

Dynaco Stereo 70

Output Stage Triode Conversion Instructions

Stereo 70 Rev 0

This document describes the specific instructions and steps associated with re-wiring the output stage of the Dynaco Stereo-70 vacuum tube power amplifier from the original “ultra-linear” pentode topology to a full triode topology. Following the modification, the efficiency of the output stage will decrease and the resultant power output capability of the amplifier will correspondingly decrease from 35 Watts RMS to approximately 16 Watts RMS. Nonetheless, many have reported favorable audible improvements compared to the original UL configuration when configured in the triode mode.

This procedure requires basic soldering skills and tools outlined in the following documents (available from our web page www.curcioaudio.com) :

- a. Soldering Tutorial (CAE Tech Note # 2)
- b. Recommended Tools & Test Instruments (CAE Tech Note # 3)
- c. Dynaco Stereo 70 Owners Manual

Please take the time to familiarize yourself with all of these documents in particular Tech Note # 2.

Refer to Figure 1 and proceed with the following steps:

1. Disconnect your Stereo 70 power amplifier from the AC mains and allow the internal voltages possibly stored in the electrolytic capacitor to discharge over a 20 minute period.
 2. Remove the four screws holding the top cover and remove the top cover.
 3. Next remove the bottom plate of the amplifier. You will now be exposed to the bottom (foil) side of the printed circuit board and all of the amplifier’s direct wiring. Orient the amplifier so that the output connections (speaker connections) are towards bottom and the input connector (RCA input connector) is at the top.
- Beginning with the Left Channel:
4. Refer to Figure 1. At pin 4 of V1 disconnect the GREEN Output Transformer wire. Cleanly cover the exposed end of the wire with high quality electrical insulating tape or heat shrink tubing. This wire will remain un-terminated therefore dress appropriately near the chassis corner.
 5. Obtain a 100 ohm, 1/2W, Carbon Film resistor (Mouser # 293-100).
 6. Refer to figure 1 – Connect one lead of the 100 ohm resistor to pin 3 of V1. Connect the remaining lead of the 100 ohm resistor to pin 4 of V1.
 7. At pin 4 of V2 disconnect the GREEN-WHITE Output Transformer wire. Cleanly cover the exposed end of the wire with high quality electrical insulating tape or heat shrink tubing. This wire will remain un-terminated therefore dress appropriately near the chassis corner.
 8. Obtain a 100 ohm, 1/2W, Carbon Film resistor (Mouser # 293-100).
 9. Refer to figure 1 – Connect one lead of the 100 ohm resistor to pin 3 of V2. Connect the remaining lead of the 100 ohm resistor to pin 4 of V2.

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Moving to the Right Channel:

10. Refer to Figure 1. At pin 4 of V6 disconnect the GREEN Output Transformer wire. Cleanly cover the exposed end of the wire with high quality electrical insulating tape or heat shrink tubing. This wire will remain un-terminated therefore dress appropriately near the chassis corner.
11. Obtain a 100 ohm, 1/2W, Carbon Film resistor (Mouser # 293-100).
12. Refer to figure 1 – Connect one lead of the 100 ohm resistor to pin 3 of V6. Connect the remaining lead of the 100 ohm resistor to pin 4 of V6.
13. At pin 4 of V7 disconnect the GREEN-WHITE Output Transformer wire. Cleanly cover the exposed end of the wire with high quality electrical insulating tape or heat shrink tubing. This wire will remain un-terminated therefore dress appropriately near the chassis corner.
14. Obtain a 100 ohm, 1/2W, Carbon Film resistor (Mouser # 293-100).
15. Refer to figure 1 – Connect one lead of the 100 ohm resistor to pin 3 of V7. Connect the remaining lead of the 100 ohm resistor to pin 4 of V7.

16. Rotate both the Left and Right Bias Adjust potentiometers Fully Counterclockwise (when viewed from the top of the amplifier).
17. Position the amplifier so that you may safely readjust the operating bias in each channel. The correct bias voltage as measured on pin #8 of the front panel octal socket (you may wish to refer to Dynaco Stereo 70 manual for the details) is 1.56 VDC.
18. If it is difficult or impossible to set the amplifier operating bias current you may wish to execute the Stereo-70 Bias Expansion modification as described at our website (www.curcioaudio.com).
19. Replace the bottom plate and top cover and secure with the four screws.

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Figure 1 Dynaco Stereo-70 Triode Output Conversion Wiring Diagram

