

# D Series Power Amplifiers Owner's Manual



# **Important Safety Precautions & Explanation of Symbols**



The lightning flash with arrowhead symbol within an equilateral triangle is 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 humans.



The exclamation point within an equilateral triangle is intended to alert the user tothe presence of important operating and maintenance (servicing) instructions in this manual.



The lightning flashes printed next to the output terminals of the amplifier are intended to alert the user to the risk of hazardous energy. Output connectors that could pose a risk are marked with the lightning flash. Do not touch output terminals while amplifier power is on. Make all connections with amplifier turned off.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALI-FIED PERSON NEL.



WARNING: To prevent fire or electric shock, do not expose this equipment to rain or moisture.



Do not put any containers that hold water on the amplifier, just in case the water would drip into the amplifier and cause electric shock.

This amplifier has a serial number located on the rear panel. Please write this and the model number down and keep them for your records. Keep your purchase receipt. It is your proof of purchase.

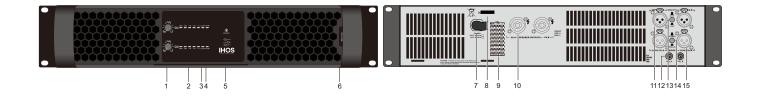
| Serial Number:    |  |
|-------------------|--|
| Date of Purchase: |  |
| Purchased From: _ |  |

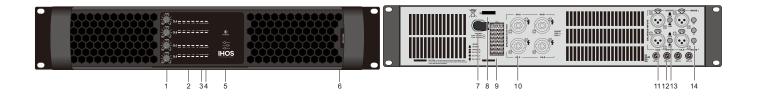
# **INTRODUCTION**

Please read the following directions and obtain the best results. Key features:

- 4 channels
- XLR input connectors
- Speakon output connectors
- Each channel has independent Clip Limiter
- Stereo and Parallel modes of operations
- Reliability
- Complete amplifier protection

# **CONTROLS, CONNECTORS & FEATURES**





1- Gain Controll 2-Signal Display 3-Clip Display 4- Mute(protetion) Display 5-Power Display 6-Power Switch

- 7-Power cord connector 8-Serial number label 9-Output power reference 10-Speakon output connectors 11-XLR input connectors 12-Output voltage selecting
- 13-Input Sensitivity Selecting
- 14-Signal Connect Selecting
- 15-XLR link connectors

#### SELECTING STEREO OR PARALLEL MODE

The amplifier can be set for normal Stereo operation or Parallel input Mode.

**Stereo Mode** - Each channel remains independent. The amplifier may be used for two different signals.

**Parallel Mode** - This setting connects two input signal ( for 2-channel amplifier) or four input signal ( for 4-channel amplifier) I together. One signal feeds both channels (2-channel amplifier) or 4 channels(4-channel amplifier). Controlling by the input connector and gain of channel A.

For 3 channel amplifier, it's without sucn function.

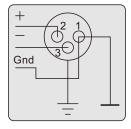


Do not connect different inputs to any side that opposites the channel when operating in Parallel Mode.

# XLR INPUTS

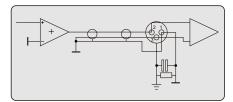
1. Balanced input connections

XLR input connectors are electronically balanced; XLR input connectors should be wired as follow: Pin 1 Groud/ shield Pin 2 positive (+) Pin 3 negative (-)



2. Unbalanced input connections

To connect an input to an unbalanced source, it is possible to connect Pin1 and Pin3 in the XLR plug at the amplifier end of the cable. However, a better method is to connect Pin3 to the shield at the sourse end of the cable, as this usually results in better hum and noise rejection. Balanced input connetions are recommended whenever possible.





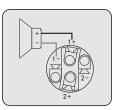
·There's no bridge mode on this amplifier.

·Do not support hot-plugging. Only plug in or out input signal when the power is off.

#### **SPEAKON OUPTPUTS**

Each channel accepts a normal 2-wire cable. Stereo and parallel modeconnect every speaker to the amplifier channel, and select stereo or parallel mode as follow

Each channel is with a balanced XLR input connector. It's connected in a standard way and can be changed quickly and easily. Balanced connect is recommended so as to reduce the AC noise and interrupt, especially when using long cable. Unbalanced connect should be used with short cable, and the signal resistance should be no more than 600 ohms.





#### **OUTPUT TERMINAL SAFETY WARNING!**

Do not touch output terminals while amplifier power is on. Turn off the amplifier before connecting, or else there will be risk of hazardous energy!

#### Output Voltage Peak Limiter(VPL)

Voltage Peak Limiter (VPL) is a unique feature in D series amplifiers. It is used to select the maximum power available on each output channel. The VPL allows you to set the correct output power for the connected speakers to get to its best performance. The correct configuration is depended on the system type and the load of connected channel.

If you choose a lower VPL setting, you only reduce the output voltage. At the same time, this allows more current headroom for low-impedance loads. The amplifier thus runs at higher efficiency, with a significantly reduced risk of going into thermal protection.

# **GAIN CONTROLS**

Turn the Gain controls clockwise to increase Gain and counterclockwise to decrease Gain.

# LED INDICATORS

#### Displays

The LED displays for each channel operate as follows:



| POWER | Green  | Main power supply active on this channel.   |
|-------|--------|---|
| CLIP  | Yellow | Clip LED on Shows activity of Limiting circuit,<br>which responds to both clipping and to thermal<br>overload.Protect Red Flashes as amplifier<br>approaches maximum temperature. |

Typical Power Up and Power Down Operation

When the amplifier is first turned on, the green POWER displays will light up, and there will be a 2-second turn-on delay, during which all red LEDs will be bright (MUTE LED). The signal LEDs are green.

CLIP LEDs not fully bright - maybe the output is overloaded or clip limiter is working

CLIP flashing and other LEDs are all on - the amplifier is reaching its full output, the clip circuit is working to prevent overload output.

MUTE flashing - hot reducing and fans speed up.

# **Overheat Situation:**

When the ventilation is not good or the amplifier is overloaded under low impedance, it will lead to the overheat protection.

The overheat protections is as follow:

25-50℃: fans run in low speed

50-60℃: fans run from low speed to high

75°C: protection LEDs start to flash

 $85^{\circ}$ C: protection splash quickly and CLIP LED is illuminated, output is controlled at 15 dB 90^{\circ}C: overheat protection, the protection LEDs flash in high speed and the CLIP LED is fully bright, which shows the extreme low load, no ventilation or fans are broken.

# **SPECIFICATIONS**

|                      | D1200  | D1800   | D2600   | D3000   | D3600   |  |
|----------------------|--|---------|---------|---------|---------|--|
| 8 ohms Stereo Power  | 2X600W   | 2X900W  | 2X1250W | 2X1500W | 2X1800W |  |
| 4 ohms Stereo Power  | 2X1200W  | 2X1800W | 2X2500W | 2X3000W | 2X3600W |  |
| Input connetor       | XLR female                                       |         |         |         |         |  |
| Input impedance      | 20k ohms balanced                                |         |         |         |         |  |
| Input Sensitivity    | 0.77V 1.44V                                      |         |         |         |         |  |
| Input CMRR           | >80dB  |         |         |         |         |  |
| Output connector     | Speakon  |         |         |         |         |  |
| Hum&Noise            | >112dB   |         |         |         |         |  |
| Damping Factor       | >1000 @ 8 ohms                                   |         |         |         |         |  |
| THD                  | <0.1% (20Hz-20kHz 1W)                            |         |         |         |         |  |
| Frequency Response   | 20Hz-34KHz,(+0/-0.3dB, 1W/8ohms)                 |         |         |         |         |  |
| Level control        | front level meter, from negative infinity to 0dB |         |         |         |         |  |
| Cooling              | variable speed fans, front to rear airflow       |         |         |         |         |  |
| Power Requirement    | AC voltage 180-240V 50-60Hz                      |         |         |         |         |  |
| Amplifier dimensions | 88mmX488mmX438mm                                 |         |         |         |         |  |
| Packing dimensions   | 150mmX600mmX550mm                                |         |         |         |         |  |
| Net weight(kg)       | 10.5   | 11.5    | 11.5    | 11.5    | 12      |  |
| Gross weight(kg)     | 13.6   | 14.6    | 14.6    | 14.6    | 15.1    |  |
|                      |  |         |         |         |         |  |

|                      | D4004  | D6004   |  |  |
|----------------------|--|---------|--|--|
| 8 ohms Stereo Power  | 4X900W   | 4X1500W |  |  |
| 4 ohms Stereo Power  | 4X1800W  | 4X3000W |  |  |
| Input connetor       | XLR female                                       |         |  |  |
| Input impedance      | 20k ohms balanced                                |         |  |  |
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| Level control        | front level meter, from negative infinity to 0dB |         |  |  |
| Cooling              | variable speed fans, front to rear airflow       |         |  |  |
| Power Requirement    | AC voltage 180-240V 50-60Hz                      |         |  |  |
| Amplifier dimensions | 88mmX490mmX415mm                                 |         |  |  |
| Packing dimensions   | 150mmX600mmX520mm                                |         |  |  |
| Net weight(kg)       | 12.7   | 13      |  |  |
| Gross weight(kg)     | 15.9   | 16.2    |  |  |