



ROOFNEST
Elevate Your Experience

Installing a Solar Panel on
a ROOFNEST Sandpiper

by Roofnest Ambassadors Crash and Sam Williams aka Over Kill Adventures

Installing a Solar Panel on a ROOFNEST Sandpiper

Major items you will need in addition to tools

- 100 Watt Solar Panel
- 10 AWG Solar Panel Extension Wire
- Black 3/16' Tri-grip Rivets with o-rings
- Solar Double Cable Entry Gland
- 3M 5200 Sealant
- Solar Wire Quick Disconnects (optional)
- Black Zip Ties
- Black 1" Angle Brackets

We've provided sources for these items on the last page.



Installing a Solar Panel on a ROOFNEST Sandpiper

Step
1



Pre Drill 6 - 3/16" holes in entry gland.

Step
2



Place the entry gland and drill the first hole, then insert the rivet to hold it in place (do not compress the rivet yet).

Drill the second hole and then set the rivet to hold in place again. Do the same for the remaining rivets.

Step
3



Drill two holes slightly larger than the wire through the rooftop (under the fiberglass is an aluminum plate you must drill through as well) to pass the wires.

The Sandpiper does have an inner roof, but you don't need to worry about drilling into that inner side yet.

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Step
4



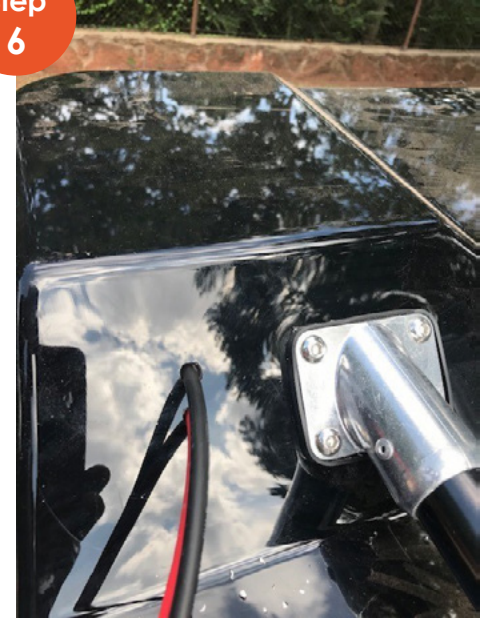
Insert the solar wires into the double entry gland leaving enough wire for the connection to the solar panel.

Step
5



With an exacto knife cut a piece of the inner roof fabric slightly larger than the $\frac{1}{2}$ inch hole you will need to drill to thread the solar wires from the exterior roof. Drill a $\frac{1}{2}$ inch hole.

Step
6



Thread wires from roof to the interior of the tent.

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Step
7



You could use black silicone, but 3M 5200 sealant is recommended.

Next, lightly apply a bead of sealant on the back of the wiring gland and then set and install the rivets.

You can add a drop of sealant in the center of each rivet after setting them all just to be safe.



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Step
8



Unzipping the top and bottom of the tent will make it easier for the next step which is running the wires to the base of the tent.



Step
9



Carefully thread one wire at a time through the foam covers on the roof struts (*it can tear so be gentle*).

You may add zip ties to take the strain off the foam sleeves where the struts bend.



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Step 10



After you have finished threading, it's time to cut out a small piece of the floor fabric and drill two holes to pass the wires through the base. *(Note: an alternative is to store the battery and charge controller inside the tent rather than running the wires out the bottom of the tent to your vehicle)*

After you have determined the correct length, add a zip tie to each wire before threading it through to prevent the wires from being pulled. You don't have to seal these wires since they are on the bottom but it's never a bad idea.

If you run all of the wiring inside the vehicle behind the panels it is recommended to add a quick disconnect behind the roof fairing where the wires enter the car. This will allow you to disconnect the solar if you decide to remove the tent at a later date.



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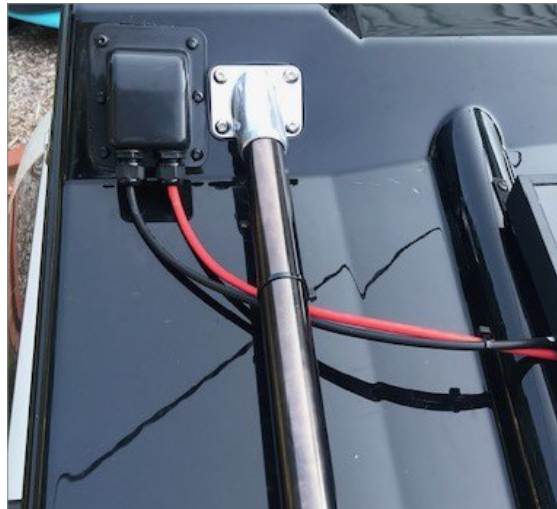
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Step 11



Mounting the solar cell is easier than wiring it to the vehicle. After determining the location you can set the black corner braces (from home depot) and mark the spots to drill the 3/16" holes for the rivets.

Once drilled and set you can add a spot of 3M - 5200 in the center of each rivet to insure waterproofness.



Where to Buy Solar Components

Where else but Amazon.

- [Rich Solar all black 100 watt mono solar panel](#) - \$89.99
- [Link Solar black cable entry gland](#) - \$18.29
- [HQST 30 amp PWM solar controller](#) - \$29.99
- [10 AWG solar extension cable \(buy 30' not 20'\)](#) - \$36.95
- [3M 5200 marine adhesive black](#) - \$12.49
- [Black Tri-grip 3/16" rivets with O-rings 20 for](#) - \$5.99
- [Krieger 1500 watt 12v power inverter \(don't buy smaller if you use a coffee maker or micro\)](#) - \$139.95
- [Black angle brackets from Home Depot package of 4](#) - \$2.79
Buy from your local hardware store

Battery—Don't buy any battery that is not either Gel, AGM, or Lithium. These are fully sealed so no chance of gas escaping or spilling. Customers have had the best luck with the APEX AGM 250ah batteries.

*Prices may vary

Thanks to Over Kill Adventures for providing this step-by-step instruction guide!





Now go camping and enjoy!

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