



FEATURES

- Radax™ coaxial cones for wide frequency range
- Large ceramic magnet for optimum damping
- Edgewise ribbon voice coil provides maximum efficiency
- Die-cast chassis insures stability and uniformity

DESCRIPTION

Massive 15-inch reproducers of deluxe construction, the E-V Models SP15 and SP15B may be employed as outstanding full-range loudspeakers or as low-frequency drivers in multiway systems. The Radax coaxial principle is employed to achieve extended high-frequency response beyond the capability of ordinary 15-inch speakers. The combination of outstanding magnetic structure, edgewise-wound voice coil, and viscous-damped cloth cone suspension makes possible unusually low cone resonance and extended low-frequency response.

The 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:	25-15000 cps	30-15000 cps
Impedance:	16 ohms	16 ohms
Power Handling Capacity		
Program:	40 watts	30 watts
Peak:	80 watts	60 watts
Voice Coil Diameter:	2-1/2"	2"
Magnet Weight:	4 lb. 10 oz.	1 lb. 6 oz.
Magnet Material:	Ceramic	Ceramic
Nominal Cone Resonance:	25 cps	30 cps
Mechanical Crossover:	3500 cps	3500 cps
EIA Sensitivity Rating:	53 db	51 db
Dimensions:	15-1/8" dia. x 8-1/4" overall depth	15-1/8" dia. x 7-5/8" depth
Mounting:	Four 1/4" holes equally spaced on 14-7/16" circle	
Baffle Opening:	13-1/2"	13-1/2"

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 a large infinite baffle such as a closet or any wall when 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 restricting space of only four to eight cubic feet is available, excellent results may be achieved through use of a bass reflex enclosure. Detailed information on this type of enclosure is available from Electro-Voice in the form of Technical Bulletin #10.

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. To mount the speaker, cut a circular hole 13-1/2-inch diameter, and drill four 1/4-inch holes on a 14-7/16-inch circle (14-9/16-inch for SP15B), spaced 90 degrees apart. Use 3/16-inch 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-inch 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 No. 18 fixture wire or larger to connect the two terminals from the loudspeaker to the 16-ohm and common terminals on your amplifier. The 16-ohm impedance 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 cable 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, affording adjustment of the speaker's high-frequency response to individual tastes and room acoustics. Your best guide to setting this control properly is, of course, familiarity with the sound of live music. Acoustically "hard" or "live" rooms will normally 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. This is due to the inductance of the voice coil winding which increases the impedance to as much as 70 ohms at 10 kc for a unit with a rated impedance of 16 ohms. At these frequencies, where the voice coil impedance is high, 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 multway 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.

Your loudspeaker is guaranteed against defects in original workmanship and materials. Should it become damaged or develop faulty operation from unusual conditions of use, Electro-Voice maintains a complete Service Department to return it to factory-new condition. If attention becomes necessary, write to the Service Department, requesting return authorization and shipping instructions. When writing, please mention the make and model number of the other components used in the system.

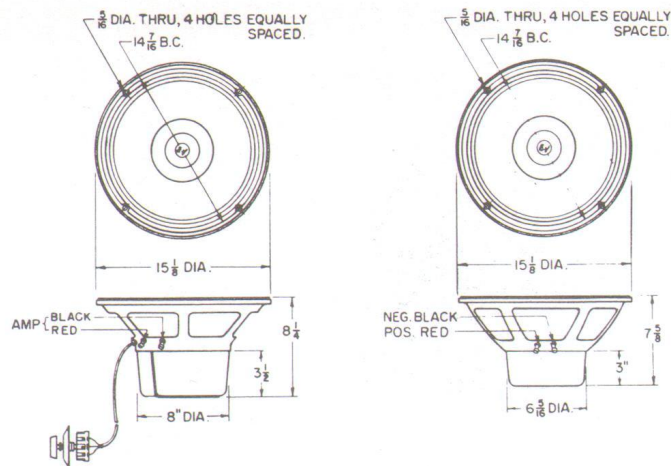


Figure 1 - Dimensions

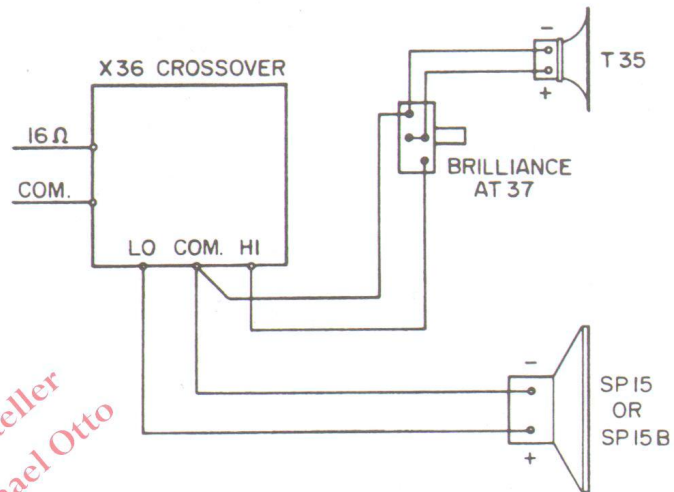


Figure 2 - Wiring diagram for separate 2-way system

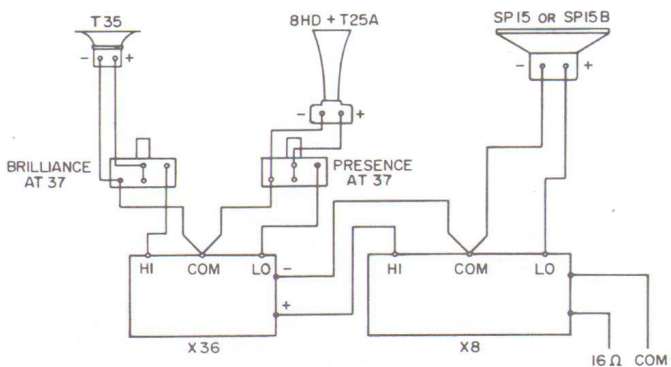


Figure 3 - Wiring diagram for separate 3-way system

"BUILDING BLOCK" METHOD

Basic Full-Range System	To complete a two-way system, add the VHF Driver	To complete a three-way system, add the Mid-Range Driver
STEP 1	STEP 2	STEP 3
SP8B SP12B SP15B	T35 (BB1) or TC35 (BB7)	T25A/8HD (BB4)
12TRXB 15TRXB	TRX Speakers already are provided with VHF driver	
SP12 SP15	T35 (BB1)	
12TRX 15TRX	TRX Speakers already are provided with VHF driver	

