

# CPM-766

## Charged Plate Monitor



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## Product Highlights

- Measures Decay and Balance (Offset Voltage) in accordance with ANSI/ESD STM3.1 and IEC 61340-4-7
- Uses rechargeable Li-ion batteries
- Up to 250 hours of battery life
- Automated test sequences of tests
- Selectable stop voltages for decay tests
- Programmable delayed start option
- Large color touchscreen LCD display
- Built-in temperature and humidity sensor
- Internal memory up to 200 data sets
- Fast response time
- Analog outout



## Product Overview

### Meets ANSI/ESD STM3.1 and IEC 61340-4-7

The CPM-766 is an advanced Charged Plate Monitor that utilizes a microprocessor for assessing the effectiveness of air ionizers in neutralizing static charge within ionization systems. It offers the capability to conduct positive and negative decay tests, as well as balance (offset voltage) tests, enabling the determination of the operational efficiency of an ionization system. Compliant with the ESD Association Standard ANSI/ESD STM3.1 and IEC 61340-4-7 Ionization, the CPM-766 is suitable for testing various types of ionization systems.

### A Simple Charged Plate Monitor with a Lot of Capabilities

The CPM-766 conducts both manual and automatic decay and balance tests to qualify and periodically verify ionizers. Its internal memory is capable of storing up to 200 test data. The test data includes balance averages, temperature and humidity, date and time and can be saved under specified locations and areas.

### Portable Instrument that can Operate on Rechargeable Batteries

The CPM-766 is equipped with a Li-ion battery pack that can be recharged through a USB connection. With a battery life of over 250 hours when in standby, it enables you to conduct around 1000 tests on average.

### All the Functions you need for your Ionizers

When operating in Decay mode, an internal high voltage generator is utilized to charge the plate to a voltage up of 1250 volts. During the test, the CPM-766 observes the duration required for the conductive plate to decay from 1000 volts to the stopping voltage selected by the user.

In the Balance mode, the Charged Plate Monitor will measure the offset voltage on the floating plate to determine an imbalance of positive and negative ions of an ionizer. An offset voltage threshold can be set to 35, 100 volts or 200 volts, where the information on the display during the test turns red to notify the user.

The CPM-766 provides the ability to perform automated Decay tests that can include a Balance test, in sequence. The number of Decay cycles and Decay sequences are determined by the user.

In Manual Operation you will be able to isolate the plate, charge the plate up to  $\pm 1,250$  volts, ground the plate and control the timer for custom testing.

### Large Intuitive Touchscreen Display

Using a large 5" color touchscreen LCD display, the CPM-766 displays clear, easy-to-use controls and a full keyboard that allows customization of labels, even while wearing gloves.

The CPM-766 is equipped with 2 standard ground jacks, an analog output jack, and a single USB-C port that provides connectivity to your PC for software updates and charging.

The 6" x 6" isolated plate is not detachable and cannot be removed.





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| Characteristics                            | CPM-766                                                                                                              |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Charging Range                             | ±1,250 ±5% volts DC                                                                                                  |
| Charging Speed                             | Charges from zero to over ±1000 volts in 3 seconds at ambient conditions                                             |
| Accuracy                                   | Voltage Monitor Output: Better than ±5% of reading, ±10 mV<br>Voltage Display: Better than ±5% of reading, ±2 counts |
| Response Time                              | Less than 180ms (90-10%)                                                                                             |
| Sensor Noise Signal (Typical) <sup>1</sup> | Maximum Voltage: +3 volts<br>Minimum Voltage: -5 volts                                                               |
| Output Connection Type                     | BNC Connector located on the back panel                                                                              |
| Analog Output                              | ±2 Volts                                                                                                             |
| Output Scale Factor                        | 1 Volt output corresponds to 10 kV                                                                                   |
| Conductive Plate Size                      | 6.0" x 6.0"<br>15.2 cm x 15.2 cm                                                                                     |
| Capacitance                                | 20 pF ±2 pF                                                                                                          |
| Display Type                               | Color Capacitive Touchscreen                                                                                         |
| Display Size                               | 5.0" Diagonal                                                                                                        |
| Glove Use                                  | Supports PVC, PE, Lightweight Rubber Gloves (0.3mm thick)                                                            |
| Power                                      | Re-chargeable Li-Ion battery (included).<br>Battery swappable through door underneath the instrument                 |
| Battery Life                               | 250 hours when in standby mode<br>48 hours typical                                                                   |
| Meter Dimensions (HxWxL)                   | 5.5" x 8.9" x 10.6"<br>13.9 cm x 22.6 cm x 26.9 cm                                                                   |
| Weight                                     | 4.83 lbs (77.28 oz.) with battery<br>4.69 lbs (75.04 oz.) without battery                                            |
| Case Material                              | Aluminum                                                                                                             |
| Warranty                                   | 2 years on circuit board<br>1 year on the display and sensor                                                         |

<sup>1</sup> Typical specifications are not guaranteed



# FOR MORE INFORMATION

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