

## **Installation Steps**

## **1.** If there is a SIM installed in the GSM device skip to step **3**.

#### 2. If there is no SIM installed then you will have to

- A) Obtain a SIM with at least 10 euro credit.
- B) When obtaining the SIM ask that voice mail is turned off.
- C) Vodafone PAYG SIM cards don't have a PIN number on the SIM. But other operators still put a security PIN on their SIM cards. This must be removed before using the SIM on the GSM device.

D) Place the SIM into the SIM card slot on the GSM device. See the wiring diagram at the end of this document, to see how the SIM is entered.

## **3.** Wire up the GSM device as shown on the wiring diagram(see later in this document).

The GSM device can be powered by +12V to +24V DC or +12V to +24V AC.

• The Power Supply must be capable of supplying 1.0 Amps to the GSM device.

### 4. Apply power to the GSM unit.

Initially the Register light will flash every second but it will then start to flash every 3 seconds to show it has registered on the network.

#### 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.

#### **Test Operation - Place a Telephone Call to the Device**.

## 6. Call the GSM device from your mobile or from a landline telephone.

The GSM unit defaults to open access so with no programmed Telephone numbers any caller can open the gate.

The GSM device sees the incoming call and hangs up the call. The GSM unit will pulse the Pulse Switch(See the pulse switch on the wiring diagram on the last page). This is a no cost call.

### Programming Phone Numbers into the GSM device. 7. Programming phone numbers into numbered locations.

To change the device from having open access you simply have to program the phone numbers you want to have access into the device. Once numbers are programmed then only these numbers will have access. Telephone numbers programmed into the GSM device are called Open Numbers. They act to open the gate or door.

Numbers can be programmed per location or just put into any empty location.

Send this text. Open 1 xxxxxxxx Receive This Text Response Open number xxxxxx Programmed.

Note 1: xxxxxxxxx is the telephone number of the person you want to be able to open the gate or door.

<u>Note 2</u>: Make sure there are no spaces in the telephone number text. Also make sure the response received is valid and has the correct number you programmed.

Fifty numbers can be programmed into the phone list of the GSM Unit. Use the following Text commands:

open 2 xxxxxxxxx open 3 xxxxxxxxx

open 50 xxxxxxxx

#### 8. Programming phone numbers into free locations.

To program a number into any free location send the following command

Send this text. Open xxxxxxxx Receive This Text Response

Open number xxxxxxx Programmed.

## 9. Removing Phone Numbers.

Send this text. Remove xxxxxxxx 
 Receive This Text Response

 Open number xxxxxx

 removed.

<u>Note 1</u>: xxxxxxxxx is the telephone number of the person you want to remove from being able to open the gate or door.

<u>Note 2</u>: If a telephone number is stored more than once in the device then this command will only remove the first occurrence it finds. Other occurrences will remain.

## 10. To Check Numbers in the Phone List.

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

Send this text.

Receive This Text Response

Send open 1

open 1 xxxxxxxx

Fifty numbers can be programmed into the phone list of the GSM Unit. Use the following Text commands, to check the numbers programmed:

Send open 2 Send open 3

Send open 50

Test Operation – Send an SMS Text to the Device.

**11.** The GSM device can be controlled by sending an SMS Text to it.

For example to open the gate for 20 minutes

Send this text.

Receive This TxT Response

Gate Open 20

Gate txt received.

The gate will open and then close after 20 minutes.

**Note:** For this mode of operation to function; when the Pulse Relay is latched the gate controller must hold the gate open. This is dependent on the configuration of the gate controller.

## 12. The table below lists additional SMS Text commands that can be used to control the GSM device.

| Text to              | Response          | Result                                     |  |
|----------------------|-------------------|--|--|
| Send                 | received          |  |  |
| Set Y                | Phone numbers     | A number of telephone numbers can be       |  |
| XXXXXXXX             | from Y            | set. Up to a maximum of ten numbers.       |  |
| XXXXXXXX             | Programmed        | The location of the first number to set is |  |
| XXXXXXXX             |                   | given(Y) followed by the phone             |  |
|                      |                   | numbers to set(xxxxxxx                     |  |
|                      |                   | XXXXXXXXX                                  |  |
| Get Y                | Open Number       | 10 numbers can be requested from the       |  |
|                      | 1 872730901       | device, starting with location Y. For      |  |
|                      | 2 872730902       | Get 1 will get the first 10 Open           |  |
|                      | 2                 | Numbers.                                   |  |
|                      | 3                 | Get 40 will get the last 10 Open           |  |
|                      |                   | Numbers.                                   |  |
| Gate open            | Gate txt received | Open the gate permanently                  |  |
| Gate close           | Gate txt received | Close the gate permanently                 |  |
| Gate open            | Gate txt received | Open the gate for XXX minutes. This        |  |
| XXX                  |                   | command can work for 5 minutes or          |  |
|                      |                   | many hours such as 8, 12 or 16 hours       |  |
| Test GSM Gate unit 7 |                   | This text can confirm the device is on     |  |
|                      | test Call         | the network and has credit to send an      |  |
|                      |                   | SMS Text response.                         |  |
| Pulse time           | Pulse time XX     | Change Pulse Switch, pulse time to XX      |  |
| XX                   |                   | seconds. The default is 3 seconds. This    |  |
|                      |                   | should only be used if the Gate            |  |
|                      |                   | Controller requires a different pulse      |  |
|                      |                   | time.                                      |  |
| default              | Restored to       | Return the GSM device to the factory       |  |
|                      | Factory Settings. | default settings. This may be useful if    |  |
|                      |                   | the system needs to be returned to the     |  |
|                      |                   | factory default state.                     |  |
|                      |                   | Caution: All programmed Telephone          |  |
|                      |                   | numbers will be cleared.                   |  |

| Gate Lock | Gate Lock on  | This function locks access from people |
|-----------|---------------|--|
| on        |               | ringing into the device.               |
| Gate Lock | Gate Lock off | This function allows access to people  |
| off       |               | ringing into the device.               |

### **Options for Security Settings**

If extra security is required when using the GSM Unit it is possible to enable a requirement for a security code when configuring the unit. When the security code is on, then all text messages sent to the GSM device must be followed by the four-digit security code. The default four-digit code is 8531 The security code is OFF by default when the Unit leaves the factory. It can be turned on as follows:

## 13. To Turn on the Requirement for a Security Code.

Send this text.

Receive This TxT Response

code on 8531

Security code on

Note: The command to turn off the code is "code off 8531"

## 14. Changing the Security Code.

Send this text. Change XXXX YYYY Receive This TxT Response Security Code Changed

XXXX is the New Security Code, YYYY is the old Security Code.

Example: Change 1234 8531

Configure Input 1 and Input 2 for Use.

#### Input 1 is configured to work as follows.

Wiring a set of contacts as shown in the wiring diagram, into input 1 will allow for the following text command to be sent to determine the gate status.

| end this text. | Receive This TxT Response |
|----------------|---------------------------|
| ate status     | Gate status open          |
|                | OR                        |
|                | Gate status Closed        |

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<u>Note 1</u>: If contacts are not fitted to the gate and wired to the input then this message will always return "Gate Status OPEN"

# Input 2 can be configured to send an SMS text on all gate openings and closings.

Wire a set of contacts to Input 2 as shown on the wiring diagram and mount on the gate so that they separate when the gate opens

To receive messages from an activation of Input 2 we have to program the phone number to receive text messages. It is important to program the control phone with the principal end users telephone number as this is where credit Top Up warning SMS texts will be sent.

| Send this text. | Receive This TxT Response |
|-----------------|---------------------------|
| Control phone   | Control phone             |
| xxxxxxxxx       | XXXXXXXXXXXXX             |
|                 | programmed.               |

Now when the gate is opened the number programmed above will receive "Gate open" SMS Text.

When the gate is closed the number programmed above will receive "Gate closed" SMS Text.

# 15. The table below lists the SMS Text commands that can be used to diagnose problems with an installed GSM device.

| Text to Send | Response received                             | Result  |
|--------------|---|---|
| Diag stored  | This returns the stored values recorded over  | Features such as the Signal<br>Strength, ability to register  |
|              | the last 5 days.                              | etc. are recorded over the<br>last 5 days, and returned.<br>Also a system health report is<br>calculated and returned |
| Diag Live    | These are the current values, not yet stored. |   |

