



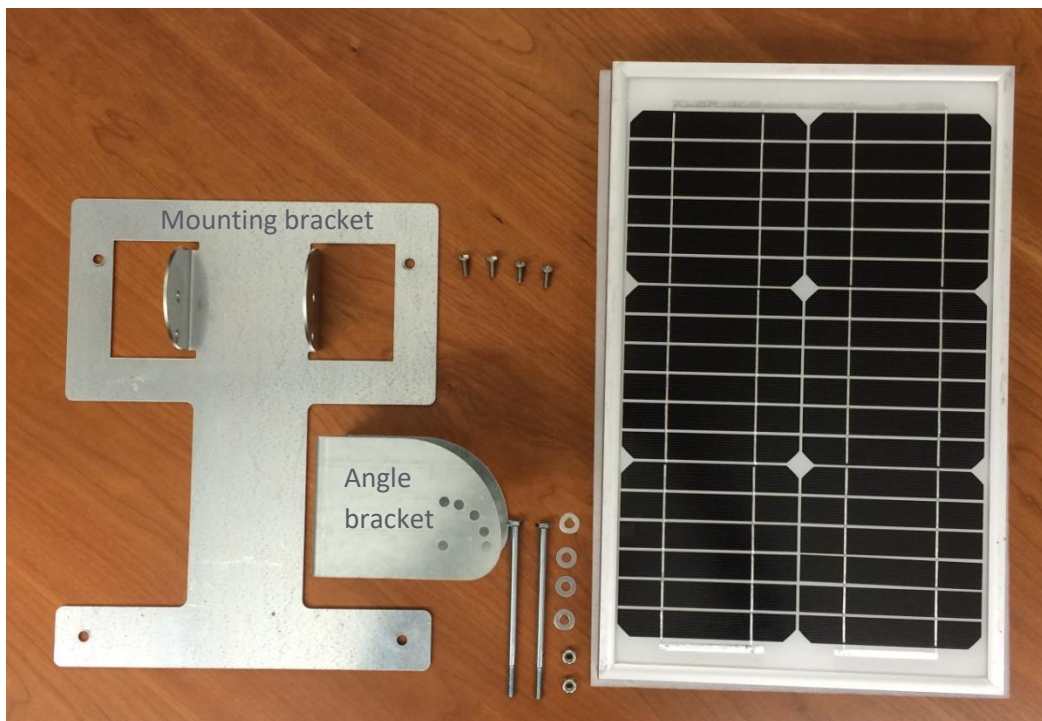
15W PV Panel & Mounting Bracket

INTRODUCTION

SymphoniePRO's 15W PV Panel and mounting bracket is used to provide charging power to SymphoniePRO iPacks. The mounting bracket holds the 15W panel at an optimal angle for solar production.

PV Panel Mounting

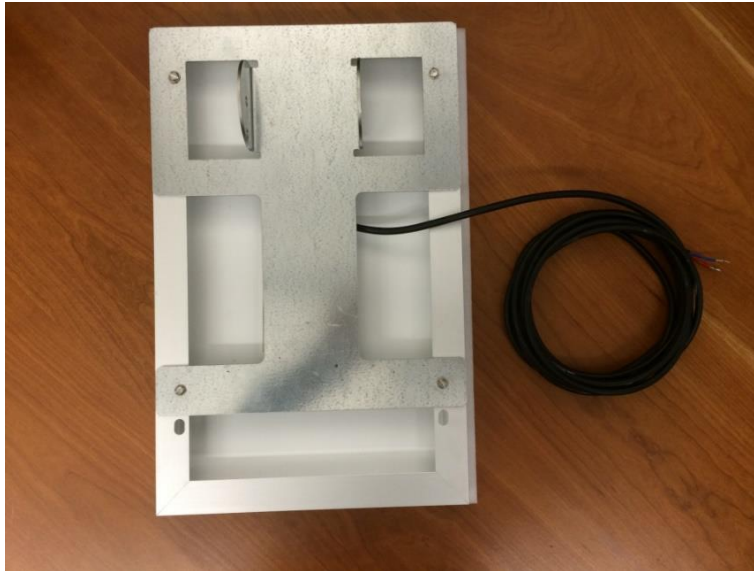
SymphoniePRO's 15W PV panel and mounting bracket (NRG part #9112 for tubular towers; NRG part #9111 for lattice towers) should be mounted facing south in the northern hemisphere, and north in the southern hemisphere, to maximize sun exposure.





15W PV Panel & Mounting Bracket

Attach the mounting bracket to the back of the PV panel using the 4 small screws:



Put the angle bracket against the tower with the longer edge on top, thread the hose clamps through the outer slots of the angle bracket as shown below and tighten securely. Use inner slots for lattice tower.





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Put a washer on each long bolt. Align the holes in the mounting bracket with the upper holes (closest to the tower) of the angle bracket and insert one of the long bolts. Add a washer and nut to the other end and tighten using a 7/16" wrench.

Adjust the PV panel's mounting bracket angle according to latitude to optimize solar radiation and shedding of snow and ice and install the second bolt in the holes to set the desired angle. Add a washer and nut to the other end and tighten using a 7/16" wrench.

When installing the PV panel, select a location that will minimize shading. Even the shade from a cable can greatly reduce the output of a PV panel. Coil and secure extra cables with electrical tape to prevent them from flapping in the wind.

Additional power may be required depending on the number and type of sensors. External power terminals are available on the iPack for this purpose.



Note - Please review the following table to verify correct connections.

Connection Point	Do	Do NOT	Functional Notes
PV Terminals	Do...connect PV panels, DC power sources between 14 and 28 V DC	Do NOT...connect power sources in excess of 28 V DC, including large PV panels	The PV terminals will charge the iPackGPS's internal battery; the PV terminals will NOT charge an external battery.
External Battery Terminals	Do...connect 12 V battery and/or external charge controller up to 14.3 V DC	Do NOT...connect PV panel or power sources in excess of 14.3 V DC	The external battery terminals are an input only, an external battery will NOT be charged from the iPackGPS through these terminals nor will the internal iPackGPS battery.
Grounding Post	Do...connect to wiring panel grounding post.	Do NOT...leave disconnected or connect other wires such as shields.	This terminal will help provide protection from electrostatic discharge for the iPackGPS and logger.