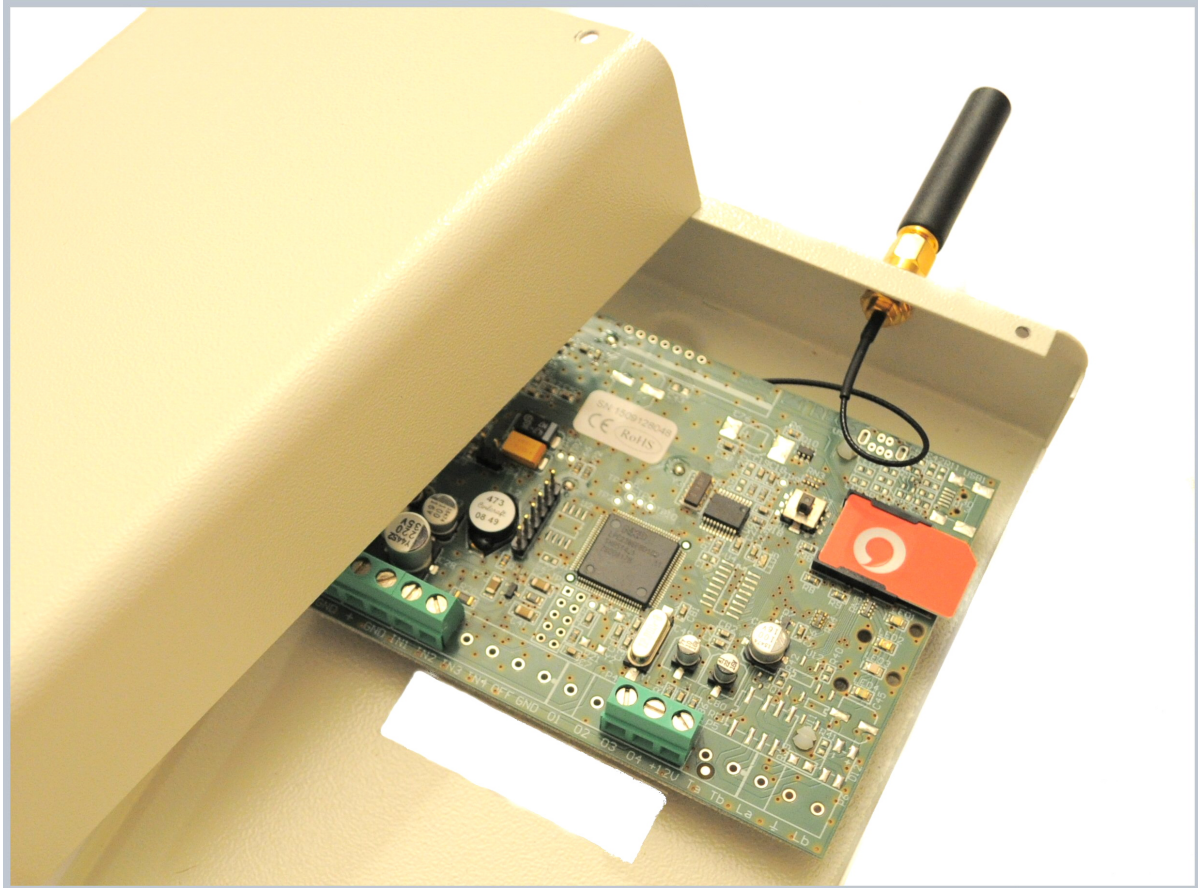


V- LITE GSM AUTO-DIALER

GSM Alarm Communicator & Remote Control



2010 INSTALLER'S MANUAL v1.2

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1 For your safety

Read these simple guidelines. Not following them may be dangerous or illegal. Read the complete user guide for further information.

SWITCH ON SAFELY

Do not switch the unit on when wireless phone use is prohibited or when it may cause interference or danger.

INTERFERENCE

All wireless phones and units may be susceptible to interference, which could affect performance.

SWITCH OFF IN HOSPITALS

Follow any restrictions. Switch the unit off near medical equipment.

SWITCH OFF IN AIRCRAFT

Follow any restrictions. Wireless devices can cause interference in aircraft.

SWITCH OFF WHEN REFUELING

Do not use the unit at a refueling point. Do not use near fuel or chemicals.

SWITCH OFF NEAR BLASTING

Follow any restrictions. Do not use the unit where blasting is in progress.

USE SENSIBLY

Use only in the normal position as explained in the product documentation. Do not touch the antenna unnecessarily.

2 FEATURES

- P Integrated tri-band GSM module
- P 2 alarm inputs
- P 2 remote control (by SMS) or direct alarm outputs (switched by inputs)
- P Pre-recorded alarm voice messages - 1 for each alarm input
- P SMS for each alarm input
- P Memory stores up to 4 different User telephone numbers
- P Dialing of telephone number sequences programmable
- P LED displays enable easy monitoring
- P Already activated dialing sequence can be stopped by means of user's telephone unit
- P Download programming by SMS
- P Input and Output status checking by SMS command

- Ⓟ System activating and deactivating by SMS command
- Ⓟ Phone book memory clear by SMS command
- Ⓟ Full print out of programming parameters by SMS
- Ⓟ SMS print out of the parameter groups (14 groups)
- Ⓟ Pre-pay SIM credit checking
- Ⓟ Security protected for incoming programming
- Ⓟ Call back device checking Manual fix of the GSM network

3 DESCRIPTION OF FEATURES

- The V-LITE is a GSM voice & SMS auto-dialing system which can be used to communicate alarm activity from an existing alarm system or from sensors connected to it's inputs as a standalone communicator.
- The V-lite stores programming parameters on the SIM card memory. You can add the parameters IN 3 WAYS. Directly onto the SIM card using a mobile phone (entering parameter as 'name' & setting as 'number' in the address book). You can also add setting to the SIM card using a USB SIM card reader and the associated PC application to manage the SIM card. Finally and most commonly used is by SMS text message to send the parameter & setting. If using SMS, pay very careful attention to the exact format that messages must be sent in. For the purpose of explanation, the commands shown in this guide are all SMS commands. Send them to the SIM card in V-LITE exactly as shown.
- The alarm events can be sent to 4 different Users' mobile numbers.
- A 10 second voice message can be recorded into each alarm input. This voice audio will be played to the receiving phone if the call is answered or if the call goes to voicemail. The headset is an optional product.
- Each User has the option to cancel a received alarm call either for their own number (press *) or for all Users (press #). If * or # is pressed, the V-LITE will stop sending alerts. The alert call must be answered before pressing * or #.
- The alarm inputs can be *normally open* (N.O.) and triggered by a positive (+12V) or a negative pulse (GND); or they can be *normally closed* (active when +12V or GND removed). Each alarm input enables the device to send alarm recorded voice message, detailed SMS message or both. Each User can be set to receive SMS, Voice or both. The SMS alert messages can be personalised.
- V-LITE also has 2 outputs giving the ability to control other devices from anywhere by SMS command. This is commonly used to reset the alarm system using the keyswitch reset input on the alarm panel.
- If an alarm call is answered, the outputs can also be controlled by DTMF (11 = out1 on, 10 = out1 off, 21 = out2 on, 20 = out2 off). The outputs give out 12V (300mA max). To switch no-voltage contacts, use a relay (available on sim-entry.com under accessories). To switch 240V also use the same relay.
- The SIM card credit can be checked at any time (;PCC1;) and an alert can be sent to Users when the credit gets to a certain point. To prevent the SIM card expiring, there is a parameter (SCV) which allows you to set an amount of days in line with your Carriers time period for disabling unused SIM cards.

- The absolute minimum settings to make V-LITE operate are TN1 & LN1 which sets 1 User (TN1) and tells the device that anything on input 1 goes to User 1 (LN1=1).

4 QUICK START

1. Insert an activated blank SIM card with credit
2. Switch the power on after connecting your power source to the GND and +12V terminals
3. When the Blue LED is flashing & red is completely off, send this SMS to the SIM card in V-LITE:
4. **IMPORTANT: IF YOU ARE USING AN O2 OR ORANGE UK SIM CARD SEND THIS SMS FIRST: ;+SPO=10;** If you don't follow this step, your settings will be erased if the device is switched off.
5. The absolute minimum you have to input to start testing is 1 User and link that User to 1 input. In the following example *User 1* (TN1) is linked to input 1 (LN1=1) so...

Send this SMS: `;+TN1=xxxxxxxxxx;LN1=1;` where 'xxxxxxxxxx' = your own mobile phone number

After you get a reply from the V-LITE displaying the same text as you sent (ie `;+TN1=xxxxxxxxxx;LN1=1;`)

1. touch a short piece of wire between terminals IN1 & GND to activate input 1

A number of things will occur...

1. Your phone will begin to ring trying to contact you and;
2. You may also receive an SMS alert (User location, Input 1, Alarm input in progress!)

Your choices on handling the call...

a) Answer it: You will be connected to V-Lite and can activate the DTMF commands. See the extended manual for more info.

Briefly...

- * (cancel alerts for the currently receiving phone number)
- # (cancel alerts for all User phone numbers)
- 11 (output 1 on)
- 11 (output 1 on)
- 21 (output 2 off)
- 20 (output 2 off)

b) Ignore it: The call will go to your voicemail and continue to try and call you 3 times. It is recommended to answer the call and press * if you want it to call other Users or # if you want to cancel the alerts altogether. You may also wish to press 11 if you have output 1 connected to your alarm system reset input.

c) Reject it: The call will go to your voicemail and continue to try and call you 3 times. It is recommended to answer the call and press * if you want it to call other Users or # if you want to cancel the alerts altogether. You may also wish to press 11 if you have output 1 connected to your alarm system reset input.

Note: If you acknowledge the call alert by pressing * or # before you have received a text message alert, the text alert won't be sent.

2. Connect the bell / strobe trigger output from the alarm system to input 1 & activate alarm

- You should now receive alerts from V-LITE as detailed above. If it will not send you the alerts now, you need a low power relay to interface with your alarm panel. Contact support on 0870 919 5315.

3. Set up low credit alerts (only O2 & Vodafone UK supported), send this SMS:

O2 UK: ;+CC1=##10#;CREF.=1;

Vodafone UK: ;+CC1=##1345#;CREF#=2;

- You will now receive the same text back

4. Set up who actually receives the low credit alert, send this SMS:

;+LN8=1;

- User 1 (TN1) is set in the Link position 8 (LN8). This means User 1 receives an alert with the credit value when the credit of the SIM drops below a set threshold value.

5. Set low credit value threshold can be lowered by sending SMS:

;+LCV=x; where "x" = a number to represent the value in £. Default is 4.

Note: Don't set lower than 2 or it won't work as the device conserves the last £1 for more important alerts.

6. To request the current credit from V-LITE at any time, send this SMS:

;PCC1;

- The reply will show you numbers. This is the SIM credit.

7. Add another User, send this SMS:

;+TN2=xxxxxxxxxx; where xxxxxxxxxxxx is the User's mobile number.

The send ;+LN1=12; to link input 1 (LN1) to Users 1 & 2 (12)

- If you don't enter Users 1 & 2 (12) in the LN1 parameter, V-Lite will not send to these Users.

This set up is for the most common features with only 1 User receiving text & voice call alerts. For more advanced features and adding more Users, read through this manual.

NOTE:

To charge a back-up battery (12V/0,8Ah fits inside the enclosure) the main power supply of V-Lite must be from 13,8V to 14,4V DC! If the supply is only 12V, the battery will not charge properly.

5 LED DISPLAY

Blue LED (LED1)

- Indicates the level of the GSM signal from 1-5 LED flash (1 = weak signal, 5 excellent signal)

Red LED (LED2)

- Generally, when the red LED 2 is ON the unit has a problem with a GSM network connection or the GSM part of the unit is out of order. Check antenna connection, SIM card, signal, etc

Red LED (LED2) - alarm state

- During alarm event the RED led will indicate on which input alarm is. For example, for the first input you'll see 1 flash, second input 2 flashes. When the unit is reset by pressing # (assuming you have answered an alarm call), the red LED will go out.

Green LED (LED3)

- When the alarm inputs on the unit are in active state (by SMS: ;+SYS=1;) then the green LED is ON. With inputs disabled the green LED goes OFF (by SMS: ;+SYS=0;).

Yellow LED (LED4)

- Quick flashing indicates the GSM module is ON but it is not yet registered on the GSM network. After connection yellow led flashes once every 5 seconds.

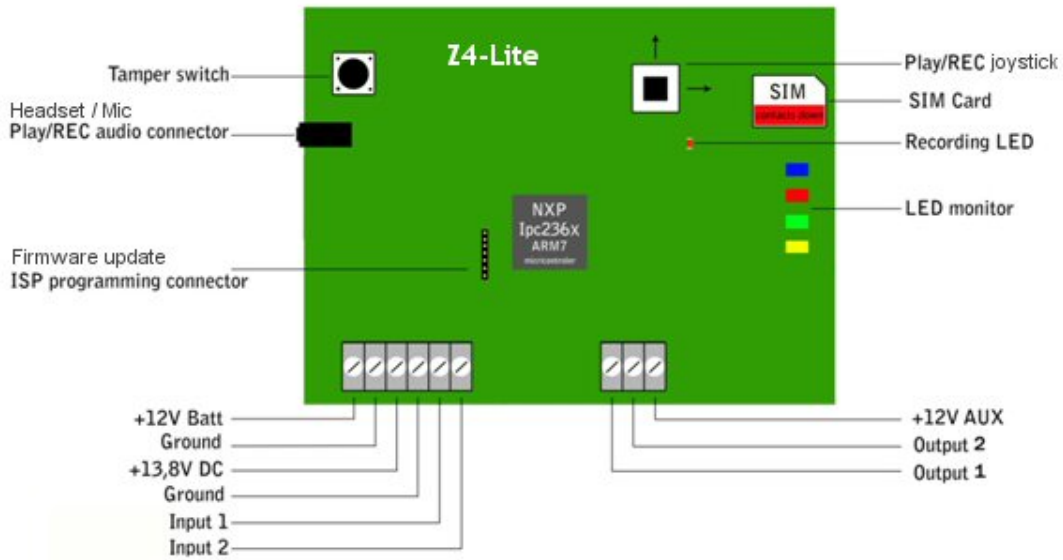
6 APPLICATIONS

The V-LITE is traditionally used to communicate instant Intruder alarm events direct to a User's mobile phone. This is by far the most common use however, the V-LITE is by no means restricted to this application. By connection any type of security or monitoring sensor to the V-LITE inputs, you can receive instant notification of all kinds of activity from any number of systems including:

- vending machines
- fire systems
- various engines out of the reach of manual operation
- home care or emergency alarm
- car and boat alarm transmitter
- temperature regulation by means of a sensors
- water or gas monitoring by means of sensors
- Industrial control applications
- Car and boat alarm transmitter
- Temperature regulations
- Door entry
- Other remote controls
- security alarm systems

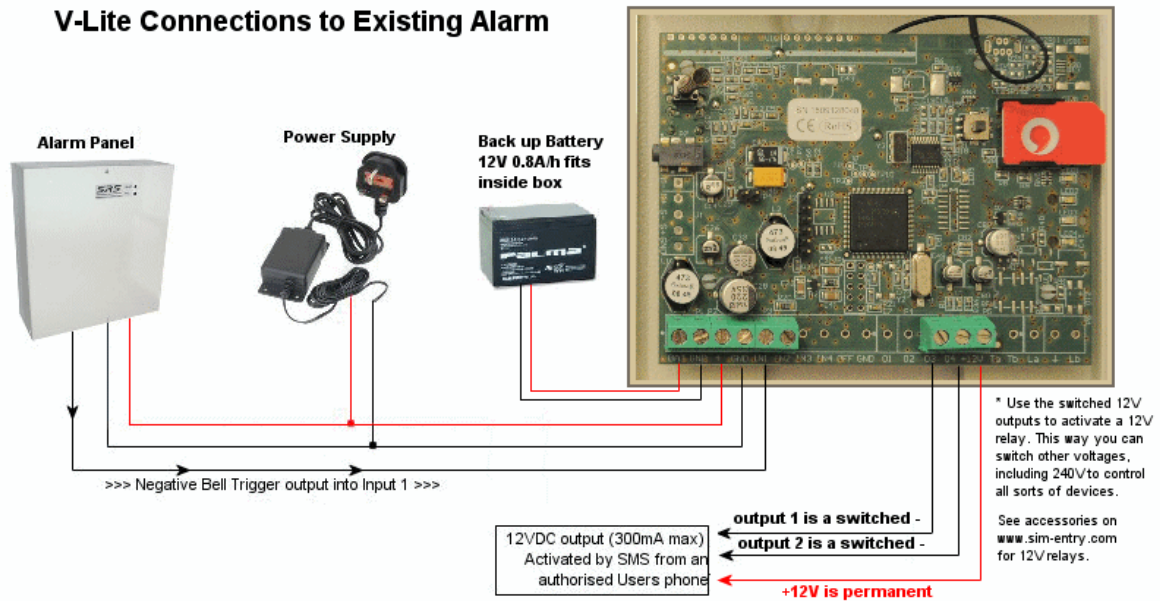
7 V-LITE CONNECTIONS & DESCRIPTION

Circuit Board Layout Description



Typical connections

V-Lite Connections to Existing Alarm



Notes:

- Run the alarm (or sensors if used standalone) & V-LITE on the same 12VDC power supply
- V-LITE needs a 13.8V - 14.4VDC power supply if you want V-LITE to charge a battery connected

8 VOICE MESSAGES - RECORD & PLAY

The memory of each alarm input enables you to record your own voice message in the total length of 10 seconds. Using the optional hands free headset, you can record the message for each input directly into the V-LITE.

The device is equipped with a Play/Record joystick and headset audio connector. For recording and listening to recorded messages a the headset is plugged into the audio connector and the joystick allows the record and playback to start and stop.

8.1 RECORDING MODE

For recording and playing alarm messages the V-LITE has a joystick switch which you can use in 2 different directions:



To start recording mode push & hold the Play/REC joystick in to one direction (depending which input message you want to record). After the beep you can start talking to record a voice message and V-Lite will stop recording when you here two short beeps. The REC/Play procedure is indicating by REC/Play LED as well. The REC/Play LED will flashing during recording or playing procedure.

Follow the same procedure for both input alarm messages.

8.2 PLAYBACK

Press the PLAY/REC joystick into one direction for a short time (around 1 second) and you will hear the recorded message in the headset. This is the message that will be played to a User when they answer a call from V-LITE for the corresponding input activity.

To stop play mode press the Play/REC joystick again for a second and play mode will stop.

Follow the same procedure for both messages.

9 SMS PROGRAMMING MODE

All data, programming values and telephone numbers need to be stored in the phone book located on the SIM card. The V-LITE can be programmed in 3 different ways:

- By sending text message commands and detailed throughout this manual - recommended because you will receive text feedback from the V-Lite as confirmation
- Using a USB SIM card manager and using the PC software that comes with it
- Directly onto the SIM card using personal mobile phone to enter parameters as names and the values as numbers.

NOTE: The PIN number request on the SIM card must be erased before programming procedure!!!

Disconnect the power supply from the unit when removing or inserting the SIM card!

9.1 SETTING USER TELEPHONE NUMBERS - TN

PROGRAMMING TABLE - DIRECT PROGRAMMING ON THE SIM CARD

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Phone (Number)	Description
TN1		1 st telephone number
TN2		2 nd telephone number
TN3		3 rd telephone number
TN4		4 th telephone number

V-LITE sends an alarm recorded voice message, an alarm SMS message or both. If the corresponding name ends with the letter “V”, when only voice message is sent; and if the name ends with the letter “M”, only the SMS message is sent. If there is no M or V added then it will both call & SMS that User.

By pressing the * you will switch off the redial call for calling number. The remaining numbers will be called as usual. By pressing the # you will switch off all remaining calls.

Example: When you need to send an alarm voice message and the SMS message to the first telephone number, only alarm voice message to the second one and only an SMS message to the third one. (See the table below.)

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
TN1	07791589787	1st telephone number (Voice alarm & SMS message)
TN2V	07796175894	2nd telephone number (Voice alarm only)
TN3M	07786598477	3rd telephone number (SMS text message only)

9.1.1 TN remote programming by SMS

For the above example send the following SMS from the host phone to the V-LITE:
;TN1=07791589787;TN2V=07796175894;TN3M=07786598477;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+TN1=07791589787;TN2V=07796175894;TN3M=07786598477;

TO FIND OUT THE CURRENT USER SETTINGS:

Send this SMS: ;PTN;

9.2 INPUT STATUS - IN

Please note the following input status settings are intended for Installers only. The default setting IN1=0 & IN2=0 (inputs activated by connecting to Ground from a N/O contact) is the correct setting 98% of the time.

The status of the input can either be normal closed (N.C) or normal open (N.O.) with positive (+ 12V) or negative (GND) voltage.

When you need the input feedback information it is possible to get SMS reply when the input returns from alarm to normal position. To get return SMS use INx=4, 5 or 6 as detailed below.

NOTE: 'x' means the input number you want to set. Ie: IN1 or IN2

If you need the inputs to be switch in another way ie by a N/C contact or the positive voltage trigger, you can reconfigure the input status of each input as follows:

- ▷ INx = 0 - Normal Open - triggered with negative voltage (GND) (DEFAULT & TYPICAL)
- ▷ INx = 1 - Normal Close - breaking negative or positive voltage loop
- ▷ INx = 2 - Normal Open - triggered with positive voltage (+ 12VDC)
- ▷ INx = 3 - Input disable

If you want to receive an SMS when the input restores (ie: is not active anymore), use the following commands instead of the above :

- ▷ INx = 4 equals INx = 0 + input reset SMS
- ▷ INx = 5 equals INx = 1 + input reset SMS
- ▷ INx = 6 equals INx = 2 + input reset SMS

TO FIND OUT THE CURRENT INPUT STATUS SETTINGS:

Send this SMS: ;PIN;

TYPICAL INPUT CONNECTIONS



PROGRAMMING TABLE FOR INPUT STATUS

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Default	Description
IN1	0	DEFAULT Input status for alarm input 1

IN2	0	DEFAULT Input status for alarm input 2
-----	---	--

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
IN1	0	Alarm activated by connecting to GND
IN2	4	Alarm activated by connecting input to GND & reset SMS will be sent to Users

9.2.1 IN parameter remote programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;IN1=0;IN2=4;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+IN1=0;IN2=4;

Rememeber: IN1 & IN2 are both normally open by default. Connecting either terminal to GND (ie: supplying GND into it from a bell trigger or simply linking it to GND with a piece of wire) will activate it.

9.3 DELAY BEFORE DIAL - DD

Despite the name 'Delay before Dial' the delay applies to sending an SMS. By default the alarm trigger is instant and an SMS is sent almost immediately when the input is activated. If you set the delay for say 5 seconds, the SMS will send 5 seconds after the input is activated.

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
DD1		Delay before sending SMS for Input 1
DD2		Delay before sending SMS for Input 2

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
DD1	5	5 seconds delay before sending SMS for Input 1
DD2	10	10 seconds delay before sending SMS for Input 2

9.3.1 DD remote programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;DD1=5;DD2=10;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+DD1=5;DD2=10;

le: To delay input one sending an SMS by 5 seconds, send: ;+DD1=5;

TO FIND OUT THE CURRENT DELAY BEFORE DIAL SETTINGS:

Send this SMS: ;PDD;

9.4 INPUT DELAY TIME - ID

The ID parameter determine time period of the pulse length to trigger the Input. The pulse time can be from 0, 5 second up to 9999 seconds. The default time is 0,5 seconds when the parameter value is 0.

9.4.1 Programming table to define the value of the input filter

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number (default)	Description
ID1	0	Default ID filter is 0,5 second - input 1
ID2	0	Default ID filter is 0,5 second - input 2

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number (default)	Description
ID1	5	ID filter is 5 seconds for input 1
ID2	30	ID filter is 30 seconds for input 2

9.4.2 ID parameter remote programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;ID1=5;ID2=30;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+ID1=5;ID2=30;

le: To set the trigger pulse OF INPUT 1 to 2 seconds, send: ;+ID1=2;

TO FIND OUT THE CURRENT INPUT DELAY SETTINGS:

Send this SMS: ;PID;

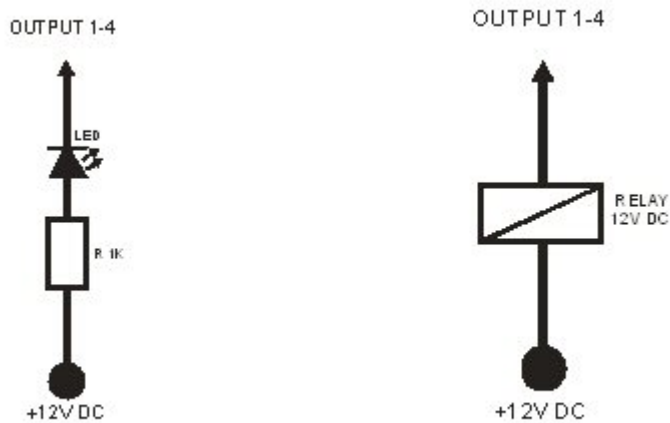
9.5 OUTPUT SWITCHING STATUS - OS

The V-LITE device has two open collector outputs. This means when they switch, a 12V voltage is output between +12V & OUT1 or OUT2 depending on the output activated. These outputs can be used to remotely control any type of device. A relay may be required if the device you are switching either requires a voltage free switch or you want to switch a higher voltage (ie: 240V AC).

Each output can be programmed in a different way: as a bi-stable (latching) or mono-stable (pulse) output. Latching is useful for things such as lights. Pulse is used for a timed switch that comes on for a set time and switches off automatically.

The output switching time is in seconds.

Typical connection for the output:



9.5.1 Programming table for output status

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number (default)	Description
OS1	1	Status for the 1 st output - latch (on / off)
OS2	3	Status for the 2 nd output - pulse in seconds

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
OS1	1	Latch output
OS2	3	Pulse output- number = seconds (must be 2 or higher)

9.5.2 OS remote programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;OS1=1;OS2=3;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+OS1=1;OS2=3;

ie: To set output 1 to latch and and output 2 to pulse for 3 seconds, send: ;+OS1=1;OS2=3;

If the output status is set to 0 (ie: ;+OS2=0;) it will be disabled.

TO FIND OUT THE CURRENT OUTPUT STATUS SETTINGS:

Send this SMS: ;POS;

9.6 DIRECT ALARM OUTPUTS - OD

If you want to activate a local alarm (siren) you can program any V-LITE output for this function.

Type of the Output (ON/OFF or pulse time) is determined by parameter OS as detailed above.

Possible programming parameters:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Output	Description
OD1		direct connection between input and output
OD2		direct connection between input and output
OD5		System tamper - springs and tamper buttons on the back & front of the V-Lite PCB

9.6.1 Programming table for OD - direct alarm output

Example:

It is possible to choose different combinations between outputs and inputs

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Output	Description
OD1	1	Alarm on IN1 triggers output 1
OD2	1	Alarm on IN2 triggers output 1
OD5	2	System tamper triggers output 2

9.6.2 OD remote programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;OD1=1;OD2=1;OD5=2;

If you want to get the confirmation SMS back then write “+” before SMS command:
;++OD1=1;OD2=1;OD5=2;

le: If you want output 1 to switch the siren on when Input 1 is triggered, send: **;++OD1=1;**

le: If you want output 1 to switch the siren on when Input 2 is triggered, send: **;++OD1=2;**

Note: If you want to latch the output to hold the siren on, see output status (9.5) to set the output to pulse or latch.

System Tamper: If you want output 2 to switch on when the tamper is triggered, send: **;++OD5=2;**

TO FIND OUT THE CURRENT DIRECT OUTPUT SETTINGS:

Send this SMS: **;POD;**

9.7 LINKING ALERTS TO USERS

It is possible to link each User (TN) or any combination of Users to any of the 2 corresponding inputs. You must enter the User position number (ie: 1,2,3 or 4) for the device to send alerts to that User. **le:** **;++LN1=1234;** to send to Users 1, 2, 3 & 4. **;++LN1=12;** to send to Users 1 & 2 only.

You can set the links for each of the following link alerts. Simply set each LN setting with your chosen Users as the setting.

9.7.1 Programming table for linking the inputs and Users - LN

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number (default)	Description
LN1		Input 1 alert
LN2		Input 2 alert
LN7		Periodic test SMS alert
LN8		SIM card credit top-up alert
LN9		Tamper switch alert

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description

LN8	1	Top up SIM credit- SMS will be sent to TN1
LN1	123	Input 1 will call/send SMS to TN1 , TN2 & TN3
LN2	123	Input 2 will call/send SMS to TN1,TN2 & TN3
LN7	1	Periodic Test SMS will be send to TN1 & TN2

9.7.2 LN remote programming by SMS

Note you can send these commands in any order individually or together. Just make sure you separate each command with a semi-colon (;)

For the settings in the table above you would send the following SMS from your mobile phone to the V-LITE:

;LN8=1;LN1=123;LN2=123;LN7=1;

If you want to get the confirmation SMS back then write “+” before SMS command:

;+LN8=1;LN1=123;LN2=123;LN7=1;

Note: To set the Low SIM Card credit alert for all Users send: ;+LN8=123;

Note: To set the Periodic test alert for all Users send: ;+LN7=123;

TO FIND OUT THE CURRENT USER LINK SETTINGS:

Send this SMS: ;PLN;

9.9.3 SIM CARD VALIDITY TIMER - SCV

The SIM card in V-LITE can expire through minimum use and the networks have preset time periods with which to deem a SIM card is not being used. You should set the SCV (SIM Card Validity period) by sending the parameter ;+SCV=xxx; where xxx is a shorter number of days than the networks cut off period.

At the end of this timed period of days, the Users as set in LN8 (low credit alert) will receive an alert.

What will be required at the time of this reminder is to prompt the device to make a chargeable call (ie: activate the alarm and answer the incoming call) if it hasn't be recently. This will show the network, it is being used and it will stay active. Also use this reminder to check the system is functioning. You may wish to set the SCV to a period of around 90 days meaning you are testing the system function every 3 months.

You must reset this timer each time it prompts you by sending the SMS: ;+SCV=90; The timer will start counting down 90 days again before sending you another alert. If you don't reset the timer, it will not remind you in another 90 days.

Example:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number (Default)	Description

SCV	90	SIM Card Validity Reminder SMS will be send to TN1 and TN2
-----	----	--

LN8 remote programming by SMS

For the above example send the following SMS from the host phone to the V-LITE:
;**SCV=90**;

If you want to get the confirmation SMS back then write “+” before SMS command:
;**+SCV=90**;

ie: To set the SIM Card Validity timer for 90 days and receive an alert send: **;+SCV=90**;

9.11 PROGRAMMING SECURITY LEVEL - SL

Security level determines which of the stored Users telephone number (TN1 - TN4) are authorised to program V-LITE by SMS text messages.

This can be fully unrestricted, ie: any number sending the correct commands will get a response from V-LITE. It can also be restricted to one or some of the Users by setting the SL parameter accordingly.

REMEMBER THE V-LITE IS SET BY DEFAULT TO ALLOW ANY USER TO COMMUNICATE WITH IT. DO NOT CHANGE THE SECURITY LEVEL UNTIL THE SYSTEM IS FULLY SET UP, TESTED AND HANDED OVER SUPPORT CANNOT BE PROVIDED IF YOU LOCK THE UNIT TO AUTHORISED ADMINISTRATORS ONLY.

NOTE: When the SL level is 0, an access to the V-LITE is possible from any phone!

NOTE: Before any SL number is programmed the V-LITE can accept ALL CALLS. Remote SMS programming and remote controlling is possible from any phone!

9.11.1 Programming table for security level definition - SL

V-LITEPROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
SL	0	All calls and SMS will be accepted
SL	1	Only number stored under parameter TN1 has access to unit
SL	2	Numbers stored under parameters TN1 to TN2 have access to unit

9.11.2 SL parameter remote programming by SMS

For the above example send the following SMS from the host phone to the V-LITE:

;SL=2;

If you want to get the confirmation SMS back then write “+” before SMS command:
;+SL=2;

To allow any phone to program V-LITE, do not change anything. Leave the setting as supplied.

le: To authorise any mobile number to send programming send: ;+SL=0; (default)
le: To authorise only User 1 (TN1) send: ;+SL=1;
le: To authorise only User 1 (TN1) & User 2 (TN2) send: ;+SL=2;
le: To authorise only User 1 (TN1) & User 2 (TN2) & User 3 (TN3) send: ;+SL=3;
le: To authorise all Users (TN1 - TN4) send: ;+SL=4;

TO FIND OUT THE CURRENT SECURITY LEVEL SETTINGS:

Send this SMS: ;PSL;

9.12 PAYG SIM CARD CREDIT CHECKING

NOTE: ONLY WORKS WITH VODAFONE & 02. You can receive SIM card credit info from 02 and Vodafone - NO OTHER UK NETWORKS ARE SUPPORTED. The V-LITE will alert you at £3 or you can prompt it at any time for it's current credit. To set the automatic low credit alert, see the LN8 parameter in section 9.7.

The V-LITE will automatically send a low credit SMS if set in LN8 section 9.7. To change it send ;+LCV=x; where x is the lowest value in £ before an alert is sent to Users as set by LN8.

9.12.1 PAYG SIM CARD CREDIT CHECK BY SMS NETWORK CODES

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
VODAFONE	*#1345#	Vodafone UK credit code
02	*#10#	02 UK credit code
02 Ireland	*#100#	02 Eire credit code

9.12.2 SIM Card Credit Checking Setup for Vodafone UK & 02 UK

SEND THE FOLLOWING COMMAND TO SET UP THE CREDIT CHECKING BY SMS...

le: To set up the SIM card credit for Vodafone UK, send: ;+CC1=*#1345#;CREF#=2;
le: To set up the SIM card credit for 02 UK send: ;+CC1=*#10#;CREF.=1;
le: To set up the SIM card credit for 02 Eire send: ;+CC1=*#100#;CREF.=1;

IMPORTANT! TAKE EXTRA CARE WITH THE ABOVE SETTINGS. IF YOU GET IT WRONG THE V-LITE WILL STOP SENDING TEXT MESSAGES.

TO FIND OUT THE CURRENT SIM CARD CREDIT:

Send this SMS: ;PCC1;

9.13 V-LITE SET-UP PARAMERTERS

▷ **CRE** - repetition of calling sequences. With the number from 1 to 99 we define how often the alarm dialing sequence is repeated in case a User's number is busy or not answered. The default value is set to number "3" so it will try each User set to receive calls 3 times each

▷ **HTN** - hidden telephone number. This function ("0" value) is used in order to conceal the telephone number of the V-LITE device. The default value is set to "1" which means that the number is displayed.

▷ **LCV** - low credit value. Set this to receive an SMS when the SIM card credit goes below a certain value. It is set on £3 by default. To change it send ;+LCV=x; where x is the lowest value in £ before an alert is sent to Users as set by LN8 in section 9.7.

▷ **SCV** - SIM card validity. **NOTE: ONLY WORKS WITH VODAFONE & 02.** The period of valid operating time varies with different GSM network providers. The value can be programmed from 1 to 360 days. The default value does not presume any kind of expiry warning. Check with the network what the validity or expiry period is in days. Vodafone UK is 180 days. This warning should be set to an appropriate number of days to allow sufficient warning and prevent SIM card expiry. **REMEMBER! YOU MUST ALSO HAVE USERS SET IN SETTING LN8 TO RECEIVE LOW CREDIT ALERTS TO RECEIVE THIS ALERT. SEE SECTION 9.9.3 TO SET UP LN8.**

NOTE: After receiving a SIM validity alert, it is necessary to send the SMS: ;+SCV=xxx; to the V-LITE again to reset the countdown timer.

To set the SIM card validity period, send: ;+SCV=xxx; where xxx is number of days. It is recommended to set this for around 90 days regardless

NOTE: The parameter ;+SCV=xxx; must be sent by SMS command ONLY! not programmed onto SIM.

▷ **TST** - A test SMS can be sent periodically. The V-LITE can send a test message in the interval ranging from 1hour up to 240 hours. It is linked to LN7 so any User set to receive an alert from LN7 will receive the TEST message as set.

Example: if the TST value is set to 168, the numbers linked to "LN7" get a test message every 168 hours (7 days). To set the test message delay time, send: ;+TST=xxx; where xxx is the time in hours.

▷ **RAN** - Number of rings before V-LITE will answer. With this command you can set the ring counter and unit will automatically answer after n ring programmed with this parameter. The default value is 5 rings.

Programming table for V-LITE Set-up parameters

V-LITE- GSM PROGRAMMING TABLE

SIM CARD PHONE BOOK		
Name	Number	Description
CRE	3	Number of dialing attempts (1 - 99)
HTN	1	Hidden telephone number (1= displayed, 0 = hidden)
RAN	5	Number of rings before answering (recommended 1-2)
SCV	1 - 360	SIM card time validity only used with 02 & Vodafone - recommended time is 90 - 150 days
TST	0	Periodic test SMS - disabled by default (0)

Example:

We'd like to change set-up parameters with following values:

V-LITE- GSM PROGRAMMING TABLE		
SIM CARD PHONE BOOK		
Name	Number	Description
CRE	2	Number of dialing attempts - 2
HTN	0	Hidden telephone number of the V-LITE
RAN	5	The unit will answer after 5 rings
SCV	180	Validity period is 180 days
TST	24	24 hours periodic test SMS

9.13.1 Set-up parameters programming by SMS

For the upper example send the following SMS from the host phone to the V-LITE:
;**CRE=2;HTN=0;SCV=180;TST=24;RAN=5;**

If you want to get the confirmation SMS back then write "+" before SMS command:
;**+CRE=2;HTN=0;SCV=180;TST=24;RAN=5;**

Note: You can send the above commands individually or joined (separated by a ;). If you want to change only the SCV & TST for example you only send: **;**+SCV=180;TST=24;****

9.14 SMS MESSAGES EDITOR

You can specify a personalised message for each alarm input. Each message is built from 3 parts and you can write the first section (User Location - site name or label) and the second (alarm event - Intruder or similar) part of the message. V-LITE will add the third part (alarm event description) automatically.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
#	0	U	S	E	R		L	O	C	A	T	I	O	N	
#	1	I	N	P	U	T		1							
#	2	I	N	P	U	T		2							

NOTE:
Message should not be longer than 14 characters! Also the space is counted like one character!

9.14.1 Alarm messages remote editing by SMS command

Send the following SMS to the unit:

```
;<#0USER LOCATION=1;#1INPUT 1=1;#2INPUT 2=1;
```

If you want to get the confirmation SMS back then write “+” before SMS command:

```
;<+#0USER LOCATION=1;#1INPUT 1=1;#2INPUT 2=1;
```

So to change the labels of the SMS alert received, send:

```
;<+#0ABC_SITE_NAME=0;#1INTRUDER=1;#2FIRE=2;
```

TO FIND OUT THE CURRENT SMS LABEL SETTINGS:

Send this SMS: ;P#;

10 PRINT-OUT OF THE PARAMETERS

THIS SECTION IS VERY USEFUL INFORMATION. PLEASE NOTE YOU CAN REQUEST CURRENT SETTING FROM V-LITE TO CHECK AGAINST WHAT YOU WANT TO BE THERE.

The V-LITE can be prompted for its current parameter settings, allowing you to check what is currently set before changing anything or checking the current state of inputs or outputs to know if the device is actually activated. The print commands are simply reply text messages that come back with the settings for the requested parameter. It's a very useful tool for remote service for installers and a simple way to make changes for end users.

NOTE: YOU DO NOT HAVE TO USE THE '+' TO GET A REPLY. THESE COMMANDS ARE 'PRINT' COMMANDS AND ALL START WITH THE LETTER 'P' SO THE '+' IS NOT REQUIRED.

10.1.1 Receive all parameters (PALL)

Command; PALL;

Note: Sending this command to the V-LITE you will get around 14 SMS back with all parameters that are currently programmed in the unit.

10.1.2 Receive telephone numbers (PTN)

Command ;PTN;

Sending this command to the V-LITE you will get back the SMS with all currently programmed telephone numbers (TN1 - TN2).

10.1.3 Receive links (PLN)

Command ;PLN;

Sending this command to the V-LITE you will get back the SMS with all currently programmed links (LN1 -LN9).

10.1.4 Receive input parameters (PIN)

Command ;PIN;

Sending this command to the V-LITE you will get back the SMS with all currently programmed Input parameters (IN1 - IN2).

10.1.5 Receive input filter value (PID)

Command ;PID;

Sending this command to the V-LITE you will get back the SMS with all currently programmed Input filters (ID1 - ID2 and ION).

10.1.6 Receive delay before dial value (PDD)

Command ;PDD;

Sending this command to the V-LITE you will get back the SMS with all currently programmed Input filters (DD1 - DD2 and DON).

10.1.7 Receive access telephone numbers (PSL)

Command ;PSL;

Sending this command to the V-LITE you will get back the SMS with programmed SL level.

10.1.8 Receive output parameters (POS)

Command ;POS;

Sending this command to the V-LITE you will get back the SMS with all currently programmed Outputs parameters (OS1 - OS2).

10.1.9 Receive link for local alarm output (POD)

Command ;POD;

Sending this command to the V-LITE you will get back the SMS with all currently programmed direct output alarm links (OD1 - OD8).

10.1.10 Receive all programmed SMS messages (P#)

Command ;P#;

Sending this command to the V-LITE you will get back the SMS with all currently programmed alarm SMS labels (#0 - #2)

10.1.11 Receive the power level on the unit (PPWR)

Command ;PPWR;

Sending this command to the V-LITE you will get back the SMS with current main power level in volts or current battery voltage when the unit runs on the back-up battery.

10.1.12 Receive set up parameters value (PPA)

Command ;PPA;

Sending this command to the V-LITE you will get back the SMS with all currently programmed Set-up parameters (LPA, TST, CRE, MNF, MAIN...).

10.1.13 PAYG SIM CARD CREDIT

Command ;PCC1;

Sending this command to the V-LITE you will get back the SMS with Credit amount on your PAYG SIM card

10.1.14 State of the outputs (PORC)

Command ;PORC;

Sending this command to the V-LITE you will get back the SMS with current outputs state.

12 CHECKING THE INPUT STATUS

You can check the current state of the inputs to find out if they are active or not which helps define if you alarm system output that triggers V-Lite is still active.

12.1 CHECKING THE INPUT STATUS BY SMS (INS)

Command ;INS;

Sending this command to the V-LITE you will get the replay SMS with all Inputs status. The reply can be:

;INS(1-2)=(OPEN-ON) - alarm loop is open and the input is in the alarm state
;INS(1-2)=(OPEN-OFF) - alarm loop is open and the alarm input is in the idle state
;INS(1-2)=(LOW-ON) - alarm loop is close on GND and the input is in the alarm state
;INS(1-2)=(LOW-OFF) - alarm loop is close on the GND and the alarm input is in the idle state
;INS(1-2)=(HGH-ON) - alarm loop is close on +12VDC and the input is in the alarm state
;INS(1-2)=(HIGH-OFF) - alarm loop is close on the +12V and the alarm input is in the idle state
;SYS= ON;
;SYS= OFF;

13 OUTPUT REMOTE CONTROL BY SMS

You can control the two V-Lite outputs by sending an SMS. You have the ability to switch them on or off.

If the output status (OS section 9.5) is latching (ie: =1) you will need to send one SMS to switch the output on and another to switch it off.

If the output status (OS section 9.5) is latching (ie: =2 or higher) you will only need to send one SMS to switch the output on and it will switch it off automatically after the preset pulse time.

13.1 OUTPUTS REMOTE CONTROL BY SMS COMMAND

OUTPUT 1 ON

Command ;+ORC1=1;

Sending this command to the V-LITE the output 1 switches ON.

OUTPUT 1 OFF

Command ;+ORC1=0;

Sending this command to the V-LITE the output 1 switches OFF.

OUTPUT 2 ON

Command ;+ORC2=1;

Sending this command to the V-LITE the output 2 switches ON.

OUTPUT 2 OFF

Command ;+ORC2=0;

Sending this command to the V-LITE the output 2 switches OFF.

You will receive a reply SMS to confirm the output has switched; assuming the device has SIM card credit.

CHECK THE CURRENT STATE OF THE OUTPUTS

Command ;PORC;

14 CLEAR ALL PROGRAMMED DATA FROM SIM

Command ;SDCLR;

WARNING!!! Sending this command to the V-LITE you will erase all programmed data from SIM!

Sending this SMS to the V-LITE will clear all previously programmed parameters and numbers. This is highly recommended when the SIM you'll use for the V-LITE is not new and it already has some data stored into the phone book memory.

After this command you should wait at least 2 minutes for the execution of the command! You will notice the green LED flickering while it deletes data.

You should also send a reset command after around 2 minutes just to be sure the device is ready.

Send this reset SMS after the green LED stops flickering (no data will be deleted - this is like restarting your PC): ;SSRES;

15 CHANGING PARAMETERS USING SMS

You can send all programming parameters to the V-LITE by SMS command. Each SMS command should start and stop with semicolon (;). If you want reply confirmation you must put "+" on the beginning of the command as shown below.

See section 10 for a list of prompt SMS you can send to the V-LITE to get a reply with currently set parameters. This is useful to check for mistakes and also before you change something you may not need to.

Example:

To get the current authorised Users:
Send SMS: ;PTN;

V-LITE will send you back the following: ;TN1=;TN2=;TN3=;TN4=;
Which means all 4 User slots are empty.

Assume you'd like to add 2 Users:

You'd like add 0779679856 as User 1 and 0779679857 as User 2.

Including the "+" for a reply confirmation, send the SMS:

;++TN1=0779679856;TN2=0779679857;

The reply confirmation will be:

;++TN1=0779679856;TN2=0779679857;

These 2 Users are now set.

The only other setting you need to change is the Links which tell the V-LITE which Users to contact when alarms or faults occur.

To link Input 1 to User 1 (TN1) send this SMS:

;++LN1=1;

To link Input 1 to User 1 (TN1) & User 2 (TN2) & User 3 (TN3) send this SMS:

;++LN1=123;

The other parameters in this manual are optional. Using the above two parameters TN & LN, the device will send alerts to the Users when the inputs trigger.

NOTE: You can use the same programming procedure for all parameters.

It is also possible to change just a few different parameters with one SMS. Consider that the SMS should not be longer than **160 characters** (included space characters).

For example, you want to change the following parameters and you want to get the reply confirmation SMS:

TN1, LN1, IN2, OS3, OS4; ID1, LN1 and CRE

You will send the following SMS:

;++TN1=0779679856;LN1=1;IN2=1;OS3=15;ID1=120;LN1=1;CRE=4;

Send the SMS to the V-LITE telephone number and in a few seconds you will get the reply SMS. The reply will be the same as you sent; to confirm receipt of the command.

16 Technical Specifications

Description	Value
Power Supply (not using battery)	9VDC - 25VDC
Min. Power Supply (if battery connected)	13,8VVDC - 14,5VDC
Current consumption - pick	2A
Current consumption(transmit mode)	350 mA
Current consumption (idle mode)	40 mA
Tri band GSM module	900/1800/1900 MHz

Alarm Inputs	2
ON/OFF Input	1
Alarm or Remote Control Outputs	2
Alarm recorded voice messages	2
SMS messages	7
PCB dimensions	105 x 80mm
Unit dimensions	118 x 170 x 30 mm
Weight	500g
Antenna SMA	1