

# Michel's Flip Tarp

## INSTALLATION INSTRUCTIONS **23' and Over**

**PLEASE READ ENTIRE INSTRUCTIONS BEFORE BEGINNING**

### **Step 1: Rolltube Bracket Installation**

(See Figure 1-2)

**Procedure:** Position the driver and passenger rolltube brackets (A) along the front sides of the gravel box. The brackets should be mounted at a distance of 8" higher than the top of the box (see Figure 2).

Using a 9/32" drill bit, drill 3 holes through the predrilled holes in the brackets and through the box. Fasten the driver and passenger rolltube brackets to the box with the 5/16"x1" self threading bolts (B) provided.

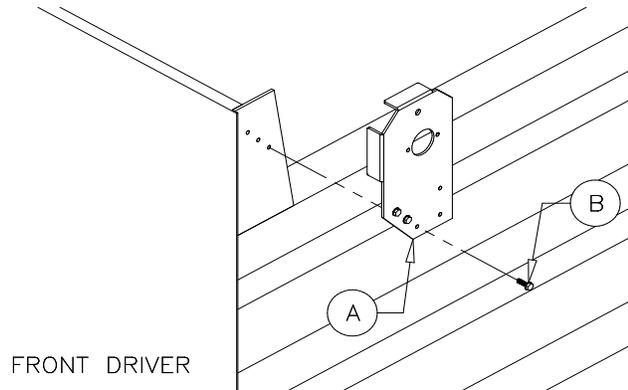


Figure 1

### **Step 2: Tarp Installation**

(See Figure 3)

**Procedure:** Slide the rolltube (C) through the large pocket at the front of the tarp. Center the tarp material on the rolltube. Remove any creases in the tarp along the rolltube. Position a pvc front tarp clamp (D) on both edges of the tarp material. Fasten both tarp clamps to the tarp and rolltube with the #10-24x3/4" wafer head screws (E) provided. Center and fasten the remaining two pvc front tarp clamps to the tarp material and rolltube.

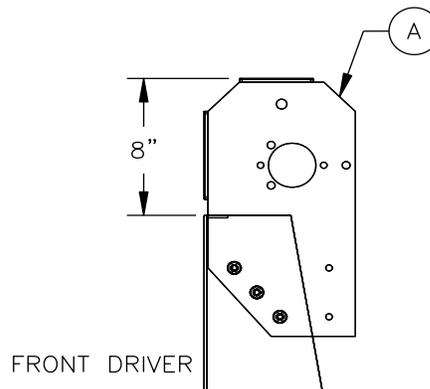


Figure 2

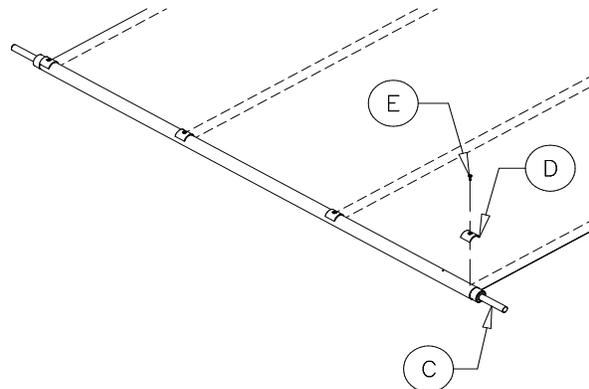


Figure 3

### Step 3: Rolltube Installation

(See Figure 4)

**Procedure:** Insert the rolltube ends (C) through the large hole in the the driver and passenger side rolltube brackets. Slide the round flanges (F) and the UC205-16 self aligning bearing (G) on the rolltube end (C). Fasten the flanges to the rolltube brackets with the 5/16"x1" hex bolts (J), 5/16" flat washers and 5/16" nylon lock nuts provided. Center the rolltube on the driver and passenger bracket. Tighten the grub screws in the the UC205-16 bearings (G).

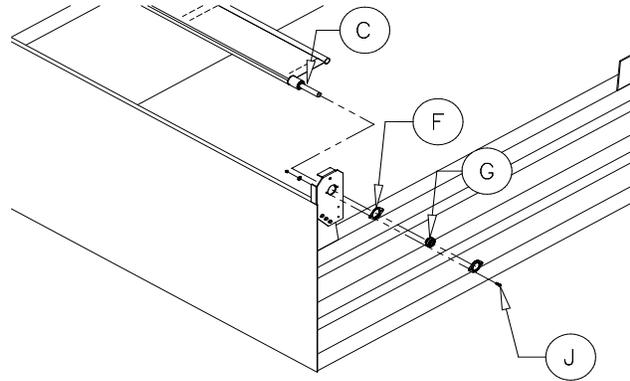


Figure 4

### Step 4: Bottom Crank Installation

(See Figure 5-7)

**Procedure:** Slide the 40X36 sprocket (P) and 1X hub on the rolltube end (see Figure 8). Place the #40 roller chain (Q) on the 40X36 sprocket (P) (see Figure 9). Hang the bottom crank (R) from the #40 chain. Apply a downward force on the bottom crank (R) to stretch out the chain. Mark the slots of the bottom crank in the lower dump body. Using a 9/32" drill bit, drill four holes through the right sides of the bracket slots. Fasten the bottom crank to the box with the 5/16"x1" self threading bolts (S) and 3/8" flat washers provided (see Figure 10). Further adjust the position of the #40X36 sprocket on the rolltube end until it is aligned with the bottom crank (R). Remove the 5/16"x3/4" set screws from the 1X hub. Mark the location of the two 5/16" threaded holes in the 1X hub. Using a 5/16" drill bit, drill two holes in the rolltube end approximately 1/4" deep. Secure the #40X36 sprocket and 1X hub to the rolltube end with the 5/16"x3/4" set screws.

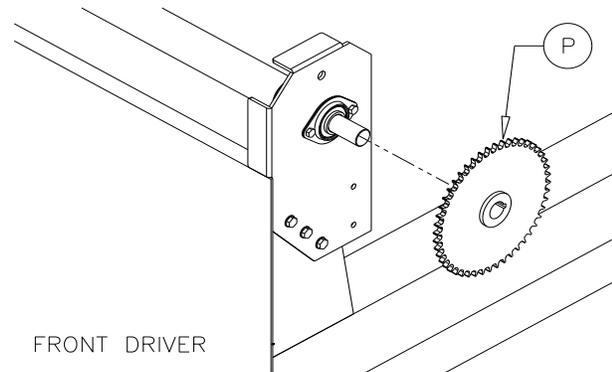


Figure 5

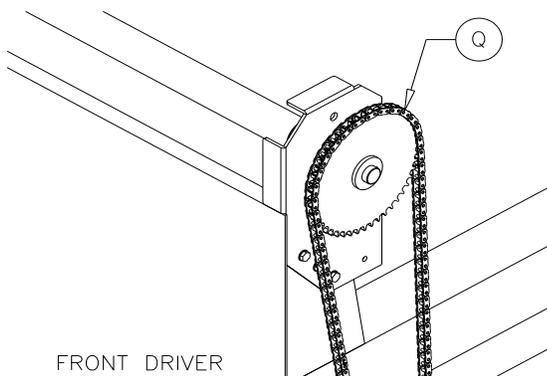


Figure 6

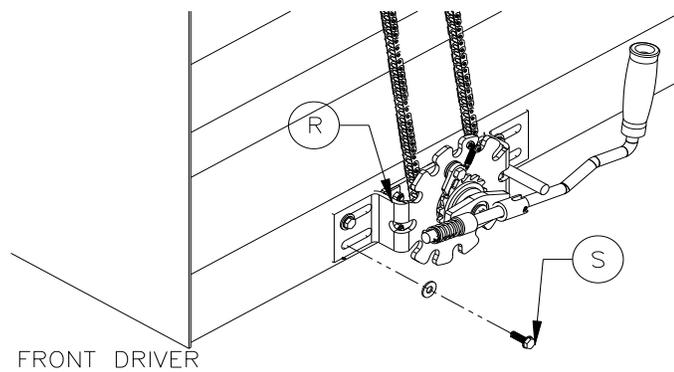


Figure 7

### Step 5: Pivot Arm Installation

(See Figure 8-10)

**Procedure:** Measure from Point A (see Figure 8) to a point on the lower inside rib of the box that is close to the pivot point (see Figure 9). Mark this point and record the distance as X. Using distance X, measure from Point B (see Figure 10) to a point on the lower inside rib of the box (see Figure 9). Mark this point.

Mark this point.

To install the rear lock there needs to be 6" of room behind Point B. (shown in figure 10)

Divide the distance between the first and second mark by two and mark this point as the pivot point (see Figure 9).

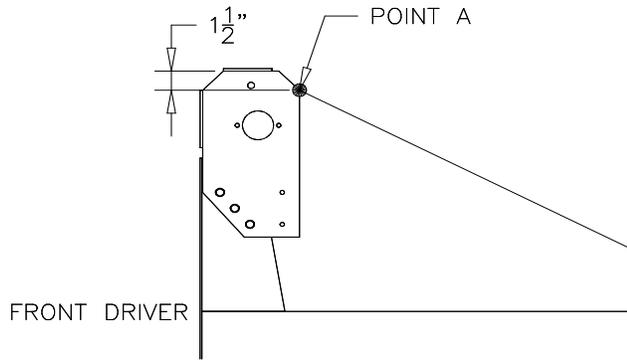


Figure 8

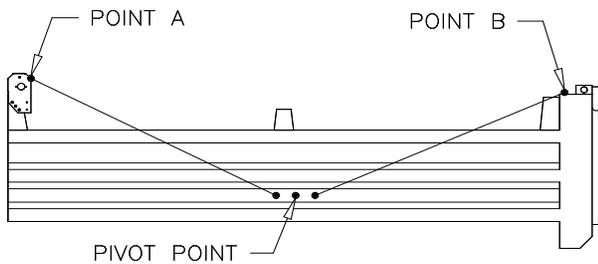


Figure 9

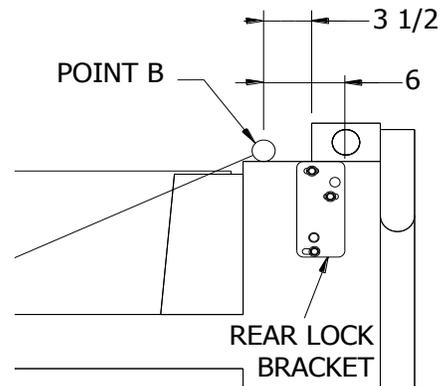


Figure 10

Align the pivot arm bracket (T) with the pivot point.

**Note:** The pivot arm end (U) must be aligned with the pivot point.

Using a 3/8" drill bit, drill through the center of the slots in the bracket (T) and through the box wall. Fasten the pivot arm bracket to the box with the 3/8"x1-1/2" hex bolt (V), 3/8" flat washers, and 3/8" nylon lock nuts provided (see Figure 11).

Slide the helical torsion spring (B), bottom pivot arm (C), and 3/4" flat washer (D) on the pivot arm end (U). Insert and lock the cotter pin (E) (see Figure 12).

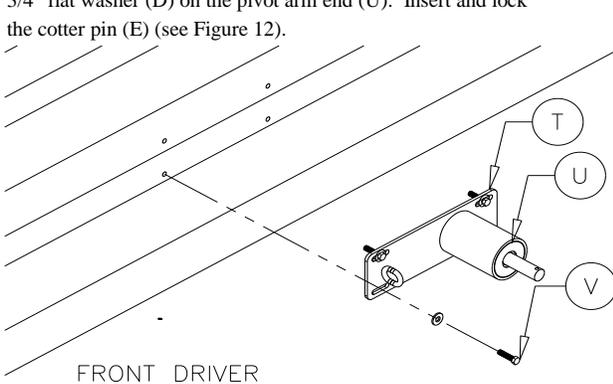


Figure 11

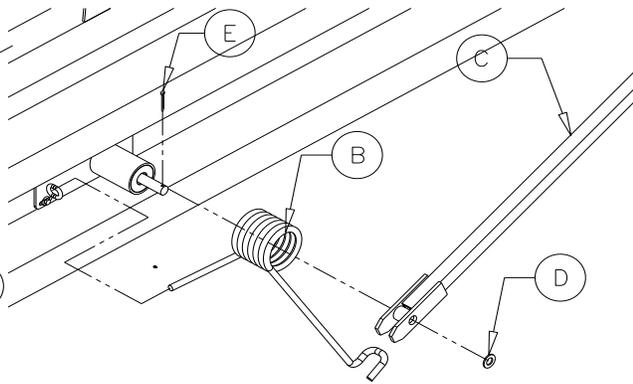


Figure 12

### Step 5: Pivot Arm Installation Con't

**Note:** The bottom pivot arm (C) may have to be shortened depending on the length of the box.

Position the bottom pivot arm (C) so it is hooked in the helical torsion spring (B) (see Figure 13).

Repeat the above procedure for the opposite side of the box.

Slide the rear pivot arm crossmember (F) through the rear tarp pocket. Position the rear pivot arm crossmember at Point B (see Figure 10 & 14).

Slide the top pivot arm (G) into the bottom pivot arm (C). Rotate the pivot arm towards the top of the box. Insert the 1-3/4" OD. pipe on the top pivot arm into the rear pivot arm crossmember (F). Repeat for the opposite side of the box.

**Note:** The 2"OD. rear crossmember pipe (F) may have to be shortened.

Adjust the rear pivot arm crossmember (F) and the top pivot arms (G) so they are at Point B (see Figure 10 & 14).

**Note:** Make sure that the distance the top pivot arm protrudes out of the bottom pivot arm is equal on both sides of the box. Using a 5/16" drill bit, drill through the bottom and top pivot arm on both sides of the box. Secure the pivot arms with the 5/16"x2" hex bolt (H) and 5/16" nylon lock nut provided (see Figure 14). Adjust the pivot arms so they are aligned with the sides of the box.

Rotate the rear pivot arm crossmember (F) so that the crossmember guides (I) are resting on the top of the box with the crossmember (see Right). Using a 5/16" drill bit, drill through the pivot arm crossmember (F) and top pivot arm (G). Secure the pivot arm crossmember to the top pivot arms with the 5/16"x2-1/2" hex bolts (H) and 5/16" nylon lock nuts provided (see Figure 15).

**Note:** Allow a great enough distance between the box wall and the the pivot arm, in order to install the pivot arm guides on both sides of the box (see Step 7).

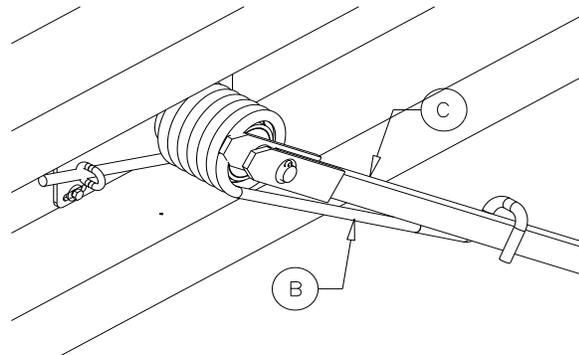


Figure 13

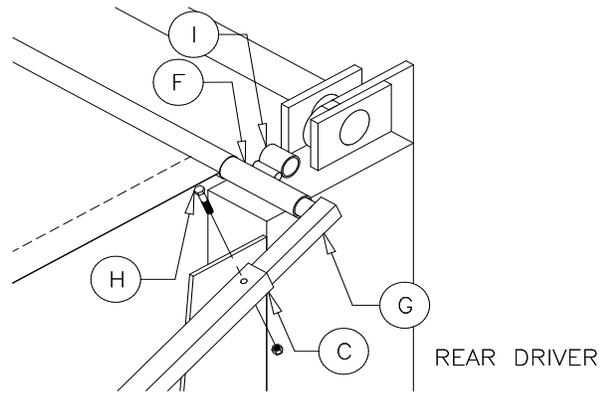


Figure 14

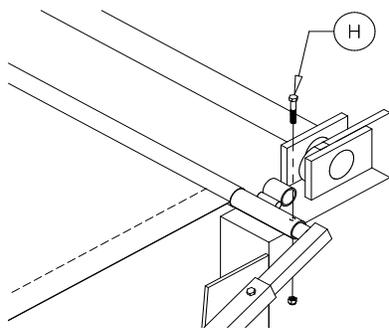
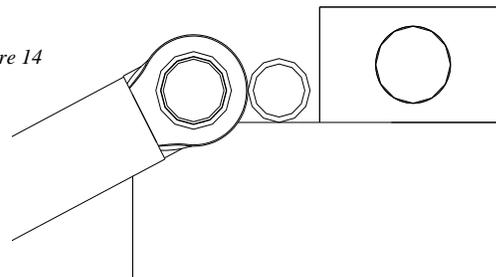


Figure 15

Center the rear tarp pocket on the rear pivot arm crossmember (F). Position a pvc rear tarp clamp (J) on both edges of the tarp material. Fasten both tarp clamps to the tarp and rear pivot arm crossmember (F) with the #10-24x3-4 wafer head screws (K) provided (see Figure 16).

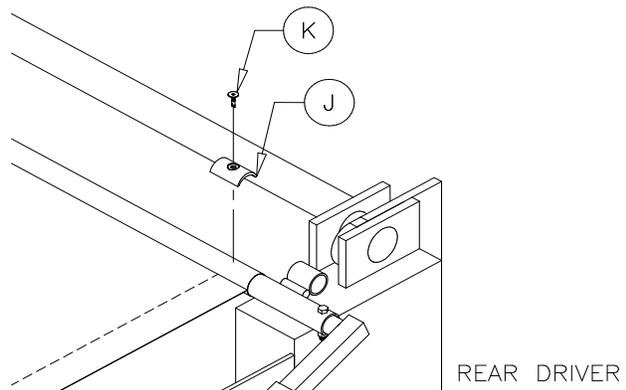


Figure 16

### Step 6: Pivot Arm Guide Installation

(See Figure 17-18)

**Note:** The pivot arm guides (L) (see Figure 17) prevent the tarp from shifting to either side of the box when the tarp is in closed position.

**Procedure:** Close the tarp. Place a pivot arm guide (L) along one of the ribs in the box wall (see Figure 18). Make sure the guide is aligned with the pivot arm (C) (see Figure 22). Mark the position of the pivot arm guide. Using a 9/32" drill bit, drill two holes into the box wall. Secure the pivot arm guide to the box wall with the 5/16"x1" self threading bolts provided.

Repeat the above procedure for the opposite side of the box.

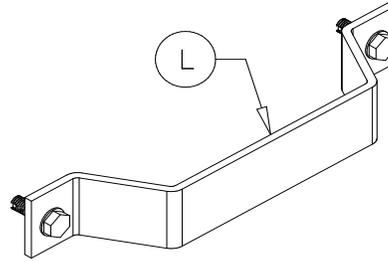


Figure 17

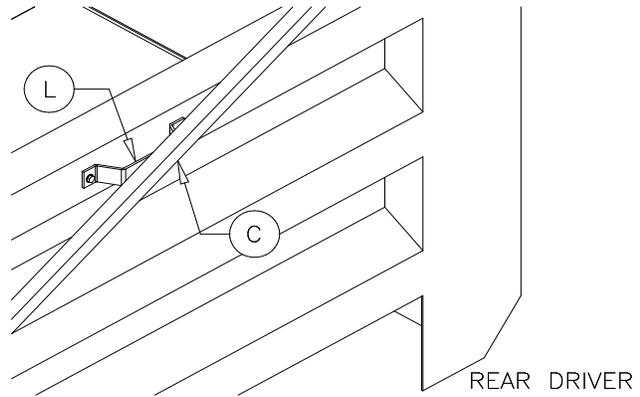


Figure 18

### Step 7: Optional Front Hood Installation

(See Figure 21)

**Procedure:** Center the front hood (M) on the driver and passenger rolltube brackets (A). Using a 3/16" drill bit, drill one hole through the front hood and into the top flange on each rolltube bracket. Drill two 3/16" holes through the front hood and into the front flange on each rolltube bracket. Fasten the front hood to the brackets with the 1/4"x1" lag screws (N) provided.

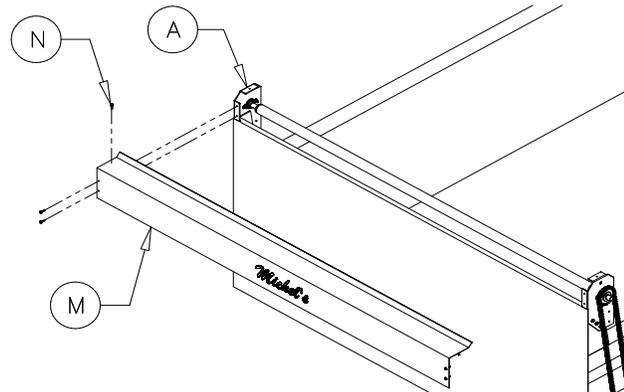


Figure 19

### Step 8: Rear Lock Installation

(See Figure 22-32)

Mount the rear driver lock bracket (A) to the back post of the trailer shown here.

Place the bracket so the front edge of the bracket is inline with the center of the short pipes welded on the rear crossmember and the top of it is the same height as the bottom of the pipes.

Mark your holes in the center of the slots and drill an 11/32" at your marks.

Secure the rear driver lock bracket to the trailer with 3/8"x1-1/4" self-threading bolts.

Slide the plastic latch (B) onto the mounting pin (A-1) (shortest one with a hole in it) on the driver rear bracket. The side with the collar on it goes to the inside so both posts stick outwards from the trailer. Secure on with a 3/4" machinery bushing and 1/8" cotter pin.

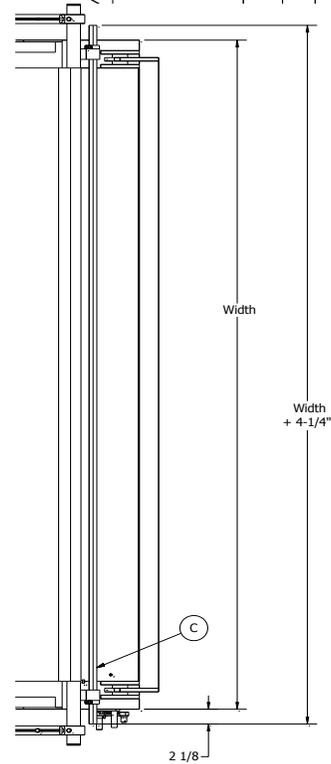
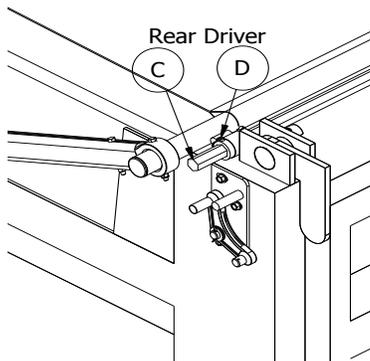
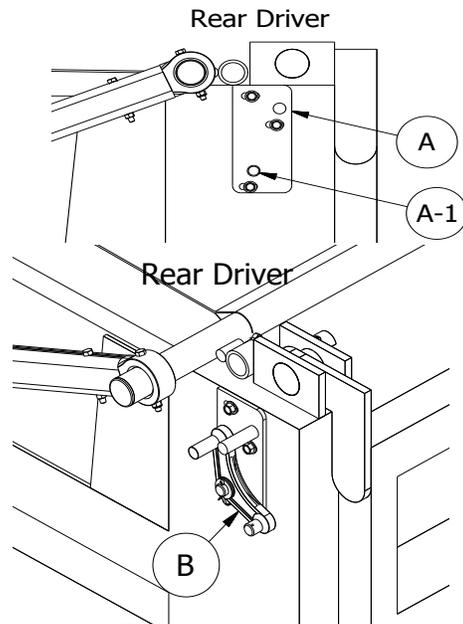
Measure the width of the box where you will be installing the lock components.

Cut the aluminum hex shaft (C) at the width of the box + 4-1/4".

Slide the shaft into the rear crossmember pipes.

Slide the hex locking collars (D) onto the ends of the hex shaft and into the pipes on the crossmember. Slide them on so the setscrews are on the same faces of the hex shaft.

Center the hex shaft so 2-1/8" sit out each side of the box and tighten the setscrews in the hex collars preventing it from moving side to side.



Slide a rear hook (E) onto each end of the hex shaft so they are flush to ends and are positioned the same. Secure the rear hooks to the hex shaft by tightening the setscrews in them.

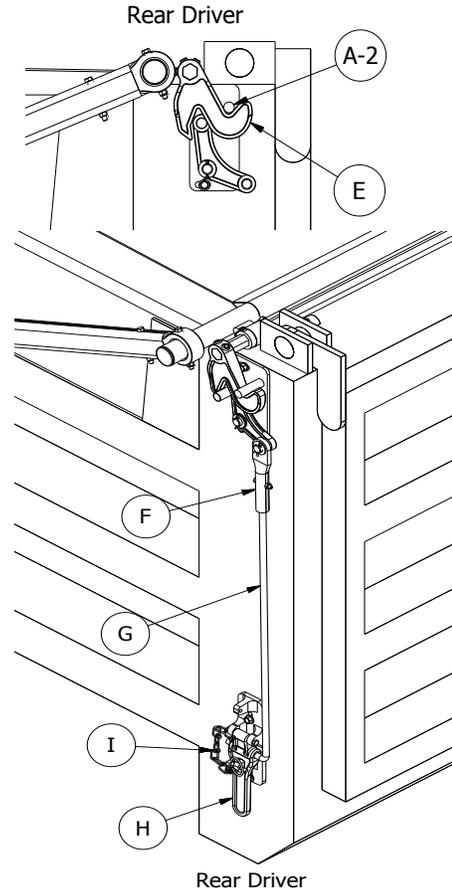
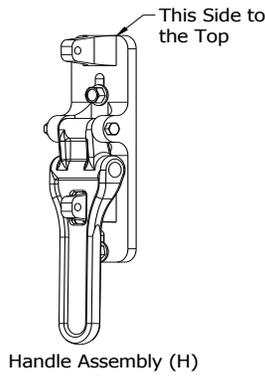
Rotate the hex shaft so the rear hook locks under the pin (A-2) on the driver bracket. You may need to adjust the driver bracket so the rod sits in the hook as shown here.

Have the latch so the largest post on it is pushing up against the rear hook as shown here.

Place the plastic rod connector (F) onto the latch and secure with 3/4" machinery bushing and 1/8" cotter pin.

Place the short leg of the aluminum connecting rod (G) into the handle assembly (H). Use the lynch pin (I) to keep the handle assembly in the locked position shown here.

**Locked Position**



Next slide the long leg of the aluminum connecting rod into the rod connector while having the locking handle flush up against the trailer. The aluminum rod may need to be shortened.

With the aluminum connecting rod at the necessary length secure it to the rod connector. Make sure the aluminum rod is all the way into the rod connector.

Drill a 1/4" hole through both of them and bolt together with a 1/4"x1-1/2" bolt and nylon lock nut. The aluminum connecting rod has to be positioned so the short leg is running parallel with the side of the box. Drill the hole through them so the bolt runs the length of the box preventing it from rubbing the side of the trailer.

Once secured make sure the hook is fully locked under the locking pin with the latch pushing up against it and place the handle assembly against the side of the box. The back face of the latch handle should be 1/2" in from the back face of the driver lock bracket.

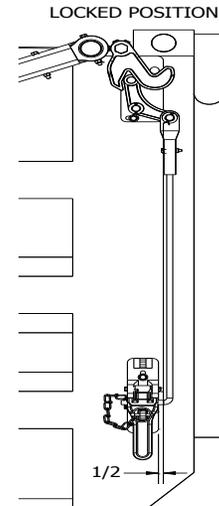
Mark the bottom of the top slot in the handle assembly

Drill a 11/32" hole at your mark and secure the handle assembly to the trailer with a 3/8"x1-1/4" self threading bolt.

Remove the lynch pin from the handle allowing the handle to rotate up.

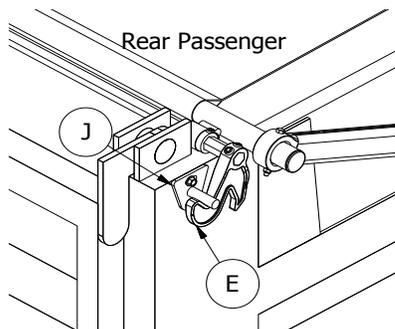
With the handle assembly sitting vertically drill a 11/32" hole at the bottom of the bottom slot and secure with a 3/8"x1-1/4" self threading bolt.

Rotate the handle down so the hook locks and you can put the lynch pin back in the handle preventing it from unlocking. You should have to apply a little force to lock the handle and should snap locked when over centered. If this doesn't happen, loosen the (2) bolts securing the handle to the trailer and move the handle downwards and retighten the bolts. You do not want to have excess tension on the handle when locking it.



With the driver side hook locked under the pin, place the passenger side lock bracket (J) against the trailer so the locking pin sits in the hook like the driver side.

Mark the center of the top slot and drill a 11/32" hole at your mark.

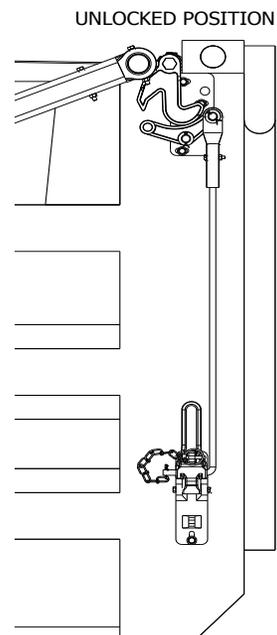


Go to the driver side and unlock the tarp but rotating the handle up and using the lynch pin to secure it in the unlock position.

Secure the bracket to the trailer with a 3/8"x1-1/4" self-threading bolt. Have the top of the bracket running parallel with the top of the trailer.

Drill an 11/32" hole in the middle of the bottom slot and secure with a 3/8"x1-1/4" self threading bolt.

Lock the hooks under the locking pins and adjust the passenger side if necessary.

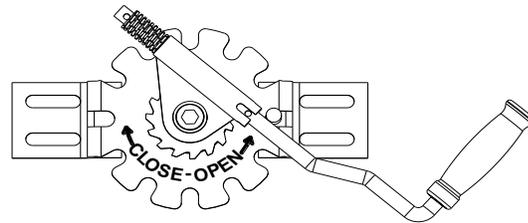
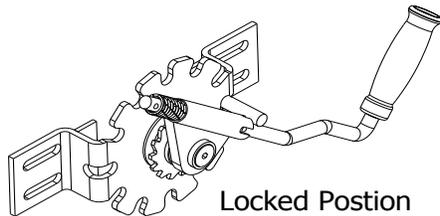


**Note:** For the lock to work properly the pivot arm guides need to be installed and provide very little side to side movement when closed so the rear lock components line up properly.

**PLEASE PHONE MICHEL'S INDUSTRIES FOR ASSISTANCE (306) 366-2184.**

## Operating Instructions

**Opening Tarp** – To open the tarp so it is fully rolled up on the front rolltube to allow product to be dumped into the box, first unlock the rear lock if there is one installed. If installed go to the rear of the trailer and remove the lynch pin holding the handle in the locked position. Rotate the handle up and use the lynch pin to secure the handle in the unlocked position. Go back to the front of the trailer and the crank handle must be pulled outward from the base to unlock the locking pin. Once it is pulled out far enough that the locking pin clears the base, the crank handle must be rotated 90 degrees counter clockwise into the unlocked position. The handle will now be facing away from the trailer and is ready to be cranked open. Crank the handle counter clockwise as the sticker on the base shows. Once the clutches tighten up, the tarp will begin to open. Keep cranking until the tarp is completely open. The handle can now be rotated into the locked position. The locking pin should be locked into the nearest notch on the base.



**Closing Tarp** – Pull handle outwards to unlock crank handle and rotate to the unlocked position. Crank the handle clockwise as the sticker on the base shows. The clutches will release and the tarp will begin to close. Keep cranking until tarp is completely closed. Once the rear crossmember is sitting on the top rail at the rear of the trailer, go to the rear and lock the tarp down if a lock is installed. If installed remove the lynch pin from the handle and rotate the handle downwards. This should cause the hooks to lock under the locking pins on the side of the box. Secure the handle in the locked position with the lynch pin. Go to the front and remove any slack in the tarp by cranking it counter clockwise. The handle can now be rotated and locked into the nearest notch on the base.