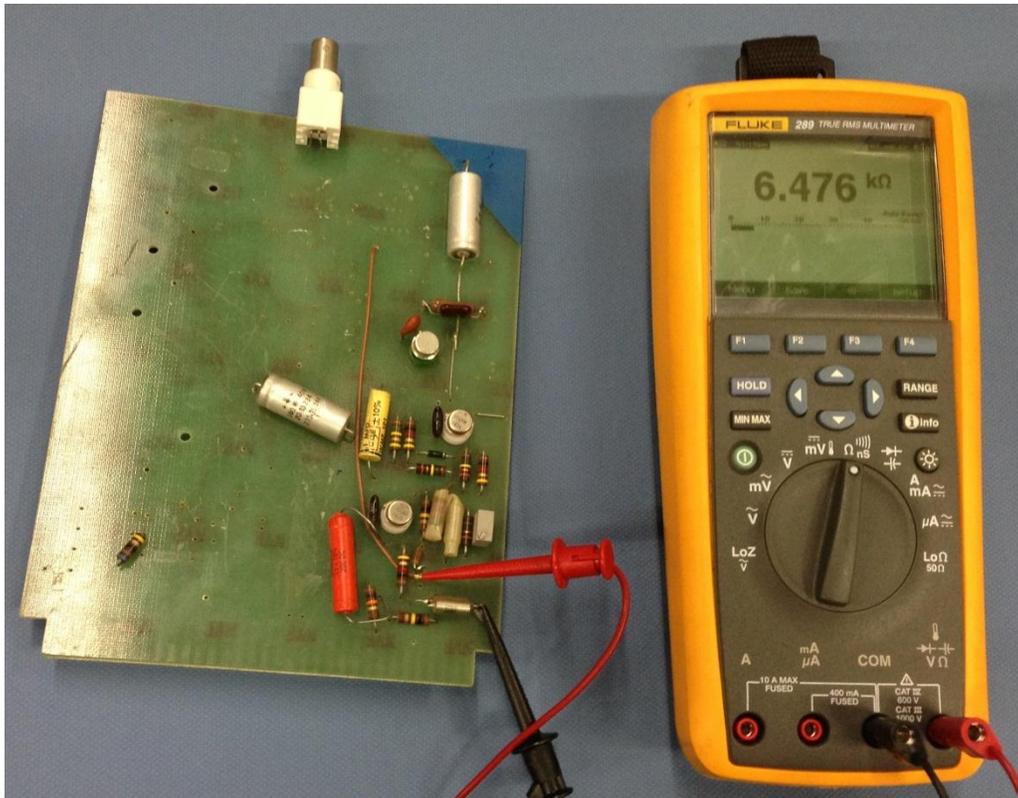


HV Readback Calibration



To calibrate the read back for high voltage in ACNET to match the HV panel meter, you can adjust the high voltage monitor potentiometer on the back of the A3 SCR Controller Slow Start & Regulator Board (#230-EB-491027).

- At the typical operating voltage, measure both the panel meter on the station and the RF readback in ACNET.
- Using the standard safety procedure, shut down the system, remove the Slow Start & Regulator board from the A3 SCR controller, and measure the resistance from the board ground to the middle pin of the potentiometer, as seen in the picture.
- Multiply this resistance by the panel meter reading divided by the ACNET RF readback. This will give a new resistance value to set the potentiometer to calibrate the readback.
- Set the resistance of the potentiometer from center pin to ground to this new number
- Reinstall the Regulator Board and recheck.

In this calibration procedure, we are assuming the HV meter is the accurate standard on which to calibrate from.

As an example, on LRF7 these measured 40kV on the meter and 56.7kV in ACNET. The potentiometer was measured as 9457 Ohms, so we get $9457 * 40000 / 56700 = 6671$ Ohms. We then measured 40kV on the meter and 41.7kV in ACNET. Since we desired even greater accuracy, this calibration procedure was tried again and a new value of 6400 Ohms was tried, which got both readbacks within 1 percent. This procedure will also work if the value in ACNET is less than the HV meter reading.