Instruction Manual

L200, L400 & L600
Outdoor Models

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earthscout®

EarthScout Setup Steps

1. Watch EarthScout Welcome Video

Activate your camera on your phone and hold the camera over the QR code to the right. A link to the EarthScout Education Center (www.earthscout.com/education) should appear. Tap the link and watch the “Welcome to EarthScout” video.

EarthScout Education Center

2. 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.

Available on the iPhone App Store

ANDROID APP ON Google play

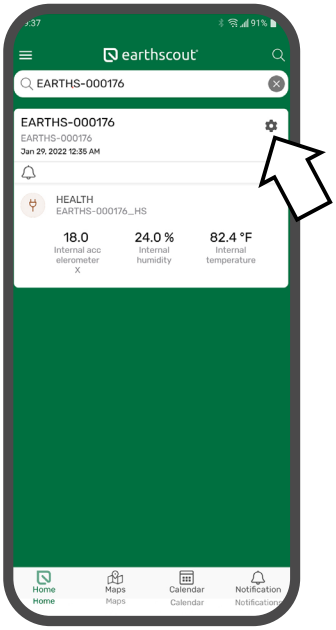
3. Sign In to the EarthScout Mobile App

Go to the EarthScout Education Center and watch the EarthScout “Email Invitation & Sign In” video. The video will walk you through the steps to sign in to the desktop and mobile app. Also check out the other EarthScout App tutorials to learn how to access your field data.

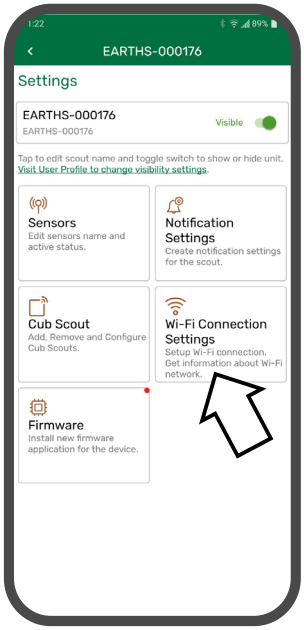
EarthScout Education Center

4. Setup Wifi

Follow these simple steps if your EarthScout is equipped with Wifi. If it is not, please disregard this step.

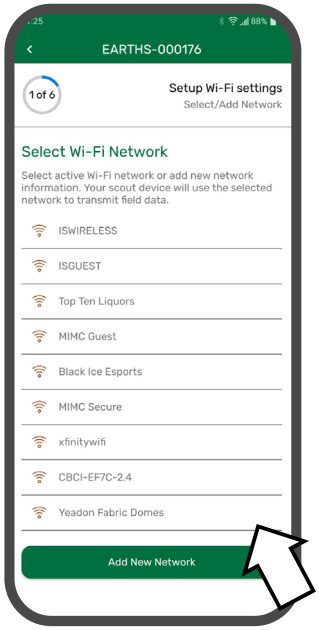


A. From the EarthScout App Dashboard, tap the gray Settings cog.



B. Click on “WI-FI Connection Settings”.

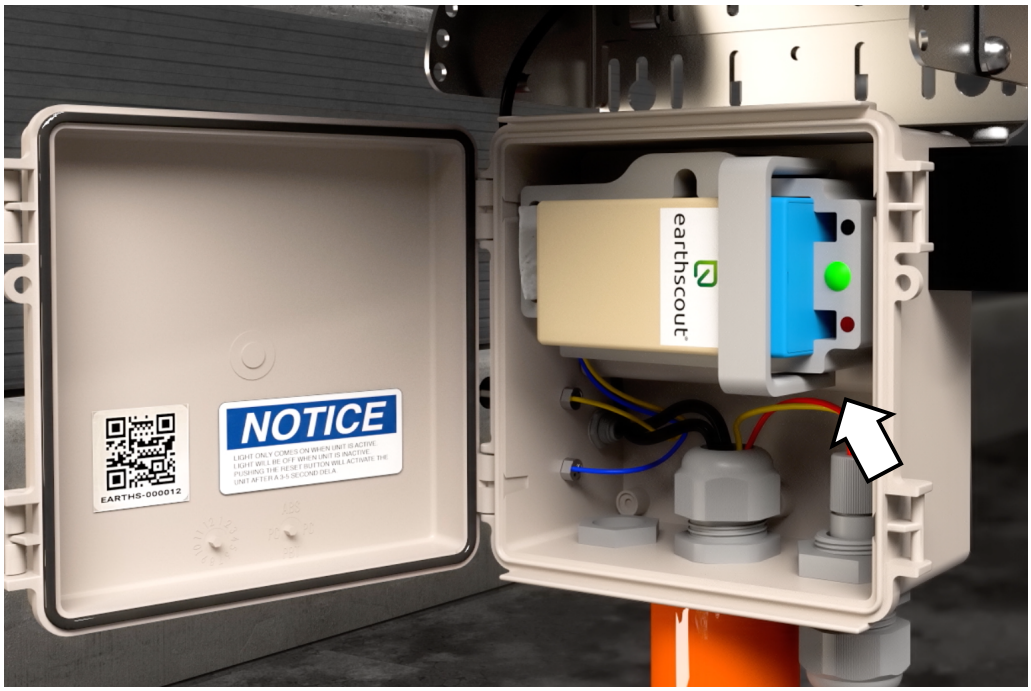
C. Tap on “Configure Network”.



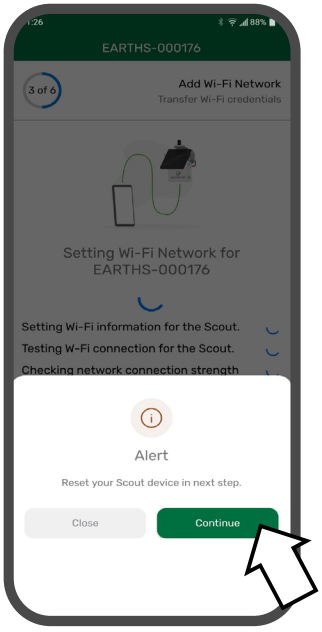
D. Tap on “Add New Network”.

Setup Wifi (Continued)

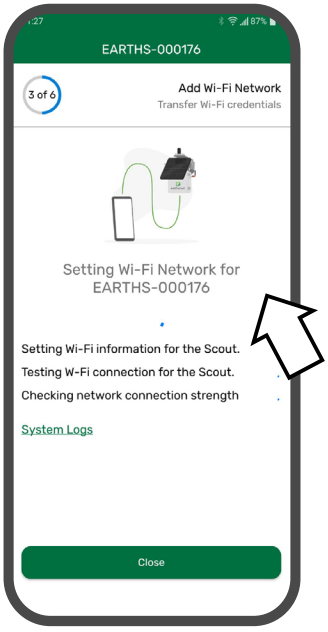
E. Type in the WIFI credentials and tap “Next”.



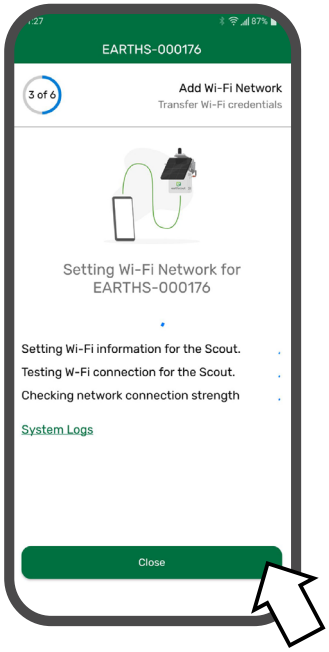
F. Open the gray box on your EarthScout and push the black Reset button. It will either be located directly under the battery inside the case, or on the outside of the case.



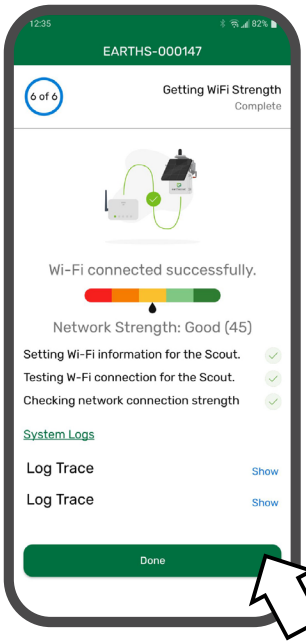
G. Click “Continue” in app after “Reset” button on your EarthScout is pressed.



H. App will attempt to connect to EarthScout via Bluetooth and send WIFI credentials.



I. Wait until connection confirmation and tap “Close”.



J. Your EarthScout should now be connected to internet via WIFI.

EarthScout® Field Installation Guide

L200, L400 And L600 Outdoor Models

EarthScout Installation Video

If you purchased a burial tube with your EarthScout, activate your camera on your phone and hold the camera over the QR code to the right. A link to the EarthScout Education Center (www.earthscout.com/education) should appear. Tap the link and then find the "How to Install EarthScout in Field with Burial Tube" video. If you don't have a burial tube, follow the directions below.

EarthScout Education Center

What's Included:

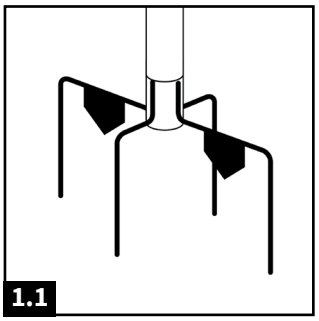
- EarthScout (w/built in air temp & humidity sensor)
- Soil Sensor #1 (measures moisture, EC & temp)
- Rechargable Batteries (2)
- Battery Charger (1 per order)
- Survey Stakes (2)
- Soil Sensor #2 (L400 & L600 models only)
- Solar Radiation Sensor (L600 model only)

What You'll Need:

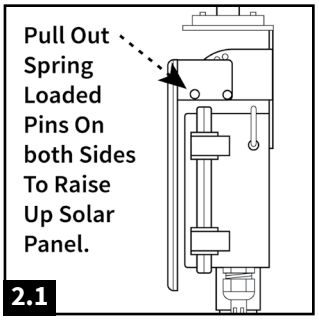
- 15-20 Minutes
- Earth Auger or Shovel
- Tape Measure
- Garden Trowel
- Pocket Knife
- Smartphone

How To Install Your EarthScout In 12 Easy Steps:

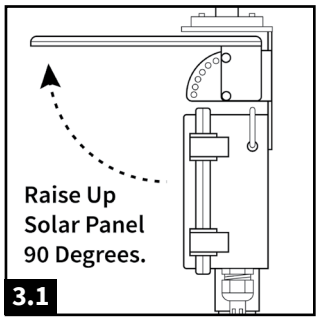
Step 1: Remove EarthScout from carry case and stand up device on level ground, being careful it doesn't tip over and damage the solar panel or antenna. (Diag. 1.1).



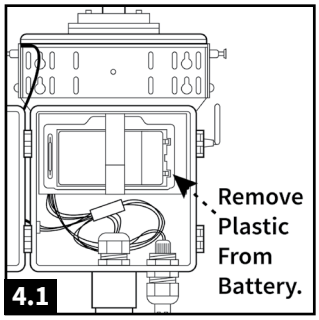
Step 2: To power device, Begin by pulling out spring loaded pins on left and right side of solar panel (Diag. 2.1).



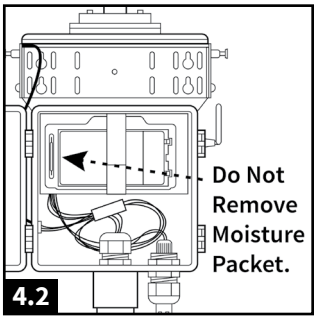
Step 3: While pulling spring loaded pins out, swing solar panel upward 90 degrees above gray box. Release pins to lock solar panel in place (Diag. 3.1).



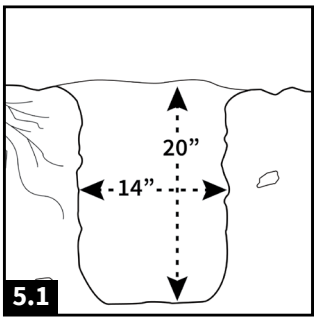
Step 4: Unclasp clips on side of gray box and open door. Remove plastic tab from battery terminal and ensure metal pins on the battery are touching the metal tabs in the housing (Diag. 4.1).



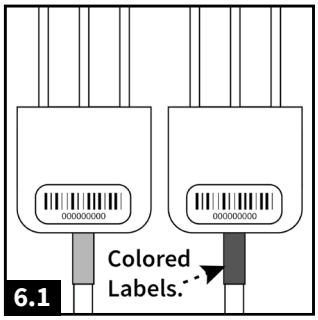
Step 4 Continued: Don't remove moisture absorbing packet (Diag. 4.2). Close door by fastening clasps on side of gray box.



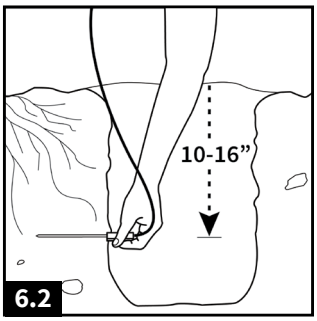
Step 5: Move EarthScout to edge of field. Choose location for Soil Sensor placement at edge of root zone 12 to 20-inches from plant. Use earth auger or shovel to dig 14 x 20-inch hole. Avoid cutting roots. (Diag. 5.1).



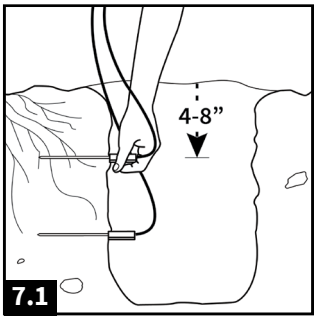
Step 6: Remove black cap from sensors. If you have two sensors, hold them as shown and take a photo of the sensor serial numbers with colored orange and green labels (Diag. 6.1)



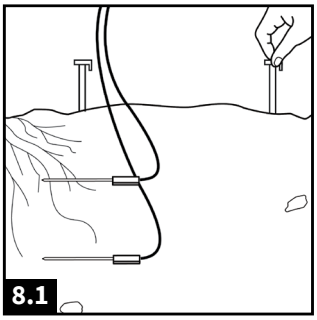
Holding sensor level, reach into hole 10 to 16-inches and insert sensor with orange label horizontally into root zone (Diag. 6.2). See Grow Table on next page for recommended sensor depths by crop.



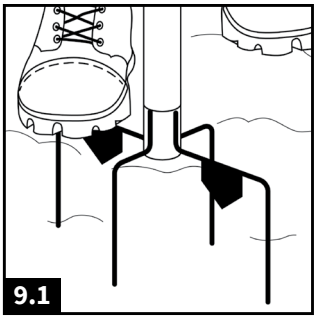
Step 7: If you have a second soil sensor with a green label, insert it horizontally above the first sensor at 4 to 8-inch depth to compare soil data at two levels (Diag. 7.1).



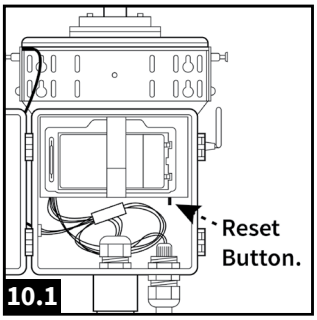
Step 8: Backfill hole and make cables exit hole close to plant as shown. Compact dirt to match surrounding soil to avoid water pooling. Put 1st survey stake above sensors and 2nd on opposite edge (Diag. 8.1).



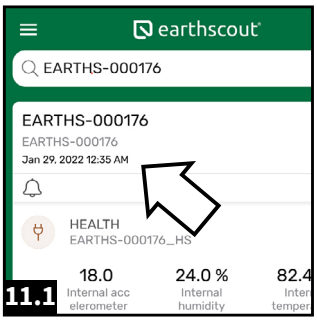
Step 9: Face EarthScout south. Use foot to press legs deep in ground near hole. If crop grows taller than EarthScout, add flag to top for easy identification - see www.earthscout.com for flag options (Diag. 9.1).



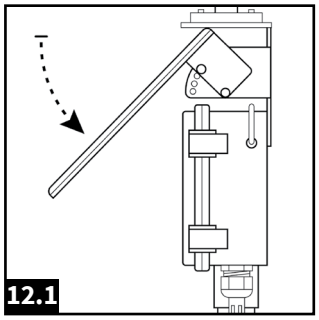
Step 10: Test your EarthScout. Open the gray box and press the black reset button below the battery or on side of gray box. Green light by battery will glow briefly showing data transfer (Diag. 10.1).



Step 11: Check EarthScout App dashboard polling data timestamp on phone for current time. If it didn't update, press button again. First data transfer can take up to 30 minutes. Then close gray box (Diag. 11.1).



Step 12: Pull out spring loaded pins on sides of solar panel and swing it down in front of door at 45 degree angle. Insert pins into 4th hole from top (Diag. 12.1).



EarthScout® Outdoor Grow Table

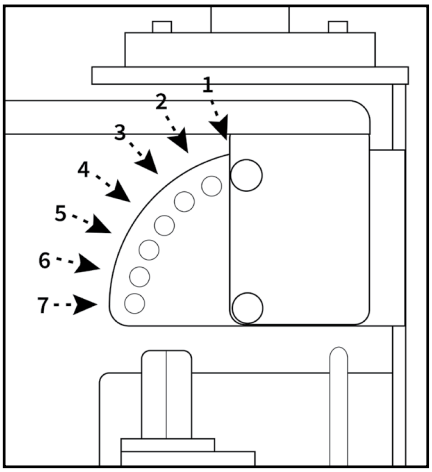
Reference the chart to determine what depth to place your soil sensor(s) - shallow and/or deep.

Crop Type	Root Depth Shallow/Deep		Typical Root Structure	Sensor Placement (prongs horiz. unless specified)
Hemp (high pop. and/or transplants)	4”	8”	Mostly fibrous, expect mass of roots within 4-10”.	Between plants, in the row.
Hemp (low pop and/or seed start	6”	12”+	Taproot with deep cone.	1 - 1.5’ from center of plant.
Hops	6”	12”+	Rhizomes with fibrous “water roots” (horiz 2-3ft., vertical varies and goes deep depending on age and soil).	Between plants, prongs facing into the row more than 3ft. from the base of the specimen plant.
Grapevine	8”	Call Grow Coach	Varies, depending on pruning, stock age and soil conditions.	Near permanent irrigation structures, or between emitters, prongs facing row or trunk. Place close to emitters to reduce overwatering.
Most Fruit & Nut Trees	4-6”	10-16”	Taproots common but also fibrous or framework-style secondary roots, structure depends on branch pruning techniques and spacing.	Inside the drip line, prongs facing any direction. Place 1-3” from main trunk and prongs facing into row if trellised.
Turfgrass, Med Height	2”	6”	Fibrous, mat-like structure.	Prongs facing in direction of water flow.
Turfgrass, Greens Height	1-2”	4-6”	Fibrous, mat-like structure.	Prongs facing into the green, and/or in direction of water flow.
Soybean	6”	12”	Taproot with linear lateral roots forming squared or elongated cone. Up to 2’ depth & strongly effected by soil structure.	Within a foot of the specimen plant, prongs facing the row or the plant. Lighter soils may mean up to 2’ effective root depth.
Corn	8”	12-16”	Fibrous with seminal and nodal roots.	Within 1 foot of the row, prongs going through the row and within 1 ft. of the specimen plant.
Wheat	8”	16”	Fibrous mat-like structure	Prongs going through the planting row.
Truck Crop (processing & fresh)	6”	12”	Strongly species dependent and great variability within the group.	Within 18” of the specimen plant, prongs within the row or under mulch facing the plant or along side.
Cotton	8”	16”	Taproot with deep cone.	Within the row or through the row, between plants.

Solar Panel Angle Guide

Reference the chart below for determining the best angle for your solar panel based on your location. Reference the diagram for hole selection. Contact EarthScout for panel angle if you live outside Canada, USA and Mexico.

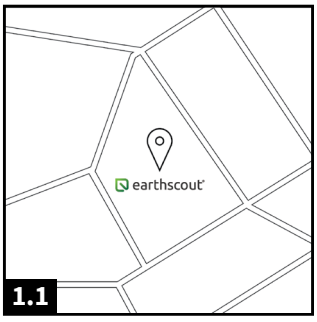
Location	Degrees	Hole
Central & South Mexico (Latitude 0-22.5)	0	1
Southern United States (Latitude 22.5 - 37.5)	15	2
Northern United States (Latitude 37.5 - 55)	30	3
Canada	45	4



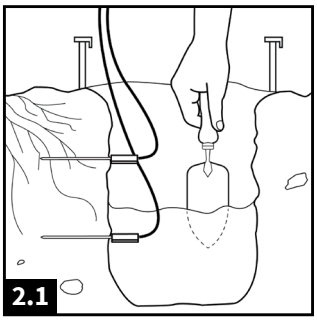
Uninstalling Your EarthScout

To properly uninstall EarthScout, you will need a hand trowel and towels to clean it before re-use or storage.

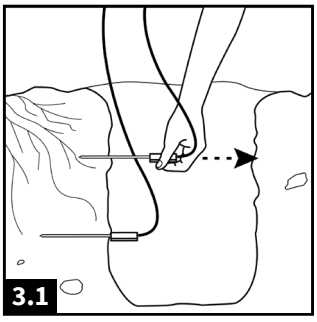
Step 1: Locate EarthScout on property using GPS coordinates or flag marker. Then, locate 2 survey stakes around edge of hole, marking where sensor(s) are buried (Diag. 1.1).



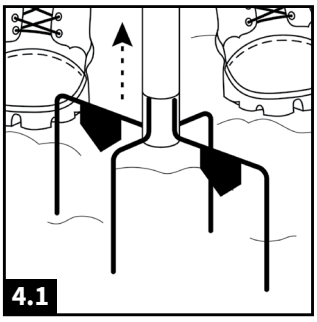
Step 2: Using hand trowel, excavate hole starting at the survey stake furthest away from the plant. Dig straight down 18-inches. Continue to excavate dirt, carefully working toward cords and sensors (Diag. 2.1).



Step 3: Remove sensors by pulling horizontally from root zone (Diag. 3.1). **Don't pull on cables or bend metal prongs - may harm sensors.** Clean sensors with cloth, coil cords and place in holder.



Step 4: Gently pull EarthScout out of ground, wipe down with clean cloth and put in storage case. Store in cool, dry place (Diag. 4.1).



Don’t forget to check out all of the great app tutorials and case studies in our Education Center at www.earthscout.com/education.

EarthScout
Education Center

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.

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