PORTLAND PUDGY

7. Electrical System

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ELECTRICAL SYSTEM COMPONENTS

The electrical system illuminates the standard compass, and lets you run any small devices that work on a 12-volt battery (such as torch, GPS, radio, etc.). The LED navigation light and LED reading light give you good visibility and illumination at night.

The electrical system consists of:

- All-around LED white pole light (navigation light) and socket
- Battery compartment with 12-volt battery
- Electrical panel with a red LED, two toggle switches, and an outlet
- Wires to connect to pre-installed compass and pole light.

The compass, which is a standard boat component, is illuminated by the electrical system.

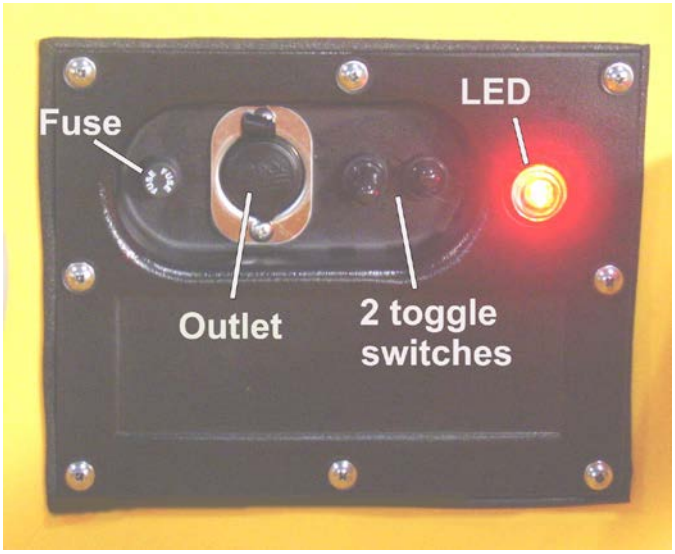
An optional solar panel is available, for charging the battery.

Electrical system components

USING THE ELECTRICAL PANEL SWITCHES AND OUTLET

The electrical panel has an outlet for running 12-volt equipment and for charging the battery. (See *Battery*, on page 3.) In addition to the outlet, the panel has two toggle switches and one red LED.

- The red LED is for night reading and illumination (red light does not interfere with night vision).
- One toggle switch turns the LED on or off.
- Another toggle switch turns the navigation light and compass light on or off.



Electrical panel

USING THE NAVIGATION LIGHT

It is federal law (and common sense) that you use an all-around white light (navigation light) at night. Some states may require a red/green bow light (not supplied).

The navigation light is a telescoping 24" to 42" all-around 2NM, anti-glare light. The 36" pole sets the light high so that the light doesn't shine directly in your eyes when you are rowing or motoring. The pole light can also be used along with the sailing rig or canopy (with modification).

The pole light should occasionally be rinsed with fresh water and lubricated with DW 40 (or equal).

Installing the Navigation Light

Pole light base (locked in place)

When in place, the small screw at the base of the pole faces back.

1. Swivel the socket cover to the side (do not lift).
2. Insert the pole into the socket, making sure it is fully seated.
3. Swivel the socket cover 180 degrees so that the short end covers the screw on the base of the pole. This holds the light in place.

Removing and Stowing the Navigation Light

You can slide the navigation light into one of the interior access hatches.

1. Swivel the socket cover and remove the light.
2. When you have removed the light, swivel the socket cover back into place to cover the socket. .
3. Stow the navigation light in an interior access hatch.

BATTERY

The electrical system uses a 12-volt, sealed, rechargeable, lead acid, 2.9 amp hour (at 68° Fahrenheit, 20 Celsius) battery.

IMPORTANT: You must run the battery periodically and then recharge. Failing to do so will reduce the charging capacity of the battery.

Recharging the Battery

The outlet on the electrical panel works as a charge outlet as well as a discharge outlet for operating 12-volt devices.

To use it as a charge outlet for charging the battery, you can use either a high quality 12-volt battery charger (available at marine stores) or a 12-volt solar panel.

CAUTION: IT IS EXTREMELY IMPORTANT THAT THE CHARGING DEVICE HAVE A SENSOR THAT TURNS THE CHARGER OFF WHEN THE BATTERY IS FULL. Otherwise, it could blow the battery.

CAUTION: Do not let the battery fully discharge. This will reduce the life of the battery. Keep it topped off.

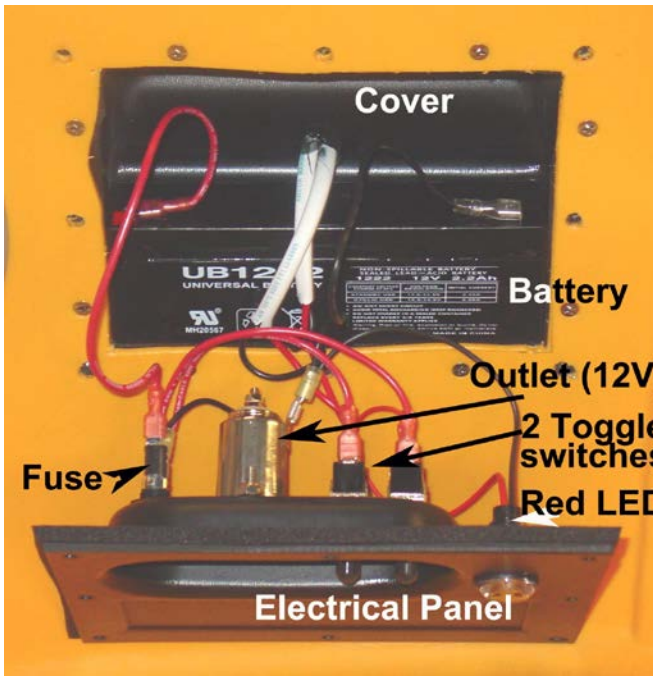
Solar Panel (OPTIONAL)

Small trickle-charge solar panels can be used without the top-off. This impact-resistant module delivers 7W, 15.4V, .45 Amps. It is compatible with the outlet on the Portland Pudgy's electrical panel. It features a car lighter-style male jack. The panel measures 23" x 14.5" (58.42 x 36.83 cm) and rolls up small enough to fit easily through an access hatch for storage.

CAUTION: Do NOT roll solar panel tighter than 4" (10.16 cm) Keep solar cell on outside of roll.

Removing the Battery

1. Unscrew and remove the eight bolts and washers on the electrical panel. Do not remove the inside cover that holds the battery.
2. Gently remove the battery.
3. Disconnect the wires from the battery, taking care not to yank the wires that are still connected to the panel.
4. Remove the battery.



Replacing the Battery

Only replace the battery with the exact same type of battery (you can purchase it through Portland Pudgy, Inc. or electrical supply store).

1. Place the battery in the battery cover, with the wires of the cover facing up, the writing on the battery out, and the ear tags facing up.
2. Connect the red wire to the red ear tag and black wire to the black ear tag of the battery.
3. Insert battery and wires into the battery cover.
4. Press the front section (electrical panel) over the back cover. Put in place the eight bolts and washers that you previously removed. (See *Removing the Battery* above.)
5. While pressing the front section against the back cover to compress the gasket behind the back cover, start threading the bolts with your fingers, and then hand tighten the bolts with a Philips head screwdriver. DO NOT OVERTIGHTEN.

REPLACING THE FUSE

To put in a new fuse, press in on the fuse container and turn it counter clockwise.

Keep spare marine fuses handy. **Marine fuse specs:**

- Amps: 1 amp
- Length: 1 ¼" (32mm)
- Diameter: ¼" (6.4 mm)

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