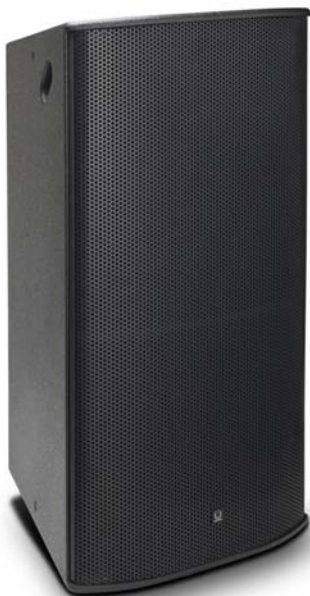


TCS SERIES ENGINEERING INFORMATION

The TCS-1561 is a three-way full range loudspeaker enclosure available in either switchable bi-amp/tri-amp or digitally self-powered formats, and designed for use in a wide range of fixed installations.

It consists of a 15" reflex-loaded low frequency driver, a 6.5" mid-frequency driver and a 1" high frequency compression driver in an optimally tuned enclosure. The high frequency and mid frequency components are matched with an internal passive crossover, which can be by-passed for fully tri-amp operation. The mid/high section is rotatable within the enclosure.

The cabinet is constructed from 15mm (5/8") birch plywood, screwed and glued together for maximum rigidity, with a powder-coated perforated steel mesh grille backed with reticulated foam. Its double trapezoidal shape allows it to be tight packed with other TCS series enclosures. Multiple rigging points, supported by internal steel flying strips, are provided on the top, bottom, sides and rear of the cabinet to enable it to be suspended and angled in permanent installations using M10 shoulder eyebolts.



Two Neutrik® Speakon NL8 speaker connectors are located on the rear panel, providing input and link connections to additional TCS series cabinets.

The TCS-1561 is finished as standard in durable black or white semi-matt textured paint; custom colour options are also available for decor matching. An IP54 weather-resistant version is optionally available (non-powered only) with stainless steel grille, weatherproof paint finish and captive cable gland, enabling use outdoors and in humid conditions.

The TCS-1561DP is a 2 x 800 watt digitally self-powered option featuring a new generation of innovative Class D power amplifier modules, utilising revolutionary 96kHz DSP technology to give operating efficiency in excess of 90%. The fully integrated amplifier and control electronics module incorporates high performance limiters set to optimise the continuous power and excursion thresholds, and is fully networkable to allow remote control and monitoring of critical performance parameters. The switch mode power supply is auto-sensing over a range from 100 volts to 240 volts.



FEATURES

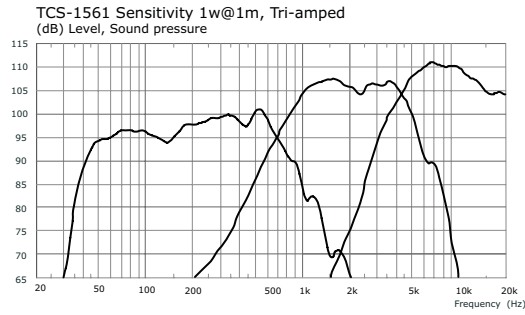
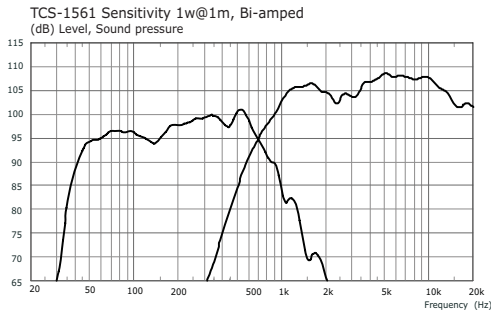
- Double trapezoidal shape**
- Self-powered option**
- Rotatable mid/high section**
- Multiple rigging points**
- Switchable bi-amp/tri-amp**
- Passive crossover**
- Custom colour option**
- IP54 weather-resist option**

APPLICATIONS

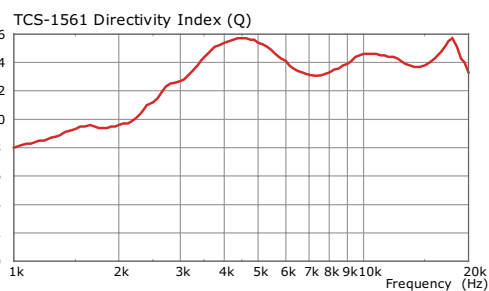
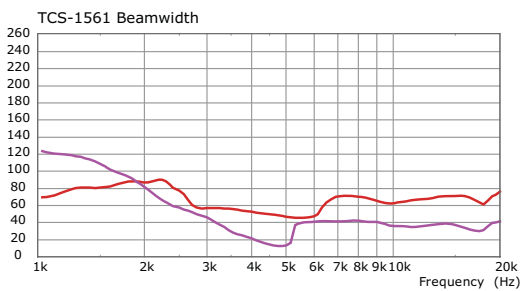
- Fixed installations**
- Pubs, clubs and bars**
- Music venues**
- Houses of Worship**
- Stadia and arenas**
- Public address**
- Voice alarm**

DIMENSIONS (HxWxD)	979mm x 535mm x 467mm (38.5" x 21.1" x 18.4")		
NET WEIGHT	TCS-1561: 52kg (114.4lbs); TCS-1561DP: 54kg (118.8lbs)		
COMPONENTS	1 x 15" (381mm) LF driver, 1 x 6.5" (165mm) MF driver, 1 x 1" (25mm) HF driver		
FREQUENCY RESPONSE	50Hz - 20kHz ±3dB; 40Hz - 20kHz ±10dB		
NOMINAL DISPERSION	70°H x 40°V @ -6dB points		
POWER HANDLING	HF: 50 watts r.m.s., 100 watts program; MF: 100 watts r.m.s., 200 watts program; LF: 500 watts r.m.s., 1000 watts program; Bi-amp HF/MF: 100 watts r.m.s., 200 watts program, LF: 500 watts r.m.s., 1000 watts program		
SENSITIVITY	HF: 108dB, MF: 105dB, LF: 97dB, 1 watt @ 1 metre; Bi-amp MF/HF: 105dB, 1 watt @ 1 metre		
MAXIMUM SPL	HF: 125dB cont, 131dB peak; MF: 125dB cont, 131dB peak, LF: 124dB cont, 130dB peak; Bi-amp MF/HF: 128dB cont, 134dB peak; Addition: 130dB cont, 136dB peak		
NOMINAL IMPEDANCE	HF: 16 ohms, MF: 16 ohms, LF: 8 ohms; Bi-amp MF/HF: 12 ohms		
CROSSOVER	Internal passive network at 5kHz		
CONSTRUCTION	15mm (5/8") birch plywood. Finished in black or optional white semi-matt textured paint.		
GRILLE	Powder-coated perforated steel with foam backing		
CONNECTORS	(2) Neutrik® Speakon NL8MP, wired pin1+ and pin1-: link; pin2+: LF positive, pin2-: LF negative; pin3+: MF positive, pin3-: MF negative (MF/HF passive); pin4+: HF positive, pin4-: HF negative		
AMPLIFIER (TCS-1561DP)	TYPE:	Class D	
	CONNECTORS:	1 x female XLR (input), 1 x male XLR (link) 2 x RJ45 network, 1 x Powercon mains	
	INDICATORS:	Power (blue), signal (green), limit (red)	
	POWER OUTPUT:	2 x 800 watts continuous @ 8 ohms (1kHz, 0.01% THD)	
	MAX INPUT:	+10dB for rated output	
	BANDWIDTH:	20Hz - 20kHz ±0.5dB	
	POWER REQUIREMENTS:	100V to 240V AC @ 50/60Hz, auto switching	
OPTIONS	Optional finishes: white and custom colours. IP54 weather-resistance: stainless steel grille, black or white linex paint finish, captive cable with cable gland (non-powered only)		
FLYING HARDWARE	(9) M10 internal rigging points with internal steel strips for M10 eyebolts		
SPARES AND ACCESSORIES	LS1529	LS-1529	15" (381mm) LF loudspeaker
	05B3150	RC-1529	Recone kit
	LS6505	LS-6505	6.5" (165mm) MF driver
	05B6148	RC-6505	Recone kit
	05A9295	CD-115	1" (25mm) HF compression driver
	05B9305	RD-115	Replacement diaphragm
	10G1120	PX-TCS1561	Passive crossover
	16F915	TCS-15XDP AMP	Amplifier module
	07B392	EB-10/18	M10x18mm eyebolt

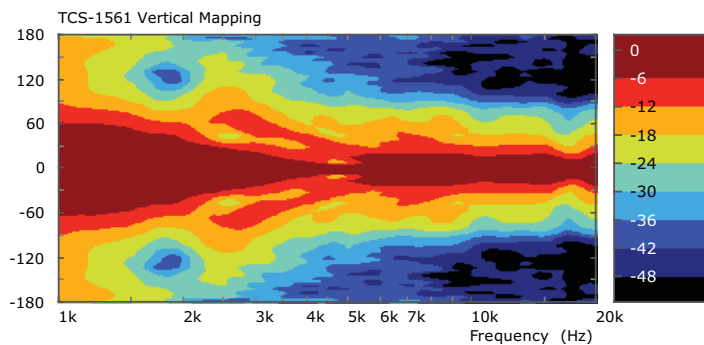
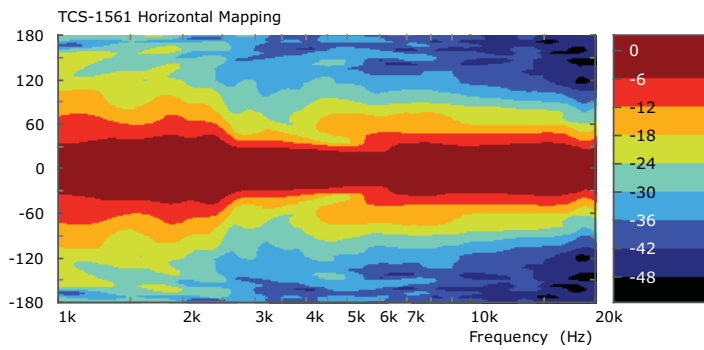
FREQUENCY RESPONSE



BEAMWIDTH AND DIRECTIVITY



CONTOUR MAPS

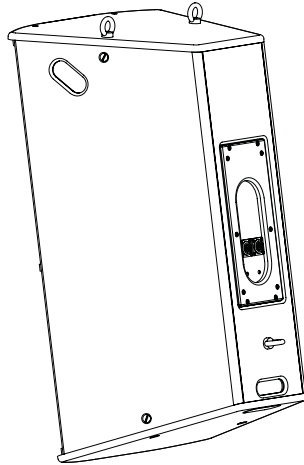


Measured 1w/1m full space 1/3 Octave Smoothed, shown active with LR24 x-over

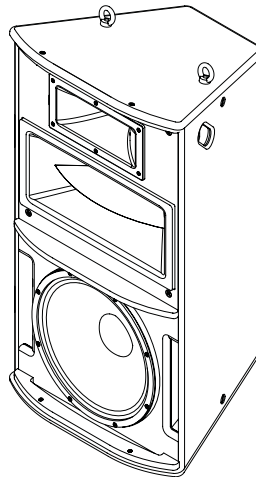
NOTES ON MEASUREMENT CONDITIONS

**INSTALLATION
HARDWARE**

The cabinet is equipped with integral M10 rigging points on the top, bottom, sides and rear which enable it to be rigged in permanent installations using M10 shoulder eyebolts. The pull-back point on the rear is used to adjust the downward angle.



M10 EYEBOLTS



**ARCHITECTURAL
 & ENGINEER'S
 SPECIFICATIONS**

The speaker shall be of the full range, three-way switchable bi-amp/tri-amp type or digitally self-powered type consisting of one 15" (381mm) LF driver, one 6.5" (165mm) MF driver and one 1" (25mm) HF driver on a 70° x 40° waveguide. Performance specifications of a typical production unit shall meet or exceed the following: frequency response, measured with swept sine wave input, shall be flat within $\pm 3\text{dB}$ from 50Hz - 20kHz and within $\pm 10\text{dB}$ from 40Hz to 20kHz. Nominal dispersion, at -6dB points, shall average 70°H x 40°V. Nominal impedance shall be HF: 16 ohms, MF: 16 ohms, LF: 8 ohms; MF/HF: 12 ohms (bi-amp). Power handling shall be HF: 50 watts r.m.s., 100 watts program, MF: 100 watts r.m.s., 200 watts program, LF: 500 watts r.m.s., 1000 watts program; HF/MF: 100 watts r.m.s., 200 watts program (bi-amp). Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be HF: 108dB, MF: 105dB, LF: 97dB, 1 watt @ 1 metre (tri-amp); MF/HF: 105dB, LF: 97dB, 1 watt @ 1 metre (bi-amp). Maximum SPL (peak) measured with music program at stated amplifier input shall be HF: 131dB, MF: 131dB, LF: 130dB (tri-amp); MF/HF: 134dB (bi-amp); 136dB (addition). Dimensions: 979mm x 535mm x 467mm (38.5" x 21.1" x 18.4"). Net weight: 52kg (114.4lbs) [54kg (118.8lbs) TCS-1561DP]. The loudspeaker system shall be the Turbosound TCS-1561 [TCS-1561DP]. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance / size specifications are equalled or exceeded.

DIMENSIONS

