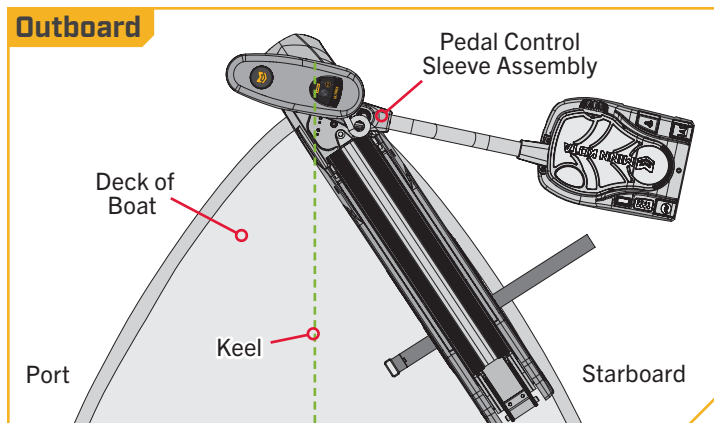
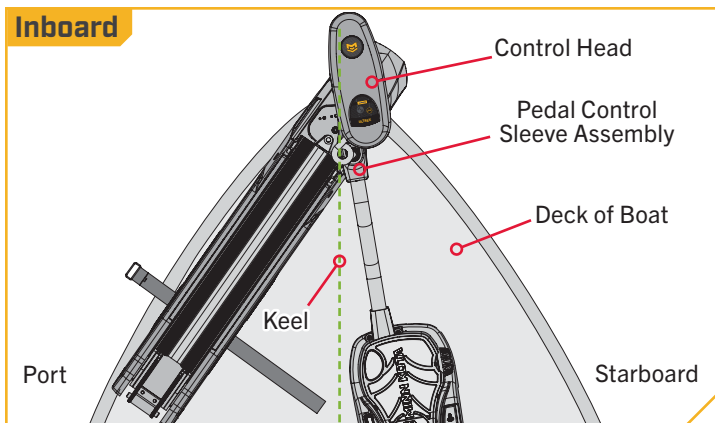


# INDEXING THE MOTOR

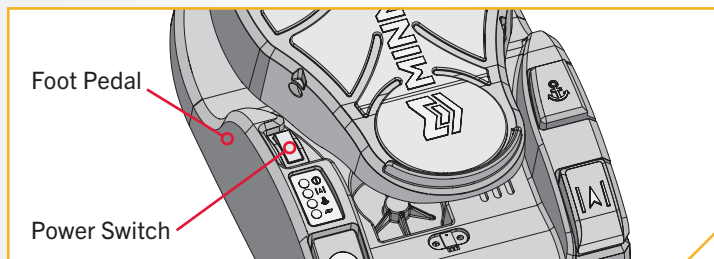
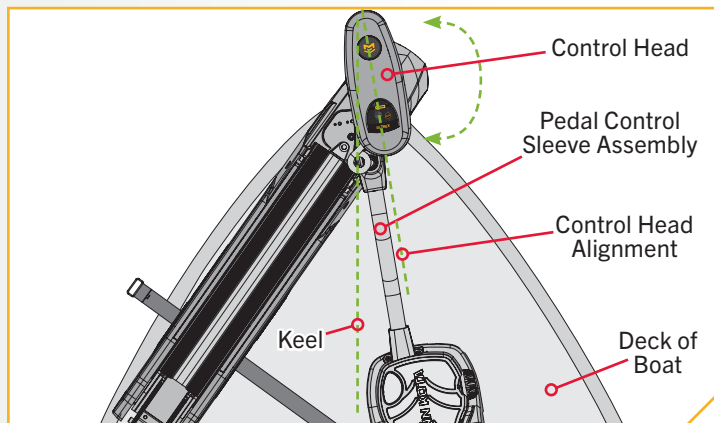
## › Indexing the Motor

It is recommended to have the Pedal Control Sleeve Assembly pointing inboard. Your Ultrex motor comes from the factory designed to be installed on the port side of the bow. If the Pedal Control Sleeve Assembly points outboard, please see the section "Rotate the Pedal Control Sleeve Assembly for a Starboard Mount." Use the following instructions to index the motor if the Pedal Control Sleeve Assembly is already mounted inboard.

Once installed, the system is properly indexed 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.



- 1 a. 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 Control Head 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.

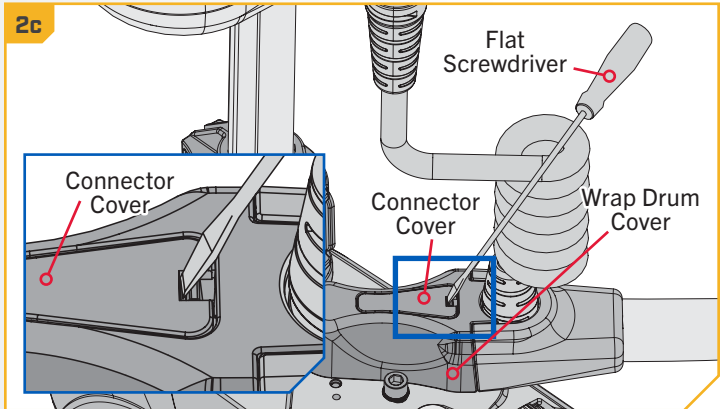


### **WARNING**

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

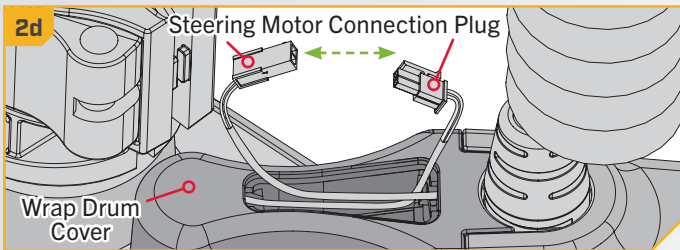
**2**

- 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, very carefully disconnect the Steering Motor Connection Plug that is visible.



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

**2d**

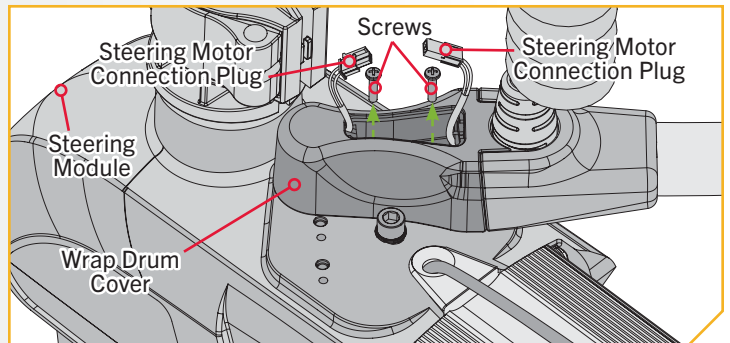


**3**

- 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**

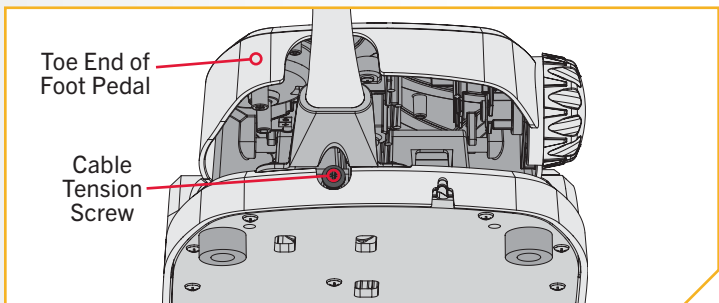
Be careful not to damage the Steering Motor Connection Plug ends.



## INDEXING THE MOTOR

4

- 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.



**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.

### CAUTION

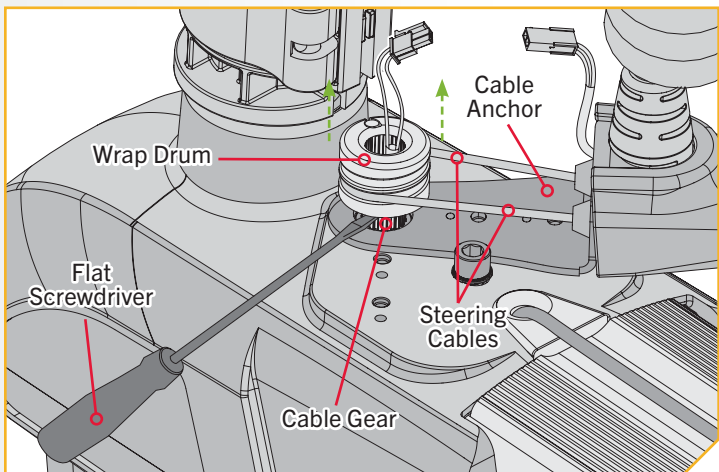
The Cable Tension Screw maintains proper mechanical tension on the Steering Cables within the assembly. Tightening this screw does not affect the resistance of the Foot Pedal when in use. Foot Pedal resistance is set from the factory. Over-loosening the Cable Tension Screw may cause the cables to disengage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

5

- g. Once the Cable Tension Screw is loosened, pry the Wrap Drum straight up off of the Cable Gear using a Flat Screwdriver, 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.



6

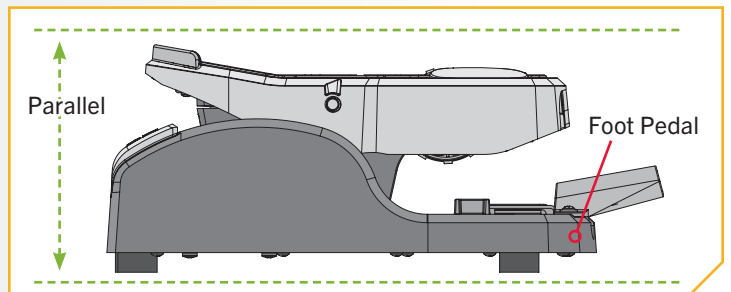
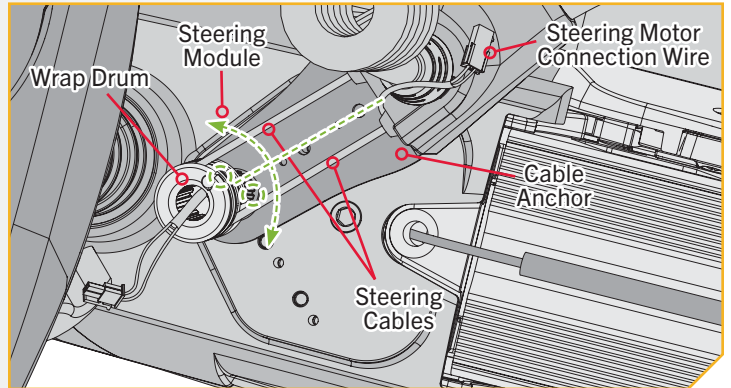
- h. While holding the Wrap Drum just above the Cable Gear, and maintaining tension on the Steering Cables, carefully rotate the Wrap Drum right or left until the top of the Foot Pedal is parallel with the deck of the boat. The proper position of the Wrap Drum will locate the anchors for each of the 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.

- i. 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. At this point, the head of the motor should be parallel with the keel of the boat and the top of the foot pedal should be parallel with the deck of the boat.

**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.



## ⚠ CAUTION

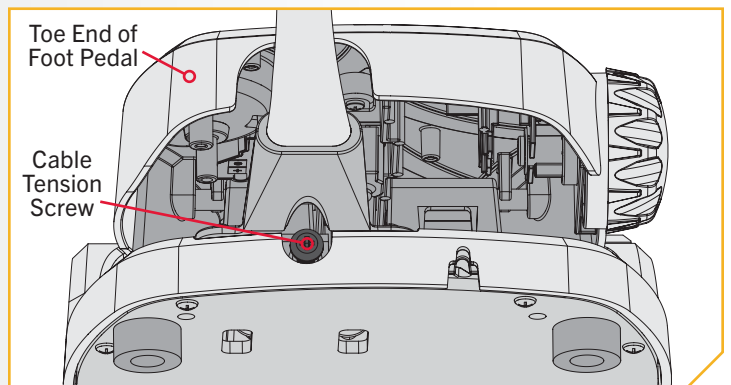
If the Wrap Drum becomes unintentionally disengaged from the Cable Gear, the Steering Cables can become unwound and will need to be reassembled correctly for proper operation.

7

- j. 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. 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.





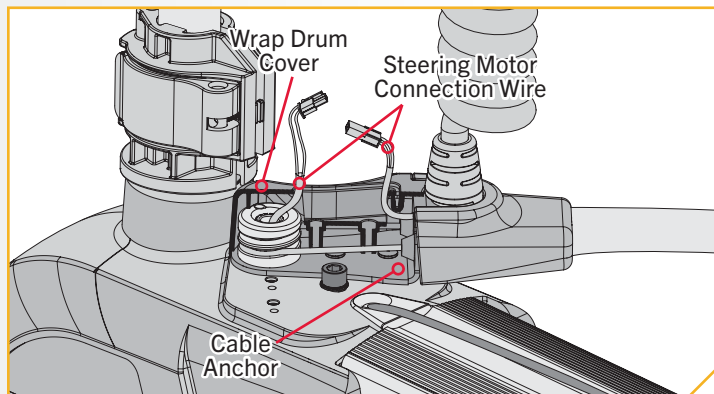
## INDEXING THE MOTOR

8

- k. 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.

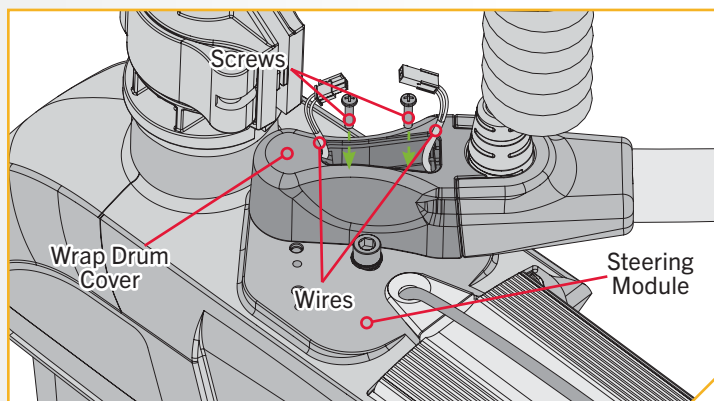
### CAUTION

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



9

- i. 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.



10

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

### CAUTION

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

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

