

LS9D PSU installation Guide

ARNING!! HIGH VOLTAGE , PLEASE BE CAREFUL.

Introduction: LS-9D can outputs 240~400V, 100mA high voltage x 1 and DC heater voltage x 2. The heater default voltage is 12.6VDC, but you can modify to 6.3VDC. High voltage is using 6Z4 for current regulation; 12AT7 for comparison, 12B4A is used for output voltage adj.

INSTALLATION:

1. Let use DIYGene 100VA R80-44 R Core transformer, and we need to output 1 x 250-280V, 1 x DC12.6V and 1 x DC6.3V. and it match perfectly with LS-26 preamp pcb. R80-44 got 2x0-300V , 1 x 0-15V, 2 x 6.3V
2. In default, factory use a 5.1Ohm for drop the voltage to 12.6V. but it is not the perfect solution from DIYGene opinion. You may use a jumper to short the 5.1ohm and change the 7812 IC to 7806 IC. And you will have a more perfect heater voltage.
3. Let us handle the heater voltage, connect the 6.3V to the PCB 6.3V output set (input). and the high voltage's regulation tubes(3xtubes) needs 6.3V and 12.6V(AC) , 1 x 6.3V can connect to the pcb directly, and then 12.6V(AC) needs to use 2 x 6.3 (AC) and connect in series to get the 12.6V(AC) . You may mark on the wires , mark 1 & 2 on 2 x purple wires, mark 3&4 on 2 x grey wires.
If you connect the cable 1&1 to the 6.3V input, and then connect the cable 3 to one of the 12.6V point. And connect the cable 4 to the cable 2. And use cable connects the 6.3V cable 1 to another point on the 12.6V set.
4. Connect the 0-15V cable to the DC12.6 set (amp board heater voltage) input point.
5. and now we handle the high voltage part, use 0-300V x 2 (from the transformer), they are white-blue, white-blue. First of all, connect first set blue wire to another set's white wire and connect this 2 wires to the 0V(or GND) on the PCB. And connect the remaining wires to the PCB's remaining holes.
6. Now you can connect to the power to test, first you test the DC heater voltage , are they 6.3V and 12~15.5VDC.
7. And then we test the high voltage part, is it AC6.3V and AC12.6V? Normally 12.6V set is the problem area. If you got a few mV, please unplug the power. And switch the cable 3 and cable 4. And now you should have 12.6VAC.
8. NOW, you can put the tubes on the sockets. And you will see are there any light coming out from the tubes.
9. Finally you can adj the high voltage with the VR1.

USE R80-44 transformer and LS-26 preamp as example:

AC6.3V (PUR) AC6.3V(GRY) AC 300-300-0 (BLU/WHT/BLU/WHT) AC12.6V AC15V(ORG) CHG to 7812

