Fig. 1 shows a Pantera temperature gauge with one ohm of resistance between the gauge housing ground connection and the sensor ground connection and the gauge illumination lamp OFF.



Fig. 1

Fig. 2 shows the same gauge with one ohm of resistance between the gauge housing ground connection and the sensor ground connection with the gauge illumination ON. The upscale movement of the gauge indication is caused by the approximately 0.200 amp lamp current flowing thru the one ohm ground resistance.

