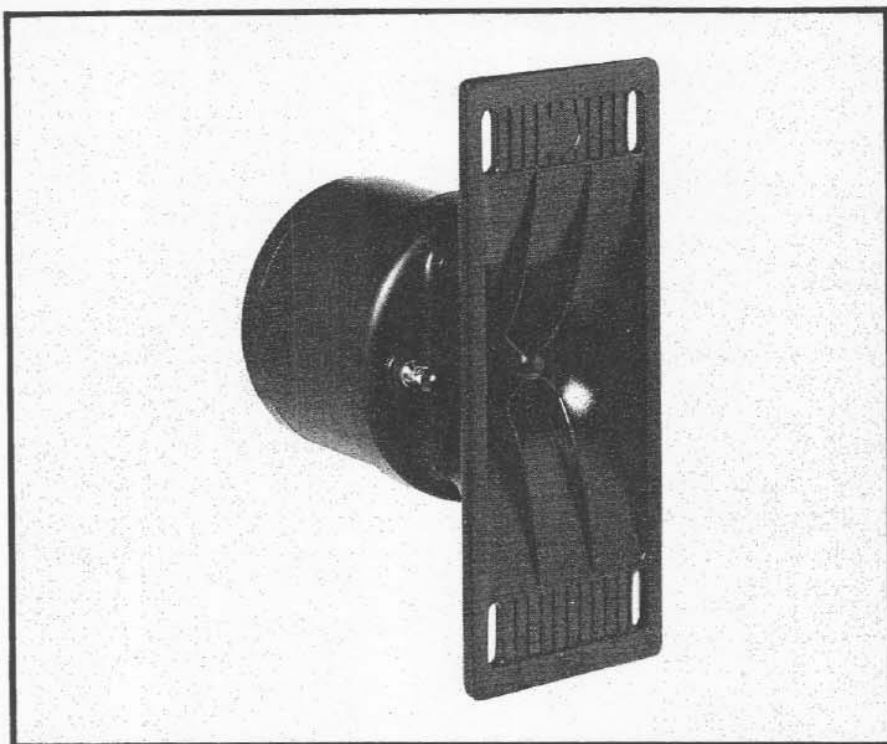




Electro-Voice®
a gulton company

Model T350 Deluxe VHF Compression Driver

SPECIFICATIONS:

Frequency Response:
3,500-23,000 Hz

Nominal Impedance:
8 ohms

Power Handling Capacity,
RMS:
5 watts

Program:
50 watts

Peak:
100 watts

Voice Coil Diameter:
1 inch

Magnet:
1 pound Alnico V

Recommended Crossover
Frequency:
3,500 Hz

EIA Sensitivity Rating:
60 dB

Dimensions,
Horn:
7¼" h. x 2⅞" w.

Pot Diameter:
3½"

Overall Depth:
4⅜"

Net Weight:
7 lbs

Baffle Opening:
2⅜" x 4⅞"

Mounting:
Four 7/32" holes on 2⅝" and 5¼" centers

DESCRIPTION

Designed to complement Electro-Voice deluxe high fidelity drivers, the T350 VHF driver combines smooth, extended high-frequency response with efficient performance. An integral diffraction horn couples the diaphragm to the air and assures the widest possible sound dispersion. This uniform distribution of sound energy is especially important in stereo reproduction to allow the largest possible listening area.

Exclusive Sonophase throat design is incorporated in the T350 VHF driver. Figure 2 shows the cross section of a conventional high-frequency driver. Response is flat up to 4 or 5 kHz, after which destructive interference results from inability of the diaphragm to act as a piston. Increasingly higher frequencies cause the phase of sound produced at the diaphragm periphery to shift with respect to sound produced by the diaphragm center—due to diaphragm deformation (see Figure 3). In the Sonophase design, Figure 4, sound from the central portion of the diaphragm is delayed by the longer path length, restoring proper phase relationship and level as the frequency increases. The importance of the Sonophase throat design is paramount above 12 kHz, where sound must be taken from the center of the diaphragm and the periphery simultaneously; in this design this is accomplished without destructive interference or cancellation within the sound chamber. At lower frequencies where the diaphragm acts as a piston, and no phase shift is required in the path configuration, the longer central path length does not appreciably change the phase due to the longer wave lengths involved.

The single-wound self-supporting voice coil is epoxy-bonded to a phenolic impregnated diaphragm. This extremely rugged assembly will withstand high power levels, and yet is light enough to follow precisely the complex VHF wave forms.

INSTALLATION

Cut a rectangular hole 2⅜-inches by 4⅞-inches. Mounting holes should be centered on the corners of a 2⅝-inch by 5¼-inch rectangle. The driver may be secured by woodscrews from the rear or nuts and bolts through the mounting panel.

Use No. 22 or larger wire to connect the T350 as shown in Figure 5. Lamp or "zip" cord is perfectly satisfactory for this application. A 3,500 Hz, 8-ohm crossover, such as the Electro-Voice X36, should always be employed with the T350 to ensure proper operation and prevent the entrance of lower frequencies which could damage the driver voice coil. An 8-ohm level control will normally be required to match the efficiency of the T350 to that of the other speaker components.

OPERATION

The best guide to proper setting of the level is a familiarity with the sound of live music. Most listeners will find it easy to balance the various components of the system to conform to their personal tastes. Acoustically "hard" or "live" rooms will normally require an attenuated setting of the level control to compensate for the greater amount of high-frequency reflection. In "soft" or "dead" rooms, with carpeting, draperies, and soft furniture, a more advanced setting of the high-frequency control will normally be required.



Sonophase Principle

