Remote switching machines with a SMS text from your mobile phone!

Remote Monitoring your assets in the worldwide by your mobile Phone!

GSM RTU
GSM SMS Alarm Unit

RTU5000

User Manual

Ver 1.1 Date Issued: 2011-06-20

Website: Http://www.GSMalarmsystem.com

Table of contents

This handbook has been designed as a guide to the installation and operation of GSM RTU RTU5000.
Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.
We recommend that the advice of a registered electrician be sought before any Installation work commences.
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King Pigeon Hi-Tech.Co., Ltd, its employees and distributors, accept no liability for GSM Network upgrading or SIMCard upgrading due to the technology specifications contained in this handbook.

Updated Version Details		
Item	Ver1.0	Ver1.1
Counter	Only IN3 can be used as Counter	All Inputs (4) can be used as Counters
Counter Report Period	Min.10Seconds, Max. 655359Seconds	Min.1minute, Max. 65535minutes

1. Brief introduction

The GSM RTU(Remote Terminal Unit) RTU5000 is a universal GSM Remote Control and Alarm Unit. it provides 2 Opt coupler (Iso) outputs, 4 Opt coupler (Iso) inputs, 4 of the 4 Opt coupler inputs can be used as counter function, 1 AD input(0-5V) can setup Higher and Lower Value to alarm, and RS232 Serial Port. It allows you to monitor and control an alarm or remote stations or equipments or machines by SMS(Short Message Service) .

The GSM RTU5000 suitable for below applications:

1. *Security Alarm System applications;*
2. *Supervision and monitoring alarm systems;*
3. *Automatic monitoring system;*
4. *Vending Machines security protection;*
5. *Pumping Stations, Tanks, Oil or Water levels;*
6. *Buildings and Real Estate;*
7. *Weather Stations;*
8. *River Monitoring and Flood Control;*
9. *Oil and gas pipelines;*
10. *Corrosion protection*
11. *Temperatures, water leakage applications;*
12. *Wellheads, boat, vehicle;*
13. *Energy saving, street lights control system;*
14. *Valve controls;*
15. *Transformer stations;*
16. *Unmanned machine rooms;*
17. *Control room application;*
18. *Automation System, M2M;*
19. *GSM Access Control System, GSM Gate Opener, etc.*

2.Safety Directions

Safe Startup
Do not use GSM RTU when using GSM equipment is prohibited or might bring disturbance or danger.

Interference
All wireless equipment might interfere network signals of GSM RTU and influence its performance.

Avoid Use at Gas Station
Do not use GSM RTU at a gas station. Power off RTU when it near fuels or chemicals.

Power it off near Blasting Places
Please follow relevant restrictive regulations. Avoid using the device in blasting places.

Reasonable Use

Please install the product at suitable places as described in the product documentation. Avoid signal shielded by covering the mainframe.

Use Qualified Maintenance Service

Maintenance can be carried out only by qualified maintainer.

3. Standard Packing List

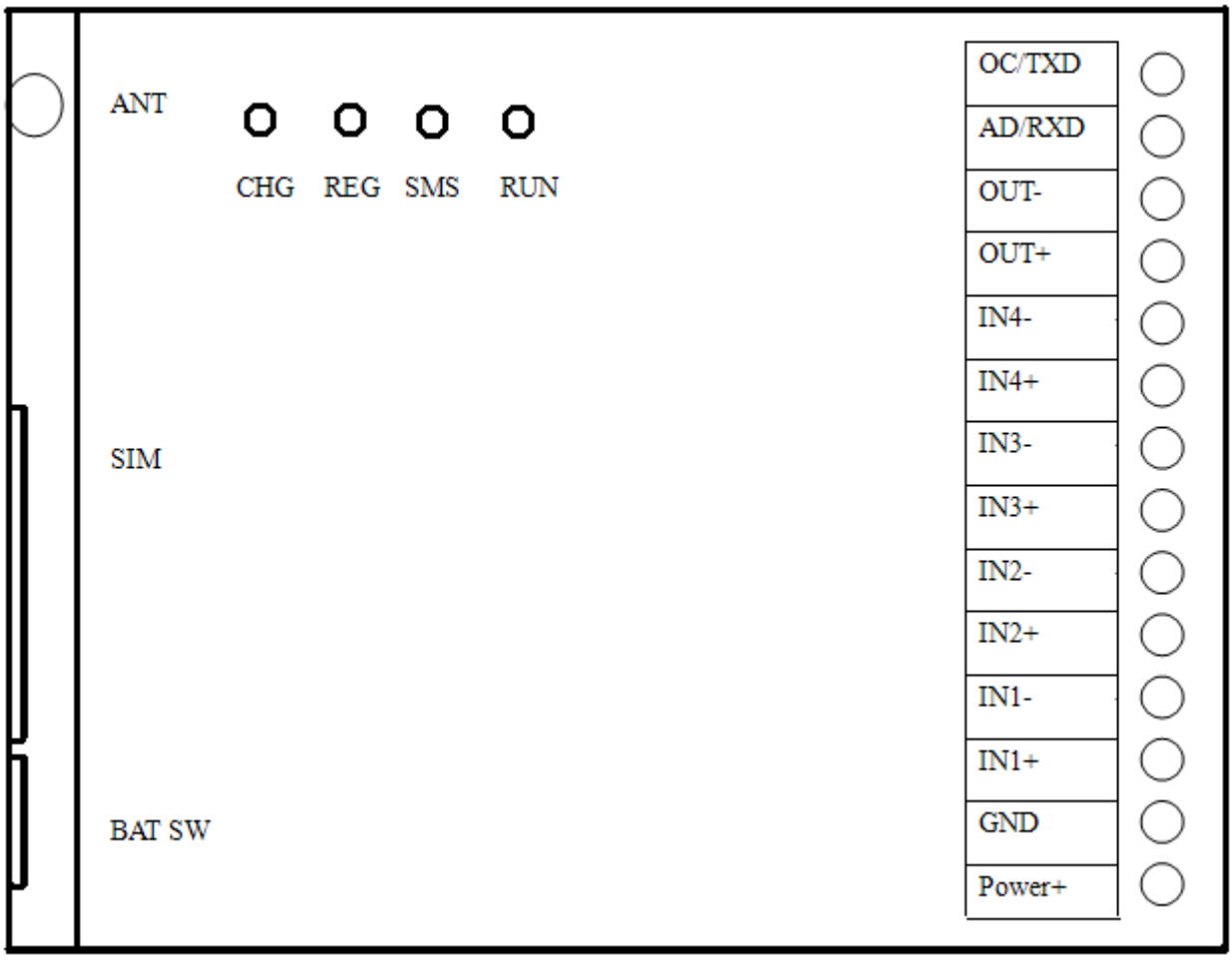
Control Unit X1, GSM ANT X1, User Manual X1(CD), Serial cable for communication X 1 (RS232).

Optional Accessories: (Wired Sensors)

PIR Motion Sensor, Glass Break Sensor, Magnetic Window Sensor, Temperature Sensor, Infrared Beam Fence, Vibration sensor, Water level sensor, Siren, etc.

4. Physical Layout

4.1 Control Unit physical layout



LED Instruction

CHG	Charge the backup battery will on, otherwise will off.
REG	GSM register indicator, quickly flick means registering the gsm network, slowly flick means finished the registration.

SMS	In initializing while power on, will always on. After initialized will off. When send out SMS, will on.
RUN	In initializing while power on, will always on. After initialized will flick on slowly.

Interface 1 Instruction

ANT	GSM Module Antenna.
SIM	SIMCard Slot.
BAT SW	Backup battery Switch

Interface 2 Instruction

POWER	Power Connector, Connect to the power source.
GND	Ground point, connect to power negative electrode, and COM point for AD,OC.
IN1+	Opt coupler (ISO) Input 1; connect to one wire of the wired Detector or positive electrode.
IN1-	Opt coupler (ISO) Input 1; connect to another wire of the wired Detector or negative electrode.
IN2+	Opt coupler (ISO) Input 2; connect to one wire of the wired Detector or positive electrode.
IN2-	Opt coupler (ISO) Input 2; connect to another wire of the wired Detector or negative electrode.
IN3+	Opt coupler (ISO) Input 3; connect to one wire of the wired Detector or positive electrode.
IN3-	Opt coupler (ISO) Input 3; connect to another wire of the wired Detector or negative electrode.
IN4+	Opt coupler (ISO) Input 4; connect to one wire of the wired Detector or positive electrode.
IN4-	Opt coupler (ISO) Input 4; connect to another wire of the wired Detector or negative electrode.
OUT+	MOSFET Relay output ; connect to the device positive electrode or one wire of the relay.(Optional)
OUT-	MOSFET Relay output; connect to the device negative electrode or another wire of the relay.(Optional)
AD/RXD	Analog input and RS232 RXD Point, connect to Analog detector or RS232 Cable RXD wire.
OC/TXD	OC Drive Output and RS232 TXD Point, connect to device positive or RS232 Cable TXD wire.

5. Features

1 MOSFET Relay output, Current Drive ability note: >100mA, Patient Voltage note: 60V. It can be switched on by sending a SMS to the unit. Output mode: pulse. Outputs trigger by SMS commands, the width and the period of the pulse can also be set.(Optional,if you want to use it please buy the AQY22❍R❍S from Panasonic.)

2 1 OC Drive Current: >500mA (continuous). Output mode: pulse. Outputs trigger by SMS commands, the width and the period of the pulse can also be set.

3 1 AD channel: 0-5V, 8Bits, Input Impedance: 50KOhm. If AD input value is higher than the setting “higher value”, or If AD input value is less than the setting “lower value”, the unit will be activated.

4 4 Opt coupler (Iso) Input, Input Drive Current: Min:0.5mA, Max:45mA (continuous) ,
Reverse Patient Voltage: 100V; Can setup as rising edge or failing edge or both the rising edge and the failing edge will activate the RTU.

5 4 of the 4 Opt coupler (Iso) can be used as “Counter Function”, multiplexed counter channel, the falling edge and the rising edge of it will be invalid. The channel can be activated by a pre-setting value (time or quantity). If there is overflow, it will loop.

6 When System initialization complete (by power supply or battery), will send the SMS to SMS recipient 1.

7 When power supply on, while supported by back-up battery, will send the SMS to SMS recipient 1.

8 If there is built in battery, RTU detects that the power level is lower than the pre-setting “lower value”, the event will be activated.

9 If the power supply disconnected or power off, the RTU will send SMS to SMS recipient 1.

10 Up to 4 mobile phones numbers can be pre-set as SMS Alarm number .

11 Up to 4 phones numbers can be pre-set as auto dialing Alarm number.

12 Password protected, prevents unauthorized user;

13 Can be set up and programmed from any GSM phone or PC through RS232 Cable;

14 Time stamped alarm messages.

15 Based on GSM Network.

6. Settings

The GSM SMS Controller is for user-friendly design. The user can setup it by the PC programmer through RS232 Serial cable.

6.1 Setup through the PC Programmer

Tips!

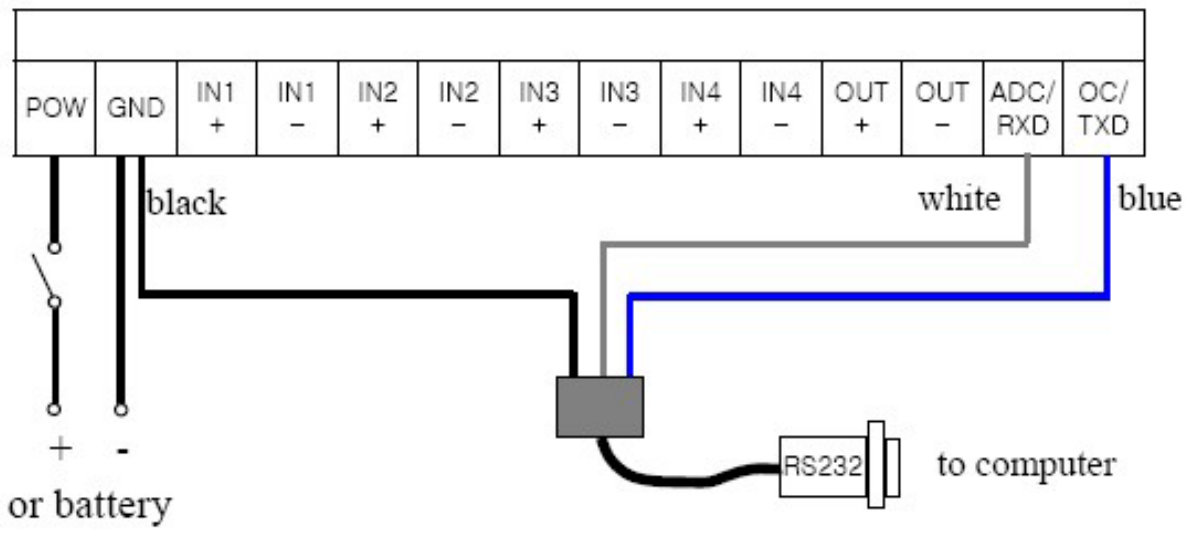
1) Please insert the SIMCard firstly, and install the GSM Antenna, please power on to check the LEDs can work or not, then power off it before you program it by PC Programmer.

2) The default password is 1234, you can modify it by enter the new password in the PC Programmer.

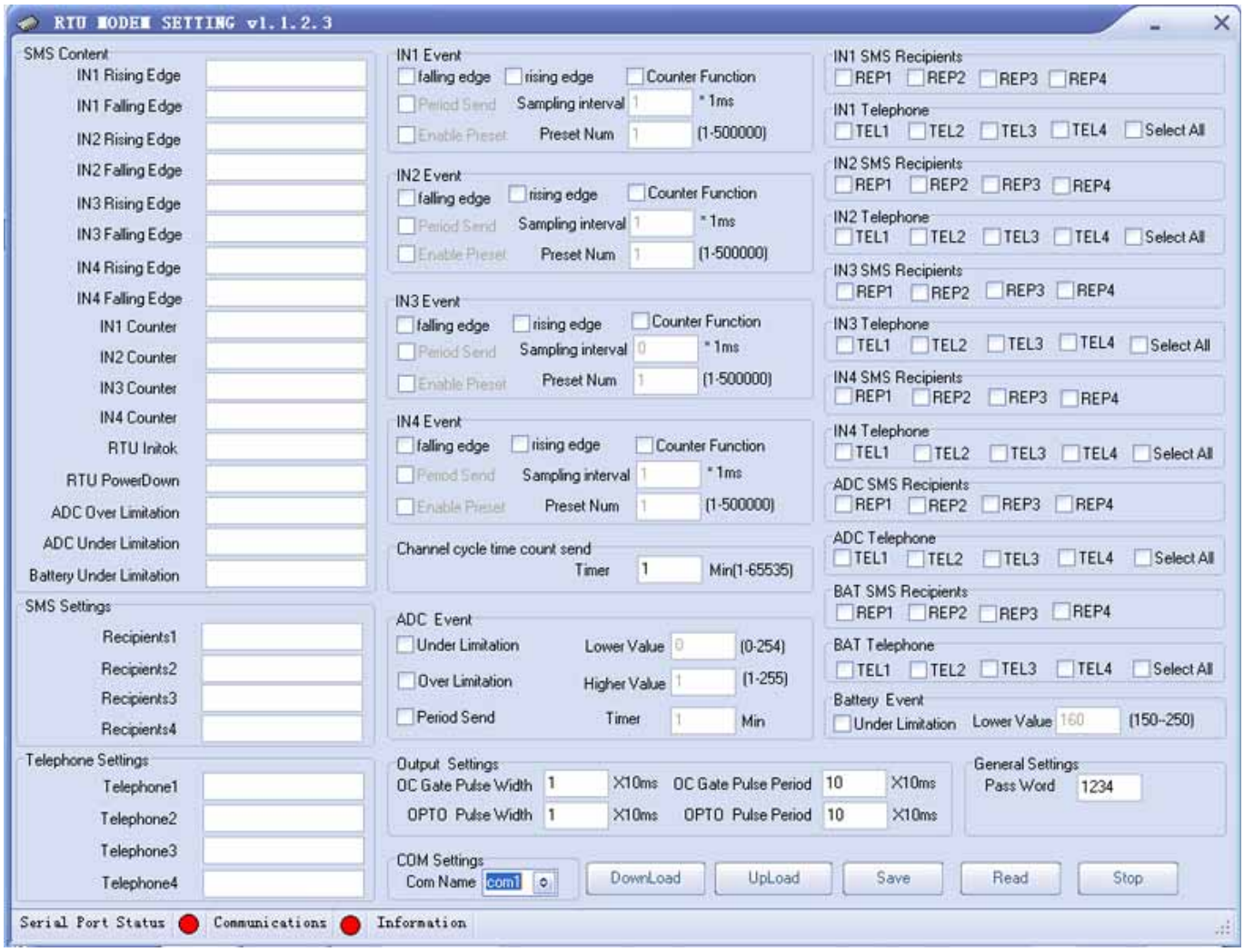
3) Must setup the SMS recipient 1 number.

4) The RXD and TXD point will communicate the computer within 1Second after initialization, if it can create the communication to the Computer, then will work with the computer, if can not receive signal from computer, then will automatically change to AD and OC function.

5) The connections of the RS232 cable to communication with the Computer is below:



The PC Programmer Interface



Please following the below steps one by one to setup it, otherwise you cannot setup it successfully.

Step1: Please insert the CD one your computer firstly;

Step2: Please insert the SIMCard into the GSM SMS Controller carefully;

Step3: Please running the PC Programmer, needn't installed it;

Step4: Please connect the GSM RTU5000 to the computer through RS232 cable, but please don't switch on the GSM RTU5000, otherwise, the setup will be failure;

Step5: Please setup the GSM RTU parameters as 6.1.1;

Step6: After you finished the setup, then press "Download" button then switch on the GSM RTU, after 2Seconds, it will alert the Setup successful.

Step 7: Power off the unit then remove the RS232 cable. Then power on the Unit to finish the setup.

If it hasn't prompted the setup successful, then means the setup is failure, please check the Com port and RS232 connection, then try to repeat the Step1~Step6 again.

6.1.1 Setup the parameters

1) SMS Recipient 1-4 and Phone Call Recipient 1-4

The recipients number: A maximum of 16 digits or "+". If there is country code, "+" must be added at the head. For each item, it can accept Max. 4 SMS recipient mobile-phone numbers and 4 call recipient telephone numbers. In the areas where there is delay for sending SMS, RTU solves this problem by making calls, after sending SMS to chosen numbers, RTU will call the pre-set telephone number.

SMS Recipient: when the RTU is triggered by input, counter or alert of power down (or battery low under limit), SMS will auto-send to the recipients number. Set up the recipients of the SMS at the "SMS Settings" section. For each event, there are recipients to set, 4 numbers at most. The First SMS Recipient must be setup in valid.

Phone call Recipient: when the RTU is triggered by input , counter or alert of power down(or battery low under limit), RTU will auto-call to the recipients number and hung up, leaving a miss number. The recipient telephone number can be setup at the "Telephone Settings" section. Call auto-hang up time can be set at: Dial delay____ (10-30secs)

Notice:

In some GSM operators they use different SMS protocols, if the unit can't return the SMS confirmation is normally. It is not product problem. Also, you can try to add the country code before the number, see the below settings:

For example:
In China, the country code is +86, or 0086.
The user cell phone number is 13570810254 and has been assigned as a SMS Alert number; the simcard number in the panel is 13512345678.
Problem 1: Alarm but the user hasn't received the SMS Alert.
Solution: Please plus the country code while you setup the 13570810254 as SMS Alert number, means setup +8613570810254 to instead of the 13570810254.
Problem 2: The user number can receive the SMS Alert message from alarm panel, but the alarm panel cannot receive the commands from the user number.
Solution: Please add country code to the SIMCard number in the alarm panel. Means send sms commands to +8613512345678 to instead of 13512345678.
Solution 3: When you use cell phone dial another one, what number it will be displayed then you can set the displayed number as dial numbers; when you use cell phone send SMS to another cell phone, what number it will be displayed then you can set the displayed number as SMS Alert number, just use the "+" to replace the "00", also, you can try the "00".

2) Input

The four Input channels: IN1+/-; IN2+/-; IN3+/-; IN4+/- and there are four factors that can activate the RTU. Both the rising edge and the failing edge can activate the RTU.

1) Choosing the triggering channel: IN1+/-; IN2+/-; IN3+/-; IN4+/-
2) Choosing the triggering mode: on "IN1-4"
   > rising edge
   > failing edge
   > rising and failing edge
3) Edit the SMS content replying on "SMS Content: IN1-4 Rising/Falling Edge_____":
   The content of each event, no longer than 32 characters.
4) Choosing the SMS Recipient and Phone call Recipient

For example: if SMS are to be sent to Rep1 and Rep3 through channel 1, TEL1 and TEL3 are to be clicked on "IN1 SMS Recipients".

Notice:

IN1+/-; IN2+/-; IN3+/-; IN4+/-: when choose "Counter Function", these inputs can be used as multiplexed counter channel, the falling edge and the rising edge of them will be invalid. The channel can be activated by a pre-setting value (time or quantity). If there is overflow, it will loop.
Switch back battery on to save the value having counted.

Period send: When time up the RTU will report the value via SMS to recipients, after reporting the counter will not reset to zero. when counting to 655360, auto reset to zero.

1) Choose "Counter Function" >>' Period send', the inputs will count input trigger (or pulse), send the data periodically if clicked.
2) The period is set at 'timer__'; min is 1Minutes; max is 65535Minutes;
3) Choosing the SMS Recipient and Phone call Recipient of the channel.

Notice: If you setup period send of IN1, IN2, IN3, IN4 Event and set the time 60mins, then after 60mins, The RTU5000 will send SMS as below format: C1=nnnnnn; C2=nnnnnn; C3=nnnnnn; C4=nnnnnn; to recipients.
nnnnnn indicates counting value, value range is 1-655359, when counting to 655360, auto reset to zero.

For example:

A. You input C1= at IN1 counter, C2= at IN2 counter, C3= at IN3 counter, C4= at IN4 counter, and select period send function on IN1,IN2,IN3,IN4 event,
Then modem will send SMS like C1=nnnnnn; C2=nnnnnn; C3=nnnnnn; C4=nnnnnn; to recipients.
B. You input CAFEO at IN1 counter, blank at IN3 counter, and select period send function on IN1, IN3 event,
Then modem will send SMS like CAFEOnnnnnn; nnnnnn; to recipients.
(Note: The recipients number is decided by IN3 recipients only, it means the period send number is according to IN3 setting)

Value send: After the counter counts to the preset value, RTU will be activated to send SMS to recipients and then the counter will reset to zero automatically.

1) Choose 'Counter Function'>> 'Enable preset', If choose, the Inputs will count trigger (or pulse), when counts to the preset value, RTU will be activated to send SMS to recipients
2) The value is set on 'Preset Num____' range is 1~500000.
3) Edit the SMS content replying on "SMS Content: Counter___" .The content of each event, no longer than 32 characters.
4) Choosing the SMS Recipient and Phone call Recipient of the channel.

Sampling Interval: range 0-255; unit: ms
When set interval is "0", sampling frequent: 10khz
When the interval is "1", sampling period is 1ms, sampling frequent is 1000Hz, input inplus less than 500Hz
When the interval is "100", sampling period is 100ms, sampling frequent is 10Hz, input inplus less than 5Hz
Testing: connect a signal generator to IN3 channel. and also can use port switch board to send the serial data.

3) Output

There are two output channels: MOSFET Relay output (OPTO) and OC gate Output. Output mode is Pulse
Outputs trigger by SMS commands: Send or Stop sending or Send designated numbers of pulses.
The width and the period of the pulse can also be set.
OPTO Pulse Width___: the width for OPTO output pulse, unit is 10ms

OPTO Pulse Period___: the period for OPTO output pulse, unit is 10ms
OC Gate Pulse Width__: the width for OC output pulse, unit is 10ms
OC Gate Pulse Period__: the period for OC output pulse, unit is 10ms

4) AD Input Detecting

The max sampling data of AD is 255, it corresponds input is 5V. There are three events can trigger AD function:
Notice: if active the "AD Event", but without AD input, the value of voltage of AD is 0V.

Over limitation:

If AD input value is higher than the setting "higher value", the event will be activated.
1) Choose the 'Over limitation';
2) Fill value in "Higher value___".
3) Edit the SMS content replying on "AD Over Limitation_____":
The content of each event, no longer than 32 characters.
4) Choosing the SMS Recipient and Phone call Recipient
Notice: the alert SMS reports once every 5mins

Under limitation triggering:

If AD input value is less than the setting "lower value", the event will be activated.
1) Choose the 'Under limitation';
2) Fill value in "lower value___".
3) Edit the SMS content replying on "AD Under Limitation_____":
The content of each event no longer than 32 characters.
4) Choosing the SMS Recipient and Phone call Recipient
Notice: the alert SMS reports once every 5mins

Period sampling value send:

If 'Period Send' is clicked, RTU will send the AD input sampling value periodically.
1) Choose the 'Period Send' ;
2) Set the time interval of sending the AD value on 'Timer___'. the min is 10 seconds
3) Choosing the SMS Recipient
Notice:sending SMS content:AD=xxx
xxx indicate AD Sampling voltage value, value range is 0-255 (0-5V)

5) Battery event:

if the RTU detects that the backup battery power level is lower than the pre-setting "lower value", the event will be activated.
1) Choose the 'Under limitation' ;
2) Fill value in "lower value___". (> 153: equal to 3.6v)
3) Edit the SMS content replying on "Battery Under Limitation_____":
The content of each event，no longer than 32 characters.
4) Choosing the SMS Recipient and Phone call Recipient
Notice:when the battery is low about 3.4V, the device stop working. So the battery lower value should above 153.
1. Formula of Battery voltage: LowValue= battery voltage/6*255 = 42.5 * battery voltage.
2. The alert SMS reports once every 10 mins

6) RTU Initok

A. System initialization complete (by power supply or battery), send the SMS to recipient 1.

B. Report when power supply on, while supported by back-up battery, send the SMS to recipient 1

Edit the SMS content replying on 'RTU Initok ___'.

Notice: the initok SMS only report to "recipient 1"

7) Power down:

When the power supply disconnected or power off, the RTU will send SMS to recipient 1

Edit the SMS content replying on 'RTU Power down ___'.

Notice: The power down SMS only report to "recipient 1"

8) Password:

Four digits ASCII code.

9) Com Port

Select the Com port to communicate between GSM SMS Controller and Computer.

10) Download

Download the settings from computer to GSM SMS Controller. The" Serial Port Status" turns to green; "Communication" begins to flash

11) Upload

Upload the settings from GSM SMS Controller to computer.

12) Save

Save the settings to computer.

13) Read

Read the settings from the Saved file in the computer.

14) Stop

Stop the communication between the computer and GSM Controller.

7. Operating Instructions

The GSM RTU can support SMS Commands. The SMS Commands are below:

Notice:

The system will carry out the commands immediately (with no delay) after the Control Unit receive this SMS command.

7.1 Modify PASSWORD

xxxxEnnnn

"xxxx" stands for the old password (1-4 digits). "nnnn" stands for the new password

Return SMS

Change Password Ok!

Notice:

1. xxxx refers old Password; nnnn is new Password. It is constituted by 4 ASCII codes.
2. Factory default:1234.

3. The password is case sensitive

7.2 *Set up SMS recipients by SMS : Max 4 recipients*

xxxxRaaaaaaaaaaa ; bbbbbbbbbbbb;ccccccccccc;ddddddddd#
"xxxx" stands for the password (1-4 digits).
Return SMS
Change Recipients Ok!

Change or Cancel recipients: Re-set with new recipients. After sending the SMS, the setting contents will be instead to the last time

Notice:

1. aaaaaa, bbbbbbbbbbb……indicates the recipients mobile phone number. 1-16 ASC or digits.
2. the numbers are spaced between ' ; '
3. "+country code" must be added when SMS format requires
4. SMS Format: + Country Code and mobile phone number.
5. "R" in the SMS format must be capitalization

Exp: setting Recipients:

Sending SMS: 1234R+8613666504825;+23413666502528;13908333355# or xxxxR+123456;+45679;45646;45646#123 (the num after '#' are invalid)

Setting successfully: Change Recipients Ok!

7.3 *Set up Auto-call recipients by SMS : Max 4 recipients*

xxxxTeeeeeeeeee;fffffffffff;ggggggggggg;hhhhhhhhhhhhhhh#
"xxxx" stands for the password (1-4 digits).
Return SMS
Change Recipients Ok!

Change or Cancel recipients：Re-set with new recipients. After sending the SMS, the setting contents will be instead to the last time

Notice:

1. eeeeeeeee, hhhhhh……indicates the recipients mobile phone or PSTN number. 1-16 ASC or digits.
2. the numbers are spaced between ' ; '
3. "+country code" must be added when SMS format requires
4. SMS Format: + Country Code and mobile phone number.
5. "T" in the SMS format must be capitalization

Exp: setting Recipients:

Sending SMS: 1234T+8613666504825;+23413666502528;13908333355# or xxxxT+123456;+45679;45646;45646#123 (the num after '#' are invalid)

Setting successfully: Change Recipients Ok!

7.4 *Delay after auto-dialing* (for leaving missing call to recipients)

xxxxDTnn#
"xxxx" stands for the password (1-4 digits).
Return SMS
Change Dial Delay Ok!

Notice:

1. nn indicates the delay after device call recipients,Unit: second ,Range: 05-40
2. The default configure is 10secs.

7.5 Input(Counters)

A. Reset the counter to zero by SMS:

xxxxCC
"xxxx" stands for the password (1-4 digits).
Return SMS
Clear counter Ok!

B. Period send method:

When inputs were used as 'Period send' channel, the RTU will send to pre-setting recipients the SMS:

C1=xxxxxx;C2=xxxxxx;C3=xxxxxx;C4=xxxxxx

Notice:

xxxxxx: indicates the counting value at that time, the range of counting is 1-655359, when counting to 655360, auto clear to zero.

C. Fixed Value send method

When inputs were used as value trigger channel, the RTU will send to pre-setting recipients the SMS:

xxxxSCnnnnnn# nnnnnn# nnnnnn# nnnnnn#
"xxxx" stands for the password (1-4 digits).
Return SMS
Set Precounter Ok!

Notice:

1. nnnnnn: Pre-setting count amount; the range is 1-655359;
2. SMS format: 'xxxxSC1000#' or 'xxxxSC50#' are valid;
3. Count amount will not be lost after power off, save by working of battery.

When pulses from the sensor reach the pre-setting value, the GSM RTU send SMS to recipients:

-------- nnnnnn

Notice:

1. nnnnnn: indicates the counting value at that time, the range of counting is 1-655359;
2. the counter will reset to zero automatically after reporting SMS , and then counts repeat;
3. The value have counted will not be lost if power off (supported by battery).

7.6 AD:

Trigger AD to 'Period Send', the RTU will send the voltage sampling value periodically to pre-setting recipients

the SMS:

ADC=xxx

Notice:

xxx: indicates the voltage value at that perod, the range of is 0-255

Query AD

xxxxQA
"xxxx" stands for the password (1-4 digits).
Return SMS
C=xxx

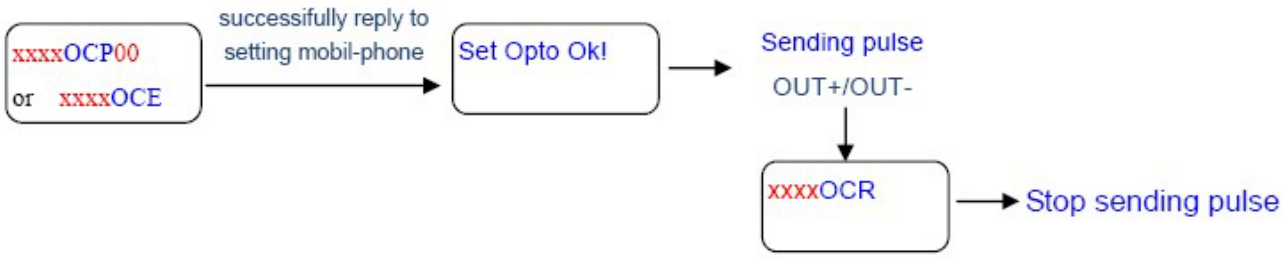
7.7. OC output channel setup

There is OC gate for output. SMS commands can be used to enable the output. And SMS commands can designate the numbers of impulse to be sent.

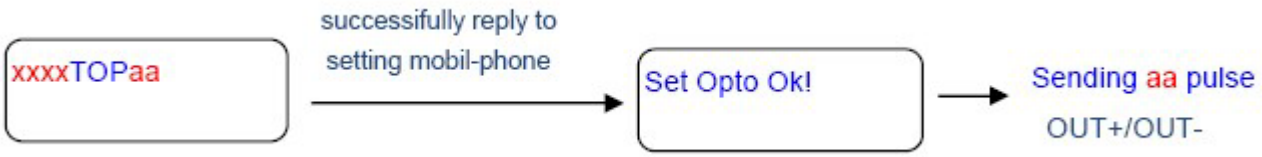
xxxxOCPaa
"xxxx" stands for the password (1-4 digits).
Return SMS
Set OC Ok!

Notice:

1. aa: output pulse times; setting range is 01-99;
2. pulse width/period: are optional.
3. when aa=00 the SMS unit send pulse constantly till send OCR to stop it.

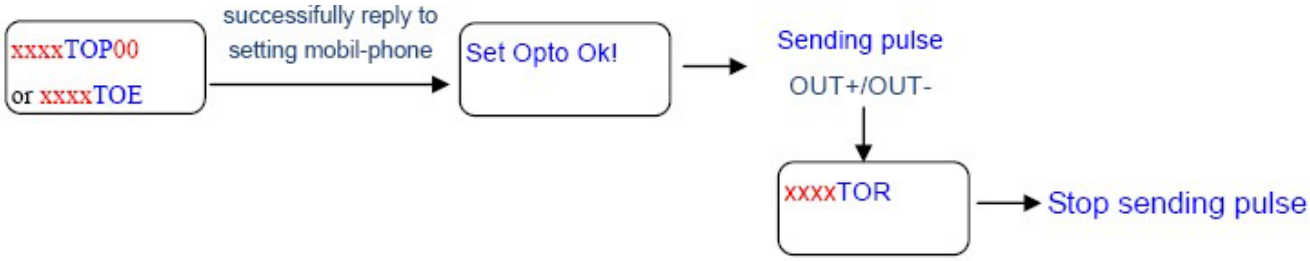


7.8 OPTO Output Port (MOSFET relay): OUT+/OUT-



Notice:

1. aa: output pulse times; setting range is 01-99;
2. pulse width/period: are optional;
3. when aa=00 the SMS unit send pulse constantly



7.9 *Wrong Message:*

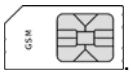
When the PWD is right, but the format of the SMS command invalid, you will receive the prompt SMS:

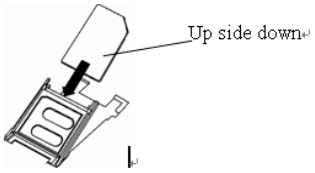
Format Error!

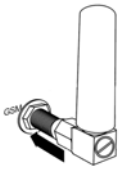
8. Installation

Before installing the control unit and sensors, please help to test the system firstly, including wired sensor, power supply, gsm signal, etc.

8.1 *Insert SIMcard into Control Unit*

In the backside of the control unit, please install the GSM SIM card  . The GSM ANT must be Vertical installation to ensure it in good working condition.





8.2 Connecting the Wired Sensors or outputs

Please help to see below wiring diagram, then fixed the related wired sensors, the sensors connect to the related inputs. Please help to ask an engineer to contact them.

8.3 Install the Mainframe

The mainframe should be installed in the position that person can not get it, and there're with a power source as well as enough GSM signal coverage.

9. Technical specifications

Parameter item	Reference scope
GSM Frequency	Default: 900/1800/1900Mhz , Optional: 850/1900/1800/1900Mhz
DC Power supply	Standard adapter: DC 12V/1.5A Min:7.5V Max:25V Type:12V
Power Current	Max:500mA Type :50mA
SIM Card	Supporting 3V SIM Card
GSM Antenna	50 Ω SMA Antenna interface, Cable type: Gain:3dBi cable-length:3-5meters connector :SMA Portable antenna: Gain:2dBi height: 5cm connector: SMA

Serial	RS-232C, Default communication parameter 9600,n,8,0,1
Input Type	4 Opt coupler (Iso)
Input Drive Voltage	Min:2.5V Max:48V ,
Input Drive Current	Min:0.5mA Max:45mA (continuous)
Input Reverse Patient Voltage	100V
Opt coupler (Iso) Output Current Drive ability	>100mA
Opt coupler (Iso) Output Patient Voltage	60V
Range of AD Voltage	Max: 50V Typ:0-5V
AD Input Digit	8BIT
AD Input Precision	+/- 2%
AD Input Impedance	50KOhm
OC Drive Current	>500mA (continuous)
Exterior dimension	110x85x23mm
Backup-battery:	3.7V 950MAh LI-ION
Temperature range	-20°C ~ +60 °C
Humidity range	Relative humidity 20~95% (condensation free)
Weight	130 g
** Electrical Characteristics @25°C	

10. Warranty

1) This system is warranted to be free of defects in material and workmanship for one year from the date of purchase.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions. In no event shall the manufacturer be liable for any alarm system altered by purchasers.

11.Trouble Shooting Guide

PROBLEM	CAUSE	POSSIBLE SOLUTION
GSM Module initialization failed	1) Backup battery with low voltage; GSM Module connection loose in transportation; 2) GSM Signal is too weak.	1) Please contact the AC Power; 2) Please help to take the panel to a mobile phone repairmen store, and then ask the engineer to check the GSM Module socket and the GSM Module connection; 3) Please change another position to install the alarm panel.
Automatically Restart	1) Backup battery with low voltage.	1) Please help to contact the AC Power.
False Alarm	1) Raising and failing setting is incorrect.	1) Please check the input type.

Alarm without SMS or Dial/ No action after send SMS command	1) GSM Operator communication protocol; 2) Haven't setup SMS Alert/Auto dial Numbers. 3) Caps Lock letters in the SMS Commands.	1) Please setup the SMS Alert Numbers; 2) Please help to see the sample of setup the telephone numbers; 3) Please check the commands with CAPS LOCK and correct format. 4) Also, please help to change another GSM Operator SIMCard to test it.

The End!

Any questions please help to contact us feel free.

Email Us: Sales@Kingpigeon.com.cn

Http://www.GSMalarmsystem.com

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