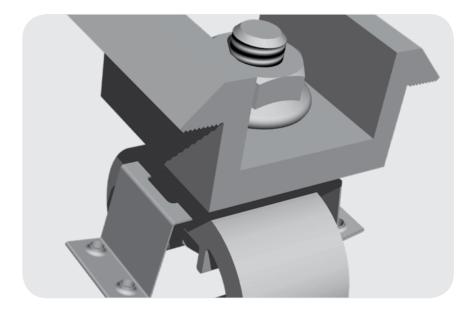
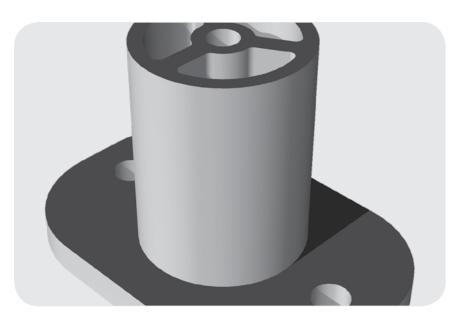


# SolarMount-I<sup>™</sup> **INSTALLATION MANUAL**

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A HILTI GROUP COMPANY



**HEUNIRAC**<sup>®</sup> 1411 Broadway Boulevard NE Albuquerque, NM 87102-1545 USA

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INTRODUCTION

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## **SOLARMOUNT-I™**

Thank you for choosing SolarMount-I™. This quick start guide provides easy step-by-step installation instructions. For additional information, please visit us at **www.unirac.com**.

## **BEFORE YOU BEGIN**

- 1 Verify that all of the components are included and consistent with your order.
- 2 To avoid conflicts, never modify or combine Unirac's SolarMount-I<sup>™</sup> with components that are not made for SolarMount-I. Doing so will void any warranty associated with SolarMount-I.

## COMPONENTS



#### Beam

SolarMount-I 1.0 Beam = 1.094" Height 144" Length SolarMount-I 2.5 Beam = 2.5" Height 144" and 192" Lengths



### Mid Clamp

(1) Stainless steel hex bolt(1) Stainless steel flange nut(1) Slider(1) Mid Clamp

#### **End Clamp**

(1) Stainless steel hex bolt
 (1) Stainless steel flange nut
 (1) Slider
 (1) End Clamp



#### 2 Flange Connection \*

Shown without butyl option (2) #14 X 3″ Concealor™ screws (1) 2 Flange Connector



#### **1 Flange Connection**

(1) 5/16" x 3-1/2" Zinc Plated Lag Bolt(1) Stainless steel washer(1) 1 Flange Connector





#### Beam Splice \*\*

Shown without grounding option (2) Stainless steel hex bolt (2) Stainless steel flange nut (1) Beam Splice \* Butyl (optional with 2 Flange Connection)

\*\* WEEB 9.5 Grounding (optional with Grounding Splice Kit)

## **OPTIONAL ATTACHMENTS**



#### 2-Piece Aluminum Standoff

(2) 5/16 x 3-1/2" Zinc Plated Lag Bolt
(1) 1 Flange Connection
(1) 3/8" x 3/4" Hex Head Bolt
(1) 3/8" x 1-3/4" EPDM Washer



#### CreoTecc Tile Hook (Top)

(2) 5/16" x 3-1/2" Zinc Plated Lag Bolt (1) 3/8-16 x 3/4" Hex Head Bolt (1) 3/8" Hex Head Nut



#### **PV Quick Mount**

(1) 5/16" x 3-1/2" Stainless Steel Lag Bolt
(1) 5/16" Sealing Washer
(1) 5/16" EPDM Washer
(1) 1 Flange Connection

## PLANNING YOUR SOLARMOUNT-I™ INSTALLATION

The installation can be laid out with beams parallel to the rafters or perpendicular to the rafters. Note that SolarMount-I<sup>™</sup> Beams make excellent straight edges for doing layouts.

Center the installation area over the structural members as much as possible.

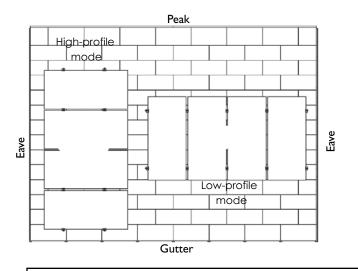
Leave enough room to safely move around the array during installation. Some building codes require minimum clearances around such installations, and the user should be directed to also check 'The Code'.

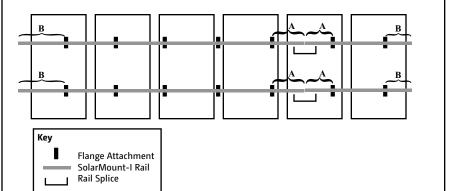
The width of the installation area equals the length of one module.

#### The length of the installation area is equal to:

- The total width of the modules,
- Plus 1 inch for each space between modules (for mid-clamp),
- Plus 3 inches (1½ inches for each pair of end clamps).

To speed installation, mark beam at approximate proper foot space before clicking connections to beam.





**Dimension A:** Attachments on either side of a <u>splice</u> that is NOT positioned over an attachment must be within  $\frac{1}{3}$  the max span for your installation.

*Note:* There must be a minimum of TWO attachments on either side of a splice.

**Dimension B:** Maximum canitlever cannot exceed  $\frac{1}{3}$  the max span for your installation

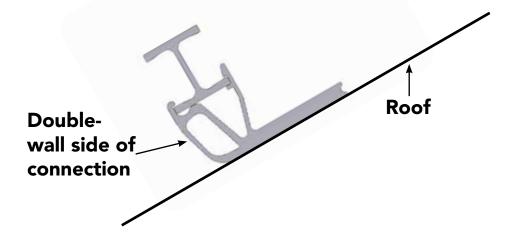
## **INSTALLING SOLARMOUNT-I™**

## Step 1: Attach beam to 2 Flange Connection or 1 Flange Connection

**NOTE:** Always engage the double-wall side before clicking connection into beam. **NOTE:** Do not use connection if the engagement features on the connection are bent, damaged, or obstructed by debris.

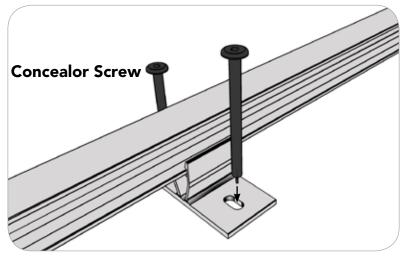


**NOTE:** When installing on pitched roof configurations, locate double-wall section of connection on the downhill side of roof slope.
 **NOTE:** DO NOT re-use flange connections.

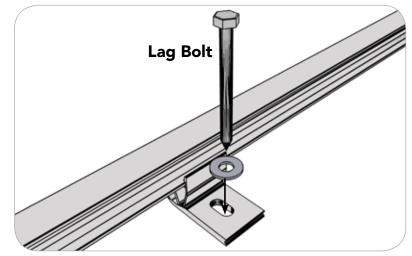


## Step 2: Attach 2 Flange Connection or 1 Flange Connection to rafter

**NOTE:** When using 2 Flange Connection w/Butyl Pad, remove liner before installing screws.

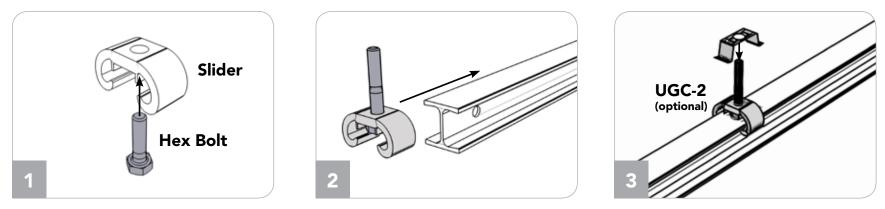


<sup>2</sup> Flange Connection Option



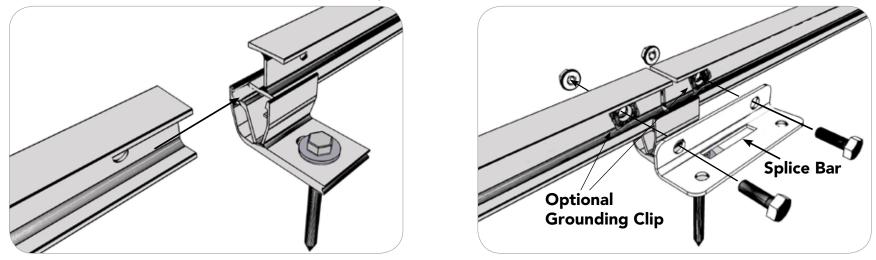
1 Flange Connection Option

## Step 3: Install appropriate number of sliders and optional UGC-2 grounding clips



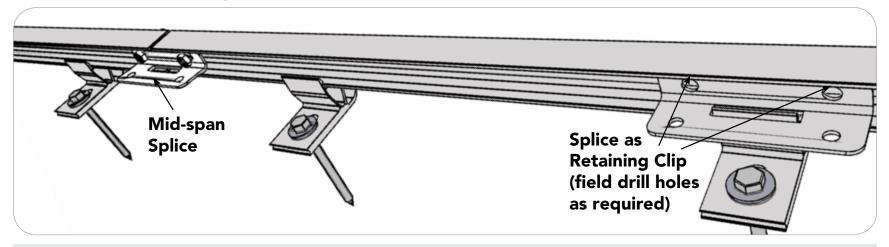
## **Step 4A: Install Splices (**1) - Use when splicing two beams at a connection.

**NOTE:** Use anti-seize on bolt and tighten nut to 10 foot-pounds.



**Step 4B: Install Splices (***2***)** - Place at least one splice to act as a retaining clip over a flange connection for every run of beam. This may require field drilling.

**NOTE:** Tighten nut to 10 foot pounds with anti-seize



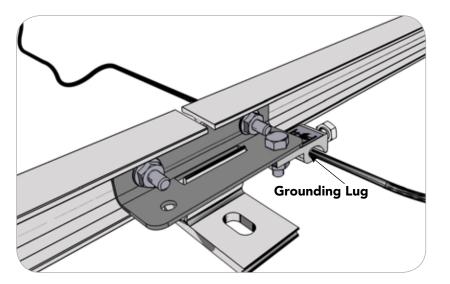
#### ∧ NOTES ON THERMAL EXPANSION:

SOLARMOUNT-I is designed to minimize the effects of thermal expansion by allowing the beams to expand and contract independently between connections and attachments. To minimize the effect of thermal expansion, restrict continuous beam lengths to 36 feet or three standard beam lengths.

#### NOTE ON SPLICES:

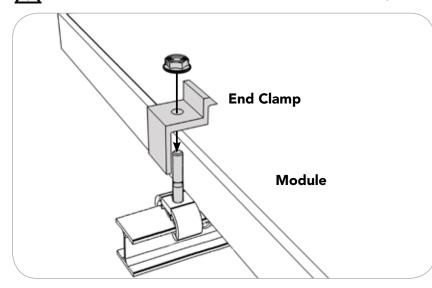
Please refer to technical datasheets for recommended distances between splices.

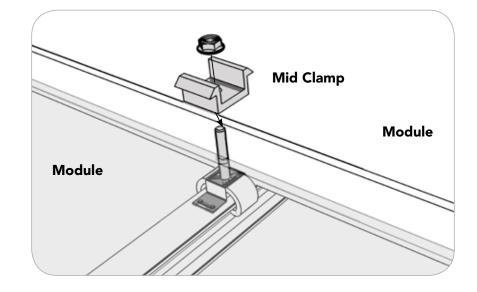
## Step 5: Installing Grounding Lugs



## Step 6: Install modules using top mounting hardware

**NOTE:** Use anti-seize on bolt and tighten nut to 10 foot-pounds.





### Warranty Information

See http://www.unirac.com for current warranty documents and information.



# SolarMount-I<sup>™</sup> INSTALLATION MANUAL

www.unirac.com