

# Fan Motor Replacement Kit (7758 or 7758B) for Fan-Aspirated Integrated Sensor Suites

## Installation Instructions

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### For Fan-Aspirated Integrated Sensor Suites (ISS):

Product number 7758B is a replacement fan motor assembly for the following products:

- Vantage Pro2 with 24-Hour Fan-Aspirated Radiation Shield
- Vantage Pro2 Plus with 24-Hour Fan-Aspirated Radiation Shield

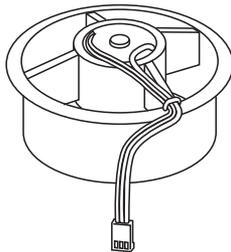
Product number 7758 is a replacement fan motor assembly for the following products:

- Vantage Pro2 Solar/Ag ISS
- Any ISS to which a Daytime Fan-Aspirated Radiation Shield has been added

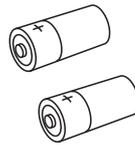
### Tools for Installation

- A medium Phillips-head screwdriver
- A small Phillips-head screwdriver (24-Hour Fan-Aspirated ISSes)
- Other basic hand tools depending on your installation.

## Included Components



Fan Motor  
Assembly



Two 1.2 Volt  
NiCad  
C-Cell Batteries  
(included with  
7758B only)

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# Replacing the Fan/Motor Assembly

For an ISS with 24-hour fan radiation, Davis recommends that the batteries be replaced and the shield be cleaned while replacing the fan/motor assembly. Two NiCad C-cell batteries are included with the 7758B fan motor replacement.

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**Note:** Batteries are only needed for weather stations with a 24-Hour Fan-Aspirated Radiation Shield. They are not needed for those with Daytime Fan -Aspiration as they use solar power only.

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**Note:** More detailed instructions are available in the manual provided with your station or fan-aspirated radiation shield.

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1. Retrieve your Vantage Pro2 Integrated Sensor Suite (ISS) and place it on a stable work surface.
2. Disassemble the ISS to gain access to the fan motor, noting all cable locations and connections.
3. Unplug the motor connector and lift out the fan assembly.
4. Clean the interior of the shielding
5. Install the new fan assembly and connect the fan motor cable.
6. If ISS has a 24-hour fan aspiration radiation shield, replace the NiCad C-cell batteries.
7. Reassemble the ISS.
8. Mount the ISS in your desired location.

## Disassemble the ISS

Separate the rain collector base from the radiation shield

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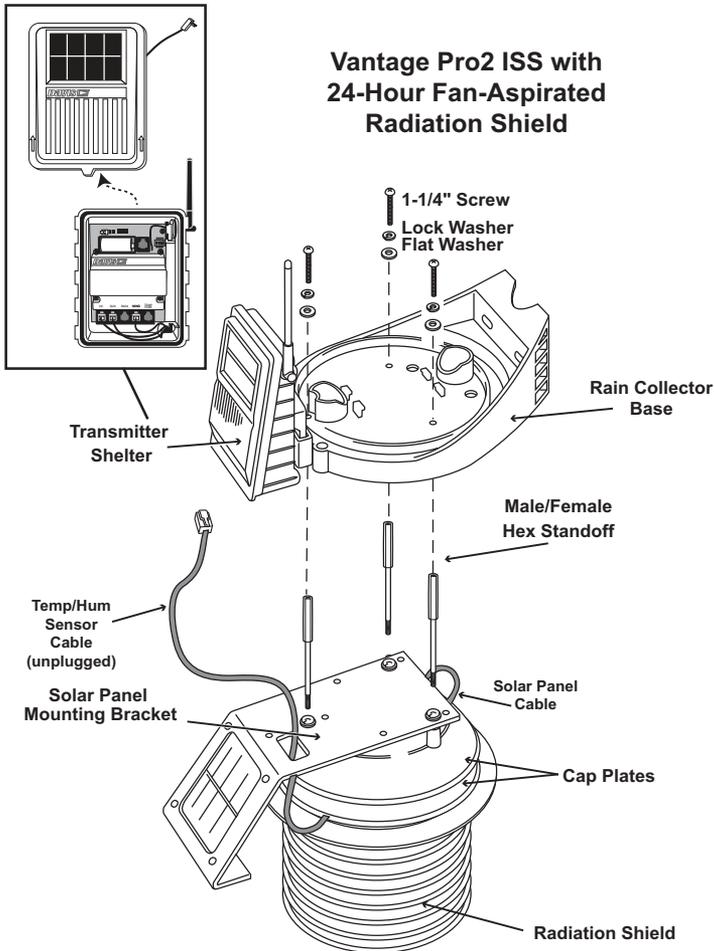
**Tip:** When disassembling the ISS, pay attention to how cables are routed. This will help when you reassemble the ISS.

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### **24-Hour Fan-Aspirated Shield Models:**

1. Remove the rain collector cone.
2. Open the transmitter shelter. Unplug the shelter's solar panel cable so you can remove the door. Unplug the temp/hum sensor cable and the rain collector cable from the transmitter interface inside the transmitter shelter. Remove the foam insert and pull the cables out of the transmitter shelter.
3. Remove the three screws connecting the ISS base to the metal solar panel mounting bracket and to the cap plate.
4. Separate the shield and base.

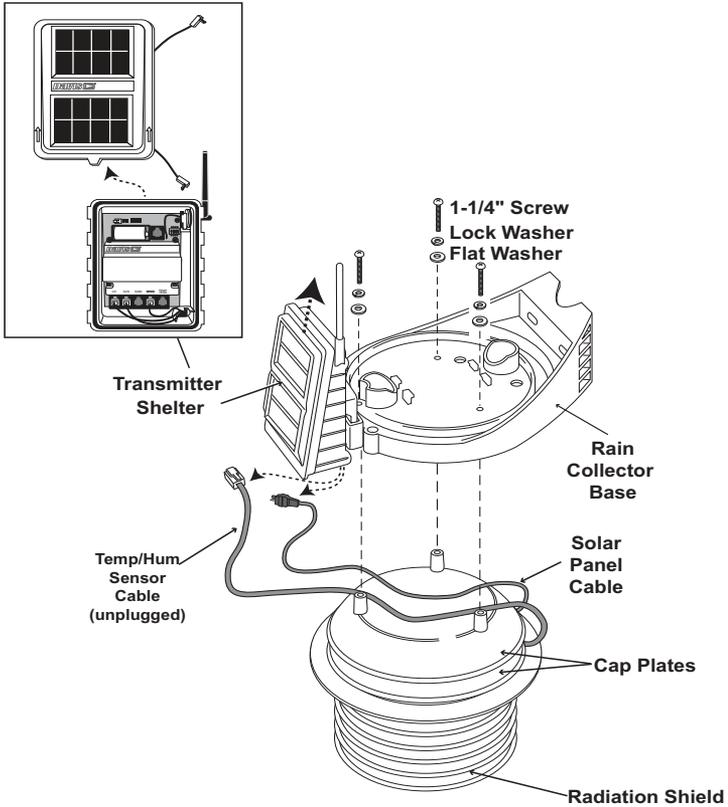


5. Unscrew the three male/female hex standoffs, then lift off the mounting bracket and two cap plates.

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***Daytime Fan-Aspirated Shield Models:***

1. Remove the rain collector cone.
2. Open the transmitter shelter. Unplug the transmitter shelter's solar panel cable so you can remove the door. Unplug the temperature/humidity sensor cable and the solar panel cable from the transmitter. Remove the foam insert and pull the cables out of the transmitter shelter.
3. Remove the three screws connecting the ISS base to the cap plate. Then lift off the two cap plates.



**Vantage Pro2 ISS with  
Daytime Fan-Aspirated  
Radiation Shield**

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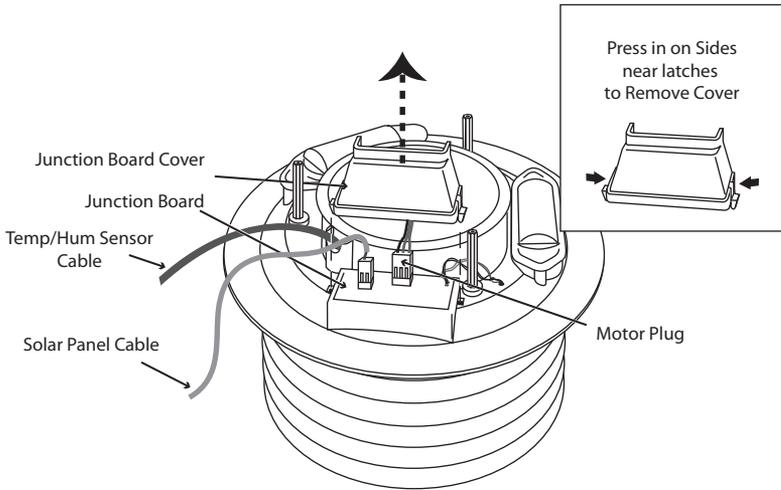
# Replace the Motor

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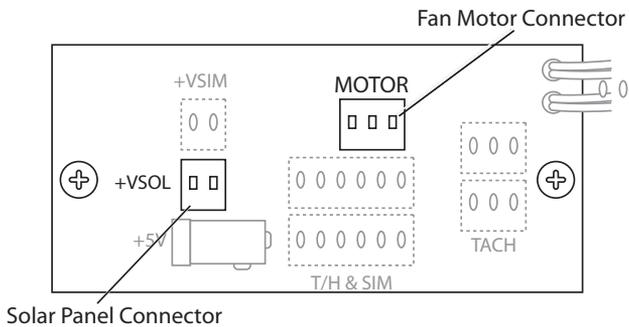
Note: For Daytime Fan-Aspirated Radiation shield, skip to step 3.

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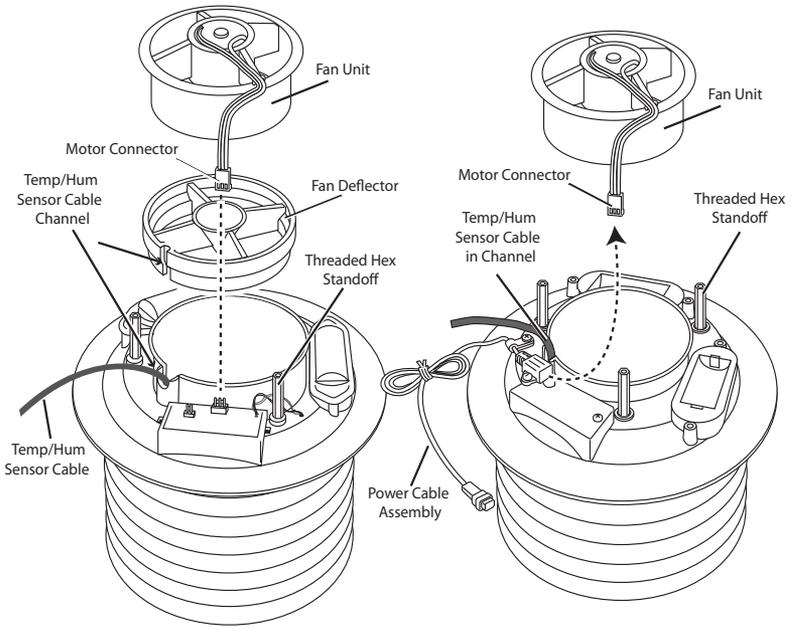
1. *24-Hour Fan-Aspirated Radiation Shield only:* Remove the junction board cover next to the fan assembly.



2. Unplug the motor from the board. (You can also unplug the solar panel cable from the board if needed.) Skip to step 4.



3. *Daytime Fan-Aspirated Radiation Shield*: Unplug the motor from the power assembly cable.
4. *All models*: Lift out the fan/motor assembly.



**24-Hour Fan-Aspirated  
Radiation Shield**

**Daytime Fan-Aspirated  
Radiation Shield**

5. Since the shield and sensors are most efficient when clean, take this opportunity to clean the inside of the assembly.
  - *24-Hour Aspirated Radiation Shield*: Lift out the fan deflector and temperature/humidity sensor. Wipe the interior and the sensor clean with a soft cloth or brush.
  - *Daytime Aspirated Radiation Shield*: Wipe the interior and the temperature/humidity sensor clean with a soft cloth or brush.
6. Reassemble the fan assembly.
  - *24-Hour Aspirated Radiation Shield*: Replace the temp/hum sensor, then the fan deflector, making sure the sensor cable is in the channel. Seat the new motor. Plug the motor connector into the junction board. Plug the fan power cable back in. Replace the junction cover.
  - *Daytime Aspirated Radiation Shield*: Seat the new motor, making sure the temp/hum sensor cable is in the channel, and plug the motor connector into the power cable assembly.

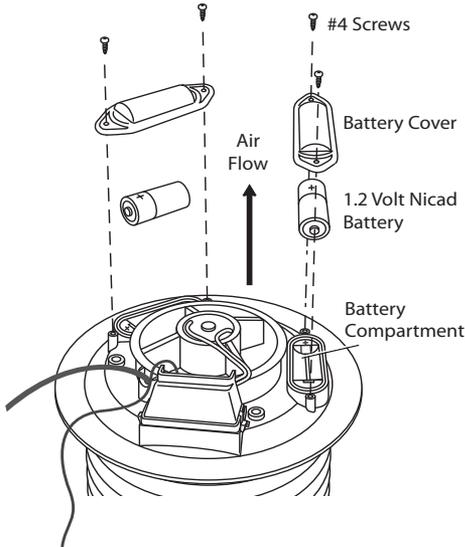
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## Install New Batteries

### *(24-Hour Fan-Aspirated Radiation Shield only)*

Install new batteries only if the ISS has a 24-Hour Fan-Aspirated Shield. (Daytime Fan-Aspirated Radiation Shield does not use batteries as it is solar powered only.)

1. Unscrew the battery covers and remove the batteries.



2. Install new batteries (NiCad C-cells). Be sure to match the “+” sign on the battery with the “+” sign in the battery compartment. Replace the battery covers.

## Reassemble and Remount the ISS

Reassemble your ISS by reversing the steps in this manual.

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**Note:** See the manual that came with your ISS or your Daytime Fan-Aspirated Radiation Shield for more information on mounting your ISS.

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### **24-Hour Fan-Aspirated Shield models:**

1. Replace the two cap plates and the solar panel mounting bracket, and screw in the three male/female hex standoffs.

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**Tip:** The cap plate without an opening goes on top.

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2. Align the holes on the rain collector base with the female end of the standoffs, and replace the lock washers, flat washers and 1¼” screws.
3. Route the temp/hum sensor cable up through the hole in the solar panel mounting bracket and into the transmitter shelter. Plug it back into the transmitter.
4. Route the rain collector cable between the solar panel bracket and the top cap plate and up through the same hole in the bracket and into the transmitter shelter. Replace the foam insert.

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5. Plug the transmitter shelter's solar panel cable back in, then close the transmitter shelter.
  6. Replace the rain collector. Remember to clear any erroneous rain data.

### **Daytime Fan-Aspirated Shield models:**

1. Replace the two cap plates on the radiation shield, aligning their plastic standoffs with the threaded hex standoffs on the radiation shield.

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**Tip:** The cap plate without an opening goes on top.

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2. Align the holes on the rain collector base with the molded standoffs on the top plate. The sensor cable and solar panel cable can be routed over the top cap plate toward the transmitter shelter. Replace the lock washers, flat washers and 1¼" screws.
3. Plug the temp/hum sensor cable back into the transmitter. Replace the foam insert. Plug the transmitter shelter's solar panel cable back in, then close the transmitter shelter.
4. Replace the rain collector. Remember to clear any erroneous rain data.

## **Contacting Davis Technical Support**

For questions about installing or operating your Fan Motor Replacement Kit, please contact Davis Technical Support. We'll be glad to help.

**Online**      [www.davisnet.com](http://www.davisnet.com)

See the Weather Support section for copies of user manuals, product specifications, application notes, software updates, and more.

**E-mail**      [support@davisnet.com](mailto:support@davisnet.com)

**Telephone**    (510) 732-7814  
Monday - Friday, 7:00 a.m. - 5:30 p.m. Pacific Time.

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**Note:** Please do not return items to the factory for repair without prior authorization.

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Product Number: 7758 and 7758B  
Fan Motor Replacement Kit for Aspirated ISS  
Vantage Pro is a registered trademark of Davis Instruments, Hayward, CA. This product complies with the essential protection requirements of the EC EMC Directive 2004/108/EC. Davis Instruments Quality Management System is ISO 9001 certified.

Part Number: 7395.251  
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