
Trends

Innovative HiFi Audio

Trends PA-10 Tube Headphone/Pre Amplifier

Version 1.0

Technical Note





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Tube Headphone/Pre Amplifier PA-10

Technical Notes (for professional user only)













Thank you for your purchase of Trends PA-10 Class-A tube headphone/pre amplifier.

Trends Audio has already pre-set the jumpers and fine-tuned the DC bias voltage of each PA-10 with the packaged vacuum tube before shipping. However, changing different tubes to taste for different sound is the great fun for many audiophiles and also a great feature of PA-10. There are some important notes should be aware before changing tubes.

Trends PA-10 supports two major tube series: (1) **6DJ8, 6922, 6N11, 6H23n, ECC88, E88CC, etc...**, and (2) **12AU7, 5963, 5814, ECC82, etc...** If you change the tube within the same series, it needs to re-tune the DC bias voltages ONLY. If you change the tube from another series, it needs both to re-tune the DC bias voltages and re-set the jumpers. **Otherwise, the tube may be burnt out.**

1. Jumper Setting for Different Tube Series

You can simply configure the amplifier to support the two different tube series by resetting the jumpers in J3, J4, J5 in the PCB as follows. (Remember to power OFF the machine before setting)

	6DJ8 series	12AU7 series
J3	 	 
J4	 	 
J5	 	 

2. DC Bias Voltage Tuning

Since each tube may deviate a bit in parameters, especially from different series, it needs to re-tune the DC bias voltages to guarantee the machine is working in the best point and performing the best sound quality.

There are two blue precise adjustable potentiometers (R3, R13) for tuning the DC bias voltage of each channel. The DC bias has been tuned in factory. But after run-in for a period or changed another tube, it would be deviated that the fine-tuning is needed.

Before you tune these, you need a screwdriver (take off the case), a small screwdriver (turn the screw of the potentiometer) and a (digital) multi-meter to detect the DC bias voltage.

1. Use screwdriver to take out the two upper level screws in the front panel & another two screws in the back panel. Then, open the upper case.
2. Power ON the machine with no audio signal input.
3. Wait at least 5 minutes for the machine to run in.
4. Use the multi-meter to detect the DC voltage between the test point **A(L)** [red] in the PCB & the **GND** [black] (e.g. the ring of the power switch or the outer ring of those RCA sockets) of the LEFT channel.
5. Turn the screw on the top of the **R3** potentiometer by a small screwdriver clockwise or anticlockwise until the voltage as close as to **+16.5V**.
6. Then, repeat step 4 and 5 for the RIGHT channel by changing the test point to **A(R)** [red] and turning the screw on the top of the **R13** potentiometer.
7. Power OFF the amplifier.
8. Cover back the upper case and tighten the screws.

3. Contact Us

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