

Bryston 4B-SST debugging instructions:

1. Ensure that all components are of acceptable quality and properly installed;
2. Ensure that all solder joints are free of false soldering and short circuits;
3. Do not install the power tube before power-on and the transformer is connected in series. 60-100W Incandescent bulbs, especially all SGND and PGND on the board Use the GND of the large reservoir;
4. Test whether $\pm V_{2A}$ (ie C26, C30 capacitor voltage) is after power-on.
 $\pm 33V$ or so (all between 31-33V is normal);
- 5, adjust VR1, the measured output OUT is close to 0V ($\pm 10mV$);
6. Adjust VR2 and measure R38; R39; R40; R41 The voltage across R41 is the minimum value, and the range is about 0.5-0.58V (if there is an oscilloscope to test the signal channel, there is no problem);
- 7, properly install the power tube (must connect the incandescent bulbs in series), adjust VR2
Make Q19 current about 5mA; after removing the bulb, adjust VR2 again to make Q19 current 70-80mA (ie, the voltage across R45 is 23-25mV);
8. Re-adjust VR1 to make the output OUT close to 0V (within $\pm 10mV$);

Precautions:

*****Bryston power amplifier design has a bias voltage delay. In fact, the bias voltage can be stabilized after 2 minutes of power-on. Do not adjust the bias voltage immediately after power-on, otherwise it will affect the safety of the large tube.

***** If you increase the power amplifier voltage, you must re-adjust the current to the unbiased flow before accessing, and then re-adjust the current and midpoint after access*****

***** If the supply voltage exceeds $\pm 70V$, be sure to pay attention to the component quality and authenticity*****

***** If the quiescent current suddenly increases during the debugging process (1A or more), it means that the power amplifier is self-excited, you can change C12 and C13 to 150pF*****

***** If the 220V socket of the mains is connected to the ground wire, please change the R62 to 220R*****