUCTION

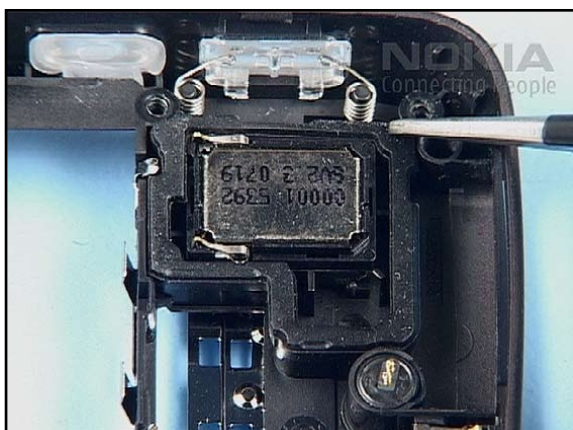




7. Ensure the correct position of the new IHF GASKET 2.



8. Place the IHF SPEAKER 2 into the B-COVER and press it lightly to stick it on correctly.



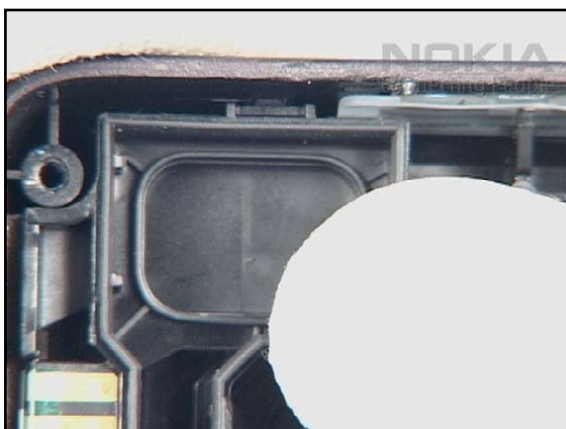
9. Position the GASKET IHF HOUSING onto its place paying attention to the spring contacts of the IHF SPEAKER.



10. Place the FLASH LED into its socket and secure it carefully with the SS-93.



11. Insert the ANTENNA MOULDING in the B-COVER...



12. ...and press it lightly into place.



13. Insert the IHF SPEAKER paying attention to its spring contacts.



14. Insert the ENGINE MODULE under the shown angle.



15. Pay special attention to the SWITCHES when inserting the ENGINE MODULE into the B-COVER.



16. Secure the ENGINE MODULE.



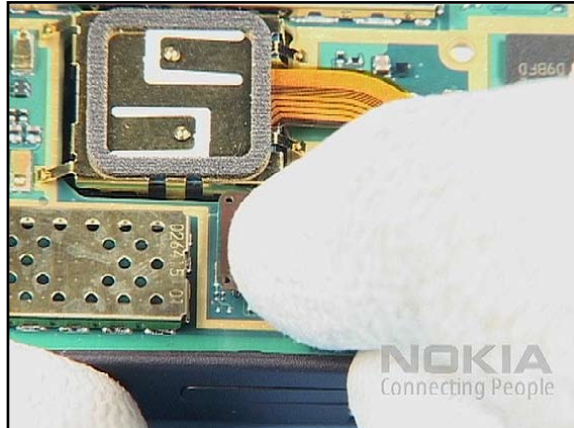
17. Clean the camera window.



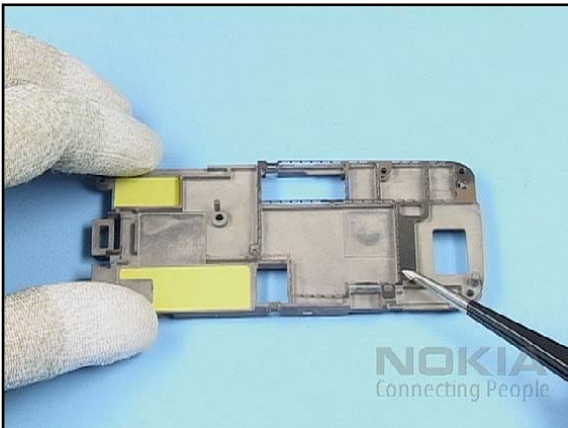
18. and the MAIN CAMERA with compressed air.



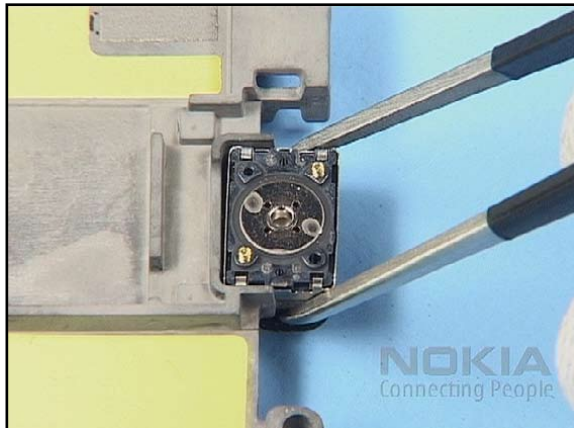
19. Insert the MAIN CAMERA into its housing...



20. ...and carefully close the connector.



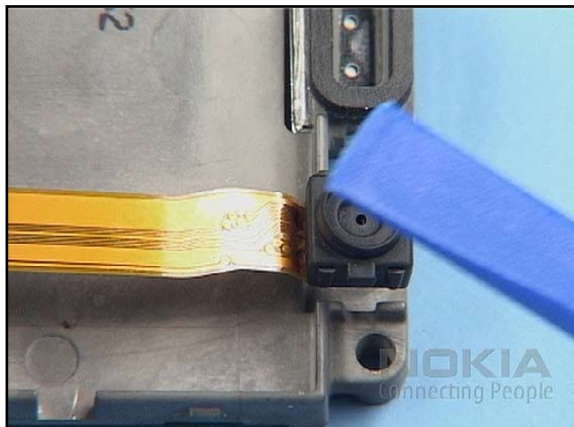
21. Place the BASEBAND GASKET on the IU FRAME and secure it as shown.



22. Place the EARPIECE with a new EARPIECE ADHESIVE into its frame, avoid bending the spring contacts.



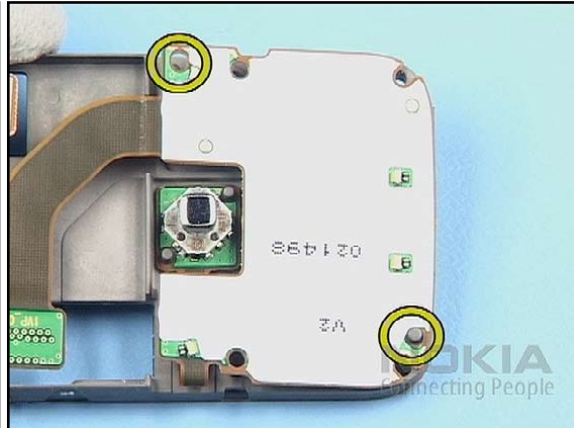
23. Ensure the correct position of the CAMERA BOOT when putting it onto the FRONT CAMERA.



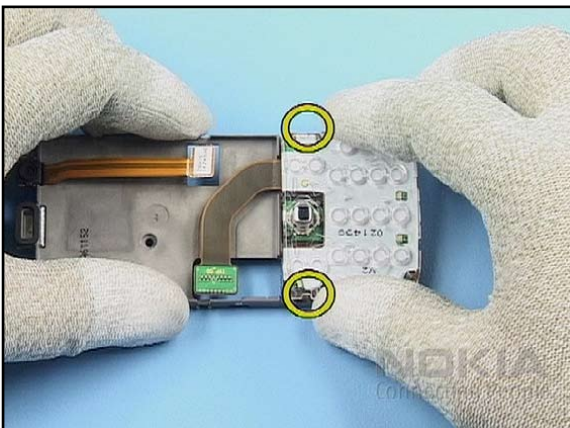
24. Fit the FRONT CAMERA to the UI-FRAME.



25. Position the UI MODULE onto the UI FRAME and slightly press on the JOYSTICK HAT to ensure that it is glued.



26. Check the right positioning of the UI MODULE.



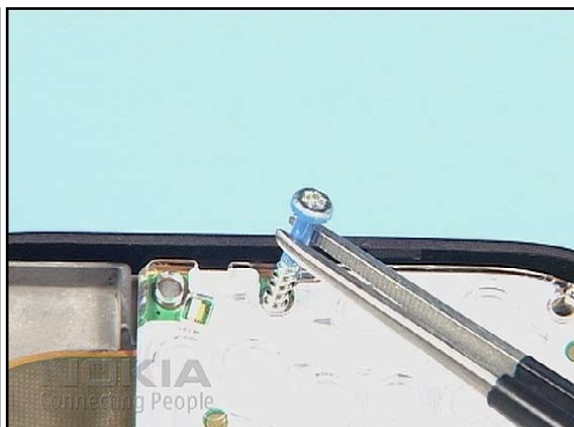
27. Place the LIGHT GUIDE over the UI MODULE and carefully fit it to the UI FRAME.



28. Put the UI FRAME into the B-COVER and press it into place.



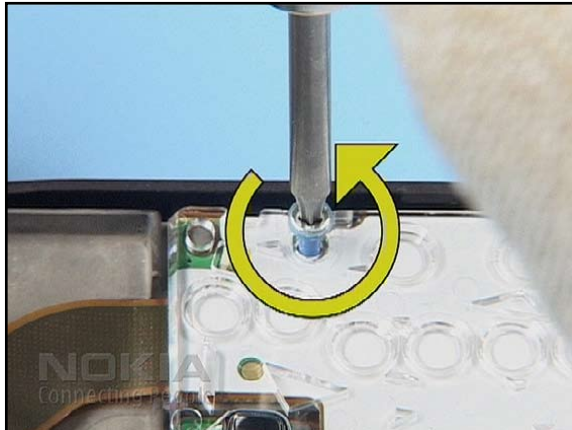
29. Gently, close the connectors.



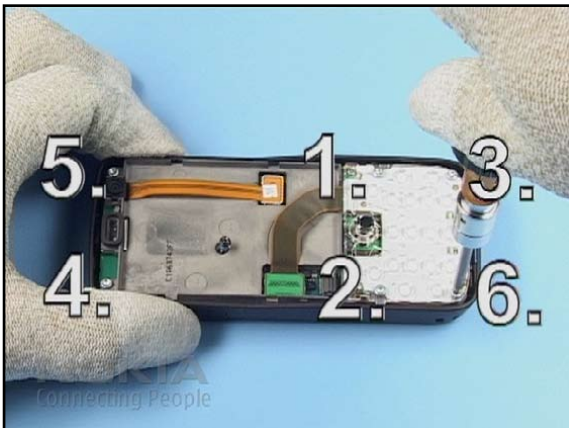
30. Use always new screws when assembling the unit.



31. Set the torque driver to the torque of 25 Newton centimeter.



32. To avoid damaging the plastic threads, first turn the screws slightly left to engage the thread and then tighten them lightly.



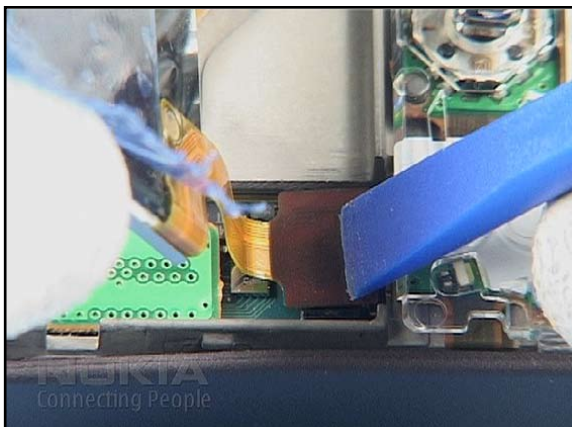
33. Tighten the screws to the correct torque in the order shown.



34. Set the torque driver to the torque of 28 Newton centimeter.



35. Now, tighten the last screw to the correct torque.



36. Connect the DISPLAY to the ENGINE MODULE...



37. ... and place it carefully onto the UI FRAME.



38. After removal of the plastic film check the surface of the DISPLAY for cleanliness.



39. Fit the DISPLAY SHIELD to the UI FRAME.



40. Insert the SD DOOR but do not close it yet.



41. Put the KEYMAT into the A-COVER.



42. Check the window for cleanliness ...



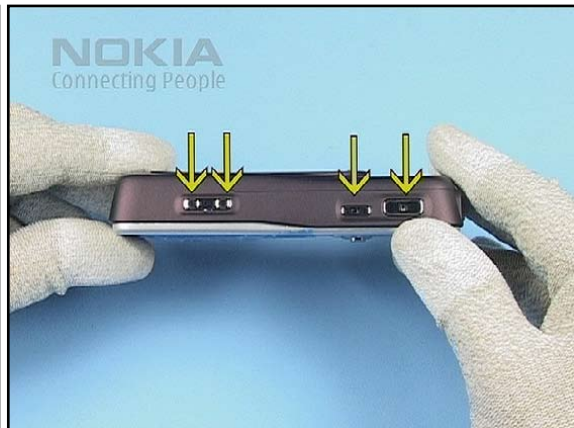
43. ... and fit the A-COVER to the B-COVER.



44. Now, close the SD D00R.




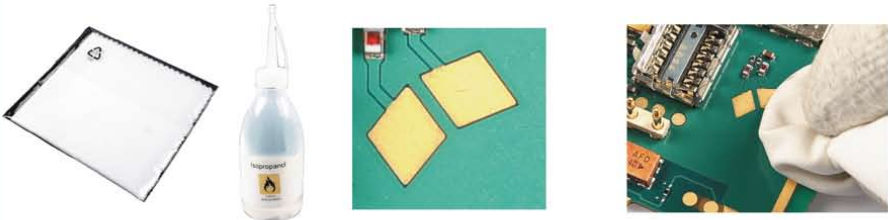



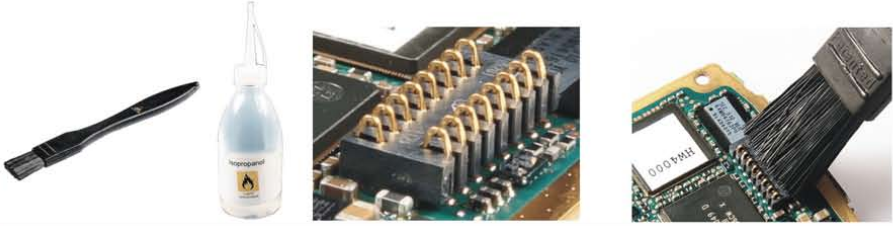

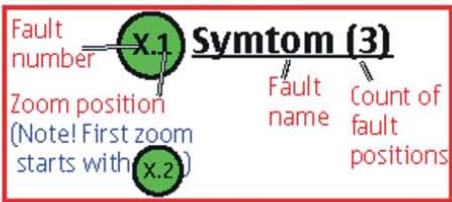


45. Fit the SLIDE COVER ASSEMBLY



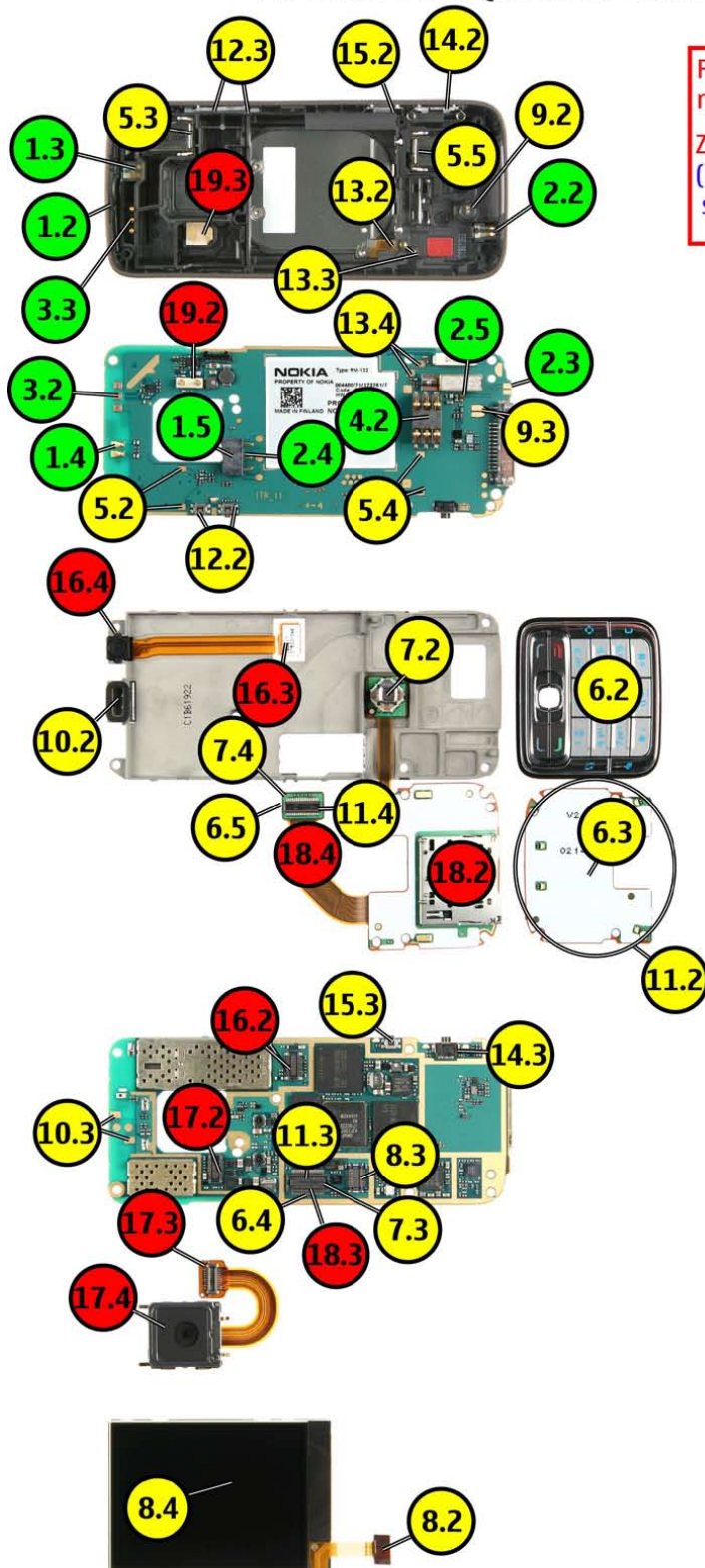
46. Finally, check the functionality of the keys and ensure that there are no gaps between the covers.

## 8. LEGEND FOR QUICK TROUBLE SHOOTER

Legend for Quick Troubleshooter	
This legend is valid for all parts of the Quick Troubleshooter	
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.
	<p><b>Cloth usage:</b> Check pads or contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.</p> 
	<p>Measure component for electrical functionality and change, if needed. (Level 2 only)</p> 
	<p><b>ESD Brush usage:</b> Check contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.</p> 
	<p style="text-align: center;">Explanation</p> 

**9. QUICK TROUBLE SHOOTER - MAIN OVERVIEW**

**N73 RM-132 Quick Trouble Shooter**

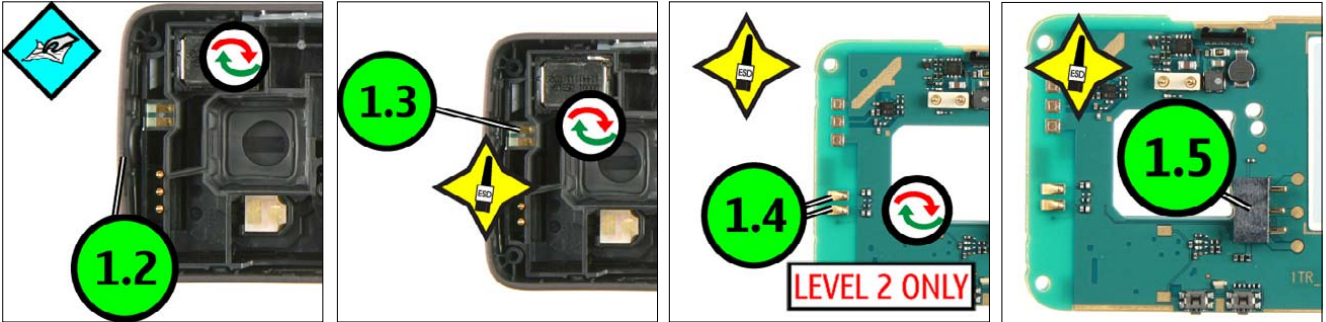


Explanation		
Fault number	X.1	<b>Symtom (3)</b>
Zoom position (Note! First zoom starts with X.2)	X.2	Fault name
		Count of fault positions

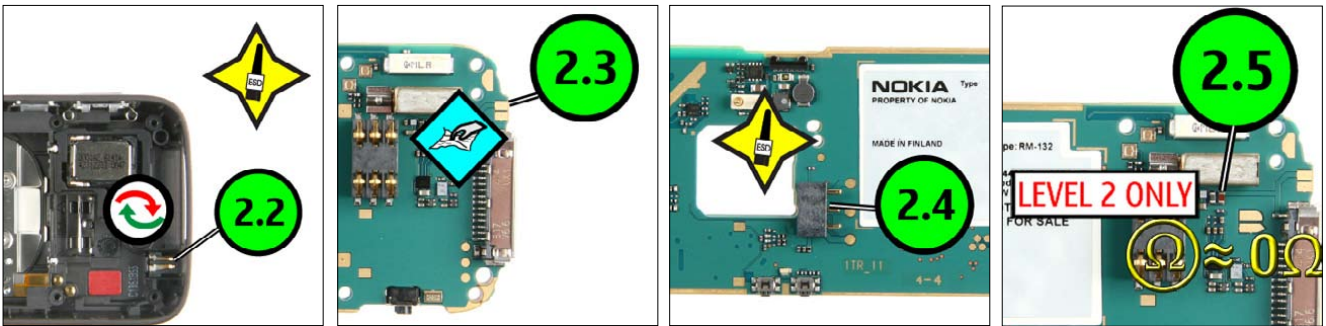
- 1.1 Power (4)**
- 2.1 Charging (4)**
- 3.1 Service (2)**
- 4.1 SIM (1)**
- 5.1 IHF Speaker/2 (4)**
- 6.1 Keymat (4)**
- 7.1 Joystick (3)**
- 8.1 Display (3)**
- 9.1 Microphone (2)**
- 10.1 Earpiece (2)**
- 11.1 LEDs (3)**
- 12.1 Volume Key (2)**
- 13.1 Slide Detect (3)**
- 14.1 Camera Key (2)**
- 15.1 Camera Mode Key (2)**
- 16.1 Front Camera (3)**
- 17.1 Main Camera (3)**
- 18.1 SD Card Reader (3)**
- 19.1 Flash LED (2)**

## 10. QUICK TROUBLE SHOOTER - ZOOMS PART 1

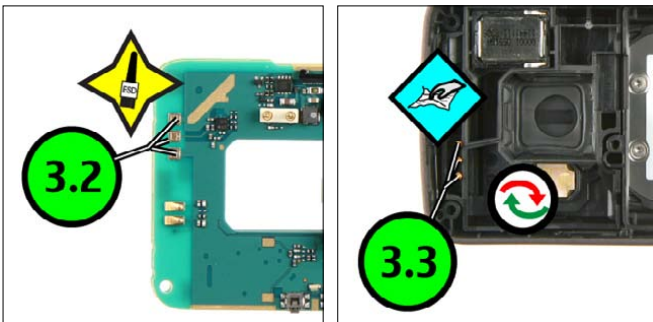
### 1.1 POWER (4)



### 2.1 CHARGING (4)



### 3.1 NO SERVICE (2)



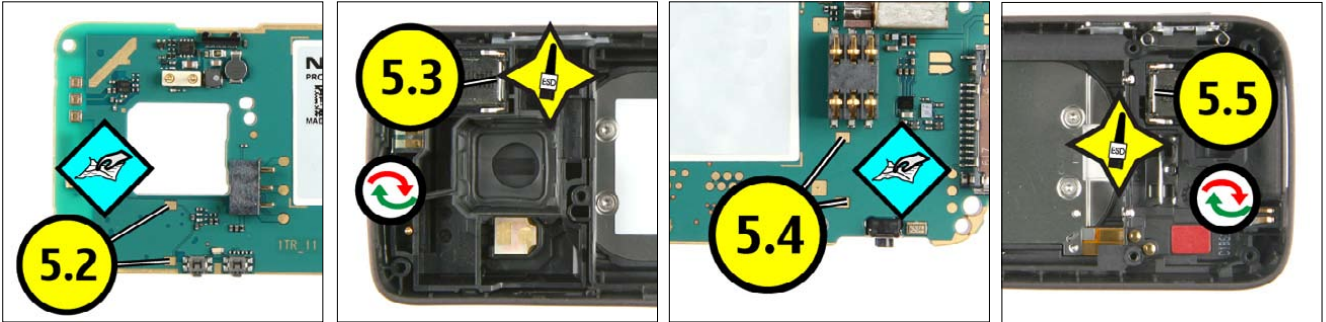
### 4.1 SIM (1)



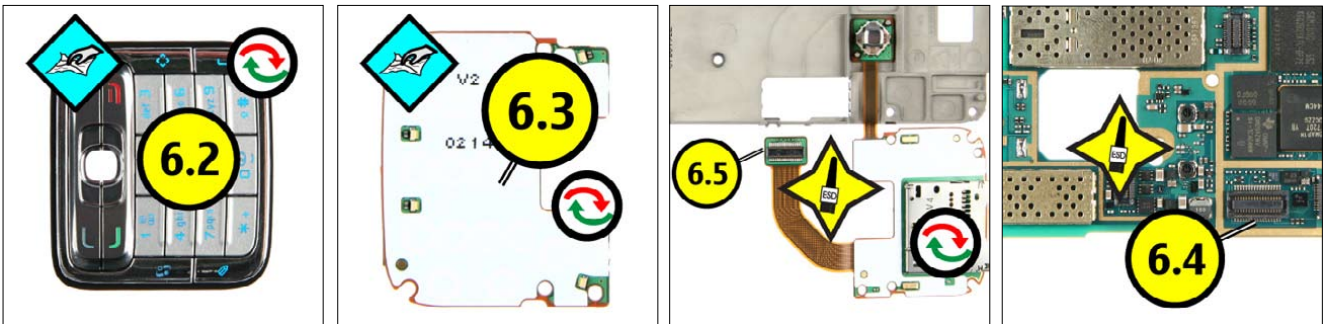
CONFIDENTIAL

## 11. QUICK TROUBLE SHOOTER - ZOOMS PART 2

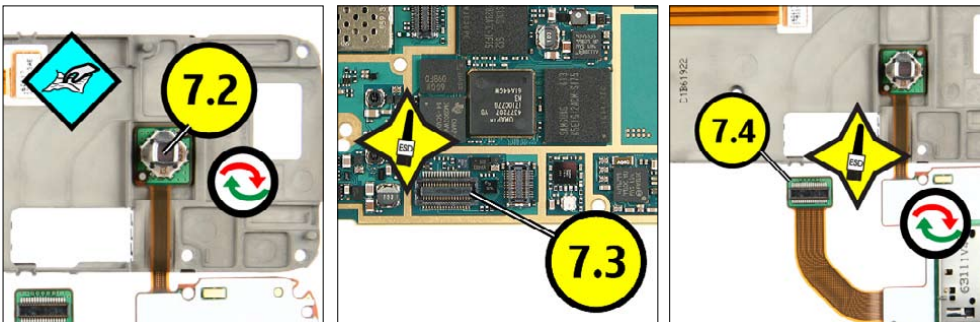
### 5.1 IHF SPEAKER/2 (4)



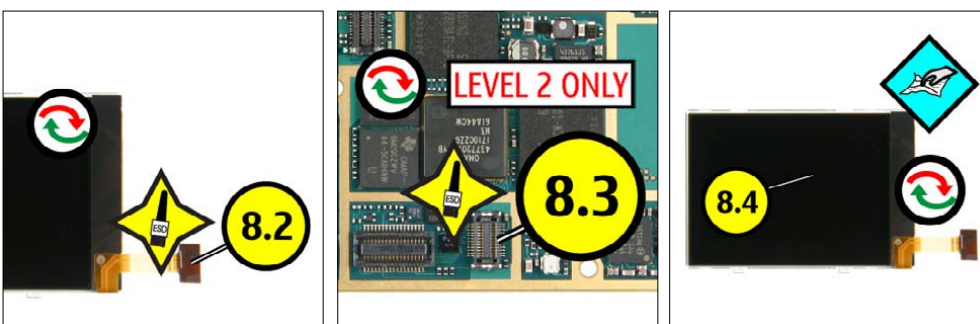
### 6.1 KEYMAT (4)



### 7.1 JOYSTICK (3)

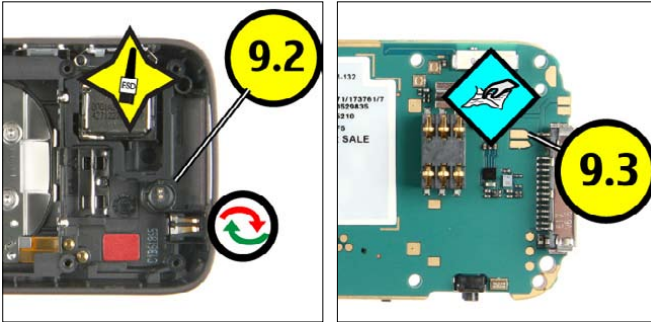


### 8.1 DISPLAY (3)

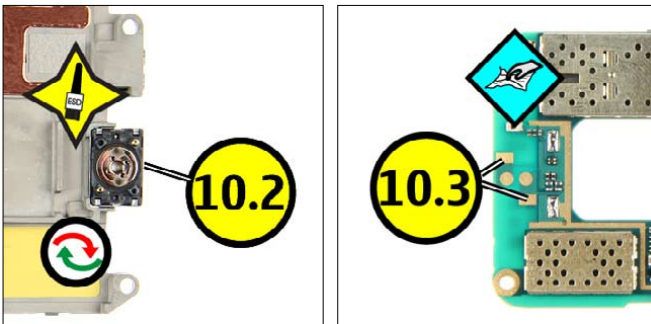


## 12. QUICK TROUBLE SHOOTER - ZOOMS PART 3

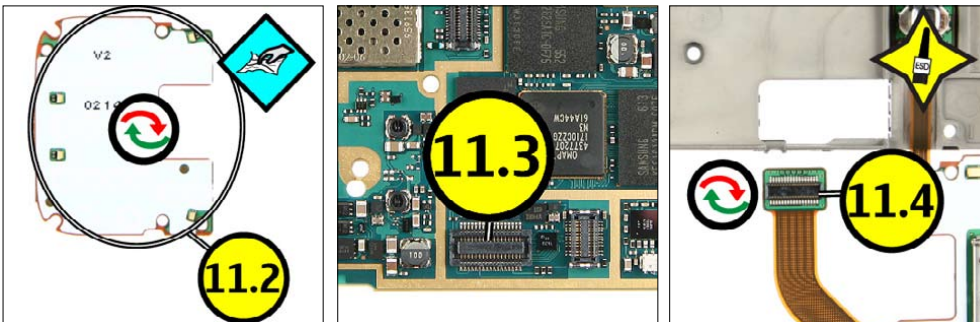
### 9.1 MICROPHONE (2)



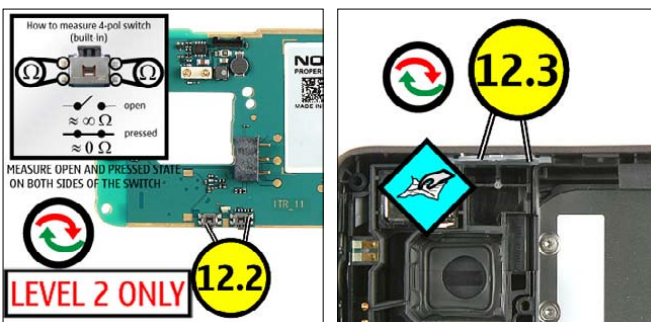
### 10.1 EARPIECE (2)



### 11.1 LEDs (3)

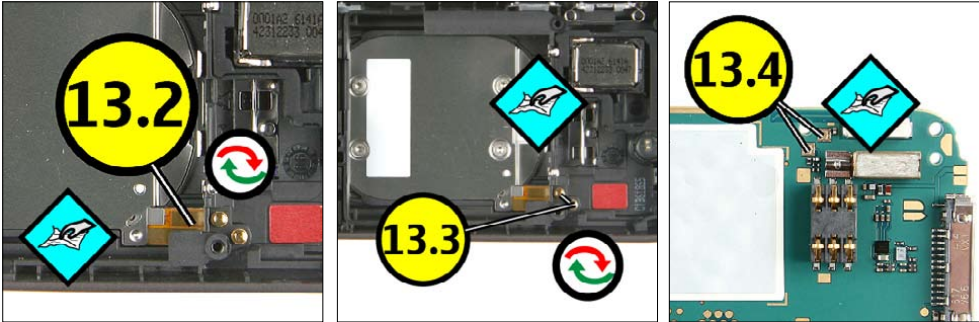


### 12.1 VOLUME KEY (2)

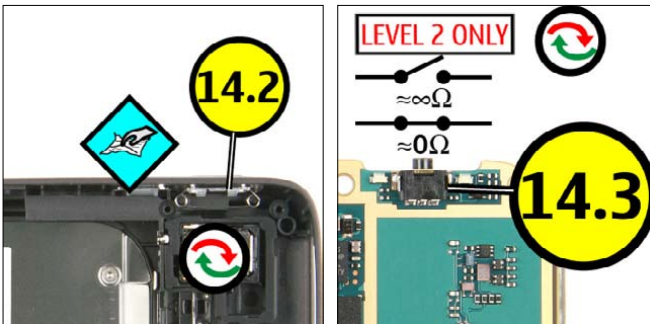


## 13. QUICK TROUBLE SHOOTER - ZOOMS PART 4

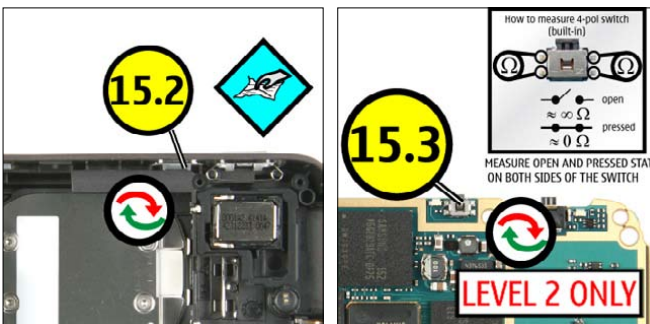
### 13.1 SLIDE DETECT (3)



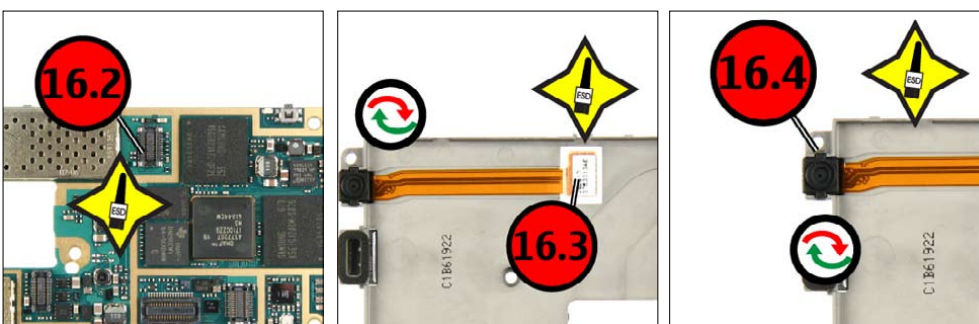
### 14.1 CAMERA KEY (2)



### 15.1 CAMERA MODE KEY (2)

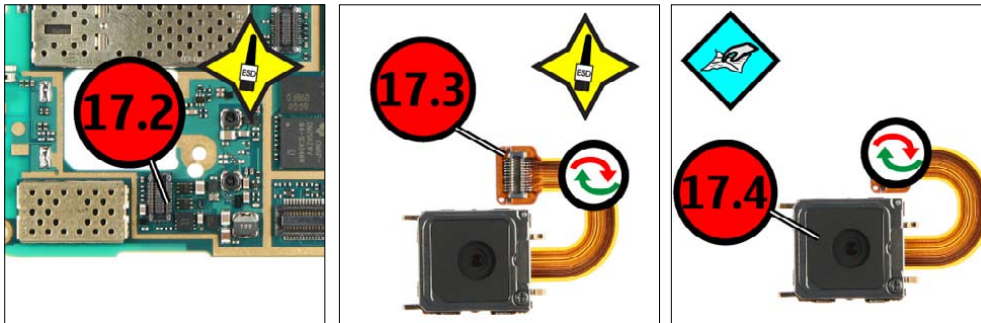


### 16.1 FRONT CAMERA (3)

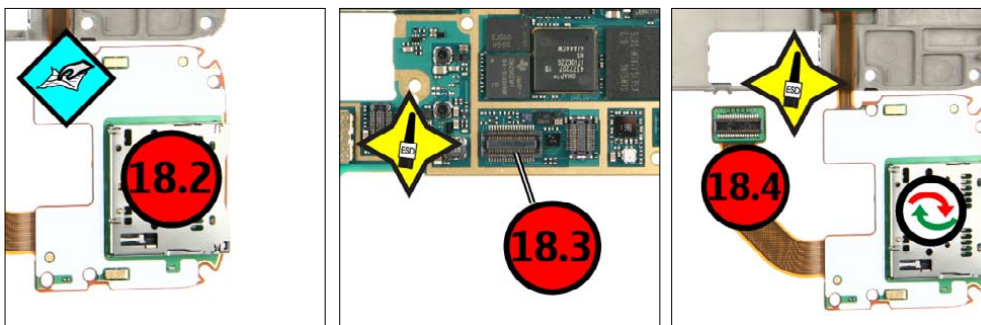


## 14. QUICK TROUBLE SHOOTER - ZOOMS PART 5

### 17.1 MAIN CAMERA (3)



### 18.1 SD CARD READER (3)



### 19.1 FLASH LED (2)

