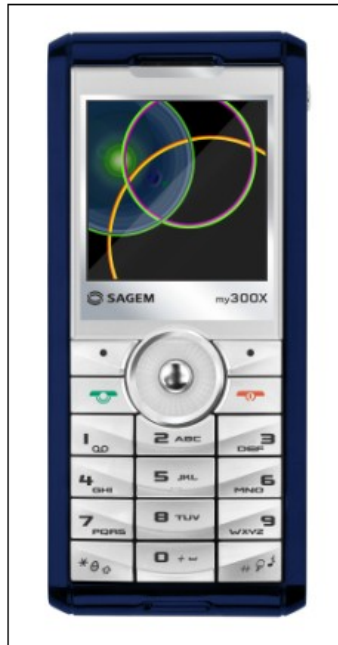

SITE TECHNICAL DOCUMENTATION B2005

Doc. No. : MTB DTS 2
Version : A
Date : December 21 2005

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CHAPTER 1 - FOREWORD

This document is common to all B2005 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).

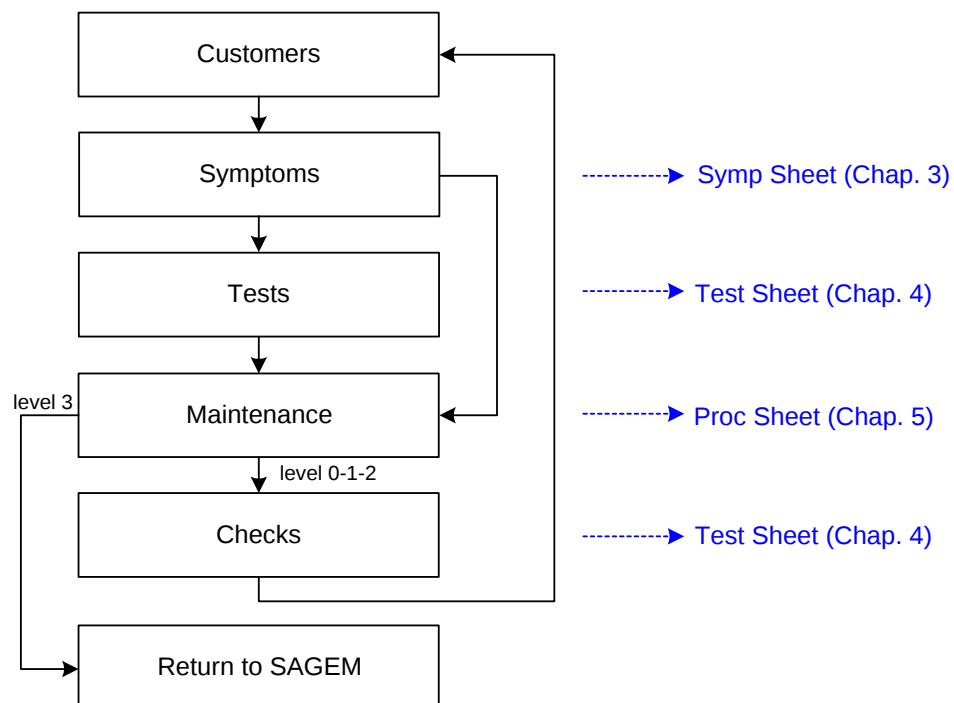
1.1 HOW TO USE THE SITE TECHNICAL DOCUMENTATION

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 not systematically consecutive numbers, 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 B2005.

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 B2005 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	International 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 Frequency
SAR	Specific Absorption 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	PCS 1900
Frequency Band (MHz)	880 - 915 925 - 960	1710 - 1785 1805 - 1880	1850 - 1910 1930 - 1990
Number of time intervals per TDMA frame	8		
Width 2 x W simplex (MHz)	2 x 25	2 x 75	2 x 60
Duplex spacing (MHz)	45	95	80
Modulation speed (kbit/s)	271		
Speech throughput (kbit/s)	13 (5,6)		
Maximum data throughput (kbit/s)	12		
Multiple access	Frequency and temporal multiplexing / frequency duplexing		
Cell radius (km)	0,3 to 30	0,1 to 4	0,1 to 4
SAGEM terminal power (W)	2	1	1
Table 1 : Radio Interface			

Table 2 shows powers as a function of the network:

	GSM 900		DCS 1800		PCS 1900	
Class number	Maximum nominal power (W)	Allowable interval (W)	Maximum nominal power (W)	Allowable interval (W)	Maximum nominal power (W)	Allowable interval (W)
1	-	-	1	[0,63 ; 1,6]	1	
2	8	[5,0 ; 12,7]	0,25	[0,16 ; 0,4]	0,25	
3	5	[3,2 ; 7,9]	4	[2,5 ; 6,3]	2	
4	2	[1,3 ; 3,2]				
5	0,8	[0,5 ; 1,3]				
Table 2: Terminals power class						

2.2 REMINDERS ABOUT THE CHARACTERISTICS AND OPTIONS

General characteristics

Name

Name	B2005
------	-------

Size

Dimensions	NA
Weight	105x46x14
Volume	88

Power management

Battery type	75
Connector type	Li-Ion 850mAh
Charging time	Clam
Talk time	3hrs
Standby time	4hrs

User interface

Screen type	350h
Colours	CSTN
Number of lines	65K
Screen size	8
Screen resolution	30 x 30 min
Backlight	128 x 128
Sub LCD	Yes

Customisation

Handset colours	NA
Interchangeable covers	NA

Radio

Type GSM	No
GSM Band	triband
Voice codecs	900/1800/1900 MHz

Operating system

Operating System	HR, EFR, FR, AM
------------------	-----------------

Connectivity

Radio

GPRS	NA
EDGE	Oui
UMTS	no

Internet

Browser	Non
Push	Wap
Fax modem	yes

Data transfer

Serial	yes
IrDA	no
Bluetooth	yes
USB	yes
Wifi	Oui
PC synchronisation	Non

Multimedia

Messaging

SMS	yes
EMS	MO MT CB
MMS	Yes

E mail	50KB and 100KB max size
IMPS	no
Predictive text input	no

Video & images

Camera	T9
Image features	No
Video Player	no
Image Format	No

Audio

Audio player	Bmp jpeg png gif gif animed
Audio Recorder	only for ringtones
FM radio	AMR up to 30s
Polyphonic ringtones	no
Audio formats	32

Entertainment

Wallpaper	AMR NB WAV iMelody 1.2 Midi
Screensaver	14
Clock display	3
Icons	digital or analog
Skins	Yes
Ringtone	3
Boot up and shut down sequences	35
Bookmarks inserted in Games menu	Yes
Embedded Games	yes
Downloaded application	2 Java games

JAVA

JAVA	Yes
------	-----

OTA dowload

Protocol supported	Kjava CLDC1.1 MIDP 2.0
Wallpapers	EMS MMS WSP ou HTTP WAP M-Services JAVA
Animation	NA
Menu icon	Yes
Download skins	Yes
Games	NA
Ringtones	Yes
Java application	Yes
Reproduction dossier	Yes

Real time dowload

Flux audio	Yes
Flux video	No
Special features	No

Call management

Voice features

Mute mode	
Numerotation vocale	yes
Integrated handsfree mode	no

Adress book features

Call group	yes
Ringtone and Icone customisation	no
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	yes
Call list	Voice mail
Caller ID	yes
Any key answer	yes
Automatic hang up	yes

Special features

Keyboard features

Scroll key	yes
Programable key	Yes
Side key	Yes
Direct access key	Yes
Keypad lock	Yes
Silent key	yes
International access key	Yes
Menu key	Yes

Personnal management features

Calculator	yes
Alarm Clock	yes
Timer	yes
Organizer	no
To do	yes
Voice recorder	yes
Currency converter	Yes up to 60s
Languages	yes

Memory

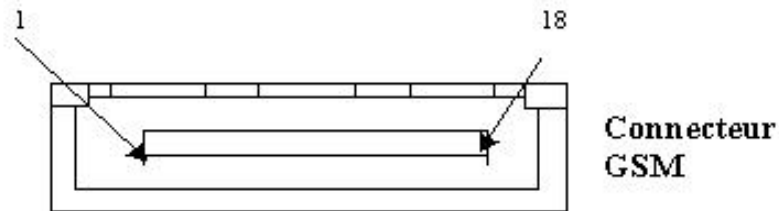
Memory

Internal phone book	Yes up to 8 languages
Memoire message	500
Redial List	100
Additional multimedia memory	20
Embedded memory	no

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.



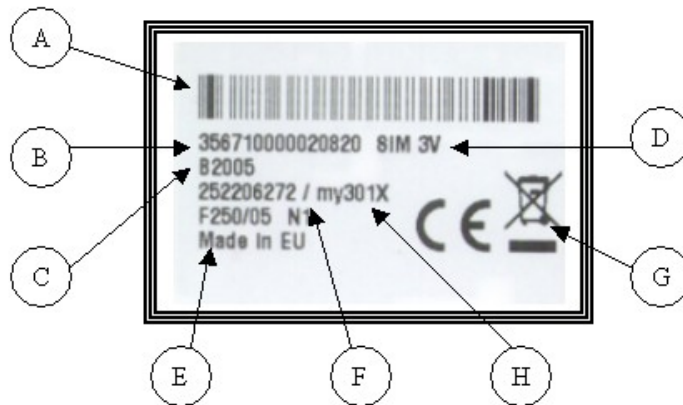
2.3.2 Signal description

Symbol	Pin connector	Signal fonction
HSCMICIP	1	Differential input for external microphone
HSCMICN	2	Differential input 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 stuck on the antenna.

2.4.1 Illustration



2.4.2 Description

a : IMEI (Code barre),

b : IMEI (15 caractères),

c : Esthétique,

d : Indication tension carte Sim (Sim 3V),

e : Indication géographique de fabrication,

f : Date code / Niveau de fabrication,

Ex . F250/05 = (F) lieu de fabrication (F:Fougères), (250) jour de fabrication dans l'année, (05) dernier digit de l'année de fabrication.

g : Logo et/ou agrément client,

h : Référence du produit / désignation du produit,

2.4.3 Description after repair

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

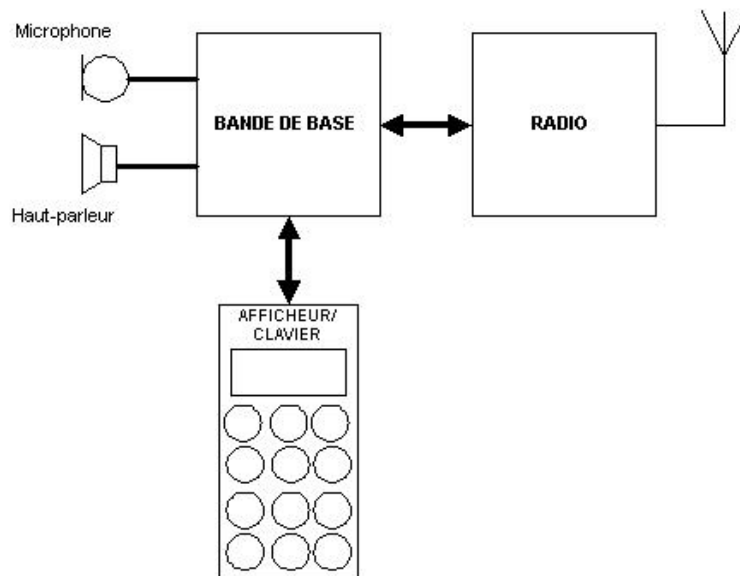


This extra line will appear if the mobile has already been repaired.

- 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 B2005 are given in the "User's handbook" supplied with the handset. This chapter only describes equipment that operates with the B2005 handset.

2.6.1 Battery packs



2.6.1.1 Caractéristiques

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 850mAh

Charger	
Voltage	
Charging times	3h00

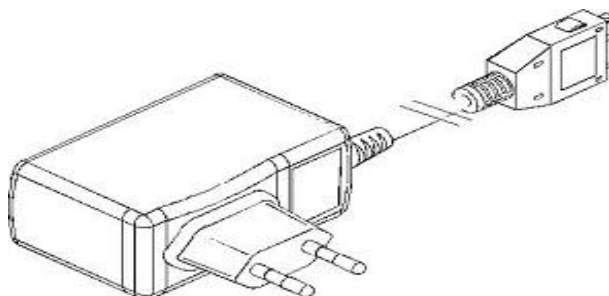
2.6.2 Mains modules

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:

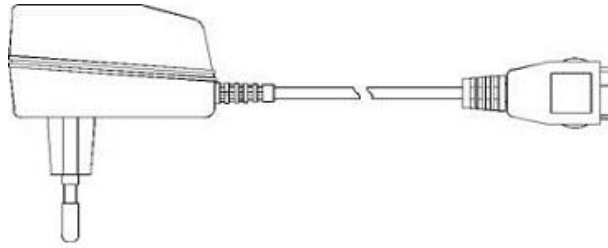
- E.E.C,
- United Kingdom
- United States,
- Australia.

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.

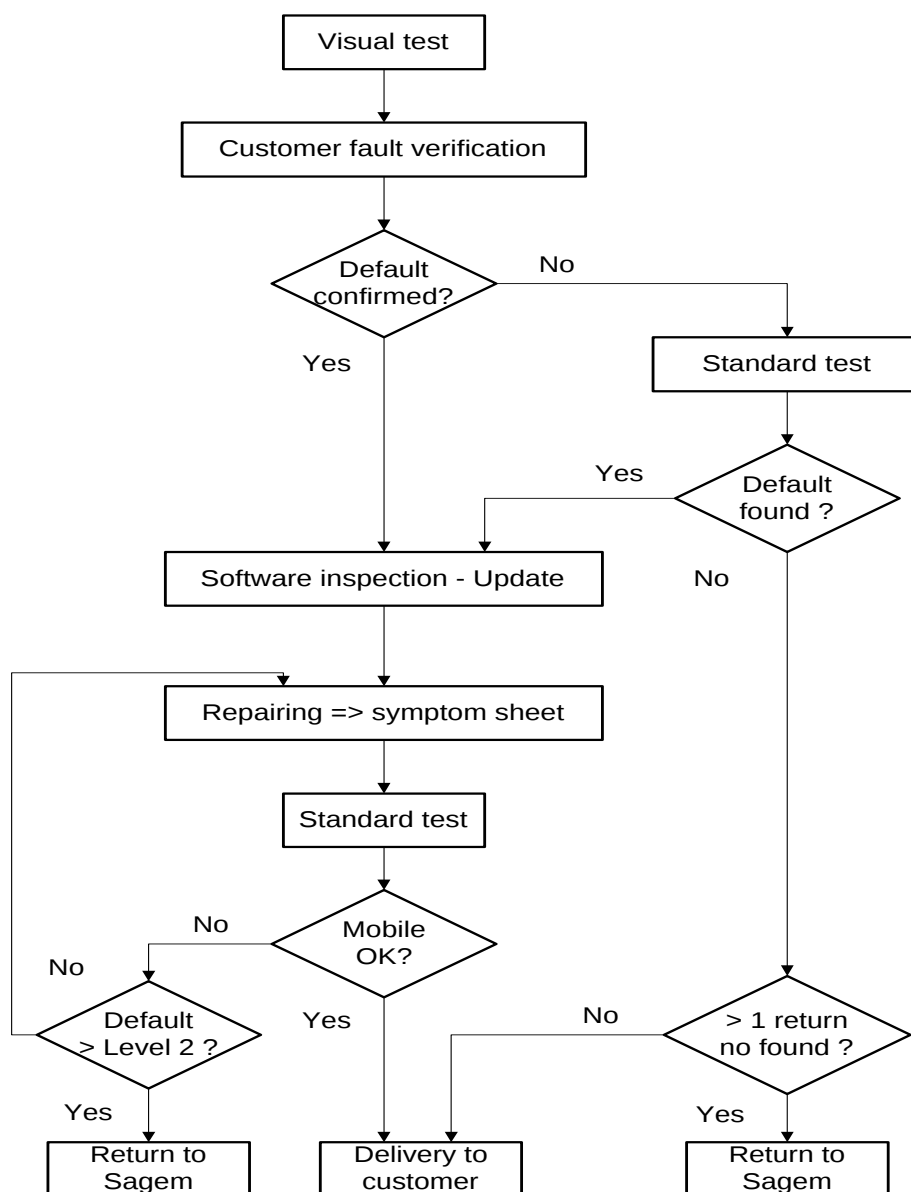
These flow charts should be followed in full. After a reference to a removal/replacement sheet or to a test to be carried out, you should return to the initial flow chart and continue the search until reaching a final conclusion.

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 written authorisation .



Visual test :

- Connector condition (in / out connector, battery, SIM)
- keypad condition (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)
- 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 13
G2	Broken or damaged cover	Proc sheet 1 01
		Proc sheet 1 13
G5	Broken or damaged keypad	Proc sheet 1 04
H1	Accessory problem	Proc sheet 3 01
H2	DATA problem	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).

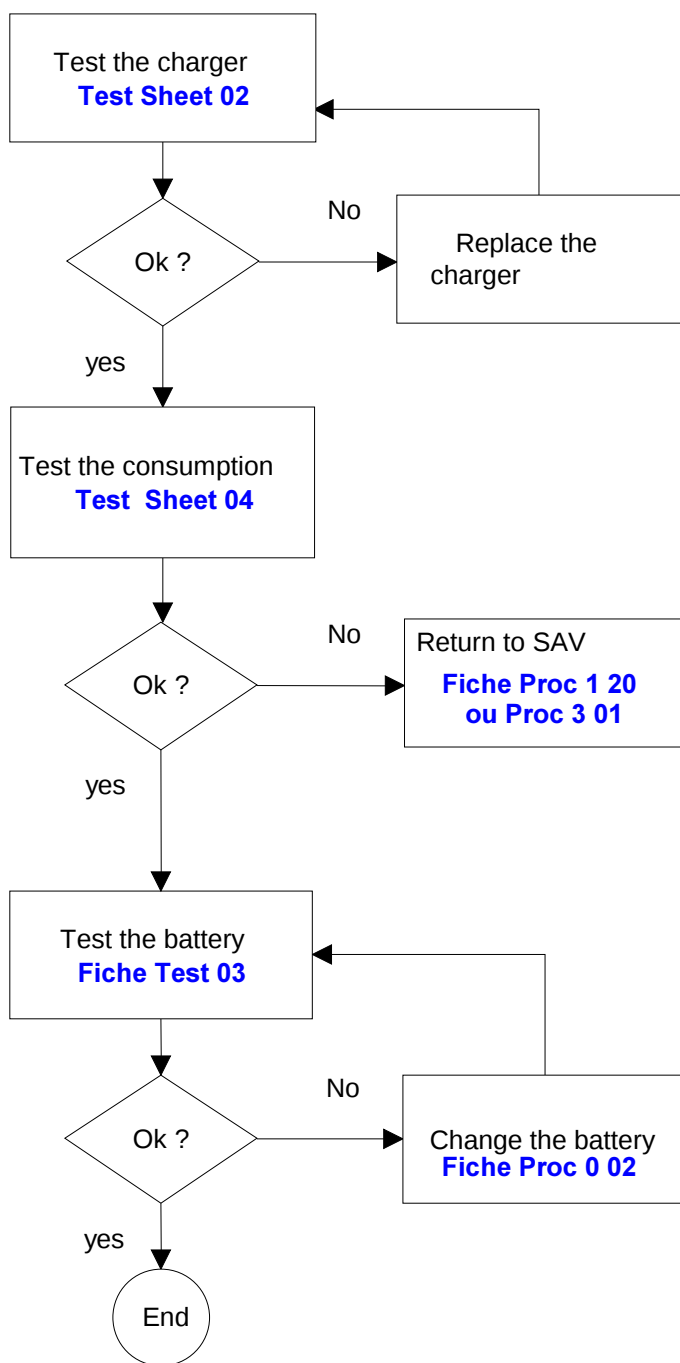
3.6 INFORMATION ABOUT NEW NOTICED FAULTS

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

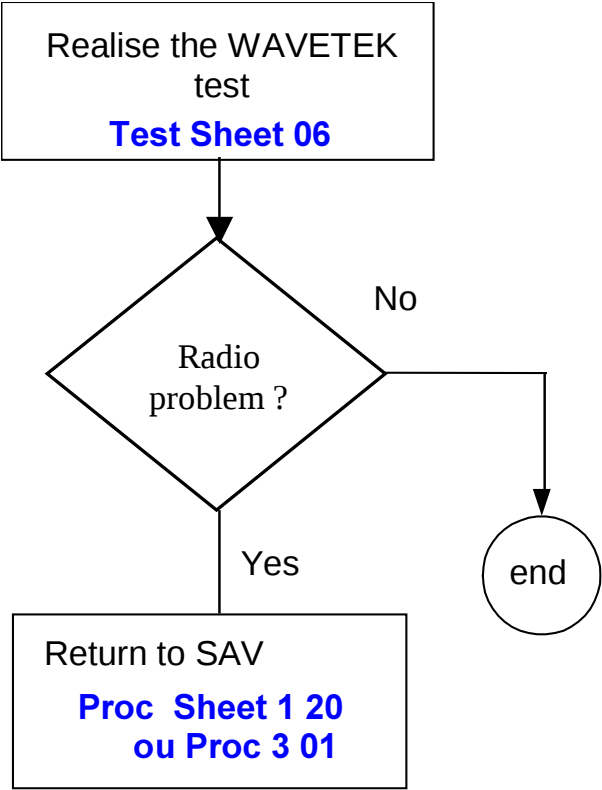
	ENDURANCE BATTERY AND CHARGER PROBLEM	SYMP SHEET 01
B2005		1/1



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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

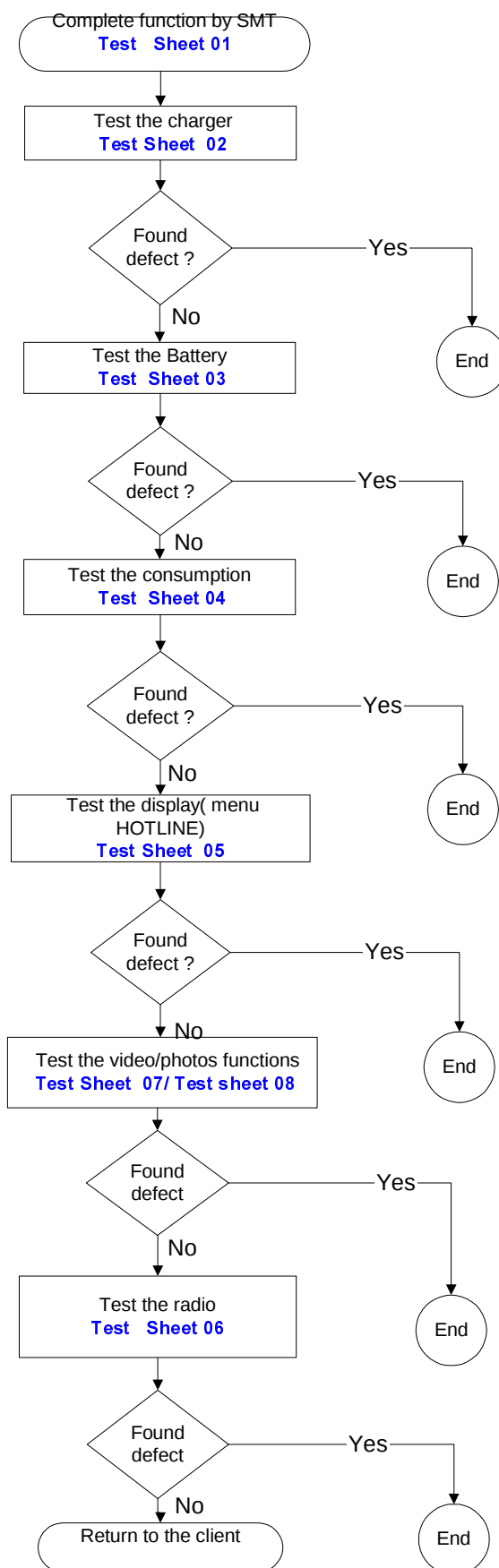
	COMMUNICATION	SYMP SHEET 02
B2005	PROBLEM	1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



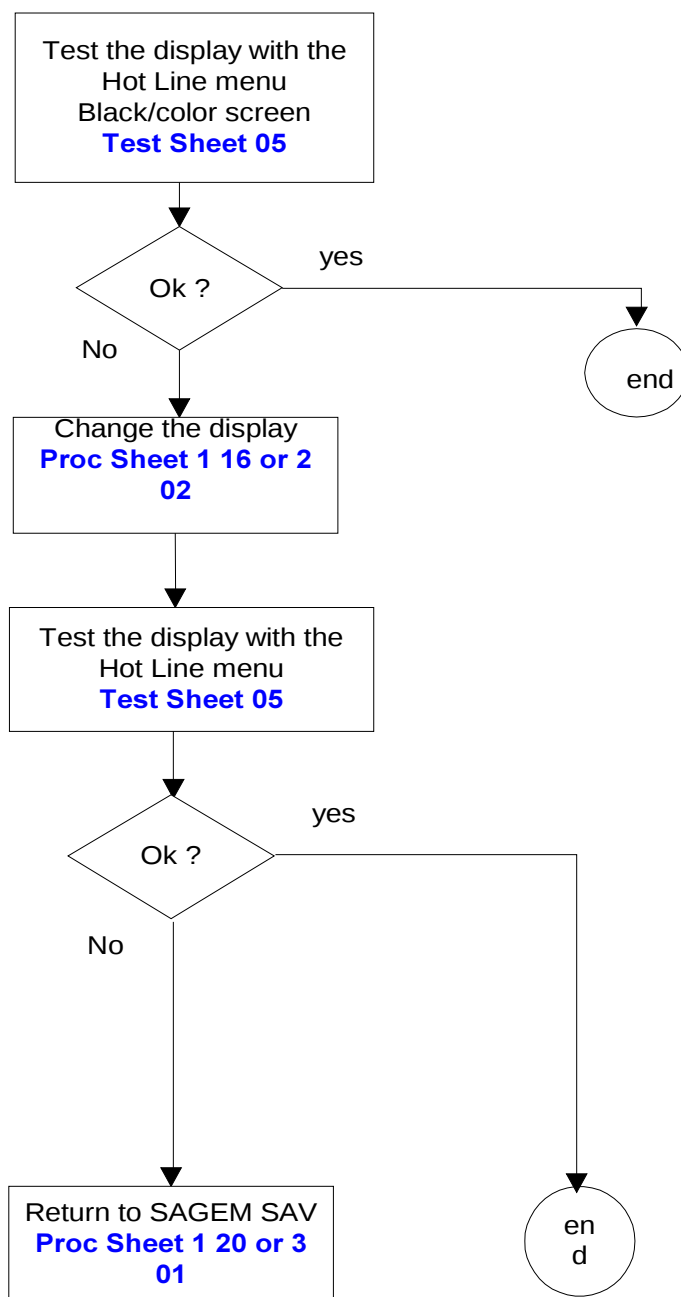
	NO FAULT GIVEN	SYMP SHEET 03
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



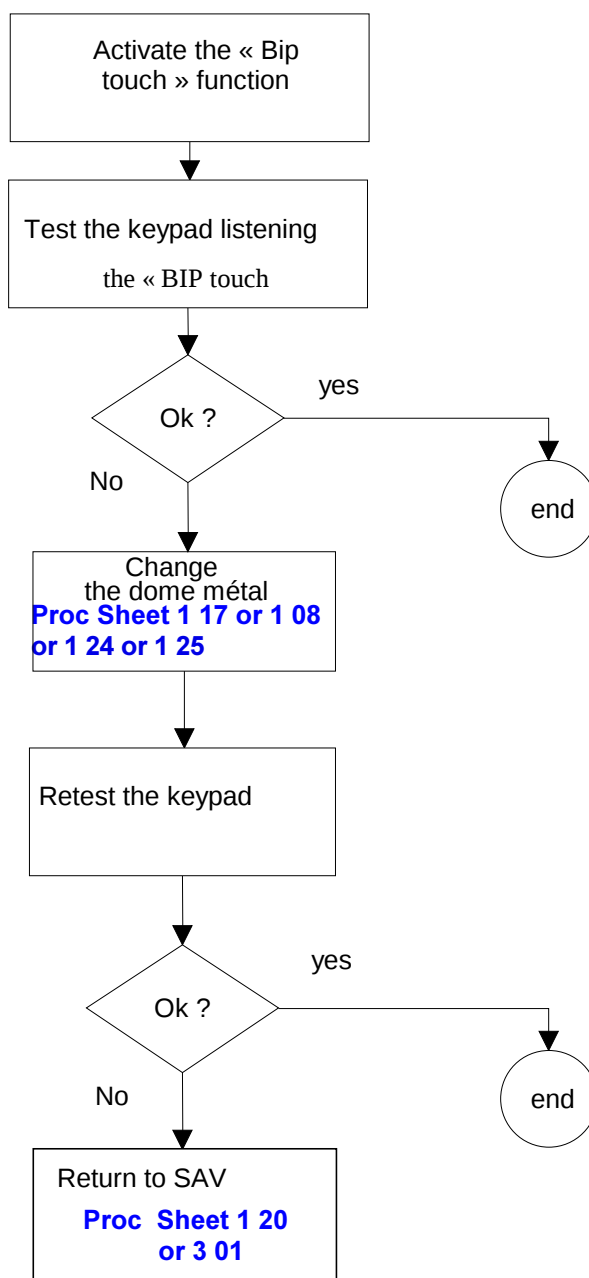
	DISPLAY PROBLEM	SYMP SHEET 04
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

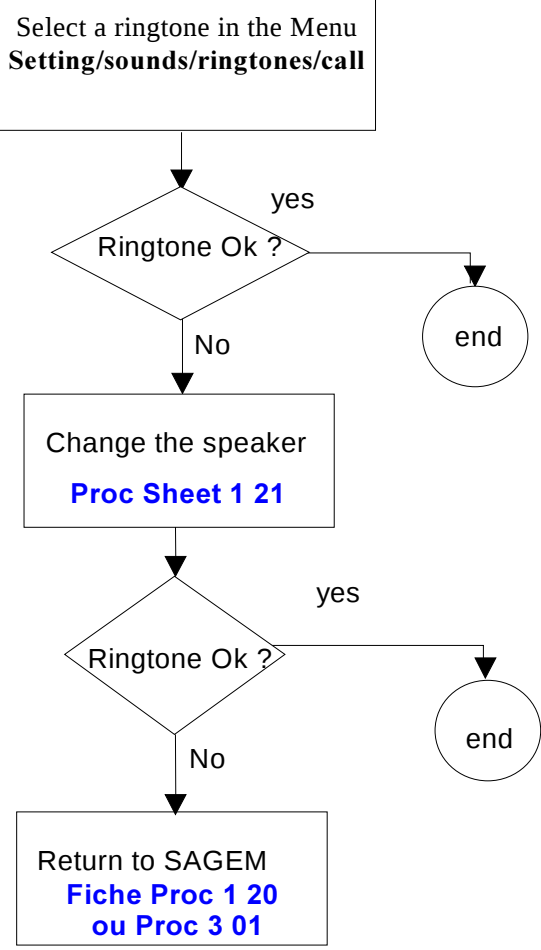


	KEYPAD PROBLEM	SYMP SHEET 05
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



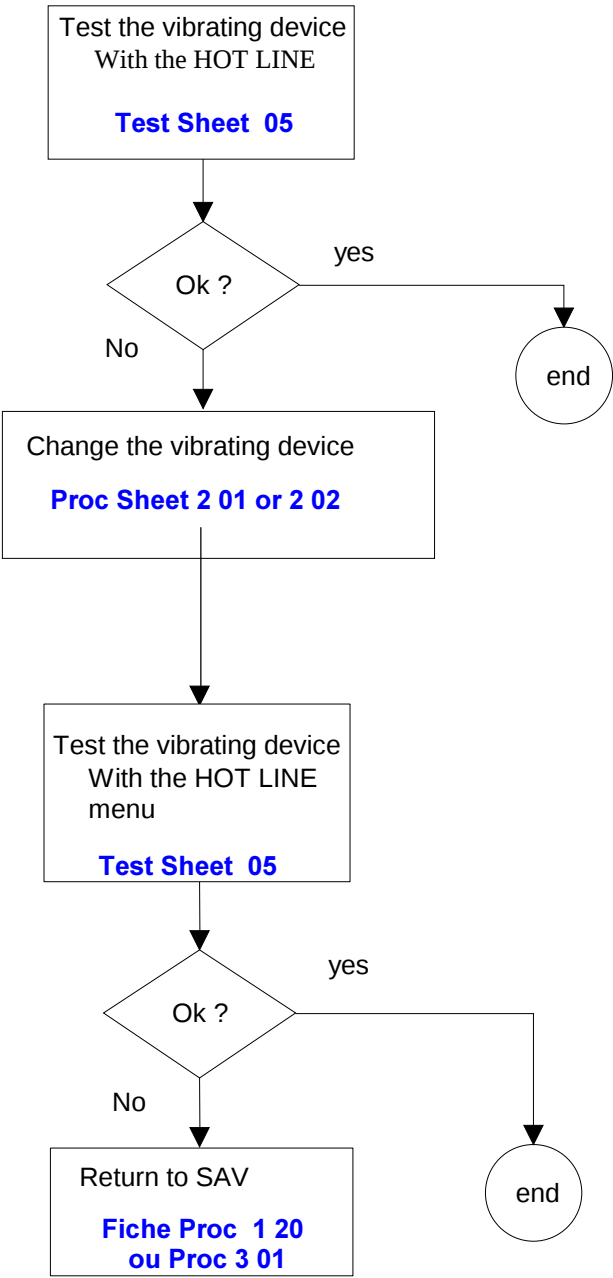
	RING TONES PROBLEM	SYMP SHEET 06
B2005		1/1



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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

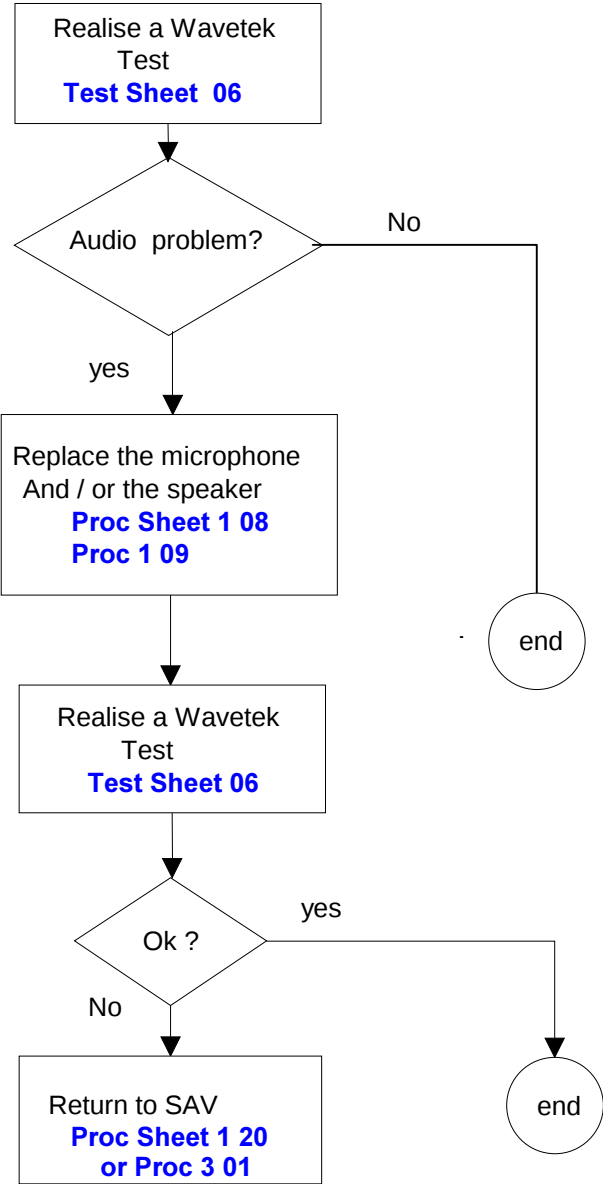
	VIBRATING DEVICE PROBLEM	SYMP SHEET 07
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



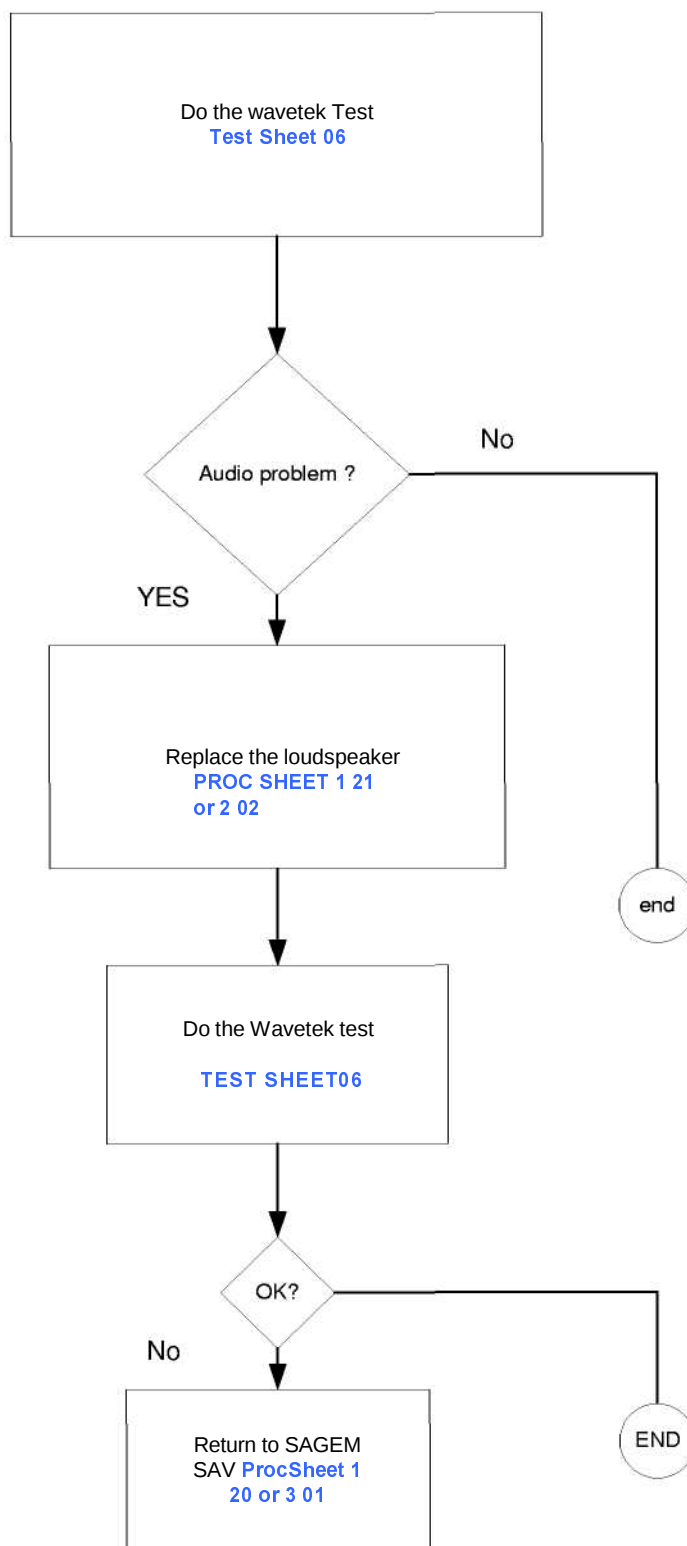
	AUDIO PROBLEM	SYMP SHEET 08
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



	LOUDSPEAKER PROBLEM	SYMP SHEET 10
B2005		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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06



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.
 - B2005 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)
 - Amperimeter
- 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.
- Unblock 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 AND CHECK BY SMT	TEST SHEET 01
B2005		1/7

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.

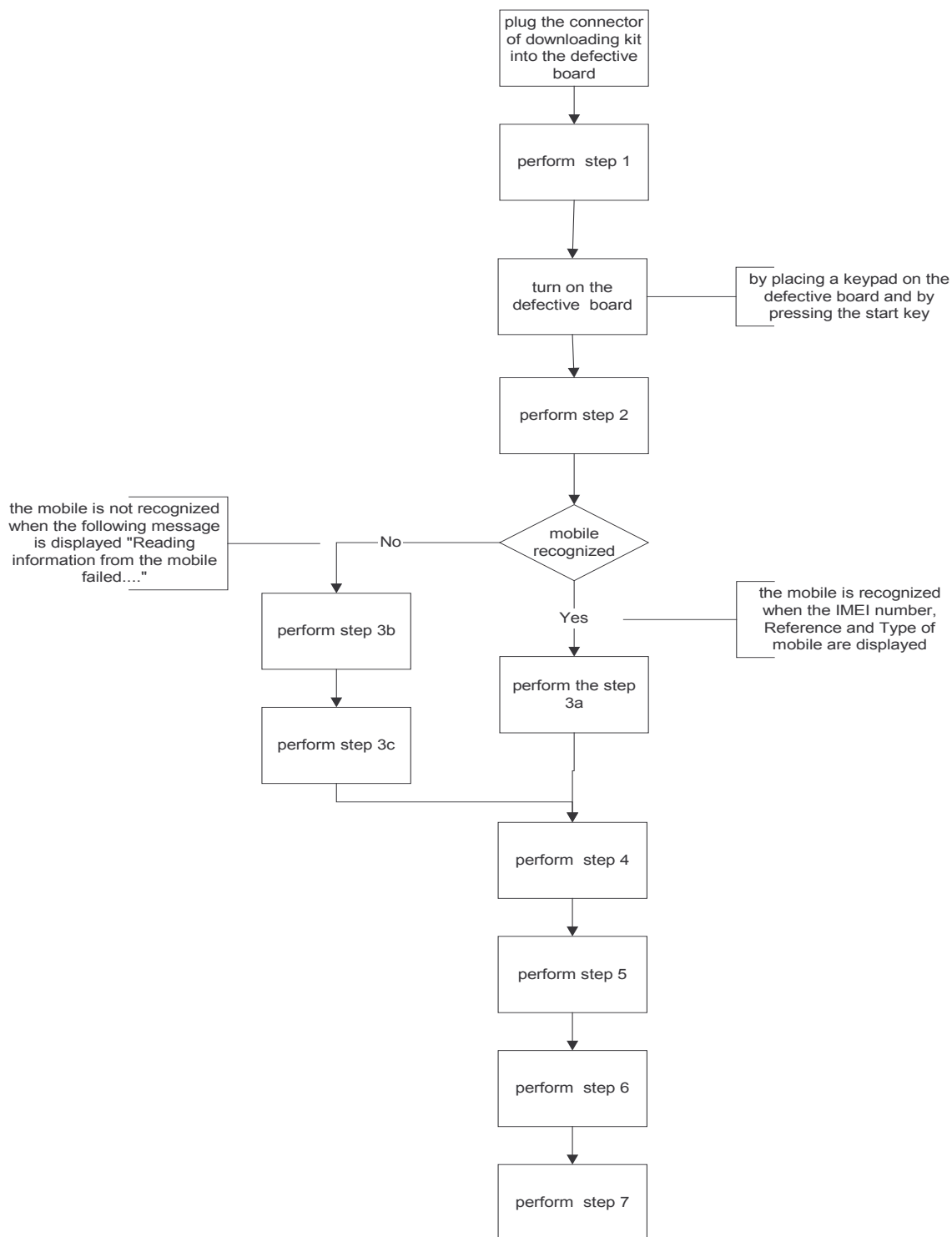
Electronic board swap

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
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		2/7

1. SWAP : Electronic board Configuration

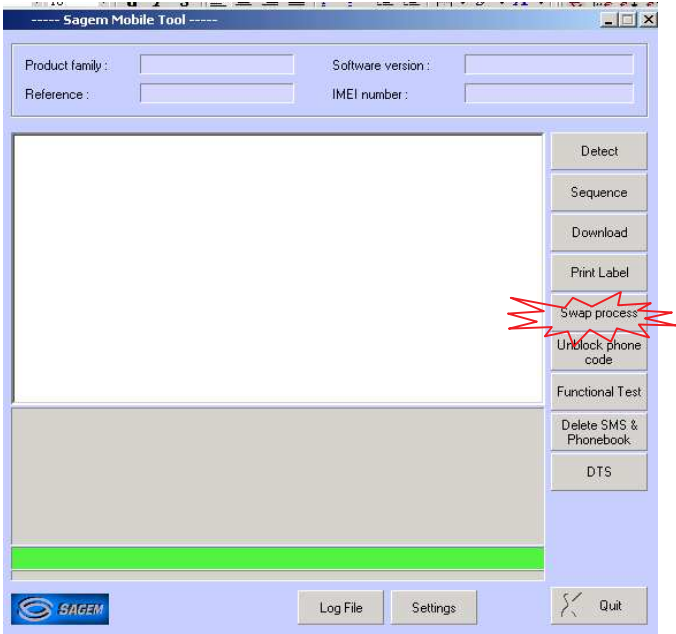


Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

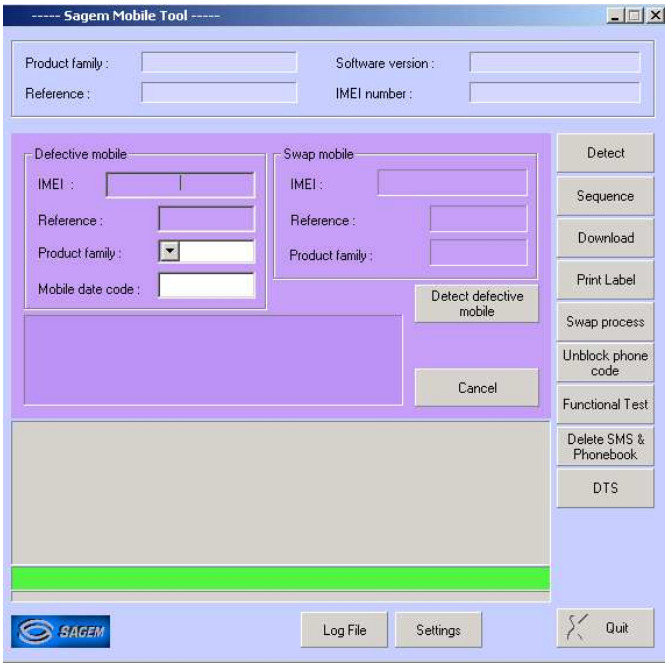
	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		3/7

Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procedure
Proc 0 01
Proc 0 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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



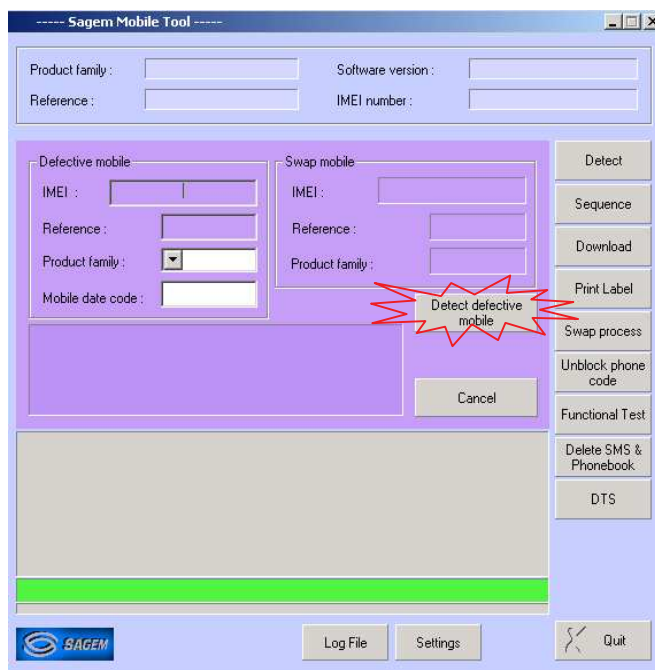
The following screen appears :



	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		4/7

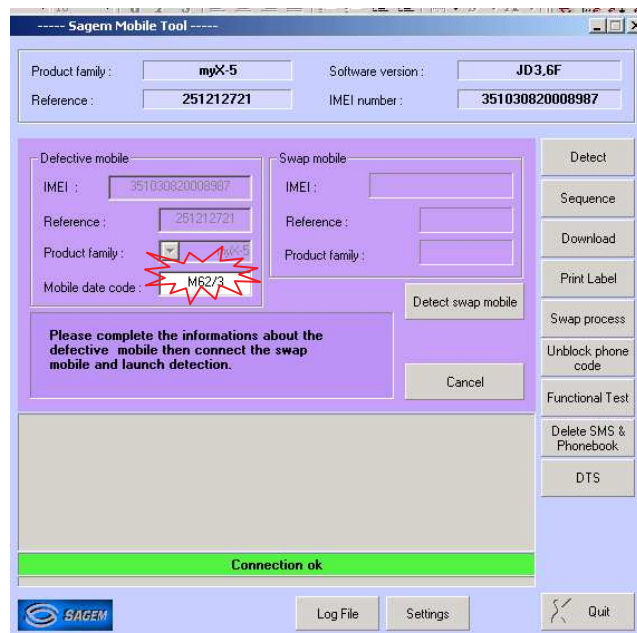
Step 2

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		5/7

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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.

Product family :

Software version :

Reference :

IMEI number :

Defective mobile

IMEI :

Reference :

Product family :

Mobile date code :

Swap mobile

IMEI :

Reference :

Product family :

Please retry a detection or fill the different fields, then launch the detection of the swap mobile.

Detect swap mobile

Retry detection of defective Mobile

Cancel

You should check :

- If you have selected the correct serial port.

- If the mobile is correctly plugged to the PC through the data cable.

- If the mobile is on and not in idle mode.

Detect

Sequence

Download

Print Label

Swap process

Unlock phone code

Functional Test

Delete SMS & Phonebook

DTS

Connection error : Mobile not detected

Log File

Settings

Quit

Step 3c
You must fill in the blanks requested according to the information written on the production label

Product family :

Software version :

Reference :

IMEI number :

Defective mobile

IMEI :

Reference :

Product family :

Mobile date code :

Swap mobile

IMEI :

Reference :

Product family :

Please retry a detection or fill the different fields, then launch the detection of the swap mobile.

Detect swap mobile

Retry detection of defective Mobile

Cancel

You should check :

- If you have selected the correct serial port.

- If the mobile is correctly plugged to the PC through the data cable.

- If the mobile is on and not in idle mode.

Detect

Sequence

Download

Print Label

Swap process

Unlock phone code

Functional Test

Delete SMS & Phonebook

DTS

Connection error : Mobile not detected

Log File

Settings

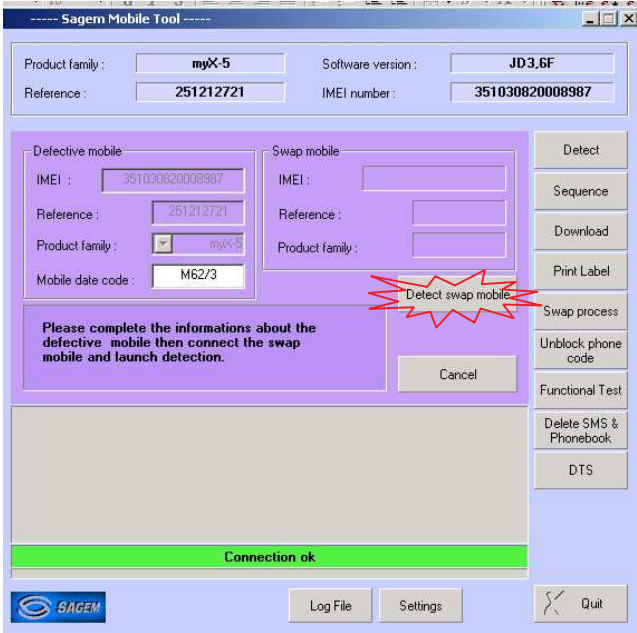
Quit

	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		6/7

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

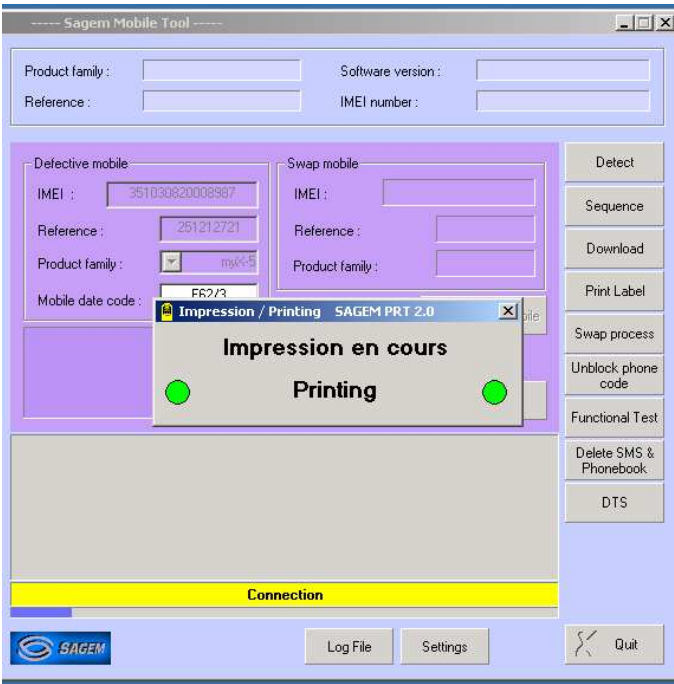
Step 4

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



Step 5

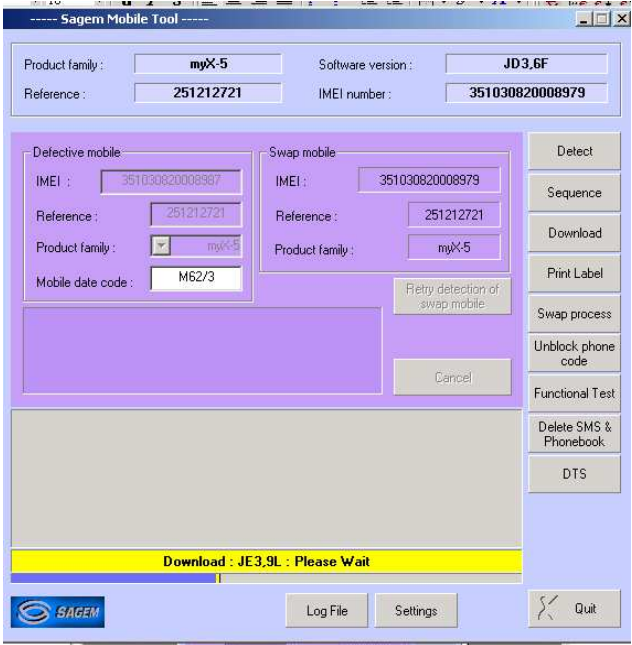
After clicking on “OK”, SMT prints the label which will be used to close the ESD bag of the defective board.



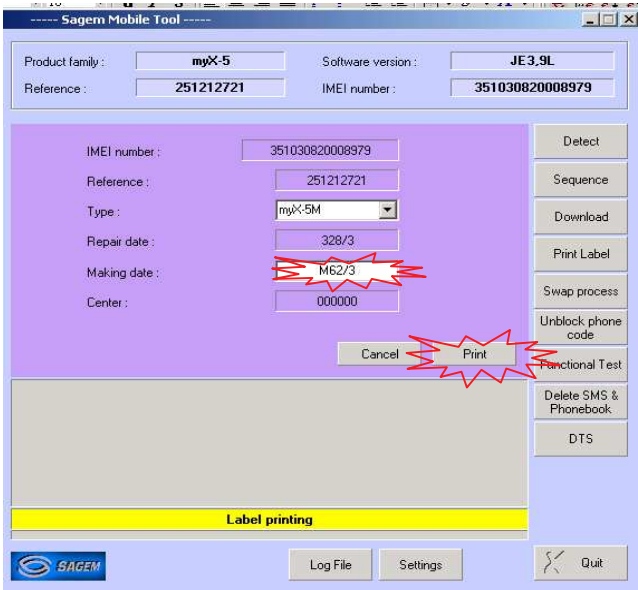
	TEST AND CHECK BY SMT	TEST SHEET 01
B2005		7/7

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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.

 Sagem Communication Groupe SAFRAN	CHARGER TEST	TEST SHEET 02
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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.

Charger	NO Charge (released position)		Under Charge (Pushed in position)	
	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

	BATTERY TEST	TEST SHEET 03
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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**

	CONSUMPTION TEST	TEST SHEET 04
B2005		1/1

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

	HOTLINE MENU	TEST SHEET 05
B2005		1/1

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 DRAUGHTBOARD
 - 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
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

	RADIO TEST	TEST SHEET 06
B2005		1/2

Test description

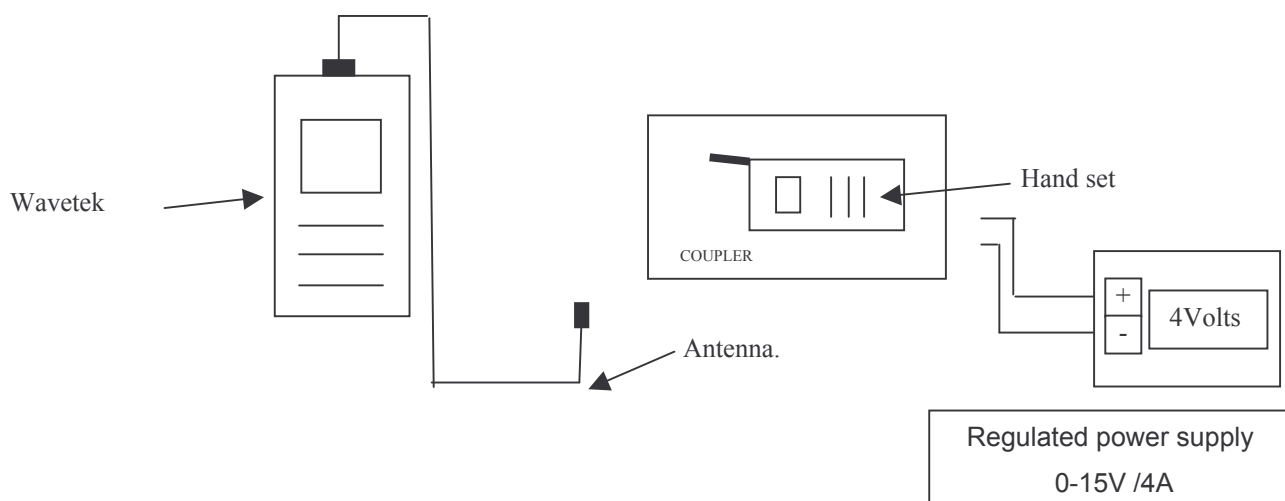
This test evaluates handset radio fonction during a call.

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
Procédure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

	RADIO TEST	TEST SHEET 06
B2005		2/2

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).

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 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10

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 acceptance 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
- Screw driver / Unscrew driver Barphone
Couple: 0.23Nm
Code : NC
- B2005 my301X CALIBRATION TOOL
Code : 252465425
- B2005 my301L CALIBRATION TOOL
Code : 252465199

LEVEL 0 MAINTENANCE

	REMOVING REPLACING THE BATTERY	Proc sheet 0 01
B2005		1/1

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

Nota : This procédure must be performed by a technician provided with gloves, to avoid any risk of pollution.

Tools :

Not applicable.

Preliminary operation :

Switch of the mobile phone.

Removal procedure :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Take out the battery (1) by first extracting the stop pins (2).

Placement procedure :

1. Place the battery by first inserting the upper section.
2. Place the back cover ([Fiche proc 1 01](#)).



LEVEL 1 MAINTENANCE

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE BACK COVER	Proc sheet 1 01
B2005		1/1

Nota : This procedure must be performed by a technician provided with gloves, to avoid any risk of pollution.

Tools :

Not applicable.

Procedure to assembly the drill plate on the front cover:

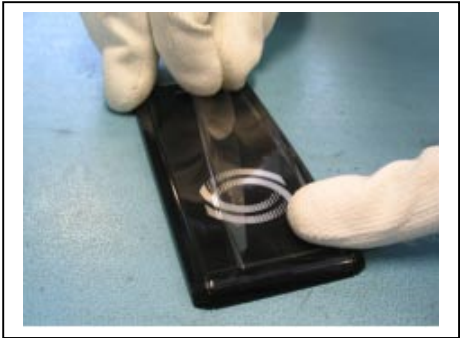
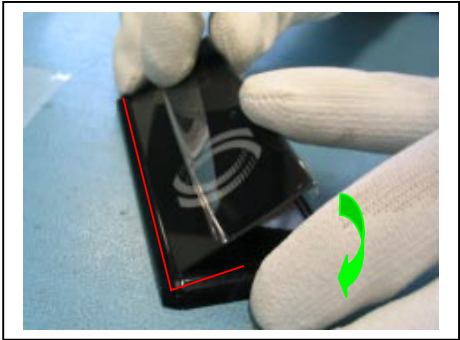
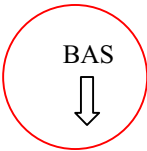
1. Remove the protect drill plate.

- Logo present on the back cover
(Low part of the back cover).

- The SAGEM logo of the right drill plate
must be positioned on the upper part
of the front cover.

2. Position the drill plate on the front cover.

3. Stick the drill plate on the front cover.



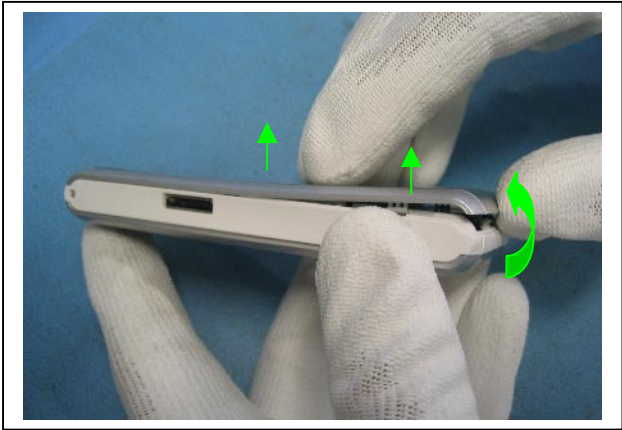
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE BACK COVER	Proc sheet 1 01
B2005		2/2

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

Removal procedure :

1. Unclip the back cover.
2. Pull up the back cover, beginning by the lower part.
3. Remove the back cover.



Placement procedure :

1. Place the back cover, positioning the upper part.
2. Then clip the back cover on the equipped module.

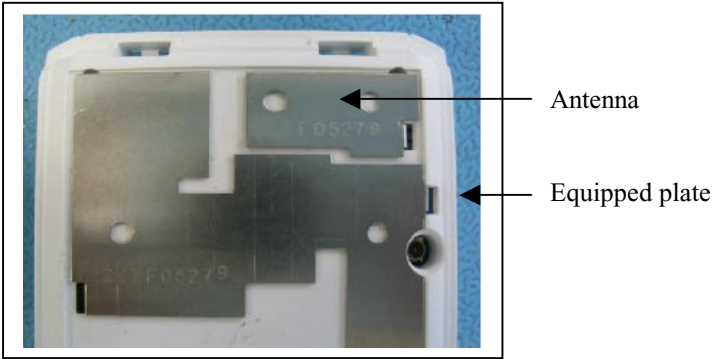


 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE ANTENNA	Proc sheet 1 02
B2005		1/1

Nota : This procédure must be performed by a technician provided with gloves, to avoid any risk of pollution.

For this kind of mobiles, see the [proc sheet 1 15](#).

Never dissociate the equipped plate from its antenna.



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE ELASTOMER KEYPAD	Proc sheet 1 04
B2005		1/1

Nota : This procedure must be performed by a technician provided with gloves, to avoid any risk of pollution.

Tools :

Not applicable.

Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).

Removal procedure :

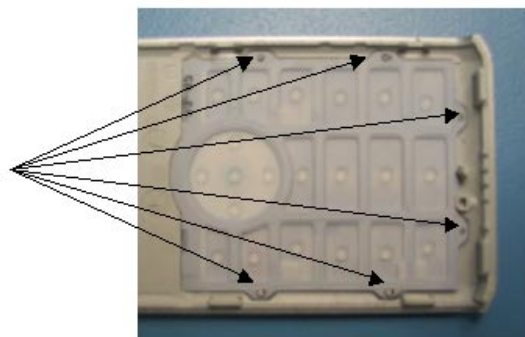
1. Remove the elastomer keypad from the front cover.



Placement procedure :

1. Clean the elastomer keypad with compressed air.
2. Place the elastomer keypad in the locating tips from the front cover.

Position the
elastomer
keypad



Further operation :

1. Place the front cover ([Proc sheet 1 13](#)).
2. Place the battery ([Proc sheet 0 01](#)).
3. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE FRONT COVER	Fiche Proc 1 13
B2005		1/2

Nota : This procedure must be performed by a technician provided with gloves, to avoid any risk of pollution.

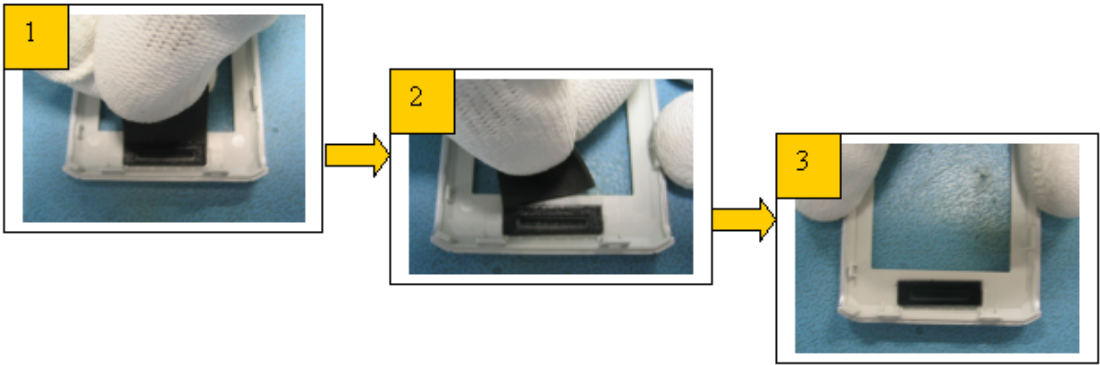
Tools :

Médiateur.

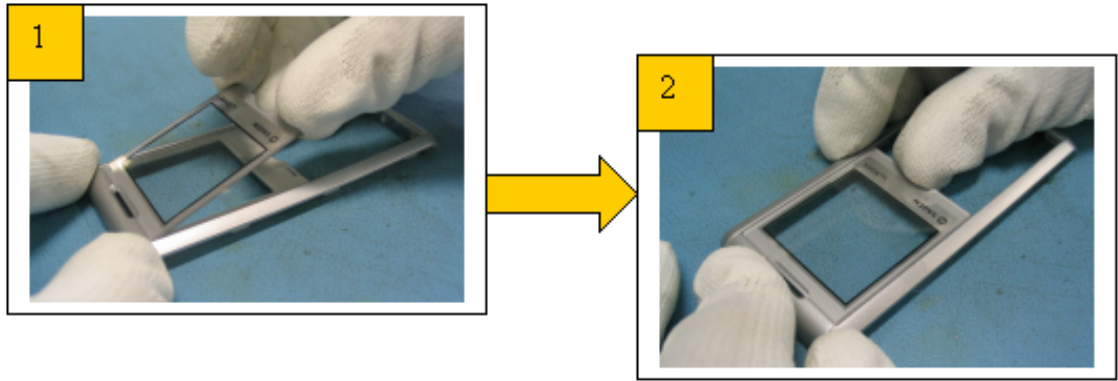


Procedure to assembly the front cover:

1. Etamine Audio stick.



2. Window stick.



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

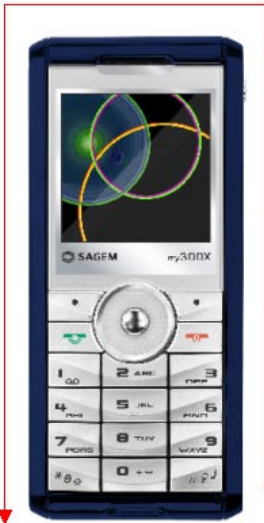
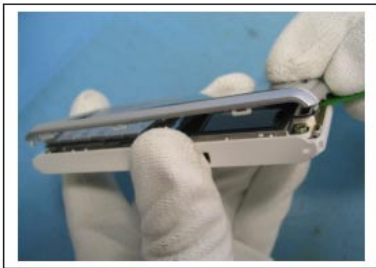
 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE FRONT COVER	Fiche Proc 1 13
B2005		2/2

Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).

Removal procedure :

1. Unclip the front cover in the right sence (see arrow).
2. Remove the Elastomer Keypad ([Proc sheet 1 04](#)).



Placement procedure :

1. Position the Elastomer Keypad ([Proc sheet 1 04](#)) on the front cover.
2. Clip the equipped module on the front cover (beginning by the upper part).



Further operations :

1. Place the battery ([Proc sheet 0 01](#)).
2. Place the back cover ([Fiche proc 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

	REMOVING / REPLACING THE EQUIPPED MODULE	Proc sheet 1 15
B2005		1/1

Outillages :

A 0.6 mm torx screwdriver.

Mediator :



Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).

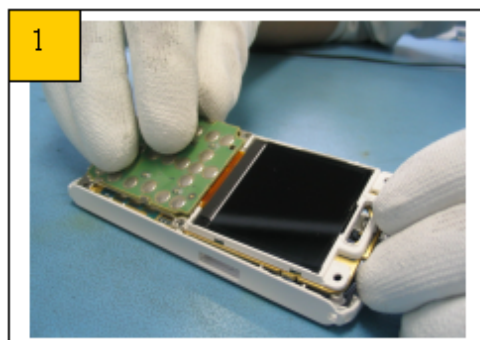
Removal procedure :

1. Remove the six attachment screws.
2. Remove the printed circuit board (PCB) of the assembled plate.



Placement procedure :

1. Position the printed circuit board on the equipped module.
2. Position and clip the flange ([Proc sheet1 23](#)).
3. Screw the equipped module (screw couple 0.23 N.m).



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE EQUIPPED MODULE	Proc sheet 1 15
B2005		2/2

Further operations :

1. Place the keyboard ([Proc sheet 1 04](#)).
2. Place the front cover ([Proc sheet 1 13](#)).
3. Place the battery ([Proc sheet 0 01](#)).
4. Place the back cover ([Proc sheet 1 01](#)).
5. Carry out the radio test ([Test sheet 06](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

	REMOVING / REPLACING THE DISPLAY	Proc sheet 1 16
B2005		1/1

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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 :

Mediator.

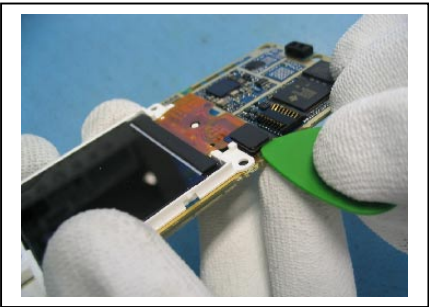


Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).
5. Remove the equipped module ([Proc sheet 1 15](#)).
6. Remove the flange ([Proc sheet 1 23](#)).
7. Remove the set keypad board / base band shielding ([Proc sheet 1 33](#)).

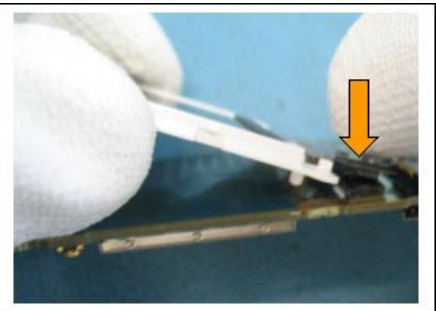
Removal procedure :

1. Unclip the display.
2. Put a window protect.



Placement procedure :

1. Remove the window protect.
2. Clip the display on the PCB.



 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE DISPLAY	Proc sheet 1 16
B2005		2/2

Further operations :

1. Place the set keypad board / base band shielding ([Proc sheet 1 33](#)).
2. Place the flange ([Proc sheet 1 23](#)).
3. Place the equipped module ([Proc sheet 1 15](#)).
4. Place the keyboard ([Proc sheet 1 04](#)).
5. Place the front cover ([Proc sheet 1 13](#)).
6. Place the battery ([Proc sheet 0 01](#)).
7. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE ELECTRONIC BOARD	Proc sheet 1 18
B2005		1/2

Tools :

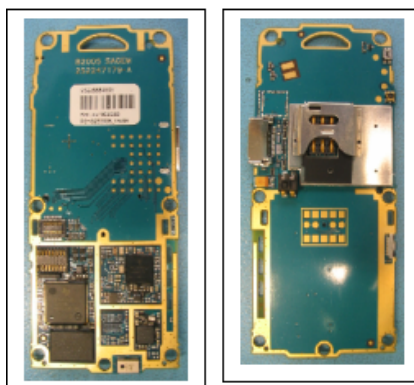
Not applicable.

Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).

Removal procedure :

1. Unscrew the equipped module.
2. Remove the equipped module ([Proc sheet 1 15](#)).
3. Remove the flange ([Proc sheet 1 23](#)).
4. Remove the set keypad board / base band shielding ([Proc sheet 1 33](#)).
5. Remove the colour display ([Proc sheet 1 16](#)).
6. Remove the microphone rubber ([Proc sheet 1 34](#)).
7. Remove the electronic board.



Procédure de pose :

1. Poser le joint microphone ([Fiche proc 1 34](#)).
2. Place the colour display ([Proc sheet 1 16](#)).
3. Place the set keypad board / base band shielding ([Proc sheet 1 33](#)).
4. Place the flange ([Proc sheet 1 23](#)).
5. Place the equipped module ([Proc sheet 1 15](#)).
6. Screw the equipped module.

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE ELECTRONIC BOARD	Proc sheet 1 18
B2005		2/2

Further operations :

1. Place the keyboard ([Proc sheet 1 04](#)).
2. Place the front cover ([Proc sheet 1 13](#)).
3. Place the battery ([Proc sheet 0 01](#)).
4. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE SIDE KEY	Proc sheet 1.19
B2005		1/1

Tools :

Brussels.

Opération préliminaires :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).
5. Remove the equipped module ([Proc sheet 1 15](#)).
6. Remove the flange ([Proc sheet 1 23](#)).
7. Remove the set keypad board / base band shielding ([Proc sheet 1 33](#)).
8. Remove the color display ([Proc sheet 1 16](#)).

Removal procedure :

1. Remove the side key with Brussels.



Placement procedure :

1. Place the side key with Brussels.

Further operations :

1. Place the color display ([Proc sheet 1 16](#)).
2. Place the set keypad board / base band shielding ([Proc sheet 1 33](#)).
3. Place the flange ([Proc sheet 1 23](#)).
4. Place the equipped module ([Proc sheet 1 15](#)).
5. Place the keyboard ([Proc sheet 1 04](#)).
6. Place the front cover ([Proc sheet 1 13](#)).
7. Place the battery ([Proc sheet 0 01](#)).
8. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication SAFRAN Group		Fiche Proc 1 20	
B2005	Equipped electronic board exchange	1/3	Procedure Proc 0 01 Proc 1 01 Proc 1 02 Proc 1 04 Proc 1 13 Proc 1 15 Proc 1 16 Proc 1 18 Proc 1 19 Proc 1 20 Proc 1 23 Proc 1 33 Proc 1 34 Proc 1 35 Proc 3 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.

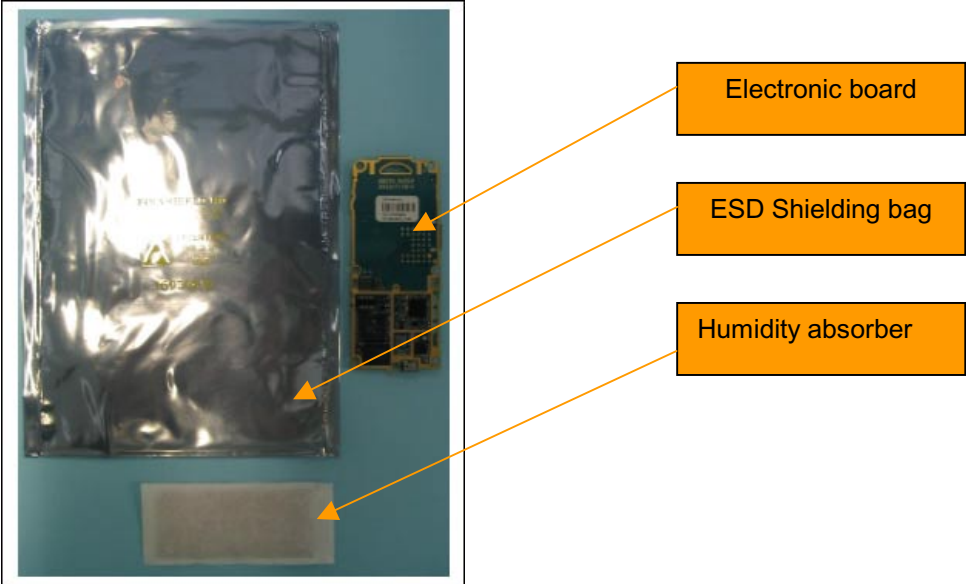
Further operations :

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

 Sagem Communication SAFRAN Group	Equipped electronic board exchange	Fiche Proc 1 20
		2/3

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

Example of equipped electronic boards packaging :

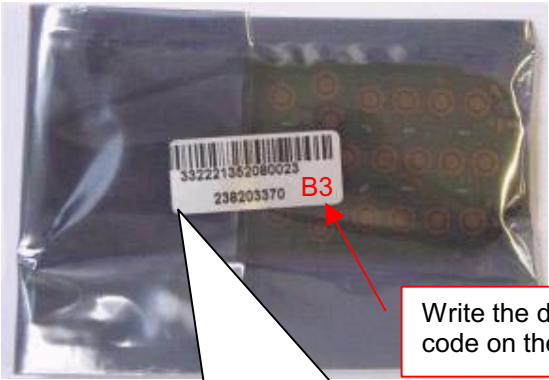


Boards packaging SAGEM -> ARC

Boards packaging ARC -> SAGEM



ESD shielding bag closed by the product label



Write the defect code on the label

ESD shielding bag closed by the IMEI label

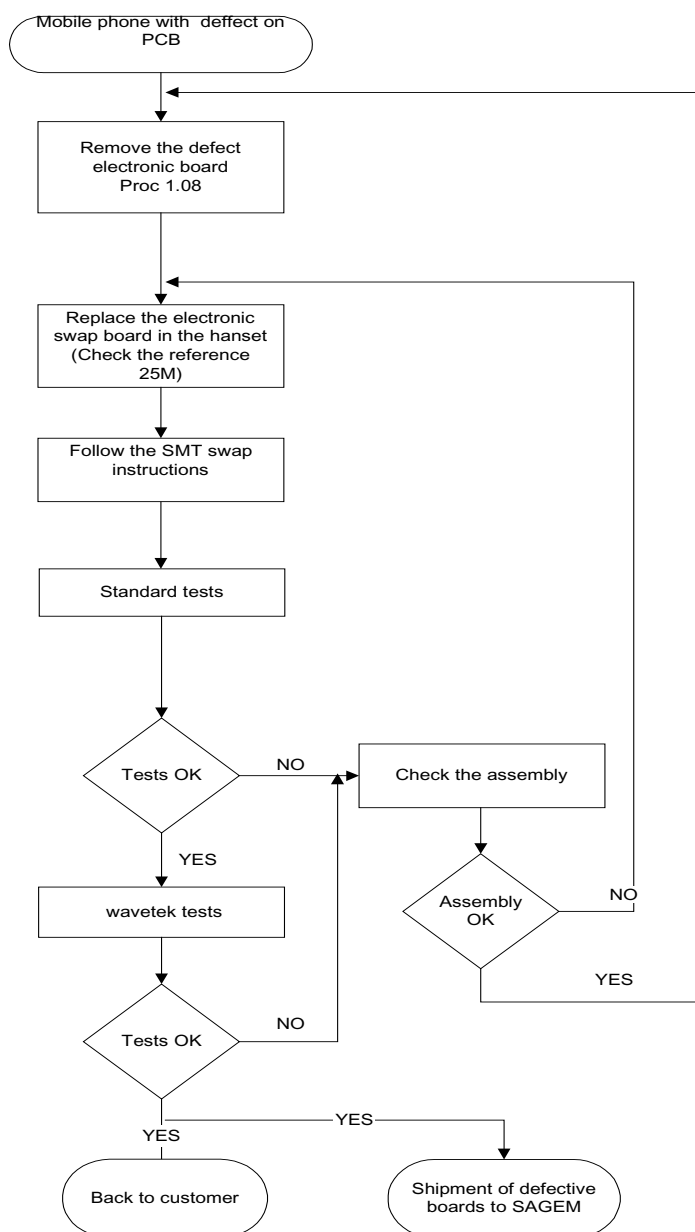


SAGEM electrostatic shielding box
Reference 20 boards: 25 141059-6
Reference 100 boards: 25 141060-3

 Sagem Communication SAFRAN Group	Equipped electronic board exchange	Fiche Proc 1 20
B2005		3/3

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE FLANGE	Proc sheet 1 23
B2005		1/1

Tools :

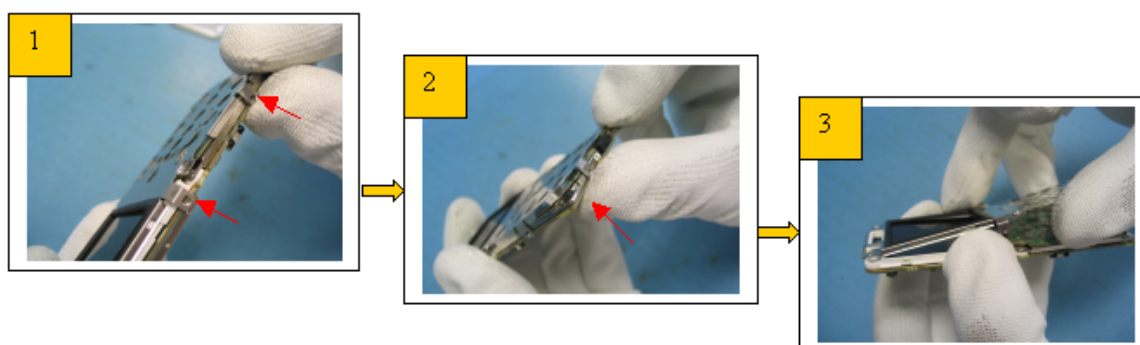
Not applicable.

Preliminary operation :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).
5. Remove the equipped module ([Proc sheet 1 15](#)).

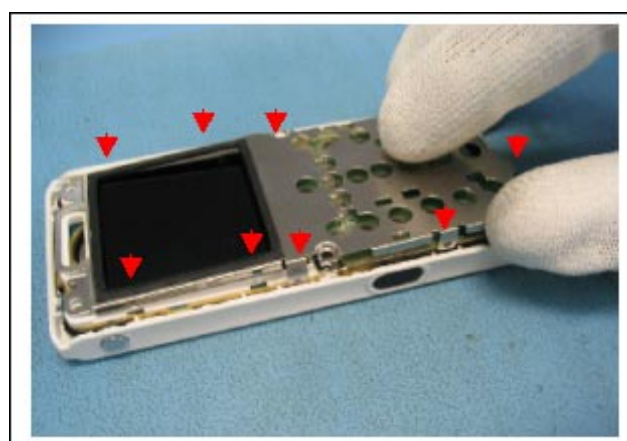
Removal procedure :

1. Unclip the flange.



Placement procedure :

1. Position the flange on the equipped module.
2. Clip the flange on the equipped module (**Arrows**).



Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE FLANGE	Proc sheet 1 23
B2005		2/2

Further operation :

1. Place the equipped module ([Proc sheet 1 15](#)).
2. Place the keyboard ([Proc sheet 1 04](#)).
3. Place the front cover ([Proc sheet 1 13](#)).
4. Place the battery ([Proc sheet 0 01](#)).
5. Place the back cover ([Proc sheet 1 01](#)).

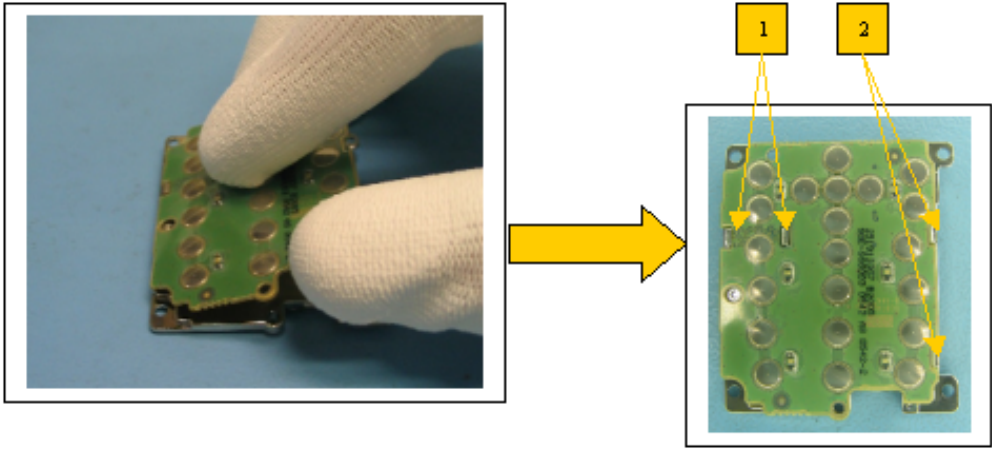
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE KEYPAD BOARD	Proc sheet 1 33
B2005		1/1

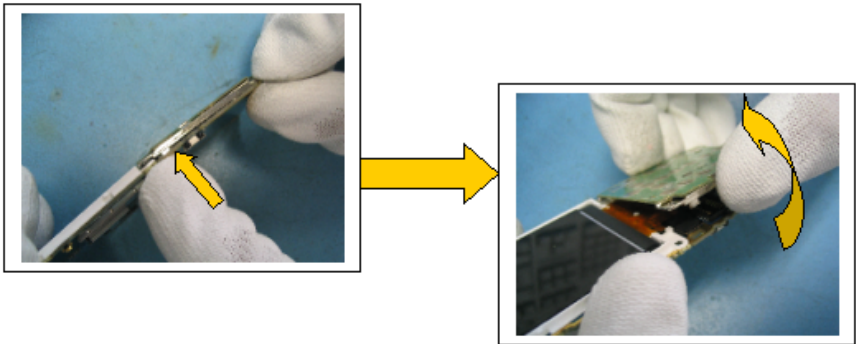
Tools :
Not applicable.

- Preliminary operation :**
1. Remove the back cover ([Proc sheet 1 01](#)).
 2. Remove the battery ([Proc sheet 0 01](#)).
 3. Remove the front cover ([Proc sheet 1 13](#)).
 4. Remove the keyboard ([Proc sheet 1 04](#)).
 5. Remove the equipped module ([Proc sheet 1 15](#)).
 6. Remove the flange ([Proc sheet 1 23](#)).

- Keypad board assembly procedure:**
1. Position and clip the keypad board on the shielding, on keypad connector side (1).
 2. Pull down and clip (2).



- Removal procedure :**
1. Unclip the set Keypad board / shielding, on IRDA side.



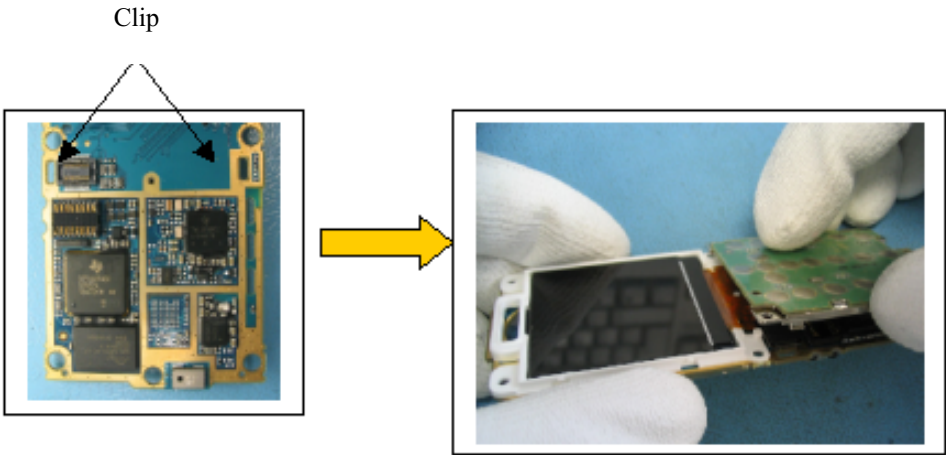
Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 01
Symptom
Symp 01
Symp 02
Symp 03
Symp 04
Symp 05
Symp 06
Symp 07
Symp 08
Symp 10
Test
Test 01
Test 02
Test 03
Test 04
Test 05
Test 06

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE KEYPAD BOARD	Proc sheet 1 33
B2005		2/2

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

Placement procedure :

1. Clip the set Keypad board / shielding on the CIE.



Further operation :

1. Place the flange ([Proc sheet 1 23](#)).
2. Place the equipped module ([Proc sheet 1 15](#)).
3. Place the keyboard ([Proc sheet 1 04](#)).
4. Place the front cover ([Proc sheet 1 13](#)).
5. Place the battery ([Proc sheet 0 01](#)).
6. Place the back cover ([Proc sheet 1 01](#)).

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE MICROPHONE RUBBER	Proc sheet 1 34
B2005		1/1

Tools :

Not applicable.

Preliminary opération :

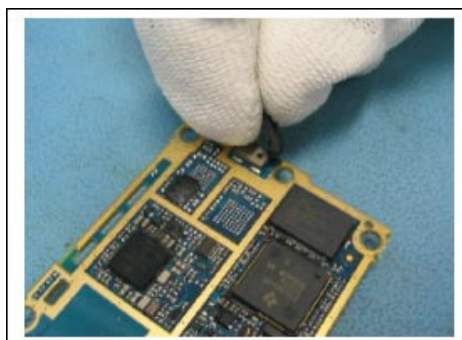
1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).
5. Remove the equipped module ([Proc sheet 1 15](#)).
6. Remove the flange ([Proc sheet 1 23](#)).
7. Remove the set keypad board / base band shielding ([Proc sheet 1 33](#)).
8. Remove the color display ([Proc sheet 1 16](#)).

Removal procedure :

1. Remove the microphone rubber.

Placement procedure :

1. Place the microphone rubber.



Further operations :

1. Place the color display ([Proc sheet 1 16](#)).
2. Place the set keypad board / base band shielding ([Proc sheet 1 33](#)).
3. Place the flange ([Proc sheet 1 23](#)).
4. Place the equipped module ([Proc sheet 1 15](#)).
5. Place the keyboard ([Proc sheet 1 04](#)).
6. Place the front cover ([Proc sheet 1 13](#)).
7. Place the battery ([Proc sheet 0 01](#)).
8. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

 Sagem Communication Groupe SAFRAN	REMOVING / REPLACING THE VIBRATING SPEAKER	Proc sheet 1 35
B2005		1/1

Tools :

Not applicable.

Preliminary opération :

1. Remove the back cover ([Proc sheet 1 01](#)).
2. Remove the battery ([Proc sheet 0 01](#)).
3. Remove the front cover ([Proc sheet 1 13](#)).
4. Remove the keyboard ([Proc sheet 1 04](#)).
5. Remove the equipped module ([Proc sheet 1 15](#)).

Removal procedure :

1. Remove the vibrating speaker.

Placement procedure :

1. Position and place the vibrating speaker



Further operations :

1. Place the equipped module ([Proc sheet 1 15](#)).
2. Place the keyboard ([Proc sheet 1 04](#)).
3. Place the front cover ([Proc sheet 1 13](#)).
4. Place the battery ([Proc sheet 0 01](#)).
5. Place the back cover ([Proc sheet 1 01](#)).

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

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)

 Sagem Communication Groupe SAFRAN	RETURN TO SAGEM	Proc sheet 3 01
		1/1

B2005

Procedure

[Proc 0 01](#)[Proc 1 01](#)[Proc 1 02](#)[Proc 1 04](#)[Proc 1 13](#)[Proc 1 15](#)[Proc 1 16](#)[Proc 1 18](#)[Proc 1 19](#)[Proc 1 20](#)[Proc 1 23](#)[Proc 1 33](#)[Proc 1 34](#)[Proc 1 35](#)[Proc 3 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 (halls)	
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	

 Sagem Communication Groupe SAFRAN	RETURN TO SAGEM	Proc sheet 3 01
B2005		2/2

This document must be returned with the mobile or put in the ESD bag with the electronic board.

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

Procedure
Proc 0 01
Proc 1 01
Proc 1 02
Proc 1 04
Proc 1 13
Proc 1 15
Proc 1 16
Proc 1 18
Proc 1 19
Proc 1 20
Proc 1 23
Proc 1 33
Proc 1 34
Proc 1 35
Proc 3 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

CHAPTER 6 - ACCESSORIES

6.1 PEDESTRIAN HANDSFREE KIT

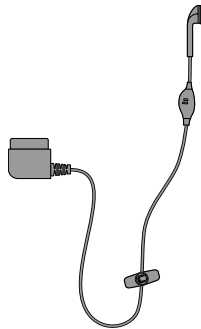
6.1.1 Description

Ear support with microphone on the cable for handsfree conversation

6.1.2 Caractéristiques

Comment :

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



6.2 DATA CABLE PC USB

6.2.1 Description

Data cables are used for transferring data through standard equipment.

6.2.2 Caractéristiques

Packaging :
Blister

6.3

6.3.1 Description

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

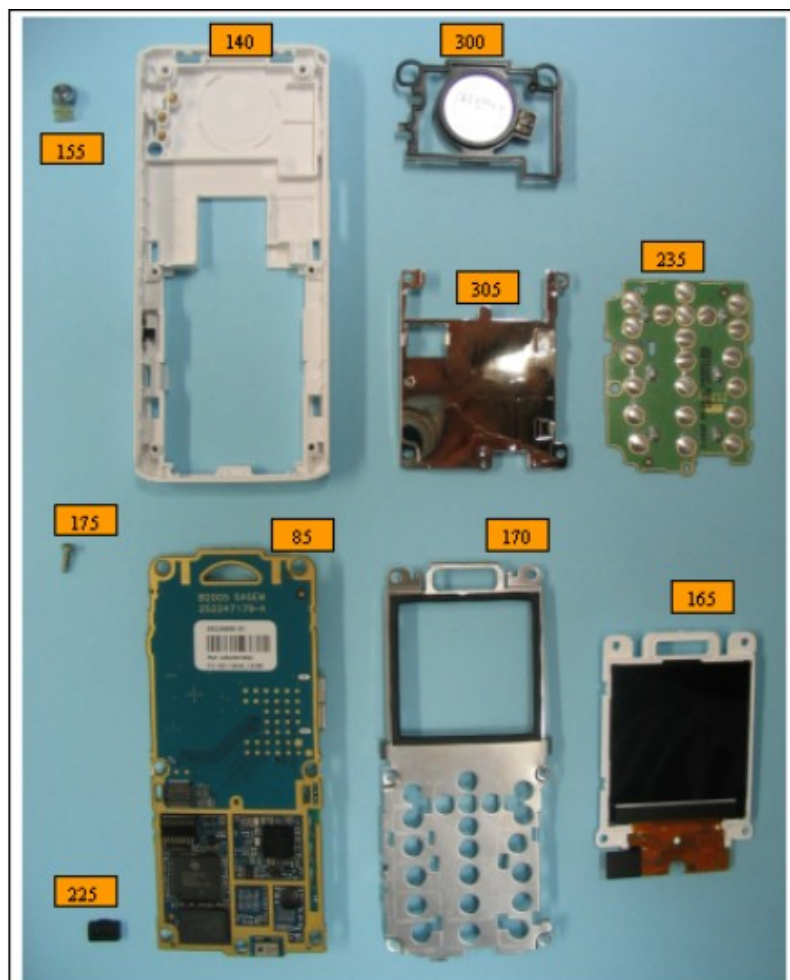
The Technical Information Bulletin (TIB) are reference and must be applied by the repair centers. The Technical Information Bulletin (TIB) will be sent only to the concerned repair centers. The Technical Data Bulletin will not be received by the repair centers with a reference number in sequence.

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 B2005

ASSEMBLY	Quantity	Designation
5	1	Lower cover
10	1	Upper cover
15	1	Keypad
50	1	Battery
65	1	LCD pane
85	1	Main board
140	1	Assembled antenna plate
155	1	Side key
165	1	Color display
170	1	Display flange
175	1	Screw
190	1	Drill plate
235	1	Keypad board
295	1	Etamine audio
300	1	Vibrating speaker
305	1	BDB Armour plating



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