The ParticleScan® Lite

Operating Instructions

1. How to charge the ParticleScan Lite

a. To charge the ParticleScan Lite, connect the AC adapter to the input socket located on the side of the device. (**Caution:** only use the supplied AC adapter. Other AC adapters may damage the ParticleScan Lite.)

b. Fully charged, the ParticleScan Lite should provide approximately 4 hours of continuous operation.

c. When the battery power level becomes low, the green 'Low Battery' indicator will flash. It takes approximately 4 hours to fully charge the ParticleScan Lite.

2. How to take airborne particle measurements

a. Take the ParticleScan Lite out of the carrying case and remove the protective red rubber cap from the air intake nozzle located at the top of the ParticleScan Lite. (Note: do not operate the ParticleScan Lite with the cap in place as this may damage the internal pump.)

b. Connect the supplied isokinetic probe to the air intake nozzle with the attached plastic tube. The ParticleScan Lite is now ready for sampling.

c. Turn ParticleScan Lite on with the ON/OFF switch located on the right side of the device. A humming sound indicates that the pump is drawing in air for sampling.

d. Immediately after it is switched on, the instrument starts a short countdown until its first particle reading. The particle reading is updated every 2 seconds thereafter.

e. The particle reading appearing in the display represents the concentration of particles (0.3 µm or larger) per cubic foot of air.

f. To switch the ParticleScan Lite off, set the ON/OFF switch to the 'off' position. (**Note:** for storage and transport, the protective red rubber cap must always be placed over the air intake nozzle.)

3. Testing and cleaning the sensor

a. After repeated readings in dusty or polluted environments, the particle sensor may accumulate contaminants. As a result, the particle reading may become inaccurate.

b. To test the sensor, a purge filter is supplied with the ParticleScan Lite. Simply connect the plastic tube from the purge filter to the air intake nozzle and switch the ParticleScan Lite on.

   i. If the particle reading reaches zero after a few readings, the sensor is clean.

   ii. If the particle reading does not reach zero within a few minutes, this may be an indication of sensor contamination. In such a case, leave the ParticleScan Lite running for several hours with the purge filter attached. Should the readout then still not show a zero count, the ParticleScan Lite should be returned for cleaning and recalibration.

c. Two basic steps can be taken to reduce the accumulation of contaminants on the sensor:

   i. Measurements in very polluted environments should be avoided.

   ii. The purge filter 'zero count' test should be performed regularly after a few hours of use.

4. Calibration and Service

The ParticleScan should be calibrated once per year to ensure continuous, accurate and reliable performance. Contact the Technical Support at 1-888-560-1020 to have your ParticleScan recalibrated.

The ParticleScan® Lite

Description and Specifications

The ParticleScan® Lite Kit includes

- ParticleScan Lite
- Protective Carrying Case
- AC Adapter/Battery Charger
- Purge Filter
- Isokinetic Probe (for sampling)

ParticleScan® Lite Features:

1 Isokinetic Probe (for sampling)

2 Air Intake Nozzle

3 "Low Battery" Indicator

4 8-Digit LED Display

5 ON/OFF Switch

6 Input Socket for AC Adapter/Battery Charger

Specifications

Minimum sensitivity:	0.3 microns	
Light Source:	laser diode	
Measurement Unit:	Particles per cubic foot	
Sample Time:	2 seconds, updates every 2 sec.	
Flow Rate:	0.025 cubic foot per minute	
Size (HxWxD):	8 x 4 x 2 inches	
Weight:	1.6 pounds (0.71 kg)	
Power:	120V AC adapter/battery charger	
Battery:	6V rechargeable Ni-MH pack	recharge time: approx. 4 hours operating time: up to 4 hours

Specifications are subject to change without notice.