



Here's the high voltage regulator section of a Stern SDU100 Module. I call this "Type 2" as it has all the additional printing on the circuit board, has no fuse, and has a few more parts than the "Type 1" board. Be sure to note the polarity when you mount the large filter capacitor C26, the three transistors Q22, 23, and 24 and the diodes CR21, 22 and VR1. The diodes have a banded end that corresponds to the bar on the diagram printed on the circuit board. Do not confuse the blue mark on VR1 with the actual white-colored band. Also be sure to place the thermal insulator between Q21 and the heat sink, then with an ohm meter, be sure there is no continuity between the case of Q21 and the heat sink itself. You may have to dig your meter probe into the anodized finish of the heat sink to hit bare aluminum before you can make an accurate test.

The original trimmer for RT1 was quite large, and impossible to find. The Bourns trimmer supplied with your kit will work fine but the leads were modified somewhat in order to fit, as shown in the photo on the right.



Q21 – 2N3584 Transistor
Q22, Q23 – 2N3440 Transistor, heat sink on Q23
Q24 – 2N3904 Transistor
CR21, CR22 – 1N4004 Rectifier
VR1 – 1N5275A Zener Diode
C26 – 150uF, 400 Volt Electrolytic Capacitor
C27, C28 - .01uF, 630V Poly-Metal Capacitor
RT1 – 25K Ohm, ½ Watt Trimmer Potentiometer
R35 – 100K Ohm, 1 Watt Resistor (Brown/Black/Yellow)
R51 – 33K Ohm, 2 Watt Resistor (Orange/Orange/Orange)
R52 – 390 Ohm, ¼ Watt Resistor (Orange/White/Brown)
R53 – 2.4K Ohm, ¼ Watt Resistor (Red/Yellow/Red)
R54 – 8.2K Ohm, ¼ Watt Resistor (Gray/Red/Red)
R55 – 1.2K Ohm, ¼ Watt Resistor (Brown/Red/Red)
R56 – 82K Ohm, ½ Watt Resistor (Gray/Red/Orange)
R73 – 3.3 Ohm, ¼ Watt Resistor (Orange/Orange/Gold)
R74 – 470 Ohm, ¼ Watt Resistor (Yellow/Violet/Brown)
R75 – 100K Ohm, 1 Watt Resistor (Brown/Black/Yellow)