

SERVICE MANUAL

Level 1&2

NOKIA

5500d

RM-86



Transceiver characteristics:

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

Camera: 2 Megapixel

Display: Active matrix color display with 262.144 colors,
resolution 208 x 208 pixel

IrDA

Bluetooth

FM radio

Push to talk (POC)

Connector: Pop-Port™ connector

Transceiver with BL-5B Li-Ion battery pack

Talk time	Standby	Note
2h to 4h	6 to 11days	Depends on network parameters

Environmental characteristics:

- Lead-free soldered

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CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	18.Jun.2006	Initial draft
Approved	1.0	6.Jul.2006	Approval
Approved	2.0	11.Jul.2006	Exploded view modified / Assembly instruction - Keymat added
Approved	3.0	23.Jul.2007	Exploded view modified - A8 structure
Approved	4.0	12.Sept.2007	Exploded view 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:

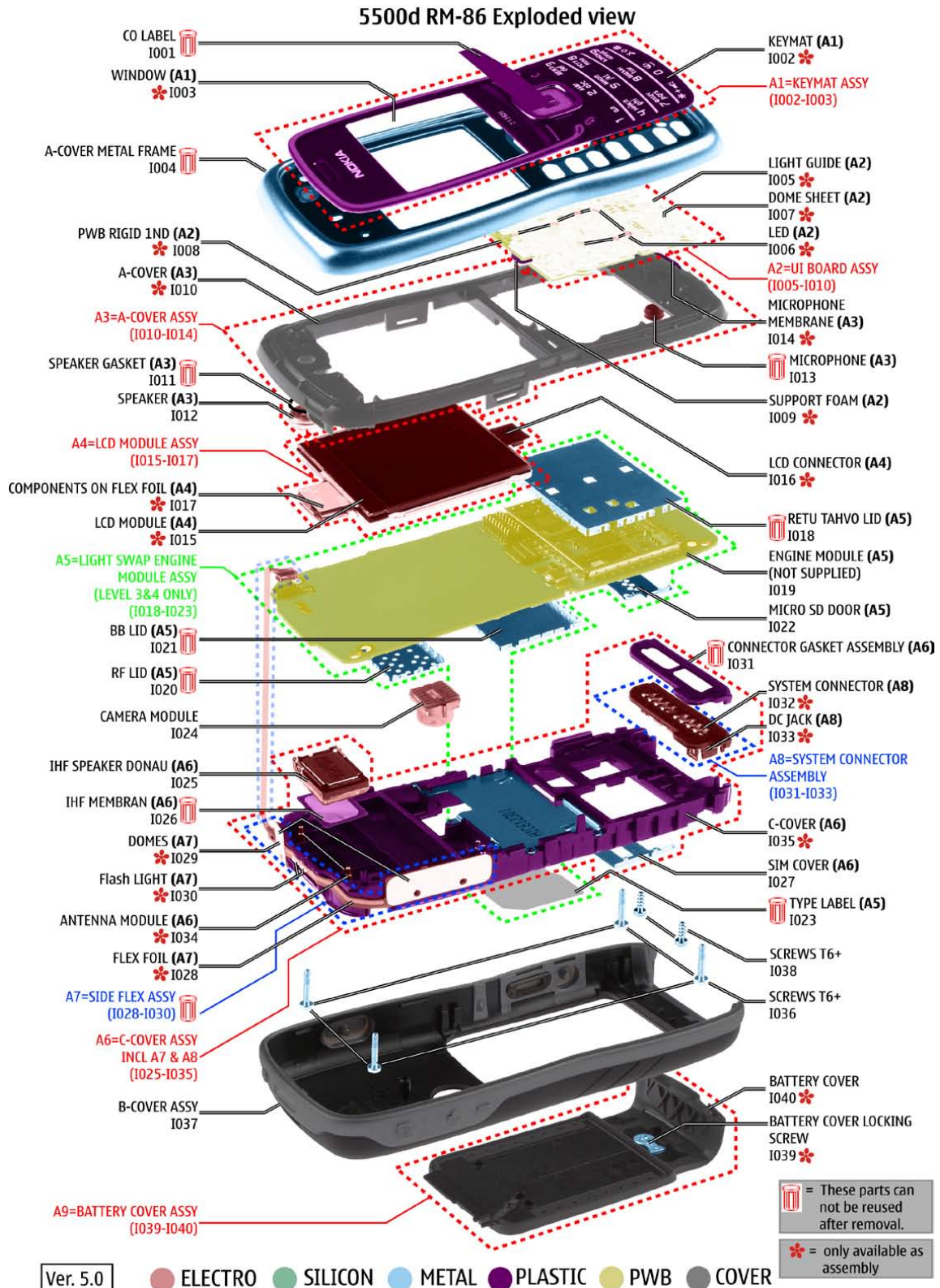
1. Servicing and alignment must be undertaken by qualified personnel only.
2. Ensure all work is carried out at an anti-static workstation and that an anti-static wrist strap is worn.
3. Use only approved components as specified in the parts list.
4. Ensure all components, modules screws and insulators 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.

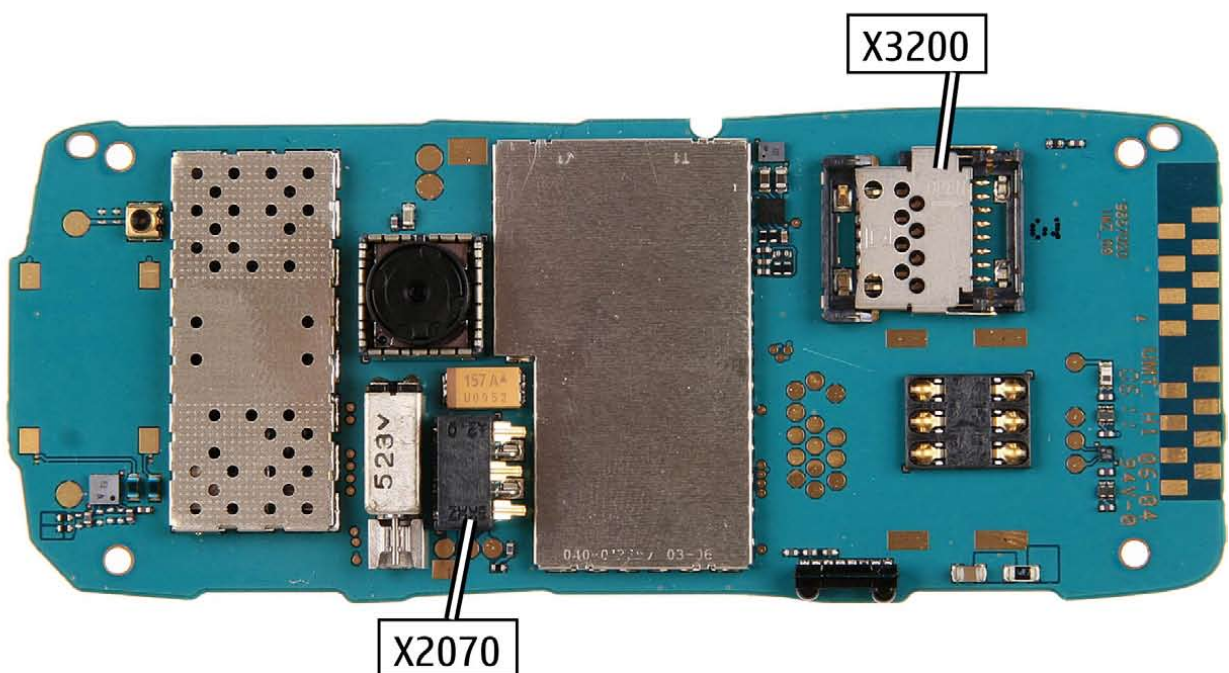
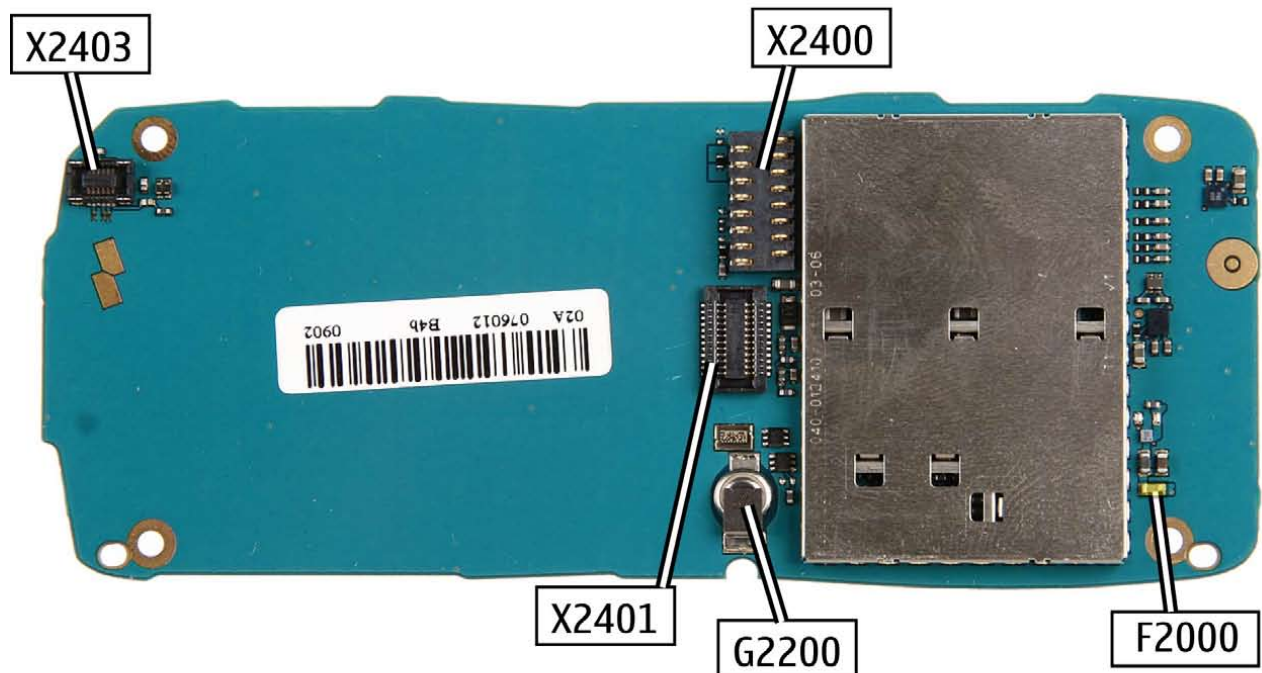
2. EXPLODED VIEW AND COMPONENT DISPOSAL

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.







3. COMPONENT OVERVIEW

5500d RM-86 Components overview



4. SERVICE DEVICES

	<p>FLS-4S incl. ACF-8, Driver and User Guide Dongle and flash device incorporated into one package, developed specifically for POS use.</p>
	<p>ACF-8 Universal Power Supply is used to power FLS-4S.</p>
	<p>Travel Charger AC-4 Small and lightweight charger for fast charging of your phone battery.</p>
	<p>Internal Battery BL-5B Inserted under the back cover, this Li-Ion battery provides power in a lightweight package.</p>
	<p>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.</p>
	<p>SS-45 Camera removal tool.</p>
	<p>CA-53 Service Cable to connect the PC with the Pop-Port™ connector.</p>

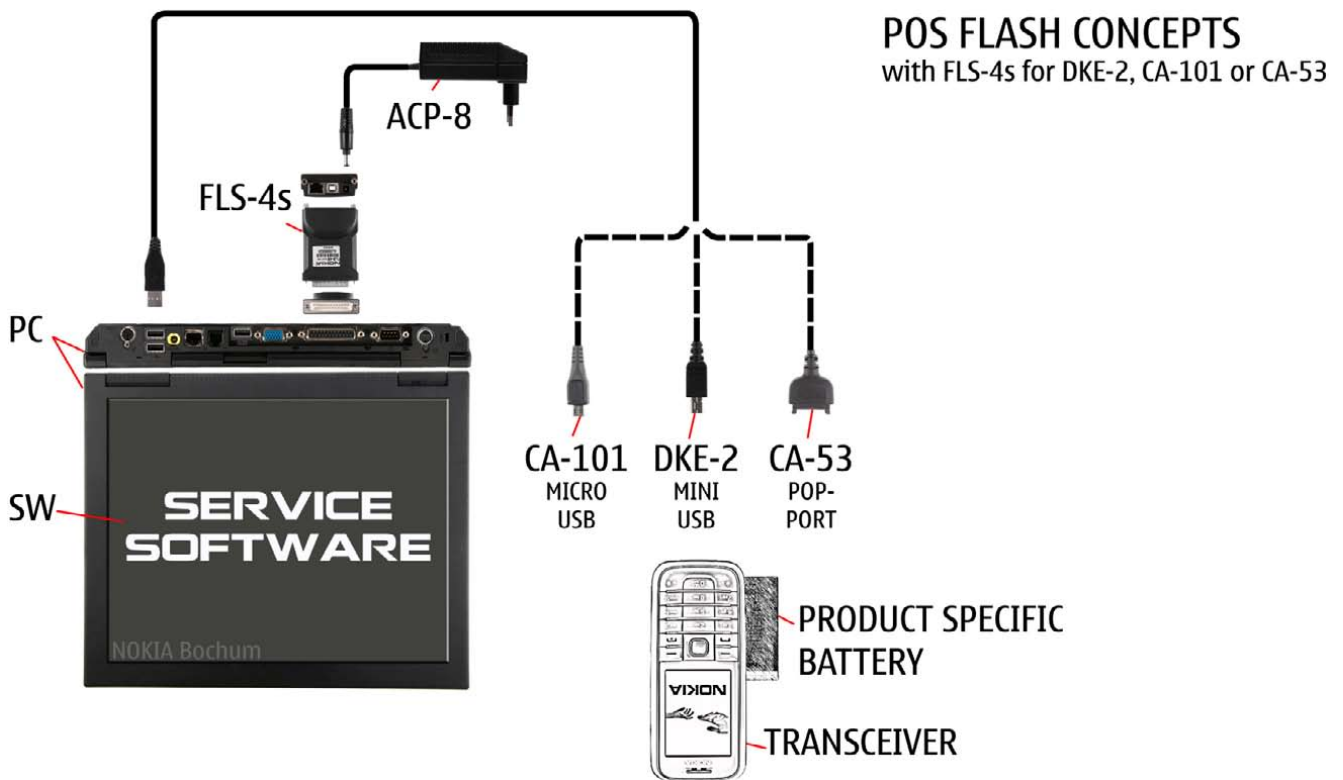
	<p>RJ-152 Soldering Jig</p>
	<p>Lead-free Solder Wire Mandatory for lead-free products (Level 2 only).</p>
	<p>0772040 NMP Standard Toolkit (V2)</p> <p>For more informations refer to the Service Bulletin (SB-011) on NOKIA Online.</p> <p>Supplier or manufacturer contacts for tool re-order can be found in “Recommended service equipment” document on NOKIA Online.</p>

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](#).

Choose the CA-53 service cable.



6. DISASSEMBLY INSTRUCTION



1. Needed tools : a Torx Plus size 6 screwdriver, metal tweezers, the dental pick, the SS-93 opening tool, a torque driver, a Torx size 6 plus bit, the SRT-6 and the SS-45 camera removal tool.



2. Unlock and remove the BATTERY COVER. Do not turn the BATTERY COVER LOCKING SCREW over 90°.



3. Undo the screws in the order shown.



4. Place the SRT-6 between the A-COVER METAL FRAME and the B-COVER ASSY.



5. Slide the SRT-6 along the edge to the middle of the cover.



6. To unlock the A-COVER METAL ASSY lever it out with SRT-6 as shown.



7. Do the same on the other side.



8. Separate the parts from each other.



9. Undo the screws in the shown order.



10. Discard the screws.



11. Unlock the A-COVER ASSY...



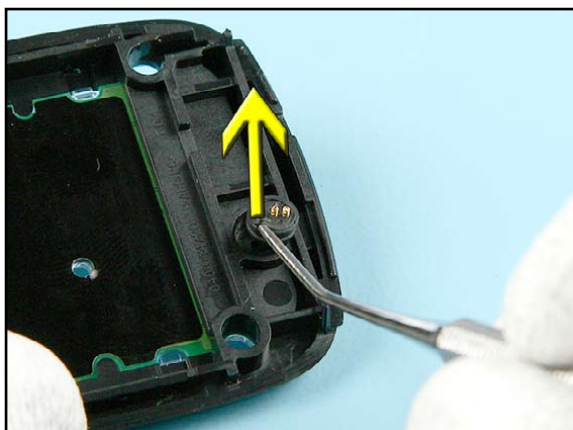
12. ...and remove the A-COVER METAL FRAME.



13. Remove the A-COVER ASSY.



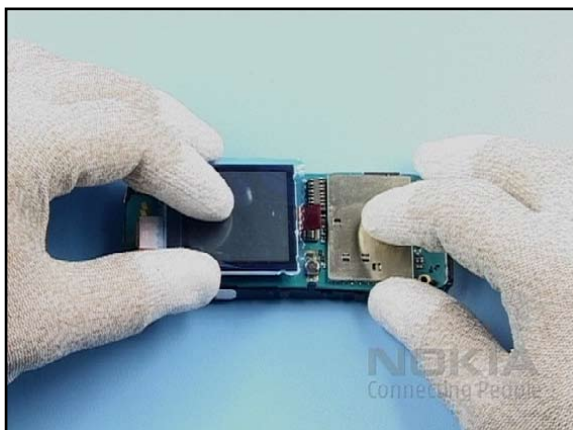
14. Remove the EARPICCE with the dental pick.



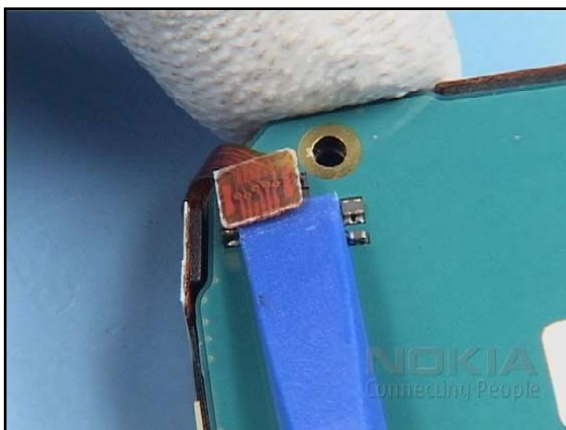
15. Remove the MICROPHONE with the dental pick.



16. Gently, open the LCD CONNECTOR...



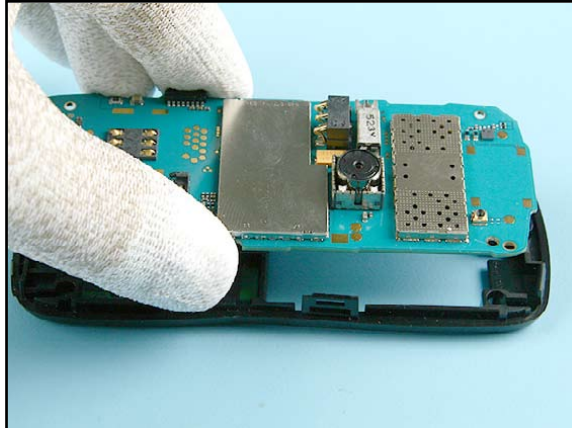
17. ...and remove the LCD MODULE ASSY.



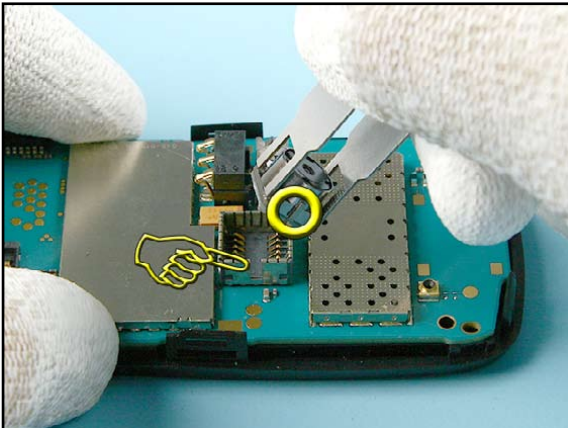
18. Open the SIDE FLEX connector.



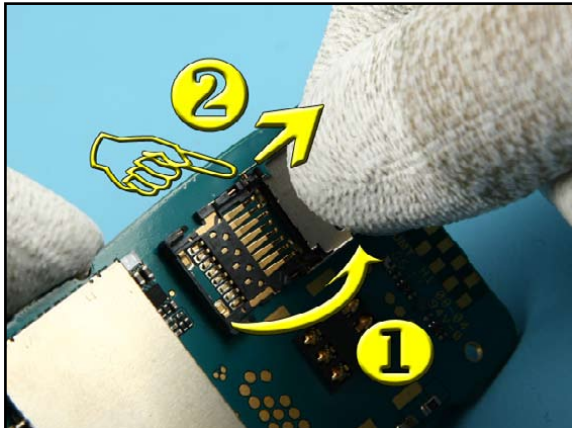
19. Now, remove the ENGINE MODULE.



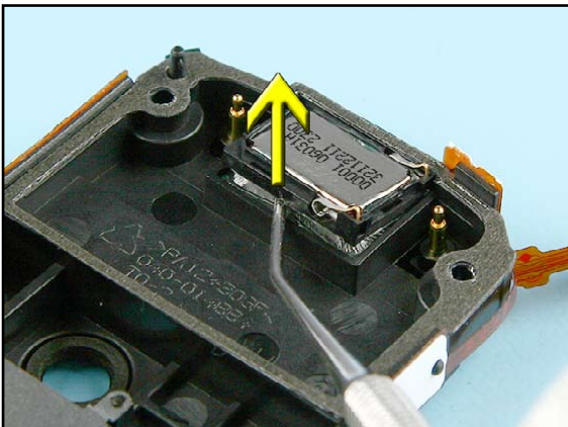
20. Use the A-COVER ASSY as an support when removing the CAMERA MODULE.



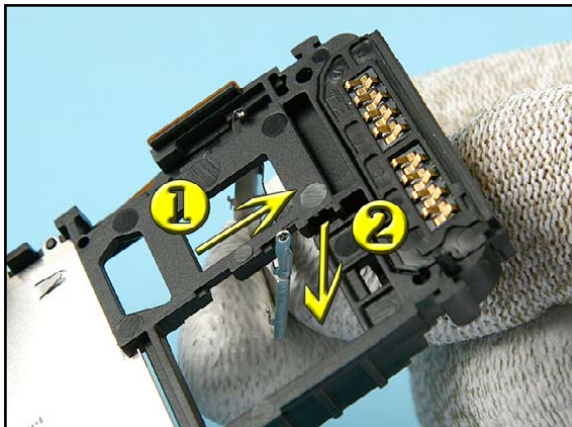
21. Remove the CAMERA MODULE with the SS-45 camera removal tool. Note the guide pin for the reassembling procedure.



22. Remove the MICRO SD DOOR in the shown order.



23. Remove the IHF SPEAKER DONAU with the dental pick.



24. Remove the SIM COVER in the shown order.

7. ASSEMBLY INSTRUCTION - KEYMAT



1. Note the holes in the A-COVER METAL FRAME (left pic.) and the guide pins on the back of the KEYMAT (right pic.).



2. Remove the protective film from the A-COVER METAL FRAME.



3. Remove the protective film from the KEYMAT.



4. Hold the KEYMAT horizontally over the A-COVER METAL FRAME and align the four guide pins on the KEYMAT with the four holes in the A-COVER METAL FRAME.



5. Press down the KEYMAT on the A-COVER METAL FRAME.



6. Ensure that the KEYMAT is also glued correctly around the window area.

8. ASSEMBLY HINTS



1. Always use new screws when assembling the unit.



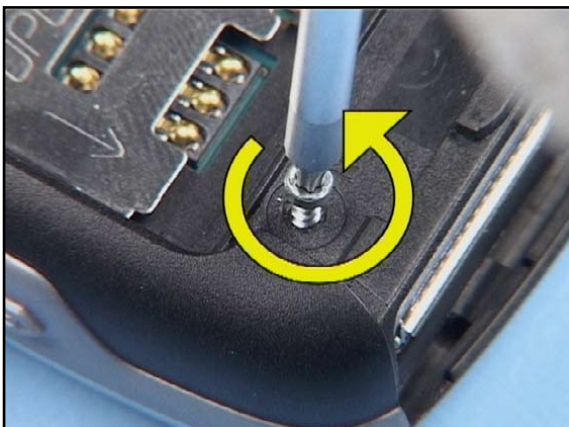
2. Set the torque driver to the torque value of 19Ncm.



3. Tighten the screws in the order shown.



4. Set a torque value of 17Ncm for the last two screws.




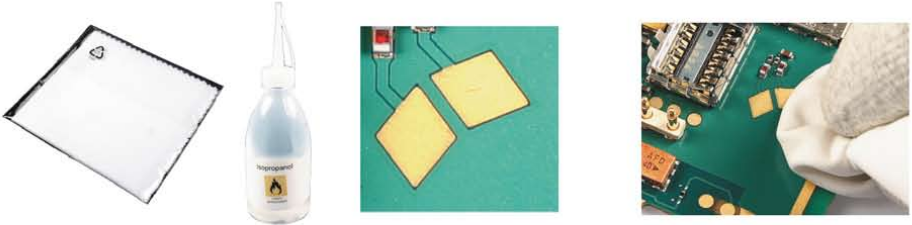





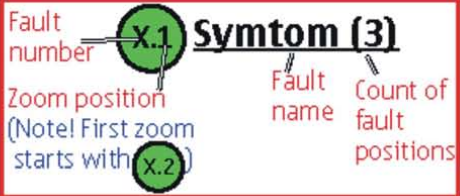


5. To avoid damaging the plastic threads, first turn the screws slightly left to engage the thread and then tighten them lightly.



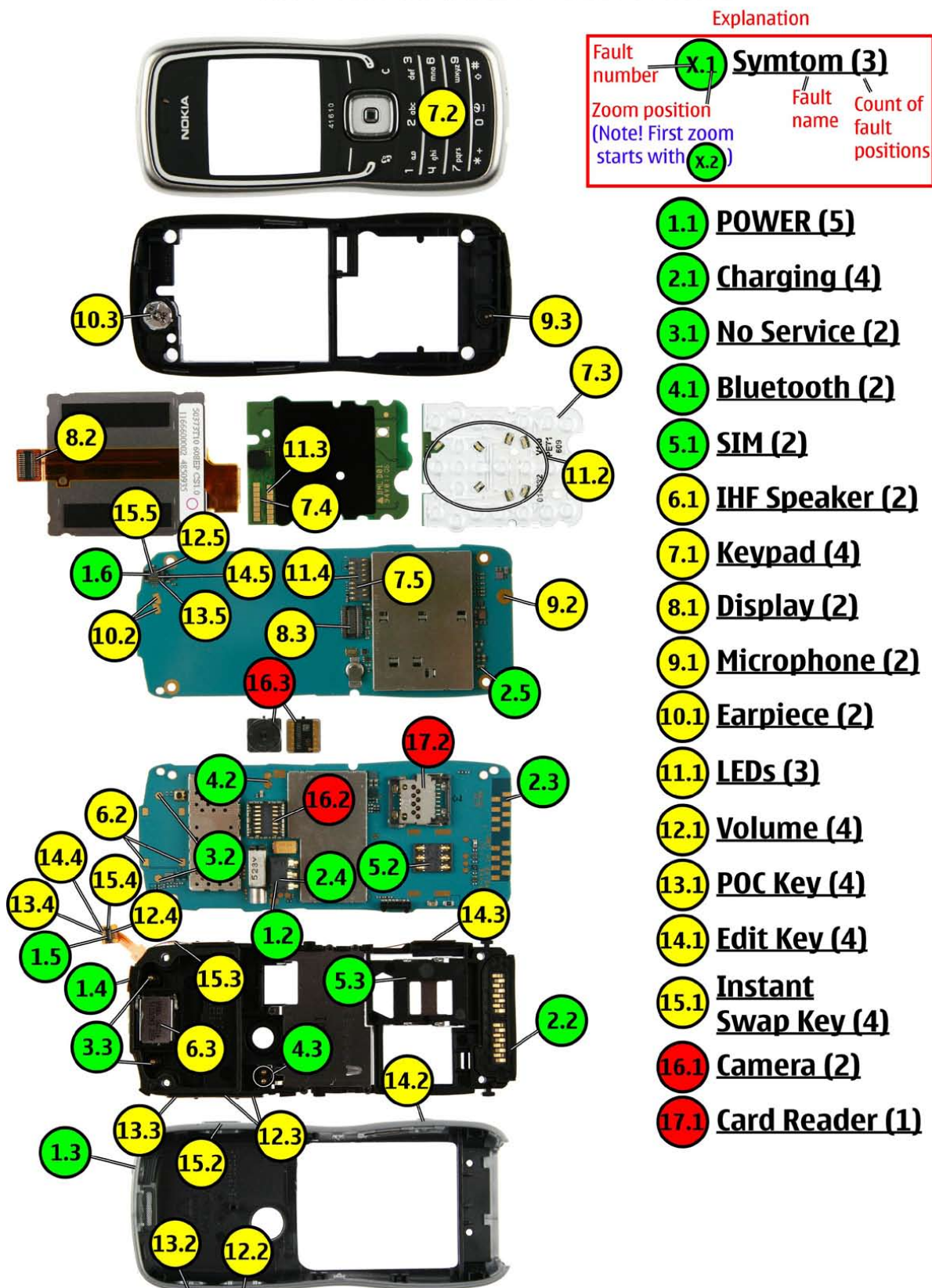
6. Tighten the screws in the order shown.

9. LEDGEND 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.
	<p><u>Cloth usage:</u> 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><u>ESD Brush usage:</u> Check contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.</p> 
	<p>Explanation</p> 

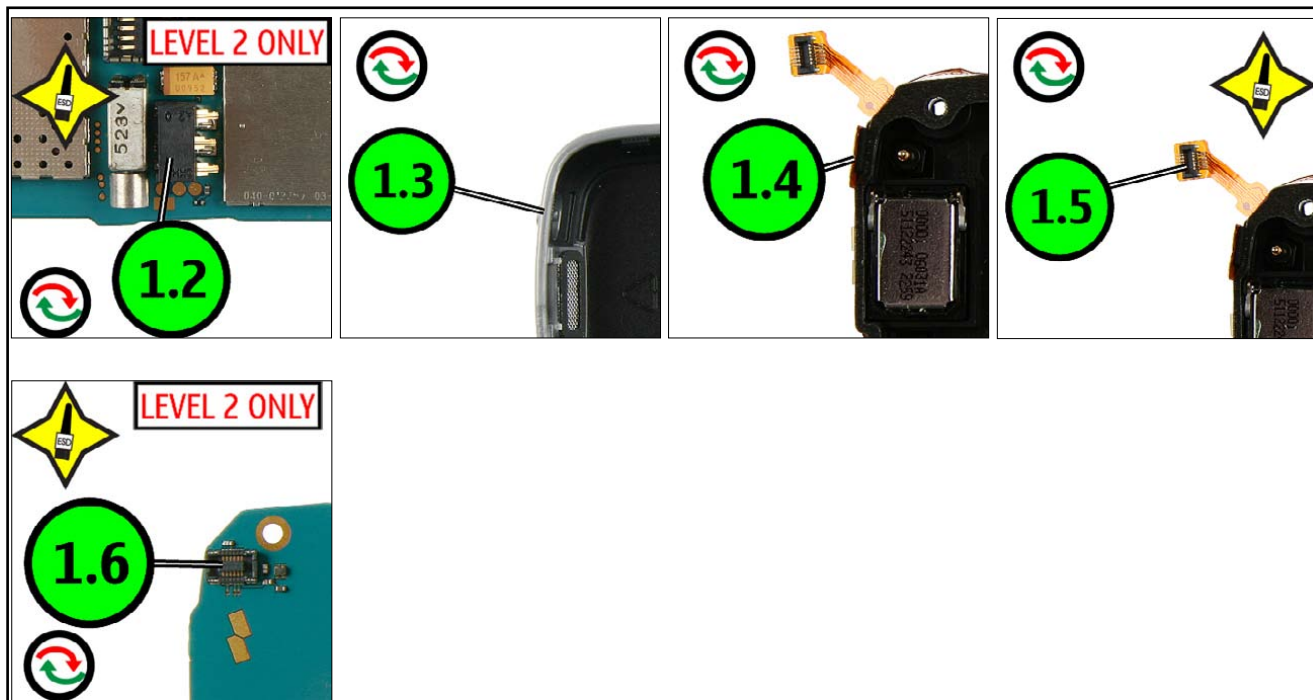
10. QUICK TROUBLE SHOOTER - MAIN OVERVIEW

5500d RM-86 Quick Trouble Shooter

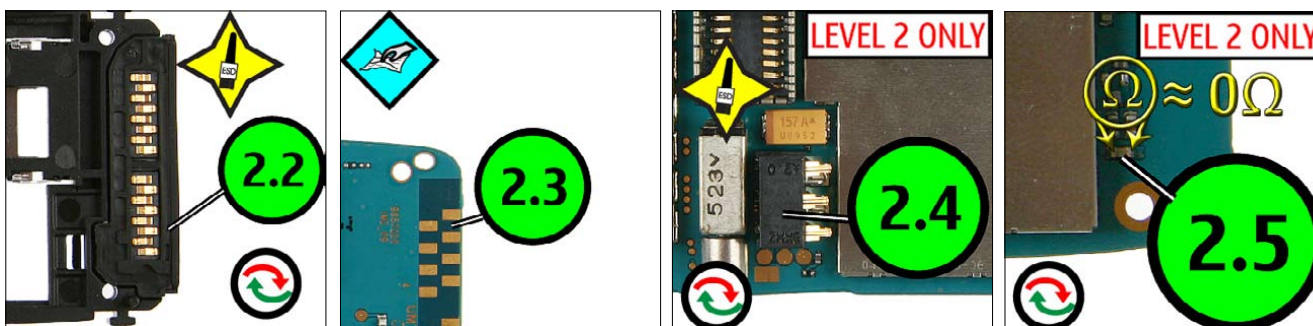


11. QUICK TROUBLE SHOOTER - ZOOMS PART 1

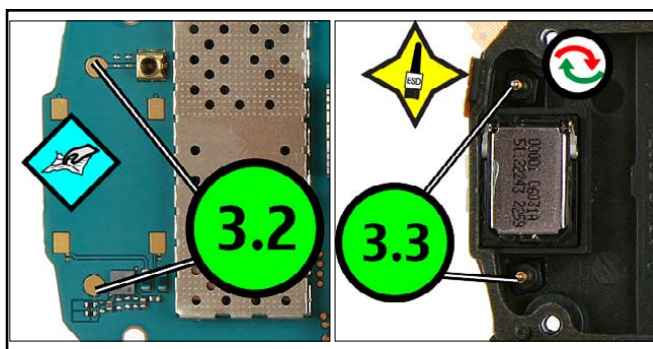
1.1 POWER (5)



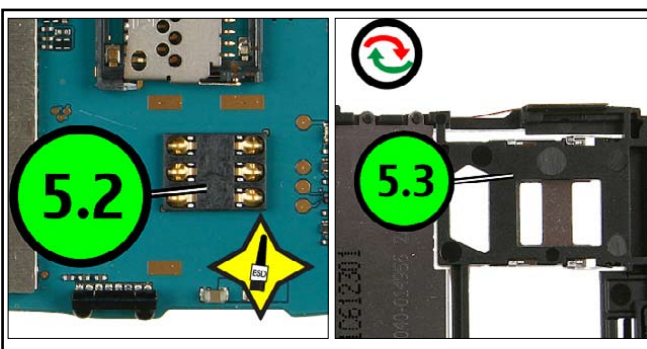
2.1 CHARGING (4)



3.1 NO SERVICE (2)

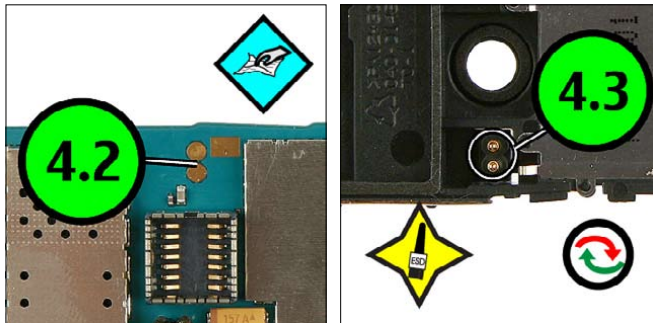


4.1 SIM (2)

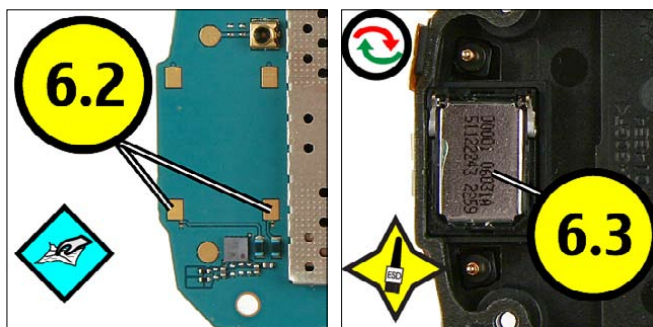


12. QUICK TROUBLE SHOOTER - ZOOMS PART 2

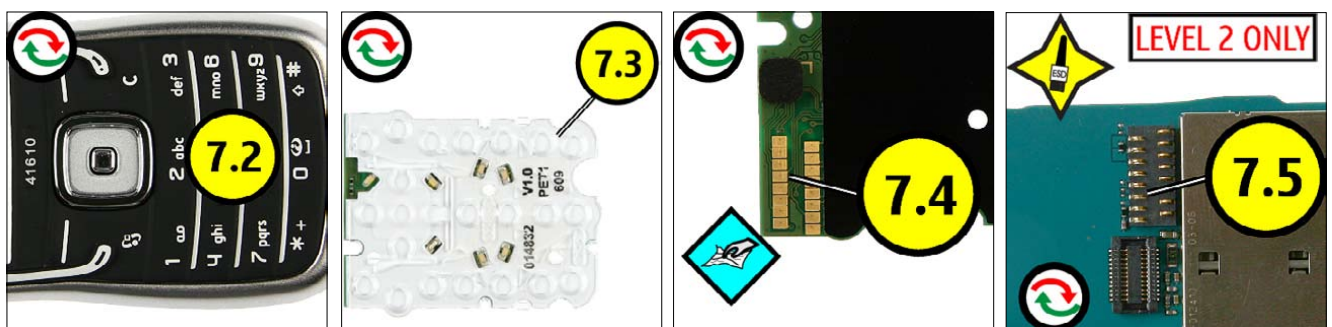
5.1 BLUETOOTH (2)



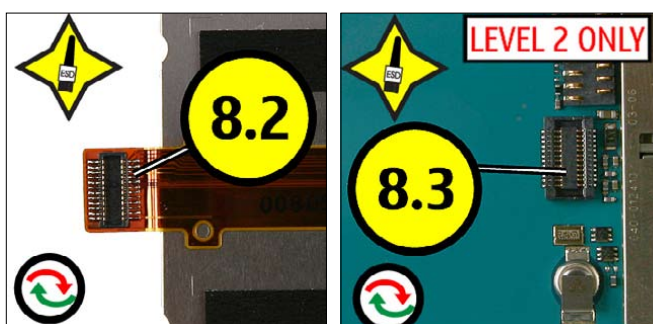
6.1 IHF SPEAKER (2)



7.1 KEYPAD (4)

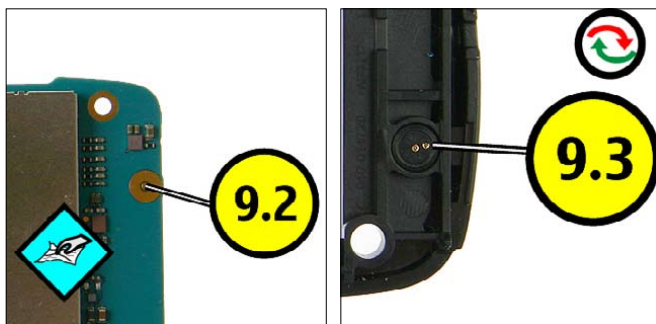


8.1 DISPLAY (2)

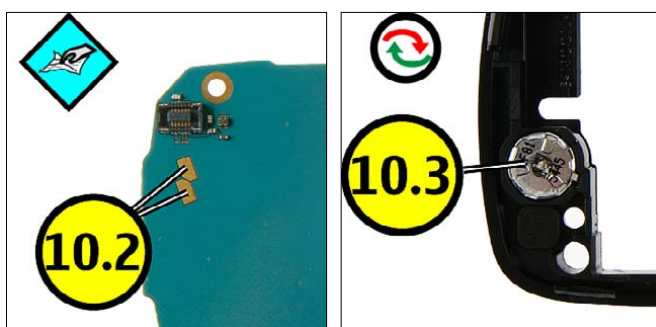


13. QUICK TROUBLE SHOOTER - ZOOMS PART 3

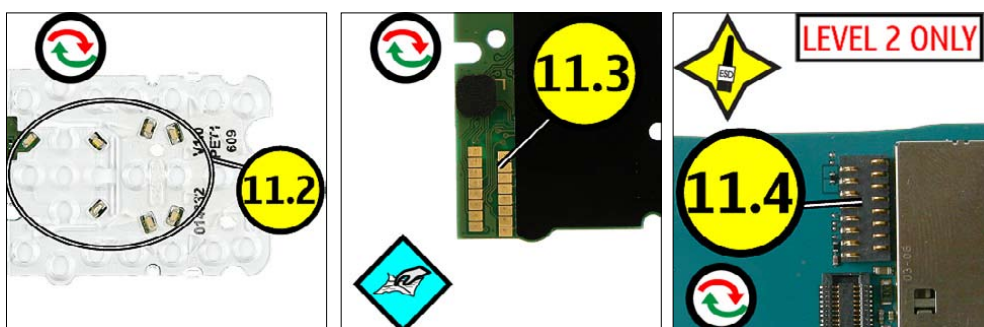
9.1 MICROPHONE (2)



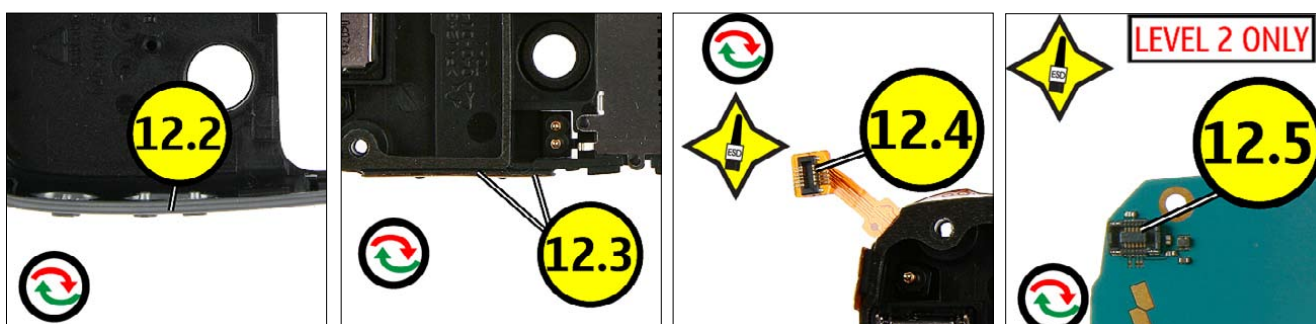
10.1 EARPIECE (2)



11.1 LEDs (3)

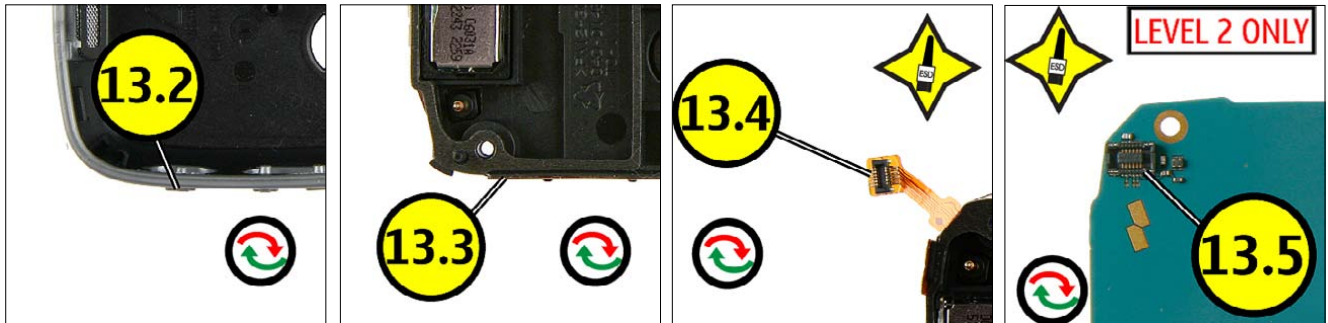


12.1 VOLUME (4)

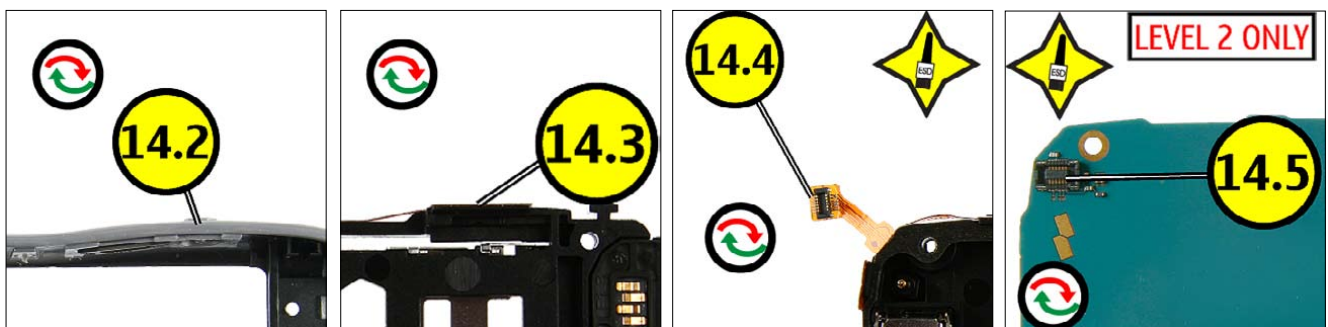


14. QUICK TROUBLE SHOOTER - ZOOMS PART 4

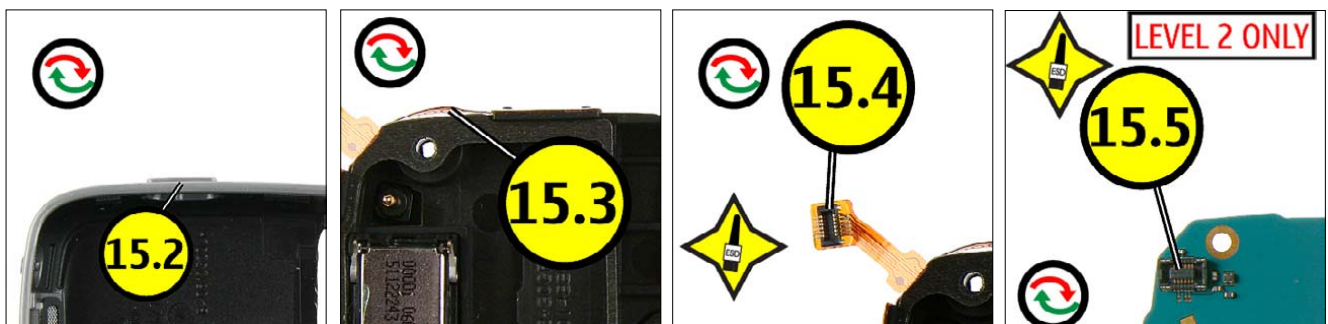
13.1 POC KEY (4)



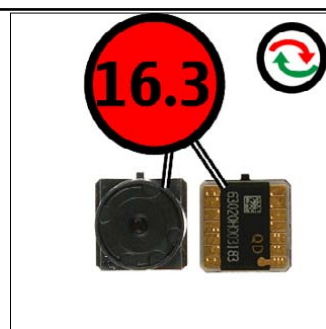
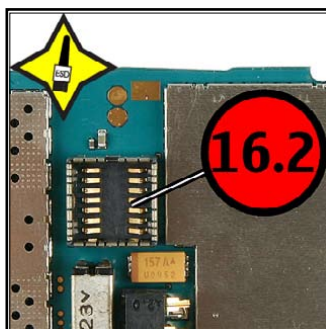
14.1 EDIT KEY (4)



15.1 INSTANT SWAP KEY (4)



16.1 CAMERA (2)



17.1 CARD READER (1)

