Hello!

Congratulations on your new **LightPassage^{TM}** from **Yeti Solar**, LLC. Inside this box is everything you need to bring efficient, reliable solar power into your home. In a few steps, you will be ready to read, work, and play by light generated in your own backyard.

Before installation, please read ALL instructions in this booklet. Check that you have all necessary tools and components using the **Box Contents** reference on page 2. Carefully review the **Installation Instructions**, including all **Safety Precautions** in red. Additional guidance can be found in the subject-specific **Tip Sheets**. If you are installing the LightPassage^{TM} somewhere other than your home (i.e. cabin, RV, shed), simply skip the steps that are not relevant to your situation.

For optimum performance, we recommend that you install and begin using your LightPassage^{TM} **within 6 months** of the date of purchase. If your battery is idle for 6 months or more before first use, its capacity may be slightly reduced. (For more information on battery life and performance, please see visit our website at www.yetisolar.com.)

Installing an off-grid, all-inclusive solar lighting system is a significant home-improvement project; however, the LightPassage^{TM} has been designed to be simple to install and will typically require about 2 hours or less from unboxing to cleanup (actual installation time may vary depending on situation).

Thank you for your purchase!

- The Yeti Solar, LLC team

Box Contents

Before you unbox your LightPassage**TM**, please check that you have the following tools, which are not included with the LightPassage**TM**:


Required Tools:

- stud scanner with wire detection capacity
- cordless drill (with drillbit of sufficient length to drill through a wall)
- safety glasses
- phillips-head screwdriver
- Pencil or other marking tool

Helpful Tools:

- bubble level (or bubble level app for smartphone)
- tape measure
- drop cloth
- blue painter's tape
- stepstool or ladder

After collecting the necessary tools, unbox your LightPassage**TM** and double-check that it contains the following contents before beginning installation:
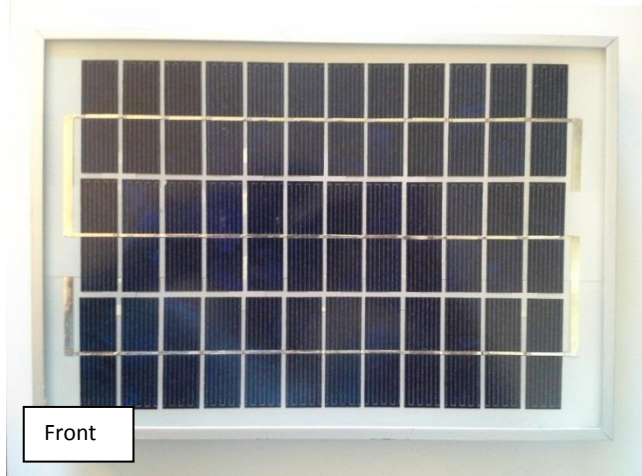
☐ **Light fixture**   ☐ **Battery**

Front

Back

☐ **Solar panel**

Front

Back
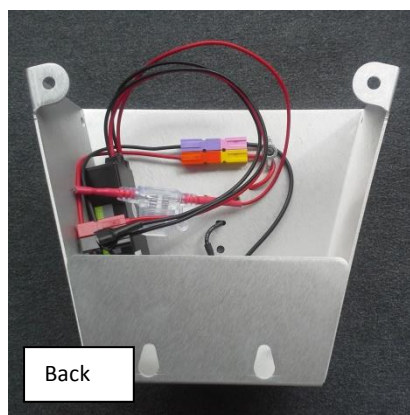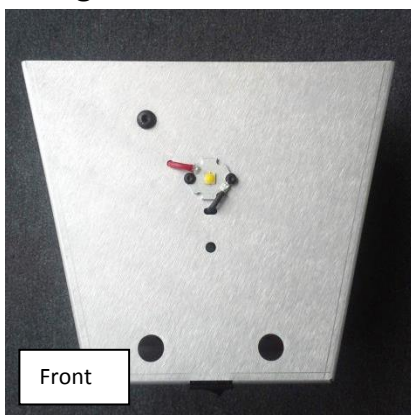
Box of hardware contains:

☐ Tube of silicone caulk

☐ Spare fuse

☐ 5 wall anchors (includes 1 spare)

☐ 7 cable clips

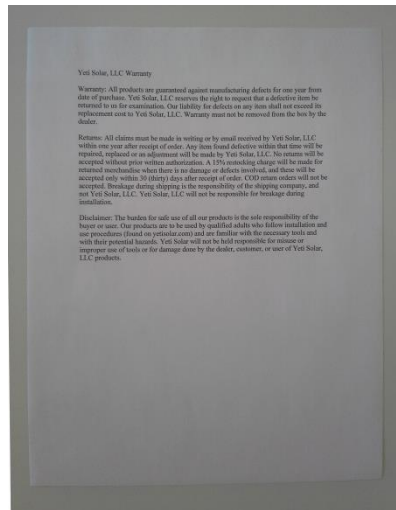

☐ 7 short screws

☐ 9 nylon rivets (includes 1 spare)
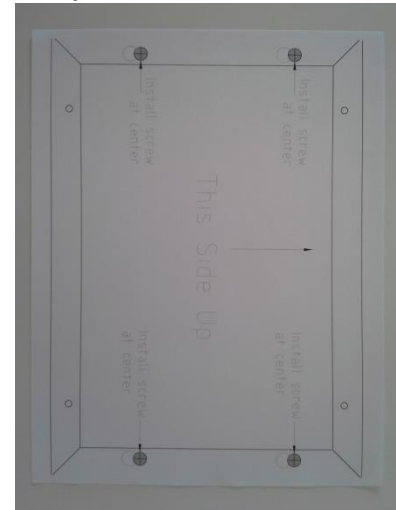

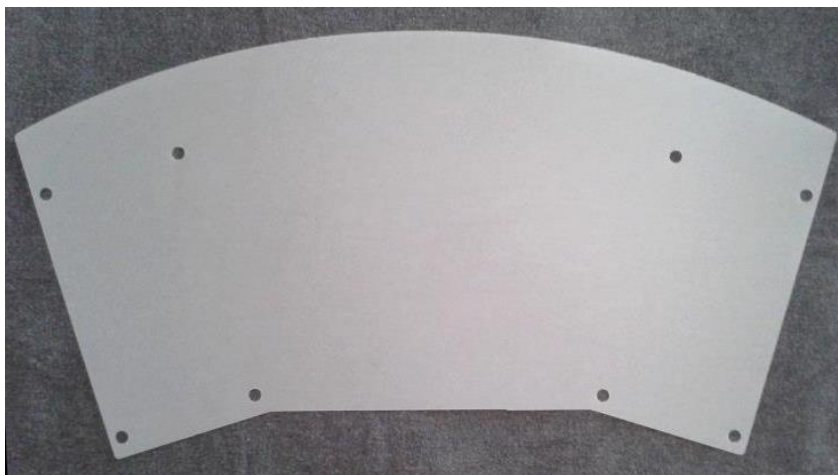☐ 10 long screws (includes 6 spares)

☐ **Paper fixture-mounting template**

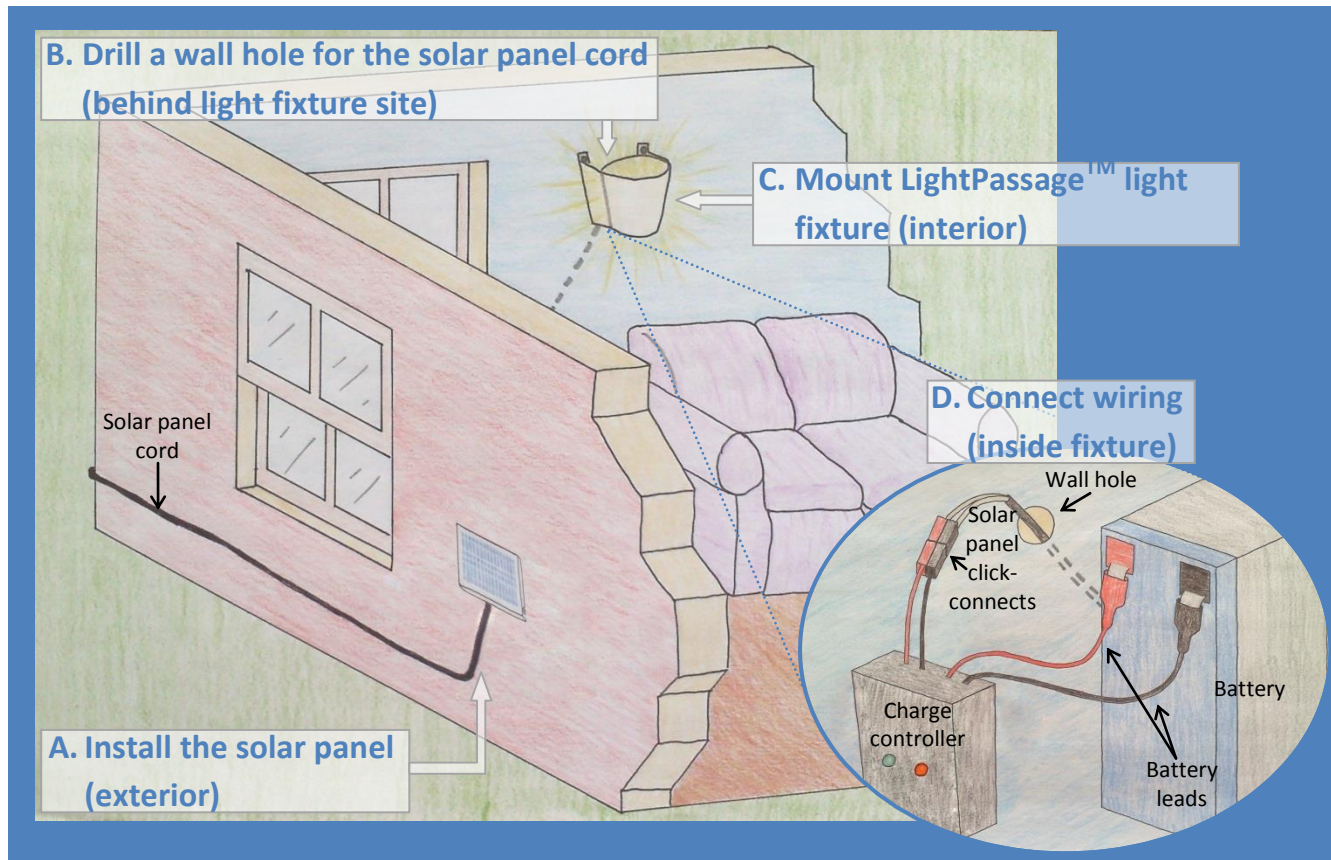

☐ **Warranty**

☐ **Paper solar panel mounting template**

☐ **Light diffuser (lamp shade)**

Installation Instructions

Overview

B. Drill a wall hole for the solar panel cord (behind light fixture site)

C. Mount LightPassage™ light fixture (interior)

D. Connect wiring (inside fixture)

Solar panel cord

A. Install the solar panel (exterior)

Wall hole

Solar panel click-connects

Charge controller

Battery

Battery leads

Phase A: Install the solar panel

Step 1. Identify a suitable location for the solar panel. Ideally, you should mount the solar panel on the exterior of a wall that receives as much direct sunlight as possible.

Tips
See "Tipsheet: Where to put your solar panel" for important advice.

Step 2. Tape the paper solar panel mounting template to the wall where you intend to mount the solar panel.
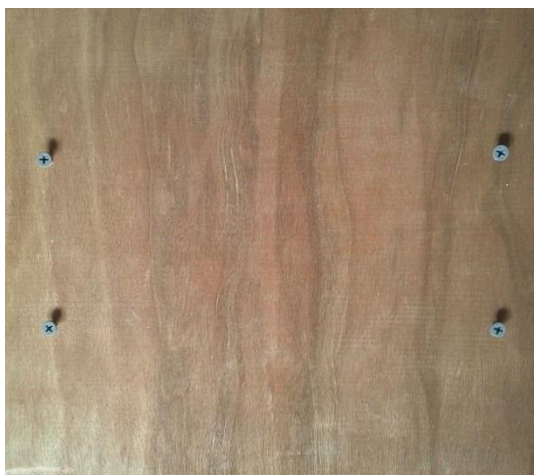
Tips
A bubble level can be helpful for keeping the top edge of the mounting template level.

Step 3. Screw through the mounting template in the four indicated locations using the *long screws* (gray, 2" long) in the box of hardware. Leave ¼-inch of each screw shaft exposed.
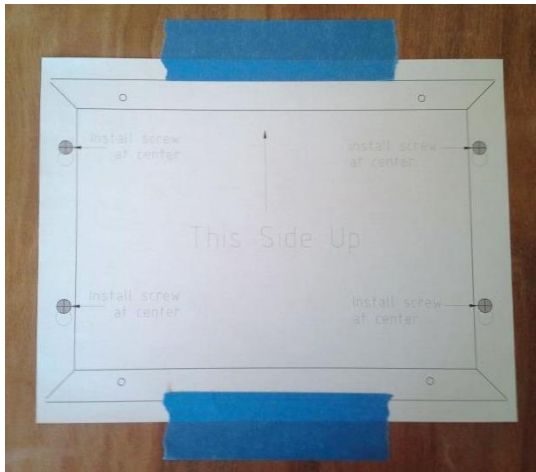
Step 4. Tear the solar panel mounting template away and discard it.

Step 5. Mount the solar panel to the wall using the four keyhole-shaped holes on the back of the panel. Position the solar panel so that the narrow part of the keyholes point up. Push the round part of a keyhole towards the wall and over the corresponding screw head. Repeat with an adjacent keyhole. One you have two corners mounted, you should be able to do the last two at the same time. Then pull down on the solar panel firmly to slide the screws in the narrow parts of their keyholes, locking them in place.

Tips
- *If you have trouble getting all four holes over their respective screws, you may need to unscrew some of the screws slightly so they stick out of the wall further.*
- *Make sure the solar panel cable is uncoiled, so that you can get at the end of it. If you plan on passing the cable through the wall behind the solar panel, wait until you have finished Phase B before sliding the solar panel in place.*

Phase B: Drill a wall hole for the solar panel cord

Step 1. Turn off the main electrical breaker for your home. Be sure to first turn off any computers and other delicate electronics that are plugged in.

Safety Precaution
Failure to turn off the main electrical breaker can result in a dangerous electric shock should you inadvertently strike a 120V wire or electrical connection.

Step 2. Identify a suitable location for your light fixture. You will be drilling a hole from the interior to the exterior of your home; this hole should be located directly behind where your LightPassage**TM** fixture will be, though it does not need to be centered. The wall hole should be close enough to the solar panel that the solar panel cord can reach it.

Tips
See "Tipsheet: Where to put your light fixture" for important advice.

Step 3. Use a stud scanner to locate nearby wall studs and wires in the vicinity of where you plan to drill. You will want to AVOID these while drilling.

Tips
You can mark the location of wall studs and wires using blue painter's tape.

Step 4. Use a pencil to mark the spot on the wall where you want to drill. Choose a spot that is a safe distance from any wires and wall studs that you located in Step 3. You should also avoid drilling near an outlet, switch, or electric fixture. Remember to check both sides of the wall for these components, as a stud scanner is less likely to detect wires on the opposite side of the wall.

Safety Precaution
Drilling through a 120V wire or electrical component will damage your home's electrical systems and may cause a fire hazard. Be sure to use a stud scanner that can detect wires in the wall. You also want to avoid drilling through or next to a wall stud, since they often have wires stapled to them.

Step 5. Drill a hole at the marked spot. Use a drillbit of sufficient length to go all the way through your wall, and of sufficient diameter (at least ¾ of an inch) to allow the solar panel cable to pass through.

Safety Precaution
Wear safety glasses while drilling

Step 6. **Thread the solar panel cord through the wall hole** using the included pull wire. Pull all the slack in the cable into the interior of your home. Remove and discard the pull wire once finished.

Step 7. **Secure the solar panel cord to the exterior wall** using a screwdriver and the *cable clips* and *short screws* (gray, 1 ¼" long) in the box of hardware. If the wall hole is at a lower elevation than the solar panel cord, include a "drip loop" so that rainwater will run off the bottom of the loop instead of running toward the wall hole.

OKAY — Rainwater runs *AWAY* from wall hole. NOT OKAY — Rainwater runs *TOWARD* wall hole. OKAY "DRIP LOOP" — Rainwater runs *AWAY* from wall hole.

Step 8. **Seal holes with caulk.** Use the included tube of caulk to seal the wall hole around the solar panel wire, on both the inside and outside of the wall.

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## *Phase C: Mount LightPassage^{TM} light fixture*

Tips
- *Be careful not to scratch the LEDs once the light fixture is out of its box.*   - *See "Tipsheet: Where to put your light fixture" for important advice.*

Step 1. Tape the fixture-mounting template to the wall in the desired position for the LightPassage**TM** light fixture. The fixture should be installed over the wall hole drilled during Phase B for the solar panel cord. You will need to cut a hole through it to let the cord through.

Tips
- *A bubble level can be helpful for keeping the template level with your floor.*   - *Use blue painter's tape to avoid damage to your wall.*

Install Wall Anchors
at Centers.

Tape to wall in desired position.
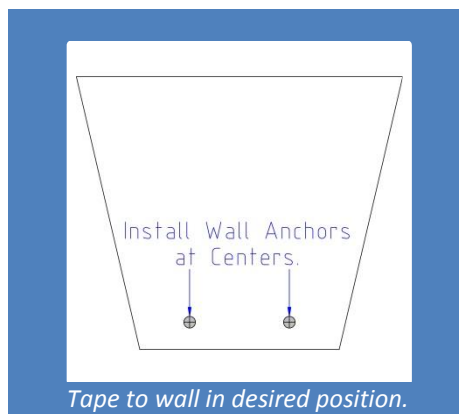
Step 2. Partially install two *wall anchors* at the two labeled anchor points. The wall anchors are included in your box of hardware. Use a Phillips-head screwdriver to install them manually, screwing until they are about three-quarters of the way in, leaving about ¼-inch of the shaft exposed. Do NOT screw them all the way into the wall.

Step 3. Tear the fixture-mounting template away and discard it.

Step 4. Fit the fixture over the *wall anchors* and finish screwing them in. Make sure the wall anchors are settled in the upper, narrower portion of the lower anchor holes. Screw only until the wall anchors' heads make contact and stop turning easily; DO NOT TIGHTEN FURTHER.

Safety Precaution
Over-tightening the wall anchors may shred the wallboard, which would seriously compromise the wall anchors' load-bearing capacity. This could result in the fixture unexpectedly falling off and causing damage or personal injury.

**Step 5.** **Screw two additional *wall anchors* through the fixture's two upper anchor points.** Screw only until the wall anchors' heads make contact and stop turning easily; DO NOT TIGHTEN FURTHER.

Step 6. **Attach the diffuser to the fixture** using the *nylon rivets*, which are included in your box of hardware. Align the holes in the diffuser with the holes on the sides of the fixture. Insert a rivet and then push in on the pin until the rivet snaps in place. Repeat until all eight rivets have been installed.

Phase D: Connect wiring
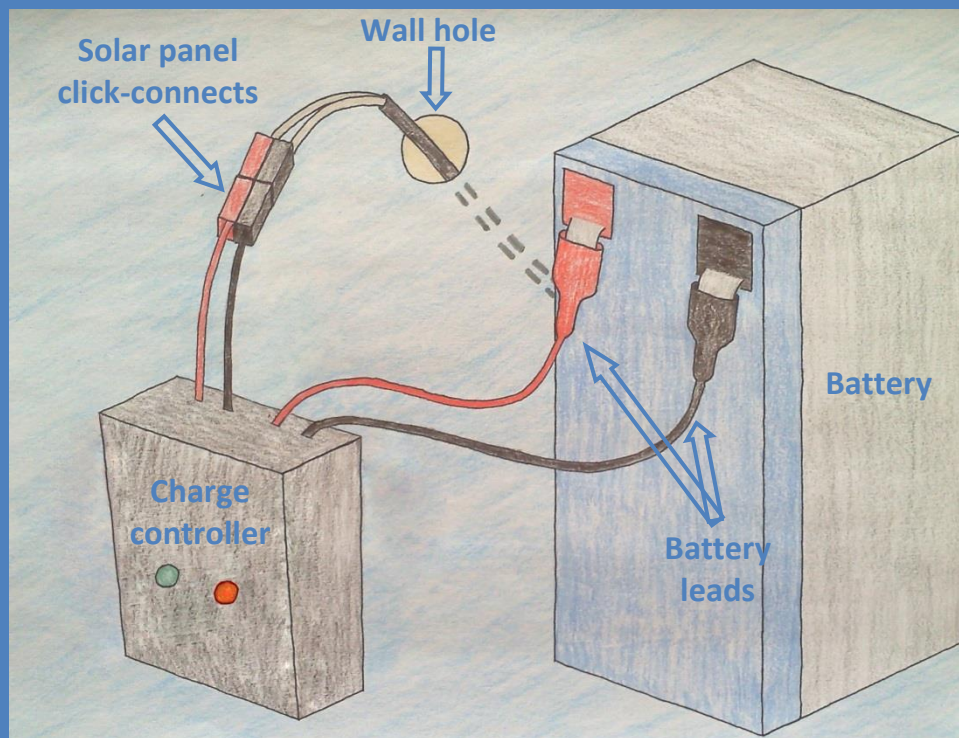
Step 1. **Remove the tape and plastic guards from the battery terminals**, being careful not to touch the metal terminals themselves.

Safety Precaution
Simultaneously touching both battery terminals with your bare skin can result in an electric shock. Also be careful not to form a short circuit between the battery terminals (i.e. directly linking the positive and negative terminals with a wire or other conductor), as this could damage the battery.

Step 2. **Slide the charge controller's battery leads onto the battery terminals**, making sure to connect red to red and black to black. The charge controller is a small rectangular device attached to the inside of the light fixture with wires coming out of it. Two of those wires are battery leads and will fit over the battery terminals (one red and one black).

Step 3. **Place the battery vertically into the light fixture through the open top.** Don't let the wiring get caught under the battery as you slide it in.

Step 4. **Attach the solar panel cord to the corresponding click-connects** coming out of the charge controller, making sure to connect red to red and black to black. Coil any slack in the solar panel cord inside the fixture before connecting it.

Tips
- *If the sun is out, you should see a red indicator light up on charge controller (visible through a hole in the side of the light fixture) when you connect the solar panel. This indicates the solar panel is providing power.*   - *If the red light is flashing intermittently, that means the battery is fully charged and the charge controller is preventing overcharge.*   - *If the battery is connected and functioning, you should see a green indicator light up on charge controller (visible through a hole in the side of the light fixture).*

Step 5. Turn it on! Your LightPassage^{TM} is now ready for use!

If you encounter any difficulties, please consult our website at www.yetisolar.com, e-mail us at sales@yetisolar.com, or call us at 571-423-9473.

Tipsheet: Where to put your solar panel

You want to find a spot on the outside wall of your house that gets as much direct sunlight as possible, with as little shading as possible (from trees, walls, buildings, roof overhangs etc.). Shade on even a small portion of the panel will significantly reduce output. It's a good idea to take a look at a potential site over the course of a day or a few days to see how much sun it gets on average at different times of day. Pay particular attention to the amount of sun that the potential site gets between the hours of 9am and 3pm, as this is when the sunlight is most intense.

Roof installation of the panel is possible, however the panel may be covered in snow in the winter if you live in a snowy climate. If snow accumulates on your roof in the wintertime, and you want to use the LightPassage**TM** in the wintertime, it is suggested that you mount it on the wall. Metal roof scrapers can easily crack or otherwise damage the (glass-faced) panel. If you decide to install the panel on your roof, be careful to completely seal any holes you drill using the included tube of caulk, to avoid leaks.

The other thing to keep in mind is that your sunny spot needs to be reasonably close to the spot (indoors) where you want to use the light fixture. The solar panel comes with 10 feet of wire, so the solar panel can be installed somewhat less than 10 feet away from where you want the light to be on the interior side of the wall.

Tipsheet: Where to put your light fixture

The LED light fixture that comes with the LightPassage^TM is designed to be installed on the interior side of an exterior wall of your house (or shed, cabin, RV, etc.). Do not install the light fixture on a ceiling. Do not install the light fixture in very humid areas (for example, bathroom with shower), or outdoors, as it is sensitive to moisture. Keep in mind that this light fixture is bright, so you will want to install it in a location where you will not be looking directly into the light most of time (for example, you would not want to install it directly behind your computer monitor or television).