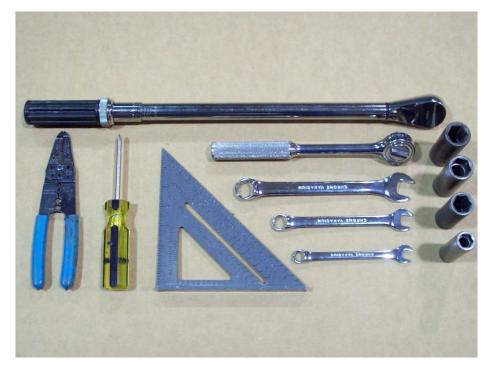
## **SUT-450-PA**



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 and splice plates



Cross members and side rails



Axle assembly, springs and U bolt hardware.



Fenders, tires and hardware.



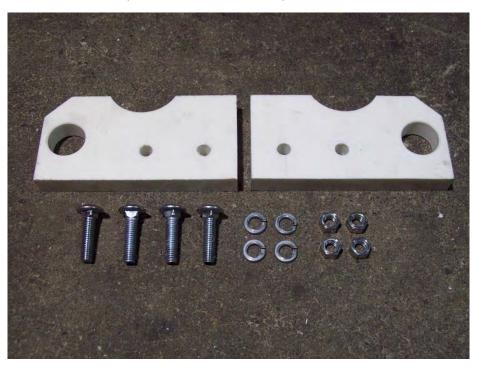
Bow stop, light kit, skid, light bracket, harness, and hardware.



2) 35" Cradles and 1) 42" cradle



1) Center roller and 2) outer rollers



Dolly bracket holders (Sold separately from Hobie)

# This page is optional for spare tire carrier if ordered with trailer.



Slide 2 T-bolts on the underside of the front tongue section that has the serial number on it.



Shown upside down
Position carrier about 12" away from the splice plates then tighten nuts

### **Tongue assembly**



Locate the bag containing the frame hardware.



Install four T-bolts on each side of the front tongue section and slide forward. These will be used later on in the assembly process.



Locate the bag with the splice plates, T-bolts and nuts. Insert the T-bolts into the splice plates, install nuts but do not tighten.



Install the splice plates into the rear tongue section. Make sure the hole for the wiring harness is at the back of the rear tongue section.



Lay the tongue sections end to end. Slide 2 side plates over the adjacent tongue section until the plates are centered on the tongue sections. Tighten nuts.



Slide bottom plate over and align with side plates.



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

#### **Frame Assembly**



Make sure the pencil marks are facing out on both the front and rear cross members before inserting into the side rails.





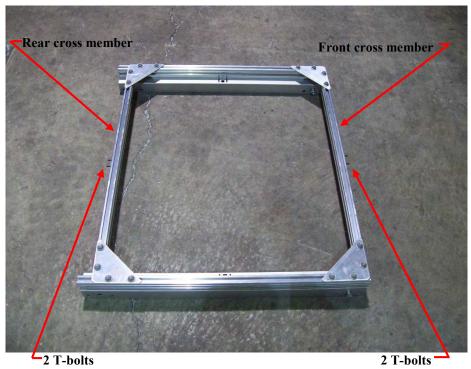
Install both front and rear cross member into the right side rail as shown.



Once in place, square the side rails and cross members. Tighten all nuts.



Install 2 T-bolts to the front side of the front cross member. Repeat the process for the rear, installing the T-bolts on the back side of the cross member.



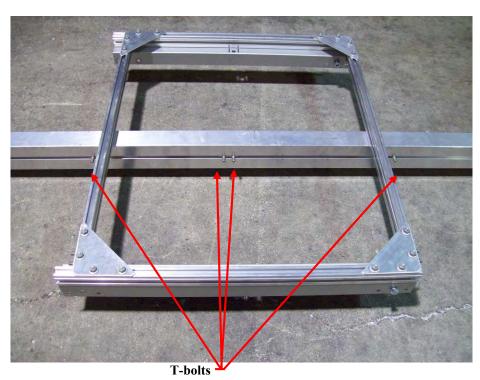
Install the left side rail square frame up and tighten nuts. Your frame should look like this when together.



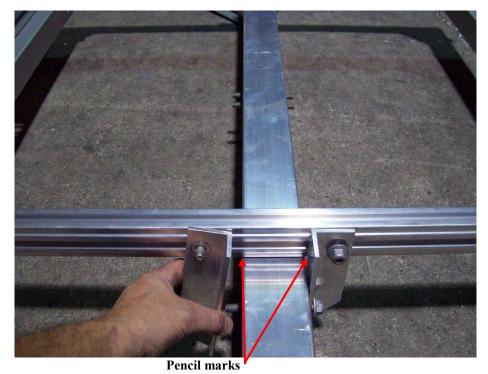
Lay the frame assembly on the top of the tongue section with the coupler facing up. Position the rear cross member 38" away from the end of the tongue.



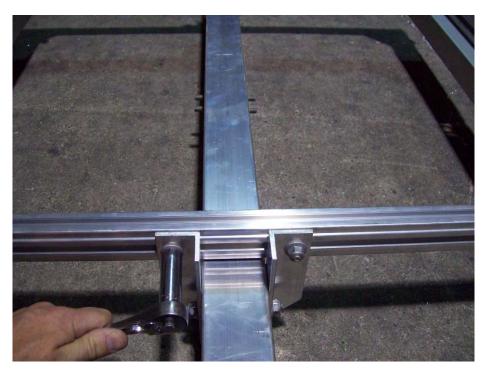
Install four T-bolts on each side of the rear tongue section.



Position two T-bolts in the center of the frame and one at the front and back side of both cross members. Repeat for other side.



Install the angle brackets on the cross member and tongue as shown. Make sure to align the angle brackets to the pencil marks on the cross member, then center it on the tongue section. Repeat the process for the front cross member.

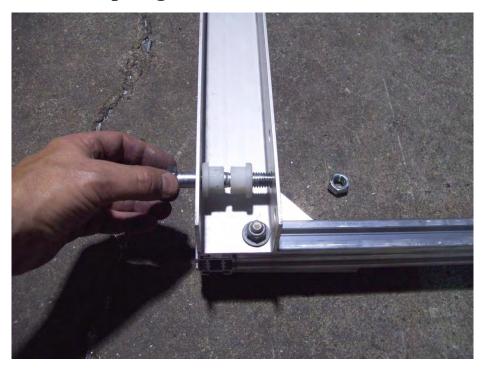


Once frame and tongue are in position, tighten all the nuts.



At this point turn the trailer upside down to install the suspension.

### **Spring and Axle Installation**



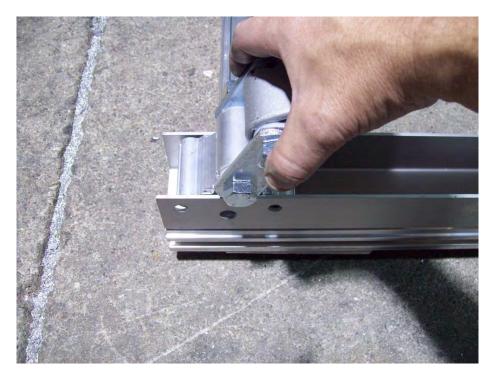
Remove the bolt, nut and bushings from the front sub rail.



Take the two bushing and install them into the eye of the leaf spring as shown. Insert the spring and bushing back into the sub rail.



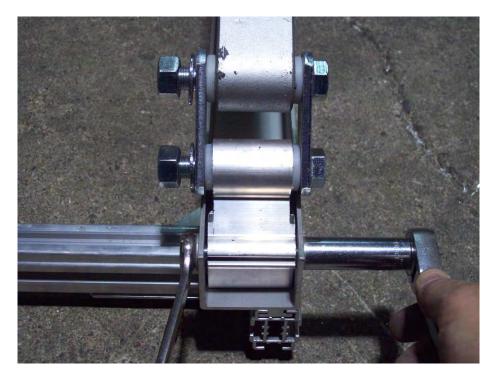
Re-install the nut and bolt into the center hole of the sub rail with the nut toward the inside of the trailer. Do not tighten yet.



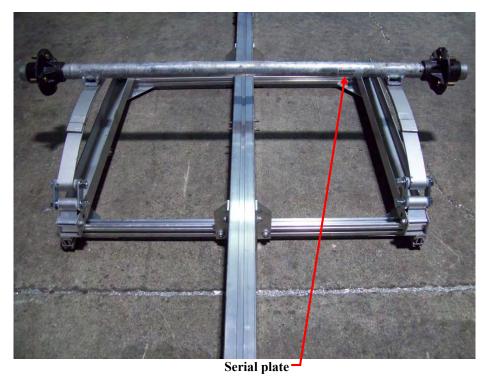
Remove the two bolts from the shackle holder at the rear of the spring and install the shackle holder into the spring hanger.



Once the shackle holder is in place, re-install the two bolts through the hanger. Face the nuts toward the inside of the trailer.

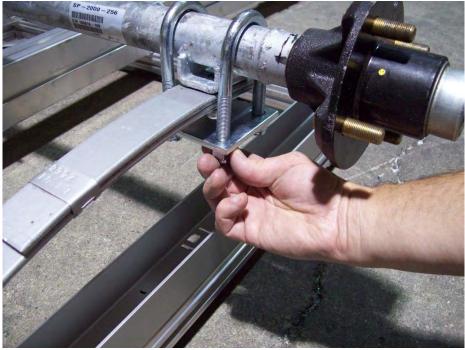


At this point tighten only the nuts on the spring hanger. Do not tighten the shackle nuts yet.



Locate the axle and install it on the springs as shown. Place the locating studs on the springs in the holes on the axle's perches. Face the axle's serial plate toward 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 the U-bolts. Tighten all the nuts evenly as shown.



Tighten the front spring mounting nuts that were left loose.

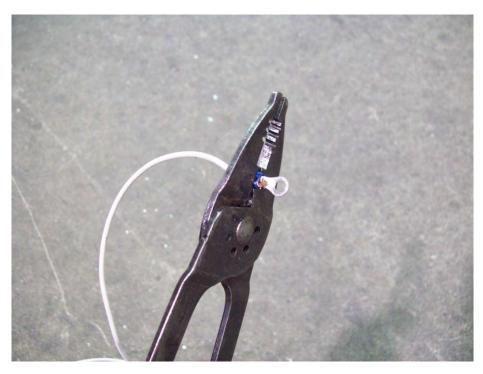


Tighten the rear shackle nuts but do not over tighten as this will not allow the suspension to move properly.

#### Wiring



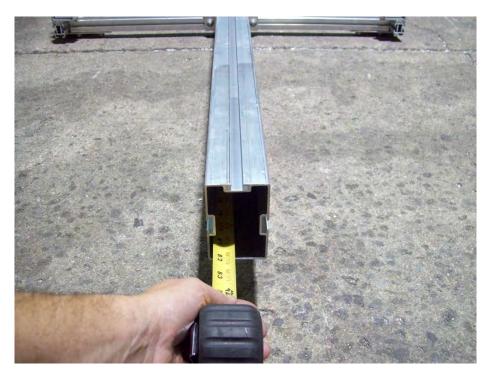
Locate harness, ring terminal and 3/4" Phillips screw.



Strip white ground wire and install ring terminal.



Install Phillips screw through the ground wire into the pre-drilled hole located under the tongue just behind the coupler.



Extend a tape measure inside the tongue from the rear of the trailer until it protrudes at the front of the trailer under the coupler.



Attach both wires of the harness to the end of the tape measure with either tape or the tie from the wiring harness.



Retract the tape measure until it comes out the back of the tongue with both wires attached.



Locate the skid, light bracket, two amber running lights, four small Phillips screws, adhesive backed clamps, two ring terminals and two blue connectors.



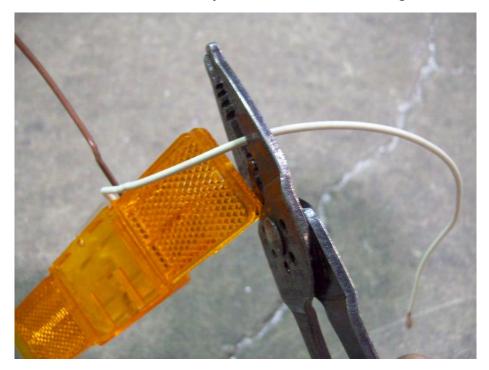
Take one T-bolt off the skid and slide it in the bottom of the tongue.



Install the bracket for the running lights.



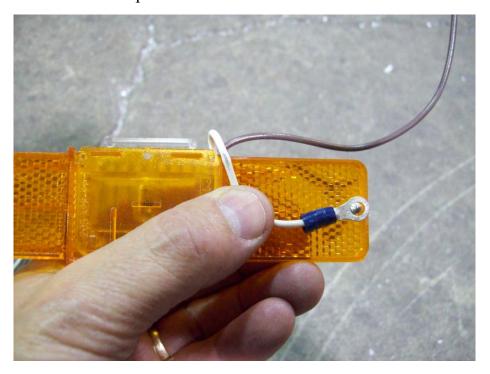
Position bracket about 3" away from the end of the tongue as shown.



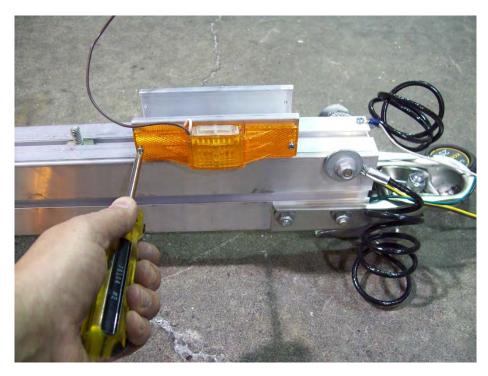
Cut ground wire back to the outside edge on both running light.



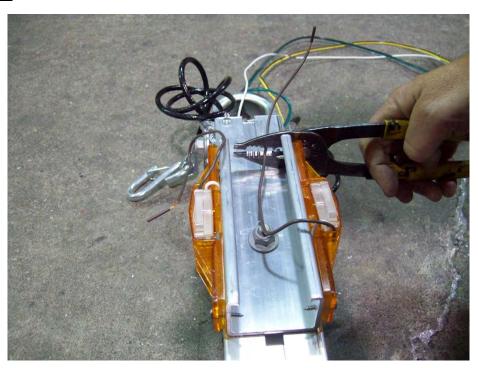
Strip 1/4" of insulation from the wire.



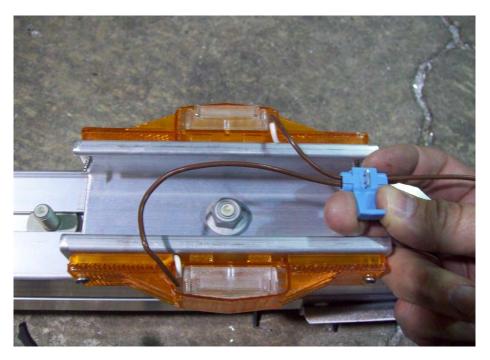
Align the ring terminals with the screw hole nearest the wire on the back of the running light. Make sure the wire is routed through the gap on the back of the light so it does not become pinched when the light is installed.



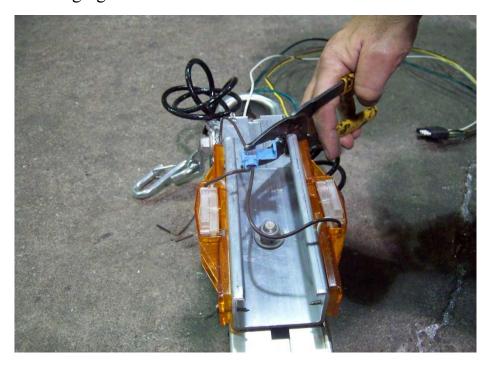
Install the running lights into the predrilled holes in the running light bracket using a Phillips screwdriver. Be sure the screw is through the ring terminal on the back side of the lights. This will supply a ground to the lights. <u>DO NOT OVER TIGHTEN.</u>



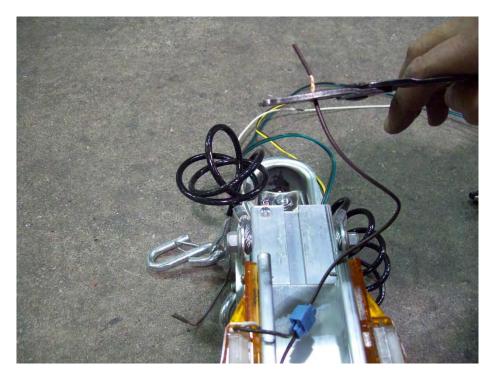
Cut the brown wire on the left (driver's side) off at the outside edge of the running light bracket. Do not strip the wire.



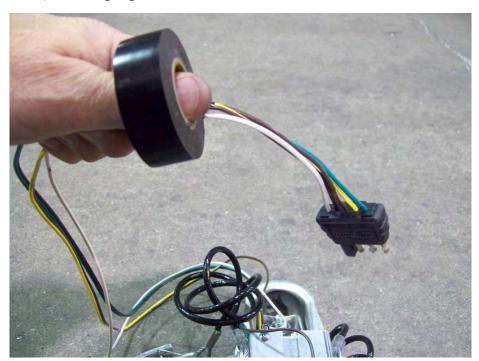
Insert brown wire that has been cut into the hole in the connector closest to the hinge. This hole does not pass all the way through. The wire should go in about ½". Pass the other wire through the remaining open slot in the connector at a point close to the running lights.



Use pliers to push the metal spade down until it is flush with the plastic. This is what makes the electrical connection between the two wires. Close the plastic cover of the connector over the spade until it snaps into position.



Cut the exposed strands of wire off the end of the brown wire on the right (passenger side) running light.



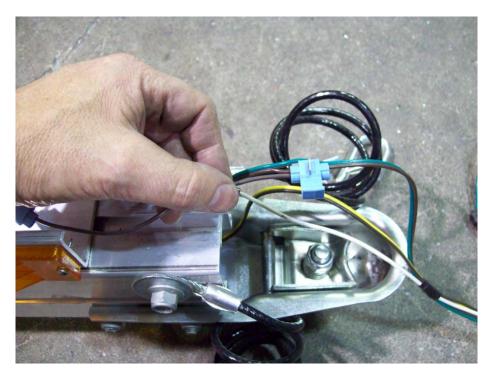
With electrical tape start at the four prong connector keeping the harness tight and tape the wires together. Space the tape about the width of four fingers apart.



Tape the harness right up to the coupler and stop there. Your wiring harness should look like this when finished.



With a knife, separate the brown wire from the green wire to accept the connector. Be careful when cutting so you don't cut through the casing.



Insert brown wire that has been cut into the hole in the connector closest to the hinge. Pass the other wire through the remaining open slot in the connector. Use pliers to push the metal spade down until it is flush with the plastic.



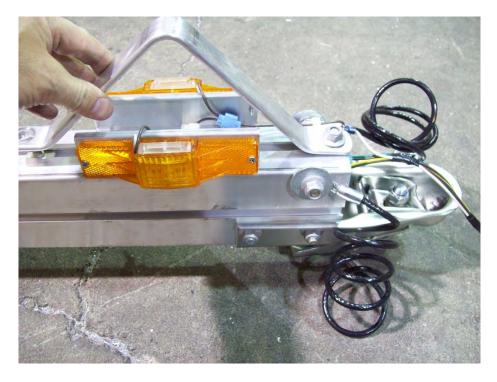
Close the plastic cover of the connector over the spade until it snaps into position.

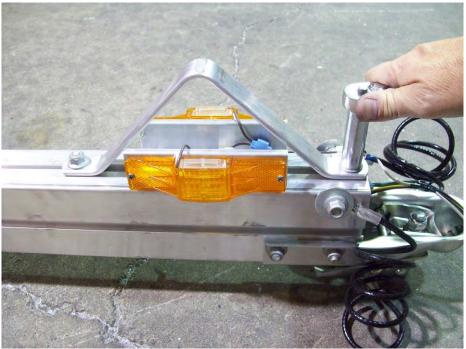


Tuck connector up under the tongue and finish taping harness as shown.



Install the adhesive backed clamps as shown and run the brown wire from the running lights through them.

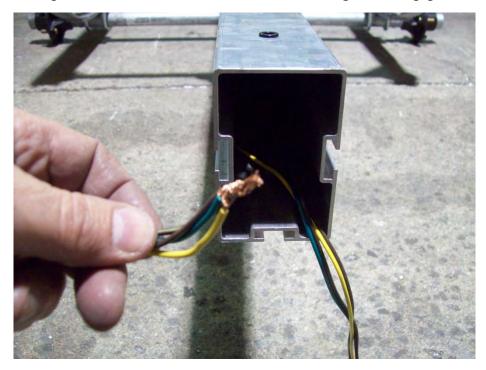




Install the skid on the front tongue section. Tighten the nuts for the skid in the location as shown.



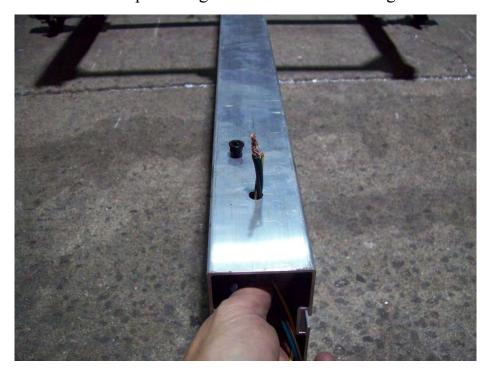
At this point turn the trailer back over to the right side up position.



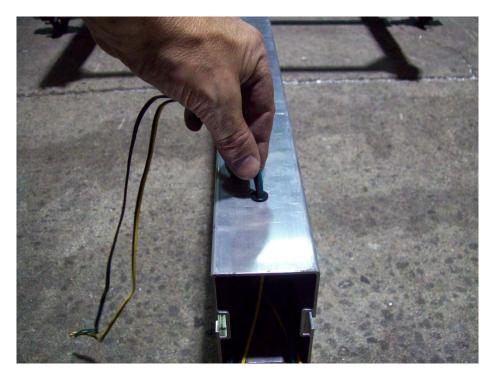
Pull the harness out the back of the tongue. Take all four wires and twist them together as shown.



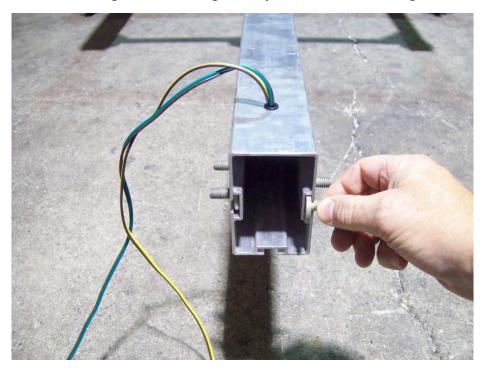
Remove the snap bushing from the rear of the tongue section.



Insert the harness through the hole slowly in order not to damage the casing around the wire.



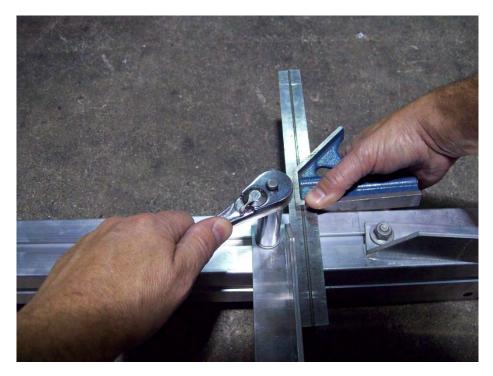
Reinstall the snap bushing over the harness and push back into the hole. Pull the rest of the harness through the bushing slowly until somewhat tight.



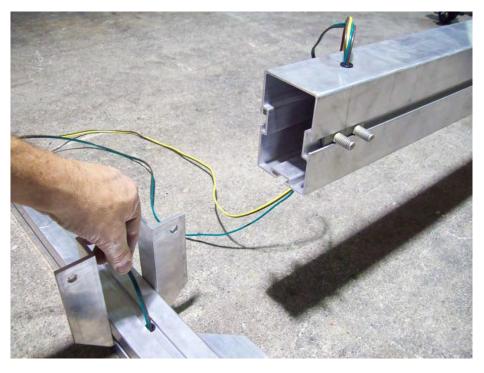
Remove four T-bolts from the hardware bag. Install two T-bolts on each side of the rear tongue section as shown.



Locate the 42" crossbar.

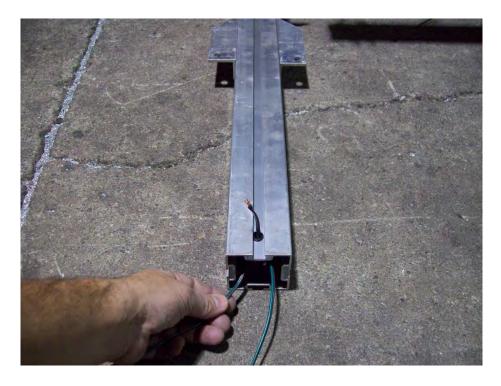


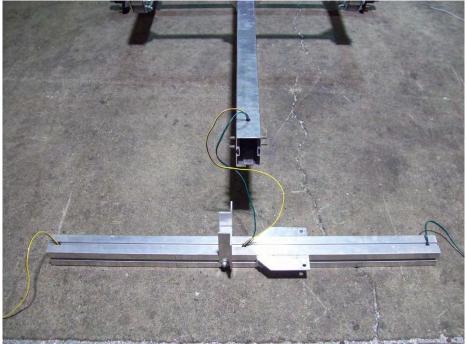
Loosen the angle brackets and align them with the pencil marks on the cross bars.



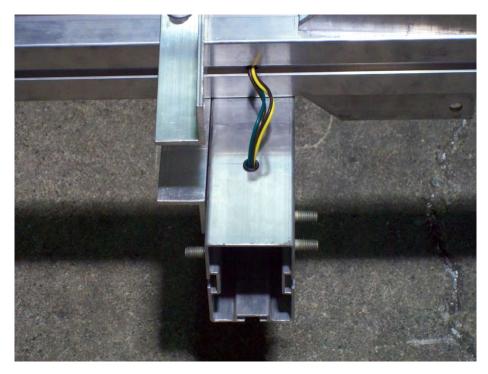


Take the brown and green wire and slowly insert the wires through the snap bushing until it comes out the right side. Repeat the process for the other side with the yellow and brown wires.





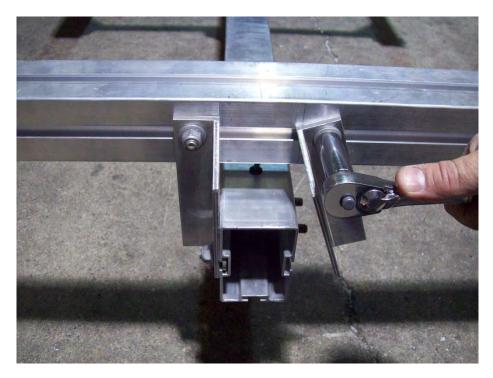
Insert the wires through the holes at each end of the crossbars. When finished your crossbars should look like this.



Push the excess wire up through the crossbar to take up the slack.



Install angle brackets on T-bolts and align with the end of the tongue section.



Loosen angle bracket up and install over T-bolts.



Once in position align angle brackets with marks on crossbar and square up. Tighten nuts at this point.



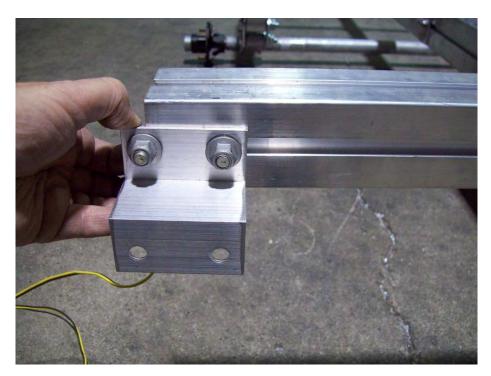
Locate the two tail lights, tail light brackets, license plate bracket, 4 nuts, and 4 carriage bolts.



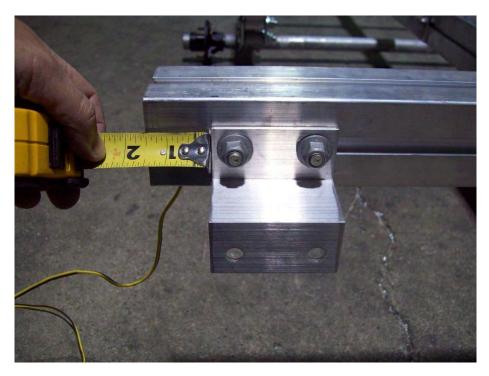
Locate the center roller and remove the T-bolts and nuts from the brackets.



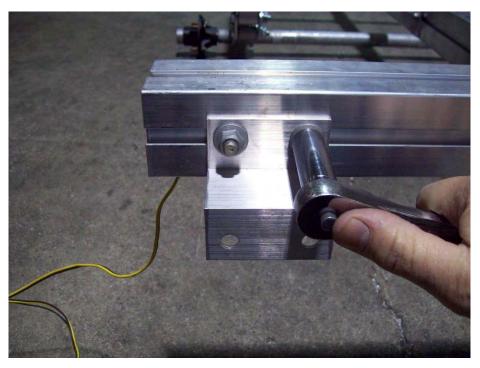
Install one T-bolt on each side of the rear crossbar as shown.



Install the tail light brackets on each side of the crossbar.



Position the tail light brackets 1 ½" on each side of the crossbar.



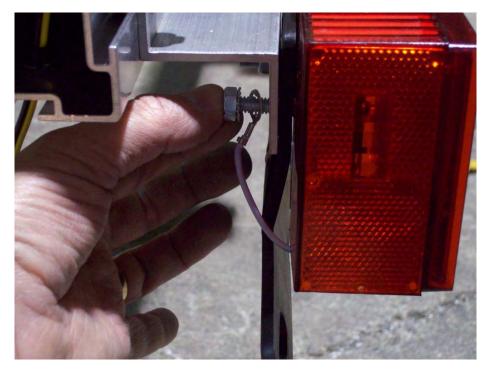
Once in position tighten nuts.



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.



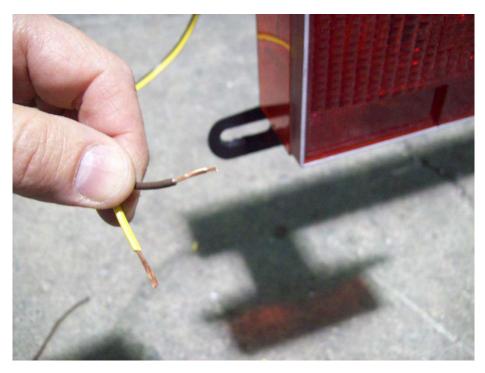
Mount the license plate bracket to the driver side tail light.



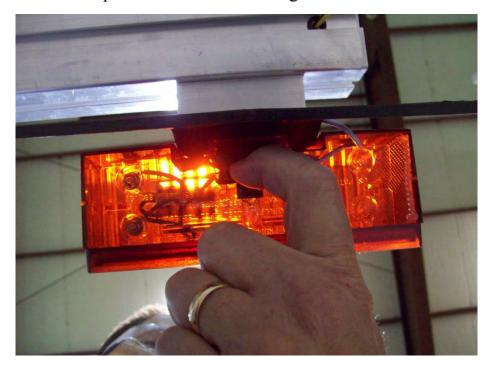
Install the left tail light with the license plate holder between the light and the bracket. Tighten the tail light in this position.



Stretch harness across the tail light then cut off excess wire.



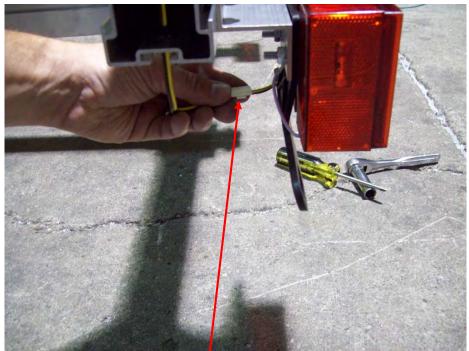
Strip about a ½" of the casing off the harness.



Locate the black tab at the bottom of the tail light. Move the tab toward the rear of the trailer and pull down releasing the bulb assembly from the light housing.



Loosen the wire retaining screws and install the color matching wires from the wire harness onto the corresponding retaining screws.



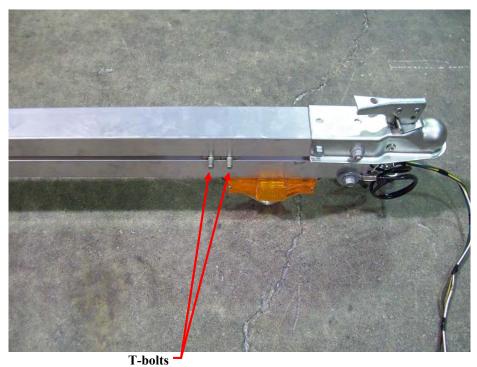
Adhesive clips —

Re-install the bulb assembly into the light housing making sure to route the wires through the slot in the base of the bulb assembly. Add adhesive clips to wiring harness to take up excess slack.

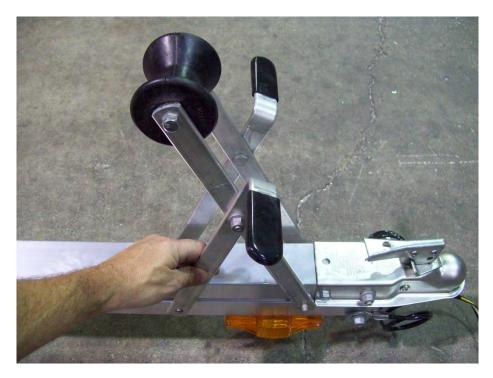
## Bow stop and cradle installation



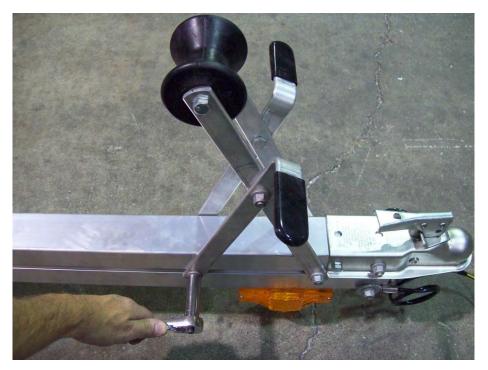
Locate the two 35" crossbars and the bow stop.



Slide two T-bolts on each side of the front tongue section towards the coupler.



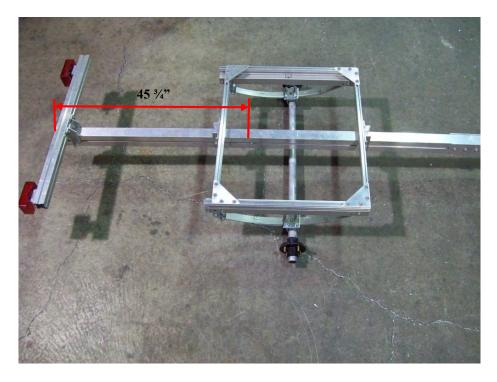
Install the bow stop with the roll facing the rear of the trailer and the handles facing forward as shown.



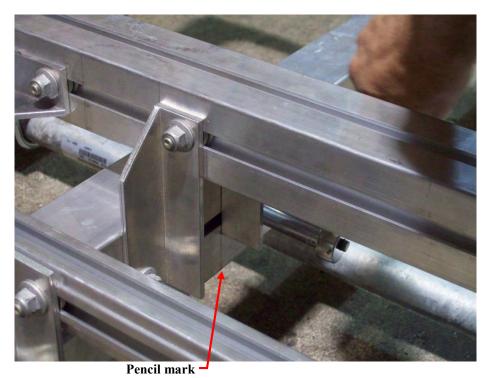
Adjust bow stop and tighten nuts. Final positioning of the bow stop will be determined by your boat.



Align the angle brackets on one side of the cradle as shown. Tighten the nuts.



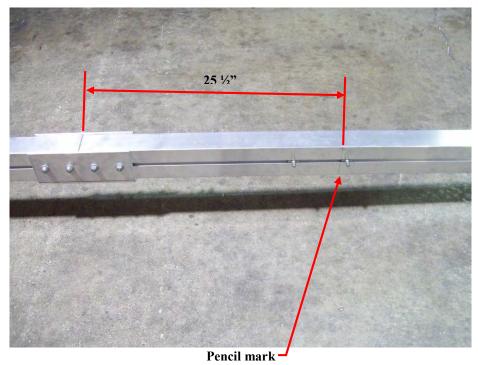
Locate the pencil mark on the rear tongue section. Pencil mark should be  $45 \frac{3}{4}$  from the rear of the tongue.



Pencil mark — Align the backside of the front angle bracket with the pencil mark on the tongue.



Attach the brackets to the T-bolts on the tongue section. Once in place tighten all nuts.



From the rear of the front tongue section locate the pencil mark. Pencil mark should be  $25 \frac{1}{2}$ " from the rear of the tongue.



Repeat the process for installing the cradle. Make sure that the backside of the front angle bracket is aligned with the pencil mark on the tongue.

## Fender and Wheel Installation



Wheels, fenders and hardware bag.



Locate (2) 1 1/8" T-bolts from the hardware bag and install them into the side rails.



Slide them near the center of the side rail and install two rubber washers and two steel washers as shown.



Install the fender, two more steel washers, and nuts. Center the fender under the axle and tighten the nuts. Repeat for the other side.



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

#### Installation of web strap clips and T-bolts for cradle



Locate 6) web strap clips, 4) T-bolts, 4) flat washers, and 4) nuts



Install the web strap clips on the front side of the front crossbar on each side.



Once in position tighten nuts.



Install web strap clips at the back of the side rail on each side.



Install the last two web strap clips on each side of the rear crossbar facing forward. Once in position, tighten nuts.



Install two T-bolts in the crossbar as shown.



Align T-bolts with holes in cradle and center on the crossbar. Cradles sold separately from Hobie.





Install flat washers and nuts on the T-bolts and tighten nuts. Repeat the process for the rear crossbar.

## **Installation of rollers**



Locate the two outside 8" rollers.



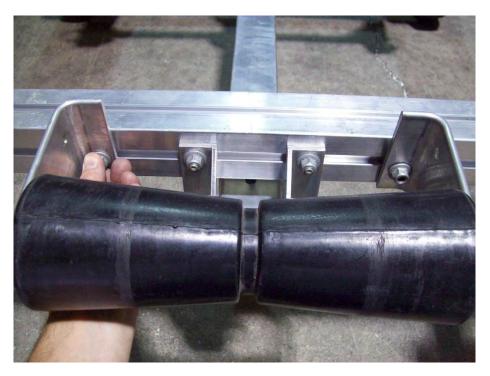
Install them on the top of the rear crossbar on both sides as shown.



Once in position tighten nuts.



Locate the rear center roller.

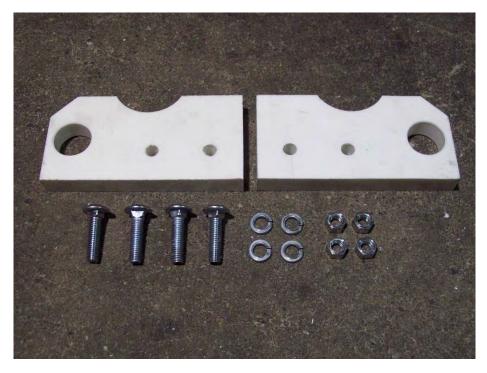


Install the center roller over the T-bolts in the rear crossbar and re-install nuts.

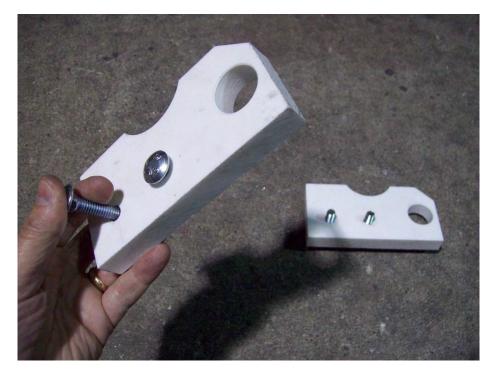


Center the roller and tighten nuts.

## **Optional Dolly Bracket Holders (From Hobie)**



Holder brackets, 4) carriage bolts, 4) lock washers, 4) nuts



Install bolts into holder brackets.



Insert bolts into the holes on the roller bracket.



Install lock washers and nuts and tighten. Repeat the process for the other side.

# **Torque lug nuts**



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

# **Finished Trailer**











KJM 10/24/14