



## Q-2500 SE

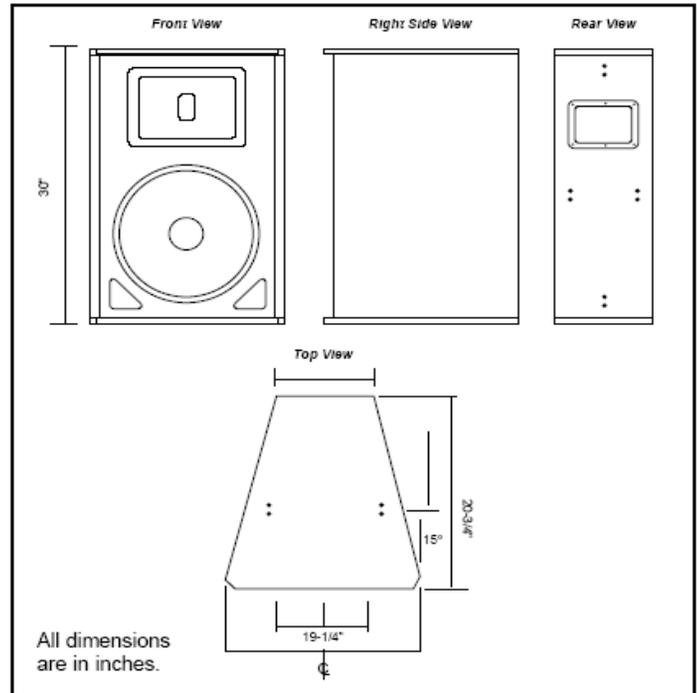
# Q Series

## Q-2500 Two-Way Speaker Group



The Q-2500 is a two-way trapezoid shaped loudspeaker subsystem designed for flying operation. The SE suffix indicates the model uses a 1" compression driver (mylar diaphragm) with extended High Frequency coupled to a glass filled, Large Format 90 degree X 60 degree Horn and the standard OAP 15" (2.5 voice coil) Low Frequency Transducer. 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" birch plywood is used with all interconnecting surfaces extensively braced and glued. Being primarily an indoor cabinet, the Q-2500 uses a fire retardant cloth grill for both aesthetic and acoustical purposes. Standard finish is black textured paint, with white or unfinished optional. Like all other OAP Loudspeaker systems, the Q-2500 comes with a five year warranty. The Q-2500 should be used when a compact, high output full-range speaker is needed for installed sound. It can be used alone or with other Q-series speakers in a cluster, with an internal passive crossover, or with an external active crossover. The cabinet is dimensionally matched with other Q-series speakers such as the Q-1800 subwoofer allowing aesthetically pleasing arrays in various cluster configurations. It may also be used with other OAP non-flyable subwoofers (LF-118 or TR-218) in either two way (bi-amp) or three way (tri-amp) crossover mode.

**CROSSOVER OPERATIONAL CHANGES:** The Q-2500 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 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 Q-2500 is easily flyable via eight fly points. Two points on the top, two points on the bottom, and four points on the back facilitate horn up or horn down rigging. The Q-2500 has two 1/4" 28-thread inserts installed at each of the eight points for use with the optional flying hardware or the optional external flying brackets. 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 Q-2500. Using the optional fly brackets, two or more Q-2500 and Q-1800 cabinets may be connected. Attachment to the fly bracket can be made



with either a Forged I-Bolt (FIB's), an FHK, or a shackle directly to the fly bracket itself. Q-series bracketry that can be used with this product are: Flying Bracket, Angle Bracket, Telescoping Bracket, Directional Bracket, or an Anchor Bracket. (For further detail see Bracketry spec sheet).

**WARNING!!!! RIGGING AND FLYING OF THE Q-2500 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 Q-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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## Q-2500 SE SPECIFICATIONS

Impedance	8 ohm (system, note #1); 8 ohm L.F., 16 ohm H.F.
Low Frequency Device	15" dia., 2.5" edgewound voice coil
High Frequency Driver	1" exit, 1.75" mylar diaphragm w/ extended high freq.
High Frequency Horn	90° x 40° large format w/1" entry fiber glass
Frequency Response	+3db/-6db 40Hz to 18KHz, +/-3db 55Hz to 17KHz
Power Handling, Low Freq.	400 watts continuous program
Power Handling, High Freq.	120 watts continuous program
Passive Crossover	Set at 1000Hz
Sensitivity, Low Freq.	99.3db 1 watt @ 1 meter averaged between 125Hz and 1000Hz (note #1)
Sensitivity, High Freq.	99.4db 1 watt @ 1 meter averaged between 1000Hz and 16KHz (note #1)
Sensitivity, Full Range.	99.3db 1 watt @ 1 meter averaged between 125Hz and 16KHz (note #1)
Dimensions	19.375"W X 30"H X 20.5"D
Weight	78lbs.
Taper	15°
Flypoints	8-2 on Top, 2 on Bottom, and 4 on Back
Color	Black, White, and unfinished
Grill Cloth	Black, White, Wheat, and Pumice
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.

**ARCHITECTURAL SPECIFICATIONS** The loudspeaker shall be of the two way type and trapezoid shape (15° taper). The SE model loudspeaker shall incorporate the OAP standard 15" low frequency transducer, and a 1" extended high frequency driver mounted on a large format horn. The model shall have a frequency range of 40Hz to 18KHz, a sensitivity of 99.3db at 1 watt/1 meter. The Q-2500 cabinet shall be constructed of 3/4" birch plywood and stiffened internally. All exposed corners shall be rounded for damage resistance. The Eight Fly-points shall be fitted with 1/4 inch 28- thread inserts to be used with optional aircraft type rigging fittings and the external Q-series bracketry. The top and bottom of the cabinet shall be .75 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 Q-2500 SE.

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