



WARNING!
Only fully Qualified
Personnel should install or
service this Device.

4 Channel GSM Controller Installer Manual



Device Telephone Number: _____

QUICK START—Basic Installation Steps

1. If there is a SIM installed in the unit skip to step 3.

2. Un-programme the PIN number from the SIM card.

SIM Cards have a PIN that the phone user must enter when turning on their phone. This is stored in the SIM and must be removed for the unit to work. This is done by placing the SIM in any mobile phone and going to the 'Settings', then 'Security' menus. Then Turn Off the PIN Code request.

3. If the controller is to control heating then wire the unit to the heating system as shown on the wiring diagram on the centre page.

Be very careful when controlling the AC mains. Only apply mains after all wiring is complete and top is screwed back onto the GSM Unit.

Only a fully qualified electrician should install, maintain or repair this equipment

Ensure that the maximum applied voltage and maximum current specified in the table on the wiring diagram are complied with.

Voltage	Max switching Load Current
AC 220—250 VAC	6A
DC 30V	3A

4. Apply power to the GSM unit.

5. Give the Unit about 2 minutes to register when first turned on. When the Signal Strength light is on constantly or flashing the unit has registered on the network. If the signal strength light fails to light at all you may have to change the position of the device to pick up a GSM signal.

6. Now program the device with the numbers which you wish to allow to control the relays.

Send This Text

Receive this text
response.

open 1 XXXXXXXXX

open 1 XXXXXXXXX
programmed.

*XXXX represents your mobile number eg:087237660

**No Spaces in Tel Number

Remember to put the full telephone number into the device including area or country codes, that you would have to use if calling that number from your mobile phone.

- ❑ many more numbers can be programmed into the open list of the Unit.
- ❑ For example:use the following Text commands:
- ❑ open 2 0872234355 , where the tel number is 0872234355
- ❑ open 3 0872735522, where the tel number is 0872735522

Placing a Telephone Call to the Device.

7. Test the system configuration by placing a call.

- Call the GSM device from one of the mobile numbers programmed into the GSM unit.
- The GSM unit will recognise the calling number and switch relay 1. Relay 1 latches by default.
- Again Call the GSM device from one of the mobile numbers programmed into the GSM unit.
- The GSM unit will again recognise the calling number and switch back the relay to turn off the device connected to relay 1.
- When any channel, (which is activated by an incoming call) is on, an incoming call will turn off all these channels.

8. Configure which Channels turn on, on a call.

- Calling the device to turn on the heating is useful because there is no call cost.
- The Factory default operation is for relay 1 to latch when an incoming call is received.
- To configure the operation of the different relays (channels), when an incoming call is recognised, we will give examples for relay 2.

To make Relay 2 activate on an incoming call.

Send This Text

Receive this text
response.

Active on 2

Active on incoming
call for Relay 2

**To stop Relay 2 activating on an incoming call

send text "Active off 2"

- By default Relay 2 is set to latch if activated on an incoming call.

To make Relay 2 pulse on an incoming call.

Send This Text

Receive this text response.

pulse 2

Relay pulsed on
incoming call.
relay no. 2

**To set Relay 2 to latch on an incoming call
send text "latch 2"

The following table lists all text commands.
These can be used to control the operation of
all the relays on an incoming call.

Text Command	Meaning
Active on x	Sets relay x to activate on an incoming call. (x is 1,2,3 or 4)
Active off x	Sets relay x NOT to activate on an incoming call.(x is 1,2,3 or 4)
Active on all	Sets all relays to activate on an incoming call
Active off all	Sets all relays NOT to activate on an incoming call
Pulse x	Sets relay x to pulse on an incoming call (x is 1,2,3 or 4)
Pulse all	Sets all relays to pulse on an incoming call
Latch x	Sets relay x to latch on an incoming call. (x is 1,2,3 or 4)
Latch all	Sets all relays to latch on an incoming call

Relay 1 to 4 Factory Default Settings.

The following table gives details of the factory default settings for Relays 1 to 4.

From this table we can see that the default action on an incoming call is for Relay 1 to Latch. No other relay will activate.

Relay Number	Active On	Latch or Pulse
1	Yes	Latch
2	No	Latch
3	No	Latch
4	No	Latch

Set the default Pulse time for all relays.

Relays that activate on an incoming call and that are set to PULSE mode will switch the relay for a fixed period. This period is defaulted to 30 minutes but can be set as required

To set the default pulse time to 1 hour or 60 minutes:

Send This Text

Receive this
text response.

pulse time 60

Pulse Time 60

* Maximum setting for this time is 99 minutes.

Controlling the device with an SMS Text

9. Test the system configuration by sending an SMS text to the GSM unit.

- Send the following text to the GSM Unit
Send This Text Receive this text response

On 1

Command
Received

- The GSM unit will accept the command and switch relay 1 to turn channel 1.

- Again Send the following text to the GSM Unit

Send This Text

Receive this text
response

off 1

Command Received

- The GSM unit will accept the command and switch back relay 1 to turn off this channel.

10. Pulse Channel 2 for 30 minutes.

Send This Text Receive this text response

On 2 30

Command
Received

- The GSM unit will accept the command and switch relay 2 to turn on the device connected to Relay 2. After 30 minutes channel 2 will turn off.

The following table lists all text commands that can be used to switch on or off a channel permanently or for a fixed period.

Text Command	Meaning
on x	Turns on channel x. (x is 1,2,3 or 4)
off x	Turns off channel x.(x is 1,2,3 or 4)
on all	Turns on all channels.
off all	Turns off all channels.
On x yy	Sets relay x to latch for a period of yy minutes. (x is 1,2,3 or 4) (yy is minutes)

Checking Status of the GSM Controller.

The user can send an SMS text to the GSM unit to check the status of each channel to see if it's On or OFF.

To check the controller status.

- Send the following text to the GSM Unit

Send This Text

Control status x

Receive this text response

GSM Controller Switch:
OFF

X is the number 1,2,3,4 and is the relay (or channel) we are checking for.

Send This Text

Control status all

Receive this text response

Switch
1 ON
2 OFF
3 OFF
4 OFF

Advanced Installation Options.

If required in the future you may need to check phone numbers programmed in the open list.

To Check Numbers in the Open List.

For example to check what number is programmed into the first phone number in the list.

Send this text.

Send open 1

Receive This
TxT Response

Open 1 087363535

Test Call

To confirm that the unit is operating correctly we can get it to generate a test call at any time.

Send this text.

Test

Receive This TxT
Response

GSM
Controller Test Call

To Remove Numbers in the Open List.

To remove an already programmed number we enter an invalid number such as the number 0. OR we can overwrite the existing number with a new number we want to use.

Send this text.

Receive This
TxT Response

Open 2 0

open 2: 0 programmed

The newly programmed invalid number can not be reported to.

Default the SIM and the Device.

It is possible to reset the unit back to factory settings.

ENGINEER RESET - Return to Factory Settings.

***Warning:** Credit code, credit alarm and other factory settings will revert to their factory settings.

Send this text.

Receive This TxT Response

Default

Restored to Factory Settings.

ENGINEER RESET - Remove all Phone Numbers from the SIM.

***Warning:** This command will clear all programmed telephone numbers from the Phone lists.

***Warning:** This command can take up to 3 minutes to complete. Do not send any other commands to the Unit until this command completes.

Send this text.

Receive This TxT Response

Default SIM

SIM Cleared

Installation For Mobile Network

The Unit can be used with bill pay or pre pay SIM cards. For pre pay cards the ability for the user to get an indication when credit is falling low is useful and allows the user to add credit when required. Confident that he can keep the unit topped up with credit the user will be happy to use a pre pay SIM card.

The system is factory configured for an O2 SIM. To use a different network requires that you program a different Credit code.

Set the Credit Code

For example to set the credit code for vodafone in Ireland.

Send this text.

Receive This Txt Response

Credit code *174#

Credit Number Set

There are different codes for different networks.

Network	Ireland	UK
Vodafone	*174#	*#1345#
O2	*100#	*#10#
Meteor	*#100#	
Orange (UK only)		Orange not currently giving credit. (Use a bill pay SIM)

Turn Off The Credit Warnings.

Should the User switch to a Bill-Pay SIM or if credit monitoring is no longer required, it can be turned off as follows.

Send this text.

Receive This TxT Response

Credit alarm off

Credit alarm off

To Check the Remaining Credit on a SIM.

Send this text.

Receive This TxT Response

Control Credit

Credit = XX.XX

Fixing Problems.

Q1. I am sending a text messages to the Unit but I'm not getting any response.

Check the following:

1. Is the PIN removed from the SIM Card? Put the SIM card into any mobile phone. When the mobile is powered up the phone should not look for a PIN if it has been disabled. If the mobile looks for a PIN then you must turn off the PIN request.

2. Is the Signal Strength LED flashing or on constantly? If it is OFF then either the device is not registered OR there is not enough signal strength for the device to work.

3. Move the position of the unit to obtain a stronger signal level. On occasions you will find that some operators have no signal strength in certain location while another will have good signal strength. This will require changing the SIM to one from an operator who has good coverage at this location.

Q2. I am sending a text message to the unit but I'm getting the following response.

Command Error

Check the following:

1. Check the spelling of the txt message sent. Quite often this response comes from a command which is almost correct but is spelt wrong.

Q3. I am sending a text message to the unit but I'm getting the following response.

Invalid Command

Check the following:

1. Check the spelling of the txt message sent. Quite often this message can come from wrong spelling.

2. Check the details of the command being sent against the details in this manual.

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