

## Case Study | Timed Product Installation

### Overview:

Installation comparison between the Zamp Solar 170-Watt Deluxe Kit and Go Power Overlander Solar Kit. Both kits installed on the same day, by the same technician and on the same model RV.

**Location:** All Seasons RV and Marine, Bend, OR

**Technician:** Brad

**RV:** Jayco Jay Flight

**Products:** Go Power 170W Overlander vs Zamp Solar 170W Deluxe Kit

**Scope of Study:** Install, review, time, and compare the installation of 2 comparable kits by Go Power and Zamp Solar.



170-Watt Zamp Solar Deluxe Kit

170-Watt Go Power Overlander Kit

### Conclusion:

Zamp Solar's Deluxe kit saved over 36 minutes per install. That's a 35% improvement in billable parts and labor resulting in the ability to install more kits per day increasing overall sales.

### Kit Components Included:

Components	Zamp Solar	Go Power	Zamp Solar Benefits
170 Watt Panel	Monocrystalline, AR coated	Monocrystalline	AR coated glass improves light absorption
30A Controller	5 Stage charging with 6 battery profiles including lithium	4 stage, no lithium profile	More battery options. Soft charge for saving deeply discharged batteries
Mounting Hardware	Mount anywhere on the panel - Removeable	Fixed location - L foot	Mount anywhere on the frame to avoid obstacles and speed install
Wiring	8-gauge parallel single cable with SAE quick connector	10-gauge single positive and negative wire	Better wire means less resistance, more efficiency and ability to add up to 500-watts
Roof Cap	3 Port Pre-Wired roof cap – simply plug in more panels	Not Included (will need additional parts to add more solar)	Expandability, Zamp's Deluxe system is ready for up to 500 watts of power – just mount and plug in

### Installation:

Brand	Installation Time	Notes
Zamp Solar	105 Minutes	Zamp's pre-wired system means less errors. Bad wiring accounts for a large percentage of RV Solar problems. Additionally, Zamp Deluxe kits are ready for up to 500-watt, with no other parts required.
Go Power	141 Minutes	10-gauge wire is fine for up to 250-watts at a 15-foot run but insufficient for more wattage or a longer distance. Small wire is more loss of power.

### Findings:

Consider the savings of 36 minutes per installation, across a full day, that's an additional 126 minutes of sales and service time. That's a 35% improvement in billable Parts and Labor Sales on Solar installations! For example, within an 8-hour day a tech is able to install an additional 170-watt solar kit per day when using Zamp Solar's Deluxe kit. This time savings leads to the possibility of \$1,084.73 in additional parts and labor sales.

Brand	Kit installations per day	Total billable parts and labor (labor @\$125/hr)
Zamp Solar	4 kits	\$5,069.00
Go Power	3 kits	\$3,984.27
Zamp Solar Gain	1 additional kit	\$1,084.73

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### Detailed Findings:

#### Factors involved in time savings – Why?

**Pre-Wired Connections –** The longest part of an RV solar installation is the time it takes to cut, splice and run the wires. In addition, bad wiring connections are the main issue in a poor performing installation. Finding a poor connection can take valuable time away from a technician. Zamp pre-wires and test all of their connections during their manufacturing process to streamline installs and reduce future issues.

**Omni-Mount Mounting Feet –** A fast and complete installation with Zamp's innovative designs improve mounting options on various roof types. Zamp's design allows the mounting foot to be mounted on any part of the frame for multiple configurations. Only one bolt is needed to secure the frame to the baseplate.

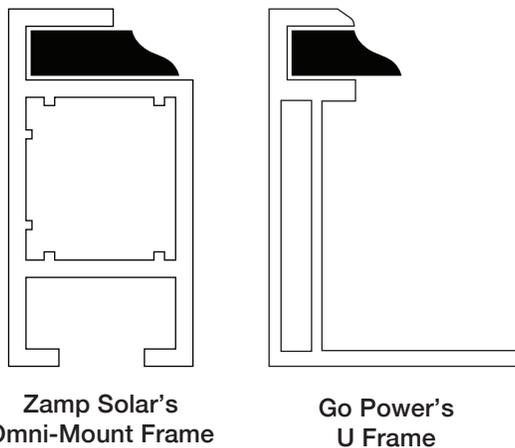
### Detailed Findings:

#### Panels and Frames

Zamp Solar's unique Omni-Mount frame saves time by allowing movement of the mounting feet around any roof design features or obstructions. In addition, it takes only one wrench to tighten the foot to the frame unlike GoPower's standard design which requires multiple tools.

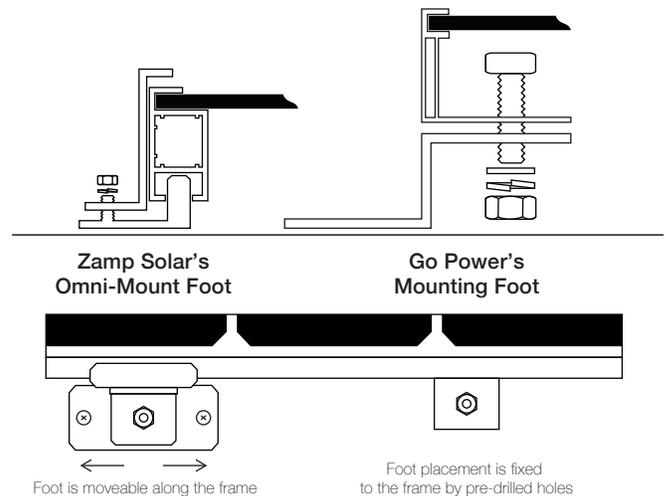
#### Omni-Mount Foot Kit

Another Zamp exclusive is the Omni-Mount foot that works hand in glove with the Omni-mount frame. This pairing provides the most flexible foot to roof placement, speeding up a Zamp Solar system installation.



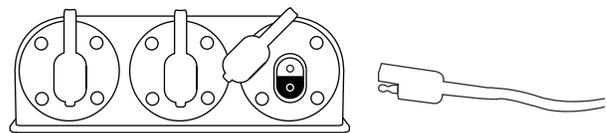
#### Pre-Wired RV Solar Harness

Zamp decided early on that proper wiring is key to an efficient and safe Zamp Solar installation. Zamp's wire is supple with a thick UV resistant sheath. This allows for more flexibility and easier routing through tight RV spaces. Zamp's wire is 8-gauge stranded copper. Compared to GoPower's tinned 10-gauge wire. Solid copper wire means less resistance and better efficiency. 8-gauge wire at 25 ft can easily handle 510-watts of solar where 10-gauge at 25 ft has almost 10% loss.



#### 3-Port Roof Cap

Zamp has designed their kits with our customers and their future needs in mind. All of Zamp Solar's Deluxe kits can expand to 510 watts. With GoPower, expansion is not an option without additional costs including parts, time and wire upgrades. Zamp Solar provides a kit that can grow with users needs.



### Conclusion:

Zamp Solar is more profitable, faster, safer, and of higher quality by design leading to multiple benefits for all involved.