



## Q-1500 CS

# Q Series

## Q-1500 Co-Axial Speaker Group

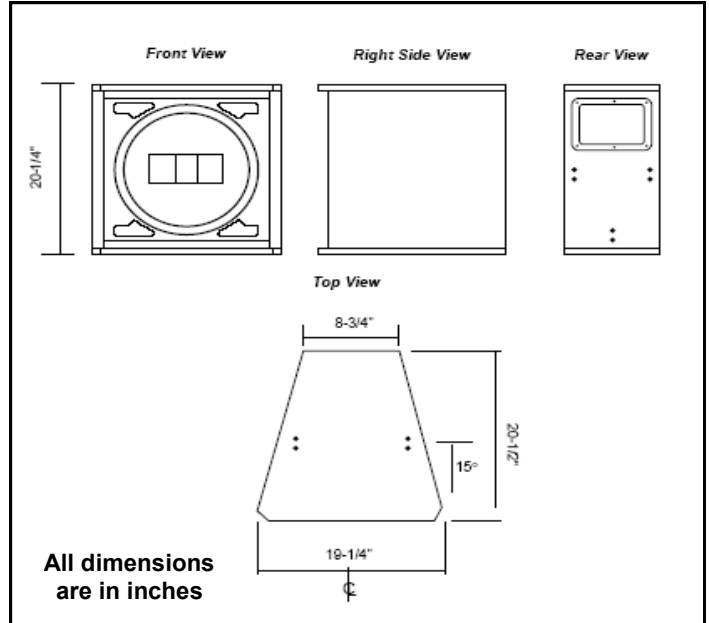
### General

The Q-1500 is a Co-Axial, trapezoid shaped speaker subsystem designed for flying operations. For flexibility the Q-1500 has three performance variations. The CS suffix denotes a model with a 15" speaker that incorporates a 60° x 30° horn coupled to the standard OAP 1" throat titanium diaphragm compression driver. To achieve low crossover insertions 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 birch plywood is used with all interconnecting surfaces extensively braced and glued. Being primarily an indoor cabinet, the Q-1500 uses a fire retardant cloth grill for both aesthetic and acoustical purposes. Standard finish is black textured paint, with white and unfinished as an option. Like all other OAP Loudspeaker systems, the Q-1500 models come with a five year warranty.

The Q-1500 models should be used when a full range speaker is needed and size limitations restrict the use of larger speaker enclosures. All Q-1500 models are wired with an internal passive crossover, or can be used with an external active crossover.

**CROSSOVER OPERATIONAL CHANGES:** the Q-1500 speakers 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 operations: Remove the (6) 3/4" by 8 screws from the input plate. Locate the Molex connectors on input plate ( four wires red/black and blue/white) and disconnect from the crossover input Molex connector (two wires red/black). Locate output Molex connector (four wire red/black and blue/white and disconnect from Cabinet Harness Molex connector (four wire 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 systems in 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. Pines 2+ 2- are high inputs on NL4.

The Q-1500 is easily flyable via seven fly points. There are two point on the top, two points on the bottom, and three points on the back facilitating cluster configuration rigging. The Q-1500 has two 1/4" 28-thread inserts installed at each of the seven points for use with the optional flying hardware or the optional external flying brackets. A flying hardware kit, model FHK is available and included 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 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 a least two FHK to safely suspend the Q-1500. Using the optional fly brackets,



two or more Q-1500 cabinetry 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-1500 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, unite will be replaced or repaired (at the discretion of OAP Audio) without charge for labor and materials. Unite 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-1500 CS Specifications**

Impedance	8 ohm (system, note #1) 8 ohm low freq. 16 ohm high freq.
Low Frequency Device	15" dia. w/ 3" edgewound voice coil
High Frequency Driver	1" exit, 1.75" dia. edgewound voice coil, titanium diaphragm
High Frequency Horn	60° x 30° w/ 1" entry coaxially mounted
Frequency Response	+3db/-6db 60Hz to 15KHz, +/-3db 70Hz to 13KHz
Power Handling, Low Freq	400 watts continuous program
Power Handling, High Freq	80 watts continuous program
Passive Crossover	Set at 1000Hz
Sensitivity, Low Freq	96.6 db 1 watt @ 1 meter averaged be- tween 125Hz and 1000Hz (note #1)
Sensitivity, High Freq	93.5 db 1 watt @ 1 meter averaged be- tween 1000Hz and 16KHz (note #1)
Sensitivity, Full Range.	94.3 db 1 watt @ 1 meter averaged be- tween 125Hz and 16KHz (note #1)
Dimensions	17.375"W X 17.25"H X 17.25"D
Weight	62lbs.
Taper	15°
Flypoints (Back)	7 (2 on Top, 2 on Bottom, and 3 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 de-  
signed for the loudspeaker system to ensure smooth response in the  
crossover region.

**ARCHITECTURAL SPECIFICATIONS** The loudspeaker shall be of the Co-Axial speaker type and a trapezoid shape (15° taper). The CS model shall incorporate a 15" Co-Axial Speaker with a 60° X 30° horn coupled to the standard OAP 1" driver with a titanium diaphragm. The system will have a frequency range between 60Hz to 15KHz, and a sensitivity of 94.3db, 1 watt/1 meter. The Q-1500 cabinet shall be constructed of 3/4 inch birch plywood and stiffened internally. All exposed corners shall be rounded for damage resistance. The seven Fly-points shall be fitted with 1/4 inch 28 thread inserts to be used with optional aircraft type rigging fittings or the external Q-series bracketry. 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 Q-1500 CS.

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