

# GA09 - GSM Alarm Device

## USER GUIDE



V2.1

## Product description

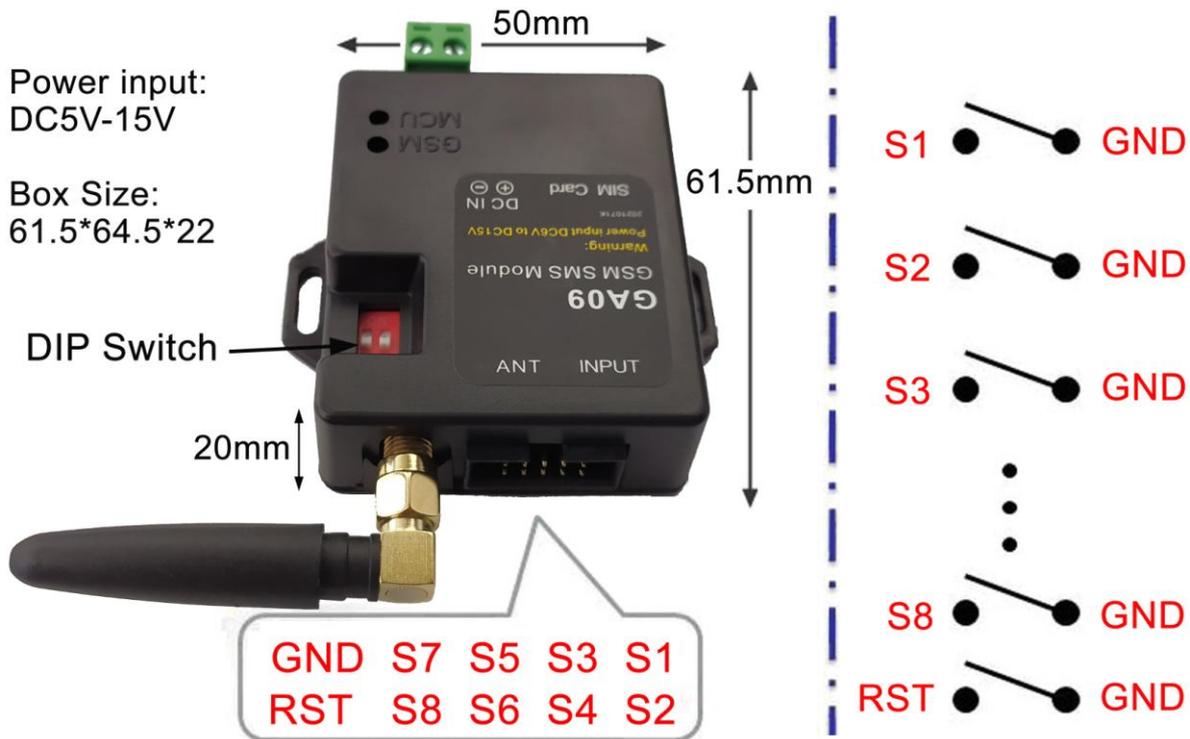
GA09 is a simple & easy to use GSM Detector which sends SMS and calls you in case of alarm events. Alarm event occurs in case of NO or NC ports changes.

. Only a local GSM SIM card is required to operate the device.

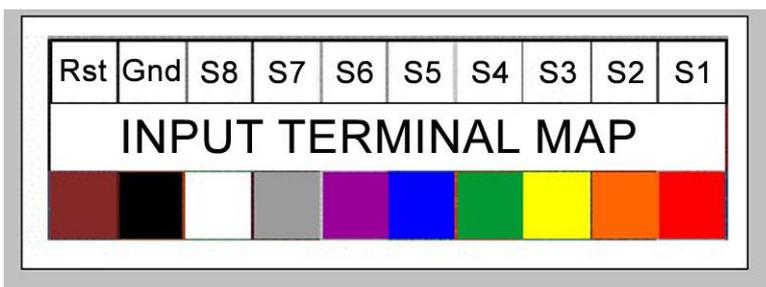
. “ **RST** ” Line is used for programming or Reset the device

. Keep the DIP Switch at the original position (Number 1,2 Side ) for normal working

**( Choose the power supply correctly, and cannot use DC24V power supply. That would burn the device )**



When any S1 to S8 input is shorted to GND, then will trigger the alarm



## ***Start to program the device with simple SMS command***

### **STEP1 : Power on the device**

1. Short the **RST** line to **GND** line to start the following SMS programming
2. Power On with DC5-15V (Power supply current should be at least 1000mA)  
(We strongly recommend to use DC12V/2A power adapter)
3. MCU LED will start to blink
4. GSM LED start to blink with fast flashing around two times per second
5. After connected to the GSM net, GSM LED will start to blink with slow flash once every two seconds (For 3G version GA09, the GSM LED will remain on almost constantly after networking. This is the little difference between GSM and 3G devices )

### **STEP2: Start to register the Admin numbers for the Alarm box with SMS command**

Program your Phone number into the device, that is used to receive the alert:

(It should be noted that the numbers for SMS alarms and phone call alarms are set separately)

(1) Program the numbers to receive the Alert with SMS

@#232425353#45353365#43536363

(2) Program the numbers to receive the Alert with Phone Calls

&#232425353#45353365#43536363

Both Maximum numbers are three, if you only want to setup one or two number, then just use

@#232425353#45353365      or      @#232425353

### **STEP3: Preset the Alarm SMS text for each input channel (When the input port changes)**

#1#Alarm input1 SMS text

#2#Alarm input2 SMS text

#3#Alarm input3 SMS text

#4#Alarm input4 SMS text

#5#Alarm input5 SMS text

#6#Alarm input6 SMS text

#7#Alarm input7 SMS text

#8#Alarm input8 SMS text

“Alarm input1 text” to “Alarm input8 text” should be changed to use the text that is easily to be understood by yourself

### **STEP4: Preset the SMS Text when alarm input are all released from GND**

#0#All back to normal text

When all alarm input backed to normal, then will send this pre-defined SMS text

### **STEP5: Setup the Timer for status report**

%#Txx      xx is the minutes user want to preset (Maximum 9999 minutes)

For example, can preset: %#T120, then every 120 minutes (2 hours), Device will report a status SMS to the first SMS alarm number.

If you setup it to zero: %#T0, then Report function will be disabled

### **STEP6: Select the alarm working mode**

%#M1      Only SMS alarm report

%#M2      Only Phone calling alarm report

%#M3      SMS and phone calling alarm report

### **STEP7: Disconnect the RST from GND to start the normally working**

After disconnect the RST from GND, then only Admin numbers can use some limited SMS commands, such as the ARM and DISARM command

## Start to use device with simple SMS command

STEP1: Connect the sensors output to each input port and define the input port type as NO or NC

\*\*NC246

Then input port 2,4,6 are defined as NC input type and others will kept as NO type.

If you setup to \*NC0, then All input port is NO type.

Any “normally open” (NO) or “normally closed” (NC) contact can be attached to one of the inputs from S1 to S8 and GND Line. The + and – are irrelevant for these “ potential-free” sensors. The input can be set as NO or NC.

An example of a normally closed contact is a magnet door contact. If the door is closed, both parts of the magnets are put together and form a wired circle, which makes the wiring “closed”. Once opened, the circle has been interrupted, which is interpreted as being “open”. The “normally closed” input will detect this change and initiate an alarm event.

Device provides required voltage by itself. Do not apply any external power on these input wires which might cause damages. That means your external device should only provide a relay output or short or open circuit.

STEP2: Arm or Disarm the input (Only the Alarm Numbers has been set can use these commands)

@#ARM00100100

From the right to left, the first is Input1 and the last is Input8, If set to “0”,then that input port will be disarmed (disabled) and if set to “1”,then input port is armed (enabled)

So :

@#ARM11111111            All input port is enabled (Armed)

@#ARM00000000            All input port is disabled (Disarmed)

Sometimes,we only want to Disarm the device temporarily for some minutes, then Use the Alarm phone number to call the device number and hang up after one or two ring back tone, then device will be Disarmed for 10 minute. Keep the ring until the device reject your calling, then device will be Disarmed for 60 minutes.

STEP3: How to read the Device data Log?

@#LOG10            (10 is the data Log numbers you want to read through SMS)

*(Maximum 100 records can be read back,4 records in every SMS.So if you input 100, then device will send back 25 Text SMS message)*

STEP4: How to read the device status and parameters?

@#STATUS?

## Install our App from Apple App store or google play store



Search the keyword “GA09” , you will find the right APP

Icon,and then press to install it

## Fast Q&A and Troubleshooting

### 1. How to Reset the Device:

Short the **RST** to **GND** wire, and then send the SMS command “ RESET ”.After RESET, it will empty all the SMS alarm and phone call alarm phone numbers in the memory and also device will be in the Only SMS alarm report Mode (M1 mode)

### 2. What is the uses of the RST line input

RST line is used to program the device or RESET the device.

Before SMS programming the device,Short the RST to GND, and then start to send the SMS command to program

After programming the device,RST wire should be disconnected from GND wire to to prevent the device from being set by other unauthorized numbers

### 3. Why the GSM LED always flash quickly?

(1) SIM card in the device must support the GSM (2G) net

(2) Try to push the SIM card out and push it into the slot to test again

(3) Try to change another SIM card from other SIM card provider to test again

(4) If you still can't sort the problems ,then please contact the seller for service

(5) If you are using DC5V power supply, please change to use DC12V at least 1A power supply

### 4. Why the MCU LED always kept ON even wait more than 70 seconds ?

That means device didn't recognize the SIM card properly or no SIM card inside.then you can try to push the SIM card out and push it into the slot to test again and wait around 70 seconds.If MCU LED still cannot start to flash,then please change another SIM card to try again

### 5. If one alarm input is exsist and another alarm input is triggered,then what will happen?

Device will send the Combined SMS alarm text

### 6. What is the maximum length of the alarm SMS text

The maximum text length is 10 characters

### 7. How to simply disarm the alarm input and go to Disarm temporarily?

Use the Alarm phone number to call the device number and hang up after one or two ring back tone,then alarm will be disabled for 10 minute. Keep the ring until the device reject your calling,then alarm will be disabled for 60 minutes.

## How to get the fast service from supplier?



Contact us through the service email:  
[wafer@waferstar.com](mailto:wafer@waferstar.com)



Also can use our online service  
Skype: *wafer-service*



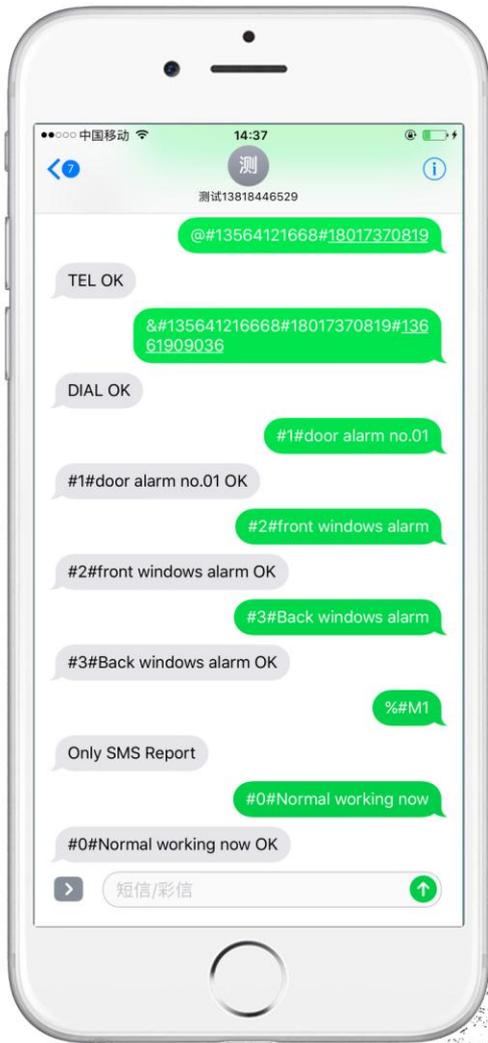
Fast sample order, our shopping store  
<http://www.wafer-shopping.com>



Visit our company website at:  
<http://www.waferstar.com>

## Sample SMS setting map

When writing a text SMS command, you must pay attention that there can be no spaces before, after or in the middle of the command (except for the Custom SMS alarm content). In addition, English characters must be used, and similar French, German, Spanish and other characters cannot be used.



Preset the alarm SMS receiver

Preset the alarm phone calling receiver

Preset the alarm SMS for S1 input

Preset the alarm SMS for S2 input

Preset the alarm SMS for S3 input

Preset the working mode to M1

Preset the normal working SMS text

**Please scan to access the technical service page**

