

Initial setup & adjustments

1. Set the volume control to its minimum (fully counter-clockwise) position. If you do not have a volume control potentiometer wired up, then temporarily short circuit the audio input pads while performing the initial setup.
2. Pre-set the R19 and R43 bias adjustment trimpots to their minimum positions (fully counter-clockwise). You should feel a slight click when the stop is reached.
3. Measure the resistance between the +15V test pad and the star ground. Similarly, measure the resistance between the -15V test pad and the star ground. They should not be short circuited. Also, measure the resistance between each of the OL and OR output pads to the OG pad. There should also not be any shorts.
4. Make sure the DC servo opamp is installed in its socket.
5. Install a 250mA slow-blow fuse in your IEC power entry module, and then plug in the AC power cord.
6. Turn on the power. The power LED should glow. If not, check the LED polarity and the fuse.
7. With your multimeter in DC V mode, check the voltage at the +15V test pad relative to star ground. Similarly, check the voltage at the -15V test pad. They should both read close to +15V and -15V, respectively.
8. Set the multimeter to DC mV mode. Measure the DC offset voltage between OL and OG. Similarly, check the voltage between OR and OG. They should both be under 1mV.
9. With your multimeter in DC mV mode, measure the voltage across R23. Slowly turn the R19 trimpot clockwise until you read about 8mV. This corresponds to about 17mA of quiescent current through the output stage. Repeat this while measuring R47 and adjusting R43.
10. Let the amplifier warm up for about 15 minutes. The output transistors' quiescent current will increase due to the positive temperature coefficient of BJTs.
11. Measure the voltage across the R23 and R47 resistors again. This time adjust the R19 and R43 trimpots, respectively, until you read about 14mV. This corresponds to about 30mA quiescent current. You may need to re-check and re-adjust this several more times to get it to settle consistently at about 14mV. The output transistors should feel a bit warm.
12. Check each channel's output DC offset again to make sure it remains below 1mV.
13. Optional: If you have an oscilloscope, you may wish to connect it to the amplifier outputs to check for oscillation.
14. If you had the inputs shorted for this procedure, remove the short and wire up the audio inputs appropriately.
15. The initial setup is done. Before you connect any input source to the amplifier, measure the source to make sure it has no DC offset at its output.
16. If all is well, you can now connect the input source as well as headphones, and turn the volume up for a listen.

