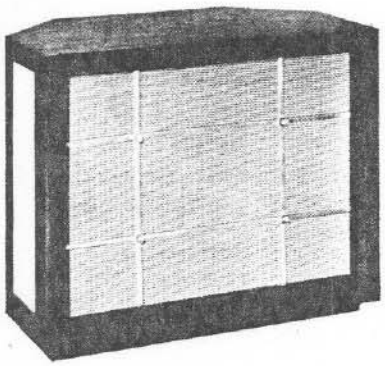
Electro-Voice®

ELECTRO-VOICE, INC.
BUCHANAN, MICHIGAN

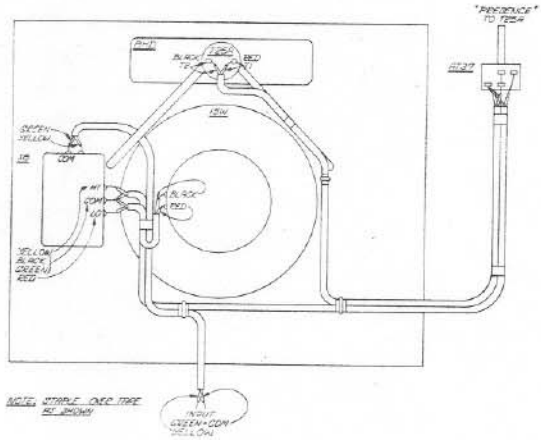
Specifications and Instructions Regency Enclosure



The Electro-Voice Regency is a folded corner-horn enclosure for single 15-inch full-range drivers, integrated triaxial reproducers, and separate two-way and three-way loudspeaker systems. The Regency will improve the bass range and response of any 15-inch loudspeaker and is particularly effective when employed with Electro-Voice Models SP15, SP15B, 15TRX, 15TRXB, and systems using Models 15W or 15BW. The SP15 and SP15B full-range units are 15-inch coaxial loudspeakers employing a mechanical crossover operating at the 6th octave to direct the sensitive high-frequency pulses of the treble register to the smaller radax high-frequency propagator. The 15TRX and 15TRXB are triaxial reproducers similar to the SP15 with the addition of the T35 Super-Sonax very-high-frequency reproducer to the 15TRX, and the T35B to the 15 TRXB. The radax principle is also used in these units. In addition, an electrical crossover is made at 3500 cycles to the T35 (or T35B). The Electro-Voice 15W and 15BW are low-frequency drivers designed specifically for use in multi-way loudspeaker systems such as the Models 114A, 116, 114B, and 116A two-way and three-way loudspeaker systems.

Chart No. 1 is a compatibility table showing the basic full-range systems for the Regency and how they may be expanded, using the E-V "Building-Block Method," to separate 2 and 3-way systems.

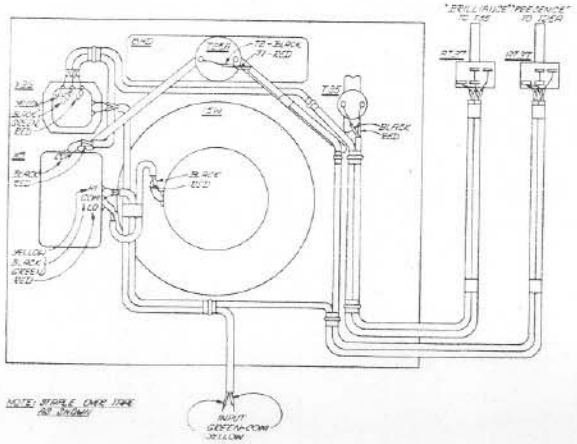
The Regency features a "built-in" corner and may be used against a flat wall for normal bass or in a corner of the room for augmented bass. The low-frequency driver of the Regency is coupled to the room air-load by the unique back loading system of the enclosure, permitting better than a 50% increase in power handling capacity.



Model 114A

Fig. 1 — Pictorial Wiring Diagrams

Model 114B



SPECIFICATIONS

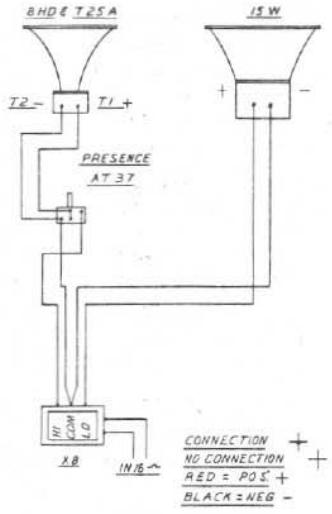
Size: 29⅝ in. high, 33½ in. wide, 19 in. deep
Weight: 88 lb shipping

INSTALLATION OF COMPONENTS

15-INCH DRIVERS — Lay the speaker enclosure on its back. Remove screws along the narrow strip just in front of the false bottom. This will release the front frame assembly which, by applying even pressure, may be slid toward bottom and out of its retaining guides. Release the mounting board by removing the wood screws now revealed around the perimeter. Remove the mounting board and place face down on a flat surface. After removing the retaining nuts and washers from the bolts, place the speaker unit over and down on the bolts, taking care to avoid tearing or rupturing the cone by misaligning the speaker while mounting it. Replace the washers and tighten the nuts on the speaker frame evenly and just snugly enough to avoid injuring and distorting the loudspeaker frame, and thus misaligning the voice coil. Attach leads to the 15-inch driver and feed through the hole in the bottom of the enclosure.

HIGH-FREQUENCY DRIVERS — If a high-frequency driver unit is to be mounted, such as in the 114A system which includes a T25A driver and 8HD horn, or the 116A system which includes a T10A driver, 8HD horn and T35B Super-Sonax VHF driver, installation may be made now or later. To mount the T25A or T10A unit and 8HD horn, remove the cover on the long horizontal port and proceed following the instructions accompanying these units.

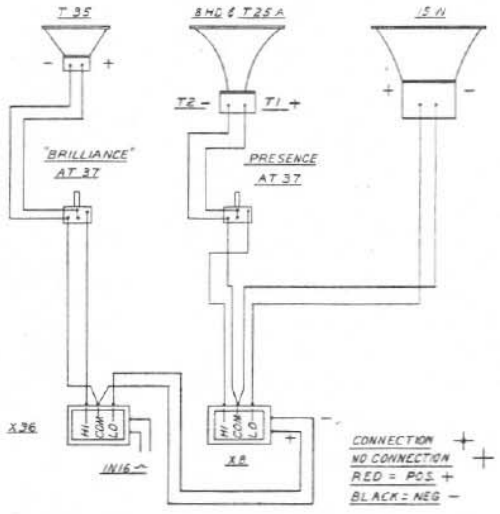
Install the X8 crossover of the 114A system (or X825 of the 116B System) on the baffle board in position as shown in Fig. 1. Remove the left side grille by removing the six screws and cut or punch cloth around the ⅜-in. holes. Insert the AT37 level control with the lugs toward top of cabinet under the decal marked "Presence". Replace the AT37 dial and affix it by tightening the lock nut with a pair of long-nosed pliers. Replace the knob on the AT37 control and note to be sure that the dot on the knob coincides with the zero on the dial at maximum clockwise rotation.



Model 114A

Fig. 2 — Schematic Wiring Diagrams

Model 114B



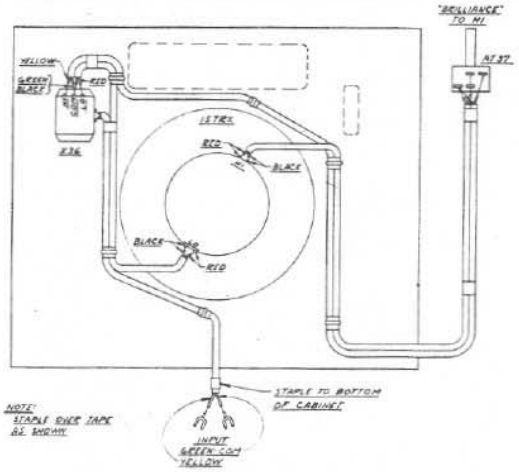


Fig. 3 — Pictorial Wiring Diagram
Model 15TRX Triaxial Speaker

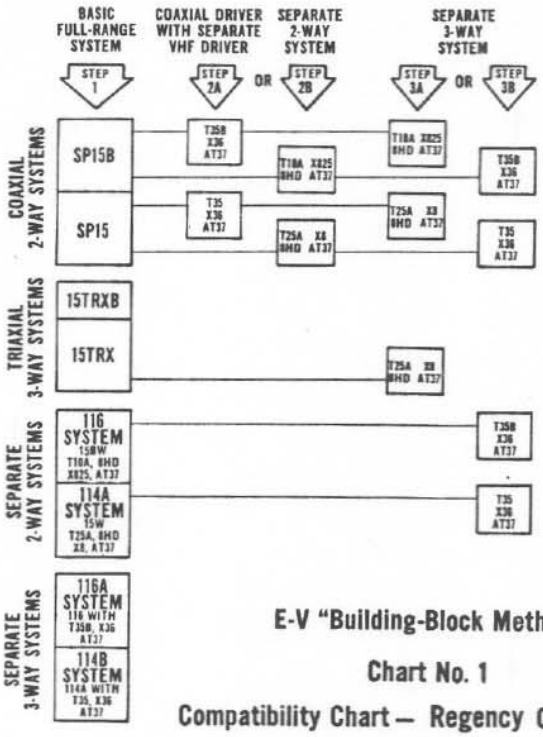
VHF DRIVERS—To install the T35 (or T35B) VHF driver, remove the cover on the small vertical port and place the driver in position, making certain it seats tightly against the gasket. Put the special half-cork-covered washers in place on the back of the driver horn. Follow this by conventional washers and nuts, tightening carefully.

Mount the X36 crossover network, used with the VHF driver, in its proper position (see Fig. 1) and install the AT37 level control, as discussed above, in the space provided under the decal labeled "Brilliance". The pictorial wiring diagrams of the 114A and 114B speaker systems are shown in Fig. 1, and schematic wiring diagrams of these systems are detailed in Fig. 2. To replace the baffle board and the front frame, reverse the procedure used to remove these parts.

OPERATION

PLACEMENT—The Regency can now be placed in the corner of the room or along the wall. Connect the system to the amplifier by running 2 leads (fixture wire No. 18) from the "Common" and "16-ohm" amplifier output taps to the lead-in wires of the system. The low-boy styling of the Regency enclosure, employing an overall height of 29⅝ inches, will allow the enclosure to be mounted under windows or in places where pictures or a series of shelves may intrude. When used in a corner, positioning is not critical. The Regency is now ready for operation.

ADJUSTMENT OF LEVEL CONTROLS—Level controls are provided for adjusting the amount of energy fed to the mid-range and/or very-high-frequency drivers in the 15TRX, 114A, 116, 114B, and 116A two and three-way systems. The level control marked "Presence" controls that frequency range lying in the region between 800 cycles and 3500 cycles, and the "Brilliance" control governs the amount of energy radiated above 3500 cycles. Generally, because of the increased efficiency of these high-range drivers, the "Brilliance" and "Presence" controls should be adjusted to a partially retarded setting. Exact positioning of these controls will depend on room acoustics and should be adjusted for most pleasing reproduction. Rooms having heavy drapes, thick rugs, or overstuffed furniture will usually require a more advanced setting of the "Brilliance" control than normal situations. To achieve a "front row" effect, the reproduction of the mid-range reproducer may be enhanced by advancing the "Presence" control.



E-V "Building-Block Method"

Chart No. 1

Compatibility Chart — Regency Components

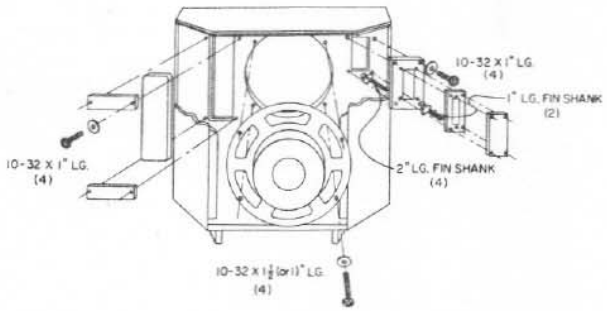
ELECTRO-VOICE, INC. **BUCHANAN, MICHIGAN**

Part No. 53274

Printed in U.S.A.

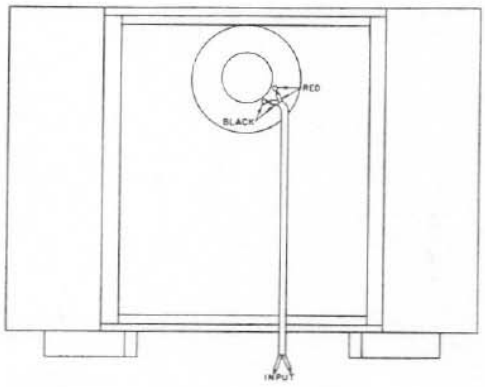
LOUDSPEAKER INSTALLATION

Lay the cabinet face-down on toweling or other soft material. Loosen the screws on the perimeter of the Back Panel, if it has been mounted, and remove it. All of the components can be loaded from this access. In addition to the phillips-head screwdriver, you may need a conventional screwdriver, a small crescent-wrench and a longnose pliers. When the mounting and wiring have been completed, the Back Panel will be replaced.



After the speaker or speakers are mounted, wire according to the diagram given. Remember that Red and Yellow indicate *Positive,* and Black and Green indicate *Common Return.* Follow the diagram and color code to avoid confusion.

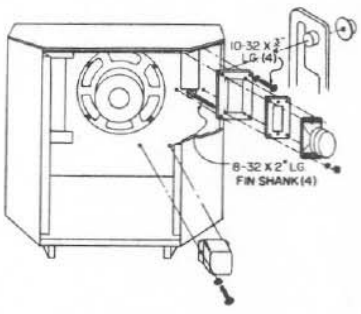
The 15-inch Speaker – Set the 15-inch speaker over its port and line up the holes for mounting. If the gasket and frame of the speaker measure more than ½" in thickness (as on the 15TRX), drop four 10-32 x 1½" bolts with #10 washers into the mounting holes. If it measures less than ½" (as on the SP15 and most others) use four 10-32 x 1" bolts with #10 washers. They should be tightened enough to prevent rattle but not so much as to bend the speaker frame. Before wiring, run the input lead from the amplifier through the cutout in the Back Panel and tie a large knot just inside the cabinet to protect the speaker from tension on the wire.

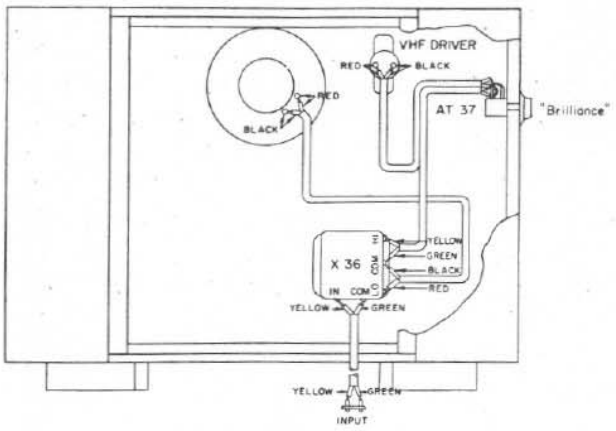


If the smaller speaker ports are not to be used at this time, they should be masked over with the Port Covers as shown. The bolts used will serve to mount components added to the system later on.

The High-Frequency Driver–To mount a T350, discard the port cover and both adapters. Use the 10-32 x ¾" bolts and #10 washers to screw it in place.

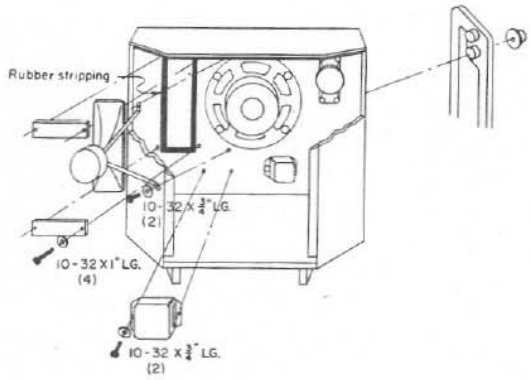
If you have a T35 which requires four mounting bolts, discard the port cover and the smaller adapter. Run four 8-32 x 2" Fin Shank Bolts through the larger adapter, set the tweeter on them, and tighten down #8 nuts and washers. Bolt the adapter down with four 10-32 x ¾" bolts and #10 washers.





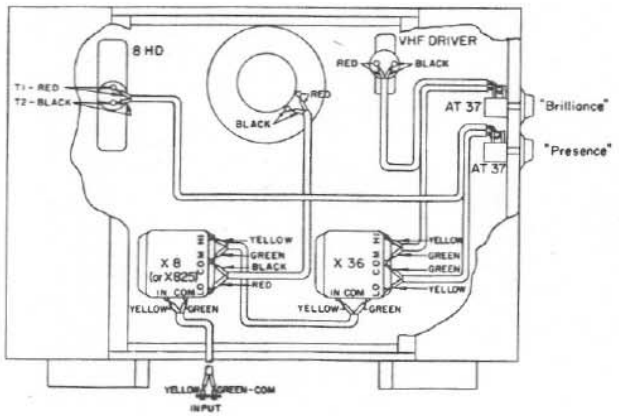
If you have a T35 which requires two mounting bolts, discard the port cover and mount the tweeter on the smaller adapter with two 8-32 x 1" Fin Shank Bolts and #8 nuts and washers, according to the instructions accompanying it. Bolt the smaller adapter to the larger with 8-32 x 2" Fin Shank Bolts and #8 nuts and washers. Bolt the larger adapter to the Front Baffle with four 10-32 x ¾" bolts and #10 washers.

Mount the crossover over the pair of holes on the tweeter side and below the 15-inch speaker. The "Brilliance" control is best mounted by removing one Side Port Frame, punching or cutting one of the pair of ½" holes through the Grille Cloth and then following the instructions which accompany the AT37.

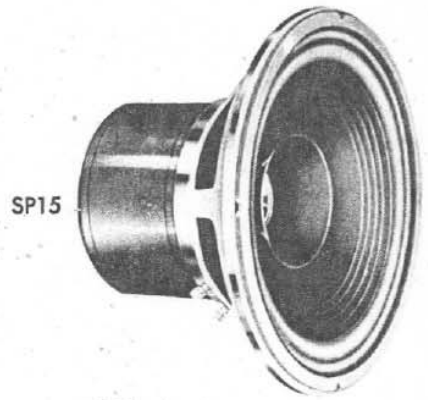


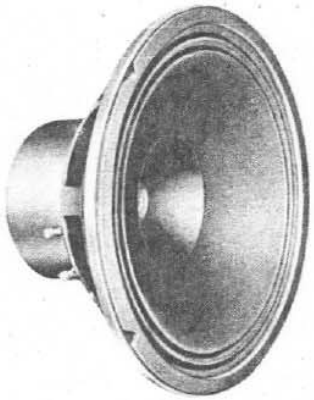
The Treble Driver—Assemble the driver and horn according to the instructions accompanying them. Bolt the two steel mounting straps to the base of the horn as instructed. Remove the masking from the Rubber Stripping provided with the speaker and line the countersunk area of the port. Set the horn and speaker assembly down on this lining, and center the wooden clamps over the mounting holes. Drop in four 10-32 x 1" bolts and tighten partially. Fit the steel mounting straps over the pair of holes above and below the 15-in speaker, and drop in two 10-32 x ¾" bolts. Then tighten all six down to a firm fit.

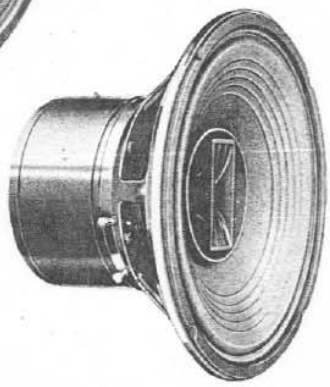
Mount the crossover on the lower pair of holes next to the other crossover with two 10-32 x ¾" bolts. The "Presence" control is mounted next to the "Brilliance" control in the Side Port Frame. Wire as shown in the diagram.

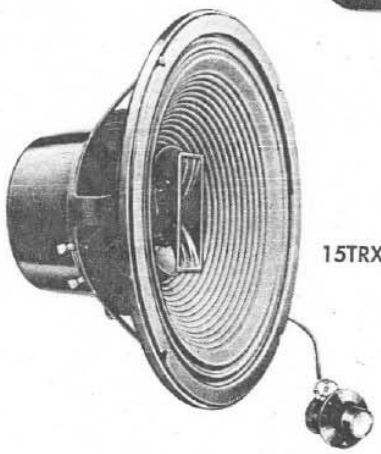


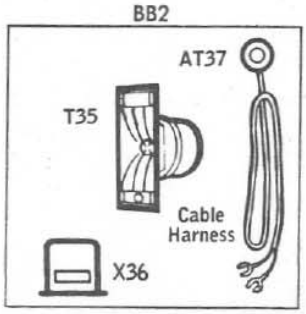
With the components mounted and wired, the Side Port Frames and the Back Panel back in place, and your Regency standing along a wall or in a corner, you can pause a moment to consider the product of your labor. You are listening to a loudspeaker system whose quality of reproduction comes straight from the Electro-Voice laboratory and factory, but for whose singular beauty you alone are responsible.

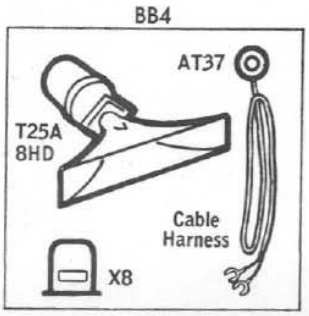












FULL-RANGE LOUDSPEAKERS

RADAX COAXIAL SPEAKERS

You step into a new world of listening pleasure, when you start with an E-V Radax coaxial loudspeaker. This economical way, you enjoy true high-fidelity reproduction of music . . . the full, deep, sonorous bass . . . the sparkling treble . . . the range and realism of the original performance.

The Radax extends both bass response and high-frequency reproduction in pleasing musical balance — insures improved coverage of the entire listening area — minimizes distortion.

This exclusive E-V development achieves highest efficiency with economy. Two separate coaxially-mounted cones, operating from a single voice coil, divide the audible spectrum. Each is specifically designed to reproduce its portion of the audible range. The large cone "woofer" provides maximum bass reproduction; the small cone gives effective high-frequency propagation. True mechanical crossover permits smooth transition and reproduction of lows and highs in proper phase and balance, without phasing dips at the crossover frequency. With the Radax, you have a coaxial two-way system that assures clean, sparkling, wide-range reproduction.

Electro-Voice 15-inch Radax Speakers are designed for use in the E-V Regency and other folded-horn enclosures. For the music lover who wishes to expand his system gradually by the "Building Block" method, these speakers adapt themselves perfectly as bass drivers to progression into superior E-V separate 2- and 3-way systems.

Model SP15 Radax Super-Fifteen 15-inch Coaxial Speaker. Response 30-13,000 cps. RETMA Sensitivity Rating 50 db. Resonance 35-45 cps. Program material capacity 30 watts, peak 60 watts. Damping factor in Regency: 1.0. Impedance 16 ohms. Mechanical crossover 3000 cps. 5¼-lb. magnet. Size: 15⅛" diam. x 9" overall depth. Baffle opening 13½". Shpg. Wt. 41 lbs. Net Each.....$89.00

Model SP15B Radax Fifteen 15-inch Coaxial Speaker. Response 30-13,000 cps. RETMA Sensitivity Rating 47 db. Resonance 38-48 cps. Program material capacity 20 watts, peak 40 watts. Damping factor in Regency: 2.0. Impedance 16 ohms. Mechanical crossover 3500 cps. 1-lb. magnet. Size: 15⅛" diam. x 7⅜" overall depth. Baffle opening 13½". Shpg. Wt. 15 lbs. Net Each.....$43.00

TRX INTEGRAL 3-WAY SPEAKERS

Three-in-one concentric design combines the advantages of Super-Sonax VHF reproduction, Radax propagator, and large bass cone with heavy magnet in one compact, low-priced assembly.

Model 15TRX 15-inch TRX 3-Way Speaker complete with X36 and HF control. Response 30-19,000 cps. RETMA sensitivity rating 51 db. Resonance 35-45 cps. Program material capacity 30 watts, peak 60 watts. Impedance 16 ohms. Mechanical crossover 2000 cps. Electrical crossover 3500 cps. 5¾-lb. magnet. Size: 15⅛" diam. x 9⅛" overall depth. Shpg. Wt. 48 lbs. Net Each.....$149.00

Model 15TRXB 15-inch TRX 3-Way Speaker completely wired with HF control. Response 30-18,000 cps. RETMA sensitivity rating 47 db. Resonance 38-48 cps. Program material capacity 20 watts, peak 40 watts. Impedance 16 ohms. Mechanical crossover 2000 cps, Electrical crossover 3500 cps. 1-lb. 4-oz. magnet. Size: 15⅛" diam. x 7⅜" overall depth. Shpg. Wt. 17 lbs. Net Each.....$79.00

BUILDING BLOCK KITS

Designed to provide convenient package additions to any full-range speaker or separate two-way system, E-V Building Block Kits contain matched sets of components complete with wiring harness and individual instruction sheets for each unit.

Model BB1. For use with existing 2-way systems (LF driver with treble driver) and coaxial speakers having 1-lb. magnets. Includes T35B Super-Sonax VHF driver, X36 crossover, AT37 level control, wiring harness. Shpg. Wt., 5 lbs. Net Each.....$37.00

Model BB2. For use with existing 2-way systems (LF driver with treble driver) and coaxial speakers having 3-lb. magnets or greater. Includes T35 Super-Sonax VHF driver, X36 crossover, AT37 level control, wiring harness. Shpg. Wt., 5 lbs. Net Each.....$50.00

Model BB3. For use with existing LF drivers and coaxial speakers having 1-lb. magnets. Includes T10A driver, 8HD horn, X825 crossover, AT37 level control, wiring harness. Shpg. Wt., 10 lbs. Net Each.....$86.00

Model BB4. For use with existing LF drivers and coaxial speakers having 3-lb. magnets or greater. Includes T25A driver, 8HD horn, X8 crossover, and AT37 level control, wiring harness. Shpg. Wt., 13 lbs. Net Each.....$114.00

Model BB5. Adds very high frequencies with wide dispersion, reserve power, extra sensitivity. For use with 2-way systems (LF driver with treble driver) having sensitivity ratings of 50 db or higher. Includes T350 Ultra-Sonax UHF driver, X36 crossover, AT37 level control, wiring harness. Net Each.....$75.00

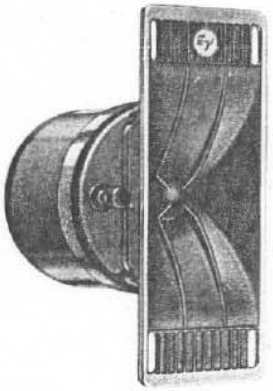
VERY-HIGH-FREQUENCY DRIVERS

These new very-high-frequency drivers, employing the E-V diffraction horn principle and the Avedon Sonophase throat design, overcome range and sensitivity limitations, function without distortion at the highest ranges, avoid listener fatigue. All have 180° dispersion patterns, program capacities of 50 watts, peak 100 watts, voice coils one inch in diameter and 16 ohms impedance.

Model T350 VHF Driver. Frequency response ±2 db 2 kc to 21 kc. RETMA sensitivity rating 60 db. Magnet weight 2 lbs. Size: 2⅞" wide x 7½" high x 4½" deep overall. Net Each.....$60.00

Model T35 VHF Driver. Frequency response ±2 db 2 kc to 19 kc. RETMA sensitivity rating 57 db. Magnet weight 8 oz. Size: 2" wide x 5¼" long and 3¼" deep overall. Net Each.....$35.00

Model T35B VHF Driver. Frequency response ±2 db 2 kc to 18 kc. RETMA sensitivity rating 54 db. Magnet weight 4 oz. Dimensions same as Model T35 except 3" deep overall. Net Each.....$22.00

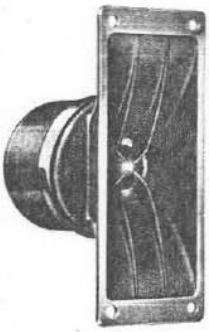


T350

TREBLE DRIVERS AND HORNS

Exceptional operating efficiency is assured by these permanent magnet dynamic type driver units, designed for use as mid-range and high-frequency reproducers in conjunction with suitable horns, such as the E-V 8HD. Each driver provides response to 13,000 cps.

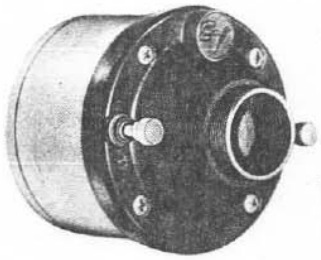
Utilizing the diffraction principle, the E-V Hoodwin horn design provides perfect high-frequency sound dispersion through a solid 120° angle — and does it with more efficiency. Correct exponential flare properly loads the driver diaphragm. The horn has a wide margin of safety near the crossover frequency point, which eliminates cutoff disturbances. A most important feature is the increased efficiency of 3 db at higher frequencies, or double that of conventional cellular horns.



T35

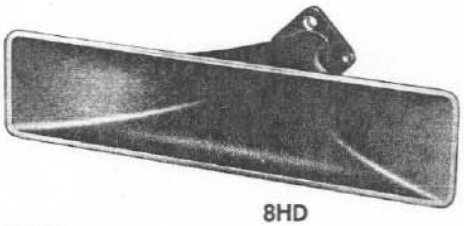
Model T25A High-Frequency Driver. RETMA sensitivity rating 53 db. Free space reasonance 700 cps. Power rating 30 watts. Impedance 16 ohms. 1-lb magnet. Size 4$\frac{1}{16}$-inch deep x 3¾-inch diameter. Throat diameter ⅞-inch. Net Each.....$58.00

Model T10A High-Frequency Driver. RETMA sensitivity rating 51 db. Free space resonance 700 cps. Power rating 25 watts. Impedance 16 ohms. 12-oz. magnet. Size: 3¼-inch deep x 3¾-inch diameter. Throat diameter ⅞-inch. Net Each.....$42.50



T25A

Model 8HD Diffraction Horn. Crossover frequency 800 cycles. Cutoff frequency 600 cps. Size: 14½-inch high x 3⅜-inch wide x 7½-inch deep. Net Each.....$18.00



8HD

CROSSOVER NETWORKS, LEVEL CONTROLS

Crossover networks are essential in multi-way speaker systems to divide the audio spectrum into the 2, 3 or 4 sections of frequencies required by the individual drivers. The crossover routes the various frequencies, from the amplifier, to their respective drivers — feeds the lows to the woofer, the highs to the respective treble and VHF drivers and so on. Smooth, clean transition from one range of frequencies to another is provided at the proper point for ultimate performance.

All E-V crossovers use high-Q air core coils and paper condensers. Insertion loss is low. Attenuation: 12 db per octave in ½ section, 6 db per octave in ¼ section crossovers.

Model X36 Crossover — Recommended for use with VHF drivers. ½ section. Crossover point, 3500 cps. Impedances 16 ohms in and out. Size 3$\frac{7}{16}$" high, 4$\frac{7}{16}$" wide, 3⅜" deep. Shpg. Wt., 2 lbs. Net Each.....$9.50

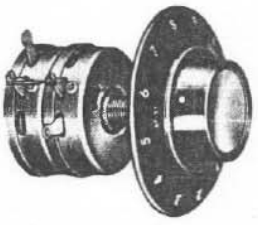
Model X8 Crossover — ½ section. Crossover point, 800 cps. Impedances 16 ohms in and out. Size 4$\frac{11}{16}$" high, 4$\frac{7}{16}$" wide, 3⅜" deep. Shpg. Wt., 4 lbs. Net Each.....$32.00

Model X825 Crossover — ¼ section. Crossover point, 800 cps. Impedances 16 ohms in and out. Size 3$\frac{7}{16}$" high, 4$\frac{7}{16}$" wide, 3⅜" deep. Shpg. Wt., 3 lbs. Net Each.....$19.00

X36

Model AT37 Level Control. An "L" pad attenuator for use in loudspeaker systems with a characteristic impedance of 16 ohms. Adjusts output level on treble and VHF drivers to individual taste. Program material capacity 40 watts, 5 watts steady tone sine wave. Size: 1⅜-inch diameter x 2⅜-inch long. Shaft size: ⅜-inch diameter x 1¼-inch long. May be mounted in panels up to ¾-inch thick. Mahogany dial and knob. Net Each.....$3.90

Model AT37B — Similar to above but blonde. Net Each.....$3.90



AT37