

# MTX PULL-OUT BOAT SHADE

## Installation Instructions



**SURESHADE**  
EXTENDING THE EXPERIENCE

A Lippert Components Company 

### **SURESHADE**

A Lippert Components Company

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## Parts and Required Tools List

Many of the provided parts are pre-assembled before shipping. This helps to ensure all necessary parts are included and checked for proper fit before delivery. Ensure all assembled parts are contained in the shipping crate BEFORE starting installation.

Part	Quantity
Shade specification sheet	1
Mounting clamps	4
Pre-assembled actuators	2
Roller assembly w/ mounting hardware	1
Outer crossbar w/ mounting hardware	1
Mid crossbar w/mounting hardware	1
Pre-rolled canvas (attached to roller assembly)	1

## Installation Timeframe

Although installation can be completed with only one person, it is recommended that two people perform the installation. It will take approximately 6 to 8 hours to complete a surface installation and 8 to 10 hours to complete an integrated installation.

Take into account that installation time may vary due to the complexity and location of having to run the system wiring to the boat's power source.



Required Tools (Not Included)	Surface Install	Integrated Install
Safety Glasses/Goggles	X	X
Ratchet and Socket Set	X	X
Power Drill	X	X
Jigsaw	X	X
Drill Bits	X	X
Phillips Head Screw Driver	X	X
Allen Wrench Set (Standard)	X	X
Wire Strippers	X	X
Wire Cutters	X	X
Wire Crimper	X	X
Utility Knife	X	X
Assorted Wire Connectors	X	X
Wire (8 gauge for power, 14 gauge for switch connections)	X	X
Multimeter (or similar device)	X	X
Tape Measure	X	X
Marine Caulk	X	X
Extension Cord	X	
Thread Lock (Loctite®)	X	X
Electrical Tape	X	X
Tubing cutter, Hacksaw		X
Fish Tape (Used to route wires through inaccessible areas)		X
Level		X
Grease Pencil	X	X
Wire Ties	X	X
Hole Saws		X
Dremel® with round sanding wheels and/or round grinding bit (If not available, a drill can be used)		X
Ladder	X	X



## Important Safety Instructions

- Read all instructions contained in this document and become familiar with the shades specification sheet and measurements before installing your SureShade. Failure to follow these instructions could result in personal injury or damage to equipment.
- In the event of malfunction call 877-333-8323 before continuing to operate the system or any repairs are made. Do not attempt to repair shade on your own or you could risk voiding the warranty.
- Never disassemble actuators without expert guidance.
- When tensioning the canvas, refer to <https://www.sureshade.com/service-and-technical-documentation/> for proper roller preload instructions, improper tensioning can cause spring malfunction which will prevent the roller assembly from operating normally.
- When extending/retracting shade, keep all hands, loose clothing, etc. away from moving actuators.
- Your SureShade product has been designed and tested to withstand wind speeds of up to 50 mph, however it is recommended to retract the shade while underway.
- To protect the shade and components, always retract shade during inclement weather. Retracting the shade when not in use will prolong the life of the canvas and components.
- Refer to the SureShade website for maintenance and winterization procedures. <https://www.sureshade.com/customer-resources/>
- It is important to understand the Warnings, Cautions, and Notes BEFORE starting the installation.



## Warnings, Cautions and Notes

<b>WARNING</b>	
<b>WARNING</b>	<i>Indicates a potentially hazardous situation that if not avoided, could result in death or serious injury.</i>

<b>CAUTION</b>	
<b>CAUTION</b>	<i>Indicates a potentially hazardous situation that if not avoided, could result in damage to product/equipment.</i>

<b>NOTICE</b>	
<b>NOTICE</b>	<i>Indicates information considered important, but not hazard related.</i>



## Installation of Mounting Clamps

- Step 1.** Determine the centerline of the hardtop.
- Measure across the hard top at the Forward section from the port to the starboard. Using a grease pencil, mark the center of the hardtop.
  - Repeat process for the Aft. Using pencil marks as a guide, run tape or string down the center of the hardtop. (See Figure 1.)

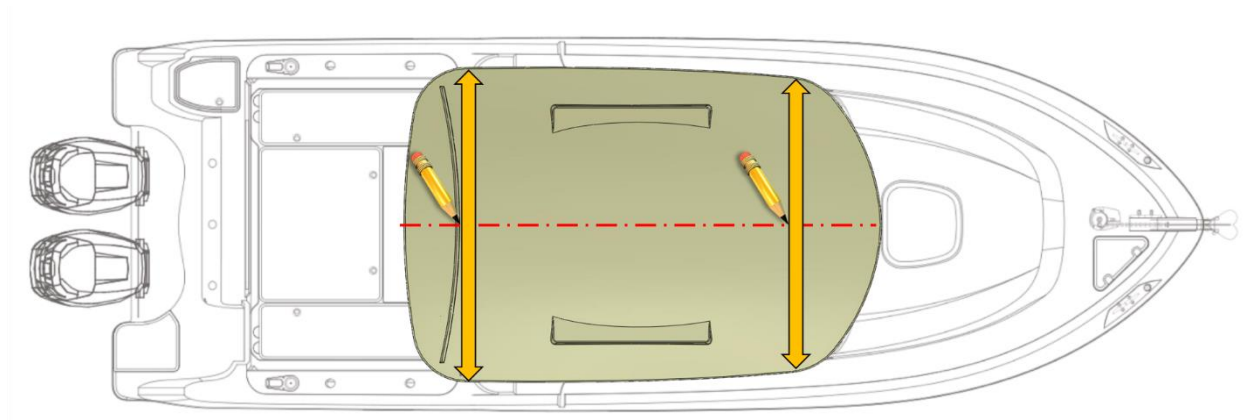


Figure 1: Marking Centerline of Hardtop

NOTICE	
NOTICE	Refer to the supplied Shade Specification sheet to determine your shades centerline width. Centerline width is determined by the centerline of the Port actuator tube to the centerline of the Starboard actuator tube



- c. Measure half the width of the shade centerline across the hard top at the Forward and Aft sections from the center of the hardtop to the port side. Make a mark using a grease pencil. (See Figure 2a.)
- d. Repeat process for the starboard side. Using pencil marks as a guide, run tape or string down the port and starboard sides of the hardtop. (See Figure 2b.)

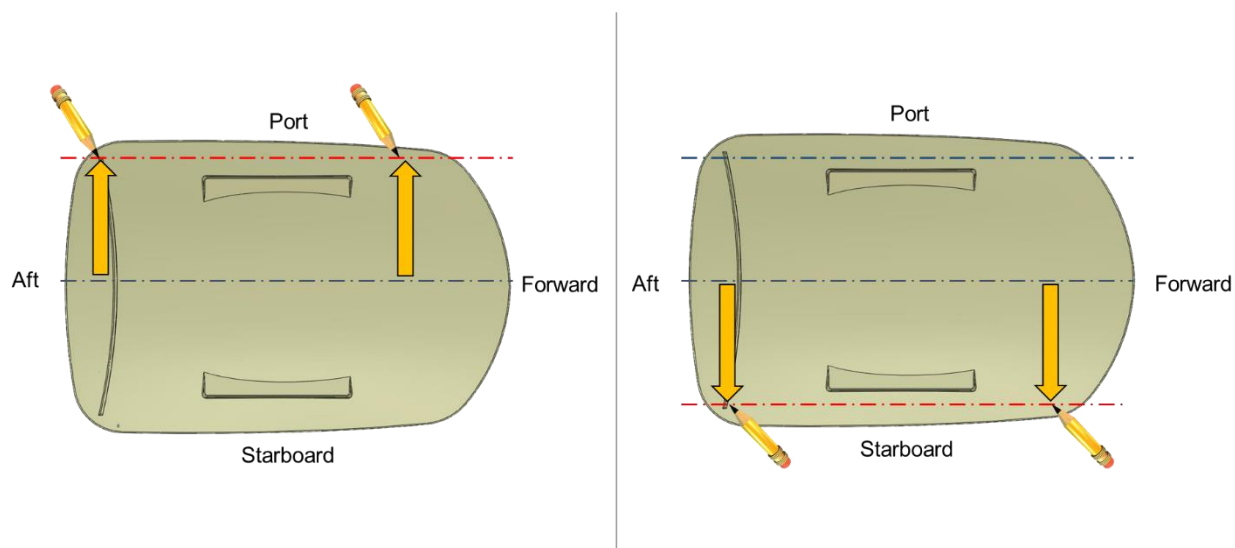
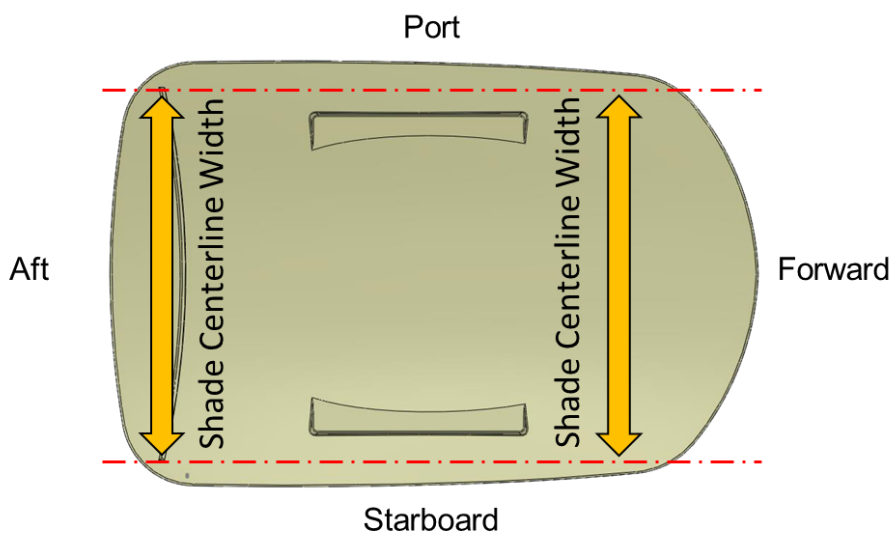


Figure 2a and 2b: Determine the Placement of the Mounting Clamps.

CAUTION	
CAUTION	Placement of mounting clamps must hold actuators parallel to each other to ensure proper functioning of shade system.



- e. Measure the distance from the Port to Starboard at the Forward and Aft sections to ensure marks are parallel. These measurements should be the shade centerline width provided on the Shade Specification Sheet. (See Figure 3)



*Figure 3: Verify Centerline Measurements*



**Step 2.** Setting the mounting clamps.

- a. Disassemble the four mounting clamps by removing the two  $\frac{1}{4}$  -20 x  $\frac{3}{4}$  socket head screws in each clamp and remove the top clamp. Set the screws and top clamps aside. (See Figure 4.)

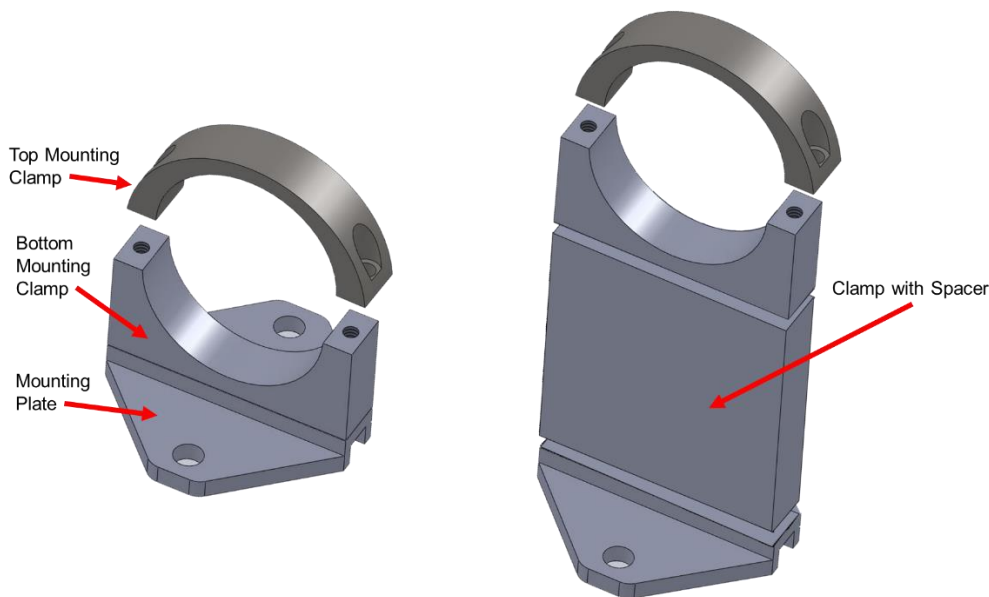



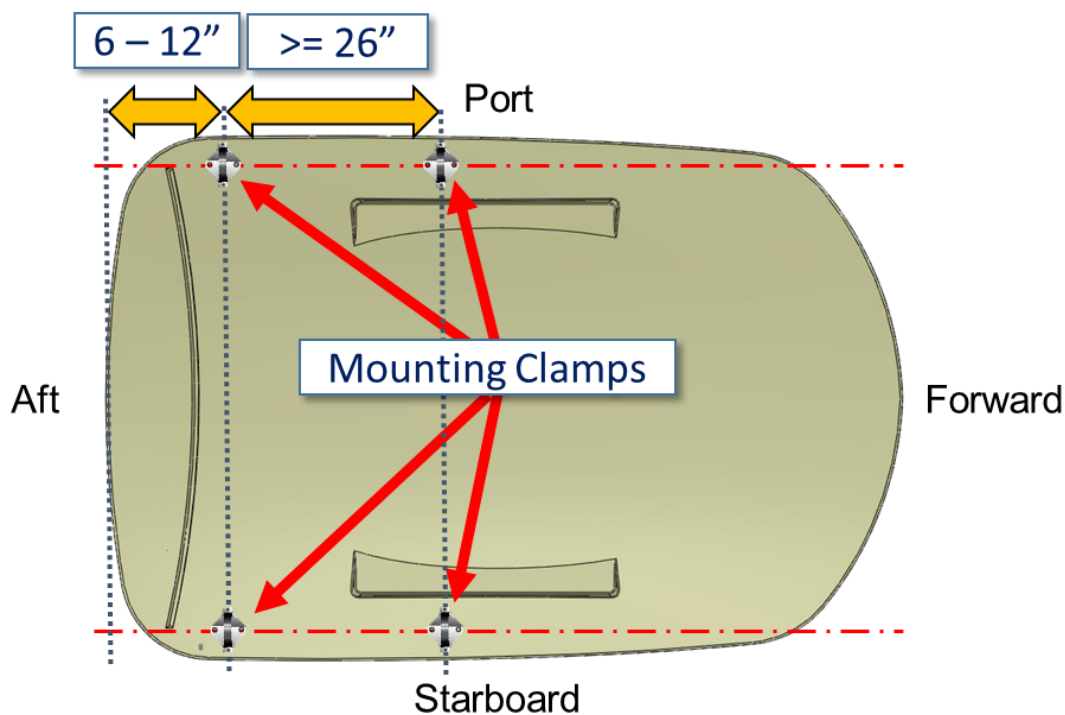
Figure 4. Mounting Clamps (May include spacers depending on installation)

NOTICE	
	<p>Mounting clamps should be placed 6 to 12 inches from aft of hardtop.</p> <p>Spacing between fore and aft bottom clamps should be no less than 26 inches. 30 inches or more is preferred when applicable.</p>

NOTICE	
<b>NOTICE</b>	Actuator can be placed in clamps to aid in aligning and spacing mounting clamps.



- b. Place the four bottom mounting clamps along the pre-determined lines on the hard top. (See Figure 5.)



*Figure 5. Mounting Clamp position*

- c. With assistance, have each person place and hold an actuator onto the starboard and port mounting clamps.



- d. Measure from port actuator centerline to starboard actuator centerline at the Forward and Aft sections to ensure measurements are correct. (Refer to centerline width located on Shade Specification Sheet.) (See Figure 6.)

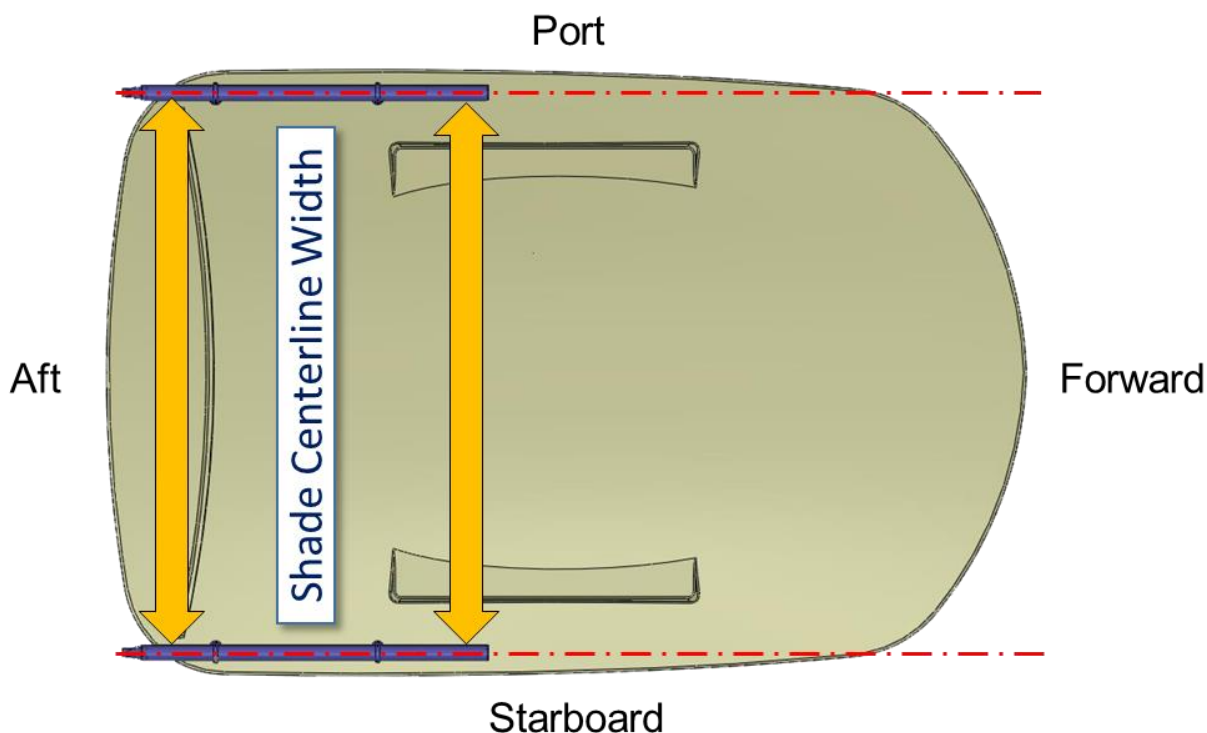


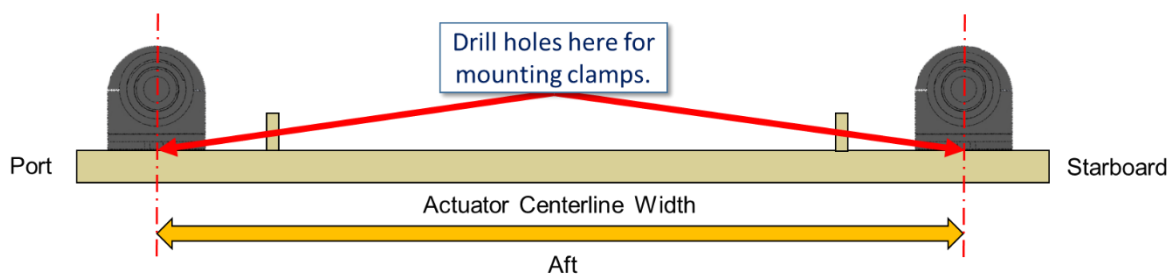
Figure 6: Measure Centerline Width for Accuracy

CAUTION	
<b>CAUTION</b>	<p>If the mounting surface has a curvature, the centerline markings will be used as a guide to determine mounting clamp placement.</p> <p>The curvature of the top and height of the mounting clamps will offset the mounting clamp positions from the centerline marks.</p> <p>Ensure spacing and centerline is correct BEFORE drilling any holes in the boat's top.</p>

- e. When installing on a curvature, adjust the mounting clamps until the actuators line up with the centerline measurement.

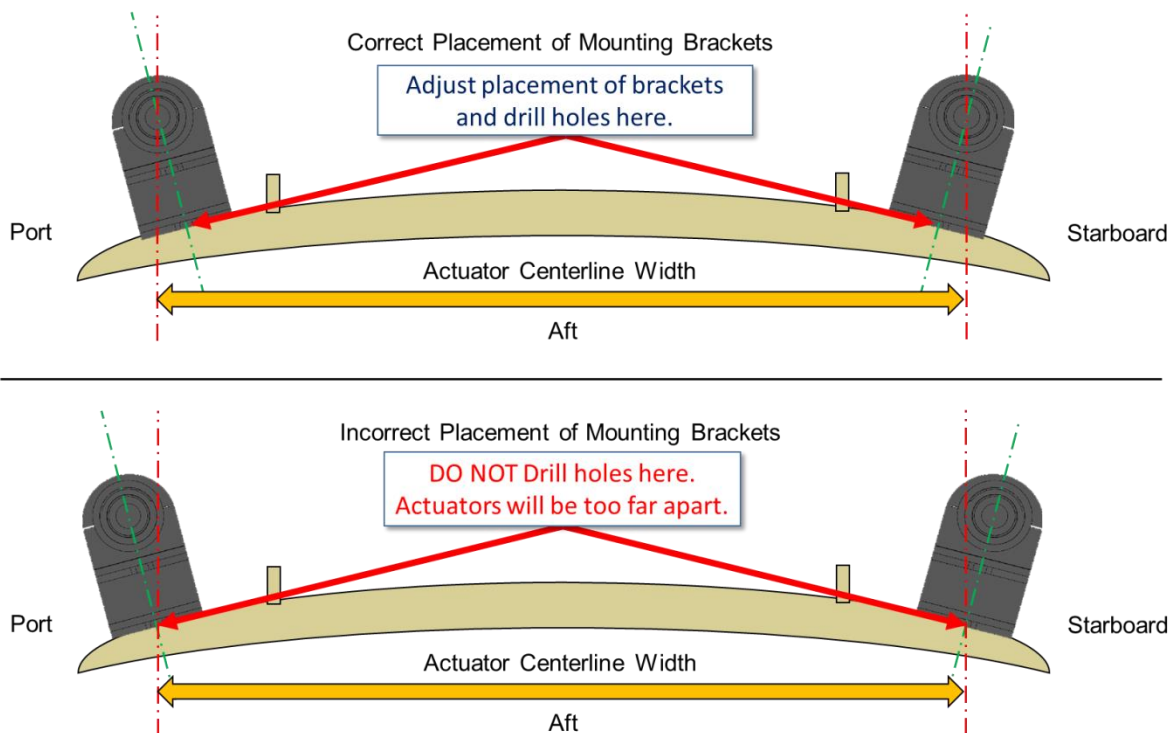


If the top is flat, the mounting clamps will be installed using the centerline locations for both surface and underside mounting. (See Figure 7a.)



*Figure 7a: Surface Mount Flat*

- i. For top mount with a curvature, mounting clamps will be installed on the inside of the actuator centerline and will need to be drilled at an angle. (Depicted by the green centerlines). (See Figure 7b.)



*Figure 7b: Surface Mount Curved*



- ii. For bottom mount with a curvature, mounting clamps will be mounted to the outside of the actuator centerline and will need to be drilled at an angle. (Depicted by the green centerlines). (See Figure 7c.)

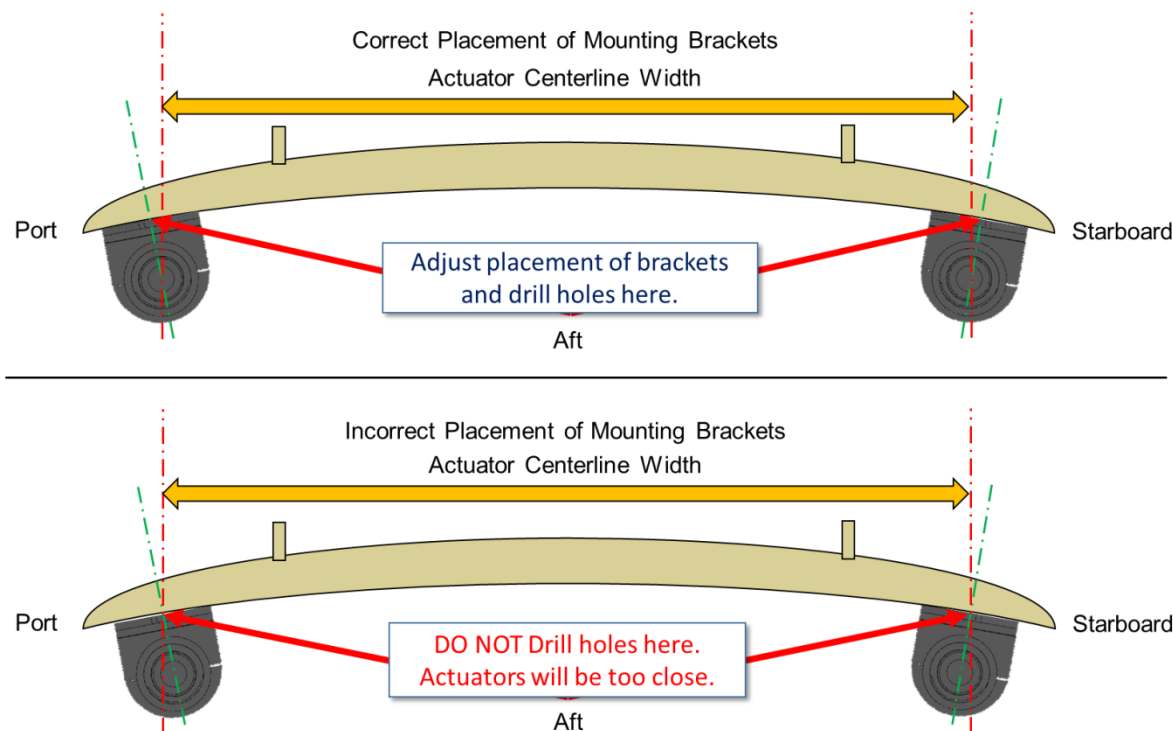


Figure 7c.: Underside Mount Curved

NOTICE	
NOTICE	If mounting on a curvature, mark one clamp and measure from the clamp centerline to the actuator centerline. Use that measurement to aid in placement of the remaining clamps.

- f. Mark the location of the mounting clamps using a grease pencil.
- g. Carefully remove actuator from mounting clamps. Ensure mounting clamps are in marked location and mark holes for drilling. (See Figure 8a and 8b.)

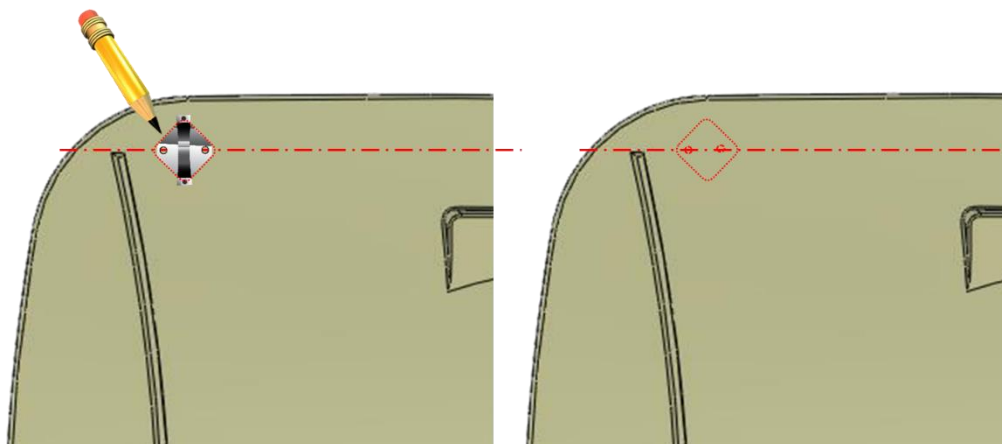


Figure 8a.: Flat Surface Mount

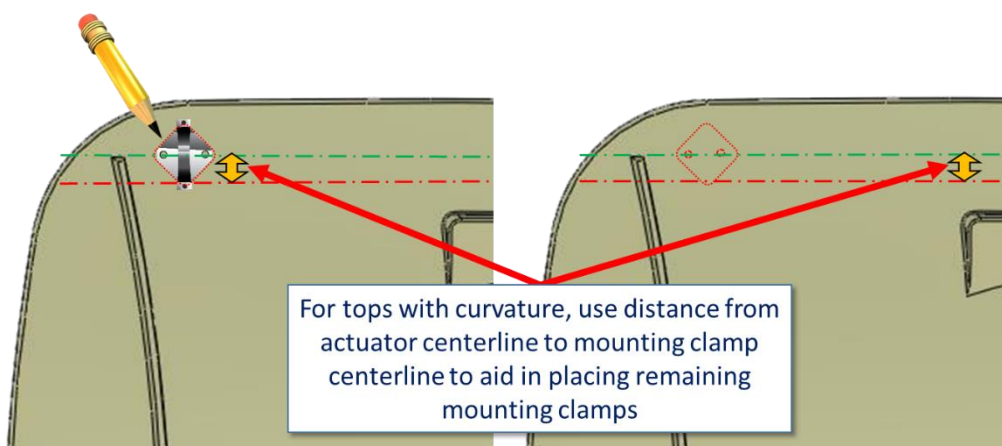
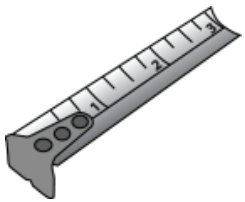


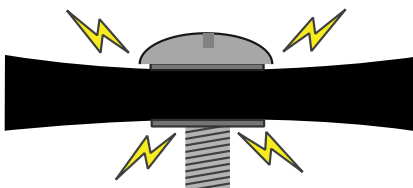
Figure 8b.: Curved Surface Mount

CAUTION	
	Re-measure and ensure placement of mounting clamps for both sides are clear of any obstructions and measurements are correct before drilling holes.

- h. Drill the 2 marked holes for each of the mounting clamps.



## CAUTION

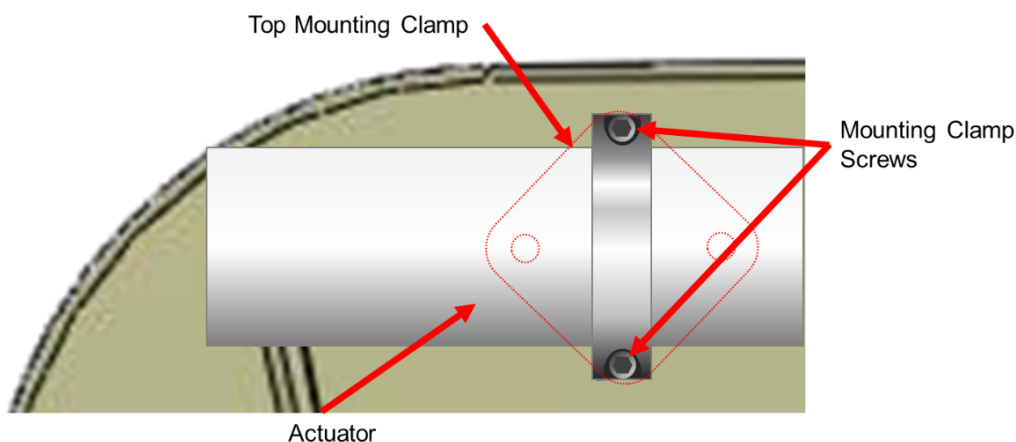


*Use care when tightening mounting clamp bolts. Do not overtighten to the point where the surface material starts to buckle.*

- i. Line up and install the four mounting clamps to the hardtop. We recommend using 5/16 – 18 bolts and tighten down with nuts.

### Step 3. Installing the actuators.

- a. Place actuators onto installed mounting clamps.
- b. Install top mounting clamps with included bolts. Ensure bolts are snug, do not over tighten. (See Figure 9.)

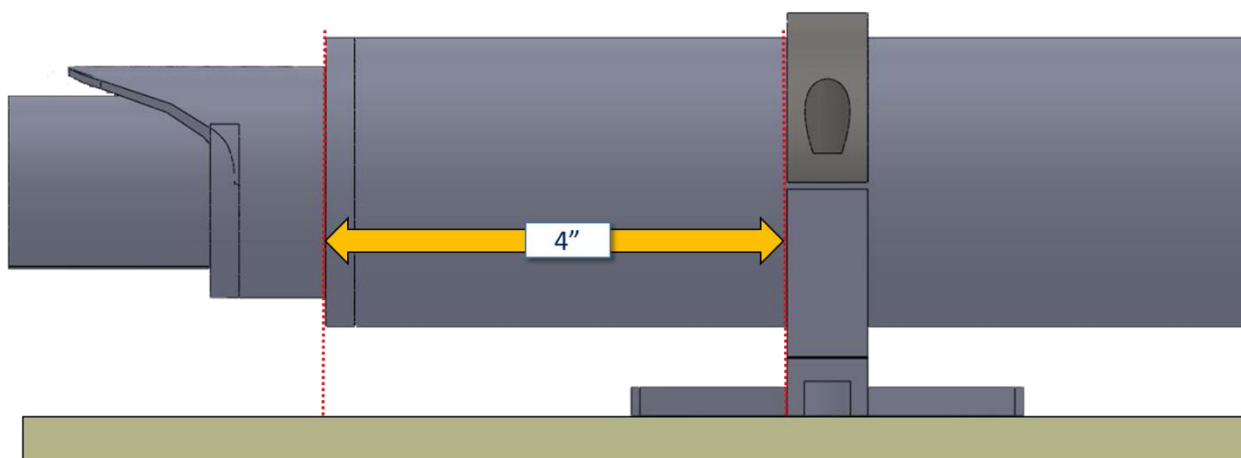


*Figure 9: Install Actuator and Top Mounting Clamps*



## Securing the Actuators

- Step 1.** Place the remaining actuator onto the installed mounting clamps.
- Step 2.** Attach the top mount to the mounting clamps using the provided hardware. Do not tighten.
- Step 3.** Measure from the end of the main actuator tube to the Aft mounting clamp. There should be no less than 4 inches between the end of the tube and the Aft mounting clamp. (See Figure 10.)
- Step 4.** Repeat process for the other actuator.
- Step 5.** Once both actuators are aligned, snug the mounting clamp top brackets temporary until the crossbars are aligned with the locking pins engaged correctly as described in the next steps.



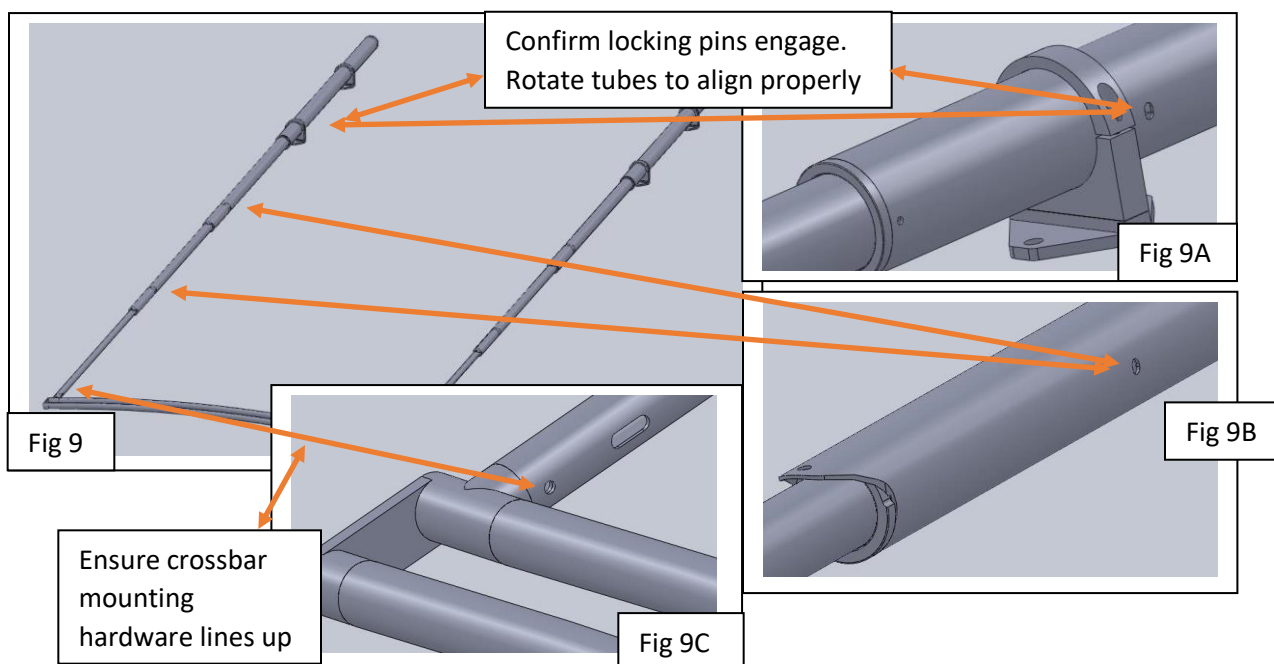
*Figure 10: Measure Space between Main Tube and Mounting Clamp*



## Aligning and Adjusting the Actuators to install crossbars

### Step 1. Pull the actuator extending arms to full extension.

- At full extension ensure the locking pins engage the locking slot (See figures 9 thru 9B).
- Rotate the extending tube if needed to ensure the locking pin engages the slot.
- Repeat process on all extending arms of both the actuator.



### Step 2.

- Slide the aft crossbar into the ends of actuator tubes (See figures 9 & 9C).
- Align the mounting hole in the outer crossbar elbow with the outer most extending arm.
- You may have to loosen the mounting clamps so you can rotate the stationary tube to allow the extending arm to line up with the mounting holes in outer crossbar elbow and insert provided hardware screws snugly.
- Repeat the process with the other side actuator.

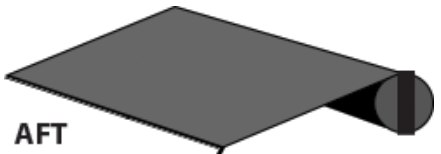


### Step 3.

- a. Install roller, outer mid and inner mid crossbars as described in the next sections.
- b. Rotate extending arms as necessary to mount mid crossbars with locking pins engaging properly.
- c. Repeat process for both mid crossbars.
- d. Once all crossbars (outer, outer mid and inner mid) are attached with locking pins engaging properly, tighten all hardware screws to the crossbars and the mounting clamps.



## Securing the Roller Assembly

NOTICE	
 AFT	<i>Zipper of canvas should be facing aft and on top of roller when installed.</i>

- Step 1.** Slide the roller assembly onto actuators
- Step 2.** Measure each side of the roller assembly to ensure it is 2 inches in from the end of the actuator main tube. (See Figure 11.)
- Step 3.** Secure the roller in place using the provided  $\frac{1}{4}$  - 20 x  $\frac{3}{4}$  socket head cap screws.

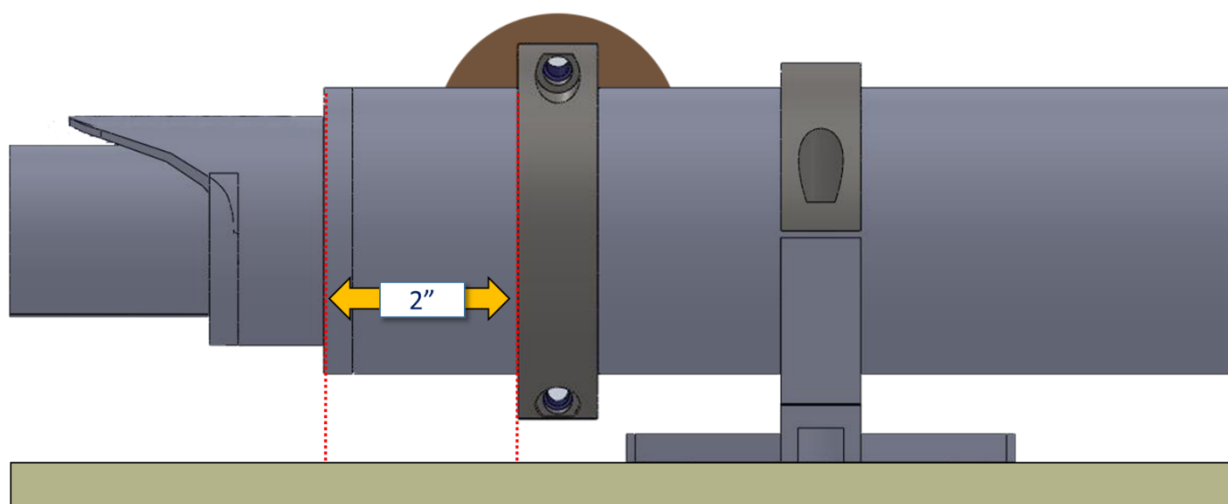



Figure 11: Measure Roller assembly

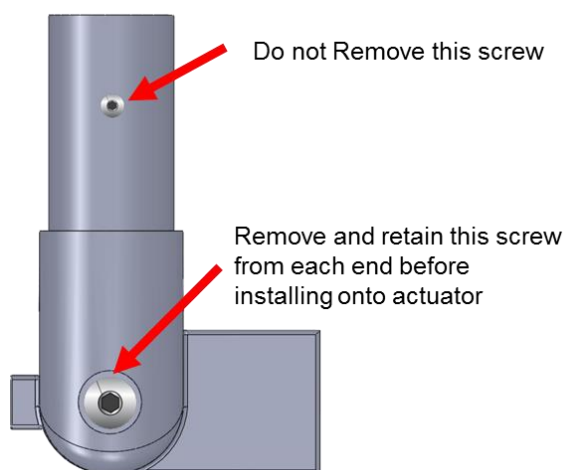


## Securing the Crossbars

CAUTION	
	<i>Do not remove the 10/32 set screws that connect the Outer and Mid-Crossbar Sleeves to the crossbar.</i>

### Step 1. Mid-Crossbar

- a. Remove the two  $\frac{1}{4}$  - 20 x  $\frac{1}{2}$  socket head cap screws from the ends of the mid-crossbar. (See Figure 12.)



*Figure 12: Mid Crossbar Screw Location*

- b. Attach the mid crossbar onto actuators mid crossbar tab and secure in place using two  $\frac{1}{4}$  - 20 x  $\frac{1}{2}$  socket head cap screws. (See figure 13.)

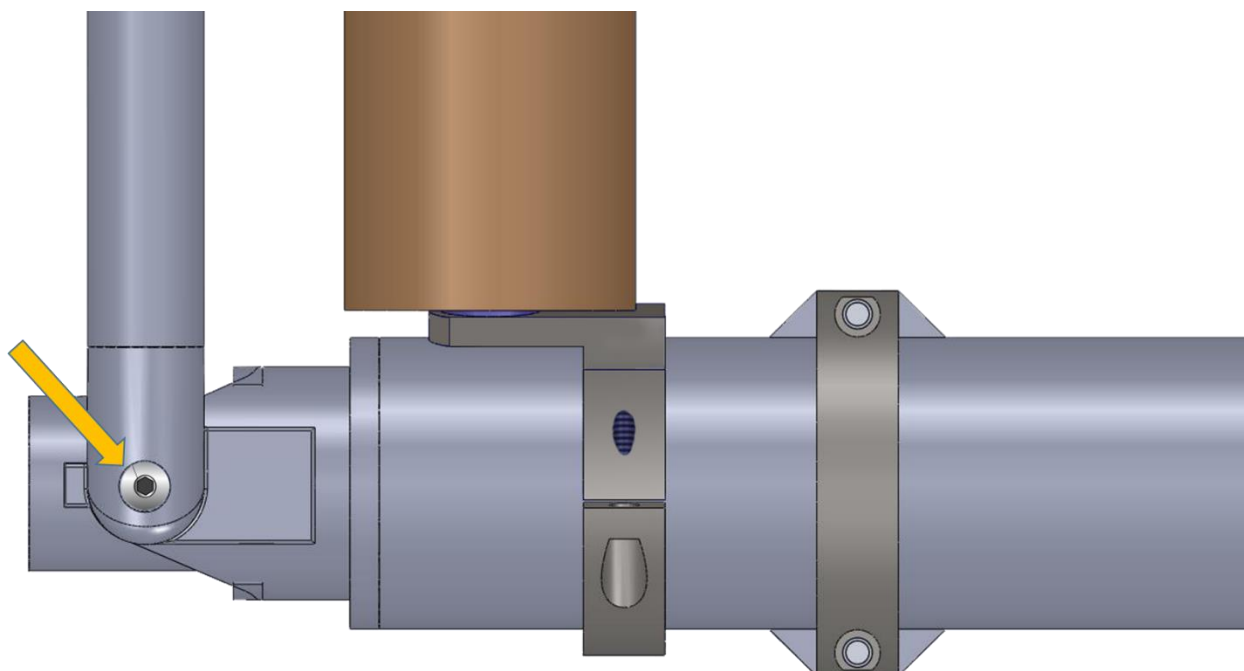



Figure 13: Installing the Mid Crossbar

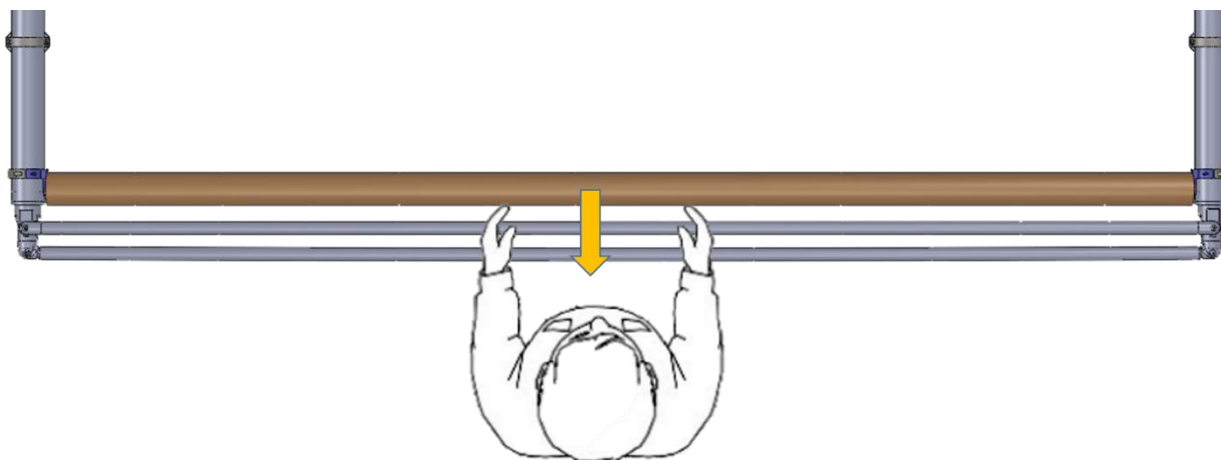
## Preloading the Canvas

CAUTION	
<b>CAUTION</b>	<i>When preloading the roller, ensure the roller is rotated toward the crossbars/Aft of the boat. Rotating the roller in the opposite direction will release the tension spring and prevent the roller from working.</i>

NOTICE	
	Go to <a href="https://www.sureshade.com/service-videos/">https://www.sureshade.com/service-videos/</a> to view a video on how to properly preload the canvas.

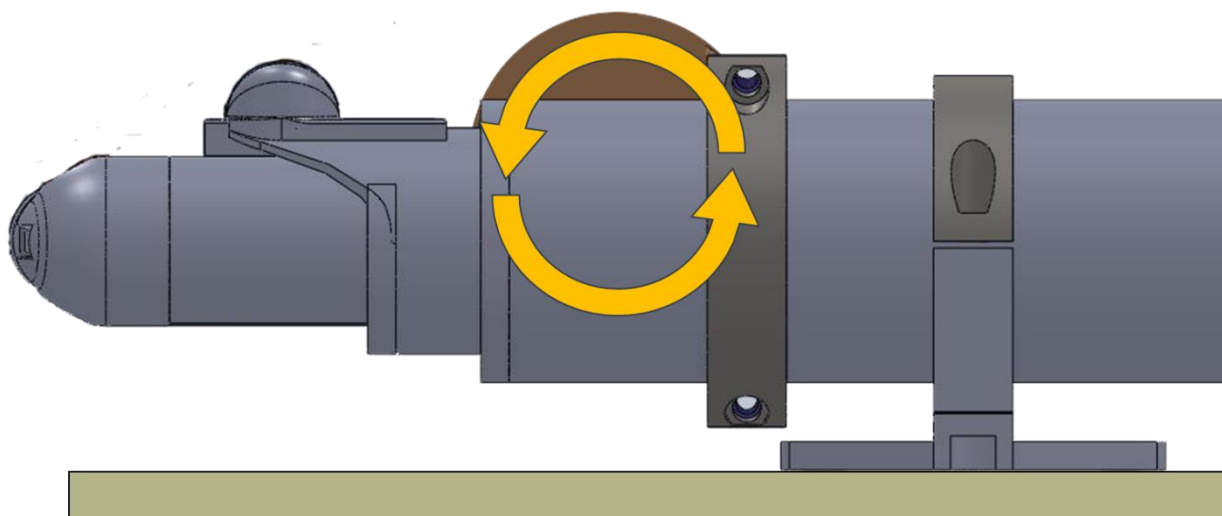


- Step 1.** Preload the roller 2 full revolutions by rotating the canvas and roller toward the crossbars/Aft of the boat. Canvas and roller need to rotate together.
- Stand behind the roller facing the front of the boat and grab the canvas and roller with both hands. (See Figure 16)



*Figure 16: Gripping the Canvas*

- Grip and rotate the roller and canvas towards you. (See figure 17a. and 17b.)



*Figure 17a. : Tension Roller Toward Crossbars/Aft of Boat (Starboard View)*

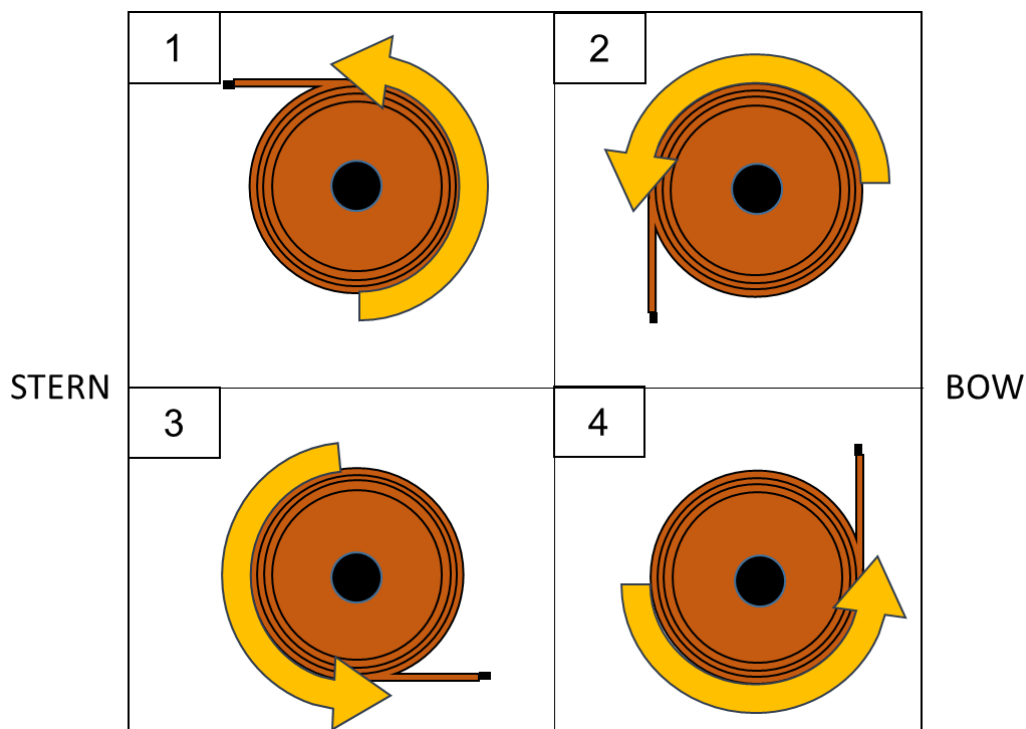


Figure 17b: Rotate Entire Canvas Toward Crossbars/Aft of Boat (Starboard View)

**Step 2.** Holding the canvas firmly, pull the canvas to the aft crossbar. (See Figure 18)

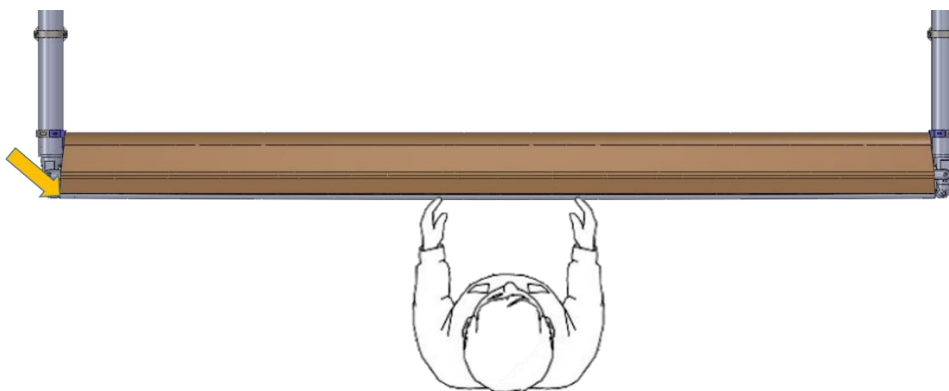
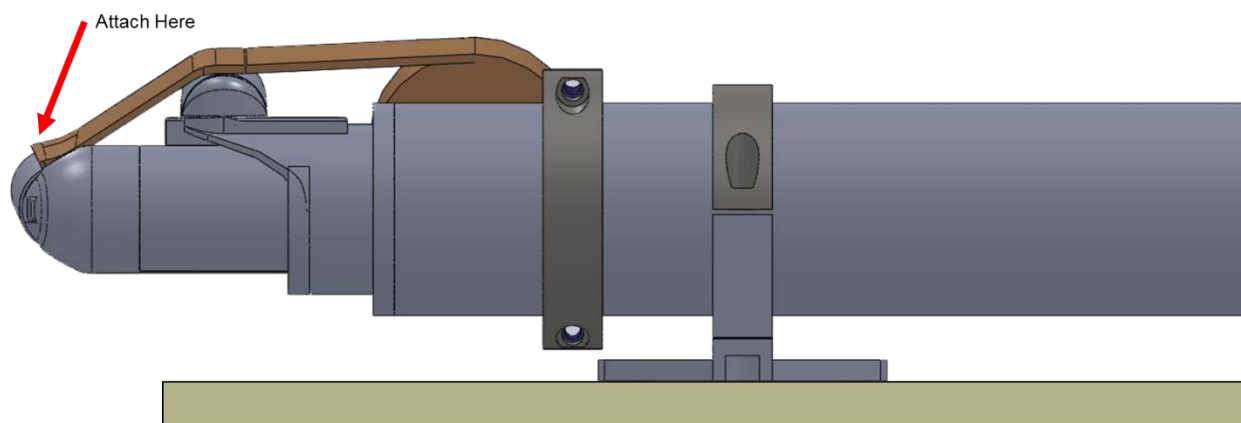


Figure 18: Pull Canvas to Outer Crossbar



**Step 3.** Attach the zipper of the canvas to the crossbar and fully zip the canvas. (See Figure 19)




*Figure 19: Zip the Canvas to the Outer Crossbar*



## Fine Tuning and Adjustments

CAUTION	
<b>CAUTION</b>	<p><i>If the billows tabs located on the mid-crossbar are touching the canvas roller when fully retracted, unnecessary wear to the canvas can occur.</i></p> <p><i>The roller bar needs to be adjusted so that there is at least 1 inch space between the metal tab and the roller.</i></p>

NOTICE	
	<p><i>Every shade is tested at the factory before shipping. On the rare occasion adjustment is needed, Call us at 877-333-8323. Or visit <a href="http://www.sureshade.com/customer-resources/">www.sureshade.com/customer-resources/</a> for guidance on making this adjustment.</i></p>

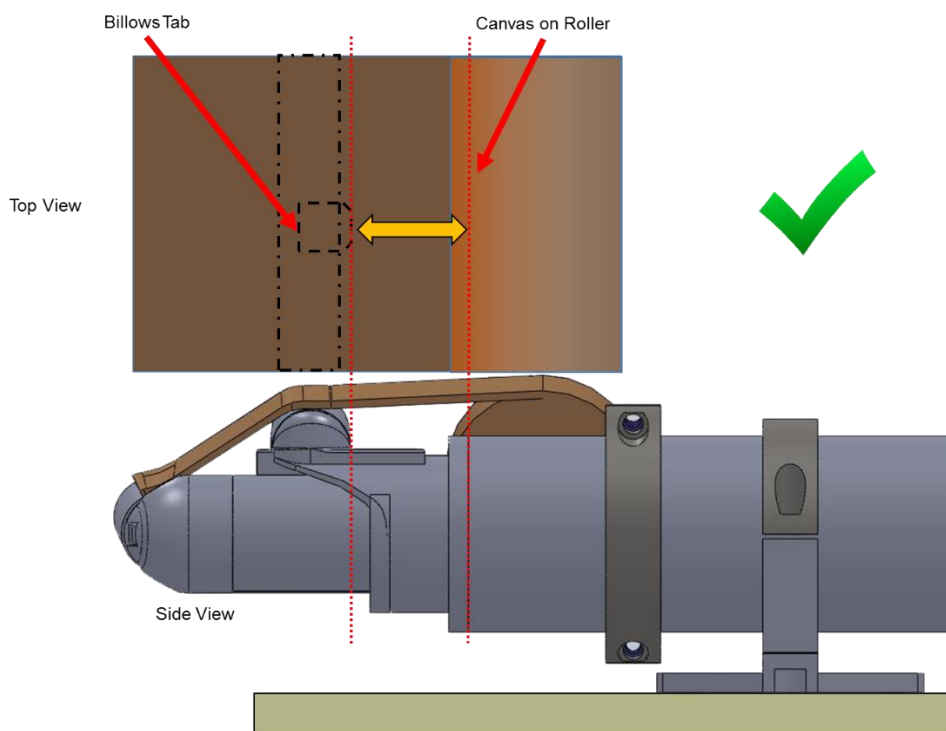
NOTICE	
<b>NOTICE</b>	<p><i>Unnecessary wear caused by the billows tab rubbing against the canvas is not covered under warranty.</i></p>



**Step 1.** Ensuring proper spacing

*Figure 21: Actuator Spacing*

- a. Ensure the mid-crossbar canvas billow tabs are not touching the canvas on the roller when the shade is fully retracted. If the tab is touching the roller, it needs to be adjusted. (See figure 22).



*Figure 22: Billows Tab Spacing*

- b. Loosen the clamps holding the roller to the actuators and slide the roller away from the tabs.
- c. Measure the roller from the end of the main actuator tube to ensure placement is even on both sides.
- d. Tighten roller clamp bolts.



**Step 2.** Before extending shade for the first time. Tighten all bolts on the SureShade system.

WARNING	
<b>WARNING</b>	<i>When operating shade, keep hands, loose clothing, clear of actuators when extending/retracting the shade.</i>

## Troubleshooting

Problem	Possible cause	Corrective action
Canvas is sagging when shade is extended	- Not enough tension set on roller spring	- Unzip canvas from outer crossbar and rotate canvas to add more tension.



## Customer Support

We take pride in offering an unprecedented level of customer service to our boat builders, dealers and – most importantly – the boaters who use our sunshade systems.

Whether you purchased your sunshade system as a factory-install option, an aftermarket install through your local boat dealer or directly from us, you can have confidence in continued customer service resources from SureShade.

Should you require assistance with your SureShade installation, our technical experts are available from 9am - 5pm EST Monday through Friday via email at [service@sureshade.com](mailto:service@sureshade.com), or call us at 877.333.8323.

You may also submit a service request at: <https://www.sureshade.com/service-request/>

Further customer resources and information can be found on our website at: <https://www.sureshade.com/service>

## Warranty Information:

SureShade warrants the shade framework (electric or manual shade) will be free from material defects and workmanship and will repair or replace, at its sole discretion, any inoperable components that are reported within 3 years from the date of shade sale to original purchaser. SureShade will also replace, at its sole discretion, the canvas component of the shade system (electric or manual) when reported defective within 1 year from the date of canvas manufacture.

Damage due to improper storage, transportation, and winterization will not be covered. Please refer to the website for proper care, storage, transportation and winterization of your SureShade product.

Please contact us or call 877-333-8323 with any questions or concerns, or if replacement canvas or parts for SureShade sunshade systems are needed.

## Contact Information:

SureShade  
A Lippert Components Company  
1900 47th Terrace East  
Brandenton, FL 34203  
Phone 877.333.8323  
[www.sureshade.com](http://www.sureshade.com)