TX Series
TX-12A Co-Axial Speaker

TX-12A

General

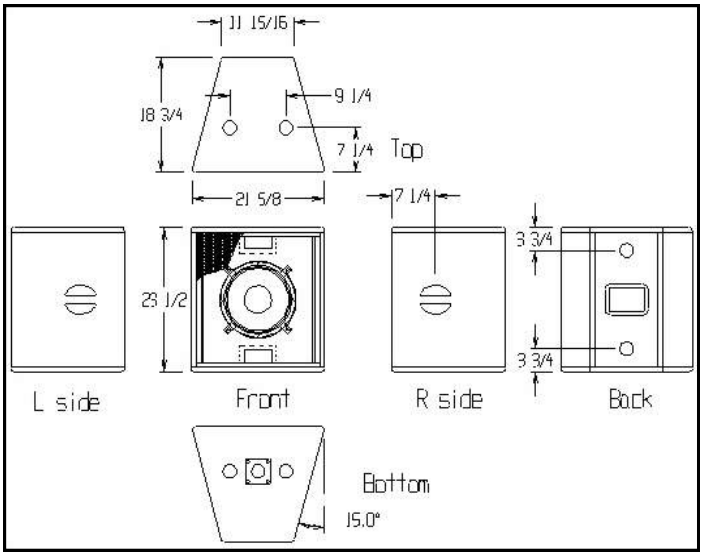
The TX12A is a Dual Concentric Co-Axial, trapezoid shaped loudspeaker system designed for flying operation or portable use. The TX-12A features a High Performance 12" transducer with a 80° conical dispersion horn coupled to a 2" integrated compression driver. To achieve low crossover insertion loss and high reliability, 14 gauge wire and mylar capacitors are used throughout with all components mechanically secured to a glass epoxy PC board. To insure enclosure stability 3/4 inch free birch plywood is used with all interconnecting surfaces extensively braced and glued. The TX-12A uses a 16 gauge epoxy coated steel grill. Standard finish is black textured paint, with white or unfinished as an option. Like all other OAP Loudspeaker systems, the TX-12A comes with a five year warranty.

The TX-12A should be used when a full range speaker is needed and size limitations restrict the use of larger speaker enclosures. The TX-12A is stylish in design yet compact and powerful "dual concentric" two-way system that delivers outstanding vocal reproduction; as well as excellent pattern and tonal control for both low and high frequencies. The TX-12A is ideally suited for portable and live performance touring applications, as well as fixed applications. The TX-12A was designed to work well with acoustical instruments to eliminate phasing issues and simplify the equalization process.

CROSSOVER OPERATIONAL CHANGES: The TX-12A speaker features a model specific Passive Crossover Network, that is easily field convertible to an Active Crossover Network. The speaker comes standard with a terminal strip input plate. Parallel NL4 connectors are optional. The Red and Black wires on the Terminal Block are the inputs. Pin 1+ and Pin 1- on the NL4 are in parallel. Pin 2+ and Pin 2- are unused. To change the Speaker System to Active operation: Remove the (6) 3/4" by 8 screws from the input plate. Locate the Molex connector on input plate (four wires blue/white, red/black) and disconnect from the crossover input Molex connector (two wires red/black). Locate output Molex connector (four wires red/black, and blue/white) and disconnect from Cabinet Harness Molex connector (four wires red/black, and blue/white). Reconnect the input Molex connector (four wires red/black, and blue/white). Reassemble input plate to cabinet with (6) 3/4" by 8 screws. The system is now configured for active operation. Red (+) and Black (-) wires on Terminal Block are for low input. White (+) and Blue (-) wires on Terminal Block are for high input. Pins 1+1- are low inputs on NL4. Pins 2+2-are high inputs on NL4.

The TX-12A is easily flyable via six fly points. There are two points on the top, two points on the bottom, and two points on the back

TX-12A All dimensions are in inches.



facilitating cluster configuration rigging. The TX-12A has two 1/4" 28-thread inserts installed at each of the six points for use with the optional flying hardware. A flying hardware kit, model FHK is available and includes one flying hardware plate model FHP, one flying hardware tie-down model FHT, and two 1/4" 28-thread machine screws. The model FHP and FHT, as well as the screws also are available separately. The tie-down has a round ring with an inside dimension of 1.12" which can be used with most standard rigging hardware. You must use at least two FHK to safely suspend the TX-12A. For permanent installations, 1/4" 28-thread drop-forged I-bolt (FIB) are available from the factory and may be used in place of the FHKs.

WARNING!!!! RIGGING AND FLYING OF THE TX-12A SHOULD BE DONE BY PERSONS FAMILIAR WITH STANDARD RIGGING PRACTICES. IF YOU ARE NOT FAMILIAR WITH THESE PRACTICES PLEASE CONSULT THE FACTORY, YOUR DEALER, THE LOCAL STAGE HANDS UNION OR A RIGGING SUPPLY COMPANY IN YOUR AREA.

WARRANTY: OAP Audio TX-Series loudspeaker systems are guaranteed against failure due to workmanship and materials for a period of five (5) years from date of purchase and is limited to original purchaser. If such failure does occur, unit will be replaced or repaired (at the discretion of OAP Audio) without charge for labor and materials. Unit must be delivered to OAP Audio or one of our authorized service facilities prepaid. In warranty items will be returned prepaid. Items not covered by warranty includes finish or appearance items, or failure due to operation under other than specified conditions. This warranty also does not include any incidental or consequential damages. Repair by other than OAP Audio or an authorized service facility will void this guarantee.

NOTE: As a research and development corporation, OAP Audio reserves the right to change specifications to improve performance.

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ARCHITECTURAL SPECIFICATIONS The loudspeaker shall be of the Dual Concentric Co-Axial speaker type and a trapezoid shape (15° taper) cabinet. The TX-12A shall incorporate a High Performance 12" Co-Axial Speaker combined with a horn that has a conical reading of 80°. This horn shall be coupled to a 2" throat titanium diaphragm integrated compression driver. The TX-12A shall have a frequency range between 60Hz and 19KHz, and a sensitivity of 98db, 1 watt/1 meter. The TX-12A cabinet shall be constructed of 3/4 inch birch plywood and stiffened internally. All exposed corners shall be rounded for damage resistance. The six Fly-points shall be fitted with 1/4 inch 28 thread inserts to be used with optional aircraft type rigging fittings. The top and bottom of the cabinet shall be 3/4 inches thick. The top and bottom shall be reinforced with steel plates and connected together with 1/4 inch threaded rod to facilitate being able to rig one enclosure to another. The loudspeaker shall be the OAP model TX-12A.

TX-12A Specifications

Impedance .	8 ohm (system,note #1) 8 ohm low freq., 8 ohm high freq.
Low Frequency Device	12" dia. w/ 3" edgewound voice coil
High Frequency Driver	2" exit, 3" dia. edgewound voice coil, titanium diaphragm
High Frequency Horn	80 degree conical concentric
Frequency Response	+3db/-6db 50Hz to 18KHz, +/-3db 60Hz to 19KHz
Power Handling, Low Freq	700 watts continuous program
Power Handling, High Freq	160 watts continuous program
Passive Crossover	Set at 1000Hz
Sensitivity, Low Freq.	97.8db 1watt @ 1 meter averaged between 125Hz and 1000Hz (note #1)
Dimensions	21.625" W x 23.5" H x 18.75"D
Weight	95lbs.
Taper	15°
Flypoints	2 on Top, 2 on Bottom, and 2 on Back
Color	Black, White and unfinished
16 gauge Steel Grill	Black and White
Inputs	Terminal strip standard, NL4 optional

NOTE #2: Resulting data was done with the specific crossover designed for the loudspeaker system to ensure smooth response in the crossover region.

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