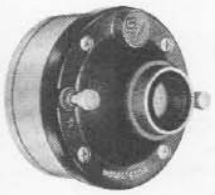
Electro-Voice®

ELECTRO-VOICE, INC.
BUCHANAN, MICHIGAN

Specifications and Instructions

Models T10A and T25A
High-Frequency Drivers

Models 8HD and 6HD
Diffraction Horns



Model T10A

Model 8HD

GENERAL DESCRIPTION—DRIVERS—The Electro-Voice T10A and T25A are permanent magnet dynamic type driver units for use as mid-range and high-frequency reproducers in conjunction with suitable horns.

Both the T10A and T25A employ a molded, phenolic-impregnated, woven glass diaphragm with an edgewound aluminum voice coil. The diaphragm assembly is extremely rugged, benefiting from the extensive research program behind the Electro-Voice CDP and 848HF mid-range drivers.

The T10A has an RETMA sensitivity rating of 51 db, and is the optimum complement to medium-efficiency driver units such as the Electro-Voice SP12B, SP15B, 12BW, 15BW and T35B.

The T25A has an RETMA sensitivity rating of 53 db, and is designed for use with high-efficiency units such as the Electro-Voice SP12, SP15, 12W, 15W, 18W and T35. The frequency response of the T25A is smoother and more extended in comparison to the T10A. Harmonic distortion at identical output levels is also lower in the T25A.

HORNS—The Electro-Voice Models 6HD and 8HD are nonresonant, molded fiberglass exponential diffraction type horns. Operating on the principle that when a sound wave passes through a slit, it is diffused at right angles to the long axis of the slit, the Hoodwin diffraction horns possess an unusually broad polar dispersion pattern. (See Fig. 3 "Polar Response.")

The 6HD is designed for crossover at 600 cycles with an appropriate crossover network such as the Electro-Voice X6 or X2635. Actual horn cutoff is at 400 cycles, thus eliminating disturbances often caused by operating a horn crossover too close to cutoff.

The 8HD is similar in construction to the 6HD, and is designed for crossover at 800 cycles with a suitable crossover network such as the Electro-Voice X8 or X825.

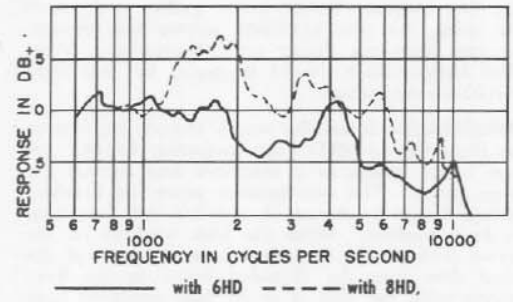


Fig. 1—Frequency Response Model T10A with Model 8HD and Model 6HD

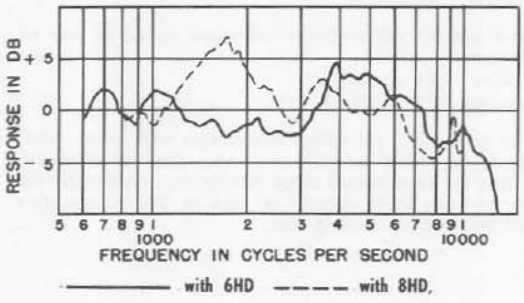


Fig. 2—Frequency Response Model T25A with Model 8HD and Model 6HD

SPECIFICATIONS

	T10A	T25A
Impedance:	16 ohms	16 ohms
Power Rating:	25 watts	30 watts
RETMA Sensitivity:	51 db	53 db
Free Air Resonance:	700 cycles	700 cycles
Voice Coil Diameter:	2 inches	2 inches
Throat Diameter:	7/8 inch	7/8 inch
Flux Density:	8300 Gauss	11,000 Gauss
Size:	3¼ in. d x 3¾ in. dia.	4-1/16 in. d x 3¾ in. dia.
Magnet Weight:	8 oz	1 lb
Net Weight:	2 lbs 15 oz	4 lbs 11 oz
Shipping Weight:	4 lbs	6 lbs

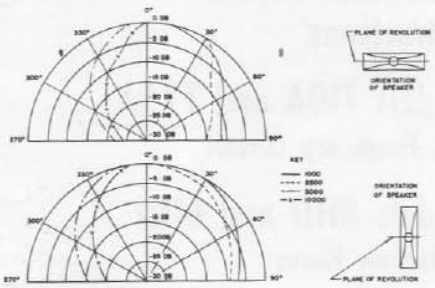


Fig. 3 — Polar Response
Model T25A with Model 6HD

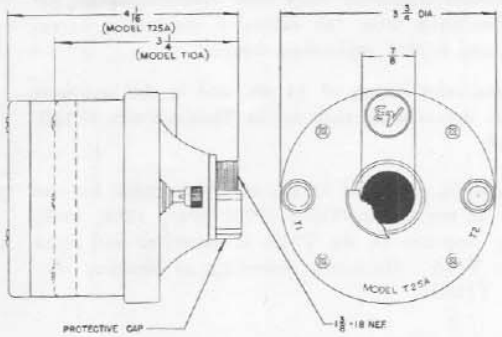
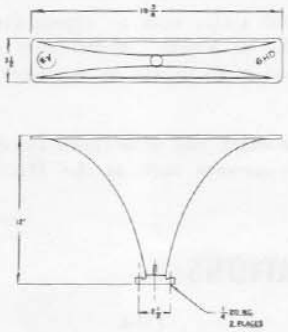
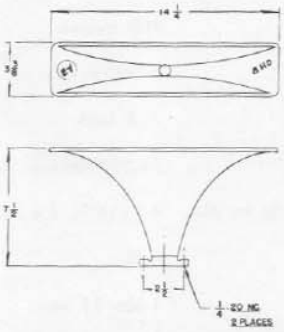


Fig. 4 — Dimensions Models T10A and T25A



Model 6HD
Fig. 5 — Dimensions
Model 8HD



SPECIFICATIONS (Cont.)

	6HD	8HD
Crossover Frequency:	600 cycles	800 cycles
Cutoff Frequency:	400 cycles	600 cycles
Size:	19¾ in. l x 3½ in. h x 12 in. d	14½ in. l x 3⅜ in. h x 7½ in. d
Net Weight:	2 lbs 8 oz	1 lb 1 oz
Shipping Weight:	6 lbs	4 lbs

MOUNTING ACCESSORIES

Packed in the 6HD or 8HD carton:

- 2—Speaker Mounting Brackets (Steel Straps)
- 2—¼-inch Lock Washers
- 2—¼-inch - 20 x ½-inch Hex Head Cap Screws
- 1—"L" Bracket
- 1—Flange Collar Gasket
- 4—3/6 x 2½-inch Carriage Bolts
- 4—No. 10 Washers
- 2—No. 8 x ¾-inch Woodscrews
- 2—No. 8 Washers
- 4—3/16 No. 24 Square Nuts
- 2—3/16 x 24-inch Vinyl Gaskets
- 2—Wood Blocks

Packed in the T10A or T25A carton:

- 1—Flange Collar
- 1—Flange Collar Gasket
- 2—5/16 - 18 x ½-inch Hex Head Cap Screws
- 2—5/16-inch Lock Washers

INSTRUCTIONS AND PREPARATION FOR USE

MOUNTING ON FLAT SURFACES—Locate and secure the "L" bracket to the mounting surface. Insert the two 5/16-inch cap screws through the clearance holes in the horn mounting flange. Place a flange collar gasket over the screws, then the "L" bracket, then another flange collar gasket and attach the horn to the flange collar using the two 5/16-inch screws and tighten. Remove the protective plastic cap from the driver unit. Screw the driver unit to the flange collar. The flange collar should be tight, but not tight enough that it will damage the rubber ring gasket.

MOUNTING ON PORTED BAFFLEBOARD—Insert the two 5/16-inch cap screws through the clearance holes in the 6HD or 8HD horn mounting flange. Attach the horn using the flange collar gasket as a separator and tighten the 5/16-inch screws into the flange collar. The two speaker mounting brackets are secured to the horn mounting flange by means of two 1/4-inch hex head cap screws and two 1/4-inch lock washers. With the lock washers on the cap screws, place the cap screws through the clearance holes in each of the speaker mounting brackets and then into the threaded holes in the horn mounting flange. Do not tighten until the unit is in its final mounted position and the speaker mounting brackets are secured on the speaker mounting board. Remove the protective plastic cap from the T10A or T25A driver units. Screw the driver unit to the flange collar. Be sure that the flange collar is tight, but not tight enough that it will damage the rubber ring gasket.

The 3/16x24-inch vinyl gaskets may be stapled or tacked in place to assure an airtight seal in cabinets not having this material. The diffraction horn may be recessed into the baffle board by routing or chiseling a slot to the dimensions of the mouth of the horn, leaving 1/16-inch clearance all around. The two wooden blocks are used with the carriage bolts, nuts and washers to secure the edges of the horn in this case.

WIRING AND PHASING—All Electro-Voice driver units are coded in one or both of the following conventions:

Positive	T1 or Red
Negative	T2 or Black

Upon applying a positive voltage on T1, the driver diaphragm will move compressively. Driver units should be wired in such a manner that all units are acoustically in phase. This may be determined most readily by connecting for greatest volume. If an attenuator or level control is used in the system, this should be at position of least attenuation during test.

ELECTRO-VOICE, INC. / BUCHANAN, MICHIGAN

PART NO. 53230

Litho in U. S. A.