

CUTTING EDGE POWER

SOLAR TRAILER

ASSEMBLY AND OPERATION MANUAL



CAUTION
THINK SAFETY FIRST

The warnings, precautions, and instructions discussed in this instruction sheet cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product but must be supplied by the operator. **While Cutting Edge Power is proud to be dedicated to producing high-quality products, we are not responsible for any property or personal damage to you or your device or vehicle due to the use/misuse of this product. Always use good judgment and never try to modify or disassemble this product.**



Solar Trailer Assembly and Operation Manual

Introduction:

Thank you for ordering a Cutting Edge Power Solar Trailer! We appreciate your purchase and we're ready and willing to help with any questions or concerns you may have. With a little bit of reading and some quick assembly, your Solar Trailer will give you years of reliable service. If you need help, you can always contact us at Sales@CuttingEdgePower.com.

The Cutting Edge Power Solar Generator is designed for portability and quick setup times. It is not designed to be transported fully assembled since the solar panels are constructed of **glass** and aluminum. Some hard bumps on the road can easily shatter the solar panel glass if they're mounted to the solar trailer while driving. We recommend transporting the solar panels on the deck of the trailer or in your truck bed. However, sometimes life happens and you may need to transport the panels bolted to the trailer. In this case we recommend you drive very slow, avoid potholes and make sure the rubber washers are installed between the solar panels' aluminum frame and the steel strut channels. We'll get to that later in the manual.

When ordered with a Cutting Edge Power Solar Generator, the solar generator is permanently fastened to the trailer from the inside of the housing. This is to prevent theft since the solar generator is typically the most valuable component of these systems. If you need to remove the solar generator housing from the trailer, you can use a 7/16" wrench inside the housing and a 7/16" wrench outside the housing to loosen the nylon locknuts and bolts. We always recommend locking the solar generator closed when it's left unattended to avoid theft, vandalism or a child's curious hands.

The Cutting Edge Power Rebel and Fortress Solar Generators are waterproof, so if one of these models is included in your order, you can rest assured it will be able to withstand rain, road moisture, UV sunlight, extreme temperatures and other weather elements for years to come. If you plan to use your solar trailer and/or solar generator below freezing, we highly recommend ordering our battery warmers. Charging and discharging any battery chemistry below freezing is not recommended and may void your warranty.

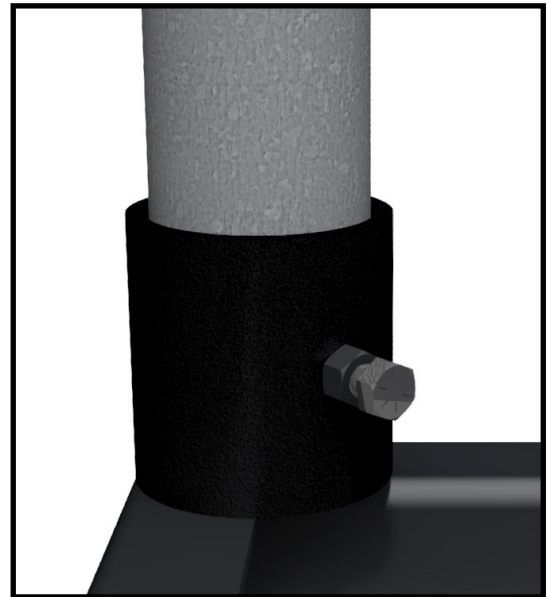
Let's get started!

Assembly:

1. First things first: Check for any obvious damage or missing items before proceeding. If anything looks damaged or missing, remember, you have a right to reject the shipment and Cutting Edge Power will help you file a claim with the freight company.
2. Insert the vertical pipes into the feet welded to the trailer and tighten down the set screw with a 9/16" wrench/socket/crescent wrench:

The medium length vertical pipes should be on one side, the shortest vertical pipes on the other side. *Do not attempt to install the medium length / tall pipes in a **front to back** configuration. Doing so could cause issues with aerodynamics if you ever need to drive with the panels. The different heights should be on one side or the other as shown. The tall side should be on the side with the solar generator in order to open the solar generator housing lid.*

If equipped with a wind turbine: the 8ft wind turbine vertical pipe must be on the "tall side". It doesn't matter if it's toward the front or back of the trailer.



3. Attach brackets to the top of the poles.

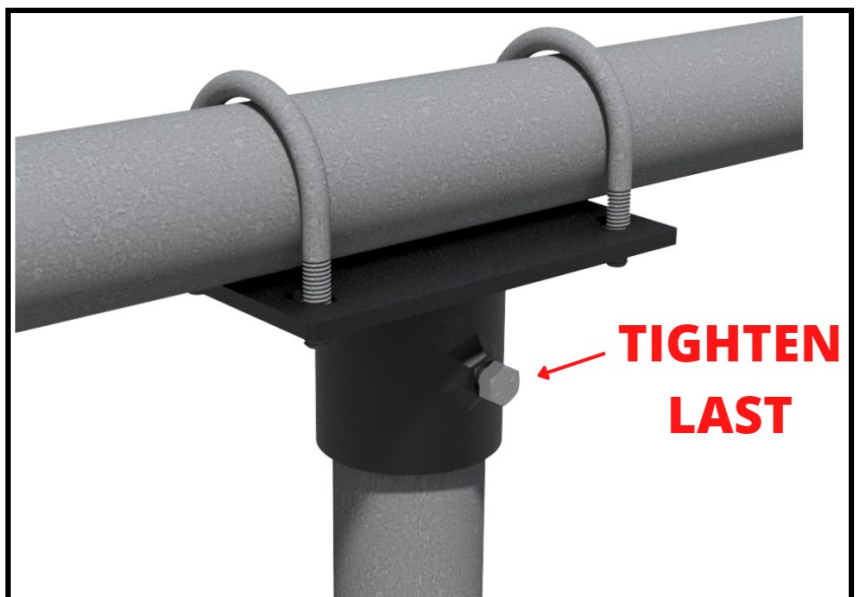
Don't tighten these yet.



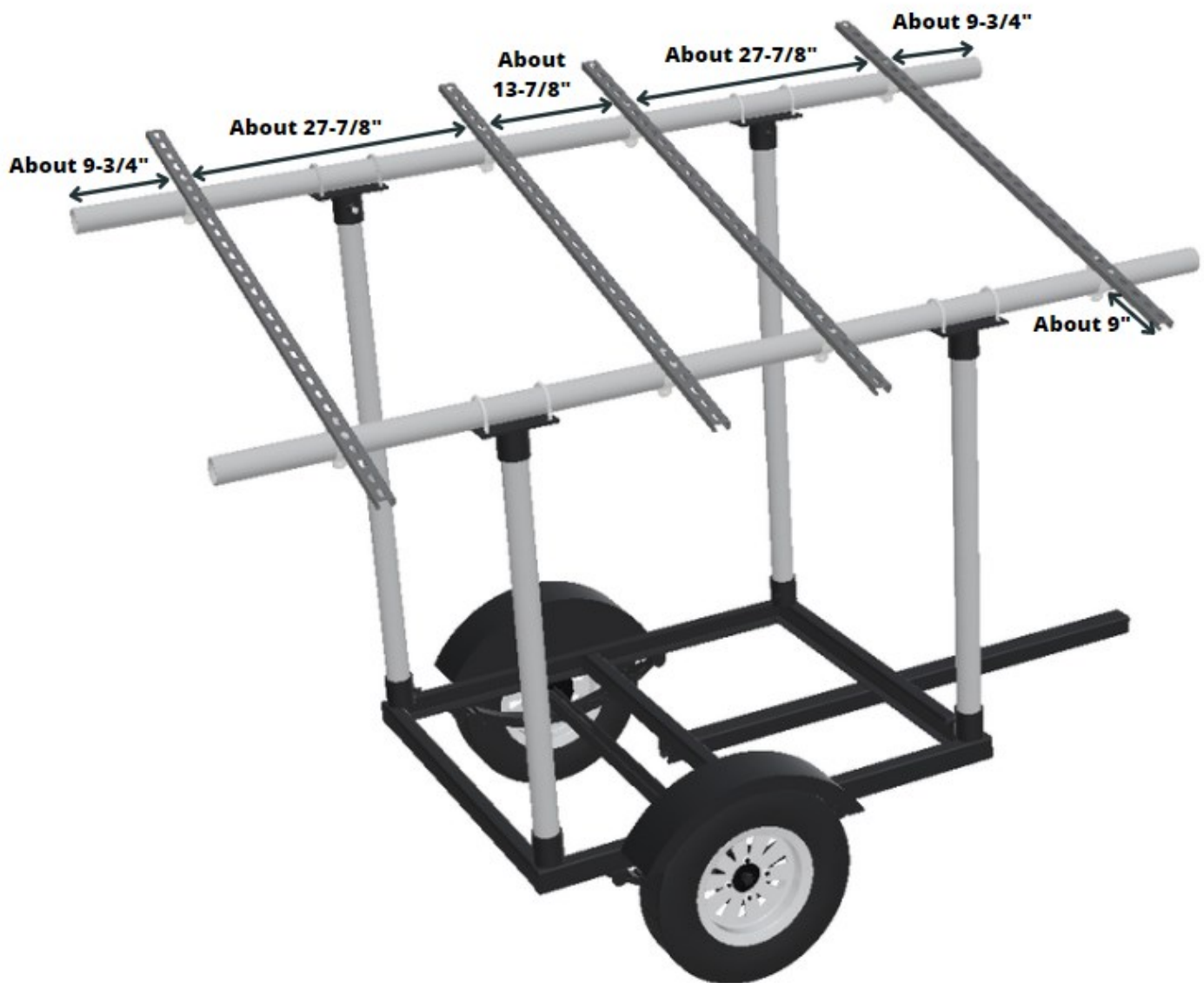
4. Place the 8ft long pipes on top of both brackets. Insert U-bolts and tighten the U-bolts. You may need a buddy for this step.

5. Now, tighten the bracket set screws as shown.

As mentioned before, you don't need to overtighten these.



6. Lay out the strut channel on the top pipes and **hand tighten** the pipe straps. Don't tighten them down all the way yet, but make sure they won't fall when we attach the solar panels. Some very rough dimensions are shown below. Don't worry if your dimensions don't match exactly. You will probably need to move the strut channels a little bit when the solar panels are attached.



7. Carefully attach the solar panels. We recommend still not tightening the pipe straps down all the way until the end. At the very end, you can finally tighten the pipe straps and solar panels. Note: The solar panels will be very close to each other.

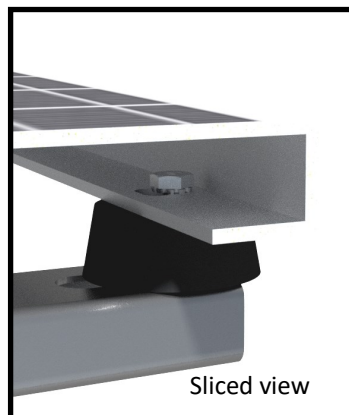


8. The solar panel mounting hardware is shown below. Since the star-washer-nuts “bite” the aluminum frame of the solar panels, you should only need a 5/16” socket/nutdriver or a slotted screwdriver to tighten the hardware down.

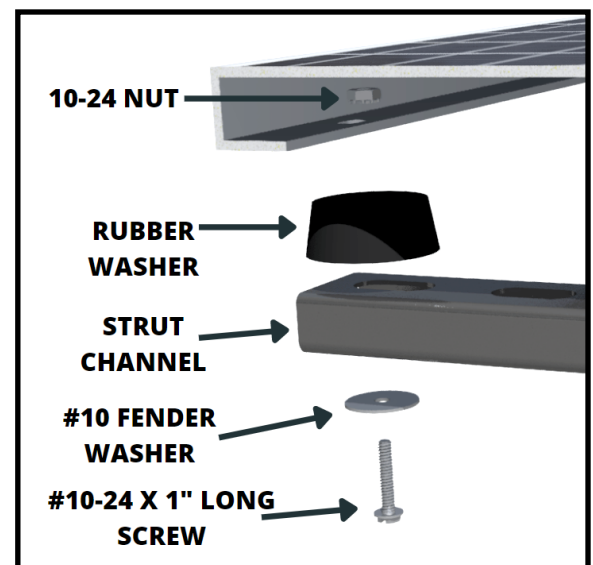
Once the solar panels are tightened down, follow the wiring diagram for your solar generator to connect the solar panel wires.



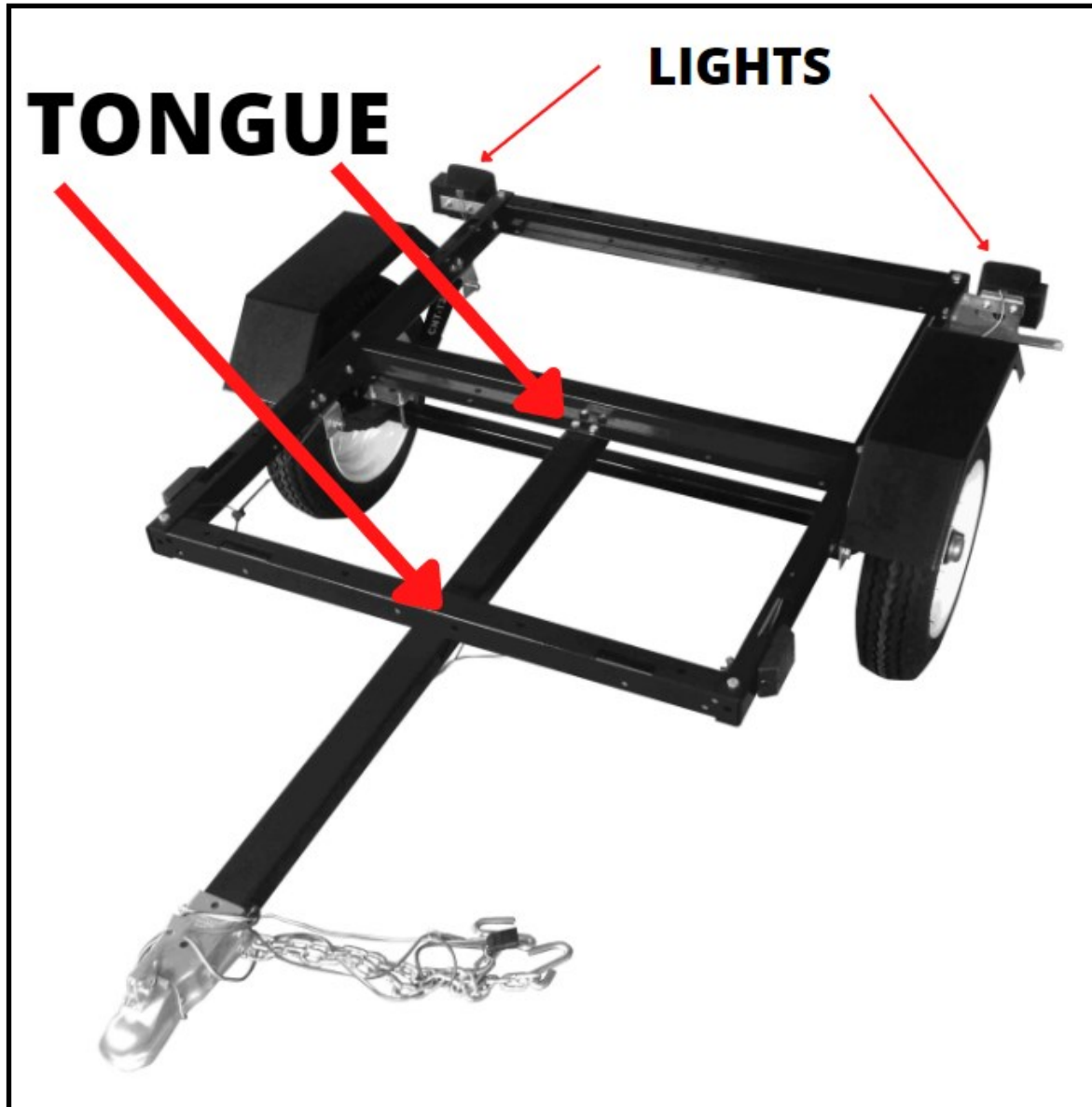
Bottom view



Sliced view

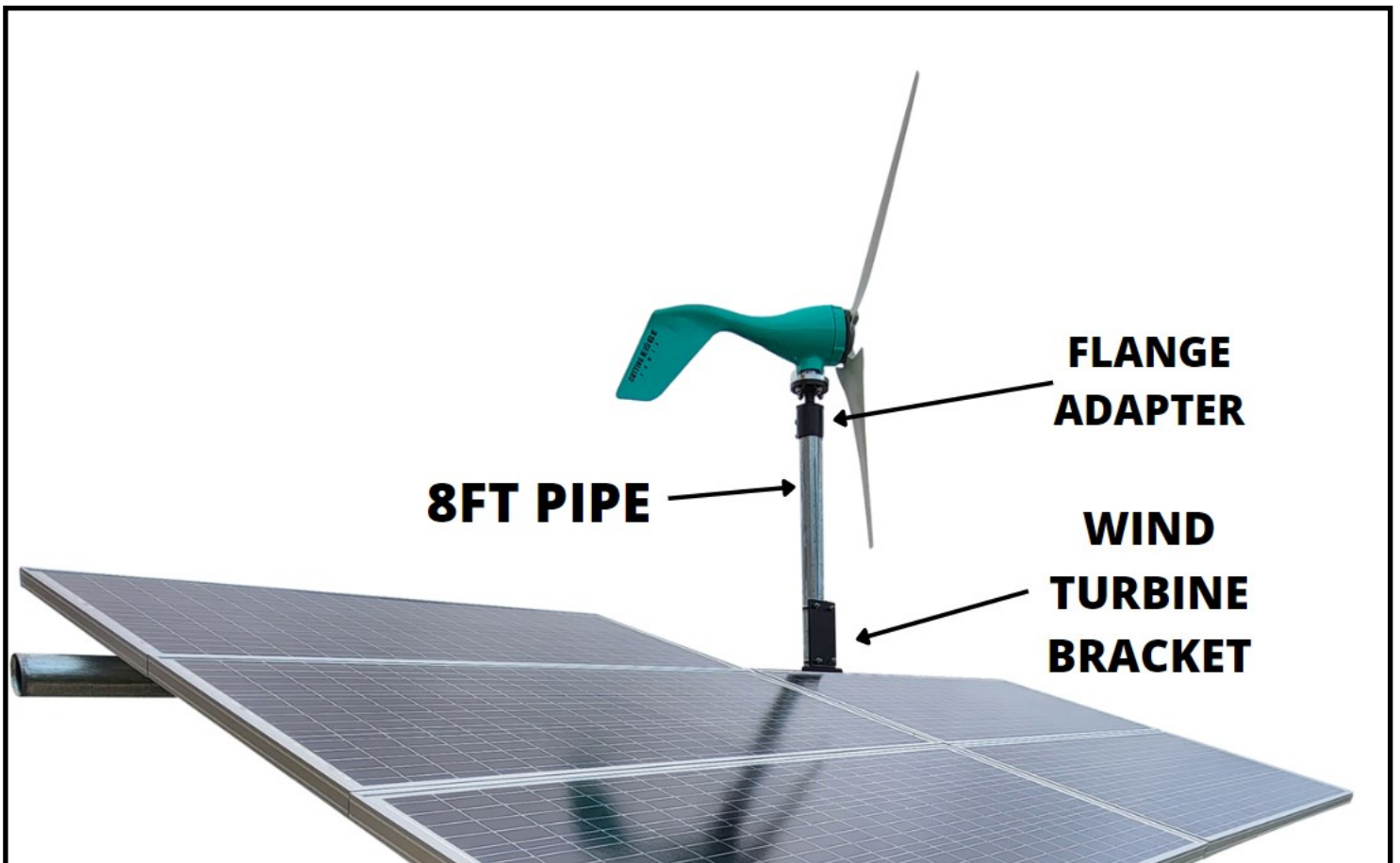


9. Firmly tighten the trailer's tongue with the 4 bolts, already loose in place. Tighten the trailer light hardware.

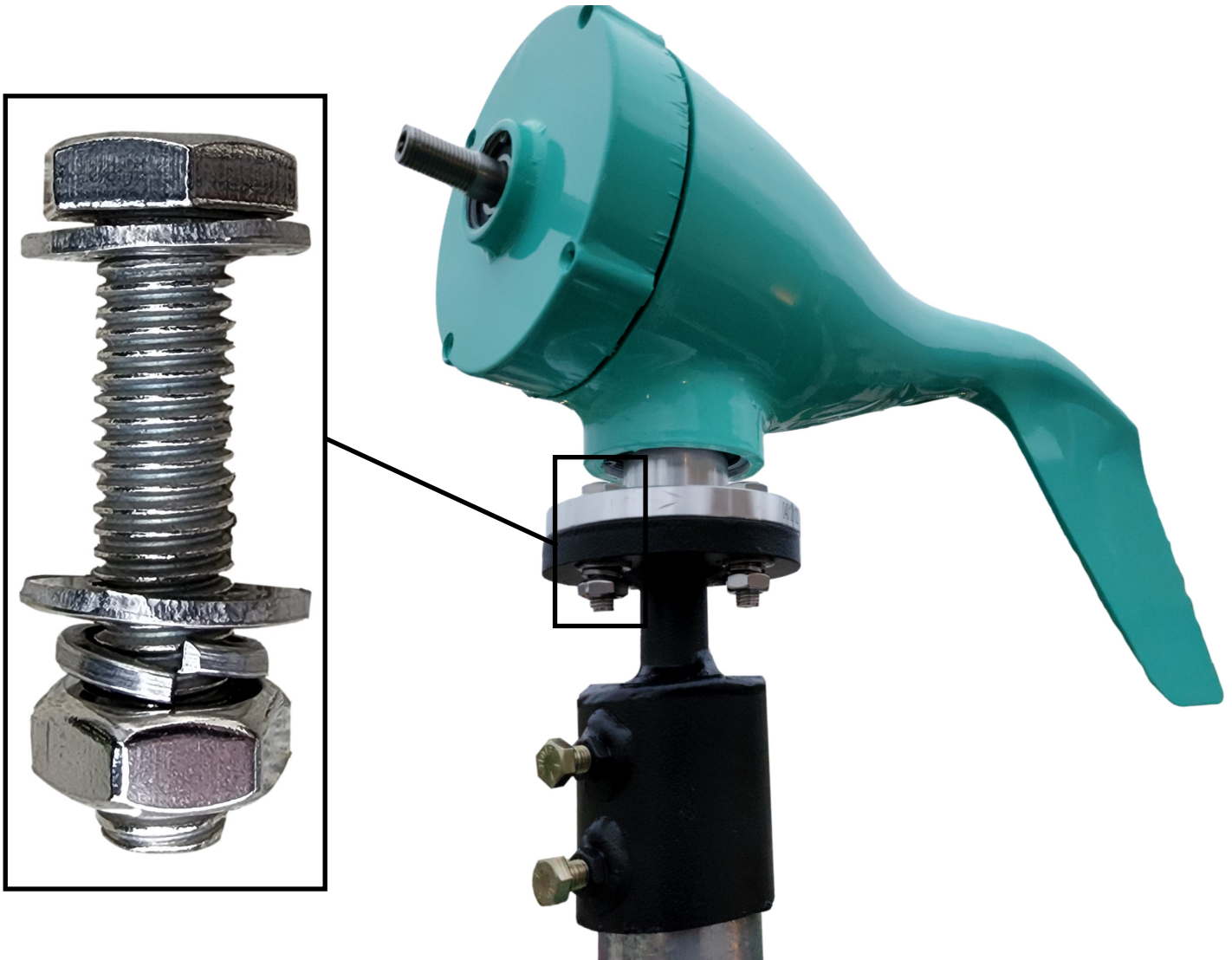


10. If you plan to tow the trailer on public roads, you will need to register the trailer's title (enclosed with the paperwork in your shipment) and obtain a license plate.

11. If a **wind turbine** is included, assembly is identical, except one of the tall pipes must be substituted with a taller 8ft pipe as shown below. The wind turbine bracket must also be used, as shown.



12. Attach the wind turbine to the flange adapter first. The hardware is shown below:



13. Run the wire through the pipe and out the bottom of the welded foot on the trailer. Connect the 3 wires to the 3 wires on the solar generator. It doesn't matter which color connects to which wire—3 phase AC does not have polarity or hot/neutral designations.

14. Now you can attach the blades to the hub and the hub to the wind turbine. Make sure to tighten down the flange adapter set screws. If equipped with a brake switch, switch the wind turbine input to “run” for charging, “off” for connecting and disconnecting, or “brake” for high wind conditions to avoid damaging the turbine.



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SAFETY INFORMATION

- Cutting Edge Power is an OEM that outfits existing trailers for wind and solar applications. We are not a trailer manufacturer, therefore we do not have the authority regarding the use or misuse of this product. Always follow DOT warnings and recommendations, as well as the trailer manufacturer's warnings and recommendations.
- This trailer contains sensitive electronic equipment. The recommended max speed is 45MPH. It's not recommended to drive with the solar panels mounted.
- Always connect the trailer's electrical wires to turn on the brake and turn signal lights.
- Never disconnect your trailer on a hill if you have not blocked the tires.
- Occasionally check the screws that anchor the solar panels to the strut channel, with the continuous vibrations they may loosen.
- Periodically check the air in your trailer tires, as well as the electrical lighting system (brakes and signal lights).