



Easy to Use:

While away from ionized airflow, turn the ACL 450 fieldmeter on and check "zero" reading. Slide the plate assembly onto the 450 fieldmeter. Select charger polarity by grounding the opposite terminal. (Ground "-" to select "+"). To charge the plate adapter, place it in contact with the appropriate charger terminal. Position the fieldmeter with the plate adapter in the ionizer airflow. The meter should rapidly drop from 1100 V to zero.

To test the decay rate, connect the fieldmeter to a chart recorder or use a stopwatch to measure the time required for the voltage to decay from $\pm 1.00\text{kV}$ to $\pm 0.10\text{kV}$.

To check balance, attach plate adapter to fieldmeter and point it into the ionizer airflow. Check for an average reading of zero. An offset reading indicates an unbalanced ionizer.

Note: All tests should be performed while wearing a wrist strap to ensure proper grounding.

Product # ACL 450 includes carrying case, 9-volt battery, and NIST-traceable calibration certificate.

Product # ACL 450CPS includes charge plate monitor and carrying case.

ACL 450CPS

Charged Plate System for the ACL 450

Low cost way to test air ionizer performance

Increase the utility of your ACL 450 Electrostatic Fieldmeter for ionized environments by adding the 450CPS Charged Plate System. The 450CPS Charged Plate System will allow the 450 fieldmeter to test and monitor the effectiveness and balance of air ionization devices. The 450CPS includes a charge plate attachment for the ACL 450 fieldmeter and a charging source to charge the plate attachment. The fieldmeter then measures the plate voltage during balance and decay tests. This low-cost system, designed to meet ESDA Standard DSP3.3 Periodic Verification of Air Ionizers, correlates closely to tests results from table-top charged-plate monitors.

Performing both positive and negative decay tests, the HOLD feature on the meter permits balance measurements to be taken in areas inaccessible with standard charged plate monitors. The analog output provides 1 volt output corresponding to a 10kV reading on the display.

Plate Assembly Specifications:

- ❖ Plate Capacitance: 12 picofarads \pm 2 picofarads
- ❖ Range: 0 \pm 2 kV
- ❖ Grounding: Connection through ACL 450 conductive case
- ❖ Weight: 1.5 ounces

Charger Specifications:

- ❖ Output: 1100 VDC normal, < 1 μ A max.
- ❖ Output Terminals: Two acorn buttons labeled (+) and (-). To select, ground opposite terminal.
- ❖ Power Supply: 9-volt alkaline battery
- ❖ Relative Humidity: 10% to 80% non-condensing
- ❖ Temperature Range: 10° to 30° C (50° to 86°F)
- ❖ Weight: 2.8 ounces
- ❖ Size: 3.75" x 2.88" x 1.00" (9.53 x 7.32 x 2.54 cm)