

Field Calibration Check 9500P Electronics

The 9500P electronic signal conditioner output can be checked by simulating the voltage output of the Flow sensor with an external DC voltage source.

- 1 Turn off power to flow meter.
- 2A For Integral 9500P:
 - 2A1 Remove push-on jumper across pins 4 and 5 of TB1 (located above Zero and Span Pots on Logic Board as shown below).
 - 2A2 On TB1, connect an external variable DC voltage source, negative to Pin 2 and positive to Pin 5 (pin 1 is closest to the front).
- 2B For Remote 9500P:
 - 2B1 Disconnect cable from electronics terminal TB2 (Located on board opposite side of the Logic Board).
 - 2B2 Connect an external variable DC voltage source to terminal TB2, negative to terminal 2 and jump it to 3. Connect the positive to terminal 4.
- 3 Apply power to the electronics.
- 4 Locate the calibration specification sheet in the instruction manual labeled "Component Values Determined at Calibration".
- 5 Turn on variable DC voltage source and set DC voltage to the 10% of full scale flow rate transducer voltage (EXC). The display, if available, should indicate the 10% of full scale flow rate. The DC mA Output should be 5.6mA (10% of scale). If the mA output is not correct, adjust ZERO potentiometer R6 until 5.6 mA.
- 6 Set the DC voltage to the 90% of full scale flow rate transducer voltage (EXC). The display, if available should indicate the 90% of full scale flow rate. The DC mA output should be 18.4 mA. If the mA output is not correct, adjust SPAN potentiometer R7 until 18.4 mA. You may have to return to step #6 if any adjustments were made due to the ZERO and SPAN potentiometers adjustments offset each other a little.
- 7 After the 10% and 90% of full scale flow rates are checked, check 0, 20, 30, 40, 50, 60, 70, 80, and 100% points.
- 8 Turn off power to the DC Voltage Source and flow meter.
- 9 Disconnect the DC Voltage Source.
- 10A For Integral 9500P, place jumper back on across pins 4 and 5 on TB1.
- 10B For Remote 9500P, reconnect the cable to electronics terminal TB2.
- 11 Turn on power to flow meter.
- 12 If procedure does not prove satisfactory, recheck steps taken and if necessary contact Thermal Instrument Company for assistance.

