For technical support, contact: 011 202 5884 or 083 235 4916.

SMS ALERT
WIRELESS INTERCOM

User Manual

Main features

> *Input 1 : **Phone user B**
> **Input 2 : DISARM , ARM
> **Input 3 : POWER LOSS, POWER RESTORED
> *Input 4 : **Phone user C**
> *Input 5 : **Phone user D**
> *Input 6 : **Phone user E**
> *Input 7 : ACC 1
> *Input 8 : ACC 2
> *Input 9 : PANIC

> **Press 58** while talking to pulse relay A (e.g. to open the gate)

> ** *Manufacturer must change this text on request*
> * *Programmable by user from any remote cell phone*

> **For cables longer than the supplied length, use shielded cable to limit any noise.
> Cable not to exceed 15 meters.**
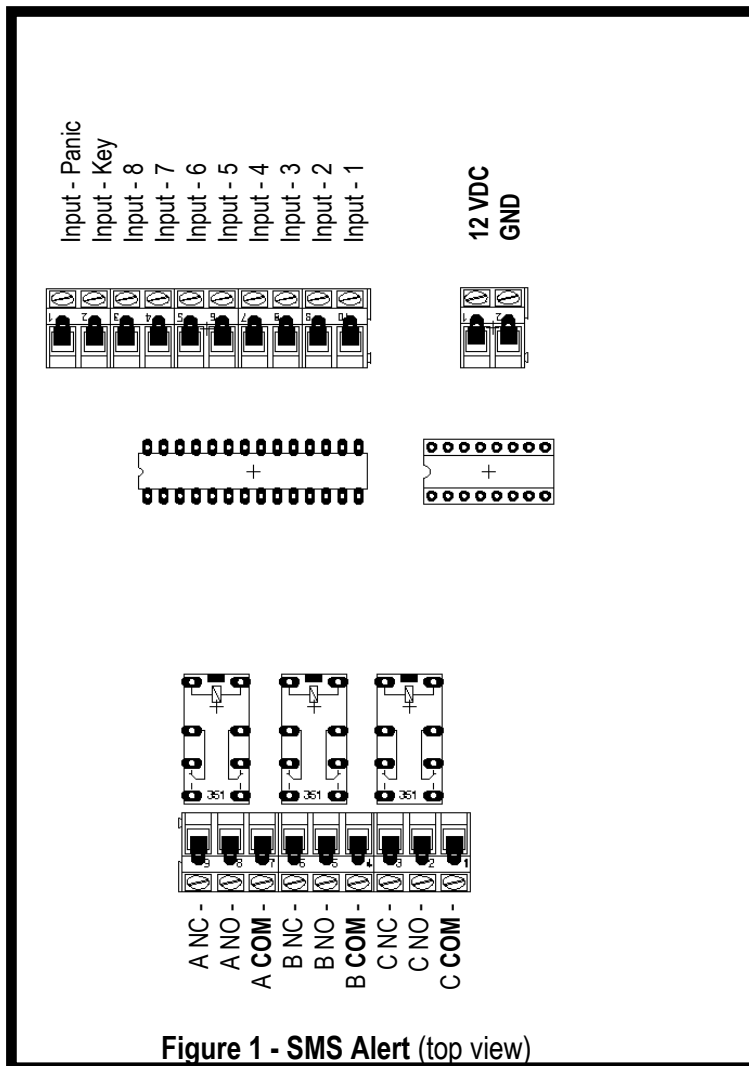
SMS Alert Instruction / Connection Diagram

Figure 1 - SMS Alert (top view)

Summary of How the Intercom Works

- The SMS Alert Wireless Intercom is one system that consists of three parts. These three parts are connected (SMS Alert 9, Gate Station, Aerial).
- The 3m wire between the SMS Alert and the gate station can be replaced with a 10m wire.
- The intercom is based on the same principle as the SMS Alert 9, except that inputs 1,4,5,6, 7 and 8 are used for the gate station.
- It has 6 buttons and 3 extra inputs for other use.
- When the first button on the gate station is pressed, user B is dialled. The 2nd button will call user C and the 3rd button will call user D, etc.
- Talk time of 45 seconds are allowed, before the intercom automatically ends the call, except if the user (eg. B) ends it first.
- The visitor can also end the call by pressing the button on the gate station.
- You can open the gate by pressing 58 on your phone while talking, or send the SMS **1234 ap** or see page 5 of the user manual on how to operate the relay outputs). This will pulse Relay A for one second.
- All the users can divert their calls, if he/she is busy, out of reach, not available, or if the call is not answered within a certain amount of time.
- 3 additional devices can be monitored (inputs) e.g. Power Loss, Arm/ Disarm, Panic etc.
- 2 additional devices can remotely be switched on/off (outputs) excluding 1 relay that is used to open/close the gate.

Quick-Start Steps

1. **Preparing SIM-card** - Buy an MTN, Vodacom or Cell C starter pack (prepaid or contract) and RICA it (you need your id and proof of address for this). Ensure that you can send an SMS out from the SIM-card, before you put it in the SIM-card slot of the SMS Alert. Making a call to the SMS Alert only is not sufficient to test the SIM-card. PIN-code request must be deactivated before you insert the SIM-card into the SMS Alert.
2. **Airtime** - Ensure that the SIM-card has sufficient credit. Load airtime if necessary.
3. **Insert the SIM-card** into the SIM-card slot. Apply 12VDC.
4. **Red LED** - The red LED (light on the side of the box) must be on. KEY/Led input
   must have +12VDC connected to it. The red LED should be on by default
   because of the red loop wire. The Red LED enables inputs 1-8, excluding input 2.

5. SMS **1234 b** from your cellphone to the SMS Alert. Note the **yellow LED** will light up when B is active. This step tells the SMS Alert where to send SMSe when inputs are tripped. **There must be a space** between **1234** and **b. If you SMS** 1234 b again, you will <u>cancel</u> user B. If you SMS 1234 b again, you will <u>reload</u> user B. (In other words you will toggle it on & off).
6. The SMS Alert will respond to step 7 by sending its status back to you (e.g. **INPUT ON** <u>B</u>**- - -, #000 #00000000**). Ensure that the character "B" appears in the SMS to show user B is loaded as above.

Lower Case and Upper Case of Commands (VERY IMPORTANT)

1. Use **lower case** for **all commands** sent to the SMS Alert (e.g. 1234 **r**, 1234 **b**, etc.)
2. Use **UPPER CASE** only with the following 2 commands:
   a. 1234 **TC** (terminate call)
   b. 1234 **AIRT** (checking airtime).

How to program the SMS Alert to report to a 2nd, 3rd or 4th cellphone

There are 6 users: B,C,D,E,F and G. Follow step 5 of the Quick Start Steps to activate user B (the first user). If you want the SMS Alert to report to a 2nd cellphone, SMS **1234 c** from the second cellphone to the SMS Alert. To toggle this feature **off**, SMS **1234 c** again from any cellphone to the SMS Alert. The last phone that toggled a user ON, becomes that user.

E.g: 1234 c (There **must be one space** between **1234** and **c**, and no spaces afterwards. Do the same for **1234 d** (3rd), and **1234 e** (4th). User B must be ON for the other users (if loaded) to also receive SMS messages.

New function to add cellphone numbers:
In conjunction with the current method of loading numbers the following command allow users to be loaded from one point/cellphone. This eliminates the need to send a SMS from each cellphone handset that needs to be added.

When a DOT and phone number is placed after the current command, the phone number will be loaded into that position. The return SMS will be sent to the new cellphone number, not the cellphone number that loads it. You can however check if all the numbers are loaded, by sending **1234 r** to the cellphone number of the SMS Alert.
Example: To load 27821231234 into User B, send the following SMS from one cellphone, to the cellphone number of the SMS Alert:

1234 b.27821231234 (only use 1234 b,c etc., with no phone number if it is not a remote number)
or
1234 e.27821231234

If a user is already loaded, then the command will first delete it (toggle off). It then needs to be sent again. The international setting must be activated for use outside of SA before this can be done (not tested). If it fails, then revert back to the current method. Applicable to the GSM module marked Version 2.5 and up.

Please keep track which user is loaded as B, C, D etc. Otherwise all users/numbers will be deleted when you want to load or delete users, and you cannot remember which person is assigned as which user.

How to rename the input SMS strings:

You are able to rename the default SMS messages you want to receive on your cellphone/s when your alarm goes off or when the inputs of the SMS Alert are triggered. Each input sends a different SMS to your cellphone/s.

Important: The SMS must not be longer than 19 characters, including spaces, commas, etc.

Example: If you want input 1 to SMS "**John's room !**" when the input is triggered:

1. SMS **1234 1** (one space between 4 and 1 and no space afterwards.)
2. You will get the following SMS back: **Str 1 ?**
3. Then send the following SMS: **John's room !** (Do not include 1234!)
4. You will get the following SMS back: **Str1 OK.**

The commands for each input are the following:

Input 1 : N/A – Phone user B
Input 2 : Not re-nameable
Input 3 : Not re-nameable
Input 4 : N/A – Phone user C
Input 5 : N/A – Phone user D
Input 6 : N/A – Phone user E
Input 7 : 1234 7 (Phone F – depending on software)
Input 8 : 1234 8 (Phone G – depending on software)
Input 9 : 1234 9 (Panic)

How to operate the Relay outputs

The three Relay outputs A, B and C (not the same as users B,C,D,E) can be used for anything that requires remote controlling/switching. For example to switch machinery and equipment on and off or to open a gate, or to switch your alarm on and off.

For example to SMS **1234 a on.** There must be one space between **1234** and **a** and **on.**
The alpha characters (a on) must all be lower case.

The relays can be controlled by sending the following SMS'e to the SMS Alert.

1234 a on	Switch / Latch Relay A on - the same for **1234 b on** (relay B), **1234 c on** (relay C)
1234 a off	Switch / Latch Relay A off - the same for **1234 b off** (relay B), **1234 c off** (relay C)
1234 all on	Switch / Latch all relays on - the same for **1234 all off**
1234 ap	Pulse Relay A for 1 second - the same for **1234 bp**, **1234 cp**
1234 app	Pulse Relay A 10 times – Use for example to pulse our Pepper Gas Defender Mechanism.

*Note: Relays won't pulse if already switched / latched on.

Loading & checking airtime balance

Service Provider	Function	SMS to be sent to SMS Alert
MTN	Load Voucher	1234 AIRT*141*voucher#
Vodacom	Load Voucher	1234 AIRT*100*01*voucher#
Cell C	Load Voucher	1234 AIRT*102*voucher#
Virgin	Load Voucher	1234 AIRT*102*voucher#
Vodacom	Check Bundle SMS balance	1234 AIRT*111*502#
Vodacom	Transfer airtime from one cellphone to another	Register or log in to My Vodacom, or dial *111# and select "**Airtime Transfer**".
MTN	Transfer airtime from one cellphone	Dial *141*6328*, insert the recipient's

	to another	cellphone number, *, insert the rand amount, # and press call. For example, *141*6328*0831234567*50# press call.

Airtime on prepaid SIM-cards can also be checked by registering the cellphone number of the SMS Alert on www.vodacom4me.co.za (for vodacom) or the applicable Service Provider's website.

Airtime can also be loaded via internet banking, an ATM, or by removing the SIM-card and putting it in your own personal phone using the voice method.

**Disconnect the power from the SMS Alert when the SIM-card is removed.

Auto-Answer (silent listen-in)

This applies to SMS Alerts fitted with a microphone. By default Auto-Answer is on. When you dial the SMS Alert from any cellphone, the unit will ring twice silently, pick up the call and you will be able to hear surrounding noises via the microphone. To switching off auto-answer (when you don't want someone to listen in) – **SMS 1234 TC0** (0 = a digit). To switch it back on **SMS 1234 TC1**.

SMS Alert Cellphone App (currently only for Android phones)

To download our SMS Alert app to your cellphone (currently only Android phone), please visit our web site at www.smsalert.co.za. On the left-hand side of the home page, underneath the SMS Alert logo, there is a link you can follow. Please note the link must be followed with your cellphone (not your PC), to download it to your cellphone.

Because it is a new app, it is not yet available from the Google Play store.

An app for iPhones is being developed.

General information

1	To request the status of the SMS Alert at any given time, SMS **1234 r**	The SMS Alert will respond with, for example, the following: **INPUT ON B - - - , #0B0 #87650001** **INPUT ON** — Inputs 1 to 8 are enabled or disabled (except input 2 which is always monitored) **B- - -** — User B loaded only. Users C, D and E are not loaded. **#0B0** — Relay B is switched on. Relay A and C are off **# 87650001** — Inputs 5,6,7,8 are on / tripped.
2	*** Changing the security code 1234**	The default code is 1234 and can be changed through these steps: 1. SMS **1234 CODE** to the SMS Alert. The SMS Alert will SMS back: **CODE ?** 2. You can now SMS your selected 4 digit numeric code, e.g. 5678. This code is used as a prefix to operate all commands. **Use 4 Numeric digits only.**
3	**Panic Input**	Always enabled, negative trip and does not depend on the Key input.
4	**Key Input**	Enables or disables the 8 inputs. The Key Input is triggered ON by default because of the red loop wire.
5	**Green LED**	Indicates when the SMS Alert is sending an SMS. The LED will stay on for 3 seconds. **If the light is flashing, a problem exists**. See troubleshooting. After 2 minutes the SMS Alert will attempt to reset the flashing LED.
6	**Yellow LED**	Indicates user B is active, and the SMS Alert will at least report to user B. User B is the main user, and if it is off, **C**, **D** and **E** won't work even if they are toggled on.

7	**Red LED**	See point 4, "Key Input".
8	**Change Inputs NO / NC**	SMS **1234 03** to change from **normally open (NO)** to **negative remove (NC)**. The SMS Alert will reset and power up again.
9	**Missed Call** (Outgoing)	The Missed call function can be switched (toggled) on and off by sending: **1234 01** (this is OFF by default). Only applicable to input 1 and user B.
10	**Missed Call** (Incoming)	SMS **1234 06** to the SMS Alert. Relay A will pulse for one second every time the SMS Alert receives a missed call from any cellphone.
11	**Loading and checking airtime balance**	Money can be loaded via the internet (ex. ABSA), from an ATM, from the keypad of the phone, or by removing the SIM-card and putting it in your own personal phone using the voice method. **Please disconnect the power from the SMS Alert when the SIM-card is removed.** The **balance of a prepaid SIM-card can be checked** by registering the cellphone number of the unit on www.vodacom4me.co.za (vodacom SIM-cards only).
12	**SIM-card type**	When last tested, the SMS Alert accepts MTN, Vodacom or CellC SIM-cards, contract or prepaid.
13	**International code prefix use**	SMS **1234 05** to enable. Consult your supplier. **Please note that SMS Alert has been tested in South Africa only.** For international use when the above is set, also send **1234 WC** to the SMS Alert. Th return SMS will contain SET=0111x where **x (5th position)** must be **1**. If it is **0** then send **1234 WC** again. This prevents a problem when the network keeps sending an immediate return SMS to the SMS Alert for every SMS the SMS Alert sends out.
14	**DTMF code check Default on**	When 58 is pressed while a voice call is in progress the relay will pulse
15	**Signal strength**	SMS **1234 ver** to get the phone model version and GSM signal strength.
16	**Finding out what the cellphone number of the SMS Alert is**	Put the SIM-card of the SMS Alert into your cellphone and dial the following numbers: MTN: *123*888# Vodacom: *111*501# Telkom / 8ta: *1# Cell C: *147*100#
17	**Upper and lower case of commands**	Use **lower case** for **all commands** sent to the SMS Alert (e.g. 1234 **ap**, 1234 **r**, 1234 **b**, etc. Use **UPPER CASE** only with the following 2 commands: 1234 **TC1** (terminate call), 1234 **TC0** and 1234 **AIRT** (checking airtime).

Technical Specifications

1	**Power supply**	9 - 14VDC volt DC, 500mA (milliamps). An in-line battery is preferred for smooth power. Power supply must be doubled-up.
2	**Power consumption**	Standby current 30 – 50mA. 400mA peak when SMS is send or received.
3	**Users**	The inputs can report to up to 6 users: B,C,D, E, F and G.
4	**Relay contacts**	10A / 124VAC – It is not recommended to switch 220VAC unless you are a certified electrician.
5	**Inputs**	Inputs 1 – 8 optically isolated and negative or positive trip selectable via jumper. Inputs 1 – 8, and Panic: NO or NC selectable as a group. Inputs 2 and 3 are dual state inputs – It trips on both signal conditions. Inputs are buffered control for simultaneous triggering. Key input – Always positive. The Panic input can only be tripped negatively. Rename another input to Panic if only a positive signal is available.

## Fault finding / Troubleshooting

| 1	**Noisy microphone when listening-in**	Due to the environment, it may be necessary to use our external magnetic (1-20m) antenna extensions to reduce noise. The first antenna must then be removed.
2	**Flashing green LED**	Re-power the SMS Alert system. This happens when the SMS Alert's power is connected (reset) three times in a short period. The automatic reset recovery is then disabled to protect the phone until power is removed and applied again. The SMS Alert will also attempt to reset itself after 2 minutes.
3	**Other equipment used in conjunction with SMS Alert**	It is not recommended that other receivers, transmitters or equipment be kept inside the SMS Alert box.
4	**Ad-hoc behaviour**	Ensure that a very good / smooth Power Supply Unit (PSU), or power from the alarm panel is used where florescent tubes or machinery are not in the proximity of the SMS Alert. Auxiliary outputs on panels do not provide sufficient power.
5	**The green light goes on but no SMS is received**	Ensure the SIM-card is properly registered. Insert the SIM-card in your own personal phone and call e.g. MTN (141) or Vodacom (100) to clarify the problem. Check your airtime.

Antennas for poor reception:

3 meter Antenna available for external GSM reception, or poor reception

Diagram for GSM Module PC Board (where SIM-card slots in)
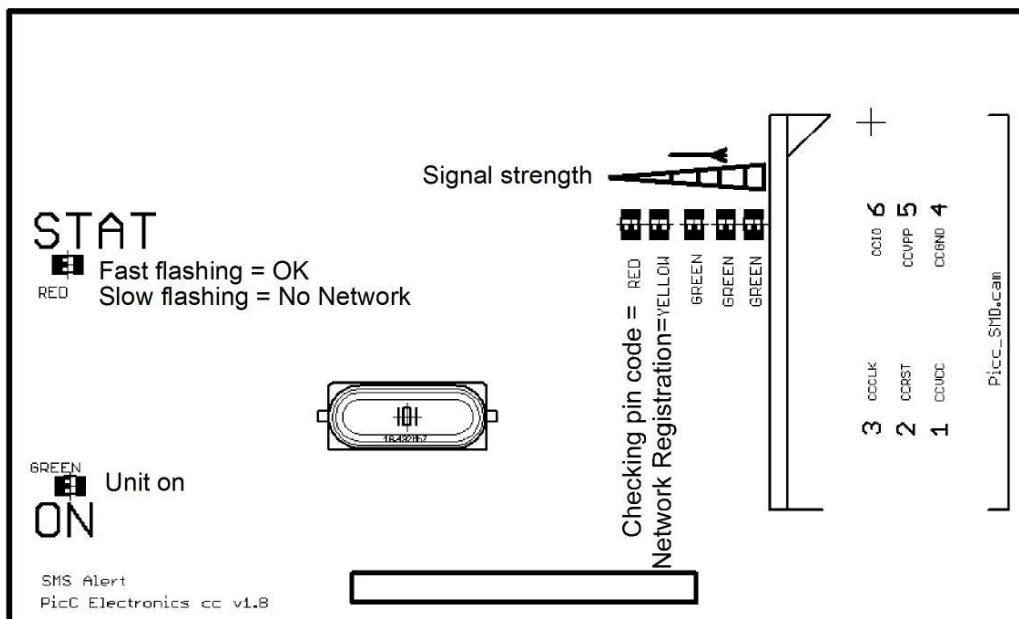
SMS **1234 AIRT** for prepaid airtime balance. Does not report bundle SMS balance. South Africa only.

Inserting the SIM-card on the PC Board
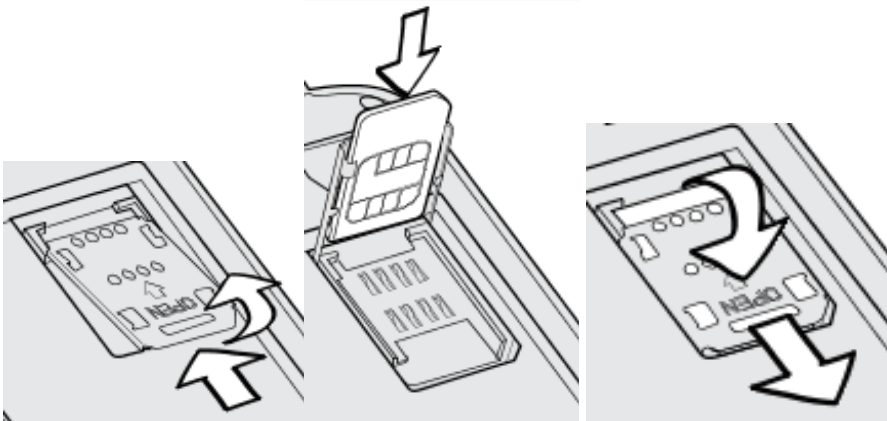
A   B   C

1. A - Push/slide flap in the same direction as the board (about 1- 2 mm).
2. A - The flap will unlock, lift the flap.
3. B - Insert SIM-card.
4. C – Close flap, while pressing it down, slide it back to lock (about 1 – 2 mm).

Installation advice / help

1. Do not connect the power of the SMS Alert to an **auxiliary 12V power output**. It is best to connect the SMS Alert **directly to, and within 1 meter from the 12V battery** where the power is best regulated.
2. Try to keep the SMS Alert at least **30cm** away from other equipment like **receivers, transformers**, **energisers,** etc., that may cause interference.
3. The SMS Alert should work **outside of SA**, however limited testing was done for this purpose.
4. The SMS Alert works on a default **negative trigger principle (NO)** but this can be changed.
5. The inputs normally used are Burglary, Arm/Disarm (Latch mode), E-Fence and Panic. This gets connected to an alarm system using the **PGM outputs / inputs** or similar I/Os on an alarm panel. Remote Arming/Disarming gets done via using relay A (pulse mode e.g. SMS 1234 ap).
6. The SMS Alert is **not built for a specific alarm panel** and may have other applications like pump control and monitoring, cable theft, electric fence monitoring, opening/closing a gate, etc.
7. Ensure the **SIM-card is properly registered** on the network by sending an SMS from the handset of the SMS Alert. If the message **"Message not sent this time"** appears, check the SIM-card on a normal phone by dialling 141 (MTN) or 100 (Vodacom). Normally the SIM-card still needs to be activated.
8. In very few cases, when SMS commands are **not recognised by the SMS Alert**, check that the user's Text Message settings on his/her cellphone are set to 'Text mode' or 'Full Character Support' (under message options).

9. It is recommended that the SMS Alert be **tested** on a regular basis, for example by sending it a status request (1234 r). This will also cause a transaction that may prevent the SIM-card from expiring if it is seldom used.
10. Always keep the inside of the **SMS Alert box clean**, with the minimum amount of unnecessary wires.
11. Do not apply **excessive force** with tools on the connector terminals to prevent break-offs.
12. To keep your number active, you should send an SMS (1234 r) at least once **every 7 months (Vodacom) or 3 months (MTN),** or as specified by your cellphone service provider.
13. Please read the **User Manual** carefully for more information.

Support:
1. For additional requests, email: info@smsalert.co.za.
2. For software/hardware updates, please visit www.smsalert.co.za.
3. **For support, phone us on 083 235 4916. Please note that your first point of call must be your supplier or installer. If they are unable to help you, we will be more than happy to assist.**

Disclaimer:
PicC Electronics will not be held responsible for loss, damage or injury to any persons, company or legal entity using PicC Electronics products or for GSM Network changes or reliability. There is no guarantee that SMS's will always go through. It is recommended that a prepaid SIM-card is used, or that a process is in place to cancel or stop the SIM-card, or to limit SMS's - should a malfunction occur where many SMS's are sent and unforeseen costs are incurred. It is recommended to test your SMS Alert on a regular basis. A product of PicC Electronics must be installed by an installer trained by PicC Electronics or with relevant installation experience.

*SMS*ALERT
A PicC ELECTRONICS PRODUCT

SMS Alert Intercom Wiring Diagram

SMS Alert 9

8
7
6
5
4
3
2
1

S
M

+
-

D
C
B

Do not use connector 11

BPT

5
14 } Negative

12 - Speaker

21 - Positive

Microphone

Red/Grey

+ -
Battery