Single Arm **Pole Mount**

Tamarack Solar Products

# Installation Manual

**2018 Edition** v1.03

**For models:**

UNI-SA/14
UNI-SA/21.5
UNI-SA/26

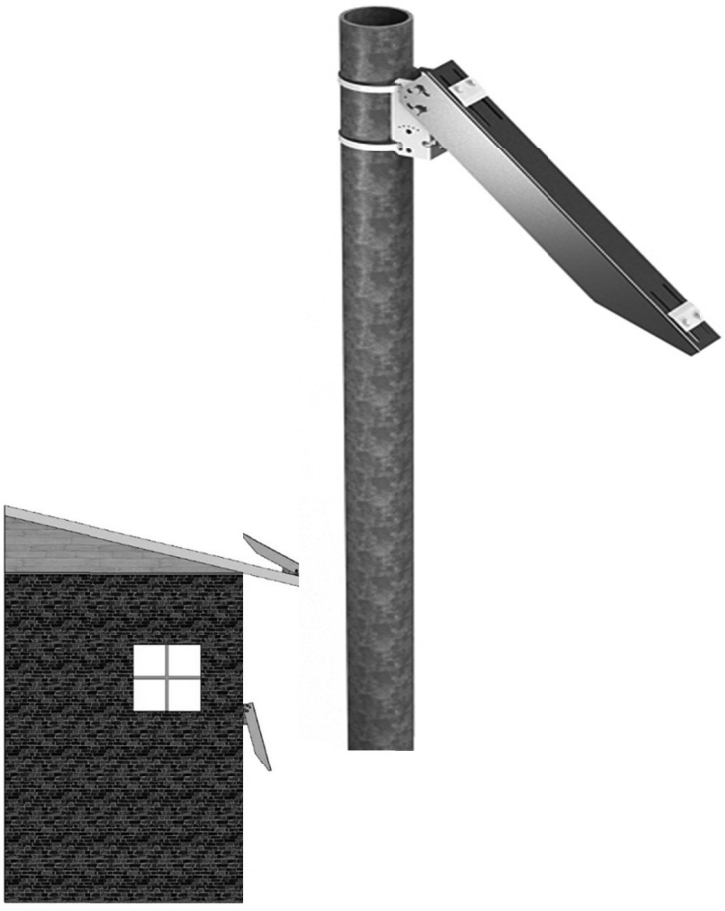
UNI-SA01-MAN

**Table of Contents**

Inroduction ..... 1
Customer Support ..... 1
Tools Required ..... 2
Components List ..... 2
Step 1. Mounting Arm to PV Module ..... 3
Step 2. Attaching Bracket to Pole ..... 3
Step 3. Attaching Panel/Arm Assembly to Bracket ..... 4
Alternate mounting options ..... 5
Installer Responsibility ..... 6
Warranty Information ..... 6

## Introduction

The Single Arm Pole Mount is a simple and universal pole mounting solution for small area solar photovoltaic (PV) needs. With its user-adjustable angle settings, the Single Arm Pole Mount can support installations in a wide range of locations. Panel and pole support varies by model. Single Arm mounts to walls and flat surfaces too.



### Customer Support

Tamarack Solar makes every effort to ensure your mounting kit is easy to install. If you need assistance at any point with your installation or have suggestions on how we can improve your experience, call our customer support at **1-800-819-7236** or email us at info@tamaracksolar.com.

## Tools Required

A wrench and screwdriver that support the following size heads:

5/16”

1/4”

1/4” or #2 Phillips drive
For banding

## Components List

| ITEM NO. | PART NUMBER | DESCRIPTION | USED ON\Notes | QTY. |
|---|---|---|---|---|
| 1 | 51-0627-001 | Arm, 14" Panel Support | UNI-SA/14.0 | 1 |
| 2 | 51-3517-010 | Arm, 21.5" Panel Support | UNI-SA/21.5 | 1 |
| 3 | 51-3517-015 | Arm, 26" Panel Support | UNI-SA/26.0 | 1 |
| 4 | 51-3517-020 | Bracket, Pole\Flat Mounting | ALL UNI-SA | 1 |
| 5 | 50-8001-051 | Clamp, Panel Single Slot | UNI-SA/14 UNI-SA21.5 | 2 |
| 6 | 50-8001-054 | Clamp, Panel Double Slot | UNI-SA/26.0 | 2 |
| 7 | 27-5000-010 | Clamp, Hose 1.87" - 5.0" | ALL UNI-SA | 2 |
| 8 | 23-2520-050 | Bolt, 1/4-20 x .75 SS | QTY 2 UNI-SA/14 UNI-SA21.5 | 4 |
| 9 | 25-2502-000 | Washer, flat 1/4 SS | QTY 4 UNI-SA/14 UNI-SA21.5 | 8 |
| 10 | 25-2501-000 | Washer, lock 1/4" | QTY 2 UNI-SA/14 UNI-SA21.5 | 4 |
| 11 | 24-2520-440 | Nut, 1/4-20 fin hex SS | QTY 2 UNI-SA/14 UNI-SA21.5 | 4 |
| 12 | 25-3102-000 | Washer, flat 5/16" SS | ALL UNI-SA | 8 |
| 13 | 23-3118-021 | Bolt, 5/16-18 x .75 SS | ALL UNI-SA | 4 |
| 14 | 25-3101-000 | Washer, lock 5/16" SS | ALL UNI-SA | 4 |
| 15 | 24-3118-440 | Nut, 5/16-18 fin hex SS | ALL UNI-SA | 4 |

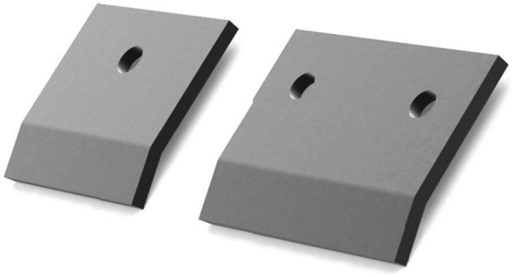
The following parts are used across our “UNI-SA” Series Side of Pole mount and ship with necessary hardware:

Panel Support Arms (mount specific), 14”, 21.5”or 26”

Pole or Flat Surface Mounting Bracket

Banding Clamp (2x)

Panel Clamps (2x, mount specific 1 or 2 hole)

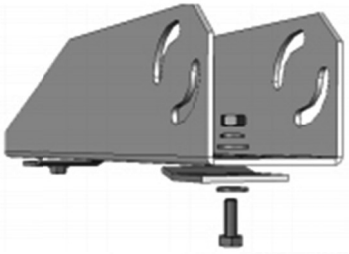


1/4 to 3/8” Lag Bolts and flat washers
(Optional, for Flat Wood Surface Mounting)

## Step 1. Mounting Arm to PV Module

A. With the arm oriented as shown, insert 1/4-20 x 3/4" bolt, washer and PV module clamp through each slot.
**(bent end of clamp facing the middle of the arm)**

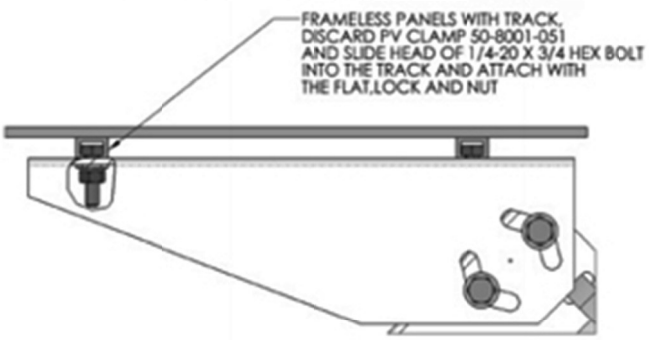
Place a flat washer, lock washer and hex nut on the end of the bolts and tighten loosely.



B. Repeat step 1 attaching the remaining clamp to the other slot on the arm.

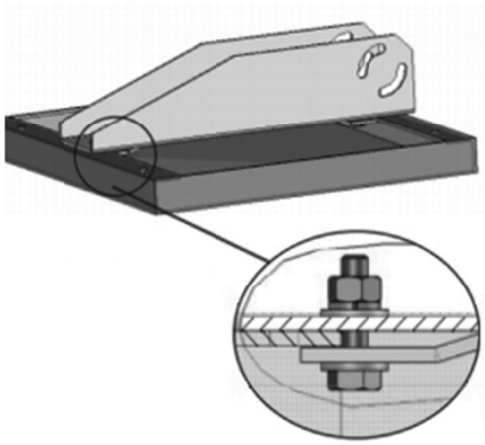
C. Lay the PV Module face-down on a protected flat surface.

Center the arm on the back of the panel as shown and position the clamps under the edges of the module's flange.




**Make sure that the clamp bolts are resting against the module's flange before tightening.**

Tighten the clamp bolts to 84 in-lbs (dry).

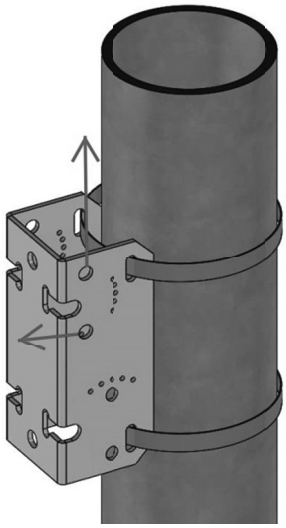


## Step 2. Attaching Bracket to Pole

A. Un-screw the band clamps to expose the ends to insert them though the bracket mounting holes.

B. Thread each band clamp through the obround holes and place the bracket on the pole as shown, insert the end of band clamp back into the clamp adjusting screw and tighten the banding screws to 35 in-lbs (dry).

When placing the bracket on the pole, ensure that: The flat side of the bracket is away from the pole, and the end of the bracket with the arm mounting holes nearest to the edge is up, as in the illustration to the right.



This banding is only compatible with poles ranging from 2.0 inches to 4.5 inches in diameter.

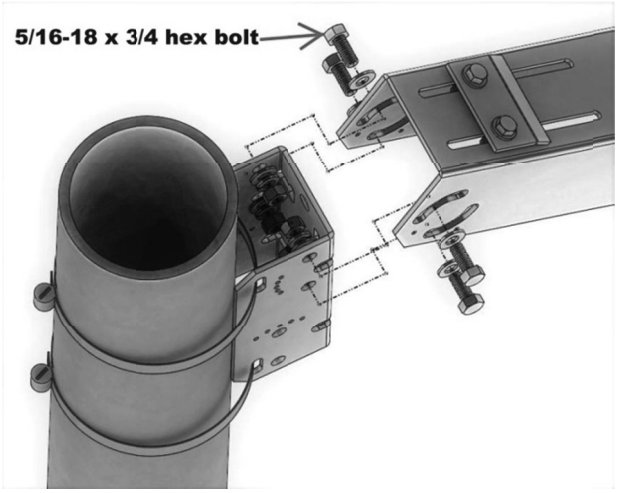
**If mounting to a flat surface, such as a wall or square pole, the flat side of the bracket should be placed against the surface. Make certain to orient the holes away from the flat surface. Banding is not used in this case.**
**See page 5 for alternate mounting options.**

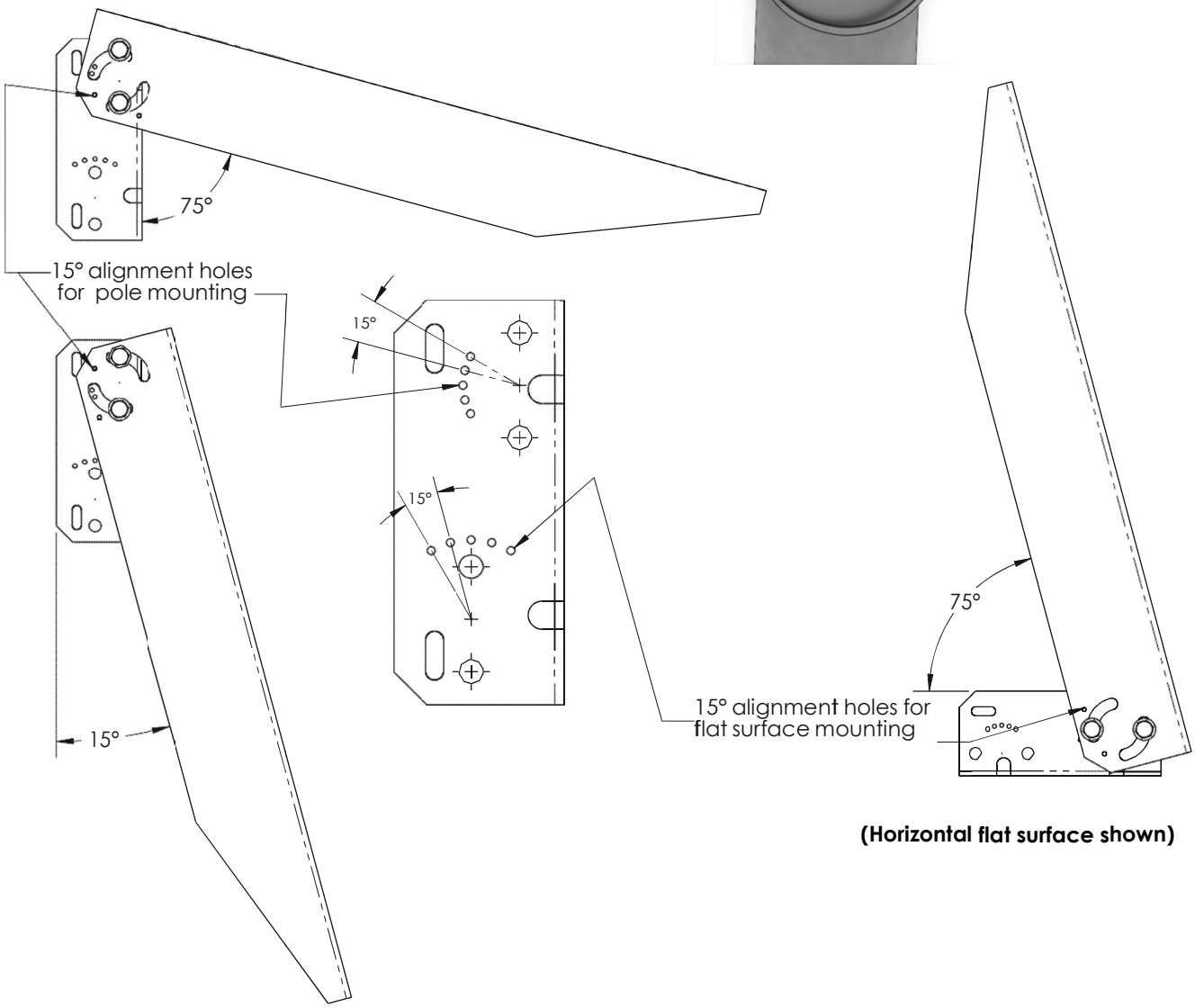
## Step 3. Attaching Panel/Arm Assembly to Bracket

A. Place the panel/arm assembly on the bracket as shown.

B. Insert 5/16-18 x 3/4" bolt and flat washer from the inside out. Place a flat washer, lock washer, and hex nut on the outside. This orientation allows you to tighten the bolt with just one wrench.

C. Adjust the tilt of the panel as desired, and tighten the bolts to 144 in-lbs (dry).




**(Horizontal flat surface shown)**

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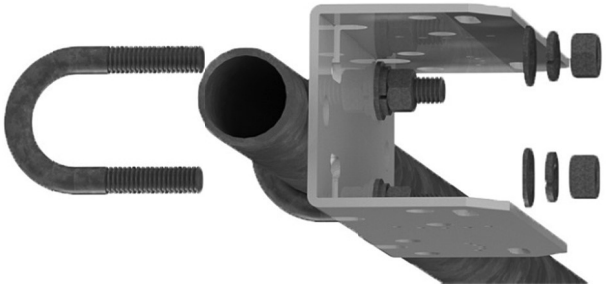
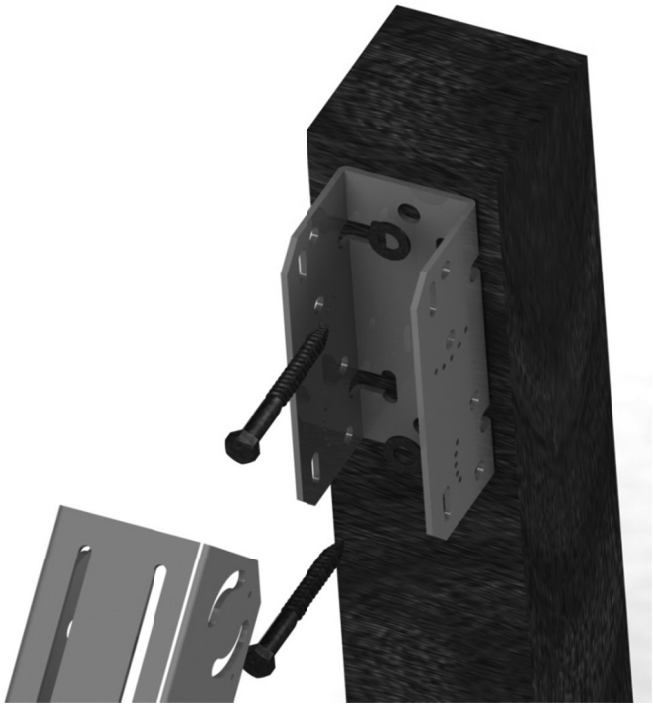
**Alternate mounting options**

## 1“ sch-40 pipe with U-bolts



## Flat surface with lag bolts



## Installer Responsibility

The installer is solely responsible for:

i. Complying with all applicable local or national building codes, including any that may supersede this manual;

ii. Ensuring that Tamarack Solar and other products are appropriate for the particular installation and the installation environment;

iii. Using only Tamarack Solar parts and installer-supplied parts as specified by Tamarack Solar. Substitution parts may void the warranty;

iv. Ensuring safe installation of all electrical aspects of the PV array; and

v. Ensuring correct and appropriate design parameters are used in determining the design loading used for the specific installation. Parameters, such as snow loading, wind speed, exposure and topographic factor should be confirmed with the local building official or a licensed professional engineer.

## Warranty Information

Tamarack Solar warrants each Mounting Structure to be free from defects in materials and workmanship for ten (10) years from the date of first purchase ("Warranty Period"), when installed properly and used for the purpose for which it is designed, except for the finish, which shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of three (3) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser ("Finish Warranty"). The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by Purchaser for Tamarack Solar's aluminum based products.

The warranty covers the replacement cost of parts to repair the product to proper working condition. Transportation and incidental costs associated with warranty items are not reimbursable. The warranty does not cover normal wear, or damage resulting from misuse, abuse, improper installation, negligence, or accident. The warranty does not cover any defect that has not been reported in writing to Tamarack Solar within ten (10) days after discovery of such defect. Furthermore, it does not cover units that have been altered, modified or repaired without written authorization from the manufacturer or its authorized representative, or units used in a manner or for a purpose other than that specified by the manufacturer. Tamarack Solar's entire liability and Purchaser exclusive remedy, whether in contract, tort or otherwise, for any claim related to or arising out of breach of the warranty covering the Mounting Structures shall be correction of defects by repair, replacement, or credit, at Tamarack Solar's discretion. Refurbished Mounting Structures may be used to repair or replace the Mounting Structures.

Tamarack Solar shall have no liability for any injuries or damages to persons or property resulting from any cause, whatsoever, or any claims or demands brought against Tamarack Solar by Purchaser, any employee of Purchaser, client of Purchaser, end-user of the Product or other party, even if Tamarack Solar has been advised of the possibility of such claims or demands (collectively, "Third Party Claims"). This limitation applies to all materials provided by Tamarack Solar during and after the Warranty Period.