USER'S MANUAL

SANJIANG

Fire Alarm Control Panel
Gas Releasing Control Panel

JB-QBL-QM300/4E
JB-QBL-QM300/2E

USER'S MANUAL

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JB-QBL-QM300/4E and JB-QBL-QM300/2E fire alarm control panel & Gas Releasing control panel respectively has four and two fire extinguishing zone. JB-QBL-QM300/4E fire alarm control panel & Gas Releasing control panel respectively has two more zone control boards, regional display boards and regional terminal boards in comparison to the latter.

The manual applies to JB-QBL-QM300/4E fire alarm control panel & Gas Releasing control panel and, unless otherwise specified, also to the JB-QBL-QM300/2E fire alarm control panel & Gas Releasing control panel.

Please read this manual carefully before installation and use.

I. Overview

As a new type digital-value fire alarm control panel & Gas Releasing control panel, JB-QBL-QM300/4E has 324 alarm control points, and also four zone gas release control boards, characterized by the fully mixed detector/ module, polarity-free and two buses. Together with the spot manual/ automatic box, emergency start/ abort button, Horn/Strobe, gas release indicator light, weight loss display panel, start gas cylinder and fire extinguishing agent bottle, it forms a complete gas fire extinguishing control system meeting the requirements of GB 4717-2005 Fire Alarm Control panel and GB 16806-2006 Fire Alarm Linkage Control System.

It has the following characteristics:

- Intelligent detector and module built-in microprocessor allows for digital filtering and automatic compensation function, and helps collect real and reliable data; JB-QBL-QM300/4E alarm control panel & Gas Releasing control panel adopts fuzzy control theory, modern fire alarm theory for data process, has fundamentally eliminated omission, reduced false report and improved the reliability.
- The control panel has the function of setup detector sensitivity, and can adjust the sensitivity of detector according to the specific environment and importance.
- The detection bus and control bus share two buses, polarity-free, the detector/ module is fully mixed; and both the intelligent detector and intelligent module can be directly integrated so that the system wiring, engineering installation and line maintenance are greatly simplified.
- The system adopts the main and standby (AC, DC) power supply system, and the main power and the standby power will be automatically switched when the power is lost, so as to ensure the continuous operation of the system.
- 192 × 64 lattice LCD is used.
- JB-QBL-QM300/4E supports indicating the fire by connecting to the floor fire display panel through the standard RS-485 communication interface.
- JB-QBL-QM300/4E can be connected to the special mini-printer for real-time printing.
- Through CAN bus, the control panel can be connected with multiple 9000 system control panels for networking, in order to upload the gas release, fire alarm, start-up, feedback and fault information, and can also receive the reset and mute commands issued by the 9000 system control host.
- The fire alarm bus terminal of JB-QBL-QM300/4E (smoke detector, heat detector, Hydrant Manual Call Point,Manual Call Point) can be used as the linkage condition of 9000 system in networking system.
- The history event recording function can record 999 historical fire alarms, 999 historical feedbacks, 500 historical faults, 500 historical gas releases and 500 historical actions, comprehensively record various events during control panel operation, and can be consulted at any time.
- The JB-QBL-QM300/4E can use the USB disk to copy historical data and import setup information.
- Four fire-fighting zones can be managed, and each zone is independently connected with the spot emergency start/ abort button, the gas cylinder start line and the pressure switch monitoring line in a multi-line mode, and each group of wire connection is provided with open circuit monitoring function, and the maximum output current of the cylinder starting line is 3A.
- Each fire-fighting zone has an independent H/S start/abort key and a manual/automatic transfer switch,

and each zone can be independently set manually or automatically.

- Each zone allows for independent setup of the automatic gas release condition and automatic gas release delay time.
- JB-QBL-QM300/4E has a single gas release, single fire alarm and single fault output passive dry contact interface.JB-QBL-QM300/4E is mainly used for the high/ low pressure carbon dioxide fire extinguishing system, FM-200 (heptafluoropropane) fire extinguishing system, foam fire extinguishing system, aerosol fire extinguishing system, IG541 (inergen) gas fire extinguishing system and other substituted Halons (haloalkanes), with or without pipe network. The intelligent detector and module of 9000 bus system can be derectly integrated, for the use of fire detection, alarm and related linkage actions; the gas fire extinguishing equipment and the output of total gas release, total fire alarm and total fault can be directly controlled through internal relay. The product can be widely applied to a computer room, data room, power distribution room, substation, communication base station, etc.
  This manual mainly describes the user interface, keyboard operation, function setup of the system in pictures in conjunction with the text, so that the user can quickly grasp the use method. In addition, some sections briefly describe the system structure, installation wiring methods, technical characteristics and precautions (**please pay special attention to the Notes**) of JB-QBL-QM300/4E for user reference.

II. Major technical parameters

- Capacity:
  Number of fire fighting zone: at most 4 fire fighting zones, depending on user requirement.
  JB-QBL-QM300/4E system capacity: 324 points (polarity-free two buses, fully mixed)
- AC input voltage: 220V±20%, 50Hz
  AC input power: ≤120W
- DC standby power: DC24V 7.0Ah (2 DC12V 7.0Ah connected in series), full-sealed maintenance-free storage battery
  DC 24V power output current:
  Long-term continuous: 6A
  Transient (less than 3s): 8A
  DC 5V power output current:
  Long-term continuous: 4A
- Loop bus 2-wire system, loop bus length≤ 1,000m
- Loop bus voltage UL: +20V≤UL≤+24V
- Work environment of system
  Temperature: -10℃～+50℃
  Humidity: ≤95%
  Power supply: AC 220V 50HZ
  DC 24V 6A
  Output contact capacity: capacity of all relay contacts is 7A/24VDC
  Output circuit current limit: Electromagnetic valve driven ≤3A

III. Appearance and installation

§1 Outline

§1-1 Appearance diagram



§1-2 Panel



§1-3 Panel keys and indicator lights

§1-3-1 Indicator light

POWER: indicates that the power supply of control panel has been turned on.

RLS(Gas release): indicates that the control panel already has a zone with gas release action.

FIRE(Fire alarm): indicates that the control panel has received fire alarm information.

FAULT: indicates that there is a fault in the current system.

START: indicates that the control panel already has linkage start information.

FB(Feedback): indicates that the control panel has received feedback information.

SYS FAULT(System failure): the indicator light is on when the current system fails or crashes.

SYS TEST(Self-check indication): when the system enters the self-check state, the indicator light is on, and in this state, the system does not receive alarm information, and after the self-check is finished, the light will be off.

AC FAULT(Main power failure): When AC power fails to supply power or the main power is under voltage, the indicator light will be on and indicate the main power failure.

DC FAULT(Standby power failure): When the standby battery is open circuited or under voltage, the indicator light is lit and the standby power failure is reported.

KEYBOARD(Keyboard): The host accepts key operation on the panel only when the indicator light is on. When it is off, the silencing key, panel keyboard keys and numeric key "0" (view version information) can be operated; when there is gas release, fire alarm linkage, fire alarm, start/ feedback and fault information, the direction key ◄ ► can be operated.

MUTE: The indicator light is on, indicating that the control panel (buzzer) is silenced (disabled).

§1-3-2 Keys

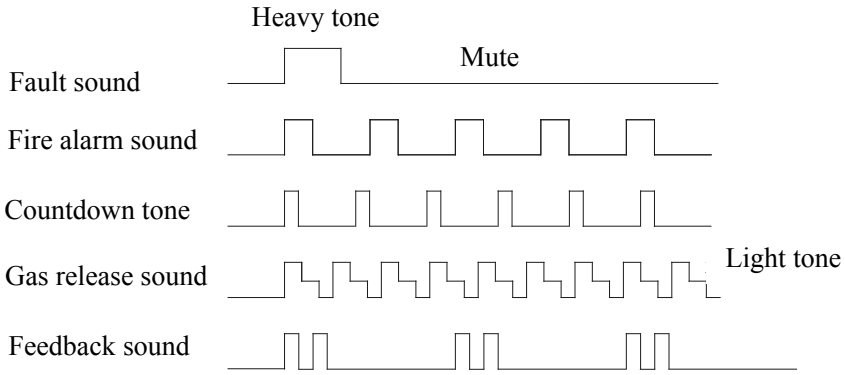
Direction key: When the host is operated, it is enabled to move the cursor in the up, down, left and right direction according to the liquid crystal display.

KEYBOARD(Keyboard): This key is used to enable or disable the panel keyboard.

MUTE: This key can be operated to enable or disable the alarm output of buzzer.

*Note: **during remote sound setup in the LCD menu, it is possible to disable and enable the H/S start/abort key.***

SYS TEST(Self-check): This key is operated for system self-check. All the indicators on the panel, the buzzer and LCD screen will be inspected by the control panel, the indicator light turns on one by one, and the buzzer sends out various alarm sounds, and the time delay nixie tube on the zone control board displays the transitions of 11-99 and in which the sound alarm is changed in the sequence of a fault sound→ feedback sound→ fire alarm sound→ gas release countdown tone→ gas release sound, and the various alarm sounds are shown in the following figure. After the self-check, the control panel returns to the state before self-check.



RESET: This key is operated to reset the system and restore the control panel to its initial monitoring state. After the panel key is enabled, the control panel will clear all the information regarding gas release, fire alarm, fault, etc., and when the internal relay is fully released, restart the operation.

Numeric keys 0 to 9: Depending on the liquid crystal prompt, you can set the equipment data.

＊: **Cancel**

＃: **Confirm and save.**

Note: For letter input, the number key 2 corresponds to abc, 3 to def, 4 to ghi, 5 to jkl, 6 to mno, 7 to pqrs, 8 to tuv, and 9 to wxyz (this letter assignment is consistent with the mobile phone and the telephone).

§1-4 Keys and indicator lights on zone control board

§1-4-1 Indicator light

ALARM: This indicator light is illuminated when a fire alarm is detected in the zone.

FAULT: The indicator light is illuminated when there is a communication fault in this zone or line breakage in the connected loop (emergency start/ abort loop fault, Electromagnetic valve loop fault, pressure feedback loop fault, etc.).

AUTO: When the field manual/ automatic switch box in the zone is in the automatic state, and the key switch on the panel is also in the automatic state, the indicator light will be on. By default the control panel is in the manual state when it is powered on. If there is no field manual/ automatic switch box in the zone, the status is determined by the state of manual/ automatic transfer switch on the panel 60 seconds after power-up.

H/S START(Horn/Strobe start): the indicator light is on when the output of Horn/Strobe in this zone is started. By default there is no acoustic-optical output when the control panel is powered on, and the indicator light is off.

EMER START(Emergency start): This indicator light is on when the emergency start key or the spot emergency start button on the zone panel is pressed in the allowed state.

EMER ABORT(Emergency abort): This indicator light is on when the emergency abort key or the spot emergency abort button on the zone panel is pressed in the allowed state.

DELAY TIME: When the vent valve in the zone is delay started, the indicator light is on. If the gas release start state cannot be enabled at the end of gas release countdown, the light would flash, and is then off after the gas release action. If an emergency abort occurs in the gas release delay state (including when the abort key on the panel is pressed), the light will also be turned off.

Note: The reason why the gas release start state is disenabled after gas release delay may include:

1. When the Electromagnetic valve is provided with the pulse output, the electromagnetic valve is started in the other fire-extinguishing zones, the zone will be in the gas release starting state after the start-up action of Electromagnetic valve is completed in other preferred fire-extinguishing zones. Based on the system power supply (only supporting the vent valve action in one fire-extinguishing zone) and the actual working condition of the fire-extinguishing control panel (the probability of simultaneous fire-fighting start-up is extremely low), when the fire-fighting actions are started simultaneously in multiple zone, the fire-fighting action will alternately start according to the specific priority, and each activated Electromagnetic valve will be powered for 3S (with pressure feedback signal) or 10 seconds (no pressure feedback signal).

2. When a Electromagnetic valve loop fault occurs in the fire extinguishing zone, it is not allowed to enter the gas release starting state.

RLS(Release): When the vent valve in the zone is started, the light will be on, indicating that the relay used to activate the valve has been actuated or is being actuated.

RLS CFM(Release Confirmation): When the Electromagnetic valve pressure feedback signal from the gas fire extinguishing equipment is received, the lamp will be on.

Note: If the system does not start the action of Electromagnetic valve, and receives the external pressure feedback confirmation signal, and manual gas release is confirmed, the gas release indicator light will be on while the gas release indicator in the zone is activated.

§1-4-2 Manual and automatic switch/key

MANUAL/AUTO: When the manual/ automatic changeover box on the site is in the automatic state, it is possible to enable the system in the manual or automatic state by the key switch. The key switch is not valid when the manual/ automatic switch box on the site is in the manual state.

H/S START -ABORT: the key is a double function key through which the H/S alarm can be manually started or aborted.

Note: In the LCD menu function setup, the H/S button can be set, and it is enabled to disable or enable the H/S key on the panel.

START: In the manual or automatic state, it is allowed to press the button **Start** to immediately start the Horn/Strobe device in the zone, and delay the activation of gas release valve to extinguish the fire. This key is valid when there is/ is no fire alarm.

ABORT: For the device that has been started, it is allowed to press the button **Abort** to abort the device immediately, and the internal relay of control panel is released; for the device being started

with delay, the time delay is canceled, and the device is aborted immediately, and the device no longer acts. This key is valid in the presence/ absence of fire alarm in either manual or automatic conditions.

Note: On the zone control panel, except for the H/S start-abort key, the start-up, abort button and manual-automatic switch are not controlled by the Enable key on the panel.

§2 Cabinet installation

JB-QBL-QM300/4E system is installed in a steel sheet cabinet. When installed, it must be firmly attached to the dry and flat surface with sufficient bearing capacity using the mounting hole on the back of cabinet, and sufficient space shall be reserved around it to facilitate the wire routing and opening of control panel door. The position of mounting holes is shown in Fig. 3.1.

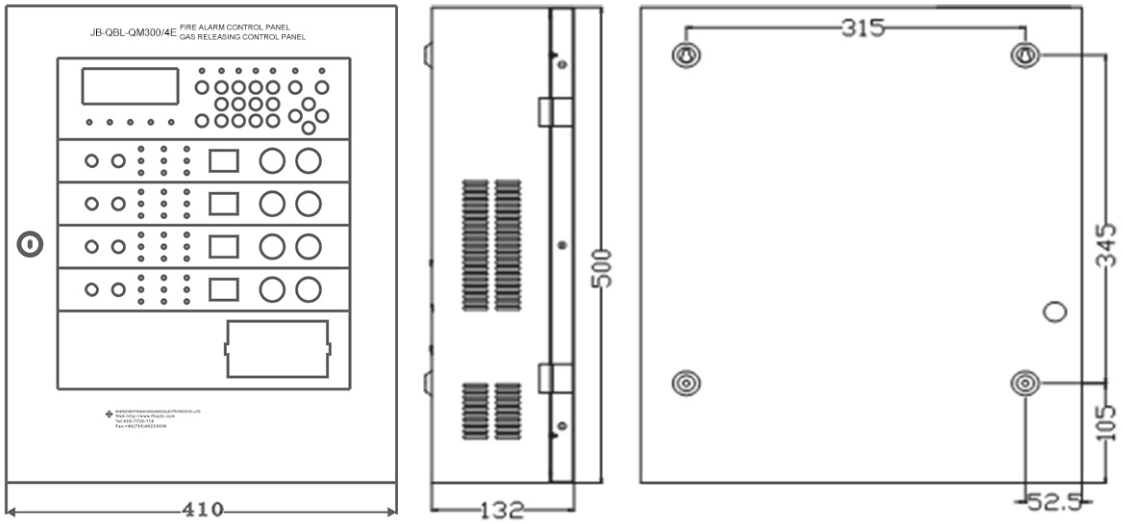


Fig. 3.1 Mounting holes of cabinet

The following conditions shall be satisfied when installing the chassis:

- The front of control panel cabinet must be reserved with at least 1 meter of space for easy operation.
- The wire outlet at the top of cabinet must be reserved with at least 30 cm of space for routing.
- The bottom of cabinet is 1.1 ~1.3 m above ground floor.
- It is necessary to ensure that the heat dissipation holes (and sound holes) on the side of cabinet are smooth, free of blockage.
- The system must be well grounded. If the ground terminal of AC input is not properly grounded, make the system well grounded with the ground terminal provided on the cabinet base plate and the ground resistance must be ≤ 5 Ω.

§3 Internal structure

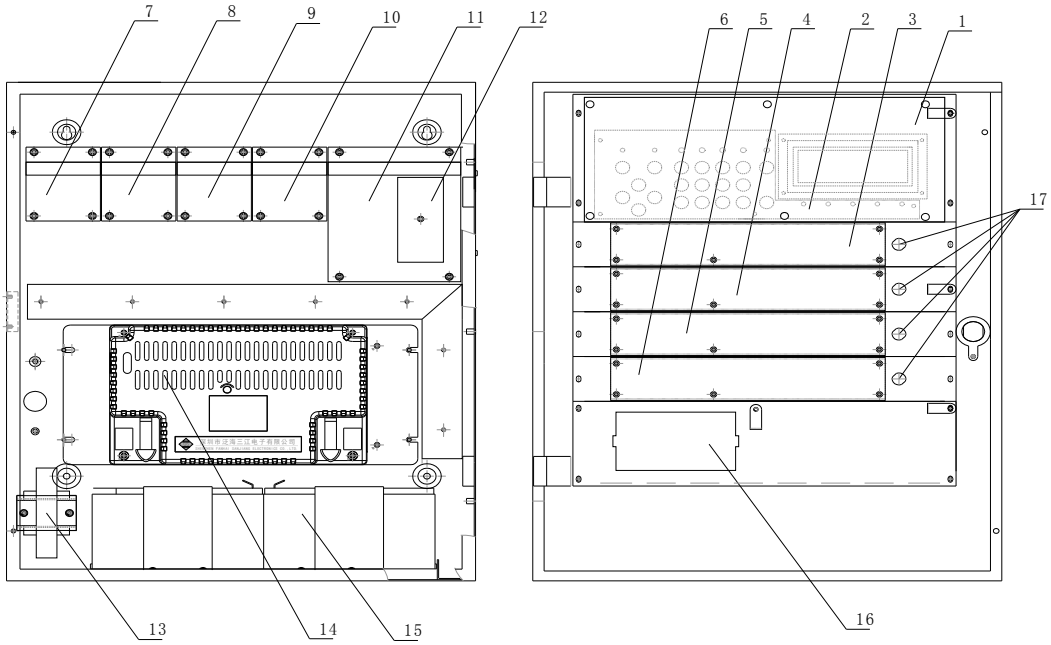


Fig. 3.2 Internal structure schematic diagram

Fig. 3.2 is a schematic diagram of the internal structure of the four-zone fire extinguishing control panel, and the names of the parts referred to in the drawing are shown in the following table:

1: Main board	2: Main control keyboard plate	3: 1# zone control board	4: 2# zone control board
5: 3# zone control board	6: 4# zone control board	7: 1# zone terminal board	8: 2# zone terminal board
9: 3# zone terminal board	10: 4# zone terminal board	11: Main terminal board	12: Anti-thunder module
13: Surge protector	14: Switching power supply	15: Standby battery	16: Printer
17: Manual/automatic switching key switch			

§4 Power supply connection

JB-QBL-QM300/4E is provided with AC 220V/ 50HZ single-phase AC power supply. When the AC supply voltage changes within 220V ± 20%, the switch power supply PS-06B will operate normally and supply power to all parts of the system. If the backup battery is not fully charged at this time, the switch power supply will charge it. When the AC supply voltage exceeds this range, the switch power supply is in the protection state and the system is alternately powered by the backup battery until the supply voltage returns to normal. For areas where the supply voltage may exceed 270V for a long time, it is necessary to access the power supply through the voltage-stabilizing device, otherwise it may cause damage to the switching power supply, and the power of the voltage-stabilizing device shall exceed 300W. The backup battery can maintain the system's normal operation (normal monitoring status) for 48 hours in full state. Therefore, in order to reliably operate the system for a long time, it is necessary to ensure that the AC supply voltage to be accessed by the system can be between 220V ± 20% for a long time, and the power failure time shall not exceed 48 hours.

Warning: The AC supply voltage must not be greater than 300V, otherwise the switch power supply will be damaged.

The backup battery uses two 12V/7.0Ah accumulators, as shown in Figure 3.3 below. The battery connection line is attached to the JB-QBL-QM300/4E cabinet and is led out from the BAT interface of switch power supply PS-06B. The storage battery shall be fixed in the case before the storage battery is installed, and the wiring shall be carried out as shown in Fig. 3.3, otherwise it may easily cause a short circuit.

Warning: Wrong battery wiring will lead to battery damage and may damage the switch power supply PS-06B.

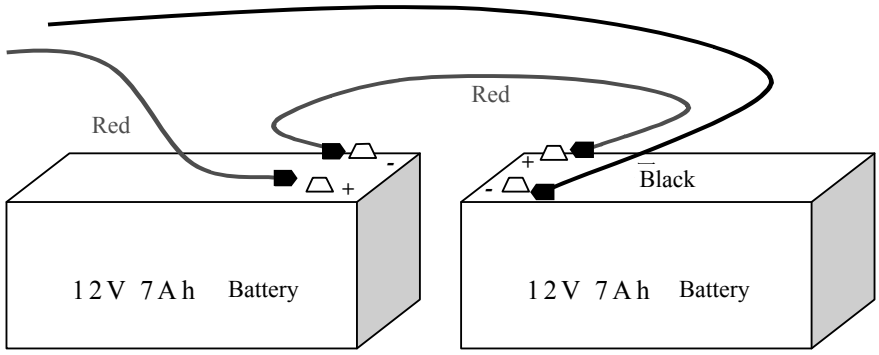


Fig. 3.3 Wiring diagram of backup battery

§5 Loop installation

The wiring diagram of JB-QBL-QM300/4E is shown in Fig.3.4. Refer to Chapter 4 terminal instructions and jumper instructions for default setup of terminals and jumpers and their setup methods.

The top end of JB-QBL-QM300/4E cabinet is provided with outlet holes. Connect the connection line from the outgoing hole to the corresponding terminals. Figure 3.5 shows the position of outlet holes at the top of the cabinet. For the main control terminal board and the four zone control terminal boards, lines are all led from the first row of outlet holes, and the second row of outlet holes are backup wire outlet hole.

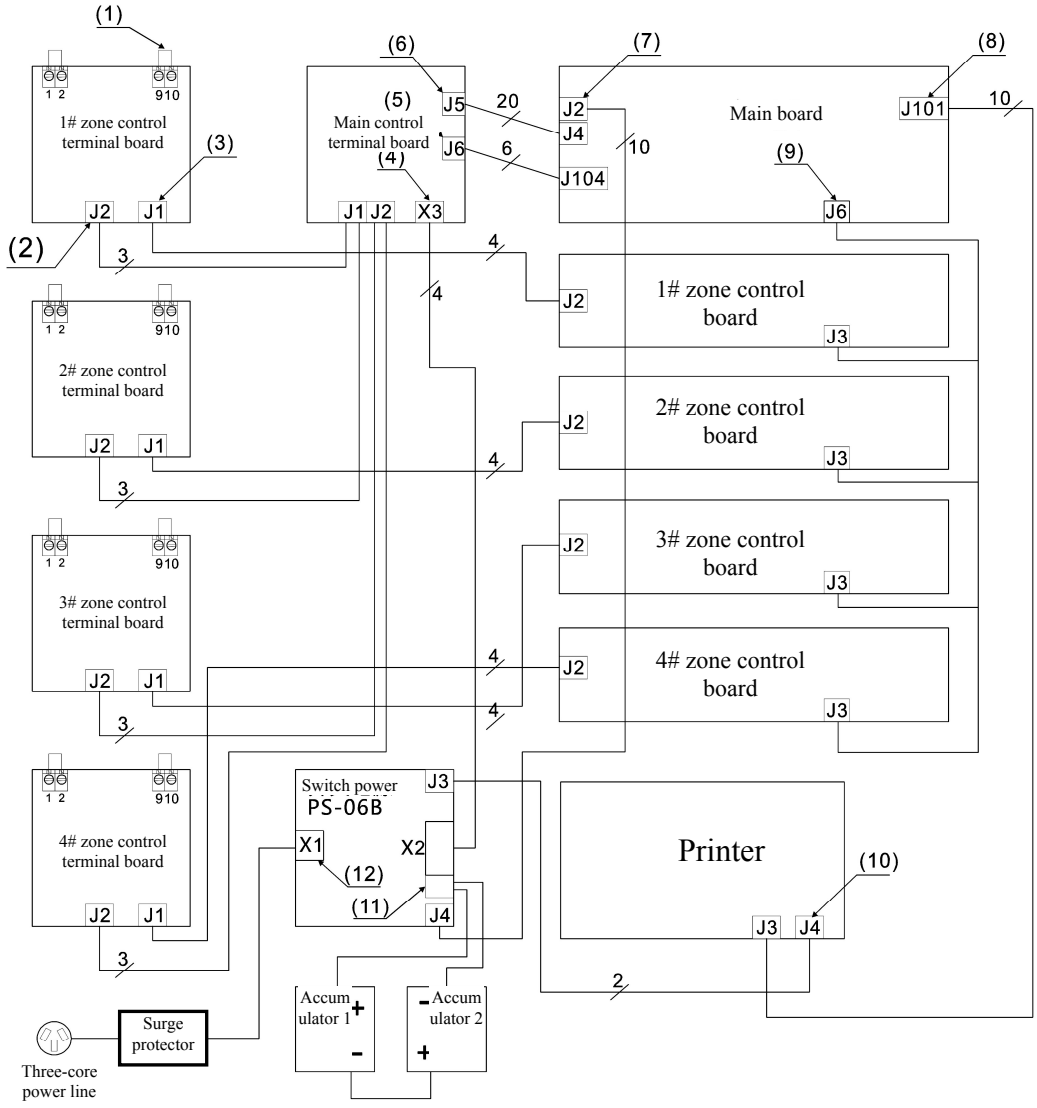


Fig. 3.4 Wiring diagram of the machine

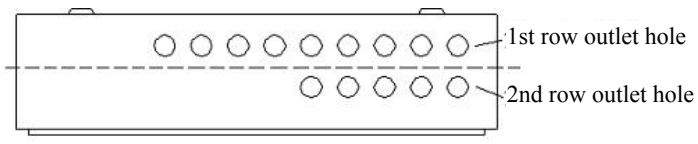


Fig. 3.5 Wire outlet holes on the top of cabinet

Precautions:

- The installation of Electromagnetic valve (electric detonator) circuit must be extremely careful, please ensure that the Electromagnetic valve is installed before the system is powered up, and make sure that all the Electromagnetic valve are removed from the various devices they drive prior to the power-up test;
- The output loop and input loop shall have their respective routing conduit. **They shall not share the ground line (AGND) and should be connected to the corresponding terminals respectively**. The electromagnetic valve driving loop is preferably provided with a separate ground wire;
- System installation and wiring shall meet the requirements of GB 50166-2007 Code for Installation and Commissioning of Automatic Fire Alarm System;
- The building shall be provided with lightning protection and lightning protection devices that comply with the relevant requirements of GB 50057-2010 Design Code for Protection of Structures against Lightning, and particularly in the south area, **otherwise system damage may be caused due to lightning, which is not the responsible of the Company**;
- The fire control room shall be provided with a grounding body, and the ground terminal of the control panel shall be connected with the grounding body by using a flexible copper core conductor with cross section of not less than 4 mm^2, so as to ensure firm and reliable grounding of the control panel. Otherwise, the anti-interference ability of the control panel may be reduced because of bad grounding, and the electrified case may compromise personal safety, and the company is not responsible for any of such cases.

Warning:
In system installation, troubleshooting or maintenance operations, it is important to ensure that all Electromagnetic valve (electrical bursts) are removed from the various devices they drive. In this way, it is possible to avoid the malfunction of fire extinguishing device due to misoperation or erroneous wiring, resulting in accidental loss.

§6 Power-on test

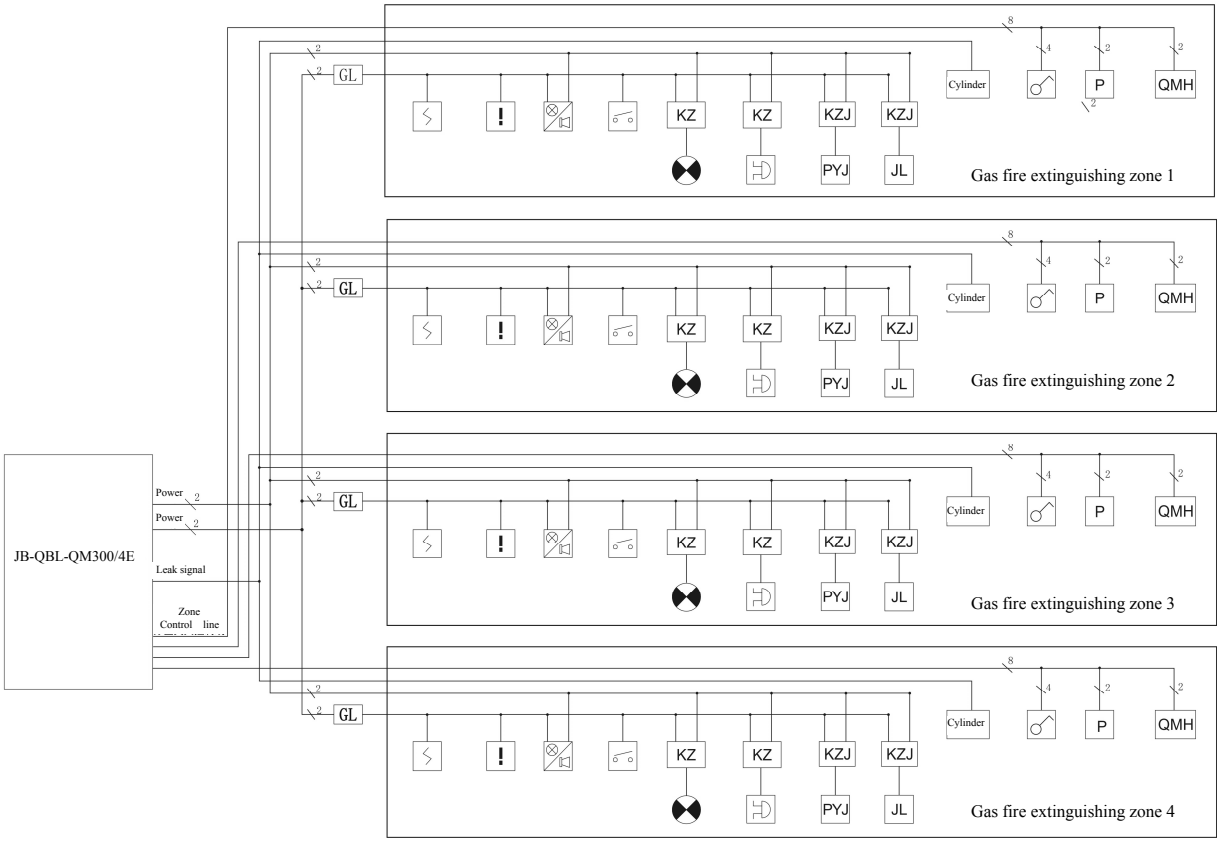
Before power-up test, check all wiring connections for correctness (including battery connection lines), power up the system by pressing the main electrical switch and backup power switch on the switch power supply (PS-06B).
Please follow this manual to check whether all the functions of the system are normal, and the emergency start button and emergency abort button on the zone display board are disposable organic glass breakage buttons, which can be tested by the test ports J5 (T _ Start) and J6 (T _ Stop) on the short-circuit area control panel.
When the system is tested, if control panel reset or otherwise abnormality is caused by too large load inrush starting current, the external control 24V power supply should be considered. In addition, a 10-20Ω/ 3W current-limiting resistor can be connected in series in the drive loop, or a current diode (such as 1N4007 or the like) is reversely connected at both ends of the load, and a resistance-capacitance network or a TVS transient voltage suppressor (such as P6KE33CA, etc.) is adopted.
Note: Before delivery of the system, a comprehensive test must be conducted, in particular the action test of Electromagnetic valve.

IV. Wiring diagram of the system and terminals

§1 System diagram

System diagram of JB-QBL-QM300/4E gas fire-extinguishing control panel

Legend	GL		!				KZ	KZJ		PYJ	JL	JS		P	QMH
Name	Short circuit isolator	Optical detector	Heat detector	H/S	Emergent Start/abort	Auto Switch	Output Module	I/O Module	Alarm Bell	ExhaustFan	Shutter	Input Module	Release Switch	Pressure Switch	Gas Extinguisher
Model	GL-957	JTY-GD -930	JTm-ZD -920	SG-991			KZ-953	GL-956							



Remark:

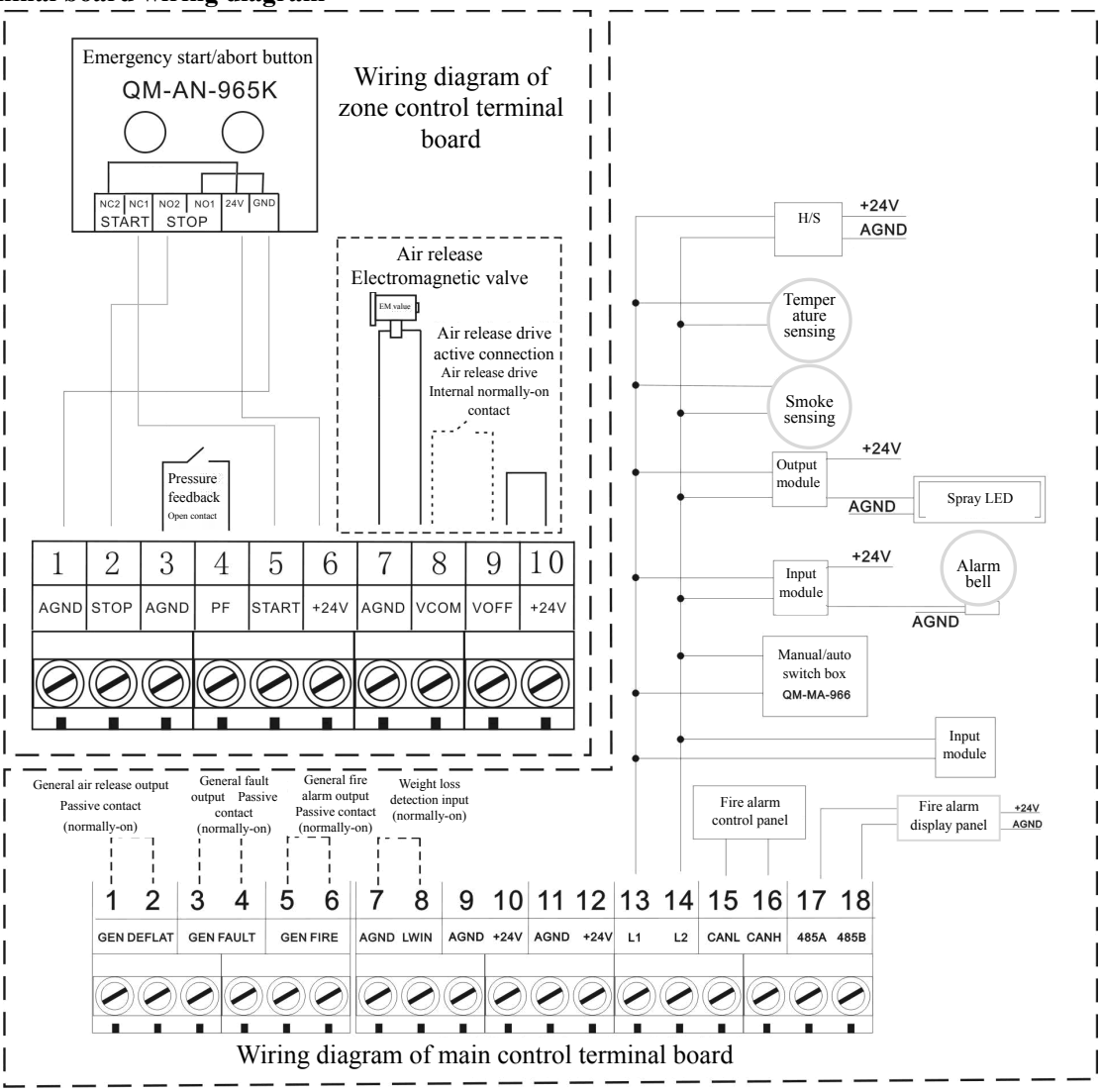
1. When the system is wired, the JS-951 input module can be used to monitor the weight loss signal and pressure feedback signal of gas cylinder in order to reduce the weight loss signal and the pressure feedback signal in the multi-line mode. When the JS-951 module is used to monitor the weight loss signal, it is necessary to set the device type as the weight loss, and when the pressure feedback signal is monitored, the device type needs to be set as pressure inverse, and the zone code of JS-951 module should be consistent with the zone number.

2. When the system is wired, the KZ-953 output module and KJB-956 input/output module can be used to cut off and control the power supply of generator before starting gas release. The equipment type of module should be set as power generation, the zone number is consistent with the zone number, and the gas release countdown is started together with the module and the power supply of generator is cut off. This module will also be activated when KZ-953 output module and KTC-956 input/ output module are set as anti-door, anti-valve and air-blown as well as air release countdown is started.

3. When the equipment type of KZ-953 output module is set as manual/automatic mode, the manual/ automatic state of the zone can be transmitted in a module state; the module will be started when the zone is in an automatic state, and aborted when the zone is in the manual state.

4. When the equipment type of input module JS-951 and JS-952 is set as the optical or heat detector, the module alarm will be used as the corresponding detector alarm under the automatic state, and the control panel will automatically release gas after the automatic gas release conditions are satisfied, specifically referring to the fire alarm control panel & Gas Releasing control panel and the automatic gas release operation conditions.

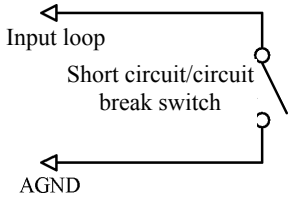
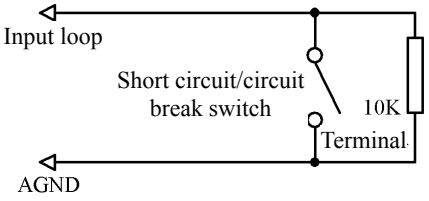
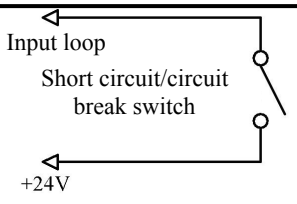
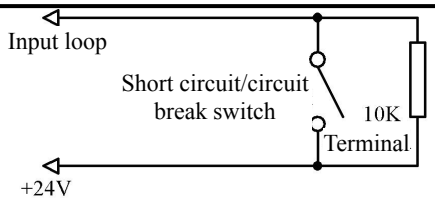
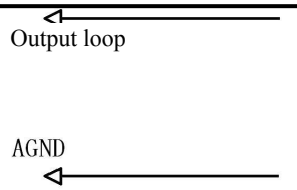
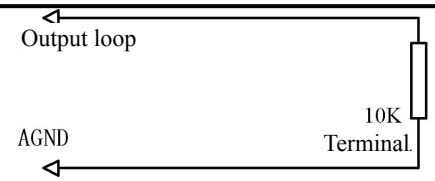
§2 Terminal board wiring diagram



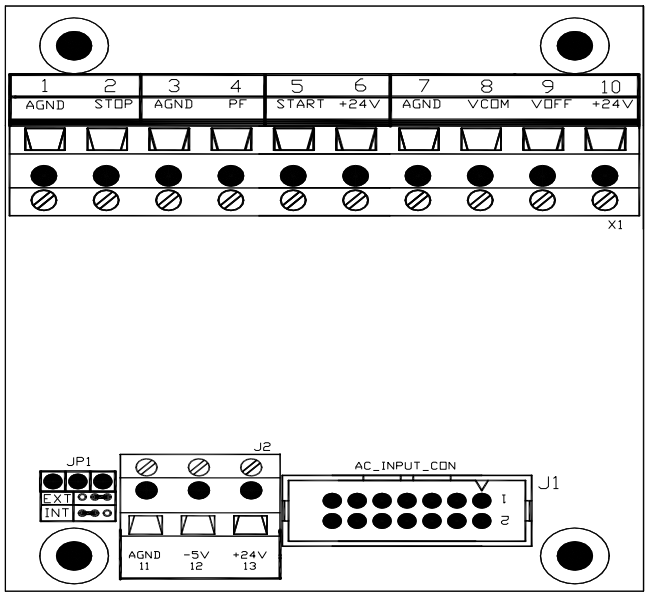
Note 1: For the connection mode of the detector, interface module, control monitoring module and control module, refer to the connection diagram of detector/ module.

Note 2: In this control panel, except that 220V AC power plug and AC input terminal shall meet the requirements of insulation resistance test in 6.12, GB 4717-2005, the weak current external output terminal on the main control terminal board and zone control terminal board may not be designed according to the insulation requirements in this standard.

§3 Wiring method of terminals

Wiring method	Input loop signal form	Wiring method of input loop A (mode of internal load INT)	Wiring method of input loop B (mode of external load EXT)	Applicable terminals
1	AGND short / open circuit switch			Main control terminal board 7 and 8 zone control terminal board 1 and 2 zone control terminal 3 and 4
2	+24V short / open circuit switch			zone control terminal 5 and 6
3	Electric valve output loop			zone control terminal 7 and 8

§4 Schematic diagram of zone control terminals



§5 Terminals on zone control terminal board

Wiring terminal X1:

Terminal name	Meaning of terminals	Usage
zone control terminal board 1	AGND (input loop ground)	The spot emergency abort button access terminal is connected to the short circuit/shutdown switch. Short-circuited switch indicates the normal state, and the open-circuit switch indicates the emergency abort signal input.
zone control terminal board 2	STOP (emergency abort signal input terminal)	
zone control terminal board 3	AGND (input loop ground)	The spot pressure feedback access terminal is connected to the AGND short circuit/shutdown switch. Short-circuited switch indicates the existence of pressure feedback signal input, and the open-circuit switch indicates the normal state.
zone control terminal board 4	PF (pressure feedback signal input terminal)	
zone control terminal board 5	START (emergency start signal input terminal)	The spot emergency start button access terminal is connected to +24V short circuit/shutdown switch. Short-circuited switch indicates the existence of emergency startup signal input, and the open-circuit switch indicates the normal state.
zone control terminal board 6	+24V (+24V power supply）	
zone control terminal board 7	AGND (output loop ground)	By default, VOFF terminal is short circuited to +24V terminal, the positive end of Electromagnetic valve to the VCOM, and the negative end to AGND, and the relay contact is the short/open switch of VCOM and VOFF. The short circuit of switch indicates the action of Electromagnetic valve, and the open circuit of switch indicates the normal state.
zone control terminal board 8	VCOM (Electromagnetic valve output common terminal)	
zone control terminal board 9	VOFF (Electromagnetic valve output normally open terminal)	
zone control terminal board 10	+24V (+24V power supply)	

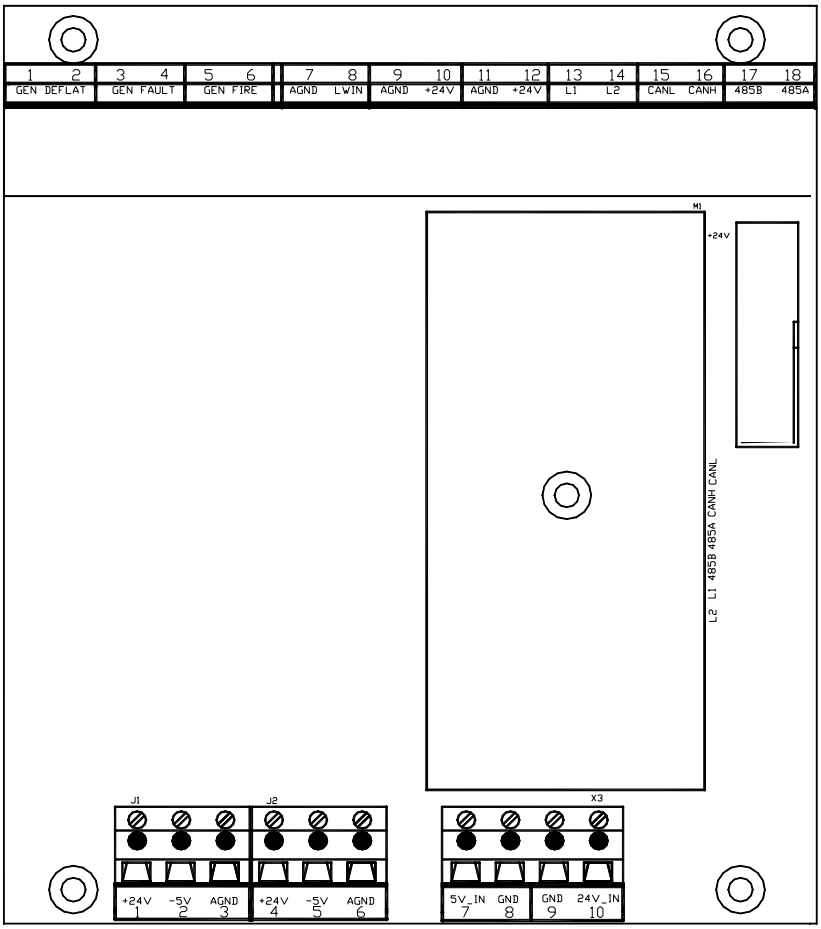
Wiring terminal J2:

Terminal name	Meaning of terminals	Usage
zone control terminal board 1	AGND (input loop)	Input loop ground connecting to main control terminal board
zone control terminal board 2	-5V (-5V power supply)	-5V supply from main control terminal board
zone control terminal board 3	+24V (+24V power supply)	+24V power supply from main control terminal board

Connection terminal J1:

The connection terminal J1 on zone control terminal board connects to the connection terminal J2 on the zone control board.

§6 Schematic diagram of main control terminals



§7 Terminals on main control terminal board

Connection terminal X1:

Terminal name	Meaning of terminals	Usage
Main control terminal board 1	GEN DEFLAT (General gas release signal output end)	In case of gas release, the relay K1 is closed, and the switch contact GEN DEFLAT can output a dry contact signal.
Main control terminal board 2		
Main control terminal board 3	GEN FAULT (General fault signal output end)	In case of fault, the relay K2 is closed, and the switch contact GEN FAULT can output a dry contact signal.
Main control terminal board 4		
Main control terminal board 5	GEN FIRE (General fire signal output end)	In case of fire, the relay K3 is closed, and the switch contact GEN FIRE can output a dry contact signal.
Main control terminal board 6		

Connection terminal X2:

Terminal name	Meaning of terminals	Usage
Main control terminal board 7	AGND (Input loop ground)	Weight loss alarm input end is connected to AGND short/open circuit switch. Switch short-circuit indicates the existence of weight loss alarm signal input, and open circuit indicates in normal state.
Main control terminal board 8	LWIN (Cylinder weight loss signal input end)	
Main control terminal board 9	AGND (Output loop ground)	Provide +24V power to external equipment, such as emergency start/abort button, and the +24V power required by equipment shall not be deemed as high power output.
Main control terminal board 10	+24V(+24V power)	
Main control terminal board 11	AGND (Output loop ground)	Provide +24V power to external equipment, such as emergency start/abort button, and the +24V power required by equipment shall not be deemed as high power output.
Main control terminal board 12	+24V(+24V power)	
Main control terminal board 13	L1 (Bus loop)	Loop bus access end, such as intelligent module and probe, may be deployed in the bus to connect with control panel, polarity-free.
Main control terminal board 14	L2 (Bus loop)	
Main control terminal board 15	CANL (CAN communication low-order)	CAN communication low-order terminal communicating with the host
Main control terminal board 16	CANH (CAN communication high-order)	CAN communication high-order terminal communicating with the host
Main control terminal board 17	485B (485 communication B port)	485 communication B port access terminal communicating with fire display panel
Main control terminal board 18	485A (485 communication A port)	485 communication A port access terminal communicating with fire display panel

Connection terminal J1 and J2:

Terminal name	Meaning of terminals	Usage
Main control terminal board 1	+24V (+24V power)	+24V power for zone control terminal board
Main control terminal board2	-5V (-5V power)	-5V power for zone control terminal board
Main control terminal board 3	AGND (Output loop ground)	Output loop ground connecting to zone control terminal board
Main control terminal board 4	+24V (+24V power)	+24V power for zone control terminal board
Main control terminal board 5	-5V (-5V power)	-5V power for zone control terminal board
Main control terminal board 6	AGND (Output loop ground)	Output loop ground connecting to zone control terminal board

Connection terminal X3:

Terminal name	Meaning of terminals	Usage
Main control terminal board 7	5V_IN (5V power)	5V supplied to main control terminal board by PS-06B
Main control terminal board 8	GND (input loop ground)	Input loop ground connecting to main control terminal board
Main control terminal board 9	GND (input loop ground)	Input loop ground connecting to main control terminal board
Main control terminal board 10	24V_IN (24V power supply)	24V supplied to main control terminal board by PS-06B

Connection terminal J5:

Connection terminal J5 on main control terminal board connects to connection terminal J4 on the main board.

Connection terminal J6:

Connection terminal J6 on main control terminal board connects to connection terminal J104 on the main board.

Connection terminal J7:

Connection terminal J7 on main control terminal board connects to connection terminal JP2 on the anti-thunder board.

Connection terminal J8:

Connection terminal J8 on main control terminal board connects to connection terminal JP1 on the anti-thunder board.

§8 Installation of peripheral parts

§8-1 QM-AN-965K Emergency start/abort button

QM-AN-965KE			JB-QBL-QM300/4E	
Leading-out terminal	Terminal name		Access terminal	Terminal name
1	GND		zone control terminal board 1	AGND (input loop ground)
2	24V		zone control terminal board 6	+24V (+24V power)
3	ABORT/NO1	Emergency ABORT	zone control terminal board 1	AGND (input loop ground)
4	ABORT/NO2		zone control terminal board 2	ABORT(Emergency abort signal input end)
5	START/NC1	Emergency START	zone control terminal board 5	START(Emergency start signal input end)
6	START/NC2		zone control terminal board 6	+24V(+24V power)

It should be noted that in the above access modes, the emergency abort and emergency start on the emergency start/abort button are polarity-free switch contacts. When the control panel is delivered out from the factory, terminal 1 and 2 on the zone control terminal board shall be short connected so that the control panel will not report the fault due to no connection to emergency start/ abort button, and then the short circuited wire may be removed when an emergency start/ abort button is required.

§8-2 QM-MA-966 Manual/automatic switching box

QM-MA-966		JB-QBL-QM300/4E	
Leading-out terminal	Terminal name	Access terminal	Terminal name
1	L1 (Bus loop)	Main control terminal board 13	L1 (Bus loop)
2	L2 (Bus loop)	Main control terminal board 14	L2 (Bus loop)

It should be noted that in the above access modes, polarity-free bus loop.

§8-3 QM-ZSD-01 gas release indicator light

The gas release indicator light is controlled by the output module KZ-953, and only the passive connection can be used. The normally open contact T00 and GND can be used as a switch to control the input power of gas release indicator, at most 10 gas release indicators simultaneously.

For output module KZ-953 in the loop, the equipment type is set as gas, and the production type is set as KZ module. The wiring method may be referred to KZ-953 operating manual.

§8-4 Alarm bell

The alarm bell is controlled by the output module KZ-953. When the active connection method is adopted, T00 and T00 is respectively the positive and negative access terminal of load, and the alarm bell needs to be reversely connected in series with one diode 1N4007, at most 15 alarm bells simultaneously. For the output module KZ-953 in the loop, the equipment type is set as far-end sound, and the production type is set as KZ module. The wiring method may be referred to KZ-953 operating manual.

§8-5 EM Value(Electromagnetic Valve)

By default, the active connection method is used for the Electromagnetic valve; VOFF on the zone terminal board and + 24V are short circuited, and VCOM and AGND are the input end of power supply of the electromagnetic valve. If passive connection is required, the short circuited wire between VOFF and + 24V on the zone terminal board shall be removed, VCOM and VOFF serve as input terminals of electromagnetic valve power supply. When the active connection is adopted, the external connection of electromagnetic valve is shown in Fig. 4.1:

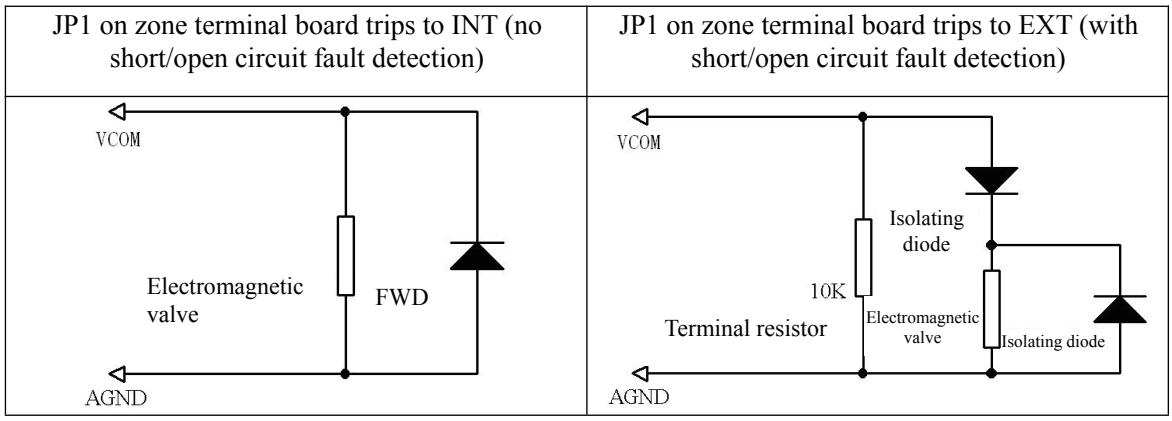


Fig. 4.1 External connection diagram of electromagnetic valve

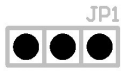
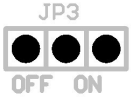
Figure 4.1 lists the loop connection without short/ open circuit detection and with short/open circuit detection, adding an isolation diode and a 10KΩ terminal resistor in a loop connection with short/open fault detection, both of which shall be attached to the load on the end of the line.

The isolation diode in the figure is used to isolate the short/open circuit detection voltage, but does not affect the output of drive signal. The selection of isolation diodes shall be dependent on the magnitude of load current, for instance, 1N5401 shall be selected for the Electromagnetic valve drive circuit (with load current of 1- 3A).

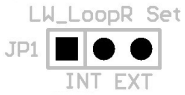
Since the electromagnetic valve is an inductive load, the counter electromotive force generated when the output of drive signal is aborted will influence or even damage the drive circuit, threatening the stability of system operation; therefore, a flywheel diode shall be added on the electromagnetic valve to absorb and suppress the counter electromotive force. **It is important to note the direction of flywheel diode and the polarity of the line while adding a flywheel diode at the end of line, since the incorrect connection may lead to an over-current circuit.** In general, 1N4007 or the equivalent flywheel diodes shall be selected.

§9 Jumper

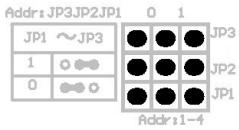
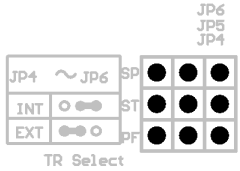
§9-1 Main board

JP1		Reserve jumper and by default, is set at OFF position.
JP2		Buzzer B1 has a sound switch jumper, ON and OFF respectively means the sound is turned on and off, and by default it is ON.
JP3		Buzzer B2 has a sound switch jumper, ON and OFF respectively means the sound is turned on and off, and by default it is ON.
JP4		Program burn and run jumper, PROG refers to program burn, RUN means operation, and by default it is RUN.

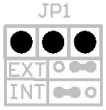
§9-2 Main control terminal board

JP1		Jumper used for loop break fault check. It is respectively internal and external load mode when JP1 jumps at INT and EXT. The internal load mode does not enable the detection of the loop breakage fault; but the external load mode does, however it is necessary to connect a 10K resistor in parallel at the end of loop, otherwise the loop breakage fault cannot be detected and by default, the setup is INT.

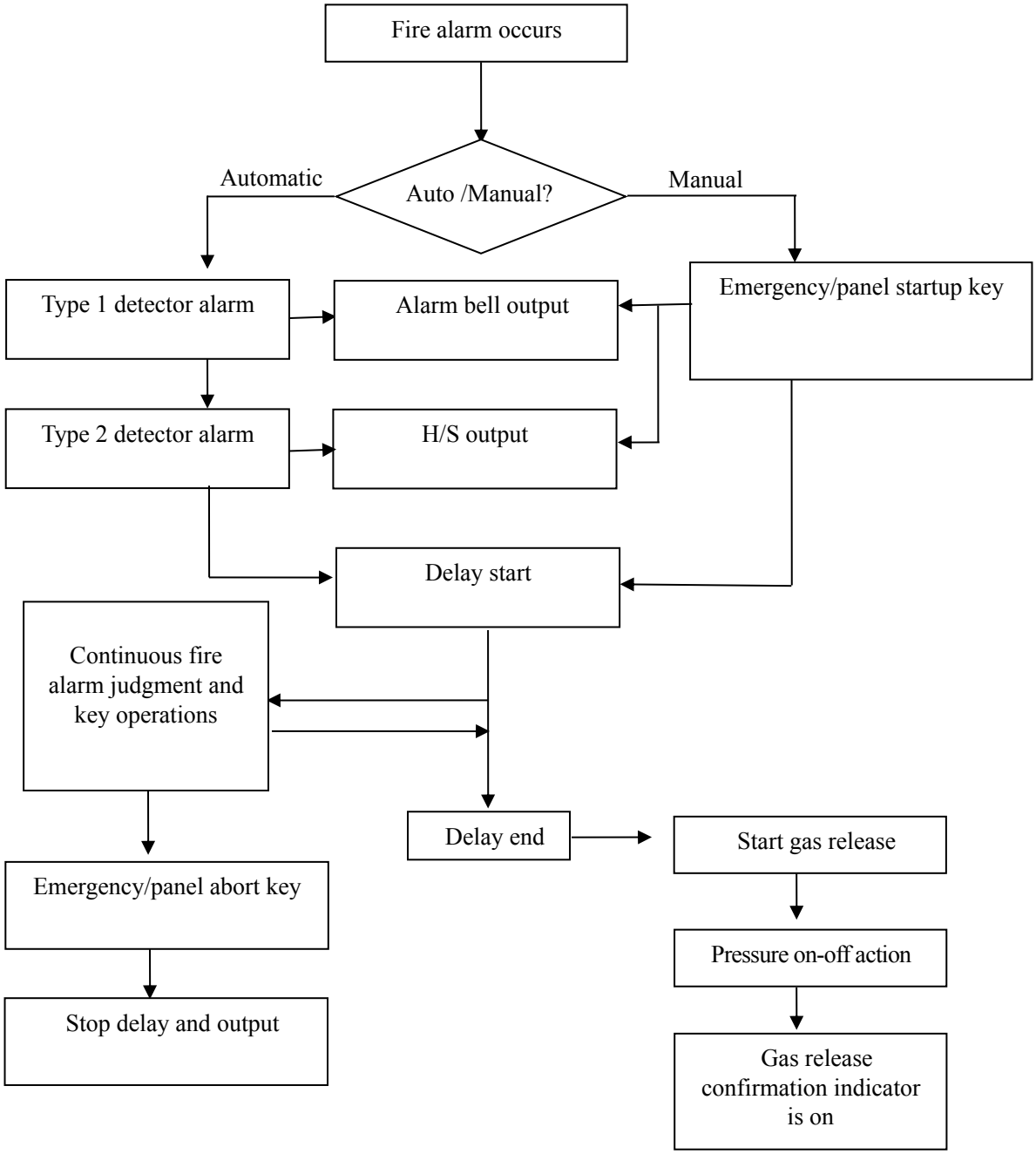
§9-3 zone control board

JP1 JP2 JP3		Address jumper for zone control board. JP3 and JP1 are respectively at high and low-order position, and the address can be set as 001, 010, 011 and 100. Four zone control boards are, from top to bottom, successively set as the 1-4 fire extinguishing zone.
JP4 JP5 JP6	 (Note: The silk screen in kind by V1.0 zone control board may be somewhat inconsistent with this figure, and the figure shall prevail)	Jumper for input/output circuit termination resistor. JP4, JP5 and JP6 are PF, ST and SP, respectively, i.e. the loop breakage detection indicating the pressure feedback, site emergency start-up and site emergency abort. JP6 is used for spot emergency abort loop breakage detection and by default, is INT, when it jumps to EXT, a 10K resistor is connected in parallel at the end of the loop. If the circuit is not open, the fault indicator light of the zone control display panel will not be on; if there is a circuit break, the fault light will be on. JP5 is used for spot emergency start loop breakage detection and by default, is INT, when it jumps to EXT, a 10K resistor is connected in parallel at the end of the loop. If the circuit is not open, the fault indicator light of the zone control display panel will not be on; if there is a circuit break, the fault light will be on. JP4 is used for pressure feedback loop breakage detection and by default, is INT, when it jumps to EXT, a 10K resistor is connected in parallel at the end of the loop. If the circuit is not open, the fault indicator light of the zone control display panel will not be on; if there is a circuit break, the fault light will be on.

§9-4 zone control terminal board

JP1		Short circuit fault detection for Electromagnetic valve. INT means internal load mode, not detecting the short circuit fault of Electromagnetic valve; EXT means external load mode and when a 10K resistor is connected in parallel at the end of the loop, it is able to detect the short circuit fault of Electromagnetic valve and by default, it is INT.

V. Electromagnetic valve gas release flow chart



VI. Operating instructions

§1 Access to the system

§1-1 Non-password protect operation and password protection operation

The control panel relates to the non-password protect operation and password protection operation.

The non-password protection operation does not require password input, and includes the following operations:

- View version information by pressing numeric key “0”
- Equipment in silenced/normal state
- Keyboard start/abort
- View current gas release information
- View current fire alarm information
- View fault information
- View start/feedback information
- Emergency start/abort on panel

An operation that requires a user to enter a password is considered a password protection operation, including:

- System setup(System)
- Functional setup(Function)
- Alarm setup(Alarm)
- Clear setup(Clear)
- History record(History)
- Password setup(Password)
- Self-check(System check)
- Reset
- H/S start &abort

When the system is running, press the "**Keyboard**" key, and the LCD interface will prompt: "**Password**". After entering the correct password, press # to enter the homepage interface, then keyboard operation light is on, indicating that the keyboard has been enabled. Press the keyboard number key 1 to enter the system for system configuration and query operation. The password can be input three times. Please be noted that the keyboard can be operated only when the keyboard operation light is on; when the light is off, the keyboard has been locked. If you want to operate the keyboard, you need to re-enter the password. When the keyboard operation light is on, the keyboard will be automatically turned off and the keyboard light is off if no keyboard operation in five minutes.

§1-2 Confirmation and cancellation of operation

After an operation has been completed, press # to save the changed data or press * key to cancel the operation and the data remains as it is. If the system is restarted due to power down before saving, the data that is not saved will be lost. The user is therefore reminded to, at any time, press # key to save the data during system setup.

Note: The system has a guard password, administrator password and super user password, and not all users are enabled to change the data that has been set. The guard can only view the data that has been set, and the
administrator can operate various functions without fire alarm, and the super user can set the functions under any circumstances. The system data remains as-is when the user operates beyond the scope of permission. Please enter the appropriate password while configuring a user!

§1-3 Time-out cancellation

When the system is waiting for the user's next operation, but no key is pressed within 60 seconds, it will automatically cancel the entire operation, return to the alarm interface, and turn off the keyboard 5 minutes after confirming no key operation. The operations during this period will be "forgotten". If, no any key operation within 5 minutes, without failure, fire alarm, gas release, start-up and feedback, the backlight of LCD will be automatically turned off. Therefore, we recommend the user have a better plan for the operations to be performed, so as to avoid side-to-side setup, and to improve the reliability and efficiency of system configuration.

§1-4 Configure data input function

The user who performs system setup may have to enter a lot of data. In order to improve the user's setup efficiency, the user may enter non-digital data with the key ▲ ▼. The number may be directly input by pressing 0-9 on the keyboard; when describing the position of detector module, the four input methods "Digital Input", "Small Letter", "Capital Letter", and "Zone Bit Chinese Character" are provided for the user to describe the specific location.

§1-5 System configuration function selection menu

To configure the system and its devices, first see if the system is on the home page and the panel keyboard is enabled. If the system is on the home page and the keyboard is disabled, press "**Keyboard**", then press "1" after entering the correct password, and enter the main configuration function menu; if the system is on the home page and the keyboard is enabled, press "1" directly.

Setup menu interface is shown below:

SETUP MENU	
System	Function
Alarm	History
Clear	Password

The cursor indicates the function item to be operated, and you can easily move the cursor to the function item you want to enter with the key ▲ ▼ ◄ ►. Press # to enter the function item and * to return. If there is no selection within 60 seconds, the menu will return to the home page or alarm interface upon timeout.

§1-6 Disable the keyboard

Back to the home page, and when the keyboard is enabled, press the key "**Keyboard**" to disenable it. If no key is pressed within five minutes after the keyboard is enabled, the page will automatically return to the home page and close the keyboard. When the keyboard is turned off, the panel keyboard indicator lights will be off.

§1-7 Quick start

§1-7-1 Brief instructions for use

(1) In the following operations, press # to save the current setup, and press * to exit the current page;

(2) Move cursor by pressing ◄ ►, and the value at the place of current cursor can be adjusted by pressing ▲ ▼ (the numeric input on the keyboard can be used when there is a number);

(3) According to the description in the dashed box next to the arrow, you can **quickly switch interfaces, save setups**, and also operate in the manners described above;

(4) Quick start makes only the common and basic setups for the control panel, and if more detailed setups are required, please refer to the following text;

(5) Before the quick basic setup is performed, the number and type of equipment for each fire-fighting zone needs to be planned according to the address, and the records shall be made, particularly for the **output module**, the type of s device to which it connects shall be determined, as shown in the following table:

Address	zone No.	Equipment	Equipment type
1~10	1	Smoke detector	GDTC
11~20	1	Heat detector	GWTC
21~22	1	Horn/Strobe	H/S
23~27	1	**Output module (equipment started before gas release)**	**FDJ**
28	1	**Output module (connected to gas release indicator)**	**QT**
29~30	1	**Output module (connected to alarm device)**	**YYLD**
……	……	……	……
51	2	……	……

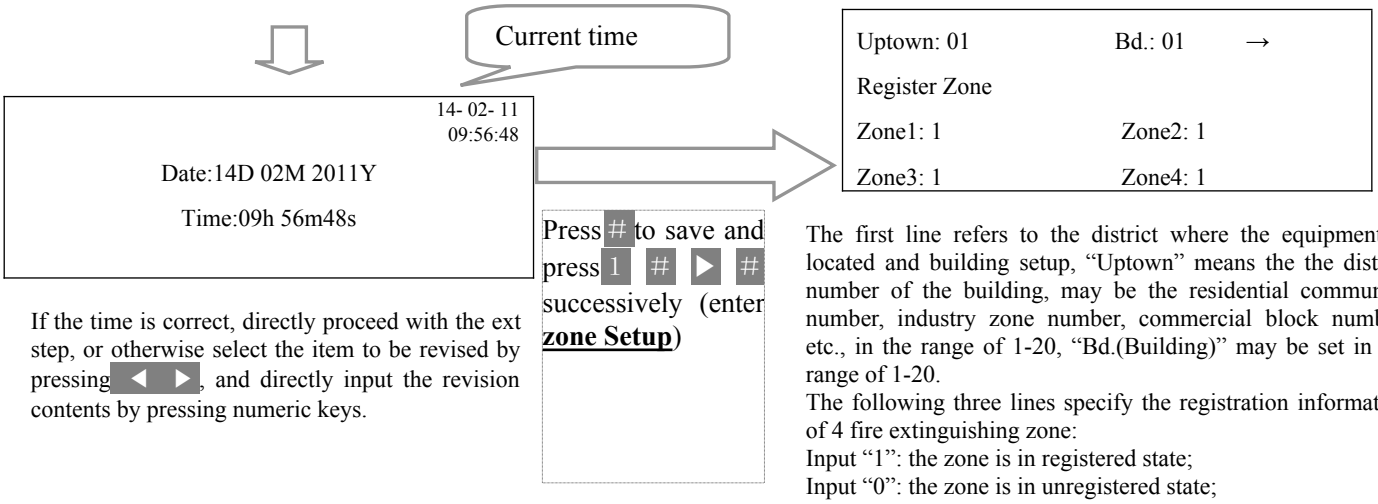
In the table above, 1#-50# addresses are defined as zone 1, and the zone includes 10 smoke detectors, 10 heat detectors, 2 Horn/Strobe and 2 alarm bells, 1 gas release indicator light, and 5 devices that need to be started before gas release, such as the air valve,shutter door and generator equipment. For the module type equipment, the user shall manually set the module before the equipment actually connected (such as the air valve, power generation, gas, and sounder equipment in the above table) can be used normally (see the subsequent instructions). The alarm bell, gas release indicator light, air valve, generator, shutter door and other equipment need to be connected to the output module for use.

All the equipment can be encoded by the encoder according to the planned address, after the address is compiled, each device can be connected to the bus loop as planned, and the bus loop is led out from the terminal 13 and 14 on the right main control terminal board inside the cabinet.

Note: By default addresses 1#-50# are defined as zone1, 51#-100 # addresses zone2, 101#-150# addresses zone3, 151#-200 # addresses zone4, and 201#-324# addresses zone1.

§1-7-2 Quick basic setup

Press "Keyboard"→Input default password "88888888"→Press # 1 # # successively (confirm, **Main Menu**, System Setup, **Time Setup).**

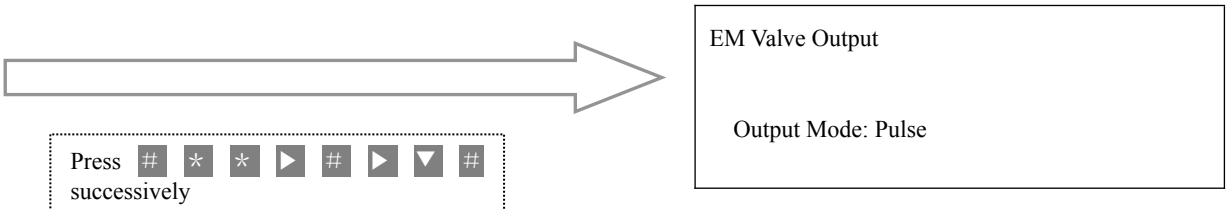


If the time is correct, directly proceed with the ext step, or otherwise select the item to be revised by pressing ◄ ►, and directly input the revision contents by pressing numeric keys.

Press # to save and press 1 # ▶ # successively (enter **zone Setup**)

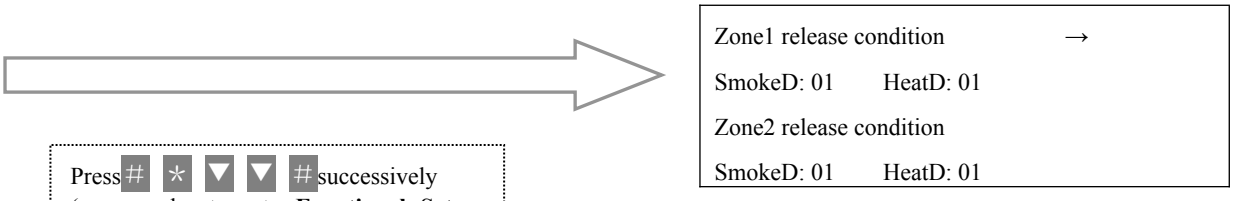
The first line refers to the district where the equipment is located and building setup, "Uptown" means the the district number of the building, may be the residential community number, industry zone number, commercial block number, etc., in the range of 1-20, "Bd.(Building)" may be set in the range of 1-20.
The following three lines specify the registration information of 4 fire extinguishing zone:
Input "1": the zone is in registered state;
Input "0": the zone is in unregistered state;

After setup, it is able to enter the interface **zone Address Setup** interface to set the address range of each zone by pressing ▶, and refer to §2-2-4 for the specific setup.



Press # * * ▶ # ▶ ▼ # successively
(save, and return to **System Setup,** return to **Main Menu**, **Functional Setup**, EM Valve Output)

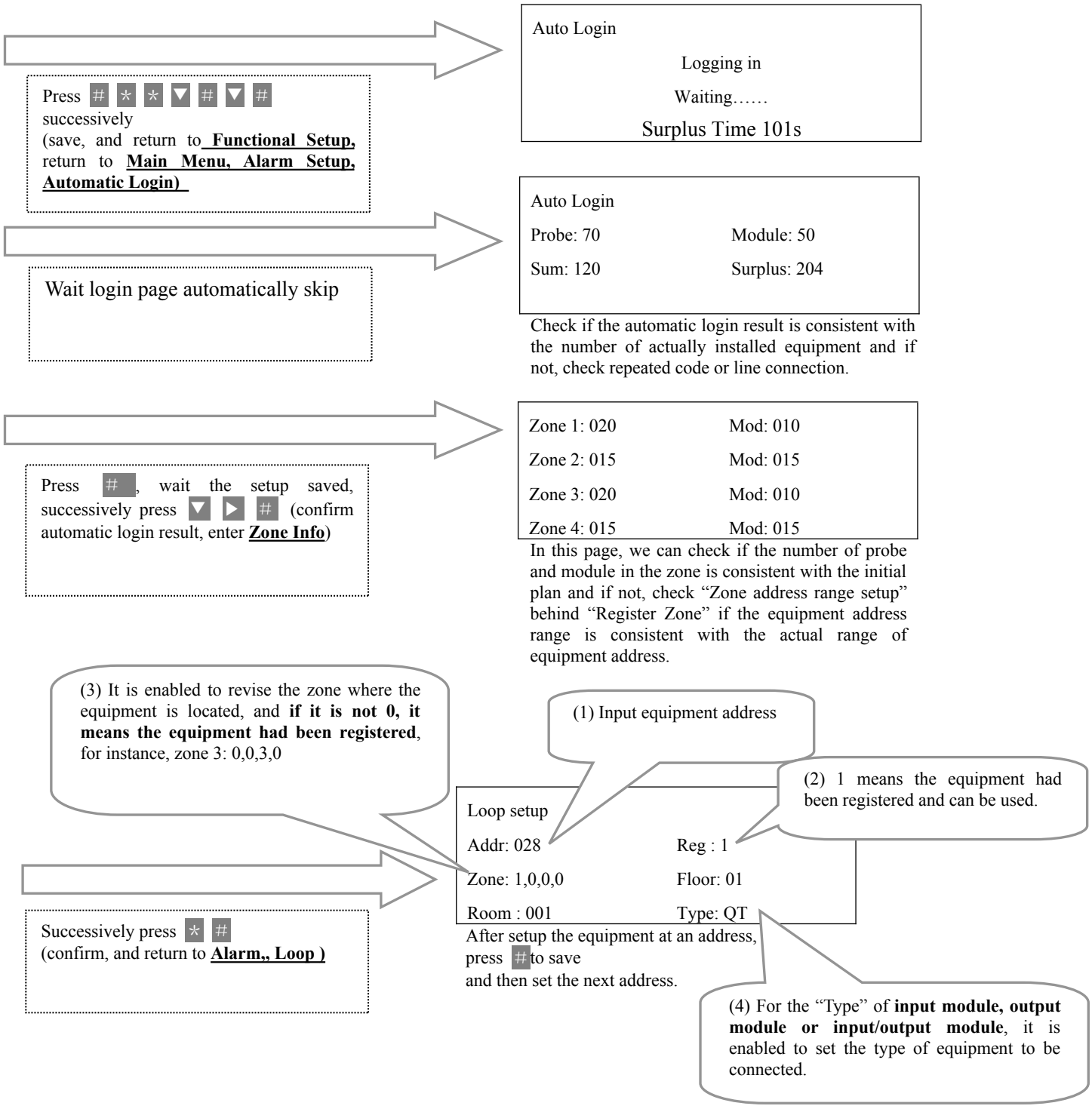
Press ▲ ▼ to revise:
Pulse : After EM Valve(Electromagnetic valve) output, if pressure feedback signal is detected, abort output pulse immediately and if no pressure feedback signal, output is automatically closed 10s after output.
Constant:EM Valve(Electromagnetic valve) continuously outputs.



Press # * ▼ ▼ # successively (save, and return to **Functional Setup, Automatic Gas release Condition)**

Select the items to be revised by pressing ◄ ► and press numeric keys to make revision and after setup this page, set zone3 and 4 in the next page by continuously pressing ▶.

The zone will allow for gas release under automatic state when the number of alarmed smoke detector and temperature detector in the zone is respectively up to above specified value.



The **equipment type** of module shall be modified according to the equipment actually connected, for instance:

1) When the output module is connected with the **alarm bell**, the equipment type should be "**YYLD**";

2) When the output module is connected with an gas release indicator light, the equipment type should be "**QT**";

3) When the equipment connected with output module shall be started before gas release, the equipment type should be "**FDJ**";

See "**§ 2-3-1 Loop Setup**" for more details.



Successively press * * ▶ ▼ ▼ #
(confirm and return to **Alarm Setup,** return to **Setup Menu, password setup**)

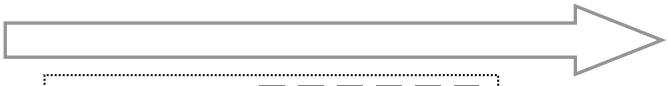
Password Setup

Superuser

Admin

Guard

Press ▲ ▼ to select the password to be revised, and press # to enter password revision interface, input old password, press the new password continuously in twice, press # to save.
Superuser may revise all of above passwords, administrator may revise the administrator and guard password, and the guard may only revise the guard password.
By default, the superuser password, administrator password and guard password is respectively 88888888, 666666 and 0000.



Successively press * * # ▶ # ▼ ▶ #
(confirm, return **Password Setup,** return to **Setup Menu, System Setup and Network Setup.**

Network setup →

Local address: 002 Slow: N

CAN communication: Allow

CAN Baud Rate: 100 KHZ

In this page the networking parameters can be set. Select the items to be revised by pressing ◀ ▶, press numeric keys to revise them and # save the setup. After setup, go to the next page for networking setup by continuously pressing ▶



Constantly press ▶, enable networking setup in the next screen.

Networking setup ←

Network Address: 002

Register: 0

Clear All Register: No

In this page, set the address of other hosts CAN networked with this host, select the the items to be revised by pressing ◀ ▶, press numeric keys to revise them and # to save the networking address, then proceed with the next address setup.



After completing all setups, press RESET to complete basic setup. It is required to check the validity of above setups, verify if the control panel can normally work. For custom setup of other functions, please refer to "§2 Configuration of main control platform".

§2 Configuration of main control platform

This chapter will describe the configuration process of each main control platform in detail.

§2-1 Log in the system

To configure the system and its devices, if the system is on the home page and the keyboard is disabled, press "**Keyboard**", after inputting the correct password, press # and "1" to enter the menu; if the system is on the home page and the keyboard is enabled, press "1" directly.

Setup menu is shown below:

SETUP MENU	
System	Function
Alarm	History
Clear	Password

The cursor indicates the function item to be operated, and you can easily move the cursor to the function item you want to enter with the key ▲ ▼ ◄ ►. Press # to enter the function item and * to return. If there is no selection within 60 seconds, the menu will return to the home page or alarm interface upon timeout.

§2-2 System Setup(System)

Select **System Setup(System)** in the setup menu, as shown below:

System Setup	
Time	Zone
Displayer	Network
Printer	Power

Move cursor by pressing ▲ ▼, set the item where current cursor is located by pressing #, and return by pressing *. Press # to revise current time when cursor is currently at **Time**.

§2-2-1 Time Setup(Time)

Select **Time Setup(Time)** in the menu, as shown below:

14- 02- 11
09：56：48

Date: 14D 02M 2011Y

Time: 09h 56m 48s

The current time is indicated in the upper right-hand corner, and the items to be modified can be selected by the key ◄ ►. Press the numeric key to enter the modification content directly. Press # key to confirm the modification and press * key to cancel the operation, and the time remains unchanged.

§2-2-2 Displayer Setup(Displayer)

Select **Displayer Setup(Displayer)** in the menu, as shown below:

Displayer Setup	
No . : 01	Reg : 1
Zone: 01	Floor : 01
Type: Chinese	Disp : Zone

By pressing ◄ ►, the user can set number, registration, zone number, floor number, type, display setup item, number range is 01 ~ 30, the zone number refers to the fire extinguishing zone number in the range of 01~04, and the floor number can be set in the range of -9 ~ 89, 98 floor in total (underground floor are expressed by "-" in front of the number "9"). Both the type and display are fixed options, the system currently only provides JB- FSD -982 Chinese displayer for the user.

Note: According to the national standard, when the displayer is set as floor display and the number of the display floor is 1, all the fire alarm information relating to the basement will be displayed.

The system can connect to at most 30 displayer. If there are many displayer or the connection line is long, it is recommended to use the twisted pair with relatively coarse wires as much as possible, and the shielded twisted pairs in the place with large environmental interference, and the welding process shall be used at the joint as far as possible. The specific wire diameter depends on the construction environment. When there are few displayer and shorter connection line, a common connection process may be used.

§2-2-3 Printer Setup(Printer)

Select **Printer Setup(Printer)** in the menu, as shown below:

Printer Setup
Printer Register: 1

Inputting “1” means the printer in the registered state, enabling printing function; Inputting “0” means the printer not registered, and the printing function disabled. Depending on the need, press # to save or * return to initial state.

§2-2-4 Zone Setup(Zone)

Select **Zone Setup(Zone)** in the menu, as shown below:

Uptown: 01	Bd.: 01
Register Zone	
Zone1:1	Zone2:1
Zine3: 1	Zone4:1

In this interface, the first line is used to set the zone and the building where the host is located, the uptown refers to the zone number of the generalized building group, can be the residential community number, the industrial area number, the commercial area number, etc., in the range of 1-20, the "Bd." refers to the building number in the range of 1-20.

The following three lines are used for fire extinguishing zone registration setup and, inputting "1" means the zone in the registered state, and inputting "0" means the zone not registered. Depending on the need, press # to save or * return to initial state.

Note: The uptown and the building setup are mainly used to ensure its consistency with 9100 building setup. After the residential area number and building number is set, and the bus terminal fire alarm (smoke detector, temperature sensing detector, Hydrant Manual Call Point, Manual Call Point) of the machine can be used as the linkage condition of other networked hosts.

The arrow in the top right corner → means the existence of next page. After setup in this page, press ▶ to enter the interface "Zone Address Range Setup", as shown below:

Zone Address Range Setup	
←	
1: 000～000	2:003～015
3: 000～ 000	4:000～000

In this interface, the address range of each zone can be set in batches and after modification, the zone number to which the device belongs to in the corresponding address range will be changed automatically. If there is "000" in the address range of a certain zone, the address range of the zone will not be modified and remain in the original state. For example:

Zone Address Range Setup	
←	
1: 001 ～ 024	2: 025 ～ 050
3: 000 ～ 000	4: 000 ～ 000

Equipment with address of 1～24 will be assigned to zone 2, and the setup of zone 3 and 4 will not be changed.

Note: If a two zone addresses modified are in conflict, the address range set latter has a higher priority, which will partially cover the previous zone for example:

Zone Address Range Setup	
←	
1: 001 ～ 024	2: 015 ～ 050
3: 000 ～ 000	4: 000 ～ 000

After the setup shown above, the address range of zone 2 is 15-50, since the lower limit of address range of zone 2 is in conflict with the upper limit of address range of zone 1, the address range of zone 1 will be 1-14.

Note: If the address range of this modified zone conflicts with the unmodified (with "000" unchanged address), the address range set this time has a higher priority, which will partially cover the previous zone. For example:

Zone Address Range Setup	
←	
1: 000 ～ 000	2:015 ～ 050
3: 000 ～ 000	4:000 ～ 000

As shown in the above figure, only the address range of zone 2 is modified into 15-50. If the address range of original zone 1 and 3 is 1-20 and 40-60 respectively, after the above setup, address range of zone 1 and 3 will be 1-14 and 51-60 respectively. After setup (the address range not manually modified will be covered by the modified address range with higher priority), press # to confirm the modification and the * to cancel the operation. The arrow in the upper right corner ← indicates that you can return to the previous interface.

§2-2-5 Network Setup(Network)

Select **Network Setup(Network)** in the menu, as shown below:

Network Setup	→
Local Addr.: 002	Slow: N
CAN communication:Allow	
CAN Baud Rate: 100 KHZ	

The local address can be set in the range of 002~255, and the user may enable or disable CAN communication by pressing ▲ ▼ , and select 10kHZ, 20kHZ, 50kHZ and 100kHZ respectively as CAN Baud rate by pressing ▲ ▼, and confirm low speed mode by pressing ▲ ▼. According to the setup need, press # for save and * to return.

The arrow in the top right corner→ means the existence of next page and after setup in this page, press ▶ to enter the next page **Network Setup** interface, as shown below:

Network Setup	←
Network address: 001	
Register: 1	
Clear All Register: No	

In this interface:
Network address: set addresses of other host CAN networked with this equipment, in the range of 001～254, input the expected host address number by numeric keys.
Register: indicate the registration of host at this address. Registration "1" means the equipment networked with the host at this address; and registration "0" means the equipment is not networked with the host at this address.

Clear all registrations——Select Yes or No by pressing ▲ ▼, and to prevent misoperation, it is enabled to enter the next interface for **Clear Confirmation** by pressing # only when the cursor is located at this place and Yes is selected, the **Clear Confirmation** interface is shown below:

Confirm Clear All CAN
Network Address Register?
Yes No

Select Yes or No by key ◄ ►. When the cursor is located at Yes, press # key to clear all the networked CAN addresses, that is, all the originally registered network host address registration is marked as 0; when the cursor is located at No, pressing # key will not change the original setup, and press # or * to return to the previous interface.

Note 1: Each networked address that had been set must be saved by pressing key #, otherwise the changed data will be abandoned.

Note 2: To reduce the total amount of data on CAN bus, reduce CPU communication overhead of each networked host, and in principle JB-QBL-QM300/4E gas control panel is not registered with each other.

§2-2-6 Power Setup(Power)

Select **Power Setup(Power)** in the menu, as shown below:

Power Setup
AC Register: 1
DC Register: 1

When the AC power registration input is "1", it means a registered state, when "0" is entered, it indicates that it is not registered; when a DC power registration input is "1", it indicates the registered state, and when "0" is entered, it indicates that it is not registered. According to the setup demand, press # to save and * to return.

§2-3 Alarm Setup(Alarm)

Select **Alarm Setup(Alarm)** in the main menu, as shown below:

Alarm Setup	
Loop	Test
Auto Login	Zone Info
Linkage	Set Import

When current cursor stays at Loop Setup, press # to set detector. Move cursor by pressing ▲ ▼ ◄ ►, set the items where current cursor is located by pressing #, and return by pressing *.

Note: the system will, based on the zone/floor/room, complete linkage setups and other setups, and therefore records must be kept.

§2-3-1 Loop Setup(Loop)

Select **Loop Setup(Loop)** in the menu, as shown below:

Loop Setup	→
Add. : 001	Reg : 0
Zone : 1,0,0,0	Floor.: 01
Room .: 001	Type : GWTC

The right arrow →indicates the existence of next page and, after setup in this page, enter the next interface by pressing ►, as shown below:

Loop Setup ←→
Manufac. Type: GWTC
Output Mode: Constant
Work Mode: Normal

The left arrow ←indicates returning to previous page and, after setup in this page, enter the next interface by pressing ►, as shown below:

Loop Setup ←
Place:
Numeral:

Description of setup items in above three figures:

Addr. –

Include the addresses of devices such as detectors, modules, Horn/Strobe, etc., ranging from 001 to 324. Press the number key to input the address number of device to be set, configure device parameters, or acquire the parameters by automatic login.

Reg. –

Indicates the operating status of device at this address. Registered as '1' indicates that the device is already in the system, working properly; registered as '0' indicates that the device does not have access to the system; or that the system has been accessed, but the equipment has been shielded (the probe does not alarm or the module cannot input, output, etc.). It is automatically set as '1' for auto-login and can also be manually set by number '1' and '0'.

Zone –

In the system, the production type is ionization detector, optical detector, heat detector, combined detector, Manual Call Point,Hydrant Manual Call Point, JK module and Horn/Strobe device can be registered in a plurality of zone, and the other devices can only be registered in a certain zone, and the four-zone attribute registration bits respectively correspond to zone1, 2, 3 and 4, e.g. 1, 0, 0 and 0 indicates only registered as zone1, 0, 2, 0, and 0 indicates registered as zone 2, 1, 0, 3 and 0 indicates registered as zone1 and zone3, and 1, 2, 3, 4 represents all of the four zone are registered. The default setup is" 1, 0, 0, 0 ", only zone1 is registered, and can be set manually by number "1"-" 4 ".

Floor –
This system can set a total of 98 floor, from -9 to 89. The "-" number before the underground floor from the ground floor to the underground 9th floor can be entered by number key "9".
Room –
This system can set up to 255 room, numbers from 001 to 255, and press the numeric key to set.
Type –
Equipment type. Automatically log in to identify the equipment type, including the following types:

- LZTC、GDTC(Ion detector,optical detector)
- GWTC(Heat detector (constant temperature))
- GWTC(Heat detector (differential constant temperature))
- FHTC(Combined detector (combination of optical and constant temperature detector))
- FHTC(Combined detector (combination of optical and differential constant temperature detector))
- SBAN(Manual call point)
- XSAN(Hydrant manual call point)
- SJBQ(Horn)
- GJBQ(Strobe)
- SGJB (Horn/Strobe)
- SZDH(Manual/Auto box)

The user can also manually set by pressing the ▲ ▼. The types available for users are:

- SZDH(Manual/Auto Box)
- SGJB(Horn/Strobe)
- YLFK(Pressure feedback)
- YYLD(Sounder linkage)
- QTSZ(Gas leak)
- KT(Air conditioner)
- JL(Shutter)
- DT(Elevator)
- QDSD(Cut power)
- XFSB(fire pump)
- PLB(Spray pump)
- FDJ(Generator)
- YLF(Deluge valve)
- FHM(Fire door)
- FHF(Fire valve)
- SFF(Blow valve)
- SFJ(Blower)
- ZYFF(Air valve)
- PYFJ(Smoke Exhaust Fan)
- PYF(Smoke damper)
- XHZF(Signal valve)
- DCF(Electromagnetic valve)

- QT(Gas)
- SLZS(Flow detector)
- XSAN(Hydrant manual call point)
- YLKG(Pressure switch)
- GWDL(Heat cable)
- SBAN(Manual call point)
- JKMK(Conventional module)
- FHTC(Combined detector)
- HWTC(Infrared beam detector)
- GWTC(Heat detector)
- GDTC(Optical detector)
- LZTC(Ionization detector)

Production type- the type refers to the production type of terminal equipment. The user can also manually set by pressing the ▲▼. The types available for users are:

- XSAN(Hydrant manual call point)
- SBAN(Manual call point)
- FHTC(Combined detector)
- GWTC(Heat detector)
- GDTC(Optical detector)
- LZTC(Ionization detector)
- SZDH(Manual/auto box)
- GJBQ(Strobe alerter)
- SJBQ(Horn alerter)
- SGJB(Horn/Strobe alerter)
- LDMK(LD module)
- ZXSK(Manual)
- KZJM(KZJ module)
- KZMK(KZ module)
- JSMK(JS module)
- JKMK(JK module)

Output mode- control module output mode in case of linkage output. Select the output mode by pressing ▲▼. The output modes available to users include:

- Constant : the module no longer changes after the action until the control panel resets or sends a command to abort the output.
- Pulse : The output is automatically aborted 6 seconds after the module action.

Working mode - set the sensitivity of detector, and select the sensitivity by pressing ▲▼. There are three types of sensitivity options:

- Normal
- Sensitive
- Slow

Location - Description of the specific location where the device is located. The specific location of each device address can be described, a maximum of seven Chinese characters or fourteen letters.

When the cursor stays at the input method selection, you can select three input methods by pressing the ▲▼:

- Numeral
- Lowercase
- Capital

You need to move the cursor to the ":" in front of the next line when entering text in the input method.

Numeral: When you select the numeral method, press the number you want to enter directly, and press ▼to delete the text wrongly input.

Lowercase: When lowercase method is selected, the number key 2 corresponds to abc, 3 to def, 4 to ghi, 5 to jkl, 6 to mno, 7 to pqrs, 8 to tuv, and 9 to wxyz; Press number keys to display the corresponding letter, and the letter to be selected is numbered 1234 from left to right. For example, to enter the three letters akz, press the number key 2 to display abc, input letter a by pressing 1; press 5 to display jkl, input letter k by pressing 2; press 4 to display the letter z, and complete the input of letters akz. If you move the cursor to the number in front of ":", then press the other numbers, the current number will be overwritten, the newly input number is displayed, and then you can enter other letters. You can also move the cursor to the letter to be selected and confirm the input by pressing ▲ or press ▼ to delete the wrong text.

Capital : Capital and lowercase inputs are identical.

Note : Each address that had been set must be saved by pressing key #, otherwise the changed data will be abandoned. When the setups related to the manual/auto box are changed, the machine must be reset and restarted after change, otherwise a wrong manual and automatic state in the zone will be caused!

§2-3-2Auto login

Move cursor to **Auto Login**, login by pressing #:

Auto Login
Logging In
Waiting……
Surplus time: 101s

Shown as below after login:

Auto Login	
Probe: 99	Module: 29
Sum: 128	Surplus:196

The login result is 99 probes, 29 modules, and the remaining 196 address points; press # to save the data. If you do not press the key, the login end display interface will be popped up to remind the user to save.

Note: After above setups are performed, no any kind of linkage setup is required, and the host enables linkage automatically after receiving an alarm.

§2-3-3 Linkage Setup(Linkage)

Move cursor to **Linkage Setup(Linkage)**, and press # to show the following:

Linkage Setup	
System	Type
Zone	Sounder
Floor	StartAbort

1) Cursor may stay at System , press # to set System Linkage, shown as below:

System Linkage	
No.: 01	Reg: 0
Delay: 000S	Addr.: 101
Count: 3	

System linkage means that all monitoring equipment (such as detector, manual Manual Call Point, Hydrant Manual Call Point, etc.) in the whole system can trigger the action linkage of module.

No. -linkage number, 01~ 30, 30 groups in total, each group of linkage can be viewed, set or modified accordingly.

Reg.- valid when set as '1' and invalid when set as '0'.

Delay- Upon receipt of alarm signal, the control panel will enable delay of the action of module at corresponding address. Press ▲ ▼ to select delay time "000S", "005S", "010S", "030S", "060S", "090S", "120S" and "150S".

Addr. - The module address that should be enabled when the system has an alarm.

Count - The minimum number of alarms required when the system linkage occurs, the optional range is 0 - 9 and by default, is 0. When set value is 0 or 1, it means the minimum number of alarm is 1.

Note 1: Save setups by pressing # . If setup is not required, press * to return to the previous menu.

Note 2: If there is a smoke or heat detector alarm in the registered zone under the automatic status, the zone would enable gas release if Manual Call Point is pressed within 30 minutes.

2) Move cursor to **Zone Linkage(Zone)**, and press # to show the following:

Zone Linkage	
No.: 01	FirQTY: 2
Zone.: 01	Reg.: 0
Delay:150S	Addr.:103

Linkage in zone means that all monitoring equipment (such as detector, Manual Call Point, Hydrant Manual Call Point, etc.) in the zone can trigger the action linkage of module.

No. - linkage number, 01~ 30, 30 groups in total, each group of linkage can be viewed, set or modified accordingly.

FirQTY - The current linkage will be triggered when the number of alarms in the zone reaches or exceeds this number.

Zone - Zone number corresponding to zone control board number can be set as 1~4.

Reg. - Register when set as '1' and invalid when set as '0'.

Delay- Upon receipt of alarm signal, the control panel will enable delay of the action of module at corresponding address. Press ▲ ▼ to select delay time "000S", "005S", "010S", "030S", "060S", "090S", "120S" and "150S".

For the linkage in the zone, the number of automatic gas release in each zone can be set. Only when the number of detectors in the zone alarm reaches the set number will the alarm gas release be started.

Addr. - The module address that should be enabled when the system has an alarm.

Note: Save setups by pressing # . If setup is not required, press * to return to the previous menu.

3) Move cursor to **Floor Linkage(Floor)**, and press # to show the following:

Floor Linkage
Type: QT
Reg. : 0
Scroll: 0

"Floor" in the linkage in floor refers to the fact that all monitoring equipment (such as detector, Manual Call Point, fire hydrant, etc.) may cause the action linkage of modules in the "floor" or adjacent "floor".

Type- set the type of action module in the "floor", selected by pressing ▲ ▼. Linkage type may include:

- QTSZ(Gas leak)
- KT(Air conditioner)
- JL(Shutter)
- DT(Elevator)
- QDSD(Cut power)
- XFSB(fire pump)
- PLB(Spray pump)
- FDJ(Generator)
- YLF(Deluge valve)
- FHM(Fire door)
- FHF(Fire valve)
- SFF(Blow valve)
- SFJ(Blower)
- ZYFF(Air valve)
- PYFJ(Smoke Exhaust Fan)
- PYF(Smoke damper)
- XHZF(Signal valve)
- DCF(Electromagnetic valve)
- QT(Gas)

Reg. - valid when set as '1' and invalid when set as '0'.
Scroll- Scroll refers to simultaneous action of adjacent "floor". 0 means non-scroll, and 1 means scroll.

Note: Save setups by pressing # and proceed with the next group of setup and if unnecessary, return to above menu by pressing *.

4) Move cursor to **Type Linkage(Type)**, and press # to show the following:

Type Alarm Linkage	
No.: 30	Reg.: 0
Type: GDTC	Start: 102
Delay: 120S	

Type alarm linkage means that a certain type of detector, module alarm or feedback triggers the action linkage of another module.

No. - linkage number, 01~ 30, 30 groups in total, each group of linkage can be viewed, set or modified accordingly.

Reg. - Register when set as '1' and invalid when set as '0'.
Type——equipment type triggering linkage, selected by pressing ▲ ▼.

- SGJB(Horn/Strobe)
- YLFK(Pressure feedback)
- YYLD(Sounder linkage)
- QTSZ(Gas leak)
- KT(Air conditioner)
- JL(Shutter)
- DT(Elevator)
- QDSD(Cut power)
- XFSB(fire pump)
- PLB(Spray pump)
- FDJ(Generator)
- YLF(Deluge valve)
- FHM(Fire door)
- FHF(Fire valve)
- SFF(Blow valve)
- SFJ(Blower)
- ZYFF(Air valve)
- PYFJ(Smoke Exhaust Fan)
- PYF(Smoke damper)
- XHZF(Signal valve)
- DCF(Electromagnetic valve)
- QT(Gas)
- SLZS(Flow detector)
- XSAN(Hydrant manual call point)
- YLKG(Pressure switch)
- GWDL(Heat cable)
- SBAN(Manual call point)
- JKMK(Conventional module)
- FHTC(Combined detector)
- HWTC(Infrared beam detector)
- GWTC(Heat detector)
- GDTC(Optical detector)
- LZTC(Ionization detector)

Start - The module address that should be enabled when the system has an alarm.

Delay - Upon receipt of alarm signal, the control panel will enable delay of the action of module at corresponding address. Press ▲ ▼ to select delay time "000S", "005S", "010S", "030S", "060S", "090S", "120S" and "150S".

Note: Save setups by pressing # and proceed with the next group of setup and if unnecessary, return to above menu by pressing *.

5) Move cursor to **Sounder Linkage(Sounder)**, and press # to show the following:

Sounder Linkage	
Type: GDTC	Reg.: 1
Scroll: 1	Start:sounder

Sounder linkage means that all the monitoring equipment (such as the detector, Manual Call Point, Hydrant Manual Call Point, etc.) in the "floor" will, when monitoring alarm signal, cause the action linkage of alarm bell and Horn/Strobe in the "floor" or adjacent "floor".

Type——equipment type triggering linkage, selected by pressing ▲ ▼.

- SLZS(Flow detector)
- XSAN(Hydrant manual call point)
- YLKG(Pressure switch)
- GWDL(Heat cable)
- SBAN(Manual call point)
- JKMK(Conventional module)
- FHTC(Combined detector)
- HWTC(Infrared beam detector)
- GWTC(Heat detector)
- GDTC(Optical detector)
- LZTC(Ionization detector)

Reg. - valid when set as '1' and invalid when set as '0'.

Scroll- Scroll floor refers to simultaneous action of adjacent "floor". 0 means non-scroll, and 1 means scroll.

Start——Alarm bell and Sounder Horn/Strobe

Note: Save setups by pressing # and proceed with the next group of setup and if unnecessary, return to above menu by pressing *.

6) Move cursor to **Linkage Start/Abort**, and press # to show the following:

Linkage Start/Abort
General linkage:Allow
Sounder linkage: Allow

The linkage start and abort setups are divided into the general linkage and sounder linkage. General linkage refers to the system linkage, linkage in the zone, linkage in the floor and type alarm linkage. The general linkage and the sounder linkage can be selected as allow and forbid by pressing ▲ ▼.

Only when allow is selected, the above linkage will is valid.

Note: The sounder linkage setup here is invalid for smoke detector and heat detector. According to the national standard requirement of gas fire extinguishing control, alarm bell will act for a single fire alarm and in case of composite gas release fire alarm, the Horn/Strobe and alarm bell will act. .

§2-3-4 Test Platform(Test)

Move cursor to **Test Platform(Test)** and press #, as shown below:

```
Test Platform
Single Point Test
Encoder Function
Repeat Address Test
```

1) Single Point Test——You can test the operation of a specific device, move the cursor to Single Point Test, press # key to start a single point test, or press * to quit. If the terminal type is a smoke detector, the following is displayed:

```
Single Point Test
Address: 001      Type:GDTC
 02   02   10   47   24
 02   00   00   00   00
```

The meaning of each display value is respectively: the terminal type, working state, smoke detection value, alarm value, background value, drift value and repeated code mark (00 represents no repeated code and 01 represents the existence of repeated code), and the last three digits are standby;

The following will be shown if the terminal type is a heat detector:

```
Single Point Test
Address: 001      Type:GWTC
 03   02   16   00   00
 00   00   00   00   00
```

The meaning of each display value is respectively: the terminal type, working state, temperature detection value, standby (3 digits) and repeated code mark (00 represents no repeated code and 01 represents the existence of repeated code), and the last three digits are standby;

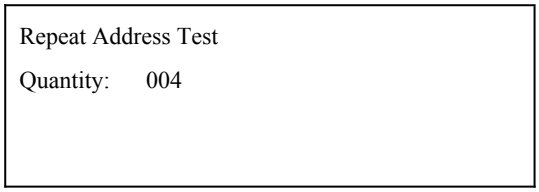
The following will be shown if the terminal type is a module:

```
Single Point Test
Address: 001      Type: DCF
 0D   00   00   00   00
 00   00   00   00   00
```

The meaning of each display value is respectively: the terminal type, standby, working state, standby (3 digits) and repeated code mark (00 represents no repeated code and 01 represents the existence of repeated code), and the last three digits are standby;

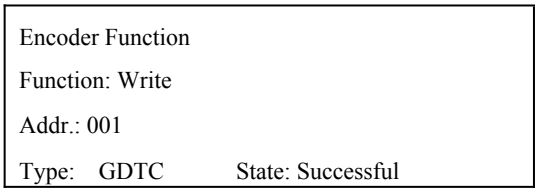
Note: The terminal type, operating mode and status description corresponding to each code are shown in the appendix!

2）Repeat Address Test——The online devices with the same equipment address in this system (reserved function, unused) can be tested. Move the cursor to the Repeat Address Test. Press # to start the test, displayed as follows:



Ln the above loop there are 4 addresses with repeated codes, and the repeated code addresses are: 001, 020, 035 and 320; if there is no repeated code in the loop, the number is 0 and no repeated address will be displayed.

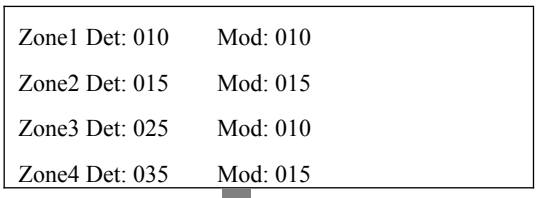
3) Encoder function—— Connect the intelligent terminal equipment to the L2 + and L2- bus, conduct code reading writing operations to the online device (reserved function, not used temporarily), move cursor to the Encoder Function, and press # to start coding and code reading as follows:



When the cursor is behind the **Function**, you can select to read or write code by pressing ▲ ▼. To write the code, jump the cursor to the address position to directly input the address to be written, and then press # to write device address. After writing, the type is displayed as **Equipment Type** and the status is **Successful** or **Failed**; When reading code function is selected, the address would not be displayed, press # to read device address and then, the type is displayed as **Equipment Type**, and the status is displayed as **Successful** or **Failed**.

§2-3-5 Zone Information(Zone Info)

Move cursor to **Zone Information(Zone Info)** and press # to shown the number of detector and module registered in each zone:

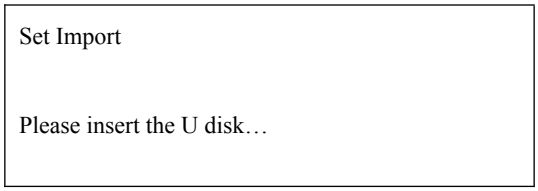


Return to previous menu by pressing *.

Note: The zone information is the statistics of the number detectors and modules in each zone after the last automatic login.

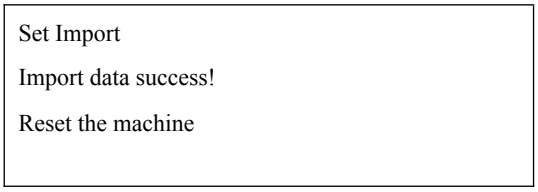
§2-3-6 Set Import

Move cursor to **Set Import** and press #, as shown below:



You can import setup contents only if you have the permission of super user. When the U disk with the data file QM300SET.BIN is inserted into the control panel, the import is started. If the import is successful, the following is displayed:

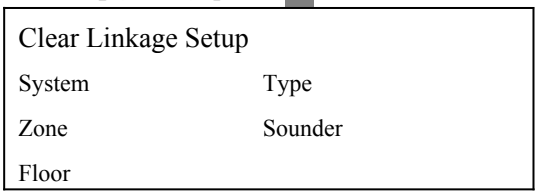
The following will be shown if the :



After the system is restarted, it is recommended to log in again automatically, and the production type and registration of probe module can be automatically corrected.

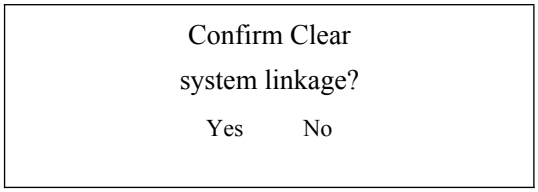
§2-4 Clear Setup(Clear)

Move cursor to **Clear Setup(Clear)**, press #, as shown below:



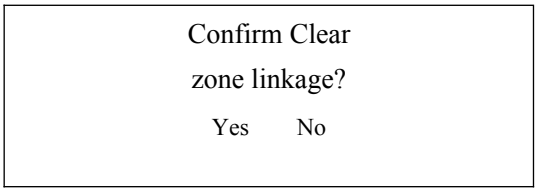
The cursor indicates the setups item that is currently being cleared, and you can easily move the cursor to the set item you want to enter with ▲ ▼ ◄ ►, and then press # to clear setups.

Currently the cursor stays at the System Linkage. Press # to clear the system linkage setups, pop up the confirmation interface, and display the following:



Move cursor by pressing ◄ ►, select Yes or No, press # to confirm the selection or press * to return.

Currently the cursor stays at the Linkage in Zone. Press # to clear the system linkage setups, pop up the confirmation interface, and display the following:



Move cursor by pressing ◄ ►, select Yes or No, press # to confirm the selection or press * to return.

Currently the cursor stays at the Linkage in Floor. Press # to clear the linkage setups, pop up the confirmation interface, and display the following:

Confirm Clear
floor linkage?
Yes No

Move cursor by pressing ◄ ►, select Yes or No, press # to confirm the selection or press * to return.

Currently the cursor stays at the Type Linkage. Press # to clear the type linkage setups, pop up the confirmation interface, and display the following:

Confirm Clear
type linkage?
Yes No

Move cursor by pressing ◄ ►, select Yes or No, press # to confirm the selection or press * to return.

Currently the cursor stays at the Sound Linkage. Press # to clear the linkage setups, pop up the confirmation interface, and display the following:

Confirm Clear
sounder linkage?
Yes No

Move cursor by pressing ◄ ►, select Yes or No, press # to confirm the selection or press * to return.

§2-5 Function Setup(Function)

Select the **Function Setup**(**Function**) in the menu of system main control platform, as shown below:

Function Setup	
Start/Abort	H/S key
Delay	EM Valve
Condition	Printer Setup

When cursor stays at Start/Abort, set the control panel by pressing #. Move cursor by pressing ▲ ▼ ◄ ►, set the items where cursor is located by pressing #, and return by pressing *.

§2-5-1 Start/Abort

Select **Start/Abort** in the menu, as shown below:

Manual Start/Abort Setup
Manual: Allow
Delay: 05s

Select site manual start as allow or forbid by pressing ▲ ▼, manual gas release (including start-up button on panel and emergency start/ abort button on site) can be set with delay time of 0-30s and by default, 5s, press # to save or * to return.

§2-5-2 Auto Gas Release Delay(Delay)

Select **Auto Gas Release Delay(Delay)** in the menu, as shown below:

Auto Gas Release Delay	
Zone1:20s	Zone2:20s
Zone3:20s	Zone4:20s

Press ▲ ▼ to set fire delay time in each zone in the range of 0~30S and by default, 20s, press # to save or * to return.

§2-5-3 Auto Gas Release Condition(Condition)

Select **Auto Gas Release Condition(Condition)** in the menu, as shown below:

Zone1 Release Condition	→
SmokeD: 01	HeatD: 01
Zone2 Release Condition	
SmokeD: 01	HeatD: 01

The right arrow →indicates the existence of next page and, after setup in this page, enter the next interface by pressing ▶, as shown below:

Zone3 Release Condition	←
SmokeD: 01	HeatD: 01
Zone4 Release Condition	
SmokeD: 01	HeatD: 01

The left arrow ←indicates returning to previous page. In the above interface the alarm number of smoke detector and heat detector can be set in each zone, and when the number of alarmed smoke detector and heat detector in the same zone reaches the set value, the gas release will be started under automatic state. The number of smoke detector and heat detector can be respectively set in the range of 0-10 and 1~10, and when the number of smoke detector is set as 0, the number of heat detector should be at least set as 2, and by default the number of smoke and heat detector is 1, press # to save or * to return.

§2-5-4 Horn/Strobe Key(H/S Key)

Select **Horn/Strobe Key(H/S Key)** in the menu, as shown below:

H/S key
H/S:Allow

Select Allow or Forbid by pressing ▲ ▼. Selecting Allow means that, when keyboard operation indicator is on, you can enable or disable the sound/ light alarm tone. Selecting Forbid means that the key cannot start and abort the sound/ light alarm tone, press # to save, and press * to return.

§2-5-5 Electromagnetic Valve(EM Value)

Select **Electromagnetic Valve(EM Value)** in the menu, as shown below:

EM Valve
Output Mode: Pulse

The Pulse output or Constant output can be selected by pressing ▲ ▼. The pulse output indicates that after the output of Electromagnetic valve, if the pressure feedback signal is detected, the output pulse will be aborted immediately. If no pressure feedback signal is detected, the output is automatically disabled 10s later. The constant output indicates the continuous output of Electromagnetic valve. Press # to save or * to return.

Note: When there are three or more Electromagnetic valve are set as Electromagnetic valve with "Constant " in the system, considering the large current of Electromagnetic valve, please use the external power supply, otherwise it may affect the normal operation of control panel.

§2-5-6 Print Setup

Select the **Print Setup** in the menu to print the current summary configuration of the machine through the printer, and the printed contents include the following:

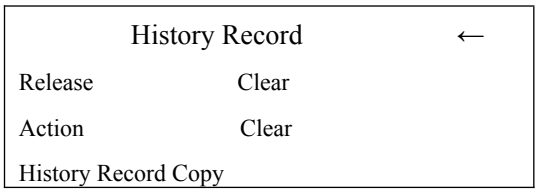
Power configuration; printer configuration; uptown number setup; building number setup; fire extinguishing zone registration; zone automatic gas release delay; zone automatic gas release condition; site manual start & abort setup; Horn/Strobe start & abort key setup; Electromagnetic valve output setup; networking setup; detector module registration.

§2-6 History Record(History)

Move cursor to **History Record(History)**, press #, as shown below:

History Record	→
Fire alarm	Clear
Feedback	Clear
Fault	Clear

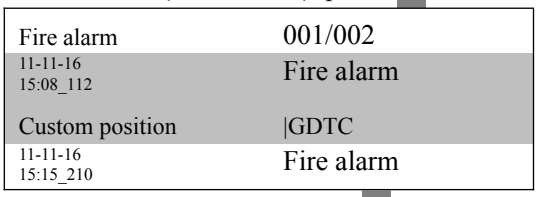
The right arrow →indicates the existence of next page and, after setup in this page, enter the next interface by pressing ▶, as shown below:



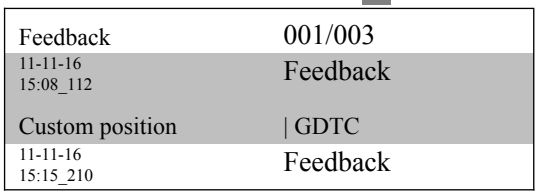
The left arrow ←indicates returning to previous page, you may go to last interface by pressing ▲or ◀. When cursor stays at fire alarm, you may view historical fire alarm record by pressing #. Move cursor by pressing ▲ ▼ ◀ ▶,, press # to view or clear the item where the cursor is located. A maximum of 999 historical fire alarms and historical feedbacks can be recorded, and when the record number reaches 999 but not cleared, a new record that appears will automatically replace the oldest one. A maximum of 500 historical faults, historical gas releases and historical actions can be recorded. When the record number reaches 500 but not cleared, the new record will automatically replace the oldest record.

Note: Superuser password will be necessary for clear action and history record copy.

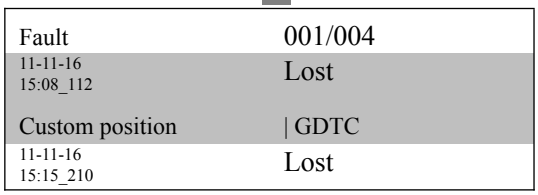
To select **Historical Fire Alarm(Fire Alarm)**, press # to show the following interface:



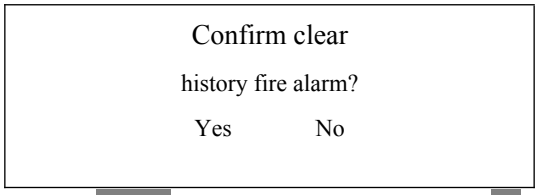
To select **Historical Feedback(Feedback)**, press # to show the following interface:



To select **Historical Fault(Fault)**, press # to show the following interface:

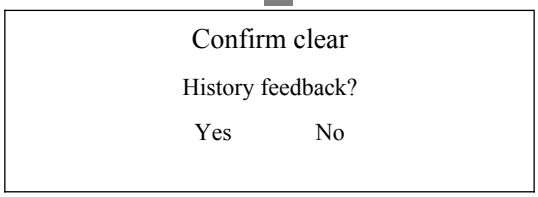


To select **Clear Fire Alarm(Clear)**, press # to show the following interface:



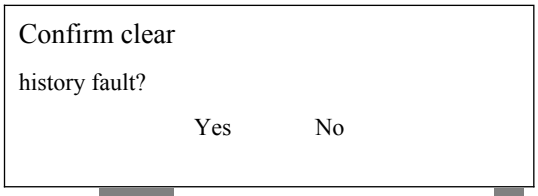
Move cursor by pressing ◀ ▶, to select Yes or No, press # to confirm the selection or press * to return.

To select **Clear Feedback(Clear)**, press # to show the following interface:



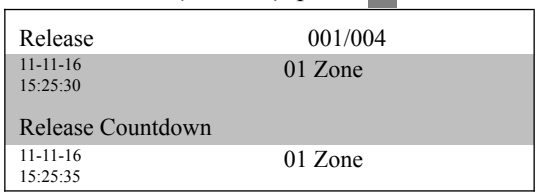
Move cursor by pressing ◄ ► to select Yes or No, press # to confirm the selection or press * to return.

To select **Clear Fault(Clear)**, press # to show the following interface:

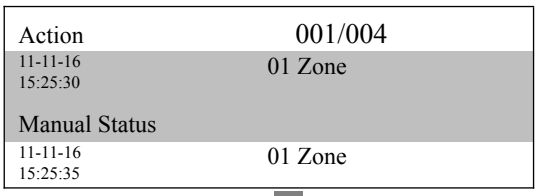


Move cursor by pressing ◄ ► to select Yes or No, press # to confirm the selection or press * to return.

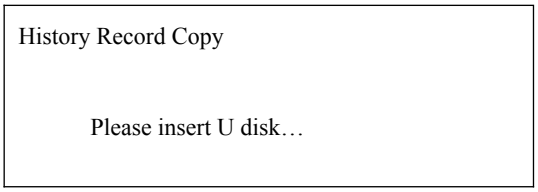
To select **Historical Gas Release(Release)**, press # to show the following interface:



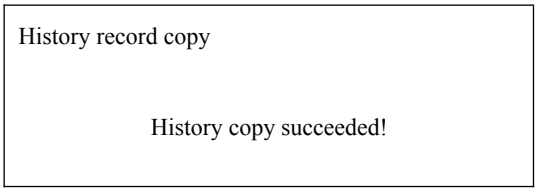
To select **Historical Action(Action)**, press # to show the following interface:



To select **Historical Record Copy**, press # to show the following interface:

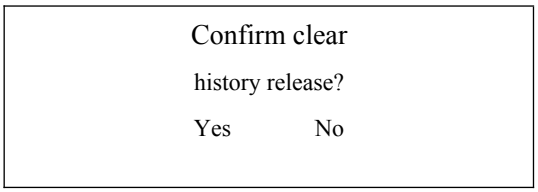


Historic record can only be copied when a super user's authority is obtained. In the above interface, you can press * key to return, and exit the historical record copying interface, insert the USB flash disk for data copy, and after the copy is completed, generate the "Month-Day-Hour-Minute. BIN" file, such as" 02150830.BIN ", the interface is shown as follows:



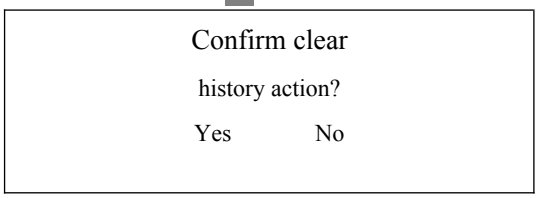
Press # or * to return and exit the historical record copying interface.

Note: considering the naming rule of historical data copy, repeated data duplication in one minute will result in an error in the generated data. When **Clear Gas release** is selected, press #, and the following interface will display:



Move cursor by pressing ◄ ► to select Yes or No, press # to confirm the selection or press * to return.

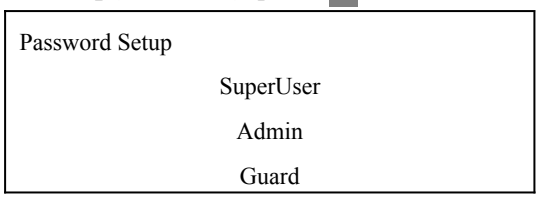
To select **Clear Action(Clear)**, press # to show the following interface:



Historical action can be cleared only when the authority of superuser is obtained. Move cursor by pressing ◄ ► to select Yes or No, press # to confirm the selection or press * to return.

§2-7 Password Setup(Password)

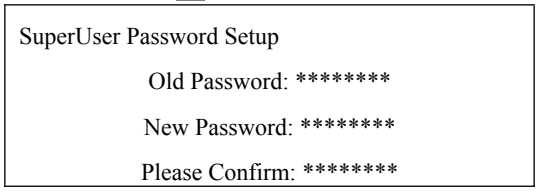
Move cursor to **Password Setup(Password)**, press #, as shown below:



The current cursor stays at **SuperUser**, and when logged in as superuser, the Superuser Password can be changed by pressing #. You can modify the **Admin** and Guard by moving the cursor with ▲ ▼. Login as the superuser allows for the change of superuser password, administrator password, and guard password; Login as the administrator allows for the change of administrator password and guard password; the guard can only change the own password. By default, the admin password and guard password is 666666 and 0000 respectively.

§2-7-1 Superuser Password Setup(SuperUser)

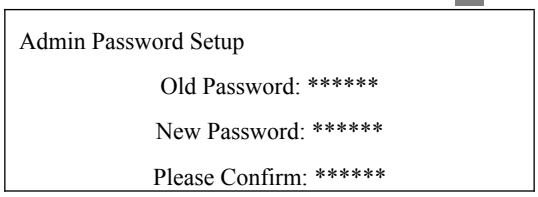
Move cursor to SuperUser, press #, as shown below:



The superuser password is 8 digits, you may input the old password, continuously input the new password in twice, and save it by pressing #.

§2-7-2 Administrator Password Setup(Admin)

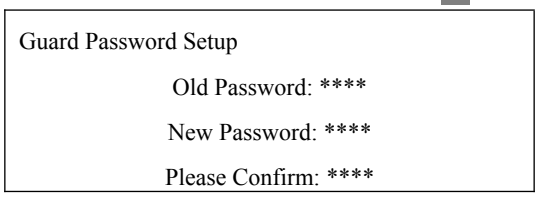
Move cursor to **Administrator Password(Admin)**, press #, as shown below:



The administrator password is 6 digits, you may input the old password, continuously input the new password in twice, and save it by pressing #.

§2-7-3 Guard Password Setup (Guard)

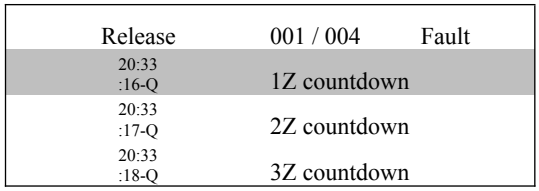
Move cursor to **Guard Password Setup (Guard)**, press #, as shown below:

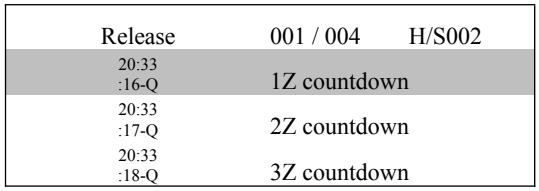


The guard password is 4 digits, you may input the old password, continuously input the new password in twice, and save it by pressing #.

§3 Display function

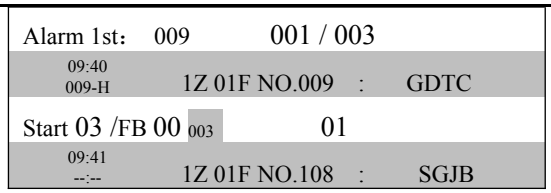
The system displays five interfaces: the air release, fire alarm linkage, fire alarm, start/ feedback and fault interface. The air release interface is displayed at the most front, and can be switched and viewed with the shortcut key ◄ ►.

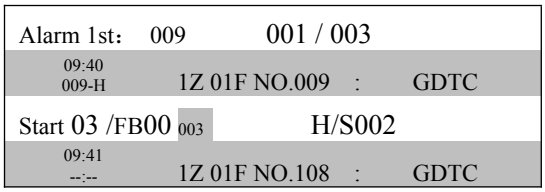


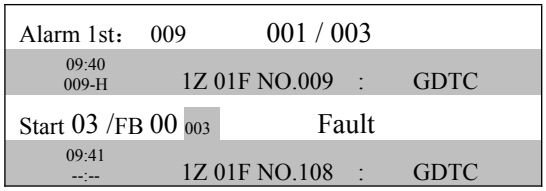


The above two figures are air release display interfaces, the upper left corner is "Release", "001/004" indicates a total of four gas release information, the one being currently viewed (the cursor stays in the item) is the first item, the left digit represents the recording time, the first recording time is 20: 33: 16, at most 120 gas release information can be displayed. The "Fault", "H/S002 "in the upper right-hand corner of the two figures would appear alternatively, indicating two H/S faults (including far-end-sound and H/S fault).

Note: the H/S fault shown in air release interface is displayed only when there is the air release and Horn/Strobe fault:



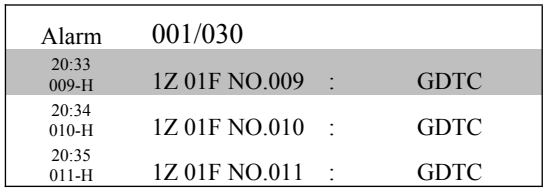




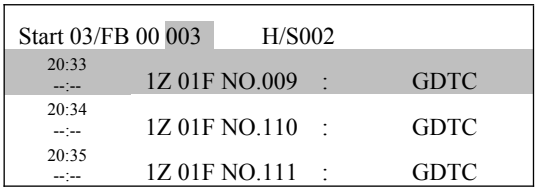
Above three figures display the fire alarm/linkage display interface. The "Alarm 1st： 009" is displayed in the upper left corner, displaying the number of the first fire alarm 009 and the "001/ 003" indicates three fire alarms. The small word "003" indicates that the current logging address of equipment is 003, the first figure shows the information in the absence of H/S fault; and "01" in the third line indicates that the first start/ feedback information is being viewed.

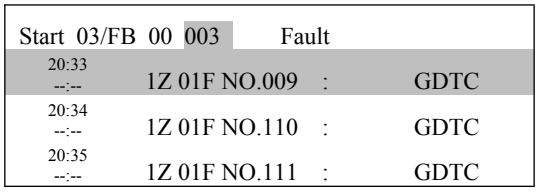
When an H/S fault occurs, "01" is overwritten and displayed as" H/S002 "," Fault "alternately in the third row, as shown in the 2nd and 3rd figure, indicating that there are two H/S faults (including far-end-sound, H/S fault), and the first one is being viewed (where the cursor stays).

Note: H/S fault in fire alarm/linkage interface is displayed only when the fire alarm linkage equipment activates feedback and H/S faults occur;



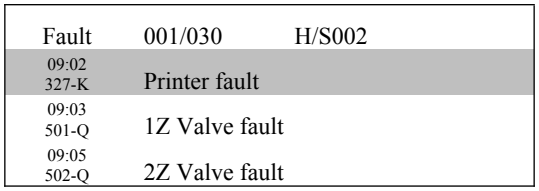
The above figure is the fire alarm display interface, and Alarm is displayed in the upper left corner. The "001/ 030" indicates a total of 30 fire alarms. The first one is being viewed (where the cursor stays), at most 120 fire alarms displayed.

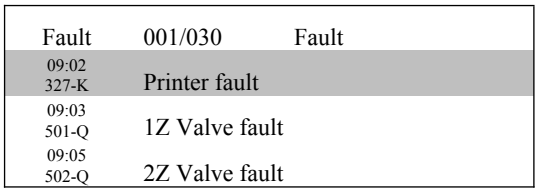




The above two figures are the start/feedback display interface, "Start 03/ Feedback 00" is displayed in the upper left corner; "Start 03" indicates that 3 linkages are enabled, "Feedback 00" indicates no feedback signal input, and the small "003" in the first line indicates that the current login address of equipment is 003. The "H/S002", "Fault"in the upper right-hand corner of the two figures would appear alternatively, indicating two H/S faults (including sounder and H/S fault).

Note: H/S fault in start/feedback interface is displayed only when the start/feedback and H/S faults occur;





The above two figures are the fault display interface, and Fault is displayed in the upper left corner. The "001/ 030" indicates a total of 30 fire alarms. The first one is being viewed (where the cursor stays), at most 250 fault information displayed. The "H/S002", "Fault"in the upper right-hand corner of the two figures would appear alternatively, indicating two H/S faults (including sounder and H/S fault).

Note1: H/S fault in the fault interface is displayed only when the H/S faults occur;

The meaning of relevant letter after the time and address in the above display interface is described as follows:

-H: Fire alarm
-M: Lost
-K: Open circuit
-D: Short-circuit
-S: Device failure
-L: Type mismatch
-C: Repeat code
-Z: Sensor dirty
-P: Undervoltage
-W: Leak
-Q: Zone

The address meanings in the above display interface is described as follows:

000: Loop
001-324: Address of corresponding intelligent terminal equipment
325: Main power
326: Backup power
327: Printer
328: Leak
329: Leak loop
330: CAN communication
401-430: Address of corresponding 1-30 fire displayer
501-504: Address of corresponding 1-4 zone control board

Note2:Some abbreviation they mean:

Z:Zone	F:Floor
Reg:Register	Bd:Building
Fb:Feedback	FirQTY:Fire quantity
Det:Detector	Mod:Module
SmokeD:Smoke detector quantity	HeatD:Heat detector quantity
Comm:Communication	V:Village
D:Day	M:Month
Y:Year	h:Hour
m:Minute	s:Second

VII. Precautions

1. Keyboard operation: To configure the system and its devices, first see if the system is on the home page and the panel keyboard is enabled. If the system is on the home page and the keyboard is disabled, in case of any gas release/fire alarm/fault, press "**Keyboard**" and input the correct password (three attempts are permitted) before keyboard operation.

2. Save: After the operation has been completed, press # key to save the data that has just been changed. If you press * key to cancel the operation, the data remains as it is. If the system is restarted for power down before saving, the data that is not saved will be lost.

3. Time-out cancellation: When the system is waiting for the user's next operation, but no key is pressed within 60 seconds, it will automatically cancel the entire operation, return to the alarm interface, and turn off the keyboard 5 minutes after confirming no key operation. The operations during this period will be "forgotten".

4. **Disable the keyboard:** Back to the home page, and when the keyboard is enabled, press the key "**Keyboard**" to disenable it. If no key is pressed within five minutes after the keyboard is enabled, the page will automatically return to the home page and close the keyboard. When the keyboard is turned off, the panel keyboard indicator lights will be off.

5. Address number: The address number is the physical encoding of detector/ module. When setup on the control panel, the address range is 001-324. The probe/ module can be arbitrarily addressed, and two identical address numbers on the same loop are not permitted.

6. Type: The type of interface input can be selected by using ▲ ▼. The corresponding actual equipment type refers to the type of the detector/ module connected, for instance, the ion means smoke detector, and the interface means the interface module.

7. Uptown/building: Uptown/building is the major parameter relating to networking. Each JB-QBL-QM300/4E control panel has only one residential area number and a building number, and the residential area number (1 ~ 20) is consistent with the zone number of 9000 system, and the building number (1 ~ 20) is consistent with that of 9000 system.

8. Zone/floor number/room number: Zone/floor number/room number is a user-defined bus terminal code. Room number has 3 digits (1-255), zone has 4 digits (1-4), floor number has 2 digits, corresponding to the address comprising address number.

9. Zone number/floor number/room number can be repeated. ***Zone number/floor number/room number is the basis data of the system. All system setups are based on the zone /floor number/room number, shall be well planned and temporary change is not permitted.***

10. Registered: registration= 1 means connected; registration=0 means not connected.

11. Can be connected with specific micro-printer.

12. Can be connected to floor fire displayer.

12. **Alarm threshold**: including the sensitive, slow and normal.

13. **Control mode**: pulse output, 1 pulse in total, but continuous constant output is provided.

14. System alarm linkage: system alarm linkage refers to the linkage action module that can be triggered when the number of detector alarms in the whole system reaches or exceeds the set number.

15. Time delay: it refers to the startup time delay of module set in the linkage. It may be set as 0s, 5s, 10s, 30s, 60s, 90s, 120s and 150s.

16. Alarm linkage in zone: it refers to the fact that a detector or module alarm in a certain fire extinguishing zone can trigger linkage action, set in at most 4 zone, 30 groups in total.

17. Alarm linkage in floor: it refers to the module action in a "floor" corresponding to a detector or module alarm.

18. **Scroll**: it refers to the simultaneous action of adjacent "floor". "floor" is the user defined floor when the user sets the module and detector, may or may not correspond to the actual floor number. 0 and 1 represents respectively non-scroll and scroll.

19. Type alarm linkage: it refers to the module action triggered by a certain type of alarm point action.

20. Sounder: it controls the alarm bell and fire-fighting broadcast.

21. Clear Function: mainly used to clear the linkage setup.

Appendix ：Comparison table of terminal type code, detector and module status code in a single-point test

Table 1 Terminal type code

Terminal code	Terminal type
0x01	LZTC(Ion detector)
0x02	GDTC(Optical detector)
0x03	GWTC(Heat detector)
0x04	FHTC(Combined detector)
0x0a	JKMK(Conventional module) (interface)
0x0b	Input module (monitoring)
0x0c	Output module (control)
0x0d	Input & output module (control and monitoring)
0x0e	Manual control button
0x0f	Multi-line module
0x16	SBAN(Manual call point)
0x17	XSAN(Hydrant call point)
0x1a	XSAN(Hydrant call point)
0x1b	SJBQ(Horn alerter)
0x1c	GJBQ(Strobe alerter)
Others	Standby

Table 2 Detector status code

Terminal type	Status code	Implication description
Detector	0x01	Sensitive
	0x02	Normal
	0x03	Slow
	0x04	Sensor fault
	0x05	Sensor pollution
	0x06	Standby
	0x07	Fire alarm
	0x08～0x0b	Standby
	0x0c	Sensor fault confirmation
	0x0d	Sensor pollution confirmation
	0x0e	Standby
	0x0f	Fire alarm confirmation

Table 3 Module status code

Terminal type	Status code	Implication description
Module	0x00	Normal
	0x01	Breakage
	0x02	Short circuit
	0x03	Equipment fault
	0x04	Equipment request
	0x05	Type inconsistency
	0x06～0x0a	Standby
	0x0b	Request +Feedback
	0x0c	Standby
	0x0d	Module action
	0x0e	Feedback
	0x0f	Fire alarm
	0x10	Normal confirmation
	0x11	Breakage confirmation
	0x12	Short circuit confirmation
	0x13	Equipment fault confirmation
	0x14	Equipment request confirmation
	0x15	Type inconsistency confirmation
	0x16～0x1a	Standby
	0x1b	Request +feedback confirmation
	0x1c	Stop confirmation
	0x1d	Action confirmation
	0x1e	Feedback confirmation
	0x1f	Fire alarm confirmation