

# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

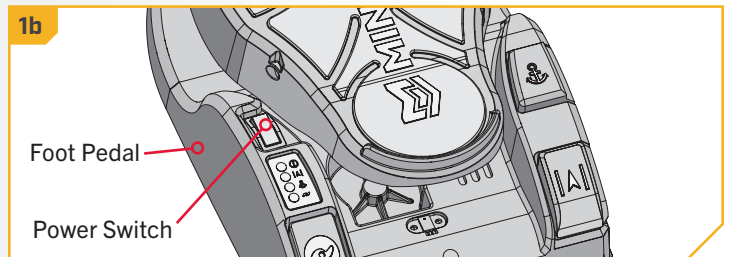
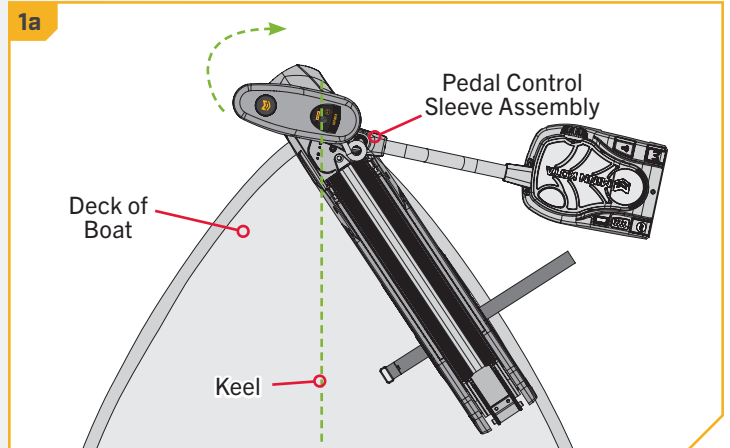
## › Rotate the Pedal Control Sleeve Assembly for a Starboard Mount

By default, the Pedal Control Sleeve Assembly is factory-set so that when your Ultrex is installed on the port side of your boat, the Pedal Control Sleeve Assembly points inboard. Should you choose to install your Ultrex on the Starboard side of your boat, it is recommended that the default position of the Pedal Control Sleeve Assembly be rotated to point inboard.

Once the Mount is installed, the system is properly calibrated when the motor is deployed and the head of the motor and lower unit align with the centerline or keel of the boat, at the same time the top of the Foot Pedal is parallel to the deck of the boat.

Use the following instructions to rotate the Pedal Control Sleeve Assembly on the Steering Housing and then properly align the head of the motor. If your motor was installed on the Port side of the boat, please disregard these instructions and see the "Indexing the Motor" section of this manual.

- 1**
  - a. Aligning the head of the motor before correcting the placement of the Pedal Control Sleeve Assembly will help calibrate alignment once the assembly is in the recommended position. Turn the Power Switch "on" and steer the motor so that the Control Head is in line with the keel of the boat. This can be done by steering the motor with the Foot Pedal, turning the motor with the remote, or manually turning the head of the motor.
  - b. Leave the motor in the desired alignment and turn the power to the Foot Pedal "off." Then disconnect the power by removing the power cables from the battery or turning "off" the breaker if equipped.



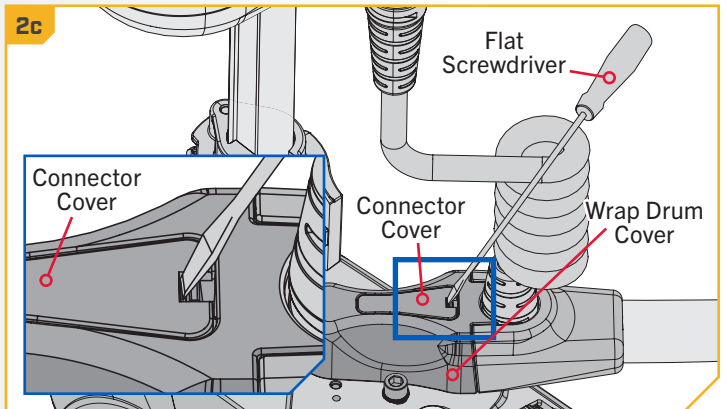
### **WARNING**

To avoid electric shock, make sure the motor is not connected to a power source.

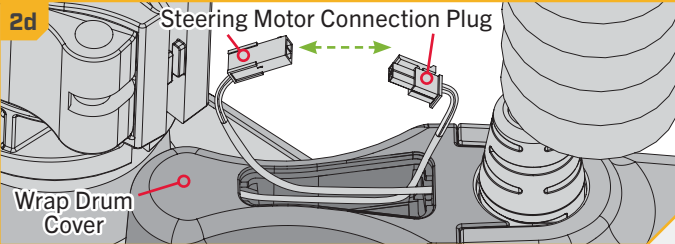
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- c. Remove the Connector Cover from the Wrap Drum Cover using a 1/8" Flat Screwdriver to release it. Release it by pressing the flat part of the Screwdriver in the slot closest to the center of the Connector Cover and prying upwards.
- d. Once the Connector Cover is removed, disconnect the Steering Motor Connection Plug that is visible.



**NOTICE:** Please note the orientation and routing of the plug and wires for re-installation.

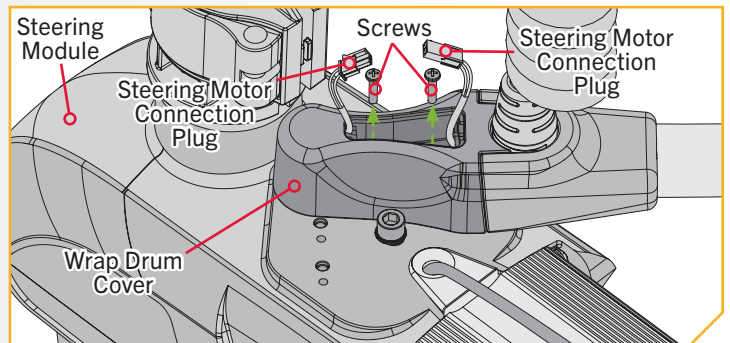


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- e. Remove the two screws that hold the Wrap Drum Cover in place with a #2 Phillips Screwdriver. Once removed, lift the Wrap Drum Cover away from the Steering Module.

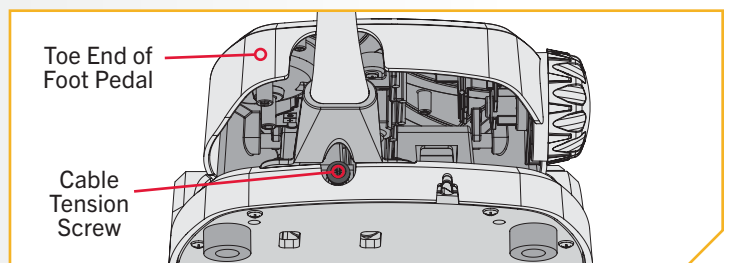
## ⚠ CAUTION

Be careful not to damage the Steering Motor Connection Plug ends and wires.



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- f. The Cable Tension Screw that holds tension on the Steering Cables is located under the base of the Toe End of the Foot Pedal. This screw can be loosened just enough so that the Steering Cables can be pinched together between the Cable Anchor and Wrap Drum. Use a #3 Phillips Screwdriver to loosen this screw. Turning the screw approximately 8 turns counterclockwise should provide enough slack in the cables to adjust. Keep track of the number of turns the screw is unscrewed so it can be re-tightened accordingly later.



## ⚠ CAUTION

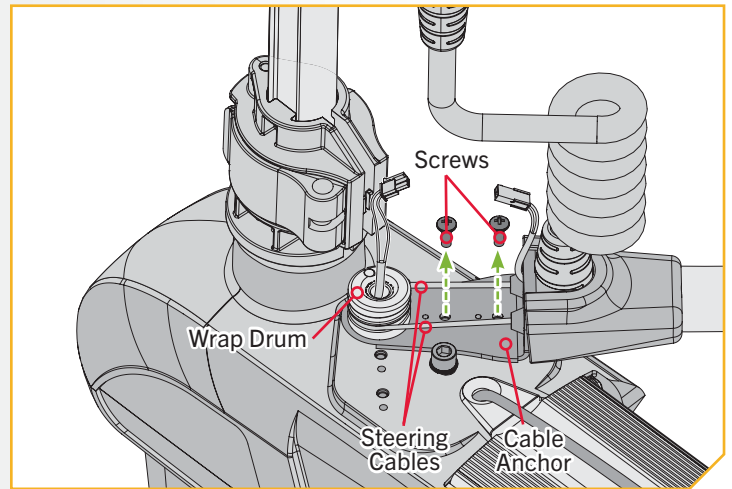
The Cable Tension Screw maintains proper mechanical tension on the Steering Cables within the assembly. Tightening this screw does not affect the resistance of the Foot Pedal when in use. Foot Pedal resistance is set from the factory. Over-loosening the Cable Tension Screw may cause the cables to disengage from the Wrap Drum.

**NOTICE:** The cables are fed through the Cable Anchor and wound around the Wrap Drum. The right cable is the shorter cable and begins winding on the Wrap Drum from the top down. The left cable is the longer cable and begins winding on the Wrap Drum from the bottom up.

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- g. The Cable Anchor functions to hold the Steering Cables in place. The cables run from the Cable Anchor and wrap around the Wrap Drum. The Cable Anchor is secured to the Steering Module with two screws. Remove these two #10-32 x 1/2" Screws that hold the Cable Anchor in place using a #2 Phillips Screwdriver.
- h. The Wrap Drum is set on the shaft of the Cable Gear that extends above the Steering Module. The female end of the electric wire passes out the top of the Cable Gear. The shaft of the gear that the Wrap Drum sits on is splined. To rotate the Pedal Control Sleeve Assembly, the Wrap Drum needs to be lifted off of the Cable Gear. Before the Wrap Drum can be lifted or aligned, the Steering Cables should be loosened.



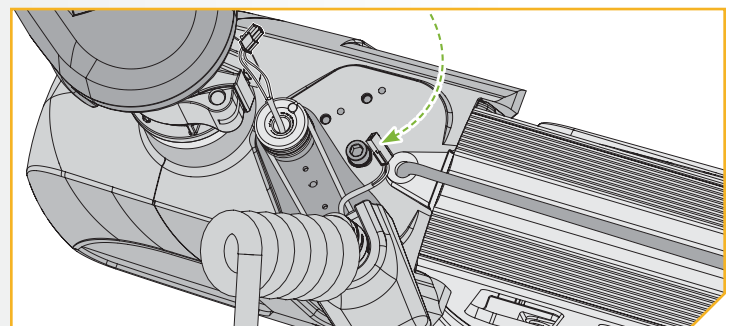
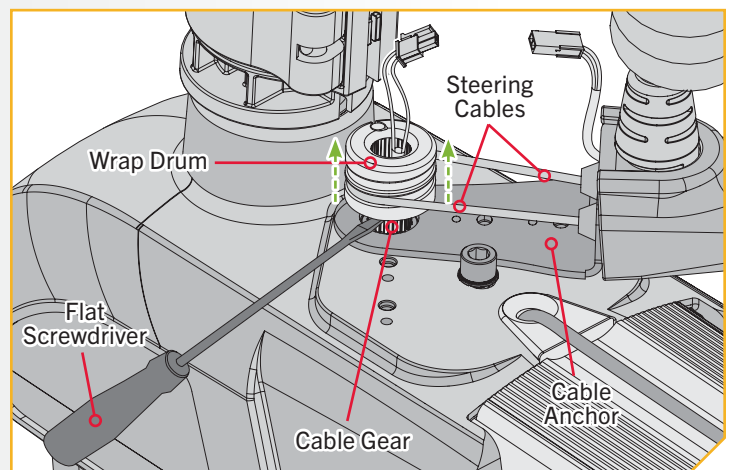
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- i. Once the Cable Tension Screw is loosened, and the screws are removed, carefully pry the Wrap Drum partially off by prying straight up, using a Flat Screwdriver. The Wrap Drum should only be lifted far enough up on the Cable Gear to rotate the Pedal Control Sleeve Assembly to the inboard or desired position. The Cable Anchor is in the correct position on the mount when it is mounted towards the inboard side of the mount.

### CAUTION

Only pry the Wrap Drum high enough on the Cable Gear to rotate the Cable Anchor and Pedal Control Sleeve Assembly to the correct position. If the Wrap Drum becomes unintentionally disengaged from the Cable Gear, the Steering Cables can become unwound and will need to be reassembled correctly for proper operation.

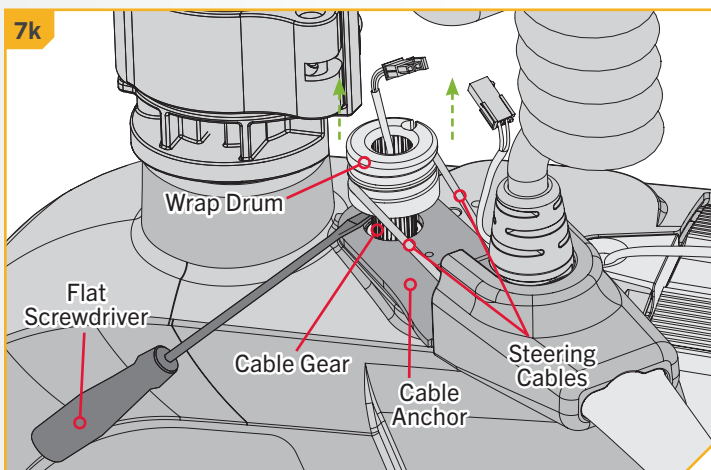
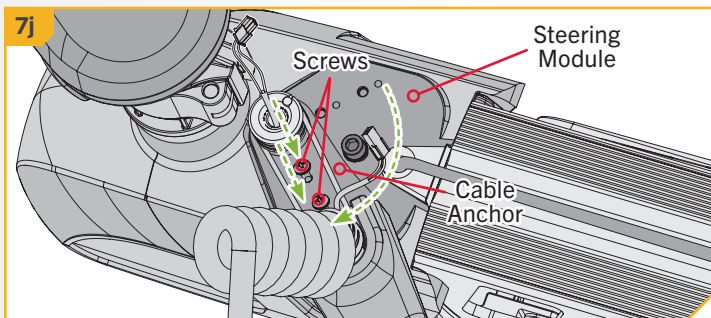
**NOTICE:** The top of the Wrap Drum has rounded and smooth edges. The bottom of the Wrap Drum is flat and the teeth that engage the Cable Gear are visible in the center.



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**7**

- j. Secure the Cable Anchor to the inboard side of the Steering Module by loosely securing the screws in place using a #2 Phillips Screwdriver.
- k. Once the Cable Anchor is secured, finish prying the Wrap Drum straight up, off of the Cable Gear until the Wrap Drum is free of the Cable Gear.

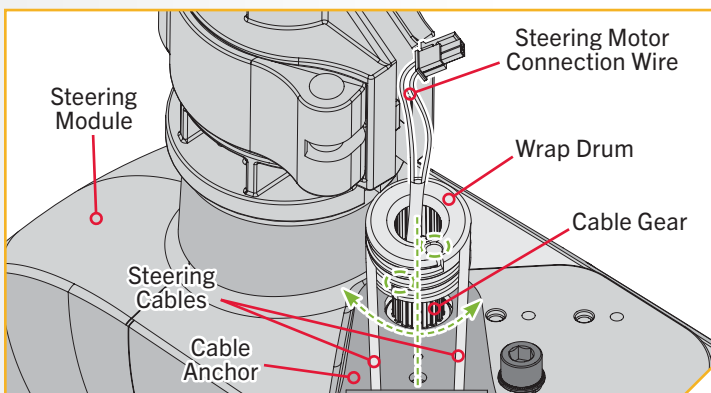


**⚠ CAUTION**

Care must be taken so that the Steering Cables remain on the Wrap Drum when it is disengaged from the Cable Gear. It is important that the Steering Cables follow the grooves on the Wrap Drum so that they do not become intertwined or pop off. Be sure that the electric wire is not damaged as the Wrap Drum is lifted.

**8**

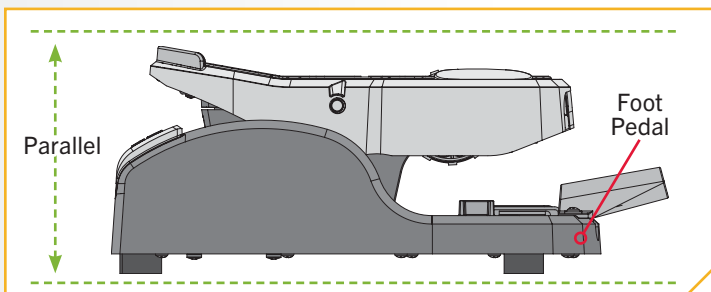
- i. While holding the Wrap Drum just above the Cable Gear, and maintaining tension on the Steering Cables, carefully rotate the Wrap Drum right or left until the top of the Foot Pedal is parallel with the deck of the boat. The proper position of the Wrap Drum will locate the anchors for each of the Steering Cables equidistant from the mid-line of the Cable Anchor where it is secured to the Steering Module.



**⚠ CAUTION**

Do not make this adjustment by applying pressure to the Foot Pedal. Rotate the Wrap Drum manually and use the Foot Pedal position as a guide to indicate the proper position of the Wrap Drum.

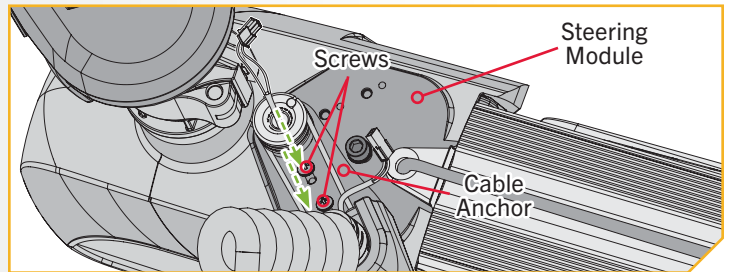
- m. Once the Foot Pedal is at the desired position, align the Wrap Drum with the nearest tooth on the splined shaft of the Cable Gear. Press the Wrap Drum securely down so that it is seated on top of the Cable Gear.



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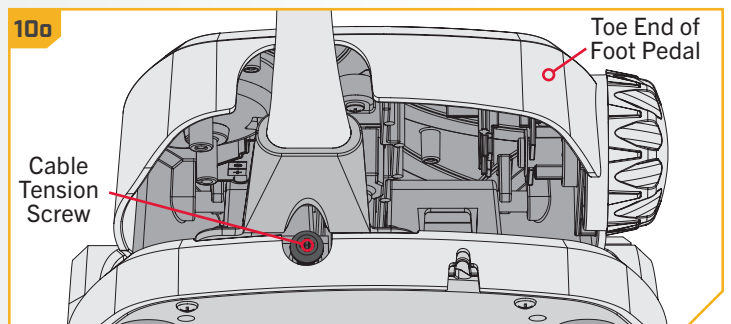
9

- n. Re-tighten the two screws that fasten the Cable Anchor to the top of the Steering Module using a #2 Phillips Screwdriver. Tighten to 25 in-lbs.



10

- o. Using a #3 Phillips screwdriver, tighten the Cable Tension Screw located at the base of the Toe End of the Foot Pedal to 10 - 12 in-lbs until the Steering Cables are under tension or re-tighten the same number of turns as was used in step 4f.

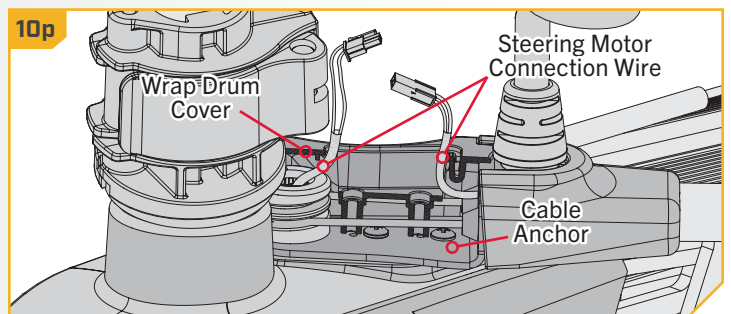


## ⚠ CAUTION

Do not over-tighten the Cable Tension Screw, as excessive tension will cause damage to the unit.

**NOTICE:** The Cable Tension Screw does not adjust pedal tension. Excessive tension on the Cable Tension Screw will not increase the operating tension of the Foot Pedal.

- p. Reconfirm that the Steering Cables are tight and then carefully thread the Steering Motor Connection Wire through the top of the Wrap Drum Cover. The male plug comes from the Cable Anchor through the opening at the bottom of the Wrap Drum Cover. The wire with the female plug that runs out the top of the Cable Gear should also be pulled through the opening at the bottom of the Wrap Drum Cover.

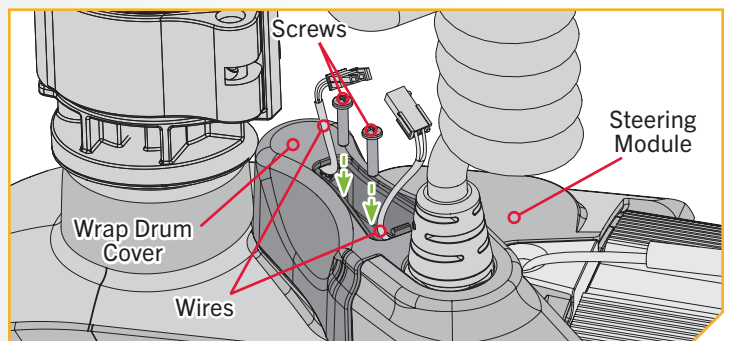


## ⚠ CAUTION

Take care not to pinch the Steering Motor Connection Wire while the Wrap Drum is set into place.

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- q. Place the Wrap Drum Cover down on top of the Cable Anchor and align the screw holes on it with the screw holes on the Cable Anchor. Make sure the Wrap Drum Cover is nested securely on top of the Steering Module and that the wires pass out the top of the Wrap Drum Housing. Secure the Wrap Drum Housing in place with the two screws that were originally removed using a #2 Phillips Screwdriver. Tighten to 6 in-lbs.



## PLACING THE BOW-MOUNT STABILIZER

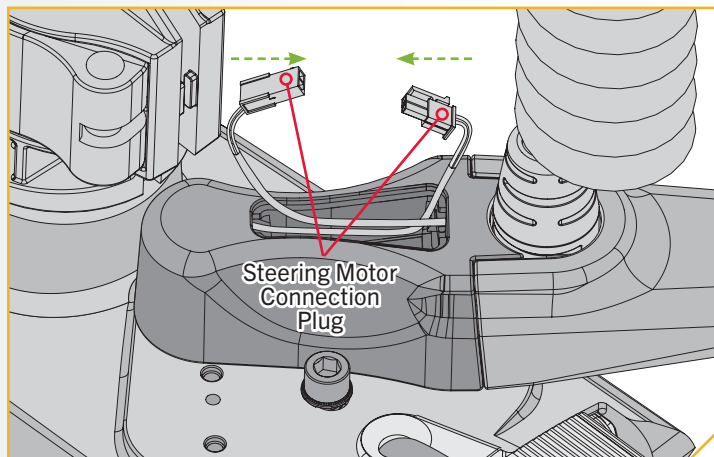
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- r. Reconnect the Steering Motor Connection Plug and push it into the Wrap Drum Cover.

### ⚠ CAUTION

Wires and plugs must not touch moving parts. Wires may be damaged if caught in moving parts.

- s. Orientate the wires connecting the Steering Motor Connection Plug as noted so that the wires do not touch moving parts.
- t. Replace the Connector Cover.



## Placing the Bow-Mount Stabilizer

The Bow-Mount Stabilizer Bracket is used to stabilize the Steering Module and reduce bouncing when the motor is stowed and transported. Attention to detail is needed for successful installation of the stabilizer. It is recommended to have the stabilizer bracket installed by a qualified marine installer.

### ⚠ CAUTION

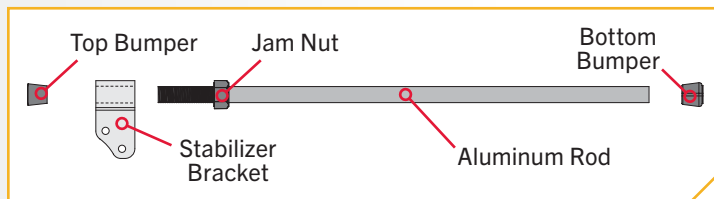
Adjusting the Aluminum Rod too tightly removes the end play needed for proper latch pin engagement, and doing so could prevent the mount from fully latching in the stowed position. Improper latching may cause damage. If installed correctly, the tip of the Aluminum Rod should lift off of the boat deck about 1/4" without the mount unlatching. Cutting the Aluminum Rod too short will cause inadequate support of the mount. Lack of mount support may cause damage.

1

#### ITEM(S) NEEDED

- #11 x 1
-  #14 x 1
-  #12 x 1
-  #13 x 1
- #15 x 1
- ⊙ #16 x 2

- a. Place the motor in the stowed position.
- b. Un-thread the Aluminum Rod (Item #12) from the Stabilizer Bracket (Item #14) by removing the Top Bumper (Item #15) and unscrewing the bracket. Also remove the Bottom Bumper (Item #11). Keep the Jam Nut (Item #13) in place.



**NOTICE:** The Bow-Mount Stabilizer Bracket can be installed on the left or right side of the Steering Module. When mounting the bracket onto the Ultrex, the two Nylock Nuts (Item #16) are discarded because the bolts are secured directly into the Steering Module.

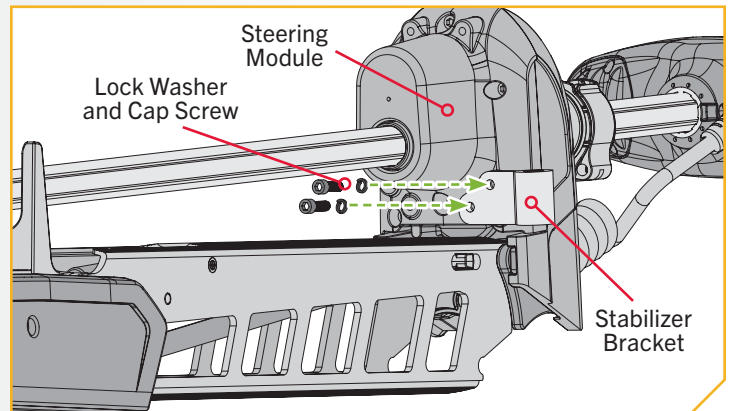
## PLACING THE BOW-MOUNT STABILIZER

2

### ITEM(S) NEEDED

▮ #17 x 2    ◦ #18 x 2

- c. Determine the desired orientation of the Stabilizer Bracket and attach it to the bottom of the Steering Module. Place a Lock Washer (Item #18) on each of the two 5/16" Cap Screws (Item #17).
- d. Use the 5/16" Cap Screws to secure the Stabilizer Bracket to the Steering Module and tighten with a 1/4" Allen Wrench. Tighten to 10 ft-lbs.



3

- e. Measure the proper length of the Aluminum Rod by standing it, with the threaded end down, onto the deck surface so that it sits vertically right next to the Stabilizer Bracket.
- f. Mark the Aluminum Rod with a pencil or marker 3/4" past the top of the Stabilizer Bracket.

### CAUTION

Cutting the Aluminum Rod too short will cause inadequate support of the mount. Lack of mount support may cause damage.

- g. Cut the Aluminum Rod with a Hack Saw at the mark. Round the cut edge of the rod with a file or sandpaper to remove any sharp edges.

