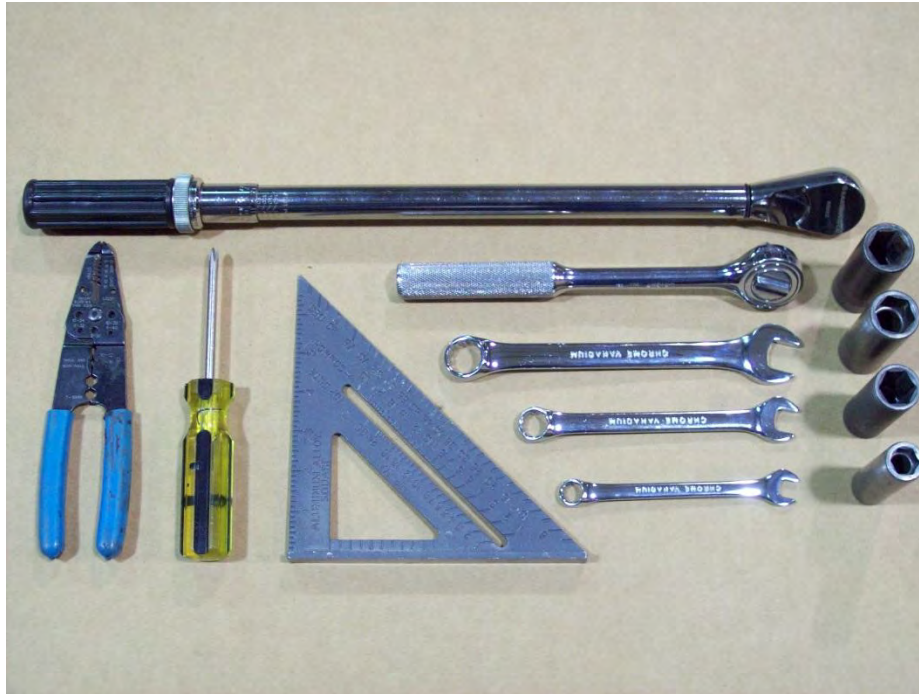


SUT-450-BW



Torque wrench, carpenters square, wire cutters, Phillips screwdriver, 7/16, 9/16, and 3/4" combination wrenches, ratchet, 9/16, 3/4, 13/16", and 7/8" sockets.

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.

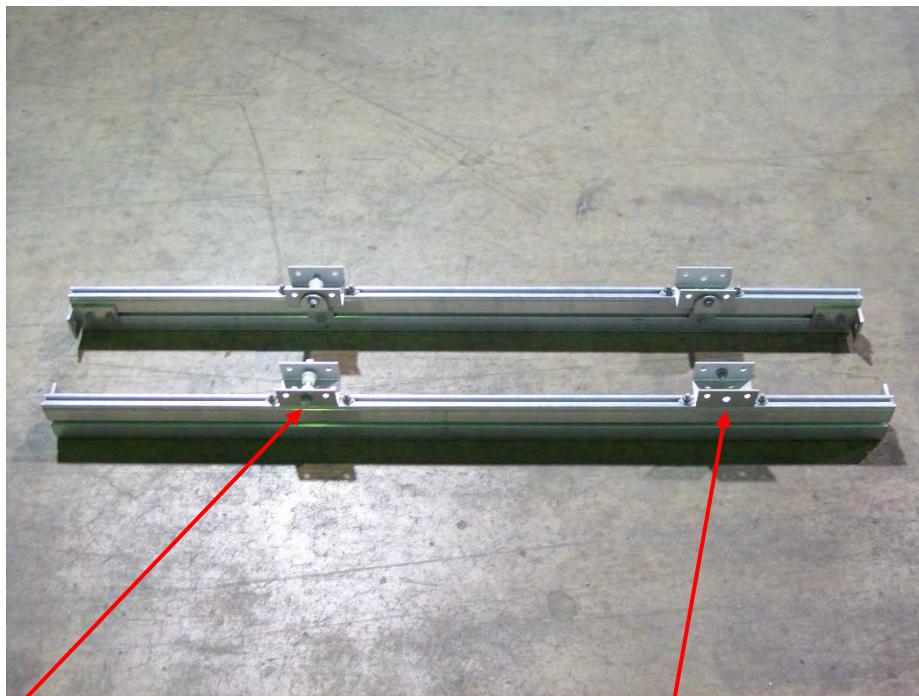
Incorrect assembly or modifications to your trailer will void any specific or implied warranty.

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

UNPACK AND IDENTIFY THE FOLLOWING PARTS



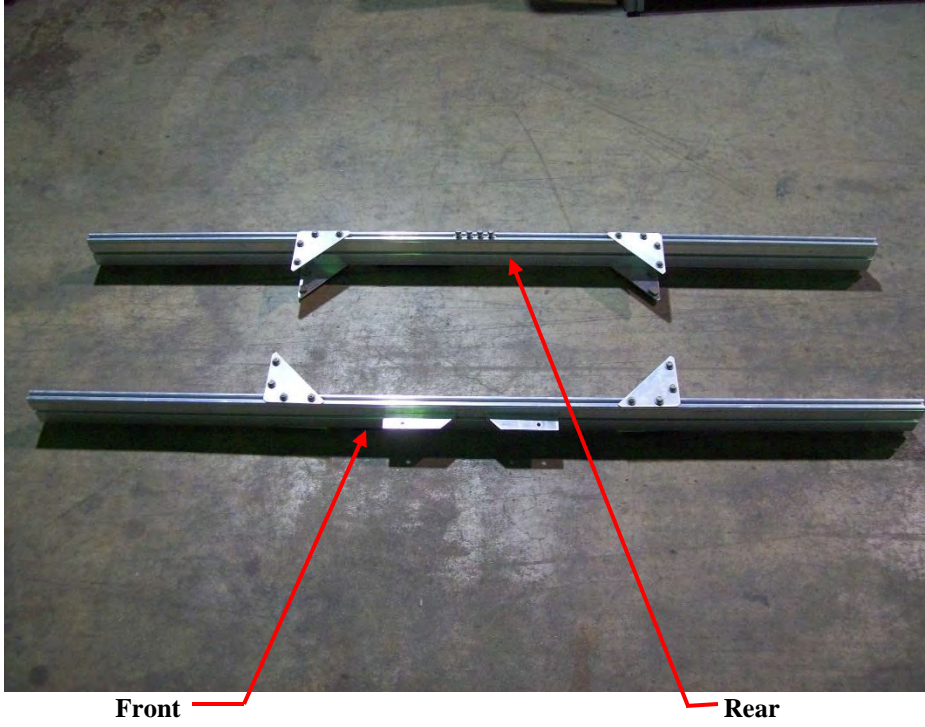
Tongue sections with one rear angle bracket mounted and one separate, to be installed later.



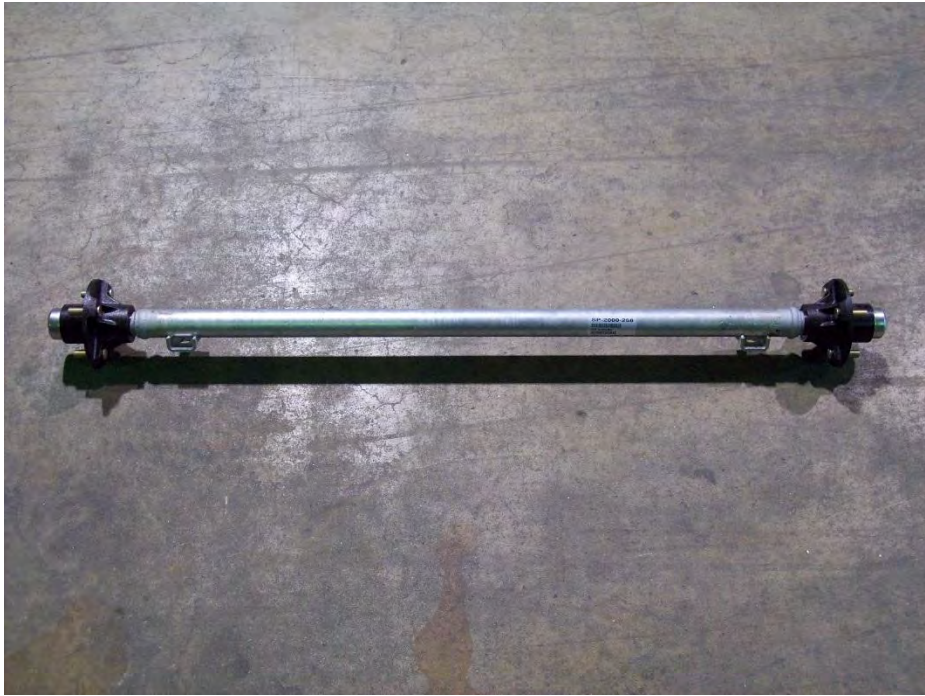
Front sub rail clip has bolt and bushings for spring.

Rear sub rail clip

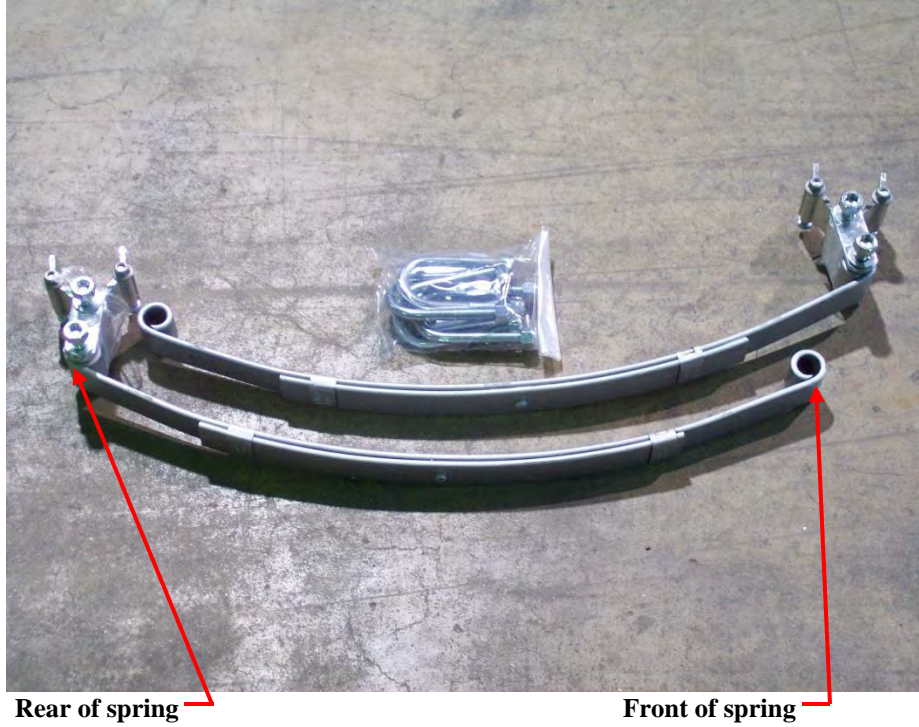
Side rails



Cross members



Axle assembly



Spring and U bolt hardware.

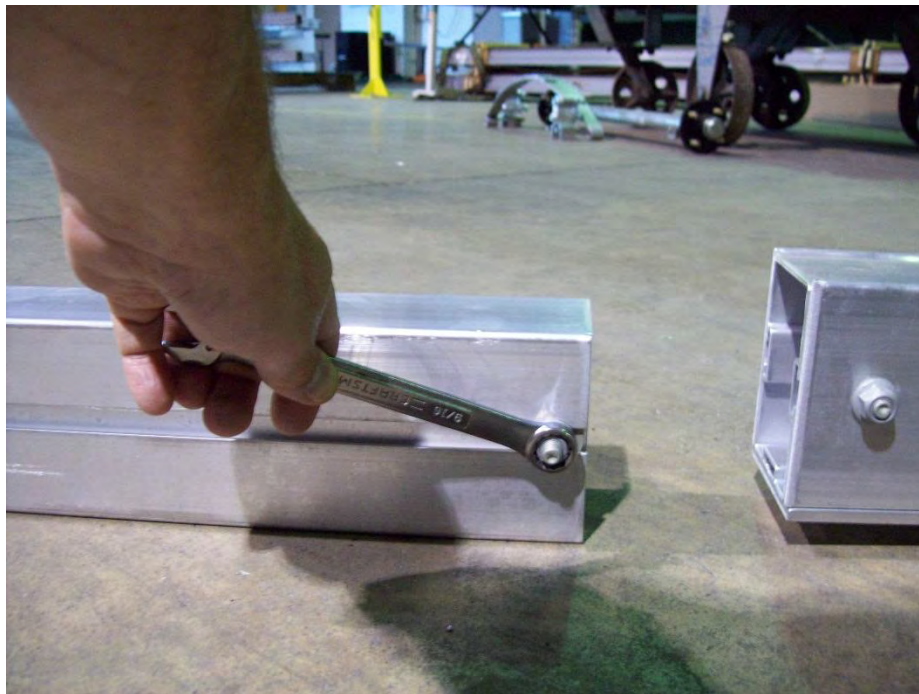


Tires, fenders, light kit, wiring harness, skid, running light brackets, tail light brackets, hardware bag and extra parts bag.

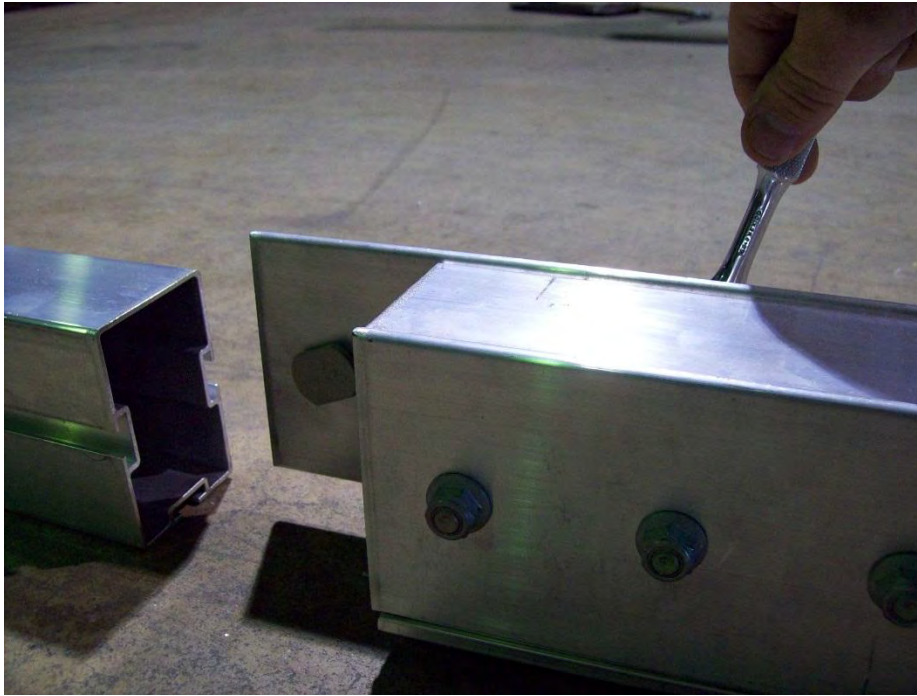


8" center rolls complete and 10" padded cradles.

Tongue assembly



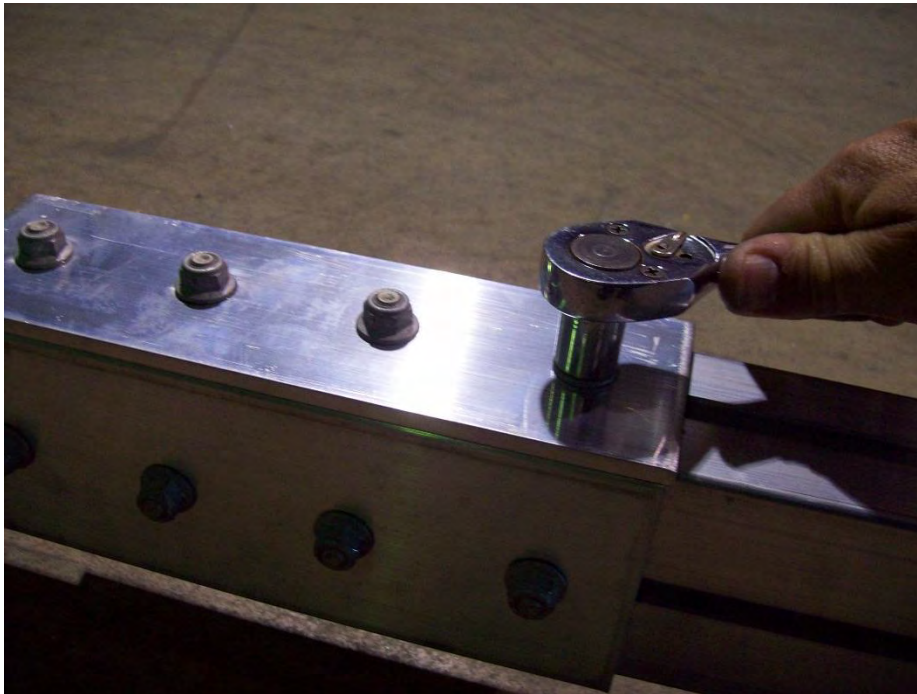
Locate the front tongue section and loosen the 2 nuts (1 per side) located at the rear of the tongue section and slide them forward towards the coupler. These will be used later to install the angle brackets to the tongue from the front cross member.



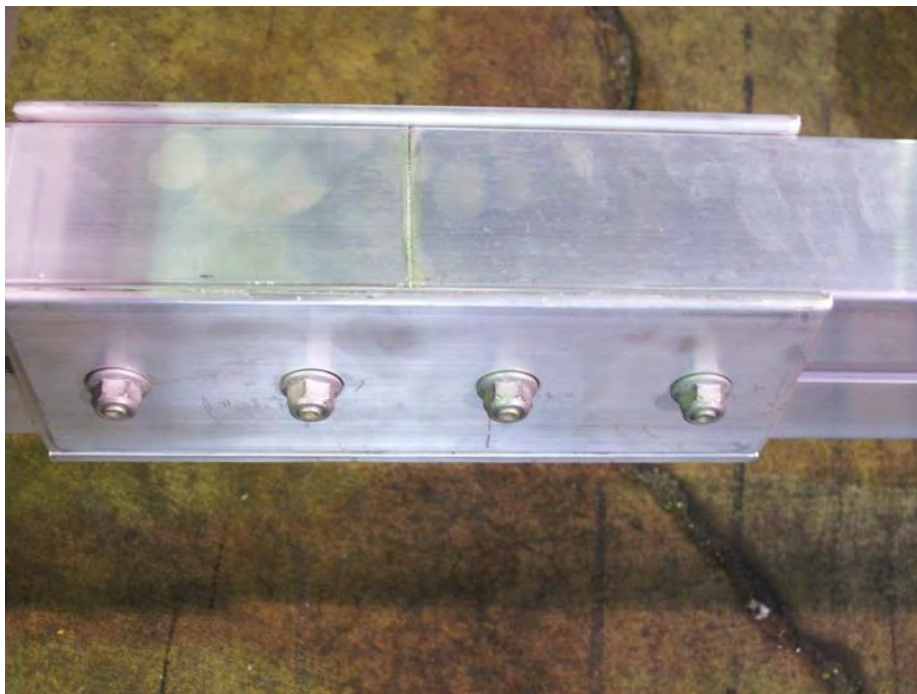
Lay the tongue sections end to end and loosen 4 nuts on each side plate.



Slide 2 side plates over the adjacent tongue section until the plates are centered between the tongue sections. Make sure there is no gap between the tongue sections. Tighten nuts.



Slide bottom plate over and align with side plates. Tighten nuts.



Tighten all 12 nuts making sure that the tongue sections are as tight as possible to one another.

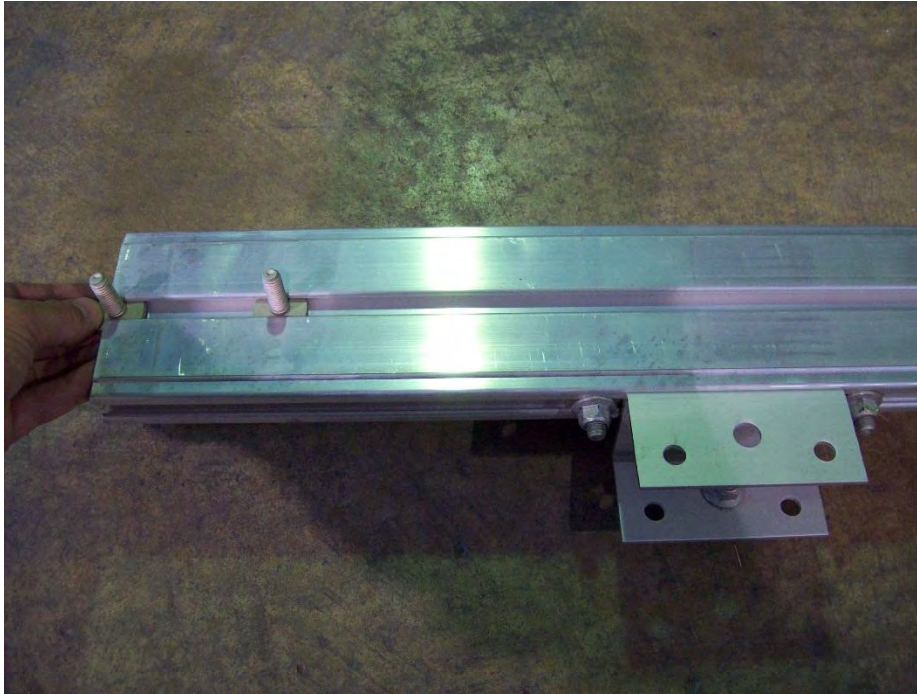


Insert the rear angle bracket into the rear of the tongue section.

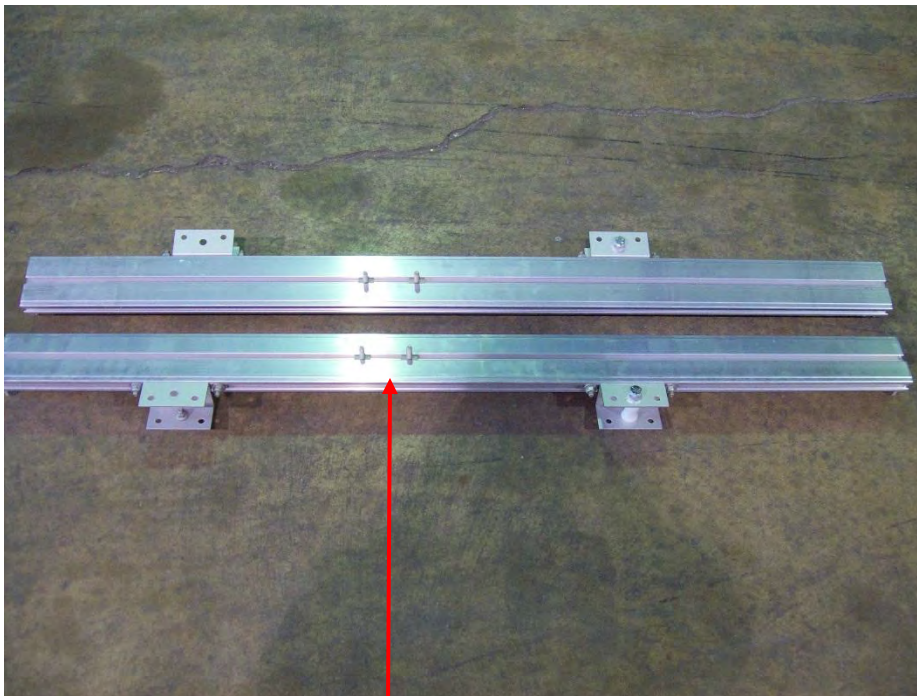


Align angle bracket with the edge of the rear tongue section and tighten nut. Set aside tongue section for now.

Frame Assembly

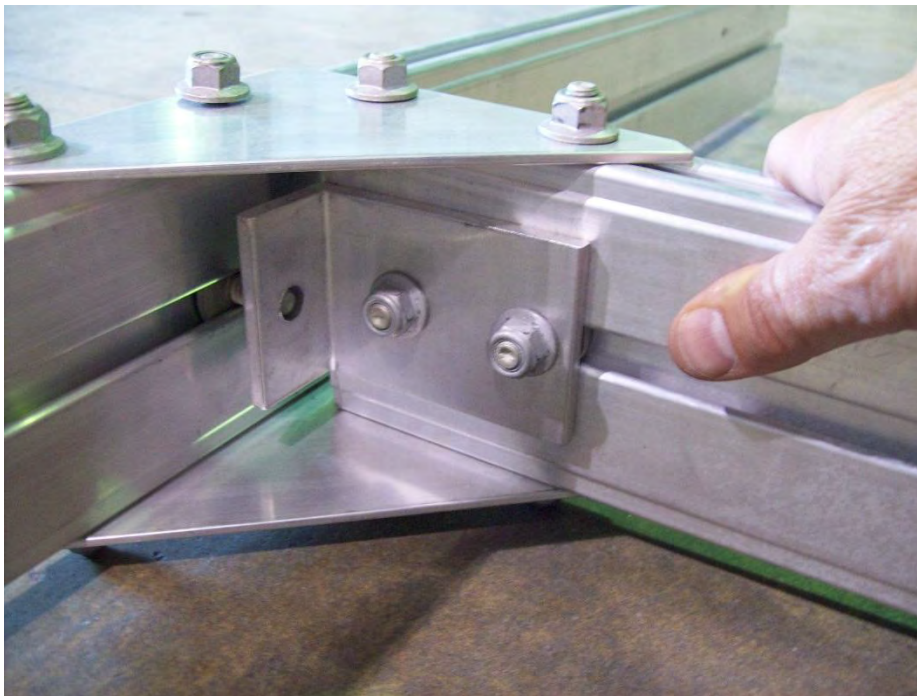
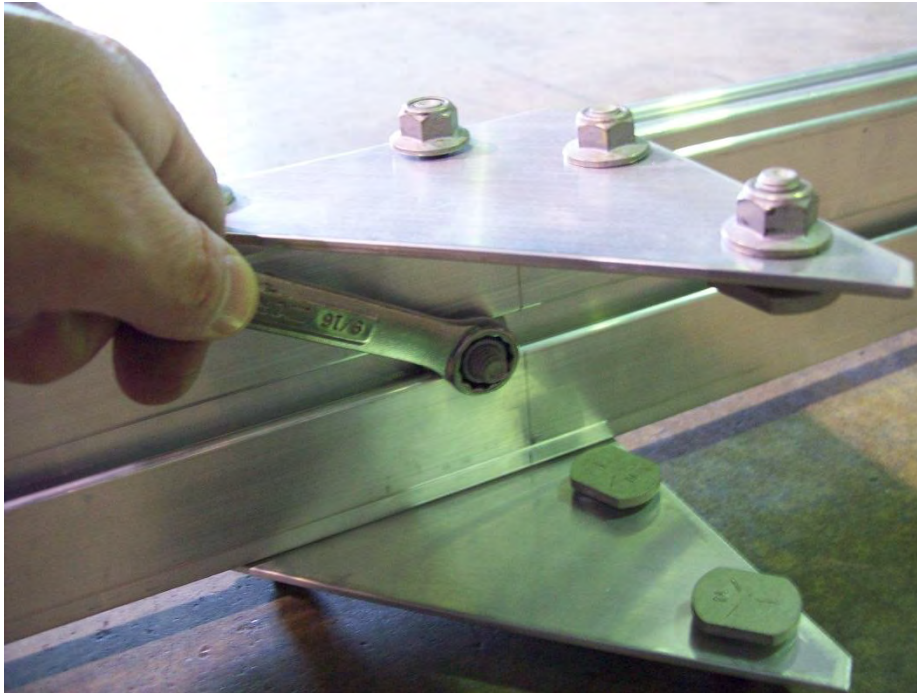


Install two 1 1/8" T bolts in each side rail on the front side and slide them forward.

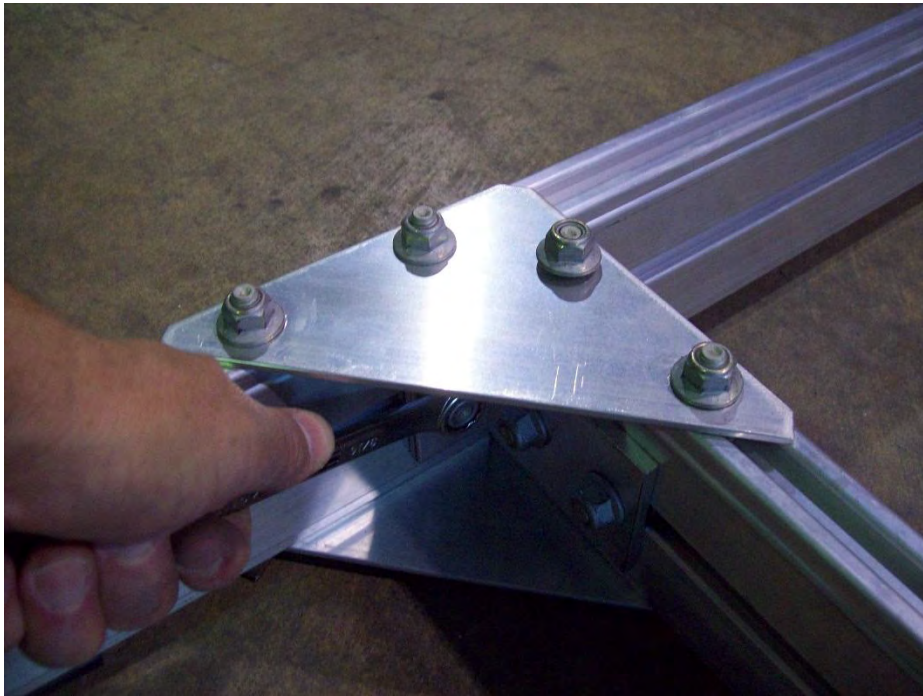
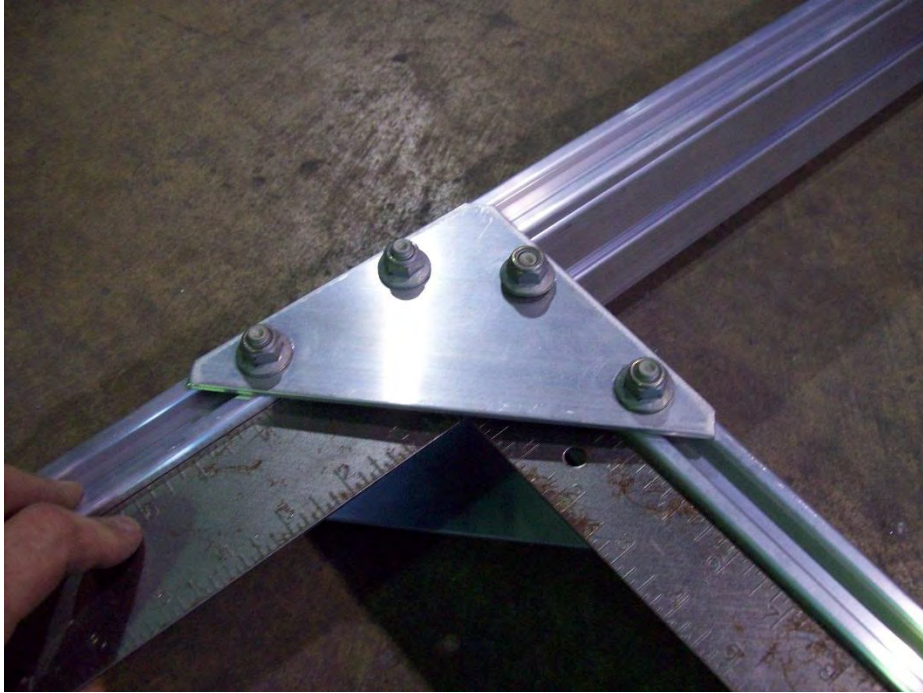


2 T bolts

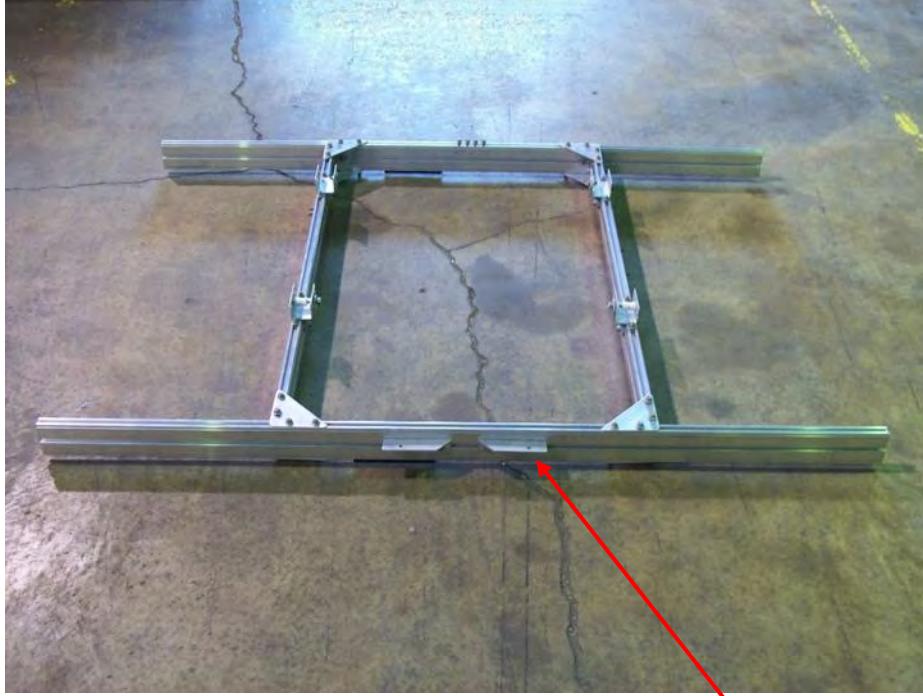
These T bolts will be used later to install the fender.



Locate the rear cross member and remove the nut on the inside. Insert the rear side rail into the triangle plates and the T bolt on the cross member. Make sure the vinyl on the rear cross member is facing down.



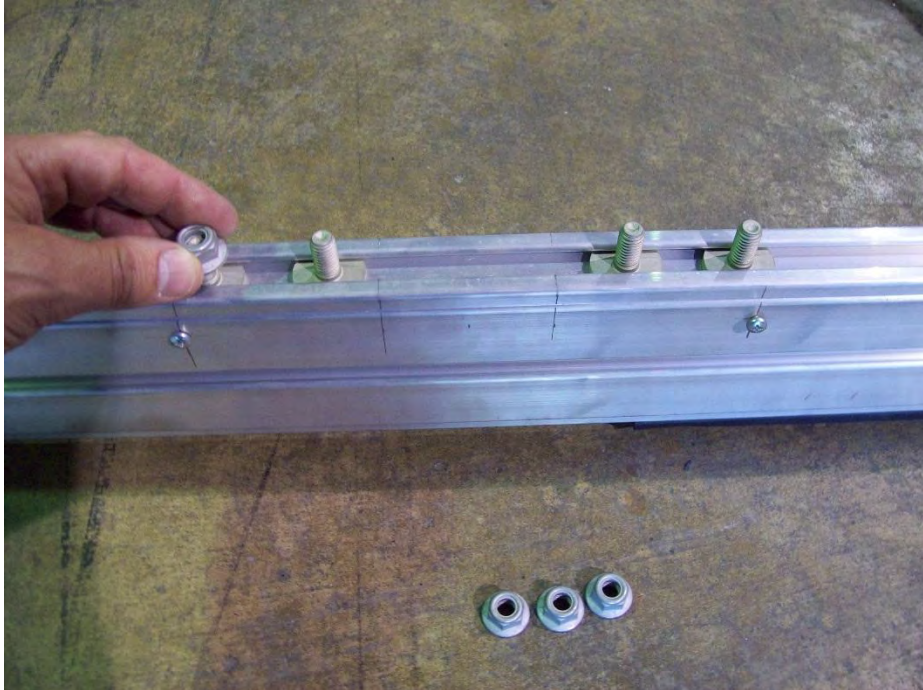
Once in place, square up the frame and reinstall nut. At this point tighten all the nuts on the triangle plate. Repeat the process for the other side.



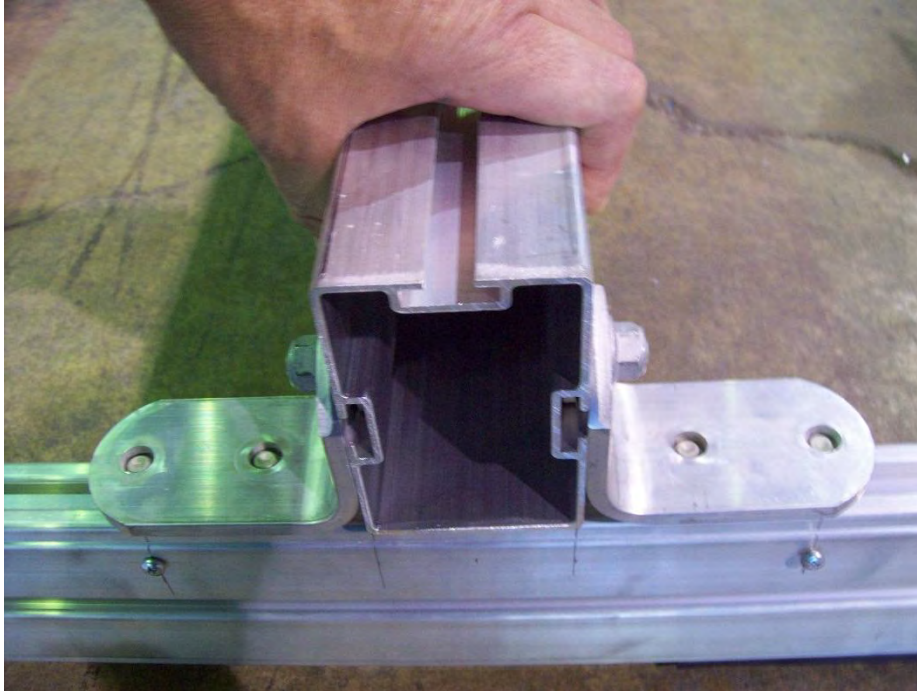
Front cross member shown upside down

Install front cross member by repeating the process used for the rear.

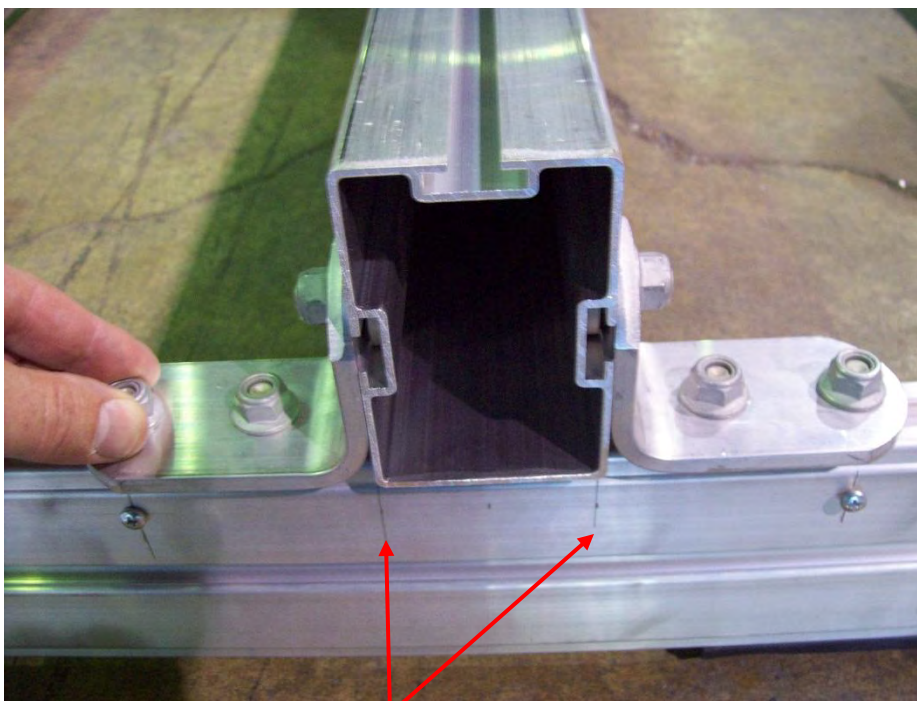
Frame Attachment



Remove the four nuts from the underside of the cross member to accept the angle brackets from the rear tongue section.

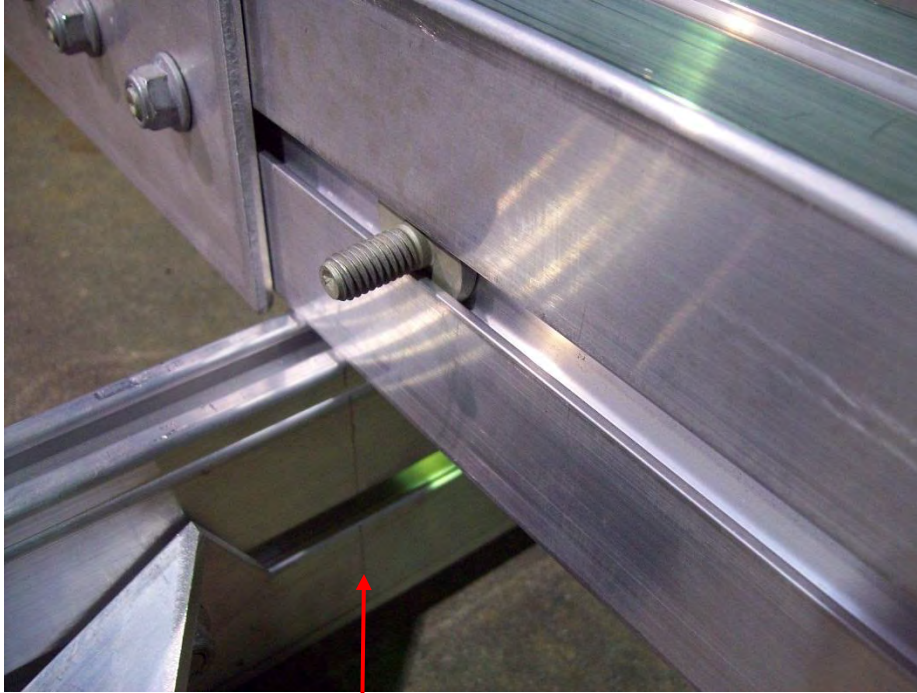


Set the rear of the tongue section on the rear cross member. Align T bolts with brackets on tongue section.



Pencil marks

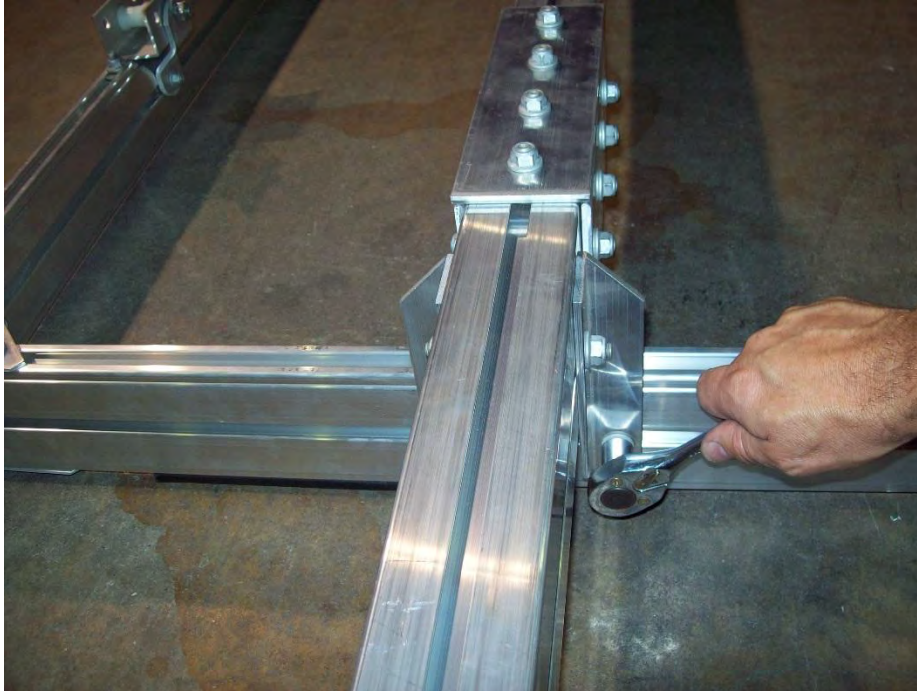
Make sure to center tongue section on rear cross member and reinstall nuts. Pencil marks on the outside of the cross member show placement of the tongue section. After tongue is centered on the rear cross member tighten nuts.



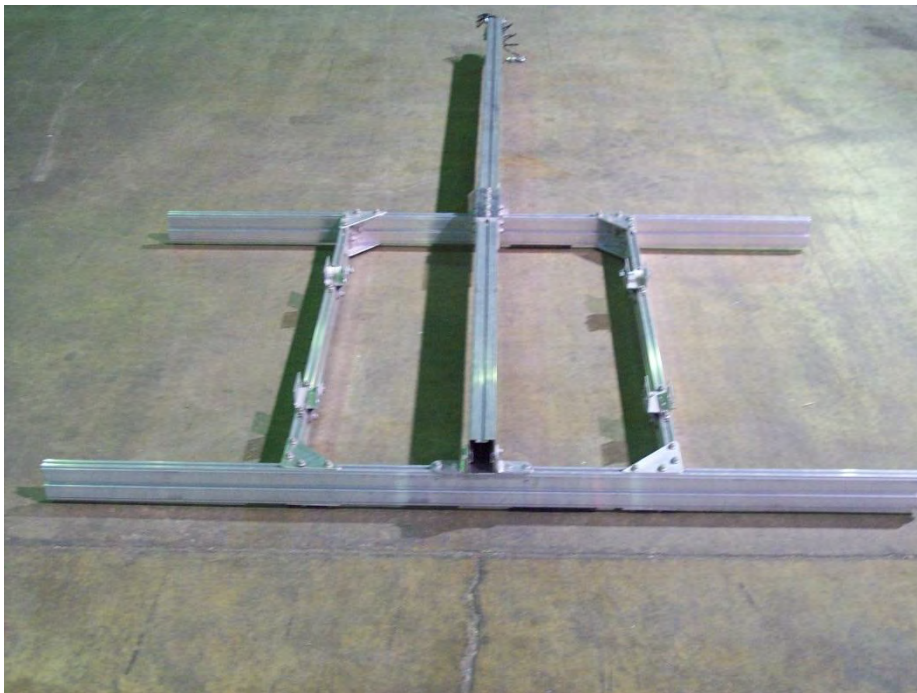
Pencil marks



Slide the two T bolts from the front of the tongue back to the front cross member. Slide both angle brackets on the front cross member over to the tongue section and align with T bolts on tongue. Check to make sure tongue is centered on pencil marks that are on the front of the cross member.

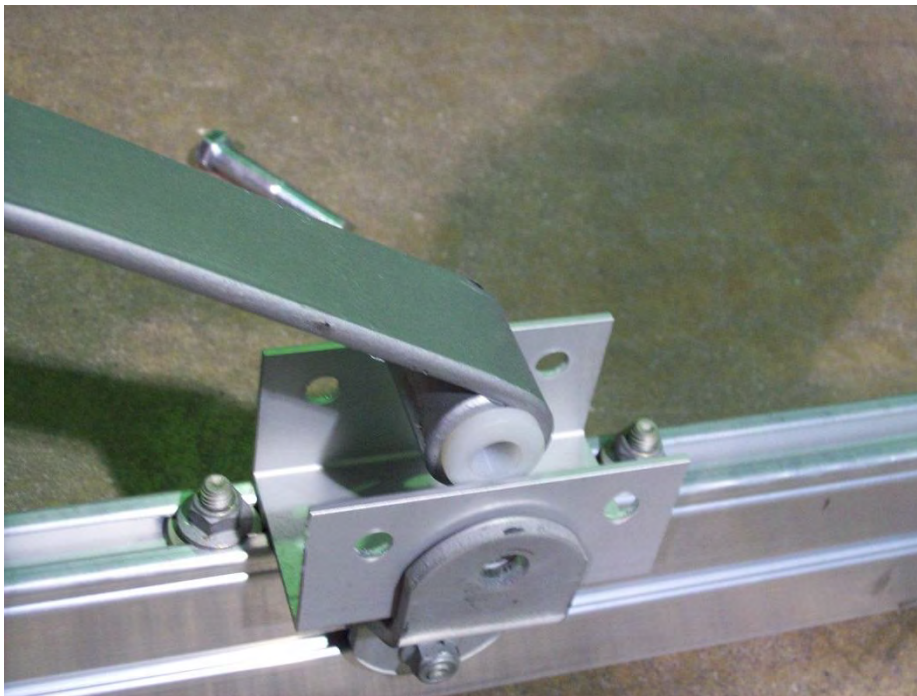


Now that the tongue is centered on the front cross member, tighten nuts.



Frame shown upside down
Your trailer should look like this at this point.

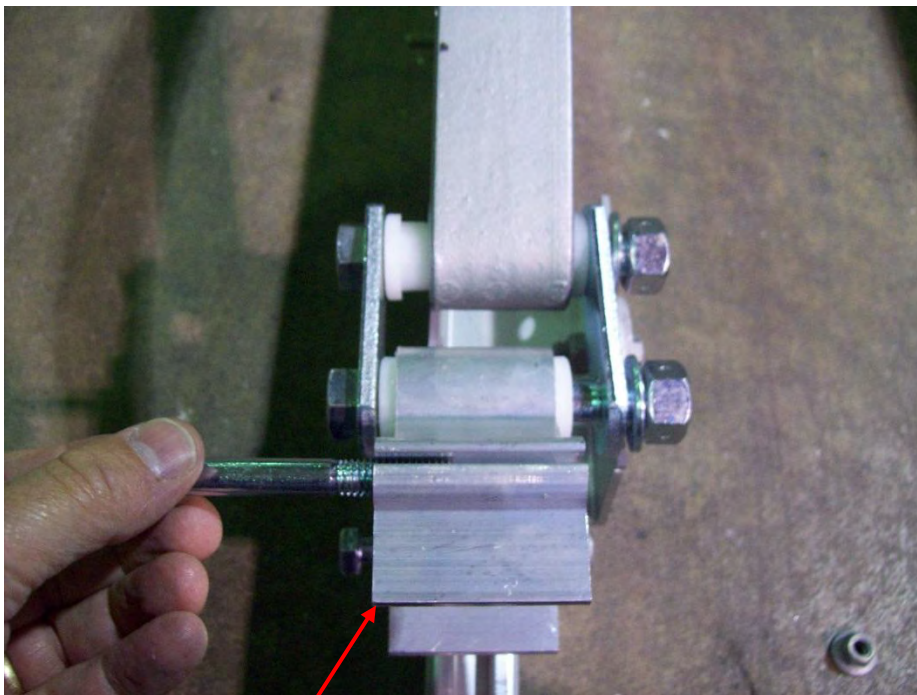
Spring Installation



Remove the bolt, nut and bushings from the front sub rail. Take the two bushings and install them into the eye of the leaf spring as shown. Insert the spring and bushing back into the sub rail.

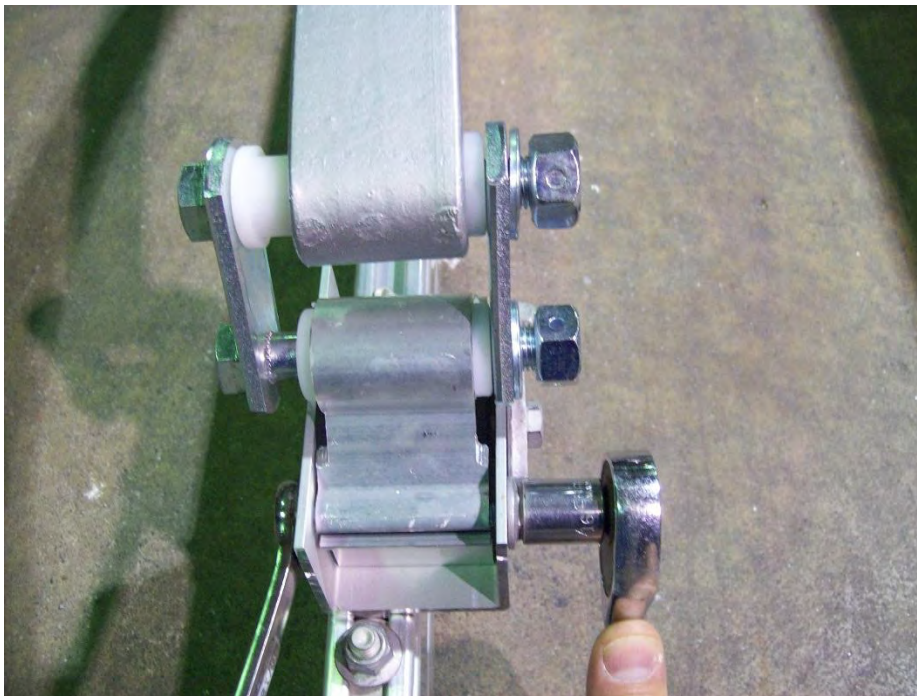


Reinstall the nut and bolt into the center hole of the sub rail with the nut towards the inside of the trailer. Do not tighten yet.

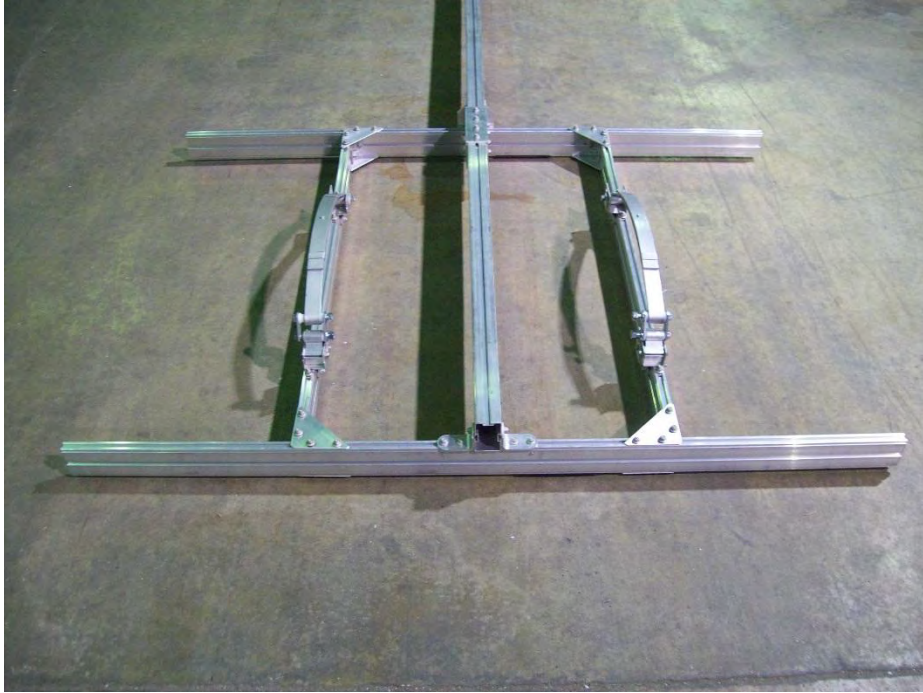


Shackle holder

Remove the two bolts from the shackle holder at the rear of the spring.

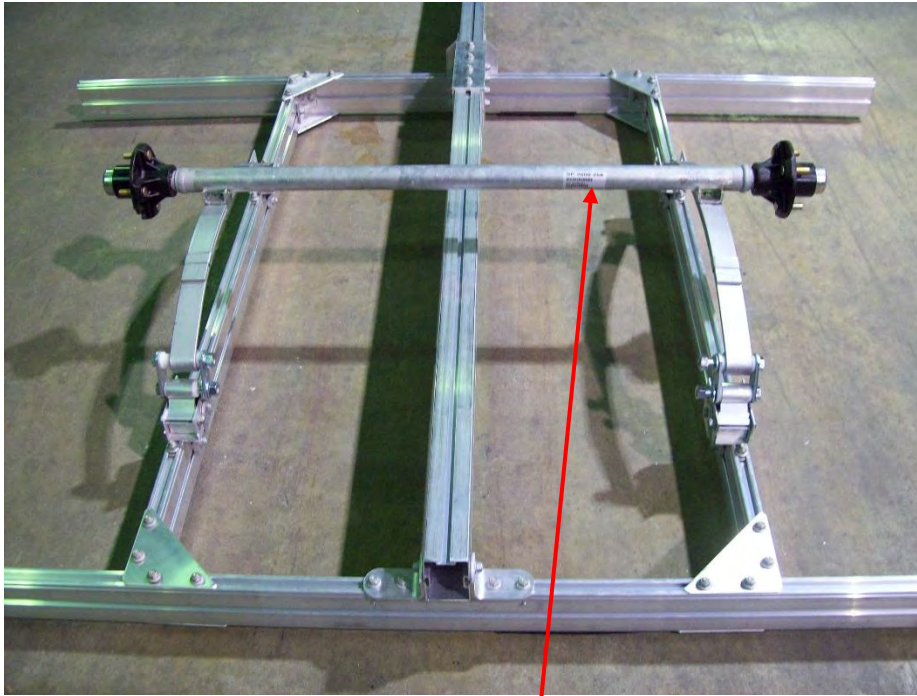


Install the shackle holder into the rear spring hanger with the nuts toward the inside of the trailer. These nuts can be tightened at this time.



The springs should look like this when properly installed. Do not tighten nuts yet.

Axle Installation

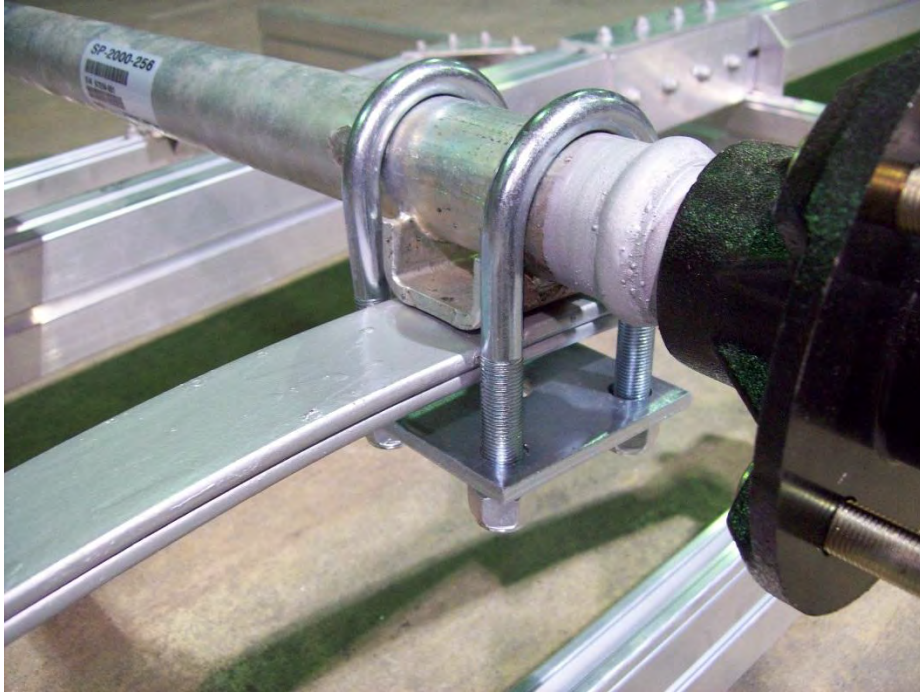


Serial plate

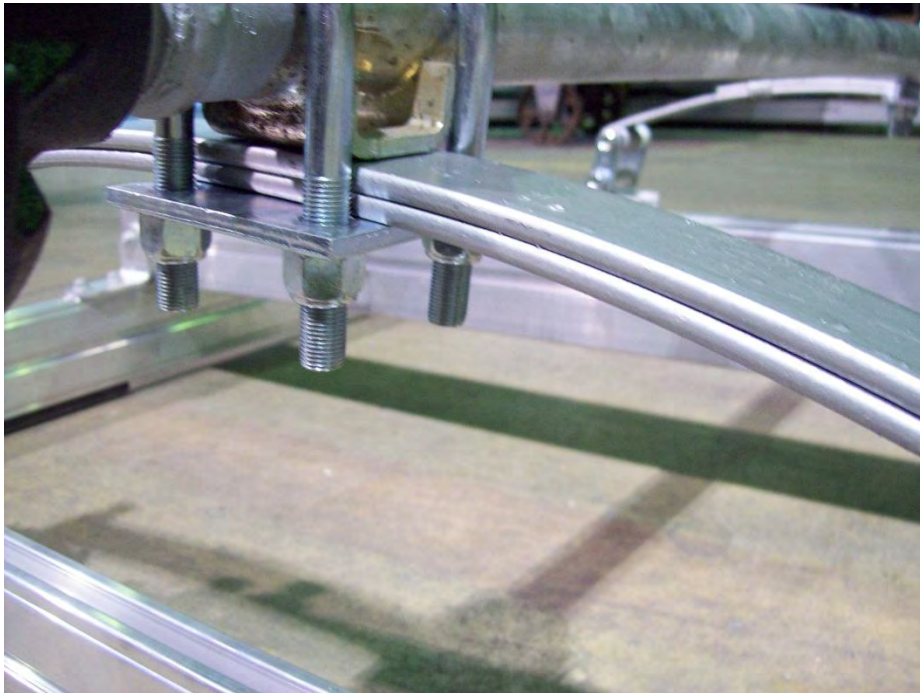
Locate the axle and install it on the springs as shown. Make sure the locating studs on the springs are in the holes on the axle's spring seat. Face the axle's serial plate towards the rear of the trailer to protect it from debris.



Locate the U-bolts and tie plates and install them as shown.



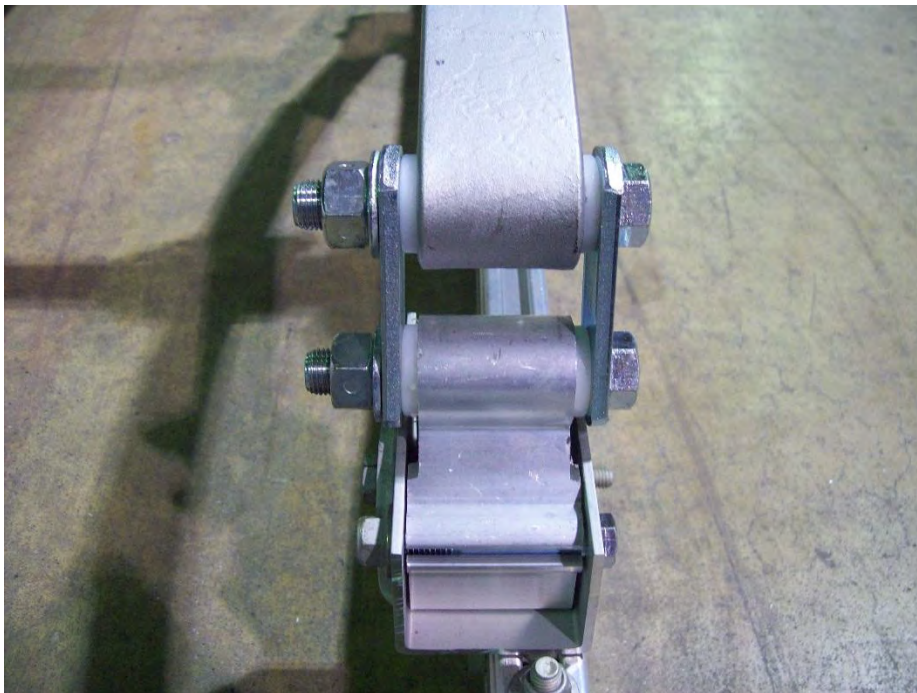
Install nuts on U-bolts.



Tighten all the nuts evenly as shown in the picture.



Now go back and first tighten the front spring mounting nuts that were left loose previously.

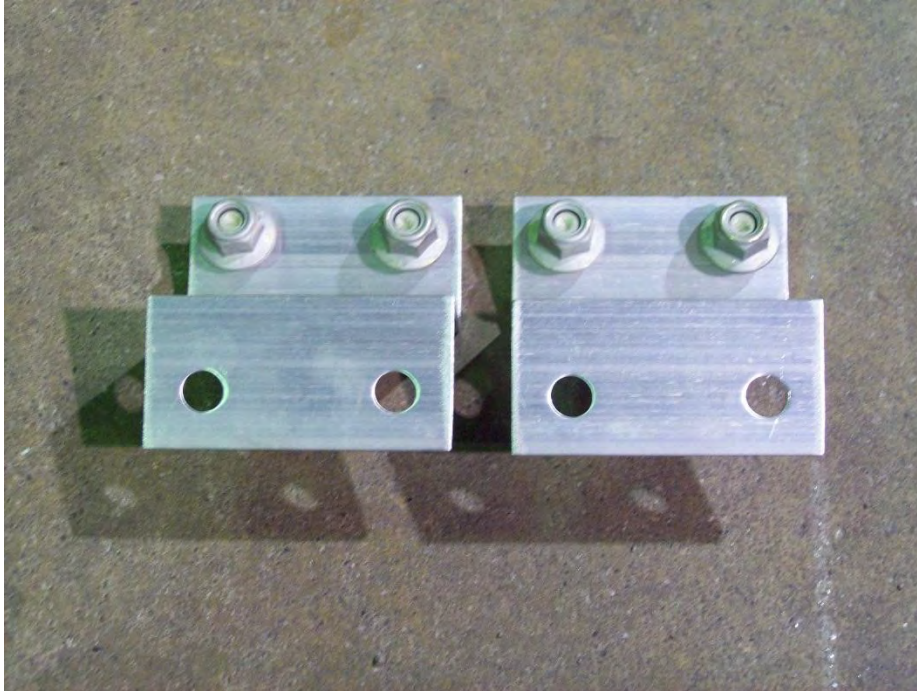


On the rear shackle, do not over tighten as this will not allow the suspension to move properly.

Installation of tail light and running light brackets



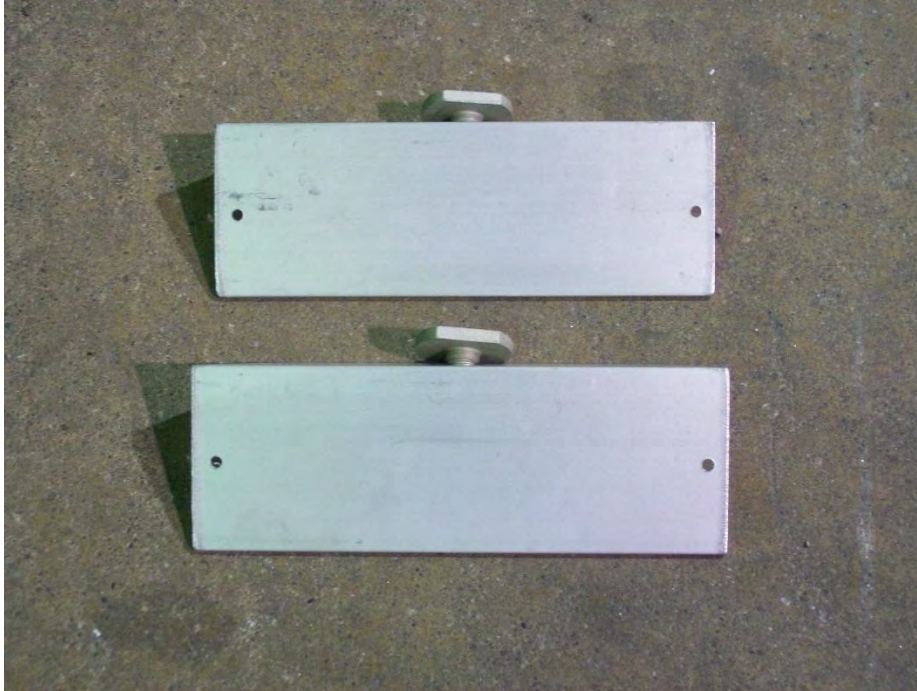
Before installation of the tail light brackets install one web strap clip on the left side of the rear cross member. Slide web strap clip towards the center light position and tighten nuts.



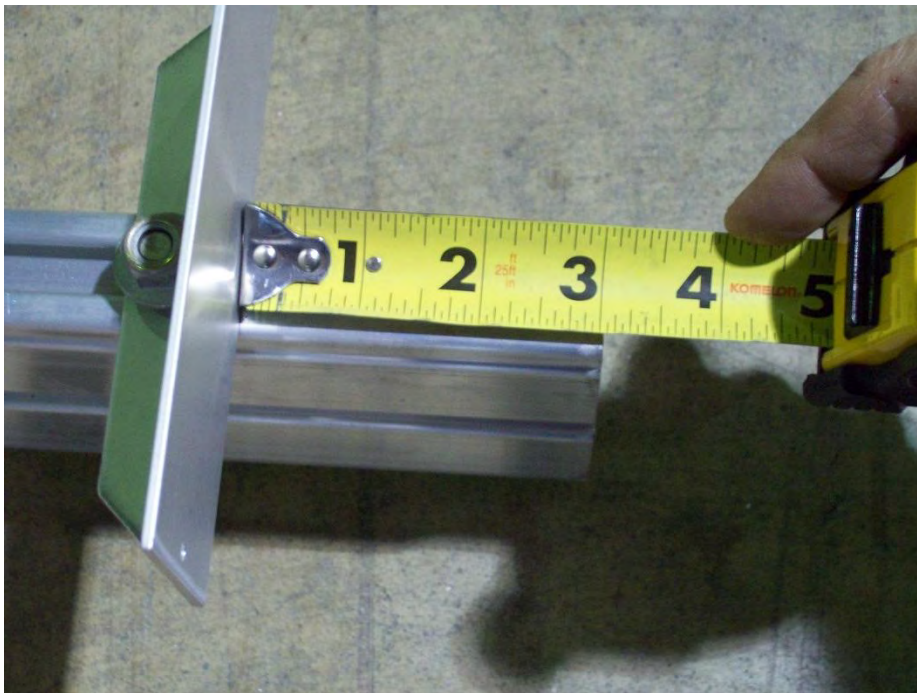
Locate the two tail light brackets.



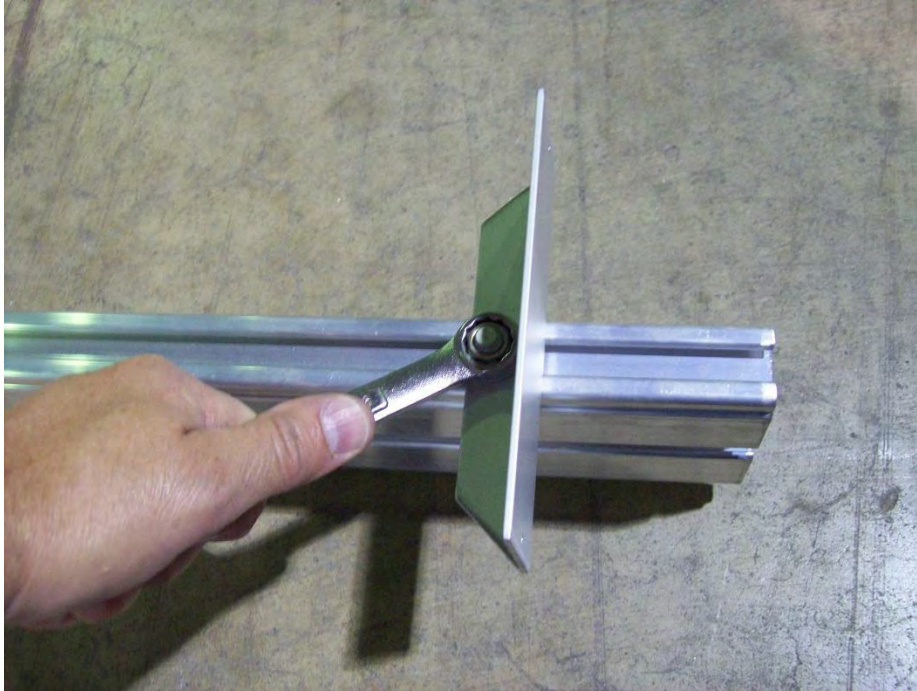
Install the tail light brackets on both sides of the rear cross member. Align edge of tail light brackets with the outer edge of the side rails. This is what the brackets should look like when finished.



Locate the side running light brackets.

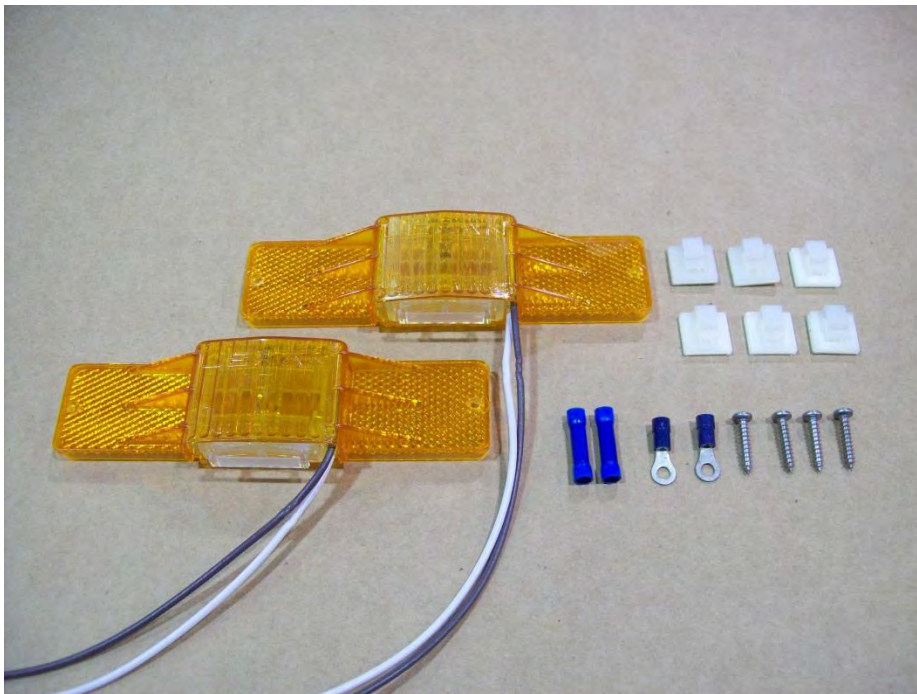


Slide running light brackets on each side of the front cross member and position 3” in from the edge of the cross member.

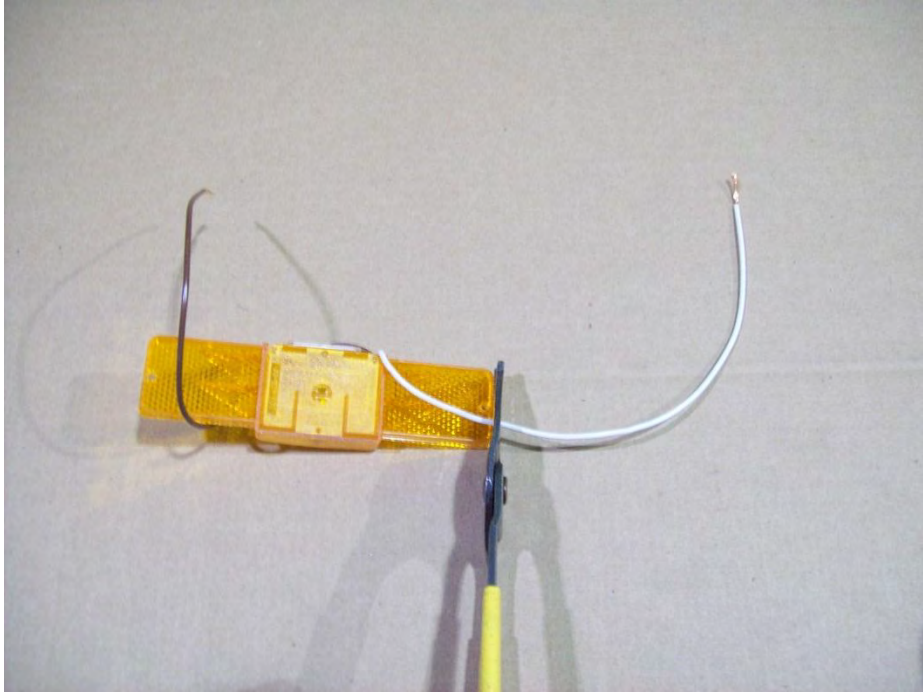


Tighten nuts on both brackets.

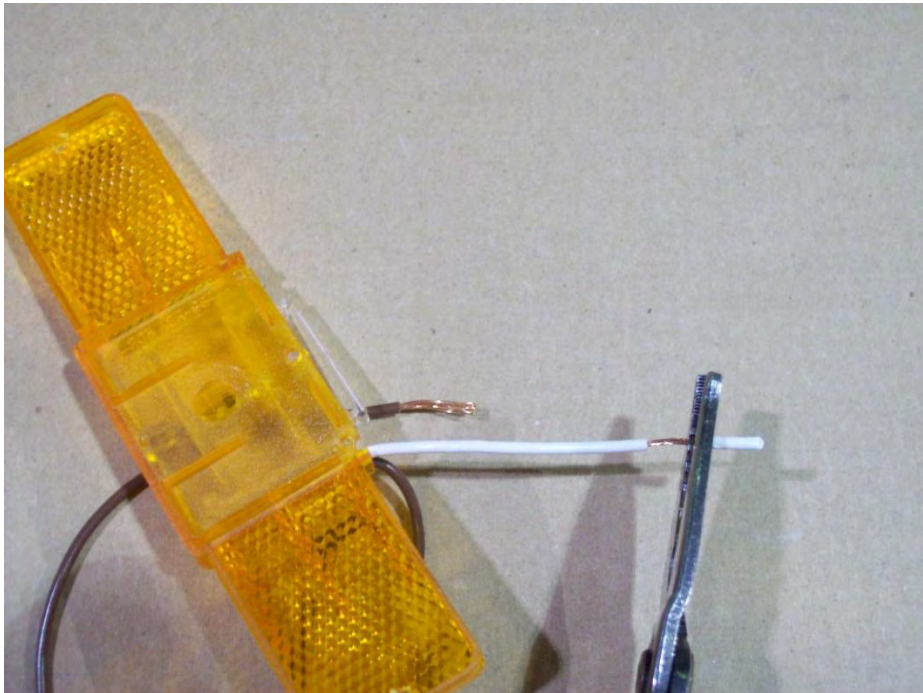
Installation of lights



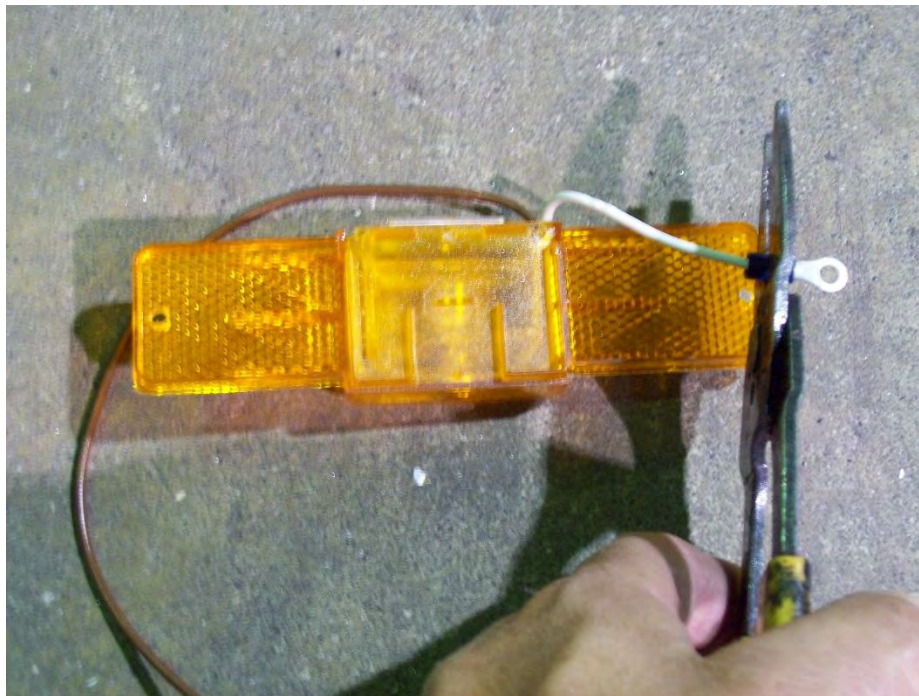
Locate the 2) amber running lights, 4) small Phillips screws, 2) butt connectors, 2) ring terminals, and adhesive clips.



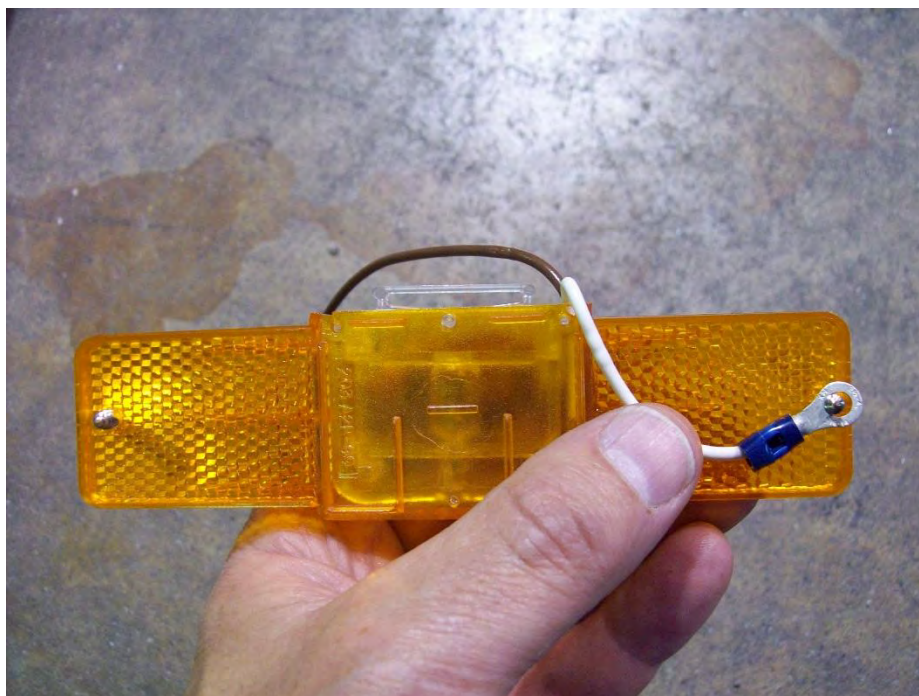
Cut approximately 8" off of the white wires on both running lights.



Strip $\frac{1}{4}$ " of insulation from the wire.



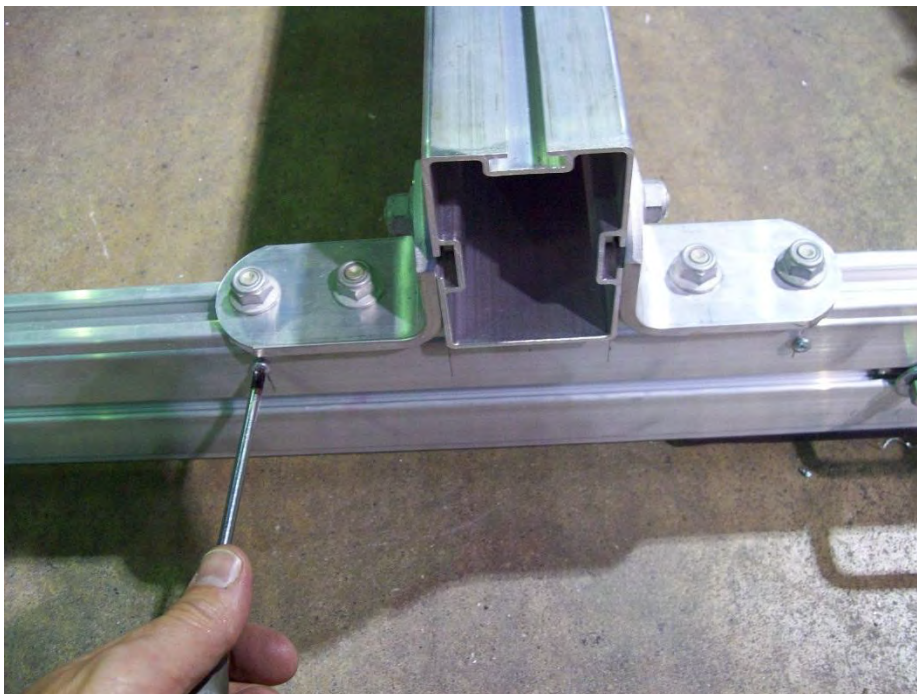
Install the ring terminal by crimping the terminal onto the bare wire.



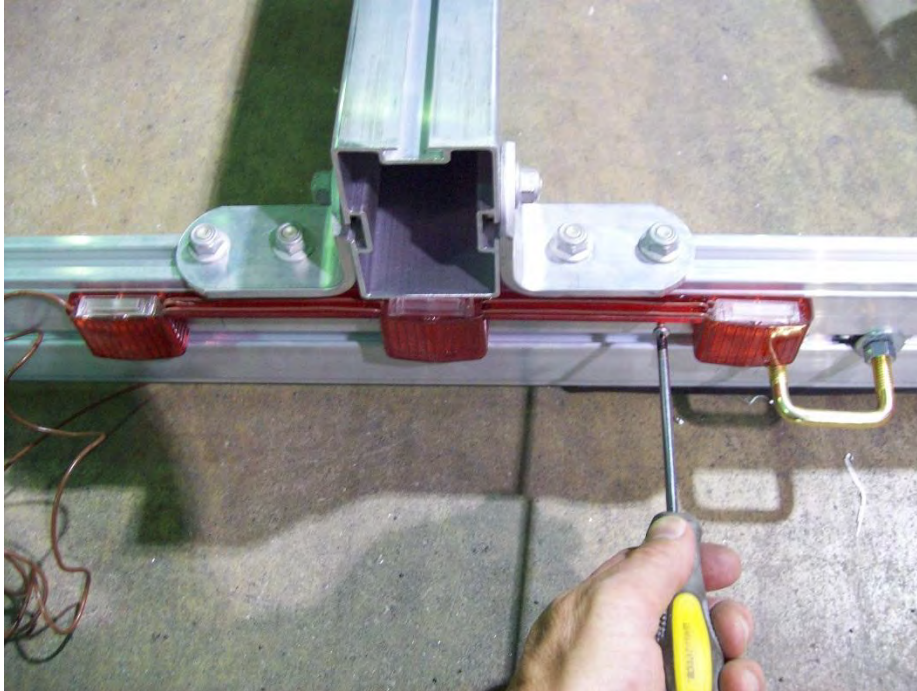
Align the ring terminal with the screw hole nearest the wire on the back of the running light. Make sure the wire is routed through the gap on the back of the light so it does not become pinched when the light is installed.



Install the running light on the bracket making sure the screw goes through the ring terminal on the white wire.



Remove the two Phillips screws in the rear cross member to install the center light bar.



Align center light bar with the holes in cross member, insert screws and tighten.



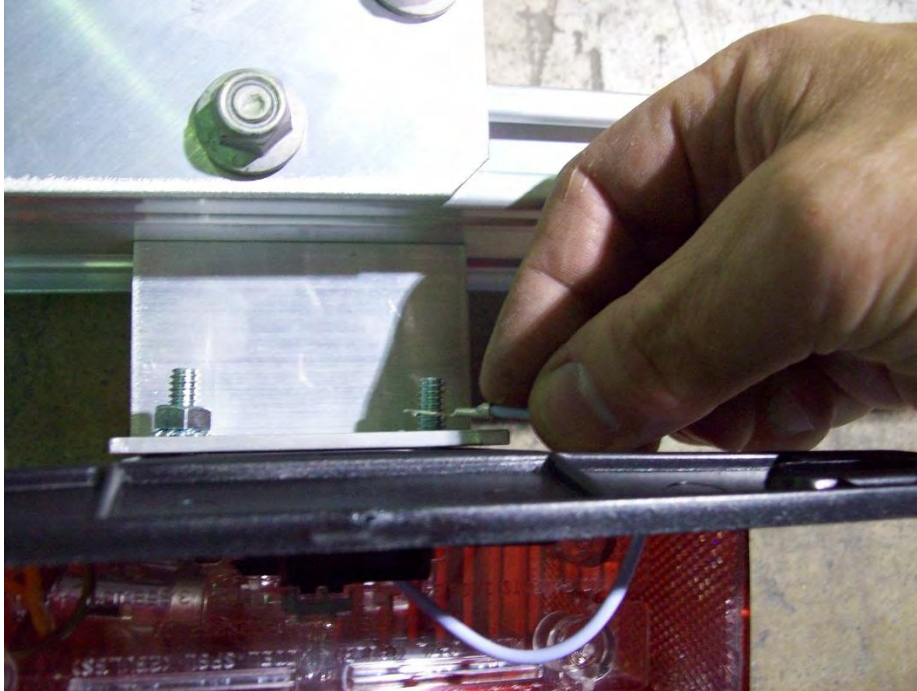
The light with the yellow wires is for the left (driver's side) of the trailer.



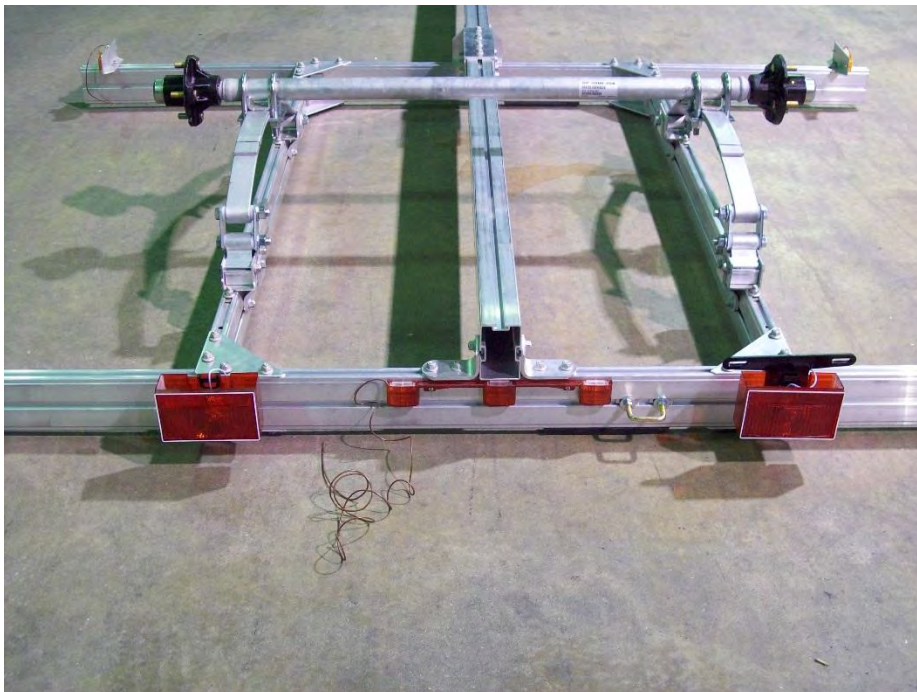
Slide the carriage bolts into the slots in the back of the tail lights.



Install the license plate holder on the driver side tail light as shown.



Install light and license plate holder on the tail light bracket. Bring the white wire around to the rear of the tail light and install it on the bolt. Tighten tail light in this position. Repeat for the other side.

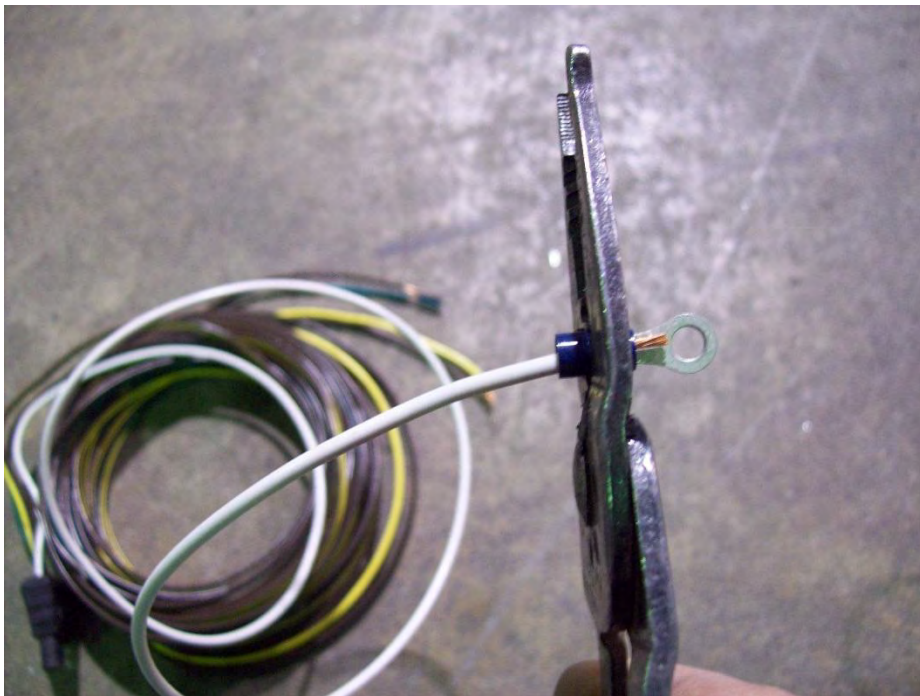


Your trailer should look like this at this point.

Wiring



Locate the wiring harness.



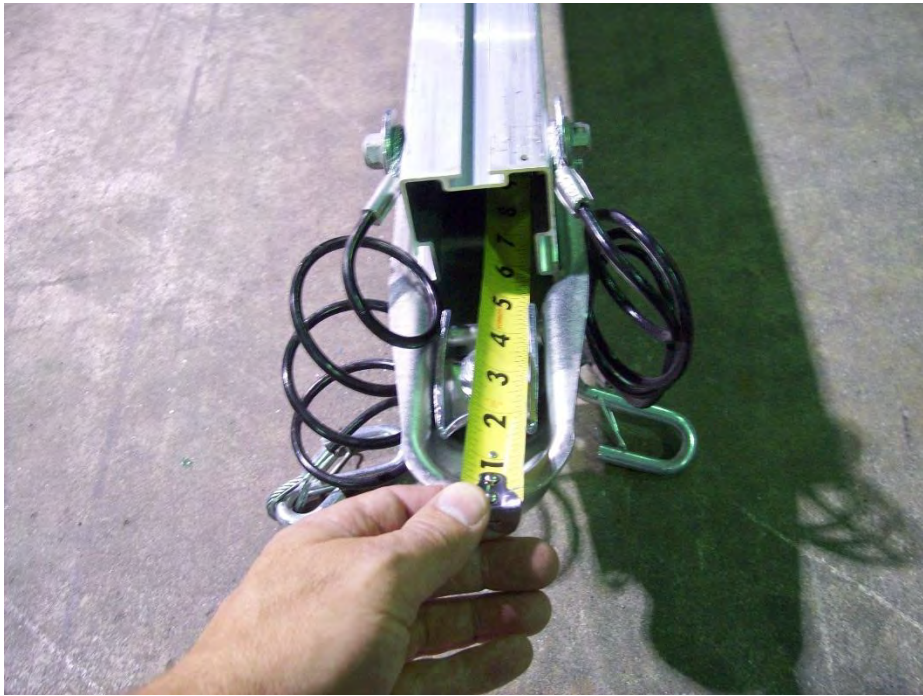
Take the white wire from the harness and strip a 1/4" of insulation from the wire. Install ring terminal by crimping it onto the bare wire.



Locate the $\frac{3}{4}$ " long Phillips screw. Install the ground wire into the pre-drilled hole located under the tongue just behind the coupler.



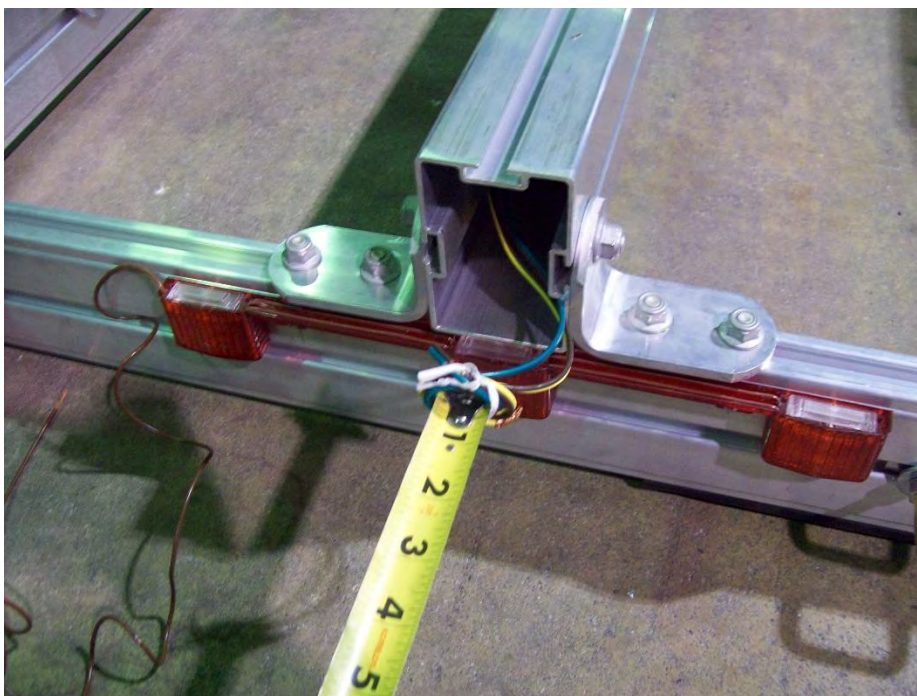
Wrap the front harness with electrical tape. Space it out evenly to almost the end of the ground wire.



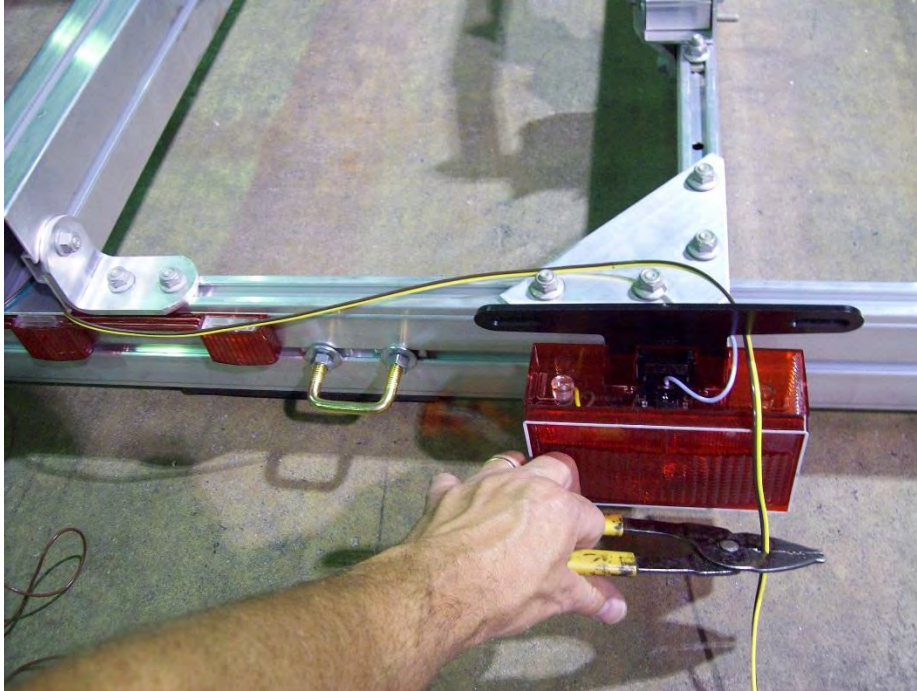
From the back of the trailer, extend a tape measure through the tongue until it protrudes out of the front under the coupler.



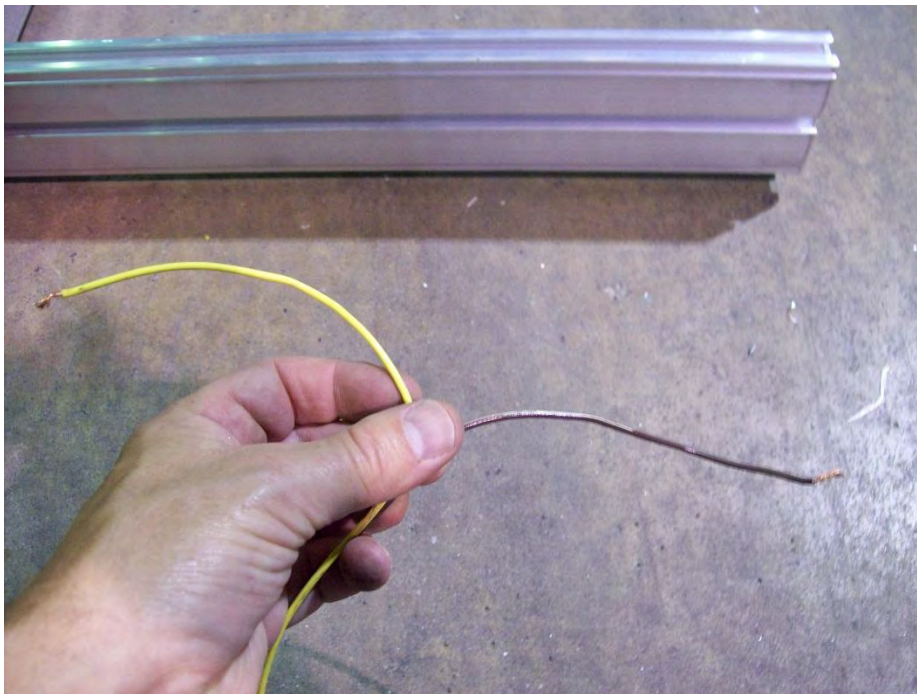
Attach the end of the harness to the tape measure using the tie wrap from the wire harness.



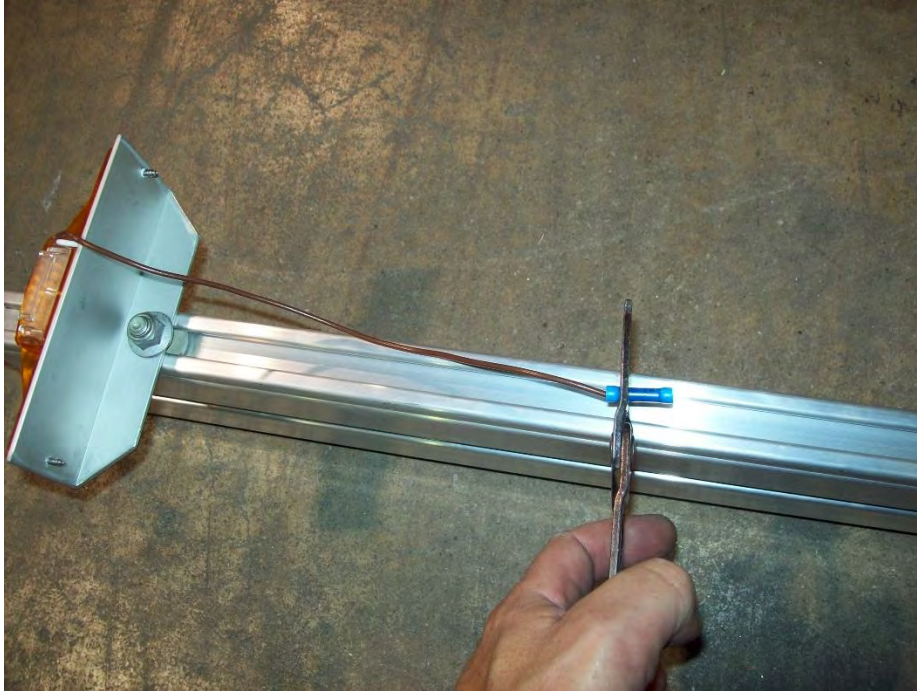
Retract the tape until the harness comes out of the back of the tongue. Pull the wires at the back of the trailer through the tongue until there is approximately 36" protruding from the front.



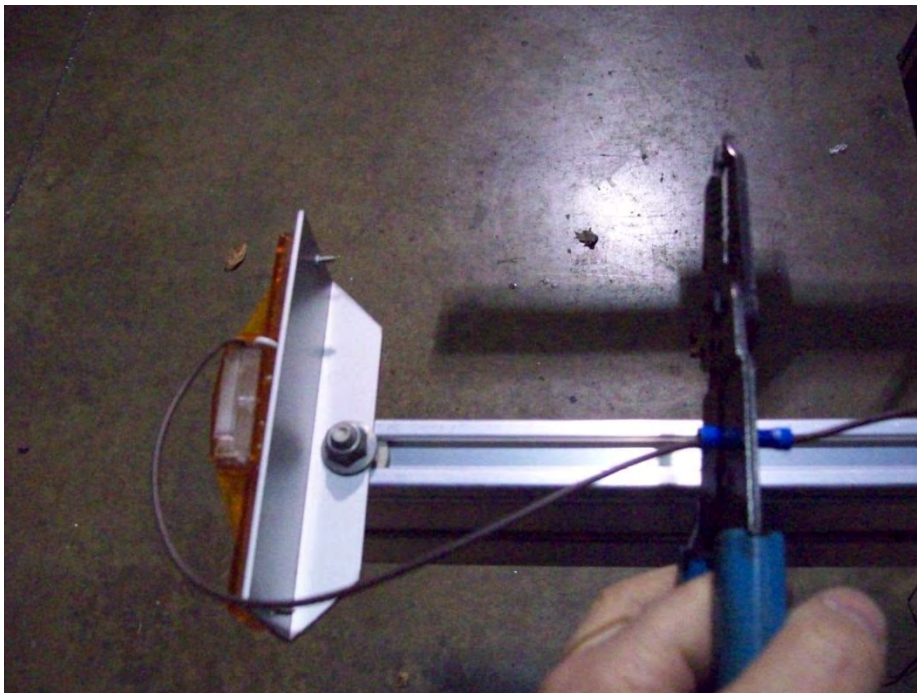
Cut harness at the tail lights leaving about 12" of wire from the frame to the light. After cutting the harness you should have about 8' of wire left. Set this aside for the running lights. Repeat the procedure for the other side.



Take the two left over 8' sections of harness and separate the yellow from brown and the green from the brown. Keep only the brown section of the wire. This will be used for the running lights.



Take the brown wire from the running light and insert it into the butt connector and crimp it on.



Before attaching the brown wire to the running light make sure it will reach the rear tail light. Trim a 1/4" of casing off both ends of the wires and crimp a butt connector on.



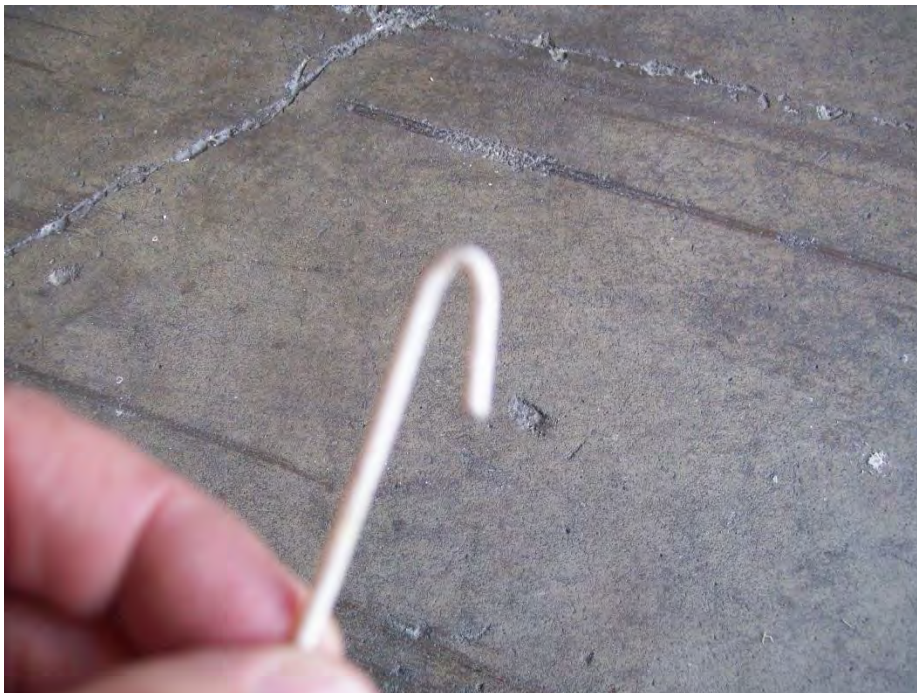
Locate the four snap bushing.



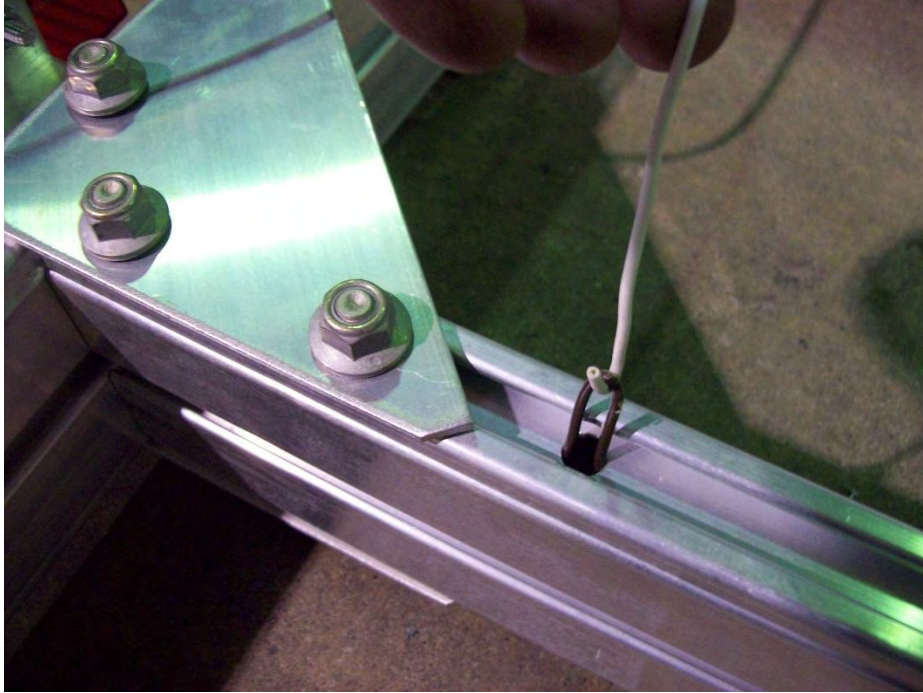
Insert the snap bushing in the hole at the front of the side rail



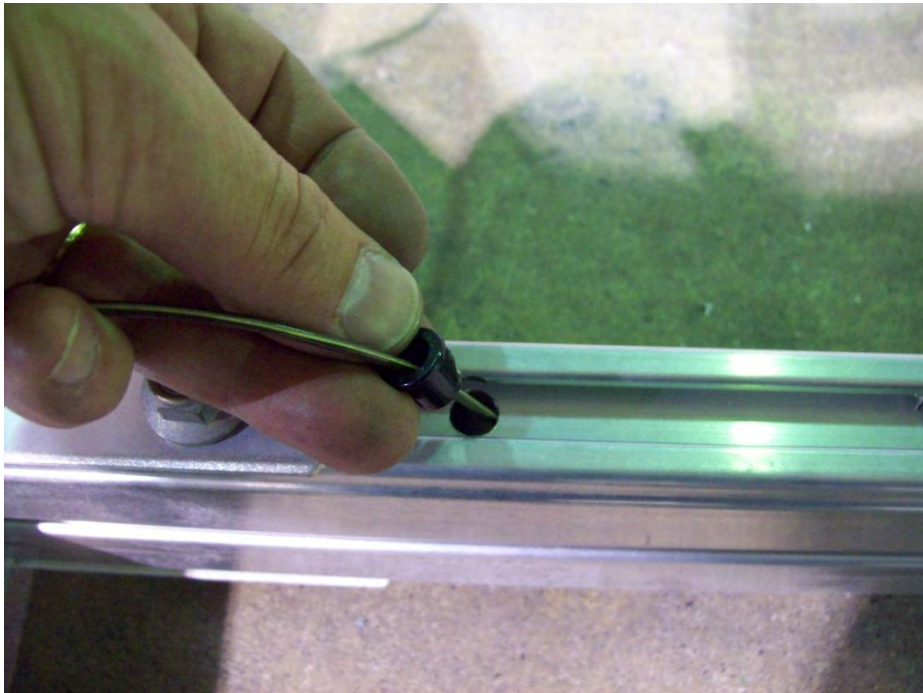
Run the wire from the clearance light down the cross arm to the side rail. Insert the wire into hole in the side rail and push wire towards the rear hole.



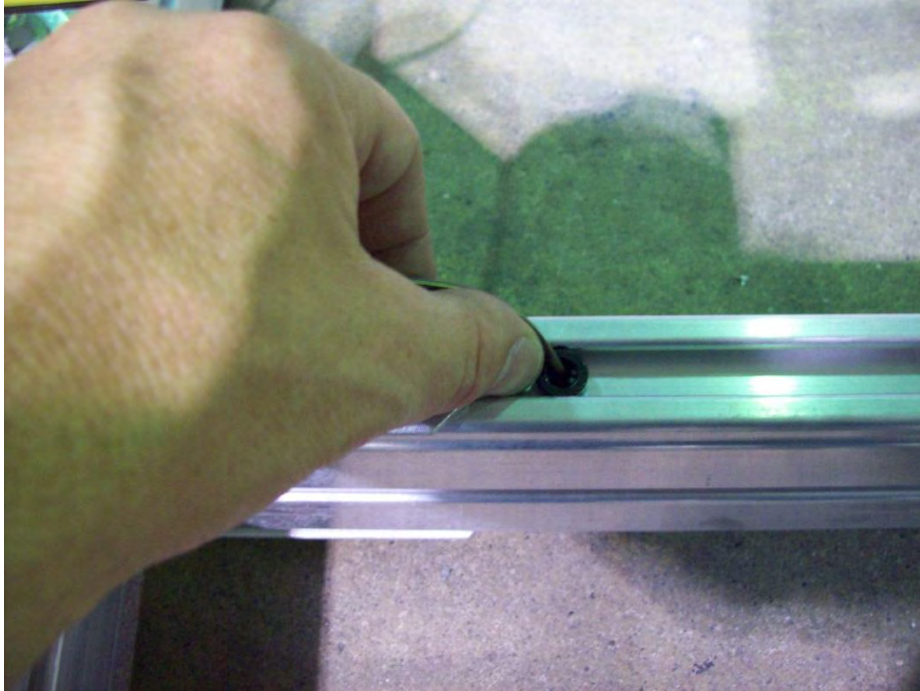
Using scrap wire, make a hook to pull the wire through the rear hole.



Hook the wire at the rear hole and pull it through.



Insert wire through snap bushing and push into hole.



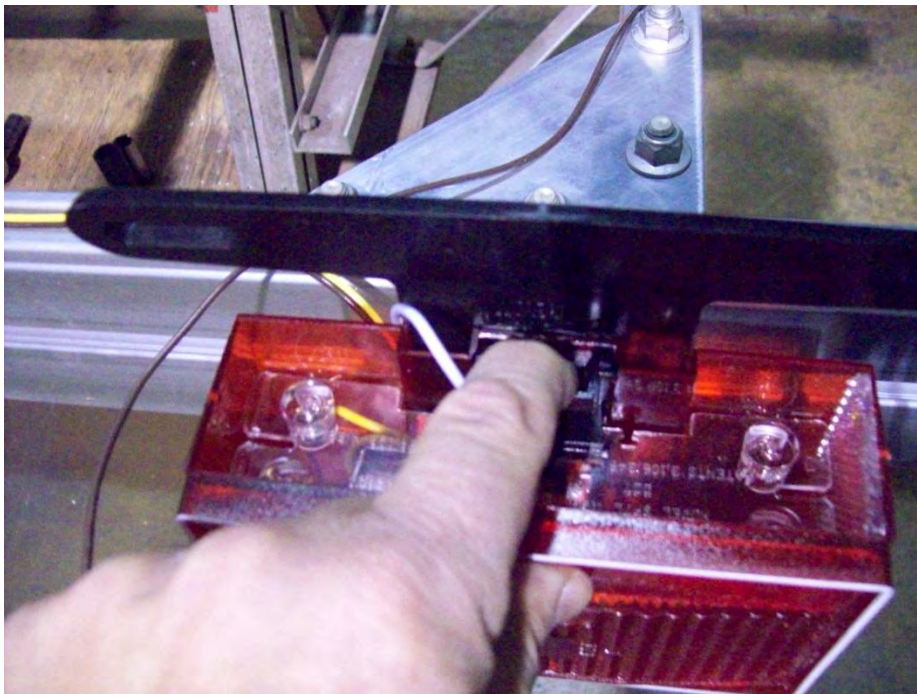
Once bushing is in place run wire towards the tail light.



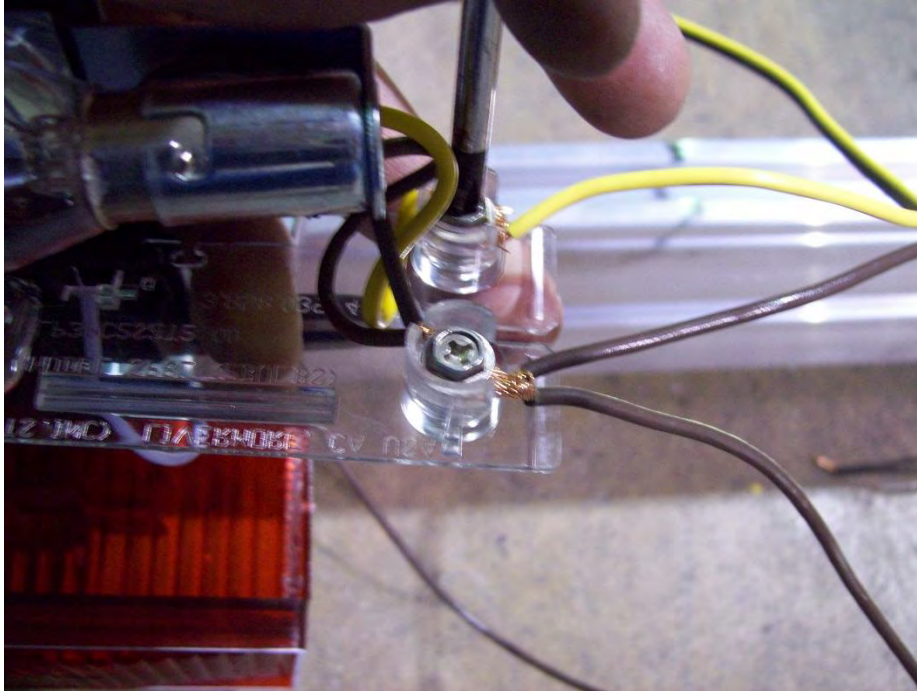
Insert adhesive clips into the cross arm and run harness through them as shown.



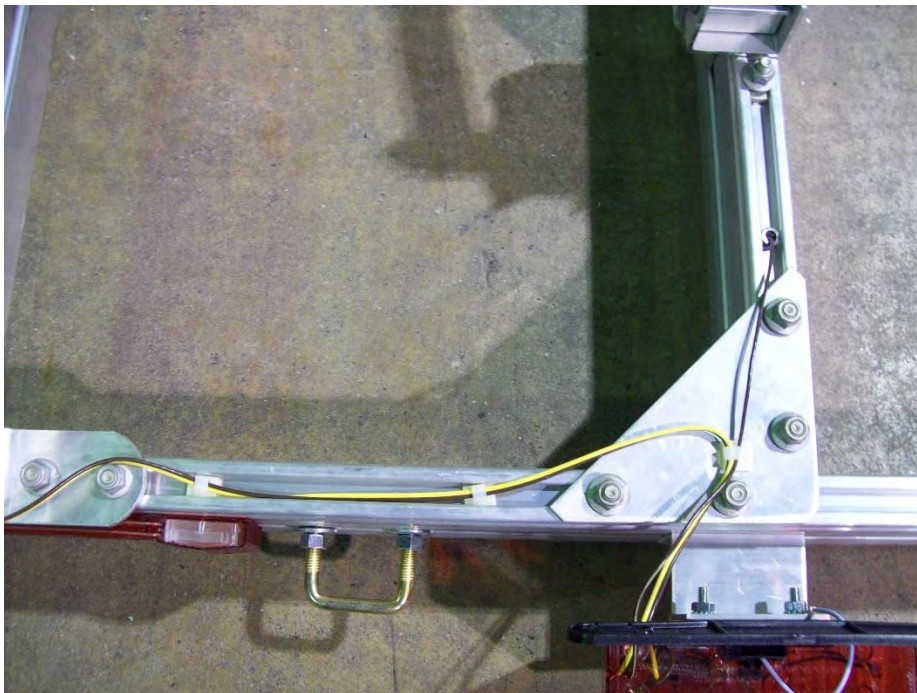
Remove excess wire for the clearance light, and trim off a ¼” of casing. Twist the brown harness wire and the brown clearance light wire together.



Pull black tab on the underside of the light towards the back of the trailer and up. This will release the internal portion of the light assembly.

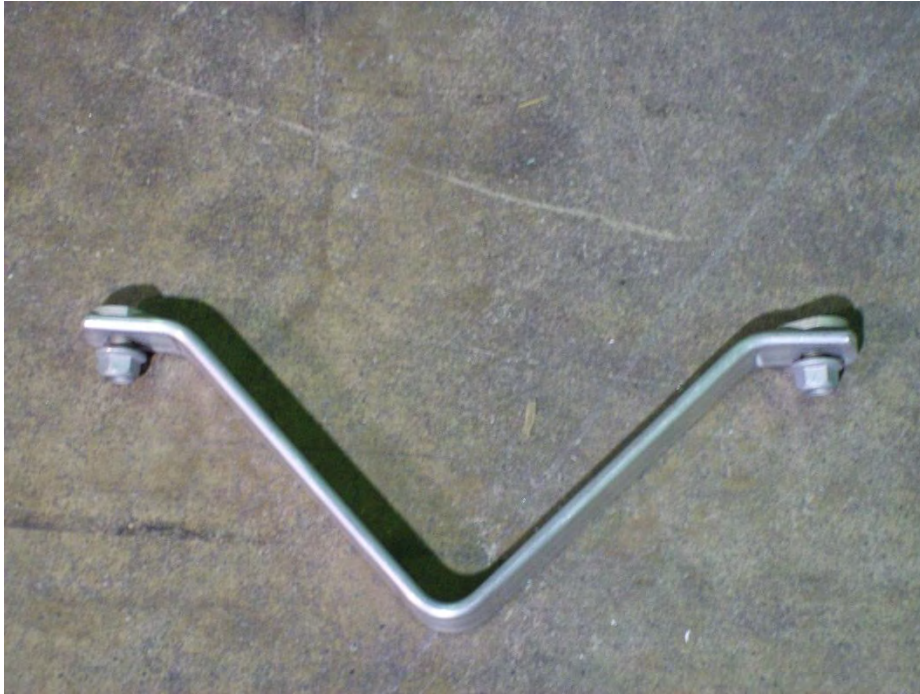


Once out of housing, color match wires with the ones on the terminals as shown.

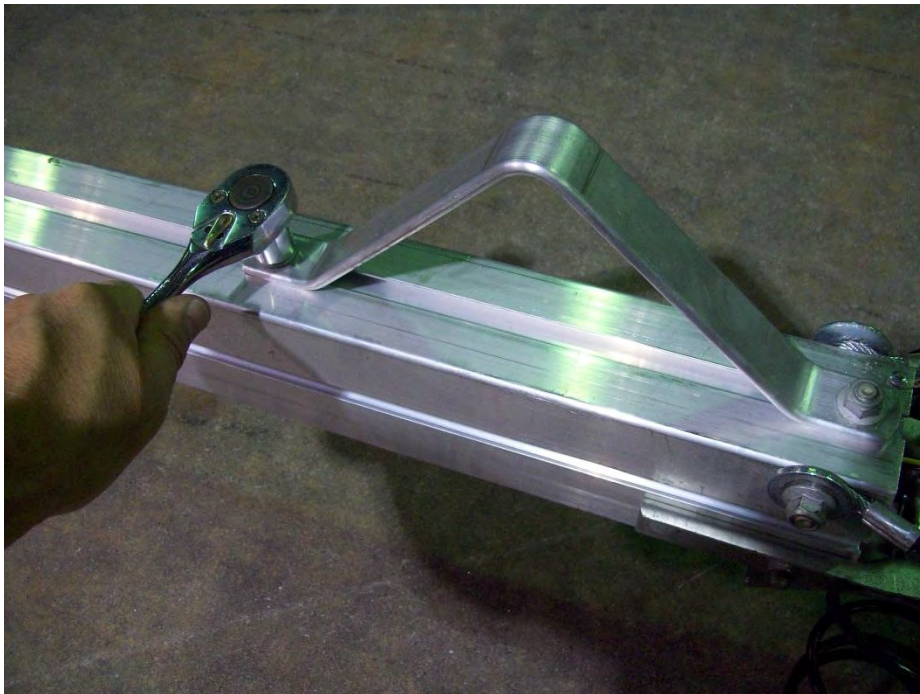


Reinsert housing and tuck wires in. Add adhesive clip to hold wires down on triangle plate. Repeat the procedure for the other side.

Installation of skid



Locate the skid



Install the skid into the slot in the bottom of the tongue and tighten.

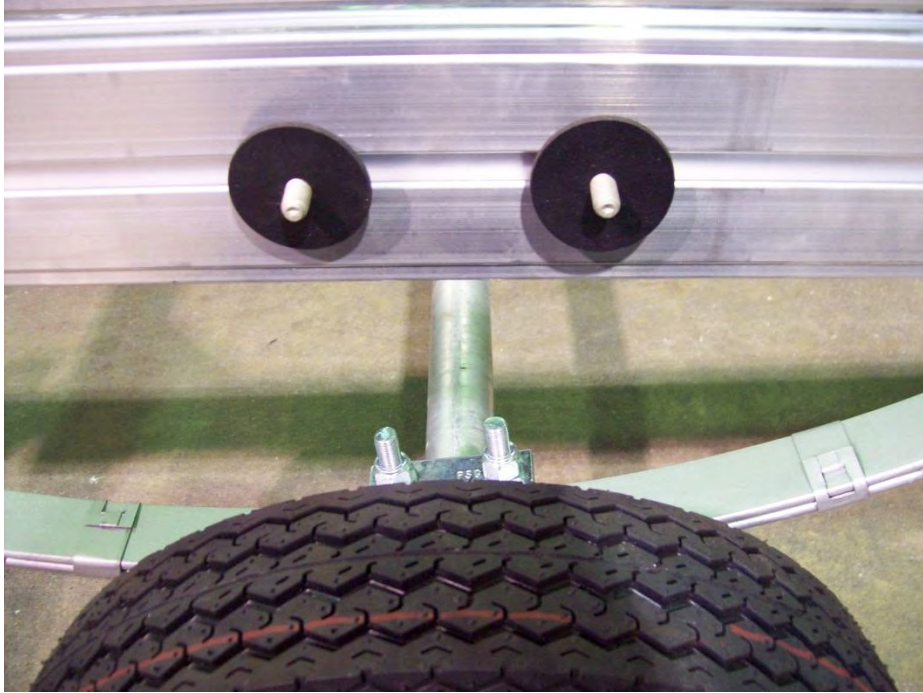
Wheels and fenders



Locate the 8 lug nuts.



Install the wheels with the valve stems facing out. Install the lug nuts with the tapered side facing the wheel. Tighten all lug nuts now. At this point flip the trailer over.



Install 2 rubber washers onto the T bolts on side rails.



Install the fender and 2 rubber washers.



Install the steel washers and nuts.

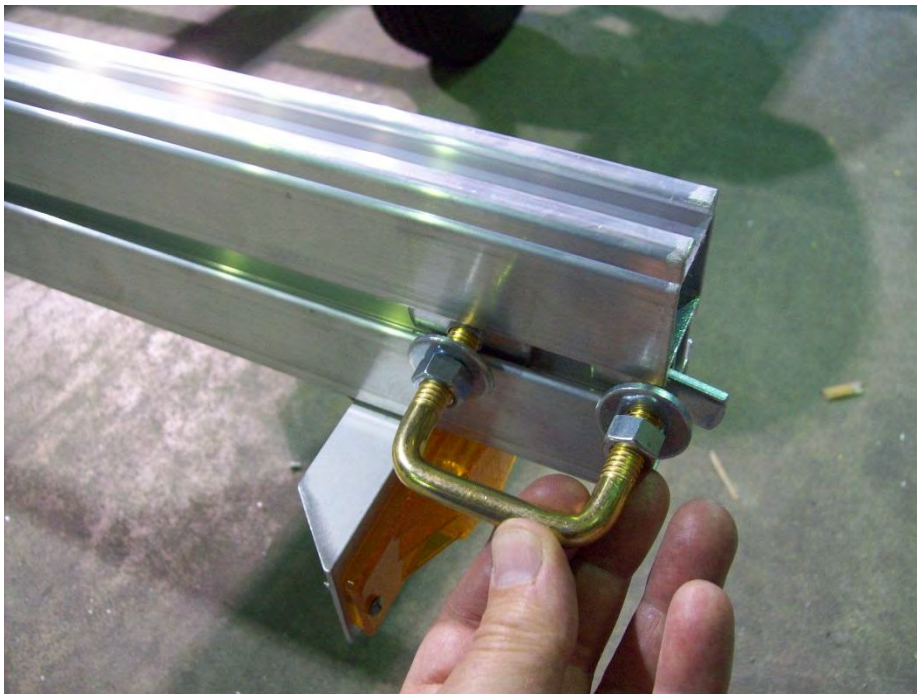


Center the fender over the tire and tighten the nuts. Repeat for the other side.

Installation of padded cradles and rollers



Locate six web strap clips.



Install one web strap clip on the outside of each cross member.



Position both front and rear web strap clips under vinyl on cross member as shown. Tighten nuts on web strap clips at this point.



Locate the 8" center rolls complete and 10" padded cradles.



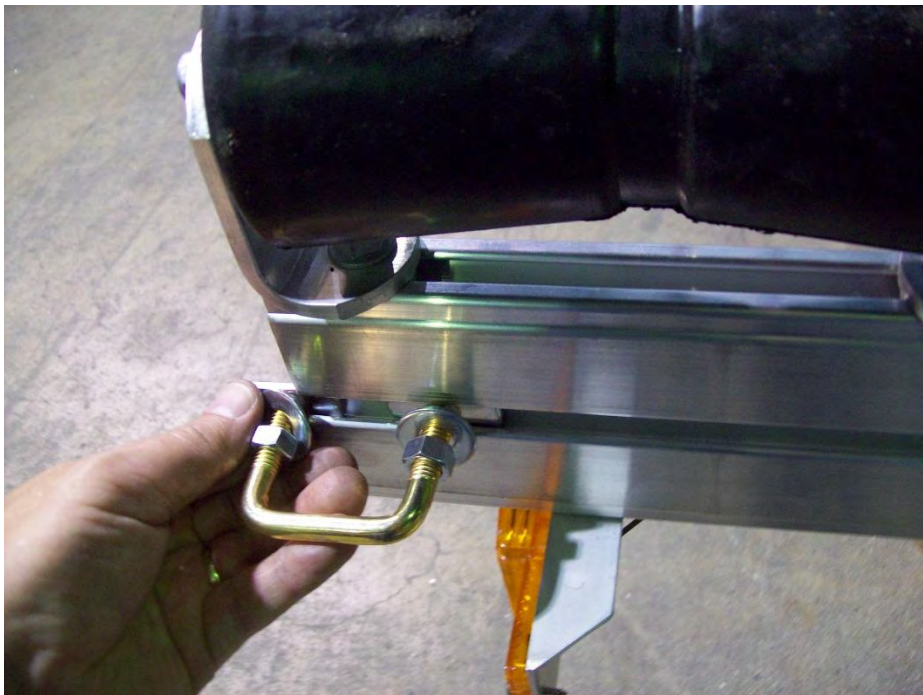
Slide the padded cradles into each corner of the cross member. Leave loose for final adjustment after roller is on.



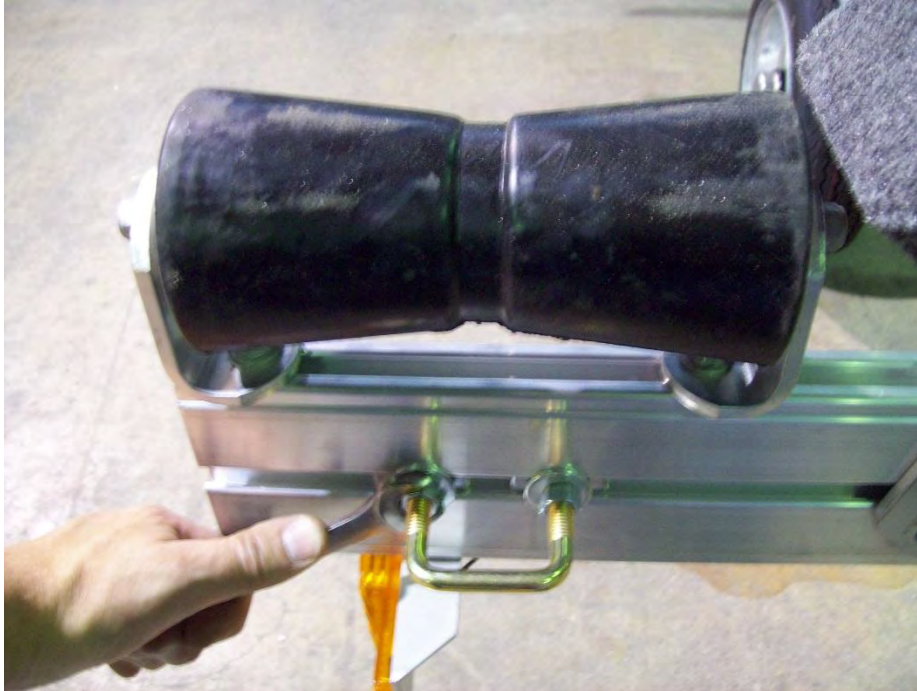
Slide roller on each cross member.



After rollers and cradles have been adjusted tighten all nuts.



Install web strap clips on the outside of each cross member.



After web straps have been positioned tighten nuts.

Torque lug nuts



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

Finished trailer





KJM 10/18/13 REVISED12/11/14