

TAD

TECHNICAL AUDIO DEVICES LABORATORIES, INC.

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TAD

TAD Compact Reference



TZC002

Crystallization of the point-source sound idea achieves one more zenith.

With the TAD Reference One, TAD gained the wholehearted trust and respect of many of the world's top artists and engineers. As the final goal of the point-source sound idea, it was created by merging advanced technologies with our engineers' experience in order to achieve the ideal sound in a dwelling space. Now we have reached a new zenith with the TAD Compact Reference, which takes advantage of all of the top-level technologies that went into the flagship models. Our objective was to achieve, in a compact size, point-source sound of such high quality that listeners will forget about the existence of the speaker. Its extraordinarily resonant sound will surely exceed your expectations.

TAD's pursuit of the ideal point-source sound achieves another milestone. Our coaxial CST Driver speakers, which received widespread recognition with the TAD Reference One, provide a solution for turning our unique sound theory into reality. The TAD Compact Reference is a speaker unit of unlimited possibilities in a system with optimally compact construction, an ideal form for achieving point-source sound.

The refined CST Driver achieves wide-range reproduction and superior directivity control.

The CST (Coherent Source Transducer) is an advanced coaxial speaker designed to achieve a sophisticated balance of atmosphere and fidelity, controlling the driver unit's phase and directivity over a wide reproduction range. A design based on detailed calculations gives the midrange cone superior acoustic characteristics, and uses a concentric configuration to control the directivity of the tweeter. This unifies the acoustic center of the tweeter and midrange, reconciling phase and directional characteristics through the crossover range. The resulting ultra wide range reproduction from 250Hz to 100kHz is accompanied by a directivity pattern that neatly dampens across all bands without disruption. This culminates in extremely clear and stable imaging with a wide frequency response and incredibly rich,

TAD's traditional vapor deposition technique achieves the ideal defense against vibration: the beryllium diaphragm.

The tweeter dome and midrange cone are constructed of beryllium, whose light weight and rigid properties make it perfectly suited for mid to high level vibration resistance. The vapor deposition technique developed by TAD and refined over a long period of time provides strength and uniformity that achieves a new level of quality in a cone with high internal loss that excels at reducing high-frequency vibrations. The shape of the tweeter is optimized through a computer analysis process known as HSDOM (Harmonized Synthetic Diaphragm Optimum Method), ensuring control of differential vibration and response to as high as 100kHz. The large midrange cone features a direct radiation, vapor deposition beryllium diaphragm, providing sound that is astonishingly transparent, direct



ISO drive technology draws out the full potential of the CST Driver.

In order to maximize the performance of the CST Driver and preserve accurate sound reproduction, TAD's ISO (isolation) technology includes a mechanism to prevent driver unit vibration from entering the enclosure by structurally separating the CST Driver from the enclosure. Thanks to this unique construction, the CST Driver is isolated from powerful low frequency vibrations, and its considerable drive capability is prevented from exciting the enclosure, thus reducing the radiation of secondary sound to deliver clear and precise sound reproduction. Achieving the ideal point-source sound, only sound radiated from the CST Driver diaphragm reaches the listener, allowing for minute differences in sound and strength to be conveyed in precise detail.

A speaker capable of conveying all the subtle nuances of the artist's performance and expressiveness.

TAD Compact Reference

Embodying the skills of master craftsmen who pay obsessive attention to every minute detail and allow no compromise.



Low loss, high linearity and a powerful motor system. The 20cm (8.0 in.) bass driver reproduces waveforms with consistent accuracy.

The bass driver was designed to achieve total linearity of the magnetic circuit, diaphragm and suspension. The magnetic circuit features our unique short voice coil OFGMS (Optimized Field Geometry Magnet Structure). With a long gap of 20mm (0.8 in.), it linearizes the magnetic flux density along the gap. This stabilizes drive performance from small to large amplitudes, achieving high linearity and consistently accurate waveform reproduction. The TLCC (Tri-Laminate Composite Cone) aramid diaphragm has a triple-laminated construction that provides near ideal physical properties. It delivers rich and clear low-bass with a mid-bass free of coloration. The suspension system employs TAD's traditional corrugated edge, further contributing to the high linearity.



Bass driver unit

Aerodynamic port system employs TAD horn fluid design technology.

In order to make the most of the linear performance of the 20cm (8.0 in.) bass driver and its suspension, the bass reflex port is aerodynamically optimized based on precise fluid design technology refined by TAD professionals. This flare-shaped port produces absolutely no air noise or rectification effects, even when the bass driver unit is driven at the limit of its excursion range, achieving deep, clear bass.

SILENT cabinet combines extreme strength with gracefully flowing elegance.

The SILENT (Structurally Inert Laminated Enclosure Technology) cabinet, inherited from the TAD Reference One, is a compact 63cm (25 in.) in height. It has a strong internal framework formed by 21mm (0.9 in.) thick CNC machined birch plywood clad with high frequency hot press formed laminated MDF panels, resulting in extremely high strength. The 27.5mm (1.1 in.) thick aluminum base lowers the center of gravity and stabilizes the cabinet against the forces generated by the powerful bass driver motor system. Combining differing materials in this way both distributes and minimizes the enclosure resonances and achieves high vibration control. Its flowing teardrop shape minimizes sound diffraction and unwanted resonance from internal standing waves. With a beautiful piano-like finish of natural Pommele Sapele wood, the cabinet imparts an air of elegant craftsmanship.



The TAD Compact Reference employs strictly selected materials and parts, many inherited from the TAD Reference One

- Isolated bass, midrange and treble crossover networks eliminate electrical and magnetic interactions.
- Rear terminal panel is made of 27mm (1 in.) thick aluminum to act as a heat sink for the network.
- Custom-made parts include air-core coils, non-inductive resistors and PP film capacitors.
- Large custom-machined speaker terminals have thick gold plating to ensure reliable connections.
- All wiring is carefully routed away from magnetic parts to prevent degradation of sound quality due to magnetic distortion.
- Not only the speaker system itself, but also the drive units are subject to strict quality control based on serial numbers.



Crossover networks (CST Driver)



Crossover networks (Bass driver)



Large machined speaker terminals



Aluminum base

Specifications

[Model Number] TAD-CR1MK2
[Model] Three-way bass reflex compact speaker [Driver units] • Bass: 20cm (8.0 in.) driver • Midrange/Tweeter: concentric 16cm (6.5 in.) cone/3.5cm (1.4 in.) dome
[Performance Data] • Frequency response: 32Hz to 100kHz • Crossover frequencies: 250Hz and 2kHz • Appropriate amplifier power: 50W to 200W • Sensitivity: 86dB (2.83V @ 1m free space)
• Nominal impedance: 4Ω [Physical Data] • Weight: 46kg (101 lbs.) • Dimensions: 341mm (13.4 in.) (W) × 628mm (24.8 in.) (H) × 444mm (17.5 in.) (D)
[Accessories] • Accessory kit: cleaning cloth, shorting links × 2, cone spikes × 3, round spikes × 3, spike holders × 3, cork sheets × 3, owners manual • Warranty • Woofer grille
• Unpacking instructions (attached to outside of box)

Option

TAD-CR1MK2 Speaker Stand
TAD-ST1 (sold separately)
Embodies the same concepts as the TAD-CR1 to achieve high vibration control performance accompanied by high strength. This dedicated speaker stand maximizes the performance of the TAD-CR1.
[Model number] TAD-ST1
[Specifications] • Weight: 16kg (35.3 lbs.) • Dimensions: 407mm (16 in.) (W) × 532mm (20.9 in.) (H) × 525mm (20.7 in.) (D)
[Accessories] • Accessory kit: cone spikes × 3, alignment pins × 2, Allen head cap screw, hexagonal wrench, owner's manual