The TCS-56 is a passive full range tw o-w ay loudspeaker enclosure designed for use in primary speech and music sound reinforcement applications.

The loudspeaker complement consists of a custom front loaded 12 " low frequency driver and a $1^{\prime \prime}$ high frequency compression driver on a $60^{\circ} \times 40^{\circ}$ constant directivity horn, matched with an internal passive crossover network.

The large format constant directivity horn exhibits excellent pattern control down to crossover frequency, making the TCS-56 ideal for use in arrays.

The high frequency horn is designed to be removed and rotated through $90^{\circ}$, to suit
applications requiring a $60^{\circ} \times 40^{\circ}$ dispersion in a horizontal box format.

The trapezoidal enclosure is constructed from 5/8" ( 15 mm ) birch plywood, and incorporates M10 threaded internal steel rigging brackets which are designed to accept standard eyebolts and optional Turbosound mounting hardware, providing a simple and convenient method of flying the cabinet.

A rear panel connector plate carries a single Neutrik Speakon NL4MP and a 4-way terminal strip for loop in and loop out connections to additional enclosures.

Recommended complementary products:<br>TCS-40 dow nfill enclosure<br>TCS-108, TCS-215, TCS-118 subw oofer enclosures<br>LM S-D6, LM S-D4 loudspeaker management systems



FEATURES
Excellent pattern control
Rotatable HF horn
$60^{\circ} \times 40^{\circ}$ dispersion
High pow er handling

APPLICATIONS
FOH loudspeaker system
Houses of Worship
Corporate / industrial

| DIMENSIONS (HxWxD) | $700 \mathrm{~mm} \times 370 \mathrm{~mm} \times 389 \mathrm{~mm}\left(27.6^{\prime \prime} \times 14.6{ }^{\prime \prime} \times 15.3^{\prime \prime}\right)$ |
| :---: | :---: |
| NET WEIGHT | 22kgs (48.4lbs) |
| COM PONENTS | $1 \times$ custom $12^{\prime \prime}$ ( 305 mm ) LF driver, $1 \times 1^{\prime \prime}(25 \mathrm{~mm}) \mathrm{HF}$ driver on a custom flare |
| FREQUENCY RESPONSE¹ | $60 \mathrm{~Hz}-20 \mathrm{kHz} \pm 4 \mathrm{~dB}$ |
| NOMINAL DISPERSION ${ }^{2}$ | $60^{\circ} \mathrm{H} \times 40^{\text {V }}$ @-6db points |
| POWER HANDLING | 290 watts r.m.s., 580 watts program, 725 watts peak Recommended amplifier 580 watts @ 8 ohms |
| SENSITIVITY ${ }^{3}$ | 97dB 1 watt @ 1m |
| M AXIM UM SPL | 125 dB continuous ${ }^{4}$, 131 dB peak $^{5}$ |
| CROSSOVER | Internal passive crossover at 1k6Hz; 24dB/octave high pass, 12dB/octave low pass |
| NOMINAL IM PEDANCE | 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 | Neutrik Speakon NL4MP, wired pin1+: positive, pin1-: negative Four way terminal strip for loop in/loop out connection |
| FLYING HARDWARE | (9) M10 internal steel rigging points |
| OPTIONS | Optional colours: blue, white, raw birch plywood Rotatable HF horn |
| SPARES AND | LS-1213 12" (305mm) LF loudspeaker |
| ACCESSORIES | RC-1213 Recone kit for LS-1213 |
|  | CD-107 1" $(25 \mathrm{~mm}$ ) HF compression driver |
|  | RD-107 Replacement diaphragm for CD-107 |
|  | PX-56 Crossover assembly |
|  | MG-50 Replacement perforated metal grille |
|  | CB-100 Ceiling bracket |
|  | WB-100 Wall bracket |
|  | Notes <br> ${ }^{1}$ M easured on axis <br> ${ }^{2}$ Average over stated bandwidth <br> ${ }^{3}$ Average over stated bandwidth <br> ${ }^{4}$ Unw eighted diode-clipped pink noise. Measured in a half space environment <br> ${ }^{5}$ Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation |




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 ${ }^{T m}$. This program enables graphical information to be plotted to a high degree of accuracy.

FREQUENCY RESPONSE

IM PEDANCE

NOTES ON MEASUREMENT CONDITIONS




