

AL-238P

Installation Manual

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Part 1 General description

This series of control panel is a kind of intelligent voice-based security technology prevention product that integrates many advanced technologies and functions. It is widely used in various types of security systems such as villa community, perimeter alarm system and office building.

The alarm system consists of a control keypad, a control panel, a remote control, an infrared detector, a door magnet, a smoke detector, and a strong siren. Easy to install, simple to operate, can store 8 alarm calls (such as: user mobile phone number, fixed phone number, etc.). It can be used alone (not connected to the Internet), or can be used for networking through GPRS/IP. It can realize computer software management, cloud service alarm system connection, and easy integration with other systems. It is an ideal choice for installing anti-theft alarm equipment in homes, business places, financial systems and other units.

1. AL-238P main function

1.1. Features

- Up to 40 zones can be connected: with 8 wired zones, up to 40 wired zones can be extended through the 485 expansion module; up to 40 433MHz or LORA wireless zones can be extended.

- The control panel itself supports 2 programmable outputs and one alarm output.

Each programmable output supports 200mA current, supports arming linkage, alarm linkage, software control.

- The panel supports a siren interface, which can be set with active or passive output.
- DC13.8V power input; 1 group of auxiliary power output (max 1500mA); 1 group of backup battery interface.

- Extend 40 relay outputs through 485, which can be used as linkage output, and the linked zones and attributes can be programmed.

- Support 6 groups of timed arming and disarming functions, support Monday to

Sunday optional. Arm and disarm the entire control panel.

- The control panel can communicate through phone, SMS, GPRS, IP and other alarm
- notifications, support 8 SMS and telephone alarm numbers;
- 1 GPRS center, 2 IP centers; support alarm calls and SMS notifications. Telephone and text messages can remote arming/disarming. Each group of SMS numbers can be set to disarm. You can call, program, and listen to the intercom on the phone.
- Support 8 LED keypads, LED keypad can display the status of zone, programming, armed and disarmed.
- The control panel supports 1 installer password and 1 programming password, 1 hijack password, 16 user passwords (programmable disarming authority), and 40 zone operation passwords.
- Support RS232 interface, support local program upgrade and access 232 serial

printer, real-time alarm printing.

- Support 10 seconds recording, record the name of the installation location of the alarm control panel, broadcast the recording when the alarm, let the alarm personnel know the alarm position at the first time.

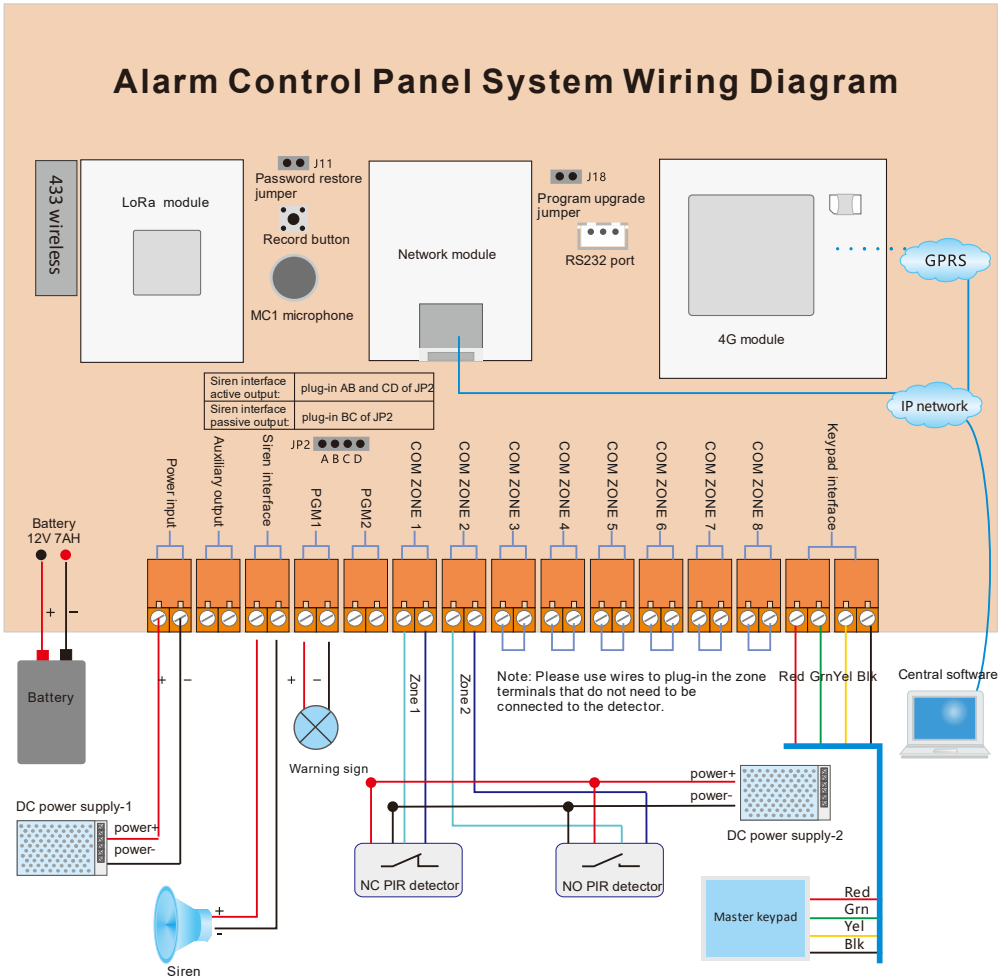
- Intelligent voice prompts, support for arming and disarming, programming, alarm voice broadcast, and zone broadcast content synchronization zone name (use "local control panel name" + "zone name" + "alarm" combination). Voices include local broadcasts and user phone voice broadcasts. Support remote reminders, off duty reminders and warning reminders for networked alarm users.
 - The system comes with a real-time clock, and continues to run under power failure.
 - The system supports the black box function, which can save the latest 6000 alarm records and operation records separately. Voice broadcast alarm record and time.
- The voice broadcast is queried through the keypad operation: alarm record, operation record, system status, system time, system version, and GPRS signal strength.
- Modular design, the circuit board contains LORA module interface, IP module interface, GPRS module interface, PSTN module interface. Users can choose.
 - Support 16 groups remote control, remote control one-button self-learning.
 - Support multiple arming and disarming methods such as outgoing arming, forced arming, staying arming, and quick arming.

1.2.Electrical performance index

Input power	DC12-24V
Backup battery	12V7AH lead acid battery
Auxiliary output	DC12V 1500mA
Static current	300mA
Alarm current	≥1000mA
Siren interface	Active, DC12V 2000mA; or passive NO output
PGM output	DC12V 200mA
Wired zone	2.2KΩ EOL Resistor
Wireless parameters	433MHz, encoding mode 1527, oscillation resistance220KΩ
Operating temperature	-10~55℃
Chassis size	255*265*88mm
Keypad size	161*120*28mm
Weight	≥3kg

2.System wiring instructions

2.1.System wiring diagram



2.2.AL-238P connection to the power supply

AL-238P adopts wide voltage design, can withstand DC12-24V power supply (factory standard DC13.8V 3A power supply); it will prompt the system under voltage, when the power supply voltage is lower than 10V;

2.3.AL-238P and the keypad connection

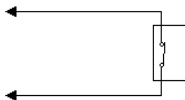
The VCC, A, B, and GND of the keypad correspond to the red, green, yellow, and black terminals of the master keypad, and up to 8 keypads are connected.

2.4.AL-238P connection to wired detector

The AL-238P series control panel can connect up to 8 wired detectors, and supports 4 kinds of zone wiring methods.

The specific connection method is as follows:

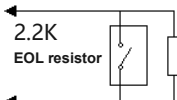
1、NC wired detector
connection



2、NO wired detector
connection

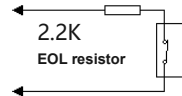


3、With 2.2K NO wired
detector connection



4、With 2.2K NC wired
detector

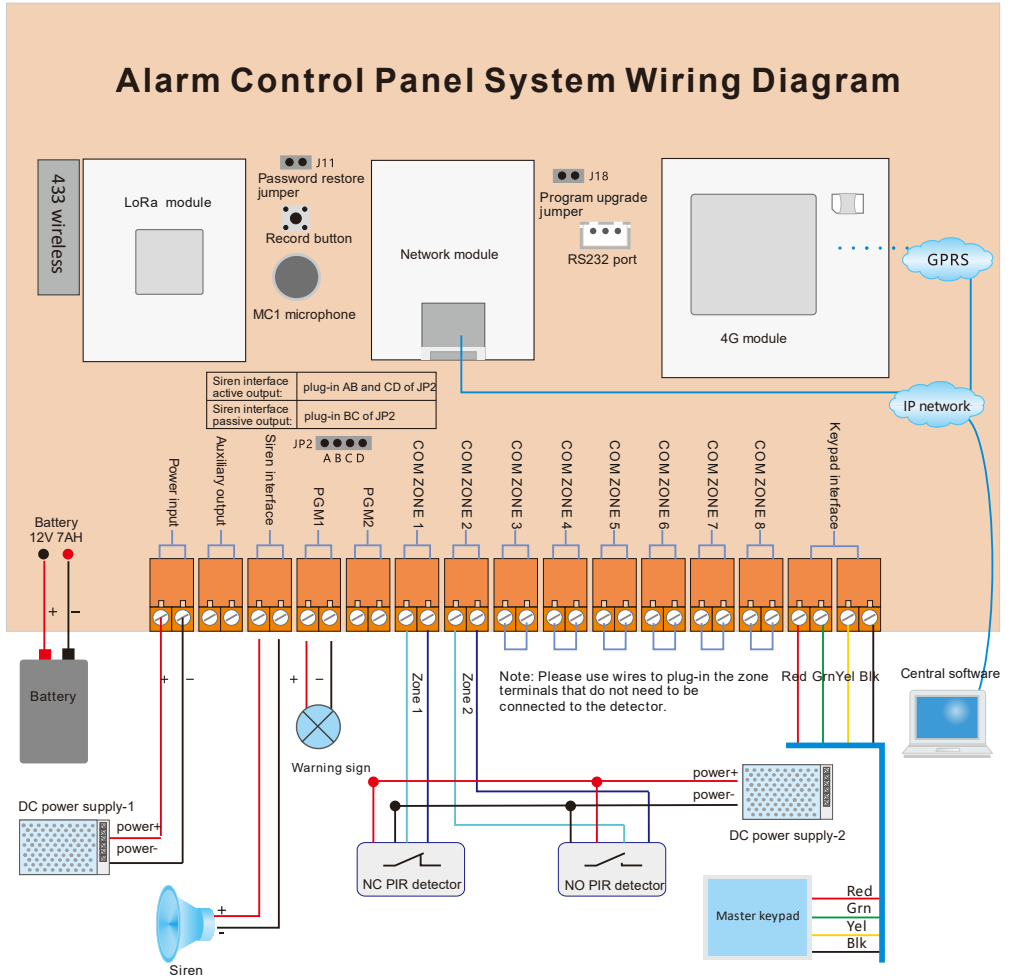
connection



Remarks: Description of the default wiring method between the AL-238P panel zone port and the wired detector

- The port of the zone (zone 1 to zone 8) is connected to the "NC signal" of the detector by default;
- Please use a wire to plug-in the zone terminals that do not need to be connected to the detector, or close it through keypad programming. For programming, please refer to the "command 05" in the programming table of the manual;

2.5.AL-238P connection to siren



AL-238P siren interface description

Siren interface active output: plug-in AB and CD of JP2

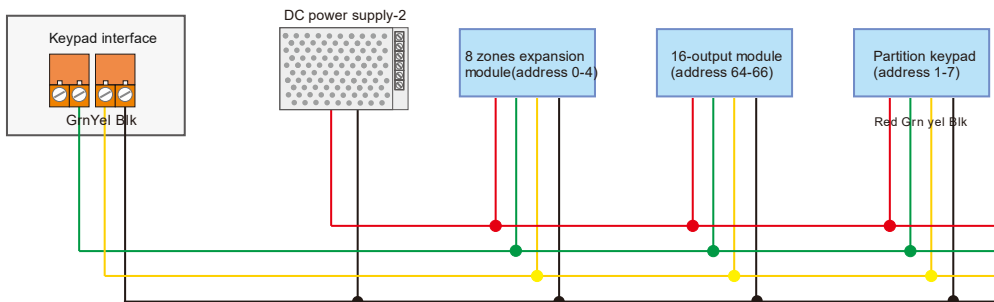
Siren interface passive output: plug-in BC of JP2

As shown in FIG:

- Plugged-in AB and CD of JP2 jumper of AL-238P panel, the siren interface is active output, and the output power consumption is DC12V 2000mA;
- Plugged-in BC of JP2 jumper of AL-238P panel, the siren interface is passive output;

2.6.AL-238P connection to bus device (8 zones extend module, linkage relay, slave keypad)

The AL-238P control panel is connected to the bus device (8 zones extend module, linkage relay module) through the RS485 keypad communication interface. The power supply of the bus device and its detector is recommended to be powered by a separate power supply. The total power consumption of all devices attached to the same power supply should not exceed the power rating of the power supply



8 zones expansion module address dial code description: the address dial code range is 0-4; the address dial 0, the zone number represents 1-8 zone, dial 1 represents 9-16 zone, and so on;

Linkage module address dial code description: the address dial code range is 64-66; the address dial 64, the relay linkage output point is 1-16, dial 65 represents 17-32 channels, and so on;

Keypad address description: the address range is 0-7; the address is 0, it represents the main keypad, 1 represents the slave keypad, and so on;

2.7.Backup battery

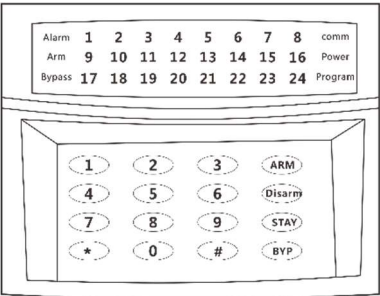
Backup battery 12V/7AH, the red line of the control panel battery interface is connected to the battery + and the black wire is connected to the battery -. When the power supply fails, the control panel automatically switches to the backup power supply.

3. Main board LED lights status description

LED Light	LED function	LED status
LED1	Power light	Light on when in power
LED2	Serial communication light	Light on when serial port receives the data
LED3	485 communication light	Light on when 485 communication is normal and flashing, light off when abnormal
LED4	System running light	Light flashes once every 1 second when system runs normally
LED5	GPRS communication light	Light flashes once every time GPRS receives data
LED6	IP module communication light	Light flashes once every time IP receives data
LED7	LORA communication light	Light flashes once every time LORA receives data

4.Main parts description

4.1.Keypad



Keypad layout:

The keypad is mainly divided into two areas: the display area and the keypad area.

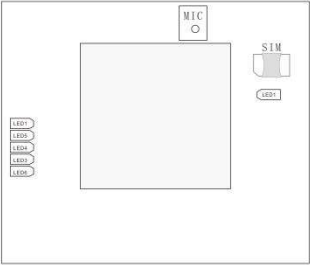
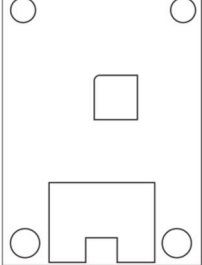
The keypad display area shows the running status of the control panel: such as arm, alarm, communication , power supply, program, bypass, and zone.

The keypad area is mainly divided into: password input and programming command input, system arming, disarming, staying arming, bypass and other function buttons..

Keypad display status description:

Power light	Light on when in power
Arming light	Light on when system armed, off when system disarmed
Bypass light	Light on when staying armed
Program light	Light on when in programming
Communication light	Light on as long as one center and software communication is normal
Alarm light	Light on when any zone alarm
1-24 zone light	The zone lights are off when zones are normal; the zone light will be on the zone is triggered; the zone light will be on for a long time when zone alarms and the zone light will flash after the alarm time expires.

4.2.Module function

4G module	Network module
 4G module is the panel GPRS、GSM mobile network expansion module; the status of the module LED is as follows: LED1=Module power-on status Constantly light on means the module is turned on; light off: not initialized or turned off; LED2=SIM status light; Constantly light on means the SIM card is detected, light off means the SIM card is not detected. LED3=receiver indicator: When the module serial port receives data, the light is on;	 The module is a network extension module of alarm panel, which can realize TCP/IP communication and achieve the network alarm function.

when there is no data, the light is off;

LED4=Send indicator:

When the module serial port sends data, the light is on; when there is no data, the light is off;

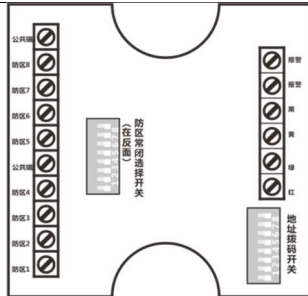
LED5=Network indicator:

Long flashing once every 3s: successful registration of the network; flashing once every 800ms: network off; light off: no network registered

LED6=Module power light:

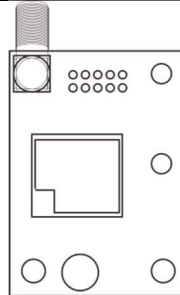
Light on: module power supply; light off: module no power supply

8 zones module



8 zones module address dial code range 0-4; the address dial 0, the zone number represents 1-8 zone, dial 1 represents 9-16 zone, and so on.

LORA module



LoRa module: The LoRa module is the LoRa communication extension module of the alarm panel, which supports the access of LoRa wireless alarm device.

Part 2 System Operation Instruction

1.User operation guide

1.1 .Arming

Keypad arming: password(123456) + "ARM " key

Remote controller arming: Press " "key

After right operation, control panel sounds di...di...di..., wait till control panel delay arming time is up(10s), and the arming succeeds.

1.2.Disarming

Keypad disarming: password(123456) + "disarming " key

Press remote control disarming: " "key

Keypad buzzer sounds once, the alarm enters disarming status.

1.3.Quick arming

Keypad quick arming: "ARM" key for 3sec or more, control panel buzzer sounds di...di...di..., wait until control panel delay arming time is up, and succeeds. (Buzzer + voice hint till delay arming ends).

Note: this function requires turn on "Quick arming", for programming, please refer to "Command 13" in the programming table of the user manual

1.4.Stay arming

Keypads stay arming: password(123456) + "stay" key

Press remote control stay arming: " "key, control panel starts sound di...di...di..., wait till delay time is up, control panel arming succeeds. (Buzzer + voice hint till delay arming ends).

Staying arming mode, when there is a zone set to the home zone, adapting Stay Arming, all of home zones are invalid, which means they are in disarming status, only effective when are not home zone.

1.5.Single zone arming and disarming(For 1-8 zone)

123456+"bypass" key, when enter the single zone arm and disarm programming state, press the "zone number" + "arm or disarm "key, you can arm or disarm the corresponding zone, press * to exit the programming state;

1.6.Duress disarming:

Keypad operation: seized & held password +"disarming " key, control panel disarms and report to receiver to tell Duress alarm.

1.7.Enter / exit programming instructions

Enter programming——password (123456) +#;

Exit programming——"*key ;

1.8.Eliminate alarm

Keypad operation: password(123456) + "*" key (can remove voice, linkage, siren, display)

1.9.Query alarm record

Enter the password (123456) +#, enter the programming, and then enter 00+01, the panel broadcasts the latest alarm record, press the "1" key to query the previous alarm record, press the "2" key to query the next alarm record, and press the "0" key to repeat to broadcast once, press "*"#" to exit the query.

If you need to query information such as "Operation Record", "System Version", "System Time" and "GSM Antenna Signal Value", please refer to "Command 00" in the programming table of the user manual;

1.10.Keypad lock and unlock

If keypad locked function is turned on, keypad disarming operates 3 times error password, and enters locked status. Only beep when you press any key. The keypad will unlock automatically after 15 minutes or cut off the control panel and restart.

1.11.Recovery keypad programming password is 123456

<1>. Disconnect the keypad power.

<2>. Plug-in the keypad J1 jumper.

<3>. Turn on the keypad power.

<4>. Plug-out the keypad J1 jumper.

1.12.Modify keypad address

(1). Press and hold the [bypass] key on the keypad for more than 3 seconds; enter the keypad programming password: 6 digits, the factory default password is 123456

(2). Press and hold the [*] key for 3 seconds. The programming light is always on to show that you have entered the programming mode;

(3). Enter function code 0100 (function code is 4 digits);

(4). Enter a 2-digit keypad address such as 01 (keypad address is from 0 to 7, a total of 8 keypad addresses). If input correct, the panel will make a long beep; if input wrong, it will issue a "di di di" 3 Sound error prompt, the keypad will automatically exit the programming mode when the input is wrong, you must press the above operation again to enter the programming and enter the correct programming value to succeed;

(5). During or after programming, just press and hold the "" key for 3 seconds to exit the programming mode;

1.13.Recover the panel master password

Power off the panel, short-circuit the jumper J11 on the main board of the panel, and then power on the master password to restore the default value; after the power off to reset the jumper J11 ;

1.14.Panel restore factory settings

Power off the panel, short-circuit the jumper J11 of the panel motherboard, and then power on, enter the password (123456) +#, enter the programming, and then enter 44+02+1# to initialize immediately, and the panel will restore the factory settings and restore after power off to reset jumper J11 ;

2.System programming instruction

Enter programming——input format: master password (6 digits) + # (factory default master password: 123456)

Note: Note: enter programming successfully, buzzer sounds a long beep, programming LED turns on voice broadcasts "enter programming" which means the control panel is in state of programming.

Exit programming——Input format: under programming press "" directly to exit programming.

Note: when exiting programming state, buzzer sounds a long beep, programming LED

turns off, or stop operating keypad in 30 seconds, control panel will exits automatically, buzzer does not sound, programming LED turns off

3. Control panel programming list and each item default value

Attachment 1

Control panel query list:

Function menu	Main code	Sub-code	Factory value/ programming digits	Function instruction	Allowed programming function code range and operation instruction
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Query	00	01		Query alarm record	Input format:00+N (01~06) ; N means programming address 01~06, that is: various record numbers; Press 1 to previous, press 2 to next query, press 0 to repeat.*#to exit. E.g. query alarm record, after entering programming, input 0001. When querying, voice broadcasts certain event:E.g., mmddyy hhmm zone 5 alarms, mmddyy hhmm arming.
		02		Query operation record	
		03		Query system AC supply, expand module and accidents details	
		04		Query system version	
		05		Query system time	
		06		Query GPRS signal strength	Voice broadcasts

Attachment 2

Control panel programming function list and each address default value:

Function menu	Main code	Sub-code	Factory value/ programming digits	Function instruction	Allowed programming function code range and operation instruction
Password setting	01	01	123456 (6 digits)	Master password (administrator password)	Input format: 01+N+new user password (6digits)+#; N indicates programming Address01~59, that is: main password, programming password, user password 1~16, zone password 1~40. E.g. to modify master password to: 123456 Under programming state input 01+01+123456+# ;
		02	654321 (6 digits)	Programming password	
		03	100001 (6 digits)	Group 1 user password	
		04	100002 (6 digits)	Group 2 user password	
		...	...	...	
		18	100016 (6 digits)	Group 16 user password	
		19	200001 (6 digits)	Zone 1 password	
		...		...	
		58	200040 (6 digits)	Zone 40 password	
		59	987654 (6 digits)	Duress password	
User password permission setting	02	01	3 (1 digit)	Group 1password arming/disarming permission	Input format: 02+N+X+#; N indicates programming Address01~16, that is: user password 1~16; X indicates 0: prohibited; 1: arming allowed; 2: arming allowed; 3: arming/disarming allowed; E.g. to set password 1 arming disarming are allowed, under programming state, input format: 02+01+3+#;
		02	3 (1 digit)	Group 2password arming/disarming permission	
		...	...	...	
		16	3 (1 digit)	Group 16 password arming/disarming permission	
Arm & Disarm timing setting	03	01	99999999 (8 digits)	Arm &Disarm timing setting 1 time setting	Input Format: 03+N+XXXXYYYY+#; N indicates programming address 01~06, that is: which means 1~6 groups' time of Arm &disarm timing. XXXX means arming time,
		02	99999999 (8 digits)	Arm &Disarm timing setting 2 time setting	
		...	...	...	

		06	99999999 (8 digits)	Arm&Disarm timing setting 6 time setting	the first two digits means hour (s) , the last two digits means minute (s) ; YYYY means disarming time, the first two digits means hour (s) , the last two digits means minute (s) ; More than 23:59 is invalid Default factory value is 99999999.
Arm &Disarm timing Permissions settings	04	01	1 (1 digit)	Attribute of Monday	Input Format: 04+N+X+#; N indicates the programming address01~07, which means Monday to Sunday X means 0: : Forbid arming & disarming timing setting on that day; X means 1: Allow arming & disarming timing setting on that day Default factory value is 1which means all are enabled.
		...	...	...	
		07	1 (1 digit)	Attribute of Sunday	
Panel on-board zones attribute settings	05	00	1 (1 digit)	Attribute of control panel with wired Zones(overall)	Input format: 05+N+X+#; N indicates programming address 00~08, which means: 00 means the overall zone attributes of the panel, 01~08, means 1~8 zones terminal attributes; X means 0=forbid; 1=NC; 2=NO; 3=comes with 2.2Kresistor; Default factory value is 1, which means NC and do not need to connect to 2.2K resistor.
		01	1 (1 digit)	Attribute of control panel with wired zones terminal 1	
		02	1 (1 digit)	Attribute of control panel with wired zones terminal 2	
		...	...	...	
		08	1 (1 digit)	Attribute of control panel with wired zones terminal 8	
Trigger valid time settings of control Panel with wired zones	06	01	30 (2 digits)	Triggered valid time of control panel with zone 1	Input format: 06 + N+X + #; N indicates programming address 01~08, that is: comes with 1~8 zones; X indicates triggering time: programming value01 ~ 30; Formula: (01 ~ 30) *20ms which means 20ms ~ 600ms; Default factory time is: 30 (means 600ms) ;
		02	30 (2 digits)	Triggered valid time of control panel with zone 2	
		...	...	...	
		08	30 (2 digits)	Triggered valid time of control panel with zone 8	
Settings of zones' attribute	07	01	111 (3 digits)	Attribute of zone 1	Input format: 07+N+XYZ+#; N indicates programming address: 01~40, which means: zone 1~40;
		02	111 (3 digits)	Attribute of zone 2	
		...	...	...	

		40	111 (3 digits)	Attribute of zone 40	X indicates the type of zone: 0: Shield zone; 1: instantaneous zone; 2: delay zone; 3: 24-hour zone; 4: fire zone; 5: blank; 6: temperature sensing zone 7: ambulance zone; 8: Trigger the arm and disarm zone (When triggered, the panel arming , triggers again the panel disarming) 9: Intelligent arming and disarming the zone (if the zone is not triggered for a long time, the panel will automatically arming, trigger the zone, and the panel will disarm. Time refers to the smart zone settings, including time and trigger times) Y indicates siren status: 0: Silent alarm; 1: sound alarm; 2: Intercom zone (after setting as an intercom zone, answer the call and enter the intercom mode directly); Z means: 0: zone at home; 1: zone not at home; System default value is 111; For example: The first zone will be set as 24 hours zone and sound zone, then we need input: 07+01+3+1+0+#;
Settings of smart zones	08	01	00000 (5 digits)	Parameter setting of smart zone 1	Input format: 08+N+XXYYZ+##;
		02	00000 (5 digits)	Parameter setting of smart zone 2	N indicates programming address: 01~40, means: zone 1~40;
		...		...	XXYY indicates: XX m YY s Z indicates times of being triggered -- programming value is 1~9.
		39	00000 (5 digits)	Parameter setting of smart zone 39	For example: The smart zone of wired zone 1 is set to last 10 seconds. trigger 3 times as an alarm prompt, Under programming state enter: 08+01+0010+3+##;
		40	00000 (5 digits)	Parameter setting of smart zone 40	
Settings of wireless zones	09	00		Eliminate all wireless zones.	Input Format: 09+00+9+## ; that means eliminate all wireless zone codes.
		01		Zone 1 wireless self-learning	Input Format: 09+N+X+##; N indicates programming address 01~40, which means: which means the match code of zones 1~40 X means: X=1, which means to wait for the wireless detector to trigger, to trigger twice, each time interval more than 2 seconds, the prompt "wireless self-learning success" twice indicating successful learning, and quit the current self-taught programming.; X=9 Means to clear the original learned wireless code. Within 30 seconds, if there is no button, it will automatically exit the self-learning mode; For example: study zone 1
		02		Zone 2 wireless self-learning	
					
		40		Zone 40 wireless self-learning	

					wireless code, the operations are as below: input: 09+01+1+#, when" wireless self-learning entry" is heard, to trigger wireless detector twice, each time interval more than 2 seconds, the prompt "wireless self-learning success" twice indicating successful learning.If you want to delete the wireless code of zone 1, then input: 09+01+9+#
Settings of wireless remote control	10	00		Eliminate all wireless remote controls	Input Format: 10+00+9#Eliminate all encodes of remote controls;
		01		wireless remote control 1	Input Format: 10+N+X+#; N indicates programming address 01~16, which means: remote control 1~16 learning code; X means: X=1, start learning and wait for the wireless remote control to be triggered twice, each time interval more than 2 seconds, the prompt "wireless self-learning success" twice indicating successful learning, and quit the current self-taught programming.; X=9 means clear the original learned wireless code; Within 30 seconds, if there is no button, it will automatically exit the self-learning mode; For example: To learn the wireless code of remote control 1, the operation is as follows: Input: 10+01+1+#, prompt "wireless self-learning entry", press the wireless remote control twice,each time interval more than 2 seconds, the prompt "wireless self-learning success" twice indicating successful learning. To delete the wireless code of the remote control 1, enter: 10+01+9+#, after the prompt "Operation is successful";
		02		wireless remote control 2	
					
		16		wireless remote control 16	
Settings of LORA zones	11	00		Eliminate all LORA zones	Input Format: 11+00+9+# , eliminate all LORA zones
		01		LORA zone 1 wireless self-learning	Input Format: 11+N+X+#; N indicates programming address 01~40, that means: zones 1~40 matching code study.; X means: X=1 to start learning, wait for LORA self-study to report, after the code is successfully, it will automatically exit the current self-learning programming ; X=9 means clear the original learned wireless code; Within 30 seconds, if there is no button, it will automatically exit the self-learning mode; For example: To learn the wireless code of LoRa zone 1, the operation is as follows: Enter 11+01+1+# in the programming state to prompt "wireless self-learning entry". At this time, the LoRa detector is triggered and the prompt "wireless self-learning successful" means the learning is successful. If you want to delete the wireless code of LoRa zone 1, enter
		02		LORA zone 2 wireless self-learning	
		...		...	
		40		LORA zone 40 wireless self-learning	

					11+01+9+#, and it will prompt "Operation successful";
Time settings	12	01	010 (3 digits)	System alarm time	Input Format: 12+01+XXX+# XXX means alarm time is 000-999s, default factory value is 010s
		02	010 (3 digits)	Keypad arming delay	Input Format: 12+02+XXX+# XXX means keypad arming time is 000-999s, default factory value is 010s.
		03	030 (3 digits)	Zone 1 enters alarm delay	Input Format: 12+03+XXX+# XXX means zones 1 entry delay time is 000-999s, default factory value is 030s
		...	...	...	...
		42	030 (3 digits)	Zone 40 enters alarm delay	Input Format: 12+42+XXX+# XXX means zones 40 entry delay time is 000-999s, default factory value is 030s.
		43	000 (3 digits)	Power-on time restricts alarm	Input Format: 12+43+XXX+# XXX means that the system power-on time restricts alarm time is 000-999 s, default factory value 000s;
		44	000 (3 digits)	Siren prompt after arming is completed	Input Format: 12+44+XXX+# XXX means time of siren alarm after arm completed is 000-999s, default factory value is 000s.
Arm quickly/ Force arming/ system low voltage/ Reminder of delay Zones/ keypad locked/ AC test/ battery test	13	01	1 (1 digit)	Quick arming operation allows	Input Format: 12+01+X+# X indicates: 0 means forbid, while 1 means allow. Default factory value is 1. Function description: If the function is turned on, long press the arm button for 3 seconds to start arming; After this function is turned on, you do not need to enter a password to arm, but you must enter the password to disarm, if the function is turned off, you need to enter the password to arm or disarm;
		02	1 (1 digit)	Force arming turn on/off	Input Format: 12+02+X+# X indicates: 0 means forbid, while 1 means allow. Default factory value is 1. Function instruction: The function is turned on, the fault zone can be armed directly. If the function is off, it is not allowed to arm in faulty zone.
		03	0 (1 digit)	System undervoltage buzzer prompt	Input Format: 12+03+X+# X indicates: 0 means forbid, 1 means allow. Default factory value is 0.

					Function instruction: If this function is enabled, the master keypad buzzer will sound every 10 seconds when the system is under voltage until the voltage is restored. If the function is off, it won't prompt.
		04	0 (1 digit)	Reminder when delay zones' arming be triggered	Input Format: 12+04+X+# X indicates: 0 means forbid, while 1 means allow. Default factory value is 0. Function instruction: If this function is turned on, it will prompt when the defense zone of delay type is triggered until the defense zone is restored. If this function is turned off, it will not prompt.
		05	0 (1 digit)	Keypad locked	Input Format: 12+05+X+# X indicates: 0 means forbid, 1 means allow. Default factory value is 0. Function instruction: If this function is enabled, the keypad will be locked automatically when the password is incorrectly entered for more than 3 times. To unlock it, the control panel needs to be powered off or wait for 15 minutes to unlock automatically. If this function is turned off, the keypad will not be locked.
		06	0 (1 digit)	Ac power off/ recovery test	Input Format: 12+06+X+# X indicates: 0 means forbid, 1 means allow. Default factory value is 0. Function instruction: If this function is on, it will be reported to the center when the system is power off or restored. If this function is off, do not report.
		07	0 (1 digit)	Battery voltage test	0 means forbid, 1 means allow
PGM settings	14	01	0 (1 digit)	PGM1 attribute	Input Format: 14+N+X+# N indicates programming address 01, 02, which means control panel comes with attribute PGM1 and PGM 2.
		02	1 (1 digit)	PGM2 attribute	X indicates: 0: Remote control (not following the output of control panel status, remote control only) 1: Arming linkage, disarming disconnects 2: Alarm linkage, disarming disconnects. 3: Alarm linkage (following the alarm time of control panel) , disarming disconnects. 4: Arming linkage (pulse output),

					disarming disconnects. 5: Linking alarm (pulse output), disarming disconnects. 6: Alarm linkage (pulse output) (following the alarm time of control panel), disarming disconnects. Default factory PMG1 is 0, PMG2 is 1.
Extended device settings	15	01	0 (1 digit)	Number of alarm modules in the system	Extended device settings (reserved)
		02	0 (1 digit)	Number of alarm modules in the system	
Linkage corresponding zone settings	16	01	0101 (4 digits)	The linkage zone number of the linkage point 1	Input format: 16+N+XXYY+##; N represents programming address: 01~40, namely Linkage setting of linkage output from 1 to 40; XX means: the low end of the zone number of the linkage (1~40 zone); YY means: the high end of the zone number of the linkage (1~40 zone); Note: the high end cannot be less than the low end; For example: 01-05 alarm should be linked to the first linkage output, as long as any one of the 01 to 05 zones changes or alarms, the light will be on; Enter in the programming state: 16+01+0105+##; The system defaults that there is a one-to-one correspondence between zones and linkage outputs, that is, the output point of the alarm No. 1 in zone 1 is output, and zones 2 to 40 and so on;
		02	0202 (4 digits)	The linkage zone number of the linkage point 2	
		...	...	...	
		40	4040 (4 digits)	The linkage zone number of the linkage point 40	
Extend output attribute settings	17	01	2 (1 digit)	Extend output 1 linkage attribute	Input Format: 17+N+X+## N indicates programming extend output 01~40, Which means the attribute of linkage point.. X indicates: 0 means forbid 1: Arming linkage, disarming disconnects. 2: Alarm linkage, disarming disconnects. 3: Alarm linkage, (following alarm time of control panel) Default factory value is 2.
		02	2 (1 digit)	Extend output 2 linkage attribute	
		...	...	...	
		40	2 (1 digit)	Extend output 40 linkage attribute	
User calls	18	01	Maximum 16 digits.	User 1 alarm phone number	Input format: 18+N+phone number (up to 16 digits) +##; N means programming address: 01~08, which is the programming of user numbers 1~8; The phone number is a valid phone number with less than 16 digits; When using the group internal line to transfer to an external line, add the outgoing office number plus * (pause)
		02	Maximum 16 digits.	User2 alarm phone number	
		...	...	...	
		08	Maximum 16 digits.	User 8 alarm phone number	

					plus the phone number plus # before entering the phone number; For example: the group outgoing number is 0, use the number 1 to dial the user's phone: Input in programming state 18+01+0+*+user number+# Note: "*" means waiting for 1 second. Each additional "*" means the waiting time increases by one second. Press "#" to end and save the programming. Clear number method: 18+N+# clear phone number;
Zone corresponding phone number	19	01	0 (1 digit)	Dial user's phone number after zone 1 alarms	Input format: 19+N+X+#; N represents the programming address: 01~40, that is, the alarm dialing setting of the defense zone 1~40; X means 1~8: designated to dial one of the user numbers 1~8; 0=Dial all calls; The factory default is 0; For example: after zone 1 alarms, assign user number 8 to dial: Input in programming state 19+01+8+#;
		02	0 (1 digit)	Dial user's phone number after zone 2 alarms	
		...	...	...	
		40	0 (1 digit)	Dial user's phone number after zone 40 alarms	
Call Center	20	01		Call center 1 number	Attachment: (only telephone line supports CID protocol) 1. Up to 16 digits; 2. In the input of the address phone number, when an internal line dials an external line, enter the external line number first, then enter "*" and wait for 1 second. Each additional "*" will increase the waiting time by one second, and then enter the phone number. Press "#" to end; 3. The information of automatic dialing of the alarm center phone includes: system restart, setting, reset, arming, disarming, emergency alarm, zone alarm, and zone recovery;
		02		Call center 2 number	
		03		Call center 3 number	
		04		Call center 4 number	
Center number attribute setting	21	01	0 (1 digit)	Center number 1 attribute setting	0=Main center; 1=Backup center; 2=Dedicated line for arming; 3=Dedicated line for disarming;
		02	0 (1 digit)	Center number 2 attribute setting	
		03	0 (1 digit)	Center number 3 attribute setting	
		04	0 (1 digit)	Center number 4 attribute setting	
Center upload report content settings	22	01	0 (1 digit)	Center 1 upload report content settings	0=All events are transmitted to the center; 1=Only the alarm information transmission center; 2=Only the arm and disarm information transmission center;
		02	0 (1 digit)	Center 2 upload report content settings	
		03	0 (1 digit)	Center 3 upload report content settings	

		04	0 (1 digit)	Center 4 upload report content settings	
Call center account	23	01	002000 (6 digits)	Call center account	000000-999999
Call center heartbeat report	25	01	0000 (4 digits)	The system regularly sends online heartbeat reports to the alarm center	0000-9999 hours; when 0000 hours do not report
Number of phone dialing times/ringing times/delay before dialing	26	01	08 (2 digits)	Number of user phone calls	0-30 times
		02	01 (2 digits)	Number of phone rings	00-09 times,default 1time
		03	00 (2 digits)	Delay time before dialing	0-99S
Telephone disconnection detection and remote control	27	01	1 (1 digit)	Phone disconnection detection	0=Prohibited: 1 Allowed
		02	1 (1 digit)	Telephone remote control	
Dial cycle time	28	01	060 (3 digits)	Dial time	Input format:28+01+XXX+##(Corresponding to the intercom zone)
User SMS number	30	01	(11 digits)	SMS number 1	Input format: 30+N+ SMS number (11 digits) +#; N means programming address: 01~08, that is, SMS number 1~8; The SMS number is a valid 11-digit mobile phone number.Clear SMS number 30+N+## For example: Set the number of SMS number 1 to 13800138000: Input in programming state 30+01+13800138000+##;
		02	(11 digits)	SMS number 2	
		...	...	...	
		08	(11 digits)	SMS number 8	
SMS number report attribute	31	01	1 (1 digit)	SMS Phone Number 1 report attribute	Input format: 31+N+X+##; N represents the programming address: 01~08, that is, the SMS number 1~8 to report the attributes; X means: 1=Send SMS when the zone alarms; 2=Zone alarm +send SMS when arming and disarming; 3=All alarms send SMS messages; 4=All alarms send SMS messages + arm and disarm send SMS messages;The factory default is 1;
		02	1 (1 digit)	SMS Phone Number 2 report attribute	
		...	...	...	
		08	1 (1 digit)	SMS Phone Number 8 report attribute	
		02	3 (1 digit)	Number 2 SMS arming and disarming attributes	
		...	...	...	
English/Chinese Switch	33	01	1 (1 digit)	English/Chinese Switch	Input format: 32+01+X+## X:1=Chinese 2=English Default Setting: 1
IP module address setting	34	01	192.168.001.200	Module IP address	Input format: 34 + N+IP address (12 digits)+##; N represents the programming address: 01~06, that is, the IP configuration of the panel's IP, gateway, center, etc.;
		02	192.168.001.100	Center 1 IP address	
		03	000.000.000.000	Center 2 IP address	

		04	000.000.000.000	GPRS center IP address	IP address: Each digit in the IP address must be entered with 3 digits (such as 192.168.001.002), as long as you enter 12 digits, you do not need to enter the dot in the middle. After the input command is correct, the host will broadcast the previous configuration information. If you need to modify it, directly enter the new address information and press # to save. If you don't need to modify it, press the * key to exit programming; For example: To set the IP address of the module to 192.168.1.218; Enter in the programming state: 34+01+192168001218# is enough;
		05	192.168.001.001	Gateway	
		06	255.255.255.000	Subnet mask	
IP module UDP settings	35	01	20001 (5 digits)	Source UDP port 1	Input format: 35 + N + port number (5 digits) + #; N represents the programming address 01~06, that is, the source port and destination port information configuration of the panel; The port number is 5 digits, and the programmable value is: 00000-65535;
		02	20002 (5 digits)	Source UDP port 2	
		03	20001 (5 digits)	GPRS source UDP port	
		04	20001 (5 digits)	Destination UDP port 1	
		05	03005 (5 digits)	Destination UDP port 2	
		06	03005 (5 digits)	GPRS destination UDP port	
Network module DHCP	36	01	0 (1 digit)	DHCP on and off	(Note: This function is reserved and not enabled temporarily) Input format: 36 + 01+X+#; X means: 0=prohibited; 1=allowed; The factory default is 0;
IP heartbeat detection	37	01	0030 (4 digits)	IP1 heartbeat detection report time	Input format: 37 + N + reporting time (4 digits) + #; N means programming address: 01~03, that is, the heartbeat reporting time setting of IP center 1, 2 and GPRS center of the panel; The reporting time is 4 digits, the unit is second, the effective programming value is 0000-9999 seconds, 0000=do not report;
		02	0060 (4 digits)	IP2 heartbeat detection report time	
		03	0060 (4 digits)	GPRS heartbeat detection report time	
IP reporting center protocol	38	01	1 (1 digit)	IP1 reporting center protocol	Input format: 38 + N+X+#; N means programming address: 01~03, that is, the panel's IP center 1, 2 and GPRS center report protocol settings; X means: 1=238P protocol; 2=E5 private protocol; 3=E5 open protocol; The default factory setting is 1=238P protocol
		02	1 (1 digit)	IP2 reporting center protocol	
		03	1 (1 digit)	GPRS center protocol	
System date	39	01	2018.09.28 (8 digits)	System date	Input format: 39 + 01+date+#; The date is 8 digits, the dot in the middle does not need to be input; For example: June 17, 2019, enter in the programming state:39+01+20190617+#;
System time	40	01	00: 00: 00 (6 digits)	system time	Input format: 40 + 01+time+#; The time is 6 digits, the middle point does not need to be input;
Panel encoding settings	41	01	0000000000 (10 digits)	Panel encoding settings	Input format: 41 + 01+panel number+#; The panel number is 10 digits, it has been set at the factory, it is not recommended to change;
Clear record/restore factory value	44	01	1 (1 digit)	Clear records	Input format: 44 + 01+1+#Clear records;
		02	1 (1 digit)	Restore factory value	Input format: 44 + 02+1+#; Perform a factory reset, and then wait for about 3 seconds (the panel will make a

					long beep to restore successfully)
Printer settings	45	01	1 (1 digit)	Operation print or not	Input format: 45 + 01+X+#"X means: 0=prohibit; 1=allow;
		02	0 (1 digit)	Whether the fault is printed	Input format: 45 + 02+X+#"X means: 0=prohibit; 1=allow;
		03	0 (1 digit)	Whether to print after zone recovery	Input format: 45 + 03+X+#"X means: 0=prohibit; 1=allow;
Print detection online monitoring	46	01	0024 (4 digits)	Print detection online monitoring time	Input format: 46 + 01+print detection time+#"Print detection time: the effective programming value is 0000-9999 unit hours. 0000 is to prohibit printing detection
Device restart	47	01	1	Device restart	Input format: 47 + 01+1+#"Restart the device, the device running light stops flashing, and then wait for about 10 seconds for the device running light to start flashing and the restart is successful)
Partition zone 1	48	01		Zone 1	Assign the zone to partition zone 1; Input format: 48+ N+X+#"N represents programming address 01~40, namely: defense zone 1~40; X means: 0=prohibit 1=allow; Default factory is 0
		02		Zone 2	
		...	...	...	
		40		Zone 40	
Partition zone 2	49	01		Zone 1	Assign the zone to partition zone 2; Input format: 49+ N+X+#"N represents programming address 01~40, namely: defense zone 1~40; X means: 0=prohibit 1=allow; Default factory is 0
		02		Zone 2	
		...	...	...	
		40		Zone 40	
Partition zone 3	50	01		Zone 1	Assign the zone to partition zone 3; Input format: 50+ N+X+#"N represents programming address 01~40, namely: defense zone 1~40; X means: 0=prohibit 1=allow; Default factory is 0
		02		Zone 2	
		...	...	...	
		40		Zone 40	
Partition zone 4	51	01		Zone 1	Assign the zone to partition zone 4; Input format: 51+ N+X+#"N represents programming address 01~40, namely: defense zone 1~40; X means: 0=prohibit 1=allow; Default factory is 0
		02		Zone 2	
		...	...	...	
		40		Zone 40	
Partition zone 5	52	01		Zone 1	Assign the zone to partition zone 5; Input format: 52+ N+X+#"N represents programming address 01~40, namely: defense zone 1~40; X means: 0=prohibit 1=allow; Default factory is 0
		02		Zone 2	
		...	...	...	
		40		Zone 40	
Partition password	53	01	550001	Partition 1 password	The partition arming and disarming password, through it to arm and disarm the corresponding partition; Input format: 53+N+partition password
		02	550002	Partition 2 password	

		03	550003	Partition 3 password	(6 digits)+# N represents programming address 01~05, that is, 5 partitions;
		04	550004	Partition 4 password	
		05	550005	Partition 5 password	
Partition remote control 1	54	01		remote control 1	Assign the remote control to partition 1, arm and disarm through the remote control; Input format: 54+01+X+# N represents programming address 01~16, namely: remote control 1~16; X means: 0=prohibit 1=allow; The default factory setting is 0;
		02		remote control 2	
		...	...	...	
		16		remote control 16	
Partition remote control 2	55	01		remote control 1	Assign the remote control to partition 2, arm and disarm through the remote control; Input format: 55+01+X+# N represents programming address 01~16, namely: remote control 1~16; X means: 0=prohibit 1=allow; The default factory setting is 0;
		02		remote control 2	
		...	...	...	
		16		remote control 16	
Partition remote control 3	56	01		remote control 1	Assign the remote control to partition 3, arm and disarm through the remote control; Input format: 56+01+X+# N represents programming address 01~16, namely: remote control 1~16; X means: 0=prohibit 1=allow; The default factory setting is 0;
		02		remote control 2	
		...	...	...	
		16		remote control 16	
Partition remote control 4	57	01		remote control 1	Assign the remote control to partition 4, arm and disarm through the remote control; Input format: 57+01+X+# N represents programming address 01~16, namely: remote control 1~16; X means: 0=prohibit 1=allow; The default factory setting is 0;
		02		remote control 2	
		...	...	...	
		16		remote control 16	
Partition remote control 5	58	01		remote control 1	Assign the remote control to partition 5, arm and disarm through the remote control; Input format: 58+01+X+# N represents programming address 01~16, namely: remote control 1~16; X means: 0=prohibit 1=allow; The default factory setting is 0;
		02		remote control 2	
		...	...	...	
		16		remote control 16	

4. Programming example

Prerequisite: When editing the parameters of the panel, please enter the programming mode first, then set the parameters according to the programming table, and exit the programming after setting;

E.g. 1:

To modify installer password as: 654321, enter programming mode and input: 01+01+654321+# the buzzer will beeps once after the modification..

E.g. 2:

To modify the arm/disarm permission to only arm for group 1 User Password.
Enter programming mode and input: 02+01+1+# buzzer will beeps once after modification.

E.g. 3:

To modify zone 1arming /disarming time to: arm at 8:00am, disarm at 17:45. Enter programming mode and input: 03+01+08001745 the buzzer will beeps once after setting.

E.g. 4:

To modify the Zone1 attribute to 24 hours and be a silent zone, enter the programming mode and input: 07+01+300+#, the buzzer will beeps once after modification.

E.g. 5:

To modify control panel own wired zone attribute of terminal 2 to NO (Normally open). Enter the programming and input: 05+02+2+#, the buzzer will beeps once after modification.

E.g. 6:

To modify the system alarm time to 30seconds, enter the programming and input: 12+01+030+#, the buzzer will beeps once after modification.

E.g. 7:

To modify the smart Zone1 to be triggered 3 times every 10 seconds in 10 minutes and alarm, enter the programming and input: 08+01+10103+#, The buzzer will beeps once after modification.

E.g. 8:

To clear all wireless zones;

After entering the programming mode, input: 09+00+9+#, after the input, the buzzer beeps once and the modification is successful.

E.g. 9:

To delete wireless zone1. Into programming on keypad, input: 09+01+9+# the buzzer will beeps once after modification.

E.g. 10:

To modify User 1 alarm phone number as 13828013204, enter programming and input: 18+01+13828013204+# the buzzer will beeps once after modification.

E.g. 11:

To delete user 1 alarm phone number. Enter programming and input: 18+01+# the buzzer will beeps once after modification.

E.g. 12:

To modify the IP address of the IP module to 192.168.001.201;

After entering the programming mode, input: 34 + 01+192168001201+#, after the input, the buzzer will beep for a long time and the modification is successful.

E.g. 13:

To change the system date as 02212019, enter programming and input: 39 + 01+02212019+# the buzzer will beeps once after modification.

E.g. 14:

To change system time as: 09:28:00. Enter programming input: 40+01+092800+# the buzzer will beeps once after modification.

Format: Hours (24hours: 2digits) + minutes (2digits) + seconds (2digits)

Part 3. Zone type and password permission description

1. Zone type and description

Shielded zone: This zone is invalid and will not alarm whenever the zone is triggered.

Instant zone: Alarm immediately when triggered if zone at arm status

Delay zone: If delay zone is triggered after arm successfully, it only alarm at setting the enter/exit delay time end. If we disarm during delay status, the alarm will be canceled automatically.

24h zone: Regardless of arming or not, while the zones are active, it will alarm as soon as it is triggered

Fire zone: Regardless of arming or not, while the zones are active, it will alarm as soon as it is triggered.

Temperature sensing zone: Regardless of arming or not, while the zones are active, it will alarm as soon as it is triggered

Panic zone: Regardless of arming or not, while the zones are active, it will alarm as soon as it is triggered

Triggering arm /disarm zone: If system is armed at this moment, when the zone is triggered, it turns to disarm status; if system is disarmed, it turns to arm if zone is triggered.

Notes: Every zone can be set as voiced or silent zone; or set as home zone or nonhome zone, if a zone is set as home zone, and it's instant or delay zone, user stays home to arm the zone triggering is invalid.

2. System password permission description

System has 59passwords in total, 5 kinds of permission passwords, following is the explanation :

Password permission	Function explanation	Effective control range
Installer password	To program and arm/disarm	1 password, valid for both device and zones
Programming password	Only for program	1 password
User password	To arm/disarm the panel	16 passwords , arm/disarm permission optional
Zone password	To arm/disarm corresponding zone	40 passwords, only for related zone arm/disarm (One zone one password)
Duress password	Use this password when threaten	1password, alarm to receiver will have a silence alarm message when disarm

Part 4. Expansion module function application

1. The 4G module uploads the network alarm center, only 1 center can be uploaded

For example: the panel needs to upload the alarm center software through the 4G module, the server IP of the alarm center software is 21.52.118.56, port 3005;

Center IP and port settings:

- ✧ Enter the password (default is 123456) ++ to enter programming;
- ✧ Set the GPRS center IP address, format: 34+04+021052118056#
- ✧ IP only needs to input 12 digits, and the middle point does not need to be input. After the command 3404 is entered correctly, the panel will broadcast the previous configuration information. If you need to modify it, directly enter the new IP and press # to save;
- ✧ GPRS destination UDP port, format: 35+06+03005#
- ✧ GPRS heartbeat detection report time, format: 37+03+0030#
- ✧ "*" key to exit programming

2. The IP module is uploaded to the network alarm center, and the IP can be uploaded to 2 centers at the same time

For example: the panel needs to upload the first alarm center software through IP, the computer IP of the alarm center software is 192.168.1.100, and the port is 20001;

Module IP, center IP and port settings:

- ✧ Enter the password (default is 123456) ++, enter the programming
- ✧ Set the module IP address, format: 34+01+192168001201# (assign an IP address to the panel according to the network)

IP only needs to input 12 digits, and the middle point does not need to be input. After the input command 3401 is correct, the

host will broadcast the previous configuration information, if you need to modify it, directly enter the new IP and press # to save;

- ✧ The IP address of center 1, format: 34+02+021052118056# (IP address of the computer or cloud server where the software is installed)
- ✧ Gateway, format: 34+05+192168001001# (fill in according to the network gateway address)
- ✧ Subnet mask, format: 34+06+255255255000# (fill in according to the network information address)
- ✧ Source UDP port 1, format: 35+01+20001# (the port through which the host sends data)
- ✧ Destination UDP port 1, format: 35+04+03005# (software or server's data receiving port)
- ✧ Center 1 heartbeat detection report time, format: 37+01+0030#
- ✧ "*" key to exit programming

3. The user telephone alarm notice

1. Set alarm telephone number

Enter the password (default is 123456) +# to enter the programming;

Set the user's alarm telephone number, format: 18+N (that is telephone number 01-08) + telephone number (up to 16 digits) +#;

Note when setting the number: In case of transferring the group internal line to an external line during use, you should add the outgoing office number + plus * (pause) + telephone number + # before entering the telephone number;

##, exit programming;

2. Clear the phone number

Enter the password (default is 123456) +# to enter the programming;

Enter 18+N(01-08)+# to clear the phone number;

* Key to exit programming;

For example: the group outgoing number is 0, and the dialing user receives the alarm number 1. The programming is as follows:

Enter the password (default is 123456) +# to enter programming; 18+01+0*+user number+#

Note: The "*" sign means to wait for 1 second, each additional "*" means that the waiting time increases by one second, press the "#" key to end and save.

3. Hang up the phone

The panel alarms. After dialing the user's phone, the panel has the following three ways to hang up after the user answers:

- 1) The user hangs up after answering the phone for more than 12 seconds, and will not continue to dial the user's phone;
- 2) When the user answers the call for less than 12s and hangs up, it will continue to dial the user's phone, and the number of dialing times will be the set number of dialing;
- 3) When the panel is disarmed, the user's phone will not continue to be dialed;

4. activate the SMS arm and disarm reminder function

Set the SMS number 1 to report the attributes in the instruction 31 programming item, and when the attribute 2 (zone alarm + arming and disarming sending SMS) function is enabled, the panel will send this information to the corresponding mobile phone whenever the panel performs arming, alarming and disarming actions. The content displayed by the mobile phone SMS message is as follows: Arming information: XX arming; Disarming information: XX disarming; Alarm information: XX zone alarm.

Attachment: If you only need to send an alarm message to the first mobile phone number after the alarm is activated, the arm and disarm and other information do not send SMS, you must set the following, 31+01+1, so that the panel will only send the zone alarm to the first mobile phone number.

5. LoRa expansion modul

LoRa frequency 433MHZ;

Communication distance in open areas is 2 kilometers;

Maximum access to 40 zones;

Two-way reliable communication, equipment undervoltage/wireless strength monitoring;

6. Serial port connection printer

1. The panel has a real-time printing function. The information that can be printed includes: alarms, faults, operations, and equipment normal online information. By default, the zone alarm and arming and disarming operations are printed, and the printing has time records.
2. The panel is connected to the company's dedicated printer through the 232 serial line, the current model is DYJ-WH.
3. If the print test interval is not 0, the printer will print once at the specified time interval on the hour, indicating that the system is operating normally.

Print format: :Zone 2 alarms at 11:50:21 on the 13th ---Printed content, including the name and information of the device/zone + time

Address code list

Address:	DIP switch is closed (ON):							
	Switch status:							
	1	2	3	4	5	6	7	8
0								
1								●
2							●	
3							●	●
4						●		
5						●		●
6						●	●	
7						●	●	●
8					●			
9					●			●
10					●		●	
11					●		●	●
12					●	●		
13					●	●		●
14					●	●		●
15					●	●	●	●
16				●				
17				●				●
18				●			●	
19				●			●	●
20				●	●			
21				●	●			●
22				●	●		●	
23				●	●		●	●
24				●	●			●
25				●	●			●
26				●	●		●	
27				●	●		●	●
28				●	●	●		
29				●	●	●		●
30				●	●	●		●
31				●	●	●	●	●

Address:	DIP switch is closed (ON):							
	Switch status:							
	1	2	3	4	5	6	7	8
32			●					
33			●					●
34			●				●	
35			●				●	●
36			●			●		
37			●			●		●
38			●			●	●	
39			●			●	●	●
40			●		●			
41			●		●			●
42			●		●		●	
43			●		●		●	●
44			●		●	●		
45			●		●	●		●
46			●		●	●	●	
47			●		●	●	●	●
48			●	●				
49			●	●				●
50			●	●			●	
51			●	●			●	●
52			●	●		●		
53			●	●		●		●
54			●	●		●	●	
55			●	●		●	●	●
56			●	●	●			
57			●	●	●			●
58			●	●	●		●	
59			●	●	●		●	●
60			●	●	●	●		
61			●	●	●	●		●
62			●	●	●	●	●	
63			●	●	●	●	●	●

Address:	DIP switch is closed (ON):							
	Switch status:							
	1	2	3	4	5	6	7	8
64	●							
65	●						●	
66	●						●	
67	●					●	●	
68	●					●		
69	●					●	●	
70	●					●	●	
71	●					●	●	●
72	●					●		
73	●					●		
74	●					●	●	
75	●					●	●	●
76	●					●	●	
77	●					●	●	●
78	●					●	●	●
79	●					●	●	●
80	●					●	●	●
81	●					●		
82	●					●		
83	●					●	●	
84	●					●	●	
85	●					●	●	●
86	●					●	●	●
87	●					●	●	●
88	●					●	●	●
89	●					●	●	●
90	●					●	●	●
91	●					●	●	●
92	●					●	●	●
93	●					●	●	●
94	●					●	●	●
95	●					●	●	●

Address:	DIP switch is closed (ON):							
	Switch status:							
	1	2	3	4	5	6	7	8
96	●	●						
97	●	●						●
98	●	●						●
99	●	●					●	●
100	●	●					●	
101	●	●					●	●
102	●	●					●	●
103	●	●					●	●
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110	●	●					●	●
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121	●	●					●	●
122	●	●					●	●
123	●	●					●	●
124	●	●					●	●
125	●	●					●	●
126	●	●					●	●
127	●	●					●	●

Explanation

- 1、 DIP switch setting , "ON" means "1", refer to "●", "OFF" means "0"