Instruction Manual

WeatherCub[™] 1 Cellular Weather Station

Table of Contents:

Welcome to EarthScout	2
Download the EarthScout Mobile App	
Placement Considerations	
What You'll Need	2
Option 1: Install In Soil	3
Option 2: Install In Concrete	
Add Components to Pole	
Active WeatherCub.	



EarthScout App Setup

Welcome to EarthScout!

Congratulations you are now the owner of a cellular WeatherCub weather station! We are committed to making your experience with EarthScout a positive one. If you have any questions, or experience any issues during setup, please feel free to contact our support team for assistance 1-877-443-7632.

Download the EarthScout Mobile App

The EarthScout app is easy to use and install. Activate your camera on your smartphone and hold the camera over one of the QR codes shown on the right to download the EarthScout app for your Apple or Android phone or tablet. It only takes a few minutes.





Sign In to the EarthScout Mobile App

Visit the EarthScout youtube channel on youtube.com and watch the EarthScout "Email Invitation & Sign In" video that will walk you through the steps to sign in to the app.



Placement Considerations

- Recommended to install at a distance of 10x the height of any nearby obstruction (trees, buildings etc)
- Do not install near metallic objects (morton buildings or grain bins)
- Do not install under power lines (this may cause interference)
- Do not place near tree lines or other tall objects
- Do not place near a local depression or on top of a ridge (minimal slope area)

- Do not place within 100 meters of a body of water
- Do not install within 100 meters of a heat source (tar roads, cement pad, driveway etc)
- Do not install in bare dirt (there should be some vegetation beneath the sensor for more accurate temperature readings)
- Do not install on any rooftop
- If installing near livestock, place a fence around so animals can't rub against it.

What You'll Need

Parts Included:

- WeatherCub box and mounting bracket
- Solar panel with mounting brackets
- Weather Sensor with cable
- Ground Screw, installation bar, and 3 set screws
- 5.5ft galvanized pole (optional) if ordered, will ship in a separate package. If provided by customer pole should be 1 5/8" diameter and at least 5.5ft.

Tools & Materials Needed:

- 1/2" wrench
- Level
- 6mm allen wrench (provided with ground screw)

Also required when installing in concrete:

- 8 10" diameter soil auger or post hole digger
- (2) 50 lb. bags of quick dry cement

Option 1: Install Pole Directly Into Soil

Caution: Read instructions carefully. Improper installation of this equipment may result in inaccurate data readings.

If you intend to move the weather station in the future, then install directly into the soil:

Step 1: Find a suitable location for the weather station. For details, see the Placement Considerations section on page 2.

Step 2: Check the ground soil to ensure it will provide a soild anchor for the ground screw. Do not install in soft or sandy soil because high winds can loosen the Ground Screw over time and lead to inconsistent data readings.

Step 3: Remove the plastic cap from the tip of the Ground Screw

Step 4: Slide the provided section of 20" bar through the holes near the top of the screw and begin turning while applying downward force (see Fig. A - C). Regularly check that the Ground Screw is plumb with a level. Continue screwing until the bar prevents you from going deeper.

Note: If the ground is too hard or dry, consider making a pilot hole by hammering the bar 6 inches into the soil. Remove the bar.

Pour a bucket of water on and around the pilot hole. Then try again.

Step 5: Remove the bar from the Ground Screw (see Fig.D)

Step 6: Slide the galvanized pole into the Ground Screw. Use a level on the side of the pole while adjusting each set screw to make the pole vertically plumb. Once vertically plumb, use an allen wrench to tighten the three set screws to minimize movement and shaking caused by wind. (see Fig. E).



Option 2: Install Pole Into Concrete

Step 1: Buy 2 bags of fast drying concrete.

Step 2: Find a suitable location for the weather station. For details, see the Placement Considerations section on page 2.

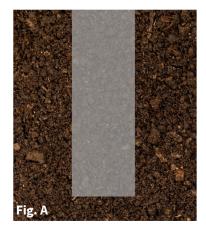
Step 3: Use a Soil Auger or Post Hole Digger to dig an 8-10" diameter hole that is 48" deep. Check the frostline in your area to make sure the hole is at a locally recommended depth to prevent frost heave (see Fig. A).

Step 4: Mix and pour the cement into the hole, but do not fill the hole to the top. Leave a 1 - 2" gap from the top of the hole (see Fig. B).

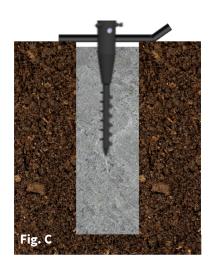
Step 5: Remove the plastic cap from the tip of the Ground Screw. Insert the 20" bar through the two holes toward the top of the Ground Screw. Then, insert the Ground Screw vertically in the wet cement so the bar suspends the Ground Screw in the cement. Take the level and set it across the top of the Ground Screw to ensure the Ground Screw is vertically plumb in the cement while it hardens (see Fig. C).

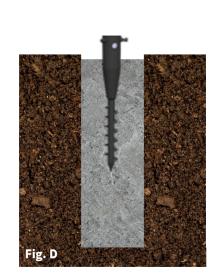
Step 6: Let the cement dry for 6 hours, then remove the bar from the Ground Screw (see Fig. D).

Step 7: Slide the galvanized pole into the Ground Screw. Use a level on the side of the pole while adjusting each set screw to make the pole vertically plumb. Once vertically plumb, use an allen wrench to tighten the three set screws to minimize movement and shaking caused by wind (see Fig. E).











Adding Components to Pole

Reference these set up directions when installing in concrete (Option 1), or directly into the soil (Option 2).

Step 1: Mount the WeatherCub control box on the galvanized pole and face the box north. Adjust the box height so the bottom clamp is approx. 24" above the ground. Pull the rubber strap for each clamp to tighten.

Step 2: Rotate the solar panel bracket so it is perpendicular to the solar panel. Mount the solar panel to the pole having the top clamp between the 2 Weather Cub box clamps and the bottom clamp approx. 8" below the bottom Weather Cub box clamp. Face the solar panel south and tighten clamps by pulling on the rubber straps. **DON'T PLUG IN CABLE TO BOX YET.** (see Fig. G2).

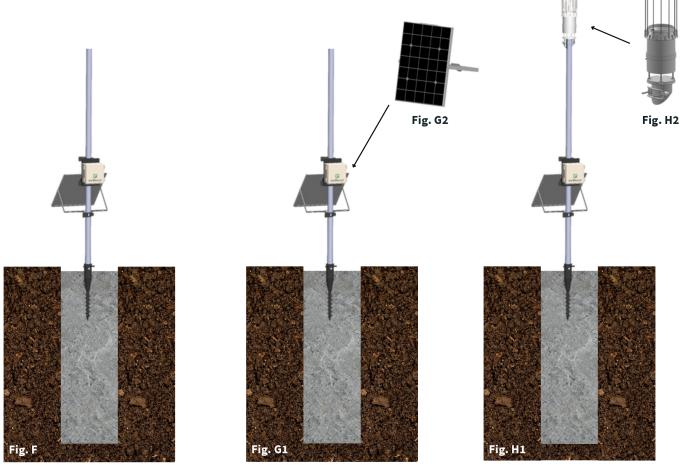
* If the optional 12V box was ordered, mount it a few inches below the WeatherCub box and tighten the rubber straps. **DON'T PLUG IN CABLE TO BOX YET.**

Step 3: Slide the bird guard off the top of the weather sensor and flip it so the pins point up, then slide it back on top of the sensor (see fig H2).

Step 4: Mount the weather sensor to the top of the pole and point it north (see "N" marking on the sensor). Tighten the clamp using a $\frac{1}{2}$ " wrench.

Step 5: Route the cable down the pole to the top of the beige box. Use the velcro straps to secure the cable to the pole. **DO NOT PLUG IN CABLE TO BOX YET.**

Step 6: Level the weather sensor. Locate the bubble level on the underside of the sensor. Loosen and tighten the 3 set screws on the groundscrew until the bubble is centered.



Activate WeatherCub

Standard WeatherCub

Step 1: Open the control box by loosening the clasps on the right hand side of the box (see Fig H4)

Step 2: Remove battery tab on positive battery contact to activate the weather station.

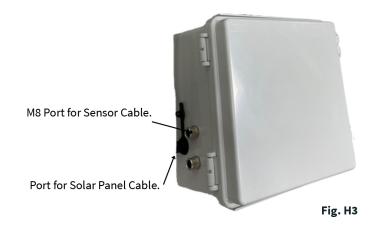
Step 3: Plug in the solar panel cable into the port on the right left side of the Weather Cub box.

Step 4: Then, plug in the sensor cable into the top M8 bulkhead on the left side of the beige Weather Cub control box (see Fig. H3).

Step 5: Press the red reset button on the metal battery holder plate to send a weather data reading to the EarthScout App on your device.

Step 6: Close the box. Check for a weather reading in the EarthScout app before leaving the installation site.

If you don't receive a weather reading in the app double check plugs and battery connections. If issues persist, contact EarthScout at 877-443-7632.





WeatherCub with Optional Winter Package

Step 1: Open the control box by loosening the clasps on the right hand side of the box (see Fig H4)

Step 2: Remove battery tab on positive battery contact to activate the weather station.

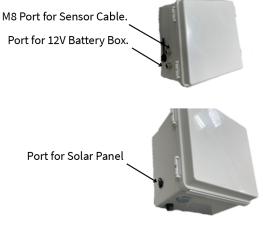
Step 3: Open the 12V battery box and plug in the positive red wire to the 12V battery then close the box.

Step 4: Plug in the solar panel cable into the port on the left side of the 12V box. Next plug in the cable from the bottom of the 12V box into the port on the left side of the Weather Cub box. Then, plug in the sensor cable into the M8 bulkhead on the left side of the Weather Cub box.

Step 5: Open the control box and press the red reset button on the metal battery holder plate to send a weather data reading to the EarthScout App on your device.

Step 6: Close the box. Check for a weather reading in the EarthScout app before leaving the installation site.

If you don't receive a weather reading in the app double check plugs and battery connections. If issues persist, contact EarthScout at 877-443-7632





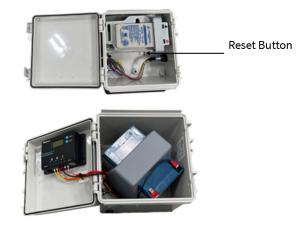


Fig. 12

Don't forget to check out all of the great App tutorials and case studies on the EarthScout YouTube channel.



We understand the importance of having a strong support network for our customers. If at anytime you need assistance, please call 877-443-7632. We want you to be 100% satisfied with your new EarthScout product.

