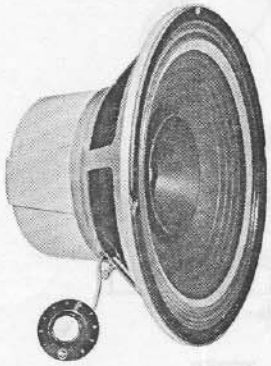
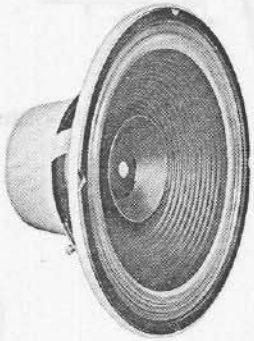
SP15 & SP15B COAXIAL LOUDSPEAKERS





DESCRIPTION

Electro-Voice Models SP15 and SP15B are massive, 15-inch reproducers of deluxe construction. They offer outstanding performance as full-range loudspeakers or as low-frequency drivers in multiway systems. The E-V Radax coaxial principle employed in these speakers offers an extended high-frequency response beyond the normal capability of ordinary 15-inch loudspeakers; and the combination of outstanding magnetic structure, edgewise wound voice coil, and viscous-damped cloth cone suspension makes possible an unusually low cone resonance and extended low-frequency response.

The Model SP15 incorporates an exclusive E-V circuit which dramatically improves high-frequency response through control of speaker impedance at high frequencies. Action of this unique circuit and adjustment of the speaker's high-frequency response is determined by the setting of an auxiliary brilliance control.

SPECIFICATIONS

	SP15	SP15B
Frequency Response:	25–15,000 Hz	30–15,000 Hz
Impedance:	8 ohms	8 ohms
Power Handling Capacity,		
Program:	40 watts	30 watts
Peak:	80 watts	60 watts
Voice Coil Diameter:	2½"	2"
Magnet Weight:	4 lb. 10 oz.	1 lb. 6 oz.
Magnet Material:	Ceramic	Ceramic
Nominal Cone Resonance:	25 Hz	30 Hz
Mechanical Crossover:	3500 Hz	3500 Hz
EIA Sensitivity Rating:	53 dB	51 dB
Dimensions:	15-1/8" dia. 8¼" d. overall	15-1/8" dia. 7-5/8" d.
Mounting: (Four ¼" holes equally spaced on circle)	14-7/16" dia.	14-9/16" dia.
Baffle Opening:	13½"	13½"
Net Weight:	25 lbs.	12 lbs.
Shipping Weight:	29 lbs.	15 lbs.

INSTALLATION

The low resonant frequency of Models SP15 and SP15B permits optimum low-frequency response when they are housed in an infinite baffle such as a closet or wall and a large volume is available behind the cone. The ideal volume is 20 cubic feet or more; for with this volume, the low free-space resonance of the bass cone becomes the controlling factor in achieving the lowest octaves.

Where restricted space of only four to eight cubic feet is available, excellent results may be achieved through use of a bass reflex enclosure. The enclosure must be rigidly constructed and well braced to avoid undue vibration, and interior surfaces should be lined with a minimum of one inch of sound absorbent material, such as fiberglass. Most dealers stock acoustical material for this purpose. Detailed information on bass reflex enclosures is available from Electro-Voice in Technical Bulletin #10A.

To mount the speaker, cut a circular hole 13½" diameter, drill four ¼" holes on a 14-7/16" circle (14-9/16" for SP15B), spaced 90° apart. Use 3/16" carriage bolts, nuts, and washers to secure the speaker to the baffle board. Tighten the retaining screws just enough to compress the speaker gasket; do not tighten excessively. A 3/8" hole should be drilled in the rear or side of the cabinet to provide mounting for the level control on the Model SP15.

CONNECTIONS

Use #18 fixture wire or larger to connect the two terminals from the loudspeaker to the 8-ohm and common terminals on your amplifier. The 8-ohm im-

pedance of the SP15 and SP15B is a standard EIA rating. A mismatch of as much as 50% may be made without greatly affecting the reproduction quality or efficiency of the unit. When the speaker cables must be run under carpets or behind moldings, etc. ordinary TV twin-lead is satisfactory.

SP15 BRILLIANCE CONTROL

Since the Model SP15 was introduced several years ago, a number of improvements have been made in its design. Among the most effective is the addition of a brilliance control to allow adjustment of the speaker's high-frequency response to individual taste and room acoustics. The best guide to setting this control properly is, of course, a familiarity with the sound of live music. Acoustically "hard" or "live" rooms will require a retarded setting of the brilliance control to compensate for the greater amount of high-frequency reflection. In "soft" or "dead" rooms with soft furniture, carpeting, and draperies a more advanced setting of the high-frequency control will normally be required.

The brilliance control is connected to a special circuit which is an integral part of the SP15. In a conventional full-range speaker, the impedance of the voice coil becomes extremely high at higher frequencies, and the speaker is unable to draw power properly from the amplifier. To improve the power transfer ability from amplifier to speaker and to increase the very-high-frequency sensitivity of the unit, the exclusive E-V impedance matching circuit has been employed.

The brilliance control is operative only at high frequencies and thus, when the SP15 is employed as the woofer in a multiway speaker system, the control may be left in any position.

CUSTOMER SERVICE

Your Electro-Voice loudspeaker is packed to provide protection well in excess of shipping requirements of the Interstate Commerce Commission. If shipping damage does occur, contact the carrier, requesting inspection and instructions, or the dealer from whom the unit was purchased.

WARRANTY

Electro-Voice high fidelity speakers, speaker systems, and accessories are guaranteed for five years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish or appearance items or malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For correct shipping address and instructions on return of Electro-Voice products for repair and locations of authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone: 616/695-6831).

Electro-Voice also maintains complete facilities for non-warranty service.

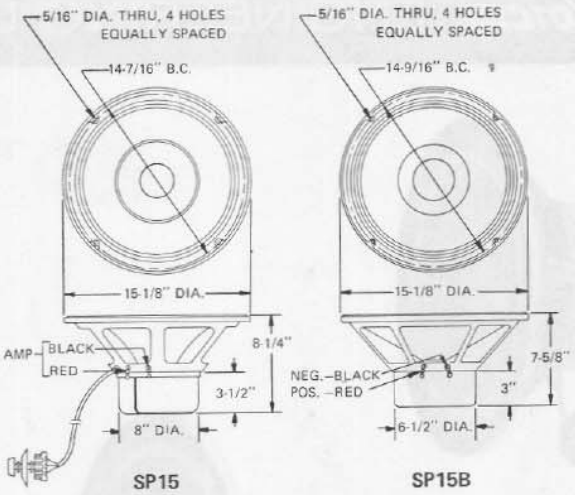


Figure 1 – Dimensions

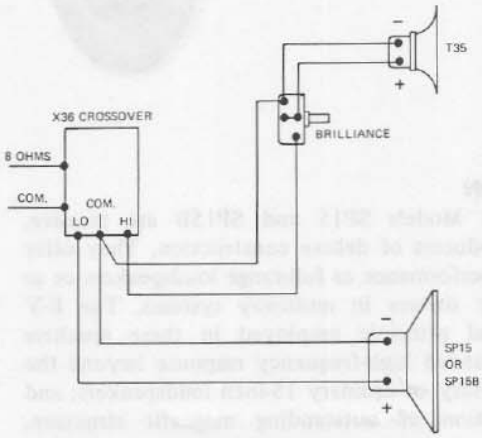


Figure 2 – Wiring of Two-Way System

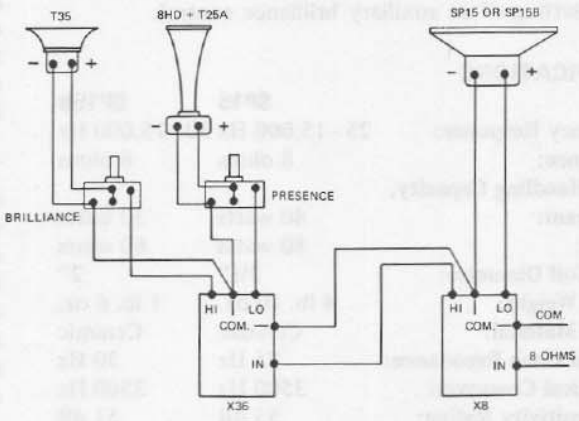


Figure 3 – Wiring of Three-Way System

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