



® Knowledge Beyond Measure.

# P-Trak<sup>®</sup> Ultrafine Particle Counter

Model 8525



**The TSI's P-Trak<sup>®</sup> Ultrafine Particle Counter (UPC) 8525 is an ideal instrument for measuring workplace ultrafine particulate levels, as well as helping eliminate indoor air quality (IAQ) problems.**

This portable instrument detects and counts ultrafine particles (smaller than one micrometer) that often accompany or signal the presence of a pollutant that is the root cause of complaints.

Ultrafine particles are defined as having a diameter less than 0.1  $\mu\text{m}$  (or 100 nm). Engineered nanoparticles (nanomaterials) are a subset of ultrafine particles with dimensions from 1 to 100 nm. Nanomaterials are produced and used for industrial and high-tech applications, while ultrafine particles are the byproducts of combustion and other chemical reactions. Unfortunately, the occupational health risks associated with manufacturing and using nanomaterials are not clearly understood. As a result, a need has arisen to assess workplace conditions. Using TSI's proven technology, the P-Trak<sup>®</sup> gives direct, real-time measurement of workplace ultrafine particulate levels.

The P-Trak UPC also locates obvious pollutant sources such as boilers, furnaces, and vehicles, and it also detects the not-so-obvious sources such as photocopy machines and printers. Use this instrument to detect the migration of toxic exhaust aerosols, malfunctioning office equipment, pinhole gasket leaks in boilers and a wide variety of other problems.

## Applications

- Check office equipment
- Clean room containment checks
- Filter checks
- Check fume hoods
- Check safety cabinets
- Vehicle emission migration
- Combustion leaks
- Control smoking areas

## Features and Benefits

- Real-time ultrafine particle counter
- Solves tough IAQ problems
- Easy to use
- Data log information



## Specifications

# P-Trak® Ultrafine Particle Counter

Models 8525

### Concentration Range

0 to  $5 \times 10^5$  particles/cm<sup>3</sup>

### Particle Size Range

0.02 to 1 micrometer

### Temperature Range

Operation 32 to 100°F (0 to 38°C)  
Storage -40 to 160°F (-40 to 70°C)

### Flow Rate

Sample 100 cm<sup>3</sup>/min  
Total 700 cm<sup>3</sup>/min (nominal)

### Power Requirement

Battery type 6 AA alkaline  
Battery life 6 hrs at 70°F (21°C)

### Alcohol Requirement

Type 100% reagent grade isopropyl  
Hours per charge 8 hours at 70°F (21°C)

### RS232 Output

Baud rate 9600

### Memory

Single points 470  
Data logging 1,000 hours at one-minute intervals.  
A maximum of 141 separate tests.<sup>1</sup>

### Size (H x W x D)

10.75 in. x 5.5 in. x 5.5 in. (27 cm x 14 cm x 14 cm)

### Weight

Instrument with batteries 3.8 lbs (1.7 kg)  
Factory Recalibration Interval One year

### Warranty

Two years on parts and labor<sup>2</sup>

### Computer Requirements

PC with Microsoft Windows® 2000 or XP; Windows-compatible printer; 5 MB hard disk space; and available RS232 serial port (for downloading).



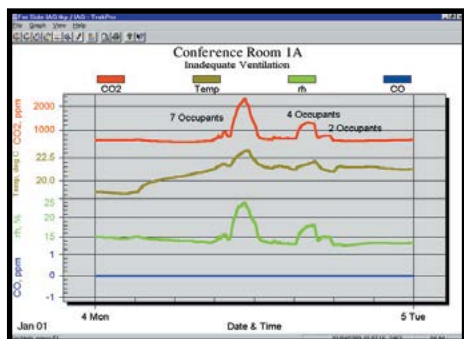
P-Trak® Ultrafine Particle Counter and accessories includes: Telescoping Sample Probe, Inlet Screen, Spare Wicks (2), Alkaline Batteries, Alcohol Fill Capsule with Storage Cap, Reagent Grade Isopropyl Alcohol, Zero Filters (2), Carrying Case, TrakPro™ Software, Computer Cable, Operation and Service Manual, Calibration Certificate, and Two-year Warranty.

<sup>1</sup> The P-Trak® will operate with an AC adapter for long periods but the alcohol wick must be resaturated every 8 hours when operating over an extended time.  
<sup>2</sup> Warranty repairs returned via overnight carrier at TSI expense.

Specifications are subject to change without notice.

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Easy-to-use TrakPro™ Data Analysis Software stores, organizes and reports test results.



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