


Static Locator

Features:

- Perfect for checking effectiveness of work station grounding systems
- Precise, easy-to-read digital display
- HOLD button freezes display to capture transients or for hard-to-read locations
- Battery SavR™ turns instrument off when not in use
- Pocket-sized convenience
- Simple to use
- Exclusive Monroe Electronics two-year warranty
-  RoHS Compliant

The most affordable static locator you can buy

Now there's no excuse for letting static buildup cause costly product damage. The Model 281 makes ME quality so inexpensive and handy you'll want one instantly available wherever static can strike:

- **"Static-free" workstations** - for frequent checks of grounding straps, mats and similar
- **Converting, printing, laminating, or coating operations** - to spot static buildup before it spots your product or jams your line

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 $\pm 20\text{kV}$ at a spacing of one inch with an accuracy of 10% of reading. 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. Display should read $0.00\text{kV} \pm 5$ counts maximum. 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.

Static Locator model 281

Specifications:

Readout: 3½-digit LCD automatically displays measured voltages and polarity plus HOLD and LOW BATTERY indicators

Normal Range: ±20kV at 1 inch with correct range and polarity automatically selected

Extended Range: Voltages of 20kV and higher may be measured by increasing the distance to the target:

kV	Distance	Multiply reading by
0-40	4.0 inches	2
0-80	8.5 inches	4

Accuracy: Better than ±10% of reading
± LSD + zero offset

Zero

Tolerance: ± 5 counts, ± 3 counts typ.

Response: Display updates three times per second

Grounding path: Through conductive case

Battery SavR™

timeout: 90 seconds, typical

Battery: 9-volt Eveready #216 or equivalent, NEDA # 1604

Battery life: 200 hours of normal use

Dimensions: 4.2x2.4x.9 inches
(10.7x6.1x2.3 cm)

Weight: 5 oz. (142 gm)

Accessories: Instruction sheet, 9V battery



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.

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.

Calibration:

Monroe Electronics instruments are factory-calibrated prior to shipment. Recalibration should be performed annually, or more frequently if specified by contract or company policy. Your instrument should also be recalibrated any time it has been repaired or tampered with. We will be happy to perform the calibration for you or refer you to one of our Authorized

Warranty:

Monroe Electronics, Inc., warrants that each instrument and sub-assembly manufactured by them shall 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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The Monroe Electrostatic & ESD product line is now owned by Advanced Energy and managed by TREK in Lockport, NY.