

TCS SERIES ENGINEERING INFORMATION

The TCS-61 is an ultra compact passive two-way loudspeaker enclosure designed for use in a wide range of fixed installations.

It consists of a 6.5" reflex-loaded low frequency driver and a 1" high frequency compression driver on a rotatable 100°H x 60°V Converging Elliptical Waveguide™ in an optimally tuned enclosure. These high grade components are matched with an internal passive crossover to ensure a seamless transition between the HF and LF drivers.

The cabinet is constructed from 12mm (1/2") birch plywood, screwed and glued together for maximum rigidity, with a powder-coated steel mesh grille backed with reticulated foam. The double trapezoidal shape allows it to be tight packed with other TCS series cabinets.

Multiple rigging points, supported by internal steel flying strips, are provided on

the top, bottom, sides and rear of the cabinet to enable the TCS-61 to be suspended and angled in permanent installations using M8 shoulder eyebolts. The enclosure is also fitted with internal rigging points for use with Turbosound and OmniMount™ wall and ceiling brackets.

A Neutrik® Speakon NL4MP input connector is located on the rear panel, while a 4-way barrier strip provides input and loop-through connections to additional TCS series cabinets.

The TCS-61 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 with stainless steel grille, weatherproof paint finish and captive cable gland, enabling use outdoors and in humid conditions.



FEATURES

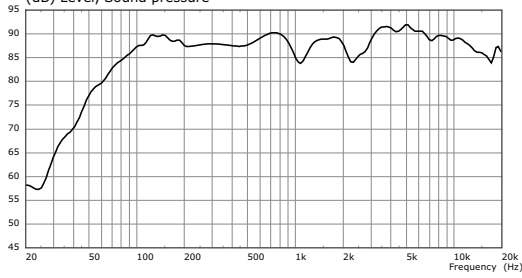
- Ultra compact enclosure**
- Double trapezoidal shape**
- Converging Elliptical Waveguide™**
- Rotatable HF pattern**
- Multiple rigging points**
- Passive crossover**
- Custom colour option**
- IP54 weather-resist option**

APPLICATIONS

- Fixed installations**
- Pubs, clubs and bars**
- Music venues**
- Delay rings**
- Under-balcony**
- Stadia and Arenas**
- Public Address**
- Voice Alarm**
- Houses of Worship**

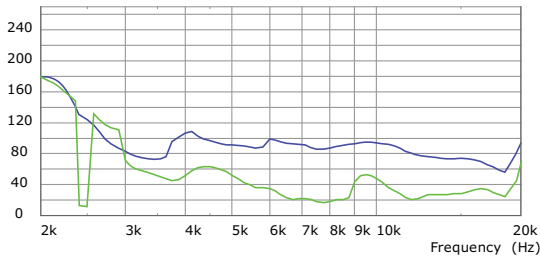
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|-------------------------------|--|----------|--------------------------|
| DIMENSIONS (HxWxD) | 238mm x 403mm x 190mm (9.4" x 15.9" x 7.5") | | |
| NET WEIGHT | 7kg (15.4lbs) | | |
| COMPONENTS | 1 x 6.5" (165mm) LF driver, 1 x 1" (25mm) HF driver on a Converging Elliptical Waveguide™ | | |
| FREQUENCY RESPONSE | 70Hz - 20kHz ±3dB; 50Hz - 20kHz ±10dB | | |
| NOMINAL DISPERSION | 100°H x 60°V @ -6dB points | | |
| POWER HANDLING | 175 watts r.m.s., 350 watts program | | |
| SENSITIVITY | 88dB, 1 watt @ 1 metre | | |
| MAXIMUM SPL | 110dB continuous, 116dB peak | | |
| NOMINAL IMPEDANCE | 8 ohms | | |
| CROSSOVER | Internal fourth order passive network at 2kHz | | |
| CONSTRUCTION | 12mm (1/2") birch plywood. Finished in black or white semi-matt textured paint. | | |
| GRILLE | Powder-coated perforated stainless steel with foam backing | | |
| CONNECTORS | (1) Neutrik® Speakon NL4MP, wired pin1+: positive, pin 1-: negative, pins 2+ and 2- N/C (1) 4-way barrier strip connector | | |
| OPTIONS | Optional finishes: white and custom colours. IP54 weather-resistance: stainless steel grille, black or white weatherproof paint finish, captive cable with cable gland | | |
| FLYING HARDWARE | (8) M8 internal rigging points with internal flying strips for M10 eyebolts (4) M8 internal rigging points for WB-20 and CB-55 brackets (2) M6 internal rigging points for OmniMount™ 20.5 series brackets | | |
| SPARES AND ACCESSORIES | LS6508 | LS-6508 | LF loudspeaker |
| | 04A9295 | CD-115 | HF compression driver |
| | 05B9305 | RD-115 | Replacement HF diaphragm |
| | 10G1120 | PX-TCS61 | Passive crossover |
| | 07B810 | WB-20 | Wall bracket |
| | 07B840 | CB-55 | Ceiling bracket |
| | 07B392 | EB-10/18 | M10x18mm eyebolt |

TCS-61 Sensitivity, 1w@1m
(dB) Level, Sound pressure

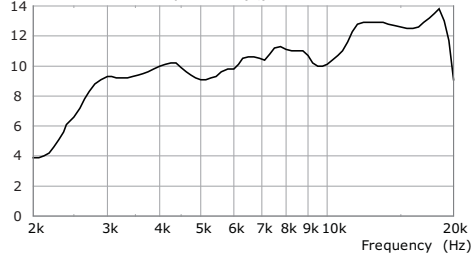


FREQUENCY RESPONSE

TCS-61 Beamwidth

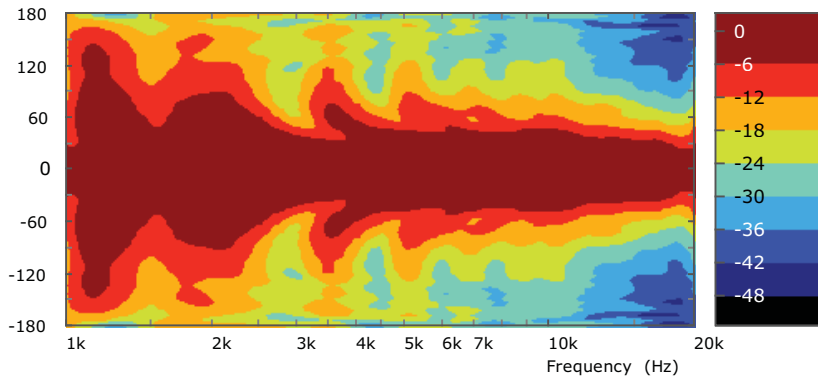


TCS-61 Directivity Index (Q)



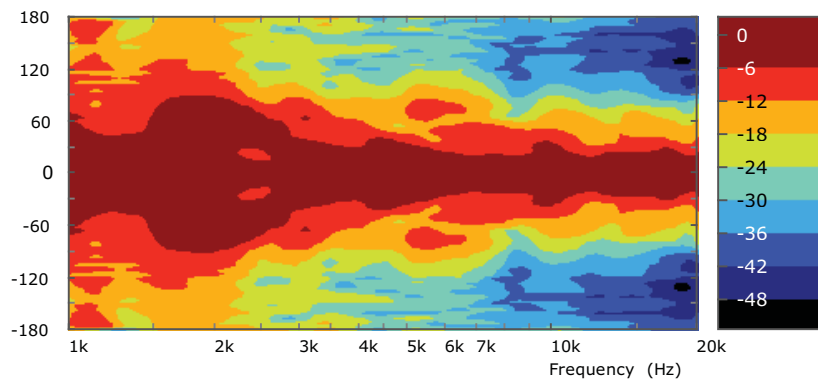
BEAMWIDTH AND DIRECTIVITY

TCS-61 Horizontal Mapping



CONTOUR MAPS

TCS-61 Vertical Mapping



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

NOTES ON MEASUREMENT CONDITIONS

**INSTALLATION
HARDWARE**

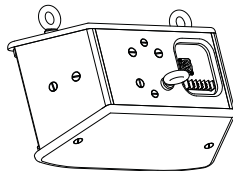
The cabinet is equipped with internal M8 rigging points on the top, bottom, sides and rear which enable it to be rigged in permanent installations using M8 shoulder eyebolts. A pull-back rigging point on the rear of the cabinet is used to adjust the downward angle.

M8 rigging points are provided on the rear panel for use with WB-20 wall brackets and CB-55 ceiling brackets, and for use with OmniMount™ brackets.

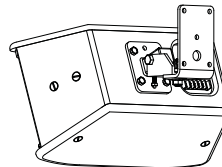
The SB-61 swivel bracket can be used to mount directly to a ceiling, or truss-mounted with the optional SC-01 scaffold clamp, or used underneath the TCS-152 or TCS-1561 in a downfill application.

The ICC-61 cabinet coupler allows the TCS-61 to be tight-packed underneath the TCS-122 in a downfill application.

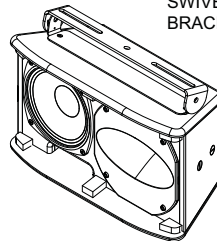
M8 EYEBOLTS



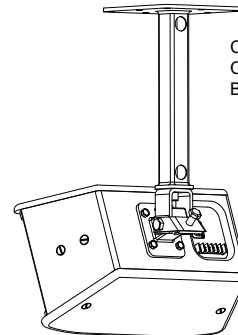
WB-20
WALL BRACKET



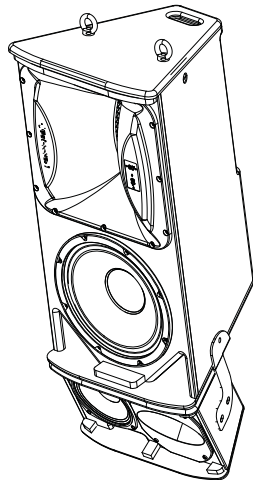
SB-61
SWIVEL
BRACKET



CB-55
CEILING
BRACKET



ICC-61
DOWNFILL
BRACKET
(FOR USE
WITH TCS-122)



**ARCHITECTURAL
& ENGINEER'S
SPECIFICATIONS**

The loudspeaker system shall be of the passive two-way type comprising: one 6.5" (165mm) low frequency driver and one 1" (25mm) high frequency driver on a rotatable Converging Elliptical Waveguide™. Performance specifications of a typical production unit shall meet or exceed the following: frequency response, measured with a swept sine wave input shall be flat within $\pm 3\text{dB}$ from 70Hz to 20kHz, and within $\pm 10\text{dB}$ from 50Hz to 20kHz. Dispersion shall average $100^\circ\text{H} \times 60^\circ\text{V}$. Nominal impedance shall be 8 ohms. Power handling shall be 175 watts r.m.s., 350 watts program. Sensitivity measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth shall be 88dB. Maximum SPL (peak), measured with music program shall be 116dB. Dimensions: 238mm x 403mm x 190mm (9.4" x 15.9" x 7.5"). Weight: 7kg (15.4lbs). The loudspeaker system shall be the Turbosound TCS-61. No other system shall be acceptable unless the above combined performance specifications are equalled or exceeded. Rigging hardware shall be available comprising a range of load-certified components.

DIMENSIONS

