

CPD SERIES

Professional Power Amplifier

OPERATING MANUAL AND USER GUIDE

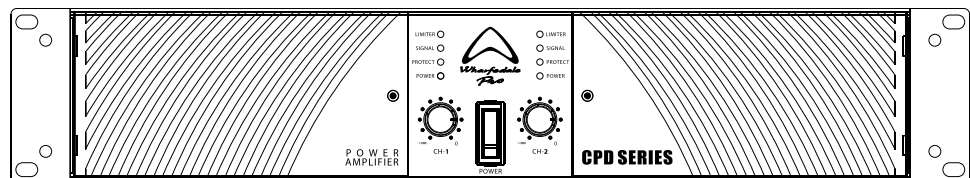


TABLE OF CONTENTS

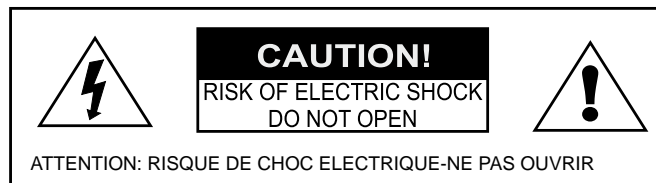
TABLE OF CONTENTS.....	1
IMPORTANT WARNINGS & SAFETY INSTRUCTIONS.....	2
INTRODUCTION.....	3
ABOUT THE CPD SERIES	3
FEATURES.....	3
FRONT PANEL FEATURES AND CONTROLS	4
REAR PANEL FEATURES AND CONTROLS.....	4
OPERATING MODE SWITCHES.....	5
OUTPUT WIRING	5
QUICK START GUIDE	5
DIMENSIONS.....	6
WIRING DIAGRAMS.....	7
SPECIFICATION	8
SPECIFICATION	9
WARRANTY	10


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

Congratulations on the purchase of your CPD series professional power amplifier. Wharfedale Pro CPD amplifiers are the result of many years of experience in the use, design and manufacture of professional audio equipment.

We take great pride in engineering and building every Wharfedale Pro product and wish to thank you for entrusting us with your sound.

From the time Gilbert Briggs built his first loudspeaker in 1932, to the present day, Wharfedale have maintained the same standard of quality in components, workmanship and performance.

Please take the time to read this manual completely in order to ensure that you get the most from your CPD power amplifier.

ABOUT THE CPD SERIES

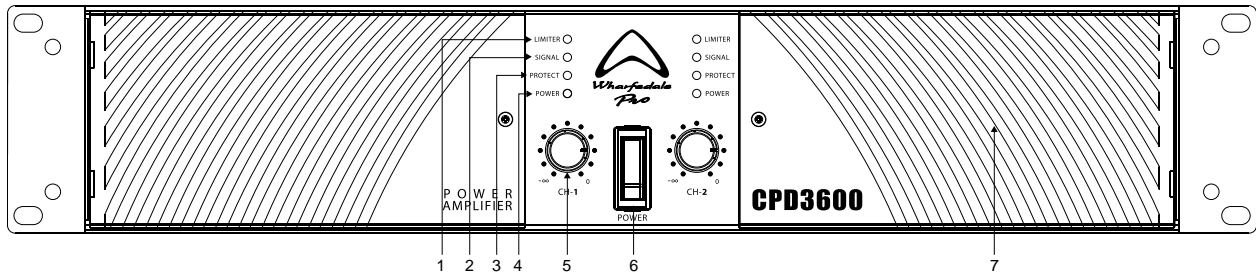
Suitable for portable sound reinforcement or fixed installations, the series feature 4 models that deliver between 350W and 1300W per channel into a 4 ohm load in a rugged 2U, 19" rack mount enclosure. An advanced transformer power supply and Class AB/H topology deliver high power with low distortion in a compact and light weight form factor.

A full suite of protection includes thermal, over-current, DC, short circuit protect and power on/off mute. The CPD Series features XLR inputs and linked outputs with a maximum input level of +22dBu allowing integration with any typical professional audio system. The variable speed fans keep the amplifier rack quiet when not in use. The CPD series features 3 different operating modes, parallel, stereo and bridge.

FEATURES

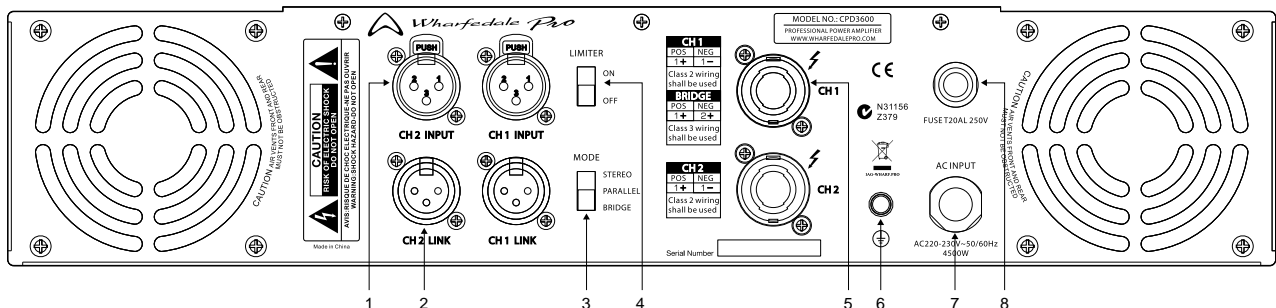
- CPD1000: 350W*2@4Ohms (RMS), 230W*2@8Ohms (RMS), 1000W@4Ohms (BTL)
CPD1600: 620W*2@4Ohms (RMS), 400W*2@8Ohms (RMS), 1600W@4Ohms (BTL)
CPD2600: 1000W*2@4Ohms (RMS), 650W*2@8Ohms (RMS), 2600W@4Ohms (BTL)
CPD3600: 1300W*2@4Ohms (RMS), 870W*2@8Ohms (RMS), 3600W@4Ohms (BTL)
- 2 channels XLR inputs with link outputs
- 3 operation modes (PARALLEL, STEREO and BRIDGE)
- Power, Protect, Signal and Limiter indicators
- Thermal protect, over current protect, DC protect, output short protect, power on/off mute
- Ultra quiet variable speed fans
- Speakon outputs for speakers
- 2U rack mount chassis

FRONT PANEL FEATURES AND CONTROLS



1. LIMITER LED: Illuminates when the amplifier is being driven into clipping.
2. SIGNAL LED: Indicates presence of signal on the channel.
3. PROTECT LED: Illuminates when the amplifier is in protect mode due to short circuit, over current or thermal overload.
4. POWER LED: Illuminates when the amplifier is connected to mains power and switched on.
5. Input Trim: Controls the output level of the amplifier.
6. Power switch: To power the amplifier up or down.
7. Air filter: Knocked down air filter cover. Easily for clean. The air flow is from front to back.

REAR PANEL – FEATURES AND CONTROLS



1. XLR Input: Balanced XLR input for connection to 0dBu line level sources. CH1 INPUT is also the available input channel for BRIDGE mode.
2. XLR link Output: Balanced XLR output to another CPD amplifier.
3. Mode Switch: There are 3 switchable operating modes, parallel, stereo and bridge.
4. LIMITER Switch: The internal limiter can prevent signal overload and distortion.
5. SPEAKON Output: For connection to passive loudspeakers.
6. Grounding Terminal: The grounding terminal for the chassis.
7. Mains Power Cord: The unit has a fixed power cord, and for the safety, this cord is not allowed to be replaced arbitrarily by the user.

WARNING: DO NOT ATTEMPT TO BYPASS THE GROUND CONNECTION OF THE POWER CORD!

8. FUSE: Please use the same type fuse as the text of the chassis for replacing.

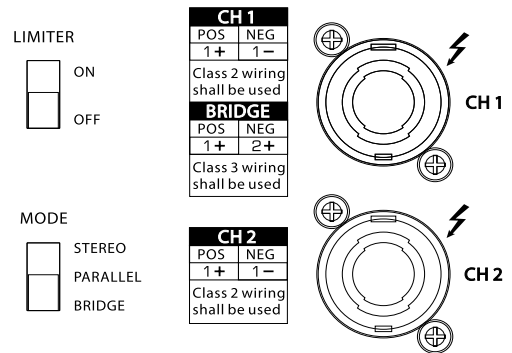
OPERATING MODE SWITCHES

There are 3 different operating modes switchable for the CPD series amplifiers.

STEREO - Each channel remains independent. The amplifier may be used for two different signals.

PARALLEL - This setting connects both inputs together. One signal feeds both channels. Each channel's Gain control and loudspeaker connection remain independent.

BRIDGE - This setting combines both channels into a single channel with twice the output power. Use only the first channel's input and Gain control. Set the second channel's Gain control at maximum. The load must be rated for the higher output power.

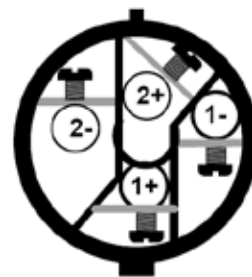


OUTPUT WIRING

The CPD Series employ 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, as shown on the left side of the Speakon. 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. Connect the load as shown on the left side of CH 1's Speakon.



WARNING: Do not use less than 4 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.
OUTPUT SAFETY WARNING: Make all connections with amplifier turned off. Risk of hazardous energy!

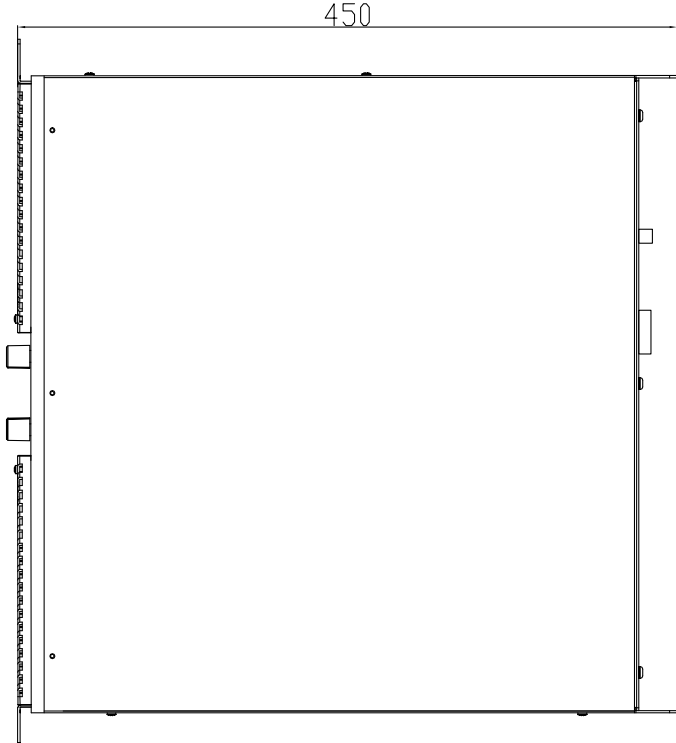
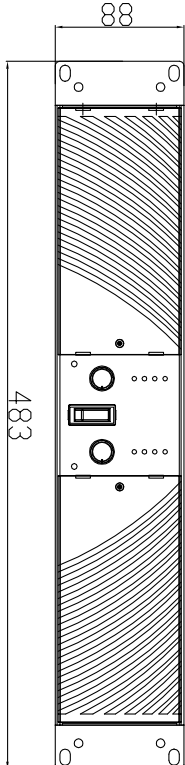
	STEREO/ PARALLEL	BRIDGE
CH 1	1+=Positive 1-=Negative	1+=Positive 2+=Negative
CH 2	1+=Positive 1-=Negative	No use

QUICK START GUIDE

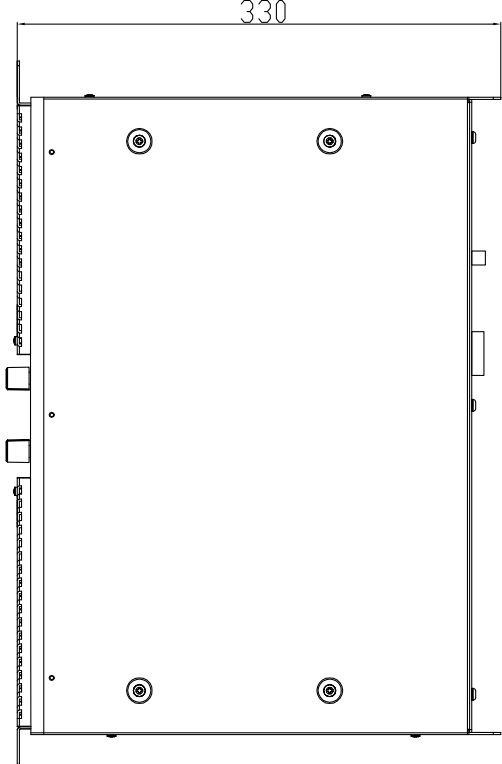
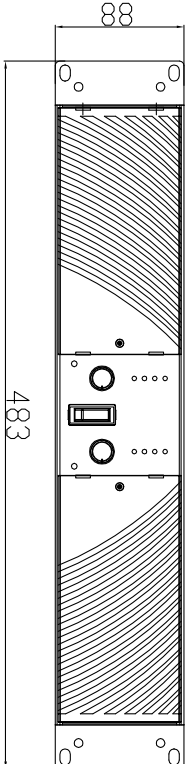
1. Make sure that the power switch is set at the OFF position while making connections to and from the power amplifier.
2. Connect all devices in the signal path and ensure that each connection is secure.
3. Set all level and gain controls to their minimum.
4. After powering up all other devices first, turn on the CPD amplifier and verify that the POWER LED is illuminated.
5. Turn the amplifier volume control up to the 3 o'clock position. (This setting can be adjusted higher or lower, as needed, after set-up). With source signal present starts to set each gain stage in your signal path, starting at the beginning of the chain. It is best practice to make overall volume changes with the master fader of your mixing console once the amplifier input trim has been calibrated.
6. When powering down, make sure that the power amplifiers are switched off first.

DIMENSIONS

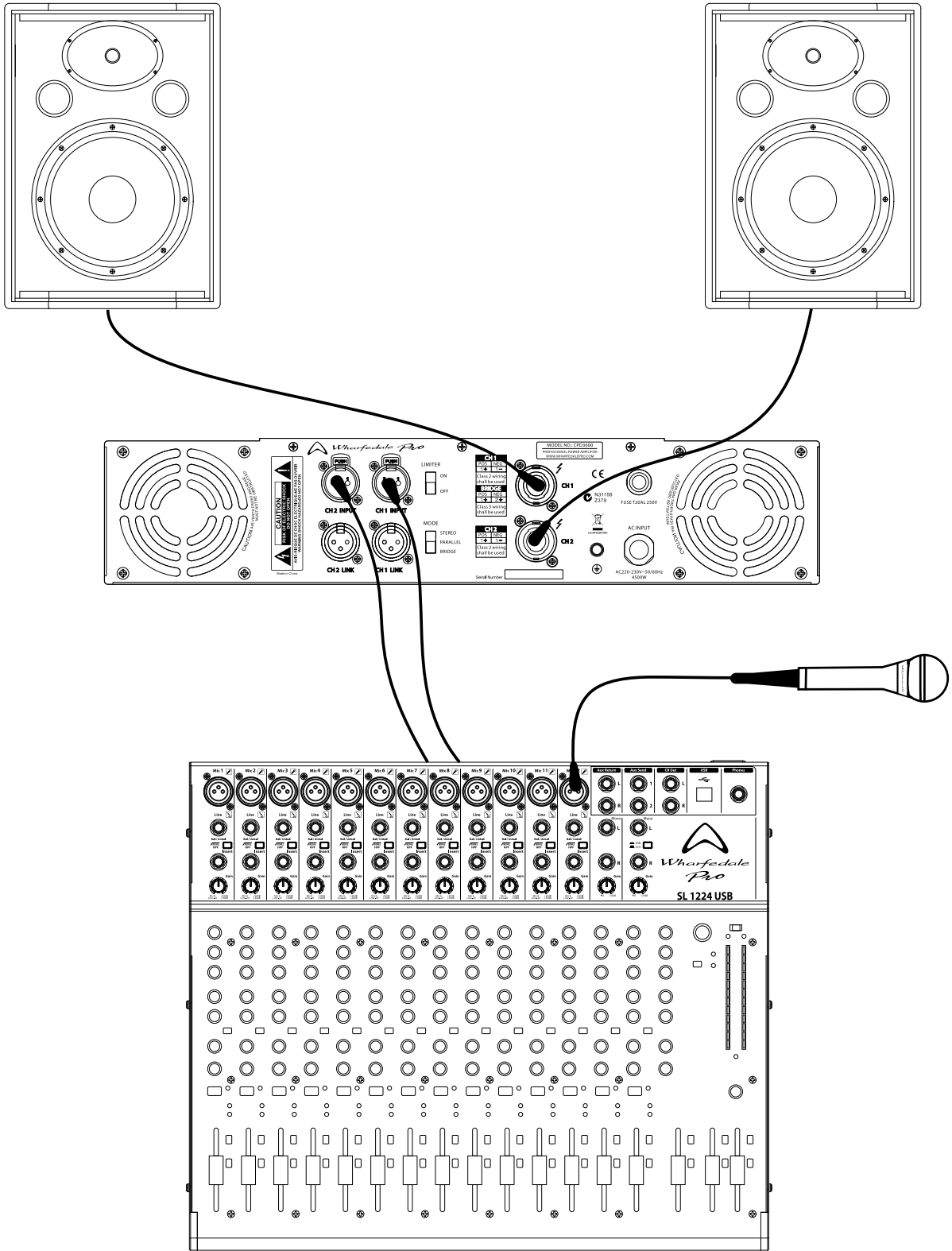
CPD 2600/3600



CPD 1000/1600



WIRING DIAGRAM



SPECIFICATION

Model Name	CPD1000	CPD1600
Stereo Power Output		
8 ohms*2	230W	400W
4 ohms*2	350W	620W
Bridged Mono Output		
8 ohms	700W	1200W
4 ohms	1000W	1600W
Input Sensitivity & impedance		
Sensitivity	0dBu (0.775Vrms)	0dBu (0.775Vrms)
Balanced XLR input	20Kohms	20Kohms
Maximum Input Level	22dBu (9.7Vrms)	22dBu (9.7Vrms)
Voltage Gain	35dB	37dB
Slew Rate	>40V / us	>40V / us
Crosstalk	<-70dB	<-70dB
S/N	>100dB	>100dB
Distortion (1W)	<0.02%	<0.02%
Frequency Response		
+/-1dB @ 8 Ohms	20Hz - 20KHz	20Hz - 20KHz
+/-3dB @ 8 Ohms	20Hz - 30KHz	20Hz - 30KHz
Damping Factor	>300	>300
Topology	Class AB	Class AB
Connectors		
Signal Input and Output	Female and Male XLR Jacks	Female and Male XLR Jacks
Power Output	SPEAKON Jacks	SPEAKON Jacks
Controls		
Front panel	AC Switch, CH 1 and CH 2 Gain Knobs	
Rear panel	Parallel, Stereo & Bridge Mode Switch; Limiter Switch	
Protections	Thermal protect, Over-current protect, Output DC protect, Output short protect, Power on/off mute	
Indicators	Power, Protect, Signal, Limiter	
Cooling	Variable Speed Fan	
AC Power Options	AC110-120V~ 50/60Hz or AC100V~ 50/60Hz; AC220-230V~ 50/60Hz or AC240V~ 50/60Hz	AC110-120V~ 50/60Hz or AC100V~ 50/60Hz; AC220-230V~ 50/60Hz or AC240V~ 50/60Hz
Dimensions	88*483*330mm	88*483*330mm
Carton Box		
Weight (Net)	11kg	13kg
Weight (Gross)	12.5kg	14.5kg

SPECIFICATION

Model Name	CPD2600	CPD3600
Stereo Power Output		
8 ohms*2	650W	870W
4 ohms*2	1000W	1300W
Bridged Mono Output		
8 ohms	1940W	2590W
4 ohms	2600W	3600W
Input Sensitivity & impedance		
Sensitivity	0dBu (0.775Vrms)	0dBu (0.775Vrms)
Balanced XLR input	20Kohms	20Kohms
Maximum Input Level	22dBu (9.7Vrms)	22dBu (9.7Vrms)
Voltage Gain	39dB	41dB
Slew Rate	>40V / us	>40V / us
Crosstalk	<-70dB	<-70dB
S/N	>100dB	>100dB
Distortion (1W)	<0.02%	<0.02%
Frequency Response		
+/-1dB @ 8 Ohms	20Hz - 20KHz	20Hz - 20KHz
+/-3dB @ 8 Ohms	20Hz - 30KHz	20Hz - 30KHz
Damping Factor	>300	>300
Topology	Class H	Class H
Connectors		
Signal Input and Output	Female and Male XLR Jacks	Female and Male XLR Jacks
Power Output	SPEAKON Jacks	SPEAKON Jacks
Controls		
Front panel	AC Switch, CH 1 and CH 2 Gain Knobs	
Rear panel	Parallel, Stereo & Bridge Mode Switch; Limiter Switch	
Protections	Thermal protect, Over-current protect, Output DC protect, Output short protect, Power on/off mute	
Indicators	Power, Protect, Signal, Limiter	
Cooling	Variable Speed Fan	
AC Power Options	AC110-120V~ 50/60Hz or AC100V~ 50/60Hz; AC220-230V~ 50/60Hz or AC240V~ 50/60Hz	AC220-230V~ 50/60Hz or AC240V~ 50/60Hz
Dimensions	88*483*450mm	88*483*450mm
Carton Box		
Weight (Net)	19kg	22kg
Weight (Gross)	22.5kg	25.5kg

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.



Wharfedale Professional

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