

SUT-220-S

# SUT-220-S

## Suggested Tools:

(3) Saw Horses

Standard Screwdriver

Phillips Screwdriver

Ratchet with 13/16", 9/16", 3/4" Sockets

Torque Wrench

7/16", 9/16", 3/4" Open End Wrench

Pliers

Wire Cutters

Square

Measuring Tape

Electrical Tape

Spray Lubricant

Utility Knife

(4) Wheel Chocks

Fish Tape (optional for wiring)

## ASSEMBLY REQUIREMENTS

Torque all T-bolt nuts to 35-40 foot-pounds.

Check all lights before towing.

Tire pressure not to exceed recommendation on serial tag.

Re-torque wheel nuts after first 25 miles to 80 ft pounds and periodically thereafter.

Failure to follow the assembly instructions could result in serious injury or death.

Incorrect assembly or modifications to your trailer will void any specific or implied warranty.

For questions or assistance assembling your trailer call 800-282-5042

**UNPACK AND IDENTIFY THE FOLLOWING PARTS**



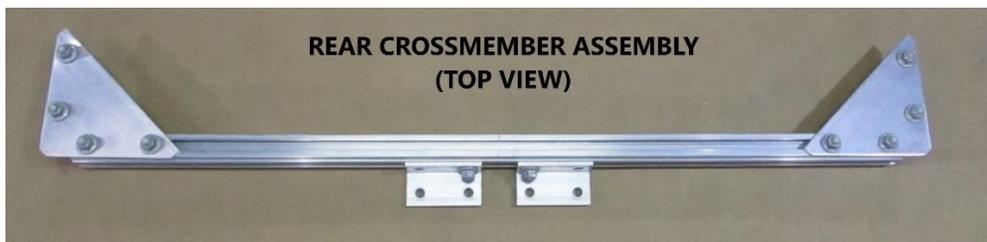
Front Tongue Section (**Part A**)



Rear Tongue Section (**Part A**)



Front Crossmember Assembly (**Part S**)



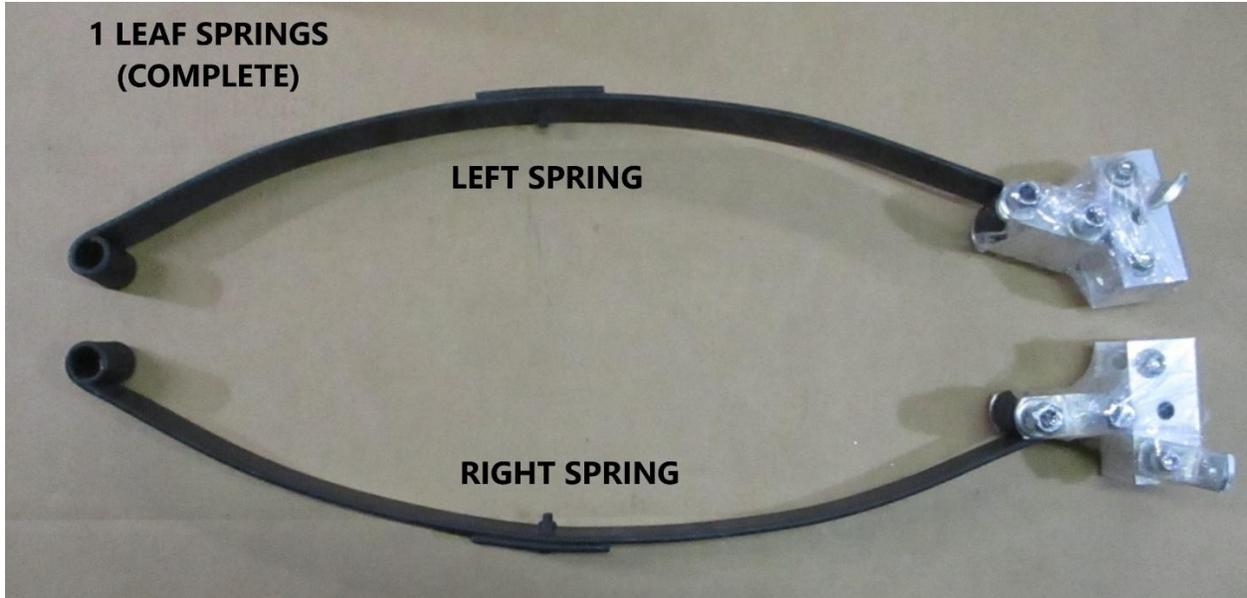
Rear Crossmember Assembly (**Part T**)



Siderail (2) Left and Right are the same (**Part U**)



Axle (**Part Q**)



One Leaf Springs (2) (**Part R**)



Small Plastic Fenders (2) (**Part O**)



Bag of U-bolts and Hardware (**Part M**)



Bow Stand (**Part B**)



6 Inch Roll (**Part F**)



Spare Parts (**Part N**)



Skid (**Part G**)



Padded Cradles (4) (**Part C**)



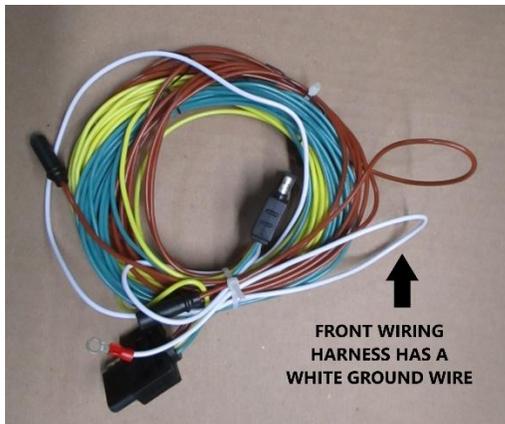
Front Cradle Holder (**Part D**)



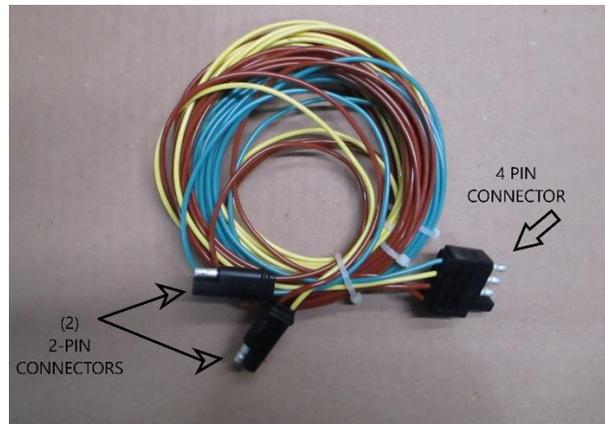
Rear Cradle Holder (**Part E**)



Tail Light Kit (**Part P**) Boxed on left, unboxed on right



Front Wiring Harness (**Part J**)



Rear Wiring Harness (**Part K**)

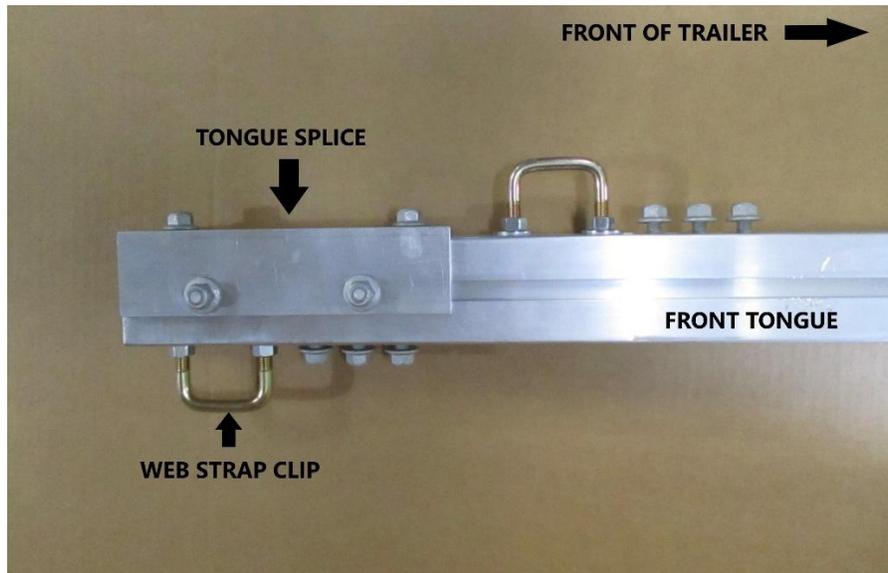


Tail Light Brackets (2) (**Part H**)

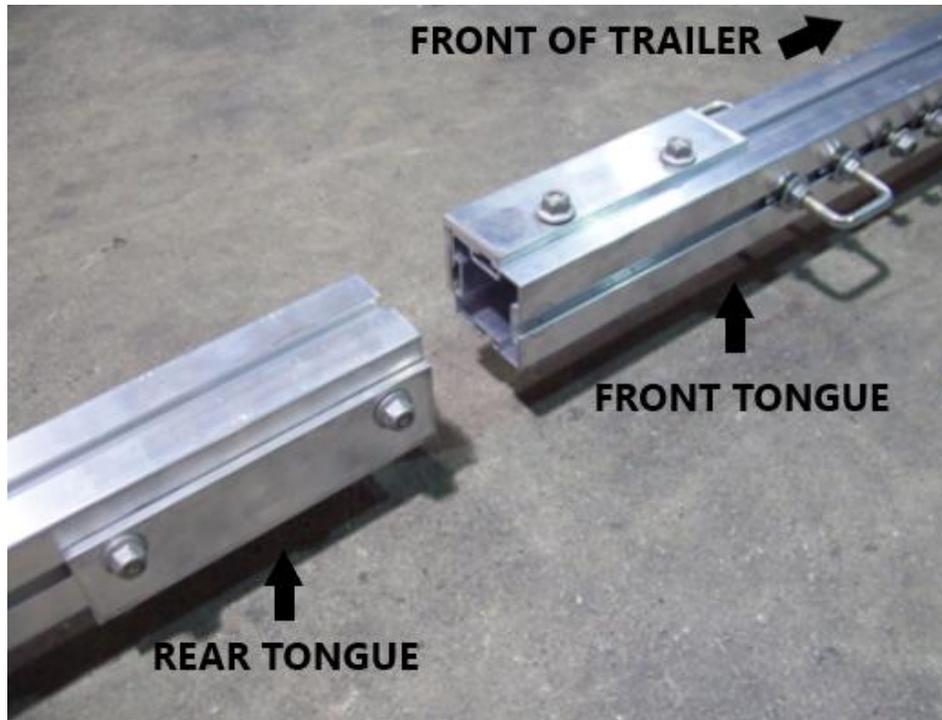


Marker Light Bracket (**Part I**)

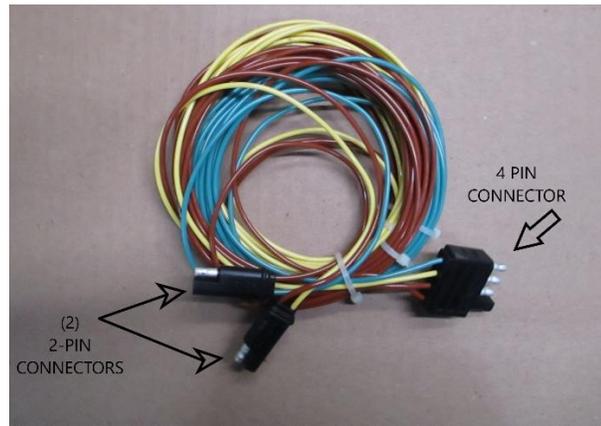
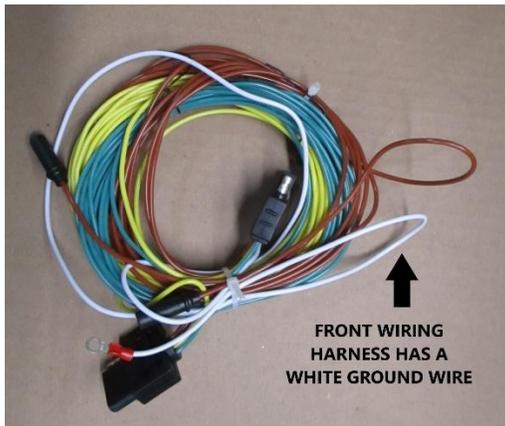
## TONGUE ASSEMBLY



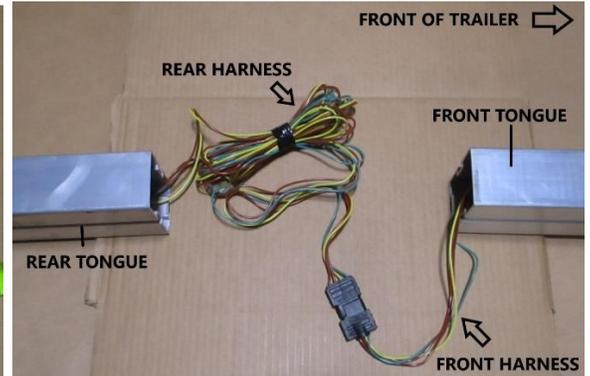
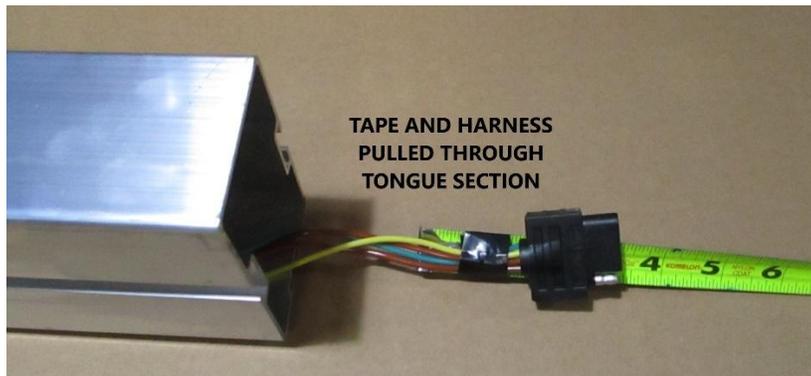
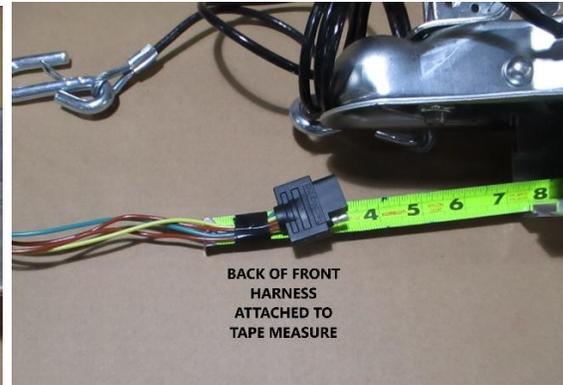
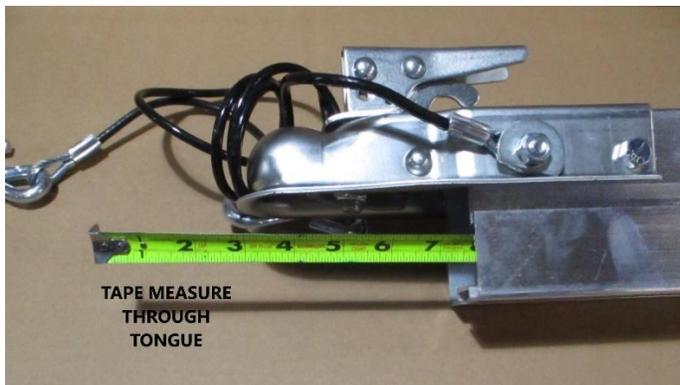
On the back of the front tongue section (**Part A**), loosen the web strap clips, with a 9/16” wrench, and slide them towards the front of the trailer. The final position of the web strap clips will be determined once the boat is fitted to the trailer.



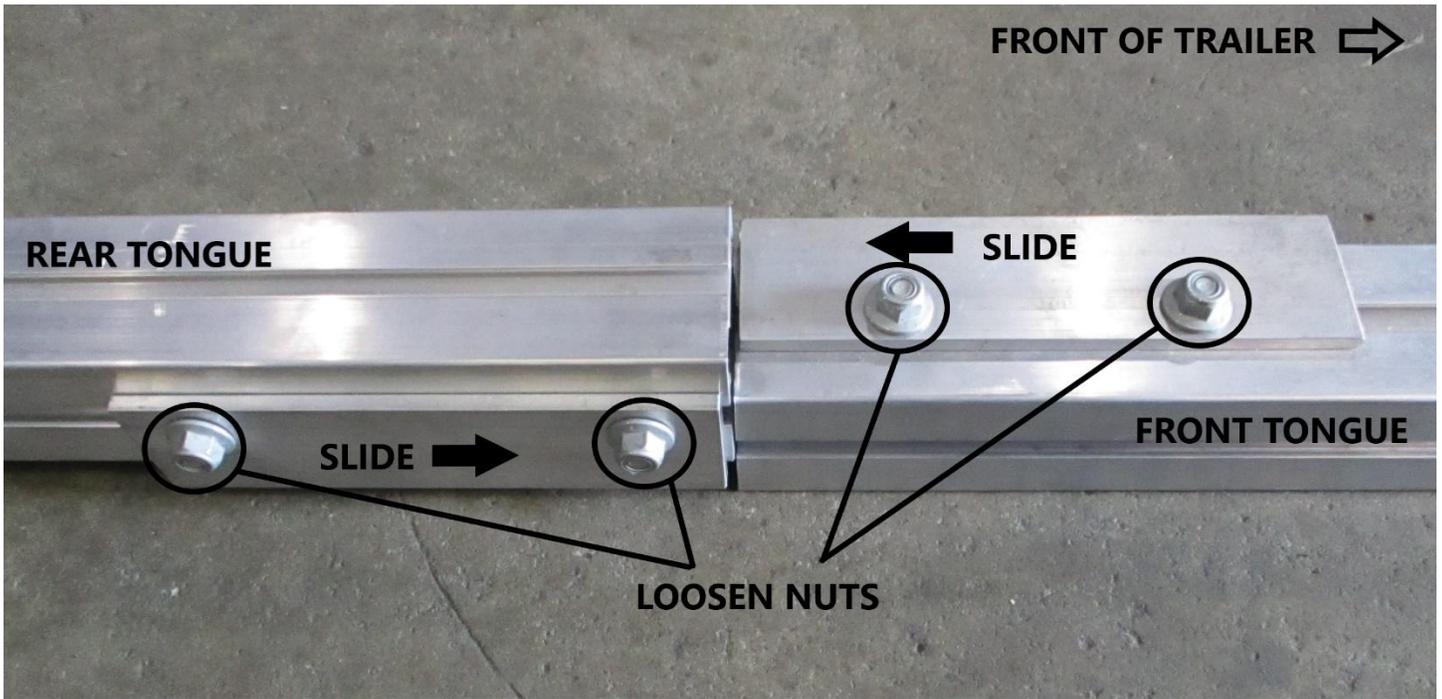
Next, lay the tongue sections (**Part A**) end to end with the splice plates facing each other, as shown above.



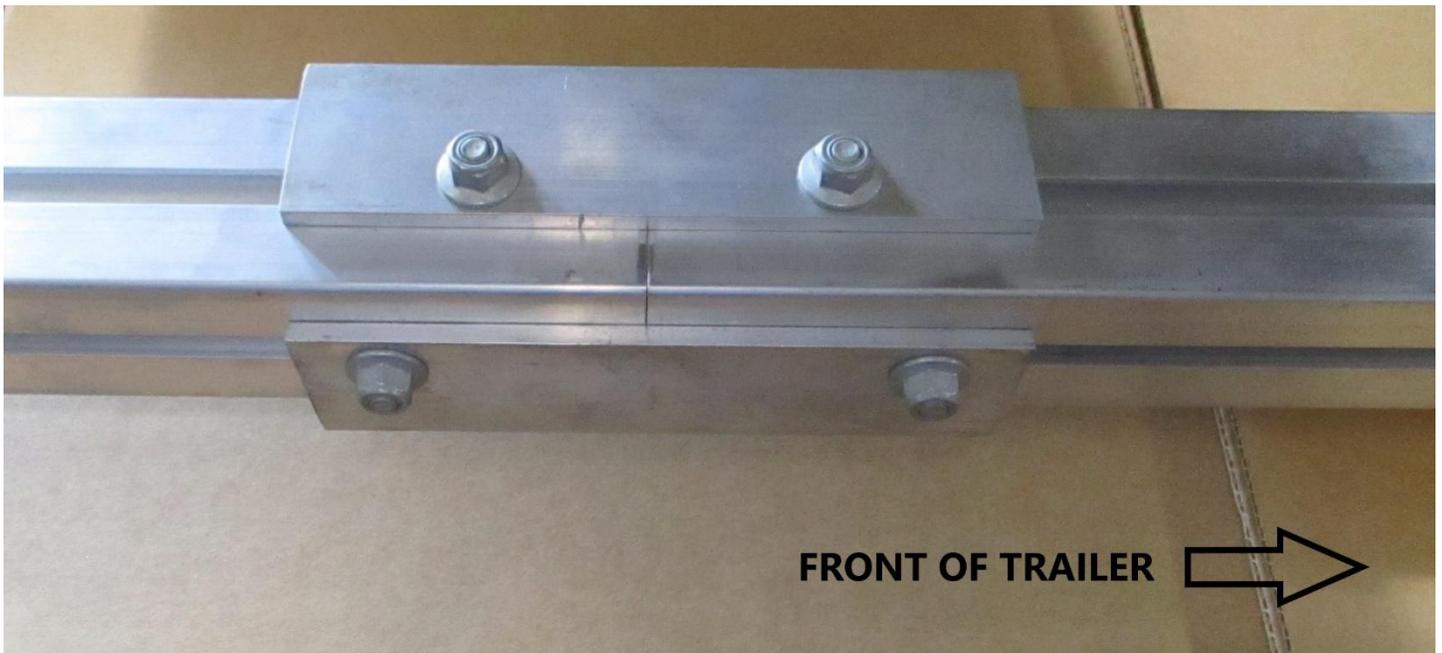
The wiring harness consists of two sections, a front (**Part J**), and a rear (**Part K**). Locate the front wiring harness, with the white ground wire, as shown in the left picture above. This end goes at the front of the trailer by the coupler.



Trailex recommends using a tape measure to pull the wiring harness through the tongue sections. Feed the tape measure through the tongue section and attach the tape measure to the harness with electrical tape. Then, retract the tape measure through the tongue. Repeat for both tongue sections, as shown above. Once the harness is through the tongue sections, plug in the 4-pin connectors (**This is a universal harness and there will be excess wire**). Pull the rear harness forward leaving enough room at the back to connect the tail lights. Gather any excess wire and tape it, as shown. Then, tuck the wire and 4-pin connectors inside the tongue and slide the sections together.



Once the tongue sections are slid together, loosen the nuts holding the splice plates, 8 total, 4 are not seen in this picture. Slide one plate back, and the other forward to join the tongue sections together.



Center the splice plates over where the tongue sections join together and tighten the nuts securely. Then, look down the length of the tongue to make sure it is straight.

# FRAME ASSEMBLY



Front Crossmember Assembly (**Part S**)

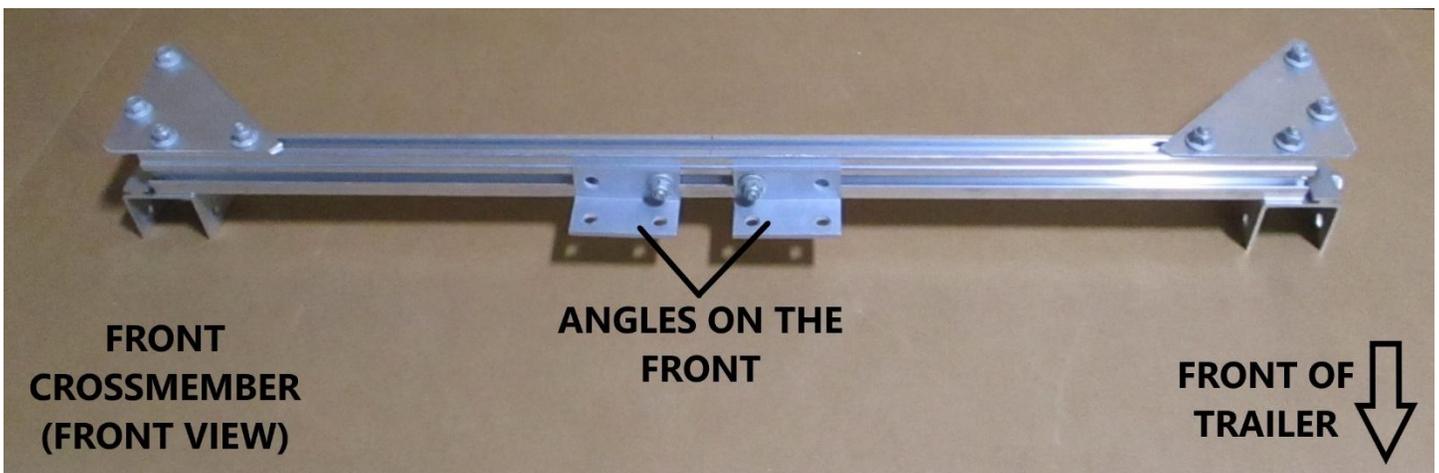


Rear Crossmember Assembly (**Part T**)

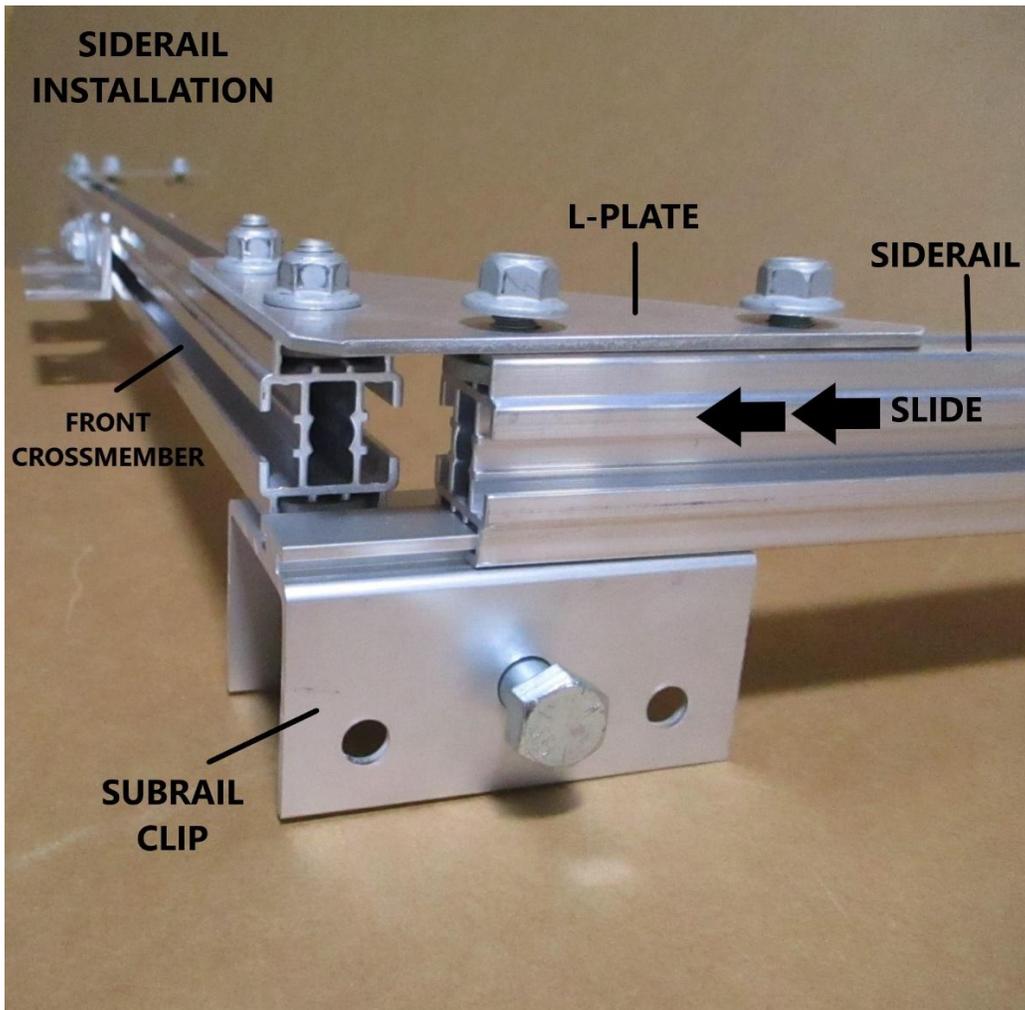


Siderail (2) Left and Right are the same (**Part U**)

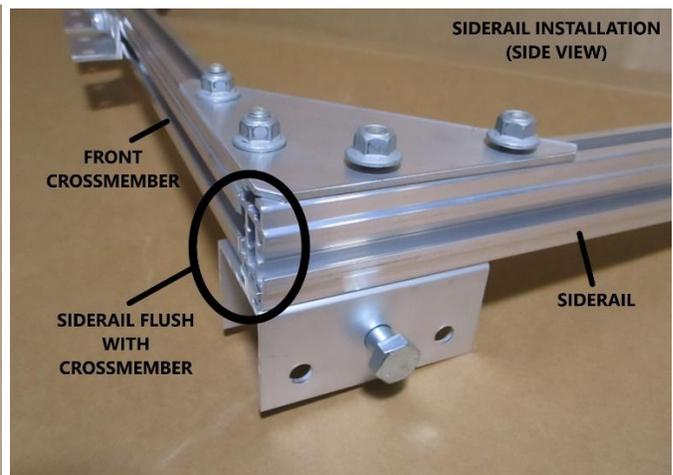
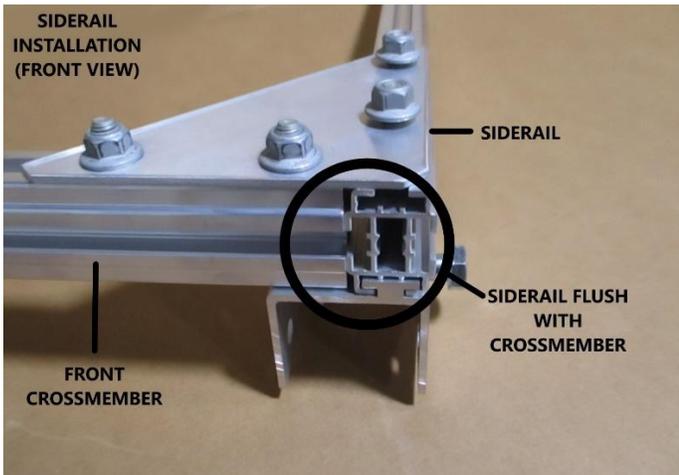
Locate the Front and Rear Crossmember and the Siderails.



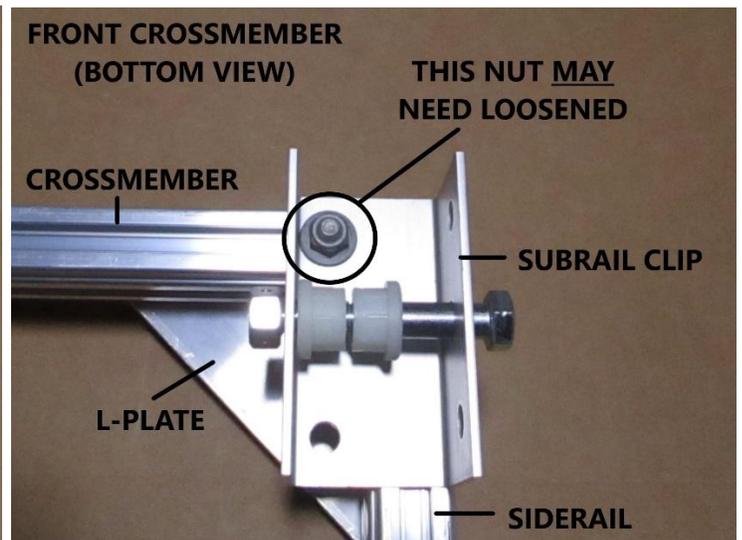
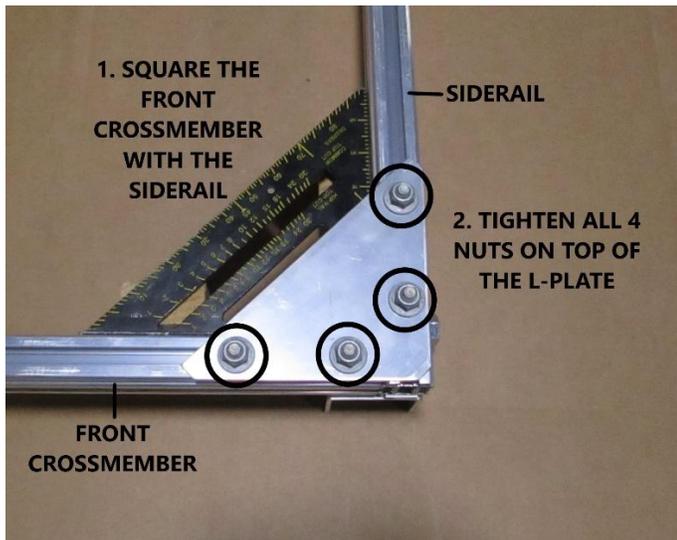
Front upright view of the Front crossmember.



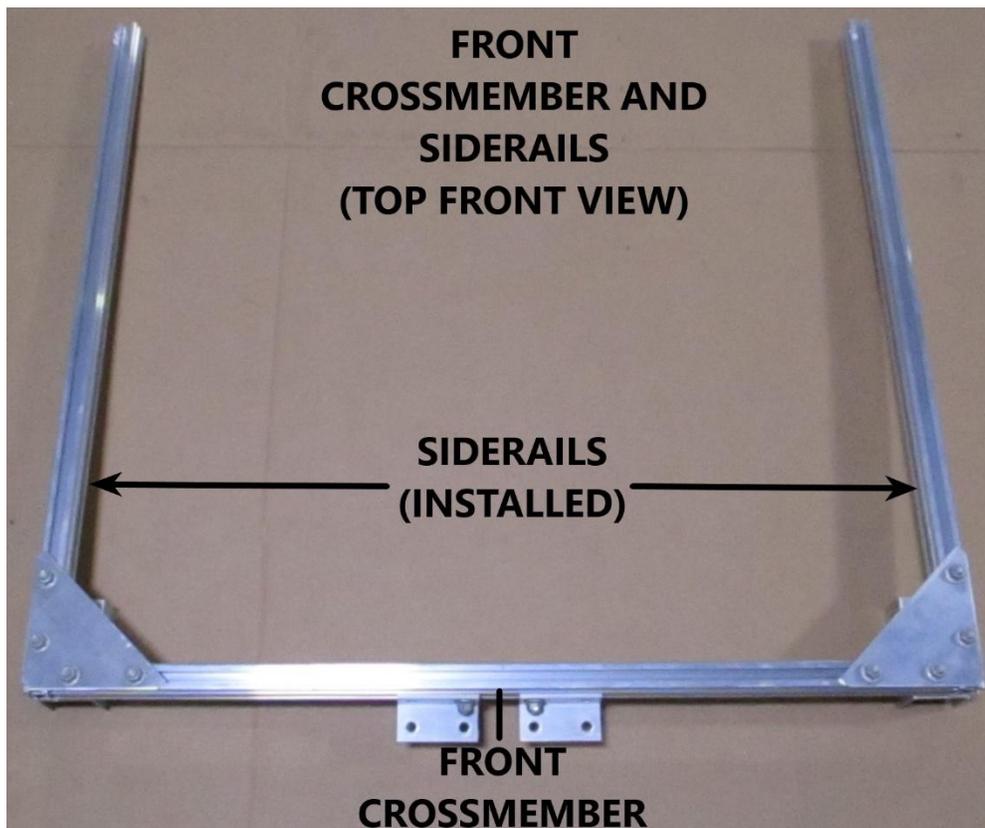
Slide the siderail in between the L-Plate and the subrail clip. Align the T-bolts on the outside of the L-Plate with the siderail so it slides onto the subrail clip.



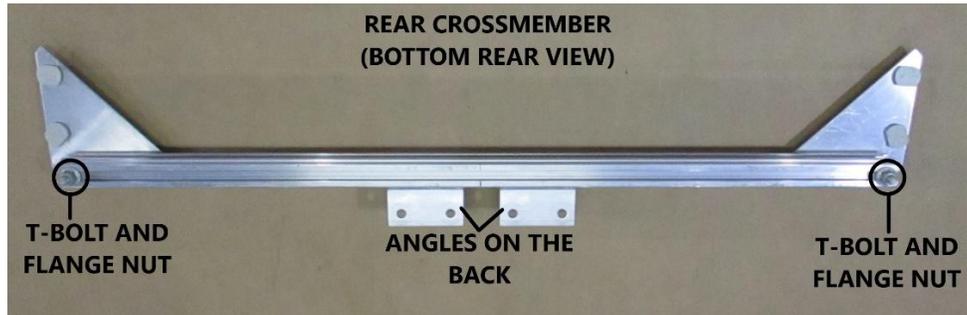
Once the siderail is slid in, make sure that it is **flush** with the **front** of the Front Crossmember.



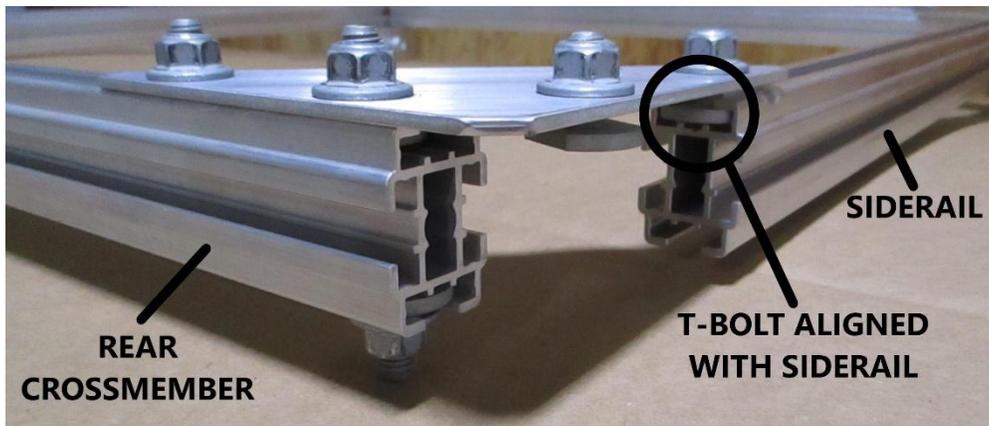
Square the crossmember with the siderail. If necessary, loosen the nuts on the L-Plate and the nut on the subrail clip to square the corner. Tighten all 4 nuts on the L-Plate and the nut on the subrail clip. Repeat the process for the other side.



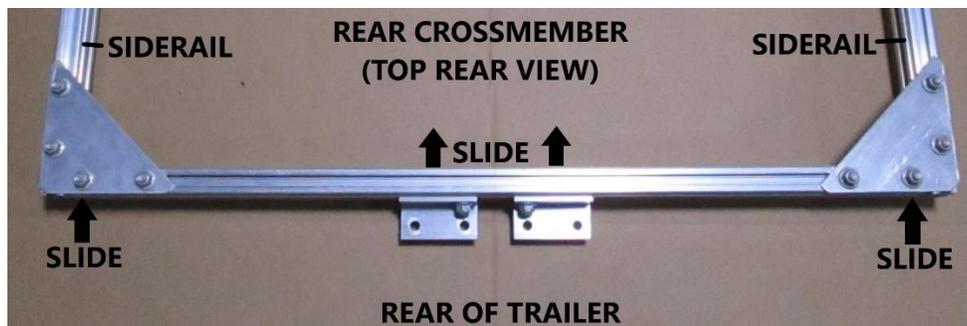
Once both siderails are installed, the frame should look like this.



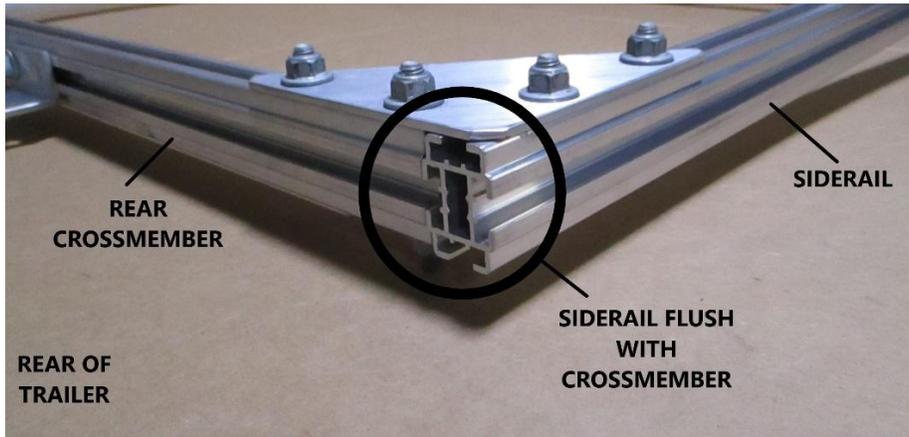
Top and Bottom views of the Rear Crossmember



As with the Front Crossmember, align the T-bolt on the L-Plate into the slot on the top of the siderail. Only start the first T-bolt on each side.

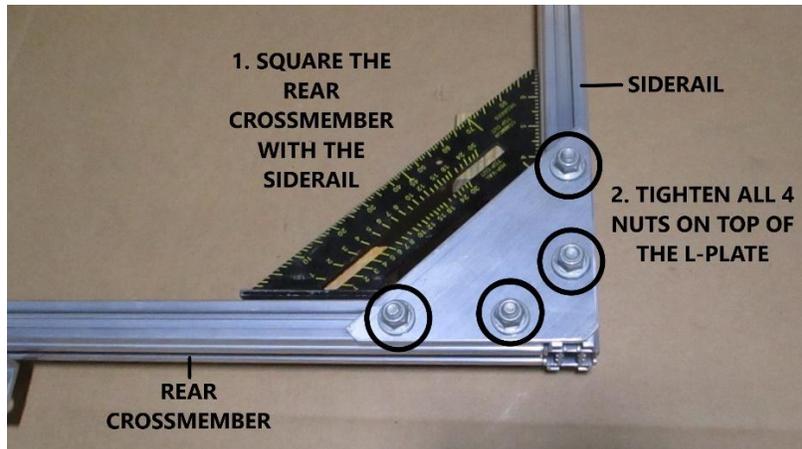


Once the first T-bolts on each side are started, slide the Rear Crossmember assembly towards the Front Crossmember. Some adjustment may be needed for the second/back T-bolt in the L-Plate so the assembly slides forward.

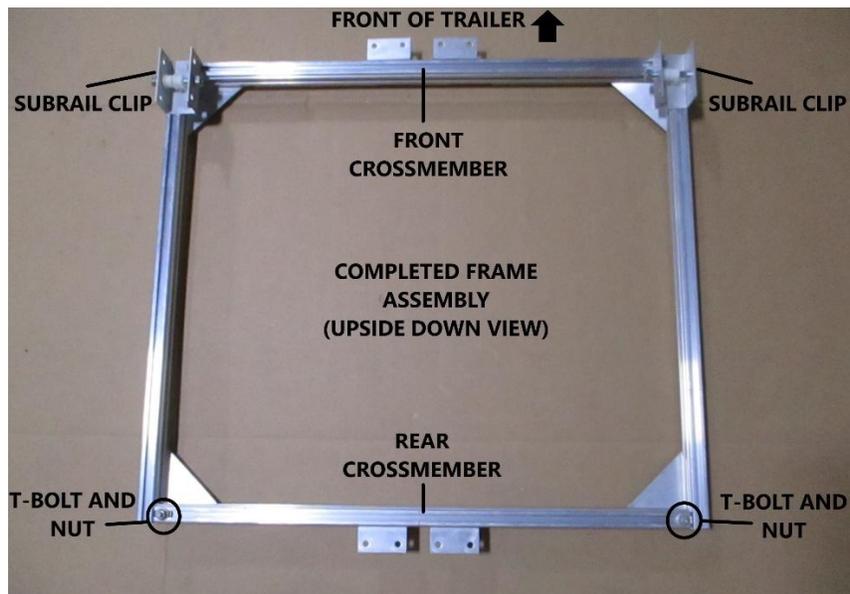


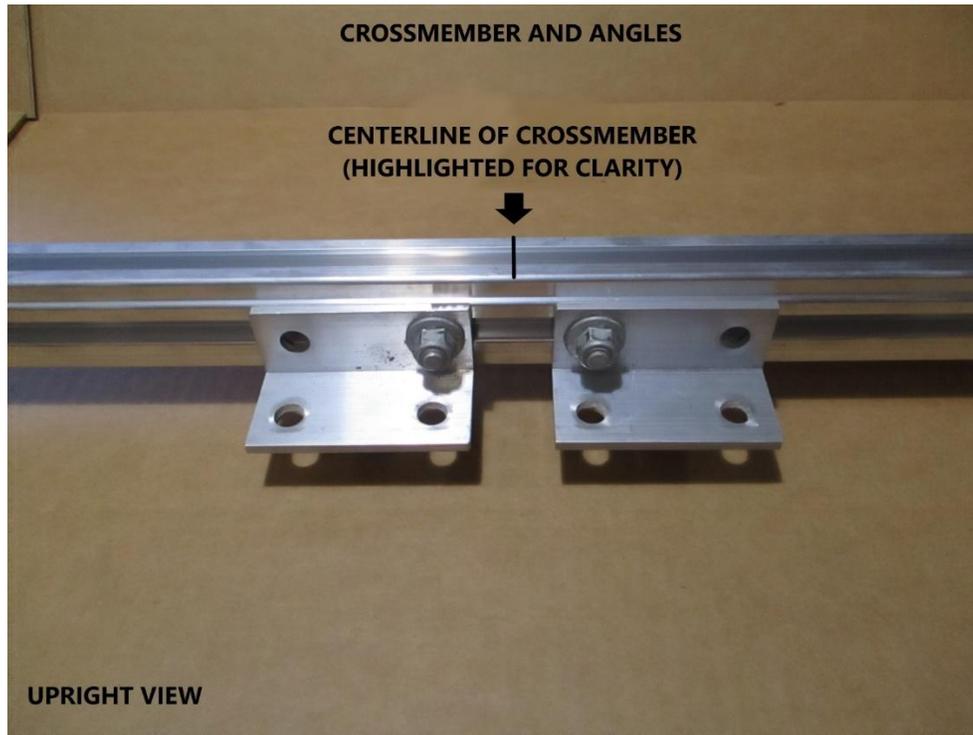
**Note:** One side shown for clarity.

Once the siderail is slid in, make sure the it is **flush** with the **rear** of the Rear Crossmember on **both** sides of the trailer.

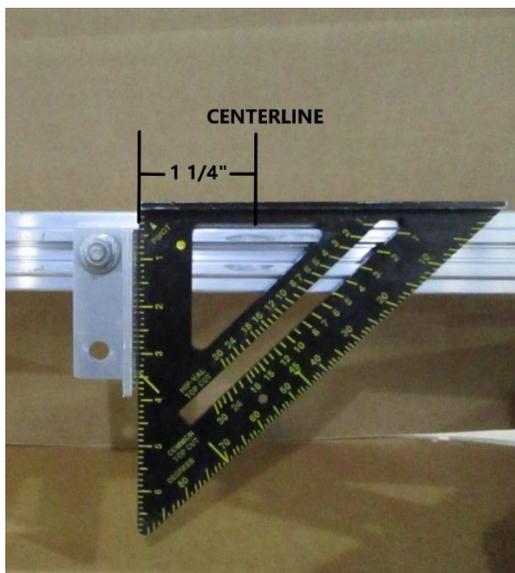


Square the crossmember with the siderail. If necessary, loosen the nuts on the L-Plate to square the corner. Tighten all the nuts on one side before repeating the process for the other side.

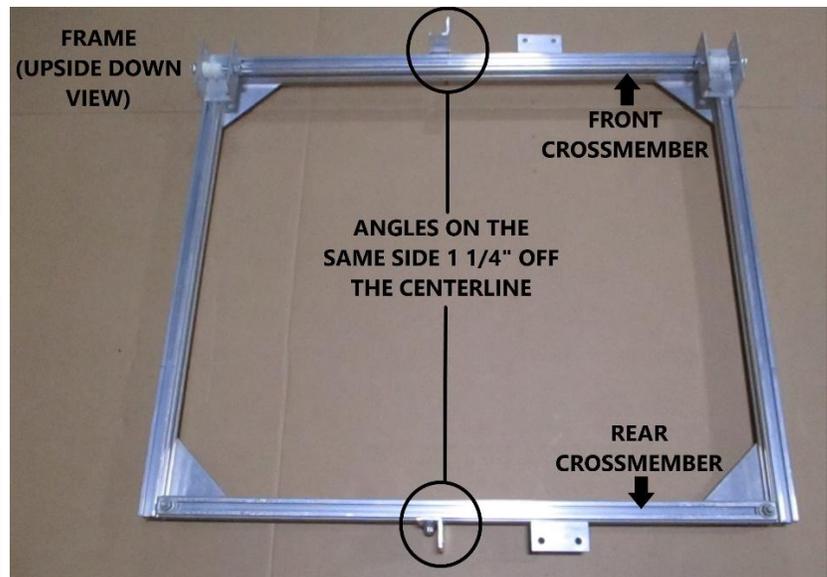




Turn the frame right side up and locate the center line on the top of the crossmember.



(Upright View)

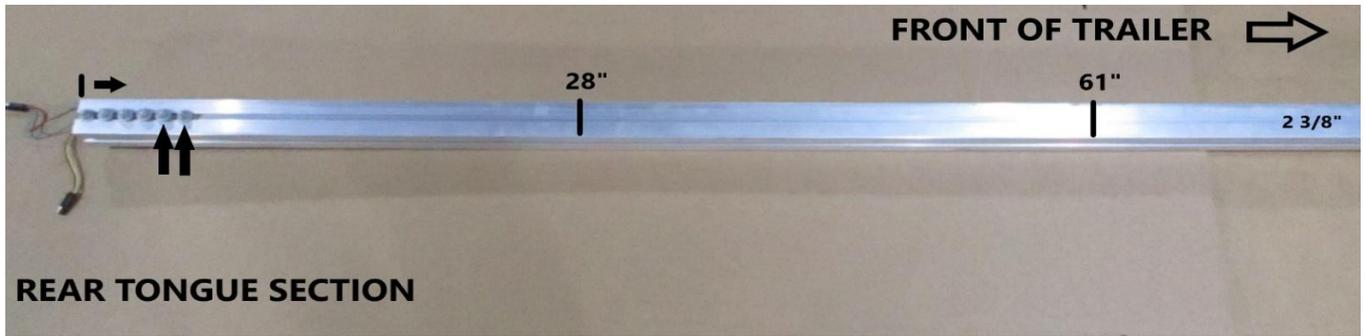


(Frame with angles squared (Upside down view))

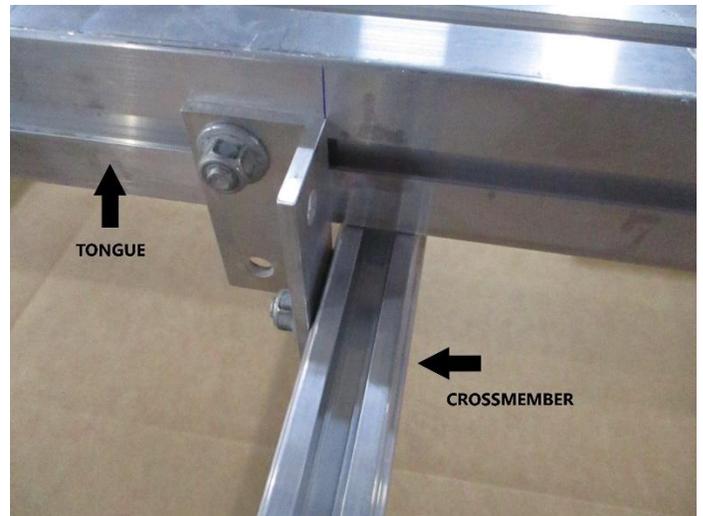
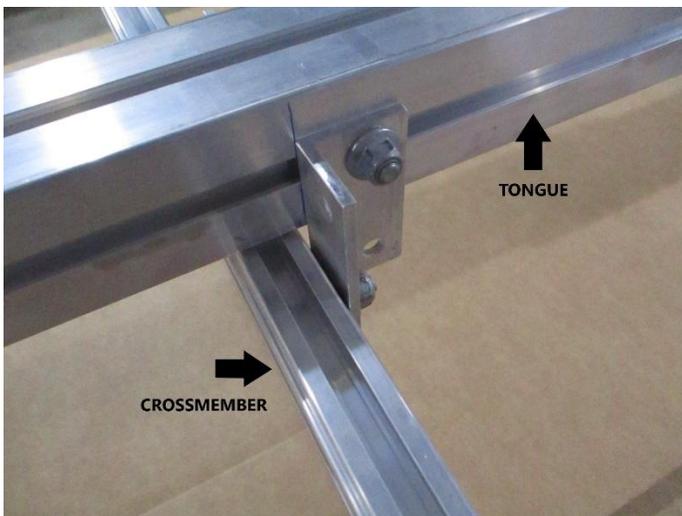
Loosen the nut on one of the angles and move it 1 1/4" from the center line towards the outside of the frame, then square and tighten. Repeat with the same angle on the other crossmember. Leave the other angle in the "up" position for ease of assembly on the tongue.

**Once this step is completed on both crossmembers, turn the frame back upside down so the tongue and frame can be mounted together.**

**NOTE:** Make sure the tongue is upside down (the coupler latch and stickers face down) when attaching it to the frame.

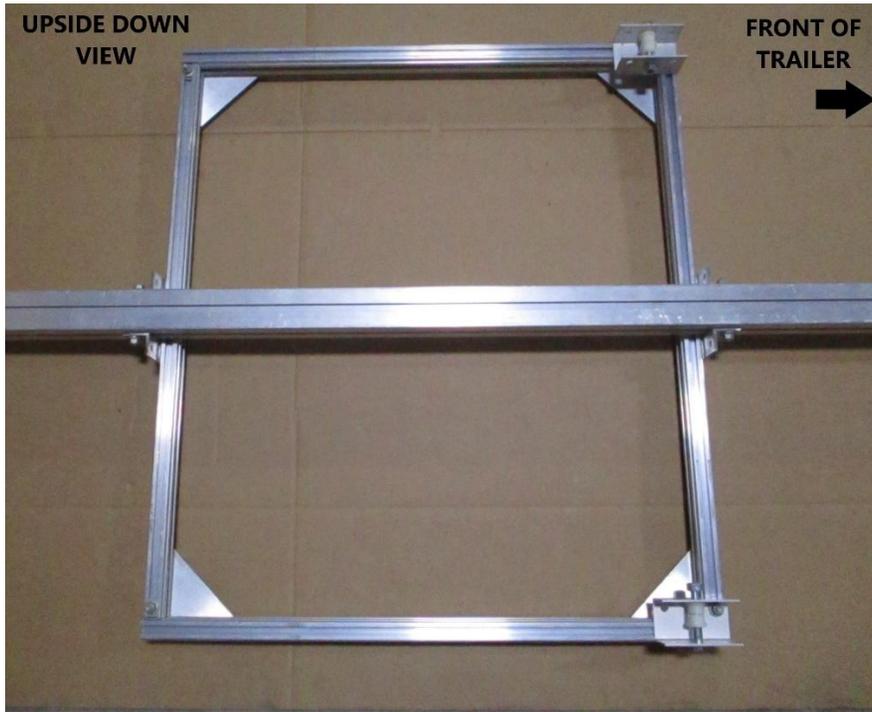


On the rear tongue section, remove the nuts on the 2 T-bolts closest to the front of the trailer and slide them forward to the marks at 28" and 61", as shown in the pictures above and below. Repeat on the other side. These bolts will be used to mount the frame to the tongue assembly.



(Upside down view shown)

Mount the angles from the previous step on the marks on the tongue, as shown. Repeat for the opposite side of the tongue as well.



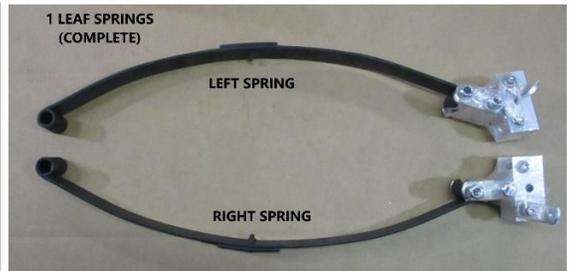
At this point, the trailer should look like this, with the frame mounted to the tongue and the trailer upside down.

### Spring and Axle Installation

Locate the axle, springs, and bag of U-bolts and hardware.



Axle (**Part Q**)

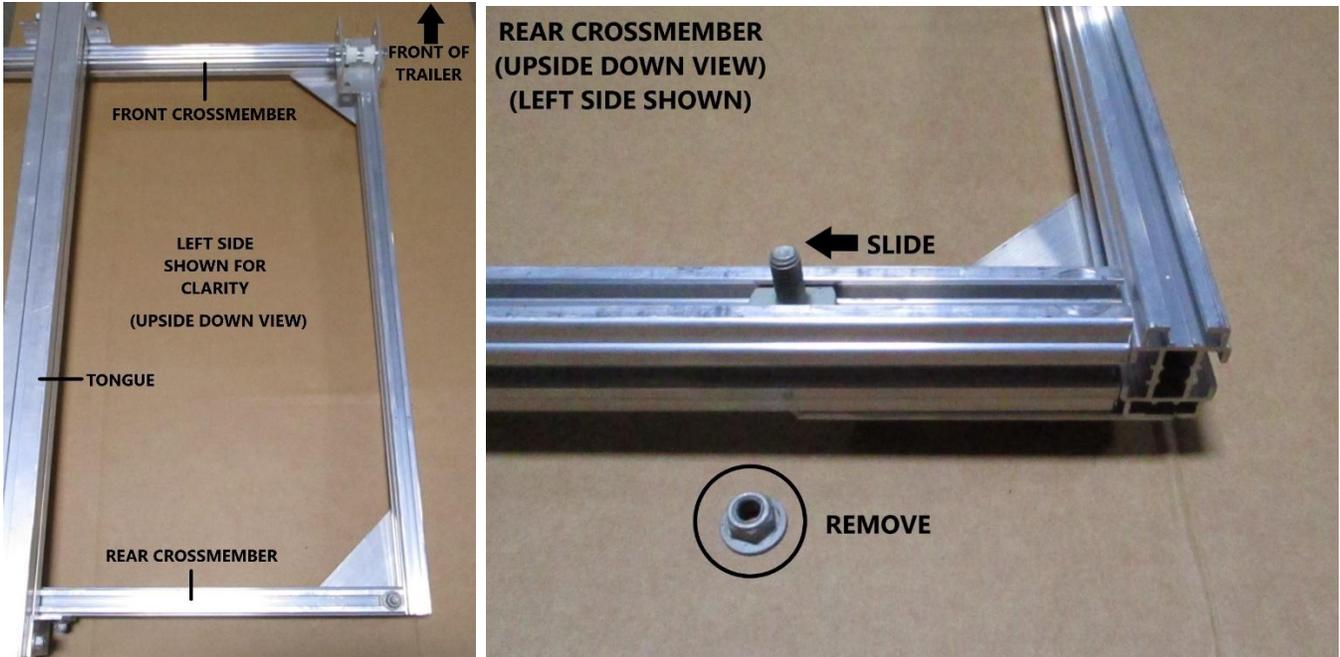


Left and Right Springs (**Part R**)

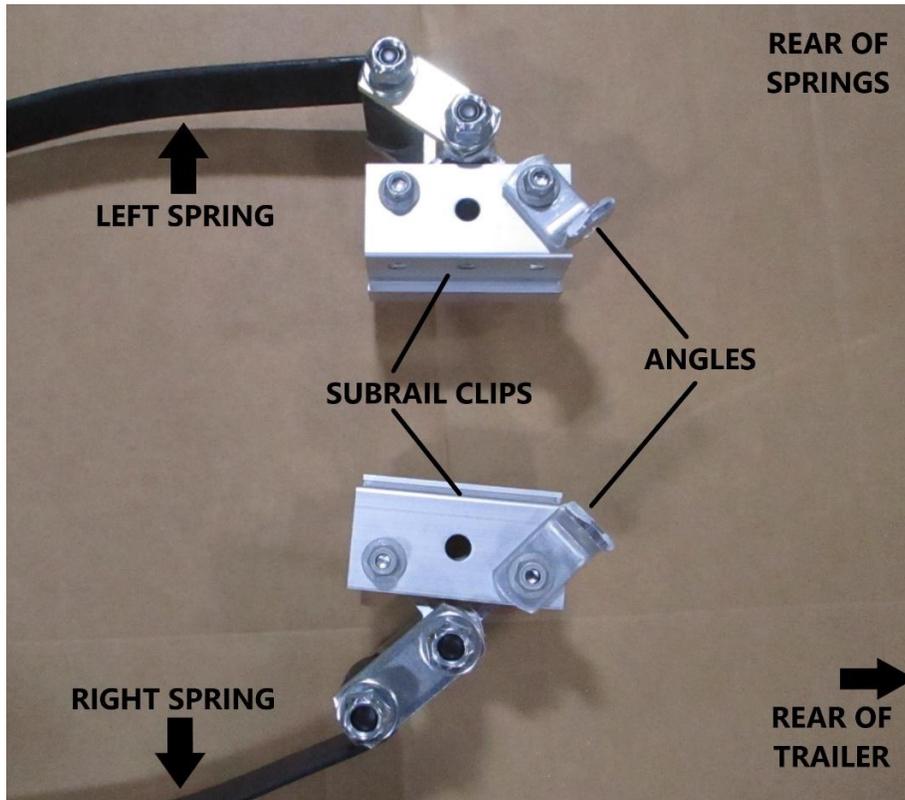


Bag of U-bolts and Hardware (**Part M**)

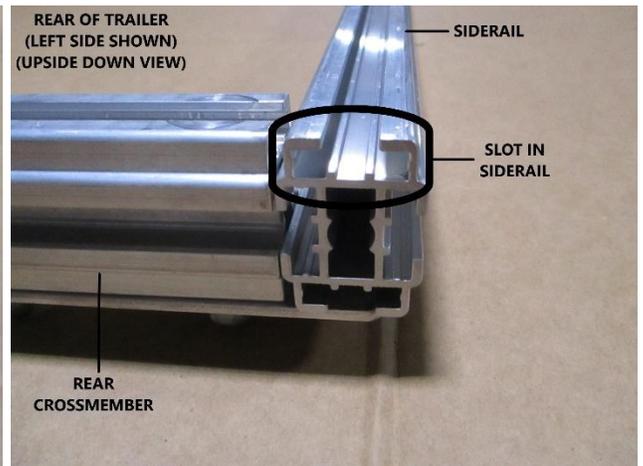
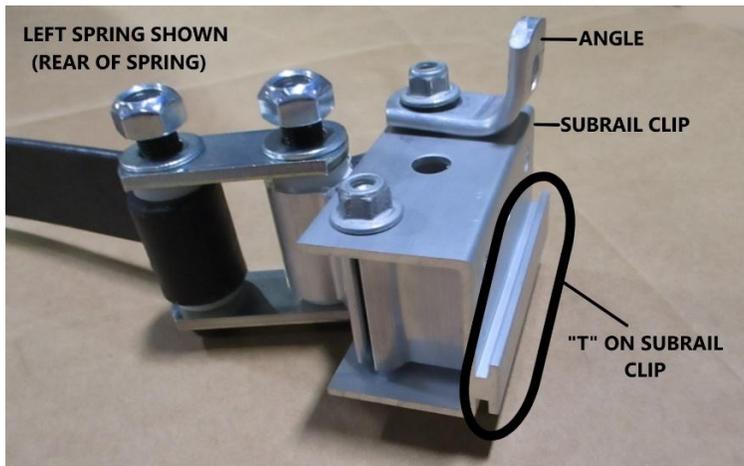
**(NOTE: LEFT side shown for clarity, the process will need repeated for the RIGHT side)**



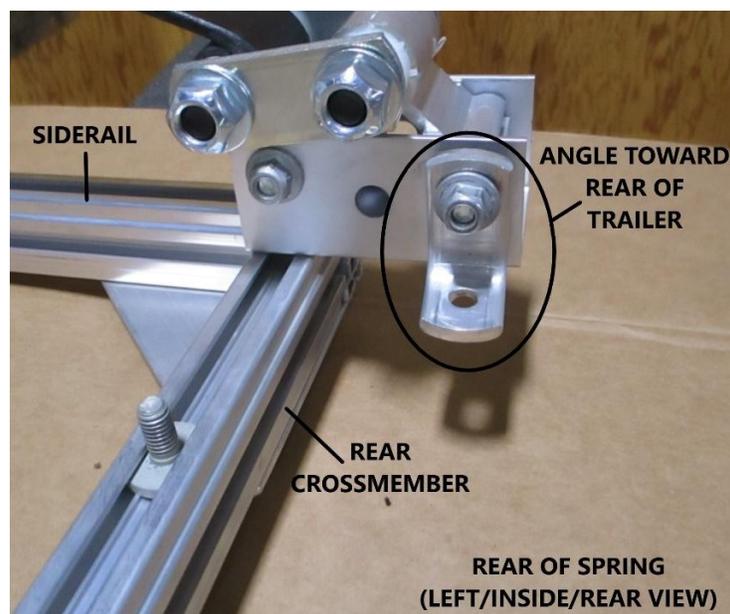
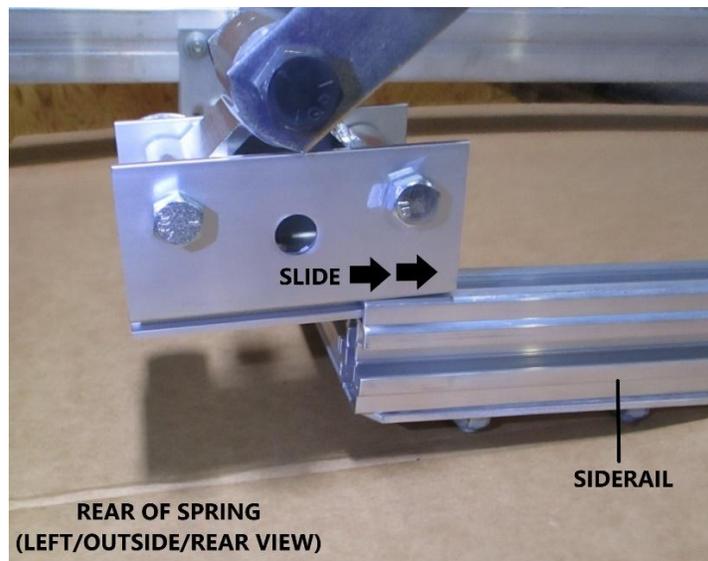
The trailer will be upside down to install the springs and axle.  
Remove the nut from the T-bolt on the rear crossmember and slide the T-bolt toward the tongue.



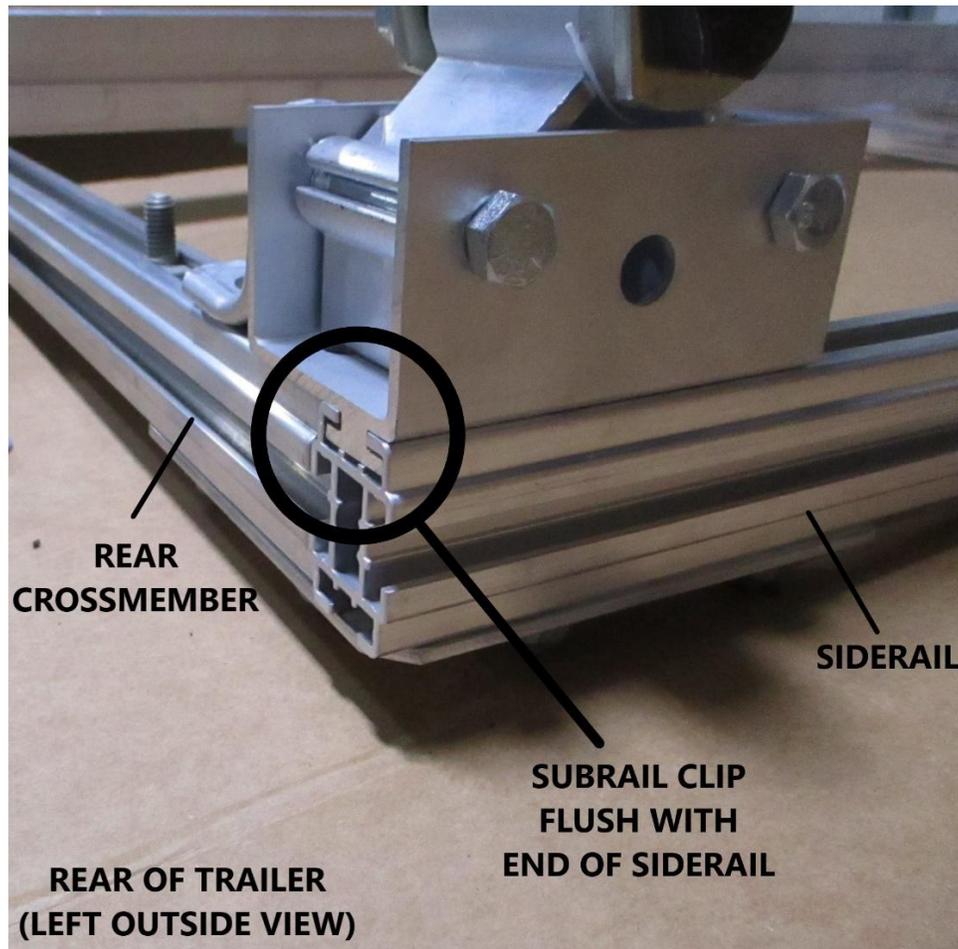
Once the shrink-wrap is removed from the rear of the springs, notice there is a left and a right spring.



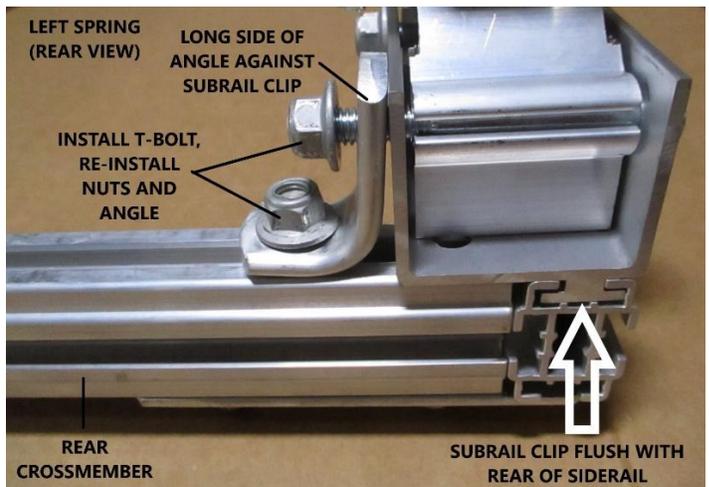
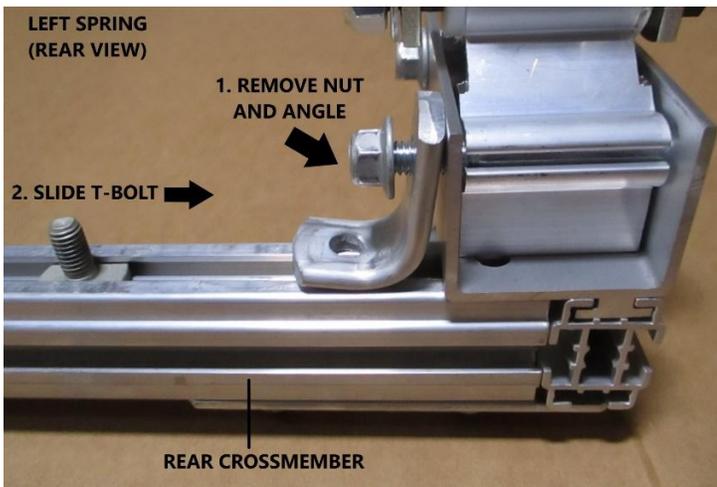
The "T" on the subrail clip will be slid into the slot on the sidrail.



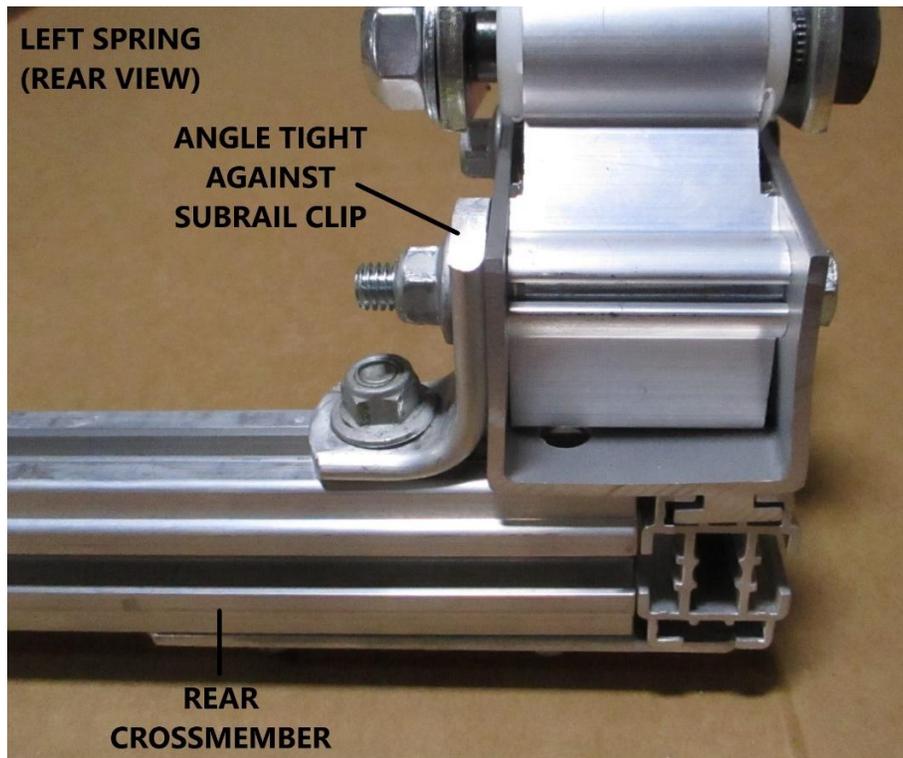
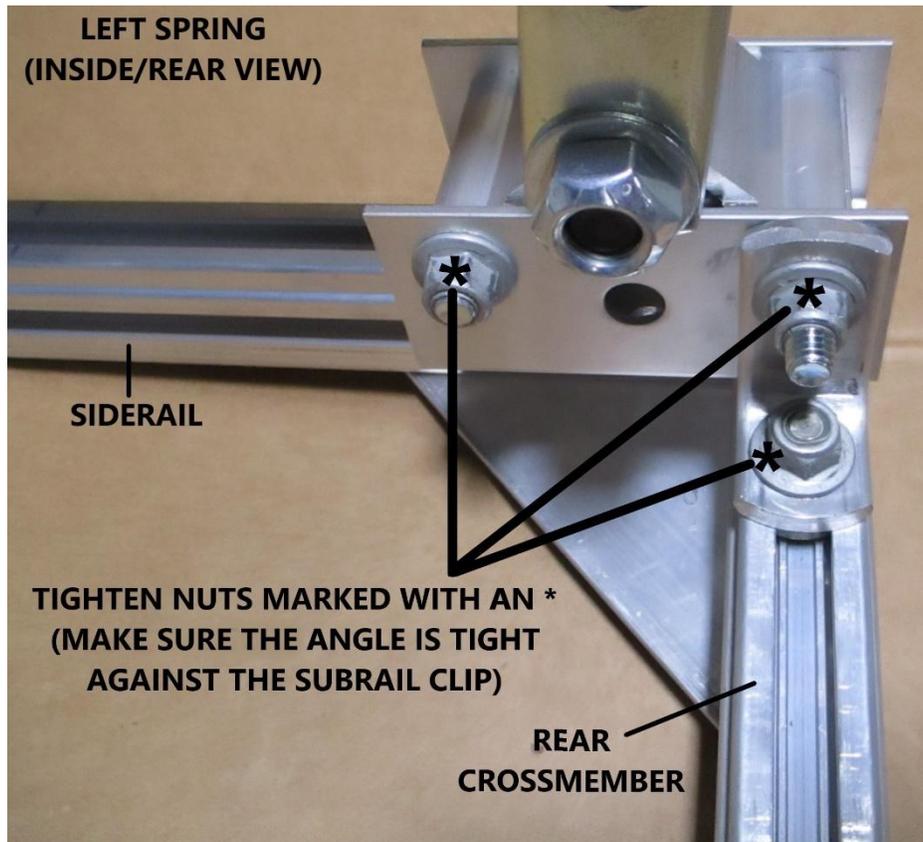
Slide the subrail clip into the slot, make sure the angle is toward the **rear** of the trailer.



Slide the subrail clip in until it is flush with the rear of the siderail.

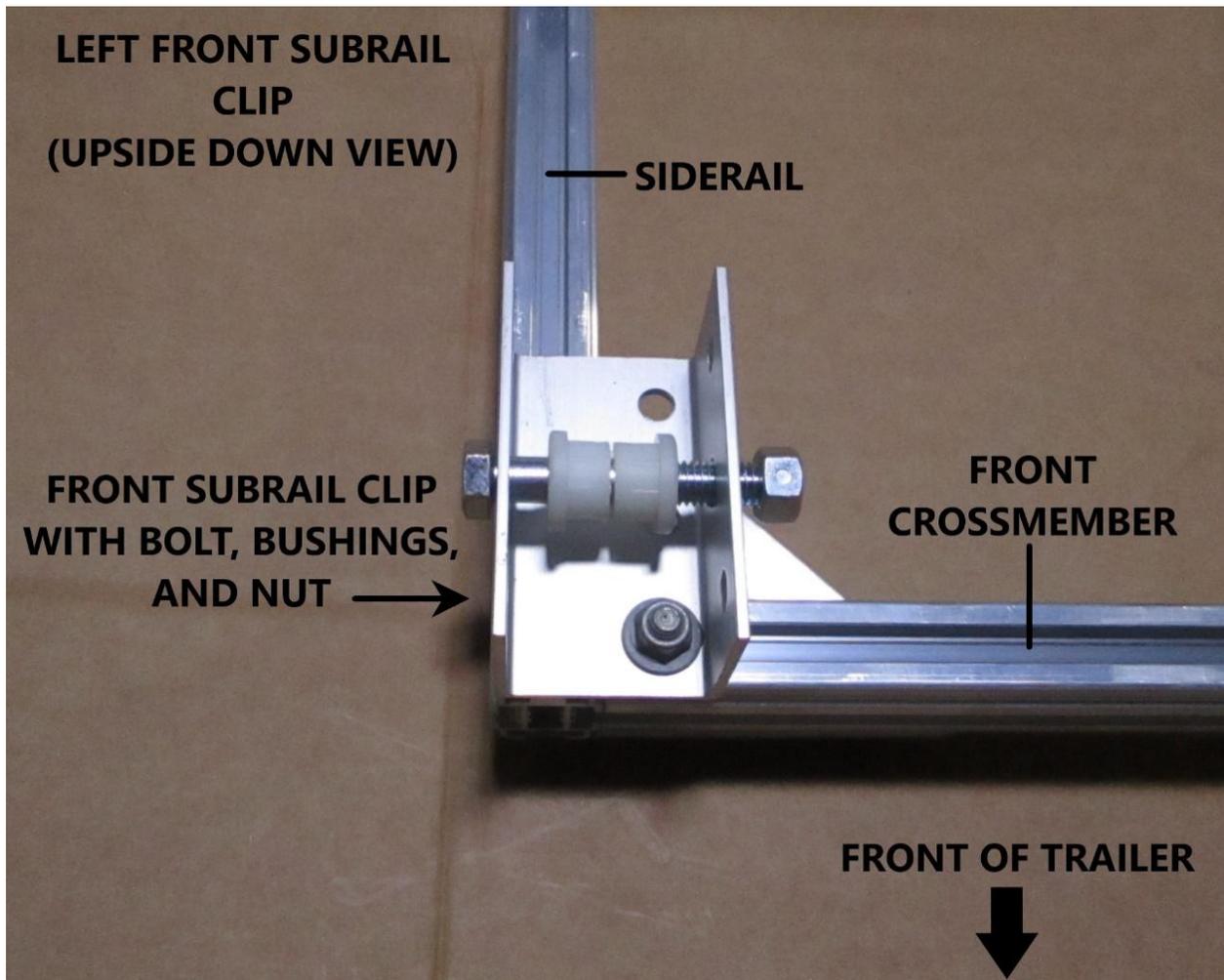


1. Remove the nut and angle from the subrail clip.
2. Slide the T-bolt toward the subrail clip.
3. Re-install the angle onto the bolt in the subrail clip and onto the T-bolt. Make sure the **long** side of the angle is against the subrail clip.
4. Make sure the subrail clip is still flush with the rear of the siderail.

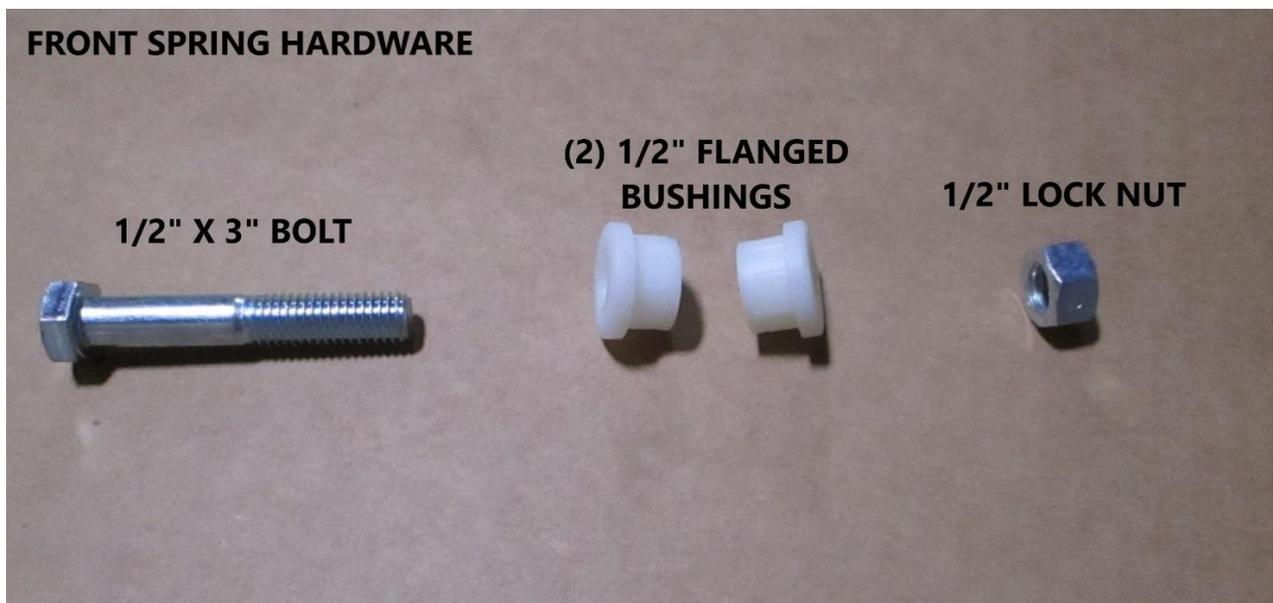


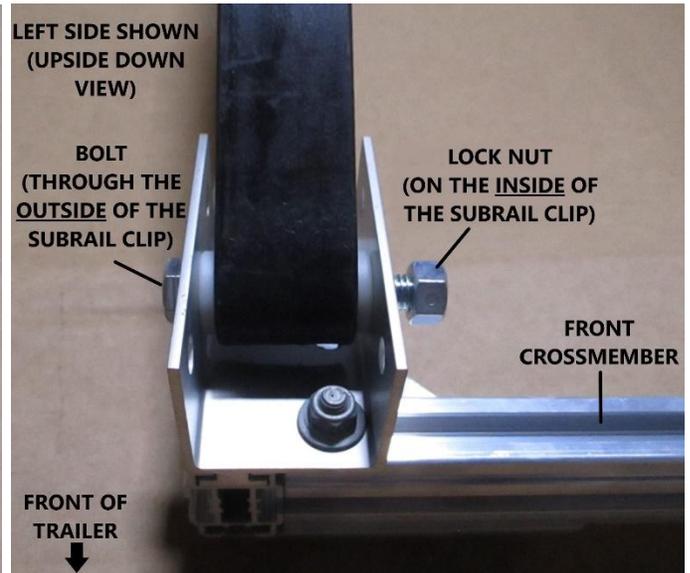
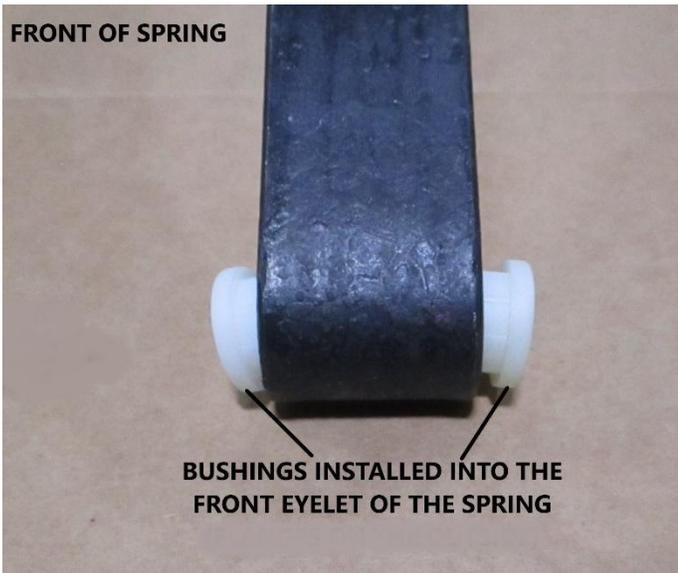
Tighten the 3 nuts marked with an \* above.  
Leave the other bolts and nuts loose at this time.

Repeat the process for the rear of the right spring.



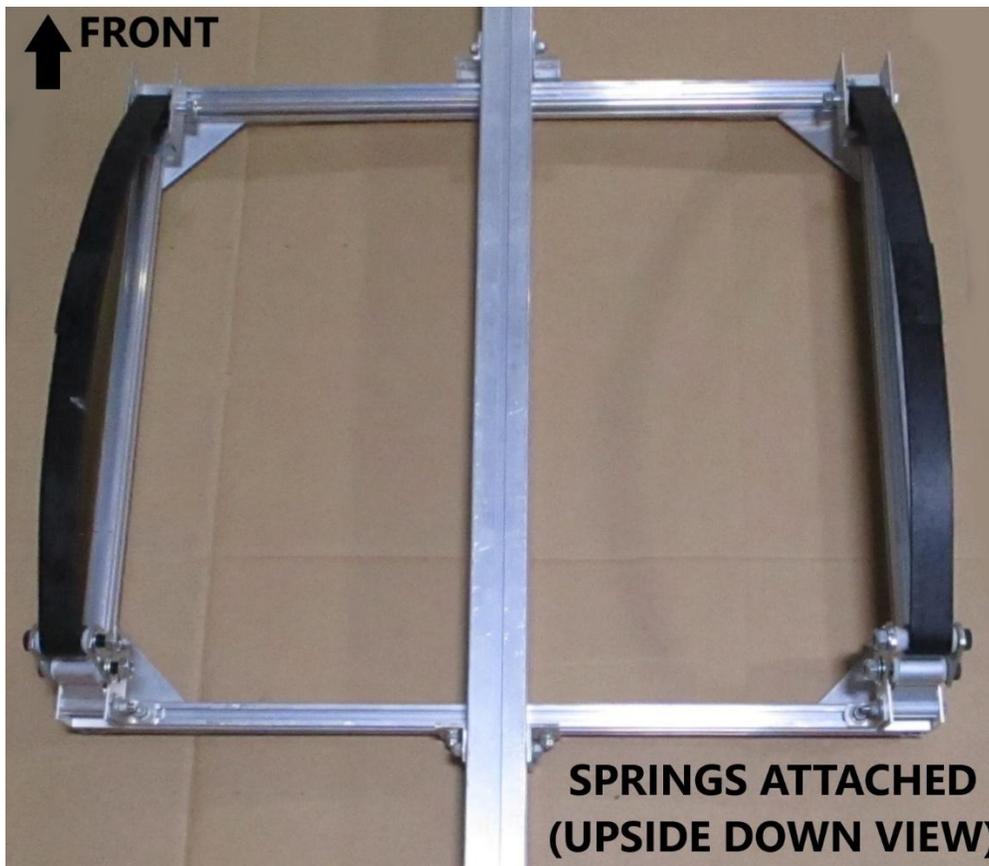
Moving to the front left of the trailer, remove the 1/2" bolt, 2 bushings, and the lock nut from the front subrail clip.



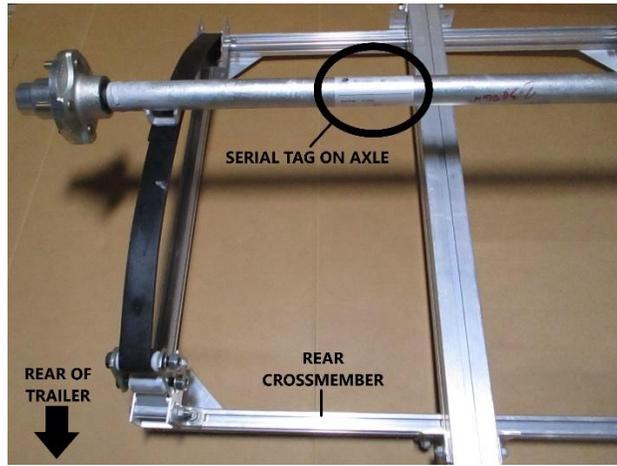


Install the bushings into the front eyelet of the spring then install the front of the spring into the front subrail clip. Once installed, install the 1/2" bolt from the outside of the subrail clip toward the inside and install the lock nut. Just handtighten the nut for this step.

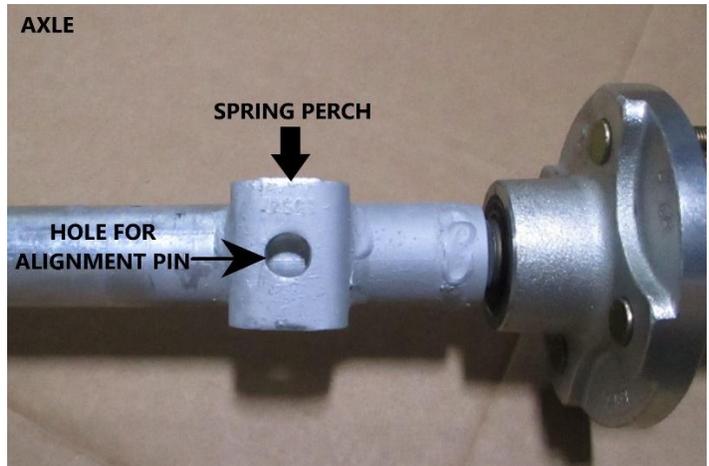
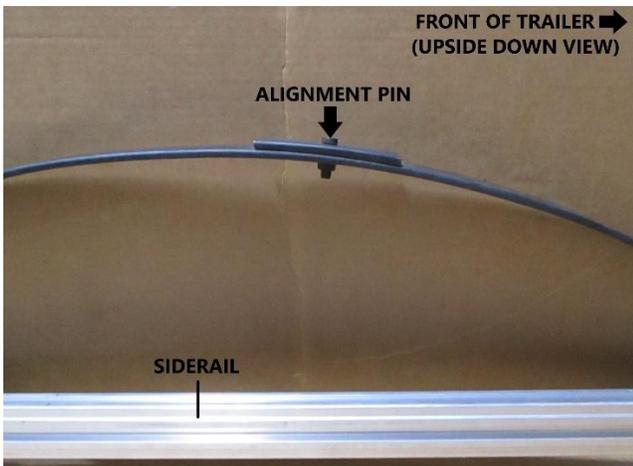
Repeat the process for the front of the right spring.



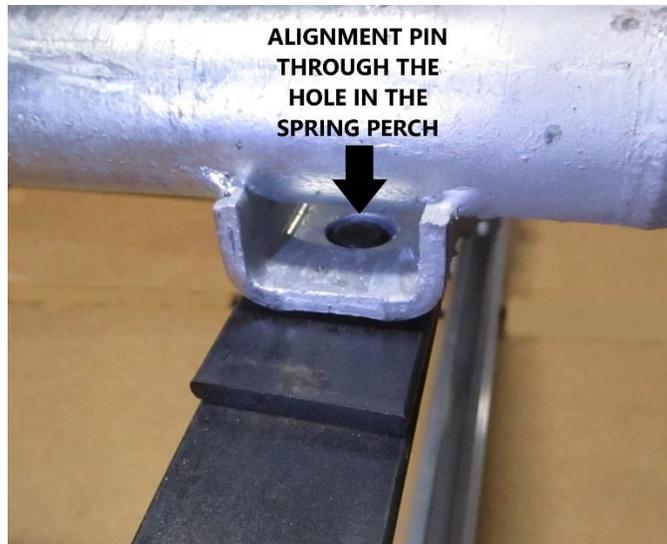
The trailer should look like this at this point.



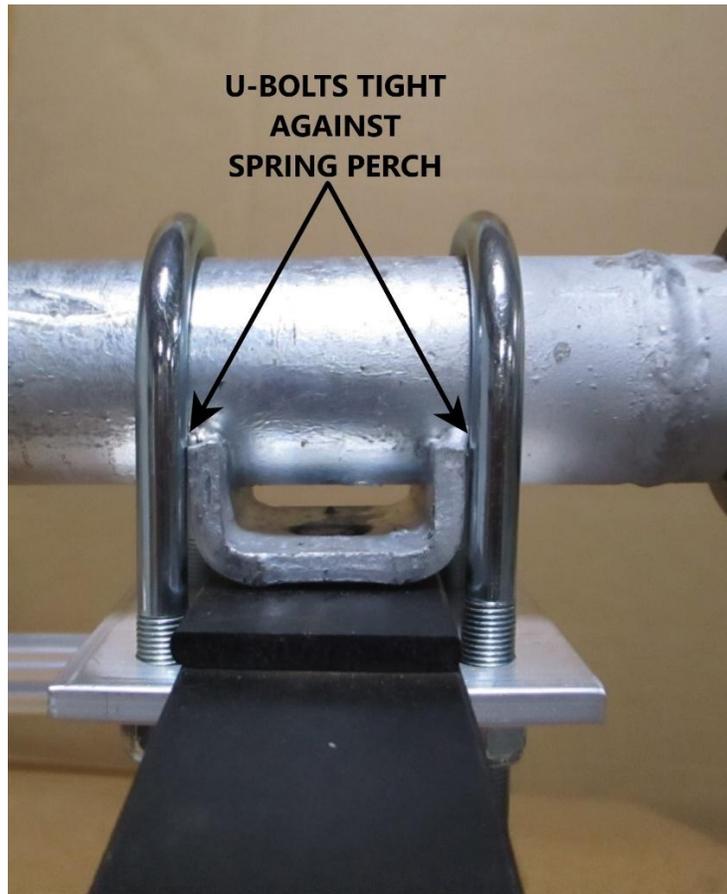
When installing the axle, make sure the Serial Tag on the axle faces the rear of the trailer to protect it from debris.



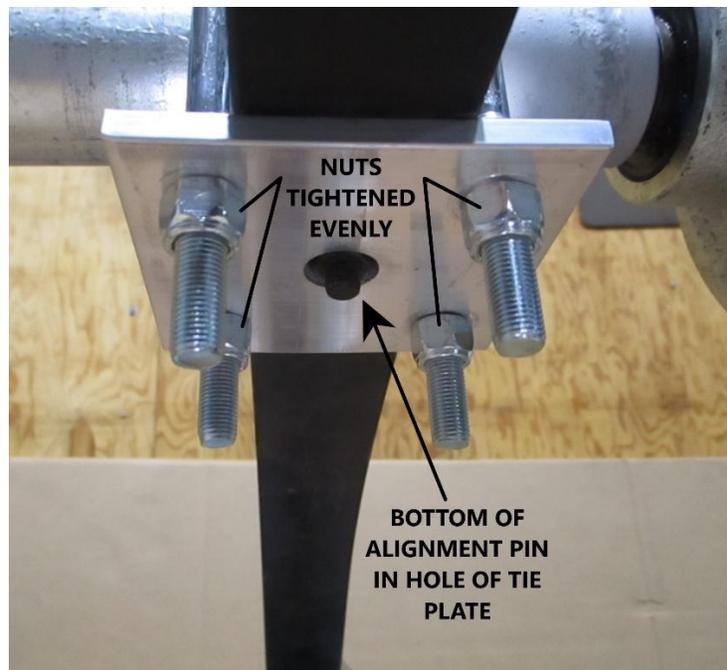
Locate the alignment pin on the spring and the hole in the spring perch on the axle.



Install the axle with the hole in the spring perch on the alignment pin of the spring on both sides of the trailer.

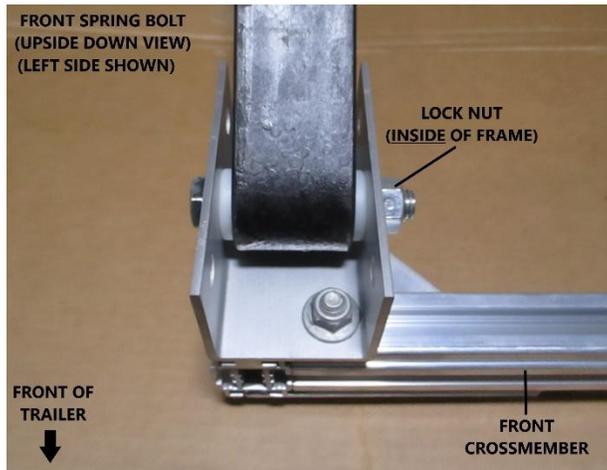


Install the U-bolts over the axle and keep them tight against the spring perch.

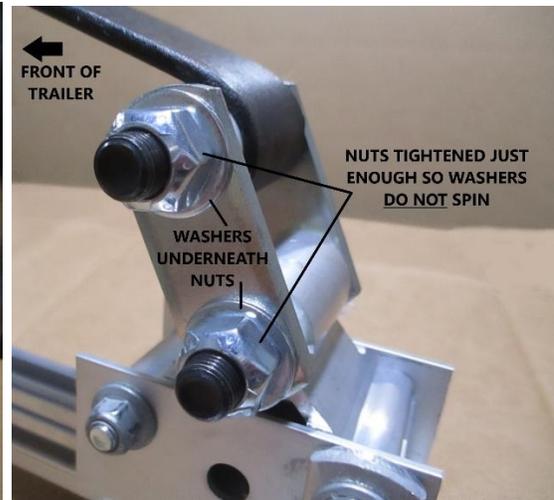
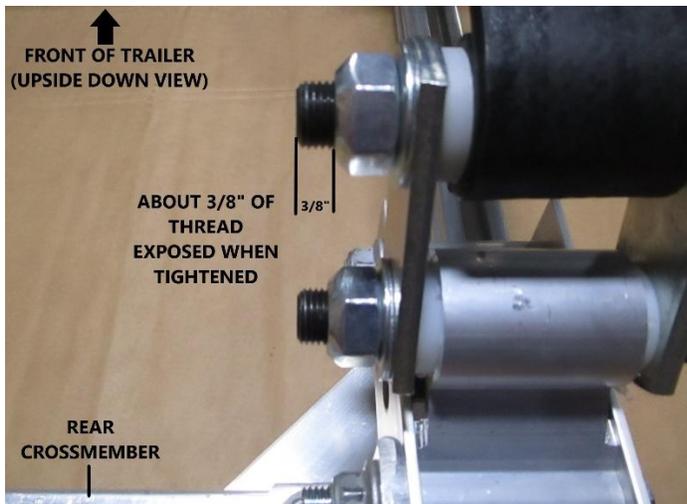


The bottom of the alignment pin goes through the center hole of the tie plate. Tighten all 4 nuts evenly. These are lock nuts, there will be resistance when tightening them.

Repeat the process for the other side.

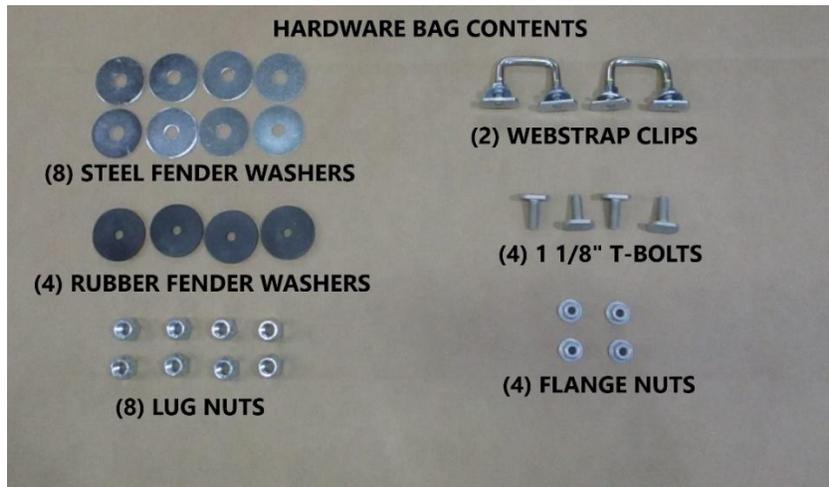


Starting with the front of the spring, tighten the front spring bolt. This is a lock nut, there will be resistance when tightening it.  
Repeat for the other side.



Tighten the shackle lock nuts. These are lock nuts, there will be resistance when tightening them. Install the nuts until approximately 3/8" of the threads are exposed. **DO NOT** overtighten these lock nuts as this will not allow the suspension to move properly. Tighten the nuts just enough so that the washer does not spin. Once the trailer is complete, push down on the siderail to make sure the shackle assemblies move freely.

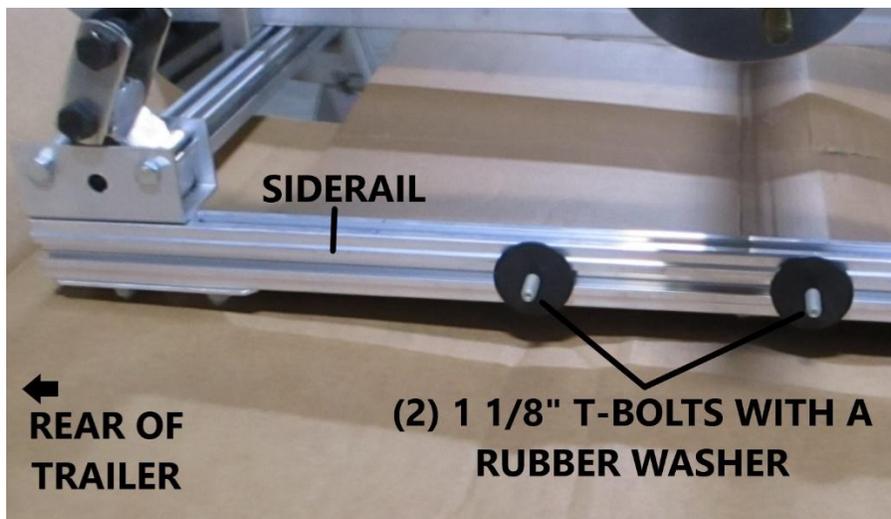
## Fender Installation



Locate the hardware bag (**Part L**), this contains the hardware for mounting the fenders, tires, and 2 webstrap clips.



Locate the 2 fenders (**Part O**)



From the rear of the siderail, slide (2) 1 1/8" T-bolts into the slot on the outside. Install (1) rubber washer over each of them.



Install a steel washer over each rubber washer, then install the fender over the T-bolts and washers.



Install another steel washer over each T-bolt on the inside of the fender. Center the fender with the hubface of the axle, install a nut on each of the T-bolts and tighten.

Repeat the process for the other side of the trailer.

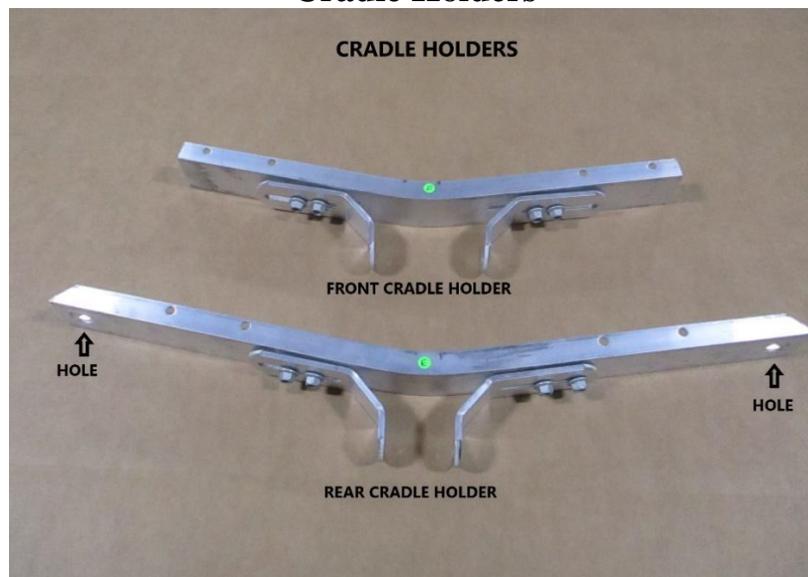


Install a webstrap clip onto each siderail behind the fender and tighten the nuts.



Trailer should look like this at this point.  
(Shown upright and on floor)

### Cradle Holders



Locate the Front Cradle Holder (**Part D**) and Rear Cradle Holder (**Part E**).  
The front one is shorter. The rear one is longer, and has a hole on each end.





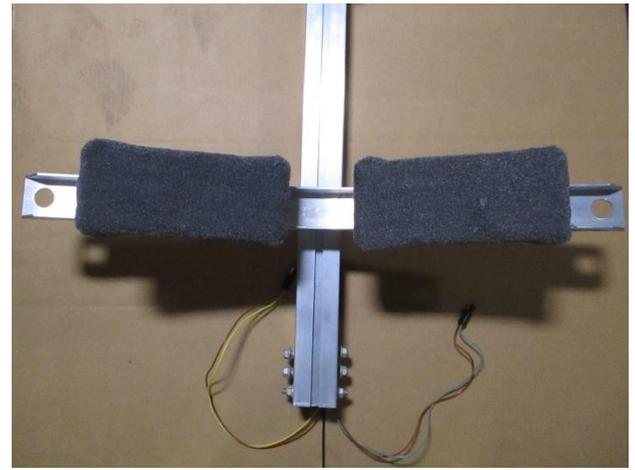
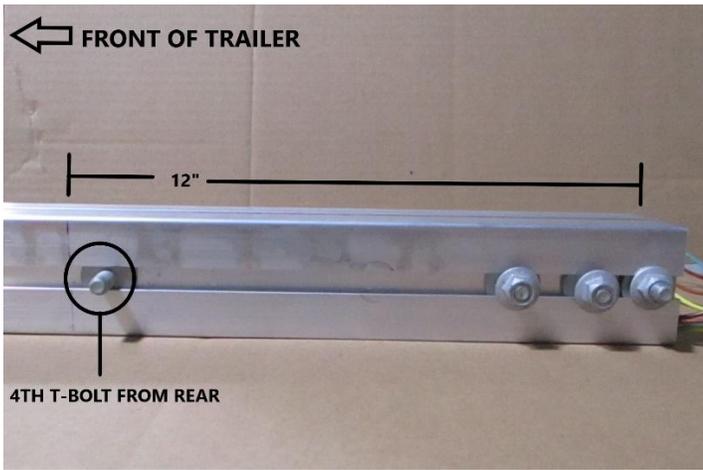
Locate the 4 padded cradles (**Part C**), with the 2 3/4" bolts installed.



Install the padded cradle inside the cradle holder, slide the 2 3/4" bolt through the cradle holder and the pivot plate on the padded cradle, install the nut and tighten. (Shown mounted to the inner position. The final position will be determined when the boat is fitted to the trailer.)



Front padded cradle holder assembly installed. (Top view shown)

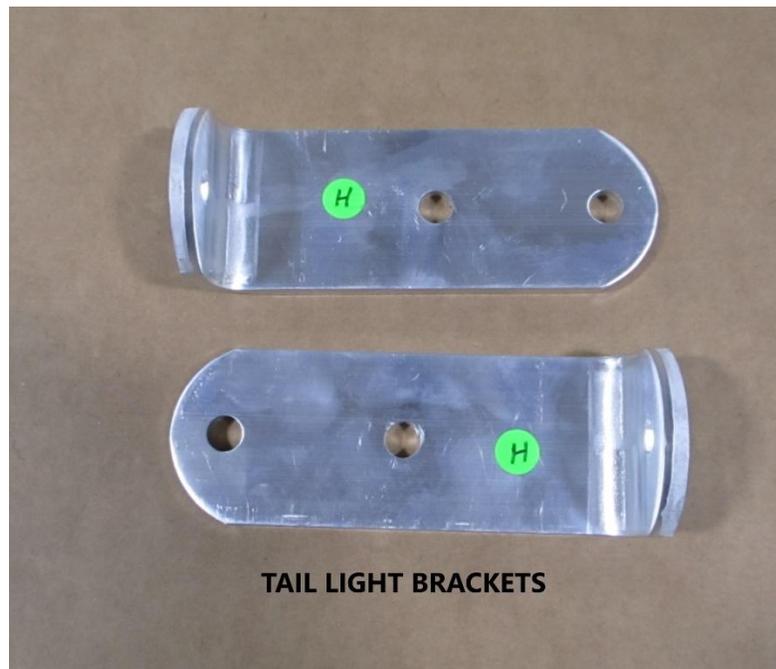


For the rear cradle holder, measure 12" from the rear of the trailer, loosen and remove the nut from the 4th T-bolt from the rear on each side. Install the rear cradle the same as the front is installed. The final position will be determined when the boat is fitted to the trailer.

### Rear roll and tail light brackets

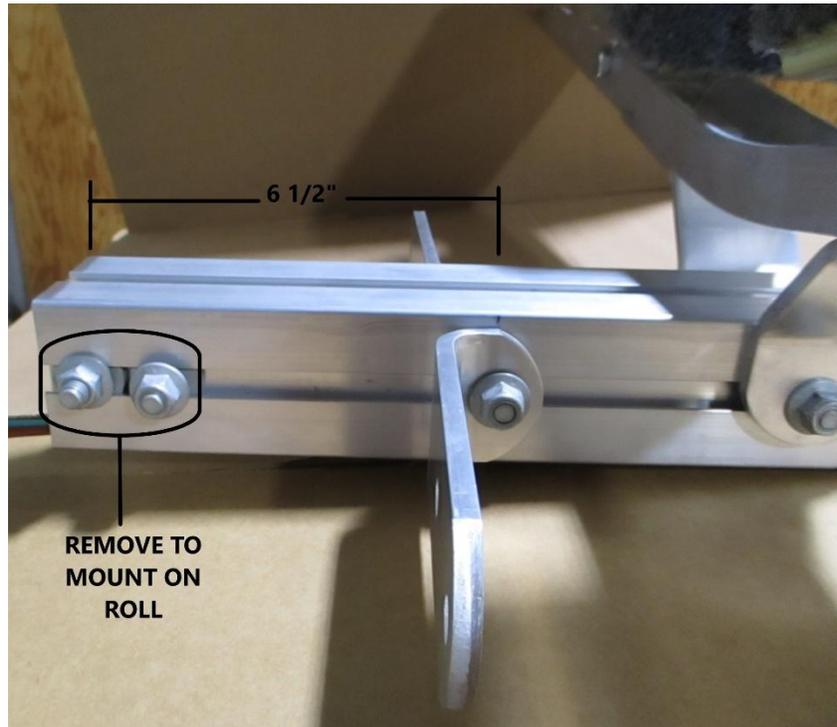


6 inch roll (**Part F**)

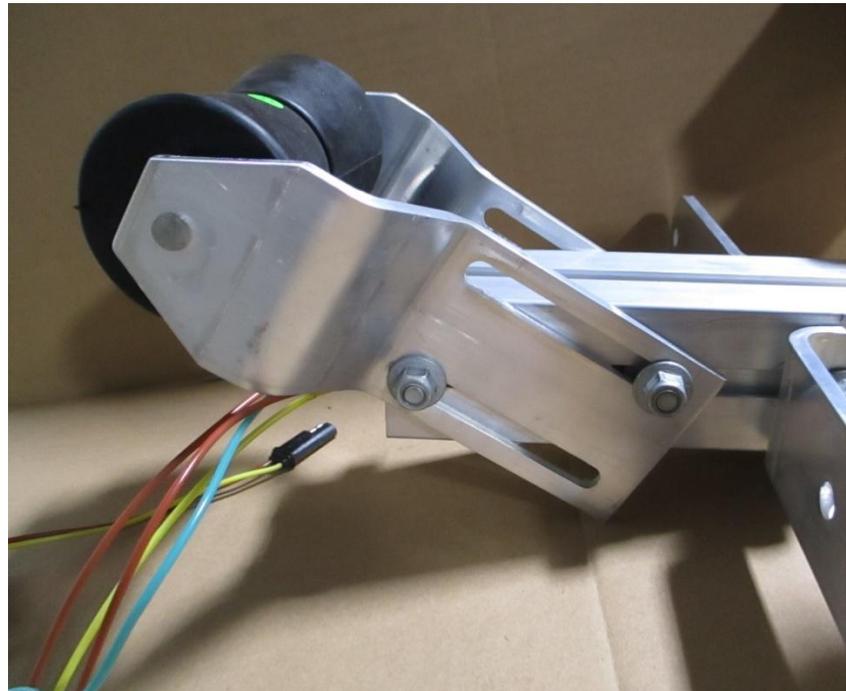
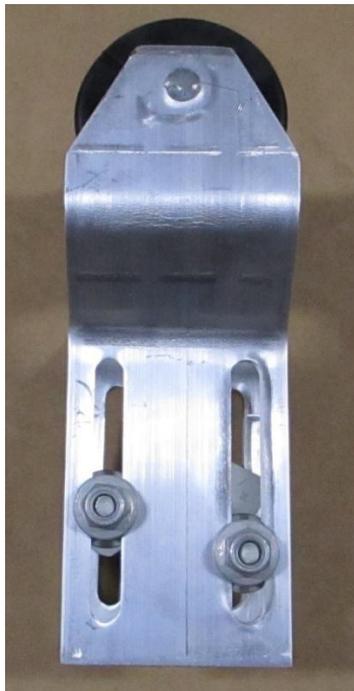


2 Tail light brackets (**Part H**)

Locate the 6 inch roll (**Part F**) and the 2 tail light brackets (**Part H**)



Move the third T-bolt 6 1/2" inches from the end and mount a tail light bracket (**Part H**) onto each side. Next, loosen and remove the remaining 2 T-bolts and nuts from the end of the tongue to install into the 6 inch roll (**Part F**).

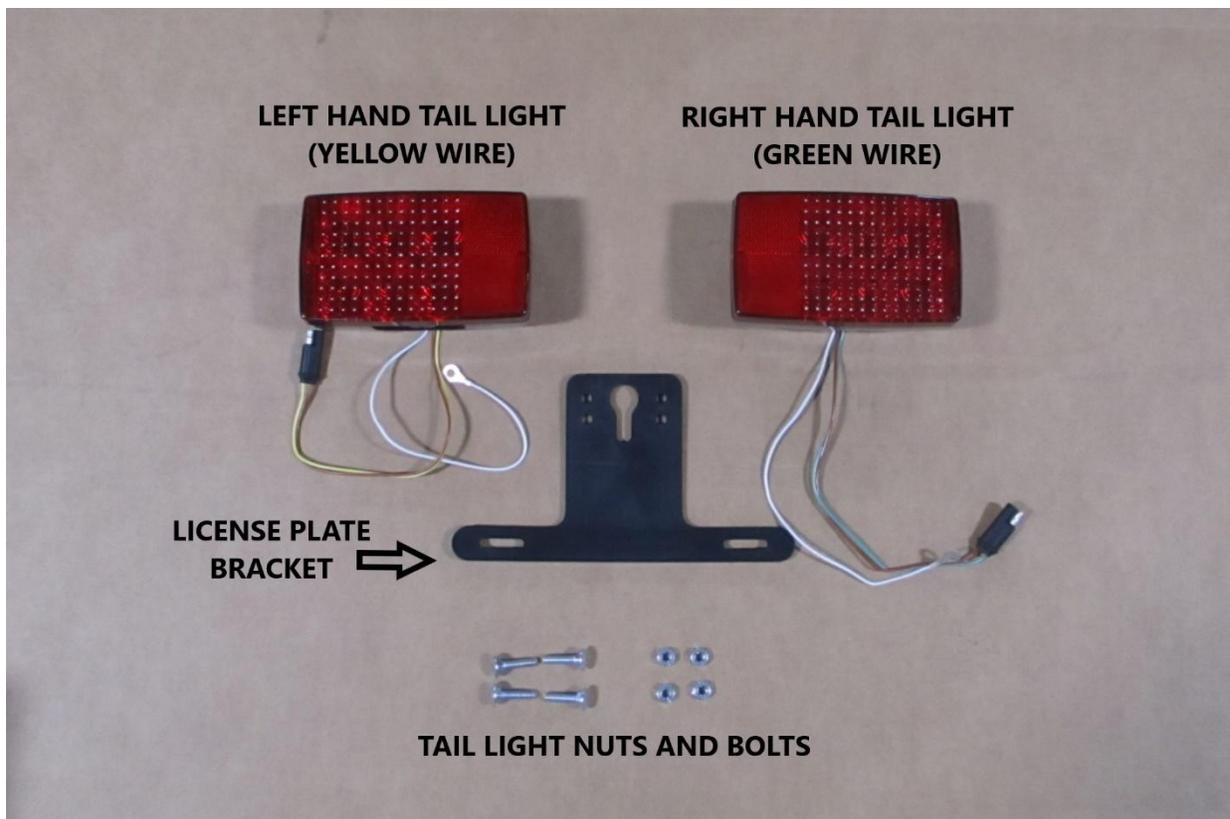


With the T-bolts removed from the tongue in the previous step, install one of them into each slot of the 6 inch roll, as shown above. Then, slide it on the tongue and tighten as shown. **NOTE:** The final position of this roller is such that it never touches the hull during transport, only during launch and retrieval.

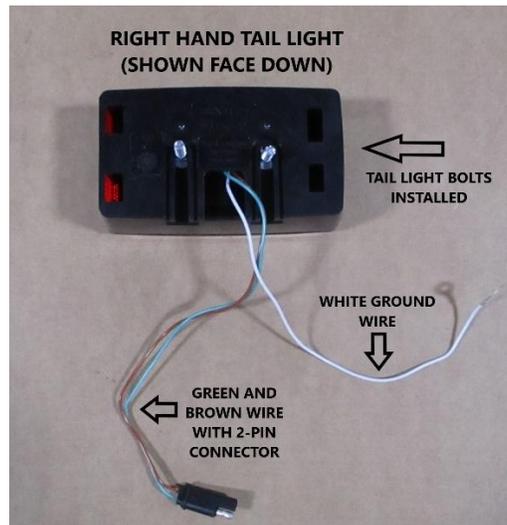
## Wiring and lights



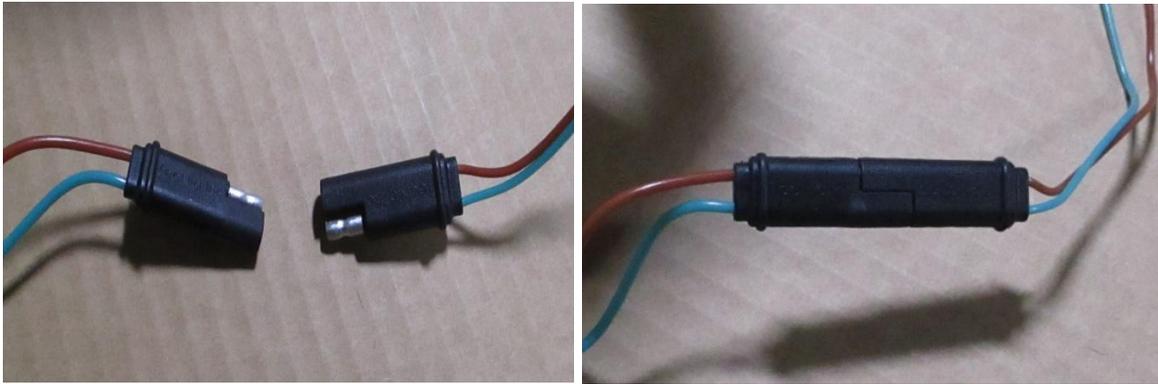
Locate the tail light kit box (**Part Q**), two tail lights, two marker lights, a license plate bracket, and a bag of electrical parts. NOTE: This is a universal tail light kit, some parts in the bag may not be used on your trailer.



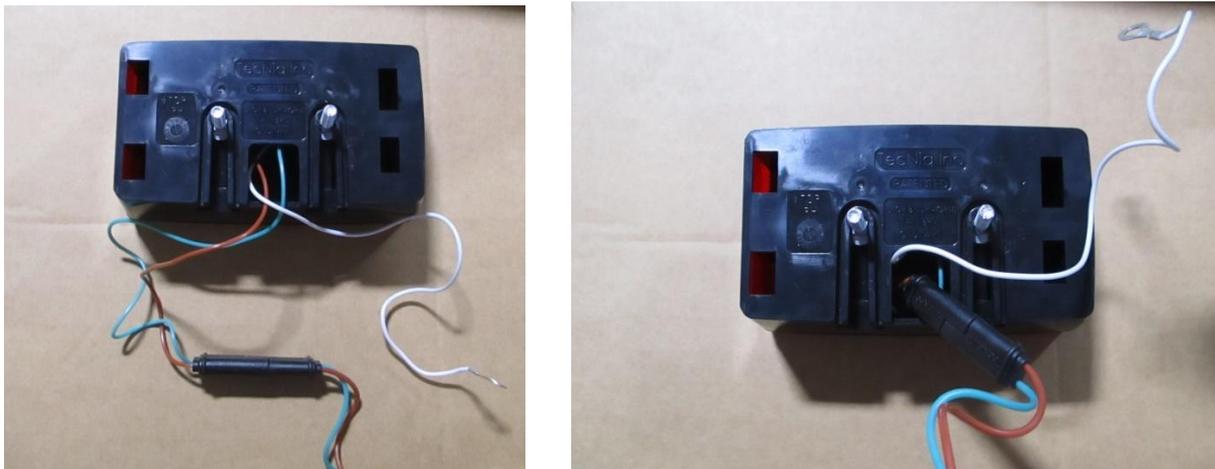
Locate the tail lights, the license plate bracket, and the nuts and bolts from the kit.



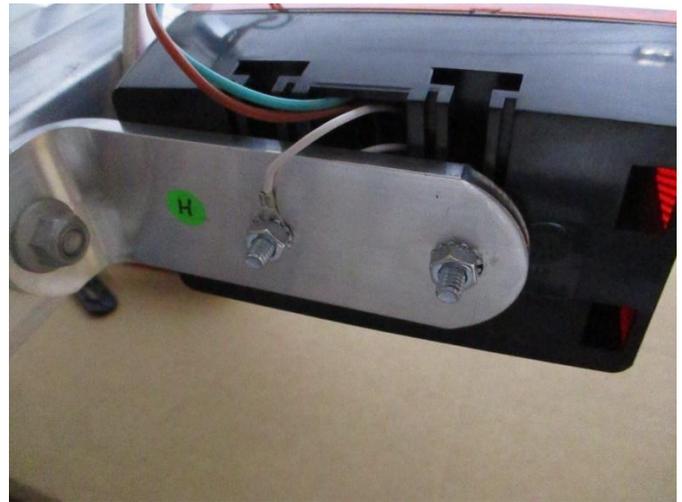
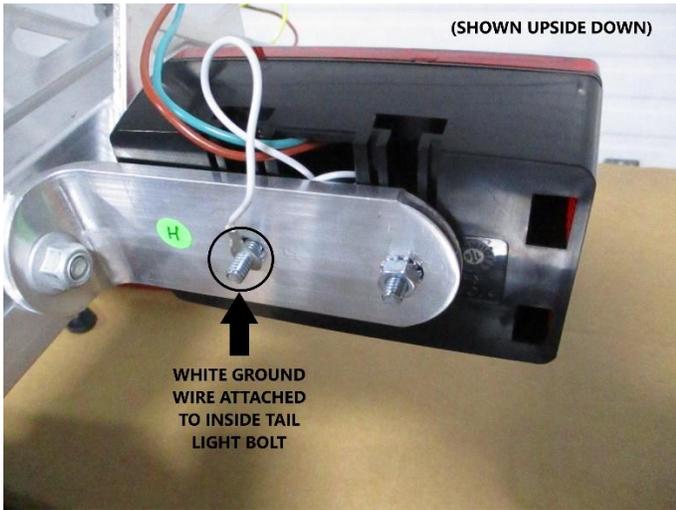
Install the tail light bolts into the back side of the right hand tail light in the slots. Slide them all the way to the top of the slots.



Connect the 2-pin connector for the right hand light with the connector on the wiring harness coming from the rear of the tongue. The green and brown connector from the light will plug into the green and brown connector from the harness.



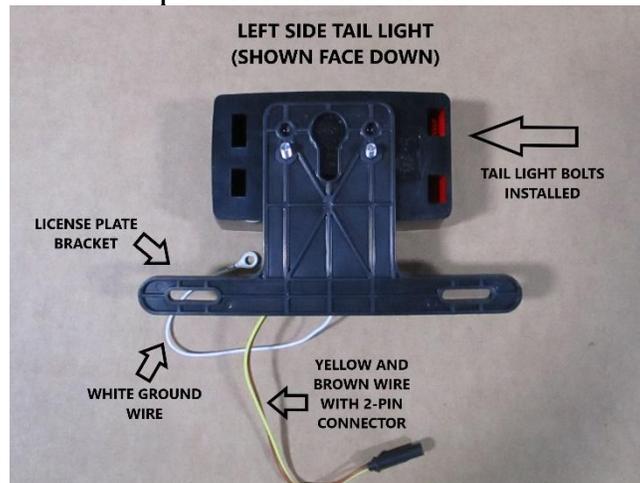
Carefully push the connector and the excess wire into the light before mounting, leave some slack so the wiring harness can go into the tongue once the lights are installed.



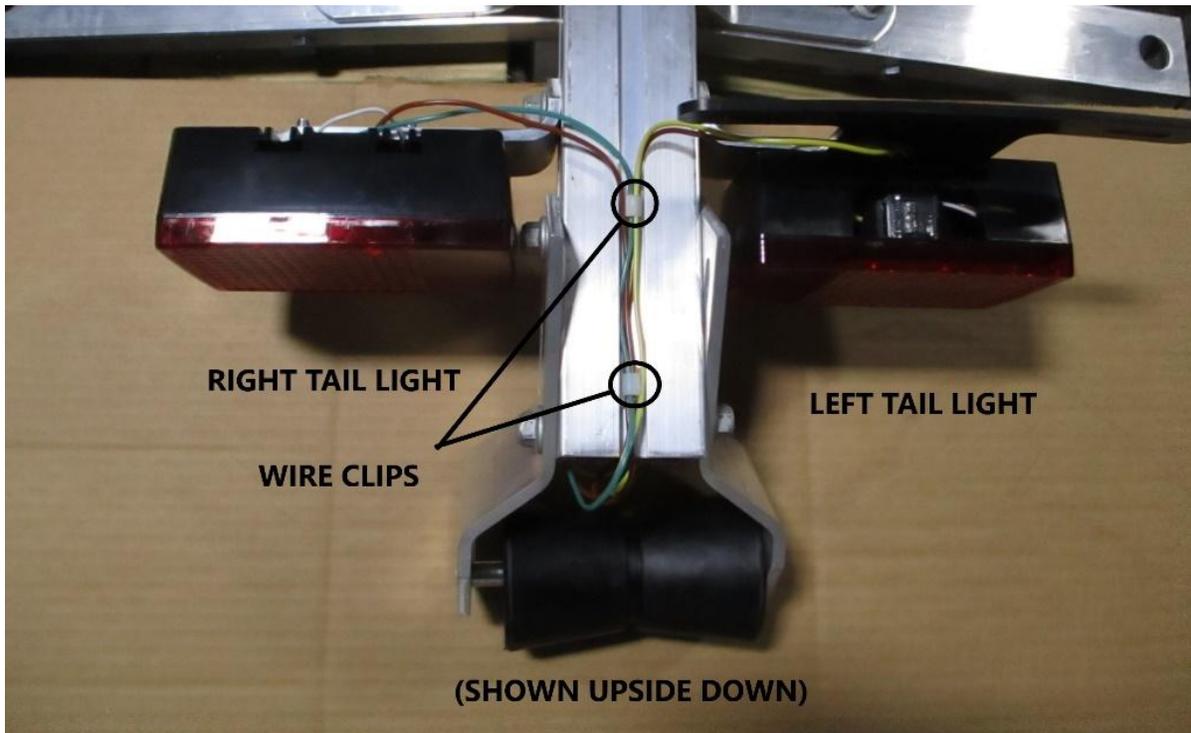
**NOTE:** Trailer shown upside down

Install the tail light onto the bracket and install the white ground wire on the inside bolt, as shown. Install the nuts and tighten.

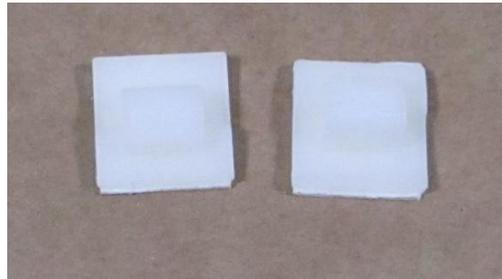
Repeat for the left hand side.



As with the right side, install the white ground wire and tighten the bolts.



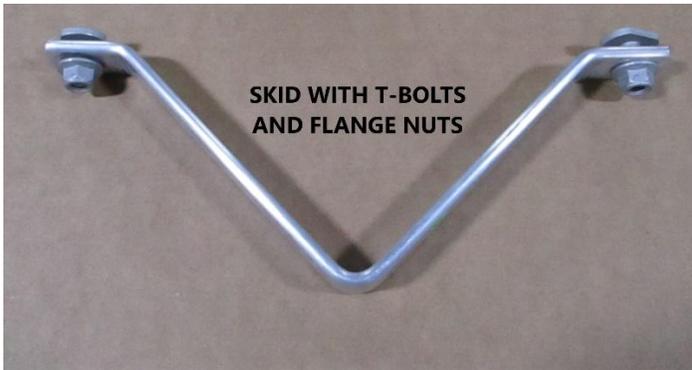
**NOTE:** Trailer shown upside down



Adhesive wire clips (Colors may vary)

Run the wires from each light to the center of the tongue. Locate 2 wire clips from the tail light kit bag, and install the wires inside the clip. Feed them towards the back of the tongue section. Any extra wire can be tucked inside the tongue.

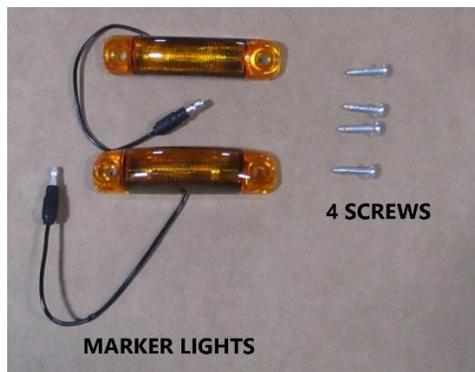
To continue with the lighting, locate the following parts:



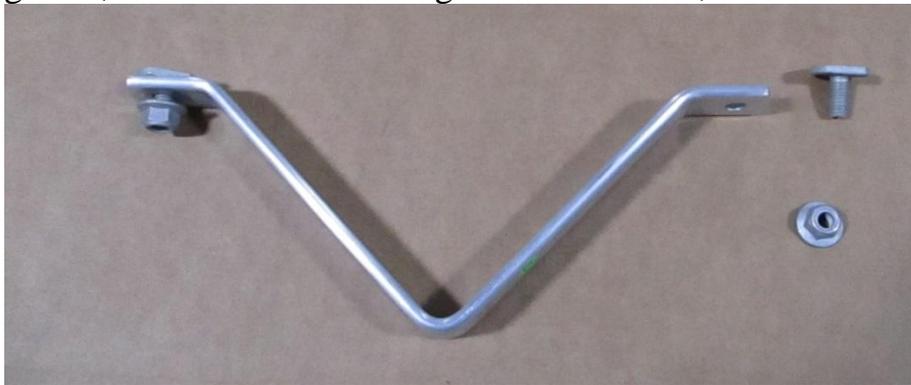
Skid (Part G)



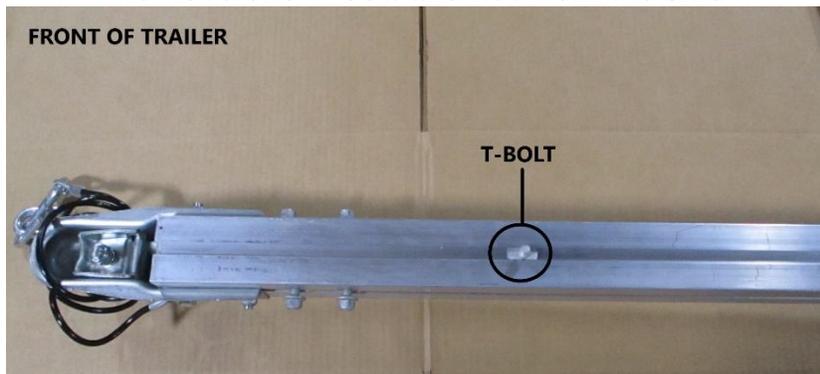
Marker light bracket (Part I)



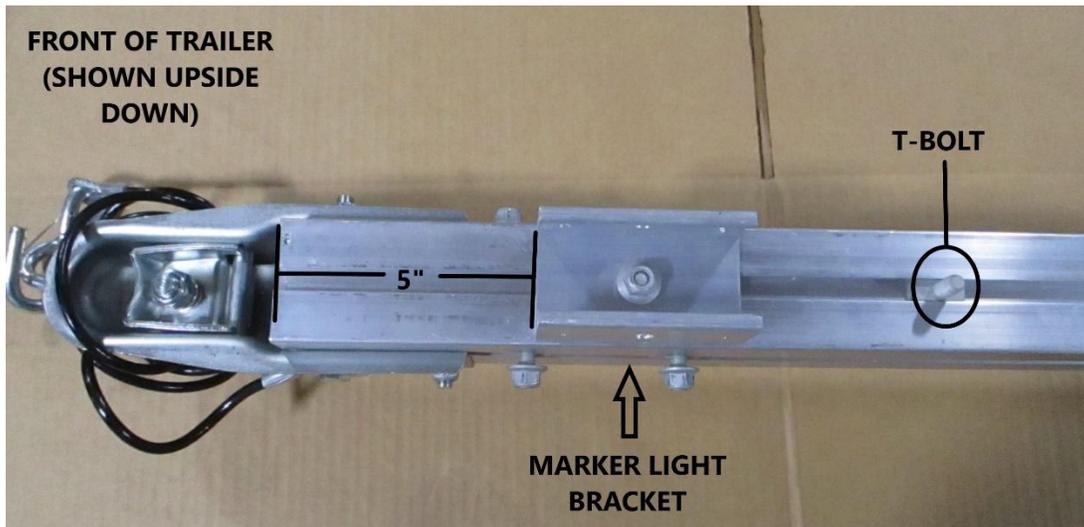
From the tail light kit, locate the 2 marker lights and 4 screws, from the electrical parts bag.



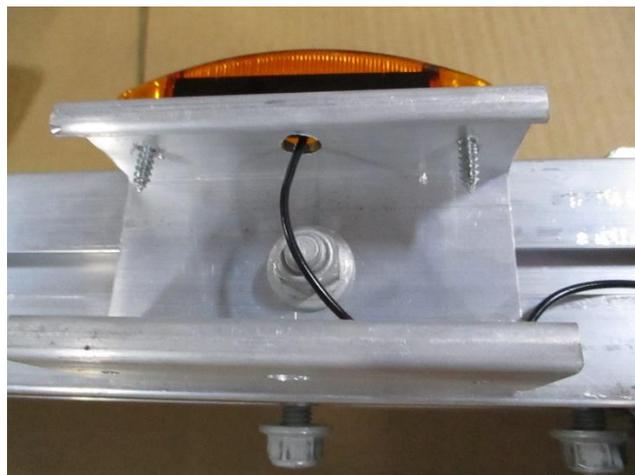
Remove one T-bolt and nut from the skid



Slide the T-bolt removed from the skid into the slot on the underside of the tongue.



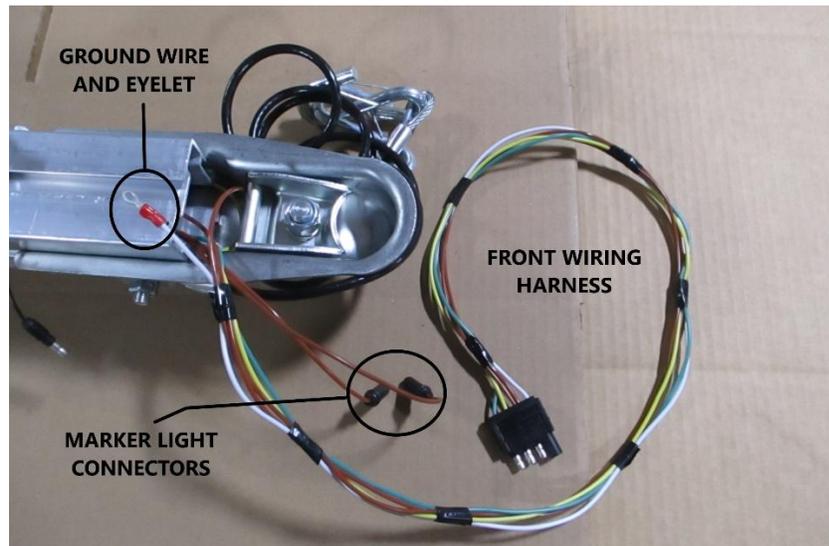
Mark 5" back from the front of the tongue and install the marker light bracket. **NOTE:** Make sure the T-bolt installed from the previous step is toward the back of the trailer, as shown above.



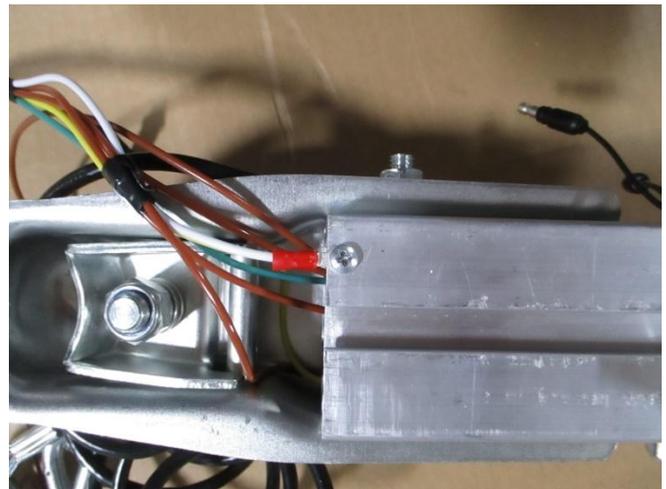
Install the marker light with the screws, as shown. Repeat for the other side.



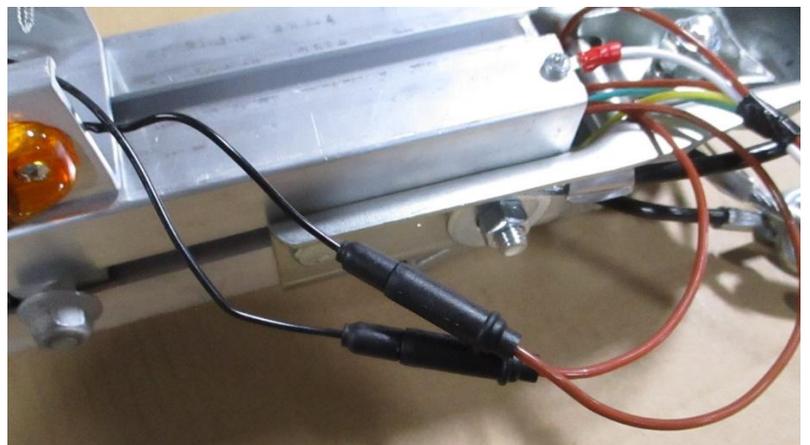
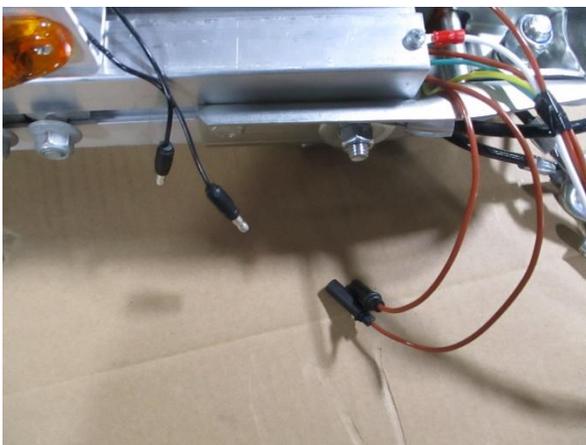
(Underside view of marker lights installed)



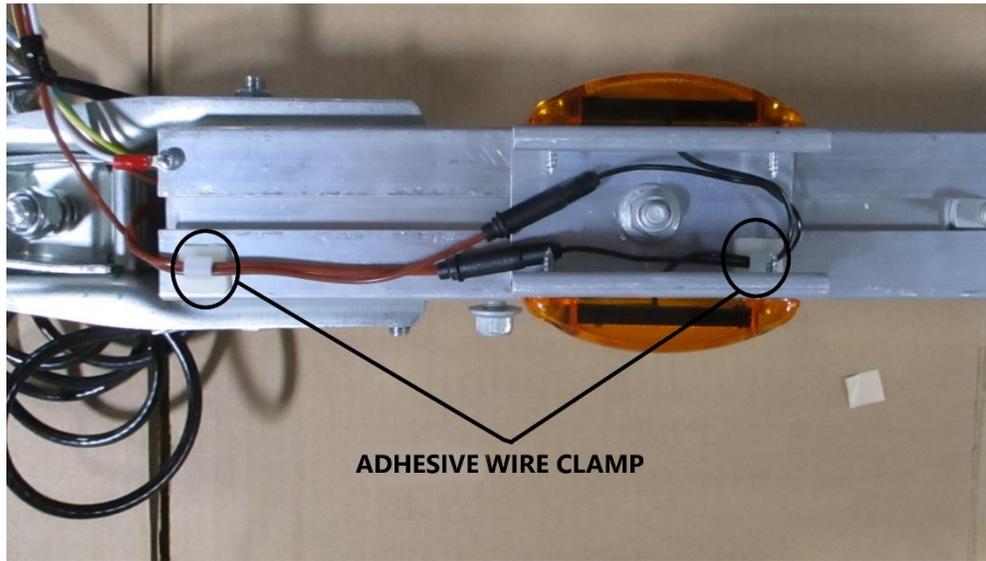
Tape the front wiring harness together from the 4-pin connector on the end along the white ground wire. Space the tape about every 6-8" along the harness. Do not tape the wires for the marker light connectors in with the harness.



Use one of the remaining screws in the electrical parts bag and install it through the eyelet on the white wire of the harness into the pre-drilled hole for the ground on the tongue.



Connect the 1-pin connectors from the marker lights into the 1-pin connectors from the wiring harness.



Locate 2 more adhesive wire clamps from the electrical parts bag and install as shown above. **Do not** put them in the groove on the tongue.

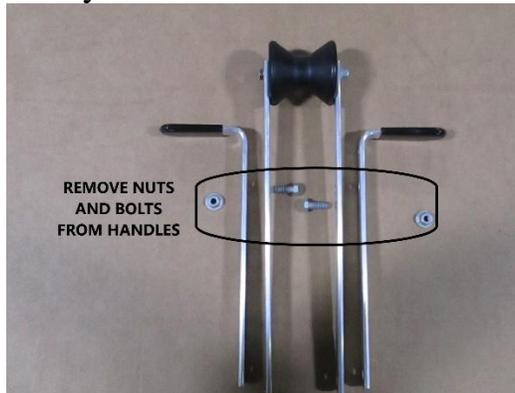


Next, mount the skid onto the tongue. Use the T-bolt installed from the previous step, and the one remaining on the skid. Center it over the marker light bracket, being careful to avoid the wires, and tighten.

## BOW STAND



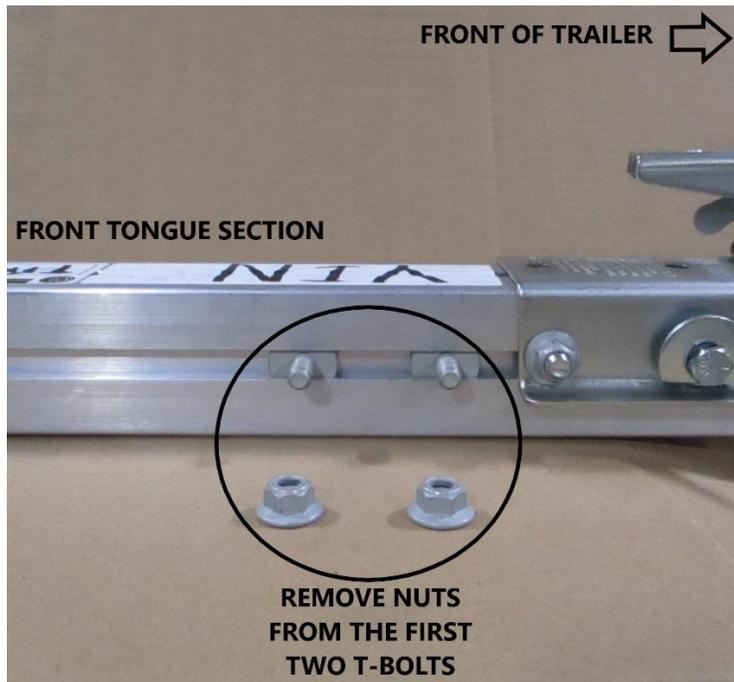
Locate the bow stand (**Part B**) NOTE: The bow stand handles are located on the outside of the roll for shipping purposes only. They will be removed and installed on the inside.



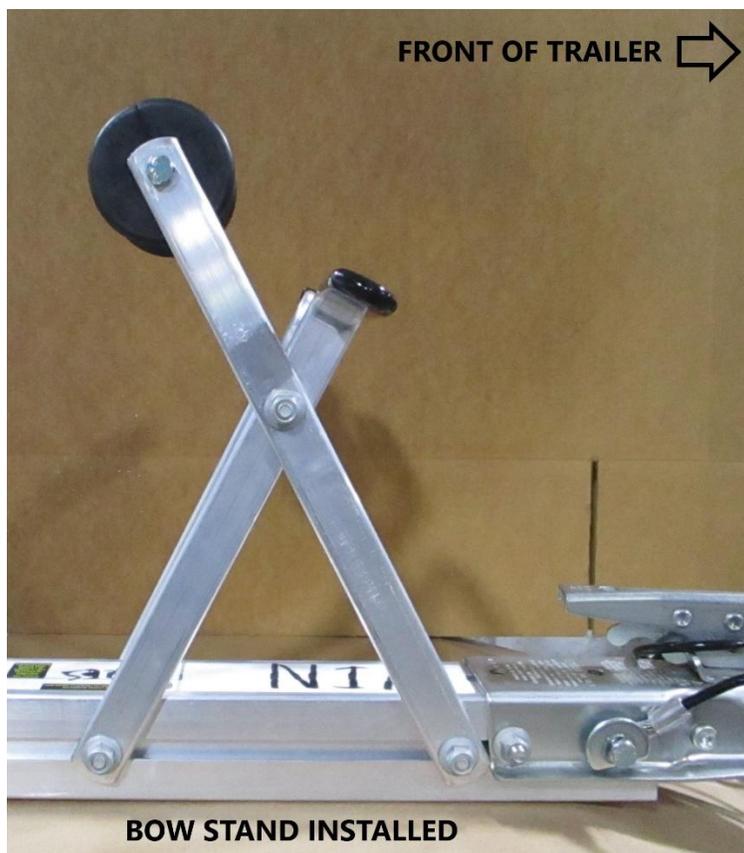
Remove the nuts and bolts, and install the handles on the inside of the bow stand.



It should now look like this.



Remove the 2 remaining nuts on both sides of the front tongue section.



Install the bow stand with the roll facing the rear of the trailer and the handles facing the front, as shown. Re-install the nuts and tighten. The final location of the bow stand will be determined when the boat is fitted to the trailer.

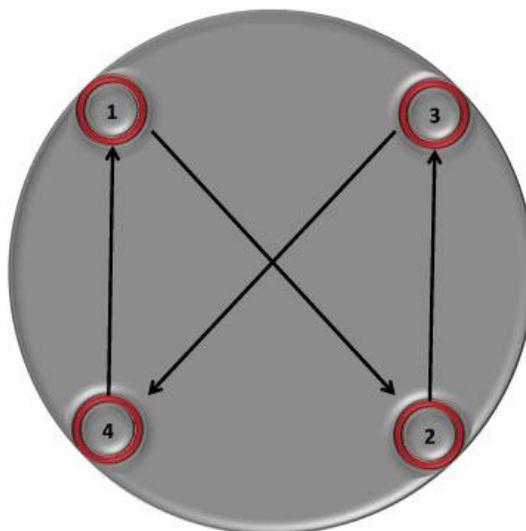
## Wheels



Locate the tires and wheels (**Part V**), and the 8 lug nuts from the hardware bag.

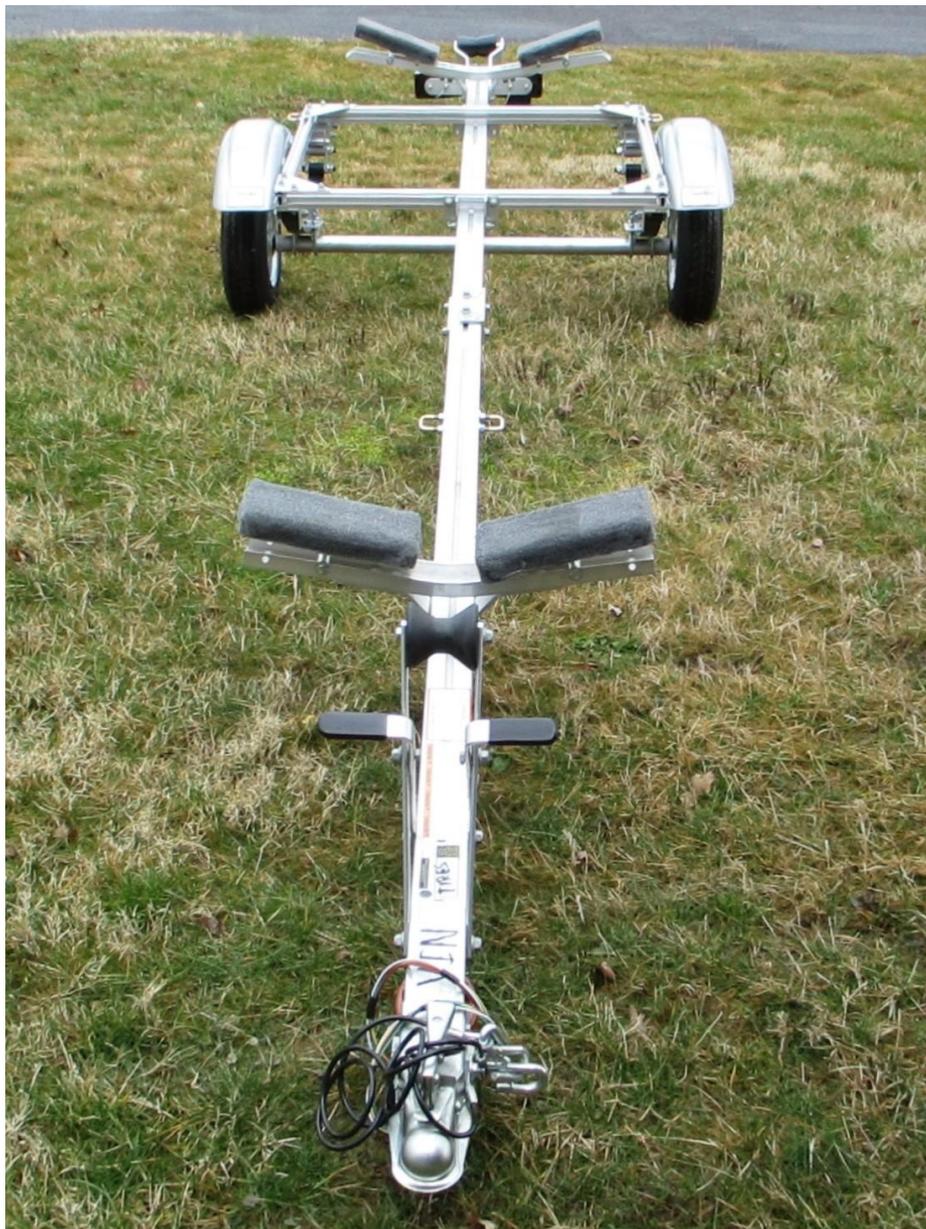


Install the tires and wheels with the valve stems facing out. Install the lug nuts with the tapered side toward the wheel.



Tighten to 80 foot pounds in a crossing pattern, as shown. Re-tighten after 25 miles.

# COMPLETED TRAILER



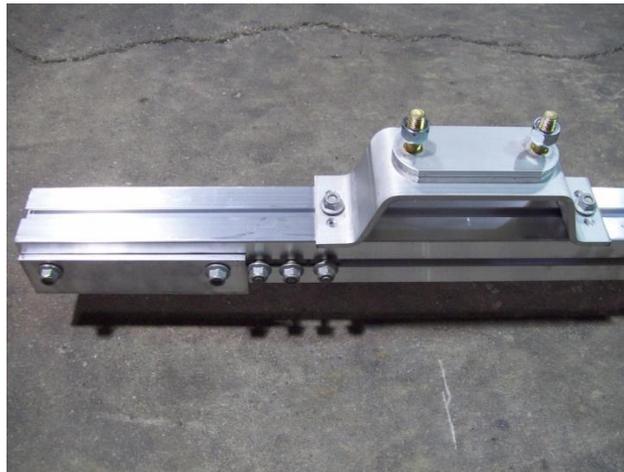
## OPTIONAL STEP FOR SPARE TIRE CARRIER



Spare Tire Carrier for SUT Trailers



Loosen the T-bolts and nuts on the spare tire carrier. Insert into the underside of the front tongue section, at the rear. Once the T-bolts are in the channel, slide it toward the coupler.



**FRONT OF TRAILER →**

Position the carrier about 18" away from the rear of the front tongue section, then tighten nuts.