LUNDAHL
– TRANSFORMERS –

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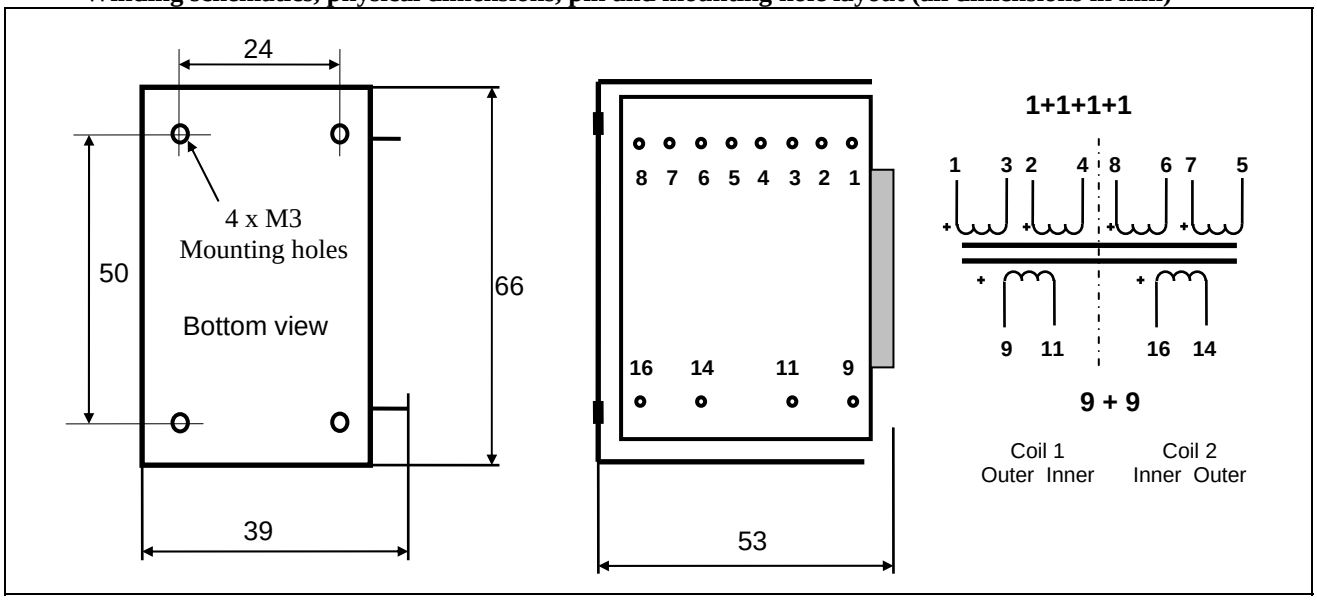
Line Output Transformer for Tube Amplifiers
LL1680

The LL1680 line output transformer is made to match or exceed the specs of the UTC transformer LS-27. The LS-27 was used in the RCA Tube Mike Pre (which was used in BC-2B Consoles).
For the internal insulation of the LL1680 high impedance sections we have used paper (and not polypropylene foil) to minimize internal capacitance. Each coil consists of three sections to optimize leakage inductance versus inter-winding capacitance. The transformer has a special audio C-core of our own production.

Turns ratio: 9 + 9 : 1+1+1+1

Winding schematics, physical dimensions, pin and mounting hole layout (all dimensions in mm)



Weight	Turns ratio	Static resistance, winding 9-11 and 16-14	Static resistance, winding 2-4 and 8-6	Static resistance, winding 1-3 and 7-5
0.35 Kg	9 + 9 : 1 + 1+ 1+ 1	580 Ω	11 Ω	15 Ω

Isolation between primary and secondary windings / between windings and core: 4 kV / 2 kV
Max standing DC current through any primary section 50 mA

Type	**LL1680/5mA**	**LL1680/5mA**	**LL1680/5mA**	**LL1680/5mA**
Application	15k : 600 ohm Balanced output	15k : 600 ohm Unbalanced output	15k : 150 ohm Balanced output	15k : 150 ohm Unbalanced output
Connection	Alt A	Alt B	Alt C'	Alt D'
Turns ratio	18 : 4	18 : 4	18 : 2	18 : 2
Primary DC current for 0.9 Tesla	5mA	5mA	5mA	5mA
Primary Inductance	210H	210H	210H	210H
Frequence response, +0, -1.5dB (ref. 1kHz) Source impedance Load	15 Hz – 50 kHz 15kΩ 600 Ω	15 Hz – 40 kHz 15kΩ 600 Ω	15 Hz – 55 kHz 15kΩ 150 Ω	15 Hz – 40 kHz 15kΩ 150 Ω
Max primary signal voltage (RMS) at 30 Hz	150V	150V	150V	150V
Max output voltage @ 30 Hz	33V RMS	33VRMS.	16V RMS	16V RMS

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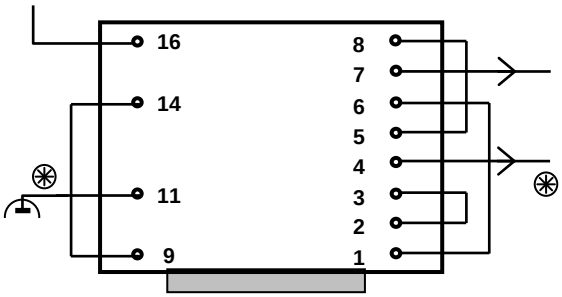
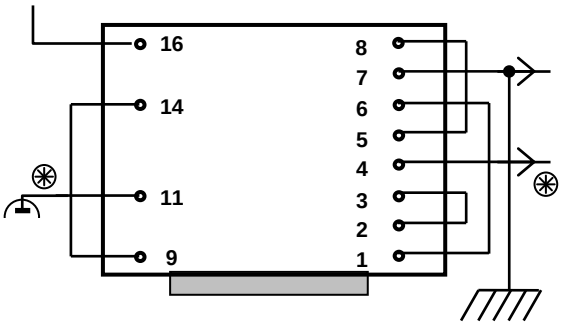
Tube Amplifier Line Output Transformer LL1680
Connection Alternatives

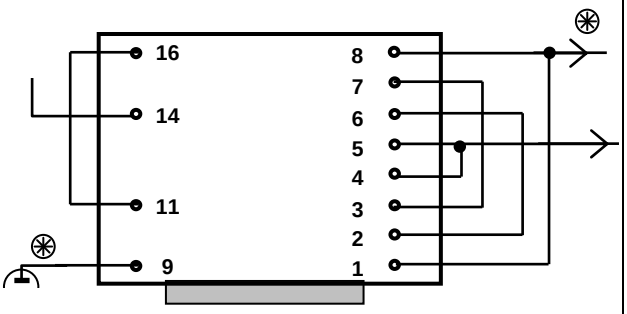
Alt A
Balanced output 600Ω



Alt B
Unbalanced output 600Ω



Alt C'
Balanced output 150Ω



Alt D'
Unbalanced output 150Ω