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# Guardian Audio

## 3HD+



## OPERATING GUIDE





Intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** Risk of electrical shock DO NOT OPEN!

**CAUTION:** To reduce the risk of electric shock, do not remove cover. No user serviceable Parts inside. Refer servicing to qualified service personnel.

**WARNING:** To prevent electrical shock or fire hazard, this apparatus should not be exposed to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus. Before using this apparatus, read the operating guide for further warnings.

### IMPORTANT SAFETY INSTRUCTIONS

**WARNING :**When using electrical products ,basic cautions should always be followed, including the following:

- 1.Read these instructions.
- 2.Keep these instructions.
- 3.Heed all warnings.
- 4.Follow all instructions.
- 5.Do not use this apparatus near water.
- 6.Clean only with a dry cloth.
- 7.Do not block any of the ventilation openings. Install in accordance with manufacturer 's instructions.
- 8.Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers)that produce heat.
- 9.Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding plug. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10.Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
- 11.Only use attachments/accessories provided by the manufacturer.
- 12.Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

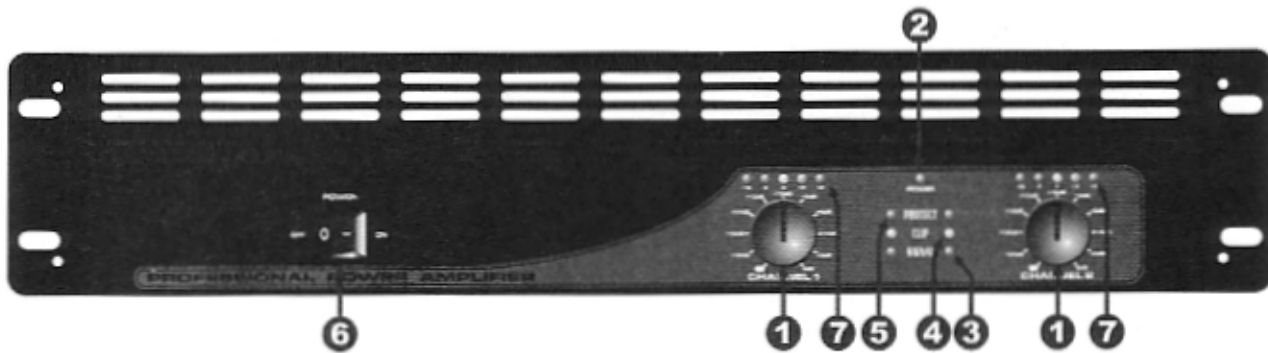
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Never break off the ground pin. Write for our free booklet "Shock Hazard and Grounding." Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
16. If this product is to be mounted in an equipment rack, rear support should be provided.
17. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time.

The U.S. Government's Occupational and Health Administration (OSHA) has specified the following permissible noise level exposures:

Sound Level dBA, Slow Response	Duration Per Day In Hours
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors to the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss, if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

## OPERATIONTION:



### (1) INPUT GAIN (dB)

These controls are used to adjust the input gain of each channel. They determine how loud each channel of the power amplifier will sound for a given input signal level. Maximum input gain is achieved at the fully clockwise setting, and this setting yields maximum mixer/system headroom. A setting of less than fully clockwise will yield lower system noise at the expense of mixer/system headroom. Turning the control fully counterclockwise is the off setting. It is always a good idea to power up any new installation at this setting to protect the system loudspeakers.

### (2) POWER LEDS (POWER)

These indicators illuminate when the AC mains power is being supplied to the amp and both channels are operational. If either channel experiences fault conditions, exceeds safe operating temperature limits, or if the mains circuit breaker trips; both channel power LEDs will be dark, indicating shutdown. If the BRIDGE mode is selected, the PWR indicator on channel B will remain dark as a positive indication of this mode selection.

### (3) SIGNAL ACTIVITY LEDS (SIGNAL)

These indicators illuminate when the associated channel output signal level exceeds 1 V RMS.

### (4) OVERLOAD LEDS (CLIP)

These indicators illuminate when the associated channel has been overloaded.

### (5) FAULT LEDS (FAULT)

These indicators illuminate when the amplifier just turned on or if the amplifier is detected some problem inside such as overheat or circuit problem so that can protect the amplifier..

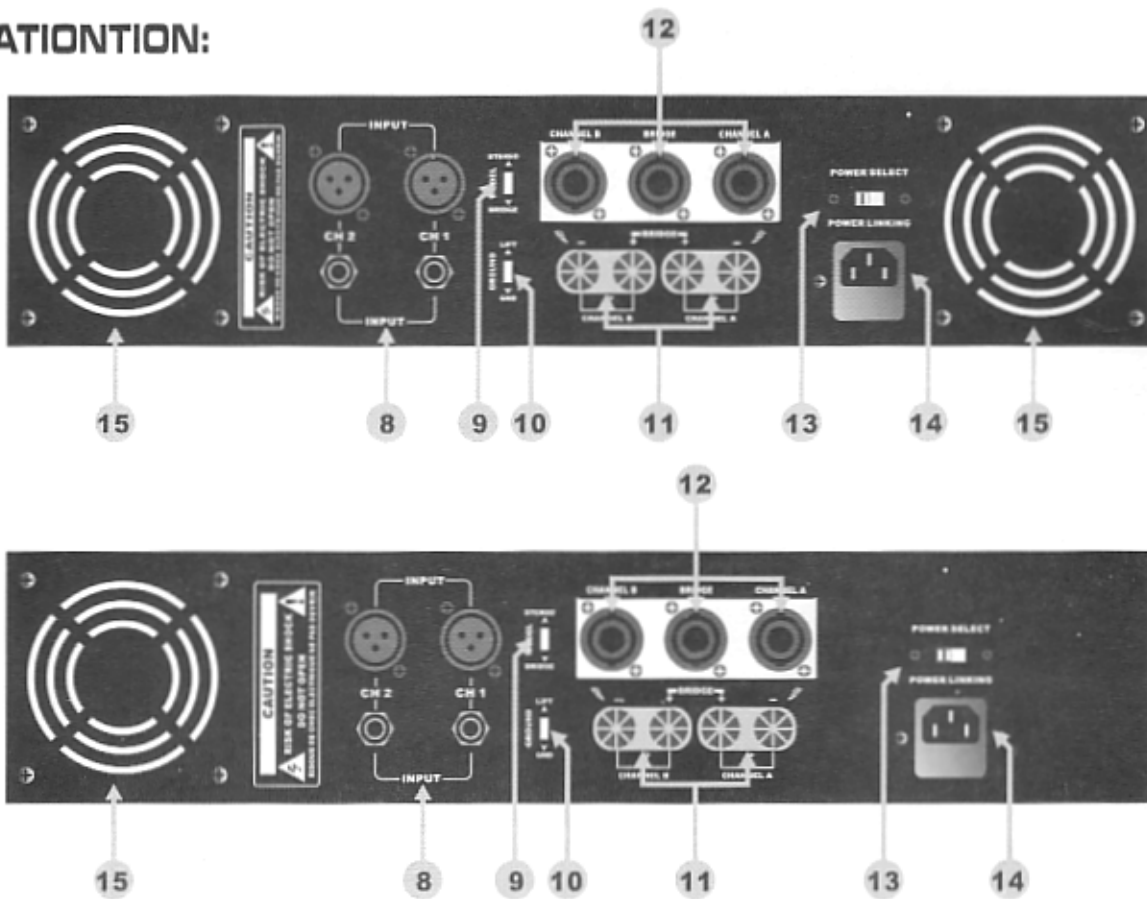
### (6) POWER SWITCH

This heavy-duty, rocker-type switch turns on the mains power to the amplifier. When the mains power is applied, there is a three-second delay in activation of the unit. This reduces/eliminates the turn-on transients associated with the system equipment connected to the amplifier and protects loudspeakers.

### (7) LEVEL

Channel 1 and Channel 2 level LED indicator.

**OPERATIONTION:**



**(8) INPUT**

Cannon and input jack connector provide balance or unbalance input mode.

**(9) Mode Switch**

This switch is used to select STEREO or BRIDGE mode operation.

**(10) Ground Lift Switch**

**(11) Binding Post Outputs**

Shockproof binding post are provided. For each channel, the outputs are in parallel and the speaker connection cables can be terminated with banana plugs or stripped wires.

**(12) Speakon Output**

The amplifier provide three 4 conductor Speakon connectors, one for each channel and one for bridge mode

**(13) Power Select**

Switch to choose 110V-120V or 220V-240V power supply.

**(14) Power Input**

This is a standard IEC power connector. An AC mains cord having the appropriate AC plug and rating for the intended operating voltage is included in the carton.

**(15) Fan Grill**

Two 2 speed DC fans supplies cool air to the amplifier. Fans switches to high speed automatically when the unit requires additional cooling.

## SPECIFICATION

### 1. INPUT SPECIFICATION:

#### \* Input characteristics:

\* Input impedance balance 20K ohms

Non-balance 10K ohms

\* Input level +4dB

#### \* Power input

Input voltage: 115/230 V AC

Frequency 50/60 Hz

### 2. OUTPUT SPECIFICATION:

#### \* Frequency response

+0, -0.2 dB 20Hz to 20K Hz

#### \* POWER

150 watts x 2 @ 8  $\Omega$

300 watts x 2 @ 4 $\Omega$

450 watts BRIDGED 8 $\Omega$

