

QUICK START GUIDE

AEROTRAK™ Model 9306 Handheld Airborne Particle Counter

Thank you for purchasing a TSI AEROTRAK™ Model 9306 Handheld Airborne Particle Counter. This guide will help you quickly begin using your particle counter.

More detailed information is in the manual **located on the included TRAKPRO™ Lite Software CD**. Please refer to the manual if you have questions on the operation of your new particle counter.

Safety

This section gives instructions to promote safe and proper handling of the AEROTRAK™ Handheld Airborne Particle Counters.

IMPORTANT

There are no user-serviceable parts inside the instrument. Refer all repair and maintenance to a qualified factory-authorized technician. All maintenance and repair information in this manual is included for use by a qualified factory-authorized technician.

LASER SAFETY

The Model 9306 Handheld Airborne Particle Counter is a Class I laser-based instrument. During normal operation, you will not be exposed to laser radiation. However, precaution should be taken to avoid exposure to hazardous radiation in the form of intense, focused, visible light. Exposure to this light may cause blindness. **DO NOT** remove any parts from the particle counter unless you are specifically told to do so in this manual. **DO NOT** remove the housing or covers. There are no user-serviceable components inside the housing



The use of controls, adjustments, or procedures other than those specified in this manual may result in exposure to hazardous optical radiation.

WARNING

The battery supplied by TSI (700032) has built in protection against explosion and fire hazard. **Do not** use a substitute. **Do not** use non-rechargeable batteries in this instrument. Fire, explosions, or other hazards may result.

Labels

Advisory and identification labels are attached to the outside of the particle counter housing and to the optics housing on the inside of the instrument.


Serial number label (back panel)	
Calibration Label (Side Panel)	
Laser radiation label (internal)	DANGER! VISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM WARNING: NO USER SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL
Laser radiation symbol label (internal)	
European symbol for non-disposable item. Item must be recycled.	



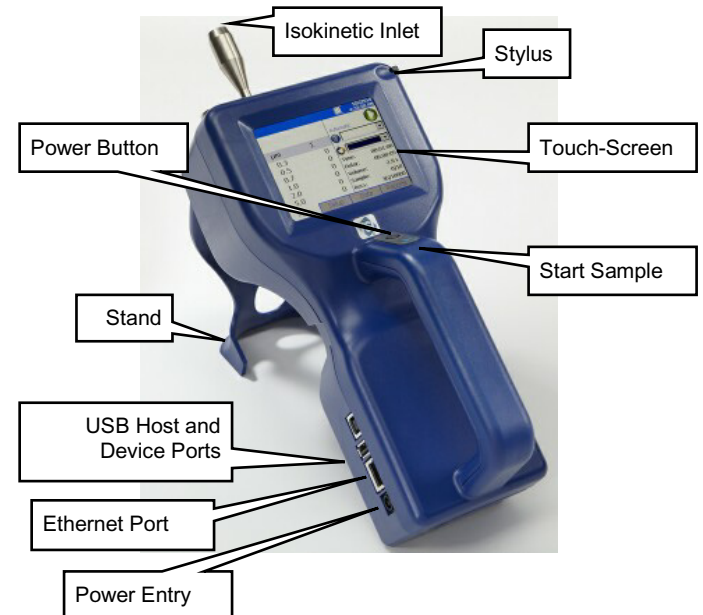
Unpacking

1. Carefully unpack the particle counter from the shipping container and verify that all the items listed in the following table are present.
2. Contact TSI immediately if items are missing or broken.

Qty	Item Description	Part/Model	Reference Picture
1	AEROTRAK™ Airborne Particle Counter	9306-03 9306-04 9306-V2	
1	Power Supply with universal plugs	801694	
1	Isokinetic inlet	700003 AL	
1	Battery pack	700032	
1	Computer cable (2 m), USB A to B	700033	
1	Stylus	N/A	
1	HEPA zero filter assembly	700005	
1	TRAKPRO™ Lite (version 2.2 or later) data download utility CD (includes manual)	7001384	
1	Operation and Service Manual	6004215	(installed on TRAKPRO™ Lite CD)

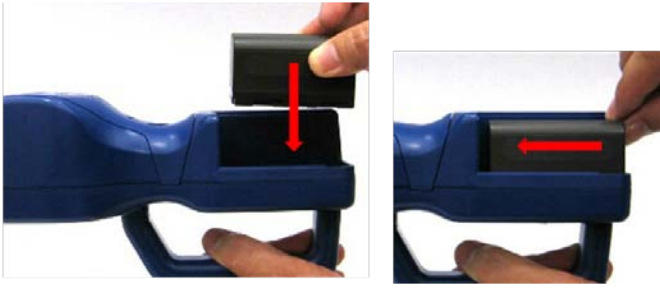
Qty	Item Description	Part/Model	Reference Picture
1	Calibration certificate	N/A	


3. Additional items may be included if you ordered accessories or spare parts.
4. The Model 9306 is equipped with an integral instrument support stand and stylus (for use with the touch screen).




Power




5. The Model 9306 may be powered using a rechargeable lithium-ion battery, or through an AC power cord.
6. To install the lithium-ion battery, remove the battery cover from the back of the instrument by lightly depressing the textured tab on the cover located on the lower left.



7. Place the lithium-ion battery into the battery compartment and slide it forward (toward the top of the unit) until it locks into place.
8. Replace the battery cover and slide it in place until you hear a click.
9. Your particle counter battery was partially charged before shipping, and the battery charges when the instrument is connected to AC power, but not while actively sampling.
10. Connect the particle counter to AC power by connecting the AC power adapter to the appropriate country-specific power cord. Then insert the AC power adapter into the bottom of the Model 9306 and connect the power cord to an AC source (100-240 VAC, 50-60 Hz, 1.9 A). The particle counter is now ready for use (or recharging the battery when unit is not sampling).
11. The battery icon's bars  correspond to the charge amount in the battery.

Running the Particle Counter

12. The Model 9306 AEROTRAK™ Handheld Airborne Particle Counter is controlled using a touch screen display. Use the plastic stylus or your finger tip. **DO NOT** use sharp objects (such as a pen point) that may damage the screen overlay.
13. Press the **on/off** button  (located on the handle of the instrument).

		4/28/2010 9:37:36 AM
		Automatic 
μm	Σ	 <input type="text"/>
0.3	0	 <input type="text"/>
0.5	0	Time: 00:01:00
1.0	0	Delay: 00:00:10
3.0	0	Volume: 2.8 L
5.0	0	Sample: 0/10
10.0	0	Recs: 107/10000
Main		Setup
		Data
		Reports

14. After a splash screen displays the TSI logo, a brief start-up sequence begins as the Windows® CE operating system boots up.
15. The instrument is ready for operation when the Main screen appears.
16. To turn the power off, hold the **On/Off** button down and then select the turn off icon. This prevents accidentally turning off the instrument. An option to charge batteries will also be presented if AC is plugged in and a battery is present.
17. There are four screens accessible using the tabs at the bottom: Main, Setup, Data, and Reports. Some screens require you to enter information. To enter information, tap on the screen and an on-screen keyboard appears.
 - The Main screen is the default. It shows the current status of the particle counter and the latest sample values.
 - The Setup screen lets you set up parameters for the particle counter (including data display, system configuration, device, sampling, and recipes).
 - The Data screen lets you preview data that has been collected.
 - The Reports screen lets you select various standard reports for viewing and printing.
18. Each screen and their options is explained in detail in the manual.

Set up Time/Date


19. From the Main tab, select the Setup tab then Device Setup, then select Date and Time.
20. This screen lets you set the current date and time and set the date format. Press **OK** when finished. You can select options using the arrows or tap on the screen to use the on-screen keyboard.

Using the Onscreen Keyboard

21. Throughout the setup screens, a keyboard will appear on the screen. Data may be entered using this keyboard.
22. When the entry is complete, press either the **↵** (**Enter**) or **Esc** key. The keyboard will then be hidden until another text entry box is selected.



Collecting Samples

26. Press  or the blue-triangle button next to the On/Off button. This turns on the pump and the particle counter runs for 10 cycles that are one minute long with 10 second hold times in-between.
27. The Main tab is updated as samples are collected.

Set up Sampling

23. From the Main tab, select the Setup tab, then select Sampling. The Sample Timing Screen appears.
24. This screen lets you select parameters for sampling. Use the up and down arrows or the on-screen keyboard to change or enter information. (These parameters are only valid when the Model 9306 is running in Automatic mode.)

Field	Description
Sample	Sample is the total number of samples you want collected.
Delay	Delay indicates how long it will be before the first sample is taken. It takes approximately 6 seconds for the pump to reach the flow set point; taking a measurement before the pump is functioning properly may result in a data error.
Hold	Hold indicates how long the instrument pauses between samples.
Time	Time indicates the duration of each sample run (count particles).
Volume	Volume sets the volume of air that will pass through the instrument for each sample. If you select volume, you must select Cubic Feet, Cubic Meters or Liters for measurement using the arrows.

25. Press **OK** when finished, and press **Back** to return to the Main tab.

Reviewing Data

28. The Data screen lets you preview data that has been collected. Use the scroll bar (slide) on the right to scroll through the records.
29. The record number is displayed near the bottom of the screen. As each record displays, its data and relevant parameters are displayed.
30. Channel data is highlighted in red when that channel is in alarm.
31. The print Icon allow printing of the data to the external printer accessory. The USB drive icon allows down loading of the data to a USB memory device.

m ³	Size	Δ m ³	Σ m ³
	0.1	326633	336913
	0.2	5071	10281
	0.3	4372	5209
	0.5	714	837
	1.0	15	122
	3.0	107	107

Location: Sample 000 Laser: OK Alarm: NONE
 Sample: 00:01:00 Vol: 196.0 L Flow: ALRM
 Date: 4/29/2010 Temperature: 24.4 °C
 Time: 9:45:14 AM Humidity: 53 %RH

Record: 1 Records: 107 / 10000

Main Setup Data Reports

Software

32. The TRAKPRO™ Lite Data Transfer utility comes on the CD that came with your particle counter.
33. To install the communications software and drivers, insert the CD into your computer drive and follow the on-screen instructions.
34. See the *TRAKPRO™ Lite Software User's Guide* (P/N 6002796) on CD (P/N 7001384) for installation instructions.

NOTE

Make sure the particle counter is connected before you run the software.