Complete Tune Up Kit for Vantage Pro2

USER GUIDE

Davis

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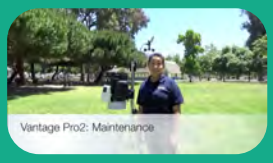
Your Vantage Pro2 is designed to withstand years outside in all weather conditions and to require minimal routine maintenance.

However, performing a total tune up every few years or as needed will mean your system can keep working for many years.

This Complete Tune Up Kit for Vantage Pro2 (product number 6997) has everything you need to give your station a "spa day" and save you money and time in the long run.



(For a video that will walk you through many of these steps see: **Vantage Pro2 Maintenance Video**.)

What's in the Tune Up Kit

- Lithium Battery
- Rain Collector Tipping Spoon Upgrade Kit (US) or Rain Collector Tipping Spoon Upgrade Kit (US or Metric)
- Wind Cups
- Wind Vane (for stations manufactured since 2013 that have a D-shaped shaft. If your station is older than this, and you need to replace the vane, you will also need to get this vane, product number 7904.)
- Wind Speed Bearing Assembly, product number 7345.953
- Allen Wrench
- Door with Solar Panel
- Foam Insert for Access Port, product number 7342.056

Gather Your Tools and Supplies

- Soft clean cloth
- Soft brush
- Clear water
- 3-C batteries for console, 4-AA batteries for WeatherLink Live
- **Optional:** Pipe cleaner, voltmeter

Power Down Your Console or WeatherLink Live

To avoid recording erroneous data as you spin the cups and rock the rain spoon, power down your console and/or WeatherLink Live by removing from AC power and removing the batteries.

Take Your Sensor Suite Down

You may be able to maintain the sensor suite without dismounting it if it is accessible. However, it will be easier to unmount it and take it to a clean, well-lit workspace.

If your anemometer or sensor suite is installed on the roof or on a high pole, safely take it down to solid ground. (If you have your complete sensor suite installed on the roof, now is the time to invest in a second tripod and separate the anemometer from the rest of the sensor suite.)

Start with the Rain Collector

1. Remove the debris screen and rain collector cone (turn to unlock, lift off).
2. Remove the existing tipping buckets or spoon and replace with the new tipping spoon.
3. Use a soft, damp cloth to remove dust, debris, insect nests, and webs from the cone and tipping mechanism. Be careful not to scratch the surface of the tipping spoon/buckets - don't scrape dust over it. You might want to use a pipe cleaner to make sure the funnel hole in the rain collector is clear. Replace the cone and debris screen.

TIP: If your rain collector cone is the old style, now is a good time to replace it with a new Aerocone. (And if you have lost your debris screen or bird spikes, we have replacements.)

Move to the Anemometer

1. Using your Allen wrench, loosen the set screws on the wind cups and remove the cups. Turn the wind cup shaft (not the cups themselves) with your fingers. It should feel smooth.

   If it feels gritty, your wind bearings may be wearing. They are easy to replace, and now is the time! (Note: When you turn the wind vane shaft you can feel a little resistance. This is okay.) We've included a replacement Wind Speed Bearing Assembly if your anemometer has become slow or stiff. You can either proactively replace it now or keep it for later use.

Tip: Never use lubricant on your anemometer.

2. Install the new cups and vane.

Check the Sensor Interface and Solar Panel

1. Wipe down the outside of the sensor interface and solar panel. (Note: There is no solar panel on cabled versions).

2. Open the sensor interface and unplug the solar panel so you can set the door aside. Inspect all the cabling and make sure the RJ jacks on the sensor cables are plugged securely into the board. Look for corrosion, which usually looks white or green and a little fuzzy. (We use dielectric gel which can turn brownish – it's not corrosion. You can add more dielectric gel if you choose, such as this one.)

3. Replace the Lithium battery. (This battery should last for years but replacing it now while you have your sensor suite down and accessible will save you the trouble later. Or you can also test your old battery if you have a voltmeter and replace it if it tests less than 2.8 volts.) Replace the foam insert with the new one from the kit.

4. Wait to replace the door until after you have cleaned the radiation shield.

Move to the Radiation Shield

1. Take the radiation shield apart and clean all the surfaces with a soft cloth and clear water. There are instructions for how to disassemble each model of radiation shield in the ***Vantage Pro2 Sensor Suite User Guide***. Basic instructions are to first unplug the temperature/humidity sensor from the sensor interface. Then disassemble the plates, taking care to maintain the order they were in. This will make it much easier to reassemble.

TIP: If you have a 24-hour-fan-aspirated version, now is a great time to replace the motor and batteries. You'll need the Standard Motor Kit for Fan-Aspirated Shield, with Batteries or Standard Motor Kit for Fan-Aspirated Radiation Shield.

2. Once the radiation shield is disassembled, you will be able to access the temperature/humidity sensor (this replacement sensor is for systems manufactured 2016 and later; if your system is older, contact Tech Support) and clean it with a soft brush or replace it if needed. Wipe down all the plates and reassemble the sensor and shield.

3. Plug the solar panel cable back in and replace the transmitter interface door with the new door in your kit.

Finish Up and Remount Your Sensor Suite

Remount your sensor suite, making sure your rain collector base is level (use the built-in bubble level) and the anemometer arm points North.

Check the time on your console, and repower the console and/or WeatherLink Live with fresh batteries. (The time on your WeatherLink Live will be automatically set to the correct time.)

Contacting Davis Technical Support

For questions about your Tune Up Kit, please contact Davis Technical Support. We'll be glad to help.

Online	www.davisinstruments.com See user manuals, product specifications, application notes, and more.
E-mail	support@davisinstruments.com
Telephone	(510) 732-7814 Monday - Friday, 7:00 a.m. - 5:30 p.m. Pacific Time

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