

GSM Gate Control 1000

INSTALLATION AND APPLICATION MANUAL

for module version v3.13 and higher

Manual version: 1.72 10.03.2017



► Features:

- Control of relay outputs with free calls using caller identification
- Capacity of 1000 users
- Sending SMS with configurable message on activation of inputs
- Programmable through USB, SMS or GSM data call (CSD)
- Stores last 2000 events in event memory

► Application areas:

- Control of electric gates, barriers and other electronic devices through GSM network
- Notification in SMS about state of outputs of different control panels or status of switches

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1 GSM Gate Control basic functions

Control (opening / closing) of electric gates and barriers through GSM call. Sending SMS messages about the state of different switch contacts (tamper, errors etc.).

Control of relay outputs (according to the adjusted mode and access authorization) by dialing the phone number of the SIM card placed into the module.

Control (open/close) can be performed only from the authorized telephone numbers set in the module, or from any phone number, according to the setting: **if the module's user list contains phone numbers, only calls from these phone numbers can control the module. If the module's user list is empty, calls from any phone number can control it (in this case the module's settings can be adjusted only through USB using a PC).**

Since only the caller ID is necessary for the identification and control, therefore the call does not have to be received (is automatically rejected), this way the call is not charged. Depending on your GSM service provider, it may happen that the rejected calls are still charged (ask your GSM service provider about this matter).

User authorizations and control functions must be set previously.

1.1 Programming the GSM Gate Control

Programming of the GSM Gate Control is possible in three different ways:

- Through SMS message from a cellular phone
- On PC through USB port, using the enclosed programming software
- On PC through GSM data call, using the enclosed programming software

2 Programming through SMS message

It is important that each command message must begin with * character and must end with # character!

Of course more commands can be sent in one SMS but the beginning and end characters must be used and one message must not exceed 160 characters. If the response message from the module would exceed 160 characters, the message will only contain the first 160 characters.

Further adjustments can be performed by registering the ADMIN phone number:

First the ADMIN phone number has to be registered, which will be authorized automatically to register further users and perform further settings through SMS:

The SMS command to be sent	Response SMS text
*ADMIN#	YOU ARE REGISTERED AS ADMIN!

Notice: the *ADMIN# SMS message is accepted only once by the module. Modification or erasure of the ADMIN phone number is possible only from the PC via USB port.

The following table contains the description of all SMS commands. All of them can be used by the ADMIN user, however users registered later with Master authorization can use only certain commands (these are indicated separately):

SMS commands and settings:

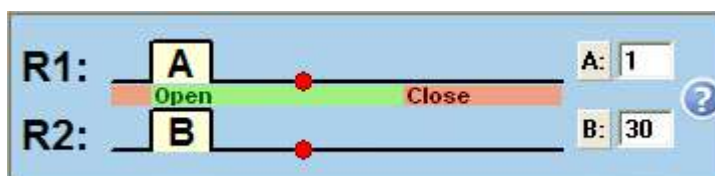
SMS command	SMS text	SMS Response	Meaning of response
Add new user (with Master authorization too)	*n=TELNUMBER,NAME, AUTHORIZATION,ENTRY PERIOD,GATE#	NEW USER REGISTERED.	New user is registered
	AUTHORIZATION: U (master), or C (not master, this is default)	NUMBER ERROR!	The entered phone number is too short or too long
	ENTRY PERIOD: N (0-24), or L (only in entry period, this is default)	SYNTAX ERROR!	You have not used separator character (* or #)
	GATE: 1 (gate A), or 2 (gate B), or B (both gates A and B)	PHONE NUMBER ALREADY EXISTS!	The phone number entered already exists in the system
	Parameters for AUTHORIZATION and ENTRY PERIOD are omissible, in this case default setting is valid.	MISSING PARAMETER	GATE parameter is missing for 1st control mode
Remove user (with Master authorization too)	*d=TELNUMBER,NAME# or *d=,NAME# or *d=TELNUMBER#	DELETE SUCCESFULL	User's phone number is deleted
		DELETE FAILED: UNKNOWN PHONE NUMBER!	The entered phone number does not exist in the system
		DELETE FAILED: UNKNOWN USERNAME!	The entered user name does not exist in the system
Remove all users	*CAU-ADMIN#	USERS ERASED!	All users are deleted
Download first 15 registered users (with Master authorization too)	*L#	phone number 1 ... phone number 15	The phone numbers of the first 15 registered users
Register as ADMIN	*ADMIN#	YOU ARE REGISTERED AS ADMIN!	The sender of the SMS has been added to the user list as ADMIN user
Control modes	*M=1,A=1,B=1# *M=2,X=1,Y=1,Z=1,O=1# *M=3,X=1,Y=1,Z=1,O=1# *M=4,X=1,Z=1#	MODE 1 ACTIVATED	1st control mode is activated
Assign SMS messages to inputs	*S1=SMS_TEXT# ... *S4=SMS_TEXT#	SMS 1 TEXT CHANGED	The SMS message assigned to input 1 has been modified
Configuration of inputs	*I1=NO,31# or *I1=NC,20# ... *I4=NC,20#	IN 1 INPUT TYPE CHANGED	Settings of input 1 have been modified
Add phone numbers for SMS notification on activation of inputs	*T1=TELNUMBER# ... *T4=TELNUMBER#	SMS 1 NUMBER CHANGED	1st phone number has been modified
Add phone number for SMS forwarding	*SF=TELNUMBER#	SMS FWD NUMBER CHANGED	The SMS forwarding phone number has been modified
Phone number of the module's SIM card	*MT=TELNUMBER#	MODULE PHONE NR CHANGED	The phone number of the SIM card has been modified
Entry period	*EP=OPEN,CLOSE#	ENTRY PERIOD CHANGED	The entry period has been modified
Reset module password to factory default: 1234	*PWRESET#	PW reset OK, new PW:1234	The module's password has been reset to default: 1234

2.1 Setting control modes

If the call is performed from a registered user phone number and the user is authorized in that moment to open (or the module's user list is empty and a call is received from any phone number), the module logs this call as opening in its event memory and activates the relays. The control panels of different gates need different open/close control impulses, therefore the module's output control can be selected out of four different modes. In the first three modes a single call is sufficient for the whole open and close cycle, while in the fourth mode one call is requested for opening and one another for closing.

- Control mode 1:** opening two different gates (A and B) on external impulse (closing is automatically made by the gate's control panel). It is adjustable for each user to have access only to gate A, gate B or both at the same time. The opening impulse for gate A is performed by Relay1, respectively the opening impulse for gate B is performed by Relay2 output.

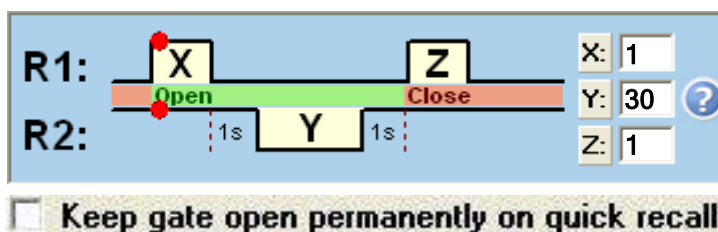
*M=1,A=1,B=30#



SMS command parameters	Specification
M=1	1st control mode
A=..	Gate A - opening impulse length in seconds
B=..	Gate B - opening impulse length in seconds

- Control mode 2:** opening on external impulse, closing on next impulse with a single call (control is made on the same input of the gate's control panel).

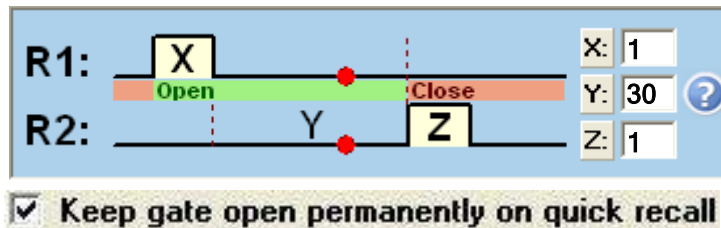
*M=2,X=1,Y=30,Z=1,O=0#



SMS command parameters	Specification
M=2	2nd control mode
X=..	Opening impulse length in seconds
Y=..	Keep the gate opened (duration in seconds)
Z=..	Closing impulse length in seconds
O=1 or O=0	1 = Keep the gate open permanently on quick recall

3. Control mode 3: opening on external impulse, closing on external impulse with a single call (control is made on two different inputs of the gate's control panel)

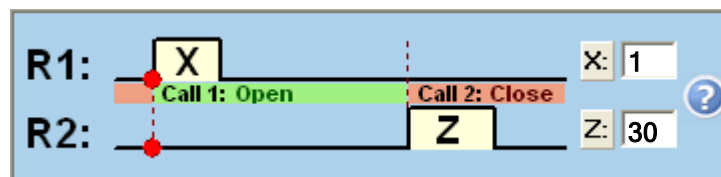
*M=3,X=1,Y=30,Z=1,O=1#



SMS command parameters	Specification
M=3	3rd control mode
X=..	Opening impulse length in seconds
Y=..	Keep the gate opened (duration in seconds)
Z=..	Closing impulse length in seconds
O=1 or O=0	1 = Keep the gate open permanently on quick recall

4. Control mode 4: opening on external impulse with a call, closing on external impulse with a second call (control is made on two different inputs of the gate's control panel, or on the same input, if the relay outputs are connected using parallel wiring)

*M=4,X=1,Z=30#



SMS command parameters	Specification
M=4	4th control mode
X=..	Opening impulse length in seconds
Z=..	Closing impulse length in seconds

2.2 Configuring contact inputs

The four contact inputs (IN1-IN4) can be configured as follows:

SMS command parameters	Specification
I1= ... I4=	Configures the normal state of inputs IN1..IN4
NO or NC	The normal state can be NO = normally open contact, or NC = normally closed contact
value in seconds e.g.: *I2=NO,5#	The given output must be activated for at least e.g. "5" seconds set here, in order to send the SMS assigned to that input. The range of the value is 0-255.

If any of the contact inputs remains continuously triggered, the module will resend the SMS assigned to this input when it executes its daily automatic restart, which is due around midnight each day!

2.3 Example for programming

SMS command	SMS message	Module's response
Register ADMIN user	*ADMIN#	YOU ARE REGISTERED AS ADMIN!
Setting control mode 2: opening impulse: 1 sec. Opened duration: 30 sec. Closing impulse: 1 sec. Keep open on quick recall: no	*M=2,X=1,Y=30,Z=1,O=0#	MODE 2 ACTIVATED
Assign SMS texts to inputs: IN1 – Cabinet opened IN2 – Gate failure	*S1=Cabinet opened#*S2=Gate failure#	SMS1 TEXT CHANGED SMS2 TEXT CHANGED
Input settings: IN1: N.O., sensitivity=10 seconds IN2: N.C., sensitivity=15 seconds	*I1=NO,10# *I2=NC,15#	IN1 INPUT TYPE CHANGED IN2 INPUT TYPE CHANGED
SMS forwarding: +3630111-1111	*SF=+36301111111#	SMS FWD NUMBER CHANGED
Phone number of the module's SIM card: +3630222-2222	*MT=+36302222222#	MODULE PHONE NR CHANGED
Entry period: from 8:00 to 16:00	*EP=8,16#	ENTRY PERIOD CHANGED
Adding new users: +3630333-3333: name1, master authorization, 0-24 entry, open both gates A and B +3630444-4444: name2, open only gate A +3630555-5555: name3, open only gate B	*n=+36303333333,name1,U,N,B# *n=+36304444444,name2,1# *n=+36305555555,name3,2#	NEW USER REGISTERED

To perform the settings specified in the example above, the SMS messages to be sent to the module are:

SMS1:

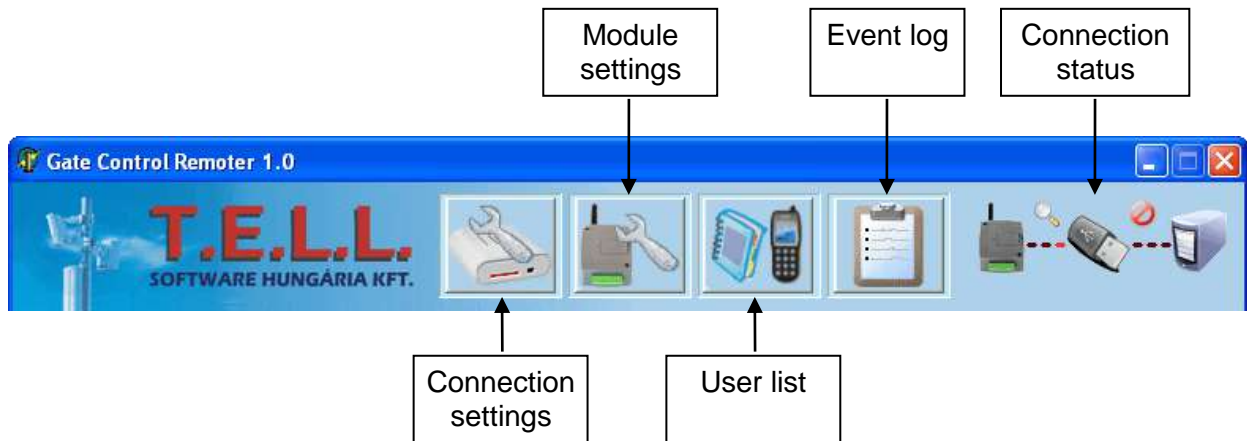
***ADMIN#**

SMS2:

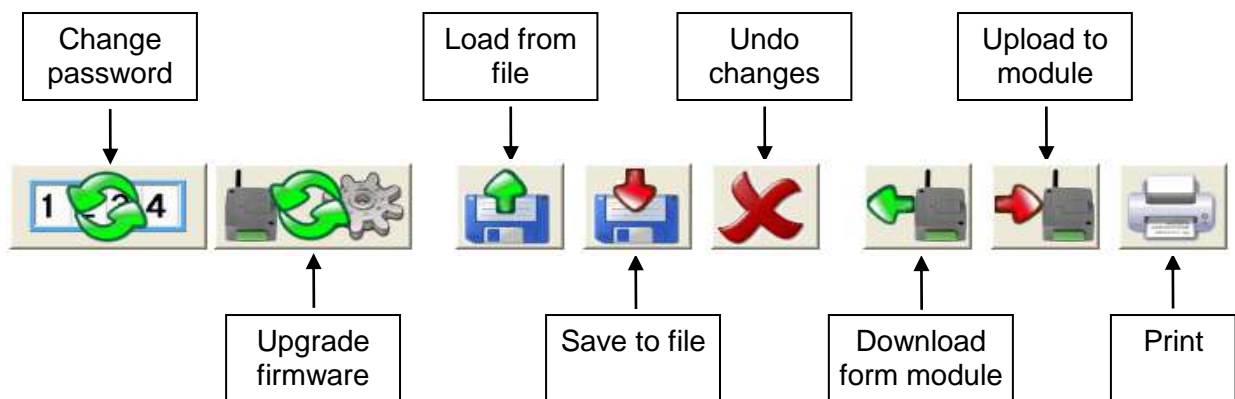
***M=2,X=1,Y=30,Z=1,O=0#*S1=Cabinet opened#*S2=Gate failure#
*I1=NO,10#*I2=NC,15#*SF=+36301111111#*MT=+36302222222#*EP=8,16#
*n=+36303333333,name1,U,N,B# ...etc.**

3 Programming using a PC

The Gate Control programming software runs on Windows operating systems (Windows XP, Win7 recommended). The menu of the programmer is the following:

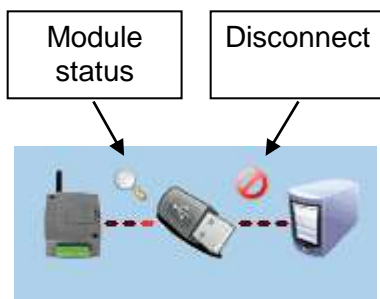


Further icons used in the program:

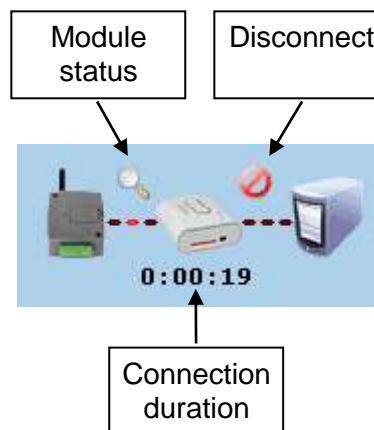


Connection status:

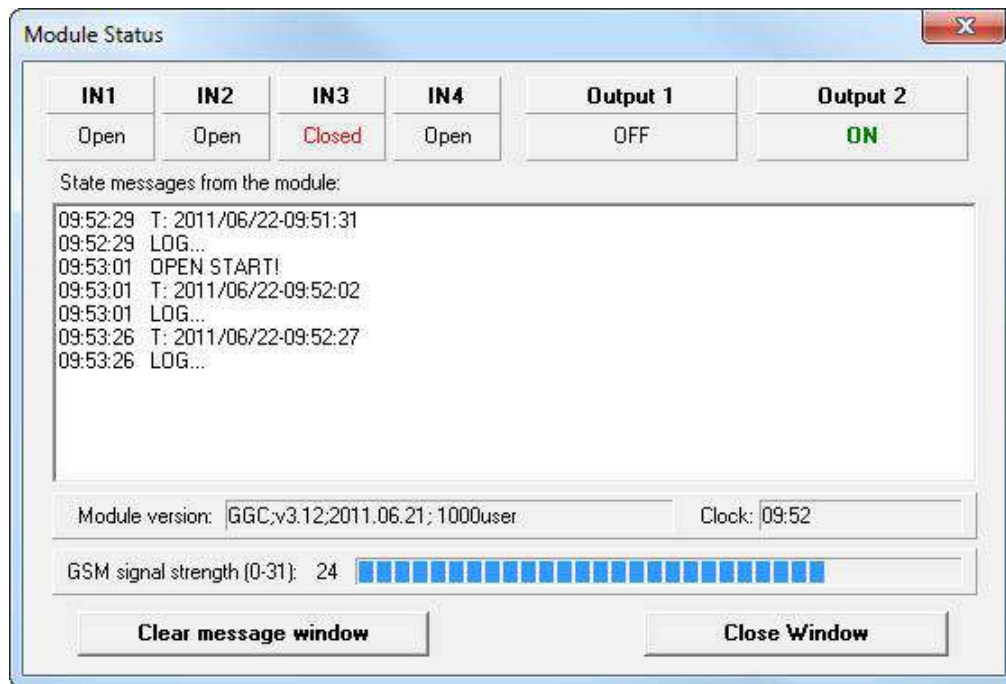
In case of USB connection:



In case of modem connection:



3.1 Module status monitoring



The monitoring window can be opened by clicking on the “magnifier” icon in the upper right corner of the main window. The icon is available only when the module is connected. This window indicates the current state of the inputs and outputs of the module, the module version, the module’s internal clock setting and the GSM signal level. The status messages give information about the processes running in the device.

3.2 Module clock setting

The module adjusts its internal clock automatically from the GSM network. If this procedure fails or the given GSM network does not support this option, the module is capable to adjust its clock by sending an SMS message to itself. For this, it is necessary to enter the phone number of the SIM card inserted into the module in the „*Module’s own number*” field. In this case the module will always set its clock by SMS, disregarding the time setting received from the GSM network.

First wait ~3 minutes after powering up the module, then check the time setting. If the setting differs from the current time, it means that setting the clock from the GSM network failed. In this case set the phone number of the SIM card inserted into the module in the „*Module’s own number*” field, then restart the module (disconnect from USB, then disconnect/reconnect supply voltage). If no restart is done, the module will adjust its clock by SMS only 24 hours later.

If the module cannot adjust its clock with the first SMS message, it sends further maximum two “timeset” SMS messages to itself.

ATTENTION! The module attempts to adjust its internal clock at each power up and then on each 20th day by requesting the exact time from the GSM provider or by sending an SMS to itself, depending on the setting.

There is no daylight saving function in the module. Basically it adjusts automatically its clock only each 20th day or on restart after power loss.

However, there is possibility to adjust the module’s internal clock manually through SMS. For this, the following SMS message has to be sent to the module’s phone number: **#dt**

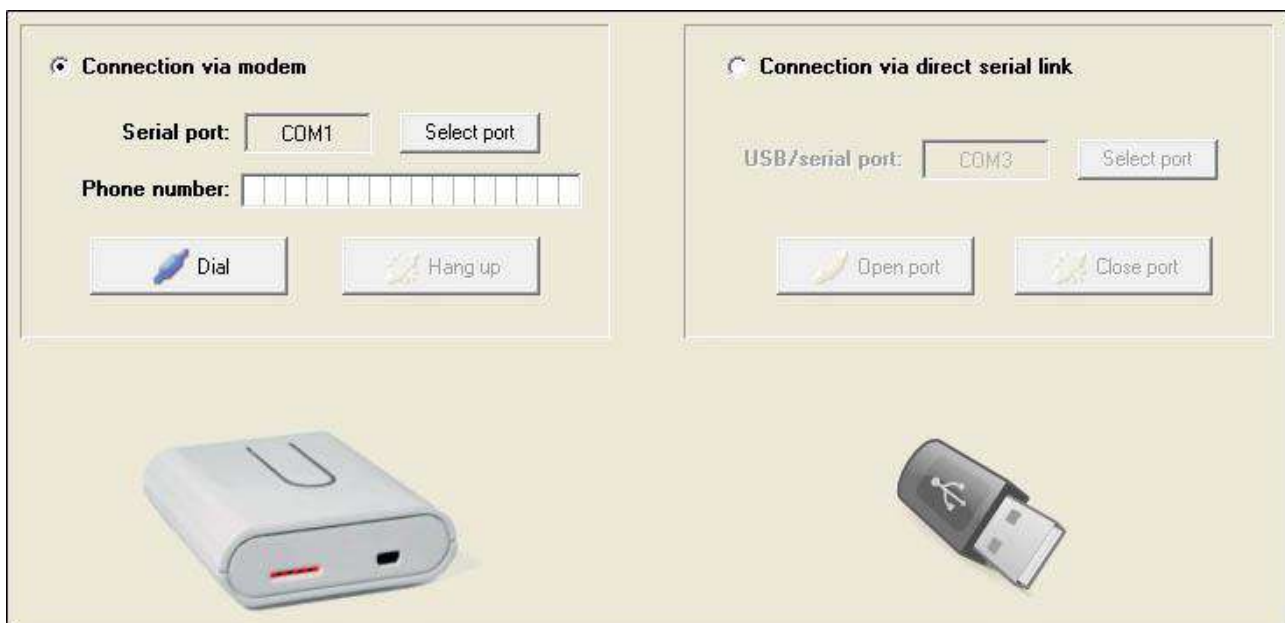
3.3 Programming through USB

- Start the Gate Control programming software.
- Power up the module, then connect it to the PC via USB.
- The program automatically recognizes the module connected to the USB port and a new window appears displaying the following message: “Module connected...”
- Enter the module’s password (default setting: 1234)
- If an invalid password has been entered, the “Wrong password” message appears. Reconnect the module and enter the right password.
- If the password is accepted, the software switches to the “Module settings” window and if the connection is successful, the program downloads and displays automatically the data stored in the module. You can find details about settings in the „Parameter settings” chapter.

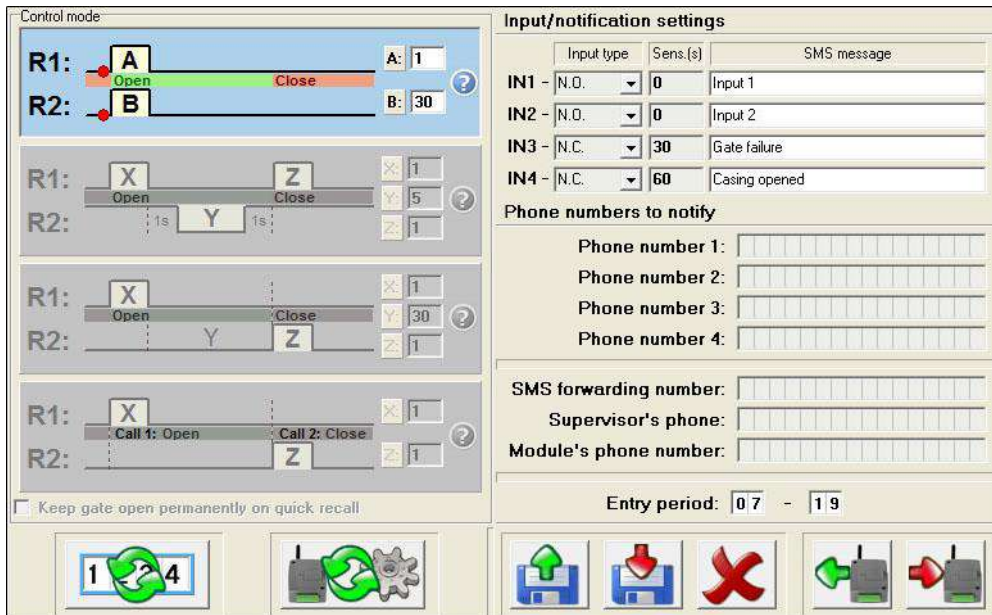
3.4 Programming through GSM data call using a modem

For programming through GSM data call (CSD) a GSM modem is necessary (T.E.L.L. GT64 is recommended). Both SIM cards (inserted in the Gate Control and in the GSM modem) must support GSM data call (CSD) service both ways: call and receive.

- Start the Gate Control programming software.
- Click on “Connection settings” icon, the program switches to the window below
- Select the serial port to which your GSM modem is connected
- Enter the phone number of the SIM card placed in the Gate Control module
- Click on “Dial” button (the connecting procedure takes less than 1 minute; any error will be displayed: no ringtone, busy, etc.)
- When the connection is established, the password is requested
- Enter the module’s password (default setting: 1234)
- If the password is accepted, the software switches to the “Module settings” window and if the connection is successful, the program downloads and displays automatically the data stored in the module. You can find details about settings in the „Parameter settings” chapter.



3.5 Parameter settings



Input/notification settings: configuration of the 4 inputs (IN1 ... IN4)

- **Input type:** the normal state of each input can be defined here (N.O.=normally open contact, N.C.=normally closed contact). When activated, the SMS with the specified message is sent to the phone numbers entered in “**Phone numbers to notify**” section. The input contact is considered between **Z1...Z4** (IN1...IN4) input and **V-** terminal.

- **Sens.(s):** the sensitivity of the inputs (IN1...IN4) is adjustable in seconds, input state changes shorter than this setting are ignored by the module.

Phone numbers to notify: four user phone numbers can be entered which all will receive the SMS messages initiated by the inputs.

SMS forwarding number: the SMS messages received by the module are forwarded to this phone number (used for e.g. forwarding balance information received from GSM provider).

- **Important! Never enter here the phone number of the SIM card inserted into the module, because this would initiate an infinite loop of SMS sent to itself right after the first incoming SMS, causing significant expense!**

Supervisor's number: the installer's phone number, used just for your information, the module does not use this phone number for any of its functions

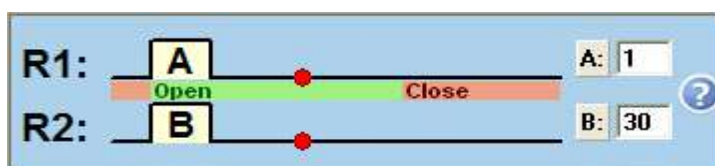
Module's phone number: the phone number of the SIM card inserted into the module. To be entered only if the module is unable to adjust its clock automatically from the given GSM network (see “**Module clock setting**” chapter).

Entry period: entry period can be defined here by entering hours of the day (defines from what hour to what hour will the users be able to open, who do not have “24h” access). If the user list is empty, the module can be controlled only in the configured entry period.

SMS restriction: the module is equipped with SMS restriction function. The function allows sending maximum 11 SMS messages between two opening control calls. This refers both to SMS forwarding and SMS sending initiated by inputs.

Control modes:

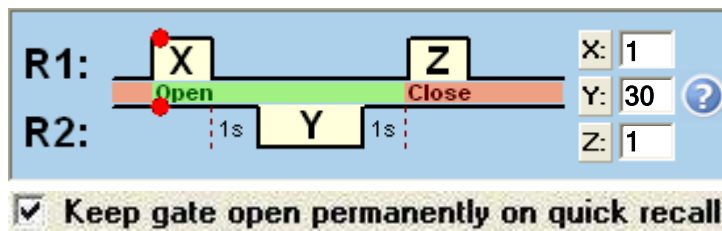
Control mode 1:



If the user is authorized to open gate A (adjustable for each user), then when opening starts, relay R1 is activated for A (e.g.1) seconds. If the user is authorized to open gate B, then when opening starts, relay R2 is activated for B (e.g.30) seconds. If the user is authorized to open both gates, then both relay outputs will be activated for the time set. In this mode closing must be automatically performed by the gate's control panel.

This mode can be used when two gates (A and B) have to be controlled. It can be configured for each user to have access only to gate A, only to gate B or both gates A and B at the same time. The same user cannot open gate A and B separately. If the module's user list is empty, any incoming call will activate both relays at the same time.

Control mode 2:

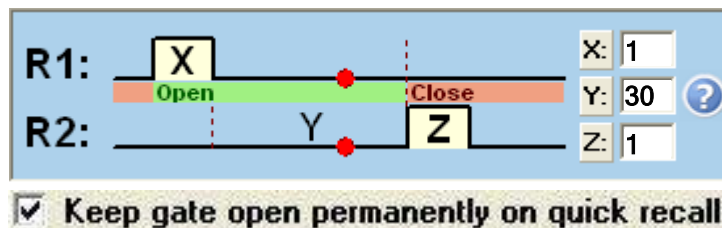


At opening, relay R1 is activated for X (e.g. 1) second(s). After one second delay relay R2 is deactivated for Y (e.g. 30) seconds. After one second delay R1 will be reactivated for Z (e.g.1) second(s). R1 is activated: opening begins, then at reactivation: closing begins. (R2 substitutes the infrared photocell's contact to keep the gate open.)

According to the example the opening and opened state period lasts 34 (X+1+Y+1+Z) seconds.

Keep gate open permanently on quick recall: if enabled, the gate remains open permanently after receiving a second call from the same user during the opening or opened period (during X+Y delay). The gate will close when a third call is received from the same user. If the gate remains open for an undetermined period after the second call, it will also close if the module receives **three calls** from a **different user**.

Control mode 3:



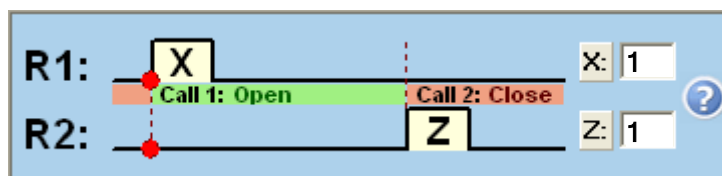
At opening, relay R1 is activated for X (e.g. 1) second(s), then when X second(s) expire, relay R2 is activated after Y (e.g. 30) seconds for Z (e.g. 1) second(s).

R1 is activated: opening begins, then after X+Y seconds R2 is activated: closing begins.

According to the example the opening and opened state period lasts at least 31 seconds.

Keep gate open permanently on quick recall: if enabled, the gate remains open permanently after receiving a second call from the same user during the opening or opened period (during X+Y delay). The gate will close when a third call is received from the same user. If the gate remains open for an undetermined period after the second call, it will also close if the module receives **three calls** from a **different user**.

Control mode 4:



At opening, relay R1 is activated for X (e.g. 1) second(s), then at second call from the same user relay R2 is activated for Z (e.g. 1) second(s). R1 is activated: opening begins, then after the second call R2 is activated: closing begins.

Settings can be saved to file, loaded from file, downloaded from the module or loaded to the module. The previous status can be restored by clicking on "Undo changes" icon.

3.6 User list

Index	Phone number	User name	Properties	Authorizer
1.	+ 3 6 3 0 1 1 1 1 1 1 1 1	ADMIN	<input checked="" type="checkbox"/> Master <input checked="" type="checkbox"/> 24h A+B	
2.	+ 3 6 3 0 2 2 2 2 2 2 2 2	Andrew	<input type="checkbox"/> Master <input checked="" type="checkbox"/> 24h B	
3.	+ 3 6 3 0 3 3 3 3 3 3 3 3	Brian	<input checked="" type="checkbox"/> Master <input type="checkbox"/> 24h A+B	
4.	+ 3 6 3 0 4 4 4 4 4 4 4 4	Chris	<input type="checkbox"/> Master <input type="checkbox"/> 24h A	
5.			<input type="checkbox"/> Master <input type="checkbox"/> 24h A	
6.			<input type="checkbox"/> Master <input type="checkbox"/> 24h A	

The user phone numbers can be entered in the „Phone number” column (maximum 16 digits) and the user names in the „User name” column (maximum 24 characters). There are two setting options for each user in the “Properties” column: by enabling the “**Master**” option, the user will be authorized to add and delete users in SMS. By enabling the “**24h**” option, the user will be authorized to control the gate at anytime, else only in the configured entry period. For control mode 1. it can be configured for each user to be authorized to control only gate A, only gate B or both gates A+B at the same time.

To add an ADMIN user who will be able to manage the settings and users by SMS, enter the phone number in the appropriate column, enter “ADMIN” as user name and enable at least “Master” option. The system accepts registration of only one ADMIN user.

If no user is entered, the module can be controlled by calls from any phone number.

The user list (numbers, names and properties) can be saved to file, loaded from file, downloaded from the module or transferred to the module using the appropriate buttons.

Creating, opening from file and saving the user list can be done when both online or offline (when the module is disconnected from the software).

The user list can be opened in the software from two file formats:

- PPD: individual, encrypted format used by the software
- CSV: comma-separated text format which can be created manually

The CSV file must have the following format in order to be loaded properly in the software:

For full configuration, the CSV file must contain the data in the following format (example):

```

Index,Phone number,User name,Gate A/B,Master,0-24,Authoriser
1,+3630111111,ADMIN,A+B,X,X,<Remoter>
2,+3630222222,Andrew,B,"",X,<Remoter>
3,+3630333333,Brian,A+B,X,"",<Remoter>
4,+3630444444,Chris,A,"",,"",<Remoter>

```

The first line must be the header as shown above:

(Index,Phone number,User name ...etc.).

From the second line it must contain the indexes, phone numbers, names and properties, each user in new line.

If only the indexes and the phone numbers are specified, the additional settings (properties) remain blank in the software.

Saving the user list is possible in the following file formats:

- PPD: individual, encrypted format used by the software
- Excel: Microsoft Excel format
- CSV: text file, comma-separated text
- TXT: text file, comma-separated columns

3.7 Event List

	Date/Time	Phone number	User name	Event
3	2007.07.20. 09:36:49			Remoter used: Settings changed
4	2007.07.20. 09:34:37	+36301234567	ADMIN	Gate opened
5	2007.07.19. 15:50:07	+36301234567	ADMIN	Gate opened
6	2007.07.19. 15:49:05			Remoter used: Phone numbers changed
7	2007.07.19. 15:48:19			Remoter used: Settings changed
8	2007.07.19. 11:59:11	+36301234567	ADMIN	Gate opened
9	2007.07.19. 11:54:30			Remoter used: Phone numbers changed
10	2007.07.19. 11:29:56			Remoter used: Settings changed

The module stores the last 2000 events, which can be downloaded selectively in the following way:

The screenshot shows a selection interface with four radio button options:

- Today's events
- Yesterday's events
- Events of the last day(s)
- Events between and

The event list can be printed or saved to file in the following three file formats:

- Excel: Microsoft Excel format
- CSV: text file, comma-separated text columns
- TXT: text file, tabulator-separated text columns

When the number of stored events reach 2000, the module deletes automatically the oldest 500 events. If there were events but the event log is still empty, please check if the module's clock has been set correctly (further details are available in the "[Module status monitoring](#)" and "[Module clock setting](#)" paragraphs). If the module's clock is not set, the module is unable to assign timestamps to events, therefore these events are lost and the event log will be empty.

4 External elements and functions of the GSM Gate Control

4.1 SIM card socket

The cover can be removed by pressing it horizontally on the marked edge towards the LED display. Insert the SIM card here.

4.2 LED signals

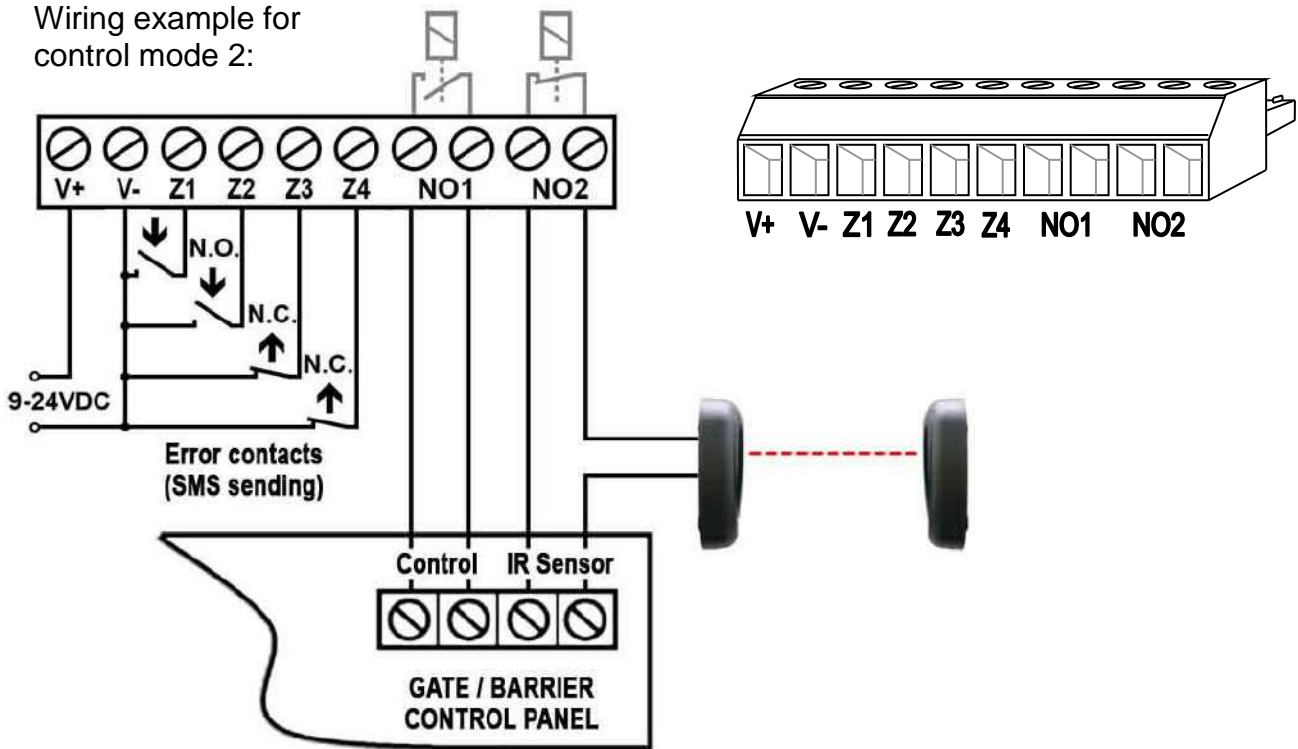
Red is permanently lit	No GSM network, or turning on / restarting the phone is in progress.
Red and Green flash slowly and alternately	The downloaded data are faulty or missing.
Green flashes slowly Red is off	Normal operation

4.3 Connecting the antenna

The GSM antenna can be connected to the FME-M connector. The antenna supplied with the module provides good transmission under normal reception circumstances. In case of occasionally occurring signal strength problems or/and wave interference (fading), use other type of antenna or find a more suitable place for the module.

4.4 Wiring

Wiring example for control mode 2:



- V+** Supply voltage 9-24 VDC (min. 500mA)
- V-** Supply voltage negative polarity (GND)
- Z1** 1. (IN1) contact input (considered between Z1 and V-)
- Z2** 2. (IN2) contact input (considered between Z2 and V-)
- Z3** 3. (IN3) contact input (considered between Z3 and V-)
- Z4** 4. (IN4) contact input (considered between Z4 and V-)
- NO1** 1. relay output (normally open)
- NO2** 2. relay output (normally open)

Important! If the antenna is mounted so that it has connection with the metal housing of the control panel, and this housing is connected to the protective ground, then it is necessary to connect the protective ground to the module's V-terminal as well. (Otherwise the leaking current between GND and the protective ground may damage the module.)

Supply voltage adapter unit:

If only AC supply voltage is available, then the enclosed voltage adapter should be used, since the module supports only DC voltage. The wired output of the voltage adapter should be connected properly to the module's power input (V+, V-) considering polarity, and the adapter's input provided with terminal block can be powered up from 16-30VAC. This results approx. 14VDC on the adapter's wired output.



The supply voltage adapter is not short circuit proof, therefore please connect its output to the module before applying supply voltage, otherwise the voltage adapter may become faulty!

5 Installation guide

Please verify the environment of the module before mounting:

- Measure the GSM signal strength with your cellular phone. It may happen that in the desired place of installation the signal strength is not satisfactory. In this case you can move the module somewhere else before installation.
- DO NOT mount the module where it can be affected by strong electromagnetic disturbances, e.g. in the vicinity of electric motors etc.
- DO NOT mount the module in wet places or in places with a high degree of humidity.

5.1 Putting into operation

- **Disable PIN code request and voicemail on the SIM card.**
- **Enable caller identification and caller ID sending services on the SIM card at the GSM service provider (a few types of SIM cards do not have these services enabled by default).**
- Make sure the SIM card is inserted properly into its socket.
- Make sure the antenna is fixed properly into the GSM Gate Control.
- Make sure the wiring is done as specified above.
- Power up the module (9-24 VDC). Make sure the power supply is sufficient for the GSM Gate Control. The quiescent current of the GSM Gate Control is 120mA, but during communication it can reach 500mA. Insufficient supply current may cause operation malfunction. In this case auxiliary 230VAC/12VDC-1A power supply is available at the manufacturer, which can be ordered separately.

Attention! The module restarts automatically once each 24 hour and at each power up, therefore it is recommended to choose the power source with special attention to avoid unwanted costs resulting from setting the module's clock by SMS! (see chapter "Module clock setting").

If any of the contact inputs remains continuously triggered, the module will resend the SMS assigned to this input when it executes its daily automatic restart, which is due around midnight each day!

6 Technical information

6.1 Technical specification

Supply voltage:	9-24 VDC, using power adapter: 16-30 VAC
Nominal current:	120mA
Maximum current:	500mA @ 12VDC, 250mA @ 24VDC
Operating temperature:	-20°C - +70°C
Transmission frequency:	GSM 850/900/1800/1900 MHz
Max. load of relay outputs:	5A @ 24VAC/DC
GSM phone type:	Simcom SIM900
Dimensions:	84 x 72 x 32mm
Net weight:	200g
Gross weight (packed):	300g

6.2 Package contents

- GSM Gate Control + terminal block
- GSM 900MHz / 1800MHz antenna
- User's guide, warranty card
- CD