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TCS-15M

TCS SERIES ENGINEERING INFORMATION

The TCS-15M is a passive two-way vented floor monitor designed for use in a variety of speech and music monitoring applications.

It consists of a 15" low frequency driver and a 1.5" high frequency compression driver matched with a third order internal passive crossover network in an optimally ported, 42° angle enclosure.

The TCS-15M enclosure has been designed with the high frequency horn mounted vertically in line with the LF driver. This produces a coherent dispersion pattern with minimum phase cancellation within the coverage pattern of the monitor. It is ideally suited for use as a church choir or theatre vocal monitor, or in other critical applications requiring accurate reproduction of voice and music. The HF horn pattern of 90° by 40° is wide enough to allow the artist considerable lateral freedom of movement on stage without loss of information.

The enclosure is constructed from 5/8" (15mm) birch plywood, heavily braced for maximum rigidity and durability. It is finished in black semi-matt textured paint although other finish options are available to order, including white, blue, and raw birch plywood ready for staining or painting on site. A black powder-coated steel mesh grille protects the drive units from damage. The cabinet is provided with two side mounted flush handles for easy carrying and handling.

Connection to the TCS-15M is via two Neutrik Speakon NL4MP connectors on a recessed panel. These are wired in parallel to allow loop-out connections to additional monitors.

FEATURES

Excellent feedback rejection

90° x 40° horn pattern

42° monitor angle

APPLICATIONS

Houses of worship

Theatres and clubs

Live band stage monitoring

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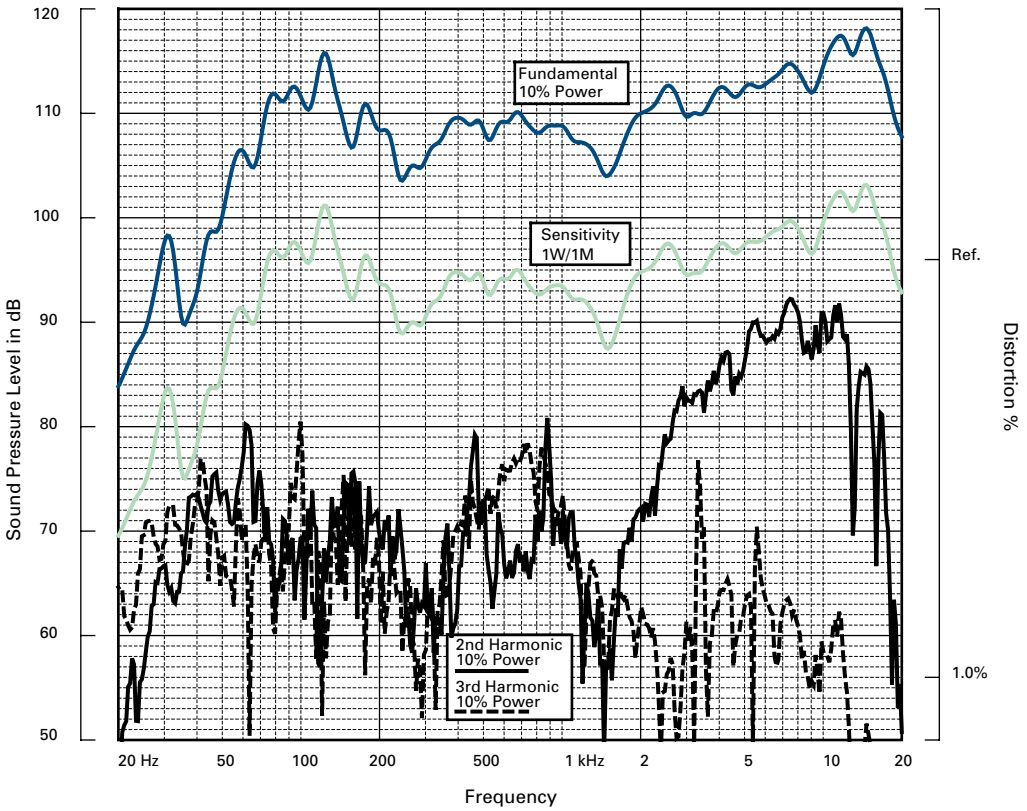
DIMENSIONS(HxWxD)	653mm x 442mm x 422mm (25.7" x 17.4" x 16.6")
NET WEIGHT	27 kg (59.4 lbs)
COMPONENTS	1 x 15" (381mm) LF driver, 1 x 1.5" (38mm) HF compression driver
FREQUENCY RESPONSE[1]	60Hz - 20kHz ±4dB
NOMINAL DISPERSION[2]	90˚H x 40˚V@-6db points
POWER HANDLING	340 watts r.m.s., 680 watts program, 850 watts peak Recommended amplifier power: 680 watts @ 8 ohms
SENSITIVITY[3]	96dB, 1W @ 1m
CALCULATED MAX SPL	124 dB continuous[4], 130dB peak[5]
CROSSOVER	Internal passive crossover at 2k2Hz
NOMINAL IMPEDANCE	8 ohms
CONSTRUCTION	15mm (5/8") birch plywood; rebated, screwed and glued. Finished in black semi-matt textured paint
GRILLE	Black powder coated perforated steel
CONNECTORS	Two Neutrik Speakon NL4MP, wired pin1+: positive, pin1-: negative
OPTIONS	Optional colours: blue, white, raw birch plywood
SPARES AND ACCESSORIES	LS-1516 15" (380mm) LF loudspeaker RC-1516 Recone kit for LS-1516 CD-108 1.5" (38mm) HF compression driver RD-108 Replacement diaphragm for CD-206 PX-15M Crossover assembly MG-15M Replacement perforated metal grille

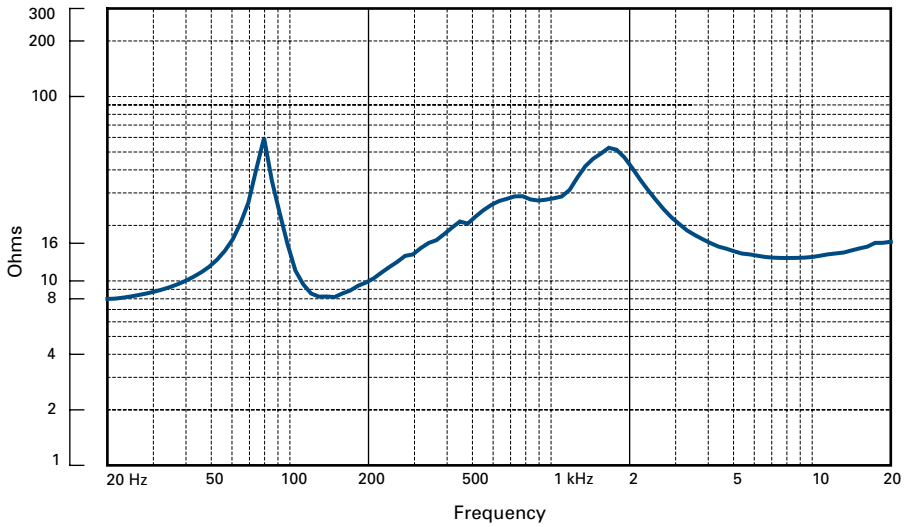
Notes

[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



NOTES ON MEASUREMENT CONDITIONS

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.

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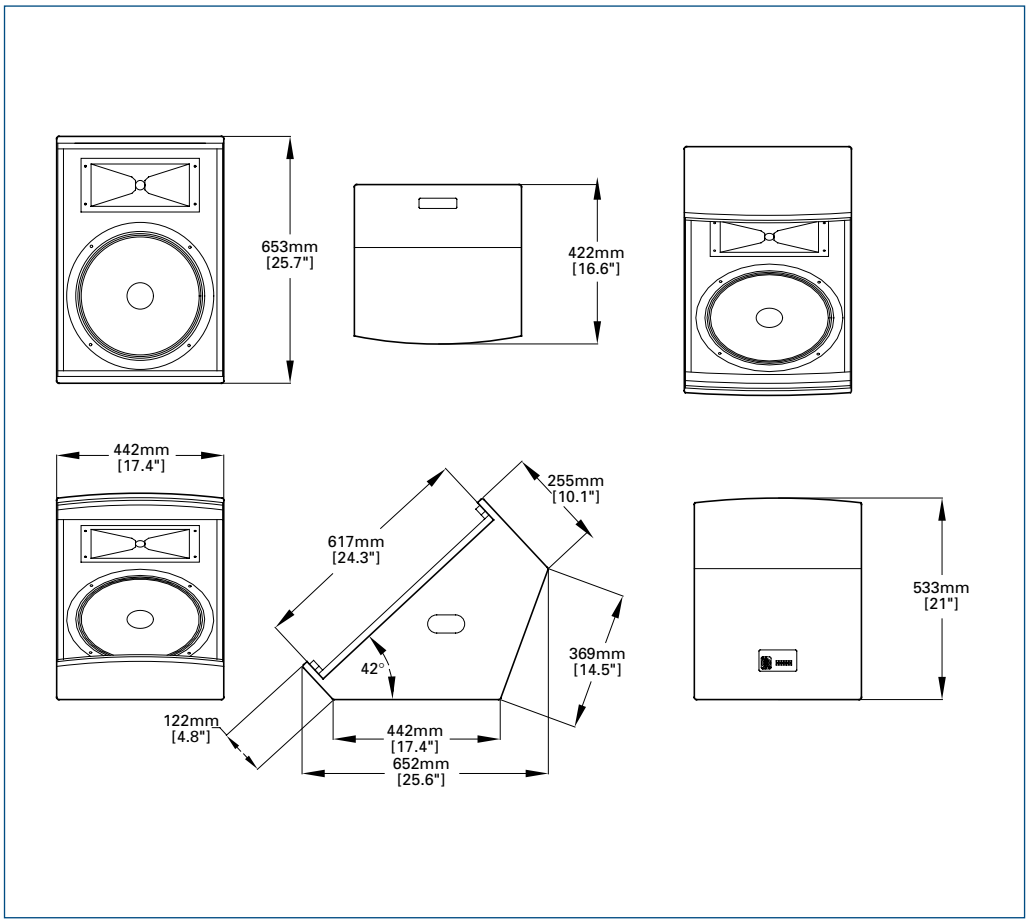
ARCHITECTURAL & ENGINEER'S SPECIFICATIONS

The speaker shall be of the two-way passive type consisting of one 15" (381mm) low frequency driver and one 1.5" (38mm) high frequency driver on a 90° x 40° horn. 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 60Hz - 20kHz ±4dB. Nominal dispersion, at -6dB points, shall average 90°H x 40°V. Nominal impedance shall be 8 ohms. Power handling shall be 340 watts r.m.s., 680 watts program, 850 watts peak. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 96dB. Maximum SPL (peak) measured with music program at stated amplifier input shall be 130dB. Dimensions: 653mmH x 442mmW x 422mmD (25.7"H x 17.4"W x 16.6"D) The loudspeaker system shall be the Turbosound TCS-15M. 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



Turbosound

TURBOSOUND Ltd Star Road Partridge Green West Sussex RH13 8RY England
tel: +44 (0) 1403 711447 fax: +44 (0) 1403 710155 • www.turbosound.com • e-mail: sales@turbosound.com