

MTS-SP100

RENOGY Pole Mount System

Version 2.4



Important Safety Instructions

Please save these instructions.

This manual contains important safety, installation, and operating instructions for the charge controller. The following symbols are used throughout the manual to indicate potentially dangerous conditions or important safety information.

WARNING

Indicates a potentially dangerous condition. Use extreme caution when performing this task

CAUTION

Indicates a critical procedure for safe and proper operation of the controller

NOTE

Indicates a procedure or function that is important to the safe and proper operation of the controller.

General Safety Information

- Read all of the instructions and cautions in the manual before beginning the installation.
- Chance to strip nuts and bolts exists.
- Do **NOT** attach solar panel to pole mount until mount is securely fit, and pole base has been secured.
- Multiple people for installation is suggested.

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Installer Responsibilities

- Installation compliance with any applicable codes which are in force at the installation site.
- Installation compliance and compatibility with all system components and the environment including but not limited to roofing, system components, etc.
- Verification that all project information is accurate.

WARNING

This equipment should be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of the equipment and the hazards involved. Failure to observe this precaution may result in bodily injury. Protective gloves and safety glasses should be worn during installation.

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General Information

The Renogy Pole Mount System is designed for off-grid applications, when mounting to a roof is not ideal. It will support off-grid systems, and Renogy 100W solar panel. The system comes complete with all fasteners to secure the system to the installation surface. This system makes the installation of small solar systems easy, affordable and quick.

Key Features

- 5052-H32 aluminum construction
- Stainless steel fasteners
- High-tensile strength
- Corrosion Free
- Withstands 50 psf (125 mph wind loads)
- Attractive brushed aluminum finish
- Infinitely adjustable between 15-65 degrees
- Precision hole positioning and alignment
- Easy, rapid assembly
- Well-illustrated instructions
- Wind resistance of 120mph

Identification of Parts

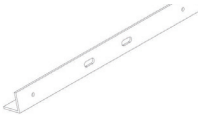
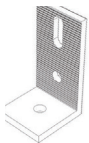
Image	Component	Qty	Description
	T-Slotted Bracket (A)	2	Main component. Solar modules are secured to this directly. Unit works in tandem with other segments
	L-Channel (B)	2	Unit which connects two T-slotted brackets.
	L-Bracket (C)	4	Acts as a joint between L-channel and support arm.
	Support Arm (D)	2	It supports T-slotted brackets on the side and connect them to L-channel.

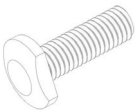
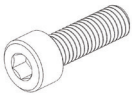
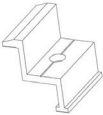
Image	Component	Qty	Description
	U-Bolt (E)	2	Unit which connects the pole and mounting system.
	M8 T-Bolt (F)	8	Fastener used to connect T-slotted bracket to other components and can slide along the bracket so as to adjust the space for panel.
	M8 Cap Head Bolt (G)	10	General fastener used throughout system. Various lengths present.
	M8 Washer (H)	28	Normal flat washer used to prevent surface marring on components from the use of the Lock Washers.
	M8 Spring Washer (I)	18	Deformable washer which creates a spring force from deformation. Provides the necessary preload to Cap Bolt and T-Bolt.

Image	Component	Qty	Description
	End Clamp (J)	4	Holds end modules in place via compression and acts as an end stop. NOTE May look different than pictured. Specific end clamps required based on panel thickness.
	M8 Nut (K)	18	Used to tighten T-bolts and cap head bolts to components.
	M12 Washer (L)	8	Normal flat washer used to prevent surface marring on components from the use of the Lock Washers.
	M12 Nut (M)	8	Used to tighten U-bolts to L-channel.
	M12 Spring Washer (N)	4	Deformable washer which creates a spring force from deformation. Provides the necessary preload to Nut.

Installation

Recommended tools to have before installation (Not provided):

- Socket wrench
- Torque extension
- Box-Leveler
- Tape Measure
- 18mm wrench or socket for larger hex nut
- 13mm wrench or socket for smaller hex nut

The above tools and equipment are highly recommended to have available to assist with installation but are in no way a comprehensive list of tools that can ease installation. Installers feel free to substitute comparable equipment where appropriate.

NOTE

All Cap Head Bolts (G) must have a M8 Washer (H) and M8 Spring Washer (I) prior feeding through a hole.

■ Fasten L-Channels to L-Brackets

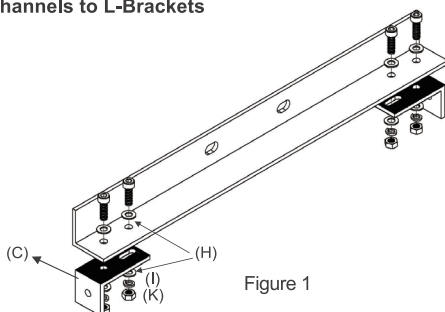


Figure 1

■ Slide U-Bolt through back face of L-Channel

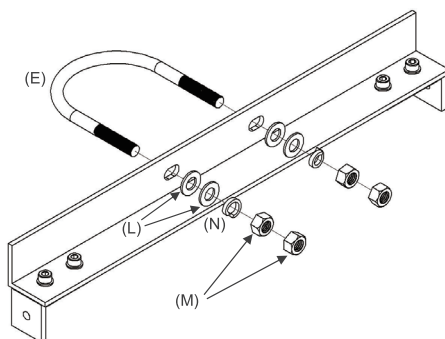


Figure 2

■ Attach Support Arm to bottom L-Brackets

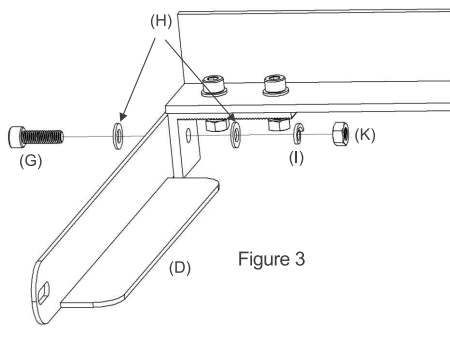


Figure 3

NOTE

The reason for this is that depending on the angle that the T-Slotted brackets are fastened to the top L-Channel, you may need to adjust the bottom L-Channel so that it will be flush against the pole.

■ Fasten T-Slotted Brackets to top L-Channel using the L-Brackets

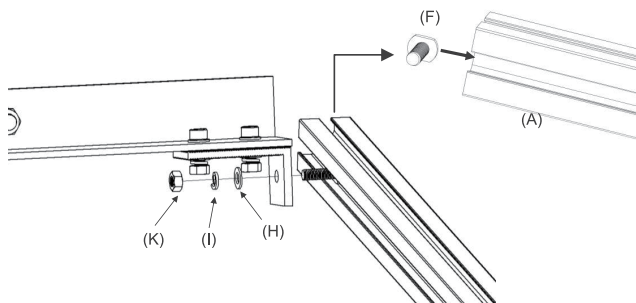


Figure 4

NOTE

It is important that the T-Slotted Brackets stay parallel. Nonparallel T-Slotted Brackets will cause the panel to bend which can cause micro-fractures in panel.

■ **Fasten the bottom of the T-Slotted Bracket to Support Arm**

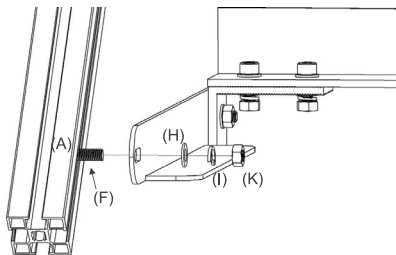


Figure 5

■ **Slide panel onto brackets and fasten with end lamps**

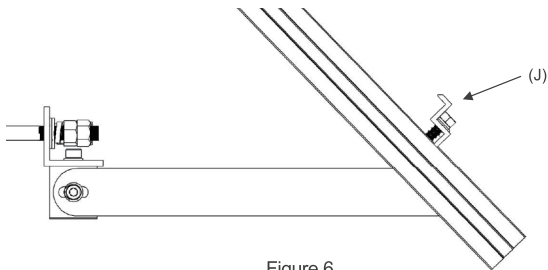


Figure 6

NOTE

This is what the clamp should look like when it is fastened to the panel. Also note that the thread length may not be as long as shown, but will still work.

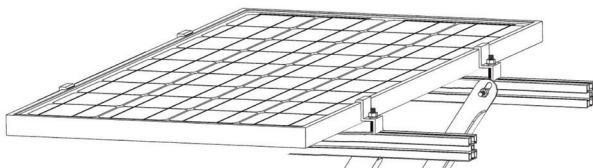


Figure 7

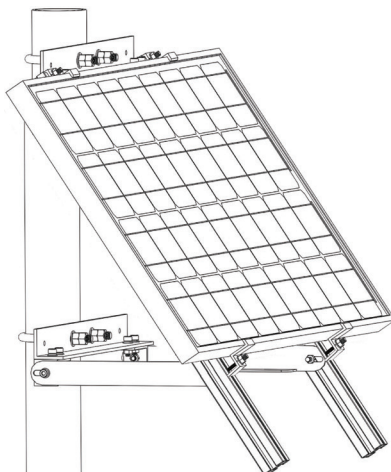
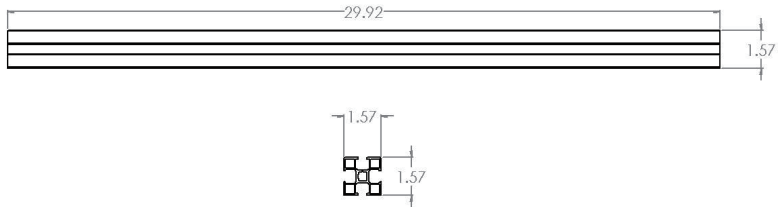


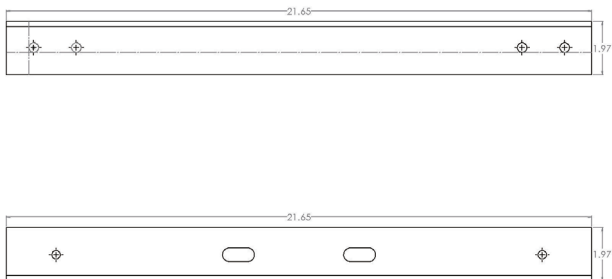
Figure 8

Pole Mount Dimensions

■ T-Slotted Bracket (A)



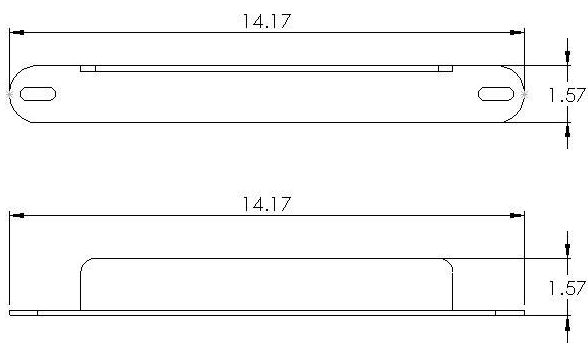
■ L-Channel (B)



NOTE

Dimensions in inches.

■ **Support Arm (D)**



NOTE

Dimensions in inches.

Compatibility

RENOGY Solar Module	Compatibility*
RNG-10D	INCOMPATIBLE
RNG-20D	INCOMPATIBLE
RNG-30D	INCOMPATIBLE
RNG-50D	INCOMPATIBLE
RNG-100D	COMPATIBLE
RNG-100D-S	COMPATIBLE
RNG-100MB	COMPATIBLE
RNG-150D	INCOMPATIBLE
RNG-280D	INCOMPATIBLE
RNG-50P	INCOMPATIBLE
RNG-100P	COMPATIBLE
RNG-270P	INCOMPATIBLE
RNG-320P	INCOMPATIBLE
RNG-160P	INCOMPATIBLE

Renogy reserves the right to change
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US | 2775 E Philadelphia St, Ontario, CA 91761, USA
☎ 909-287-7111
🌐 www.renogy.com
✉ customerservice@renogy.com

CN | 苏州高新区科技城培源路1号5号楼-4
☎ 400-6636-695
🌐 <https://www.renogy.cn>
✉ sales@renogy.cn

JP | 🌐 <https://www.renogy.jp>
✉ onlinestorejp@renogy.com

CA | 🌐 <https://ca.renogy.com>
✉ onlinestoreca@renogy.com

AU | 🌐 <https://au.renogy.com>
✉ onlinestoreau@renogy.com

UK | 🌐 <https://uk.renogy.com>
✉ onlinestoreuk@renogy.com

DE | 🌐 <https://de.renogy.com>
✉ onlinestorede@renogy.com

FR | 🌐 <https://fr.renogy.com>
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Follow proper safety practices. If in doubt, consult a professional RV technician.