

Scanning Mobility Particle Sizer™ (SMPS™) Spectrometer Aerosol Instrument Manager® Software Version 9.0

Frequently Asked Questions

1. What is changed in the new version?

Aerosol Instrument Manager® SMPS™ Software version 9.0 has the capability to **set the sheath flow** and bypass flow rates on the Electrostatic Classifier in the SMPS™ component system. This eliminates measurement errors due to inaccurate software flow selections. The software also measures and records the **sheath flow temperature and absolute pressure** before every sample. These values are used to calculate mean free path and gas viscosity which are used in other calculations.

2. Is the CPC flow rate controlled as well?

The software will **detect which CPC is connected**, and if the CPC has a high or low flow rate (flow mode) the **flow mode can be set through the software**. *Note: If a flow equalizer assembly is being used on the inlet of the CPC, the flow rate can be adjusted manually and in the software the flow can be inputted manually as well to reflect the flow values actually being run through the DMA.*

3. What else do I have to connect?

You need to connect an extra RS-232 cable from the Electrostatic Classifier to your control computer. If your computer does not have an extra RS-232 port you can use a USB to RS-232 converter. (As always, you need to also connect one RS-232 cable from the CPC to the control computer and a BNC cable connecting the CPC to the Electrostatic Classifier: 3 connections in total).

4. What if I don't have an extra cable? Do I have to use this feature?

If you do not have an extra cable handy, you can set-up the instrument as usual (without the extra RS-232 connection from the Electrostatic Classifier to the computer). The software will warn you that it will not be able to set the flow rates and that you will need to set them manually (as has historically been the case before 9.0).

5. Has anything else changed in the software?

Yes! The software now **supports 64 bit Windows 7**. The software also supports our newly developed SMPS compatible CPCs: Model 3787 **General-Purpose Water-based Condensation Particle Counter** and Model 3788 **Nano Water-based Condensation Particle Counter**. Additionally, a variety of small user enhancements have also been implemented.

6. When will a fully released version of this software be available? Now!

7. Is this software available to existing SMPS™ spectrometer customers as an upgrade?

This software is offered as a **free upgrade** to customers who have purchased Aerosol Instrument Manager® Scanning Mobility Particle Sizer™ (SMPS™) Spectrometer software to operate a TSI component SMPS™ system. Interested in upgrading? Contact your local TSI representative for more information, or send an e-mail to particle@tsi.com which includes:

- Contact information (name, affiliation, address, telephone number)
- Model numbers and serial numbers of your SMPS components (Classifier and CPC).