# Static Locator
# Model 281

**GENERAL:**

The Model 281 Static Locator is a high quality, portable non-contacting static meter which produces consistently accurate readings with ease and offers years of trouble-free operation. It will indicate surface voltage and polarity on objects up to ±20kV at a spacing of one inch with an accuracy of 10% of full scale. The 281 also features a pushbutton to hold readings and automatic power down to conserve its battery.

The 281's accuracy is dependent upon three factors:

- The instrument must be properly zeroed.
- The distance from the front edge of the case to the target or surface under examination must be accurately defined.
- The target must be large relative to the measurement distance. It should be at least 5" x 5" for true accuracy.

**OPERATION:**

1. Press the **POWER ON/HOLD** button and release.
2. Discharge your body by touching a grounded conductive object, e.g. water pipe, metal electrical conduit, grounded machinery or workbench. Alternatively, the operator may wear a grounded wrist strap or place a wrist strap around the instrument. The case of the instrument is conductive and is the reference for the measurement.
3. Face the static locator away from charged objects and depress and release the **ZERO** button twice. The instrument may also be zeroed by pointing it toward a known grounded surface (such as the palm of the opposite hand) and depressing the **ZERO** button twice. Although you must be careful not to contact the recessed electrode, the amount of spacing between the electrode and the target is not critical when zeroing the instrument.
4. Point the sensor plate toward the target and move to a spacing of one inch between the edge of the case and the target. Note the meter reading. To hold the reading, press and hold the **PWR ON/HOLD** button.
   A source with a negative polarity will show a minus (**-**) sign in the display. A positive source will display no sign.


   **NOTE** — If, as you approach the target, the indicated field strength begins to exceed 20kV at a distance greater than 1", **STOP!** This implies that the target voltage may be high enough to create an arc. Proceed with caution.
5. Repeat the above for additional measurements.
6. The instrument will automatically shut off after about 1-1½ minutes from the time the **PWR ON/HOLD** button is last activated.

**BATTERY REPLACEMENT:**

The unit should be off while replacing the battery. Normal battery life is about 200 hours of use. The battery should be replaced when the "BAT" indicator appears in the display above the "HOLD" indicator for more than an instant or at least once a year. Dead battery voltage is approximately 7.2 volts.

Replacement type is Eveready #216 or equivalent NEMA 1604. Remove the battery when storing the instrument for an extended period of time.

**CLEANING:**

If excessive drift is noted, the surface of the electrode may require cleaning. Wipe the surface with a soft cloth saturated with clean alcohol and allow to dry thoroughly. Dust off any lint.

**WARRANTY:**

Monroe Electronics, Inc. warrants to the owners, each instrument and subassembly manufactured by them to be free from defects in material and workmanship for a period of two years after shipment from the factory. This warranty is applicable to the original purchaser only.

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