

CHARGED PLATE ANALYZER CPA KIT

Model 204
Model 216

A low cost, hand held, full function charged plate analyzer for verifying the performance of ionizers, static protective material and ESD controlled installations. Meets both ESDA STM 3.1-2000 "*Ionization*" and SP3.1-2000 "*Periodic Verification of Air Ionizers*". Use in applications requiring a charged plate monitor for measuring static dissipation such as SAE J1645 for automotive fuel system assemblies and triboelectric charge analysis. The Model 204 can also be used as a static field meter. The Charged Plate Analyzer Kit, contained in a soft shell carrying case, includes plug-in 6"x6" (152x152mm) detector plate, tripod, Utility Wiring Verifier with ground jack plus Humidity/Temperature/Dew Point Indicator.

Features:

- Fully functional Static Meter
 - Chopper stabilized
 - Operates in ionized air
 - 3½-digit LCD meter
 - 1 Volt resolution
 - Recorder output
- Internal ±1200V charging source.
- Internal timer
 - Counts to 60 seconds
 - 0.3 second resolution
- Standard 20pf capacitance
- 1x3" (25x76mm) detector plate
 - Optional Plug-in 6x6" (152x152mm) plate
- Small, lightweight enclosure
- Operates from single 9V battery
- Meets ESDA STM 3.1-2000



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Description:

The Model 204 Charged Plate Analyzer combines the functions of the ETS Model 212 Static Meter with the Model 208B Charging Source plus timing circuit and removable Model 205C Charged Plate Detector to form a compact, portable, battery-powered charged plate measuring system.

The precision electrostatic fieldmeter features a chopper-stabilized sensor for long-term, accurate measurements in both normal and ionized environments. When used as a field meter only (Charged Plate Detector removed), it can measure from 0- ± 20 kV at a Meter-to-object distance of 1 inch (25mm). Higher voltages can easily be measured by increasing the distance. A zero control allows the user to compensate for offsets when required.

The internal charging source is a miniature, dual polarity 1200 Volt (approximate) power supply that charges the isolated 1"x3" (25x76mm) detector plate when either the + or - CHARGE button is depressed.

The charging function automatically activates the timing mode. As the applied 1200 Volt charge on the detector plate decays, either by ionization or by dissipation through a resistance, the timer starts when the measured voltage drops to 1000 Volts and stops when it decays to 100 Volts. Decay times to 60 sec. in 0.3 sec. increments, or optionally to 6 sec. in 0.03 sec. increments, can be measured.

The 3½-digit LCD meter displays the voltage (1 Volt resolution), polarity, low battery warning plus dissipation time when the decay function of the Analyzer is used.

A recorder output (200mV full scale) allows a visual or hard copy record of the measurement.

The Charged Plate Detector snaps onto the front of the unit. When installed the maximum measurable voltage is ± 2000 Volts with 1 Volt resolution. A 10:1 configuration (100V resolution) is available as an option for high voltage applications. An optional 6"x6" (152x152mm) standard size plate plugs into the 1"x3" (25x76mm) detector plate to convert the Model 204 to a full size charged plate monitor. A ¼-20 threaded insert enables the instrument to be mounted onto a tripod.

The Model 216 Kit includes the Model 204 Charged Plate Analyzer, 6"x6" (152x152mm) detector plate, tripod, Model 256 Utility Wiring Verifier with standard banana jack and the Model 546 Humidity/Temperature/Dew Point Indicator housed in a soft shell carrying case.

Specifications:

FIELDMETER/POWER SUPPLY

| | |
|--------------------|--------------------------------|
| Sensor: | Vibrating Reed |
| Range: | ± 20 kV @ 1" (25mm) |
| Display: | 3½-digit LCD |
| Resolution: | 1V (10V as a fieldmeter) |
| Accuracy: | $\pm 10\%$ (Fieldmeter) |
| HVPS: | ± 1200 V (approximate) |
| Timer: | 0-60 sec. |
| Accuracy: | 5% of Reading |
| Resolution: | 0.3 sec. |
| Rec. Out: | 2.5mm mono jack |
| Signal: | 10mV/kV |
| Power: | 9V Battery |
| Life: | 20 Hrs. typical |
| Bat Low: | All decimal points illuminated |

CHARGED PLATE DETECTOR

| | |
|---------------------|------------------|
| Capacitance: | 20 \pm 3pf |
| Det. Plate: | 1x3" (25x76mm) |
| Plug-in option: | 6x6" (152x152mm) |
| Accuracy: | $\pm 20\%$ |
| Ground: | ¼" Male Snap |
| Cord: | 10' (3m) |

MECHANICAL

| | |
|-------------|---------------------------------|
| Dimensions: | 8"Lx2.4"Wx0.9"H (203x146x229mm) |
| Weight: | 9 oz. (255gm) |

WARRANTY

One (1) Year

Specifications subject to change without notice.

12/07