GSM SECURITY ALARM SYSTEM

1 System Introduction

Wireless GSM intelligent anti-theft electronic alarm system is an innovative wireless mobile intelligent warner integrating GSM digital signal processing techniques and imported STC microprocessor, and a variety of technologies including digital voice announcer, Chinese SMS, learning code pairing, etc. In addition, this alarm system is highly automatic, giving automatic voice or SMS alert in the event of emergency without intensive manual settings required. Features of stability, reliability, safety, and humanizing control enable it to be widely used for alert in shops, convenience stores, offices, villa as well as residential communities.

2 Function Introductions

- 4 wired guard areas and 6 wireless guard areas
- 6 voice phones and 3 message phones
- Remote two-way intercom
- 3 groups for timely arm/disarm
- Telephone (mobile phone) remote control programming
- 10-second ISD automatic message recording
- Built-in artificial intelligent digital voice announcer
- Built-in artificial intelligent Chinese message
- Alarm locking memory and information clear for easy checking
- Enabling guard while going out, enabling guard at home, and enabling guard by remote control
- Wireless intelligent learning encoding and convenient additional accessories
- Mobile phone (telephone) enabling guard, disabling guard and monitoring by remote control
- Real-time, delay, all day, bypass guard area
- The warning tone of guard enabling and disabling operations by remote control can be set.
- E’PROM information protection can protect the information from loss after powering off
- Built in NI-HI rechargeable battery is available to provide power supply automatically after powering off
- AC and DC dual use are available for 24-hours-a-day normal guard
- Main unit tamper-resistant and low-voltage detecting function conforms to the 3C safety standards.

3 Technical Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage:</td>
<td>DC9V~12V</td>
</tr>
<tr>
<td>Standby Current:</td>
<td>&lt;55mA</td>
</tr>
<tr>
<td>Warning Current:</td>
<td>&lt;450mA</td>
</tr>
<tr>
<td>Wireless Frequency:</td>
<td>315MHz, 2262/4.7MΩ</td>
</tr>
<tr>
<td>GSM System:</td>
<td>Three-frequency 900/1800/1900MHz</td>
</tr>
<tr>
<td>Backup Battery:</td>
<td>NI-HI AAA*6 DC7.4V</td>
</tr>
<tr>
<td>Alarm Loudness:</td>
<td>110dB</td>
</tr>
</tbody>
</table>

4 Factory Default

<table>
<thead>
<tr>
<th>Guard Area</th>
<th>Enable guard</th>
<th>At Home</th>
<th>Type</th>
<th>Alarm Conditions</th>
<th>Siren</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guard area 1</td>
<td>Valid</td>
<td>Real-time</td>
<td>Door lock alarm</td>
<td>On</td>
<td></td>
</tr>
<tr>
<td>Guard area 2</td>
<td>Valid</td>
<td>Real-time</td>
<td>Hall alarm</td>
<td>On</td>
<td></td>
</tr>
<tr>
<td>Guard area 3 (wired)</td>
<td>Valid</td>
<td>Valid</td>
<td>Real-time</td>
<td>Window alarm</td>
<td>On</td>
</tr>
<tr>
<td>Guard area 4 (wired)</td>
<td>Valid</td>
<td>Valid</td>
<td>Real-time</td>
<td>Balcony alarm</td>
<td>On</td>
</tr>
<tr>
<td>Guard area 5 (wired)</td>
<td>Valid</td>
<td>Valid</td>
<td>24 hours</td>
<td>Fire alarm</td>
<td>On</td>
</tr>
<tr>
<td>Guard area 6 (wired)</td>
<td>Valid</td>
<td>Valid</td>
<td>24 hours</td>
<td>Gas alarm</td>
<td>On</td>
</tr>
<tr>
<td>Remote control emergency key</td>
<td>Valid</td>
<td>Valid</td>
<td>24 hours</td>
<td>Help alarm</td>
<td></td>
</tr>
</tbody>
</table>

| Programming password: | 8888         | Remote Control: | Enabled |
| Operation Password:   | 1234         | Ringing Times:  | Once    |
| Siren Duration:       | 180 seconds  | Warning Siren:   | Disabled |

5 Installations and Commissioning

- **Main Unit Installation**

  Try to install the main unit in the center of guard areas as possible as you can, for best reception of all the wireless probers. Be careful to keep it away from large metal objects or household appliances which may cause high frequency interference, as well as barriers such as reinforced concrete
GSM SECURITY ALARM SYSTEM

walls and fire doors.

Control Panel of Main Unit:
- Power hole
- Alarm Output end
- Intercom speaker port
- Wired guard area input
- Grounding wire
- SIM card switch
- Setting button
- Backup power switch
- Antenna pedestal

A. Guard area indicator
B. [Enable Guard] light
C. [Power] indicator
D. Antenna pedestal

SIM Card Installation

Step 1: Press the yellow switch down at the side of card socket with a bradawl, and then the SIM card socket pops out automatically.

Step 2: Take out the SIM card socket and fit the GSM card into the card socket properly.

Step 3: Place the SIM-card-mounted card socket horizontally with card face upwards.

Step 4: At last turn over the main unit with its bottom shell upwards and then push the card socket into the card slot slowly and horizontally unless it is fit firmly.

6 Main Unit Settings

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation Instructions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buzzer</strong></td>
<td>Short “beep” tone</td>
<td>Key prompt</td>
</tr>
<tr>
<td></td>
<td>Long “beep” tone</td>
<td>Conforming prompt</td>
</tr>
<tr>
<td></td>
<td>Four short consecutive “beep” tone</td>
<td>Error prompt</td>
</tr>
<tr>
<td></td>
<td>Long “Beep” tone</td>
<td>SIM card is not fit or power on for the first time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation Instructions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guard area indicator</strong></td>
<td>Always on</td>
<td>Alarm lock</td>
</tr>
<tr>
<td></td>
<td>Flickering</td>
<td>In the state of disabling guard, this guard area is triggered</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation Instructions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enabling guard indicator</strong></td>
<td>Always on</td>
<td>Guard enabling state</td>
</tr>
<tr>
<td></td>
<td>Slow flickering</td>
<td>Settings state</td>
</tr>
<tr>
<td></td>
<td>Fast flickering</td>
<td>Warning state</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation Instructions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power indicator</strong></td>
<td>Always on</td>
<td>Mains supply power-on</td>
</tr>
<tr>
<td></td>
<td>Flickering</td>
<td>Weak GSM signal or no signal</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Not powering on</td>
</tr>
</tbody>
</table>
GSM SECURITY ALARM SYSTEM

- **Power-on for the First Time**

  Following the method of installation, install the SIM card of main unit, make wired connection and fit the GSM antenna properly in order. Then insert the output end of the power adapter which has been powered on to the power hole of main unit. At that time, all the indicators of 6 guard areas and 2 function indicators on the main unit flicker once and the buzzer emits a long “beep” tone; then the main unit starts to detect the GSM network with “beep” continuing and the power indicator being on for 1 second and off for 1 second (The time to detect network lasts for about 12 seconds to 55 seconds). Until the network is normal, “beep” stops, the power indicator is always on and the main unit is in the state of disabled guard.

  At last, slide the switch of backup battery to [ON] with nippers or a small screwdriver.

- **Factory Reset**

  First switch off the backup battery and cut off the power supply of power adapter, press and hold the button [Settings], and then turn on the power of power adapter; three seconds later, the buzzer emits a long “beep” tone and all the LED indicators go on but go out instantly; at last you can release the button. The main unit gets all its settings cleared and restores to its factory settings successfully.

- **Manual Recording**

  In the state of disabled guard, tap [Settings] continuously for three times, the main unit emits a long “beep” tone, and [Enable Guard] indicator flickers (once a second), then recording starts: recording at 30cm away from the main unit, with standard mandarin of moderate voice; 10 seconds later, recording stops automatically and [Enable Guard] indicator goes out.

- **Enter Settings**

  In the state of disabled guard, press and hold [Settings]; 3 seconds later, the main unit emits a long “beep” tone, [Enable Guard] indicator flickers and the main unit enters the setting state.

- **Exit Settings**

  After setting is finished, all the indicators of the guard areas go out but only [Enable Guard] indicator flickers; press [Settings] for three seconds and the main unit exits from setting. [Enable Guard] indicator goes out and the main unit returns to the state of disabled guard.

- **Code Pairing by Remote Control**

  - **Code Pairing of Remote Control**

    In the state of disabled guard, enter settings and tap [Settings] once again, the main unit emits a short “beep” tone and all the indicators of the guard areas are always on, which indicate that the machine enters remote control code pairing status; take a remote control required for code pairing and press any key on it to emit a wireless signal to main unit; after the main unit receives the signal, it emit a beep and all the indicators of guard areas go out, which indicate the remote control succeeds in code pairing.

    Cautions: the main unit can provide code pairing for at most 8 remote controls. Code pairing for all remote controls is the same.

    - **Delete Remote Control**

      In the state of disabled guard, enter settings and tap [Settings] once again, the main unit emits a long “beep” tone and all the indicators of the guard areas are always on, and then it enters remote control code pairing status; press and hold [Settings] for 3 seconds, the main unit emits a long “beep” tone and all the indicators of the guard areas go out. Remote control is finished successfully.

      Cautions: when deleting remote control, all the remote controls would be deleted.

- **Code Pairing of Guard Area**
GSM SECURITY ALARM SYSTEM

Code Paring of Guard Area

In the state of disabled guard, enter settings, tap [Settings] once again to enter the remote control code pairing status; tap [Settings] once again and the indicator of guard area 1 goes on; then, take a prober required for code pairing and trigger an alarm to emit a wireless signal to the main unit; after the main unit receives this signal, it emits a long “beep” tone and the indicator of guard area 1 goes out, which indicate code pairing in guard area 1 is finished successfully.

Cautions: in the state of disabled guard, enter settings, skip code pairing of remote control and continue to tap [Settings], and then the indicators of the guard area go on one by one; select a guard area to perform code pairing and the indicator of this guard area goes on. Repeat the code pairing operation in the paragraph above for all other guard areas.

Code pairing for the guard areas on main unit can be overwrote automatically, which means only the last code pairing is valid. Therefore, code pairing can only be performed for one prober in a guard area; in case the number of probers required is more than that of the guard areas, you can edit the address code and digital code of the probers of same type to be the same exactly. By doing so, you just need to perform code pairing for one prober, and then other probers with the same codes can work normally. In alarm, it will indicate the same guard area.

Delete Code Pairing

In the state of disabled guard, enter settings and skip code pairing of the remote control; tap [Settings] once again, then the indicator for guard area 1 goes on; then, long press [Settings], three seconds later the main unit emits a long “beep” tone, and the indicator of guard area 1 goes out. Code pairing for guard area 1 is deleted successfully.

7 Remote Control Programming

All the programming of the main unit are completed through key operations on a mobile phone (or fixed phone), which shall dial GSM card number of main unit first.

In the state of disabled guard, after GSM network is checked to be normal, dial the SIM card number by mobile phone (or fixed phone), the main unit will answer automatically and give a voice prompt “Please enter password”; then you can enter the correct programming password (factory default: 8888); after that, the main unit emits a long “beep” tone, and the [Enable Guard] indicator flickers, indicating that the main unit enters remote control programming.

Function Instructions

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation Instructions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Programming</td>
<td>Enter [password]</td>
<td>Long “beep” tone</td>
</tr>
<tr>
<td>Exit Settings</td>
<td>Hang up directly</td>
<td>Short “Beep” tone</td>
</tr>
<tr>
<td>Operation Password</td>
<td>[30] + [new password] + [#] (modified)</td>
<td>Factory default: 1234</td>
</tr>
<tr>
<td>Programming Password</td>
<td>[31] + [new password] + [#] (modified)</td>
<td>Factory default: 8888</td>
</tr>
<tr>
<td>Set Phone</td>
<td>[51] + [phone number] + [#]</td>
<td>[51]~[56] 6 groups</td>
</tr>
<tr>
<td>Delete Phone Number</td>
<td>[51] + [#]</td>
<td>[51]~[56] 6 groups</td>
</tr>
<tr>
<td>Message Receiving Phone Number</td>
<td>[57] + [phone number] + [#]</td>
<td>[57]~[59] 3 groups</td>
</tr>
<tr>
<td>Delete Message</td>
<td>[57] + [#]</td>
<td>[57]~[59] 3 groups</td>
</tr>
<tr>
<td>Guard Area Programming</td>
<td>[60]+[01-08]+[1-4]+[1-8]+[0/1]+[#]</td>
<td>Factory default: 1/1/0</td>
</tr>
<tr>
<td>Stay in Guard Area</td>
<td>[61]+[01-08]+[0/1]+[#]</td>
<td>Factory default: 0</td>
</tr>
<tr>
<td>Remote Control</td>
<td>[password] + [1/2/3]</td>
<td>Voice prompt</td>
</tr>
</tbody>
</table>

Change Password

In the state of remote control programming, directly enter the address code [30]/[31] by phone keys, enter the 4-digit new password, at last add [#] to confirm. The main unit emits a long “beep” tone, indicating the operations are successful.

Operation password: 

```
3 0 ➞ X X X X ➞ #
```
GSM SECURITY ALARM SYSTEM

Programming password:
Illustration: “X” indicates the new password; for example, change the factory default (8888) of programming password into the new password: 0000.

![Illustration: Change of Programming Password]

Operation Password: after dialing the SIM card number by mobile phone (or fixed phone), if you enter the operation password (factory default: 1234), you can only perform the operations including enabling guard, disabling guard and monitoring by remote control.
Programming Password: after dialing the SIM card number by mobile phone (or fixed phone), if you enter programming password (factory default: 8888), you can only perform the following settings including voice call, SMS receiving phone number and functions.

Cautions: the operation password and the programming password can not be set to the same number.

- Phone Settings
  - Voice Call
    When it is set to alert through voice call, the main unit can send warning voice message to 6 phone numbers, (for example: Zone 5, balcony alarm, this is......).
    In the state of remote control programming, enter the address code [51]-[56], enter the phone (fixed phone) number and then enter [#] to confirm. [51]-[56] represent the address codes of voice alarm-receiving phone numbers from the first group to the sixth group.

Phone Number Settings:

| 5 1 | X | X | ... | X | X | # |
| 5 2 | X | X | ... | X | X | # |
| 5 3 | X | X | ... | X | X | # |
| 5 4 | X | X | ... | X | X | # |
| 5 5 | X | X | ... | X | X | # |
| 5 6 | X | X | ... | X | X | # |

Delete Phone Number:

| 5 1 | # |
| 5 2 | # |
| 5 3 | # |
| 5 4 | # |
| 5 5 | # |
| 5 6 | # |

Illustration: “X” indicates the set voice alarm-receiving phone number; set 0755-12345678 to be the second voice call number.

Delete the third group of voice call number.

Delete Phone Number:

| 5 3 | # |

Message Receiving Phone Number

When it is set to alert through message, the main unit will send alarm SMS to three phone numbers, (for example: ZONE 5, balcony alarm). In the state of remote control programming, enter the address code [57]-[59], enter the phone number and then add [#] to confirm. [57]-[59] represent the address codes of message-receiving phone numbers from the first group to the third group.

Set Number:

| 5 7 | X | X | ... | X | X | # |
| 5 8 | X | X | ... | X | X | # |
| 5 9 | X | X | ... | X | X | # |

Delete number:

| 5 7 | # |
| 5 8 | # |
| 5 9 | # |
GSM SECURITY ALARM SYSTEM

Illustration: “X” indicates the set message-receiving phone number; set 13811111111 to be the first message-receiving phone number.

Delete the first message-receiving phone number.

Guard Area Programming
In the state of remote control programming, enter the address code [60], first enter the guard area number by [1~6], then enter the guard area type by [1~4], then the guard area location by [1~6], and then select if the alarm sound is enabled by [0/1], at last add [#] to confirm.

Operations: 6 0 ➔ A ➔ B ➔ C ➔ D ➔ #

Notes: “A” indicates the number of guard area; “B” indicates the type of guard area; “C” indicates the location of alarm; “D” indicates if the siren sounds.

A: Number of guard area: [1~6] corresponds to guard area 1 to guard area 6 respectively.


D: Type of siren: [0] sound-on, [1] sound-off

Illustration: set the guard area 1 to 24 hours a day, fire alarm with sound.

Clock Setting
In setup status, use keypad to input [32], then input the two digits [AA] of the present hour (24-hour system), the two digits [BB] of the present minute, and finally enter [#] to confirm. You will hear a long beep and a voice prompt “setting finished”.

Operating method: [32]⇒[AA]⇒[BB]⇒[#]

AA indicates: the 2 digits of the present hour.
BB indicates: the 2 digits of the present minute.

For example: set the time as 3:35

Operating method: [32]⇒[03]⇒[35]⇒[#]

Timing Settings

Timely Arm
In setup status, use keypad to input [33~35], then input the hour [AA] and minute [BB] of the time you want to set to arm, and finally input [#] to confirm. You will hear a long beep and a voice prompt “setting finished”.

Operating method: [XX]⇒[AA]⇒[BB]⇒[#]

XX indicates: the address code 33, 34, 35 of the timely arming

AA indicates: the hour of the setting time

BB indicates: the minute of the setting time
GSM SECURITY ALARM SYSTEM

For example: set the arm time as 45’ 10pm
Operating method: [33]⇨[22]⇨[45]⇨[#]

2 Timely Disarm
In setup status, use keypad to input [36~38], then input the hour [AA] and minute [BB] of the time you want to set to disarm, and finally input [#] to confirm. You will hear a long beep and a voice prompt “setting finished”.
Operating method: [XX]⇨[AA]⇨[BB]⇨[#]
   XX indicates: the address code 36, 37, 38 of the timely disarming
   AA indicates: the hour of the setting time
   BB indicates: the minute of the setting time
For example: set the arm time as 45’ 10pm
Operating method: [33]⇨[22]⇨[45]⇨[#]

3 Timing Control
In setup status, use keypad to input [39], then input the number indicating turning on timely arm/ disarm [1/0], and then input [#] to confirm. You will hear a long beep and a voice prompt “setting finished”. The factory default is off.
Operating method: [39]⇨[0/1]⇨[#]
   0: turn off the function of timely arm/ disarm
   1: turn on the function of timely arm/ disarm
For example: turn on the function of timely arm/ disarm
Operating method: [39]⇨[1]⇨[#]

8 Operation Instructions

■ Enable Guard while Going out
   It means to guard all around your house while everyone is going out; all the probes of alerters are always working; when the probe is triggered by probing source (anti-theft, fire prevention, gas leak, etc.), the alarm system will sound the alarm. After you have done these operations, the indicator of [Enable Guard] on the main unit is always on.
   ■ Enable Guard at Home
      It means, for the safety, while somebody is at home, you need to enable the peripheral door, window, balcony and perimeter probes of the alarm system for fear of triggering the indoor probes, which may cause improper warning; then, you shall select Enable Guard at Home, let just part of the probes work and disable the other parts. Only if you have set enabling guard at home, can it work normally and at that time the [Enable Guard] indicator on the main unit is always on.
   ■ Disable Guard
      It means to stop the alarm when the main unit sounds the alarm or make the alarm system in the state of non-warning. After disabling the guard, even if you trigger the prober, the main unit would not sound alarm (excluding 24-hour guard areas and emergency button on the remote control) and the [Enable Guard] indicator goes out.
   Remote control operations: press [ upbeat] on the remote control.
   ■ Cancel Alarm
      It means to clear the memory of alarm. After the main unit sounds alarm, all the indicators of the triggered guard areas will be on and locked. In the state of disabled guard, only repeating the operations to withdraw the guard can eliminate the lock display of the alarmed guard area; after the alarm is canceled, all the indicators of [Enable Guard] will go out.
   Remote control operations: press [ upbeat] on the remote control.
   ■ Emergency Alarm
   Remote control operations: press [ upbeat] on the remote control.
   ■ Receiving Alarm by Phone
   After the main unit sounds alarm, it will automatically dial the preset numbers (mobile phone number) in order. After the user answers: he or she will hear the alarm...
recording. Meanwhile, users can also do remote control on the alarming main unit by pressing the phone (mobile phone) keys:

1. Key: main unit stops the alarm and arranges guard; it doesn’t dial the number any more.
2. Key: main unit stops the alarm and withdraws guard; it doesn’t dial the number any more.
3. Key: main unit stops the alarm, monitors the scene for 30 seconds and doesn’t dial the number any more; for continued monitoring, press [3] again to monitor for another 30 seconds.

After receiving the alarm by phone, if the user just listens to the voice alarm and hangs up without any remote control, the main unit will continue to dial the next number until somebody answers it. If no body answers, after the main unit dials all the numbers for three times in turn, it will hang up automatically.

Remote Control

Dial the number associated to the alarm main unit by phone (mobile phone), and after one ringing cycle, you can hear a voice prompt “Please enter password”; enter the password by phone keys (factory default of remote control password: 1234). If the password is correct, you will hear a prompt “Press 1 to arm, press 2 to disarm, press 3 to monitor, Press 4 to Intercom.” The specific operations are shown as below:

1. Key: enabling guard, if finished successfully, you will hear a voice prompt “System armed”.
2. Key: disabling guard, if finished successfully, you will hear a voice prompt “Defense Withdrawn”.

Remote Control Programming

Dial the number associated to the alarm main unit by phone (mobile phone), and after one ringing cycle, you can hear a voice prompt “Please enter password”; enter the password by phone keys (factory default of remote control password: 8888). If the password are correct, you will hear a long “beep” prompt tone; if it is wrong, you will hear a prompt “the password is invalid, please enter it again”.

9 Maintenance

System Test

Although the alarm system is used everyday, periodical maintenance and test are required to assure that it can run stably, reliably and safely. Usually thorough test must be performed on the alarm main unit every three months. You’d better check the prober once a month; if not permitted by conditions, you shall check it at least every three months.

Main Unit Test:
1. Check if it can enable/disable guard normally.
2. Check if it can normally dial the number for alarm.
3. Check if it can receive the signal from probers normally or if the backup battery is normal.

Prober Test:
1. Trigger a prober manually to check if it can sound alarm normally.
2. Check the batteries of all the probers to check if they are undervoltage.
3. Check the emission of wireless probers to see if it can communicate with the main unit normally.

Trouble Shooting

If any trouble, perform trouble shooting shown as below:

Always buzzing: Is the SIM card fit properly? Install again
Is the PIN code of SIM card set? Cancel it.
GSM SECURITY ALARM SYSTEM

Power indicator always flickering: Is the network signal strong enough? Change place.

Alarm failure: Is the code normal or is code pairing finished successfully?
- Confirm the right code and perform code pairing again.
- Is the prober undervoltage and is its transmitting distance not long enough? Replace battery.

Dialing failure: Is the signal of China Mobile strong enough? Change place.
- Is there enough balance on the GSM card for call? Recharge it.

Siren failure: Are the positive and negative poles of siren right or in fine contact?
- Check.
- Are the guard areas set to mute alarm? Reset.

Voice disorder: have you made recording? Record again.

Failure in setting by remote control: do you enter the correct setting password (factory default: 8888)?

Remote control failure: do you enter the correct remote control password (factory default: 1234)

10 Products Checklist

- Main unit for alarm 1
- Wireless infrared detector 1
- Wireless magnetic door detector 1
- Remote control 2
- Adapter 1
- Siren 1
- Instruction book 1
- Qualification Certificate 1
- Warranty card 1

Precautions

For any consult or maintenance service, please contact our professional engineers or service providers.

Please do not disassemble, repair and alter the products without permission, or it may cause accidents and faults.

Do not drop this product on the ground or on hard objects, as it may lead to massive impact to cause faults and damage.