SENTRY™
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GSM COMMUNICATOR

QUICK SETUP GUIDE

*Please refer to the complete User Manual if additional information is required
(http://www.martin-electronics.co.za/Downloads.aspx)

1. BASIC SETUP

Fig. 1.1 – GSM Communicator connection terminals

NC1	**NORMALLY CLOSED (REL 1)**	**3V**	**3V OUT**
NO1	**NORMALLY OPEN (REL 1)**	**CLK**	**SERIAL CLOCK**
CMN1	**COMMON (REL 1)**	**DAT**	**SERIAL DATA**
NC2	**NORMALLY CLOSED (REL 2)**	**IN1**	**INPUT 1**
NO2	**NORMALLY OPEN (REL 2)**	**IN2**	**INPUT 2**
CMN2	**COMMON (REL 2)**	**OUT**	**DIGITAL OUTPUT**
RX	**UART RECEIVE**	**12V**	**12V SUPPLY**
TX	**UART TRANSMIT**	**GND**	**GROUND**

1.1. Connection and Communication

Step 1:

Unscrew the front panel of the enclosure and remove the board from the enclosure. The board should slide out easily without excessive force needing to be applied.

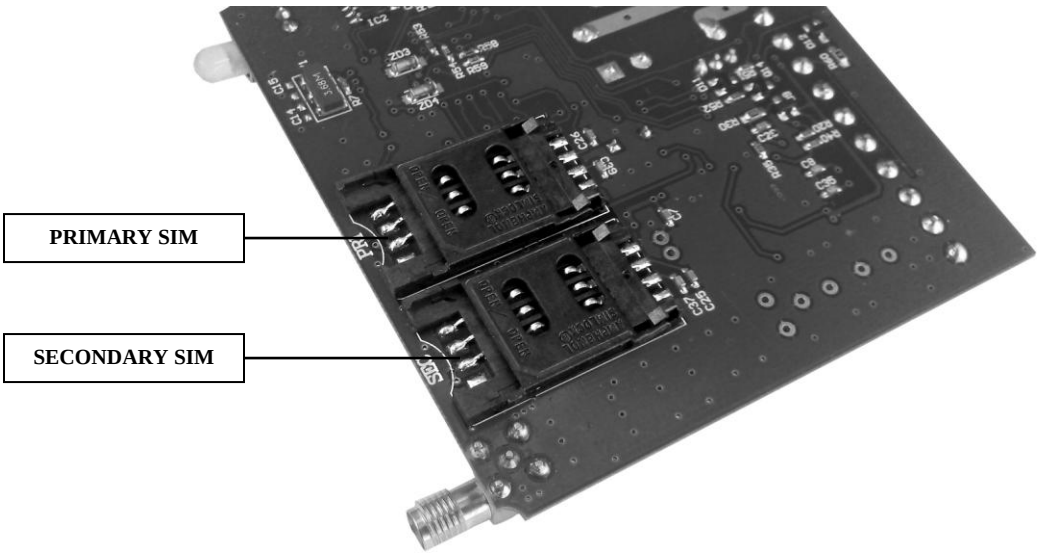

Fig. 1.2 – SIM card holders

Slide open the primary SIM cardholder labelled “PRI” (see Fig. 1.2) and insert the SIM card (ensure that the SIM card is not PIN protected). Lock the SIM card in place once inserted.

Step 2:

Place the board on a non-conductive surface (e.g. A wooden table or a book). Connect the 12V and ground terminals to a suitable power supply (at least 12V/1A). You should see the LED light up red and then flash green quickly, indicating that power is connected and the unit is operating normally. After approximately 10 seconds (network dependant) the LED should flash green slowly (1 second intervals) indicating that the device has successfully established communication with the cellular network.

Step 3:

Ensure that there is sufficient **Air Time** loaded on the SIM card.

Add your cell phone as an “Authorised Number.” To do this, send the command “**admin**” followed by a **space**, followed by your cell phone **number** with the country code (27 for SA) at the beginning of the number. E.g. To add the cell phone number 0826452344, the user will send:

admin 27826452344

You will receive a response from the GSM Communicator stating:

“You have been successfully added as an Authorised User on this device.”

You may now change other parameters on the device and all SMS alerts will be sent to this cell number.

IMPORTANT: ***Please take care to ensure that the correct number is sent using the correct format. An error may result in the user being "locked out", which can only be reset using the Sentry USB dongle together with the Sentry GSM PC application.***

Step 4:

If you wish SMS alerts to be sent to a second destination simultaneously, you may add a second number in the same format as above by sending the following SMS to the device from the authorised cell phone used in step 3:

Report Destination 1: ***13*number* *E.g.* ****13*27823259021**

Up to 5 report destinations may be set, please see complete user manual for further details if required.

Step 5:

You are now in a position to customise the input ports. As default, both input ports will trigger if a high pulse (12V) is received for 1 second or longer. Please consult the complete user manual if further customisations are required. To customise the SMS text that each input will send, issue the following commands to the device via SMS:

Input 1: **36**text* E.g. ****36*ALARM ACTIVATED**

Input 2: **37**text* E.g. ****37*PANIC ACTIVATED**

Both input texts can be set in a single SMS. E.g:

****36*ALARM ACTIVATED**37*PANIC ACTIVATED**

Do **not** place a space between individual commands.

Step 6:

The output ports (relays) may be set up in a similar manner. Firstly, set the desired mode of the relay i.e. Latch (**0**), pulse (**1**) or toggle (**2**). The mode can be set by sending the following SMS text to the device:

Relay 1: **100**mode* E.g. ****100*1**

Relay 2: ***101*mode* E.g. ****101*0**

The device can be programmed to accept specific text commands (up to 20 characters) to activate each relay. To set the "ON" text, the device must be sent the following SMS command (not case sensitive):

Relay 1: **30**text* E.g. ****30*OPEN GATE**

Relay 2: ***32*text* E.g. ****32*RESET ALARM**

If relay mode is set to **latch** or **toggle** mode then the relay must be deactivated by an "OFF" command (up to 20 characters), which can be customised by sending the following command:

Relay 1: **31**text* E.g. ****31*LIGHT OFF**

Relay 2: ***33*text* E.g. ****33*SPRINKLER OFF**

If the relay is set to **pulse** mode, it will automatically deactivate after a pre-determined time duration. The time duration is set in increments of 10ms. Therefore, if you wish the relay to activate for 1 second, you will set the "ON" time to 1s ÷ 10ms = **100**. If a 2 second duration is required, you will set it to **200**, etc. The time duration for each relay may be set by sending the following SMS command to the device:

Relay 1: **104**time* E.g. ****104*150**

Relay 2: ***105*time* E.g. ****105*200**

As with the inputs, multiple commands may be strung together in one SMS (max. 160 characters) E.g:

****100*1**30*OPEN GATE**104*200**

The command above will set relay 1 to **pulse** for **2 seconds** when the text "**Open Gate**" is received from an authorised user.

Step 7:

The device may be programmed to send an automatic "**report**" SMS periodically to the report destinations. It is advisable to make use of this feature (at least weekly) to ensure that the account remains active on the cellular network. The interval between report messages is set in increments of 1 minute. For example, if you wish the device to send one message per week, the parameter must be set to 1min x 60 x 24hrs x 7days = **10080**. The command to set this is as follows:

114time* E.g. ****114*10080**

Step 8:

The device can be set to send an alert if the **battery voltage** drops low. The voltage can be set in 1V increments (**49) and the alert function must be enabled (**48) at the same time. To set the device to send a low voltage alert, the following SMS command may be sent to the device:

48*149*voltage* E.g. ****48*1**49*10**

Adding/Deleting Regular Users

Regular users may access the outputs remotely via SMS or missed call (relay 1), but may not change any settings on the device. Only an Authorised User (step 3) may add or delete Regular Users.

Add User: Type the word *"ADDUSER"* followed by a **space** character, followed by the cell number that you wish to add in the same format (with country code) as step 3.

E.g. **ADDUSER 27823259021**

Delete User: Type the word *"DELUSER"* followed by a **space** character, followed by the cell number that you wish to delete in the standard format.

E.g. **DELUSER 27823259021**

Check User: Type the word *"CHKUSER"* followed by a **space** character, followed by the stored cell number that you wish to verify in the standard format. A response will be sent back indicating whether the number is currently stored on the device.

E.g. **CHKUSER 27823259021**

Additional Commands

- *Query balance (prepaid only)* **BALANCE**
- *Solicit a status report* **REPORT**

Please Note:

This document highlights the basic and most popular commands involved in setting up the device. For a full list of settings that can be manipulated remotely, please see the **GSM Communicator SMS Setup Commands** document included in the web download. Alternatively, the user can make use of the free and easy-to-use *Sentry GSM Management Platform* software and dongle to set up the unit via USB.