

TCS Compact INSTALLATION SERIES



 **Turbosound®**

Purpose-designed for your next project

The new Turbosound TCS Compact series of installation loudspeaker products brings the world of high quality audio performance to an extensive range of permanently installed sound systems—with a heritage derived from providing concert sound for world class artists such as Robbie Williams, Jamiroquai, Pink Floyd, Dire Straits, Oasis, The Shadows, Nine Inch Nails, Natasha Bedingfield and many more over more than two decades of professional sound reinforcement.

The TCS Compact series offers a comprehensive selection of useful features designed to closely match the many and diverse requirements of different installations, ranging from small entertainment venues up to large civic buildings and projects.

A Rainbow of Colours

TCS Compact loudspeakers are designed to provide great sound coupled to an architecturally unobtrusive appearance. In order to allow the loudspeakers to blend successfully into various environments, Turbosound



offers an extensive package of finish options.

In addition to the standard black or white textured paint finishes, cabinets can also be supplied in raw plywood for decor matching or colour staining on-site. To further extend the products' adaptability,

we also offer a wide range of custom colours to customer-supplied RAL equivalent. The TCS Compact's discreet and aesthetically pleasing appearance is further enhanced by the gently curved perforated metal grilles which feature acoustically-transparent reticulated foam or acoustic cloth backing.

Multiple Rigging Options

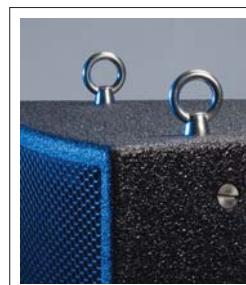
TCS Compact loudspeaker models are equipped with multiple internal rigging points to enable them to be quickly and securely installed in a venue. These are designed for use with an extensive range of Turbosound

wall and ceiling brackets, as well as being compatible with OmniMount™ mounting hardware. Additional rigging points located on the top, bottom, sides and back of the cabinets can also be used in conjunction with readily-available standard M10 shoulder eyebolts for simple suspension in buildings equipped with ceiling rigging facilities. These allow the loudspeakers to be suspended vertically, horizontally or even upside down if required.



Protection from the Elements

For outdoor applications or for use in humid indoor conditions such as swimming pools or ice rinks—and available as an option on all models—our IP54-rated weather-resistant specification goes further than most in helping to protect the speakers from the elements. Over and above the marine-grade birch plywood used as standard throughout the range, cabinets are internally sealed with a moisture-resistant compound, then



externally sprayed with an extremely tough polyurethane coating. In addition to sealing the speaker cones with silicon waterproofing agent, we use stainless steel fixings throughout and stainless steel grilles to prevent any possibility of rust. Together with the sealed cable-entry gland and tail, this treatment makes weather-resistant TCS Compact products effectively protected from moisture in an outdoor environment.



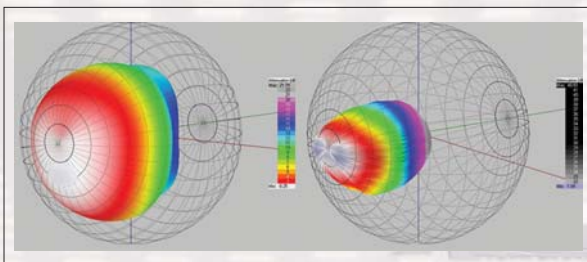
Get Connected

Secure and reliable connections to the loudspeaker are crucial if the sound system is expected to perform dependably for an extended period of time. With that in mind we have provided both four-way barrier strip

terminals—for use with un-terminated cable—and a Speakon NL4 connector wired in parallel for those slightly less permanent situations. Weather-resistant versions are fitted with a weather-proofed cable gland in place of the standard Speakon/barrier strip plate.

Acoustic Simulation

Installation projects are more likely to go to plan when you have a reliable indicator in advance of how the speaker system will perform in the venue. The sound system designer's job is now made a whole lot easier because TurboSound supplies up-to-date EASE data for TCS Compact products. Using the industry-standard EASE (Enhanced Acoustic Simulation for Engineers) sound modelling software, the system designer is able to input speaker locations and room details to obtain the expected room coverage. EASE data for TCS Compact products is available 24/7 from www.turbosound.com.



▲ EASE balloons

Features

- Marine grade birch plywood enclosures
- Durable black or white textured paint finish
- Latest version EASE data available
- TurboSound wall and ceiling brackets
- Multiple M10 internal rigging points
- IP54 weather-resistant options on all cabinets
- Custom colours available to RAL specification
- Optional 70 volt or 100 volt line transformers
- OmniMount™ hardware compatible
- Speakon NL4MP and 4-way barrier strips

System Control

While passive TCS Compact loudspeaker systems can be sufficient for many smaller installations, they may also be used in bi-amped systems with bass cabinets, or can be configured with LMS-D24 or LMS-D26 Loudspeaker Management Systems to provide signal distribution in larger multi-zone venues. These audiophile-quality controllers feature 96kHz sample rates, and provide factory pre-set crossover, alignment and limiting parameters which can be recalled from a menu via an intuitive user interface at the touch of a button.

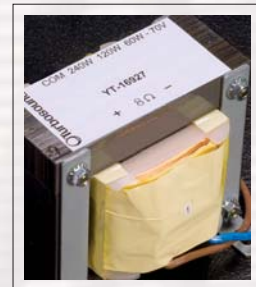


▲ LMS-D24 and LMS-D26

Distributed Systems

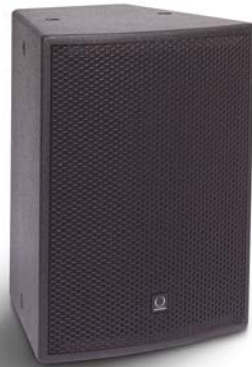
Larger commercial projects may require a sufficiently large number of loudspeaker units to warrant the implementation of a 100 volt line (Europe) or 70 volt line (USA) distributed system.

TurboSound offers high power line transformer options on two-way products, fitted internally to the cabinet and provided



with convenient level taps on the rear panel connector plate, and these will integrate easily into any large scale distributed sound system. The transformers are specified with a wide frequency response and low saturation to ensure no appreciable loss of sound quality.

TCS-081C



The TCS-081C is a 400w (program) passive near-field design consisting of an 8" LF driver and a 1" HF compression driver on a wide dispersion Converging Elliptical Waveguide™ HF horn.

Its compact size and trapezoidal shape make it ideal for bars or secondary zones of larger nightclubs, and for corporate applications. The TCS-081C can be simply suspended using standard M10 eyebolts, and rigging points are included for use with Turbosound wall and ceiling brackets, and with OmniMount™ 30 series brackets.

The TCS-081C provides a wide horizontal dispersion pattern designed to give even coverage with a minimal number of cabinets. It features a high frequency protection circuit built into the crossover network which automatically attenuates the signal to the compression driver should it approach or exceed potentially damaging levels, and this contributes to the long term reliability of the loudspeaker. The rear panel carries a single Neutrik Speakon NL4MP speaker connector and a four-way barrier strip connector for input and parallel connections to additional TCS Compact series cabinets.

technical specifications

- **frequency range** 70Hz - 20kHz ±4dB
- **power handling** 200 watts r.m.s., 400 watts program
- **sensitivity (1w@1m)** 93dB
- **maximum SPL** 116dB cont., 122dB peak
- **dispersion (av.)** 100°H x 60°V @-6dB points
- **impedance (nom.)** 8 ohms
- **dimensions (hwxwd)** 415mm x 308mm x 270mm
- **net weight** 12kg (26.4lbs)





TCS-101C



The TCS-101C is an all-purpose full-range loudspeaker designed for near-field contracting applications. Rated at 500 watts (program) it features a 10" LF driver and a 1" HF compression driver on a wide dispersion HF horn.

Delivering impressive SPL and wide response from a compact trapezoidal enclosure, the TCS-101C benefits from a rotatable Converging Elliptical Waveguide™ which allows it to be installed horizontally while retaining the wide 100°H x 60°V coverage pattern. The TCS-101C is recommended for small bars and clubs, and also for under-balcony or delay speaker duties.

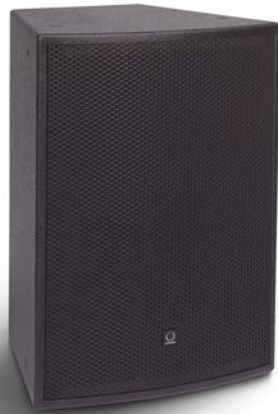
The drive units are matched with a passive crossover incorporating a high frequency protection circuit. The enclosure is equipped with internal rigging points for use with Turbosound and Omnimount™ wall and ceiling brackets. It can also be simply suspended in a venue using standard M10 eyebolts.

Loudspeaker connections are via a single Neutrik Speakon NL4MP speaker connector and a four-way barrier strip, enabling input and parallel connections to additional TCS Compact series cabinets.

technical specifications

- **frequency range** 65Hz - 20kHz ±4dB
- **power handling** 250 watts r.m.s., 500 watts program
- **sensitivity (1w@1m)** 95dB
- **maximum SPL** 119dB cont., 125dB peak
- **dispersion (av.)** 100°H x 60°V @-6dB points
- **impedance (nom.)** 8 ohms
- **dimensions (hwxwd)** 508mm x 366mm x 319mm
- **net weight** 16.5kg (36.3lbs)

TCS-121C



The TCS-121C is the ideal general-purpose loudspeaker with a wide frequency response, suitable for all kinds of mid-field theatre and live venue applications that require professional sound quality.

It consists of a 600 watt (program) 12" reflex-loaded LF driver and a 1" HF compression driver on a 70°H x 40°V HF horn in a trapezoidal birch plywood enclosure. The components are matched with a passive crossover with integrated HF protection designed to protect the compression driver from accidental damage due to overload.

Multiple rigging points are included for use with M10 eyebolts, allowing the cabinet to be suspended and angled in permanent installations. Rigging points are also included for use with Turbosound wall and ceiling brackets, and OmniMount™ brackets.

Amplifier connections are provided via a Neutrik Speakon NL4MP and a four-way barrier strip connector, giving input and parallel connections to additional TCS Compact loudspeakers.

technical specifications

- **frequency range** 60Hz - 20kHz ±4dB
- **power handling** 300 watts r.m.s., 600 watts program
- **sensitivity (1w@1m)** 97dB
- **maximum SPL** 122dB cont., 128dB peak
- **dispersion (av.)** 70°H x 40°V @-6dB points
- **impedance (nom.)** 8 ohms
- **dimensions (hwxwd)** 553mm x 407mm x 352mm
- **net weight** 19kg (41.8lbs)





TCS-151C



The larger cabinet of the TCS-151C delivers really solid low end performance from a trapezoidal cabinet, so that in most mid-field applications it can be used as a stand-alone full-range loudspeaker.

It consists of a front loaded 15" LF driver and a 1" HF compression driver on a 70°H x 40°V HF horn, giving wide and even sound coverage of any venue or outdoor space. The TCS-151C includes a passive crossover network with high frequency protection circuit to prevent damage to the compression driver due to overdriving.

Rigging points are provided on the cabinet for use with Turbosound or OmniMount™ wall and ceiling brackets. M10 rigging points are also provided on the top, bottom, sides and back for use with M10 shoulder eyebolts, allowing the cabinet to be suspended vertically or horizontally in permanent installations.

Speakon NL4MP and a four-way barrier strip connectors are located on the rear panel for input and loop out connections.

technical specifications

- **frequency range** 45Hz - 20kHz ±4dB
- **power handling** 300 watts r.m.s., 600 watts program
- **sensitivity (1w@1m)** 99dB
- **maximum SPL** 124dB cont., 130dB peak
- **dispersion (av.)** 70°H x 40°V @-6dB points
- **impedance (nom.)** 8 ohms
- **dimensions (hwxwd)** 652mm x 468mm x 423mm
- **net weight** 25.5kg (56.1lbs)

TCS-115C

Where extended bass response is required, the TCS-115C is the ideal sub-bass complement for TCS-081C two-way enclosures.

Consisting of a 600 watt (program) reflex-loaded 15" low frequency driver in an optimally tuned enclosure, the TCS-115C delivers solid and punchy low frequency energy from a compact cabinet that can easily be fitted into confined spaces. It uses the same LF driver as, and can be freely mixed in installations with, the TCS-215C. Rigging points are fitted to all sides to allow it to be simply suspended in an installation using M10 eyebolts, and input and link connections are provided via Speakon NL4MP and four-way barrier strip connectors.

technical specifications

- **frequency range** 43Hz - 150Hz \pm 4dB
- **power handling** 300 watts r.m.s., 600 watts program
- **sensitivity (1w@1m)** 96dB
- **maximum SPL** 121dB cont., 127dB peak
- **impedance (nom.)** 8 ohms
- **dimensions (hxwxd)** 652mm x 465mm x 423mm
- **net weight** 25kg (55lbs)

TCS-215C

The TCS-215C is a high power double 15" bass cabinet which will give substantial and punchy bass output when used as part of a two-way installed sound system.

It consists of two 600 watt (program) 15" high power reflex-loaded low frequency drivers in an enclosure that can be used with any combination of TCS Compact series two-way enclosures in bi-amplified systems together with Turbosound LMS series controllers. Each 15" driver is housed in its own optimally tuned compartment within the enclosure, and is the same as that used in the TCS-115C, allowing both models to be freely mixed and matched in a venue. Includes M10 rigging points.

technical specifications

- **frequency range** 40Hz - 150Hz \pm 4dB
- **power handling** 600 watts r.m.s., 1200 watts program
- **sensitivity (1w@1m)** 99dB
- **maximum SPL** 127dB cont., 133dB peak
- **impedance (nom.)** 4 ohms
- **dimensions (hxwxd)** 891mm x 550mm x 506mm
- **net weight** 47kg (103.4lbs)





TCS-118C

The TCS-118C is a front-loaded single 18" low frequency enclosure designed to give sub-bass reinforcement to TCS Compact series two-way enclosures in a wide variety of fixed installations.

It consists of a high-excursion 18" reflex-loaded low frequency driver in an optimally tuned enclosure designed for extended low frequency response. It becomes an ideal partner for TCS compact series two-way enclosures, and will deliver high SPL at low frequencies, when used as part of a bi-amplified system in conjunction with Turbosound LMS series controllers. The TCS-118C uses the same drive units as the larger TCS-218C, and so can be freely mixed in venues.

technical specifications

- **frequency range** 36Hz - 150Hz \pm 4dB
- **power handling** 300 watts r.m.s., 600 watts program
- **sensitivity (1w@1m)** 98dB
- **maximum SPL** 123dB cont., 129dB peak
- **impedance (nom.)** 8 ohms
- **dimensions (hxwxhd)** 652mm x 540mm x 484mm
- **net weight** 30kg (66lbs)

TCS-218C

The TCS-218C provides deep and punchy bass (down to 36Hz) suitable for all club applications as part of an active two-way TCS Compact system.

It consists of two 600 watt (program) reflex-loaded 18" low frequency drivers. The enclosure tuning ensures that it performs identically to a pair of TCS-118C enclosures, providing deep and powerful low frequency response; this allows the units to be freely mixed in installations.

Internal rigging points are provided on all sides of the cabinet for suspending enclosures in installations using M10 shoulder eyebolts. Speakon NL4 and barrier strip connectors are located on the rear panel for input and link connections.

technical specifications

- **frequency range** 36Hz - 150Hz \pm 4dB
- **power handling** 600 watts r.m.s., 1200 watts program
- **sensitivity (1w@1m)** 101dB
- **maximum SPL** 129dB cont., 135dB peak
- **impedance (nom.)** 4 ohms
- **dimensions (hxwxhd)** 1035mm x 602mm x 532mm
- **net weight** 54.5kg (119.9lbs)

Mounting and fixing hardware

TCS Compact cabinets are fitted with a variety of internal rigging options covering several different methods of mounting in permanent installations.

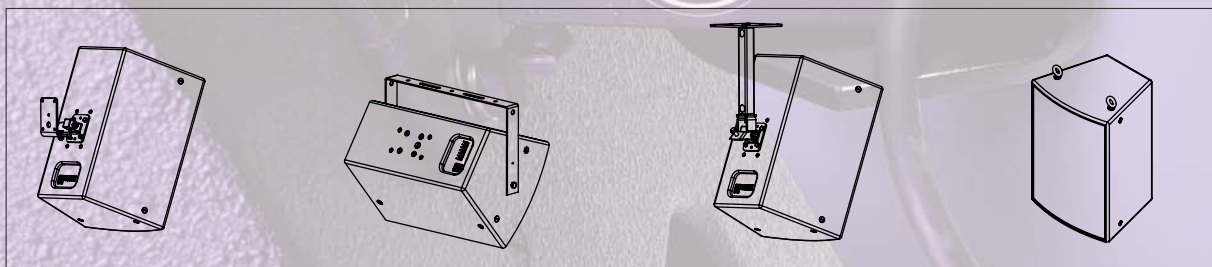
M10 Eyebolt fixing: M10 rigging points are located on the top, bottom and sides of all TCS Compact series cabinets, together with a single M10 rigging point near the middle of the back panel which is used for setting the downward inclination. These are designed for use with M10 shoulder eyebolts for suspending cabinets in permanent installations.

Wall and ceiling brackets: a range of Turbosound wall and ceiling brackets is available to cover different weights and cabinet sizes. These consist of separate wall, ceiling and speaker plates, allowing the wall plate to be positioned and fixed independently of the speaker. They provide an

effective range of horizontal and vertical angle adjustment to suit any requirement. TCS Compact enclosures are also compatible with OmniMount™ wall and ceiling brackets.

Swivel bracket: the TCS-101C is equipped with the facility to mount the cabinet to walls or ceilings vertically or horizontally with SB-101 swivel brackets. This simple method provides a wide range of downward angles and allows the rotatable HF horn to be orientated to suit the coverage requirements of the venue.

Specialist brackets: Turbosound also offers a neoprene-insert isolating wall bracket offering a higher degree of sound isolation. This is useful for venues with structure-borne transmission of low frequencies, effectively eliminating steel-to-steel contact in the bracket.



TCS-121C with WB-20 wall bracket

TCS-101C with SB-101 swivel bracket

TCS-121C with CB-55 ceiling bracket

TCS-121C with M10 eyebolts

Options

IP54 specification: Turbosound offers a weather-resistant finish option to an IP rating of 54, which allows cabinets to be installed in humid conditions or outdoors. The specification is designed to a stringent standard and includes the following detail:

- cabinets are constructed from marine-grade birch plywood, internally sealed and externally sprayed with a tough polyurethane finish
- the loudspeaker cones themselves are treated with a silicon waterproofing agent
- stainless steel fasteners are used throughout the product to avoid any possibility of rust
- in place of the standard NL4/barrier strip plate, connections are made with an exterior grade cable tail via an IP54-rated cable gland on an aluminium plate.
- Turbosound supplies optional stainless steel eyebolts

Distributed systems: TCS Compact series loudspeakers are available with optional 70v or 100v line transformers.

Custom colour options: TCS Compact loudspeakers can be made to order in a virtually unlimited range of colour finishes to a RAL specification. Please consult your Turbosound dealer for further details of colour options.

The above options can be applied individually or even combined together if required.



Technical specifications

	TCS-081C	TCS-101C	TCS-121C	TCS-151C	TCS-115C	TCS-118C	TCS-215C	TCS-218C
Frequency range (± 4 dB)	70Hz - 20kHz	65Hz - 20kHz	60Hz - 20kHz	45Hz - 20kHz	43Hz - 150Hz	36Hz - 150Hz	40Hz - 150Hz	36Hz - 150Hz
Power handling (rms)	200 watts	250 watts	300 watts	300 watts	300 watts	300 watts	600 watts	600 watts
Power handling (program)	400 watts	500 watts	600 watts	600 watts	600 watts	600 watts	1200 watts	1200 watts
Rec. amplifier power/ch	400 watts @ 8 Ω	500 watts @ 8 Ω	600 watts @ 8 Ω	600 watts @ 8 Ω	600 watts @ 8 Ω	600 watts @ 8 Ω	1200 watts @ 4 Ω	1200 watts @ 4 Ω
Sensitivity (1w @ 1m)	93dB	95dB	97dB	99dB	96dB	98dB	99dB	101dB
Maximum SPL (cont.)	116dB	119dB	122dB	124dB	121dB	123dB	127dB	129dB
Maximum SPL (peak)	122dB	125dB	128dB	130dB	127dB	129dB	133dB	135dB
Dispersion (av) @-6dB	100°H x 60°V	100°H x 60°V	70°H x 40°V	70°H x 40°V	n/a	n/a	n/a	n/a
Nominal impedance	8 ohms	8 ohms	8 ohms	8 ohms	8 ohms	8 ohms	4 ohms	4 ohms
Crossover frequency	3kHz	2.2kHz	1.8kHz	1.8kHz	recommended crossover frequency at 125Hz, 24dB/octave, LR			
Dimensions (mm) (HxWxD)	415 x 308 x 270	508 x 366 x 319	553 x 407 x 352	652 x 468 x 423	652 x 465 x 423	652 x 540 x 484	891 x 550 x 506	1035 x 602 x 532
Dimensions (ins) (HxWxD)	16.3 x 12.1 x 10.6	20 x 14.4 x 12.5	21.8 x 16 x 13.9	25.7 x 18.4 x 16.7	25.7 x 18.3 x 16.7	25.7 x 21.3 x 19.1	35.1 x 21.7 x 19.9	40.7 x 23.7 x 20.9
Net weight (kg)	12	16.5	19	25.5	25	30	47	54.5
Net weight (lbs)	26.4	36.3	41.8	56.1	55	66	103.4	119.9
Rigging points	4xM6 9 x M10, 4 x M8	4xM6 11 x M10, 4 x M8	4xM6 9 x M10, 4 x M8	9 x M10, 8 x M8	9 x M10	9 x M10	9 x M10	9 x M10
Connectors	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip	NL4MP 4-way barrier strip
Options	The standard cabinet finish is black or white semi-matt textured paint; raw plywood and custom colours are available to order. 70 volt / 100 volt line transformers optionally available (2-way models only). IP54 weather-resistant option on all cabinets.							

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