

HILIGHT™ SERIES ENGINEERING INFORMATION

The THL-818.2 is a low frequency loudspeaker enclosure incorporating Turbosound's unique transducer loading principles. It is designed to cover low frequencies in the range 55 to 180Hz in primary sound reinforcement systems and forms part of a series of complementary enclosures principally intended for sound contracting.

The THL-818.2 is designed for use in conjunction with the THL-811 mid-high modular loudspeaker, system control being achieved by the LMS-D6 or LMS-A6 loudspeaker management systems, which provide model-specific crossover and limiter functions.

The enclosure complement consists of a custom 18" low frequency driver loaded with a TurboBass™ device, producing high sound pressure levels with minimal distortion and power compression from a compact enclosure. The THL-818.2 is capable of producing outstanding electrical to

acoustic power conversion, and can produce peak sound pressure levels in excess of 138dB.

The cabinet is constructed from 3/4" (18mm) birch plywood and includes flush handles, loudspeaker access door, steel mesh grille and four heavy duty wheels. Rear-panel Neutrik Speakon NL4MP connectors provide input and parallel connections to the cabinet, which is finished in TurboBlue™ semi-matt textured paint. The THL-818.2 is dimensioned for optimum truck-pack, sharing with other Turbosound HiLight enclosures a common width of 22.5". The quasi-trapezoidal enclosure shape allows optimal coverage when used in stacked and arrayed configurations.

Recommended complementary products:

THL-811, THL-811S mid-high enclosures

THL-2, THL-2H full range enclosures

LMS-D6, LMS-D4 loudspeaker management systems



FEATURES

400 watt 18" loudspeaker

Compact enclosure

High efficiency

APPLICATIONS

Sound contracting

Discotheques and clubs

Mobile PA systems

DIMENSIONS (HxWxD)	631mm x 574mm x 718mm (24.8" x 22.6" x 28.3")
NET WEIGHT	55kg (121lbs)
COMPONENTS	1 x custom 18" (457mm) LF driver on a TurboBass™ device
FREQUENCY RESPONSE¹	55Hz - 180Hz ±4dB. Recommended operational range below 250Hz
POWER HANDLING	400 watts r.m.s., 800 watts program, 1000 watts peak
SENSITIVITY²	101dB, 1 watt @ 1 metre
MAXIMUM SPL	132dB continuous ³ , 138dB peak ⁴
CROSSOVER	Active: Recommended point at 180Hz (with THL-811), 24dB/octave low pass Linkwitz-Riley
NOMINAL IMPEDANCE	8 ohms
CONSTRUCTION	18mm birch plywood throughout; rebated, screwed and glued. Finished in TurboBlue™ semi-matt textured paint. Two recessed carrying handles
GRILLE	Cloth/expanded metal
CONNECTORS	Neutrik Speakon NL4-MP wired pin1+: positive, pin1-: negative
SPARES AND ACCESSORIES	LS-1809 18" (457mm) LF loudspeaker RC-1809 Recone kit for LS-1809 MG-818 Replacement cloth/expanded metal grille

Notes

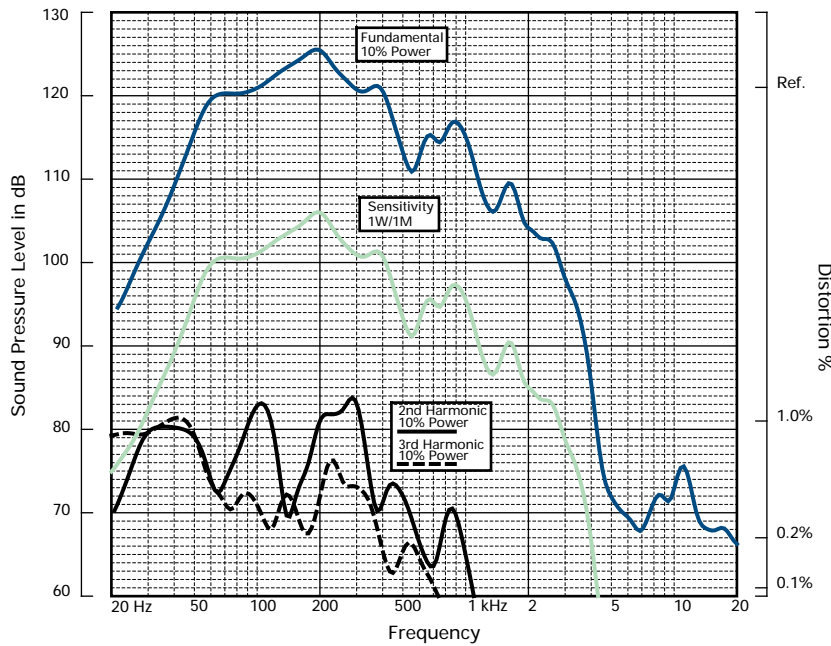
¹Measured on axis

²Average over stated bandwidth

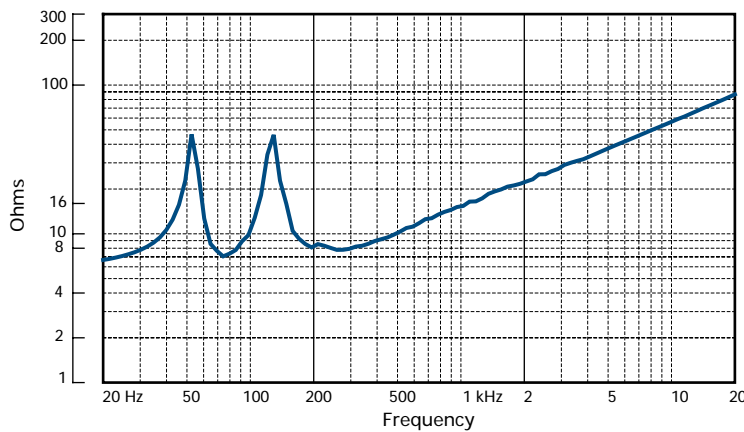
³Unweighted diode-clipped pink noise input. Measured in a half space environment

⁴Verified 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

**ARCHITECTURAL
& ENGINEER'S
SPECIFICATIONS**

The loudspeaker shall be of the low frequency type, consisting of one 18" (457mm) low frequency driver loaded with a TurboBass™ device. Performance specifications of a typical production unit shall be: Frequency response, measured with swept sine wave input, shall be flat within $\pm 4\text{dB}$ from 55Hz to 180Hz. Nominal impedance shall be 8 ohms. Power handling shall be 400 watts r.m.s., 800 watts program, 1000 watts peak. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 101dB. Maximum SPL (peak) measured with music program at stated amplifier power shall be 138dB. Dimensions: 631mmH x 574mmW x 718mmD (24.8" x 22.6" x 28.3"). Weight: 55kgs (121lbs). The loudspeaker shall be the Turbosound THL-818.2. 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

