

# P-TRAK® ULTRAFINE PARTICLE COUNTER MODEL 8525



The TSI's P-Trak® 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  $100 \text{ nm}$ ). Engineered nanoparticles (nanomaterials) are a subset of ultrafine particles with dimensions from  $1$  to  $100 \text{ nm}$ . 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 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 gases, malfunctioning office equipment, pinhole gasket leaks in boilers and a wide variety of other problems.

## Applications

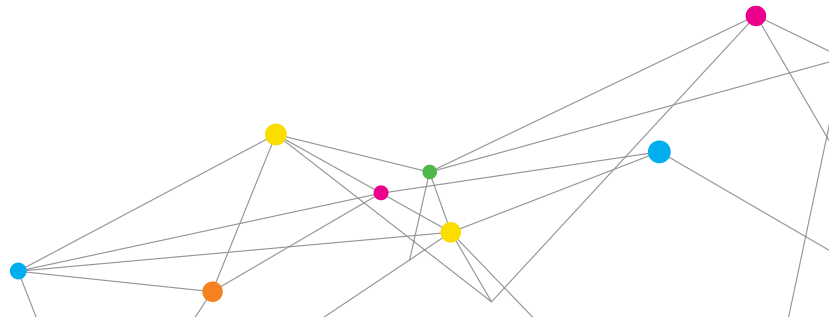
- + Check office equipment
- + Clean room containment checks
- + Filter checks
- + Check fume hoods
- + Check safety cabinets
- + Vehicle emission migration
- + Combustion leaks
- + Control smoking areas

## Features and Benefits

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



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# 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

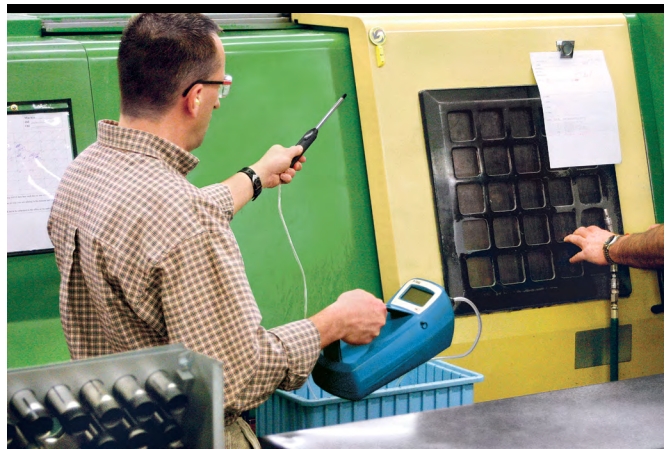
Instrument with batteries 3.8 lbs (1.7 kg)  
Factory Recalibration Interval One year

### 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)



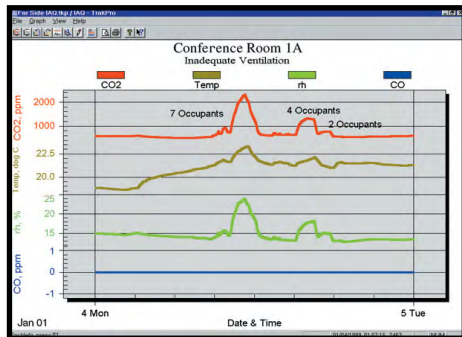
P-Trak Ultrafine Particle Counter and accessories includes: Telescoping Sample Probe, Shoulder Strap, Inlet Screen, Spare Wicks (2), Alkaline Batteries, Alcohol Fill Capsule with Storage Cap, Reagent Grade Isopropyl Alcohol, Zero Filters (2), Carrying Case, TrakPro™ Software, Computer Cable, Operation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

- 1 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.
- 2 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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