

# **MALONE**®

## **\*ATTENTION CUSTOMERS\***

**Thank you for your recent purchase of a Malone trailer.**

**Please inspect all parts and hardware bags prior to assembly.**

**\*\*Set the large red envelope (in the axle box) containing important documents pertaining to registering your trailer in a safe spot.**

**If you encounter any missing components please contact us at:**

**Email: [technical@maloneautoracks.com](mailto:technical@maloneautoracks.com)**

**OR**

**Phone: (207) 774 - 9100 X215**

**Business Hours: Monday-Friday**

**9am- 5pm**

**Thank you from all of us at Malone**



**MPG460G**

**CHANGING THE WAY YOU GET THERE**

# MALONE

CHANGING THE WAY YOU GET THERE

## Important Note

### Product Warranty & Registration Form

All information is confidential and used exclusively by MALONE only.

Dear Customer,

Thank you for your purchase of a Malone Product.

In order to be eligible for the Malone Warranty program, we ask that you contact us by email or online at one of the following: With-in 30 days of purchase. You can also mail this letter back to the address at the bottom.

- Online: [www.maloneautoracks.com](http://www.maloneautoracks.com)
- Email: [Technical@maloneautoracks.com](mailto:Technical@maloneautoracks.com)

We will require the information below.

Here is the information collected:

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Address: \_\_\_\_\_

Address2: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Country: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Product Description/Name: \_\_\_\_\_

Product MPG# or Serial # \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Store Where Purchased: \_\_\_\_\_

Purchase Price: \_\_\_\_\_

Thank you for choosing Malone!

81 County Rd. Ste 1, Westbrook, ME 04092

P: 207.774.9100 F: 207.615.0551

E: [sales@maloneautoracks.com](mailto:sales@maloneautoracks.com) W: [www.maloneautoracks.com](http://www.maloneautoracks.com)

# MALONE®

MPG460G

**CHANGING THE WAY YOU GET THERE**

## Malone MicroSport™ Trailer

*Model MPG460G Assembly Instructions*



Take a few moments and read through these instructions to familiarize yourself with the step by step assembly process before you begin turning wrenches.

Unpack and sort the components into groups as shown in the following pages.

Then assemble each group in order. Lets get started !!

### **Required Tools:**

- (2) 3/4" wrenches • (2) 9/16" wrenches (a deep socket is recommended)
- Large flat blade screw driver • 7/16" wrench • 3/8" wrench and socket
- Large Phillips head screw driver • Rubber hammer

*Visit us at [maloneautoracks.com](http://maloneautoracks.com)  
for more fine products and accessories.*

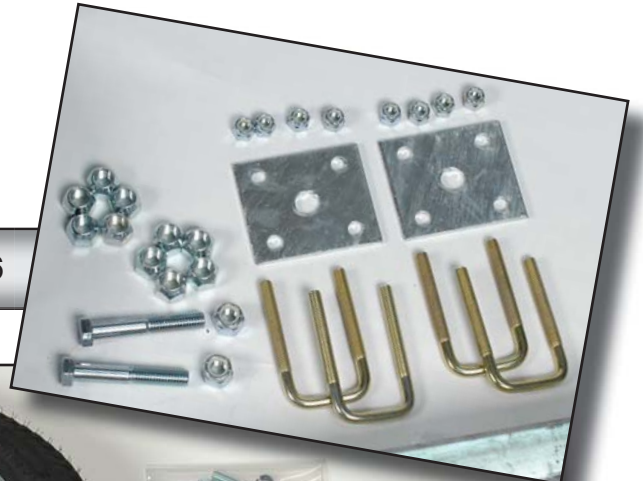
Bag 11462

Group 1:  
Frame  
Components



Group 2:  
Axle / Spring  
Components

Bag 11476



Visit [www.maloneautoracks.com/Replacement-Parts](http://www.maloneautoracks.com/Replacement-Parts)  
for all of your spare part needs

technical@maloneautoracks.com  
800-295-0042 ext. 215

### Group 3: Lighting Components

Bag 11468



### Group 4: Fender Components

Bag 11464



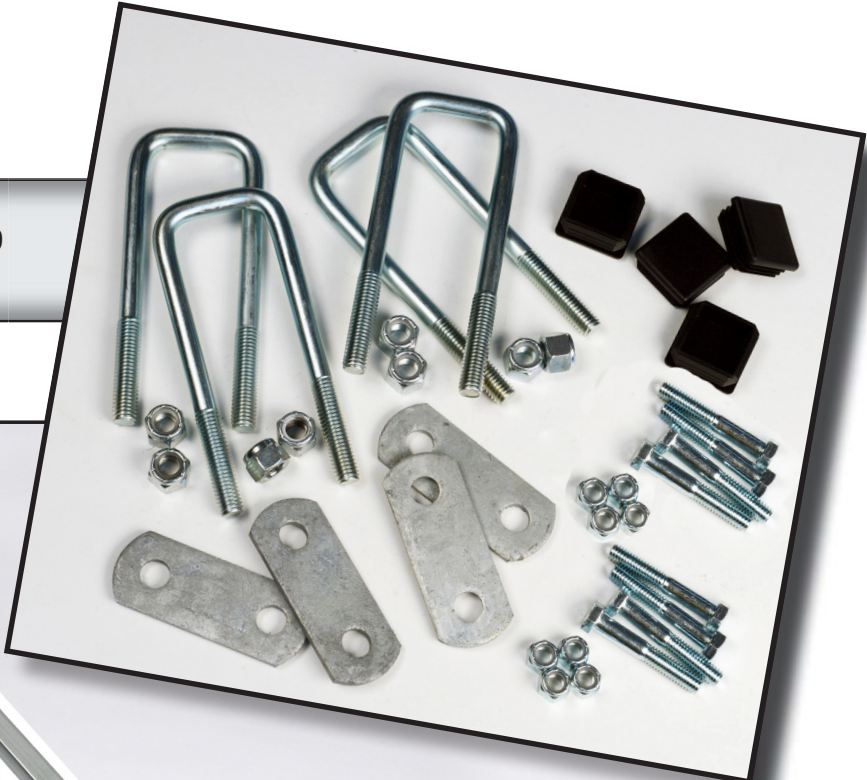
### Group 5: Coupler Components

Bag 11494



Group 6:  
Load Bar  
Components

Bag 11489



X4

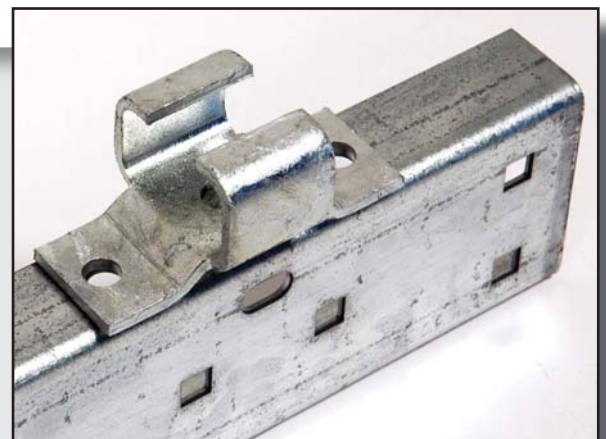
Visit [www.maloneautoracks.com/Replacement-Parts](http://www.maloneautoracks.com/Replacement-Parts)  
for all of your spare part needs

technical@maloneautoracks.com  
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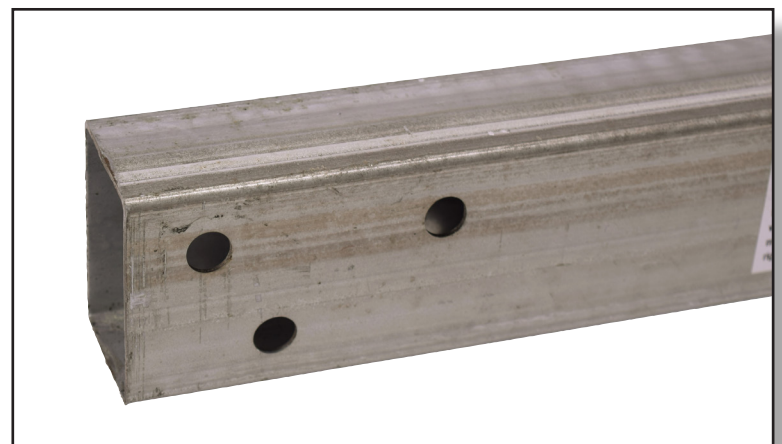
1. We assemble the frame **on its back** to make it easier to install the springs and axle. Once the springs and axle assembly is installed we will flip the trailer over to complete the assembly. So first, layout the frame components upside down as shown. The spring bracket mounting holes should be facing up. All the decals should be upside down.



2. Attach the spring hanger brackets to the frame. The U shaped shackle bolt brackets mount to the front and the C shaped "slipper" brackets mount to the rear as shown. Use 3/8" x 1" bolts and nuts. Assemble with the nuts on the inside of the frame rails. Fully tighten all 8 bolts now.



3. Identify the hitch end of the tongue by the 3 holes on the left (drivers) side.

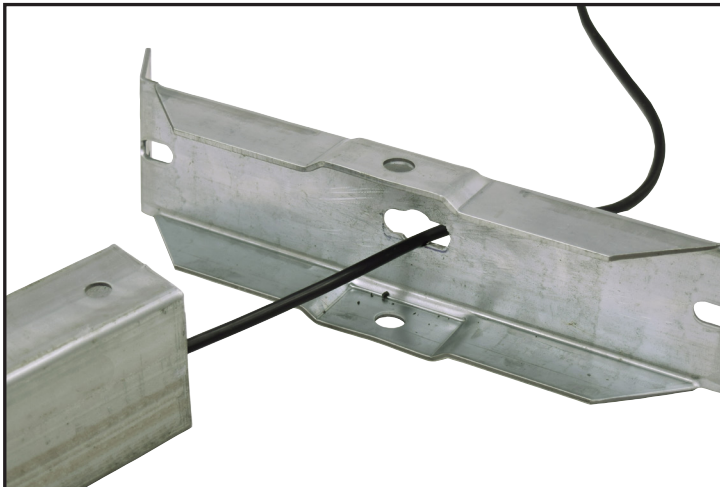


4. Pass the wiring harness (with a plug at each end), into the open end of the tongue, leaving enough excess at the front to reach the vehicle. NOTE: MAKE SURE YOUR PLUG MATCHES THE VEHICLE CONNECTION. IF NOT REVERSE YOUR WIRING HARNESS NOW.



5. Installing the rear tongue support bracket. First we lay the tongue back in its place making sure it's upside down. Pass the wiring through the support bracket hole.

6. Install the 4-1/2" long x 1/2" bolt up from the bottom through the tongue support and tongue. Be careful not to pinch the wires. Add washer and nut. Hand tighten only.



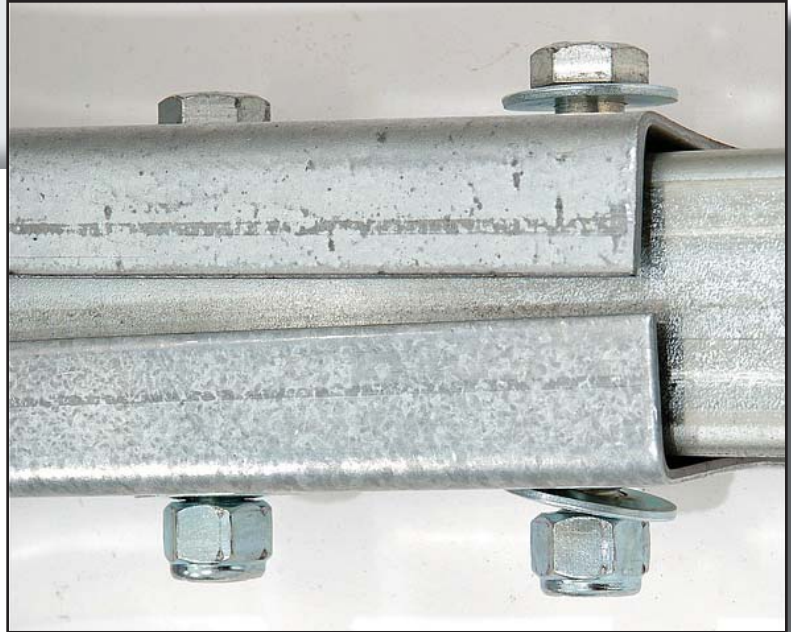
7. Bolt the tongue support to the frame rails using 3/8" x 1" carriage head bolts. Note the square heads go on the outside with the square holes in the frame. Assemble with washers and nuts on the inside.

8. Hand tighten only.





9. Clamp the frame rails around the tongue as shown using two 1/2" x 3-1/4" bolts. Use a washer on both sides. Hand tighten only.



10. Lay the two frame cross members in between the frame rails. The large Malone decal should be in the rear, facing upside down. Bolt the frame rails to the cross members using 3/8" x 1" carriage bolts and nuts, (no washers). The square heads go to the outside with the square holes in the frame rails. Hand tighten only



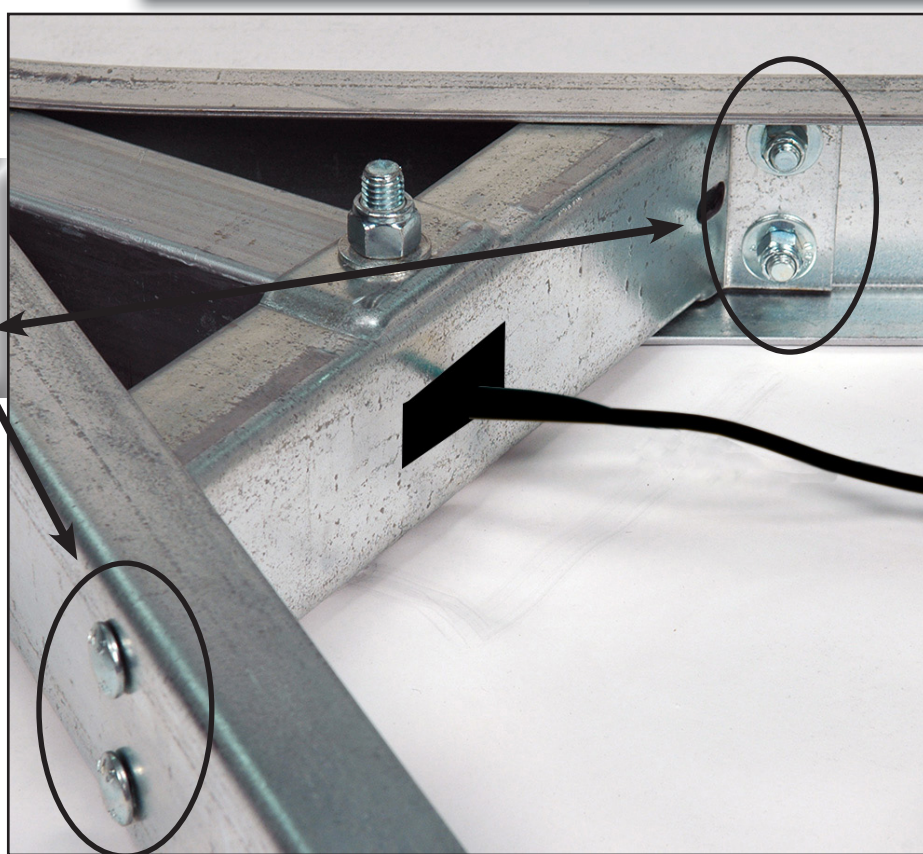
## 11. TIME TO TIGHTEN

**FRAME BOLTS:** Its *important* to follow this tightening sequence in order to insure the trailer will be straight after everything is tight.

A) Tighten the 8 nuts holding the ends of the two cross members.



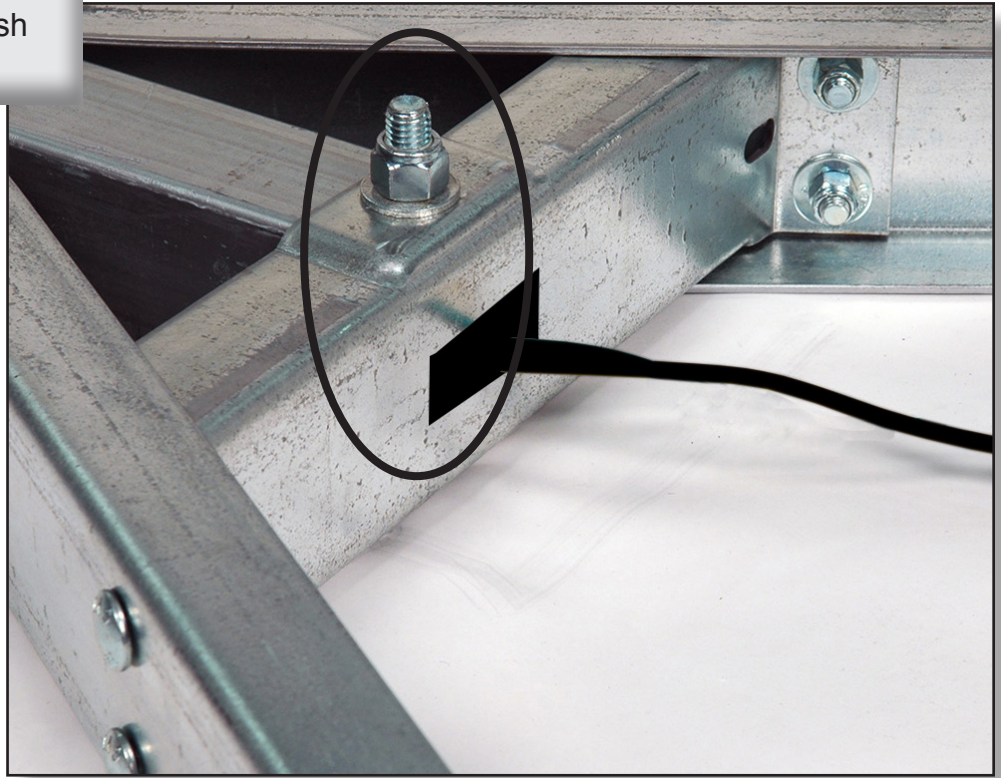
B) Tighten the rear tongue support bracket. Check that you install washers under the 4 nuts as shown. Evenly tighten the 4 nuts.



C) Tighten the two tongue bolts snug to the frame rails.

DON'T overtighten, you will just crush the tongue.

D) Tighten the big bolt through the rear of the tongue and tongue support. Not too tight, don't crush the tongue or support.



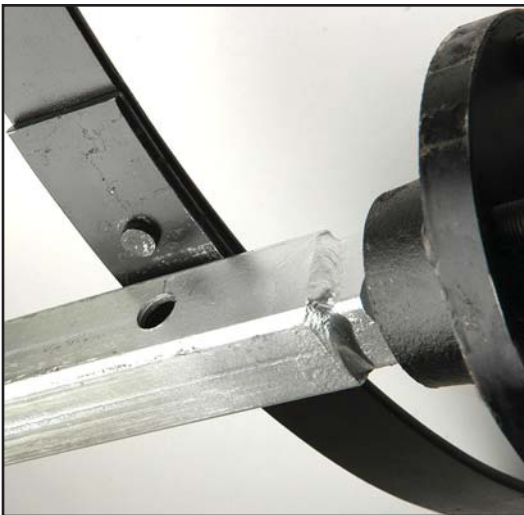
Your frame assembly is now complete and should look like this.



# SPRING AND AXLE ASSEMBLY (Group 2)

MPG460G

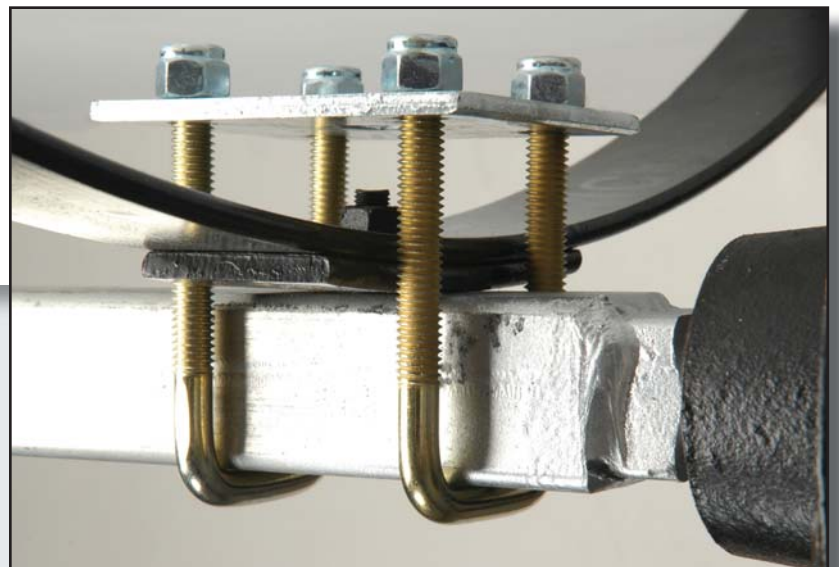
1. Set the envelope containing the manufacturer's certificate of origin (MCO) and VIN labels aside in a safe place.



2. Spin the axle to find the side with the spring centering holes. These holes mate with the spring center stud (shown to the left)

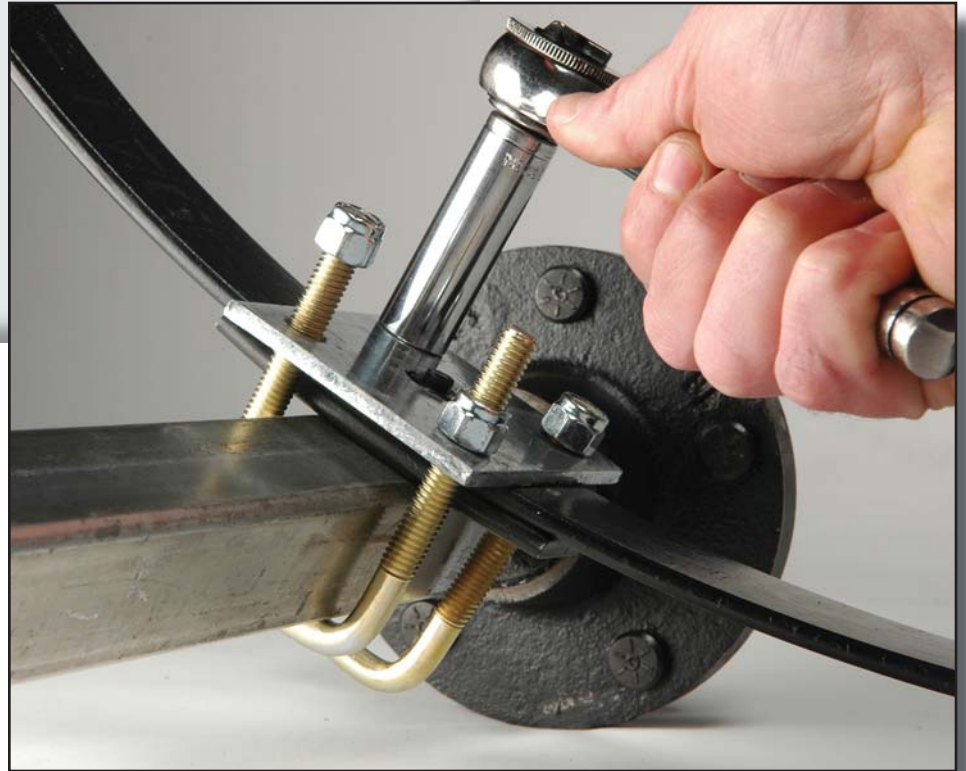
3. Lay the springs on top of the axle with the centering studs in the holes in the axle. Then assemble the U-bolts, tie plates and nuts as shown.

**Make sure both springs are turned with the ends facing the same way!**



4. Run each nut down **UNTIL IT TOUCHES THE PLATE ONLY! DON'T TIGHTEN !!**

You will need to wiggle the springs to fit them into the spring brackets in the next step.



5. Lift the axle/spring assembly to the trailer frame and slide the slipper spring ends into the slipper spring brackets as shown.



6. Wiggle the spring eyes into the front hanger brackets and bolt using 1/2" x 3" bolts and self locking nuts. Tighten the shackle bolts ONLY until they grip the sides of the brackets. This is a hinge, the spring needs to move freely.



7. Now that the axle assembly is attached to the frame, tighten the axle plate U-bolts evenly until there is a slight bend in the tie plates.

8. Slip the hub caps thru the wheels from the back then mount the wheels onto the hubs and hand tighten the lug nuts.



9. Stand behind the trailer, lift the rear cross member at one corner and flip the trailer over onto the tires.

ALWAYS BEND FROM YOUR KNEES WHEN LIFTING. IF THE TRAILER IS TOO HEAVY FOR YOU TO FLIP SAFELY GET SOME FRIENDS TO ASSIST YOU.

10. Tighten the lug firmly to 75 to 85 foot pounds of torque.



## MPG460G LIGHT ASSEMBLY (Group 3)

### L.E.D. REFERENCE:

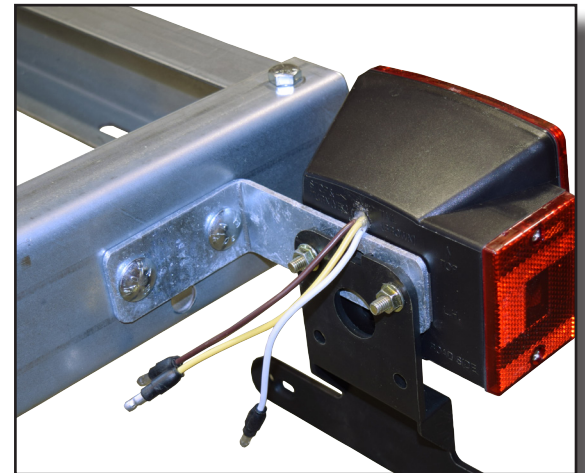
#### Trailer Wiring Color Code

- Brown = running lights
- Yellow = left turn / left brake
- Green = right turn / right brake
- White = ground

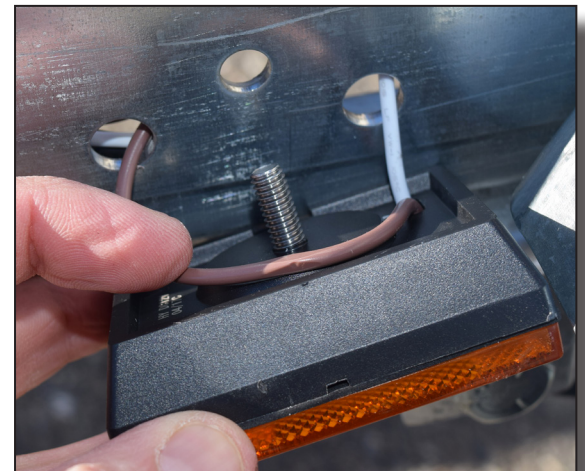


1. First attach the tail lamp brackets to the frame as shown using 3/8" x 1" carriage head bolts and nuts. No washers are needed.

2. Mount the drivers side lamp to the lamp bracket. Attach/ secure the license plate holder to the backside of the lamp bracket as shown. Secure tail light using the nuts provided with the light kit. Then mount the passengers side tail light.



3. Use the holes just above the spring bracket to mount the amber side lights. First, push the wire leads through the outside holes and the lamp stud through the center hole.



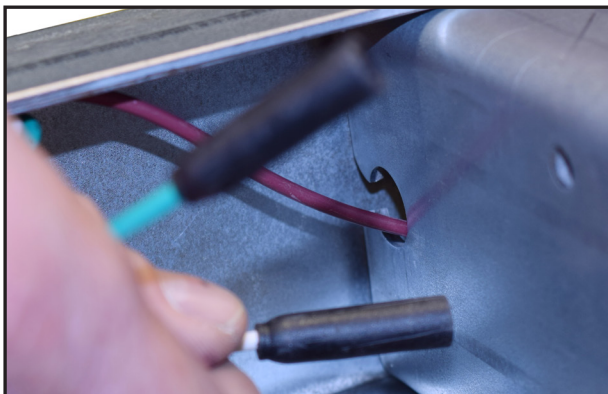
4. Secure with the lamp stud nut.



5. Plug in the remaining wiring harness into the connection behind the tongue. Looking at the end connections, route the GREEN/BROWN/WHITE wire along the passengers side. Route the YELLOW/BROWN/WHITE along the drivers side as shown.

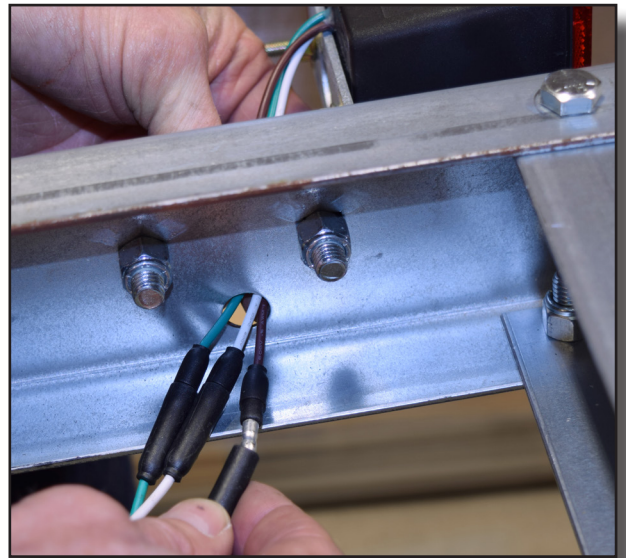


6. Next, we'll route the wires through the cross members, One lead at a time, all the way through the trailer to the tail lights.

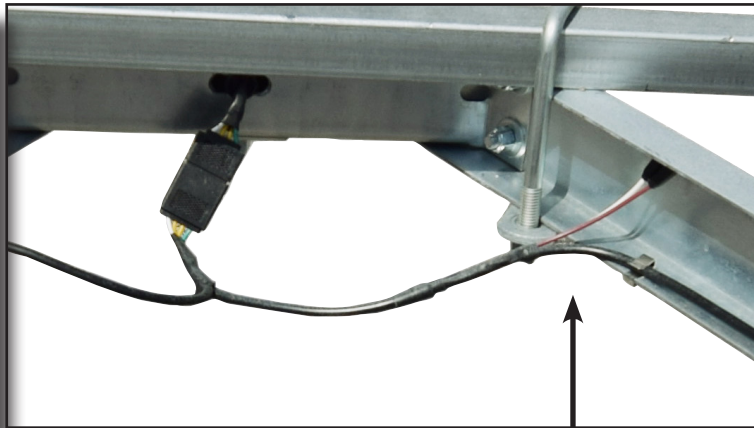




7. With the wires routed all the way to the tail lights, firmly grasp the wiring connections and plug-in matching colored leads/wires. Repeat with all remaining lights.



8. Use the clips provided to secure the wire to the inside of the frame channel as shown.



NOTE: THESE UNUSED PLUGS ARE FOR AUXILIARY ACCESSORIES LIKE THE MALONE MPG543 CHARGING UNIT AND/OR MPG539 FLOOD LIGHT (NOT INCLUDED)

MPG543



MPG539





1. Connect all 4 fender brackets to the fenders using 3/8" x 3/4" slot head screws and nuts. Assemble with the nuts to the inside of the fenders as shown. No washers here. Fully tighten all 8 screws and nuts.

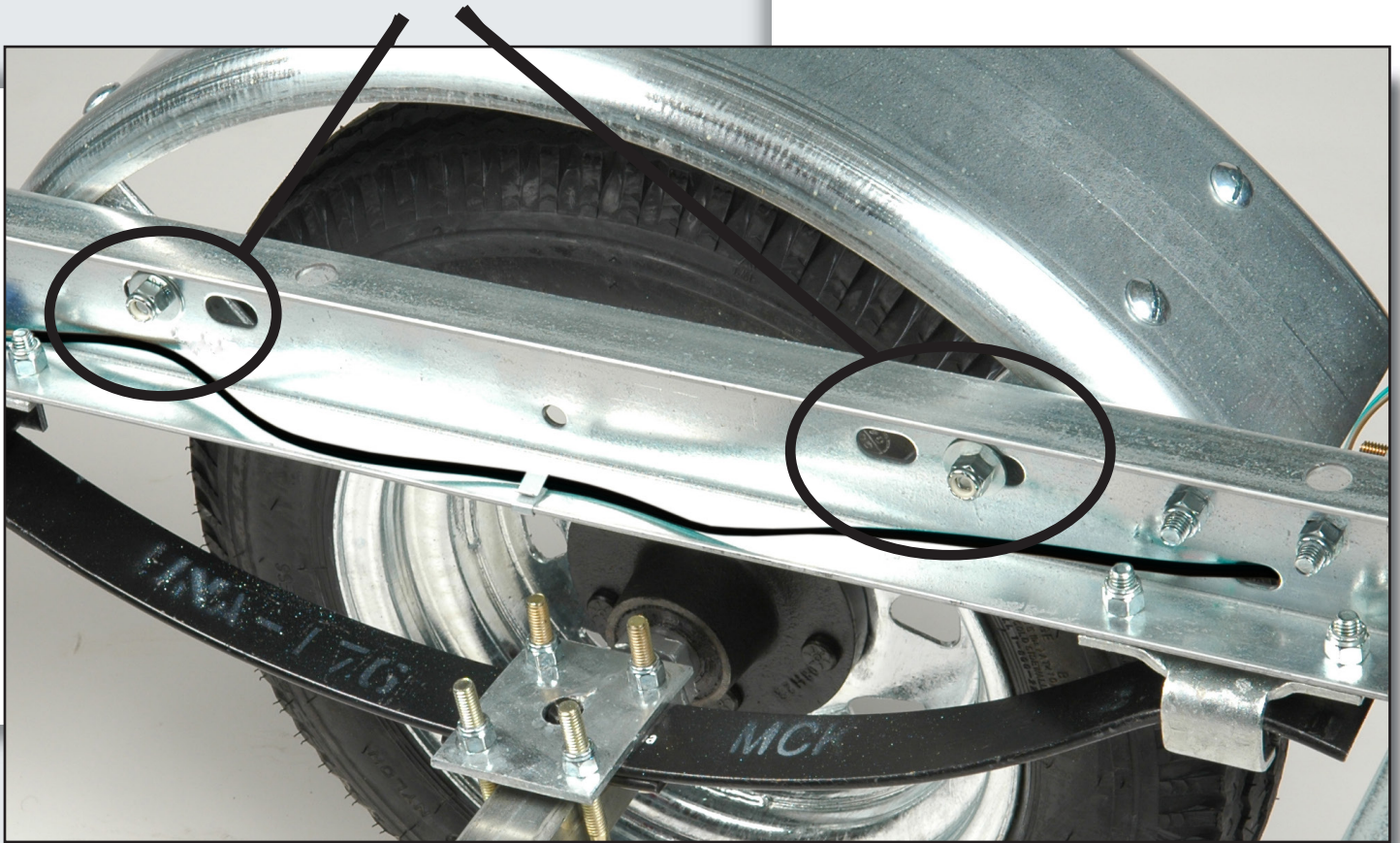
**Note:** fenders are symmetrical and fit on either side of the trailer.



**Note** that when bolting the mounting brackets to the frame you will install a washer on both sides, under the head of each bolt and under each nut.



4. Using 3/8" x 1" bolts, washers on both sides, and nuts, attach the fender brackets to the slotted holes in the frame as shown. NOTE you will use the center hole in the bracket and the outside two slotted holes in the frame.



5. Tighten bolts fully and repeat for other side.

# COUPLER ASSEMBLY (Group 5)

MPG460G



1. Assemble the tongue skid and safety chain assembly with a 3/8" x 1-1/2" bolt as shown. Use washers above and below the chain ends.



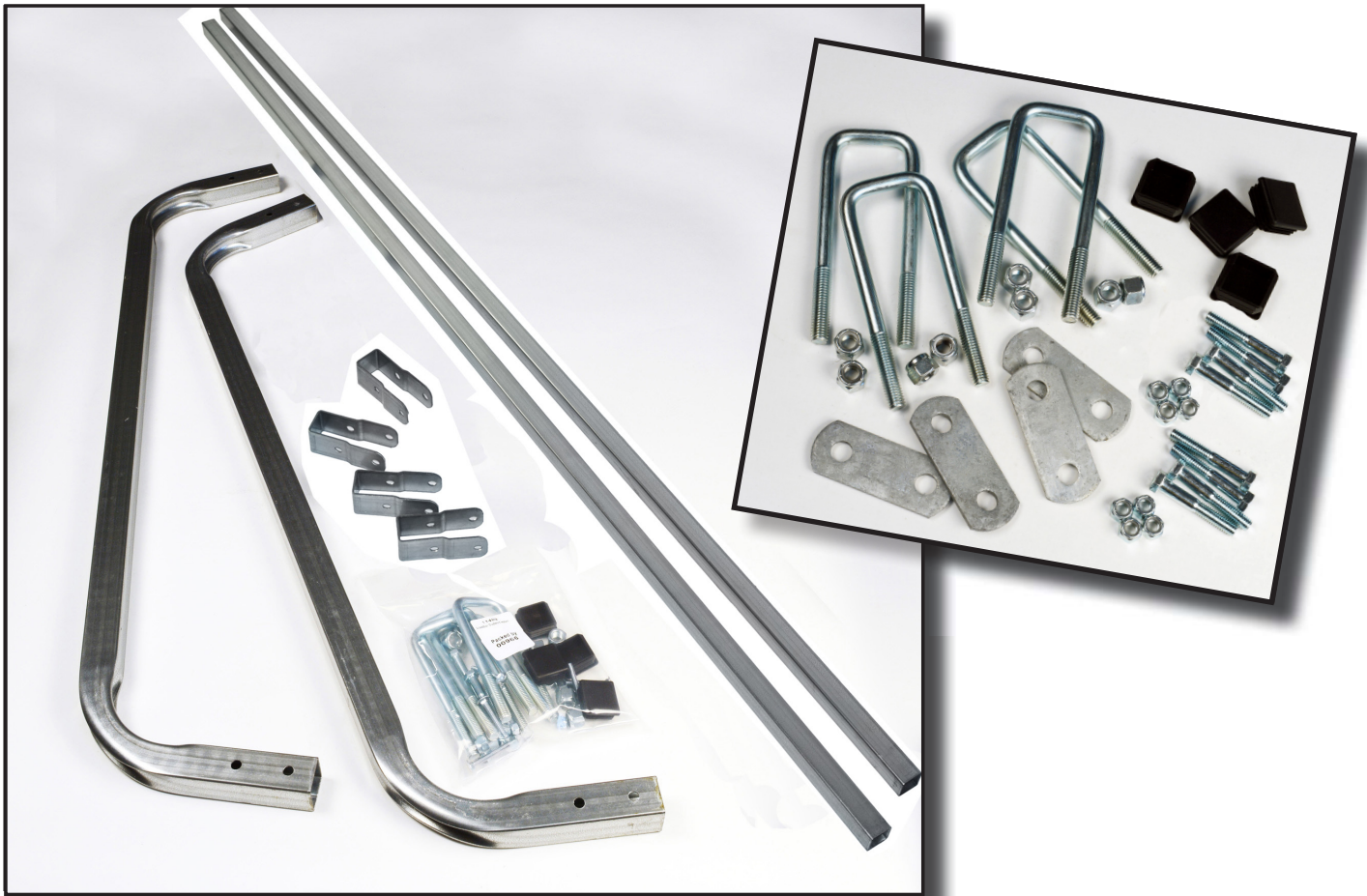
2. Place the skid and chain assembly under the tongue and insert the bolt up through the skid bolt hole on the bottom of the tongue as shown.

3. Slip the nylon lock nut over the bolt and hand tighten.

4. Check that the rear end of the skid is still in its hole in the bottom of the tongue. Fully tighten the bolt and lock nut.



5. Install the coupler and coupler handle onto the tongue as shown. Then tighten until the coupler firmly grips the tongue. Don't over tighten and crush the tongue.  
**NOTE: OVER TIGHTENING WILL PREVENT THE COUPLER LATCH FROM FUNCTIONING PROPERLY.**



1. Attach a load bar support tube onto the rear cross member. Center the support tube on the trailer and tighten.



2. Attach the second support tube 48 inches forward. Measure 48 inches on both sides of the trailer to be sure the load bar is on straight and centered, then tighten the U-bolts.

3. Use your hammer and carefully pound the end plugs into the ends of the support tubes.



4). Slip the new load bar brackets over the new load bars (as shown) and loosely install the two small bolts / nuts through each bracket trapping the load bars inside the brackets.

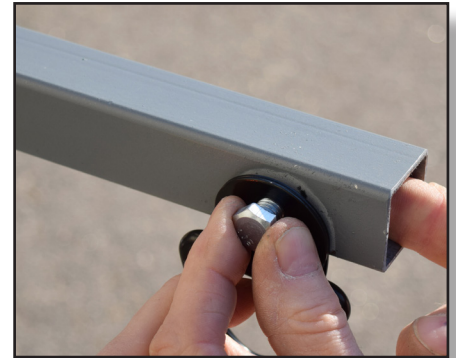
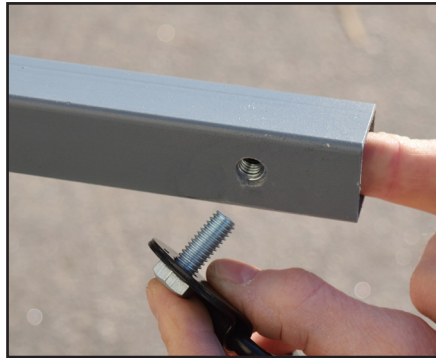
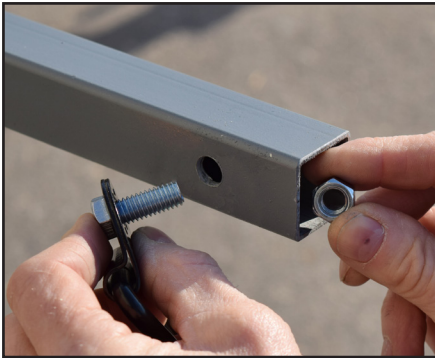


5). Install and hand tighten the bolts holding each bracket to the support tube.

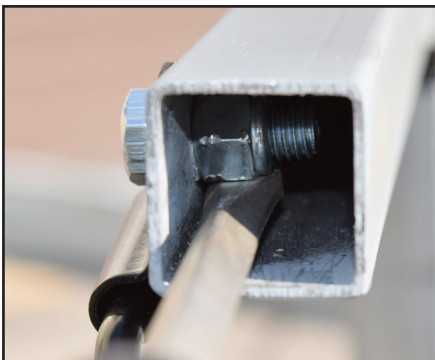
6). Center the load bars to the trailer, then tighten all 8 bracket bolts.



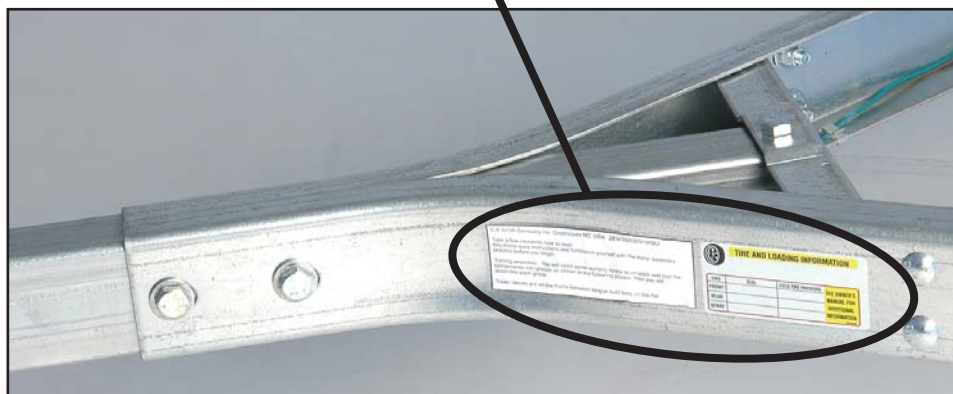
7). Install the D-Rings to the ends of the load bars. Slide a nylon lock nut into the open end of the load bar and align with the hole. INSERT and hand tighten the bolt.



8). To secure, Slip a screwdriver under the nylon nut to hold it in place as you fully tighten the bolt with a 9/16 socket wrench. Complete the cross bars with the new end caps.



Apply the TIRE AND LOADING Decal and the VIN Decal as shown below, onto the left side of the frame. Be sure to clean the frame before applying the decals.



**Your MicroSport™ Trailer is now complete and ready to register and title !  
Contact your local DMV office for specific procedures in your State.**



# MALONE<sup>®</sup>

## Trailer Checklist & Maintenance Manual



MPG525G XtraLight



MPG460G MicroSport



MPG535G MegaSport



MPG570G Sherpa

**CHANGING THE WAY YOU GET THERE**



## ***Congratulations on your new Malone trailer!***

***Take a couple minutes to read through this manual for commonly asked questions and some basic trailer maintenance that will ensure your trailer is performing at its best.***

***And as always please free to contact us with any questions you may have.***

***Thank you for choosing Malone.***

### ***Basic Trailering Checklist:***

**Before hitting the road for your next trip be sure to check the following.**

- ~ Coupler, hitch and hitch ball are all the same size
- ~ Coupler and safety chains are safely secured to hitch of tow vehicle
- ~ All fasteners are properly tightened
- ~ Boat is securely tied down to trailer ( a winch line IS NOT a tie down)
- ~ Wheel Lug Nuts are properly tightened
- ~ Wheel bearing are properly adjusted and maintained
- ~ Load is within maximum load carrying capacity
- ~ Tires are properly inflated
- ~ All trailer lighting is working properly

### ***Additional checks you can do.***

**Conduct routine maintenance by having a friend or family member occasionally stand behind your trailer and make sure the brake lights, taillights and turn signals are in good working order. As with your boat, a thorough freshwater wash down of your trailer after each use will extend the life of your hubs and lights. It's also a great boat maintenance idea to invest in a spare wheel, just in case.**

**Trailer hubs and lights can potentially get dunked twice every time you go boating. You need to pamper them as you would your boat - this is an essential element of boat trailer maintenance.**

**Do an occasional hub inspection by popping off the cap with a screwdriver. If the bearings are dry, add grease. It's simple. Lets jump to the next page for a detailed step by step.**

**Be sure to review the table on the next page for trailer FAQs' and specifications.**

## MALONE TRAILER SPECIFICATIONS

Revised: 8/2/18 By: MP

	Xtralight	MicroSport	MegaSport	Sherpa
WEIGHT (WITHOUT ACCESSORIES)	159 LBS	197 LBS (BASE "G") 230 LBS (XT) 260 LBS (LOWBED)	325 LBS 425 LBS (LOWBED)	375 lbs
LENGTH	11' 2"	13' 3"	14' 6"	14' 4"
WIDTH WITH CROSSBARS	58"	78"	86"	81"
WIDTH WITHOUT CROSSBARS	55"	55"	68"	72"
FRAME WIDTH ASSEMBLED	40"	40"	48"	48"
REQUIRED BALL SIZE	2"			
BALL HEIGHT FROM GROUND	15.5"	18" (BASE G & LOWBED) 15" (XT)	16"	16"
LOAD CAPACITY	400 LBS	800 LBS (DOUBLE LEAF SPRING)	1000 LBS (TRIPLE LEAF SPRING)	1600 LBS
RECOMMENDED TIRE PRESSURE	35-40 PSI, 65 PSI MAX 4.80-8"	40 PSI, 90 PSI MAX 4.80-12"	40 PSI, 90 PSI MAX 20.5x8.0x10"	40 PSI, 90 PSI MAX 20.5x8.0x10"
TIRE SPECIFICATIONS	LOAD RANGE B (590 LBS), 4 P.R. RATED TO 65MPH 8" WHEEL DIAMETER	LOAD RANGE C (990 LBS), 6 P.R. RATED TO 75MPH (I) 12" WHEEL DIAMETER	LOAD RANGE E (1520 LBS), 10 P.R. RATED TO 70MPH 10" WHEEL DIAMETER	LOAD RANGE E (1520 LBS), 10 P.R. RATED TO 70MPH 10" WHEEL DIAMETER
WHEEL + HUB SPECIFICATIONS	1.98" HUB I.D. 5-9/16" STUDDER FLANGE O.D. 5x4.5" BOLT PATTERN, 1/2"-20 STUD THREAD PITCH 1-1/16" AXLE SPINDLE DIAMETER			
TONGUE WEIGHT (UNLOADED)	23 LBS	25 LBS	63 LBS	70 LBS
CROSSBAR SPREAD	47" FIXED	44"-63"	68" FIXED	71" FIXED
HEIGHT OF CROSSBARS FROM GROUND	24"	30" (BASE G & XT) 22" AND 58" (LOWBED)	31" 25" AND 56" (LOWBED)	35"
FRAME & TONGUE MATERIAL	MARINE GRADE PRE-GALVANIZED 11 GAUGE STEEL			
FRAME CONSTRUCTION	C-CHANNEL 1.5" WIDE x 3.5" HIGH			
TONGUE CONSTRUCTION	2pc DESIGN, 2"x3"x96"		2"x3"x90"	2"x3"x90"
CROSSBAR CONSTRUCTION	89" FROM FRONT OF FRAME TO BALL		1.25" SQUARE PRE-GALVANIZED 14 GAUGE STEEL	
LIGHTING	L.E.D. LIGHT KIT WITH CUSTOM PLUG & PLAY WIRING HARNESS			

Some trailers now have an integrated 'zerk' on the backside of the hub. For the customer it means they can do periodic grease "freshenings" without disassembly of the hubs.

*Procedure for hub with integrated zerk fitting:*

- i. Prepare a disposable container for the old grease to fall into.
- ii. Remove the wheel and dust cap.
- iii. Attach grease gun to the grease fitting.
- iv. Pump fresh grease in until fresh clean grease is visible oozing out the front bearing. (about 1/3 of a tube)
  1. If the old grease is just dark the condition of the hub should be fine for another season.
  2. If there is any water or if the grease is a white milky color then the grease seal has likely failed.
    - a. The hub must be disassembled, the grease seal replaced, bearings likely will need to be replaced too.
  3. If there are shiny metal fragment in the old grease then the bearings are failing and must be replaced.
  4. Wipe excess from front and re-install the dust cap.

Integrated zerk fitting on  
the backside of the hub



*Procedure for hubs with-out a zerk fitting:*

- i. Prepare a disposable container for the old grease to fall into.
- ii. Remove dust cap, cotter pin, crown nut, washer. Pull hub off spindle.
- iii. Inspect inside the hub where the cups seat and the spindle for scoring, pitting, bending, dents, thread or other damage.
- iv. With the hub removed, hand-pack fresh grease in until fresh clean grease is visible oozing out the front bearing. (about 1/3 of a tube)
  1. If the old grease is just dark the condition of the hub should be fine for another season.
  2. If there is any water or if the grease is a white milky color then the grease seal has likely failed.
    - a. The hub must be disassembled, the grease seal replaced, bearings likely will need to be replaced too.
  3. If there are shiny metal fragment in the old grease then the bearings are failing and must be replaced.
  4. Wipe excess from front and re-install the hub and dust cap.

### *Adding your own Zerk fitting to avoid the previous steps above:*

- i. You can add your own zerk fitting to the front of your hub by adding a Bearing Buddy® Protector.
- ii. Look for Model# 1980A and follow the manufactures instructions for use.

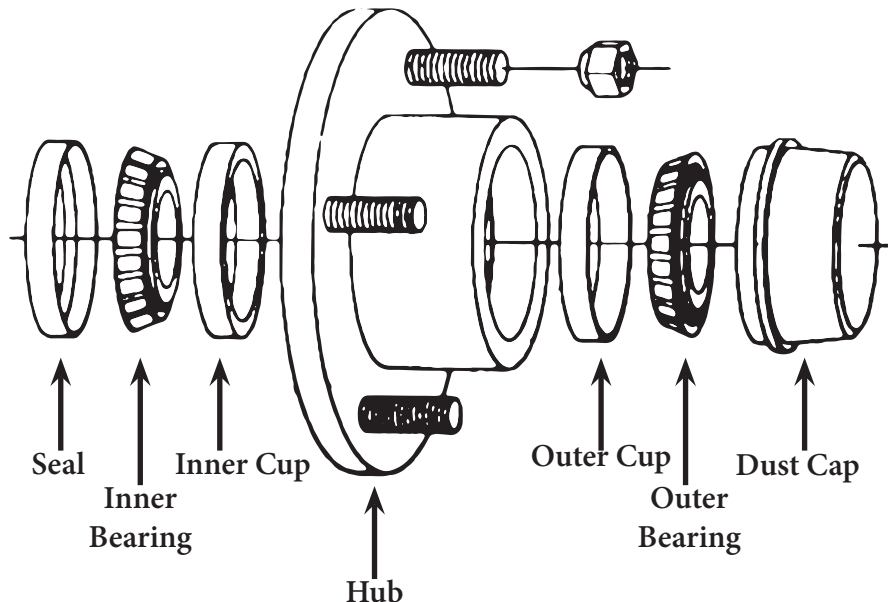
### *Type of grease to use:*

Automotive bearing grease is OK in a pinch, marine wheel-bearing grease is better, and synthetic marine-wheel bearing grease is best. Best advice: Use a high-quality synthetic marine grease that's water resistant, and do the best job possible cleaning out the old grease when repacking. Don't mix old and new greases if possible, and record what grease you're using, so you know what to apply when your bearings need a shot of the slippery stuff.

### *Damaged Bearings? Replace them right away with Bearing Kit# 27111*

#### *Procedure:*

1. Remove dust cap, cotter pin, crown nut, washer. Pull hub off spindle.
2. Use a hammer and a mild steel bar to drive out old inner cups.
3. Use a solvent such as kerosene to clean the hub, nut, washer and spindle. All dirt and old grease must be removed.
4. Inspect inside the hub where the cups seat and the spindle for scoring, pitting, bending, dents, thread or other damage. Pay close attention to the raised rear surface of the spindle where the grease seal grips. If it is scored or pitted the grease seal may leak.
5. File off nicks or burrs using a fine file or emory cloth, then wipe away any filings, then re-clean with solvent.
6. Coat the spindle and the inside of the hub lightly with grease.
7. Use the mild steel bar to drive the new cups in to the hub until they are solidly seated.
8. Pack both bearings with grease forcing grease inside the cage in-between all the rollers starting at the large end until grease shows at the small end.
9. Install the packed rear bearing in the hub.



## *Damaged Bearings? Replace them right away. Continued*

### *Procedure: Continued*

10. Install the grease seal. Don't hammer directly on the seal. Use a block of wood. Take care to drive the seal in straight. Seal should be flush to the outside surface of the hub.
11. Fill the hub, in behind the seal, with grease then slide the hub over the spindle being careful not to damage the seal against the spindle. Pack the hub full of grease.
12. Install the packed outer bearing and cup then pack more grease into any voids and install the washer and nut.
13. While turning the hub, use a 12" wrench to tighten the nut until the hub begins to bind indicating that all the bearing parts are sealed properly.
14. Back off the nut about ¼ turn, as needed, until you have between .001" to .007" of end play.
15. Warning: Failure to back off the nut to allow end play may cause the bearings to over heat and fail creating a risk of serious bodily harm.
16. Lock the nut in place using a new cotter pin.
17. Re-check end play. Install the dust cap.

### Notes

### ***Towing Speeds/Tips:***

The hubs on your trailer are already fully packed with a high-speed, high-temp grease, allowing you to **safely tow at any posted speed limit. Including highway speeds.**

You need to allow for extra time and room when switching lanes, stopping, and passing other vehicles when towing a trailer. You must also swing out wider when traveling around bends and corners as the trailer does not follow the exact path as the vehicle on turns.

Travel at moderate speeds to conserve fuel. Use a lower gear to ease stress on your transmission and engine when climbing long steep hills. Shifting out of overdrive and into a lower gear may also improve vehicle gas mileage.

Use extra caution around potholes and other large bumps. They can damage the tow vehicle, trailer hitch, and trailer. When pulling a trailer, ***take your time and be careful.***

If for some reason (a gust of wind, a downgrade, a pass by a larger vehicle, etc.) the trailer does begin to sway, the driver needs to assess the situation to determine the proper course of action. Here is a list of dos and don'ts to think about.

### ***Good Towing Practice:***

- Gradually reduce speed

- Steady the steering wheel - sudden turns can cause more sway

- Pull to side of roadway if needed

### ***NOT Good Towing Practice:***

- Do not slam on the brakes - jackknifing could occur

- Do not attempt to steer out of a sway situation

- Do not increase speed - trailer sway increases at faster speeds

- Do not tow a trailer that continues to sway

- Consider reloading the trailer or perhaps adding a sway control or a weight distribution system with sway control

An unbalanced load can also create trailer 'sway' when in tow. When loading gear keep in mind the tongue weight, downward pressure on the ball by the coupler, shouldn't exceed 10%-15% of the overall weight. If you experience any sway when towing, stop and adjust your payload forward or back as needed.

**DON'T FORGET:** When loading gear keep in mind the tongue weight, downward pressure on the ball by the coupler, shouldn't exceed 10%-15% of the overall weight. If you experience any sway when towing, stop and adjust your payload forward or back as needed.



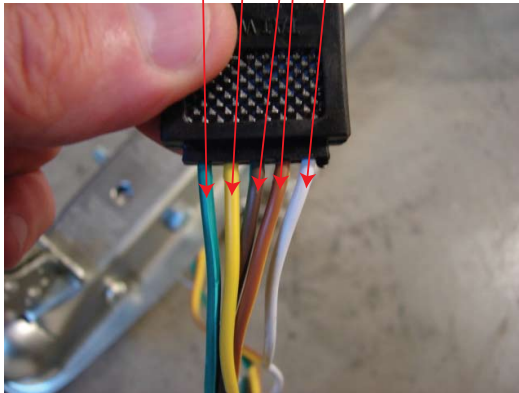
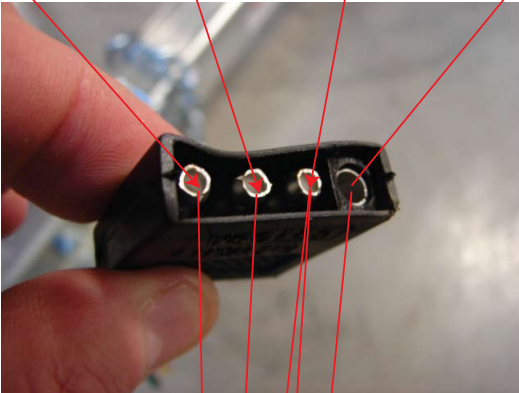
## Electrical/Lighting

Properly functioning trailer lights are a must for safety, so check your lights every time you use your trailer. Some problems, such as a burned-out bulb or a bad ground wire, can be a snap to fix—others can be a real pain to diagnose and repair.

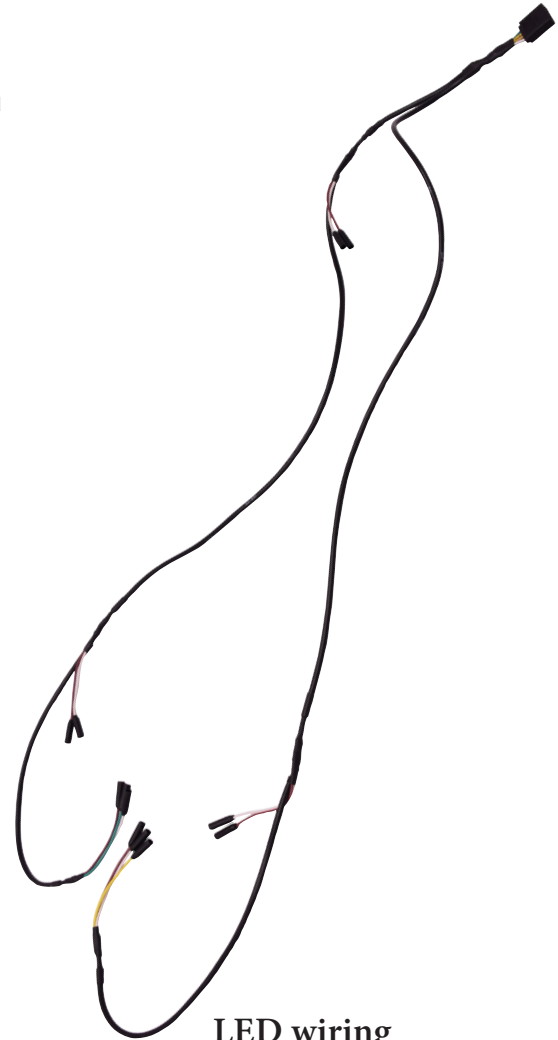
### Wiring Diagram For Trailer Lights

Note: Wiring colors are the same from incandescent lights and LED light kits.

Green (Passenger side turn signal)  
Yellow (driver's side turn signal)  
Brown x 2 (running lights , both sides)  
White (common ground)

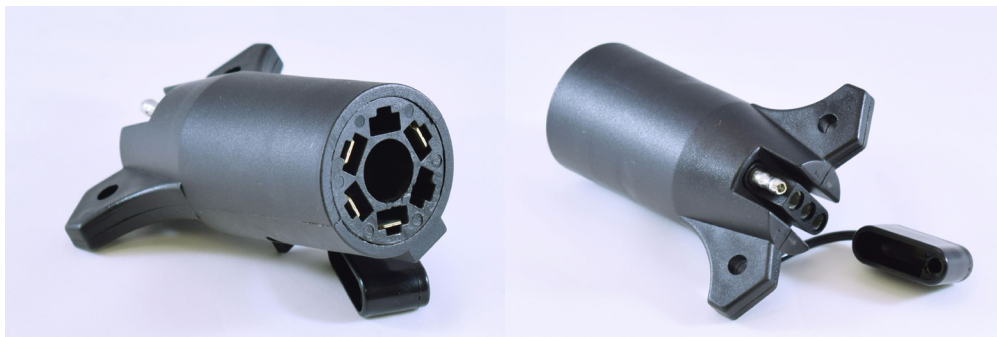


Incandescent wiring



LED wiring

Our trailers use a standard flat four pin connection at the harness. Some larger vehicles are outfitted with a round 7 pin configuration. If this is the case on your vehicle you'll need to use an adapter like the one pictured.



## *Electrical/Lighting Continued*

We can't cover every scenario in this manual but here's some trouble shooting we can do to help get your trailer back in top condition.

Having a helper standing behind the vehicle to see if the lights are working will make the process go a lot quicker..and save you from running back and forth.

### *1). Start at the Vehicle*

If your lights seem dim or don't work at all, lets start with the harness at the vehicle. This will require an electrical tester that you can find at your local hardware store. This tester will tell you right away if you have a problem from your car or truck. If the tester shows a problem, check the operation of all your vehicle lights to make sure you don't have a blown fuse, a burned-out light or a bad flasher. Clean the connections and check again. Check for broken wires near the connector. If you still have problems, make an appointment to have the wiring checked.

If the lights on the tester function properly, the problem is the trailer lights or harness.

### *2). Clean Every Connector*

If we've determined the vehicle is okay and lights still aren't working properly, clean all the contact pins with a good quality electrical contact cleaner and a fine wire brush.

### *3). Check the Ground*

Most problems occur because of a bad ground. If your using incandescent lights, they should be grounded at the front of the trailer along the metal frame (should be a white wire).

Double check and clean all connections with sandpaper. If the ground screw is corroded it should be replaced.

LED lights on the hand use the vehicle as the ground. SO if theres a grounding issue it's back at the vehicles plug or wiring.

### *4). Replace Bad Bulbs & Clean Corroded Sockets*

If you have just a single light out chances are you just need to replace the bulb. Remove the lens cover, replace the bulb(s). Test it and if ti works your on your way.

If the light still fails to work, we need to check and clean all the sockets of any corrosion. Some simple sandpaper around a wooden dowel works great.

### *5). Testing the Continuity*

Bad, or broken wiring can also lead to failures. Check the trailer wiring with a continuity tester available at your local automotive shop. Follow manufactures instructions for use and testing procedure.

### *6). Replace the Wiring*

If you're finding badly corroded parts and all else fails, you can buy a new wire harness for about \$30-\$60. A new harness should include the wiring connector, lights and lenses, and complete instructions. In most cases, it can be installed in about two hours or less.

# **MALONE**

## **CHANGING THE WAY YOU GET THERE**

### **Limited Five Year Warranty**

*The Malone Auto Racks (Malone) Limited Five Year Warranty covers certain Malone-brand products that have been specifically identified for inclusion in the program and is effective for five years from the date of purchase for the original retail purchaser. This warranty is terminated after five years from the date of purchase, or, when the original retail purchaser sells or otherwise transfers the product to any other person or entity during the five year warranty period.*

Subject to the limitations and exclusions described in this warranty, Malone will remedy defects in materials and/or workmanship by repairing or replacing, at its option, a defective product without charge for parts or labor. Malone may elect, at its option, not to repair or replace a defective product but rather issue to the original retail purchaser a refund equal to the purchase price paid for the product, or credit to be used toward the purchase of a replacement Malone product.

This warranty does not cover, and no warranty is given for defects or problems caused by normal wear and tear which includes but is not limited to surface (aesthetic) metal corrosion, scratches, dents, deformities, accidents, unlawful vehicle operation, or any modification of a product not performed or authorized in writing by Malone.

In addition, this warranty does not cover problems resulting from conditions beyond Malone's control including, but not limited to, theft, misuse, overloading, or failure to assemble, mount or use the product in accordance with Malone's written instructions or guidelines included with the product available to the original retail purchaser.

No warranty is given for Malone products purchased outside of the United States, Canada and Mexico.

If the product is believed to be defective, the original retail purchaser should contact the Malone dealer from whom it was purchased, who will give the original retail purchaser instructions on how to proceed. If the original retail purchaser is unable to contact the Malone dealer, or the dealer is not able to remedy the defect, the original retail purchaser should contact Malone by email at [technical@maloneautoracks.com](mailto:technical@maloneautoracks.com).

In the event that the product must be returned to Malone, a technician at the email address above will provide the original purchaser with return shipping instructions. The original purchaser will be responsible for the cost of mailing the product to Malone. In order to receive any remedy under this warranty, a copy of the original purchase receipt, a description of the defect and a return address must be provided.

### **Disclaimer of Liability**

Repair or replacement of a defective product, or the issue of a refund or credit (as determined by Malone) is the original retail purchaser's exclusive remedy under this warranty. Damage to original purchaser's vehicle, cargo, or property, and/or to any other person or property is not covered by this warranty.

This warranty is expressly made in lieu of any and all other warranties, express or implied, including the warranties of merchantability and fitness for a particular purpose.

Malone's sole liability is limited to the remedy set forth above. In no event will Malone be liable for any direct, indirect, consequential, incidental, special, exemplary, or punitive damages, or, for any other damages of any kind or nature (including but not limited to, lost profits, lost income or lost sales).

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not be applicable. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

In addition, all vehicular transports are potentially hazardous. Any person using MALONE products are personally responsible for following the given directions for use, installation and accepts full responsibility for any and all damages or injury of any kind including death, which may result from their use.