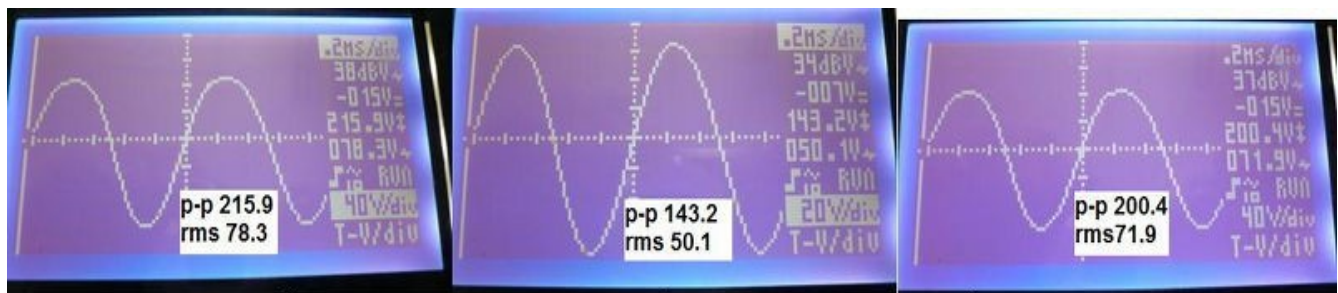


So why do we need a 'Lux' ?

Objective : drive a DHT power tube

- Choice #1 : pentode. offers necessary single stage gain but high output Z. tendency for highs/lows to be bandwidth limited. Clipping: not nice. Sound is delicate, immediate and pleasant 'bouquet of tone'. Fast! and retrieves the finest details as it sweeps the sonic landscape. Can swing the necessary voltage but but don't ask it to lift heavy objects. the DHT needs more muscle.
- Choice #2 : triode. gain-challenged, needs more than one stage. (Hi gain versions sound like solid state). Low output impedance, wide bandwidth, great slam and dynamics. can be used with a grid choke for greater perceived power. Muscular, but lacks the refinement and delicacy of the best pentodes; leaves behind some of the fine details.
- Choice #3 : re-active interstage. pentode on the input. paralleled sections of a triode with a choke loaded cathode. direct couple to the grid of the DHT.the DHT gets what it likes: lots of swinging volts and iron fist control, even when driving the grid positive. This is Lux.



EF86>>>5687>>on grid of 300b, with 300b



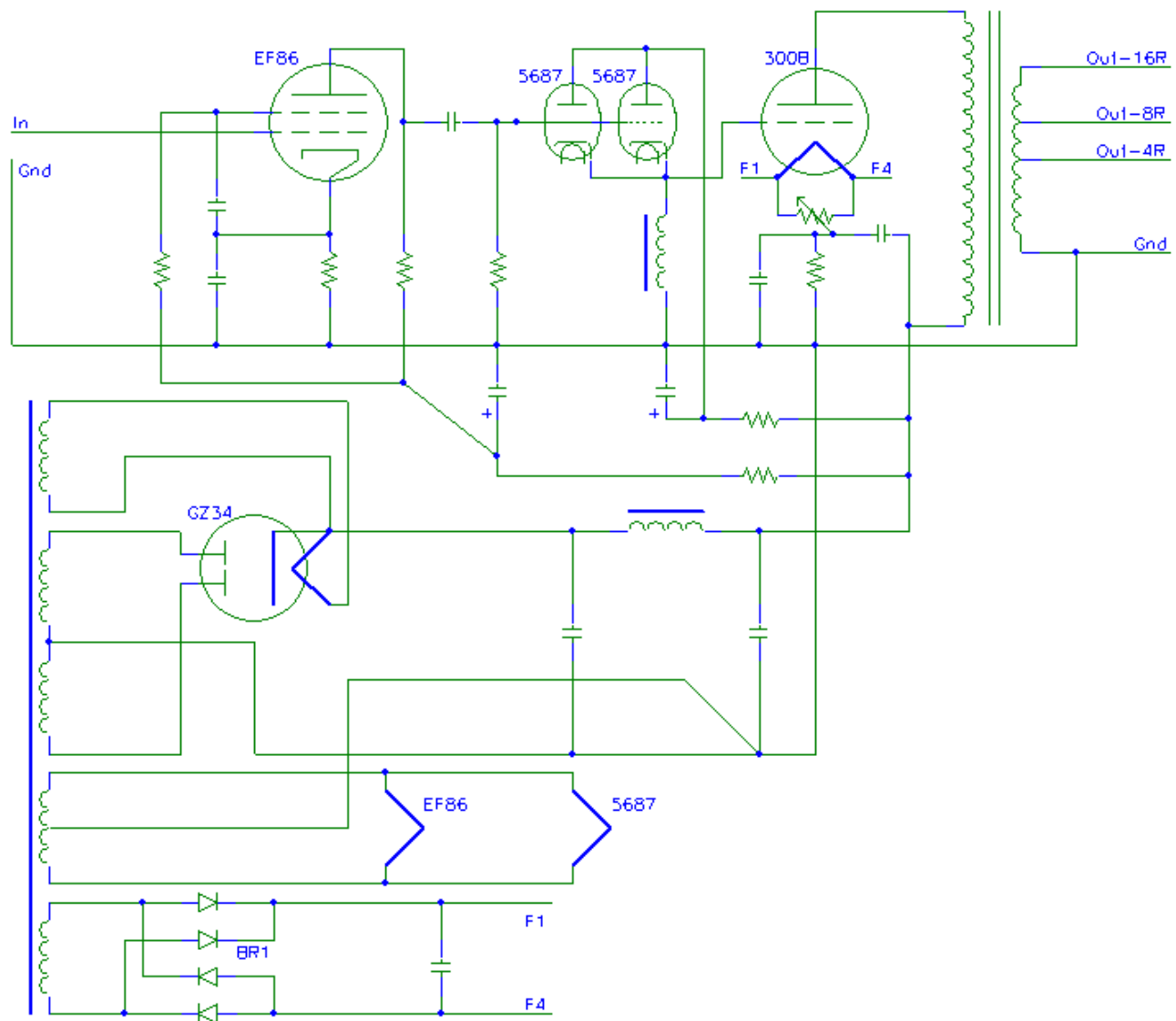
EF86>>>5687>>on grid of 300b, without 300b

Can a EF86 really drive the 5687 ?

In circuit measurements here. Keep in mind : The 300B only needs about 160v peak to peak (57v rms) to drive to full output power. The pentode does what it does best : gives tons of voltage gain driving the undemanding load of the re-active tube interstage. The interstage is loaded only with the following grid and cathode choke so bandwidth approaches DC to light and is sonically neutral, no cap coupling to the DHT. The DHT thinks the choke of the interstage is it's very own grid choke. And we still have our pentode! Add to this: dual 5AR4 tube rectification (tubes=tone), dual mono HT AND PS film caps for extra speed, lifting of the veil, no ecap smog

More : WE connection on the 300B for more quiet, more dynamics

Result : Tone and refinement of a pentode married with the slam and dynamics of a triode - something like a ballet performed by Superman and Karen Kain?



Lux Features

- Dual mono choke loaded power supply
- Film caps on the B+ rail to the power tube anode
- 2 x 5AR4 tube rectifiers
- 2 x EF86 Pentode input tubes. Roll tubes at this position first. E80F gold pins and 6267 can also be used.
- 2 x 5687/cathode choke re-active direct coupled interstage
- 2 x 300B Directly Heated Triode

Rich in iron : 2 output transformers, 1 power transformer, 2 power supply chokes, 2 re-active interstage chokes.

Now available with Silk 0/8/16/22ohm output transformers. We've been testing the

Feastrex D5nf. It and other high impedance speakers sound and measure better when driven from high source impedance. Has to do with optimizing damping factor.

Note : 4/8/16ohm speaker taps : Why ? It is needed. Really. Nominal impedance ratings are often misleading. An 8 ohm rated speaker may be 6 or 12 ohms and often sounds better on 4 or 16 ohm taps. Always try different taps to determine which gives best sound. When the right tap is selected, soundstage will be bigger and sounds more energetic. Also 16 ohm taps allow using vintage high efficiency speakers. Connecting them to 8 ohms is a compromise.