

1. Overview

The **Tador-Gate** is a complete system solution for cellular gate\door access control.

The unit stores white list of authorized users; when someone calls the unit, the unit hangs-up. the call and check if the caller ID exists in the list, if it does, a pulse generated by internal relay, command the gate\door to open. No call cost for the user.

The unit holds up to 1600 authorized users and up to 400 restricted (limited) users, totally 2000 users.

2. General Product Description

<p>Dimensions</p>	<p>Technical drawing of the Tador-Gate unit. The top view shows a rectangular unit with a width of 75.90 and a height of 48.30. A smaller inner rectangle is shown with a height of 32. The side view, labeled 'SECTION A-A', shows a depth of 41 and a height of 26. A smaller dimension of 21 is also indicated in the side view.</p>
<p>Weight</p>	<p>160 grams</p>
<p>Input voltage</p>	<p>5V-30V DC</p>
<p>Casing material</p>	<p>The case made from plastic PC IP40 Avoid exposing the unit to liquid or moisture</p>

3. RoHS compliance

All hardware components are fully compliant with the EU RoHS and W EEE Directives

4. GSM frequencies

The unit supports quad band GSM frequencies

- GSM-850
- E-GSM-900
- DCS-1800
- PCS-1900

5. Installation

1) Electronic Gate\Door requirements

The Electronic Gate\Door requires dry contact activation

2) 3.2 SIM card insertion

With a Philips screw driver open the SIM card drawer cover and insert the SIM card. Make sure the SIM card is capable to receive incoming SMS messages and to identify a caller ID.

3) GSM antenna

The GSM antenna needs to be connected to the SMA connector in the front panel

4) Power Supply

The power supply for the GateOpen has to be a single voltage source of POWER 5V-30V capable of providing a peak during an active transmission. The GateOpen is protected from supply voltage reversal.

An internal fuse ensures an electrical safety according to EN60950.

This fuse is not removable.

5) Supply voltage requirements

A DC power supply must be connected to the Power input:

- Input voltage range 5V - 30V DC
- Nominal Voltage 12V DC
- Power Supply current rating: min. 1,2A @12V
- Power Supply ripple: max. 120mV
- Input current in idle mode: 25mA @ 12V
- Input average current while GSM network active (call, etc...): 100mA @ 12V

6) Unit turning on

After power the unit on, the internal software will finish to be loaded within 3 minutes. The green LED will be turned on to indicate the unit is ready for use.

7) Access the gate\door

A registered user may call the unit and activate it output.

If the user cellular phone blocks its caller ID, he can access the unit by SMS.

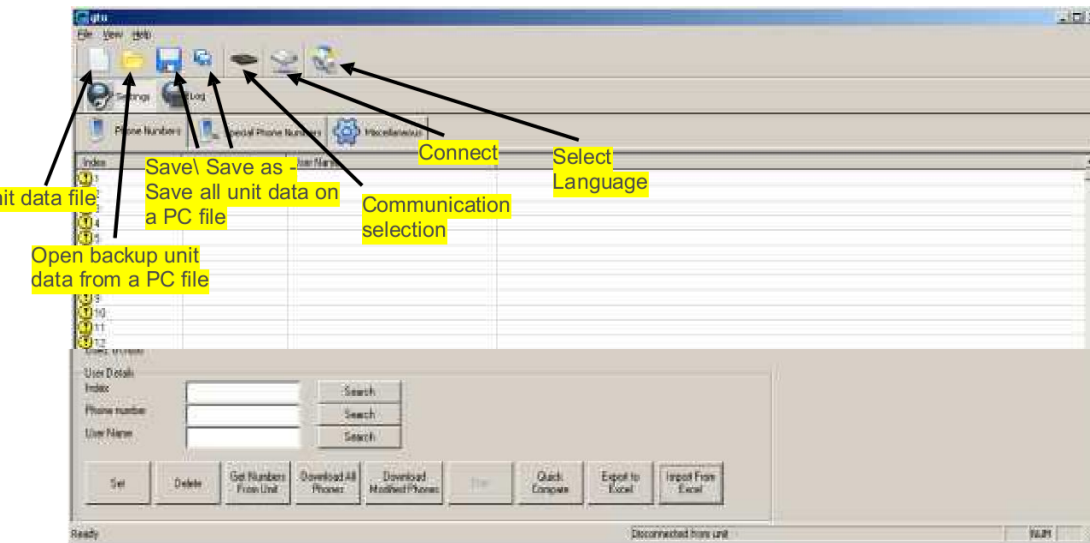
If an access control by SMS is desired, the SMS: O (lowercase or uppercase) needs to be sent to the unit.

6. Programming the unit

There are three options to program the unit

- 1) By a computer with the GTO using serial cable (with the Tad-Gate USB adapter cable)
- 2) By a computer with the GTO using data call (CSD connection)
- 3) By SMS commands

1) GTO software



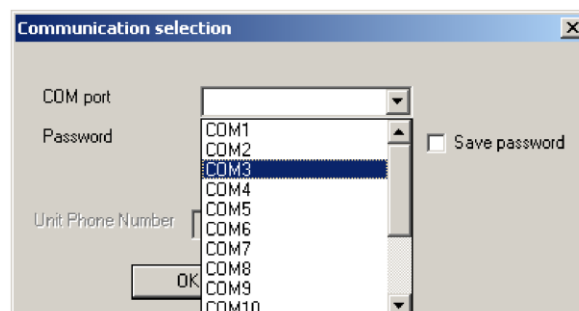
1) Serial connection

Connect the Tad-Gate USB adapter to the computer and install its driver and verify its COM port number.

Connect the cable to the Tad-Gate unit.

- A. Open the GTO software and click the “communication selection” button

- B. Make sure the “Use Modem” check box is unmarked, insert the unit password (default password is 1234), select the proper com port and press OK. Click the “connect” button to establish the connection to the unit.



- C. When the communication will be established, the disconnect button will appear. While connected to the unit, the orange LED will turn off and no incoming calls for access control will be accepted.

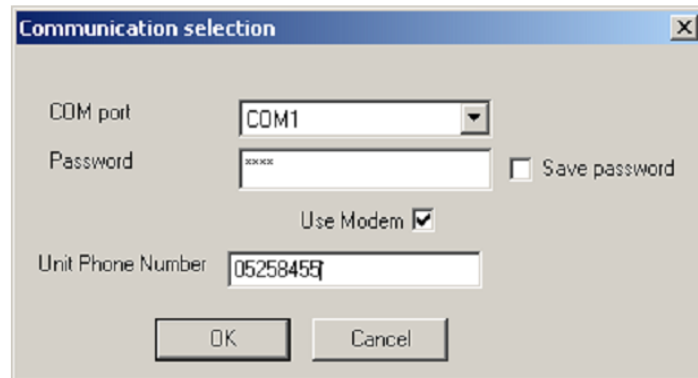
2) Data call connection (CSD connection)

In order to use this option a GSM modem terminal must be used.

Verify with the GSM carrier that both SIM cards (GSM modem terminal and the Tad-Gate unit) support data calls.

- Connect the GSM modem terminal to the computer with a serial cable.
- Open the GTO software and click the “communication selection” button

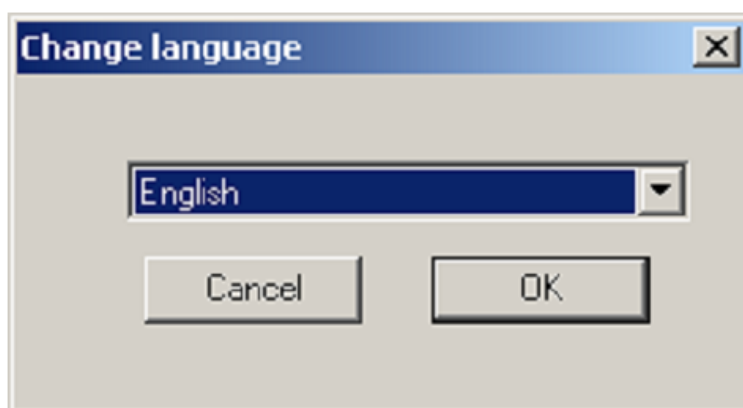
- Mark the “Use Modem” check mark, insert the unit password (default password is 1234), select the proper com port, insert the Tador-Gate phone number and press OK. Click the “connect” button to establish



the connection to the unit; it can take up to one minute to establish the communication. When the communication will be established, the disconnect button will appear. While connected to the unit, the orange LED will turn off and no incoming calls for access control will be accepted.

3) 4.1.3 Change the software language

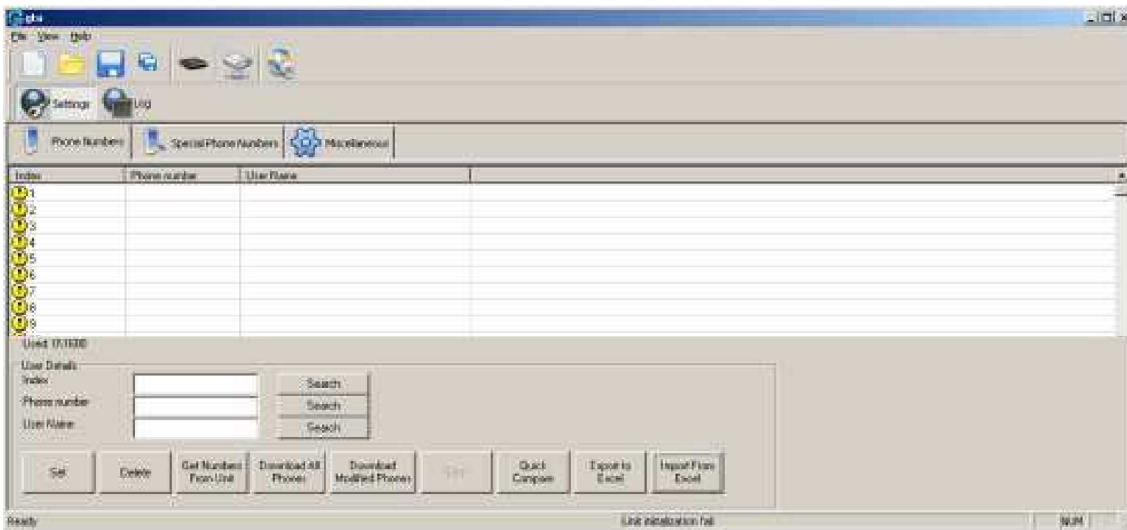
Click the “Select Language” button, select the wanted language and press OK. In order the change to take place, the software must be reopened.





4) Users screen

Manage the users' whitelist.



All the descriptions below are enabled only after connecting to the unit.




A. Get the users list from the Tad-Gate unit:

- 1) Click the "Get Numbers From Unit" button
- 2) Verification screen will popup, Click "Yes"
- 3) All the users icons will be changes to 
- 4) Wait until the progress bar will fill
- 5) All the retrieved users icons will be changed to 


B. Compare the GTO users list with the Tad-Gate unit users list

- 1) Click the "Quick compare" button - Wait few seconds
- 2) The GTO compares batches of 100 users with the Tador-Gate unit (1-100, 101-200, etc...).
- 3) If one or more user\s in the batch are different, all the 100 batch users' icons will be changes to 
- 4) If all 100 users in the batch are equal, the users' icons will be changed to 


C. Add user:

- 1) Click on an empty user record or enter its index in the "Index" field
- 2) Enter the phone number field
- 3) Enter the user name field
- 4) Click the "Set" button, the selected field will fill with the wanted parameters and its icon will be changed to 
- 5) The changes will not take place until writing them to the unit.

D. Delete user:


- 1) Click on a user record or enter its index in the “Index” field
- 2) Click the “Delete” button, the selected field will fill with empty parameters and its icon will be changed to 
- 3) The changes will not take place until writing them to the unit

E. Change User:

- 1) Click on an exist user record or enter its index in the “Index” field
- 2) Change one or more user parameters
- 3) Click the “Set” button, the selected field will fill with the wanted parameters and its icon will be changed to 
- 4) The changes will not take place until writing them to the unit



F. Write the users list to the Tad-Gate unit:

*In this option, the entire user list is being writing to the unit, regardless to the present of the records in the unit.

- 1) After finishing adding deleting and changing users from the list, click the “Download All Phones” button
- 2) Wait for the progress bar to fill, it can take several minutes
- 3) All the written records icons will be changed to 

G. Write the modified users list to the Tad-Gate unit:

*In this option, only records that marked with  icon will be written to the unit.

- 1) After finishing adding deleting and changing users from the list, click the “Download Modified Phones” button
- 2) Wait for the progress bar to fill, it can take several minutes depends on the number of records marked as 
- 3) All the written records icons will be changed to 

H. Stop the current process with the Tad-Gate unit:

The processes getting the users list, write the entire users list\modified users list to the unit can be stop in the middle by pressing the “stop” button. The stop procedure may take a few seconds.

I. Export the users’ list to Excel file:

- J. The users’ list can be export to Excel file using the “Export to Excel” button.

K. Import the users' list from Excel file:

The users' list can be imported from an Excel file using the “Import from Excel” button.

The imported file must be a file that has been exported from the GTO software, otherwise an error will occur.

In order to import an Excel file, export an empty Excel file as a template from the GTO software, change it and import it back to the GTO software.

L. Search record in the users' list:

A record can be searched by entry number, phone number or partial user name.

Index number\phone number\partial user name in the correct field and press the search button next to it.

If the record exists in the list, it will blink four times.

6) Special Phone Numbers screen (Restricted users)

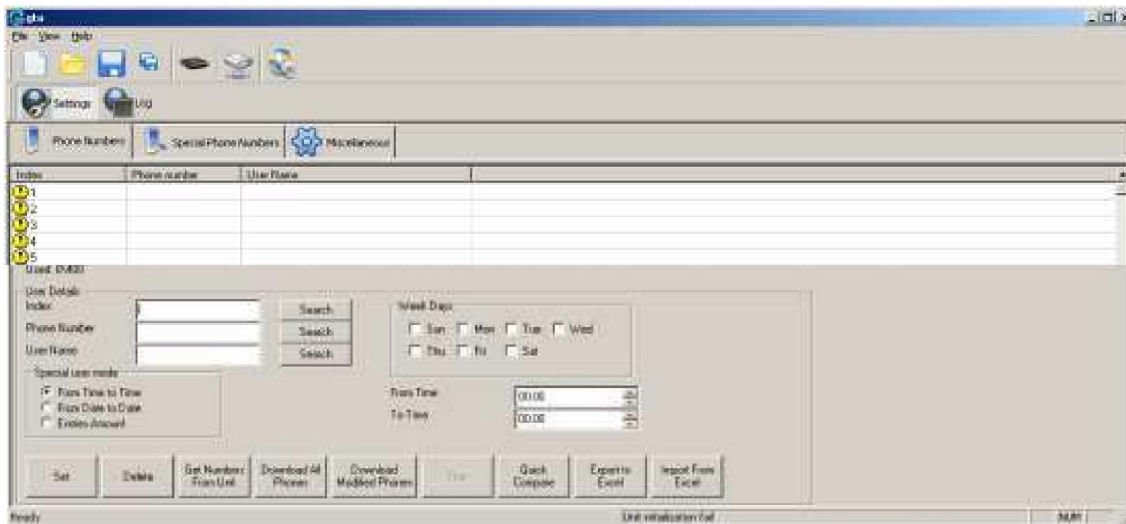
Manage the restricted users' whitelist.

A restricted user is able to activate the relay in three ways:



- 1) From time to time in specific week days, e.g. 10:30-15:00 on Sunday and Friday
- 2) From date to date, e.g. from 05/05/07 08:00 to 06/06/07 23:00
- 3) Number of entries – the user is restricted for a certain amount of activations

*** In order that the restricted users will work fine, the unit internal clock must be set, for more information refer to “Unit time” in the “Miscellaneous screen” section.**



All the descriptions below are enabled only after connecting to the unit.




A. Get the restricted users list from the Tad-Gate unit:

- 1) Click the “Get Numbers From Unit” button
- 2) Verification screen will popup, Click “Yes”
- 3) All the users' icons will be changed to 
- 4) Wait until the progress bar will fill
- 5) All the retrieved users icons will be changed to 


B. Compare the GTO restricted users list with the Tad-Gate unit

- 1) Click the “Quick compare” button
- 2) Wait few seconds.
- 3) The GTO compares batches of 50 users with the Tad-Gate unit (1-50, 51-100, etc).
- 4) If one or more user\’s in the batch are different, all the 50 batch users’ icons will be changes to .
If all 50 users in the batch are equal, the users’ icons will be changed to 

C. Add restricted user:


- 1) Click on an empty restricted user record or enter its index to the “Index”
- 2) Enter the phone number field
- 3) Enter the user name field
- 4) Select the user mode and enter the user mode parameters
- 5) Click the “Set” button, the selected field will fill with the wanted parameters and its icon will be changed to 
- 6) The changes will not take place until writing them to the unit.

D. Delete restricted user:

- 1) Click on a restricted user record or enter its index to the “Index” field
- 2) Click the “Delete” button, the selected field will fill with empty parameters and its icon will be changed to 
- 3) The changes will not take place until writing them to the unit


E. Change restricted user:

*In this option, the entire user list is being writing to the unit, regardless to the present of the records in the unit

- 1) After finishing adding, deleting and changing users from the list, click the “Download All Phones” button
- 2) Wait for the progress bar to fill, it can take several minutes
- 3) All the written records icons will be changed to 



F. Write the restricted users list to the Tad-Gate unit:

*In this option, the entire user list is being writing to the unit, regardless to the present of the records in the unit.

- 1) After finishing adding, deleting and changing users from the list, click the “Download All Phones” button
- 2) Wait for the progress bar to fill, it can take several minutes
- 3) All the written records icons will be changed to 

G. Write the modified restricted users list to the Tad-Gate unit:

*In this option, only records that marked with  icon will be written to the unit.

- 1) After finishing adding, deleting and changing users from the list, click the “Download Modified Phones” button
- 2) Wait for the progress bar to fill, it can take several minutes depends on the number of records marked as 
- 3) All the written records icons will be changed to 

H. Stop the current process with the Tad-Gate unit:

The processes getting the users list, write the entire restricted users list\modified restricted

users list to the unit can be stop in the middle by pressing the “stop” button. The stop procedure may take a few seconds

I. Export the restricted users’ list to Excel file:

The restricted users’ list can be export to Excel file using the “Export to Excel” button

J. Import the users’ list from Excel file:

The restricted users’ list can be import from Excel file using the “Import from Excel” button. The imported file must be a file that been exported from the GTO software, otherwise an error will occur.

In order to import Excel file, export en empty Excel file as a template from the GTO software, change it and import it back to the GTO software.

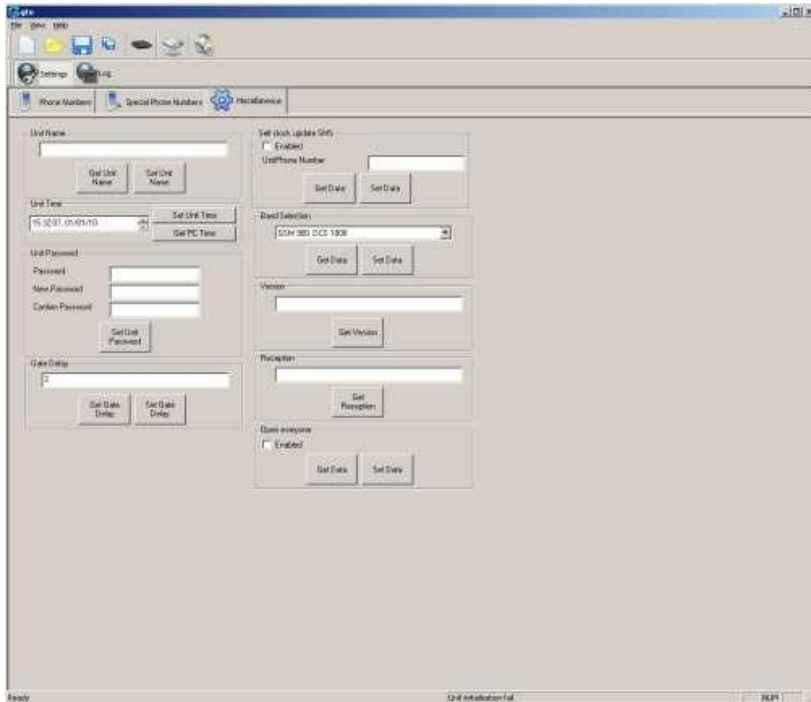
K. Search record in the restricted users’ list:

A record can be searched by entry number, phone number or partial user name.

Enter entry number\phone number\partial user name in the correct field and press the search button next to it.

L. Miscellanies screen:

Manage the unit parameters.



M. Get or Set the unit name

N. Unit time:

In order to write the current time to the unit, get the PC time and then set it to the unit. The unit clock will be lost when the power turned off.

O. Unit password:

Define new password for the unit.

The password is used in the connection selection screen. Default password is 1234.

P. Gate delay:

Get or set the gate delay in seconds.

Gate delay defines the time that the relay will be activated.

Q. Automatic clock update via SMS – (Self clock update SMS):

If enabling this feature, the unit sends to itself SMS on startup and updates its internal clock according to the SMS time stamp.

Unit Phone Number – The phone number of the Tad-Gate unit.

R. Band selection:

Get or set the GSM band according to the GSM support in the country

S. Version:

Get the Tad-Gate unit firmware version.

T. Signal level (Reception):

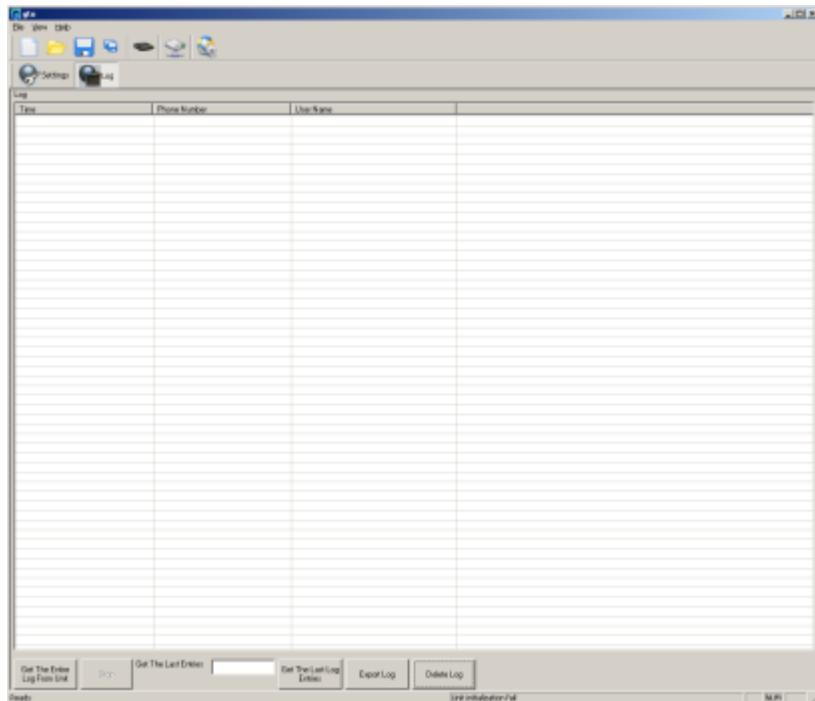
Get the GSM signal level in dBm and presents.

U. Open everyone:

If enabling this feature, the unit will activate the relay for every phone number that is calling to the unit, regardless to the users list.

v. Log:

Manage the unit log



W. Get the entire log from unit:

Get the entire log from the unit

X. Get most recent long entries:

Get the last desire amount of entries from the log.

Enter the desire amount and then click “Get the Last Log Entries”

Y. Delete log:

Delete all the unit log, confirmation is required

Z. Stop the current process with the Tad-Gate unit:

The processes of getting the entire log and getting most recent long entries can be stop in the

Z.1. Middle Stop

By pressing the “stop” button. The stop procedure may take a few seconds

AA. Export the retrieved log entries to Excel file:

The log entries can be export to Excel file using the “Export log to Excel” button.

Program the Tad-Gate unit with SMS commands

Program the Tad-Gate unit with SMS commands

Every SMS command send to the unit, must start with P.<password> Example: add new phone number 0541122333 with unit password 1234: P.1234A.0541122333

The SMS unit password is the same as the GTO unit password
The password used in all the examples in this section is 1234.
The unit ignore from messages that do not start with p.<password> or the password is incorrect.

After parsing the SMS commands the unit responds to the sender with confirmation or error message (in order to have return message the unit's SIM card must have outgoing SMSs).

The SMS command must not exceed 160 characters.
All the characters in the SMS must be in the same letter case (all uppercase or lowercase). In the examples below uppercase characters have been used.

Add new phone numbers

Add new phone numbers to the regular phone list.

Syntax: A.<phone number>.<phone number>....
Use a dot to separate the phone numbers from each other.

Example: P.1234A.0547512152.0525874525
Add 0547512152 and 0525874525 to the phone list

Add new restricted phone number

From time to time in specific week days user Add new restricted user in "From time to time in specific week days" mode.

Syntax: AS.<phone number>.1.<HHMM>.<HHMM>.<week days> Weekdays: 1-Sunday, 2-Monday...

Example 1: P.1234AS.058126248.1.1130.1540.135
Phone number 058126248 will be allowed to enter from 11:30 to 15:40 on Sunday, Tuesday and Thursday
Example 2: P.1234AS.058126248.1.2300.0200.24
Phone number 058126248 will be allowed to enter from 23:30 to 02:00 on Monday and Wednesday.

From date to date

Not supported in SMS command

Number of entries

Add new restricted user in number of entries mode.

Syntax: AS.<phone number>.3.<amount of entries> Example 1:

P.1234AS.058126248.3.6

Phone number 058126248 will be allowed to enter 6 times

Delete phone number

Delete phone numbers from the regular phone list

Syntax: D.<phone number>.<phone number>....

Use a dot to separate the phone numbers from each other.

Example: P.1234D.0547512152.0525874525

Delete 0547512152 and 0525874525 from the regular phone list

Delete phone numbers from the restricted phone list

Syntax: DS.<phone number>.<phone number>....

Use a dot to separate the phone numbers from each other.

Example: P.1234DS.0547512152.0525874525

Delete 0547512152 and 0525874525 from the restricted phone list

Format the entire users list

Erase the entire phone list, regular and restricted.

Syntax: FORMAT

Example: P.1234FORMAT

Define the gate delay

Write the gate delay in seconds.

Gate delay defines the time that the output will be activated.

Syntax: GOD.<gate delay>

Example: P.1234GOD.7

Set the gate open to 7 seconds delay

Update the unit clock

Update the unit clock from the SMS time stamp

Syntax: CU

Example: P.1234CU

New unit password

Change the current password

Syntax: NP.<new password>

Example: P.1234NP.4321

Change the unit password to 4321

Enable\disable the unit

Disable or enable the entire unit.

While the unit is disabled, all the incoming calls will be rejected.

Syntax: EN.{0,1}

Example: P.1234EN.1

Enable the unit

Example: P.1234EN.0

Disable the unit

Allow access to everyone (open everyone)

Ignore the phone list (regular and restricted) and allow everyone to activate the relay output

(Output2 and output3 are not accessible in the mode).

Syntax: OPEN.{0,1} Example: P.1234OPEN.1

Allow access to everyone

Example: P.1234OPEN.0

Normal operation

Retrieve the unit information

Retrieve information about the unit:

- Amount of numbers in the phone list
- Amount of numbers in the restricted phone list
- Reception level
- Unit Enable\Disable
- open everyone Enabled\Disabled

Syntax: INFO Example: P.1234INFO

Retrieve the unit firmware version

Syntax: VER Example: P.1234VER



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