NOTE: All relays are normally open contacts
Access control

The gatestation with access control module is now equipped with the ability to trigger the relays on the GSM master board by entering in a password on the keypad. This is useful in the case where entry and exit may be provided to home owners and guests, in addition to the missed call feature of the intercom. This feature is enabled if Jp2 is inserted. (See above diagram)

Programming access control

All passwords for access control are programmed via the keypad. Four passwords may be programmed to activate the respective four relays on the GSM master board.

1. To enter programming mode enter 1 2 3 4 5 and hold down the red * button
   (1 2 3 4 5 is the default master password).
2. A beep will be heard which signifies programming mode.
3. Press numbers 1 - 4 to program the password for relays 1 - 4
4. Press the red *
5. Enter the password (up to 8 numbers) and press the red*
6. An acknowledgment tone will be heard.

The unit has now exited from programming mode and the programmed password may be used by pressing the password followed by the green #.

NOTES:
1. Password 1 is the also master password - changing this will change the programming password.
2. All numbers less than 4 characters are interpreted as a unit number, therefore choose a password of 4 numbers or more for access control.
3. If an incorrect password is entered 3 times the keypad will prevent any input for the following 20 seconds. Reactivation is indicated by a beep.
4. A single invalid tone indicates an unprogrammed unit number has been entered
5. A double invalid tone indicates an invalid access control password has been entered

Resetting the master password:
1. Hold down the numbers 1 9 while applying power until a beep is heard.
2. Enter in the new password followed by the green # button
3. Power-cycle the unit

Auto-dial:
The gatestation may be configured to autodial (no need to press the green # for either access control or unit dialing). This is done by placing the jumper provided on programming Jp1. (See above diagram)
**CONNECTING A HANDSET**

1. **USB Connector**
2. **SIM card holder**
3. **12 - 24 VDC**
4. **Rel 1**
5. **Rel 2**
6. **Rel 3**
7. **Rel 4**

---

**Insert SIM card chip side down**
Push until click

**Antenna connector**

**Connection unit**
May be purchased from supplier

---

**GSM Master Unit**

---

**Antenna connector**

---

**USB Connector**

---

**M000042**

---

Page 3
**Booting sequence**
On power up all LEDs will be on. As the unit passes the various tests the LEDs will turn off. Only when the green LED is flashing is the unit in the normal running state.

Please note that if the unit is connected to a computer via the USB cable, none of the SMS or dialing capabilities will work. Remove the USB cable after programming and the unit will proceed with the boot sequence.

**Programming**
The unit may be programmed via PC software through the USB port or via SMS.

The following are the structure of the SMSs for the various programming options. The default password is 1234 and must be changed. All messages start and end with a * (asterisk)

Change password from 1234 to 7788: 
*1234 SYS PASS 7788*

Add airtime:  
*1234 SYS AIRT 1234123412341234*  
where 1234123412341234 is the recharge voucher pin

Retrieve airtime available:  
*1234 SYS AIRT* or *1234 SYS NETW *100#* (for Vodacom) or *1234 SYS NETW *141#* (for MTN)

Set automatic hang-up time to 60s:  
*1234 SYS HANG 2*

1=30s, 2=60s, 3=90s, 4=120s, 5=150s, 6=180s, 7=210s, 8=240s

Set the master number: 
*1234 TEL MAST 27821234123*

The master number will be informed when the unit is rebooted and when the unit checks in.

**Adding & Calling numbers (Keypad Version)**
Each unit may have two numbers associated with it. By pressing the unit number and either the * or # dial buttons the associated number will be dialed. (# for number 1 and * for number 2)
The GSM intercom may have up to 400 numbers (200 for number 1 and 200 for number 2, or 400 for number 1)

The unit will give and audible two-beep tone acknowledging that the call is in progress. If an unprogrammed unit is dialed, an error tone will be heard.

Should the caller wish to cancel the phone call at any stage they may press either of the dial buttons to hung up.

_NB: all numbers added must contain the country code ie, 27821234123 and no +’s_

Add number 1 for unit 123: 
*1234 TEL ADDN 27821234123,123*

To add number 2 for the same unit, _200_ should be added to the unit number

Add number 2 for unit 123: 
*1234 TEL ADDN 27821234123,323*

Remove a number: 
*1234 TEL DELN 27821234123*

Clear telephone list: 
*1234 TEL CLRN*

**Adding & Calling numbers (4 Button Version)**
Telephone number management is very similar to the keypad version, except the unit will only dial four numbers. These will be triggers by applying 12V to one of the 4 inputs. For example triggering input 2 will call unit number at position 2.

**Gate triggering**
At any point during the conversation the home owner may key in on their keypad the number 1 or 2 or 3 or 4. This will activate one of the 4 relays at the unit respectively which will typically trigger the gate to be opened.

**Missed-call activation**
The GSM unit comes equipped with a missed call function. Only programmed numbers may activate this function. When the caller phones the number of the SIM card in the GSM intercom, the unit will proceed to hang up the called and activate relay 1 and no charge to the caller.

**Troubleshooting:**
1) Caller Line Identity (CLI) not activated on the SIM card, typically with contract SIM cards
2) Telephone number not correctly programmed with 27xxxxx

**Flashing RED, GREEN, ORANGE LED:**
1) Pin number on SIM Card (must be removed)  
2) SIM card not correctly inserted

**Solid GREEN LED**  
3) Antenna not correctly attached or SIM card not activated

Unit appears not to function at all  
Please follow the steps on the trouble shooting page
TROUBLE SHOOTING

Is there power to the keypad unit (Blue LED lights behind buttons)?

Yes

Is there a flashing GREEN LED on the keypad unit?

No

Unit might be damaged by lightning or power surge

Yes

Is a tone heard when any button is pressed?

No

Check power on GSM unit
Check wiring of terminals 21 and 5 between GSM unit and keypad

Yes

Are RED, GREEN and YELLOW LEDs flashing on GSM unit?

No

Check that SIM card is activated and that there is no PIN number. Remove the PIN number using another mobile phone

Yes

Is the GREEN LED on solid?

No

Check terminal 6 wiring between keypad and GSM unit

Yes

Check that antenna is connected correctly and that there is good signal

Is only the GREEN LED flashing on the GSM unit?

No

Press only the RED * button. Is a second acknowledge tone heard after the button tone?

Yes

When pressing the * button does the Yellow LED on the GSM unit illuminate briefly?

No

Check terminal 5,21,12 wiring between keypad and GSM unit

Yes

Is the acknowledge tone a double beep?

No

There is no number programmed for the selected unit number

Yes

Does the unit phone ring?

No

Check Airtime

Yes

Is there audio in both directions?

No

Check the wiring of terminals 11,G,12 between GSM unit and keypad

Yes

Do the relays trigger when pressing 1,2,3,4 on the receiving side?

No

Unit is working

Check that the receiving phone is enabled to send TONE and not PULSE

Yes

Check terminal 5,21,12 wiring between keypad and GSM unit

Check that wiring between keypad unit and audio module. Check that terminal 5 and 8 are bridged

M000042 Page 5
Installation of GSM units in Windows 7

By default Windows 7 does not have correct drivers for the GSM units.

- Plug the USB into the GSM and the computer, cancel any attempts or popups of windows to connect online to try and download a driver.
- Click the start icon on the bottom left, right-click on 'Computer' and select properties.
- In the window to follow click the 'Device manager' link in the top left of the screen.
Under the Other devices, a device called FT232R will be highlighted with a yellow exclamation mark. Right-Click on it and select ‘Update Driver Software’.

Select the second option to ‘Browse my computer for driver software’.

On the screen that follow browse for the directory of the extracted driver files. This will typically be D:\win32_usb_driver on your CDRom.
The USB serial driver is now installed and windows will proceed to install the Serial Comm port driver.

Click Close once this is complete.

Open Device manager and you will now see a device called USB Serial Port (COM X) in the Ports (COM & LPT) menu. Please make sure that the X in the COM X is a number less than 16.

If the number is greater than 16 proceed onto the next steps

Right click on the USB Serial Port (COM X) and select properties. On the screen that follows click the Port Settings tab and click the Advanced button

Change the COM Port Number to COM16 or below.

Click OK

Unplug the device

Plug in the device

The unit will now be installed under the COM port selected

You may now proceed to the installation of the GSM Configuration software on the CD
1. Plug the a USB cable into the unit and apply power to the terminals. If your PC does not have the driver install you will be presented with the following screen:

2. Select “No, not this time” and click the Next button.

3. Select “Install from a list or specific location (Advanced)” and click the Next button.

4. Select the option “Include this location in the search”, click the browse button and locate the folder where the driver file are. This is typically D:\drivers\XP, click OK and click Next.

5. The driver will be installed and you make click the Finish button.

6. If the Hardware wizard requires an additional driver repeat steps 1-6.
To make verify that the driver has been successfully installed, open control panel and double click the System icon. Click on the Hardware tab. Click the Device Manager button. Scroll to “Ports (COM & LPT)” and expand the list by clicking the +. You should see a device called USB Serial Port (COMX) where X is a number.
GSM Intercom configuration program

This program is used to manage the telephone numbers on the GSM unit. It may be used instead of sending SMSs to configure the unit.

1. Open the program calls BPTConf in the TRIBPT start menu folder

2. Select the COMM port associated with the GSM Intercom. If you unsure what this is please follow the steps in the previous pages on changing the comm port.

3. Click the GSM INTERCOM button

4. Enter in the unit telephone number and click the ADD button

5. Enter in the unit number associated with the telephone number

6. Once all numbers have been entered click the “UPLOAD SETTINGS TO GSM UNIT”

7. Click YES to upload numbers to the unit.

8. Successful transfer will be indicated but a popup window