

# P-TRAK™ Ultrafine Particle Counter



Providing a comfortable, safe and healthy indoor environment is a growing concern today and indoor air quality can be one of the toughest challenges. TSI's P-TRAK Ultrafine Particle Counter can help solve some of the most elusive air quality problems faced today.

### The Problem

The most persistent air quality complaints are sometimes linked to ultrafine particles. At less than one-tenth of a micron in diameter, these particles are products of combustion or other chemical reactions. They can originate outside or inside building environments, and their sources include vehicle exhaust, stack emissions, industrial processes, battery charging, filter and gasket leaks, smoking, cooking, laundry, cleaning agents and office equipment. Individual sensitivities and reactions to ultrafine particles vary greatly but can be extreme.

### The Solution

The P-TRAK Ultrafine Particle Counter utilizes TSI's proven condensation particle counting technology. With this real-time, portable instrument, just follow a pollutant "pathway" to pinpoint its source for repair or other action. These elusive sources are often missed completely when using conventional testing methods.

The very smallest particles are often the ones of greatest concern. With its range of 1 micron down to 0.02 microns, the P-TRAK is designed to detect these small particles. This advanced technology makes the P-TRAK very effective for checking filters, finding gasket leaks and identifying other pollutant pathways. Once found, the sources can be isolated from occupied space.

### The Method

The easy-to-use P-TRAK gives fast and reliable real-time results. By taking outside particle counts as reference measurements and setting indoor expectations, the P-TRAK can then be used to quickly locate and zero-in on unexpected levels that may be the origin of complaints. Once a problem is located, take appropriate action and then move on to the next source until the complaints end.



## Specifications

### P-TRAK Model 8525 Ultrafine Particle Counter

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

<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.

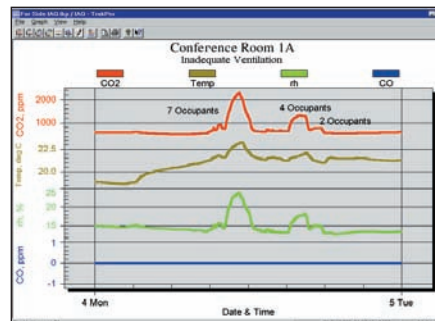
Specifications are subject to change without notice.

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#### Description

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



Easy-to-use TRAKPRO™ Data Analysis  
Software stores, organizes and reports test



#### TSI Incorporated

**Headquarters**—Tel: +1 651 490 2811 **Toll Free:** 1 800 874 2811 **E-mail:** answers@tsi.com

**UK** Tel: +44 1494 459200 **E-mail:** tsiuk@tsi.com

**Germany** Tel: +49 241 523030 **E-mail:** tsigmbh@tsi.com

**India** Tel: +91 80 41132470 **E-mail:** tsi-india@tsi.com

**France** Tel: +33 491 95 21 90 **E-mail:** tsifrance@tsi.com

**Sweden** Tel: +46 8 595 13230 **E-mail:** tsiab@tsi.com

**China** Tel: +86 10 8260 1595 **E-mail:** tsibeijing@tsi.com

For current information  
[www.tsi.com](http://www.tsi.com)

