Voice Alarm Evacuation System

All-in-One Solution

Content

1 System introduction

- System Overview
- Rack Mounted EVAC System
- Wall Mounted EVAC System

2 Function & Features

- Function & Features

3 Product overview

- Series
- Production

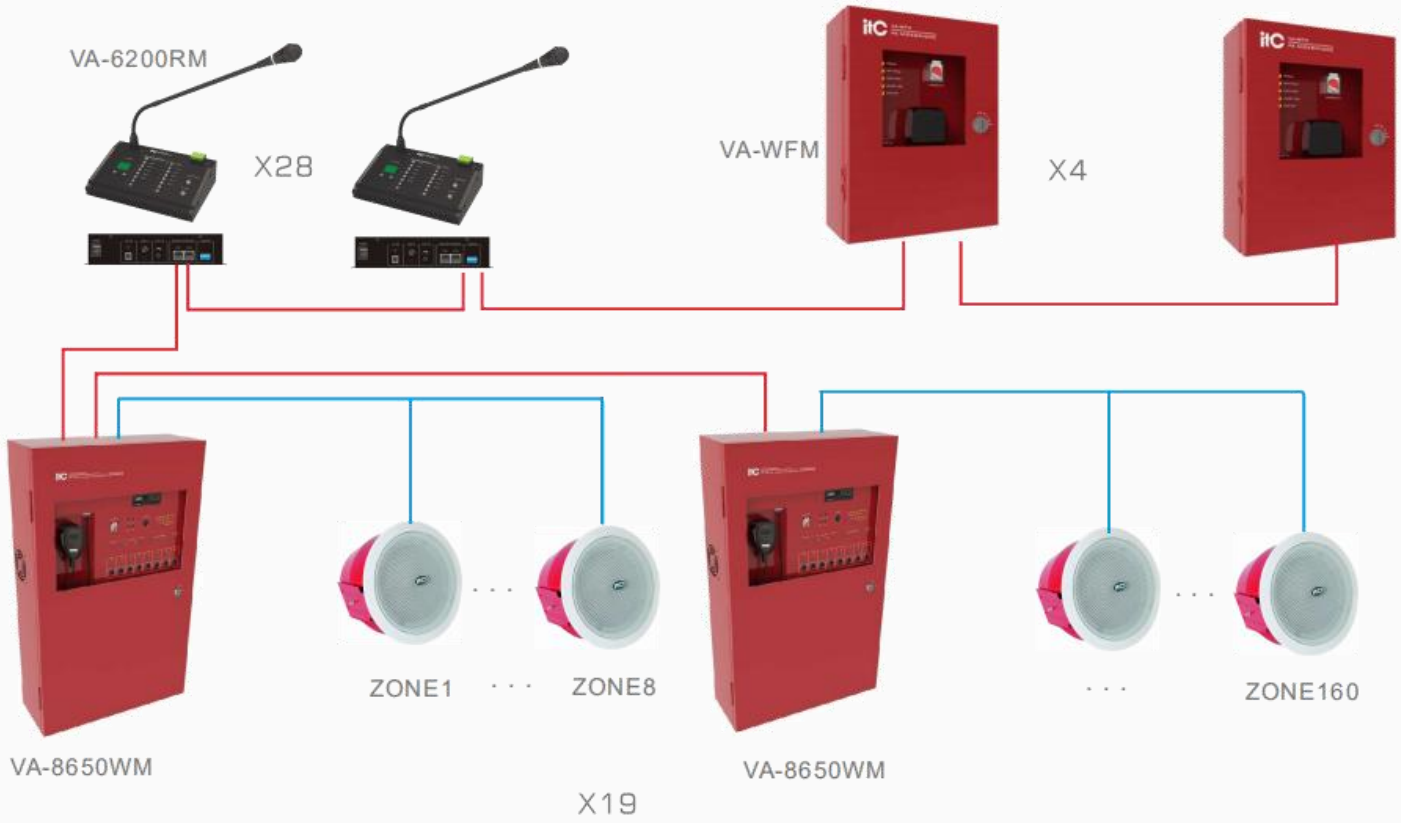
System overview

Voice Alarm Evacuation System

VA-2240 WMA VA-8650WMA VA-6200MA Series

It combines paging, fire alarm, background music and emergency broadcast functions, broadcasts background music or conducts business broadcast, and converts to emergency broadcast and fire broadcasts in the event of an emergency such as a fire. When necessary, the fire microphone or remote microphone can be used to guide the evacuation of the crowd to achieve the purpose of fire disaster reduction.

VA-8650WMA System Diagram (Power Partition- up to 160 Zones)

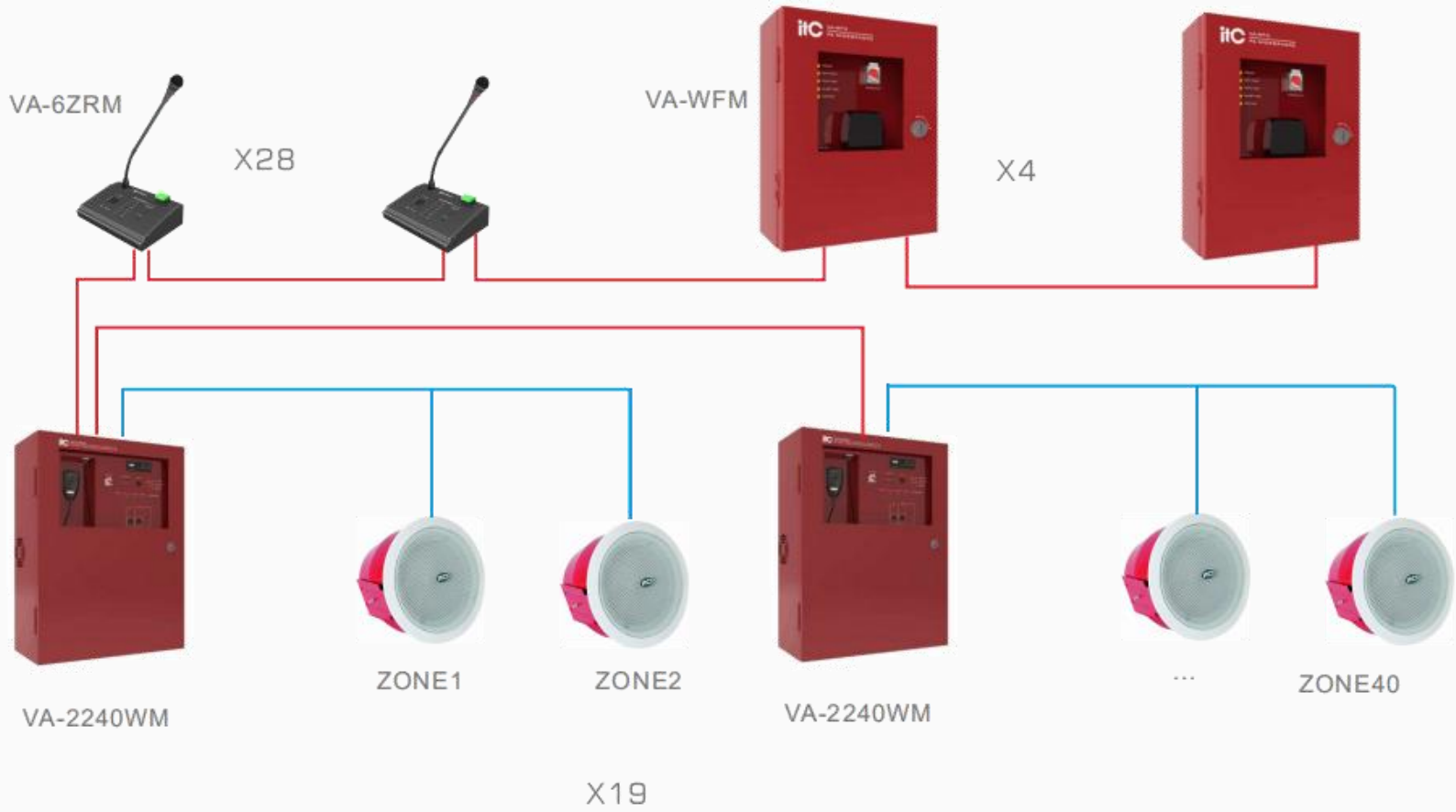


VA-8650WMA 650W 8 zones

Wall Mounted EVAC Solution

Speaker cable
Audio cable
Network cable
Power cable

VA-2240WMA System Diagram (Power Partition- up to 40 Zones)

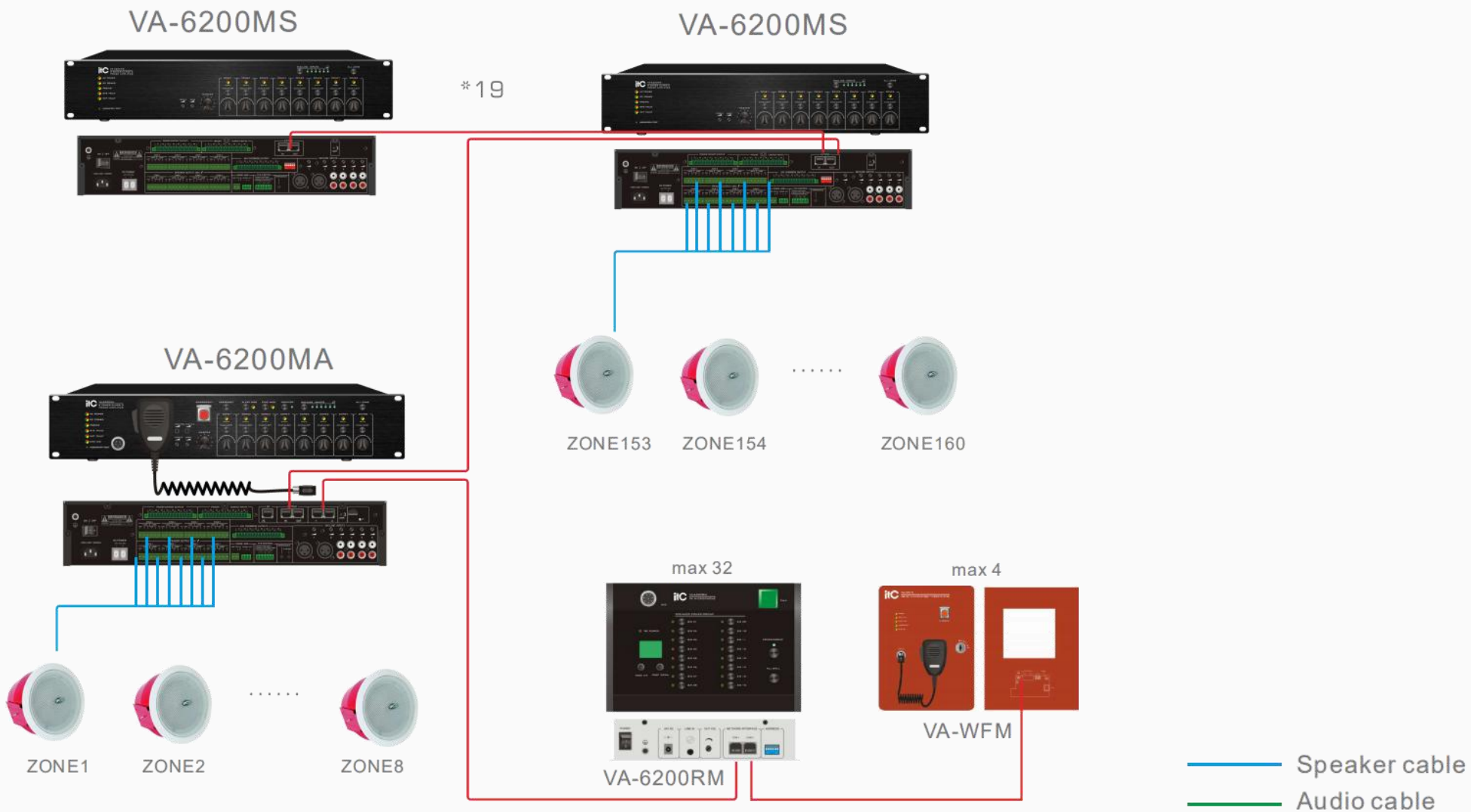


VA-2240WMA 240W 2 Zones

Wall Mounted EVAC Solution

Speaker cable
Audio cable
Network cable
Power cable

VA-6200MA System Diagram (Power Partition- up to 160 Zones)



VA-6200MA 500W 8 Zones

Rack Mounted EVAC Solution

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1. All-in-one Solution

- Integrating both VA + PA Functions, simultaneously meet the needs of voice evacuation broadcasting, paging and background music playback functions
- Controller built in amplifier

  VA-2240WMA : Wall mounted type 2 zones 240W

  VA-8650WMA: Wall mounted type 8 zones 650W

  VA-6200MA: Rack mounted type 8 zones 500W

2. Support Zones Extension

- VA-2240WMA: Up to 40 zones;
- VA-8650WMA: Up to 160 zones;
- VA-6200MA: Up to 160 zones
- Hand in hand connection with Cat5 cable for extension

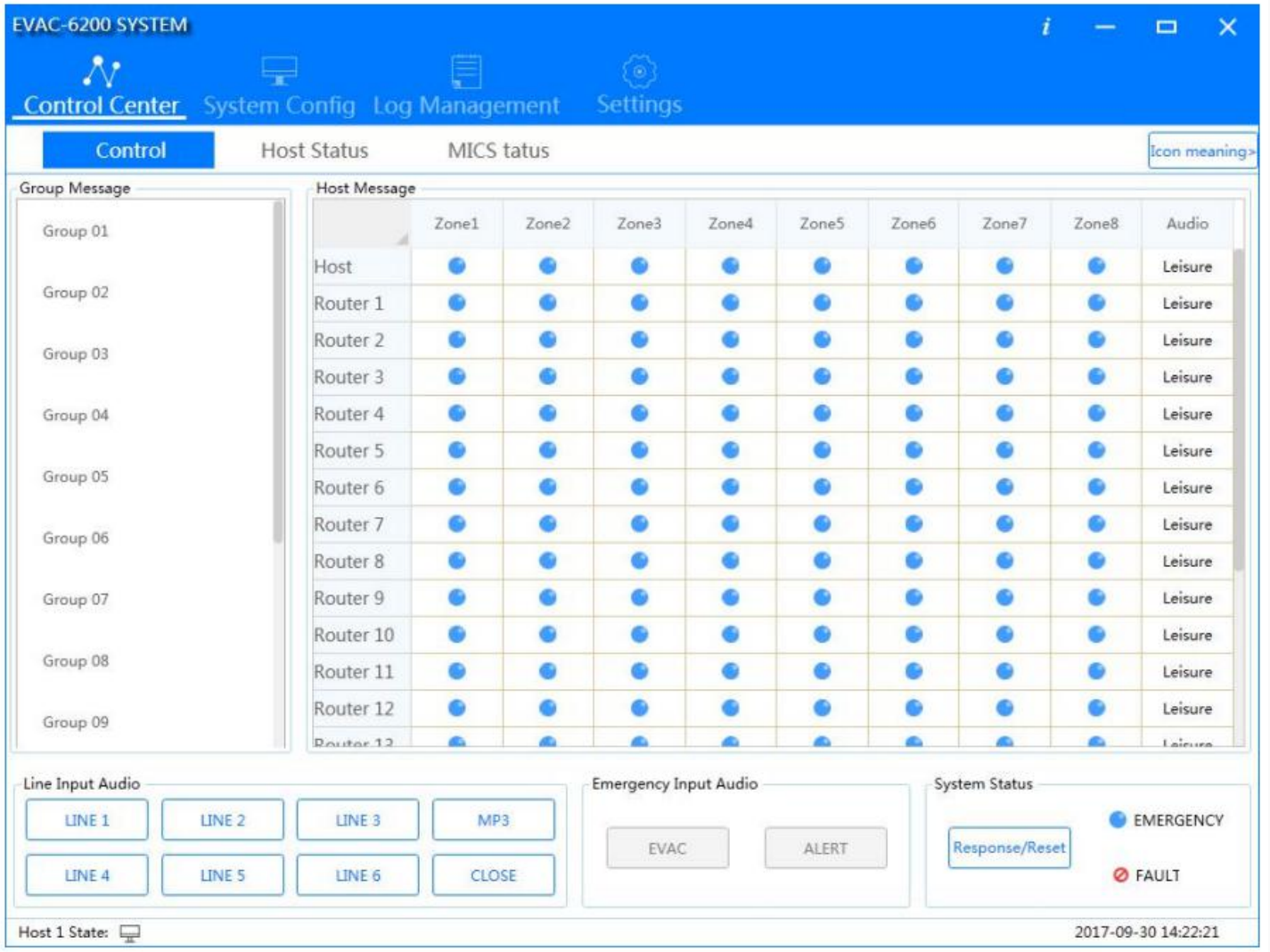
Cat 5 network cable

3. Independent Messages

- Built-in 3 independent messages, including EVAC, Alert messages and background music player on VA-2240WMA and VA-8650WMA;
- Built-in 2 independent messages, including EVAC and Alert messages on VA-6200, users can change freely according to the site environment, languages and preferences

4. Simple and Intuitive Software User Interface

- Windows software interface operation and control
- Flexible partition and group setting
- Easy to check the quantity and status of the partitions/groups and each devices

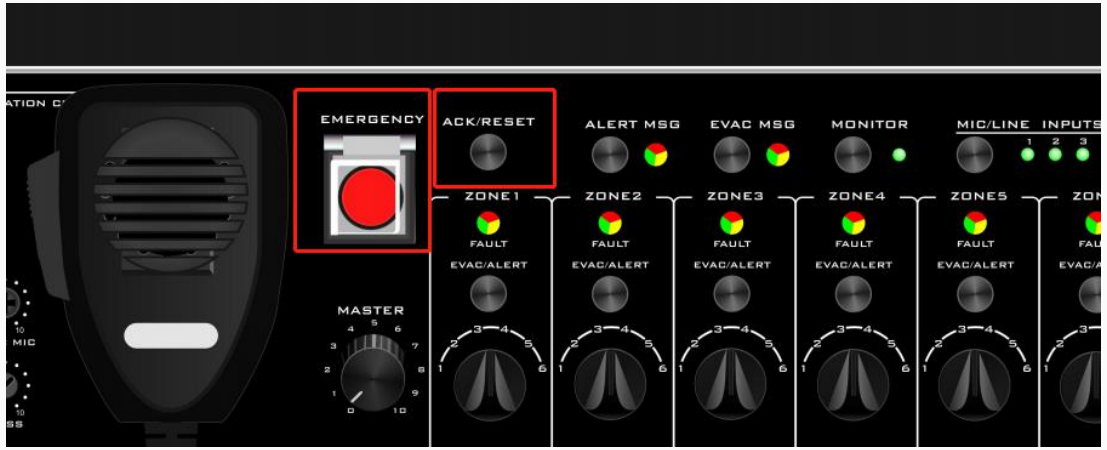


5. Off-line Operation

- Support off-line operation after downloading configuration to controller

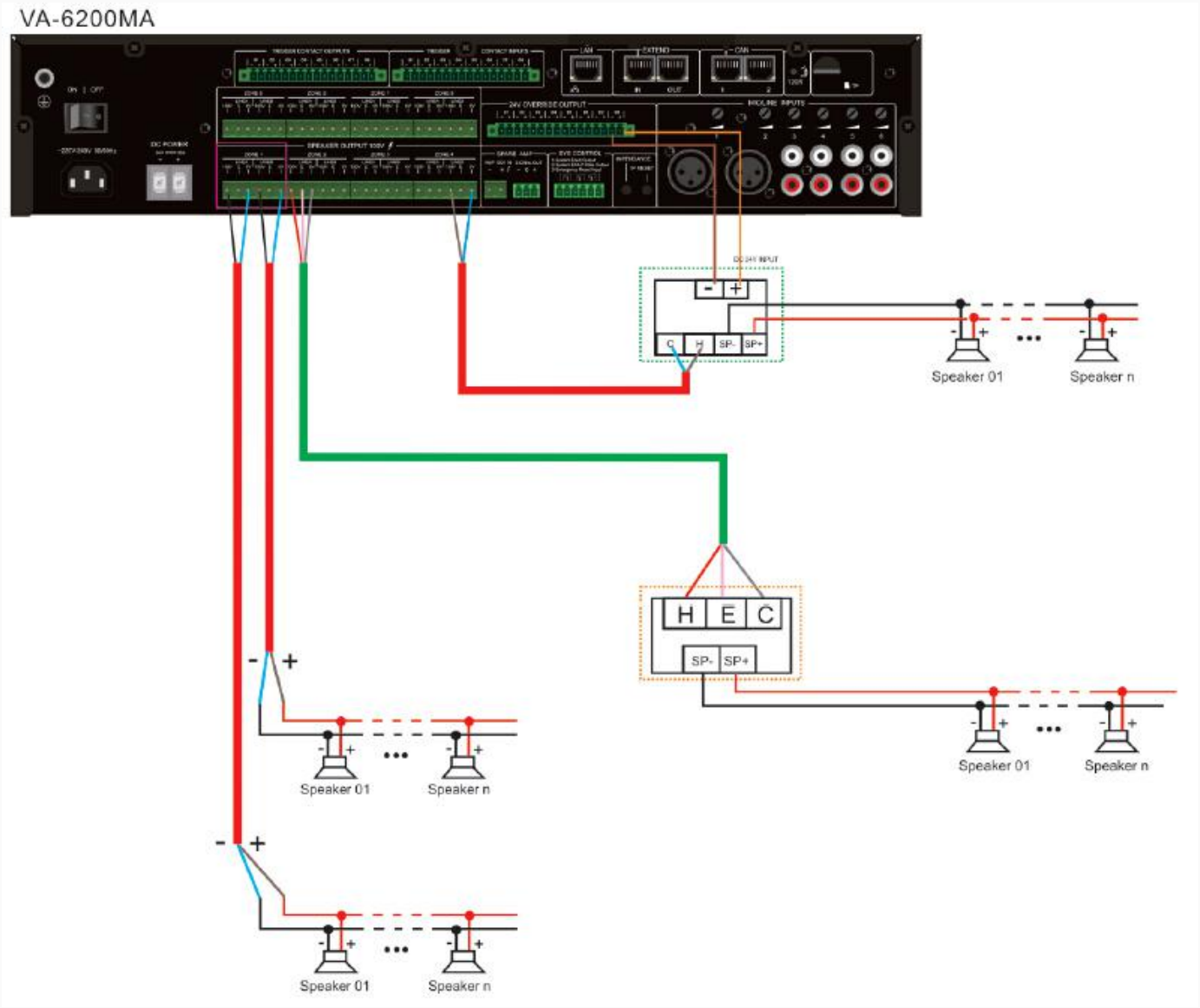
6. One Key Touch for Emergency Alarm and One Key Touch for Reset

- The host support one key touch for emergency alarm and one key touch for reset, ensuring the system responses quicky during emergency situation



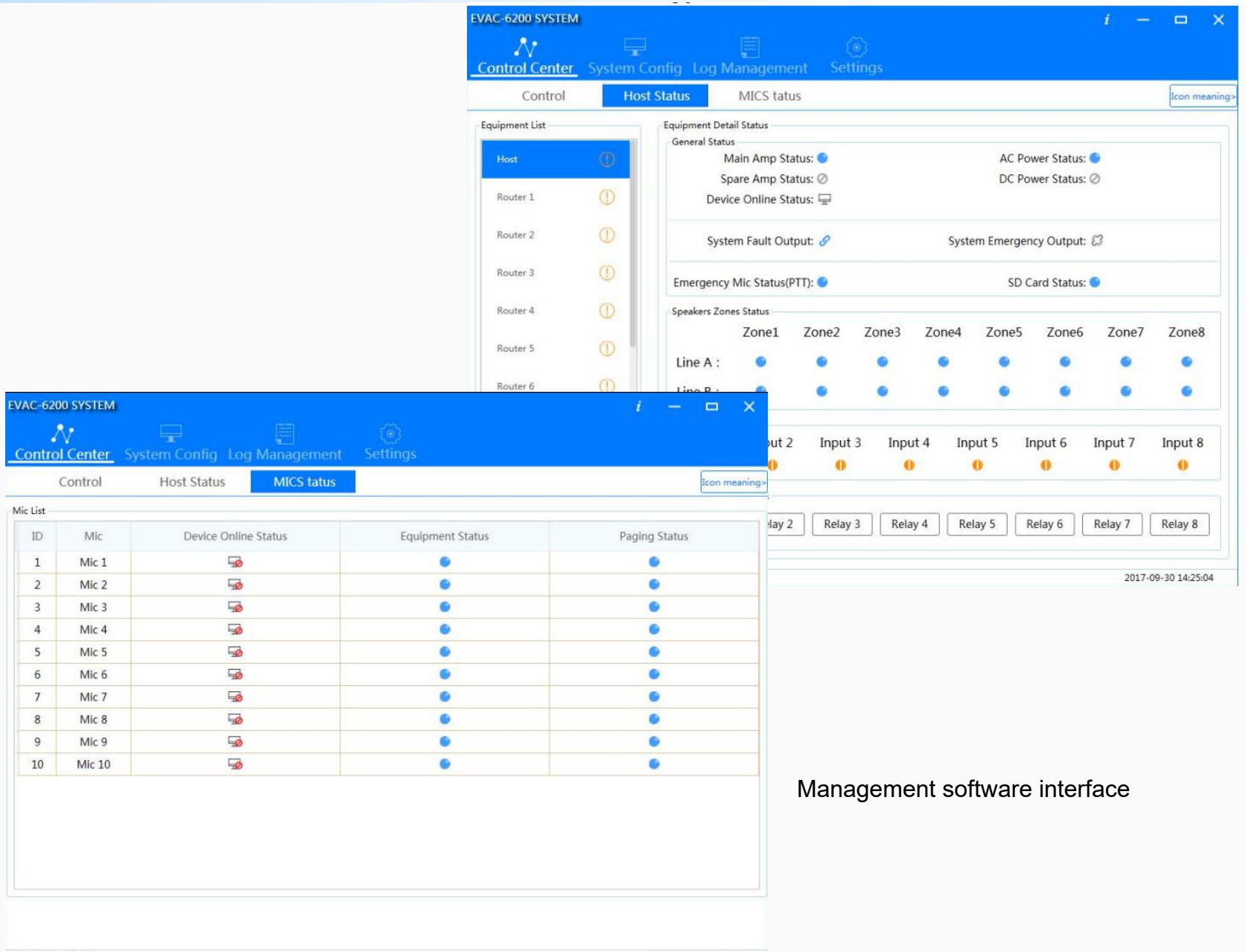
7. Adopt A+B Dual Loop Design

- Support A+B speaker lines connection, even if speaker line A failure, the other speaker line B can still work properly, to ensure the stability and reliabilty of the system operation.



8. Monitoring

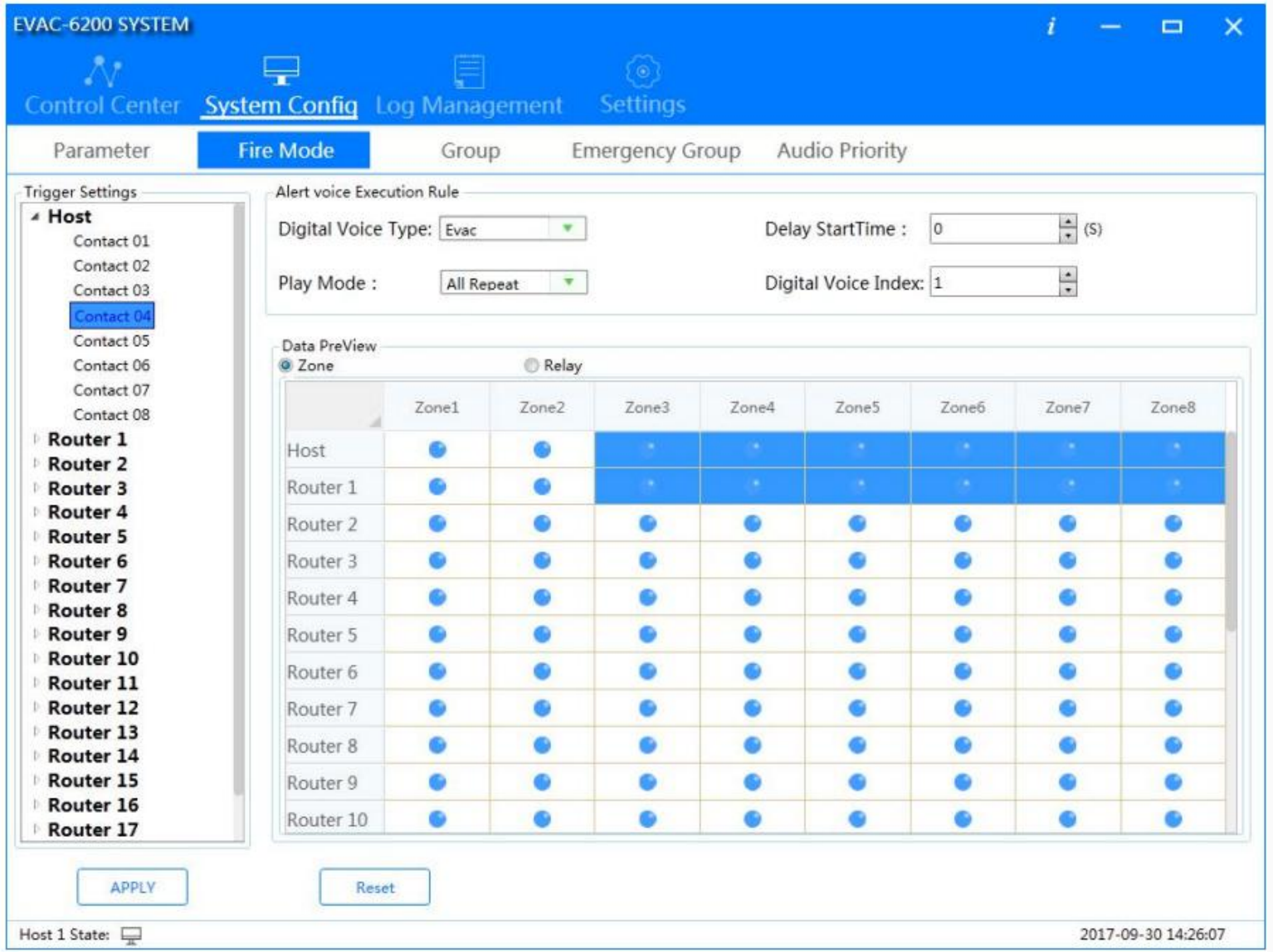
- System fault automatic diagnosis
- Automatically monitoring the working condition of the each zone speaker loop (open circuit, short circuit) by timing or real-time monitoring by manual
- Support speaker impedance above 15% change detection
- Monitoring and fault record up to 10000 logs
- Controller status, mics status, partition status on management software interface is very clear .



Management software interface

9. Linkage Trigger

- Each host is with 8 programmable contact trigger inputs and outputs interfaces;
- Trigger mode: level mode and dry contact mode
- Alarm can be neighbor zone triggered or designated zones triggered

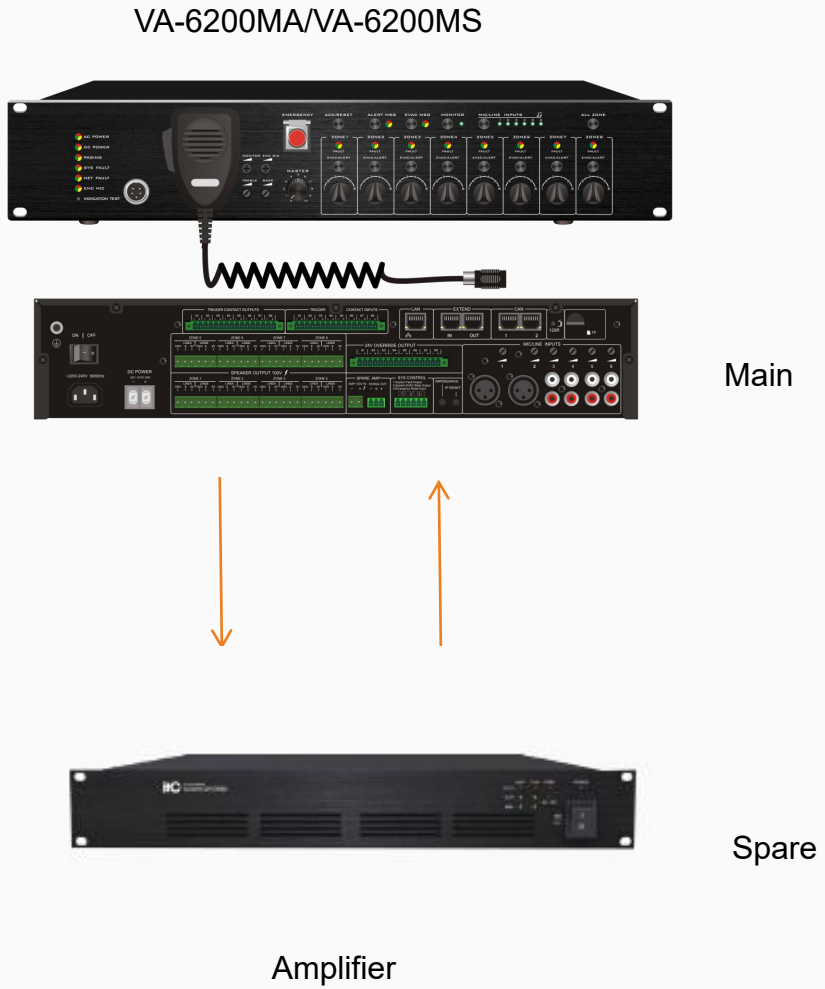


10. Support Spare Amplifier for Backup (for VA-6200 System)

- Connecting with one external amplifier,

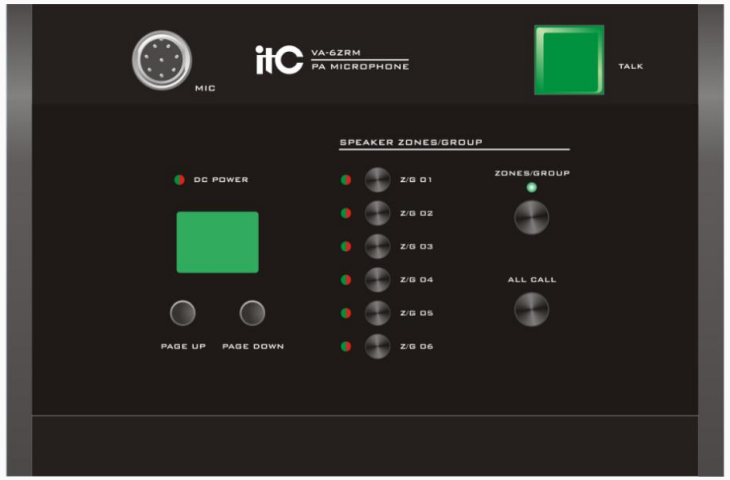
  it can replace the main amplifier automatically

  when the main amplifier fails to work.



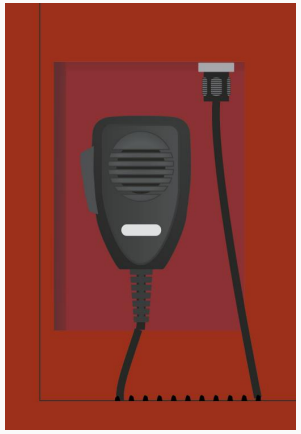
11. Support Remote Paging and Fireman Paging

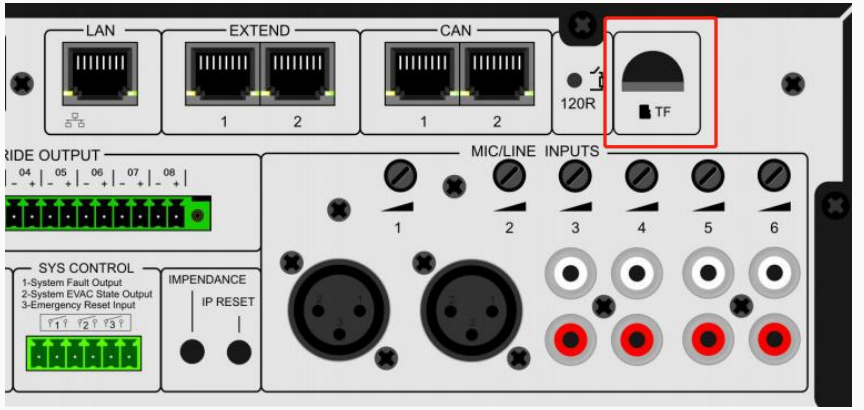
- The system can connect with up to 32pcs remote paging microphones + wall mounted fireman microphones



12. Support Voice Alarm PTT Emergency Paging & Recording Function

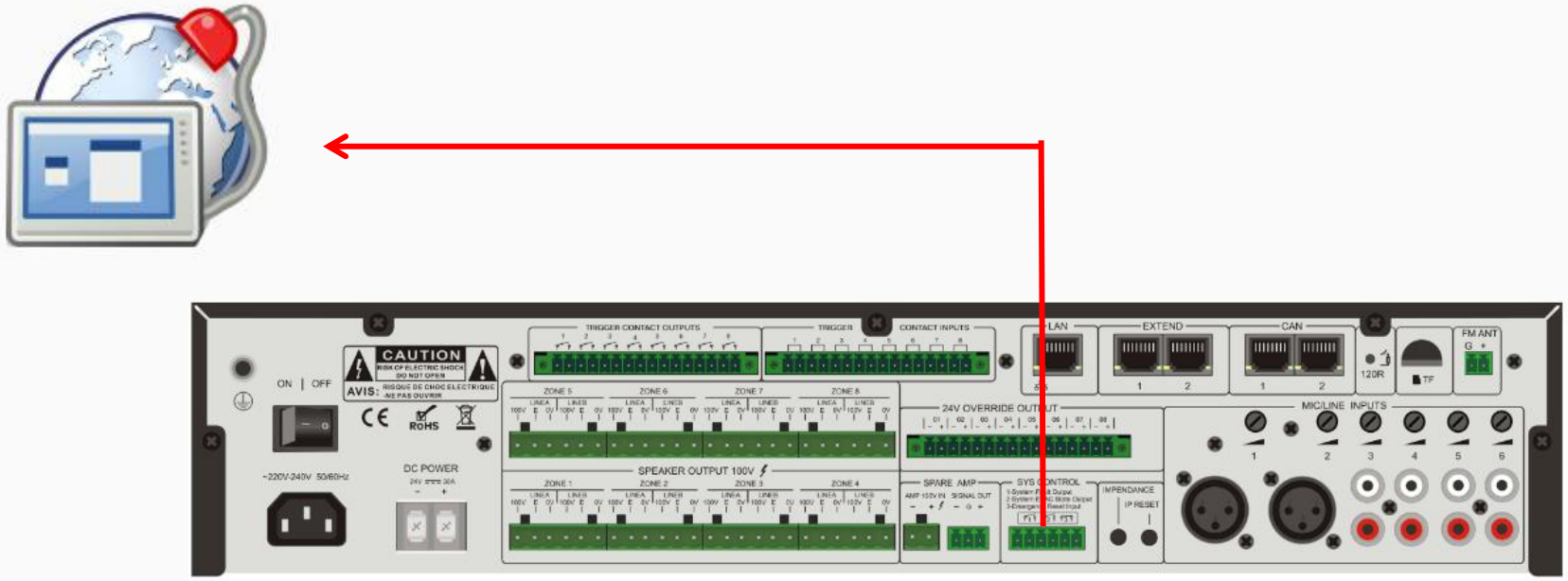
- When on voice alarm mode, the PTT mic on system controller and fireman microphone can be paged and recorded automatically without human operation. The recording file saved on the controller SD card automatically, no need external recorder to save the cost.





13. System Fault Output

- The system host is equpped with failure and working state output interface. The host send operation states of the system, by connecting with the third-party equipments, which is convenient to monitor the system remotely.



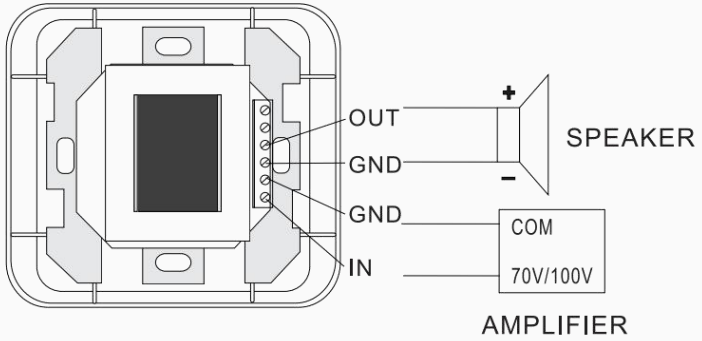
14. Built-in Charger

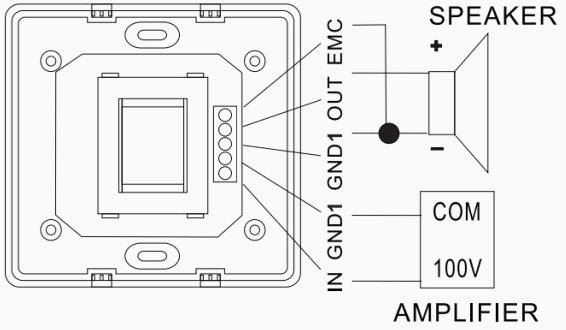
- There is charger inside the host, so that it is more convenient for battery charging, smarter size, no need external battery charger to save the cost.

No additional charger required

15. Two Volume Control Relay Modes

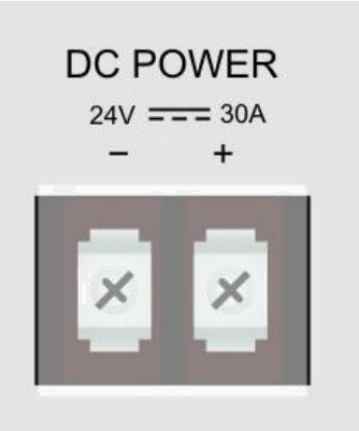
- The relay modes of 3-wired volume control and 4-wired volume control enable the system flexibly applied in different places to control the volume, and to realize override function.





16. Support 24VDC Power Supply

- The entire system supports 24V power supply. When the AC power is cut off, the devices automatically check and switch to the 24V backup power supply to ensure normal use of evacuation system.



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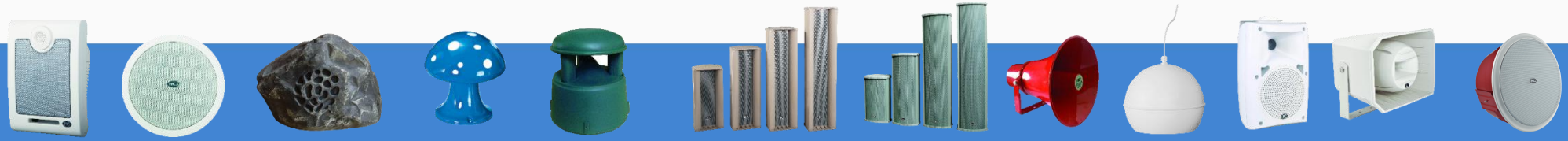
Full series products of EVAC system



Speaker

Controller VA-6200MA

Extension Controller VA-6200MS

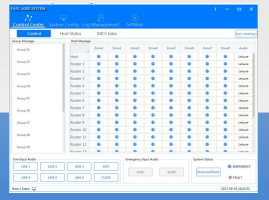
System controller VA-2240WM

System controller VA-8650WM

System controller VA-WFM

Remote Paging Microphone VA-6200RM

Remote Mic VA-6ZRM



Management software VA-6200ST

Product overview of EVAC system

System Controller VA-8650WM/VA-2240WM

Features

1.Support multiple external audio inputs;

2.Support zone resistance detection and resistance changing recognition;

3.Support zone broadcasting and overridden volume control;

4.Separated front MP3 module which is convenient to change BGM;

5.Support fault record log;

6.With 8 programmable contact trigger inputs and outputs;

7.With real-time module diagnosis, handling and fault recording which can be up to 10000 pieces;

8.Support PC software visual control which can be operated without PC;

9.One key to call/reset which is more convenient to make alarm;

10.Optional built-in battery which can give reliable power supply when AC is disconnected.

VA-8650WM

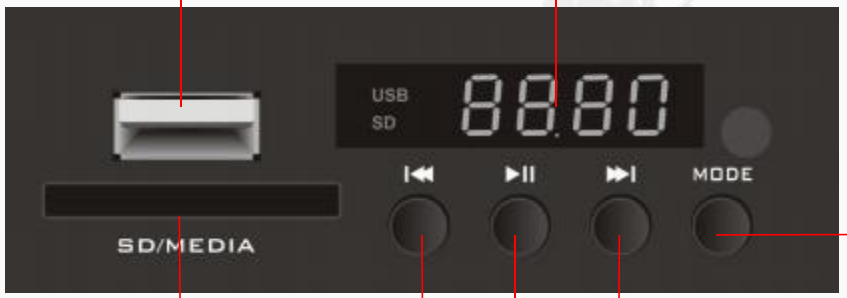
VA-2240WM

Product overview of EVAC system

Front Panel

Nixie tube: display playing mode, total number of songs, playing MP3 progress time, radio frequency band, etc

USB



Play mode switch button

SD CARD

Song switch and volume adjustment button: short press for next song, long press for volume increase

Pause / play

Song switch and volume adjustment button: short press for previous song, long press for volume reduction

Product overview of EVAC system

Front Panel

MONITOR：Monitor volume adjustment

EMC MIC：PTT microphone volume adjustment

ENERGENCY：Emergency broadcast button

Main volume adjustment knob

AC POWER：220VAC indicator

SYS FAULT：System fault indicator

NET FAULT：Network fault indicator

DC POWER：DC indicator

PAGING：Remote microphone status indicator

EMC MIC：PTT status indicator

BASS：Bass adjustment

INDICATION TEST：System self check button

TREBLE：Treble adjustment

Product overview of EVAC system

Front Panel

ALERT MSG：Play Alert message

EVAC MSG：Play emergency Evacuation message

MONITOR：Monitor on and off buttons

MIC/LINE INPUTS:Select switch sound source button

Local line input 1 ~ 4 and MP3 indicator light, the 5th channel is MP3 sound source

ACK/RESET：System fault alarm reset button

ALL ZONE botton

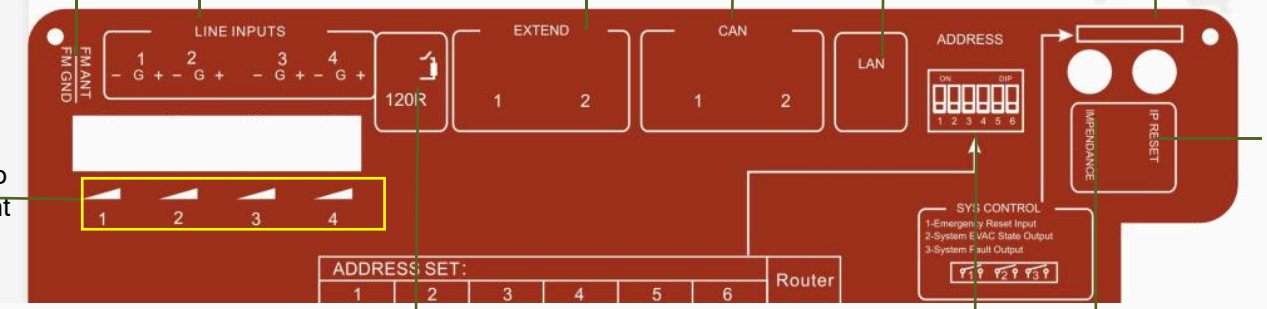
Partition selection button

Zone status indicator

Zone volume adjustment knob

Product overview of EVAC system

Rear Panel



Radio antenna interface

Local line balanced audio input interface 1 ~ 4

EXTEND：Connected to extended slave
Connection port

CAN：Remote microphone / fire mic connection port

LAN：Network port

System Fault Output：System fault output interfaceSystem EVAC Output：Fire alarm output interfaceEnergency Rest Input：Emergency reset input interface

IP Address reset button

Local line balance audio input volume adjustment knob

When the master and slave are connected for a long distance, it is necessary to press this switch at the end of the slave

Dial switch

Impedance calibration button

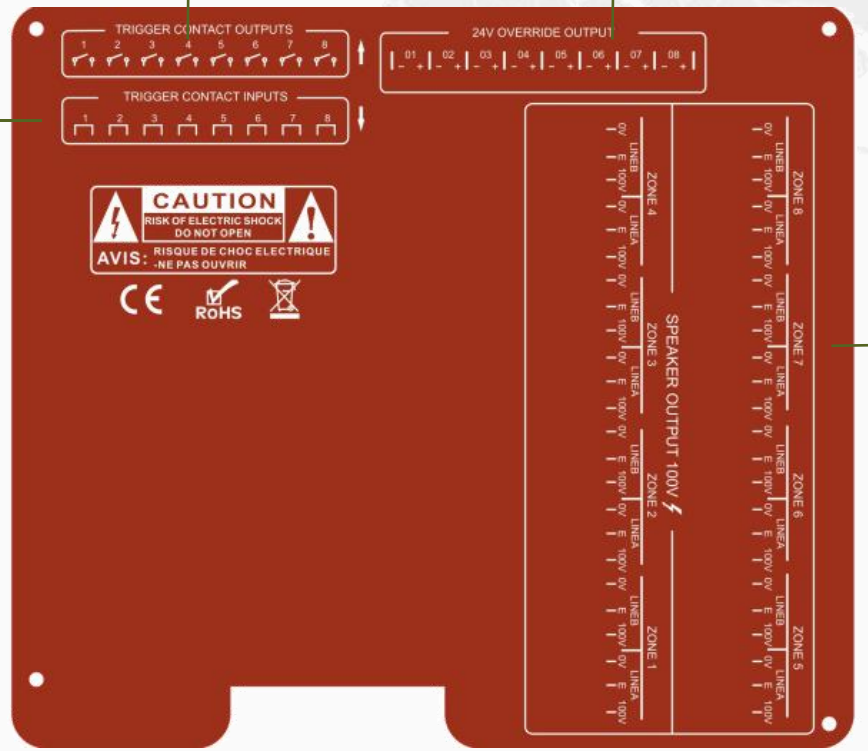
Product overview of EVAC system

Rear Panel

8-channel relay trigger output interface

4-wired voice controlled forced switching relay control interface

8 programmable trigger input interfaces



OUTPUT 100V：
ZONE1~8：Partition 1~8;
Linea / B: A / b partition;
100V: Positive pole;
E: Strong cut interface;
0V: Negative pole

Product overview of EVAC system

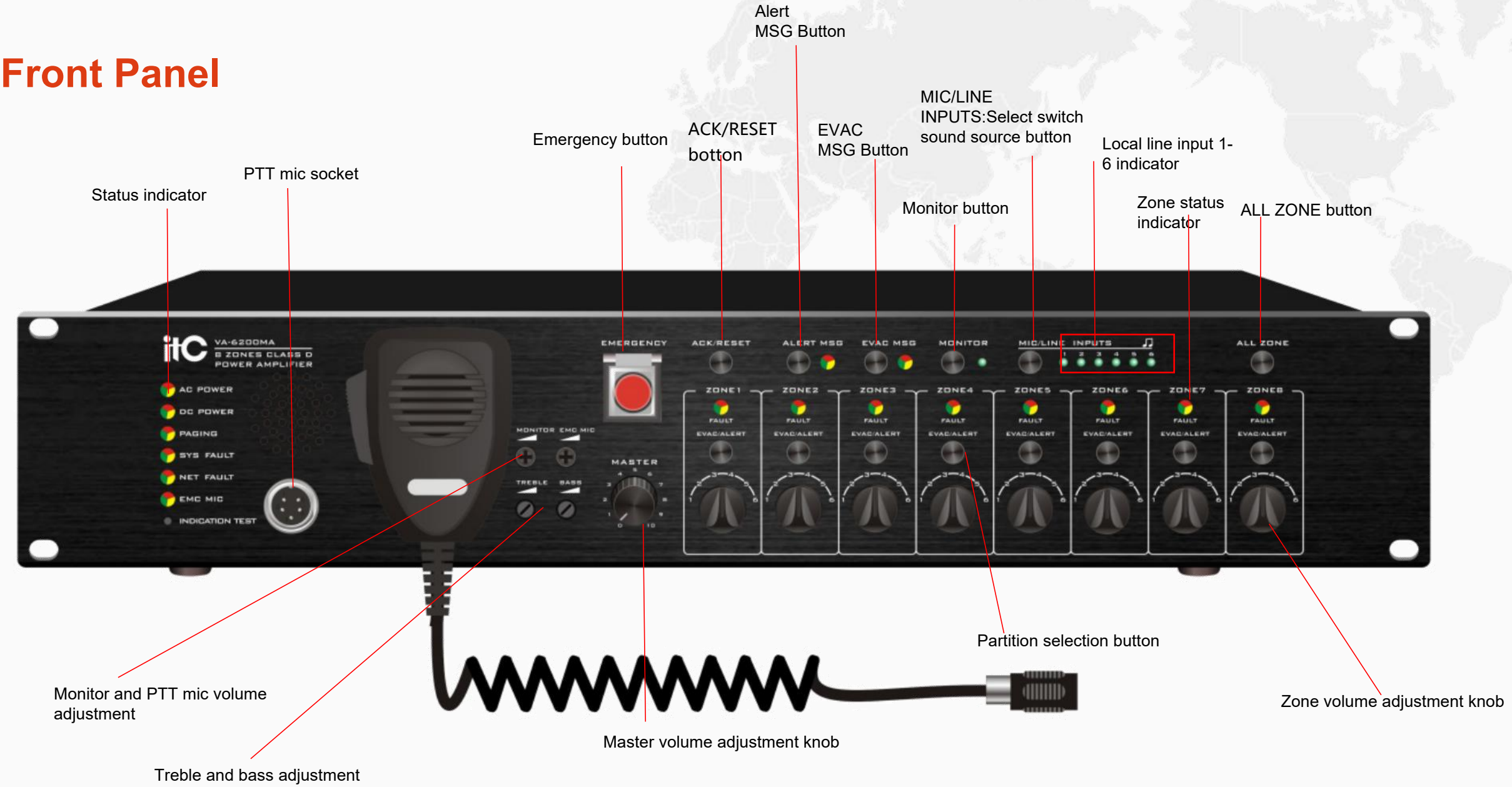
Controller VA-6200MA

Features

1. Built-in 500W amplifier, integrated 8 zones A + B independent dual speaker loop partition output, the partition has a separate LED indicator, a separate output control button and volume adjustment.
2.Audio processing with 6 general audio inputs, it can connect with an external user microphone, CD player, radio and other audio signals, and can be achieved in any partition to play any audio source.
3.The local emergency PPT microphone input (remote microphone, emergency voice), allowing users to freely change the audio output priority according to the actual situation, to configure audio input priority through the system control software.
4.With an external backup power amplifier input, when the built-in amplifier is failed, it can automatically switch to the backup amplifier.
5.Support automatically monitoring the working condition of the each zone speaker loop (open circuit, short circuit).
6. 8-channel trigger input and output interface
7.It is integrated independent EVAC voice information player.
8.Remote MIC online interface using standard RJ-45 network port and CAT-5 network cable,
9. With controller connection interface, it can be connected to the expansion machine. * Support 24V DC power supply.
10. Built-in recording function, no need external equipment.
11.With system failure, emergency dry contact output, emergency reset dry contact input.

Product overview of EVAC system

Front Panel



Product overview of EVAC system

Rear Panel

TRIGGER CONTACT OUTPUTS：
8-channel relay trigger output interface

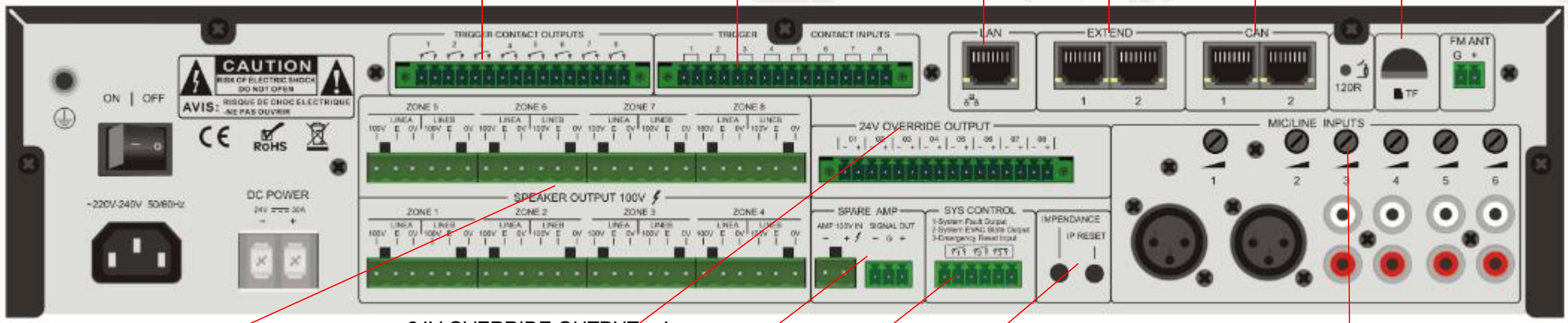
TRIGGER CONTACT ITPUTS：
8 programmable trigger input interfaces

Switch network, Computer online port

EXTEND：
Connected to expansion machine (slave) port

Remote control microphone port

TF card interface



OUTPUT 100V：
ZONE1~8：Partition 1~8;
Linea / B: A / b partition;
100V: Positive pole;
E: Strong cut interface;
0V: Negative pole

24V OVERRIDE OUTPUT：4-wired voice control forced switch relay control interface;

SPARE AMP：
AMP 100V IN： standby power amplifier 100V input interface (pay attention to positive and negative poles);
SIGANL OUT：Signal output interface, connected to standby power amplifier input port;

System Fault Output

INPENDANCE:Impedance calibration button, press this button, the system will automatically calibrate and record the current impedance;

Local line input 1-6 and its input volume adjustment knob

Product overview of EVAC system

Extension Controller VA-6200MS

Features

1.Built-in 500W amplifier, with 8 zones and A+B independent dual speaker loop output, each zone has independent LED indicator light, output control button and volume adjustment.

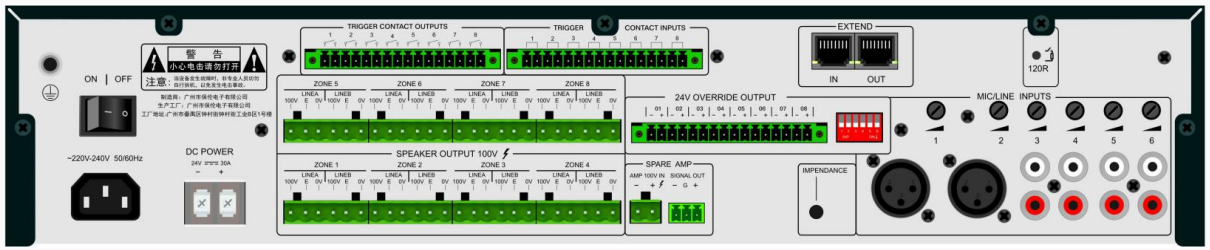
2. Audio processing with 6 general audio inputs, it can connect with external microphone, CD player, tuner and etc, it can play any audio source in any zone.

3.Connecting with one backup amplifier, when built-in amplifier damaged, it will switch to backup amplifier automatically.

4.Automatically monitor every zone speaker loop status in real-time

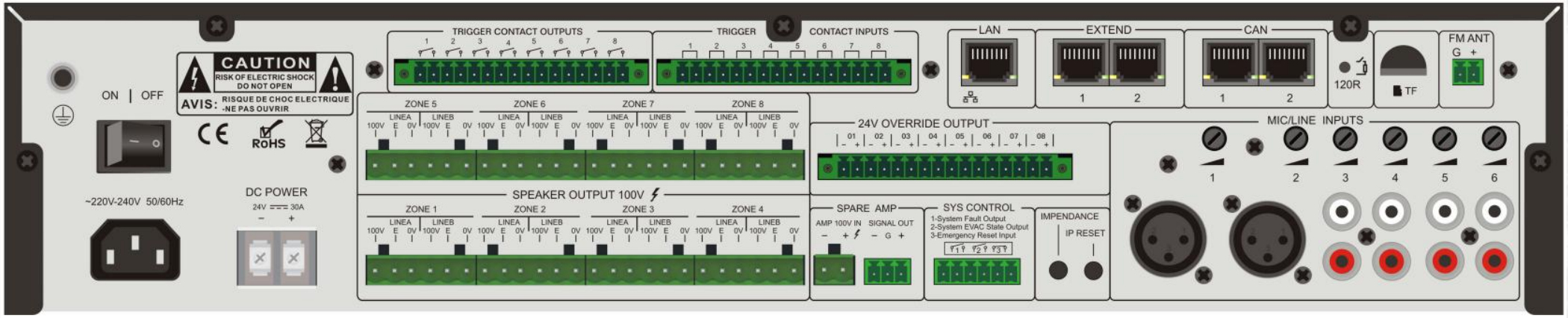
5.There are 8 channels trigger input/output ports, which can trigger the pre-edited voice message to the specified zones or (trigger) the relative external power supply to realize timely warning for the relative incident.

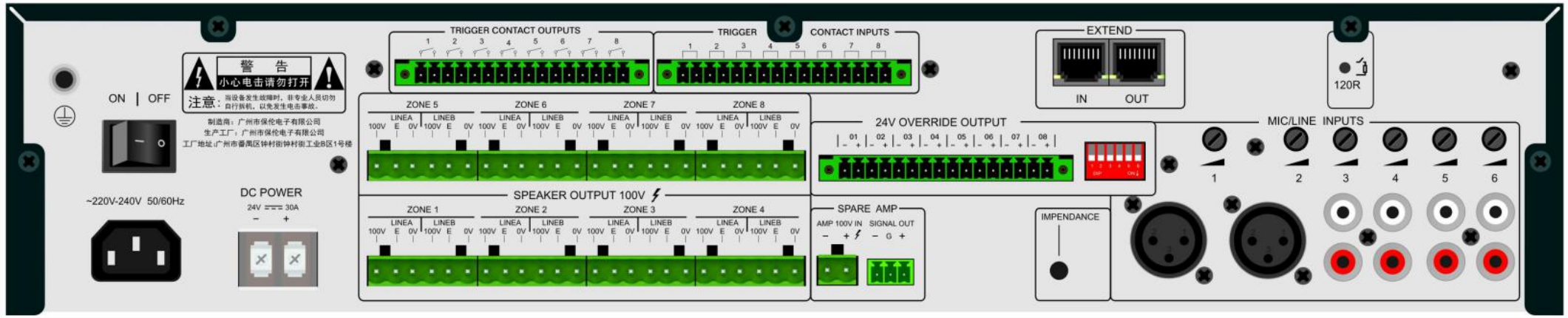
6. Extension port can connect controller and next extension device.



Product overview of EVAC system

Comparison of the Rear Panel of the Master and Slave





Product overview of EVAC system

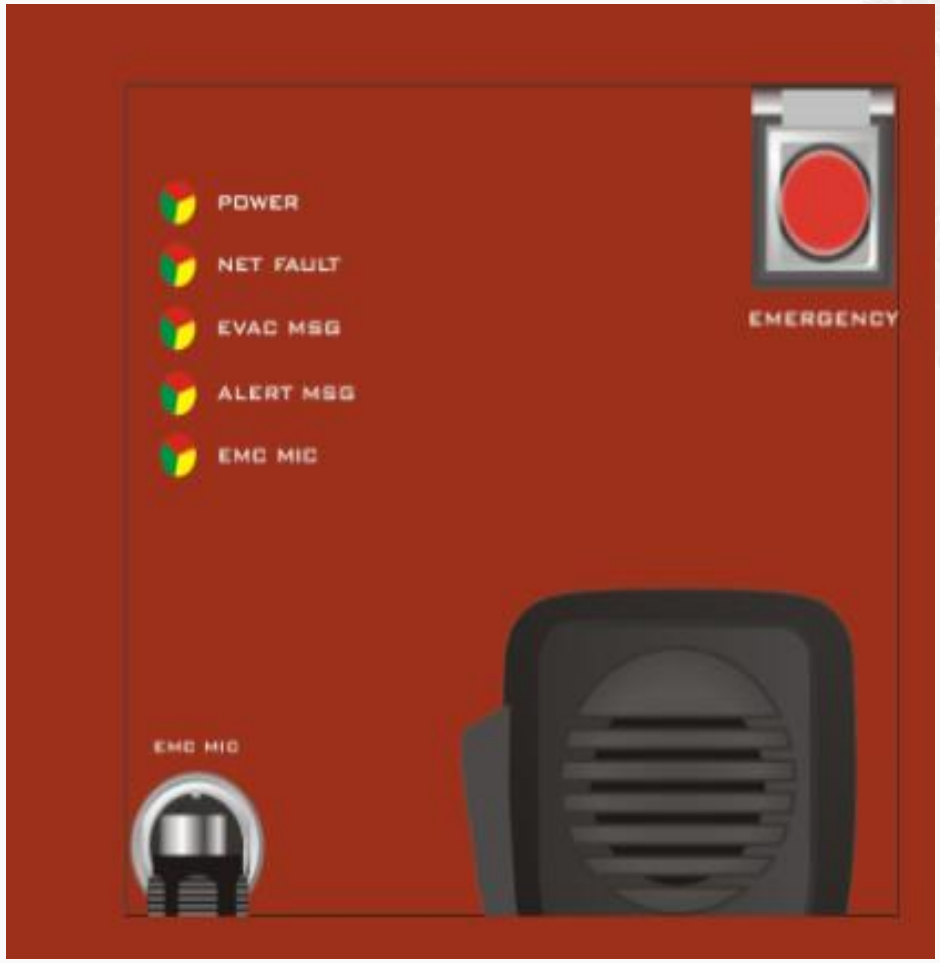
Fireman Mic VA-WFM

Features

1. Support paging to all zones at the same time;
2. To enter or exit emergency mode;
3. Support the real-time display of emergency mode;
4. Support making the Mic voice can be recorded;
5. Volume of PTT can be controlled;
6. Support fireman Mic paging conflict detection;
7. Support real-time display of EVAC/ALERT audio source status;
8. Fireman Mic and PTT has the same highest priority in the system;
9. Support 24V DC power supply;
10. With 2 cascading port which supports hand in hand connection;
11. System support maximum 4 fireman Mics.
12. Equipment address can be set by dip switch which is very easy.

Product overview of EVAC system

Front Panel



POWER：Power indicator;

NET FAULT：Network status indicator；

EVAC MSG：EVAC message indicator;

ALERT MSG：ALERT message indicator;

EMC MIC ：Emergency PTT status indicator

Product overview of EVAC system

Remote Mic VA-6200RM VA-6ZRM

Features

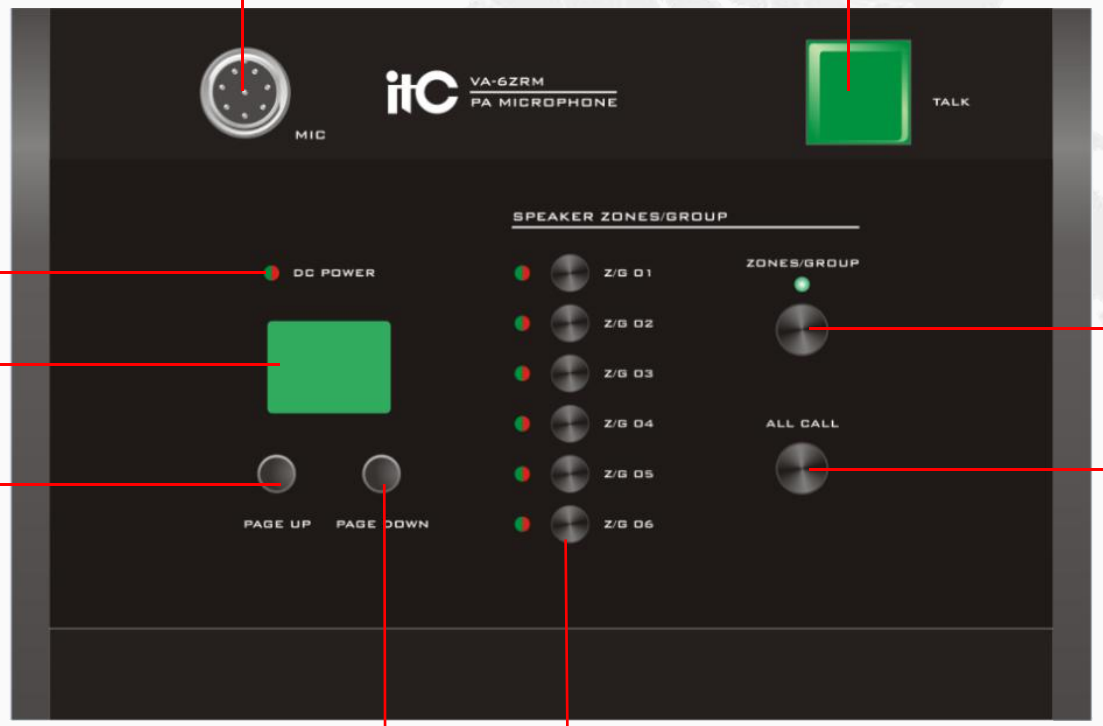
1. Support up to 160-zone and 16-group paging for VA-6200RM;
2. Support up to 40-zone and 6-group paging for VA-6ZRM;
3. Zones can be divided into any group;
4. System support maximum 32 paging microphones cascading;
5. Support audio line input which volume can be adjusted;
6. Paging priority can be set through software;
7. Support 24V DC power supply;
8. Two cascading port which support hand in hand connection;
9. Support different host choosing by changing the index address;
10. Support zone status display corresponding host.

VA-6200RM

VA-6ZRM

Product overview of EVAC system

Front Panel VA-6ZRM: Remote Paging Microphone



Gooseneck microphone socket

TALK：Paging indicator

Power indicator

Digital tube display

PAGE UP：Association host ID number increment

Zone / group mode switch button

All zone selection button

Zone / group selection keys and indicators

PAGE DOWN：Associated host ID number decrement

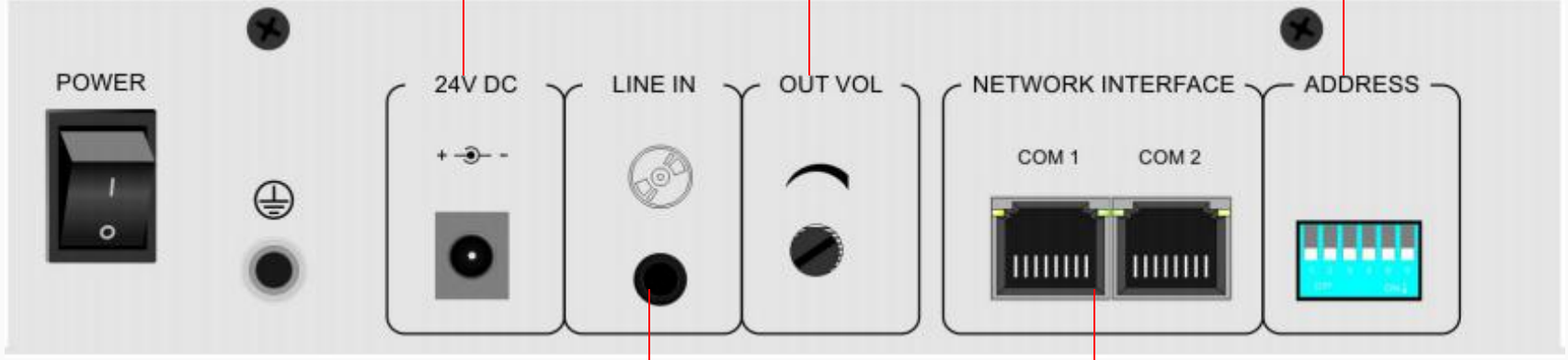
Product overview of EVAC system

Rear Panel VA-6ZRM

Power input interface

Microphone / extension line output volume adjustment knob

Dial switch:
Pin1: can communication matching resistance switch
Pin2 ~ pin6: device address code setting, which is represented by binary code address.

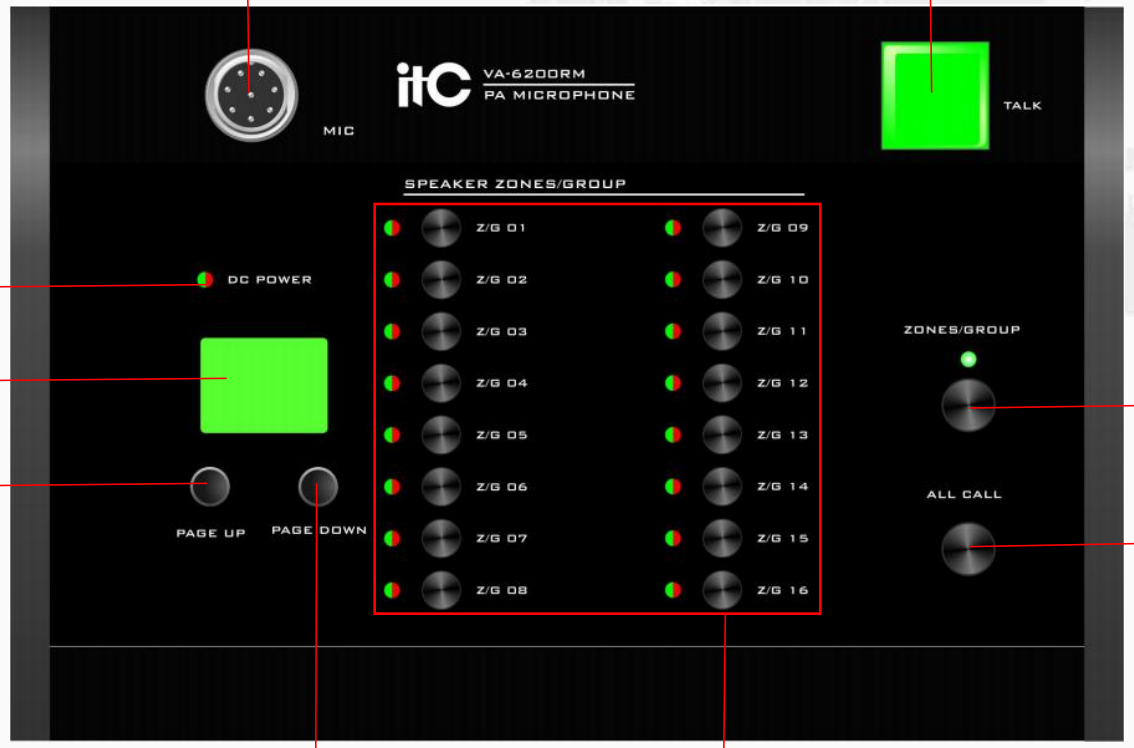


Extended line audio input interface

CAN Communication network port

Product overview of EVAC system

Front Panel VA-6200RM: Remote Paging Microphone



Gooseneck microphone socket

TALK：Paging indicator

Power indicator

Digital tube display

PAGE UP：Association host ID number increment

Zone / group mode switch button

All zone selection button

PAGE DOWN：Associated host ID number decrement

Zone / group selection keys and indicators

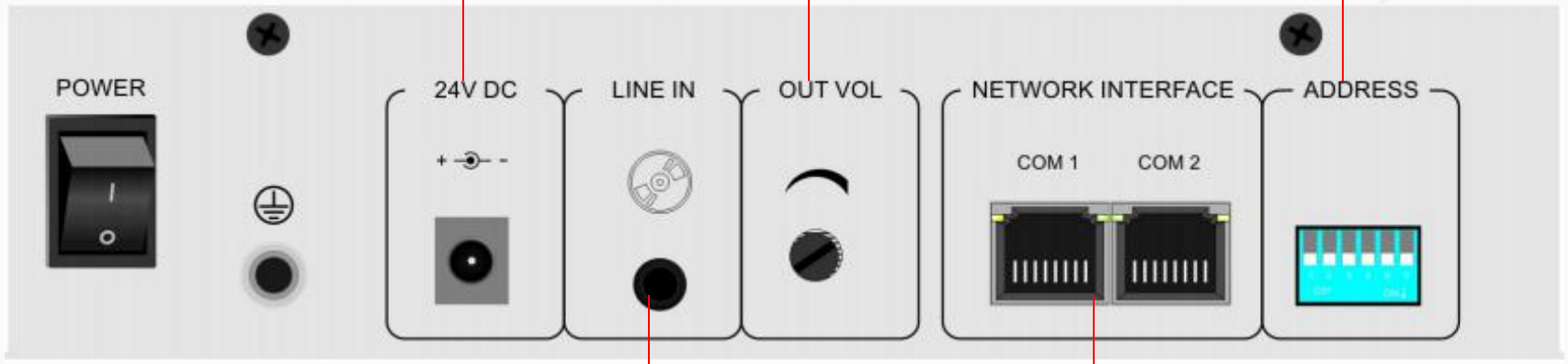
Product overview of EVAC system

Rear Panel VA-6200RM

Dial switch:
Pin1: can communication matching resistance switch
Pin2 ~ pin6: device address code setting, which is represented by binary code address.

Microphone / extension line output volume adjustment knob

Power input interface



Extended line audio input interface

CAN Communication network port

Applications for the EVAC System

1. School
2. Hotel
3. Hospital
4. Restaurant
5. Chamber
6. Cinema
7. Stadium
8. Shopping Mall
9. Coffee shop
10. Office Building
11. Residence community

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Thanks

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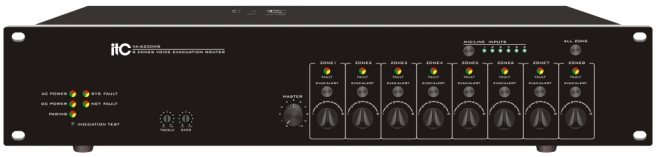
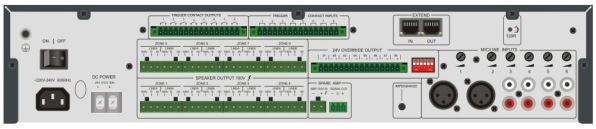
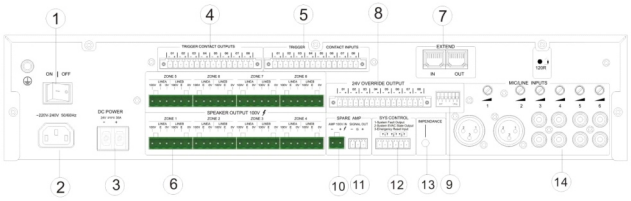
Extension Controller
VA-6200MS





Back Panel:



Connectors:

1. Power switch
2. AC power outlet
3. DC 24V input interface
4. Fire alarm trigger output node
5. Fire alarm trigger input node
6. 3 wire power amplifier 100V output
7. 485 Online interface
8. DC 24V output
9. Unplug code switch from computer address
10. Backup power amplifier 100V input
11. Backup power amplifier signal output
12. SYS CONTRCL:
    1) System fault output, When something goes wrong, This port will be closed
    2) Fire alarm output, When the fire alarm is triggered, This port will be closed
    3) Emergency reset input, Short circuit interface, Fire alarm will be reset
13. Impedance correction button
14. 6 way background music input

Features:

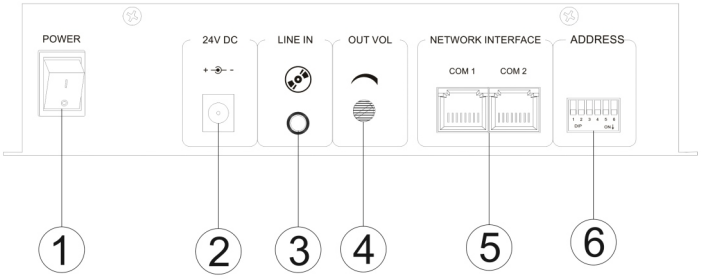
* Built-in 500W amplifier, with 8 zones and A+B independent dual speaker loop output, each zone has independent LED indicator light, output control button and volume adjustment.
* Audio processing with 6 general audio inputs and 1 MP3 input, it can connect with external microphone, CD player, tuner and etc, it can play any audio source in any zone. Among them, 2 channels have 24V phantom power microphone input, 4 channels are AUX input and 1 channel is MP3 audio channel from the controller.
* With fault self-check of power-on system, and fault full check of manual system function.
* With real-time indication of system status.
* Connecting with one backup amplifier, when built-in amplifier damaged, it will switch to backup amplifier automatically.
* Automatically monitor every zone speaker loop status (open circuit, short circuit) in real-time.
* 8-channel short-circuit/level trigger mode, the trigger response can be configured with 3 different channels of EVAC, ALERT, and LINE3, and the output can be arbitrarily configured with partition, group, and short-circuit contact combination.
* Support external 24V backup power supply, realize power-off continuous normal operation without delay;
* Extension port can connect controller and next extension device.
* The partition output has three-wire and four-wire forced-cut adjustment functions;

Specifications:

Model	VA-6200MS
Rated Power Output	500W
Output Voltage	100V
MIC1-2 Input Distortion	<1% (output rating), 1KHz
MIC1-2 Input Frequency Response	80Hz~20KHz
MIC1-2 Input Sensitivity	5mV/6/600Ω
MIC1-2 Input SNR	>65dB
AUX3-6 Input Distortion	<1% (output rating), 1KHz
AUX3-6 Input Frequency Response	80Hz~20KHz
AUX3-6 Input Sensitivity	350mV/10kΩ
AUX3-6 Input SNR	>70dB
Spare Amplifier Input	100V
Spare Amplifier Audio Signal Output	±385mV (balanced output)
Alarm Input	8
Alarm Output	8
Zone Input	8
24V Relay Output	8
Short Circuit mode	short circuit
Type of cooling	air-cooled
Guard mode	delay/overheat/ short circuit/ overload
Output Volume Control	6
Supply Voltage	~ 220V-240V, 50/60Hz
Maximum Current	3A
Fuse Size	250V/5A, slow type
Spare Voltage	24V DC, ±20%
Maximum Current	30A
Maximum Power Consumption	600W
Dimensions (L x W x D)	484 x 88 x 353mm
Weight	10.5kg
Installation method	Desktop or 19" cabinet

Paging Microphone VA-6200RM

Back Panel:



Connectors:

1. Power switch
2. DC voltage input
3. Line Sound source input
4. Output volume adjustment
5. CAN Communication network port
6. Dial code setting:(Upward: Use Down: Close)

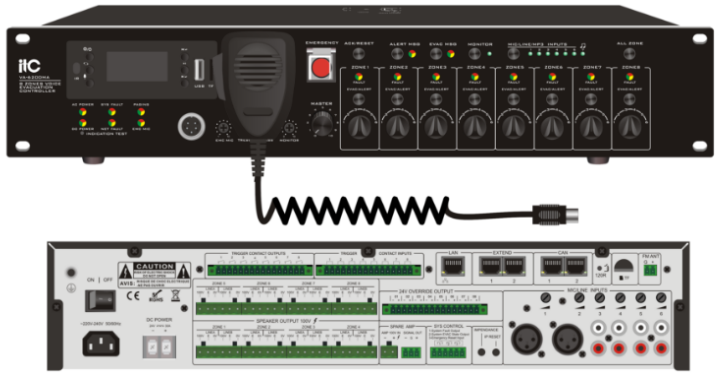
Features:

* Support 16 zones, group paging button.
* System max support 32 remote paging microphones.
* Microphone support anti-misoperation plug.
* Support line audio input, and input/output volume is adjustable.
* Paging priority can be set by software.
* Support 24 DC power supply.
* Remote MIC/Controller has 2 cascade interfaces, 1 in and 1 out.
* Optional paging to the main controller or extension controller.

Specifications:

Model	VA-6200RM
MIC	Capacitor Microphone
MIC Sensitivity	10mV/600Ω
MIC Frequency Response	200Hz~10KHz
MIC SNR	>65dB
Line Input Sensitivity	775mV/10KΩ
Line Input Frequency Response	80Hz~16KHz
Line Input SNR	>70dB
Signal Output	1V
Distortion	<1% (Rated output power), 1KHz
Supply Voltage	24V DC
Dimension (L x W x D)	256 x 52 x 149mm
Net Weight	1.3kg

Controller VA-6200MA



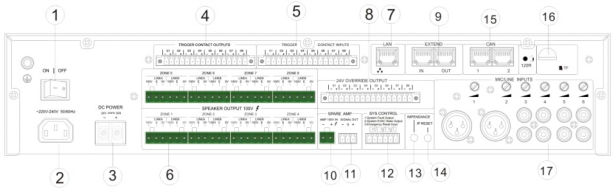
Descriptions:

Intelligent Public Address and Voice Alarm system is the organic combination of computer network technology, communication technology, information technology and so on. It is a combination of related voice alarm system. Through the PC management software, you can do system function customization and control, automatic completion of the system physical zone status monitoring and management, automatic completion of the terminal equipment monitoring and management. It is mainly used in intelligent residential quarters, shopping malls, shopping centers, and buildings such as voice alarm and background music.

Features:

* Built-in 500W amplifier, integrated 8 zones A + B independent dual speaker loop partition output, the partition has a separate LED indicator, a separate output control button and volume adjustment.
* Audio processing with 6 general audio inputs, it can connect with an external user microphone, CD player, radio and other audio signals, and can be achieved in any partition to play any audio source. Among them, 2 channels have 24V phantom power microphone input, and 4 channels are AUX input.
* The local emergency PTT microphone input (remote microphone, emergency voice), allowing users to freely change the audio output priority according to the actual situation, to configure audio input priority through the system control software.
* Integrate MP3 function module, use LCD display, support TF card, U disk MP3, WMA, APE, FLAC, WAV, AAC and other file formats, and can display song names. Configure MP3 remote control, support power-off memory and radio functions
* With an external backup power amplifier input, when the built-in amplifier is failed, it can automatically switch to the backup amplifier.
* Support automatically monitoring the working condition of the each zone speaker loop (open circuit, short circuit).
* 8-channel trigger input and output interface, it can trigger the pre-programmed language information to the specified partition or (trigger) corresponding to the external power supply to achieve the corresponding event warning.
* It is integrated independent EVAC voice information player.
* Remote MIC online interface, it can be connected to a remote microphone and voice alarm microphone. The paging station connection using standard RJ-45 network port and CAT-5 network cable, paging transmission can be used to transmit long-distance transmission;
* With controller connection interface, it can be connected to the expansion machine. The connection uses the standard RJ-45 network port and CAT-5 cable transmission
* With a TCP / IP communication interface to support the basic Window platform visual interface operation, the state automatically synchronized.
* Support 24V DC power supply.
* With the monitor function of power amplifier.
* Built-in recording function, no need external equipment.
* With system failure, emergency dry contact output, emergency reset dry contact input.
* The partition output with three-wired, four-wired relay function.
* With one IP address reset port.

Front Panel :



Connectors:

1. Power switch
2. AC power outlet
3. DC 24V input interface
4. Short circuit interface is output after fire alarm
5. Fire trigger input interface
6. Zone 1~8
7. Switch network, Computer online port
8. Control interface of 4 wire tone controlled cutting relay
9. Slave port
10. Backup power amplifier 100V input interface (Note the positive and negative poles)
11. Signal output interface, Backup power amplifier input port
12. System Control:
    1) System fault output, When something goes wrong, This port will be closed
    2) Fire alarm output, When the fire alarm is triggered, This port will be closed
    3) Emergency reset input, Short circuit interface, Fire alarm will be reset
13. Impedance correction button, Press this button, system will automatically calibrate and record the current impedance
14. IP address reset button, Press this button, system will automatically reset addresses
15. Remote control microphone port
16. TF card interface
17. 6 background music input

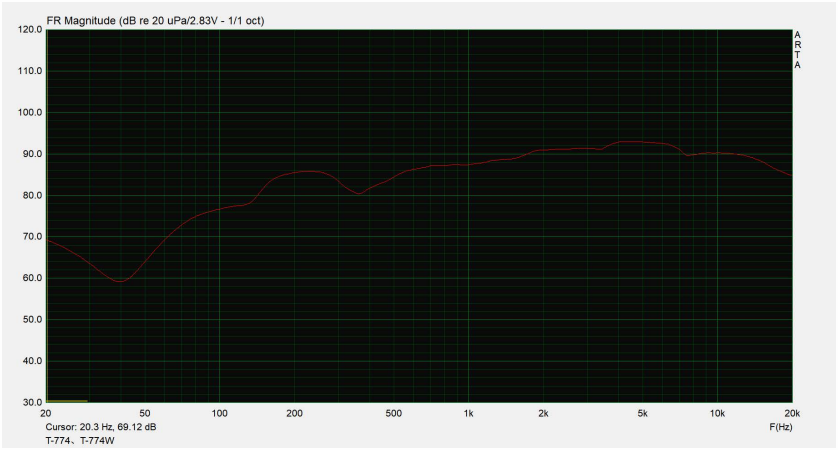
Specifications:

Model	VA-6200MA
Power output	500W
Output voltage	100V
MIC1-2 input distortion	<1% (rated output power), 1KHz
MIC1-2 input frequency response	80Hz~20KHz
MIC1-2 input sensitivity	5mV/600Ω
MIC1-2 input SNR	>65dB
AUX3-6 input distortion	<1% (rated output power), 1KHz
AUX3-6 input frequency response	80Hz~20KHz
AUX3-6 input sensitivity	350mV/10kΩ
AUX3-6 Input SNR	>70dB
Emergency microphone	Emergency microphone
Sensitivity	10mV
Impedance	600Ω
Standby amplifier input	100V
Standby amplifier audio output	±385mV (balanced output)
Alarm input	8 channel
Alarm Output	8 channel
Partition output	8 channel
24V relay output	8 channel
Short circuit mode	No voltage, short connection
Level mode	Require external 10K and 4.7K resistors
Cooling method	Air-cooled
Protection mode	Delay / over temperature / short circuit / overload
Output volume adjustment	6
Built-in MP3 capacity	16G
Format	MP3
Slave Controller Communication	RS485 bus
Slave Controller	Support 19 slave controllers
Remote MIC communication	CAN bus
Remote MIC	Supports 32 remote MIC
Supply voltage	~ 220V-240V, 50/60Hz
Maximum current	3A
Fuse specifications	250V / 5A, slow type
Standby voltage	24V DC, ±20%
Maximum current	30A
Maximum power consumption	600W
Dimension (L x W x D)	484 x 88 x 353mm
Weight	About 10.8kg
Installation method	Desktop or 19" cabinet

Wall Mounted Speaker

T-774W

Material: plastic



Description:

Indoor wall-mounted speakers, plastic case, iron punching net, 2 frequency division design, using silk retina high pitch, clear and soft sound.Easy to install, can do fixed resistance fixed pressure multi-power selection (P/PW) series.Suitable for hotels, conference halls, etc.

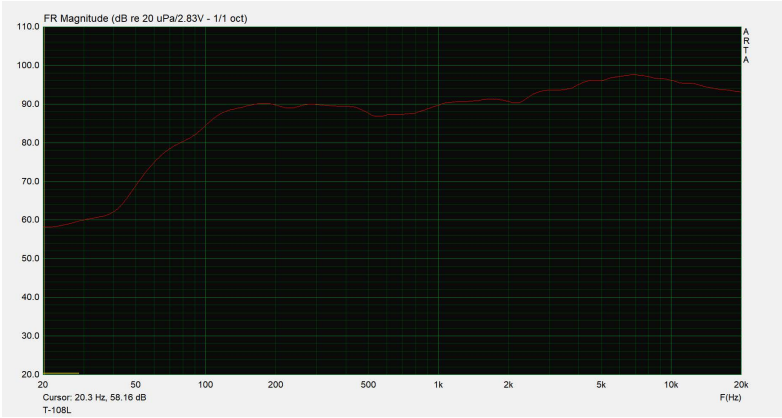
Specifications:

Model	T-774W
Rated power(100V)	15W
Rated power(70V)	7.5W
Sensitivity	88dB ±3dB
Impedance	Black: Com Red: 670Ω
Frequency response	130-18KHz
Speaker driver	4"×1 1.5"×1
IP rate	IP66
Dimensions	222×160×160mm
Weight	1.8Kg

Ceiling Speaker

T-108L

Material: iron shell + iron mesh cover



Description:

High quality ceiling speaker, full frequency speaker design, spring foot system, easy to install. Suitable for shopping malls, hotels, etc.

Specifications:

Model	T-108L
Power taps @100V	1.87W, 3.75W, 7.5W, 15W
Power taps @70V	0.93W, 1.87W, 3.75W, 7.5W
Impedance	90dB
SPL(1W/1M)	Black: COM ; Blue:5.3KΩ Red:2.7KΩ Green:1.3KΩ White:0.67KΩ
Frequency response (-10dB)	80Hz -20KHz
Speaker driver	8" x 1 1" x 1
Cutout size	230mm
Dimensions	265 x 75mm
Weight	1.2Kg