



GSW2 V1.0 - SIMPLE MANUAL

Introduction...

- Thanks for choosing GSW2 'the future of remote control is your hands'
- This guide is a watered down version of the complete manual and filters out the advanced features
- If you want more advanced features refer to the [Complete Manual](#)

Click the following Heading links to view that section of the guide

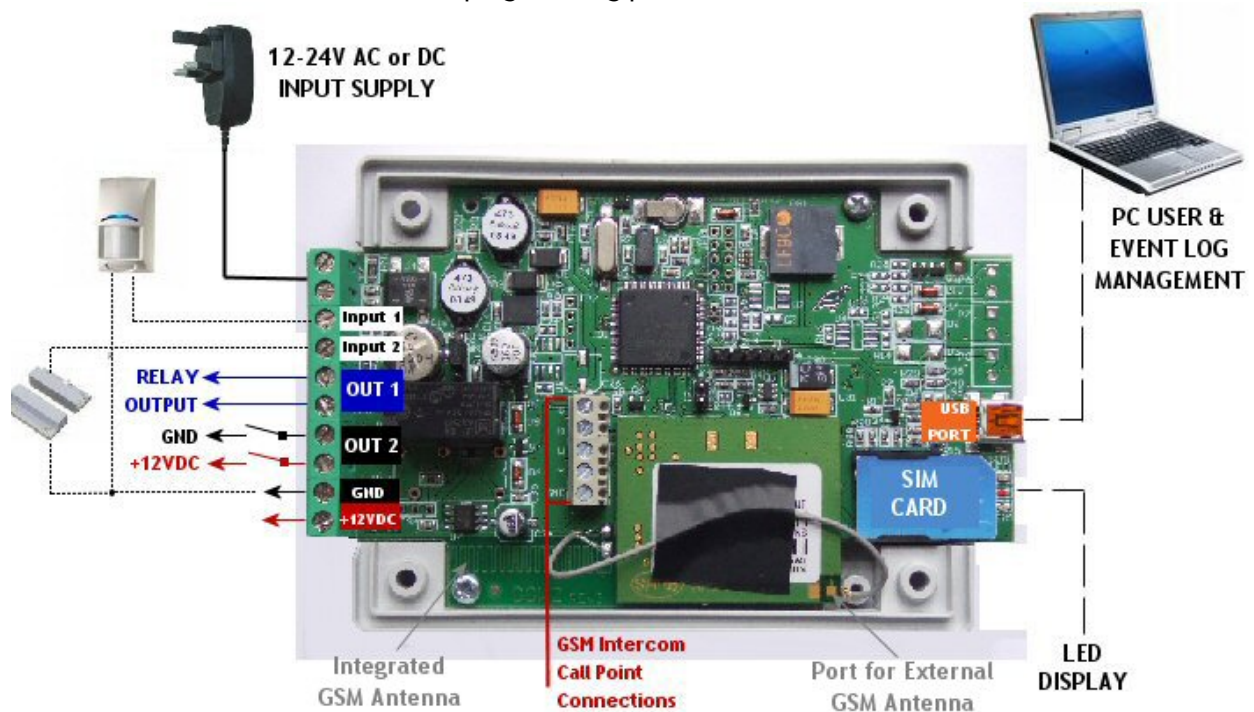
1. GSW2 CONTROLLER OVERVIEW	2
Connections Explained... ..	2
2. GETTING STARTED QUICKLY	3
FIRSTLY... Check you have the correct parts & tools before you start	3
i) Make the Minimum Connections.....	3
ii) Inserting the SIM card	3
iii) Power Up & Check the LED Status Indicators.....	4
iv) Call the SIM card in GSW2 from any Phone to Test... ..	4
3. OUTPUTS FOR SWITCHING DEVICES	4
a) Request Current Output Switch Status Pulse, Latch, Timed, 1st call ON / 2nd OFF ..	4
b) Request Current Output State	4
c) Change Output Switching Status Pulse, Latch, Timed, 1st call ON / 2nd call OFF ...	5
d) Change an Output Contact between Open [going closed] or Closed [going open]....	5
e) Make an Output Directly Switch when an Input 1 is Activated ie: press to exit input	5
f) Control an Output by SMS Text Message	5
4. SET UP AN AUTHORISED ADMINISTRATOR	6
a) Set an Authorised Administrator	6
b) Link Input 1 to Authorised Administrator	6
c) Link Input 2 to Authorised Administrator	6
5. SET UP INPUTS FOR SMS TEXT ALERTS	6
a) Change how inputs trigger & whether an SMS text is sent to notify 'input restored' ..	6
b) Change the time delay before SMS text alerts are sent after inputs activated	6
c) Request the current Device labels for the SMS Text Alerts	7
d) Change the label printed on the SMS text alert sent related to Device.....	7
e) Change the label printed on the SMS text alert sent related to Input 1	7
f) Change the label printed on the SMS text alert sent related to Input 2.....	7
6. LED DISPLAY	7
1. BLUE GSM Network Signal Strength (1 Flash = Low Signal / 5 Flashes = Maximum Signal)	7
2. RED Device / Connection / Network Fault.....	7

3. YELLOW GSM Network (1 Flash/second = Registering & 1 Flash per 5 seconds = On Network)	7
7. TROUBLESHOOTING.....	8
a) GSW2 won't connect to the GSM network	8
b) GSW2 won't respond and blue LED is solid	8
c) Red LED is solid	8
d) Red LED is Flashing	8
e) If your issue is not listed here	8

GSW2 CONTROLLER OVERVIEW

Connections Explained...

- 12-24V AC or DC INPUT SUPPLY (minimum 500Ma): This powers the device
- Input 1: Link to GND & an SMS alert will be sent to Authorised User 1
- Input 2: Link to GND & an SMS alert will be sent to Authorised User 1
- Output 1 (relay): Voltage free open contact used to switch most devices
- Output 1 (relay): As Above - Both terminals are used to switch your device
- Output 2 (GND): Auxiliary output for switching low power devices
- Output 2 (+12V): Auxiliary output for switching low power devices
- *GND: Constant GND for Input Activation & powering GSM intercom call point
- +12VDC: Constant 12VDC for powering GSM intercom call point
- Call Point Connections: Audio terminals to the GSM intercom call point
- Port for External GSM Antenna: Connect an optional high strength antenna
- LED Display: See the start up, GSM signal strength & Network
- USB Port: This is an Installer programming port - End User Software available soon



GETTING STARTED QUICKLY

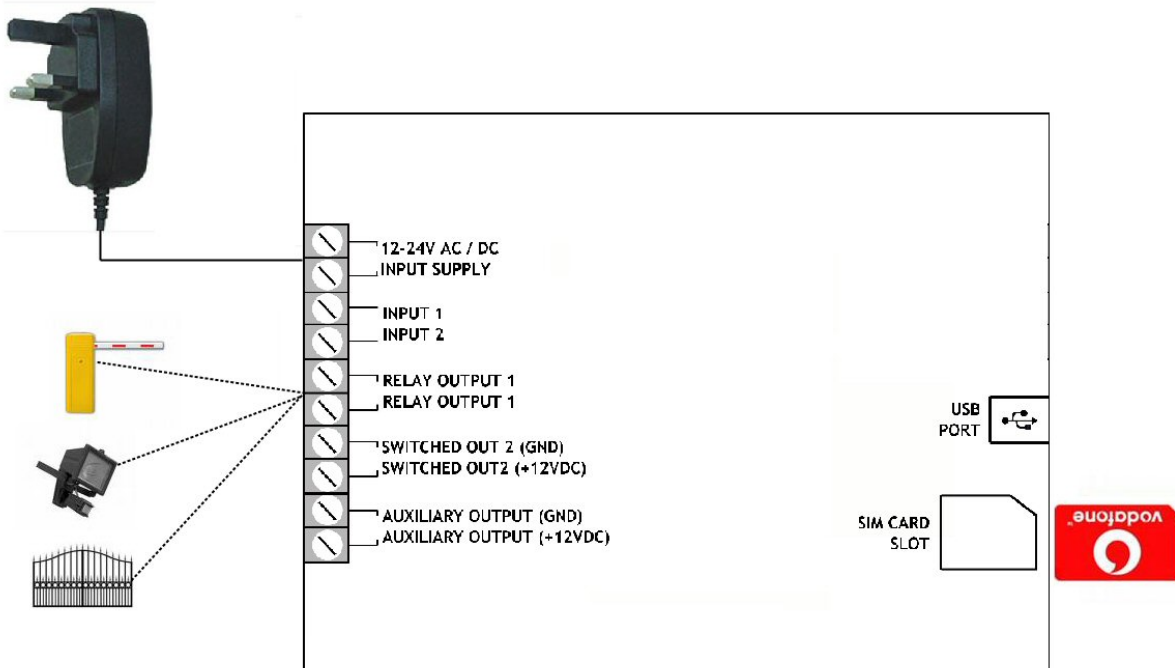
FIRSTLY... Check you have the correct parts & tools before you start

- 1 x GSW2 GSM Controller
- 1 x Power supply (500Ma minimum)
- 1 x Activated SIM Card & associated phone number
- Half a metre of multi-core alarm / security cable (Maplins)
- Terminal Screwdriver & small wire stripper/cutter

i) Make the Minimum Connections

- Connect Output 1 (relay) & Output 1 (relay) terminals across the switch terminals which control your device
- Insert the SIM card as shown on the lid
- Connect the power supply; don't worry which wire is which, the input is protected. When LED's light up, you have it connected right

See the overview below:



ii) Inserting the SIM card

Insert the SIM card gold contacts down with the cut off corner to the top RHS as shown on the lid diagram. **If using an O2 UK PAYT SIM card, send this text message from any phone to the O2 SIM card first before sending any other: ;+SPO=10;**

iii) Power Up & Check the LED Status Indicators

Switch on the power supply. The LED's flash in a particular way while starting up and then change when GSW2 is ready for use. Check that the LED's conform to the following table:

LED	STATUS (FLASHING)
BLUE (START UP)	SOLID
YELLOW (START UP)	FLASHES ONCE PER SECOND
RED (START UP)	FLASHES WHILE READING SIM CARD ONLY
BLUE (READY)	FLASHES TO INDICATE SIGNAL (1 LOW - 5 MAX.)
YELLOW (READY)	FLASHES ONCE PER 5 SECONDS
RED (READY)	OFF

iv) Call the SIM card in GSW2 from any Phone to Test...

Call the number of the SIM card in GSW2. The device is set by default to switch Relay Output 1 & by any Caller. If you keep the SIM card number to be called within a closed User Group, you're finished! Start using GSW2.

To add more Security Features & Authorised Callers, check the [other manuals here](#)

Note: If using an 02 UK PAYT SIM card, send this text message first before any other: ;+SPO=10;

OUTPUTS FOR SWITCHING DEVICES

GSW2 has 2 outputs which switch in the same way however the outputs are completely different. Output 1 is a voltage free contact which is set open by default. It closes when it is activated and makes a voltage free connection between the 2 terminals marked 'relay'.

Output 2 is different in the sense that it is not voltage free when it is activated. It supplies 300mA max. from the 2 terminals marked Out 2 GND & Out 2 +12VDC. It supplies a voltage near to 12VDC depending on your input supply voltage and is designed to power low consumption 12VDC devices such as relays or LED indicators.

a) Request Current Output Switch Status Pulse, Latch, Timed, 1st call ON / 2nd OFF

Send this SMS text message to receive the current configuration of each output: **;POS;**

- You will receive a reply like this: **;OS1=5;OS2=5;**

b) Request Current Output State

Send this SMS text message to receive the current state of each output: **;PORC;**

- You will receive a reply like this: **;Output 1=OFF;Output 2=OFF;**

c) Change Output Switching Status Pulse, Latch, Timed, 1st call ON / 2nd call OFF

By default, both outputs are set 'Normally Open' & will pulse closed for 5 seconds. Both outputs can be configured to switch in various ways to suit multiple applications.

Output Setup SMS Commands (x = output number 1 or 2)	Description
;+OSx=0;	Output Disabled
;+OSx=1;	Output Latching (ON by call / OFF by SMS text)
;+OSxR=1;	Output Latching (ON by call 1 / OFF by call 2)
;+OSx=2;	Output Pulse for 2 seconds
;+OSx=xyz;	Output timed pulse (xyz = any time period in seconds)

d) Change an Output Contact between Open [going closed] or Closed [going open]

The default setting for both outputs is N/O or 'Normally Open' [Open switch going closed].¹

i) To make an Open switch close when activated (DEFAULT)

To change Output 1, send SMS text message: ;+OP1=0;

To change Output 2, send SMS text message: ;+OP2=0;

i) To make a Closed switch open when activated

To change Output 1, send SMS text message: ;+OP1=1;

To change Output 2, send SMS text message: ;+OP2=1;

e) Make an Output Directly Switch when an Input 1 is Activated ie: press to exit input

Outputs can be set to switch immediately as inputs are triggered. This is useful for 'press to exit'.

- To switch Output 1 when Input 1 is activated, send SMS text message: ;+OD1=1;

- To switch Output 2 when Input 1 is activated, send SMS text message: ;+OD1=2;

f) Control an Output by SMS Text Message

Outputs can be switched by text message. The switching will happen as set in Output Status (OS):

- To switch Output 1 by SMS text message, send SMS text message: ;+ORC1=1;

1. N/O: Normally Open [Open going Closed] This is a commonly used switching configuration for most devices. The contact is open when in a deactivated state. When it activates, the contact closes.

N/C: Normally Closed [Closed going open] This switching method is most commonly used with magnetic locks. Magnetic locks require power to be applied during a deactivated state. When activated, the contact opens and removes power from the magnetic lock thus releasing it.

- To switch Output 2 by SMS text message, send SMS text message: **;+ORC2=1;**

Note: If you have the Output Status (OS) set to '1', the contact is latching. By SMS text you can unlatch is by sending SMS text message: **;+ORC1=0;** [output 1] or **;+ORC2=0;** [output 2]

SET UP AN AUTHORISED ADMINISTRATOR

Setting an Authorised Administrator allows you to send SMS text alerts to this User when activity is detected on the Inputs. Much more can be done around this feature. See the [other manuals](#) for more detail.

a) Set an Authorised Administrator

;+TN1=XXXXXXXXXX; where 'XXXXXXXXXX' = the mobile number of the User

b) Link Input 1 to Authorised Administrator

;+LN1=1; where 'LN1' relates to Input 1 & '1' = relates to TN1 (Authorised Administrator)

c) Link Input 2 to Authorised Administrator

;+LN2=1; where 'LN2' relates to Input 2 & '1' = relates to TN1 (Authorised Administrator)

SET UP INPUTS FOR SMS TEXT ALERTS

The Inputs are used for 2 functions. SMS Text Alarms & Call Buttons. With any type of sensor ie: door contacts / motion / temperature / water level etc, connected to the inputs, SMS Text Alerts can be sent to Authorised Administrators as set by the Links (LN)

a) Change how inputs trigger & whether an SMS text is sent to notify 'input restored'

IN = 0 : Normally Open - triggered by linking an Input to a negative voltage (GND) DEFAULT

IN = 4 : [Same as IN = 0] + input restored SMS text sent when Input sensor is restored

- To change Input 1 Status, send SMS text message: **;+IN1=x;** where 'x' = 0 or 4

- To change Input 2 Status, send SMS text message: **;+IN2=x;** where 'x' = 0 or 4

b) Change the time delay before SMS text alerts are sent after inputs activated

Change the delay time in which SMS text alerts are sent. By default they send immediately when the input is activated. You can set a delay so that the input must be activated for a time period before the alert is sent:

- To delay Input 1 alerts, send SMS text message: **;+ID1=xx;** where 'xx' = the delay time in seconds

- To delay Input 2 alerts, send SMS text message: **;+ID2=xx;** where 'xx' = the delay time in seconds

c) Request the current Device labels for the SMS Text Alerts

To return the current device labels for location & inputs, send this SMS text message: `;P#;`
- You will receive a reply like this: `;User Location, Input 1, Activity in Progress!`

d) Change the label printed on the SMS text alert sent related to Device

To change the label for Device/User Location, send this SMS text message: `;+#0MY_HOUSE=1;`
- The Name label can be changed up to a maximum of 14 characters including spaces.

e) Change the label printed on the SMS text alert sent related to Input 1

To change the label for Input 1, send this SMS text message: `;+#1SENSOR_OUT=1;`
- The Name label can be changed up to a maximum of 14 characters including spaces.

f) Change the label printed on the SMS text alert sent related to Input 2

To change the label for Input 2, send this SMS text message: `;+#2SENSOR_TWO=1;`
- The Name label can be changed up to a maximum of 14 characters including spaces.

LED DISPLAY

The LED's are to indicate what is happening on the device at any given time.

1. **BLUE** GSM Network Signal Strength (1 Flash = Low Signal / 5 Flashes = Maximum Signal)

If the Blue is on solid, the device is not connected to the network. You will find that red is also on or flashing on/off. This indicates something is not right with the network and could be antenna, or Sim card related.

2. **RED** Device / Connection / Network Fault

Red will flash during start up to indicate the processor is reading the SIM card. It will also flash if the device is erasing data when prompted. It should not be on at all during normal operation. If the Red is solid or flashing at any time other than the initial 30 - 60 seconds after power up while the device logs onto the network; you have a fault somewhere.

Red indicates something is not right in general and could be to do with the network, antenna, SIM card, connections or hardware damage. Check carefully starting with your wiring connections. Then try the device in a different 'open air' location. Failing that try a different network SIM card. Visually inspect the hardware and look for any obvious damage or foreign objects on the PCB.

3. **YELLOW** GSM Network (1 Flash/second = Registering & 1 Flash per 5 seconds = On Network)

The Yellow is only related to the Network initial registration & then reporting that the device is currently on the network. If the Yellow is not flashing once every 5 seconds, it is not on the GSM Network.

TROUBLESHOOTING

Check the status of the LED's first and check the LED descriptions to provide a general idea of what to look at first.

a) GSW2 won't connect to the GSM network

- Move the GSW2 to another location
- Try another SIM card or check the SIM card PIN code request is disabled
- Connect the optional external antenna
- Check supply voltage is sufficient

b) GSW2 won't respond and blue LED is solid

- GSM Network Signal issue
- SIM card not inserted correctly
- Try different SIM card
- Check antenna connection
- Make sure antenna is not inside a metal enclosure

c) Red LED is solid

- Check connections and polarity on GSM controller & intercom interface PCB
- Check PCB components visually to locate obvious damage
- Check power supply input voltage is sufficient

d) Red LED is Flashing

- Fit external antenna
- Relocate controller
- Change Network SIM card

e) If your issue is not listed here

- Contact your Supplier for Support

