

PAVA2240

2-Zone Compact Voice Evacuation System Host



Description

PAVA2240 is an integrated voice evacuation system host. With built-in 240W digital amplifier, not only can it send out warning and alarm, but also support handhold microphone to make voice evacuation. It can manage emergency alarming, fire alarm announcement and background music playing for 2 zones. It is an ideal application for small shopping malls, office building and sports venues.

Features

- Digital tube display screen to display time, power amplifier status, and Fireman MIC status;
- One-key alarm and two kinds of editable alarm voices; EMC microphone for on-site voice evacuation;
- LED light to indicate system connection status and fault status;
- Support speaker line detection (light load, over load and short circuit);
- LED display to indicate the type of audio source of the current signal;
- 1 aux input interface, 1 Fireman MIC input, support offline detection; each paging record is automatically saved to SD card;
- Zone switch keys and LED display to indicate zone working status;
- Support AC power supply and 24V battery power supply; support automatically and seamlessly identify and convert. AC power supply is with the priority;
- Built-in two 240W digital power amplifier modules, which can have master and standby amplifier switch

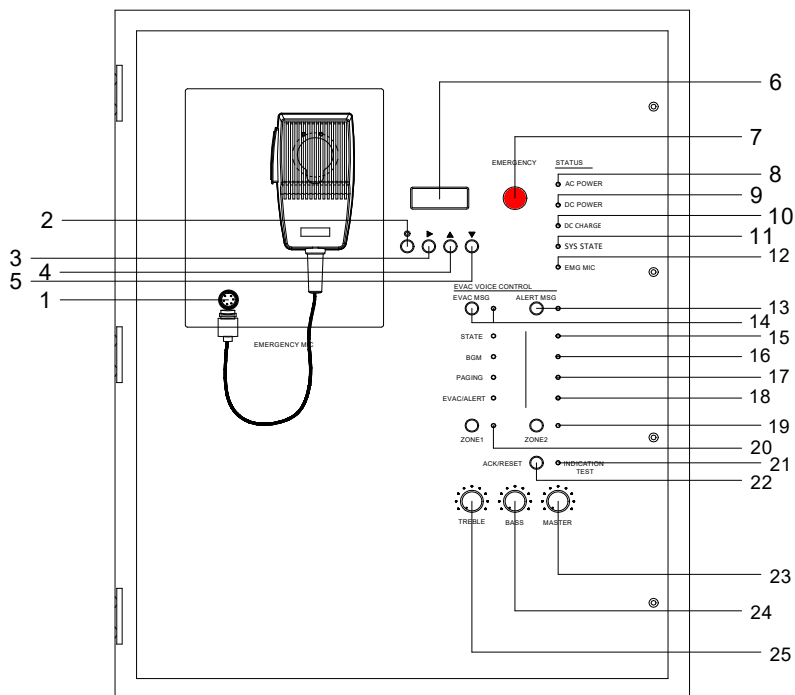
automatically;

- Equipped with 24V battery charger, which can be charged automatically when the system is powered by AC;
- System error information is backed up by logging in SD card;
- A/B line speaker output for two zones; independent power switch and volume control for each zone; with master volume control, treble and bass adjustment; each channel can output 240W, and the total power of 2 zones need to be within 240W;
- 2 channel link relay output interfaces (can control the short circuit of two wires to control other equipment); 2 24V output interfaces give peripheral equipment 24V (not greater than 0.5A) input signal;
- 2 input dry contacts, which can be integrated with the third-party system (such as the fire alarm system) through the input of dry nodes;
- Network cable interface for connecting to PAVA2200 Fireman MIC;
- With system LED test function button.

Specifications

Items	Index	
Rated power output	240W (Note: please connect high impedance speaker within this load)	
Rated voltage output	100V	
Sensitivity	Microphone	5mv (±1mv)
	Line input	1VRMS (±100mv)
SNR	Microphone	≥70dB
	Line input	≥80dB
Frequency response	Microphone	100Hz~10KHz(±3dB)
	Line input	80Hz~15KHz(±3dB)
The ratio of source electromotive force	≥12dB	
Total harmonic distortion	≤0.5%	
Tone adjustment range	±11±2 dB	
Rated power consumption	350W	
AC-DC power supply switching time	No intermittent	
Main and standby amplifier switching time	No intermittent	
Battery life of 12AH (two batteries in series form 24V)	2H (voice evacuation works normally)	
Battery specs	Size	≤150×100×100mm (2 pcs)
	Voltage	12V; (use two in series to make 24V)
Power supply	AC220V-230V/50Hz	
Packing size	570×470×271mm	
Machine dimensions	500×400×180mm	
Gross weight	17KG	
Net weight	15KG (without batteries)	

Front Panel



1. Handheld microphone connection interface

For connecting and fixing the handheld microphone;

2. Confirmation button

Long press this button to enter time modification;

3. Right button

Press to move right;



4. Up button: to add 1

When the system is working under the state of voice evacuation instead of time modification, press this button to increase the volume of voice alarming. After setting, the system will save the volume automatically;

5. Down button: to minus 1

When the system is working under the state of voice evacuation instead of time modification, press this button to decrease the volume of voice alarming. After setting, the system will save the volume automatically;

6. Digital screen: to display time and amplifier's status

To set system time: long press  to set system time. First set the year, as digital is flashing, press UP and DOWN button to adjust the number of year. Press the right button to move the flashing digital. After the year setting, press the right button to move to month setting. After setting hours and minutes, click the confirmation  button to end time modification. After setting, the time is displayed at regular intervals.

When the main amplifier fails, the screen will display E1; when the standby amplifier fails, the screen will display E2; when the connection number of Fireman MIC changes, bN will be displayed (N means the Fireman MIC with address N is disconnected).

7. System working mode indicator

◆ Flashing Red -- the current system works in emergency mode;

- ◆ Off -- the current system works in normal mode;
- ◆ Enter emergency mode:
In normal mode, press this button, the red indicator light flashes to indicate the emergency mode is entered.
- ◆ Exit emergency mode:
In emergency mode, press this button to exit and stop playing EVAC voice messages and zone output.

Note: both the entry and exit time or mode can be checked in the "LOG" of PAVA2240.

8. Main power indicator:

- ◆ Green -- indicates the AC power supply of the device is normal;
- ◆ Orange -- indicates that the device is not connected to AC power supply;

9. DC 24V battery indicator

- ◆ Green -- indicates power supply of DC24V battery is normal;
- ◆ Orange -- indicates that DC24V battery is not equipped with the device;

10. Charger status indicator:

- ◆ Green -- indicates the current charger is charging;
- ◆ Yellow - indicates that the charger is not equipped or damaged;
- ◆ Off - indicates that the charger is equipped but not charging;

11. System status indicator:

- ◆ Green -- all modules of the system work normally;
- ◆ Flashing orange -- the system is abnormal (press ACK/RESET if you are sure the system is working normally);

12. Handheld microphone status indicator:

- ◆ Yellow – indicates the handheld microphone is lost or malfunctioning;
- ◆ Green -- the microphone is working;
- ◆ Off -- the handheld microphone is normal but not working;

13-14. EVAC voice message status indicator:

- ◆ Green -- "EVAC MSG/ALERT MSG" voice message is broadcasting;
- ◆ Yellow -- "EVAC MSG/ALERT MSG" voice message is lost or SD card is lost;
- ◆ Off -- "EVAC MSG/ALERT MSG" is normal;

Note:

1. "EVAC voice message" refers to both EVAC voice and ALERT voice;
2. If the EVAC voice message needs to be played manually, the user needs to enter the emergency mode first and then press the voice message button;

15. Speaker status indicator

- ◆ Yellow – indicates the impedance of zone A or B (speaker A or B) changes; there might occur open circuit or short circuit;
- ◆ Off -- the impedance variation of the current speaker circuit is within the impedance range of the speaker when it is under modeling;

16. Background music indicator

- ◆ Green -- background music is running;
- ◆ Off - background music is off;

Note: the system plays background music in the default if there isn't any other input signal;

17. Fireman MIC indicator

- ◆ Green – on paging;
- ◆ Off – not paging;

Note: Zones can be ON and OFF manually while paging;

18. Voice evacuation message (from SD card) indicator

- ◆ Green – voice evacuation message is on;
- ◆ Off -- no voice evacuation message;

Note: Zones can be ON and OFF manually;

19. Zone 1 indicator

- ◆ Green -- zone 1 is on;
- ◆ Off -- zone 1 is off;

20. Zone 2 indicator

- ◆ Green -- zone 2 is on;
- ◆ Off -- zone 2 is off;

21. LED test indicator

Press this key to enter the LED test mode;

22. Confirm/reset/model key

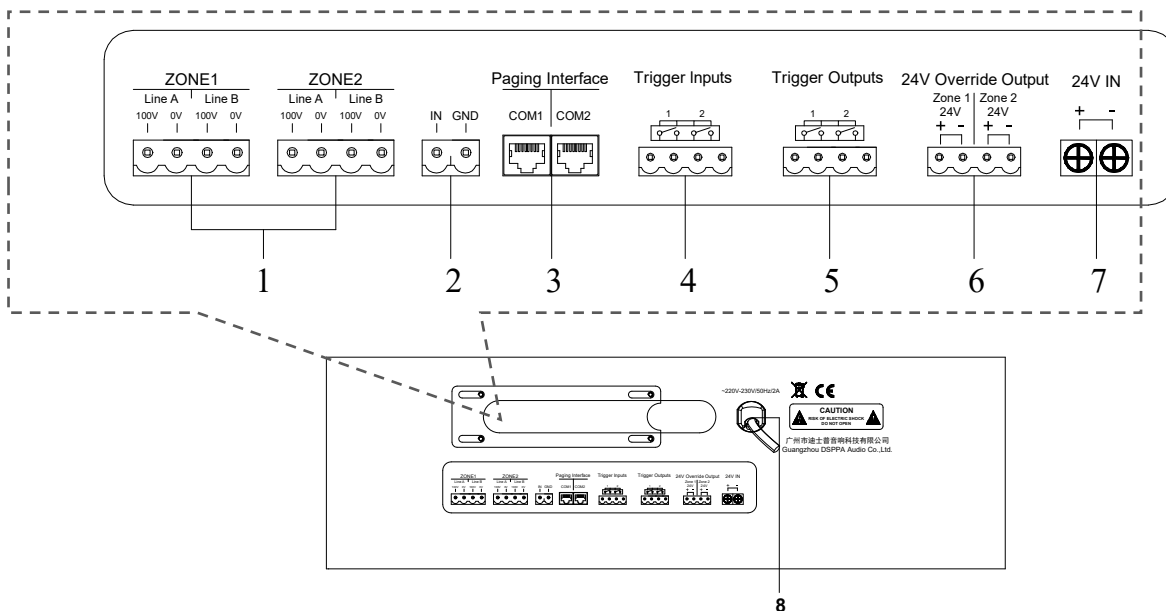
If the system module is diagnosed as abnormal, the "SYS STATE" fault indicator will flash intermittently. After pressing this button, the "SYS STATE" long light will no longer flash to indicate its fault status, and the buzzer will stop. When there is new module detected to be abnormal, the "SYS STATE" LED light flashes and the buzzer is on again;

Long press for impedance modeling and the number of Fireman MICs modeling. Please conduct a modeling every time when the speakers are connected and the Fireman MIC is connected.

23-24. Bass and treble control knob

25. Master volume control knob

Rear Panel



1. A&B line output for 2 zones

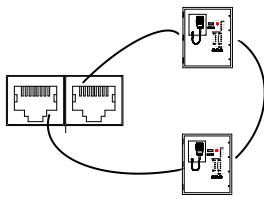
- ◆ Output voltage is 0~100V;

Note: please conduct modeling of speakers at least once after connection, and long press ACK/RESET button; zone without connecting speakers can be left empty.

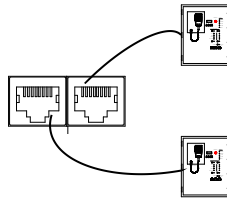
2. BGM line input

3. Fireman MIC interface

- ◆ For connecting Fireman MIC PAVA2200;
- ◆ Support looping connection and branch connection (as shown in the below picture), and the software can recognize automatically;



Looping connection



Branch connection

4. Input dry contacts of 2 zones

- ◆ Under normal conditions, keep the interface always open. When the input dry contact 1 detects a short circuit, zone 1 will play the EVAC voice. When the input dry contact 2 detects a short circuit, zone 1 and 2 will play the EVAC voice. (The dry contact can also be triggered by inputting a 5V-24V high level, simply move the internal short circuit cap to the right).

5. Output dry contacts of 2-channel relay

- ◆ Under normal conditions, the output dry contact 1 is an open circuit. When an EVAC or ALARM plays, the output dry contact open circuit becomes short-circuited.
- ◆ Under normal conditions, the output dry contact 2 is a short circuit. When the system fails, the dry contact will be changed from short circuit to open circuit.

6. 24V output

- ◆ Under normal conditions, there is no output. When the system is in alarm state, the two 24V output ports change from no output to 24V output.

7. DC24V power input interface

8. AC 220V-230V power cable