

# DELTA ACTIVE SERIES

## PROFESSIONAL BI AMPED ACTIVE SPEAKERS

DELTA 12A   DELTA 15A   DELTA 15BA   DELTA 18BA



[www.wharfedalepro.com](http://www.wharfedalepro.com)

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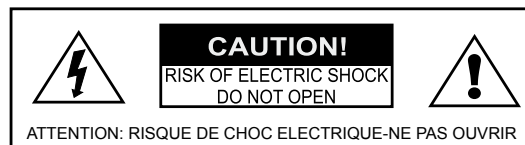
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# IMPORTANT WARNINGS & SAFETY INSTRUCTIONS


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

Delta Active is the new addition to the world famous Wharfedale Pro Delta Series. Specifically designed as a multi-purpose solution, Delta Active provides high-end active sound reinforcement for touring applications and professional musicians. By combining our legendary audio quality, renowned durability and affordability, Delta Active sets a new standard in the category of active loudspeakers. Capable of producing extraordinary levels of SPL and output, inside every delta active speaker is a high head room amplifier exclusively engineered by Wharfedale Pro. High Output, low distortion woofers with 3" voice coils are used throughout the range for unparalleled frequency reproduction. 2" titanium compression drivers offer impressive output level and smooth HF dispersion. Delta Active 2 way speakers feature an integrated two channel mixer with onboard Qubit DSP insuring smoother more controlled sonic performance. In a world were some active speakers are found wanting Delta Active delivers sound with substance.

## KEY FEATURES

### Delta 12A & 15A

- 2-way Bi-Amplified speaker system
- Low frequency power amplifier 650W RMS, 1300W peak (CLASS D)
- High frequency power amplifier 100W RMS, 200W peak (CLASS D)
- 28/56-bit, 192kHz DSP processing
- Independent LF and HF signal limiting
- Thermal, DC and short circuit fault protections
- Bass / Treble EQ controls
- Switchable 90Hz monitor filter
- Combo XLR/1/4" jack balanced line or mic inputs
- Female XLR balanced line level output
- Rear panel mic/line level switch
- Rear panel front LED defeat switch
- Remote volume control (applied voltage controlled)
- 90° x 45° elliptical Wave Guide (EWG)
- Dual-angle (0° or-10°) 35mm pole socket
- Suspension points 6XM10 threaded.
- Black rhino paint finish
- 15mm plywood construction

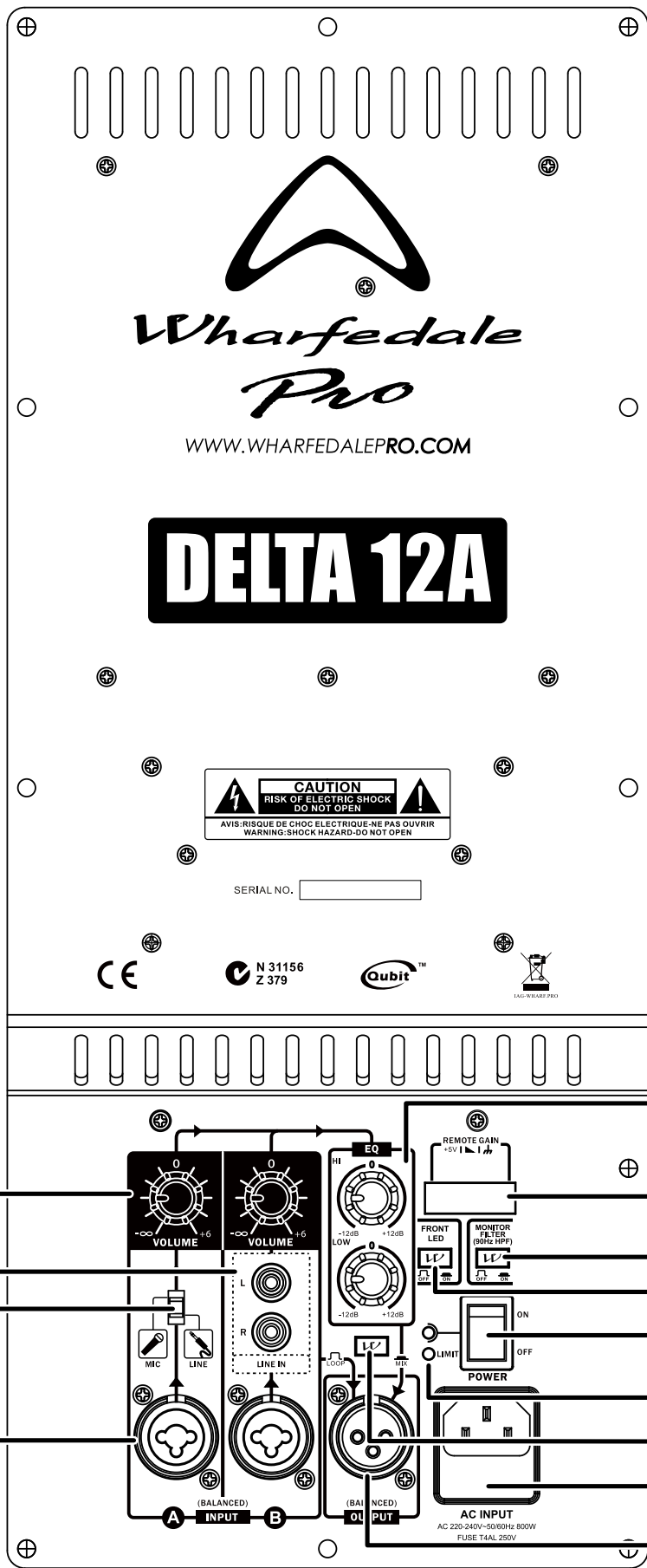
## **Delta 15BA**

- 15" Active subwoofer
- Low frequency power amplifier 900W RMS, 1800W peak,(Class D)
- 130dB Max SPL
- High headroom class D amplifier
- 42-200Hz frequency response
- 15" woofer with 4" voice coil
- Adjustable crossover: 80Hz-200Hz
- 100Hz high pass filter output
- Integral phase switch 0° and 180°

## **Delta 18BA**

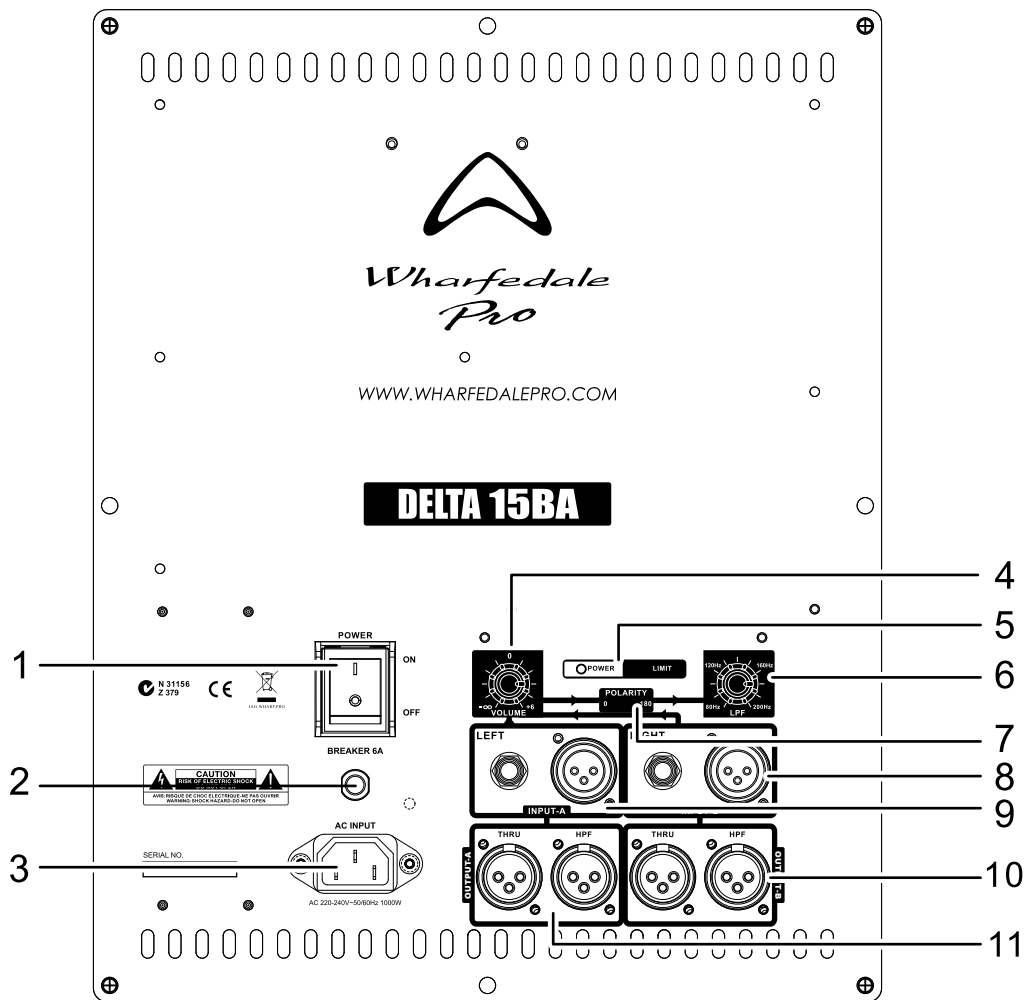
- 18" Active subwoofer
- Low frequency power amplifier 1000W RMS, 2000W peak,(Class D)
- 132dB Max SPL
- High headroom amplifier
- 38-200Hz frequency response
- 18" Woofer with 4" voice coil
- Adjustable crossover: 80Hz-200Hz
- 100Hz high pass filter output
- Integral phase switch 0° and 180°

# DELTA 12A/15A REAR PANEL LAYOUT



- 1. Volume for input A and input B:** These knobs control the level of each input channel.
- 2. RCA L/R (Left and Right) input jacks:** These jacks allow input of a stereo signal (left and right). The signal is actively combined or "summed" providing a mono signal to the amplifier.
- 3. GAIN selection switch:** This switch selects the proper gain structure for INPUT A. If a microphone is connected to INPUT A, use mic mode (up). If the signal source is anything other than a microphone (playback device, keyboard or mixer output, for instance) use the line mode (down).
- 4. XLR 1/4" COMBO input jacks for INPUT A and INPUT B:** These convenient jacks allow XLR or 1/4" balanced input connections to INPUT A and INPUT B.
- 5. HI and LOW EQ (equalization) controls:** These knobs control the equalization of the overall output signal providing +/-10dB of gain for each band.
- 6. Remote control:** This Phoenix connector can be used to control the volume with an applied voltage.
- 7. 90Hz Monitor filter switch:** Used to reduce bass buildup due to half space loading.
- 8. Front LED defeat switch:** Switches off the front power LED for discrete applications.
- 9 & 10. POWER ON /OFF switch, POWER 'ON' indicator LED and LIMIT indicator LED:** The switch: Turns the power on and off. The green LED to the left of the POWER switch illuminates when the power switch is in the 'ON' position. The red LED illuminates when the signal limiter is limiting the level of the signal to prevent distortion and overload.
- 11. Output source "LOOP/MIX" switch:** In the "LOOP" mode, this switch routes the signal of INPUT A and B to the line level XLR OUTPUT jack, bypassing the EQ section and volume control. When in the MIX mode, this switch routes the combined (or "mixed") signals of both INPUT A and INPUT B to the line level XLR OUTPUT jack.
- 12. POWER cord receptacle:** This is a receptacle for a standard IEC, three prong, grounded AC electrical connection cord. Be sure that you are plugging into the correct source voltage that matches what is indicated just below the power cord receptacle.
- 13. XLR line level OUTPUT jack:** This jack provides a balanced line level output for connection to additional Delta Active, powered subwoofers or amplifier.

# DELTA 15BA/18BA REAR PANEL LAYOUT



1. **Power switch:** Turns the power on and off.
2. **Circuit breaker:** Protect amplifier from damage caused by short circuit or other electrical destruction. Reset the breaker after the failure fixed.
3. **POWER receptacle:** This is the connection for the IEC AC power connector.
4. **Volume control:** Adjusts the volume.
5. **LIMIT LED POWER LED:** The red LED indicator illuminates when the signal limiting function is activated. The green LED indicator illuminates when the unit is powered up.
6. **Crossover frequency control:** Adjustable 80Hz to 200Hz.
7. **Phase switch:** Selects the polarity of the signal being sent to the subwoofer. 0° selects the signal polarity as it appears at the input. The 180° selection inverts the polarity of the signal.
8. **Input B:** TRS Jack and male XLR balanced for INPUT B.
9. **Input A:** TRS Jack and male XLR balanced for INPUT A.
- 10 & 11. **Output A & Output B:** Balanced male XLR connector provides output HIGH PASS signal. Selects the signal type that is routed to the OUTPUT jacks, "THRU" sends the nprocessed signal to the outputs. "HPF" filters the signal at 100Hz to the outputs.



# SPECIFICATION

Model Name	DELTA 12A	DELTA 15A	DELTA 15BA	DELTA 18BA
System Type	Active 12" 2-way Bi-Amplified system	Active 15" 2-way Bi-Amplified system	Active 15" Subwoofer Amplified system	Active 18" Subwoofer Amplified system
Frequency Response (+/-3dB)	60-20kHz	50-20kHz	42-200Hz	38-200Hz
Low Frequency Transducer				
Size (mm / inches)	332mm / 12"	404mm / 15"	404mm / 15"	470mm / 18"
Coil Size (mm / inches)	75.0mm / 3.0"	75.0mm / 3.0"	101.6mm / 4.0"	101.6mm / 4.0"
Impedance	4 Ω	4 Ω	8 Ω	8 Ω
High Frequency Transducer				
Type	Compression Driver	Compression Driver		
Coil Size (mm / inches)	51mm / 2"	51mm / 2"		
Exit Size (mm / inches)	35.6mm / 1.4"	35.6mm / 1.4"		
Diaphragm Material	Titanium	Titanium		
Impedance	8 Ω	8 Ω		
Maximum SPL(peak)@1m	130dB	131dB	130dB	132dB
High Frequency Coverage (H x V)	90° x 45°	90° x 45°		
Amplifiers				
Low-Frequency Power Amplifier (Class D)	650W	650W	900W	1000W
High- Frequency Power Amplifier (Class D)	100W	100W	/	/
Electronic Crossover	24dB/octave Linkwitz-Riley	24dB/octave Linkwitz-Riley	24dB/octave Linkwitz-Riley	24dB/octave Linkwitz-Riley
Crossover Frequency	2.7kHz	2.7kHz	Adjustable 80Hz to 200Hz	Adjustable 80Hz to 200Hz
Controls				
Equalization:	High(±10dB) 10kHz Shelving	High(±10dB) 10kHz Shelving	/	/
	Low(±10dB) 100Hz Shelving	Low(±10dB) 100Hz Shelving	/	/
Monitor Filter				
Subsonic Filter	30Hz, Second-order filter	30Hz, Second-order filter		
Amplifier Protection				
Power On Protection	Power switch on/of mute	Power switch on/of mute	Power switch on/of mute	Power switch on/of mute
Thermal Protection	Amplifier shutdown, auto reset	Amplifier shutdown, auto reset	Amplifier shutdown, auto reset	Amplifier shutdown, auto reset
Low Line Voltage Shut Down	80% Nominal line voltage	80% Nominal line voltage	80% Nominal line voltage	80% Nominal line voltage
Driver Protection	Independent LF and HF limiters	Independent LF and HF limiters	Yes	Yes
DC Protection	Yes	Yes	Yes	Yes
Short Protection	Yes	Yes	Yes	Yes

# SPECIFICATION

Model Name	DELTA 12A	DELTA 15A	DELTA 15BA	DELTA 18BA
Clip Limiter	Tums on approx 650W output	Tums on approx 650W output	Tums on approx 900W output	Tums on approx 1000W output
Limiter Indicator	Red LED	Red LED	Red LED	Red LED
Power Indicator	Green LED	Green LED	Green LED	Green LED
Inputs				
Input A – type	Switchable balanced mic or line level input	Switchable balanced mic or line level input	Balanced	Balanced
Input Sensitivity	Mic:-40dBu Line:0dBu	Mic:-40dBu Line:0dBu	Line:0dBu	Line:0dBu
Maximum Input Level	22dBu	22dBu	22dBu	22dBu
Input Connector	XLR-1/4" Combo jack	XLR-1/4" Combo jack	TRS JACK AND FEMALE XLR	TRS JACK AND FEMALE XLR
Input Impedance	Balanced:20KΩ Unbalanced:10KΩ	Balanced:20KΩ Unbalanced:10KΩ	Balanced:20KΩ Unbalanced:10KΩ	Balanced:20KΩ Unbalanced:10KΩ
Input B – type	line level input	line level input	Balanced	Balanced
Input Sensitivity	XLR-1/4" Combo jack:0dBu RCA:0dBu	XLR-1/4" Combo jack:0dBu RCA:0dBu	Line:0dBu	Line:0dBu
Maximum Input Level	22dBu	22dBu	22dBu	22dBu
Input Connectors	Combo jack:1/4" -XLR/ Summed dual RCA jacks	Combo jack:1/4" -XLR/ Summed dual RCA jacks	TRS JACK AND FEMALE XLR	TRS JACK AND FEMALE XLR
Line Output			Balanced	Balanced
Line Output Connector	Switchable LOOP/MIX Balanced Male XLR Connector	Switchable LOOP/MIX Balanced Male XLR Connector	MALE XLR	MALE XLR
Output Impedance	Balanced: 200 ohm Unbalanced:100 ohm	Balanced: 200 ohm Unbalanced:100 ohm	Balanced: 200 ohm Unbalanced:100 ohm	Balanced: 200 ohm Unbalanced:100 ohm
Output Gain	0dB	0dB	0dB	0dB
AC Power Details				
Power Supply	High Efficiency Switching Mode Power Supply	High Efficiency Switching Mode Power Supply	High Efficiency Switching Mode Power Supply	High Efficiency Switching Mode Power Supply
AC Power Options	AC100-120V~/220-240V~, 50/60HZ	AC100-120V~/220-240V~, 50/60HZ	AC100-120V~/220-240V~, 50/60HZ	AC100-120V~/220-240V~, 50/60HZ
Power On Indicator	Green LED	Green LED	Green LED	Green LED
Rigging	M10X6	M10X6		
Enclosure				
Enclosure Material	15mm plywood	15mm plywood	15mm plywood	15mm plywood
Colour	BLACK RHINO PAINT	BLACK RHINO PAINT	BLACK RHINO PAINT	BLACK RHINO PAINT
Dimensions (HxWxD)mm	630x390/241.2x373	700x446/281.4x406	471x471x600	539x539x650
Dimensions (Packed) (HxWxD)mm	733x566/318x464	803x622/366x498	556x672x543	624x722x611
CBM	0.20	0.25	0.21	0.28
Net Weight (kg / lbs)	27.9 / 61.2	33.0 / 72.6	33.1 / 72.82	38.4 / 84.48
Gross Weight (kg / lbs)	32.5 / 71.5	38.5 / 84.7	36.7 / 80.74	44.3 / 97.46



## **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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