

TXD SERIES ENGINEERING INFORMATION

The TXD-151 is a trapezoidal passive two-way loudspeaker enclosure designed for use in a wide variety of live sound, fixed installation and mobile DJ applications that require professional sound quality in an easily transportable format.

It consists of an 15" reflex-loaded low frequency driver and a 1" high frequency compression driver on a 70°H x 40°V dispersion HF horn in an optimally tuned trapezoidal enclosure. These high grade components are matched with an internal passive crossover to ensure a seamless transition between the HF and LF drivers.

The crossover network incorporates a two-stage thermal overload protection system which prevents damage to the high frequency driver, reacting instantly to large transient peaks while still allowing wide dynamic range to be maintained. Although the protection system is transparent at normal operating levels, as the level increases the signal is gradually and imperceptibly compressed once the critical threshold has been reached.

The cabinet is constructed from 15mm (5/8") birch plywood, screwed and glued together for maximum rigidity and is finished as standard in black semi-matt textured paint. A pole mount socket is fitted for use with optional 35mm poles and loudspeaker stands. Two recessed flush handles are provided for easy lifting and carrying, and four rubber feet are fitted to the bottom of the cabinet. A grey powder-coated perforated steel mesh grille protects the drive units from damage.

Rigging points are provided on the top and rear of the cabinet to enable the TXD-151 to be suspended and angled in permanent installations using shoulder eyebolts. M8 rigging points are provided on the rear of the cabinet for use with Turbosound wall and ceiling brackets.

Two Neutrik Speakon NL4MP speaker connectors are located on the rear panel, providing input and parallel connections to additional TXD series cabinets.

**FEATURES**

- Compact enclosure**
- Trapezoidal shape**
- Rigging points**
- Pole mount socket**
- Passive crossover**
- HF protection system**

APPLICATIONS

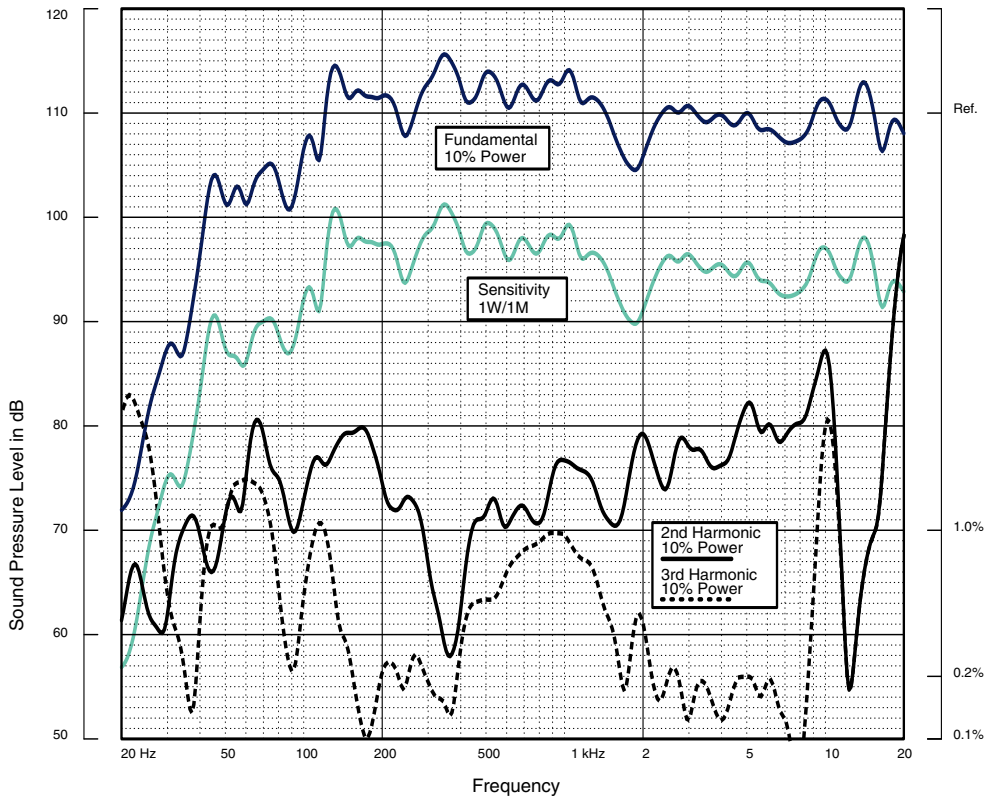
- Live sound**
- Mobile DJ**
- Fixed installations**

DIMENSIONS (HxWxD)	652mm x 465mm x 423mm (25.7" x 18.3" x 16.7")																		
NET WEIGHT	28kg (61.6lbs)																		
COMPONENTS	1 x 15" (381mm) LF driver, 1 x 1" (25mm) HF compression driver																		
FREQUENCY RESPONSE¹	45Hz - 20kHz ±4dB																		
NOMINAL DISPERSION²	70°H x 40°V @ -6dB points																		
POWER HANDLING	300 watts r.m.s., 600 watts program Recommended amplifier power 600 watts @ 8 ohms																		
SENSITIVITY³	99dB, 1 watt @ 1 metre																		
MAXIMUM SPL	124dB continuous ⁴ , 130dB peak ⁵																		
CROSSOVER	Internal passive network at 1.8kHz; 24dB/octave high-pass, 12dB/octave low-pass																		
NOMINAL IMPEDANCE	8 ohms																		
CONSTRUCTION	15mm (5/8") birch plywood enclosure. Finished in black semi-matt textured paint. Two recessed carrying handles. Integral pole mount socket																		
GRILLE	Heavy duty powder coated perforated steel mesh																		
CONNECTORS	(2) Neutrik Speakon NL4MP, wired pin1+: positive, pin 1-: negative, pins 2+ and 2- N/C																		
FLYING HARDWARE	(3) M10 internal threaded rigging points (4) M8 internal threaded rigging points for WB-55 and CB-55 brackets																		
SPARES AND ACCESSORIES	<table border="0"> <tr> <td>LS-1521</td> <td>15" (381mm) LF loudspeaker</td> </tr> <tr> <td>RC-1521</td> <td>Recone kit for LS-1521</td> </tr> <tr> <td>CD-111</td> <td>1" (25mm) HF compression driver</td> </tr> <tr> <td>RD-111</td> <td>Replacement diaphragm for CD-111</td> </tr> <tr> <td>MG-151/X</td> <td>Replacement grille</td> </tr> <tr> <td>PX-151/X</td> <td>Passive crossover network</td> </tr> <tr> <td>WB-55</td> <td>Wall bracket</td> </tr> <tr> <td>CB-55</td> <td>Ceiling bracket</td> </tr> <tr> <td>PB-55</td> <td>Pole mount bracket</td> </tr> </table>	LS-1521	15" (381mm) LF loudspeaker	RC-1521	Recone kit for LS-1521	CD-111	1" (25mm) HF compression driver	RD-111	Replacement diaphragm for CD-111	MG-151/X	Replacement grille	PX-151/X	Passive crossover network	WB-55	Wall bracket	CB-55	Ceiling bracket	PB-55	Pole mount bracket
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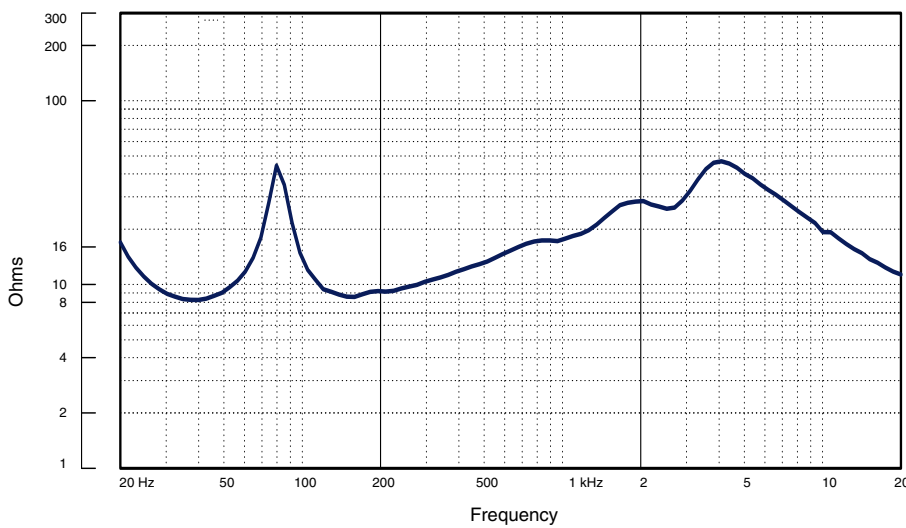
Notes

- 1 Measured on axis
- 2 Average over stated bandwidth
- 3 Average over stated bandwidth
- 4 Unweighted diode-clipped pink noise. Measured in a half space environment
- 5 Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation

FREQUENCY RESPONSE



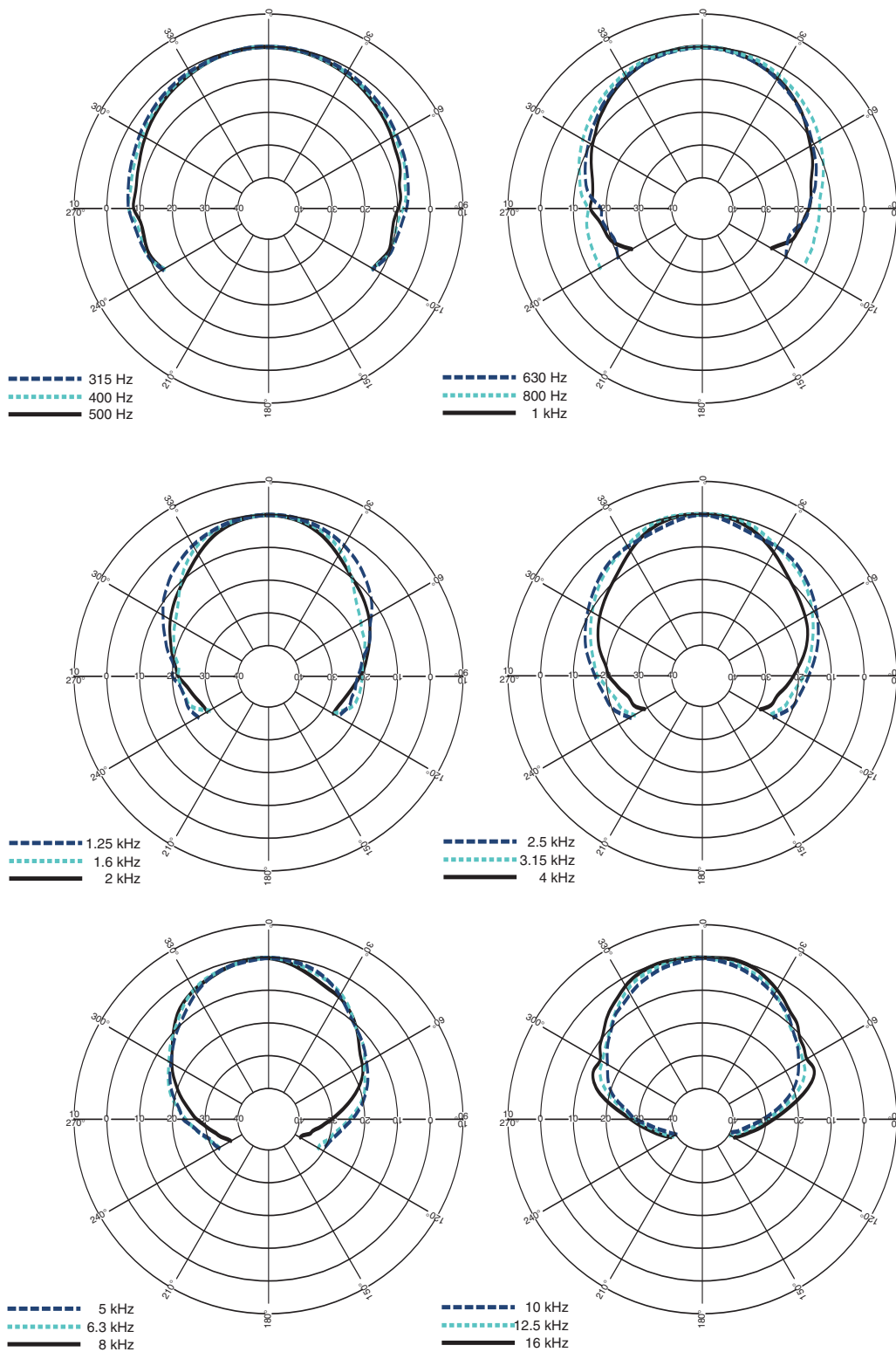
IMPEDANCE



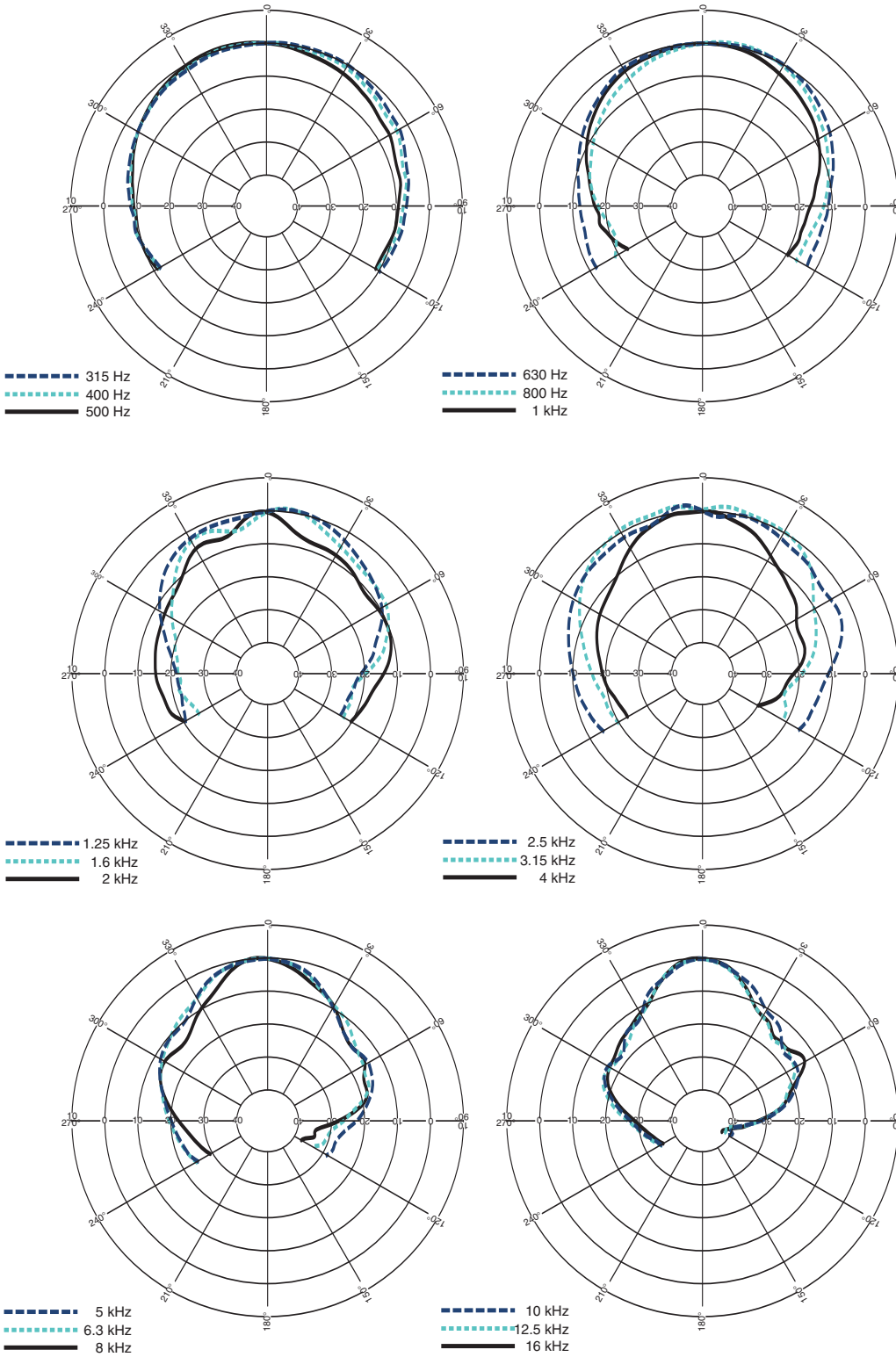
Impedance A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled to represent 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (AES paper ANSI S4-26-1984). **Data Conversion** All graphs were digitally generated using the APEX custom software system, designed to translate data derived from Audio Precision 'System One' test equipment into AutoCAD™. This program enables graphical information to be plotted to a high degree of accuracy.

NOTES ON MEASUREMENT CONDITIONS

**HORIZONTAL THIRD
OCTAVE POLARS**



**VERTICAL THIRD
OCTAVE POLARS**

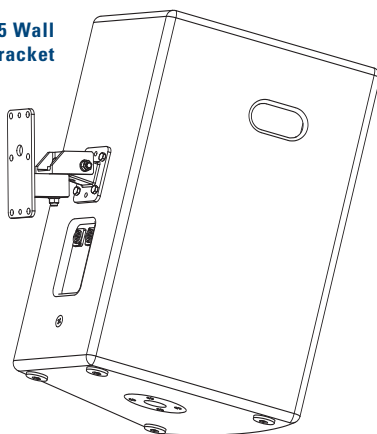


**INSTALLATION AND
RIGGING HARDWARE**

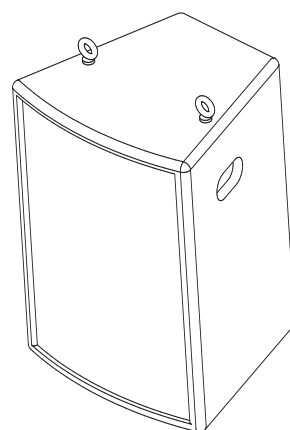
The enclosure is fitted with two M10 rigging points on the top and one on the back, to allow single loudspeakers to be rigged in permanent installations using M10 shoulder eyebolts with a minimum thread length of 20mm. The single back panel rigging point is used to set the desired downward inclination.

M8 rigging points are also provided on the back panel to enable fixed installation use with the WB-55 wall bracket, CB-55 ceiling bracket and PB-55 pole bracket.

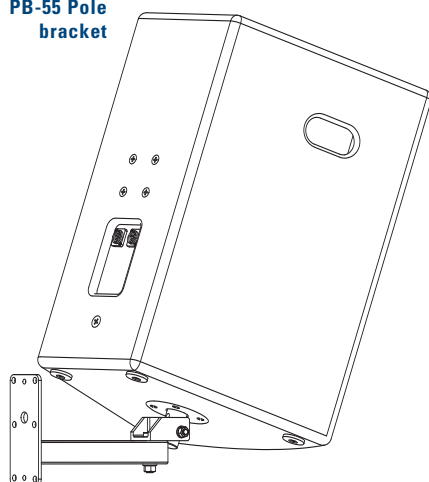
**WB-55 Wall
bracket**



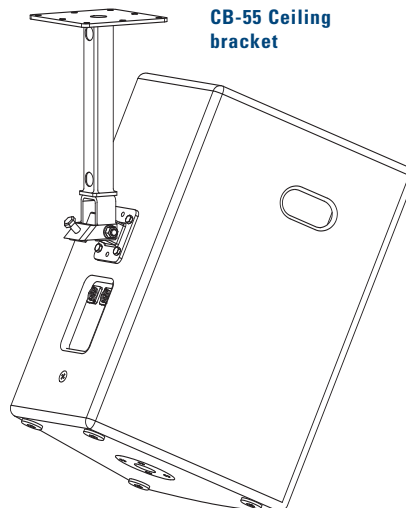
M10 Eyebolts



**PB-55 Pole
bracket**



**CB-55 Ceiling
bracket**



**ARCHITECTURAL
& ENGINEER'S
SPECIFICATIONS**

The speaker shall be of the two-way passive type consisting of one 15" (381mm) low frequency driver and one 1" (25mm) high frequency driver. 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 $\pm 4\text{dB}$ from 45Hz - 20kHz. Nominal dispersion, at -6dB points, shall average 70°H x 40°V. Nominal impedance shall be 8 ohms. Power handling shall be 300 watts r.m.s., 600 watts program. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 99dB. Maximum SPL (peak) measured with music program at stated amplifier input shall be 130dB. Dimensions: 652mmH x 465mmW x 423mmD (25.7"H x 18.3"W x 16.7"D). Weight: 28kg (61.6lbs). The loudspeaker system shall be the Turbosound TXD-151. 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

