SITE TECHNICAL DOCUMENTATION
myc3-2,myc3-2j

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SAGEM
17 : 05
mon 7 JUN


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Contents

CHAPTER 1 - FOREWORD

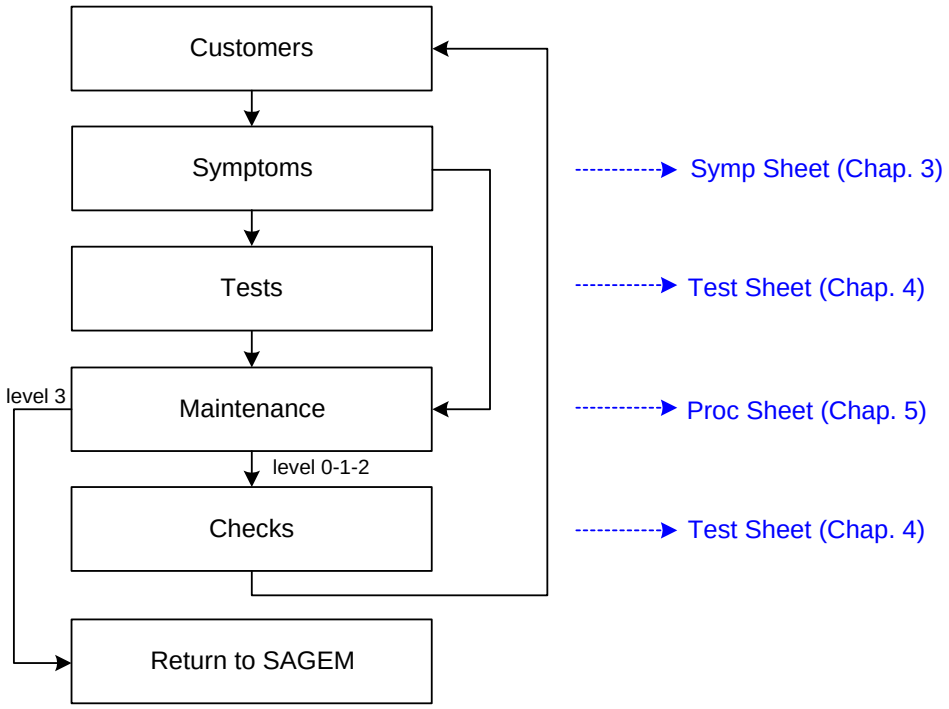
This document is common to all myc3-2,myc3-2j phones in the SAGEM. It is composed of independent sheets:

- Symptom sheets = Symp Sheet XX
- Test and check sheet = Test Sheet XX
- Maintenance procedure sheet = Proc Sheet X XX

The applicability of a procedure is indicated in the independent sheets title block.
These sheets are updated from time to time in Technical Information Bulletins (TIB).
The information contained in this document is non-contractual, since phone characteristics can change.
Phones are managed based on SAGEM handset codes; any order for spare parts must refer to these codes (typical code 25 xxx xxx-x).

1.1 HOW TO USE THE SITE TECHNICAL DOCUMENTATION

This is a modular document. Each sheet is single and independent. In some cases several sheets may have to be used in order to determine the complete procedure to be applied.
A troubleshooting chapter (chapter 3) is provided and is sorted according to the type of reported fault, to determine the maintenance procedure to be carried out.
These sheets describe the procedure to be followed. They refer to test sheets or removal and replacement maintenance sheets. Maintenance ,executed by the repair center, terminates either by returning the product to the customer, or by dispatching it to level 3 maintenance (return to factory).
The procedure sheets have a number but not systematically consecutive but always in a growing order.



All sheets include illustrations to make it easier to read the procedure.

Chapter 1: Foreword, describes general data about this document.

Chapter 2: Description - Operation, describes general data and options available in the myc3-2,myc3-2j.

Chapter 3: Symptoms, contains troubleshooting procedures to be carried out on equipment.

Chapter 4: Tests and checks, contains tests and check procedures to be performed on the equipment.

Chapter 5: Maintenance procedures, contains level 0 to 2 maintenance procedures to be carried out on the equipment, and the procedure to return to SAGEM level 3.

Chapter 6: Accessories, describes the characteristics of accessories for myc3-2,myc3-2j phones.

Chapter 7: Technical Information Bulletins, contains the various modifications made to this documentation.

Chapter 8: Illustrated Parts Catalogue, contains the various reference for spare parts.

1.1.1 Use

The DTS can be used by means of computer or by paper medium

-For circulation on the DTS one can use the contents which consists of bonds hypertext, and in bottom of each page, one finds a bond which makes it possible to return until the contents.
-For the paper use an index east provides on last page which indicates the numbers of pages of each heading.

1.2 ABREVIATIONS

AAC	Advanced Audio Codeur
ADPCM	Adaptive Differential Pulse Codec Modulation
ALS	Alternative Line Services
AOC	Advice Of Charge
CCD	Charged Coupled Device
CLI	Calling Line Identification
CLIP	Calling Line Identification Presentation
CSTN	Colored Super Twisted Nematic
DCS	Digital Cellular System
EFR	Enhanced Full Rate
EMS	Enhanced Message Service
FDN	Fixe dial number
GPRS	General Packet Radio Service
GSM	Global System for Mobile
IMEI	Internationnal Mobile Equipment Identity
ISO	International Standard Organisation
LCD	Liquid Crystal Display
LU	Livret d'Utilisation
MMS	Multimedia Message Service
PCS	Personnal Communication Service

PIN Personal Identity Number
PUK PIN Unlocking key
RF Radio Frequence
SAR Specific Absortion Rate
SIM Subscriber Identity Module
SMS Short Message Service
SMS CB Short Message Service Cell Broadcast
SMT Sagem Mobile Tools
TFT Thin Film Transistor
USSD Unstructured Supplementary Service Data
VGA Video Graphics Array
WAP Wireless Application Protocol
WiFi Wireless Fidelity
WSP Wireless Session Protocol

1.3 COMMENTS SHEET

Broad experience is very beneficial in several respects. Please let us know your comments so that we can improve the contents and presentation of this document.

Your suggestions will be read carefully by :
- the design laboratory,
- production,
- the purchasing department,
- the after sales service,
- all users of this document.

All your suggestions are valuable, they will help us to better satisfy you.
Please photocopy and fill in the sheet 1-4.

Document title: **Site Technical Document**

Reference :

Date :

Please fill in the following table :

	Excellent	Good	Fairly good	Passable
Easy to find the required information				
Clarity of information provided				
Quality and accuracy of information given				
Document outline				
Document presentation and appearance				
Quality of illustrations				
General satisfaction				

Do you think this document could be improved ? if so, how ? :

- ☐ Improve the overall view
- ☐ Improve the table of contents
- ☐ Improve the structure
- ☐ Add illustrations
- ☐ Add details
- ☐ Add information

Comments : _____
_____
_____

Would you like to discuss the problems mentioned in this questionnaire? If so, state :

Name of the person to be contacted : _____ Phone : _____

Company : _____ Date : _____

Address : _____

THANK YOU FOR PARTICIPATING IN THIS ENQUIRY. YOUR COMMENTS WILL HELP US CONTINUE TO IMPROVE THE QUALITY OF OUR DOCUMENTATION AND THUS BETTER SATISFY YOUR NEEDS.

When you have filled in this questionnaire, please send it :

- by mail, to **SAGEM S.A.**
  CHEMIN DE BAILLOT BP 357
  82003 MONTAUBAN CEDEX
  FRANCE

YOU CAN CONTACT US ON: cra.mobile@sagem.com

CHAPTER 2 - DESCRIPTION - OPERATION

2.1 REMINDERS ABOUT THE GENERAL CHARACTERISTICS OF GSM 900, DCS 1800 and PCS 1900

Table 1 below gives the characteristics of the radio interface for the GSM 900, DCS 1800 and PCS 1900 systems :

	GSM 900	**DCS 1800**
Frequency Band (MHz)	880 - 915 925 - 960	1710 - 1785 1805 - 1880
Number of time intervals per TDMA frame	8	
Width 2 x W simplex (MHz)	2 x 25	2 x 75
Duplex spacing (MHz)	45	95
Modulation speed (kbit/s)	271	
Speech throughput (kbit/s)	13 (5,6)	
Maximum data throughput (kbit/s)	12	
Multiple access	Multiplexage fréquentiel et temporel / duplexage fréquentiel	
Cell radius (km)	0,3 à 30	0,1 à 4
SAGEM terminal power (W)	2	1

Tableau 1 : Interface Radio

Table 2 shows powers as a function of the network:

	GSM 900		**DCS 1800**	
Class number	Maximum nominal power (W)	Allowable interval (W)	Maximum nominal power (W)	Allowable interval (W)
1	-	-	1	[0,63 ; 1,6]
2	8	[5,0 ; 12,7]	0,25	[0,16 ; 0,4]
3	5	[3,2 ; 7,9]	4	[2,5 ; 6,3]
4	2	[1,3 ; 3,2]		
5	0,8	[0,5 ; 1,3]		

Tableau 2 : Classe des puissances des terminaux

Table 3 shows power classes :

	Class 1	Class 2	Class 3	Class 4	Class 5
GSM 900	43 dBm	39 dBm	37 dBm	33 dBm	29 dBm
DCS 1800	30 dBm	24 dBm	36 dBm	-	-

Tableau 3 : Classes de puissance RF

2.2 REMINDERS ABOUT THE CHARACTERISTICS AND OPTIONS

General characteristics

Name

Name	myc3-2,myc3-2j

Size

Dimensions	77x41.7x22.7
Weight	75
Volume	70

Power management

Battery type	Li-Ion 650mAh
Connector type	Clam
Charging time	4h00
Talk time	3h00
Standby time	240h00

User interface

Screen type	CSTN
Colours	65536
Number of lines	8
Screen size	25,9x28 (AA) ; 28,3x30 (VA)
Screen resolution	128x128
Backlight	yes,blue
Sub LCD	Yes, Black and white, 96x64 pixels with white
	backlight

Customisation

Handset colours	Black and silver
Interchangeable covers	no

Radio

Type GSM	biband
GSM Band	900/1800 mhz
Voice codecs	EFR, HR, FR, AMR

Operating system

Operating System	Proprietary

Connectivity

Radio

GPRS	Yes class 10 (4+1 & 3+2)
EDGE	no
UMTS	no

Internet

Browser	Wap 1.2
Push	yes
Fax modem	yes

Data transfer

Serial	no
IrDA	no
Bluetooth	no
USB	Yes, USB cable (accessory)
Wifi	no
PC synchronisation	no

Multimedia

Messaging

SMS	MO/MT/CB
EMS	yes,R5
MMS	yes, R4

E mail	no
IMPS	no
Predictive text input	T9

Video & images

Camera	no
Image features	no
Video Player	no
Image Format	BMP,WBMP,PNG,JPEG,GIF,GIF

Audio

Audio player	yes
Audio Recorder	yes
FM radio	no
Polyphonic ringtones	yes,16 tones
Audio formats	IMELODY,MIDI,WAV (PCM, ADPCM), AMR

Entertainement

Wallpaper	Yes (20 + hazardous choice)
Screensaver	Yes (2 animations + 20 wallpapers)
Clock display	Yes, analog or digital
Icons	yes
Bookmarks inserted in Games menu	no
Embedded Games	Yes (2)

JAVA

JAVA	No

OTA dowload

Protocol supported	EMS,MMS,WSP-Get,WAP save as, M-Service
Animation	yes (max 280 ko)
Menu icon	yes (max 280 ko)
Games	No
Ringtones	Yes (Imelody 1.2 MIDI,WAV), max 280Ko

Java application	No

Call management

Voice features

Mute mode	yes
Numerotation vocale	no
Integrated handsfree mode	yes

Adress book features

Call group	yes
Ringtone and Icone customisation	yes
Personal information management	yes

Advanced features

Conference call	yes
Anonymus mode	yes
Call wait	yes
Call forwarding	yes
Automatic redial	yes
SIM toolkit	yes
Vibrate mode	yes
Speed dialing	Voice mail box only (press on key 1)
Call list	yes
Caller ID	yes
Any key answer	no
Automatic hang up	yes

Special features

Keyboard features

Scroll key	Yes, 2 side key
Direct access key	yes
Keypad lock	yes

Silent key	Yes, by long press on #
International access key	Yes, by long press on 0
Menu key	yes

Personnal management features

Calculator	yes
Alarm Clock	yes
Timer	no
Organizer	yes
To do	yes
Voice recorder	Yes, codec AMR
Currency converter	yes
Languages	Up to 4 languages embedded

Memory

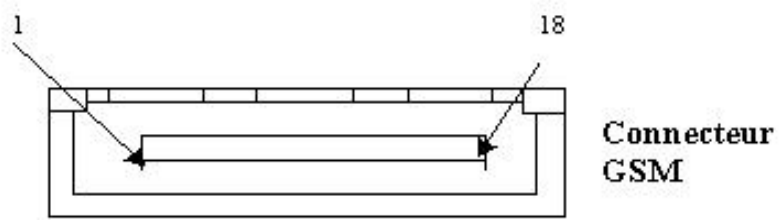
Memory

Internal phone book	Up to 255
Memoire message	Up to 100
Redial List	Up to 20
Additional multimedia memory	no
Embedded memory	Up to 280 Ko (150 just for MMS)

2.3 IN & OUT CONNECTOR

2.3.1 Connector description

This connector is located at the bottom of the transmission module and enables the connection to various accessories. It comprises power supply pins and signals.



2.3.2 Signal description

Symbol	Pin connector	Signal fonction
HSCMICIP	1	Differential inpout for external microphone
HSCMICN	2	Differential inpout for external microphone
HSOL	3	STEREO AND MONO AUDIO OUTPUT
HSOR	4	STEREO AND MONO AUDIO OUTPUT
VBAT	5	POWER SUPPLY IMAGE VOLTAGE, connect this signal to "CHARGER" (pin n°1) to switch the module on.
INTI2C	6	Interrupt signal reserved for sagem specific accessories
CTS	7	Link v24 suit for accessory data
RTS	8	Link v24 suit for accessory data
DSR	9	Link v24 suit for accessory data
DTR	10	Link v24 suit for accessory data
TXD1	11	Link V24 suit for accessory data
Chargeur	12	Phone set power ON and power supply signal
GND	13	ZERO VOLT
RXD1	14	Link V24 suit for accessory data
R1	15	Complete V24 tie for data accessories
DCD	16	Complete V24 tie for data accessories
RXD2	17	Application input serial n°2
Chargeur	18	Phone set power ON and power supply signal

2.4 IDENTIFICATION

All phones are identified with an identification label sticked on the antenna.

2.4.1 Illustration

2.4.2 Desrcription

a1 : IMEI (bar code),
a2 : IMEI (15 characters)
b1 : Reference of product / aesthetic used .
b2 : Kind of handset / SAGEM Family.
c1: customer personalisation
d1: Production date (date code) + Production level,
Ex. F260/03 = (F) fabrication area (F : Fougères), (260) day of year, (03) last digit of year (03®2003).
e1 : Logo and agreement.

2.4.3 Description after repair

A new sticker is positioning by Repairing Centre on the antenna:

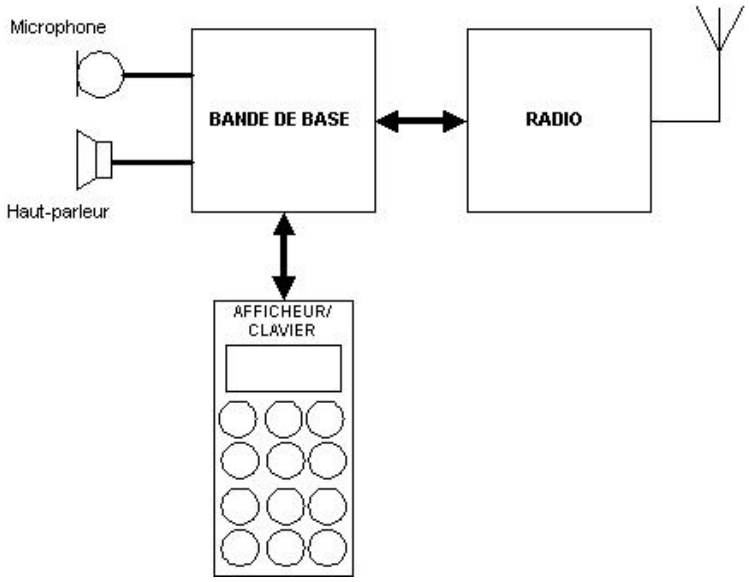
This extra line will appear if the mobile has already been repaired.

- CRA XXX -> N° de CRA.

- 260/03 -> Date of repair (260), repairing day (03), last digit of year (03->2003).

2.5 PHONE BLOCK DIAGRAM

2.5.1 block diagram



2.5.2 Standards and environment

The phone complies with the following standards.

Directive EEC 1999 / 5 / CE
Safety (security) EN 60950
CEM EN 301 489-1 / EN 301 489-7
Voltage 73 / 23 / EEC
Network 3GPP TS 51.010-1 v 5.2.0 with included GCF-CC V 3.10.0
Requirements GT01 v 4.7.0 / TBR 19 edition 5 / TBR 20 edition 3
TBR 31 edition 2 / TBR 32 edition 2 / EN 301 419-1 / EN 301511
Health EN 50360 / EN 50361

2.6 EQUIPEMENTS

The description and operation of SAGEM myc3-2,myc3-2j are given in the "User's handbook" supplied with the handset. This chapter only describes equipment that operates with the myc3-2,myc3-2j handset.

2.6.1 Battery packs

2.6.1.1 Charactéristics

Designation	Technology	Weight	Voltage	Capacity

2.6.1.2 Description

Li-ion type batteries are used. They are rechargeable using:

- mains power supply module.

Batteries caution use:

·Store the batteries in a dry and cool place (excessive cold and heat damage the batteries reliability).
·They must never be stored in bulk, even the rejects, to avoid any short circuits.
·Do not dismantle the battery packs. (Li-Ion regulations).
·Only use original mains power supply module.

2.6.1.3 Charging time

The following table shows typical charging times for different batteries.

Battery : Li-Ion 650mAh

Charger	simple unregulated chargers 230	
Voltage	230 V (110V)	
Charging times	2 h	1h 45

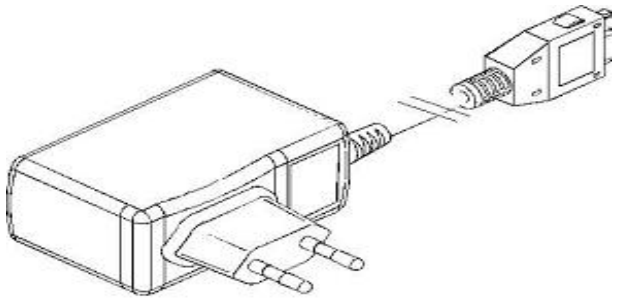
2.6.2 Mains modules

2.6.2.1 Description

These mains power supply modules accept large dynamic variations in the power supply network. They are available for a number of connector types:

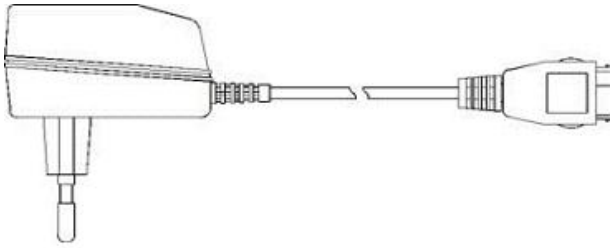
- E.E.C,
- United Kingdom
- United States,
- Australia.

2.6.2.2 Travel mains modules



Designation	Weight (g)	Volume (cm3)	Voltage
US Power supply	125	65	110/230 V
UK Power supply	110	90	110/230 V
AUS Power supply	100	75	110/230 V
EEC Power supply	100	75	110/203 V

2.6.2.2 Simple mains modules



Designation	Weight (g)	Volume (cm3)	Voltage
AUS Main module	190	105	230 V
CE Main module	180	85	230 V
UK Main module	180	120	230 V
US Main module	210	105	110 V

CHAPTER 3 - SYMPTOMS

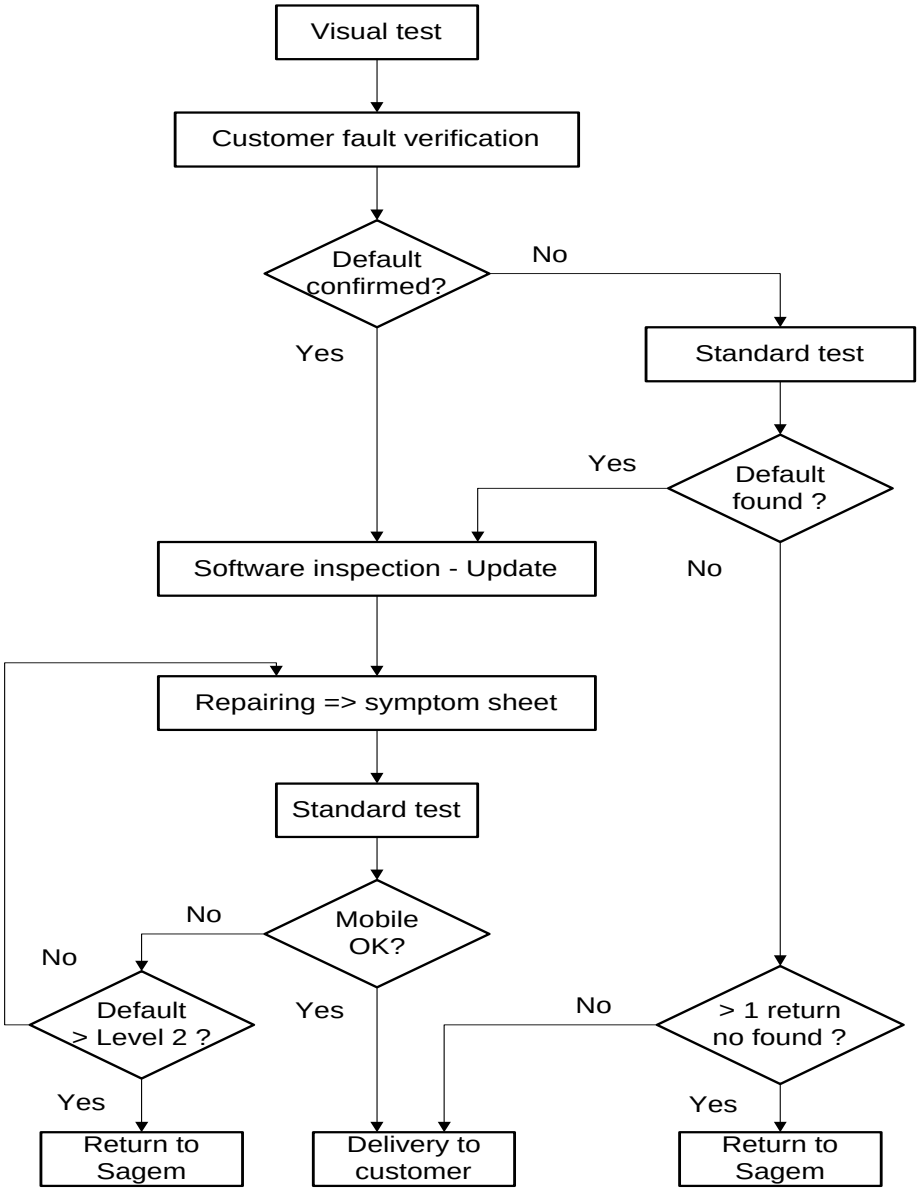
3.1 GENERAL

After you have received the customer return sheet (Proc Sheet 3 02), carry out the troubleshooting procedure.
This chapter will help you to identify the defective element(s), using the troubleshooting table.
It contains flow charts broken down by fault type. Each flow chart describes the procedure to be followed and contains cross references to tests or maintenance.
These flow charts should be followed in full. After a reference to a removal/replacement sheet or to a test to be carried out, you should return to the initial flow chart and continue the search until reaching a final conclusion.

The conclusion of each troubleshooting procedure is :

- Return to SAGEM =The Return to the SAGEM centre can concern either the card, or the radiotelephone according to instructions given to the Centres of repair.
- Delivery to the customer

The mobiles will not be refurbished without a special and wtitten authorisation .


Visual test
Customer fault verification
Default confirmed?
No
Yes
Standard test
Default found ?
Yes
No
Software inspection - Update
Repairing => symptom sheet
Standard test
Mobile OK?
No
No
Default > Level 2 ?
Yes
Yes
No
> 1 return no found ?
Yes
Return to Sagem
Delivery to customer
Return to Sagem

Visual test :

-Connector condition (in / out connector, battery, SIM)
-keypad concdition (elastomer,inscription)
-Pane condition
-Plug and position of battery
-SIM card position
-Oxidation
-Charger test

Standard test :

-Display test : Hot Line menu
-Contrast control
-All keypad keys test (check bips keys)
-Test fonction camera
-Audio and radio test
-Battery charge test
-Vibrating device test : Hot Line menu

Software inspection :

For all mobiles to repair, the checking by SMT is mandatory (Test Sheet 01).

3.2 LIST OF REPORTED DEFECTS

The following is a list of defects that may be reported :

Default	Anomaly	Procédure
A1	No power up	Symp sheet 04
A2	No display up	Symp sheet 04
A3	Freezes up	Test sheet 01
A5	Broken LCD	Symp sheet 04
A6	Line or digit missing	Symp sheet 04
A10	broken or missing antenna	Proc sheet 1 02
B1	Defective contact battery	Symp sheet 01
B2	Defective charger connector	Proc sheet 1 20
		Proc sheet 3 01
B3	Defective board power supply	Proc sheet 1 20
		Proc sheet 3 01
B4	Defective charge icon display	Proc sheet 1 20
		Proc sheet 3 01
B5	Current consumption with phone off	Test sheet 04
B7	Autonomy	Symp sheet 01
B8	Electrically defective battery	Test sheet 03
B9	Mechanical problem on lock battery	Proc sheet 0 01
B10	Broken battery	Test sheet 03
B11	Defective charger	Test sheet 02
B12	Broken charger	Test sheet 02

B13	Intermittent cut with reboot	Proc sheet 1 20
		Proc sheet 3 01
B14	Intermittent cut without reboot	Proc sheet 1 20
		Proc sheet 3 01
C1	Not functioning keyboard	Symp sheet 05
C2	Lateral key problem	Symp sheet 05
D1	SIM missing	Proc sheet 1 20
		Proc sheet 3 01
D2	Other messages	Proc sheet 1 20
		Proc sheet 3 01
D3	EEPROM problem	Proc sheet 1 20
		Proc sheet 3 01
D4	Untuned mobile	Proc sheet 1 20
		Proc sheet 3 01
D5	Hard failure	Proc sheet 1 20
		Proc sheet 3 01
D6	SIM lock	Proc sheet 1 20
		Proc sheet 3 01
D7	Post code	Test sheet 01
D8	Return SAV	Proc sheet 1 20
		Proc sheet 3 01
D9	Unknown battery	Test sheet 03
E1	Defective loudspeaker (hails)	Symp sheet 10
E2	Loudspeaker voice distortion	Symp sheet 10
E3	Defective microphone	Symp sheet 08

E4	Vibrating device malfunction	Symp sheet 07
E5	Vibrating device malfunction	Symp sheet 07
E6	Defective audio connector	Symp sheet 08
F1	No network localisation	Symp sheet 02
F2	Intermittent calls drop	Symp sheet 02
F4	Radio control no OK	Proc sheet 1 20
		Proc sheet 3 01
F5	Outgoing call failure	Symp sheet 02
F6	Incoming call failure	Symp sheet 02
G1	Broken or damaged window	Proc sheet 1 10
G2	Broken or damaged cover	Proc sheet 1 10
G5	Broken or damaged keypad	Proc sheet 1 04
H1	Accessory problem	Proc sheet 3 01
H2	DATA problem	Proc sheet 3 01
H3	Monetic problem	Proc sheet 1 20
		Proc sheet 3 01
I1	Oxidation mark	Proc sheet 1 20
		Proc sheet 3 01
I3	Monetic function	Symp sheet 03
I5	Defective SIM connector	Test sheet 01
I6	Defective sim connector	Proc sheet 1 20
		Proc sheet 3 01
I7	Lack function in the menu	Test sheet 01
I8	No fault found	Test sheet 01

3.3 ERROR MESSAGES DURING START UP

Message drawn	Message signification	Action
WARNING UNTUNED RADIO	Invalid EEPROM field (SAGEM)	SAGEM Factory Return
PB IMEI	Consistency problem at IMEI level	SAGEM Factory Return
SIM MISSING	SIM card missing or badly inserted	Insert the SIM card
IMEI ERROR	Consistency problem at IMEI level	SAGEM Factory Return
UNTUNED	Mobile not configured	SAGEM Factory Return
UNKNOWN BATTERY	Battery not recognised by the mobile	Replace the battery
MOBILE PHONE LOCKED	Number of seizures of sim locked code exceeded	SAGEM Factory ReturnNot repair under warranty
SIM BLOCKED	Three bad PIN codes have been input	Contact the operator
SIM LOCKED (with SIM)	SIM card not adapted to the operator	Replace the SIM card
SIM LOCKED (without SIM)	Attempt of corruption (EEPROM fields)	SAGEM Factory ReturnNot repair under warranty
BATTERY TOO LOW	Battery state	Replace the battery

Nota : Return centre after sales service department SAGEM can concern either the card, or the mobile, according to instructions given to the CRAs.

3.4 OTHER ERROR MESSAGES

Message drawn	Message signification
BUSY	Problems related to the network and Communications

K.PAD LOCKED PRESS *OK	Keypad locked
OPTION NOT AVAILABLE	Menu not available for this product version
PROG.KEY NOT VALID	Input Problems
ERROR!!	Calculation error with the calculator (division by zero)
NOT AVAIL	Not available
PIN ERROR	PIN input problems
PIN2 BLOCKED	Following input errors
PUK ERROR	Following input errors
PUK2 BLOCKED	Following input errors
CODE ERROR	The phone code input for locking the mobile is incorrect
NOT REACHABLE	Call forwarding if the mobile is not reachable
NOT AVAIL	Service not implemented in the network

3.5 LIST OF OBSERVED DEFECTS

A SAGEM code is assigned to each confirmed defect. This code should be entered on Proc Sheet 3 01, SAGEM Factory Return, if the phone to be repaired is returned to SAGEM (see chapter 5).

3.6 INFORMATION ABOUT NEW NOTICED FAULTS

Detection by the repair center of new fault shall induce to respect the following procedure

a) The concerned technician fills a precise report using the document NPD report SAV GSM 277 V1

b) Then, this document is transmitted by email to the concerned Area Manager or Support Engineers for approval. Accordingly, 2 ways are possible :

- The problem is already known by SAGEM, then the mobile have to follow the normal process in ARC with eventual additional data given by AM or SE
- Return of mobile to MTB is requested.

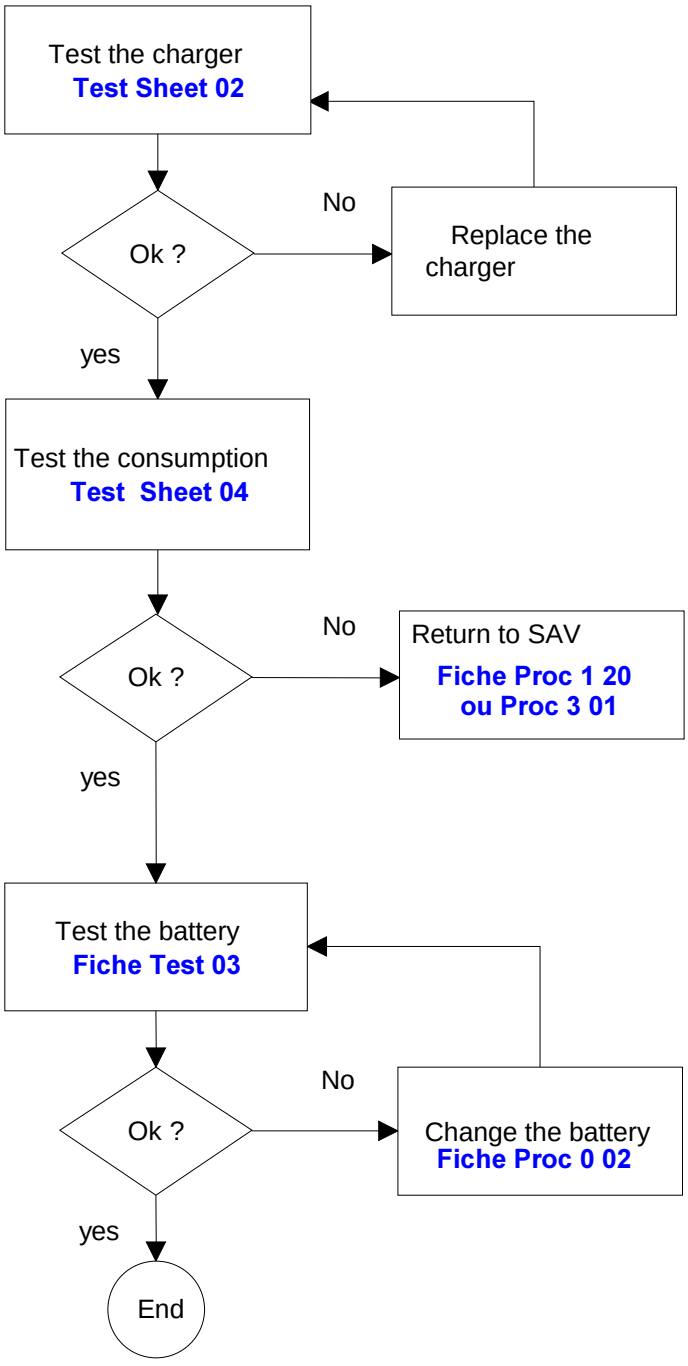
c) In that second case, the ARC will have to request a specific RMA number for this mobile in order to facilitate the treatment when arriving in SAGEM.

d) This mobile returned to SAGEM will be swapped following ARCs habitual process for MTB return but will be MANDATORY linked to a paper version of the document filled by the technician.

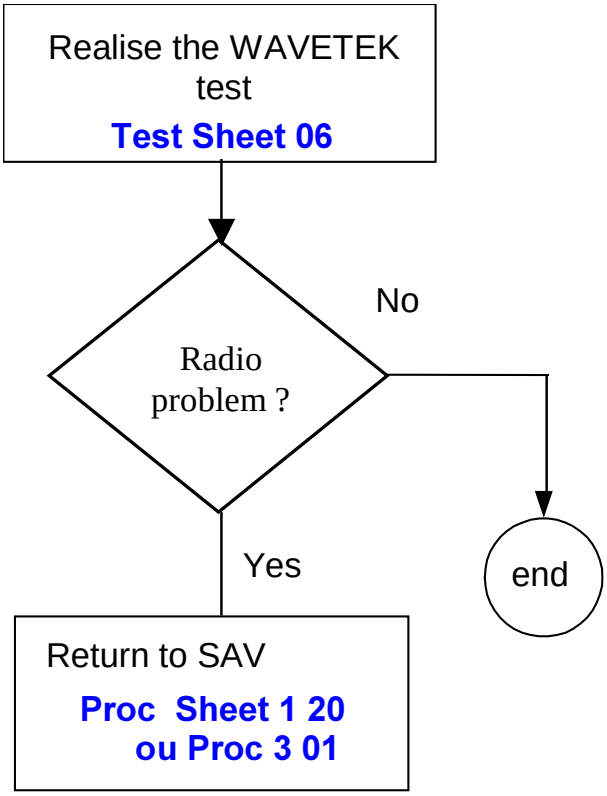
e) The treatment will have to be reproduced on the daily report and will be considered as level 3. Specified fault code will be then the technically closest one of the noted one, in the grid given by SAGEM

SYMPTOM SHEETS

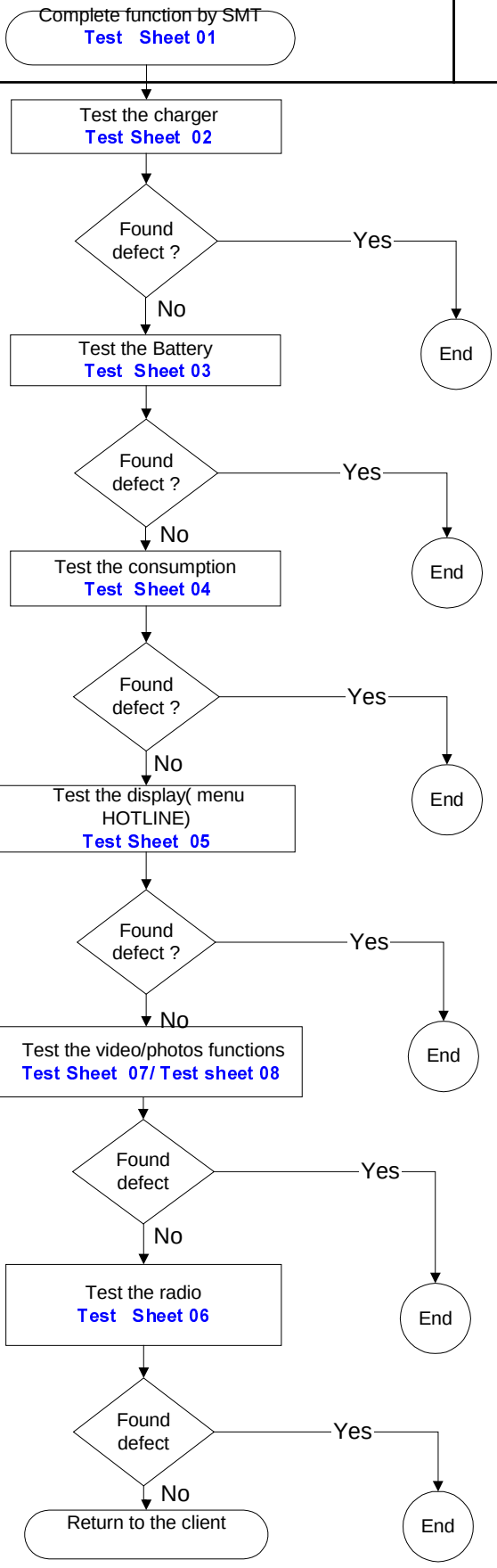
Sagem Communication Groupe SAFRAN	ENDURANCE BATTERY AND CHARGER PROBLEM	SYMP SHEET 01
myc3-2,myc3-2j		1/1



Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

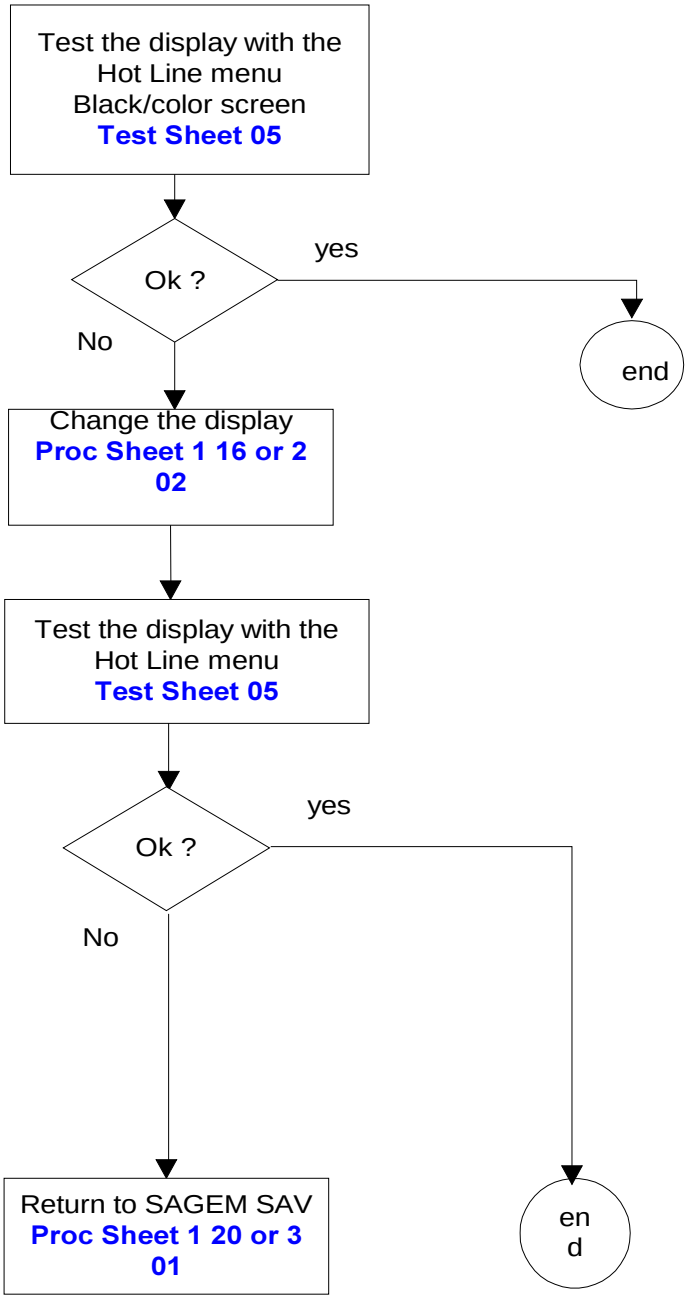


Sagem Communication Groupe SAFRAN	NO FAULT GIVEN	SYMP SHEET 03
myc3-2,myc3-2j		1/1

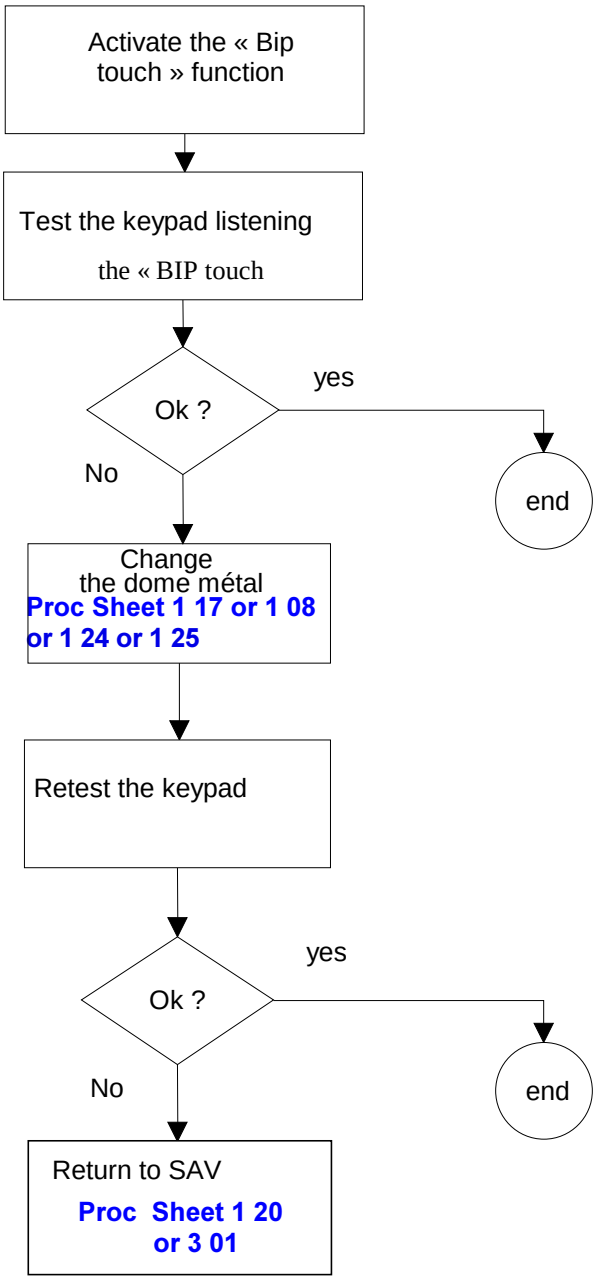


Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

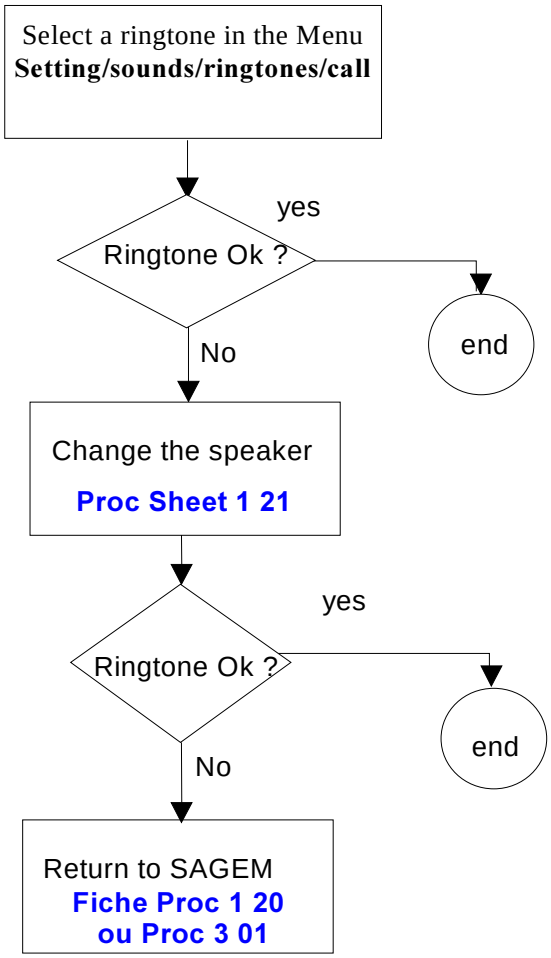
Sagem Communication Groupe SAFRAN	DISPLAY PROBLEM	SYMP SHEET 04
myc3-2,myc3-2j		1/1



Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

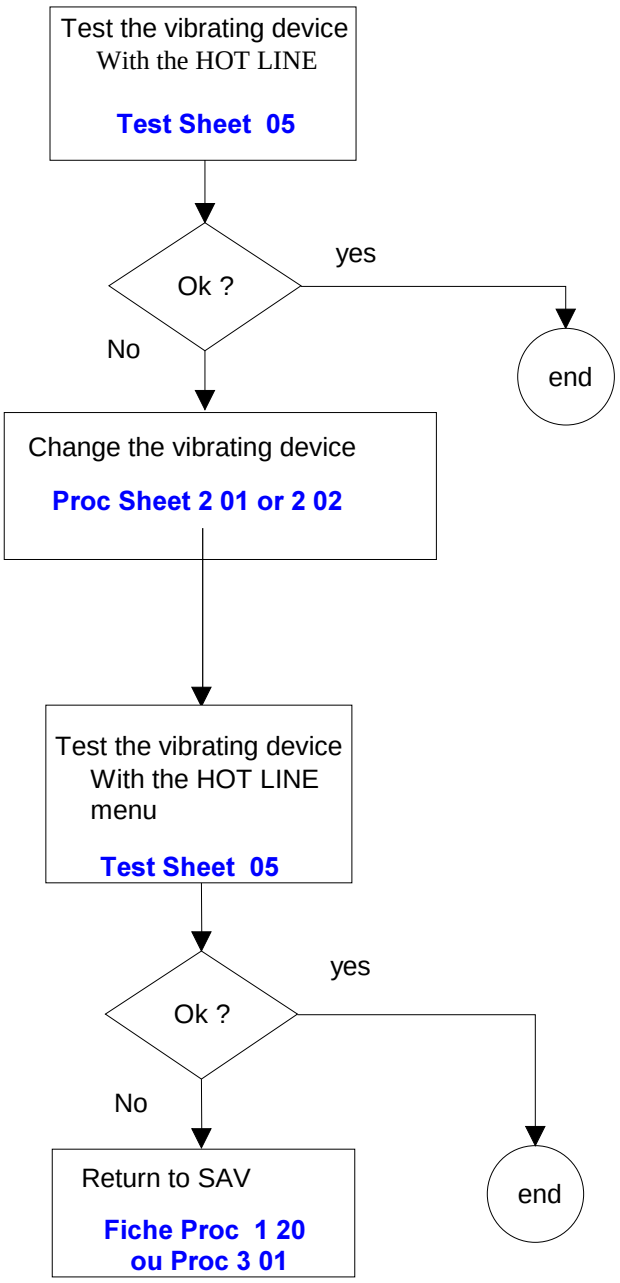


Sagem Communication Groupe SAFRAN	RING TONES PROBLEM	SYMP SHEET 06
myc3-2,myc3-2j		1/1



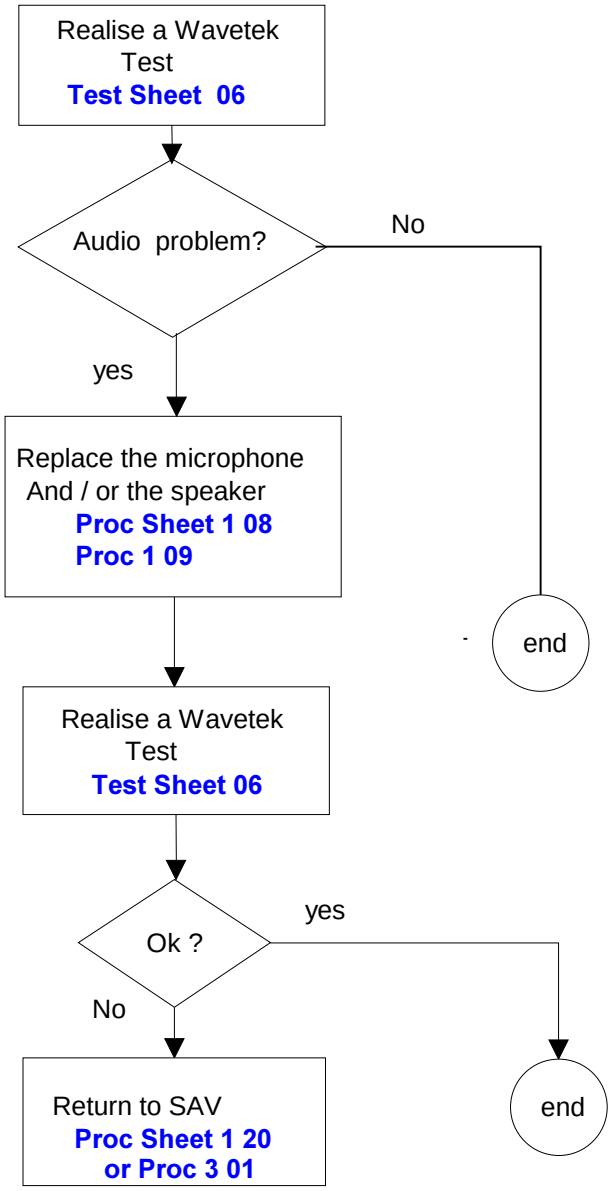
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Sagem Communication Groupe SAFRAN	VIBRATING DEVICE PROBLEM	SYMP SHEET 07
myc3-2,myc3-2j		1/1



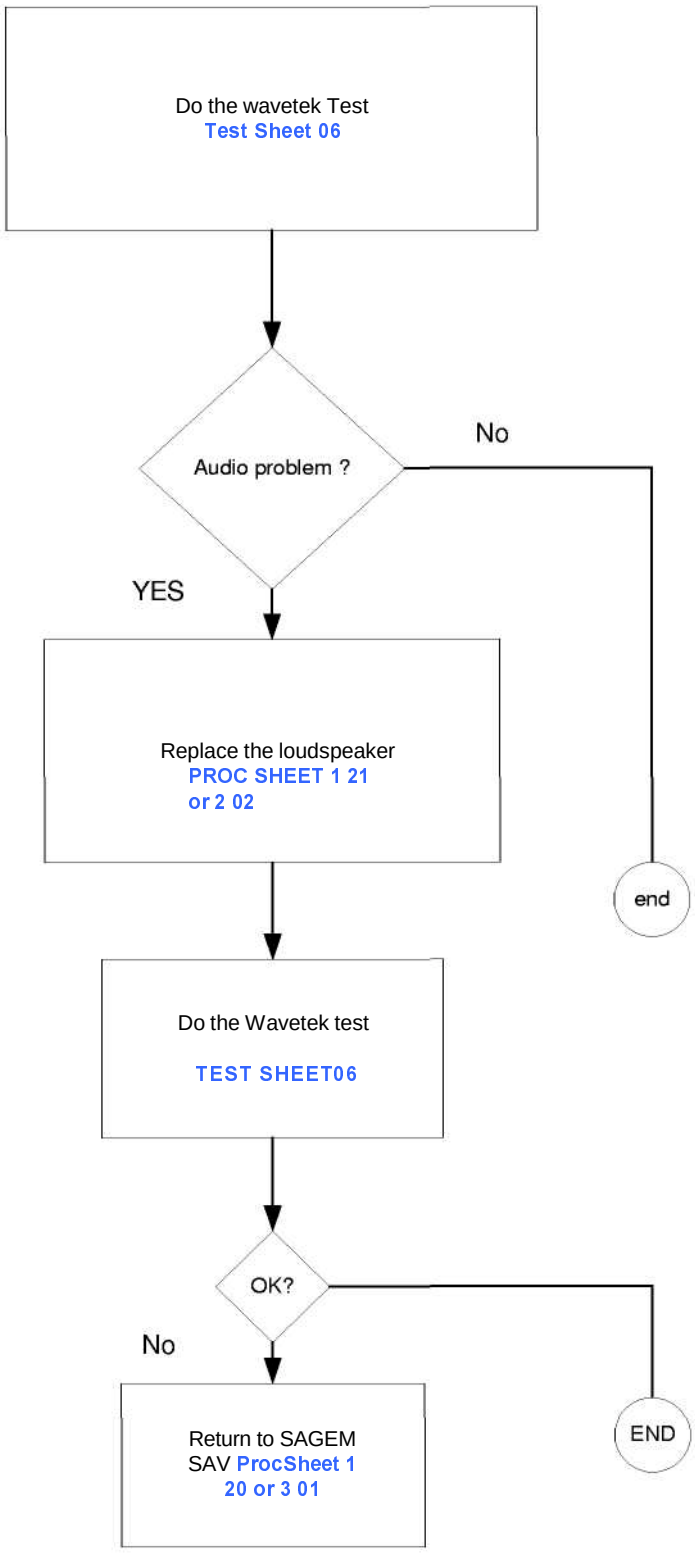
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Sagem Communication Groupe SAFRAN	AUDIO PROBLEM	SYMP SHEET 08
myc3-2,myc3-2j		1/1



Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Sagem Communication Groupe SAFRAN	LOUDSPEAKER PROBLEM	SYMP SHEET 10
myc3-2,myc3-2j		1/1



CHAPTER 4 - TESTS AND CHECKS

4.1 ABOUT TESTS

Tests and checks are made after the troubleshooting procedures (chapter 3) and before the maintenance procedures (chapter 5).

They are broken down into modules and are sorted by types of confirmed faults. The user must be equipped with special test tools in order to carry out the tests.

4.2 TEST TOOLS

The references of SAGEM tools, listed hereafter, are given in Appendix 1 : Composition table.

The following test tools are necessary :

- the ARC downloading kit, including the test case provided with:
  - ·the data cable (to PC),
  - ·the retrofit cable,
  - ·the mains power supply module.
  - ·Retrofit adapter
- the radio test bench, provided with:
  - ·SIM card of test.
  - ·myc3-2,myc3-2j calibration tool
  - ·Adjustable regulate power supply 0-15V / 4A
  - ·Wavetek 4107
- CADEX C7000 / C7200 / ASTRATEK with myC3-2 adapter
  - ·Charger test kit
  - ·Voltmeter (minimum impedance : 20 KW per Volt in DC)
  - ·Ampermiter

- an IMEI labels printing station, including :
  - · Printer,
  - · Roll of labels,
  - · Connecting cable for PC (parallel printer cable),
  - · Printing software,

4.3 INSTALLING ON A WORKSTATION

4.3.1 Minimum required configuration

The minimum configuration of the workstation is :

- Processor 1Ghz,
- 128 Mbytes of RAM,
- Windows 2000, Windows XP,
- 2.1 Gbytes hard disk (1 Gbytes available),
- 1 parallel port and 2 serials port.
- USB port.
- Network card, sound card.

4.3.2 Installing the ARC downloading kit

The ARC downloading kit interfaces the SMT software with the phone to be repaired.

- Connect the 9-pin SUB-D connector to the PC serial port (COM1).
- Connect the power supply module to the mains power outlet.
- Connect the phone to be repaired to the system connector.

4.3.3 SMT functions

The SMT maintenance software can:

- Download new software if needed
- Configure default values and checks them.
- Unblocked the " PHONE CODE "
- Delete the customer directory and SMS
- Print identification labels.
- Make a electronic board swap.
- Adjust the display contrast
- Read the Site Technical Documentation (manual of repair)
- Select a test sequence

The procedures for using these functions are described in TEST Sheet 01.

TEST SHEETS

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

To run the functions described below, run the SMT application from the desktop icon.

Notice: The active connection with SMT (via the serial port), validates in itself the data functionality of the handset.

Download the latest software

1. Click on the DOWNLOAD button.
2. Follow the procedures on the screen.
3. Make sure that the mobile phone is not in standly mode (press the Start key)

The serial port of the PC is connected well, and that the port COM was well selected (pop-up menu TOOLS then CHANGE OF PORT COM)

Configure and check default values

4. Click on the CONFIGURE pop-up menu and then VERIFY (Verfab).
5. Follow the procedures on the screen.

Release the " PHONE CODE"

6. In the case when phone code was programmed by the user.
7. Click on the CONFIGURE pop-up menu and then on RELEASE
8. Follow the procedures on the screen.

Print identification labels

9. Click on the LABEL pop-up menu and then PRINT LABEL .
10. Follow the procedures on the screen (type the date of fabrication).

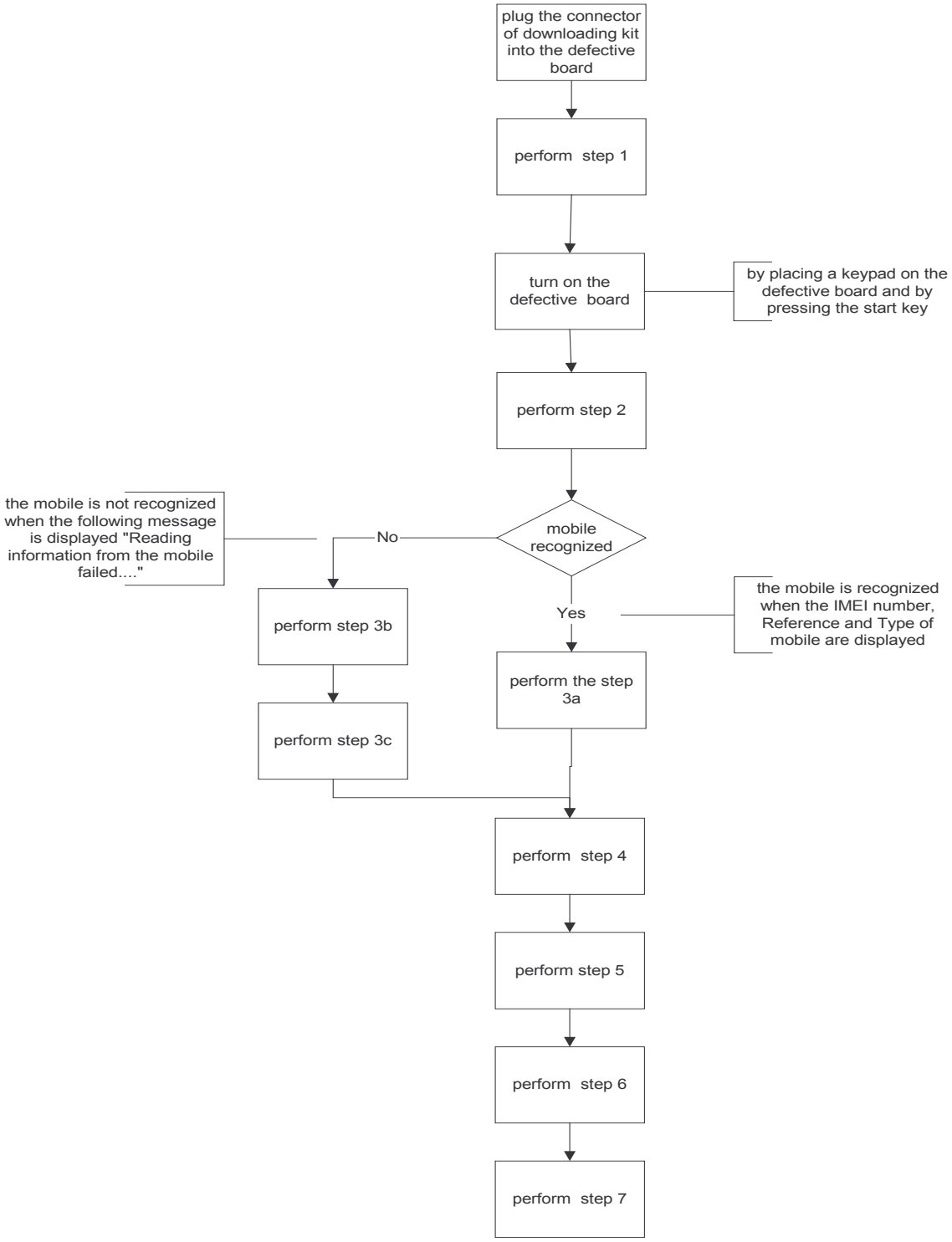
SMT SEQUENCE: Series of the different functions under SMT (sequence of tests)

1. Click on SMT SEQUENCE pop-up menu.
2. Select the different functions you want to carry out then click on the LAUNCH button.

- **Electronic board swap**
  11. Carry out the exchange of a defective card by SWAP card
  12. Follow the procedures on the screen.

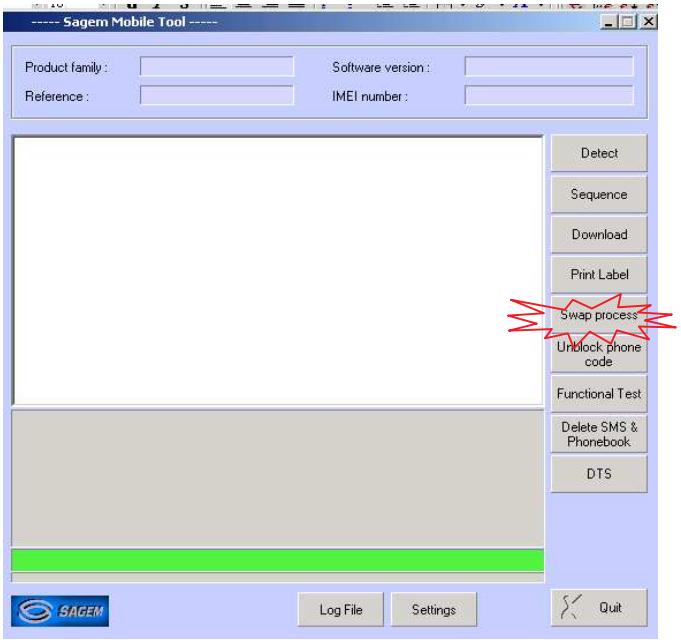
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

1. SWAP : Electronic board Configuration

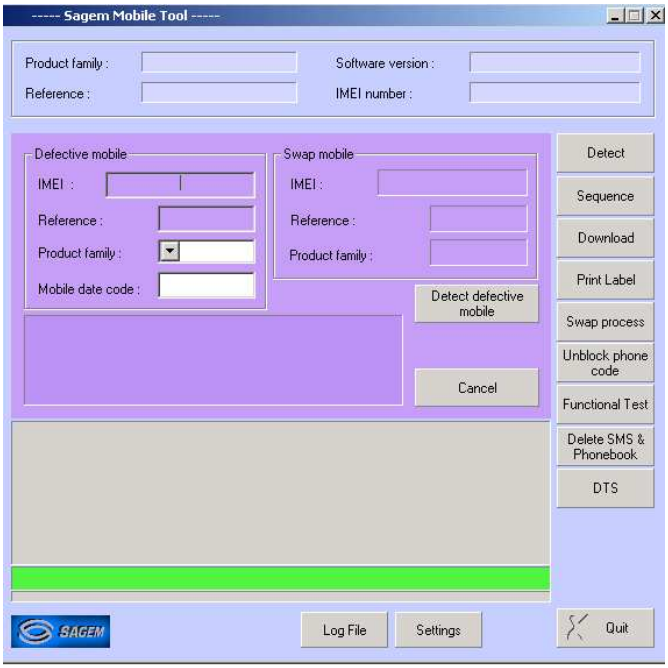


Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Step 1
SMT Front page
Click on the « SWAP Process » menu.
Example



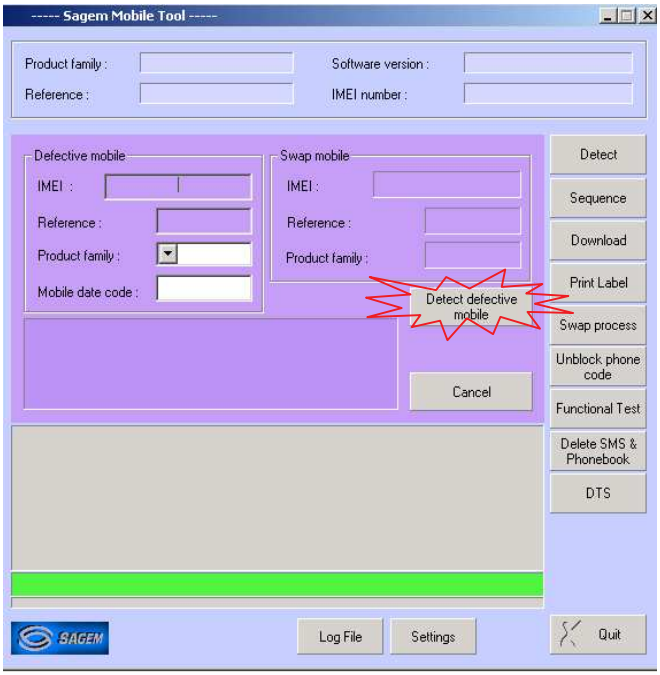
The following screen appears :



Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

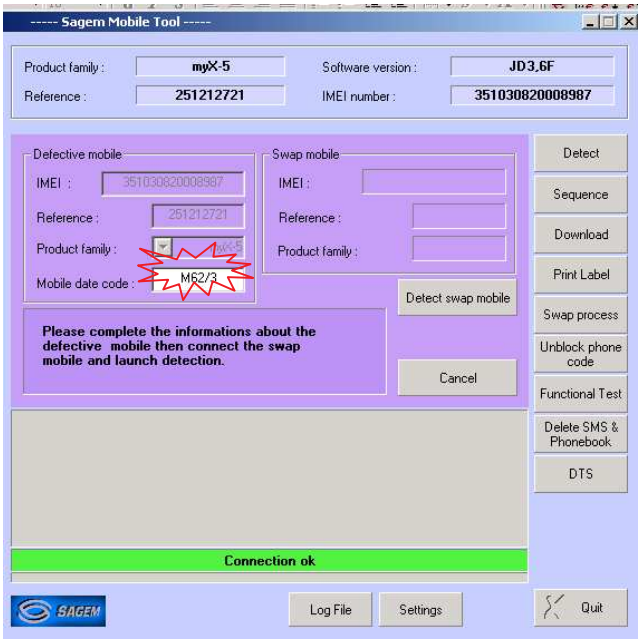
Step 2

Please click on « Detect defective mobile » button



Step 3a

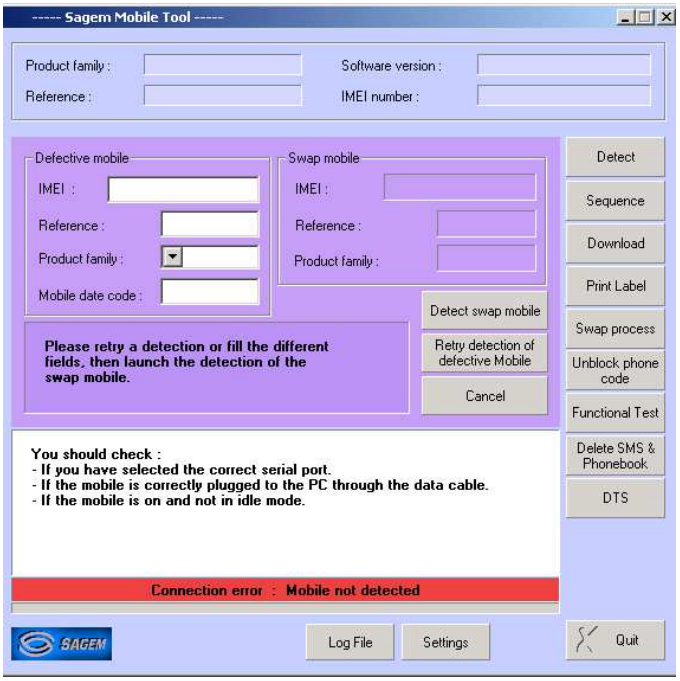
The following screen appears : the mobile is recognized. Then, enter the mobile date code



Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

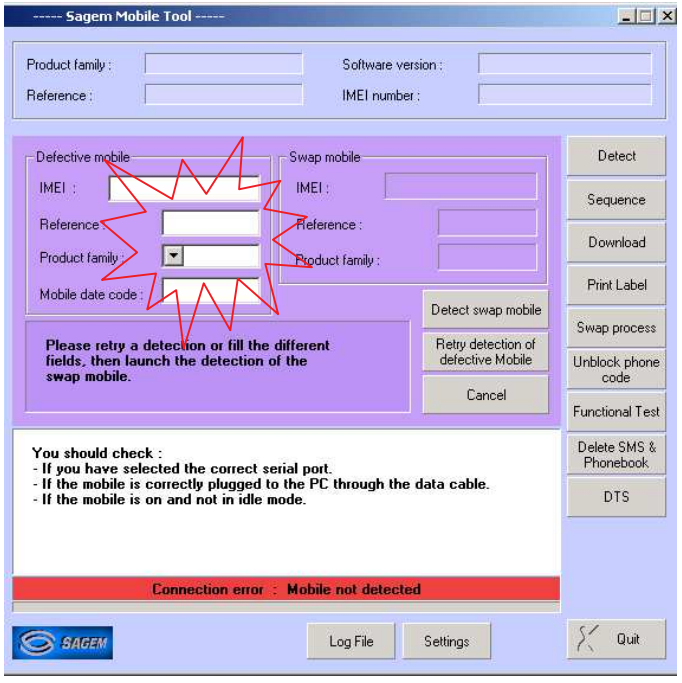
Step 3b

If this screen appears, the mobile is not recognized.



Step 3c

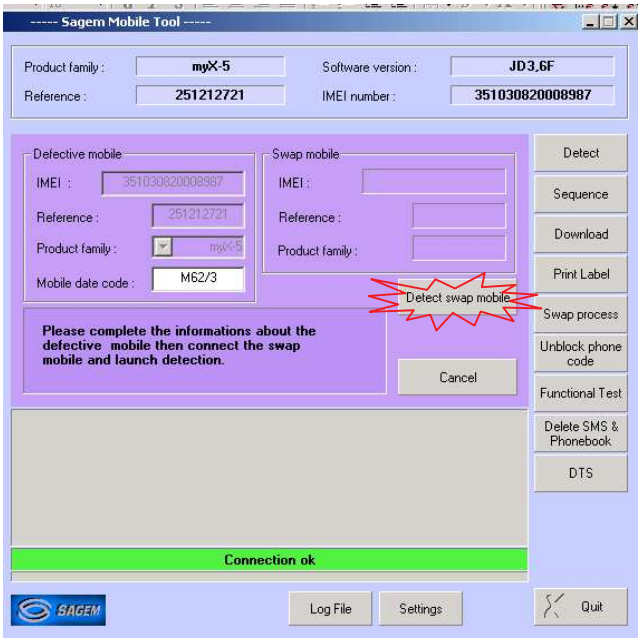
You must fill in the blanks requested according to the information written on the production label



Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

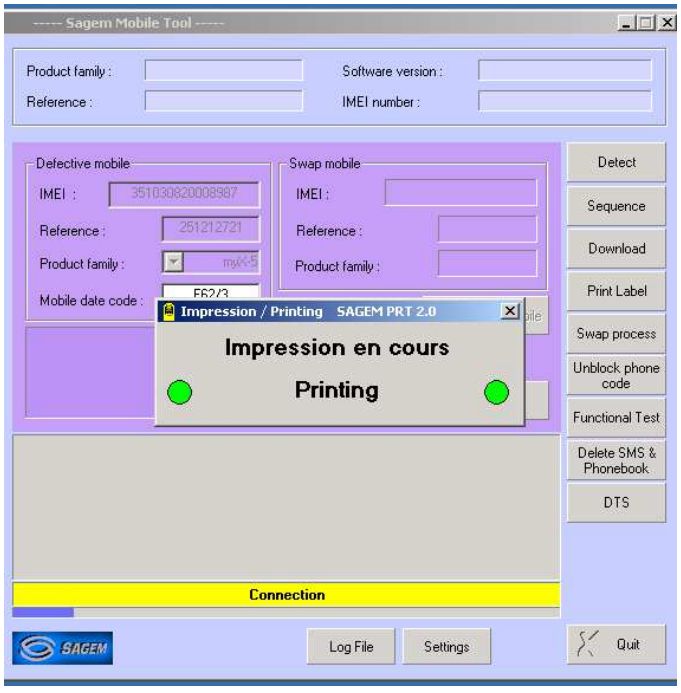
Step 4

Plug in and switch on the new mobile, then push on the "Detect Swap mobile" button



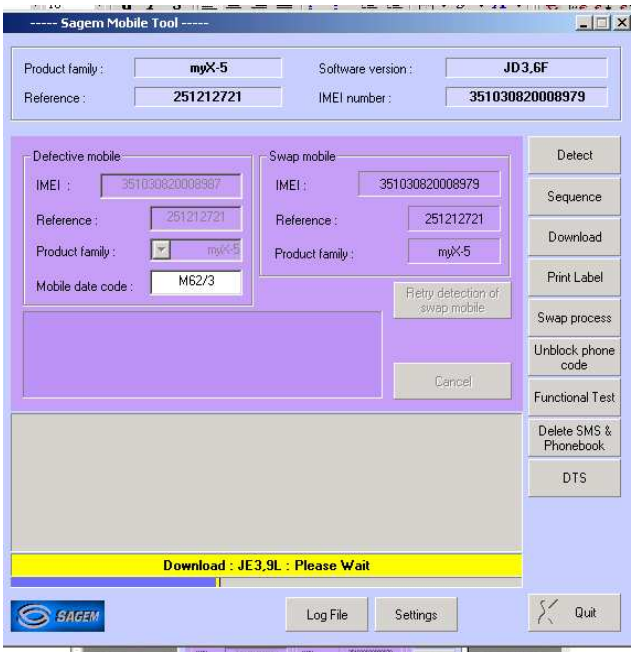
Step 5

After clicking on "OK", SMT prints the label which will be used to close the ESD bag of the defective board.

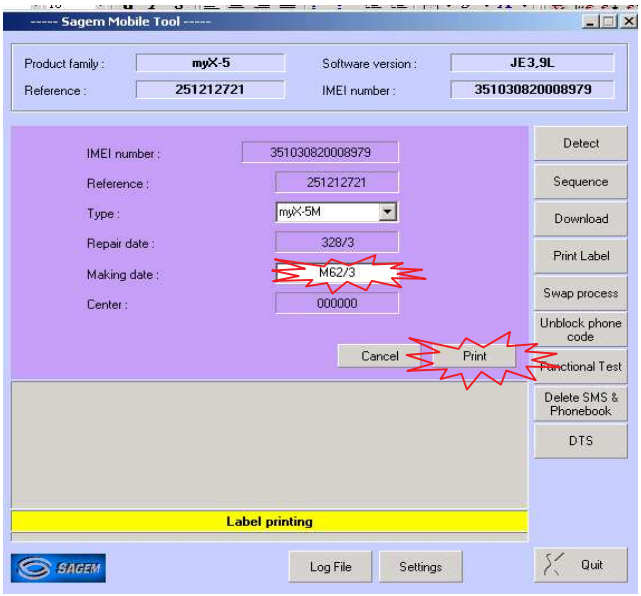


Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Step 6
The downloading is stats if the mobile needs to be updated



Etape 7
SMT opens the following screen to print the new label : please dial the "MAKING DATE" (Production date) written on the label of the defective mobile.
Then stick the new label on the functional mobile



The swap board sequence is completed.

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Test description

This test checks the various battery chargers.

Required tools

a voltmeter (minimum impedance 20 kΩ per Volt in DC),

two sockets for banana connectors for connection to the voltmeter,

the charger test kit.

Test procedure

Two terminals are used for measurements on the charger test kit

red (+),

black (-).

A pushbutton selects the measurement :

No charge (released position),

Under Charge (pushed in position).

1. Check the charger connector visually.
2. Connect the charger to be tested to the back of the tester.
3. Connect the voltmeter using the two banana connectors.
4. Before starting any other measurement, check that the charger is correctly powered (main voltage is in accordance with the charger specifications).
5. Make the two measurements.
6. Check the recorded values using the following board. If the values are not included in the min & max limits , then the charger is defective.

	NO Charge (released position)		Under Charge (Pushed in position)	
Charger	**Min.**	**Max.**	**Min.**	**Max.**
Travel 500 mA	**5,5 V**	**7,5 V**	**2V**	**4V**
Simple 300 mA	**9V**	**15V**	**1,5 V**	**4V**
cigar lighter	**5,5 V**	**7,5 V**	**2V**	**4V**

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Test description

This test allows to test the various batteries.

Required tools

CADEX C7000 / C7200 / ASTRATEK

Battery adaptors,

Amperometer interface

a voltameter (minimum impedance 20 kΩ per Volt in DC).

Test procedure

1. Insert battery on ammeter interface
2. Measure the identification resistor between the Z poles :

1. Li-Ion batteries : **120kΩ (tolerance = 117kΩ - 123kΩ,** according to the surrounding temperature**)**
2. Measure the battery voltage between the V poles
   a) If the voltage < 2.5 Volts the battery is defective
   b) if the voltage < 4v ,load the battery for 30 minutes with a travel charger and measure the internal resistance with a CADEX or ASTRATEK battery tester
   c) If the voltage > 4V measure the internal resistance with a CADEX or ASTRATEK battery tester

   Notice: Choose on the battery tester ,the battery type (Li-ion) ,the nominal battery voltage (3,6V) and the battery capacity (1000 mA)

5 Read the result :If the internal resistance < 300 mOhms the battery is **OK**

>= 300 mOhms the battery is **defective**

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Test description

This test tests the battery consumption.

Required tools

Universal Batteries Adapter FlexArm (for batteries all Sagem series)

An Ammeter.

Test procedure

Measurement when switched off

1. Insert the handset (switched off) onto the tool (customer phone and battery).
2. Connect the ammeter to the tool between A poles:

Red tool terminal on the ammeter "**COM**" or "**GND**" terminal.

Black tool terminal on the ammeter "**+**" terminal.

NOTE: The ammeter rating must be set to DC (DC or =), range 100 mA.

3. If the value indicated exceeds 1 mA ,the mobile is defective.

Measuring the charge

4. Insert the handset (switched off) onto the tool (customer phone and battery).

5. Connect the ammeter to the tool between A poles:

Black tool terminal on the ammeter "**COM**" or "**GND**" terminal.

Red tool terminal on the ammeter "**+**" terminal.

NOTE: The ammeter rating must be set to DC (DC or =), range 1 A.

6. Connect the customer's charger when energised (after connecting the charger to the mains power supply).
7. If the value indicated is lower than 150 mA ,the mobile is defective.

NOTE: When changing the ammeter rating (manual or automatic), the mobile can be disconnected.

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Access to the "HOTLINE" menu

NOTE: “Hotline” menu is accessible with a valid SIM card

Access to the "HOTLINE" menu is possible with a powered up mobile.

The "HOTLINE" menu is accessed by pressing on the “menu” key and then the * key (long press).

Enter the corresponding code (in bold) to choose the menu to be viewed.

To go out the "HOTLINE" menu, press successively on the **C** key to return to the operational screen of the mobile.

Description of handset "HOTLINE" menu

- APPLICATION
  - VERSION: reads the installed software version and the IMEI code.
  - BATTERY: gives the value of the battery voltage.
- PROM : Not used.
- SIM LOCK : accesses the "SIM LOCK" menu (password required).
- LCD TEST
  - BLACK : displays the screen in black.
  - WHITE SCREEN
  - RED SCREEN
  - GREEN SCREEN
  - BLUE SCREEN
  - WHITE DRAUGTHBOARD
  - FOR PHOTO : displays functions on the screen to take a photo.
  - VIBRATING DEVICE : tests the vibrating device.
  - And LED (if the handset has this fonction)

Test description

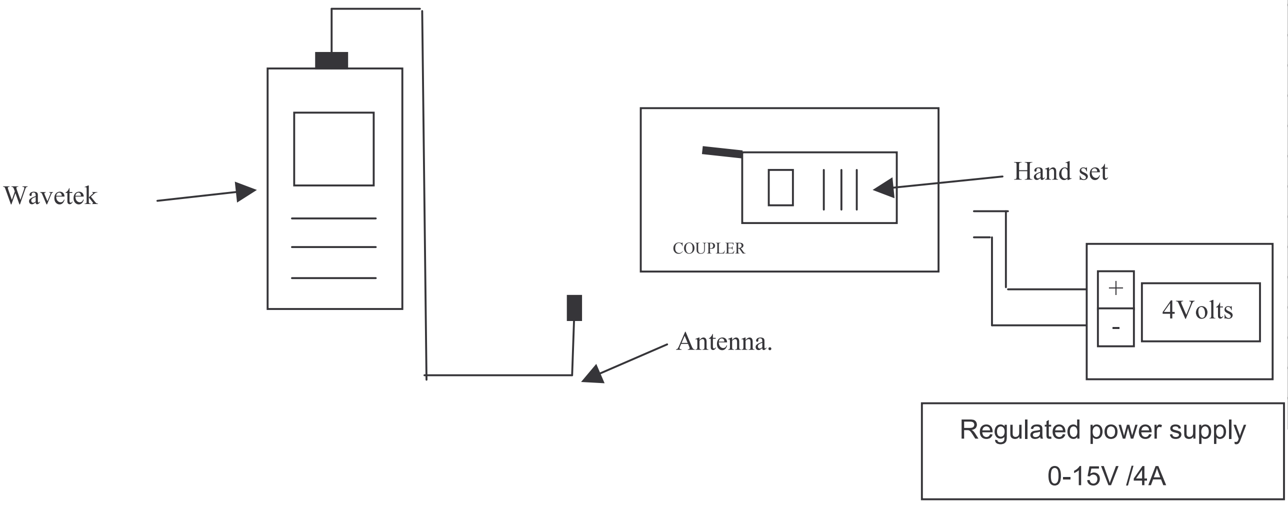
This test evaluates handset radio fonction during a call.

Required tools

a Wavetek or other network simulation tools.
a radio golden sample.
an adjustable regulated power supply 0-12V / 4A

Installation

RF test



Calibration process

1. Position the calibration tool on the radio interface (1) (provided with a SIM test card)
2. Press the start key on the network simulation tool.
3. And press on "AUTOTEST".
4. Choose the corresponding program using the "UP" et "DOWN" arrows.

   Mobile : **XXXXXXX**
   Frequency range : **GSM, DCS ,PCS (if used)**,
   Coupling type : **Antenna**.
5. Press "ENTER" and wait until the end of the calibration.
6. Follow the instructions shown on the Wavetek.
7. Compare the network simulation tool result with the calibration report.
8. If there are any differences, adjust the network simulation tool. (we can have a difference of 0,5 bB)
9. Do the calibration process (point 5) again, to be sure the calibration is correct.

Remark : You must do a radio calibration each week, if you receive any handsets during that week.

Reference document : User Guide for calibration Tool (SAGEM part number : 251407059)

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

Test procedure

1. Position the handset on the radio interface (1) (provided with a SIM test card)
2. Switch it on and Switch on the Wavetek (or other network simulation tool) and press on "AUTOTEST".
3. Choose the corresponding program using the "UP" et "DOWN" arrows.

   Mobile : Mobile reference.
   Frequency range : **GSM, DCS ,PCS (if used)**,
   Coupling type : **Antenna** .
4. Press "ENTER" and wait until the end of the calibration.
5. Follow the instructions shown on the Wavetek (or other simulation tool).

CHAPTER 5 - MAINTENANCE PROCEDURES

5.1 TECHNICAL WORK LEVELS

There are four technical work levels:

- Level 0,
- Level 1,
- Level 2,
- Level 3.

Each level represents a maintenance degree that depends on which elements are to be removed.

Note: Presence or use on the radiotelephone of non genuine element (material and software) leads automatically the exclusion from SAGEM warranty

5.2 SHORT LOOP PROCESS

1. Initialisation

From the communication by Sagem and the reception of the concerned products by the short loop process, the Repair Centre shall comply with the above procedure. The application of the Short loop process will end when received the authorisation of repairing given by Sagem.

2. Administrative checks to be done by the Repair Centre

- Authorisation from Sagem for treating the reference received (Part number)
- Process to be applied : short loop process or normal process (DTS, Normal, etc…). The Repair Centre shall check if the product received has to be treated according to the short loop process.
- Controls on the warranty conditions and DOA conditions (if the Repair Centre is authorised) communicated by Sagem.

3. Tests and controls :

- Checks if there are no external shocks or oxidation marks (the covers shall be dismantled in case of exchangeable covers)
- Checks and confirmation of the defect (real call with SIM, functional test keypad , display, vibrating device, etc…)
- Check the concordance between the defect declared by the end-user and the defect observed
- Call back of the end-user or dealer (as far as possible) either in case of misunderstanding of the defect declared by the end-user or in case of the non observation of the defect. (see the appendix “Additional information about the No Fault Found –NFF-> at the end of this document allowing according to the case to understand the return of the product)

If any doubts occurred concerning out of warranty products received, the Repair Centre shall send to Sagem Montauban (with knowledge to the Area Manager and Support Engineer) the photo of the defect.

N.B :

- The handsets shall not be dismantled (by using screwdrivers) except previous request from Sagem.
- The Repair Centre will not make any Repair (such as spare parts exchange or software upgrade) except previous communication of Sagem. The exchanges of handsets or accessories are the only intervention authorised.

4. Exchange by the Repair Centre

- The Repair Centre will use the products delivered for swap to the Repair Centre for exchanging the products to the end-users (except particular process defined by Sagem).
- The under- warranty handsets and accessories received shall be exchanged to the end-user.
- The under- warranty handsets and accessories declared No Fault Found (NFF) shall be exchanged to the end-users except previous communication of Sagem.
- The Out of warranty handsets and accessories (oxidation, shocks, …) will be repaired by the Repair Centre after acceptation by the customer of an estimate according to the Sagem out of warranty repair prices communicated.
- The under- warranty and out of warranty handsets shall be sent to Sagem Montauban.
- In the frame of the Short loop process, there is no level 1 (L1) intervention

5. Reports

An exchange of an handset and its accessories shall be codified Level 3 (L3)
An accessory exchange shall be codified Level 0 (L0).

The Repair Centre shall capture all the information required for issuing and sending the Repair Reports and Status reports according to the Contractual frequency defined. The Reports shall includes the products treated by the Repair Centre under- warranty or out of warranty.

6. Procedure

From the beginning date of the Short loop process application and minimum each week, the Repair Centre shall ship the products (handsets and accessories) to Sagem Montauban.

6.1. Handsets :

- MRA Procedure for the after-Sales products (one MRA number for the products concerned by the short loop).
- MRA Procedure for DOA products (one MRA DOA number for the products concerned by the short loop) if the Repair Centre is authorised to treat the DOA products.

The MRA request shall be sent to Sagem Montauban (with knowledge to the Area Manager and Support Engineer).
The shipment of products to Sagem Montauban shall comply with the MRA procedure. Furthermore each products shall be sent with the Return Product Sheet filled in indicating the defect declared by the end-user and the defect observed by the Repair Centre (Sagem Defect codes).
The NFF products sent to Sagem Montauban shall be identified by using separate package. Furthermore this products shall be sent with the complete description of the defect declared by the end-user (not codified).
The accessories received by the Repair Centre shall be sent to Sagem Montauban sent back

attached with the handset (not connected to the handset).

6.2. Accessories :

For the accessories received without the handsets, the procedure is the following:

Accessories return procedure to Sagem Montauban to be used. The Repair Centre shall indicate on the parcel Accessories + model (ex : myC 3-2) for the accessories received in the Repair Centre without the handsets.

7. Sagem Montauban

Sagem Montauban will ship back to the Repair Centre the same quantity of handsets and accessories as the quantity received.

8 Additional information about the no fault found

In any case: Ask to the end-user the frequency of the defect and the circumstances of its apparition (during an incoming or out-going call, while playing, while downloading, etc.). Try to answer the questions: Where? When? How?

· If the customer complains about a “Power supply / charging” failure : (shutting down of the mobile, problem of booting, etc.);
o During which operation ? In which circumstances ?
o What is the state of the battery and the charger before shipment to the repair centre ?
If the mobile shuts down by itself, must he enter his code pin, adjust the date and the hour when rebooting the phone?

· If the customer complains about a communication problem:
o What are his residence zone and the reception level of the mobile (Number of receipt bar);
o What is the state of the battery when the defect appears?
o In case of loss of communication :
§ With or without total extinction of the mobile?
§ Does the loss of communication occur always in the same place and with the same person?
§ Does the loss of communication occur while browsing in the menus, during the communication, or during playing or downloading?

· If the customer complains about a problem of blockage of key of the keyboard:
o In which circumstances does the problem occur?
o Did he activate the keypad locking ?
o Did he change or remove the upper cover ?
o Which are the non functioning keys ?

5.3 MAINTENANCE TOOLS

The following tools are necessary to carry out maintenance operations :

- Gloves

- Tweezers

- Soldering iron

LEVEL 0 MAINTENANCE

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Not applicable

Risk of the procedure :

- Warning of the position of the battery when seated.

Preliminary operation :

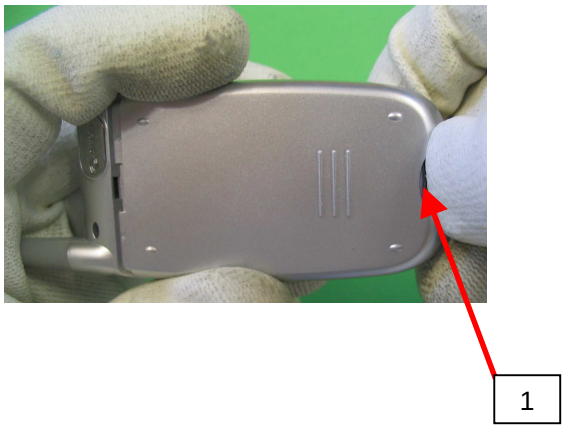
- Switch off the mobile phone

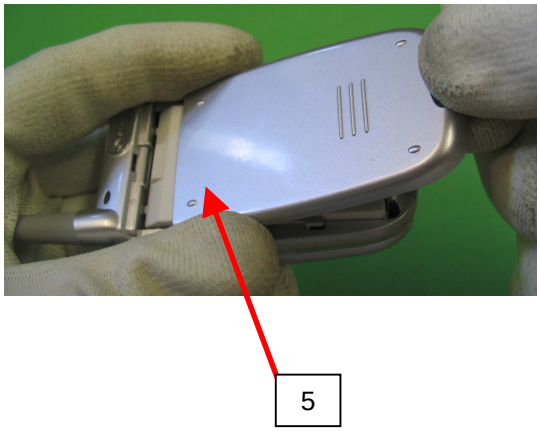
Removal procedure :

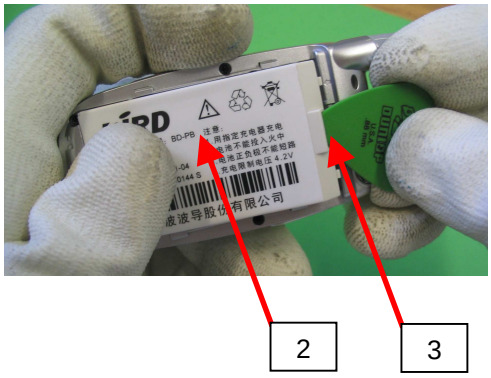
1. Remove the battery cover (1) by pressing on the button.
2. Remove the battery (2) by pressing the slot (3) towards the bottom end and by lifting it up to the notch.

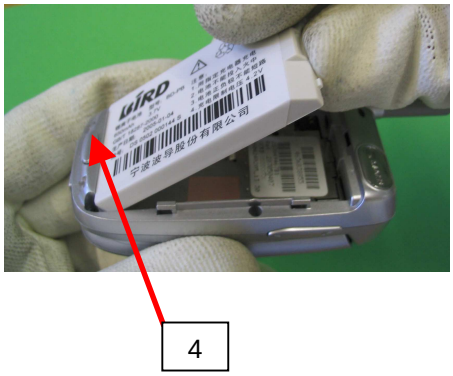
Placement procedure :

1. Place the battery (2) by positioning the bottom (4) first then press down the top until it is flat.
2. Position the battery cover (5) on its casing.









LEVEL 1 MAINTENANCE

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Cross shaped screwdriver
- Fixture for screwing

Risk of the procedure :

- Mars on the back cover.
- Break clips of back cover.
- Destruction of the antenna blade.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).

Removal procedure :

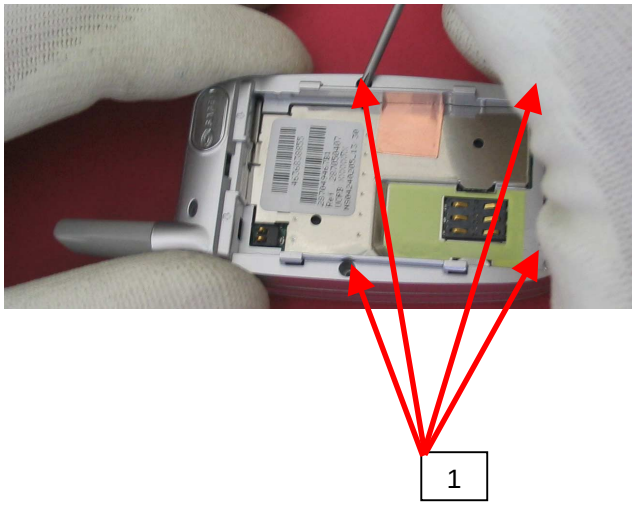
1. Remove the four fixing screws (1) from the assembled lower casing (2).
2. Lift delicately the assembled lower casing (2) by beginning with the bottom (3).
3. Take off the assembled lower casing (2).

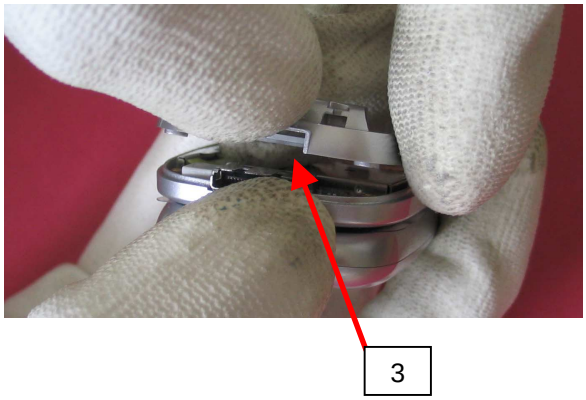
Placement procedure :

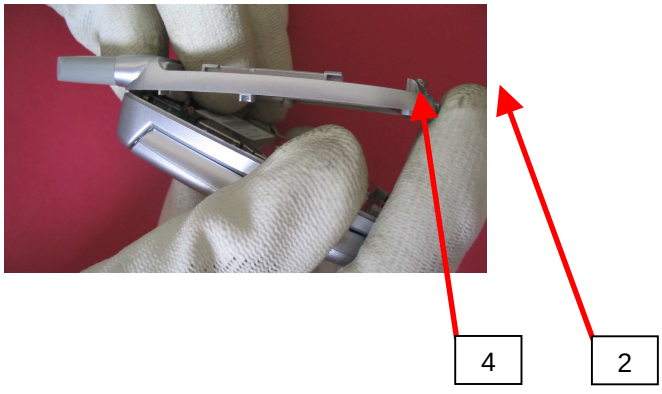
1. Place the new assembled lower casing (2) by positioning the top first (4), then put the bottom in place until the assembly is complete.
2. Position the mobile on the tool and screw to a torque of **0,07 N.m**, the four fixing screws (1).

Further operations :

1. Place the battery (Proc Sheet 0 01).







Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Screwdriver **TORX 5** reference **18900752-8**

Risk of the procedure :

- Warning of the torque setting

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of the mobile (Proc Sheet 1 01).

Removal procedure :

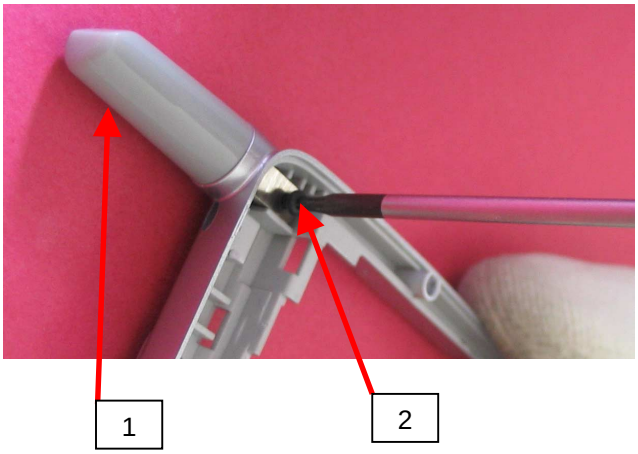
1. Remove the fixing screw(2) of the antenna (1).
2. Take off the antenna (1).

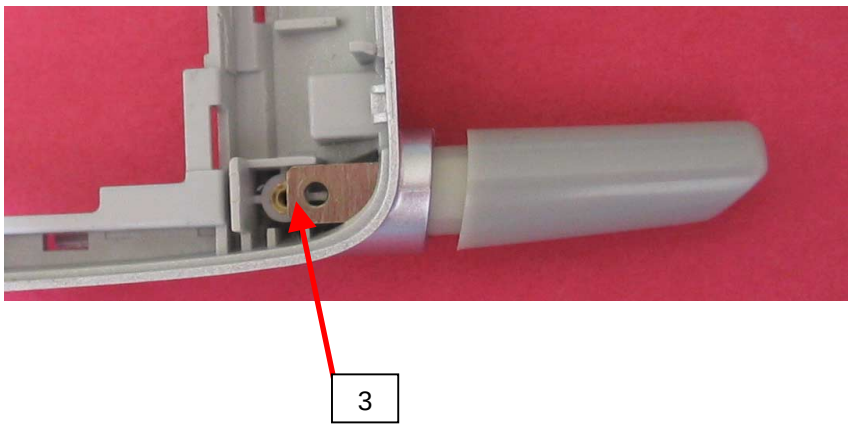
Placement procedure :

1. Position the antenna (1) in its slot, carefully inserting correctly the contact of the antenna (3).
2. Position and screw to the torque of **0,08 N.m** the screw fixing (2) the antenna.

Further operations :

1. Place the lower casing of the mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).
3. Carry out the radio test (Test Sheet 05).





Tools :

- Tweezers

Risk of the procedure :

- Damage the battery buffer.
- Damage the lower casing.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).

Removal procedure :

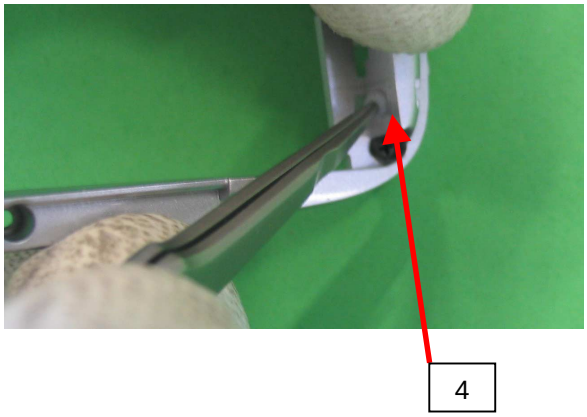
1. Press firmly by means of a tweezers on the battery buffer (4).

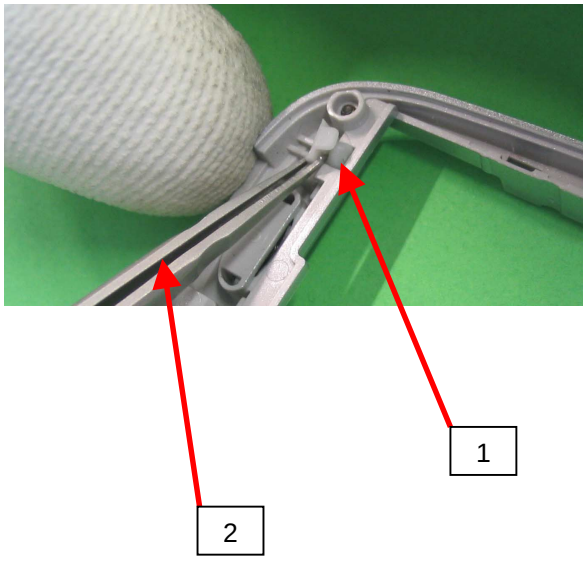
Placement procedure :

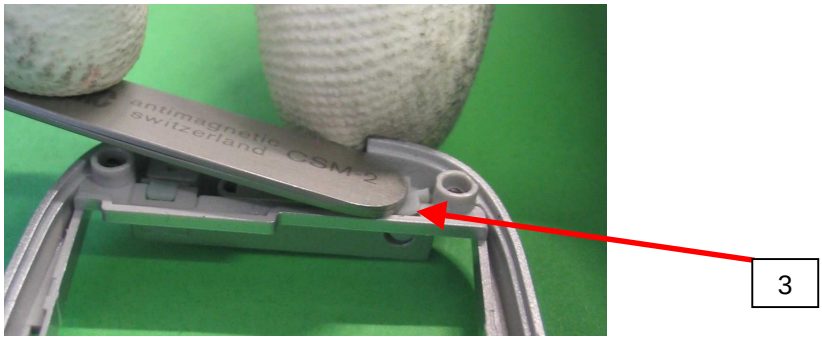
1. Position the battery buffer (1) by means of the tweezers (2).
2. Press by means of the tweezers (3) to position battery buffer correctly (1).

Further operations :

1. Place the lower casing of mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).







Tools :

- Tweezers

Risk of the procedure :

- Damage the FPC connector.
- Damage the volume control key.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).
3. Remove the volume control key (Proc Sheet 1 22).

Removal procedure :

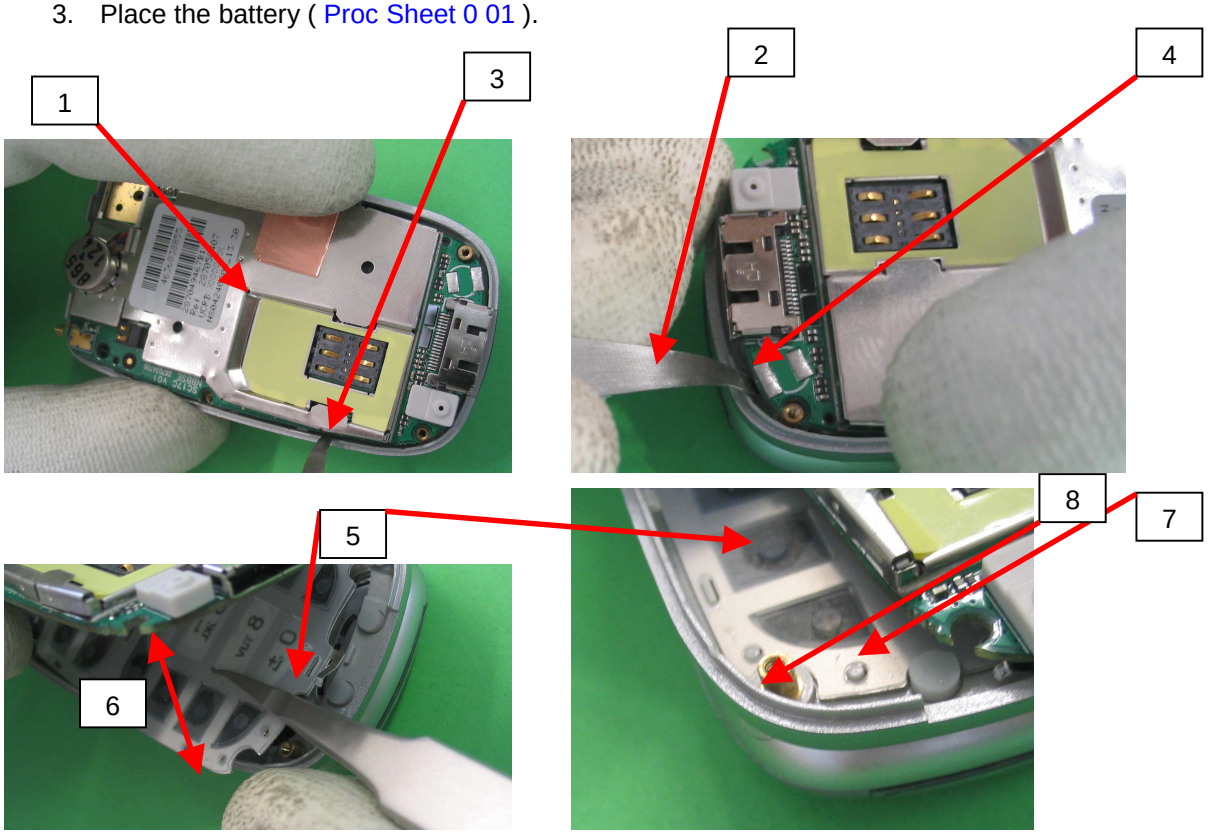
1. Take off the MMI II (1) by means of the tweezers (2) for specified places (3 and 4).
2. Remove the keypad (5) by means of the tweezers (2).
3. Don't raise the MMI II in an excessive way (6) so as not to damage the FPC connector and the volume control key.

Placement procedure :

1. Position a keypad (5) in its place.
2. Verify that the keypad sits well on the locating points (7 and 8).

Further operations :

1. Place the volume control key (Proc Sheet 1 22).
2. Place the lower casing of mobile (Proc Sheet 1 01).
3. Place the battery (Proc Sheet 0 01).



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Tweezers

Risk of the procedure :

- Put the Micro rubber back to front

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).

Removal procedure :

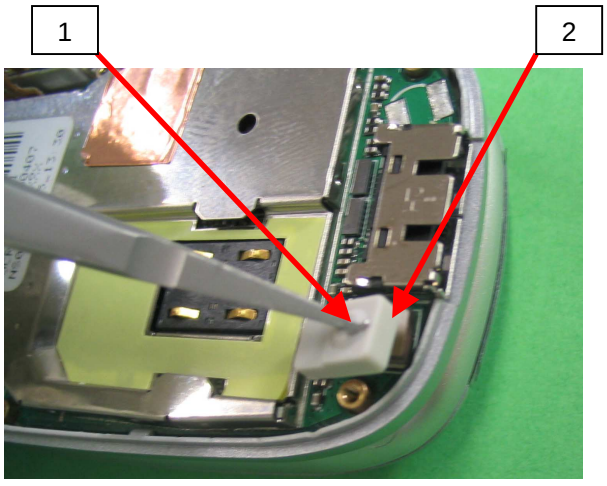
1. Catch hold of and take out the micro rubber by putting the point of tweezers in the hole of micro rubber (1).

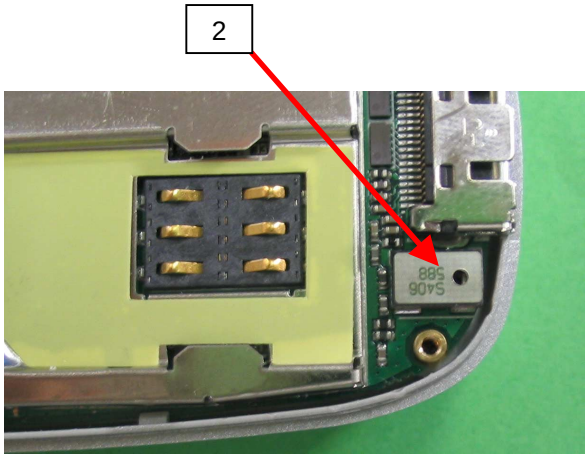
Placement procedure :

1. Take a micro rubber (2) and position it on the micro (3).

Further operations :

1. Place the lower casing of mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).





Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Tweezers
- Soldering iron
- Gloves
- Fixture for metal Dome

Risk of the procedure :

- Damage the FPC connector.
- Damage the volume control key.
- Damage the components of MMI II.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).

Removal procedure :

This procedure must be performed by a technician with gloves.

1. Apply the operation of the Proc Sheet 1 02.
2. Unstick (1) by means of the tweezers the side key.
3. Take off by means of tweezers (5) the ESD copper (6).
4. Remouve the MMI II (7) from the upper casing of mobile by levering the clip (8).
5. Catch hold of the metal dome (9) paying attention not to break the component.

Placement procedure :

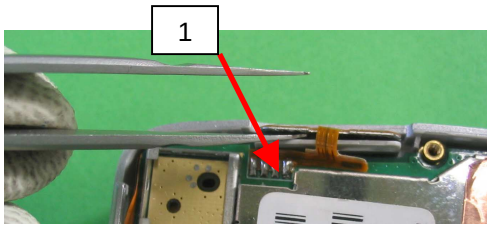
Warning : The metal dome is not reusable, it must be replaced by a new metal dome, unless the board is swapped and sent as level 3

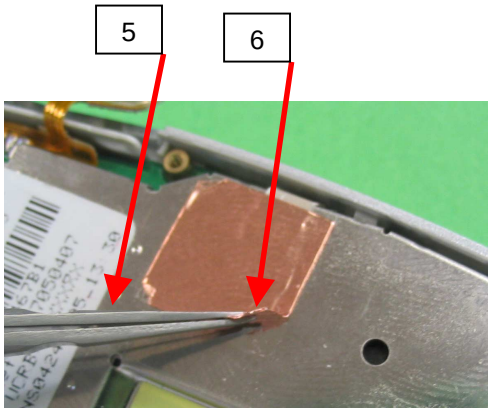
1. Unsolder the FPC LCD (10) and remove the FPC LCD connector from the ZIF connector (11).
2. Stick a new metal dome (12) on the electronic card (7) using placing tool and watching not to put fingers on the small metal dishes.
3. Unsolder the FPC LCD (10) and put the FPC LCD on the ZIF connector (11).
4. Close the connector ZIF.
5. Put the MMI II (7) in its slot.
6. Restick (1) by means of tweezers the side keypad.
7. Apply the operations of the Proc Sheet 1 02.

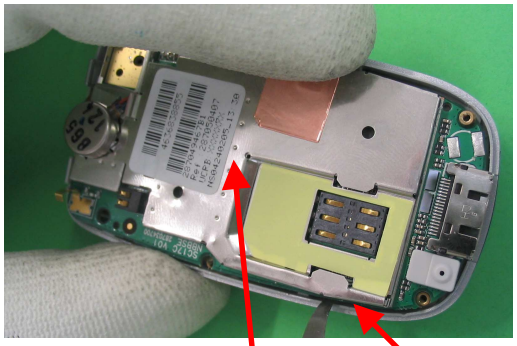
Further operations :

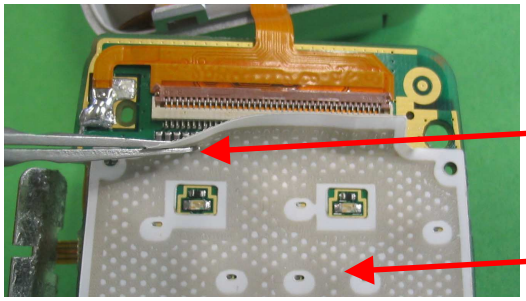
1. Place the lower casing of mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).

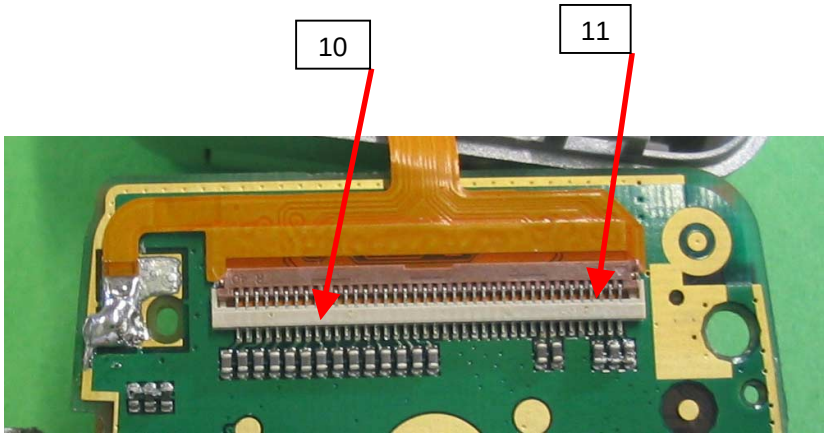
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06











Tools :

- Cross shaped screwdriver
- Equipment to remove the hinge of PN **25208133-6**.

Preliminary operation

1. Remove the battery (Proc sheet 0 01).
2. Remove the back cover (Proc sheet 1 01).
3. Remove the volume control key (Proc sheet 1 22).
4. Remove the keypad (Proc sheet 1 04).
5. Remove the micro rubber (Proc sheet 1 05).
6. Remove the equipped electronic board (Proc sheet 1 18).

Removal procedure :

1. Press the hinge (2) inside the front cover by means of (curved) tweezers (5) or the equipment to remove the hinge to release the equipped flip (1)
2. Remove delicately the flex PCB (3) from the front cover
3. Remove the equipped flip (1).

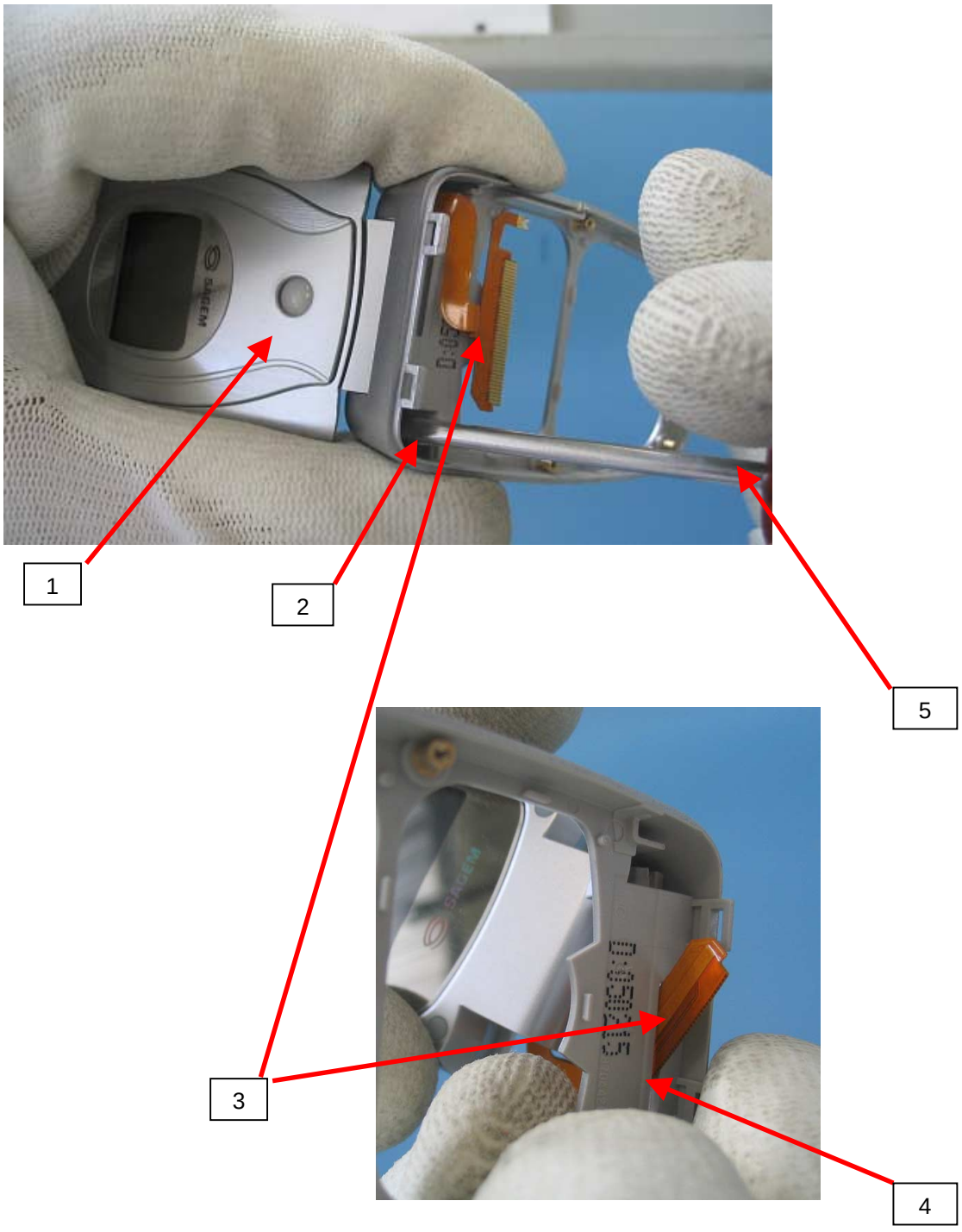
Placement procedure :

1. Position the equipped flip in its housing by inserting the flex PCB (3) into the front cover (4),
2. Press firmly the hinge (2) with a flat screwdriver, to fix the equipped flip (1) on the front cover to not damage the FPC of display (3).

Further operations :

1. Place the equipped electronic board (Proc sheet 1 18).
2. Place the micro rubber (Proc sheet 1 05).
3. Place the keypad (Proc sheet 1 04).
4. Place the volume control key (Proc sheet 1 22)
5. Place the back cover (Proc sheet 1 01).
6. Place the battery pack (Proc sheet 0 01).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Cross shaped screwdriver
- Tweezers
- Plait to be unsoldered
- Unsoldering braid

Risk of the procedure :

- Mark the Lower and/or upper housing.
- Damage the FPC of the LCD.
- Lose the micro rubber.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).
3. Remove the volume control key (Proc Sheet 1 22).
4. Remove the micro rubber (Proc Sheet 1 05).

Removal procedure :

1. Unstick (6) by means of the tweezers the side keypad.
2. Catch hold of the side keypad (7) and take out it of the slot (8) taking care not to damage the FPC (9).
3. Take out the equipped electronic card (1) by pulling apart the two spurs of maintains (5).
4. Unsolder the fixing surface of the FPC (4) by means of the unsoldering braid.
5. Lift the lock of the connector (6) downward.
6. Remove delicately the FPC of the equipped LCD (2) on the electronic board (1) .
7. Remove the equipped electronic board (1).

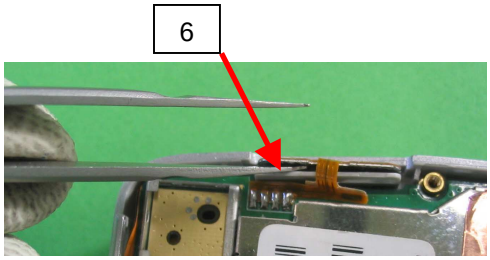
Placement procedure :

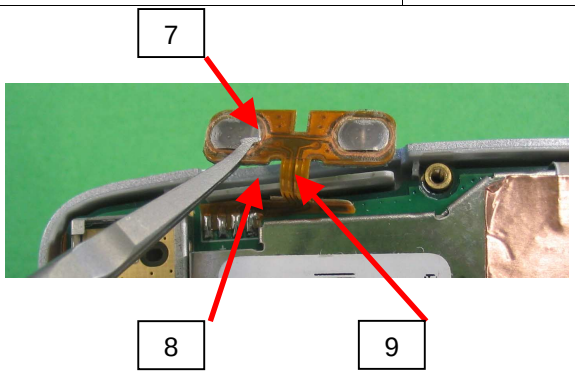
1. Position the FPC of the equipped LCD (2) in the connector of the new equipped electronic card (1).
2. Prepare the soldering surface and solder the fixing surface (4) to the electronic card (1).
3. close the lock (6) upwards to block the FPC of equipped LCD (2).
4. Position the equipped electronic card (1) in its slot.
5. Catch hold of the side keypad (7) and position in its slot (8).
6. Stick the side key (7) making sure it is correctly in contact with the plastic part of the lower casing of the mobile.

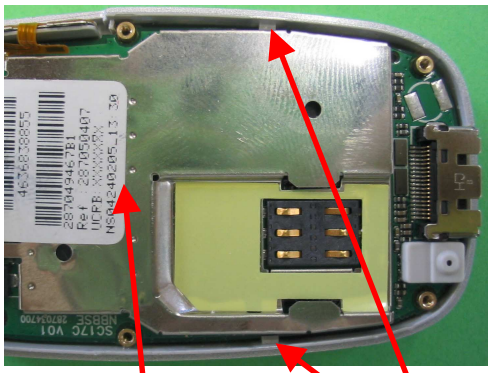
Further operations :

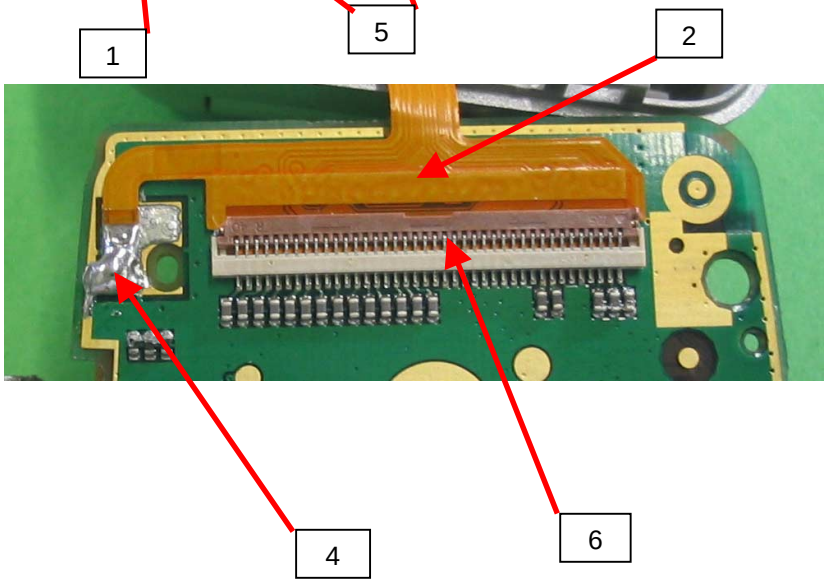
1. Place the micro rubber (Proc Sheet 1 05).
2. Place the volume control key (Proc Sheet 1 22).
3. Place the lower casing of mobile (Proc Sheet 1 01).
4. Place the battery (Proc Sheet 0 01).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06









Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Preliminary operation

1. Control of the IMEI label integrity
2. Remove the equipped electronic board (**Proc sheet 1 18**)
3. Control of any oxidation marks (on the equipped electronic board and under the metal dome)

Return procedure :

(a) The equipped electronic boards are packaged in individual electrostatic envelopes. They must be stocked in their original package of reception , to insure a good protection against external attacks (see enclosed photos)
(b) During the equipped electronic boards manipulation , gloves and electrostatic strap must be worn at all times.
(c) The defective equipped electronic boards have to be returned to SAGEM factory, packaged individually, in the original package (see enclosed photos) , in the appropriate ESD box : One box per Sagem reference (check reference written on the box).
(d) The defective board should display the defect code written on a sticker (placed on the shielding) and written on the ESD bag label too (printed with SMT).

Note :

- **On the defective boards , it is necessary to check visually under the metal dome to discover if it shows oxidation marks. The defective boards should be returned with their original metal dome**
- **Boards with oxidation should not to set in conformance with the warranty**
- **The defective boards must never be mixed with the complete mobiles**

Placement procedure :

1. Take a board in the stock of swap boards from the same Sagem reference.

Further operations :

1. Place the new equipped electronic board on the assembly plate. .(**Proc sheet 1 18**)
2. Follow stages (see enclosed photos)

Example of equipped electronic boards packaging :

Equipped electronic board with metal dome and microphone

ESD shielding bag

Humidity absorber

Boards packaging SAGEM -> ARC

ESD shielding bag closed by the product label

Boards packaging ARC -> SAGEM

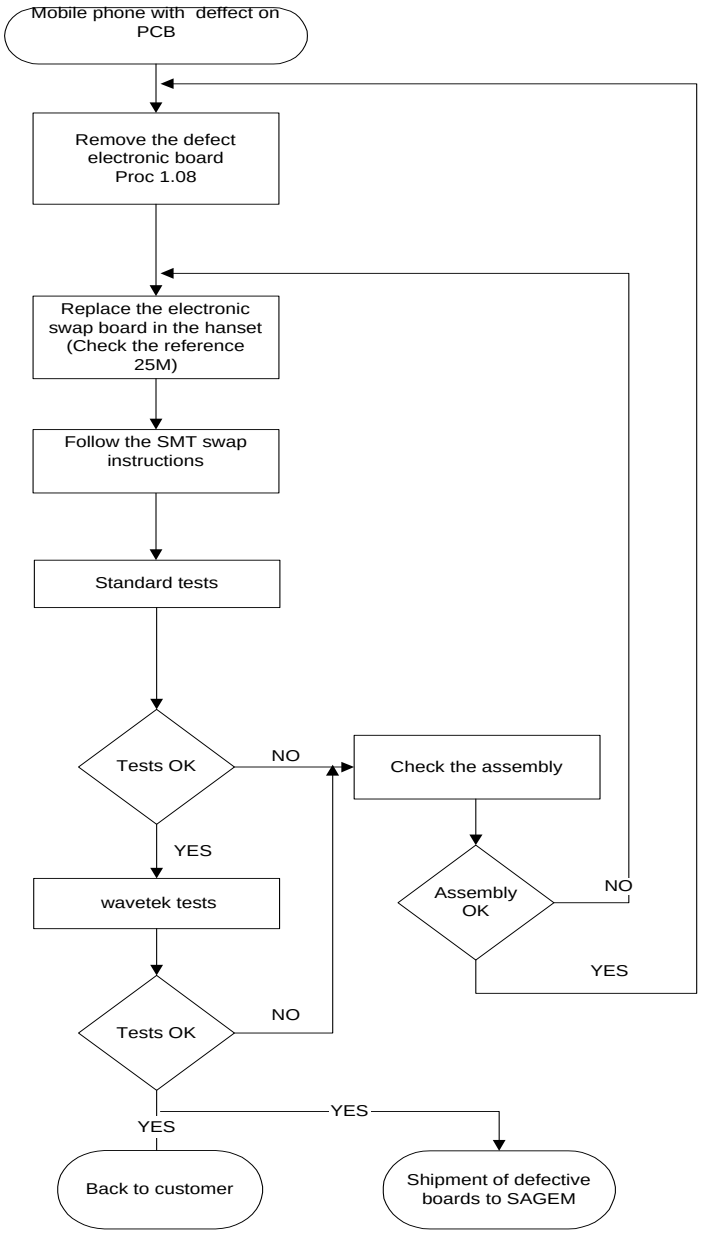
Write the defect code on the label

ESD shielding bag closed by the IMEI label

SAGEM electrostatic shielding box
Reference 20 boards: 25 141059-6
Reference 100 boards: 25 141060-3

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Electronic board exchange process



Detection of N3 defect : See the Technical documentation

-Check oxidation under the metal dome .

- Audio parameters written on the new swap board

- Display test : Hot Line Menu
- Keypad test
- Vibrating device test

- See Technical documentation (test sheet 05)

- Follow return instructions page 5-31

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Tools :

- Not applicable

Risk of the procedure :

- Respect the position of the volume control key.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of the mobile (Proc Sheet 1 01).

Removal procedure :

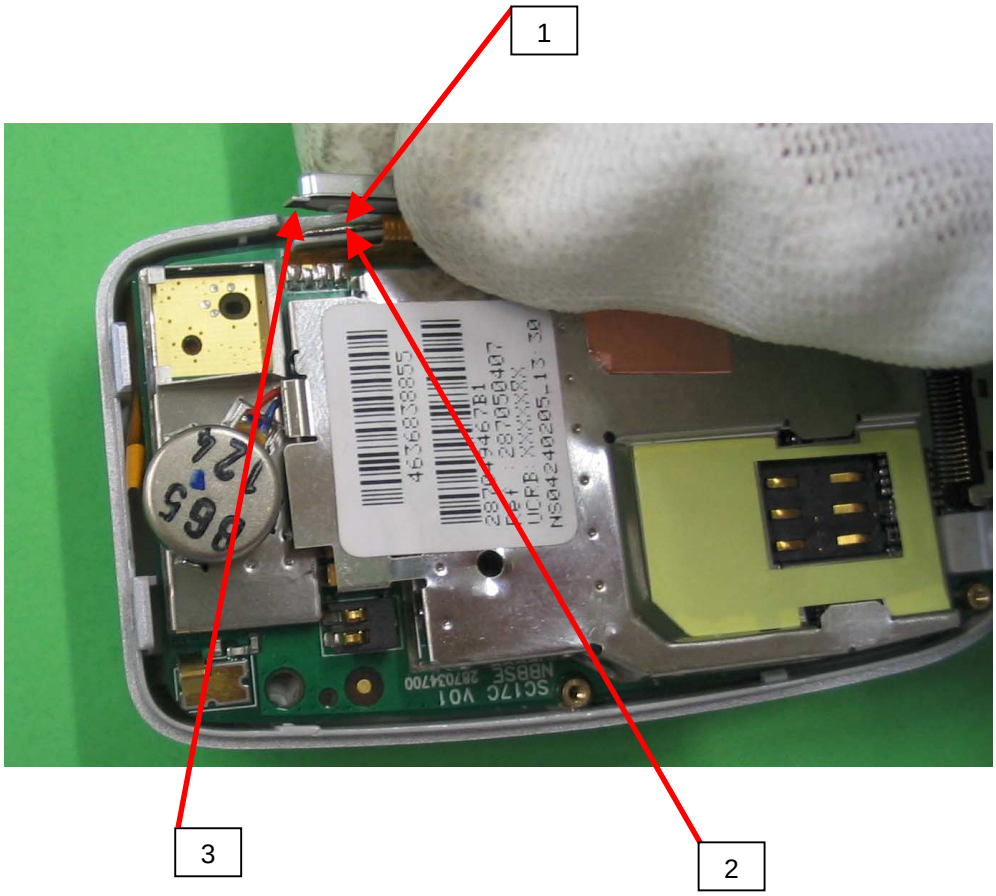
1. Remove the volume control key (1) from the casing in the upper housing of the mobile (2).

Placement procedure :

1. Position the volume control key (1) in the casing by positioning the holding clip (3) to the left.

Further operations :

1. Place the lower casing of the mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).



LEVEL 2 MAINTENANCE

This operation must be made after license SAGEM.

Tools :

- Cross shaped screwdriver
- soldering iron
- Plait to be unsoldered
- Flat screwdriver

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).

Removal procedure :

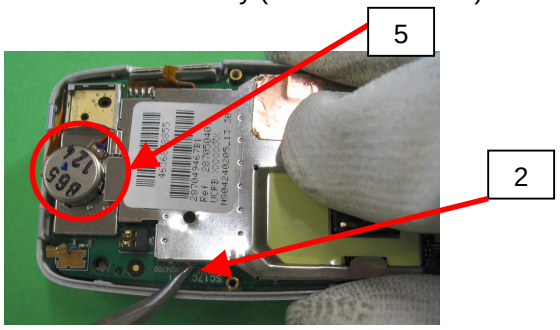
1. Remove the shield (1) by making control lever at the level of the two points of the shield (2 et 3).
2. Unsolder the vibrator (4).
3. Unstick the vibrator of the camera shielding (5).

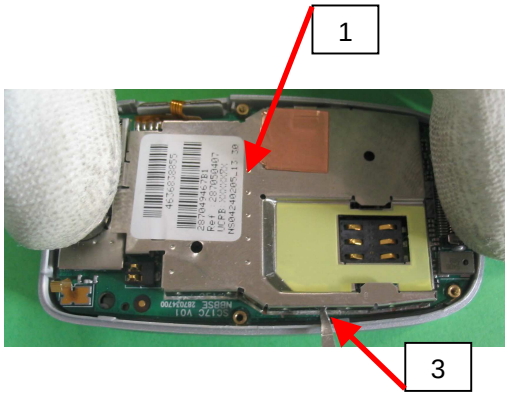
Placement procedure :

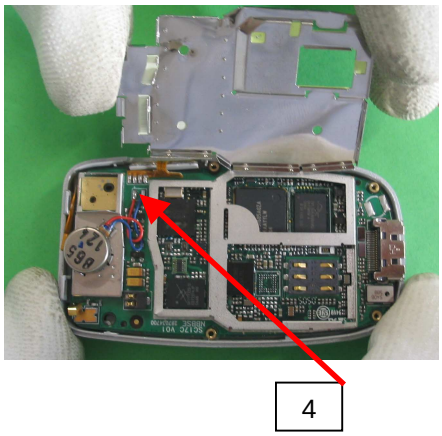
1. Solder a vibrator (4) and position this one on the camera shield well by putting the threads as front (6).
2. Beat the shield on the frame shield.

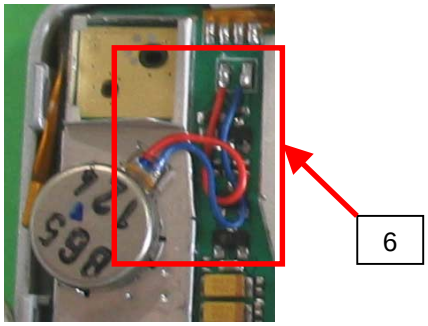
Further operations :

1. Place the lower casing of mobile (Proc Sheet 1 01).
2. Place the battery (Proc Sheet 0 01).









This operation must be made after license SAGEM.

Tools :

- Soldering iron
- Plait to be unsoldered
- Tools for positioning the side keypad

Risk of the procedure :
- Damage the FPC of the side keypad.

Preliminary operation :

1. Remove the battery (Proc Sheet 0 01).
2. Remove the lower casing of mobile (Proc Sheet 1 01).
3. Remove the volume control key (Proc Sheet 1 02).
4. Remove the micro rubber (Proc Sheet 1 06).
5. Remove the equipped electronic board (MMI II) (Proc Sheet 1 10).

Removal procedure :

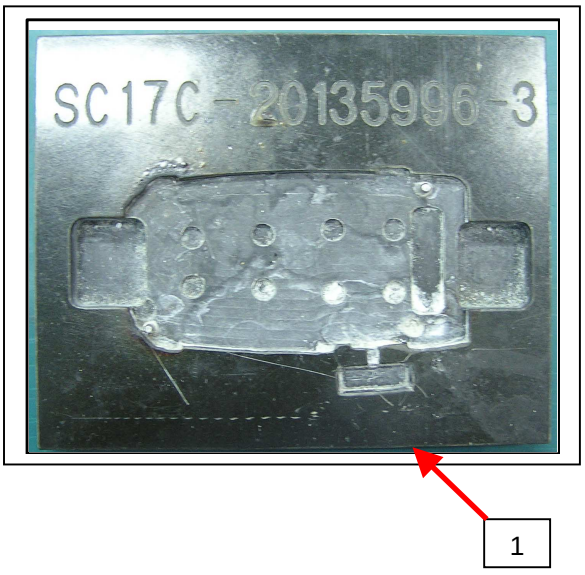
1. Positionner la MMI II sur le posage (1) et dessouder la touche latérale (2).

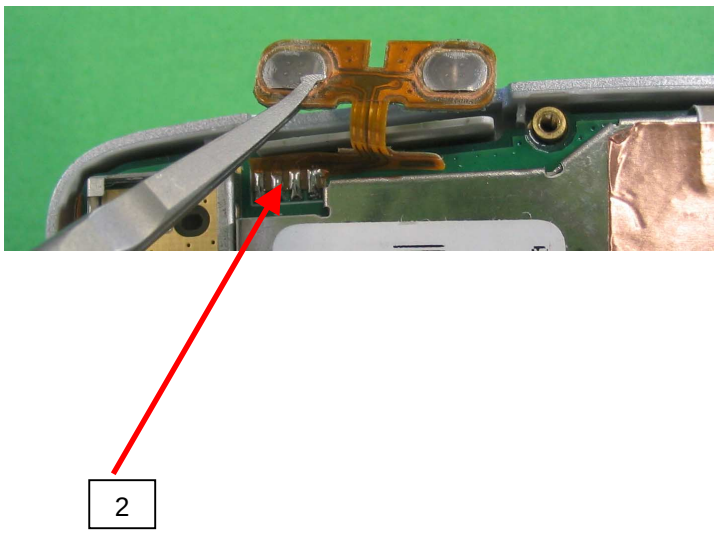
Placement procedure :

1. Positionner la MMI II sur le posage (1) et souder la touche latérale (2)..

Further operations :

1. Place the equipped electronic board (MMI II) (Proc Sheet 1 10).
2. Place the micro rubber (Proc Sheet 1 06).
3. Place the volume control key (Proc Sheet 1 02).
4. Place the lower casing of mobile (Proc Sheet 1 01).
5. Place the battery (Proc Sheet 0 01).





LEVEL 3 MAINTENANCE

IMPORTANT

Mobile packaging sent to SAGEM COMMUNICATION GROUPE SAFRAN :

Follow the Proc Sheet 1 20

Packaging for swap or mobile components storage :

The swap and the mobile components must be stored with a particular care especially for the most sensible component (Display, loudspeaker etc …..)

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

(Mandatory)

This form must attached around the defective mobile or the ESD bag containing the defective board: it must not be put inside the ESD bag.

ARC INFORMATION	
ARC Name ……..…... ARC Adress……...…. ARC Country…….. ARC Phone nr……	
PRODUCT INFORMATION	
Warranty……. Product name…….. Product reference…… IMEI……... Date of purchase……. Incoming date in ARC…… Last swap date (if applicable, <3 month) Defect code found by ARC…… Second NFF Return …...…….	☐ YES ☐ NO _____ _____ * 3 5 1 2 3 1 2 3 1 2 3 0 0 0 0 * …../…../…… …../…../…… …../…../…… ☐ ☐ ☐ YES ☐ NO

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Code SAGEM	Type de défauts	Type of fault
	PROBLEME D'AFFICHAGE	**DISPLAY PROBLEM**
A1	PAS D'AFFICHAGE - LCD INTERNE DEFECTUEUX	NO POWER UP - DEFECTIVE INTERNAL LCD
A3	BLOCAGE DE L AFFICHAGE LCD INTERNE	FREEZES UP INTERNAL LCD
A5	AFFICHEUR CASSE LCD INTERNE	BROKEN INTERNAL LCD
A6	LIGNE, DIGIT OU PIXEL MANQUANT, CONTRASTE, COULEUR LCD INTERNE	MISSING LINE, DIGIT or PIXEL, CONTRAST, COLOR INTERNAL LCD
A7	PB RETROECLAIRAGE LCD INTERNE	BACKLIGHTS PROBLEM INTERNAL LCD
A11	PAS D AFFICHAGE LCD EXTERNE DEFECTUEUX	NO POWER UP - DEFECTIVE EXTERNAL LCD
A13	BLOCAGE DE L AFFICHAGE LCD EXTERNE	FREEZES UP EXTERNAL LCD
A14	AFFICHEUR CASSE LCD EXTERNE	BROKEN EXTERNAL
A15	LIGNE, DIGIT OU PIXEL MANQUANT, CONTRASTE, COULEUR LCD EXTERNE	MISSING LINE, DIGIT or PIXEL, CONTRAST, COLOR EXTERNAL LCD
A16	PB RETROECLAIRAGE LCD EXTERNE	BACKLIGHTS PROBLEM EXTERNAL LCD
	PROBLEME D'ANTENNE	**ANTENNA PROBLEM**
A10	ANTENNE CASSEE / ABSENTE	BROKEN / MISSING ANTENNA
	PROBLEME D'ALIMENTATION / CHARGEUR	**POWER SUPPLY / CHARGING PROBLEM**
B1	CONTACT BATTERIE DU MOBILE DEFECTUEUX	DEFECTIVE MOBILE BATTERY CONTACT
B2	CONNECTEUR DE CHARGE DU MOBILE DEFECTUEUX	DEFECTIVE MOBILE CHARGER CONNECTOR
B3	ALIMENTATION CARTE DEFECTUEUSE	DEFECTIVE POWER SUPPLY OF THE BOARD
B4	AFFICHAGE CHARGE DEFECTUEUX	DEFECTIVE CHARGE ICON DISPLAY
B5	CONSOMMATION MODE ETEINT	CURRENT CONSUMPTION WITH PHONE OFF
B7	PROBLEME D'AUTONOMIE	INSUFFICIENT BATTERY DURATION
B8	BATTERIE DEFECTUEUSE	ELECTRICALLY DEFECTIVE BATTERY
B9	TENUE MECANIQUE BATTERIE	MECHANICAL LOCK PROBLEM ON BATTERY
B10	BATTERIE CASSEE	BROKEN BATTERY
B11	CHARGEUR DEFECTUEUX	DEFECTIVE CHARGER
B12	CHARGEUR CASSE	BROKEN CHARGER
B13	COUPURE INTERMITTENTE AVEC REDEMARRAGE	INTERMITTENT SWITCH OFF WITH REBOOT
B14	COUPURE INTERMITTENTE SANS REDEMARRAGE	INTERMITTENT SWITCH OFF WITHOUT REBOOT
	PROBLEME DE CLAVIER	**KEYBOARD PROBLEM**
C1	CLAVIER INOPERANT CORPS PRINCIPAL	NOT FUNCTIONING BODY KEYBOARD
C2	PROBLEME TOUCHE LATERALE	SIDE KEY PROBLEM
C3	CLAVIER INOPERANT FLAP/SLIDE	NOT FUNCTIONING FLIP OR SLIDE KEYBOARD
	MESSAGE D'ERREUR	**ERROR MESSAGE**
D1	SIM ABSENTE	SIM MISSING
D2	AUTRES MESSAGES	OTHER MESSAGES
D4	MOBILE NON REGLE	UNTUNED MOBILE
D6	SIM VERROU	SIM VERROU
D7	CODE POSTE	POST CODE BLOCKED
D8	RETOUR SAV	SAV RETURN
	PROBLEME AUDIO	**AUDIO PROBLEM**
E1	HP DEFECTUEUX	DEFECTIVE LOUDSPEAKER (hails)
E3	MICRO DEFECTUEUX	DEFECTIVE MICROPHONE
E5	PROBLEME DE VIBREUR	VIBRATING DEVICE PROBLEM
E6	CONNECTEUR AUDIO DEFECTUEUX	DEFECTIVE AUDIO CONNECTOR
	PROBLEME DE COMMUNICATION	**COMMUNICATION PROBLEM**
F1	PAS DE LOCALISATION RESEAU	NO NETWORK RETRIEVAL
F2	COUPURE DE COMMUNICATION	INTERMITTENT CALLS DROP
F4	TEST RADIO NON OK	TEST RADIO NO OK
F5	ECHEC APPEL SORTANT	OUTGOING CALL FAILURE
F6	ECHEC APPEL ENTRANT	INCOMING CALL FAILURE
F7	PERTE TEMPORAIRE DE RESEAU	NETWORK TEMPORARY DROP
	PROBLEME COSMETIQUE / DEFAUT VISUEL	**COSMETIC PROBLEM**
G1	VITRE CASSEE OU ABIMEE CORPS PRINCIPAL	BROKEN OR DAMAGED BODY GLASS
G2	COQUE CASSEE OU ABIMEE	BROKEN OR DAMAGED COVER
G3	FLAP CASSE OU ABIME	BROKEN OR DAMAGED FLIP
G5	CLAVIER CASSE OU ABIME CORPS PRINCIPAL	BROKEN OR DAMAGED BODY KEYBOARD
G6	BOUTON VERROU DEFECTUEUX	DEFECTIVE LOCK BUTTON
G7	VITRE CASSEE OU ABIMEE FLAP/SLIDE	BROKEN OR DAMAGED GLASS FLIP/SLIDE
G8	CLAVIER CASSE OU ABIME FLAP/SLIDE	BROKEN OR DAMAGED FLIP/SLIDE KEYBOARD
	AUTRES PROBLEMES	**OTHER PROBLEM**
H1	KIT ACCESSOIRES HS (KIT PIETON CLASSIQUE, KITS BLUETOOTH...)	BROKEN OR DAMAGED ACCESSORY (PEDESTRIAN HEADSET, BLUETOOTH KITS...)
H2	FONCTION FM (MOBILE) OU MP3	FM OR MP3 FUNCTION (Mobile)
I1	TRACE D OXYDATION	OXYDATION MARKS
I3	PAS DE DEFAUT CONSTATE	NO FAULT FOUND
I10	PAS DE DEFAUT CONSTATE SECOND RETOUR (sauf pendant la boucle courte)	NO FAULT FOUND SECOND RETURN (**excepted during short loop process**)
I5	MANQUE FONCTION DANS MENU	LACK FUNCTION IN THE MENU
I6	CONNECTEUR SIM DEFECTUEUX	DEFECTIVE SIM CONNECTOR
I7	DYSFONCTIONNEMENT D'UNE FONCTION DU MENU	MALFUNCTION OF THE MENU
I8	RECONFIGURATION DU MOBILE	MOBILE RETROFIT
I9	BLACK LISTE	BLACK LIST
	PROBLEME MULTIMEDIA	**MULTIMEDIA PROBLEM**
K2	FONCTION VIDEO	VIDEO FUNCTION
K4	FONCTION WAP	WAP FUNCTION
K5	FONCTION GPRS	GPRS FUNCTION
K6	FONCTION SMS, EMS, MMS.	SMS, EMS, MMS FUNCTION
K7	NE COMMUNIQUE PAS AVEC UN PC	NO COMMUNICATION WITH A PC
K8	NE COMMUNIQUE PAS AVEC UN POCKET PC OU PALM	NO COMMUNICATION WITH A POCKET PC or PALM
K9	LIAISON DATA (MESSAGE " AUCUNE PORTEUSE DETECTEE")	DATA (MESSAGE "NO CARRIER DETECTED")
K10	TELECHARGEMENT JEUX	DOWNLOADING GAME
K11	TELECHARGEMENT IMAGE / SON / ECONOMISEUR D'ECRAN	DOWNLOADING PICTURE / RINGTONE / SCREEN SAVER
K12	PB DATA SANS FIL (IRDA, BLUETOOTH..)	WIRELESS DATA FUNCTION PB (IRDA, BLUETOOTH..)
K13	PB CONNECTIQUE SLOT I/O (SD/MMC)	SLOT I/O PB (SD/MMC)

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Cachet du Vendeur/Dealer's Stamp :	***Informations Client /Information :***
	Nom/Name :
	Rue /Street :
	Ville / City :
	Code postal /Postcode :
	Pays/Country
	Telephone /Phone :
Nom du produit/product :	N° Série/Sérial n° :
Date d'achat/Date of purchase	N° IMEI :
Garantie/Warranty :	***Hors garantie/Out of warranty :***
Garantie standard/Standard warranty : ☐	Garantie expirée /Expired warranty : ☐
Déjà réparé/préviously repaired : ☐	Mauvaise utilisation / Missuse ☐

Code SAGEM		Type de défaut	Kind of fault
A0	☐	AFFICHAGE DEFECTUEUX	DISPLAY MALFUNCTION
A10	☐	ANTENNE CASSEE / ABSENTE	ANTENNA BROKEN / MISSING
B0	☐	ALIMENTATION/CHARGE	POWER SUPPLY / NO CHARGE
B7	☐	PROBLEME D'AUTONOMIE	AUTONOMY
B8	☐	BATTERIE DEFECTUEUSE	BROKENBATTERY
B11	☐	CHARGEUR DEFECTUEUX	CHARGER MALFUNCTION
C0	☐	PROBLEME CLAVIER	KEYBOARD MALFUNCTION
C2	☐	PROBLEME TOUCHE LATERALE	LATERAL TOUCH PROBLEM
D0	☐	MESSAGE D'ERREUR	ERROR MESSAGE
D1	☐	SIM ABSENTE	SIM MISSING
D7	☐	CODE POSTE	POST CODE BLOCKED
E0	☐	PROBLEME AUDIO	AUDIO PROBLEM
E3	☐	MICRO DEFECTUEUX	MICROPHONE MALFUNCTION
E5	☐	PROBLEME DE VIBREUR	VIBRATING DEVICE MALFUNCTION
F0	☐	PROBLEME DE COMMUNICATION	COMMUNICATION MALFUNCTION
G1	☐	VITRE CASSEE OU ABIMEE	BROCKEN GLASS
G2	☐	COQUE CASSEE OU ABIMEE	BROCKEN COVER
G3	☐	FLAP CASSE OU ABIME	BROKEN FLIP
G5	☐	CLAVIER CASSE OU ABIME	BROCKEN KEYBOARD
G6	☐	BOUTON VERROU DEFECTUEUX	DEFECTIVE LOCK BUTTON
K2	☐	FONCTION VIDEO	VIDEO FUNCTION
K3	☐	FONCTION INFRAROUGE (IRDA)	INFRARED FUNCTION (IRDA)
K4	☐	FONCTION WAP	WAP FUNCTION
K5	☐	FONCTION GPRS	GPRS FUNCTION
K6	☐	FONCTION SMS, EMS, MMS.	SMS, EMS, MMS FUNCTION
K7	☐	NE COMMUNIQUE PAS AVEC UN PC	NO COMMUNICATION WITH A PC
K8	☐	NE COMMUNIQUE PAS AVEC UN POCKET PC OU PALM	NO COMMUNICATION WITH A POCKET PC or PALM
K9	☐	LIAISON DATA (MESSAGE "AUCUNE PORTEUSE DETECTEE")	DATA (MESSAGE "NO CARRIER DETECTED")
K10	☐	TELECHARGEMENT JEUX	DOWNLOADING GAME
K11	☐	TELECHARGEMENT IMAGE / SON / ECONOMISEUR D'ECRAN	DOWNLOADING PICTURE / RINGTONE / SCREEN SAVE
H1	☐	KIT ACCESSOIRES HS	BROCKEN ACCESSORIES
H2	☐	FONCTION FM (MOBILE)	FM FUNCTION
H3	☐	FONCTION MONETIQUE	MONETIC FUNCTION
I5	☐	MANQUE FONCTION DANS MENU	LACK FUNCTION IN THE MENU
I7	☐	DYSFONCTIONNEMENT D'UNE FONCTION DU MENU	MALFUNCTION OF THE MENU
I8	☐	RECONFIGURATION DU MOBILE	MOBILE RETROFIT
I9	☐	BLACK LISTE	BLACK LIST
I0	☐	AUTRES DEFAUTS A PRESICER	OTHERS / TO BE PRECISED

OUT OF WARRANTY INTERVENTION

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

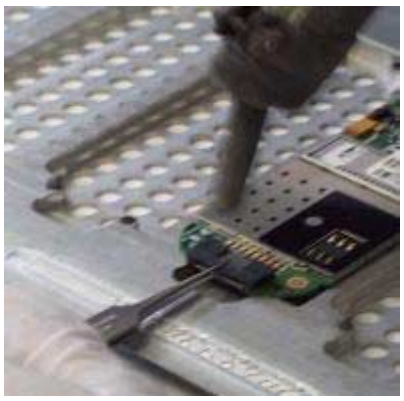
Notice: The handsets requiring the replacement of system connectors cannot be repaired under Sagem warranty.

The eventual deterioration of the board due to a bad replacement of the connector fall under the Repair Centre responsibility.

- Replacement procedure of DATA/ AUDIO/ CHARGE connector

1-Disassemble the handset (Proc Sheet 1 20)
2-Replace the defective connector (see below) **Ref: 28 700 046-0**
3 - Replace the electronic board in the mobile phone (Proc Sheet 1 20)
4 -To test the replacement of the connector, it is necessary to:
a) Connect the mobile phone on SMT maintenance software (test Sheet 01)
b) Make real calls with a pedestrian handsfree Kit **Reference : 25-130 173-9**
c) Test the charge of mobile phone
5 - Standard test after repair

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



– Maintain the electronic board
- flux Correctly the pins of the connector.
- Reference of the flux to be used:
- LITTON flux -Supplier reference 952-D6
-SAGEM reference18 775 103-7
- With tweezers, hold the connector and heat the pins up.

ATTENTION:
-Do not pull the connector but let it come , in order to avoid destroying the pads

After having removed the connector, uncork rather quickly the four holes of the connector while the tin is still warm.

Flux and heat the pads in place of the connector to equalise the foot prints

In order to tin the pins of the DATA/ AUDIO/ CHARGE connector, load the solder wick with tin on approximately 1 inch.

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 03
Proc 1 04
Proc 1 05
Proc 1 08
Proc 1 10
Proc 1 18
Proc 1 20
Proc 1 22
Proc 2 01
Proc 2 03
Proc 3 01
Proc 3 02
Proc 4 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

Before any operation,
-flux correctly the pins of the connector.
-with the solder wick loaded with tin , tin the pins of the DATA/ AUDIO/ CHARGE connector by positioning it straight ahead (pads upward), and by heating the solder wick which is in touch with pins.

Attention:

- At the end of the operation , verify that there is no short circuit between pads.

Start soldering the connector pins.
-Flux the place of the connector and position the DATA/ AUDIO/ CHARGE connector.
-Verify that the pins of the DATA/ AUDIO/ CHARGE connector are well centred on pads.
-Heat pins with an air blow device while maintaining the connector with tweezers
-Verify that there is no short-circuit, that solders are shiny and that they cover well the pins

At last, solder the 4 pins crossing the board..

CHAPTER 6 - ACCESSORIES

6.1 CIGAR LIGHTER CHARGERAC1

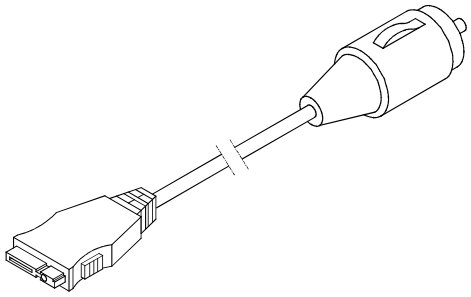
6.1.1 Description

This charger is for use in a car (or truck) only. The adapter is fitted with a cigar lighter type connector. AC1 is used to charge a mobile on a cigar lighter connector.

6.1.2 Caractéristiques

Packaging :
Blister

Comment :
Input voltage : 10.8 to 30 V
No load voltage : 6.5 V
Output current : 500 mA



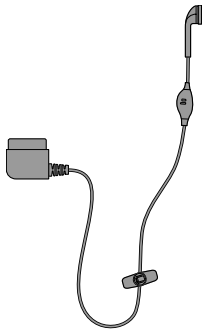
6.2 PEDESTRIAN HANDSFREE KIT

6.2.1 Description

Ear support with microphone on the cable for handsfree conversation

6.2.2 Caractéristiques

Comment :
Length: 1.25 m Dist. micro/loudspeaker: 25 cm



6.3 DATA CABLE PC USB

6.3.1 Description

Data cables are used for transferring data through standard equipment.

6.3.2 Caractéristiques

Packaging :
Blister

CHAPTER 7 - TECHNICAL INFORMATION BULLETIN

7.1 PURPOSE

The purpose of the Technical Information Bulletin (TIB) is to complete the maintenance operations described in this document. They give to the repair centers the complementary technical informations and the corrective procedures to be applied to maintain the product following it's evolution.

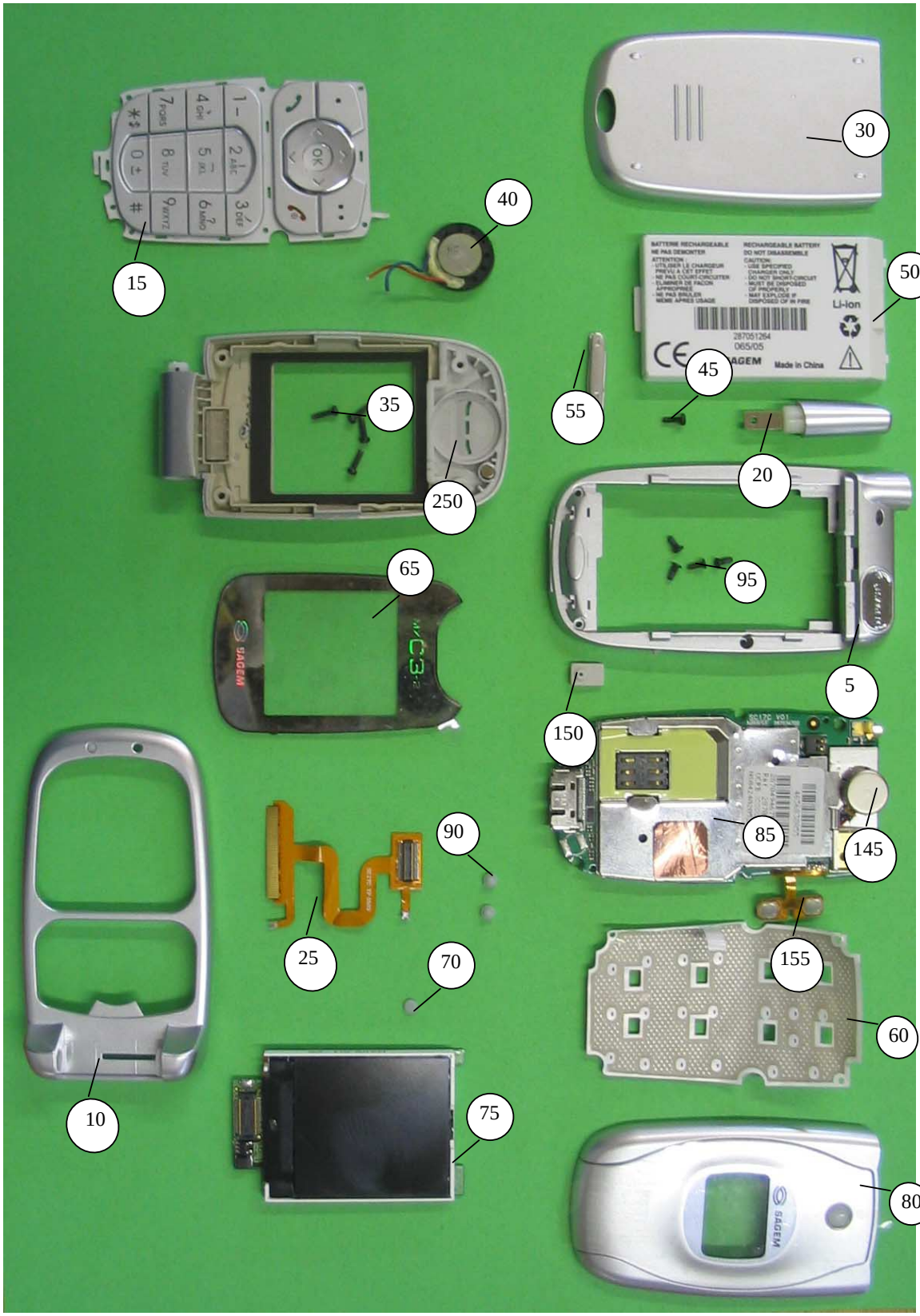
7.2 APPLICATION

The Technical Information Bulletin (TIB) are reference and must be applied by the repair centers.
The Technical Information Bulletin (TIB) will be sent only to the concerned repair centers. The Technical Data Bulletin will not be received by the repair centers with a reference number in sequence.
The follow up of the Technical Information Bulletin (TIB) and the action being to be performed are under the responsibility of the repair centers.

CHAPTER 8 - ILLUSTRATED PARTS CATALOG

8-1 SPARE PARTS myc3-2,myc3-2j

ASSEMBLY	Quantity	Designation
5	1	Lower cover
10	1	Upper cover
15	1	Keypad
20	1	Antenna
25	1	FPC
30	1	Battery cover
35	4	Flap screw
40	1	Assembled loudspeaker
45	1	Antenna Screw
50	1	Battery
55	1	Volume Key
60	1	Spacer & metal dome
65	1	LCD pane
70	2	Screw protection
75	1	LCD
80	1	Flap upper housing
85	1	Main board
90	2	Flap stop
95	4	Body Screw
100	1	Microphone rubber
145	1	Vibrating device
150	1	Micro rubber
155	1	Side key
250	1	Flap lower housing


30
40
15
50
Li-ion
45
55
35
20
250
65
95
5
150
85
145
90
25
70
155
60
10
75
80

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