CONTROLFREQ
powered by sim card

GSW1 GSM REMOTE CONTROL | COMPLETE MANUAL v1.1

WIRING CONNECTIONS

GSM signal strenght indicator
GSM network registration indicator

SIM card
(contacts down)

+12V AUX (300 mA max)

GND   Door release button

USB connector

N. C.

C   RELAY CONTACTS

N. O.

12V - 24V AC/DC
POWER SUPPLY
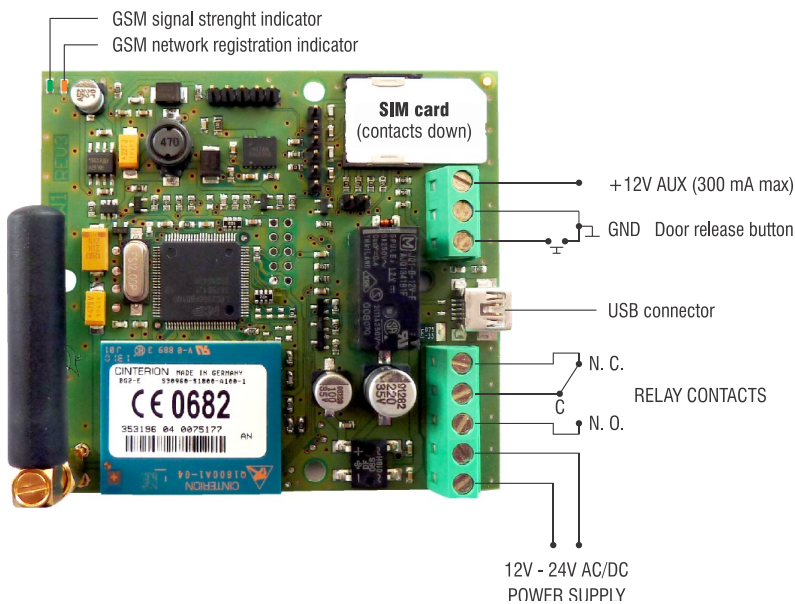
DESCRIPTION OF CONNECTION TERMINALS

- **+12V AUX** 12V output supply (positive)
- **GND** 12V ouput supply (negative)
- **IN1** default: press to exit / alarm sms
- **N/C** normally closed relay contact
- **COMMON** relay contact common
- **N/O** normally open relay contact
- **12-24V AC/DC** input power source
- **SIGNAL** 1 flash low signal - 5 flashes max.
- **REGISTRATION** 1 flash / 4 sec - network OK

INTRODUCTION

The GSW1 GSM Remote Control & SMS Dialer is fully programmable by SMS text message. You send the programming strings as shown to the SIM card in GSW1 as you would send an SMS to any mobile phone. To operate an output, you simply add authorised phone numbers by SMS. When one of these numbers calls the SIM card in GSW1 the relay output will switch on. The default relay contact switching time is a 5 second pulse. You can adjust the switching pulse time or change the output to toggle on & off with each call. The indoor button is a 'press to exit' input by default. A push button connected as shown in the above diagram will trigger the relay output. This input can be changed to an alarm input so any type of alarm sensor can trigger the input. Power an alarm sensor (if required) from the GND & +12V AUX terminals.

DEVICE OVERVIEW

Control Freq Ltd – Powered by SIM Card
Omnibus House, 39-41 North Road
London, N7 9DP, United Kingdom
Support: +44(0)203 551 0336
e-mail: gsm@controlfreq.co.uk
www.controlfreq.co.uk

POWER SOURCE (12-24V AC/DC)

GSW1 will run on any voltage between 12-24V and on AC or DC. This means it can be powered from the auxiliary power output from a gate controller or alarm panel. It is recommended to use the GSW1 on it's own power source (12VDC 1A).

LED STATUS INDICATORS (LED 1 - LED 2)

LED 1 (GREEN): This is GSM signal strength. It will flash between 1 - 5 times. 1 flash is at least 20% signal but insufficient to be reliable. 3 flashes is recommended. To achieve better signal, move the device to different location, use another network or fit an external antenna on a 3m lead.
LED 2 (YELLOW): This is Network activity. It will flash once per second while starting up or if not registered on the network. When the device is registered on the network and ready for use, it will flash once every 4 seconds.

AUXILIARY OUTPUT (+12V - GND)

If you want to connect a PIR motion detector for example, it will require power. The AUX output output is used to power an alarm sensor should you need to.

RELAY OUTPUT (N0 - C - NC)

This is the switch. When the device switches, a contact is closed between C & NO and a contact is opened between C & NC. Depending on the device you are switching you will use one or the other. C & NO is most common.

ALARM / 'PRESS TO EXIT' INPUT (GND - IN1)

The input acts as a way to send an SMS alert or to trigger the output ie: 'press to exit'. By default it is set as 'press to exit' so you simply connect IN1 to GND and the relay output will switch. You can change the input to simply send an SMS alert when IN1 is connected to GND.

QUICK START GUIDE

Depending on whether you want to use the Caller ID Relay Switch or SMS Alarm input you need to follow a different procedure. To use one or the other use the relvant instructions below. To use both follow the complete list of instructions below.

Follow some or all of the following list to set up for 1 User...

- Insert an active SIM card
- Power the device from a low voltage power source between 12-24V AC or DC or 12V alarm battery
- Wait for the green LED to start flashing & the yellow to flash once every 4 seconds

(if using 02 or Orange UK send this command before all others   ;+SPO=10;   (or settings will be lost on power down)

To Set up 1 Caller ID User to test....

- Add an authorised User by SMS: *;+CLP1=XXXXXXXXXXX;*   where x is the phone number
- or.... Change the security level to allow any caller to switch GSW1: *;+CLPEN=2;*

- Then call the SIM card in GSW1 from either the authorised phone number or any phone if 'Any Caller Mode' was set
- The relay output contact will switch for the default time of 5 seconds

To Set up an SMS Alarm Recipient...

- Set 1 User and link input 1 to that User: *;+TN1=XXXXXXXXXXX;LN1=1;* where x is the phone number
- Touch IN1 to GND to trigger the input

ADDING AUTHORISED USERS

To add 'Authorised Callers' to the User list, you must enter the phone number in a vacant slot in the list by SMS text message. You can request all User slots (50) or a range of User slots between 1 - 50. To delete a User, you remove the User phone number only.

- Retrieve all User slots (50), send text: *;PCLP;*

- Retrieve any range of User slots, send text: *;PCLP=18,42;*

Depending on how many User slots you request, you will receive 1 or multiple SMS replies including the Occupied & Vacant User slots for the selected range and the setup info (CLPEN & CLPOU). In the following example we want to add 3 Users so we request User slots 1 - 3.
Example :
;PCLP=1,3;
You will receive a reply as follows...
;CLPEN=1;CLPOU=1;CLP1=;CLP2=;CLP3=;

Description:

- CLPEN=   (0 = feature disabled)   (1 = Authorised Users only enabled) (2 = any caller can switch GSW1)
- CLPOU= (1 = output 1 - non-adjustable as this model only has 1 output)
- CLP1= (Authorised User 1 phone number)
- ....
- CLP50= (Authorised User 50 phone number)

Add new Users
1. Select *'Forward Message'* in your mobile phone text options.

2. Choose the SIM card in GSW1 as the recipient.
Edit the User slots (CLP) by inserting the numbers you want to authorise between each = and ; symbols. Note the + symbol at the start. This means a reply confirmation will be returned by SMS. Omit the + to disable the confirmation SMS reply:
;+CLP1=077965124589;CLP2=02074561254;CLP3=;

3. Send the message back to the SIM card in GSW1 to update the settings.

DELETING AUTHORISED USERS
Exactly as above, you can delete Users. Remove the phone number between the = and ; symbols and send it to GSW1. Note the + symbol. This means a reply confirmation will be returned. Omit the + to disable the reply: *;+CLP2=;CLP3=;*

NOTE: It is possible to change just one or any number of Users. At any time you can change a User by simply sending an SMS with the new User number or remove a User by sending their User slot without a phone number as shown in the example below.
IE: Delete User 1 and add new User 3....   *;+CLP1=;CLP3=07796175478;*

PREVENT THE PAYG SIM CARD EXPIRING

GSW1 will not let your SIM card expire. It calls a preset number after a set number of days (90 default) to keep the SIM active. The User must answer the call to ensure the SIM has made a chargeable cal. The network cannot restrict the SIM card if it makes the occasional call. A small amount of SIM credit will last for years.

- Set the number to call: *;+TN1=XXXXXXXXXXX;*   where XXXXXXXXXXX is the mobile number
- Change the number of days before GSW1 calls this number (default 90 days): *;+ADF=60;*

RELAY OUTPUT (NO - C - NC)

The relay output can pulse on for a preset time or toggle on and off as required with each call. Default is to pulse on for 5 seconds.

- Set the amount of seconds to pulse on: *;+OS1=XX;*   where XX is any number 2 and above

- Set the output to toggle on & off with each received call: *;+OS1R=1;*

- Check the current status of the output: *;PORC;*

ALARM / 'PRESS TO EXIT' INPUT (IN1 - GND)

By connecting a bell press push button to GND & IN1, you will trigger the relay output by pressing it. The input can be changed to an alarm input to send SMS alerts to up to 5 Users if triggered. Connect any type of alarm sensor or door contact to connect IN1 to GND to activate the input and power the sensor if required using the GND & +12V AUX terminals.

- Set the input to send SMS alerts when triggered via an alarm sensor: *;+OD1=0;*
- Set the input to a 'press to exit' input to switch output 1 when triggered (default): *;+OD1=1;*

CUSTOMISE THE TEXT ON THE ALARM INPUT SMS (IN1 - GND)

When the input is used as an alarm input, by default the GSW1 will send an SMS as follows when IN1 is connected to GND: User Location, Input 1, Activity in Progress!

You can change the part that says 'User Location' & 'Input 1' to whatever you like with a maximum of 14 characters.

- *To receive an SMS with the current device labels for location & input: ;P#;*

- *To change the label for Device/User Location: ;+#0MY_HOUSE=1;*

- *To change the label for Input 1: ;+#1ALARM_ON=1;*

SET UP TO 5 AUTHORISED ADMINSTRATORS

Administrators are allowed to program the device by SMS & also able to receive SMS alerts from the device.

- To receive an SMS with the current Administrators: *;PTN;*

- To add an Adminstrator: *;+TN1=XXXXXXXXXXX; where XXXXXXXXXXX is the mobile number* (TN1 - TN5 can be set)

- Link certain events to Administrators to receive the alert. All examples below show the link going to User 1 only (ie: =1). To send the alert to other Administrators simply add =1234 for User**s** 1 - 4 or =135 for ~Users 1, 3 & 5.

LOCK THE UNIT DOWN TO SPECIFIC AUTHORISED ADMINSTRATORS

Set a security level so that only 1 or some Administrators are allowed to program the device.

- To receive an SMS with the current setting: *;PSL;*
- Default settings is (any User): ;+SL=0;

- To lock down to Admin 1 (TN1): *;+SL=1;*
- To lock down to Admin 1-3 (TN1-TN2): *;+SL=2;*
- To lock down to Admin 1-3 (TN1-TN3): *;+SL=3;*
- To lock down to Admin 1-4 (TN1-TN4): *;+SL=4;*

- To lock down to Admin 1-5 (TN1-TN5): *;+SL=5;*

LINK INPUT 1 ACTIVITY ALERT TO ADMINISTRATORS

You must link the input to certain Administrators in order for the alerts to be sent. By default there are no links set. You can link to all or some users by entering the TN number/s.

- To receive an SMS with the current links: *;PLN;*

- Link the input to User 1 only (TN1): *;+LN1=1;*
- Link the input to User 1 - User 5 (TN1 - TN5 ie: all Users): *;+LN1=12345;*
- Link the input to selected Users (TN1 - TN3 - TN5 ie: 3 Users): *;+LN1=135;*

LINK A PERIODIC TEST MESSAGE TO ADMINISTRATORS

Set which Administrators receive SMS alerts from the device after a preset amount of days. Default is 24 hours however unless you specifically set the link as detailed below, the message will not be sent.

- To link the periodic test message to Administrator 1 only: *;+LN3=1;*
- To link periodic test message to Administrators 1-5 (all): *;+LN3=12345;*
- To link periodic test message to selected Administrators: *;+LN3=135;*
- To change the amount of hours before the periodic test message is sent: *;+TST=200;*   where 200 is the amount of hours

LINK A 'NON-AUTHORISED CALLER OR SMS' ALERT TO ADMINISTRATORS

Set which Administrators receive SMS alerts from the device if a non-authorised person either calls or sends an SMS to the device. The alert will contain the time, date & non-authorised phone number.

- To link the non-authorised alert to Administrator 1 only: *;+LN5=1;*
- To link non-authorised alert to Administrators 1-5 (all): *;+LN5=12345;*
- To link non-authorised alert to selected Administrators: *;+LN5=135;*

TROUBLESHOOTING

Green LED won't flash (ie: no signal): Check your SIM card is active, make sure antenna is connected properly or not damaged, move device to another location, if GSW1 is inside a metal enclosure you will need an external antenna *to locate the antenna outside of the enclosure.*

Device is on the network but when I call it nothing happens: Add a User number ie: ;+CLP1=07796478945; and try again. See the section 'Adding Authorised Users' in this manual.

When I activate the input it doesn't send me a text: Change the input to an alarm input. By default it is a 'press to exit'. Then link the input to a User. See sections 'Alarm / Press to Exit Input' & 'Link Input 1 Activity to Administrators'.