GSM
SPEECH DIALLER
CT952 GSM

USE AND INSTALLATION MANUAL

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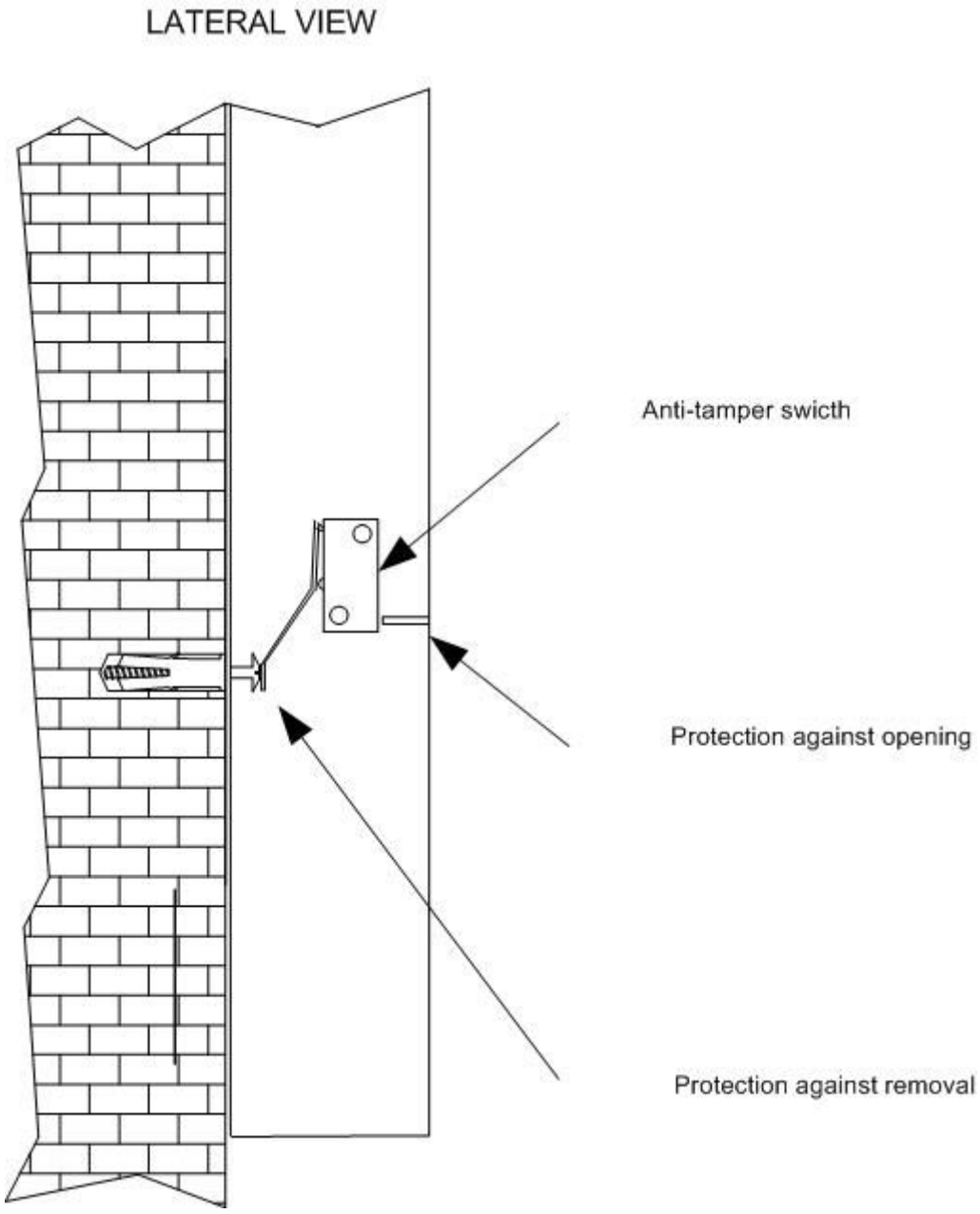
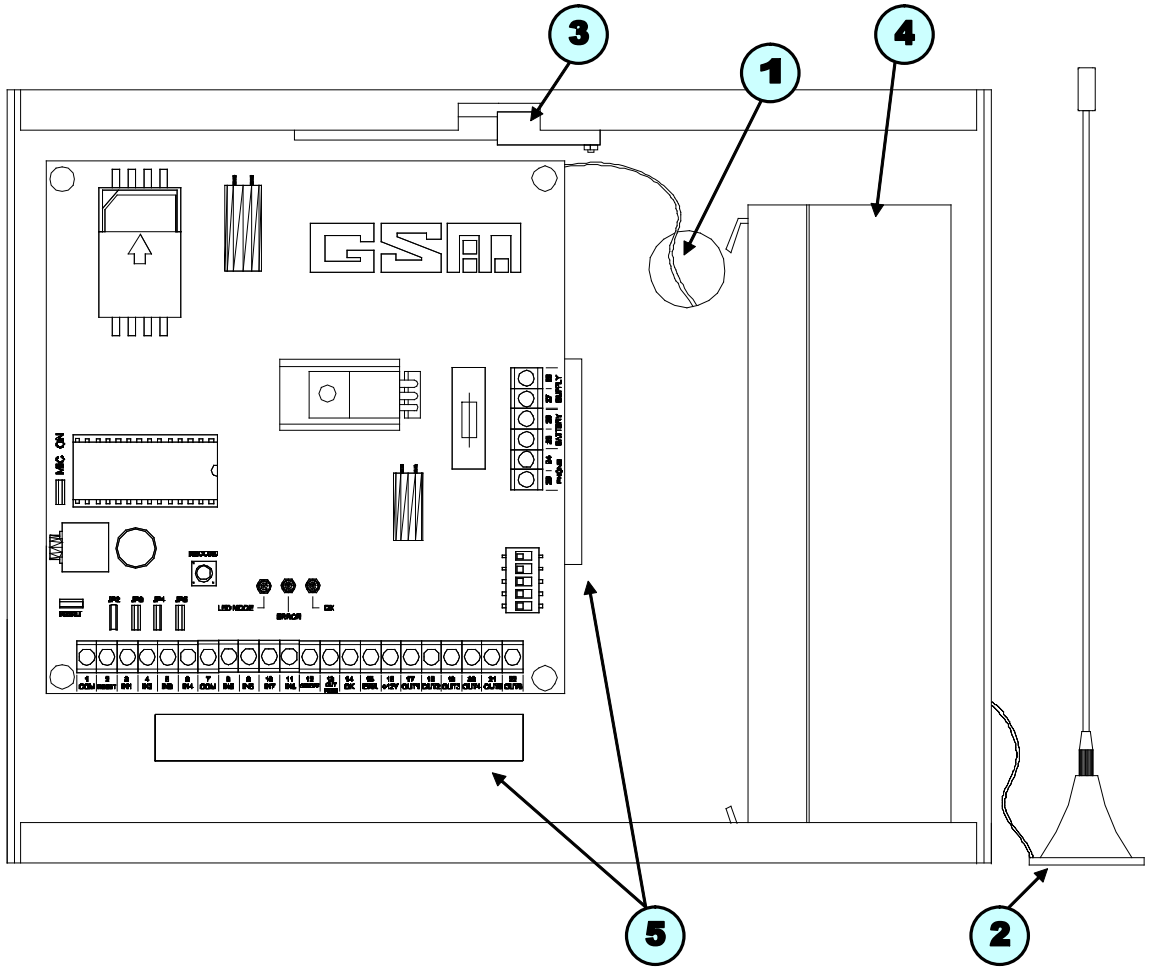
INDEX ***PAGES***



REMARK: in order to use the anti-tamper protection, it is necessary to introduce a screw into the wall, on which the dialler case is fixed: in this condition the protection switch remains closed.



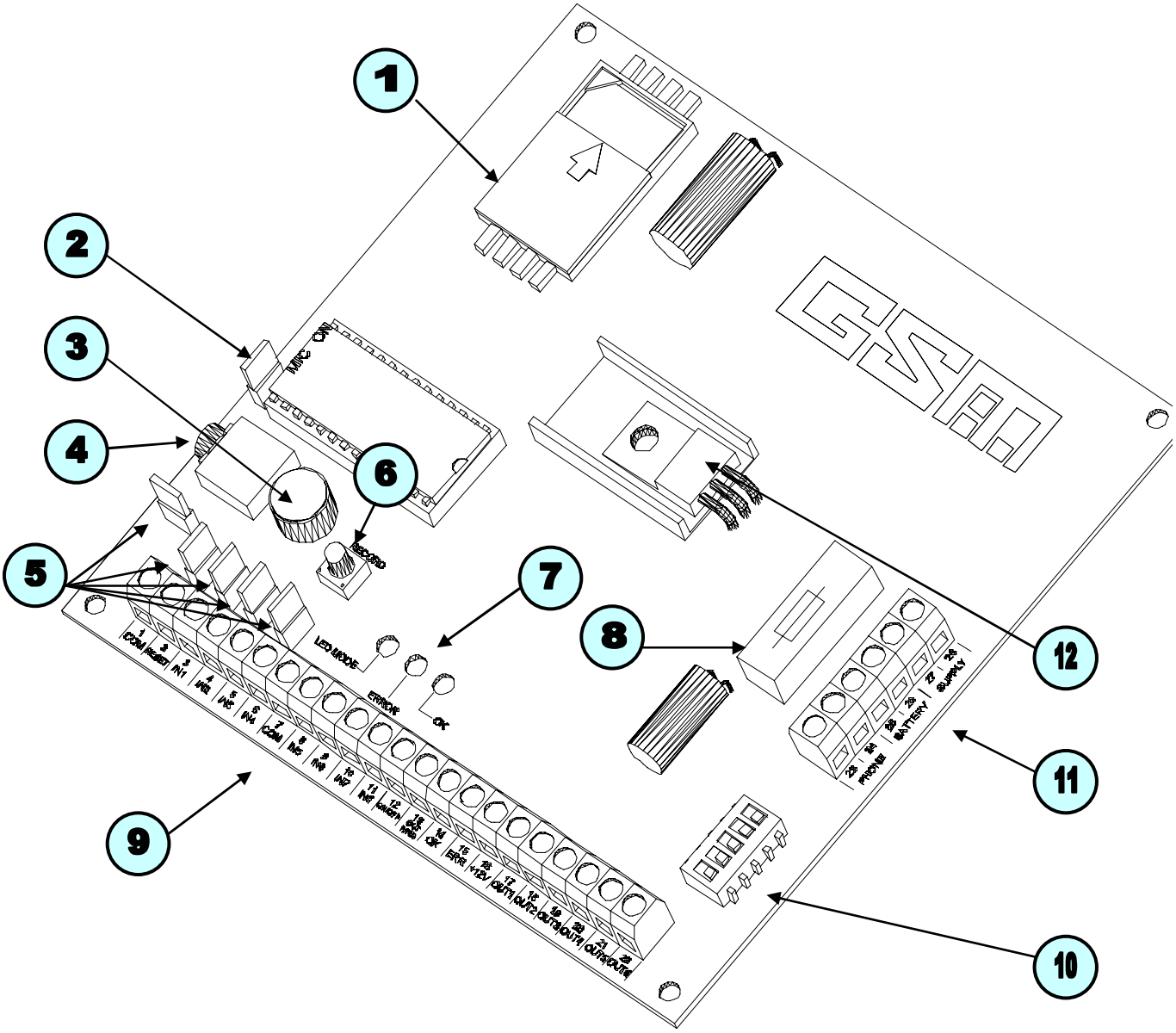
1. Hole for Antenna Cable
2. GSM Antenna
3. Anti-Opening switch
4. Back-up battery (12 V, 2 Ah)
5. Clefts to let cables pass through

TECHNICAL FEATURES

RATED SUPPLY VOLTAGE: 12 VDC (9 VDC minimum, 14.5 VDC maximum)[1]
ABSORBED POWER (CARD ONLY): 40 mA nominal (50 mA maximum)
AVERAGED ABSORBED POWER DURING COMMUNICATION (with charged stand-by battery) = 500 mA (2 A peak current)
STAND-BY BATTERY: 12 V, 2 Ah

DIMENSIONS: H=20 cm x L=26 cm x D= 4.5 cm
OPERATING TEMPERATURE RANGE: from +5 °C to +40 °C
PROTECTION DEGREE: IP30

[1]: for the normal operation of a telephone set connected to the “phone” terminals, the supply voltage must be greater than 12 VDC.



1. SIM CARD housing
2. Jumper enabling the microphone on the card (connected = microphone enabled for recording)
3. Microphone for message recording
4. Audio jack for mono/stereo headphones (suggested impedance above 32 ohm)
5. Jumper for input type setting (JP1 for input 1, JP2 for input 2)
6. Key for message recording and dialler resetting
7. Dialler status signalling LEDs:
   - Green LED (TX) = flashing for good communication between telephone and card. Permanently on when dialler is calling
   - Red LED (ERROR) = no GSM connection or device anomaly.
   - Yellow LED (VOX) = audio (flashing = recording, permanent = reproducing)
8. Fuse (fuse type 5 x 20 mm 2 A - type F)
9. IN/OUT terminal board
10. DIP-Switches to set various functions
11. Device supply terminals
12. Voltage stabilizer (component at high temperature)

THE CT 952 IN BRIEF

The CT952 is a bi-directional GSM telephone dialler. It is able to send different alarm with voice or through SMS text messages.

The device is also able to verify each second the good operation of the module, the network coverage, the signal and the power supply voltage. If any problem occurs it will enable an open collector output to transmit an external signal and it will do an automatic system restore.
The programming and the use of the dialler is simplified by voice prompts that guides the user step by step throughout all the operations to be done. The access to the vocal menu is granted by entering the personal code. The default codes are: user (1), technical (0). **You are advised to set the technical code with at least 5 figures, otherwise the IMQ - Security Systems certification will decline.**
The optimal configuration can be obtained by using the first input for burglary events or similar, and the other inputs for minor events.

The device can be completely remotely controlled from a remote telephone for programming and for triggering the outputs.
The inputs are 8. The first 4 can be set, through the positioning of the relative jumper and the use of an EOL resistor, as NC (normally closed), NO (normally open) or with wiring supervision.. The second four are only NC. The inputs need an impulse activation and the minimum impulse duration is 0,5 seconds.

The open collector outputs are 8 (6 impulsive or stable settable and 2 only impulsive).
By using the 5 DIP Switches on the card it is also possible to enable various functions in order to improve the security and the versatility of the device. For example by using the function SYSTEM STATUS (dip switch 4 ON) it is possible to use input RESET with output 8 (ON/OFF) to remotely arm/disarm a system with vocal feedback of the system status (armed/disarmed). Output 7 (OUT RING) gives an indication of the incoming calls when dip switch 3 (ANSWER DISABLE) is ON.

The 14 vocal messages and the 14 SMS can be freely programmed by the user.
The technical messages (low, good power supply, SIM expiry and Life Test) are prerecorded. **Changing or erasing these messages causes the decline of IMQ - Security Systems certification; SMS text must be coherent with the event taken into consideration (low/good power supply, SIM expiry and Life Test).**
The dialler allows to have vocal messages with different length, since the recording time is managed in a dynamic way. The only limit is the sum of the length of all messages, which cannot be longer than 1 minute.
The possible events that enable a vocal call or a SMS text message to be sent are 14.

Among the call events that the speech dialler manages, there are:
- Supply voltage (poor, good)
- Periodic LIFE TEST Signalling (Life test call)
- SIM card expiry (the number of days before SIM card expires is adjustable)

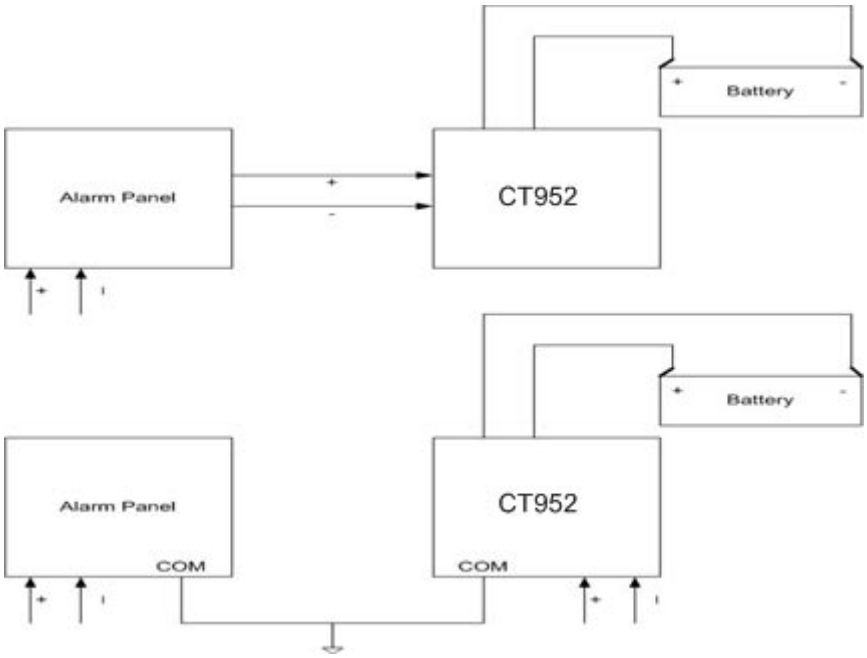
The speech dialler can send vocal messages to 16 telephone numbers (max 16 digits). Each number can be freely used in each call cycle. It is also possible to set the number of attempts that the speech dialler has to perform in order to call a telephone number and how many times the message has to be repeated before ending the call. The person that has been called is given the possibility to avoid to be re-called or stop the calls to all the other numbers. The SMS messages can also be sent to telephone numbers different from those used for the vocal messages.

QUICK INSTALLATION

1. Disable the PIN block and any other possible service (call transferring, mobile box, etc.) of the SIM card, delete from the SIM card all telephone numbers and SMS possibly stored in it and insert it in the SIM card housing when the dialler is not supplied.

   If it is not possible to disable the PIN block, change the PIN code to “1234”:
   NEW PIN code: 1234

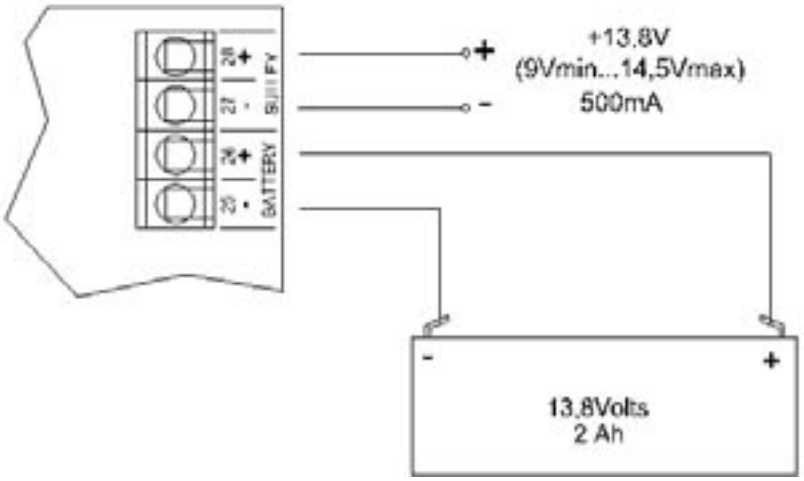
2. Supply power to the dialler and be sure that the dialler has the same reference (or negative) potential of the alarm panel. If the dialler is supplied through the alarm panel (or other system), the reference potential is automatically equal.



3. Attach a 2 Ah buffer battery to the “ BATTERY “ terminals
4. If it is the First installation make a complete RESET (see the section TOTAL DIALLER RESET)
5. Wait for the dialler working (Green LED blinking).
6. Programme the telephone dialler using one of these three ways
   a. Locally with a touch telephone previously connected to the terminals “ PHONE”
   b. Remotely calling the telephone dialler. In this way the user is asked the technical code. After entering the code and “ # “ the dialler is ready for programming as in the previous mode
   c. Programming the SIM card by means of a mobile telephone. Vocal messages have to be stored using the microphone on board or by connecting locally or remotely with a telephone (see a. and b.)

INSTALLATION AND CONNECTIONS

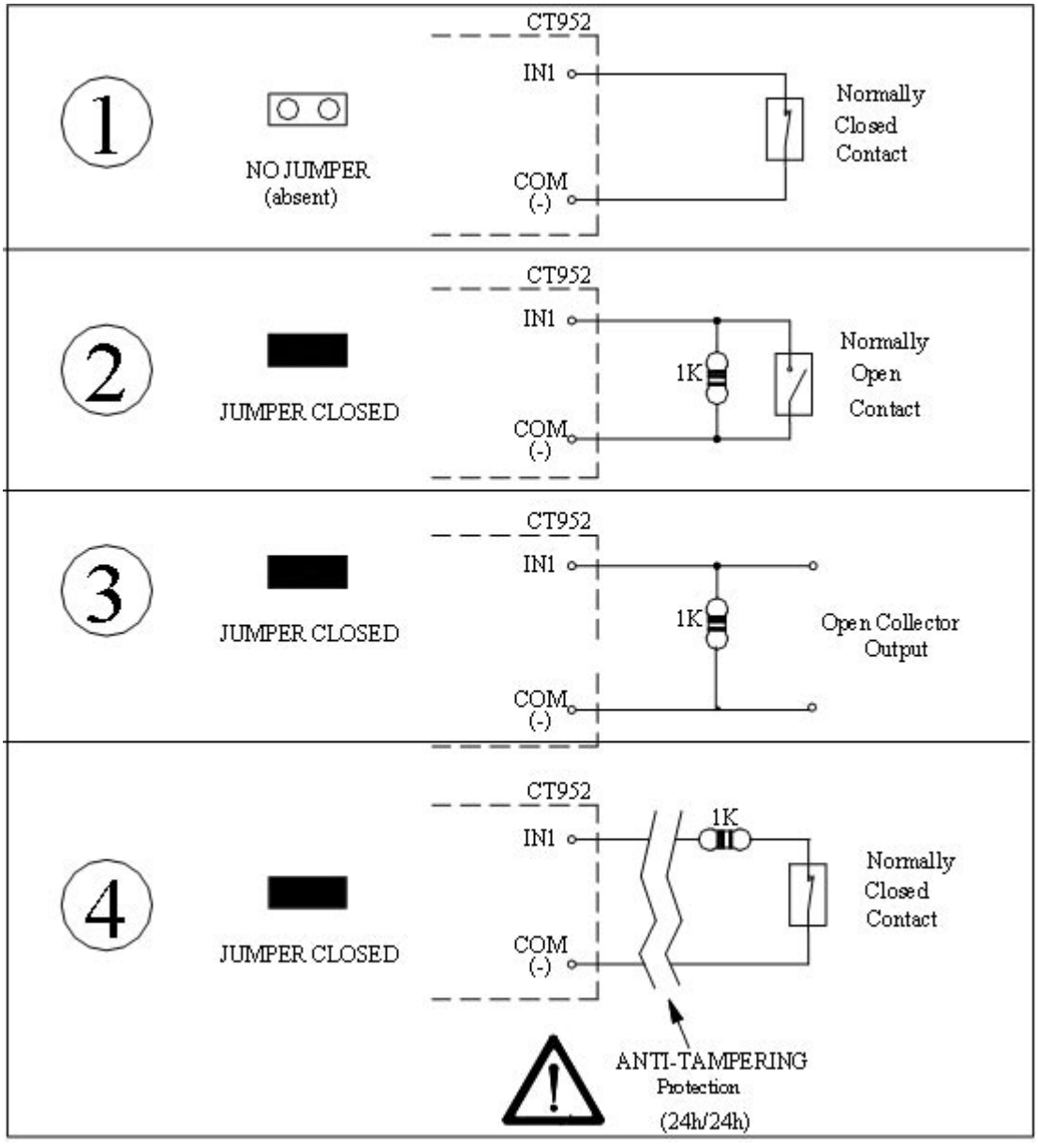
POWER SUPPLY +12V,- AND BAT



WARNING:

BACK UP BATTERY IS OBLIGATORY!

IN1, IN2, IN3, IN4 ALARM INPUTS



Usage examples:

Circuit 1 = NC contact of a control unit alarm relay
Circuit 2 = Panic button
Circuit 3 = Technological alarm from control unit
Circuit 4 = NC-COM contact with 24h/day short-circuit protection (EOL resistor).

Please remember that to have IMQ - Security Systems 2nd level you must use the configuration using EOL resistors, with a precise sequence of inputs: 1° duress, 2° burglary.

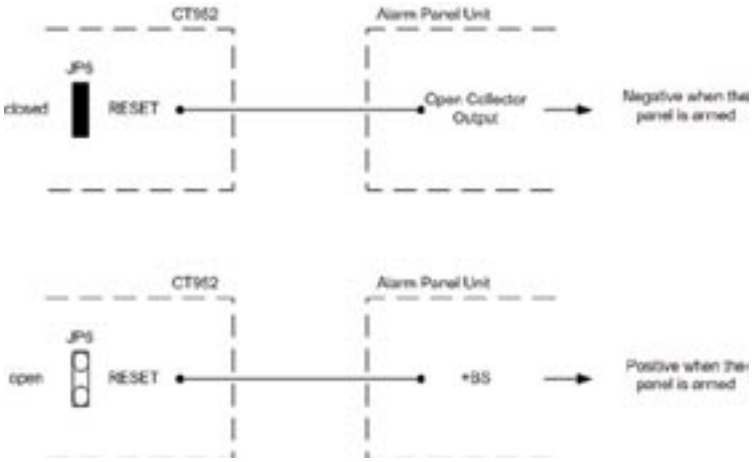
INPUTS IN5, IN6, IN7 AND IN8

Inputs 5, 6, 7, and 8 can be linked only as NC. Look at circuit 1.

RESET INPUT

CALL CYCLE RESET

The RESET terminal must be connected to an output of the alarm panel unit signalling the status of the system to obtain automatic cancelling of the call cycle in case of disarm. The signalling of the alarm panel system status must be stable. To make use of this feature the DIP switch 1 (LOCAL RESET) must be on.



The CT952 can manage both signalling of the system status, either positive or negative, depending on the position of the jumper JP6.
The RESET works with a positive potential, therefore if the command is negative jumper JP6 must be closed to insert a PULL-UP resistance.

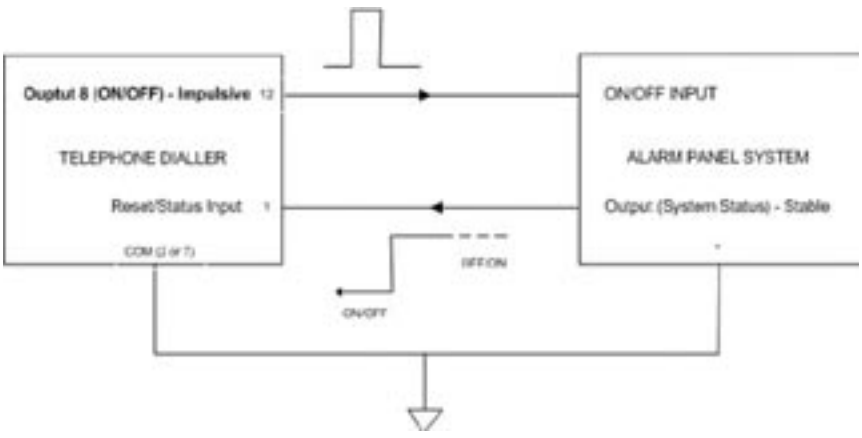
INPUT RESET

The status of the RESET input may also be managed as a double call event and therefore be used as a double-status input in order to generate call events (“RESET open” and “RESET closed”).

SYSTEM STATUS

When the RESET terminal is connected with an output signalling the status of the alarm panel unit, its status also indicates whether the alarm panel system is armed or disarmed. In this way the CT952 gives a feedback to the user on the status of the alarm panel unit by checking the RESET status.
When the DIP-switch 4 (SYSTEM STATUS) is ON this feature can be used to control remotely the alarm panel system.

Example:



In order to do this connect output 8 (ON/OFF) of the dialler CT952 to an input of the alarm panel system programmed as ON/OFF input. Call the telephone dialler and activate remotely the ON/OFF output of the dialler, after 5 seconds the CT952 will respond if the alarm panel system has been switched on or off.
The user may register the messages corresponding to “RESET open” and “RESET closed” to indicate the status on/off of the alarm panel system.

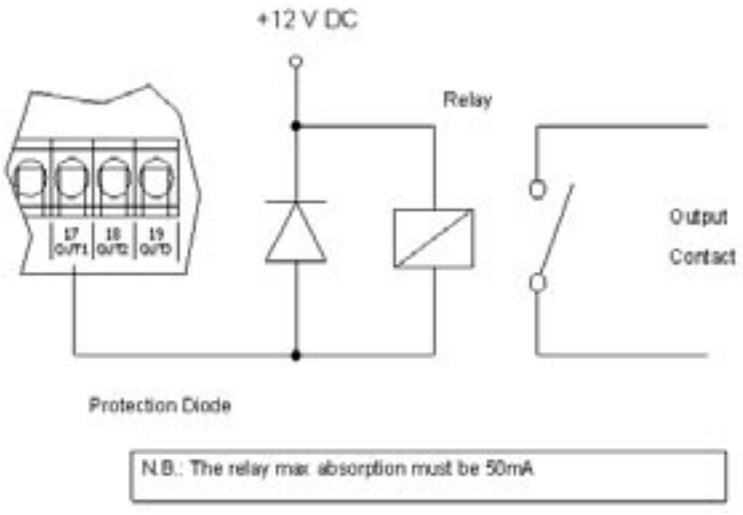
OUT1….OUT6 OUTPUTS

The activated output supplies a negative.
The deactivated output is an open circuit.
To set the type of outputs (stable or impulsive) use the function 6 in the technical menu.

OUT1:	impulsive or stable
OUT2:	impulsive or stable
OUT3:	impulsive or stable
OUT4:	impulsive or stable
OUT5:	impulsive or stable
OUT6:	impulsive or stable
OUT7 (OUT RING):	impulsive
OUT8 (ON/OFF):	impulsive

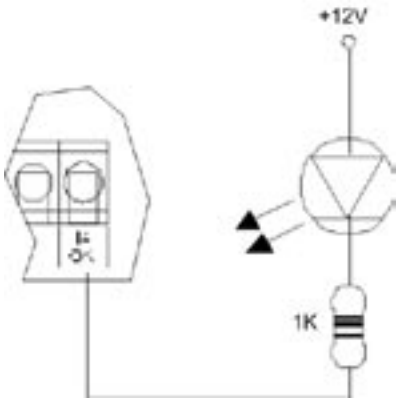
Impulse duration = 2 sec.

Note: By enabling the DIP-3 (answer Disable) the Output 7 (OUT RING) has the Telephone Ring function for the incoming calls



OK OUTPUT

This output corresponds to the green LED on the card.
Connect this output when you wish to have a flashing light signalling proper working proper communication between the card and the GSM module.



ERR OUTPUT (GSM DEAD ZONE, NO NETWORK)

The ERR Open Collector output switches to impulse operation for 2 seconds in case of a prolonged ABSENCE OF GSM signal or INSUFFICIENT SIGNAL.
The interval lapsing between one check and the next is one minute.
We recommend to convey this signal to a memory device, such as the control unit itself (Picture 1).
By connecting a LED as shown in Picture 2, it is possible to convey the “proper operation” signal outwards (NOTE: in this case the red LED on the card switches on with a fixed light).
At the end of an error signal, the dialler switches the GSM module off and then automatically switches it on again in order to make a new connection attempt to the GSM NETWORK.

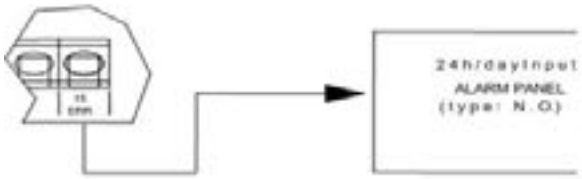


Fig. 1

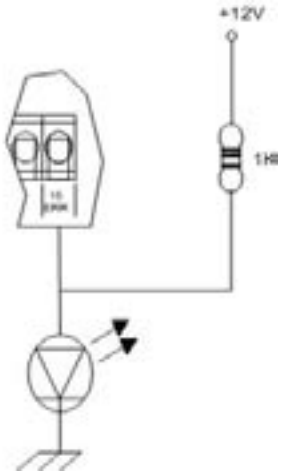


Fig. 2

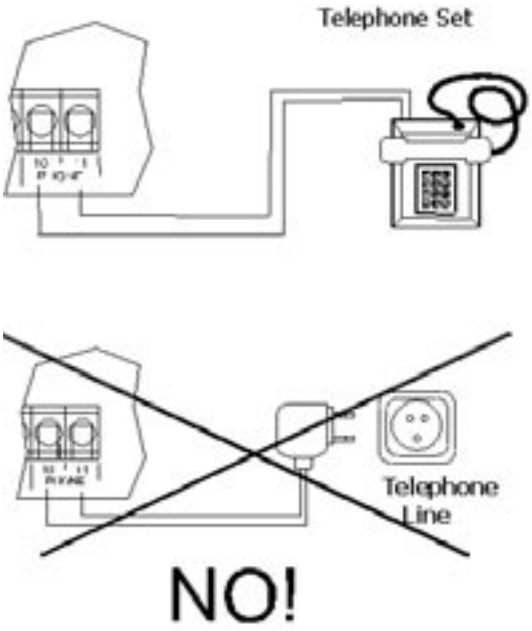
PHONE OUTPUT

The PHONE output can be used to connect an external touch-tone phone, which can be used to program the dialler.

INTERFACE FUNCTION: the CT952 GSM dialler simulates on the PHONE line a PSTN telephone line (440Hz tone), which allows bi-directional communications through the GSM line, starting from a wired-line.
NOTE: the quality of the connection depends on the type of equipment connected, on the connection cable and on the distance between the external telephone set and the CT952 GSM.

CAUTION:

Under no circumstances should telephone lines be connected to the PHONE terminals.
The CT952 GSM is NOT a double line communicator.
The phone interface does not provide the output RING signal.



GSM MODULE AND SIM CARD

In order to prepare the SIM card to be used by the dialler you have to use a mobile phone:
- Insert the SIM card into the mobile phone
- Switch on the mobile phone
- Type in the SIM card PIN code (the code is written on the SIM card contract)
- Enter the mobile menu and disable the SIM card PIN code (if your GSM operator allows PIN code disabling)

  If it is not possible to disable the PIN block, change the PIN code to “1234”:
  NEW PIN code: 1234

- Verify the right recognition of the card by the mobile phone
- Delete from the SIM card all telephone numbers stored in its memory
- Delete from the SIM card all SMS stored in its memory

Now prepare the GSM module:
- Leave the dialler not supplied
- Insert the SIM card into the SIM card housing
- Thread the dialler antenna into the proper hole on the back of the dialler box
- Thread the necessary length of cable into the same hole. The remaining cable can be winded and left in the box
- Insert headphones into the jack on the circuit board or connect a telephone set to the terminals PHONE
- Supply the dialler with 12 VDC and with a 12 V, 2 Ah battery
- After a few seconds the GSM module will be switched on and the SIM Card will be unblocked. If this operation does not succeed (as for example because of wrong PIN code), the dialler will notify the error by switching on steadily the GREEN and RED LED (TX and ERROR).
  Therefore you have to switch off the dialler, take the SIM card out of its housing and verify the operation previously described (e.g. change the PIN code or exclude the PIN block). After having inserted the SIM card again in its housing switch on the dialler again, taking care not to make any other mistake, in order to avoid to have the SIM card finally blocked
- After the SIM has been unblocked, the dialler will give voice prompts informing you on the level of the network signal and of the registration into the GSM network
- Wait for the steady flashing of the green LED, which indicates the proper operation of the module.

TOTAL DIALLER RESET

To reset the dialler and restore the default settings:

- Disconnect the dialler from power supply (12V and buffer battery)
- Keep pressed the RECORD key on the card and supply power voltage
- Release the key after the FIRST flash of the RED LED on the card
- After a few seconds the red led will switch on again : it indicates the start of the communication phase with the GSM during which there is the registration in the GSM network.
- At the End of these operations the green led blinks to indicate a correct comunication between GSM module and card.

PROGRAMMING DATA after a reset:

- Deletion of all telephone numbers, associated events and calling options
- Calling attempts = 3
- Message repetition = 3
- No “life test” call
- No SIM-card expiry date reminder call
- No SMS transmission
- Outputs type : impulsive
- Deletion of all vocal messages (except for heading message)

OPERATION

CALL EVENTS

For each event it is possible to program a vocal call, send a SMS message or both. The following table lists the events managed:

Event number	Event	Triggering event
1	Input 1	Impulse activation on IN1
2	Input 2	Impulse activation on IN2
3	Input 3	Impulse activation on IN3
4	Input 4	Impulse activation on IN4
5	Input 5	Impulse activation on IN5
6	Input 6	Impulse activation on IN6
7	Input 7	Impulse activation on IN7
8	Input 8	Impulse activation on IN8
9	Input RES activated (at +12 V)	RES contact opening
10	Input RES deactivated (at 0 V)	RES contact closing
11	Poor voltage	Supply power below 9.5 V
12	Good voltage	Supply power above 9.5 V
13	SIM card due date	SIM card annual due date
14	Life Test	Scheduled periodical call

INPUT 1 …. 4

These inputs manage impulse-operated events (alarms, technological detections, etc.). NO or NC depending on the jumpers settings (see paragraph IN 1, IN2, IN3, IN4 ALARM INPUTS)

INPUT 5 …. 8

These are NC only inputs. They manage impulse -operated events (alarms, technological detections, etc.).

RESET INPUT

This input is able to reset outgoing telephone calls and SMS but it can also be used to handle events related to a system's double status, since it manages both the input activation event (contact opening) and its deactivation (contact closing). This input is also related to two functions that can be activated through the related dip-switches on the card (DIP 1 = automatic reset, DIP 4 = control of the status of a system operated by the dialler through output 8).

SUPPLY VOLTAGE CHECK

Inside the card of the CT952 GSM dialler there is a circuit designed to check the supply voltage at the +12V terminals.

Based on this control, you can have the “poor voltage” event if voltage proves lower than 9,5V and the “good voltage” event when voltage switches back to a normal level (above 9,5V).
This control is also combined to the “power saving mode” function, which allows automatic switch-off of the module in the event of poor voltage (DIP 5).

LIFE-TEST

Based on the internal clock of the GSM module, the CT952 GSM telephone dialler generates a periodical event that can be used to automatically confirm its proper operation. The interval between one signalling and the next can be freely set in a range between 1 and 255 days and takes place on the day and time for which this function has been enabled.
To enable this function set a value different from “0” in the parameter LIFE TEST PERIOD.

0 = NO LIFE TEST

SIM DUE DATE (FOR “RECHARGEABLE CARDS”)

If the CT952 GSM dialler is used with a “rechargeable” type SIM card, it is possible to receive an automatic reminder BEFORE the annual expiry following failure to recharge. (see parameter FIRST SIM CARD VALIDITY NOTIFICATION) This reminder can be scheduled over a period of time ranging between 1 and 255 days. (0 to disable it).
Subsequently, this signalling becomes periodic (see parameter SECOND SIM CARD VALIDITY NOTIFICATION) with a schedulable interval ranging between 1 and 255 days. Once the SIM card has been recharged, you need to reprogram the SIM CARD VALIDITY PERIODS, to start time calculation all over again.
The reminder signal is always conveyed on the day and time for which the function has been enabled. When the SIM card is recharged, the parameters SIM CARD VALIDITY NOTIFICATION and SECOND SIM CARD VALIDITY NOTIFICATION need to be set again to update the SIM expiry date on the CT952 board. Time calculation is based on the GSM telephone internal calendar.

N.B.: The function is deactivated for default (manufacturer’s settings, see the section TOTAL DIALLER RESET).

SMS TRANSMISSION

The CT952 is capable to handle 14 SMS messages and each of these can be conveyed for a single event to a single telephone number.
The message is conveyed instantly and always before any vocal call that might have been scheduled for the same event. The maximum number of characters making up each message depends on the SIM card you are using (it is normally 160 characters).
The telephone number, to which the message is conveyed, is stored in the SIM card together with the message itself.

VOCAL CALLS

With vocal calls, it is possible to record a variable-length message for each event you wish to handle, (the total time allowed, all messages included, is equal to one minute). Each vocal call may be freely conveyed up to a maximum of 16 telephone numbers. Each telephone numbers can be individually associated with call options that will be clarified later in this paragraph. During the call, the CT952 GSM dialler can differentiate the “Answer” and “Non-Answer” statuses, depending on the signal that is conveyed through the GSM line. A “NON-Answer” status is assumed in the event that the telephone number called:

- continues to ring for 2 minutes
- is engaged
- is not reachable or switched off (in the event of a GSM mobile telephone).

You will find below the normal calling cycle performed by the dialler, together with the various options that can be freely added to each number.

NORMAL CALLING CYCLE (NO OPTION)

For each cycle all the telephone numbers associated with the event are called.
In the event of “Answer”, the telephone number is regarded as “Reached” and therefore it will NOT be called during the following calling cycles.
Upon reply to the call, the CT952 dialler immediately starts reproducing the recorded message corresponding to the event that has taken place. This message is repeated for a pre-set number of times set by the parameter “MESSAGE REPETITION COUNT”.
The reproduction of the message can be stopped at any time by pressing the key # . In this case, it is then possible to enter the user personal code in order to remotely control the dialler (please refer to the sections REMOTE PROGRAMMING and REMOTE OUTPUT CONTROL).
To stop the reproduction of the message dial 00, and the communication will immediately be interrupted and the number called will not be called again.
After the USER password has been entered the cycle will be definitively stopped and no other telephone number will be called.
In any case at the end of the message reproduction, the CT952 dialler immediately interrupts the communication.
In the event of “NO Answer”, the telephone number will be regarded as “not reached” and it will therefore be called again during the following cycle.
The number of cycles performed by the dialler is programmed through the parameter “ NUMBER OF THE CALL ATTEMPTS”.

CALLING OPTIONS

Option	Function
1	Answer confirmation
2	Continuous repetition of the message
3	Countless number of calling attempts
4	Direct access to the user menu
5	Automatic cycle reset

1 Answer confirmation (Option 1)

In the event of “NO Answer” the telephone number is in any case called back during the following cycle. If the call is answered, the receiver has to confirm her answer by pressing key # during message reproduction. If there is “Answer” but “NO Confirmation” this number is called again according to the parameter “CALLING ATTEMPTS”

2 Continuous repetition of the message (Option 2)

In the event of “Answer” the message is played for a maximum of 2 minutes, without considering the parameter “MESSAGE REPETITION COUNT”.

3 Countless number of calling attempts (Option 3)

In the event of “NO Answer” the telephone number is called for a countless number of times, ignoring the parameter “CALLING ATTEMPTS”. This telephone number will only be left out of the calling list after an “Answer”.

4 Direct access to the user menu (Option 4)

During message playing and after having pressed the key # you are NOT required to key in the user pass-

word but you are immediately able to access the dialler REMOTE MANAGEMENT Menu (User Menu).

5 Automatic cycle reset (Option 5)

In the event of “Answer” of a telephone number that has been called for a certain event, the complete call cycle is interrupted, so the dialler does NOT make any further call to any telephone number in connection with that event.

PROGRAMMING

OVERVIEW

There are 2 possibilities to programme the dialler:
- By means of a Touch-tone Telephone
- Remotely calling the number of the SIM card inserted into the dialler

In order to programme the dialler follow these steps:
1. Delete all data of the SIM card and disable the PIN block
2. Insert the SIM card into the dialler when the dialler is NOT supplied
3. Connect Inputs and outputs of the dialler (see the section INSTALLATION AND CONNECTIONS)
4. Supply power to the dialler
5. Wait for the dialler working (green Led blinking). If t is the First installation make a complete RESET (see the section TOTAL DIALLER RESET)
6. Programme the dialler (read following instructions) by using the following default passwords:

TECHNICIAN PASSWORD: ***0***
USER PASSWORD: ***1***

DIP-SWITCH FUNCTIONS

1 LOCAL RESET

ON: A state variation on the RESET terminal (from “open” to “close” or from “close” to “open”) results in the immediate block of all ongoing calls.
OFF: No automatic system reset

2 CREDIT DUE DATE

ON: This function can be employed in the event you have a rechargeable SIM card.
5 minutes after the last call made, the dialler calls the CUSTOMER SERVICE telephone number. The CUSTOMER SERVICE number must be saved in the 17th position. After calling the number the dialler records through speech synthesis the first 30 seconds of the message. This message contains the residual credit and the user will be able to listen to it again, at any time, by entering his own menu.
OFF: No retrieval of pre-paid SIM-card credit

3 ANSWER DISABLED

ON: The dialler does NOT answer external calls. At the same time, the seventh open collector output (OUT RING) is NO longer controllable in the remote control mode, but it is used to simulate a telephone ring. if this function is enabled, a touch-tone telephone has to be connected to the PHONE terminals and can be used to communicate with the telephone that has called the dialler.
CAUTION: When this function is enabled, it is possible to control the dialler outputs in the remote control mode only after you have been called in connection with an event.

OFF: When the dialler is called the dialler can be remotely programmed, accessing to the technical menu or the user menu (see TECHNICAL MENU and USER MENU).

4 SYSTEM STATUS

ON: This carries out an automatic check of the system status (RESET input) operated through the output 8 (ON/OFF). You need to operate output 8 (impulse operation) to activate/deactivate the system.
A 5 second pause is introduced.
Based on a RESET input measuring, the vocal directions report the current status.

ATTENTION: The messages played after querying the system status corresponds to the message recorded for the events “RESET open” and “RESET closed”. Therefore these messages have to be recorded by the user.

OFF: No system-status retrieval

5 POWER SAVING MODE

When on this function switches the module off when the supply voltage drops below 9,5 V. The module will be immediately switched back on in the event of an alarm or when the supply voltage is back to over 9,5V.

COMPLETE PROGRAMMING WITH A TOUCH-TONE TELEPHONE

In order to program the dialler through a touch-tone telephone connected to the PHONE terminals, use the following procedure:

1. Press and hold any key on the touch-tone telephone and lift the receiver.
2. Release the key and wait a few seconds.
3. When requested, key in your personal password (default = 0)
4. Confirm the code you have just entered with # or wait a few seconds
5. Follow the steps indicated by the vocal instructions (see TECHNICAL MENU)

REMOTE PROGRAMMING

In order to program the dialler in the remote management mode, the GSM module needs to be linked to the GSM Network and the DIP-Switch 3 needs to be on the OFF position.
The procedure requested to achieve a connection is the following:

Call the dialler, which will reply after one ring
When requested, enter your personal password (default = 0)
Confirm the password with # or wait a few seconds.
Follow the steps indicated by the vocal instructions(see TECHNICAL MENU).

TECHNICAL MENU

1) TO SET VOICE CALL PRESS 1

ENTER – LOCATION OF – TELEPHONE NUMBER – TO CALL

Key in a number between 01 and 17 corresponding to the telephone number to be changed or to be added. Number 17 is the number “Customer Service” concerning the function “SIM Credit” (option).
If # is pressed the operation will be stopped.

ENTER <first> TELEPHONE NUMBER

Key in directly the telephone number (max 16 figures) . If * is pressed the telephone number will be erased. If # is pressed the previous number (if present) will be confirmed.

ENTER – EVENTS

Key in one or more numbers (figures) (from 01 to 14) connected to the events that You need to add, or cancel, for this number. By pressing * any event associated to the number will be erased (this number will not be called). Pressing # will confirm the previous setting.

ENTER OPTIONS

Key in one or more numbers (from 1 to 5) connected to the call options that it is needed to add, or to cancel, to this telephone number. By pressing * any option associated to the number will be erased (normal cycle). Pressing # will confirm the previous setting.

2) TO SET THE CALL PARAMETERS PRESS 2

ENTER – NUMBER OF CALL ATTEMPTS

Key in a number from 1 to 9. Press # to confirm (without modifying) the previous setting.

ENTER MESSAGE REPETITION COUNT

Key in a number from 1 to 9. Press # to confirm (without modifying) the previous setting.

ENTER NUMBER OF DAYS UNTIL NEXT LIFE TEST

It represents the interval between one LIFE TEST signalling and the next one.
Key in a number from 001 to 255 (enter 3 figures). By pressing 0 0 0 this signalling will be disabled.

ENTER FIRST SIM CARD VALIDITY NOTIFICATION

It represent the number of days before the annual expiry date of the pre-paid SIM card, which the dialler uses for the event “SIM due date”.
Key in a number from 0 to 255 (enter 3 figures). By pressing 0 0 0 this signalling will be disabled.

ENTER SECOND SIM CARD VALIDITY NOTIFICATION

It represents the interval between the events of SIM DUE DATE SIGNALLING after the first signalling (see above).
Key in a number from 0 to 255 (enter 3 figures). By pressing 0 0 0 this signalling will be disabled.

3) TO SET SMS PARAMETERS PRESS 3

ENTER LOCATION OF SMS

Key in a number from 01 to 14 to choose the SMS to be sent (these SMS must be already stored in the SIM card). Press # to cancel the operation.
After selecting the SMS position in the SIM card and before selecting the event, by pressing * any event associated to SMS will be erased.
After selecting the SMS position in the SIM card and the event, by pressing * any telephone numbers associated to the number will be erased.

ENTER EVENTS

Key in a number from 01 to 14 to enable the sending event of the chosen SMS (the only event). If key * is pressed the sending event will be cancelled (the SMS will not be sent !). By pressing # the previous setting will be confirmed.

ENTER LOCATION OF TELEPHONE NUMBER

Dial a number between 01 and 16 linked to the telephone number to which the SMS message will be sent. The position is the same as programmed for the vocal message. If You want to send only an SMS and not a vocal message, do not associate any event to the vocal message. A maximum of 14 SMS can be sent.
Repeat the operation for all the telephone number to which the SMS messages has to be sent.
By pressing * any linking to the telephone numbers for the SMS sending will be erased (the SMS will not be sent).
By pressing # the previous setting will be confirmed.

4) TO RECORD VOCAL MESSAGES PRESS 4

After the beep the dialler starts recording the message: speak to the Microphone of the telephone that it is used to programme.
STOP RECORDING BY PRESSING KEY * . Press any key before the beep to jump directly to the next message.

5) TO CHANGE THE PASSWORD PRESS 5

ENTER NEW PASSWORD

Key in directly the new personal password composed (from 1 to 7 figures). If the password is composed by 6 figures or less wait a few seconds or confirm it immediately with # .

CONFIRM NEW PASSWORD

Key in again the new password to confirm it. If it is different from the previous one the new code will not be accepted.

6) TO SET OUTPUT MODE PRESS 6

ENTER OUTPUT NUMBER TO SET IMPULSE MODE

Press * to set all the outputs as stable.
Key in the outputs that must be in impulsive mode (from 1 to 6) confirming with key # . By pressing # the previous setting will be confirmed.

PROGRAMMING OF VOCAL CALLS BY USING THE SIM CARD

By employing any GSM mobile phone, you can set most of the parameters for vocal calls in the SIM card. Subsequently, you can directly transfer all the data from the module to the dialler through a simple operation.

Note: the complete reset and the programming of the dialler DOES NOT change data on the SIM card.
In order to perform any operation that follows, please refer to the mobile telephone manual.

Procedure:

- Insert the SIM card into the GSM mobile
- Enter the telephone phone book and select the item “add new” or similar.
- Enter the telephone number (maximum 16 characters) and confirm it.
- In the NAME field enter:
  The events for which the telephone number which has just been entered needs to be called.
  The symbols corresponding to the calling options for that number

Number	Event
1	Input 1
2	Input 2
3	Input 3
4	Input 4
5	Input 5
6	Input 6a
7	Input 7
8	Input 8
9	Input RES Open (at +12 V)
0	Input RES Closed (at 0 V)
a	Poor voltage
b	Good voltage
c	SIM due date
d	Life test

Character	Function
)	Answer confirmation
:	Continuous repetition of the message
;	Countless number of calling attempts
<	Direct access to the user menu
=	Automatic cycle reset

Upon confirmation of the name, it will be asked to confirm the memory position. Should it also be asked which memory to use, always select the SIM card memory. For the position, indicate a number ranging between 01 and 16, depending on the scheduled calling order (position 1 means that this number will be called first). It is advisable always to start from position 1 and add the following numbers in sequence, up to position 16. If the GSM replies that the position is already taken, confirm overwriting.
Repeat these steps for all the other telephone numbers you wish to store.

NOTE 1: if the mobile phone does not store two telephone numbers with the same name, it is possible to distinguish them writing more times the same event in the NAME field.

EXAMPLE: NAME field: 123 telephone number called for events 1,2,3
NAME field: 1123 new telephone number called for events 1,2,3

NOTE 2: You can use position 17, if necessary, to store the telephone number used for the vocal enquiry of the residual credit (customer service of your telephone company). The NAME field is not used for this position.

Example:

NUMBER field	12345678
NAME field	12<
Position	1

This means that the telephone number 12345678 is the first to be called when event 1 or 2 take place. For this number option 4 has also been enabled (direct access to user menu).

CAUTION: once the telephone number programming session has been completed, ENSURE that the positions you are not using are completely deleted (empty). In this regard, every GSM mobile offers the possibility of running through the whole phone book (Find/Modify command).

DATA transfer:

1. Disconnect the dialler from power supply (12V and battery)
2. Insert the programmed SIM card in the dialler SIM place.
3. Press and hold the key on the card and supply the dialler (for instance by connecting the battery)
4. Wait for approximately 7 seconds for the 3 flashes of the red LED light (the telephone will switch on automatically)
   If the SIM card has the PIN block wait for 2 flashes of the red light.

5. Release the key on the card to terminate the data transfer

RECORDING MESSAGES THROUGH THE CARD MICROPHONE (LISTENING ON HEADPHONES)

CAUTION: when a new recording is started, ALL previous messages will be cancelled.

1. Connect the headphones directly to the AUDIO OUT jack placed on one side of the card.
2. Make sure that the microphone is enabled (jumper MIC ENABLE on the board is closed).
3. Press and hold the RECORD key located in the middle of the card until the yellow LED switches on. Thereafter release the key.
4. As indicated by the vocal instructions, after the beep record the messages (starting from the common message).
5. During recording, the YELLOW LED continues to flash.
6. PRESS the RECORD key to interrupt the ongoing recording.
7. Upon message recording completion, the message will be automatically reproduced.
8. Upon message reproduction completion, the vocal instructions will advise which new message can be recorded. If you do NOT wish to record the next message, briefly press the key before the beep to proceed to the next one.
9. Upon recording completion of the last message (total 14), the automatic dialler will automatically exit the recording phase.

STORAGE OF SMS MESSAGES

Each SMS message must be entered through a GSM mobile phone and stored in the SIM card, together with the telephone number to which it has to be sent. Subsequently, each message must be associated to a single event among the fourteen available events as the cause for its transmission.

Procedure to create and store the SMS messages :

- Insert the SIM card in any mobile phone.

- Enter the MESSAGE item in the menu
- First ENSURE that the item MESSAGES SENT is EMPTY. Should there be any messages, delete them.
- Select from the MESSAGES menu the item SEND NEW.
- Enter the complete text of the SMS according to the routine procedure (refer to GSM mobile phone manual)
- Confirm the text WITHOUT ENTERING THE NUMBER to which the SMS should be sent.
- Save the sent message.

ASSOCIATION OF THE SMS TRANSMISSION EVENT WITH SIM CARD PROGRAMMING

After a message has been saved on the SIM card, you need to set the event that causes its immediate transmission. This parameter can be programmed in the SIM card and then transferred with all the other parameters that have already been set for the vocal calls.

Procedure:

- Enter the phone book of the GSM mobile phone.
- Enter in the menu item “Find/Modify”.
- Select the memory position (ranging from 1 to 16), corresponding to the message to be sent, and confirm.
- Confirm in this position the telephone number that has already been stored for the vocal calls.
- The reference to the event for the vocal calls can also be used to send an SMS to the telephone number stored in this position. If You want to send only an SMS without any vocal call, type in the symbol “-“ in front of the event number
- Confirm the name and once again the position.
- Perform a data transfer as shown under point 8 of the section SCHEDULING VOCAL CALLS FROM THE GSM MOBILE PHONE.

Event number	Event
1	Input 1
2	Input 2
3	Input 3
4	Input 4
5	Input 5
6	Input 6
7	Input 7
8	Input 8
9	Input RES activated (at +12 V)
0	Input RES deactivated (at 0 V)
a	Poor voltage
b	Good voltage
c	SIM card due date
d	Life Test

Event number	Message
A	Message SMS 1
B	Message SMS 2
C	Message SMS 3
D	Message SMS 4
E	Message SMS 5
F	Message SMS 6
G	Message SMS 7
H	Message SMS 8
I	Maessage SMS 9
J	Message SMS 10
K	Message SMS 11
L	Message SMS 12
M	Message SMS 13
N	Message SMS 14

Example:

field NUMBER	any	
field NAME 1	123	(without SMS association)
field NAME 2	1A3-2B4C	(with SMS association)
position	1	

In the first case, the number associated with the NAME field will only send the vocal message for Input 1, Input 2 and Input 3.
In the second case, triggering Input 1 will send both the vocal message and SMS 1. Triggering Input 3 will send only the vocal message. For Input 2 only SMS 2 will be sent. For Input 4 only SMS 3 will be sent.

REMOTE OUTPUT CONTROL

The six outputs of the dialler can be controlled remotely after a connection between the dialler and any remote telephone devices has been set.
The telephone connection can be generated by a call from the dialler or set by the user that calls the dialler. In both cases it is possible to work on the dialler outputs after having composed the authorized USER password.
Then :

1. Make a call to the dialler that answer after 1 ring.
2. When it is asked, compose the personal password (default = 1)
3. Confirm the password with # or wait a few seconds.
4. Execute what requested by the voice (see USER MENU).

USER MENU

1) TO CHANGE OUTPUT STATUS PRESS 1

Key in a number between 1 and 8 to activate or deactivate the connected output.

NOTE: impulsive outputs can only be activated. Stable outputs can be activated (when they are deactivated) or deactivated (when they are activated).

2) FOR SYSTEM STATUS PRESS 2

With this request the dialler will play (by vocal synthesis) the inputs and the outputs status.
It is not necessary to press any key. If You want abort this operation press # .

3) TO CHANGE THE PASSWORD PRESS 3

ENTER NEW PASSWORD

Key in directly the new user password composed (from 1 to 7 figures). If the code is composed by 6 figures or less wait a few seconds or confirm it immediately with # .

CONFIRM NEW PASSWORD

Key in again the new user password to confirm it.

4) FOR SIM VALIDITY PRESS 4

With this request the message recorded during the call to the CUSTOMER SERVICE preset number will be played. If the message has not recorded yet or the function CREDIT DUE DATE is not enabled (Dip-Switch 2 : OFF) the request is ignored.
During the reproduction (approximately 30 seconds long) it is possible to press # to stop.

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L'installazione deve essere eseguita a regola d'arte da personale specializzato.
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Gli avvisatori telefonici in tecnologia GSM senza l'utilizzo di linee telefoniche PSTN, non possono essere garantiti in caso di limitazione e/o problematiche dovute a difettosità nel servizio offerto dal gestore di rete.

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Any GSM speech dialler or communicator, not connected to the PSTN standard telephone line, does not ensure proper communication in case of problems or limitations due to the GSM network.

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L'installation doit ètre effectuée dans les règles de l'art par un installateur qualifié. AMC Elettronica S.r.l. décline toute responsabilité en cas d'utilisation des produits par des personnes non habilitées. Il est recommandé de vérifier le bon fonctionnement du système d'alarme au moins une fois par mois. Un système d'alarme électronique n'exclut pas le risque d'intrusion, de vol, d'incendie mais limite et diminue fortement celui-ci.
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