

Desco Industries Inc.
Auto-Cal unit
PRODUCTION TEST PROCEDURE

1.0 Equipment Required.

- 1.1 +/- 300V Reference Supply, 0.75% accuracy or better, ME Model 241 or equivalent.
- 1.2 3½ Digit DVM.
- 1.3 Adjustable +/- 5V Power Supply.

2.0 Set-up.

- 2.1 Adjust the Power Supply to within +/- 50mV of +/- 5V and connect +5V to J2 pin 1 and connect -5V to J2 pin 3. Connect ground to J2 pin 5.
- 2.2 Connect the Reference Supply output between the sensor plate and ground (J2 pin 5 or J1 pin 4).
- 2.3 Connect the DVM between J1 pin 1 (J2 pin 6) and ground.
- 2.4 Power-up all the equipment and set the Reference Supply for 0V out.

3.0 Test

- 3.1 At turn-on, the blue Power LED and the two center green LEDs should be lit on the 290-2. If any others are lit, press the Zero switch and they should go out.
- 3.2 Apply +10V to the sensor and green LED CR4 should light.
- 3.3 Apply +20V and yellow LED CR3 should light.
- 3.4 Apply +30V and yellow LED CR2 should light.
- 3.5 Apply +40V and red LED CR1 should light.
- 3.6 Apply +100V and the DVM should read between +0.968 and +1.032V.
- 3.7 Apply +300V and the DVM should read between +2.91 and +3.09V
- 3.8 Switch the Reference Supply to 0V, press the Zero switch and the center two LEDs and the Power LED should be the only ones lit.
- 3.9 Apply -10V to the sensor and green LED CR7 should light.
- 3.10 Apply -20V and yellow LED CR8 should light.
- 3.11 Apply -30V and yellow LED CR9 should light.
- 3.12 Apply -40V and red LED CR10 should light.
- 3.13 Apply -100V and the DVM should read between -0.968 and -1.032V.
- 3.14 Apply -300V and the DVM should read between -2.91 and -3.09V.
- 3.15 Move the DVM from J1 pin 1 to J2 pin 6 and get the same reading as in the previous step.