



RENKUS-HEINZ MODEL C-3 SUB

TSC SERIES TANDEM DRIVE 15" SUBWOOFER



EXCLUSIVE "TANDEM DRIVE" DESIGN

provides smooth, high level (127 dB SPL) sub bass performance with excellent definition

HIGH POWER, HIGH EFFICIENCY

horn loaded 7th order bandpass design provides high efficiency, easily handles 600 watts

EXCELLENT TRANSIENT RESPONSE

Tandem Drive design offers excellent transient response, delivers tight, high definition bass

20° TRAPEZOIDAL CABINET

is identical in size and shape to the 3-way C-3 speakers; also matches well with SR-4 systems

FLYING HARDWARE AVAILABLE

choose between top and bottom mounted fly points, side mounted Aeroquip tracks or both

CHOICE OF FINISHES

choose between a durable black acrylic paint finish, natural or weather resistant models

Total Systems Concept

A member of the TSC (Total System Concept) speaker family, the C-3 SUB was developed as a companion to the coaxial C-3 loudspeaker system in applications requiring smooth bass response down to 30 Hz. It features dual 15" woofers in an exclusive Tandem Drive design that provides low distortion, high definition bass with excellent transient response for the most demanding applications. It is the ideal companion to the C-3 in live jazz and classical music venues; is also widely used in pop rock applications. The C-3 SUB's small size also make it an ideal companion to the ultra-compact, high power SR-4 loudspeaker system.

Exclusive Tandem Drive Design

The two powerful 300 watt 15" drivers used in the C-3 SUB are operated in "tandem" to optimize their sub-bass performance while minimizing the cabinet size. They easily handle 600 watts and produce as much as 6 dB more 30 Hz sub-bass than many dual 18" subwoofers.

High Efficiency Bandpass Design

The C-3 SUB features a modified horn loaded 7th order bandpass design with large contoured vent areas for maximum efficiency and improved low frequency definition and directional control.

20° Trapezoidal Cabinet

The C-3 SUB is identical in size and shape to the 3-way C-3 system for ease of stacking, efficient truck packing and appearance purposes. It is also similar in shape to the SR-4 loudspeaker and stacks easily with it.

Choice of Rigging Methods

Two flying hardware systems are available on the C-3 SUB. Side mounted Aeroquip tracks offer metal-to-metal reliability and are ideal for large arrays. Recessed top and bottom fly points are also available for those who prefer them. A third option is to obtain the C-3 SUB equipped for the later field addition of side mounted Aeroquip tracks.

Choice of Finishes

The C-3 SUB is normally furnished with a durable black acrylic resin paint finish, but is also available unfinished for fixed installations or in a weather resistant version for high humidity or permanent outdoor applications.

Optional Dolly / Protective Front Cover

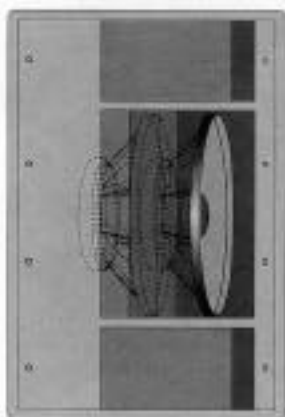
A skillfully designed dolly and associated cap/protective cover allows the C-3 SUB to be easily moved about, while also offering protection against weather and transportation damage.

TECHNICAL SPECIFICATIONS

SENSITIVITY: 101 dB (1w/1m)	FINISH OPTIONS: Black paint (standard) Natural (unfinished) (suffix N) Weather resistant (suffix WR)
MAXIMUM SPL: 127 dB continuous program 133 dB peak	FLYING HARDWARE OPTIONS:
FREQUENCY RESPONSE: 30 Hz to 100 Hz	FLY POINTS: Model FP-3 factory installed. Three aircraft type pan ring fittings with steel back plates and locking type nuts. Includes steel reinforcement of enclosure
LOW FREQUENCY DRIVERS: Two model SSL 15-3	LOCATION: Specify top, bottom, or top and bottom
TYPE: 15" cone woofer	AEROQUIP TRACK: Model FT2-C3 factory installed
SYSTEM IMPEDANCE: 4 ohms	LOCATION: Side mounted
RECOMMENDED AMPLIFIER POWER: 600 to 800 watts into 4 ohms	DIMENSIONS: 32.5" H x 21" W x 23.75" D (82.5 cm x 53 cm x 60.5 cm)
ENCLOSURE CONSTRUCTION: 13 ply hardwood, heavily braced	NET WEIGHT: 140 Lbs.
GRILLE: Perforated metal grille with moisture resistant foam insert	ASSOCIATED EQUIPMENT: X-120B Dual channel subwoofer controller C-3 DOLLY Dolly/Protective cover
CONNECTOR OPTIONS: Neutrik NLBMPR, or blank plate for customer supplied connector	
OPTIONS: Carrying handles (standard) No handles (add suffix NH)	

All specifications are with associated controller

TECHNICAL HIGHLIGHTS



In general, the low frequency performance of sub woofers is determined by their size; the larger they are the lower in frequency they go. Sub bass frequencies are not easily produced in small cabinets.

Conventional dual woofer designs offer more output than a single woofer design, but do not do anything for the true sub bass frequencies. These designs go loud, but not low! Good bandpass designs are effective when certain conditions are met, but their complex construction reduces the cabinet's internal volume and low frequency output unless the cabinet size is increased to compensate for the loss.

The exclusive Tandem Drive design featured in the C-3 SUB overcomes this problem. It uses two 15" woofers electronically connected in parallel, while acoustically operating in series with each other. They are separated by a minimal isobaric chamber. One woofer fires into the horn loaded front chamber while the other fires into the vented rear chamber.

This tandem operation effectively halves the woofers V_{as} (Equivalent Air Volume), which amounts to doubling the cabinet volume. This arrangement produces up to 6dB more output in the vicinity of the tuning frequency and enables the C-3 SUB to produce true sub frequencies from an extremely compact cabinet. The result is that the dual 15" C-3 SUB actually produces 6 dB or more output below 60 Hz than most similarly sized dual 18" subs.

The two large contoured vent areas also contribute to the truly outstanding performance of the C-3 SUB. Their shape minimizes air turbulence within the ports, and their flared openings provide diffusive effects for smoother air flow at high port velocities. The symmetrical arrangement of the ports with respect to the front horn loaded bandpass chamber optimizes the mutual coupling effect when C-3 SUB's are used in vertical stacks or horizontal arrays. This further improves the C-3 SUB's low frequency performance in large multi cabinet systems.

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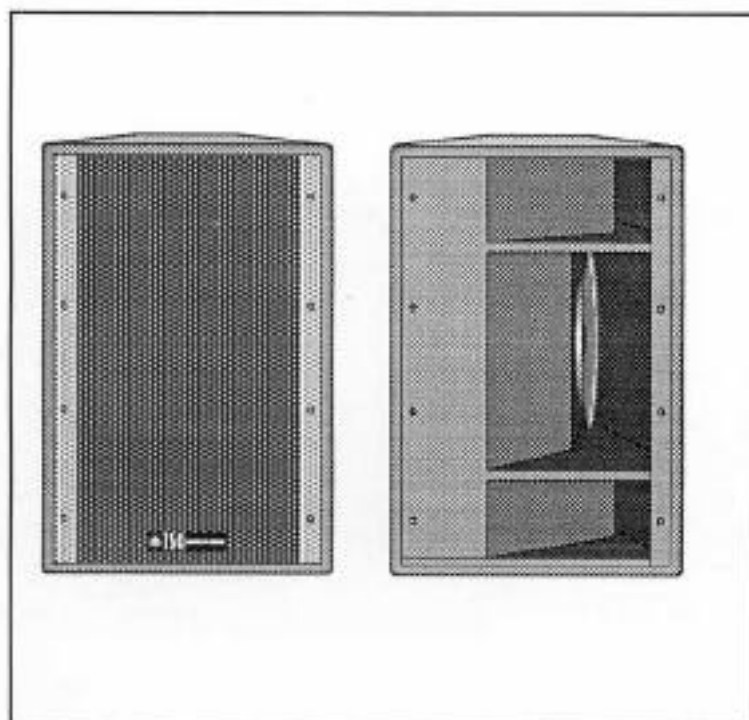
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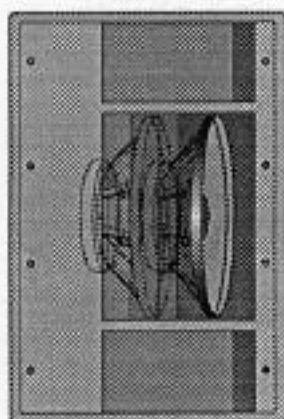
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