

Little Sun

Battery Replacement Guide

Little Sun Diamond



Tools needed:

- Lever (blade at least 7mm width and 0.5mm thick, round edges)
- Philips PH0 screwdriver
- Glue (Super X # 8008 from Cemedine or a comparable product)



How to replace the battery

Disclaimer: We strongly recommend sending your Little Sun Diamond to LittleSun GmbH for battery exchange and repair. We don't advise untrained customers to exchange the batteries as there is a risk of breaking the lamp or hurting themselves. Contact support@littlesun.com for more info.

1. Remove the solar module

In order not to damage the solar module and housing when removing the module, you should use a lever with at least 7mm blade width and 0.5mm blade thickness. The edges should be dull and / or rounded. To avoid damaging of the solar module, the lever must be applied in the adhesive direction. This means that you must apply either at the edge where the Little Sun logo is located or the edge where the serial number sticker can be seen.

Any damaging of the solar module can and will compromise the replacement and /or damage the solar cells.

2. Screw on housing

To loosen the screws, use a Philips PH0 screwdriver.

3. Open housing

After removing the screws, the lens and housing can be separated, and the Reflector can be removed.

4. Disconnect circuit board and battery

Battery and board are connected by 2-pin Micro JST GH 1.25 connector and can be disconnected.

5. Replace battery

a. The battery can be easily purchased from Little Sun. When exchanging the battery on your own and to make sure you're doing it correctly, it is important

to pay attention to capacity and technology. Using a LiFePO4 battery with 3.2V nominal voltage provides 300-400mAh capacity. If a larger capacity is needed, it should be noted that the charging time will increase accordingly. The dimensions of the batteries needed are H43mm x D14mm. For wiring, there are 26 AWG cables with UL1569 Certification to be used and soldered to the poles.

b. In order to prevent disturbances or a short circuit please reach out to Little Sun for further specifications if SMT components need to be replaced. The components can be removed with a hot air gun.

6. Assemble housing

a. See steps 2-4

7. Glue the solar module

a. Before applying the new adhesive, all residues of adhesive must be removed without leaving any residue.

b. It is also important to ensure that the contact surfaces are clean. If necessary, you can clean them by using cleaning alcohol.

c. For optimal gluing performance, Little Sun uses "Super X # 8008 from Cemedine. The specifications can be viewed on the manufacturer's website. The volume to be filled is $> 86\text{mm}^3$ ($> 0.9\text{ml}$). After applying the glue, the module should be pressed for 24 hours.