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

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

GSM/SMS/3G/4G Remote Alarm Controller Digital Input Monitoring Alarm Unit



S130/S140/S150 User Manual

Ver 2.0

Date Issued: 2017-05-17

King Pigeon Hi-Tech. Co., Ltd.

www.GPRS-M2M.com



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This handbook has been designed as a guide to the installation and operation of S130/140/150 GSM SMS 3G 4G remote Alarm Controller. 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. King Pigeon Hi-Tech.Co., Ltd, its employees and distributors, accept no liability for any loss or damage including consequential damage due to reliance on any material contained in this handbook. 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.

【UPGRADE HISTORY】

DATE	FIRMWARE VERSION	HARDWARE VERSION	DESCRIPTION
2009-03-06	Ver1.0	Ver1.0	Origin Version
2017-5-17	Ver2.0	Ver2.0	<ol style="list-style-type: none"> 1. Add DIN35mm Rail Installation; 2. Add 3G/4G Version; 3. Remove the Speaker & Microphone; 4. Compatible with the Wet Contact; 5. Add the Phase-Reverse Protection.

Model List

Model	GSM/3G/4G	Digital Input	Relay Output	Notice
S130	Optional	2	2	<ol style="list-style-type: none"> 1. Default version is GSM; 2. For 3G or 4G LTE version, please tell our sales where you would like to use them; 3. 2 Relay output, 1 for Alarm Link, 1 for SMS Control independently.
S140	Optional	4	2	
S150	Optional	8	2	

1. Brief introduction

The GSM SMS Controller is a very simple device which can be used for authorized door access, controlling gates, switching of remote equipments, car parking systems. Actually the GSM SMS Controller can be used in places which require turning ON/OFF your system, machines, and equipments remotely with a SMS text from your mobile phone and protect your assets.

Moreover, the GSM SMS Controller with multi-digital inputs for digital inputs, when any one of the inputs triggered, will start the siren or switch on the light automatically. In the meanwhile, the GSM SMS Controller will send SMS Alert to the owners immediately. This is very useful if you need protect your assets with low cost solution.

Typically 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 the unit when using GSM/3G/4G equipment is prohibited or might bring disturbance or danger.



Interference

All wireless equipment might interfere network signals of the unit and influence its performance.



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

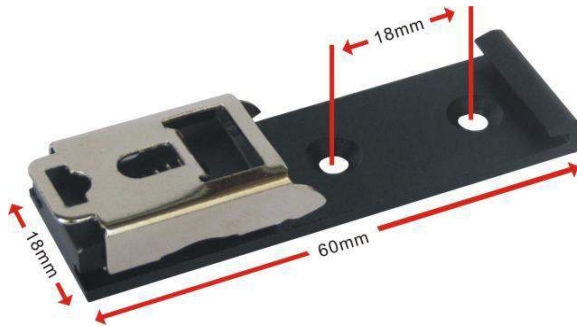
Alarm Controller X 1; Antenna X 1; AC/DC adaptor (12V1A) X1; User Manual X 1.

Note: The package does not include any SIM card.

Optional Accessories: (Wired Detectors)

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

35mm Standard DIN rail fixed Bracket



4. 1Mainly Features

- Can be operated from anywhere, no distance limitation;
- Quad band 850/900/1800/1900Mhz GSM GPRS Module inside;
- 3G UMTS/HSDPA/4G Modules are optional.;
- 32 bit MCU, reliable performance with in-built watchdog;
- Support 2 relay outputs,7A@125VAC,5A@125VAC, 20A@14VDC;
- Alarm-Link Output Relay can be switch on 0-120minutes if controller unit triggered;
- 2/4/8 Alarm logic digital inputs, NC or NO and EOL is optional;
- Compatible with the Wet Contact , Reverse protection, to avoid the wrong connection damage;
- 1 Siren output, can connect to the siren directly, once alarm occurred, will trigger the siren;
- 3 SMS Alert numbers and 5 Alarm dial Telephone numbers can accept to the alarm message;
- Supports armed, disarmed, inquiry status, switch on or off Independent Output Relay by SMS Commands;
- Password protected, prevents unauthorized user;
- Can be set up and programmed from PC Configurator by USB cable;
- In-built rechargeable battery, power lost/recover alarm, low maintenance, 24×7 operation;
- Support Android/IOS APP, easily & friendly for use/configuration.
- Support USB configure parameters, load profiles, and upgrade the firmware via PC;
- Wall mount or 35mm standard DIN rail Design, convenient installation,
- Metallic cover, small size, exterior dimension is L70*W88*H30mm.

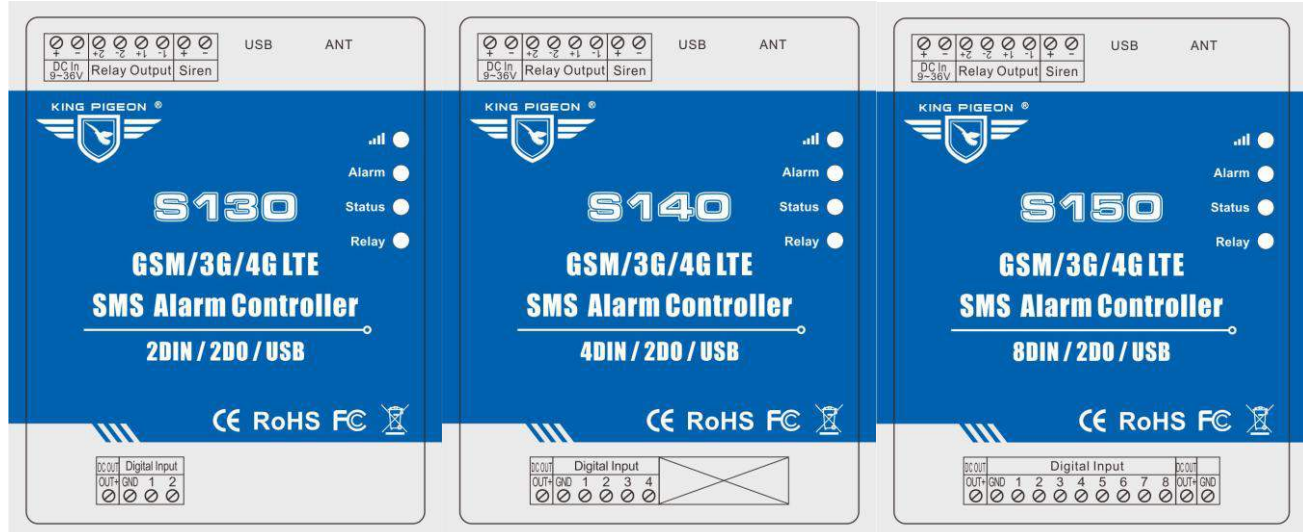


4. 2 Specifications

Item	Reference Scope
DC Power Supply	Standard Adapter: DC 12V/1A Range 9~36VDC
Power Consumption	Standby:12V/70mA; WorkingMax.:12V/300mA
GSM/3G Frequency	2G: 850/900/1800/1900Mhz 3G version Optional: (UMTS/HSDPA) W:900/2100@UMTS 900/1800@GSM; C:850/1900@UMTS 850/900/1800/1900@GSM; T:850/2100@UMTS 850/900/1800/1900@GSM; 4G LTE
SIM Interface	Supporting 3V SIM Card
External Antenna	SMA Antenna interface, 50 Ohm
Serial Interfaces	1 USB Port
Digital Inputs	2 / 4 / 8 NC or NO and EOL is optional
Relay Outputs	2 Relay Outputs 7A@125VAC 5A@125VAC 20A@14VDC
Siren Output	1
Backup Battery	3.7V 900mAH
Exterior Dimension	70*88*30mm
Installation	35mm standard DIN rail(Optional) Wall mount (Default)
Net Weight	500g

5. Physical Layout and Installation Diagram

5.1 Control Unit physical layout

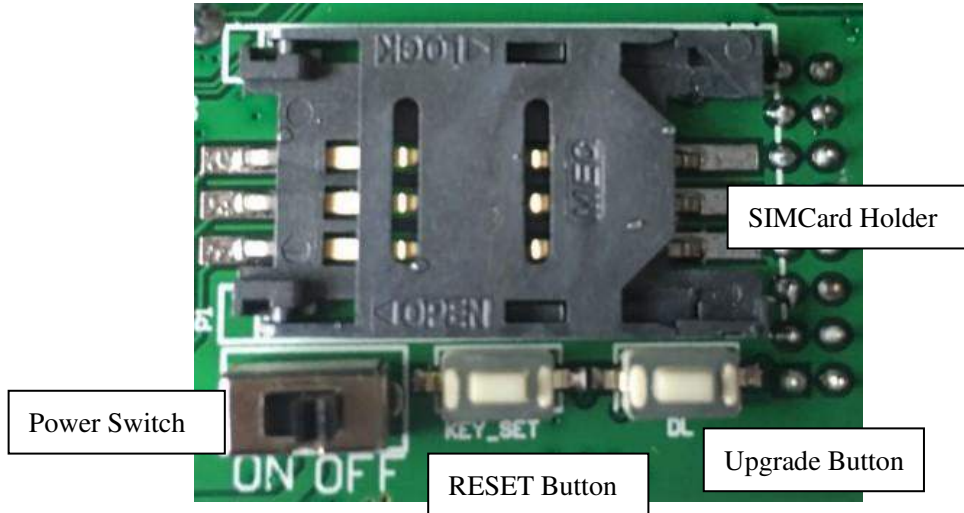


LED Indicator Instruction

	Cellular indicator, registering cellular Network flicks quickly, registered successful will 2seconds flick once.
	Alarm indicator, while alarm occurrence, will turn on.
	Armed indicator, in Armed mode, will turn on, in disarm mode, will turn off.
	Relay indicator, any one relay close, will turn on.

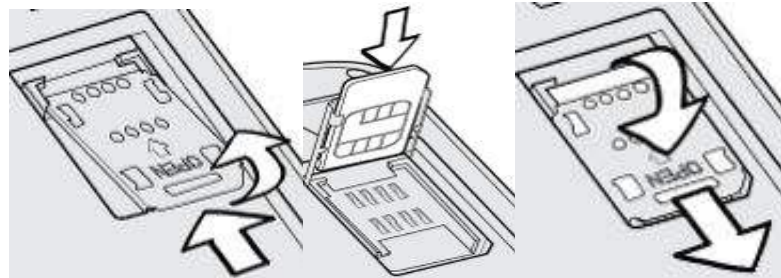
5.2 Interface Instructions for installation

At the backside of the panel, please use the tool to remove the screw, and you can see the below:



1) Insert SIMCard

Slide the SIM card holder in the direction of "OPEN" (etched on the SIM card holder), and then flip it open. Then Insert the SIM card with its gold contacts facing down and its cut-off corner facing out the SIM card slot. See below photo. Close the SIM card holder and then slide it in the opposite direction of "OPEN" to lock it. See above photo.



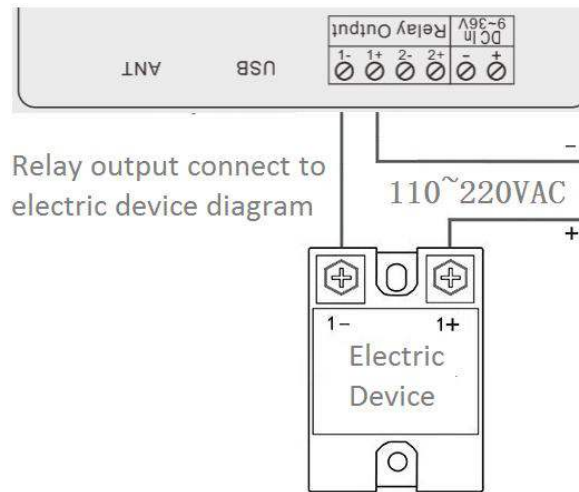
2) Connect External DC Power and wired Sensor and relay

See below interface, please contact the correct wires.

Interface Instruction		
DC in 9~36V	+	DC9~36V positive input, 1.5A, for power on the Unit;
	-	DC9~36V negative input, 1.5A, for power on the Unit;
Relay Output	R1	Relay 1 output; Alarm-Link Output Relay
	R2	Relay 2 output; Control by SMS Commands
Siren	+	For connect the Siren
	-	For connect the Siren
USB	USB interface, used it to communicate with the computer.	
ANT	GSM/3G/4G antenna.	
DC OUT	OUT+	+12VDC@1A power output for wired detectors.
Digital Input	GND	Ground point; connect to another wire of the wired Detector.
	1~8	Digital input 1~8, connect to one wire of the wired Detector.

3) Connect electrical device to Relay outputs.

The unit provides 2 relay outputs; it can be used for control different device according to requirements. The connection diagram is below:



6. Initialize/Reset the GSM unit

The Unit can be reset to factory default once mistake programmed. Please follow below steps to initialize it. After initialized, the parameters will set as factory default.

- 1) Switch off the Unit
- 2) Press and hold the RESET button;
- 3) Switch the Power Switch to ON side to powered on the Unit, holding 5 seconds, then loose the RESET Button.
- 4) Restart the unit then recovery to factory default settings, and will enter to work mode.

7. Settings&Operation

The GSM SMS 3G 4G Alarm Controller is user-friendly design. The user can setup it or export historic data by the PC Configuration through USB cable, and upgrade firmware by USB port. The GSM SMS 3G 4G Alarm Controller also can be control by SMS Commands or Android APP and IOS APP, please refer to this list:

SMS Command List

SMS COMMAND	Functions & Actions
AA	To arm the system, in this case, any detector triggered will alarm.
BB	To disarm the system, in this case, any detector triggered will not alarm.
CC	To switch ON the independent output relay
DD	To switch OFF the independent output relay
EE	Inquiry the GSM SMS Controller Status

Tips: *The commands should plus Password, the format is Password+SMS Command. i.e.: if the password is 1234, then you can send 1234AA to arm, 1234BB to disarm. The password can be modified by PC Configurator.

Tips!

- 1) Please insert the SIM Card firstly, and install the GSM/3G/4G Antenna, please power on to check the LEDs status according to above mentioned LED Definitions, keep switch on it during the programming.
- 2) The PC Configuration in the CD, please click it to run it. Also can download from www.GPRS-M2M.com under S130/140/150 page directly.

Below is the steps to setup the parameters by PC Configuration, please follow it step by step.



Start to Configure:

Step1: Install the Configurator

The Configurator in the CD or download from www.GPRS-M2M.com, then installs it on the computer.

Step2: Connection

Please insert the SIM Card, and install the GSM/3G/4G Antenna.

Step3: Connect the Alarm Controller to the PC by USB Cable. And connect the external DC Power to DC Power Ports, Power on, and switch on the device, see below:

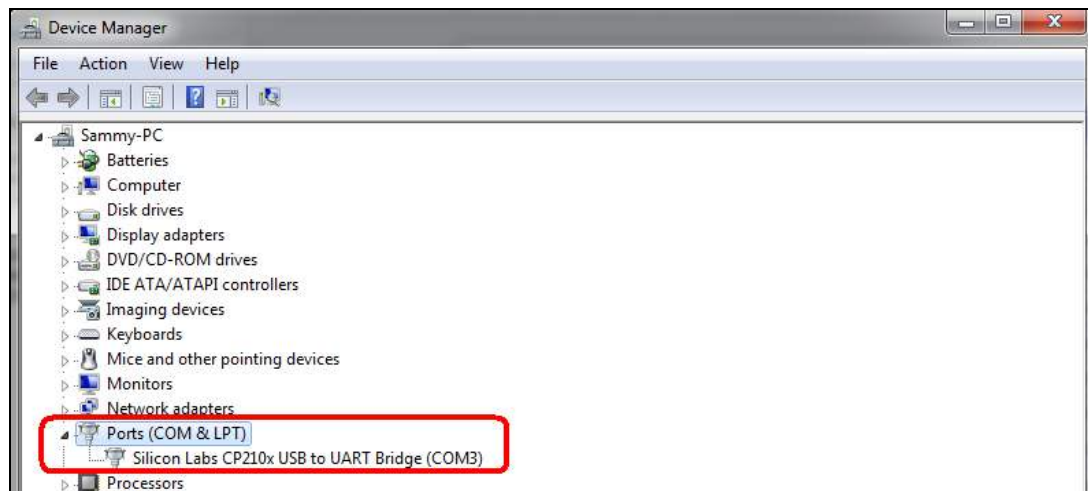


Step4: Install USB Driver

Install the USB Driver to the computer from the CD firstly. When successful, it can be found out at the device manager of the XP or Windows 7 or Win8/Win10, please see the below photo.

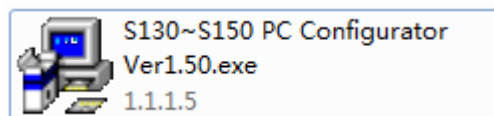
Also, the driver for different OS can be downloaded from Silicon Laboratories, Inc.

<http://www.silabs.com> , the model is CP210x.



Step5: Run the Configurator (Compatible with Windows XP/7/8/10)

Tips: In some computer, it required download net framework 4.0 while installation, then please click "Yes" to go to Microsoft website to download this service pack.



Step5: Choose the correct "COM port", then can start to programming

Details please check the picture as below:



GSM SMS Controller Alarm Configurator Ver1.50

Attention: Please switch on the unit after you press "Save Settings" button!

COM Settings: Com Port **com1** [Save Settings] [Read Settings] [Save Profile] [Load Profile] [Stop]

Alarm Dial Tel Numbers	Input Type	When Input Activated SMS Content	When Input Recovered SMS Content	Alarm Link Output Relay
TEL No.1: 008613570810254	Input 1: NO	Water Level High Alarm	<input checked="" type="checkbox"/> Don't Care Back to Normal	<input checked="" type="checkbox"/> Enable/Disable
TEL No.2: 008615815589126	Input 2: NC	Temp High Alarm	<input checked="" type="checkbox"/> Don't Care Back to Normal	<input checked="" type="checkbox"/> Enable/Disable
TEL No.3: []	Input 3: EOL	Wired input 3 alarm	<input checked="" type="checkbox"/> Don't Care Back to Normal	<input checked="" type="checkbox"/> Enable/Disable
TEL No.4: []	Input 4: NO	Wired input 4 alarm	<input checked="" type="checkbox"/> Don't Care Wired input 4 Recovered	<input checked="" type="checkbox"/> Enable/Disable
TEL No.5: []	Input 5: NC	Wired input 5 alarm	<input checked="" type="checkbox"/> Don't Care Wired input 5 Recovered	<input checked="" type="checkbox"/> Enable/Disable
SMS Alert Numbers	Input 6: NO	Wired input 6 alarm	<input checked="" type="checkbox"/> Don't Care Wired input 6 Recovered	<input type="checkbox"/> Enable/Disable
SMS No.1: 008613570810254	Input 7: NC	Wired input 7 alarm	<input checked="" type="checkbox"/> Don't Care Wired input 7 Recovered	<input type="checkbox"/> Enable/Disable
SMS No.2: 008615815589126	Input 8: NO	Wired input 8 alarm	<input checked="" type="checkbox"/> Don't Care Wired input 8 Recovered	<input type="checkbox"/> Enable/Disable
SMS No.3: []				

Other Settings:

Sound Alarm--When alarm happened,the siren will make sounds for 1 minutes.

GSM Jammer Alert--When no GSM Signal for 90Seconds,will alarm.(Not Recommend)

ARM--When Switch On the GSM Controller will enter into Armed Mode.

Report Time: 0 [0--240Hours]--Automatically Send SMS to SMS No.1 to alert the GSM Controller Condition.

Alarm Delay Time: 0 [1-90Seconds]--The delay time to carry out the alarm.

Relay working Time: 0 [0-120Minutes]--The working time of the Alarm-link output relay when alarm happened.

Powerdown Alert: Don't Care [] --When AC Power Goes off,how long to send SMS to SMS No.1 to alert user.

Password: 1234 [---4 digits only,The password to access the GSM Controller when use SMS Commands to control it.]

Serial Port Status: Communication Information

Function Table 1

Items	Description
Com Setting	Select the Com port to communicate between GSM SMS Controller and Computer.
Save Settings	Save the present settings from computer to GSM SMS Controller.
Read Settings	Read the GSM SMS Controller present settings to computer.
Save Profile	Save the present settings from computer as a file.
Load Profile	Load the settings from the Saved file in the computer.
Stop	Stop the communication between the computer and GSM Controller.
Alarm Dial Tel. Numbers	Please add the country code, e.g.: +86 or 0086 in China. When alarm, the unit will call these numbers one by one after sent out SMS Alarm message. Please see below tips.
SMS Alert Numbers	Please add the country code, e.g.:+86 or 0086 in China. When alarm, the unit will send related Digital Input SMS Alert Content to these numbers one by one firstly.
Input Type	Disable: Means this input is invalid; NC: Normal Close, open will alarm; NO: Normal Open, close will alarm; EOL: End of Line, Means must be connected with a 2.2K resistor between the GSM SMS controller and digital detector. See installation diagram.
When Input Activated SMS Alert Contents	These words or sentences will be sent to the SMS Alert Numbers once the related inputs triggered. Max. Characters: 34. If the inputs keep the triggered status, the GSM SMS Controller will handle it as one alarm case, will stop to send SMS Alarm message till the inputs recovered and triggered again. This is very useful for the detectors continue keep the triggered status, like temperature detector, water level detectors, etc.
When Input Recovered SMS Alert Contents	These words or sentences will be sent to the SMS Alert Numbers once the related inputs recovered. Max. Characters: 34. If you tick the Don't Care means when this input recovered, will not send SMS to SMS Alert Numbers. If you like to get SMS alert when the Inputs recovered, then please don't



	tick it, in this condition, the GSM SMS Controller only send SMS to all SMS Alert Numbers, will not dial the Alarm Dial Tel. Numbers. This is very useful for owners to know when the inputs recovered, like temperature detector, water level detectors, etc.
Alarm Link Output Relay	Tick it to setup when this input triggered, the alarm link output relay should close, the relay close time according to Relay Working Time . Otherwise, the alarm link output relay will not close.
Sound Alarm	Tick it to setup the siren make sounds for 60 seconds when Alarm occurrence.
GSM Jammer	Tick it to setup when the unit detected no GSM signal for more than 90 seconds, the siren should sound 60seconds, and alarm-link output relay close 4minutes.(Don't recommend)
Arm	Tick it to setup the unit to arm mode once power on. In this case, any detector triggered will alarm. The system will send out the preset SMS text to SMS alert numbers, and dial the Alarm Dial Tel. Numbers one by one, in the meantime, the siren will sound 60seconds and the alarm-link output relay will close, the relay close time according to Relay Working Time . Otherwise, the system will in disarmed mode after power on.
Report Time	Fill it to setup the Report time gap, Range: 0~240Hours. The unit will automatically send its status to the 1 st SMS alert numbers according to this setting. Only in Armed mode is valid.
Alarm Delay Time	To setup the delay time after any input triggered. The range is 0~90Seconds.
Relay Working Time	To setup the Alarm-Link Output Relay Close time when alarm happened. The range is 0~120Minutes.
Power Down Alert	To setup when AC power goes off, how long to send SMS to the 1 st SMS Alert Number. Don't Care means when AC Power goes off will not send SMS to the 1 st SMS Alert Number. Immediacy Means will send SMS to the 1 st SMS Alert Number immediately. When AC goes on, the GSM SMS Controller will send SMS to 1 st SMS Alert Number.
Password	To verify the SMS commands from the authorized users and modify new password.

Step6: Please setup the GSM SMS Controller parameters, the details please see below **Function Table 1**;

Step7: After you finished the setup, then press "**Save Settings**" button ,after 2Seconds, it will show the Setup successful. If it hasn't show the setup successful, it means the setup is failure, please check the Com port and USB connection.

Step 8: Switch off the unit then remove the USB cable, and Switch on the Unit to start to make it work.

If it hasn't show the setup successful, it means the setup is failure, please check the Com port and USB connection, then try to repeat the Step1~Step7 again.



8.SMS commands & APP (Recommend to use the APP)

Notice:

1. The default Password is **1234**.
2. The unit cannot support PIN Code Protected SIMCard.
3. You can program the GSM unit with SMS commands using your phone.
4. Remember that commands must be **CAPITAL LETTERS**. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.
5. The **pwd** in the commands is means the password, when you use it, please in stand of it by the digital number; the capital letters **PWD** is the command letter, use PWD directly.
6. In some GSM operators they use different SMS parameter; the units can't return the SMS confirmation in some gsm operators, but it can performance the functions correctly. Also, you can try to add the country code before the number, see the below settings:

For example:

E.g.: the country code is **0086**, or **+86**.

The user cell phone number is **13600000000** and has been assigned as a SMS Alert number, the simcard number in the panel is **13512345678**.

When you setup the number as the authorized number, please setup as 008613600000000 or +86136000000000. Not 13600000000.

7. If the password is correct but the command is incorrect, the S264/5/6 will return: **SMS Format Error, Please check Caps Lock in Command!** So please check the Command, or add the country code before the telephone number or check the input is in ENGLISH INPUT METHOD and CAPS LOCK. If password incorrect then will not any response SMS.
8. Once the GSM Unit received the SMS Command, will return SMS to confirmation, if no SMS return, please check your command or resend again.
9. The SMS commands that you will certainly use in the GSM units are the following:

****SMS Commands For Operation the S130/140/150****

The users can Arm/Disarm/Inquiry system status, Switch on or off the independent output relay by sending SMS Commands to the Control unit. The SMS Commands are below:

Notice:

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

8.1 Armed

xxxxAA
"xxx" stands for the password
(1-4 digits).
Return SMS
Armed Mode activated.

Example
1234AA
When the Password is 1234

8.2 Disarm



xxxxBB

“xxxx” stands for the password
(1-4 digits).

Return SMS

System deactivated.

Example

1111BB

When the Password is 1111

8.3 Switch On the independent output relay

xxxxCC

“xxxx” stands for the password
(1-4 digits).

Return SMS

Output Relay Closed.

Example

1111CC

When the Password is 1111

8.4 Switch OFF the independent output relay

xxxxDD

“xxxx” stands for the password
(1-4 digits).

Return SMS

Output Relay Opened.

Example

1111DD

When the Password is 1111

8.5 Inquiry System Status

xxxxEE

“xxxx” stands for the password (1-4 digits).

Return SMS

Armed or At House or Disarmed

AC Power is Ok or AC Power is failed

GSM Value is 17 or other value

Output Relay is Closed or Output Relay is opened

Notice:

The Output relay status in the Return SMS is the independent output relay status. It is not the alarm link Output Relay Status.

9. Installation

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

9.1 Connecting the Wired Detectors and Electricity equipments

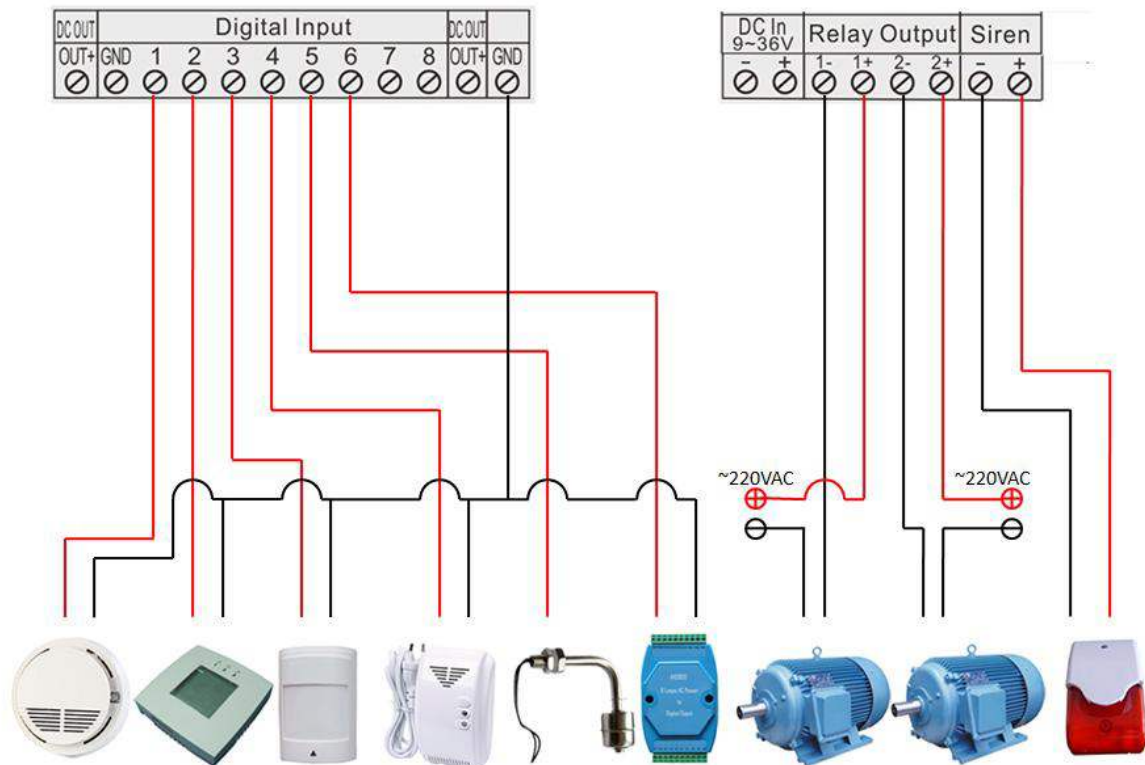
Please help to see below wiring diagram, then fixed the related wired detectors; the detectors connect to the related digital inputs.

Tips!

- 1) Please setup the Disable(Default), NC, NO, EOL type in the PC Configurator correctly;
- 2) If you setup the input type as Disable (Default), then the input port will be invalid. We recommend customer setup the

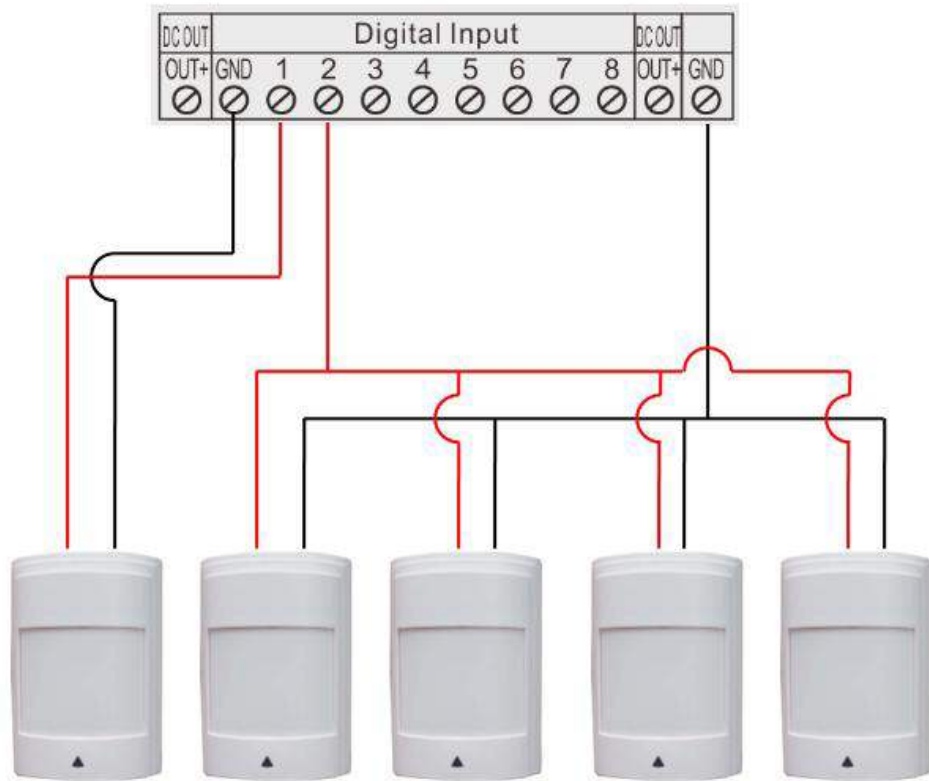
no-use input port as Disable type.

- 3) If you setup the input type as NC, the detector type must be NC, and if more than one detector contact to one input port, they're must be in series connection. Please see below diagram.



- 4) If you setup the input type as NO, the detector type must be NO, and if more than one detector contact to one input port, they're must be in parallel connection. Please see the below diagram.

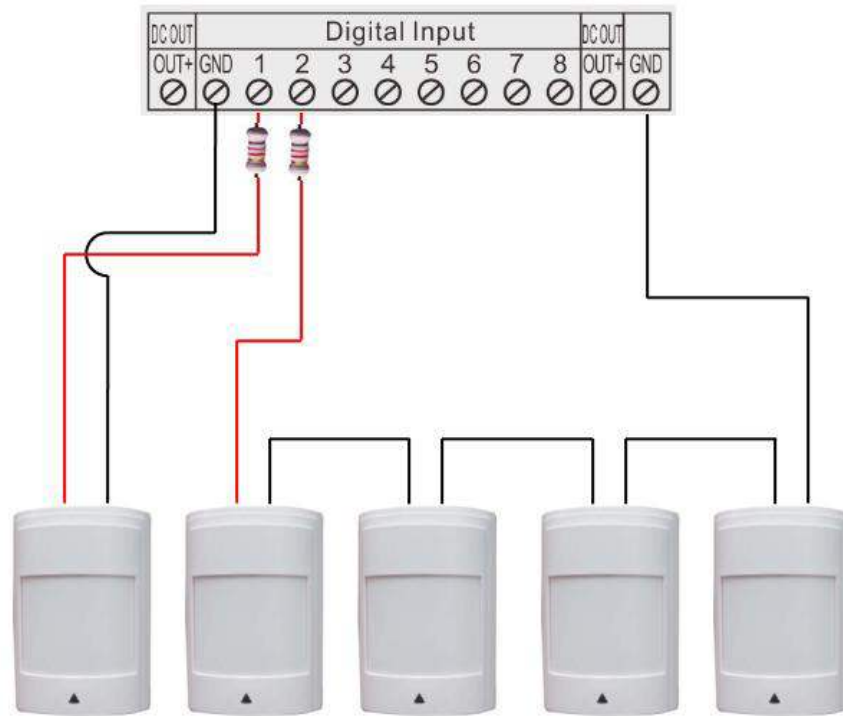
NO Type Connection



5) If you setup the input type as EOL, (This type is very useful to monitor the detectors connection condition; intruders cut the detectors' wires.)

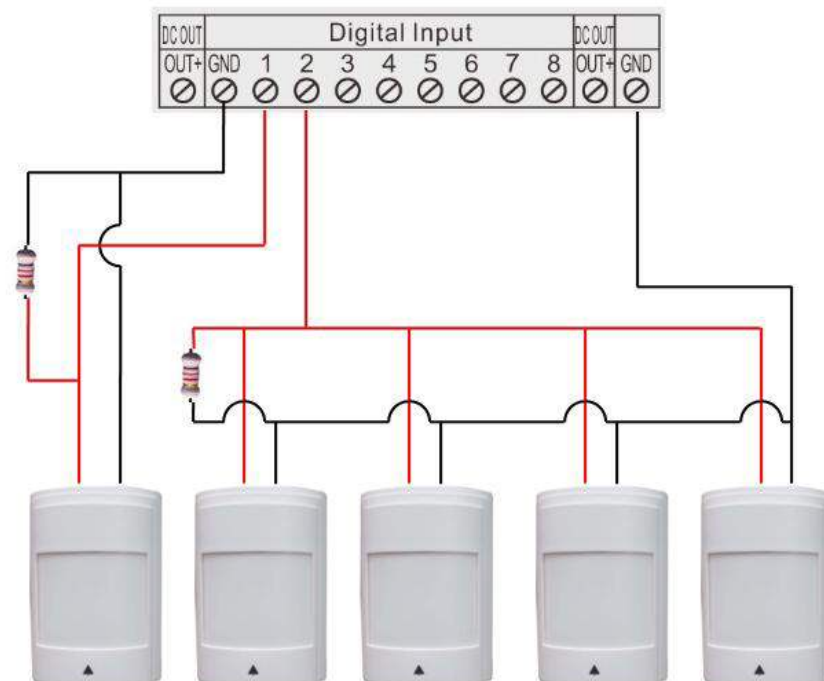
- a) if the detector is NC type, then must be in series connection with a 2.2K Resistor;
- b) if more than one NC detector contact to one input port, all detectors are NC type, and must be in series connection with a 2.2K Resistor, the 2.2K Resistor must be placed in the last detector. Please see the below diagram.

NC EOL Type Connection



- c) if the detector is NO type, then must be in parallel connection with a 2.2K Resistor;
- d) if more than one NO detector contact to one input port, all detectors are NO type, and must be in parallel connection with a 2.2K Resistor, the 2.2K Resistor must be placed in the last detector. Please see the below diagram.

NO EOL Type Connection



- 6) The Unit built-in 2 240VAC@3A rated relays. Please make sure the power cord rated while you connect to equipment device. Also, please make sure the power consumption is less than 250W for long time working (Approximate 2Hours). If you need heavy equipment, please connect an additional relay ;(Notice: When AC Power goes off, the Relay will not work.)
- 7) The R1+ and R1- are for alarm-link output relay, when the system alarm, will close, the relay close time according to **Relay Working Time**. The rated output power is 700W. If you need heavy equipment, please connect an additional relay.
- 8) The R2+ and R2- are the output relay for SMS Command, CC is close, DD is open, and EE is inquiry the status.
- 9) The +12VDC is for the Detectors, if the detectors need 12VDC power, then please contact it to the +12VDC. The 12VDC power is from external power, not from backup battery. So please note: When AC power failure, the +12VDC point will no power supply.

9.2 Typical application

One of the typical applications of the GSM SMS Controller is for automatically water tank monitoring and control solution. Please help to see below diagram. Also it can use to lots of other solutions.

E.g.:

Application Sample 1

Long Distance Automatically Water/Oil Tank Monitoring and Control Solution

This solution is suitable for the tank far away the Pump Motor, the water level detector can use other types. Also, the user can use the SMS Command to switch on or switch off the Pump motor when use the independent output relay. This solution is suitable for lots of other similar monitoring applications.



Method:

1. Use the Water Level Sensor(WL-03) to detect the water level, it can detect the low level and high level, 2 wires for low level, connecting to S130 Input 1, 2 wires for high level, connecting to S130 Input 2.
2. Set the SIMcard Number in B side S130 as the first SMS alarm number in A side S130, and modify the SMS Alert content as "CC" to input 1, "DD" to input 2. so when Low level detected, the A side S130 will send CC command to B side S130 to switch ON the Pump, when high level detected, will send DD to B side S130 to switch OFF the Pump!

Explanation:

- 1) Use the water level detector (WL-04) to detect the water level, it can detect the low level and high level, two wires for low level, connecting to input 1, two wires for high level, connecting to input 2.

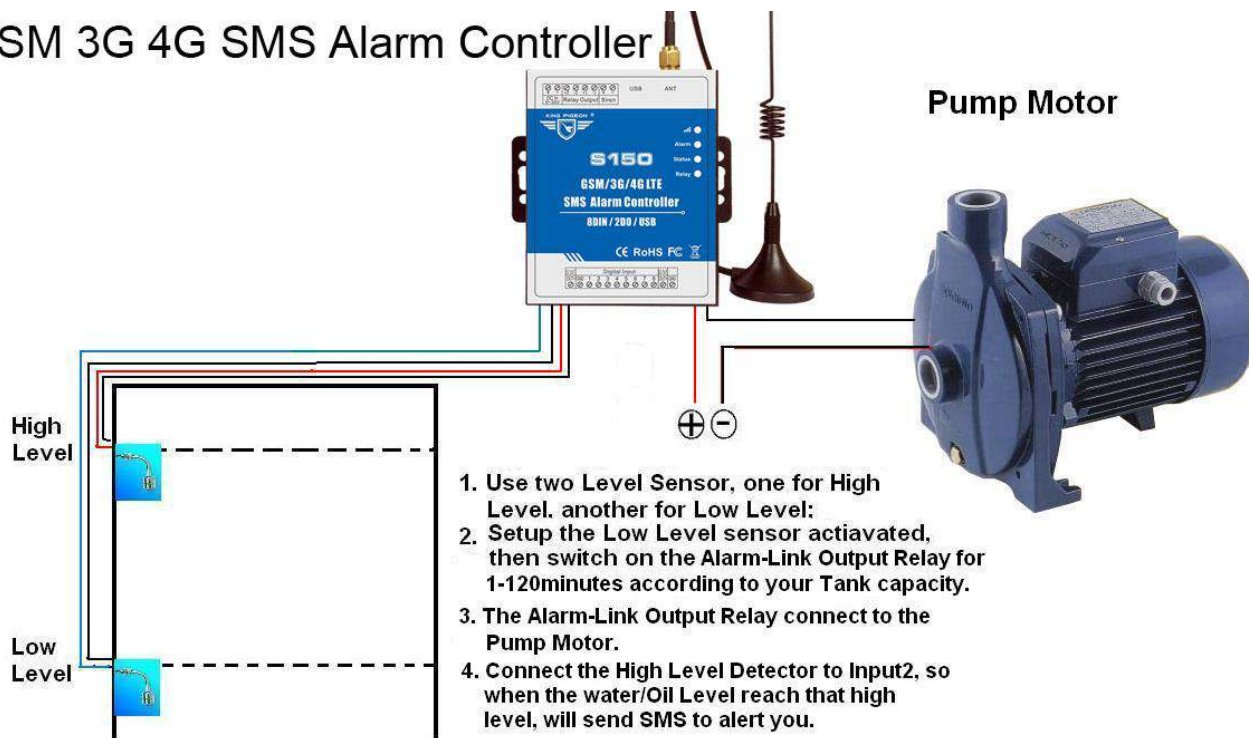
- 2) Set the SIMCard Number in B side GSM SMS Controller as the first SMS Alarm number in A side GSM SMS Controller, and modify the SMS Alert content as **1234CC** (1234 stands for password) to input 1, **1234DD** to input 2. So when Low level detected, the A side GSM SMS Controller will send **1234CC** command to B side GSM SMS Controller to switch ON the Pump, when high level detected, will send **1234DD** to B side GSM SMS Controller to Switch OFF the Pump. Means the A side alarm SMS message as the B side GSM SMS Controller Command.

Application Sample 2

Local Automatically Water/Oil Tank Monitoring and Control Solution

This solution is suitable for the tank nearby the Pump motor, and the owner know how many minutes that the pump motor can fill the water to the high level. The water level detector can use other types. Also, the user can use the SMS Command to switch on or switch off the Pump motor when use the independent output relay. This solution is suitable for lots of other similar monitoring applications.

GSM 3G 4G SMS Alarm Controller



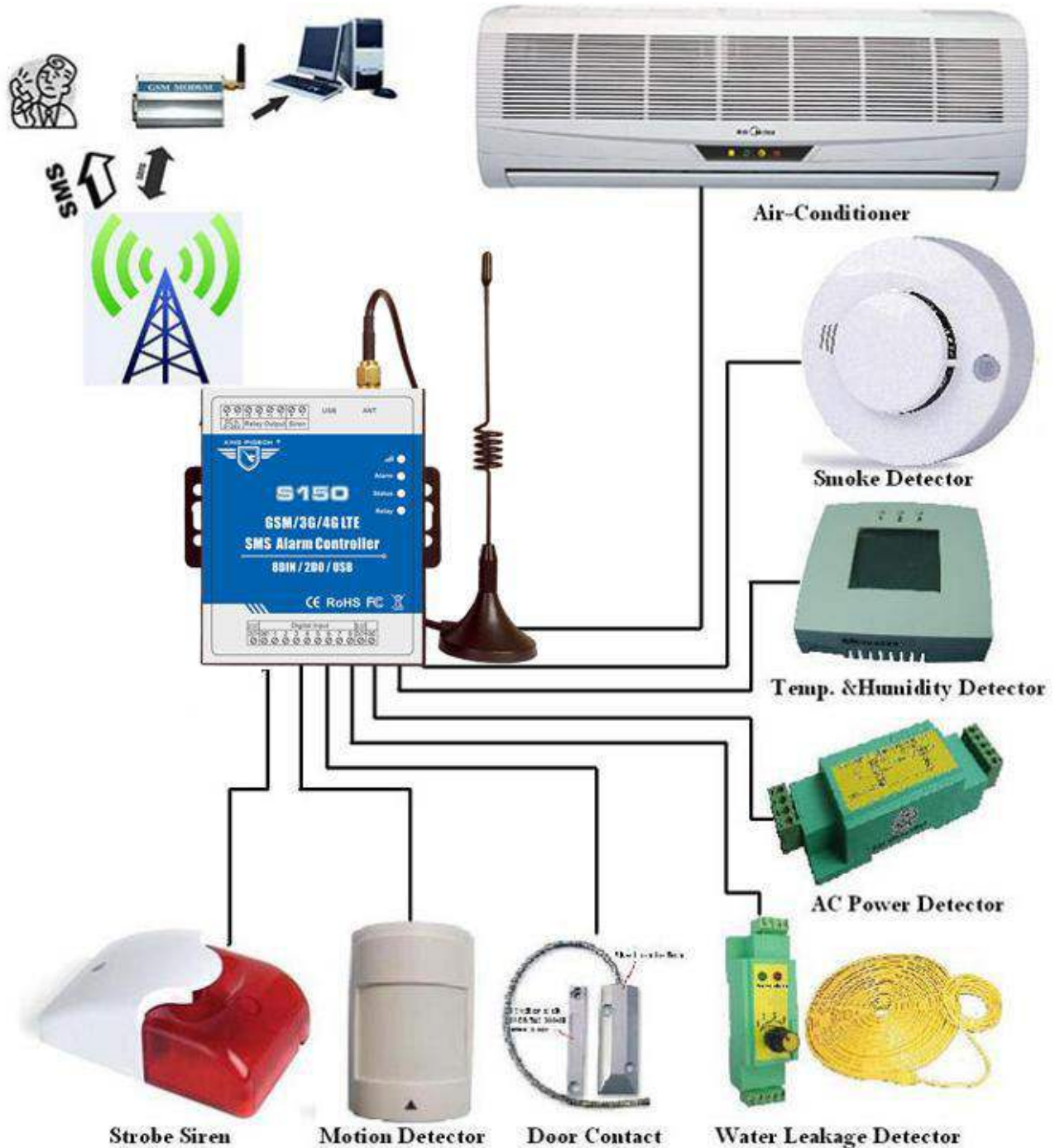
Water Level Sensor.

Application Sample 3

Environment Condition Monitoring Solution

This solution is suitable for environment condition monitoring, when the temperature or humidity exceed the pre set value, the air conditioner will switch on. Also, the user can use the SMS Command to switch on or switch off the air conditioner when use the independent output relay. This solution is suitable for lots of other similar monitoring applications.

GSM Environment Condition Monitoring Solution





9.3 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/3G/4G signal coverage.

10. Trouble Shooting Guide

PROBLEM	CAUSE	POSSIBLE SOLUTION
GSM Module initialization failed	1) Backup battery with low voltage; GSM/3G/4G Module connection loose in transportation; 2) 3G/4G 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.
Automaticall y Restart	1) Backup battery with low voltage.	1) Please help to contact the AC Power.
False Alarm	1) PIR Motion detector installation incorrect; 2) NC/NO/EOL is incorrect.	1) Please see the PIR Motion detector installation user manual carefully; 2) Please check the detector NC/NO type, and you're sure connect a 2.2K Resistor in series in the un-use input ports.
Alarm without SMS /Dial/ No action after send SMS	1) GSM Operator communication protocol; 2) Haven't setup SMS Alert/Auto dial Numbers. 3) Caps Lock letters in the SMS.	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.

11. Upgrade Firmware

The S130/140/150 supports upgrade firmware via USB port directly. If we upgraded the firmware functions of the data loggers, we will inform you to upgrade the firmware if you required. If there any new requirements of the present functions caused it should update the firmware, the user can upgrade them directly by USB port. If you required upgrade, please contact us to modify the firmware according to you requirements, and we will provide the upgraded firmware to you to upgrade them.

12. Warranty

This system is warranted to be free of defects in material and workmanship for one year. 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

The End!

Any questions please help to contact us feel free.

[Http://www.GPRS-M2M.com](http://www.GPRS-M2M.com)