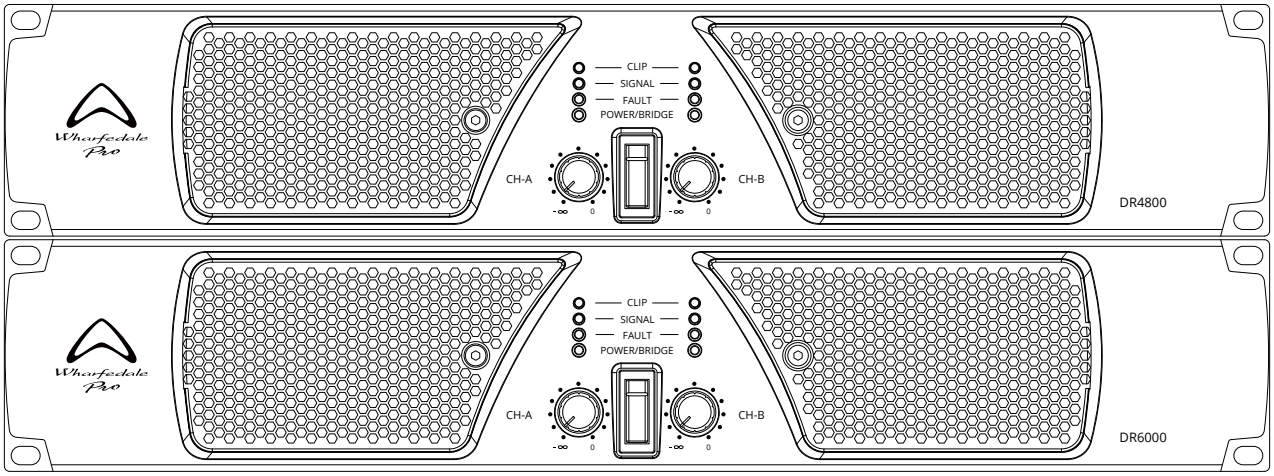
DR SERIES

PROFESSIONAL POWER AMPILIFIER

USER MANUAL

DR6000 DR4800



Wharfedale Pro

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IMPORTANT WARNINGS & SAFETY INSTRUCTIONS

1. Read these instructions
2. Follow all instructions
3. Keep these instructions
4. Heed all warnings
5. Do not use this apparatus near water
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the 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 a polarised or grounding plug. A polarised plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding blade. The wide blade or the third blade 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 the plug, receptacle and or the point where it exits from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Only use a stand, tripod, bracket or rack specified by the manufacturer, or sold with the apparatus. When a rack is used, use caution when moving the rack and apparatus combination to avoid tip-over or injury.

13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way including but not limited to power supply cord or plug damage, liquid ingress, foreign objects in the chassis, exposure to rain/moisture or impact damage. In addition the unit must be serviced when you experience any abnormal operation.
15. CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not attempt to perform any servicing other than that contained in the operating instructions unless you are qualified to do so. In addition opening the casing will result in your warranty becoming null and void.
16. Do not install this apparatus in a confined space such as a book case or similar unit. Good ventilation should be maintained around the apparatus. Any vents, air-inlets or fans should not be obstructed by objects such as paper, table-cloths, curtains etc.
17. WARNING: To reduce the risk of fire or electric shock, do not expose the apparatus to rain or moisture. The apparatus should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the apparatus.
18. WARNING: The mains plug/appliance coupler is used as a disconnect device, the disconnect device shall remain readily operable.

19. The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

    - Warning: To reduce the risk of electric shock, do not remove the cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

    - The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

20. (Protective earthing terminal) The apparatus should be connected to a mains socket outlet with a protective earthing connection.

21. Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use local return and collection systems or contact the retailer where the product was purchased. They can take this product for safe environmentally friendly recycling.

INTRODUCTION

The DR series are robust and durable amplification solutions for installation or for live sound. Anywhere where ‘bang for buck’ reliable power is needed.

The DR4800 and DR6000 deliver powerful performance and exceptional durability, housed in a robust 2U steel chassis. For 4 Ω setups, the DR4800 provides 2500 W per channel, while the DR6000 delivers a stronger 3150 W per channel, offering the power needed for demanding audio environments.

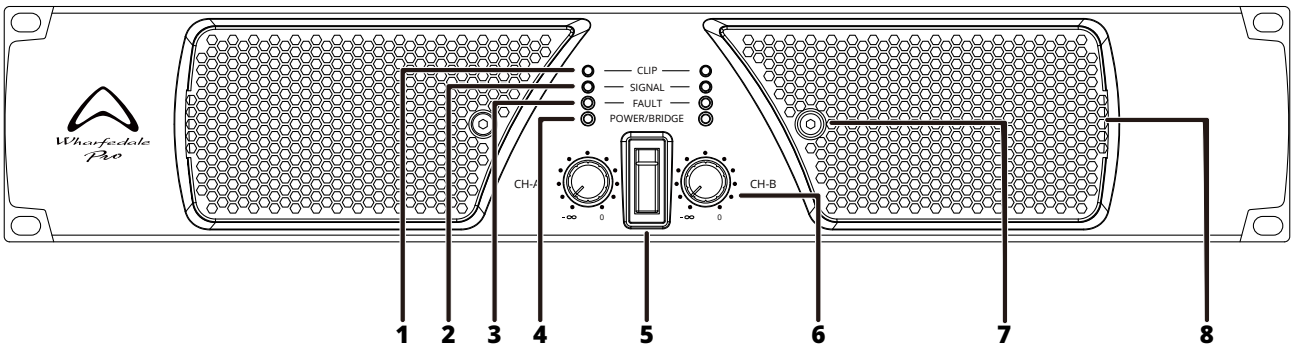
Connection options are solid, with XLR inputs plus Links and speakON ™ outputs to ensure reliable connections. Input sensitivity is adjustable (0.775V, 1V, or 35dB), giving the flexibility to match the system’s requirements. Both amplifiers also maintain a wide frequency range of 20 Hz to 20 kHz, keeping sound quality clear and distortion-free (THD < 0.05%).

With advanced cooling systems and protection circuits against short circuits and overheating, these amplifiers are built to handle high workloads with ease and reliability. Perfect for professionals seeking consistent performance and durability.

FEATURES

- **High power, Class D solutions**
- **Selectable input sensitivity**
- **Removable front grilles for easy maintenance**
- **Durable performance**

FRONT PANEL INFORMATION



1. CLIP LED: Each channel is indicated separately. When the input signal is too high to cause the amplifier output clipping, the CLIP indicator will flash and light up. With short flickers, clip distortion is almost not felt, but too large and continuous clipping may damage the connected loudspeakers and will cause sound quality deterioration. When flashing too frequently, reduce the gain or the amplitude of the input signal appropriately.

2. SIGNAL LED: Each channel is indicated separately. The SIGNAL indicator shows the output SIGNAL of the amplifier, so when the gain control knob of the panel is set to the minimum position, the signal indicator will not light with or without the input signal.

3. FAULT LED: Each channel has its own protection and fault detection, as indicated below:

1. Turn on the power amplifier. The FAULT indicator will light up and there will be no amplifier during the start up and self-test process. This lasts for about 6 seconds. After successful self-test, the FAULT indicator will turn off.

2. If the output is short-circuited or load impedance is detected, the FAULT indicator blinks. Check the load impedance and output cabling.

3. When the internal temperature is too high, the temperature rise will be automatically be limited by the fans, but if the temperature continues to rise due to abnormal conditions, the FAULT indicator will gradually change from slight red to full red. If the red indicator frequently appears, please improve the front ventilation grilles and clean the dusty filters. When the high temperature exceeds the safe limit, the output will be turned off, and the FAULT indicator will be on.

4. When the power grid voltage is too high, the FAULT indicator will continue to show red. Please use the normal power supply voltages to restore normal amplifier operation.

5. When one of the amplifier channels is faulty, the corresponding FAULT indicator will continue to show red. If after investigation the amplifier has failed, please refer to your after-sales professional.

4. POWER/BRIDGE LED: Illuminates in green when the amplifier is connected to mains power normally and switched on. When two channels are working in bridge mode, the indicator will illuminate in an amber color.

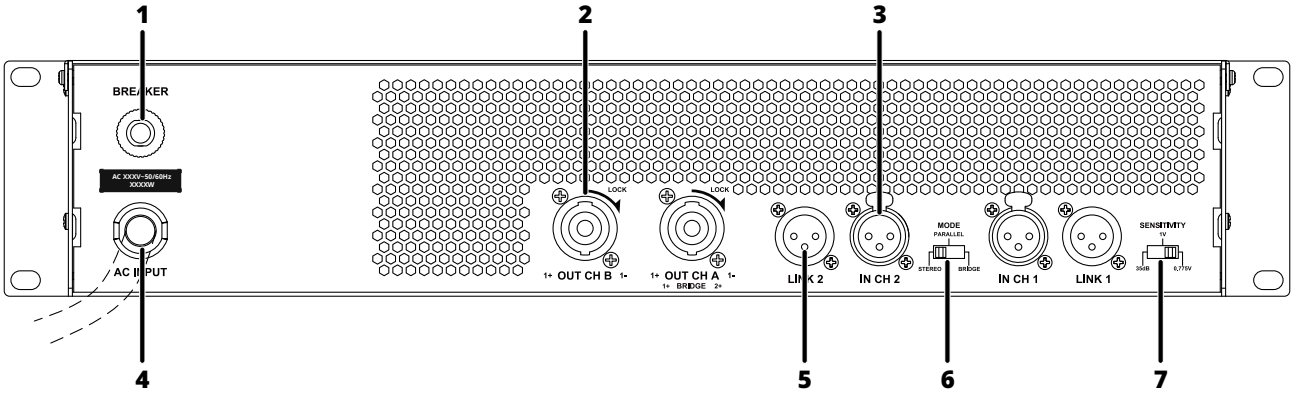
5. Power switch: To power the amplifier ON or OFF.

6. Input Trim: Controls the output level of the amplifier.

7. Bolt: Installed to secure the air filter cover.

8. Air filter grille: Removable air filter cover for easy cleaning. The air flow is from front to back.

REAR PANEL INSTRUCTION



1. BREAKER: This will trip automatically when a short circuit happens to protect the electronics.

2. speakON Outputs: For connection to passive loudspeakers.

3. XLR Input: Balanced XLR inputs for connection to line level sources. IN CH 1 is also the active input channel for BRIDGE mode.

4. Mains Power Cord: The unit has a fixed power cord, and for the safety, this cord is not allowed to be replaced.

5. XLR link Output: Balanced XLR output to another amplifier input.

6. MODE Switch: There are 3 switchable operating modes, parallel, stereo and bridge.

7. SENSITIVITY Switch: There are 3 switchable sensitivity modes, 35dB, 1V and 0.775V.

POWER CONNECTION WARNINGS

- Before connecting the amplifier to the power socket, ensure that the local power grid voltage meets the voltage label on the rear panel of the amplifier.

- The amplifier is a high-power device, please check the power specification requirements in the Specifications table of this manual to confirm that the installed AC power wiring has sufficient current capacity, and overload and leakage protection design.

- Before connecting the amplifier to the power socket, ensure that the socket and the power cable is not damaged, and the plug of the power cable meets the specifications of the power socket.

- After connecting the amplifier to the power socket, ensure that the metal part of the amplifier cover is properly grounded.

- To ensure safety, remove the power plug after shutdown.

- For the power supply capacity of the amplifier, please refer to the power requirements in the performance parameter table, we recommend that the actual use of 1.5 times the power supply margin.

- The power input of the DR Series power amplifier does not use a fuse, but instead uses an overload circuit breaker. This avoid difficulties in replacing the fuse after abnormal operation. If the circuit breaks automatically when working, please turn off the power and press it to reset. If you turn on the power and then the circuit breaker trips again, the amplifier may need to be repaired.

INPUT CONNECTIONS

DR amplifiers use a balanced XLR input connection design. This balanced line system helps to reduce the environmental electromagnetic noise and feeder current interference. Please use balanced cabling.

- WARNING: Even if the signal output device is an unbalanced design, in order to avoid additional noise, the use of single-core shielded wire and single-ended signal transmission should be avoided. Please connect the signal negative pole in the dual-core shielded wire to the ground at the signal source port, and connect the amplifier input in a balanced way to achieve a noise suppression effect similar to balanced signal transmission.

Each channel has an XLR input and XLR Link output socket which are connected in parallel inside the product. In PARALLEL mode the input sockets of the two channels are also directly connected in parallel. You can input to either channel, and output from any interface of the other channel, and connect to the next amplifier. This cascade is very convenient, but do not cascade too much to reduce signal interference and loss.

- WARNING: In PARALLEL mode, avoid inputting signals into both channel input sockets simultaneously.

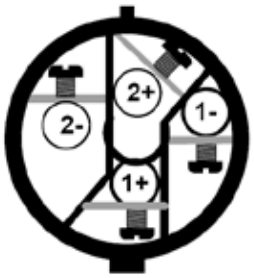
OUTPUT CONNECTIONS

The DR Series use speakON output connectors. Ensure that only heavy gauge two conductor speaker cables with professionally wired speakON connectors are used for connection from amplifier to loudspeaker.

STEREO and PARALLEL Mode- Connect each loudspeaker to its own channel of the amplifier. The Mode switches must be set for Stereo or Parallel Mode.

BRIDGE Mode- Bridge Mode configures the channel pair to drive a single audio circuit. The Mode switches must be set for Bridge Mode.

- WARNING: Do not use less than 8 ohm load in Bridge Mode!
- WARNING: Note polarity of connection for Bridge Mode.
- OUTPUT WIRING WARNING: Class 2 wiring shall be used. For Bridge Mode, Class 3 wiring shall be used.
- WARNING: Do not allow the power output of each channel to drive a speaker load nominal less than 4 ohms, which may cause the amplifier to work improperly or overheat.
- WARNING: The output voltage at the bridge mode is very high and very dangerous, which is enough to cause the danger of electric shock.
- WARNING: Make sure that the output connection and speaker connection operations are performed in the shutdown state. Do not touch the output end or any exposed part of the cable when the amplifier is working.



	STEREO/ PARALLEL	BRIDGE
CH 1	1+=Positive 1-=Negative	1+=Positive 2+=Negative
CH 2	1+=Positive 1-=Negative	No use

QUICK START GUIDE

Please follow the steps below when using DR amplifiers.

Starting up:

1: Refer to this manual to set the mode, function setting and connection method correctly and make the connections
2: Check whether the output connection is short circuit and whether the load impedance is too low.
3: Check whether the local power grid conforms to this manual.
4: Refer to this manual to confirm that the power switch is off. Turn down the volume knobs to the minimum.
5: Turn on the sound source device and confirm that the above device works normally.
6: Turn on the power switch of the amplifier.
7: Check whether the output connection is short circuit and whether the load impedance is too low.

Shutting down:

1: Adjust the volume knobs to the minimum.
2: Turn off the power switch of the amplifier.
3: Turn off other source devices. Always turn the power amplifier off first before unplugging or switching off any other products in the system

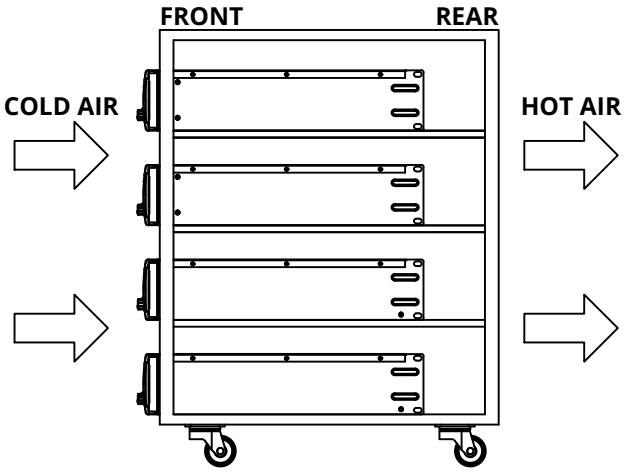
AMPLIFIER COOLING

DR Series keep cool by sucking cold air from the front and pushing hot air out of the rear. Always leave suffient space around the amplifier to allow for smooth airflow, and ensure that it is used in the temperature range of -10 ° C to 45 ° C. When the internal temperature of the product is higher than the limit value, the amplifier will automatically and gradually accelerate the internal air flow fans to compensate for any rise of temperature. If the internal temperature gets near to 85 ° C due to a ventilation obstruction or abnormal use, the output signal amplitude will be limited.

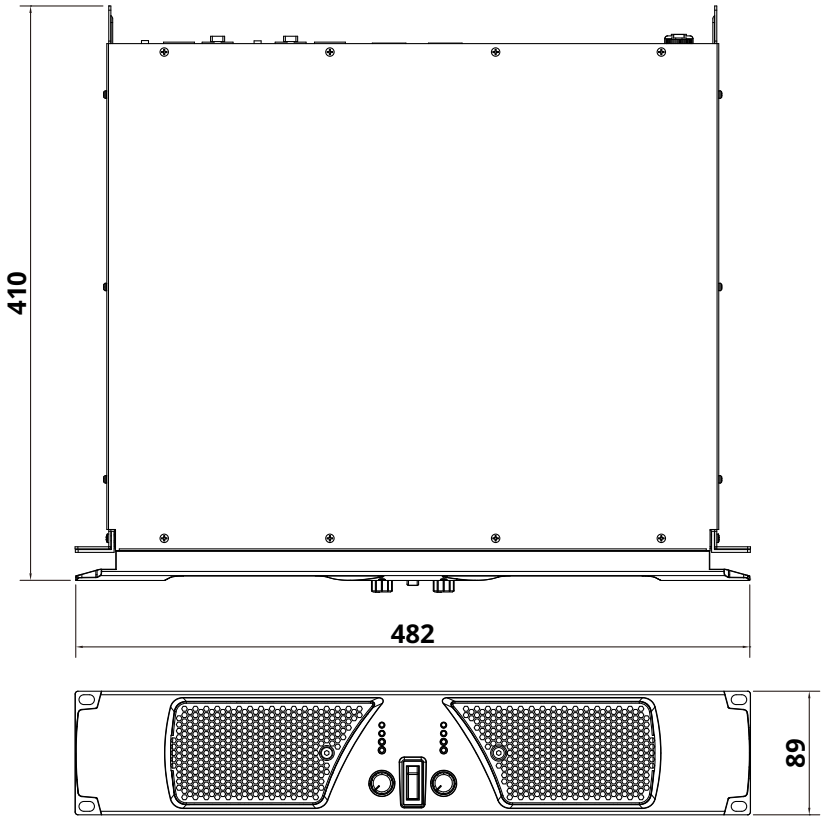
If the temperature continues to rise to 100 ° C because the ventilation and environmental conditions are not improved, the output will be turned off until a safe working temperature is restored.

Therefore, please comply with the installation and use requirements of this manual. If overheating protection occurs frequently, please turn off amplifier for troubleshooting and consider changing the installation method and position. Do not use in an environment with high temperature for a long time. Be sure to remove any blockages in and out of the air duct, and regularly clean the dust filter.

The diagram shows the recommended use inside a flight case or rack.

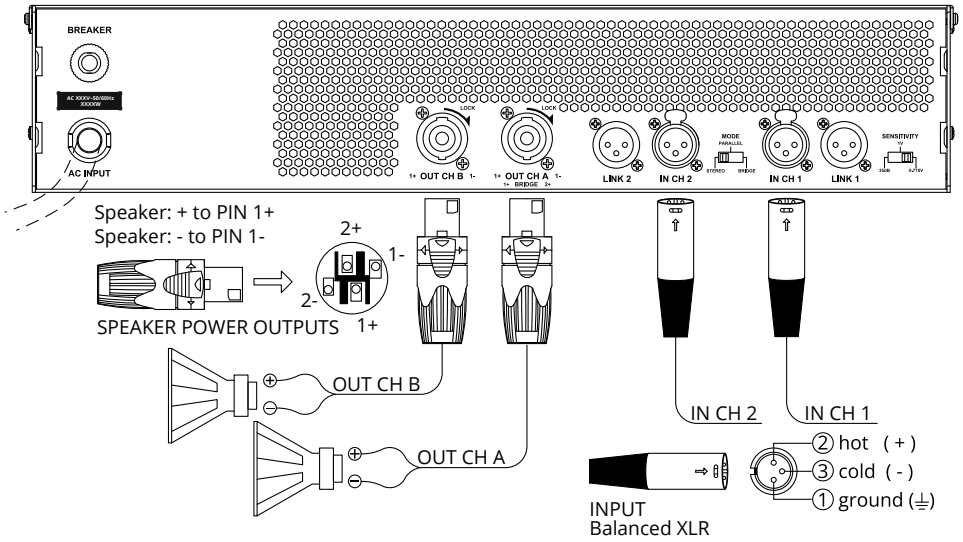


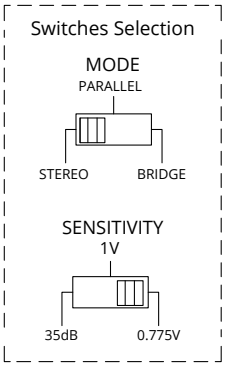
DIMENSIONS



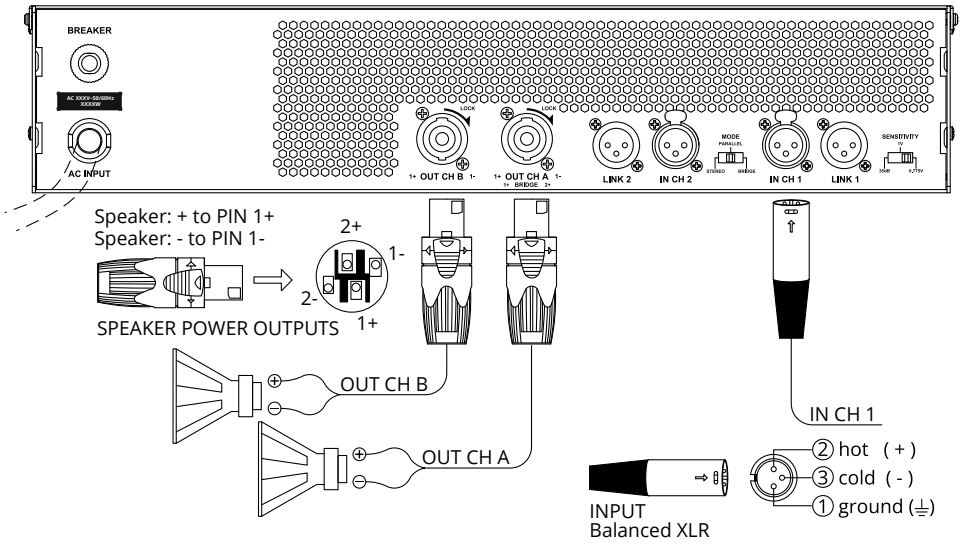
WIRING DIAGRAM

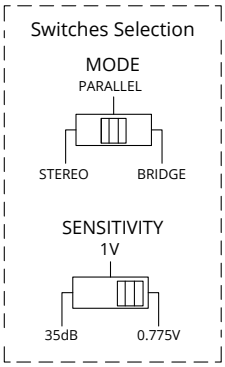
STEREO CONNECTIONS



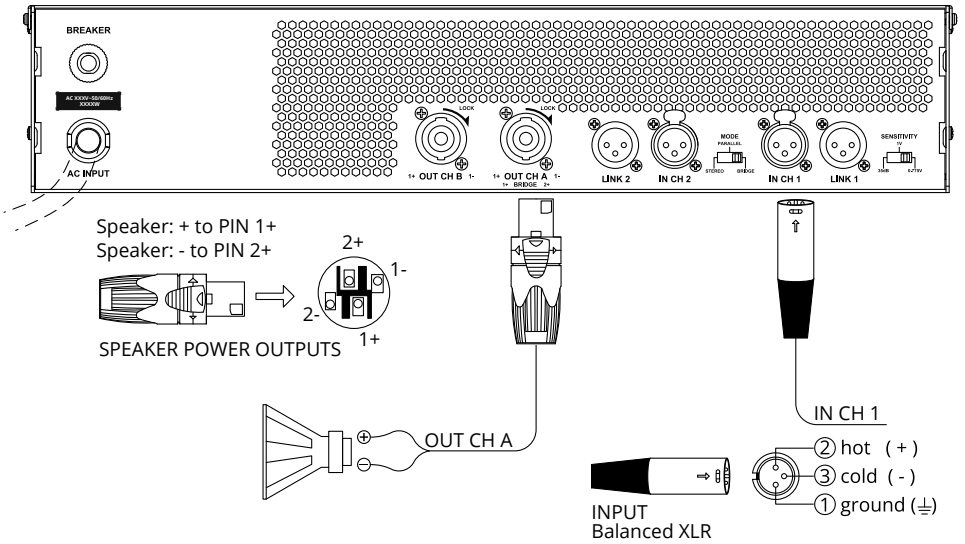


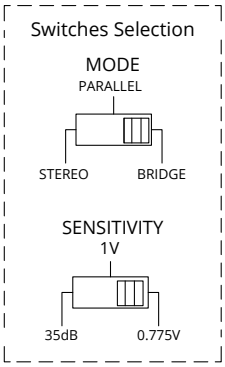
PARALLEL CONNECTIONS





BRIDGE MODE CONNECTIONS





SPECIFICATION

Model Name	DR4800	DR6000
Rated Power per Ch.① @ 8 Ω	1450 W	1900 W
Rated Power per Ch.① @ 4 Ω	2500 W	3150 W
40 ms Burst Power @ 2 ch. 4 Ω,1 kHz②	2900 W	3900 W
Bridge Rated Power @ 8 Ω②	3500 W	4700 W
Frequency Response	20 Hz - 20 kHz, +0 / -0.75 dB	20 Hz - 20 kHz, +0 / -0.75 dB
THD+N	< 0.05 %, 20 Hz - 20 kHz	
IMD	≤ 0.25 %	
Max Vol. Gain (0.775 V)	42.5 dB	43.5 dB
Damping Factor (8 Ω / 100 Hz)	> 300	
S/N	> 108 dB (1 ch. @ THD=1%, A Weighted)	
Topology	Class D	
Crosstalk	-75 dB (1 kHz) , -60 dB (10 kHz)	
Input Sensitivity / Fixed Gain	0.775 V / 1 V / 35 dB	
Input Impedance	20 kΩ (Balanced) , 10 kΩ (Unbalanced)	
Input Connecter	2 balanced XLRs per channel	
Output Connecter	2 × speakON® output interface	
Protection	Protection circuit against short circuit, no load, on/off noise, radio interference	
Ventilation	The air convection mechanism is from the front to the back Internal air exhaust heat dissipation	
Cooling	Fan cooling, quickly adjusts its speed with the temperature, temperature protection	
Chassis Size (W x H x D)	19" x 3.5" x 16.1" (482 mm x 89 mm x 410 mm)	
Net Weight	38.8 lbs (17.6 kg)	43.0 lbs (19.5 kg)
Gross Weight	43.9 lbs (19.9 kg)	48.0 lbs (21.8 kg)
AC Power	AC 100-120 V or 200-240 V ~ 50/60 Hz	
Rated Consumption③ @ 8 Ω	650 W	800 W
Rated Consumption③ @ 4 Ω	1000 W	1350 W
Max Consumption④ @ 8 Ω	1350 W	1700 W
Max Consumption④ @ 4 Ω	2200 W	2800 W

① Continuous undistorted output power per channel, 230 VAC power supply.

② The maximum undistorted output power under normal use conditions, 230 VAC power supply, non-continuous, and limited by AC service current only on the DR4800 or DR6000.

③ 1/8 power is typical of program material with occasional clipping. Refer to these figures for most applications.

④ 1/3 power represents program material with extremely heavy clipping.

WHARFEDALE PRO LIMITED WARRANTY

Wharfedale Pro products are warranted of manufacturing or material defects for a period of one year from the original date of purchase. In the event of malfunction, contact your authorized Wharfedale Pro dealer or distributor for information.

*Be aware that warranty details may differ from country to country. Contact your dealer or distributor for information. These terms do not infringe your statutory rights.

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