HA788GSM   GSM Alarm

User Manual

1. Product overview
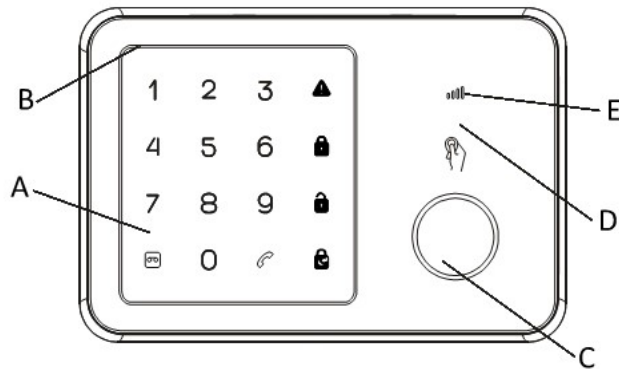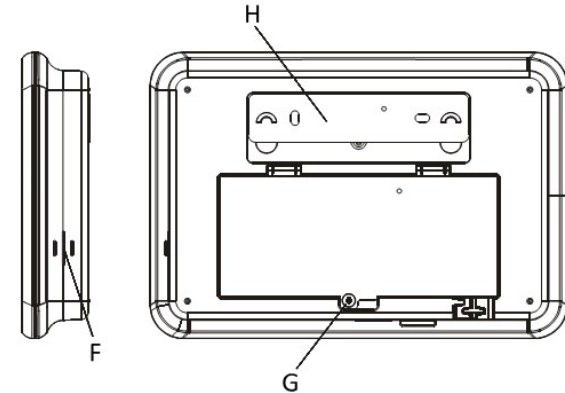
F. Speaker   G. Battery cover   H. Wall mounting bracket

A. Touch keypad   D. RFID sensor area
B. Microphone   E. GSM status led
C. Siren
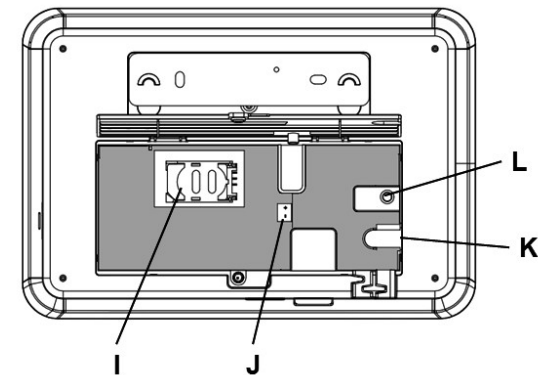
When battery cover is removed:
I. SIM card slot   J. Battery connector
K. DC-jack   L. Factory reset

2. Features
- 868MHz Radio Frequency
- 50 wireless zones
- SIM card slot for GSM connection
- SMS & phone call notifications up to 10 numbers
- Easy operation by App
- Easy disarm by RFID tag, with up to 50 tags supported.
- Dial and receive phone calls
- Hands-free two-way talking
- Siren Volume up to 95dB
- Notify user if door/window not closed when trying to Arm
- Hidden Duress Code capability
- Tamper protection feature
- RF jamming detection

3. Install SIM card and first set up

3-1 SIM card installation
Like all GSM devices the GSM alarm panel requires a SIM card to operate.

3-1-1 Preparing the SIM card
a. The SIM card needs to be unlocked before use. You can use a mobile phone to cancel the input of PIN code or PUK code.
b. Ask your local carrier to disable voice message function of this SIM card.
c. As alarm messages and sending SMS require fees, please inquire with your local carrier about their charging standards.
d. The SIM card size required is Mini SIM. For Micro SIM and Nano SIM, use a SIM card adaptor before inserting into the alarm panel.
e. Ensure the SIM card is not expired.

3-1-2 Inserting the SIM card
1. Remove battery cover of the alarm panel.
2. Insert a SIM card into the slot and connect the 9V power adapter.
3. Wait until the GSM status led blinks slowly (once every 3 seconds) implying the SIM card is ready for use.
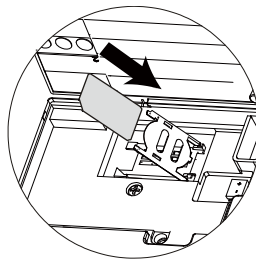
3-2 Setting Up the Host Phone Number
First of all you need to enter the Host Phone Number so that the GSM notification can function normally. The host phone number refers to the owner's phone number that needs to be entered into the alarm panel so that it will recognize SMS commands sent from the owner's phone.

Note: The "Show Caller ID" function on the owner's mobile phone must be turned on. The alarm panel can then determine if this number is authorized to use SMS commands.

1. Begin configuration by entering the default configuration PIN code '**1234**'
2. On the touch keypad, enter **66** + **PARM** Key + **Owner's number** + **PARM** key

Note: Do not enter the phone number of the SIM card inside the alarm panel.

3. You will receive an SMS message saying phone number set successfully.
4. Your alarm panel can now be controlled from the smartphone app.

4. Definition of LEDs

| LED	Indication
GSM Status LED ‧ıll	Flashing once every second: Registering with host device Flashing once every three seconds: Successful registration with GSM base station Off: No AC power, alarm panel running on battery
[REC] LED & Key	Flashing: Recording / Listen-In in progress On: Message playback in progress
[ARM] LED & Key	On: Arm Mode Flashing: Arm Mode Exit Delay
[PARM] LED & Key	On: Partial Arm Mode Flashing: Partial Arm Exit Delay
[DISARM] LED & Key	On: Disarm Mode Flashing: Waiting for device binding / Test Mode
[ALARM] LED	Flashing: Alarm event triggered
[TEL] LED & Key	On: Using GSM Telephone Flashing: GSM sending SMS
[RFID] LED [LEDs around siren area]	On: Reading Tag ID
Numbers 1-9 LED & Keys	On: Indicator for sensor zone 1 to 9, or which remote keyfob 1- 9, or RFID tags 1-4
Number 0 LED & Key	On: Indicator for sensor zone > 9 or RFID tags > 4.

5. Mounting the Alarm Panel

Selecting a suitable location:
- Mount the alarm panel close to the door which you normally use to enter/exit your house.
- Note that the Alarm panel requires a power outlet to function properly.
- Ensure the location selected a good GSM signal. You can do this by cross checking the signal bar on your phone at that location.
- The panel must not be co-located or operated in conjunction with any other nearby transmitter or antenna.

1. Remove the back panel mounting bracket of the GSM and mount the bracket on the wall using wall anchors and screws.
2. Once secured, ensure the power connectivity and reattach the alarm panel to the secured mounting bracket.
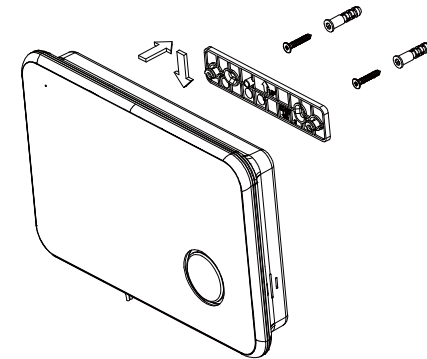
3. Power on the panel and test to make sure the GSM has good signal. Please see Test Mode Point 4.

6. Configure the Alarm panel

There are 3 ways to configure the Alarm panel';

1. **Keypad**: Basic and advanced settings can be configured through the touch keypad. Whenever a key is pressed, the LED will light up and a key tone will sound (when Key Tone is enabled).
   Refer to Appendix A for the full list of keypad and button combination to various settings. A 4-digit PIN code needs to be entered; the default PIN is '**1234**'.

2. **SMS**: Some settings can be configured remotely using predefined SMS text sent from the owner's phone. Refer to Appendix B for the list of SMS settings.

3. **Smartphone App**: The preferred method is by Android/IOS app available on Google Play and Apple iTunes store. The App performs the same commands for SMS settings listed in Appendix B.

6-1 Record and Playback Alarm Message
To start, a help message needs to be recorded and stored in the system. This message will be played back over the phone when the alarm is triggered.
Record alarm message
1. Enter the **PIN + DISARM** Key to disarm the system.
2. Enter **PIN + REC** button
3. When the REC LED flashes, say a brief messages into the microphone. The maximum message length is 10 seconds.
4. Press **PARM** key to stop recording if message is shorter than 10 seconds
5. To playback the message, press and hold the **REC** button.

6-2 Notification contacts
Create the list of contacts to call when an alarm event occurs.
Refer to Appendix B in the *Alarm Voicecall Phone number* list to set this up by SMS or App.
Create also a list of contacts to send SMS messages when an alarm event occurs.
Refer to Appendix B for *Alarm SMS Phone number list* to set this up by SMS or App.
Note:
a. The Host Phone Number will automatically appear as the first number in the list of *Alarm Voicecall number*, *Alarm SMS Phone number* and *Speed Dial No.* in Appendix B.

b. The "Show Caller ID" function on the contact's mobile phone must be turned on to send SMS commands. The alarm panel can then determine if this an authorized number

6-3 Alarm Type
There are two alarm types,
- **Alarm Type 1:** loud siren with GSM voice call and SMS message. This serves to scare the intruder.
- **Alarm Type 2:** siren off but with GSM voice call and SMS message. This leaves the intruder unaware the alarm has been triggered.
Refer to Appendix A to set up Alarm Type 1 or 2 using keypad.

6-4 Duress Disarm PIN code
Duress PIN code is your normal PIN code + 1.
For example: normal PIN code 1230 will have a duress PIN code of 1231
Normal PIN code of 9999 will have a duress PIN code of 0000.
An SMS will be sent to the Host Phone Number when using a duress PIN code to disarm.

6-5 Test Mode
This is used to test the various functions after the alarm panel and sensors have been completely set up.
1. Enter the **PIN + DISARM** Key to disarm the system.
2. Enter the **PIN + 03** to enter Test Mode. The DISARM LED will flash during Test mode.
3. Time out for Test mode is 10 minutes, after which the system will return to disarm mode. Press the **DISARM** Key anytime if you wish to exit Test Mode at anytime.
   Device test
4. If a sensor signal is received in Test Mode the chime would sound and keypad LED will turn on to indicate which sensor (LED 1 – 9 indicates Sensor Zone 1 – 9, Remote 1 – 9, or Tag 1 – 9. Other indications would be LED 0)
   If the device is a sensor, the Sensor Type will be indicated as below:
- Arm LED on: indicates the Sensor will only trigger when Fully Armed
- Partial LED on: indicates the Sensor will trigger when Fully Armed or Partial Armed.
- Alarm LED on: indicates the Sensor will trigger an immediate alarm (24 hours) when Fully Armed / Partial Armed / Disarmed.
   GSM signal test
5. Press and hold **7** for 3 or more seconds during Test Mode to display the GSM

signal strength indicated as:
- LED 1 :Good, LED 2: Normal, LED 3: Poor,
- ALARM LED : No Signal / SIM card registration failure / No SIM card

Siren enable/disable

6. Press **8** for 3 or more seconds during Test Mode would send a System On / Off command to the Wireless Siren.

SMS test

7. Press **9** for 3 or more seconds during Test Mode would send a test SMS message (including the current Alarm Mode, Delay Time, Siren On/Off, and Alarm Time) to the Host Phone number.

6-6 Changing the PIN code

For security reasons it is strongly advised to change the default PIN code to a 4-digit number of your choice. This prevents unauthorized access of your alarm panel from its keypad.

Enter **Old PIN** + **06** +**New PIN.** The new PIN code will take effect immediately.

7.   Arming /Disarming the Alarm panel

7-1 Fully Arm Mode

1. Enter **PIN** + **Arm** Key. A long beep will sound if the PIN code is correct. Three beeps will sound if the PIN code is incorrect.
2. If the PIN code is correct, the system will enter the Exit Delay countdown. The ARM LED will flash and beep tone will sound once every second.
3. When the countdown reaches 5 seconds, the beep tone will sound twice every second.
4. After the countdown is complete the system will enter Arm Mode. The Arm LED will turn on.

7-2 Disarm Mode

1. Enter the **PIN** + **DISARM** Key. A long beep will sound if the PIN code is correct. Three beeps will sound if the PIN code is incorrect.
2. If the PIN code is correct, the system will enter Disarm Mode immediately.

Note:

a. Remote keyfobs, Wireless Keypad, and SMS/App can be used to operate Arm / Partial Arm / Disarm the system.
b. RFID Tags can be used to Disarm only. Simply swipe the tag in the area above the siren on the alarm panel. An SMS will be sent to the Host Phone Number if disarmed by RFID Tag. The SMS content can be modified for Tags 1-4 (e.g. "Jack came home", "Daniel disarmed"). SMS content for Tags 5-50 cannot be modified.
c. Contacts listed in ***Alarm SMS Phone number list*** can Arm, Partial Arm and Disarm by SMS or App

7-3 Partial Arm Mode

1. Enter the **PIN** + **PARM** Key. A long beep will sound if the PIN code is correct. Three beeps will sound if the PIN code is incorrect.
2. If the PIN code is correct, the system will enter the Exit Delay countdown. The PARM LED will flash and beep tone will sound once every second.
3. When the countdown reaches 5 seconds, the beep tone will sound twice every second.
4. After the countdown is complete the system will enter Partial Arm Mode. The PARM LED will turn on.

.7-4 One Key Alarm Mode

The alarm panel provides an easy one key step to set Arm and Partial Arm mode: From Disarm Mode:
- Press and hold **ARM** Key for 3 or more seconds to enter Fully Arm Mode;
- Press and hold **PARM** Key for 3 or more seconds to enter Partial Arm Mode.

7-5 Open Door / Window Alert:

This feature checks if the door or window is left open when trying to Arm or Partial Arm the system.

1. To turn on this feature, enter **PIN** + **08** + **1** + **PARM**
2. If a door/window sensor reports an open condition then the alarm panel will beep for 10 seconds, and the keypad LED will indicate which sensor zone number 1 – 9 (0 for other Sensor Zones).
3. After the alert has ended it will enter the configured alarm mode. If all doors/windows are closed the alert sounds will turn off.

You may also do a quick check while in Disarm mode:
- Pressing the **ARM** Key will check all doors and windows under Fully Arm and display sensor number LED of opened doors or windows for 3 seconds.
- Pressing the **PARM** Key will check all doors and windows under Partial Arm and display LED opened doors or windows for 3 seconds.

8. When alarm occurs

An alarm condition will be triggered when, in Fully Arm/Partial mode, a sensor is triggered and signals the panel to sound the alarm.

The alarm will also be triggered under an emergency panic situation, when the panic button on the remote keyfob is pressed, or the alarm panel keypad registers a panic (long press **9** key).

When an alarm is triggered the following actions will take place:
- the siren will sound loudly (depending on your Alarm Type and Alarm Time settings). The default time for siren alarm is 3 minutes.
- the Alarm LED will flash. LEDs 1 – 9 will also indicate which of the Sensor Zones 1 – 9 caused the alarm, or which Remote 1 – 9 activated the panic. LED 0 will turn on for other situations. The LEDs will continue to be on until the system is disarmed.
- SMS notification will be sent to contacts (depending on your SMS setting).
- Voice call will be made to contacts (depending on your Alarm message setting).

To quickly turn off the above activity, disarm the system by entering **PIN + DISARM** Key, or using the remote keyfob. This will also clear Alarm Memory.

8-1 Voice call alert
During an alarm condition the alarm panel will initiate a voicecall session, during which it will repeatedly dial the preset voicecall telephone numbers in sequence and play back the recorded help message.
- For each contact called the alarm message will playback repeatedly for 30 seconds. The next contact will then be called.
- Each contact will be called 3 times in a call loop regardless whether the call is answered or not.
- To end the current call, press the "*" key then "#" key on the phone, or wait 30 seconds timeout. The alarm panel will then call the next contact on the list.
- To exit from the call loop, press the "*" key then "8" key. This contact will not be called again until the next alarm condition.
- If 3 contacts exit the call loop (i.e. 3 contacts entered "*" then "8" key), the entire call session will end abruptly.

8-2 Phone control mode
When called, the user may press the "*" key on the phone. This will stop the siren and the panel will enter phone control mode to wait for next input key:

a. Press "1" key = Fully Arm and send SMS
b. Press "2" key = Part-Arm and send SMS
c. Press "3" key = Set the Siren to turn on Alarm and send SMS
d. Press "4" key = Set the Siren to turn off Alarm and send SMS
e. Press "6" key = Listen to the Alarm message again
f. Press "7" key = Enter Listen-In Mode. This mode will timeout after 5 minutes. Press the "#" to exit Listen-In at anytime.
g. Press "8" key = Exit from call loop and send SMS
h. Press "9" key = Enter Two Way Talk Mode. This mode will timeout after 5 minutes
i. Press "0" key = Disarm and send SMS
j. Press "#" key = Cancel this call without exiting the call loop.

If no keys are input after 30 seconds, the alarm panel will hang up.

8-4 RFID Tag Disarm Notification
If the alarm is disarmed by the RFID Tag, an SMS will be sent to the Host Phone Number is set to Disarm and notify which RFID tag user disarmed the system.

9. Other types of alerts

9-1 RF Jamming detection
When Anti-jamming is set to on, the device will send an SMS to the Host Phone Number when RF jamming is detected under Arm Mode.

9-2 Sensor Low Battery Indication
When a sensor's battery runs low, an SMS will be sent to Host Phone Number (The sensor will send a second SMS after a minimum interval of 7 days).

10. Telephone Functions

The alarm panel can operate as an ordinary telephone to make and answer GSM voice calls. It features a built in speakerphone with echo-cancelling to allow hands free conversation.

10-1 Calling and Answering

10-1-1 Making a call: Simply enter the number keys then press **TEL** key to call. Press **TEL** key again to hang up.

10-1-2 Answering a call: A ringing tone will sound when someone calls. Press the **TEL** Key to answer, and press it again to hang up. Hold the Telephone Key for 3 seconds to reject the call.

10-1-3 DTMF Key: Number keys may be pressed during a call. To enter a "*" press the **REC** Key. To enter a "#" press and hold the **REC** Key for more than 0.5 seconds.

10-2 Speed-dial numbers

A total of 5 telephone numbers can be preset as speed-dial on the keypad of the alarm panel.

To set the speed-dial numbers, send SMS commands *Set Speed Dial No.* in Appendix B using SMS entry or the App.

To call a speed-dial number, simply press and hold the assigned keys 1- 5 on the alarm's keypad.

10-3 Call back

As the owner, you can remotely instruct the alarm panel to call your phone to listen in and talk to someone at home. Using SMS or the App, send a *Two Way Talk* command in Appendix B.

To end this call, simply hang up from your phone.

11. Adding/removing devices

11-1 Adding motion and door/window sensors

The alarm panel will group motion sensors and door/window sensors into 5 security types, each assigned according to the owner's application need.

- **Security Type "0" : Fully Arm**. The sensor will be activated only when the system is in Fully arm mode. This sensor will not be activated in Partial Arm mode. When sensor is triggered the alarm will sound immediately without any preset delay.
- **Security Type "1" : Partial Arm and Fully Arm**. The sensor will be activated when the system is in either Partial arm or Fully arm mode. When sensor is triggered the alarm will sound immediately without any preset delay.
- **Security Type "2" : Fully Arm + Delay**. Same Security Type "0" except when sensor is triggered the alarm will sound after a preset Entry delay. This is mostly used for main entrance to prevent accidental triggering of the alarm by the user.
- **Security Type "3" : Partial Arm and Fully Arm + Delay**. Same Security Type "1" except when sensor is triggered the alarm will sound after a preset Entry delay. This is mostly used for main entrance to prevent accidental triggering of the alarm by the user.
- **Security Type "4" : 24Hrs intruder** : the sensor will immediately trigger an alarm regardless whether the system is in Disarm/Fully Arm or Partial Arm mode. This is normally used to protect areas from unauthorized access as safe box or electrical maintenance room, etc.
-

When a new sensor is added it needs to be assigned the Security Type above.
To add a sensor:
1. Power on the sensor by inserting its batteries.
2. On the alarm panel, enter the **PIN** + **DISARM** Key to disarm the system.
3. Enter **PIN** + **15** + **(Security Type)** + **PARM** to start the binding process. The DISARM LED will start to blink for 30 seconds with a beep tone.
4. Within 30 seconds, set the sensor to enter binding mode using its learn-key/tamper button. Refer to the sensor's user manual for details.
5. If a sensor is successfully added, the DISARM LED will turn on for 1 second along with a long beep sound. The Keypad LED will turn on to indicate the allocated zone number. (Numbers 1 – 9 for zones 1 – 9, Number 0 for Sensor Zones 10 or more).
6. If the binding process fails, it will timeout after 30 seconds and 3 short beeps will be heard.
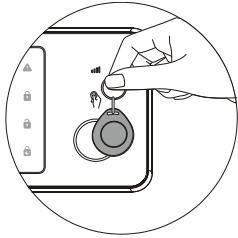7. To exit the binding process, press the DISARM Key

Note: The zone number for the sensor is allocated sequentially. It is advised to label a sensor with its zone number immediately after successfully binding it.

11-2 Adding a remote keyfob, RFID tags and wireless keypad

To add these devices:
1. Power on the device by inserting its batteries.
2. On the alarm panel, enter the **PIN** + **DISARM** Key to disarm the system.

3. Enter **PIN** + **15** + **PARM** to start the binding process. The DISARM LED will start to blink for 30 seconds with a beep tone.
4. Within 30 seconds, set the device to enter binding mode using its learn-key/tamper button. Refer to the device's user manual for details.
   For RFID tags, simply swipe it in front of the alarm panel in the area above the siren.

5. If a device is successfully added, the DISARM LED will turn on for 1 second along with a long beep sound.
6. If the binding process fails, it will timeout after 30 seconds and 3 short beeps will be heard.
7. To exit the binding process, press the DISARM Key

11-3 Deleting a sensor or device

Follow the steps in Appendix A to remove a sensor or other devices from the alarm panel's binding memory. For sensors/keyfob/RFID tags numbered 1-9, you can select directly from the keypad.

Note: The alarm panel must be in Disarm mode.

12. Hot Key Functions

Below table is summary of hot-key press on the alarm panel's keypad.

Function	Operation	Explanation
Speed Dial TEL_1	Hold 1	Speed dial phone number set 1
Speed Dial TEL_2	Hold 2	Speed dial phone number set 2
Speed Dial TEL_3	Hold 3	Speed dial phone number set 3
Speed Dial TEL_4	Hold 4	Speed dial phone number set 4
Speed Dial TEL_5	Hold 5	Speed dial phone number set 5
PANIC	Hold 9	Generate a Call for Help Alarm
Play Alarm Message	Hold Record	Test playback of the user's recorded alarm message
All Area Alarm Mode (Single Key)	Hold Arm Key	May only enter this mode under Disarm Mode
Partial Area Alarm Mode (Single Key)	Hold Partial Arm Key	May only enter this mode under Disarm Mode

13. Troubleshooting

13-1 Basic Troubleshooting

13-1-1 The alarm panel cannot register with a GSM host (GSM Net LED flashes rapidly):

a. SIM card not inserted or bad contact.
b. SIM card needs to be unlocked before use (use a mobile phone to setup) to cancel the input of PIN code or PUK code.
c. Change the position of the HA788GSM.
d. Remove AC power and batteries and insert the SIM card again.
e. Make sure the SIM card is not expired.

13-1-2 Mobile phone cannot configure the alarm nor receive SMS from it:

a. The Show Caller ID function on this mobile phone must be turned on. The alarm panel will not accept any commands if it cannot recognize the sender's Caller ID.
b. Only a phone number set as Host phone number may have administrator rights to configure parameters such as Voice, SMS, Speed Dial numbers, delay time, Siren, volume, and starting time. Normal SMS numbers will not be accepted.
c. If GSM is busy or has bad signal, the SMS may be delayed or not sent.
d. When operating SMS from a mobile phone, please wait for the alarm panel to return the SMS before operating the next SMS. Resend the SMS if one minute has passed and the alarm panel still did not sent the return SMS.
e. When operating SMS from a mobile phone, if there are no responses the reason might be the sent SMS is not an acceptable command. Please refer to SMS Functions in Appendix B for the proper commands.

13-1-4 GSM Status LED is off:

a. Check the AC adaptor to see if it's properly plugged in and check the power LED to see it it's on. The GSM will shut down partial power when it is not connected to AC power to extend usage time.
b. Remove all power sources (including batteries and AC power), insert them back and try again

13-1-5 Unable to use RFID Tag after power on

Remove all power sources including batteries and DC-jack. Wait for one minute and power on the alarm panel again.

13-2 Restore to factory settings

The user may choose to perform a factory reset to return the device to factory default settings. Please note that all configurations (including recorded alarm messages, contact lists and linked sensors/devices) will be deleted. The PIN code will reset back to default PIN code "1234".

1. Take the device off the wall. Note the alarm will sound because of its tamper protection.
2. Remove all power sources including batteries and DC-jack.
3. Press and hold the reset button on the back (next to DC-jack) and insert the batteries or DC-jack to power it on. Keep pressing the reset button until a beep tone is heard. Release the button after beep tone.
4. The DISARM LED will turn on to followed by 5 short beeps indicating the reset to factory default is complete.

Specifications

Operating temperature range	-10°C to 50°C
Operating humidity	85% RH at 30°C
Input rating	9V DC 1A
Battery type	Li-ion cell 2000mAh 3.7V
Transmission range	Outdoors >150m (Open space) for front and sides
Frequency range	868.35 MHz
GSM band	850/900/1800/1900 MHz

*** Specifications are subject to change without notice*

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

WARNING:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities instead. Please contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

Appendix A: Touch Keypad Operation Table

Function	Enter Key	Explanation
ARM Mode	Enter PIN code + 🔒	Exit Delay: Arm Key LED flashes and beeps (faster beeps at last 5 second countdown)
		ARM Mode: Arm Key LED turns on
Partial Arm Mode	Enter PIN code + 🔓	Exit Delay: Arm Key LED flashes and beeps (faster beeps at last 5 second countdown)
		Partial Arm Mode: Partial Arm Key LED turns on
DISARM Mode	Enter PIN code + 🔓	Disarm Mode: Disarm Key LED turns on
Note: The following operations are available only in DISARM Mode		
Record Alarm Message	Enter PIN code + 📟	1. Start recording alarm message (about 10 seconds) Playback will start automatically after the recording is complete 2. Press 🔓 to stop recording if message is shorter than 10 seconds
		Record: REC Key LED will flash
		Playback: Record Key LED turns on
Alarm Type 1 (Siren and Dialer)	Enter PIN code + 01 + 🔓	Siren will sound during alarm (This is the default type)
Alarm Type 2 (No siren, Dialer only)	Enter PIN code + 02 + 🔓	Siren will not sound during alarm
Test Mode	Enter PIN code + 03 + 🔓	Test Mode: Disarm Key flashes
		A chime tone will sound when a device signal is received
		Hold key 7 for 3 or more seconds: Test GSM receiving signal strength
		Hold key 8 for 3 or more seconds: Turn on / off the Wireless Siren
		Hold key 9 for 3 or more seconds: Test telephone SMS
		Press Disarm key to exit Test Mode

Function	Enter Key	Explanation
Wireless Siren Setting	Enter PIN code + 04 + 🔓	**For HA70F outdoor solar siren**
		Keys 1 – 8 LEDs will display siren DIP Switch positions. - ON position (1) = Key LED on - OFF position (0) = Key LED off (Default Dip Switch position: 1111000)
		Press Keys 1 – 8 to toggle new House Code DIP Switch positions. Press Partial Arm Key to save settings.
		For SE822 indoor siren
		Key 0 indicates siren is enabled or disabled - When Enabled: Key 0 LED turns on - When Disabled: Key 0 LED turns off (Default: Wireless Siren Disabled)
		Press Key 0 to toggle enable/disable. Press Partial Arm Key to save settings.
RF Anti-Jamming Detection	Enter PIN code + 05 + 1 + 🔓	Turn On
	Enter PIN code + 05 + 2 + 🔓	Turn Off (Default)
Change PIN code	Enter old PIN code + 06 + new PIN code + 🔓	Default PIN code: 1234
Key Tone	Enter PIN code + 07 + 1 + 🔓	Turn On (Default)
	Enter PIN code + 07 + 2 + 🔓	Turn Off
Open Door / Window Alert	Enter PIN code + 08 + 1 + 🔓	Turn on
	Enter PIN code + 08 + 2 + 🔓	Turn Off (Default)

Add Sensor (up to 50 wireless sensors) (Applies to sensor type of devices only)	**No delay: alarm will sound immediately without any preset delay**		
	Enter PIN code + **15** + **0** + 🔒	Security Mode 0 Sensor activated only when Fully arm Sensor will not be activated in Partial Arm.	
	Enter PIN code + **15** + **1** + 🔒	Security Mode 1 Sensor activated in both Fully arm and Partial Arm	
	With Delay: alarm will sound after a preset Entry delay period		
	Enter PIN code + **15** + **2** + 🔒	Security Mode 2 Sensor activated only when Fully arm Sensor will not be activated in Partial Arm	
	Enter PIN code + **15** + **3** + 🔒	Security Mode 3 Sensor activated in both Fully arm and Partial Arm	
	24Hr Intruder Mode : alarm will sound immediately even if disarm		
	Enter PIN code + **15** + **4** + 🔒	Security Mode 4 Sensor activated when Disarmed / Partial Armed / Fully Armed and will cause an immediate alarm. Note: Fire Sensors / Flood Sensors must choose this Type (24 hours).	
Delete sensor	Enter PIN code + **20** + **1** + 🔒	Delete all sensor zones	
	Enter PIN code + **20** + **1** + **1-9** + 🔒	Delete sensor zone 1-9	
	Enter PIN code + **20** + **1** + **0** + 🔒	Delete all sensor zones after 10	
Add Remote keyfob (up to 10 remote)	Enter PIN code + **15** + 🔒	Same procedure for Remote keyfob, RFID Tag and Keypad	
Delete Remote keyfob	Enter PIN code + **20** + **2** + 🔒	Delete all remote keyfobs	
	Enter PIN code + **20** + **2** + **1-9** + 🔒	Delete remote keyfob 1-9	
	Enter PIN code + 20 + 2 + **0** + 🔒	Delete remote keyfob 10	

Add RFID Tags (up to 50 tags)	Enter PIN code + **15** + 🔒	Same procedure for Remote keyfob, RFID Tag and Keypad
Delete RFID Tags	Enter PIN code + **20** + **3** + 🔒	Delete all RFID tags
	Enter PIN code + **20** + **3** + **1-9** + 🔒	Delete RFID tag 1-9
	Enter PIN code + **20** + **3** + **0** + 🔒	Delete all RFID tags after 10
Add wireless keypad	Enter PIN code + **15** + 🔒	Same procedure for Remote keyfob, RFID Tag and Keypad
Delete Wireless keypad	Enter PIN code + **20** + **4** + 🔒	Delete wireless keypad
Add indoor siren SE822	Enter PIN code + 🔒	1. Put SE822 in binding mode. 2. Enter PIN code + DISARM key. If SE822 fails to bind, repeat step 1 and 2 above.
Add/Change Host Number	Enter PIN code + **66** + 🔒 + Owner's mobile Number + 🔒	The host number will receive a success confirmation SMS. This number will also be added into the list of *Alarm Voicecall number*, *Alarm SMS Phone number* and *Speed Dial No.* in Appendix B.

Appendix B: SMS commands

These are the type of SMS commands the alarm panel receives and its confirmation message sent back to user.

Setup	SMS sent to panel	Operation	SMS in Return
Get Operation Menu 1	#		0 Disarm 1 Arm 2 Partial Arm 3 Two-way Talk 4 Listen In 00 System Status ? Phone Number Setup
Get Operation Menu 2	?		5 Alarm Call Phone Number Set 6 Alarm SMS Phone Number Set 8 Speed Dial Phone Number Set ?? System Setup
Get Operation Menu 3	??		91-99 Change Zone Name 10 Change RFID Tag Name 11 Enter & Exit Delay Time 12 Siren Volume 13 Siren Ring Time
Disarm	0		System Disarmed
Arm	1		System Armed
Partial	2		System Partial Armed
Two Way Talk	3	Call back from alarm panel	(Note 6)
Listen In	4	Call back from alarm panel	(Note 6)
System Status Display	00		System Disarmed/ System Armed/ System Partial Armed Entry & Exit Delay Time: xx Seconds Siren Volume: Mute/Low/High Siren Ringing Time: xx Minutes
Get Alarm Voicecall Phone Number	5 (Note1)	(Note 5)	TEL: 1. 2. 3. 4. 5.
Set Alarm Voicecall Phone Number	TEL: 1. 0932XXXXXX 2. 0922XXXXXX 3. 0928XXXXXX 4. 0965XXXXXX 5. 0932XXXXXX	Use result from Get command, do SMS Forward-> Edit->Send back	Set Phone Number Successfully
Get Alarm SMS Phone Number	6 (Note1)	(Note 5)	SMS: 1. 0932XXXXXX 2. 0922XXXXXX 3. 0928XXXXXX 4. 5.
Set Alarm SMS Phone Number	SMS: 1. 0932XXXXXX 2. 0922XXXXXX 3. 0928XXXXXX 4. 0936XXXXXX 5. 0921XXXXXX	Use result from Get command, do SMS Forward-> Edit->Send back	Set Phone Number Successfully
Get Speed Dial No. (5 sets)	8 (Note1)	(Note 5)	SPEEDDIAL: 1. 2. 3. 4. 5.
Set Speed Dial No. (5 sets)	SPEEDDIAL 1. 0928XXXXXX 2. 0965XXXXXX 3. 022655XXXX 4. 0021626572XXXX 5. 08532XXXX	Use result from Get command, do SMS Forward-> Edit->Send back	Set Phone Number Successfully

Get *Zone 1 Name*	91	(Note 2) (Note5)	Zone1 Name: Zone1
Change *Zone 1 Name*	Zone1 Name: Entrance Door Sensor1	Use result from Get command, do SMS Forward-> Edit->Send back	Set Zone Name Successfully
Get *Zone 2 Name*	92	(Note 2) (Note5)	Zone2 Name: Zone2
Change *Zone 2 Name*	Zone2 Name: Entrance Door Sensor2	Use result from Get command, do SMS Forward-> Edit->Send back	Set Zone Name Successfully

...same for Zone Names 3 ~ 9

Get *RFID Tag Names*	10	(Note 2) (Note5)	Tag Names: 1. 2. 3. 4.
Change RFID *Tag Names*	Tag Names: 1. Jack 2. Daniel 3. Henry 4. Joe	Use result from Get command, do SMS Forward-> Edit->Send back	Set Tag Names Successfully
Get *Entry Delay &* *Exit Delay Time*	11	(Note 5)	Entry & Exit Delay Time(0-240 sec.): 15
Set *Entry Delay &* *Exit Delay Time*	Entry & Exit Delay Time (0-240 sec.): 10	Use result from Get command, do SMS Forward-> Edit->Send back	Set Delay Time Successfully

Get *Siren Volume*	12	(Note 5)	Siren Volume (0 Mute, 1 Low, 2 High): 2
Set *Siren Volume*	Siren Volume (0 Mute, 1 Low, 2 High): 1	Use result from Get command, do SMS Forward-> Edit->Send back	Set Siren Volume Successfully
Get *Siren Alarm* *Duration*	13	(Note 5)	Siren ringing time (1-9 minutes): 3
Set *Siren Alarm* *Duration*	Siren ringing time (1-9 minutes): 5	Use result from Get command, do SMS Forward-> Edit->Send back	Set Siren Time Successfully

Note1: Maximum length for telephone numbers is 20 digits. Only numbers 0 – 9 and "," can be used. For example, phone number 0222606868 with extensions 1234 will be input as: "0222606868,1,2,3,4". If the length exceeds 20 digits, only the first 20 digits will be saved while the rest will be deleted.

Note 2: Maximum length for Zone Names and Tag Names is 24 characters (alphanumeric characters only). If the length exceeds 24 characters, only the first 24 characters will be saved while the rest will be deleted.

Note 4: Do NOT add or delete spaces or other symbols, or change Title content, as SMS configuration may fail if those are changed. For example, when setting Zone1 Name, the zone name must be entered under Title (not after). Please refer to the examples listed above.

Note 5: Only the host mobile phone number can use this SMS function.

Note 6: Two Way Talk and Listen In must be picked up within 25 seconds, or the host will end the call. A failure SMS will be sent if call back is unsuccessful.

Note 7: Send an SMS with content "???" from a host phone number to receive the alarm panel model number and its software version.

Appendix C: SMS Alerts

List of SMS alert messages automatically sent by the alarm panel when certain event occurs.

Events	SMS sent to user
AC Adaptor Power Off (Note 1)	System AC Power Loss
AC Adaptor Power On (Note 1)	System AC Power Return
Tag Disarmed	For Tag 1-Tag 4: Send "Tag name" For Other Tags: Send "Tag xx "
Zone Trigger	For Zone 1-Zone 9: Send "Zone name" is triggered For Other Zones: Send "Zone xx" is triggered
Zone Tamper	For Zone 1-Zone 9: Send "Zone name" tamper is triggered For Other Zones: Send "Zone xx" is triggered
Zone Low Battery	For Zone 1-Zone 9: Send "Zone name" battery is low For Other Zones: Send "Zone xx" battery is low
Console Tamper	Console tamper is triggered
Keypad Tamper	Keypad tamper is triggered
Panic initiated from Alarm panel	Emergency help notify
Remote keyfob Panic	Emergency help notify
Phone number invalid	Unauthorized Phone Number
SMS Command invalid	Requirements Not Allowed
Alarm call confirmed	The Phone Call Confirmed
Duress code	Duress code is sent
Anti-jamming	Signal has been jammed

Note 1: Backup battery must be attached.