

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

SMS ALERT 1 – 4G (Gate opener) - User Manual (Full version)

updated 02/2022



Main features

Default SMS text that will be sent:	Wire colour:	Description:
3 Inputs:		
1. Burglary	Yellow	Negative/positive/NO/NC trip. Rename-able . Can be set up for dual trip. (It can send 2 SMS's.) E.g. Pump on / Pump off.
2. Arm/Disarm	Purple	Negative trip only. NOT rename-able . (It sends 2 SMS's.)
3. Panic	Brown	Negative trip only. Rename-able . (It sends only 1 SMS.)
1 Output:		
White	NO	
Orange	NC	
Green	Common	

- Reports to 8 users via SMS
- Can be set-up to give a missed call to the first user for input 1 only.
- Operate via SMS or missed call
- Can be set-up to recognize up to 16 missed call numbers or unlimited missed calls from any cellphone, e.g. to open a gate.

SMS Command Summary

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 4 commands:

- 1234 TC1 (terminate call),
- 1234 TCO
- 1234 AIRT (checking airtime)
- 1234 CODE

Most SMS commands are toggle commands; meaning sending the same SMS command again will undo the command.

SMS command	Default setting	Description
Loading / Cancel users (10 Users)		
1234 b		To let the SMS Alert report to the 1 st phone (toggle). If you SMS 1234 b you will load user B. If you SMS 1234 b again, you will cancel user B. (In other words you will toggle it on & off). The same SMS gets used every time. There is no user A ! User B is the main user. It must be on for inputs to trigger, and for the other users to receive SMS's. See further down in document for more information.
1234 c		Report to 2 nd phone – use to load and cancel user C (toggle). Same for 1234 d to 1234 k.
1234 d		Report to 3 rd phone
1234 e		Report to 4 th phone
1234 f		Report to 5 th phone
1234 g		Report to 6 th phone
1234 h		Report to 7 th phone
1234 i		Report to 8 th phone
1234 j		Does not send SMS. Used for incoming missed call check.
1234 k		Does not send SMS. Used for incoming missed call check.
1234 l		Does not send SMS. Used for incoming missed call check.
1234 m		Does not send SMS. Used for incoming missed call check.
1234 n		Does not send SMS. Used for incoming missed call check.
1234 o		Does not send SMS. Used for incoming missed call check.
1234 p		Does not send SMS. Used for incoming missed call check.
1234 z		Clear/delete all users
General Settings		
1234 r		To request the status of the SMS Alert. The SMS Alert will respond with, for example, the following: RELAY A-- B-----Q #128 RELAY A-- Relay A is on. B & C is off. (by default relays B & C are not populated) B-----Q Users B & Q are loaded. #128 Inputs 1, 2 and 8 are currently triggered, otherwise #000
1234 01	ON	SMS Input 1 when tripped
1234 02	OFF	To toggle the outgoing missed call function on/off for input 1 and to user B only
1234 03	OFF	Dual string trip for input 1.
1234 04	OFF	Invert inputs from NO to NC.
1234 05	OFF	2 sec delay on input 1 to bypass siren beeps.
1234 06	OFF	Advanced setting for use outside of SA. This allows taking the international prefix code into consideration if needed. When set, also send 1234 WC to the SMS Alert. The 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 SM



		Alert for every SMS the SMS Alert sends out.
1234 07	OFF	MC_Relay on/off – recognizes the missed calls of up to 16 users.
1234 08	OFF	MC_Relay on/off for any missed call.
General Settings 1		
1234 11	OFF	Enable 50th SMS count. This will SMS “50 SMS’s sent” when every 50 th SMS has been sent from the SMS Alert. It will also place an asterix “*” in front of the SMS e.g. *burglary instead of Burglary.
1234 12	OFF	Used for dual trips. E.g. Power loss/restore. The SMS Alert will give an update after 2 minutes if the 2 trips were occurred within 1 second. E.g. a power dip where only the 1 SM was sent. Not really needed if 1234 31 is set to ON
1234 13	OFF	To extend the time of retriggering input 3 (panic). By default off. Used when the input is used as a low battery indication where the battery fluctuates, so that continuous SMS’s are not sent. We provide low voltage battery PC Boards.
Other Commands		
1234 AIRT		Checks airtime balance – general – SA use only. If you are in a different country and you want to send <u>*1245*01#</u> then use 1234 AIRT* <u>1245*01#</u> The standard/automatic 1234 AIRT is then ignored.
1234 TC1		Switches auto answer off (TC = Terminate Call).
1234 TC0		Switches auto answer on.
1234 VER		Returns GSM model version and signal strength.
1234 CODE		Changes the code 1234. Will not affect 1234 AIRT, TC1, TC0, VER.
Adding text addresses/names/longer text		
Example Add “123 Walker street, Sandton” in front of all SMS alarms, e.g. Burglary, Arm/Disarm, Panic E = end, S = start		
SMS 1234 devicename1E.123 Walker street, Sandton. = 123 Walker street, Sandton-Burglary		
SMS 1234 devicename1S.123 Walker street, Sandton. = Burglary-123 Walker street, Sandton		
SMS 1234 devicename0E.demo. = 0 will disable the name feature again		
SMS 1234 devicename0S.demo. = 0 will disable the name feature again		
Renaming input strings/text (zones)		
		The new SMS text must not be longer than 19 characters, including spaces, commas, etc. Yellow wire (Burglary): use 1234 1a as per example below. Brown wire (Panic): use 1234 8a instead of 1234 1a as per example below. <u>E.g:</u> If you want input 1 to SMS “ John’s room ! ” instead of “Burglary” then: <ol style="list-style-type: none"> 1. SMS 1234 1a (one space between 4 and 1 and no space afterwards.) from your cellphone 2. You will receive the following return 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. <u>Negative remove trigger (Dual trigger mode)</u> <ol style="list-style-type: none"> 1. The default string (SMS characters) is “Burglary Res”. To change string 2,

		<p>SMS: 1234 2 and wait for the reply Str2?</p> <ol style="list-style-type: none"> You will receive an SMS asking you to send the new string you want to rename. Dual trigger mode is automatically activated. SMS the new string (e.g. Power Restore) and wait for the response, which notifies you that it is done.
		Input 1 and input 2 can send 2 different SMS messages each:
1234 1a		If you want to change the 1st message of input 1.
1234 1b		If you want to change the 2 nd message of input 1. (E.g. a pump that must first SMS Pump On , and secondly SMS Pump Off .)
1234 2a		Input 2 (1ste string)
1234 2b		Input 2 (2 nd string)
1234 8a		Input 8 (panic)
Other settings: <i>Repower unit after changing settings*****</i>		
		Inputs can be toggled to single repeat if the trip remains on them. To check, SMS 1234 w. The reply will be, e.g. 10000008. The input 1 & 8 will repeat every 15 minutes. To set, SMS:
1234 21		Input 1
1234 22		Input 2 (a)
1234 28		Input 8 (3)
		To set repeat on the 2nd string, dual state (check via 1234 x), SMS:
1234 31		Input 1 (<i>recommended for Power Loss applications</i>) - also see 1234 52 (<i>shorter repeat time</i>) - Version 10.8 onwards will send Power Loss SMS if the unit resets for whatever reason while AC power is still off e.g. if there was a network fault at that specific time of sending the Power Loss SMS.
1234 32		Input 2 (b)
1234 38		Input 8 (3)
		Relay duration setting (check via 1234 v), SMS:
1234 14		Relay pulse short
1234 15		Relay pulse long (1 minute)
		Input/Relay link function (check via 1234 v), SMS:
1234 16		Link relay A to burglary input 1 (NO)
1234 17		Link relay A to burglary input 1 (NC)
		Trip delay / Input debounce (check via 1234 v), SMS:
1234 18		15 min continuous trip delay on inputs 1 & 8 (3) before SMS is sent.
		Repeat delay / TRT (Time before re-trigger) time (check via 1234 y).
1234 41		15 min delay before SMS is sent again. Will only work when 1234 2x are also enabled.
1234 42		Change between <i>latch check</i> (default) or <i>pulse count</i> (Roboguard). Bleep/bell squawk count function on purple wire, 1 beep = armed, 2 beeps = disarmed.
1234 43		1 min delay on power loss, otherwise no SMS if power returns.
1234 44	OFF	Debounce on input 8 only for low voltage. i.e. Input 8 will send SMS every hour if constant trip
1234 45	5=OFF	Sends automatic return SMS when a relay is latched via 1234 a on/off. Disable for M2M applications. 10.9. This will prevent the clashing of SMSes
1234 46		Not implemented
1234 47	ON	Input 2 is dual trigger, will also SMS the second string i.e. Disarmed (unless renamed)
1234 48	OFF	Input 8 (3-brown wired) changed to NC for PIR use with 1 min delay. (mini alarm)
1234 51	OFF	Input 8 linked to Relay B (if populated) where Relay B can switch a siren on for 1 minute

		(Relay A can then be used to bypass or short out the PIR via 1234 a on/off to “arm” / “disarm” PIR
1234 52	OFF	Change repeat period from 15min to 5 min when 1234 31 is used.
1234 53	OFF	Limit Alarms for 30 minutes on input 1 (Burglary) Useful for electric fences during thunderstorms. Will SMS immediately and ignore new trips for 30 minutes.
1234 54	OFF	Increase SMS sending speed – revert back if not all users are getting SMSes (11.9)
1234 apc		Will pulse relay once, wait for 20 sec, pulse again, for application in auto door/gate close.
Output Relay Control		
		Anyone can operate the relays – you do not need to be a user, but you must know the code (e.g. 1234) *Relays will not pulse if it is already switched on. First switch it off. Pulse duration is about 1 second. Relays will remember their settings if the unit is re-powered. See further down in document for more information.
1234 a on		To switch/latch relay A on
1234 a off		To switch relay A off
1234 ap		Pulse Relay A once for 500ms
1234 app		Pulse Relay A 10 times (Pepper gas)
		*Relay will not pulse if it is already switched on. First switch it off.
1234 b on	N/A	Switch relay B on
1234 b off	N/A	Switch relay B off
1234 bp	N/A	Pulse Relay B once
1234 c on	N/A	Switch relay C off, and system disarmed
1234 c off	N/A	Switch relay C on, and system armed
1234 cp	N/A	Pulse Relay C once – N/A

Quick start Steps

- 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.
- Airtime** - Ensure that the SIM-card has sufficient credit. Load airtime if necessary.
- Insert the SIM-card** into the SIM-card slot. Apply 12VDC.
- Red LED** - The red LED will flash when an SMS is sent. 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 SMSes when inputs are tripped. **There must be a space between 1234 and b. If you SMS 1234 b again, you will cancel user B. If you SMS 1234 b again, you will reload user B. (In other words you will toggle it on & off).**
- The SMS Alert will respond to step 5 by sending its status back to you (e.g. RELAY ON B-----, #0 #0). Ensure the character “B” appears in the SMS to show user B is loaded. The string means the following:

RELAY ON The output relay is on.
B----- Only user B is loaded.
#A Confirms relay A is on. The same as RELAY ON/OFF.
#1 Input 1 is on.

- The SMS Alert works on a default **negative trigger principle (NO)** but may be changeable.

7. **Trigger input 1 (yellow wire)** - Pulse input 1 with a negative trigger (default) for about 50ms (milliseconds). The green LED will go on for 1 second to indicate that a SMS is being sent and you will receive **Burglary** SMS.
8. **Jumper setting:** **-T** sets inputs 1 to negative trip and **+T** to positive trip required to send SMS. Input 2 remains negative trip.

How to program the SMS Alert to report to a 2nd, 3rd or 4th cellphone (RELAY --- B-----)

There are 8 users (recipients): B,C,D,E,F,G,H,I. Follow step 5 of Quick Start Steps to activate user B which is the first user. If you want the SMS Alert to report to the 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 operate the Relay outputs (RELAY ON B-----, #0 #0)

Relay output A 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**.

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

The **green** and **white** wire will connect (switch on) when the relay is pulsed or switched on.

See command summary on p. 3 on how to control relays.

How to enable / disable the dual input

1. To **disable** the second string, SMS: **1234 03**. (This is disabled by default.).
2. Dual mode (second string) can be toggled on or off by sending **1234 03**.

Loading & checking airtime balance

SMS COMMANDS	FUNCTION	SMS TO BE SENT TO SMS ALERT
Vodacom	Account balance	1234 AIRT*136#
Vodacom	Check Bundle SMS balance	1234 AIRT*111*502#
Virgin	Check balance (Prepaid)	1234 AIRT*101#
Virgin	Check balance (Contract)	1234 AIRT*102#
Cell C	Check Balance	1234 AIRT*101#
DIAL COMMANDS	FUNCTION	NUMBER TO DIAL
Vodacom	Please call me	*140*number#
Vodacom	What is my number	*135*501#
Vodacom :	Balance	*136#
MTN	Balance	*136#
MTN	What is my number	*123*888#

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.**

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	Red 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.
2	Change Inputs NO / NC	SMS 1234 04 to change from normally open (NO) to negative remove (NC) . The SMS Alert will reset and power up again.
3	Missed Call (Outgoing)	The Missed call function can be switched (toggled) on and off by sending: 1234 02 (this is OFF by default). Only applicable to input 1 and made to

		user B.
4	Missed Call (Incoming)	When activated, the SMS Alert will pulse relay A for 1 second if any of the 16 users gives it a missed call. SMS 1234 07 to programme it so that 16 cellphone numbers can give it a missed call and pulse relay A (for example to open a gate), or SMS 1234 08 so that unlimited cellphones can give it a missed call to pulse the relay.
5	SIM-card type	When last tested, the SMS Alert accepts MTN, Vodacom or CellC SIM-cards, contract or prepaid.
6	International code prefix use	SMS 1234 06 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. The 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.
7	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#

Technical Specifications

1	Power supply	9 - 14VDC volt DC, 500mA (milliamps). An in-line batter is preferred for smooth power. Power supply must be doubled-up
2	Power consumption	Standby current 30 – 50mA, 400mA peak when SMS is sent or received.
3	Users	The inputs can report to up to 8 users B to I. (I for India)
4	Relay contact	10A / 124VAC – It is not recommended to switch 220VAC unless you are a certified electrician.
5	Input	Input 1: NO or NC Not optically isolated. Please use interface relay when connecting to a siren or energiser. Future version to be optically isolated.

Fault finding / Troubleshooting

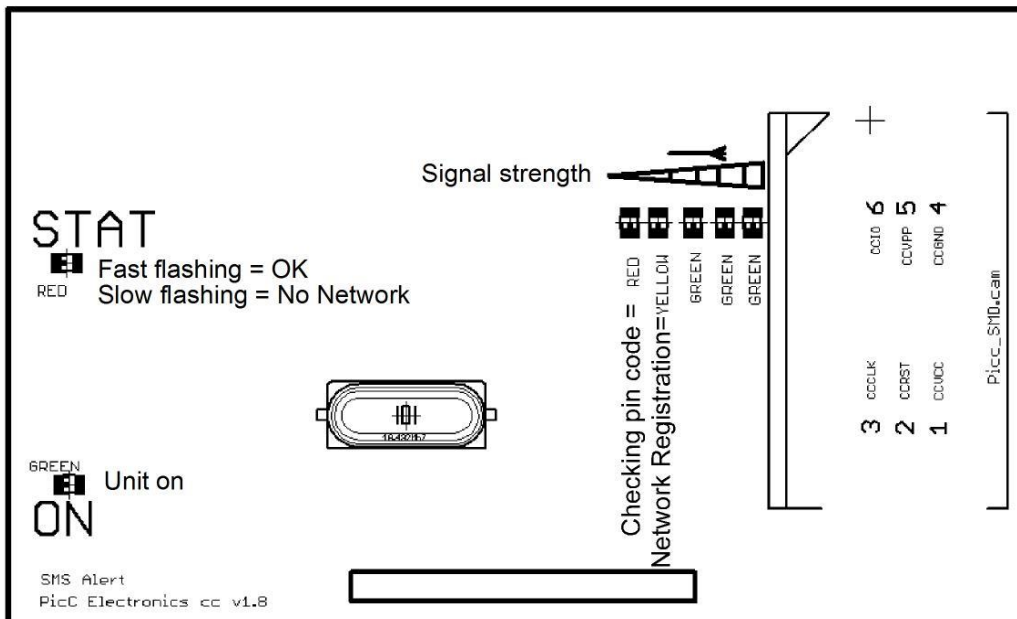
1	Flashing green LED	Re-power the SMS Alert system. This happens when the SMS Alert's power is connected (reset) three times in a short period.
2	Other equipment used in conjunction with SMS Alert	It is not recommended that other receivers, transmitters or equipment be kept inside the SMS Alert box.
3	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.
4	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 cellphone and call e.g. MTN (141) or Vodacom (100) to clarify the problem. Check your airtime.
5	Resetting the system	Disconnect and reconnect the power from the SMS Alert. The unit can unfortunately no be defaulted.

Antennas for poor reception:



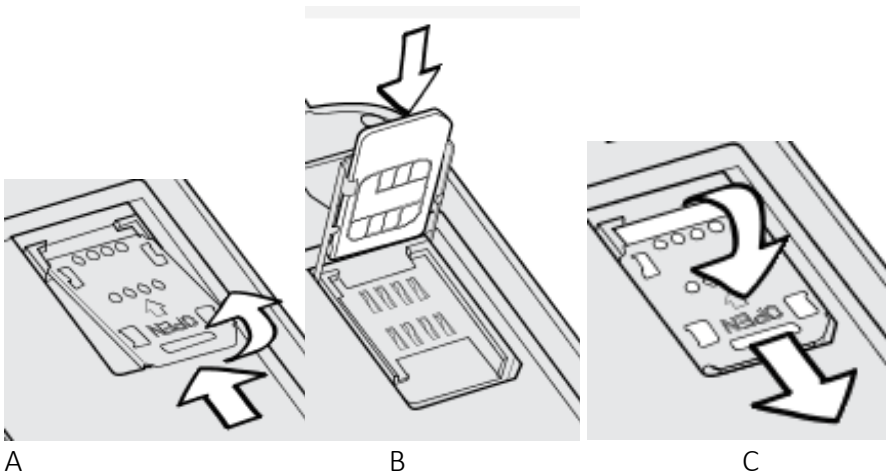
3 meter Antenna available for external GSM reception, or poor reception

Diagram for GSM Module PC Board (where SIM-card slots in)



In SMS 1234 AIRT for prepaid airtime balance. Does not report bundle SMS balance. South Africa only.





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

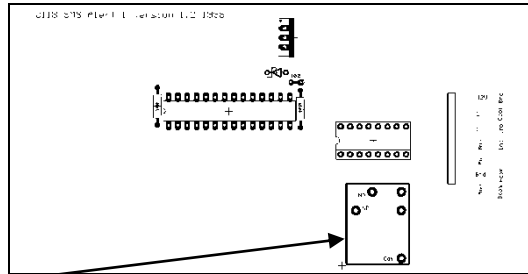
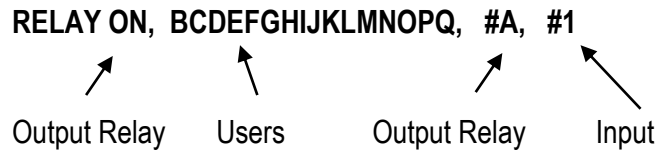
1. Do not connect the power of the SMS Alert to an **auxiliary 12V power output**. It is best to connect the SMS Alert **directly to, and within 1 meter from the 12V battery** where the power is best regulated.
2. External magnetic antennas are available for **better reception**. It may be required where the signal reception is poor, or where the system is installed in a metal container that prevents signal reception.
3. Try to keep the SMS Alert at least **30cm** away from other equipment like **receivers, transformers, energisers**, etc., that may cause interference.
4. It is strongly recommended that **Mylar cable** (shielded with foil) is used for **Electric Fence** applications. Both the power and inputs on the SMS Alert must use Mylar cable. Without this cable the SMS Alert might seem to work fine, but problems may be experienced 2 weeks later. Also ensure **high voltage wires** do not cross the SMS Alert wires.
5. The SMS Alert should work **outside of SA**, however limited testing was done for this purpose.
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. 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).
8. 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.
9. Always keep the inside of the **SMS Alert box clean**, with the minimum amount of unnecessary wires.
10. Do not apply **excessive force** with tools on the connector terminals to prevent break-offs.
11. 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.
12. To use the SMS Alert 1 as a **Gate Opener**, use the **green and white wire** and connect it to your **gate trigger**.

Support:

1. Additional requests can be emailed to 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.

SMS Alert 1 - Overview

(3 inputs 1 output)



Wiring

RED = +12V
Black = 0V

Yellow = Negative trip, Burglary.

Purple = Arm/Disarm

Brown = Panic

Green/white/orange = Relay switch output

Outputs (Control)

Switch things remotely on/off from any cellphone.

Applicable commands:

1234 a on
1234 a off
1234 ap

Inputs (Monitor)

Trip these input with a Negative to send out SMSs.

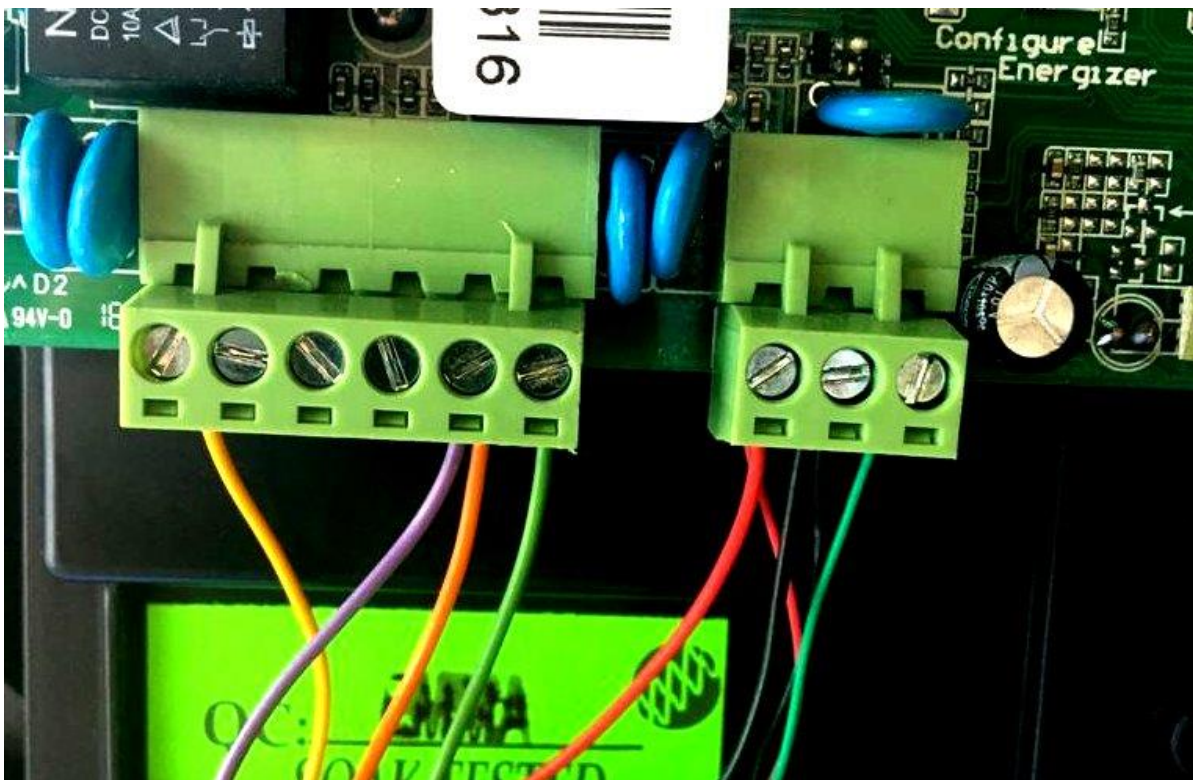
Reports to **Users B to q (16 users)**

Applicable commands:

1234 b
1234 c
1234 d
1234 e
And so forth
(There is no user A)

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.

Nemtek Energiser connection wiring



1. Change Jumper inside SMS Alert to +T for IN2 (middle jumper)
2. SMS 1234 45 only once to the SMS Alert
3. 1234 a on = arm / 1234 a off = disarm