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# MobileTel

## MOBILE TELE-ASSISTANCE UNIT USER GUIDE



MobileTel GPS



MobileTel

Release 4.2

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## **WARNING**

MobileTel device allows different behaviors depending on the parameters setting.

For its correct use, you must follow the documentation and/or instructions supplied by the seller or service supplier.

This guide is intended to be as exact as possible, nevertheless, neither authors nor IS2 will be responsible for any damage caused directly or indirectly by misunderstanding of the doc, differences with the product, mistakes and omissions of this guide.

The contents of this guide can be subject to changes or modifications without previous advice.

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**The unit needs a SIM card without PIN protection, or with a 4444 PIN.**

**If you need to check, change or disable your SIM PIN, you can use any mobile phone for this purpose.**

For any other inquiry about the product you can contact:

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## **GENERAL PREVENTIVE MEASURES**

- Protect the unit from moisture and strokes. If you wear the unit during showering or bathing it must be protected from water with the corresponding accessory (bathing bag).
- Do not continuously expose the unit to sun rays.
- SIM card must be carefully handled, do not bend it, do not scratch it and also do not expose it to static electricity.
- Do not let battery to be completely exhausted. This can shorten battery life, increase charging time and even battery destruction.

## **USE RESTRICTIONS**

- MobileTel unit can be considered as a mobile phone for use purpose, so the same use restrictions must be applied.
  - Prevent using the unit nearby medical devices such as surgical equipments, pace-maker, etc.
  - The unit must not be used near places with any possible presence of toxic or inflammable gasses.
  - In general words, MobileTel unit must not be used in any circumstance or place where mobile phones use is restricted.
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## 1 SECURITY INSTRUCTIONS



When using the unit, you must follow legal prescriptions and local limitations corresponding to mobile phones. For example, such prescriptions can be applied in airports, petrol stations, hospitals or when driving.



Functioning of medical instruments such as audiphones or pacemaker can be interfered. You must keep a minimal distance of 20cm between the unit and the pacemaker. If you have any doubt at this respect contact your doctor.



SIM card can be removed. Caution: keep it away from children.



Do not use a different charger than the one supplied. Otherwise, you can damage the unit.



The unit operates continuously in hands free mode. Do not keep the unit close to your ears. If you do so, you could be damaged.



Do not open the unit. The opening of the device by unauthorized supposes the total lost of the guarantee and serious damages to the unit.

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Dispose any kind of useless batteries and units according to the legal regulations. For any disposable part the device user is the only one responsible



The unit can interfere when works close to televisions, radios and PC's.



It is recommended to use only accessories supplied by IS2, in order comply with the existing regulations, to avoid possible damage and loss of warranty.

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## 2 INTRODUCTION

### 2.1 Models

MobileTel is a GSM/GPRS emitter/receiver unit that can be supplied in two different sets:

- MobileTel with GPS
- MobileTel without GPS

Working modes are quite similar, plus the location feature in the MobileTel-GPS unit. This feature produce the location information in all outgoing event SMS's, a new event (out of security area) and a new command asking the device location.

Both devices use the same case and the only difference is the GPS antenna (black cylinder in the upper top). This manual is intended for both devices and the GPS

functionality is described in a specific chapter.

### 2.2 Features

MobileTel is a GSM/GPRS emitter/receiver unit designed to report events (mainly emergencies), data and voice communication. MobileTel has complex circuits that automatically implement most of the functions, what allows the extraordinary easy use of the unit, what means that can be handled by old people, children or invalids. The unit can communicate emergencies generated directly by the user (Manual buttons) or automatically by the built-in sensors:

- Temperature sensor
  - Movement sensor
  - Power sensor
  - GSM coverage sensor
  - Fall detector
  - Inactivity detector
-

- GPS engine + antenna (GPS model)

Basically, the unit has two buttons: one green (the little one) and other red (the big one). When one of these buttons is pushed, there will be established a communication with the assigned telephone number.

Communication can be programmed by different ways: SMS messages, GPRS data or voice.

Default configuration is voice mode, establishing a hands free call that allows the conversation to take place independently from the way the unit is carried.

The other features, including emergencies (fall, temperature, inactivity, etc.), technical events (periodical test, low battery, etc.)... are automatically reported WITHOUT user handling.

In addition, MobileTel can get incoming voice calls. Un incoming call will be reported by speaker sounding (melody) and user can accept it (pressing green button) or reject it (pressing red button). For incoming calls, there are three ways of work: **User answer** (default set).

Voice call is only answered pressing green button.

**Automatic answer to phonebook numbers.** If there is an incoming call and the caller is registered in the phonebook, the device will automatically answer. Otherwise it behaves like in user answer

**Automatic answer.** The device automatically answer to every incoming call.

**Note:** for ending a voice call, press both button at the same time (not necessary if the voice call is finished from the other side).

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## 2.3 Program

The unit is configured with a factory default setup.

Such setup must be customized by technical service, to fit user needs and each kind of application or service.

Almost all parameters can be left “as they are delivered” and the user will only have to set phonebook and enable events, if they are not properly preconfigured.

All events (emergencies or technical events) can be or not be enabled, and can be programmed for using one or more GSM communication channels (Voice, SMS, data) independently for each one of them.

## 2.4 Applications

Due to his characteristics, the unit is very useful in applications like health-care and control of people at risk (invalids, Alzheimer, risk sports, children, domestic violence, etc.).

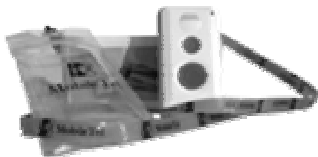
There is a specific function applied to car theft detection. In this mode, the device shows no indication that is working (no lighting, no sounds) and, when there is a movement, it will detect it, produce the theft event and send an SMS (if enabled).

## **3 TECHNICAL DESCRIPTION**

### **3.1 Part Description**

The unit has the following main parts:

- MobileTel. Unit
- Battery charger
- User guide



The packaging has also the following accessories:

- Neck strap
- Bathing bag (only for MobileTel without GPS)

The following image shows you the unit, the bathing bag and the neck strap.

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## **Charger**

Battery is not supplied completely charged, for this reason it must be connected to the charger and keep it charging until the charge is complete (blinking green light). For charging battery, SIM card must be inserted in its socket.

It is advisable to perform a first charge for a minimum of two hours even if the green light is blinking

The unit has a Li-ION (1130mAh, 3.7V) rechargeable battery that for medical and security reasons has to keep always connected. This battery can only be removed by technical service.

The charger supplied by the manufacturer is the only one that must be used with the unit.

The unit must not be used when being charged.

## **Neck strap**

Neck strap allows the user to carry the unit easily. Its use is recommended as much as possible. The strap increases notoriously coverage and the corresponding global performance of the unit.

## **Bathing bag**

Bathing bag is a necessary accessory when the unit is being used during showering or bathing, as well as its use under bad weather conditions (rain, snow). This bag is only available for MobileTel without GPS.

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## 10 Technical Description

## MobileTel

### MobileTel Unit



Figure 2.1

Image 2-1 shows buttons and pointers located in the front part of the unit.

<b>Speaker</b>	It allows hands-free phone calls.  Through different tones it indicates the status of the system.
<b>Help and ON button (Green color)</b>	Power on the unit.  Establishment of a programmed connection with the assigned telephone.
<b>Emergency Button (Red color)</b>	Establishment of a programmed connection with the assigned telephone.

	<b>Function</b>
<b>Lighting Pointer (LED)</b>	It shows the different system status through colors and way of lighting (permanent or blinking)

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Image 2-2 shows available elements in the back top part of the unit



Figure 2.2

	<b>Function</b>
<b>Strap eyelet</b>	It allows the holding of the unit to a neck strap. The optional strap is attached to the unit by a wire that extend GSM antenna, improving coverage.

Image 2-3 shows elements available in the back bottom part of the unit.

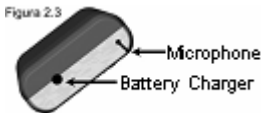


Figure 2.3

	<b>Function</b>
<b>Battery Charger Connector</b>	Plug for the battery charger.
<b>Microphone</b>	It allows the establishment of hands-free conversation.

## 12 Technical Description

## MobileTel

Image 2-4 shows elements located in the back part of the unit.

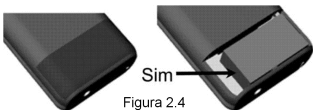


Figura 2.4



Close SIM slide by pressing downwards.

Put cover in the case.

	Function
<b>SIM card access cover</b>	To remove the cover of the casing: Press sideways on one of the borders of the cover. Free SIM locker by pushing the locking lid.
<b>SIM card Insert</b>	Put SIM card on the SIM slide with the contacts downside and the angled corner outside.

### Unit activation

The unit comes deactivated from factory in order to avoid battery damages.

To start using the unit, your dealer or seller must set the jumper JP1.



## 4 FUNCTIONING

This unit is designed to operate in a continuous working mode (24 hours/day). It is not recommend to switch it off. Do it only in those circumstances that require so (such as flights, hospital stay, etc.).

There are ways for the user to switch it on/off.

### Switching on

The unit is automatically switched on each time green button is pushed or battery charger is connected. New versions starting from july-2008 implement an only charge mode when charger is connected to a switched off device. Device does not need SIM card and battery keeps charging while leds red + blue are blinking every 5 seconds. In order to turn

from charge only mode to normal mode press green button until a beep is heard. After switching on a setup and calibrating sequence begins. Such sequence finishes some seconds later changing the led into a green blinking mode (or blue blinking in MobileTel GPS and there is no FIX).

### Switching off

The unit switches off by pushing simultaneously both green and red buttons until listening acknowledge sound.

## 4.1 Button function

MobileTel has just two buttons:

- > Red: Called “emergency” button.
  - > Green: Called “Help” button.
-

Their functions are:

Both buttons are designed to avoid being pushed wrongly and to easy their access.

**NOTE: Buttons must be pushed until the device acknowledges it by sound or melody signal (around 2 seconds).**

Button	Conditions	Function
<b>Green</b>	Unit switched off	Unit switching on
	Melody sounds	Accept incoming voice call
	Enabled button and unit activated	Runs the voice call and/or programmed message
<b>Red</b>	Melody Sounds	Reject incoming voice call
<b>Red</b>	Enabled button and unit activated	Runs the voice call and/or programmed message

**NOTE:** Each time the unit is switched on a functioning test is run before the unit being ready to be used.

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Mixing of red and green buttons performs specific actions Com1 y Com2:

- Com1: Pushing simultaneously both red and green buttons.
- Com2: Pushing simultaneously both red and green buttons and, soon after that, only green button

Button	Conditions	Function
<b>Com1</b>	Speaking	Voice call ends
	Unit switched on	Switches off unit (after 10 seconds)
	Unit switched on and anti-theft mode on	Exit anti-theft mode
<b>Com2</b>	Unit switched on and anti-theft mode off	Enter anti-theft mode

## 4.2 LED Information

MobileTel indicates the working mode and the possible events through LED (light emitter) and sound tones on the speaker.

The only multicolor led (green, blue and red) will indicate the different unit status. Next table shows led colours for MobileTel without GPS. For GPS device description read specific chapter.

Color	Event
<b>Green Blinking</b>	Normal Working
<b>Fixed green</b>	Charger connected Voice call Entering theft mode Sending SMS

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## 16 Functioning

## MobileTel

<b>Red + green Blinking</b>	Low GSM coverage.
<b>Red + green Fixed</b>	Communication attempts finished. Unable to communicate
<b>Red Blinking</b>	Low battery
<b>Red Fixed</b>	System failure

**IMPORTANT:** When led is red blinking the unit must be charged as soon as possible in order to avoid unit power-down. A fixed green led (MobileTel without GPS) or a red + blue fixed (MobileTel GPS) indicates the unit “being charged” and charger can be disconnected when led turns to green blinking.

The possible sound tones are:

<b>Tone</b>	<b>Event</b>
<b>1</b>	Push buttons (red or green)
<b>2</b>	Fall Detected
<b>3</b>	Low Battery Low Coverage Flat (Empty) Battery
<b>4</b>	Answering voice call
<b>5</b>	Charger connection or disconnection System failure
<b>Melody</b>	Starting test ends Incoming Voice call

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## 5 OPERATION MODE

### Call establishment

To attempt voice connection with one of the assigned phones in help and emergency events, user only has to push buttons until listening sound confirmation.

Automatically, the unit will activate “hands-free” function and the voice call will be started.

### Incoming call

MobileTel is configured by manufacturer with “User answer”, so user has to “answer” (by pushing green button) to accept the incoming call.

If technical service activates “automatic answer” mode, the unit will indicate the incoming call through a

melody, and after 5 seconds it will answer automatically.

### Anti-theft mode Activation/Deactivation

This mode has been designed to be used as car anti-theft system.

In this mode audio and LED systems are disabled, so the unit seems to be disconnected. Sensors keep working and the system continues sending alert messages

### Fall detection mode

If we want to use fall detection mode, the unit must be carried in vertical position, because in horizontal position fall events are not well detected.

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## **6 UNIT PROGRAMMING**

MobileTel allows the configuration and customization of all its functions through event programming.

**IS2 recommends not to modify established parameters For any modification contact technical service.**

- Emergency button pressed (E0)
- Help button pressed (E1)
- Dangerous temperature (E2)
- Recovered temperature (E2)
- Fall detection (E3)
- Inactivity – Switched off (E4)
- Low battery (E5)
- Recovered battery (E5)
- Flat (exhaust.) battery (E6)
- Burglary detected (E7)
- Periodic Test (E8)
- System failure (E9)
- Out of Security Area (MobileTel-GPS) (E10)

### **6.1 Events**

Unit programming is events focused. This means that an action takes place in the unit when an event is detected. The list of all possible events is detailed below:

For any of these events the unit can be programmed to send up to 2 SMS's and/or make a phone call to any of the phone numbers stored in the phonebook.

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## 6.2 Phonebook

MobileTel has a 10 register phonebook.

**Only support technicians have access to such telephone directory, and the same happens with event programming.**

Each event can be programmed to use as much as four telephone numbers, two numbers to establish a voice phone call and other two numbers to communicate the event through SMS message

**Note:** *The second telephone number for voice calls is only used if the first telephone number attempt fails to connect.*

**Note:** *SMS messages are sent simultaneously to both telephone numbers assigned in the telephone directory.*

Default factory setting of the unit is described in the following chart

N°	Default settings
1	Voice telephone for emergency button
2	Voice telephone for help button
3	SMS messages reception telephone.
4	Without configuration
5	Without configuration
6	Without configuration
7	Without configuration
8	Without configuration
9	Without configuration
10	phone to reply unrecognized messages.

When Mobiletel receives an unrecognizable SMS, if there is phone number 10, it resent the SMS to that number.

## 6.3 Events working mode

Any phonebook number can be used as communication target for the events. For that purpose, every event must be set by mean of 5 digits (see command <Ex:....>)

### **HVsSs**

**H:**0/1 Event enable  
(1=enabled)

**V**=first voice call. Phonebook number to which first call will be made (0=no call)

**v**=second voice call.

Phonebook number to which second call will be made if the first one fails (0=no call)

**S**=first SMS. Phonebook number to send first SMS (0=no SMS)

**s**=second SMS. Phonebook number to send second SMS (0=no SMS)

Example: red button (emergency) will call to phonebook number 1 and send SMS to phonebook number 2:

E0:11020

Example: green button (help) makes no voice call and send SMS to both phonebook numbers 1 and 2:

E1:10012

Event Communication works as follows:

1.) For telephone call:

➤ The unit calls the first of the assigned numbers.

➤ If there is no connection with such number, then the unit calls the second assigned number (if there is a second assigned number).

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**Note:** *This cycle will be repeated up to 5 times.*

2.) For SMS messages:

- The unit tries to send the SMS message to both numbers.
- If there is any coverage failure, the unit will repeat up to 5 times to both numbers.
- If there has been no connection through SMS message any of the 5 times, then led will show both red and green colors permanently (until next event is correctly sent).

example, a particular event can be programmed to send a SMS message to a telephone number but also a voice call to the same telephone number or other telephone number.

Both communication ways (voice or SMS) are independent, so if the user enable a telephone number for each of them both communication ways will contact with such telephone number. In this way, for

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## 7 MOBILETEL GPS

This chapter describes all related to MobileTel GPS. Devices without GPS will not have this functionality. You can skip this chapter if you have a MobileTel without GPS.

A MobileTel GPS will add, at the end of every event SMS Lat/Lon coordinates (GPS FIX) and also the time and date of FIX. That would allow to locate the user in case of emergency. Two location commands have been added:

**Location.** This command force the device to try a new FIX and send an SMS with the location achieved.

**Last Location.** This command ask the device the last location achieved in the near past (if a FIX has been never achieved it will answer with '?' characters).

There is a new event: **Out of Security Area** (event 10). From a point co-ordinates and a radius there is a circle that define the security area. When the device goes out this area, an SMS can be sent to indicate that. It can also be configured to send an SMS every xx minutes indicating the device location, as long as the device is out of the security area.

### 7.1 Working modes

#### 7.1.1 GPS in mode 0

GPS stays always on. Every event sent, has the last fix got (max. 20 seconds old)

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This is the recommended mode to correctly manage event 10.

If charger is connected, GPS is power down and all data will be lost.

### **7.1.2 GPS in mode 1**

Device will only get location at regular time interval. In the mean time GPS will keep hibernate in order to save energy.

Hibernate time is configurable (default value=5 minutes).

After every 5 minutes, GPS will be activated until new FIX is got, turning then hibernated for the next five minutes.

Energy saving is improved by moving sensor. If there is no movement for 10 minutes, GPS will not be activated until a new movement is detected.

This improves battery working time (up to 3 times).

If there is a location command received, GPS is immediately activated in order to get a FIX.

The attempt to get a FIX is performed for a maximum time (timeout). If the timeout is reached and no FIX achieved, GPS hibernates anyway.

If charger is connected, GPS is power down and all data will be lost.

### **7.1.3 GPS in mode 2**

Maximum energy saving. GPS keeps always off and only is activated if a location command is received. After FIX done, and the SMS is sent, GPS is again power down.

In this mode, the event SMS's have '?' characters instead of Lat/Lon location because last location could be very old.

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<b>Red Blinking</b>	Low battery
<b>Red Fixed</b>	System failure

## 7.2 Status report

If Mobiletel GPS works in mode 0, led colors are as follows:

Color	Event
<b>Blue Blinking</b>	Normal working, no GPS FIX
<b>Green Blinking</b>	Normal working, GPS FIX
<b>Fixed green</b>	Voice call Entering theft mode Sending SMS
<b>Red+green+blue Blinking</b>	Low GSM coverage.
<b>Red + green Fixed</b>	Communication attempts finished. Unable to communicate
<b>Red + blue fixed</b>	Charger connected

If GPS is in mode 1 or 2, colours are the same as shown in this table, except for normal working. In normal working it will always blink green (even without a FIX, because GPS could be hibernated).

## 7.3 Out of security area event

MobileTel GPS can be set to produce an added event, that reports an SMS when the device gets out of an area, defined by a circle (radius and Lat/Lon centre)

This is event number 10, to be enabled same way as events 0 to 9.

There is also possible to set a tracking time. If this time is zero, there is an only message when Mobiletel is out of security area. If tracking time is

xx (not zero), while MobileTel is out of security area, a new message will be sent every xx minutes (with updated GPS location). When tracking time is not zero, event 10 should have only SMS (no voice call).

Event 10 configuration is done through SMS commands:

Enable Event 10. See '`<E10:....>`' command to set the phonebook number for SMS to be sent

Set Security area (enabled, Latitude, Longitude, radius). See command '`<SA:....>`'

If needed, set tracking time. See command '`<timetrack:..>`'

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code and date and time of collecting data.

## 7.4 GPRS Tracking

There is a new feature added to MobileTel – GPS devices: it is possible to send periodic information to a web server through GPRS transmission. Sent information can be selected from 3 groups:

- System information (battery level, temperature, ...)
- GPS location
- GSM Base Stations (antennas).

Every group can be enabled separately and several of them can be enabled at the same time.

Selected information will be sent by GPRS at regular time intervals (frequency in minutes), adding device user

It is needed to set in MobileTel GPRS connection parameters: user, password and APN for the used GSM provider (ask your provider to get those parameters).

At the receiver server there must be a way to collect the GPRS information sent by MobileTel (like a web page that put that information in a data base). The url of the receiver server and web page must be also set in Mobiletel.

All the set-up concerning the GPRS tracking will be done with an only sms command.

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## 8 CONFIGURATION MESSAGES

If you have no knowledge of the setting commands do not send any command SMS, because it could cause unit failure.

One only SMS message can carry as much commands as the SMS maximum length makes it possible (140 characters).

The rest of the commands and a detailed description of them can be found in technical manual, available in web page (<http://www.is2.es>).

### 8.1 Unit Initialization

Unit parameters must be set when it first starts running. This setting can be done through SMS messages. A command SMS will be accepted if the SMS carries the

actual user code (delimited by characters '<' and '>'). User code is not needed if the SMS sender phone number is stored in the Mobiletel phonebook

Devices have a factory user code "00000000". If you have changed it and do not remember it there is a master code to set the device (ask your dealer).

The following example shows a SMS for setting the new user code to "Jose0001" (default 8 alphanumeric characters), for a MobileTel whose actual user code is "00000000". Supposing that voice call are linked to phonebook number 1 and SMS to phonebook number 2 and we want to set both numbers

**Example:**

```
<00000000><NU:Jose0001><
T1:911234567><T2:9176543
21>
```

To be valid, every command SMS must carry the current user code (factory default: 00000000) or the sender must be in the phonebook

## 8.2 Most common commands

This paragraph reports a summary of the most important setting commands the unit implements. The device behavior can be customized through these commands.

<b>Information Request</b>	
<b>System</b>	<I?>
<b>Phonebook</b>	<T?>
<b>Enable settings</b>	<E?>
<b>Activity</b>	<A?>
<b>Special Commands</b>	
<b>Switched off</b>	<OFF>
<b>Anti-Theft Mode On</b>	<HROBO>
<b>Anti-Theft Mode Off</b>	<DROBO>

<b>Configure</b>	
<b>Phonebook</b>	<Tx:telephone>
<b>Enable settings</b>	<Ex:HVVs>
<b>Update system clock</b>	<CLK>
<b>Microphone</b>	<MIC:xx>
<b>Loudspeaker</b>	<SPK:x>
<b>Set User Code</b>	<NU:xxxxxxxx>
<b>Answer mode</b>	<MD:x>

## 9 COMMAND LIST

In the following table there is a list of all available setting commands.

There is also a list of all outgoing SMS messages formats that MobileTel sends.

For further information check technical manual in IS2 web page (<http://www.is2.es>) or call IS2 technical service phone (902931280).

### 9.1 General Commands

Available command list for MobileTel and MobileTel GPS

Configuration	
Phonebook	<Tx: <i>telephone</i> >
Enable settings	<Ex: <i>HVVSS</i> >
Update system clock	<CLK>
Microphone	<MIC: <i>xx</i> >
Loudspeaker	<SPK: <i>x</i> >
Set User code	<NU: <i>xxxxxxxxxx</i> >
Periodic Test	<TP: <i>DDHH</i> >
Low battery	<BB: <i>xxxx</i> >
Flat battery	<BA: <i>xxxx</i> >
Full battery	<BR: <i>xxxx</i> >
Low temperat.	<TB: <i>xx</i> >
High temperat.	<TA: <i>xx</i> >
Inactivity	<IN: <i>xx</i> >
Answer mode	<MD: <i>x</i> >

*Enable: H (0 or 1), V, v, S and s (values from 0 to 9)*

*Microphone: from 00 to 31*

*Speaker: from 0 to 4*

*Battery levels: from 3500 to 4200 (milivolts)*

*Temperature: from 00 to 50 °C*

*Inactivity: from 00 to 99 hours*

*Answer mode: m (user mode), t (phonebook numbers), a (automatic)*

## 9.2 MobileTel GPS commands

<b>Information Inquiry</b>	
<b>System</b>	<I?>
<b>Phonebook</b>	<T?>
<b>Enable settings</b>	<E?>
<b>Activity</b>	<A?>
<b>Firm. Release</b>	<V?>
<b>Log</b>	<H?:xx>
<b>Special Commands</b>	
<b>Calibrate</b>	<CAL>
<b>Switch off</b>	<OFF>
<b>Reset</b>	<RST>
<b>Anti-Theft Mode On</b>	<HROBO>
<b>Anti-Theft Mode Off</b>	<DROBO>

*Log values: xx from 00 to 19  
00=5 newest events  
19= 5 oldest events*

<b>Configuration</b>	
<b>GPS mode</b>	<mgps:x>
<b>GPS hibernation time (minutes)</b>	<tgps:mm>
	<sa:EE-DDMMddddL-DDDMMddddl-xxxxxx>
<b>Security area</b>	
<b>Security area event</b>	<E10:HVvSs>
<b>SMS Tracking time in out of security area event</b>	<timetrack:mm>
	>
<b>GPRS tracking</b>	<tg:X-bbb-ffff-usr-pwd-apn-urlsvr>

Information Inquiry	
Location	<loc?>
Last Location	<lloc?>
GPS settings	<gps?>
GPRS tracking settings	<tg?>

## 9.3 Answers from MobileTel (no GPS)

Answers are sent to the phone number that asked the information (command sender)

Security area command:  
EE=SI/NO (yes/no)

Latitude:  
DD (degrees: 00-90)  
MM (minutes: 00-60)  
dddd (fraction of minutes)  
L (N/S, North, south)

Longitude  
DDD (degrees: 000-180)  
MM (minutes: 00-60)  
dddd (fraction of minutes)  
I (E/W, East, West)

Radius  
xxxxx (meters: 00100-99999)

Answers to comands	
Phonebook State	<21-User-1:telf.1-...-10:telf.10>
Enable settings State	<22-User-E0:HVvSs-...-E9:HVvSs>
System State	<23-User-date-Bat:xxxx-GSM:xx-Carga:xx-Tmp:xx-Alt:x-Mic:xx-TP:ddhh-TA:xx-TB:xx-BA:xxxx-BB:xxxx-BR:xxxx-IN:xx-

## 32 SMS Comand List

## MobileTel

	MD:x>
<b>Activity State</b>	<24-User-date- Motion detected>
<b>Activity State</b>	<24-User-date- Motionless>
<b>Version State</b>	<25-User-date- text>
<b>Log Event State</b>	<26-User-order- event1-date- ...- event5-date>

### Event SMS's follow the pattern:

<xx-yyyyyyyyy-  
yy/mm/dd,hh:mm:ss-Text>

xx=event code

yyyyyyyyy=user code

yy/mm/dd=GSM date

hh:mm:ss= GSM time

SMS's from events are sent to the phone numbers set in phonebook and enables.

<b>Answer to events</b>	
<b>Emergency Button</b>	<00-Use-date - Emergency Alarm>

<b>Help Button</b>	<01-User-date - Help Alarm>
<b>Wrong Temperature</b>	<02-User-date - Wrong Temperature (Temperature °C)>
<b>Recovered Temperature</b>	<12-User-date - Restored Temperatura (Temperature°C)>
<b>Fall Alarm</b>	<03-Usuer-date -Fallen person Alarm>
<b>Inactivity Alarm</b>	<04-User-date - Inactivity Alarm>
<b>Low Battery</b>	<05-User-date- Low Battery>
<b>Restored Battery</b>	<15-User-date- Battery Recovered>
<b>Flat Battery</b>	<06-User-date - Flat Battery>
<b>Burglary Alarm</b>	<07-User-date - Burglary Alarm>
<b>Periodic Test</b>	<08-User-date - Periodic Test>
<b>System Failure</b>	<09-User-date- System fail>

## 9.4 Answers from MobileTel GPS

<b>Answers to comands</b>	
<b>Phonebook State</b>	<21-User-1:telf.1-...-10:telf.10>
<b>Enable settings State</b>	<22-User-E0:HVvSs-...-E9:HVvSs>
<b>System State</b>	<23-User-date-Bat:xxxx-GSM:xx-Carga:xx-Tmp:xx-Alt:x-Mic:xx-TP:ddhh-TA:xx-TB:xx-BA:xxxx-BB:xxxx-BR:xxxx-IN:xx-MD:x>
<b>Activity State</b>	<24-User-date - Motion detected>
<b>Activity State</b>	<24-User-date - Motionless>
<b>Version State</b>	<25-User-date-text>

<b>Log Event State</b>	<26-User-order-event1-date- ...-event5-date>
<b>Location</b>	<27-User - date - DDMM.mmmmL-DDDMM.mmmml-HHMMSS>
<b>GPS settings</b>	<28-User -Date-SA:yy-MGps:xx-TGps:xx-Lat:DDMMddddL-Lon:DDDMMddddl-Rad:xxxxx-TimeTracking:xx>
<b>Last Location</b>	<29- User-date-DDMM.mmmm,L,DDMM.mmmm,l,H HMMSS(date)>
<b>GPRS tracking settings</b>	<31-User-date-TG:b-IN:b-PO:b-AN:b-ffff-Usr-Pwd >

*B=1/0 (1=enabled)*

*Ffff= interval time in minutes*

## Event SMS's follow the pattern:

<xx-yyy-yyyyyy-yy/mm/dd,hh:mm:ss-Text-  
DDMM.mmmm,L,DDDMM.mmmm,l,hhmmss(yy/mm/dd)>

<b>xx</b>	Event code
<b>yyy-yyyyyy</b>	User code (max. 8 alfanum. Char)
<b>yy/mm/dd,hh:mm:ss</b>	GSM date and time of event. yy=year mm= month dd=day hh=hour mm=minutes ss=seconds
<b>Text</b>	Event description
DDMM.mmmm,L	Latitude DD=Degrees MM=minutes mmmm=Fraction of Minutes L= N/S (From Equator)
DDDMM.mmmm,l	Longitude DDD=Degrees MM=minutes mmmm= Fraction of Minutes l=E/W (From Greenwich M.)
hhmmss	GPS time (Greenwich time)
(yy/mm/dd)	GSM date of FIX

<b>Answer to events</b>	
<b>Emergency Button</b>	<00- user-date -Emergency Alarm - Latitude,Longitude,timedate>
<b>Help Button</b>	<01- user-date -Help Alarm - Latitude,Longitude,timedate>
<b>Wrong temperature</b>	<02- user-date -Wrong Temperature (Temperat. °C) - Latitude,Longitude,timedate>
<b>Recovered Temperatura</b>	<12- user-date -Restored Temperature (Temperat. °C) - Latitude,Longitude,timedate>
<b>Fall Alarm</b>	<03- user-date -Fallen Person Alarm - Latitude,Longitude,timedate>
<b>Inactivity Alarm</b>	<04- user-date -Inactivity Alarm - Latitude,Longitude,timedate>
<b>Low Battery</b>	<05- user-date -Low Battery - Latitude,Longitude,timedate>
<b>Restored Battery</b>	<15- user-date -Battery Recovered - Latitude,Longitude,timedate>
<b>Flat Battery</b>	<06- user-date -Flat Battery - Latitude,Longitude,timedate>
<b>Burglary Alarm</b>	<07- user-date -Burglary Alarm - Latitude,Longitude,timedate>
<b>Periodic Test</b>	<08- user-date -Periodic Test - Latitude,Longitude,timedate>
<b>System Fail</b>	<09- user-date - System Fail - Latitude,Longitude,timedate>
<b>Out of Security Area</b>	<10- user-date - Out Geofence - Latitude,Longitude,timedate>

## 9.5 Set GPRS tracking command (GPS device)

GPRS tracking command:

<tg:x-bbb-ffff-Usr-Pwd-Apn-urlsvr>

x=0 GPS disabled  
x=1 GPS enabled (not with charger)  
x=2 GPS enabled, car mode. GPS keeps on with charger connected

bbb (b is binary digit, 0 or 1). Meaning

1<sup>st</sup> bit=> System information

2<sup>nd</sup> bit=> GPS location

3<sup>rd</sup> bit=> GSM nearest Base Stations (antennas)

ffff => Interval time in minutes. Information will be sent every  
ffff minutes

Usr=> user for GPRS connection (GSM provider)

Pwd=> password for GPRS connection (GSM provider)

Apn=> url link for GPRS connection (GSM provider).

Urlsvr => url for receive Mobiletel information.

Example: we want Mobiletel to send only GPS location every 5 minutes to the following url:

[www.is2.es/tracking/trackGPS.asp](http://www.is2.es/tracking/trackGPS.asp) and Mobiletel is using an Movistar SIM card. The command is:

<tg:1-010-0005-MOVISTAR-MOVISTAR-movistar.es-  
http://www.is2.es/tracking/trackGPS.asp>

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## 10 PRODUCT INFORMATION

### Agreement Statement

IS2 declares that the unit described in this user guide fulfils all the Basic requirements as well as other controls following European regulations frame 1999/5/EC.

The corresponding Agreement Statement has been signed. Please contact with us if you need a copy of such Agreement Statement.

### Technical Data

Class GSM:	4(2W)
Range:	880-960Mhz
Class GSM:	1(1W)
Range:	1850-1990MHz
Weight:	75gr
Size :	82x45x20
Li-Ion:	1100mAh
Temp. Use:	-10°C a 55°C
SIM Card:	3V

### Operational times

Operational times depend on use conditions. Low coverage, as well as extreme weather conditions reduce very much unit functioning time.

Use the strap supplied to improve coverage and avoid putting the unit near hot supplies. By doing so, the battery and the unit will operate better and more time.

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## **11 BATTERY QUALITY STATEMENT**

The unit battery capacity is being progressively reduced by charge/discharge. It is also reduced in cases of storage under extreme weather conditions. Having this into account, functioning times even if battery is completely charged, are considerably reduced. If you notice a clear decrease in your battery function you must contact technical service. Battery can only be replaced by technical service. If user tries to replace battery by himself, the unit could be seriously damaged.

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## 12 GUARANTEE CERTIFICATE

- Without detriment of the possible claims the seller could present, the manufacturer guarantee will be granted to the user (customer) under the conditions detailed in the following lines.
- In case of defective new units and its components as a consequence of defective manufacturing or defective materials in 24 months after purchase, IS2, discretionarily and free of charge, will repair such unit or will substitute it with a new one that corresponds with the technological state of the user unit. Concerning used and spoiled spare parts (batteries, covers, strings, bath bags, etc.) such

guarantee will be valid for 6 months after purchase.

- Such guarantee will be no valid is the unit damage could be produced by the bad handling of the unit or the non fulfillment of the information detailed in this user guide.
  - This guarantee does not include neither authorized seller services nor the user own installations.
  - The corresponding receipt and purchase date constitute the supporting document to claim any kind of guarantee. Any guarantee claim must be presented in two months after the failure included in the guarantee takes place.
  - Replaced and returned units or components belong again to IS2.
-

➤ Those claims exceeding or different from the conditions included in Manufacturer Guarantee will be excluded, when such claims are not included in Spanish laws of consumer protection. IS2 is not responsible for operative interruptions, profit or data lost, additional software introduced by the user or any other information.

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