



Wharfedale Pro

Your full user manual can also be downloaded from www.wharfedalepro.com

WLA-1A Series

QUICK START GUIDE

Congratulations on the purchase of your WLA-1 Active system. We take great pride in engineering and building every Wharfedale Pro product and wish to thank you for entrusting us with your audio.

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

Please take the time to read this guide completely in order to get the most from your new PA.

Specifications

Model Name	WLA-112A	WLA-115A	WLA-121SUBA
System Typology	Hybrid Curvature Array	Hybrid Curvature Array	Subwoofer
System Type	Active 12" coaxial Bi-Amplified	Active 15" coaxial Bi-Amplified	Active 21" Subwoofer
Configuration	two-way	two-way	Single Subwoofer
Frequency Response (+/-3 dB)	55 Hz - 20 KHz	42 Hz - 20 KHz	25 Hz - 100 Hz
Frequency Range (-10 dB)	35 Hz - 25 KHz	25 Hz - 25 KHz	18 Hz - 125 Hz
Sensitivity 2.83 V/1 m	101 dB	102 dB	103 dB*
Calculated Maximum SPL @ 1 m	133 dB	135 dB	136 dB*
System Peak SPL	139 dB**	141 dB**	142 dB**
*			level at 1 m under half space conditions using pink noise with crest factor 2, with dedicated preset.
**	level at 1 m under free field conditions using pink noise with crest factor 4, with dedicated preset.	level at 1 m under free field conditions using pink noise with crest factor 4, with dedicated preset.	level at 1 m under half space conditions using pink noise with crest factor 4, with dedicated preset.
Waveguide Type	EVO-Fold®	EVO-Fold®	/
Nominal Coverage (H x V)	100° x 20°	100° x 20°	/
Signal Processing	DSP based, 8 FIR presets	DSP based, 8 FIR presets	DSP based, 8 presets
Preset list	A) 1 to 2 SPKR 100 Hz HPF B) 3 to 4 SPKR 100 Hz HPF C) 5 to 6 SPKR 100 Hz HPF D) 1 SPKR E) 2 SPKR F) 3 to 4 SPKR G) 5 to 6 SPKR	A) 1 to 2 SPKR 100 Hz HPF B) 3 to 4 SPKR 100 Hz HPF C) 5 to 6 SPKR 100 Hz HPF D) 1 SPKR E) 2 SPKR F) 3 to 4 SPKR G) 5 to 6 SPKR	A) 1 SPKR 80 Hz LPF B) 1 SPKR 100 Hz LPF C) >2 SPKR 80 Hz LPF D) >2 SPKR 100 Hz LPF E) CARDIOID AUDIENCE F) CARDIOID STAGE G) CUSTOM
Amplifiers			
Amplifier Design	Class D	Class D	Class D
Power Rating:	1360 W Peak (1200 W LF + 160 W HF), 680 W Continuous (600 W LF + 80 W HF)	1660 W Peak (1500 W LF + 160 W HF), 830 W Continuous (750 W LF + 80 W HF)	4400 W Peak, 2200 W Continuous
Thermal Protection	Amplifier Shut Down, Auto Reset	Amplifier Shut Down, Auto Reset	Amplifier Shut Down, Auto Reset
Low Line Voltage Shut Down	60% Nominal Line Voltage	60% Nominal Line Voltage	60% Nominal Line Voltage
Driver Protection	Independent LF/ HF RMS and Peak	Independent LF/ HF RMS and Peak	RMS, Peak Limiters and DC
DC and Short Protection	Yes	Yes	Yes
Clip Limiter	Yes	Yes	Yes
Limiter Indicator	Red LED	Red LED	Red LED
Signal Indicator	Green LED	Green LED	Green LED
Power/Active Indicator	White LED	White LED	White LED
Find Function Indicator	Blue LED	Blue LED	Blue LED
Input Sensitivity	+4 dBu	+4 dBu	+4 dBu
Maximum Input Level	+18 dBu	+18 dBu	+18 dBu
Input Impedance	Balanced:10 KΩ	Balanced:10 KΩ	Balanced:10 KΩ
AC Power details - Power Supply	High Efficiency Dual Switching Mode Power Supply	High Efficiency Dual Switching Mode Power Supply	High Efficiency Dual Switching Mode Power Supply
Connectors			
Input Connector	Balanced socket XLR	Balanced socket XLR	Balanced socket XLR
Link Connector	Balanced pin XLR	Balanced pin XLR	Balanced pin XLR
UPDATE	USB Type B	USB Type B	USB Type B
NETWORK (RS485)	RJ45	RJ45	RJ45
AC Power Options	AC 100-120 V~ and 220-240 V~, 50/60 Hz	AC 100-120 V~ and 220-240 V~, 50/60 Hz	AC 100-120 V~ and 220-240 V~, 50/60 Hz
Special Features	Copper Demodulating rings in both LF and HF units	Copper Demodulating rings in both LF and HF units	Aluminium demodulating ring
	Waterproof LF cone		Waterproof LF cone
	Shared High performing Ferrite magnet system design		Malt Cross® TCS
Rigging & Hardware:	3 points for rigging	3 points for rigging	3 points for rigging
Vertical Splay angle range:	0° - 5° - 10° - 15°	0° - 5° - 10° - 15°	/
Horizontal Splay angle	15°	15°	/
Accessories:	WLA-1 FLY FRAME	WLA-1 FLY FRAME	WLA-1 FLY FRAME
Stand pole:	Dual Angle -2.5° / +7.5°	Dual Angle -2.5° / +7.5°	M20 Pole mount
Handles:	2 side / 2 back	2 side / 2 back	2 side (4 pcs) + 2 (top / bottom)
Enclosure			
Cabinet Type	Trapezoid	Trapezoid	Rectangular
Enclosure Material and finish	15 mm plywood / TOUGH-TONE	15 mm plywood / TOUGH-TONE	18 mm plywood / TOUGH-TONE
Colour	Black paint	Black paint	Black paint
Grille Material & Finish	Powder coated perforated steel	Powder coated perforated steel	Powder coated perforated steel
Dimensions - Unpacked:			
Height Front	332 mm / 13.1"	408 mm / 16.1"	820 mm / 32.3"
Height Rear	246.4 mm / 9.7"	302 mm / 11.8"	/
Width	566 mm / 22.3"	566 mm / 22.3"	566 mm / 22.3"
Depth	465 mm / 18.3"	543 mm / 21.3"	760 mm / 29.9"
Dimensions - Packed:			
Height	661 mm / 26.0"	661 mm / 26.0"	895 mm / 35.2"
Width Front	550 mm / 21.7"	630 mm / 24.8"	656 mm / 25.8"
Width Rear	550 mm / 21.7"	630 mm / 24.8"	/
Depth	410 mm / 16.7"	490 mm / 19.3"	850 mm / 33.5"
Weight			
Net Weight	30.4 kg / 66.9 lbs	35.5 kg / 78.1 lbs	74.0 kg / 162.8 lbs
Gross Weight	32.8 kg / 72.2 lbs	38.5 kg / 84.7 lbs	80.0 kg / 176 lbs

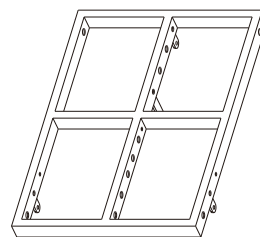
Note : Specifications may be subject to change without notice.

Product Features

- Active with DSP and FIR filters
- Drivers by Beyma
- Tough-Tone paint finish
- EVO-Fold waveguides in full range elements
- Integral side plate rigging
- Versatile with comprehensive hardware accessories
- EASE .gll files available for download

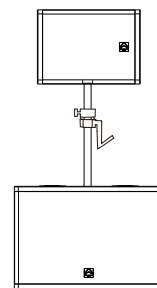
Optional hardware

WLA-1 Common Fly Frame



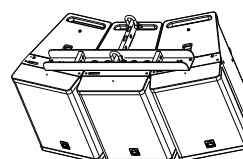
A maximum of 3 subwoofers should be loaded on the fly frame without full range elements. A Maximum of 8 full range elements can be flown. Check full configuration using EASE Focus software.

SP-4 Pole

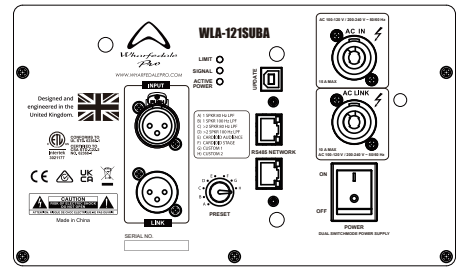
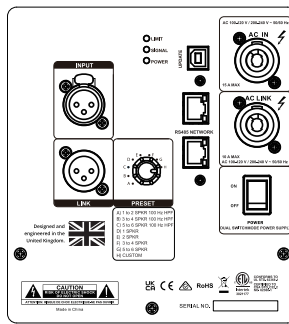
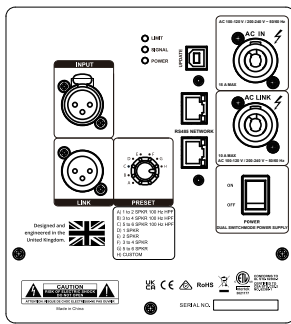


The optional SP-4 pole easily connects the 21" sub to the tops. Dual angle 35 mm pole sockets in the full range elements makes angle adjustments safe and easy

WLA-1 Link



Connects three elements of either WLA-112A or WLA-115A to create a 3 unit horizontal array with 60 H x 100 V dispersion



INPUT: Balanced XLR input

LINK: Balanced line output

PRESET: DSP Preset control selector

UPDATE: USB Input for software update. Service staff only.

NETWORK: Network connection using RS485 protocol. Download the software from www.wharfedalepro.com

AC IN: AC Input using PowerCon connector

AC LINK: For cascade power to other active loudspeakers in the system. DO NOT EXCEED A TOTAL OF 20 A (continuous current powerCon limit) for each line.

POWER: Power on switch. Only power on after all audio connections have been made.

Control software

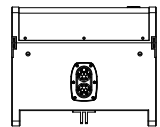
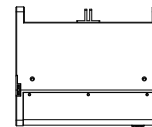
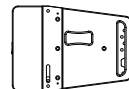
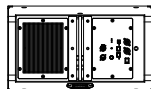
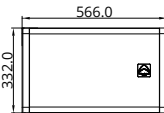
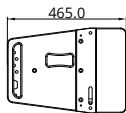
The network connection uses RS485 protocol and gives GUI control over the DSP parameters of each element in the array.

<https://www.wharfedalepro.com/download/wla-a-control-software/>

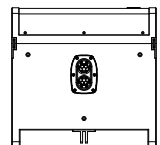
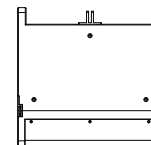
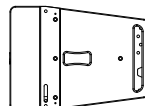
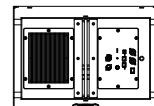
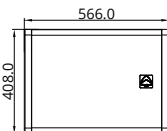
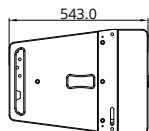
For easy connection to the computer, the optional USB-RS485-RJ45 convertor can be used. This convertor allows for connection between the PC and the network of active array elements.

Overview

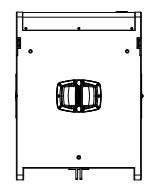
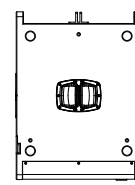
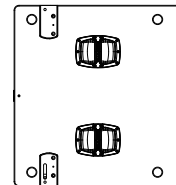
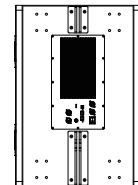
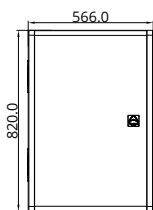
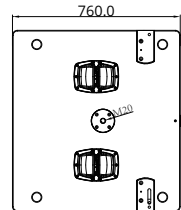
WLA-112A



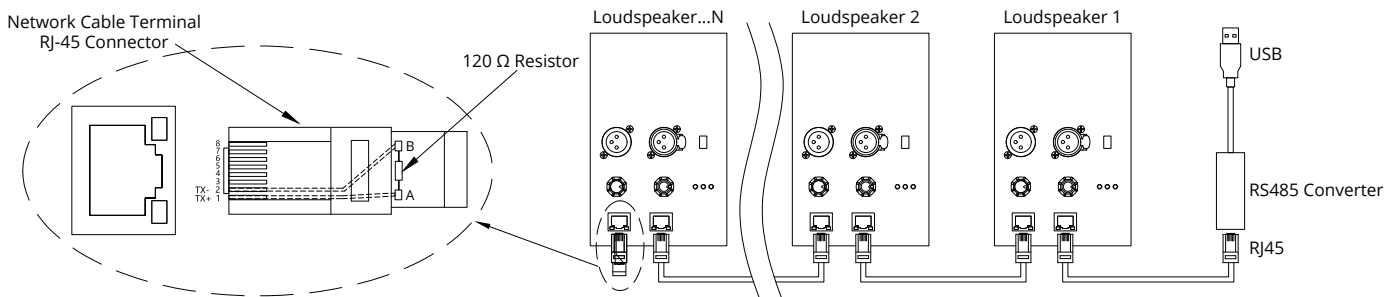
WLA-115A



WLA-121SUBA



RS485 Network cable interface description



RS485 Network total length can be improved by using a 120 Ohm resistor between pins 1 and 2 on an RJ45 connector. This should be connected to the spare network port on the final speaker in the network.

For system design it is recommended to use EASE software. (<https://www.afmg.eu>)

The EASE library can be downloaded from <https://www.wharfedalepro.com/download/wharfedale-pro-ease-library/>

WHARFEDALE PRO LIMITED WARRANTY

Wharfedale Pro products are warranted of manufacturing or material defects for a period of three years from the original date of purchase. In the event of malfunction, contact your authorised Wharfedale Pro dealer or distributor for information. Please be aware that the warranty details may differ from country to country. Contact your dealer or distributor for information (available at www.wharfedalepro.com). These terms do not infringe your statutory rights.



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