Solar Package

Installation Manual
1 Panel Model
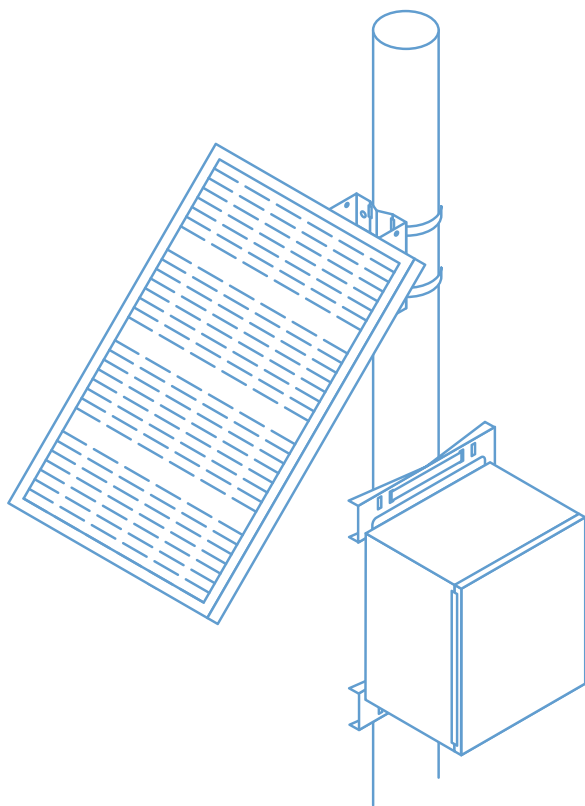
Assembled Unit
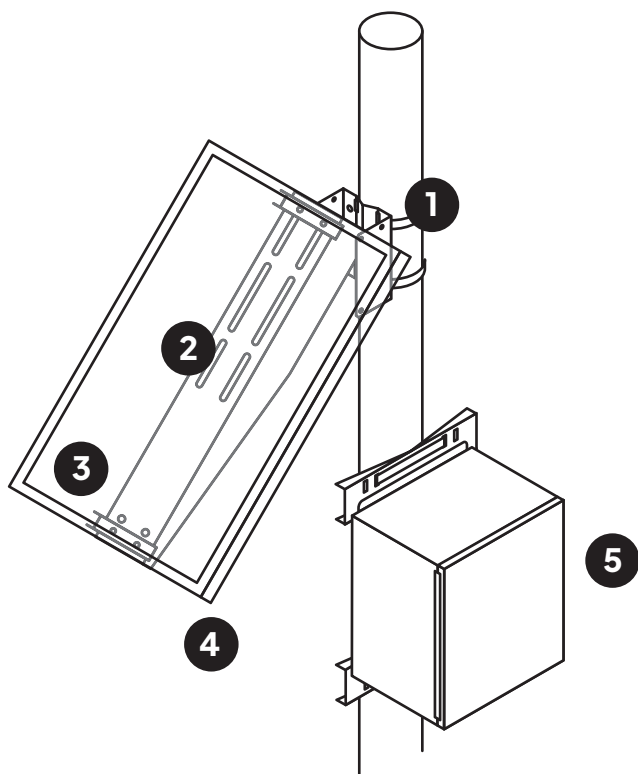
1. Saddle Bracket
2. Tilt Arm
3. Panel Mounting Brackets
4. Solar Panel
5. Battery Enclosure

Unlimited Support

If you have any questions or issues with your TrueLook system, please don't hesitate to contact our Customer Support team.

Phone 833–878–3566 (Option 2)
Email support@truelook.com

You can also submit a support request online at:
support.truelook.com/contact-support

Online Resources

Visit truelook.com/install to access:

- ✅ A guide to administrative settings and time-lapse setup

- ✅ Video demonstrations of installation procedures

- ✅ And more!
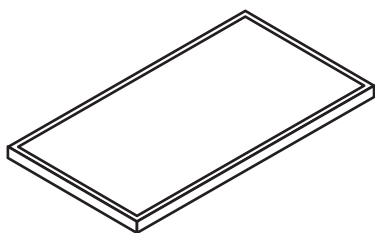
For Terms & Conditions, as well as Warranty information, visit:
truelook.com/terms-conditions.

Hardware Packing List

Solar Panel [1×]
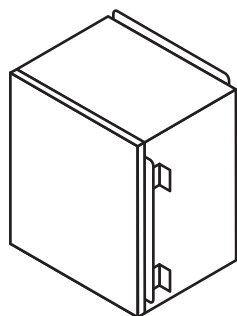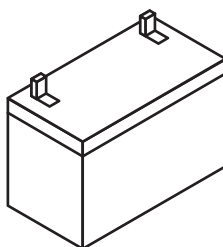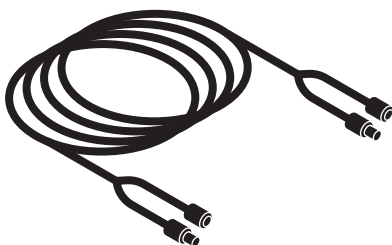
Battery Backup System

Enclosure [1×]

12V Battery [1×]

Panel to Enclosure Cable [1×]

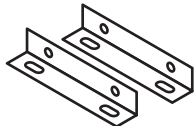#### Camera Power Cord [1×]

Getting Started

Mounting Hardware

Steel Straps [4×]

Saddle Bracket [1×]
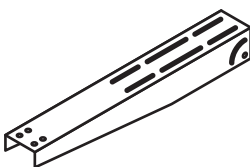
Large Pole Adapters [2×]

Panel Mounting
Brackets [2×]

Tilt Arm [1×]

Assorted Hardware
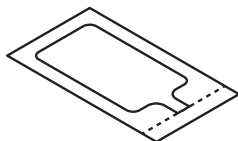
3/8" nuts

3/8" bolts

Flat Washers

Lock Washers

Anti-Seize

Preparing for Installation

Solar Panel Positioning

Warning: Failure to observe all following requirements may result in system downtime. Units self-recover automatically once panel receives sufficient sunlight.

Step 1   Ensure panel will face **due south.**

The chosen mounting location should allow the panel to face the equator **(directly south)** in order to capture adequate sunlight and properly charge.

Step 2   Determine your panel's angle.

Refer to the chart on the following page to find the proper angle for your solar panel based on your state.

Step 3   Ensure panel remains unobstructed.

The panel must receive direct sunlight throughout the day. Do not let trees, equipment, structures, or anything else block the sun.
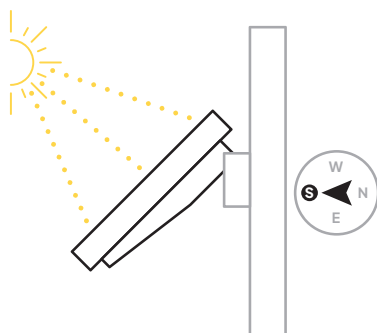
Panel Angles by State

Alabama	45°	New Hampshire	65°
Alaska	80°	New Jersey	65°
Arizona	45°	New Mexico	45°
Arkansas	60°	New York	65°
California	45°	North Carolina	60°
Colorado	55°	North Dakota	70°
Connecticut	60°	Ohio	60°
Delaware	65°	Oklahoma	50°
District of Col.	60°	Oregon	65°
Florida	45°	Pennsylvania	65°
Georgia	55°	Rhode Island	65°
Hawaii	40°	South Carolina	55°
Idaho	65°	South Dakota	65°
Illinois	65°	Tennessee	60°
Indiana	65°	Texas	45°
Iowa	65°	Utah	65°
Kansas	65°	Vermont	65°
Kentucky	60°	Virginia	60°
Louisiana	45°	Washington	65°
Maine	65°	West Virginia	60°
Maryland	60°	Wisconsin	65°
Massachusetts	65°	Wyoming	65°
Michigan	65°		
Minnesota	65°		
Mississippi	45°		
Missouri	60°		
Montana	70°		
Nebraska	65°		
Nevada	65°		

Determine Mounting Hardware

Wall Mounting

Your mounting kit **does not include** hardware for wall mounting. Choose appropriate mounting hardware for your surface.

Battery Enclosure Mounting

- ✅ For wall mounting, choose the appropriate mounting hardware for your surface. Lag bolts and/or anchors are recommended.
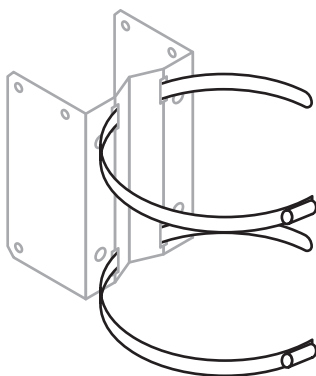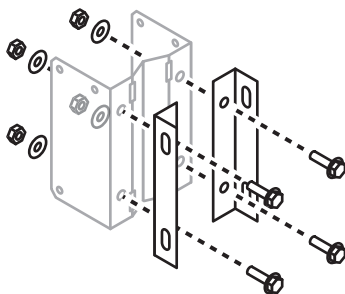
Mounting Hardware

Pole Mounting

Warning: It is recommended to use hand tools unless otherwise specified, as power tools could break hardware.

Step 1   Thread steel straps through top and bottom of saddle bracket.
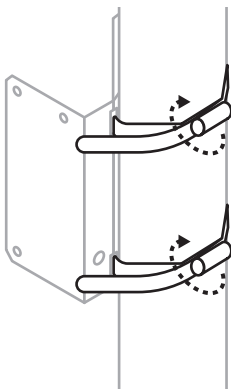

Optional: For poles wider than 4", attach adapter kit to back of saddle bracket using provided hardware.
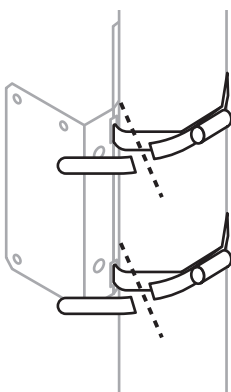
Installation

Step 2   Tighten each strap around pole using a drill with 5/16 hex head driver bit (not included).
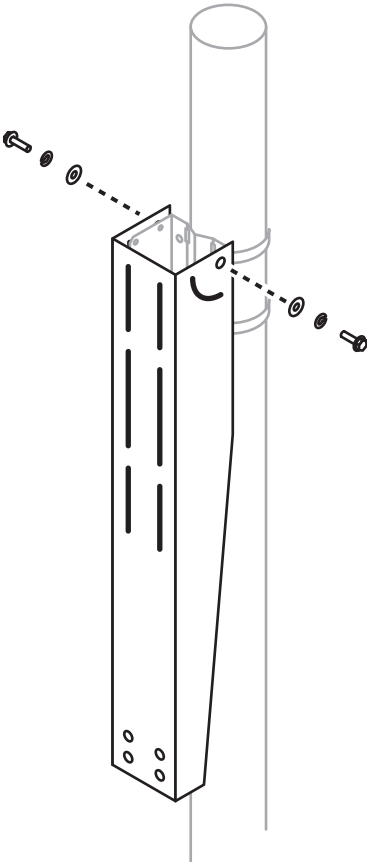

Step 3   Trim steel straps to desired length using tin snips (not included).
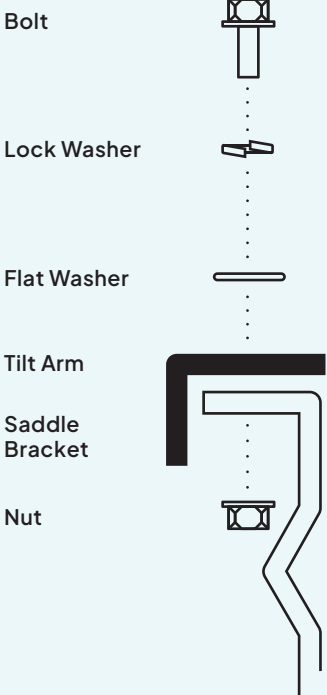
Installation

Step 4   Attach tilt arm to saddle bracket by aligning holes and threading bolts with lock washers and flat washers through. Loosely tighten nuts onto bolt ends using a 3/8" wrench (not included).
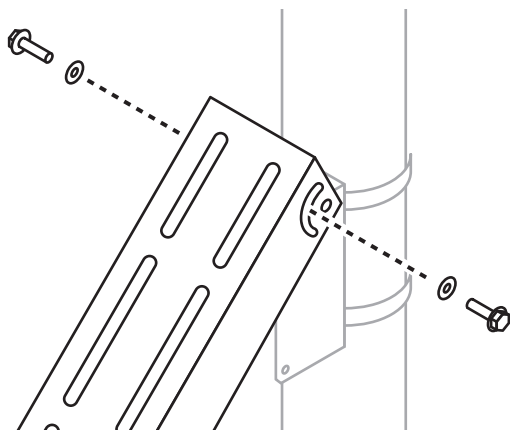

Hardware Diagram

Bolt

Lock Washer

Flat Washer

Tilt Arm

Saddle
Bracket

Nut

Step 5 Using disposable gloves, carefully apply anti-seize to two (2) flat washers and bolts. Place bolts with flat washers in the curved cutouts next to bolts attaching tilt arm to saddle bracket. Loosely tighten nuts onto bolt ends using a 3/8" wrench.
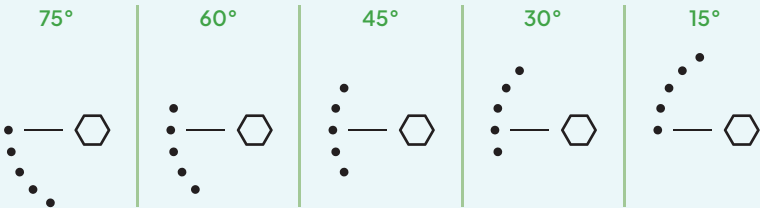
Installation

Step 6   Move tilt arm to align bolts with the proper angle indicator hole based on your location. Fully tighten nuts on all four (4) bolt ends.
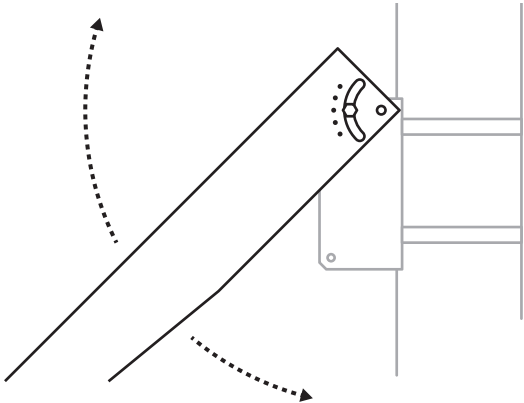
Angle Indicator Alignments

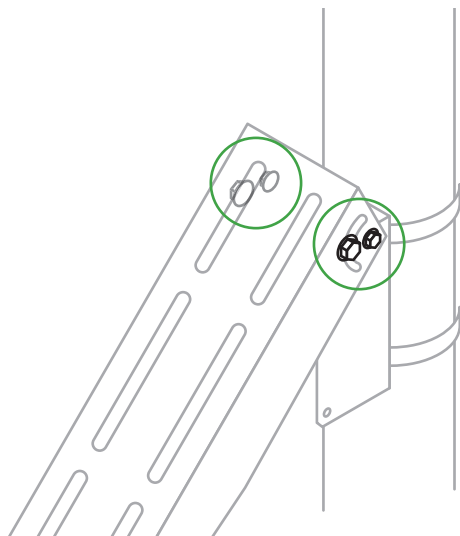| 75°	60°	45°	30°	15°

Note: When installed correctly, the following should be in a flat horizontal line when viewed from either side of the tilt arm:

- Proper angle indicator hole

- Bolt in curved cutout

- Bolt securing tilt arm to saddle bracket

Step 7   Check all nuts and bolts are securely tightened. Using disposable gloves, carefully apply anti-seize to all nuts and bolts.
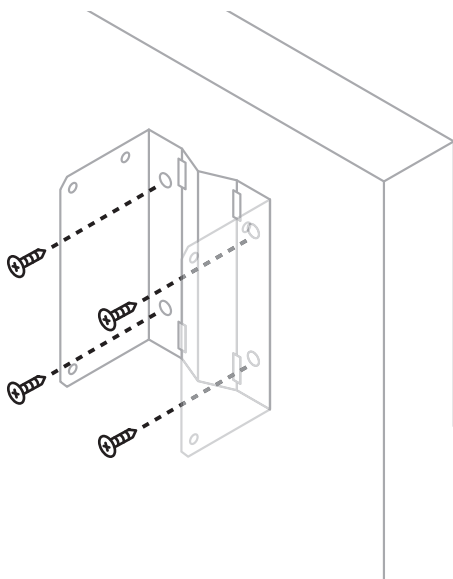
Mounting Hardware

Wall Mounting

**Step 1**   Using chosen hardware (see "Preparing for Installation" section), secure saddle bracket to wall.

To complete assembly, follow pole mounting steps 4–7.

Solar Panel

Warning: It is recommended to use hand tools, as power tools could break hardware.
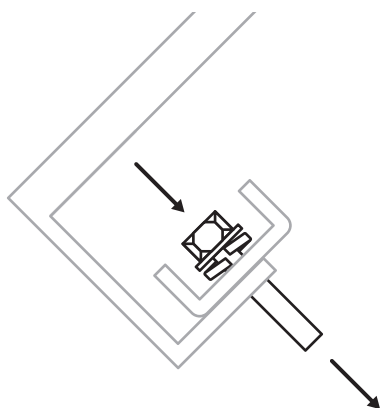
Step 1   Slide panel mounting brackets under solar panel frame's top and bottom edge on back, aligning holes on panel mounting brackets with holes on solar panel frame.
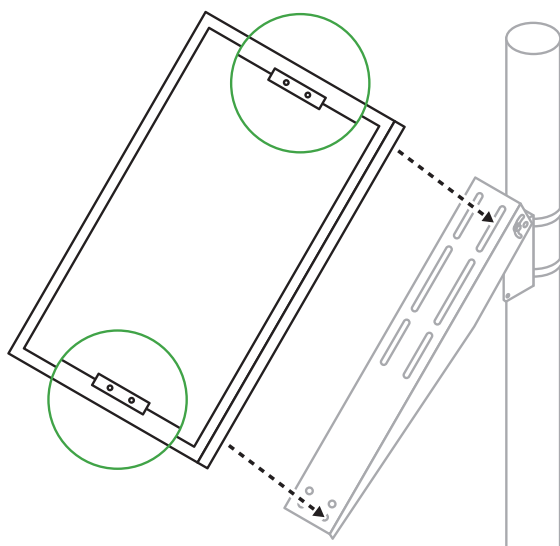
Solar Panel Frame

Mounting Bracket
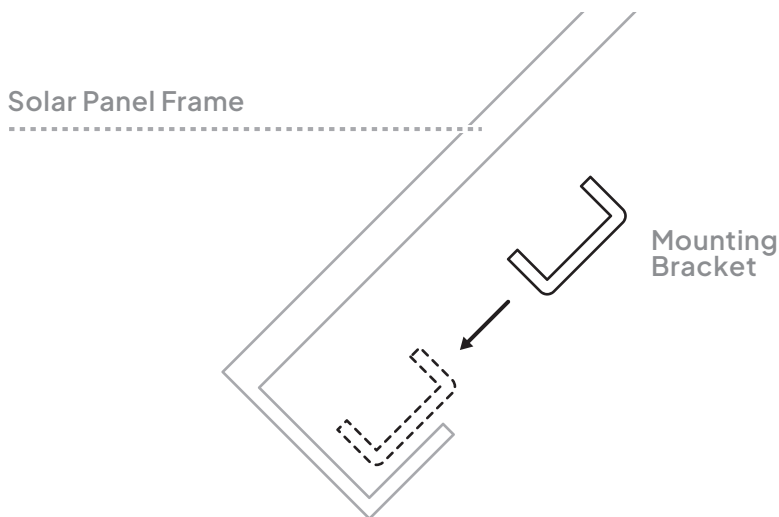
Installation
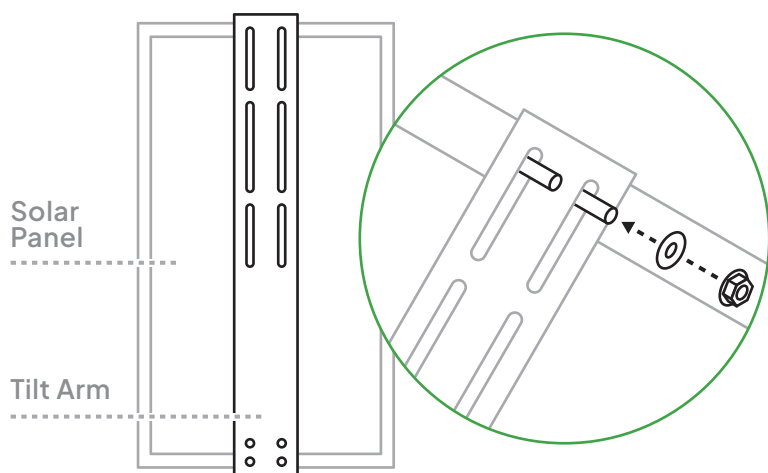
Step 2   Thread bolts with lock washers through aligned holes.

Step 3   Thread bolts coming from solar panel frame through holes on top and bottom of tilt arm.
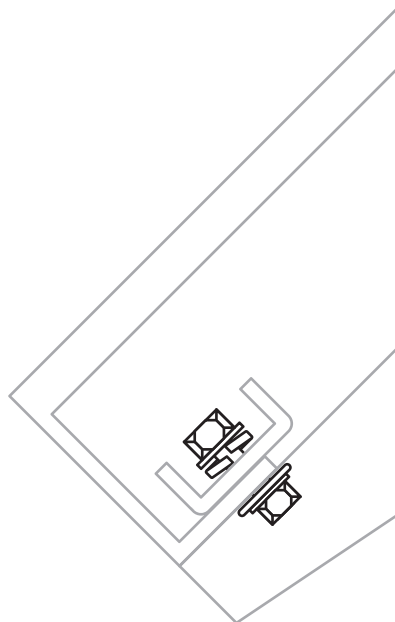
Step 4   Tighten nuts and flat washers onto bolt ends using a 3/8" wrench.

Solar Panel

Tilt Arm

Step 5   Check all nuts and bolts are securely tightened. Using disposable gloves, carefully apply anti-seize to all nuts and bolts.

Final Assembly

Bolt
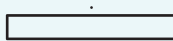
Lock Washer

Panel
Mounting
Bracket

Solar Panel
Frame

Tilt Arm

Flat Washer

Nut

Battery Enclosure

Pole Mounting

Notice: It's recommended to mount battery enclosure at ten feet high or lower for maintenance purposes.

Step 1   Thread steel straps through pole mounting hardware on top and bottom of battery enclosure.

For large diameter poles

For small diameter poles

Step 2 Tighten each strap around pole using a drill with 5/16 hex head driver bit.

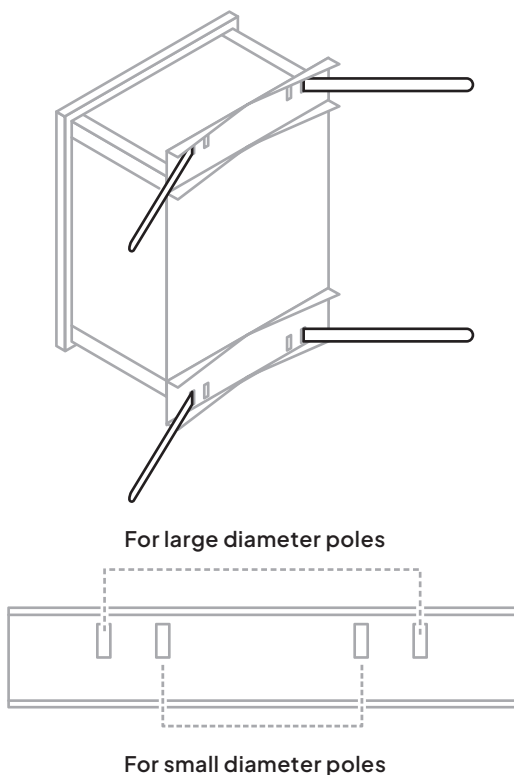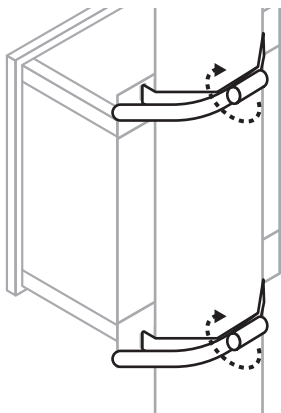**Step 3** Trim steel straps to desired length using tin snips (not included).
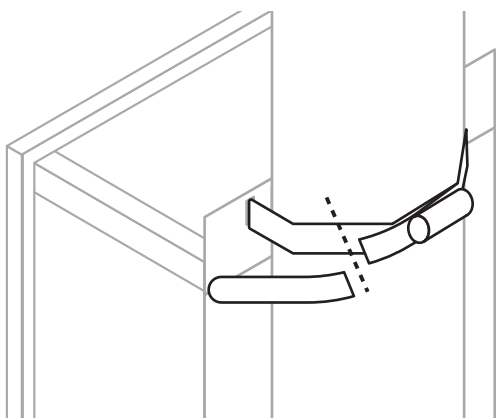
Battery Enclosure

Wall Mounting

Notice: It's recommended to mount battery enclosure at ten feet high or lower for maintenance purposes.

Step 1   Using chosen hardware (see "Preparing for Installation" section), secure battery enclosure to wall.
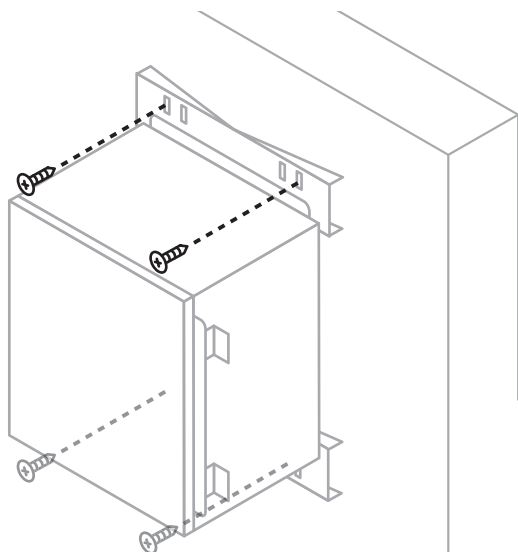
Battery Wiring

Warning: Never connect red to black. Battery is wired parallel for 12VDC.

Step 1   Carefully place battery into enclosure.
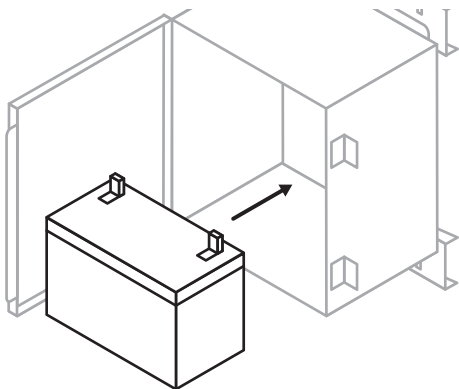
Step 2   Take the positive (red) wire coming from the charge controller and connect it to the positive (red) connector coming from the battery.

From charge
controller
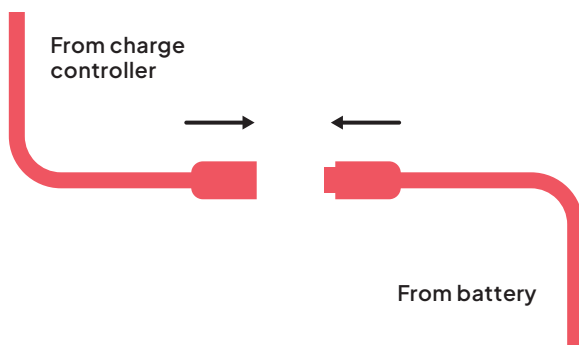
From battery

Step 3   Take the negative (black) wire coming from the charge controller and connect it to the negative (black) connector coming from the battery.

From charge
controller

From battery
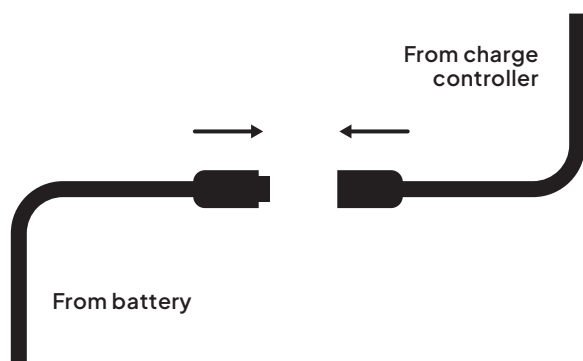
Connecting Solar Panel to Battery Enclosure

Notice: The connectors are positive locking mechanisms, and each pair is keyed differently to ensure they are connected properly.

Step 1 Connect the female and male connectors on one end of the panel to enclosure cable to the respective connectors coming from the solar panel.
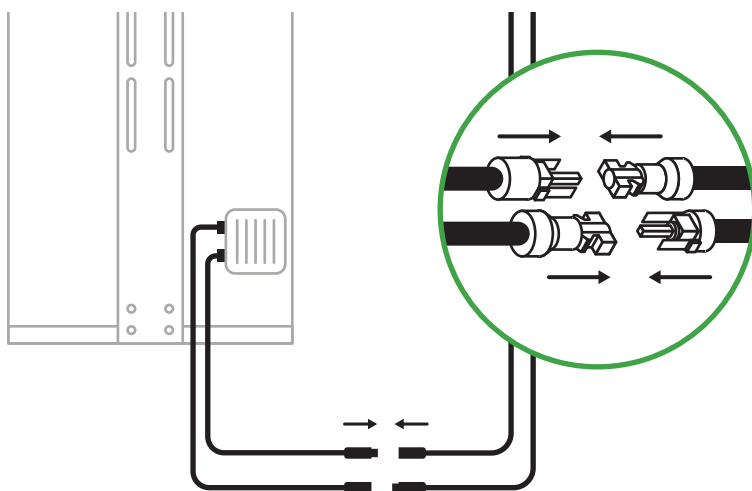
Step 2   Connect the female and male connectors on the other end of the panel to enclosure cable to the respective connectors coming from the bottom of the battery enclosure.
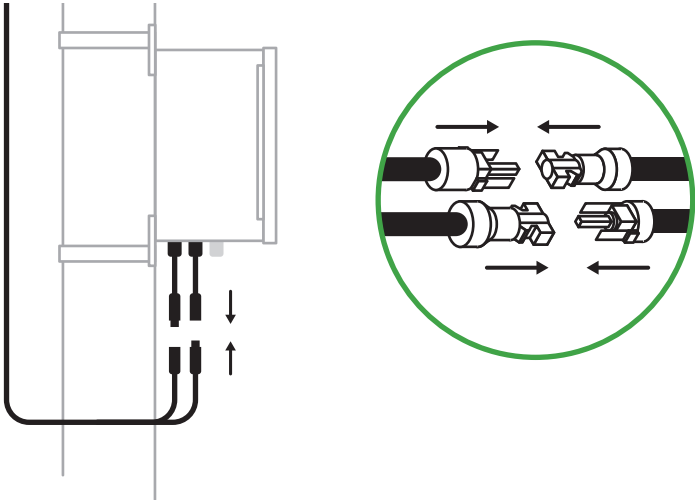
Connecting Camera to Battery Enclosure

Step 1   Proceed to your camera's manual for instructions on how to mount camera.

Step 2   Align notches and plug one end of camera power cord into the yellow connector port on bottom of junction box.
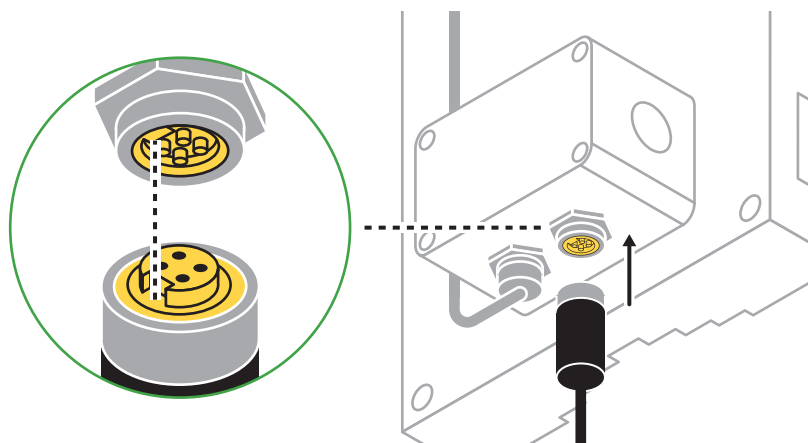
Step 3   Gently hand tighten silver collar to secure the cable end into the port.
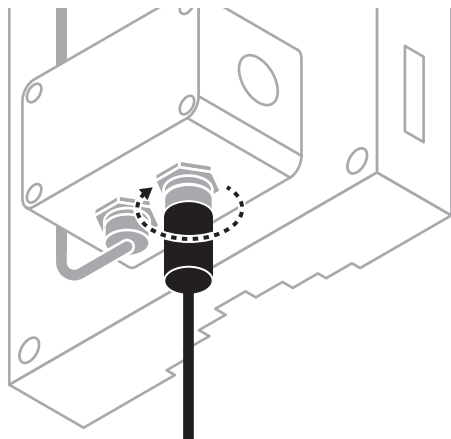
Step 4   Repeat steps 2–3 to connect other end of camera power cord into the port on bottom of battery enclosure.

Confirming System Power

Step 1 Verify the panel is charging the unit. The charge controller screen will show the following symbols upon startup.
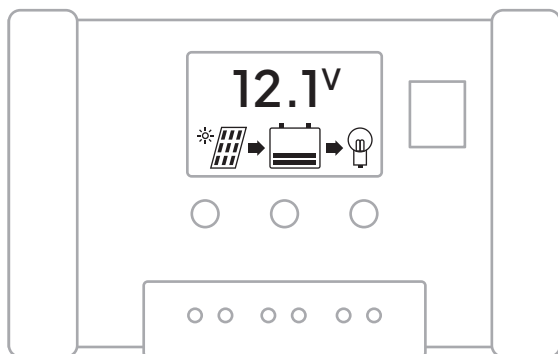
Step 2 Verify that the following numbers are displayed on the charge controller's screen. Use the leftmost button to cycle through the readouts.

Solar Amps 0.5–4+	Battery Voltage 12–14+	Load Amps 0.1–0.3

Closing Battery Enclosure

Step 1   Position steel clamps to be closed around the lip of the enclosure door.

Step 2   Tighten the screws on the clamps using a Phillips #4 screwdriver (not included) to secure the enclosure.

Troubleshooting

If something seems wrong with the system, it may be necessary to troubleshoot.
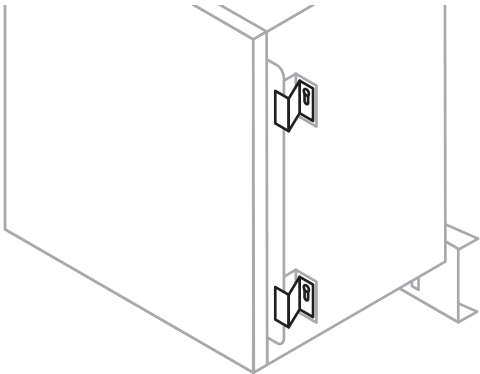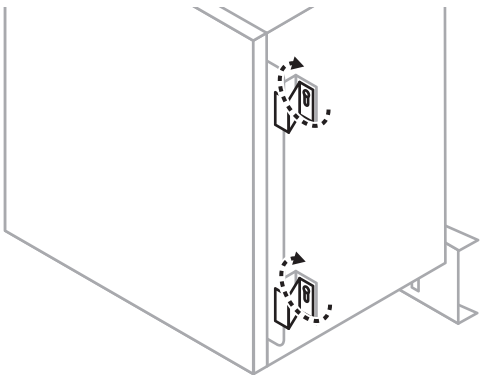
Cautions:

- Troubleshooting should be attempted by qualified personnel only.

- A battery can cause serious damage if shorted.

- Do not disassemble the charge controller from its case. There are no user serviceable parts inside the charge controller.

Camera Not Operating Properly

1. Check that the panel to battery enclosure cable connectors are securely fastened.

2. Check that the camera cable connectors are securely fastened.

Battery Is Not Charging

1. Check that all wire connections in the system are correct and tight.

If your system is still not functioning properly, please contact Customer Support for further assistance.

Maintenance Tips

- ✓ Do not allow smoking or open flames near the battery enclosure.

- ✓ If a battery has been unused for a long time, charge it externally with a battery charger prior to using it again for maximum efficiency.

- ✓ Solar panels are designed to quickly melt snow on their own. If there is a more urgent need to remove snow, gently use a soft brush. Using too much force may scratch or damage the panel.

- ✓ If the solar panel needs cleaning, use only water and a microfiber cloth.

- ✓ Do not store any system components on the ground to avoid the intrusion of water or dirt.

Battery Replacement

We recommend the **Universal Power Group (UPG) UB12500FR** battery as a replacement. If you are unable to find this specific battery, the battery should meet the following specifications:

Product Category: Marine/RV

Voltage: 12

Format: BCI Group 31M

Chemistry: AGM

AGM Type: Deep Cycle, Dual Purpose (Starting/Cycling)

Capacity: 50AH

Capacity 20hr: 50AH

Terminal Type: SAE/M8 Threaded Post

Support Review

Once you're done with installation, simply snap a few pictures and email them to support@truelook.com. If our Customer Support team notices anything they can help with, they'll reach out. This will also help with a quick review of your setup if you run into future issues.

The Email

For the most efficient response from our team, include the following in your email:

1. Company name
2. Project name
3. Contact person for installation issues
4. The following photographs:
   A. Your whole TrueLook solution: the camera, what it's mounted to, and any accessories
   B. Close-ups of mounting
   C. Close-ups of connections
   D. Inside of battery enclosure