

MANUAL

3G GATE OPENER

SS1806-3G-H

2 outputs, 3 inputs



Please read these instructions completely before use it

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Thank you for purchasing 3G Gate Opener. Please read this manual carefully before using. Be sure to keep this manual for future reference in case of any problems happen.

1. SAFTY PRECAUTIONS

1. Unplug the power adapter before cleaning. Do not use liquid cleaners or aerosol Cleaners. Use a damp cloth for cleaning.
2. Do not use this product near water.
3. Do not use this product near an area where there is a potential of gas leaks or near any fumes that can be explosive.
4. Do not place this equipment near or over a radiator or any other heat source.
5. Do not overload the wall outlet or power cord where the power adapter is installed. This can result in fire or electric shock.
6. Avoid spilling liquid on this equipment and do not insert any objects through the Ventilation slots.
7. Avoid using the equipment during an electrical storm. There is a remote risk of electrical shock from lighting.

2. BRIEF INTRODUCITON

3G Gate Opener is a 3Gswitch remote control system which can activate automatic gates with a free call from you mobile phone. The users' phone numbers are programmed into the device by SMS or call. The device recognizes incoming Caller ID and drop the call before switching. With this system you can authorize up to 1150 phone numbers to open the gate or door at no cost

Use of 3G Gate Opener at your company or house does not require any special installation and wiring. Simply install the 3G Gate Opener and connect the door latch and power supply.

This model with 3 inputs included can monitor the status of an electrical circuit when the circuit's state changes, the 3G opener will send an SMS messages to all of the nominated alarm contact saved on the unit.

3. Product Features:

1. Up to 1150 users for access control by caller ID automatic number recognition..
2. Switches relay with free call from mobile phone
3. Secure password protected
4. Programming via simple SMS commands or App
5. 3 inputs for sensors or switches
6. Send SMS notification when a short circuit exists on inputs
7. Check Log history via E-mail or SMS
8. Ideal for remote control of automatic gates, barriers, doors, central heating systems, security alarm, On/Off lights, pumps and machines.

4. STANDARD PACKING LIST

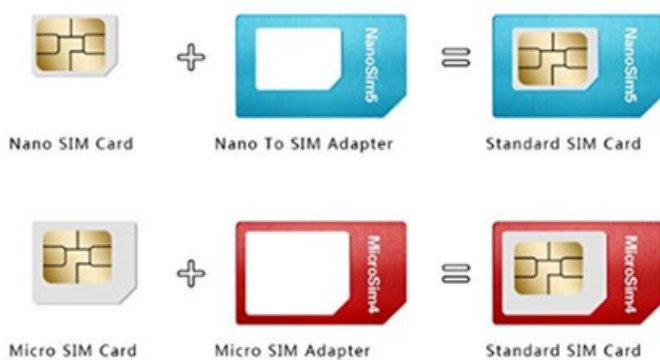
Item	Description	Q'ty	Included	Optional
1	3G Gate Opener	1	⊙	
2	12 Volts DC power supply	1	⊙	
3	Short Antenna	1	⊙	
4	External Antenna - 3 meter length	1		⊙
5	Bracket for antenna	1		⊙
6	Manual	1	⊙	

5. INSTALLATION :

5.1 SIM CARD INSTALLATION (Fig1)

You will need a regular voice and SMS text SIM card and capable of running on 2G/3G service.

1. Use a standard SIM size (Mini), if your SIM is Micro or Nano you must add an adapter.
2. Ensure the SIM card has calling credit, and can make and receive calls on a mobile phone
3. Check that the SIM does not have a PIN code request
4. Disable voicemail service on the SIM
5. Power should be off before inserting the SIM



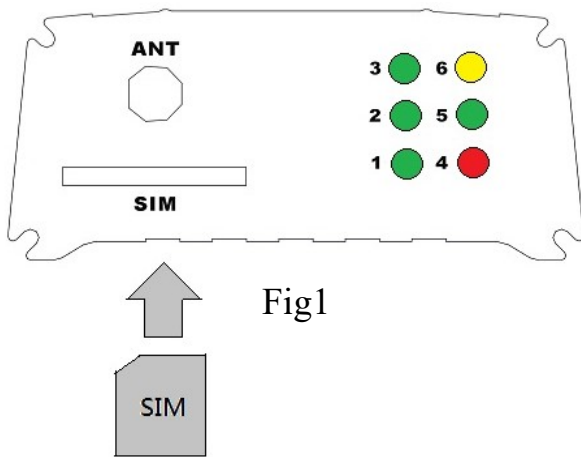


Fig1

5.2 ANTENNA CONNECTION

1. Ensure that there is good network reception at the location where it will be installed.
2. If you use a 3 meters antenna install it as high as possible on the top of the pillar for best possible reception.

5.3 WIRING DIAGRAM (Fig2 & Fig3)

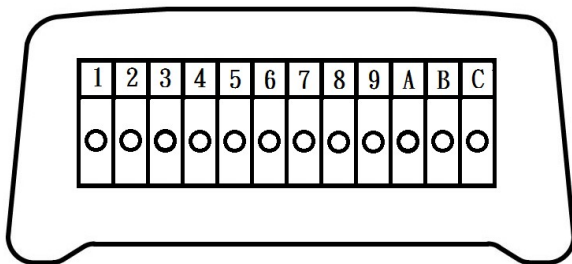


Fig2

Interface introduction:

1	2	3	4	5	6	7	8	9	A	B	C
GND	IN1(Lo)	IN2(Lo)	IN3(Hi)	NO2	COM2	NC2	NO1	COM1	NC1	AC2	AC1

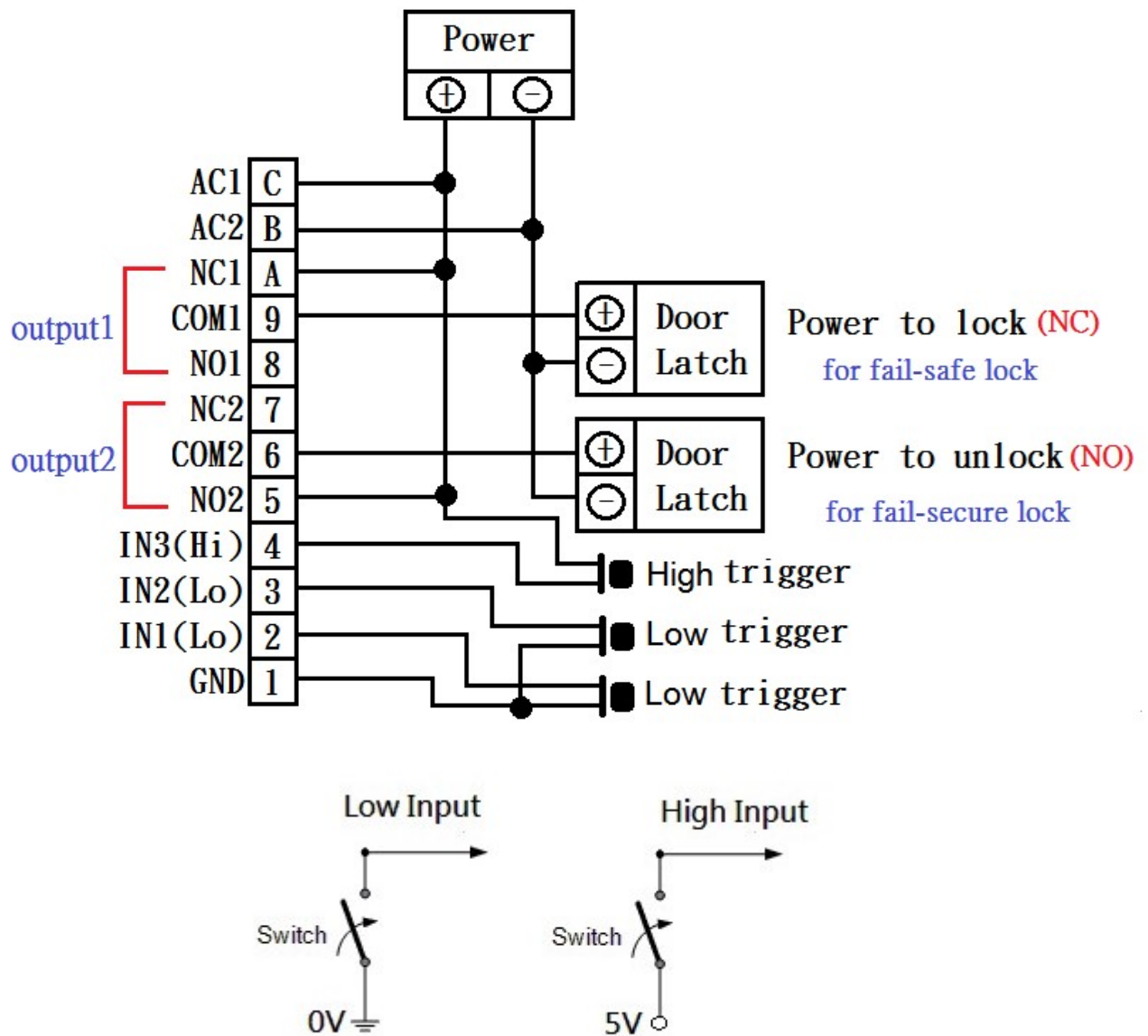


Fig3

5.4 POWER SUPPLY

The 3G Gate Opener is designed to work with power supplies 12V~24V AC/DC.

The power supply should be capable of supplying a constant current of no less than 1amp.

After a final check of wiring switch on the power. allow 20~30 seconds for the unit to boot up and detect the network.

6. LED INDICATORS

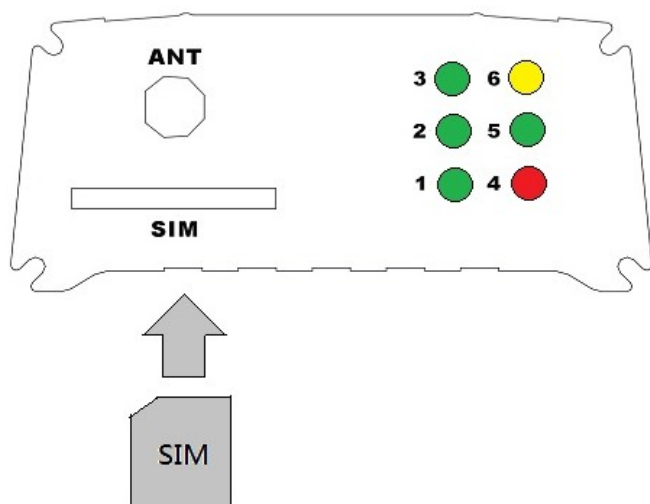


Fig4

LED Number	Definition	LED Status		
		Solid	Off	Flash
1	Trigger input 3	Input 3 active & Sending SMS	Standby	In triggering setup time (24+Time#)
2	Trigger input 2	Input 2 active & Sending SMS	Standby	In triggering setup time (17+Time#)
3	Trigger input 1	Input 1 active & Sending SMS	Standby	In triggering setup time (15+Time#)
4	Power	Power ON	Power OFF	X
5	Network status (3G device)	Busy or searching	Module OFF	Flashes once per second (Standby)
5	Network status (2G device)	Once/ 3 seconds (standby)		Flashes once per second (searching)
6	Device status	Standby	Power OFF	Flashes once per second (No SIM inserted)
				Flashes twice per second (SIM not registered)

7. OPERATION

Programming of the telephone numbers in and whenever the unit receives a call will recognize an authorized telephone number calling it and will then reject the call without answering (so there will be no charge) and open the gate or door. The relay can also be temporarily or permanently switched on or off by sending SMS or dialing in.

This 3G Opener can allow user to gain access from their mobile phone by two methods

1. Caller ID recognition
2. by access control password mode

1. Caller ID recognition to open

Ring in to open the door with authorized telephone number.

2. Access control password to open

Dial the SIM card telephone number. The unit will answer the call and you will hear a bleep tone. The door can be opened after enter correct password code. Or just simply send SMS password code to the device.

*71*5678# : Trigger relay 1

*72*5678# : Hold relay 1

*73*5678# : Release relay 1

*74*5678# : Trigger relay 2

*75*5678# : Hold relay 2

*76*5678# : Release relay 2

*This is for door open option when telephone numbers not stored.

8.PROGRAMMING

Programming can be carried out either by text message or by dialing into the 3G Gate Opener.

8.1 Progrmming by dialing in

Dial the SIM card telephone number. The unit will answer the call and you will hear a bleep tone.

Enter Programming Mode by Pressing.....

***12*1234#** (1234 is default password)

A successful pass code will produce a single long beep. A failed attempt will produce 3 short beeps.

Example: start to program the phone number for dialing in to open the door.

Use the following commands to program the unit

* Insert international country code (1~3 digits): **71[country code] #**

* Add a number (up to 1150 numbers): **72[relay][phone number] #**

* Delete a number: **73[phone number] #**

* Delete all numbers: **73*#**

Note:

*programming dialing in can't be used from telephones which are already programmed to open the door when they dial the 3G Gate Opener.

* If the number is programmed to open the door but you still would like to use the same number to dial in for programming, then you can **disable Caller ID display (withhold the number)** on the mobile.

8.2 Programming by text message

Programming by text message is the simplest way to customize the settings of the 3G Gate Opener and add or delete telephone numbers. Simply send texts in the format to the telephone number of the SIM within the 3G Gate Opener.

Note:

1. A Single SMS text messages is limited to 140 characters.
2. You can program many different user command codes in a single text message with SMS command format. *12*1234 # [command Code1] # [command Code 2] # [command Code3] #.....
3. Each SMS must start with the pass code , default 1234 in the following format *12*1234 # Followed immediately by a command.

Program with the following format:

*12*1234#71[country code]#72[relay][phone number]#72[relay][phone number]#72[relay][phone number]#.....

Relay= 1 or 2

The passcode *12*1234 only needs to be put at the beginning of each new message.

Example:

Ireland Country code: 353 (UK: 44 / USA: 1) Do not use any leading zeros.

086 5683624 (mobile number 1)

086 5682554 (mobile number 2)

086 2235644 (mobile number 3)

SMS format:

*12*1234#71353#7210865683624#7220865682554#7210862235644#

To delete phone numbers of dialing in to open

SMS format: (to delete phone number 1 and 2)

*12*1234#730865683624#730865682554#

SMS format: (to delete all numbers)

*12*1234#73*#

After the numbers are programmed you can also send the text message to check the stored numbers by sending SMS format *22*1234# , then the 3G opener will reply the phone number list text message.

9. ADMINISTRATOR NUMBER

Once the administrator number is stored, the unit will only accept programming from this number and only via SMS programming.

Example:

Program a mobile number as an administrator number via SMS

Mobile number: 0865682554

Command to use *12*1234#74 [Admin number]#

SMS format *12*1234#740865682554#

To delete the Admin number *12*1234#74*#

10. CHCK SIGNAL STRENGTH

When a request for 3G signal strength SMS command is sent to the 3G Opener, the unit should reply with a signal strength code and service provider name. The code will be between 0~31 means the signal level is from poor to best.

Example:

SMS format *21*1234#

SMS reply Vodafone Signal Level = 31 【Signal is very strong】

11. CHECK RELAY STATUS

You can send SMS command code to check relay status.

SMS format *24*1234#

SMS Reply Relay1 [status], Relay2 [status] (status = Hold / release / trigger)

Input 1 [status] , Input 2 [status], Input 3 [status] (status= high / low)

12. HOW TO RESET THE UNIT WHEN YOU FORGET THE PASSWORD

1. To keep the red button pressed on the PCB
2. Then power up and wait for 5 sec
3. After you see LED 2 and 3 starts to flash which means it's resetting.
4. Release the red button

13. CHECK ALL LOGGED DOOR ACCESS EVENTS VIA E-MAIL OR SMS

This system allows you to check the history of all logged door access events via E-Mail or SMS.

There is a list of commands you need and examples to guide you on the settings for this feature. Please setup following required parameters and commands before you can use it.

1. Via E-Mail

2.

NOTE: G-mail doesn't support this feature.

No.	Function	SMS command codes
1	Auto sending a log of dial in numbers	*12*1234#83[N]# N= 0 (sending when it reaches 100 numbers)- default N=1 (sending when it reaches 200 numbers, Max)
Sending record when it reaches 200 numbers. / command code example: *12*1234#831#		
2	Way of sending a log of dial in numbers via e-mail or SMS	*12*1234#84[N]# N=0 (no saving /sending record) N=1 (via SMS, 4 numbers limited /SMS) N=2 (via E-mail)
Sending record via email / command code example: *12*1234#842#		
3	GPRS parameters setting	*40*1234#APN, auth_type,user name,password# auth_type: 0= none / 1= PAP / 2= CHAP
Command code Example: <u>*40*1234#</u> <u>internet,0,,#</u> (auth_type = 0 (no need for user name and password)) <u>pass code</u> <u>APN</u> <u>auth_type =0 (none)</u>		
4	E-mail parameters setting	*41*1234#type,SMTP server,port,user name, password, e-mail address, e-mail sender name# Type: 1= normal / 2= SSL/TLS
Command code Example : <u>*41*1234#</u> <u>2,gainwise.com,25,gainwise,5826,gainwise@gainwise.com, gainwise#</u> <u>pass code</u> <u>type</u> <u>SMTP server</u> <u>Port</u> <u>user name</u> <u>PD</u> <u>email address</u> <u>sender name</u>		
5	Recipient & Carbon copy settings	*42*1234# recipient e-mail address, recipient name, carbon copy e-mail address, carbon copy name#
Comande code example: <u>*42*1234#</u> <u>michael@gainwise.com,</u> <u>MICHAEL,</u> <u>ivy@gainwise.com,</u> <u>IVY#</u> (complete setting) <u>pass code</u> <u>recipient email address</u> <u>recipient name</u> <u>carbon copy email address</u> <u>carbon copy name</u> <u>*42*1234#</u> <u>michael@gainwise.com,,</u> <u>ivy@gainwise.com,#</u> (recipient/carbon copy name can be omitted) <u>pass code</u> <u>recipient email address</u> <u>carbon copy email address</u> <u>*42*1234#</u> <u>michael@gainwise.com,</u> <u>MICHAEL,,#</u> (carbon copy can be omitted) <u>pass code</u> <u>recipient email address</u> <u>recipient name</u>		

No.	Function	SMS command codes
6	E-mail subject setting	*43*1234# e-mail subject#
Command code Example: <u>*43*1234#</u> logged door access events # pass code email subject		
7	Immediately sending request logged events via email or SMS	*44*1234# SMS reply: successful or failed
8	Check parameters setting	*4[N]*1234# N=0 (reply GPRS parameters) N=1 (reply e-mail parameters) N=2 (reply recipient & carbon copy) N=3 (reply e-mail subject)
Check GPRS parameters setting / Command code example: *40*1234#		
9	Mobile number for receiving logged events via SMS	*12*1234#85[mobile number]#
10	Delete mobile number for receiving logged events via SMS	*12*1234#85*#
11	Clock Sync- auto time calibration after power fail	*12*1234#86[SIM phone number used in the opener]#
12	Delete the phone number for clock Sync	*12*1234#86*#

Log example:

001@13/02/23,13:16:31- I 0982384664
 002@13/02/23,13:16:43- I 0982384663
 003@13/02/23,13:16:53- I 0982437053
 004@13/02/23,13:17:14- I 0926251767
 005@13/02/23,13:17:46- I 0982384663
 006@13/02/23,13:17:59- I 0982384664
 007@13/02/23,13:18:06- I 0926251767
 008@13/02/23,13:18:25- I 0982437053
NO. date time phone number

I : Dial in number

2. Via-SMS

There are 3 programming codes you will need to make this feature work

1	sending logged events via SMS	*12*1234#84[N]# N=0 (no saving /sending events) N=1 (via SMS, 4 events limited per SMS) N=2 (via E-mail)
2	mobile number for receiving logged events via SMS	*12*1234#85[mobile Number]#
3	SIM phone number held within the opener for clock date and time correction	*12*1234#86[SIM phone No. held within the opener]#

You can program many different user command codes in a single text message with SMS command format. *12*1234 # [command Code1] # [command Code 2] # [command Code3] #.....

Example:

Mobile number for receiving logged events 0907967223

SIM phone number held within the opener 0948778458

*12*1234#841#850907967223#860948778458#

Send *44*1234# to check logged events

Log format::

001@13/02/23,13:16:31- I 0982384664

002@13/02/23,13:16:43- I 0982384663

003@13/02/23,13:16:53- I 0982437053

004@13/02/23,13:17:14- I 0926251767 N or E

I: Dial IN numbers

N: Next text message

E: End text message

14. USER COMMANDS

You can program many different user command codes in a single text message with SMS command format. *12*1234 # [command Code1] # [command Code 2] # [command Code3] #.....

No.	Command	Description	settings	Default
1	01 [new password]#	Change password of Programming Mode	password:4 ~6digits	1234
2	02[new password]#	Change password of Access control Mode	password:4 ~6digits	5678
3	11[Time]#	Door open confirming time	Time = 0~99 seconds	0 sec no delay
4	12[Time]#	Relay 1 activation time	Time = 1~9999 seconds	1
5	13[Time]#	Relay 2 activation time	Time = 1~9999 seconds	1
6	14[Time]#	Activation time when input 1 is triggered	Time = 1~9999 seconds	0 sec no delay
7	15[Time]#	Sending SMS duration when input 1 continues triggering	Time = 0-60 minutes	15[Time] #
8	16[Time]#	Activation time when input 2 is triggered	Time = 1~9999 seconds	0 sec no delay
9	17[Time]#	Sending SMS duration when input 2 continues triggering	Time = 0-60 minutes	0 min no delay
10	23[Time]#	Activation time when input 3 is triggered	Time = 1~9999 seconds	0 sec no delay
11	24[Time]#	Sending SMS duration when input3 continues triggering	Time = 0-60 minutes	0 min no delay
12	18[Status]#	Set Input1 status	Status= 0 or 1 0=N.O 1=N.C	0
13	19[Status]#	Set Input 2 status	Status= 0 or 1 0=N.O 1=N.C	0
14	22[Status]#	Set Input 3 status	Status= 0 or 1 0=N.O 1=N.C	0
15	20[mode]#	Set Input 1 mode	Mode= 0, 1 , 2 or 3 0 = Disable , 1 = Trigger 2 = Egress 1, 3= Egress2	1

No.	Command	Description	settings	Default
16	21[mode]#	Set Input 2 mode	Mode= 0, 1, 2 or 3 0 = Disable , 1 = Trigger 2 = Egress 1, 3 = Egress2	1
17	27 [mode]#	Set Input 3 mode	Mode= 0 or 1 0 = Disable , 1 = Trigger	1
18	28+IN*time start+ time end*time start + time end*.....#	Set time duration (enable inputs) Example: Enable input 1time duration 00:00~05:00, 12:00~16:00, 21:00~23:00 SMS format:281*0005*1216*2123#	IN= 1, 2 or 3 (input 1~3) Time start = 00~23 Time end = 01~24 (hour as an unit)	enable
19	*31*1234#[SMS content]#	SMS message to be sent when input 1 is triggered.	SMS content=max 100 characters	Trigger1 is Active
20	*32*1234#[SMS content]#	SMS message to be sent when input 2 is triggered.	SMS content=max 100 characters	Trigger2 is Active
21	*33*1234#[SMS content]#	SMS message to be sent when input 3 is triggered.	SMS content=max 100 characters	Trigger3 is Active
22	71[country code]#	To set country code	Country code= 1-3 digits (UK:44 / USA:1)	886
23	72[relay][phone number]#	Store phone number For ringing in to open the door (max: 1150 numbers)	Relay= 1 or 2 Phone number =3 ~14 digits	N/A
24	73 [phone number]#	Delete a ring in to open number	phone number =3 ~14 digits	N/A
25	73*#	Delete all ringing in to open numbers		
26	74[admin number] #	Add administrator phone number	admin number =3 ~14 digits (no number no restriction)	N/A
27	74*#	Delete administrator phone number		

No.	Command	Description	settings	Default
28	75[N][phone number]#	mobile number to receive an SMS message when inputs are triggered or power failure	N=phone number 1, 2 or 3 phone number =3 ~14 digits	N/A
29	75[N]*#	Delete mobile number of alarm contact when inputs are triggered.	N=1~3(sequence of phone number)	N/A
30	SMS confirmation of relay switching	871+N#	N= 0 or 1 0= disable 1= enable SMS messages: Relay 1 trigger, relay 2 trigger Relay 1 hold, relay 2 hold Relay 1 release, relay 2 release	0
31	999#	Reset		

User commands to check system info & control relay via SMS

No.	Command	Description	SMS Reply
1	*21* 1234 #	check 3G signal strength and operator	Signal Level = 0~31 From poor to strong
2	*22*1234#	Reply stored numbers	[number1]#[number2]#[number3]#..... E:Next page / N: End
3	*23*1234#	Reply alarm contact numbers when inputs are triggered	[number1]#[number2]#[number3]#
4	*24*1234#	Check relay and inputs status	Relay1: < status > Relay2: < status > Status= hold/ release/ triggered IN1:< status> IN2:< status> IN3:< status> Status= high / low IN1: high/IN2: high/ IN3: low (standby) IN1: low/IN2: low/ IN3: high (triggered)
6	*31*1234#	To check input 1 SMS content	Default SMS “ trigger 1 is active”
8	*32*1234#	To check input 2 SMS content	Default SMS “ trigger 2 is active”
10	*33*1234#	To check input 3 SMS content	Default SMS “ trigger 3 is active”
11	*71*5678 #	Trigger relay 1	Relay1 trigger
12	*72*5678 #	Hold relay 1	Relay1 hold
13	*73*5678#	Release relay1	Relay1 release
14	*74*5678 #	Trigger relay 2	Relay2 trigger
15	*75*5678 #	Hold relay 2	Relay2 hold
16	*76*5678#	Release relay2	Relay2 release

15. SPECIFICATION:

3G Frequency (GSM fallback)	GSM 850/900/1800/1900 Mhz WCDMA:800, 850, 900, 1900 and 2100 MHz
Outputs	2 outputs, NC/NO dry contact, 10A/240V AC / 24V DC
Power supply	12~24V AC/ DC (12V DC/ 1.5A power supply adaptor included)
Power Consumption	Standby: 42mA/hr / Relay on: 83 mA/hr
Physical size	9.5 (L) X 6.0 (W) x 2.5 (H) cm
Antenna	Short Antenna
Humidity	Less than 80% RH
Operating Temperature	-20°C to 50°C
Operating Current	Maximum 250mA, typically 55mA

16. QUICK PROGRAMMING VIA SMS AND OPERATION

Program dial –to- open phone numbers (1150 numbers)

Note: Program dial to open phone numbers you NEED TO enter country code, and the complete number as you would dial it.

*12*1234#71[country code]#72[relay][phone number]#72[relay][phone number]#72[relay][phone number]#.....

Relay= 1 or 2

Example:

Ireland Country code: 353 (UK: 44 / USA: 1) Do not use any leading zeroes.

086 5683624 (mobile number 1)

086 5682554 (mobile number 2)

086 2235644 (mobile number 3)

SMS format:

*12*1234#71353#7210865683624#7220865682554#7210862235644#

Operation

You can dial in or send SMS password code to the device to control relay.

*71*5678# : Trigger relay 1

*72*5678# : Hold relay1

*73*5678# : Release relay1

*74*5678# : Trigger relay 2

*75*5678# : Hold relay 2

*76*5678# : Release relay 2

Gainwise Technology Co., Ltd.