ALARM PANEL(238P)

USER MANUAL

CONTENTS

1. Features and Parameters

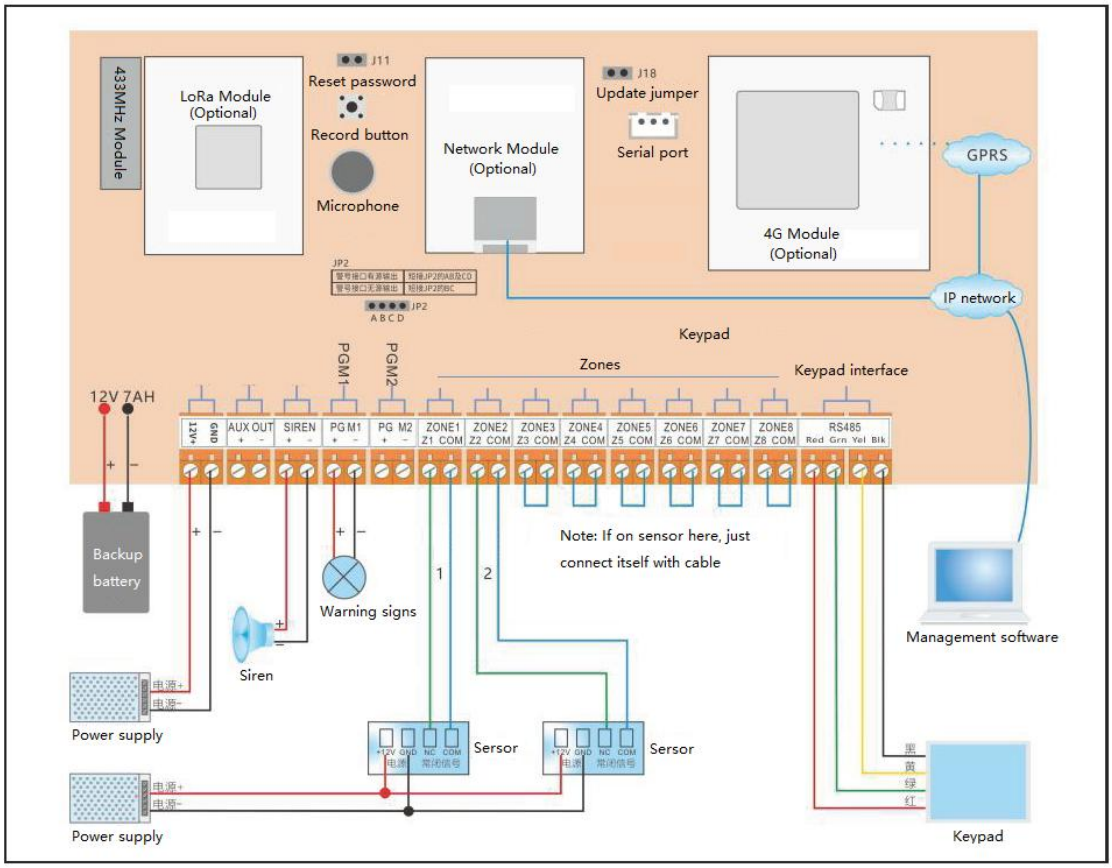
Features

1. Supports 40 zones, comes with 8 wired zones and 32 wireless zones, and can be extended to 32 wired zones through RS-485.
2. The panel itself supports two programmable outputs and one alarm output. Each programmable output supports 200mA current, supports arm linkage, alarm linkage, and software control. The output can be pulse output for a long time, with programmable time and pulse frequency.
3. Supports 6 sets of timed arm and disarm functions, with optional options from Monday to Sunday. The system comes with a clock chip and can continue to operate during power outages.
4. The host supports 1 main password (administrator password) and 1 programming password, 1 group of coerce passwords, 16 user passwords (arm and dis passwords, programmable arm and disarm permissions), and 40 zone arm and disarm passwords. The password is 6 digits.
5. The system supports the black box function, which can store the latest 6000 records (alarm records, operation records) separately.
6. Support operation voice prompts.
7. Support communication interruption data caching, at least 100 record caching should be supported.
8. Support the connection to RS232 serial printer to achieve real-time alarm printing.
9. Supports 16 sets of 433MHz remote controls.
10. Support functional modules such as LoRa, GPRS, TCP/IP extension, PSTN, etc.

Parameters

Input power supply: DC13.8V
Backup battery: 12V7AH lead-acid battery
Auxiliary output: DC12V 1500mA
Static operating current: 300mA
Alarm operating current: ≥ 1000mA
Alarm interface: active, DC12V 2000mA; Or passive normally open output
PGM output: DC12V 200mA
Wired zone: End of line resistance 2.2K Ω
Wireless parameters: 433MHz, encoding with 1527, oscillation resistance 220KΩ
Operating temperature: -10~55 ℃
Housing size: 255 * 265 * 88mm
Keypad size: 161 * 120 * 28mm
Weight:≥ 3kg

2. Connection Diagram



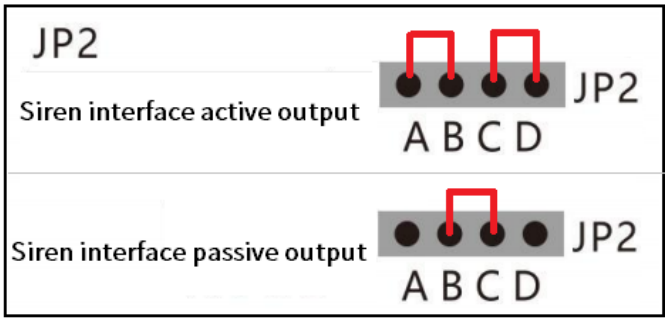
3. Power Supply Description

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

4. Connection between the panel and the keypad

The VCC, A, B, and GND of the keypad correspond to the red, green, yellow, and black terminals of the main board keyboard communication interface.

5. Panel Siren Interface Description



As shown in the above figure:

Short circuit the JP2 jumper AB and CD of the alarm panel, the siren interface is active output, and the output power consumption is DC12V 2000mA;

Short circuit the JP2 jumper BC of the alarm panel, and the siren interface is passive output;

6. Connection between the panel and the battery

The battery is 12V7AH. Connect the red line to the positive terminal of the battery and the black line to the negative terminal of the battery. When the mains is normal, the main board is powered by the power supply. When the mains is off or faulty, the panel will automatically switches to the battery power supply.

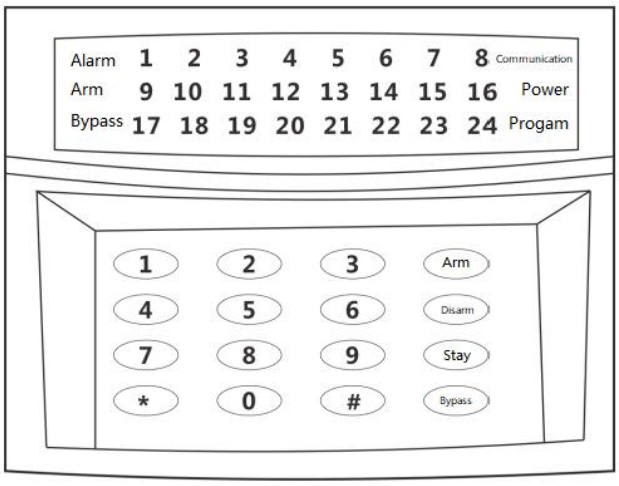
7. Description of LED indicators on the main board

LED1	Power	On when the main board is powered on
LED2	Serial communication	On when serial data is received
LED3	RS485 communication	On when using RS485 interface

LED4	System state	Flashes once per second when the system is running normally
LED5	GPRS communication	Flashes once every time GPRS data is received
LED6	IP module communication	Every time the IP module receives data, it flashes once
LED7	LoRa communication	Every time the LoRa module receives data, it flashes once

8. Keypad function

Code and set the system for arming, disarming, Arm stay, bypass, mute, and clear alarms, etc.



Keypad LED descriptions

Power LED	On when the keypad is powered on
Arm LED	On when arming, off when disarming
Bypass LED	On when set to arm stay
Program LED	On when in programming
Communication LED	On when communicating with the center
Alarm LED	On when alarming
1-24 Zone LED	On when alarming, blink when alarms not cleared

9. Programming Guide

9.1 Commands for Enter&exit the programming mode

Enter programming : password (default factory 123456) +#;

Exit programming :press the “*” button;

9.2 Arm command

Armed by keypad: password (factory default is 123456)+"Arm" button;

Armed by remote control: Press the "Lock" button on the remote control;

After proper operation, the keypad buzzer will start to sound, and the arming will be successful after about 10 seconds.

9.3 Disarm command

Disarmed by keypad: password (factory default is 123456)+"Disarm" button;

Disarmed by remote control: Press the "Unlock" button on the remote control;

After proper operation, the keypad buzzer will sound, and the system will be disarmed.

9.4 Clear the alarms

Password (factory default is 123456)+"*" button to clear all alarms.

9.5 Restore keyboard programming password to 123456

<1> Power off the keypad.

<2> Connect the pin J1 of keypad.

<3> Power on the keypad.

<4> Disconnect pin J1 of keypad.

9.6 Restore the panel password

<1> Power off the panel.

<2> Connect the pin J11 of the panel main board.

<3> Power on the panel.
<4> Disconnect pin J11 of panel.

9.7 Restore the panel to factory settings

<1> Power off the panel.
<2> Connect the pin J11 of the panel main board.
<3> Power on the panel.
<4> Input password (factory default is 123456)+"#" to enter programming.
<5> Input 44-02-1-#, and then the panel will be restored to factory settings.
<6> Power off the panel.
<7> Disconnect the pin J11 of panel.

9.8 Programming examples

NOTE: Before programming, please enter programming mode first(Password+#). After programming is completed, press "*" to exit programming, and then restart the panel.

Example 1: Modify the main password to 654321;

After entering programming mode, enter: 01+01+654321+#. After input, the buzzer will sound to indicate successfully modify.

Example 2: Modify the scheduled arm and disarm time to 08:00 arm and 17:45 disarm;

After entering programming mode, input: 03+01+08001745+#. After input, the buzzer will sound to indicate successfully modify.

Example 3: Modify the attribute of the wired zone terminal 2 of the panel to NO(normally open);

After entering programming mode, input: 05+02+2+#. After input, the buzzer will sound to indicate successfully modify.

Example 4: Modify the alarm time to 30 seconds;

After entering programming mode, input, 12+01+030+#. After input, the buzzer will sound to indicate successfully modify.

Example 5: Add wireless zone 1, enter programming mode, enter: 09+01+1+#, start pairing, and automatically exit after pairing is completed.

Example 6: Clear wireless zone 1, enter programming mode and input: 09+01+9+#. After input, the buzzer will sound to indicate successfully modify.

Example 7: Clear all wireless zones;

After entering programming mode, input: 09+00+9+#, and after input, the buzzer will sound to indicate successfully modify.

Example 8: Modify the alarm phone number of User 1 to 13828013204;

After entering programming mode, input: 18+01+13828013204+#, and after input, the buzzer will sound to indicate successfully modify.

Example 9: Clear the alarm phone number of user 1;

After entering programming mode, input: 18+01+#, and after input, the buzzer will sound to indicate successfully modify.

Example 10: Modify the IP address of the IP module to 192.168.001.201;

After entering programming mode, input: 34+01+192168001201+#, and after input, the buzzer will sound to indicate successfully modify.

Example 11: Modify the system date to February 21, 2019;

After entering programming mode, input: 39+01+20190221+#, and after input, the buzzer will sound to indicate successfully modify.

Example 12: Modify the system time to 09:28:00 (24-hour system);

After entering programming mode, input: 40+01+092800+#, and after input, the buzzer will sound to indicate successfully modify.

9.9 Programming Lookup Table

NOTE: Before programming, please enter programming mode first(Password+#)
Programming basic format: code-1 + code-2 + code-3 + #
Programming result will broadcast by the speaker of panel.

Function	Code-1	Code-2	Code-3 and Factory default	Function description	Sample&Description
Query	00	01	0-2	Query alarm records	Sample: 00+01+1; Code-3 Description: 0-Replay 1-Previous 2-Next; #: Exit
		02	0-2	Query operation records	
		03	0-2	Query the fault information of the system's AC power supply, expansion module, etc	
		04	0-2	Query system version	
		05	0-2	Query system time	
		06	/	Query GPRS signal strength	/
Password setting	01	01	6-bit password(default 123456)	Administrator password	Sample: 01+01+123456+#
		02	6-bit password(default 654321)		
		03~18	6-bit password(default 100001~100016)	Group 1 user password ~ group 16 user password	
		19~58	6-bit password(default 200001~200040)	Zone 1 password ~ zone 40 password	
		59	6-bit password(default 987654)	Kidnap password	
Permission settings of User Password	02	01~16	0-3(default 3)	Permissions for arm/disarm of group 1~Permissions for arm/disarm of group 16	Sample: 02+01+0+# Code-3 Description: 0- Prohibited 1- Allow arm 2- Allow disarm 3- Allow arm/disarm
Timed arm/disarm settings	03	01~06	Time (Default 99999999)	Timing 1~timing 6	Sample 03+01+08301830: Timing 1: 08:30 arm,18:30 disarm
Permission settings of arm/disarm timing setting	04	01~07	0-1(default 1)	Monday ~ Sunday, timed to alarm or not	Sample: 04+01+0+# Code-3 Description: 0- NO 1- YES
On-board wired zone setting	05	00	0-3(default 1)	Set the all zones at once	Sample: 05+01+0+# Code-3 Description: 0- Prohibited 1- NO(Normally open) 2- NC(Normally close) 3- With 2.2K resistance
		01~08	1	Zone 1~zone 8	
On-board wired zone trigger time setting	06	01~08	01-30(default 30)	Zone 1~zone 8	Sample: 06+01+01+# Code-3 Description: 01~30=20ms~600ms
Zone attribute setting	07	01~40	(default 111)	Zone 1~zone 40	Code-3 Description: 110: arm stay 111: arm away
Smart zone setting	08	01~40	(default 00000)	Zone 1~zone 40	Keep default
433MHz Wireless zone setting	09	00	9	Clear all wireless zones	Sample: 09+00+9+#
		01~40	1	Zone 1 paring ~zone 40 pairing	Sample: 09+00+1+#

433MHz Remote control setting	10	00	9	Clear all Remote controls	Sample: 10+00+9+#
		01~16	1	Remote control 1 paring ~Remote control 16 pairing	Sample: 10+00+1+#
LoRa zone setting	11	00	9	Clear all LoRa zones	Sample: 11+00+9+#
		01~40	1	Zone 1 paring ~zone 40 pairing	Sample: 11+00+1+#
Time setting	12	01	000-999(default 010)	Alarm time	Sample: 12+01+010+# Code-3 Description: 000-999 timed in seconds
		02	000-999(default 010)	Keypad arm delay	
		03~42	000-999(default 030)	Zone1 alarm delay~zone40 alarm delay	
		43	000-999(default 000)	Alarm for power on time suppression	
		44	000-999(default 000)	The duration of the siren sound after armed	
Quick arm/ Forced arm/ Under voltage/ Delay zone notice/ Keypad lock/ AC detection/ Backup battery detection	13	01	0-1(default 1)	Quick arm ON/OFF	Sample: 13+01+0+# Code-3 Description: 0- ON 1- OFF
		02	0-1(default 1)	Forced arm ON/OFF	
		03	0-1(default 0)	System under voltage notice ON/OFF	
		04	0-1(default 0)	Delay zone triggered notice ON/OFF	
		05	0-1(default 0)	Keypad lock	
		06	0-1(default 0)	AC power checking ON/OFF	
		07	0-1(default 0)	Battery voltage checking ON/PFF	
PGM setting	14	01	0-6(default 0)	PGM 1 setting	Keep default
		02	0-6(default 1)	PGM 2 setting	
Expansion device setting	15	01	0	Number of modules	Keep default
		02	0	Number of linkage	
Linkage zone setting	16	01~40	0101~4040	Linkage 1 zone number ~Linkage 40 zone number	Keep default
Linkage setting	17	01~40	0-3(default 2)	Linkage 1 setting ~linkage 40 setting	Keep default
Alarm phone number	18	01~08	Phone Number(Up to 16 bit)	Number 1 ~number 8	Sample: 18+01+8888888+# Code-3 Description: When dialing an external line from an internal line, please add an * before the phone number
Alarm phone number of the zone	19	01~ 40	0 ~8(default 0)	Zone 1 alarm phone number~ Zone 40 alarm phone number	Sample: 19+01+1+# Code-3 Description: 0: call all user 1-8: user number
Add alarm center phone number	20	01~04	Number(up to 16-bit)	Alarm center phone number 1~ Alarm center phone number 4	Sample: 20+01+888888+# Just support CID protocol with phone cable
Alarm center phone number setting	21	01~04	0~3(default 0)	Alarm center phone number 1 setting~ Alarm center phone number 4 setting	Sample: 21+01+0+# Code-3 Description: 0: center 1: Backup center 2: arm hotline 3: disarm hotline

Settings for report content uploaded to the center	22	01~04	0~2(default 0)	Setting for Report to center 1~ Setting for Report to center 4	Sample: 22+01+0+# Code-3 Description: 0: report all events 1: just report alarm events 2: just report arm/disarm events
Phone call center account	23	01	000000-999999(default 002000)	Phone call center account	Sample: 23+01+000000+#
NULL	24	/	/	/	/
Reporting time of phone call center	25	01	0000-9999(default 0000)	Reporting time of phone call center	Sample: 25+01+0003+# Code-3 in hours
Phone call setting	26	01	0-30(default 08)	Number of dials	Code-3 in number of times
		02	00-09(default 01)	number of rings	
		03	00-99(default 00)	Delay time before dialing	Code-3 in seconds
Telephone disconnection detection and remote control	27	01	0-1(default 1)	Telephone disconnection detection ON/OFF	Sample: 27+01+0+# Code-3 Description: 0: OFF 1: ON
		02	0-1(default 1)	Remote control ON/OFF	
Time for circular dialing	28	01	(default 060)	Dialing time	Code-3 in seconds
NULL	29	/	/	/	/
User text message number	30	01~08	Number (up to 11 bit)	Number 1~ number 8	Sample: 30+01+0108888+#
Content reported by text message	31	01~08	1-4(default 1)	Content report to phone number 1~ Content report to phone number 8	Sample: 31+01+1+# Code-3 Description: 1: just report the zone alarms 2: report the zone alarms &arming/disarming operation 3: report all alarms 4: report all alarms &arming/disarming operation
NULL	32	/	/	/	
Switching between Chinese and English	33	01	1-2(default 1)	Switching between Chinese and English	Sample: 33+01+1+# Code-3 Description: 1: Chinese 2: English
Ip settings for IP module	34	01	Ip address(default 192.168.001.200)	Module IP address	Sample: 34+01+192168001001+#
		02	Ip address(default 192.168.001.100)	Center 1 IP address	
		03	(default 000.000.000.000)	Center 2 IP address	
		04	(default 000.000.000.000)	GPRS center IP address	
		05	(default 192.168.001.001)	Gateway	
		06	(default 255.255.255.000)	Mask code	

UDP setting for IP module	35	01	00000-65535(default 20001)	Port 1 of the source UDP	Sample: 35+01+00000+#
		02	00000-65535(default 20002)	Port 2 of the source UDP	
		03	00000-65535(default 20001)	UDP port of the GPRS	
		04	00000-65535(default 20001)	UDP target port 1	
		05	00000-65535(default 01883)	UDP target port 2	
		06	00000-65535(default 01883)	UDP target port of GPRS	
DHCP of IP module	36	01	0-1(default 0)	DHCP ON/OFF	Sample: 36+01+0+# Code-3 Description: 0: OFF 1: ON
IP checking	37	01	0000-9999(default 0030)	Report time of IP1 checking	Sample: 37+01+0100+# Code-3 in seconds
		02	0000-9999(default 0060)	Report time of IP2 checking	
		03	0000-9999(default 0060)	Report time of GPRS checking	
Protocol report to alarm center	38	01	0-4(default 1)	Protocol of ip1 report to alarm center	Keep default
		02	0-4(default 1)	Protocol of ip2 report to alarm center	
		03	0-4(default 1)	Protocol of GPRS report to alarm center	
System date	39	01	default 2018.09.28	System date	Sample: 39+01+20200202+#
System time	40	01	Default 00.00.00	System time	Sample: 39+01+083059+#
Panel number setting	41	01	Default 0000000000	Panel number setting	Keep default
NULL	42	/	/	/	/
NULL	43	/	/	/	/
Clear records/Restore factory settings	44	01	1	Clear records	Sample: 44+01+1+#
		02	1	Restore factory settings	Sample: 44+021+1+#
Printer setting	45	01	0-1(default 1)	Print the operation record or not	Sample: 45+01+1+# 0: NO 1: YES
		02	0-1(default 0)	Print the system fault or not	
		03	0-1(default 0)	Print the zone reset record or not	
Online check the printing	46	01	0000-9999(default 0024)	Set the check time	Sample: 46+01+0030+# Code-3 in seconds
Restart	47	01	1	Restart the device	Sample: 47+01+1+#
Zone group1	48	01~40	0-1(default 0)	Add the zone1 to the group1 or not~ add the zone40 to the group1 or not	Sample: 48+01+1+# 0: NO 1: YES
Zone group2	49	01~40	0-1(default 0)	Add the zone1 to the group2 or not~ add the zone40 to the group2 or not	
Zone group3	50	01~40	0-1(default 0)	Add the zone1 to the group3 or not~ add the zone40 to the group3 or not	
Zone group4	51	01~40	0-1(default 0)	Add the zone1 to the group4 or not~ add the zone40 to the group4 or not	
Zone group5	52	01~40	0-1(default 0)	Add the zone1 to the group5 or not~ add the zone40 to the group5 or not	

Zone group password	53	01	(default 550001)	Group1 password	Sample: 53+01+666666+#
		02	(default 550002)	Group2 password	
		03	(default 550003)	Group3 password	
		04	(default 550004)	Group4 password	
		05	(default 550005)	Group5 password	
Zone group1 remote control	54	01~16	0-1(default 0)	Set remote control1 to group1~Set remote control16 to group1	Sample: 54+01+1+# 0: NO 1: YES
Zone group2 remote control	55	01~16	0-1(default 0)	Set remote control1 to group2~Set remote control16 to group2	
Zone group3 remote control	56	01~16	0-1(default 0)	Set remote control1 to group3~Set remote control16 to group3	
Zone group4 remote control	57	01~16	0-1(default 0)	Set remote control1 to group4~Set remote control16 to group4	
Zone group5 remote control	58	01~16	0-1(default 0)	Set remote control5 to group1~Set remote control16 to group5	