User Manual

03890

Hands-free unit for remote assistance calls

BUILDING AUTOMATION

CALL-WAY

Index

Introduction - Application overview
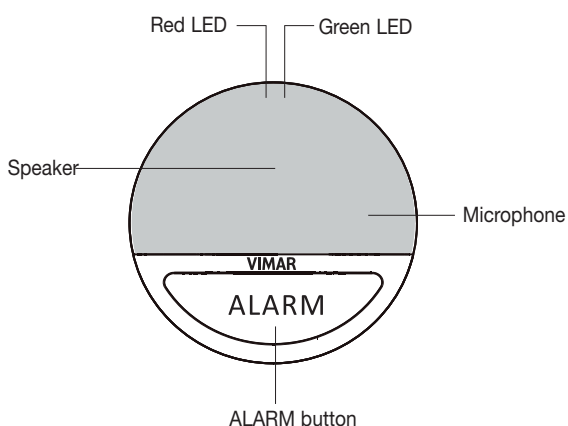
1. Introduction

The remote assistance device allows you to call recorded numbers by mobile phone and can be programmed by sending an SMS message to the phone number of the SIM installed within it. The hands-free call is sent by pressing the "ALARM" push button on board or using the push button on the bracelet/pendant accessory supplied, or another device connected to the interface art. 03895. The device can also receive incoming calls with automatic answering.

CAUTION: This is not a medical life-saving device. The correct emergency reporting may depend on external factors such as cell signal reception, status of the network, availability of residual credit, etc.
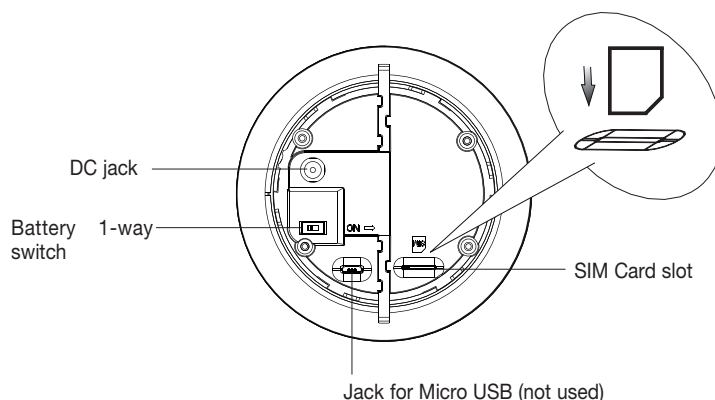
2. Application overview

2.1 Parts Identification

FRONT VIEW

REAR VIEW

Red LED — Green LED

Speaker

Microphone

VIMAR

ALARM

ALARM button

DC jack

Battery switch   1-way

SIM Card slot

Jack for Micro USB (not used)

	Action	Function
ALARM button	Press once	To make an emergency call/activate the alarm
		To answer a call
	Hold down for 5 seconds	To cancel the alarm
		To end the call
Green LED	On	Power supply present
	Flashes once every 5 seconds	No mains power supply
Red LED	Flashes once every 5 seconds	GSM communication error

2.2. The Power Supply

The remote assistance device can be powered by either AC power or backup battery.

AC Power

A DC 9V 1A SPS power adapter is provided for AC power connection.

- When AC power is connected, the Green LED will turn steady on to indicate AC connection.

- When AC power is disconnected, the Green LED will flash once every 5 seconds to indicate AC failure, the remote assistance device will signal an AC failure report.

Backup Battery

In addition to the AC power adapter, a rechargeable battery is installed inside 03890 to serve as a backup in case of a power failure.

- During normal operation, the AC power adapter is used to supply power to 03890 and at the same time recharge the battery. It takes approximately 72 hours to fully charge the battery.

- If the battery switch is set to OFF, the battery will not be charged when AC power is connected and nor will it serve as a backup power source when AC power is missing. You need to switch the battery to ON for it to be charged when AC power is connected and serve as a backup power source when AC power is missing.

3. Installation

3.1 Inserting the SIM card

- Before inserting the SIM card in the device, disable any PIN code. To do this, insert the SIM card in your smartphone and follow the instructions provided to disable the PIN.
- The SIM slot is on the rear of the device.
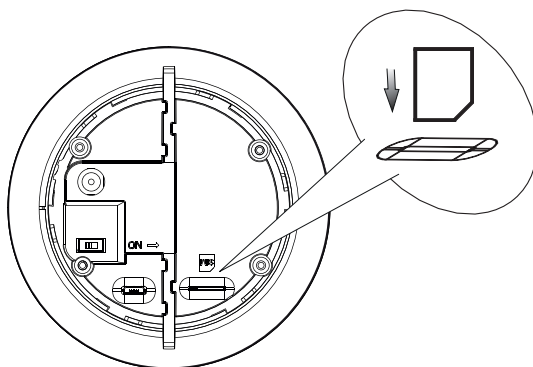
- Insert the SIM gently into the slot.
- Any SMS messages stored on the SIM will be deleted when the device is started up.

N.B.

- Use only nano SIM cards.
- Do not use adaptors to insert the SIM in the slot.

3.2 Surface mounting

1. Break the two knockouts on the surface mounting bracket.
2. Use the two holes as a template, making sure the symbol of the triangle on the brackets is facing up.
3. Drill and secure the bracket to the wall with screws.
4. Connect the power supply unit to the DC jack in the Hands-free Unit and position the cable correctly.

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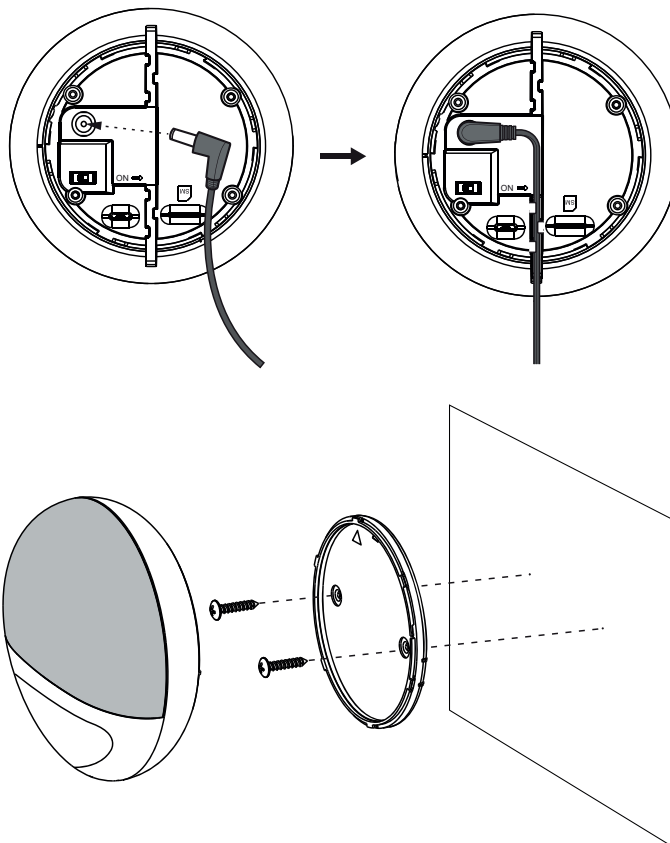
Installation

5. Secure the Hands-free Unit to the mounting bracket. Make sure the sign imprinted on the device lines up with the one on the back of the bracket.

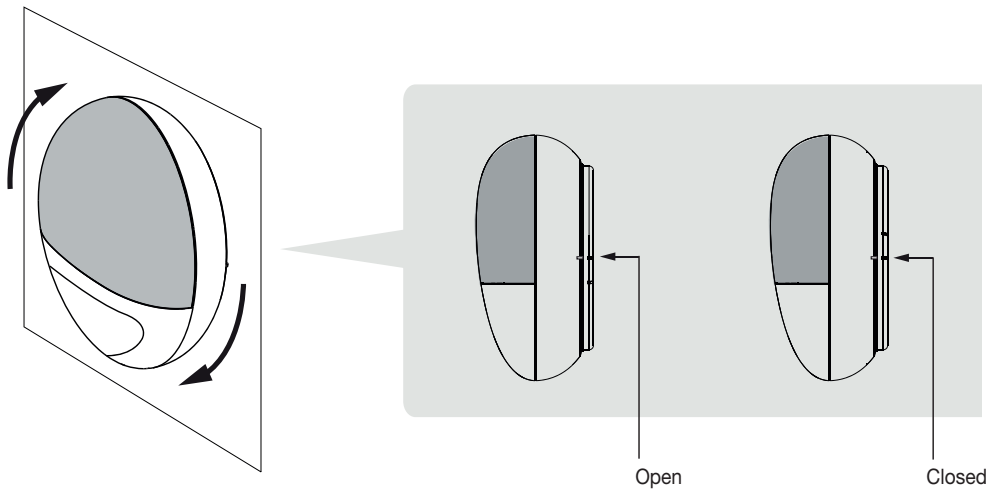6. Turn the Hands-free Unit clockwise until it is in the closed position.

Open   Closed

3.3 Table mounting

1. Clean the back of the Hands-free Unit with degreasing detergent.

2. Connect the power supply unit to the DC jack in the Hands-free Unit and position the cable correctly on the left or right (Figure 1).

3. Remove the protective film from the non-slip pad and secure it to the back of the Hands-free Unit (Figure 2).

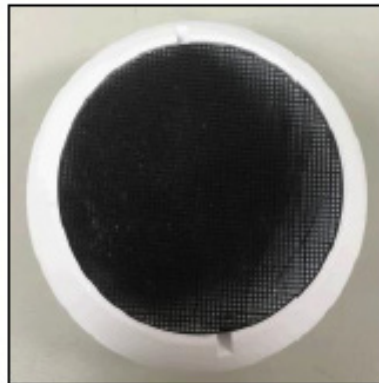4. Place the device in the desired position (Figure 3).

Figure 1   Figure 2   Figure 3

4. Call cycle operation

This section presents the operation of the call cycle the device carries out. The logic depends on parameter 3 of the RPT programming control which specifies the group the phone number to call belongs to.

Each programming slot can be associated with a single group.
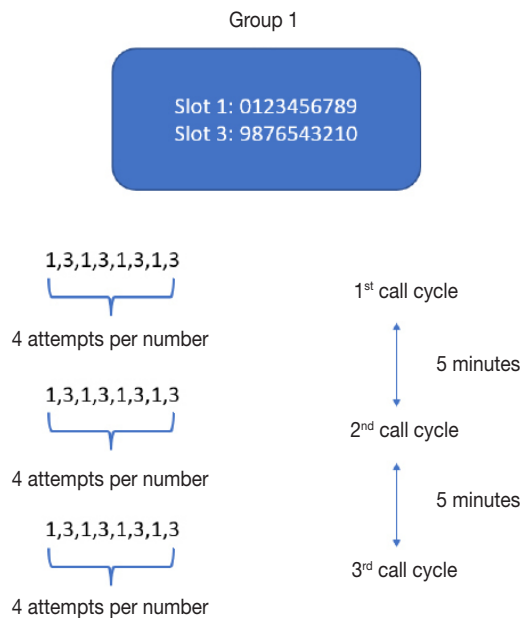
4.1 Call cycle within the same group

If multiple phone numbers are programmed within the same group, the remote assistance device will call the numbers in the order defined by the programming slot (from 1 to 5). The device will stop calling as soon as one of the numbers answers the call. This means that the device will not call any numbers that may be left on the list and the call cycle ends

Example

2 numbers have been programmed (parameter 2 of the RPT control) at programming slot 1 and 3 (parameter 1 of the RPT control) and both have been assigned to group 1 (parameter 3 of the RPT control). The remote assistance device will start to call the number saved in index 1 and if:
- the number called answers, the device will consider the call cycle ended;
- the number called does NOT answer, the device will call the second number on the list.

If the second number called answers, the cycle will be considered ended. If one or both numbers called do not answer, the device will attempt to call each number up to 4 times. After these first 4 call attempts for each number, the device waits 5 minutes then starts the call cycle again. At the third call cycle without answers, the device stops.

Supposing none of the numbers answer the representation of the cycle described in the example is as shown below.

If during any of the attempts within any of the call cycles one of the two numbers answers the cycle ends.

4.2 Call cycle for several groups

If 1 or more phone numbers are programmed to at least 2 groups, the remote assistance device will call the numbers in the order defined by the programming slot (from 1 to 5). After the first group has ended, regardless of whether there was an answer or not, the device will move on and call the numbers in the subsequent group. The device will end the call cycle as soon as at least one of the call attempts to a number in one group was successful and all the numbers in the groups have been called.

Example

2 numbers have been programmed (parameter 2 of the RPT control) at programming slot 1 and 4 (parameter 1 of the RPT control) and 2 more numbers at slot 2 and 3. Numbers 1 and 4 have been assigned to group 1 whereas numbers 2 and 3 to group 2. The remote assistance device will start to call the number saved in index 1 and if:
- the number answers, the device will consider the call cycle towards that group ended, moving on to the first number saved for the next group;
- the number does not answer, the device will move on to the second number in the same group regardless of whether there is an answer or not and will then move on to the first number in the next group.

As in the previous case, the cycle will end after 3 call cycles. Supposing one of the numbers saved answers the second attempt the representation of the cycle described in the example is as shown below.
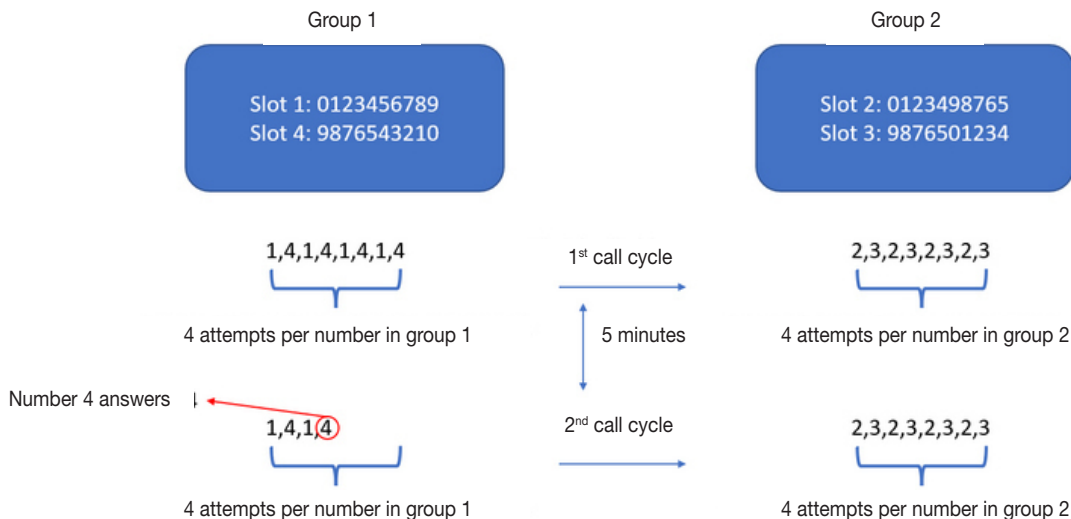
Number 4 answers so the device, after the call ends, moves on to the next group (where nobody answers). The cycle ends and is not repeated a third time because at least one number answered in one of the two groups.

5. Voicemail

It is advisable to disable voicemail on the numbers programmed as recipients of the emergency reports. The device considers the reporting to have been made correctly when it receives the "pick up" message from the recipient and in the case of a voicemail it could interpret the voicemail answer incorrectly and consider the call cycle as ended.

To disable the voicemail on the programmed number please contact your phone operator

6. Power supply

In the event the mains power supply is interrupted for more than 5 consecutive minutes, in order to preserve its battery charge, the device sends a notification SMS message and de-energises the cellular module. During the power supply outage, the following is therefore not possible:
- programming the device by sending control SMS messages (the latter will in actual fact be performed as soon as the power supply is restored);
- receiving incoming calls.

The emergency call function remains operational: when the button is pressed, the device re-enables the cellular module. What's more, the periodic test message continues to be sent to notify the status of the battery.

N.B.:
- It takes approximately 20 seconds to re-enable the cellular module, after which the device will start the call cycle consisting of 20 seconds guard time and the time required to complete the call cycles (see the relevant section of the manual for details). At the end of the cycle, the device will return to energy saving mode, disabling the cellular module again. The status LEDs during the device not powered and not calling phase will flash green (to indicate no power supply) and red (to indicate the cellular module is off) respectively.
- If the battery charge level reaches 20% the device sends a flat battery notification SMS message: "VCP-LTE low battery, battery 20%". When the battery is completely flat, the red LED varies its ON/OFF frequency to once a second. In this state, the messages relating to the device status are not sent.

7. International dialling code

The programming of numbers preceded by an international dialling code to make calls is permitted both with the + prefix and with the 00 variant (e.g. +39 or 0039). To programme favourite incoming numbers, the use of the prefix in the programming field is forbidden, otherwise the incoming call will NOT be received automatically.

8. SMS Remote Programming

The device is programmed by sending specific SMS message controls to the number of the SIM in the device. When each SMS message control is sent, the device answers with a SMS message containing the name of the control sent followed by <OK>.

If no message is received or an ERROR message is received, followed by the control name, the sending/receipt/execution was not successful.

The word PROG is non-editable. The access code used (1111) corresponds to the last 4 last digits of the IMEI shown on the tracking label on the back of the device.

The general procedure is as follows:

1. Enter the SMS screen on your mobile phone or smartphone.

2. Enter the programming control (see the SMS remote programming controls tables below).

3. Enter a colon (:).

4. Enter SMS Keyword (default is PROG).

5. Enter a comma (,).

6. Enter the Access Code (default is 1111).

7. Enter a comma (,).

8. Enter the parameter(s).

9. The composition of the control is completed. You can send the control to 03890 now.

9. First-time programming

1. Set the APN ➡ *APN:PROG,1111,<Parameter1>,<Parameter2>,<Parameter3>*
Parameter 1: enter the APN of the telephone operator
Parameter 2: enter the user (optional, leave empty if not present)
Parameter 3: enter the password (optional, leave empty if not present)

Example: APN:PROG,1111,ibox.tim.it,, (the highlighted digits should be replaced with the last 4 digits of the IMEI code on the label affixed to the speakerphone 03980)

N.B. The user and password fields, even when empty, must always be separated by a comma.

Main APNs tested	
TIM	ibox.tim.it
Vodafone	web.omnitel.it
Wind3	internet.it
Iliad	iliad

2. Programme the numbers to call ➡ *RPT:PROG,1111,<Parameter1>,<Parameter2>, <Parameter3>,<Parameter4>,<Parameter5>,<Parameter6>*
Parameter 1: field for programming the number
Parameter 2: telephone number
Parameter 3: group the number belongs to
Parameter 4: always enter 0
Parameter 5: always enter 0
Parameter 6: always enter 4

Example: RPT:PROG,1111,1,0039378552428,1,0,0,4

N.B. It is possible to specify the country dialling code, e.g. +39 or 0039 etc.

Points 1 and 2 must be done while 3, 4, 5, 6, 7 and 8 are optional.

3. Programme the device answer mode ➡ *ANSIN:PROG,1111,<Parameter1>,<Parameter2>*
Parameter 1:
- enter 0 to not receive incoming calls;
- enter 1 to receive incoming calls (the device will ring; to answer, press the ALARM button or the one of the pendant/bracelet if associated);
- enter 2 to answer automatically without pressing any push button.
Parameter 2: always enter 0

Example: ANSIN:PROG,1111,1,0

4. Programming favourite numbers (the device answers incoming calls from favourite numbers automatically) ➡ *CALID:PROG,1111,<Parameter1>,<Parameter2>*
Parameter 1: programming field for the favourite number (options 1 and 2 available)
Parameter 2: enter the phone number to programme as favourite

Example: CALID:PROG,1111,1,378552428

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5. Programming the access code ➡ *ACCES:PROG,<Parameter1>,<Parameter2>,<Parameter3>*
   Parameter 1: enter the current access code
   Parameter 2: enter 1
   Parameter 3: enter the new access code

   The access code used in the examples (1111) corresponds to the last 4 last digits of the IMEI shown on the tracking label on the back of the device.

   Example: ACCES:PROG,1111,1,1234

   CAUTION: Always note down the access code set. If you lose it, contact the Vimar technical assistance service. We recommend you edit the default access code.

6. Volume adjustment ➡ *SPKVL:PROG,<Parameter1>,<Parameter2>,<Parameter3>*
   Parameter 1: enter 1
   Parameter 2: enter a value between 1 (minimum speaker volume) and 5 (maximum speaker volume)
   Parameter 3: enter a value between 1 (minimum microphone volume) and 5 (maximum microphone volume)

   We recommend you keep the default value of 2 for both parameters

   Example: SPKVL:PROG,1111,1,2,2

7. Factory setting reset ➡ *FTSET:PROG,1111*

   This control allows you to reset the device to its original settings and to delete all the numbers stored. Alternatively, hold down the ALARM button for at least 30 seconds.

8. Check device reception ➡ *CSQ:PROG,1111*

   This control allows you to check the quality of th e device reception (see the following table).

CSQ	Corresponding reception
≤ -110	No signal
from -95 to -109	Poor
from -94 to -85	OK
from -84 to -75	Good
from -74 to -53	Excellent

   CAUTION: in the case of "No signal", no calls can be made and/or no programming controls can be sent.

10. Device supervision

To receive SMS messages on the status of the device and the connected accessories (no mains power, mains power restored, battery level, etc.) one ore more numbers must be programmed.

Programme the numbers for supervision ➡ *RPT:PROG,1111,<Parameter1>,<Parameter2>,<Parameter3>,<Parameter4>,<Parameter5>, <Parameter6>*

Parameter 1: field for programming the number

Parameter 2: telephone number

Parameter 3: group the number belongs to

Parameter 4: enter 31

Parameter 5: enter 0

Parameter 6: enter 1

Example: RPT:PROG,1111,1,0039378552428,1,31,0,1

11. Enrolling other accessories

The Hands-free Unit can enrol up to 10 radio frequency devices (bracelet/pendant art. 03893 Remote assistance interface art. 03895) to use to activate the emergency signals.

N.B. The bracelet/pendant in the pack is already associated with the Hands-free Unit.

Learning mode
Press the "ALARM" button on the Hands-free Unit for 8 seconds; after 8 seconds the device will emit a "beep".
After the beep, release the button; this will gain you access to the learning mode.

Device enrolment and test
1. Press the push button on the radio frequency device (see the relevant instruction sheet for details).
2. The Hands-free Unit will emit 2 beeps when it receives the signal from the device to indicate it has been enrolled.
3. Repeat points 1. and 2. to enrol all devices.
To check the correct reception in all points of interest, make sure you can hear the confirmation tone from the hands-free unit when the bracelet/pendant push button is pressed.

At the end, press the ALARM button on the Hands-free Unit once to exit learning mode; the device will emit 2 beeps.
N.B. For the remote assistance interface (art. 03895) the maximum cable length which can be connected to the extension terminals is 8 metres 22 AWG

Removing Devices
Enter learning mode and quickly press the ALARM button twice; the Hands-free Unit will emit two beeps to indicate that ALL the devices have been deleted and will then automatically exit learning mode.

12. Operation

12.1 Answering Incoming Calls
- 03890 will ring when there is an incoming call.
- The user can press the 03890's Alarm Button to pick up the call.
- If "Answer Incoming Calls" is set as Enable (Auto Answer), 03890 will auto answer an incoming call after the first ring.
- If the number of the incoming call matches any of the Caller ID, 03890 will instantly pick up the call.
- Press 03890's Alarm Button for 5 seconds to hang up or press the learnt in RF device (WTR, Fall Sensor or PB) button once to hang up.

12.2 Alarm Activation
- Press the Alarm Button of 03890 or press the Active Button of the learnt in RF device (WTR). 03890 will enter guard time.
- When 03890 is activated while having a Cellular Network fault (Red LED flashes once every 5 seconds).

Guard Time
- After 03890 is activated, it will begin counting down the 20 seconds and begin reporting after Guard Time has expired.
- During guard time, the user can cancel the alarm reporting by pressing the Alarm Button of 03890 for 5 seconds or pressing the Active Button of the learnt in RF device for a duration determined by the device (please refer to the device user manual).
- Alarm cannot be cancelled after guard time has expired.
- If there are no report destinations programmed, 03890 will not report after Guard Time expires.

Confirmation Beeps
- After guard time expires, 03890 will summon help based on the programmed reporting methods. When 03890 is reporting, it will emit confirmation beeps (1 beep every second).
- For Speech Reporting, if the call recipient picks up the call, 03890 will stop beeping. It will start emitting confirmation beeps again when reporting is resumed (e.g. report to the next report destination).

For further details please see the section entitled "Call cycle"

Speech Reporting Method
- If speech reporting method is selected, 03890 will dial the programmed number for reporting. It will establish a two way voice communication between the call recipient and 03890 user.
CAUTION: Make sure you always have credit available on the SIM used.

13. Appendix

Item	Control	Example & Usage	Default
Cellular Module Reset	RSTG	RSTG:PROG,1111 To reset Cellular Module	-
GPRS APN, username & password	APN	APN:PROG,1111,internet,, To set GPRS APN, username and password (31 characters max. for APN, 31 characters max. for username, 31 characters max. for password). If the telephone operator does not envisage a username/password, leave the fields empty.	APN: Internet Username and password: empty
Report settings	RPT	RPT:PROG,1111,1,0933111222,1,0,0,1 To configure report settings (index number, report destination, group, type, miscellaneous and event filter) Report Index: 1 5 Report destination: the phone number to call Group: 1 5 Type: 0 = Speech, 31 = SMS_TEXT, Miscellaneous: Enter 0 for this parameter Event filter: 1 = status, 4 = call	No report destination
Factory Reset	FTSET	FTSET:PROG,1111 To perform a factory reset Hold down for 30 seconds to reset the device to its factory settings.	-
To reboot 03890	RESET	RESET:PROG,1111 To restart 03890.	-
To check cellular signal strength / gsm IMEI / gsm version / operator imsi / network type	CSQ	CSQ:PROG,1111	-
Adjust Two way Volume and Microphone Sensitivity	SPKVL	SPKVL:PROG,1111,1, 2,2 Adjust Two way volume and microphone sensitivity Parameter 1: Enter 1 for this option. Parameter 2: Two way volume (Level 1 5) Parameter 3: Microphone Sensitivity (Level 1 5) 1 = minimum 5 = maximum	-
FW version check under way	VER?	VER?:PROG,1111 <OK> VER? VCP-LTE_F868_BY_0.3.1 OK If not, no answer	-

CAUTION: The PIN code shown in the examples is generic, the one for each device corresponds to the last 4 digits of the IMEI on the back of the device.