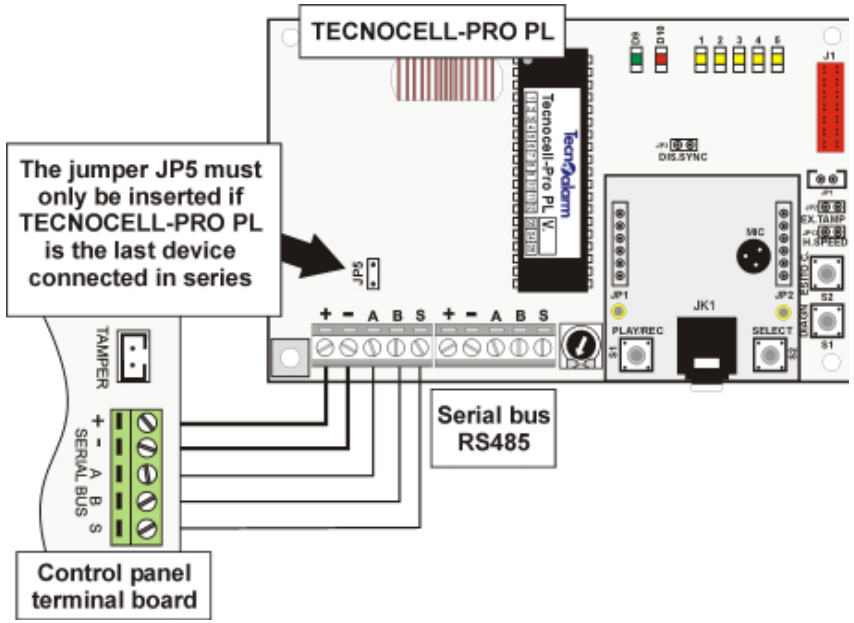
10. CONNECTION TO SERIAL BUS RS485



ATTENTION
The serial bus connectors are interchangeable. Two connectors simplify wiring if a great number of devices are to be connected via serial bus. In this case, one is used as input, the other one as output.

TECHNICAL DATA

Producer:	Tecnoalarm
Device:	**TECNOCELL-PRO PL**
Description:	GSM interface
Connection type:	Serial bus RS485
Operating voltage:	Rated 12V ⎓ Min. 8V ⎓ Max. 15V ⎓
Consumption:	50mA in stand-by 150mA during communication
Operating temperature:	+5°C...+40°C

TECNOCELL-PRO PL

TELEPHONE COMMUNICATOR WITH GSM MODULE FOR DATA, SPEECH AND SMS COMMUNICATIONS

INSTRUCTIONS FOR USE AND PROGRAMMING

Release:	0.1
Update:	February 2005
Language:	English
Firmware version:	1.6

1. DESCRIPTION

TECNOCELL-PRO PL is a GSM interface permitting the transmission of alarms and signaling via mobile telephone network.
The connection with the control panels is made via serial bus RS485 using a 4-wires cable or a 5-wires cable for those control panels handling audio signals (terminal S).
Power supply is provided by the serial bus RS485.

Communication type

TECNOCELL-PRO PL is able to perform various types of communication:

- Vocal communications supported by guided menu for connections using the audio wire (terminal S if present)
  Using this type of connection, it is possible to verify the alarms detected by the control panel, pilote the remote controls, run the RDV function etc.
- Reproduction of vocal alarm messages
  There are 4 messages with a duration of max. 10 seconds each. Every message can be associated to the various alarm conditions detected by the control panel. If necessary, it is possible to record 2 vocal messages of 20 seconds each, instead of 4 message of 10 seconds each.
- Transmission of SMS
  Permits alarm signaling by means of SMS messages.
- Reception of SMS (unless the control panel is able to handle SMS messages)
  Permits interacting with the control panel by means of the SMS messaging service (modification of programming, arming/disarming of programs, activation/ deactivation of the remote controls etc.).
- Digital communications in DTMF (using the monitoring and programming software and an analogic modem)
- Digital communications via GSM data channel at 9,600bps (using the monitoring and programming software and an ISDN modem).

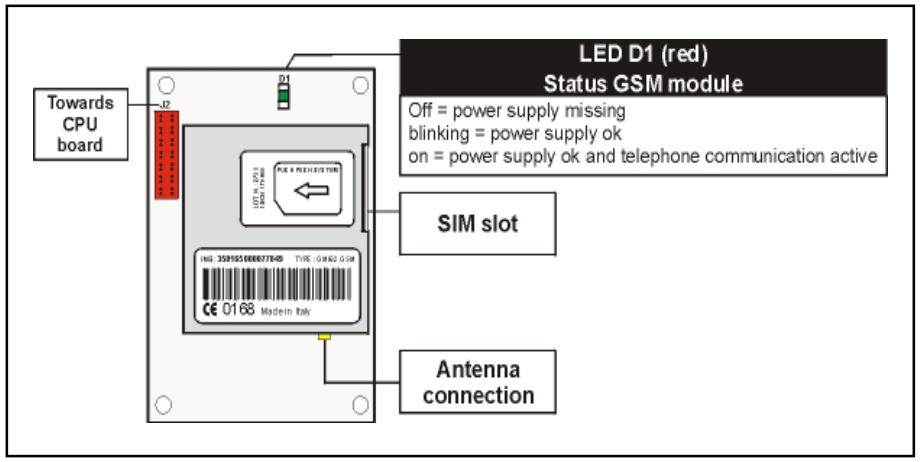
TECNOCELL-PRO PL is composed of 3 electronic boards:

- CPU board
- GSM module GM862GSM with plug-in connector for the connection with the CPU board
- Voice board VOICE (optional)

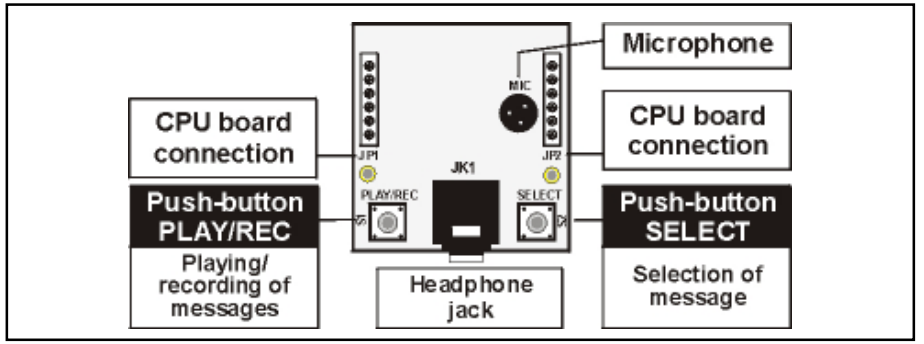
2. INSTALLATION

- Mount the antenna on top of the metal casing.
- Connect the antenna to the GSM module GM862GSM using the cable included.
- Select the RS485 bus speed using the jumper JP12 on the CPU board
  » JP12 removed = standard bus (9,600bps)
  » JP12 inserted = quick bus (38,400bps)
- Insert the SIM card into the slot on the GSM module.
- Insert the jumper JP2 on the CPU board temporarily to exclude tamper protection.
- Connect the battery to the prewired faston connectors on the CPU board.
- **Verify initiation of TECNOCELL-PRO PL**
  If the installation has been completed correctly, the green LED D9 on the CPU board is lit indicating the presence of power supply.
- **Verify initiation of the GSM module**
  The red LED D1 on the GSM module is blinking indicating its initiation.

9.3 GSM MODULE GM862GSM

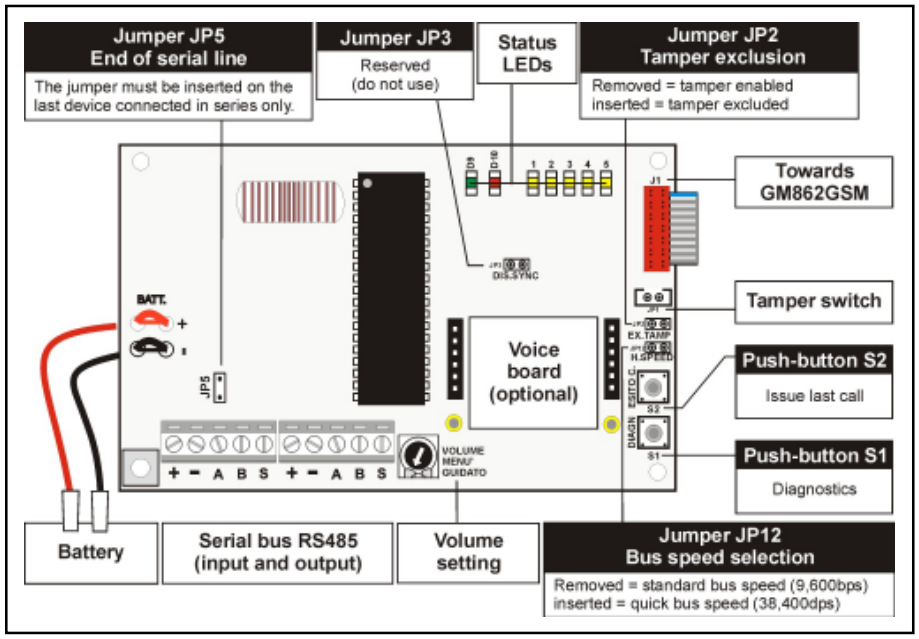


9.4 VOICE BOARD VOICE (OPTIONAL)



ATTENTION
The telephone section of TECNOCELL-PRO PL is not subject to any approval as it uses a mobile phone terminal (GM862GSM) that is approved itself.
For major functioning safety it is recommended to use exclusively contract and no prepaid SIM cards. The GSM interface does not provide for any credit signaling.

9.2 CPU BOARD



9.2.1 LED SIGNALING

NORMAL FUNCTIONING			
LED D9 (green) Status power supply via RS485		LED 1 2 3 4 5 (yellow) GSM signal power	
On	power supply ok	all yellow LEDs blinking	GSM recording
off	power supply missing	LED 1 (yellow) blinking	GSM module does not respond to the commands
		LED 2 (yellow) blinking	SIM reading error or missing
LED D10 (red) Status TECNOCELL-PRO		LED 1 on	insufficient signal
		LED 1, 2 on	bad signal
		LED 1, 2, 3 on	reasonable signal
		LED 1, 2, 3, 4 on	good signal
		LED 1, 2, 3, 4, 5 on	optimum signal
On	communication active		
off	GSM recording failed		
blinking	GSM recording ok		

PUSH-BUTTON S1 press for bad functioning diagnostics	
LED 1 (yellow) blinking	tamper
LED 2 (yellow) blinking	low battery
LED 3 (yellow) blinking	communication interrupted
LED 4 (yellow) blinking	no SMS stored in the SIM

PUSH-BUTTON S2 press for issue of last call	
LED D10 (red) blinking	GSM data call executed
LED 1 (yellow) blinking	connection failed
LED 2 (yellow) blinking	no data received
LED 3 (yellow) blinking	no data transmitted
LED 4 (yellow) blinking	incorrect data received
LED 5 (yellow) blinking	same data received repeatedly

- **Verify registration to the GSM network**
  After approx. 10 seconds, verify that the red LED D10 on the CPU board is blinking indicating that the device has successfully registered to the GSM network.
- **Check GSM signal power**
  Verify that at least two yellow LEDs (1 and 2) on the CPU board are lit.
  The LEDs 1 to 5 indicate the quality of the GSM signal as follows:
  - » LED 1 on = insufficient
  - » LED 1, 2 on = bad
  - » LED 1, 2, 3 on = reasonable
  - » LED 1, 2, 3, 4 on = good
  - » LED 1, 2, 3, 4, 5 on = optimum
- Install TECNOCELL-PRO PL where signal power is at least sufficient (LED 1 and 2 lit) in order to ensure correct functioning of the device.
- Use one of the RS485 connectors for the connection of TECNOCELL-PRO PL to the control panel. The connectors are interchangeable and are to simplify wiring if a great number of devices are to be connected via serial bus. In this case, one connector is used as input, the other one as output.
- After a couple of minutes, verify correct installation and smooth functioning by pressing the push-button S1 - DIAGNOSTIC on the CPU board. If everything is working correctly, all yellow LEDs are off.

ATTENTION
Do not install TECNOCELL-PRO PL in shielded rooms or inside metal containers.
It is recommended to effect at least one test call especially if the interface is used for digital signaling in areas where GSM coverage may affect the outcome of the communication.

2.1 EXTRACTION AND REPLACEMENT OF THE SIM CARD

In case replacement of the SIM card is necessary, disconnect the GSM module from power supply. To avoid disconnection of the entire interface TECNOCELL-PRO PL and to disconnect merely the GSM module GM862GSM, press contemporaneously the push-buttons S1 and S2 on the CPU board.
Wait until the red LED D1 on the GSM module is switched off and procede with the replacement of the SIM card.
Prior to extracting the SIM card, make sure that the GSM module is really off.
Once you have inserted the new SIM card, press either the push-button S1 or S2 to feed the GSM module.
Verify that the red LED D1 on the GSM module is blinking.

3. VOCAL MESSAGE RECORDING/PLAYING

Vocal message recording is only possible if the optional voice board is connected. The voice board permits recording of 4 vocal messages of max. 10 seconds each or 2 vocal messages of 20 seconds each.

ATTENTION
For recording/playing of vocal messages the control panel must be put into the maintenance mode.

Selection of the message

- To select the message to be recorded/played, press the push-button SELECT on the voice board.
- Everytime you press the push-button the message selected is viewed through the LEDs 1 to 4 on the CPU board (LED 1 = message 1, LED 2 = message 2, LED 3 = message 3, LED 4 = message 4).

Recording

To start recording of the message selected, press the push-button PLAY/REC and wait for the LED D10 on the CPU board to start blinking.
Speak loudly and clearly into the microphone while you hold down the push-button PLAY/REC until recording is completed.
Recording is stopped automatically after 10 seconds (max. duration of every message), or if you release the bush-button PLAY/REC.

Playing

Insert the headphone into the proper plug on the voice board. To play the message selected, press the push-button PLAY/REC once.
The red LED D10 is lit and the the message is reproduced.
The reproduction is stopped automatically at the end of the message.

3.1 ASSOCIATION OF VOCAL MESSAGES TO THE ALARMS

The control panel can associate the vocal messages 1 to 4 to any alarm condition. The messages 3 and 4 can also be used for system status signaling during incoming calls:

- vocal message 3: no alarm
- vocal message 4: alarm memory

3.2 CONFIGURATION OF VOCAL MESSAGE LENGTH

The GSM interface is configurated by default for recording 4 vocal messages of 10 seconds each. It is possible to set the message length with 20 seconds permitting to record only 2 messages.

Configuration of 2 messages of 20 seconds each

Procede as follows:

- Put the control panel into the maintenance mode
- Send an SMS message to the telephone number associated to the SIM card of the GSM interface observing the following synthax:
  TCP VOICE 2
  where: 2 = number of vocal messages
- After sending the programming SMS, wait for the following confirmation SMS to arrive:
  VOICE 2
  The SMS signals that the GSM interface has been successfully programmed for recording of 2 vocal messages of 20 seconds each.

Configuration of 4 vocal messages of 10 seconds each

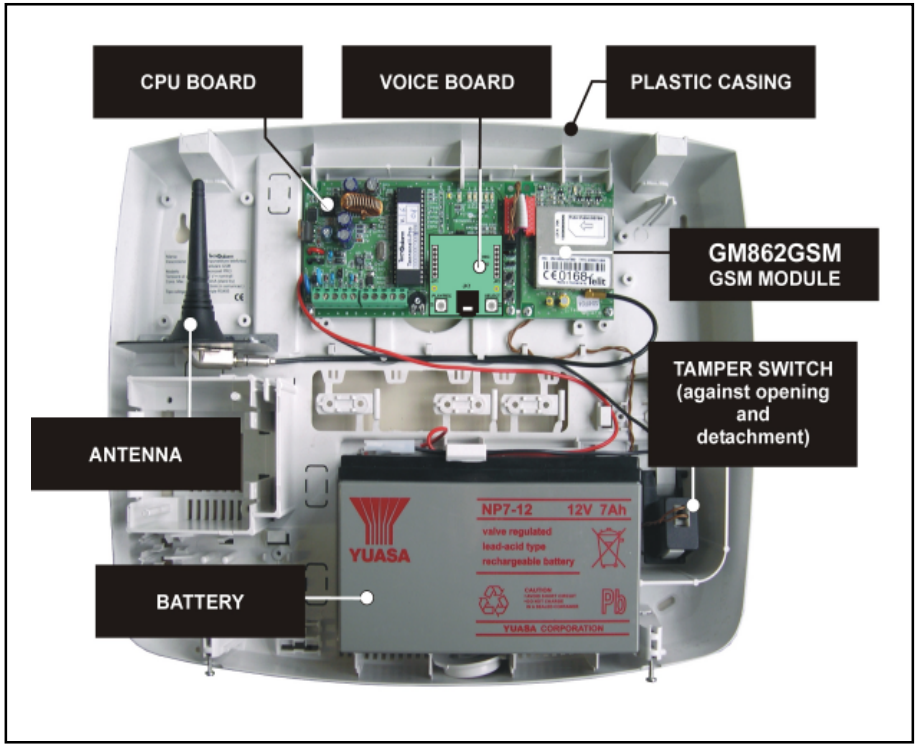
To return to the initial configuration (4 messages of 10 seconds each), procede like above, but observe the following synthax:

TCP VOICE 4
where: 4 = number of vocal messages

ATTENTION
In case of replacement of the SIM card, the message length is reset with the default settings.

9. HARDWARE

9.1 COMPOSITION



6.2 TRANSMISSION OF EMERGENCY SMS MESSAGES

Upon initiation of the GSM interface, the new generation control panels transmit the following parameters:

- the emergency telephone number
- the text of the SMS message, and
- the type of SMS message (normal or with warning signal).

If the communication with the control panel is interrupted for more than 30 seconds, TECNOCELL-PRO PL transmits the emergency SMS message to the telephone number programmed.
For those control panels that do not permit for programming of the emergency message, program the SMS message 7 on the SIM card (see chapter 4 - Programming of alarm SMS on the SIM).

7. TROUBLE SHOOTING (SELF-DIAGNOSIS)

For trouble shooting press and hold down the push-button S1
No trouble found
If all the LEDs remain off, the GSM interface is working correctly.
Trouble found

- yellow LED 1 blinking = tamper
- yellow LED 2 blinking = low battery
- yellow LED 3 blinking = communication with control panel interrupted
- yellow LED 4 blinking = no SMS message stored in the SIM card

Trouble signaling in stand-by
If TECNOCELL-PRO PL is in stand-by, trouble is signaled as follows:

- all yellow LEDs blinking = GSM recording
- yellow LED 1 blinking = GSM module does not respond to the commands
- yellow LED 2 blinking = SIM reading error or missing

8. CHECK ISSUE OF LAST CALL

To check the issue of the last voice, data or SMS communication press and hold down the push-button S2.
Successful call
If all the LEDs remain off, the last communication has been completed correctly.
Unsuccessful call

- red LED D10 blinking = GSM data call executed
- yellow LED 1 blinking = connection failed
- yellow LED 2 blinking = no data received
- yellow LED 3 blinking = no data transmitted
- yellow LED 4 blinking = incorrect data received
- yellow LED 5 blinking = same data received repeatedly

4. PROGRAMMING OF ALARM SMS ON THE SIM

The interface distinguishes two types of SMS messages:

- Static SMS: Static SMS are programmed and stored in the SIM card during the installation of TECNOCELL-PRO PL
  The SMS are freely associable to system status.
- Dynamic SMS: (for new generation control panels that are able to handle them)
  Dynamic SMS are generated by the control panel upon alarm release

ATTENTION
The SIM can contain a maximum of 7 SMS.
Prior to writing, verifying and cancelling of any SMS message in or from the SIM card, the control panel must absolutely be put into the maintenance mode.

4.1 WRITING STATIC SMS

Procede as follows:

- ➪ Put the control panel into the maintenance mode
- ➪ Send an SMS message to the telephone number associated to the SIM card located in the GSM interface using the following synthax:
  TCP SMS <nt> <text>
  where: n = number of SMS (from 1 to 7)
  t = type of SMS (N = normal; S = with warning signal)
  text = the desired alarm message
  Example:
  TCP SMS 1N Alarm living room appartment Smith

ATTENTION
S-type SMS messages provide for a phone call prior to the transmission of the message in order to call the addressee's attention to the alarm message that is transmitted.

- ➪ If the SMS message has been transmitted successfully and the synthax is correct an SMS confirming the actual programming is returned by the control panel:
  SMS 1000000
  (= programming ok: message 1 has been stored in the SIM card)

4.2 CHECKING STATIC SMS

To check the SMS messages stored in the SIM, procede as follows:

- ➪ Put the control panel into the maintenance mode
- ➪ Send the following SMS message to the telephone number associated to the SIM card located in the GSM interface:
  TCP SMS
- ➪ As a response, you will receive an SMS message indicating the messages programmed:
  SMS 1234007
  (= the messages 1, 2, 3, 4 and 7 are stored in the SIM card)

4.3 CANCELLING STATIC SMS

It is not possible to modify SMS messages stored in the SIM card. For any modification you have to cancel them all and rewrite them proceding as follows:

- Put the control panel into the maintenance mode
- Send the following SMS message to the telephone number associated to the SIM card located in the GSM interface:
  TCP SMS CANC
- For confirmation, you will receive the following SMS message:
  SMS 0000000
  (= no message stored in the SIM card)
- Procede as described in paragraph 4.1

4.4 ASSOCIATION OF SMS MESSAGES TO THE ALARMS

The 7 possible static SMS messages stored in the SIM card can be used in the following occasions:

- SMS 1 to 4: associated to the alarm conditions detected by the control panel
- SMS 5 to 6: associated to system status and sent in case of incoming call
  - » SMS 5: no alarm
  - » SMS 6: alarm memory
- SMS 7: programmed as emergency message and sent in case of interruption of the communication via serial bus RS485

ATTENTION
In case of replacement of the SIM card, the SMS messages must be reprogrammed. If you forget to do so, no SMS will be sent in case of alarm, even if the control panel is programmed appropriately.

5.4.3 TRANSMISSION OF SYSTEM STATUS SMS MESSAGES

For the transmission of system status by means of SMS messages:

- Program the SMS messages 5 and 6 on the SIM
  (see chapter 4 - Programming of alarm SMS on the SIM)
- Dial the telephone number associated to the SIM in the TECNOCELL-PRO PL and wait the first ring out.
- TECNOCELL-PRO PL memorizes the number calling, checks if the SMS messages 5 and 6 are programmed and if the system is enabled for incoming calls. If so, the number is recalled and the corresponding system status message is transmitted:
  - » SMS 5 (control panel in stand-by - no alarm)
  - » SMS 6 (alarm memory)

6. EMERGENCY CALL

If the communication between the control panel and TECNOCELL-PRO PL is interrupted for more than 30 seconds, TECNOCELL-PRO PL makes an emergency call to signal the possible disconnection of the serial bus RS485.
Upon restoral of communication with the control panel, it takes a few minutes before TECNOCELL-PRO PL recognizes that the connection has been re-established. This is to avoid continuous calls in case of bad RS485 bus wiring.
The emergency call is not executed if the control panel is in the maintenance mode.

ATTENTION
The emergency call with transmission of voice/SMS messages is only executed if the corresponding parameters have been programmed on the control panel (emergency phone number, number of the voice message or the text and the type of the SMS message to be transmitted).

6.1 TRANSMISSION OF EMERGENCY VOICE MESSAGES

Upon initiation of the GSM interface, the control panel transmit the following parameters:

- the emergency telephone number
- the emergency message (1 to 4)

If the communication with the control panel is interrupted for more than 30 seconds, TECNOCELL-PRO PL makes the emergency call.
Upon the user's answering (unhooking) the emergency message is reproduced.
As soon as the GSM interface receives the interrupt tone (* or #), the communication is cut-off. Otherwise, the message is repeated for approx. 1 minute.

ATTENTION
If the line is busy or there is no answer, the emergency call is repeated max. 3 times. The first trial is executed immediately, the others after 60 seconds each.
It is recommended to chose service providers that signal the user's unhooking. If the provider does not offer this service, you would not know if the user has actually unhooked the receiver and heard the emergency message and the GSM interface will effect only one call, even if the user has not answered.

This functioning mode can be used alternatively to the 4 vocal messages of the voice board.
The control panel signals the telephone number to be called and the message to be transmitted (1 to 4).
TECNOCELL-PRO PL behaves as follows:

- If the relative SMS message (corresponding to the message number indicated) is stored on the SIM card, instead of establishing a voice communication and transmitting the voice message corresponding to the message number indicated, the GSM interface sends the SMS message.
- If there is no SMS message corresponding to the message number indicated stored on the SIM card, the GSM interface establishes a voice communication and transmits the relative voice message.

In this way, the user can chose whether to use only SMS messages or use both SMS and voice messages and program either all 4 SMS messages or merely the ones he wants to be transmitted.

ATTENTION
Since the transmission of static SMS messages does not provide for any confirmation by the user, you may not set channels programmed for the transmission of vocal messages with confirmation request.

5.4.2 TRANSMISSION OF DYNAMIC SMS MESSAGES

The new generation control panels are able to generate SMS messages on their own upon alarm release.
The control panel signals:

- the telephone number to be dialled
- the text of the SMS message, and
- the type of SMS message (normal or with warning signal).

As soon as the communication has been established, the red LED D10 on the CPU board of TECNOCELL-PRO PL, that is normally blinking, becomes lit. It remains lit for the entire communication.

SMS with warning signal

The GSM interface distinguishes two types of SMS messages:

- normal
- with warning signal

The SMS messages with warning signal generate a phone call prior to the transmission of the message in order to call the addressee's attention to the alarm message that is near to transmission. The aim is to get the user to read the alarm message as soon as possible.

- TECNOCELL-PRO PL dials the telephone number indicated and waits for the user to unhook the line or abort the call.
- As soon as TECNOCELL-PRO PL receives the online or abort signal, the SMS message is transmitted.

ATTENTION
The SMS messages with warning signal are available only if the service provider signals the user's unhooking.

5. ALARM CALLS

5.1 VOCAL CALLS

For the transmission of vocal alarm messages the voice board VOICE is required.

5.1.1 TRANSMISSION OF VOCAL ALARM MESSAGES

The control panel signals the telephone number to be called and the vocal message to be transmitted. As soon as TECNOCELL-PRO PL receives the call command, the LED D10 on the CPU board, that is usually blinking, becomes lit. It remains lit for the entire call. The transmission of the vocal message is started as soon as the line has been unhooked (subscriber has answered the phone).

Communicator block

If during the reproduction of the message the DTMF tones for * or # are received, the reproduction of the message is interrupted and the communication is cut off. The GSM interface returns to stand-by and reports communicator block to the control panel.

Non-appearance of communicator block

If no similar command is received, the message is repeated for one minute, after that the communication is automatically cut off and the non-appearance of the communicator block is reported to the control panel.

Repetitions of call

The control panel can be programmed so as to make another attempt in case of non-appearance of the communicator block, or in case of trouble during the communication (line busy, GSM signal missing, no answer etc.).

ATTENTION
It is recommended to use service providers that signal when the subscriber unhooks the receiver. If you use providers that do not provide this service, the reproduction of the message is started immediately after dialling. In this way, it is not possible to distinguish whether the subscriber has actually unhooked or not.

5.1.2 RECEPTION OF INCOMING CALLS AND REPRODUCTION OF THE SYSTEM STATUS MESSAGES

If TECNOCELL-PRO PL receives a call (Ring), the LED D10 on the CPU board, that is usually blinking, becomes lit. It remains lit for the entire call.
After a programmable number of rings, TECNOCELL-PRO PL answers to the call sending out one beep to confirm the online status of an automatic communicator.
The reproduction of the vocal message is started after a few seconds:

- vocal message 3: no alarm
- vocal message 4: alarm memory or communication with the control panel lost via serial bus RS485

If there is no command for communicator block received (* or #), the message is repeated for one minute.
After one minute, TECNOCELL-PRO PL automatically cuts off the communication.

5.2 VOCAL CALLS SUPPORTED BY GUIDED MENU

The guided menu is available if TECNOCELL-PRO PL is connected via serial bus RS485 to a control panel that handles the audio signal (S wire), e.g. TP8-64 or TP16-256.
The voice board VOICE is **not** needed.

5.2.1 TRANSMISSION OF VOCAL ALARM MESSAGES SUPPORTED BY GUIDED MENU

The control panel signals the telephone number to be called and transmits the request for using the guided menu.
As soon as TECNOCELL-PRO PL receives the call command, the LED D10 on the CPU board, that is usually blinking, becomes lit. It remains lit for the entire call.
The transmission of the vocal message is started as soon as the line has been unhooked (subscriber has answered the phone).

Communicator block

If during the reproduction of the message the DTMF tones for * or # are received, the reproduction of the message is interrupted and the communication is cut off. The GSM interface returns to stand-by and reports communicator block to the control panel.

Non-appearance of communicator block

If no similar command is received, the message is repeated for one minute, after that the communication is automatically cut off and the non-appearance of the communicator block is reported to the control panel.

ATTENTION
The difference between the transmission of guided menu based messages and standard vocal messages consists in the fact that the first is produced by the control panel using the vocabulary. This is the reason why this kind of message usually provides major information compared with the one programmed onboard the GSM interface.

5.2.2 VOLUME SETTING

The volume during the reproduction of guided menu based vocal messages can be set with the help of the relative trimmer VOLUME MENU GUIDATO located on the CPU board:

- Turn clockwise: volume up
- Turn anticlockwise: volume down

5.2.3 RECEPTION OF INCOMING CALLS AND REPRODUCTION OF THE SYSTEM STATUS MESSAGES SUPPORTED BY GUIDED MENU

If you call TECNOCELL-PRO PL, you may interact with the control panel through the guided menu.
It is possible to carry out the same operations as via telephone line:

- Verification of the alarms detected by the control panel
- Piloting of remote controls
- Run the RDV function etc.

The only function that is not available is remote programming of the opening message.
If TECNOCELL-PRO PL receives a call (Ring), the LED D10 on the CPU board, that is usually blinking, becomes lit. It remains lit for the entire call.
After a programmable number of rings, TECNOCELL-PRO PL answers to the call sending out one beep to confirm the online status of an automatic communicator.

Entering of the user access code

After the beep, the user has to identify himself by entering the proper user code allowing access to the guided menu. If the user code entered is recognized by the control panel and if it is enabled for remote access, the control panel starts to list the options of the guided menu. Using the keys on the telephone dial, it is possible to navigate through the menu in the same way as during a conversation via telephone line (see the relative technical documentation of the control panel).

5.3 DIGITAL CALLS

The control panel signals the telephone number to be called and the digital format to be used:

- TECNOALARM for Tecnoalarm monitoring stations
- CONTACT ID for non-Tecnoalarm monitoring stations

If TECNOCELL-PRO PL receives a call (Ring), the LED D10 on the CPU board, that is usually blinking, becomes lit. It remains lit for the entire call.
When the modem answers, TECNOCELL-PRO PL awaits the reception of a 2100Hz tone (or the handshake tone for the format CONTACT ID) prior to initiating the data transmission/reception.

5.3.1 DIGITAL COMMUNICATIONS USING DTMF TONES

The digital communication with DTMF tones using an analogic modem TECNOMODEM permits the transmission of alarms, the download of the events (log) and remote programming of the control panel (TP4/R, TP6/R, TP12/R, TP14/R).

ATTENTION
Relevant for TP8-64, TP16-256, DIALOG 128
The above control panels do not permit remote programming during a digital data transmission using DTMF tones (with analogic modem).
Relevant for DIALOG 128
DIALOG 128 does not permit incoming calls effected by TECNOCELL-PRO PL neither using the DTMF format nor any other digital format.

5.3.2 DIGITAL COMMUNICATIONS VIA GSM DATA CHANNEL

Por digital communications using the GSM data channel, connect the PC with the Tecnoalarm monitoring software to the ISDN modem TECNOMODEM ISDN.
For handling the incoming calls via GSM data channel it is necessary to ask your service provider for the data number associated to the SIM card.
Digital communications via GSM data channel are handled by any control panel.
The data channel, as well as guaranteeing digital connection in areas of weak GSM signal, permits to reduce the time and cost expenses for calling.

ATTENTION
For communications via GSM data channel chose only service providers that permit communications between mobile terminals and digital ISDN lines.

5.4 TRANSMISSION OF SMS MESSAGES

The GSM interface distinguishes two types of SMS messages:

- Static SMS: Static SMS are programmed and stored in the SIM card during the installation of TECNOCELL-PRO PL
  The SMS are freely associable to system status.
- Dynamic SMS: (for new generation control panels that are able to handle them)
  Dynamic SMS are generated by the control panel upon alarm release

5.4.1 TRANSMISSION OF STATIC SMS MESSAGES

Any control panel is able to handle this type of SMS messages. The messages are programmed on the SIM card (see chapter 4 - Programming of alarm SMS on the SIM).