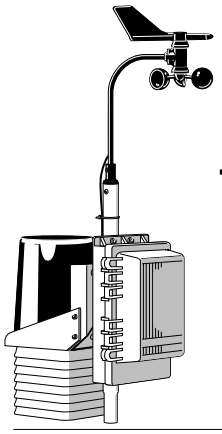


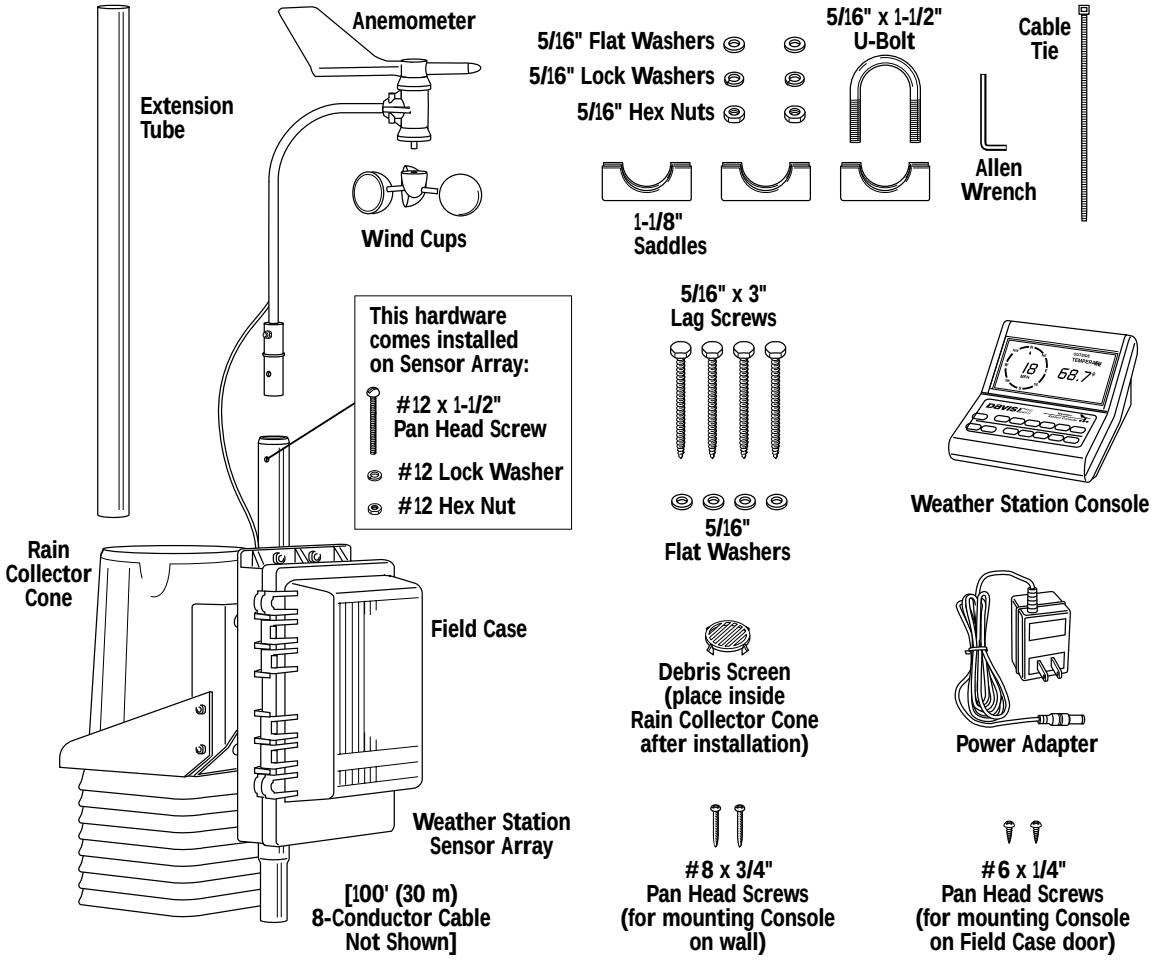
EZ-MOUNT WEATHER STATION

INSTALLATION MANUAL

This manual describes how to install the EZ-Mount weather station. Separate manuals included with the station cover the operation of the console and sensors. Some features discussed here (such as barometric pressure and humidity) are only available with the Weather Monitor II®. Additional products—such as the Mounting Tripod, EZ-Solar Power Kit, and WeatherLink®—are mentioned here but are not required (contact Davis for more information).

COMPONENTS

The EZ-Mount weather station includes the following components. Please make sure you have everything you need before beginning.



TOOLS AND MATERIALS NEEDED

In addition to the components listed above, you may need some of the following tools and materials.

- **Flat-Bladed Screwdriver**
- **Phillips Screwdriver**
- **Adjustable Wrench**
- **Wire Cutter or Scissors**
- **Electrical Tape**
- **Cable Clips or Weather Resistant Cable Ties**
  With screw holes and screws or other means for mounting
- **Hammer**

INSTALLATION STEPS

This manual takes you through the step-by-step process of installing your weather station. These steps are indicated below, along with their page numbers for easy reference:

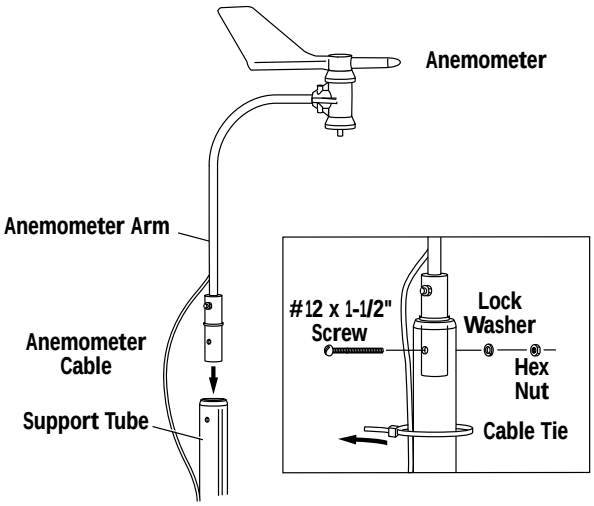
- **Assemble and test the station, page 3**
  - Detach the extension tube, page 3
  - Attach the anemometer, page 3
  - Attach the wind cups, page 3
  - Snip the cable tie in the rain collector, page 4
  - Apply power to the console, page 4
  - Plug cable from sensor array into console, page 5
  - Check that the console and sensors are working properly, page 5
  - Re-attach rain collector cone and unplug sensor array cable from console, page 5
- **Install the station, page 5**
  - Choose locations for the sensor array and console, page 5
  - Mount and secure the sensor array, page 5
  - Run sensor array cable to console, page 7
  - Mount the console, page 7

If, once installed, you encounter any problems with the station, please refer to the troubleshooting guide on page 8 or call our technical support line for assistance.

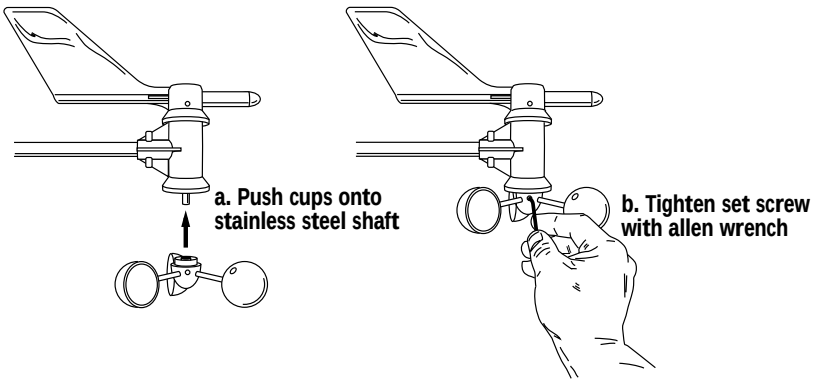
GETTING STARTED

Follow the steps below to install your station. At various stages of this installation, you will be advised to test the system to ensure proper functioning.

1. **Detach and remove the extension tube from the support tube by cutting the two black cable ties.**
2. **Attach the anemometer arm to the support tube as shown below. Make sure that the anemometer is positioned over the white field case and NOT over the black rain collector cone.**

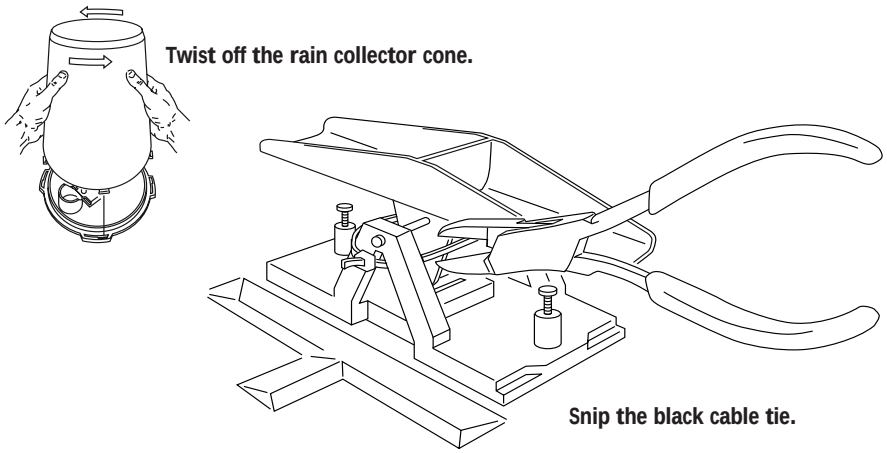


3. **Attach the wind cups to the anemometer.**
   Push the wind cups onto the shaft as far as they will go, then tighten the set screw. The cups should drop slightly and into the ideal position automatically. Spin the wind cups. If they do not spin freely, loosen the set screw and lower the cups slightly. Repeat until the wind cups spin freely.



4. Detach the rain collector cone and snip the cable tie.

Detach the black rain collector cone from its base by rotating the cone counter-clockwise until its latches line up with the latch openings in the base and then lift the cone off. (The cone fits tightly and may require extra pressure to remove it the first time.) C*arefully cut and remove the black cable tie which holds the bucket in place during shipping.*

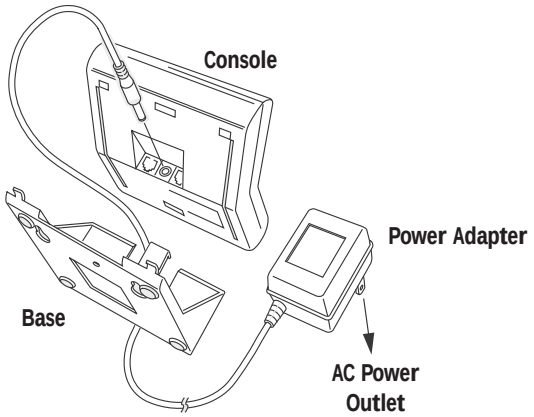


Do not re-attach the rain collector cone at this point; you will need to test the tipping bucket before you complete the installation.

5. Apply power to the station console.

To power up the console, first remove the console's mounting base by pressing down on the large tab between the two oblong holes on the base's underside and pulling the base free. Plug the power adapter into the center "Power" slot, as shown below, and then plug the other end into a 110 VAC outlet. Once power is applied, the console should beep twice within 10 seconds if the console is working properly. (If you have the optional WeatherLink installed, the console should beep three times within 20 seconds.) The readings will appear dashed out until you connect the sensors.

Note: *If you are going to use a battery as backup, make sure that you plug in the AC power before installing the battery. Powering up the console with the battery alone may cause the console to lock up due to insufficient power. (Do NOT use a backup battery if you use the optional EZ-Solar Power Kit.)*



6. **Connect the sensor array field case to the console.**
   Plug the free end of the 100' (30 m) 8-conductor cable on the sensor array into the jack labeled JUNCTION BOX underneath the console.

   The pre-assembled EZ-Mount station allows you to install your station without ever opening the sensor array field case (the white rectangular box). Inside the field case, the sensor data passes through a junction box then out to the console through the cable.
7. **Check all of the readings on your display to be sure they appear correctly (i.e., not dashed out).**
   Consult your Monitor or Wizard owner's manual for instructions on displaying the various readings. Spin the wind cups, move the wind vane, and tip the rain bucket to verify wind speed and direction and rainfall readings. Note that some sensor readings (e.g., wind direction, barometer, and 0.2mm rain collectors) must be adjusted in order to read correctly; specific instructions are contained in the owner's manual.

   If the console is having problems reading the sensors, consult the troubleshooting guide at the end of this manual.
8. **Re-attach the rain collector cone and lay the debris screen "feet-down" over the cone's funnel hole.**
9. **Unplug the console end of the 8-conductor cable.**

INSTALLING YOUR STATION

Choosing Locations for the Sensor Array and Console

The cable that connects your sensor array to your console is 100 feet (30 m) long. Choose a location where the cable can safely and reasonably connect with the console. Most people install the sensor array on the roofs of their houses, on fences, or in open fields where wind flow and rainfall are unobstructed by trees and nearby buildings, and then install their consoles inside their houses.

Alternatively, you can mount the console in the field case on the sensor array itself and either check the data at the site, or use the optional WeatherLink and run a cable to a computer. If you plan to mount the console inside the field case, please keep in mind that you will need to supply the console with *continuous* power. To do this, you can use the optional EZ-Solar Power Kit or any other 110 VAC, *weather-protected* power source.

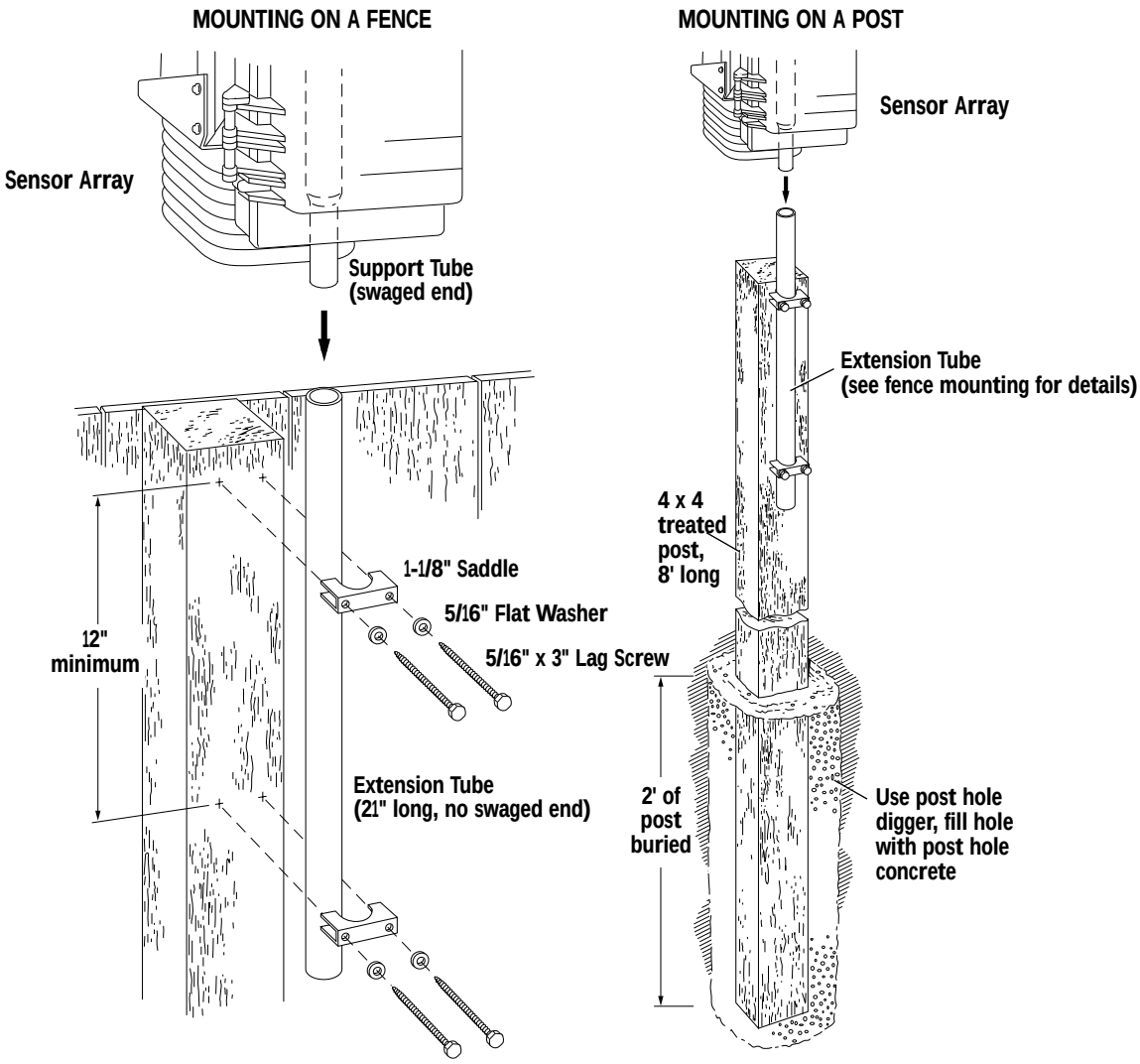
Note: *The 9-volt backup battery can serve this purpose temporarily but is* not *recommended as a long-term solution—a new battery will power the station for 24-48 hours only.*

For an illustration of how to mount the console on the inside door of the field case, refer to the Multi-Purpose Shelter manual included with your station.

Mounting the Sensor Array

The sensor array has been pre-assembled for easy installation. However, you will still need to provide a solid mounting for the sensor array. Mounting hardware has been included for the most common installations (see figures below). If you are using the optional Mounting Tripod, consult the tripod's manual for mounting instructions.

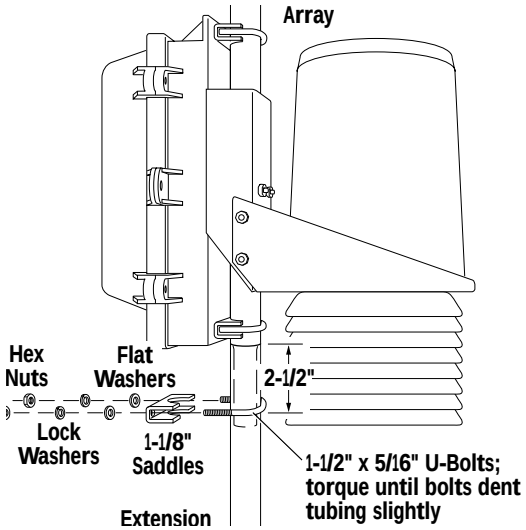
CAUTION: *The station's wind direction is calibrated as if the horizontal part of the anemometer arm were pointing south. If you plan to mount the station facing a different direction, consult your owner's manual for instructions on how to adjust the wind vane accordingly.*



Note: *For roof mounting, we recommend the optional Mounting Tripod. If mounting on a roof, tower, or other elevated structure without the Tripod, be sure to consider the effects of lightning, wind loading and vibration and design the installation accordingly.*

Securing the Sensor Array

After mounting the sensor array, secure the sensor array to the extension tube as shown below.



Running the Cable to the Console

To prevent fraying or cutting of the 8-conductor cable, secure the cable so it does not whip about in the wind. Secure it to the extension tube by wrapping electrical tape around them both. Use cable clips or weather resistant cable ties (see owner's manual for illustration) to secure the cable underneath the eaves of your house or in locations similarly shielded from rain. Make sure the cable is secure by placing clips or ties approximately every 3-5 feet (1-1.6 m).

Note: *Do not use metal staples or a staple gun to secure the cable. Metal staples—especially when installed with a staple gun—have a tendency to cut the cables.*

Mounting the Console

1. **Plug the 8-conductor cable into the JUNCTION BOX jack on the console (step 6 on page 5).**
2. **Apply power to the console (step 5 on page 4).**
3. **For instructions on installing a backup battery, refer to your owner's manual.**
   If you plan to use an EZ-Solar Power Kit, do NOT install a backup battery.
4. **For instructions on mounting the console on a wall, desk, or shelf, refer to your owner's manual. Or, if you want to mount the console inside the field case, see the discussion on page 5.**

TROUBLESHOOTING

While the EZ-Mount weather station is designed to provide years of trouble-free operation, occasional problems may arise. If you experience a problem, please check the troubleshooting tips below before calling tech support.

- **Console does not register any rainfall**
  Double check that you have cut the cable tie that secures the rain bucket during shipping. See step 4 on page 4 for instructions. Also, make sure the anemometer is not positioned above the rain collector cone.

- **Console does not register wind direction correctly**
  Check that you have either pointed the anemometer arm southward when mounting (page 5), or that you have recalibrated the console to the anemometer arm's current direction. See the "Installing the Anemometer" section of your owner's manual for instructions on how to adjust the wind vane so that the anemometer and the console are in sync.

- **Console locks up**
  Insufficient power during power up or a power surge may cause the console to lock up. If this occurs, remove all power by disconnecting any battery backup and the AC/DC power cord. Wait for 1 minute with all of the power removed. Then re-connect the AC/DC power cord and listen for 2 beeps within 10 seconds.

  Note: *If you have the WeatherLink installed, listen for 3 beeps within 20 seconds and then, if all is well, try communicating with the WeatherLink using the software.*

  Once you receive the final beep, install a fresh backup battery, if desired, and put the console back into service.

- **Other problems**
  Check the troubleshooting guide in the back of your owner's manual for help with many of the most common problems.

If, after checking this troubleshooting guide and the one in your owner's manual, you are unable to solve the problem, please call our technical support team at (510) 732-7814 for assistance (M-F, 7 am–5:30 pm PST). Please do not return your unit for repair without prior authorization.

Product Numbers: 7425EZ, 7440EZ, (EU, UK, M)
Davis Instruments Part Number: 7395-302
EZ-Mount Weather Station Installation Manual
Rev. C Manual (7/8/99) Controlled online: Weather Manuals/Consoles/EZ/EZ-Mount

This product complies with the essential protection requirements of the EC EMC Directive 89/336/EC.

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