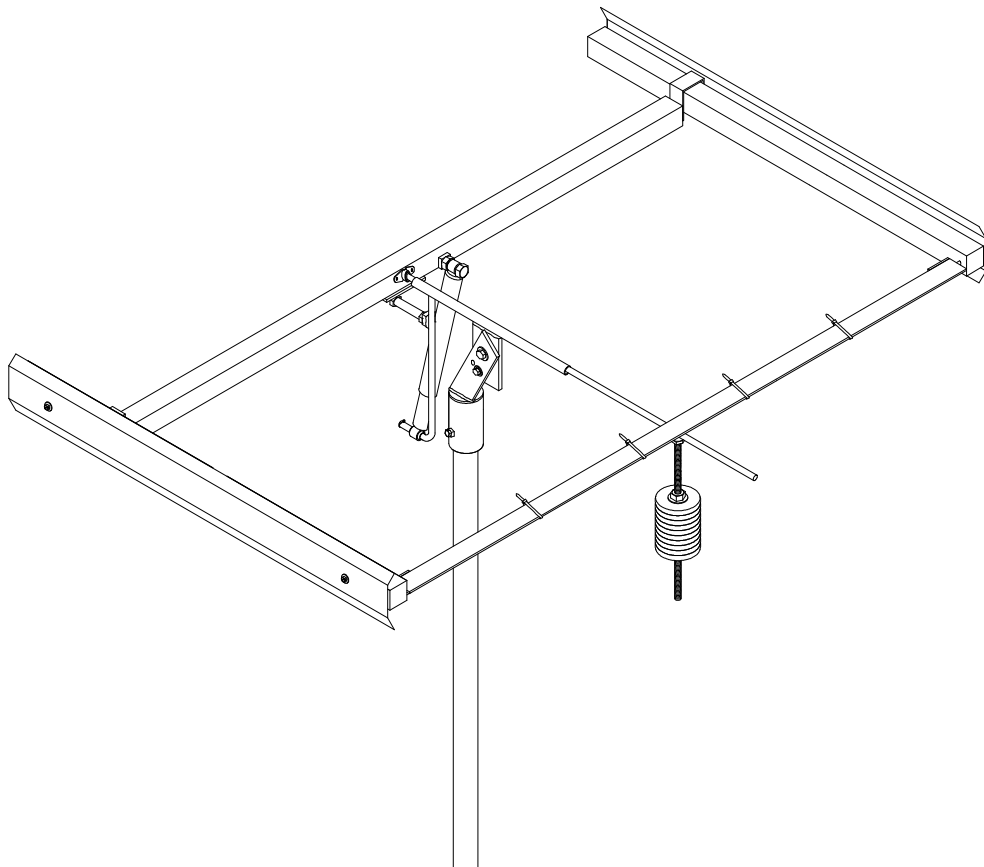


# ZOMEWORKS CORPORATION

## UTR-020 TRACK RACK™ ASSEMBLY INSTRUCTIONS

TOTAL SQUARE FOOTAGE OF PANELS NOT TO EXCEED  
20 SQUARE FEET – DOING SO WILL VOID WARRANTY



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# TABLE OF CONTENTS

|   |              |
|---|--------------|
| Cover Page                                  | Page 1       |
| Table of Contents                           | Page 2       |
| About Trackers                              | Page 3       |
| UTR-Series Parts list and Recommended Tools | Page 4 - 5   |
| UTR-Series Pole Installation                | Page 5 - 6   |
| Step 1: Laying out canister set             | Page 7       |
| Step 2: Bottom Rail Attachment              | Page 7 - 8   |
| Step 3: Attaching the Axle Assembly         | Page 9       |
| Step 4: Top Rail Attachment                 | Page 10 - 11 |
| Step 5: Mounting the tracker on the pole    | Page 11      |
| Step 6: Shock and Bumper-Bolt Installation  | Page 12      |
| Step 7: Shadow Plate Installation           | Page 13      |
| Step 8: J-Clip Attachment                   | Page 14      |
| Step 9: Panel Installation                  | Page 15      |
| Step 10: Counterweight Installation         | Page 16      |
| Step 11: Balancing the Tracker              | Page 17      |
| Step 12: Seasonal Adjustment                | Page 17      |
| UTR-Series Tracker Troubleshooting          | Page 18 - 19 |
| ZOMEWORKS Limited/Extended Warranty         | Page 20      |

# **ABOUT TRACKERS**

The UTR-Series Tracker is an ingenious and economical way to increase photovoltaic efficiency an average of 25%. Photovoltaic panels mounted on a tracker will be much more efficient than the same panels mounted on a fixed rack when the tracker follows the sun for at least 6 hours a day. Because a tracker relies on a differential of solar heat gain in the canisters, it will react quicker on a bright sunny day than it will on a partially cloudy day.

## **CHOOSING A LOCATION**

Choose a location where the tracker will receive the sun all day. Clear exposure throughout the day with an unobstructed and clear view of the sun is required. Locate the Track Rack™ where it will receive the earliest morning sun. The rack needs the early morning sun to “wake up”, or return to the eastern position, so it is important to place your Track Rack™ where it won't be shaded in the morning by structures, poles, trees, bushes, etc. Remember that the sun rises and sets north of true east /west in the summer and south in the winter. You will be able to adjust your Track Rack™ for the winter & summer solstice accordingly.

## **TRACKER OPERATION**

The Track Rack™ is moved by the shifting weight of the liquid refrigerant from the east or west canisters through the copper transfer tube located at the south side of the assembly. The aluminum “shadow plates” shade the canister closest to the sun. The other canister grows warmer and shifts the weight to the cooler canister, tilting the Track Rack™ until it points exactly at the sun and shades the canisters equally. The tracker will not track without the shadow plates.

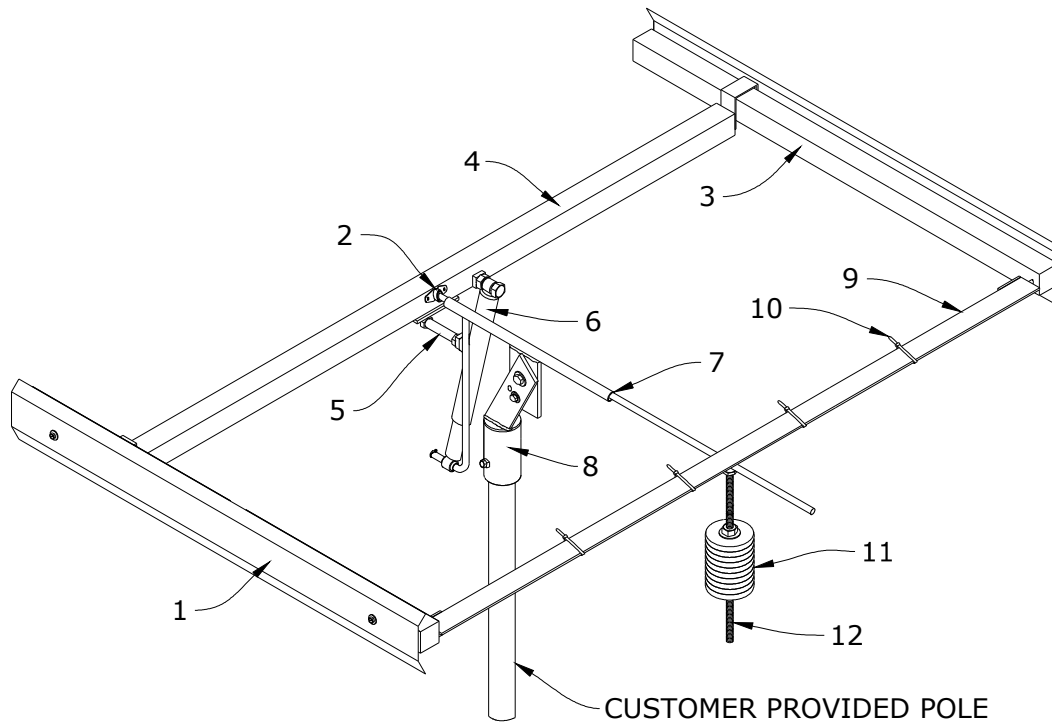
## **TOTAL TRAVEL**

The rack is designed to travel through a 90° arc and is still very effective down to 60° of rotation. A Track Rack™ is only stable if the axle is above the center of gravity. If the axle is below the center of gravity, the Track Rack™ will be unstable. Even in calm, sunny weather it will be hunting for, but overshooting, the sun. To make the tracker stable, lower the center of gravity by moving the counterweight down. A Track Rack™ with its center of gravity perfectly adjusted will reach its stop in the afternoon at about the same time all the refrigerant has moved to the west canister. It should not strain hard against the bumper stops. If the center of gravity is too low the tracker won't turn all the way to the bumper stops. If the center of gravity is too high the tracker will be unstable in the wind. There is broad latitude of adjustment that works for most Trackers.

## **SHOCKS AND THE BUMPER STOPS**

The shock absorber is the first line of defense for the Track Rack™ against wind. It's meant to prevent sudden gusts from pushing the rack off course, as well as restricting any violent movement that may harm the rack and modules. The shocks yield to a constant force by design, thus promoting tracking and, as a result, will be affected in a constant wind-loading situation. The bumper stop is the second failsafe in the structure. It prevents any catastrophic failure from occurring by limiting the overall travel of the Track Rack™.

# UTR-Series Parts List and Recommended Tools



| <b>Shadow Plates (#1)</b>                              | <b>Quantity</b> | <b>Axle Assembly / Gimbal Can (#7 &amp; 8)</b> | <b>Quantity</b> |
|--|-----------------|--|-----------------|
| 44" long Aluminum Shadow Plates (38" spacing)          | 2 ea.           | Axle Assembly                                  | 1 ea.           |
| 1/4"-20 x 3/8" ZP Round Head Slot Machine Screw        | 4 ea.           | 1/8" x 3" Cotter pin (pre-attached)            | 1 ea.           |
| 1/4" ZP Fender Washer                                  | 4 ea.           | Gimbal Can                                     | 1 ea.           |
| 1/4" SS Lock Washer                                    | 4 ea.           | Shaft collar                                   | 1 ea.           |
|  |                 | 5/32" Allen wrench                             | 1 ea.           |
| <b>Bearings (#2)</b>                                   | <b>Quantity</b> | 1/2" x 1 1/2" Yellow ZP Hex Bolt (Set Bolt)    | 1 ea.           |
| 3/4" insert bearings (pre-attached)                    | 2 ea.           | 1/2" x 1 1/2" ZP Hex Bolt                      | 1 ea.           |
|  |                 | 1/2" ZP Flat Washer                            | 2 ea.           |
| <b>Canister (#3)</b>                                   | <b>Quantity</b> | 1/2" ZP Lock Washer                            | 1 ea.           |
| 44" x 2" Canister                                      | 1 set           | 1/2" ZP Hex Nut                                | 1 ea.           |
|  |                 | 3/8" x 1" Yellow ZP Hex Bolt                   | 1 ea.           |
| <b>Top Rail (#4)</b>                                   | <b>Quantity</b> | 3/8" Yellow ZP Flat Washer                     | 1 ea.           |
| Top Rail assembly w/U-Brackets                         | 1 ea.           | 3/8" ZP Lock Washer                            | 1 ea.           |
| 5/16" x 3" ZP Hex Bolts                                | 2 ea.           |  |                 |
| 5/16" ZP Flat Washers                                  | 4 ea.           | <b>Bottom Rail (#9)</b>                        | <b>Quantity</b> |
| 5/16" ZP Nylock Nuts                                   | 2 ea.           | Bottom rail assembly                           | 1 ea.           |
|  |                 | 3/8" x 1" ZP Hex Bolt                          | 4 ea.           |
| <b>Bumper Bolt (#5) - (all parts are pre-attached)</b> | <b>Quantity</b> | 3/8" ZP Flat Washer                            | 8 ea.           |
| 5/8" x 4" ZP Hex Bolt                                  | 1 ea.           | 3/8" ZP Nylock Nut                             | 4 ea.           |
| Rubber Hose ( 3" )                                     | 1 ea.           |  |                 |
| 5/8" ZP Jamb Nut                                       | 1 ea.           | <b>Miscellaneous (#10)</b>                     | <b>Quantity</b> |
|  |                 | UV Pull Tie Straps                             | 4 ea.           |
| <b>Shock Absorber (#6)</b>                             | <b>Quantity</b> |  |                 |
| Small Shock  | 1 ea.           |  |                 |
| 5/8" x 3" ZP Hex Bolt                                  | 1 ea.           |  |                 |

|  |                 |  |                 |
|--|-----------------|--|-----------------|
| 5/8" ZP Hex Nut                                    | 1 ea.           |  |                 |
| Loctite Tube                                       | 1 ea.           |  |                 |
| <b>Module Mounting Hardware ( x # of modules )</b> | <b>Quantity</b> | <b>Counterweight Bar &amp; Counterweights ( #11 &amp; 12 )</b> | <b>Quantity</b> |
| 2" Stainless Steel J-Clip                          | 4 ea.           | 5/8" ZP All Thread Bolt ( 17 1/4" long )                       | 1 ea.           |
| 1/4"-20 x 5/8" SS Hex Bolt                         | 4 ea.           | Rubber Hose ( 5 1/2" long )                                    | 1 ea.           |
| 1/4"-20 x SS Hex Flange Lock Nut                   | 4 ea.           | 5/8" ZP Hex Nut  | 2 ea.           |
| 1/4" SS Flat Washer                                | 4 ea.           | 5/8" ZP Flat Washer  | 2 ea.           |
|  |                 | 5/8" ZP Lock Washer  | 2 ea.           |
|  |                 | 5/8" ZP Jamb Nut   | 1 ea.           |
|  |                 | 2 1/2lb Disk Weight  | 8 ea.           |

### **RECOMMENDED TOOLS:**

- (2) 15/16" combination wrenches
- (2) 9/16" combination wrenches
- (2) 1/2" combination wrenches
- (2) 3/4" socket or combination wrenches
- (1) flathead screwdriver
- (1) 7/16" socket or combination wrench

**NOTE TO INSTALLER:** The installer **MUST** provide the schedule 40 steel pipe. Before assembling your Track Rack™, use the list above to assure that you have all of your components. In the event that you may have missing parts, contact **Zomeworks Customer Service @ 1-800-279-6342**. **PLEASE** have your **SALES ORDER NUMBER, SERIAL NUMBER, DATE OF PURCHASE,** along with your **DEALER NAME** when calling.

# **UTR-SERIES POLE INSTALLATION**

**IMPORTANT NOTE: ZOMEWORKS CORP. ASSUMES NO LIABILITY FOR THE STRUCTURAL INTEGRITY OF THE POLE AND ITS INSTALLATION. SOIL AND WIND CONDITIONS VARY. IF THERE IS ANY DOUBT, CONSULT WITH A LOCAL STRUCTURAL ENGINEER.**

### **LOCATION CONSIDERATIONS:**

For installations in sandy or muddy areas, for tall mounting poles, or for any mounting different from the situations described in these instructions, you will need to consult a local structural engineer. Large TRACK RACKS™ can receive significant wind loads, so a strong mounting pole and foundation is very important. Also, be aware of turbulence near buildings or sudden changes in terrain. The site should receive the maximum possible sunlight from AM to PM, in the winter and summer. Avoid shade from buildings and trees, including shade that may occur in other seasons. The height of the pole should result in adequate ground clearance for the mounted modules.

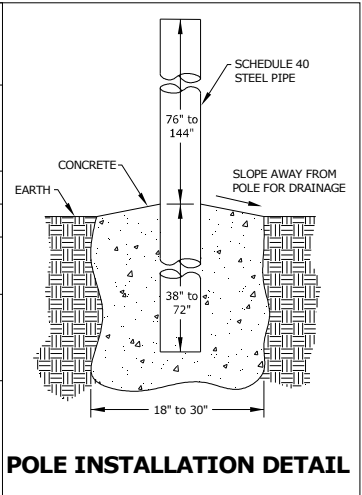
**CAUTION – BE CAREFUL WORKING AROUND THE RACK AFTER INSTALLATION ON THE POLE. SOME OF THE STRUCTURAL MEMBERS MAY BE AT HEAD LEVEL.**

- The customer provided pole is a 2 1/2" (nominal) schedule 40 steel pipe with a 3" OD. Pole can be black or galvanized steel pipe.
- **Note:** Heavier schedule steel pipe schedule 80, schedule 160 can be used as long as OD is 3".
- Using the chart below, find the **MINIMUM** acceptable pole height above your finished grade. It is strongly recommended that the pole height be to our minimum specifications.
- The minimum recommended hole depth is 1/3 the pole length, 1/3 in the ground, 2/3 above the ground.  
**Example:** 5' below grade, 10' above grade, total of a 15' pole.
- Center the pipe in the hole, and using a level, make sure pole is vertical.
- Fill the hole with concrete (3000-psi minimum strength), and check level of the pole.

- The pole may be filled with concrete for added strength (only to approximate ground level).
- Allow concrete and pole to set for a minimum of 36 hours **BEFORE** installing the Track Rack™.

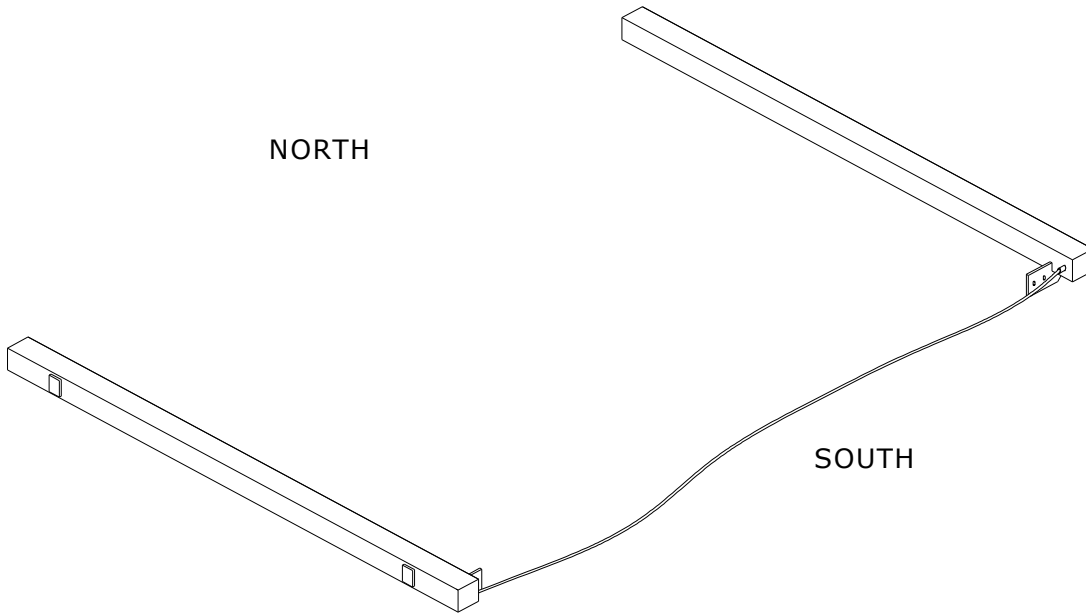
## **MOUNTING POLE RECOMMENDATIONS:**

| Description   | Universal<br>UTR-020                              | K-Series<br>UTRK-040                               | F-Series<br>UTRF64                                 | F-Series<br>UTRF90                                  | F-Series<br>UTRF120                                  | F-Series<br>UTRF168                                  |
|---|---|--|--|---|--|--|
| Minimum<br>Schedule 40<br>Steel Pipe                              | 2.5"<br>(2-7/8" OD)                               | 3"<br>(3-1/2" OD)                                  | 6"<br>(6-5/8" OD)                                  | 6"<br>(6-5/8" OD)                                   | 6"<br>(6-5/8" OD)                                    | 8"<br>(8-5/8" OD)                                    |
| Min. Pole Height  | 76"   | 84"  | 96"  | 108"  | 120"   | 144"   |
| Min. Pole Depth   | 38"   | 42"  | 48"  | 54"   | 60"  | 72"  |
| Ground Clearance at<br>45° Tilt N/S & E/W                         | 40"   | 29"  | 30"  | 21"   | 33"  | 50"  |
| Minimum<br>Recommended<br>hole diameter                           | 18" diameter<br>Pipe set in<br>concrete           | 18" diameter<br>Pipe set in<br>concrete            | 24" diameter<br>Pipe set in<br>concrete            | 24" diameter<br>Pipe set in<br>concrete             | 24" diameter<br>Pipe set in<br>concrete              | 30" diameter<br>Pipe set in<br>concrete              |
| Rack<br>Dimensions<br>(up to but <b>NOT</b> to<br>exceed Sq. Ft.) | 67" EW/<br>44" NS<br>20 Sq. Ft. of<br>Module Area | 124" EW/<br>48" NS<br>40 Sq. Ft. of<br>Module Area | 124" EW/<br>80" NS<br>64 Sq. Ft. of<br>Module Area | 146" EW/<br>120" NS<br>90 Sq. Ft. of<br>Module Area | 146" EW/<br>120" NS<br>120 Sq. Ft. of<br>Module Area | 169" EW/<br>120" NS<br>168 Sq. Ft. of<br>Module Area |



**IMPORTANT NOTE: TO MINIMIZE CONFUSION DURING INSTALLATION MOST OF THE HARDWARE MENTIONED IN THE FOLLOWING STEPS WILL COME PARTIALLY ASSEMBLED ON THEIR RESPECTIVE PARTS. WHEN RE-INSTALLING THE HARDWARE PLEASE MAKE SURE TO FOLLOW DIAGRAMS EXACTLY TO MINIMIZE POSSIBILITY OF DAMAGE TO TRACKER.**

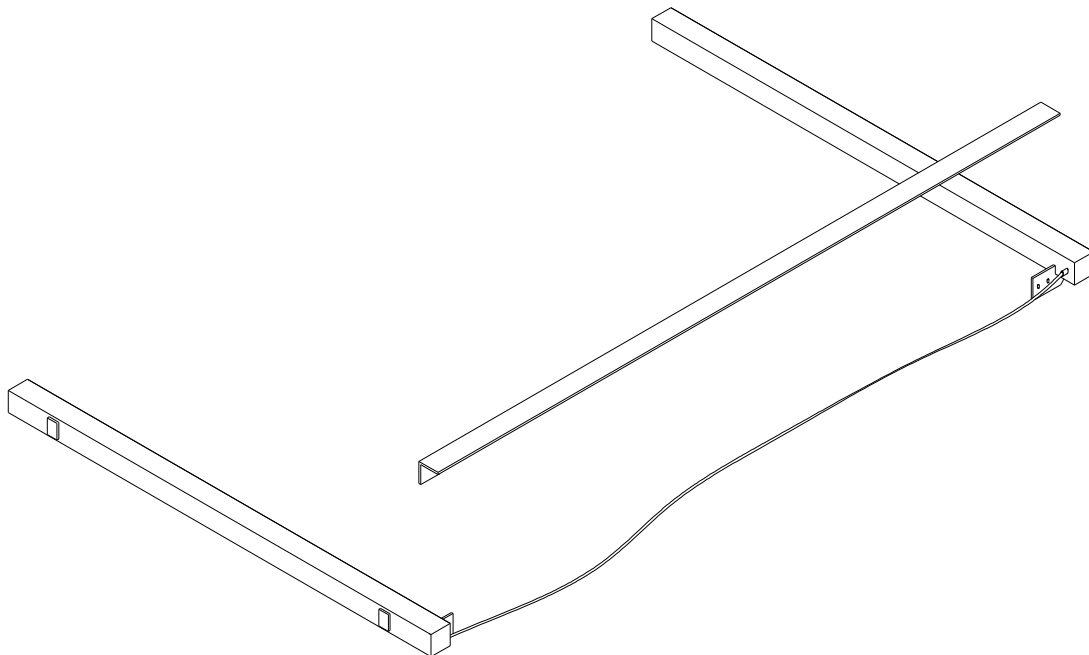
**Step 1: Laying out the canister set:**



**Diagram 1**

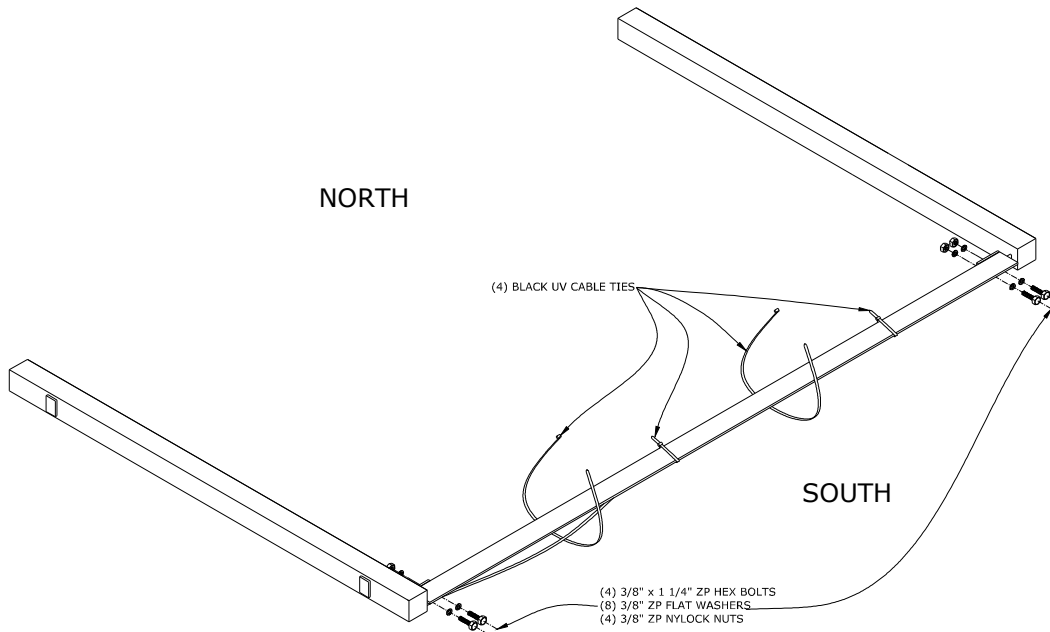
- Remove Canister set from box and carefully unwind the copper transfer tube and place on the ground or work surface as shown. Make sure canister tabs are on the bottom.

**Step 2: Bottom Rail attachment:**



**Diagram 2a**

- Separate the top rail and bottom rail and slide the bottom rail in between the canister tabs and the crossover tube.

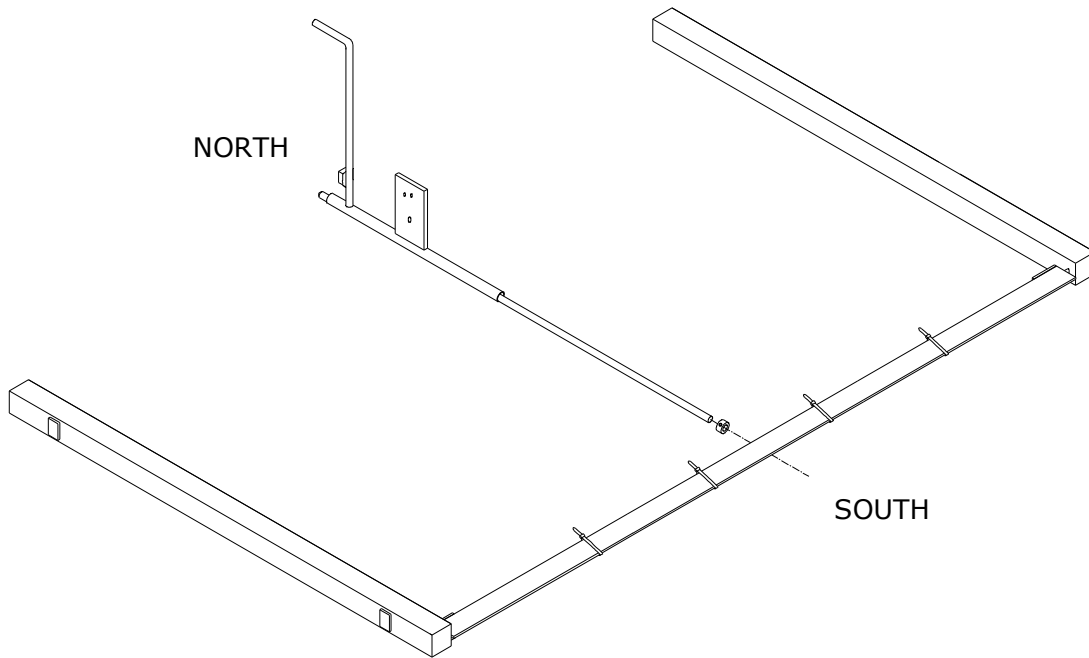


**Diagram 2b**

- Remove the 3/8" Bolts, Washers and Nylock Nuts from the Hardware bag and insert them through the bottom rail and canister tabs as shown and tighten completely.
- Secure the 4-UV Cable Ties around both the bottom rail and the transfer tube, making sure not to pinch the transfer tube between the cable tie and the bottom rail. This step can be completed at a later time if so desired.



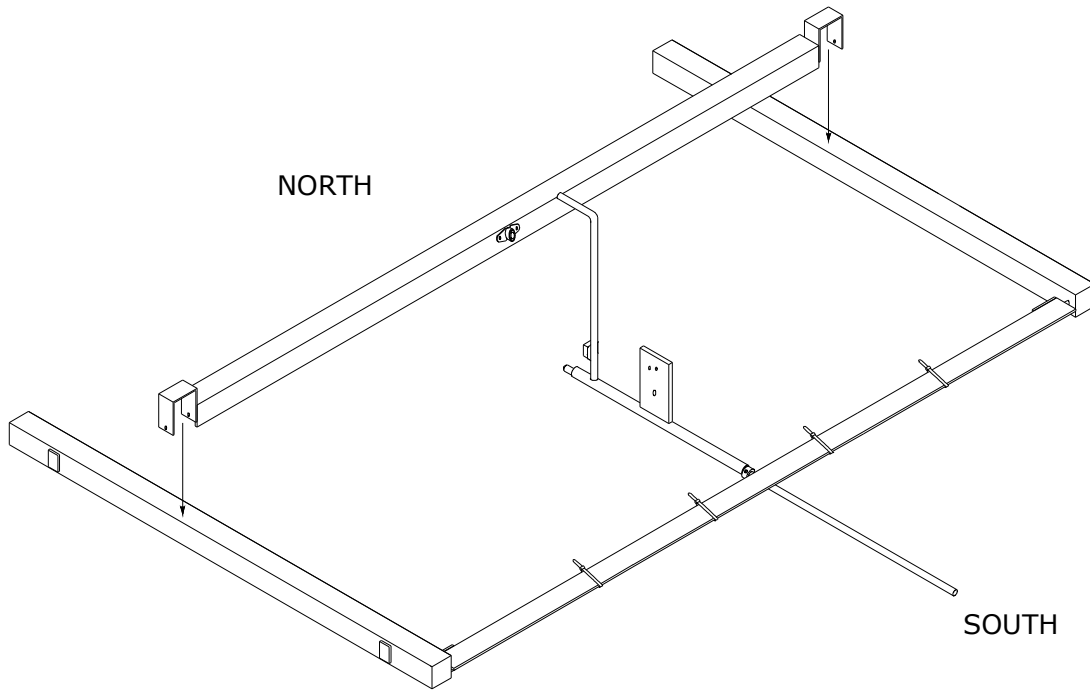
### Step 3: Attaching the Axle Assembly:



**Diagram 3**

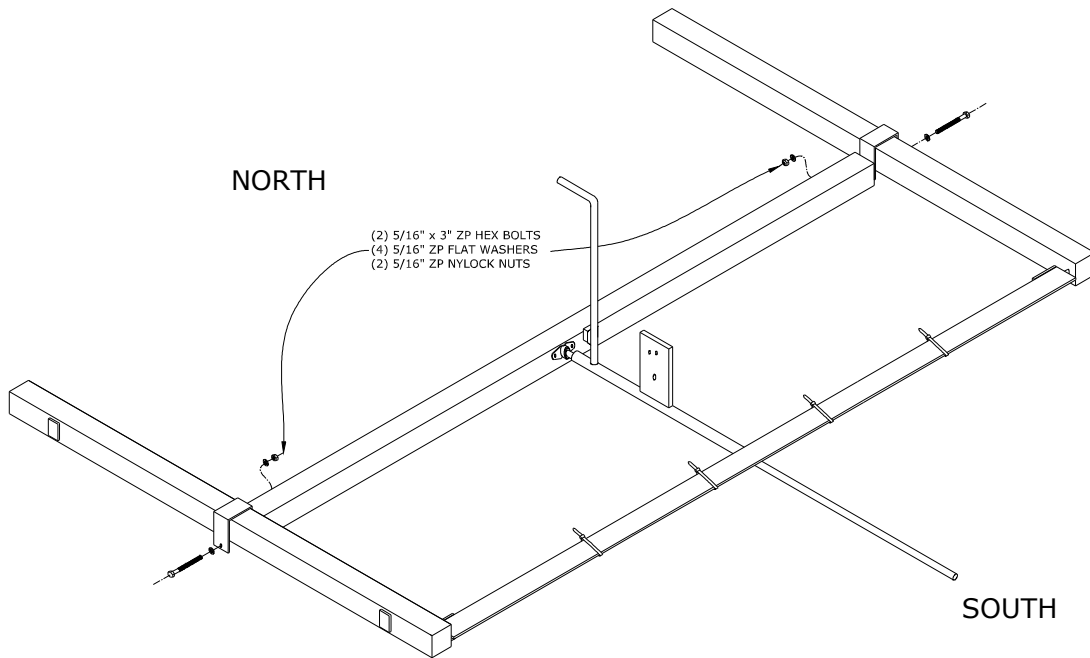
- Remove the Axle Assembly from the box. The axle assembly will have the shock and bumper bolt taped to the bent rod. There is no need to remove them as it will make this step more difficult. The shock is also already pre-attached to the bent rod and secured with a cotter-pin.
- Remove the shaft-collar and slide over the end of the axle and as far up as possible and lightly secure with the provided 5/32" Allen Wrench.
- With the axle assembly in the position shown slide the axle through the bearing on the bottom rail until the bearing comes in contact with the shaft collar. It may be necessary to wiggle the axle as you slide it through the bearing.
- The Gimbal can also come pre-attached; it is not necessary to remove it.

## Step 4: Top Rail Attachment:



**Diagram 4a**

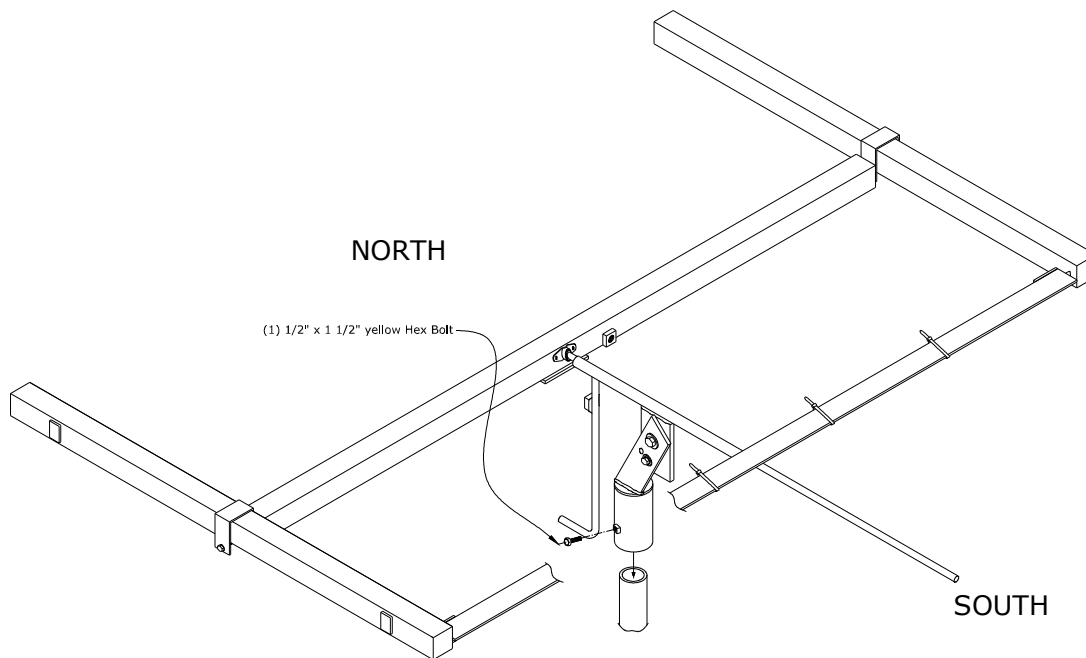
- Remove the remaining rail from the box and position as shown in Diagram 4a & 4b.
- Slide the rail U-brackets over the canisters and slide the entire rail up against the axle assembly, making sure to seat the axle into the bearing on the top rail.



**Diagram 4b**

- Remove the 5/16” bolts, flat washers and Nylock nuts from the hardware bag and insert them through the top rail U-brackets as shown in Diagram 4b and tighten enough to keep the rails from sliding on the canisters.

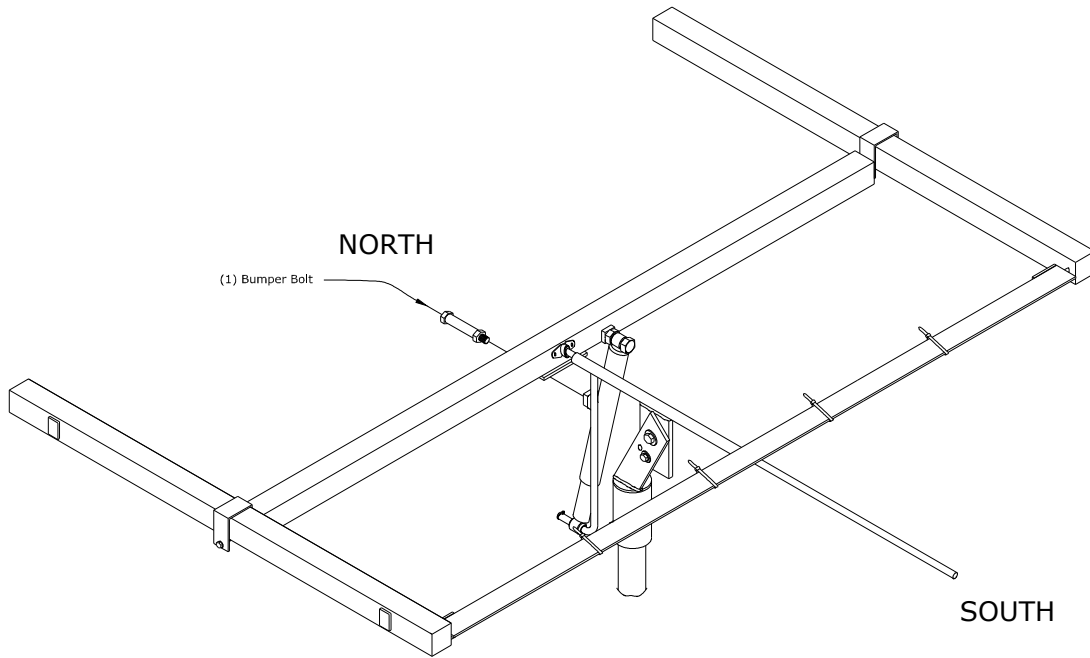
**Step 5: Mounting the Tracker on the pole:**



**Diagram 5**

- On the gimbal can that is mounted to the axle assembly, make sure to loosen the set bolt to allow enough space for the mounting pole to slide inside.
- While holding the top rail firmly in place against the north end of the axle assembly, lift the tracker atop the pole.
- When you lift the tracker off of the ground allow the axle assembly to rotate downward as shown in Diagram 5.
- Lower the gimbal can onto the pole and tighten the set bolt. This may distort the gimbal can a slight bit, but that is normal. Make sure not to cross thread the set bolt as this will allow the tracker to spin atop the pole. For added protection against spinning, the installer could pre drill a 1/2” hole in the mounting pole for the set bolt to slide into.

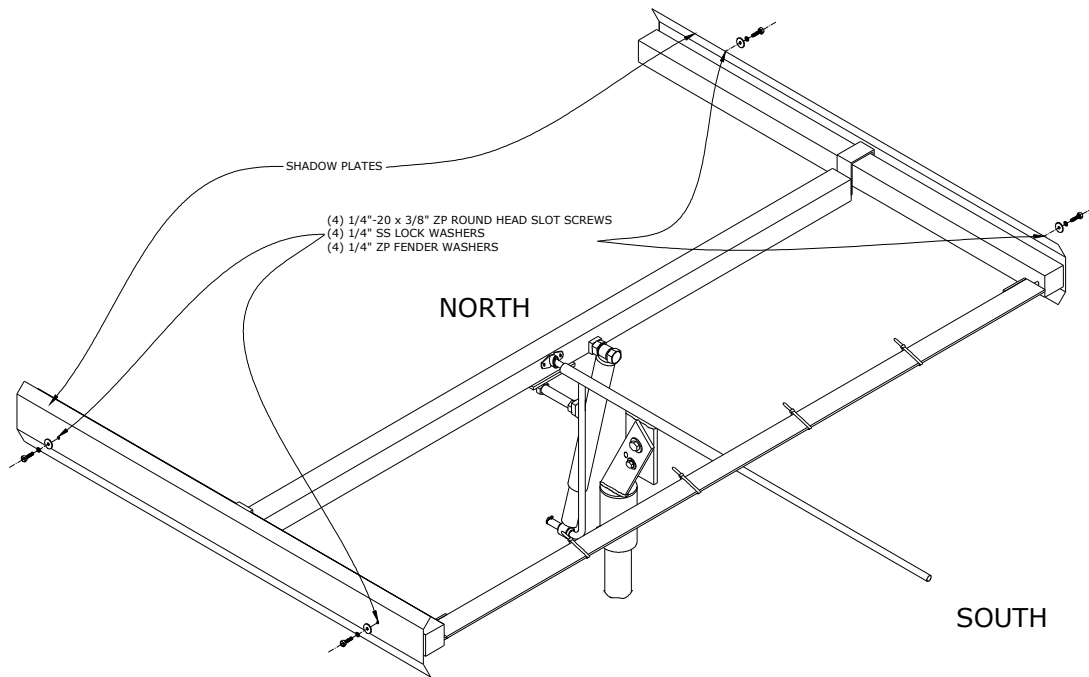
## Step 6: Shock and Bumper Bolt installation:



**Diagram 6**

- Remove the tape and shrink wrap from the shock absorber and bumper bolt.
- Align the upper mount of the shock absorber with the square nut that is welded onto the top rail.
- Apply Loctite to the shock bolt then thread bolt into nut as far as it will go and tighten the jamb nut against the welded nut.
- Thread the bumper bolt into the square nut that is welded to the north side of the axle assembly on the bent rod. Repeat the bolt tightening process of the shock absorber with the bumper bolt.

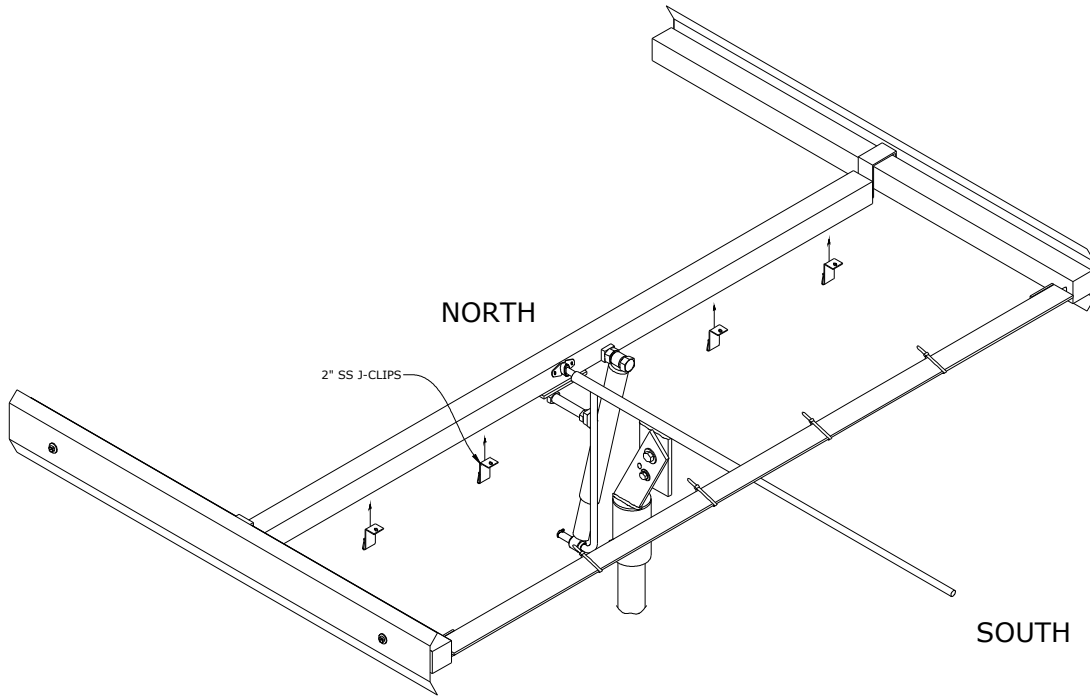
## Step 7: Shadow Plate Installation:



**Diagram 7**

- Remove the shadow plate hardware bag from within the main hardware bag. There will be one extra set of hardware.
- Screw the 1/4" round head slot screws through the lock washer and then the fender washer, through the shadow plate and into the welded rectangular nuts on the canisters.
- Make sure that the Zomeworks logo is right side up on one of the shadow plates.
- The tracker will **NOT** function **WITHOUT** the shadow plates installed.

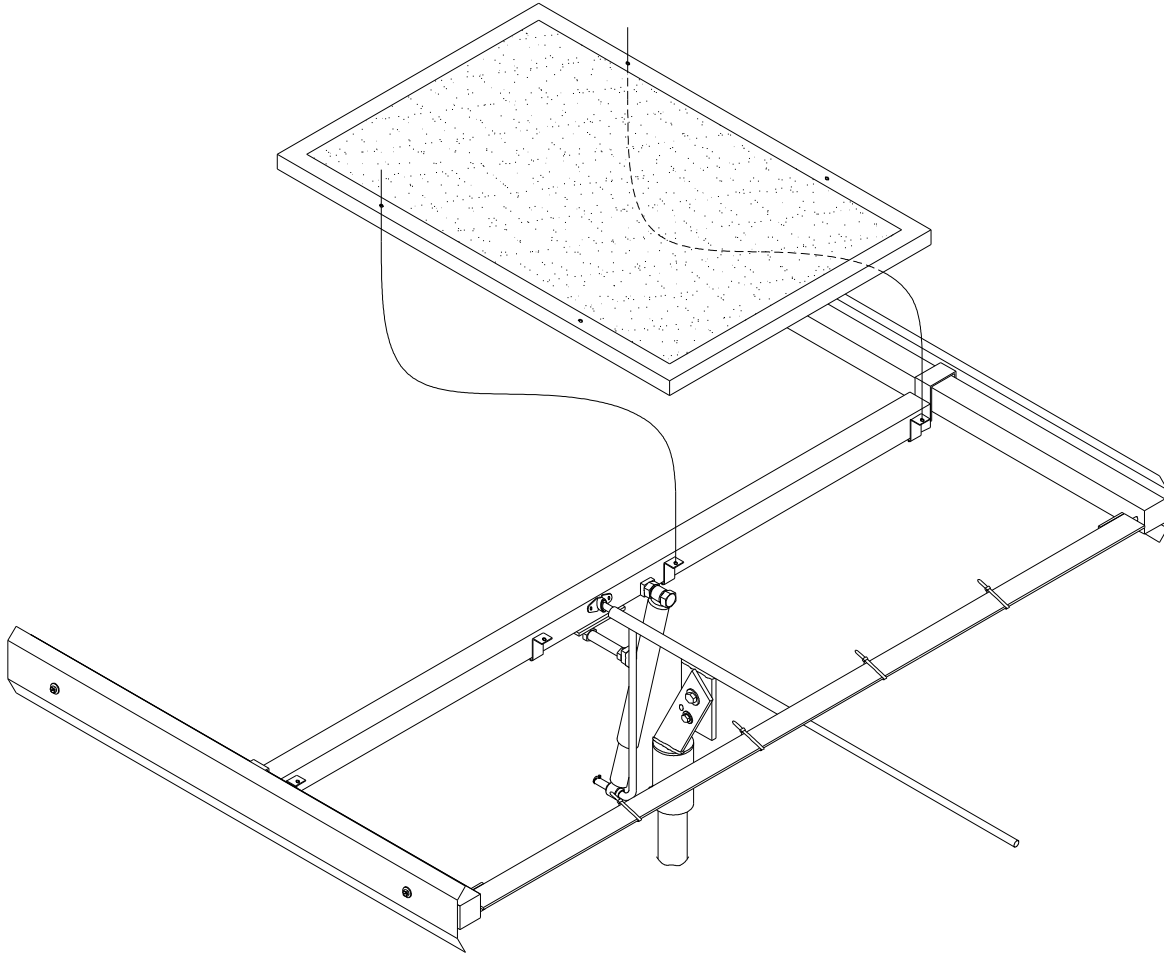
**Step 8: J-clip attachment:**



**Diagram 8**

- Remove the J-clips from the hardware bag and slide onto the top and bottom rails from the bottom as shown in Diagram 8. The J-clips on the bottom rail should be mounted with the tab facing the top rail.

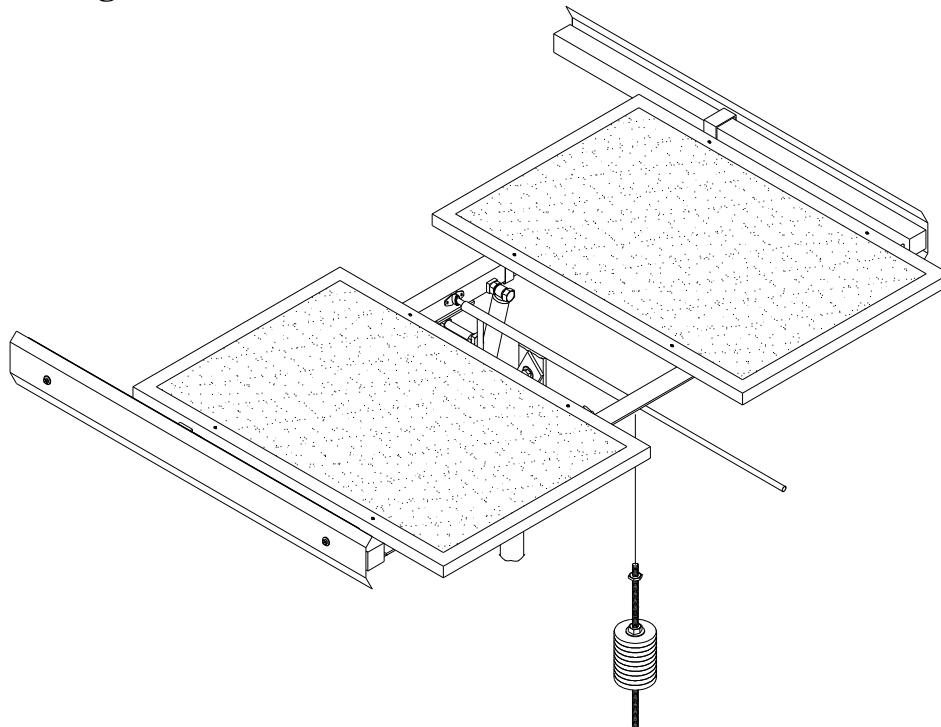
## Step 9: Panel installation:



**Diagram 9**

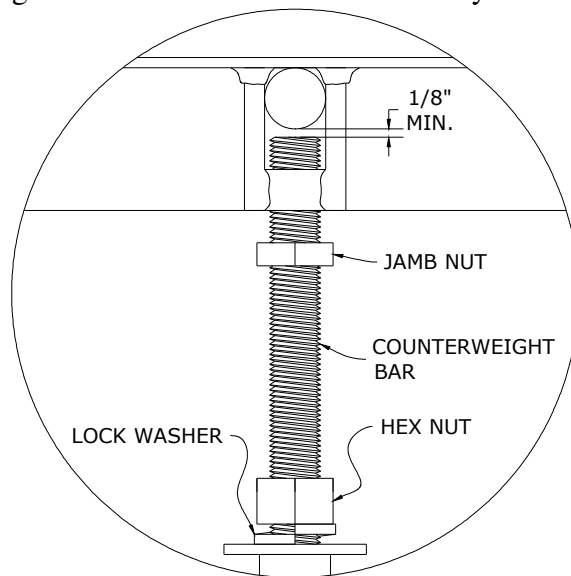
- Remove the ¼” Stainless steel module mounting hardware bag from the main hardware bag and fasten one side of the center solar panel, or if there are two panels then choose which to fasten first, to the top rail as shown in Diagram 9. When choosing the solar panel mounting holes, choose the holes that are 32” or less, center to center. **There should also be at least 2” between the edge of the solar panels and the canisters to prevent inadvertent shading.**
- Loosen the 5/16”x 3” bolts on the top rail U-brackets and slide the canisters and bottom rail away from the top rail until the J-clips on the bottom rail align with the second set of mounting holes on the solar panel. This should be done by grasping each canister by the south end and pulling south.
- Re-tighten the 5/16” x 3” bolts on the top rail U-brackets and finish fastening the solar panel to the bottom rail. You may also fasten the remaining panels to both of the mounting rails.
- You can now fully tighten all of the U-bracket bolts.
- After all bolts have been tightened and all solar panels installed, loosen the shaft collar and slide down the axle so that it just rests on the bottom rail bearing and tighten.
- One word of warning, the solar panels **MUST** be equally spaced from the center-line of the tracker in order to track the sun correctly.

## Step 10: Counterweight Installation:



**Diagram 10a**

- Remove the Counterweight bar and the box containing the 8 – 2 1/2lb weights from the shipping box.
- Remove the nuts and washers from the side of the counter weight bar opposite of the jamb nut and slide all of the 2 1/2lb weights onto the bar and over the rubber sleeve.
- Re-thread the nuts and washers that were removed in the previous step, back onto the counterweight bar.
- Thread the counterweight bar into the welded nut on the lower side of the bottom rail according to Diagram 10b and tighten the jamb nut against the welded nut. We will worry about balancing the tracker later.



**Diagram 10b**

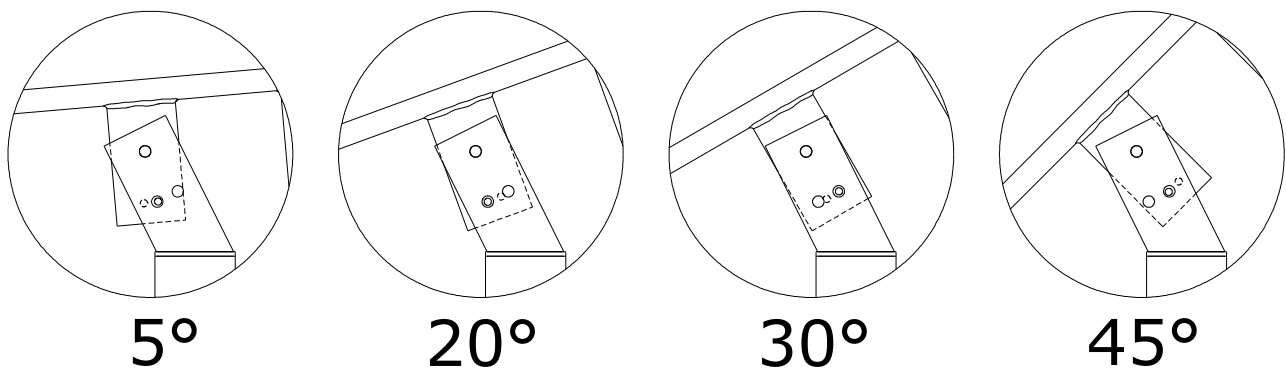


### Step 11: Balancing the Tracker:

- The Tracker **MUST** be balanced above its pivot axis.
- Adjust the tracker to the seasonal adjustment required for your area and season.
- Carefully watch the tracker during its normal operation. At the end of its rotation the tracker should just come to rest on the bumper bolt.
- With the counterweights at their lowest location on the counterweight bar, the tracker may not rotate in its full arc throughout the day.
- If the tracker stops short of the bumper bolt, move the counterweights up the counterweight bar an inch or two until the tracker just rests on the bumper bolt.
- If the weights are moved too far up the counterweight bar, the tracker may become top heavy and will not track correctly. A top-heavy tracker will constantly hunt for and overshoot the sun.

### Step 12: Seasonal Adjustment:

- In such installations where the tracker is in a remote location then the tracker should be set at your latitude year round. To do this, adjust tracker to face the sun at mid-day on or around the 20<sup>th</sup> of March.
- If the tracker is installed in a location that would allow multiple seasonal adjustments then follow the steps below.
  - In March position the tracker 15 degrees above your latitude and leave at this setting until September.
  - In September reposition the tracker to 15 degrees below your latitude and leave at this setting until March.
- See Diagram 12 for seasonal adjustment positions.



**Diagram 12**

- **GO BACK AND MAKE SURE ALL BOLTS AND SCREWS ARE TIGHTENED.**
- **ZOMEWORKS ALSO RECOMMENDS GREASING THE ENTIRE BARE-METAL PORTION OF THE AXLE WITH A HEAVY DUTY GREASE TO PREVENT THE ONSET OF CORROSION.**

# UTR-SERIES TRACKER TROUBLESHOOTING

## **TRACKER SITS LEVEL, LEANS TO ONE SIDE, OR DOES NOT MOVE:**

1. Manually move tracker through its entire range of motion. Check for any mechanical interference and correct if necessary. You **MUST** grease the bearings regularly, **AT LEAST TWICE A YEAR** (See warranty).
2. Check shadow plates for proper installation. The tracker will **NOT** work **WITHOUT** them.
3. Be sure the Track Rack™ is pointing south (in the Northern Hemisphere), the copper transfer tube is mounted on the south end of the frame and the tube is not crimped in any way.
4. Check for any wiring which may stop the Track Rack™ from turning freely. Check wiring and junction boxes for equal balancing on the east and west sides.
5. A shock absorber may be sticking. On a calm sunny day remove the shock from the top rail. If it tracks without the shock, call **ZOMEWORKS**. The shock absorber may be defective. **(SHOCKS ARE WARRANTED FOR 2 YEARS ONLY)**
6. The Track Rack™ moves when sunlight warms one canister, which then forces refrigerant into the cooler canister. You may simulate the sunlight's effect by warming the lower canister with a hair dryer or carefully with a hand torch (Alternately, you may also cool the upper canister with wet towels or a cold water spray). Within 10 minutes, the Tracker should begin to rotate towards the cooler canister. If the Track Rack™ does not move, and you have checked the assembly for movement, the Tracker may have lost its charge. Call your dealer or your **ZOMEWORKS** representative.

## **TRACKER IS SLOW TO WAKE UP:**

1. Check that Track Rack™ is getting full early morning sun shining underneath the tracker. The canisters must "see" the sun.
2. Check modules and electrical junction boxes for equal balancing on the east and west sides.
3. Check bearings for lubrication so the tracker moves freely.  
**NOTE: IF THE TRACK RACK™ IS INSTALLED IN A CORROSIVE CLIMATE, CHECK THE AXLE AND BEARINGS FREQUENTLY FOR RUST OR CORROSION; YOU WILL NEED TO GREASE YOURS 2 - 3 TIMES PER YEAR. COATING THE AXLE AND BEARINGS WITH GREASE WILL HELP PREVENT CORROSION.**
4. The shock absorber may be sticking when collapsed or extended. Remove the shock bolt at the top rail and check the shock motion for "stick". If the tracker "wakes up" without the shocks, the shocks are likely defective. Contact your dealer or **ZOMEWORKS** for replacement. **DO NOT LEAVE THE TRACKER DEFENSELESS WITHOUT SHOCKS; A STRONG WIND COULD DAMAGE IT. TIE IT DOWN.**

## **TRACKER DOES NOT HIT THE BUMPER STOPS:**

1. The tracker is very effective even if it doesn't track to the bumper limits. The bumper stops are set for approximately 90° of rotation.
2. To increase the rotation, raise the counterweight. But remember: raising the counterweight will make the tracker less stable in the wind. For optimum performance you must balance rotation against stability. If the tracker rotates further to one side than the other, the tracker may be out of balance, refer to **Step 11** of the instructions and rebalance the rack.

## **IMPORTANT NOTES TO REMEMBER:**

1. The Track Rack™ must be assembled according to the instructions.
2. The Track Rack™ should move smoothly through the entire range of motion, with the only drag supplied by the shock absorbers. If friction or interference is noted, check assembly against the instructions and make required corrections.
3. The photovoltaic modules should be centered and mounted evenly as per the instructions. The canisters on each side of a Track Rack™ should not be “shaded” by the photovoltaic modules.  
**YOU MUST MAINTAIN AT LEAST A 2” MINIMUM CLEARANCE, see Step 9.**
4. Counterweight must be properly adjusted per instructions.
5. The Track Rack™ must be in a location that maintains a clear line-of-sight to the sun throughout the day, and during different seasons. Remember that the sun’s position in the sky changes from season to season.
6. To maintain optimum sun exposure you may want to adjust your Track Rack™ for the winter & summer seasons. **See Step 12.**
7. A shadow from structures, trees or other objects that may miss the Tracker in the summer may fall across it in the winter, preventing its operation.

## **MAINTENANCE:**

1. The maintenance required is lubrication of greaseable bearings **TWICE A YEAR** and paint touch up if necessary to prevent rusting.
2. If the Track Rack™ is installed in a corrosive climate, check the axle and bearings frequently for rust or corrosion; you may need to grease the bearings 3 to 4 times per year and keep the axle coated with grease.
3. Check that the shock bolts and shock arm bracket bolts are tight. A tracker is defenseless against the wind without functioning shock absorbers. If the tracker, for whatever reason, does not have shocks attached secure the tracker in one position to prevent wind damage.

## **IMPORTANT FINAL NOTE:**

**YOUR ZOMEWORKS TRACK RACK™ WILL MOVE IN THE WIND, MUCH AS TREES DO. THIS MOTION IS EXPECTED AND DOES NOT HARM THE TRACKER OR ITS PERFORMANCE. UNLESS THE TRACKER IS BLOWN FAR OFF THE SUN AND STAYS THERE, THE ENERGY GAIN IS HARDLY AFFECTED. OVERALL, TRACK RACKS™ FAR EXCEED THE PERFORMANCE OF A FIXED ARRAY. IF HIGH WINDS ARE EXPECTED, AS IN A HURRICANE, SECURE THE TRACKER AS HORIZONTAL AS POSSIBLE AND TIE DOWN.**

# **ZOMEWORKS TRACK RACK™**

## **Limited Warranty**

Zomeworks Corporation guarantees, to the original owner, its Track Rack™ passive solar tracker and fixed racks against defects in materials and workmanship for TEN YEARS from date of purchase. Shock absorbers and Bearings are warranted against defects in materials and workmanship for TWO YEARS from date of purchase. An extended warranty for shock absorbers and bearings is available; please contact Zomeworks Corporation for details.

This warranty is limited to the repair or replacement of the Track Rack™ in compliance with the instructions provided by Zomeworks. **IT IS THE OWNER'S RESPONSIBILITY TO GREASE THE BEARINGS AT LEAST TWICE PER YEAR.**

Some problems can be solved with a simple on site adjustment. Please contact Zomeworks Corporation at the address and phone number below before returning your product. You must have an RMA number to return the product for warranty repair. If possible, return only the parts that are defective or damaged. Reuse your original packing material, if it's available, or call the factory for further instructions.

**IT IS THE OWNER'S RESPONSIBILITY TO CHECK FOR DAMAGED OR MISSING PARTS IMMEDIATELY UPON RECEIPT OF THE TRACK RACK™.** Freight claims are time sensitive and require immediate notice. If the packaging is damaged, write this on the receipt (freight bill) and have the driver initial this. Use this information to contact your freight carrier when damage is noticed.

Upon receipt of a defective part(s), freight pre-paid, Zomeworks will determine whether the defect was caused in manufacturing. If so, the part(s) will be repaired or replaced at no charge to the customer, and will be returned freight pre-paid. If the damage is not a manufacturing defect, the factory will contact the customer before any repairs are made. Original owners should contact their dealer if an immediate replacement part(s) are needed. Individuals contacting Zomeworks Corporation desiring immediate replacement part will be required to provide Zomeworks Corporation with a valid credit card number to be charged for the replacement part(s). Zomeworks Corporation will credit the valid credit card upon receipt of the warranted returned part(s) from the individual.

This warranty does not cover rusting of the steel due to a corrosive environment (such as salt air). Standard Track Racks™ are painted mild steel and will require maintenance. It is the owner's responsibility to maintain the paint on the Track Rack™ in order to protect the steel against corrosion. For corrosive environments, Zomeworks Corporation can manufacture the Track Racks™ with an epoxy primer.

### **Limitations on Warranty**

The above ten-year and two-year warranties are the only warranties and remedies provided by Zomeworks to user. Zomeworks disclaims all implied warranties of merchantability and fitness. In no event shall Zomeworks be liable for consequential or incidental losses or damages under any theory of liability, except to the extent that this limitation is found to be unenforceable under applicable state law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

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