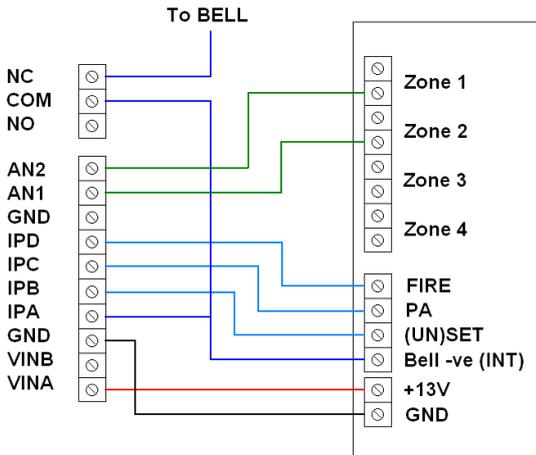


GSM Control and Monitoring System D4F5.03



**Typical Burglar Alarm Wiring Guide**

Digital Inputs A-D can be connected to industry standard open-collector outputs. This includes the bell -ve and STROBE terminals. Other programmable outputs can be directly connected to these inputs and the panel can be programmed to send messages for a variety of different events (if your panel features programmable outputs). Messages can be sent when the terminal goes low or high.

Analogue inputs can monitor individual zones. The input should be wired to the positive side and not the ground connection. The bell -ve terminal can be wired through the NC/COM relay terminals. This fail safe connection normally allows the bell to sound, however, after bell activation 'Silence' can be sent in an SMS to the dialer to temporarily disconnect the bell until the alarm is reset.

Insert a SIM from any GSM network into the SIM card holder. Please note the '3' network is not a GSM network (they offer only UMTS) – avoid 3 Mobile as only a roaming connection will be available. Please note even though networks such as O2/Orange/Vodafone offer 3G and 4G SIM cards they also have 2G voice/SMS infrastructure and so all of their SIMs are perfectly valid. Power should be connected to the two VIN terminals (the device is not polarity sensitive). If connecting to an alarm panel 12-13VDC supply, power should be connected between the lower VINA terminal (+ve supply) and GND (-ve or 0V). Do not exceed 24VAC or DC. AC supplies should be measured and should not exceed 24VAC – a warning message will be sent to master number when the input voltage is too high.

When first powered up the user should notice LED 1 (in the centre of the board) flashing once every second. After about 30s this will slow to once every two seconds to show the SIM is registered on the network. If the flashing LED extinguishes and the result LED by the pin header begins to flash the unit is resetting. If this cycle repeats every 10-15 seconds then there is an issue with the SIM card (remove PIN numbers/test it with a mobile phone). If the cycle 2 is sent to check the signal strength after the SIM has been registered for about a minute. This should be over 10.

Once registered a master phone number must be set up to control the dialler. A red jumper will be fitted to the pin header when the board is supplied new. This allows a new master number to be stored. Once the first master number has been set up the jumper should be removed so no further master numbers can be set up unless they are set up by an existing master.

With the jumper in place send the following SMS message to the SIM card telephone number:

**Master <master number>. e.g. Master 07000111222.**

Number 07000111222 can then set up further master phones (even with the jumper removed) using the same message format.

**TIP:** After sending 'master' message check it's worked by sending 'LIST' or dialing the SIM number and listening for the relay clicking. If it hasn't try again as nothing you do after this point will work!

**No calls or text messages will be sent to the master numbers unless the device is replying to a command. For calls and text messages the master user must add CALLNUM and TEXTNUM numbers**

To set up the numbers for the dialler to ring when the inputs are triggered, use the CALLNUM command as follows:

**Callnum 01517280000. Callnum 07000222333.** ...and so on – you can store up to 500 numbers

The calls will be dialled in the order they are added i.e. 01517280000 will be called first then 07000222333 will be called... To set up the numbers to be sent the customisable SMS text the TEXTNUM command is used as follows:

**Textnum 07000333444. Textnum 07000444555.**

If desired each channel group (group A: A, C & AN1, group B: B, D, AN2) can be allocated its own set of numbers which will only be called or sent SMS text messages when that channel group is triggered. To do this the channel letter A or B is appended to the CALLNUM and TEXTNUM commands as follows:

**CALLNUMA 07000000000** calls 07000000000 only when input A is triggered  
**TEXTNUMB 07000111111** sends an SMS to 07000111111 when channel B is triggered

To customise the input alarm messages the CUSTOMA/B /C/D and CUSTOM1/2 commands are used as follows:

**Customa** This is a customised message for INPUT-A. (128 characters max – must end with a full stop'.')  
**CUSTOM2** This is a customised message for Analogue input channel 2.

## Quick Start User Guide

You can also set separate positive and negative edge trigger messages using the CUSTOMXH/L command (see manual)

The device features a pre-programmed SIM card keep alive system to avoid network deactivation which does not require any setup. A SMS text can also be sent periodically to the user to confirm the system is running and show the network the device is active. Please see the manual for details on keep alive calls and text messages.

To remove a Master, User, Call Number or Text Number from the memory use the REMOVE command as follows:

### Remove 0700077888.

This removes the most recent occurrence of 0700077888 from the memory whether that is a master number, call number, text number or user number. If there are several occurrences of that number a REMOVE command must be sent for each one. It is recommended to send the LIST command to get a list of currently stored messages to ensure the number has been removed.

To remove a particular type of number and leave other occurrences of the number in the memory the number type letter is appended to the REMOVE command as follows:

**REMOVEC** 07000000000. This removes the call number 07000000000 from the memory but will leave any other occurrence of that number in the memory

**REMOVET** – Removes Text Numbers                      **REMOVEM** – Removes Master Numbers                      (**REMOVED** – Removes Data Numbers)

Please note international numbers should be entered with the '+' prefix and without the exit code: +447000000000 and not 00447000000000 (for UK number 07000000000)

To disable (no dialling or texting when triggered) one of the inputs (in this case input B) the following is sent to the dialler SIM number:

### InputB disable

If only text messages are required to be sent by one if the inputs (in this case input A) the following is sent to the dialler:

**InputA text**                      Similarly if only auto-dialling is required:                      **Inputa auto**                      ...and for both Auto-dialling and Texting:

### Inputa both

The inputs can be switched on and off with a call using the **CALL DIALER** command (see page 9 of the manual). A rejected call shows the inputs are being disabled whilst a call which rings out show they are being enabled\*.

To set the voltages at which the analogue input should start SMS sending and dialling the VUPPER/VLOWER command is used:

**vupper 20.1**                      sends SMS when voltage exceeds 20.1V                      **vlower 10**                      sends SMS when voltage is below 10V

For burglar alarm zones the zone should be wired in and the **STATUS** message should be sent to find the zone active and zone idle voltages. The **STATUS** message replies with the logic state of the output relays and inputs as well as the battery and analogue input channel voltages.

To enable SIM card balance checking the forwarding service must be enabled. It is recommended this is done using the FORWARD TEMP command to reduce the number of unsolicited messages sent by the system. The FORWARD TEMP command will ensure only messages received by the system from the network immediately after it has received a valid message from the master users will be forwarded i.e. for just a few minutes after you have requested a balance using the SMS or DIAL command.

### FORWARD ENABLE FORWARD TEMP

With the forwarding service enabled you can then relay your balance checking command to the network using the DIAL or SMS commands

e.g. For UK Orange and T-Mobile, to check the credit the word 'balance' is sent to number 150 from the phone (or in this case the relay board). To make the relay board forward this message to 150 the SMS command is used as follows:

### SMS 150,balance

Some networks require the mobile (in this case the relay board) to dial a special code. In this case use the DIAL command:

**DIAL \*102#**                      (for UK network Vectone)

\*For further details on input configuration please read the user manual.