



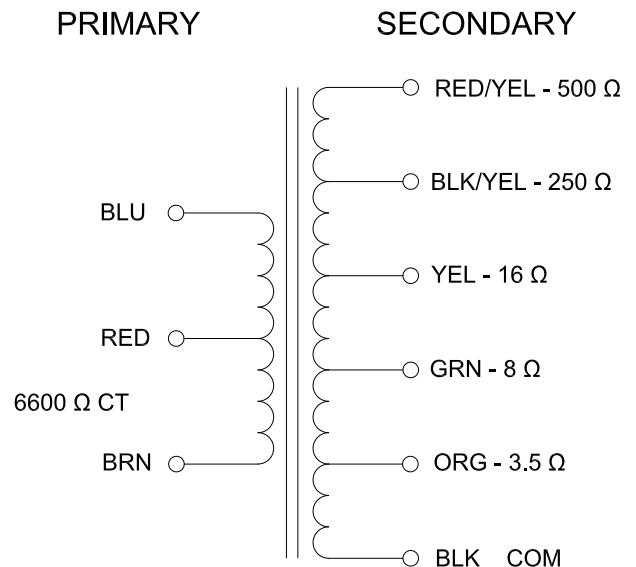
# 1650G


## HI-FI AUDIO OUTPUT MULTIPLE SECONDARY TRANSFORMER

- NEW & improved version of our 1608-1650 Series multiple secondary output transformers (Re-designed secondaries for easy hook-up of secondary loads).
- Designed for push-pull tube output circuits.
- Units are designed to provide ample "headroom" at bass frequencies (Note the weight of each transformer).
- Wide range of outputs at 3.5, 8, 16, 250 & 500 ohms.
- Enclosed (shielded), 4 slot, above chassis Type "X" mounting.
- Manufactured with plastic coil forms for coil support and insulation.
- Frequency response 30Hz. to 30Khz (+/- 2db max. - ref. 1Khz) minimum.
- Insulated flexible leads 8" min.
- Typical applications - Push-Pull: triode, Ultra-Linear pentode, pentode and tetrode connected audio output.

ELECTRICAL SPECIFICATIONS	
Characteristic	Typical
Input Impedance	6600 Ohms
Output Impedance	3.5, 8, 16, 250 & 500 Ohms
Output Power	35 Watts
<b>DCR</b>	
Primary Blue-Red	56.93 Ohms
Primary Red-Brown	60.95 Ohms
Secondary Black-Orange	0.259 Ohm
Secondary Black-Green	0.364 Ohm
Secondary Black-Yellow	0.498 Ohm
Secondary Black-Blk/Yellow	6.727 Ohms
Secondary Black-Red/Yel	9.550 Ohms
<b>Inductance   Impedance</b>	
Primary Blue-Brown	@ 60Hz, 10.0V OC 40.8H   15.85KOhm
<b>Leakage Inductance</b>	
Primary Blue-Brown	@ 60Hz, 10.0V SC 29.70mH
Dielectric Strength	2000Vrms
Temperature Range	-40 To 105°C

## SCHEMATIC



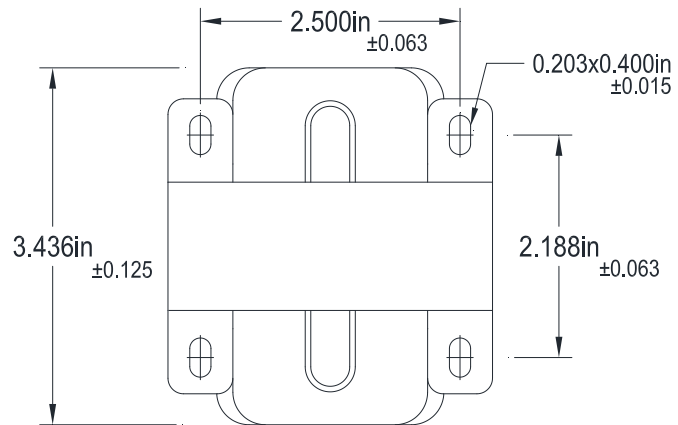
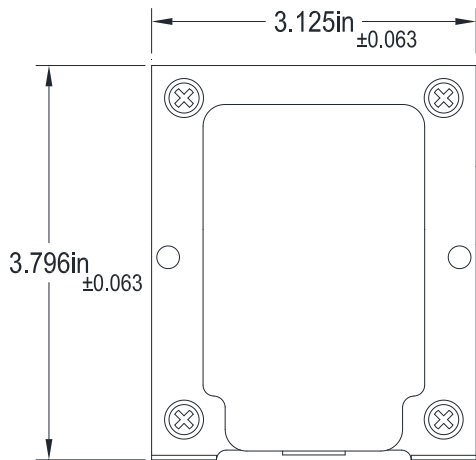
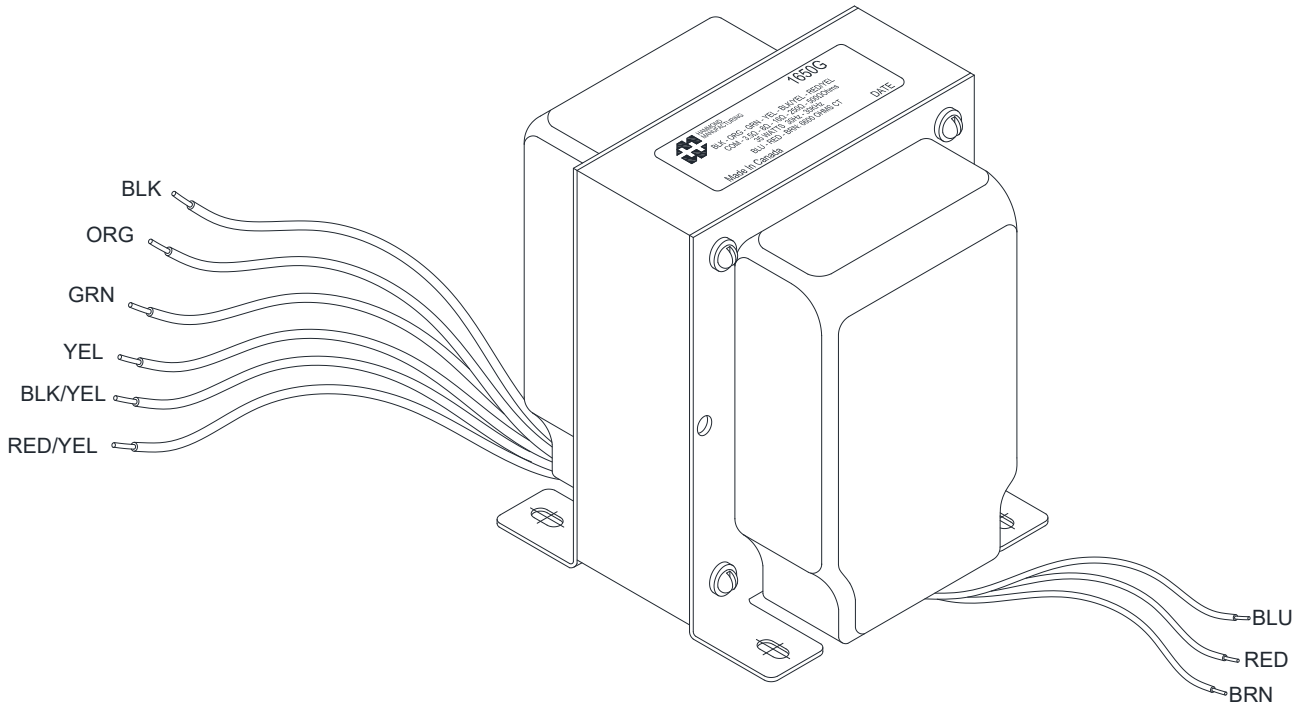

**HAMMOND  
MANUFACTURING**

1650G

BLK - ORG - GRN - YEL - BLK/YEL - RED/YEL  
 COM - 3.5Ω - 8Ω - 16Ω - 250Ω - 500Ω  
 35 WATTS 30Hz - 30KHz  
 BLU - RED - BRN: 6600 OHMS CT

Made In Canada DATE

**DIMENSIONAL DETAILS:**

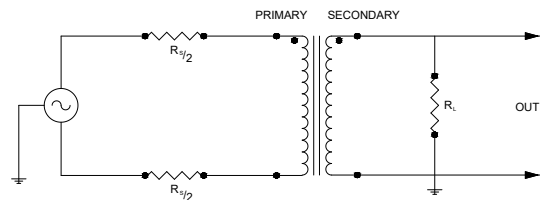


**TEST CONDITIONS**

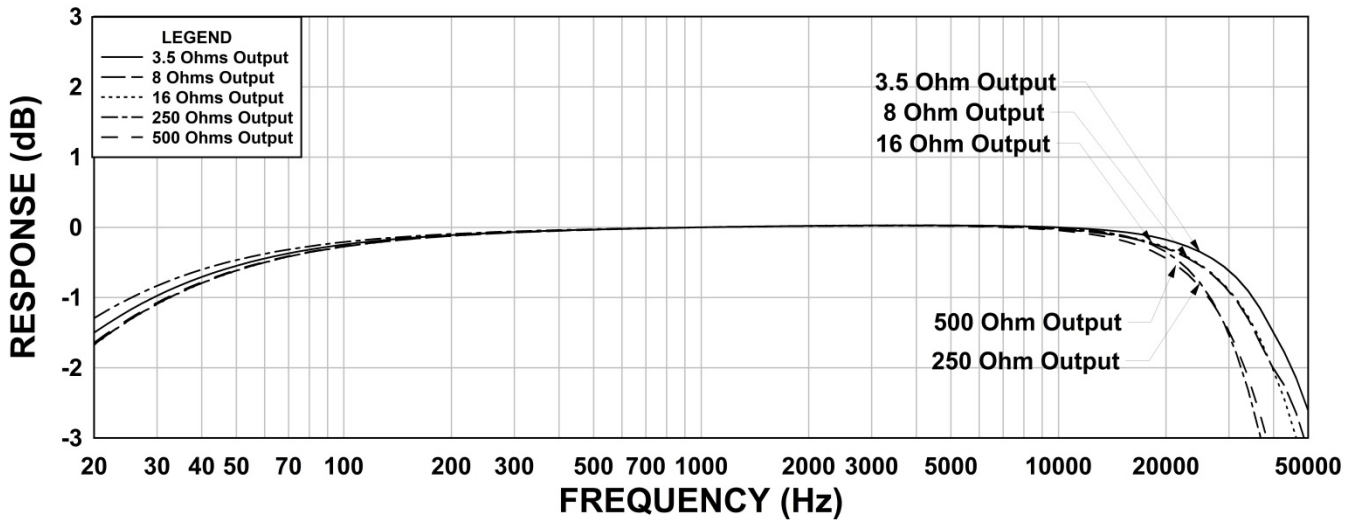
Measurement Instruments:  
 dScope Series III Audio Analyzer  
 Wayne Kerr 3255B with a 3265B Inductance Analyzer  
 HP 4192a LF Impedance Analyzer  
 Keithley 2010 DVM

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

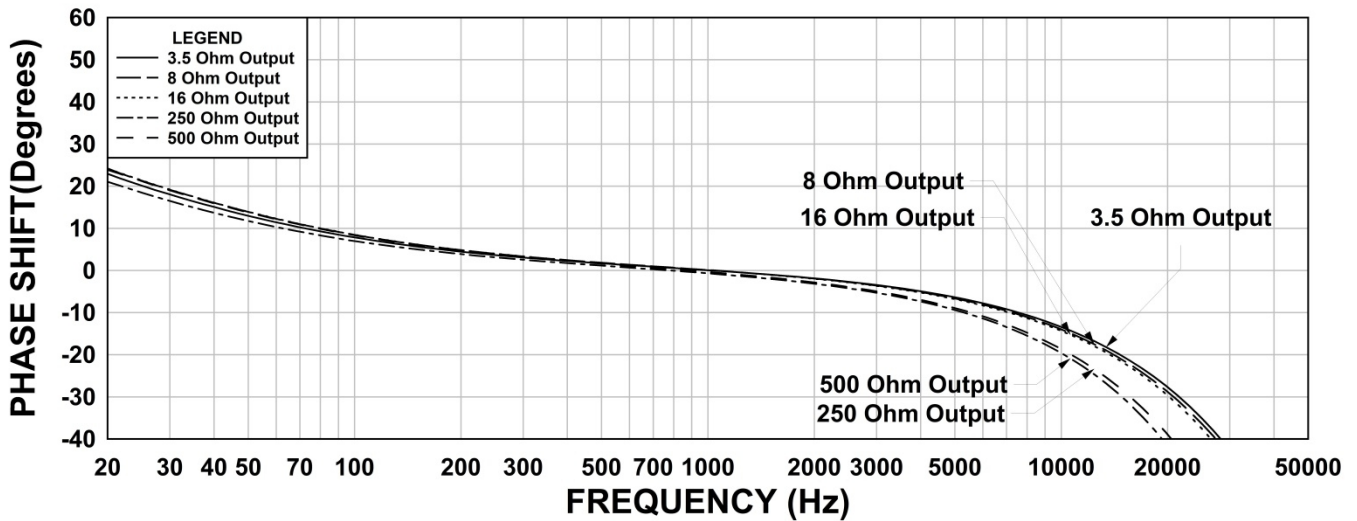
**TYPICAL TEST CIRCUIT**



### 1650G Frequency Response RS = 6600 Ohms



### 1650G Phase Shift RS = 6600 Ohms



### 1650G THD+N RS = 6600 Ohms

