Airborne Particle Detection

- Detects airborne particles from 0.3 µm to 5 µm
- Monitor 6 particle sizes simultaneously
- Choose from two models:
  - Pro for normal environments
  - CR for cleanrooms and clean areas
- Data logging to PC and Palm OS® computers
Separate Models for IAQ & Cleanroom Use
Two ParticleScan models are available:
The ParticleScan Pro has been designed for IAQ measurements in normal indoor and outdoor environments. It can handle concentrations from 10 thousand to over 20 million particles (≥0.3µm) per cubic foot. The ParticleScan CR has been designed for cleanrooms or other controlled environments with particle concentrations between zero and 2 million particles (≥0.3µm) per cubic foot.

Audible Alarm Function
The instrument allows the user to set an individual particle concentration threshold for each individual size channel. An intermittent beeping sound alerts the user should the set threshold be exceeded.

Evaluate Air Cleaning Performance
The ParticleScan Pro allows you to evaluate the efficiency of air filters and air cleaning equipment for particulate contaminants. By taking readings at the air intake and the air outlet of a filtration system, you are able to calculate the true particle removal efficiency of the system:

\[
\% \text{ Efficiency} = 1 - \frac{\text{Particle count at air outlet}}{\text{Particle count at air intake}} \times 100
\]

Improving Indoor Air Quality
Begin by mapping the areas of concern and recording the relative particle levels in each area. Make sure to include areas with both acceptable and unacceptable indoor air quality along with outdoor reference levels. In areas with the highest particle concentration, use the Particle Scan to locate the particle source and take corrective steps. Once remediation is complete, go on to areas with the next highest particle levels and repeat the process.
The ParticleScan™ Kit

- **Polypropylene Carrying Case**
  for superior protection in the field

- **ParticleScan™ Pro/CR**
  incl. NiMH rechargeable battery pack

- **ParticleTrak™ Software**
  for data logging onto PC and Palm™

- **AC Power Adapter & Battery Recharger**

- **Calibration Certificate**

- **Serial Cable**
  for data transfer to PC

- **Instruction Manual**

- **Purge Filter**
  for zero count calibration

- **Isokinetic Probe**
  for accurate sampling

- **Serial Adapter**
  for data transfer to Palm OS
Advanced laser particle counter for the quick and accurate measurement of airborne particle concentrations in normal and polluted indoor and outdoor environments.

Advanced laser particle counter with a flow rate of 0.1 cfm for the fast and accurate measurement of airborne particle concentrations in controlled environments and cleanrooms.

- Monitor indoor & outdoor particle concentrations
- Verify particle levels in cleanrooms
- Log air pollution levels for reporting & record keeping
- Monitor laminar flow benches & clean air cabinets
- Track down particulate pollution sources
- Inspect HVAC equipment & ducting
- Test HEPA & ULPA filters for efficiency & leakage
- Demonstrate & compare filter efficiency of air & vacuum cleaners
- Log air contamination levels for reporting & record keeping
- Track down particulate contamination sources
- Display & communicate air pollution levels effectively in graphs

### Technical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>ParticleScan™ CR</th>
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<tbody>
<tr>
<td>Flow rate: 0.025 cfm (0.7075 l/min)</td>
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<tr>
<td>Exhaust air: not filtered</td>
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<tr>
<td>Minimum sensitivity: 0.3 µm (microns)</td>
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<tr>
<td>6 cumulative size channels: 0.3 / 0.5 / 0.7 / 1.0 / 3.0 / 5.0 µm (user selectable)</td>
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<tr>
<td>5 differential size channels: 0.3 - 0.5 / 0.5 - 0.7 / 0.7 - 1.0 / 1.0 - 3.0 / 3.0 - 5.0 µm (user selectable)</td>
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<tr>
<td>Sample time: 6 seconds (continuous with no delay time)</td>
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<tr>
<td>Readout volume units: particles/cu.ft. or particles/litre (user-selectable)</td>
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<tr>
<td>Readout: 8-digit LED</td>
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<tr>
<td>Laser source: 680 nm laser diode</td>
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<tr>
<td>Count update: every 6 seconds</td>
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<tr>
<td>NiMH rechargeable battery: up to 5 hours operation</td>
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<tr>
<td>Audible alarm function: programmable for each cumulative size channel</td>
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<tr>
<td>Computer interface: RS 232</td>
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<tr>
<td>Dimensions (LxWxD): 8 x 4 x 2.2 inches (205 x 103 x 57 mm)</td>
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<tr>
<td>Weight: 1.9 lbs. (850 g)</td>
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<tr>
<td>Warranty: 1 year (parts and labour)</td>
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### Supplied Accessories

- Transport case for field use
- Isokinetic probe for accurate sampling
- Purge filter for cleaning & zero calibration
- Mains power adaptor / NiMH battery charger (115V/60Hz or 230V/50Hz)
- CD-ROM with ParticleTrak™ software for data logging onto PC and Palm™
- PC serial cable for data transfer to PC
- Palm™ serial adaptor for data transfer to Palm OS hand-held computers
- Instruction manual
- Calibration certificate

### System Requirements for Data Logging

- **PC:** Microsoft® Windows 3.0/95/98/NT/Me/XP; CD-ROM drive; available 9 or 25 pin COM port, Microsoft® Excel 97 or later
- **Hand-held computers:** Palm OS® 3.0 or later

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ParticleScan and ParticleTrak are trademarks of the IQAir Group. All other trademarks and registered trademarks, such as Excel and Palm OS, are the property of their respective owners.

All technical specifications are subject to change without prior notice.
**ParticleTrak™ Software**

**Real-Time Data Transfer to PC**

With the supplied ParticleTrak software it’s easy to turn your ParticleScan into a continuous data logging device to monitor airborne particle concentrations over time. The software allows particle counts for all six size channels to be stored on your PC.

**...for Graphic Display and Reporting**

The ParticleTrak program logs the data directly into an Excel spreadsheet. Once the particle concentrations are recorded, the data can be organised, analysed, documented and printed for reports. The pre-programmed Excel graphs enable you to create descriptive reports for effective client presentations.

**Data logging to Palm OS® devices**

The supplied ParticleTrak CD-ROM also contains software for Palm OS hand-held devices. This unique program allows you to log particle concentrations onto your Palm OS computer. Once the Palm is connected to the ParticleScan instrument, the display of the Palm will show all six particle concentrations simultaneously. Alternatively you can choose to display the data collected during the past 12 minutes in a graphic format. The stored data can also be transferred to a PC for later analysis and printouts.
**ParticleScan™ Selection Guide**

**Which Model is Right for Me?**

**ParticleScan™ Pro**

**Industrial Hygienists**
- Monitor & log particle levels in commercial and industrial facilities
- Establish a particle concentration profile
- Optimize pollution control measures

**Microbiologists & Medical Hygienists**
- Monitor & log particle levels in medical and dental facilities
- Track down contamination sources
- Optimize airborne infection control measures

**Abatement and IAQ Professionals**
- Verify & demonstrate the effectiveness of your contamination control measures
- Track down particulate pollutant sources
- Evaluate effectiveness of remedial action

**HVAC Professionals**
- Verify filtration efficiency of installed particulate air filters
- Check the filter’s efficiency for specific particle sizes

**Air Cleaning Professionals**
- Compare filter efficiency of different air cleaning equipment
- Check for filter leakage
- Show customers the efficiency of your air cleaning system
- Demonstrate to customers the benefit of upgrading to more efficient filters

**Duct Cleaning Professionals**
- Show the need for duct cleaning
- Perform measurements according to preliminary NADCA standard
- Certify your work
- Win government & healthcare contracts by particle count validation

**ParticleScan™ CR**

**Cleanroom Operators**
- Verify particle concentrations in cleanrooms and clean areas within seconds
- Test the integrity of HEPA filter banks
- Track down particle sources
- Establish a particle concentration profile
- Monitor and log particle concentrations for record keeping and reporting
- Optimize contamination control measures

**HEPA Filter Testing**
- Determine HEPA filter efficiency
- Check HEPA filter for leaks
- Monitor & log particle levels