



# Alarm Controller

## User's Manual



# Foreword

## General

This manual introduces the installation, functions and operations of the alarm controller (hereinafter referred to as "controller"). Read carefully before using the device, and keep the manual safe for future reference.

## Models

DHI-ARC3008C

## Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as the emphasis and supplement to the text.

## Revision History

Version	Revision Content	Release Time
V2.0.1	<ul style="list-style-type: none"><li>Updated wired zone function.</li><li>Updated area outputs function.</li><li>Updated system timing settings.</li><li>Updated SMS messages.</li><li>Updated digital format.</li><li>Updated installer menu map.</li></ul>	December 2022
V2.0.0	<ul style="list-style-type: none"><li>Updated language.</li><li>Updated technical specifications.</li><li>Updated images.</li><li>Updated wiring and installation, installer operations, alarm config tool and DMSS app operations.</li></ul>	March 2022
V1.0.1	Updated arming and disarming.	October 2020
V1.0.0	First release.	May 2020

## Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face,

fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

## About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

# Important Safeguards and Warnings

This section introduces content covering the proper handling of the controller, hazard prevention, and prevention of property damage. Read carefully before using the controller, and comply with the guidelines when using it.

## Transportation Requirements



- Transport the controller under allowed humidity and temperature conditions.
- Pack the controller with packaging provided by its manufacturer or packaging of the same quality before transporting it.
- Do not place heavy stress on the controller, violently vibrate or immerse it in liquid during transportation.

## Storage Requirements



- Store the controller under allowed humidity and temperature conditions.
- Do not place the controller in a humid, dusty, extremely hot or cold site that has strong electromagnetic radiation or unstable illumination.
- Do not place heavy stress on the controller, violently vibrate or immerse it in liquid during storage.



- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting a battery might result in an explosion
- Leaving a battery in an environment with extremely high temperatures might result in an explosion or the leakage of flammable liquids and gas.
- Subjecting a battery to extremely low air pressure might result in an explosion or the leakage of flammable liquids and gas.

## Operation Requirements



- Make sure that the power supply is correct before use.
- Do not unplug the power cord on the side of the controller while the adapter is powered on.
- Operate the controller within the rated range of power input and output.
- Transport, use and store the controller under allowed humidity and temperature conditions.
- Do not drop or splash liquid onto the controller, and make sure that there is no object filled with liquid on the controller to prevent liquid from flowing into it.
- Do not disassemble the controller.



- Change the default access code after installation to protect the controller from being stolen.
- Use the controller within the rated range of power input and output.

## Installation Requirements

### **WARNING**

- Do not connect the power adapter to the controller while the adapter is powered on.
- Strictly comply with the local electric safety code and standards. Make sure the ambient voltage is stable and meets the power supply requirements of the controller.
- Do not connect the controller to two or more kinds of power supplies, to avoid damage to the controller.

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- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the controller in a place exposed to sunlight or near heat sources.
- Keep the controller away from dampness, dust, and soot.
- Put the controller in a well-ventilated place, and do not block its ventilation.
- Use an adapter or cabinet power supply provided by the manufacturer.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Please note that the power supply requirements are subject to the controller label.
- The controller is a class I electrical appliance. Make sure that the power supply of the controller is connected to a power socket with protective earthing.
- Do not install or place the controller in a location that exposes it to sunlight or heat sources.
- Keep the controller away from dampness, dust, and soot.
- Keep the controller installed on a stable surface to prevent it from falling.
- Do not drop or splash liquid onto the controller, and make sure that there is no object filled with liquid on the controller to prevent liquid from flowing into it.
- Do not disassemble the controller.
- Transport, use and store the controller under the allowed humidity and temperature conditions.
- Operating temperature:  $-40^{\circ}\text{C}$  to  $-10^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+14^{\circ}\text{F}$ ).
- Affix the controller securely to the building before use.
- The power supply must be installed inside the controller.
- When installing the controller, make sure that the power plug and appliance coupler can be easily reached to cut off power.
- The rated power of the controller is 40 W.
- Prevent liquid from dripping or splashing on the controller. Do not put any objects filled with liquid, such as a vase, on top of the controller.
- Do not expose the battery to overheated environments such as with direct sunlight and fire.

## Electrical Safety

### **WARNING**

- Improper use of the battery might result in a fire or explosion.
- Replace unwanted batteries with new batteries of the same type and model.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- Make sure the power supply meets the SELV (Safety Extra Low Voltage) requirements, and rated voltage conforms to the IEC60950-1 standard. The requirements of the power supply are subject

to the controller label.

- The controller is a class I electrical appliance. Make sure that the power supply of the controller is connected to a power socket with protective earthing
- The appliance coupler is a disconnection controller. Keep it at a convenient angle when using it.

## Electrical Safety



### WARNING

Before acting on a system component, or while you are installing or servicing the controller, make sure to disconnect both the primary (mains power) and secondary (battery) power supply of the system. Also, to avoid damage from electrostatic discharge, handle the controller with care and avoid any contact with its electronic components.

## Power Supply



### WARNING

The power supply of the controller meets the EN 50131-6 standard, and performs the following controls in compliance to the standard:

- Every 24 hours, the status of the alternative power supply is checked. The battery test is executed under load.
- In the absence of mains voltage, the test is not executed.
- Every 10 seconds, the output voltage is checked.
- The output voltage is checked every 10 seconds.
- The battery is disconnected if voltage drops below 10.8 V (protection against the deep discharge).

## Battery



### WARNING

The battery of the controller meets the EN 50131-6 standard, and performs the following controls in compliance to the standard:

- The controller must be equipped with a battery that has 12 V/12 Ah capacity.
- We recommend using a FG 21201 battery.
- The battery is designed with special lead calcium tin alloy grid that is built to resist corrosion and provide a short recharge time.
- The battery adopts VRLA AGM technology and uses low resistance high microporous fiberglass separators.
- The battery uses leak resistant post seal, faston, flag and threaded female, terminals with high conductivity and maximum torque resistance.
- The battery is designed with one-way safety relief valves that allow gas to escape, and prevent the ingress of oxygen
- The battery uses ABS plastic (from FGHL range flame retardant ABS plastic to IEC 707 FV0 and UL94 FV0 - LOI greater than 28%).
- The battery supports installation in any orientation, except being permanently inverted. The batteries can only be replaced by qualified personnel.
- The electrolyte is absorbed in fiberglass separators with 99% internal gas recombination efficiency. Blocs are grants non-spillable and maintenance free, so their electrolytes do not require topping up during its lifetime. Also, low self-discharge allows it a shelf life of 6 months.

## Wire

**⚠ WARNING**

- **Ground connection**

The ground connection must comply with the valid European standards. It is required that the ground conductor be connected between the casing and the door.

- **External circuit breaker**

The power supply of the controller is not equipped with a circuit breaker. To ensure that controller installation meets the local standards, an external circuit breaker or a bipolar mains switch (16A curve C, opening stroke min. 3 mm) must be connected to an accessible part of the electric installation (240 VAC). Also, the circuit breaker must be installed close to the controller and must be clearly labeled.

- **Mains connection (240 VAC)**

The mains cable is not included. To reduce the risk of electric shock in normal operating conditions, observe the following precautions:

- ◊ Use a double insulation cable (with shielding) for the connection to mains power.
- ◊ The mains cable should have a minimum diameter of  $3 \times 1.5 \text{ mm}^2$  and, once it has been connected to the corresponding power input, it should be attached with a cable tie to the mounting base of the power supply.
- ◊ To ensure electrical safety and correct functioning of the controller, always connect the ground conductor to the corresponding terminal between the base and the door of the casing.

- **Mains and ground connection**

- ◊ Connect the mains conductor and the ground conductor.
- ◊ The mains conductor must be wired in the absence of voltage.
- ◊ The ground conductor must be connected to the ground terminal of the power supply and to the faston connector soldered to the casing.
- ◊ It is required that the ground conductor be connected between the casing and the door.
- ◊ For safety reasons, attach the connection cable with a cable tie to the mounting base of the power supply.

## Maintenance Requirements

**⚠**

- In the planning phase, to ensure the autonomy of the service requested by the standards, it is important to size the primary (mains power) and secondary (battery) power supply correctly. Consider that, in case of power failure, the system is ensured to continue functioning by means of batteries for a limited period of time, the length of which depends on the capacity and the state of efficiency of the batteries.
- To ensure the efficiency of the burglar alarm system, it is necessary to provide an appropriate maintenance program. The frequency of the maintenance depends on different aspects, however, it is recommended to have the system serviced at least once every 6 months. The maintenance operations should be made by specialized technical staff, the same who designed and installed the system. The European standards series EN 50131 includes the possibility of remotely executing one of the two required annual inspections.
- Replace the batteries with the correct model and dispose of the unwanted ones as instructed to avoid failing to meet the requirements of the safeguards. Some types of lithium batteries are not

acceptable.

- The most important controls:
  - ◊ The status of the power supplies and batteries.
  - ◊ The status of the batteries and self-powered devices (sirens and transmitters).
  - ◊ The functional efficiency and coverage of the movement and perimeter detectors.
  - ◊ The efficiency of the control units and procedures for arming of the program.
  - ◊ The efficiency of the alarm transmission equipment (e.g. activation of the telephone call cycle).
  - ◊ The efficiency of the warning devices.
  - ◊ The correct detection and management of the tamper alarms.
  - ◊ The other secondary functions (for example, activation of the hold-up alarm).
  - ◊ The correct connection of the cables to the terminals.
  - ◊ The final inspection report.

 **WARNING**

- Dispose used batteries strictly according to its instructions and local regulations.
- Power off the controller before maintenance.
- To prevent explosion or fire, replace battery with the same size.

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# 1 Introduction

## 1.1 Overview

The alarm controller is a high performance anti-theft controller designed for the middle and small alarm solution application. Adopting embedded Linux operation system and relying on embedded platform, the system can run steadily with advanced controlling technology and strong data transmission ability. The embedded design also supports the product with high security and excellent stability.

The controller can work both independently and with professional app in mobile phone, which is convenient for remote viewing and alarm status controlling. The product can also be connected to the network to form the strong security monitoring network, working with the professional alarm platform software to show the strong networking and remote monitoring ability.

The controller can be widely applied in the store, warehouse, family, and so on for security protection.

## 1.2 Features



The functions might be different depending on the software and hardware version of the model you purchased.

- 8 onboard wired zones.
- Support 1-way siren control and 2-way MOS transistor output on the controller.
- With the expansion module (consists of 8 input modules and 8 output modules), alarm input and alarm output channels are increasing to 72 and 82 respectively.
- Outputs operation follows system events, zone events, area, link and scheduling programs.
- 1 case tamper port for the alarm controller.
- 1 siren tamper input.
- Up to 8 areas, and every area with 2 partitions.
- Up to 8 keypads.
- Up to 100 users with 8 authority levels for different users (supervisor, manager, master, user, temporary, duress, patrol, and technician).
- 1000 events log.
- Supports more than 11 zone types.
- 7 sorts of zone terminations, including closed-circuit (NC), open-circuit (NO), end-of-line (EOL) resistors, double end-of-line (DEOL) resistors, triple end-of-line (3DEOL) resistors, inertial type for vibration detector and pulse type for roller shutter.
- Configurable zone resistance (2K7, 4K7, and 6K8).
- With 2 RS-485 ports for keypads connection and extended connections.
- With PSTN port for alarm event report function, supporting CID (Contact ID).
- 3 telephone numbers for monitor station (PSTN), 8 telephone numbers for vocal message, and 8 telephone numbers for SMS.

- With GSM/GPRS/LTE network ports for events SMS reporting and remote control, events vocal message reporting by dialing and remote control, and mobile phone app connection ability when Ethernet connection is failed.
- With 10/100M self-adaptive Ethernet port.
- Supports abnormality alarm, including network disconnected alarm, PSTN fault alarm, tampering alarm, low battery alarm, battery loss alarm, power loss alarm, and keyboard faults alarm.
- In-field firmware upgradable.
- App-based system control through DMSS.
- Arm and disarm areas with RFID cards.
- Access to the third party platform with SIA.

## 1.3 Technical Specifications

This section contains technical specifications of the controller. Please refer to the ones that correspond with your model.

Table 1-1 Technical specifications

Type	Parameter	Description
Port	Alarm Input	8 channels, can be expanded to 72 for zone alarm input
	Alarm Output	2 channels, can be expanded to 82 (channel 1-2: MOS outputs, channel 3-82: Relay outputs)
	Network	1 RJ-45 10M/100M self-adaptive Ethernet port
	PSTN	One group of PSTN RJ-11 ports that support contact ID protocol (with PSTN module) 3 telephone numbers for monitor station (PSTN)
	RS-485	2-channel RS-485 ports, support keyboard (A1B1) and expansion module (A2B2) access
	2G	Operating frequency: GSM850/GSM900/DCS1800/PCS1900 MHz
	4G	LTE-FDD: B1/B3/B5/B7/B8/B20 LTE-TDD: B38/B40/B41 GSM/EDGE: B3/B8
	Siren	1 × 12 V/1 A siren output port
	Battery	12 V battery port
	Auxiliary Power Output	2 × 12 V/1 A AUX power output ports
Function	Tamper	1 case tamper port for the alarm controller 1 siren tamper input
	SMS Notification	Supports up to 8 telephone numbers for SMS and remote control (with 2G or 4G module)
	Phone Call Notification	Supports up to 8 telephone numbers for vocal message (with 2G or 4G module)

Type	Parameter	Description	
	Network Protocol	TCP/IP, DHCP, static IP, P2P	
	Configuration Method	Keypad and client software	
	Arm and Disarm Method	Keyboard, swipe card, DMSS App, SMS, DSS Professional, and VTH	
	External Agreement	Supports customized access to the third parties by SIA	
	Number of Keypads	Max. 8 keypads	
	Area	8 areas	
	Partition	Each area includes 2 partitions	
	Timers	8 timers, can be used for user authorization restrictions, output linkage control, automatic arming and disarming control, and more	
	Power Management	Automatic switching between main power supply and backup power supply	
		Alarm for main power loss	
		Alarm for battery loss and battery voltage fault	
	Event Logs	Max. 1000	
	Component data for non-volatile memory components (duration of data maintenance)	Flash: More than 20-year data retention	
	User Management	Max. 100 users 7 user levels: Supervisor, Manager, Master, User, Temporary, Duress, and Patrol 1 Technician	
	Query	Query for zone fault, system fault, program version, signal strength detection, and GPRS	
	Language	English, Italian	
	App	DMSS app and DMSS Plus app not certified IMQ-Security system	
	RFID Card	Arm and disarm by swiping card (with ASR1101A/ASR1101A-D)	
	Electrical specific cations CPU board	CPU consumption	360 mA@14.5 V
		Output voltage control	9–16 VDC
		Detector power supply	14.5 VDC
		Siren power supply	14.5 VDC

Type	Parameter	Description
Power Supply	Main Power	Type A: 110–240 VAC, 50/60 Hz
	Conformity	EN 50131-6
	Max. Consumption	800 mA@230 VAC; 1300 mA@ 115 VAC
	Max. Output Voltage	2.76 A@14.5 VDC
	Max. Current Available	2.76 A
	Max. Ripple	Max. 30mV
	Power Consumption	Max. 40 W
	Max. Output Voltage	12 V; 1A
	Mains fuse (non-replaceable)	RT21: 5 A
Battery	Battery Capacity	1 x 12 V/7.2 Ah
	Battery Flame Class	UL94 FV0
	Standards	IEC 60896 Part 21 - VRLA methods of testing IEC 60896 Part 22 - VRLA requirements Eurobat 3-5 years standard commercial for FG FGH FGC and 10-12 years long life for FGHL UL Recognized
	Battery Low Battery Threshold	11.8 VDC
	Battery Restore Threshold	12.3 VDC
	Battery Standby	Up to 12 hrs 440 mA as max load in order to have autonomy of 12 h.
	Release Voltage	< 10.8 V
	Failure Signaling	< 5 V
	Overcharge Signaling	14.5 V
	Battery Recharge Time	80% approx. 48 h
ARC Signaling	ATS Category	SP2 (PSTN or GSM) DP1 (PSTN + GSM)
	Acknowledgment Operation	Pass through

Type	Parameter	Description
	Primary Transmission Path	LAN (NO 50136-2)
	Secondary Transmission Path	GPRS/4G /PSTN
	Notification Equipment	B/C/E
General	Operating Temperature	-10 °C to +55 °C (+14 °F to +131 °F)
	Relative Humidity	10%–90% (RH)
	Product Dimensions	275.0 mmx 275.0 mmx 77.0 mm (10.83" x 10.83" x 3.03") (Lx Wx H)
	Installation	Wall mount
	Net Weight (without battery)	≤3 kg
	Expansion Bolts	Outer diameter: 5.5 mm Inner diameter: 2.9 mm Length: 24.5 mm Quantity: 4
	Self-tapping Screw	Diameter: 4 mm Length: 25 mm Quantity: 4
Certifications		CE: 4789104635 EN 50131-3, EN 50131-6, EN 50136-2 Security Grade 2 Environment Class II

Table 1-2 ATE category

ATE Category	Reporting Time	Protocols	Communication Devices			Communication Device to be Used
-	-	-	PSTN	2G/3G	IP	-
SP2	25 h	Standard	√			The check marked communication device
SP3	30 min	Standard		√	√	Only one of the two check marked communication devices
SP4	3 min	Encrypted		√	√	Only one of the two check marked communication devices

ATE Category	Reporting Time	Protocols	Communication Devices			Communication Device to be Used
-	-	-	PSTN	2G/3G	IP	-
SP5	90 s	Encrypted		√	√	Only one of the two check marked communication devices
DP1	25 h	Standard	√	√	√	Only two of the three check marked communication devices
DP2	30 min	Standard	√	√	√	Only two of the three check marked communication devices
DP3	3 min	Encrypted		√	√	The two check marked communication devices
DP4	90 s	Encrypted		√	√	The two check marked communication devices
<p>ATE: Alarm transmission equipment.</p> <p>SPx (Single Path): A value that indicates the performance level achieved by a single communication device, according to the EN 50136-1 standard.</p> <p>DPx (Double Path): A value that indicates the performance level achieved by a combination of two communication devices, according to the EN 50136-1 standard.</p> <p>Reporting time: The reporting time is prescribed based on the standard of each level of performance. Reporting time is the maximum time available to report when an alarm transmission device fails. Alarm transmission devices meet this requirement by regularly reporting their status through a specific symbolic test function.</p> <p>Protocols: Indicates the security level of the protocols to be used for the notification of failures. Standard protocols and voice protocols are encrypted. High security protocols are encrypted with an AES 128 bit or AES 256 bit encryption key.</p> <p>Communication devices: Implemented communication devices.</p> <p>Communication devices to be used: Indicates the number of and which communication devices are to be used based on the ATE category.</p>						

Table 1-3 Technical specification

Technical Specification	Description
ACE Classification	Type A
Environmental Class	II
Installation	Wall mount

Table 1-4 Terms and definitions

Term	Description
Area	8 areas that can be armed.

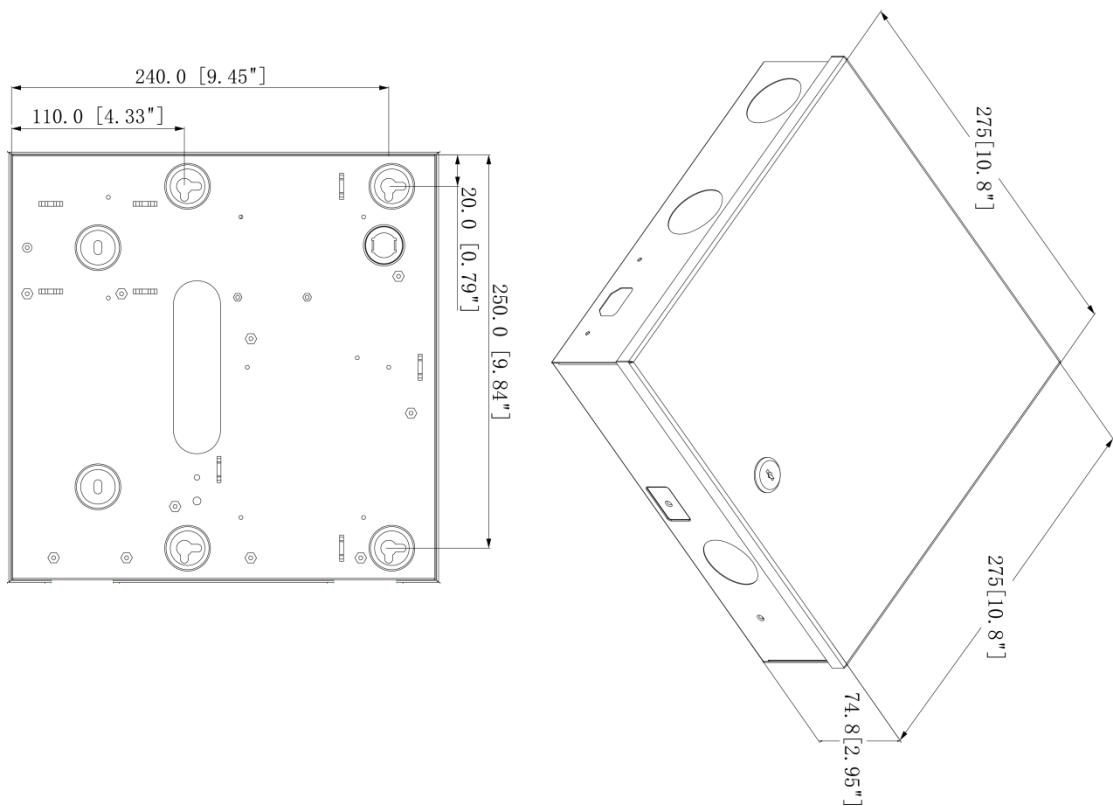
Term	Description
Zone	Protection zones under area.
Partition	The scope of partition is larger than zone and under area.
Numeric key	Key 0–9 on the keypad.
Function key	Other keys except numeric keys, such as ESC and ENTER.
Key combination	 + numeric key.
User menu	Menus programmed by the user.
Installer menu	Menus programmed by the technician.
Access code	A specified code, from 4 to 6 digits, that allows the user to operate the keypad.
1 EOL	The detector type can be NC, and returns three status: normal, alarm and short circuit.
2 EOL	The detector type can be NC, and returns four status: normal, alarm, tamper, and short circuit prevention.
3 EOL	The detector type can be NC, and returns five status: normal, alarm, tamper, anti-masking, and short circuit prevention.

## 2 Wiring and Installation

This chapter introduces the main ports, wiring, and installation of the alarm controller.

### 2.1 Dimensions

Figure 2-1 Dimensions (unit: mm [inch])



### 2.2 Installation

#### Prerequisites

Make sure to prepare following expansion bolts and self-tapping screws first.

- Expansion bolts  
Outer diameter: 5.5 mm; inner diameter: 2.9 mm; length: 24.5 mm; quantity: 4.
- Self-tapping screw  
Diameter: 4 mm; length: 25 mm; quantity: 4.

The controller supports wall mount.

#### Procedure

- Step 1 Unpack the box and take out the expansion bolts and self-tapping screws.
- Step 2 Drill screw holes with a diameter of about 5.5 mm and a depth of about 24.5 mm on the mounting surface.

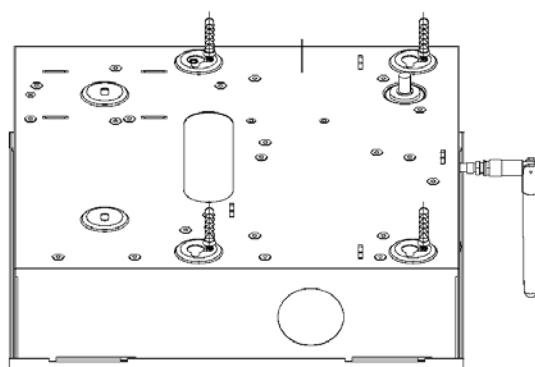
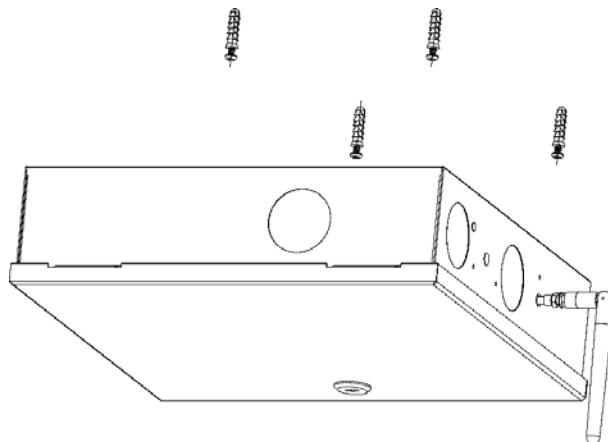
Step 3 Insert expansion bolts into the drilled screw holes, and then put in and fasten the self-tapping screws.



Make sure to leave about 5 mm distance between the bottom surface of the screw head and the top surface of the expansion bolt.

Step 4 Fix the controller with the screws.

Figure 2-2 Install the controller



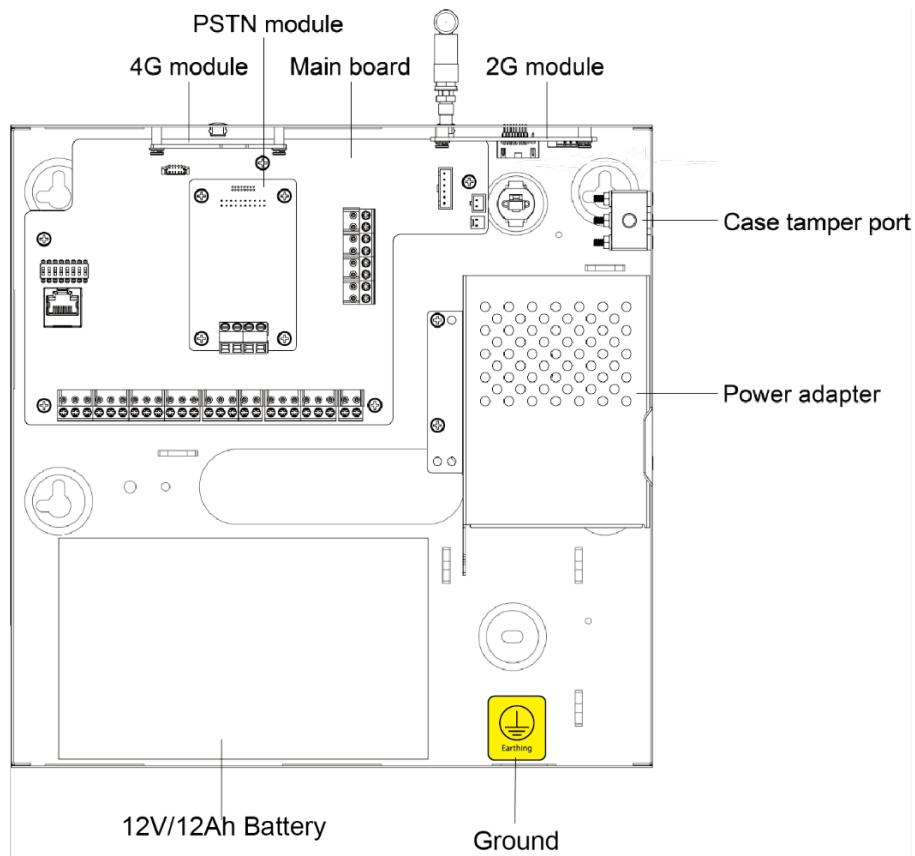
## 2.3 Main Board

### 2.3.1 Main board Ports



The PSTN module, 2G module, and 4G are not supplied with standard models, and you should purchase separately if needed.

Figure 2-3 Main board ports



## 2.3.2 Ports



- Only the professionals should be assigned to install the controller.
- Do not operate on the structural components of the controller when it is powered on.

Figure 2-4 Ports

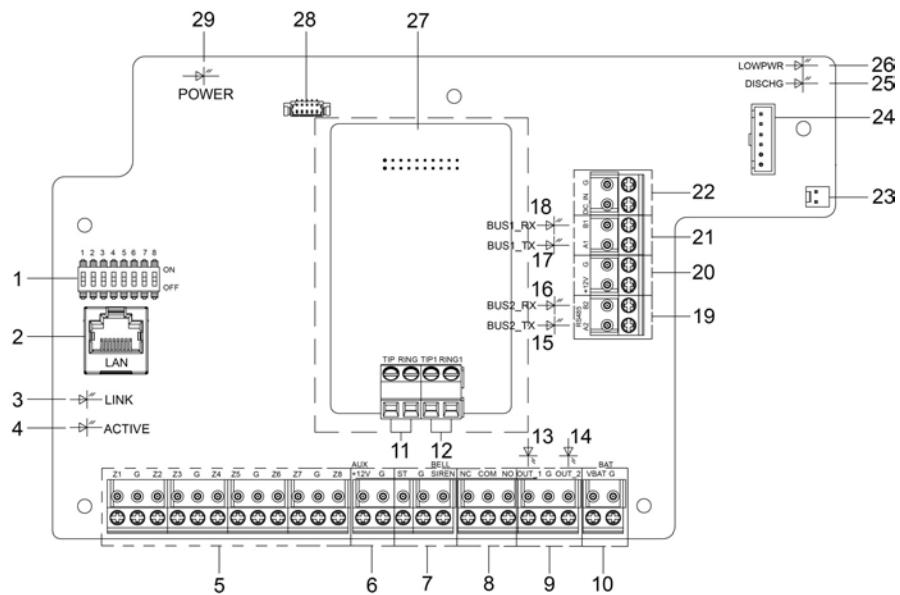


Table 2-1 Function

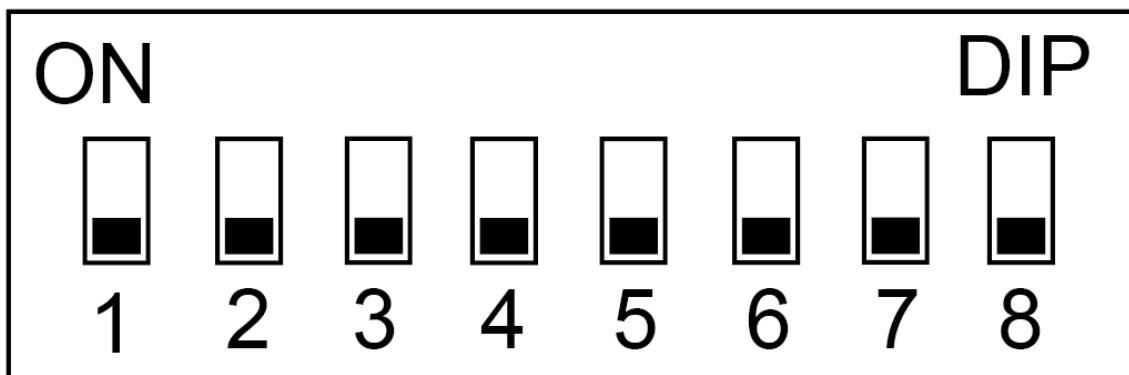
No.	Name	Function
1	DIP switch	Restores to the factory settings.
2	Network port	Connects to Ethernet port.
3	LINK indicator	Network indicator.
4	ACTIVE indicator	Network indicator.
5	Z1-Z8	Zone 1-Zone 8.
	G	Ground.
6	+12V	Auxiliary power output 12 VDC with 1000 mA.
	G	Ground.
7	ST	Tamper port, and generally used as siren tamper.
	G	Ground.
	SIREN	Connects to siren.
8	NC, COM, NO	Relay port. The maximum touch point load is 0.5 A, 125 VAC/1 A, 30 VDC.
9	OUT_1, OUT_2	Alarm output driven by MOS.
	G	Ground.
10	VBAT	Positive pole and negative pole of battery. The negative pole must receive ground connection.
	G	Ground.
11	TIP_O, RING_O	Telephone connection port.
12	TIP_IN, RING_IN	Telephone line port.
13	OUT_1 indicator	ON: OUT_1 is open. OFF: OUT_1 is closed.
14	OUT_2 indicator	ON: OUT_2 is open. OFF: OUT_2 is closed.
15	BUS2_TX indicator	Data transmitting indicator of the second group of RS-485 ports. ON: Transmitting is in process.
16	BUS2_RX indicator	Data receiving indicator of the second group of RS-485 ports. ON: Date receiving is in process.
17	BUS1_TX indicator	Data transmitting indicator of the first group of RS-485 ports. ON: Transmitting is in process.
18	BUS1_RX indicator	Data receiving indicator of the first group of RS-485 ports. ON: Date receiving is in process.
19	A2, B2	Connects to RS-485 expansion module.
20	+12V	Auxiliary power output 12 VDC supplies power to the external devices such as detectors.
	G	Ground.
21	A1, B1	RS-485 port that connects to keypad (maximum 8 Keypads).

No.	Name	Function
22	DC_IN	Receives 14.5 VDC power supply.
	G	Ground.
23	Case tamper port	The alarm is activated when the case is opened.
24	2G module	Connects to 2G module
25	Charge indicator	ON: Battery is charging.
26	Low power indicator	ON: Battery low power. 
		If power supplies normally, the indicator will not be ON in case of low battery.
27	PSTN	Connects to PSTN module.
28	4G module	Connects to 4G module.
29	Power indicator	ON: Power supply is in normal status.

### 2.3.3 DIP Switch

There are eight DIP switches on the controller with different functions.

Figure 2-5 DIP switch



#### 2.3.3.1 Function

Table 2-2 Function

No.	Name	Function
1	DIP 1	Reserved functions that might be developed in the future.
2	DIP 2	
3	DIP 3	ON represents Italian language, OFF represents English.
4	DIP 4	Enables whether to report the siren tamper event and case tamper event. <ul style="list-style-type: none"> <li>ON represents <b>NOT TO REPORT</b>.</li> <li>OFF (default setting) represents <b>REPORT ENABLED</b>.</li> </ul>

No.	Name	Function
5	DIP 5	Enables to return to the factory default settings (in conjunction with DIP 6).
6	DIP 6	Enables to return to the factory default settings (in conjunction with DIP 5).
7	DIP 7	Enables updating the controller. <ul style="list-style-type: none"> <li>• OFF represents <b>NOT TO UPGRADE</b>.</li> <li>• ON represents <b>UPGRADE ENABLED</b>.</li> </ul>
8	DIP 8	Resets the factory default settings. Move it to ON. RS-485 light flashing 3 times indicates that restart is complete, and then move it to OFF.

### 2.3.3.2 Restoring Factory Default Settings

#### Prerequisites

Reset of the security code and the supervisor code depend on the **FACTORY RST** parameter in the **SYSTEM FUNCTIONS** menu. By default, this parameter is set to **PART**, and with the **PART** setting, it is possible to reset the security code and the supervisor code. The **FACTORY RST** parameter can be set to **PART**, **TOTL**, or **OFF**.

- **PART**: The controller is partially (security code and supervisor code) resettable and the IP address restores to the default, but the wireless codes of sensors and sirens are not cancelled.
- **TOTL**: Enables all the controller parameters to be reset.
- **OFF**: Prevents any restoration of factory settings.

#### Background Information

If the supervisor code (factory default 1234) gets lost, and you do not have any other valid user codes, it will not be possible to enable the technician code that allows access to the controller programming.

Therefore, in the technician menu programming, the **FACTORY RST** parameter in the **SYSTEM FUNCTIONS** menu must be set to **PART** or **TOTL**. Then you can follow the specified procedure to reset the supervisor code.

#### Procedure

Step 1 Set the DIP 5 and DIP 6 as below to return the controller to the factory default settings.

Table 2-3 Restore factory default settings

DIP 5	DIP 6	Function
OFF	ON	Security code reset.
ON	OFF	Supervisor code reset (default 1234).
ON	ON	Total reset (depends on settings in <b>SYSTEM FUNCTIONS</b> menu).
OFF	OFF	Normal operation.

Step 2 After setting DIP 5 and DIP 6, move the DIP 8 to the ON to take the setting effect.

After restarting is complete, the RS-485 light flashes three times. Then move the DIP 8 to the OFF.

## 2.4 Wiring

Figure 2-6 Wiring

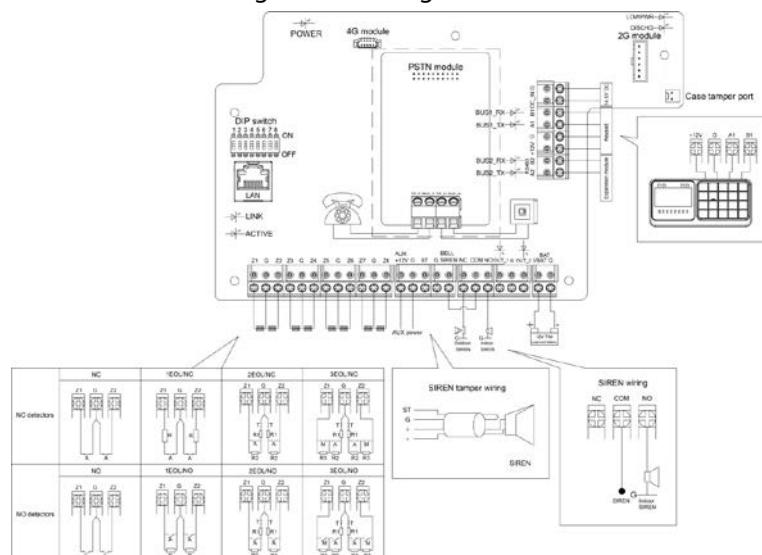
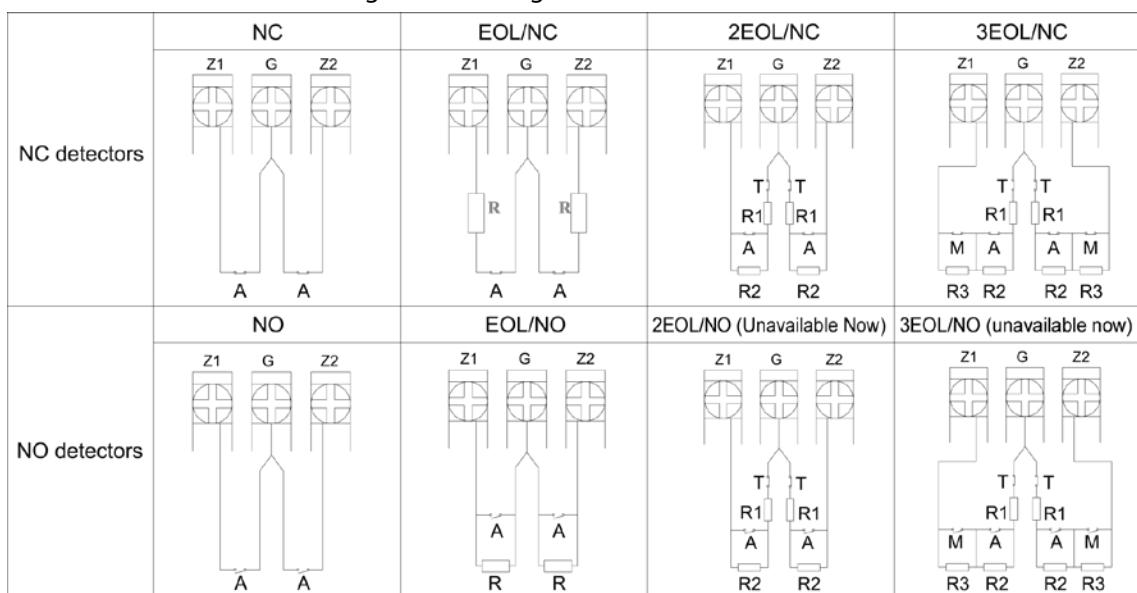


Figure 2-7 Wiring of detectors



## 3 Startup

### 3.1 Setting Keypad and Expansion Module Addresses

Every keypad and expansion module registered to the controller must have a unique address. When replacing the keypad or the expansion module, the new one must use the same address as the previous one.

Before powering on the system, set an address (range: 1–8) for the keypad and the expansion module by DIP switches on the keypad and the module. The address value beyond the specified range is not acceptable.



For the keypad, the DIP switches 5–8 are reserved functions and might be developed in the future.

Table 3-1 Keypad and expansion module addresses

DIP Switch	Address	DIP Switch	Address
	1		2
	3		4
	5		6
	7		8

### 3.2 Setting Card Reader Address

You need to set an address for the card reader, so that the RFID card can be swiped to arm the area.



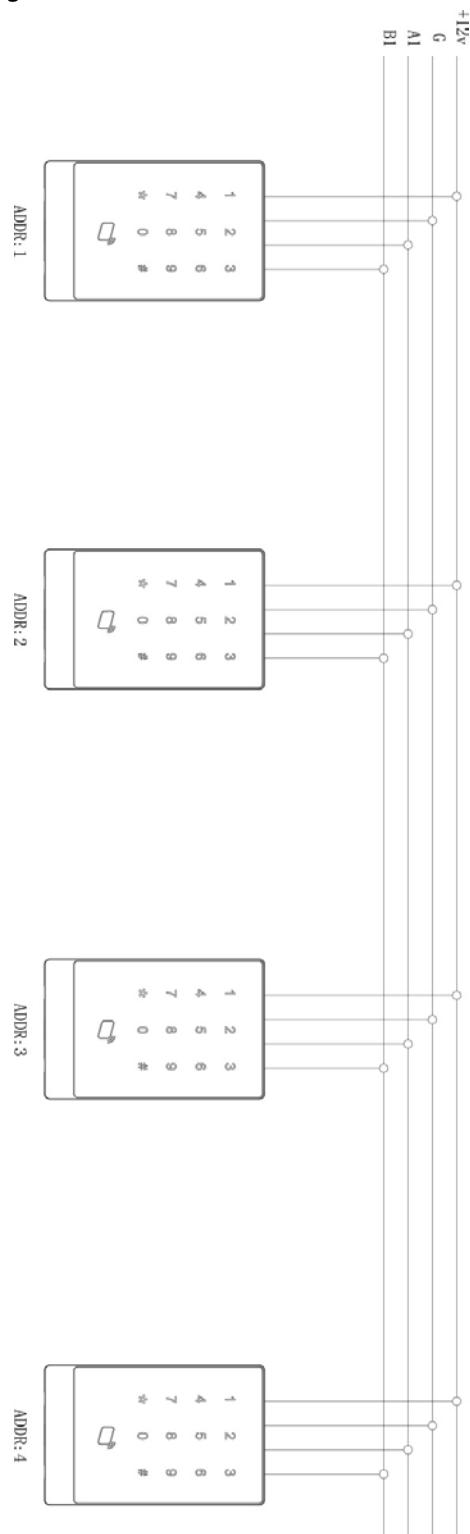
Before setting the address, you must be authorized to program the controller

On the card reader, press 1961, press \*, press any of the address number from 1 to 4, and then press #. The indicator light on the reader will be in red or green after the address is set successfully.

Indicator light on the card reader:

- Blue: The reader is disconnected.
- Red: The controller is in arming or alarming status.
- Green: The controller is in disarming status.

Figure 3-1 Card reader connection



### 3.3 Powering on the Controller

Power on the controller, and then the keypad registration is complete and the system enters into the normal working conditions within 75 seconds.

## 3.4 Powering on the Keypad

The keypad is registered to the controller within five seconds after it is powered on. Before registration, the LED indicators in the area 1–8 glows, and LCD display shows the keypad version information.

## 3.5 Factory Default Settings



- Zone is set as N.O. type by default.
- Zone 8 is set as siren fault by default.

### Access Codes

- Technician: 1961.
- Supervisor: 1234.
- Access is required for Arming: Yes.

### Network

The default IP address is 192.168.1.108.

### Others

- 2G/4G is disabled by default.
- P2P is disabled by default. The DMSS app cannot access the controller.
- **REMOTE CONF** is **ON** by default. The alarm configuration tool can connect to the controller.

## 3.6 Lead-acid Battery

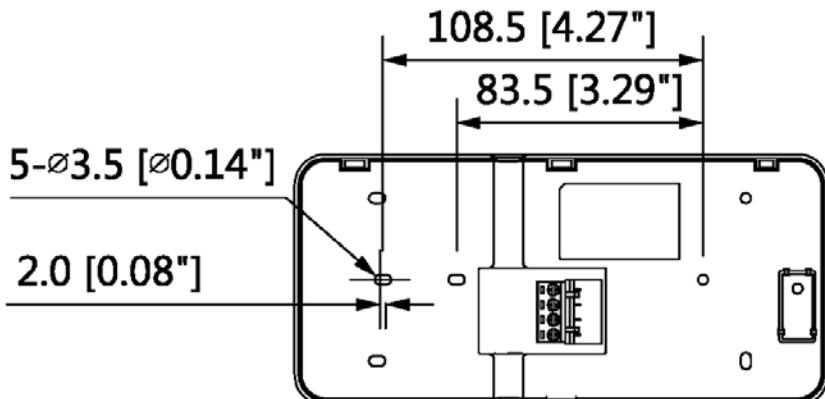
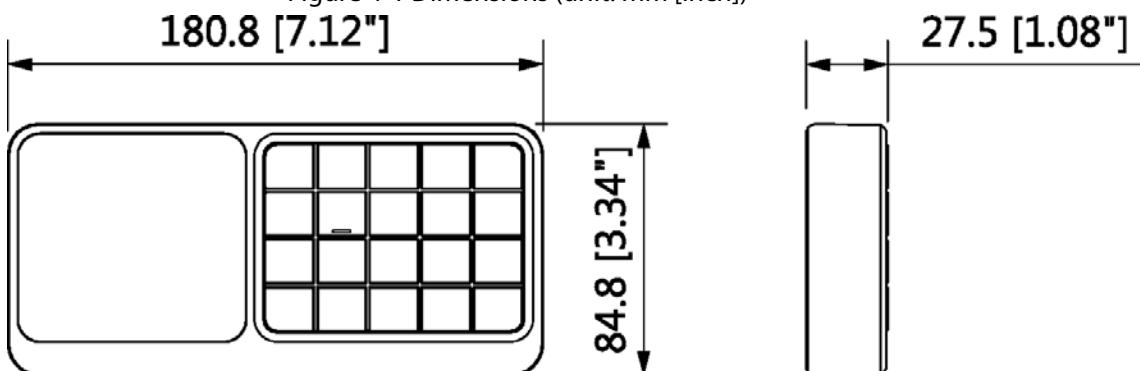
When the controller is powered on by the battery instead of the main power, it automatically turns off when the battery is consumed up to 10.8 VDC. Before the main power restarts supplying power, the controller will not repeatedly restart because it will cause damage to the battery due to over-discharging.

## 4 Keypad

This chapter introduces the dimensions, main functions, indicators, keys operations, and installation of the keypad.

### 4.1 Dimensions

Figure 4-1 Dimensions (unit: mm [inch])



### 4.2 Installation

#### Prerequisites

Make sure to prepare following expansion bolts and self-tapping screws first.

- Expansion bolts  
Outer diameter: 6.5 mm; inner diameter: 2.5 mm; length: 28.1 mm; quantity: 4.
- Self-tapping screw:  
Diameter: 3 mm; length: 18 mm; quantity: 4.

#### Procedure

Step 1 Unpack the box and take out the expansion bolts and self-tapping screws.

Step 2 Drill screw holes with a diameter of about 6.35 mm and a depth of about 28.1 mm on the

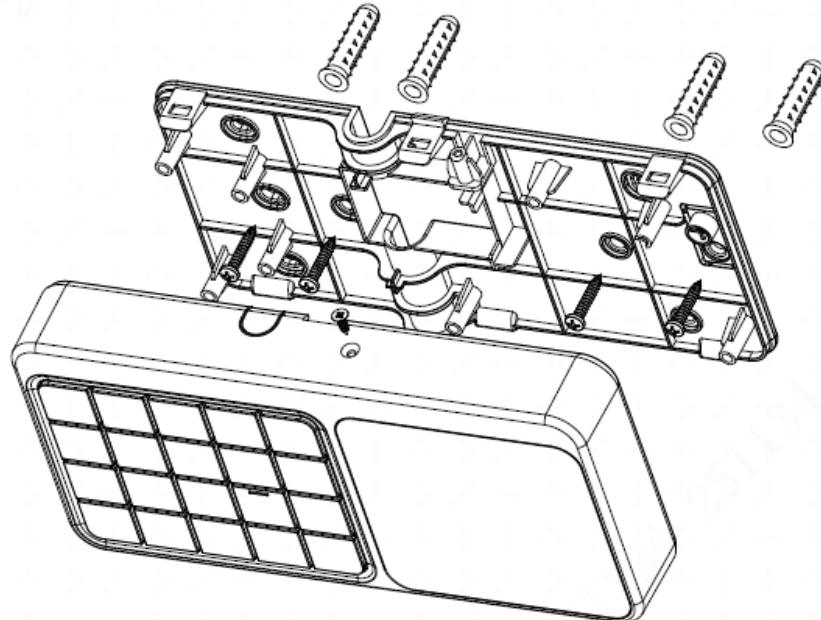
mounting surface.

Step 3 Insert expansion bolts into the drilled screw holes.

Step 4 Align the holes in the rear panel of the alarm keypad with the expansion bolts, and then put in and fasten the self-tapping screws.

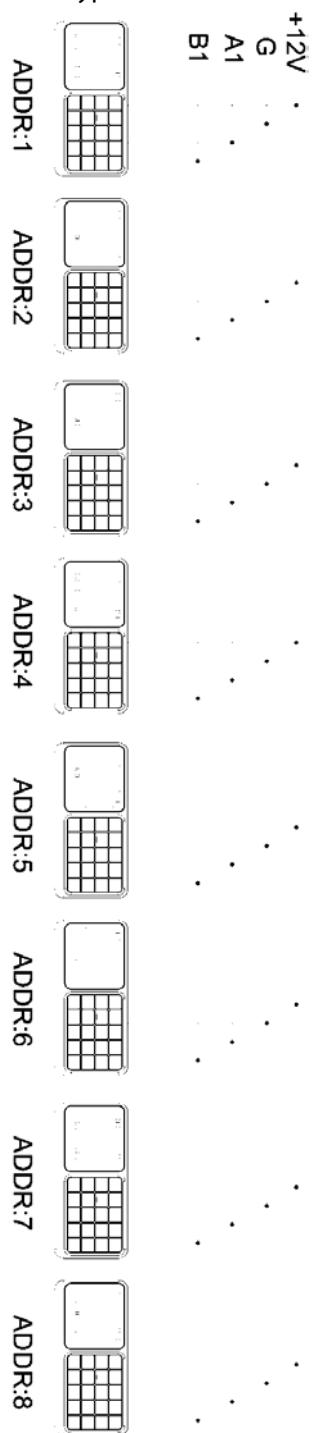
Step 5 Attach the keypad front panel and rear panel together.

Figure 4-2 Install the controller



## 4.3 Wiring

Figure 4-3 keypad connection



## 4.4 Structure

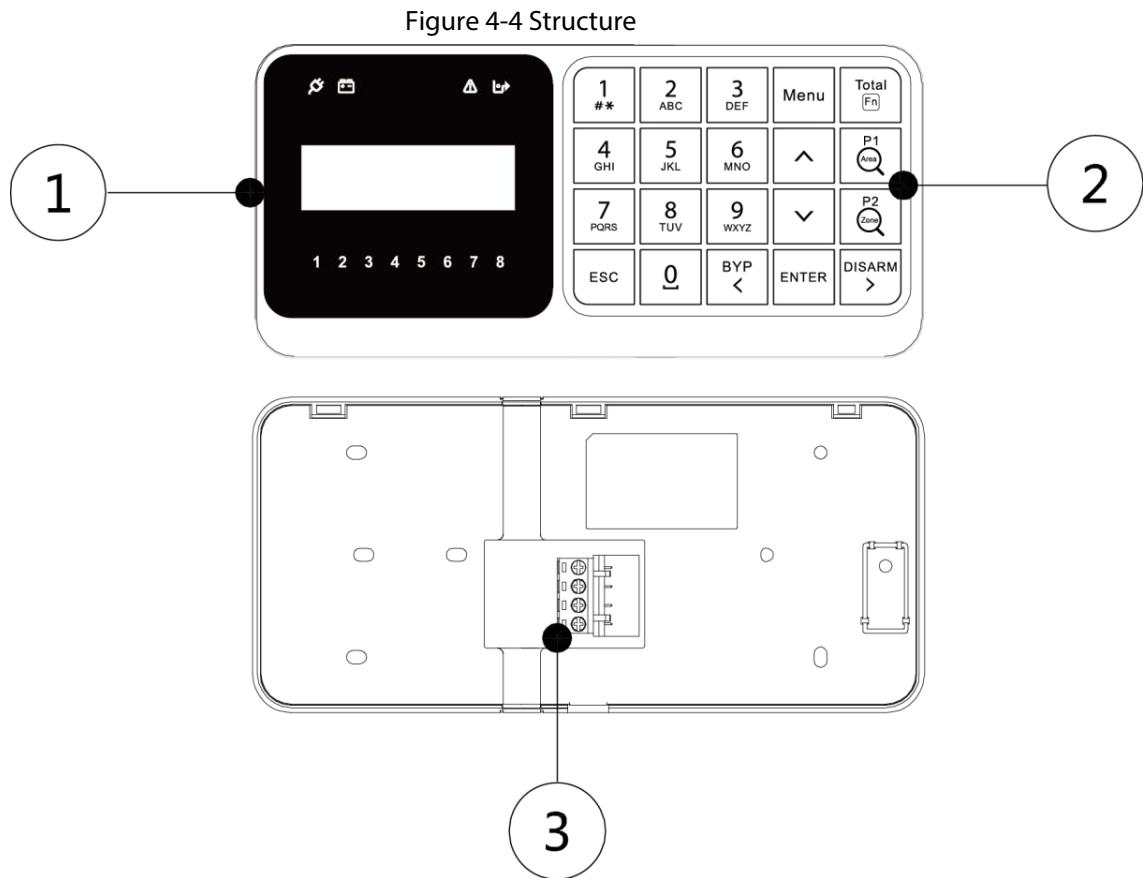


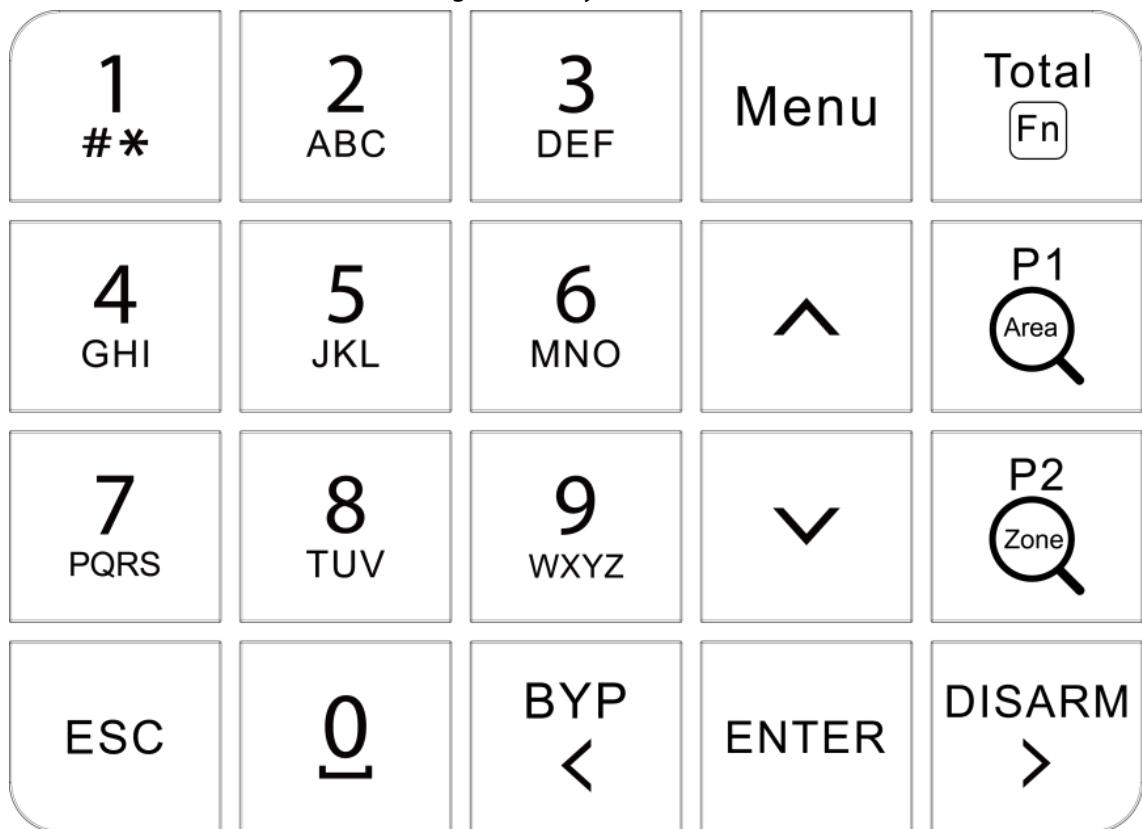
Table 4-1 Function

No.	Name	Function
1	LCD display	Displays all the system information including management and programming. For details, see "4.7 LCD Display".
	LED indicators	Displays information about power status, battery status, failures, bypass, and alarm status of each area. For details, see "4.6 LED Indicators".
2	Keys	Each key has specific function. For details, see "4.5 Keys".
3	Ports	<ul style="list-style-type: none"> <li>• +12V: Supplies 12 VDC.</li> <li>• GND: Ground.</li> <li>• RS485_A1</li> <li>• RS485_B1</li> </ul>

## 4.5 Keys

Each key of the keypad has a specific function.

Figure 4-5 Keys



#### 4.5.1 Numeric Keys (from 0-9)

The numeric keys have following functions.

- Enter access codes as required to access programming (technician or user) or to arm/disarm.
- The keys from 1 to 8 represent eight areas. When the zone is not ready, you can press and hold the key to show the **NOT READY** details, and when the key LED light slowly flashes or quickly flashes, press and hold the key to show the alarm details.
- The keys from 0 to 9 can be used to enter or edit alphanumeric descriptions.
- Press 1 to enter #, \*, and .. Press 0 to enter space.

#### 4.5.2 Function Keys

Table 4-2 Function keys

Key	Function
	Exit from the current menu or return to the previous menu.

Key	Function
	<ul style="list-style-type: none"> <li>Move the pointer to the left when you edit.</li> <li>Press and hold  to delete the text.</li> <li>Bypass the zones as follows. <ol style="list-style-type: none"> <li>enter the access code.</li> <li>Press , and then the screen of setting the bypass zones is displayed.</li> <li>Press the corresponding numeric key of the zones that you want to bypass. For example, if you want to bypass zone 12, press key 1 and then press key 2.</li> <li>Press Enter to confirm the setting.</li> </ol> </li> </ul>
	<ul style="list-style-type: none"> <li>Enter the user menu or the installer menu.</li> <li>Quick enter. For example, if you enter 130, press immediately to confirm, otherwise it will become invalid.</li> <li>Quick jump. For example, if there are 300 logs and you want to view the 200<sup>th</sup> log, enter 200, and then press immediately to jump to the 200<sup>th</sup> log page</li> </ul>
	<ul style="list-style-type: none"> <li>Increase or decrease numbers.</li> <li>Navigate between the options on the screen.</li> <li>Turn pages.</li> <li>Enter the password, and press , and then enter the authorization mode.</li> </ul>
	<ul style="list-style-type: none"> <li>Enter the sub menu.</li> <li>Switch to the next menu of the same level in editing mode.</li> <li>Confirm.</li> </ul>
	<ul style="list-style-type: none"> <li>Arm the whole areas.</li> <li>Rapid global arming of the whole areas.</li> <li>Key combination operations.</li> </ul>
	<ul style="list-style-type: none"> <li>Arm the partition 1.</li> <li>Rapid arming of the partition 1.</li> <li>Key combination operations.</li> </ul>
	<ul style="list-style-type: none"> <li>Arm the partition 2.</li> <li>Rapid arming of the partition 2.</li> <li>Key combination operations.</li> </ul>
	<ul style="list-style-type: none"> <li>Disarm.</li> <li>Move the pointer to the right when you edit number or letter.</li> </ul>

### 4.5.3 Key Combination Operations

Press keys in sequence.

For example, if you need to press  + 0, press  first, and then press 0.

Table 4-3 Key combination operations

Key	Function
 + 0 (F0)	<ul style="list-style-type: none"> <li>On the main screen, press  + 0 (F0) to view the GSM connection status, which is shown with eight bars.</li> <li>Press  + 0 (F0) again to return to the main screen.</li> </ul>  <p>The system automatically returns to the main screen within 2 minutes if no operations are performed.</p>
 + 1 (F1)	<ul style="list-style-type: none"> <li>Panic activation (silent activation or with sirens and keypad buzzer).</li> <li>On the menu of <b>ZONE TROUBLES</b>, <b>ZONE MANAGER</b>, and <b>CHIME ZONES</b>, press  + 1 (F1) to go to the area selection screen to select, search and filter through areas.</li> <li>On the <b>OUTPUTS</b> menu, press  + 1 (F1) to do a test to the output circuit, and active is shown.</li> </ul>
 + 2 (F2)	<ul style="list-style-type: none"> <li>Robbery activation (silent activation).</li> </ul>  <p>There is no response on the screen but this event is recorded in the log.</p> <ul style="list-style-type: none"> <li>On the menu of <b>ZONE TROUBLES</b>, <b>ZONE MANAGER</b>, and <b>CHIME ZONES</b>, you can select, search and filter through zones.</li> <li>Edit text on the screen such as description of module, zone, user code, output, timer and display.</li> <li>Edit telephone number, SMS number, and SIM number on the <b>TEL NUMBER</b> menu, and PSTN number on <b>MONITOR STATION</b> menu.</li> </ul>
 + 3 (F3)	<ul style="list-style-type: none"> <li>Medical activation (with keypad buzzer)</li> <li>On the <b>WALK TEST</b> menu, switch between individual test and multiple test.</li> <li>On the <b>TEL NUMBER</b> menu, start a phone call test or message test.</li> </ul>
 + 4 (F4)	<ul style="list-style-type: none"> <li>Fire alarm activation (with keypad buzzer and siren).</li> <li>On the <b>TEL NUMBER</b> menu, stop a phone call test.</li> </ul>
 + 7 (F7)	<ul style="list-style-type: none"> <li>On the main screen, press  + 7 (F7) to view the SIA connection status.</li> <li>Press  + 7 (F7) again to return to the main screen.</li> </ul>  <p>The system automatically returns to the main screen within 2 minutes if no operations are performed.</p>
 + (1-8)	Search for specified zones under the specified area.
 + (01-99)	Search for areas to which the specified zone belongs.

## 4.6 LED Indicators

There are 12 LED indicators on the keypad that respectively shows information about power status, battery status, faults, bypass, and alarm status of each area.

### 4.6.1 Overview

Table 4-4 LED indicators

Icon	Color	Meaning
	Green	Power status.
	Green	Battery status.
	Red	Fault status.
	Green	Bypass.
	Red	Alarm status of eight areas.

### 4.6.2 Status

#### Power LED Indicator ()

- Glows green: The system operates with normal power supply.
- Slowly flashes green: The system does not operate normally due to a lack of power supply. Make sure to check the power.
- Quickly flashes green: The system is in installer programming mode or in the walk test zone mode. If a lack of power supply occurs when the system is in either of these two modes, the LED indicator also quickly flashes.

#### Battery LED Indicator ()



If power supplies normally, the indicator will not be ON in case of low battery.

- Slowly flashes green: Battery faults such as low power and powering off quickly.
- Off: Battery operates normally.

#### Fault LED Indicator ()

- Glows green: System faults (main power loss, battery low voltage or missing), and you can view the details on the **SYSTEM TROUBLES** menu of **User** menu.
- Slowly flashes green: Tampering is happening to the controller, siren, or keypad.
- Off: The system operates normally.

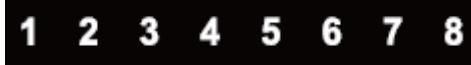
#### Bypass LED Indicator ()

- Glows green: There is at least one bypassed zone.
- Off: There is no bypassed zone.

## 1-8 LED Indicators

There are eight LED indicators located below the LCD display representing the status of the areas. From left to right, there is the alarm status of area 1 to area 8.

Figure 4-6 Area status LED indicators



- Glows red: The area is armed.
- Slowly flashes red: The alarm is in progress or the alarm has occurred.
- Quickly flashes red: The area is in alarm condition and the linkage is in progress. This condition disappears when the area is disarmed. The indicator starts to flash slowly and is cancelled when a valid user code is entered again followed by the command **DISARMED**.
- Off: The area is disarmed.



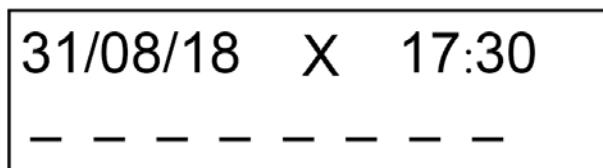
By pressing and holding the number key corresponding to each area for three seconds, you can view where exactly the alarm is in the area. For example, when the area 5 indicator quickly flashes, press and hold key 5, then \* shows where the alarm is located exactly. This operation can only view the zone-related alarms, but cannot view the system faults alarms.

## 4.7 LCD Display

The keypad is equipped with a back-lit LCD display that shows all the system information including management and programming.

When the display is off and everything is working properly, the first line shows the date and time, and the second line contains a series of data that represent area in use in the system.

Figure 4-7 Example of keypad with 8 areas assigned



Each dash can represent a different meaning according to the event activated by the area. Refer to Table 4-6 for the event description and symbol of each event.

### Symbols on the First Line of Display

Table 4-5 Symbols on the first line of display

Symbol	Meaning
31/08/18	Day/Month/Year

Symbol	Meaning
x	<ul style="list-style-type: none"> <li>• <b>H</b>: Holiday period active.</li> <li>• <b>T</b>: Telephone dialer calling.</li> <li>• <b>P</b>: Disarming period for patrol user.</li> <li>• <b>S</b>: SIA disconnect prompt.</li> </ul>
17:30	Hour: Minutes.
██████...	Level of GSM signal. Each █ is equivalent to one bar, and maximum eight bars.

## Symbols on the Second Line of Display

Table 4-6 Symbols on the second line of display

Symbol	Event
Upper case <b>T</b>	Total arming.
1	Partition arming 1.
2	Partition arming 2.
Upper case <b>P</b>	Partition 1 + Partition 2 arming.
Lower case <b>t</b>	Total forced arming.
Upper case <b>A</b>	Alarm.
<	Entry delay time
>	Exit delay time
*	Area not ready (zones open).
!	Alarm delay.

## Alarm Message Display

During an alarm, the main screen shows the general reason description for the alarm in the first line, for example, **ZONE ALARM**. The alarm message remains displayed for the entire duration of the alarm.

To verify the event that caused the alarm, you can press and hold the corresponding numeric key (from 1 to 8) to show the event details. The display will show the zone or the event that triggered the alarm.

To examine whether any other zones are involved in the alarm, press **▲** and **▼** to scroll up and down the page. Normally, the display shows the last zone affected by the event.



- If there is a call in progress, the display will show the question: **31/08/18 T 17:30 STOP TELEPHONE?** when you enter the user code, and press **DISARM**. Press **ENTER** again to confirm the end of the call, or press **ESC** to return to the main screen and continue the call.
- Alarm messages on the keypad will not be displayed until the system enters authorization mode.

## Display of GSM Signal Strength

By pressing **Total** + 0 (F0), the value of GSM signal strength and connection status will be displayed on the main screen for about two minutes, or you can press **Total** + 0 (F0) again to exit. You can also

monitor the GSM signal strength during a call in progress.

- None : No GSM signal.
- One : Minimum GSM signal
- Eight : Maximum GSM signal

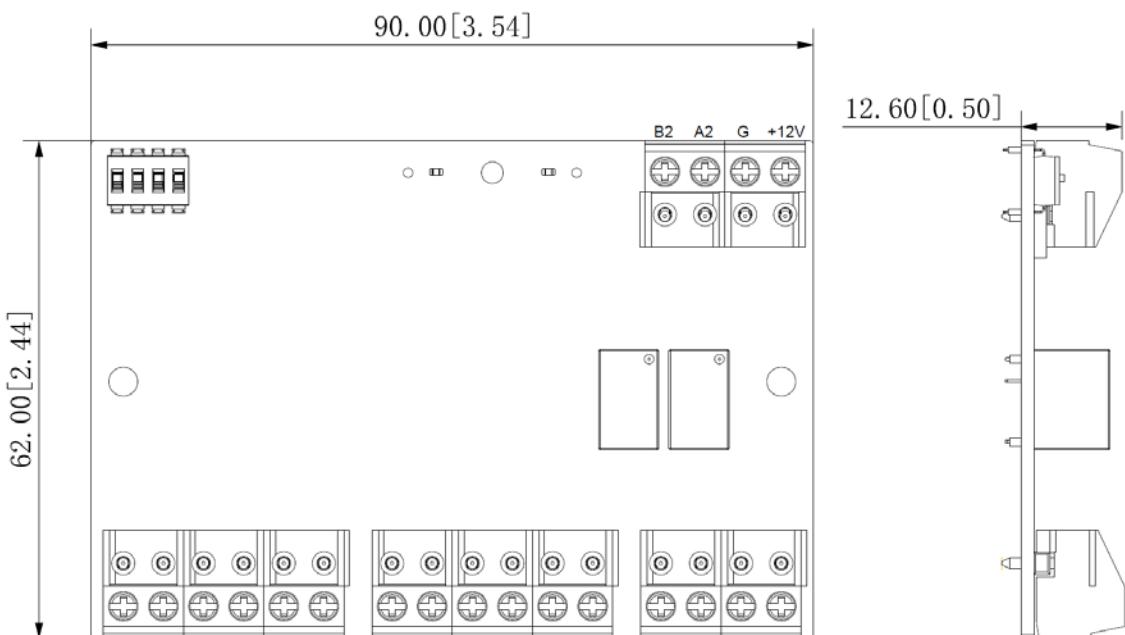
## 5 Expansion Module (Optional)



The expansion module is not provided, and you need to purchase it as needed.

### 5.1 Dimensions

Figure 5-1 Dimensions (unit: mm [inch])



## 5.2 Wiring

Figure 5-2 Wiring of detectors

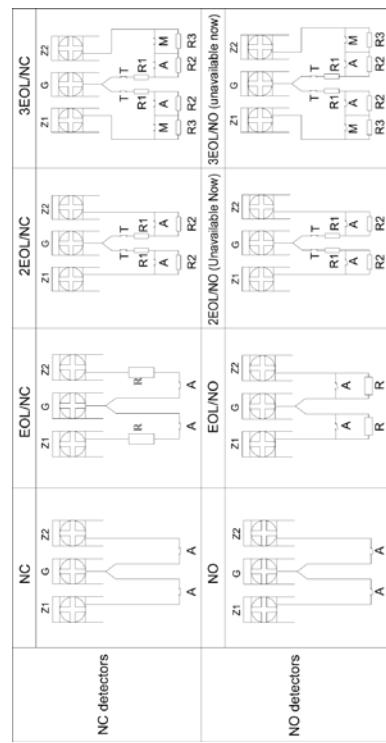
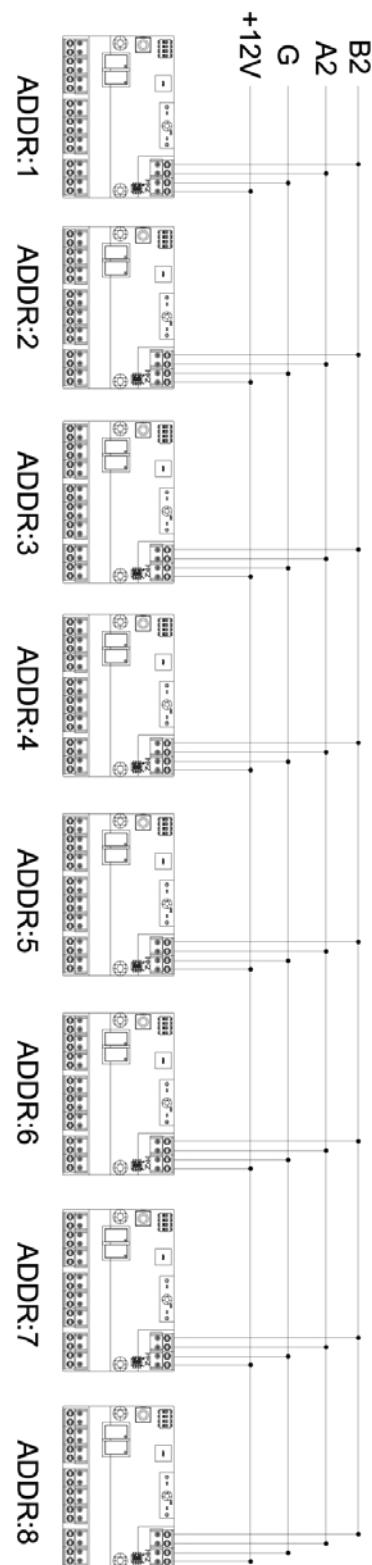


Figure 5-3 Expansion module connections



## 5.3 Module Functions



Dip switch addresses of the expansion modules (including alarm input and output modules) are from 1 to 8. For detailed settings, see "3.1 Setting Keypad and Expansion Module Addresses."

## Alarm Input Module

8 alarm inputs and 2 alarm outputs are supported with alarm input modules. The alarm input module with Dip switch address 1 receives alarm input signals from wired zones of 9–16, and connects to alarm output devices of 3–4. Other alarm input modules are connected by analogy till the module addressed 8, which receives alarm input signals from wired zones of 65–72, and connects to alarm output devices of 17–18.

## Alarm Output Module

8 alarm outputs are supported with alarm output modules. The alarm output module with Dip switch address 1 connects to alarm output devices of 19–26. Other alarm output modules are connected by analogy till the module addressed 8, which connects to alarm output devices of 75–82.

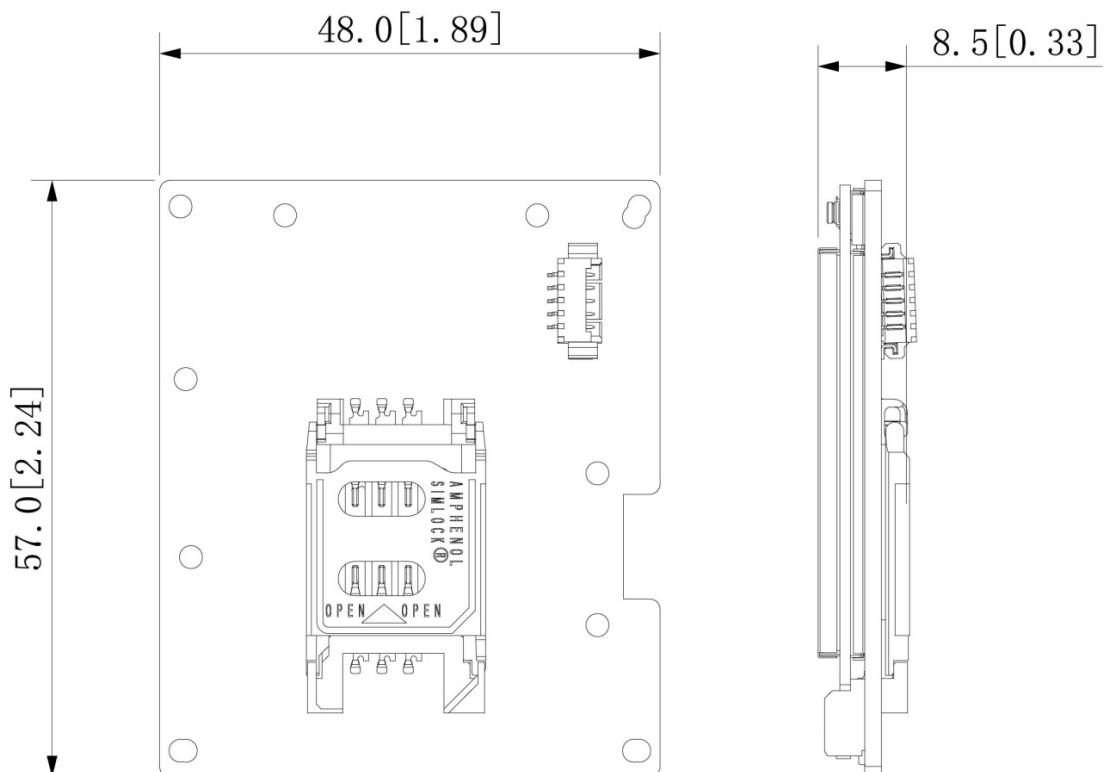
## 6 4G Module (Optional)



The 4G module is not provided, and you need to purchase it as needed.

### 6.1 Dimensions

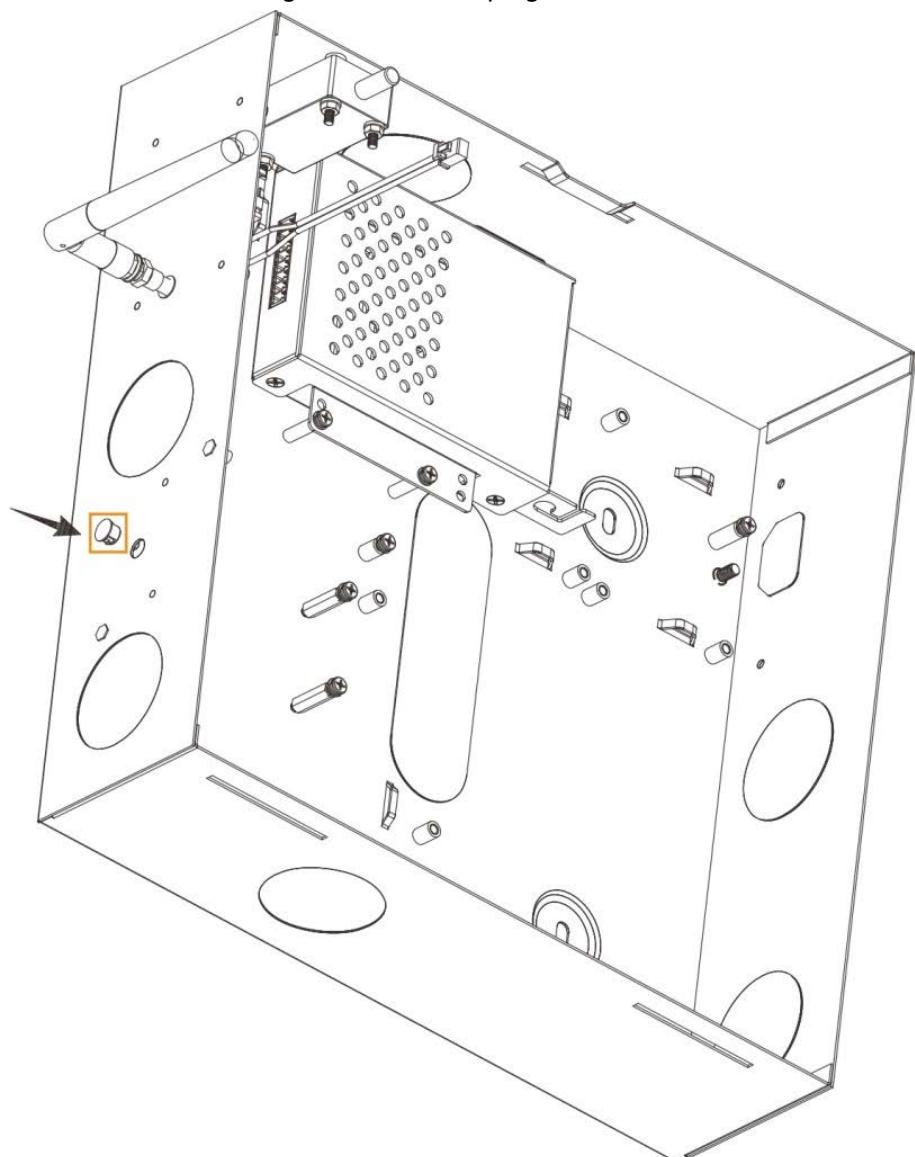
Figure 6-1 Dimensions (unit: mm[inch])



### 6.2 Installing 4G Modules

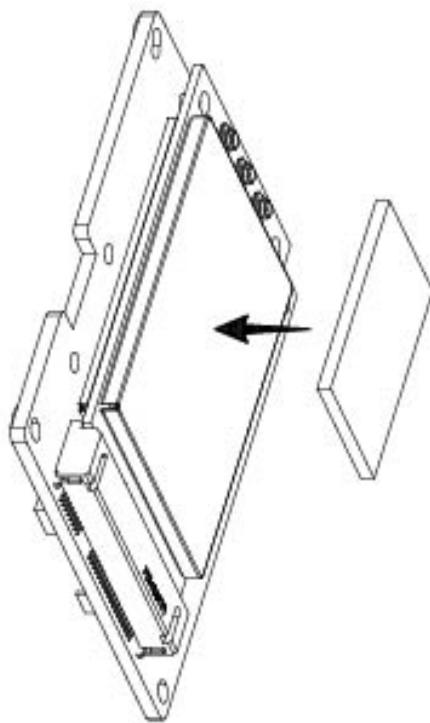
Step 1 Remove two plugs on the controller.

Figure 6-2 Remove plugs



Step 2 Attach the thermal pad to the 4G module.

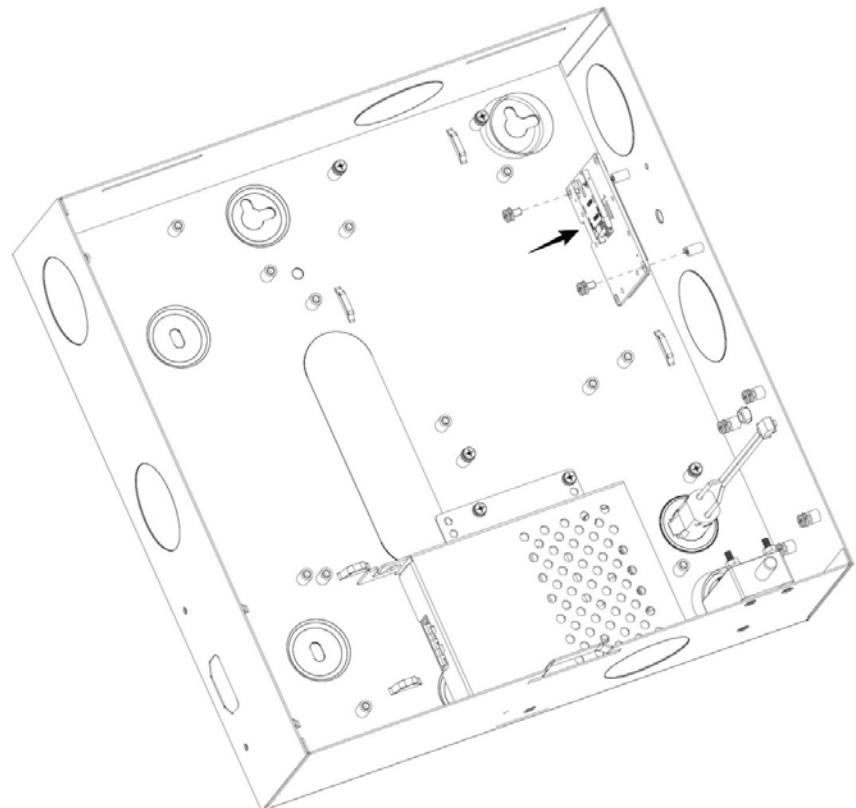
Figure 6-3 Install the thermal pad



Step 3 Attach one end of the antenna patch cord to the main port of the 4G module.

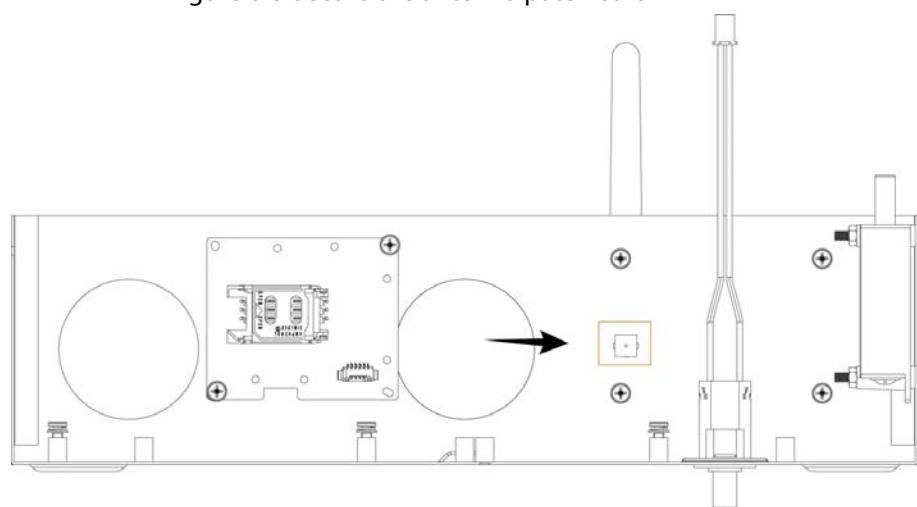
Step 4 Secure the 4G module to the controller with screws.

Figure 6-4 Secure the 4G module



Step 5 Secure the other end of the antenna patch cord to the antenna hole, and then install the external antenna on the hole.

Figure 6-5 Secure the antenna patch cord



Step 6 Connect the 4G module to the 4G port on the main board with the provided wire.  
Step 7 Inset the SIM card into the 4G module.

## 7 Installer Operations

This chapter introduces the menu operations for the installer.

### 7.1 Entering the Installer Menu

To enter the installer menu, the technician must be authorized from the user menu.

The default technician code for entering the installer menu is 1961.

Step 1 Enter the access code (default supervisor code is 1234), and then press .

The **ZONE TROUBLES** menu is displayed on the LCD display.

Figure 7-1 Zone trouble menu



Step 2 Press  and  to scroll up and down until you reach the **TEHCNICIAN** menu.

Figure 7-2 Technician menu



Step 3 Press .

Three beeps confirm that the technician code is operational and has been authorized for a defined period.

Step 4 Press  to exit from the **Technician** menu.

A message about **EXIT FROM MENU** is displayed.

Step 5 Press  to return to the main screen.

Step 6 Enter the technician code (default is 1961) and then press  to enter the installer menu. The **KEYPADS** menu is displayed.

Figure 7-3 Keypads menu



## 7.2 Installer Menu Options

The installer menu consists of many sub menus for management and programming operations as below:

- KEYPADS
- COMMUNICATOR
- POWER SUPPLIES
- WIRED ZONES
- IN AND ZONES
- OUTPUTS
- AREAS
- SYSTEM FUNCTIONS
- SYSTEM TIMING
- SYSTEM TIMERS
- ACCESS CODES
- DATE/TIME
- HOLIDAY
- TEL NUMBER
- REMOTE SERVICE
- MONITOR STATION
- VOCAL MESSAGES
- SMS MESSAGES
- DIGITAL FORMAT
- TCP/IP NETWORK
- LOG EVENT
- 2G/4G MODULE
- LANGUAGE
- RFID CARDS
- Expansion module
- SIA

## 7.3 Keypads

Step 1 After entering the installer menu, on the **KEYPADS** menu, press  to enter the programming mode.

Step 2 Press  and  to select which keypad you want to program, and then press  to enter the programming mode.



By pressing  + 2, you can enter the **EDITING** mode for changing the description of keypad.

Step 3 Configure the parameters for the selected keypad.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

Table 7-1 Keypads programming settings

Submenu	Setting
STATE	<ul style="list-style-type: none"><li><b>ACTIVE:</b> The keypad is operating.</li><li><b>ISOLATE:</b> The keypad is currently out of service. For example, when the keypad has technical problems or needs maintenance.</li></ul>
AREA	<ul style="list-style-type: none"><li>Establish on which areas each keypad can control. Area 1 to area 8 can be assigned individually or in combination.</li><li>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press . The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned area disappears from the programming line to confirm that the selection was cancelled.</li></ul>
SHOW	Select which areas (except those not assigned) status can be shown on the LCD display. This function is used to display the status of the areas without actually carrying out any operations on them.
EVENTS	<ul style="list-style-type: none"><li>Select which areas the alarm events (panic, robbery, fire, medical, and duress) are sent to by pressing the corresponding key.</li><li>Duress can be sent by direct key or entry of the duress code. If no area is selected, the events described above cannot be activated.</li><li>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press . The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned area disappears from the programming line to confirm that the selection was cancelled.</li></ul>
TAMPER	<ul style="list-style-type: none"><li>Determines to which areas the tampering with the displayed keypad (opening of the case of anti-breach materials) must be sent.</li><li>If no area is assigned, tampering with the keypad will not activate any acoustic alarm.</li><li>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press . The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned area disappears from the programming line to confirm that the selection was cancelled.</li></ul>

Submenu	Setting
TROUBLE	<p>Select which areas the alarm from a bus communication fault between the keypad and the controller must be sent to. In practice, an acoustic alarm sounds when there is a loss of communication with the keypad (interruption in communication between the keypad and the controller). If no area is assigned, a keypad bus failure will not activate any acoustic alarm.</p> <p>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press . The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned Area disappears from the programming line to confirm that the deselection was successful.</p> <p>In the <b>SYSTEM FUNCTION</b> menu, you can then assign <b>TAMPER</b> or <b>TROUBLE</b> type alarms to a specific sound mode (<b>BUZZER</b>, <b>SIREN</b>, both or <b>SILENT</b>).</p>
RAPID	Select which areas to adopt rapid arming without entering the access code.
ARMING	Rapid arming can be allocated to one or more areas from this keypad. Press the number of the Area to enable or disable the area. Press  to continue.
FORCED ARM	<p>After at least one area is selected, the next programming steps <b>ARMING (DELAYED or IMMEDIATE)</b> and <b>FORCED ARM (YES or NO)</b> will be shown.</p> <p>Press and hold  for three seconds to prompt rapid arming.</p> <p></p> <p>Rapid arming does not meet EN50131 standard.</p>
BUZ. ON/OFF	Enable or disable the keypad buzzer.
BUZ. ENTRY	Enable or disable the keypad buzzer for the entry delay.
BUZ. EXIT	Enable or disable the keypad buzzer for the exit delay.
BUZ. ALARM	Enable or disable the keypad buzzer for the sound of alarm.
BUZ. CHIME	Enable or disable the keypad buzzer for the sound of the chime alarm event.
KEYPAD BEEP	Enable or disable the beep when the keypad keys are pressed.
BACKLIGHT	Enable or disable automatic backlight illumination in the event of an alarm or in the Entry Delay and Exit Delay status.
BUS ERRORS	Show the communication errors that have occurred between the keypad and the controller.

Step 4 Press  to return to the keypads selection menu.



Then you can continue with programming other keypads, or press  to return to the **KEYPADS** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.4 Communicator

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **COMMUNICATOR** menu.

Figure 7-4 Communicator menu



Step 2 Press  to enter the programming mode.

Step 3 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

Table 7-2 Communicator programming settings

Submenu	Setting
PRIORITY	<p>There are four priority options: GSM, PSTN, GSM/PSTN, PSTN/GSM.</p> <p></p> <p>Whichever of the four is selected to be the priority, messages will be sent through that method first.</p>
ATTEMPS	<p>Set the maximum number of call attempts that the communicator will make to the same telephone number.</p> <p>It is possible for the called user to block the entire call cycle or only calls to their number before the maximum number of attempts allowed for in this programming step is reached.</p>
PSTN TROUBLE	Set which areas the PSTN line trouble must be sent to.
GSM TROUBLE	Set which areas the GSM trouble must be sent to.
SIM TYPE	<p>If GSM module is installed, you need to define the SIM type provider that you use.</p> <ul style="list-style-type: none"> <li>• <b>CONTRACT:</b> SIM card with regular contract.</li> <li>• <b>OTHER:</b> Rechargeable prepaid SIM card.</li> </ul>
OPERATOR NUM	<p>Set the operator number that receives the SIM card balance information.</p> <p></p> <p>This parameter can be set only when the SIM type is set to <b>OTHER</b>.</p>
SMS INSTRUCTION	<p>Set the command that can be used to check the SIM card balance.</p> <p></p> <p>This parameter can be set only when the SIM type is set to <b>OTHER</b>.</p>

Step 4 Press  to return to the **COMMUNICATOR** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.5 Power Supplies

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **POWER SUPPLIES** menu.

Figure 7-5 Power supplies

**<03>  
POWER SUPPLIES**

Step 2 Press  to enter the programming mode.

Step 3 Select which areas the battery alarm event must (such as main power loss, battery low voltage or missing) be sent to.

Step 4 Press  to return to the **POWER SUPPLIES** menu.  
Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.6 Wired Zones

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **WIRED ZONES** menu.

Figure 7-6 Wired zones

**<04>  
WIRED ZONES**

Step 2 Press  to enter the programming mode.  


By pressing  + 2, you can enter the **EDITING** mode for changing the description of wired zone.

Step 3 Press  and  to select the wired zone that you want to configure, and then press .

Step 4 Configure the parameters for the selected wired zone.

Table 7-3 Wired zone setting

Submenu	Setting
STATE	<ul style="list-style-type: none"><li><b>ACTIVE:</b> This wired zone is fully operational.</li><li><b>ISOLATE:</b> This wired zone is programmed but permanently bypassed from the system.</li><li><b>TEST:</b> This wired zone is operational but does not generate alarms.</li><li><b>OFF:</b> This wired zone is not used.</li></ul>

TYPE	<p>You can set the zone for the most suitable type for the installation.</p> <ul style="list-style-type: none"><li>• <b>INSTANT:</b> The zone reacts to the intrusion immediately without waiting for any delay period.</li><li>• <b>ENTRY 1 DELAY:</b> The zone reacts after the delay 1 period is set in the <b>AREAS</b> menu.</li><li>• <b>ENTRY 2 DELAY:</b> The zone reacts after the delay 2 period is set in the <b>AREAS</b> menu.</li><li>• <b>Path:</b> The zone triggers an immediate alarm if it is the first affected by an intrusion. However, the delay follows for the area to which it belongs. If a delay 1 zone is the first affected, path indicates that it is a zone will not trigger an immediate alarm.</li><li>• <b>EXIT END:</b> The exit end termination zone is used when you want to terminate an output countdown before it ends. This is very useful when it is unable to establish an output path with a fixed period, you can set it very high then terminate. For example, by closing the door on which a contact is mounted and programmed as an output terminator, the terminator can also act as a button. After arming successfully, the zone's entry delay is <b>Entry 1 Delay</b>.</li><li>• <b>24H:</b> The 24-hour zone is always active regardless of the area to which it is assigned. This setting is used for anti-opening or high-security protective measures.</li><li>• <b>WATER LEAK:</b> The water leak zone is used when you want to install water leak detector within the alarm system, if you program in the water leak zone, it will activate the water leak alarm and pre-alarm outputs for the area to which it belongs.</li><li>• <b>FIRE:</b> The fire zone is used when you also want to install smoke detector or buttons within the alarm system, if you program in the fire zone, it will activate the fire alarm and pre-alarm outputs for the area to which it belongs. The fire alarm period set in the <b>SYSTEM TIMING</b> menu will then follow and it will never affect intrusion alarms. If it is programmed with single or double balancing, the tamper will be read and managed as a <b>FIRE TROUBLE</b>.</li><li>• <b>PANIC:</b> The panic zone is active for 24 hours a day and generates a sound or silent alarm depending on the settings input in the <b>SYSTEM FUNCTIONS</b> menu. Panic outputs are activated for the area to which the setting is assigned. When a panic zone activates, the display shows <b>panic alarm</b>.</li><li>• <b>ROBBERY:</b> The zone is active for 24 hours a day and generates a silent alarm. The hold-up outputs are activated for the area to which the setting is assigned. The LCD display does not show the alarm and no LED flashes.</li><li>• <b>MEDICAL:</b> The medical zone is active for 24 hours a day and always generates a sound alarm by means of a keypad buzzer only. It activates the help outputs for the area to which the setting is assigned. When it is in an alarm state, the LCD display shows <b>MEDICAL ALARM</b>.</li></ul>
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Submenu	Setting
	<ul style="list-style-type: none"> <li>• <b>Key:</b> The key type zone is used as an auxiliary command to arm/disarm one or more areas.</li> <li>• <b>SIREN FAULT:</b> The siren fault zone is used to receive abnormal output signals from the siren, and it is active for 24 hours a day.</li> </ul>
TERMINATION	<p>Each wired zone can be connected according to seven different criteria:</p> <ul style="list-style-type: none"> <li>• <b>N.O., N.C:</b> Select <b>N.O</b> or <b>N.C</b> depends on the output type of detectors. For example, if the output of detector is set to <b>N.O.</b>, then you should select <b>N.O.</b></li> <li>• 1EOL, 2EOL, 3EOL. For definition, see "1.3 Technical Specifications".</li> <li>• <b>INERTIAL:</b> If <b>INERTIAL</b> is selected, the level of sensitivity must be set. The range is 20 ms–5020 ms, and the detector type can be <b>N.O.</b> or <b>N.C.</b></li> <li>• <b>IMPULSE:</b> If <b>IMPULSE</b> is selected, the times of impulse triggered and impulse time must be set. The times range is 2–15. For example, if you set range to be 5, the triggered time is set to be 000.01, this setting means the alarm is triggered for 5 times within 1 second. The detector type can be <b>N.O.</b> or <b>N.C.</b></li> </ul>
AREA	<p>Each wired zone can be assigned to one or more areas (1 to 8). The areas can be assigned in individual or combined mode. In the case of multiple areas, the zone is linked to them in <b>OR</b> mode or arms when one of them is armed and disarms when all of them are disarmed.</p> <p>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press <b>ENTER</b>. The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned area disappears from the programming line to confirm that the deselection was successful.</p>
BYPASS	<p>Each wired zone can be programmed so that it is excludable by the user or not.</p> <ul style="list-style-type: none"> <li>• <b>NO:</b> Establishes that the wired zone cannot be bypass by the user.</li> <li>• <b>TEMPORARY:</b> Establishes that the wired zone can be bypass but, when the area to which it belongs is disarmed, it is automatically re-included.</li> <li>• <b>PERMANENT:</b> Establishes that the wired zone can be bypass and does not re-arm automatically. Re-inclusion must be performed manually as described in the <b>ZOME MANAGER</b> of user menu.</li> </ul>
PARTITION1	Each individual wired zone can be assigned for partition 1 type arming. If this option is set to <b>YES</b> , the wired zone will be involved in the partition 1 arming of the areas which it belongs to.
PARTITION2	Each individual wired zone can be assigned for partition 2 type arming. If this option is set to <b>YES</b> , the wired zone will be involved in the partition 1 arming of the areas which it belongs to.

Submenu	Setting
AUTO BYPASS	<p>Each individual wired zone can be programmed to be automatically excluded or not when the area is armed if the wired zone is not ready (for example, an open window).</p> <ul style="list-style-type: none"> <li>● <b>NO:</b> Establishes that the wired zone is not automatically excludable (it blocks the arming of the Area which it belongs to).</li> <li>● <b>YES:</b> Establishes that the wired zone can be automatically bypass permanently until the Area is disarmed.</li> <li>● <b>WITH RESTORE:</b> Establishes that the wired zone is automatically excludable but, if it is not ready, it is taken back by the system and can generate an alarm during the arming in progress.</li> </ul>
ALARM	<p>Each individual wired zone can be programmed to react in differentiated acoustic mode.</p> <ul style="list-style-type: none"> <li>● <b>SIR &amp; BUZZER:</b> Establishes that the zone generates alarms both on the buzzers and on the siren outputs.</li> <li>● <b>CHIME:</b> The chime is equivalent to the buzzer and siren option but adds the <b>CHIME</b> parameter to the zone, the <b>CHIME</b> parameter makes it possible to control the zone, with the system disarmed, activating the keypad buzzer. However, to activate the zone <b>CHIME</b>, you need to enable the zones to be controlled through the <b>CHIME ZONES</b> menu of user menu.</li> <li>● <b>SILENT:</b> Establishes that the wired zone does not generate any type of sound alarm.</li> <li>● <b>BUZZER:</b> Establishes that the zone generates sound alarms only on keypad buzzers.</li> <li>● <b>SIREN:</b> Establishes that the zone generates sound alarms only on siren-type outputs.</li> </ul>
ALARM CYCLE	<ul style="list-style-type: none"> <li>● In the case of multiple alarms (alarm repetition), you can determine the behavior of the zones that remain open at the end of the alarm cycle in progress. For example, a zone has set the value 3 to the <b>ALARM REPETITION</b> parameter, if it remains open at the end of the activated alarm cycle, you can decide that the alarm is not recycled (alarm cycle is set to <b>NO</b>), or that the alarm is recycled a maximum of 3 times (alarm cycle is set to <b>YES</b>).</li> <li>● This function is valid only for <b>INSTANT</b>, <b>DELAY1&amp;2</b>, <b>PATH</b>, and <b>EXIT END</b> zones.</li> </ul>
ALARM REPEAT	<p>Each individual wired zone can be programmed to generate a limited number of alarm cycles during the arming phase. The value can be set from 01 through 10 cycles. When a wired zone reaches the programmed number of alarm cycles, the alarm system is momentarily placed in a state of exclusion until it is disarmed. After it is disarmed, the alarm cycle count will be reset to 3.</p>

Submenu	Setting
OUTPUT LINK	<p>Each individual wired zone can be programmed to command a <b>LINK</b> type output every time it is opened. The corresponding <b>LINK</b> output must be then programmed in the <b>OUTPUT</b> menu according to actual need (status and duration).</p> <p>If the setting remains at 000, no output will be affected.</p> <p>The setting takes effect only if the selected output (from 001 to xxx) will be programmed as a <b>LINK</b> type. This function is very useful for technological commands or direct auxiliary signals.</p>

**Step 5** Press  to return to the **WIRED ZONES** menu.

Then you can continue with programming other wired zones, or press  to return to the **WIRED ZONES** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.7 Key Type Zone

The key type zone is used as an auxiliary command to arm/disarm one or more areas. In the area screen, the areas that the key zone will attempt to arm or disarm are defined. Having defined the areas on which it will be able to act, the function parameter is proposed, which provides options as below:

- **ON/OFF**

- ◊ **Modality:** Select **ON/OFF** option, the key zone is used as an **ON** and **OFF** command. The type of arming will then be selected from **TOTAL**, **PARTITION 1**, **PARTITION 2**, and **PARTITION 1+2**.
- ◊ **Trigger:** Select **IMPULSE** or **BISTABLE** (only for the **ON/OFF** command). This choice determines whether the key zone acts with an **IMPULSE** or **BISTABLE** command (on each **N.C.** to **N.O.** change and vice versa).
- ◊ **Arming:** Select **DELAYED OR IMMEDIATE**.  
With delayed arming, the output time programmed for the area on the **AREAS** menu will then follow. With immediate arming, the output time will not be taken into account and it will be executed immediately.
- ◊ **FORCED ARM:** Select **YES** or **NO**.  
If **YES** is selected, the key zone will be armed even though there are open zones. If **NO** is selected, the arming will take place only if all the Area Zones are ready for arming.
- ◊ **Link:** Set link output associated with the input.

- **ON ONLY, OFF ONLY**

- The settings **ON ONLY** and **OFF ONLY** use the **IMPULSE** type only.
  - ◊ **Modality:** Select **ON/OFF** option, the key zone is used as an **ON** and **OFF** command. The type of arming will then be selected from **TOTAL**, **PARTITION 1**, **PARTITION 2**, and **PARTITION 1+2**.
  - ◊ **Arming:** Select **DELAYED OR IMMEDIATE**.  
With delayed arming, the output time programmed for the area on the **AREAS** menu will then follow. With immediate arming, the output time will not be taken into account and it will be executed immediately.

- ◊ **FORCED ARM:** Select **YES** or **NO**.

If **YES** is selected, the key zone will be armed even though there are open zones. If **NO** is selected, the arming will take place only if all the area zones are ready for arming.

- ◊ Link: Set link output associated with the input.

- **SPECIAL**

If the **SPECIAL** option is selected, two submenus are proposed.

- ◊ **RESTART:** This option turns off and immediately re-arms the controller. This function can be useful to perform **PATROL ROUND** to disarm one or more areas getting automatic re-arm after the programmed exit time area.

- ◊ **TIMER OFF:** This option is not subject to **TRIGGER, DELAY OR FORCED** and works only in the table step from **N.C.** to **N.O.** status. When opened, it locks arming operations subject to a TMER which are programmed for the AREAS to which it is associated. In practice, it functions as a key to lock/unlock **ON/OFF TIMERS** active on the **AREAS**.

## 7.8 In and Zones

You can set maximum eight **IN AND ZONES** couples. For each **IN AND ZONES**, you can combine two zones and establish the alarm linkage between them.

Step 1 After entering the installer menu, press **▲** and **▼** to scroll up and down until you reach the **IN AND ZONES** menu.

Figure 7-7 In and zones



Step 2 Press **ENTER** to enter the programming mode.

Step 3 Press **▲** and **▼** to select the **IN AND ZONE** that you want to configure, and then press **ENTER**.



By pressing **ENTER** + 2, you can enter the **EDITING** mode for changing the description of **IN AND ZONE**.

Step 4 Configure the parameters.

Press **▲** and **▼** to alter the options. Press **ENTER** to confirm the setting and move to the next submenu.

Table 7-4 IN AND ZONE programming settings

Submenu	Setting
STATUS	<ul style="list-style-type: none"><li>● <b>ACTIVE:</b> This <b>IN AND ZONE</b> is enabled.</li><li>● <b>ISOLATE:</b> This <b>IN AND ZONE</b> is programmed but not used.</li><li>● <b>OFF:</b> This <b>IN AND ZONE</b> is disabled.</li></ul>

Submenu	Setting
ZONE1/ZONE2	<p>Select the zones that you want to combine the alarm linkage. To select the zone number, enter the number and press  to confirm the input. You can also press  and  to adjust the number.</p> <p></p> <ul style="list-style-type: none"> <li>• The <b>IN AND ZONES</b> can consist of any combination of wired or wireless zones and a single zone can also be placed in <b>AND</b> by itself. However, it is suggested not to program zones in <b>AND</b> which are of the delayed, robbery, or panic type as the <b>AND</b> result might not guarantee a sufficient level of security.</li> <li>• Setting a zone in <b>AND</b> by itself means that a double alarm confirmation will be obtained for the alarm to activate. This option is very useful for placing a filter on the first alarm from a zone at a high risk of a <b>FALSE ALARM</b>.</li> </ul>
IN SEQUENCE	<p>Establish whether the alarm confirmation between the two zones should take into account the first and second sequence.</p> <ul style="list-style-type: none"> <li>• <b>YES</b>: When the alarm is triggered in <b>ZONE1</b>, the alarm in <b>ZONE2</b> must be triggered afterwards.</li> <li>• <b>NO</b>: The controller will not take the sequence into account.</li> </ul>
TRIGGERS	<p>Establishes the maximum number of alarms that the same zone triggering the alarm. In practice, a filter is enabled, from a minimum value of 02 (two alarms) that takes into account the alarms permitted to the zone before triggering the alarm. The maximum value that can be set is 15.</p> <p></p> <p>Using the <b>TRIGGERS</b> parameter with the criterion could have a negative effectiveness and promptness of the installed alarm system.</p>
AND TIME	<ul style="list-style-type: none"> <li>• Set the time within which the alarm from the zone 2 must be triggered after the alarm of zone 1 starts.</li> <li>• If the zone 2 opens in this time window, the alarm is confirmed; otherwise, after this time period, the timer is reset to zero and the first alarm is reset. The time can be programmed in minutes and seconds.</li> <li>• Press  to finish programming of the zone 1 pair in <b>AND</b>.</li> </ul>

Step 5 Press  to return to the **IN AND ZONES** menu.

Then you can continue with programming other in and zones, or press  to return to the **IN AND ZONES** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.9 Outputs

### 7.9.1 Entering Output Menu

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **OUTPUTS** menu.

Figure 7-8 Outputs



Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select the **OUT[UTS** that you want to configure, and then press .



By pressing  + 2, you can enter the **EDITING** mode for changing the description of **OUTPUTS**.

Step 4 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

The two numeric fields 000.00 represent minutes and seconds.

Table 7-5 Outputs settings

Submenu	Setting
STATE	<p>Set the mode according to the installation requirements.</p> <ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The wire output is fully operational.</li><li>• <b>ISOLATE</b>: The wire output is programmed but permanently bypassed from the system.</li><li>• <b>OFF</b>: The wire output is not used.</li></ul>
CATEGORIES	<p>Set the output categories.</p> <ul style="list-style-type: none"><li>• <b>AREAS</b></li><li>• <b>ZONES</b></li><li>• <b>LINK</b></li><li>• <b>GENERIC</b></li><li>• <b>SYSTEM</b></li></ul>

Step 5 Press  to return to the **OUTPUTS** menu.

Then you can continue with programming other outputs, or press  to return to the **OUTPUTS** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.9.2 Configuring Output Categories

On the **CATEGORIES** submenu, press  or  to select the output category from **AREAS**, **ZONES**, **LINK**, **GENERIC**, or **SYSTEM**, and then press  to enter the programming mode of output that you selected.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

By entering the **OUTPUTS** menu when the LCD display shows the name of output, it is possible to manually activate the output to test its operation: Press  + 1 (F1), the **ACTIVE** screen is displayed.

Figure 7-9 Active



Figure 7-9 shows a text box with a black border. Inside the box, the text is arranged in two lines: the top line is '**<OUT-01> -->A**' and the bottom line is '**<---ACTIVE--->**'. The word 'ACTIVE' is in bold and appears to be flashing.

The text **ACTIVE** is flashing. The output activates and remains activated manually until the  or  is pressed. The technician then can manually test all the system outputs.

## Area Outputs

Table 7-6 Areas outputs programming

Submenu	Setting
TYPE	<ul style="list-style-type: none"> <li>● <b>AREA ON:</b> Follows area(s) armed status.</li> <li>● <b>AREA OFF:</b> Follows area(s) armed status.</li> <li>● <b>PART1 ON:</b> Follows partition 1 armed status.</li> <li>● <b>PART2 ON:</b> Follows partition 2 armed status.</li> <li>● <b>EXIT TIME:</b> Follows the exit delay time for the assigned area. In the case of multiple areas, it follows the longest period.</li> <li>● <b>ENTRY TIME:</b> Follows the entry time for the assigned area. In the case of multiple areas, it follows the longest period.</li> <li>● <b>IN AND OUT DELAY TIME:</b> Follows both the exit time and entry time for the assigned area.</li> <li>● <b>FORCED ARM:</b> Follows forced arming with unready zones. This function is useful for notifying that timer arming has been provided with a certain number of not ready zones which are therefore automatically bypass from arming.</li> <li>● <b>CHIME:</b> Follows the chime alarm condition in a chime zone (this can be one or more areas).</li> <li>● <b>ZONE BYPASS:</b> Follows the existence of bypassed zones.</li> <li>● <b>ZONE TAMPER:</b> Follows an alarm condition due to the activation of a wired or wireless zone tamper (this can be one or more areas).</li> <li>● <b>ALARM MEMORY:</b> Follows the addition to the memory of a siren alarm being triggered. It remains active until the user reset.</li> <li>● <b>READY:</b> Follows the zone ready condition. This can be one or more areas.</li> <li>● <b>PART1 ALARM:</b> Follows an alarm condition due to an intrusion in partition 1 (this can be one or more areas). Follows alarm conditions such as the system siren alarm output, but with alarm times for the area.</li> <li>● <b>PART2 ALARM:</b> Follows an alarm condition due to an intrusion in partition 2 (this can be one or more areas). Follows alarm conditions such as the system siren alarm output, but with alarm times for the area.</li> <li>● <b>WATER LEAK:</b> Follows an alarm condition due to the activation of water leaking.</li> <li>● <b>FIRE:</b> Follows an alarm condition due to the activation of a wire or radio fire zone (this can be one or more areas).</li> <li>● <b>FIRE TROUBLE:</b> Follows an alarm condition due to the activation of a fire failure (fire zone tamper).</li> <li>● <b>PANIC:</b> Follows a panic alarm condition (this can be one or more areas).</li> <li>● <b>ROBBERY:</b> Follows a robbery alarm condition (this can be one or more areas).</li> <li>● <b>MEDICAL:</b> Follows a medical alarm condition (this can be one or more areas).</li> <li>● <b>DURESS:</b> Follows a duress condition due to arming or disarming under duress.</li> <li>● <b>TIMER ERROR:</b> Follows a condition of failure arm operated by timer.</li> <li>● <b>24H ZONE:</b> Follows an alarm conditions due to the activation of a 24-hour zone (this can be one or more areas).</li> </ul>

Submenu	Setting
AREAS	<p>Select the areas (1 to 8) that you want to assign the outputs to. The areas can be assigned in individual or combined mode. In the case of multiple areas, the output is connected to them in <b>OR</b> or <b>AND</b> mode that is defined on the next screen.</p> <p>To assign or remove areas from the keypad, press the corresponding key (1 to 8) and then press <input type="button" value="ENTER"/>. The number of the assigned area appears on the programming line to confirm that the selection was successful. The number of the assigned area disappears from the programming line to confirm that the selection was cancelled.</p>
MODALITY	<p>The area output can be programmed to follow the areas condition for <b>AND</b> or <b>OR</b> mode.</p> <p>If only one area has been assigned, this parameter has <b>NO</b> value. If 2 to 8 areas have been assigned, the behavior of the output must be defined for the presentation of the <b>TYPE</b> event in multiple areas.</p> <ul style="list-style-type: none"> <li>• <b>OR</b>: The output activates when the event occurs in one of the assigned areas and deactivates when there is a reset from all the assigned areas.</li> <li>• <b>AND</b>: The output activates when the event occurs in all of the assigned areas and deactivates when there is a reset from at least one of the areas.</li> </ul> <p></p> <p>If only one area has been assigned, this parameter has no value.</p>
POLAR	<p>Select the output polarity. The choice of the output polarity determines the at rest status of the output itself. In practice, the output can be placed in <b>HIGH</b> or <b>LOW</b> electrical status (high status gets more security)</p> <ul style="list-style-type: none"> <li>• <b>DIRECT</b></li> <li>• <b>REVERSE</b></li> </ul> <p>If you press <input type="button" value="ENTER"/> to confirm the option, you will exit and the output will immediately take on the selected polarity.</p>

## Zones Outputs

Table 7-7 Zones outputs programming

Submenu	Setting
TYPE	<ul style="list-style-type: none"> <li>• <b>ZONE FOLLOW</b>: Follows the direct status of the zone (open and closed).</li> <li>• <b>ZONE ALARM</b>: Follows the zone alarm status until reset.</li> <li>• <b>ZONE BYPASS</b>: Follows the bypassed zone status.</li> <li>• <b>ZONE TAMPER</b>: Follows the tamper status.</li> </ul>
ZONE1/ZONE2/ ZONE3/ZONE4	You can associate the output with up to a maximum of 4 different zones (wire or radio zones)

Submenu	Setting
MODALITY	<p>The zone outputs can be programmed to follow the association condition for <b>AND</b> and <b>OR</b> mode.</p> <p>If only one zone has been assigned, this parameter has <b>NO</b> value. If 2 to 4 zones have been assigned, the behavior of the output must be defined for the presentation of the event by multiple zones.</p> <ul style="list-style-type: none"> <li>• <b>OR:</b> The output activates when the event occurs in one of the assigned areas and deactivates when there is a reset from all the assigned areas.</li> <li>• <b>AND:</b> The output activates when the event occurs in all of the assigned areas and deactivates when there is a reset from at least one of the areas.</li> </ul> <p> If only one area has been assigned, this parameter has no value.</p>
POLAR	<p>The choice of the output polarity determines the at rest status of the output itself. In practice, the output can be placed in <b>HIHG</b> or <b>LOW</b> electrical status (high status gets more security).</p> <ul style="list-style-type: none"> <li>• <b>DIRECT</b></li> <li>• <b>REVERSE</b></li> </ul> <p>If you press  to confirm the option, you will exit and the output will immediately take on the selected polarity.</p>

## Link Outputs

Link outputs can be commanded by the user or by association with zone inputs. In practice, outputs are activated following the status of specific (wired or wireless) zones or through a direct manual command and can be programmed as **Toggle** or **Pulse**.

The outputs can also be associated with a maximum of 4 (**Start/Stop**) timers which can limit the outputs operations to specific time periods during the week.

Table 7-8 Link outputs programming

Submenu	Setting
LINK ACT DUR	Set the activation time of the output (minutes/seconds).
LINK ACT DLY	Set an eventual delay time before output starts (minutes/seconds).
TRIGGER	<p>This parameter is shown only if the delay is programmed in impulse mode.</p> <ul style="list-style-type: none"> <li>• <b>SINGLE:</b> During its impulse activation, a further command does not restart the impulse time. In this case, the link can reactivate only after the entire impulse duration has elapsed.</li> <li>• <b>CONTINUOUS:</b> During its impulse activation, when another command is received, the impulse time restarts from the beginning time.</li> </ul> <p> In practice, <b>TRIGGER</b> auto-regenerates at each new impulse until it comes to the end of the set time.</p>

Submenu	Setting
TIMER1/TIMER2/ TIMER3/TIMER4	<p>Follows the setting of timers (00 to 16). The outputs can also be associated with a maximum of 4 (<b>Start/Stop</b>) timers which can limit the outputs operation to specific time periods during the week. Press <math>\Delta</math> and <math>\nabla</math> or directly press the value + <input type="button" value="ENTER"/> to alter the timer to be set. After making the selection, press <input type="button" value="Menu"/> to move to the next field, and after setting the fourth timer, press <input type="button" value="Menu"/> to move to the <b>Polar</b> screen.</p>
POLAR	<p>The choice of the output polarity determines the at rest status of the output itself. In practice, the output can be placed in <b>HIGH</b> or <b>LOW</b> electrical status (high status gets more security).</p> <ul style="list-style-type: none"> <li>• <b>DIRECT</b></li> <li>• <b>REVERSE</b></li> </ul> <p>If you press <input type="button" value="ENTER"/> to confirm the option, you will exit and the output will immediately take on the selected polarity.</p>

## Generic Outputs

The generic outputs are only used by timers (up to 4 timers).

In practice, the outputs are activated following the time slots on the **Timers** and the activation duration can be programmed as **TOGGLE** (000.00=TOGGLE) or **PULSE** (timed).

Table 7-9 Generic outputs programming

Item	Setting
GEN ACT DUR	<ul style="list-style-type: none"> <li>• Set the activation time of the output (minutes/seconds).</li> <li>• Setting it to 000.00 makes it <b>Toggle</b>.</li> </ul>
GEN ACT DLY	Set an eventual delay time before output starts (minutes/seconds).
TRIGGER	<p>This parameter is shown only if the delay is programmed in impulse mode.</p> <ul style="list-style-type: none"> <li>• <b>SINGLE</b>: During its impulse activation, a further command does not restart the impulse time. In this case, the <b>LINK</b> can reactivate only after the entire impulse duration has elapsed.</li> <li>• <b>CONTINUOUS</b>: During its impulse activation, when another command is received, the impulse time restarts from the beginning time.</li> <li>• In practice, <b>TRIGGER</b> auto-regenerates at each new impulse until it comes to the end of the set time.</li> </ul>
TIMER1/TIMER2/ TIMER3/TIMER4	<p>Follows the setting of timers (00 to 16). The outputs can also be associated with a maximum of 4 (<b>Start/Stop</b>) timers which can limit the outputs operation to specific time periods during the week. Press <math>\Delta</math> and <math>\nabla</math> or directly press the value + <input type="button" value="ENTER"/> to alter the timer to be set. After making the selection, press <input type="button" value="Menu"/> to move to the next field, and after setting the fourth timer, press <input type="button" value="Menu"/> to move to the <b>Polar</b> screen.</p>

Item	Setting
POLAR	<p>The choice of the output polarity determines the at rest status of the output itself. In practice, the output can be placed in HIHG or LOW electrical status (high status gets more security)</p> <ul style="list-style-type: none"> <li>• <b>DIRECT</b></li> <li>• <b>REVERSE</b></li> </ul> <p>If you press <input type="button" value="ENTER"/> to confirm the option, you will exit and the output will immediately take on the selected polarity.</p>

## System Outputs

The system outputs follow on from general system conditions regardless of the areas.

Table 7-10 System outputs programming

Item	Setting
TYPE	<ul style="list-style-type: none"> <li>• <b>SIREN ALARM:</b> Follows the generic alarm condition and the timing is in according to <b>SYSTEM FUNCTIONS</b> setting.</li> <li>• <b>SYSTEM TAMPER:</b> Follows the controller tamper condition.</li> <li>• <b>SIREN TAMPER:</b> Follows the siren tamper condition.</li> <li>• <b>KEYPAD TAMPER:</b> Follows the keypad tamper condition.</li> <li>• <b>COM1/2 TROUBLE:</b> Follows a fault condition on the <b>COM1/2</b> generated by the bus modules.</li> <li>• <b>WALK TEST:</b> Follows the placing of the controller in <b>WALK TEST</b> mode.</li> <li>• <b>Technician:</b> Follows the entry of the <b>Technician</b> into programming.</li> <li>• <b>CODE ERROR:</b> This type of output activates when the counter for the number of false codes entered reaches the parameter set in <b>SYSTEM FUNCTIONS</b>. The duration of the output activations is 3 minutes.</li> <li>• <b>COM. BUSY:</b> This type of output follows telephone communication in progress.</li> <li>• <b>TROUBLES:</b> Follows a failure of troubles that include a loss of <b>PSTN LINE</b>, a loss of GSM telephone line, antenna tamper, main power supply loss, battery loss, low battery voltage, SIM expiry, time abnormality.</li> </ul>
POLAR	<p>Select the output polarity.</p> <ul style="list-style-type: none"> <li>• <b>DIRECT</b></li> <li>• <b>REVERSE</b></li> </ul>

## 7.10 Areas

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **AREAS** menu.

Figure 7-10 Areas

**<07>**  
**AREAS**

Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select the **AREAS** that you want to configure, and then press .



By pressing  + 2, you can enter the **EDITING** mode for changing the description of areas.

Step 4 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

The two numeric fields 000.00 represent minutes and seconds.

Table 7-11 Areas settings

Submenu	Setting
ENREY D1	Set the entry delay 1 and entry delay 2. During the delayed period, the alarms are not reported. The valid entry delay time range is from 30 s to 999 min and 59 s.
ENTRY D2	 EN certificates will not be met if the entry delay time exceeds 45.
EXIT DELAY	Set the exit delay time. The alarm is not valid when it is triggered during exit delay time. When this value is set to 0, there will be no exit delay time and the arming is operated directly.
BUZ DU	Set the buzzer alarm duration for each area (minutes/seconds).
BUZ DELAY	Set the buzzer alarm delay duration for each area (minutes/seconds).
IN AND AREA	The area undergoing programming can be programmed to follow other <b>AREAS</b> in <b>AND</b> mode. If the area is in <b>AND</b> , it means that the programmed area can no longer be armed or disarmed through a direct code or remote control. For example, the protection of staircases shared by two apartments, which arm when both areas of the two apartments are armed and disarmed when one of the two systems disarm.
TIMER1/TIMER2/ TIMER3/TIMER4	Provides 4 timers that can be used to control the arming or disarming of the area. Press  and  or directly press the value +  to alter the timer to be set. After making the selection, press  to move to the next field, and after setting the fourth timer, press  to move to the <b>AREAS</b> menu. Select another area or press  to exit the <b>AREAS</b> menu.
client ID	The <b>client ID</b> is different for each area and represents the identification used by PSTN. The alarm event links multiple areas and each area respectively links PSTN transmission.

Step 5 Press  to return to the **AREAS** menu.

Then you can continue with programming other outputs, or press  to return to the **AREAS** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.11 System Functions

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **SYSTEM FUNCTIONS** menu.

Figure 7-11 System functions



<08>  
**SYSTEM FUNCTIONS**

Step 2 Press  to enter the programming mode.

Step 3 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

The two numeric fields 000.00 represent minutes and seconds.

Table 7-12 System functions settings

Submenu	Setting
MAX AL CYCLE	Maximum of alarm cycles. Set the maximum number of alarms that the controller can generate during an arming cycle. This count is the total of the maximum number of alarm cycles for all the controller zones. 000 represents that there is no limit.
SYS AL CYCLE	Max system alarm cycles. Set the maximum number of alarms generated during one alarm cycle by the controller tamper, siren tamper, module tamper, bus alarm (if enabled), wireless alarm (if enabled), and supervision alarm (if enabled). 000 represents that there is no limit. <ul style="list-style-type: none"><li>During an arming or disarming period, for events from the same source (intrusion, bandit, anti-demolition, failure), the log should be kept at most 10.</li><li>Then disarm or re-arm the system, the same source log can save up to 10.</li></ul>  Value is less than 3 exceed from EN50131-3.
PANEL TAMPER AREAS	Set which area(s) the alarm generated by the controller tamper should be linked. If no area is associated, no controller tamper alarm will be activated. The control panel tamper can be assigned to multiple areas.
SIREN TAMPER AREAS	Set which area(s) the alarm generated by the siren tamper (ST) should be linked.

Submenu	Setting
TAMP AL MODE	<p>Tamper alarm response mode.</p> <p>Controller tamper, siren tamper, BUS module tamper that can generate different responses including <b>SILENT</b>, <b>BUZZER</b>, <b>SIREN</b>, and <b>BUZ/SIR</b>.</p>
TROU AL MODE	<p>Trouble alarm response mode.</p> <p>Set the <b>TROUBLE ALARM</b> (PSTN disconnection, GSM failure, antenna tamper, AC loss, battery loss, battery voltage failure, SIM expiration, time display problem) response type <b>SILENT</b>, <b>BUZZER</b>, <b>SIREN</b>, and <b>BUZ/SIR</b>.</p>
COM TRO ALM	<p>COM trouble alarm.</p> <p>Set the COM trouble (interruption to the connection) response type: <b>SILENT</b>, <b>BUZZER</b>, <b>SIREN</b>, and <b>BUZ/SIR</b>.</p>
BAT TRO ARM	<p>Arming with battery trouble.</p> <p>Set whether the presence of low battery condition (in the controller or a wireless sensor) allow to arm the system.</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul>
ARM DLY AL	<p>Set whether the use of alarm delay is enabled with the system armed in total arm mode. In practice, the siren alarm can be delayed by a programmable period while the keypad displays indicate that alarm has been triggered.</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul>
ENY/EXT BEEP	<p>Entry/exit sounds with partial arming.</p> <p>Set whether the sound of keypad buzzers for the entry and exit times is enabled or disabled during arming of the types partial 1, partial 2, or partial 1+2.</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul>
PANIC AL MOD	<p>Panic alarm mode.</p> <p>Set whether audible alarm or silent alarm is generated by a panic event.</p> <ul style="list-style-type: none"> <li>• <b>AUDIBLE</b></li> <li>• <b>SILENT</b></li> </ul>
DURESS MOD	<p>Enable or disable duress function. If enabled, you can vary the last digit of the access code to activate duress alarm (1234 becomes 1235 or 1233).</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul>

Submenu	Setting
PWD ERR MAX	<p>Password error maximum.</p> <p>Set the maximum allowed number of errors in code entry from the keypad (1 to 4). 00 represents there is no limit. If the maximum entry time is reached, the current keypad will be locked for 3 minutes.</p> <p>If the user password is not completely entered, the system will automatically return to the home screen after 60 seconds and record an error.</p>
FACTORY RST	<p>Set whether the controller is enabled to restore factory settings.</p> <ul style="list-style-type: none"> <li>• <b>PART:</b> Delete all controller data except the wireless devices codes (such as sensors and sirens).</li> <li>• <b>TOTL:</b> Delete all controller data.</li> <li>• <b>NO:</b> The reset of factory default procedure will have no effect.</li> </ul>
EOL R VALUE	Set the EOL value to 2.7 K, 4.7 K, or 6.8 K. The panel zones termination supports NC, NO, 1EOL, 2EOL and 3EOL. For 1 EOL and 2 EOL, the resistors value can be set to 2.7 K, 4.7 K, or 6.8 K; for 3 EOL, the resistors value is fixed to 2.7 K (R1, R2), and 6.8 K (R3).
FIRMWARE VER	Show the firmware version of the controller.

Step 4 Press  to return to the **SYSTEM FUNCTIONS** menu.

Then you can continue with programming other outputs, or press  to return to the **SYSTEM FUNCTIONS** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.12 System Timing

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **SYSTEM TIMING** menu.

Figure 7-12 System timing



Step 2 Press  to enter the programming mode.

Step 3 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

The two numeric fields 000.00 represent minutes and seconds.

Table 7-13 System timing settings

Submenu	Setting
SIR AL DUR	Siren alarm duration. Set the alarm lasting time of the siren. The minimum time that the bell can be set is 00:30 (30s).
SIR AL DLY	Siren alarm delay. Set the delay time for alarm output from siren.
CHIME AL DUR	Chime alarm duration. Set the activation time of the chime alarm.
FIRE AL DUR	Fire alarm duration. Set the activation time of the fire alarm.
PANIC AL DUR	Panic alarm duration. Set the activation time of the panic alarm.
HOLDUP AL DU	Hold-up/robbery alarm Duration. Set the activation time of the robbery alarm.
MEDICL AL DU	Medical alarm duration. Set the activation time of the medical alarm.
AC LOSS DLY	AC loss delay. Set the delay time for the activation of the outputs that follow a main power loss condition.
PATROL DISARM	Set the disarming time period for the patrol user. If you set the time to 0, disarming is not allowed.
ZONE IN TEST	Set the time period for the test mode of zone. After this period, the zone returns to ACTIVE.
PROGRAM TIME	Technician timer program. Set the maximum time available for technician to program the system after user authorization. Valid time from 01 to 10 hours.
WATER LEAK AL DUR	Water leak alarm duration. Set the activation time of the water leak alarm.

Step 4 Press  to return to the **SYSTEM TIMING** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.13 System Timer

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **SYSTEM TIMERS** menu.

Figure 7-13 System timer



Step 2 Press  to enter the programming mode.

Step 3 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

Table 7-14 System timer settings

Submenu	Setting
STATE	<ul style="list-style-type: none"> <li>● <b>ACTIVE:</b> Timer enabled.</li> <li>● <b>ISOLATE:</b> Timer enabled but temporarily locked.</li> <li>● <b>OFF:</b> Timer disabled.</li> </ul>
TYPE	<ul style="list-style-type: none"> <li>● <b>START/STOP:</b> The timer applies to arming and disarming, access code duration and link output duration.</li> <li>● <b>STAR:</b> The timer applies to arming only.</li> <li>● <b>STOP:</b> The timer applies to disarming only.</li> </ul>
START TIME	enter the start time for automatic arming, access code duration, and link output duration. Press the corresponding keys to enter the desired value and then press <input type="button" value="ENTER"/> to confirm the value. You can also press <input type="button" value="^"/> and <input type="button" value="v"/> to change the value.
STOP TIME	enter the stop time for automatic disarming, access code duration, and link output duration. Press the corresponding keys to enter the desired value and then press <input type="button" value="ENTER"/> to confirm the value. You can also press <input type="button" value="^"/> and <input type="button" value="v"/> to change the value.
DAYS	Establish the days of the week on which the timer will have an effect. Press keys 1 to 7 to select the day.
HOLIDAYS	Establish whether the timer being programmed refers to the holidays programmed. <ul style="list-style-type: none"> <li>● <b>YES:</b> The timer is blocked during the holiday periods.</li> <li>● <b>NO:</b> The timer does not follow the holiday conditions, and therefore continues active whatever is associated with it.</li> </ul>
ARMING	Select the type of arming for the timer. <ul style="list-style-type: none"> <li>● <b>DELAYED:</b> Automatic (by timers) delayed arming follow the same time of a manual delayed arming and the buzzer must beep for all the arming time.</li> <li>● <b>IMMEDIATE</b></li> </ul>
FORCED ARM	Select whether the timer arming will be forced. <ul style="list-style-type: none"> <li>● <b>YES</b></li> <li>● <b>NO</b></li> </ul>

Step 4 Press  to return to the **SYSTEM TIMER** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.



You will be notified 1 minute before timed arming begins, and the keypad will beep once every 2 seconds. Press  to cancel arming.

## 7.14 Access Codes

### 7.14.1 Authority Level

Table 7-15 Authority level

User type	Authority level
Supervisor	Full control over all operations of all areas. Factory default setting is 1234.
Manager	Control over operations in areas allowed by the keypad. The manager can change his own code, and codes and authorities of lower levels, but cannot change the supervisor code.
Master	Only has control over operations assigned to the master. The master can only change his own code and those of a lower level and access the user menu up to option 9.
User	Only has control over operations assigned to the user. The user can only change his own code and access the user Menu up to option 8.
Temporary	Only has control over arming and disarming operations. The temporary does not have access to the user menu.
Duress	Only has control over arming and disarming operations and automatic report of the duress alarms. The duress does not have access to the user menu.
Patrol	Only has control over disarming operations. When the patrol time ends, the zones are automatically armed again.

### 7.14.2 Configuring Authority Level

**Step 1** After entering the installer menu, press  and  to scroll up and down until you reach the **ACCESS CODES** menu.

Figure 7-14 Access codes



<11>  
ACCESS CODES



Access code 1 is always the supervisor code. From 2 onwards it is possible to program users with an authority level. You can set up to 99 access codes.

**Step 2** Press  to enter the programming mode.

**Step 3** Press  and  to select an access code that you want to configure, and then press .

**Step 4** Set the authority parameters.

- For supervisor and manager, you only need to set **STATUS, LEVEL, ARMING, FORCED ARM, and LINK** submenus. For master, user, temporary, and duress, you should set all the submenus.
- On each submenu, press  and  to alter the options. After setting each submenu, press  to enter the next submenu.

Table 7-16 Access code level and submenus

Submenu	Setting
STATUS	Set the code to an operating or non-operating status. <ul style="list-style-type: none"> <li><b>ACTIVE</b></li> <li><b>ISOLATE</b></li> </ul>
LEVEL	Give an authority level to the user. For the different authority level, see "7.14.1 Authority Level".
AREAS	Establish which areas the access code can operate.
PART1	Establish whether the access code can operate partition 1 and partition 2 arming types under the selected areas.
PART2	
ARM	Establish whether the access code has the authority to arm or disarm the controller. <ul style="list-style-type: none"> <li><b>YES</b></li> <li><b>NO</b></li> <li><b>YES LINK 4:</b> The access code can link the output 4 when arming or disarming.</li> </ul>
DISARM	Establish whether the access code has the authority to arm or disarm the controller. <ul style="list-style-type: none"> <li><b>YES</b></li> <li><b>NO</b></li> <li><b>YES LINK 4:</b> The access code can link the output 4 when arming or disarming.</li> </ul>
ARMING	Establish whether the code, when armed, activates the system immediately or leaving area exit delays. <ul style="list-style-type: none"> <li><b>IMMEDIATE</b></li> <li><b>DELAYED</b></li> </ul>
FORCED ARM	Establish whether the code can arm the system even with alarm detectors in a not ready status. For example, windows left open deliberately or defective sensors. <ul style="list-style-type: none"> <li><b>YES</b></li> <li><b>NO</b></li> </ul>
STOP CALL	Establish whether the access code can stop a telephone call when there is a call in progress. <ul style="list-style-type: none"> <li><b>YES</b></li> <li><b>NO</b></li> </ul>

Submenu	Setting
ZONE STATUS	<p>Establish whether the access code can change the zone status, for example, from <b>ACTIVE</b> to <b>DISALED</b>.</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul>
REMOTE	<p>Establish whether the access code can control the controller through call and SMS.</p> <ul style="list-style-type: none"> <li>• <b>YES</b></li> <li>• <b>NO</b></li> </ul> <p> Controlling through app is not affected by this setting.</p>
TIMER	<p>Establish whether the access code is limited to operation only during certain time period.</p> <p>There are four timers can be given to the access code, and each timer can select from eight timers that are configured in the system. If you select 0, the access code can operate during the whole period instead of limited time period.</p>
LINK 1, 2, 3, 4	<p>Establish whether the access code has the authorization to activate command outputs (maximum 4) and the number of outputs to be activated.</p> <p> This function is valid only when the Link type is selected in the <b>OUTPUTS</b> menu of installer menu.</p>
NEW CODE	<p>Enter a new code that contains 4 to 6 digits. It cannot start with 0. For details, see "7.14.3 Configuring Access Codes".</p> <p> Following codes cannot be set.</p> <ul style="list-style-type: none"> <li>• 1234.</li> <li>• Previous code. For example, if you used 1235 as a code before, you cannot use it again.</li> <li>• Previous code + 1. For example, if you used 1235 as a code before, you cannot use 1236.</li> </ul>

Step 5 Press  to return to the **ACCESS CODES** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.14.3 Configuring Access Codes

### 7.14.3.1 Setting an Access Code

If you want to set or change an access code, follow the steps described in "7.14.2 Configuring Authority Level" to enter the **NEW CODE** submenu.

Step 1 On the **NEW CODE** menu, enter the new code, and then press .

The confirmation text **PWD VALID** is displayed.

Step 2 Enter the new code again, and then press  to save the new code.

If the code is not valid or entered incorrectly, the operation will not succeed and two beeps with the text **PWD INVALID** confirm the error. In this case, repeat the operation correctly.

Step 3 Press **ESC** to exit.

### 7.14.3.2 Deleting an Existing Access Code



Access code 1 cannot be deleted.

Step 1 On the **ACCESS CODE** submenu, for example, access code 2, press and hold **BYP <** for at least three seconds.

The **NO PRESENT** message is shown to indicate that the access code is deleted.

Step 2 Press **ESC** to exit.

A cancelled access code is no longer operational but can be reactivated by a user with an appropriate authority level such as supervisor.

### 7.14.3.3 Customizing the Description of Access Code

You can customize the factory default description (access code no.) if needed.

Step 1 On the **NEW CODE** submenu, for example, access code 2, press **Total** + 2 (F2) to enter the editing status.

Step 2 Press **BYP <** and **DISARM >** to move to the position of the description, and then enter the character by using the specific key (0 to 9).

Step 3 Press **ENTER** to save the description.

Step 4 Press **ESC** to exit from the submenu or press **ENTER** to continue.

## 7.15 Date and Time

Step 1 After entering the installer menu, press **▲** and **▼** to scroll up and down until you reach the **DATE/TIME** menu.

Figure 7-15 Date and time



Step 2 Press **ENTER** to enter the programming mode.

Step 3 Configure the parameters.

Press **▲** and **▼** to alter the options. Press **ENTER** to confirm the setting and move to the next submenu.

Table 7-17 Date and time settings

Submenu	Setting
TIME	Set the time for the controller.
DATE	Set the date for the controller (day/month/year).

Submenu	Setting
DST ENABLE	Enable DST function. You can select from <b>YES</b> or <b>NO</b> .
SOL TO LEG	Set the day and the month for the automatic change of time from <b>Solar</b> to <b>Legal</b> .
LEG TO SOL	Set the day and the month for the automatic change of time from <b>Legal</b> to <b>Solar</b> .
EXPIRY	<p>This function is supported only when the <b>SIM TYPE</b> is set to <b>CONTRACT</b> in the <b>COMMUNICATION</b> menu.</p> <p>Set the expiration date of the SIM card installed in the GSM telephone communicator.</p> <p>It is suggested to set a minimum period of 10 days before the real expiration of the SIM card so as to have adequate warning time to recharge it and extend its validity.</p> <p>At the set date, the failure status LED indicator will light up. If programmed, SMS can be sent to external telephone number. Auxiliary outputs can also be activated for connection to local devices.</p>

Step 4 Press  to return to the **DATE/TIME** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.16 Holiday

The **HOLIDAYS** menu is used to set the holidays for the year when the timers will not have any effect on arming and disarming, or need to completely block user code working and outputs.

You can set up to 20 holiday periods.

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **HOLIDAY** menu.

Figure 7-16 Holiday



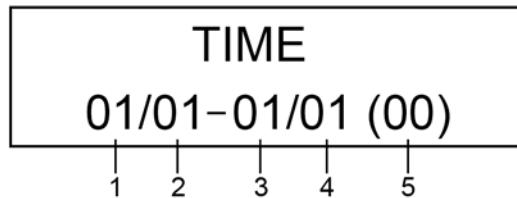
Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select the holiday that you want to configure, and then press .



By pressing **TIME** + 2, you can enter the **EDITING** mode for changing the description of holiday.

Figure 7-17 Holiday time



- 1: Holiday start day.
- 2: Holiday start month.
- 3: Holiday end day.
- 4: Holiday end month.
- 5: Holiday year.

**Step 4** Enter the value and press **Menu** to confirm the setting, or press **▲** and **▼** to change the value, and then move on to the next field.

**Step 5** Press **ESC** to return to the holiday selection menu.

Then you can continue with programming other holidays, or press **ESC** to return to the **HOLIDAY** menu from where you can press **▲** and **▼** to move to the next menu or press **ESC** to exit from the installer menu.



To delete a holiday, on the **Holiday** screen where the holiday name is shown, press and hold **BYP <** for at least three seconds.

## 7.17 Telephone Number

The **TEL NUMBER** menu is used to set the telephone numbers that will be used by the 2G/4G module for voice calls and/or SMS.

Up to 8 different telephone numbers can be programmed for voice calls and remote control by dialing, 8 numbers for SMS and remote control by SMS. The same telephone number can be used for a different number of voice calls/SMS (such as alarm, robbery, and 220 VAC failure).

**Step 1** After entering the installer menu, press **▲** and **▼** to scroll up and down until you reach the **TEL NUMBER** menu.

Figure 7-18 Tel number



**Step 2** Press **ENTER** to enter the programming mode.

There are three options: **TEL NUM**, **SMS NUM**, and **SIM NUM**. Press **▲** and **▼** to alter the options.

- **TEL NUM**

1. On the **TEL NUM** submenu, press **ENTER** to enter the screen from where you can select a telephone number that you want to program by pressing **▲** and **▼**.
2. After selecting a telephone number, press **ENTER** to enter the programming mode.
3. Configure the telephone number settings, and perform other operations.

Table 7-18 Telephone number setting

Item	Setting
STATE	<ul style="list-style-type: none"> <li>• <b>ACTIVE</b>: Allow the telephone number to be linked.</li> <li>• <b>ISOLATE</b>: The telephone number is programmed but temporarily not used.</li> </ul>
STOP CYCLE	<ul style="list-style-type: none"> <li>• <b>YES</b>: When the alarm event occurs, if the event is programmed to link multiple telephone numbers, press # key on your telephone to hang up the call, the calling will not link to other telephone numbers.</li> <li>• <b>NO</b>: When the alarm event occurs, if the event is programmed to link multiple telephone numbers, press # key on your telephone to hang up the call, the calling will continue to call other telephone numbers.</li> </ul>

- ◊ Press **ENTER** + 2 (F2) to enter the **EDITING** mode for changing the telephone number. You can enter up to a maximum of 24 digits. Use the horizontal cursor keys to move within the number. Any of the digits can be overwritten. By positioning at any point in the number (for example, at the start) and holding down, it is possible to delete all the digits from that point onwards (for example, deletion of the entire number).
- ◊ Press **ENTER** + 3 (F3) to do a test call on this number.
- ◊ Press **ENTER** + 4 (F4) to interrupt the call in progress at any time.

4. Press **ESC** to return to the telephone selection menu. Then you can continue with programming other telephone numbers, or press **ESC** to return to the **TEL NUM** menu from where you can press **▲** and **▼** to move to the next menu.

- **SMS NUM**

1. On the **SMS NUM** submenu, press **ENTER** to enter the screen from where you can select a SMS number that you want to program by pressing **▲** and **▼**.
2. After selecting a SMS number, press **ENTER** to enter the programming mode.
3. Configure the SMS number settings, and perform other operations.

Table 7-19 SMS number setting

Submenu	Setting
STATE	<ul style="list-style-type: none"> <li>• <b>ACTIVE</b>: Allow the SMS number to be linked.</li> <li>• <b>ISOLATE</b>: The SMS number is programmed but temporarily not used.</li> </ul>
SYSTEM	Press 1 to 7 to select the day of the week when user wants to receive an automatic SMS text about system status.
CREDIT	Press 1 to 7 to select the day of the week when user wants to receive an automatic SMS text about pre-paid SIM credit.
SMS TIME	Enter the specific time when user wants to receive SMS text for <b>SYSTEM</b> status and/or <b>CREDIT SIM</b> .

Submenu	Setting
AREA	Press 1 to 8 to select the alarm event from which Area can be sent to this SMS number.
EVENT	<ul style="list-style-type: none"> <li>Press 1 to 5 to select which event can be sent to this SMS number.</li> <li>1: S-system event.</li> <li>2: M-module.</li> <li>3: E-Emergency.</li> <li>4: I-Arm/Disarm</li> <li>5: Z-Zones.</li> </ul>

4. Press  to return to the SMS number selection menu. Then you can continue with programming other SMS numbers, or press  to return to the **SMS NUM** menu from where you can press  and  to move to the next menu.

- **SIM NUM**

Record the SIM card number that is installed in the controller.

**Step 3** Press , the keypad requests **EXIT FROM MENU?**. Then press to confirm and exit from the **TEL NUMBER** menu.

## 7.18 Remote Service

**Step 1** After entering the installer menu, press  and  to scroll up and down until you reach the **REMOTE SERVICE** menu.

Figure 7-19 Remote service

**<15>**  
**REMOTE SERVICE**

**Step 2** Press  to enter the programming mode.

**Step 3** In the **State** submenu, select **YES** or **NO**.

- **YES**: Allows remote control from call, SMS, or platform.
- **NO**: Do not allow the remote control.



Controlling through app is not affected by this setting.

**Step 4** Press  to return to the **REMOTE SERVICE** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.19 Monitor Station

**Step 1** After entering the installer menu, press  and  to scroll up and down until you reach the **MONITOR STATION** menu.

Figure 7-20 Monitor station



Step 2 Press  and  to select the monitor station that you want to configure, and then press .

Step 3 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

Table 7-20 Monitor station settings

Submenu	Setting
STATE	<ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The PSTN number is enabled.</li><li>• <b>ISOLATE</b>: The PSTN number is set but temporarily locked.</li></ul>
MODE	Set the digital protocol for each service center number (Only <b>CONTACT ID</b> for now).
TEST DATE	Set the date when to test PSTN.
TEST TIME	Set the specific time when to test PSTN.

Step 4 Press  to return to the **MONITOR STATION** menu.

Then you can continue with programming other monitor stations (up to three), or press  to return to the **MONITOR STATION** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.20 Vocal Messages

### Procedure

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **VOCAL MESSGAES** menu.

Figure 7-21 Vocal message



Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select the vocal message that you want to configure, and then press .

Step 4 Configure the parameters.

Press  and  to alter the options. Press  to confirm the setting and move to the next submenu.

Table 7-21 Vocal messages settings

Submenu	Setting
STATE	<ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The alarm event links this vocal message.</li><li>• <b>ISOLATE</b>: The vocal message linkage is programmed but temporarily not used.</li><li>• <b>OFF</b>: The alarm event does not link this vocal message.</li></ul>
CATEGORIES	Select a category from the following to link which you want to link the vocal message. <ul style="list-style-type: none"><li>• <b>AREA</b></li><li>• <b>ZONE</b></li><li>• <b>SYSTEM</b></li></ul>

Submenu	Setting
TYPE	<ul style="list-style-type: none"> <li>● If select <b>AREA</b> in <b>CATEGORIES</b>, then you can select an event from the following. When the selected event is triggered, the 2G/4G module will make a voice call to the chosen telephone number. <ul style="list-style-type: none"> <li>◊ <b>SYSTEM TAMPER</b></li> <li>◊ <b>SIREN TAMPER</b></li> <li>◊ <b>ALARM MEMORY</b></li> <li>◊ <b>FIRE</b></li> <li>◊ <b>PANIC</b></li> <li>◊ <b>ROBBERY</b></li> <li>◊ <b>MEDICAL</b></li> <li>◊ <b>DURESS</b></li> </ul> </li> <li>● If select <b>ZONE</b> in <b>CATEGORIES</b>, configure the following settings: <ul style="list-style-type: none"> <li>◊ <b>LINK OUTPUT</b> By selecting the <b>Output</b> (01 to 40) with which the desired events have been associated in advance, a specific non pre-programmed call is set. For example, if vocal message 3 was to be used for the wired zones 1 and 2 alarm, to achieve this, you need to program a controller <b>OUTPUT</b> in advance (even if the output module is not present on the bus) which follows the zone condition for the zone alarm type which is associated with the wire zones 1 and 2. Output 3 could be programmed in this way. On the <b>VOCAL MESSAGE</b> menu, a message would then need to be created to follow the zone event and output 3. In the event of an alarm in wired zone 1 and 2, vocal message 3 would then automatically sent the alarm voice call to the programmed telephone numbers.</li> <li>◊ <b>TEL NO</b> Select telephone number(s) that you want the vocal message to link.</li> </ul> </li> <li>● If you select <b>SYSTEM</b> in <b>CATEGORIES</b>, then you can select an event from the following. When the selected event is triggered, it links the vocal message. <ul style="list-style-type: none"> <li>◊ <b>BatteryLow</b></li> <li>◊ <b>ACAlarm</b></li> <li>◊ <b>BatteryLoss</b></li> <li>◊ <b>PSTNBreak</b></li> <li>◊ <b>GSMFault</b></li> <li>◊ <b>KeypadFailure</b></li> <li>◊ <b>KeypadTamper</b></li> <li>◊ <b>ModuleLost</b></li> </ul> </li> </ul>

Step 5 Press  to return to the **VOCAL MESSGAES** menu.

Then you can continue with programming other vocal messages (up to 88), or press  or  or  to return to the **VOCAL MESSGAES** menu from where you can press  and  to move to

the next menu or press  to exit from the installer menu.

## Related Operations

### Procedure to Enter in the **Interactive Vocal Guide** Menu

1. Call the 2G/4G module equipped with the controller or receive a call from it.

When 2G/4G module is called and answer to voice broadcast **Please input the password**.

2. Provide a correct password (it will match with a valid one stored in a controller).

The password must be the same as the one used locally by the keypad but here must have 6 digits. If it has 4 or 5 digits on the keypad, prefix it with zeros before the code to bring it to 6 digits (for example, 001234).

User codes less than 6 digits will not be available in the interactive vocal call.

3. A procedure voice broadcasting message starts if the code is correct or a voice broadcasting **Input Error** starts if you use a wrong code.

Figure 7-22 Vocal message flow

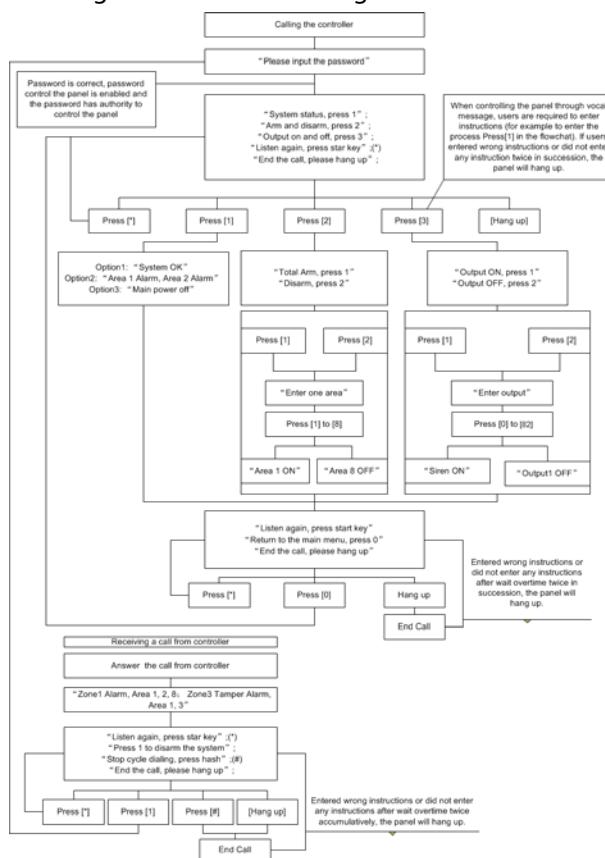
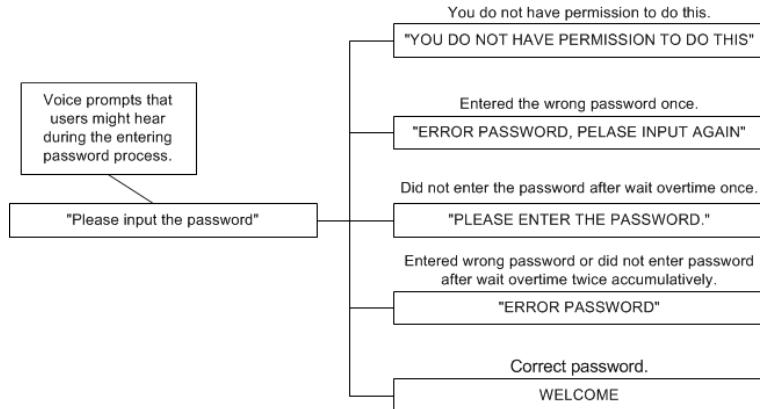


Figure 7-23 Voice prompts during entering password process



## 7.21 SMS Messages

If equipped with the 2G/4G module, the alarm controller is able to transmit and receive SMS as command and request to state.

**Step 1** After entering the installer menu, press  and  to scroll up and down until you reach the **SMS MESSGAES** menu.

Figure 7-24 SMS message



**Step 2** Press  to enter the programming mode.

**Step 3** Press  and  to select the SMS message that you want to configure, and then press .

**Step 4** In the **SMS SEND** submenu, select **TRUE** or **FALSE**.

- **TURE**: The alarm event links this SMS message.
- **FALSE**: The SMS message linkage is not used.

**Step 5** Press  to return to the SMS message selection menu.

Then you can continue with programming other SMS messages, or press  to return to the **SMS MESSAGES** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

To send SMS messages as remote control command, for example, arming or disarming, you have to write, on your mobile phone a specific SMS with a pre-format composition (- means empty space).

Pay attention to the empty space between user code and command and/or numbers. The user code must be an authorized controller user code (4 digits or 6 digits will be accepted). Upper case or lower case text SMS will be accepted.

Command explanation: Take 1234 TOTAL 1 2 3 as an example. **1234** represents password, **TOTAL** represents command, **1 2 3** represent command object.

Table 7-22 Smartphone sending SMS to controller

No.	Meaning	Command (Content by smartphone)	Content replied by controller automatically
1.1	Some Area Total Arm	1234_TOTAL_1_2_3	Area Status (22/05/2018 13:13)–Area ON:123–Area OFF:45678
1.2	All Areas Total Arm	1234_TOTAL	Area Status (22/05/2018 13:13)–Area ON:12345678
1.3	Some Area P1 Arm	1234_P1_1_2_3	P1 Status (22/05/2018 13:13)–Area ON:123–Area OFF:45678
1.4	Some Area P2 Arm	1234_P2_1_2_3	P2 Status (22/05/2018 13:13)–Area ON:123–Area OFF:45678
1.5	Some Area Disarm	1234_DISARM_1_2_3_4_5	Area Status (22/05/2018 13:13)–Area OFF:12345
2.1	Some Zone Bypass	1234_ZONE_OFF_Z1_Z2	Zone Status (22/05/2018 13:13)–Zone OFF:Z1,Z2
2.2	Some Zone Active	1234_ZON_ON_Z1	Zone Status (22/05/2018 13:13)–Zone ON:Z1
3.1	Some output Activation	1234_OUTPUT_ON_0_1_2	Output Status (22/05/2018 13:13)–Output ON:0,1,2
3.2	Some output Deactivation	1234_OUTPUT_OFF_2	Output Status (22/05/2018 13:13)–Output OFF:2



— indicates space. One — is one space.

Table 7-23 Controller sending SMS to smartphone

No.	Meaning	Note	Content by controller
4.1.1	Wired zone1 alarm		Alarm Info (22/05/2018 13:13)-Z1_Area:12345678
4.2.1	Wired zone1 tamper alarm		Alarm Info (22/05/2018 13:13)- Z1 Tamper_Area:12345678
4.3.1	Wired zone1 water leak alarm		Alarm Info (6/12/2018 11:9)-WATERLEAK ALARM:Z1_AREA: 1
4.4.1	Main power Failure		System Info (22/05/2018 13:13)- Main Power Failure
4.4.2	Main power Restore		System Restore (22/05/2018 13:13)- Main Power Restore
4.5.1	Controller Low Battery		System Info (22/05/2018 13:13)- Controller Low Battery
4.5.2	Controller Low Battery Restore		System Restore (22/05/2018 13:13)- Controller Low Battery Restore
4.6.1	Controller Battery Failure		System Info (22/05/2018 13:13)- Controller Battery Failure
4.6.2	Controller Battery Restore		System Restore (22/05/2018 13:13)- Controller Battery Restore
4.7.1	Controller Tamper Alarm		System Info (22/05/2018 13:13)-Controller Tamper Alarm
4.7.2	Controller Tamper Restore		System Restore (22/05/2018 13:13)- Controller Tamper Restore
4.8.1	Siren Tamper Alarm		System Info (22/05/2018 13:13)- Siren Tamper Alarm
4.8.2	Siren Tamper Restore		System Restore (22/05/2018 13:13)- Siren Tamper Restore
4.9.1	TCP/IP Network Failure		System Info(22/05/2018 13:13)- TCP/IP Network Failure

No.	Meaning	Note	Content by controller
4.9.2	TCP/IP Network Restore		System Restore (22/05/2018 13:13)– TCP/IP Network Restore
4.10.1	Keypad1 Failure		Module Info (22/05/2018 13:13)– Keypad1 Failure
4.10.2	Keypad1 Restore		Module Restore (22/05/2018 13:13)– Keypad1 Restore
4.10.3	Input1 Failure		Module Info (22/05/2018 13:13)– INPUT1 Failure
4.11.1	Panic Alarm	Triggered by keypad	Emergency Info (22/05/2018 13:13)– Panic Alarm
		Triggered by zone1	Emergency Info (22/05/2018 13:13)– Panic Alarm:Z1_Area:12345678
4.12.1	Duress Alarm	Triggered by keypad	Emergency Info (22/05/2018 13:13)– Duress Alarm
		Triggered by zone1	Emergency Info (22/05/2018 13:13)– Duress Alarm:Z1_Area:12345678
4.13.1	Robbery Alarm	Triggered by keypad	Emergency Info (22/05/2018 13:13)– Robbery Alarm
		Triggered by zone1	Emergency Info (22/05/2018 13:13)– Robbery Alarm:Z1_Area:12345678
4.14.1	Medical Alarm	Triggered by keypad	Emergency Info (22/05/2018 13:13)– Medical Alarm
		Triggered by zone1	Emergency Info (22/05/2018 13:13)– Medical Alarm:Z1_Area:12345678
4.15.1	Fire Alarm	Triggered by keypad	Emergency Info (22/05/2018 13:13)– Fire Alarm

No.	Meaning	Note	Content by controller
		Triggered by zone1	Emergency Info (22/05/2018 13:13)– Fire Alarm:Z1_Area:12345678
4.16.1	User4 Arm	User4 is Marguerite, she total arms	Area Status (22/05/2018 13:13)– Area ON:12345678 by Marguerite
4.16.2	User4 Disarm	User4 is Marguerite, she disarm	Area Status (22/05/2018 13:13)– Area OFF:12345678 by Marguerite

Table 7-24 Others

No.	Meaning	Note	Content shown on smartphone
5.1	F3 (Total+3) test SMS function, display <b>S</b> on keypad	—	*****SMS Test*****
5.2	System status	AC Power OK Battery OK No Alarm Exist	System status (22/05/2018 13:13)–
5.3	AC Power: OK- Battery: OK- Alarm Exist: NO	—	—

## 7.22 Digital Format

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **DIGITAL FORMAT** menu.

Figure 7-25 Digital format

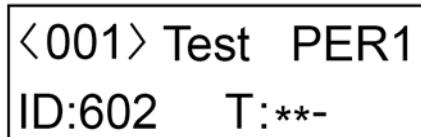


Step 2 Press  to enter the programming mode.

Step 3 Configure the programming settings.

Take event No. 001 as an example.

Figure 7-26 Periodic test



To select which telephone number to be linked, on this screen, press , the telephone

number linkage setting screen is shown.

- **PSTN TEL1, PSTN TEL2, PSTN TEL3:** Three telephone numbers mentioned in **Monitor Station** menu.
- **TRUE:** Links this telephone number
- **FALSE:** Does not link this telephone number.

Figure 7-27 Telephone number linkage



Table 7-25 Digital format setting

Category	Event No.	Setting	CID Code
System report code group	001	Periodic Test	602
	002	Reserved	
	003	AC Loss	301
	004	Low System Battery	302
	005	System Battery Failure	311
	006	Telephone Line Failure	351
	007	No GSM Field	352
	008	System Tamper	137
	009	Siren Tamper	145
	010	Reserved	
	011		
	012	System Date/Time Failure	626
	013	SIM Failure	350
	014	TCP Network Failure	
	015	Auto test Failure (For example, Fuses)	307
Module report code group	030	Keypad Failure	333
	031	Keypad Tamper	145
	045	Keypad Lock	501
Emergency Report Code Group	060	Panic Alarm	120
	061	Duress Alarm	121
	062	Robbery Alarm	122

Category	Event No.	Setting	CID Code	
	063	Medical Alarm	100	
	064	Fire Alarm	110	
	065	Water Leak Alarm	154	
Arming/Disarming Report Code Group	070	Rapid Arming	408	
	071	Partial 1 Arming	441	
	072	Key Input Arming	409	
	073	Key Input Disarming		
	074	Monitor Arming	407	
	075	Monitor Disarming		
	076	Force Arming	450	
	077	Arming Failure	454	
	078	Timer Arming Failure	455	
	079	Exit Delay Arming Failure	457	
	080	Alarm Clear	406	
	082	Timer 1 Arming	403	
	083	Timer 1 Disarming		
 <b>Arming Event No. = (Timer No. x 2) + 80. Maximum 60 Timers.</b>				
114      Access Code 1 Arming		401		
115      Access Code 1 Disarming				
 <b>Arming Event No. = (Access Code No. x 2) + 112. Maximum 99 Access Codes.</b>				

Category	Event No.	Setting	CID Code
Zone Report Code Group	346-353	Wired Zone 1-8 Alarm	The CID code changes automatically according to the type of protection zone. <ul style="list-style-type: none"> <li>• Wired Zone Instant Alarm: 130</li> <li>• Wired Zone Fire Alarm: 110</li> <li>• Wired Zone Medical Alarm: 100</li> <li>• Wired Zone Panic Alarm: 120</li> <li>• Wired Zone Robbery Alarm: 122</li> <li>• Wired Zone Water Leak Alarm: 154</li> <li>• Wired Zone 24H Alarm: 133</li> <li>• Wired Zone Entry 1 Delay Alarm: 134</li> <li>• Wired Zone Entry 2 Delay Alarm: 134</li> <li>• Others: 130</li> </ul>
	354-361	Wired Zone 1-8 Tamper	144
	362-369	Wired Zone 1-8 Exclusion	570
	370-377	Wired Zone 1-8 Short	142
	378-385	Wired Zone 1-8 Mask	391
	426-489	Wired Zone 9-72 Alarm	The CID code changes automatically according to the type of protection zone. <ul style="list-style-type: none"> <li>• Wired Zone Instant Alarm: 130</li> <li>• Wired Zone Fire Alarm: 110</li> <li>• Wired Zone Medical Alarm: 100</li> <li>• Wired Zone Panic Alarm: 120</li> <li>• Wired Zone Robbery Alarm: 122</li> <li>• Wired Zone Water Leak Alarm: 154</li> <li>• Wired Zone 24H Alarm: 133</li> <li>• Wired Zone Entry 1 Delay Alarm: 134</li> <li>• Wired Zone Entry 2 Delay Alarm: 134</li> <li>• Others: 130</li> </ul>
	490-553	Wired Zone 9-72 Temper	144
	554-617	Wired Zone 9-72 Exclusion	570
	618-681	Wired Zone 9-72 Short	142
	682-745	Wired Zone 9-72 Mask	391

Step 4 Press  to return to the **DIGITAL FORMAT** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.23 TCP/IP Network

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **TCP/IP NETWORK** menu.

Figure 7-28 TCP/IP Network



Step 2 Press  to enter the programming mode.

Step 3 Configure the programming settings.

Table 7-26 TCP/IP network settings

Submenu	Settings
DHCP	<ul style="list-style-type: none"><li>• <b>YES</b>: Select <b>YES</b> if the automatic assignment mode for the IP address is active on the network.</li><li>• <b>NO</b>: Select <b>NO</b> if the address setting is done manually in the next programing steps.</li></ul>
IP ADDRESS	Configure this setting only if DHCP is set to <b>NO</b> . Set the IP address that the controller will have within the network. Consult the network administrator if you do not know the details.
SUBNET	Configure this setting only if DHCP is set to <b>NO</b> . Set the correct subnet that the controller will use to exit the WAN network (Router). Consult the network administrator if you do not know the details. Normally, the standard value is 255.255.255.000.
GATEWAY	Set the gateway address that the controller will use to exit the WAN network (Router). Consult the network administrator if you do not know the details. Normally, the gateway is the IP address of the router in the network.
PORT	The web port that is used for connecting the alarm config tool installed on computer. The default value is 09000 and cannot be changed.
REMOTE CONF	<ul style="list-style-type: none"><li>• <b>ON</b>: Allow the controller to connect the alarm config tool.</li><li>• <b>OFF</b>: Do not allow the controller to connect the alarm config tool.</li></ul>

Step 4 Press  to return to the **TCP/IP NETWORK** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.24 Log Events

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach

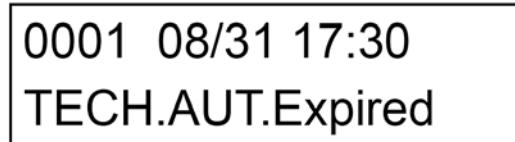
the **LOG EVENT** menu.

Figure 7-29 Log event



Step 2 Press  to enter the submenu that shows the latest stored event.

Figure 7-30 The latest stored event



- The first line shows the event with its number and the date and time.
- The second line shows the event details.

Step 3 Press  and  to select the log event.

Step 4 (Optional) For some events, you can press  to extend the display to view more details of the event.

Step 5 Press  to return to the log event selection menu.

Then you can press  to return to the **LOG EVENT** menu from where you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.25 2G/4G Module

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **2G/4G MODULE** menu.

Figure 7-31 2G/4G Module



Step 2 Press  to enter the programming mode.

Step 3 Configure the parameters.

Table 7-27 2G/4G Module

Submenu	Settings
2G/4G ENABLE	<ul style="list-style-type: none"><li>• <b>YES</b></li><li>• <b>NO</b></li></ul>
P2P ENABLE	<ul style="list-style-type: none"><li>• <b>ENABLE</b>: Enables the DMSS app to access the controller.</li><li>• <b>DISABLE</b>: Disables the DMSS app to access the controller.</li></ul>

Step 4 Press  to return to the **2G/4G MODULE** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.26 Language

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **LANGUAGE** menu.

Figure 7-32 Language



Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select a system language

Step 4 Press  to return to the **LANGUAGE** menu.

Then you can press  and  to move to the next menu or press  to exit from the installer menu.

## 7.27 RFID Cards

Before using the function, a specified card reader must be connected. For details on the card reader, contact the local dealer.

After adding Radio Frequency Identification (RFID) cards, you can use them to arm and disarm areas by swiping the card only or combining cards with password.

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **RFID CARDS** menu.

Figure 7-33 RFID cards



Step 2 Press  to enter the programming mode.

Step 3 Configure the RFID card parameters.

- Up to 100 RFID cards can be set. Press  and  to select one as needed, or you can press the card number and then press  to go to desired card directly. For example, press 50 and then press  to go to **CARD-050**.
- For each card, press  to enter the configuring screen. Press  and  to alter the options. Press  to confirm the setting and move to next parameter. Press and hold  to restore the configured card to default (**NO PRESENT** status).
- Press  to return to the upper menu.

Table 7-28 RFID card parameter descriptions

Submenu	Descriptions
STATE	Set the card to an operating or non-operating status. <ul style="list-style-type: none"> <li><b>A:</b> Active. The RFID card is in normal condition</li> <li><b>I:</b> Isolate. The RFID card cannot be used, and can be activated again after switched to <b>ACTIVE</b> state.</li> </ul>
AREAS	Set one or multiple areas where the RFID card can be used.
ARMING	Set the arming status. <ul style="list-style-type: none"> <li><b>IMMEDIATE</b> The area is immediately armed.</li> <li><b>DELAYED</b> The area is armed after the exit delay time, which can be set by the installer. For details on the exit delay time, see the relevant installer's manual</li> </ul>
FORCED ARM	Set whether the area can be armed when alarm detectors are in a not ready status. For example, the window is open or in case of defective sensors. <ul style="list-style-type: none"> <li><b>YES</b></li> <li><b>NO</b></li> </ul>
ARMING METHOD	Set the arming method by swiping the card only or using the combination of card and password. <ul style="list-style-type: none"> <li><b>CARD</b> Swipe the card to arm the selected area.</li> <li><b>CARD + PWD</b> Swipe the card, and then enter the set password within 30 s to arm the selected area.</li> </ul>
PASSWORD	If you select <b>CARD + PWD</b> , set a password with 4–6 digits.
PLEASE SWIPE	When the system prompts <b>Please swipe</b> , swipe the card on the card reader to register the card number, and the number will be displayed on the keypad LCD screen.

## 7.28 Expansion Modules

The expansion module consists of 8 input modules and 8 output modules. Input modules can be connected to detectors to input alarm signals to the controller. Output modules can be connected to a siren (for example) to output alarm signals. You can modify the module name and set trouble alarm for the module.

Step 1 After entering the installer menu, press **[▲]** and **[▼]** to scroll up and down until you reach the **EXPANSION MODULE** menu.

Figure 7-34 Expansion module



Step 2 Press to enter the programing mode.

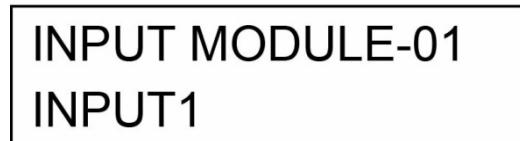
Figure 7-35 Input module



Press and to select input module or output module.

Step 3 Press to enter the module setting screen.

Figure 7-36 Module setting



- Press and to select one module or you can press the module number and then press to go to desired module directly. For example, press 4 and then press to go to **INPUT MODULE-04**.
- Press and 2, and then you can modify the module name.

Step 4 Press to enter the **TROUBLE** screen. When the module is offline, the trouble alarm will be triggered.

Figure 7-37 Trouble



Step 5 Enter the area number (one or multiple), and the triggered alarm will be reported to that specified area.



- When the trouble occurs, the fault LED indicator light ( ) and the corresponding area indicator light will be on.
- Enter the area number again to disable the trouble alarm of the set area.

Step 6 Press to return to the upper menu or press continuously to exit from the installer menu.

## 7.29 SIA

You can enable SIA (System Interface Agreement) to associate with the third-party platform.



The SIA must be customized according to different platforms.

Step 1 After entering the installer menu, press  and  to scroll up and down until you reach the **SIA** menu.

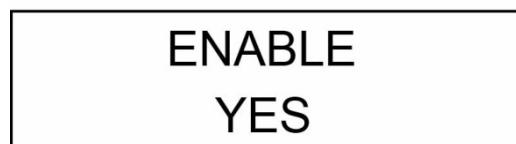
Figure 7-38 SIA



Step 2 Press  to enter the programming mode.

Step 3 Press  and  to select **YES/NO** to enable or disable the SIA, and then press  to confirm the setting.

Figure 7-39 Enable/Disable the SIA

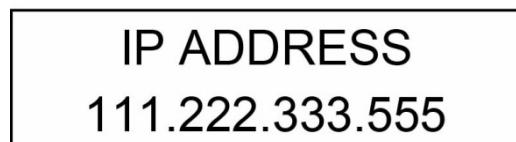


Step 4 Enter the IP address of the associated platform.



- After entering a part of the IP address, press  to confirm the setting and move to the next part.
- You can adjust the last digit of the IP address by pressing  and .

Figure 7-40 Enter IP address



Step 5 Enter the port of the associated platform, and then press  to confirm the setting.

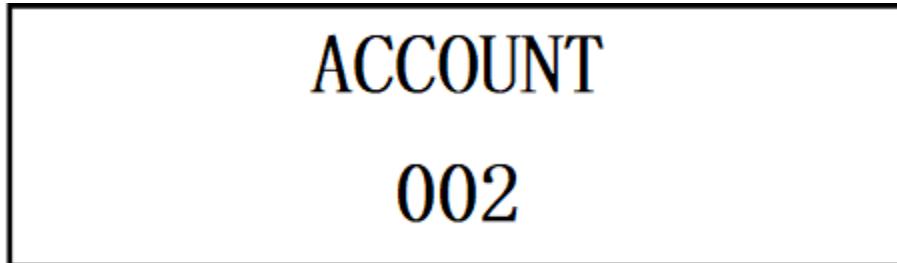
Figure 7-41 Enter port number



Step 6 Press

The account name can contain numbers from 0-9 and characters from A-F.

Figure 7-42 Enter account number

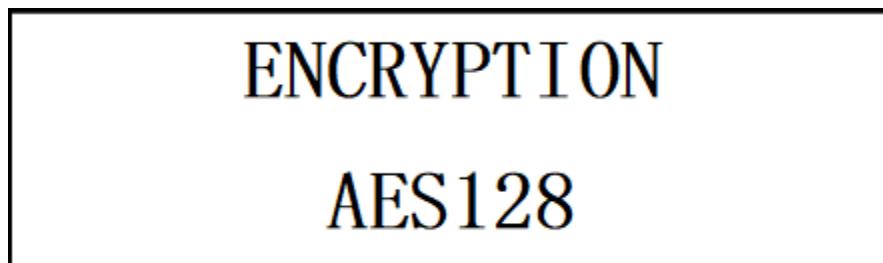


Step 7 Press , and then go to **ENCRYPTION** to set the account name.



**NONE** is select by default.

Figure 7-43 Enter account number



Step 8 Press , and then go to **HEARTBEAT** to set the heartbeat.



Heartbeat ranges from 1 to 65535. And 3 is set by default.

Figure 7-44 Set heartbeat

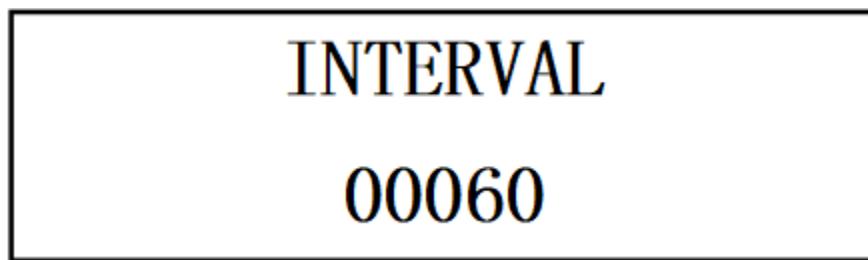


Step 9 Press , and then go to **INTERVAL** to set the interval.



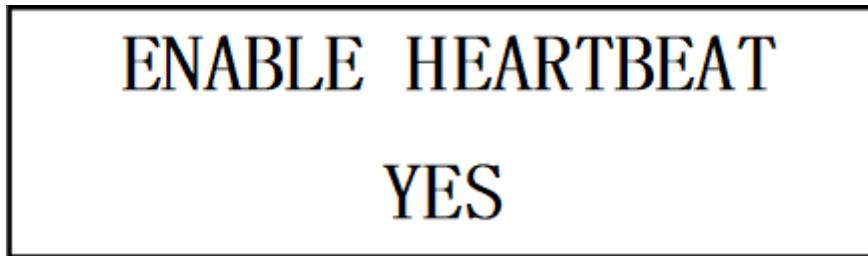
Interval ranges from 0 to 99 seconds. And 7 seconds is set by default.

Figure 7-45 Set heartbeat



Step 10 Press , and then go to **ENABLE HEARTBEAT** to confirm the heartbeat settings.

Figure 7-46 Enable heartbeat

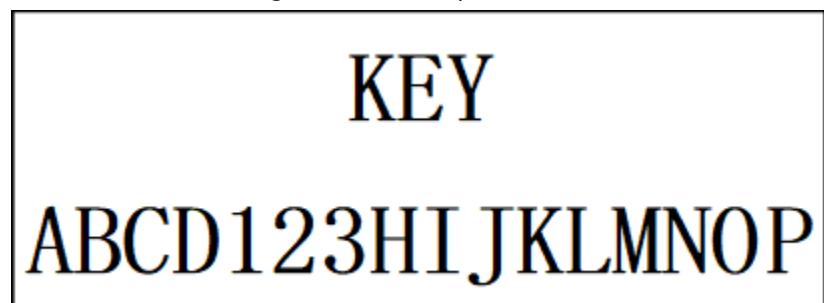


Step 11 To enable **AES128**, press , and then go to **KEY** to set the keys.



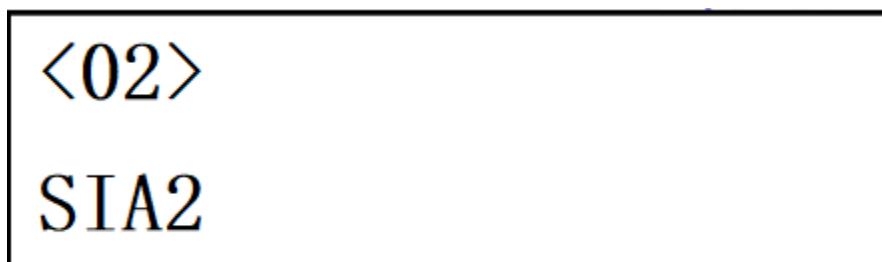
The key must contain 32 characters, with numbers from 0-9 and characters from A-F.

Figure 7-47 Set keys



Step 12 (Optional) To set more SIA, press , and then go to SIA settings, and repeat the above procedures.

Figure 7-48 Set SIA



Step 13 Press  to return to the upper menu or press  continuously to exit from the installer menu.

# 8 Alarm Config Tool

The alarm config tool is for installers to configure alarm control parameters.

## 8.1 Home Page

Figure 8-1 Home page

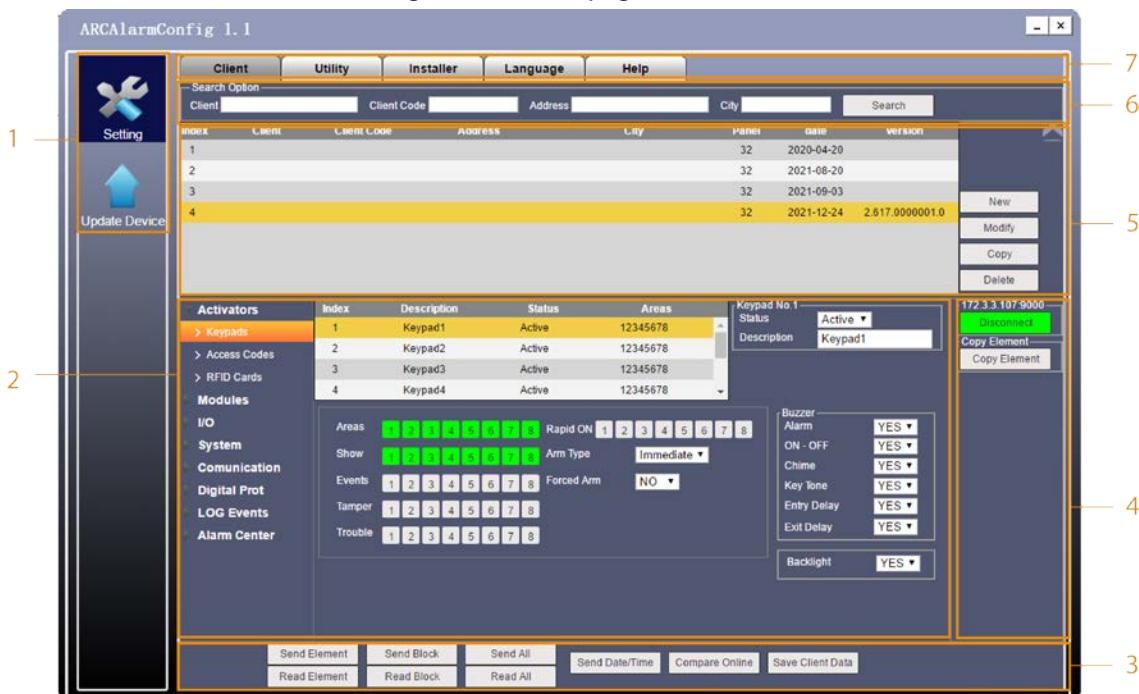


Table 8-1 Main interface introduction

No.	Name	Description
1	Menu	Includes two menus: <b>Setting</b> and <b>Update Device</b> . For details, see "8.2 Setting" and "8.3 Updating Device".
2	Parameters	You can configure parameters and enter related information for activators, modules, I/O, system, communication, digital prompt, and log events.
3	Functions buttons	<ul style="list-style-type: none"> <li><b>Connect Device:</b> You can connect the alarm config tool to the alarm controller.</li> <li><b>Copy Element:</b> You can copy elements of activators, modules, I/O, system, communication, digital prompt, and log events, and send them to the alarm controller.</li> </ul>
4		
5	Client management	You can add new clients and enter detailed information. You can also modify, copy, and delete the existing records.
6	Search option	You can search for details on each client through the client number, client code, address, or city. You can enter details for one or two of the four items for the search.
7		

No.	Name	Description
7	Function tabs	Displays the functions tabs of <b>Setting</b> that you can configure or view.

## 8.2 Setting

In the **Setting** module, you can configure parameters that are related to clients, utility, installers and language.

### 8.2.1 Client

In this section, you can search, manage, and configure parameters for clients.

#### 8.2.1.1 Managing a Client

You can add new clients, modify, copy, and delete client information.



Before connecting to the controller, enter the installer code (1961 by default). For details, see "8.2.3 Installer".

##### 8.2.1.1.1 Adding a Client

Step 1 Click **New**.

Step 2 The **New Client Profile** page is displayed.

Figure 8-2 New client profile

Step 3 On the left column, enter security code that is set on the keypad, and other information such as address, city, state, and ZIP as needed.

Step 4 Under the **Controller Address**, enter the IP address and port of the controller

Step 5 Click **Yes**.

A new client is added.



- **Communication:** Displays computer IP address and controller IP address and port.
- **User Info:** You can enter two users' names, addresses, telephone numbers and more.
- **client Note:** You can record your operation histories.
- The **Security Code** is set by the user under **User Menu > Security Code** on the keypad, and you need to ask for it in advance.

### 8.2.1.1.2 Modifying a Client

You can modify information that you entered.

Step 1 Move your mouse cursor to a row, and click the left mouse button.

The row you clicked turns orange.

Step 2 Click **Modify**.

The **Modify Client Profile** page is displayed.

Step 3 Modify the items you want to modify.

Step 4 Click **Yes** to save information that you modified

### 8.2.1.1.3 Copying a Client

When details of a client you are to add are the same as the existing one in the list, you can copy information of one client in the list to quickly add a new client.

Step 1 Move your mouse cursor to the row you want to copy, and click the left mouse button.

The row you clicked turns orange.

Step 2 Click **Copy**.

A new client with same information as the one you copied is added.

### 8.2.1.1.4 Deleting a Client

You can delete any client in the list.

Step 1 Move your mouse cursor to the row you want to delete, and click the left mouse button.

The row you clicked turns orange.

Step 2 Click **Delete**.

The row you selected is deleted.

### 8.2.1.2 Searching a Client

Step 1 Select **Setting > Client**.

Figure 8-3 Client



Step 2 Enter the searching options.

Step 3 Click **Search**.

The clients whom you want to search for will be shown.

### 8.2.1.3 Configuring Client Parameters

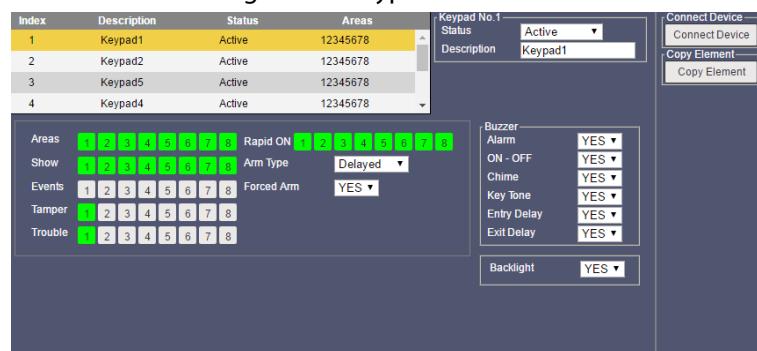
#### Activator

In **Activator**, you can configure parameters for keypads and access codes.

#### Keypads

On the client interface, select **Activator > Keypads**, and the **Keypads** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.3 Keypads".

Figure 8-4 Keypads



#### Access Codes

On the client interface, select **Activator > Access Codes**, and the **Access Codes** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.14 Access Codes".

Figure 8-5 Access codes

Index	Description	Status	Level
1	User1	Active	Supervisor
2	User2	Isolate	Manager
3	User3	Isolate	Manager
4	User4	Isolate	Manager

Arm	YES	Link1	Output No.	0
Arm Type	Delayed	Link2	Output No.	0
Forced Arm	YES	Link3	Output No.	0
Disarm	YES	Link4	Output No.	0
Areas	1 2 3 4 5 6 7 8	Timer1	Timer No.	0
Partition1	1 2 3 4 5 6 7 8	Timer2	Timer No.	0
Partition2	1 2 3 4 5 6 7 8	Timer3	Timer No.	0
		Timer4	Timer No.	0

w\_codeNumber1

Status	Active
Level	Supervisor
Description	User1

Zone Status YES

Remote Authorised YES

Stop Calling Authorised YES

Code

## RFID Cards

On the client interface, select **Activator > RFID Cards**, and the **RFID Cards** page is shown. You can start configuring the parameters as needed, and the settings will be effective in real time. For details, see "7.27 RFID Cards".

Figure 8-6 RFID cards

Index	Description	Status	Areas
1	RfidTag1	NotPresent	
2	RfidTag2	NotPresent	
3	RfidTag3	NotPresent	
4	RfidTag4	NotPresent	

Areas	1 2 3 4 5 6 7 8	Card Manage	Card No.	<input type="text"/>	<input type="button" value="ADD"/>
Arm Type	Immediate	Arming Method	OnlyCard		
Forced Arm	NO	Password	<input type="text"/>		

## Modules

In **Modules**, you can configure parameters for **Power Supplies** and **Expansion Module**.

### Power Supplies

On the client interface, select **Modules > Power Supplies**, and the **Power Supplies** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.5 Power Supplies".

Figure 8-7 Power supplies

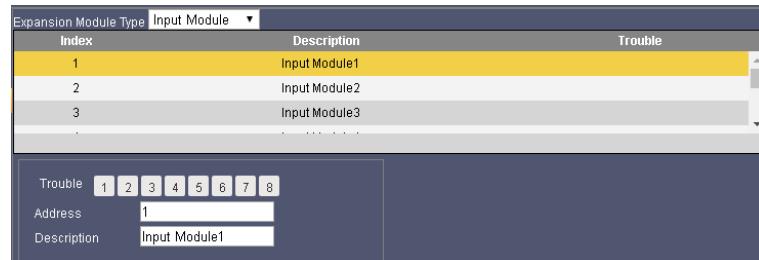
Index	Trouble
1	12345678

Trouble	1 2 3 4 5 6 7 8
---------	-----------------

### Expansion Module

On the client interface, select **Modules > Expansion Modules**, and the **Expansion Module** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.28 Expansion Modules".

Figure 8-8 Expansion module



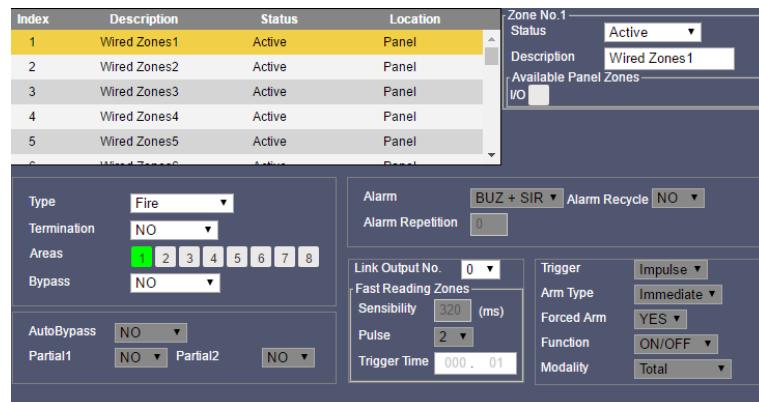
## I/O

In **I/O**, you can configure parameters for **Wired Zones**, **IN AND ZONES**, and **Output**.

### Wired Zones

On the client interface, select **I/O > Wired Zones**, and the **Wired Zones** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.6 Wired Zones".

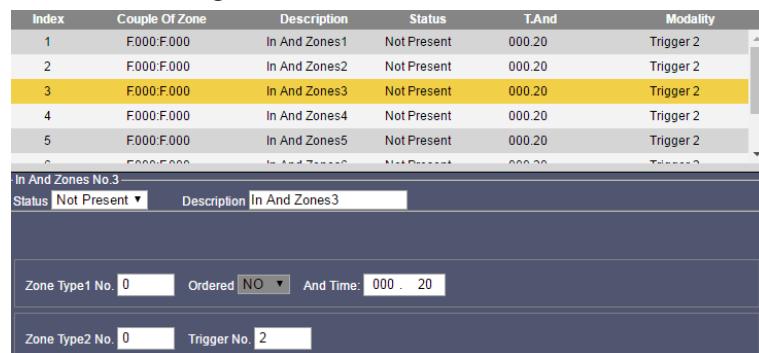
Figure 8-9 Wired zones



### In And Zones

On the client interface, select **I/O > In And Zones**, and the **In And Zones** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.8 In and Zones".

Figure 8-10 In and zones

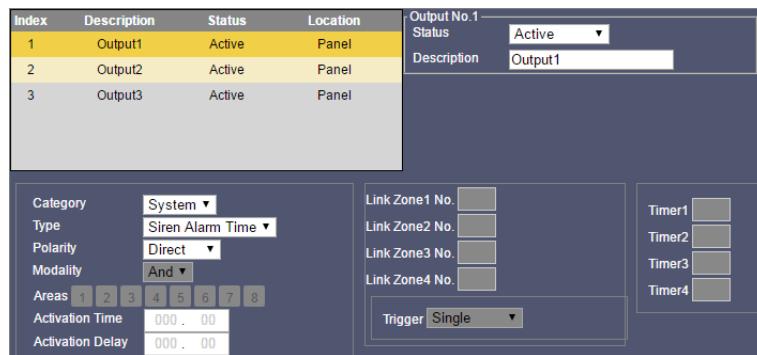


### Outputs

On the client interface, select **I/O > Outputs**, and the **Outputs** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see

"7.9 Outputs".

Figure 8-11 Output



Index	Description	Status	Location
1	Output1	Active	Panel
2	Output2	Active	Panel
3	Output3	Active	Panel

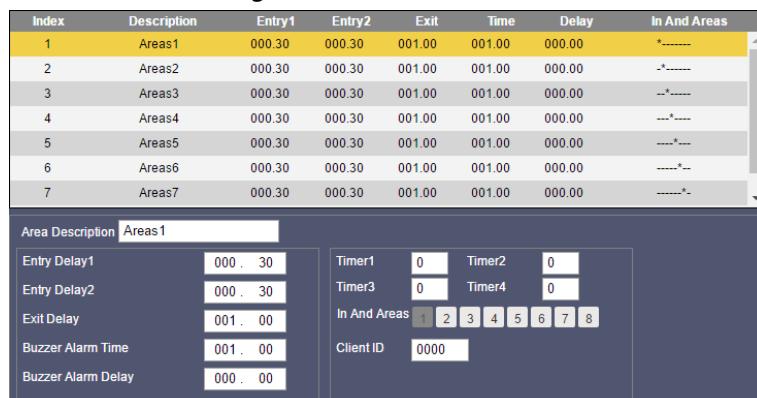
## System

In **System**, you can configure parameters for **Areas**, **SYS Functions**, **2G/4G SYS Timings**, **Timers**, and **Holidays**.

### Areas

On the client interface, select **System > Areas**, and the **Areas** screen is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.10 Areas".

Figure 8-12 Areas



Index	Description	Entry1	Entry2	Exit	Time	Delay	In And Areas
1	Areas1	000.30	000.30	001.00	001.00	000.00	*-----
2	Areas2	000.30	000.30	001.00	001.00	000.00	-*-----
3	Areas3	000.30	000.30	001.00	001.00	000.00	--*-----
4	Areas4	000.30	000.30	001.00	001.00	000.00	...*---
5	Areas5	000.30	000.30	001.00	001.00	000.00	---*---
6	Areas6	000.30	000.30	001.00	001.00	000.00	-----*
7	Areas7	000.30	000.30	001.00	001.00	000.00	-----*

### SYS Functions

On the client interface, select **System > SYS Functions**, and the **SYS Functions** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.11 System Functions".

Figure 8-13 SYS functions

Max Alarm Cycles	0	System Tamper	1 2 3 4 5 6 7 8	DST Time
SYS Alarm Repetition	0	Siren Tamper	1 2 3 4 5 6 7 8	Solar To Legal
Max Code Errors	0	Month 12 Day 3		
Legal To Solar				
Month 12 Day 2				
Arm With Low Battery	YES ▼	Entry/Exit Sounds With Part. Arm	YES ▼	
Panic Alarm Mode	Audible ▼	Alarm Delay On Total Arm	YES ▼	
Duress	NO ▼			
Factory Default Restore	Partition ▼			
Tamper Alarm Mode	BUZ + SIR ▼			
Trouble Alarm Mode	BUZ + SIR ▼			
Bus Alarm Mode	BUZ + SIR ▼			
Eol R Value	6.8k ▼ (Ω)			

## 2G/4G

On the client interface, select **System > 2G/4G**, and the **2G/4G** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.25 2G/4G Module".

Figure 8-14 2G/4G

Enable	FALSE ▼
APN	
AutoMode	NO ▼
User Name	User1
Password	
DailNumber	#007
DMSS	
DMSS	FALSE ▼

## SYS Timings

On the client interface, select **System > SYS Timing**, and the **SYS Timing** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.12 System Timing".

Figure 8-15 SYS timing

Timeout(min.sec.)		Timeout(hours)	
Siren Alarm Time	001 . 00	Chime	000 . 04
Siren Alarm Delay	000 . 00	Fire	002 . 00
Power Loss Delay	000 . 00	Panic	002 . 00
Patrol Disarm	001 . 00	Robbery	002 . 00
		Medical	002 . 05
		WaterLeak	002 . 00
		Zones In Test Mode	1
		Technician Prog.	4

## Timers

On the client interface, select **System > Timers**, and the **Timers** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.13 System Timer".

Figure 8-16 Timers

## Holidays

On the client interface, select **System > Holidays**, and the **Holidays** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.16 Holiday".

Figure 8-17 Holidays

Index	Description	Start	End	Year
1	Holiday1	01/01	02/01	2018
2	Holiday2	01/01	02/01	2018
3	Holiday3	01/01	02/01	2018
4	Holiday4	01/01	02/01	2018
5	Holiday5	01/01	02/01	2018
^				

**Holiday No.7**

Description	Holiday7
Holiday Start	2018-01-01 
Holiday Stop	2018-01-02 

## Communication

In **Communication**, you can configure parameters for **Communicator**, **Telephone No.**, and **Vocal Message**.

## Communicator

On the client interface, select **Communication > Communicator**, and the **Communicator** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.4 Communicator".

Figure 8-18 Communicator

Description	Communicator1
Priority	PSTN <input type="button" value="▼"/>
PSTN Trouble	<input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/>
GSM Trouble	<input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/>
Attempts	<input type="button" value="3"/>
SIM Expiration	2018-09-12 <input type="button" value="▼"/>
SIM Type	Other <input type="button" value="▼"/>
Server No	<input type="text"/>
Command	<input type="text" value="103001"/>
Prefix Option	<input type="button" value="▼"/>
Prefix	<input type="text"/>

Telephone No.

On the client interface, select **Communication > Telephone No**, and the **Telephone No** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.17 Telephone Number".

Figure 8-19 Telephone No.

Telephone No.	Type	Voice				
Index	Telephone No.	Description		Status	Stop Cycle	
1		Telephone No.1		Active	YES	
2		Telephone No.2		Active	YES	
3		Telephone No.3		Active	YES	
4		Telephone No.4		Active	YES	

Telephone No.1

Status: Active, Description: Telephone No.1

Telephone No.:  Stop Cycle: Yes, Link Output:

Areas:  1  2  3  4  5  6  7  8 Events:  SYS  Module  Emergen  Arm/Disa  Zones

System:  M  W  T  F  S  S Credit:  M  W  T  F  S  S Hour/Minute:



You can select **Voice, SMS, or SMI Number** as **Telephone No. type**.

## Vocal Message

On the client interface, select **Communication > Vocal Message**, and the **Vocal Message** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.20 Vocal Messages".

Figure 8-20 Vocal message

Index	Status	Category	Type	Modality	Areas	Telephones
1	Active	Areas	System Tamper	Or	1234----	1234----
2	Active	Areas	System Tamper	Or	1234----	1234----
3	Active	Areas	System Tamper	Or	1234----	1234----
4	Active	Areas	System Tamper	Or	1234----	1234----
5	Active	Areas	System Tamper	Or	1234----	1234----
6	Active	Areas	System Tamper	Or	1234	1234

Vocal Message No1

Status: Active, Category: Areas, Type: System Tamper, Modality: Or, Link Output: 40

Areas:  1  2  3  4  5  6  7  8 Telephones:  1  2  3  4  5  6  7  8

## Digital Port

In **Digital Port**, you can configure parameters for **Setting, SYS Event, Module Event, Emergency Event, Arm/Disarm Event and Zones Event**.

## Setting

On the client interface, select **Digital Port > Setting**, and the **Setting** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.19 Monitor Station".

Figure 8-21 Setting

Setting Type	Service Call	Telephone No.	Description	Status
TEL.1			Telephone No.1	Active
TEL.2			Telephone No.2	Active
TEL.3			Telephone No.3	Active
Telephone No.	<input type="text"/>	Description: <input type="text"/>		
Status	Active	Periodic Test Setting		
Protocol	Contact ID	Week Days: <input checked="" type="checkbox"/> M <input type="checkbox"/> W <input checked="" type="checkbox"/> T <input type="checkbox"/> F <input type="checkbox"/> S <input type="checkbox"/> S	Hour/Minute: <input type="text"/> 00 : <input type="text"/> 00	

## SYS Event

On the client interface, select **Digital Port > SYS Event**, and the **SYS Event** page is shown. You can

start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.19 Monitor Station".

Figure 8-22 SYS event

Event No.	Description	Id	TEL.1	TEL.2	TEL.3	Rip	SMS	Rip
0001	Period Test	602	YES	YES	YES	YES	NO	YES
0002	System Trouble	300	YES	YES	YES	YES	NO	YES
0003	Main Power Failure	301	YES	YES	YES	YES	NO	YES
0004	Controller Low Battery	302	YES	YES	YES	YES	NO	YES
0005	Controller Battery Failure	309	YES	YES	YES	YES	NO	YES
0006	Telephone Line Trouble	351	YES	YES	YES	YES	NO	YES
0007	No GSM Field	352	YES	YES	YES	YES	NO	YES
0008	Controller Tamper	137	YES	YES	YES	YES	NO	YES
0009	Siren Tamper	137	YES	YES	YES	YES	NO	YES
0010	Bus1 Communication Trouble	354	YES	YES	YES	YES	NO	YES
0011	Bus2 Communication Trouble	354	YES	YES	YES	YES	NO	YES

Event:1-Period Test

Contact ID	602	SMS	NO		
TEL.1	YES	TEL.2	YES	TEL.3	YES

## Module Event

On the client interface, select **Digital Port > Module Event**, and the **Module Event** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time.

Figure 8-23 Module event

Event No.	Description	Id	TEL.1	TEL.2	TEL.3	Rip	SMS	Rip
0030	Keypad Trouble	333	YES	YES	YES	YES	NO	YES
0031	Keypad Tamper	145	YES	YES	YES	YES	NO	YES
0035	Input Module Failure	333	NO	NO	NO	NO	NO	NO
0037	Output Module Failure	333	NO	NO	NO	NO	NO	NO
0043	Power Supply Communication Trouble	333	YES	YES	YES	YES	NO	YES
0044	Power Supply Tamper	145	YES	YES	YES	YES	NO	YES

Event:30-Keypad Trouble

Contact ID	333	SMS	NO		
TEL.1	YES	TEL.2	YES	TEL.3	YES

## Emergency Event

On the client interface, select **Digital Port > Emergency Event**, and the **Emergency Event** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.19 Monitor Station".

Figure 8-24 Emergency event

Event No.	Description	Id	TEL.1	TEL.2	TEL.3	Rip	SMS	Rip
0060	Panic Alarm	120	NO	YES	YES	YES	YES	YES
0061	Duress Alarm	121	NO	YES	YES	YES	YES	YES
0062	Robbery Alarm	122	NO	YES	YES	YES	YES	YES
0063	Medical Alarm	100	NO	YES	YES	YES	YES	YES
0064	Fire Alarm	110	NO	YES	YES	YES	YES	YES
0065	Water Leak Alarm	154	NO	YES	YES	YES	YES	YES
0066			NO	NO	NO	NO	NO	NO
0067			NO	NO	NO	NO	NO	NO
0068			NO	NO	NO	NO	NO	NO
0069			NO	NO	NO	NO	NO	NO

Event:60-Panic Alarm

Contact ID	120	SMS	YES		
TEL.1	NO	TEL.2	YES	TEL.3	YES

## Arm/Disarm Event

On the client interface, select **Digital Port** > **Arm/Disarm Event**, and the **Arm/Disarm Event** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.19 Monitor Station".

Figure 8-25 Arm/disarm event

Event No.	Description	Id	TEL.1	TEL.2	TEL.3	Rip	SMS	Rip
0070	Rapid Arm	408	NO	NO	NO	NO	NO	NO
0072	Key Input Arm	409	NO	NO	NO	NO	NO	NO
0073	Key Input Disarm	409	NO	NO	NO	NO	NO	NO
0074	Monitor Arm	407	NO	NO	NO	NO	NO	NO
0075	Monitor Disarm	407	NO	NO	NO	NO	NO	NO
0082	Timer Arm 01	403	NO	NO	NO	NO	NO	NO
0083	Timer Disarm 01	403	NO	NO	NO	NO	NO	NO
0084	Timer Arm 02	403	NO	NO	NO	NO	NO	NO
0085	Timer Disarm 02	403	NO	NO	NO	NO	NO	NO
0086	Timer Arm 03	403	NO	NO	NO	NO	NO	NO
0087	Timer Disarm 03	403	NO	NO	NO	NO	NO	NO
0088	Timer Arm 04	403	NO	NO	NO	NO	NO	NO

Event:70-Rapid Arm  
Contact ID: 408  
SMS: NO  
TEL.1: NO ▾ TEL.2: NO ▾ TEL.3: NO ▾

## Zones Event

On the client interface, select **Digital Port** > **Zones Event**, and the **Zones Event** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.19 Monitor Station".

Figure 8-26 Zone event

Event No.	Description	Id	TEL.1	TEL.2	TEL.3	Rip	SMS	Rip
0346	Wired Zone Alarm1	130	NO	NO	NO	NO	NO	NO
0347	Wired Zone Alarm2	130	NO	NO	NO	NO	NO	NO
0348	Wired Zone Alarm3	130	NO	NO	NO	NO	NO	NO
0349	Wired Zone Alarm4	130	NO	NO	NO	NO	NO	NO
0350	Wired Zone Alarm5	130	NO	NO	NO	NO	NO	NO
0351	Wired Zone Alarm6	130	NO	NO	NO	NO	NO	NO
0352	Wired Zone Alarm7	130	NO	NO	NO	NO	NO	NO
0353	Wired Zone Alarm8	130	NO	NO	NO	NO	NO	NO
0354	Wired Zone Tamper1	144	NO	NO	NO	NO	NO	NO
0355	Wired Zone Tamper2	144	NO	NO	NO	NO	NO	NO
0356	Wired Zone Tamper3	144	NO	NO	NO	NO	NO	NO
0357	Wired Zone Tamper4	144	NO	NO	NO	NO	NO	NO

Event:346-Wired Zone Alarm1  
Contact ID: 130  
SMS: NO  
TEL.1: NO ▾ TEL.2: NO ▾ TEL.3: NO ▾

## Log Events

In **Log Events**, you can record, read and print event logs.

On the client interface, select **LOG Events** > **LOG Events**, and the **LOG Events** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time. For details, see "7.24 Log Events".

Figure 8-27 Log events

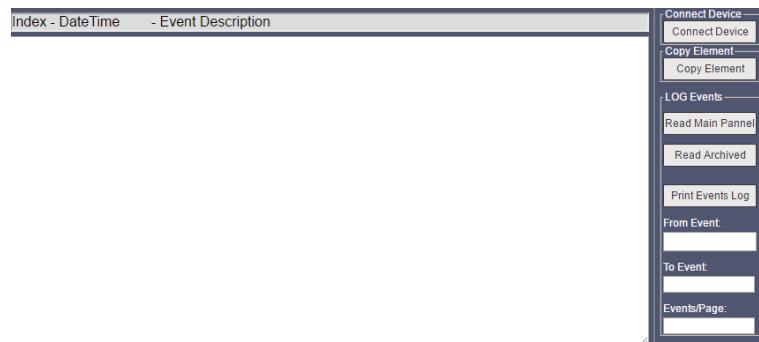


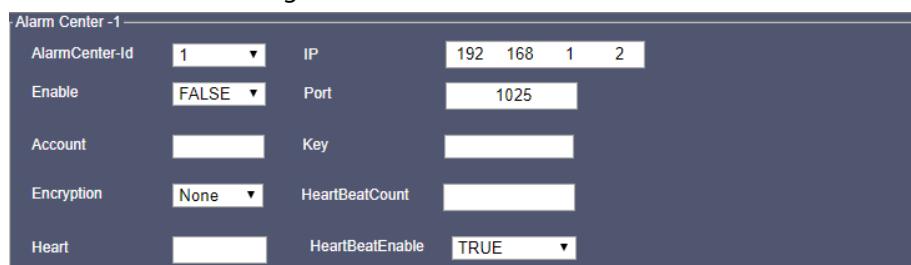
Table 8-2 Functions of buttons

No.	Name	Function
1	Read main panel	Click <b>Read Main Panel</b> , you can read logs recorded in the alarm controller.
2	Read archived	Click <b>Read Archived</b> , you can read logs that were saved to your computer.
3	Print event log	Click <b>Print Event</b> , enter from which event to which event you want to print in the <b>From Event</b> box and <b>To Event</b> box, and you can print the file in PDF form.   <b>Events/Page</b> means the numbers of events on one page of the PDF file.

## Alarm Center

On the client interface, select **Alarm Center > Alarm Center**, and the **Alarm Center** page is shown. You can start configuring the parameters if needed, and the settings will be effective in real time.

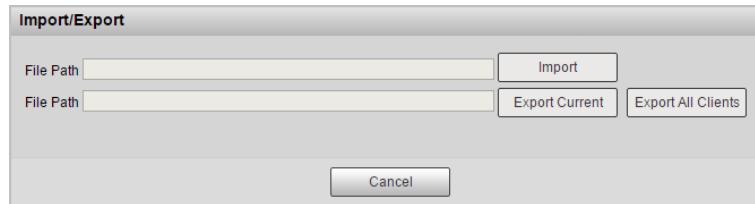
Figure 8-28 Alarm center



## 8.2.2 Utility

Click **Utility**, and the **Import/Export** box is shown. You can start importing or exporting clients, and the settings will be effective in real time.

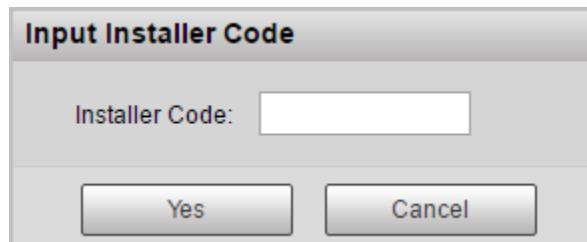
Figure 8-29 Import/Export



### 8.2.3 Installer

Click **Installer**, and the **Input Installer Code** box is shown. You can input the installer code.

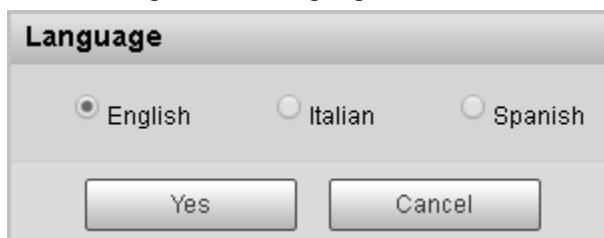
Figure 8-30 Input installer code



### 8.2.4 Language

Click **Language**, and the **Language** box is shown. You can select English, Italian, or Spanish.

Figure 8-31 Language

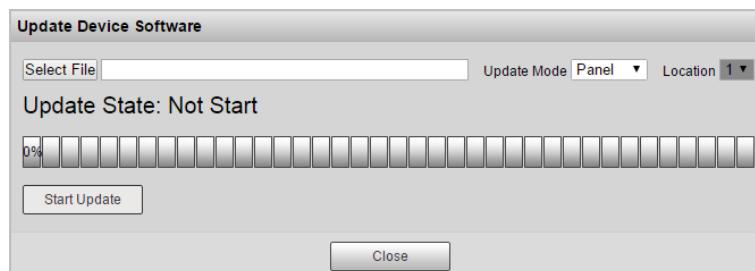


## 8.3 Updating Device

Step 1 Click **Update Device**.

Step 2 The **Update Device Software** box is shown.

Figure 8-32 Update device software



Step 3 In the **Update Mode** list, select **Panel** or **Keypad** depending on your requirement. If you select **Keypad**, then you need to select the corresponding RS-485 address number from the **Location** list.

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- Step 4 Click **Select File** to select the corresponding upgrading file for **Panel, Keypad, Input Module, and Output Module**.
- Step 5 Click **Start Update** and then follow the onscreen instructions to complete upgrading.

# 9 DMSS App Operations

You can remotely manage the alarm controller on DMSS app.

## 9.1 Installing the App

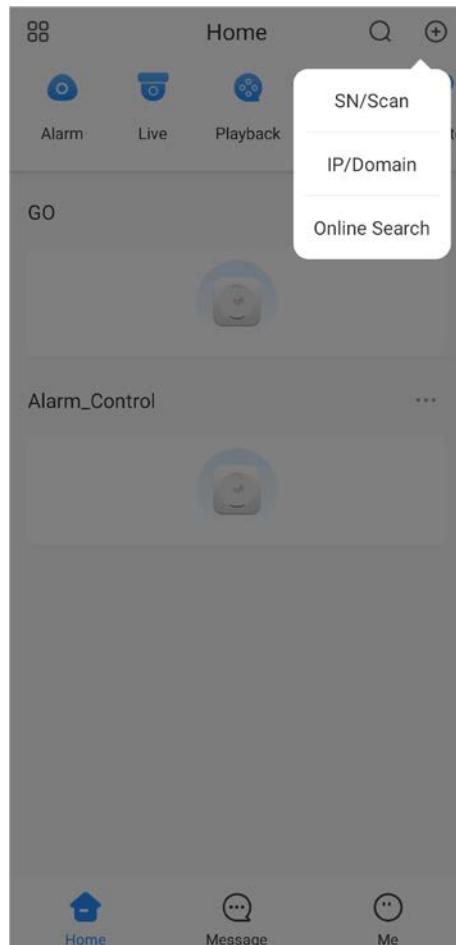
Download the DMSS app in the Google Play (Android OS) or app store (iOS).

## 9.2 Adding Alarm Controller

Enable P2P function on the alarm controller, otherwise, the device cannot be accessed to DMSS app. For details, see "7.25 2G/4G Module".

**Step 1** Open the DMSS app. On the **Home** screen, tap **+**, and then select **SN/Scan**.

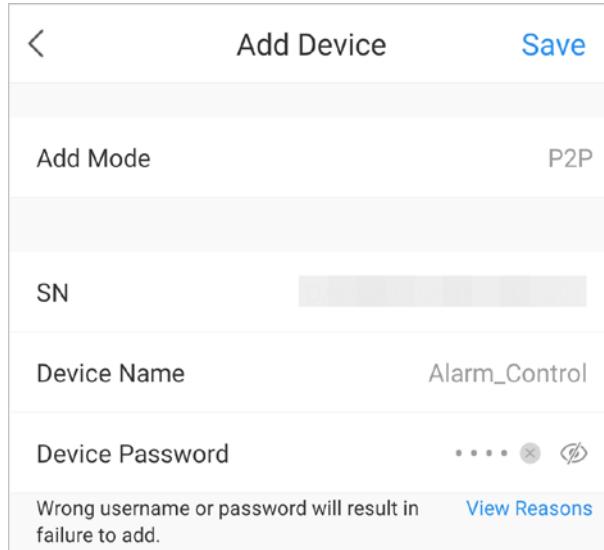
Figure 9-1 Add device to the app (1)



**Step 2** Scan device QR code, or manually enter device SN, and then select the device type as **Alarm controller**.

**Step 3** Enter device name, device password, and save settings.

Figure 9-2 Add device to the app (2)



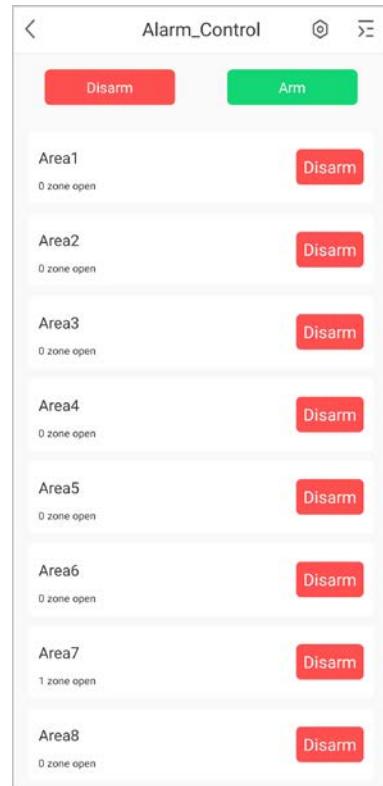
You can also add the device by entering device IP, or searching the online device.

## 9.3 Area Arming and Disarming

This section uses arm area 1 as an example.

**Step 1** On the **Home** screen, tap the added alarm controller.

Figure 9-3 Start operations



Tap **Disarm** or **Arm** on the top of the screen to disarm/arm all the areas displayed below at the same time. For details, see "7.14 Access Codes".

**Step 2** On the device operation screen, tap **Area 1**.

Figure 9-4 Area 1



Step 3 Select arming type from **Total**, **P1**, and **P2**. **P1** and **P2** can be selected at the same time.

Step 4 To disarm the area, on the **Area 1** screen, tap **Disarm**.

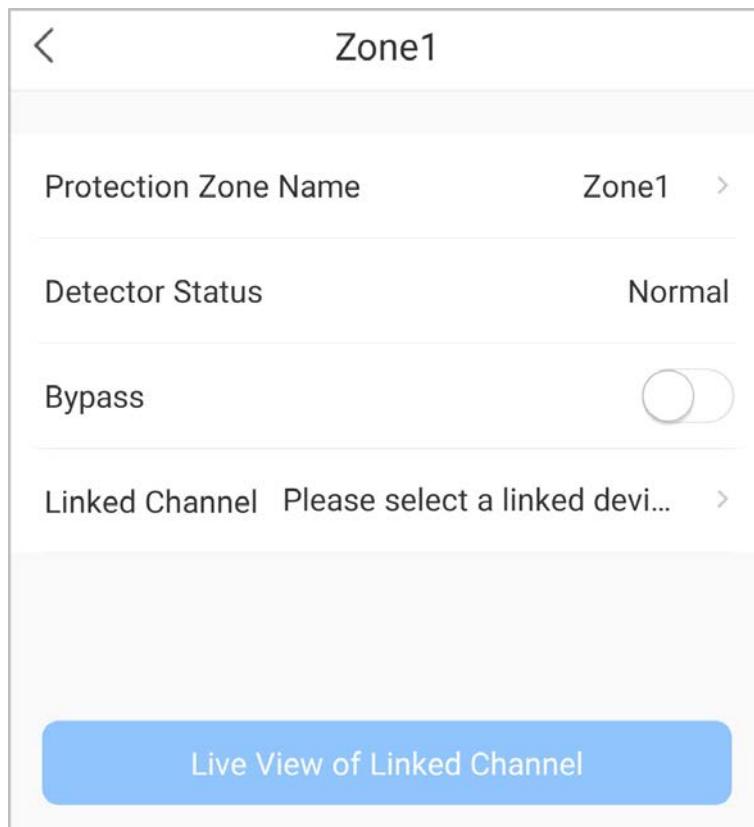
## 9.4 Zone Settings

This section uses zone 1 under area 1 as an example.

Step 1 On the **Home** screen, tap the added alarm controller.

Step 2 Select **Area 1 > Zone 1**.

Figure 9-5 Zone 1



Step 3 Configure the zone 1 parameters.

- **Protection Zone Name:** Tap it to edit the zone name, for example, enter Front Gate.
- **Detector Status:** Indicates the detector status that includes normal, open, tamper, anti-mask, and short-circuit.
- **Bypass:** Switch  to , and then the selected zone will be bypassed.
- **Linked Channel:** Tap it to select a linked video channel, and then tap **Live View of Linked Channel** to view the live video.

## 9.5 Configuring Device on App

### 9.5.1 Configuring Alarm Controller

Step 1 On the **Home** screen, tap the added alarm controller.

Step 2 On the device operation interface, tap  at the upper-right corner to enter the device details interface.



You can also enter the device details interface by tapping  of the added device, and then tap **Device Details** on the **Home** screen.

Step 3 Configure device parameters.

- **Device Configuration:** Tap to configure the alarm controller, such as modifying the device name, device password, and viewing device SN.
- **Alarm Subscription:** Switch  to  to enable alarm message notification, and

alarm messages will be displayed on **Message** screen after the alarm is triggered.

- **PGM:** Tap to configure siren and other alarm outputs. Tap **open/close** on the right to enable or disable siren output and other alarm outputs.
- **Video Linkage:** Tap to enter the live video screen. Select the channel connected to the alarm controller to view its live video.
- **Delete:** Tap **Delete** to delete the added device.

Figure 9-6 Device configuration

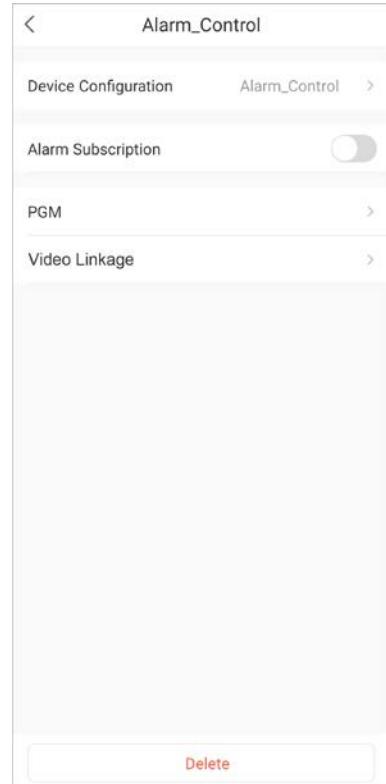


Figure 9-7 Siren output

PGM		
Siren output 1	open	>
Output 1	close	>
Output 2	close	>
Output 3	close	>
Output 4	close	>
Output 5	close	>
Output 6	close	>
Output 7	close	>

## 9.5.2 Configuring Area

This section uses configuring area 1 as an example.

- Step 1 On the **Home** screen, tap the added alarm controller.
- Step 2 On the device operation screen, tap **Area 1**.
- Step 3 Tap  at the upper-right corner to enter the device details screen.

Figure 9-8 Area configuration

Area1		Save
Region Name	Area1	
Armed status	Total	

- Step 4 Tap **Region Name** to modify the area name. You can also view the armed status of the selected area.

## 10 FAQ

1. Q: The alarm controller does not start after it is powered on.  
A: The possible reasons are as below.
  - Power input is incorrect.
  - AC adapter damage that results in there being no 14.5 VDC output.
  - No power input.
  - Program upgrading error.
  - Main board damage.
2. Q: The alarm controller automatically restarts several minutes after it starts up, or it often crashes.  
A: The possible reasons are as below.
  - The input voltage is not stable or too low.
  - Poor heat dissipation, too much dust, or the environment of the device is unsuitable.
  - Hardware fault.
3. Q: Time display is not correct.  
A: The possible reasons are as below.
  - Wrong setting.
  - Poor battery contact or low voltage.
  - Crystal oscillator working status is abnormal.
4. Q: Network connection is unstable.  
A: The possible reasons are as below.
  - Network is not stable.
  - IP address conflicts.
5. Q: Alarm is not generated.  
A: The possible reasons are as below.
  - Alarm setting is not correct.
  - Alarm wiring is not correct.
  - Alarm input signal is not correct.
  - No output activation duration has been set for the area that the zone belongs to.
6. Q: Keypad does not register correctly.  
A: The possible reasons are as below.
  - Wrong connection between the keypad and the controller. Please connect to A1 port and B1 port on the controller.
  - Check whether the keypad 485 address is set to 0.
  - When multiple keypads are connected to the controller, their 485 addresses must be different.
  - Keypad hardware fault or controller hardware fault.
7. Q: I forgot the access code.  
A: Restore the device to the factory default setting by moving DIP 5 to the OFF position, and DIP 6 to the ON position. For details, see Table 2-3.
8. Q: The configuration cannot be restored to the factory default setting.  
A: The parameter **FACTORY RST** is set to **NO** in the **SYSTEM FUNCTIONS** menu, so the DIP reset does not work. In this case, please return the controller to the manufacturer.

9. Q: The battery cannot be charged, or it cannot be fully charged, or it charges too slowly.

A: The possible reasons are as below.

- The adapter that you are using is not the original or the output voltage is not 14.5V DC.
- The adapter hardware is damaged. Please disconnect the adapter from the controller, and then check whether the output voltage of the adapter is 14.5V DC.
- The charging circuit of main board is damaged.
- The battery is damaged.

10. Q: The keypad does not respond when keys are pressed.

A: Possible reasons as below.

- The main board is damaged.
- Wrong connection between RS-485 wires and the controller or the connection becomes loose.
- The settings for the DIP address of the keypad are wrong.

11. Q: During exit delay countdown, why does the detector generate alarms?

A: The possible reasons are as below.

- During the exit delay countdown, if the protection zone with immediate arming is triggered, the detector generates alarms first and then resumes counting down if the countdown did not finish.
- During the exit delay countdown, if the protection zone with delayed arming is triggered, the detector exits from countdown first. After the arming is successful, if the protection zone with delayed arming is triggered again, the enter countdown will start first, and then generate alarms.
- In conclusion, if you do not want the detector to generate alarms during exit delay countdown, set the protection zone to be **Delay** or **Path** type.

12. Q: Failed to connect to the mobile network when using 4G modules.

A: Possible reasons as below.

- Confirm with the operator whether the SIM card dial-up configurations is filled in correctly.
- Check if the antenna were connected.
- Check the mobile data service linked to your SIM card to see whether you are in arrears.

13. Q: Time changed after you configure DST.

A: Possible reasons as below.

Check whether the controller has been registered to the DSS Professional. If so, the platform time will be synchronized to the controller.

# Appendix 1 Keypad Buzzer Sound

Appendix Table 1-1 Keypad sound

Description	Buzzer sound
Keypad pressing.	One slight beep
Menu entering.	One beep
<ul style="list-style-type: none"><li>Switching between the first menu and the last menu after log in to the system.</li><li>Authorizing the technician to access installer menu.</li></ul>	Continuous three beeps
<ul style="list-style-type: none"><li>Login fault.</li><li>Access code modification fault.</li><li>Bypass failed.</li></ul>	Two beeps, first short and second long

## Appendix 2 Event Log Messages

Appendix Table 2-1 Event log messages

Event message	Description	Event message	Description
AL.SF	Siren Fault		
P1.Arm	Partitital1 Arm	AL.	Alarm
P2.Arm	Partitital2 Arm	S.T.RES	Siren Tamper Restore
AL.PAN.	Panic Alarm	AL.S.T	Siren Tamper Alarm
AL.ROB.	Robbery Alarm	TAM.	Tamper
AL.MED.	Medical Alarm	Keypad TAM. RES.	Keypad Tamper Restore
AL.Fire	Fire Alarm	AL.K.T	Keypad Tamper Alarm
WD.Zone	Wired Zone	COMM.	Communication
WD.Z		COMM.Restore	Communication Restore
AL.TAM.	Tamper Alarm	AL.C.T	Communication Trouble Alarm
AL.AM.	Anti-Mask Alarm	AL.COMM.Trouble	
LOWBAT.	Low Battery	2G/4G COMM.RES.	2G/4G Communication Restore
WL.Zone	Wireless Zone	PSTN COMM.RES.	PSTN Communication Restore
WL.Z		PSTN ACT.	PSTN Activation
Access Code ERR.	Access Code Error	IN.MODU.TAM.RES.	Input Module Tamper Restore
PROG.Mode End	User Program Mode End	IN.M.T	Input Module Tamper
TECH.AUT.Expired	Technician Authorization Expired	AL.IN.Module TAM	Input Module Tamper Alarm
Technician AUT.	Technician Authorization	IN.Module	Input Module
User PROG.Mode	User Program Mode	OUT.MODU.TAM.RES	Output Module Tamper Restore
TECH.PROG.M	Technician Program Mode	OUT.M.T	Output Module Tamper
TECH.PROG.Mode		OUT.Module TAM.	
TROU.	Trouble	WL.	Wireless
SYS.BAT.TROU.	System Battery Trouble	WL.IN.M.T.RES.	Wireless Input Module Tamper Restore

Event message	Description	Event message	Description
SYS.BAT.Low.VOL.	System Battery Low Voltage	WLI.M.T	Wireless Input Module Tamper
SYS.BAT. Restore	System Battery Restore	WL.IN.MODU.TAM	
SYS.	System	WL IN.Module	Wireless Input Module
RES.	Restore		



When the following faults occur at the same time, the priority is as follows: A>B>C>D>E. In the same level, the subsequent time will be reported first.

A: Fire alarm, panic alarm, robbery alarm, medical alarm

B: Zone alarm

C: Fire trouble, zone short, zone tamper, zone mask, siren fault

D: System trouble

E: Modules tamper, modules trouble

## Appendix 3 Installer Menu Map

Appendix Table 3-1 Installer menu map

KEYPADS			
	Keypad 1-8		
		STATE	
		AREA	
		SHOW	
		EVENTS	
		TAMPER	
		TROUBLE	
		RAPID	
		ARMING	
		FORCED ARM	
		BUZ.ON/OFF	
		BUZ.ENTRY	
		BUZ.EXIT	
		BUZ.ALARM	
		BUZ.CHIME	
		KEYPAD BEEP	
		BACKLIGHT	
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	PRIORITY		
	ATTEMPTS		
	PSTN TROU		
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		ENTRY D2	
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		BUZ DUR	
		BUZ DELAY	
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		TIMER 2	
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		TIMER 4	
		client ID	
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	MAX AL CYCLE		
	SYS AL CYCLE		
	PANEL TAMPER		
	SIREN TAMPER		
	TAMP AL MODE		
	TROU AL MODE		
	COM TROU AL		
	ARM DLY AL		
	ENY/EXT BEEP		
	PANIC AL MOD		
	DURESS MOD		
	PWD ERR MAX		
	FACTORY RST		
	EOL R VALUE		
	FIRMWAREEVER		
SYSTEM TIMING			
	SIR AL DUR		
	SIR AL DLY		
	CHIME AL DUR		
	FIRE AL DUR		
	PANIC AL DUR		
	ROBBERY AL DU		
	MEDICL AL DU		
	AC LOSS DLY		
	PATROL DISARM		
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		LINK3	
		LINK4	
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	TIME		
	DATE		
	DST ENABLE		
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	LEG TO SOL		
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			STATE
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			SYSTEM

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		IP ADDRESS	
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		ACCOUNT	
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		ENABLE HEARTBEAT	
		KEY	

# Appendix 4 Cybersecurity Recommendations

Cybersecurity is more than just a buzzword: it's something that pertains to every device that is connected to the internet. IP video surveillance is not immune to cyber risks, but taking basic steps toward protecting and strengthening networks and networked appliances will make them less susceptible to attacks. Below are some tips and recommendations from Dahua on how to create a more secured security system.

## **Mandatory actions to be taken for basic device network security:**

### **1. Use Strong Passwords**

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters.
- Include at least two types of characters; character types include upper and lower case letters, numbers and symbols.
- Do not contain the account name or the account name in reverse order.
- Do not use continuous characters, such as 123, abc, etc.
- Do not use overlapped characters, such as 111, aaa, etc.

### **2. Update Firmware and client Software in Time**

- According to the standard procedure in Tech-industry, we recommend to keep your device (such as NVR, DVR, IP camera, etc.) firmware up-to-date to ensure the system is equipped with the latest security patches and fixes. When the device is connected to the public network, it is recommended to enable the "auto-check for updates" function to obtain timely information of firmware updates released by the manufacturer.
- We suggest that you download and use the latest version of client software.

## **"Nice to have" recommendations to improve your device network security:**

### **1. Physical Protection**

We suggest that you perform physical protection to device, especially storage devices. For example, place the device in a special computer room and cabinet, and implement well-done access control permission and key management to prevent unauthorized personnel from carrying out physical contacts such as damaging hardware, unauthorized connection of removable device (such as USB flash disk, serial port), etc.

### **2. Change Passwords Regularly**

We suggest that you change passwords regularly to reduce the risk of being guessed or cracked.

### **3. Set and Update Passwords Reset Information Timely**

The device supports password reset function. Please set up related information for password reset in time, including the end user's mailbox and password protection questions. If the information changes, please modify it in time. When setting password protection questions, it is suggested not to use those that can be easily guessed.

### **4. Enable Account Lock**

The account lock feature is enabled by default, and we recommend you to keep it on to guarantee the account security. If an attacker attempts to log in with the wrong password several times, the corresponding account and the source IP address will be locked.

### **5. Change Default HTTP and Other Service Ports**

We suggest you to change default HTTP and other service ports into any set of numbers between

1024–65535, reducing the risk of outsiders being able to guess which ports you are using.

## 6. **Enable HTTPS**

We suggest you to enable HTTPS, so that you visit Web service through a secure communication channel.

## 7. **MAC Address Binding**

We recommend you to bind the IP and MAC address of the gateway to the device, thus reducing the risk of ARP spoofing.

## 8. **Assign Accounts and Privileges Reasonably**

According to business and management requirements, reasonably add users and assign a minimum set of permissions to them.

## 9. **Disable Unnecessary Services and Choose Secure Modes**

If not needed, it is recommended to turn off some services such as SNMP, SMTP, UPnP, etc., to reduce risks.

If necessary, it is highly recommended that you use safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption passwords and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up strong passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up strong passwords.

## 10. **Audio and Video Encrypted Transmission**

If your audio and video data contents are very important or sensitive, we recommend that you use encrypted transmission function, to reduce the risk of audio and video data being stolen during transmission.

Reminder: encrypted transmission will cause some loss in transmission efficiency.

## 11. **Secure Auditing**

- Check online users: we suggest that you check online users regularly to see if the device is logged in without authorization.
- Check device log: By viewing the logs, you can know the IP addresses that were used to log in to your devices and their key operations.

## 12. **Network Log**

Due to the limited storage capacity of the device, the stored log is limited. If you need to save the log for a long time, it is recommended that you enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

## 13. **Construct a Safe Network Environment**

In order to better ensure the safety of device and reduce potential cyber risks, we recommend:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network.
- The network should be partitioned and isolated according to the actual network needs. If there are no communication requirements between two sub networks, it is suggested to use VLAN, network GAP and other technologies to partition the network, so as to achieve the network isolation effect.
- Establish the 802.1x access authentication system to reduce the risk of unauthorized access to private networks.
- Enable IP/MAC address filtering function to limit the range of hosts allowed to access the

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device.

## More information

Please visit Dahua official website security emergency response center for security announcements and the latest security recommendations.

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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