



# SunMaxx

# U-Pipe Solar Collector Installation Manual



## **WARNING!**

For your safety, please read through this manual carefully before installation to minimize the risk of fire, property damage, and personal injury!

# **SAFETY PRECATIONS**



- Only use the solar hot water system as intended and described in the Installation Manual; deviations from the Installation Manual will void the warranty and may lead to fire, property damage, and personal injury.
- A Solar hot water system must be properly installed in accordance with Installation and Technical Manual before it is used.
- ▲ Do not store any combustible materials in the vicinity of the system. (dry leaves, tree branches, gasoline, and other combustible materials)
- ▲ Wear protective gloves and safety glasses during installation.
- ⚠ Use caution while handling the evacuated tubes; the metal part of the evacuated tube might be HOT.
- A Keep the solar hot water system and components away from children and animals.

## **BEFORE YOU START**

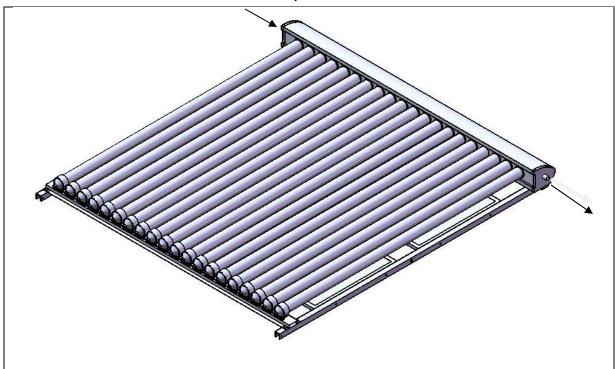
- The assembly of the solar hot water system requires two able persons with the ability to lift 75 pounds each.
- Best to install on a cool and cloudy day.
- Store evacuated tubes in dark or shaded places until insertion into the manifold.
- Exposure of the solar collector with installed evacuated tubes to direct sunlight for extended periods without protective heat transfer fluid may void warranty (if exposed to direct sunlight for thirty or more days). See warranty for additional information.
- It is recommended to remove the evacuated tubes from the VDF collector if the system will be exposed to direct sunlight for extended periods of time.

## THINGS YOU NEED

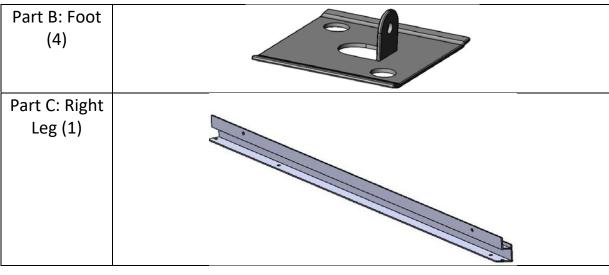
- 10 mm and ½ inch ratchet
- Adjustable wrench
- Liquid soap or other non-flammable lubricant



## Components



Part A: One partially assembly U-Pipe system (1). Cold water comes in from the left side and hot water leaves from the right side!

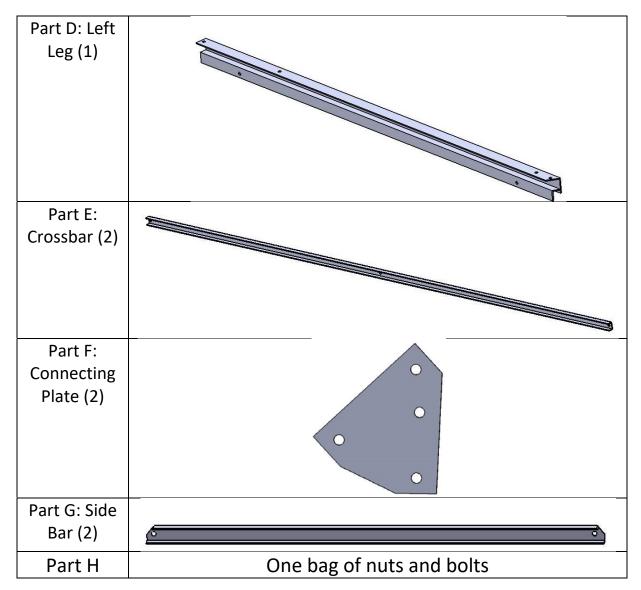


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1.877.786.6299

fax: 1.800.786.0329



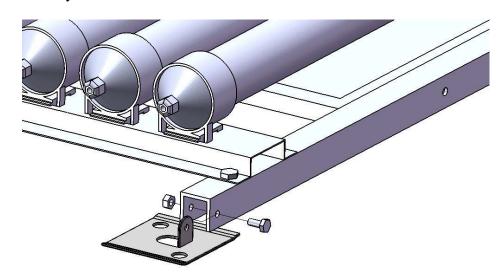




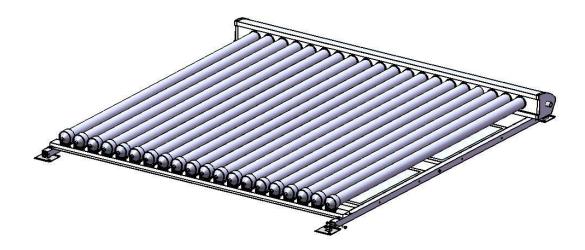
# Installation Instructions: Flat Mounting \*Skip to next page if angle mounting

## 1) ATTACHING THE FEET TO THE PARTIALLY ASSEMBLY SYSTEM

- a) Align the hole of the foot to the hole of the partially assembly U-Pipe system.
- b) Insert 10mm bolt and nut and tighten with 10mm ratchet. The two big holes on the foot are used to bolt the system onto the roof or other surface.



c) Repeat this for all four corners of the system.

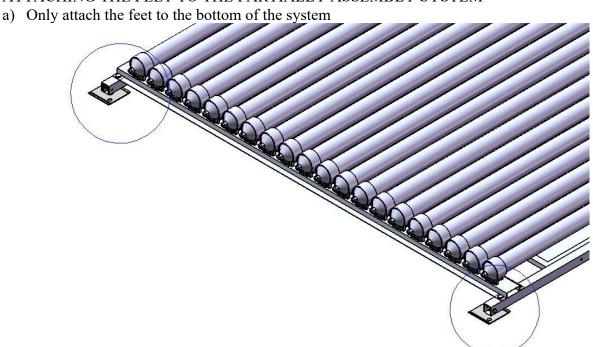


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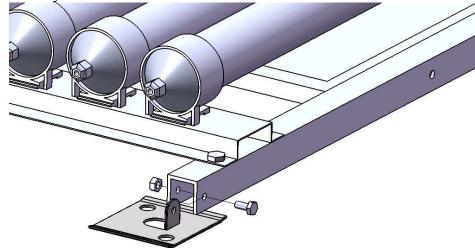
# Installation Instructions: Angle Mounting

1) ATTACHING THE FEET TO THE PARTIALLY ASSEMBLY SYSTEM



b) Align the hole of the foot to the hole of the partially assembly U-Pipe system.

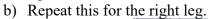
c) Insert 10mm bolt and nut and tighten with 10mm ratchet. The two big holes on the foot are used to bolt the system onto the roof or other surface.

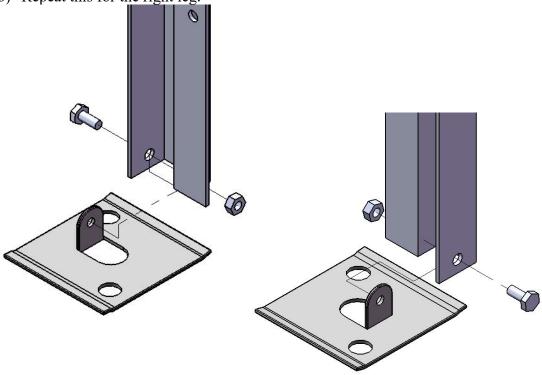


#### 2) INSTALLING THE FOOT TO THE LEG



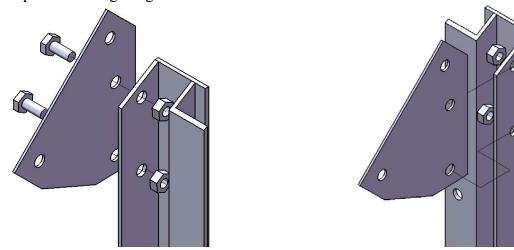
a) Align the hole of the foot to the bottom hole of the left leg, insert 10mm nut and bolt and tighten.





## 3) INSTALLING CONNECTING PLATES TO THE ASSEMBLY

- a) Align holes of the connecting plate to the top two holes of the leg. Insert 10 mm nut and bolt and tighten.
- b) Repeat for the right leg.



## 4) INSTALLING CROSSBARS TO THE LEGS

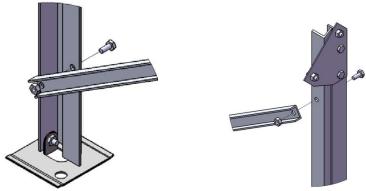
- a) Align the hole of the crossbar to the front hole of the left leg.
- b) Align the other hole of the crossbar to the front upper part of the right leg.

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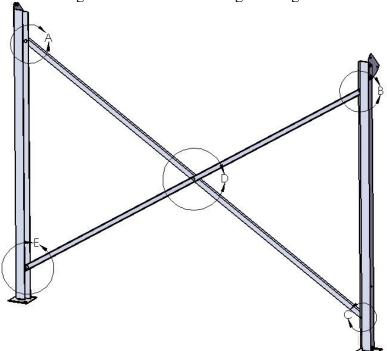
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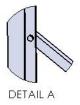
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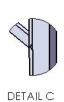


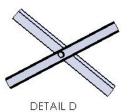
- c) Repeat this for the second crossbar on the back of the leg.
- d) Connect the two crossbars together in the middle using the long bolt.

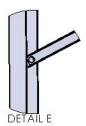












## 5) INSTALLING FRAME TO ASSEMBLY

a) Have one person holding the tube assembly up.

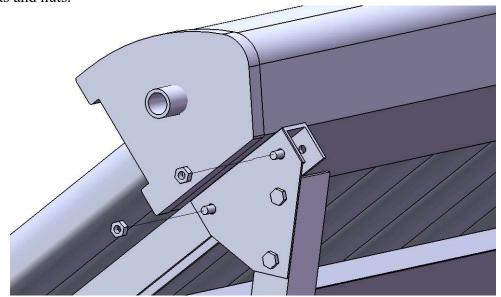
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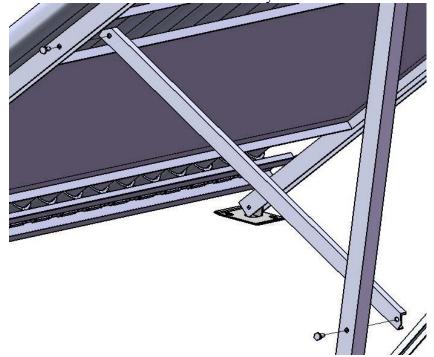


b) Connect the frame and assembly together by joining them with the connecting plate and two bolts and nuts.



c) Repeat this for the left side.

d) Connect the sidebar from the frame to the assembly and secure it with two nuts and bolts.



e) Repeat this for left side.

## 6) THE END PRODUCT SHOULD LOOK LIKE THIS

MAKE SURE TO TIGHTEN ALL NUTS AND BOLTS!

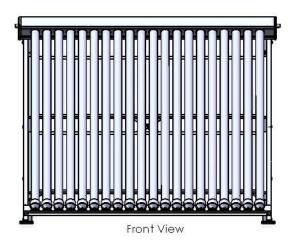
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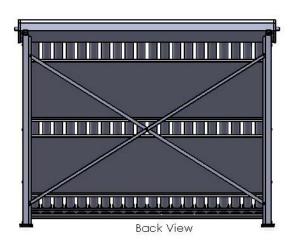
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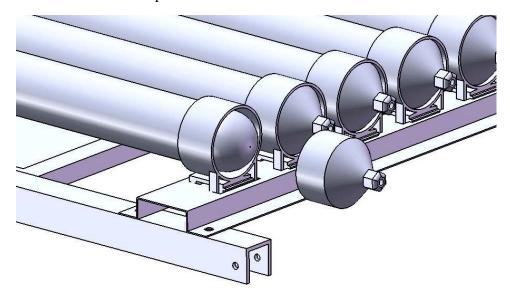
#### REPLACING BROKEN TUBES

**A** WEAR PROTECTIVE GLOVES AND SAFETY GLASSES DURING INSTALLATION.

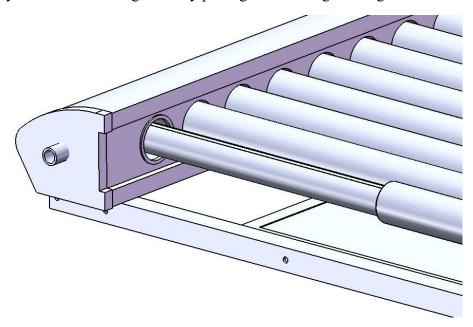


## 1) REMOVING DAMAGED TUBES

- a. Detach the tube assembly from the frame.
- b. Unscrew the end cap.



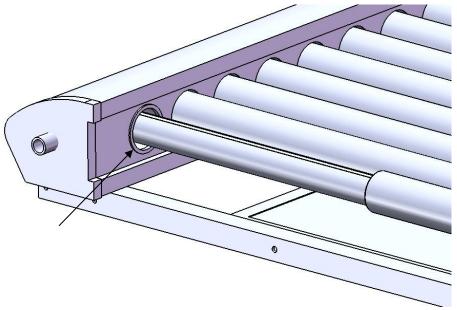
c) Carefully take out the damage tube by pulling and twisting slowing.



## 2) INSERTING A TUBE

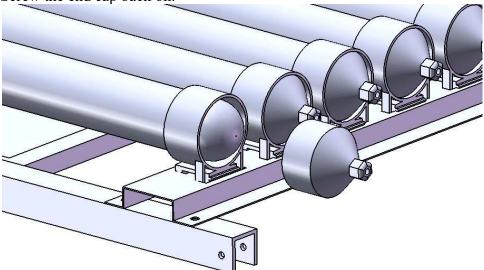
a. Fit the o-ring in the manifold first.





- b. Insert tube onto the aluminum fin.
- c. Carefully insert the tube into the manifold; a small amount of non-flammable lubrication might be need inside the o-ring to smoothly insert the tube.

d. Screw the end cap back on.



e. Reattach the manifold to the frame.