

THE GSM GATE OPENER



Where is my gate remote control?

This product let you open your gate/door using your phone in an easy and inexpensive way.

Once installed and configured, **GSM GATE OPENER** doesn't entail any phone cost sending commands to open gate/door.

GSM GATE OPENER adapts to your needs operating in three different modes:

- BASIC** family-mode: drive you gate in the easiest way
- EXTENDED** let your family access the gate and control/enable people other than your family.
- PRO** managing an authorization calendar when your needs are to daily enable/revoke access authorization (for accomodation facilities like hotels, B&B, and so on)

The same GSM GATE OPENER chan change operating mode moving through BASE, EXTENDED and PRO or back, easily, without any need of technical support.

Install your GSM GATE OPENER, provide it with a phone sim card, connect it to your gate/door and then you'll be able to set its operating mode in an essay and fast way.

Here are details on GSM GATE OPENER operating modes.

BASIC MODE



For the family. Easy. Fast.

Connect (or ask someone to) your GSM GATE OPENER to the gate, install a phone sim card, plug in the power cable. Then start initial programming as follows:

- PUSH RESET BUTTON using a pin (like a pen) for 5 seconds..
- As soon as you push **"Reset"** button, **"Reset"** led will turn on
- After 5 seconts "Reset" led will start a fast flashing, Release the button: automatic configuration procedure will start. All the previous authorized phone numbers will be deleted. After phonebook reset (needs some seconds) ...
- "Reset" led will start flashing slow for 5 mins.
- While "Reset" led slowly flashes, GSM GATE OPENER will registers all the phone numbers calling, as phone numbers enabled to open the gate.
- When "Reset" led stop flashing (5 mins) programming mode ends and no more hphone numbers will be enabled to open gate.

That's all!

From now on you can use GSM GATE OPENER to open your gate.

Use of GSM GATE OPENER

Registered phone numpers will open gate making a call to GSM GATE OPENER. No other phone wil lbe able to do it.

EXTENDED MODE



For the family and its collaborators.

Follow the BASIC MODE instructions to configure main authorized phone numbers. Phone numbers enabled in such a way (called MASTER users) can send SMS to GSM GATE OPENER changing configuration. SMS commands available are:

USER command
DEL command
LIST USERS command

USER command

Any MASTER can anytime enable new phone numbers opening gate. A MASTER enables a new phone number sending GSM GATE OPENER and SMS with text *USER* followed by *<phone number>* These USER phone numbers can just open gate making a call to GSM GATE OPENER. Any SMS command sent by USER will not be considered: SMS commands are reserved to MASTER users (Reset procedure).

Please note: *<phone number>* must not contain spaces or sign other than initial '+' sign requested by international phone number coding.

Exapmles

<i>USER 3351234567</i>	OK
<i>USER +393351234567</i>	OK
<i>USER +39 335 1234567</i>	NO!
<i>USER +39-335-1234567</i>	NO!

(phone number MUST NOT have inner spaces or signes))

GSM GATE OPENER will reply with an SMS confirming USER registration.

DEL command

Ogni MASTER può in qualunque momento rimuovere l'autorizzazione dei numeri di telefono registrati inviando un SMS con il testo: *DEL <numero di telefono>*

Please note: *<phone number>* must not contain spaces or sign other than initial '+' sign foreseen by international phone number coding.

Examples

```
DEL 3351234567      OK
DEL +393351234567   OK
DEL +39 335 1234567 NO!
DEL +39-335-1234567 NO!
```

(phone number MUST NOT have inner spaces or signes))

GSM GATE OPENER will reply with an SMS confirming USER registration.

Comando LIST USERS

Any MASTER can ask to show a list of USER's phone numbers saved on GSM GATE OPENER. Send an SMS having text: *LIST USERS*, GSM GATE OPENER will reply an SMS showing first 10 registered numbers.

Example

```
LIST USERS          OK
```

PRO MODE



For hotels, B&B, ...

When you need to perform daily USER registration/delete on your GSM GATE OPENER (e.g. in a hotel, B&B, ..., enabling customers to access the gate), you can take advantage of the PRO mode.

PRO mode uses an inner calendar run by GSM GATE OPENER, so you can register USER phone number with an expiry date. Other than date it will remove authorization and delete phone number.

Enabling a new guest a MASTER must send an SMS with:

```
USER <phone number> YY/MM/DD
```

Phone number is registered on GSM GATE OPENER and instantly enabled to open gate.

At the expiry date YY/MM/GG (at 12 p.m.) GSM GATE OPENER will automatically delete the registration.

Please note: MASTERS can register also USER without expiry date (e.g. hotel employee) sending a message like:

```
USER <phone number>
```

Without any expiry date

Examples

```
USER +393351234567 20/12/31 OK
(Phone number enabled until dec. 31, 2020. Then, phone
number is automatically removed)
USER +393351234567      OK
(Phone number enabled until next DEL command)
DEL +393351234567      OK
(Command deleting phone number. It refers to both type
of number: with indication of expiry date (in case of need
before the automatic expiry) or without expiry date
```

Enable internal calendar.

You must setup GSM GATE OPENER enabling the calendar automatic management. Use these commands:

APN command

Set GPRS network parameters registering APN server name. This parameter is related to the phone company OWNING SIM CARD installed into GSM GATE OPENER.

Please refer to your phone company to get its APN server name. (e.g. Italian TIM phone company uses an APN server named wap.tim.it. Therefore, SMS command becomes:

```
APN wap.tim.it      OK
```

TIMEZONE command

You need also to set the local time zone: here above 's' means sign (+ or -), 'xx' is number indicating time zone in QUARTER OF HOUR. Value to register is related to installation of GSM GATE OPENER and is in the range from -47 to +48. For Italy (for instance) being timezone CET (+2) you must register value +08:

```
TIMEZONE +08      OK
```

NTP command

Setting up internal calendar, GSM GATE OPENER, need to call an NTP server over a GPRS connection. By using NTP command you can register your preferred NTP server. YOU can register the either name server or the IP address. This command is optional: if any NTP server is registered GSM GATE OPENER will use ntp1.inrim.it.

Examples

```
NTP time.inrim.it   OK
```

or

```
NTP 193.204.114.105 OK
```

MASTER command

You can add more MASTER command without resetting the whole phonebook in GSM GATE OPENER. Registering a new master use command MASTER followed by the new phone number.

Example

```
MASTER 3351234567      OK
```

SMS COMAND SUMMARY



A command list...

Only MASTER users can send SMS. MASTER users are registered with the *initial programming* procedure (see Basic Mode) or with the below MASTER command.

MASTER <phone number>

Enables <phone number> to act as a MASTER (opening gate and sending SMS commands)

USER <phone number>

Enables <phone number> to act as a USER (just opening gate)

USER <phone number> YY/MM/DD

Enables <phone number> to act as a USER deleting the registration at the indicated date (time 12 p.m.)

DEL <phone number>

Remove a previously registered USER or MASTER <phone number>

LIST USERS

Report a list of the first 10 number registred as USER

LIST MASTERS

Report a list of the first 10 number registred as MASTER

APN <nome server APN>

Set the APN server name to run GPRS to connect Internet

NTP <nome server NTP>

Set NTP server name or address for clock sync

TIMEZONE <sxx>

Set the local time zone

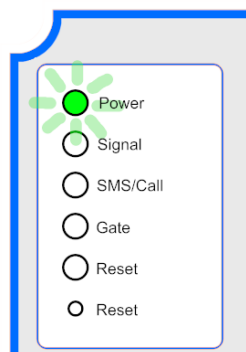
CONFIG

Lists current APN NTP and TIMEZONE settings

STATS

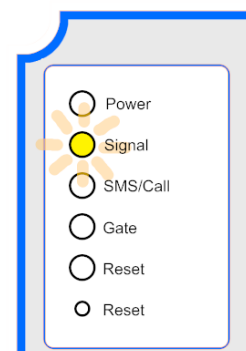
Lists some info for system diagnosis

DISPLAY



POWER

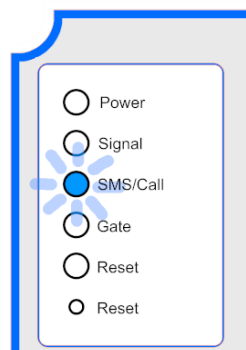
Indicates that GSM GATE OPENER is correctly connected to power



LINE

Shows status of GSM line:

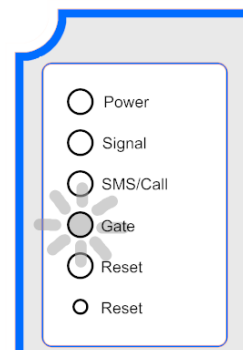
Green =best quality GSM line
Green/Yellow blinking = good quality GSM line
Yellow =medium quality GSM line
Yellow/Red blinking = ...lower quality GSM line
Red =missing GSM line or unable to connect
Red flashing=failure on SIM card or GSM module



SMS/CALL

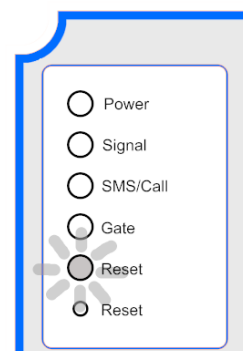
Shows communication running GSM line:

Blue = Phone call incoming
White = SMS message incoming
Magenta = Sending SMS message
Red blinking = APN/TIMEZONE/NTP unset:
 slow blinking (1 per 2 sec) = data unset but feature is unused
 fast blinking (2 per sec) = expiring user registered: the feature will not work! Update this info!



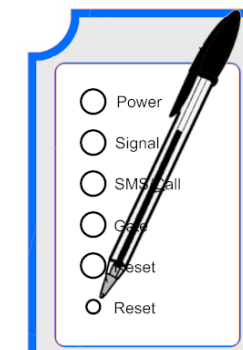
GATE

It is on while GSM GATE OPENER send gate an "open" command



RESET

On (no blinking) = while pushing Reset Button
Fast blinking = after pushing reset button for 5 s: resetting internal memory deleting all phone numbers registered then starts "Auto Phonebook Registrsation"
Slow blinking = "Auto Phonebook Registration": waits for 5 mins phone calling those phone number will be registred as authorized number (as a master)



RESET BUTTON

Pushing Button = pushing Reset Button for 5 s (use a pin, a tool, a pen) let start a phonebook reset deleting all previously stored phone numbers. After that starts the "Automatic Phonebook Registration": for the next 5 min all numbers calling GSM GATE OPENER will be registred as Master.

DISPLAY on STARTUP

While GSM GATE OPENER starts up, display leds show running diagnostics.

Normal startup procedure goes from 5 leds on, gradually to 1 with a final 5 led flash.

A startup procedure that “jump” to the “5 led flash” form more than 1 led on, indicates some check not passed as indicated here:

1 leds on: power is on

Initial electronics (Arduino) checkup

5 leds on: power is on, cpu (Arduino) running

Testing communication with internal GSM module

4 leds on: GSM module on and running

Testing GSM network availability

3 leds on: GSM antenna working. GSM network available

Setting up GSM module for network connectivity

2 leds: GSM working and set, GSM antenna working

Checking simcard

1 led on GSM module working, GSM antenna working, simcard working

Internal clock setup via GPRS