

GSM-1000

GSM receiver with relay output for opening sliding and swing gates and doors or switching devices

Features

- Switches relay with free call from mobile phone
- Only authorised numbers can operate the GSM-1000
- No call charges
- Operates from anywhere if GSM network is available. Unlimited range!
- Ignores unauthorised numbers
- Authorised numbers easily entered by SMS command
- 2 digital inputs for sensors or switches.
- SMS confirmation of relay switching.
- Secure. Password protected
- 12 Volts DC power pack included



Application

- Open/close gates, doors, shutters, garage doors with a free call!
- Security alarm, On/Off lights, pumps and machines.

Description

The GSM-1000 works on latest GSM technology. All you need is to insert a valid SIM card and program phone numbers of all users through simple SMS text commands. When an authorised user makes a call to the receiver, it rejects the call after a single ring and activates a relay. Since the call is rejected, the user is not charged for the call.

There are 2 digital inputs available which can be wired to motion sensor (PIR), door switch, windows or any other type of NO (normally open) switch. The GSM-1000 can be programmed to send different SMS messages for each input. (e.g. a reed switch from the kitchen window is wired to input 1 which will send an SMS message "Kitchen Window" when activated and a motion sensor (PIR) in you bedroom is connected to input 2 which will send a message "Bedroom" when activated.)

A 12V output is also available on the GSM-1000 which can activate a 12VDC siren or warning light when the either of the inputs are activated. (Refer to the wiring diagram)

The GSM-1000 works on GSM network therefore the receiver can be activated from anywhere in the country where GSM network is available. For example you can open your gate or switch on your kitchen lights in Sydney from Melbourne by making a call from your mobile phone and without getting charged.



12 Volts DC Power Pack Included

Technical Data

Power Source	12 Volts DC
GSM Frequency	900/1800MHz
Output	Common (C) and Normally Open (NO) relay outputs rated at 3A, 240VAC.
Shipping Weight	500 grams
Dimensions	120 x 90 x 25 mm.

Safety Instruction



Safe startup

Do not use the GSM-1000 in places where GSM equipment is prohibited or might bring disturbance or danger



Interference

Wireless equipment might interfere GSM network signals of the GSM-1000 and influence its performance.



Avoid using at Gas Stations

Do not use GSM-1000 at a gas station. Power off the unit when near fuels or chemicals



Avoid using near blasting areas

Please follow relevant restrictive regulations. Avoid using the device in blasting places.



Reasonable Use

Please install the product at a suitable place as described in this manual. Avoid signal shielding by covering the mainframe.



Maintenance

All wiring and maintenance should be carried out only by qualified maintenance personnel.

Setup and Programming Instructions

1. Caller ID has to be enabled so that the GSM-1000 knows who's calling.
2. Insert the SIM card into the GSM-1000.
3. The default password is 1234.
4. All settings are through SMS commands, please type the relevant SMS commands in your cell phone and send to the GSM-1000 controller SIM number.
5. Relay 1 switches ON for the programmed time (factory default is 0.5sec) for every incoming call from an authorised number. If a call is made and relay 1 is On and another valid call is made before the relay switches OFF, the off delay time is ignored and the relay switches OFF. (e.g The off delay for relay 1 is set at 5 sec. If a call is made and the relay is switched ON. Another valid call is made 3sec after the first call, relay 1 will switch OFF as soon as the second call is received.)
6. Relay 2 switches ON for 90sec, only when the sensors connected on Input 1 or Input 2 is triggered. A programmed SMS message will also be sent to the 1st and the 2nd users.
7. The function of the 2 input are the same. Inputs 1 & 2 will enter "Armed" mode after 10minutes from the last received call. If the sensors are triggered with-in this 10minutes, the signals will be ignored.
8. Commands must be in **CAPITAL LETTERS**. Do not leave any space between the letters or words. (e.g. "TEL" is correct while "tel" is incorrect)
9. If the GSM-1000 is used to operate only a gate, all the user has to do is to change the default password and enter the authorised numbers.
10. Keep a list of the authorised numbers for future reference.
11. If the SMS command sent to the GSM-1000 is incorrect, a return SMS will be sent as follows "Command error as please resend command".
Please check the command carefully. make sure that it is in Capital letters and all characters are included.
12. If you cannot send or receive any SMS message from you phone to the GSM-1000 try adding + in front of the phone numbers or the country code.

SMS Commands: Below are the SMS commands needed for the GSM-1000. In the examples the default password is used (1234). Please replace this with your own password if you have changed it.

- **Setup a new password**

- **Pwd#PWDnewpassword#PWDnewpassword#**

E.g The default password is 1234 and it has to be changed to 8787, the SMS command needed is:

1234#PWD8787#PWD8787#

If your password is successfully changed the unit will send you an SMS message “Password modified OK, Password Changed to:8787”

- **Setup Authorised Numbers**

- **Pwd#TELauthorised number#Serial number#**

E.g The following number 0435792468 is to be setup as the first user; the following SMS command is needed:

1234#TEL0435792468#01#

The authorised numbers are mobile numbers of all users who will be using their phones to operate the GSM-1000 (e.g If installed on a gate at home, then all family member’s mobile number)

Serial number is the position of all stored numbers (authorised users). 1-64 users

It is strongly recommended that the first 2 numbers are mobile numbers (not landline). If inputs 1 & 2 are used and is activated, an SMS message will be only sent to the first 2 stored numbers (serial numbers 01 & 02)

- **Check which mobile number is located at a particular location (Serial number)**

- **Pwd#TEL'Serial number'?**

E.g If the user wants to see which number is stored on position 2(serial number 02), the following SMS command is needed:

1234#TEL02?

- **Delete a user**

- **Pwd#TEL #Serial number#**

E.g A user on position 13 (serial number 13) has to be deleted from the user list, the following SMS command is needed:

1234#TEL#13#

It is recommended to keep a list of all users and their numbers position

If a new number is programmed on a location which already has a number stored, the old number will be deleted and the new number is stored.

- **Disable Digital Inputs (Inputs are disabled as factory default)**

- **Pwd#DA #**

In order to use the digital inputs, it has to be enabled.

- **Enable Digital Inputs (Inputs are disabled as factory default)**

- **Pwd#EA #**

When the inputs are enabled the sensors will be armed after 10mins from the last received call. If the sensors are triggered within the first 10mins, these signals will be ignored. After 10min when the sensors are active and if they are activated Relay 2 will switch “ON” (a siren or warning light can be connected) and a programmed SMS message will be sent to the first 2 numbers programmed (serial number 01 & 02).

- **Alarm inputs status (ON or OFF)**

- **Pwd#AL?**

In order to check if the digital inputs are enabled or disabled, the following SMS command is needed:

1234#AL?

Reply SMS will be one of the following:

“Alarm Inputs Disabled” or “Alarm Inputs Enabled”

- **Allow access to all numbers calling the GSM-1000**

- **Pwd#AA#**

To allow access to anyone making a call to the GSM-1000, the following SMS command is needed:

Warning! This will allow anyone who makes a call to operate the GSM-1000

1234#AA#

- **Allow access only to authorised numbers calling the GSM-1000**

- **Pwd#AU#**

To allow access to authorised numbers only, the following SMS command is needed:

1234#AU#

This allows only the numbers that are authorised to operate the GSM-1000.

**This is set as factory default and is recommended for secure operation.*

- **Check authorised user’s settings.**

- **Pwd#AC?**

To check if only authorised users or any number can operate the GSM-1000, the following SMS command is needed:

1234#AC?

Reply SMS will be one of the following:

“Allow all numbers cannot access it” or “Allow all numbers can access it”

- **Setup Relay OFF delay**

- **Pwd#GOTtime#**

The relay OFF delay can be set from 0-9.5sec. The factory default is 0.5sec. The number in the SMS command will be twice the relay OFF delay time.

E.g. If the relay OFF delay needs to be set at 5secs, the following command is needed

1234#GOT10#

Relay will stay ON for 5sec once activated.

- **Check the relay OFF delay**

- **Pwd#GOT?**

The SMS reply will tell the current setting.

- **Change relay mode to Latching**

- **Pwd#GOT00#**

The relay will be set to latching mode. The first call will switch ON the relay and the second call will switch OFF the relay.

This mode is only available to the first 3 users. All other numbers will be ignored

- **Change Digital inputs from NO to NC (Factory default is Normally Open ,NO)**

- **Pwd#KEYNC#**

The above SMS command will change the digital inputs from Normally Open (NO) to Normally Closed (NC) type.

If the input type is selected as NC type and is not used, the inputs will have to be shorted out.

- **Change Digital inputs from NC to NO**

- **Pwd#KEYNO#**

The above SMS command will change the digital inputs from Normally Closed (NC) to Normally Open (NO) type.

- **Check the GSM signal level**

- **Pwd#CSQ?**

The above SMS command is used to check the GSM network signal level the GSM-1000 is receiving. The range is from 0-32. The minimum level for the GSM-1000 to work effectively is ≥ 12 . If the signal level is too low even after connecting the antenna, it is recommended to change your carrier to the one with a better coverage in that area.

- **SMS confirmation of relay switching**

- **Pwd#R#**

If the above feature is enabled, the user will receive an SMS message every time the relay switches ON or OFF. The following messages will be received: “The relay is ON” or “The relay is OFF”.

This feature is disabled by factory default.

The above feature can be disabled by the following SMS command:

- **Pwd#N#**

To check if the SMS confirmation feature is enabled the following SMS command is needed:

- **Pwd#M?**

The following messages will be received: “Relay action return SMS ON” or “Relay action return SMS OFF”

- **Program SMS message to be sent when input 1 or 2 is triggered.**

- **Pwd##TEXT1sms message# (for input 2)**
- **Pwd##TEXT2sms message# (for input 1)**

This command includes double ##.

E.g If the user wishes to change the factory default message for input two to “kitchen window” the following SMS command is needed.

1234##TEXT1kitchen window#

The above command will store the SMS message, which will be sent to 1st and 2nd users when the respective inputs are triggered. Maximum of 30 characters are allowed for each message.

The default message is “Door Open Alarm”

- **Reset the GSM-1000 to factory default.**

- **RESET**

The command RESET has to be sent within 3 minutes after the GSM is powered up.

A return SMS will be set to the user "Reset ok" after a successful reset.

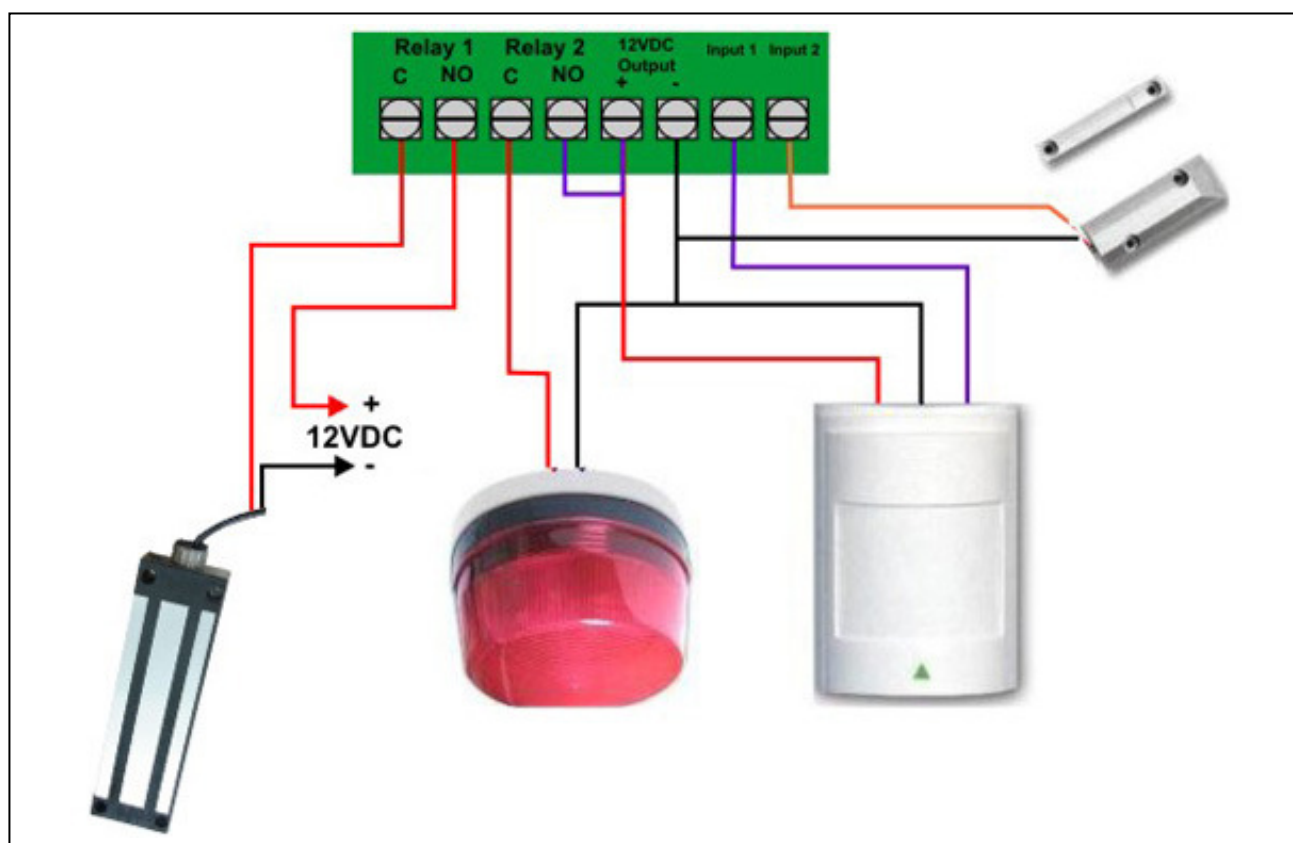
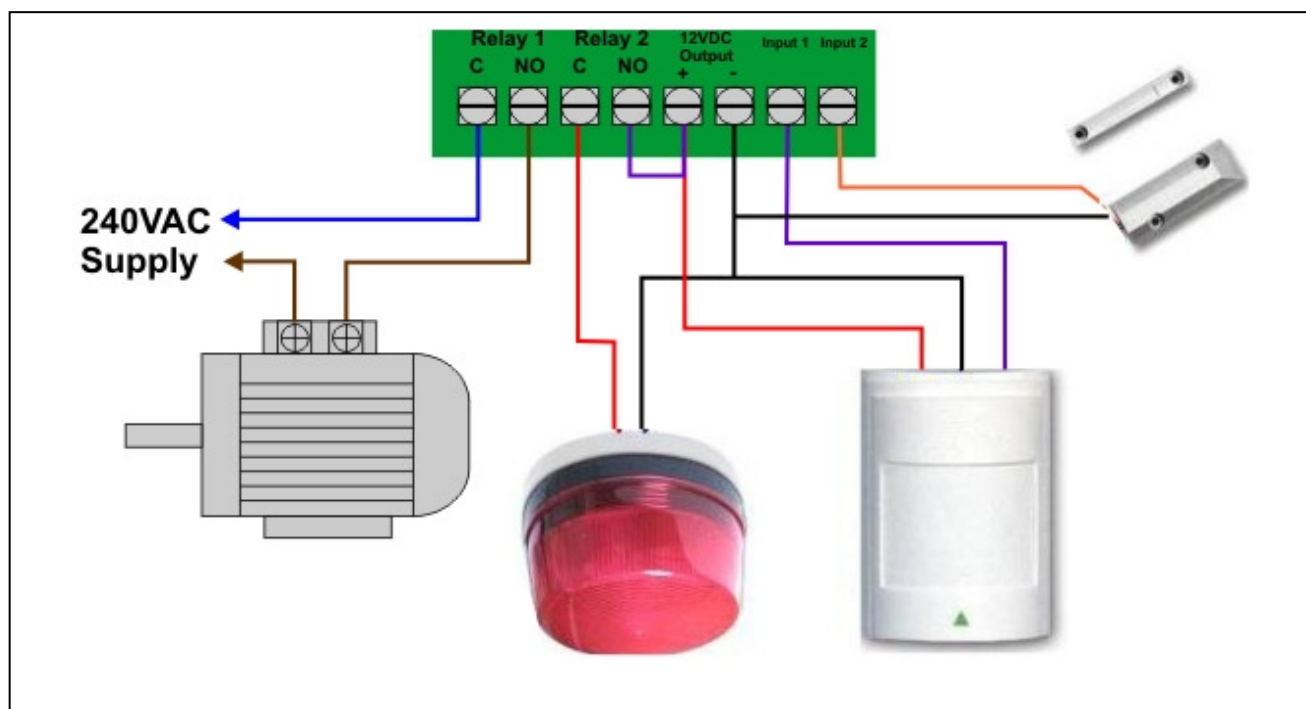
Block Diagram



Power ON		12VDC power Led indicator.
Relay Status		The LED lights up when either of the relay switches ON.
GSM		Orange flashing: Searching for GSM network Red Flashing: Incoming call or SMS. Green On: Connected to the network.
Relay 1	C	Common output of relay 1
	NO	Normally Open output of relay 1
Relay 2*	C	Common output of relay 2
	NO	Normally Open output of relay 2
12VDC Output**	+	12V DC output. Can be used to connect siren or light.
	-	
Input 1		Digital input 1. Can be used to connect Reed switch, PIR, or fire alarm. Has to be NO (normally open) type
Input 2		Digital input 2. Can be used to connect Reed switch, PIR, or fire alarm. Has to be NO (normally open)type
12V DC Supply		Input supply. Use power pack provided.

*Relay 2 will only activate for 90sec when Input 1 or Input 2 is activated.

**Please check and make sure that the 12VDC supply is big enough to supply the GSM-1000 unit and the load

Application**GSM-1000 12V AC/DC application****GSM-1000 240VAC application**

Notes**Authorised Numbers**

Position	Phone Number	Name
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Authorised Numbers

Position	Phone Number	Name
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