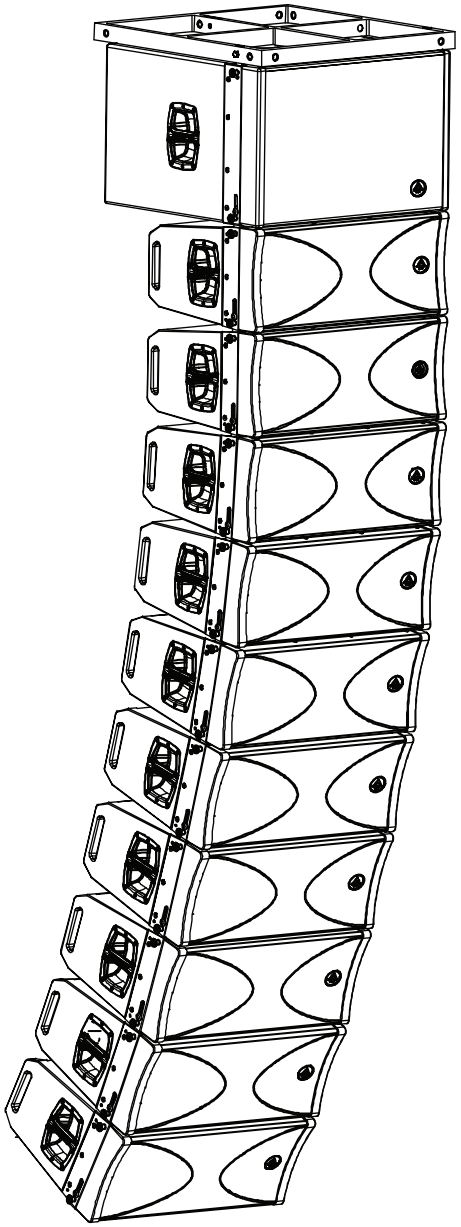
WLA-210X
WLA-210XSUB
WLA-210X Common Fly frame



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CONTENTS

IMPORTANT WARNINGS & SAFETY INSTRUCTIONS

- Read these instructions
- Follow these instructions
- Keep these instructions for future reference
- Heed all warnings
- Do not use this system near moisture or water
- Clean only with a dry cloth
- Install in accordance with these Wharfedale Pro operating instructions
- Follow the manufacturer's operating instructions for all peripheral devices such as amplifiers and processors
- Do not install near heat sources such as radiators, heat registers, stoves or any other apparatus that produces heat (for example lighting systems and amplifiers)
- Use only accessories specified or supplied by Wharfedale Pro
- Do not use shielded microphone/instrument cables to connect amplifiers and speakers, use only approved speaker cables with proper connectors
- Use caution with placement and operation of this speaker system, permanent hearing damage can be caused by prolonged exposure to excessive sound pressure levels
- Refer all servicing to qualified professionals. Servicing is required when the loudspeaker has been damaged in any way, such as impact damage, liquid ingress or foreign object damage. In addition the loudspeaker should be referred to qualified service personnel if there is any kind of malfunction

Rigging, suspending and mounting should only be attempted by experience qualified professionals. Incorrect usage can result in damage to equipment and property, injury and even death. Under no circumstances should you attempt to rig, suspend or mount these speakers unless you are fully qualified and certified to do so by relevant local, state and national authorities. If you are not properly qualified or do not know of pertinent regulations consult qualified personnel for advice. Consult a structural engineer before suspending a speaker system and ensure that the total weight of your system can be held by the truss or mounting surface.

Inspect all mounting hardware before your line array is flown. If there is any damage or distortionto any mounting hardware do not fly the array until any damaged hardware is repaired or replaced. Only use Wharfedale Pro supplied Quick release Pins, contact your Wharfedale Pro Distributor if any quick release pins are lost or damaged.

INTRODUCTION

The WLA-210X system keeps the same design philosophies as the acclaimed WLA-25 and WLA-28 systems from Wharfedale Pro. Portable, powerful and versatile line array solutions which are ideal for both touring and fixed installation applications.

Each WLA-210X element uses a pair of custom 10" Wharfedale Pro high-power lowfrequency drivers, while the high frequencies are handled by a premium 3.0" titanium diaphragm, neodymium magnet compression driver connected to 100° x 10° waveguide.

The waveguide exit extends nearly to the top and bottom of the enclosure to create a continuous acoustical source - resulting in greatly reduced destructive interaction within the array.

The WLA-210X element also features Passive and Bi-amp modes which allows for complete system control. The bi-amp feature enables the system designer to select the best amplification for each driver component within the array. Such control, when used with external signal processing such as the Wharfedale Pro Versadrive series, gives the engineer the ultimate in system fine tuning. This, in turn, leads to the best audio output.

The WLA-210XSUB features dual 15" LF drivers with massive 4.0" voice coils. Specifically created for use with WLA-210X, this subwoofer can be flown or ground stacked easily as a result of its comprehensive rigging hardware.

Premium materials are used throughout the system. The enclosure is constructed of Baltic birch plywood and coated in an environmentally friendly, waterborne polymer finish that is field repairable. To keep the weight to a minimum and prevent rust, suspension fittings are made of aluminium.

An elegantly simple 3-point suspension system combined with light weight, compact size and excellent handling ergonomics mean that a one person crew can easily deploy an array. With the WLA-210X Common Fly frame, systems can be easily configured as flying or ground stacked in multiple combinations.

FEATURES

WLA-210X

2 x 10” LF drivers with 2.5” voice coils

1 x Neodymium HF compression driver with 3” voice coil

16Ω Impedance

Passive and Bi-amp operation modes

100° x 10° dispersion

HF : 90w Continuous / 180w Programme / 360w Peak

LF : 800w Continuous / 1600w Programme / 3200w Peak

Internal rigging system

15mm / 18mm plywood construction

Max SPL @1m (Passive mode) 138dB

WLA-210XSUB

Dual 15” passive subwoofer

4.0” Voice coils

Max SPL @1m 145dB

1200w Continuous / 2400w Programme / 4800w Peak

4Ω Impedance

18mm plywood construction

WLA-210X Common Fly frame

Versatile rigging system

All steel construction

Safety factor of 12

Allows for flying or ground stacking of different system configurations

WLA-210X - PASSIVE AND BI-AMP MODES

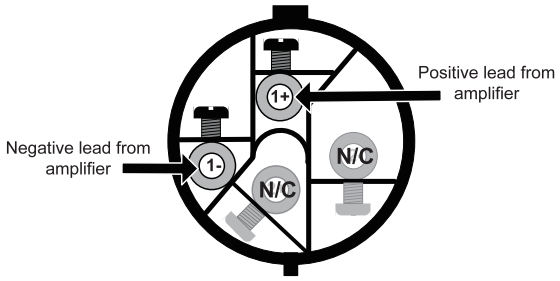
A switch on the WLA-210X input panels selects between either of two operating modes: Passive mode (single amplifier) or Bi-amp mode (separate low and high frequency amplifiers). In passive mode, the internal crossovers of the WLA-210X loudspeakers divide the audio signal into the separate frequency ranges for each driver. In Bi-amp mode separate (discrete) amplifiers are used to power the low frequency and high frequency drivers.

The Wharfedale Pro Versadrive series of signal processors are ideal for passive and bi-amp mode operation and control.

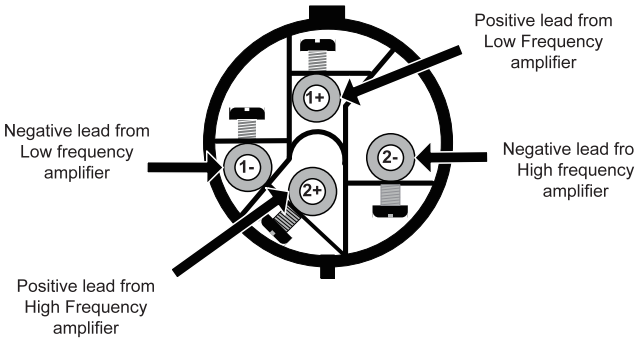
Note - The WLA-210X subwoofer does not have an internal crossover. This function must be supplied by external electronic devices such as a Wharfedale Pro Versadrive.

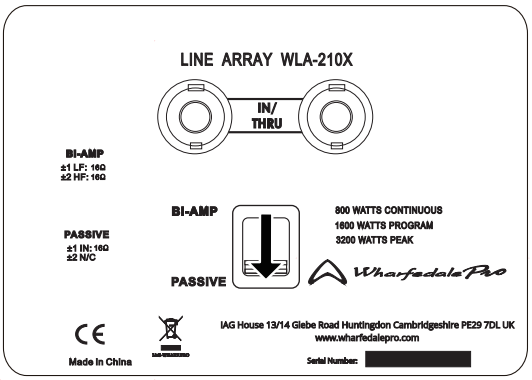
Its important to understand the advantages of the different operating modes. Wrong operation will result in poor sound and, in the worst case, damage to the loudspeaker drivers themselves.

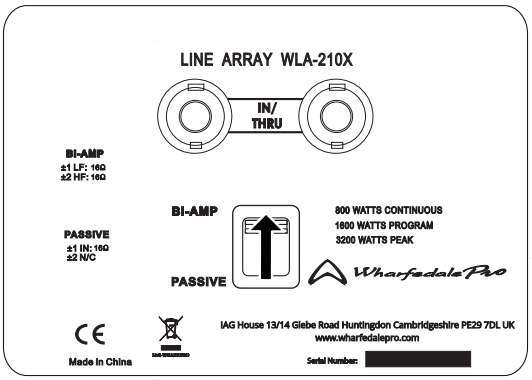
PASSIVE MODE WIRING



BI-AMP MODE WIRING



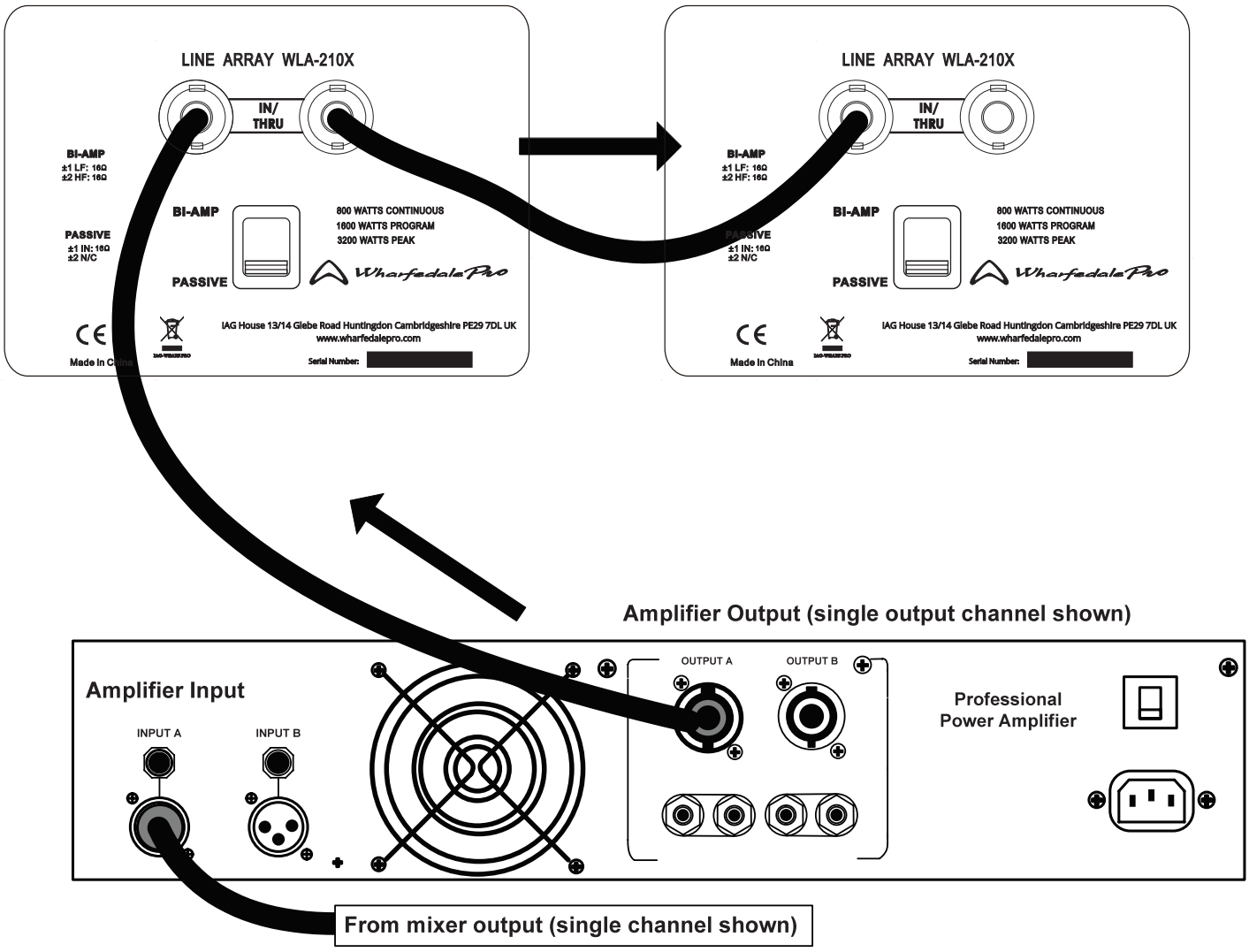




Incorrect amplifier selection may result in loudspeaker damage
Incorrect wiring may result in loudspeaker damage
Incorrect crossover settings may result in loudspeaker damage

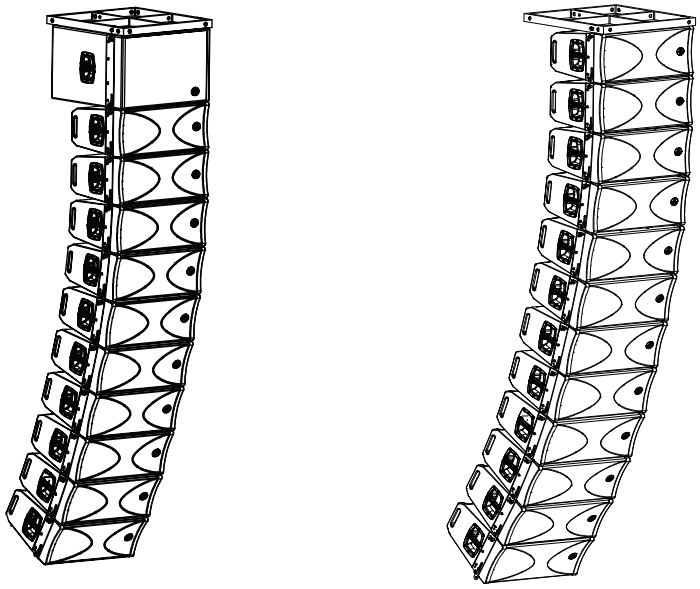
WLA-210X - PARALLEL WIRING

Enclosure#1 **Enclosure#2**



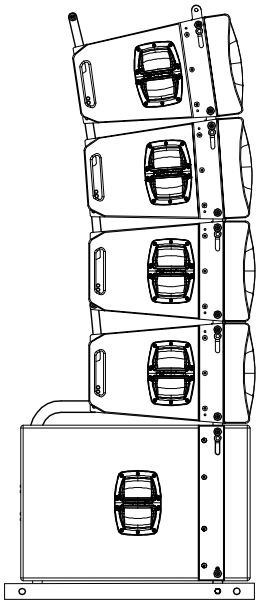
FLEXIBLE ARRAYS

Arrays can be assembled using only WLA-210X line array elements or with WLA-210XSUB Subwoofers at the top of the array. The WLA-210X Common Fly frame supports up to 10 x WLA-210X elements and 1 x WLA-210XSUB OR up to 12 x WLA-210X elements with a safety factor of 12.



OPTIMISED GROUND STACKING

WLA-210X rigging doubles up as an optimised ground stacking system, using the WLA-210XSUB subwoofer as a base. Arrays of WLA-210X line array elements can be aimed downwards by as much as 10° to cover audience areas close to a stage, as well as upward by as much as 10° in order to better cover distant balcony seating areas.



SAFETY

The WLA-210X Common Fly frame is certified to hold a total weight (including third party hardware) of 450kg. Up to 10 x WLA-210X and 1 x WLA-210XSUB elements can be flown with a safety factor of 12.

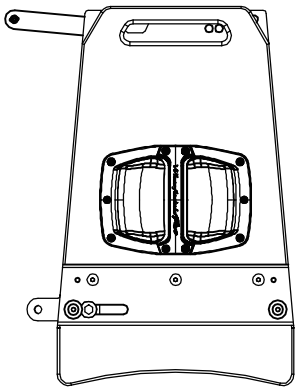
Only use Wharfedale Pro fly frames. Ensure that only rated, certified hardware such as tumbuckles, shackles and chains are used.

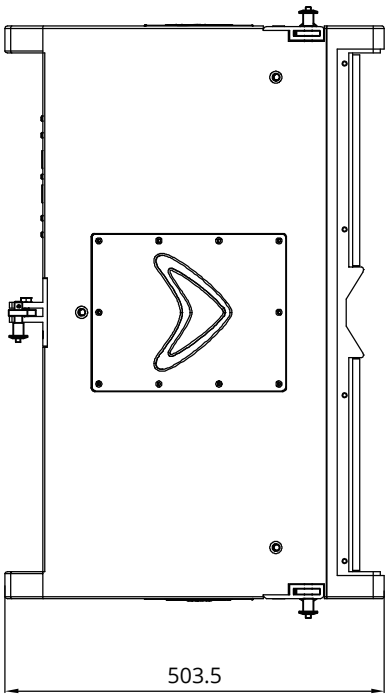
Ensure that all truss, structures and flying hardware are capable of suspending the entire array, plus flying hardware, to a suitable safety factor.

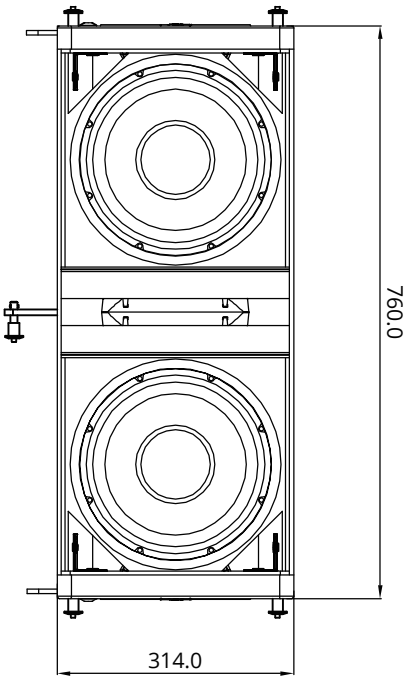
Inspect all mounting hardware before your line array is flown. If there is any damage or distortion to any mounting hardware do not fly the array until any damaged hardware is repaired or replaced. Only use Wharfedale Pro supplied quick release pins and contact your Wharfedale Pro distributor if any quick release pins are lost or damaged.

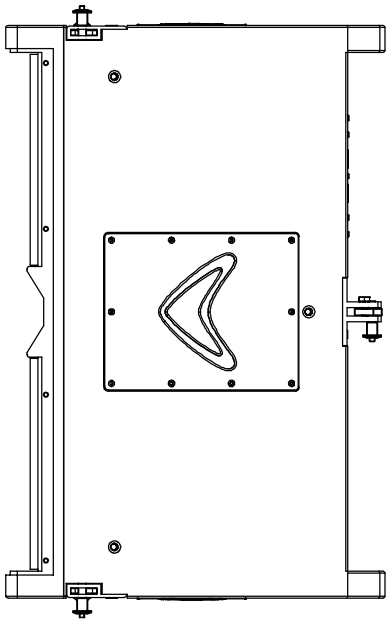
DIMENSIONAL DRAWINGS

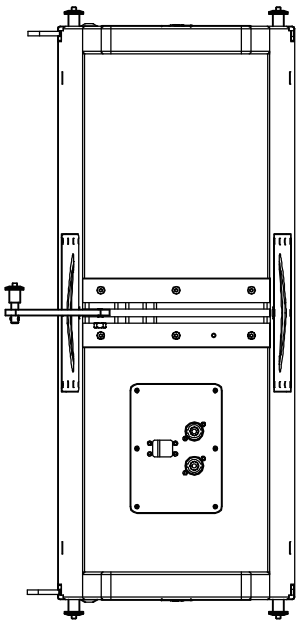
WLA-210X

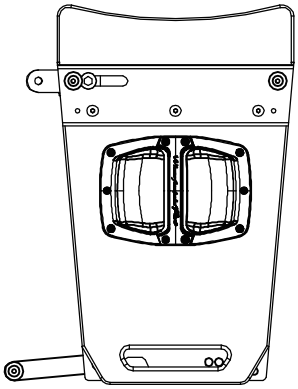






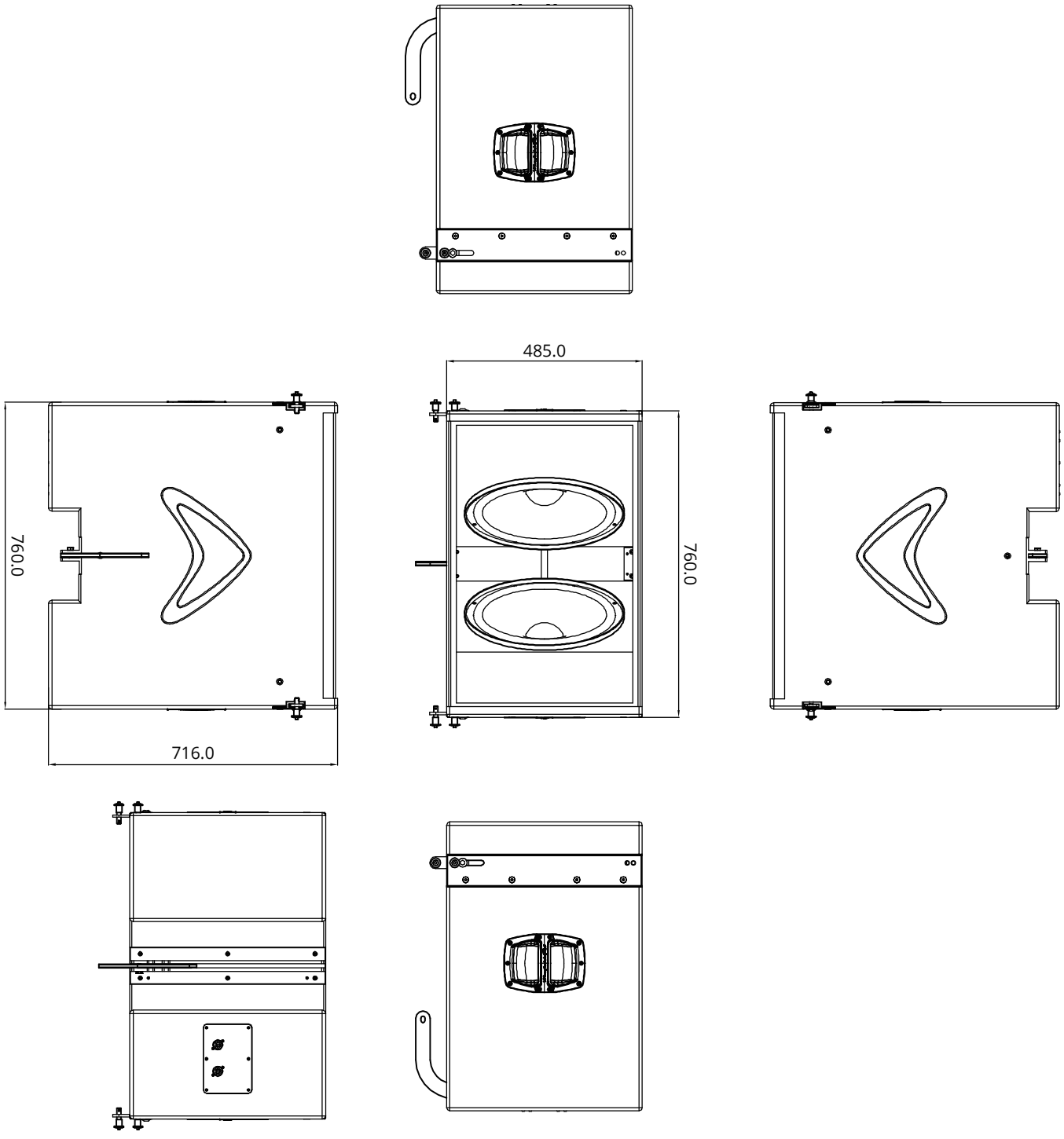






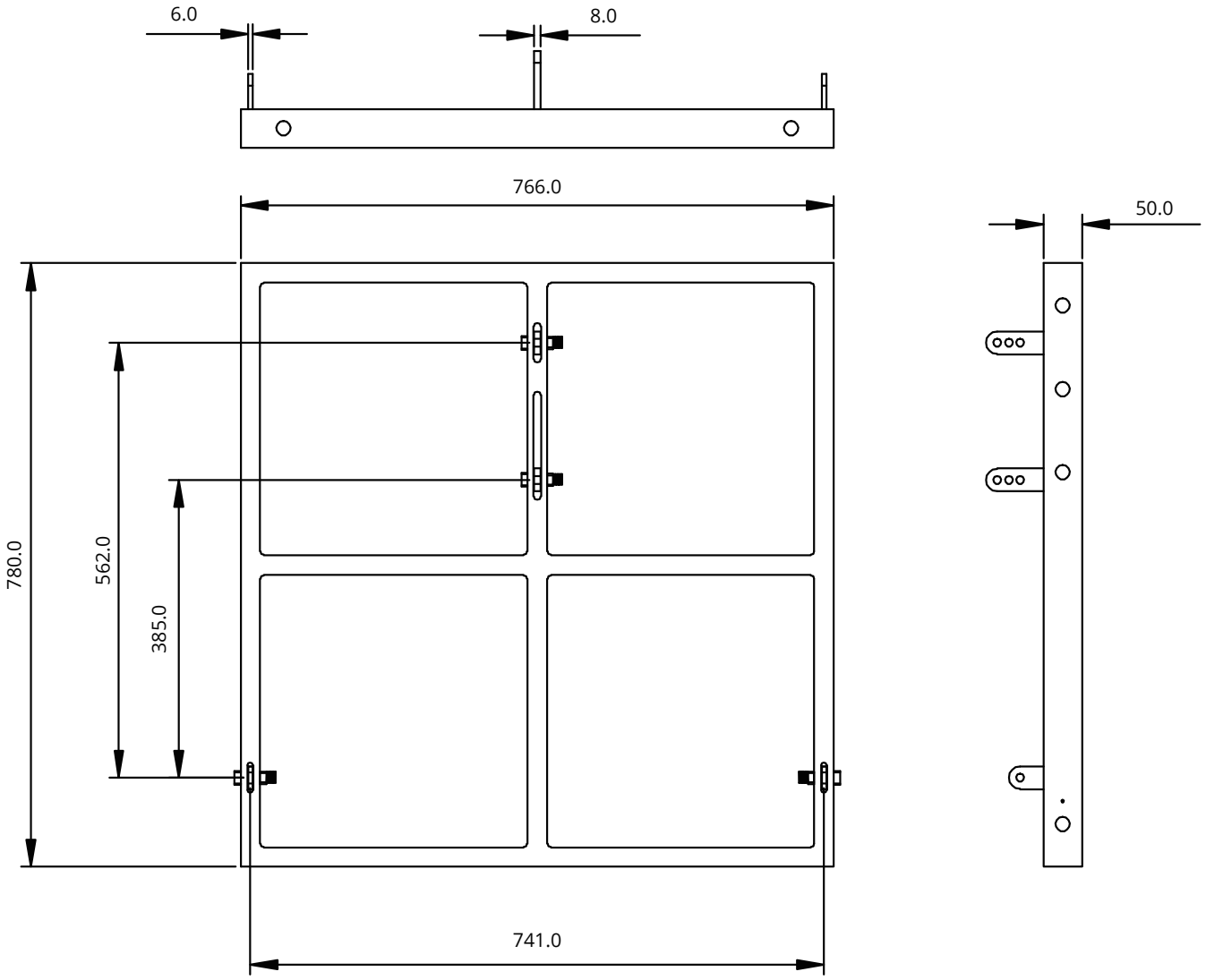
DIMENSIONAL DRAWINGS

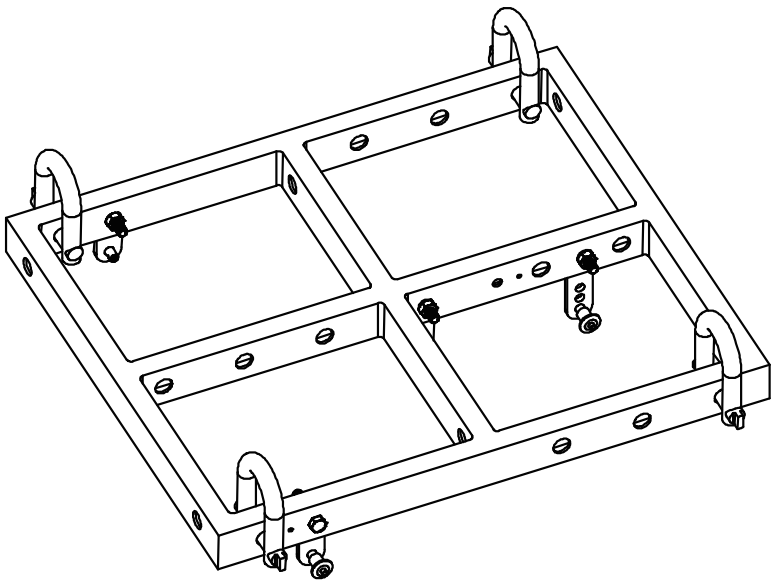
WLA-210X SUB



DIMENSIONAL DRAWINGS

WLA-210X Common Fly frame





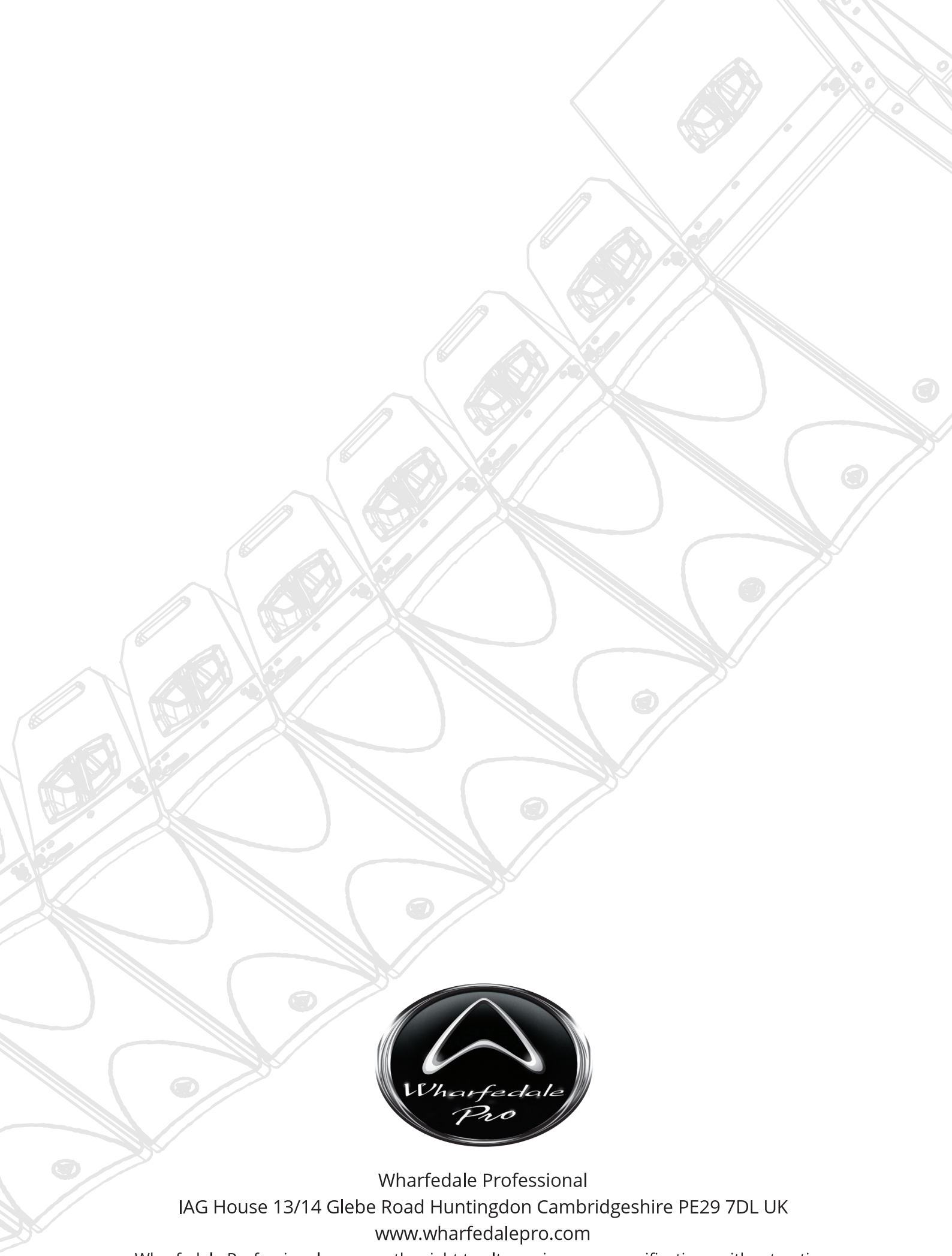
SPECIFICATIONS

Model Name	WLA-210X	WLA-210XSUB	WLA-210X Common Fly frame
System Type	Passive	Passive	
Configuration	Two-way	Subwoofer	
Frequency Response (+/-3dB)	65-20kHz	39-900Hz	
Frequency Range (-10dB)	60-20kHz	35-1.5KHz	
(Passive) Sensitivity 2.83v/1m	102dB	108dB	
(Passive) Calculated Maximum SPL @1m	138dB	145dB	
(Bi-Amp) Sensitivity 2.83v/1m	HF:112dB/LF:100dB		
(Bi-Amp) Calculated Maximum SPL @1m	HF:138dB/LF:135dB		
System Rated Impedance	16Ω	4Ω	
Low Frequency Transducer			
Size (mm / inches)	260mm / 10''	381mm / 15''	
Voice Coil Size (mm / inches)	65mm / 2.5''	100mm / 4.0''	
LF Magnet Material	Ferrite	Ferrite	
LF Frame Material	Aluminium	Aluminium	
Rated Impedance	8X2Ω	8ΩX2	
LF Power re:AES2-2012	400WX2	600WX2	
High Frequency Transducer			
HF Driver Type:	Compression Driver		
Coil Size (mm / inches)	75mm / 3''		
Exit Size (mm / inches)	1.4"		
HF Magnet Material	NdFeB		
Diaphragm Material	Titanium		
Rated Impedance	16Ω		
HF Power re:AES2-2012	80W		
Waveguide Type	Square		
Nominal Coverage (H x V)	100H x 10V		
System Continuous Power (w)	HF:90W/LF:800W	1200W	
System Programme Power (w)	HF:180W/LF:1600W	2400W	
System Peak Power (w)	HF:360W/LF:3200W	4800W	
Crossover frequency	1.5kHz		
Bi-Amp Mode Switch	Yes		
Input Connector	2xSpeakon	2xSpeakon	
Rigging	3 points for rigging	3 points for rigging	
Pole Mount	NO	NO	
Handles	Yes	Yes	
Enclosure			
Cabinet Type	Trapezoid	Square	
Enclosure Material and finish	15mm,18mm plywood	18mm plywood	
Colour Options	Black paint	Black paint	
Grille Material & Finish	Steel	Steel	
Dimensions - Unpacked (mm /Zinches):			
Height	314mm	485mm/19.1"	95mm/3.74"
Width Front	760mm	760mm/29.9"	766mm/30.2"
Width Rear	760mm	760mm/29.9"	766mm/30.2"
Depth	518.5mm	716mm/28.2"	780mm/30.7"
Dimensions - Packed (mm / inches):			
Height	404mm	575mm/22.6"	150mm/5.9"
Width Front	855mm	850mm/33.5"	796mm/31.4"
Width Rear	855mm	850mm/33.5"	796mm/31.4"
Depth	594mm	806mm/31.7"	810mm/31.9"
Weight			
Net Weight (kg / lbs)	34.7kg/76.5lbs	63.5kg/140.0bs	15.86kg/34.9lbs
Gross Weight (kg / lbs)	37.9kg/83.6lbs	71.5kg/157.6lbs	18.72kg/41.2lbs

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 dealers or distributor for information. These terms do not infringe your statutory rights.



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