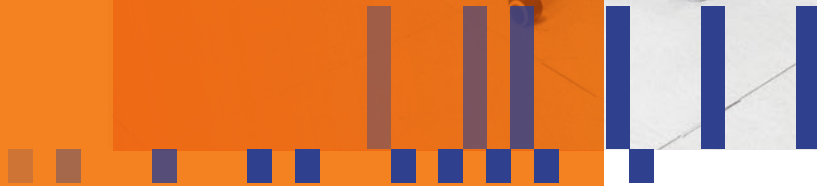TSI ®
**Knowledge
Beyond
Measure.**

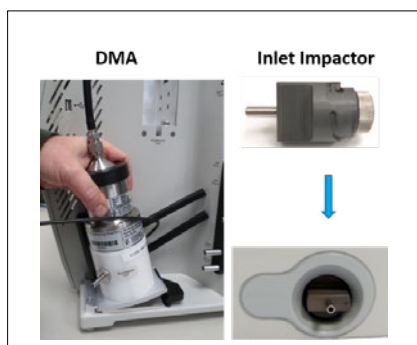# Upgrading your Electrostatic Classifier or SMPS™?

Explore Your Options

Why Now?

The first model Electrostatic Classifier 3080 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. As of 31st December 2021, TSI® has discontinued Repair, Clean and Calibrate service for all Electrostatic Classifiers 3080. Now is an optimal time to consider upgrading your classifier to the newest model 3082.
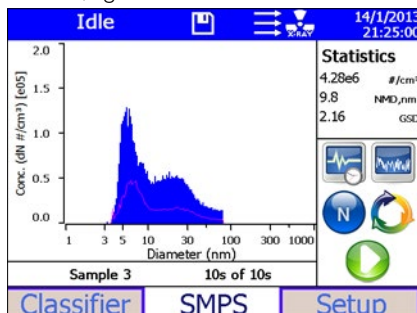
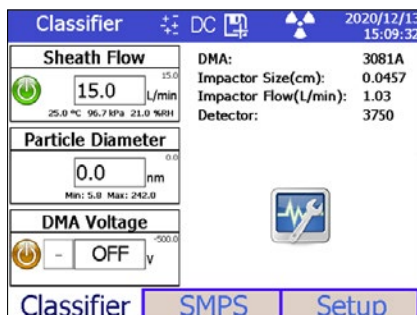# What Does the Model 3082 Offer?

Ease of Use
- Tool-free component installation

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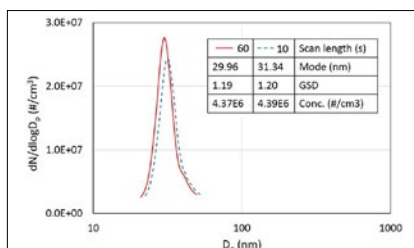

- Auto-recognition of all SMPS™ components

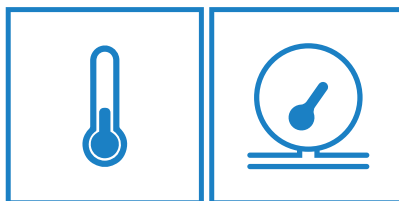

Expanded Capabilities
- Switchable DMA polarity (optional)

- 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 software version of Aerosol Instrument Manager (AIM 11)

What Are My Options?

SMPS™ Users

I want to retain the same basic SMPS™ setup
This maintains my size and concentration ranges.

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

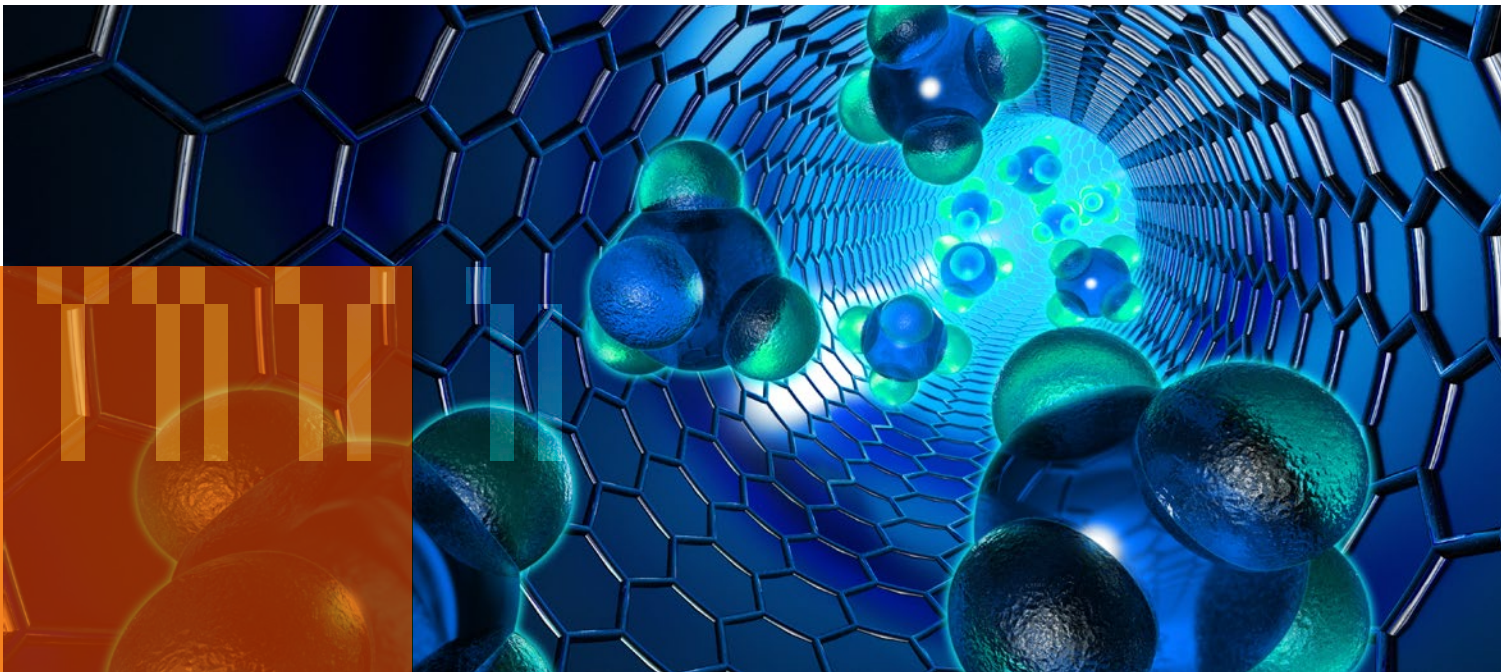**I want to extend my size range**
The wide-range SMPS™ 3938W50 will enable me to scan from 10-800 nm in a single scan.

What do you have now?			What would you like to upgrade ("X"), vs. keep?			Order		Result
Classifier	**DMA**	**CPC**	**Classifier**	**DMA**	**CPC**	**Classifier and/or DMA**	**CPC**	
Single-Box SMPS™ 3034			Upgrade entire system to obtain a 3938W50 SMPS™ system			3938-UPGRADE-W50		Model 3938W50 SMPS™
3080	3081	3772 or 3775						

Monodisperse Aerosol Generator Users

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 or 3085U

FAQ's

Tell me about Electrostatic Classifier 3082 Calibration at TSI®
TSI's calibration process for Electrostatic Classifier 3082 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/Service-Options-for-your-TSI-Particle-Instrument.

What about adding dual polarity capability to an Electrostatic Classifier 3082?
Adding 'dual polarity' capability will allow you to scan either charge fraction, and does not require any changes to any DMA model. To order this capability, find the correct part number for your needs on the preceding page, and modify it accordingly:

What do you have now?	Original upgrade PN	Instead, order
I am upgrading my current 3080 Classifier to a 3082, and would like dual polarity capability	3082-UPGRADE-L	3082-UPGRADE-L-DP
	3082-UPGRADE-N	3082-UPGRADE-N-DP
	3938-UPGRADE-W50	3938-UPGRADE-W50-DP
I currently have a 3082, and want to add dual polarity	N/A	RP-3082-DP-UPGRADE

Can I still use a radioactive neutralizer?
Yes, you can still use a radioactive neutralizer with the Electrostatic Classifier 3082. Aerosol Neutralizer 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 Electrostatic Classifier 3082?
All current CPC models, as well as some legacy models, are model 3082-compatible. Further, some CPC models, once in use in an SMPS™, will permit the use of newer software versions of Aerosol Instrument Manager®.

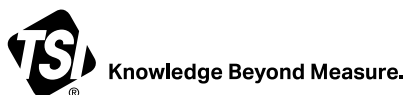|	CPC model numbers	Software version
Legacy CPC models	3772, 3775, 3776, 3787, 3788	AIM 10.x [10.3 recommended]
Current CPC models	3750, 3752, 3756	AIM 10.3 or AIM 11 SMPS
	3789	AIM 11 SMPS

See below for details.

Does a new DMA (-A) work with the Electrostatic Classifier 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 your Electrostatic Classifier 3082, please contact TSI®.

TSI **Knowledge Beyond Measure.**