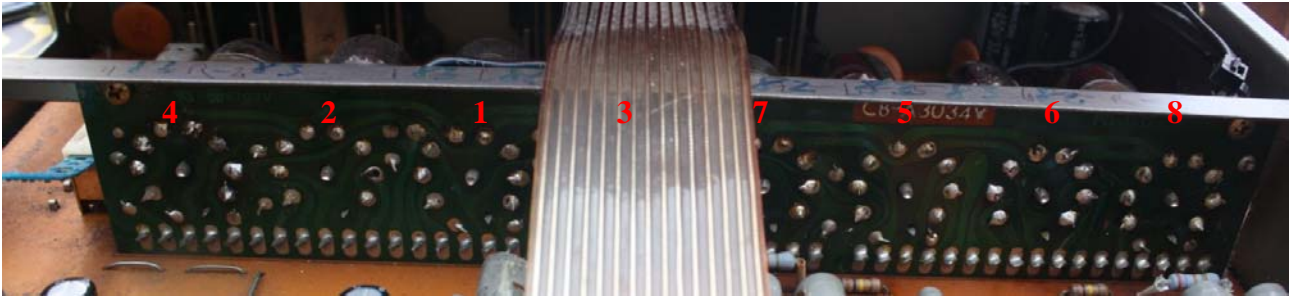


Luxman CL-34 Tube Pre-Amp.

Tube locations and measured voltages measured on non-repaired amplifier with original resistors and capacitors in circuit. All electrolytic capacitors have been replaced.

Tube position no's in red when amplifier is viewed from the front towards the bottom of the tubes mounted on a rectangular PCB edge-mounted onto the main PCB, see below.



Tubes 4 & 2 are RIAA Right Channel. Tubes 1 & 3 are RIAA Left Channel.

Tubes 5 & 7 are LINE Left Channel. Tubes 6 & 8 are LINE Right Channel.

On the main board components for the RIAA are in a box labelled Equalizer-Amp.

The components for the LINE/Tone Control section are in a box labelled Flat-Amp.

In the Flat-Amp section all triode-sections of the ECC82 & ECC83 tubes are connected in a 1:1 mirrored fashion between the two channels. For example the Left-channel input of the amp, as shown on the schematic, is to the left-most section of V5 via (A2) on the tube-PCB coming from the Volume-pot. VR2a. On inspection of the amplifier this turns out to be to pin-2, of the Pin-1~3 triode-section of the tube V5. The same is the case for the Right-channel for tube V8 as with the rest of the triode-sections in the Flat-Amp section.

This however, is NOT the case for the RIAA-section of the CL-34. Here triode-sections are reversed between the two channels. This holds for both the ECC82 and the ECC83 tubes.

What is the Left-channel RIAA input to tube V1 on the schematic, turns out on inspection to be pin-2 of the pin-1~3 triode-section, but for the right channel the RIAA input is to pin-7 of the pin-6~8 triode-section of V2. In the same fashion triode-sections of V3 and V4 are reversed. Bear this in mind when comparing operating voltages between channels.

Measured Voltages on tubes V1 ~ V8 on a non-repaired amplifier.
Comparable voltages between channels are marked with the same color.

PIN#	V1 (ECC83)	V2 (ECC83)	V3 (ECC82)	V4 (ECC82)	V5 (ECC83)	V6 (ECC82)	V7 (ECC82)	V8 (ECC83)
1 anode	77	195	380	202	134,5	136	244	253
2 grid	0	74	192	0	0	0	138	137
3 cath.	0,44	74	198,5	5,5	0,9	0,8	141	140
4 filam.	12	12	12	12	0	0	0	0
5 filam.	0	0	0	0	-12	-12	-12	-12
6 anode	192	126	198,5	376	137	137	289	279
7 grid	78	0	0	193	0	0	135	135
8 cath.	77	0,36	4,7	202	0,9	0,8	140,5	140
9 fil.ctr.	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C