

ACL 300B

PRECISION ELECTROSTATIC LOCATOR



Measures static charges instantly, reliably, economically!

Reliable on-the spot measurement of static charges has never been easier than with the portable ACL Model 300B. Hand-held, yet highly accurate, the ACL 300B answers three basic questions:

- 1) Is static present and on what surfaces, materials or people?
- 2) How much static?
- 3) What is the polarity of the charge?

The instrument is ideal for use in such static sensitive environments as electronic component production and assembly areas, clean rooms, computer, medical and R&D laboratories, surgical rooms, medical device manufacturers, printing presses, packaging and production lines, etc.

No auxiliary attenuators or heads are required; the ACL 300B is completely self-contained. To minimize error from

extraneous state fields, the unit utilizes a recessed nickel-plated sensing electrode which operates on a high/low circuit. The low range measures 0-500 volts at 0.5" to the surface being measured, and 0-3,000 volts at 4". The high range measures 0-5,000 volts at a distance of 0.5" and 0-30,000 volts at 4". For repetitive measurements, the ACL 300B features a unique "quick zero" function which instantly zeroes the instrument and provides ground compensation for the user.

Features:

- Measure static charges from 0 to 30,000 volts
- Convenient pocket size
- Designed for close-in repetitive readings
- Uses standard 9-volt battery
- Battery test feature
- Low drift
- Repeatability $\pm 1\%$, accuracy $\pm 10\%$
- One-year warranty on parts and labor
- Optional case available

ACL 300B Precision Electrostatic Locator

Technical Data

OPERATION:

1. The instrument is ON when the RED Power/Range selector switch is in LO or HI position.

Static charges may be interpreted as follows:

RED Switch Position	Distance from face of electrode to target	Static Meter voltage range
LO	1/2"	0-500v
LO	4"	0-3,000v
HI	1/2"	0-5,000v
HI	4"	0-30,000v

LO Range is read directly from meter. HI Range is 10 times meter reading. If general magnitude of charge is unknown, start in LO range.

2. Discharge your body by touching a grounded metal object, e.g. water pipe, metal electrical conduit, grounded machinery or workbench.
3. Face the instrument away from charged objects, press the black ZERO switch twice, then release. Switch will return to READ position. The instrument may also be zeroed by pointing it toward a known grounded surface and pressing the ZERO switch twice.
4. Point electrode toward target and move to a separation of either 4" or 1/2". Note reading on appropriate meter scale.

NOTE: Separation is measured from the front surface of the electrode OR the corresponding edge of the groove surrounding the case (forward of the RED switch).

5. Repeat 1 through 4 for additional measurements.
6. Return RED switch to mid-position to turn instrument OFF when not in use.

Battery Replacement: The unit uses a 9V transistor battery. Replace battery on Low Indication in battery test. Replace battery when storing instrument for an extended period of time.

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

SPECIFICATIONS:

Weight: 5.5 oz. (with battery)

Size: 4 3/8" x 2 5/8" x 1 5/16"

Repeatability: ± 1%

Accuracy: ± 10%

NOTE: Accuracy is dependent on three factors:

1. The instrument must be properly zeroed;
2. The distance from the surface of the sensitive electrode to the target or surface under examination must be accurately defined;
3. The target must be large relative to the sensitive electrode.

For total accuracy, the target to be tested must be 2" x 2" or larger at the 1/2" range. At the 4" read range, the target must be a minimum of 16" x 16". Smaller target will result in inaccurate readings.

**ACL Staticide**
Specialists in Static Control

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