



PFK-100 Field Meter Set

The PFK-100 set includes Prostat's unique PFM-711A dual range field meter, CPM-720A charged plate monitor assembly and PCS-730 ± 1 kV charging source. With this instrument set you can measure electrostatic fields, analyze ionizer performance and assess the voltage generation of materials, equipment and personnel.

The battery operated PFM-711A Field Meter is a compact "electronic chopper" design with accuracy of $\pm 2\%$ at ambient conditions (23 °C and 30% Rh). It features automatic polarity, measurement "hold" button, low battery indicator, high and low

ranges, distance ranging lights for accurate and repeatable measurements, manual zero control and a ground snap. With the supplied analog output cable, it can be used in conjunction with an X-Y plotter or any analog data-recording device.

Specifications

PFM-711A FIELD METER

Meter Display:	3½ digit Liquid Crystal Display with 0.4" digit height. Automatic polarity, HOLD and LOW BATTERY indicators.
Output:	Analog signal output and 30" two conductor cable provided. ± 10.0 kV meter reading equals ± 1.0 Volt output.
Range:	High Range 0 V to ± 19.99 kV; least significant digit indicates tens of volts at one inch distance. Low Range 0 V to $\pm 1,999$ V; least significant digit indicates 1 Volt at 1" distance. Measures higher voltages at greater distances, e.g., at 2" double indicated voltage, at 4" multiply indicated voltage by four.
Range Lights:	Red "Bulls Eye" at one inch distance
Accuracy & Environment:	$\pm 2\%$ at ambient conditions (23 °C and 30% Rh). $\pm 5\%$ at 0 to 50 °C and 0 - 85% Rh (non-condensing). Accuracy unaffected by the presence of air ionization.

Response:	Digital display updates three (3) times per second. Analog Output Time Constant: Either Range 0.1 sec. Display Time Constants: High Range 0.2 sec. Low Range 2.0 sec.
Controls:	Three position slide switch: KV/INCH - OFF - V/INCH Sample/HOLD push button, and ZERO adjust knob.
Grounding:	Meter circuit grounded through the conductive case and 10 mm snap fastener mounted on back of case.
Power:	9 Volts alkaline battery. Battery life minimum 40 hours.
Dimensions (W x L x D):	2.4" x 4.2" x 0.9" (1.3" deep with zero knob and snap fastener). (6.1 cm x 10.7 cm x 2.3 cm)
Weight:	5 oz with battery (142g)

PCS-730 CHARGING SOURCE

Input Power:	9 Volts Alkaline Battery. Battery life in excess of 40 hours continuous operation
Output:	±1,000 volts DC Minimum, Current limited to less than 1 Microamp
Output Connector:	Female banana jack provided with mating contact rod
Grounding:	10mm female snap fastener on rear of case. Note that wand must be installed and unit grounded for proper operation
Dimensions (W x L x D)	2.5" x 4" (4.2" with jack) x 1.5" (1.8" with switch and snap) (6.3 cm x 10 cm x 3.8 cm)
Weight:	6 oz with battery (170g)

CPM-720A CHARGE PLATE ASSEMBLY

Isolated Plate:	Stainless Steel parallel plates, 3.25" square. Auxiliary female jack installed.
Capacitance:	Plate Capacitance 10 picofarads (pF) ±1 pF
Range:	0 to ±6 kV at a plate separation of 0.60"
Accuracy:	±2% at 1,000 Volts. Calibration adjustment screw provided

Grounding:	Through conductive case and snap fastener of Model PFM-711A
Dimensions (W x L x D):	3.25" x 3.25" x 0.9" (8.25 cm x 8.25 cm x 2.3 cm)
Weight:	8 oz (227g)

PDT-740B STATIC DECAY TIMER

Controls	OFF-ON Cut Off Voltage, 10, 50 and 100 Volts (Selects Voltage to stop timing)
Indicators	Green LED: Decay Cycle Ready > \pm 1kV, CPM voltage > \pm 1,000 volts Red LED: Timing in Progress, CPM voltage decay timing activated LOBAT displayed when battery voltage <6.0 volts
Display	Liquid Crystal Display (LCD) displays elapsed decay time from \pm 1,000 volts to selected Cut Off voltage in seconds and tenths of a second (00.0)
Polarity	Automatically senses Positive & Negative voltage references
Zero & Reset	Automatically Resets Timer and Display to 00.0 when CPM voltage > \pm 1kV. Reset indicated when Green LED Decay Cycle Ready LED is ON.
Response	Approximately 200 milliseconds in combination with the CPM-720 and PFM-711A
Timing Range	From 0.2 to 159.9 seconds
Accuracy	Typically < \pm 5%
Power	One (1) standard 9-volt battery, PROCELL, Eveready #216 (NEDA 1604, JIS 006P, IEC 6F22)Eveready #216

Battery Life	>40 hours typical
Dimensions	4.50 inches x 2.75 inches x 1.0 inches
Weight	6.5 oz. (184 gm)

CPM-720A CHARGE PLATE ASSEMBLY

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