

Model TR150

70.7-Volt Output Transformer

SPECIFICATIONS

Output Power:
150 watts

Primary Voltages/Impedances:
34.6 V rms/8 ohms
24.5 V rms/4 ohms

Secondary Voltage/Impedance:
70.7 V rms/33.3 ohms

Frequency Response (rated output, reference 1 kHz):
35 Hz - 15 kHz

Total Harmonic Distortion (rated output, reference 1 kHz):
< 1% from 35 Hz - 15 kHz

Insertion Loss (rated output, reference 1 kHz):
< 1 dB from 35 Hz - 15 kHz

Hi-Pot:
500 V ac

Dimensions:
Height: 93.87 mm (3.755 in.)
Width: 112.75 mm (4.510 in.)
Depth: 107.75 mm (4.31 in.)

Net Weight:
5.65 kg (12 lb, 9 oz)

Shipping Weight:
6.58 kg (14 lb, 10 oz)

DESCRIPTION

The Electro-Voice TR150 150-watt, 70.7-volt output transformer provides convenient and efficient transmission of amplifier power to distributed sound systems in installations which also require transformer isolation between the power amplifier and loudspeaker load. The TR150's dual 4- and 8-ohm primary windings in amplifier selection and the secondary provides a truly-isolated output to the loudspeakers.

Primary and secondary windings are electronically isolated, maintaining low insertion loss, and low distortion and high efficiency. For convenient isolation, the 0.25-inch blade-type quick-connect spade-lug terminals permit the use of either wrap-and-solder connections or crimp-type quick-connect wire terminals.

APPLICATIONS

Figures 2 and 3 show two typical connections for the TR150. Figure 2 shows the proper connection of an amplifier designed to deliver 150 watts into 4 ohms. Figure 3 shows the connection of a two-channel amplifier designed to deliver 150 watts into 8 ohms when bridged. In both instances, the summed power taps of the typical load of the paralleled loudspeakers equipped with the 70.7-volt transformers should be 150 watts or less. This results in the minimum load impedance (R_{min}) of 33.3 ohms.

Amplifiers smaller than 150 watts may be used with the TR150. In this case, however, the total load on the secondary must be greater than or equal to R_{min} :

$$R_{min} = \frac{(70.7)^2}{P_{AMP}}$$

For example, the R_{min} for a 100-watt amplifier would be:

$$R_{min} = (70.7)^2/100 = 50 \text{ ohms}$$

For a load equal to R_{min} , the full amplifier output will be delivered to the load. For loads of higher impedance (R_L), the power delivered (P_{DEL}) will be reduced according to the following formula:

$$P_{DEL} = P_{AMP}(R_{MIN}/R_L)$$

Of course, the full power of the TR150 will not be utilized.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The TR150 output transformer shall have an output of 150 watts and a secondary voltage of 70.7 V rms at 33.3-ohm impedance. Primary voltages shall be 34.6 V rms at an 8-ohm impedance and 24.5 V rms at 4-ohm impedance. Frequency response at the rated output shall be 35-15,000 Hz. Total harmonic distortion at the rated output and 35-15,000 Hz shall be less than 1%. Insertion loss at the rated output and 35-15,000 Hz shall be less than 1 dB. Dimensions of the transformer shall be 93.87 mm (3.755 in.) high, 112.75 mm (4.510 in.) wide, and 107.75 mm (4.31 in.) deep. The net weight shall be 5.65 kg (12 lb, 9 oz). The shipping weight shall be 6.58 kg (14 lb, 10 oz).

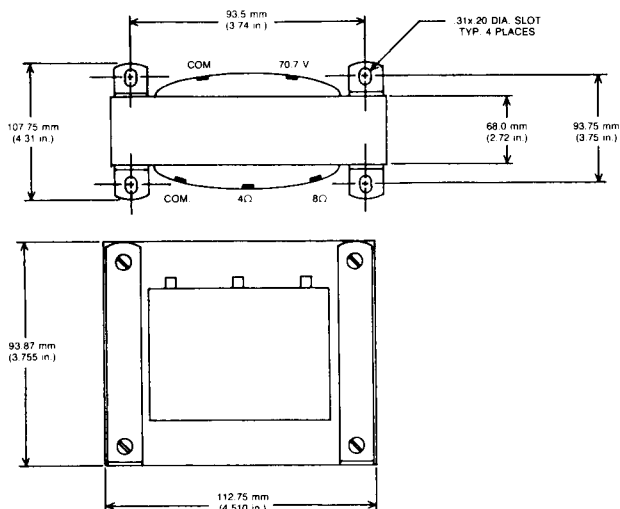


FIGURE 1
TR150 Dimensions

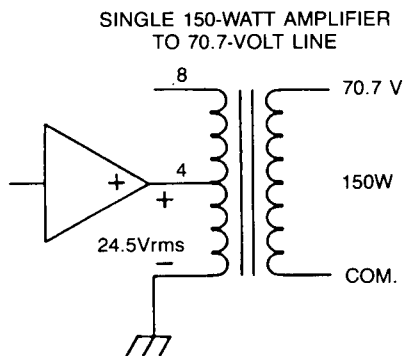


FIGURE 2
**Converting 150-Watt/4-Ohm
Amplifier to 70.7-Volt Output**

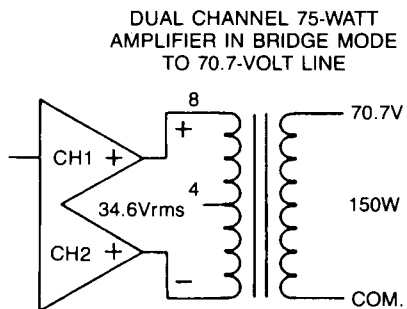


FIGURE 3
**Converting Bridged
75(150)-Watt/Channel/8-Ohm
Amplifier to 70.7-Volt Output**

UNIFORM LIMITED WARRANTY

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831 or 800/234-6831). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice Speakers and Speaker Systems are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions such as cone and/or coil damage resulting from improperly designed enclosures. Electro-Voice active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (616/695-6831 or 800/234-6831).

Specifications subject to change without notice.



ELECTRO-VOICE, INC., 600 Cecil Street, Buchanan, Michigan 49107

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