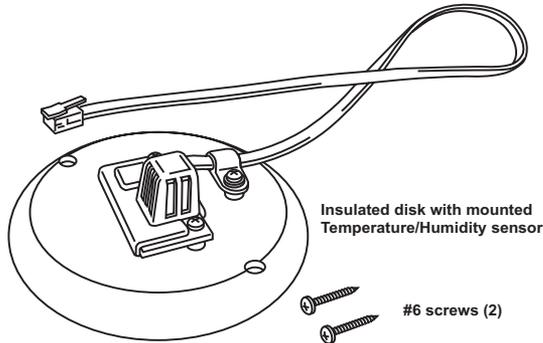# Vantage Pro2™ Temperature/Humidity Sensor Replacement Kit

The following instructions are for replacing the Temperature/Humidity sensor on Vantage Pro2™ stations (# 6152, 6152C, 6162, 6162C, 6382) manufactured after January 2006.

Components

The replacement kit includes the following components:

Insulated disk with mounted Temperature/Humidity sensor
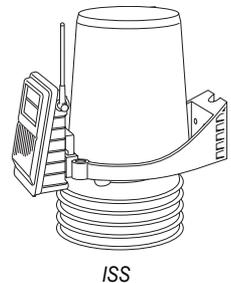
#6 screws (2)

Tools Needed

You may need some or all of the following tools and other items to install the Temperature/Humidity Sensor Replacement Kit:

• A medium Phillips-Head screwdriver
• Other tools as required to remove and re-mount the Integrated Sensor Suite (ISS) or Temperature/Humidity Station.
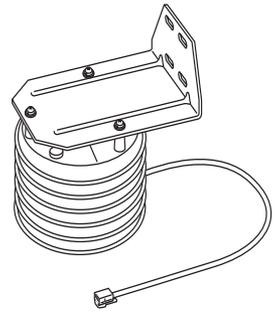• Optional — Adjustable crescent wrench

Installing the Temperature/Humidity Sensor Replacement Kit

The Temperature/Humidity Sensor Replacement Kit works with both the ISS and Temperature/Humidity stations.

The ISS assembly for Vantage Pro2 stations (# 6152, 6152C, 6162 and 6162C) contains the rain cone, Sensor Interface Module (SIM) housing, and the radiation shield plating which houses the Temperature/Humidity sensor. The ISS is also available with extra optional components like the UV and Solar Radiation sensors and mounting bracket if you have purchased a Vantage Pro2 Plus (# 6162, 6162C) unit or have purchased these items separately.

ISS

The Temperature/Humidity Station (# 6382) contains a Temperature/Humidity sensor in a radiation shield and connects to a provided SIM shelter.

Temperature/Humidity Station

Optional — Put Console in Setup Mode

If you have a console, you need to put it in Setup Mode. This prevents the reception of erroneous data while you are removing the ISS. To put your console in Setup Mode:

• At your Vantage Pro2 console, press and hold DONE and then press the down arrow (-) to put the console in Setup Mode. The "Receiving from..." screen will display.

Note: Additional information on clearing and setting console data can be found in the *Vantage Pro2 Console Manual*.

If you have an Envoy and are concerned with erroneous data, you may edit the data via the WeatherLink software. See the WeatherLink Online Help for more information.

Take Down the ISS

Please work on your Vantage Pro2 ISS in a safe place. We strongly recommend that you take the station down from its sited location before replacing the sensor.
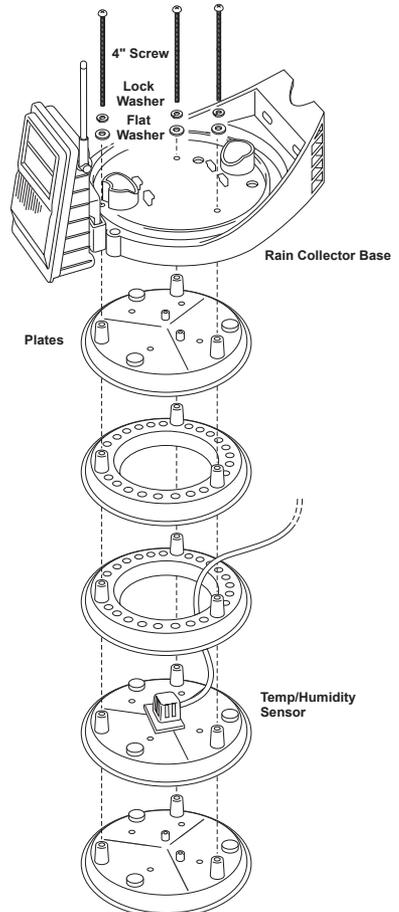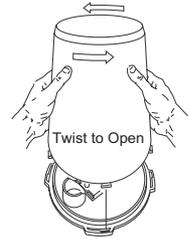
To take down the ISS:

1. Locate the SIM housing cover on the side of the ISS and open it.
2. Disconnect the Solar Panel wire on the SIM cover from the SIM board by pulling the Solar Panel connector.
3. Pull the foam insert out of the cable access port in between the cables and set the foam insert aside.
4. Disconnect the anemometer cable from the sensor connector labeled WIND and slide the cable out of the cable access port.
5. **Cabled ISS Only:** Disconnect the console cable from the SIM.
6. You can now remove the ISS from its mounted position. Move it to a safe place to install the sensor.

Disassemble the Standard Radiation Shield — ISS

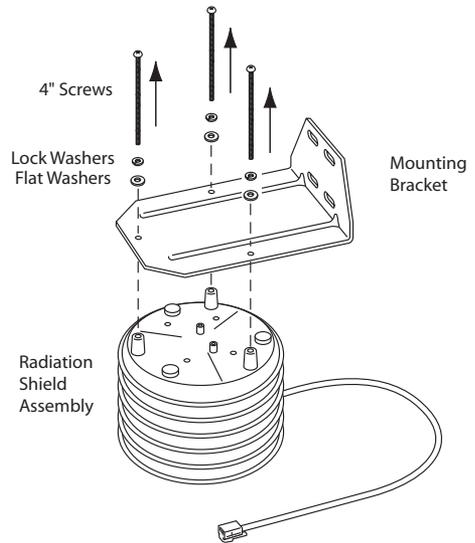Note: We recommend using a workbench or table to perform the following procedures.

1. Open and remove the SIM cover if you have not done so already.

2. Disconnect the TEMP/HUM cable from the SIM and slide the cable out of the cable access port.

3. Remove the rain collector cone from the ISS base by rotating the cone counter-clockwise. When the cone's latches line up with openings in the base, you can lift the cone off. The cone fits in the base tightly and may require extra pressure to remove. Steady the ISS base between your knees when removing the cone.

Twist to Open

4. Remove the three 8-32 x 4" screws holding the radiation shield plates together from the top of the rain collector base.

5. Separate out the radiation shielding plates to locate the Temperature/Humidity sensor in the plating. See "Remove the Previous Temperature/ Humidity Sensor" on page 4 for instructions on removing the previous sensor.

4" Screw

Lock Washer

Flat Washer

Rain Collector Base

Plates

Temp/Humidity Sensor

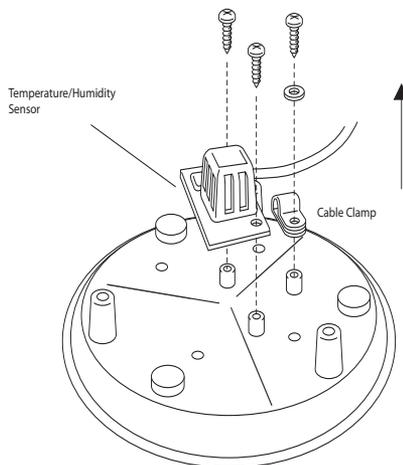## Disassemble the Radiation Shield — Temperature/Humidity Station

Note: We recommend using a workbench or table to perform the following procedures.

1. Place the Temperature/ Humidity Station on a level surface.

2. Loosen the three mounting screws that hold the mounting bracket and the radiation shield together.

3. Separate the radiation shield plates to locate the Temperature/ Humidity sensor in the plating. See "Remove the Previous Temperature/Humidity Sensor" below for instructions on removing the previous sensor.

4" Screws

Lock Washers
Flat Washers

Mounting Bracket

Radiation Shield Assembly

Remove the Previous Temperature/Humidity Sensor

1. Locate the Temperature/Humidity sensor on the second to bottom plate in the radiation shield plating stack.

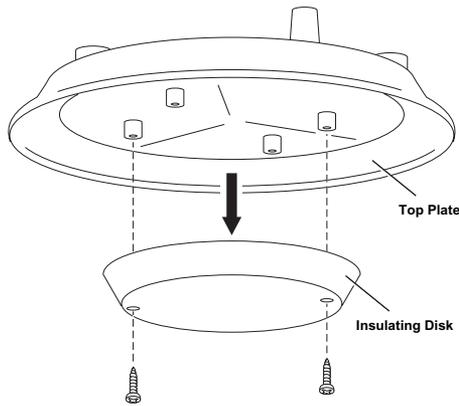2. Remove the three screws and flat washer securing the Temperature/ Humidity sensor to the radiation plating.

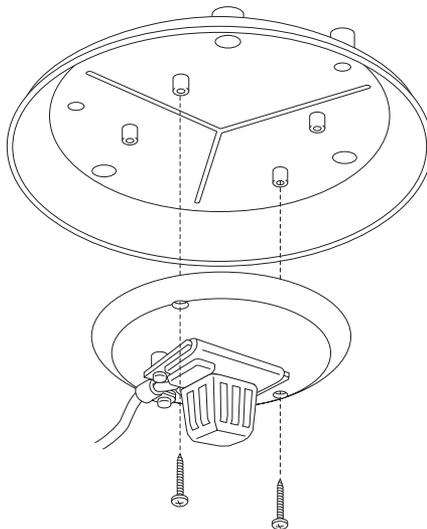Temperature/Humidity Sensor

Cable Clamp

3. Remove the sensor and cable clamp from the plate.
4. Return the plate to the radiation plating stack in the order it was mounted.

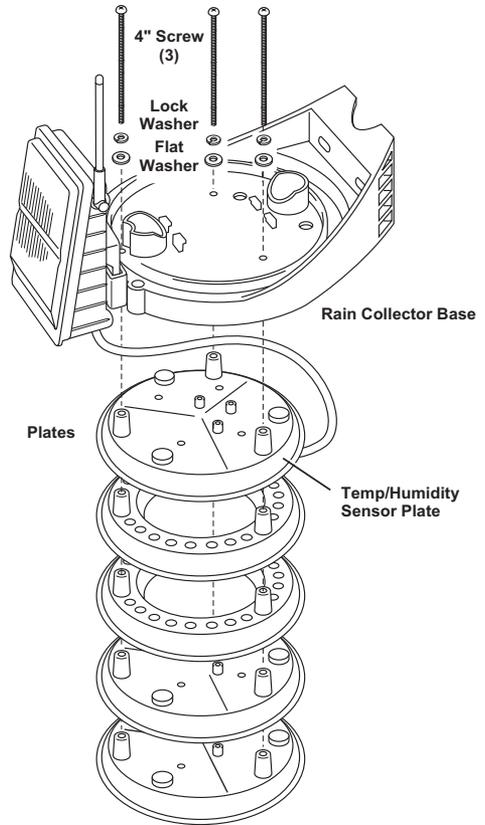### Insert the Temperature/Humidity Sensor

1. Locate the plate at the top of the radiation shield plating and find the insulating disk on the underside of the plate.
2. Remove the two screws holding the insulating disk attached on the underside and discard the disk.

Top Plate

Insulating Disk

3. Take the insulating disk with the mounted Temperature/Humidity sensor and set it in the same place as the previous insulating disk.

4. Use the screws that were taken from the last insulating disk or use the screws provided with the Temperature/Humidity Sensor Replacement Kit to mount the Temperature/Humidity sensor in place.

5. Reassemble the radiation shield plating.

6. Check the orientation of the Temperature/ Humidity sensor cable. When the plating is reassembled, the cable should be oriented on the right side of the plating so that it can be easily placed between the top radiation shield and the rain collector base.

7. Replace the three 4" screws, lock washers and flat washers into their respective holes in the rain collector base and screw the radiation shield plates back into place.

4" Screw (3)

Lock Washer

Flat Washer

Rain Collector Base

Plates

Temp/Humidity Sensor Plate

Re-install the ISS

1. Install the rain collector cone and lock it in place.

2. Slide the new Temperature/Humidity sensor cable back through the cable access port of the SIM box.

3. Connect the Temperature/Humidity sensor cable into the correct port.

4. Close the SIM cover temporarily without connecting the solar panel cables.

5. Test communication between the ISS and the console. To test communication, take the console out of Setup Mode (see "Take the Console Out of Setup Mode" on page 7 for more information) and make sure the console is receiving data from the ISS or Temperature/Humidity Station. See the ISS manual or Temperature/Humidity Station Manual for more information on testing communication.

6. Re-install the ISS in its previous location.
7. Open the SIM cover and connect the WIND (anemometer) cable.
8. Plug in the solar panel cable to the solar panel connector.
9. **Cabled ISS Only:** Connect the console cable.
10. Re-insert the foam into the cable access port in the SIM box.
11. Close the SIM box.
12. Use cable ties to secure cables.

Take the Console Out of Setup Mode

1. At your Vantage Pro2 console, press and hold DONE for three seconds to take the console out of Setup Mode.
2. Check the console for erroneous rain data and clear if necessary.

    To clear erroneous daily rain data:

    • Select the RAINDAY button. The graph icon displays next to the daily rain variable.
    • Press and release 2ND, then immediately press and hold CLEAR.
    • The daily rain variable will start blinking.
    • Keep holding CLEAR until the reading changes to zero.
    • Refer to your *Vantage Pro2 Console Manual* for more information on clearing any other weather variables or clearing all weather variables in the console.

    You have completed the replacement kit.

Contacting Davis Technical Support

If you have any questions, or encounter problems with your Vantage Pro2 weather station, or with the current firmware installation, please contact Davis Technical Support. We'll be glad to help.

(510) 732-7814 — Monday - Friday, 7:00 a.m. - 5:30 p.m. Pacific Time. We are unable to accept collect calls.

(510) 670-0589 — Technical Support Fax.

support@davisnet.com — E-mail to Technical Support.

info@davisnet.com — General e-mail.

www.davisnet.com — Davis Instruments web site. See the Weather Support section for copies of user manuals, product specifications, application notes, and information on software updates. Watch for FAQs and other updates.