



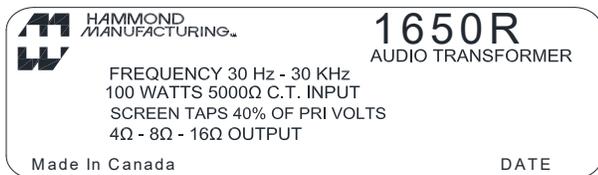
1650R

"CLASSIC" PUSH-PULL TUBE TYPE ULTRA-LINEAR OUTPUT TRANSFORMERS

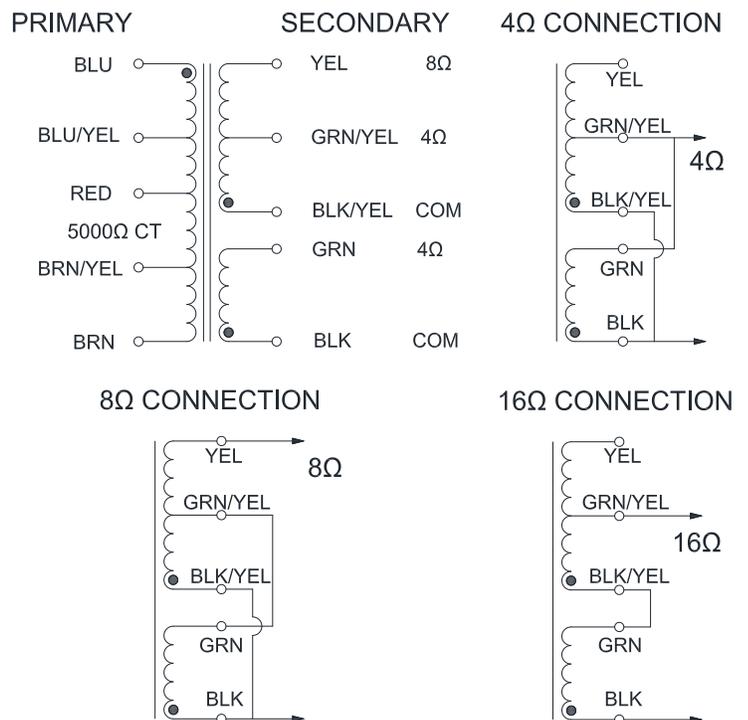
- Designed for push-pull tube output circuits.
- Enclosed (shielded), 4 slot, above chassis Type "X" mounting.
- Frequency response 30 Hz. to 30 KHz. at full rated power (+/- 1 db max. - ref. 1 KHz) minimum.
- Insulated flexible leads 9" min.
- Manufactured with plastic coil forms for coil support and insulation.
- Typical applications - Push-Pull: triode, Ultra-Linear pentode, pentode and tetrode connected audio output.
- Due to the unique interleaving of the windings BOTH secondary windings must be engaged to meet specifications (see hook-up diagrams below).
- Suggested tube types: 807, 5881, EL34, 6146B, 6550B, KT88

ELECTRICAL SPECIFICATIONS	
Characteristic	Typical
Input Impedance	5000 Ohms
Output Impedance	4, 8 & 16 Ohms
Output Power	100 Watts
DCR	
Primary Blue-Red	54.59 Ohms
Primary Red-Brown	46.62 Ohms
Secondary Black-Green	0.300 Ohm
Secondary Black/Yel-Yel	0.420 Ohm
Inductance Impedance @ 60Hz, 10.0V OC	
Primary Brown-Red	320H 145KOhm
Leakage Inductance @ 60Hz, 10.0V SC	
Primary Brown-Red	10.84mH
Dielectric Strength	
	2500Vrms
Temperature Range	
	-40 To 105°C

LABEL:

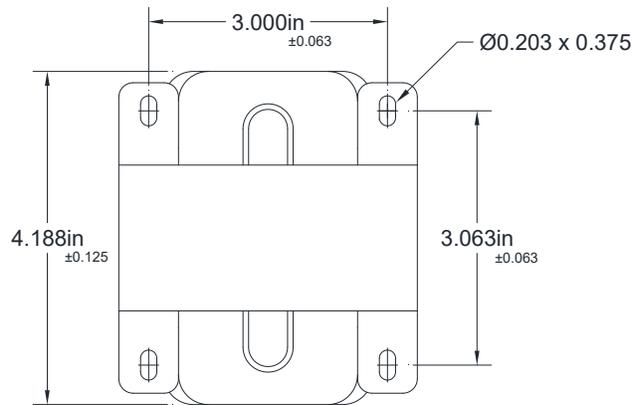
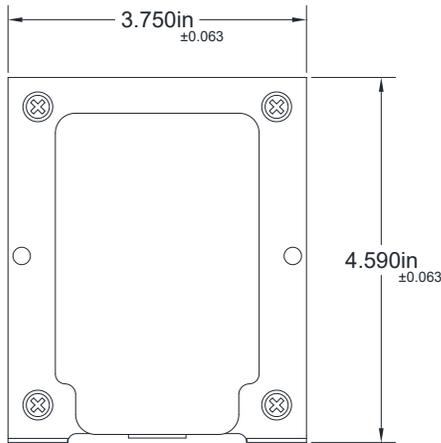
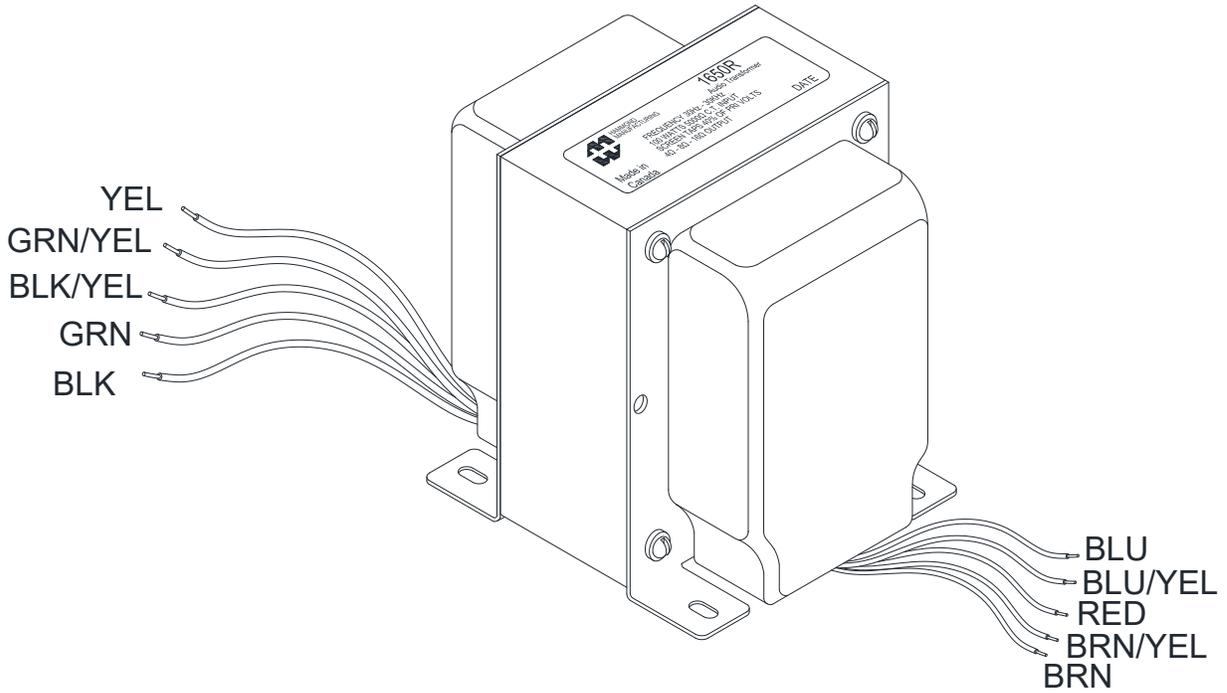


SCHEMATIC



Note: The above examples of possible combinations are to help you narrow down the choices of transformers for your favorite tube types. How you operate the tubes (push-pull, push-pull parallel, ultra-linear, class, B+, bias, operating points, etc.) will change optimum plate to plate load impedance. Only a few of the most popular tubes are shown. As more tubes become available we will add them to the list. A tube manual or tube manufacturer's technical data sheets should be consulted first, before making a decision on a proper output transformer.

DIMENSIONAL DETAILS:

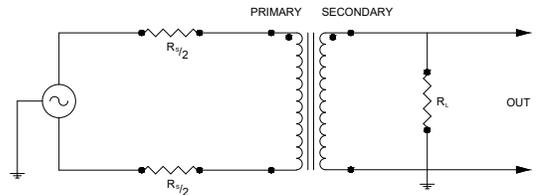


TEST CONDITIONS

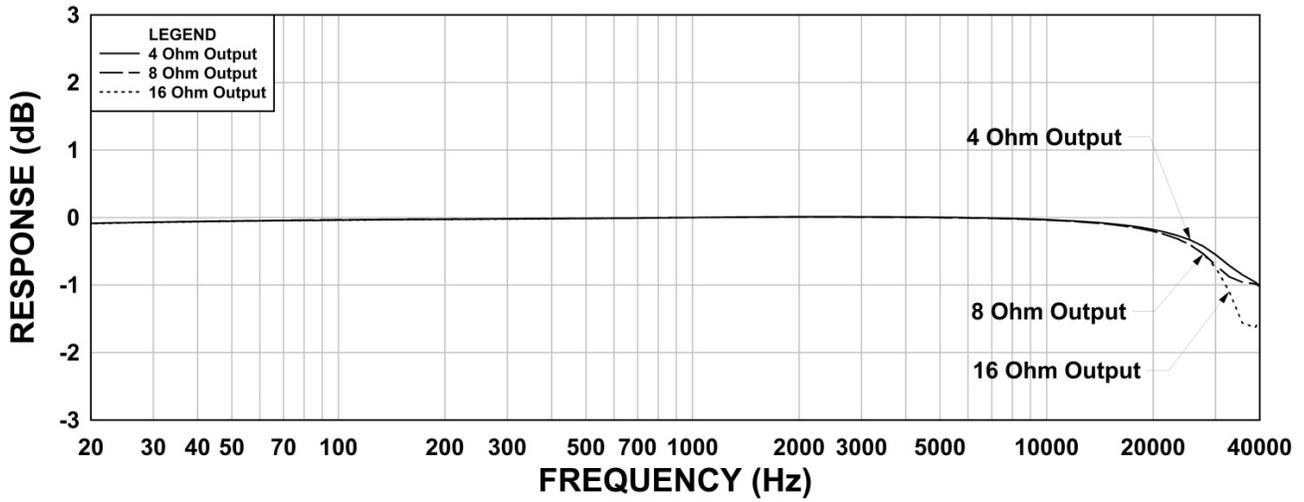
Measurement Instruments:
 dScope Series III Audio Analyzer
 Wayne Kerr 3255B with a 3265B Inductance Analyzer
 HP 4192a LF Impedance Analyzer
 Keithley 2010 DVM

* All graphs input level 27dBu @1.0KHz reference.
 **The results are typical and are subject to normal manufacturing and electrical tolerances.

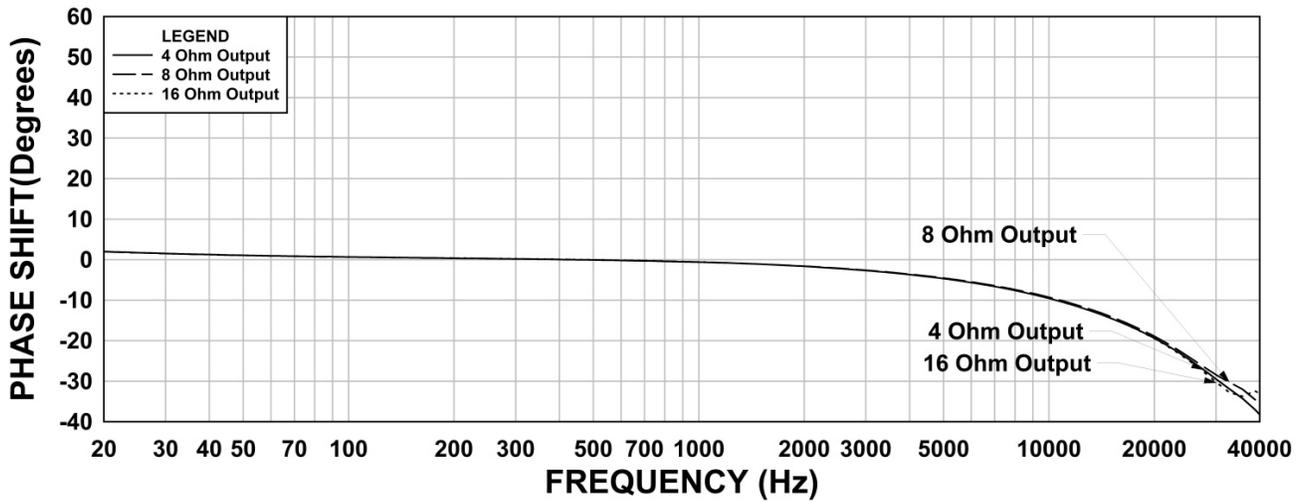
TYPICAL TEST CIRCUIT



1650R Frequency Response RS = 5K Ohms



1650R Phase Shift RS = 5K Ohms



1650R THD+N RS = 5K Ohms

