

CLASS D AMPLIFIER LTS.A4500DLS

Operation manual



Please follow the instructions in this manual to obtain the optimum results from this unit. We also recommend that you keep this manual handy for future reference.





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1. WORSHIP READER

Thank you for using LINEARSOUND fire alarm broadcast system. To make it easier to understand and the description of this user manual, please read following introductions.

a. Voice message mentioned in this user manual includes following contents

- Built-in EVAC, ALERT voices
- · Built-in paging and PSTN voice menu tones
- Built-in BGM, line input audio and remote paging audio

Note : The voice message storage of the 4 SD cards EVAC/ALERT/BGM/PROMPT should not be more than 100.

b. System control priority

- When configure the priority of audio operation, please follow the rule: The priority of manual operation is higher than automatically operation; the priority of local is higher than remote.
- The coexistence of same priority level is forbidden (we suggest to configure PTT MIC and EVAC voice with the higher priority level)
- There are totally 39 audio signals. Considering the network bandwidth, only 24 audio lines could be sent to the system zones synchronously. The audio priority level could be configured by the software (when the configuration is back up to the controller, audios from the same controller is allowed to be the same but audios from different controllers is not allowed to be the same)

c. Icons introductions

2	Cycle play	%	Click to monitor the current zone output audio
15	Single cycle	9	It means monitoring the current zone output audio
	Order playback		There is fault from the equipment or module detected by the system
1	Single playback		It means the system is working in the emergency mode
X	Random play	*******	It means the controller is off-line
	Specific play range (20 songs at max)	· · · · · · · · · · · · · · · · · · ·	It means the network is connected
ال ال	Click to adjust the output volume of the current zone (but it is invalid to EVAC voice and paging)		It means the current controller is starting PSTN paging function
	It means the current zone is mute (volume output at 0)		It means there is MIC paging



Green means the module is working	Grey means the module is normal
Yellow means the module has fault	

d. LED status introduction

- Yellow: Fault, indicates that the equipment or equipment module is lost according to the current configuration detection, which may influence the system.
- Light off: It means that there is no equipment or equipment module lost or unusual working according to the current configuration detection (the light will be off if the module is without configuration as well)
- Green :
 - 1. Long light: Normal working.
 - 2. Twinkle: The paging zone is switched over by the other audios with higher priority.
- Red:

Long light : Warning
 Twinkle : Waiting

e. System zone status introduction

Zone status means the real-time working status of the zone speakers loop bus, including the open circuit, short circuit, grounding, normal and current work audio of the loop bus.

When there is short circuit in the speaker zone bus, the zone output audio will be shut down immediately to protect the amplifier. When there are grounding and open circuit in the speaker zone loop bus, the zone output audio will not be shut down but there will be buzzing and fault indicator warning the user and recording the fault zone and fault time. Please refer to the later chapters about the inquiry methods.

f. Attention

- Never install the equipment in the sunshine or nearby the heating unit, which will make the equipment out of shape, color fading or stop working and enter protection mode due to over heating.
- Never install or put the equipment in the dusty and wet place, or it will cause stability problem or interval fault to the system.
- Keep the equipment far away from the high magnetic fields in case of high electromagnetic interference or influence to the normal working of the system.
- A4500DLS is specially designed for cabinet installation. If there are two units or more units installed in the cabinet, you have to keep some space between the equipments for the sake of ventilation and cooling.
- For the sake of the stability working of the system, please make sure the reliable grounding of every equipment.
- The amplifiers of the system are not allowed in parallel, or it will cause permanent fault.
- The remote microphone provides phantom power for real-time detection. Please do not turn off the switch during normal working in case of system fault or misjudge.

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- All the main equipments of the system have back up function. Please configure it based on actual demand. If there is major failure causing the system not to work properly, please turn to LINEARSOUND for repairing. Never open the equipment for repairing by yourself in case of permanent fault on the equipments or module or electric shock.
- This equipment is a class-I type. So the power socket must be connected with the power socket with grounding to ensure sufficient ground.
- The equipment adopts the disconnection between the power plug and network source.
 To ensure safety, please pull up the power plug when not using to make sure completely power disconnected.
- Because the equipment appearance and function will upgraded constantly but it will be downward compatible. If the actual equipment does not match with the picture, please take the actual equipment as standard.

2. DESCRIPTIONS

a. A4500DLS amplifier

A4500DLS series power amplifier is mainly used for zone audio amplifier, it transfer the standard audio signal to 100V voltage signal to drive the speaker, at the same time detect each channel circuit output and the work state of the amplifier and send the data to the master.



b. Features

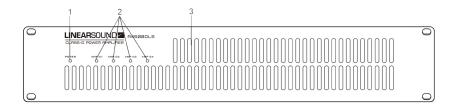
- Adopting modular design, easy to setup according to the demands
- 2U rack, four independent channels, each channel maximum 500W/100V output

c. Basic functions

- Overload, short circuit protection
- Automatic temperature control
- LED statement indicator
- · The each channel amplifier working state detection automatically
- Automatic main and standby amplifier switch and loudspeaker loop line state detection
- Support 3 line wiring
- Support power saving mode, when there is no signal, the device would enter the standby mode automatically (default is prohibited)



d. Front panel



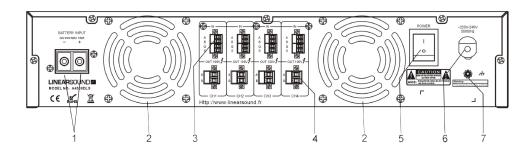
- 1. POWER: The LED power indicator light which indicating the current power supply status.
- 2. Channel 01 04 amplifier work status light indicator.

Off: If the current configuration or the power indicator light on, it shows that this channel amplifier works well.

Yellow: The current amplifier channel failed.

3. Amplifier ventilation cooling hole.

e. Rear panel



- 1. DC power input terminal.
- 2. Temperature control fan vent.
- 3. 1 4 channel balanced audio signal and the standby signal input connector (take system side line connection for reference)
- 4. 1 4 channel 100V audio signal output.
- 5. Power supply switch.
- 6. AC power supply input line.
- 7. Equipment earthing port.



3. SPECIFICATION

AC power supply				
Work current	AC 220V, 50 / 60 Hz			
Work current	2.8A / 5.6A / 8A / 12A			
DC Power supply				
DC input	DC 24V ± 20%			
Work current	19.5A / 52A / 72A / 100A			
Audio				
Input mode	385 mV balanced			
Frequency response	40 Hz - 20 KHz ± dB			
Output	100V constant voltage			
Distortion	≤1% (rated output) 1 KHz			
SNR	≤ 90 dB			
Environmental requirements				
Operating temp	5 °C ~ 40 °C			
Storage temp	20 °C ~ 70 °C			
Relative temp	< 95% (no condensation)			
Cooling model	Air-cooled			
Protected mode	Overheat, overload, short circuit			
Dimension	484 x 500 x 88 mm (without device feet)			
Weight	16.6 kg			

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