NOTES:

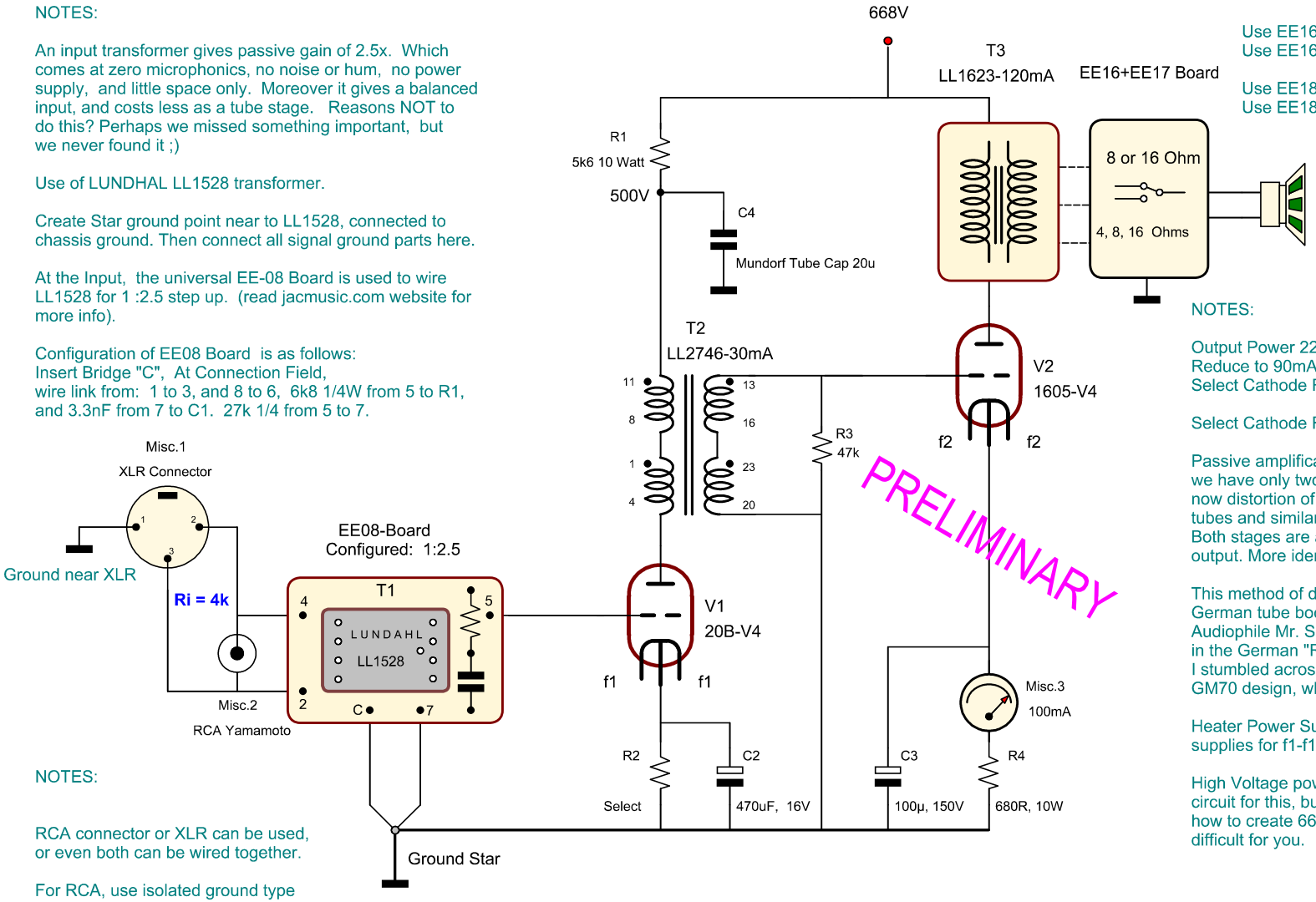
An input transformer gives passive gain of 2.5x. Which comes at zero microphonics, no noise or hum, no power supply, and little space only. Moreover it gives a balanced input, and costs less as a tube stage. Reasons NOT to do this? Perhaps we missed something important, but we never found it ;)

Use of LUNDHAL LL1528 transformer.

Create Star ground point near to LL1528, connected to chassis ground. Then connect all signal ground parts here.

At the Input, the universal EE-08 Board is used to wire LL1528 for 1 :2.5 step up. (read jacmusic.com website for more info).

Configuration of EE08 Board is as follows:
Insert Bridge "C", At Connection Field,
wire link from: 1 to 3, and 8 to 6, 6k8 1/4W from 5 to R1,
and 3.3nF from 7 to C1. 27k 1/4 from 5 to 7.



NOTES:

RCA connector or XLR can be used, or even both can be wired together.

For RCA, use isolated ground type like Yamamoto.

Use EE16 to select 4 or 8 Ohms
Use EE16+EE17 to switch between 4 or 8 Ohms

Use EE18 to select 8 or 16 Ohms
Use EE18+EE19 to switch between 8 or 16 Ohms

NOTES:

Output Power 22 Watt at 120mA.
Reduce to 90mA for more moderate use.
Select Cathode Resistor of 1605 for 90...120mA

Select Cathode Resistor of 20B for 30mA

Passive amplification with input transformer means we have only two triodes. Very elegantly the one cancels now distortion of the other, provided they are similar tubes and similar circuits. Which is what we have here. Both stages are auto bias, with transformer input and output. More identical is not possible

This method of distortion cancellation is described in the German tube book of Rainer zur Linde, and also by Japanese Audiophile Mr. Sakuma, both of which I admire very much. Also in the German "Ratheiser" (4-Band book, similar to RCA manual) I stumbled across this interesting method. This is also used in our GM70 design, which several people have build with great satisfaction.

Heater Power Supply: Use two separate, floating DC 5V power supplies for f1-f1 and f2-2. Polarity is unimportant.

High Voltage power supply, sorry we have no transformer or circuit for this, but really it is only 668V DC. If you do not know how to create 668V 120mA, this amplifier may be too difficult for you.

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Revisions	
Date	Rev
18.8.2015	V1
22.7.2022	V2

	Date	Name
Drawn	18.8.2015	JW

Dipl. Ing. Jac van de Walle

JAC MUSIC

Name:
Very low noise 1605 Amplifier
With even harmonics cancellation

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