# **INSTALLATION AND OPERATION MANUAL**



## DDA-2800 DDA-4800

**Class-D Power Amplifier** 





- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this device near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in a ccordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
- 9. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- 10. Connect the device to a mains outlet with a protective earth connection.

of electric shock to persons.

# WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THE PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE. TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. TO PREVENT ELECTRICAL SHOCK MATCH WIDE BLADE PLUG TO WIDE SLOT, FULLY INSERT.



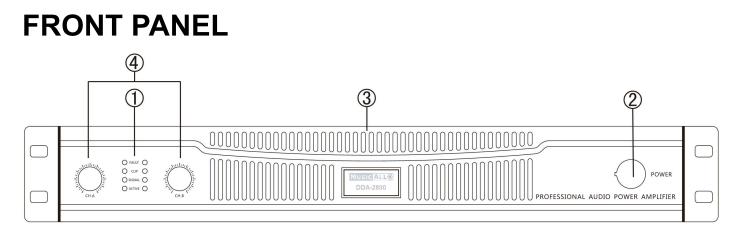
# INTRODUCTION

### Description .

The DDA-x800 series power amplifier is designed for pro audio application and fixed installation sound systems. Class-D technology helps the amplifier to generate powerful output while generating less heat because of its high efficiency up to 85%. The power amplifier is designed with a PWM power supply to ensure extreme stability, less noise and minimum heat. Its rated power is  $800W@ 8\Omega / 1100W@4\Omega$  per channel. Selectable modes stereo, parallel and bridge for flexible usage. With protection including clip, high temp, overload and short circuit to ensure this amplifier works properly under any working environment.

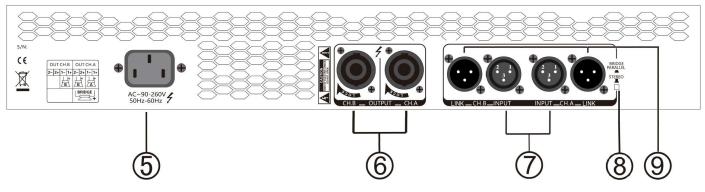
### Features

- Switching power technology Class-D power amplifier
- · Green technology amplifier of 85% efficiency
- With PWM special power circuit to ensure excellent cooling system
- 19" universal rack mount type in 1.5U height
- · Output mode selector with stereo, parallel and bridge setting
- Input by balanced XLR male connector per channel
- Output by balanced Speakon female connector per channel
- · Clip, high temp, overload and short circuit protection



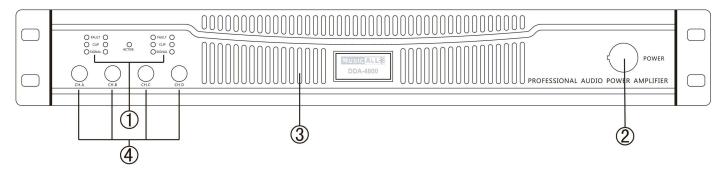
- 1. Functional display LED of each channel on the front panel: Fault, Clip, Signal, Active
- 2. Power Switch
- 3. Ventilation Hole
- 4. Volume control of channel A and B

### **REAR PANEL**



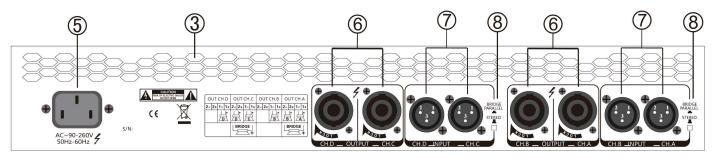
- 5. Power Cord Connector
- 6. Speakon Output connector
- 7. Female XLR
- 8. Mode selector
- 9. Link outputs

# **FRONT PANEL**



- 1. Functional display LED of each channel on the front panel: Fault, Clip, Signal, Active
- 2. Power Switch
- 3. Ventilation Hole
- 4. Volume control of channel A, B, C, and D

### **REAR PANEL**



- 5. Power Cord Connector
- 6. Speakon Output connector
- 7. Female XLR
- 8. Mode selection

# **AMPLIFIER OPERATION GUIDANCE**

### Setup

Before operating the DDA-x800 series amplifier, check the mains supply voltage and connect the IEC inlet to the mains power supply using the power lead supplied (or equivalent). Ensure that the cooling vents at front and rear are not covered or obstructed in any way with adequate space for air-flow through the unit. Leave the switch in OFF position.

Each side of the DDA-4800 series amplifier can be operated as an independent pair of channels or as a single combined output in Bridge mode. Set the mode using the selector switch for the relevant pair of channels (rear panel 8).

Bridge mode offers the option of operating the DDA-4800 as a stereo amplifier into 2 larger  $4\Omega$  speakers. It is also possible to operate one side in Bridge mode to create 1 high output channel with the other side in stereo, which can be useful to power a large sub and a pair of satellite speakers (left + right).

### Stereo mode

Connect Left and Right speakers to Channel A and Channel B outputs via the SPK (rear panel 6). For SPK wiring, connect + and - wires to pins 1+ and 1-. Ensure that the combined load on each channel is no lower than  $4\Omega$  (DDA-4800 minimum  $2\Omega$ ) Connect line level Left and Right inputs to the CH A and CH B XLR inputs (rear panel 7)

### Parallel mode

Connect the speakers to the speaker outputs as described above but both outputs will only receive a mono signal from the CH A XLR input (rear panel 7) and is controlled by CH A and CH B volume control (front panel 4)

### Bridge mode

Bridge mode is different to the other two modes in that it combines both output channels to a single mono output. This mode enables double the power to a single speaker output compared with Stereo or Parallel modes. The difference is that the speaker load must be no lower than  $8\Omega$  for DDA-2800 and  $4\Omega$  for DDA4800, whether a single speaker or combined load. Bridge mode can be useful especially when driving a large, high power subwoofer. Connect speaker(s) to the Channel A SPK output. Connect the "+" speaker wire to amplifier 1+ (rear panel 6) and the "—" speaker wire to amplifier 2- (rear panel 6). Incorrect speaker wiring can damage the amplifier! Bridge output receives a mono signal from CH A XLR input (rear panel 8) and is controlled by CH A and CH B volume control (front panel 4)

### Operation

With channel gain controls (front panel 4) turned fully down (anti-clockwise), switch on the power (front panel 2) and the LED POWER indicator will light. Playing the input signal into the connected channel inputs, gradually increase the relevant gain controls (only CH A will have an effect in Bridge mode). The amplified signal should be heard through the speakers and the SIG indicators (front panel 1) should respond to the audio output. Increase the volume controls to the required level. Alongside the SIG indicators are CLIP indicators, which should only light very briefly on the loudest transients or spikes in the audio. If the CLIP LEDs light for more than a fraction of a second at a time, the volume controls should be turned down or input signal will need to be reduced.

Before powering down, turn down the volume controls to avoid loud pops or noises through the speaker.

# **SPECIFICATION**

	DDA-2800	DDA-4800
Stereo 8Ω	2X800W	4X800W
Stereo 4 $\Omega$	1480W	4X1480W
Stereo 2Ω		2X1776W
Bridge 8Ω	2800W	2X2800W
Bridge $4\Omega$		2X3360W
Frequency Response	15-30kHz(±1dB)	
Slew Rate	28V/μs	
Damping Factor, $1 \text{kHz}$ , $8 \Omega$	>240	
Input Sensitivity	0.775V	
THD+N	<0.1%	
SNR	100dB	
Input Connector	Female XLR	
Output Connector	Speakon	
Input Impedance	$20k\Omega$ balanced, $10k\Omega$ unbalanced	
Voltage (AC)	AC 90-264V~50-60Hz	
Voltage Range(AC)	AC 90-264V~50-60Hz	
Product Dimensions	483×306×66mm(WXDXH)	
Packing Dimensions	550×390×105mm(W×D×H)	
Net/Gross Weight	7.1KG	8.3KG

# TROUBLESHOOTING

No power light on front	Ensure IEC inlet is connected to mains and lead is in good condition	
panel switch	Ensure mains outlet is switched on	
Power light is on but no	Check input signal and connection leads	
other LEDs and no output	Ensure channel gain controls are not turned fully down	
Power light and Signal LEDs are lit but no output	Check speaker leads are in good condition and connected properly	
	If speakers/leads OK, switch off again and refer to qualified service personnel	
	Check speakers are in good working order and not shorted (use a multi-tester)	
Case getting hot	Ensure cooling vents are clear and fan is working (refer to technician if not)	
Output is very distorted	Check the speaker impedance is not below the rated Ohms	
and CLIP LEDs are	Turn down the input level from audio source	
lighting	Turn down channel gain controls	
Output is working but at very low level	Ensure input source is at line level	
	Increase input level from audio source	
	Turn up channel gain controls	



@Copyright 2022. All Rights Reserved.

DATEQ International B.V. De Paal 37, 1351 JG Almere, Netherlands Tel: + 31 36 5472222 E-mail: info@dateq.nl Internet: www.dateq.nl Chamber of Commerce: 84615559