

PAVA8501 PAVA8500E

8 Zones Voice Alarm Fire Emergency Broadcast System Host



**PAVA8501
System Host
(With Built-in
Battery Charging
Module)**



**PAVA8500E
Extended Host**

Description

The PAVA8501 voice alarm system can be used in fire emergency broadcast, daily business broadcast and background music broadcast, and mainly used in small shopping malls, office buildings and exhibition halls. The system supports timing programming and manual operation, and is manually prioritized; it supports real-time detection of equipment operation status and operation log records, and features one-key alarm, editable messages, real-time monitoring, and expandable up to 160 zones, ensuring reliable and efficient audio management. The system includes system host, extended host, remote paging mic, fireman broadcast MIC and PC control software.

Features

- With one-key alarm and two editable alarm voices; with EMC MIC for on-site guidance in emergencies;
- Built-in EVAC voice message and Chimes management, real-time monitoring;

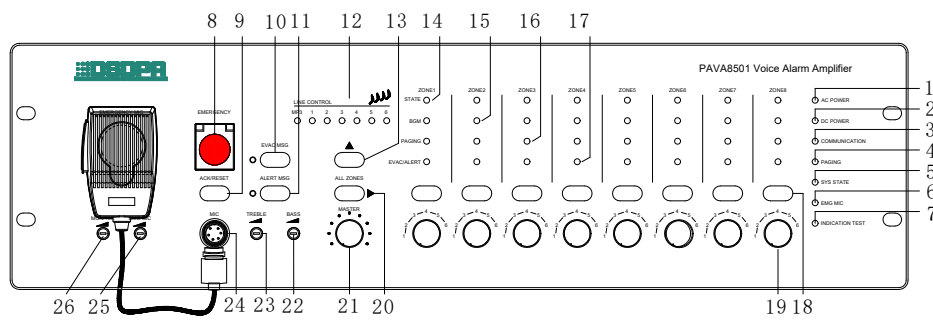
- Built-in 500W digital power amplifier, and can be connected to a standby amplifier simultaneously, backup automatically;
- 8 zones with A & B circuit output, independent switch and volume control with master volume and treble and bass adjustment for each zone; each zone can output 500W, the total power of 8 zones ≤ 500W;
- 6 external inputs, including 2 differential inputs, 4 non-parallel inputs for background music playback; 1-channel output to connect extender or backup records;
- Support built-in audio playback (mp3, wav);
- Support extended zones for extended equipment, supporting up to 160 zones;
- Support automatic playback and timing function, fixed time and area playback, and unattended function;
- Support remote microphone paging, and zone and group broadcast; can connect a maximum of 32 units at the same time;
- 8 trigger inputs (dry contacts and electrical level optional); 8 dry contacts trigger outputs, 8 24V override outputs;
- Support computer remote detection and control, audio priority setting, operation record view and impedance testing parameters setting;
- Support speaker line detection (grounding, open circuit, short circuit), and system detection (extended equipment, off-line MIC);
- Support AC power supply and DC 24V power supply, can automatically identify and switch; AC power supply is usually the main power supply;
- With AC, DC power connection detection and warn functions;
- Built-in battery charging module, with short circuit, overload, over voltage, under voltage protection, under voltage warning function;
- Dial-up code setting, system equipment general detection / trigger mode configuration / host IP address selection / host IP address reset option / speaker loop calibration modeling;
- Support system failure, emergency output, emergency reset input;
- Equipment working status display: work/ fault /normal;
- External SD card interface, which can expand 8G storage space; external audio source, recording, log, built-in EVAC voice, etc.;
- With monitoring function, built-in recording function, built-in timing programming function, which can regularly program dry contacts to control power sequencer switch ;
- Can output dual audio simultaneously to ensure background playback is not affected by emergency or business broadcast;

Specifications

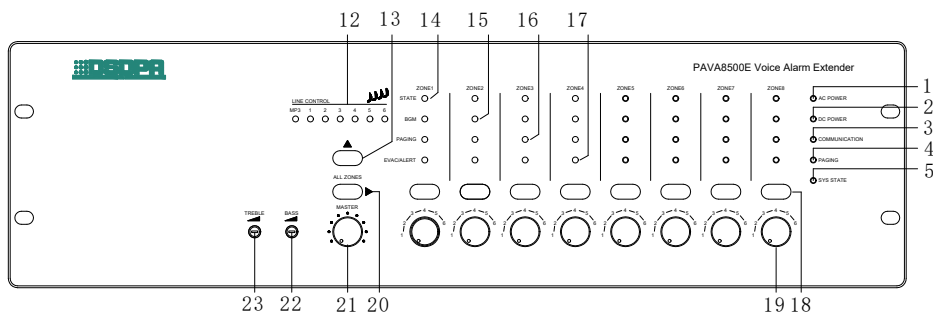
Model		PAVA8501	PAVA8500E
Rated output power		≥500W (100V)	
Input sensitivity	Emergency mic	5mV 600Ω	---
	Line	1000mV 10kΩ	
Harmonic distortion	Emergency mic	<1% 1kHz	---
	Line	<1% 1kHz	

Freq. response	Emergency mic	80Hz-15kHz (±3dB)	---
	Line	50Hz-18kHz (±3dB)	---
Signal to noise ratio	Emergency mic	>75dB (A weighting)	---
	Line	>80dB (A weighting)	---
Line output	Output voltage	1000mV	---
	Frequency range	80Hz-15kHz (±3dB)	---
	Harmonic distortion	<1% 1kHz	---
System connection control contact output/input	System fault relay output	Short circuit, no voltage	---
	Emergency mode relay	Short circuit, no voltage	---
	Fire reset input	Short circuit, t≥0.5S, no voltage	---
	8 channel dry contact	Short circuit, no voltage	---
	8 dry contact	Short circuit Level mode	Short circuit input, no voltage 3.3V~24V
Voice message	Data format	WAV	---
	Storage form	SD card	---
	Storage time	>10 years	---
Battery charging / discharging	Rated current	3.8A	---
	Maximum amplified	5A	---
	Low voltage protection	20±1V	---
Working power	AC	AC 220-240V/50-60Hz	---
	DC	DC 24V/30A	---
Package size (L*W*H)	550×510×215mm		---
Machine size (L*W*H)	483×420×132mm		---
G.W.	14kg	13.3kg	---
N.W.	12.05kg	11.75kg	---

Front / Rear Panel



PAVA8500 Host



PAVA8500E Extended Host

1—Host/extended host AC power indicator;

- ◆ Green - indicates the host/extended host AC power is normal;
- ◆ Yellow - indicates the host/extended host AC power is faulty;

2—Host/extended host backup power indicator;

- ◆ Green- indicates the host/extended host backup power supply is normal;
- ◆ Off - indicates the host/extended host backup power is not configured;
- ◆ Yellow - indicates the host/extended host backup power is faulty;

Instruction: The host backup power is configured on the system control software interface.

3—Host / extended host connection status indicator;

- ◆ Green - indicates the equipment is connected properly;
- ◆ Off - indicates the extended host has not established a logical or physical connection with PAVA8501;
 - a. Host: not connected with PAVA8000 and normally connected with extended host
 - b. Extended host: not established a logical or physical connection with the host
- ◆ Yellow- indicates the host has not established a logical or physical connection with extended host;

4—Remote paging mic connection status indicator;

- ◆ Green - indicates the equipment is working now;
- ◆ Off - indicates the equipment is connected in normal condition;
- ◆ Yellow- indicates the equipment has not established a logical or physical connection with the host;

5—System status indicator;

- ◆ Off – indicates every module is working properly ;
- ◆ Yellow - indicates the system is faulty;

Notes: if the general detection switch is disabled, the indicator will also be off, but it does not mean that all modules are normal

6—Emergency MIC status indicator;

- ◆ Green - indicates the MIC is working;
- ◆ Off - indicates the MIC is on standby;
- ◆ Yellow - indicates the MIC is faulty;

7—System equipment LED tester (mainly test LED panel of the host, extended host and remote paging station);

Notes: If the system is equipped with extended host and remote paging station, it will enter the LED test mode synchronously after pressing the key;

8—Voice evacuation switch;

- ◆ Flashing red - indicates the system is currently in emergency mode;
- ◆ Off - indicates the system is currently in normal mode;

9—Multi-function switch;

- ◆ Response status;
 - a. If the equipment is working normally or the system diagnosis is abnormal and press this key, when the "FAULT" indicator is on and press this key again, the system will be normal ;
 - b. If the equipment is diagnosed as abnormal, the indicator of "FAULT" flashes intermittently. After pressing this key, "FAULT" will be on and no longer have flashing, indicating the FAULT state of the equipment. The buzzer stops until the system detects a new abnormal state and then flashes again.

c. If the current system executes the timing point, press this key to close the current timing point;

10/11—EVAC voice message status indicator;

- ◆ Green - “EVAC MSG/ALERT MSG” is broadcasting;
- ◆ Off - “EVAC MSG/ALERT MSG” is not broadcasting;
- ◆ Yellow - “EVAC MSG/ALERT MSG” is lost or SD card is faulty;

12/13—Line audio source indicator / selection key;

- ◆ Mainly used to display the audio output from the working zone;
- ◆ The MP3 on the host corresponds to the SD card audio on the rear panel; the MP3 on the extended host corresponds to BGM of the host;
- ◆ 1-6 channels corresponds to the 6 external input audio of 17, 19 on the rear panel;

Instruction: The line audio source key is for switching among MP3-6 channels external lines. The LED indicates the status synchronously, and it can be displayed on the PAVA8000 control interface and can change the audio output of the zone.

14—Speaker zone status indicator;

- ◆ Yellow - speaker zone is faulty, indicating the speaker zone circuit impedance changes, which can be an open circuit or a short circuit;
- ◆ Off - the speaker zone circuit impedance changes within the impedance range of the speaker zone modeling;

15—Zone background playback indicator;

16—Zone emergency MIC or remote paging station indicator;

Instruction: When paging, you can manually close zones that do not need to be paged or add new zones;

17—Zone “EVAC” voice message indicator;

Instruction: you can manually close zones that do not need to be paged or add new zones;

18—Zone switch;

Instruction:

- a. When the zone output indicator is off, it will be turned on after pressing the key;
- b. When the zone output indicator is on, it will be turned off after pressing the key;

19—Volume control of zone output;

Instruction: it is divided into 6 gears

20—All zones on / off selector;

21—Master volume controller;

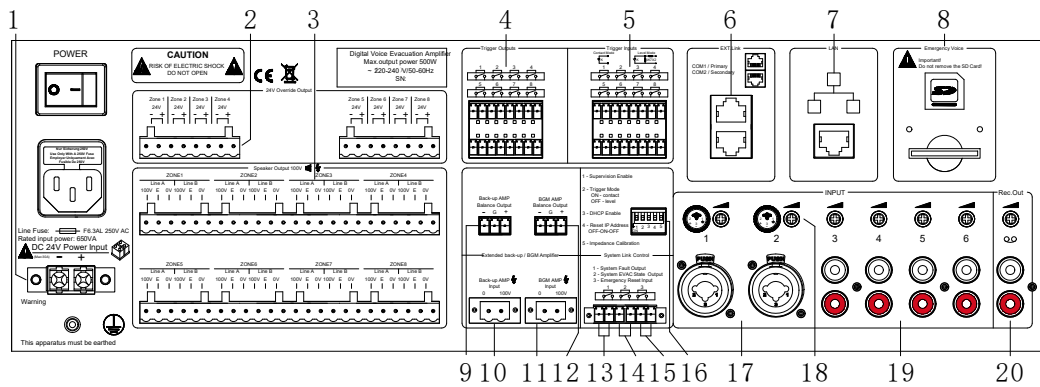
22/23—Treble / Bass controller;

24—Aviation socket;

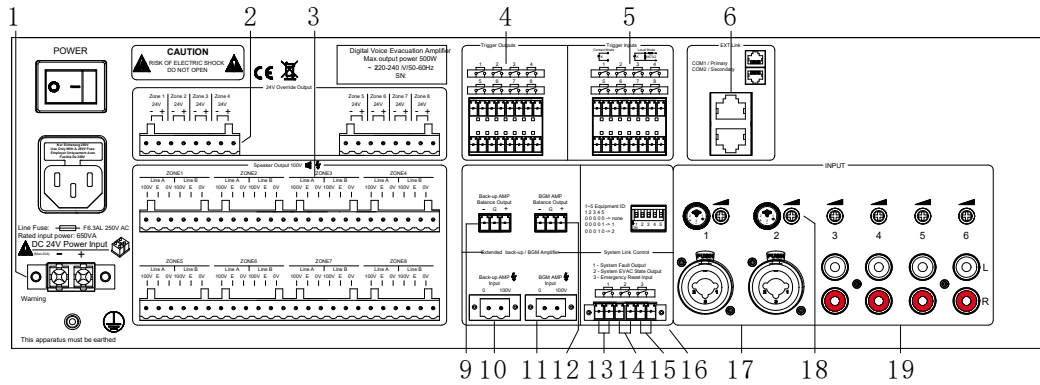
Instruction: mainly used to connect and fix emergency MIC;

25—Emergency MIC sensitivity controller;

26—Monitor speaker output volume controller;



PAVA8501 Host



PAVA8500E Extended Host

1—Backup DC 24V power input;

- ◆ External battery interface, and the battery capacity is configured based on actual requirements;

2—8 channel DC 24V power outputs;

- ◆ External 4-line volume controller is connectable;
- ◆ Rated output current of each output is 0.2A;

Note: The total output power must $\leq 38W$;

3—8 channel A&B circuit outputs;

- ◆ External custom speaker or 3-wire volume controller;
- ◆ Output voltage is 0 -100 v;

Note: At least one speaker loop modeling is needed after the system is connected; zones without horn can be suspended, or its output can be banned on PAVA8000 (please refer to the relevant section of PAVA8000 for specific operation);

4—8 channel programmable dry contacts outputs;

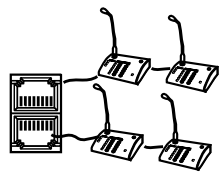
- ◆ Any contacts are programmable and configurable regularly;
- ◆ Any contacts triggered by fire alarm signal are configurable;

5—8 channel programmable inputs;

- ◆ Dry contacts input and level input are configurable optionally;

6—Extended host and remote paging station interface;

- ◆ Support star topology topology;



star connection

7—Ethernet interface;

- ◆ Mainly used to connect PAVA8000;
- ◆ Used to remotely upgrade firmware;

Description:

1) the default IP address of the device is 192.168.5.192, and the communication port number is 10086;

2) if the modified IP by PAVA8000 is forgotten, the default IP address can be restored by dialing down the fourth bit of "16" and then dialing up;

3) support the computer to connect directly to PAVA8501, and automatically identify TIE/EIA-568B and TIE/EIA-568A standards. In order to unify the interface, TIE/EIA-568B standard connection method is recommended;

8—SD card;

- ◆ Real-time detection of equipment;
- ◆ Store recorded files;

9/10—Backup amplifier interface;

- ◆ "9" audio signal output and receive backup amplifier signal input;
- ◆ "10" backup amplifier power signal input;

11/12—Background amplifier interface;

- ◆ "11" background amplifier power signal input;
- ◆ "12" audio signal output and receive background amplifier signal input;

13—System fault output;

- ◆ When the system is faulty, the output is disconnected, and vice versa;

14—System status output;

- ◆ When the system is in the fire alarm status, the output is closed, and vice versa;

15—Fire reset input;

- ◆ The equipment is working in fire alarm mode, reset to normal mode;
- ◆ The equipment is working in normal mode, without processing;

16—System host / extended host module configuration switch (down for "Enable", up for "closed");

- ◆ System host:

"1"—indicates the general detection switch, and "Enable" means the working status of each module is allowed to be monitored, otherwise "closed";

"2"—indicates configuration switch in trigger mode, and "Enable" means triggering by short-circuit, "closed" means triggering by electrical level;

"3"—N/A;

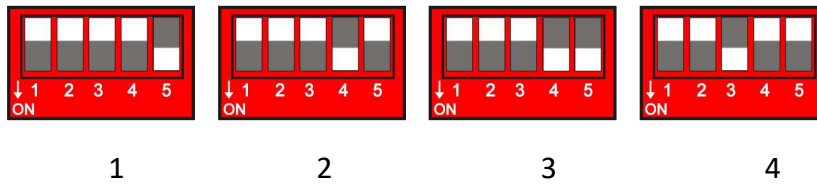
"4"—Reset host IP address to initial value: IP address: 192.168.5.192, port number: 10086;

"5"—Speaker loop impedance calibration switch. When there is a change in impedance, the status light is yellow. Pull this switch up and then pull it down to recalibrate the impedance. (refer to front panel "14")

- speaker zone status indicator"), please ensure the zone is closed when calibrating the model;

◆ extended host:

"1~5"—indicates the equipment online ID, the following equipment ID are: (i.e. the binary value of equipment ID1~5 is increased by 1, pull down as "1", pull up as "0"). Note: "1" on the switch is the highest binary bit and "5" is the lowest binary bit. For the correspondence between the device address order and the binary value, please refer to the "Schedule: Zone Address and Dial Code Setting Comparison Table".



17—XLR input;

◆ Connects to MIC input signal;

18—Connects to input audio sensitivity controller, used with "17, 19, 20";

19—Connects to line input, used with "18";

20—Host audio output;

◆ This interface output the audio which the current amplifier output;