

GSM SMS SECURITY ALARM

S120

User Manual

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Model List

| Model No. | Enclosure | Wireless Zone | Wired Zone | Backup Bat. | Output | Alarm Log | Siren Sound Time |
|-------------|-----------|---------------|------------|-------------|--------|-----------|------------------|
| S100 | Plastic, | 16 | 0 | 1 X1200mAH | 2 | 20 | 60 Seconds |
| S110 | Plastic | 16 | 8 | 1 X1200mAH | 2 | 100 | 60 Seconds |
| S120 | Metallic | 16 | 20 | 3 X1200mAH | 2 | 100 | 120 Seconds |

Notice: 1. All of the S100,S110,S120 inbuilt 1 Alarm Link relay output, 1 independent relay output for SMS Commands.
2. All of the S100,S110,S120 are provide free charge Android Apps. Please download from our official website.

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 Alarm System Status |

***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 AA~EE must be Caps Lock. The password can be modified in LCD Menu.**

1. Brief Introduction

The GSM SMS Security Alarm S120 is a User-Friendly concept and new security protection solution special for Residential areas, business area, commercial area, office, factory, industrial area and other Variety applications.

The GSM SMS Security Alarm inbuilt one reliable quad-band GSM Module, integrated high performance MCU inside, includes lots of safety protection required functions, and lots of potential demands for safety protection applications, and integrated the User-Friendly Human-Machine Interface design and easy-to-use concepts.

The GSM SMS Security Alarm S120 is very suitable to remotely monitoring assets from theft-against, safety condition detection, switch on or off electric equipments by simple SMS Commands from worldwide, no distance limitation.

The user can receive SMS Text and incoming from the S120 once the alarm occurrence. Also, the user can remotely switch ON or OFF the electric equipments on-site by SMS Commands. Moreover, the user can call in the S120 to listen in or create two way voice communication with the person on-site.

Moreover, the S120 supports Android Apps, though the Android Apps, the user can quickly to Arm, Disarm, Inquiry Status and Switch ON or OFF equipments no need to program the SMS commands every time.

2. Safety Directions



Safe Startup

Do not use GSM Alarm System when using GSM equipment is prohibited or might bring disturbance or danger.



Interference

All wireless equipment might interfere network signals of GSM Alarm System and influences its performance.



Avoid Use at Gas Station

Do not use GSM Alarm System at a gas station. Power off GSM Alarm System 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 screening by covering the mainframe.



Use Qualified Maintenance Service

Maintenance can be carried out only by qualified maintainer.



Waterproofness

The product is not waterproof. Please install it at dry places and keep it dry.

3. Standard Packing List

- Control Unit X1
- Regulated 12VDC Power Supply X1
- Remote Keys X 2
- Wireless Door Contact X1
- Key X 2
- User Manual + Android Apps in CD X1
- GSM Antenna X1



Android Apps can download at our website

Optional Accessories: (Wireless Detectors or Wired Detectors)

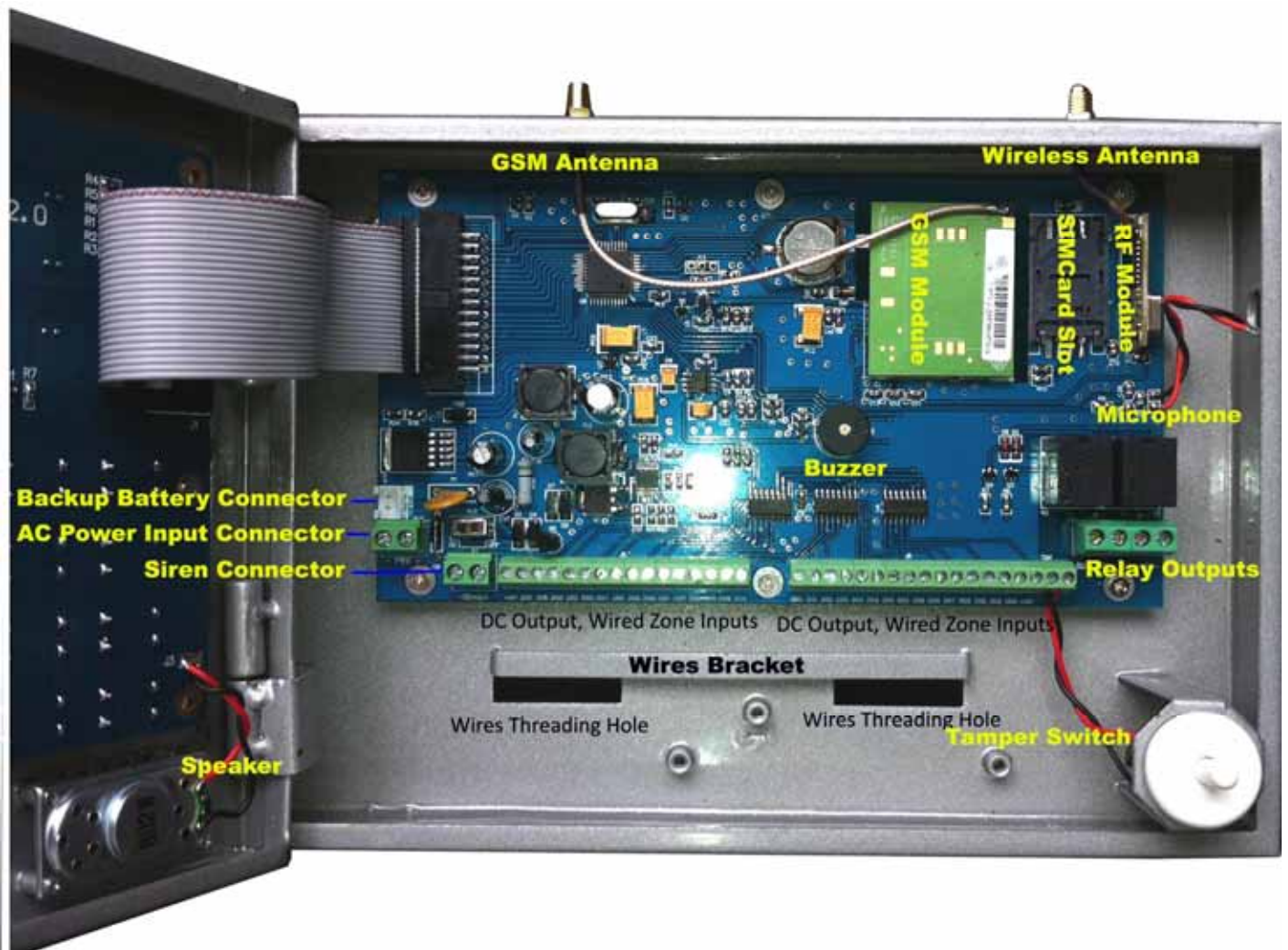
PIR Motion Detector, Glass Break Detector, Magnetic Window Detector, Magnetic Steel Scrolling Door Detector, Temperature Detector, Photoelectric Beams, etc.

4. Physical Layout

4.1 Control Unit physical layout

Tips!

- 1) In order to forbidden the intruder power off the alarm system, we equipped the power switch inside, it is nearby the SIMCard socket, please pay attention to it, and don't tell others of this. Only authorized can open it by Key.

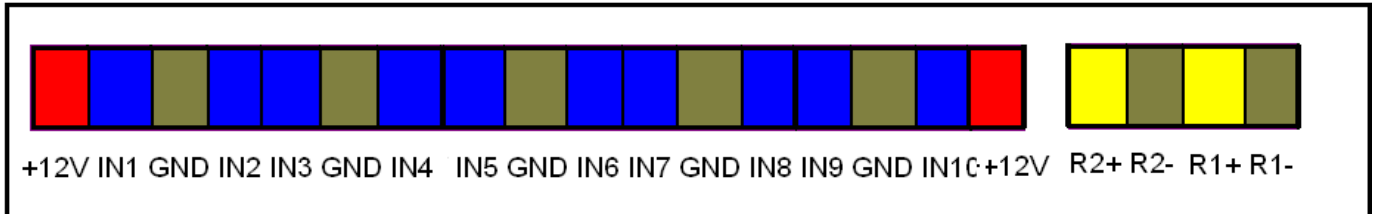


Interface 1 Description

| | |
|--------------|---|
| Power | External Power Input Connector, Connect to 2A@12V DC power through AC/DC Adaptor. |
|--------------|---|

| | |
|----------------------|---|
| Siren | Will start for 2 minutes when alarm. The siren rated voltage should be <12V DC. |
| GSM ANT | Connect the GSM Antenna. |
| Microphone | One sensitive Microphone built inside. |
| Speaker | For two way voice communication. |
| Tamper Switch | Zone Attribute is 24-Hour Zone, fixed to the IN20 Input, NC. |

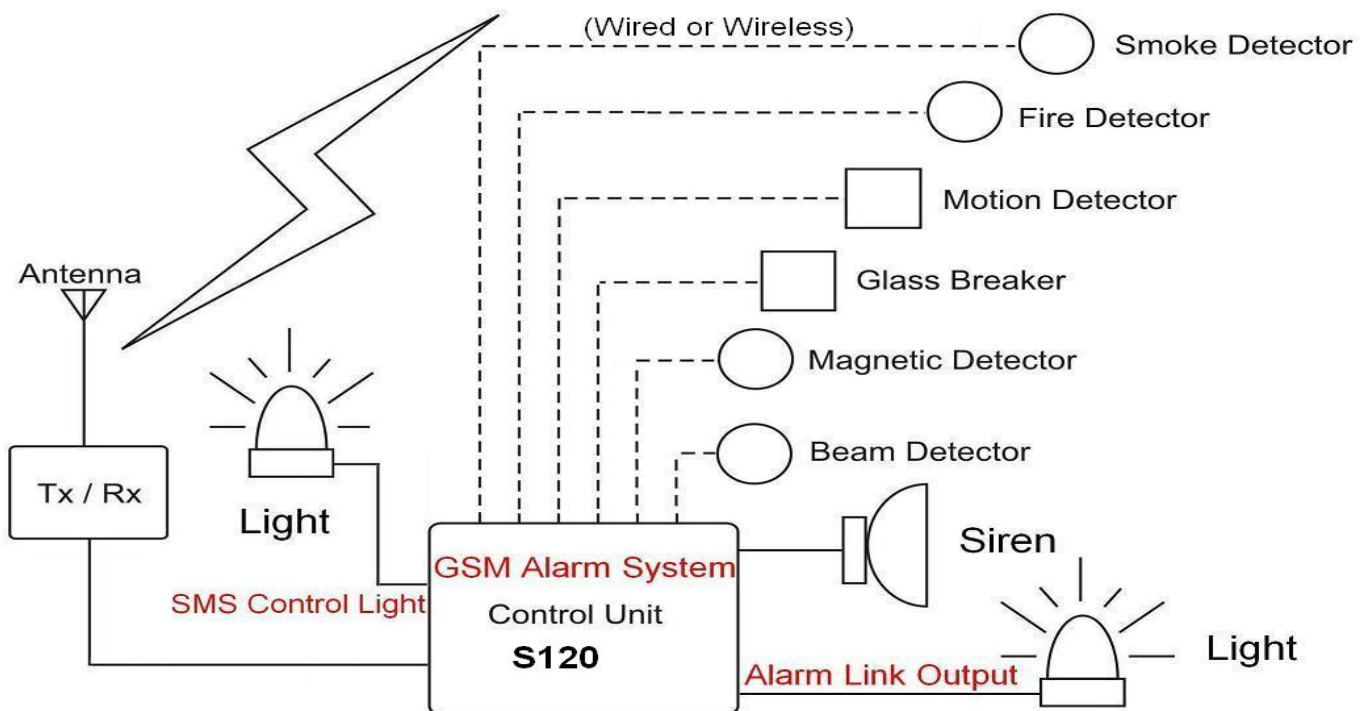
Interface 2 Description



| | |
|---------------|---|
| +12V | +12VDC@1A power output for wired detectors. When AC power off, the power source will automatically change to the Backup battery. Normally powered by the external DC Power input. |
| IN1~19 | Digital input 1-19, connect to one wire of the wired Detector. |
| GND | Ground point, connect to another wire of the wired Detector or -12VDC. |
| R1+ | Link-Output Relay, when the system alarm will close 4minutes. (Rated Voltage: 3A/240VAC), this relay can be connected to light, soundly Sirends, or as a NO type digital input for DVR system. |
| R1- | Built in 240VAC@3A rated relay output, connect to the device negative electrode. |
| R2+ | Separate Output Relay, Can switch on or off by SMS Commands. (Rated Voltage: 3A/240VAC), this relay is very useful to switch on light when you can not come back in the evening. Then some hours you can switch off it. |
| R2- | Built in 240VAC@3A rated relay output, connect to the device negative electrode. |

4.2 Working Principle Drawing

The S120 works with wireless detectors or Wired detectors. It can switch on or off one appliance by SMS command and automatically switch on other appliance, equipments for 4 minutes once alarm occurrence. Please see below:



5. Features



- 1) GSM Frequency: 850/900/1800/1900Mhz;
- 2) LCD displays the entire setup menu, user friendly concept to make it easily to setup;
- 3) Using ICON to display Armed(Away), Partial Armed(At House or Stay), Disarmed, Power status and GSM Signal status;
- 4) User friendly Icons for LED indicators, Functional Buttons;
- 5) Supports Away Armed, Partial Armed(At House or Stay) or Disarmed, Schedule Armed and Schedule Disarmed;
- 6) Supports Android Apps, quickly to Arm, Disarm, Inquiry Status and Switch ON or OFF equipments;
- 7) Supports 3 SMS Alarm Numbers, 5 Autodial Numbers and 100 Alarm Records for owner review;
- 8) Supports Two-way Voice communication and listen on-site through internal sensitive microphone and speaker;
- 9) Automatically send SMS Alert Alarm Message and dial to the pre-set numbers when alarm occurrence;
- 10) Supports Armed, Disarmed, Inquiry Status, Switch ON or OFF relay output by SMS Commands;
- 11) Learning code, more safe and easy to add new wireless remote keys and wireless detectors;
- 12) Supports 16 Wireless Zones, can accept one learning code wireless detector in each zone, and accept unlimited PT2262/2272 fixed code wireless detectors in each zone;
- 13) Supports 20 wired zones(Dry Contact Type), the input can be Normal Close(NC), Normal Open(NO), and End of Line(EOL), the EOL is very useful to avoid the wires disconnection and willful or malicious destruction the detector connections;
- 14) Supports variety zone attributes, includes Away(normal), At House or Stay, 24 Hours Zone, Watchdog Zone, SOS Zone;
- 15) The attribute of each zone is programmable by LCD Menu;
- 16) The Zone Name of each zone is programmable by user through SMS Commands;
- 17) Supports 5 Remote Keys, each Remote Key includes one SOS Panic Button for emergency condition to ask for help;
- 18) Automatically send SMS to users while armed and disarm by remote key, this function can enable or disable by user;
- 19) Supports Armed delay to give enough time to leave the home, the delay time is programmable by user;
- 20) Supports Alarm Delay to give enough time to Disarm it when you come back home, the delay time is programmable by user;
- 21) Equips with 1 Alarm-Link relay output, once alarm occurrence, this relay output will automatically switch on for 4 minutes, it is useful to be used as a loudly sound siren or switch on the light or as the digital input for the CCTV;
- 22) Equips with 1 SMS Command control separate relay output, it can be switch on or off by SMS Commands. This is very useful for remote switch on light or off while you're in another city in the night;
- 23) Equips one siren output for sounding while alarm occurrence to warning.
- 24) The Keypad can be used as a telephone dialer;

- 25) The external AC power failure & recovery alert function supports 3 optional: Don't Care, Immediately Send SMS to user, after 30 minutes if not recovery then send SMS to user;
- 26) Supports Self-Checking to ensure the SIMCard can communication properly;
- 27) Supports GSM Signal Jammer to increase the ability to theft against;
- 28) Standby internal large capacity rechargeable battery which can standby upto 18 hours after AC Power failure, also can provide power to wired detectors and siren after AC power failure;
- 29) Backup battery with low voltage will send SMS to the owner immediately;
- 30) Equips two +12VDC power source from motherboard directly to save wiring cost and ensure the wired detectors can power on after AC power failure;
- 31) Equips with Tamper switch to protect the unauthorized open the panel;
- 32) Supports Password to increase the security of the whole system;
- 33) Based on the GSM communication network and Operation Menu Display technology, apply to wide range situations.

6. Settings

Tips!

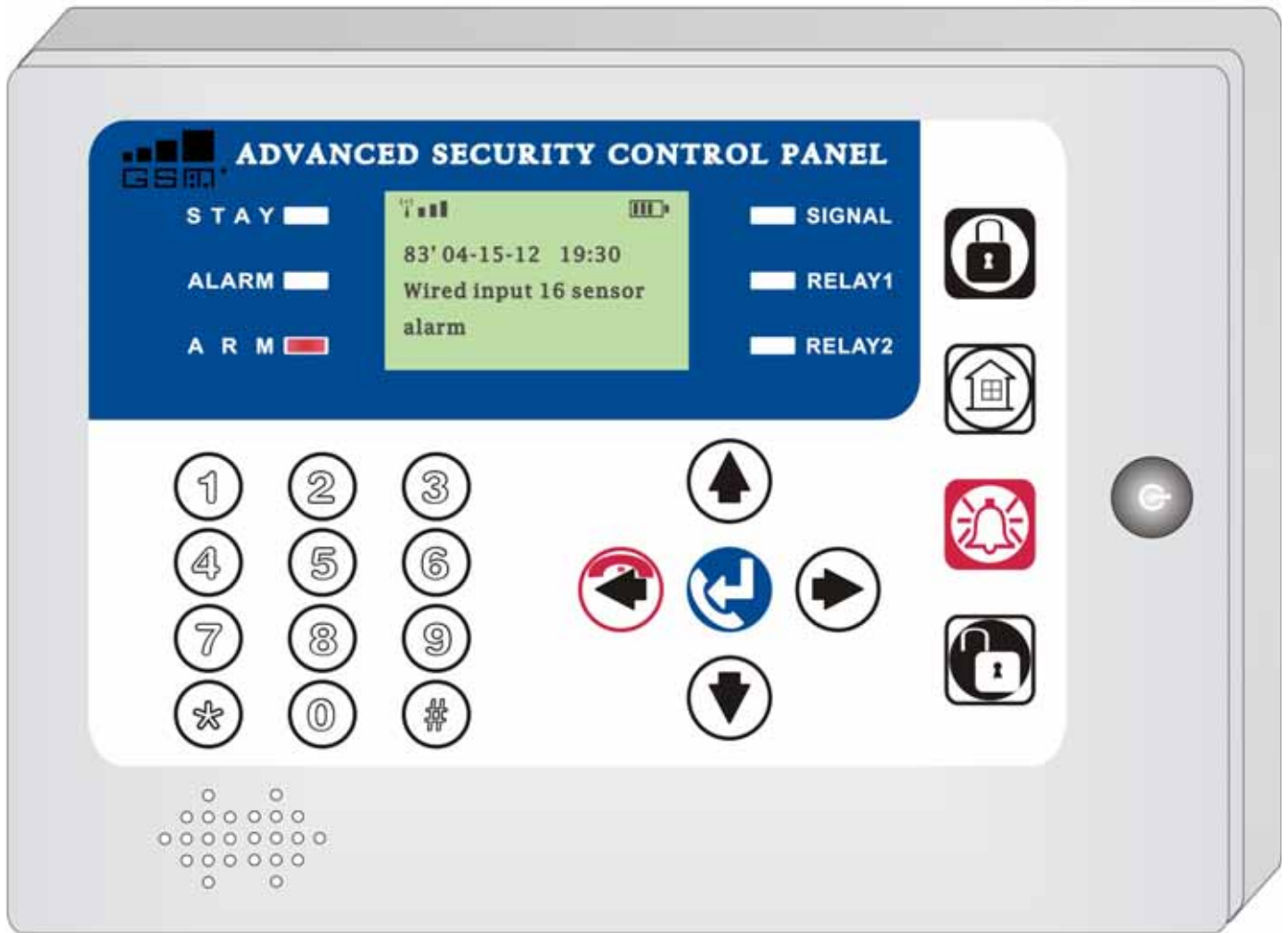
- 1) They Key includes in the package, please find out it then can open the Panel Lock.
- 2) Please insert the SIMCard firstly, and connect the Backup battery correctly. and install the GSM Antenna then power on it. Also, you can insert the SIMCard after you setup.
- 3) All the remote keys in the standard package we have assigned to the mainframe already. Needn't to learn it again.
- 4) After you power on the mainframe, the mainframe will auto detect and display the process. It will detect the 8 wired input current connection status and display on the LCD with 20 characters. **O** stands for Open, **C** stands for Close, **L** stands for with 2.2K EOL, **E** stands for not includes the before 3 status. If it with SIMCard, it will register the GSM Network and display the GSM Signal ICON in the left corner of the LCD.
- 5) All of the setup can be done by the LCD except modify the Zone name, if you need to modify the zone name, please see the command list in the related chapter.
- 6) Only disarm by keyboard and modify settings and use SMS Commands to control the mainframe requires password, the other operation needn't password. The default password is 1234. Enter password then press Enter button to enter the system.
- 7) After you restore it, all of the settings will be as default settings.
- 8) Two way communication:

In standby mode, dial the telephone number, following the , the system will dial out; While incoming call, press the  Button to answer the incoming. Please note: if the income calling is from the preset number (Includes SMS Alert number and Auto-dial numbers), then before 6 tones, if answered it, will create two way voice communications. After 6 tones, will be entering into wiretap status. The user can listen in the alarm around sounds, Max. time is 10Minutes. If the income calling is not from the preset alarm number, after 6 tones, if hasn't been answered, will hang up.

- 9) If you want to test the two way voice communication, please make sure the other phone is far from the S120, at least 500meters. Otherwise, the near-cross will make lots of noise interference.

6.1 Keyboard-Function Descriptions.

The S120 GSM SMS Security Alarm with user friendly concept, all of the buttons and status are used ICONS.



6.1.1 Led indicator Description

The S120 uses the icons to stand for the function, it is visual and intuitive to users.

STAY: Stay Mode indicator, on is in stay mode;

ARM: Arm Mode indicator, on is in arm mode, off is in disarm mode;

ALARM: Alarm Indicator, on is alarming, off is normally;

SIGNAL: GSM Module indicator, registering will quickly flick, registered successful will slowly flick.

RELAY 1: Alarm link output indicator, when alarm, will close 4 minutes, means the alarm link output relay closing.

RELAY2: Separate output relay indicator, when the independent output relay closed, it will be on; when the independent output relay opened, will be off.

6.1.2 LCD ICONS Description

The S120 uses the icons to describe the present status; it will be more user friendly.



: Enabled the Timer to arm and disarm function; otherwise, will not display it.



: Timer to Arm, has setup a time point to enter armed mode directly.



: Timer to disarm. Has setup a time point to enter disarmed mode directly.



: Enabled the Watchdog zone. In the fixed time range if the detectors in the watchdog zone hasn't been triggered, will alarm.



: Enabled the Self-Checking function. Will automatically send to the user by SMS according to the scheduled interval time.

6.1.3 Keyboard functions

The S120 uses the icons to mark the buttons; it will be more user friendly to user.



: Enter button, dial out and answer incoming.



: Turn Left Button, Hang up the incoming, Exit, and Backspace button.



: Up towards button.



: Down towards button.



: Turn Right button, in special menu need it to choose the option.



: Disarm Button.



: Arm Button, Away.



: At House, Stay mode button.



: SOS, Panic Button.

6.2 Main Menu



In standby mode, press the button, you can see the Menu.

- 1. View
- 2. Setup

---To check the settings and event records of the system

---To setup the system functions, requires password, the default password is 1234.

6.2.1 View

- 1. Alarm Records
- 2. Timers
- 3. RF Zone Name
- 4. SMS Phone No.
- 5. Auto-dial No.
- 6. Report Time
- 7. RF Code Query
- 8. Wired Zone Name

---To check the alarm records, up to 100 event records will be saved.

---To check the Timer you have setup.

---To check the SMS Alert Contents of the Wireless Related Zones.

---To check the SMS Alert Numbers

---To check the Auto-dial telephone Numbers

---To check the report time.

---To check the RF sensor wireless code.

---To check the SMS Alert Contents of the Wired Related Zones.

Notice:

- 1) The RF Code Query function is for check the wireless detector transmission. You can enter this submenu, then triggered the wireless detector, if in the LCD can display some codes, means the wireless detector can transmit wireless signal.

6.2.2 Setup

| | |
|----------------------------|--|
| 1. Add/Del RF Parts | ---To add or remove wireless detectors or remote keys and edit their attributes. |
| 2. Wired Zones Set | ---To setup Wired Zone parameters of the system. |
| 3. Basic Setting | ---To setup basic parameters of the system. |
| 4. Advanced Setting | ---To setup the advanced parameters of the system. |

6.2.2.1 Add/Del RF Parts

| | |
|----------------------------|--|
| 1. Edit RF Zone | ---To setup the zone's attribute and add new wireless detectors to specificities zone. |
| 2. Edit Remote Ctrl | ---To add new remote Keys. |
| 3. Remove All | ---To remove all registered wireless sensors and remote keys. |

Notice:

- 1) Zones' Attribute definition:

| Zones' Attribute | Definition |
|---------------------|---|
| Normal | The detectors with this type triggered will alarm in Armed mode and not alarm in disarmed mode. |
| Stay | In Stay mode, the detectors with Stay type triggered will alarm, the detectors with Normal type triggered will not alarm. |
| 24-Hour Zone | In any mode, the detectors with this type triggered will alarm. |
| Watchdog | In the starting time point and ending time point, the detectors with this type triggered will not alarm, if the detectors hasn't been triggered, will make alarm. |
| SOS Help! | In any mode, the detectors with this type triggered will alarm but not drive the siren. |

Alarm Action: when Alarm occurrence, the system will Automatically dial the Pre-set Auto-Dial Tel. Numbers for 3 times one by one, and Send SMS to the Pre-set SMS Alert Numbers, in the meantime, will drive the siren for total 2 minutes with every 20 seconds stop 1 second to extend the siren's life. and close the link-Output relay for 4 minutes.

- 2) After you enter the menu, the attribute of the zone will be displayed in the LCD, if this zone has been assigned wireless detector, will display "V". If hasn't been assigned wireless detector, means this zone is empty, you can assign new wireless detector to this zone. Press Up or down button on the keyboard to check the other Zones. Press Enter to edit it. After you pressed the Enter button, you can select the zone attribute, and then press Enter, you can see "Turn on the device" or "Please trigger the new wireless detector". Then following the instruction to add the new wireless detector to the S120. For Remote control, it will display VVVV if the unit has been assigned remote control. Both of them you can press Enter to re-assign new wireless detector or remote key to replace the existence one.
- 3) In the Edit RF Parts you can edit the attribute of the detectors. If the system is under Stay Mode (Also said At House or Partial Armed), the detector set as Normal triggered will not alarm, the detector set as Stay triggered will Alarm. If the system is under Armed Mode, then all RF detectors triggered, will alarm. This is very important to remember the detector types of the system. This function is very useful when you at house and need some detectors in working status (E.g.: the detector installed outer and gas

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and smoke detectors, etc.) and some detectors indoor not in working status (e.g.: the detectors installed in the living room, bed room, etc.).

4) The S120 can accept total 16 wireless learning code detectors to 16 wireless zones, each zone can be assigned one learning code wireless detector, and accept lots of PT2262/2272 fixed code wireless detectors in each zone. The name of the zone can be renamed by SMS Command. And 5 remote keys.,

5) Wireless Zone Serial Number, Default Zone Name and Zone Attributes Table.

| Zone SN. | Default Zone Name | Default Zone Attribute |
|----------|-------------------------------|--|
| 01 | Intrusion from Entry Door | Normal |
| 02 | Intrusion from Living Room | Normal |
| 03 | Intrusion from Bed Room 1 | Normal |
| 04 | Intrusion from Bed Room 2 | Normal |
| 05 | Intrusion from Bed Room 3 | Normal |
| 06 | Intrusion from Front Balcony | Normal |
| 07 | Intrusion from Behind Balcony | Normal |
| 08 | Intrusion from 1F Window | Normal |
| 09 | Intrusion from 2F Window | Normal |
| 10 | Intrusion from Left Fence | Normal |
| 11 | Intrusion from Right Fence | Normal |
| 12 | Medical Button Alarm | 24-Hour zones, in arm or disarm or stay mode, once the detector in these zones triggered will alarm. |
| 13 | Gas Leakage Alarm | |
| 14 | Smoke Fire Alarm | |
| 15 | Watchdog alarm | Watchdog Zone, in arm or disarm or stay mode, once the detector in this zone triggered in the preset time, will not alarm, if the detector hasn't been triggered in the preset time, will alarm. |
| 16 | SOS Help! | SOS zone, in arm or disarm or stay mode, once the detector in these zones triggered will alarm immediately. not drive the siren. |

Notice: The Additional Panic Button, and the SOS button on the Keyboard and remote key is the same attribute with the SOS zone.

6.2.2.2 Wired Zones Set

1. Nodes Type

---To setup the wired inputs type.

2. Zones Attributes

---To setup the wired input's attribute.

Notice:

- 1) The Nodes Type NC,NO,EOL should reference the wired input detector type. The Default is NC and we short all of the inputs by wires, if you want to contact wired detectors, then please replace the short wires by wired detectors directly. The no-use input, please remain them in short-circuited by wires. Please see **8.4 Install the Wired Detectors and Electricity equipments**
- 2) Zones' Attribute definition of the wired zone is the same as the wireless zone.
- 3) The S120 can accept total 19 wired detectors to 19 wired zones; each zone can be assigned one wired detector, and renamed it by SMS Command. The IN20 is 24 Hours Zone and special for Tamper Switch.
- 4) Wired Zone Serial Number, Default Zone Name and Zone Attributes Table.

| Zone SN. | Default Zone Name | Default Zone Attribute |
|----------|----------------------------|------------------------|
| 01 | Outer Door Opened | Normal |
| 02 | Intrusion from Left Fence | Normal |
| 03 | Intrusion from Right Fence | Normal |
| 04 | Intrusion from Front Fence | Normal |

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| | | |
|----|-------------------------------|--|
| 05 | Intrusion from Guarden Fence | Normal |
| 06 | Intrusion from Terrace | Normal |
| 07 | Intrusion from Garage | Normal |
| 08 | Wired input 8 detector alarm | Normal |
| 09 | Wired input 9 detector alarm | Normal |
| 10 | Wired input 10 detector alarm | Normal |
| 11 | Wired input 11 detector alarm | Normal |
| 12 | Wired input 12 detector alarm | Normal |
| 13 | Wired input 13 detector alarm | Normal |
| 14 | Wired input 14 detector alarm | Normal |
| 15 | Wired input 15 detector alarm | Normal |
| 16 | 24Hours zone alarm | 24-Hour zones, in arm or disarm or stay mode, once the detector in these zones triggered will alarm immediately. |
| 17 | 24Hours zone alarm | |
| 18 | Watchdog alarm | Watchdog Zone, in arm or disarm or stay mode, once the detector in this zone triggered in the preset time, will not alarm, if the detector hasn't been triggered in the preset time, will alarm. |
| 19 | Watchdog alarm | |
| 20 | Tamper Switch | 24 Hours zone, NC, the attribute can not be modified. In arm or disarm or stay mode, once the detector in these zones triggered will alarm immediately. |

Notice:

The zone name of wired input 17~20 can not be modified. The attribute of Zone 20 can not be modified.

6.2.2.3 Basic Setting

- | | |
|-------------------------------|---|
| 1. SMS Phone No. | ---To setup the SMS Alert Number, must be cell phone numbers, total 3. |
| 2. Auto-dial Tel No. | ---To setup the Auto-dial telephone number, total is 5. |
| 3. Time & Date | ---To setup the time and date information. The Format is Month-Date-Year. Press Up/Down to setup each item, press * to move to next item. |
| 4. Sound Alarm | ---Switch on or off the siren when Alarm occurrence. |
| 5. Self-Checking | ---Setup the Self-Checking Interval Time, Range: 0~240 Hours. Default is 0. |
| 6. Power Failure Alert | ---Enable or Disable the alert function while the AC power is failure. |
| 7. Arm Delay Time | ---Setup the delay time after armed the system by Remote Key or keyboard. Optional: 0S, 20S, 30S, 60S, 90S. Default is 30S. |
| 8. Alarm delay Time | ---Setup the delay time after any sensor triggered. Optional: 0S, 20S, 30S, 60S, 90S. Default is 20S. |

Notice:

- 1) The SMS Alert number is for receiving the alarm SMS Message. The Auto-Dial Telephone number is for receiving the calling. Please help to try adding country code or removing country code when you can not receive the call or SMS. Because of different GSM Operator with different communication protocols. Our system is with the international communications protocols.
- 2) The Auto-dial Tel. Number can dial to the S120, 6 tones later, can wiretap the system site. Before 6 tones, if somebody answers the calling, then can create two-way voice communication. The other telephone number can call in the S120, if nobody answer

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the calling, then can not wiretap the system site, if somebody answers the calling, then can create two-way voice communication.

For example:

In China, the country code is **0086**, please note, do not write **+86**.

The user cell phone number is **13511111111** 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 13511111111 as SMS Alert number, means setup **008613511111111** or **8613511111111** to instead of the **13511111111**.

Problem 2: The user number can receive the SMS Alert message from alarm panel, but the alarm panel can not 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 **008613512345678** 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 00 to replace the "+".

- 3) *If Switch off the siren, then all alarm raised will not drive the siren, if switch on the siren, then when the system alarm will drive the siren for 2 minutes except the SOS help caused. Default is Switch on.*
- 4) *If setup the Self-Checking, the system will periodically send "GSM Alarm System in good working condition" to the first SMS Alert number. This is very useful for long time use the system. Default is 0. Means will not report the system condition.*
- 5) *If enable the power failure alert function, the system will send SMS "AC Power Failed 30Min." to the first SMS Alert numbers after the AC power failure 30minutes, if the power is recovery then will send SMS "AC Power is OK.". Default is disabled.*
- 6) *When Backup battery lower than 10.8V, will send SMS "Backup Battery with Low Voltage" to the first SMS Alert Number.*
- 7) *There's no delay for Stay Mode.*

6.2.2.4 Advanced Setting

- | | | |
|----------------------------|-----|--|
| 1. Edit Timer | --- | To setup the starting time to arm and the Ending time to disarm. |
| 2. Watchdog Timer | --- | To setup the starting and ending time to work. |
| 3. RCO Alert | --- | To setup the remote key operation report function. |
| 4. GSM Jammer Alert | --- | To setup the GSM Jammer Alert function. |
| 5. Modify Password | --- | Modify the system password. |
| 6. Default Set | --- | Restore the system settings to factory defaults. |

Notice:

- 1) *The watchdog is special for elder or child or on-duty personnel, in the period (Starting time point to Ending time point) if this detector hasn't been triggered, the system will alarm. This is very useful to monitor the elder or child goes out the bedroom or enters the kitchen to eat something. Or monitor the on-duty personnel in the polling period have gone to on-site inspection.*
- 2) *If enable the RCO alert function, then when use any remote key which has been registered to the system to arm or disarm or*

stay operation, the system will send SMS to the first SMS number.

- 3) If enable the GSM Jammer Alert function, when the GSM Signal is 0 for more than 90s, the system will drive the siren for 2 minutes and the link-output relay will close 4 minutes.

6.3 Modify the SMS Alert Content of the Zone (Zone or Detector Name)

The S120 accept SMS Command to modify the SMS Alert Content of the zone.

For Wireless Zone Name, the format is: `Password++M+Zone Serial Number++New Zone Name+#`, the Max. Character for the zone name is 32. The Zone Serial Number is 01~16 corresponding to the LCD Menu and 6.2.2.1 table. If setup successful, the system will return OK to confirm the operation.

E.g.: Modify the first wireless zone name as **Front Door Opened by Intruder!** You should edit a SMS Content: `1234#M01# Front Door Opened by Intruder!#`, the 1234 is the password. Then send it to the S120 Simcard Number.

For Wired Zone Name, the format is: `Password++Z+Zone Serial Number++New Zone Name+#`, the Max. Character for the zone name is 32. The Zone Serial Number is 01~20 corresponding to the LCD Menu and 6.2.2.2 table. If setup successful, the system will return OK to confirm the operation.

E.g.: Modify the first wired zone name as **Front Door Opened by Intruder!** You should edit a SMS Content: `1234#Z01# Front Door Opened by Intruder!#`, the 1234 is the password. Then send it to the S120 Simcard Number.

Notice:

The zone name of wired input 17~20 can not be modified.



7. Operating Instructions



Tips!



The user can arm/disarm/Stay (Partial armed) by Remote keys, Keyboard, SMS, also, the user can cancel the alarm by Remote keys, Keyboard, SMS to Disarm it. Another, the user can switch on or off the independent output relay by SMS Commands.

7.1 Arm or Disarm or Stay (Partial Arm, At House Arm) and Emergency Alarm by remote keys



Press the button “” on the remote key or Press Arm button on the keyboard then select Arm, the Control Unit enters arm status (delay time according to the setting), the  ICON will be on. Under this status, any detector triggered, the control unit will alarm, if answered the call, the siren will stop and can listen in the alarm area by phone.

Press the button “” on the remote control, or press Disarm button on the Keyboard then input the password, the Control Unit disarms immediately. The  ICON will be off. Under this status, any detector triggered, the control unit will not alarm. Except the detector type is the 24-Hour Zones or Watchdog zone or SOS zone.

Press the button “” on the remote key or Press the Arm button on the keyboard then select Stay, the Control Unit enters Stay(Partial Armed) status, the  ICON will be on. In this status, the detectors had been set as Stay Type triggered will alarm, but the detectors had been set as normal Type triggered will not alarm. Please see the menu of the [Edit RF Zone](#).

Press Emergency button (SOS) “!” on the **remote key** or the control unit or Press any **Emergency button**. The Control Unit will enter emergency alarm. The siren will not sound, but will alert the pre-set phone number immediately.

7.2 SMS Commands for Arm or Disarm or Inquiry system status or switch on/off independent output relay.

The User can Arm/Disarm/Inquiry system status/Switch on or off the independent output relay by sending SMS 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 command.

7.2.1 Armed

xxxxAA

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

Return SMS

All Armed Mode activated.

Example

1234AA

When the Password is 1234

7.2.2 Disarm

xxxxBB

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

Return SMS

System deactivated.

Example

1111BB

When the Password is 1111

7.2.3 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

7.2.4 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

7.2.5 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.

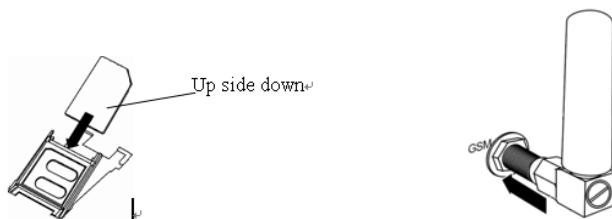
8. Installation

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

Please ensure the wireless detectors and electricity appliances from the mainframe more than 3~5m.

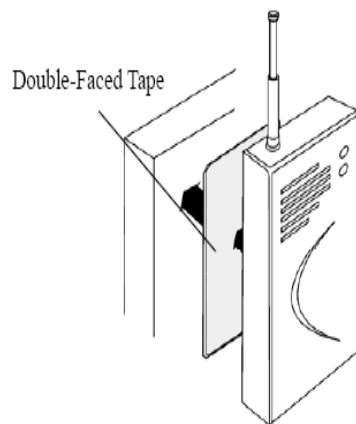
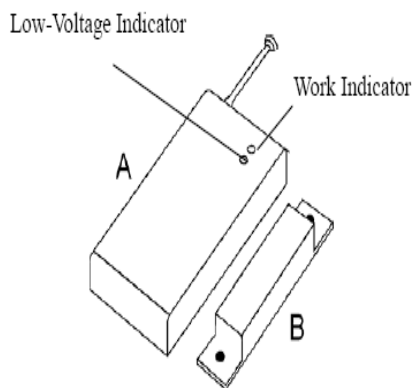
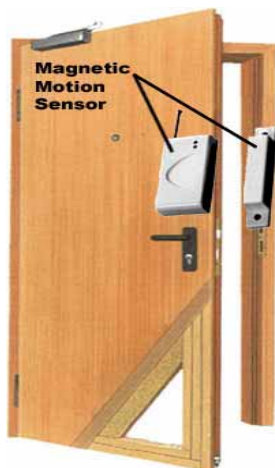
8.1 Insert SIM into Control Unit and install the GSM ANT.

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.

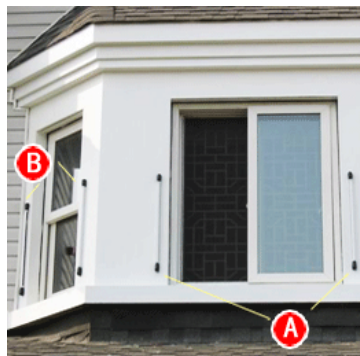


8.2 Install the Wireless Magnetic door/window detectors

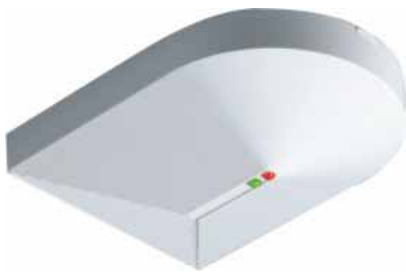
Magnetic door/window detectors signal the Control Unit when the two parts separate by more than between **1.5 to 3.0cm**.



In some circumstances an Infrared beam fence is more appropriate than magnetic detectors. i.e. veranda, picture window balcony, boundary wall e.t.c.

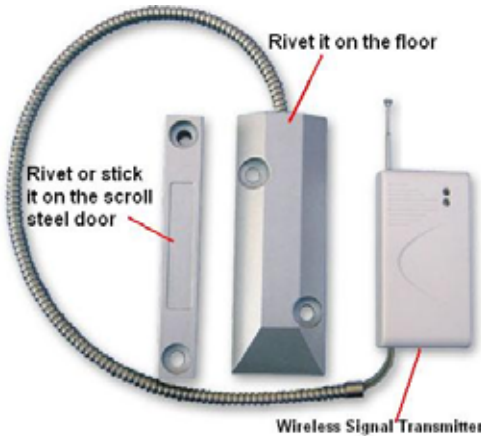


Wireless glass break detector can also be used (see below)



For a Scrolling Steel Door, a special Wireless Scroll Steel Door magnetic detector must be used due to interference of the wireless signal caused by the steel door.

Installation: attach the larger half to the floor and attach (rivet or glue) the smaller half to the scroll steel door. An alarm is triggered when the halves are separated by more than three to 5.00 cm.

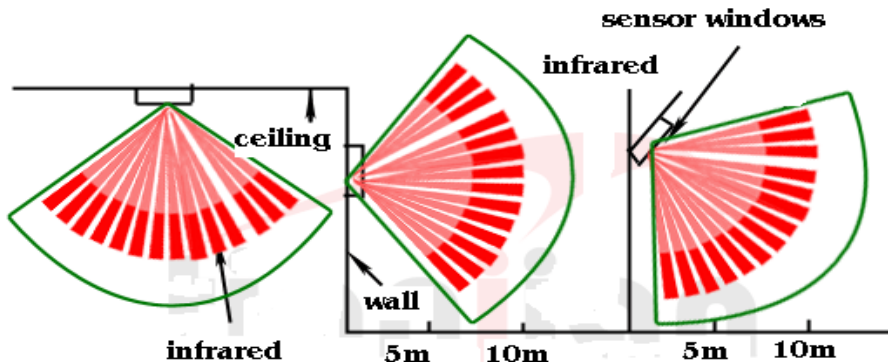
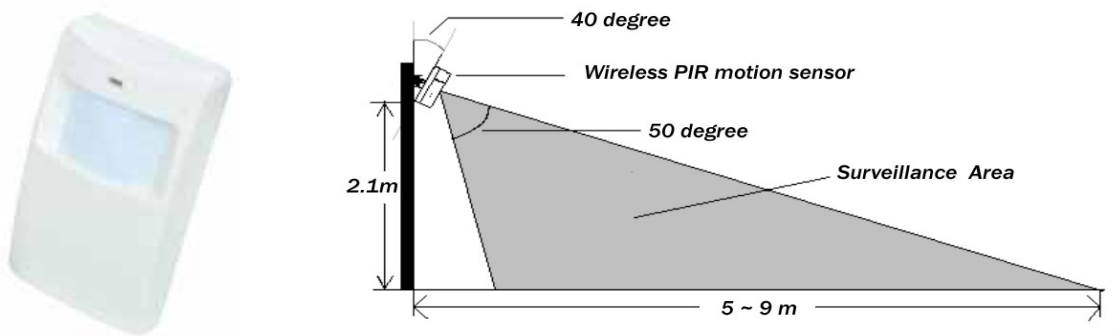


Scroll Steel Door

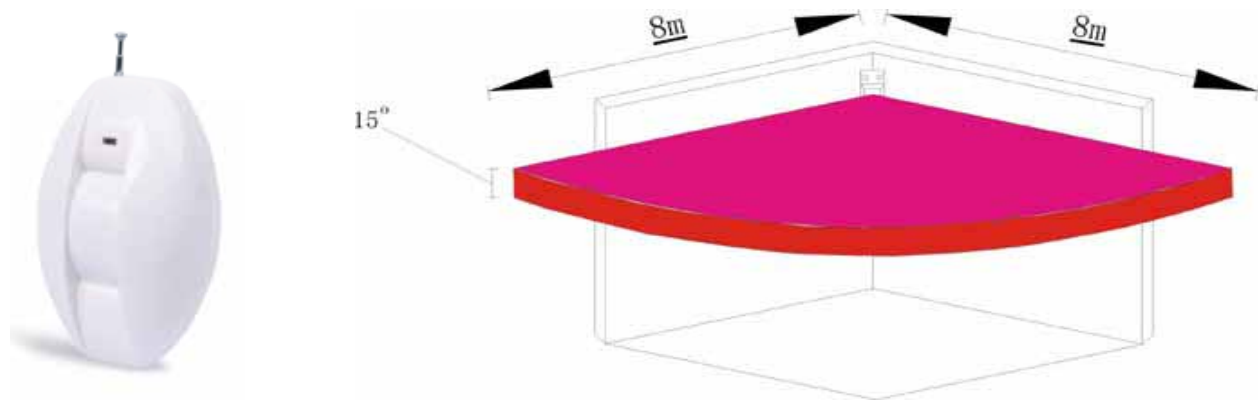
8.3 Install the wireless PIR Motion Detector

The PIR detector will detect a person since human temperature is different to ambient temperature. When triggered, the PIR will signal the Control Unit.

Apply the detection area illustration below when installing.



Wireless curtain detector, detection area illustration below:



8.4 Install 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 NC, NO, EOL type in the LCD Menu correctly;
- 2) If you setup the Nodes type as NC, and the detector type must be NC. Please see below diagram.
- 3) If you setup the input type as EOL, then please contact a 2.2K Resistor in series for NC type detector, and contact a 2.2K Resistor in parallel for NO type Detector. Please see the below diagram.
- 4) If you setup the input type as NO, the detector type must be NO. Please see the below diagram.
- 5) The Unit built-in 240VAC@3A rated relay. 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. If you need heavy equipment, please connect an additional relay ;
- 6) The R1+ and R1- is for alarm-link output, when the system alarm, will close for 4 minutes, the rated output power is 700W. If you need heavily equipment, please connect an additional relay .
- 7) The R2+ and R2- is the relay output for SMS Command, CC is close, DD is open, EE is inquiry the status.
- 8) 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.

NC Type Connection

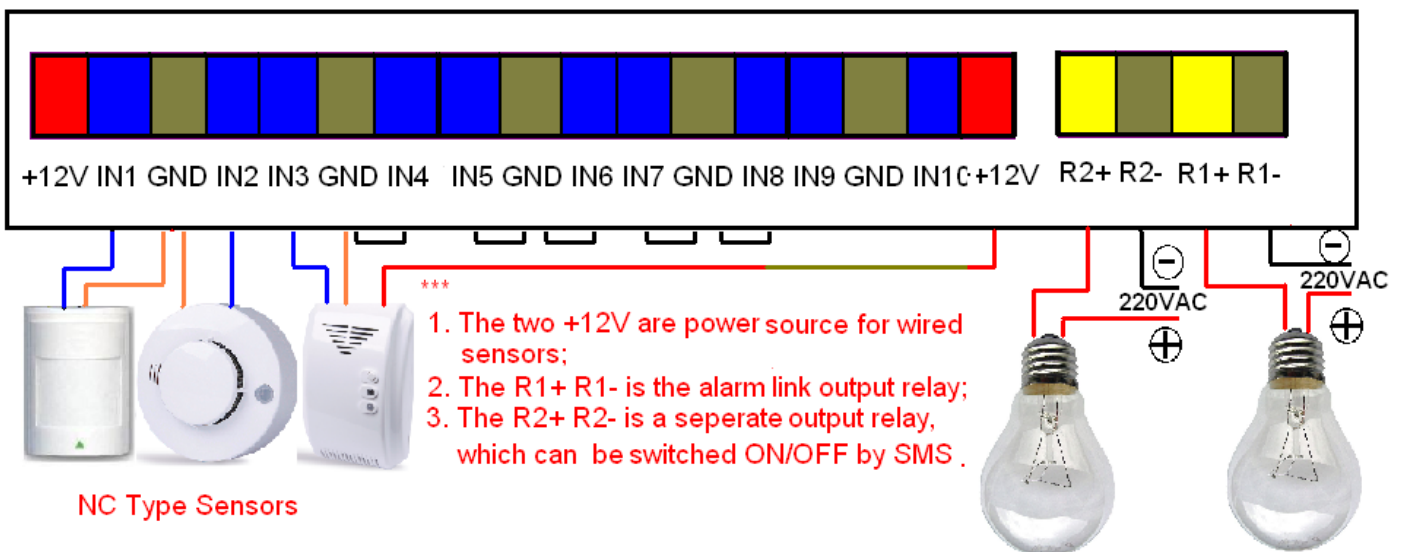
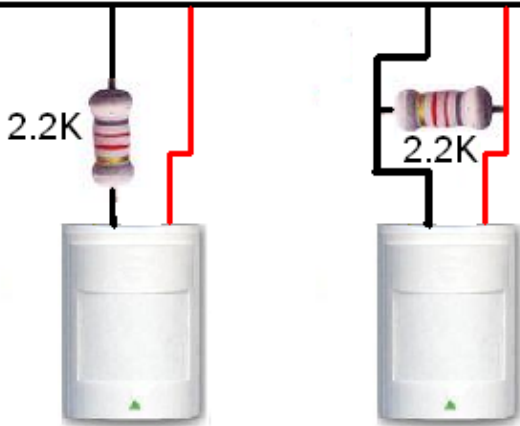
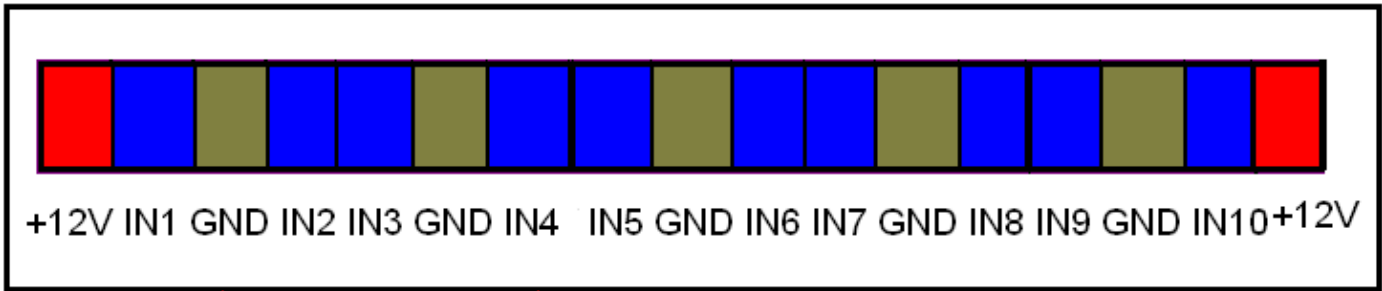


Diagram 1

EOL Type Connections



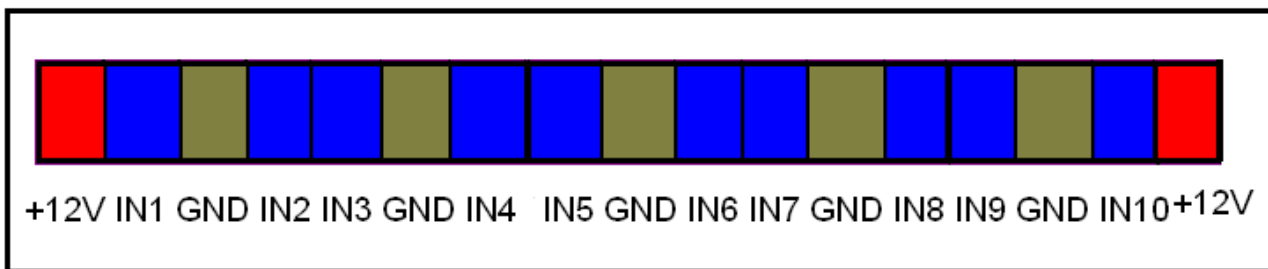
NC Type Connection

NO Type Connection

*** We suggest connect the 2.2K Resistor inside the detector box in series connection. Please note the NC type Detector must be connected in serial. Please note the NO type Detector must be connected in parallel.

Diagram 2

NO Type Connection



NO Type Sensor

*** 1. We're strongly suggest not use this connection type;
 2. In this connection type, all of the wired sensors must be NO.

Diagram 3

8.5 Install the Control Unit

In order to avoid destruction of the Control Unit by intruders, please install it in a concealed location, convenient to the operator.

If applicable, ensure that an uninterruptible AC power outlet is available near the Control Unit. First connect accessories to the Control Unit then the AC adapter.

8.6 Install Siren

Connect the Siren to the Control Unit and fix them in appropriate locations. If you need soundly siren or need the siren to sound continuous 4 minutes, please contact the siren to the Relay Output 1, the connection please reference Diagram 3. Please note the rated voltage is different for siren and lights.

Tips:

The Siren should be at least 1.5meters away from the GSM SMS Controller unit, if possible, more than 3meters is better.



Siren



Strobe Siren

9. Add Wireless Detectors to the Control Unit

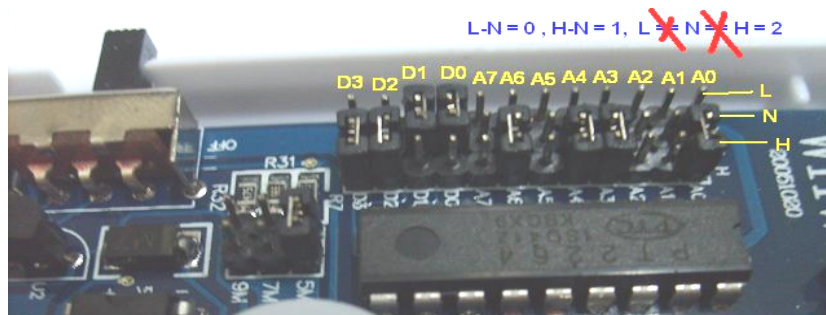
Notice:

Some wireless detectors must be coded by manual as below 9.1 step; some wireless detectors needn't coded by manual, because of we will use the learning code detector. The learning code wireless detector you can omit the 9.1 step, can be learned to the system directly, like the PIR-100B and DM-100A.

The Wireless detectors in the package box are pre-coded prior to shipping. The Max. Quantity of RF detectors is 16, if you need add more then you can set the wireless detector with the same jumper. Add additional wireless detectors to the control units, please help to see below:

9.1 Prepare the RF Detectors of PT2262 IC Code

- 1) Prepare the RF detectors, Open the back cover of the Wireless detector carefully;
- 2) Locate the IC boards black jumpers, labeled A0-A7 and D0-D3.
- 3) Configured the A0~A7 and D0~D3 different from each wireless detectors(Includes wireless door detector, wireless smoke detector, wireless gas leakage detector, wireless pir motion detector and so on). If configured the A0~A7 and D0~D3 are the same, the system will treat them as the same one detector.
- 4) Also, please check the Resistors value is 3.3M Ohm, there're 3 Jumpers, 1.5M, 3.3M, and 4.7M. if you select incorrect value, the wireless distance usually very short or can not learn to the alarm panel.



9.2 Enter the RF Detector Adding Menu.(See 6.2.2.1 Add/Del RF Parts)

Select the Zone number, press Ok, finished it then press OK to select the Normal Type Or Stay Type, then following the instruction: **1.Turn On the Device**, means trigger the RF detector, the system will show a code, then **press Enter Key** on the Keyboard. The system will ask you repeat the operation, so please trigger RF detector again, when you see the Code, then press the Enter Button on the Keyboard, the system will display **Saved OK**. It means the wireless detector added to the system. Repeat this operation to add other wireless detectors.

Notice:

- a) *One time can add only 1 wireless detector;*
- b) *The Name of the RF detector can be modified by SMS commands. Please see chapter 6.3.*

9.3 Add Remote keys to the Control unit:

Because of both of the S120 and its remote keys are with learning code, you can add the remote key to the S120 directly following the 6.2.2.1 Add/Del RF Parts

- a) Enter the Add/Del RF Parts menu;
- b) Select **2. Edit Remote Ctrl**, then press **Enter** button,
- c) then following the instruction: **1. Turn On the Device**, means trigger the Remote Control, the system will show a code, then **press Enter Key** on the Keyboard. The system will ask you repeat the operation, so please trigger Remote key again, when you see the Code, then press the Enter Button on the Keyboard, the system will display **Saved OK**. It means the Remote key added to the system. Repeat this operation to add other remote keys.

Notice:

1) VVVV means this serial position saved one remote key already; you can learn a new remote key to replace it.

9.4 Delete all wireless detectors and remote keys.

Go back to the menu, then select the Remove All, select it then the system will alert Are You Sure → Press Enter to remove all the RF Parts of the system.

10. Technical specifications of Control Unit

Rated Voltage: 12VDC 2A

Siren Output Voltage: 12VDC

Working temperature: -10 ~ +60 ; Storage temperature: -20 ~ +60

Relative humidity: 10-90%, No condensation

Work frequency: 850/900/1800/1900MHz

Communication protocol: GSM PHASE 2/2+ (include data service)

Wireless detector receiving frequency: 433.92 MHz

Wireless Zone: 16 (Accept Max. 16Pcs Learning Code Detectors, Unlimited of fixed code Detectors)

Wired Zones: 20, Dry Contact, NC, NO, EOL.

Remote key permission quantity: 5Pcs

Effective distance wireless of remote control: 100 m in open air.

Backup Battery: 3Pcs, Rechargeable lithium battery: 1.2Ah@12V

Standby time Approx. 18hours (depending on the network condition)

Dimensions: 225mmX160mmX50mm (WXDXH); Net Weight: approx. 1.00Kg.

11. Important information

- 1) When the AC power failure, the +12V for wired detector' power is from the backup battery, so please don't connect heavy detector to it.
- 2) Please read the User Manual carefully before you install the Control Unit and set the Control Unit.
- 3) Do not install the system in close vicinity with objects that generate strong interference, such as TV set and computer.
- 4) Install the system in a hidden place.
- 5) Avoid getting water into the Control Unit.
- 6) Have a secure connection to the main power supply.
- 7) This product was designed for the indoor use.
- 8) Opening the control unit cover will void the warranty.

- 9) More information will be available of the S120, we will not inform you again after we upgraded, please check with your dealers.

12. Maintenance

- 1) If the Control Unit works, while the remote key and other detectors fail, please check and change the battery.
- 2) If the remote key works, but the Control Unit fails to send SMS texts, switch the power of Control Unit off and switch it on after one minute . Test this system after another minute, or check the settings are correct and the GSM Signals are strong enough.
- 3) If the Control Unit can run and detectors work, but cannot send SMS texts, please change SIM Card to check it.
- 4) If the problem cannot be solved, please contact the distributor or manufacturer.
- 5) The battery is not in the warranty according to its lifetime limited.

13. 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.

14. Trouble Shooting Guide

| PROBLEM | CAUSE | POSSIBLE SOLUTION |
|--------------------------------------|---|--|
| GSM Module initialization failed | <ol style="list-style-type: none"> 1) Backup battery with low voltage; GSM Module connection loose in transportation; 2) GSM Signal is too weak. | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 1) Backup battery with low voltage. | <ol style="list-style-type: none"> 1) Please help to contact the AC Power. |
| Wireless Detector transmission short | <ol style="list-style-type: none"> 1) Wireless detector with low voltage; 2) Wireless detector used PT2262 IC, and incorrect Value; 3) Haven't pull out wireless antenna; 4) Electromagnetic interference; 5) The wireless receiver in the panel with problem. | <ol style="list-style-type: none"> 1) Please replace the battery of the wireless detector, usually once /year; 2) Please correct the resistor value to 3.3M Ohm of the PT2262 Wireless detector; 3) Please pull out the wireless detector antenna; 4) Please install the wireless detectors or alarm panel away the electric equipments; 5) Please contact your distributors or manufacturer to replace it. |
| False Alarm | <ol style="list-style-type: none"> 1) PIR Motion detector installation incorrect; 2) Used 24H zones or SOS Zones or Watchdog zone. 3) NC/NO/EOL is incorrect. | <ol style="list-style-type: none"> 1) Please see the PIR Motion detector installation user manual carefully; 2) Please check if any detector assigned to these special zones and made incorrect activated; 3) Please check the detector NC/NO type and NC/NO/EOL Correctly.. |

**A Professional GSM Alarm System designer and manufacturer!
 GSM SMS Controller Alarm & GSM House Alarm System &
 GSM Telemetry Units & GSM GPRS Logging System**

| | | |
|--|--|--|
| <p>Alarm without SMS/ Alarm without Dial/ No action after send SMS command</p> | <p>1) GSM Operator communication protocol; 2) Haven't setup SMS Alert/Auto dial Numbers. 3) Caps Lock letters in the SMS Commands.</p> | <p>1) Please setup the SMS Alert Numbers; 2) Please help to see Page 15, 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.</p> |
| <p>Alarm Occurrence, the siren sound not enough 2minutes</p> | <p>1) Haven't setup SMS Alert Number and Auto-Dial Number</p> | <p>1) Please setup at least 1 SMS Alert Number or Autodial Number.</p> |

The End!