Wharfedale Pro

www.wharfedalepro.com

WLA-118SUBA USER MANUAL

Congratulations on the purchase of your WLA-118SUBA. 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 system.

Specifications

Model Name	WLA-118SUBA
System Typology	Subwoofer
System Type	
Configuration	Single Subwoofer
Frequency Response (+/-3 dB)	35 Hz - 125 Hz
Frequency Range (- 10 dB)	28 Hz – 160 Hz
Sensitivity 2.83 V/1 m	103 dB*
Calculated Maximum SPL @ 1 m	136 dB*
System Peak SPL	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 half space conditions using pink
	noise with crest factor 4, with dedicated preset.
Signal Processing	DSP based,8 presets
	A) 1 SPKR 80 Hz LPF
	B) 1 SPKR 100 Hz LPF
	C) >2 SPKR 80 Hz LPF
Preset list	D) >2 SPKR 100 Hz LPF
	E) CARDIOID AUDIENCE
	F) CARDIOID STAGE
	G) CUSTOM
Amplifiers	H) CUSTOM
Amplifier Design	Class D
	4400 W Peak,
Power Rating:	2200 W Continuous
Thermal Protection	Amplifier Shut Down. Auto Reset
Low Line Voltage Shut Down	60% Nominal Line Voltage
Driver Protection	RMS, Peak Limiters and DC
DC and Short Protection	Yes
Clip Limiter	Yes
Limiter Indicator	Red LED
Signal Indicator	Green LED
Power/Active Indicator	White LED
Find Function Indicator	Blue LED
Input Sensitivity	+4 dBu
Maximum Input Level	+18 dBu
Input Impedance AC Power details - Power Supply	Balanced:10 KΩ
Connectors	High Efficiency Dual Switching Mode Power Supply
	Balanced socket XLR
Input Link	Dalanceu Socket ALN
	Balanced nin XI R
	Balanced pin XLR
UPDATE	USB Type B
UPDATE NETWORK (RS485)	USB Type B RJ45
UPDATE NETWORK (RS485) AC Power Options	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic
UPDATE NETWORK (RS485)	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring
UPDATE NETWORK (RS485) AC Power Options	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone
UPDATE NETWORK (RS485) AC Power Options Special Features	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware:	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range:	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Mait Cross® TCS 3 points for rigging / /
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories:	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole:	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles:	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs)
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Handles: Cabinet Type	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Matt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Matt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked :	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked Height Front	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging // // WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked : Height Front Height Front	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" /
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle range: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Rear Height Rear	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" /
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked : Height Front Height Rear Width Depth	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Mait Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width Depth Dimensions - Packed:	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Material and finish Colour Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked Height Front Height Rear Width Depth Dimensions - Packed Height	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Mait Cross® TCS 3 points for rigging // // WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 5666 mm / 23.4" 760 mm / 23.4" 630 mm / 24.8"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle range: Stand pole: Handles: Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width Depth Dimensions - Packed: Height Kear	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Matt Cross® TCS 3 points for rigging // // WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9" 630 mm / 24.8" 656 mm / 25.8" /
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle range: Stand pole: Handles: Enclosure Material and finish Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width Depth Dimensions - Packed Height Front Height Front	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Matt Cross® TCS 3 points for rigging // // WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9" 630 mm / 24.8" 656 mm / 25.8" /
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Front Height Rear Width Depth Dimensions - Packed: Height Width Front Width Front Width Rear Depth	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Mait Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9" 630 mm / 24.8" 656 mm / 23.8"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width Depth Dimensions - Packed: Height Kidth Front Width Front Width Front Width Front Width Rear Depth	USB Type B RJ45 AC 100-120 V~ and 220-240 V~, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9" 630 mm / 24.8" 656 mm / 25.8" / 850 mm / 33.5"
UPDATE NETWORK (RS485) AC Power Options Special Features Rigging & Hardware: Vertical Splay angle range: Horizontal Splay angle Accessories: Stand pole: Handles: Enclosure Cabinet Type Enclosure Material and finish Colour Grille Material & Finish Dimensions - Unpacked: Height Front Height Rear Width Depth Dimensions - Packed: Height Width Front Width Front Width Front Width Rear Depth	USB Type B RJ45 AC 100-120 V- and 220-240 V-, 50/60 Hz Automatic Aluminium demodulating ring Waterproof LF cone Malt Cross® TCS 3 points for rigging / / WLA-1 FLY FRAME M20 Pole mount 1 side (2 pcs) Rectangular 18 mm plywood / TOUGH-TONE Black paint Powder coated perforated steel 535 mm / 21.1" / 566 mm / 23.4" 760 mm / 29.9" 630 mm / 24.8" 656 mm / 25.8" / 850 mm / 33.5"

Product Features

- Duo layer 18" Beyma driver
- Tough-Tone paint finish
- Integral side and back 3-point rigging system
- Premium Baltic birch construction
- .gll files available for download
- Internal DSP
- Versatile and practical
- Use in conjunction with the 21" sub for infrabass AND punch
- EASE .gll files available for download

Overview













Note : Specifications may be subject to change without notice.

INPUT: Balanced Combi jack / 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.

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.

Optional hardware

WLA-1 Common Fly Frame



Use the optional WLA-1 Common Fly Frame to fly WLA-118SUB (A) with WLA-115 (A) or WLA-112 (A) elements as a traditional flown array.

Note :

WLA-1 Common Fly Frame supports up to 3 pcs of WLA-118SUB (A).

WLA-118SUB (A) will not fly with WLA-121SUB (A).

SP-4 Pole



Use an optional SP-4 pole to connect the 18" subwoofer to a 12" or 15" element. These have dual angle 35 mm pole sockets to ensure the best coverage for the event.

Note :

Always ensure the floor is level and that all local and common sense safety rules are respected.

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.



WHARFEDALE PRO

IAG House, 13/14 Glebe Road, Huntingdon, Cambridgeshire, PE29 7DL, UK www.wharfedalepro.com Wharfedale Pro reserve the right to alter or improve specifications without notice. All rights reserved © 2024 Wharfedale Pro. Wharfedale Pro is a member of the IAG Group.

