seaLeaf

INSTALLATION GUIDE

MODEL S100 SEALEAF RAIL-MOUNTED
MARINE SOLAR PANEL

LIGHTLEAF

sl100-Manual-02
Revised June 20, 2023

LightLeaf Solar Ltd.
www.lightleafsolar.com
(306) 952-4072

General cautions and warnings

- Important—please read this manual carefully before installing or using this solar panel and save it for reference.
- For use in 12V DC systems only.
- Observe polarity throughout the entire system during installation—Red Positive.
- A charge controller is required before battery connection.
- Tighten the clamp adjustment screw **just enough to support the panel.**

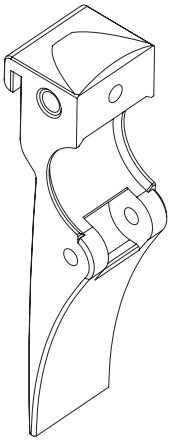
Mechanical and Electrical Specifications

Specification	Data
Nominal Max Power (Pmax)	110W
Optimal Operation Voltage (Vmp)	17.3V
Optimal Operation Current (Imp)	6.3A
Open Circuit Voltage (Voc)	21.2V
Short Circuit Current (Isc)	6.8A
Cell Type	Sunpower Maxeon Gill Premium ME3 25.1% Eff.
Dimensions	1073×575mm (42.2”x22.5)
Panel Thickness	9mm (3/8”)
Weight	2.5kg (5.4lb)

Electrical data at STC (1000W/m^2, AM 1.5, 25 DegC)

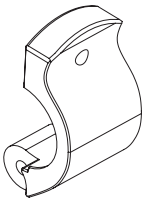
Railing Installation

In general, the solar panel is mounted to any 1” diameter railing on your boat—Pushpit, Pulpit, Bimini or Radar Arch. The custom quick release pivot hardware is made up the following parts:

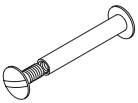


[A] Clamp Base
(Permanent on Panel)

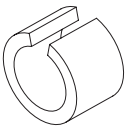
[B] Barrel Nuts 2x



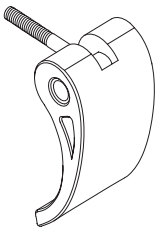
[C] Clamp 2x



[D] Binder Barrel with
Screw 2x

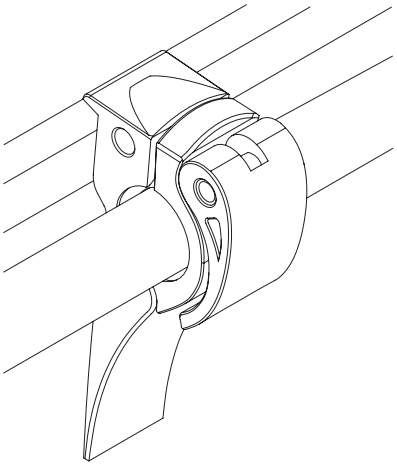


[E] Blue Silicone Bushings 2x

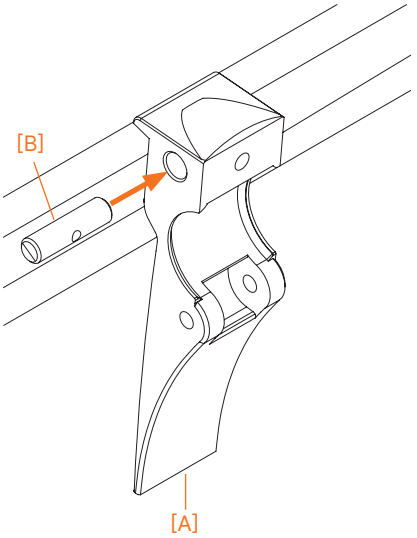


[F] Cam Levers with Screw 2x

The clamp assembly encloses the railing and is clamped in place with the Cam Lever. There are two clamp assemblies per panel (spaced at 500mm).

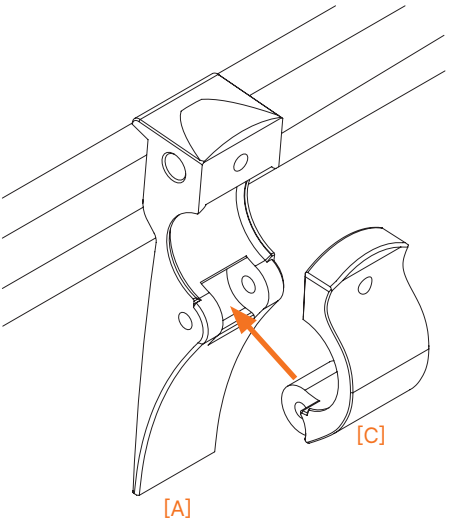


1. Install the Barrel Nuts [B] into the Clamp Bases [A] with the slot aligned to the Lever Screw.

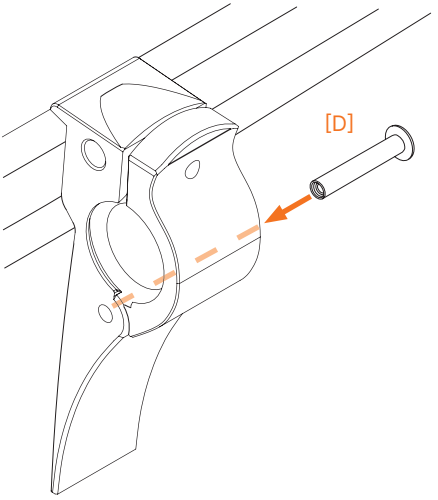


NOTE: If the Barrel Nuts are loose in the socket holes, place a piece of tape over each end to avoid having to go swimming to retrieve them!

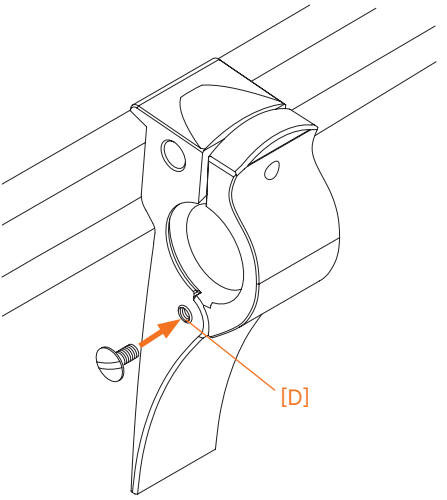
2. Install the Clamp [C] into the Base [A].



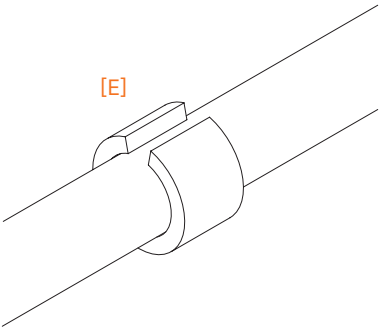
3. Insert the Binder Barrel [D].



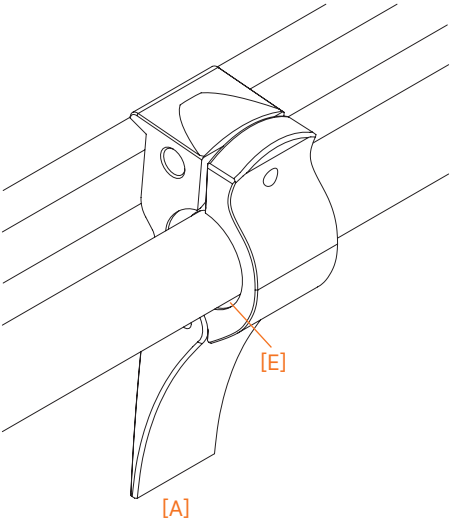
4. Install the Binder Screw into the Binder Barrel [D] and tighten.



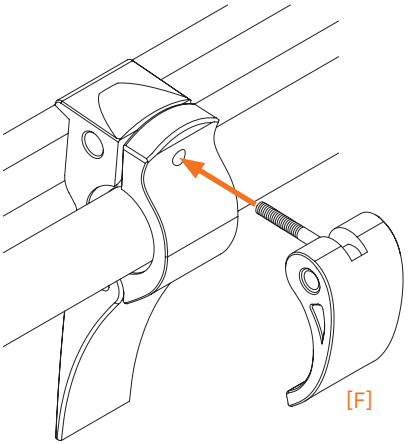
5. Place the two Blue Silicone Bushings [E] over the railing tube.

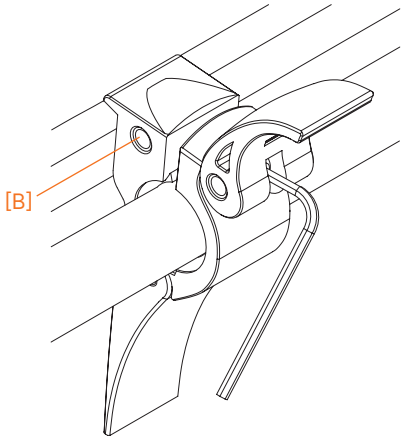


6. Position the Clamp Bases [A] over the railing tube and Bushings [E] as shown below.



7. Thread the Cam Lever Screw [F] into the Clamp Base Barrel Nut [B]. Tighten the screw while testing the Cam Lever operation to get the proper clamping—just enough to stop the panel from swinging free. Not too tight—the Cam Lever should be able to close with comfortable hand pressure.





8. Installation complete! The panel should be self-supporting when clamped at any angle, while easy to rotate with the Cam Levers released.