



## **INSTALLATION INSTRUCTIONS**

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## HARDWARE LIST

Description	Quantity	Part Number
<b><u>Cable hardware</u></b>		
1/4" Cable clamps	4	4100CC
<b><u>Anti-Lift kit (optional) hardware</u></b>		
1/4" - 20 x 1 3/4" hex head bolt	4 per kit	1783
1/4" - 20 lock nut	4 per kit	2316
<b><u>Side to Side kit hardware (1 kit for every two bows)</u></b>		
3/8" flat washer	2 per kit	2875
3/8" - 16 lock nut	2 per kit	2874
3/8"-16 x 5" hex head bolt	2 per kit	2060
<b><u>Tarp hold down hardware (Installed on system with front beam)</u></b>		
7/16" - 14 x 6" hex head bolt	4	2106
7/16" - 14 lock nut	8	1181
7/16" flat washer	8	1182
1/4" flat washer	5	1536
1/4" - 20 x 3/4" self tapping screw	5	3299
<b><u>Bow hardware</u></b>		
1/4" - 20 x 2" hex head bolt	2 per bow (*)	4670
1/4" - 20 lock nut	2 per bow (*)	2316
1/4" flat washer	4 per bow (*)	1536
1/4" - 20 x 3/4" self tapping screw	2 per bow	3299
(*) One of these bolts, washers, and lock nuts are already installed on the bow		
<b><u>Rock Bow (optional) hardware</u></b>		
1/4" flat washer	4	1536
1/4" - 20 x 3/4" self tapping screw	2	3299

### BEFORE INSTALLATION BEGINS

- READ AND UNDERSTAND OWNER'S MANUAL.
- UNPACK SYSTEM AND CHECK ALL HARDWARE AGAINST HARDWARE LIST.

## **Before installing your BOW-slider system**

**Note:** For the BOW-slider to work properly be sure that the side rails are level from front to rear and free of defects that would prevent proper sliding motion of bows. If your truck/trailer side rails are not level or have defects in them, then you will need to fix this problem before continuing on with this installation.

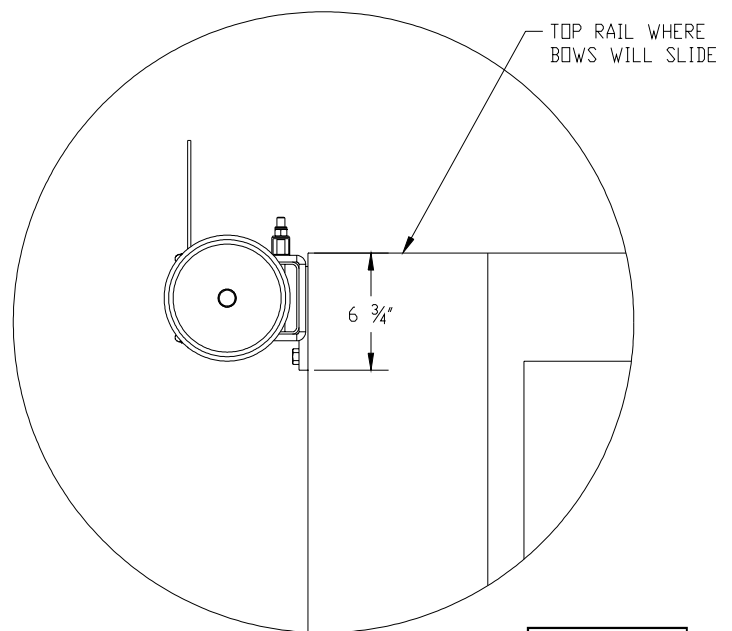
## **Installing the Front Mount Assembly (systems with front beams - see next page for systems without front beam).**

**Note:** The BOW-slider system is approximately 2 feet in length when in the uncovered position. If you can not allow two feet at the front of your truck/trailer opening to be covered then it will be necessary for you build an extension to the front of your opening to mount front assembly.

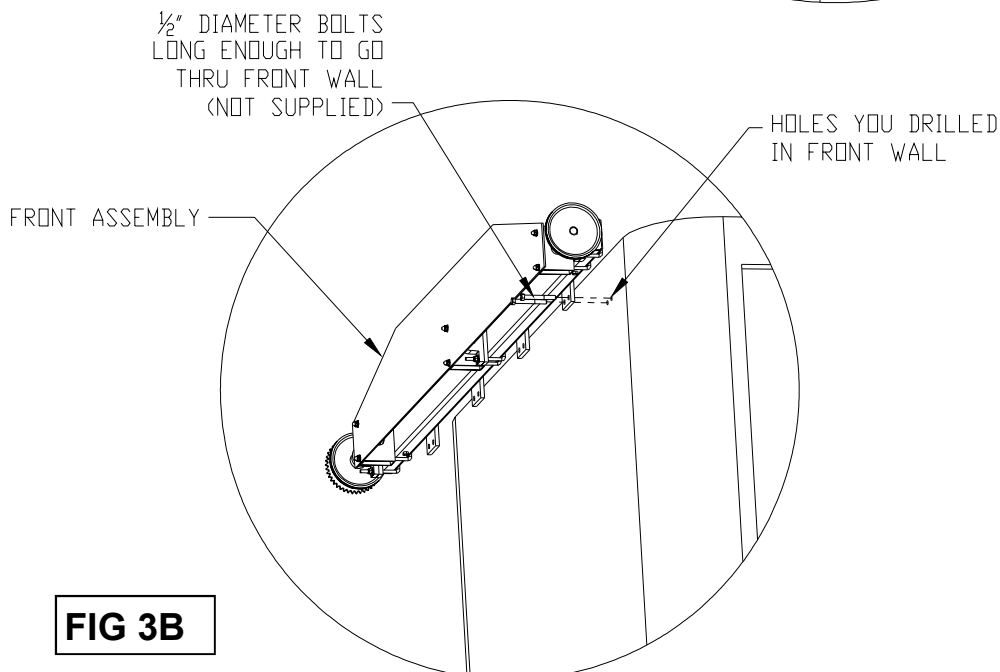
1. Draw a line on the front wall 6 3/4" below the rail that the bows will be sliding on. Place front assembly against the front outside wall of the truck/trailer opening. The front assembly should be centered side to side with bottom of mounting tabs on line you just drew (see figure 3A).

**Note:** If you have a steel body you can weld the front assembly directly to the body and skip the rest of the steps on this page.

2. Use the holes in the front assembly as a guide to drill holes in the front wall to mount the front assembly (see figure 3B). Attach front assembly using eight 1/2" bolts and lock nuts (not provided).



**FIG 3A**

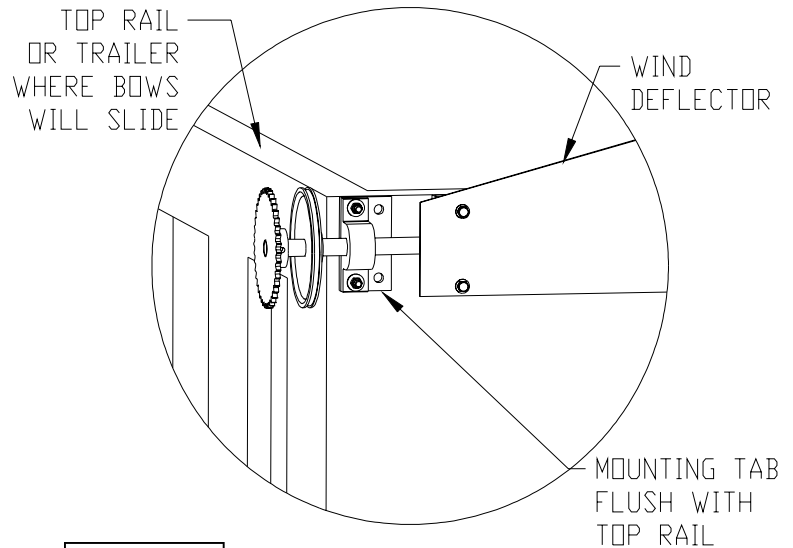


**FIG 3B**

## Installing the Front Mount Assembly (systems without front beams).

**Note:** The BOW-slider system is approximately 2 feet in length when in the uncovered position. If you can not allow two feet at the front of your truck/trailer opening to be covered then it will be necessary for you build an extension to the front of your opening to mount front assembly.

1. Place front assembly against the front outside wall of the truck/trailer opening. The front assembly should be centered side to side with top of mounting tabs flush with top rail of truck/trailer where the bows will be sliding. (see figure 4A).



**FIG 4A**

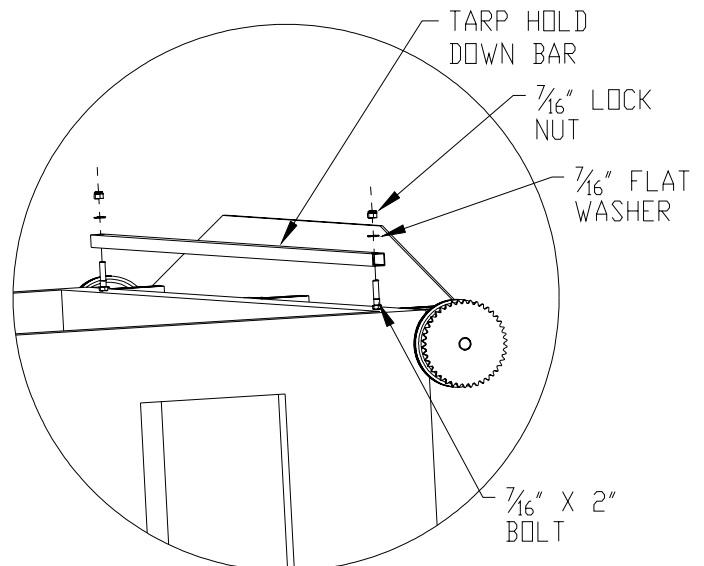
**Note:** If you have a steel body you can weld the front assembly directly to the body and skip the next step (step 2).

2. Use the holes in the mounting tabs as a guide to drill six holes (3 mounting tabs with two holes each) in the front wall. Attach front assembly using six 1/2" bolts and lock nuts (not provided).

## Installing the tarp hold down bar (systems without front beams).

**Note:** There are two options to attach tarp to front of trailer. Option one (requires some prep as described below) is to attach tarp with hold down bar, self drilling screws and bolts. Option two is to attach tarp with strip of metal and self drilling screws.

1. If you plan on using the hold down bar, place hold down bar on front rail of trailer, centered side to side. Use hold down bar as template and mark location of holes in hold down bar on top rail of trailer.
2. If you have a steel trailer you can place the head of a 7/16" x 2" bolt (not provided) in the location you just marked and weld bolts in place. Slide hold down bar over bolts and hold in place with washer and lock nut.



**FIG 4B**

3. If you have an aluminum trailer you will need to drill and tap a 7/16" hole in the location you just marked and then attach hold down bar to top rail with a 7/16" x 2" bolt (not provided) and washer.

## Installing the Rear Pulley Assemblies

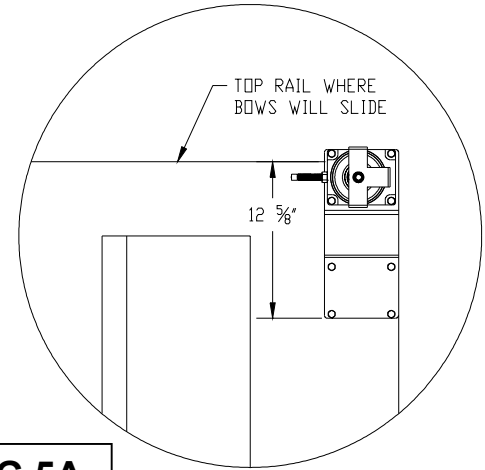
**Note:** The rear pulley and front pulley must be the same distance apart on both sides of truck/trailer to ensure smooth operation of the system, dimension X must be the same on both sides of trailer (see FIG 5D).

**Note:** The steel bracket for the rear pulley is only required if you plan on welding to a steel body or if you need to clear items on the side of the truck/trailer. The pulley can be mounted on either side of the bracket (see FIG 5B and 5C). Use washers between pulley and bracket to align front pulley with rear pulley, dimension Y must equal dimension Z (see FIG 5E).

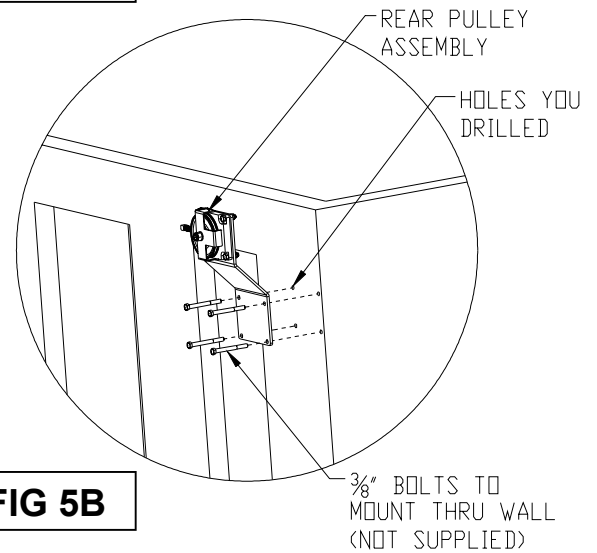
1. Draw a line on the side wall 12 5/8" (3 1/2" if not using steel bracket) below the rail that the bows will be sliding on. Place rear pulley assembly against outside wall of the truck/trailer opening. The rear pulley assembly should be as far to the rear as possible with bottom of mounting plate on line you just drew (see FIG 5A).

**Note:** If you have a steel body you can weld rear pulley assembly brackets directly to truck's body, or if you have an aluminum body you can weld the pulley block directly to the truck's body and skip the next step

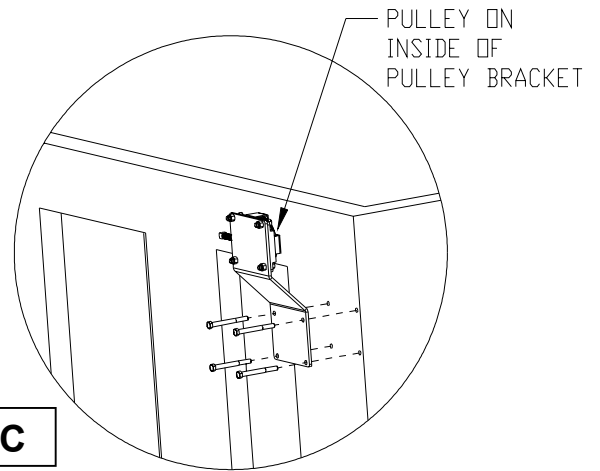
2. Use the holes in rear pulley assembly bracket (pulley block if not using bracket) as a guide to drill holes in the wall to mount rear pulley assembly (see figure 4B). Attach rear pulley assemblies using four 3/8" bolts and lock nuts (not provided).



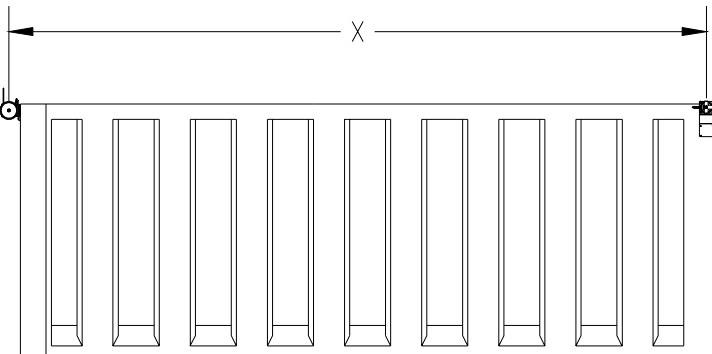
**FIG 5A**



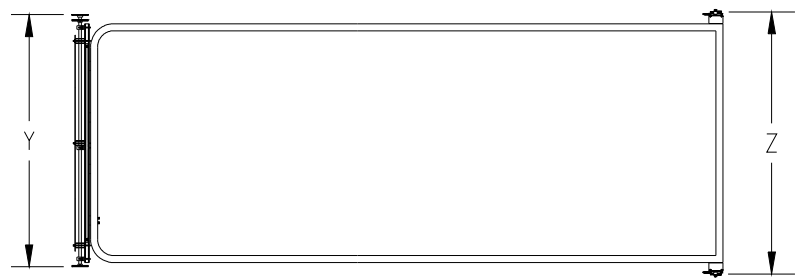
**FIG 5B**



**FIG 5C**



**FIG 5D**



**FIG 5E**

## **Installing the Bows, Tarp, and Cable**

**Note:** *When installing UHMW bow end caps, ensure the holes for the cable are in the lower half of the bow end and the curve of the bow is up (see figure 6A).*

1. Slide bows into bow pockets on tarp. Center tarp on bow and fasten edge of tarp to bow with a 1/4" - 20 x 3/4" self tapping screw and 1/4" flat washer on each end of bow.

2. Install UHMW bow end cap to bow using 1/4" - 20 x 2" hex head bolt and 1/4" lock nut.

3. Put assembled tarp on top of the trailer behind the front mount assembly. Ensure the front of the tarp (the end with the straight edge) is at the front of the trailer. Starting on the driver's side, thread one end of the cable through the hole in the end of each bow end cap up to the last bow at the rear of the dump body and around the top of the pulley on the front mount assembly. Now pass the cable end through a cable clamp, through the last bow and through a second cable clamp. Fasten vise grip pliers on the cable end that has just passed through the second clamp (see figure 6B).

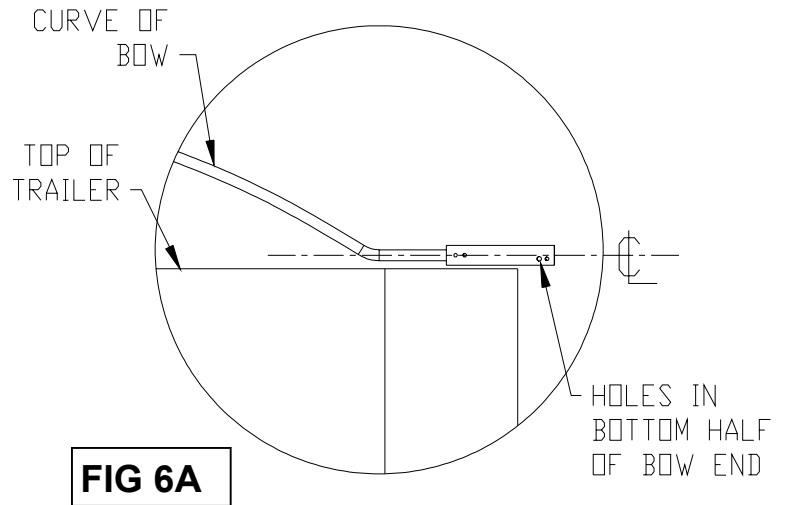
**Note:** *Ensure adjusting bolt on rear pulley is almost completely unscrewed to allow for future tightening of cable.*

4. Take the other end of the same cable; thread it under the pulley on the front assembly and rearward the length of the dump body to the bottom of the rear pulley assembly. Thread the cable through the cable opening and around the rear pulley and back through the two cable clamps, going under the last bow. Clamp a second pair of vise grip pliers on the end of the cable just routed.

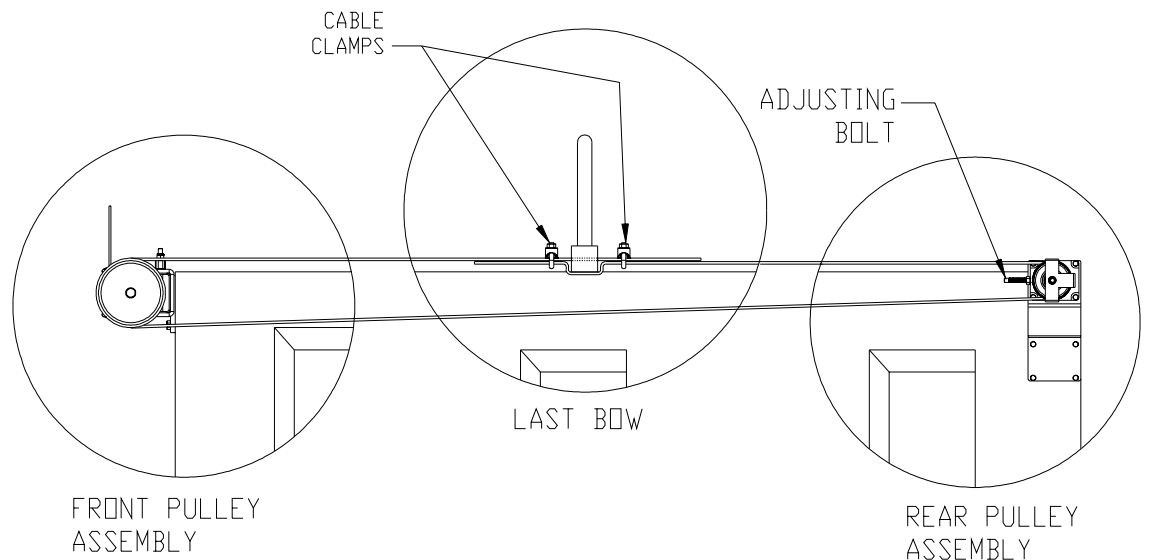
5. Get help from a second person. One person holds one vise grip pliers. The second person pulls the cable tight using the second vise grip pliers while tightening the cable clamps on either side of the last bow.

6. Release the vise grip pliers and cut the excess cable. Tape the cable ends with electrical tape. This will cover sharp cable strands and prevent damage to the tarp.

7. Repeat steps (3) through (6) to install cable on the other side of the system.



**FIG 6A**

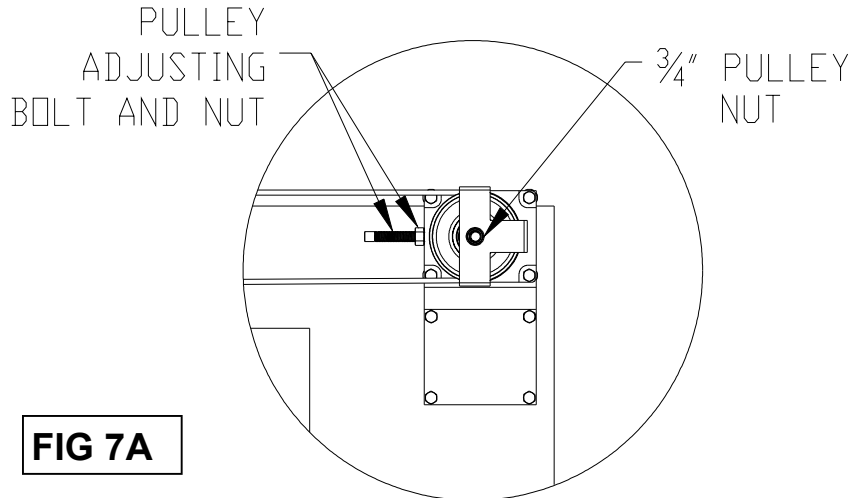


**FIG 6B**

## Adjusting the Cable Tension

**CAUTION:** Do not over-tighten. The system will be difficult to operate if the cable is too tight.

1. Loosen the 3/4" pulley nut in the rear pulley and allow the pulley to move freely to make adjustment. Tighten the cable with the adjusting nut allowing no more than 2 inches between cables when squeezed together at a point 2 feet in front of rear pulley.
2. After the cable tension has been adjusted, tighten the 3/4" pulley nut.
3. Repeat steps (1) and (2) to adjust the cable tension on the other side of system.



**FIG 7A**

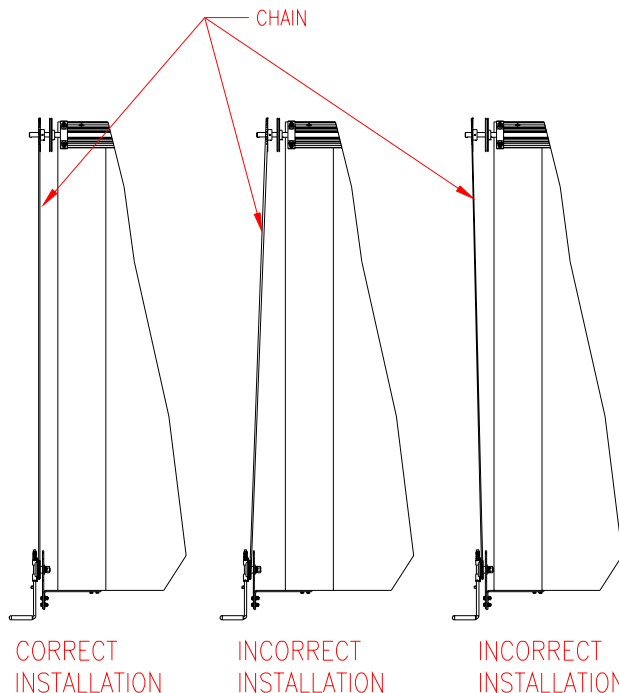
REAR PULLEY ASSEMBLY

## Installing Crank Assembly (optional front assembly)

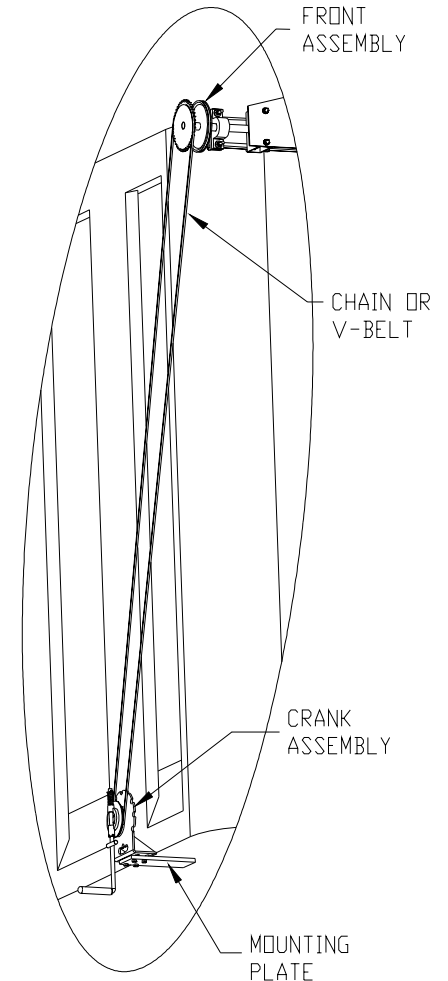
1. Wrap the chain or V-belt around the sprocket on the front mount assembly and around the drive sprocket within the crank assembly.
2. Select a mounting location for the crank assembly. Do this by placing the crank handle assembly in a location on the bottom rail (as shown) or the front of the trailer. Move the handle away from the front assembly until the chain/V-belt is taut.

**NOTE:** The chain/V-belt must be parallel to side of truck to ensure system operates correctly (see Fig 7B)

3. Weld or bolt (you must drill holes in mounting plate and truck if bolting) mounting plate in place.



**FIG 7B**



**FIG 7C**

## Wiring motor (optional front assembly)

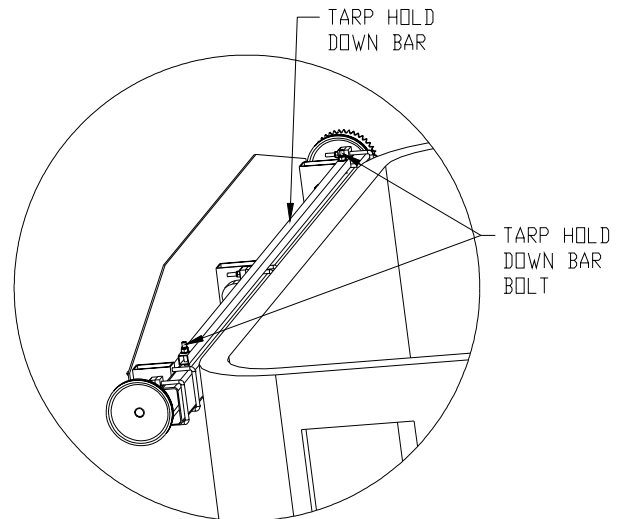
1. Follow the separate instructions that are packed with your electrical switch to wire battery to motor.

## Securing the Tarp (systems with tarp hold down bar)

1. Attach the tarp to the tarp hold down bar by using self-tapping screws and washers to prevent screws from pulling through tarp.

**Note:** *The tarp must be tight from front to rear to prevent early wear due to tarp flapping when driving down road.*

2. Crank the tarp to the covered position. If the tarp is loose, then remove the nuts on the tarp hold down bolts, then remove the tarp hold down bar and rotate the bar until the tarp is tight. Place the bar back on the bolts and tighten the 1/2" lock nuts on the bolts.



**FIG 8A**

## Securing the Tarp (systems not using tarp hold down bar)

**Note:** *The tarp must be tight from front to rear to prevent early wear due to tarp flapping when driving down road.*

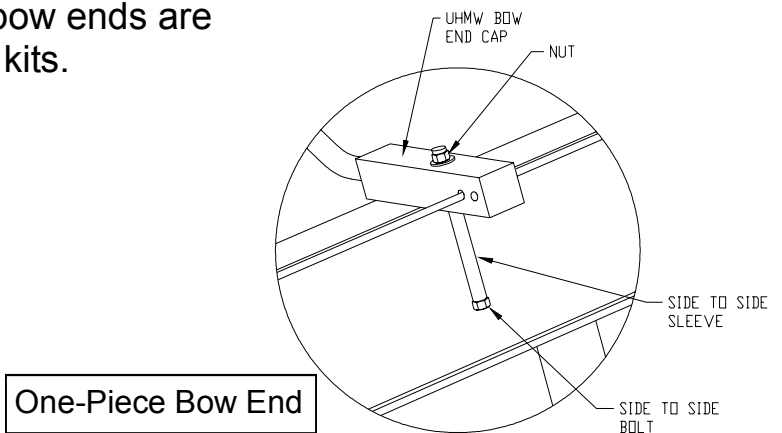
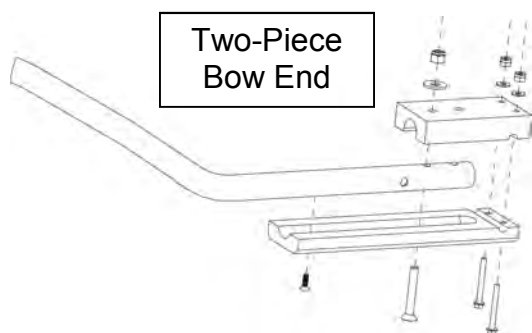
1. Crank the tarp to the covered position. Place strip of metal along front edge of tarp (should be at least 1" wide and 1/8" thick).
2. Roll the strip of metal up in the tarp until the roll is centered on the top front edge of the trailer.
3. Attach tarp and strip of metal to trailer using self drilling screw and washers spaced 6" apart (pre-drilling holes thru tarp and strip of metal will make it easier to attach to trailer).

## Securing a Semi-waterproof Tarp

1. To maximize the effectiveness of your semi-waterproof tarp, it will be necessary to pull the tarp over and attach the tarp to all UHMW bow end pieces with a self drilling screw and washer. Ensure that you screw thru the seat belt webbing on the tarp.

## UHMW Bow Ends

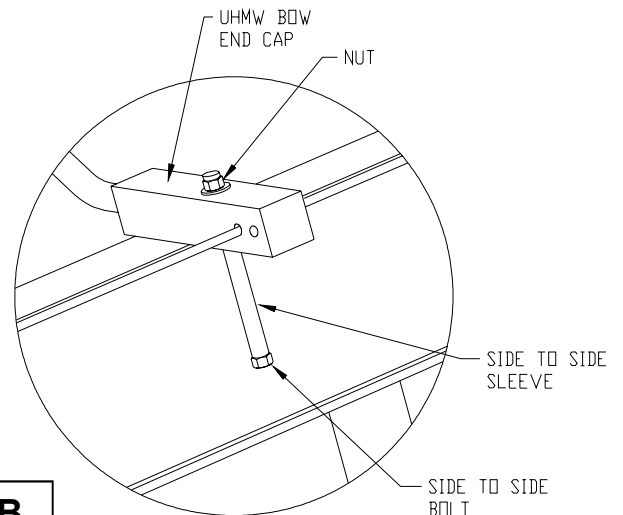
Two-piece bow ends are supplied with Anti-Pollution systems that have mesh tarps. One-piece bow ends are supplied with Semi-Waterproof and Anti-Pollution systems that have solid (vinyl) tarps. One-piece bow ends are compatible with side-to-side and anti-lift kits.



**Installing Side to Side Kits (can only be installed on one piece UHMW bow ends as shown in fig 8B)**

**Note:** Install the first kit on the second bow from the front and then install a kit on every other bow.

1. Slide side to side sleeve over side to side bolt.
2. Insert bolt into pre-drilled hole in UHMW bow end cap.
3. Attach bolt to end cap using lock nut and washer.
4. Repeat steps 1 to 3 on end cap on other end of bow.
5. Repeat steps 1 to 4 on every other bow.
6. Operate system while watching both sides of trailer to ensure side to side bolts with sleeve do not hit anything on side of trailer.

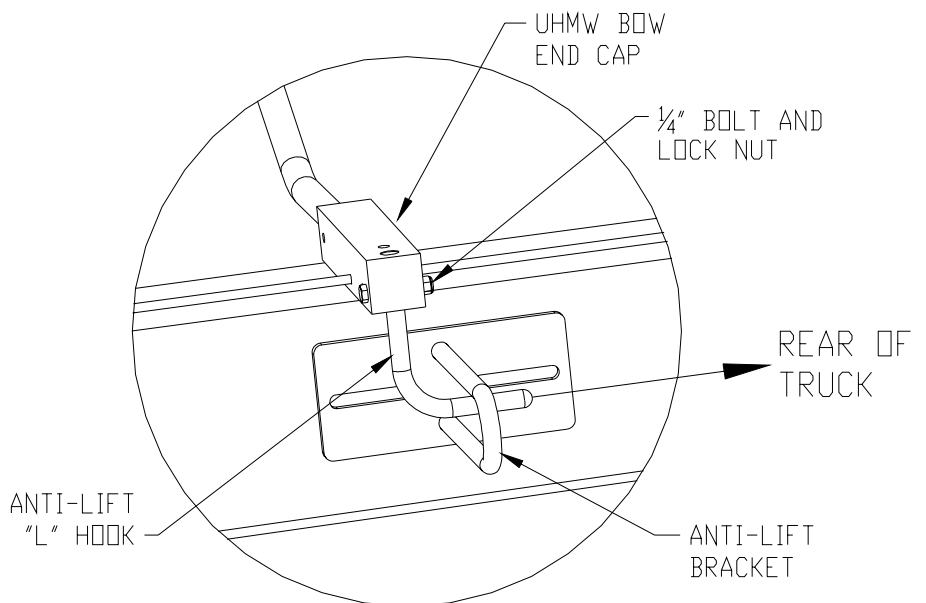


**FIG 8B**

**Installing Anti-lift Brackets (Optional item for use with one piece UHMW bow ends as shown in fig 9A)**

**NOTE:** The short “L” bracket must be placed on the bow towards the rear that you select and the long “L” bracket must be placed on the bow towards the front that you select, or the tarp will not cover or uncover properly.

1. Operate the tarp mechanism until the truck/trailer is fully covered.
2. Select a bow that is 1/3 of the way down the trailer.
3. Slide the long anti-lift “L” hook into the pre-drilled hole in the UHMW bow end cap. Ensure that the hook is pointing towards the rear of the truck. Align the hole in the “L” bracket with the hole in the end cap and attach with a 1/4” bolt and lock nut.
4. Position the anti-lift bracket on the side of the trailer so that the “L” hook is centered up and down and fully inserted into the “U”.
5. Weld or bolt anti-lift bracket in place.
6. Repeat steps 2 thru 5 on the other end of the same bow.
7. Select a bow 2/3 of the way down the trailer and repeat steps 2 thru 6 using the short anti-lift “L” hook.



**FIG 9A**