

# ACL MODEL 300B

## PRECISION ELECTROSTATIC LOCATOR

### INFORMATION SHEET

#### FEATURES:

- Convenient Pocket Size
- Light Weight
- Excellent Reproducibility of Readings
- Standard 9 Volt Battery
- Long Battery Life
- Multiple Ranges
- Low Drift
- Accuracy  $\pm 10\%$  Of Full Scale At  $\frac{1}{2}$ " Spacing
- Battery Test Switch

#### GENERAL:

The Model 300B is a high quality, portable, no-contacting voltage meter which when used properly, will produce consistently accurate readings with ease and will provide years of trouble-free operation.

Its accuracy is dependent upon 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. (We refer to these relative sizes in our "field of view" graph as "aspect ratio.")

#### OPERATION

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

Static charges ma be interpreted as follows:

RED switch Position	Distance from face of electrode to target	Static Meter Voltage range
LO	$\frac{1}{2}$ "	0-500V
LO	4"	0-3000V
HI	$\frac{1}{2}$ "	0-5000V
HI	4"	0-30,000V

LO Range is read directly from the 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 and release. Switch will return to the 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 wither 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 thru 4 for additional measurements.
6. Return RED switch to mid-position to turn instrument OFF when not in use.

**BATTERY REPLACEMENT:**

To check battery, activate test switch, meter should indicate above red battery line. Turn off unit before replacing the battery. The battery should be replaced after 40 hours of use or at least once a year. (NOTE: dead battery voltage is 5.5 volts.) Replacement battery is Everready 216 or equivalent. Remove the battery when storing the instrument for extended periods of time.

**CLEANING:**

If 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.

