

TECNOCELL 4

4G telephone communicator



Installation

Release	2.0
FW release	1.7.02
Model	TECNOCELL 4
Programming SW release	5.7 - - - ->
Update	04/2022
Language	English

Tecnoalarm®
Hi-Tech Security Systems



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1 - TECHNICAL AND FUNCTIONAL SPECIFICATIONS

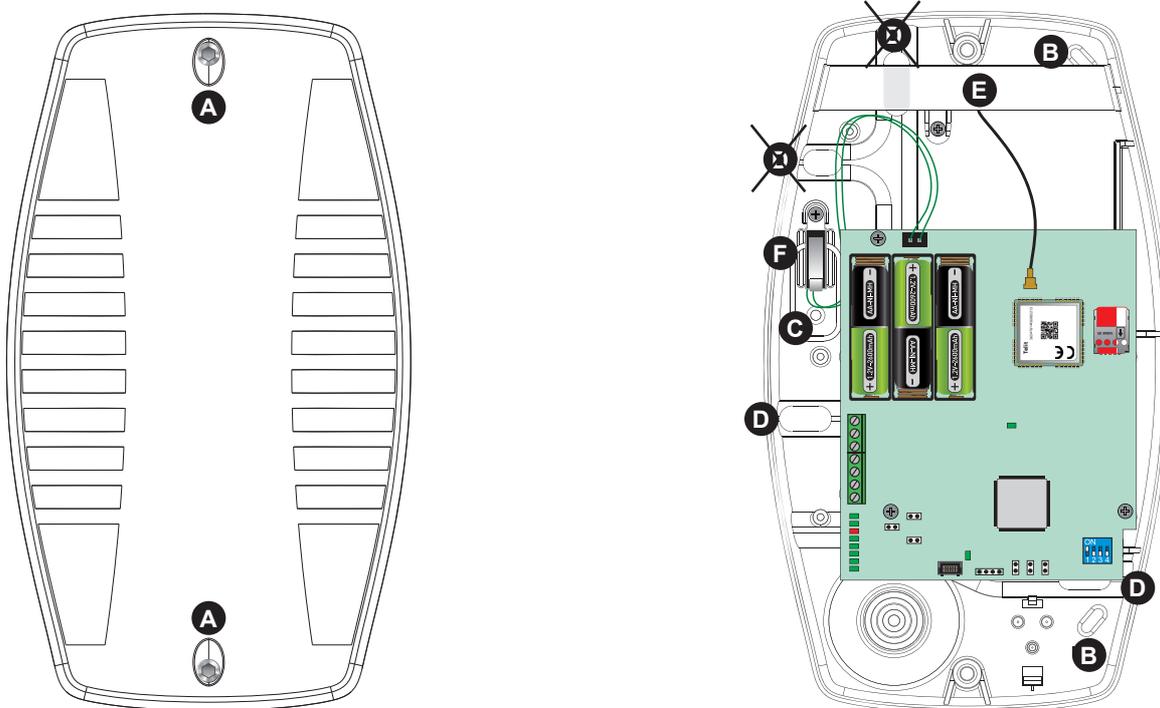
General features	Model	TECNOCELL 4	External GSM mode	Connection	RS485	
Communication parameters	Product category	Communicator		Electrical specifications	Communication channels	Tecno Server
	Telephone numbers IP addresses	✓				Remote Server
	Event notification	✓				Voice - Data - SMS
Equipment	USB port	USB type B			Protocols	20
	Secondary power supply	Batterie		Emergency numbers	4	
	Vocabulary	On-board		Emergency message	Voice and/or SMS	
Anti-tamper protection	Jam detector	✓		Physical specifications	Rated voltage	12V DC
	Anti-opening and anti-detachment	Micro-switch			Operating voltage	10V...15V DC
Internal GSM mode	Connection	RS422			Stand-by consumption	95mA @ 12V DC
	Connection interface	ESP GSM LINK	Max. consumption		200mA @ 12V DC	
	Communication channels	Tecno Server	Batteries		Batteries	3 x 1.2V AA - NiMH
		Remote Server		Environmental class	II	
		Voice - Data - SMS		Protection class	IP3x	
	Protocols	26		Casing	ABS	
	Encryption	AES 128/256 bit		Dimensions (L x H x D)	270 x 156 x 68mm	
Telematic services	TCS	Weight	520g			
			Operating temperature	-10°C...+55°C		

N.B. The manufacturer, Tecnoalarm S.r.l., declares that the present radio equipment complies with the Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.tecnoalarm.com.

2 - WARNINGS FOR INSTALLATION

2-1 - Casing

Warning: for a better coverage, we recommend installing the telephone communicator vertically. The connection cable must not be introduced through the two cable entries next to the antenna.



A Locking screw	C Mounting hole for tamper contact	E Fixing bar for antenna
B Mounting hole	D Cable entry	F Anti-tamper protection

2-2 - General warnings

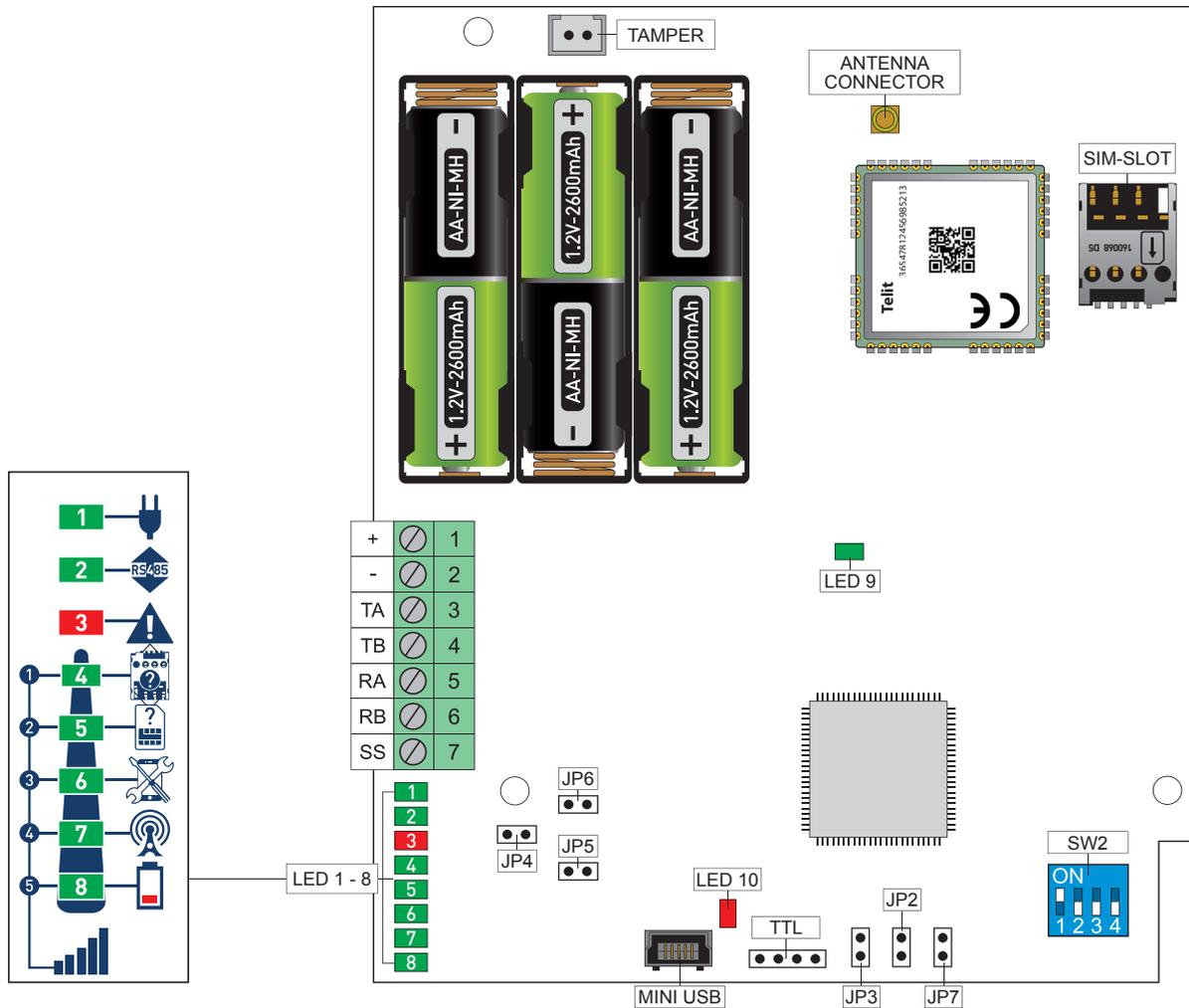
The TECNOCELL 4 telephone communicator must be installed in indoor areas. Monitoring of temperature and humidity is not required. For the safety of the operators protect the device, as any electronic device, against splashes and avoid placing recipients containing liquids next to it. The casing must be installed so as to ensure adequate ventilation. Do not cover the casing with things that may hinder correct heat dissipation.

Install the control panel at an adequate distance from heat sources (e.g. radiators) and any device that may cause electromagnetic disturbances (e.g. radio antennas).

For a better coverage, we recommend to install the telephone communicator vertically at the greatest possible height. The casing must be fixed on a solid surface in a position that guarantees adequate protection from accidental shocks.



2-3 - CPU board



SPECIAL PROCEDURE		
JP2	DEFAULT	Leave open during normal operating conditions (jumpers reserved for firmware upgrade and configuration reset)
JP3	BOOT	
JP7	RESET	

VOLUME VOICE SYNTHESIS		
JP4	VOL	<input type="checkbox"/> <input type="checkbox"/> Maximum volume
		<input type="checkbox"/> <input checked="" type="checkbox"/> Reduced volume

END-OF-SERIAL BUS RS422		
JP5	TER	Insert for RS422 connection with ESP GSM LINK (GSM intern mode)*
* Insert JP6 - RS485 jumper, too.		

END-OF-SERIAL BUS RS485		
JP6	RS485	Insert on the last device of the serial bus*
* Insert for RS422 connection with ESP GSM LINK (GSM intern mode), too.		

SW2	1	Baud rate
		ON
OFF		38,400bps (TP8-64 BUS - TP16-256 - TP8-96 VIDEO - TP8-28 - TP8-28 GSM - TP10-42 - TP8-88 - TP20-440)
2		Operating mode
ON		GSM intern*
OFF		GSM extern
3		Emergency call
ON		TP4-20
OFF		All other systems
4		Battery undervoltage transmission**
ON		Deactivated
OFF	Active	

* TP10-42, TP8-88, TP20-440 only
 ** TP8-96 VIDEO - TP8-28 - TP8-28 GSM - TP10-42 - TP8-88 - TP20-440 only

TERMINALS																								
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>⊗</td><td>⊗</td><td>⊗</td><td>⊗</td><td>⊗</td><td>⊗</td><td>⊗</td></tr> <tr><td>+</td><td>-</td><td>TA</td><td>TB</td><td>RA</td><td>RB</td><td>SS</td></tr> </table>	1	2	3	4	5	6	7	⊗	⊗	⊗	⊗	⊗	⊗	⊗	+	-	TA	TB	RA	RB	SS	1	+	Positive power supply voltage
	1	2	3	4	5	6	7																	
	⊗	⊗	⊗	⊗	⊗	⊗	⊗																	
	+	-	TA	TB	RA	RB	SS																	
	2	-	Negative power supply voltage																					
	3	TA	Channel A RS485 and RS422 serial bus																					
	4	TB	Channel B RS485 and RS422 serial bus																					
5	RA	Channel A RS422 serial bus																						
6	RB	Channel B RS422 serial bus																						
7	SS	S terminal (voice channel)																						

2-4 - Signaling LED

The LED on the CPU board signal the operating states of the telephone communicator. The LED 4 to 8 have a dual function. In normal operating conditions, they show the signal power (bar graph mode). In the event of a failure, the bar graph mode is left and the corresponding failure is viewed.

LED		Signaling		
1	Green	Off	Power supply KO	
		On	Power supply OK	
2	Green	Off	Connection with serial bus RS485 KO	
		Flashing	Connection with serial bus RS485 OK	
3	Red	Off	Bar graph mode	
		Slowly flashing	Failure mode	
		Bar graph mode	Failure mode	
4	Green	On*	Signal power 1	SIM missing
5	Green	On*	Signal power 2	Error GSM network registration
6	Green	On*	Signal power 3	Error GSM module
7	Green	On*	Signal power 4	No reception
8	Green	On*	Signal power 5	Low battery

* If the LED 4 to 8 are flashing slowly simultaneously, they signal an active GSM jamming alarm.

LED		Signaling		
9	RUN	Green	Off	Error GSM module
		Green	Flashing	Normal operating conditions
10	USB	Red	Flashing	Data transmission
		Red	On	Connection active

2-5 - Connection

The cables used for the connections are defined by specific standards and installation regulations.

The installer shall ascertain the current legislative requirements for his country.

For connection of the device to the RS485 serial bus, we recommend to use shielded multipolar twisted-pair cables with flexible conductors. The minimum section of the conductors must be in proportion to the extension of the bus and the consumption of the connected devices. The maximum length allowed for the RS485 serial bus is 1,000m. For greater distances use a fiber optic connection.

For connection of the device to the RS422 serial bus and the ESP GSM LINK interface, we recommend to use shielded multipolar twisted-pair cables with flexible conductors. The maximum length of the RS422 serial bus is 200m.

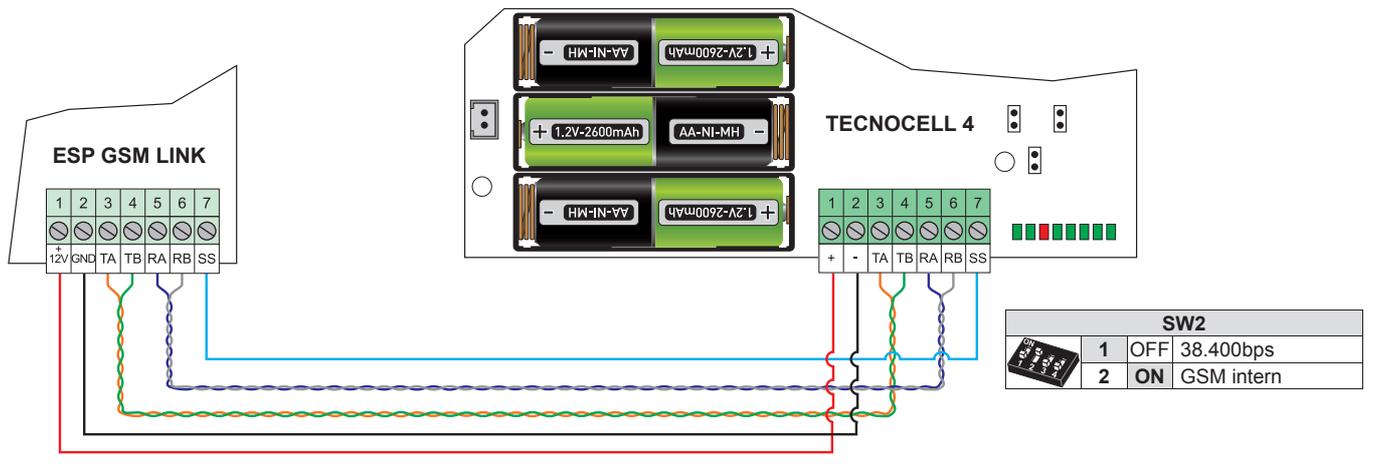
2-6 - Operating mode

The device can function with two operating modes, according to the requirements and the control panel.

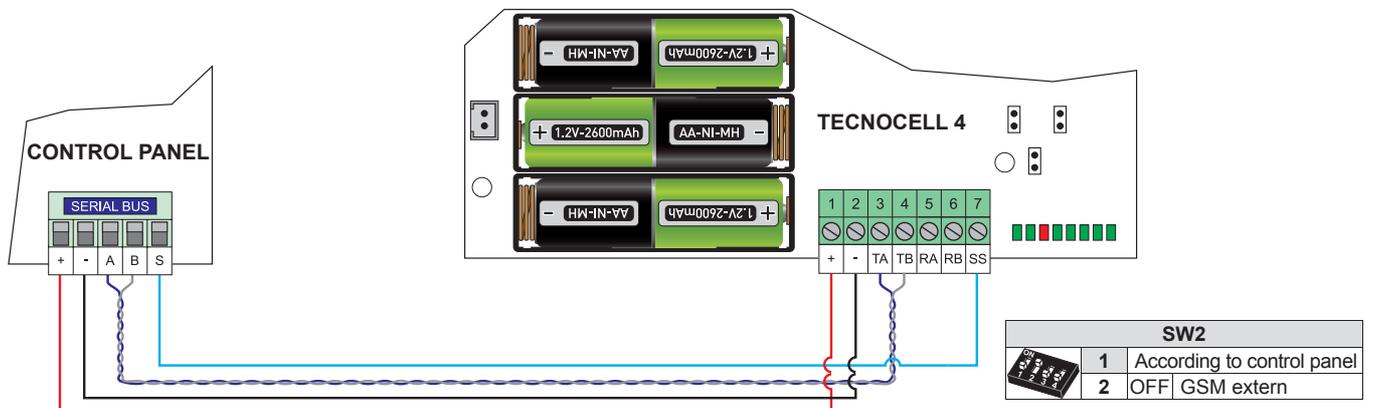
In the **GSM intern** mode, the device is connected via the RS422 serial bus with the control panel, through a point-to-point connection and the interface ESP GSM LINK. In the **GSM extern** mode, it is connected directly via the RS485 serial bus with the control panel.

The operating modes require special settings that can be made using the Tecnoalarm software. The **GSM extern** mode is programmed in the TECNOCELL menu, the **GSM intern** mode is programmed in the GSM menu of the telephone configuration tables of the alarm system. The settings for both operating modes are completed in the device-specific menus of the device.

Operating mode GSM intern - Connection via RS422 serial bus with ESP GSM LINK

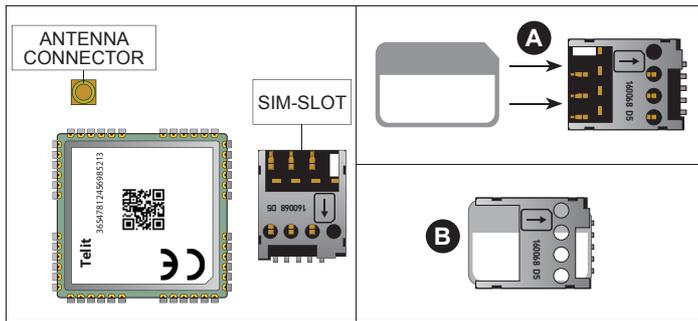


Operating mode GSM extern - Connection via RS485 serial bus



N.B. When using a serial bus extension, the telephone communicator must be connected upstream.

2-7 - SIM card installation



Use only micro SIM cards enabled for data communication.

A - Insert the SIM card with the contacts facing down.

B - Push the SIM card completely into the tray.

N.B. The SIM tray is fixed and cannot be lifted up, do not open by force!

2-8 - Managed services

According to the operating mode and control panel, the telephone communicator supports different functions and services.

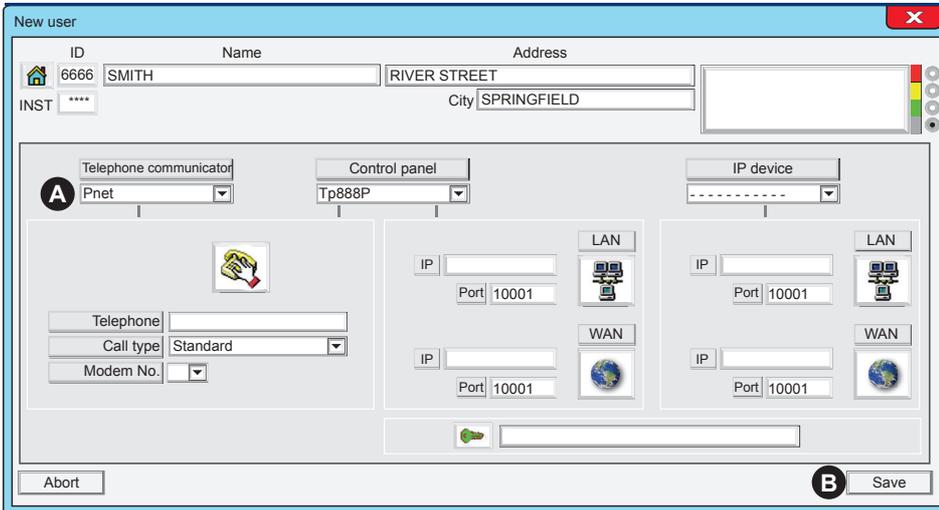
SYSTEMS	EXTERNAL GSM MODE - SUPPORTED SERVICES									
	NOTIFICATIONS					TECNOMODEM		TECNOSERVER TCP/IP		
	Voice protocols	Tecnoalarm protocols	Contact ID protocols	SMS	Emergency SMS	Call back	Keep online	Remonte management	Call back 4G	Keep online 4G
TP4R	✓ (4MSG)	✓			✓	✓ (DTMF)	✓ (DTMF)			
TP6R	✓ (4MSG)	✓			✓	✓ (DTMF)	✓ (DTMF)			
TP12R	✓ (4MSG)	✓			✓	✓ (DTMF)	✓ (DTMF)			
TP14R	✓ (4MSG)	✓			✓	✓ (DTMF)	✓ (DTMF)			
DIALOG128	✓ (4MSG)	✓			✓	✓ (DTMF)	✓ (DTMF)			
TP8-64	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP8-64BUS	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP16-256	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP4-20	✓ (4MSG)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP8-96VIDEO	✓ (WIRE S)	✓	✓		✓	✓	✓	✓	✓	✓
TP8-28	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP8-28G	✓ (WIRE S)	✓	✓		✓	✓	✓	✓	✓	✓
TP10-42	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP8-88	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP20-440	✓ (WIRE S)	✓	✓	✓	✓	✓	✓	✓	✓	✓

SYSTEMS	INTERNAL GSM MODE - SUPPORTED SERVICES									
	SERVICES	NOTIFICATIONS					TECNOSERVER TCP/IP			
	TCS	Voice protocols	Tecnoalarm protocols	Contact ID protocols	SMS	Emergency SMS	Call back	Keep online	Call back 4G	Keep online 4G
TP10-42	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TP8-88	✓	✓	✓		✓	✓	✓	✓	✓	✓
TP20-440	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3 - PROGRAMMING

The telephone communicator TECNOCELL 4 must be added in the user file of the associated control panel.

3-1 - Configuration of user file

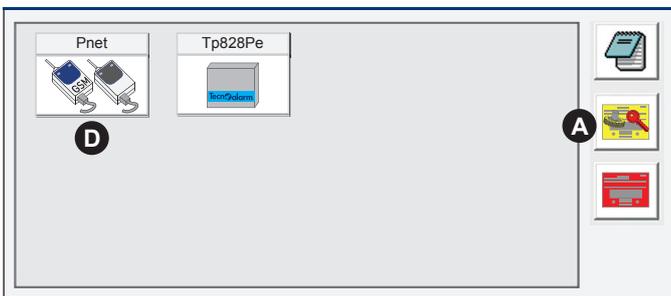


1 - Modify user file

Click on **Modify** to open the user file.

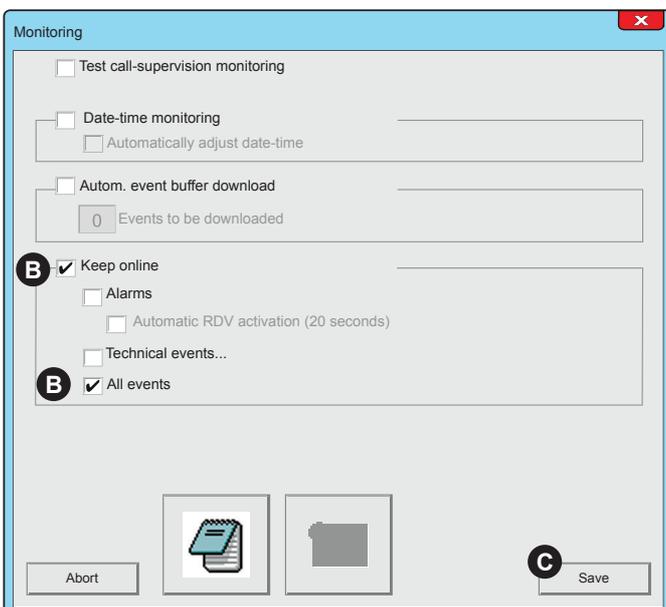
- A** - Select **Pnet** from the drop-down menu Telephone communicator.
- B** - Click on **Save**.

The Pnet icon appears in the system configuration section.



2 - Add telephone communicator

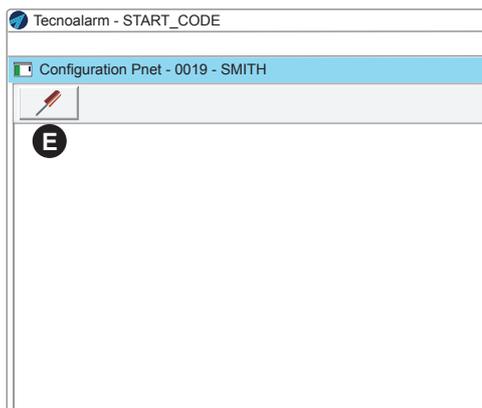
A - Click on the **Monitoring** icon.



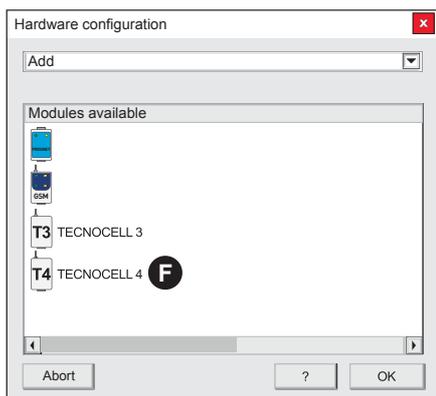
B - Activate the options **Keep online** and **All events**.

C - Click on **Save**.

D - Click on the **Pnet** icon.



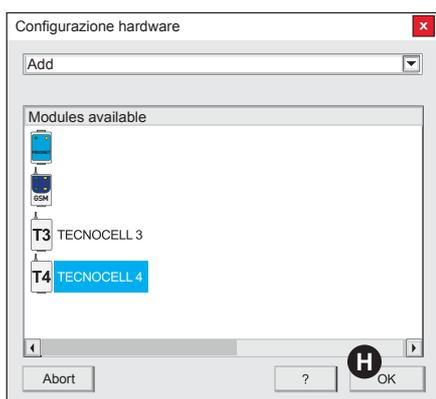
E - Click on the screwdriver icon



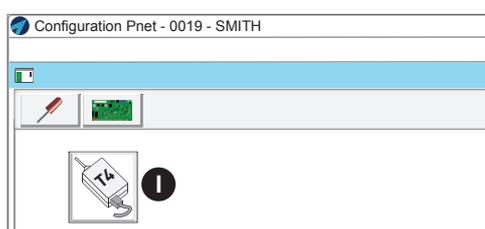
F - Select **TECNOCELL 4**.



G - Click on **Yes**.



H - Confirm with **OK**.
The T4 icon appears on the desktop.



Access to the configuration of the telephone communicator
I - Click on the **T4** icon to access programming.

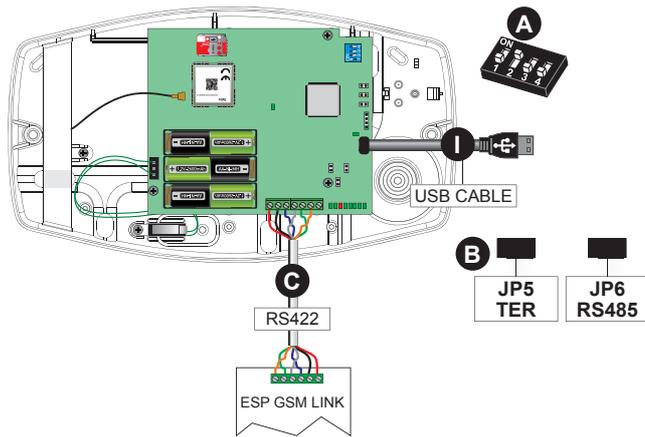
3-2 - Operating modes

The operating modes require specific settings, to be made in the telephone configuration tables of the control panel as well as the device specific menus of the telephone communicator. The PC used for programming must be equipped with the necessary drivers (USB Emulation Driver 2.1).

3-2-1 - GSM intern mode

Make the settings in the telephone configuration tables of the control panel as well as the device specific menus of the telephone communicator according to the programming sequence.

N.B. This mode is only used by the systems TP10-42, TP8-88 and TP20-440 starting from firmware rel. 1.9.08 and requires the use of the interface ESP GSM LINK.



Programming sequence

A - Configure the dip-switch SW2.

SW2			
	1	-	Irrelevant
	2	ON	GSM intern
	3	4	Irrelevant

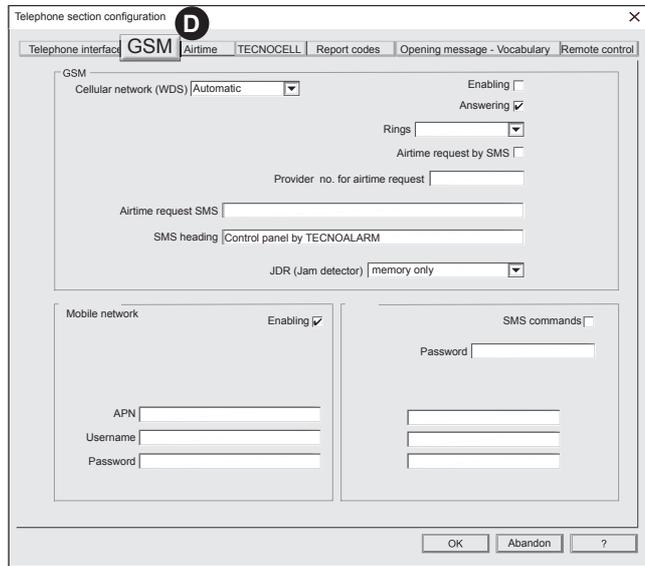
B - Insert the jumpers JP5 and JP6.

END-OF-SERIAL BUS	
JP5 - TER	
JP6 - RS485	

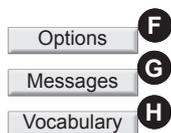
Insert both jumpers

C - Establish an RS422 connection with ESP GSM LINK and open the telephone configuration tables of the control panel.

D - Configure the **GSM** menu.



E - Click on the **T4** icon and open the configuration tables of the device.



F - Configure the **Options** menu.

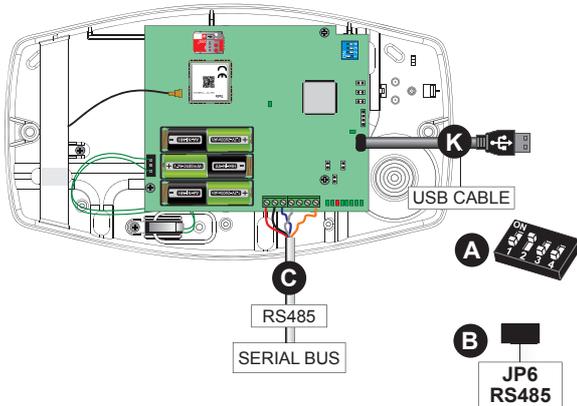
G - Configure the **Messages** menu.

H - Configure the **Vocabulary** menu.

I - Establish a USB connection with the PC and upload the configuration to the control panel.

3-2-2 - GSM extern mode

Make the settings in the telephone configuration tables of the control panel as well as the device specific menus of the telephone communicator according to the programming sequence.



Programming sequence

A - Configure the dip-switch SW2.

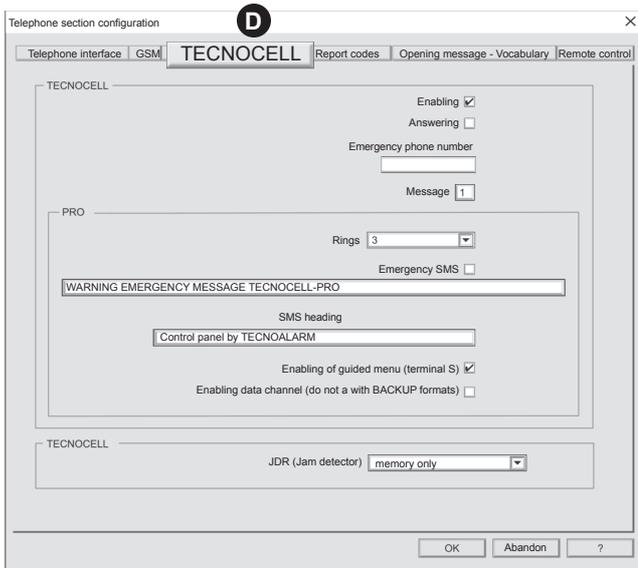
SW2				
	1	ON	OFF	Depends on the system
	2	OFF	ON	GSM extern
	3	ON	OFF	Depends on the system

B - Insert the jumper JP6.

END-OF-SERIAL BUS	
JP6 - RS485	Insert on the last device of the serial bus.

C - Establish an RS485 connection with the control panel and open the telephone configuration tables of the control panel.

D - Configure the **TECNOCELL** menu.



E - Click on the **T4** icon and open the configuration tables of the device.

- TECNOCELL **F**
- GSM **G**
- Opzioni **H**
- Messagi **I**
- Vocabolario **J**

F - Configure the **TECNOCELL** menu.

G - Configure the **GSM** menu.

H - Configure the **Options** menu.

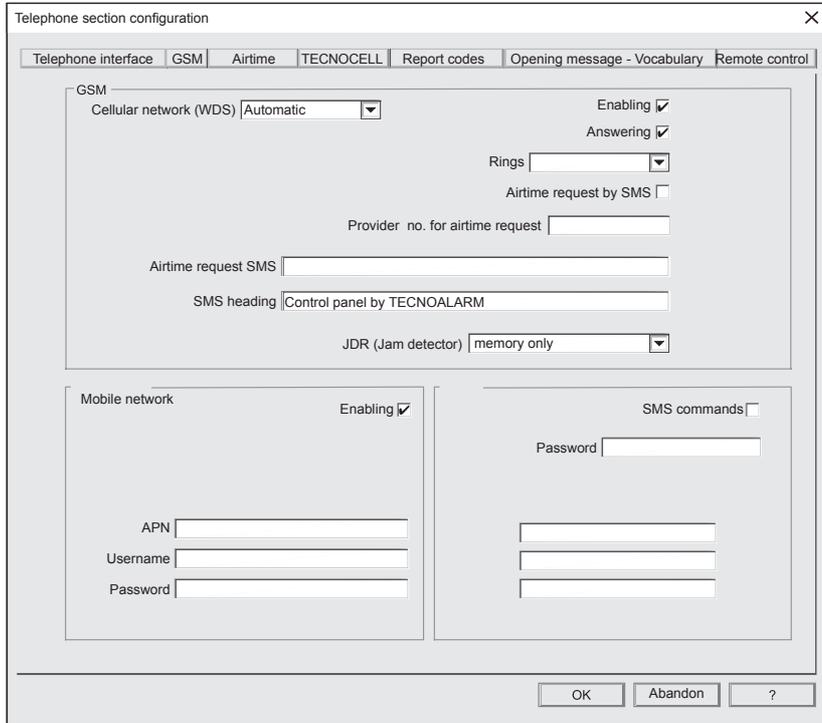
I - Configure the **Messages** menu.

J - Configure the **Vocabulary** menu.

K - Establish a USB connection with the PC and upload the configuration to the control panel.

3-3 - Configuration of telephone parameters - GSM

Open the telephone configuration tables of the control panel and then select the **GSM** menu.



N.B. For the **GSM extern** mode, click the Enabling item. Program all items for the **GSM intern** mode. In the **GSM intern** mode, which is only managed by the TP10-42, TP8-88 and TP20-440 systems, the telephone communicator is connected via the RS422 serial bus, through the interface ESP GSM LINK, with the control panel



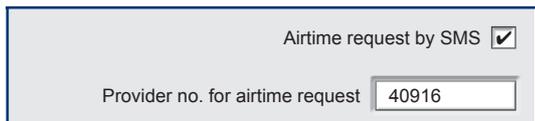
1 - Cellular network (WDS)

Select the cellular network to be used from the drop-down menu. With the options **Automatic** and **2G/4G**, the device always automatically selects the fastest network among those available. The options **2G** and **4G** force the use of the selected network.



2 - GSM

Enabling - Enable/disable the **GSM intern** mode of the device.
Answering - Enable/disable the device to answer incoming calls. With the option enabled, after the preset number of rings, the device answers the incoming call and activates the guided voice menu.
Rings - Set the number of rings (3 to 15) after which the device answers the incoming calls.



3 - Airtime request

If a prepaid SIM card is used, it is advisable to check the airtime once in a while. According to the provider, this is possible either by call or by SMS. **N.B.** The parameters for the airtime request may vary from provider to provider, ask your provider how to request the airtime.



Airtime request by SMS - Enable/disable the function.
Provider no. for airtime request - Enter the telephone number provided by the provider.
Airtime request SMS - Enter the text provided by the provider

SMS heading

4 - SMS heading

All SMS messages sent by the control panel are automatically composed according to the event. Set the header of the SMS messages to distinguish the origin/sender (max. 40 alphanumeric characters).

N.B. Do not use accents.

JDR (Jam detector)

5 - JDR (Jam detector)

With the help of this function, the control panel is able to recognize a nearby GSM jammer that can compromise the correct functioning of the telephone communicator.

Enable the function and select the type of alarm notification:

- memory only
- signal failure
- signal tamper
- disabled

Mobile network Enabling

6 - Mobile network

Enable/disable the data channel of the telephone communicator.

APN

Username

Password

The data connection is not a point-to-point connection, as for the telephones, but rather comparable to the Ethernet connection that takes place through the Internet and requires an access point (APN).

APN - Username - Password - Enter the access parameters provided by the provider.

SMS SMS commands

Password

7 - SMS

SMS commands - Enable/disable the function.

Password - Enter the password for the SMS commands (max. 8 alphanumeric characters)

White list

White list - Enter the telephone numbers from which SMS commands shall be accepted.

If the list is not completed (all addresses zero) or cancelled (blank spaces), the control panel accepts SMS commands from any telephone number.

If at least one telephone number is programmed, the control panel accepts the SMS commands only from this telephone number.

N.B. The international prefix is not considered.

The GSM menu is completed.

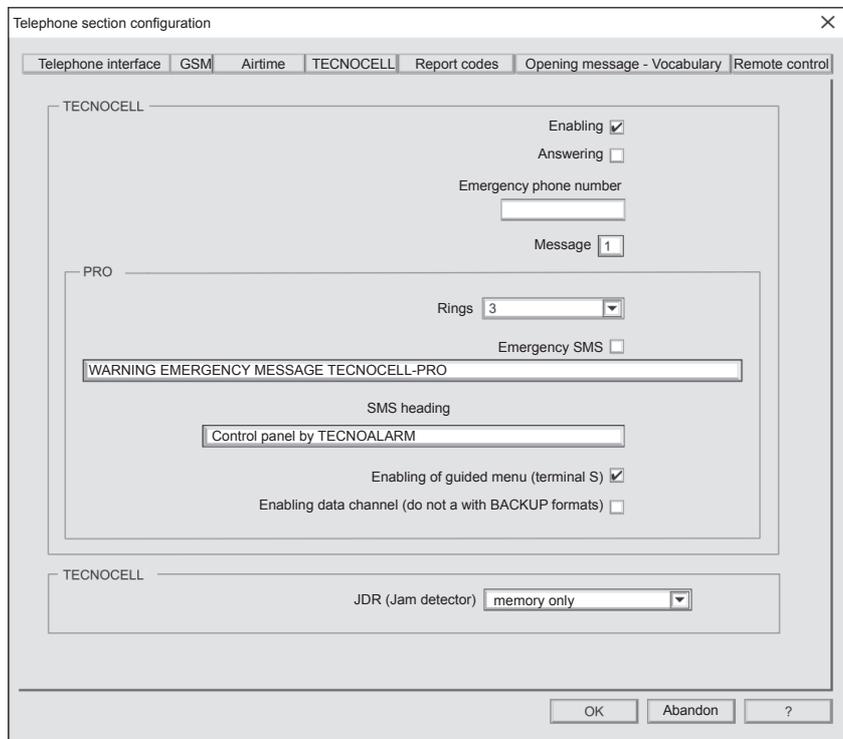
To confirm the settings click **OK**.

To cancel the settings click **Abandon**.

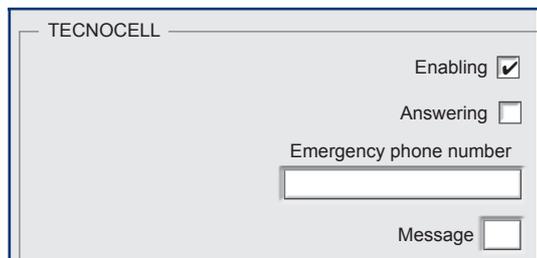
N.B. Proceed with the settings in the device specific menus of the telephone communicator (chapter 3-5).

3-4 - Configuration of telephone parameters - TECNOCELL

Open the telephone configuration tables of the control panel and then select the **TECNOCELL** menu.



N.B. For the **GSM extern** mode, click the Enabling item. Program all items for the **GSM intern** mode. In the **GSM extern** mode, the telephone communicator is connected directly via the RS485 serial bus to the control panel. The settings in this menu overrule those in the device specific menus of the telephone communicator.



1 - TECNOCELL

Enabling - Enable/disable the **GSM extern** mode of the device.

Answering - Enable/disable the device to answer incoming calls. With the option enabled, after the preset number of rings, the device answers the incoming call.

If the guided voice menu (see menu item 5) is disabled, the device sends one of the vocal system status messages. The message is repeated until the connection is closed by the user.

If the guided voice menu is enabled, the device activates the guided voice menu.

Emergency phone number - In the event of a loss of the RS485 connection with the control panel for more than 30 seconds, the telephone communicator sends a failure message to up to 4 telephone numbers. These emergency phone numbers are programmed in the device specific menu Options.

Message - Do not program (refers only to previous models).

PRO

Rings

2 - Rings

If the answering mode is enabled, set the number of rings (3 to 15) after which the device answers the incoming calls.

Emergency SMS

WARNING EMERGENCY MESSAGE TECNOCELL-PRO

3 - Emergency SMS

Enable/disable the emergency SMS.

N.B. If the emergency SMS is enabled, it is always sent instead of the voice messages. The default text of the emergency SMS can be modified.

SMS heading

Control panel by TECNOALARM

4 - SMS heading

All SMS messages sent by the control panel are dynamically composed according to the event. Set the header of the SMS messages to distinguish the origin/sender (max. 40 alphanumeric characters).

N.B. Do not use accents.

Guided voice menu (S terminal)

5 - Guided voice menu (S terminal)

Enable/disable the guided voice menu.

N.B. This function is only available, if the S wire is connected to the S terminal (voice channel) of the CPU board.

Data channel (do not use with BACKUP protocols)

6 - Data channel (do not use with BACKUP protocols)

N.B. This function is not available for the TECNOCELL 4.

TECNOCELL

JDR (Jam detector)

7 - JDR (Jam detector)

With the help of this function, the control panel is able to recognize a nearby GSM jammer that can compromise the correct functioning of the telephone communicator.

Enable the function and select the type of alarm notification:

- memory only
- signal failure
- signal tamper
- disabled

OK Annulla

The TECNOCELL menu is completed.

To confirm the settings click **OK**.

To cancel the settings click **Abandon**

N.B. Proceed with the settings in the device specific menus of the telephone communicator (chapter 3-5).

3-5 - Configuration of device specific parameters

Open the configuration tables of the telephone communicator and program the relevant menus for the selected operating mode.

Configuration tables	GSM intern	TCS	GSM extern	TCS
TECNOCELL		✓	✓	
GSM		✓	✓	
Options	✓	✓	✓	
Messages	✓	✓	✓	
Vocabulary	✓	✓	✓	

TECNOCELL

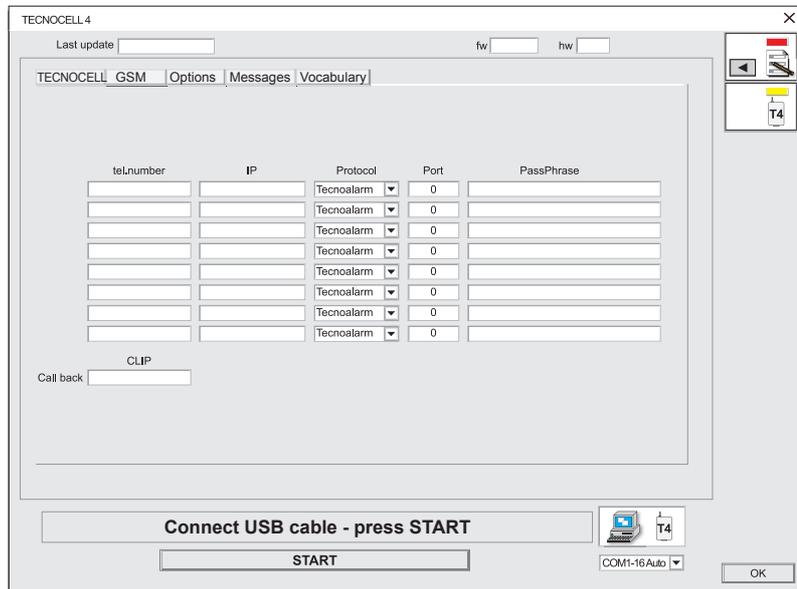
GSM

Options

Messages

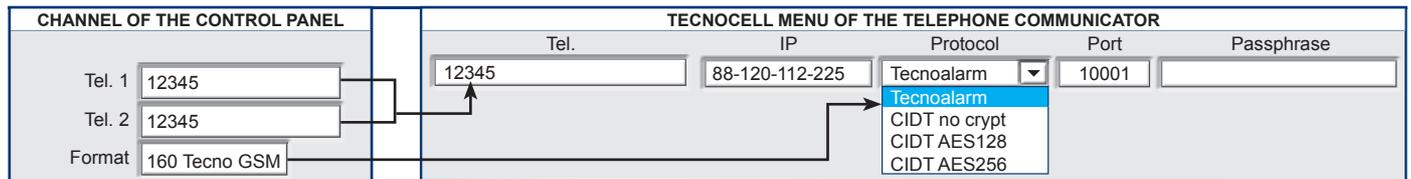
Vocabulary

The menu **TECNOCELL** allows to transcribe a total of 8 telephone numbers from the telephone configuration tables of the control panel. For each call cycle of the control panel the telephone communicator checks if the called telephone number has been transferred to this list and, if so, redirects the call to the entered IP address.



N.B. For the **GSM extern** mode, all items must be programmed, for the **GSM intern** mode, this menu must not be programmed. The 8 telephone numbers and the protocols are programmed in the telephone configuration tables of the control panel. The Tecnoalarm protocols are already encrypted (AES 128 bit), so that programming of the passphrase is not mandatory and serves only for customization.

SYNTAX RULES	
Number of characters	Max. 32
Type of characters	Alphanumeric (numbers or letters)
Case sensitive	Yes
Avoid	Special characters



1 - Telephone numbers

Enter the settings of the Channels configuration table of the control panel, as shown in the above example, in the corresponding items. Program the corresponding IP address and the port (default setting for the Tecnoalarm software 10001) of the software.

N.B. The protocol must be consistent with that programmed for the channel of the control panel. Programming of the passphrase is not mandatory for Tecnoalarm protocols.

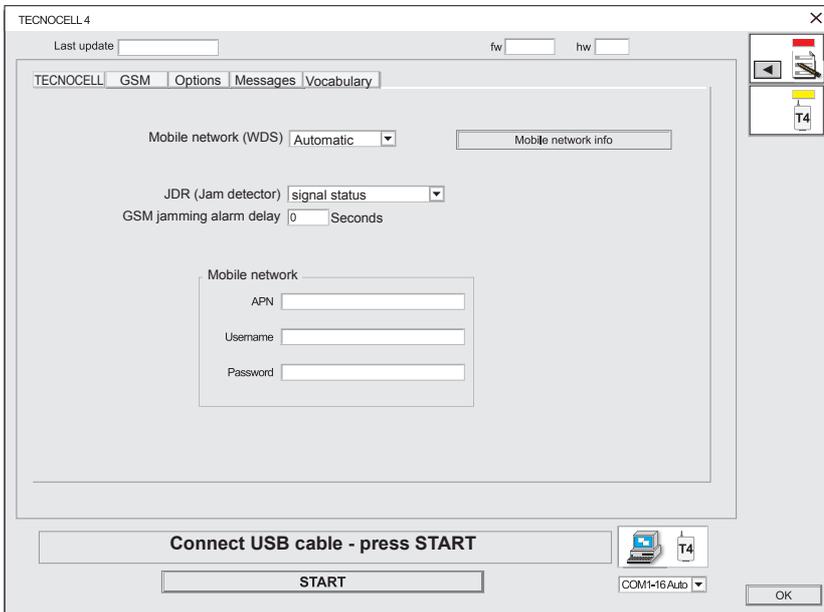
CLIP

Call back

2 - Call back (CLIP)

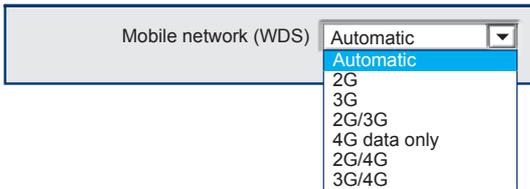
Program the telephone number for the call back request. The control panel recognizes the telephone number by means of the CLIP (Calling Line Identification Presentation) and activates the call back. If the call back number programmed on the control panel corresponds to one of the 8 numbers on the telephone communicator, the device forwards the call back to the IP address of the corresponding software.

The **GSM** menu permits the programming of the data channel of the telephone communicator, managed by the on-board 4G interface.



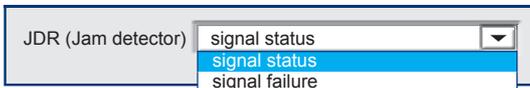
N.B. For the **GSM extern** mode, all items must be programmed, for the **GSM internal** mode, this menu must not be programmed. The Jam detector function and the corresponding signals are only supported by the control panels that manage these signals, namely TP8-28, TP8-28 GSM, TP10-42, TP8-88, TP20-440.

MOBILE NETWORK (WDS)	
Automatic	Automatic selection of the fastest cellular network
2G	2G cellular network only
3G	3G cellular network only
2G/3G	Automatic selection of the fastest cellular network
4G data only	4G cellular network only
2G/4G	Automatic selection of the 2G or 4G cellular network
3G/4G	Automatic selection of the 3G or 4G cellular network



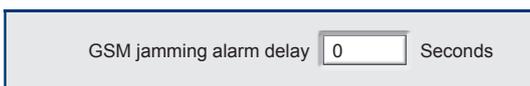
1 - Mobile network (WDS)

Select the mobile network to be used from the drop-down menu. With the options **Automatic**, **2G/3G**, **2G/4G** and **3G/4G**, the device always automatically selects the fastest network among those available. The options **2G**, **3G** and **4G** force the use of the selected network.



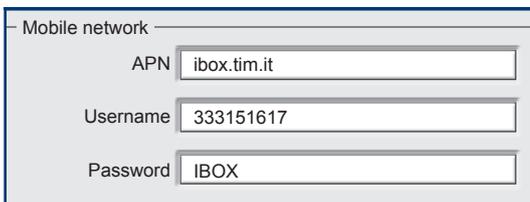
2 - JDR (Jam detector)

With the help of this function, the control panel is able to recognize a nearby GSM jammer that can compromise the correct functioning of the telephone communicator. Select the type of alarm notification, i.e. status or failure signaling.



3 - GSM jamming alarm delay

Program the delay of the GSM jamming alarm.



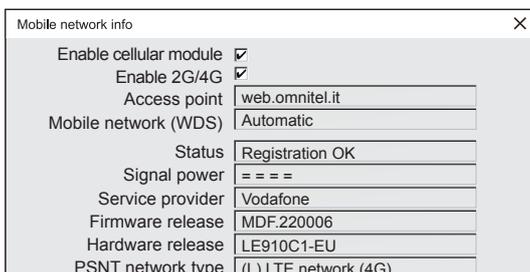
4 - Mobile network

The data connection is not a point-to-point connection, as for the telephones connection but rather comparable to the Ethernet connection that takes place through the Internet and requires an access point (APN). Enter the access parameters provided by the provider.



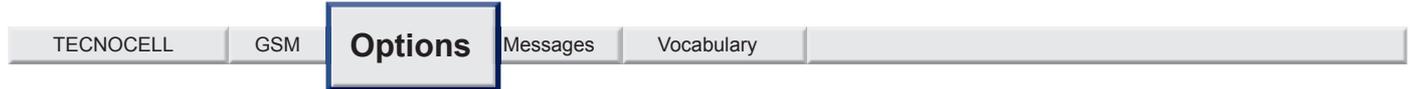
5 - Mobile network info

The Mobile network info specifies the ID and connection data of the 4G interface. Click the key to open the window.

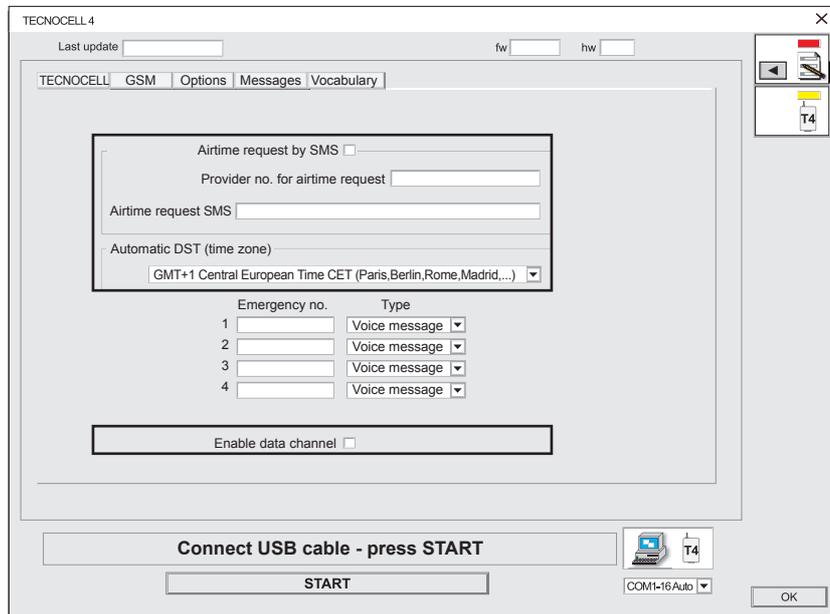


N.B. The current data are only viewed if the device is connected via USB cable to the PC.

- Status** - Shows the status of the connection.
- Signal power** - Shows the GSM signal power by means of a series of stars.
- Service provider** - Shows the name of the mobile phone service provider.
- Firmware release** - Shows the firmware release of the 4G interface.
- Hardware release** - Shows the hardware release of the 4G interface.
- PSNT network type** - Shows the type of telephone network.



The **Options** menu permits the programming of the optional functions, such as the airtime request, the automatic DST setting, the emergency message and the activation of the data channel of the on-board 3G interface



N.B. The framed parameters must only be programmed for the GSM extern operating mode.

- Airtime request by SMS

1 - Airtime request by SMS
Enable/disable the function.
- Provider no. for airtime request

2 - Provider no. for airtime request
Enter the telephone number provided by the provider.
- Airtime request SMS

3 - Airtime request SMS
Enter the text provided by the provider.
- Automatic DST (time zone)

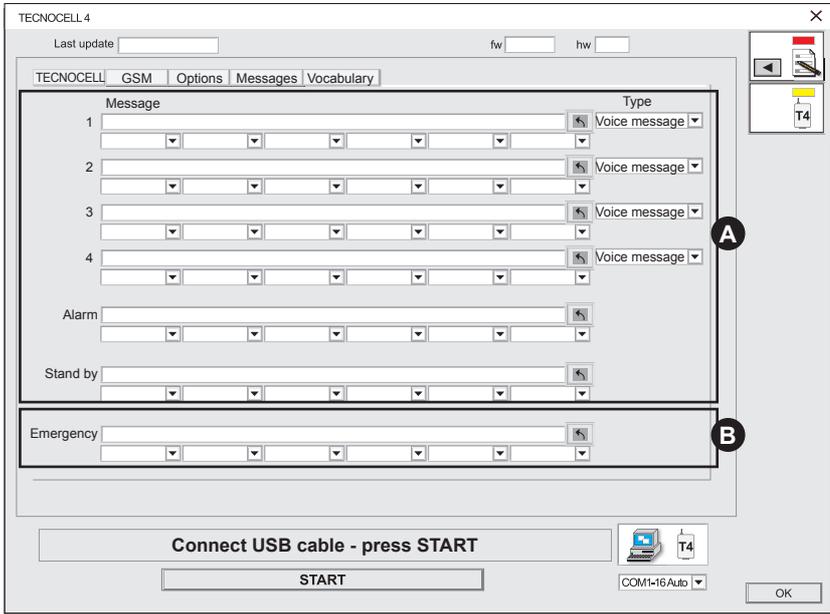
4 - Automatic DST (time zone)
Select the correct time zone to activate the automatic switching from Local Sidereal Time (LST) to Daylight Saving Time (DST) and vice versa and guarantee a correct confirmation (ACK) of the alarm notifications with C.ID over IP protocol through the Central Monitoring Stations (CMS).
- | Emergency no. | Type |
|---------------|---|
| 1 | <input type="text" value=""/>
<input type="text" value="voice message"/>
<input type="text" value="SMS"/>
<input type="text" value="SMS with ring"/> |

5 - Emergency no. - Type
The device manages up to 4 emergency phone numbers, for each of which it is possible to set the type of message. The emergency message is activated if the RS485 connection with the control panel is missing for more than 30 seconds.

N.B. A possible emergency message programmed on the control panel overrides the settings of this menu.
- Enable data channel

6 - Enable data channel
Enable/disable the data channel of the on-board 4G interface.

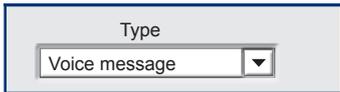
The **Messages** menu permits the programming of voice and SMS messages that can be transmitted to the control panels.



If the control panel allows it, it is possible to program 4 alarm messages and 2 system status messages (A). In addition, an emergency message (B) is available if the serial connection is lost.

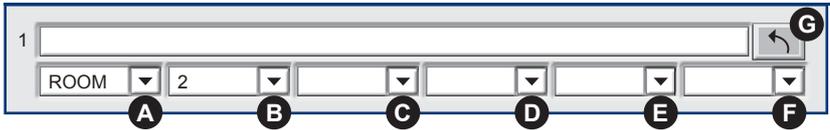
N.B. For the control panels that are equipped with the voice channel (S terminal) only the emergency message is relevant.

Mode	System	Messages
GSM intern	TP10-42 TP8-88 TP20-440	Emergency only
GSM extern	System with S terminal	Emergency only
GSM extern	System without S terminal	All



1 - Type

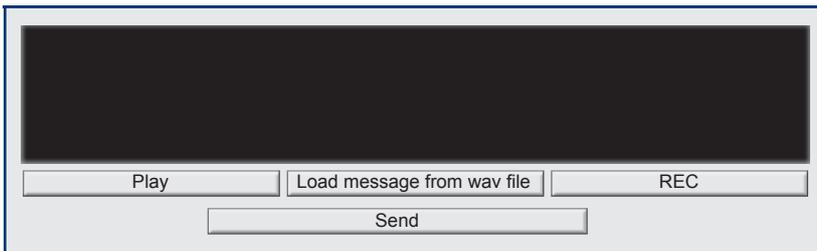
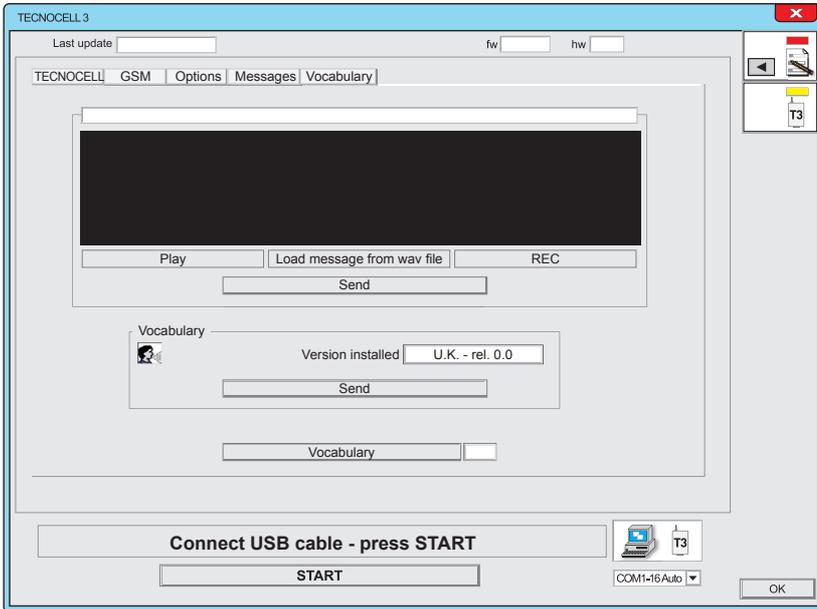
Select the type of message (voice message, SMS or SMS with ring) from the drop-down menu.



2 - Programming of the message

For the voice message select max. 6 words (A, B, C, D, E, F) from the vocabulary and click on the arrow key (G) to confirm and apply the setting. For the SMS write the text directly in the corresponding item.

The **Vocabulary** menu permits the playing, recording or loading of the opening message and the loading or updating of the vocabulary of the telephone communicator.



1 - Opening message

The opening message is a vocal introduction the control panels that are not equipped with any voice channel (S terminal) issue before every alarm notification.

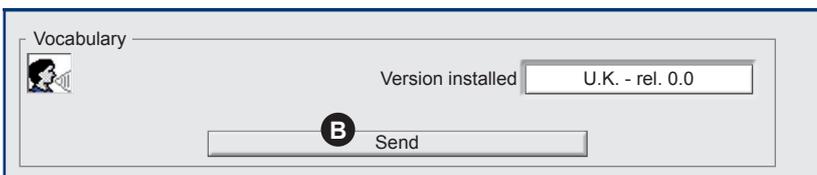
Play - Play the programmed message.

Load message from wav file - Load a wav file from a hard disk or pen drive.

REC - Record the opening message using a microphone, the sound card of the PC and the Tecnoalarm software (or sound management software).

Send - Upload the recorded opening message to the device.

FORMAT OF THE OPENING MESSAGE	
Max. recording time	16 seconds
Format	Windows PCM (.wav)
Sampling frequency	8KHz - Mono
Data format	8 Bit

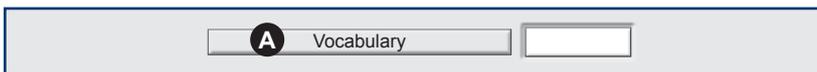


2 - Vocabulary

The item shows the language and the version of the vocabulary installed on the device.

Vocabulary - Select one of the default vocabularies or one that has been customized (A) with the help of the TECNOMSG software.

Send - Upload the selected vocabulary to the device (B).



3 - START

The configuration of the device specific menus is completed. Connect the USB cable to the telephone communicator and the PC and click on the **START** key to upload the settings to the device.

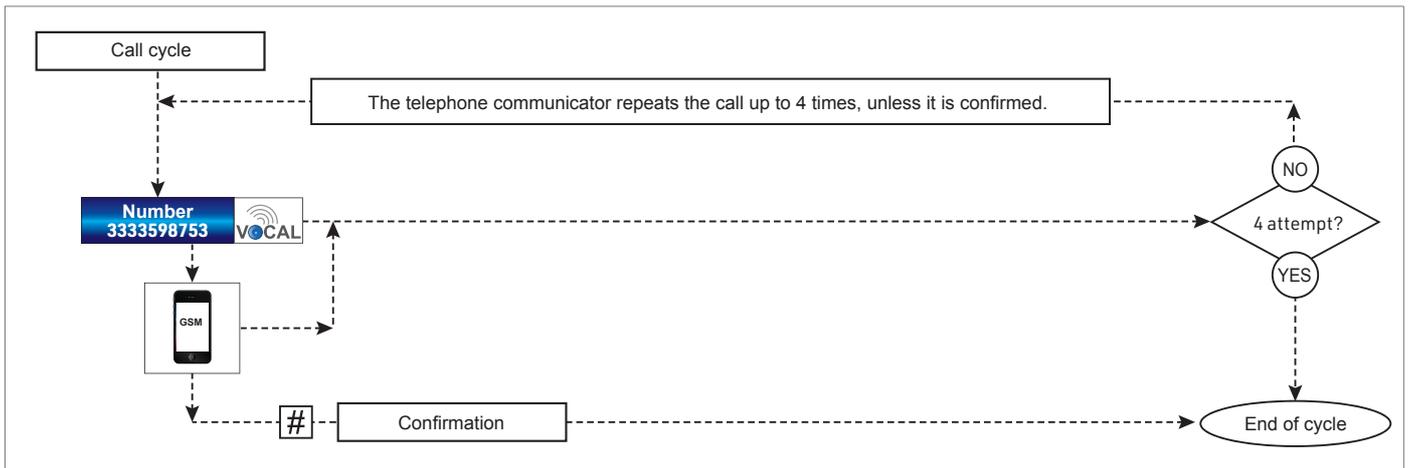
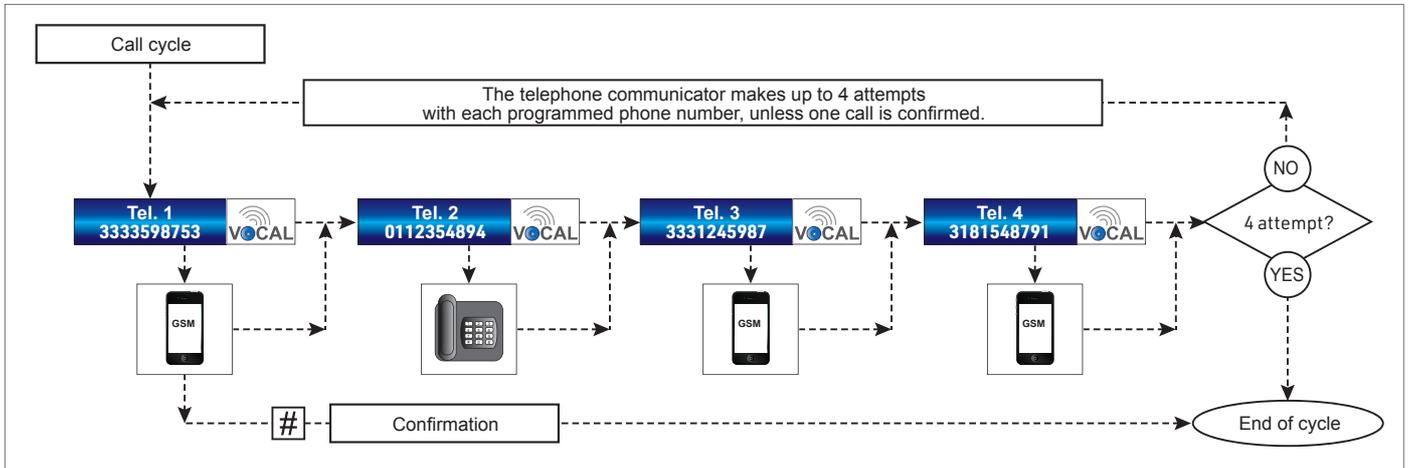
At the end of the process click on **OK** to save the setting in the archive of the Tecnoalarm software.



3-6 - Emergency message

The emergency message can be transmitted in the form of voice messages or SMS to a total of 4 recipients. The call cycle provides up to 4 attempts with each phone number, and is only interrupted if one call is confirmed.

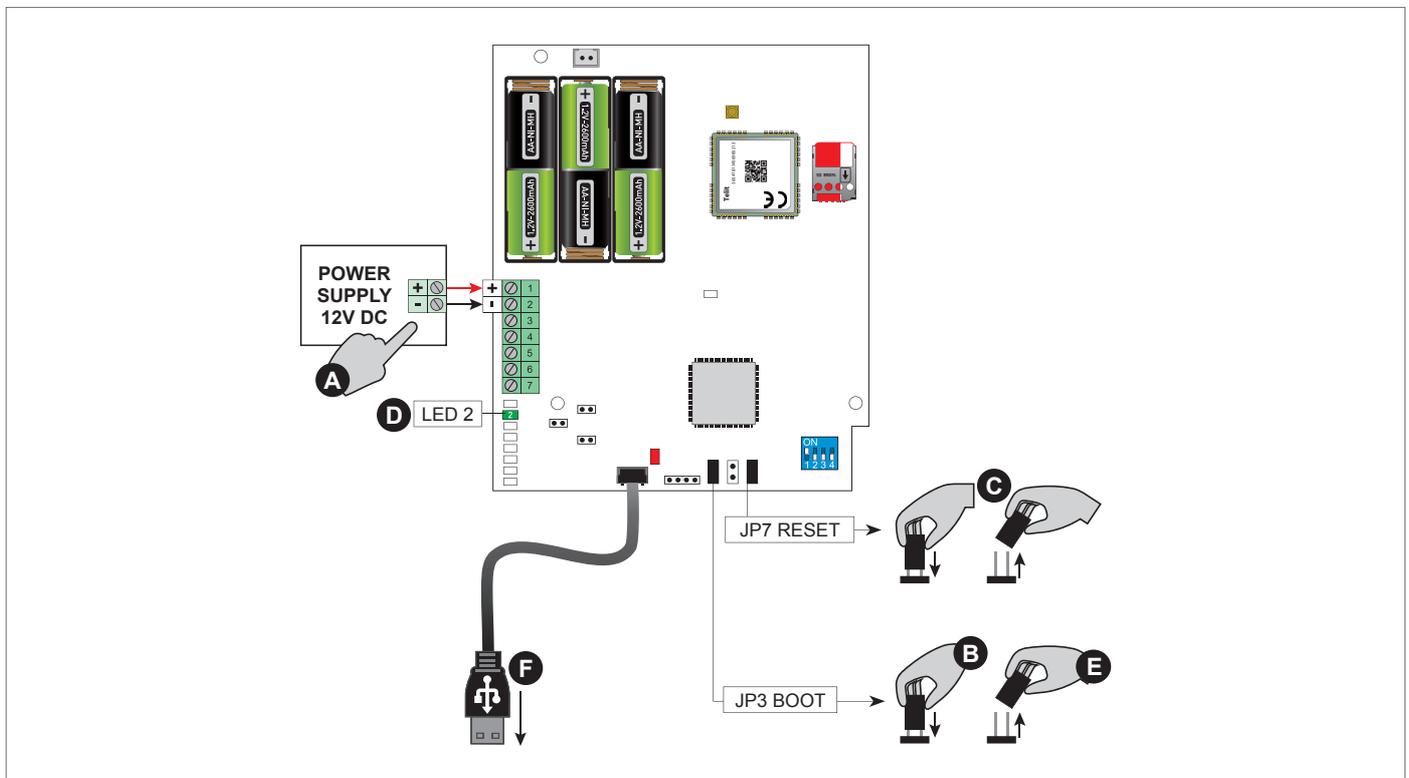
N.B. The phone numbers to whom SMS are sent are excluded from the call repetitions. After 4 attempts the telephone communicator is deactivated to preserve the battery.



4 - FIRMWARE-UPGRADE

The below procedure permits the firmware upgrade of the telephone communicator through a USB connection and the boot loader software integrated on the telephone communicator.

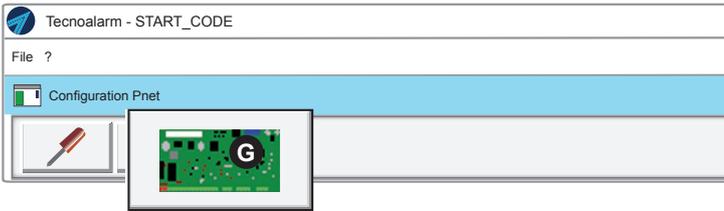
N.B. Before you proceed, ensure that you have the latest firmware file at hand. The file can be downloaded from the following website: www.tecnoalarm.com.



- A** - Connect the telephone communicator either via RS485 or RS422 serial bus or directly to a 12V DC power source.
- B** - Insert the jumper **JP3 BOOT**.
- C** - Insert the jumper **JP7 RESET** for some seconds, then remove it.
- D** - Verify that the **LED 2** flashes once a second.

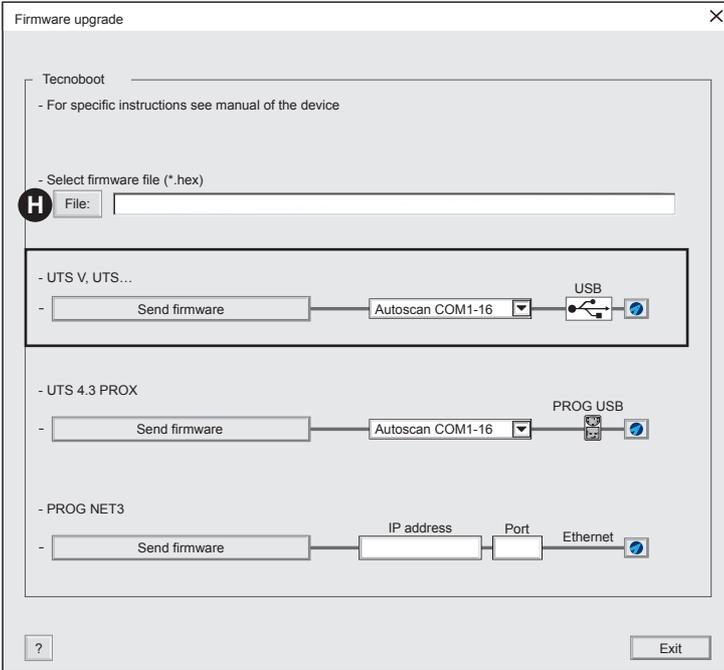
LED 2	Signaling	
	1 flash/second	Boot loader mode (firmware intact)
	2 flashes/second	Boot loader mode (firmware damaged or missing)
	3 flashes/second	Boot loader mode (firmware being loaded)

- E** - Remove the jumper **JP3 BOOT**.
- F** - Connect the USB cable to the PC and verify that the red **USB LED** is lit (otherwise check the drivers).

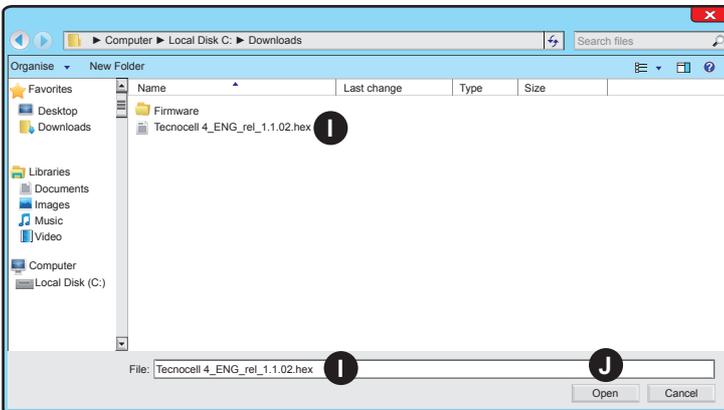


Open the Tecnoalarm software and select the control panel to whom the telephone communicator is connected. Then click the **Pnet** icon to open the Pnet configuration tables.

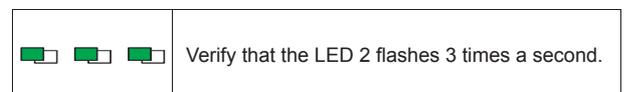
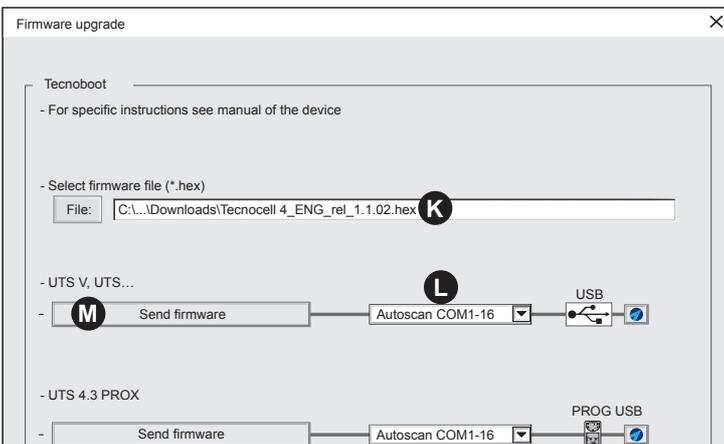
- G** - Open the **Firmware** menu.
- H** - Click on **File**.

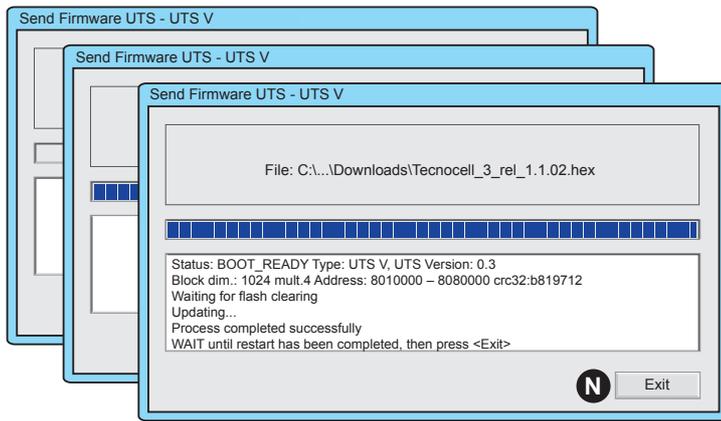


- I** - Select the firmware upgrade (*.hex).
- J** - Click on **Open**.



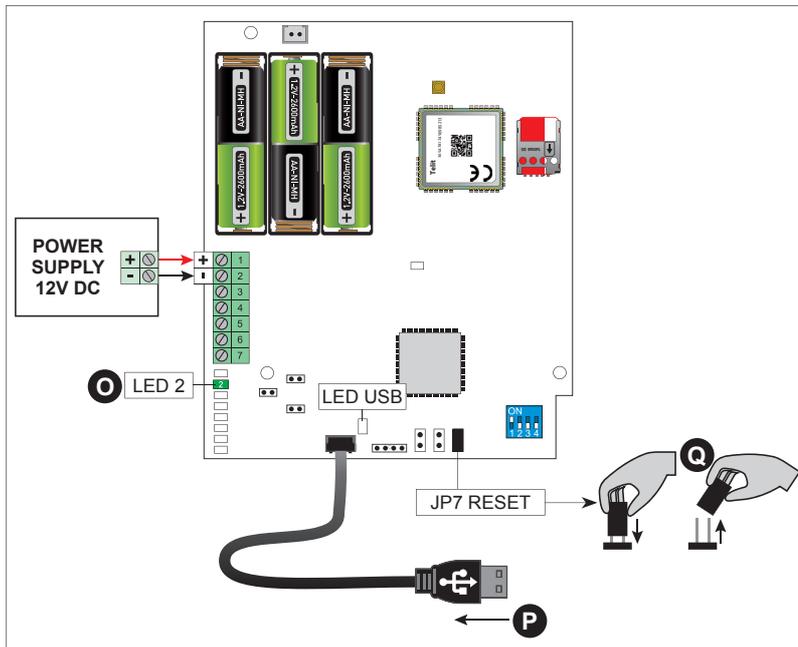
- K** - The selected firmware upgrade is viewed.
- L** - Select the **COM** port or the **Autoscan** option.
- M** - Click on **Send firmware** in the section **- UTS V, UTS...**





The upload of the firmware starts automatically. The blue bar shows the proceeding of the process.

N - At the end of the process click on **Exit**.



O - Verify that the LED 2 flashes once a second.

P - Disconnect the USB cable.

Q - Insert the jumper JP7 RESET for some seconds, then remove it.

The firmware upgrade is completed.



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