

Upgrading your Electrostatic Classifier or SMPS: EXPLORE YOUR OPTIONS



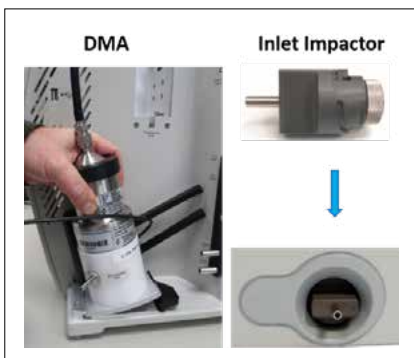
WHY NOW?

The first Model 3080 Electrostatic Classifier was sold in 1999, and the redesigned Model 3082 was released in 2013. Due to rapid technological development in the 21st century, all Model 3080 classifiers contain components that have become technologically obsolete or nearly so. Because of this, it becomes increasingly difficult for TSI to stock replacement parts to continue servicing older instruments like the Model 3080. Our suppliers are indicating that they will soon stop providing the parts upon which the Model 3080 classifiers depend.

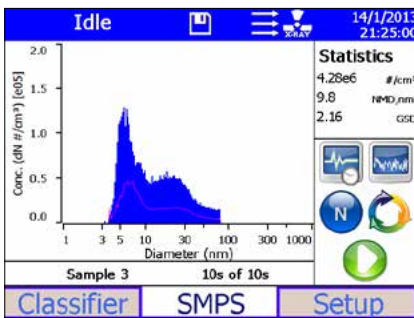
WHAT DOES THE MODEL 3082 OFFER?

EASE OF USE

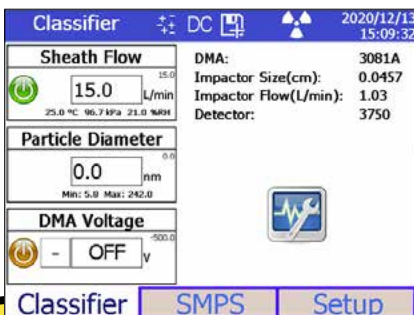
- + Tool-free component installation



- + Touchscreen display: independent operation, faster setup, more control
- + Smaller, lighter than Model 3080

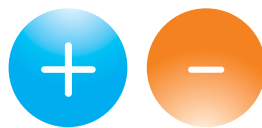


- + Auto-recognition of all SMPS components

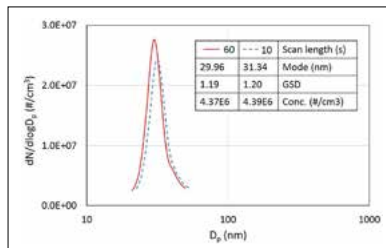


EXPANDED CAPABILITIES

- + Switchable DMA polarity (optional)



- + Increased sheath flow up to 30 L/min and improved high voltage control: faster scanning, improved resolution, 1 nm capability



- + Humidity, temperature sensors in sheath air: greater control of aerosol conditions



- + Compatible with the newest version of Aerosol Instrument Manager (AIM 11)



WHAT ARE MY OPTIONS?

These are the most common scenarios for Model 3080 users. The tables under 'Order the right solution' provide model-specific details.

SMPS USERS

I have an old SMPS, and I want to move to new versions of all major components (Classifier, DMA, CPC)

Order Model 3082-UPGRADE-L if you have a 3081 (Long) DMA, or Model 3082-UPGRADE-N if you have a 3085 (Nano) DMA. Work with your TSI regional manager to determine the appropriate CPC model for your application.

I have a CPC that will work with the Model 3082, and I want to upgrade the classifier and DMA.

Order Model 3082-UPGRADE-L if you have a 3081 (Long) DMA, or Model 3082-UPGRADE-N if you have a 3085 (Nano) DMA. See the "FAQ's" section below to learn which models of CPC are compatible with Model 3082 and the various generations of the AIM software.

I have a Model 3082 but an older (incompatible) CPC; I want to purchase a compatible CPC.

Work with your TSI regional manager to determine the appropriate CPC model for your application.

MONODISPERSE AEROSOL GENERATOR USERS

I have a Model 3080 classifier that I'm using to generate monodisperse aerosols (I don't have a CPC); I want to upgrade my classifier, and possibly also my DMA.

Order Model 3082-UPGRADE-L if you have a 3081 (Long) DMA, or Model 3082-UPGRADE-N if you have a 3085 (Nano) DMA. You will receive a Model 3082 classifier and a kit to upgrade your DMA. If you elect not to use the kit, you can use your DMA as-is with the new Model 3082 by selecting the DMA model on the front screen of the Model 3082.

FAQ'S

Tell me about Model 3082 calibration at TSI

TSI's calibration process for Model 3082 Electrostatic Classifier includes tests for particle size accuracy, size resolution, and number concentration in accordance with Chapter 7 of ISO 15900:2009. For more details on instrument calibration at TSI, model-specific information can be found at tsi.com/resources/service-options-for-your-tsi-particle-instrument/.

Can I still use a radioactive neutralizer?

Yes, you can still use a radioactive neutralizer with the Model 3082. Model 3077A is recommended for this purpose. Model 3077A contains a 370 MBq (10 mCi) ⁸⁵Kr source, with a 10.8-year half-life.

Which models of CPC are compatible with the Model 3082?

All current CPC models, as well as some legacy models, are Model 3082-compatible, as well as the version of the Aerosol Instrument Manager (AIM) software with which each model is compatible.

| | CPC Model numbers | Software version |
|--------------------|------------------------------|-----------------------------|
| Legacy CPC models | 3772, 3775, 3776, 3787, 3788 | AIM 10.x [10.3 recommended] |
| Current CPC models | 3750, 3752, 3756 | AIM 10.3 or AIM 11 SMPS |
| | 3789 | 11 AIM 11 SMPS |

Does a new DMA (-A) work with the Model 3080?

Yes, 3081A, 3085A DMA's can be used with the Model 3080; just set the DMA model using the front knob as you do for the older DMA models.

If you have further questions about upgrading to a Model 3082 Electrostatic Classifier, please contact TSI.

ORDER THE RIGHT SOLUTION

Use the tables below to find the right solution for you:

CLASSIFIER AS PART OF AN SMPS

| What do you have now? | | | What would you like to upgrade, vs. keep? | | | Order | | Result |
|-----------------------|------------------|----------------------------|---|-----|------|--|--|--|
| Classifier | DMA | CPC | Classifier | DMA | CPC | Classifier and/or DMA | CPC | |
| 3080 | 3081 and/or 3085 | 3010, 302x, 3782, '85, '86 | X | X | X | Model 3082-UPGRADE-L or Model 3082-UPGRADE-N (for Long and Nano DMA, respectively) | When a newer CPC is desired, work with your TSI Regional Manager to identify the best CPC model for your application | Model 3938 SMPS: + 3082 + 3081A and/or 3085A DMA + CPC of your choice |
| | | 377x, 3787 & '88 | X | X | X | | N/A | |
| | | | X | X | Keep | | | |
| 3082 | 3081 and/or 3085 | 377x, 3787, '88, '89, 375x | N/A | X | X | 3081U and/or 3085U | Work with your TSI Regional Manager | |
| | | | N/A | X | Keep | | N/A | |

You can also upgrade your 3082 to dual-polarity by purchasing 3082-DP-UPGRADE. The dual polarity upgrade does not require any changes to the DMA.

CLASSIFIER AS PART OF AN AEROSOL GENERATOR

| What do you have now? | | Your Options | Order |
|-----------------------|------------------|-------------------------|--|
| Classifier | DMA | | |
| 3080 | 3081 and/or 3085 | Upgrade both components | 3082-UPGRADE-L or 3082-UPGRADE-N (for Long and Nano DMA's, respectively) |
| 3082 | | Upgrade DMA only | 3081U |

If you have any further questions, please contact TSI.

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