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# Tube Output (10 - 280 Watts) Easy Wire Secondary 1608A-1650A Series

Push-Pull - HI-FI

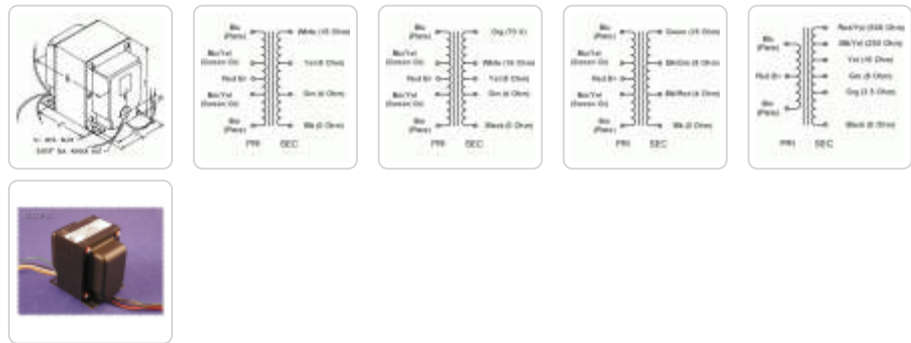
## Features



- 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).
- All models have a secondary tapped for 4, 8 or 16 ohm outputs.
- Enclosed (shielded), 4 slot, above chassis Type "X" mounting.
- Manufactured with plastic coil forms for coil support and insulation.
- Frequency response 30 Hz. to 30 KHz. at full rated power (+/- 1 db max. - ref. 1 KHz) minimum.
- Insulated flexible leads 8" min.
- All units (except the **1650G**) include 40% screen taps for Ultra-Linear operation (if desired).
- Typical applications - Push-Pull: triode, Ultra-Linear pentode, pentode and tetrode connected audio output. The **1650G** does NOT have primary screen taps and will not support "Ultra-Linear" applications.



## Gallery



Part No.	Audio Watts (RMS)	Primary Impedance (Ohms)	Maximum DC Per Side	Secondary Impedance (Ohms)	Dimensions							
					A	B	C	D	E +/- 1/16"	G Slot	Weight (lbs.)	
1608A	10	8,000 ct	100 ma.	4-8-16	2.50	2.75	3.06	2.00	1.69	0.20 x	0.38	2.5
1609A	10	10,000 ct	100 ma.	4-8-16	2.50	2.75	3.06	2.00	1.69	0.20 x	0.38	2.5
1615A	15	5,000 ct	100 ma.	4-8-16	2.50	3.25	3.06	2.00	2.19	0.20 x	0.38	3.25
1616	15	7,600 ct	100 ma.	16	2.50	3.50	3.06	2.00	2.50	0.20 x	0.38	3.5
1650E	15	8,000 ct	100 ma.	4-8-16	2.50	3.25	3.06	2.00	2.50	0.20 x	0.38	3.5
1620A	20	6,600 ct	158 ma.	4-8-16	2.50	3.50	3.06	2.00	2.44	0.20 x	0.38	3.5
1650FA	25	7,600 ct	128 ma.	4-8-16	2.50	3.50	3.06	2.00	2.44	0.20 x	0.38	4
1645A	30	5,000 ct	128 ma.	4-8-16-70V	2.50	3.75	3.06	2.00	2.69	0.20 x	0.38	4.5
1650G	35	6,600 ct	200 ma.	3.5/8/16/250/500	3.13	3.75	3.81	2.50	2.25	0.20 x	0.38	5
1650HA	40	6,600 ct	200 ma.	4-8-16	3.13	4.00	3.81	2.50	2.69	0.20 x	0.38	6.5
1650KA	50	3,400 ct	318 ma.	4-8-16	3.13	4.00	3.81	2.50	2.69	0.20 x	0.38	7

Part No.	Audio Watts (RMS)	Primary Impedance (Ohms)	Maximum DC Per Side	Secondary Impedance (Ohms)	Dimensions							Weight (lbs.)	
					A	B	C	D	E +/- 1/16"	G Slot			
1650LA	50	5,000 ct	150 ma.	4-8-16	3.75	3.96	4.60	3.00	2.81	0.20	x	0.38	8
1650NA	60	4,300 ct	318 ma.	4-8-16	3.13	4.25	3.81	2.50	2.94	0.20	x	0.38	8
1650PA	60	6,600 ct	200 ma.	4-8-16	3.13	4.25	3.81	2.50	2.94	0.20	x	0.38	8
1650RA	100	5,000 ct	318 ma.	4-8-16	3.75	4.25	4.56	3.00	3.06	0.20	x	0.38	12
1650TA	120	1,900 ct	403 ma.	4-8-16	3.75	4.50	4.56	3.00	3.31	0.20	x	0.38	14
1650WA	280	1,900 ct	806 ma.	4-8-16	4.38	7.50	5.25	3.50	5.88	0.20	x	0.38	28

## Suggested Tube Types

Part No.	Audio Watts (R.M.S.)	Primary Impedance (Ohms)	Operation	Suggested Tube Types
1608A	10	8,000 ct	Push-Pull (2 Tubes)	6AQ5, 6V6, 6BQ5, EL84, SV83
1609A	10	10,000 ct	Push-Pull (2 Tubes)	6AQ5, 6V6, 6BQ5, EL84, SV83
1615A	15	5,000 ct	Push-Pull (2 Tubes)	2A3, 6A3, 6AQ5, 6B4G, 6L6, 6V6
1650E	15	8,000 ct	Push-Pull (2 Tubes)	6AQ5, 6V6, 6BQ5, EL84, SV83
1620A	20	6,600 ct	Push-Pull (2 Tubes)	6AQ5, 6L6, 6V6
1650FA	25	7,600 ct	Push-Pull (2 Tubes)	6L6GC, 6V6, 807, 5881, EL34
1645A	30	5,000 ct	Push-Pull (2 Tubes)	6L6GC, 6V6, 807, 5881, EL34
1650G	35	6,600 ct	Push-Pull (2 Tubes)	6L6GC, 807, 5881, EL34
1650HA	40	6,600 ct	Push-Pull (2 Tubes)	6L6GC, 807, 5881, EL34
1650KA	50	3,400 ct	Push-Pull Par. (4 Tubes)	6L6GC, 807, 5881, EL34, 6146B, 6550B
1650NA	60	4,300 ct	Push-Pull Par. (2 or 4 Tubes)	6L6GC, 807, 5881, EL34, 6146B, 6550B, KT88
1650PA	60	6,600 ct	Push-Pull (2 Tubes)	6L6GC, 807, 5881, EL34, 6146B, 6550B, KT88
1650RA	100	5,000 ct	Push-Pull Par. (2 or 4 Tubes)	807, 5881, EL34, 6146B, 6550B, KT88
1650TA	120	1,900 ct	Push-Pull Par. (4 or 6 Tubes)	6L6GC, 5881, EL34, 6550B, KT88
1650WA	280	1,900 ct	Push-Pull Par. (6 or 8 Tubes)	6L6GC, 5881, EL34, 6550B, KT88

**Notes:** 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.

Tags: **classic transformer, push-pull, tube output, triode, pentode, tetrode, output circuit**

*Data subject to change without notice*

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