

# Botron B486288 Technical Data Sheet



**FINAL TEST**<sup>MR</sup>

*Venta de Instrumentos de Prueba y Medición*

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## Overview:

Botron's B486288 Charge Plate Monitor with data storage capabilities measures and stores positive and negative decay as well as ion balance and stamps temperature, humidity, time, and date. Fully programable test functions, with ability to run a series of automated tests with the push of a button. The B486288 will not leave you limited like other charge plates on the market. Comes with bundled software for easy management of your equipment.

## OPERATION

The B486288 performs manual or automatic decay and balance tests on ionization equipment. The unit stores test results and averaged decay times along with temperature and relative humidity for up to 500 workstations.

Test information is presented on the LCD display with custom protocols and personal workstation definitions can be uploaded. Results can also be downloaded for analysis via a bi-directional RS-232 (serial connector) link.

When in decay mode the plate is charged to a user-defined voltage from  $\pm 10$  to  $\pm 1000$ . When in the direct path of ionized air flow the plate will discharge toward zero. As a result, the elapsed time of decay between the start voltage and a preset stop voltage is displayed on the LCD display.

While in balance mode, isolated plate voltage, test duration and + / - peak voltages will be displayed.

Self-tests include battery check, tests for functional errors and a built-in decay self confidence check.

## Product Notes and Features

- Stores 1500 tests, 500 locations & 4 Protocols
- Manual & Automated Testing
- Fully Configurable Testing Parameters
- Software Included



## PROPERTIES

## SPECIFICATIONS

## CALIBRATION

Display	240 x 64 character/graphic
Voltage	3½ digit display (Decay and Peak reading)
Accuracy	±0.1% of reading ±3 lsd
Resolution	1 volt for readings > 99 volts 0.1 volt for readings < 100 volts
Time	4 digit display
Accuracy	0.1% of reading ±1 lsd
Resolution	0.1 second for readings < 1000 seconds 1 second for reading > 999 seconds
Electrometer	
Dynamic range	±1200 volts
Follower error	< 10 mV
Speed of Response	<10 msec for 1 kV to 0 volts (90%-10%)
Bandwidth	-3db @ 1Khz 20Vp-p -3db @ 10Hz 2000Vp-p
Noise	< 12 mV rms
Monitor output	Divide by 200
Accuracy	0.1% of reading ±12 mV
Output Impedance	1K ohm
Start Voltages	1000 volts ±0.3% Standard
Range	±10 to ±1000 volts
Resolution	Settable to 1 volt
Accuracy	0.3% of setting ±2.5 volts
Stop Voltages	100 volts ±3% Standard
Range	0- ±995 volts
Resolution	Settable to 1 volt
Accuracy	0.3% of setting ±2.5 volts
Charge Voltage	
Range	10 to 100 volts above the start voltage
Resolution	Settable to 1 volt increments
Accuracy	0.3% of setting ±2.5 volts
Charge Plate	
Capacitance	20 pF ±10%
Zero Drift	< 100 mV/sec (no incident ion flow)
Self Discharge	< 200 mV/sec
Peak Detector (Balance Test)	
Bandwidth	<10HZ
Temperature Sensor	
Range	0 - 50°C
Accuracy	±2°C typ
Humidity Sensor	
Range	10% - 80% RH @ 25°C
Accuracy	±5% typ
Operating	
Temperature	5°C to 35°C
Humidity	to 80%, non condensing
Battery life	6 hours
Charge Time	< 8 hrs to > 90% capacity
Power	
Voltage	90 - 250 VAC 50/60 Hz
Wattage	< 12 watts operating
CPM	
Size	11" x 9" x 6" (280 x 229 x 152 mm)
Weight	12½lb. (5.7kg)

Botron's B486288 are factory-calibrated prior to shipment. Recalibration should be performed annually, or more frequently if specified by contract or company policy. For warranty purposes all calibrations and/or repairs on unit should be returned to Botron to avoid warranty issues.

## PART NUMBERS

B486288 Charge Plate Monitor

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**Disclaimer.** All statements of technical information are believed to be true and are based upon tests we believe to be reliable. The proper use and application for this product must be the responsibility of the user. The statements herein shall have no force or effect.