



12432

MODEL 416A RATIO METER
SERIALS PREFIXED 002- & BELOW
REPLACEMENT OF CONTROL TUBE V2 FOR INCREASED STABILITY

Replacement of the type 12AT7 tube for Control Tube V2 with a type 6DJ8 tube will provide increased circuit stability in the above instruments. A simple modification in the dc heater supply circuit for V2, V3, and V4 will permit the change in tube type.

Here are the parts you need for the modification: A type 6DJ8 tube (Stock No. 1932-0022) and one or two 12-ohm, $\pm 10\%$, 2-watt fixed composition resistors to compensate for the increased heater current.

INSTALLATION PROCEDURE -

- 1) Turn off power, remove instrument from cabinet, and replace 12AT7 for V2 with type 6DJ8 tube.
- 2) Remove bare jumper between pins 4 and 5 of V2 socket, and add a bare jumper from pin 5 to pin 9 on V2 socket.

3) Serial No. 1003 and below: Remove existing wire between R118 and junction of selenium rectifier and wirewound resistor R119. Add two 12-ohm, $\pm 10\%$, 2-watt resistors (parallel) between end of control R118 and junction of selenium rectifier and wirewound resistor R119.

4) Serial No. 1004 thru serials prefixed 002-: Add one 12-ohm, $\pm 10\%$, 2-watt resistor in parallel with existing 12 ohm resistor between end of control R118 and selenium rectifier junction with R119.

5) Connect dc probe of a VTVM such as Model 410B to negative voltage point (see Figure 1). Connect common test lead to chassis.

6) Turn on power. With line voltage adjusted to 115V AC, adjust dc heater voltage to -6.3V with control R118.

7) Refer to Operating and Servicing Manual for Model 416A and make Electrical Zero and Full Scale adjustments as described.

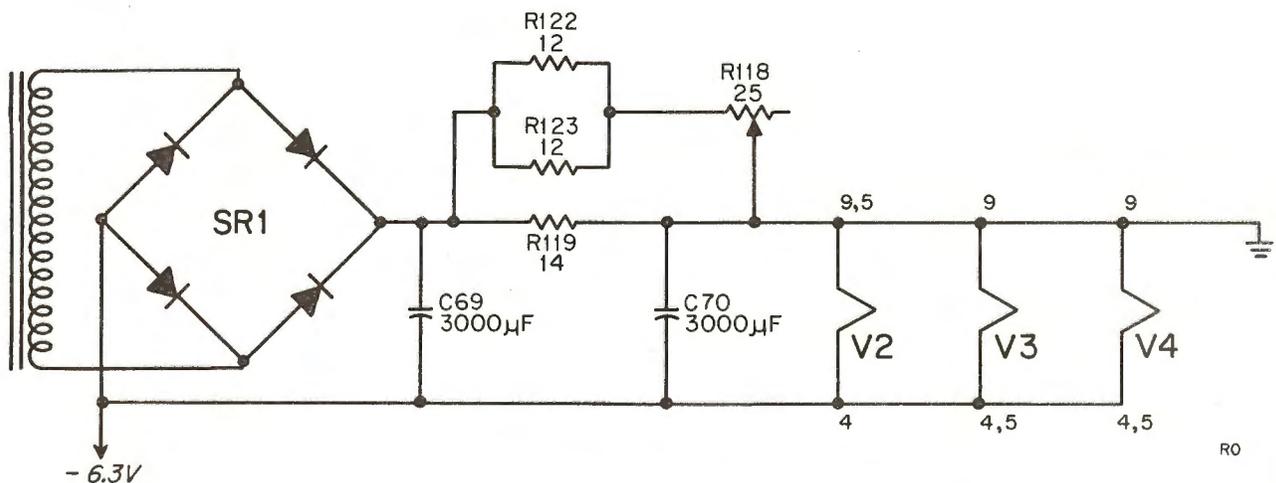


Figure 1. Modified DC Heater Circuit for Model 416A

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