

# GA01PR - GSM Alarm Device

## USER GUIDE

v1.1

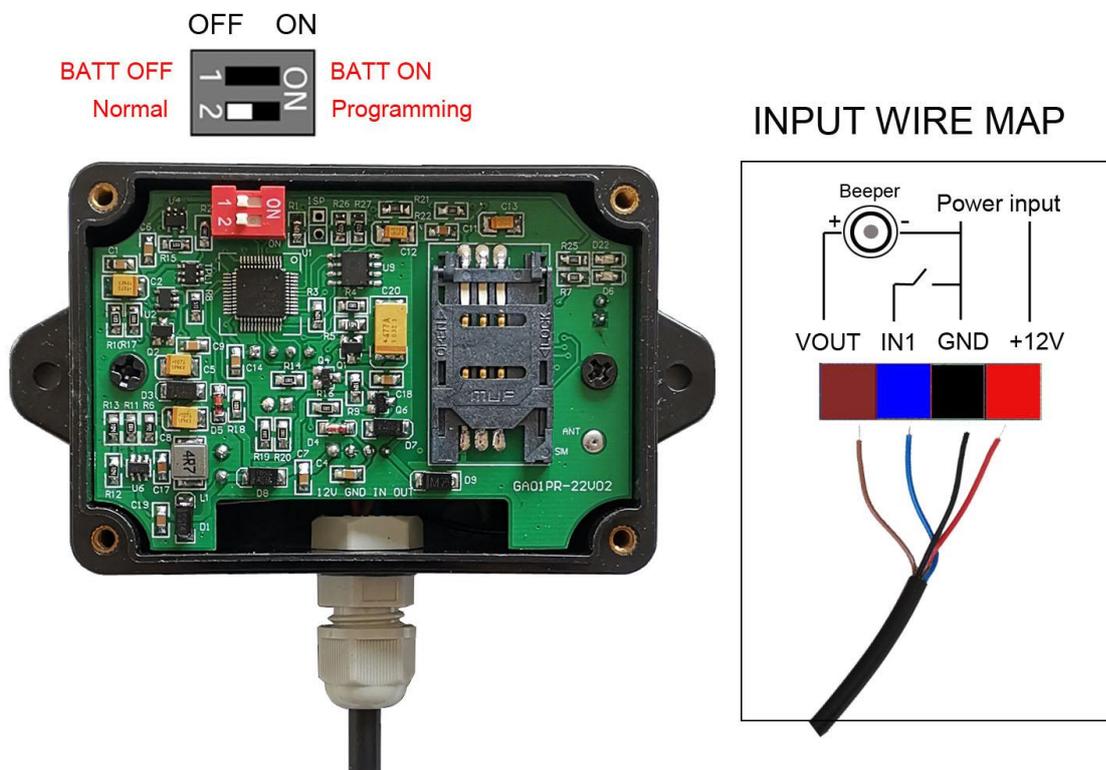


## Product description

GA01PR is the waterproof case version of GA01P. It is fully compatible and consistent with GA01P. It is a simple & easy to use GSM alarm box which sends SMS and calls you in case of alarm events. Alarm event occurs in case of port input status changes. GA01PR also has a rechargeable battery inside for main power supply failure report.

The battery is placed inside the box for shipping security reasons, the user needs to manually unscrew the two mounting screws on the side of the PCB board and insert the battery into a two-pin white plug at the back of the internal circuit board

- . Only a local GSM SIM card is required to operate the device;
- . “DIP SWITCH ” is used for programming and Battery ON or OFF;
- . Power on GA01PR with DC12V DC power adapter (Standard DC12V / Current  $\geq 1A$ )
- . Battery is used for power failure alarm. After the alarm, device will go to sleep to save power.



When IN1 input is shorted to GND, then will trigger the alarm

VOUT is a controlled voltage output that can be used to connect to the siren.

(DC power supply voltage also is output to the VOUT for siren, so should select the suitable power input voltage, that should also be suitable for the operation of Siren )



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

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

1. Slide the DIP Switch **NO.2** to ON position for SMS programming  
(The first 3 minutes after powered on, User also can send the SMS command to program)
2. Power On with DC6-15V (Normally, we 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 blink slowly once every two seconds

### **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:

(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

&#232425353#45353365      or      &#232425353

(The numbers in the above command is just an example. When writing the command, the user needs to replace it with the phone number that are used to receive the alarm.)

### **STEP3: Preset the Alarm SMS text for IN1**

#1#Alarm input1 SMS text

“Alarm input1 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 the #0# pre-defined SMS text

### **STEP5: Setup the Timer for status auto 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 setup it to zero: %#T0, Auto Report 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: Config the alarm voltage output timer**

%#VARM05      (User can change the 05 to other data, if setup to 00, no output)

When input alarm happened, the alarm voltage will be output for more than 05 seconds

### **STEP8: Select the alarm working mode**

@#PFTxx      Preset the power failure alarm detail timer

For example, @#PFT30, after setting, when DC power supply failure for 30 seconds, then will send the alarm SMS

**STEP9:** Move the DIP Switch NO.2 from ON to OFF side to start the normally working

After move back to OFF ,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

**\*\*NC or \*\*NO**

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

If you setup to \*NC, then input port is NC type.

*Please note: For compatible with GA09's APP, \*\*NO, that is the same as \*\*NC0*

**NO PORT:** This port is a “Normally Open” port.

**NC PORT:** This port is a “Normally Closed” port.

Connect two wires of your NC or NO type device output or cable into terminal block IN1 & GND. It does not matter which one is first.

Do not apply any external power on these terminal blocks which might cause damages.

**STEP2:** Arm or Disarm the input port (Only Numbers in the device memory can do this)

**@#ARM1** All input port is enabled (Armed)

**@#ARM0** All input port is disabled (Disarmed)

*In order to be compatible with GA09's APP, if the instruction is followed by multiple digits, then only the first digit is for GA01PR, For example, ARM011 and ARM0 are the same.*

Sometimes,we only want 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 alarm will be disabled for 10 minute. Keep the ring until the device reject your calling,then alarm will be disabled 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?**

## **About the power failure alert**

For GA01PR, have a rechargeable battery inside for power failure alert, when during normal DC power supply working,then will charge the battery automatically, when DC power supply failure,then battery will support the battery to send the alert SMS.

BACKUP BATTERY POWER SUPPLY WORKING

**Power failure alert SMS**

NORMAL POWER SUPPLY WORKING

**Main power supply working**

## **About alarm voltage output**

GA01PR has a VOUT output, When alarm happen,then VOUT terminal will have a voltage output, this controlled voltage is the same as the power input voltage. This voltage output can be used to connect the siren,light alarm or for other purposes.

**(Must pay attention to the positive and negative poles of the output voltage, do not reverse)**

## **Fast Q&A and Troubleshooting**

### **1. How to Reset the Device:**

Slide Red switch NO.2 to “ON” side, 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 “Programming” Switch**

Programing Switch is used to program the device or RESET the device.

Before SMS programming the device,Slide the NO.2 Switch to “ON” side, and then start to send the SMS command to program

After programming the device,Slide the switch to number side to protect the device

### **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

### **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. What is the maximum lengh of the alarm SMS text**

The maximum text length is 10 characters

### **6. How to simply disable 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.

### **7. How long will the battery continue to supply power after entering the power-off state?**

After the 12V main power supply is stopped, the battery provides power supply. Firstly, the power-down status SMS is reported, and then the power-saving mode is entered, At the same time, the status of the input alarm port is still continuously monitored, and also whether the main power supply has returned to normal. The current consumed at this time is only microampere. So It can even work for months.

## 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

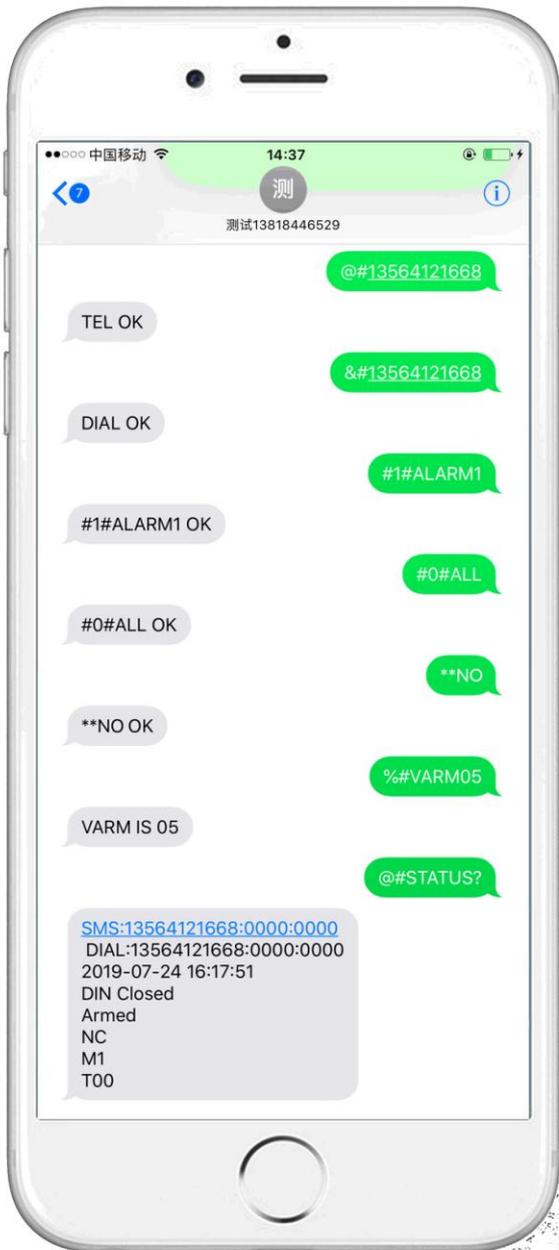


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## Sample SMS setting map



Preset the alarm SMS receiver

Preset the alarm phone calling receiver

Preset the alarm SMS for S1 input

Preset the normal working SMS text

Preset the input type is NO type

Preset the Alarm voltage output timer

Read back the device status