

Assembly Instructions

KT

Kayak Trailer

by  BooneDOX

Thank you for your recent purchase of the BooneDOX KT. Before getting started, read through **ALL** provided instructions to prepare for the build. In addition, make sure to watch our instructional video found on the BooneDOX website, www.bdxusa.com prior to beginning the assembly.



Tools Needed:

7/16" Deep Socket	Electrical wire stripper	Cutting instrument (knife)
1/2" Deep Socket	electrical wire crimper	Large framing Square
9/16" Deep Socket	Torque wrench	Tape
3/4" Deep Socket	Lug wrench	Tape Measure (at least 12 foot)
13/16" Deep Socket	Adjustable wrench	
9/16" wrench		

** It will help you in the assembly process if you have wheel chocks and something like a bucket or chair available to use as a rest / prop.

BooneDOX KT Trailer Assembly Instructions

Please remember to read these assembly instructions in its entirety to familiarize yourself with the parts and steps necessary to properly assembly your KT Trailer for safe operation. The instructional video should also be watched before and during the assembly process to ensure correct assembly. Failure to assemble the KT Trailer correctly could result in serious injury or death along with property damage.

The assembly of the KT Trailer should be done on a flat level surface for your safety. It is best to use at least 2 people during the assembly process.

Prior to starting the assembly process, remove all contents from the 3 boxes that the KT Trailer arrived in and ensure all parts and components are accounted for by cross referencing them with the parts and components sheet provided. If any parts are missing **do not** proceed any further with the assembly process and contact BooneDOX immediatley to ensure the correct parts are sent to you.

Step 1: Axle Assembly

1- Remove the axle from the box and lay on the floor. The mounting plate on the axle will be facing up and the arms of the axle will be pointed back.



Top picture: front of trailer is ↑

Picture to left, front of trailer is →

Picture to right, front of trailer is ↑



- 2- Remove the lug nuts from the lugs and keep in a safe location
 - 3- Put the wheels provided onto the axle hub. Put the lug nuts onto each lug ensuring the tapered end of the lug nuts goes on first.
 - 4- Hand tighten the lug nuts until the wheel is sitting flush against the hub
 - 5- Using the lug wrench, tighten the lugs to a snug fit.
 - 6- Using the torque wrench tighten each lug to 90 FOOT POUNDS.
- Do not tighten each lug sequentially in a circle, tighten one and then skip the next one until all 5 are tightened to the proper torque.

***** CAUTION ***** FAILURE TO PROPERLY TORQUE THE LUG NUTS COULD RESULT IN FAILURE OF THE LUGS AND OR LUG NUTS DURING OPERATION. IF YOU DO NOT HAVE ACCESS TO A TORQUE WRENCH IT IS RECOMMENDED THAT YOU LOAD THE AXLE INTO A VEHICLE AND TAKE IT TO YOUR NEAREST MECHANIC SHOP TO HAVE THEM PROPERLY TORQUED BEFORE PROCEEDING ANY FURTHER. MANY AUTO PARTS STORES RENT EQUIPMENT AND YOU MAY BE ABLE TO RENT A TORQUE WRENCH FOR PROPER ASSEMBLY OF THE TRAILER. EACH LUG SHOULD BE RECHECKED AFTER PULLING THE TRAILER 25-50 MILES.

Step 2: Frame assembly

- 1- Take one (1) of the "Side Tubes". With the side that has six (6) holes in it up, align the two (2) center holes up with the holes on the "Axle Spacer".

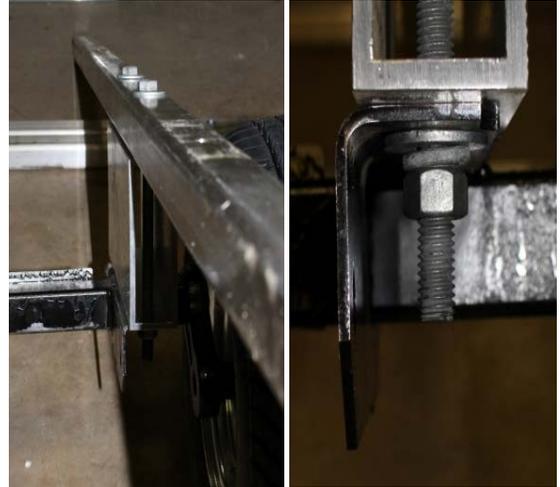


** use the two (2) holes noted above in red **

- 2- Take two (2) of the 1/2 - 13 x 10" Galvanized bolts, put one (1) of the 1/2" galvanized washers on it. Insert each one of the bolts through the top of the "Side Tube" and through the "Axle Spacer" as shown in the pictures.



3- Place the "Axle Spacer" on top of the mounting plate on the axle with the bolts going through the holes on the axle mounting plate. Attach using one (1) 1/2" galvanized washer, one (1) 1/2" galvanized lock washer and one (1) 1/2" galvanized nut on each bolt.



*Note - the "Axle Spacer" will not be centered on the "Side Tube." The longer side of the "Side Tube" will be towards the front of the trailer. Hand tighten this only as you will need to allow the parts to move on each other at this point.

4- Repeat step 3 for the other side. REMEMBER the "Axle Spacer" will not be centered on the "Side Tube." The longer part of the "Side Tube" will be towards the front of the KT Trailer.



5- Take one (1) of the "Short Cross Tubes" and attach it to the front of the "Side Tube" using one (1) of the 3/8 - 16 x 3" galvanized bolts on each side. The "Short Cross Tube" has larger holes on one side vs. the other side. The larger holes will go up ↑. Insert the 3/8 - 16 x 3" galvanized bolt through the larger hole and into the smaller hole on the other side. Then put the bolt through the hole on the top of the "Side Tube" inserting it all the way through the "Side Tube."



** use the holes noted above in red **



Attach the "Short Cross Tube" to the "Side Tube" using one (1) 3/8 galvanized washer, one (1) 3/8 galvanized lock washer and one (1) 3/8" nut in each hole. Hand tighten only.

6- Repeat step 5 attaching the other end of the "Short Cross Tube" to the other "Side Tube."

7- Repeat steps 5 & 6 for the second "Short Cross Tube" attaching it to the back of the "Side Tube." This will form the main frame of the KT Trailer.

****** VERY IMPORTANT STEP - DO NOT PROCEED FURTHER UNTIL THE FOLLOWING STEPS TWO ARE COMPLETED. ******

8- Square the frame up using the Large Framing Square. One good way to help assist to tell if the frame is square, the "Axle Spacer" will be running parallel with the axle mounting plate.

9- Once the frame is square, go back and tighten all of the bolts using your sockets and wrench.

Just as a reminder, you will be tightening a total of eight (8) connections at this time. Two (2) where each of the "Axle Spacer" connects to the Axle on each side, two (2) connecting the "Short Cross Tube" to the front of the "Side Tubes" and two (2) connecting the other "Short Cross Tube" to the rear of the "Side Tubes."

10- There will be two (2) open holes remaining on the top of each "Side Tube" on each side of the KT Trailer. These are where you will attach the "Long Cross Tube's." Using one (1) 3/8 - 16 x 3" galvanized bolt on each side, attach the "Long Cross Tube" to the "Side Tube." The large holes



*** use the holes noted above in RED ***

on the "Long Cross Tube" will be up for this application. Once you have the bolts through the holes, use one (1) 3/8-16 galvanized washer, one (1) 3/8 galvanized lock washer and one 3/8 galvanized nut. Tighten each side.

11- Repeat step 10 for the other "Long Cross Tube." Your KT Trailer should now look like this (front is at the bottom of picture).

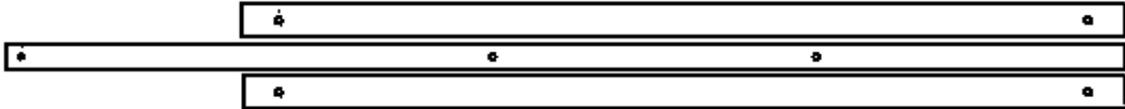


Step 3 - Tongue Assembly

1- Now you will pre-assemble the Tongue of the KT Trailer. To start lay the "Center Tube" on the floor with the side that has 3 holes up ↑. Next



put one (1) of the "Four Foot Tubes" on each side of the "Center Tube." The holes on the side of the "Center Tube" will line up with the holes on the side of the "Four Foot Tube." ** See Below **



2- Using the two (2) 3/8-16 x 7" galvanized bolts, put one (1) 3/8 galvanized washer onto each bolt. Insert the bolts through the two (2) holes on the side of the "Four Foot Tube" pushing it all the way through all three (3) tubes. Then put one (1) 3/8 galvanized washer, one (1) 3/8 galvanized lock washer and one (1) 3/8 galvanized nut onto each bolt and tighten.

** Note - the next couple of steps is when the 5gal bucket/chair and another set of hands will come in handy. **



3- Next lay the "Tongue Tube" onto the bucket. When doing so, put it down so the vin number is on the side and in an upright position as if you were going to read it. You should position the bucket so it is between the two holes. (If you are doing the assembly by yourself you may want to keep the "Tongue Tube" on the ground to keep the parts from falling off of the bucket).



4- Place the three (3) assembled parts from steps 1 & 2 centered onto the "Tongue Tube."

5- Using the three (3) 3/8-16 x 5" galvanized bolts, put one (1) 3/8 galvanized washer onto each of the three (3) bolts. Then insert each bolt through the "Center Tube" and into the "Tongue Tube." Secure the "Tongue Tube" to the "Center Tube" using one (1) 3/8 galvanized washer, one (1) 3/8 galvanized lock washer and one (1) 3/8 galvanized nut on each of the three (3) bolts and tighten.



***** Before moving onto step 4, go back and make sure all connections points are secured from all prior steps. *****

Step 4 - Final KT Trailer Assembly

This last main assembly step you will be putting the Tongue Assembly from Step onto the Frame Assembly from Step 2. You will also be putting the fenders, coupler, Tongue support and safety chains on.

1- With the Tongue Assembly on the bucket, lift the front of the Frame Assembly over the Tongue Assembly. The back of the Tongue Assembly will line up with the two (2) holes in the center of the front "Long Cross Tube."

*** IMPORTANT - THE TONGUE ASSEMBLY GOES UNDER THE "SHORT CROSS TUBE" AND THE "LONG CROSS TUBE." ***



2- Line up the holes on the "Long Cross Tube" and the holes on the "Short Cross Tube" with the holes on the Tongue Assembly.

Using (4) of the 3/8-16 x 3" galvanized bolts, insert each bolt through the "Long Cross Tube" and the "Short Cross Tube" into the Tongue Assembly.

3- Secure the Tongue Assembly to the "Long Cross Tube" and the "Short Cross Tube" using a 3/8 galvanized washer, a 3/8 galvanized lock washer and a 3/8 galvanized nut on each bolt and tighten.

4- Put the Coupler onto the front of the "Tongue Tube." Take the 1/2-13 x 4" galvanized bolt and put one 1/2" galvanized washer on it. Then take one of the safety chains and put the pre-made loop onto the bolt under the washer. Then take the bolt and insert it through the coupler in the first hole (one closest to the front) through the "Tongue

Tube." Then on the opposite side put the other Safety Chain onto the bolt followed by a 1/2" galvanized washer, 1/2" galvanized lock washer and 1/2" galvanized nut and tighten.



5- Take the 1/2-13 x 3" galvanized bolt and insert it through the other hole in the Coupler going through the "Tongue Tube." Secure this with one (1) 1/2" galvanized lock washer and one (1) 1/2" galvanized nut and tighten.



6- Attach the "Tongue Support" to the bottom of the "Tongue Tube." One side of the "Tongue Support" has a tip coming off of it, the other side has a hole drilled in the flat part of the metal. Insert the tip into the pre-drilled hole that is under the Vin number area of the "Tongue Tube." Secure the front of the "Tongue Support" by using the 3/8-16 x 3/4" galvanized bolt followed by a 3/8" galvanized lock washer. The hole through the "Tongue Tube" is tapped so you will screw this bolt straight to the frame without using a nut.

7- The Fender assembly will be next. You will need two (2) of the "Fender Supports," two (2) of the 3/8-16 x 2 1/2" galvanized carriage bolts, two (2) 3/8" galvanized lock washers and two (2) 3/8" galvanized nuts and one (1) black plastic fender for each side. Put one (1) of the "Fender Supports" into the rectangle formed in each side of the fender with the large holes DOWN ↓. These large holes will be on the half of the "Fender Support" that is NOT under the fender. Insert the two (2) Carriage Bolts through the holes in the fender through the "Fender Support." Secure these using one (1) 3/8 galvanized lock washer and one (1) 3/8 galvanized nut on each bolt and tighten. Repeat this for the other side.



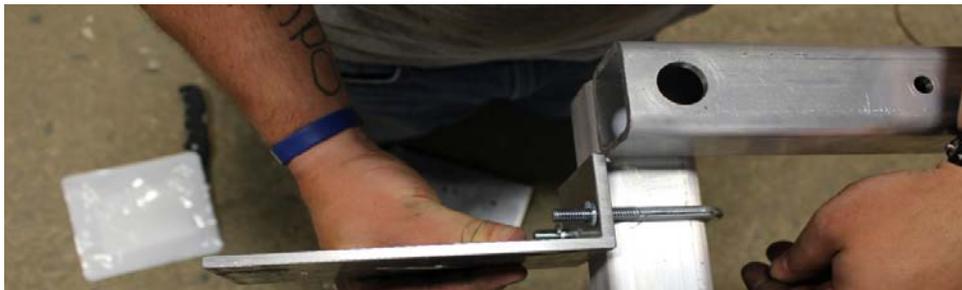
8- Attaching the Fender Assembly to the frame can be tricky and is best done with two people. You will need two (2) of the U-bolts and lock washers and 5/16" nuts to go on each post of the U-bolt. Center the fender over the tire with the "Fender Supports" going under the "Side Tube." Put the U-bolt over the "Side Tube" and through the "Fender Support." The U-bolt will not go all the way through the "Fender Support", it is recessed inside it. Secure the U-bolt using one (1) lock washer and one (1) nut.

**** Tech tip - Have one person hold the fender level. Put the nut down inside the 1/2" socket and put the washer on top of the socket. Be careful because the washer will just be balanced on the socket. Insert this up through the large hole and onto the U-bolt. Tighten until you first start to feel resistance. Then move to the other side of the U-bolt and repeat this process. If you tighten one side snug before you put the other side on the Fender Assembly will not sit level.**



9- Repeat step 8 for the other side.

10- Attach the "Light Support Angle" to the REAR of the "Side Tube" using one (1) U-bolt, a lock washer and a 5/16" nut on each stud of the U-bolt. The back of the "Light Support Angle" will go just to the rear of



the hole in the side of the "Side Tube."

11- Repeat step 9 for the other side.

Step 5 - Wiring the KT Trailer

Now that you have the KT Trailer assembled it's time to run the wiring for the trailer lights. You will need the light kit provided, wire stippers and crimps. If you do not feel comfortable doing the wiring of the trailer, we suggest that you take it to a professional to complete this step.

****** CAUTION ****** BE VERY CAREFUL WHEN PULLING THE WIRES THROUGH THE TUBES IN THE FOLLOWING STEPS. YOU COULD DAMAGE THE WIRE WHILE PULLING IT. IT IS BEST TO HAVE SOMEONE ASSIST YOU WITH THIS PART SO THE WIRE CAN BE FED INTO THE TUBE SLOWLY WHILE BEING PULLED FROM THE OTHER END.

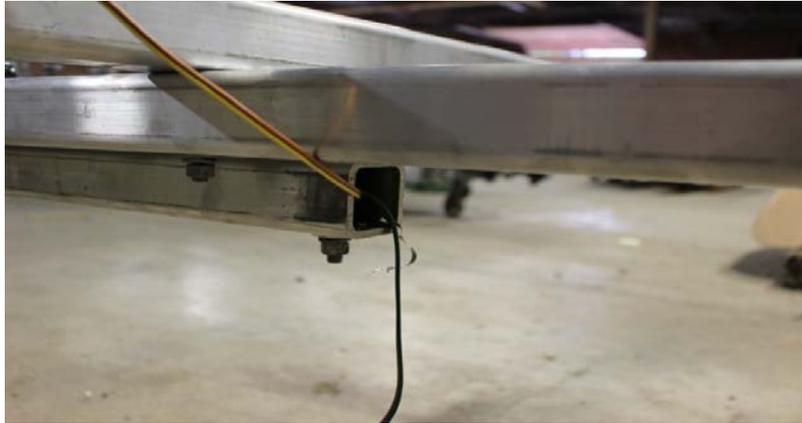
**** Tech tip - it is VERY helpful to have something that is rigid yet somewhat flexible about eight (8) feet long to assist in running the wires through the tubes. In the video we will use the tape measure.**

1- Push the tape measure all the way through the "Tongue Tube" starting from the back. This may be tricky getting around the bolts, just be patient. Once you have the tape measure though, tape the end of the wires onto the tape measure and pull back through the "Tongue Tube."

Continue pulling the "wiring aid" and wires through until you are left with about eighteen (18) to twentyfour (24) inches sticking out of the front of the "Tongue Tube."



2- Take the yellow & brown wires and pull it to the left side of the trailer, take the green/brown wire and put it on the right side of the trailer. The "sides" are determined by looking to the front of the trailer from the back.



Starting on either side, insert the end of the wire into the hole on the side of the "Side Tube." You will want the wire to come out of the end of the "Side Tube" closest to the hole you just put the wire into. Pull all of the wire out of the front of the "Side Tube." Do not pull the wire tight from the end of the "Tongue Tube" into the hole of the side of the "Side Tube" because you will be zip tying this wire to the "Short Cross Tube" later.



3- Push the tape measure all the way through the "side tube" from the rear. Tape the wires onto the tape measure and pull the wires back through the "Side Tube."

4- Once you have all of the wire out of the end of the "Side Tube" take the end of the wire and put it through the hole on the **outside** of the "Side Tube" towards the "Light Support Angle."

5- Take the black Wire Loom and start inserting the wire where it comes out of the back of the "Tongue Tube" into the Wire Loom. Once you have about twelve (12) inches of the wire into the Wire Loom, slide the wire loom about two (2) inches into the "Tongue Tube" so the wire is protected coming out of the end of the "Tongue Tube."



Take one (1) of the zip ties and tighten the Wire Loom with the wire inside of it tight to the "Short Cross Tube" ONLY on the side that comes out of the "Tongue Tube." Continue to push the wire into the Wire Loom all the way up to the hole where the wire goes into the "Side Tube." Pull the Wire Loom up tight to the "Short Cross Tube" and zip tie it tight in this location. Once you have this location tight, you will want to cut the Wire Loom about two (2) inches past the point where the wire goes into the "Side Tube."

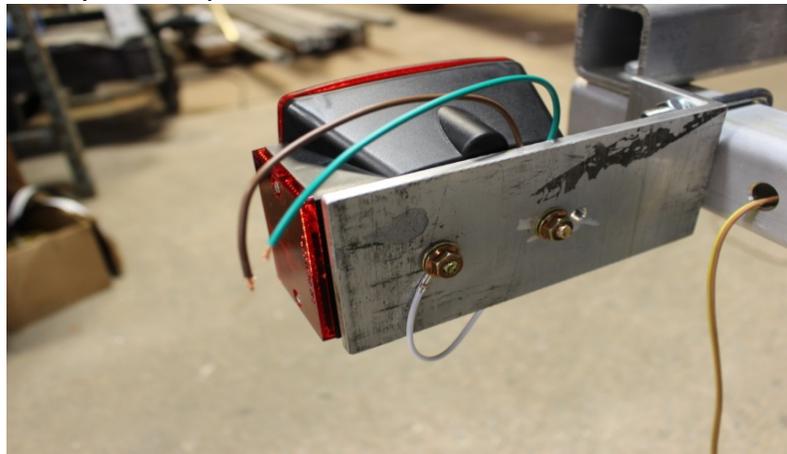


Pinch the Wire Loom so one side of it folds into the other making it a smaller circle and push this into the hole in the side of the "Side Tube" so the Wire Loom protects the wire into the hole.

6- You can now pull some of the slack out of the wire that is inside the "Side Tube" by pulling the wire out of the outside wall of the "Side Tube" in the back of the trailer. Be sure not to pull the wires extremely tight you will want them to have a little slack inside the tube.

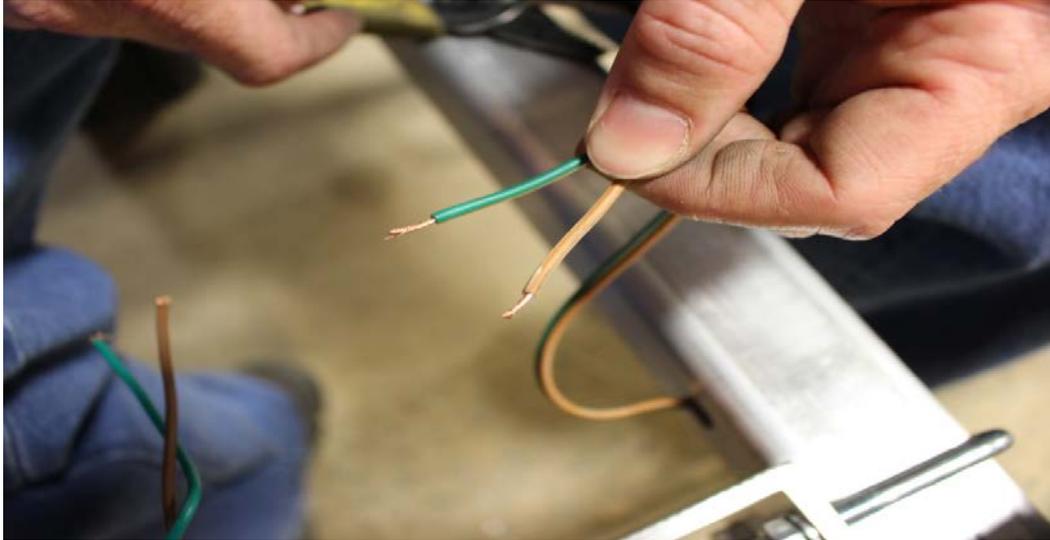


7- Each taillight will have a specific side of the trailer it will go on. Be sure to get the correct light for the side you are working on at that point. Put the taillight onto the "Light Support Angle" and tighten only one bolt hand tight using the lock washer and nut. Take the white wire from the taillight and put it over the stud from the taillight on the backside that does not have a nut on it yet. After you put the white wire onto this stud, put the lock washer and nut on it and hand tighten only at this point.



8- Take the wires that you pulled through the "Side Tube" and hold them up against the wires coming out from behind the taillight at the top of the "Light Support Angle. You will want about two (2) inches of overlap and cut the wires that you pulled out of the "Side Tube." Pull the two wires apart in the center (you might need to make a small cut to get it started, but once it starts they are easy to pull apart)

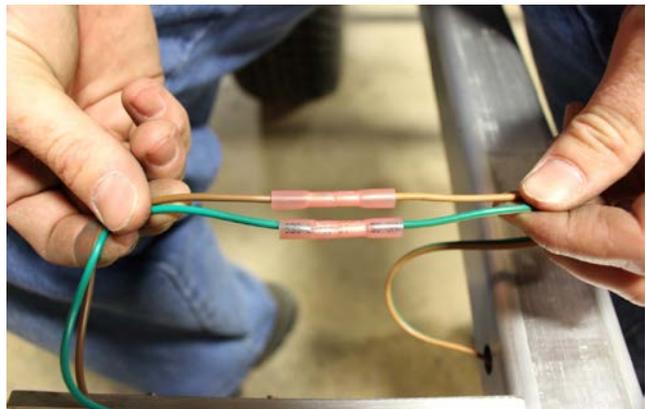
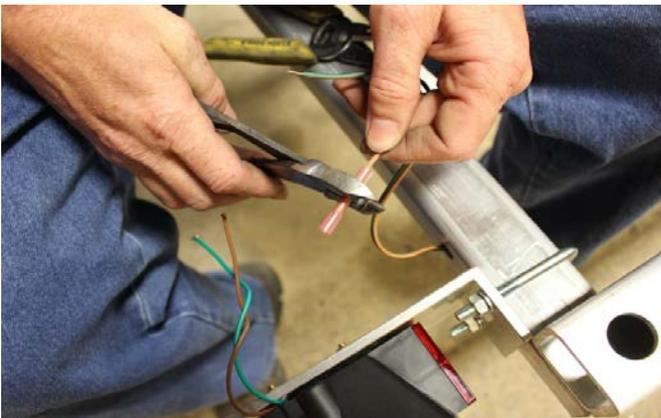
and separate them down about three (3) inches. Using the wire strippers, strip about 1/2 of an inch of insulation off of each end.



*** Note *** Depending on what side you are working on, you wires will go together as either:
Green → Green and Brown → Brown
Green → Yellow and Brown → Brown

Take one (1) of the Krimpa-Seal butt Connectors, put one of the wire ends that you stripped into the Connector. ** Make sure the wire goes into the small hole in the connector and push it in until the insulation is against the wall of the hole. Using the crimpers, crimp the side of the Connector that the wire is in tightly. Repeat for the other wire.

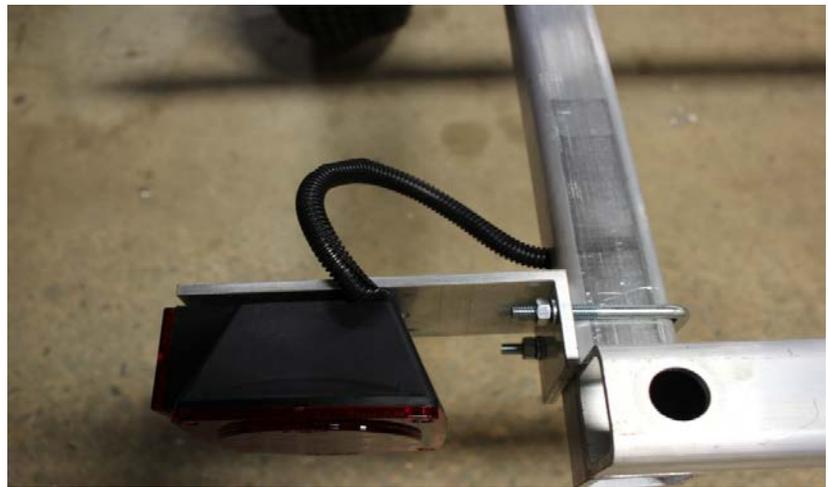
****** CAUTION ****** You should not be able to pull the wire out of the connector at all, if the wire moves you do not have it crimped tight enough.



*Note: Use electrical tape or liquid electrical tape over these connections to help secure the connections and make waterproof.

9- Take the Wire Loom and insert the wires coming out of the side of the "Side Tube" into the Wire Loom. Once you have about half the wires pushed in the Wire Loom past the connectors, push the Wire Loom together and push it into the hole in the side of the "Side Tube" to protect these wires. Continue to push the wires into the Wire Loom until you are to the point where the wires go behind the taillight. You will want to cut the Wire Loom about an inch past this point and push the wires into it to protect the wires from the "Light Support Angle.

10- You can now tighten the nuts on this taillight. Push as much slack as you can into the "Side Tube," you do not want a bunch of slack in this area to keep things from snagging the wire.



11- Now repeat steps 1 through 10 for the other side of the trailer.

12- At the front of the tongue of the trailer, attach the ground wire for the lights to the "Tongue Support Tube." The ground wire is white. Use the 5/16-18 x 1" Stainless Steel bolt and washer to make this connection. Reminder this hole is tapped so you will not need a nut.



13- Using the remainder of the Wire Loom, start at the end of the wires where the plug is. Push all of the wires into the wire loom. At some point the white ground wire will have to come out of the Wire Loom and you will continue pushing the other wires into the Wire Loom. The Wire Loom will need to cover the wires going into the "Tongue Tube" at least two (2) inches. You can cut any remaining of the Wire Loom off.

****Note** - the white ground wire will need to come out of the wire loom at some point. Add a zip tie around the wire loom at that spot to keep it in place.



Final assembly steps:

The last thing you will need to do is put the strap stops onto the ends of the "Long Cross Tubes" and insert the end caps onto all of the tube ends.

1- Using one (1) of the 3/8-16 x 1 1/2 galvanized hex bolts, put one of the "Strap Catch's" onto the bolt. Insert the bolt into the hole on the bottom of the "Long Cross Tube" and secure using one (1) 3/8 galvanized lock washer & one (1) 3/8 galvanized nut and tighten.

2- Repeat this step on each end of the the "Long Cross Tube."

3- Using the 2" square ribbed caps, insert them into the end of each piece of 2" square tubing. ** Note - you will not put the caps into the end of the "Tongue Tube" or the "Tongue Assembly" parts on the inside of the trailer. You may want to use a hammer and lightly tap them in, they can sometimes be tough to go in.

4- Using the four (4) 1 1/2" square caps, insert these into the ends of the fender assemblies.

Your KT is now fully assembled. Please make sure that all connections are tightened properly, the tires are inflated to the proper PSI and the lug nuts are torqued to the proper setting before using your KT trailer.

****Caution** Remember to re-torque your lug nuts after the first 25-50 miles to ensure they are properly secured.**