



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



Main features (refer to http://www.smsalert.co.za/software_update.htm for updates /new features/bug fixes)

- 9 inputs, reports to 10 users (Can split Burglary and Panic so that only the last 5 people receive them)
- 3 switchable relay outputs (additional 3 can be added)
- Silent listen-in microphone
- Connects to existing alarm panels (use SMS Alert 9 Alarm / Plus if you don't have an existing alarm)
- Master CODE and user CODE functions
- Gate open remind function (VER 11.0)
- All text renamable (VER 11.0)
- All inputs dual trigger option (VER 11.0)
- Inputs can remotely be enabled/disabled (VER 11.0)
- Burglary and Panic inputs selectable to users 1 to 10 or 1 to 5 (VER 11.0)
- Unfortunately, max text length is still only 19 Characters, update will follow

INPUT	HIGH trigger default text (a) High = Jumper on +T (12V) Low = Jumper on -T (0V)		LOW trigger default text (b) Removal of High = Jumper on +T Removal of Low = Jumper on -T	Default user setup to receive SMSes	Optically Isolated
1	Burglary	(IDS input 2)*	Burglary restore	1 to 10	Y
2	Arm	(IDS input 3)*	Disarm	1 to 5	Y
3	Power Loss / Restore		Power Loss	1 to 5	Y
4	24 Hour test		24 Hour test restore	1 to 5	Y
5	Duress		Duress Restore	1 to 5	Y
6	Electric Fence		Electric Fence Restore	1 to 5	Y
7	Panic	(IDS input 1)*	Panic Restore	1 to 10	Y
8	Gate		Gate Restore	1 to 5	Y
Кеу	Enables inputs 1-8 except input 2			-	Ν
9	Panic	Negative only)	Panic Restore	1 to 10	Ν

<NEW>

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*For IDS, set the jumper to +T (to the inside of the board)

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 TC0 1234 AIRT (checking airtime) 1234 CODE

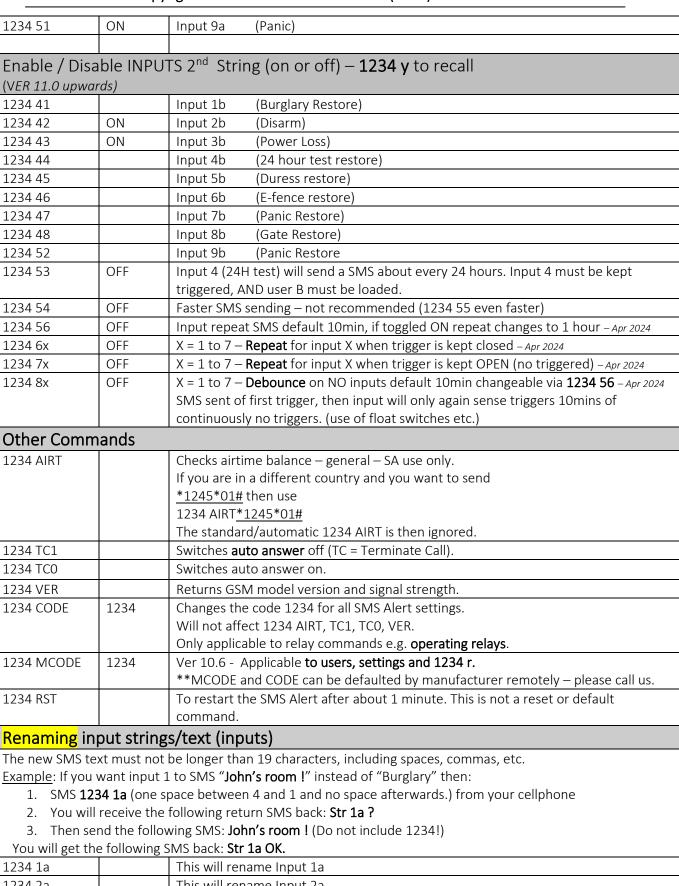
Most SMS commands are toggle commands; meaning sending the same SMS command again will undo the command.

SMS	Default	Description	
command	setting		
Loading / Ca	incel users	(10 Users)	
		To let the SMS Alert report to the 1 st phone (toggle). If you SMS <u>1234 b</u> you will <i>load</i>	
		user B. If you SMS <u>1234 b</u> again, you will <i>cancel</i> 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, and indicated by the Yellow/Amber LED on the side. It must	
		be on for inputs to trigger, and for the other users to receive SMS if these users	
		(C,D,E) are loaded. See further down in document for more information.	
1234 с		Report to 2^{nd} phone – use to load and cancel user C (toggle). Same for 1234 d to 1234	
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 ј		Report to 9 th phone	
1234 k		Report to 10 th phone	
1234 z		Clear/delete/ reset all users	
General Set	tings 0 (s)		
1234 r		To request the status of the SMS Alert e.g Armed, BC, #000, #12345678.	
		The SMS Alert will respond with, for example, the following:	
		<u>INPUT ON B , #0B00 #87650001</u>	
		INPUT ON All inputs monitored except nr 2 which is always checked. E.g. Key is on.	
		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 8,7,6,5 and 1 are on / tripped (closed / triggered).	
1234 00	OFF	Toggle Burglary SMS on/off on input $1 -$ When outgoing missed call only is wanted.	
1234 01		Outgoing missed call function on/off for Input 1 and to user B only. (out going) – SA	
		numbers only.	
1234 02		Relay C will latch when input 2 (Arm/Disarm) is latch and unlatch if input 2 unlatches.	
1234 03	NO	To toggle the trigger signal on the inputs between NO & NC.	
1234 04		Enable a 2-second delay on the burglary input, to ignore arm/disarm bleeps from sirer	
		the inputs are connected directly to the siren.	
1234 05	ON	Advanced setting for use outside of SA. This allows taking the international prefix code	
	(Ver 11.0	into consideration if needed. When set, also send 1234 WC to the SMS Alert. The retu	
	onwards)	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.	
1234 06		Missed call will PULSE Relay A. (for loaded users) – also see 1234 25 for LATCH	
1234 s		Recall settings status.	
General Se	ettings 1 (v)		
1234 10	ON (M2M)	Enable/Disable the Return SMS when a relay is latched on or off via SMS. This is useful when inputs are also tripped that may clash with the return SMS, e.g. switching a pump on and off (m2m applications)	
1234 11		Swop the ARM/DISARM text around for input 2 – or the text for the input can be swopped by renaming the text via 1234 2a and 1234 2b	
1234 12	ON	Advance Power Loss Restore monitoring -The SMS Alert will give an update after 2 minutes if the 2 trips occurred within 1 second. E.g. A power dip where only the 1 SMS was sent.	
1234 13	ON	Independent from 1234 12. Power loss will be SMS-ed 1 minute after power loss. Should the power return within 1 minute, no SMS will be sent (e.g. power restore). After 1 minute a power loss will be sent, and then at any time afterwards a power restore will be sent.	
1234 14	ON *	Panic (Input 9, after/next to KEY input) will ALSO be sent to the last 5 people. However, 1234 21 must be OFF.	
1234 15		Disable Power Loss / Restore on input 3.	
1234 16		Enable/Disable a longer Time to Retrigger on input 9. Normally used when input 9 is e.g. renamed as Battery Low where you want the first trigger but not the other triggers as the battery fluctuates.	
1234 17		If enabled, the relay(s) last status (if latched) won't be saved when the SMS Alert turns off e.g. power failure. Relays will have to be turned back on via SMS. Sometimes used for borehole pumps – it is recommended to toggle 1234 10 OFF.	
1234 v		Recall settings status.	
General Se	ettings 2 (w)	
1234 20	ON *	Burglary (Input 1) will ALSO be sent to the last 5 people.	
		However, 1234 21 must be OFF.	
1234 21	OFF*	If ON ALL input SMSes will go to ALL users. If OFF Panic #9 (1234 14), Burglary #1 (1234 20) and Panic #7 (1234 23) will only be sent to the first 5 users.	
1234 22		Delay on Input 8 (Gate). Will only trigger after 1 minute . (To notify you if something is left open).	
1234 23	ON *	Panic (Input 7,) will ALSO be sent to the last 5 people. However, 1234 21 must be OFF.	
1234 24		Delay on Input 8 (Gate). Will only trigger after 3 minutes.	
1234 25		Missed call will LATCH Relay A. (for loaded users) – also see 1234 06 PULSE	
1234 26		Input 8 (Gate) will REPEAT according to the time set in 1234 22 or 1234 24.	
Enable / D	isable INPU	ITS 1 st String (on or off) - 1234 x to recall	
(VER 11.0 up			
1234 31	ON	Input 1a (Burglary	
1234 32	ON	Input 2a (Arm)	
1234 33	ON	Input 3a (Power Restore)	
1234 34	ON	Input 4a (24 hour test)	
1234 35	ON	Input 5a (Duress)	
1234 36	ON	Input 6a (E-fence)	
1234 37	ON	Input 7a (Panic)	
1234 38	ON	Input 8a (Gate)	





-	-	
1234 1a		This will rename Input 1a
1234 2a		This will rename Input 2a
1234 3a		This will rename Input 3a
1234 4a		This will rename Input 4a
1234 5a		This will rename Input 5a

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1234 6a		This will rename Input 6a
1234 7a		This will rename Input 7a
1234 8a		This will rename Input 8a
1234 9a		This will renam Inpuit9a (input located on edge of PCB after KEY)
1234 1b	+V11.0	This will enable the 1 st input trip and also rename Input 1b
1234 2b	+V11.0	This rename Input 2b
1234 3b	+V11.0	This rename Input 3b
1234 4b	+V11.0	This will enable the 4 th input trip and also rename Input 4b
1234 5b	+V11.0	This will enable the 5 th input trip and also rename Input 5b
1234 6b	+V11.0	This will enable the 6 th input trip and also rename Input 6b
1234 7b	+V11.0	This will enable the 7 th input trip and also rename Input 7b
1234 8b	+V11.0	This will enable the 8 th input trip and also rename Input 8b
1234 9b	+V11.0	This will enable the 9 th input trip and also rename Input 9b (input located on edge of
		PCB after KEY)
Output Rela	v Control	
•		lays – you do not need to be a user, but you must know the code e.g. 1234).
*Relays will not	nulse if it is	already switched on. First switch it off.
Pulse duration i		
		settings if the unit is re-powered.
-		ent for more information.
1234 a on		Switch relay A on.
1234 a off		Switch relay A off.
1234 ap		Pulse Relay A <u>once</u>
1234 app		Pulse Relay A <u>10 times</u> – Relay A only (For pepper gas purposes).
1234 b on		Switch relay B on
1234 b off		Switch relay B off
1234 bp		Pulse Relay B once
1234 c on		Switch relay C off, and system disarmed
1234 c off		Switch relay C on, and system armed
1234 ср		Pulse Relay C once – N/A
<u>г</u>		
1234 d on	n/a	Switch relay D on (relay not fitted)
1234 d off	n/a	Switch Relay D off
1234 dp	n/a	Pulse relay D once
I	<u> </u>	,
1234 e on	n/a	Switch relay E on (transistor output for external relay PCB)
1234 e off	n/a	Switch relay E off
1234 ep	n/a	Pulse Relay E once
°P		
1234 all on		Switch all Relays on
1234 all off		Switch all Relays off
2201 011 011	1	





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 devicename1<mark>S</mark>.123 Walker street, Sandton. = Burglary-123 Walker street, Sandton

SMS **1234 devicename**0E.demo. = 0 will disable the name feature again SMS **1234 devicename**0S.demo. = 0 will disable the name feature again





<u>QUICK START STEPS</u>

- 1. **Prepare SIM-card** Get a RICAed SIM card that can send out SMSes (Vodacom or MTN).
- 2. Load Airtime and/or SMS bundles.
- Ensure that you can send an SMS out (NOT a missed call) from the SIM-card before you put it in the SMS Alert.
- 4. PIN-code request PIN Code request must be off !
- 5. Insert SIM card into the SMS Alert and power up with 12V.
- 6. SMS **1234 b** from your cellphone to the SMS Alert. Note the **yellow LED** will light up when B is active.
 - a. This step tells the SMS Alert where to send SMSe when inputs are tripped.
 - b. There must be a space between 1234 and b.
 - c. If you SMS 1234 b again, you will cancel user B. (toggle)
 - d. If you SMS <u>1234 b</u> again, you will <u>reload</u> user B. (In other words you will toggle it on & off).
- The SMS Alert will respond to step 6 by sending its status back to you (e.g. INPUT ON B- -, #0000
 #00000000). Ensure the character "B" appears in the SMS to show user B is loaded. The string means the following:
 - **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.

#0000 Relay B is switched on. Relay A and C are off

87650001 Inputs 8,7,6,5 are on / tripped.

Do not confuse the letter B with the letter B under the relays commands

- 8. Trigger input 1 Pulse/Latch input 1 with a negative trigger (default) for about 500ms (milliseconds). The green LED will go on for 1 second to indicate that a SMS is being sent and you will receive a SMS Burglary.
- 9. The SMS Alert works on a default **negative trigger principle (NO)** but may be changeable.
- 10. 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).
- 11. Jumper setting: -T sets inputs 1 to 8 to negative trip and +T to positive trip required to send SMSe.
- 12. **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.



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

(INPUT ON **B---,** #0000 #0000000)

There are **10 users**: B,C,D,E, F, G, H, to K. Follow step 5 of Quick Start Steps to activate user B (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 is the main user, and indicated by the Yellow/Amber LED on the side. It must be on for the inputs to trigger, and for the other users to receive an SMS, if these users (C,D,E) are loaded. Custom units can report to more cellphone numbers, upon request.

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. hence 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 c.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

(INPUT ON B- - -, #0000 #0000000)

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.**

A 4th on-board relay (D) can be added and 2 external relays.

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

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

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 <u>www.vodacom4me.co.za</u> (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 switch off auto-answer (when you don't want someone to listen in) – **SMS 1234 TCO** (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 <u>www.smsalert.co.za</u>. 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.





General information

1	Panic Input	Always enabled, Negative trip and does not depend on the Key input.		
		Enables or disables the 8 inputs. The Key Input is triggered ON by default because of the		
		red loop wire.		
3	3 Green LED Indicates when the SMS Alert is sending an SMS. The LED will stay on for 3			
		the light is flashing, a problem exists. See troubleshooting.		
		After 2 minutes the SMS Alert will attempt to reset the flashing LED.		
4 Yellow LED Indicates user B is active, and the SMS Alert will at least repor		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 were toggled on.		
5	Red LED	See point 2, "Key Input".		
6	Change	SMS 1234 03 to change from normally open (NO) to negative remove (NC) . The SMS		
	Inputs NO / NC	Alert will reset and power up again. Normally applicable to sensors.		
7	SIM-card type	When last tested, the SMS Alert accepts MTN, Vodacom or CellC SIM-cards, contract or prepaid.		
8	8 International SMS 1234 05 to enable. Consult your supplier. Please note that SMS Alert has			
code prefix use tested in South Africa only.		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.		
9	Finding out	Put the SIM-card of the SMS Alert into your cellphone and dial the following numbers:		
	what the	MTN: *123*888#		
	cellphone	Vodacom: *111*501#		
	number of the	Telkom / 8ta: *1#		
	SMS Alert is	Cell C: *147*100#		
т	achnical Spac	if i and i and		

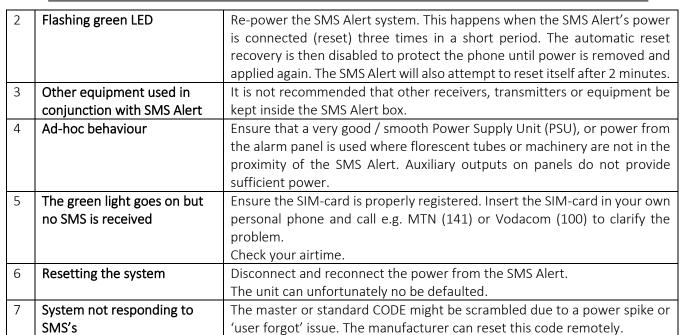
Technical Specifications

1	Power supply	9 - 14VDC volt DC, 500mA (milliamps). An in-line batter is preferred for smooth power.
1	Power suppry	
		The power supply must be doubled-up.
2	Power	Standby current 30 – 50mA, 400mA peak when SMS is send or received.
	consumption	
3	Users	The inputs can report to up to 10 users, B to K.
4	Relay contacts	10A / 124VAC – It is not recommended to switch 220VAC unless you are a certified
		electrician.
5	5 Inputs I – 8 optically isolated and negative or positive trip selectable via jumper	
		The Panic input can only be tripped negatively. Rename another input to Panic if only a
		positive signal is available.
		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.
6	Jumper setting:	-T sets inputs 1 to 8 to negative trip and +T to positive trip required to send SMSe.

Fault finding / Troubleshooting

1	No or bad cellphone signal	Ensure the SIM-card holder contacts are clean. Use an earbud. Try to use
		an external aerial (available from supplier).



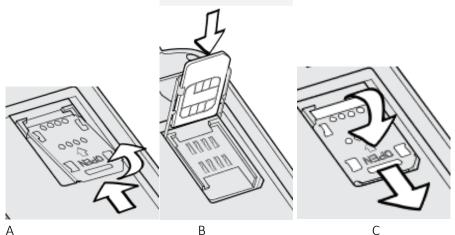


Antennas for poor reception:



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

Inserting the SIM-card on the PC Board



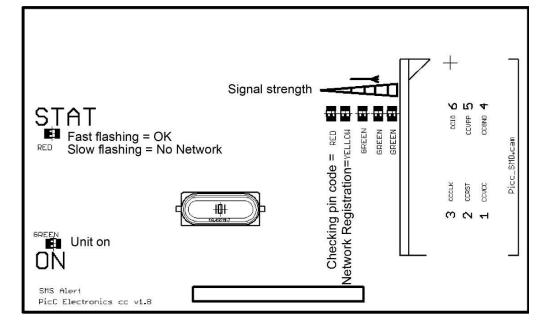
- 1. A Push/slide flap in the same direction as the board (about 1-2 mm).
- 2. A The flap will unlock, lift the flap.
- 3. B Insert SIM-card.
- 4. C Close flap, while pressing it down, slide it back to lock (about 1 2 mm).

ALERT





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



Installation advice / help

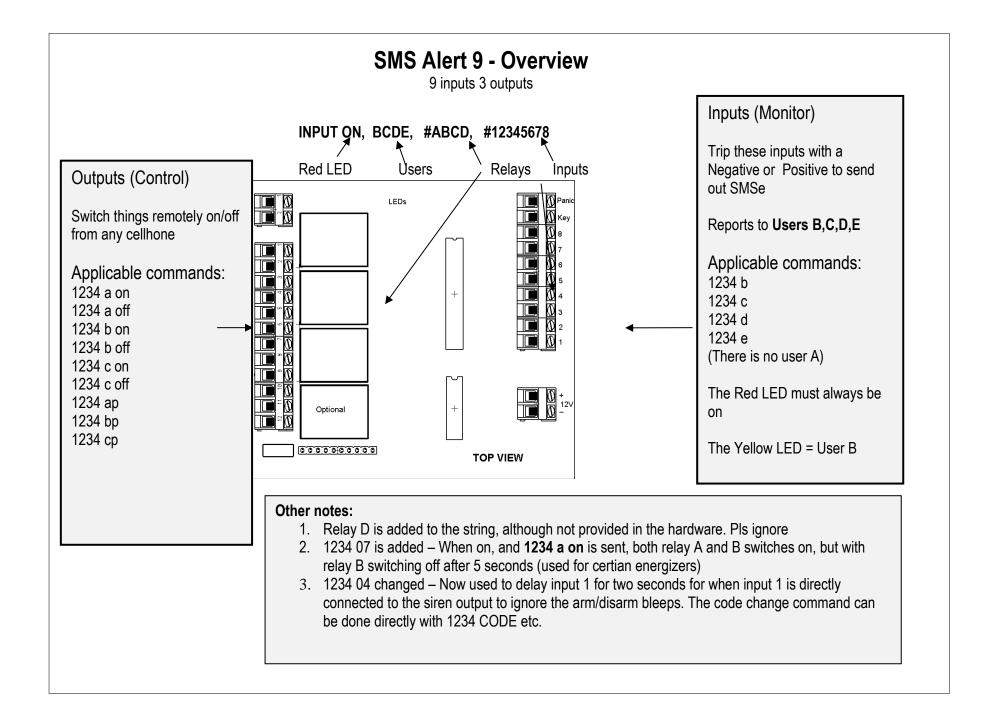
- 1. Do not connect the power of the SMS Alert to an **auxiliary 12V power output**. It is best to connect the SMS Alert **directly to, and within 1 meter from the 12V battery** where the power is best regulated.
- 2. External magnetic antennas are available for **better reception**. It may be required 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.

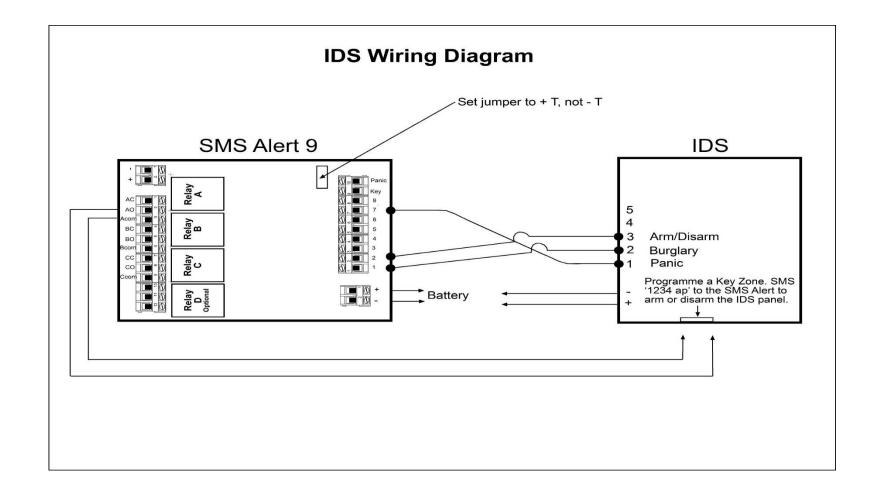
Support:

- 1. Additional requests can also be emailed to info@smsalert.co.za.
- 2. For software/hardware updates, please visit <u>www.smsalert.co.za</u>.
- 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.