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. The SMS Alert should work outside of SA, however limited testing was done for this purpose.

5. 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.

6. 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).

7. 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.

8. Always keep the inside of the SMS Alert box clean, with the minimum amount of unnecessary wires.

9. Do not apply excessive force with tools on the connector terminals to prevent break-offs.

10. 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.

For technical support, contact: 011 202 5884 or 083 235 4916.
SMS ALERT 9
User Manual

- 9 inputs, reports to 10 users
- 3 switchable relay outputs
- Silent listen-in microphone
- Connects to existing alarm panels (use SMS Alert 9 Alarm / Plus if you don’t have an existing alarm)

<table>
<thead>
<tr>
<th>INPUT</th>
<th>SMS TEXT – that will be sent out when the inputs are tripped</th>
<th>*TRIGGER needed to send SMS Default = Negative NO</th>
<th>Renameable SMS text</th>
<th>Optically Isolated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Burglary (IDS input 2)</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Disarm / Arm (IDS input 3)</td>
<td>Negative/Positive/NO/NC</td>
<td>* No</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Power Loss / Restore</td>
<td>Negative/Positive/NO/NC</td>
<td>* No</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>24 Hour test</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Duress</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Electric Fence</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Panic (IDS input 1)</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Gate</td>
<td>Negative/Positive/NO/NC</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Key</td>
<td>Enables inputs 1-8 except input 2</td>
<td>+12V Positive – NO</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Panic</td>
<td>Negative – NO/NC</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*For IDS, set the jumper to +T (to the inside of the board)
### SMS Command Summary

**Phones/ Users = 10**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 B</td>
<td>To let the SMS Alert report to the 1st 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 &amp; off). The same SMS gets used every time. There is no user A!</td>
</tr>
<tr>
<td>1234 C</td>
<td>Report to 2nd phone – used to load and cancel user C (toggle)</td>
</tr>
<tr>
<td>1234 D</td>
<td>Report to 3rd phone – used to load and cancel user D (toggle)</td>
</tr>
<tr>
<td>1234 E</td>
<td>Report to 4th phone – used to load and cancel user E (toggle)</td>
</tr>
<tr>
<td>ETC.</td>
<td>up to I.</td>
</tr>
</tbody>
</table>

**Other command settings**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 R</td>
<td>To request the status of the SMS Alert e.g. INPUT on, BC-, #0000, #12345678</td>
</tr>
<tr>
<td>1234 01</td>
<td>To toggle the outgoing missed call function on/off for input 1 and to user B only</td>
</tr>
<tr>
<td>1234 03</td>
<td>To toggle the trigger signal on the inputs between NO and NC.</td>
</tr>
<tr>
<td>1234 04</td>
<td>Enable a 2-second delay on the burglary input, to ignore arm/disarm bleeps from siren if the inputs are connected directly to the siren.</td>
</tr>
<tr>
<td>1234 05</td>
<td>Advance setting for use outside of SA. This allows taking the international code into consideration if needed.</td>
</tr>
<tr>
<td>1234 06</td>
<td>To toggle the incoming missed call function on so that when any missed call is received, relay A will pulse for 1 second. Use SMS Alert 1 for recognized missed call identification.</td>
</tr>
<tr>
<td>1234 z</td>
<td>Clears all users, Advanced settings, Relays and reboot system.</td>
</tr>
<tr>
<td>1234 10</td>
<td>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.</td>
</tr>
<tr>
<td>1234 11</td>
<td>Swoop the ARM/DISARM text around for input 2.</td>
</tr>
<tr>
<td>1234 12</td>
<td>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. By default on.</td>
</tr>
<tr>
<td>1234 13</td>
<td>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.</td>
</tr>
</tbody>
</table>

The return SMS means the following: From the left is the status of the first DIP (bit) setting 00, thereafter 01, 02, 03, 04, 05, 05 etc (e.g. 1000010 means 00 and 05 is toggled on).

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 AIRT</td>
<td>Checks airtime balance</td>
</tr>
<tr>
<td>1234 TC1</td>
<td>Switches auto answer off</td>
</tr>
<tr>
<td>1234 TC0</td>
<td>Switches auto answer on</td>
</tr>
<tr>
<td>1234 VER</td>
<td>To get the phone model version and GSM signal strength.</td>
</tr>
</tbody>
</table>

**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)

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 A ON</td>
<td>To switch/latch relay A on (and the same for B and C)</td>
</tr>
<tr>
<td>1234 A OFF</td>
<td>To switch relay A off (and the same for B and C)</td>
</tr>
<tr>
<td>1234 AP</td>
<td>Pulse Relay A once for 500ms (and the same for B and C)</td>
</tr>
</tbody>
</table>
| 1234 APP | Pulse Relay A 10 times (Pepper gas)  
*Relays will not pulse if it is already switched on. Switch it off first.*

**Renaming Input Strings** (max 19 characters)

SMS the following to the SMS Alert:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 1</td>
<td>This will rename String 1 (Input 1), wait for Str1? Then only SMS the new text without 1234 in front.</td>
</tr>
<tr>
<td>1234 4</td>
<td>String 4 same as above, wait for the Str 4? return SMS.</td>
</tr>
<tr>
<td>1234 5</td>
<td>String 5</td>
</tr>
<tr>
<td>1234 6</td>
<td>String 6</td>
</tr>
<tr>
<td>1234 7</td>
<td>String 7</td>
</tr>
<tr>
<td>1234 8</td>
<td>String 8</td>
</tr>
</tbody>
</table>
Quick Start Steps

1. **Preparing SIM-card** - Ensure the SIM-card is activated (you have to RICA it, by going to a cellphone service provider with your ID and proof of address). 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 cancel user B. If you SMS 1234 b again, you will reload user B. (In other words you will toggle it on & off).**

6. The SMS Alert will respond to step 5 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.

7. **Trigger input 1** - 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 a SMS Burglary.

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

9. **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).

10. **Jumper setting**: –T sets inputs 1 to 8 to negative trip and +T to positive trip required to send SMSe.

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

**(INPUT ON B - - -, #0000 #00000000)**

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.

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.

How to operate the Relay outputs

(INPUT ON B- - -, #0000 #00000000)

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, or 1234 and A and ON. The alpha characters (a on / A ON) must be all upper or lower case.

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

The relays can be controlled by sending the following SMSes to the SMS Alert:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234 a on</td>
<td>Switch / Latch Relay A on - the same for 1234 b on (relay B), 1234 c on (relay C)</td>
</tr>
<tr>
<td>1234 a off</td>
<td>Switch / Latch Relay A off - the same for 1234 b off (relay B), 1234 c off (relay C)</td>
</tr>
<tr>
<td>1234 all on</td>
<td>Switch / Latch all relays on - the same for 1234 all off</td>
</tr>
<tr>
<td>1234 ap</td>
<td>Pulse Relay A for 1 second - the same for 1234 bp. 1234 cp</td>
</tr>
<tr>
<td>1234 app</td>
<td>Pulse Relay A 10 times – Use for example to pulse our Pepper Gas Defender Mechanism.</td>
</tr>
</tbody>
</table>

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

How to rename/change the input SMS strings:

SMS messages sent to cellphones when inputs are triggered can be changed / renamed.

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

Example: If you want input 1 to SMS “John’s room !” instead of “Burglary” then,

1. SMS 1234 1 (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: Str OK.

The commands for each input are the following:

Input 1 : 1234 1
Input 2 : Not re-nameable
Input 3 : Not re-nameable
Input 4 : 1234 4
Input 5 : 1234 5
Input 6 : 1234 6
Input 7 : 1234 7
Input 8 : 1234 8
Input 9 : 1234 9 (Panic)

*Inputs 2 and 3 are not re-nameable, but can be changed at production.
Loading & checking airtime balance

SMS 1234 AIRT to the SMS Alert to check your prepaid airtime balance. This does not report bundle SMS balance. For use in South Africa only. The balance of a Prepaid SIM-card can also be checked by registering the cellphone number of the SMS Alert on www.vodacom4me.co.za (vodacom SIM-cards only).

Money can be loaded via the internet (ex. ABSA), from an ATM, 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.

You can also transfer airtime from one cellphone to another (from the same service provider):
- Vodacom: Register or log in to My Vodacom, or dial *111# and select "Airtime Transfer".
- MTN: dial *141*6328*, insert the recipient's cellphone number, *, insert the rand amount, # and press call. For example, *141*6328*0831234567*50# press call.

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 TC0 (0 = a digit). To switch it back on SMS 1234 TC1.

General information

| 1 | To request the status of the SMS Alert at any given time, SMS 1234 r or 1234 R | The SMS Alert will respond with, for example, the following: INPUT ON B - - - , #0B00 #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. |

| #0B00 | Relay B is switched on. Relay A and C are off |

| # 87650001 | Inputs 8,7,6,5 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. Not applicable to 1234 AIRT, 1234 TC1 and 1234 TC0. |

| 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 were 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. Normally applicable to sensors. |

| 11 | SIM-card type | When last tested, the SMS Alert accepts MTN, Vodacom or CellC SIM-cards, contract or prepaid. |

| 12 | International code prefix use | SMS 1234 05 to enable consult your supplier. Please note that SMS Alert has been tested in South Africa only. |
Technical Specifications

1. **Power supply**
   - 9 - 14VDC volt DC, 500mA (milliamps). An in-line batter is preferred for smooth power. The 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 10 users, B to K.

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. 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).

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.

6. **Resetting the system**
   - Disconnect and re-disconnect the power from the SMS Alert.

Please note the following:

1. Additional requests can also 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.

[1,2,3,8] [7,4,5,6]
**Outputs (Control)**

Switch things remotely on/off from any cellphone

Applicable commands:
- 1234 a on
- 1234 a off
- 1234 b on
- 1234 b off
- 1234 c on
- 1234 c off
- 1234 ap
- 1234 bp
- 1234 cp

**Other notes:**
1. Relay D is added to the string, although not provided in the hardware. Pls ignore
2. 1234 07 is added – When on, and 1234 a on is sent, both relay A and B switches on, but with relay B switching off after 5 seconds (used for certain energizers)
3. 1234 04 changed – Now used to delay input 1 for two seconds for when input 1 is directly connected to the siren output to ignore the arm/disarm bleeps. The code change command can be done directly with 1234 CODE etc.

**Outputs**

Switch things remotely on/off from any cellphone

Applicable commands:
- 1234 a on
- 1234 a off
- 1234 b on
- 1234 b off
- 1234 c on
- 1234 c off
- 1234 ap
- 1234 bp
- 1234 cp

**Inputs (Monitor)**

Trip these inputs with a Negative or Positive to send out SMSes

Reports to Users B,C,D,E

Applicable commands:
- 1234 b
- 1234 c
- 1234 d
- 1234 e
(There is no user A)

The Red LED must always be on

The Yellow LED = User B

**SMS Alert 9 - Overview**

9 inputs 3 outputs

**Inputs ON, BCDE, #ABCD, #12345678**

- Red LED
- Users
- Relays
- Inputs

---

**Outputs**

Switch things remotely on/off from any cellphone

Applicable commands:
- 1234 a on
- 1234 a off
- 1234 b on
- 1234 b off
- 1234 c on
- 1234 c off
- 1234 ap
- 1234 bp
- 1234 cp

**Other notes:**
1. Relay D is added to the string, although not provided in the hardware. Pls ignore
2. 1234 07 is added – When on, and 1234 a on is sent, both relay A and B switches on, but with relay B switching off after 5 seconds (used for certain energizers)
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