

Edition	Modification	Date
01	Documentation creation by association of the BE1 and BE3 technical documentation in one documentation	09/03/2000
02	Audio modification on BE3	06/06/2000
03	Documentation correction on page 19	13/06/2000
04	Flow chart and visual inspection modification ;Battery test ; new fault codes and a mandatory equipment list; Audio modification for BE1 and BE3	05/10/2000

Explanation of the modifications since the last edition

Improvement	Correction	Comments
Audio improvements on BE1 and BE3 products Battery test	Replace the audio amplifier by an Analog Device amplifier if the solder modification does not solve the problem	

	Author	Approbation 1	Approbation 2
FUNCTION:	Pilot Repair Centre	Pilot Repair Centre	Technical Assistance
DATE:			
VISA:			

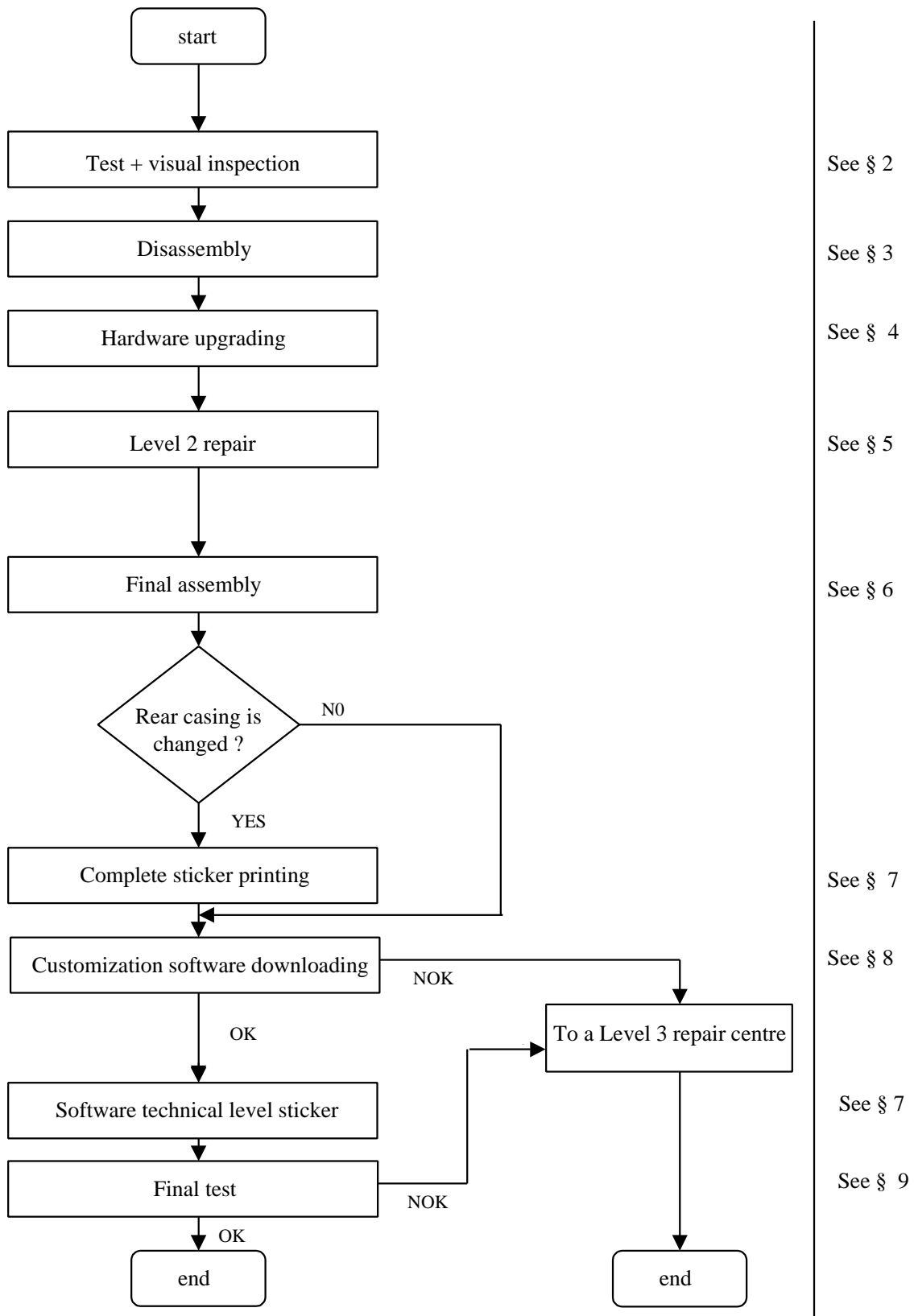
ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			1/46

CONTENTS

1) LEVEL 2 REPAIR PROCESS	3
2) TEST & VISUAL INSPECTION	4
3) DISASSEMBLY OF THE PRODUCT	8
4) HARDWARE UPGRADING	20
5) REPAIR	24
6) ASSEMBLY OF THE PRODUCT	27
7) STICKERS	39
8) CUSTOMIZATION SOFTWARE DOWNLOADING	41
9) FINAL TEST	42
<i>9.1 Functionnal test</i>	<i>42</i>
<i>9.2 Measurements</i>	<i>42</i>
APPENDIX 1 FAULT CODES	43
APPENDIX 2 EQUIPMENT FOR LEVEL 2 REPAIR CENTRE	45

ED	04	11/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			2/46

1) LEVEL 2 REPAIR PROCESS

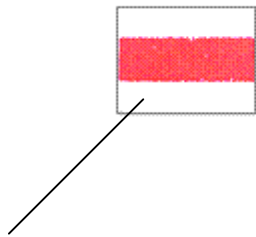


ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			3/46

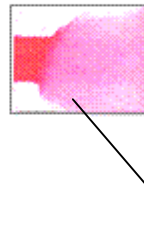
2) TEST & VISUAL INSPECTION

ALL these verifications must be done on ALL products coming back in a LEVEL 2 after sales repair centre .

- a) **Check the aspect of the rear casing and the antenna**
- b) **Humidity sticker : a humidity sticker is present on some BE1 terminals on the shielding that can be seen on the rear casing side, without opening the handset . Check the state of the sticker as shown below :**



Sticker of a good terminal

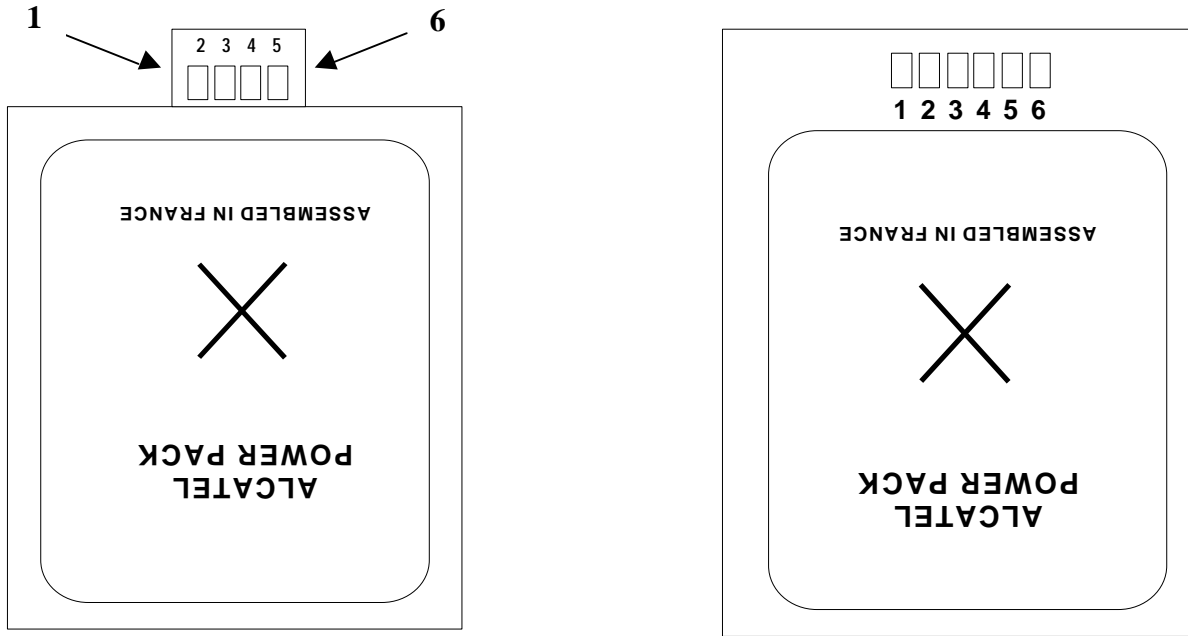


**Sticker of a terminal dived in water
This terminal is out of the warranty**

- c) **Check J904 , the charge connector (corrosion ,contacts)**
- d) **Check the SIM latch right functioning**
- e) **Insert a SIM card and check the holding of the SIM latch**
- f) **Plug a good battery and switch on the handset : check the charging icon animation on the display, check the holding of the product on the desk top charger.**

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			4/46

g) When the handset with its battery comes back to be repaired, you must measure the voltage and the Thermistor value as shown below.

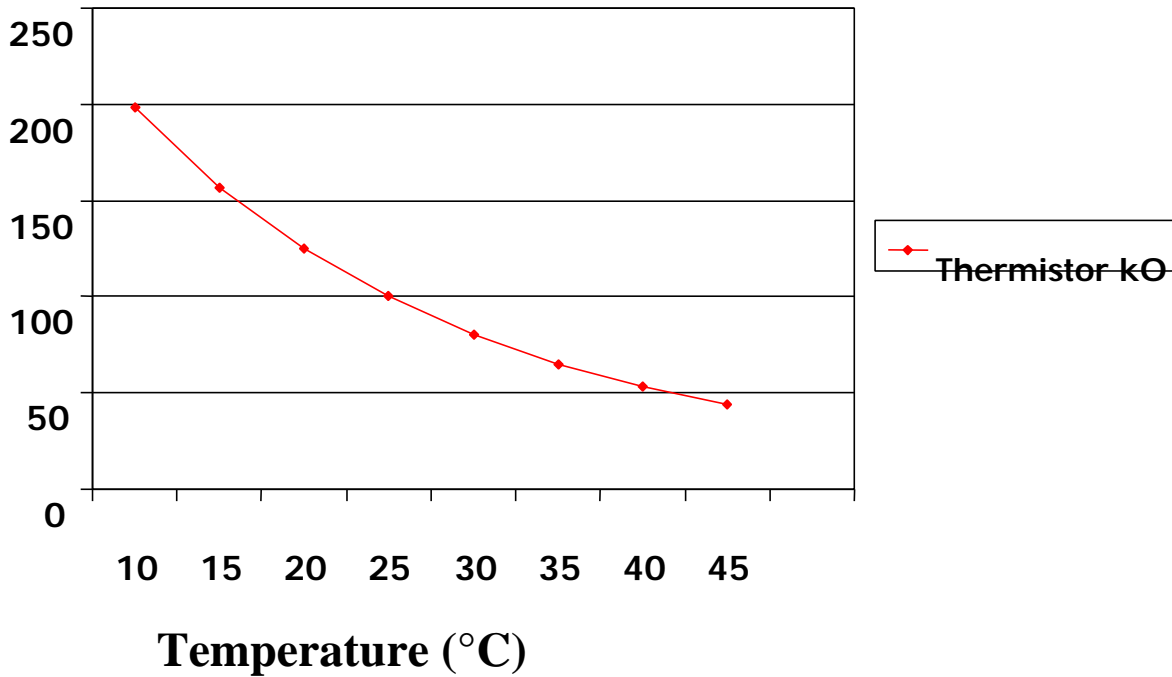


With a multimeter:

- **Measure the voltage between pin 1 and pin 6 (if < 2.9 V, the battery is NOK)**
- **Measure the Thermistor value between pin 5 and pin 6 for Ni MH battery**
- **Measure the Thermistor value between pin 4 and pin 6 for Lithium battery (the Thermistor value must be 100 k? at 25 °C)**

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			5/46

Resistor value/ temperature



If these measurements are NOK, the battery is swapped and returned to Pilot Repair Centre of Laval.

If these measurements are OK : plug the battery on a good handset, put it on a charger and check the charge icon animation.

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			6/46

- h) Switch on the handset and check the right functioning of the keyboard and the volume keys ; check the display backlighting**

- i) Switch off the product**

- j) Test the date and hour function**
Plug a dummy battery (ref : SAVBE10004) on a 3,8v power supply , switch on the handset , adjust the date and hour , switch off the product and wait for 10 seconds .
Switch on the handset again , if the product asks for the date and hour , the handset must be sent to a LEVEL 3 repair centre.

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			7/46

3)

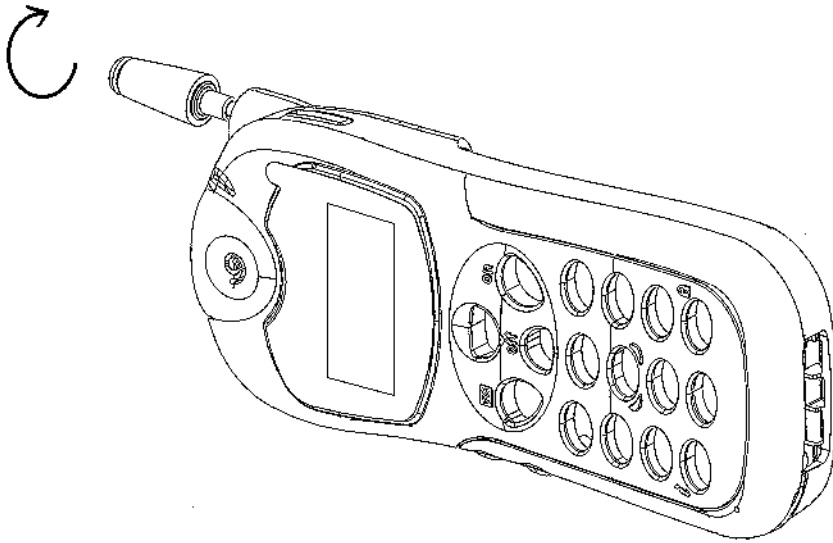
DISASSEMBLY

All the products must be opened in order to check the eventual corrosion on the PCBs

Tools required :

- *Dynamometric key (tightening torque=0.135Nm)*
- *Plastic positioning tool ref: 17010019*
- *Positioning tool for Radiodigital board ref: 17010061*

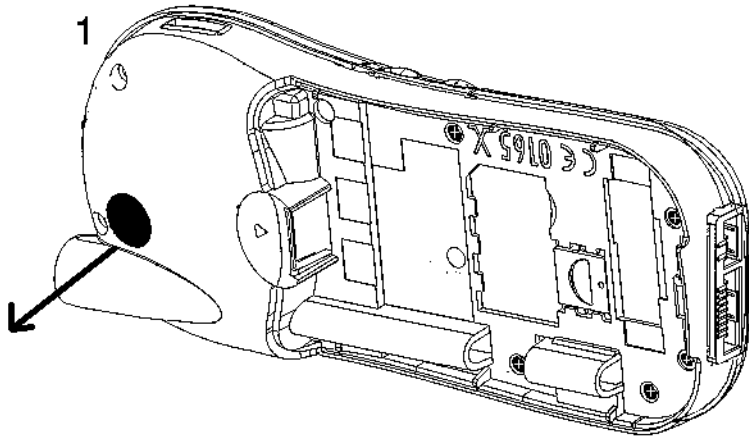
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	8 / 46



All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

No specific tool is required to remove the antenna ,just hand-unscrew it .

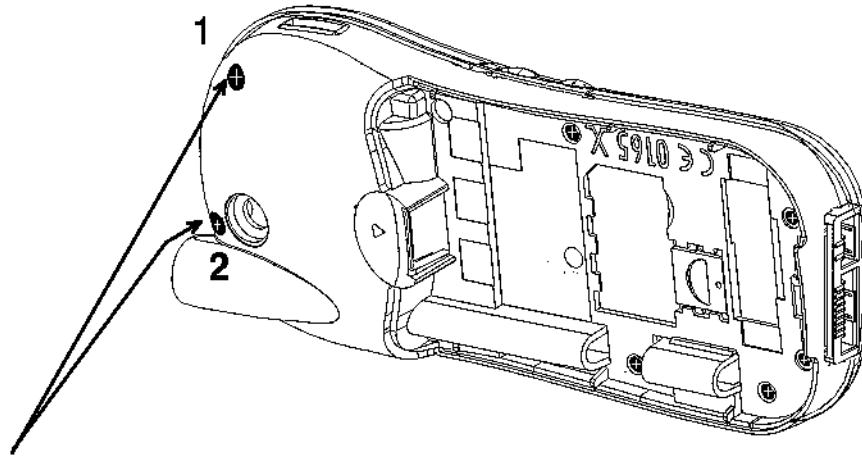
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	9 / 46



Use pliers to remove the J 300(antenna switch) protection

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	10 / 46

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

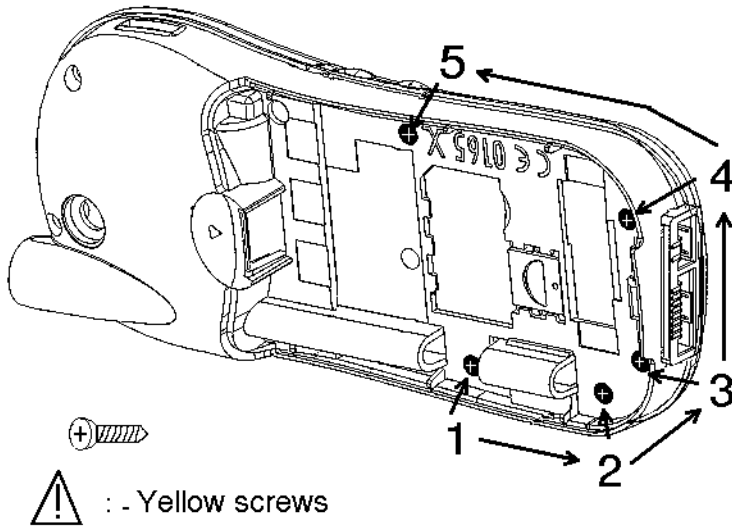


: - Black screws

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

Place the product on the plastic positioning tool (position 2) . Remove the 2 black screws .

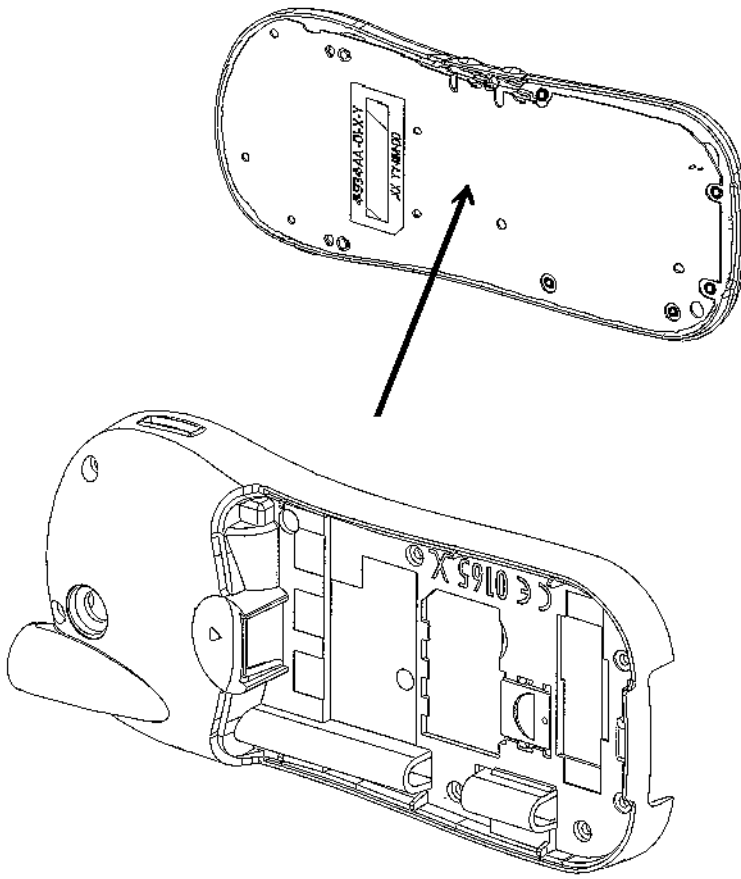
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	11 / 46



All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

Remove the 5 yellow screws

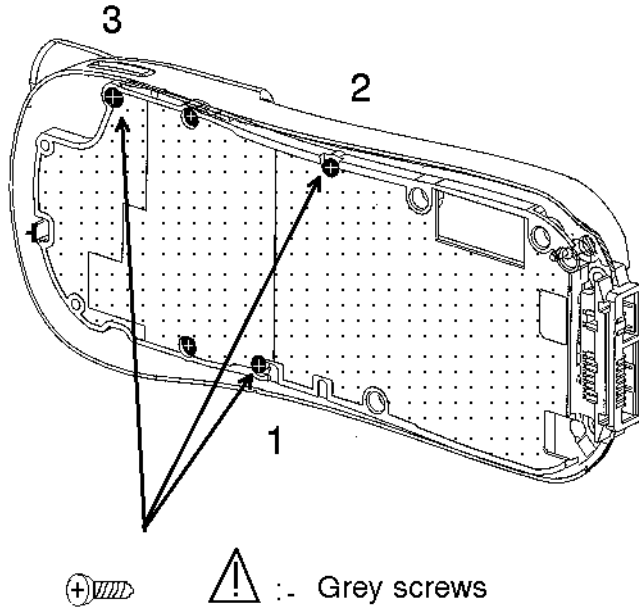
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	12 / 46



Disassemble the front casing and the MMI board from the other part of the product (shielding, radiodigital board and rear casing)

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:
				13 / 46

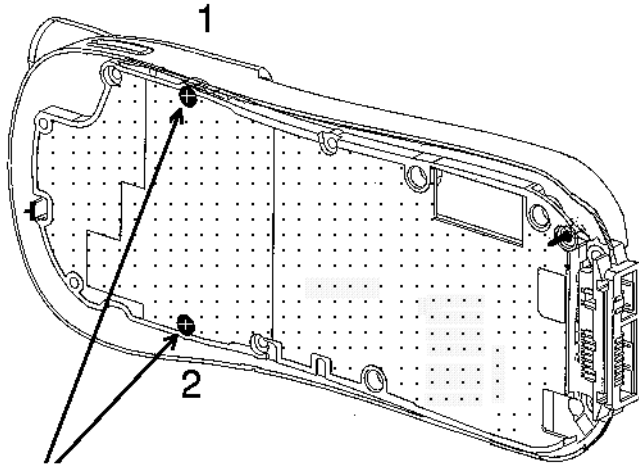
All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.



Remove the 3 grey screws

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:	14 / 46

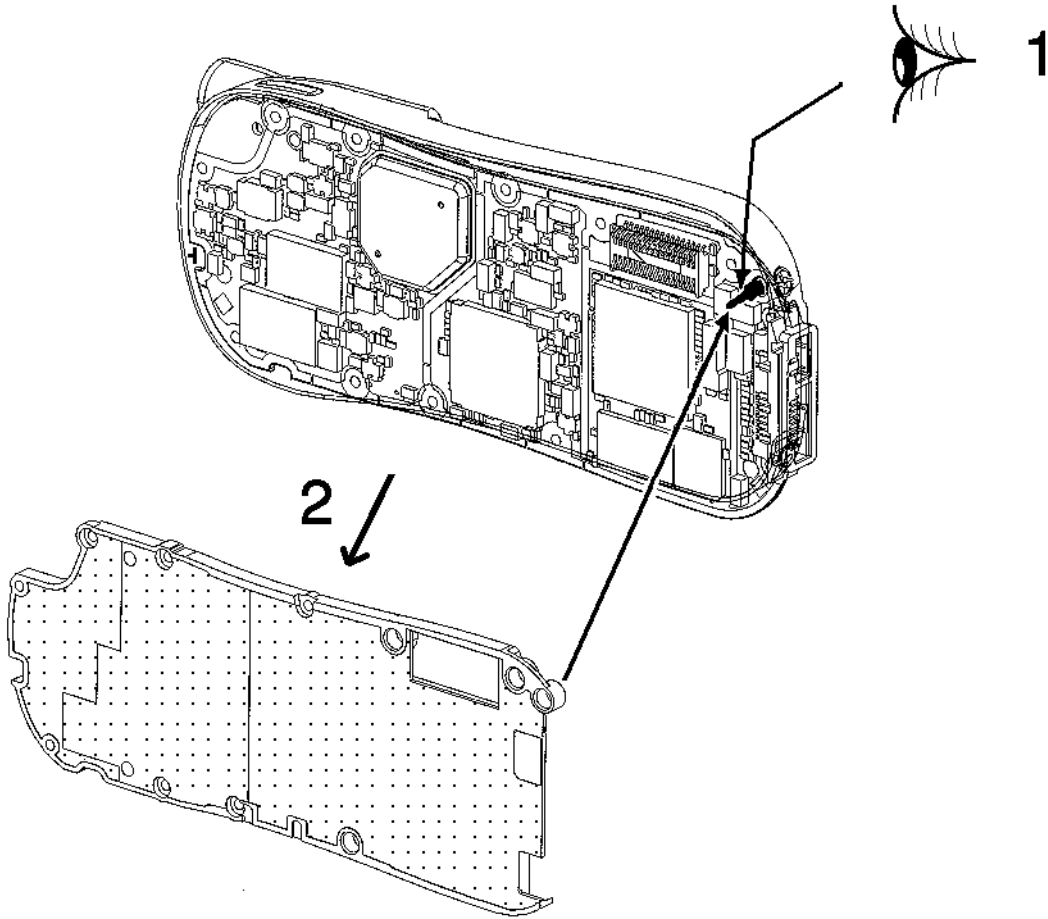


⚠ : - White screws

Remove the 2 white screws

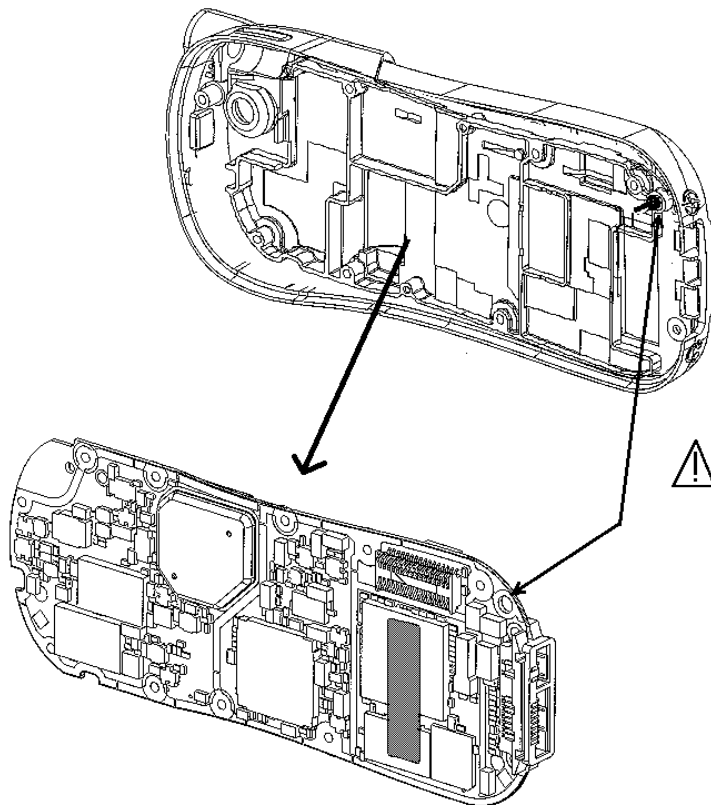
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:	15 / 46

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

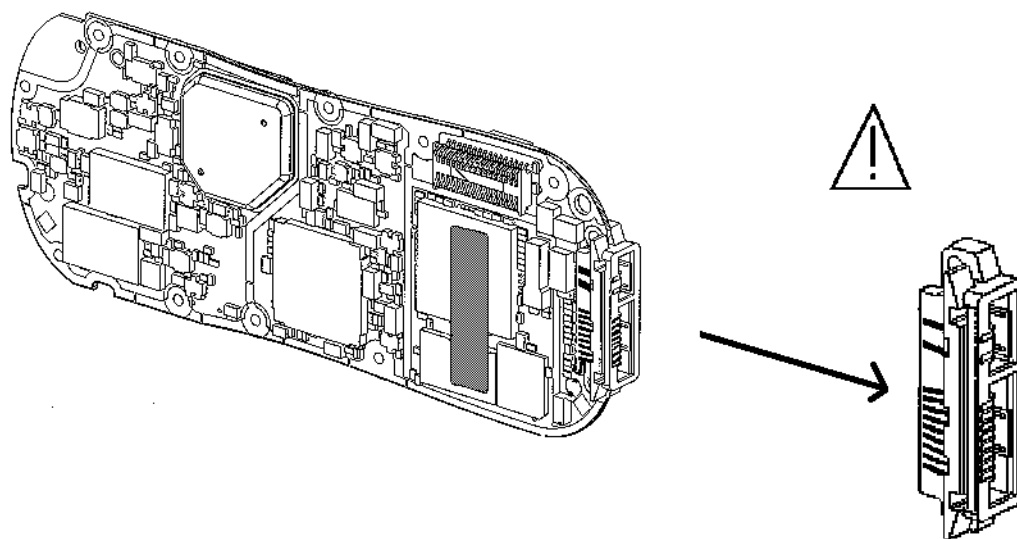


Remove the upper shielding and check it.
Be aware of the positionning pin guide.

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	16 / 46



Remove the Radiodigital board and check it .
Be aware of the positionning pin guide .

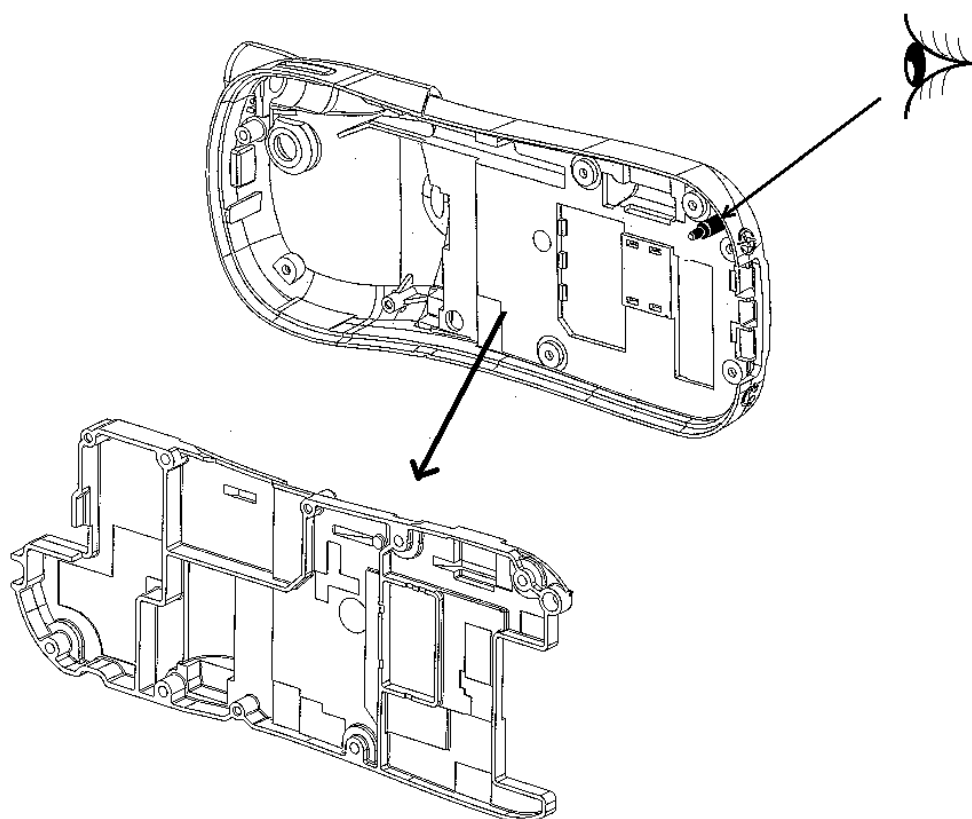


Remove J 904 the charge connector , check its mechanical state , if it is not OK change it .
 Check the contacts of this connector on the main board, if they are not OK clean them .

WARNING:

For all modifications and repair on radiodigital board use the postionning tool ref : 17010061 it avoids the antenna contact damage (J 301)

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	18 / 46



Remove the lower shielding , check it , if it is not OK change it .

Be aware of the positionning pin guide .

Check the mechanical state of the rear casing if it is scratched change it .

4)

HARDWARE

UPGRADING

The following pages describe some hardware modifications that must not be performed on all BE products .

Check the conditions required for the application of the modifications .

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

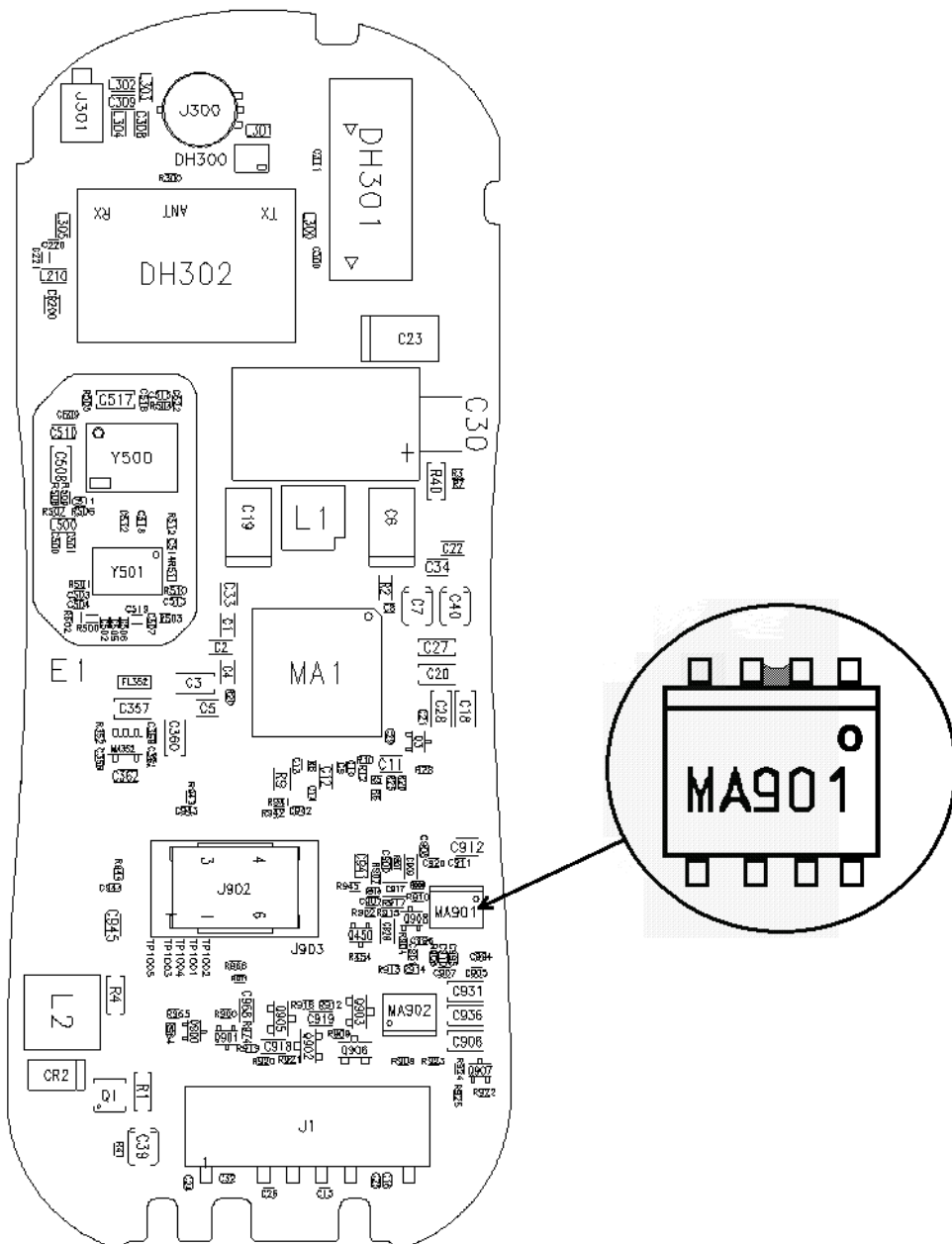
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	20 / 46

4-1) AUDIO MODIFICATION

Goal: Improvement of the audio quality (suppression of the buzzing noise)

Products concerned: All BE1 and BE3 radiodigital boards except 3DSxxxxxAJAA

Modification: Make a solder short circuit between pin 2 and pin 3 of MA 901 (audio amplifier)



WARNING: If this modification does not solve the problem, replace the MA901 by an ANALOG DEVICE amplifier ONLY (ref: 1AB141630001)

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

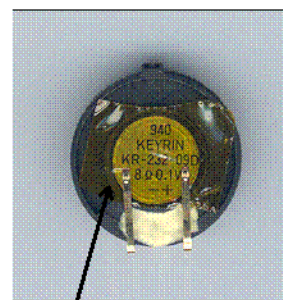
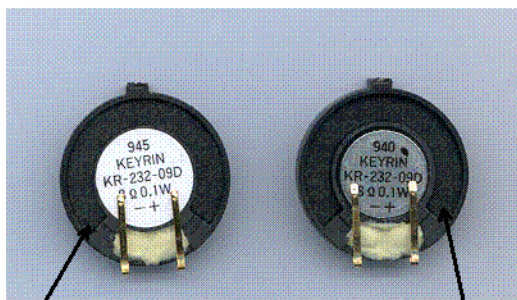
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:	21 / 46

4-2) EARPIECE MODIFICATION

Goal: *Avoid a short circuit which makes an audio problem*

Products concerned: *The BE 1 front casing with a not modified KEYRIN earpiece*

Modification: *Place a capton tape on the transparent sticker of the magnet*



Modified KEYRIN earpiece
a white sticker is placed on
the magnet .

Bad KEYRIN earpiece
before modification

Bad KEYRIN earpiece
after modification.
A capton tape is placed
on the sticker.

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:
				22 / 46

4-3) SHIELDING MODIFICATION

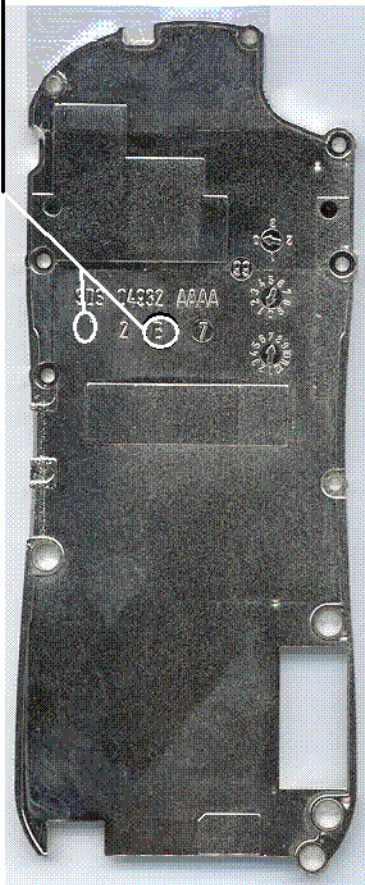
Goal: Avoid phase error problems

Products concerned: All the BE1 and BE3 terminals which have an ARIES shielding with a mold revision < 09

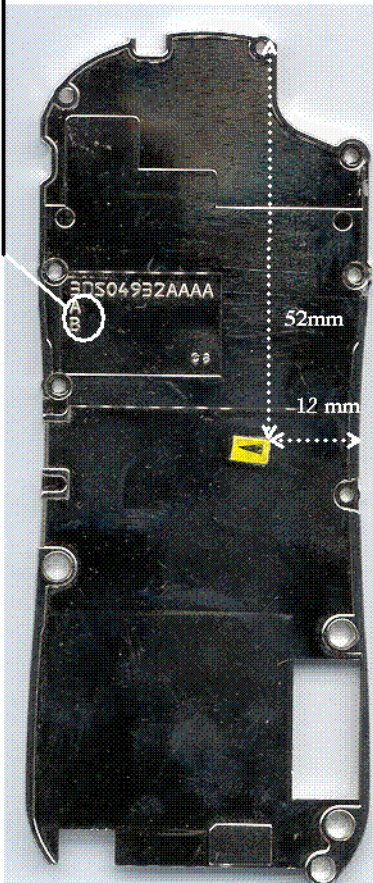
Modification : Place 2 superposed stickers on the upper shielding as shown below

" ARIES " SHIELDINGS

Good shielding from "Bolta"

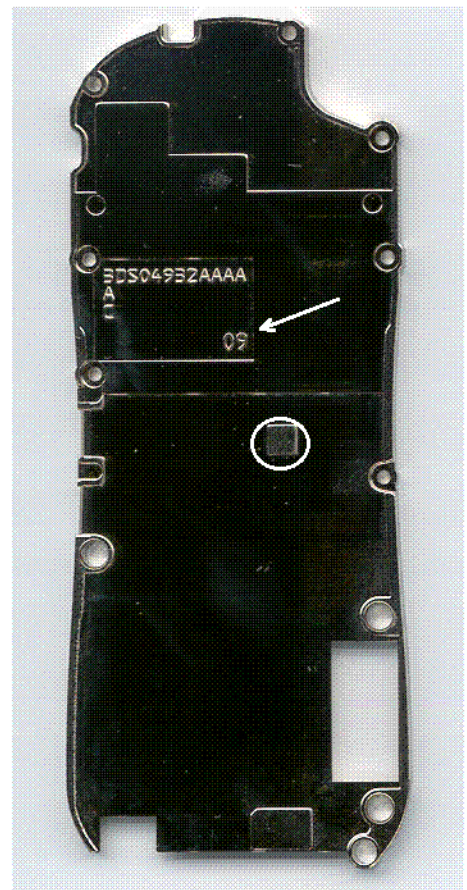


BAD SHIELDING with the modification



GOOD SHIELDING (mold revision > or = 09)

the white arrow indicates the mold revision



5)

REPAIRS

This describes the LEVEL 2 repairs that can be done without any diagnosis equipment

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			24/46

	Problem description	actions & solutions
Rear casing	It is scratched or broken	Change it
SIM reader failure	« CHECK SIM » error	Check the SIM connector (J902) If it is faulty change it
Switch on with battery power	If there is no switch on	Check battery contacts on the rear casing Check the interboard connector (J905) Check the MMI board Try a software update Change the faulty element
Display failure	Missing lines or columns or no display	Check the MMI board Check the interboard connector (J905) Change the faulty element
Keyboard and backlighting	No keypad and/or display backlighting or the keys don't work	Check the inter board connector (J905) Check the MMI board Change the faulty element
Antenna	It is scratched or broken	Change it
Network	the handset does not lock properly on the network or radio problems	Check J 300, the RF contact Check the metal part of the antenna Change the faulty element
Audio problems	Bad or no reception Bad or no emission Handsfree problem	Check that the earpiece is not cut or its contacts are not bent Check J 905, the interboard connector Check the MMI board Check the MMI board (microphone) Check J 905, the interboard connector Check J 904, the rear connector Change the faulty element

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			25/46



In case the LEVEL 2 repairs do not solve the problems, or if the radio digital board is damaged, a LEVEL 3 repair is needed.

CAUTION

Before sending the products to a LEVEL 3 repair centre, make sure that you have done every hardware upgrading.

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			26/46

6)

ASSEMBLY

OF THE

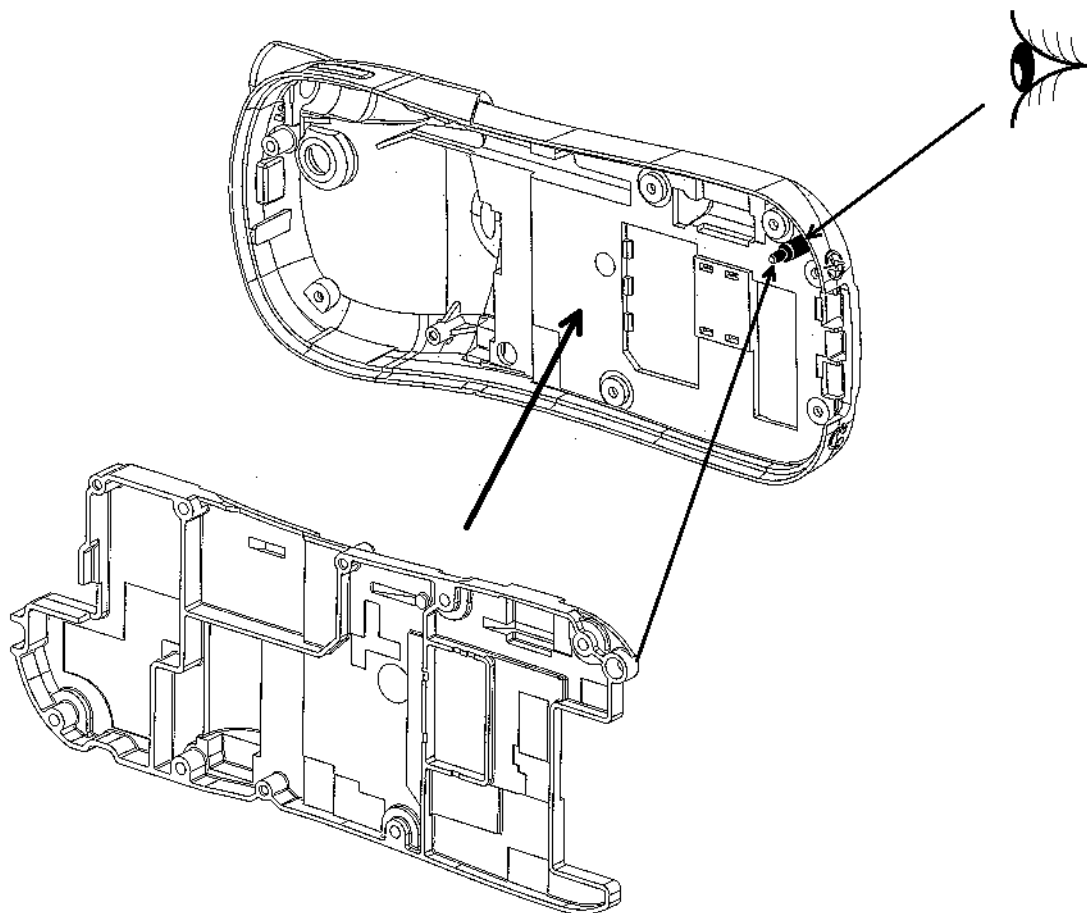
PRODUCT

Tools required :

- *Dynamometric key (tightening torque = 0.135Nm)*
- *Plastic positioning tool ref: 17010019*
- *Ionize air gun or cold air blower*

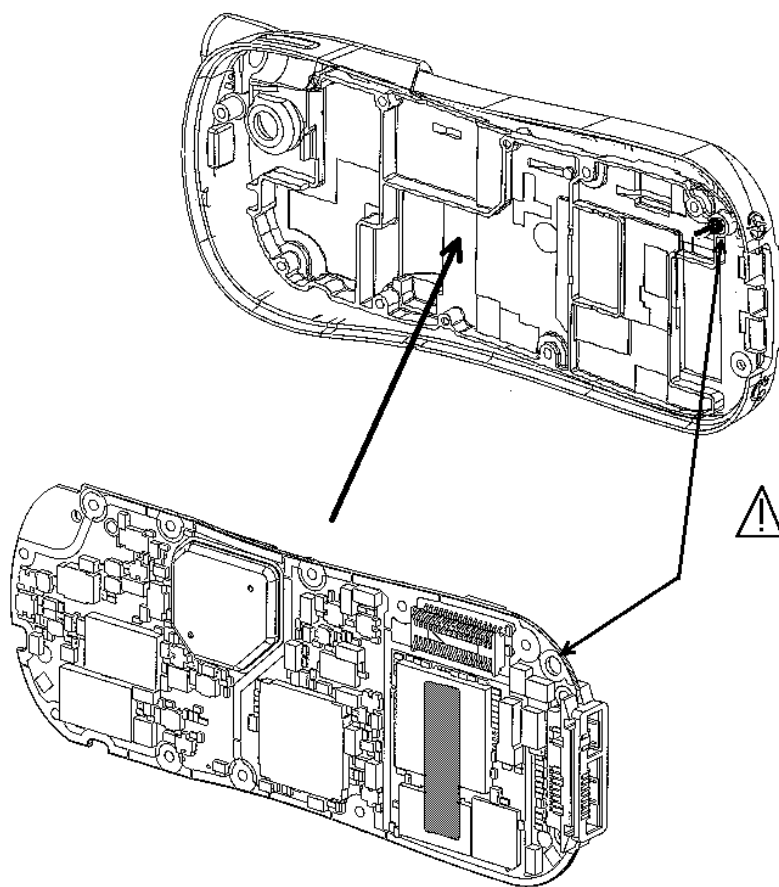
All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	27 / 46



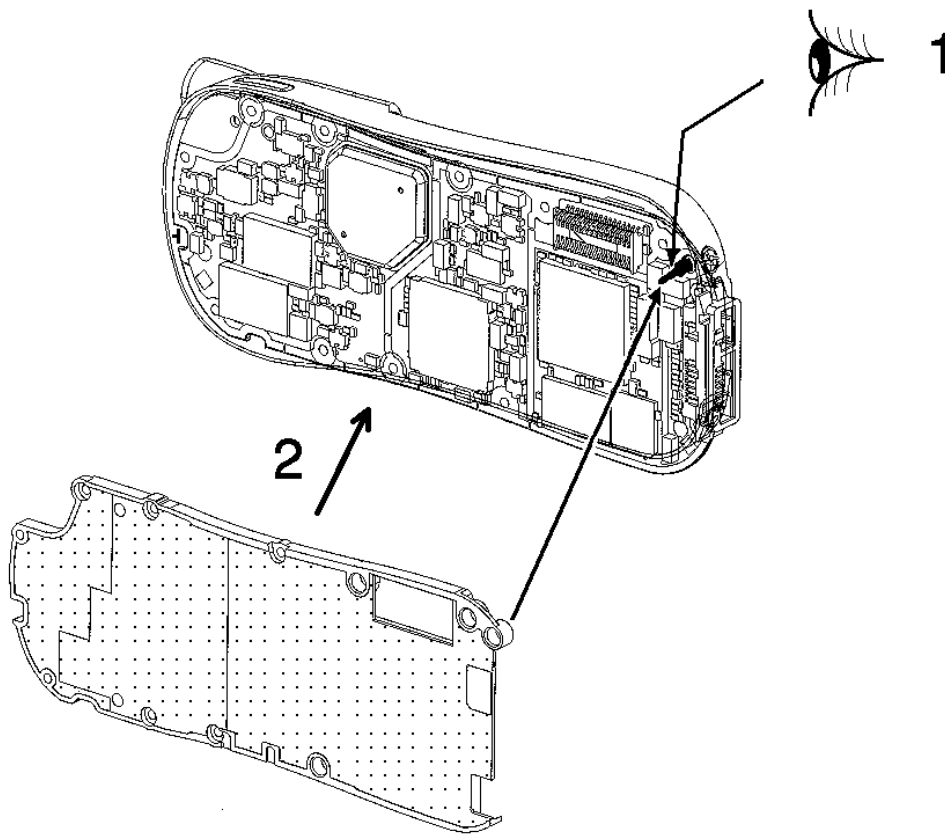
Place the rear casing on the plastic positioning tool (position1)

Place the lower shielding in the rear casing .
Be aware of the positioning pin guide .



Place the radiodigital board in the lower shielding. Be aware of J 904 , J 301 , and the positioning pin guide .

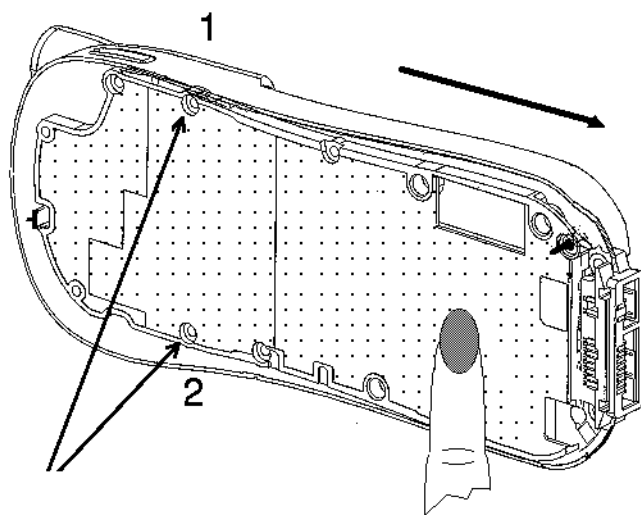
ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:	29 / 46

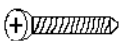



All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

Place the upper shielding .
 Be aware of the positionning pin guide .

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	30 / 46

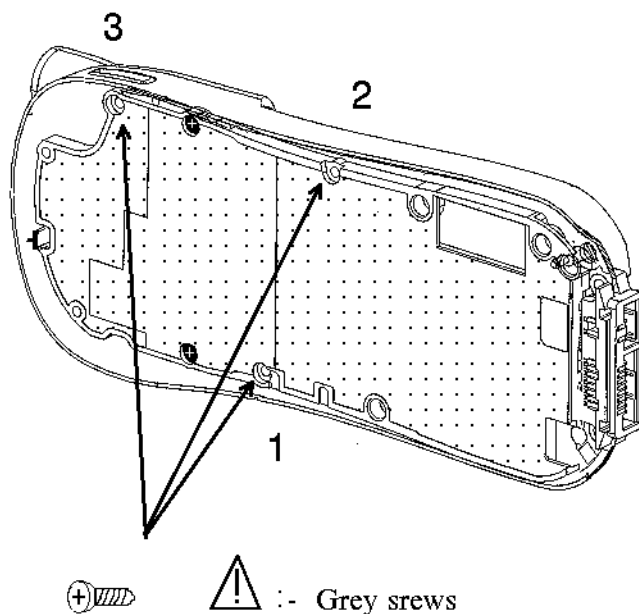




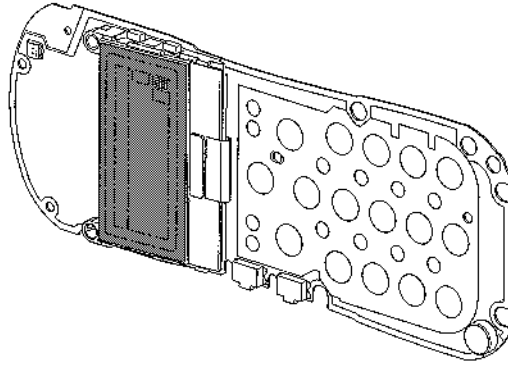
 : - White screws

Place the upper shielding with 2 white screws ;
shift the shielding towards J 904 .

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	31 / 46



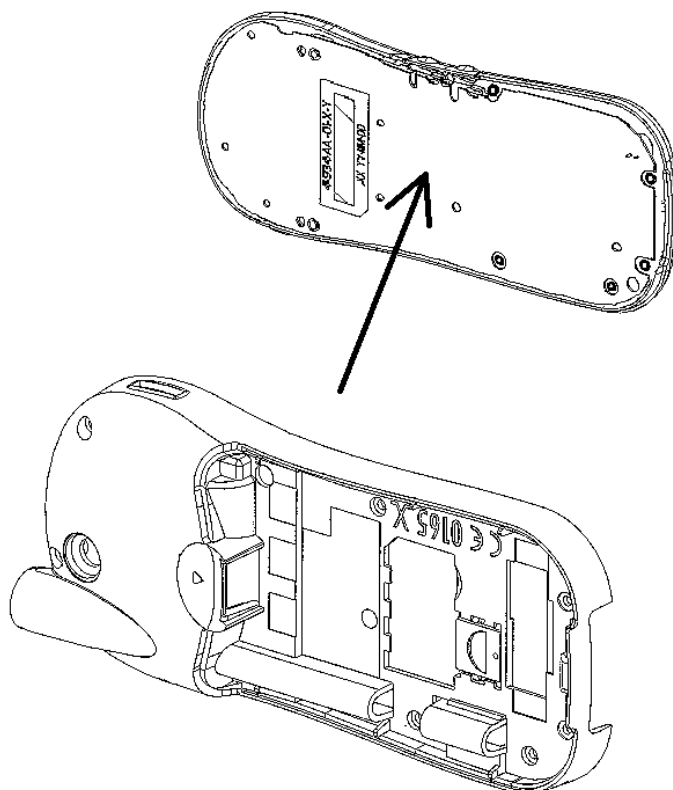
Screw the 3 grey screws ; respect the order of screwing as shown as above



All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.

Ionize the MMI board ; be aware of the display

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	33 / 46

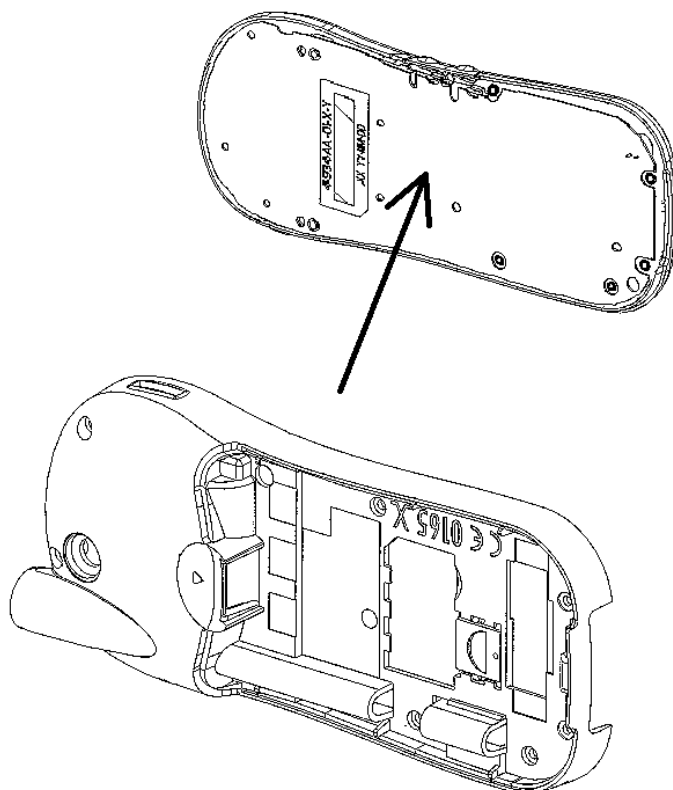


Place the front casing on the plastic positioning tool (position 2) .

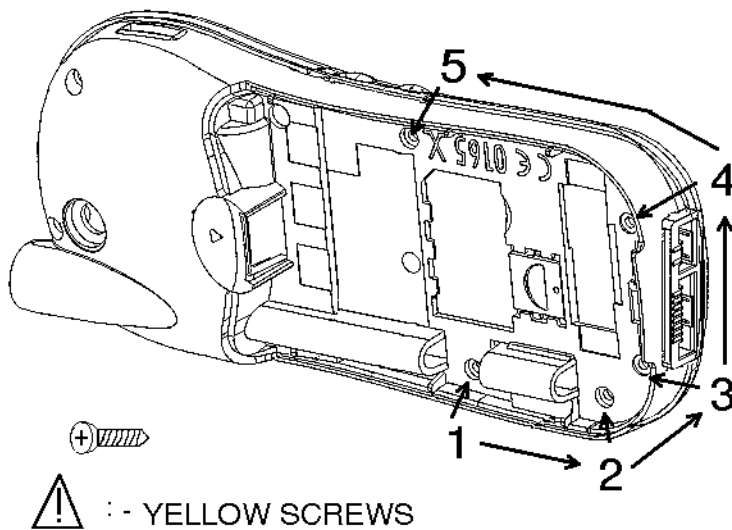
Be aware there is no dust on the glass of the front casing : ionize it .

Assemble the MMI board with the front casing + keypad .

Be aware of the earpiece contacts .



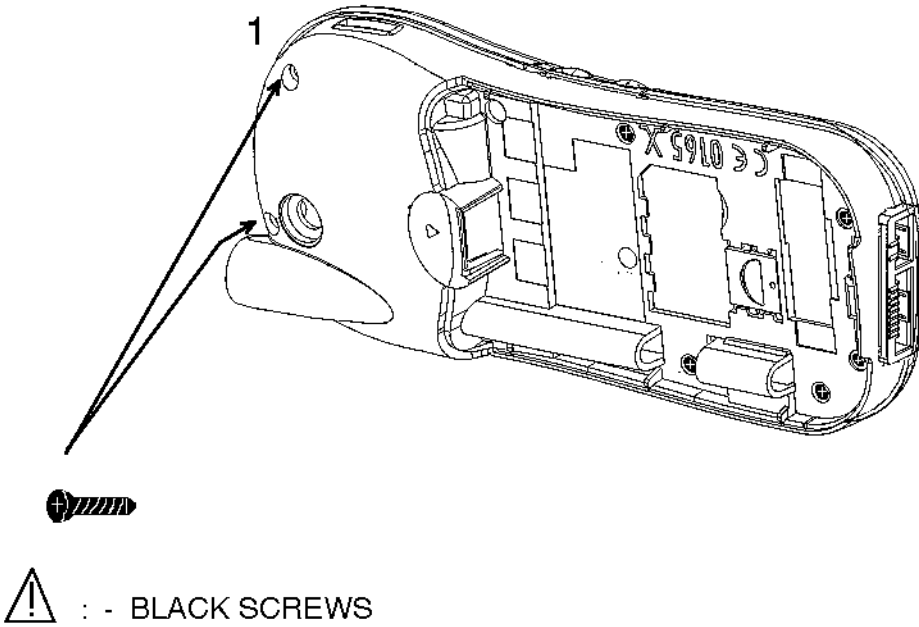
Assemble the rear casing + the radiodigital board to the MMI board + keypad .
 be aware of the good position of the volume keys .



Place the yellow screws ; respect the order of screwing as shown above .

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/	00000	Ref:	36 / 46

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization.



Place the 2 black screws .

ED	D00	05/10/2000	REPAIR DOCUMENTATION L	MULTI-PRODUIT BE1/BE3
	Dir:/data/RAFT/DATA_ALCATEL/doc/		00000	Ref:
				37 / 46



Screw the antenna as shown above .

Check the SWITCH ON of the handset .

7) STICKERS


7.1)Rear casing sticker

Find below the specification concerning the stickers for BE 1 product , the file associated is developed with the software CODESOFT and created on printer ZEBRA SPRITE 500 203 DPI .

The name of the file is IMEI_BE.LAB

This sticker must be printed when the rear casing has been changed .



N°	Name	Position x (mm)	Position Y (mm)	Orient.	Height (code Barres)	Nb and type for characters	Police / code	Variable
1	Code DATAMATRIX	19.25	7.30	0	6x6	Variable 50 max	DATAMATRIX ratio 3	DM
2	Product Type	17.00	13.36	180	-	20 max	" type "Helvetica	PROD
3	Distributeur	13.40	13.36	180	-	40 max	" type "Helvetica	DISTRIB
4	Commercial Référence	17.00	8.20	180	-	15 alpha	" type "Helvetica	REFCOM
5	Texte " Made in Europe "	17.00	11.70	180	-	-	" type "Helvetica	-
6	Hardware technical level	17.00	9.90	180	-	2	" type "Helvetica	PTH
7	Software technical level	13.00	9.90	180	-	2	" type "Helvetica	PTS
8	Date Code	9.00	9.92	180	-	3 alpha	" type "Helvetica	DC
9	IMEI (number)	17.40	6.00	180	-	15 num	" type "Helvetica	IMEI15
10	IMEI (bar code)	2.20	0.55	0	3,5	15 num	128 ratio 2	IMEI15
11		Vibrator Compatibility		180		Logo		

Content of DATAMATRIX code :

IMEI/Industrial reference/Hardware tech. level/Software tech. level/Commercial reference

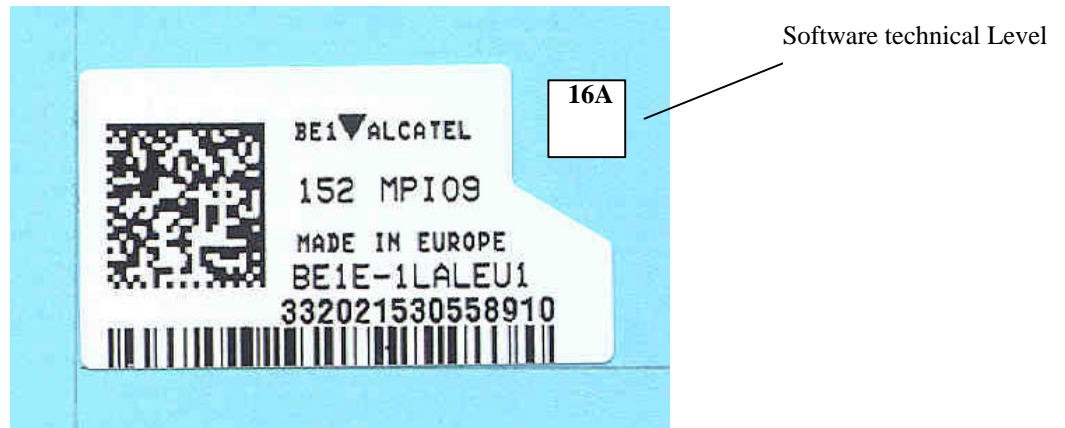
If the 2D bar code is not readable , you can enter the references manually

For this , use the file named : **BE_SAV** enter the references in the fields and for the commercial reference type :**3DS-SAV** .

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			39/46

7.2) Software Technical Level sticker

When the rear casing has not been changed , it is mandatory to upgrade the indication of the software technical level on the handset , as the software has been upgraded (unless the upgrade software is the same as the previous software)
A sticker indicating the software technical level must be stucked on the rear casing :



ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			40/46

8) CUSTOMIZATION SOFTWARE DOWNLOADING

8.1 Customization with an ACKSYS equipment

The customization software runs under **WINDOWS 95**

- For customization the interface box must be plugged in **POSITION 2** on **ACKSYS box**
- Under the screen **PROGRAM MANAGER** click on **TELE BE1 Exx_xx** or **TELE BE3 Exx_xx**
- Read the DATAMATRIX ⁽¹⁾ code with the “ 2D scanner ”
- Put the terminal on the interface (ref : 24003096) and validate by **ENTER**
- Wait for the message “ **PASS** ”*

See Data for customization on the “ BE1 or BE3 Software Documentation ”

*If the message is “ **FAIL** ” the terminal needs a LEVEL 3 repair

⁽¹⁾Content of DATAMATRIX code :

IMEI/Industrial reference/Hardware tech. level/Software tech. level/Commercial reference

8.2 Customization with an ELIOS equipment

See Elios documentation for the installation of the system.

The customization software runs under **WINDOWS NT**

- Click on **OTR BE1** or **OTR BE3**
- Fill in the fields :
 - enter the « **Commercial Reference** »
 - enter any value for the « **n° OPL** » (e.g : 99)
 - enter any value for the « **n° OF** » (e.g : 12)
 - enter the quantity of the handsets to customize
- Click on « **Lancer le lot** »
- Click « **oui** » to confirm the customization
- Wait for the end of « **Phase d’initialisation** »
- Put the handset on the interface (the LED lights orange)
- Wait for the LED lights green *

See Data for customization on the “BE1 or BE3 Software Documentation ”

* if the LED lights red : an error message appears (e.g : a faulty code such as Z xxx)

9) FINAL TEST

The final test is divided into 2 parts : a functional part and a measurement part.

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			41/46

9.1 Functionnal test

During the functional test, the following points must be checked :

- Cosmetic aspect of the handset, the stickers state on the rear casing
- Switch on the handset
- Welcome message (see « BE1 or BE3 software documentation »)
- The display and keypad backlighting
- Functionning of all the keys(bip and display)
- Plug of a charger : right position of the charger, display of the charge indicator
- Place the protection cap of the RF connector (J 300)

9.2 Measurements

At least the following must be checked :

Measurements	Channels	Power levels	Conditions
Connection Mobile	63*	9	Car kit
Call base from mobile	5*	9	Car kit
Power level measurements	5*	5	Car kit
Phase error measurements	5*	5	Car kit
RX level measurements	5*	5	Car kit
Power level measurements	70*	9	Car kit
Phase error measurements	70*	5	Car kit
RX Level measurement	70*	19	Car kit
Power level measurements	120*	5	Car kit
Phase error measurements	120*	5	Car kit
RX Level measurements	120*	5	Car kit
Power level measurements	515*	0	Car kit
Phase error measurements	515*	0	Car kit
RX Level measurements	515*	0	Car kit
Power level measurements	880*	0	Car kit
Phase error measurements	880*	0	Car kit
RX Level measurements	880*	0	Car kit
Audio test (GSM)	70*	9	Car kit
Hang up	70*	9	Car kit
Call mobile from base	700*	9	Radiated measurements
Power Level measurements	700*	0	Radiated measurements
Audio test (DCS)	700*	0	Radiated measurements
Audio test (GSM)	70*	5	Radiated measurements
Hang up	70*	9	Radiated measurements

*these values are given for indication,compatible low,middle and high channels have to be found

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			42/46

APPENDIX 1

FAULT CODES

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			43/46

FAULT CODES FOR HANDSET FAILURE DESCRIPTION

Code	Description	Comments
AFF	Display failure	No displaying, missing lines or columns
CLA	Keyboard or TPA or lateral keys failure	Pressing a key does not work or the sensation is not OK.
ECL	Lighting problem	On keyboard or display
EST	Cosmetic problems	The handset is functional , but the end-user sends the phone back to after sales for aesthetic reasons (eg : defective housing at antenna connection, striped window)
MEC	Mechanical failure	The handset is non functional because of an external broken part (eg : battery connector broken , rear connector damaged)
SIM	SIM reader failure	The product requests "check SIM"
VIB	Integrated vibrator problem	
ECH	Audio	Bad audio in discrete mode or in integrated hands free, or in a car kit
RIN	Ringling + key beep failure	The ringing or beep sound is not OK
DHO	Date / Hour problems	The product asks for the date after a switch off without taking off the battery
LOC	Locked by customer	The end-user has programmed something in the menus and thinks the product is faulty (eg : product code, switch off after 10 minutes ...)
MST	Switch On failure	The handset does not switch ON, but the battery is OK
CHB	Battery charge failure	The charge of the battery does not work correctly, but the battery is OK
BAT	Battery failure	if the handset is functional and the battery is NOK (eg short circuit on an element..) Concerns only the handsets coming back with their battery
OTO	Autonomy problem	The end user complains about autonomy problem, but the handset is functional
NWK	Network error failure	Problem of RF connection in live network (name of the operator does not appear, or network icon blinks...)
RFM	Radio measurement failure	Concerns any measurements on a GSM tester
RST	Auto switch off or Reset	If the end user complains about auto switch off or reset, but nothing can be seen in the repair process
SLO	SIM Lock failure	The product asks for " NETWORK KEY " when switched on
NFF	No Fault Found	
OXY	Corrosion problem	Only if corrosion is the cause of the return in after sale.

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			44/46

APPENDIX 2

EQUIPMENT FOR LEVEL 2 REPAIR CENTRE

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			45/46

MANDATORY EQUIPMENT SUPPLIED BY ALCATEL

- Plastic positionning tool (for assembly / disassembly)
- Plastic positionning tool for radiodigital board
- Final test kit (charger, battery, 2 SIM test cards, car kit)
- Dummy battery (for DHO test)
- ACKSYS equipment (bench and interfaces)
- Dongle (used for downloading and customisation)
- Stickers

MANDATORY EQUIPMENT NOT SUPPLIED BY ALCATEL

- Table cover and wristlet for ESD protection
- Soldering iron (adjustable temperature)
- Hot air machine
- Solder
- Desoldering wick
- Electrical or manual dynamometric screw driver
- Ionizing air gun or cold air blower
- Binocular
- Printer (2D bar code compatible)
- 2D bar code reader (with the cable which allows to plug the reader and the keyboard in parallel)
- GO/NOGO tester
- Computer for ACKSYS equipment
- Software for stickers printing

ED	04	09/10/00 REPAIR DOCUMENTATION BE1 and BE3 Level 2	BE 1/BE3
			46/46