



# ULTREX<sup>®</sup> QUEST<sup>™</sup>

BOW-MOUNT TROLLING MOTOR

Owner's Manual

# INTRODUCTION

## THANK YOU

Thank you for choosing Minn Kota. We believe that you should spend more time fishing and less time positioning your boat. That's why we build the smartest, toughest, most intuitive trolling motors on the water. Every aspect of a Minn Kota trolling motor is thought out and rethought until it's good enough to bear our name. Countless hours of research and testing provide you the Minn Kota advantage that can truly take you "Anywhere. Anytime." We don't believe in shortcuts. We are Minn Kota. And we are never done helping you catch more fish.

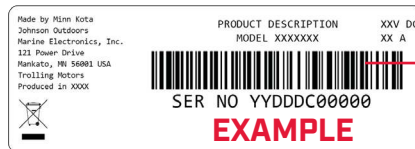
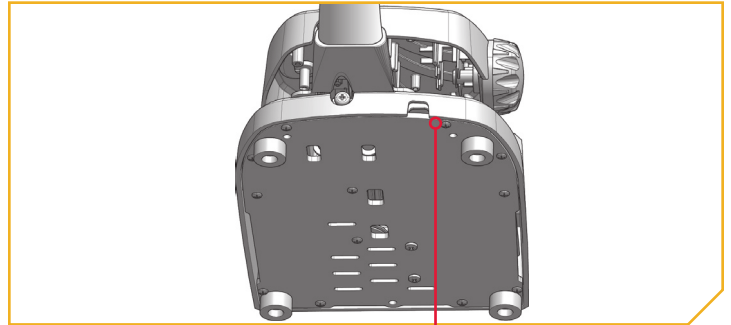
## REGISTRATION

Remember to keep your receipt and immediately register your trolling motor on our website at [minnkota.johnsonoutdoors.com/register](http://minnkota.johnsonoutdoors.com/register).

## SERIAL NUMBER

Your Minn Kota 11-character serial number is very important. It helps to determine the specific model and year of manufacture. When contacting consumer service or registering your product, you will need to know your product's serial number.

**NOTICE:** The serial number on the Ultrex QUEST is located under the base of the foot pedal.



## MOTOR INFORMATION (For Consumer Reference Only)

Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

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

**NOTICE:** Do not return your Minn Kota motor to your retailer. Your retailer is not authorized to repair or replace this unit. You may obtain service by: calling Minn Kota at (800) 227-6433; returning your motor to the Minn Kota Factory Service Center; sending or taking your motor to any Minn Kota authorized service center. A list of authorized service centers is available on our website, at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com). Please include proof of purchase, serial number and purchase date for warranty service with any of the above options.

Made for iPhone® 11 and iPhone X

For updated iOS, Humminbird® and Minn Kota® compatibility, visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com)



Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. iPhone is a trademark of Apple Inc., registered in the U.S. and other countries. The trademark "iPhone" is used in Japan with a license from Aiphone K.K.

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# SAFETY CONSIDERATIONS

Please thoroughly read the user manual. Follow all instructions and heed all safety and cautionary notices. Use of this motor is only permitted for persons that have read and understood these user instructions. Minors may use this motor only under adult supervision.

## **WARNING**

You are responsible for the safe and prudent operation of your vessel. We have designed your Minn Kota product to be an accurate and reliable tool that will enhance boat operation and improve your ability to catch fish. This product does not relieve you from the responsibility for safe operation of your boat. You must avoid hazards to navigation and always maintain a permanent watch so you can respond to situations as they develop. You must always be prepared to regain manual control of your boat. Learn to operate your Minn Kota product in an area free from hazards and obstacles.

## **WARNING**

Never run the motor out of the water, as this may result in injuries from the rotating propeller. The motor should be disconnected from the power source when it is not in use or is off the water. When connecting the power-supply cables of the motor to the battery, ensure that they are not kinked or subject to chafe and route them in such a way that persons cannot trip over them. Before using the motor make sure that the insulation of the power cables is not damaged. Disregarding these safety precautions may result in electric shorts of battery(s) and/or motor. Always disconnect motor from battery(s) before cleaning or checking the propeller. Avoid submerging the complete motor as water may enter the lower unit through control head and shaft. If the motor is used while water is present in the lower unit considerable damage to the motor can occur. This damage will not be covered by warranty.

## **WARNING**

Take care that neither you nor other persons approach the turning propeller too closely, neither with body parts nor with objects. The motor is powerful and may endanger or injure you or others. While the motor is running watch out for persons swimming and for floating objects. Persons whose ability to run the motor or whose reactions are impaired by alcohol, drugs, medication, or other substances are not permitted to use this motor. This motor is not suitable for use in strong currents. The constant noise pressure level of the motor during use is less than 70dB(A). The overall vibration level does not exceed 2,5 m/sec<sup>2</sup>.

## **WARNING**

When stowing or deploying the motor, keep fingers clear of all hinge and pivot points and all moving parts. In the event of unexpected operation, remove power leads from the battery.

## **WARNING**

It is recommended to only use Johnson Outdoors approved accessories with your Minn Kota motor. Using non-approved accessories including to mount or control your motor may cause damage, unexpected motor operation and injury. Be sure to use the product and approved accessories, including remotes, safely and in the manner directed to avoid accidental or unexpected motor operation. Keep all factory installed parts in place including motor and accessory covers, enclosures and guards.



** WARNING**

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH** of **CHILDREN**
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



1. This product contains a button/coin cell battery. Heed all safety considerations:
  - a) Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
  - b) Even used batteries may cause severe injury or death.
  - c) Call a local poison control center for treatment information.
  - d) The compatible battery type is CR2450.
  - e) The nominal battery voltage is 3.0 VDC.
  - f) Non-rechargeable batteries are not to be recharged.
  - g) Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
2. This product contains a replaceable button/coin cell battery. Heed all safety considerations:
  - a) Ensure the batteries are installed correctly according to polarity (+ and -).
  - b) Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
  - c) Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
  - d) Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

# WARRANTY

## WARRANTY ON MINN KOTA ULTREX FRESHWATER TROLLING MOTORS

Johnson Outdoors Marine Electronics, Inc. ("JOME") extends the following limited warranty to the original retail purchaser only. Warranty coverage is not transferable.

### Minn Kota Limited Two-Year Warranty on the Entire Product

JOME warrants to the original retail purchaser only that the purchaser's new Minn Kota freshwater trolling motor will be materially free from defects in materials and workmanship appearing within two (2) years after the date of purchase. JOME will (at its option) either repair or replace, free of charge, any parts found by JOME to be defective during the term of this warranty. Such repair, or replacement shall be the sole and exclusive liability of JOME and the sole and exclusive remedy of the purchaser for breach of this warranty.

### Minn Kota Limited Lifetime Warranty on Composite Shaft and Foot Pedal Cables

JOME warrants to the original retail purchaser only that the composite shaft and foot pedal cables of the purchaser's Minn Kota trolling motor will be materially free from defects in materials and workmanship appearing within the original purchaser's lifetime. JOME will provide a new composite shaft and/or foot pedal cable, free of charge, to replace any composite shaft and/or foot pedal cable found by JOME to be defective during the term of this warranty. Providing new components shall be the sole and exclusive liability of JOME and the sole and exclusive remedy of the purchaser for breach of this warranty; and the purchaser shall be responsible for installing, or for the cost of labor to install, any new composite shaft and/or foot pedal cable provided by JOME.

### Exclusions & Limitations

This limited warranty does not apply to products that have been used in saltwater or brackish water, commercially or for rental purposes. This limited warranty does not cover normal wear and tear, blemishes that do not affect the operation of the product, or damage caused by accidents, abuse, alteration, modification, shipping damages, negligence of the user or misuse, improper or insufficient care or maintenance. **DAMAGE CAUSED BY THE USE OF OTHER REPLACEMENT PARTS NOT MEETING THE DESIGN SPECIFICATIONS OF THE ORIGINAL PARTS WILL NOT BE COVERED BY THIS LIMITED WARRANTY.** The cost of normal maintenance or replacement parts which are not in breach of the limited warranty are the responsibility of the purchaser. Prior to using products, the purchaser shall determine the suitability of the products for the intended use and assumes all related risk and liability. Any assistance JOME provides to or procures for the purchaser outside the terms, limitations or exclusions of this limited warranty will not constitute a waiver of the terms, limitations or exclusions, nor will such assistance extend or revive the warranty. JOME will not reimburse the purchaser for any expenses incurred by the purchaser in repairing, correcting or replacing any defective products or parts, except those incurred with JOME's prior written permission. **JOME'S AGGREGATE LIABILITY WITH RESPECT TO COVERED PRODUCTS IS LIMITED TO AN AMOUNT EQUAL TO THE PURCHASER'S ORIGINAL PURCHASE PRICE PAID FOR SUCH PRODUCT.**

### Minn Kota Service Information

To obtain warranty service in the U.S., the product believed to be defective, and proof of original purchase (including the date of purchase), must be presented to a Minn Kota Authorized Service Center. Go to [minnkota.johnsonoutdoors.com/support/service-providers/locate](http://minnkota.johnsonoutdoors.com/support/service-providers/locate) to find a Minn Kota Authorized Service Center. Any charges incurred for service calls, transportation or shipping/freight to/from the Minn Kota Authorized Service Center, labor to haul out, remove, re-install or re-rig products removed for warranty service, or any other similar items are the sole and exclusive responsibility of the purchaser. Products purchased outside of the U.S. must be returned prepaid with proof of purchase (including the date of purchase and serial number) to any Authorized Minn Kota Service Center in the country of purchase. To contact Minn Kota Customer Service go to [minnkota-help.johnsonoutdoors.com](http://minnkota-help.johnsonoutdoors.com). Products repaired or replaced will be warranted for the remainder of the original warranty period, or for 90 days from the date of repair or replacement, whichever is longer. For any product that is returned for warranty service that JOME finds to be not covered by or not in breach of this limited warranty, there will be a billing for services rendered at the prevailing labor rate of the applicable Minn Kota Authorized Service Center and for a minimum of at least one hour.

Service Provider  
Locator



Contact Customer  
Service

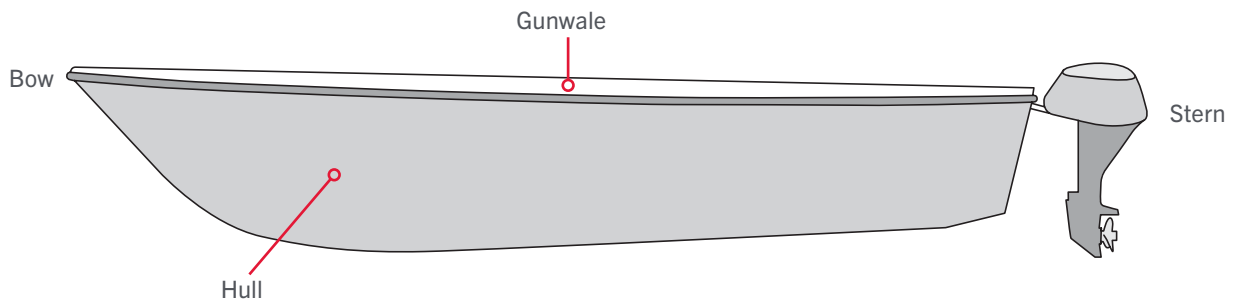
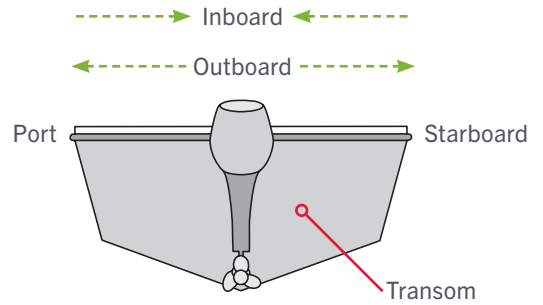
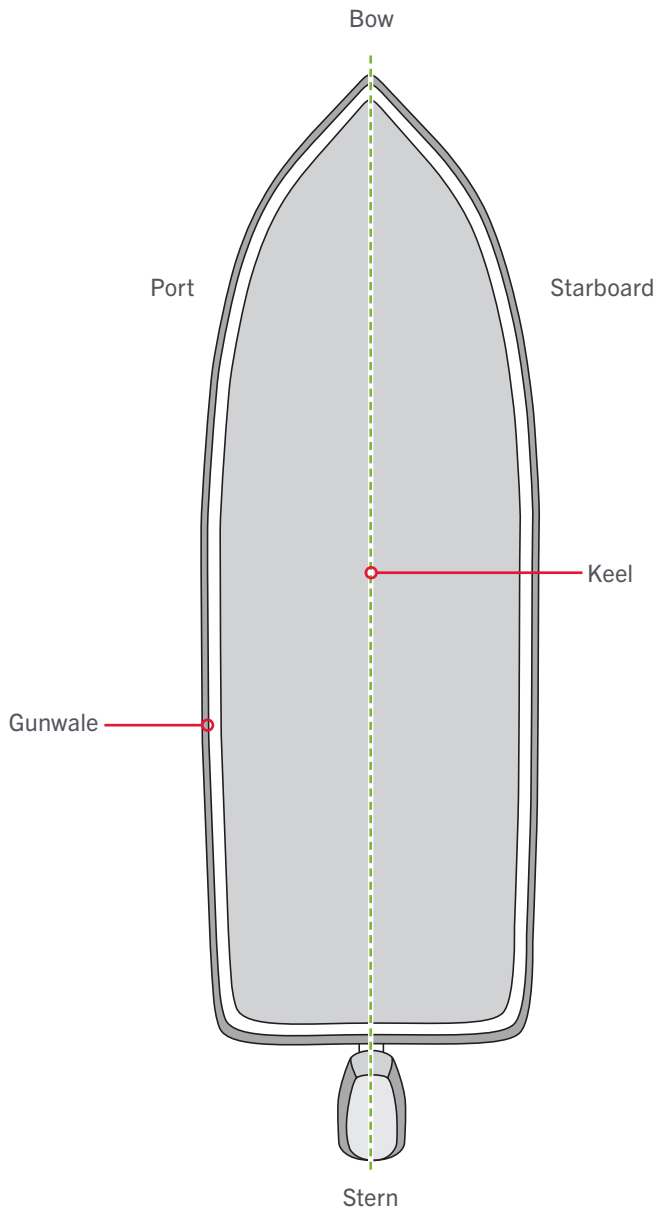


**NOTICE:** Do not return your Minn Kota product to your retailer. Your retailer is not authorized to repair or replace products.

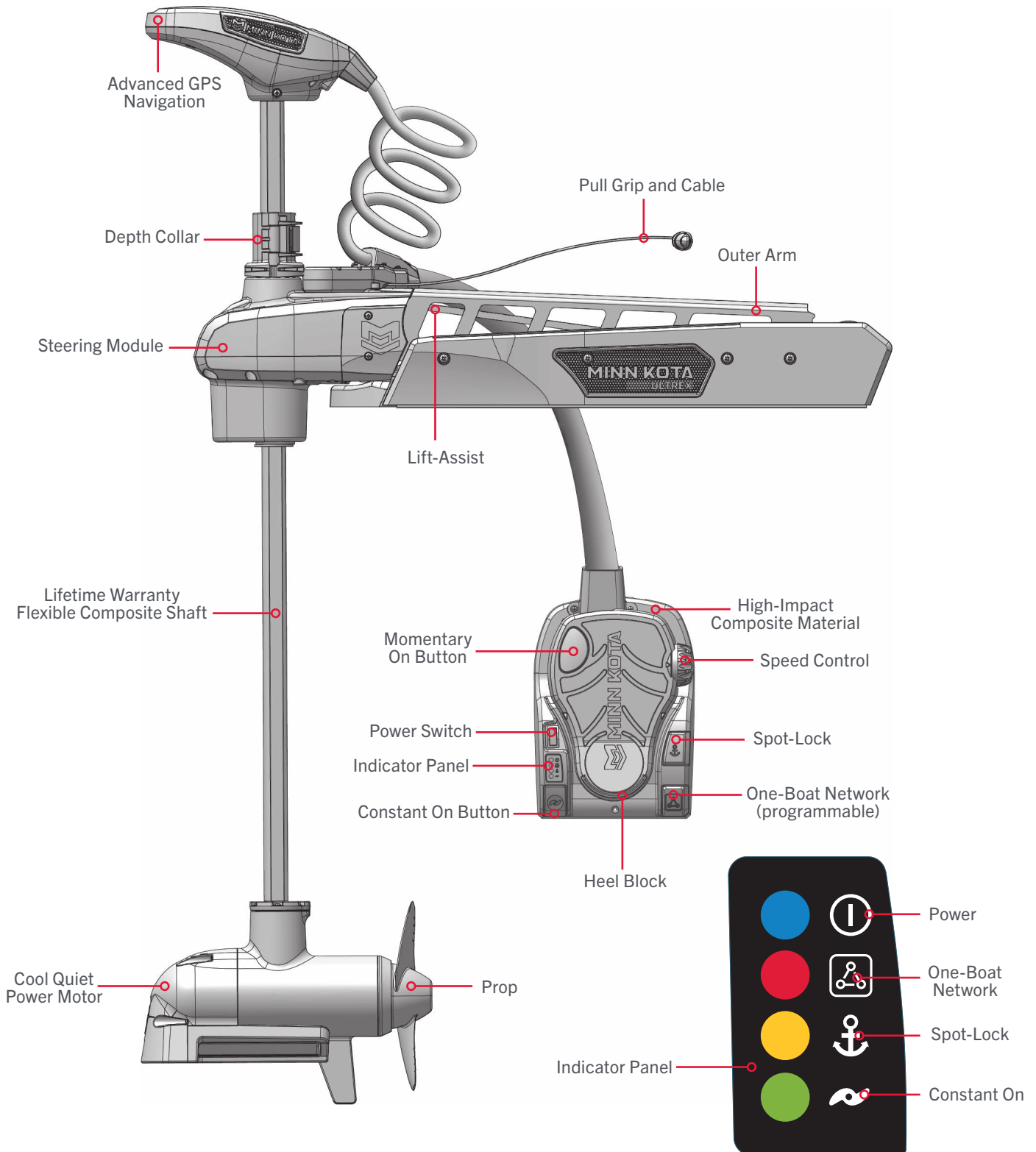
**NOTICE:** THERE ARE NO EXPRESS WARRANTIES OTHER THAN THESE LIMITED WARRANTIES. IN NO EVENT SHALL ANY IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, EXTEND BEYOND THE DURATION OF THE RELEVANT EXPRESS LIMITED WARRANTY. IN NO EVENT SHALL JOME BE LIABLE FOR PUNITIVE, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES. Without limiting the foregoing, JOME assumes no responsibility for loss of use of product, loss of time, inconvenience or other damage.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and/or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

# KNOW YOUR BOAT



# FEATURES



**NOTICE:** Specifications subject to change without notice. This diagram is for reference only and may differ from your actual motor.



# INSTALLATION

## INSTALLING THE ULTREX QUEST

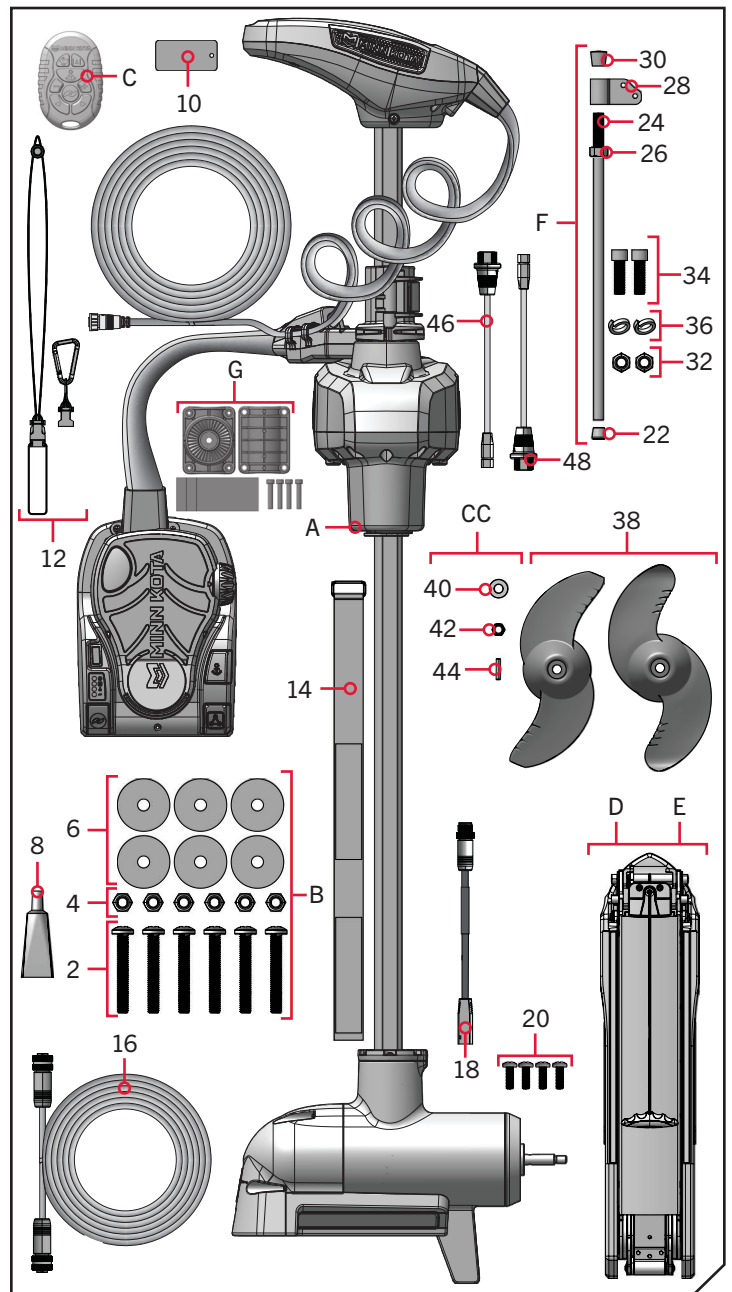
Your new Ultrex QUEST comes with everything you'll need to install it to the boat. This motor can be directly mounted to the boat or coupled with a Minn Kota quick release bracket for ease of mounting and removal. For installation with a quick release bracket, refer to the installation instructions provided with the bracket. For compatible quick release mounting brackets and to locate your nearest dealer, visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com). To install the motor directly to the boat, please follow the instructions provided in this manual. Please review the parts list, mounting considerations and tools needed for installation prior to getting started. For additional product support, please visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

### INSTALLATION PARTS LIST

Item/ Assembly	Part #	Description	Qty.
A	*	MOTOR ASSEMBLY	1
B	2994947	BAG ASM, ULTREX 2 HARDWARE	1
Includes 2-8			
2	2293406	SCREW-5/16-18X 2.25" PPH SS	6
4	2223100	NUT-5/16-18 NULOCK S/S	6
6	2291701	WASHER-5/16X 1.5 FLAT SS	6
8	2378608	ANTI SEIZE TUBE, 4CC	1
10	2394110	TAG, MICRO REMOTE	1
C	2994175	REMOTE ASM, MICRO REMOTE	1
12	2390802	LANYARD W/CARABINER, IP RMT	1
14	2263806	STRAP-HLD DWN, 33", HOOK&LP	1
16	490384-4	CABLE, ETHERNET (M12-M12) 30'	1
18	490380-1	CABLE, ETHERNET PIGTAIL-700 HD	1
20	2373434	SCREW-1/4-20 X 3/4 SS PPMS	4
D	2991665	MOUNT ASM, UTX, FW, SHORT	1
E	2991666	MOUNT ASM, UTX, FW, LONG	1
F	2991925	BRACKET STABLZR ARM ASY	1
Includes 22-36			
22	2265100	BUMPER STABILIZER	1
24	2263624	STABILIZER ROD	1
26	2263107	NYLON HEX NUT 3/4 - 10 UNC	1
28	2281929	BRACKET	1
30	2260221	VINYL CAP	1
32	2223100	NUT 5/16-18 NYLOCS SS	2
34	2263422	BOLT 5/16-18 X 1" SS CAP SCREW	2
36	2281700	5/16" ID X .457 OD HIGH COLLAR LOCK WASHER	2
38	2321162	PROP WW2 BRUSHLESS MACHINED	1
	2321170	PROP, POWER REAMED	1
CC	2992604	BAG ASSM, PROP HARDWARE	1
Includes 40-44			
40	2091701	WASHER-PROP (LARGE)	1
42	2093101	NUT-PROP NYLOC, LG, MX101 3/8 SS	1
44	2262658	PIN-DRIVE 1" 3/16" S/S	1
46	2994960	BAG ASM, CABLE ADPT, 490518-1 *490518-1* *MKR-MDI-2*	1
48	2994961	BAG ASM, CABLE ADPT, 490537-2 *490537-2* *MKR-MI-1*	1
G	540321-1	HDWE, BGD, 1.5" SHAFT MNT-ML *HUMMINBIRD 360 BRACKET ADAPTER*	1
▲	2997167	INSTALL GUIDE, ULTREX 2	1
▲	2297166	MANUAL, ULTREX 2	1
▲	2297165	MANUAL-DISCLAIMER, DWNLOAD INFO	1
▲	2394912	QCK REF.GUIDE, IP MICRO RMT BT	1
▲	2394910	INSTRUC. SHEET, MICRO REMO	1
▲	2294950	INSTRUCT, OBN & REMOTE PAIR	1
▲	2207130	BRUSHLESS QS SETUP GUIDE	1

▲ Not shown on Parts Diagram.

\* This part is included in an assembly and cannot be ordered individually.



# ASSEMBLY OF STEERING MODULE TO MOUNT

## MOUNTING CONSIDERATIONS

It is recommended that the motor be mounted as close to the keel or centerline of the boat as possible. Make sure the area under the mounting location is clear to drill holes and install nuts and washers. Make sure the motor rest is positioned far enough beyond the edge of the boat. The motor must not encounter any obstructions as it is lowered into the water or raised into the boat when stowed and deployed. Consider a quick release or adapter bracket with the installation of your motor. To view a list of accessories, please visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).



View accessories available for your trolling motor at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

## TOOLS AND RESOURCES REQUIRED

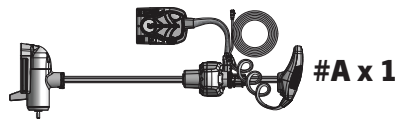
- #2 Phillips Screwdriver
- #3 Phillips Screwdriver
- #4 Phillips Screwdriver
- 1/4" Allen Wrench
- Drill
- 21/64" Drill Bit
- 1/2" Box End Wrench
- Torque Wrench
- A person to help with installation
- File or Sandpaper
- Hack Saw
- Marker or Pencil
- 1/8" Flat-Blade Screwdriver
- Ruler or Measuring Tool
- 9/16" Open End Wrench
- 9/16" Deep Well Socket
- 5/64" Allen Wrench

## INSTALLATION

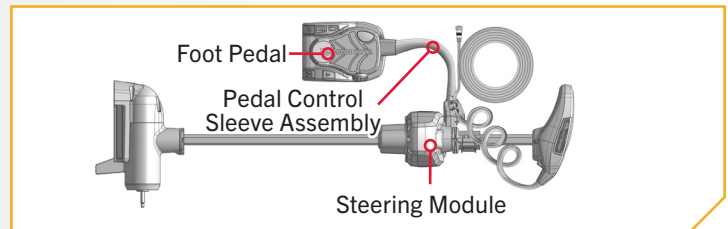
### Assembly of Steering Module to Mount

1

#### ITEM(S) NEEDED

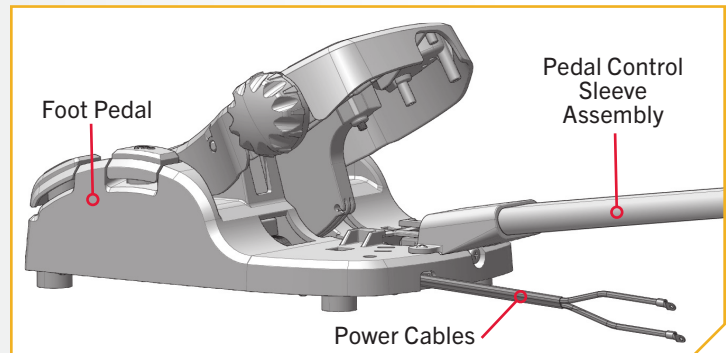


- a. The Power Cables for the Ultrex QUEST trolling motor exit the Foot Pedal. The Foot Pedal is a part of the Motor Assembly (Assembly #A) and is attached to the Steering Module by way of the Pedal Control Sleeve Assembly. Before beginning installation of the trolling motor, confirm that the trolling motor Power Cables are not connected to a power source.



## WARNING

Avoid the risk of electric shock or unexpected motor operation. Always make sure the Power Cables are not connected to a power source before beginning installation.



# ASSEMBLY OF STEERING MODULE TO MOUNT

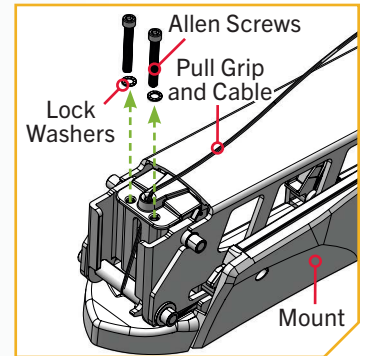
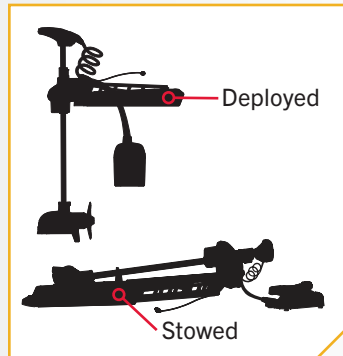
2

## ITEM(S) NEEDED



#D x 1 or #E x 1

- b. Place the Mount (Assembly #D or #E) on an elevated, level surface such as a workbench or the tailgate of a pickup. The Mount, as removed from the box, should be in the deployed position.
- c. Locate the two 5/16" Allen Screws and Lock Washers. They are on the top of the Mount. One set is positioned on each side of the location where the Pull Grip and Cable exit the Mount. Remove the two 5/16" Allen Screws and Lock Washers from the Mount using a 1/4" Allen Wrench.



3

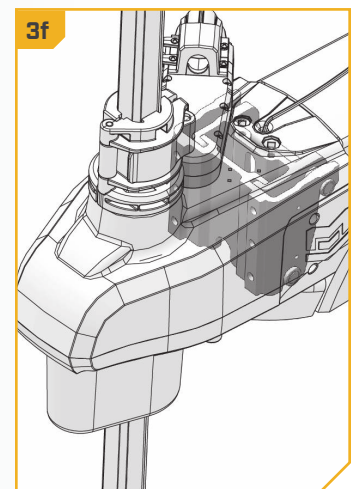
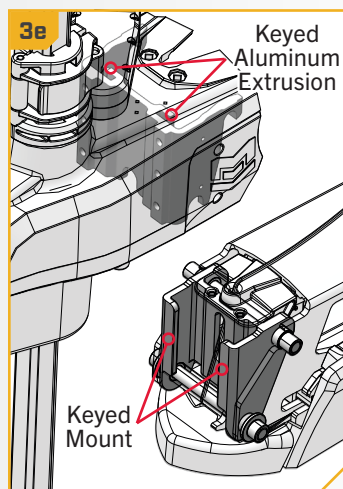
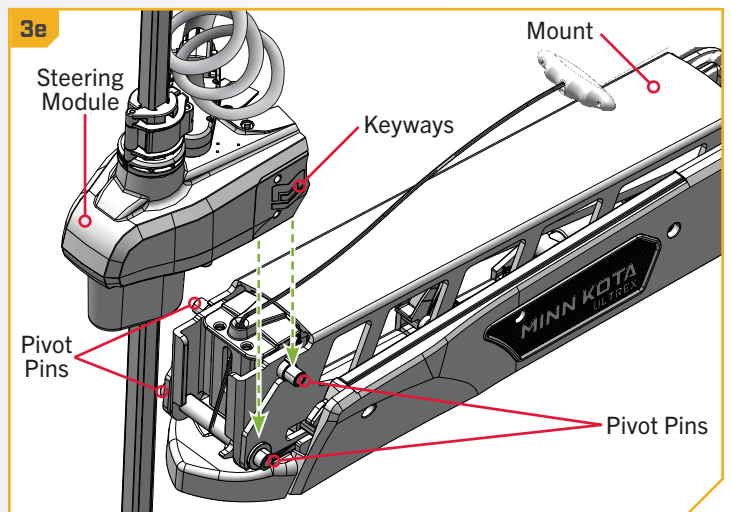
- d. Before installing the Mount to the boat, install the Steering Module to the Mount. Ensure the Mount is positioned flat.



## WARNING

Place the trolling motor on a level surface to prevent it from falling.

- e. Take the Steering Module and align the Keyways on the inside of the Steering Module with the Pivot Pins on the Mount. Do this by positioning the Steering Module above the Pivot Pins on the Mount. The aluminum extrusion on the inside of the Steering Module is keyed with the end of the Mount. In order for the Steering Module to fully seat, all points of contact between the Steering Module and Mount must align.
- f. Lower the Motor Assembly straight down until the Steering Module is seated.



# ASSEMBLY OF STEERING MODULE TO MOUNT

4

- g. Ensure the Steering Module is fully seated before securing.

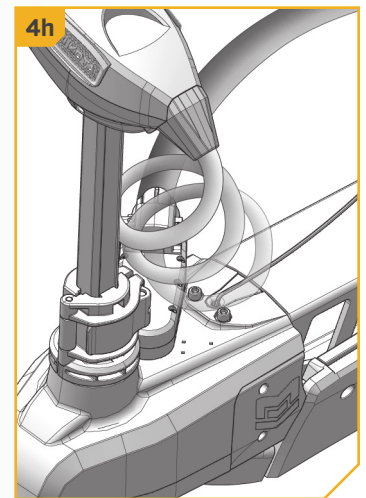
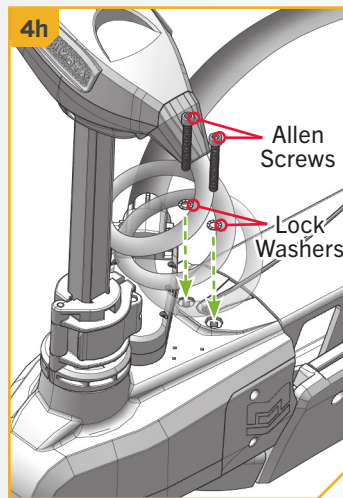
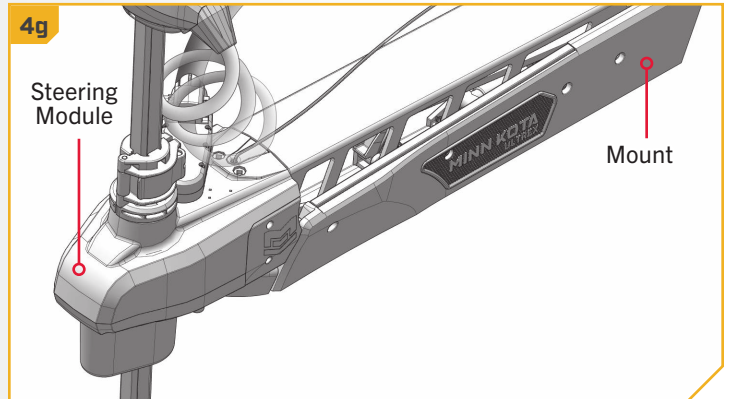


## WARNING

Carefully lower the Steering Module into place to avoid creating a pinch point between the Steering Module and Mount.

- h. Reinstall the two 5/16" Allen Screws and Lock Washers with a 1/4" Allen Wrench and tighten to 18 to 20 ft-lbs with a Torque Wrench.

**NOTICE:** The 5/16" Allen Screws must be tightened when installed and periodically tightened to 18 to 20 ft-lbs. Tighten the Allen Screws when the Mount is in the deployed position.



# INSTALLING THE BOW-MOUNT

## › Installing the Bow-Mount

With the Steering Module installed on the Mount, the Mount can be secured to the bow of the boat. The Mount is not yet fully functional until the two Gas Springs inside the Mount are installed. It is recommended to install the motor to the boat deck before securing the Gas Springs. The Gas Springs work to enable Lift-Assist and are located inside the Outer Arm, a part of the Mount. At this point in the installation, the Gas Springs are not fully assembled and may move around inside the Mount when stowing and deploying the motor. The Gas Springs can become damaged while deploying the motor, and the damage will prevent the Lift-Assist feature from operating correctly once fully assembled. Handle the motor carefully to ensure that the Gas Springs are not damaged in the Mount during installation.

**CAUTION**

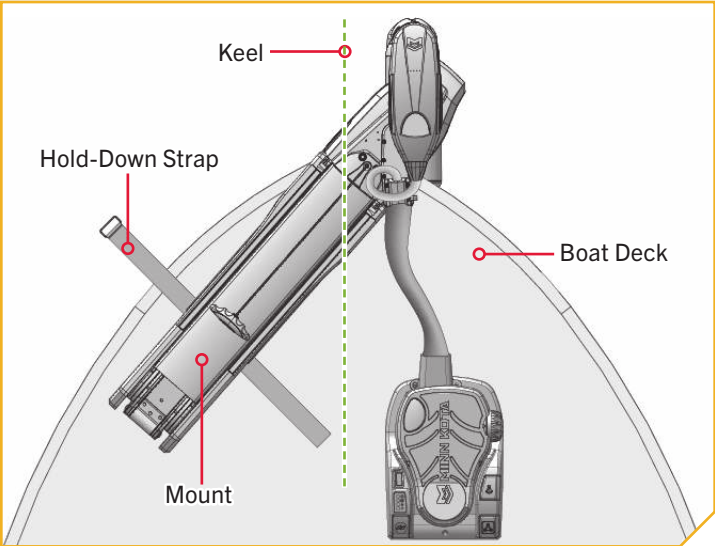
The two Gas Springs can become damaged in the Mount while stowing or deploying the motor because they are not yet fully installed. Damage to the Gas Springs will prevent the Lift-Assist feature from operating correctly once fully assembled. Ensure that the Gas Springs are not damaged by keeping them inside the Outer Arm of the Mount.

### 1

#### ITEM(S) NEEDED



- a. Review the mounting considerations at the beginning of the Installation section for proper placement. The motor is intended to be mounted on the bow of the boat deck. Place the Mount as close to the centerline or keel of the boat as possible. The motor should be in the stowed position. Check the placement on the boat deck with the motor in the stowed and deployed positions.
- b. Place the Hold-Down Strap (Item #14) under the base of the Mount Plate so that it is below the Mount when placed.



**NOTICE:** This motor weighs approximately 78 lbs. Minn Kota recommend having a second person help with the installation.

**NOTICE:** Check that the Motor can properly stow and deploy at the intended mounting location. The Mount should latch closed when deployed. A proper deployment requires engaging the Pull Grip and Cable when the Motor is stowed to unlatch the Mount. If the latch on the Mount does not engage when deployed, it could indicate that the Mount is not flat on the Boat Deck. Use rubber washers to level the Mount on the Boat Deck if the Mount is not latching when deployed.

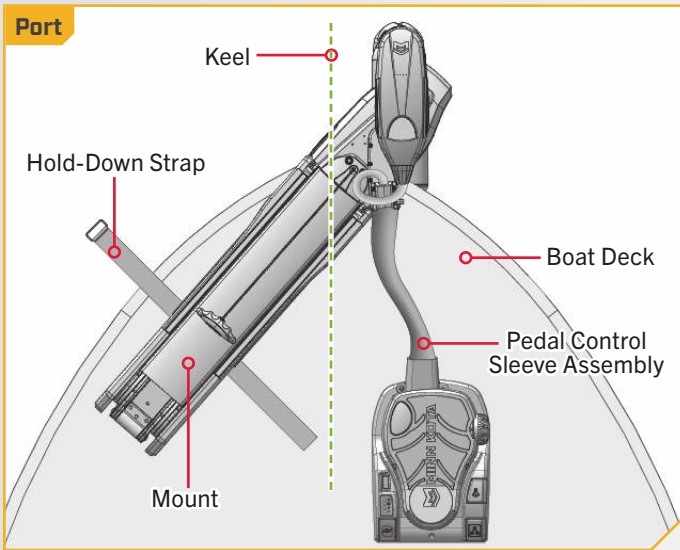
# INSTALLING THE BOW-MOUNT

2

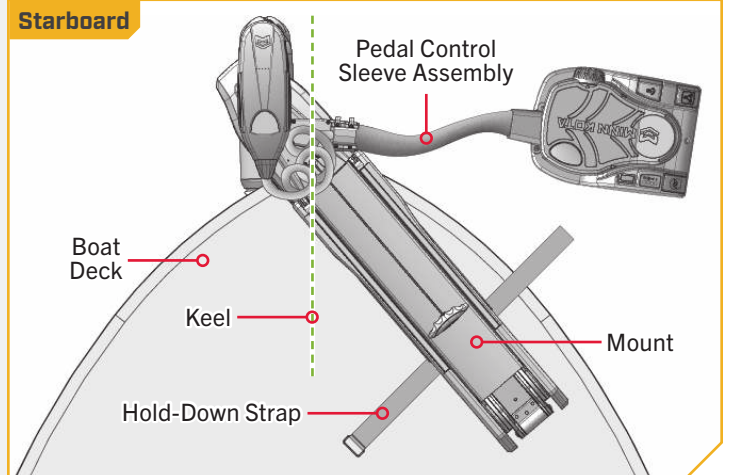
- c. Install the Mount on either the Port or Starboard side of the bow, based on personal preference. Test the placement of the Hold-Down Strap to be sure it can hold the Mount as placed. The position of the buckle on the Hold-Down Strap, either inboard or outboard, is based on personal preference. The hook and loop on the Hold-Down Strap should face downward for the Hold-Down Strap to function correctly.

**NOTICE:** If personal preference is to mount the motor on the starboard side of the boat, please see the "Rotate the Pedal Control Sleeve Assembly for a Starboard Mount" after the Mount is secured to the deck of the boat.

Port

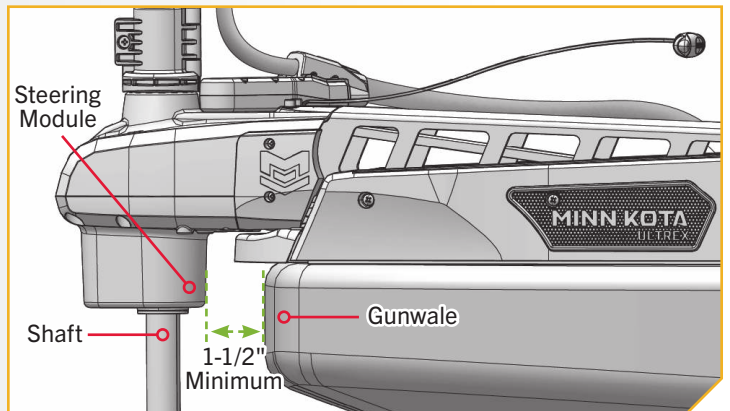


Starboard



3

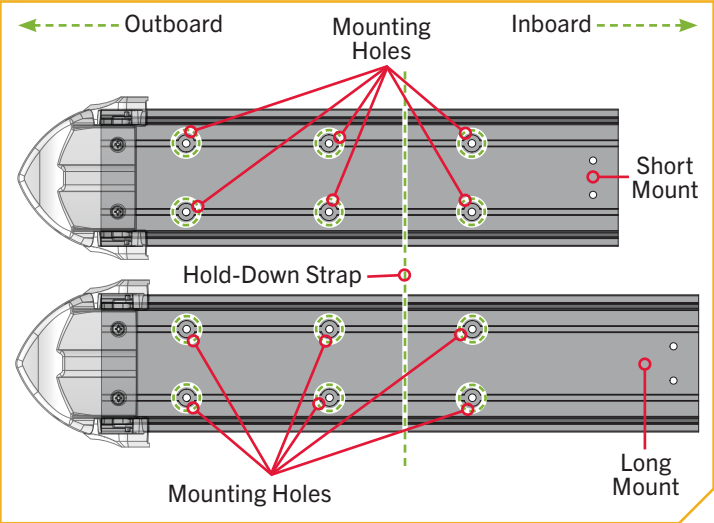
- d. Check the placement of the motor in the deployed position. With the motor deployed, ensure that the Steering Module and Shaft are a minimum of 1-1/2" out past the Gunwale of the boat. When stowed and deployed, the Lower Unit must not encounter any obstructions.
- e. Check the placement of the Hold-Down Strap when the motor is in the stowed and deployed positions and adjust if necessary.



# INSTALLING THE BOW-MOUNT

## 4

- f. Once the Mount is in position, locate the Mounting Holes on the base of the Mount. The motor will have either a Short Mount or a Long Mount. Minn Kota requires the use of all six Mounting Holes.
- g. Mark the Boat Deck for the Mounting Holes with a pencil or marker. Drill through the deck of the boat using a Drill and a 21/64" Drill Bit on the marked locations.
- h. Be sure the Hold-Down Strap under the base of the Mount sits between the second and third set of Mounting Holes from the furthest outboard Mounting Hole. Double check that it can close around the Mount when stowed.
- i. Move the motor to the stowed position to install the hardware once the placement of the Hold-Down Strap is set.



**NOTICE:** Larger mounting holes are required for customers upgrading from an Ultrex to an Ultrex QUEST. Larger mounting holes will accommodate the higher thrust motor and ensure the installation is secure.

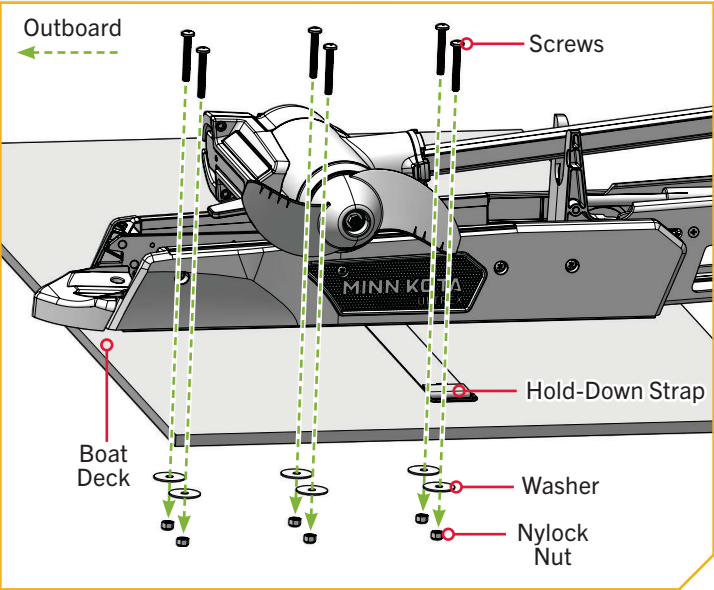
## 5

### ITEM(S) NEEDED



- j. Use the six 5/16" - 18 X 2.25" Stainless Steel Screws (Item #2) and apply Anti-seize (Item #8). Install one Screw in each drilled location. The Screws should pass through the Mounting Holes on the Mount and then the Drilled Holes in the boat deck.
- k. Use the six 5/16" x 1.5" Flat Washers (Item #6) and place one at the end of each Screw. Collect six 5/16" - 18 Nylock Nuts (Item # 4) and secure each Screw and Washer with one Nylock Nut. While holding each Nylock Nut with a 1/2" Box End Wrench, use a #4 Phillips Screwdriver to tighten each Screw. Make sure all hardware is secure.

**NOTICE:** To prevent seizing of the stainless steel hardware, do not use high speed installation tools. Wetting the screws or applying an anti-seize may help prevent seizing.



# INSTALLING THE GAS SPRINGS

## › Installing the Gas Springs

The Ultrex QUEST contains two Gas Springs inside the Mount. The Gas Springs work to enable Lift-Assist in both the stowed and deployed directions and are located inside the Outer Arm, a part of the Mount. At this point in the installation, the Gas Springs are not fully assembled and may move around inside the Mount when stowing and deploying the motor. The Gas Springs can become damaged while moving the Mount, preventing the Lift-Assist feature from operating correctly once fully assembled. Handle the motor carefully to ensure that the Gas Springs are not damaged in the Mount during installation. With the Steering Module installed on the Mount and the Mount secured to the boat deck, install the two Gas Springs.

1

- a. Complete the Mount installation and Steering Module assembly prior to installing the Gas Springs. Then use the Pull Grip and Cable to disengage the Latch Bar on the Mount.
- b. With the help of a second person, unlatch the Depth Collar and position the motor halfway between the stowed and deployed positions. Position the Outer Arm nearly perpendicular to the Base of the Mount.



### WARNING

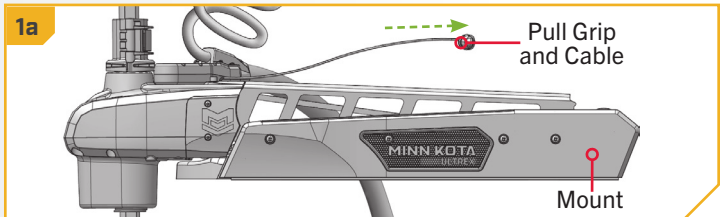
Moving parts can cut or crush. The gas assist lift mechanism is under pressure. Disconnect gas springs before removing motor from mount. Do not engage the Pull Grip and Cable until gas springs are disconnected.



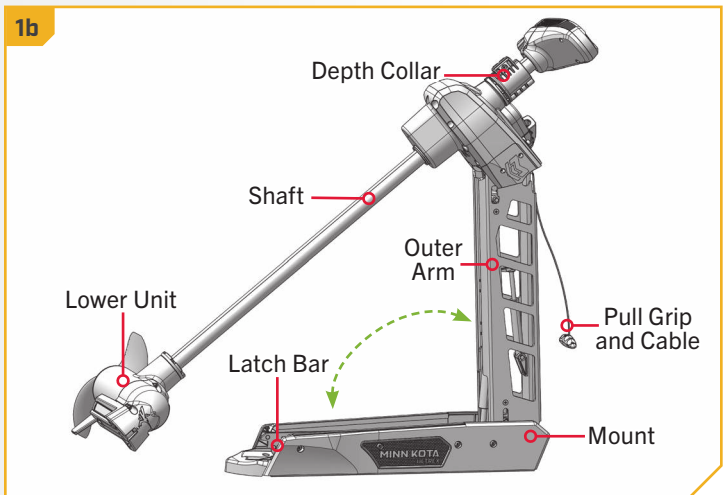
### WARNING

The gas assist lift mechanism in this unit is under high spring pressure when the motor is in the deployed position. Do not remove the Steering Module assembly from the mount without disconnecting one end of both gas spring. Failure to do this can create a condition where accidental pulling of the Pull Grip and Cable may cause the mount to spring open rapidly, striking anyone or anything in the direct path.

1a



1b



**NOTICE:** Adjust the Depth Collar on the Shaft as necessary to position the motor. Hold the motor in place while the two Gas Springs are installed.

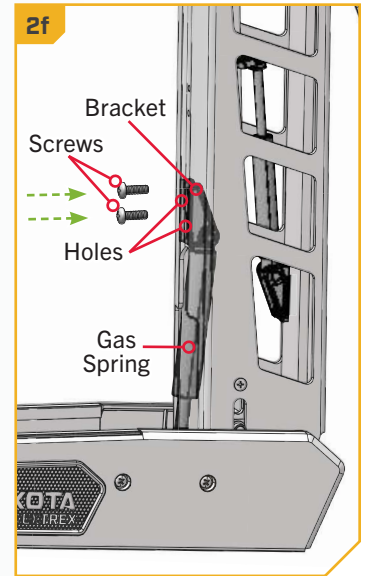
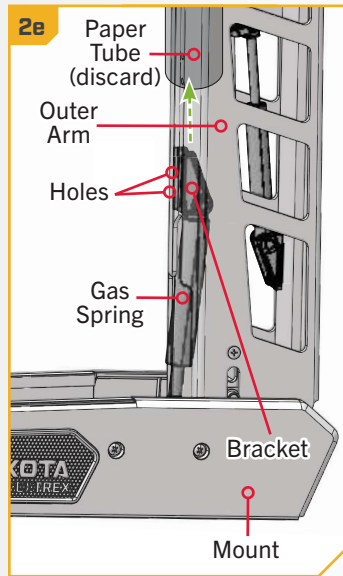


## 2

### ITEM(S) NEEDED



- c. Two Gas Springs are located inside the Outer Arm. Once the motor is correctly positioned, the Gas Springs can be secured. Start with the larger Gas Spring closest to the Boat Deck, protected with a Paper Tube.
- d. Remove the Paper Tube on the larger Gas Spring and discard it.
- e. There is a loose Bracket on the end of the Gas Spring with holes and recessed Nylock Nuts. Align the Bracket with the lower two holes in the Outer Arm. Adjust the motor as needed to align the Bracket.
- f. Take two Pan Head Phillips Machine Screws (Item #20) and install them through the holes in the Outer Arm and into the Bracket at the end of the Gas Spring using a #3 Screwdriver. Tighten to 35 in-lbs.

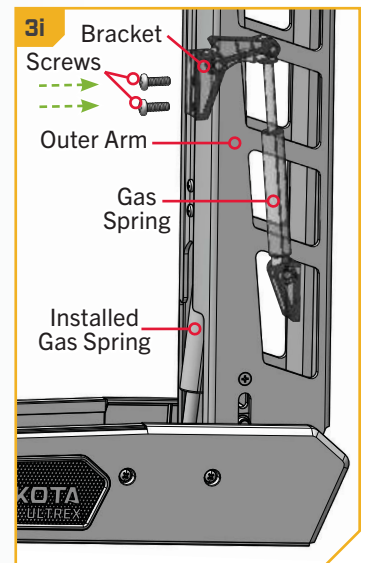
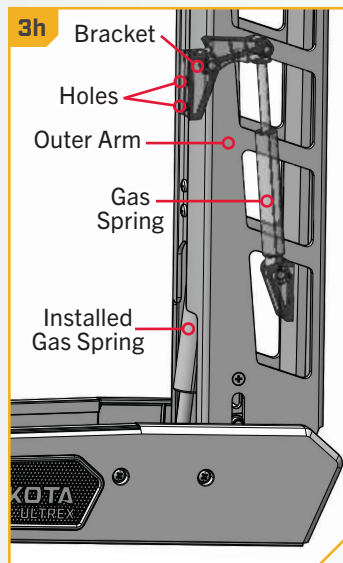


## 3

### ITEM(S) NEEDED



- g. The Bracket attachment for the second, smaller Gas Spring sits above the Gas Spring just installed.
- h. Align the Bracket of the second Gas Spring with the upper two holes in the Outer Arm. Adjust the motor as needed.
- i. Take two Pan Head Phillips Machine Screws (Item #20) and install them through the holes in the Outer Arm and into the Bracket at the end of the Gas Spring using a #3 Screwdriver. Tighten to 35 in-lbs.



# BATTERY & WIRING INSTALLATION

## BOAT RIGGING & PRODUCT INSTALLATION

For safety and compliance reasons, we recommend that you follow American Boat and Yacht Council (ABYC) standards when rigging your boat. Altering boat wiring should be completed by a qualified marine technician. The following specifications are for general guidelines only:

### CAUTION

These guidelines apply to general rigging to support your Minn Kota motor. Powering multiple motors or additional electrical devices from the same power circuit may impact the recommended conductor gauge and circuit breaker size. If you are using wire longer than that provided with your unit, follow the conductor gauge and circuit breaker sizing table below. If your wire extension length is more than 25 feet, we recommend that you contact a qualified marine technician.

### CAUTION

**An over-current protection device (circuit breaker or fuse) must be used.** Coast Guard requirements dictate that each ungrounded current-carrying conductor must be protected by a manually reset, trip-free circuit breaker or fuse. The type (voltage and current rating) of the fuse or circuit breaker must be sized accordingly to the trolling motor used. The table below gives recommended guidelines for circuit breaker sizing.

## CONDUCTOR GAUGE AND CIRCUIT BREAKER SIZING TABLE

This conductor and circuit breaker sizing table is only valid for the following assumptions:

1. No more than 2 conductors are bundled together inside of a sheath or conduit outside of engine spaces.
2. Each conductor has 105° C temp rated insulation.
3. No more than 3% voltage drop allowed at full motor power based on published product power requirements.

Motor Thrust / Model	Max Amp Draw	Circuit Breaker		Wire Extension Length				
		Amps	Minimum	5 feet	10 feet	15 feet	20 feet	25 feet
QUEST 24V	60	60 Amp	24 VDC	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG
QUEST 36V	60	60 Amp	36 VDC	6 AWG	6 AWG	6 AWG	6 AWG	4 AWG

**NOTICE:** Wire Extension Length refers to the distance from the batteries to the trolling motor leads. Consult website for available thrust options.

Reference

United States Code of Federal Regulations: 33 CFR 183 – Boats and Associated Equipment ABYC E-11: AC and DC Electrical Systems on Boats

# SELECTING THE CORRECT BATTERIES

## SELECTING THE CORRECT BATTERIES

QUEST series trolling motors will operate with any deep cycle marine 12, 24 or 36-volt battery/batteries and have been optimized for use with LiFePO<sub>4</sub> Lithium Ion battery cells. Lithium Ion batteries maintain higher voltages for more extended periods than lead-acid batteries and will provide the best performance in powering the trolling motor.

QUEST series trolling motors may also be powered with lead-acid (flooded, AGM, or GEL) deep-cycle marine 12-volt battery/batteries. For best results Minn Kota recommends using a deep-cycle marine battery with rating outlined in the "Deep Cycle Amp-Hour Rating" table. Maintain lead-acid batteries at full charge. Proper care will ensure battery power when needed and significantly improve battery life. Failure to recharge lead-acid

Deep Cycle Amp-Hour Rating			
Run Time	Voltage	Group Size	Amp-Hour
GOOD	12	24	70-85
BETTER	12	27	85-110
BEST	12	31	95-125

batteries (within 12-24 hours) is the leading cause of premature battery failure. Use a multi-stage charger to avoid overcharging. When using Lithium Ion batteries, manufacturers may recommend storing in a semi-charged state and charging fully prior to use.

If using a crank battery to start a gasoline outboard, Minn Kota recommends using a separate battery/batteries for your Minn Kota trolling motor. Always check with the battery manufacturer for specific maintenance, care and storage instructions. Minn Kota also offers a wide selection of chargers to fit your charging needs. For more information on battery selection, rigging, and chargers, please visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

### **WARNING**

Never connect the (+) and the (-) terminals of the same battery together. Take care that no metal object can fall onto the battery and short the terminals. This would immediately lead to a short and extreme fire danger.

### **CAUTION**

Refer to "Conductor Gauge and Circuit Breaker Sizing Table" in the previous section to find the appropriate circuit breaker or fuse for your motor. For motors requiring a 60-amp breaker, the Minn Kota MKR-27 60-amp circuit breaker is recommended.

### **CAUTION**

Please read the following information before connecting your motor to your batteries in order to avoid damaging your motor and/or voiding your warranty.

## ADDITIONAL CONSIDERATIONS

### › Using DC or Alternator Chargers

Your Minn Kota trolling motor may be designed with an internal bonding wire to reduce sonar interference. Most alternator charging systems do not account for this bonding wire, and connect the negative posts of the trolling motor batteries to the negative posts of the crank/starting battery. These external connections can damage connected electronics and the electrical system of your trolling motor, voiding your warranty. Review your charger's manual carefully or consult the manufacturer prior to use to ensure your charger is compatible.

Minn Kota recommends using Minn Kota brand chargers to recharge the batteries connected to your Minn Kota trolling motor, as they have been engineered to work with motors that include a bonding wire. Learn more about Minn Kota chargers online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

# CONNECTING THE BATTERIES IN SERIES

## › Additional Accessories Connected to Trolling Motor Batteries

Significant damage to your Minn Kota motor, your boat electronics, and your boat can occur if incorrect connections are made between your trolling motor batteries and other battery systems. Minn Kota recommends using an exclusive battery system for your trolling motor. Where possible, accessories should be connected to a separate battery system. Radios and sonar units should not be connected to any trolling motor battery systems as interference from the trolling motor is unavoidable. If connecting any additional accessories to any trolling motor battery system, or making connections between the trolling motor batteries and other battery systems on the boat, be sure to carefully observe the information below.

The negative (-) connection must be connected to the negative terminal of the same battery that the trolling motor negative lead connects to. In the diagrams below this battery is labeled “Low Side” Battery. Connecting to any other trolling motor battery will input positive voltage into the “ground” of that accessory, which can cause excess corrosion. Any damage caused by incorrect connections between battery systems will not be covered under warranty.

## › Automatic Jump Start Systems and Selector Switches

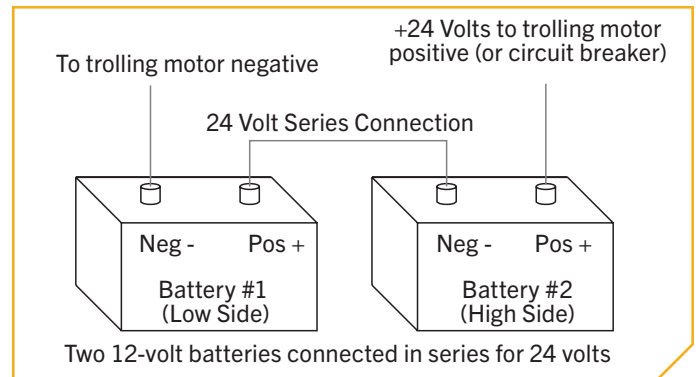
Automatic jump start systems and selector switches tie the negatives of the connected batteries together. Connecting these systems to the “High Side” Battery or “Middle” Battery in the diagrams below and will cause significant damage to your trolling motor and electronics. The only trolling motor battery that is safe to connect to one of these systems is the “Low Side” Battery.

# CONNECTING THE BATTERIES IN SERIES (IF REQUIRED FOR YOUR MOTOR)

## › 24 Volt Systems

Two 12 volt batteries are required. The batteries must be wired in series, only as directed in wiring diagram, to provide 24 volts.

1. Make sure that the motor is switched off (speed selector on “0”).
2. Connect a connector cable to the positive (+) terminal of battery 1 and to the negative (-) terminal of battery 2.
3. Connect positive (+) red motor lead to positive (+) terminal on battery 2.
4. Connect negative (-) black motor lead to negative (-) terminal of battery 1.



## WARNING

For safety reasons do not switch the motor on until the propeller is in the water. If installing a leadwire plug, observe proper polarity and follow instructions in your boat owner’s manual.

## WARNING

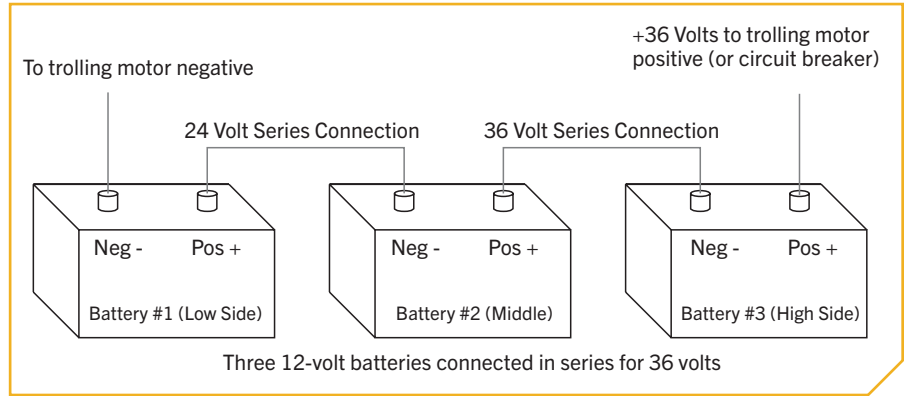
- For safety reasons, disconnect the motor from the battery or batteries when the motor is not in use or while the battery/batteries are being charged.
- Improper wiring of 24/36 volt systems could cause battery explosion.
- Keep leadwire wing nut connections tight and solid to battery terminals.
- Locate battery in a ventilated compartment.

# CONNECTING THE BATTERIES IN SERIES

## 36-Volt Systems

Three 12-volt batteries are required. The batteries must be wired in series, only as directed in the wiring diagram, to provide 36 volts.

1. Make sure that the motor is switched off (speed selector on "0").
2. Connect a connector cable to the positive (+) terminal of battery 1 and to the negative (-) terminal of battery 2 and another connector cable from the positive (+) terminal of battery 2 to the negative (-) terminal of battery 3.
3. Connect positive (+) red motor lead to positive (+) terminal on battery 3.
4. Connect negative (-) black motor lead to negative (-) terminal of battery 1.



### **WARNING**

For safety reasons, do not switch the motor on until the propeller is in the water. If installing a leadwire plug, observe proper polarity and follow instructions in your boat owner's manual.

### **WARNING**

- For safety reasons, disconnect the motor from the battery or batteries when the motor is not in use or while the battery/batteries are being charged.
- Improper wiring of 24/36 volt systems could cause battery explosion.
- Keep leadwire wing nut connections tight and solid to battery terminals.
- Locate battery in a ventilated compartment.

# COMPLETING THE INSTALLATION

## COMPLETING THE ULTREX QUEST INSTALLATION

The Ultrex QUEST is an advanced trolling motor. To maximize the performance of the trolling motor, mechanical and electrical systems should be set and calibrated to fit every user's installation. This portion of the installation will cover how to verify power, calibrate or rotate the Pedal Control Sleeve Assembly, install the Bow-mount Stabilizer, and more. The installation will conclude with connecting Accessory Cables and setting motor preferences for ease of use. Minn Kota recommends connecting the trolling motor to the One-Boat Network app to assist in these steps. Find more information in the One-Boat Network App document included with the trolling motor or the One-Boat Network Owner's Manual found online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

### COMPLETING THE INSTALLATION >

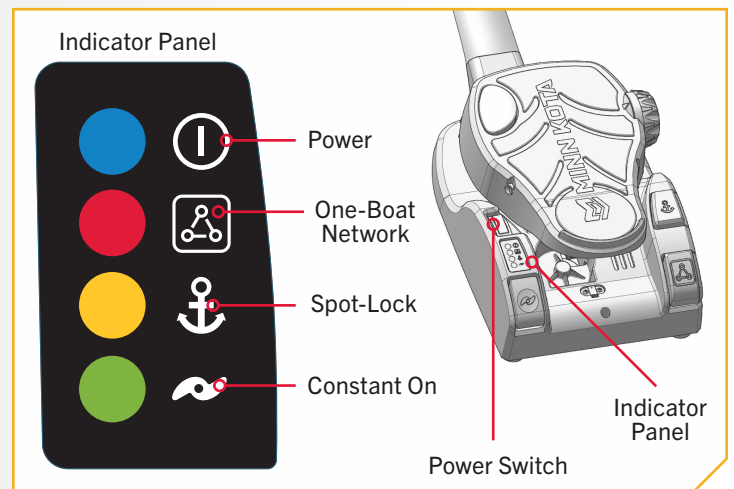
#### > Verifying Power

Each time the trolling motor is powered "on," the control board will auto-detect the power supplied from the battery system and adjust the thrust output based on a 24V or 36V battery system. To complete the remaining installation steps, connect the Ultrex QUEST to power. At specific points in the installation, power is disconnected or turned "off" to ensure a safe environment for installation. To verify power to the trolling motor, follow the steps below:

- 1 a. Turn the Power Switch on the Foot Pedal "on". Locate the Indicator Panel on the Foot Pedal. When powered "on", the Power LED is illuminated blue. When the Power Switch is "off", the Power LED is not illuminated.

**NOTICE:** The standard power-up sequence for the Ultrex QUEST is for all four LEDs on the Indicator Panel to turn on. The Advanced GPS Navigation System in the Control Head then chirps three times, followed by the blue LED on the Indicator Panel remaining on.

**NOTICE:** In instances where the trolling motor is updating, all four LEDs will flash while the update is performed. Once the update is complete, the system will self-reboot and perform the normal start-up sequence. If a standard power-up sequence is not experienced, please see the Troubleshooting section of the manual to identify any errors. To learn more about software updates, please see the Owner's Manual for the One-Boat Network or Advanced GPS Navigation Wireless Remote.



# INDEXING THE MOTOR FOR A PORT INSTALLATION

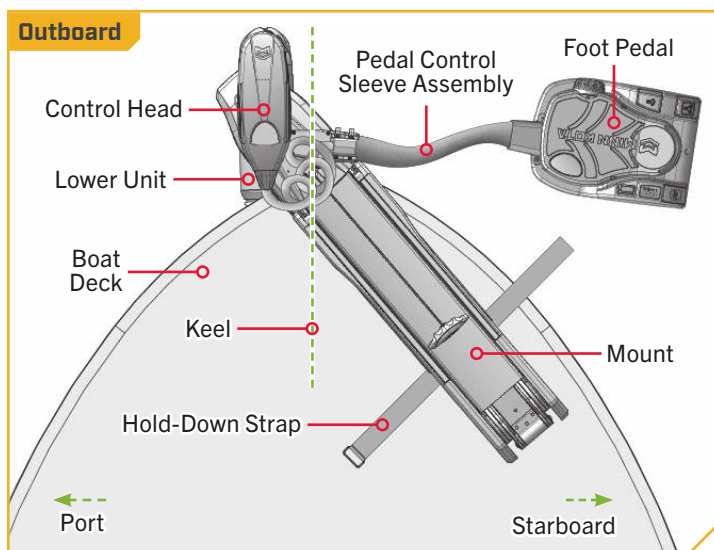
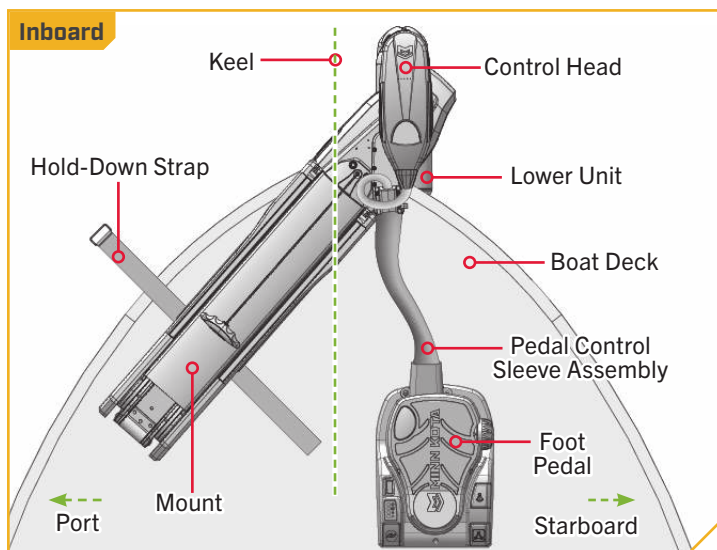
## › Indexing the Motor for a Port Installation

The Ultrex QUEST comes from the factory with the Pedal Control Sleeve Assembly set inboard for a Port installation. The recommendation for correct indexing of the trolling motor is to have the Pedal Control Sleeve Assembly, which attaches the Foot Pedal to the Mount, pointing inboard. If the Pedal Control Sleeve Assembly is outboard, please see the section "Rotate the Pedal Control Sleeve Assembly for a Starboard Mount" of this installation. Use the following instructions to index the motor if the Pedal Control Sleeve Assembly is already pointing inboard.

Once installed, the trolling motor is indexed correctly when:

1. The motor is deployed.
2. The trolling motor Control Head and Lower Unit are parallel to the centerline or keel of the boat.
3. The top of the Foot Pedal is parallel to the deck of the boat.

The following indexing instructions will align the trolling motor correctly and provide the best motor performance.



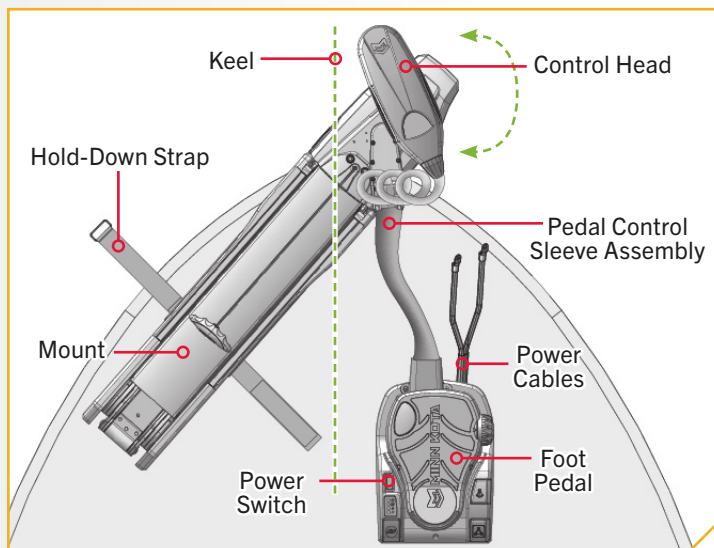
1

- a. Turn the Power Switch on the Foot Pedal "on" and steer the motor so that the Control Head is parallel to the Keel of the boat. Do this by steering the motor with the Foot Pedal, turning the motor with the remote, or manually turning the Control 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

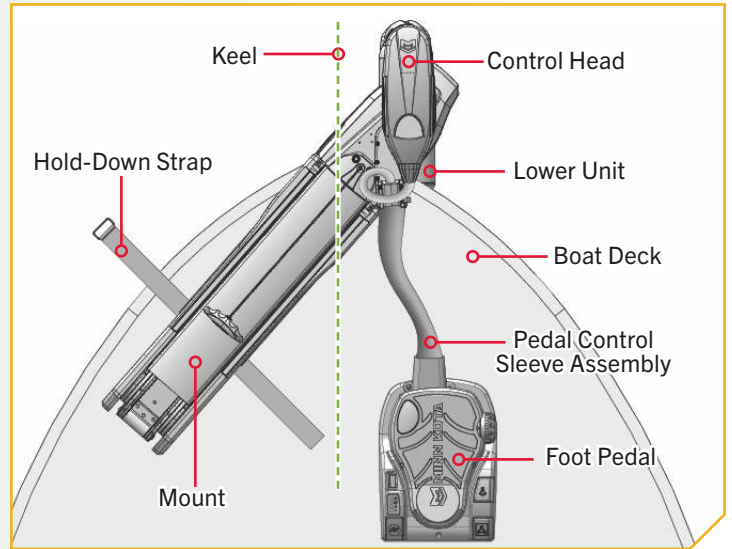
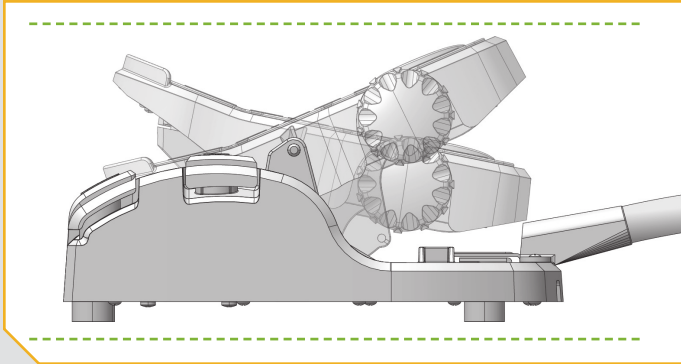
Ensure the motor is not connected to a power source to avoid electric shock.



# INDEXING THE MOTOR FOR A PORT INSTALLATION

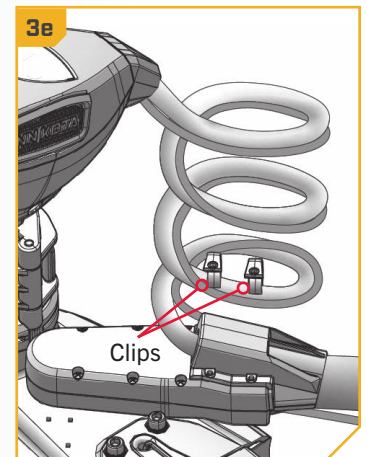
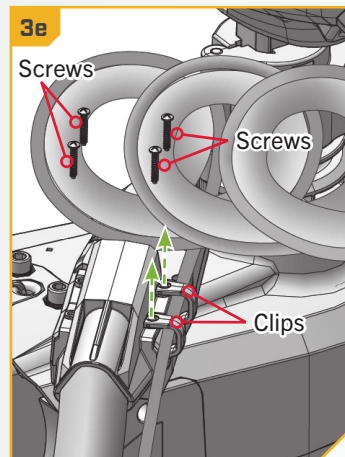
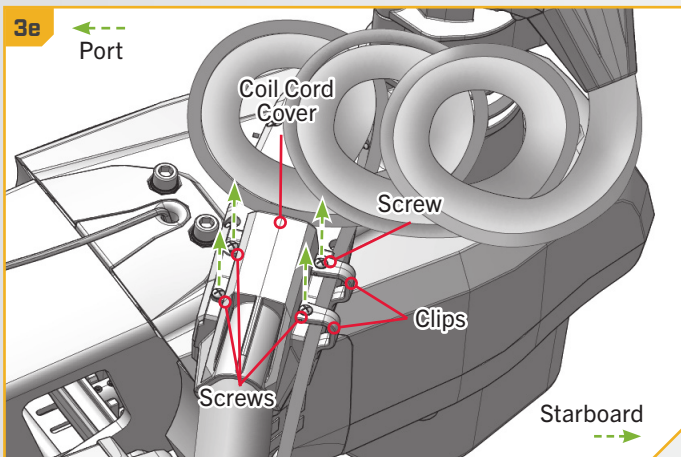
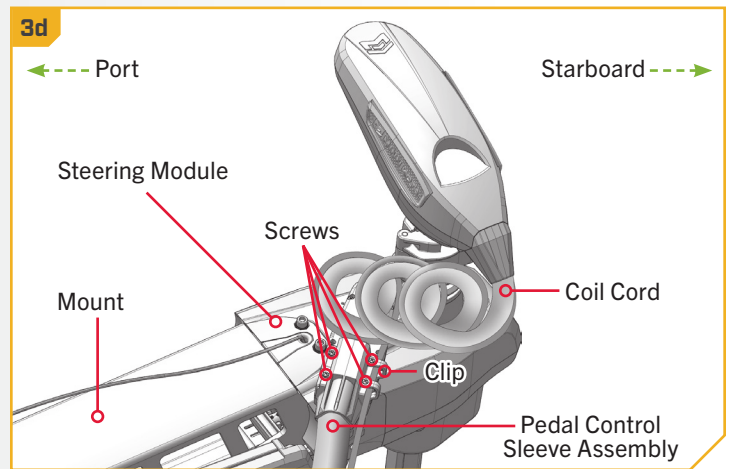
**2**

- c. With the Control Head positioned parallel with the keel or centerline of the boat, the top of the Foot Pedal will likely not be parallel with the Boat Deck. The following instructions will correct the top position of the Foot Pedal.



**3**

- d. The adjustment to the Foot Pedal is made by repositioning internal parts located where the Pedal Control Sleeve Assembly, Coil Cord, and Steering Module join. The Coil Cord Cover secures the Coil Cord in place with four screws at the end of the Pedal Control Sleeve Assembly and the top of the Steering Module.
- e. Two of the screws on the Starboard side of the Coil Cord Cover each hold a C-shaped Clip in place. The Clips retain any Ethernet or Sonar cables present. Locate the four screws holding the Coil Cord Cover in place. Using a #2 Phillips Screwdriver, remove the four Screws and the two Clips from the Coil Cord Cover and set them aside for reassembly later.



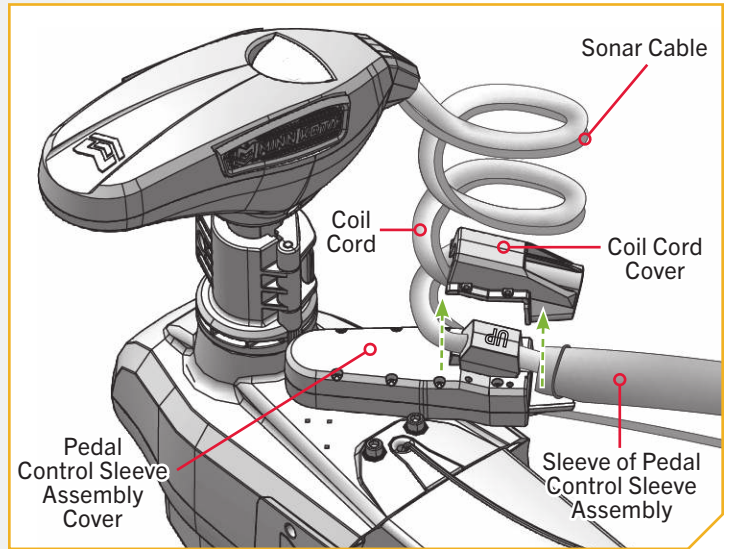


# INDEXING THE MOTOR FOR A PORT INSTALLATION

4

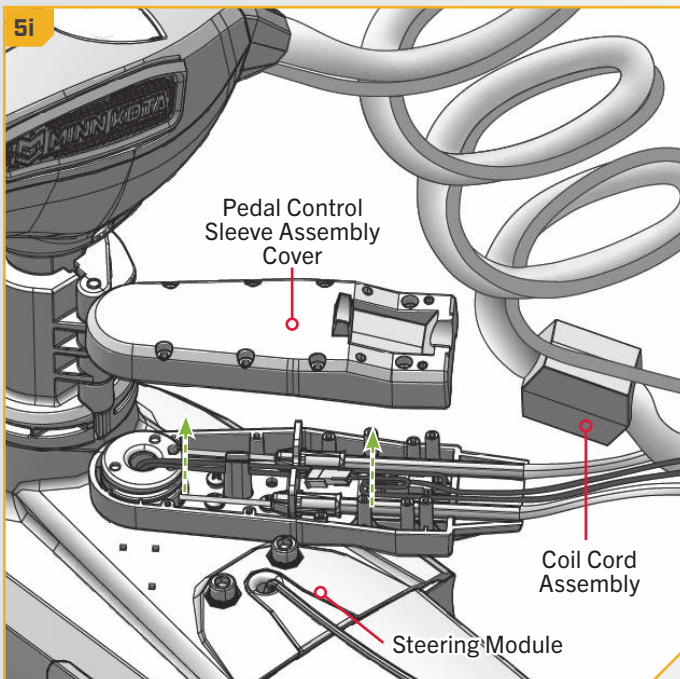
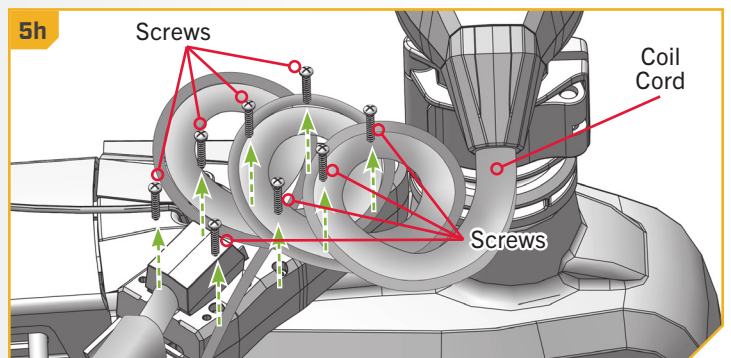
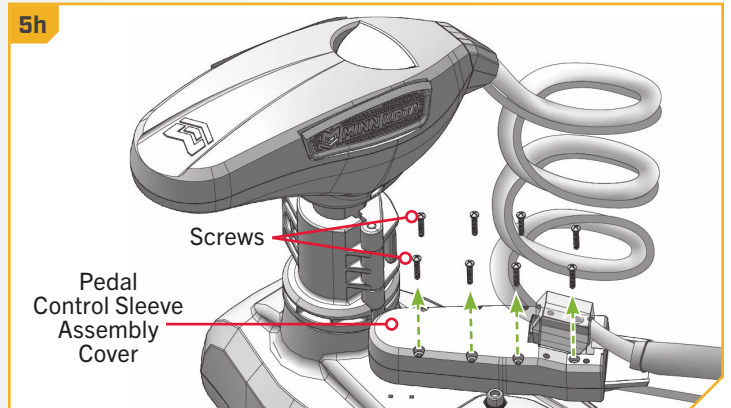
- f. Once the two Clips and four screws are free, lift the Coil Cord Cover up and away from the Pedal Control Sleeve Assembly.
- g. Set the Coil Cord Cover aside for reassembly later.

**NOTICE:** Any Sonar or Ethernet Cables previously retained in the Clips can be pulled to the side to provide a clear working area around the Coil Cord Cover and Pedal Control Sleeve Assembly.



5

- h. Locate the eight screws holding the Pedal Control Sleeve Assembly Cover. Remove the screws using a #2 Phillips Screwdriver. Set the screws aside.
- i. Remove the Pedal Control Sleeve Assembly Cover by lifting it straight up. Lift the Coil Cord Assembly to the side to remove the cover if necessary.



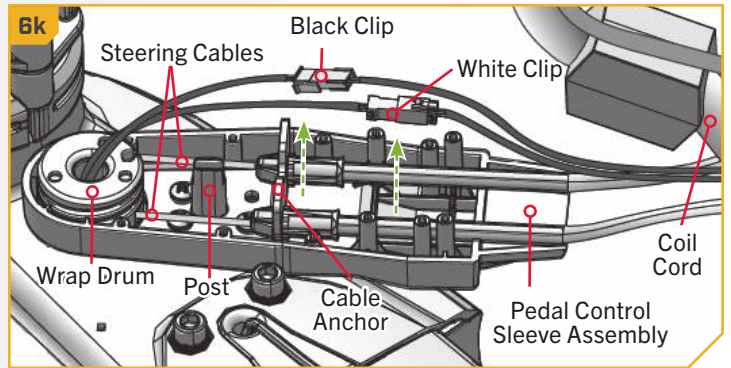
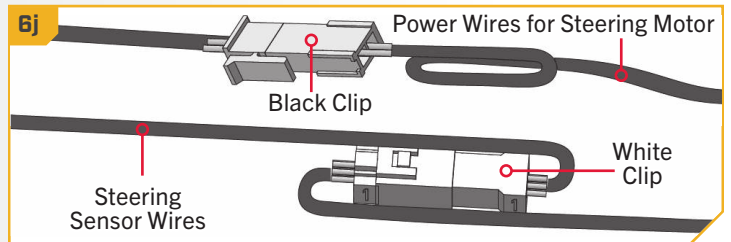
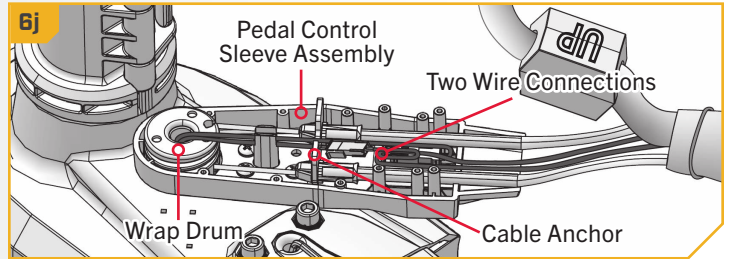
# INDEXING THE MOTOR FOR A PORT INSTALLATION

6

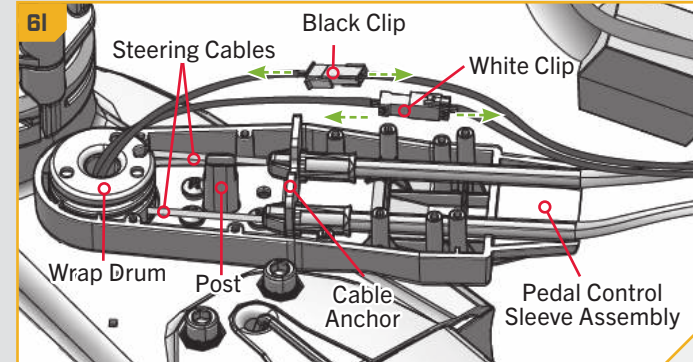
- j. Find the two wire connections inside the Pedal Control Sleeve Assembly. One has a white Clip and the other has a black Clip. The Clips for both connections are located between the Steering Cables and are contained behind the Cable Anchor. The folded wires fit in this space, and the stacked Clips sit on each other.
- k. The wires from the Wrap Drum will be resting on a Post in the middle of the Pedal Control Sleeve Assembly. Lift the wires so they are free from the Post and straighten them. The wires should be straight from the Wrap Drum to the Cable Sleeve that is cable tied in place on the Coil Cord.

**NOTICE:** The connection with the black Clip contains the power wires for the steering motor inside the Steering Module. The connection with the white Clip includes the wires for the steering sensor inside the Steering Module.

- l. Disconnect both Clips.

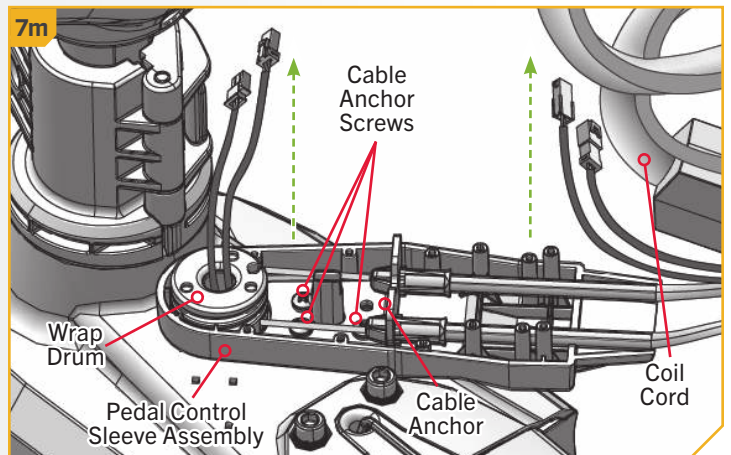


**NOTICE:** Use a Flat Blade Screwdriver to depress the tab on the Clips to release them.



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- m. The black and white Clip wires from the Cable Sleeve on the Coil Cord need to be free of the Cable Anchor and out of the way to access the three Cable Anchor Screws that hold the Cable Anchor to the Steering Module. The wires that come out of the Wrap Drum must be free of obstructions to facilitate lifting the Wrap Drum later in the installation.



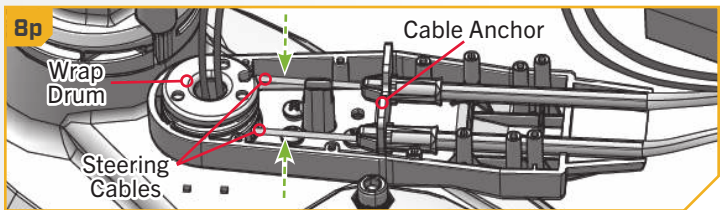
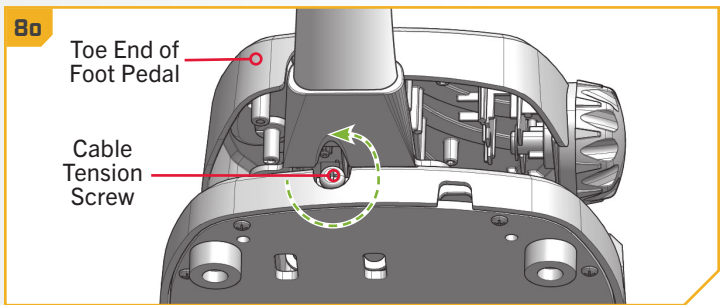
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- n. On the Foot Pedal, locate the Cable Tension Screw under the base of the Toe End of the Foot Pedal.
- o. The Cable Tension Screw holds tension on the Steering Cables. Use a #3 Phillips Screwdriver to loosen this screw. Turning the screw approximately eight rotations counterclockwise should provide enough slack in the cables to adjust. Keep track of the number of screw rotations so it can be re-tightened accordingly later.
- p. Loosen the Cable Tension Screw just enough so that the Steering Cables can be pinched together between the Cable Anchor and Wrap Drum.

### CAUTION

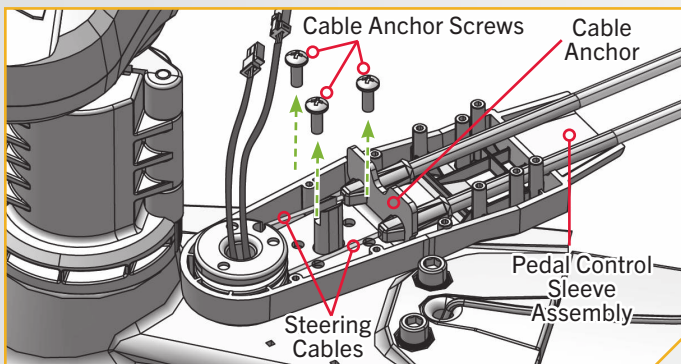
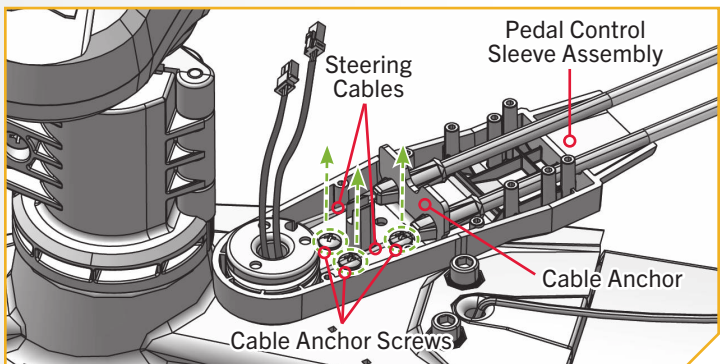
Over-loosening the Cable Tension Screw may cause the cables to disengage from the Wrap Drum.



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

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- q. Once the Steering Cables are loose, take a #2 Phillips Screwdriver and remove the three Cable Anchor Screws that hold the Cable Anchor in place on the Steering Module. Set the screws aside.
- r. With the three screws holding the Cable Anchor removed, the Cable Anchor and bottom of the Pedal Control Sleeve Assembly can move freely around the Cable Spline Gear. The Wrap Drum sits on the Cable Spline Gear.



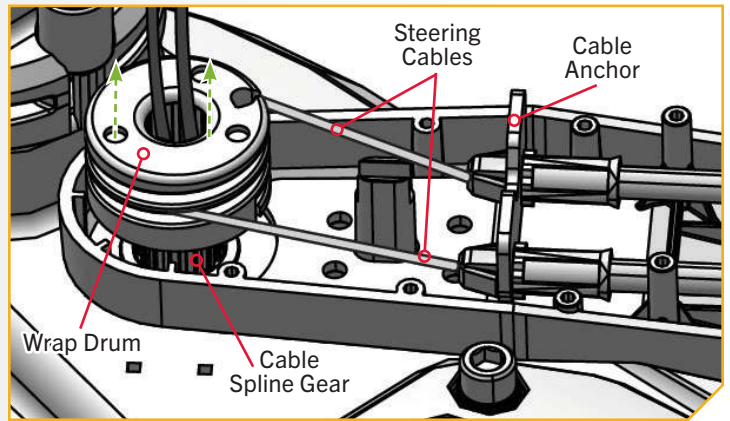
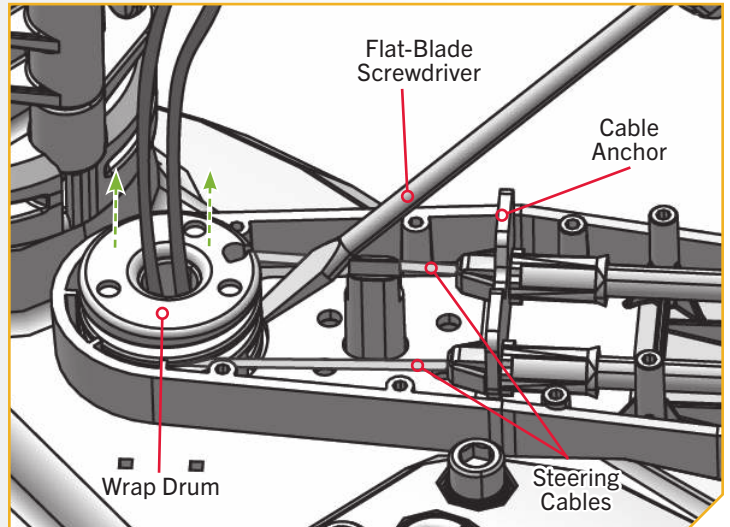
## INDEXING THE MOTOR FOR A PORT INSTALLATION

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- s. Once the Cable Tension Screw on the Foot Pedal is loosened, use a Flat-blade Screwdriver to pry the Wrap Drum straight off the Cable Gear. Lift until the Wrap Drum is free of the Cable Spline Gear.

### CAUTION

Ensure that the Steering Cables remain on the Wrap Drum while disengaged from the Cable Spline Gear. The Steering Cables must follow the grooves on the Wrap Drum so that they do not become intertwined or pop off. Ensure the wires are not damaged when lifting the Wrap Drum.



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- t. While holding the Wrap Drum just above the Cable Spline 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 Drum Anchors for each Steering Cable 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.

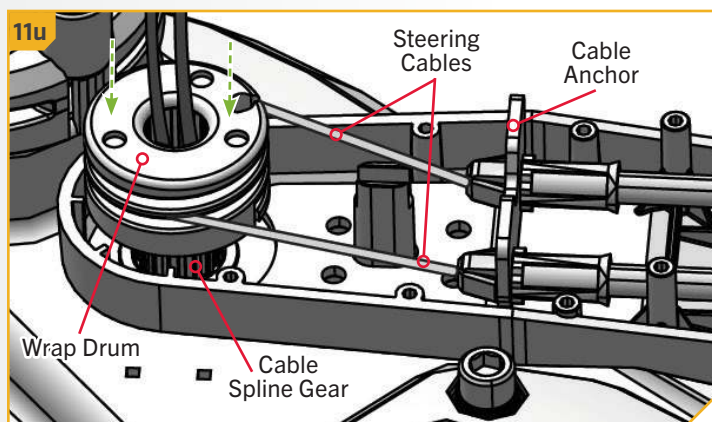
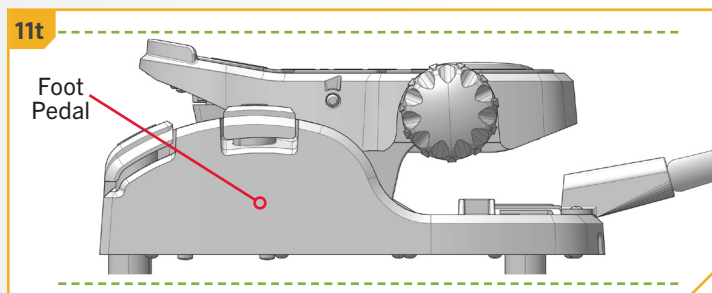
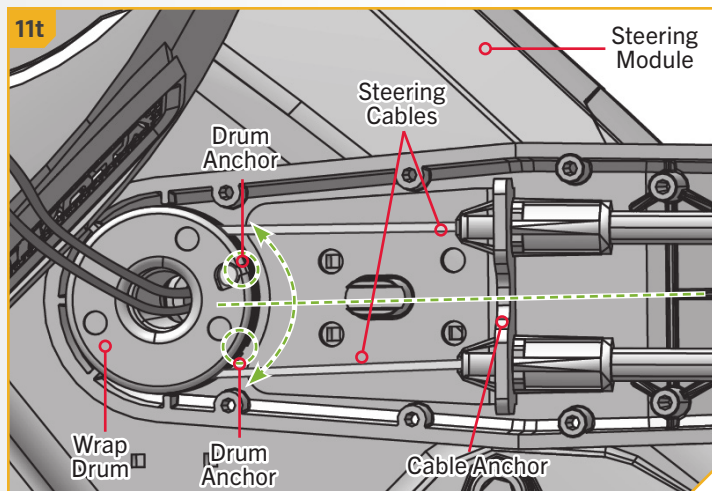
- u. Once the Foot Pedal is at the desired position, align the Wrap Drum with the nearest tooth on the splined shaft of the Cable Spline Gear. Press the Wrap Drum securely, so it is seated on top of the gear. At this point, the head of the motor should be parallel with the Boat Keel, and the top of the Foot Pedal should be parallel with the Boat Deck.

**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 Spline 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 needs to be reassembled correctly for proper operation.

**NOTICE:** When seating the Wrap Drum, make sure not to pinch the motor power or steering sensor wires between the Wrap Drum and the Cable Spline Gear.



**NOTICE:** When adjusting the Wrap Drum, the Cable Anchor and the bottom of the Pedal Control Sleeve Assembly will be loose. The pieces are loose to help facilitate the rotation and the tension on the cables for the adjustment.

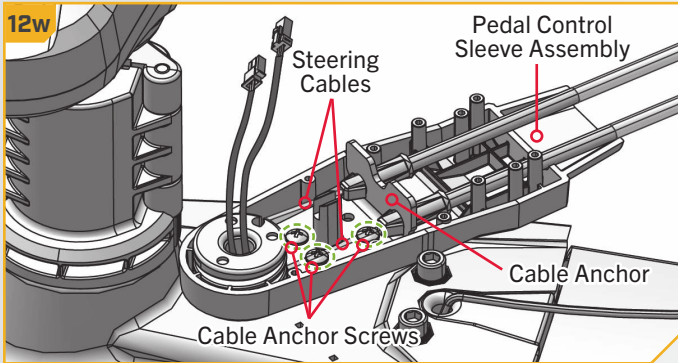
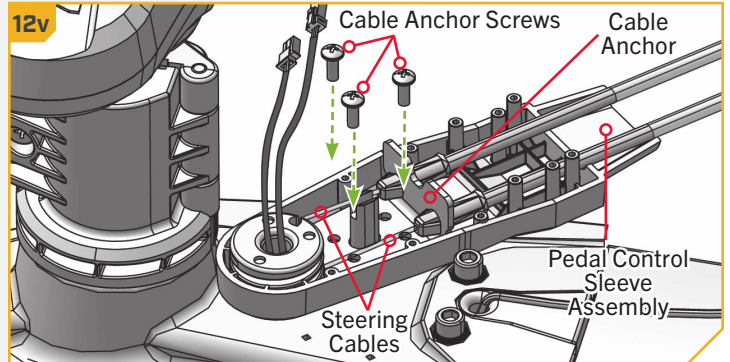
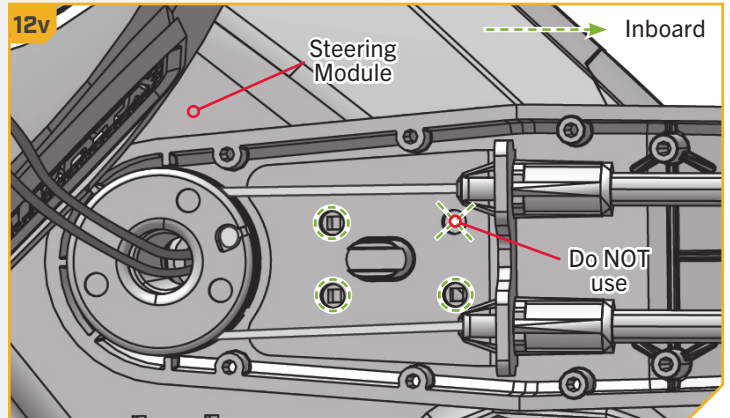
## INDEXING THE MOTOR FOR A PORT INSTALLATION

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- v. Take the three Cable Anchor Screws that hold the Cable Anchor to the Steering Module and replace them using a #2 Phillips Screwdriver. The screws should pass through the Cable Anchor and the bottom of the Pedal Control Sleeve Assembly and into the Steering Module. Tighten the Cable Anchor Screws to 30 in-lbs.

**NOTICE:** The Cable Anchor and the Pedal Control Sleeve Assembly contain four holes to secure the assembly to the Steering Module, but only three holes are used. Ensure the screws are placed in the same three holes to replace the Pedal Control Sleeve Assembly and Cable Anchor that were uninstalled in an earlier step. The hole that should not be used will not have a threaded hole into the Steering Module to secure the Cable Anchor Screw. For trolling motors mounted on the Port side of the Boat Deck, this hole will be the furthest inboard toward the Keel and align inboard from the Steering Module.

- w. Once the screws are in place, return to the Foot Pedal.

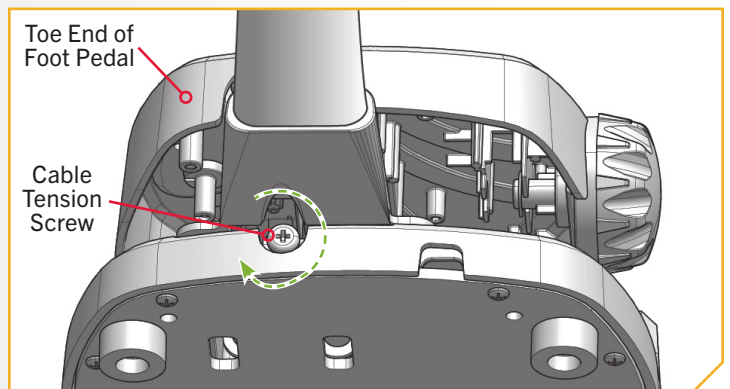


13

- x. 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 Cable Tension Screw the same number of turns it was loosened to at the beginning of the process.

**CAUTION**

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

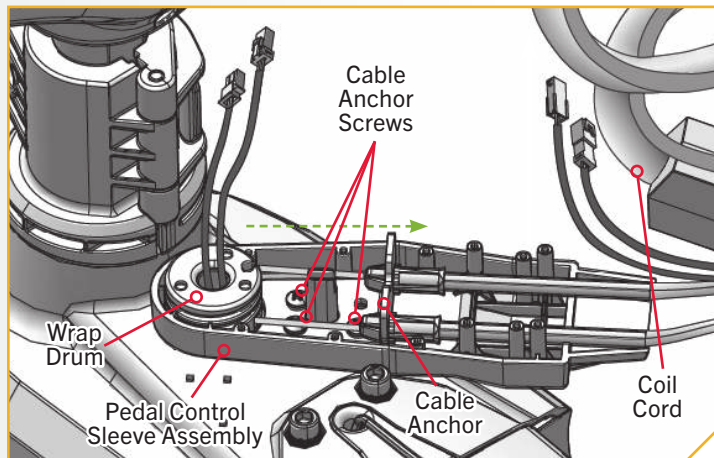
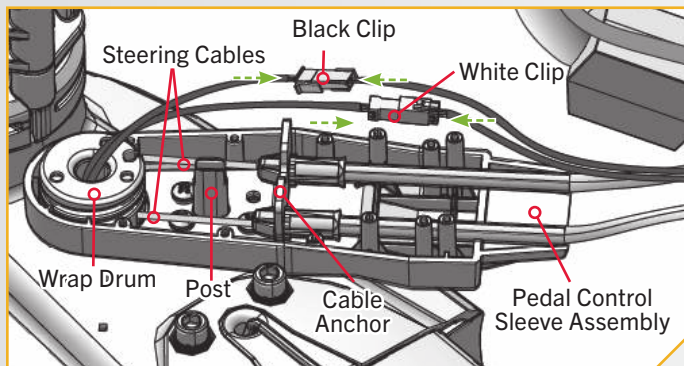


## INDEXING THE MOTOR FOR A PORT INSTALLATION

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y. The wires from the Steering Module go through the center of the Cable Spline Gear and the Wrap Drum. The mated connection to these wires enters the Pedal Control Sleeve Assembly from the Coil Cord. Match the wire with the white Clip with the corresponding wire with the white Clip and press the connection together.

z. Do the same for the wires with the black Clip.



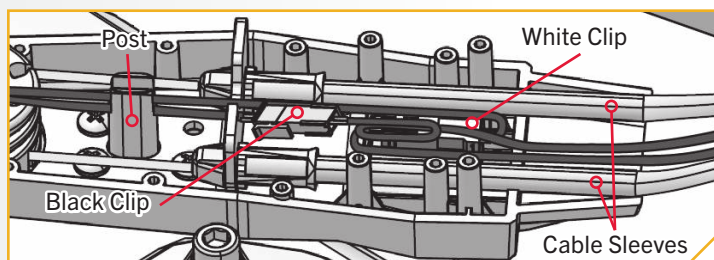
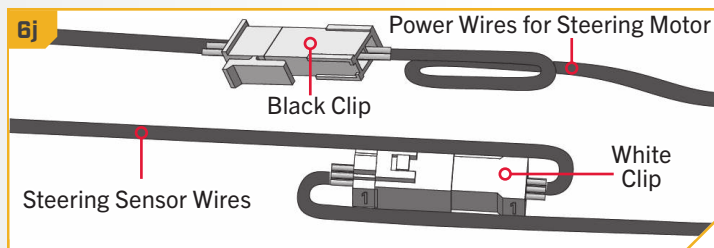
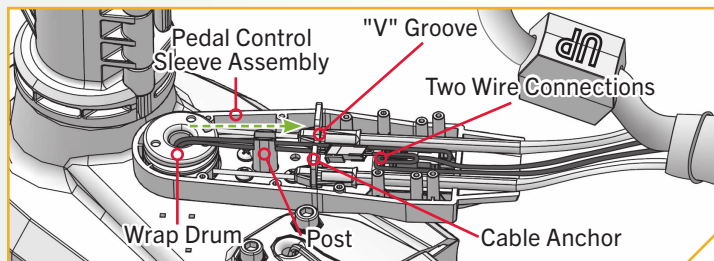
15

aa. With the Clips secured, guide the wires from the Wrap Drum straight and position them towards the Coil Cord away from the Wrap Drum.

ab. To cleanly place the wires inside the Pedal Control Sleeve Assembly, start with the wire with the white Clip. Place the wire with the white Clip in the groove of the Post on the Cable Anchor. Then gently guide the wire past the "V" groove of the Cable Anchor.

ac. Take the white Clips and gently bend the wires so that the slack in the wires forms a loose "S" shape. Guide it to the side of the Cable Anchor where the Steering Cables are coated with a black sleeve away from the Wrap Drum. Place the white Clip and the "S" shaped wire between the black sleeve on the Cables.

ad. Repeat the process for the wire with the black Clip. Shape the wire with the black Clip into a small loop rather than an "S" shape.

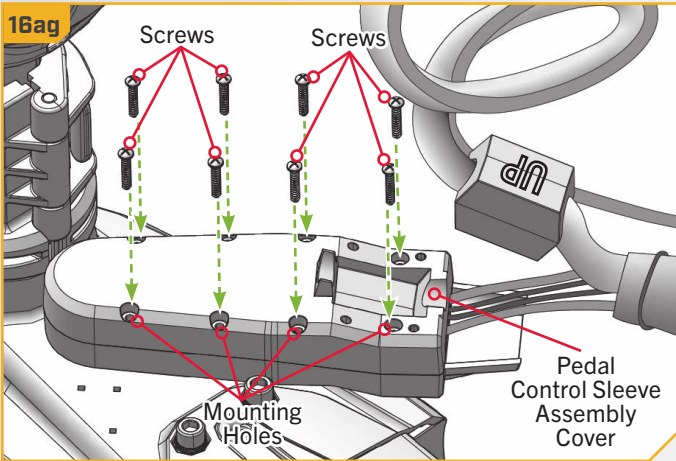
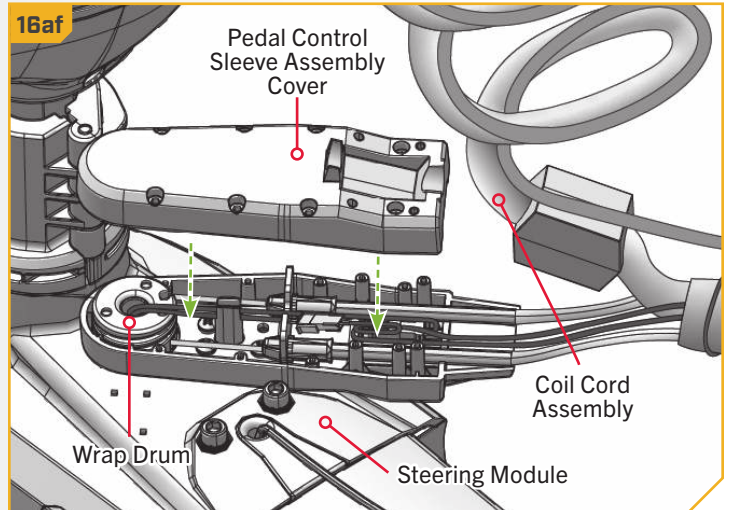


**NOTICE:** Ensure the wires remain in the Post when complete.

## INDEXING THE MOTOR FOR A PORT INSTALLATION

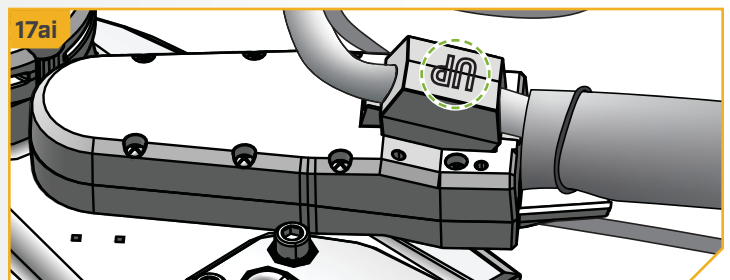
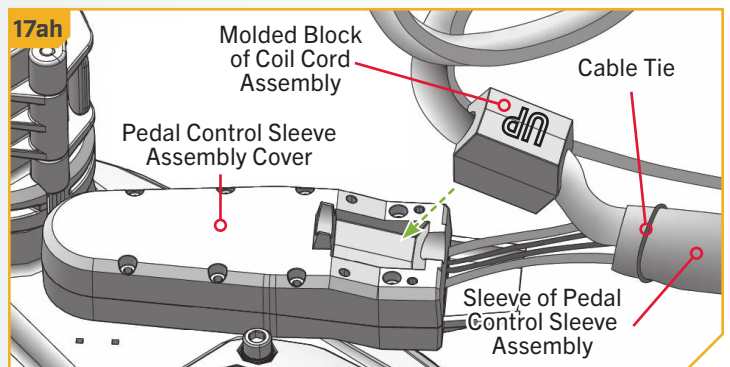
16

- ae. Ensure the wires are seated and will not be pinched or kinked when the Pedal Control Sleeve Assembly Cover is replaced.
- af. Take the Pedal Control Sleeve Assembly Cover and rotate it so that the rounded end is over the Wrap Drum. Place the cover on the Pedal Control Sleeve Assembly.
- ag. Take the screws and place one in each of the eight Mounting Holes with recessed embossing. Use a #2 Phillips Screwdriver and tighten to 13 in.-lbs.



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- ah. The Coil Cord Assembly is covered by a Sleeve that joins the wires and cables that exit the Pedal Control Sleeve Assembly and extends to the Foot Pedal. The Sleeve is secured with a Cable Tie, which joins with the Coil Cord.
- ai. Adjust the Coil Cord so that the Sleeve with the Cable Tie sits into the bottom recess of the Pedal Control Sleeve Assembly. To do this, rotate the main part of the Coil Cord Assembly by the Molded Block. The Molded Block is rectangular in shape and should be rotated so that the word "UP" molded into the block is facing upward. Press the Molded Block into the Pedal Control Sleeve Assembly Cover until seated.



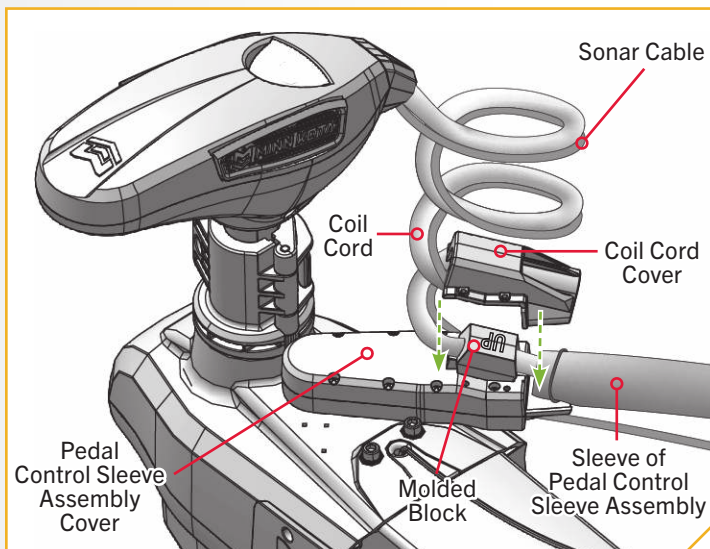


## INDEXING THE MOTOR FOR A PORT INSTALLATION

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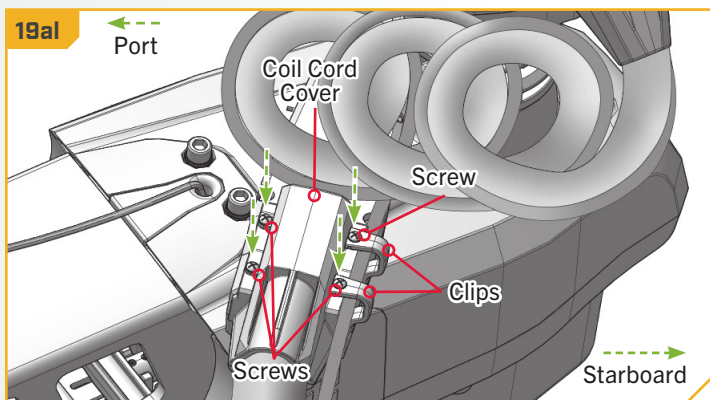
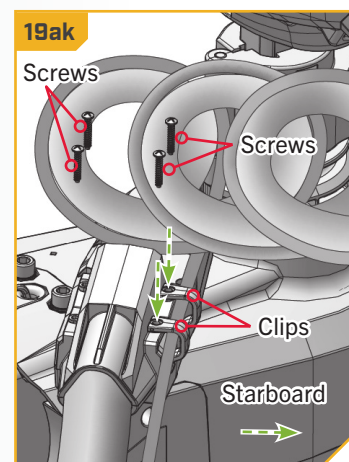
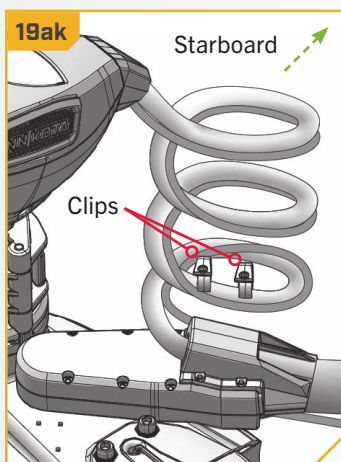
- aj. The Molded Block of the Coil Cord Assembly should be seated, and the Cable Tie and Sleeve should be secured in the recess at the bottom of the Pedal Control Sleeve Assembly. Take the Coil Cord Cover and replace it on the Pedal Control Sleeve Assembly and Molded Block. The stepped design of the Cover fits around the back of the Pedal Control Sleeve Assembly. Be sure that the Coil Cord exits the assembly and that the Sleeve and Cable tie below it are in place. The wires and Sleeve should be captured but not pinched between the Cover and Sleeve.

**NOTICE:** If present, do not capture the Sonar or Ethernet Cables in the Coil Cord Cover. Re-capture these cables that run along the side of the Coil Cord Cover during the re-installation of the Clips.



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- ak. Take the four screws and two Clips that were removed at the beginning of the installation and replace them. The Clips should be installed with the two screws on the starboard side of the motor for a standard installation. When installing the Clips, they should be rotated so that the opening is downward toward the Boat Deck. Replace the two screws that hold the Clips first so that they first go through the Coil Cord Cover and into the Pedal Control Sleeve Assembly. Use a #2 Phillips Screwdriver. If present, capture the Sonar or Ethernet Cables into the Clips when they are reinstalled.
- al. The screws that do not hold Clips on the Port-side of the Mount can be installed directly into the Coil Cord Cover and Pedal Control Sleeve Assembly. Tighten all four screws to 13 in-lbs.



# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

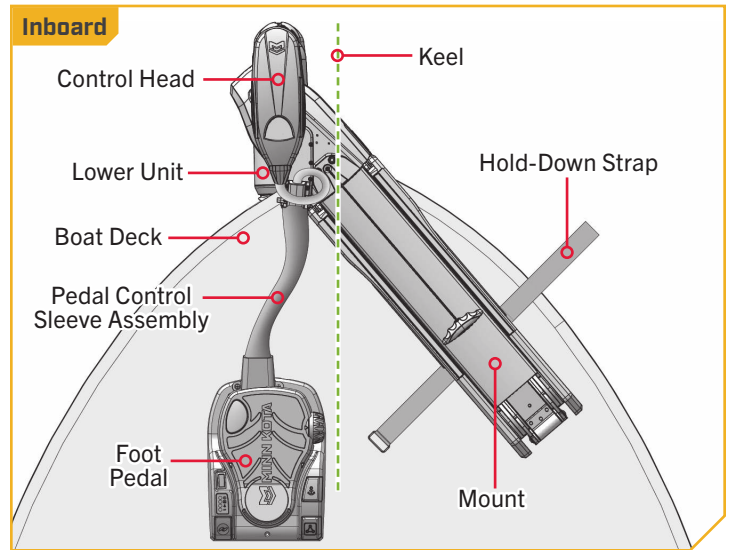
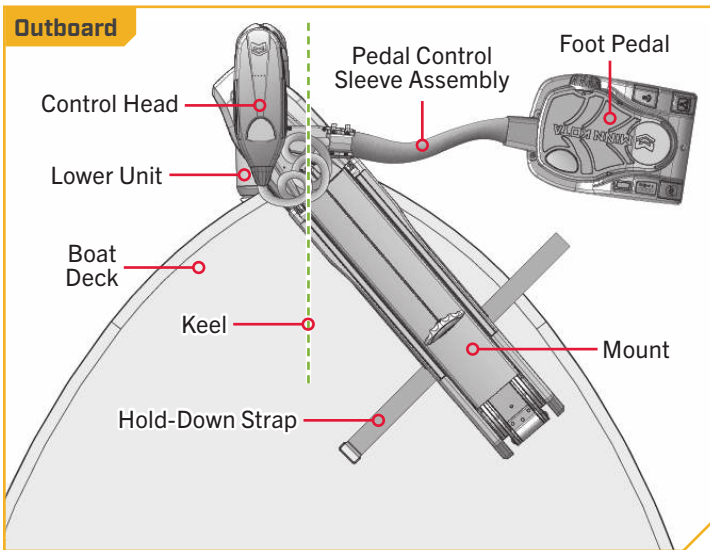
## › Rotate the Pedal Control Sleeve Assembly for a Starboard Mount

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

Once installed, the trolling motor is indexed correctly when:

1. The motor is deployed.
2. The trolling motor Control Head and Lower Unit align with the centerline or keel of the boat.
3. The top of the Foot Pedal is parallel to the deck of the boat.

Use the following instructions to change the mounting location of the Pedal Control Sleeve Assembly on the Steering Module to point inboard, and properly align the Control 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 for a Port Installation" section of this manual.

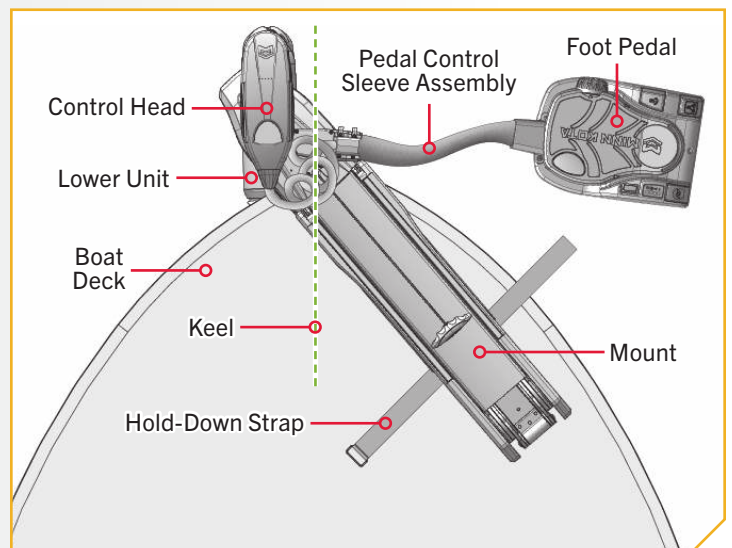


- 1**
  - a. Turn the Power Switch on the Foot Pedal "on" and steer the motor so that the Control Head is in line with the keel of the boat. Do this by steering the motor with the Foot Pedal, turning the motor with the remote, or manually turning the Control Head of the motor.
  - b. Leave the Control 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

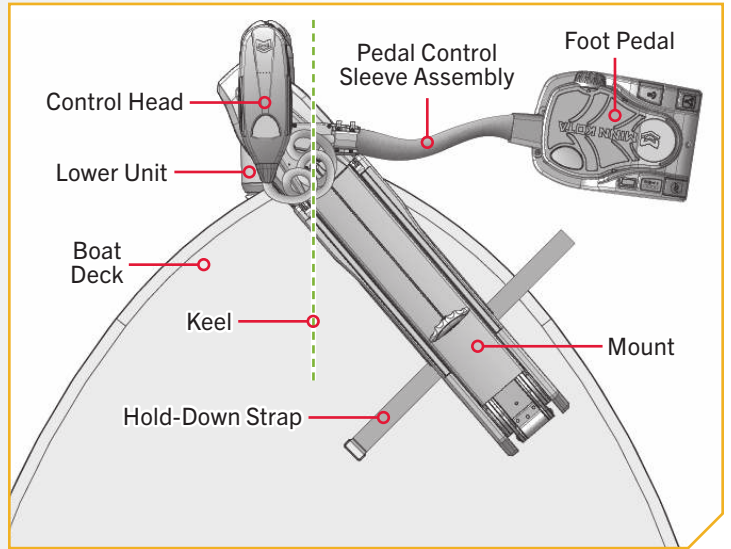
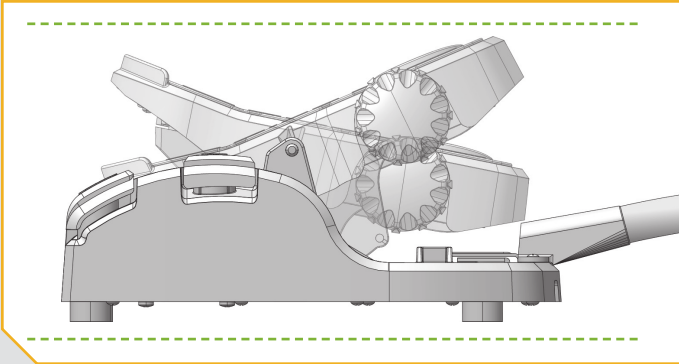
Ensure the motor is not connected to a power source to avoid electric shock.



# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

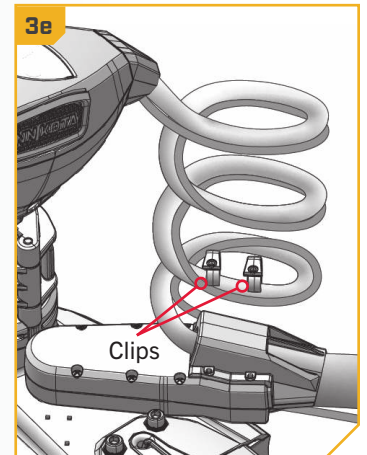
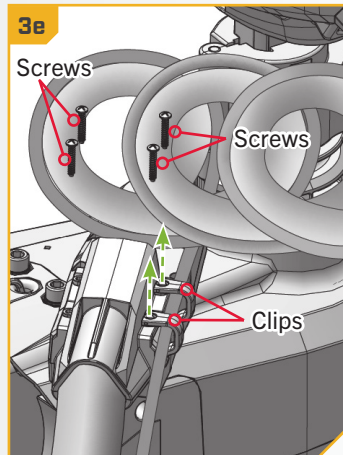
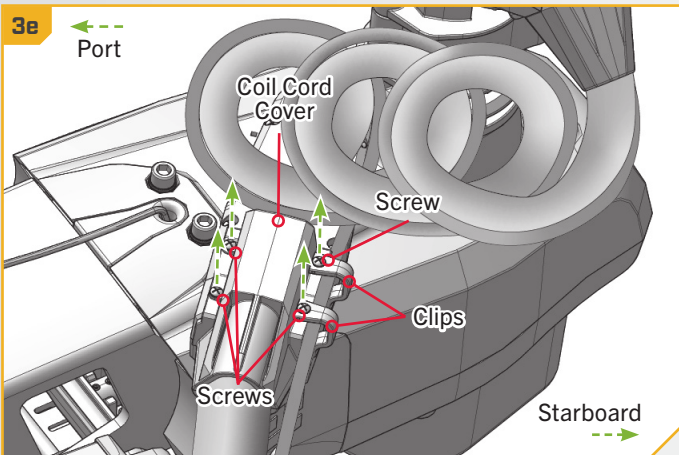
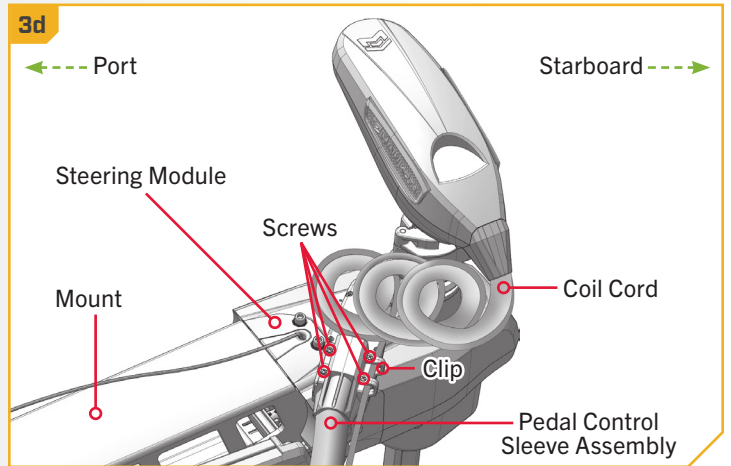
**2**

- c. With the Control Head positioned parallel with the keel or centerline of the boat, the top of the Foot Pedal will likely not be parallel with the Boat Deck. The following instructions will correct the top position of the Foot Pedal.



**3**

- d. The adjustment to the Foot Pedal and rotating the Pedal Control Sleeve Assembly is made by repositioning internal parts located where the Pedal Control Sleeve Assembly, Coil Cord, and Steering Module join. The Coil Cord Cover secures the Coil Cord in place with four screws at the end of the Pedal Control Sleeve Assembly and the top of the Steering Module.
- e. Two of the screws on the Starboard side of the Coil Cord Cover each hold a C-shaped Clip in place. The Clips retain any Ethernet or Sonar cables present. Locate the four screws holding the Coil Cord Cover in place. Using a #2 Phillips Screwdriver, remove the four Screws and the two Clips from the Coil Cord Cover and set them aside for reassembly later.

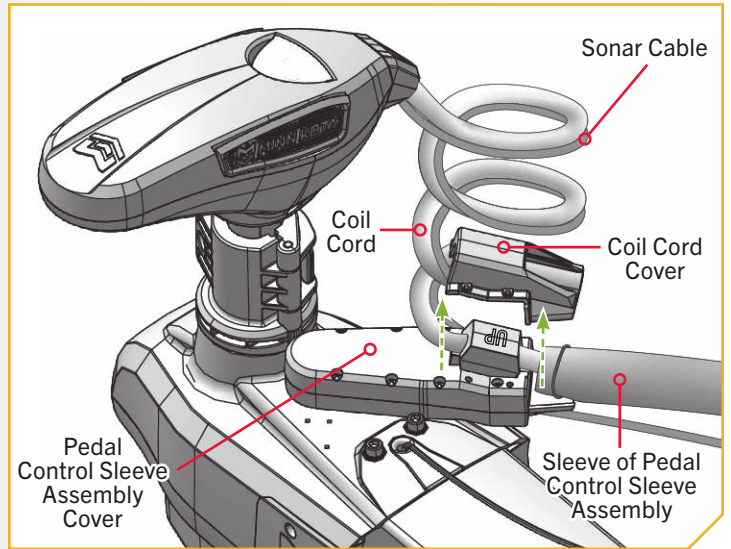


# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

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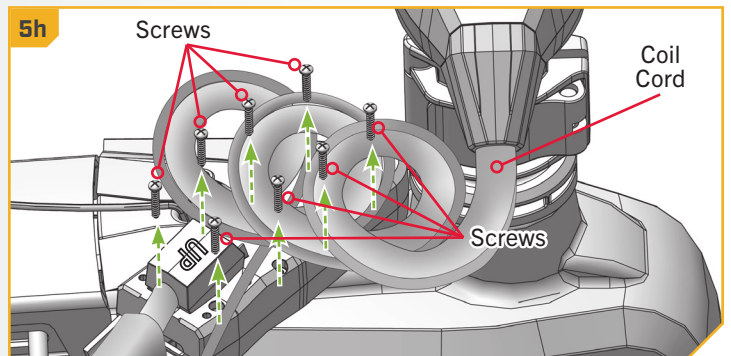
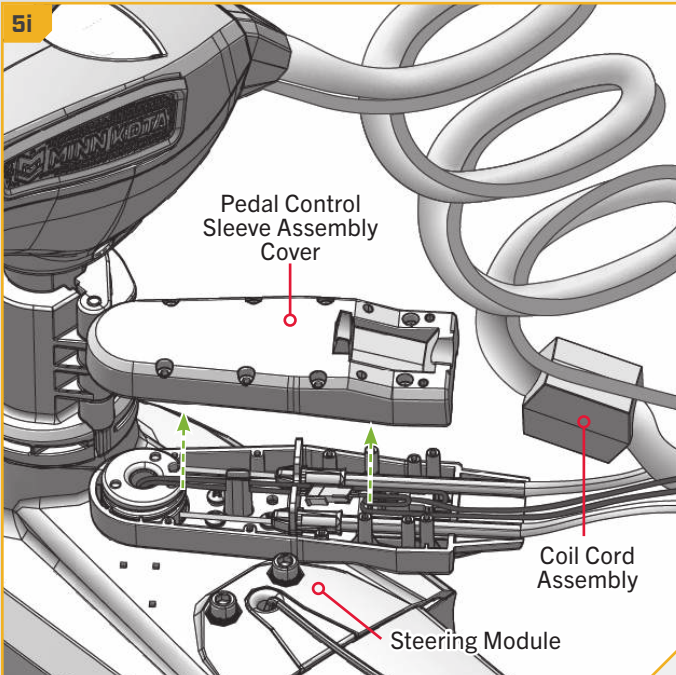
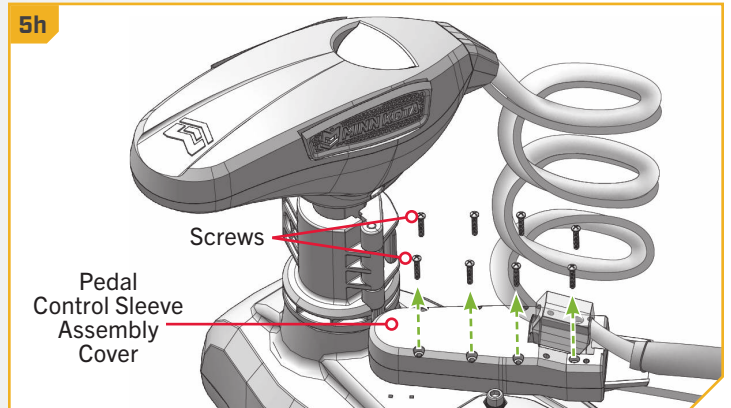
- f. Once two Clips and four screws are free, lift the Coil Cord Cover up and away from the Pedal Control Sleeve Assembly.
- g. Set the Coil Cord Cover aside for reassembly later.

**NOTICE:** Any Sonar or Ethernet Cables previously retained in the Clips can be pulled to the side to provide a clear working area around the Coil Cord Cover and Pedal Control Sleeve Assembly.



5

- h. Locate the eight screws holding the Pedal Control Sleeve Assembly Cover. Remove the screws using a #2 Phillips Screwdriver. Set the screws aside.
- i. Remove the Pedal Control Sleeve Assembly Cover by lifting it straight up. Lift the Coil Cord Assembly to the side to remove the cover if necessary.



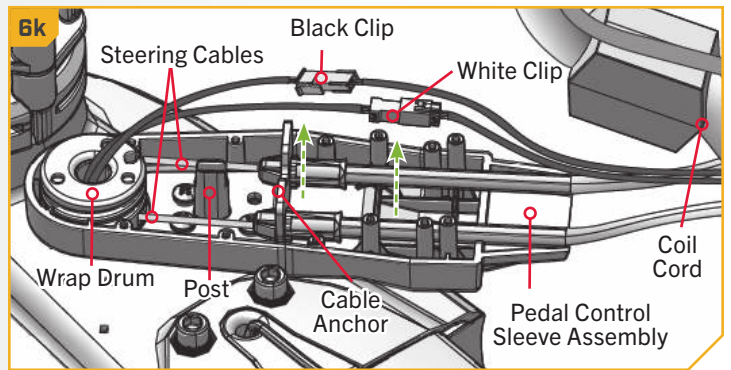
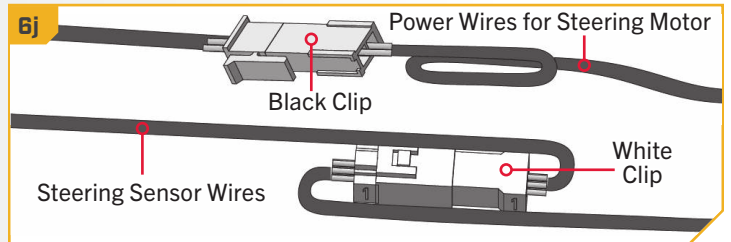
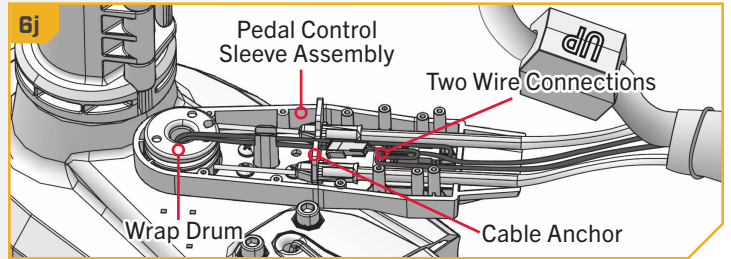
# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

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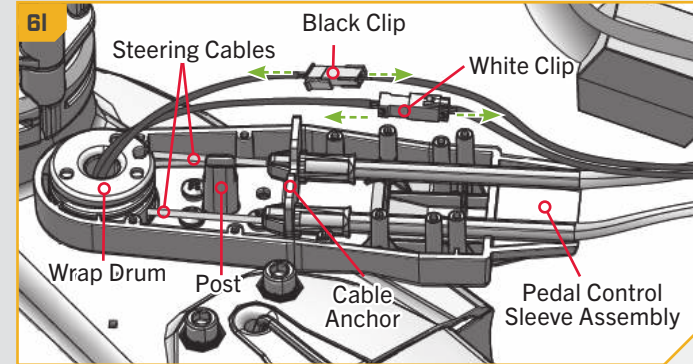
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- k. The wires from the Wrap Drum will be resting on a Post in the middle of the Pedal Control Sleeve Assembly. Lift the wire so they are free from the Post and straighten them. The wires should be straight from the Wrap Drum to the Cable Sleeve that is cable tied in place on the Coil Cord.

**NOTICE:** The connection with the black Clip contains the power wires for the steering motor inside the Steering Module. The connection with the white Clip includes the wires for the steering sensor inside the Steering Module.

- l. Disconnect both Clips.

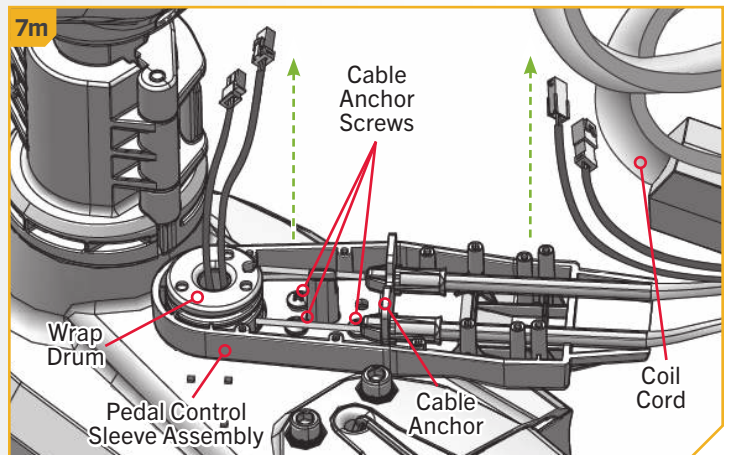


**NOTICE:** Use a Flat Blade Screwdriver to depress the tabs on the Clips to release them.



7

- m. The black and white Clip wires from the Cable Sleeve on the Coil Cord need to be free of the Cable Anchor and out of the way to access the three Cable Anchor Screws that hold the Cable Anchor to the Steering Module. The wires that come out of the Wrap Drum must be free of obstructions to facilitate lifting the Wrap Drum later in the installation.



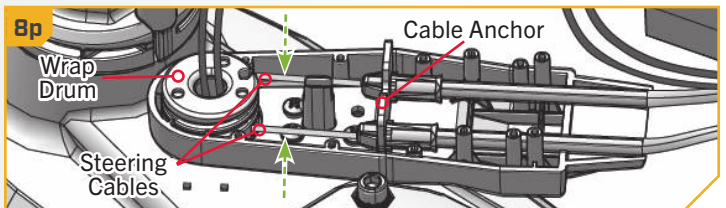
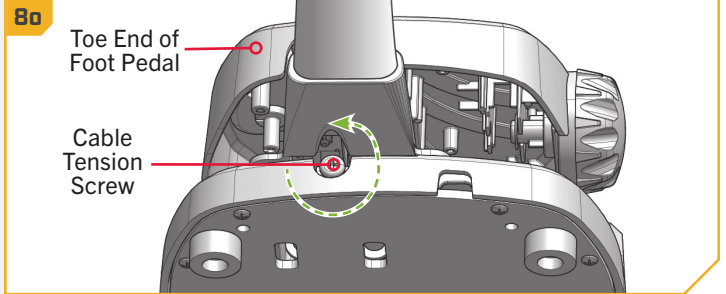
# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

8

- n. On the Foot Pedal, locate the Cable Tension Screw under the base of the Toe End of the Foot Pedal.
- o. The Cable Tension Screw holds tension on the Steering Cables. Use a #3 Phillips Screwdriver to loosen this screw. Turning the screw approximately fifteen rotations counterclockwise should provide enough slack in the cables to adjust. Keep track of the number of screw rotations so it can be re-tightened accordingly later.
- p. Loosen the Cable Tension Screw just enough so that the Steering Cables can be pinched together between the Cable Anchor and Wrap Drum.

## CAUTION

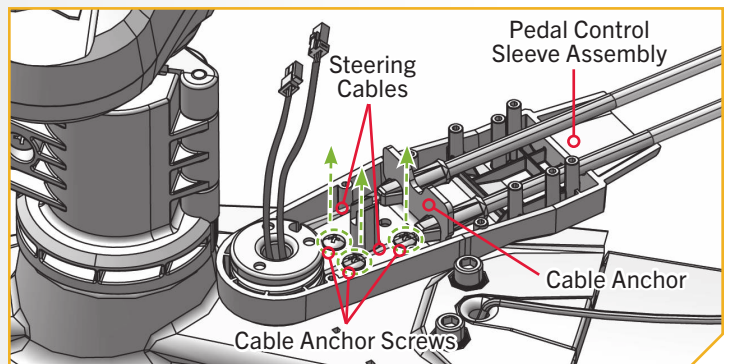
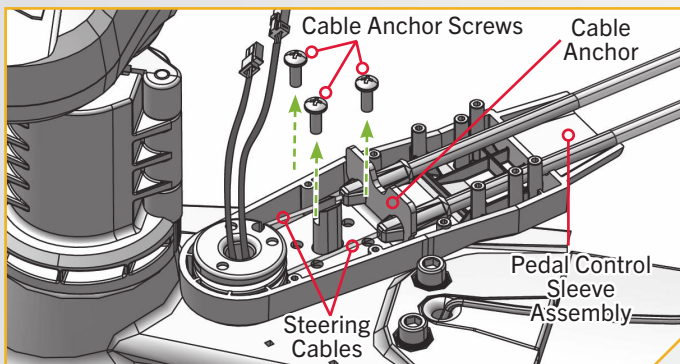
Over-loosening the Cable Tension Screw may cause the cables to disengage from the Wrap Drum.



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

9

- q. Once the Steering Cables are loose, take a #2 Phillips Screwdriver and remove the three Cable Anchor Screws that hold the Cable Anchor in place on the Steering Module. Set the screws aside.
- r. With the three screws holding the Cable Anchor removed, the Cable Anchor and bottom of the Pedal Control Sleeve Assembly can move freely around the Cable Spline Gear. The Wrap Drum sits on the Cable Spline Gear.



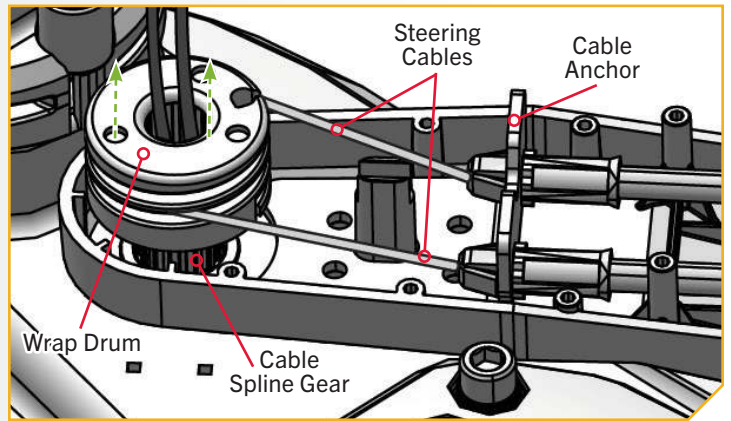
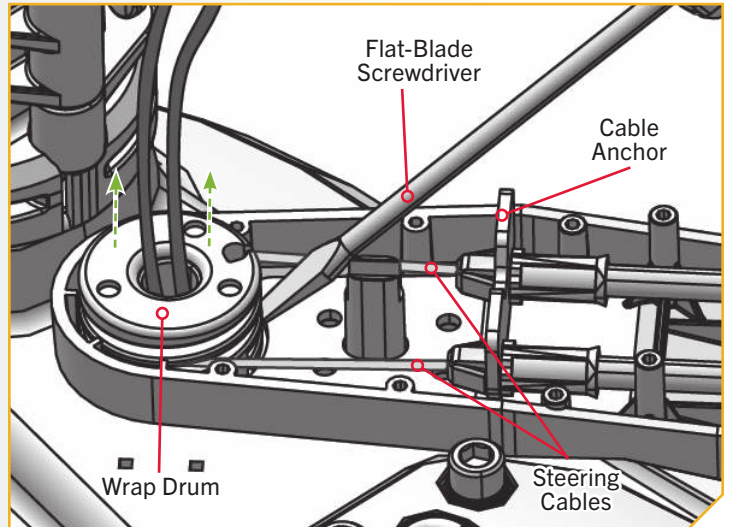
# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

10

- s. Once the Cable Tension Screw on the Foot Pedal is loosened, use a Flat-blade Screwdriver to pry the Wrap Drum straight off the Cable Gear. Lift until the Wrap Drum is free of the Cable Spline Gear.

## CAUTION

Ensure that the Steering Cables remain on the Wrap Drum while disengaged from the Cable Spline Gear. The Steering Cables must follow the grooves on the Wrap Drum so that they do not become intertwined or pop off. Ensure the electric wires are not damaged when lifting the Wrap Drum.

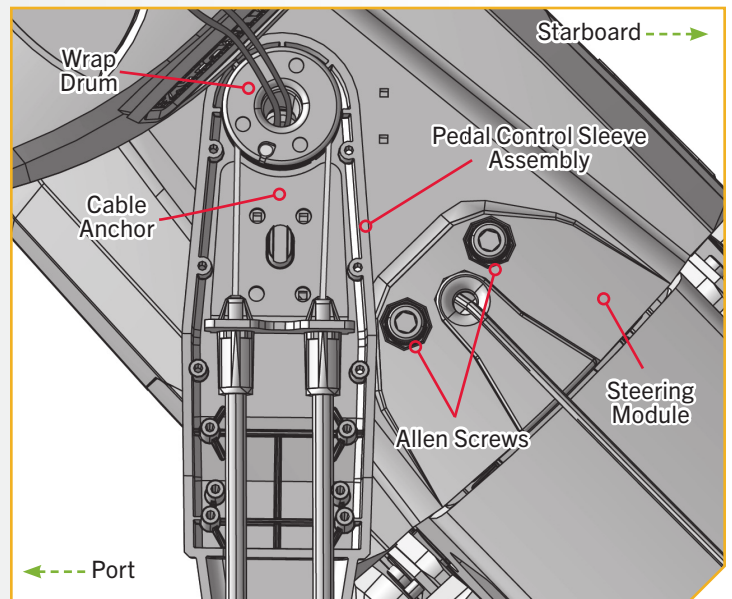
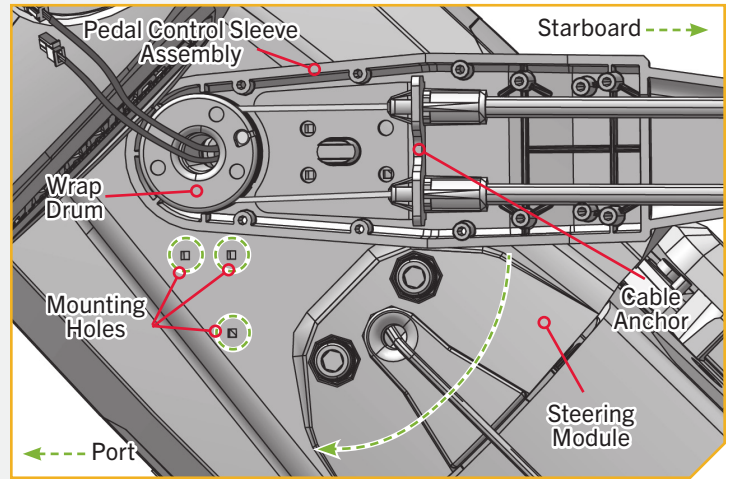


## ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

11

- t. While holding the Wrap Drum just above the Cable Spline Gear, and maintaining tension on the Steering Cables, carefully rotate the Wrap Drum, Cable Anchor, and bottom of the Pedal Control Sleeve Assembly inboard towards the Port side of the boat. Rotate the pieces, keeping the Wrap Drum centered over the Cable Spline Gear. The Cable Anchor and bottom of the Pedal Control Sleeve Assembly contain holes that align to install the Cable Anchor Screws. The pieces are rotated to the correct position when the Mounting Holes in the Cable Anchor and Pedal Control Sleeve Assembly align with the threaded holes on the Port-facing side of the Steering Module.

**NOTICE:** When rotating the Pedal Control Sleeve Assembly, Cable Anchor, and Wrap Drum, ensure the pieces are lifted high enough off the Steering Module to avoid hitting the Allen Screws that secure the Steering Module to the Mount.





# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

12

- u. While holding only the Wrap Drum just above the Cable Spline 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 Drum Anchors for each Steering Cable 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.

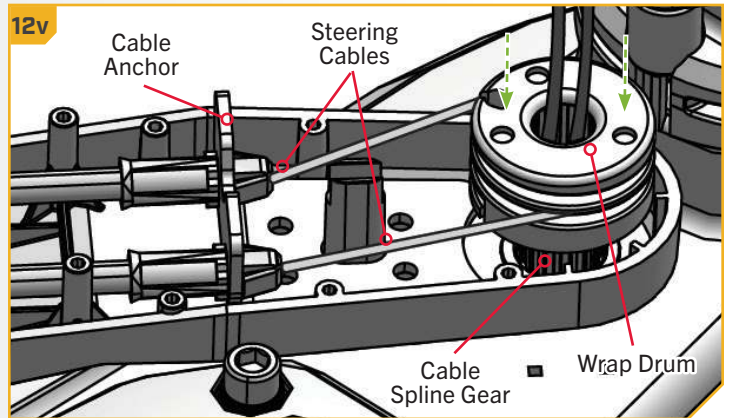
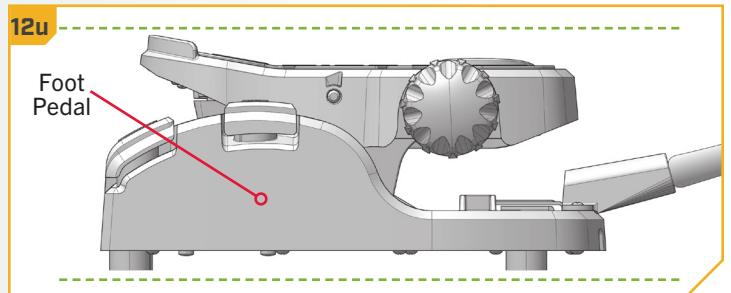
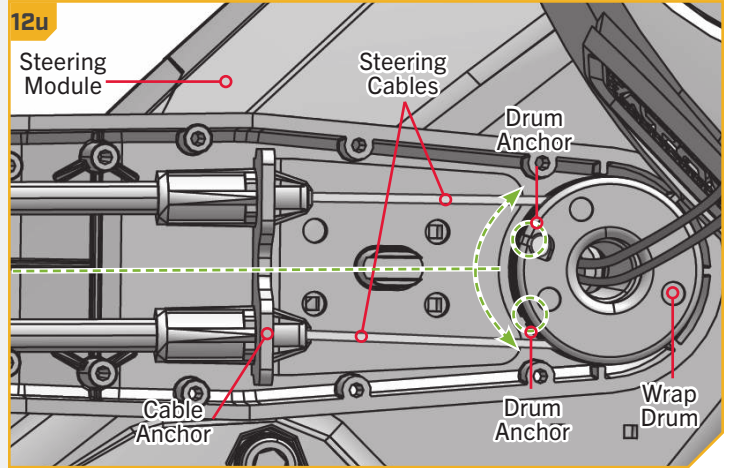
- v. Once the Foot Pedal is at the desired position, align the Wrap Drum with the nearest tooth on the Splined Shaft of the Cable Spline Gear. Press the Wrap Drum securely, so it is seated on top of the gear. At this point, the head of the motor should be parallel with the Boat Keel, and the top of the foot pedal should be parallel with the Boat Deck.

**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 Spline 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 needs to be reassembled correctly for proper operation.

**NOTICE:** When seating the Wrap Drum, make sure not to pinch the motor power or steering sensor wires between the Wrap Drum and the Cable Spline Gear.



**NOTICE:** When adjusting the Wrap Drum, the Cable Anchor and the bottom of the Pedal Control Sleeve Assembly will be loose. The pieces are loose to help facilitate the rotation and the tension on the cables for the adjustment.

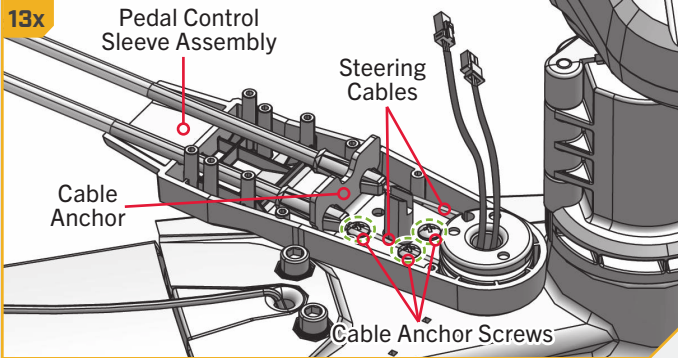
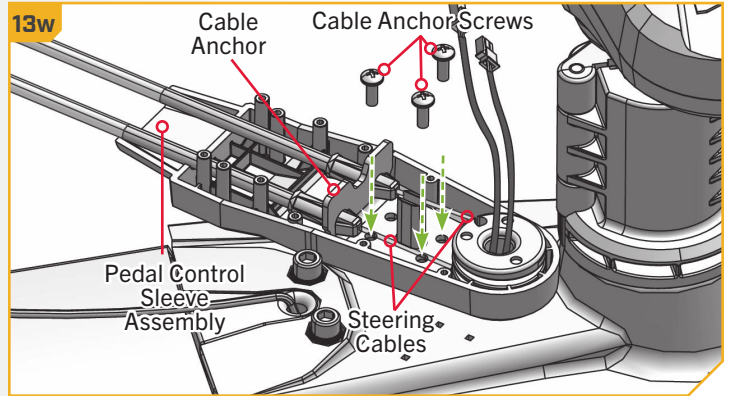
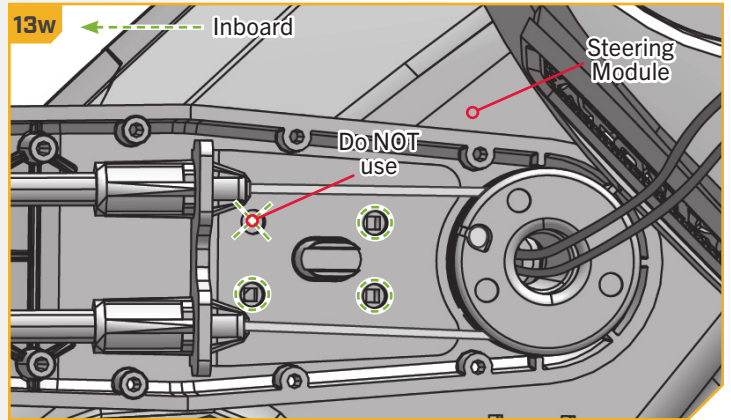
# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

13

- w. Take the three Cable Anchor Screws that hold the Cable Anchor to the Steering Module and replace them using a #2 Phillips Screwdriver. The screws should pass through the Cable Anchor and the bottom of the Pedal Control Sleeve Assembly and into the Steering Module. Tighten the Cable Anchor Screws to 30 in-lbs.

**NOTICE:** The Cable Anchor and the Pedal Control Sleeve Assembly contain four holes to secure the assembly to the Steering Module, but only three holes are used. Ensure the screws are placed in the correct holes to replace the Pedal Control Sleeve Assembly and Cable Anchor. The hole that should not be used will not have a threaded hole into the Steering Module to secure the Cable Anchor Screw. For trolling motors mounted on the Starboard side of the Boat Deck, this hole will be the furthest inboard toward the Keel and align inboard from the Steering Module.

- x. Once the screws are in place, return to the Foot Pedal.

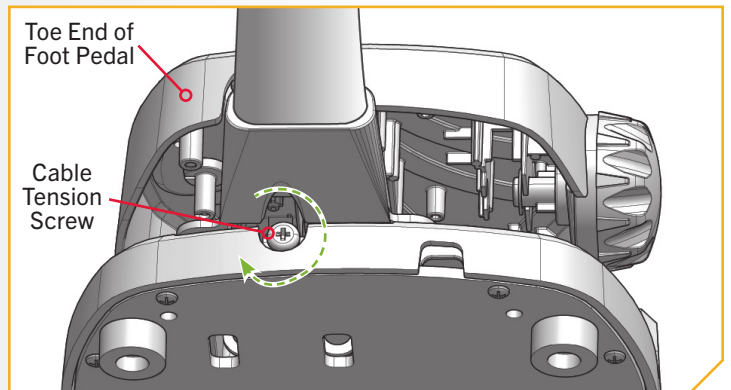


14

- y. 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 Cable Tension Screw the same number of turns it was loosened to at the beginning of the process.

**CAUTION**

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

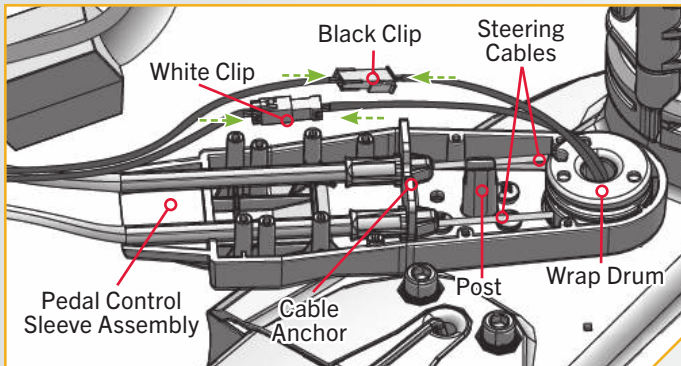
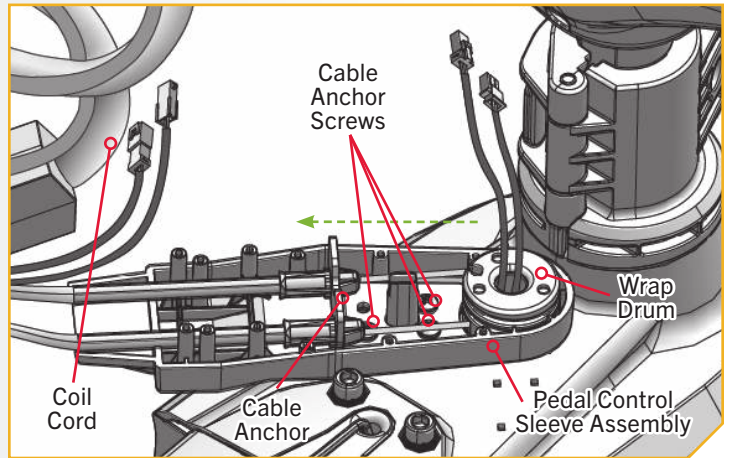


# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

15

z. The wires from the Steering Module go through the center of the Cable Spline Gear and the Wrap Drum. The mated connection to these wires enters the Pedal Control Sleeve Assembly from the Coil Cord. Match the wire with the white Clip with the corresponding wire with the white Clip and press the connection together.

aa. Do the same for the wires with the black Clip.



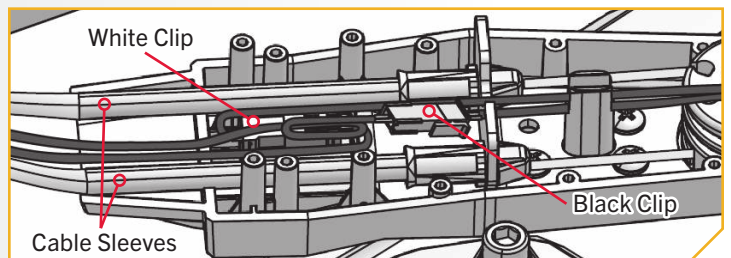
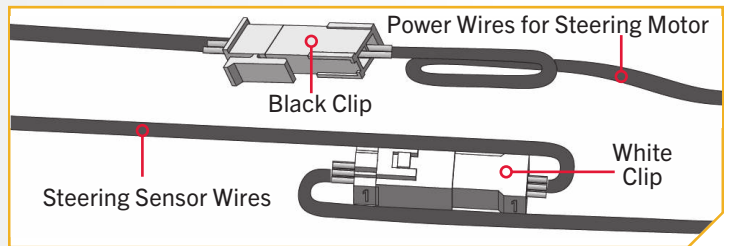
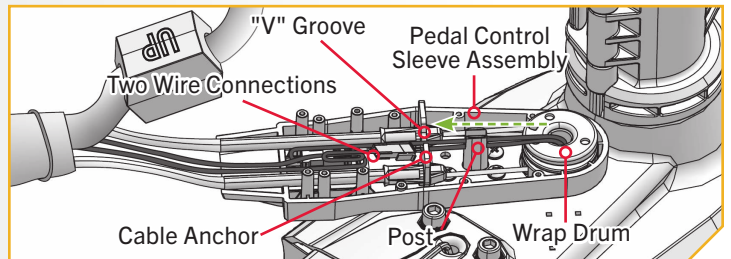
16

ab. With the Clips secured, guide the wires from the Wrap Drum straight and position them towards the Coil Cord away from the Wrap Drum.

ac. To cleanly place the wires inside the Pedal Control Sleeve Assembly, start with the wire with the white Clip. Place the wire with the white Clip in the groove of the Post on the Cable Anchor. Then gently guide the wire past the "V" groove of the Cable Anchor.

ad. Take the white Clips and gently bend the wires so that the slack in the wires forms a loose "S" shape. Guide it to the side of the Cable Anchor where the Steering Cables are coated with a black sleeve away from the Wrap Drum. Place the white Clip and the "S" shaped wire between the black sleeve on the Cables.

ae. Repeat the process for the wire with the black Clip. Shape the wire with the black Clip into a small loop rather than an "S" shape.

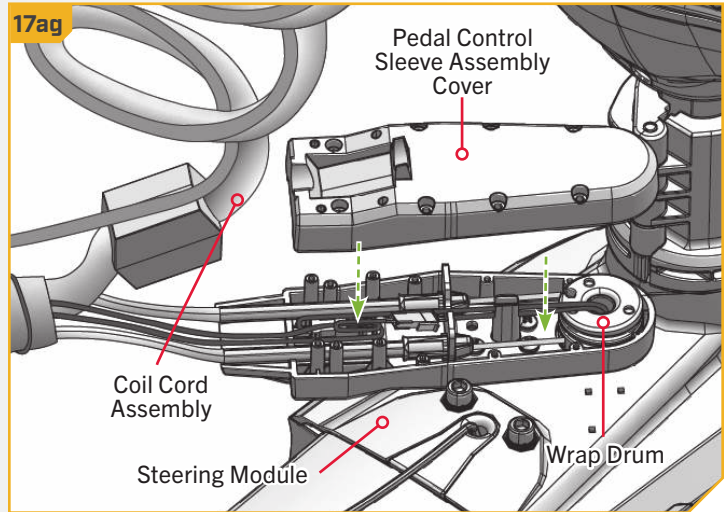


**NOTICE:** Ensure the wires remain in the Post when complete.

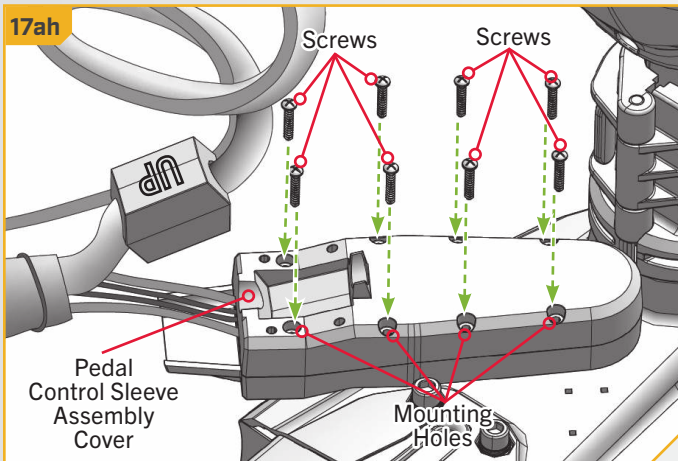
# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

17

- af. Ensure the wires are seated and will not be pinched or kinked when the Pedal Control Sleeve Assembly Cover is replaced.
- ag. Take the Pedal Control Sleeve Assembly Cover and rotate it so that the rounded end is over the Wrap Drum. Place the cover on the Pedal Control Sleeve Assembly.
- ah. Take the screws and place one in each of the eight Mounting Holes with recessed embossing. Use a #2 Phillips Screwdriver and tighten to 13 in-lbs.

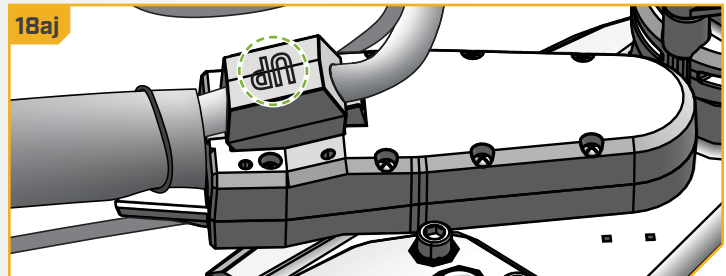
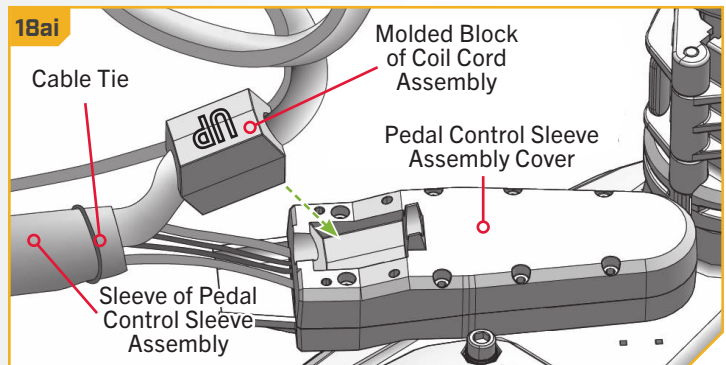


17ah



18

- ai. The Coil Cord Assembly is covered by a Sleeve that joins the wires and cables that exit the Pedal Control Sleeve Assembly and extends to the Foot Pedal. The Sleeve is secured with a Cable Tie, which joins with the Coil Cord.
- aj. Adjust the Coil Cord so that the Sleeve with the Cable Tie sits into the bottom recess of the Pedal Control Sleeve Assembly. To do this, rotate the main part of the Coil Cord Assembly by the Molded Block. The Molded Block is rectangular in shape and should be rotated so that the word "UP" molded into the block is facing upward. Press the Molded Knob into the Pedal Control Sleeve Assembly Cover until seated.

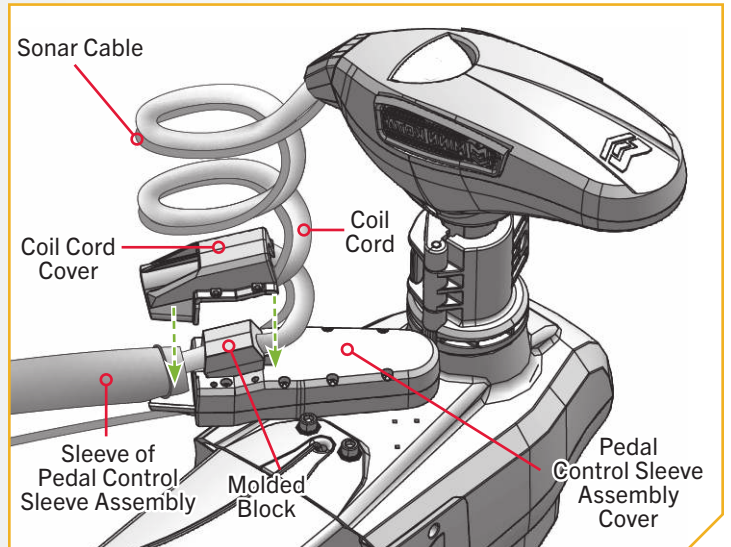


# ROTATE THE PEDAL CONTROL SLEEVE ASSEMBLY FOR A STARBOARD MOUNT

19

ak. The Molded Block of the Coil Cord Assembly should be seated, and the Cable Tie and Sleeve should be secured in the recess at the bottom of the Pedal Control Sleeve Assembly. Take the Coil Cord Cover and replace it on the Pedal Control Sleeve Assembly and Molded Block. The stepped design of the Cover fits around the back of the Pedal Control Sleeve Assembly. Be sure that the Coil Cord exits the assembly and that the Sleeve and Cable tie below it are in place. The wires and Sleeve should be captured but not pinched between the Cover and Sleeve.

**NOTICE:** If present, do not capture the Sonar or Ethernet Cables in the Coil Cord Cover. Re-capture these cables that run along the side of the Coil Cord Cover during the re-installation of the Clips.

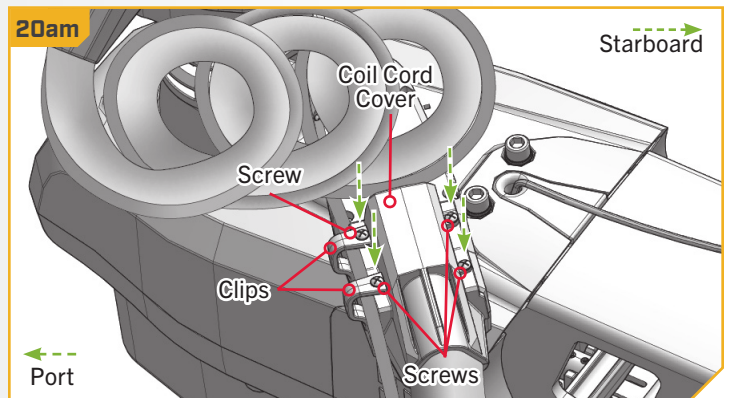
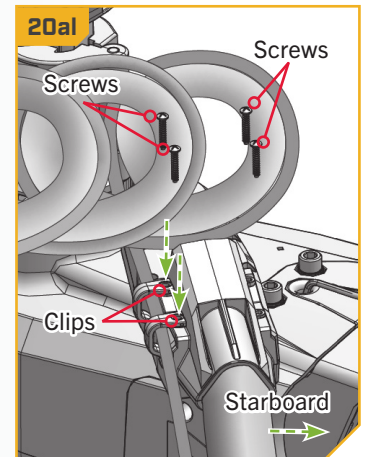
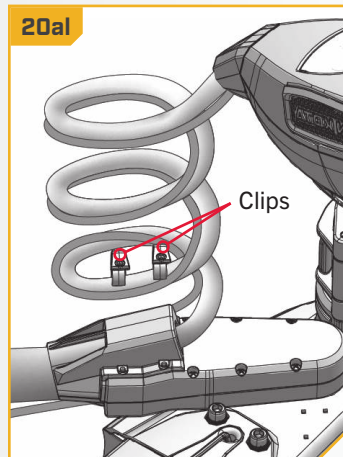


20

al. Take the four screws and two Clips that were removed at the beginning of the installation and replace them. The Clips should be installed with the two screws on the starboard side of the motor for a standard installation. When installing the Clips, they should be rotated so that the opening is downward toward the Boat Deck. Replace the two screws that hold the Clips first so that they first go through the Coil Cord Cover and into the Pedal Control Sleeve Assembly. Use a #2 Phillips Screwdriver. If present, capture the Sonar or Ethernet Cables into the Clips when they are reinstalled.

**NOTICE:** Only some installations will be standard. Consider installing the Clips on the Port or Starboard side based on the best configuration for the installation. The placement of the Clips is to route cables away from the Steering Module and Mount, where they may cause an obstruction. Ensure the Sonar and Ethernet Cables are captured in the Clips when installed on either side.

am. The screws that do not hold Clips on the Starboard-side of the Mount can be installed directly into the Coil Cord Cover and Pedal Control Sleeve Assembly. Tighten all four screws to 13 in-lbs.



# PLACING THE BOW-MOUNT STABILIZER

## Placing the Bow-Mount Stabilizer

The Bow-Mount Stabilizer Bracket stabilizes the Steering Module and reduces bouncing when the Motor is stowed and transported. Attention to detail is needed for the successful installation of the stabilizer. Minn Kota recommends having 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 in the Mount, 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 for the Mount. Lack of Mount support may cause damage. Failure to install the Bow-Mount Stabilizer may result in damage to your motor and may adversely affect your warranty.

## 1

### ITEM(S) NEEDED

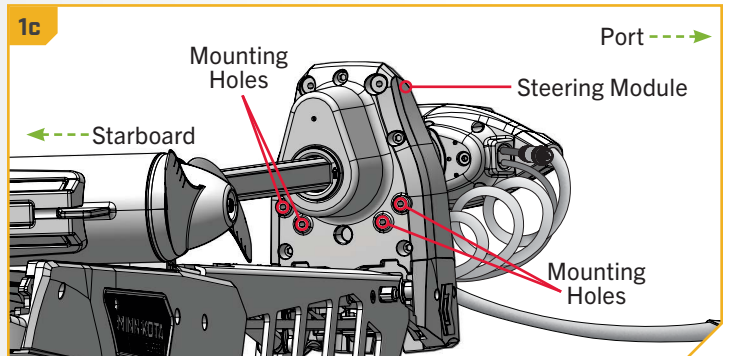
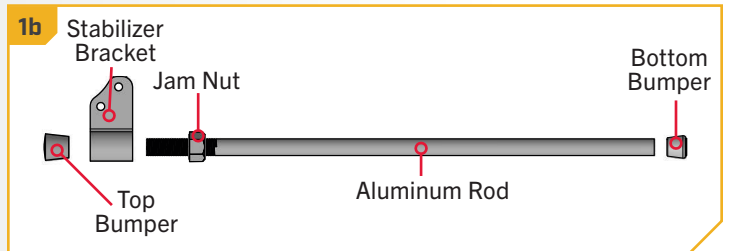
 #30 x 1    #28 x 1    #24 x 1    #26 x 1    #22 x 1    #32 x 2

- Place the Motor in the stowed position.
- Remove the Top Bumper (Item #30) and the Bottom Bumper (Item #22) from the Aluminum Rod (Item #24) and set the bumpers aside. Unscrew the Stabilizer Bracket (Item #28) from the Aluminum Rod. Keep the Jam Nut (Item #26) on the Aluminum Rod. Set the Aluminum Rod with Jam Nut aside.

**NOTICE:** The Bottom Bumper is made of a rubber material. When reinstalling, ensure both bumpers are reinstalled in the correct position.

**NOTICE:** Install the Bow-Mount Stabilizer Bracket on the Port or Starboard side of the Steering Module. When mounting the Stabilizer Bracket onto the Ultrex QUEST, discard the two Nylock Nuts (Item #32). Only the bolts and Lock Washers are used for the Stabilizer Bracket when installed directly into the Steering Module.

- Determine the desired location for mounting the Stabilizer Bracket to the Steering Module, either Port or Starboard. Position the Stabilizer Bracket in line with the mounting holes on the bottom of the Steering Module.



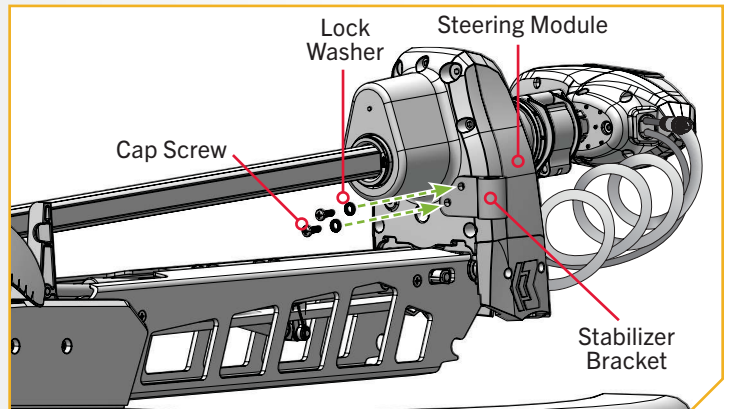
## PLACING THE BOW-MOUNT STABILIZER

### 2

#### ITEM(S) NEEDED

 #34 x 2       #36 x 2

- d. Take two 5/16" Cap Screws (Item #34) and place one Lock Washer (Item #36) on each screw. Use the screws with the Lock Washers to secure the Stabilizer Bracket to the Steering Module. Tighten with a 1/4" Allen Wrench to 10 ft-lbs.



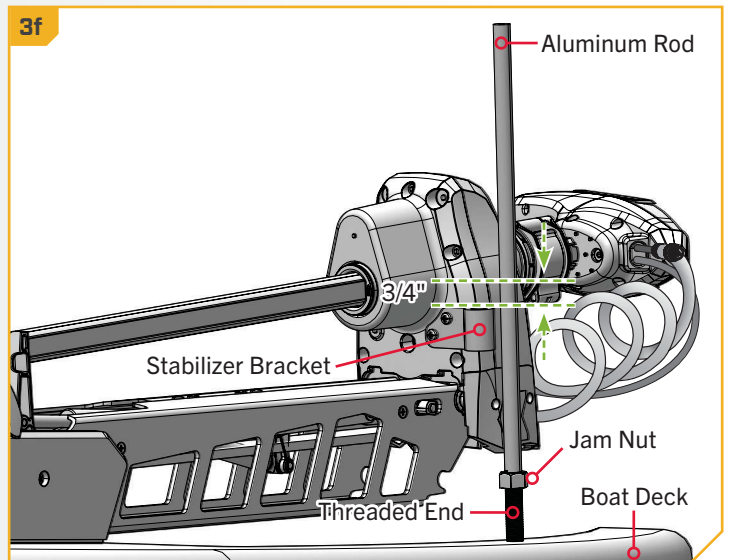
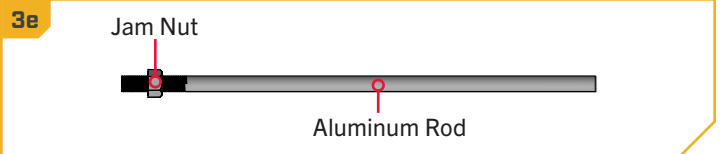
### 3

- e. Take the Aluminum Rod with Jam Nut in place.
- f. Stand the Aluminum Rod with the threaded end down. Set it on the Boat Deck so it sits vertically next to the Stabilizer Bracket. Use this position to measure the Aluminum Rod to cut it to the proper length.

#### CAUTION

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

- g. Mark the Aluminum Rod with a pencil or marker 3/4" past the top of the Stabilizer Bracket.
- h. 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.



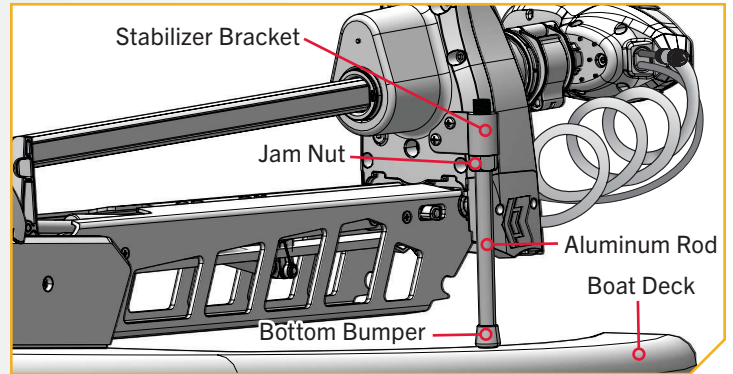
## PLACING THE BOW-MOUNT STABILIZER

4

- i. Replace the Bottom Bumper on the Aluminum Rod, opposite from the threads, over the cut end.
- j. Thread the Aluminum Rod into the Stabilizer Bracket with the Bottom Bumper towards the Boat Deck.
- k. Adjust the Aluminum Rod up or down in the Stabilizer Bracket. The Bottom Bumper should rest on the Boat Deck.

### CAUTION

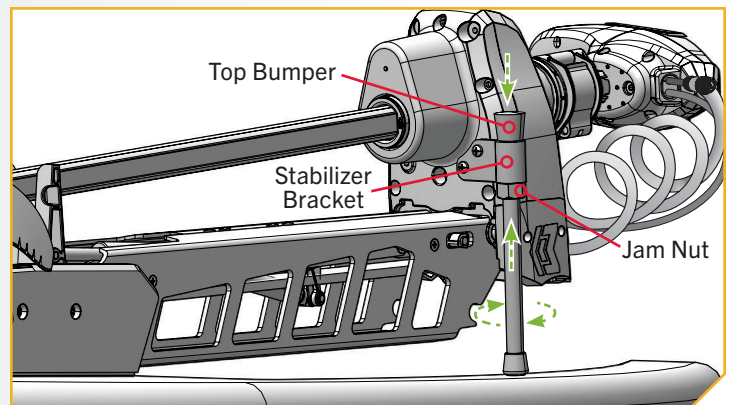
Adjusting the Aluminum Rod too tightly removes the end play needed for proper latch pin engagement in the Mount, and doing so could prevent the Mount from fully latching in the stowed position. Improper latching may cause damage. If installed correctly, the Aluminum Rod tip should lift off the Boat Deck about 1/4" without the Mount unlatching.



**NOTICE:** When placing the Aluminum Rod for final installation, the threaded end faces upward.

5

- l. Once in the correct position, tighten the Jam Nut upwards against the Stabilizer Bracket by turning it clockwise. A tight Jam Nut will prevent the Aluminum Rod from turning.
- m. Install the Top Bumper on any exposed threads on the Aluminum Rod above the Stabilizer Bracket.



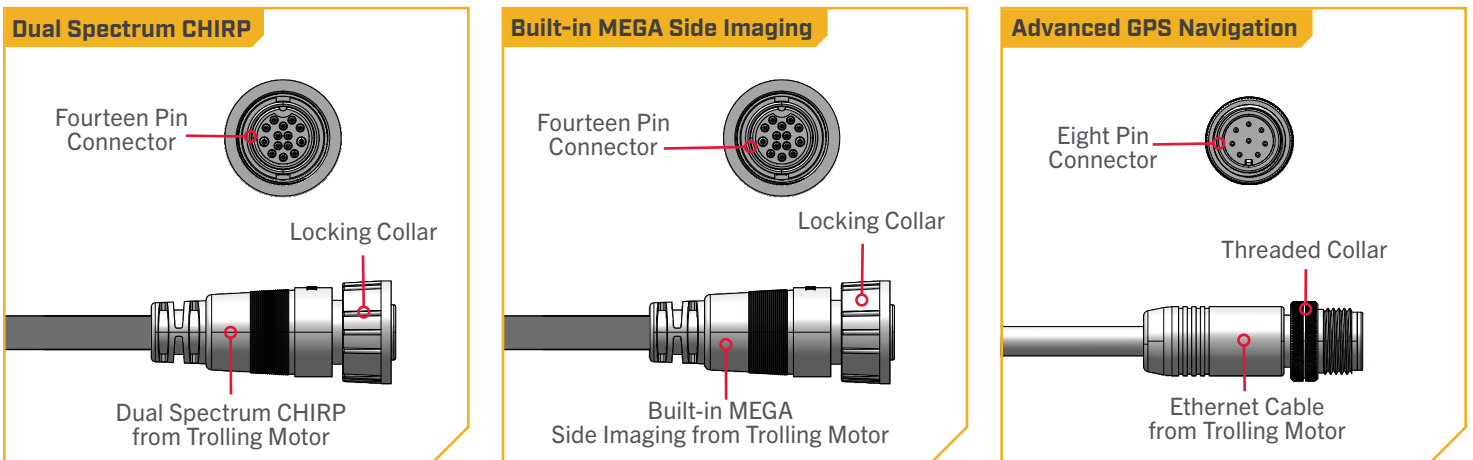


# IDENTIFYING TROLLING MOTOR FEATURES AND THEIR ASSOCIATED CABLES

## IDENTIFYING TROLLING MOTOR FEATURES AND THEIR ASSOCIATED CABLES

### Feature & Cable Identification

The Ultrex QUEST is pre-installed with Advanced GPS Navigation - including the ability to connect via Ethernet to a Humminbird unit. It may also be installed with sonar, either Dual Spectrum CHIRP or Built-in MEGA Side Imaging. Dual Spectrum CHIRP and Built-in MEGA Side Imaging will be installed in combination with Advanced GPS Navigation. All of these features require Accessory Cables to be connected to an output device. The connectors are present on the trolling motor and have cables that exit below the Control Head or run parallel to the Coil Cord and exit at the base of the Mount. To better identify Accessory Cables present, refer to the diagrams that detail what the Dual Spectrum CHIRP, Built-in MEGA Side Imaging and Advanced GPS Navigation connectors look like.



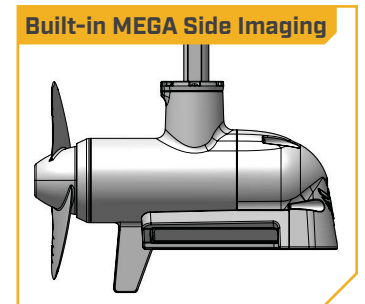
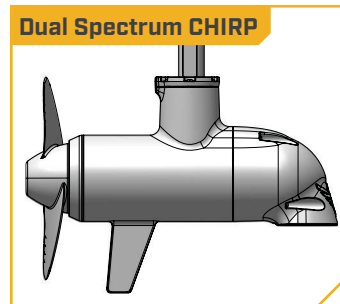
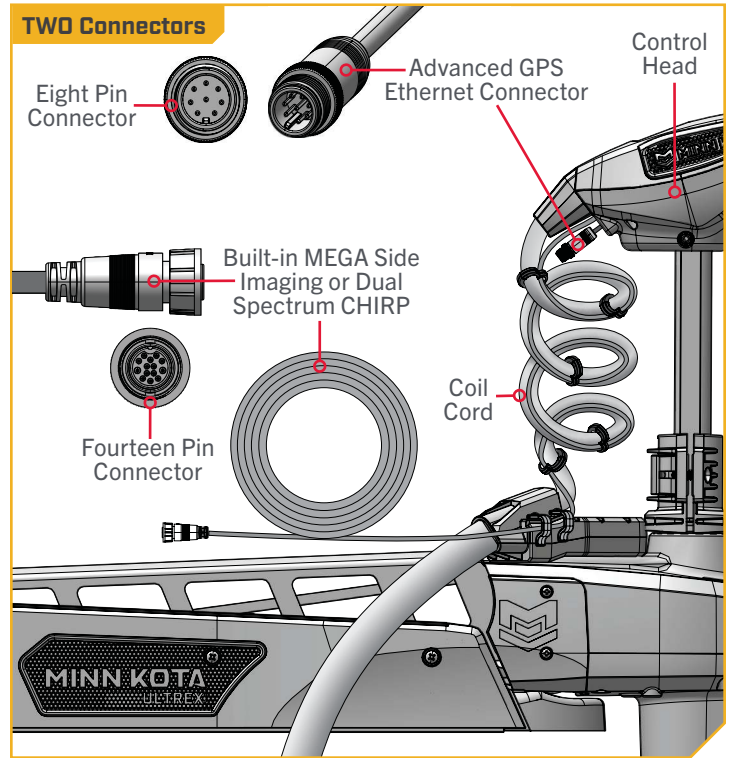
# IDENTIFYING TROLLING MOTOR FEATURES AND THEIR ASSOCIATED CABLES

## Identifying Connectors

Every Ultrex QUEST will have **TWO** connectors present below the Control Head. The trolling motor will be equipped with:

**Advanced GPS Navigation & Dual Spectrum CHIRP or Built-in MEGA Side Imaging** - Advanced GPS Navigation is pre-installed on your trolling motor. One Eight Pin Advanced GPS Ethernet Connector will exit the base of the Control Head and rest just below the Control Head next to the Coil Cord. If the Advanced GPS Navigation on the trolling motor will be used with a fish finder, an Ethernet Cable may be attached to the Advanced GPS Ethernet Connector below the Control Head. See the “Advanced GPS Navigation” section of this document for details on how to install the Advanced GPS Ethernet Connector to a Humminbird.

Dual Spectrum CHIRP or Built-in MEGA Side Imaging is pre-installed on your trolling motor. One Sonar Accessory Cable will exit the base of the Control Head and run parallel to the Coil Cord. The Cable will come installed from the factory secured to the Coil Cord. The end of the Cable will have a Fourteen Pin Connector. Motors with Dual Spectrum CHIRP or Built-in MEGA Side Imaging will also have a transducer in the Lower Unit. The appearance of the transducer will vary depending on sonar type.



## › Feature & Cable Management

### DUAL SPECTRUM CHIRP ›

Your trolling motor may be pre-installed with a transducer system featuring Humminbird's Dual Spectrum CHIRP. CHIRP stands for "Compressed High Intensity Radar Pulse". Dual Spectrum CHIRP is a 2D sonar transducer with a temperature sensor that is integrated into the lower unit of the trolling motor. Humminbird also utilizes a proprietary, best-in-class transducer designed and built to maximize fish detail, as well as coverage area. Dual Spectrum CHIRP scans the water for fish similar to the way the seek function on your truck's radio scans the airwaves for FM stations. By covering a wide range of frequencies, CHIRP produces more accurate, more detailed returns of fish, structure, and the bottom.

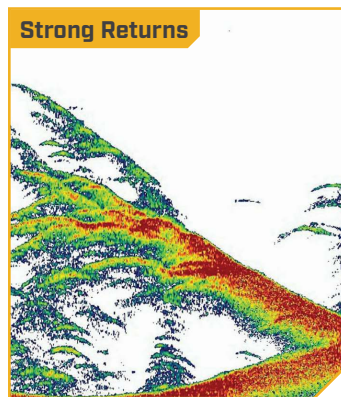
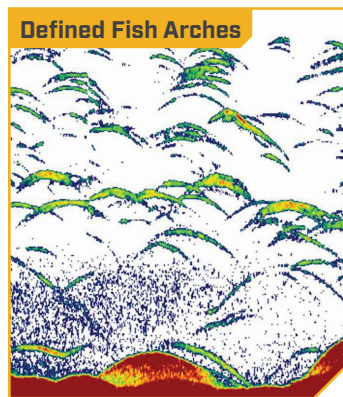
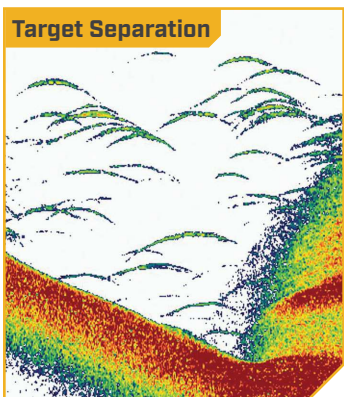
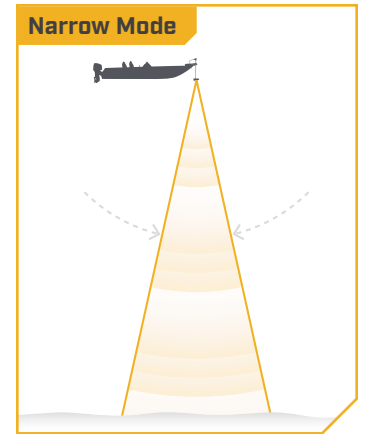
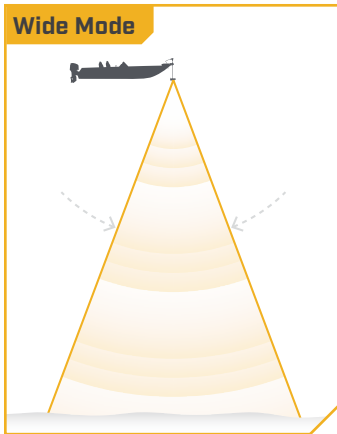
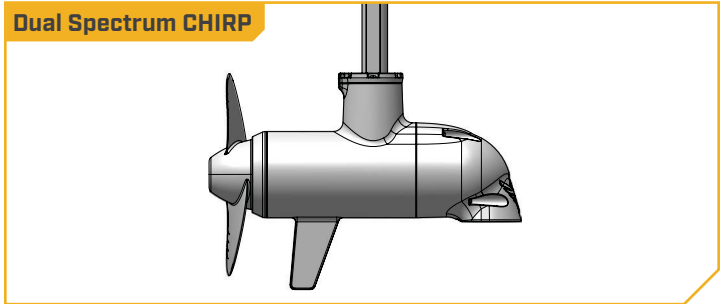
Humminbird's Dual Spectrum CHIRP gives you full spectrum capability, plus the power to select your own start and end frequencies by operating in two different modes. Wide Mode for maximum coverage and Narrow Mode for maximum detail. Wide mode allows you to search deep and wide. Is it used for watching your lure while vertical jigging, or gaining a more expansive view in shallow water. Narrow Mode is used to hone in on the small stuff that makes a big difference. Narrow Mode provides a precise perspective of the water below, helping you target individual fish, or identify fish hidden in structure and/or tight to the bottom.

Dual Spectrum CHIRP features:

**SUPERIOR TARGET SEPARATION** - Separating fish from their habitat is the name of the game. And now, you'll be able to tell the difference more easily between bait and game fish, and nearby structure and vegetation.

**CLEARLY DEFINED FISH ARCHES** - We've got bad news for your arch nemesis. Large game fish will show up on your screen as long, well-defined arches, for quick identification and accurate lure presentation.

**STRONG RETURNS WITHOUT NOISE** - Stop seeing things that aren't there. A high signal-to-noise ratio translates to better defined targets, less clutter and greater certainty that what you're looking at on-screen is legit.



# DUAL SPECTRUM CHIRP

The integrated design of the Dual Spectrum CHIRP transducer protects it in the lower unit of the trolling motor from underwater hazards and prevents tangles and damage to the transducer cables. In certain situations, air bubbles may adhere to the surface of the Dual Spectrum CHIRP transducer and affect the performance. If this happens, simply wipe the surface of the transducer with your finger.

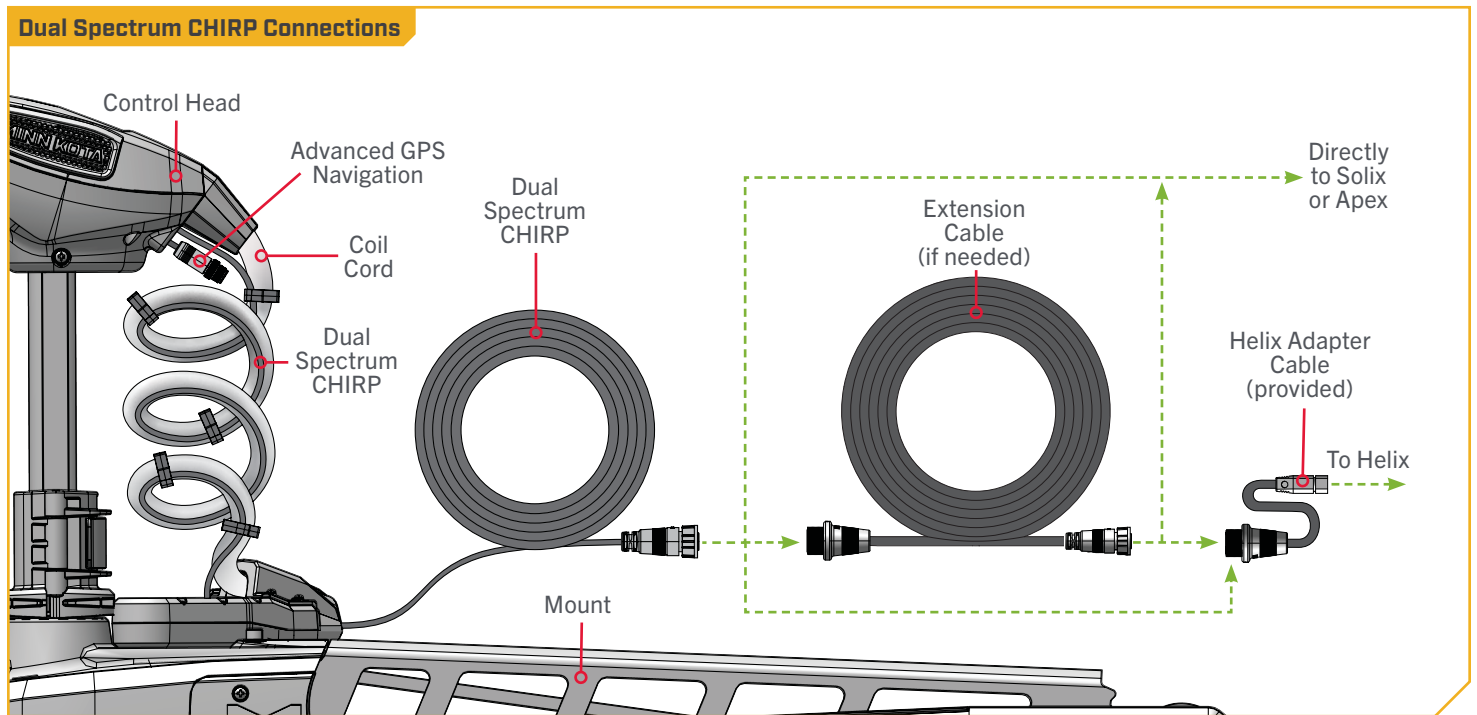
## › Considerations for Connecting and Routing Dual Spectrum CHIRP

If Dual Spectrum CHIRP is pre-installed on your trolling motor, one Dual Spectrum CHIRP accessory cable will exit the base of the Control Head and run parallel to the Coil Cord. The cable will come installed from the factory secured to the Coil Cord. Dual Spectrum CHIRP requires cables to be connected to an output device such as a Humminbird® fish finder. The Dual Spectrum CHIRP cable that is secured to the Coil Cord is "Apex and Solix Ready". Connecting the trolling motor equipped with a Dual Spectrum CHIRP transducer to a compatible fish finder gives you a 2D sonar view of what is happening directly below your trolling motor. To determine if your fish finder is compatible with Dual Spectrum CHIRP, please visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com) to check compatibility. The Dual Spectrum CHIRP cable from the trolling motor may be plugged directly into a Solix or Apex, directly into an Extension Cable or directly into a Humminbird® Helix Adapter Cable.

**EXTENSION CABLES** - The Dual Spectrum CHIRP cable from the trolling motor may not be long enough to reach your fish finder. If the cable length does not reach the desired fish finder installation location, extension cables are available. A 10-foot extension cable ([EC M3 14W10 - 10' transducer extension cable - 720106-1](#)) and a 30-foot extension cable ([EC M3 14W30 - 30' transducer extension cable - 720106-2](#)) are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com). Both the 10-foot and 30-foot extension cables also come "Apex and Solix Ready". The Extension Cables may plug directly into a Solix or Apex or directly into a Helix Adapter Cable.

**HUMMINBIRD HELIX ADAPTER CABLES** - If connecting to a Humminbird® Helix fish finder, an adapter cable accessory is included that will allow the connection of any compatible Humminbird® Helix fish finder. The Helix adapter cable will plug directly into the Helix fish finder.

**OTHER FISH FINDER ADAPTER CABLES** - If connecting to other fish finders on the market, check for compatibility or any required adapter cables online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).



Incorrect rigging will cause sonar interference and can damage your trolling motor, electronics, and other boat accessories. To minimize trolling motor interference, ensure that the fish finder and trolling motor are powered by separate batteries. Please refer to the "Battery & Wiring Installation" and "Motor Wiring Diagram" sections of this manual for correct rigging instructions.

The Dual Spectrum CHIRP cables are shielded to minimize interference. To protect this shielding, the cables should not be pulled tight against sharp angles or hard objects. If using cable ties, do not over-tighten. Any excess cable should be bundled in a loose loop of no less than 4" in diameter. The connection cable should be routed to the fish finder following Minn Kota recommendations on routing the cables to optimize mobility and maximize functionality. Follow the instructions below for completing all connections and then follow the instructions for "Securing Connection Cables" to complete the output cable installation.

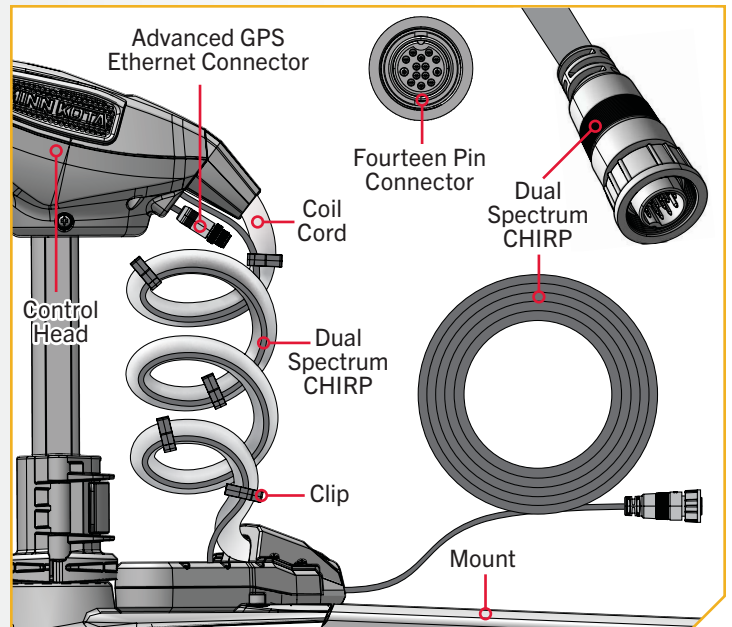
## CAUTION

Failure to follow the recommended wire routing for installed features, if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed. Do not over-tighten cable ties or clips as it may damage the wires.

1

**NOTICE:** Your fish finder should be turned off until this procedure is complete.

- a. Place the motor in the deployed position.
- b. Locate the Fourteen Pin Connector on the end of the Dual Spectrum CHIRP accessory cable. The cable will come installed from the factory secured to the Coil Cord with Clips.
- c. Determine if the Plug on the end of the Dual Spectrum CHIRP accessory cable will be attached directly to:
  - 1) a Humminbird® Solix or Apex fish finder,
  - 2) a Dual Spectrum CHIRP Extension Cable,
  - 3) a Helix Adapter Cable or a compatible fish finder adapter cable.

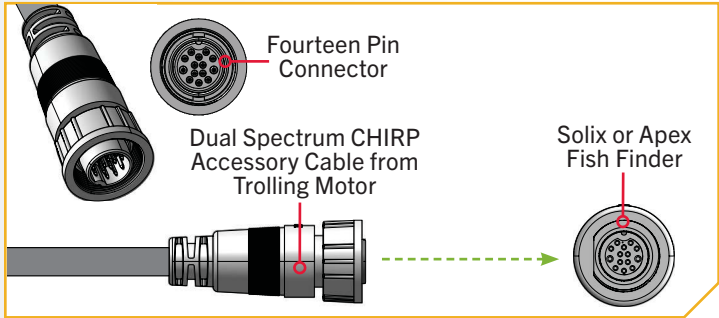


# DUAL SPECTRUM CHIRP



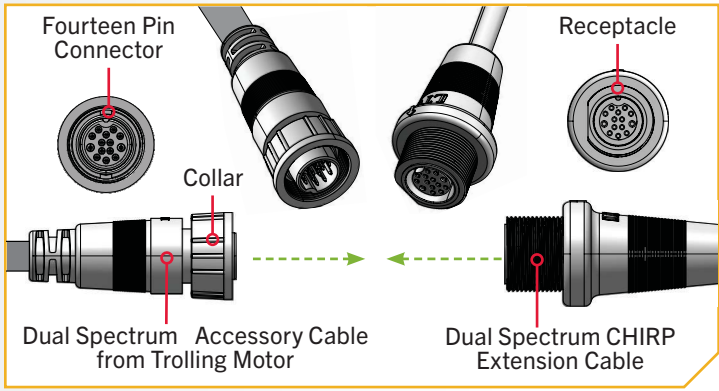
**2**

- d. If installing directly to a Solix or Apex, the connection will be flat on the back of the fish finder display.
- e. Align the pins on the Accessory Cable with the receptacle on the fish finder. Notice the keyed connectors. Tighten the Collar from the accessory cable to secure the connection. Once directly installed to the Solix or Apex, the connection is complete.



**3**

- f. If installing directly to a Dual Spectrum CHIRP Extension Cable, align the pins on the accessory cable with the receptacle on the extension cable. Notice the keyed connectors. Tighten the Collar from the accessory cable to secure the connection.
- g. If the Dual Spectrum CHIRP extension cable will be attached directly to a Humminbird® Solix or Apex, the connection will look exactly like the installation directly into a Humminbird Solix or Apex fish finder.



**NOTICE:** A 10-foot extension cable (EC M3 14W10 - 10' transducer extension cable - 720106-1) and a 30-foot extension cable (EC M3 14W30 - 30' transducer extension cable - 720106-2) are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com).



## 4

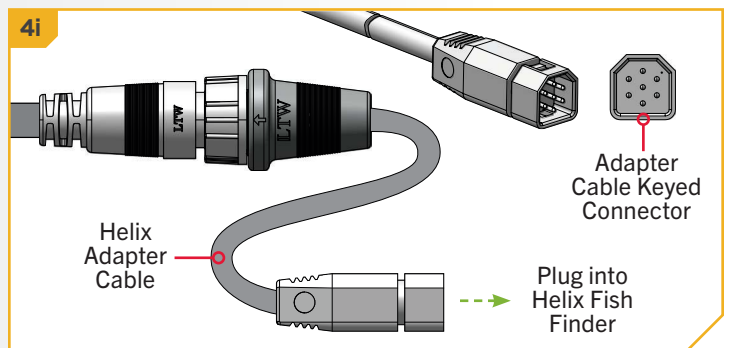
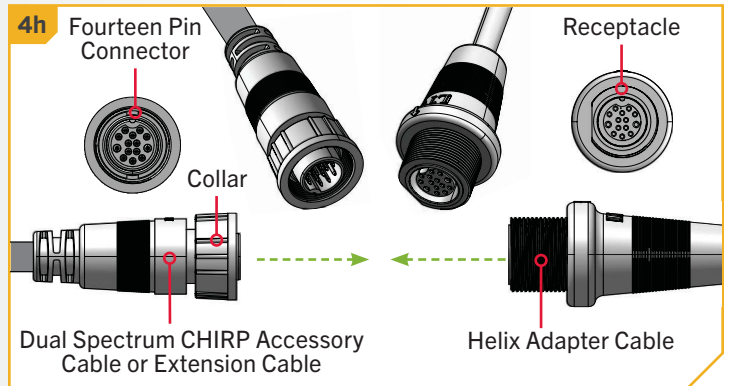
### ITEM(S) REQUIRED

 #46 or 48 x 1

- h. If installing directly to a Helix Adapter Cable, align the pins on the accessory cable or extension cable with the receptacle on the Helix Adapter Cable (Item #46 or 48). Notice the keyed connectors. Tighten the Collar from the accessory cable or extension cable to secure the connection.
- i. If the Helix Adapter Cable will be attached directly to a Humminbird® Helix, plug it in the Helix Adapter Cable Keyed Connection on the back of the fish finder.

**NOTICE:** If connecting to other fish finders on the market, check for compatibility or any required adapter cables online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

- j. If your trolling motor has more than one external connector for an output device, complete the connection for that specific output and then follow the instructions for "Securing Accessory Cables" to complete the output cable installation.



**NOTICE:** If unsure of what features your trolling motor may be installed with that require connection to an output device, please review the "Identifying Trolling Motor Features And Their Associated Cables" section in this document.

# BUILT-IN MEGA SIDE IMAGING

## BUILT-IN MEGA SIDE IMAGING >

With Built-in MEGA Side Imaging it's all in the details. Gain a 180 degrees side-to-side perspective on the world below the surface with remarkable Humminbird® Side Imaging®. In an instant, the ultra-thin beam scans the area up to 400 feet to the left and right of your boat location - for total coverage of up to 800 feet. The return image for each slice is then added to the images taken immediately before and after to build an incredible view of the lake bottom. You can then magnify the detail of the image with the zoom feature or mark the GPS location of promising cover or structure directly on the screen. The Built-In MEGA DI transducer is only available on new models equipped from the factory and cannot be added to an existing trolling motor.

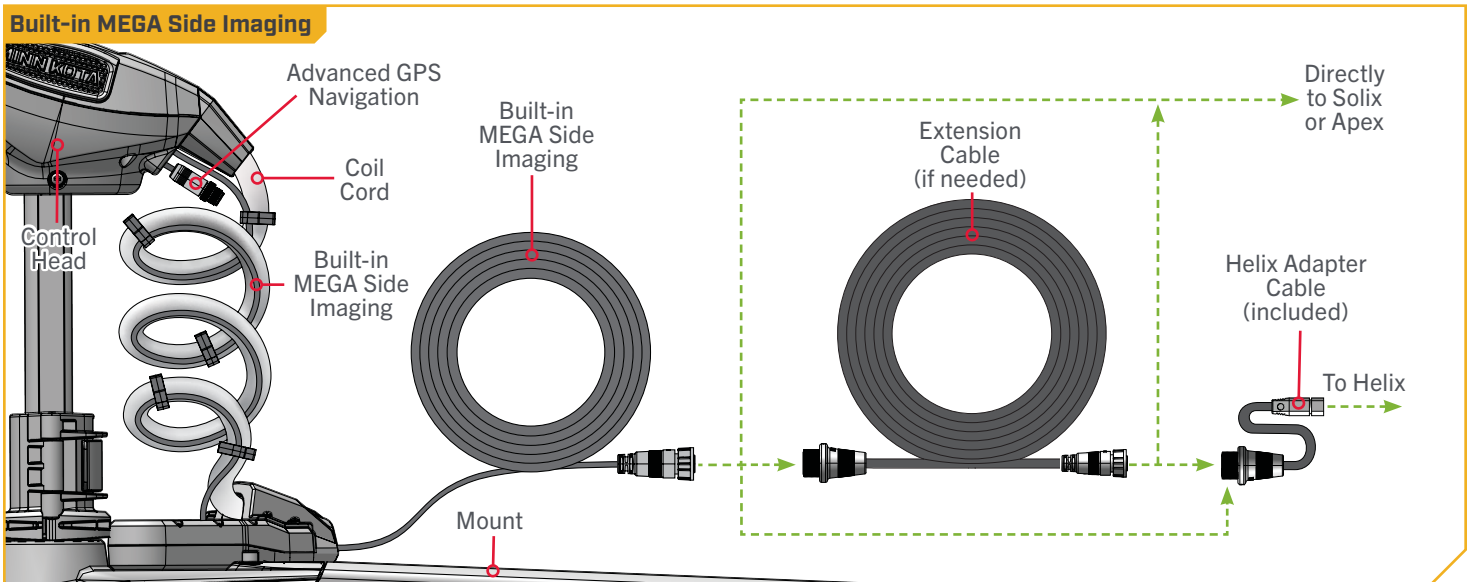
## > Considerations for Connecting and Routing Built-in MEGA Side Imaging

If Built-in MEGA Side Imaging is pre-installed on your trolling motor, one Built-in MEGA Side Imaging accessory cable will exit the base of the Control Head and run parallel to the Coil Cord. The cable will come installed from the factory secured to the Coil Cord. Built-in MEGA Side Imaging requires cables to be connected to an output device such as a Humminbird® fish finder. The Built-in MEGA Side Imaging cable that comes from the factory secured to the Coil Cord is "Apex and Solix Ready". Connecting the trolling motor equipped with a Built-in MEGA Side Imaging transducer to a compatible fish finder gives you a 2D sonar view of what is happening directly below your trolling motor. To determine if your fish finder is compatible with Built-in MEGA Side Imaging, please visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com) to check compatibility. The Built-in MEGA Side Imaging cable from the trolling motor may be plugged directly into a Solix or Apex, directly into an Extension Cable or directly into a Humminbird® Helix Adapter Cable.

**EXTENSION CABLES** - The Built-in MEGA Side Imaging cable from the trolling motor may not be long enough to reach your fish finder. If the cable length does not reach the desired fish finder installation location, extension cables are available. A 10-foot extension cable (**EC M3 14W10 - 10' transducer extension cable - 720106-1**) and a 30-foot extension cable (**EC M3 14W30 - 30' transducer extension cable - 720106-2**) are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com). Both the 10-foot and 30-foot extension cables also come "Apex and Solix Ready". The Extension Cables may plug directly into a Solix or Apex or directly into a Helix Adapter Cable.

**HUMMINBIRD HELIX ADAPTER CABLES** - If connecting to a Humminbird® Helix fish finder, an adapter cable accessory is included that will allow the connection of any compatible Humminbird® Helix fish finder. The 490537-2 MKR-MI-1 is used on Helix 8, 9, 10, 12 and 15 G2N models and newer. The Helix adapter cable will plug directly into the Helix fish finder.

**OTHER FISH FINDER ADAPTER CABLES** - If connecting to other fish finders on the market, check for compatibility or any required adapter cables online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).





## CAUTION

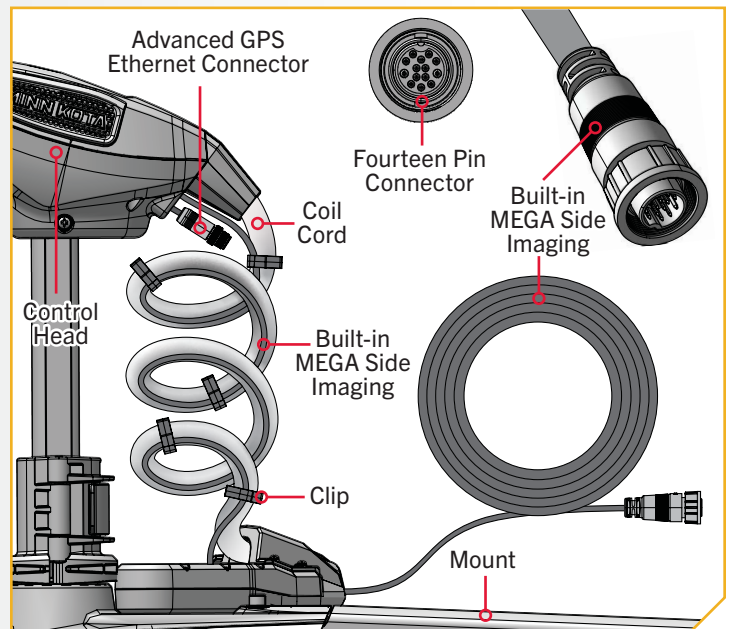
Failure to follow the recommended wire routing for installed features, if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed. Do not over-tighten cable ties as it may damage the wires.

**NOTICE:** You can only view Side Imaging with a MEGA DI or MEGA SI HELIX G2N, G3N or G4N Series model and a required adapter, or with any SOLIX or APEX Series model. The built-in transducer cannot supply MEGA Imaging to Humminbird models that do not already have the capability. If you have a G2/G2N, G3/G3N or G4/G4N HELIX that is not a MEGA SI or MEGA DI model, you will still get 2D Dual Spectrum CHIRP Sonar from the transducer. SOLIX G1 and HELIX G2 and G2N units need to be running the latest software update to view sonar from motors with Built-In MEGA Imaging. You can get the latest version of software for your fish finder on [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com). Built-In MEGA Imaging is not supported by HELIX G1 models or other brands of fish finders.

# 1

**NOTICE:** Your fish finder should be turned off until this procedure is complete.

- a. Place the motor in the deployed position.
- b. Locate the Fourteen Pin Connector on the end of the Built-in MEGA Side Imaging accessory cable. The cable will come installed from the factory secured to the Coil Cord with Clips.
- c. Determine if the Plug on the end of the Built-in MEGA Side Imaging Cable accessory cable will be attached directly to:
  - 1) a Humminbird® Solix or Apex fish finder,
  - 2) a Built-in MEGA Side Imaging Extension Cable,
  - 3) a Helix Adapter Cable or a compatible fish finder adapter cable.

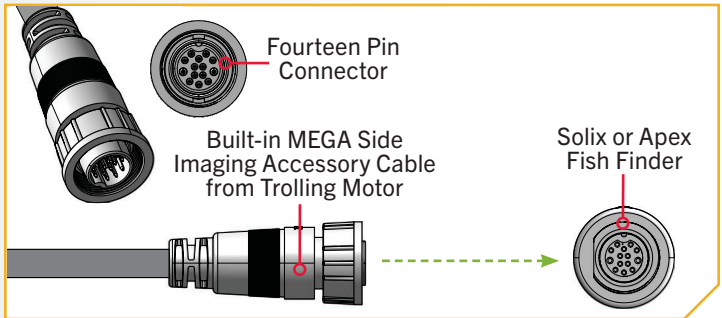


# BUILT-IN MEGA SIDE IMAGING



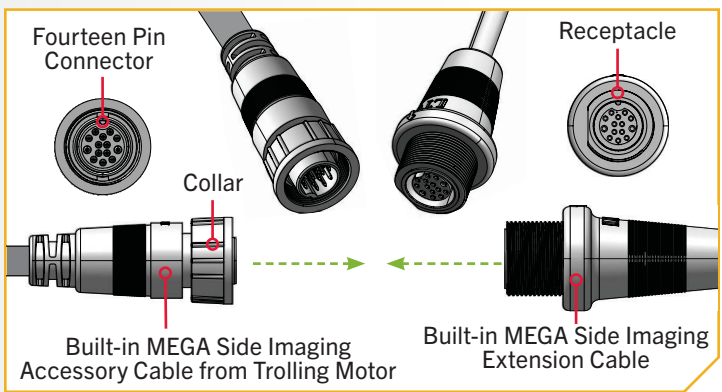
**2**

- d. If installing directly to a Solix or Apex, the connection will be flat on the back of the fish finder display.
- e. Align the pins on the Accessory Cable with the receptacle on the fish finder. Notice the keyed connections. Tighten the Collar from the accessory cable to secure the connection. Once directly installed to the Solix or Apex, the connection is complete.



**3**

- f. If installing directly to a Built-in MEGA Side Imaging Extension Cable, align the pins on the accessory cable with the receptacle on the extension cable. Notice the keyed connectors. Tighten the Collar from the accessory cable to secure the connection.
- g. If the Built-in MEGA Side Imaging Cable extension cable will be attached directly to a Humminbird® Solix or Apex, the connection will look exactly like the installation directly into a Humminbird Solix or Apex fish finder.



**NOTICE:** A 10-foot extension cable (EC M3 14W10 - 10' transducer extension cable - 720106-1) and a 30-foot extension cable (EC M3 14W30 - 30' transducer extension cable - 720106-2) are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com).

## 4

### ITEM(S) NEEDED

 #48 x 1

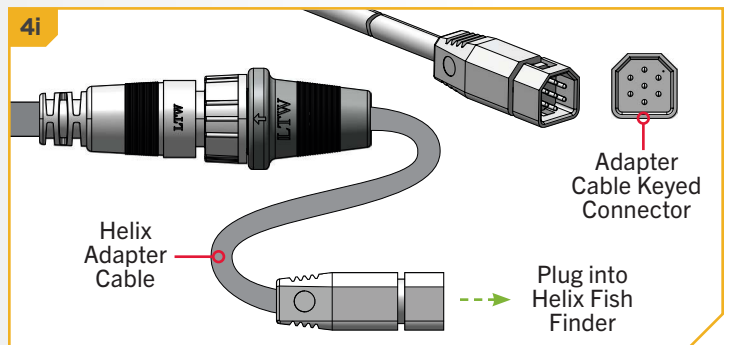
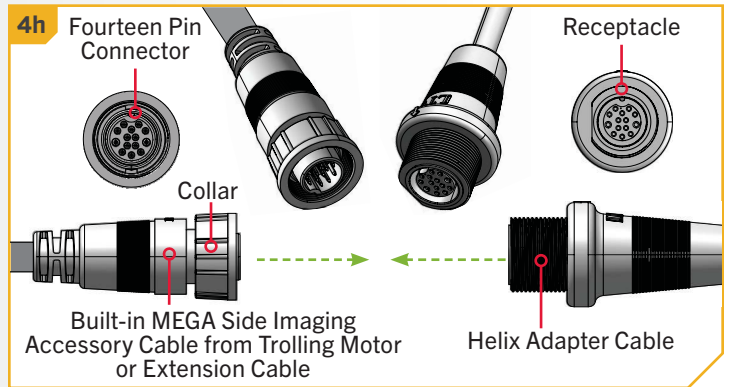
- h. If installing directly to a Helix Adapter Cable, align the pins on the accessory cable or extension cable with the receptacle on the Helix Adapter Cable (Item #48). Notice the keyed connectors. Tighten the Collar from the accessory cable or extension cable to secure the connection.

**NOTICE:** The 490537-2 MKR-MI-1 (Item #48) is a Helix Adapter Cable used on Helix 8, 9, 10, 12 and 15 G2N models and newer.

- i. If the Helix Adapter Cable will be attached directly to a Humminbird® Helix, plug it in the Helix Adapter Cable Keyed Connection on the back of the fish finder.

**NOTICE:** If connecting to other fish finders on the market, check for compatibility or any required adapter cables online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

- j. If your trolling motor has more than one external connector for an output device, complete the connection for that specific output and then follow the instructions for "Securing Accessory Cables" to complete the output cable installation.



**NOTICE:** If unsure of what features your trolling motor may be installed with that require connection to an output device, please review the "Identifying Trolling Motor Features and Their Associated Cables" section in this document.

# ADVANCED GPS NAVIGATION



## ADVANCED GPS NAVIGATION >

Your Minn Kota trolling motor and Humminbird fish finder communicate with each other to change the way you fish. Advanced GPS Navigation offers a large array of features including controlling speed, steering, Spot-Lock, and the ability to record and retrace tracks on the water, all at your fingertips. To learn more about the GPS capabilities available with your new motor, please refer to the Advanced GPS Navigation Owner's Manual by visiting [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

The remote and GPS controller make up the Advanced GPS Navigation system. A micro remote comes paired to the controller from the factory. The GPS controller contains a very sensitive compass and is where all GPS satellite and remote signals are received. The GPS controller is located in the trolling motor Control Head and may be connected to a fish finder from an Accessory Cable that exits the Control Head. If the Advanced GPS Navigation system will be used with a fish finder, the Ethernet link between the trolling motor and the fish finder must be connected.

## > Considerations for Connecting and Routing Advanced GPS Navigation

Advanced GPS Navigation is pre-installed on your trolling motor. One eight pin Advanced GPS Ethernet Connector exits the base of the Control Head and rest just below the Control Head next to the Coil Cord. If the Advanced GPS Navigation on the trolling motor will be used with a fish finder, an Ethernet Cable will need to be attached to the Advanced GPS Ethernet Connector below the Control Head. Consider the distance between the trolling motor and the fish finder to determine how to complete the Ethernet connection.

**ETHERNET CABLES** - Minn Kota provides one 30 ft Ethernet cable ([AS EC 30E - 30' Ethernet Cable - 720073-4](#)) with every trolling motor equipped with Advanced GPS Navigation. The 30 ft Ethernet cable will accommodate a standard Ethernet connection for most installations to a Humminbird fish finder and is "Apex and Solix Ready". If the distance between the trolling motor and Humminbird fish finder is relatively small and a shorter cable is preferred, alternate cable lengths are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com). These options include:

- 10 ft - ([AS EC 10E - 10' Ethernet Cable - 720073-2](#))
- 15 ft - ([AS EC 15E - 15' Ethernet Cable - 720073-5](#))
- 20 ft - ([AS EC 20E - 20' Ethernet Cable - 720073-3](#))

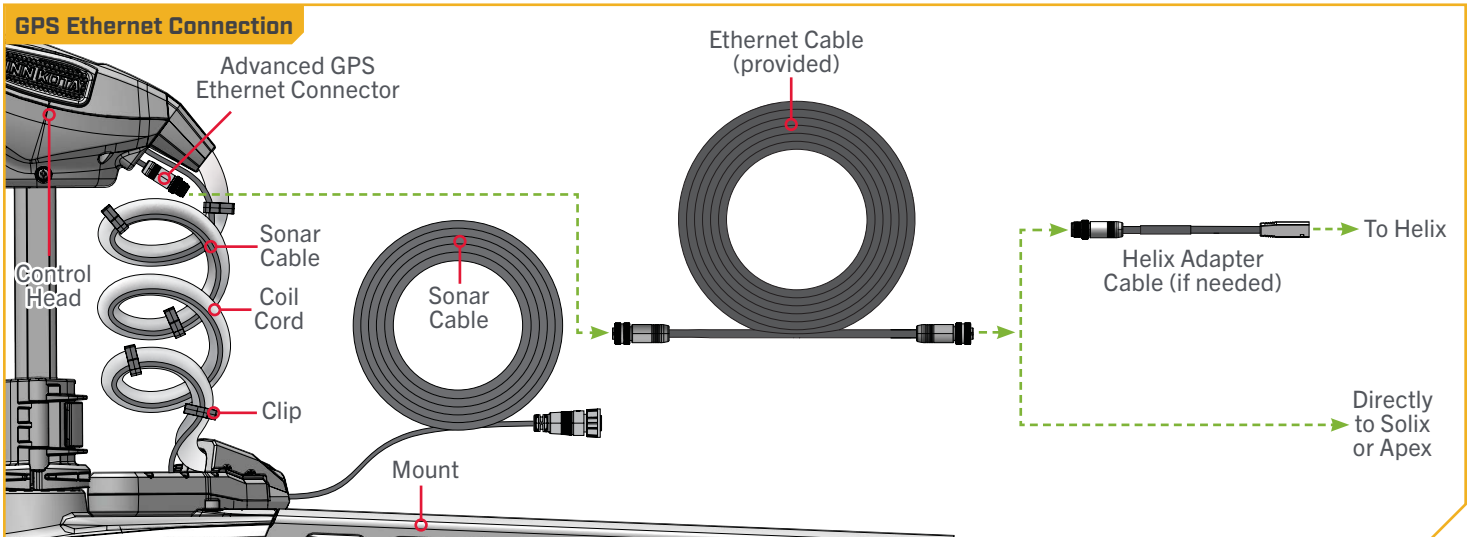
Every length of Ethernet cable plugs directly into a Solix or Apex or directly into a Helix Adapter Cable.

**HUMMINBIRD HELIX ADAPTER CABLES** - Minn Kota provides one Helix Adapter Cable ([AS EC QDE - Ethernet Adapter Cable - 720074-1](#)) with every trolling motor equipped with Advanced GPS Navigation. If the Ethernet connection is being made between the trolling motor and any Humminbird® Helix fish finder, the Helix Adapter Cable should be used. The Helix Adapter Cable directly connects the Ethernet Cable to a Helix fish finder.

**ETHERNET EXTENSION CABLES** - If the 30 ft Ethernet cable provided with your trolling motor with Advanced GPS Navigation is not long enough to reach the fish finder, an Ethernet Extension cable should be used. The Ethernet Extension cable is available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com) and is available in a 30 ft length ([AS ECX 30E - 30' Ethernet Extension Cable - 760025-1](#)). The Ethernet Extension Cable will plug directly into any length of Ethernet cable.

**NOTICE:** Minn Kota recommends routing the Ethernet Cable or Ethernet Extension Cable parallel with and secured to the Coil Cord when making the Ethernet connection. The cables will be installed from the Mount to the Control Head secured to and parallel with the Coil Cord. Bypassing the Coil Cord when routing the Ethernet Cable or Ethernet Extension Cable is not recommended. Follow the instructions in the "Securing Accessory Cable" section of this document for instructions on how to route the Ethernet Cable through the Clips once connected.





## CAUTION

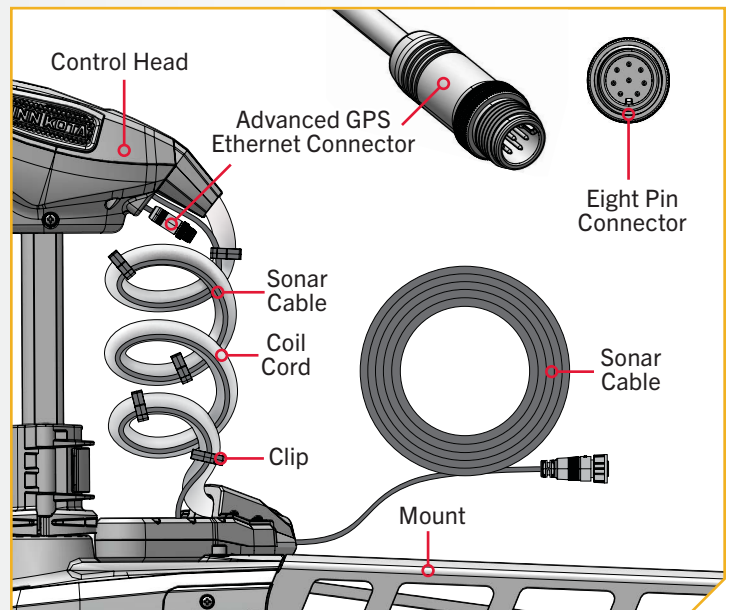
Failure to follow the recommended wire routing for installed features, if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed. Do not over-tighten cable ties or clips as it may damage the wires.

1

**NOTICE:** Your fish finder should be turned off until this procedure is complete.

- a. Place the motor in the deployed position.
- b. Locate the Eight Pin Advanced GPS Ethernet Connector below the Control Head. The Advanced GPS Ethernet Connector will exit the base of the Control Head and will rest just below the Control Head next to the Coil Cord.

**NOTICE:** Ultrex QUEST trolling motors with Advanced GPS Navigation will also be equipped with Sonar. Sonar is pre-installed from the factory and may be either Dual Spectrum CHIRP or Built-in MEGA Side Imaging. With motors equipped with Sonar, a Sonar Cable will be present below the Control Head and be secured to the Coil Cord with Clips. Review the “Identifying Trolling Motor Features and Their Associated Cables” of this document to identify and learn more about Sonar.



# ADVANCED GPS NAVIGATION

2

## ITEM(S) NEEDED



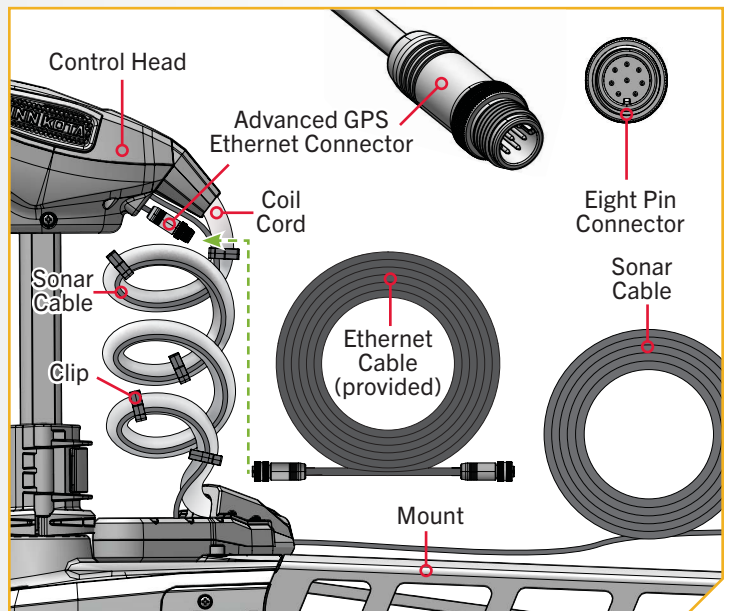
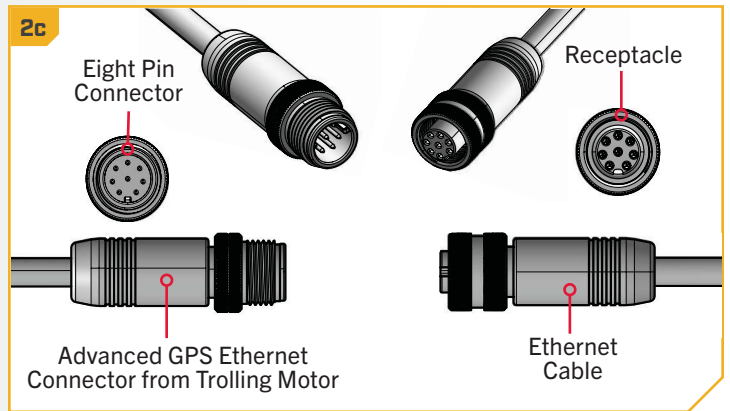
- c. Take the Ethernet Cable (Item #16) and identify the Receptacle on either end. It will be keyed to fit with the Eight Pin Advanced GPS Ethernet Connector below the Control Head.

**NOTICE:** The Ethernet Cable has a Receptacle for the Advanced GPS Ethernet Connector on both ends and either end may be connected.

- d. Leading with either Receptacle, take the cable and run it parallel to the Coil Cord starting at the end of the Coil Cord attached to the Mount and working up towards the Control Head. The cable will run parallel to the Sonar Cable secured to the Coil Cord with Clips. Allow enough slack in the cable to attach the Receptacle to the Advanced GPS Ethernet Connector.

**NOTICE:** The 30' Ethernet Cable (AS EC 30E - 30' Ethernet Cable - 720073-4) is provided. If an alternate length is preferred, alternate cable lengths are available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com).

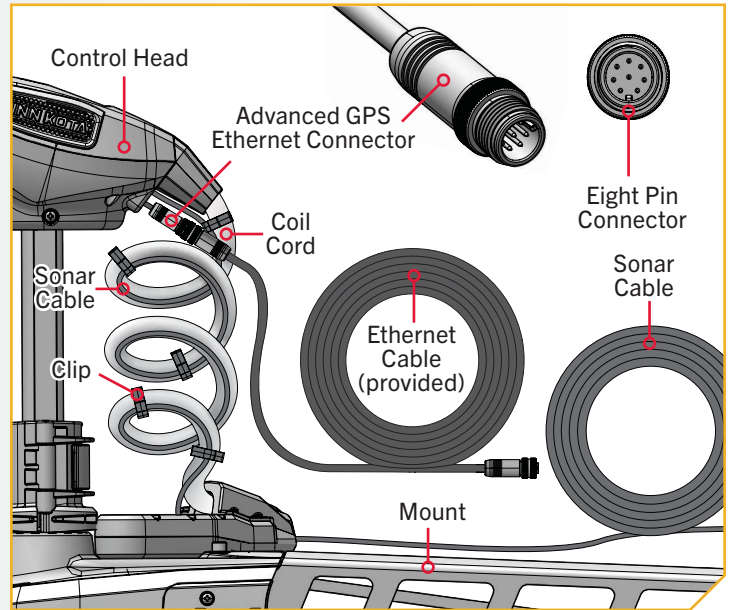
**NOTICE:** The 30' Ethernet Extension Cable (AS ECX 30E - 30' Ethernet Extension Cable - 760025-1) is available from [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com) and should be used if the standard 30' Ethernet Cable provided with your trolling motor is not long enough to reach the fish finder.



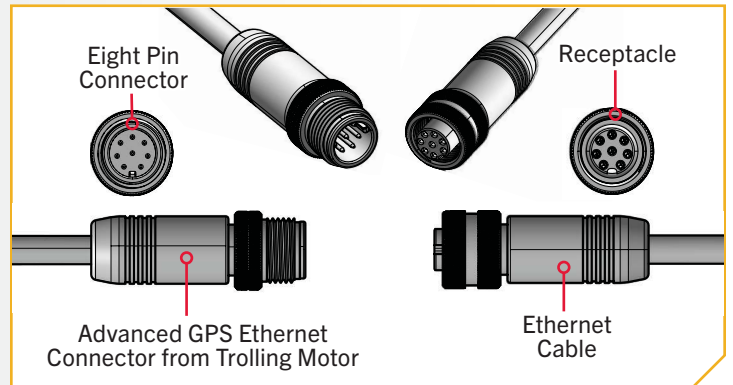
## 3

**NOTICE:** Minn Kota recommends routing the Ethernet Cable parallel to the Coil Cord when making the Ethernet connection. The cable will be installed from the Mount to the Control Head parallel to the Coil Cord with Clips. Bypassing the Coil Cord when routing the Ethernet Cable is not recommended. After connections are made, the Ethernet Cable must be installed in the Clips. For details on securing the Ethernet Cable please follow the "Securing Connection Cables" section of this document.

**NOTICE:** The Advanced GPS Ethernet Connector that exits the base of the Control Head has a cap that should be removed before connecting the Ethernet Cable.

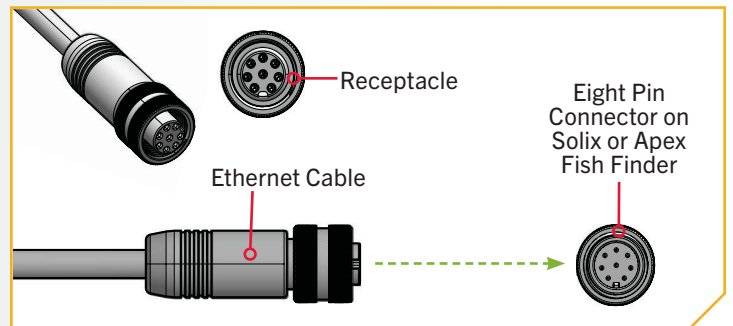


- e. **To install the Ethernet Cable**, align the pins on the Advanced GPS Ethernet Connector with the Receptacle on the Ethernet Cable. Notice the keyed connectors. Press the ends together and tighten the Collar from the Ethernet Cable to secure the connection.
- f. The Ethernet Cable will plug directly into a Solix or Apex Fish Finder or directly into a Helix Adapter Cable.



## 4

- g. **If installing directly to a Solix or Apex**, the connector will be flat on the back of the fish finder display.
- h. Align the Receptacle on the Ethernet Cable with the Eight Pin Connector on the Apex or Solix fish finder. Notice the keyed connectors. Tighten the Collar from the Ethernet Cable to secure the connection. Once directly installed to the Solix or Apex, the connection is complete.



# ADVANCED GPS NAVIGATION

## 5

### ITEM(S) NEEDED

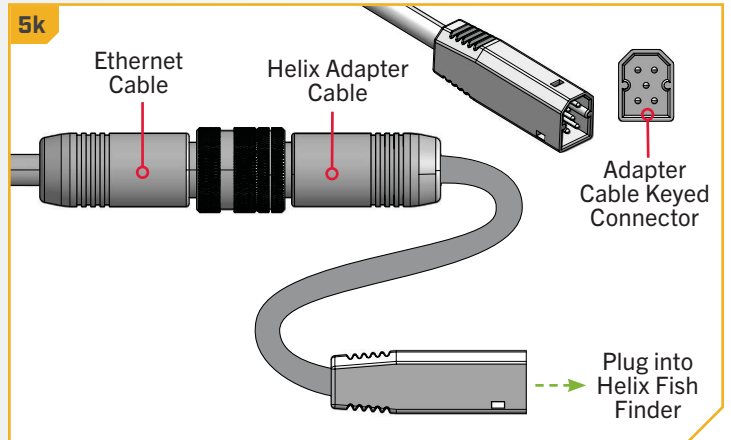
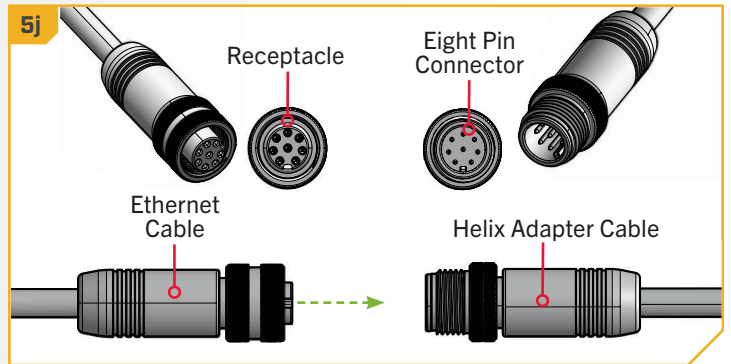
 #18 x 1

- i. If installing directly to a Helix Adapter Cable (Item #18), align the Receptacle on the Ethernet Cable with the Eight Pin Connector on the Helix Adapter Cable provided. Notice the keyed connectors. Tighten the Collar from the Ethernet Cable to secure the connection.

**NOTICE:** Minn Kota provides one Helix Adapter Cable (AS EC QDE - Ethernet Adapter Cable - 720074-1) with every trolling motor equipped with Advanced GPS Navigation.

- j. The Helix Adapter Cable directly connects the Ethernet Cable to a Helix fish finder. Locate the Helix Adapter Cable Keyed Connector on the back of the fish finder. Plug the Helix Adapter Cable into the back of the Helix fish finder to complete the connection.
- k. If your trolling motor has more than one feature that requires connection to an output device, complete the connection for that specific output and then follow the instructions for "Securing Accessory Cables" to complete the Accessory Cable installation.

**NOTICE:** If unsure of what features your trolling motor may be installed with that require connection to an output device, please review the "Identifying Trolling Motor Features and Their Associated Cables" section of this manual.

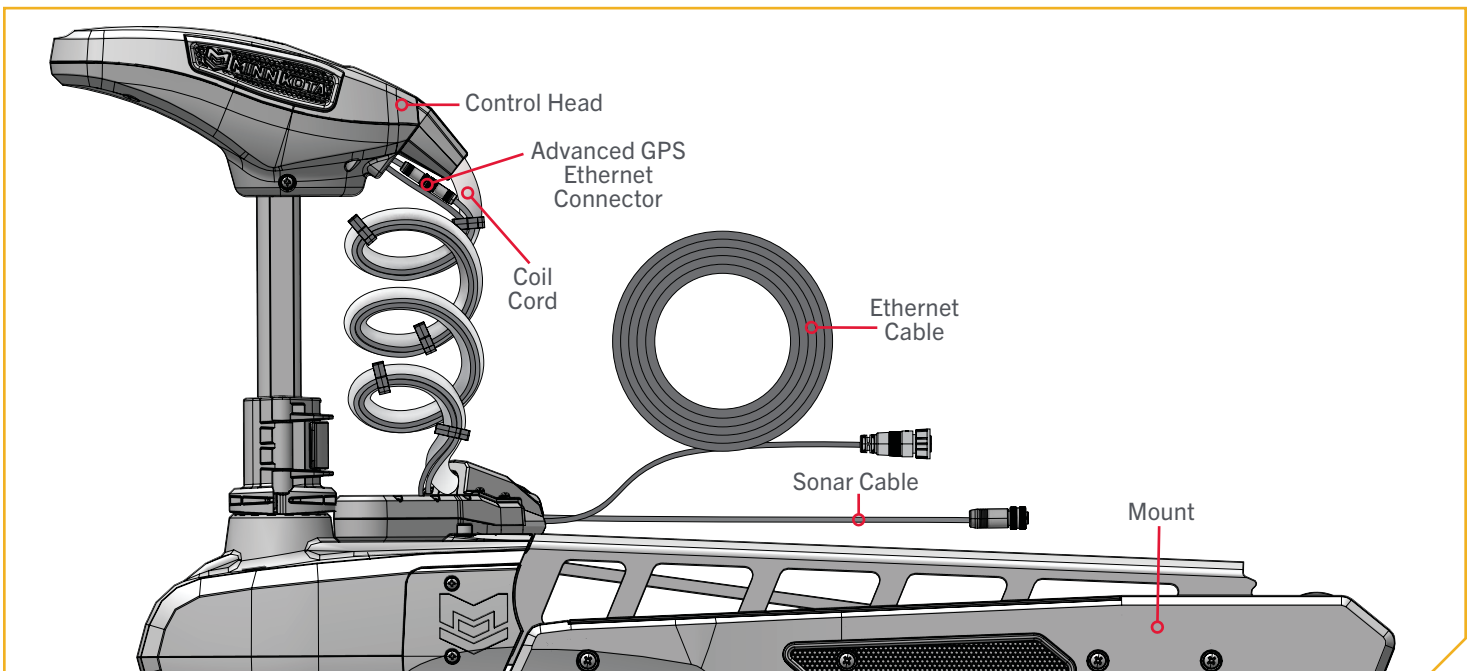




## › Securing Accessory Cables

Before securing the Accessory Cables, please review the "Identifying Trolling Motor Features and Their Associated Cables" section of this document. When identifying features, it is very important to secure the cables if two or more connections are present below the Control Head. If only one cable is present below the Control Head, this installation was already completed on the trolling motors from the factory. All Accessory Cables that will be used on the trolling motor must be routed and all connections secured before completing the installation in this section. To review how Accessory Cables should be routed and connected, please review the "Dual Spectrum CHIRP", "Built-in MEGA Side Imaging" and "Advanced GPS Navigation" sections of this document.

**NOTICE:** If only one cable is present below the Control Head, this installation is not applicable.



## CAUTION

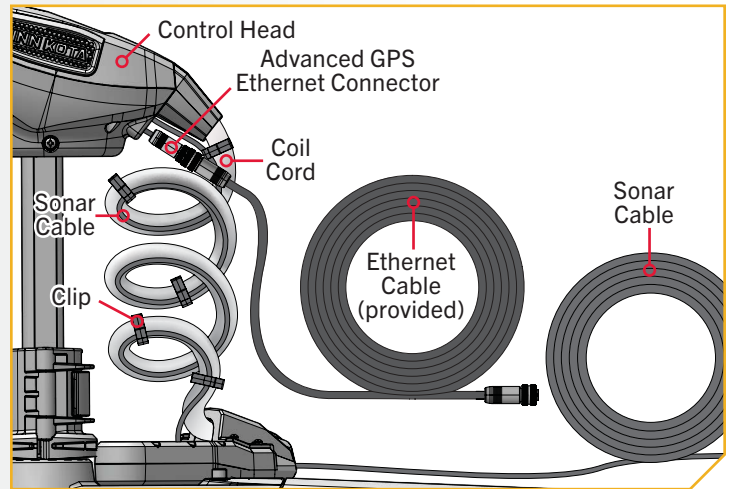
Failure to follow the recommended wire routing for installed features, if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed. Do not over-tighten the clips as it may damage the wires.

**NOTICE:** If replacement Clips (Part No. 2290844) are needed, they can be ordered online at the Minn Kota Parts Ordering Portal at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

# SECURING ACCESSORY CABLES

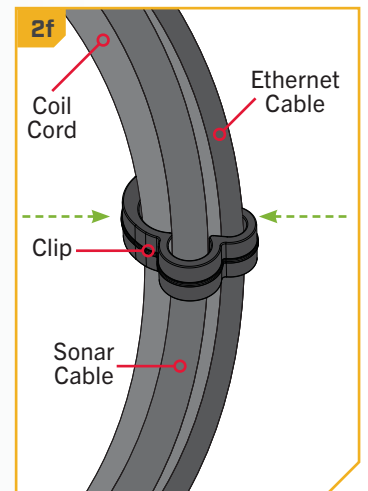
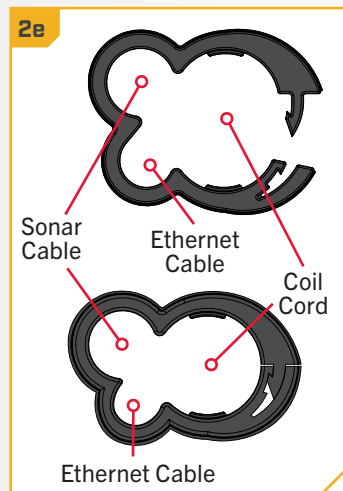
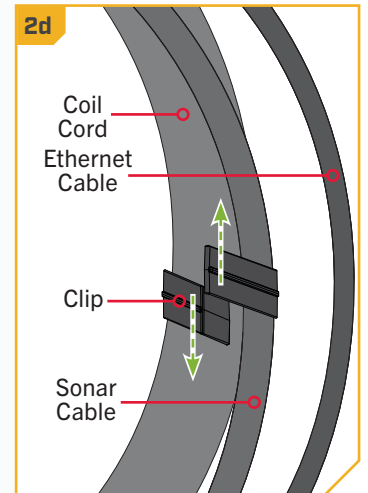
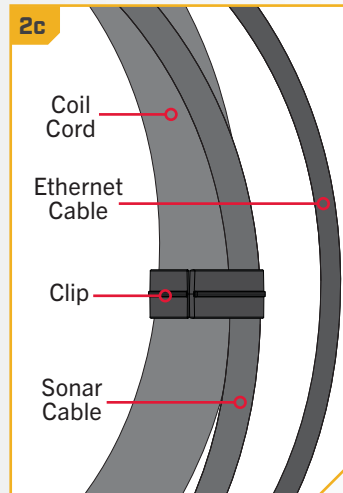
1

- a. The Ultrex QUEST comes from the factory with the Sonar Cable secured to the Coil Cord with five Clips. The Clips are evenly spaced down the Coil Cord from the Control Head to the Mount. To properly install the Ethernet Cable, the Clips need to be opened and the Ethernet Cable secured.
- b. Begin with the Trolling Motor in the deployed position. Locate all five Clips along the Coil Cord. Make sure that the Ethernet Cable is connected. Review the "Advanced GPS Navigation" section of this document if unsure that the Ethernet Cable is properly routed and connected. The Ethernet Cable should run parallel to the Sonar Cable down the Coil Cord.



2

- c. Locate the first Clip below the Control Head. It should be securing together the Coil Cord and the Sonar Cable.
- d. To open the Clip, push each side of the Clip in opposite directions so that the hook holding the Clip together unlatches.
- e. Look at the geometry of the Clip and notice that the lobes are molded for a specific wire size. With the Ethernet Cable running parallel to the Sonar Cable and Coil Cord, place the Ethernet Cable in the Clip with the Coil Cord and Sonar Cable. Make sure that the Ethernet Cable sits in the appropriate Lobe of the Clip.
- f. Make sure the cables are running parallel and are not twisted or kinked. With all of the Cables captured, press the Clip securely closed.
- g. Repeat the installation of the Ethernet Cable for all five Clips. Make sure the cables are running smoothly between all five Clips. At the end of the installation, the Clips should be evenly spaced down the Coil Cord and the cord should contain about one Clip per coil on the Coil Cord.



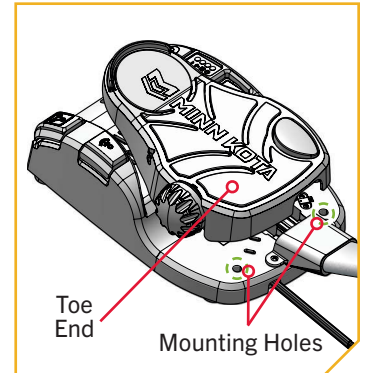
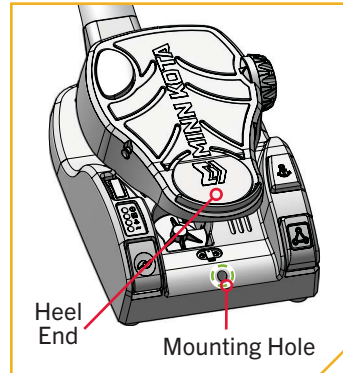
**CAUTION**

Do not over-tighten the Clips as it may damage the wires.

## MOUNTING THE FOOT PEDAL

### › Mounting the Foot Pedal

Minn Kota recommends securing the Foot Pedal to the boat deck to prevent it from being damaged during transport and to make motor operation more efficient. It is recommended to use the Mounting Holes on the Foot Pedal for a secure mount. The Foot Pedal has three Mounting Holes. One Mounting Hole is located under the Heel End of the Foot Pedal. The other two are located under the Toe End of the Foot Pedal. Minn Kota recommends using a 1/8" or 3/16" diameter screw and only tighten enough to slightly compress the Bumper Pads underneath the Foot Pedal.



### › Installing the Prop

The Ultrex QUEST trolling motor comes from the factory with two props, the Power Prop and the Weedless Wedge Prop. The Power Prop will provide maximum thrust and extra power. The Weedless Wedge Prop is 100% weedless to help move through high vegetation even at low speeds while conserving battery power. Determine which prop is best suited for the fishing environment and install it.

1

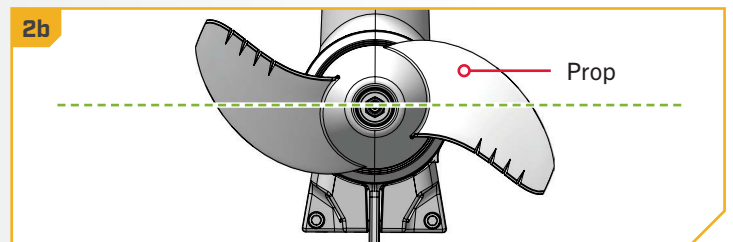
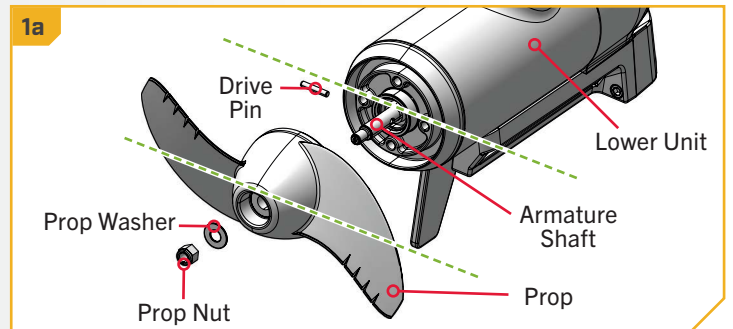
#### ITEM(S) NEEDED



### ⚠ CAUTION

Disconnect the motor from the battery before beginning any Prop work or maintenance.

- Take the Drive Pin (Item #44) and slide it through the Hole in the Armature Shaft. Position the Drive Pin horizontally by grasping the Armature Shaft and rotating it with the Drive Pin in place.
- Align the Prop (Item #38) so it is also horizontal and parallel with the Drive Pin. Slide the Prop onto the Armature Shaft and Drive Pin until it is seated against the lower unit.
- Install the Prop Washer (Item #40) and the Prop Nut (Item #42) onto the end of the Armature Shaft.



## INSTALLING THE PROP

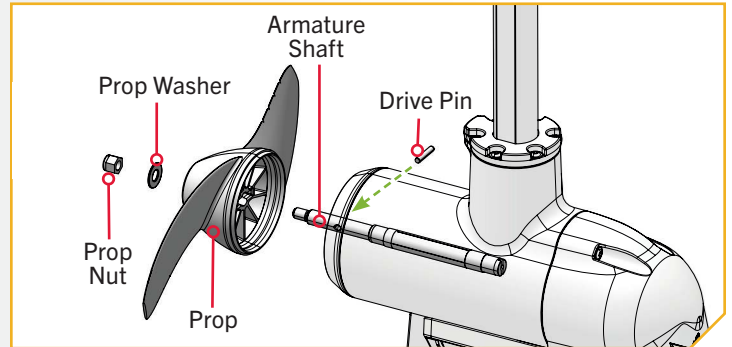
2

- d. While holding the Prop horizontal, tighten the Prop Nut with a 9/16" Deep Well Socket.
- e. Tighten the Prop Nut to 25-35 in-lbs.



**CAUTION**

Do not over-tighten as this can damage the prop.



# ONE-BOAT NETWORK

## OPTIMIZING THE PERFORMANCE OF THE ULTREX QUEST WITH THE ONE-BOAT NETWORK APP

Minn Kota® and Humminbird® have joined forces to bring you the One-Boat Network (OBN). To get the most from your One-Boat Network, we encourage you to download the One-Boat Network app onto your smart device. The One-Boat Network® app is a free iOS and Android application that you can download to a mobile device, providing unparalleled control over all of your One-Boat Network connected products.

Completing the installation of the Ultrex QUEST through the One-Boat Network app should be done following the Prop installation. Recheck the OBN settings once the boat is trailered and the motor is used on the water. Minn Kota recommends connecting the trolling motor to the One-Boat Network app to assist in these steps. Find more information in the One-Boat Network app document included with the trolling motor or the One-Boat Network Owner's Manual found online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com). Before beginning, be sure that the trolling motor is connected to a power source.



One-Boat Network app Icon



## WARNING

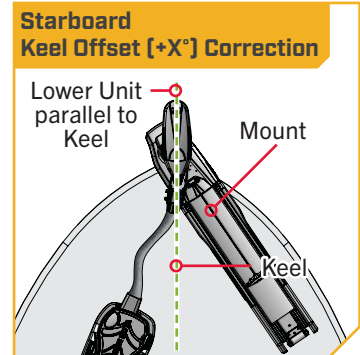
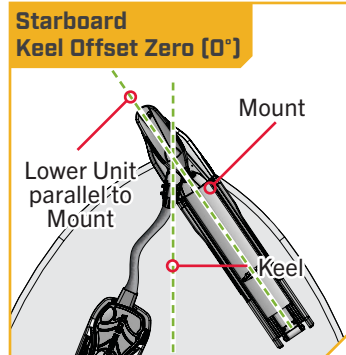
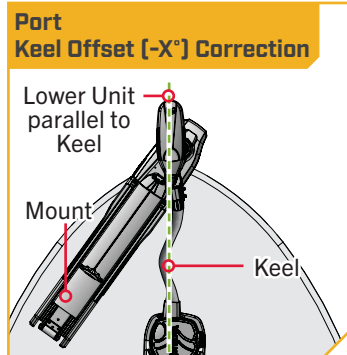
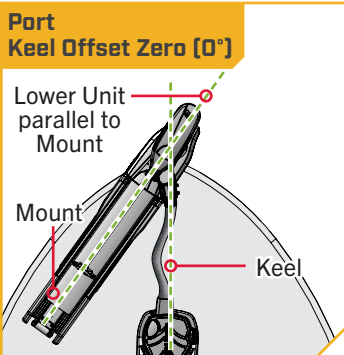
Take care that neither you nor other persons approach the turning propeller too closely, neither with body parts nor with objects. The motor is powerful and may endanger or injure you or others. Stay clear of the Prop and watch out for accidental engagement.

## ONE-BOAT NETWORK ADJUSTMENTS >

### > Keel Offset

The Ultrex QUEST comes from the factory with the Lower Unit parallel to the Mount. When the Lower Unit is parallel to the Mount, the Keel Offset is zero. In an ideal installation, the Lower Unit will be parallel to the Keel, however, the Mount is rarely installed to be perfectly in-line with the Keel, therefore the Lower Unit will not be parallel with the Keel. Nearly all installations will have some variation in mounting position to either the Port or Starboard side of the boat. During installation, indexing the trolling motor corrects the position of the Foot Pedal to be parallel to the boat deck when the Lower Unit is parallel to the Keel. The Keel Offset feature records the position of the Lower Unit when it is parallel to the Keel and when the Foot Pedal is also parallel based on the Mount being offset from the Keel. Before adjusting the Keel Offset, complete all installation steps. This includes mounting the trolling motor to the deck of the boat, calibrating or rotating the Pedal Control Sleeve Assembly, and installing and securing the power and accessory cables. The Keel Offset is specified on the Ultrex QUEST through the One-Boat Network App with the Keel Mount Offset. Minn Kota recommends using the One-Boat Network app to complete the Keel Offset procedure. If the app is unavailable, Keel Offset can be set using a Humminbird Helix, Apex or Solix fish finder. If completing Keel Offset with the fish finder, please see the Owner's Manual for more information.

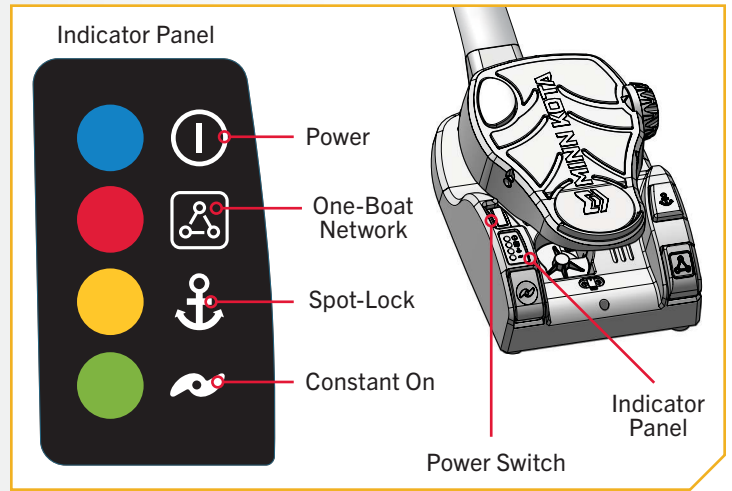
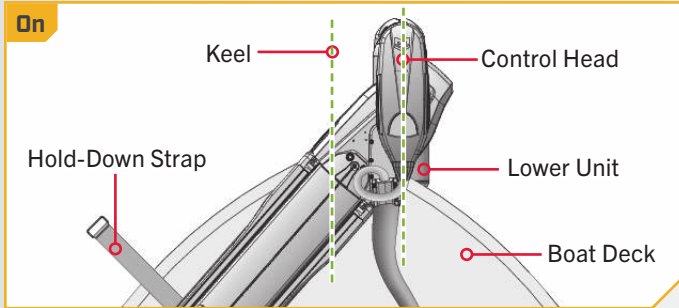
**NOTICE:** When the motor is installed from the factory, the motor Keel Offset is 0 degrees. When setting the Keel Offset, any position towards the Port will create a Keel offset of a negative angle. Any position towards Starboard will create a positive angle.



# KEEL OFFSET

1

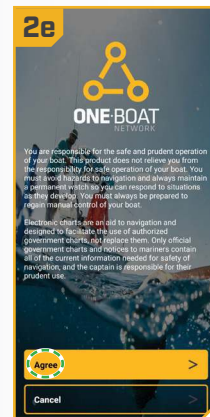
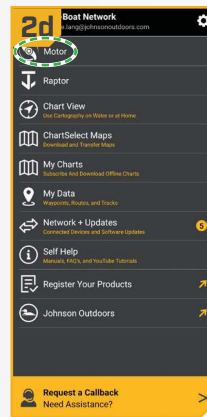
- Power on the trolling motor. When the blue LED next to the power icon is “on”, the system is ready.
- With either the One-Boat Network app on a paired mobile device, or the foot pedal, steer the motor so that the control head and lower unit are parallel to the Keel.



2

- Open the One-Boat Network (OBN) app on the mobile device. Make sure the mobile device is paired with the trolling motor.
- From the OBN home screen, tap the Motor menu. The Motor menu opens the Motor app home screen.
- Before the Motor app home screen will open, tap Agree on the on-screen prompt.

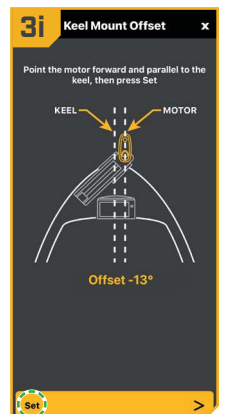
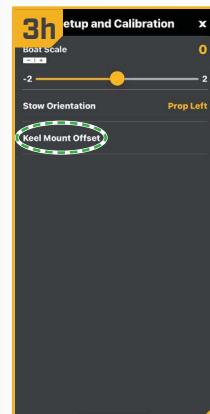
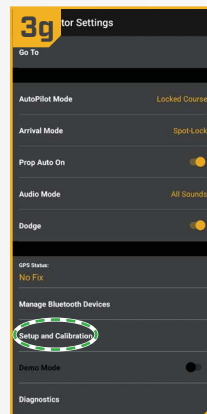
**NOTICE:** The on-screen prompt will only display once each time the app is launched. If the prompt has displayed, the Motor app home screen appears.



- On the Motor app home screen, locate the Motor Setting button in the upper right-hand corner and tap it.

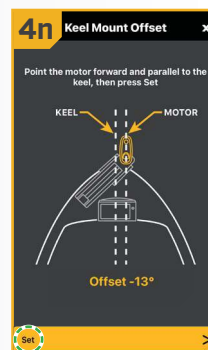
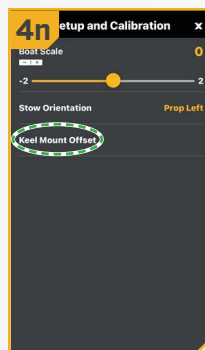
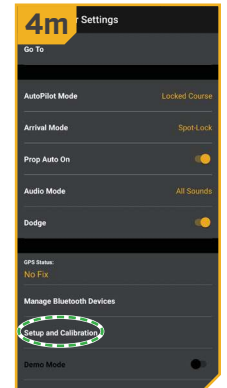
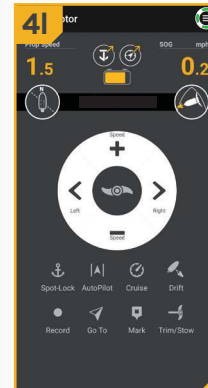
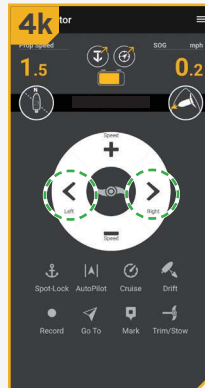
3

- In the Motor Settings menu, find and tap Setup and Calibration.
- In Setup and Calibration, find and tap Keel Mount Offset.
- Review all safety warnings. Follow the prompts in the One-Boat Network app. If the placement of the trolling motor is pointing forward and parallel to the keel, tap Set. The degree of Keel Mount Offset shows at the bottom of the app Display.



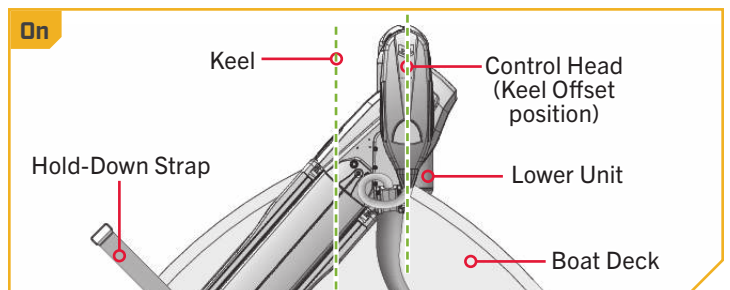
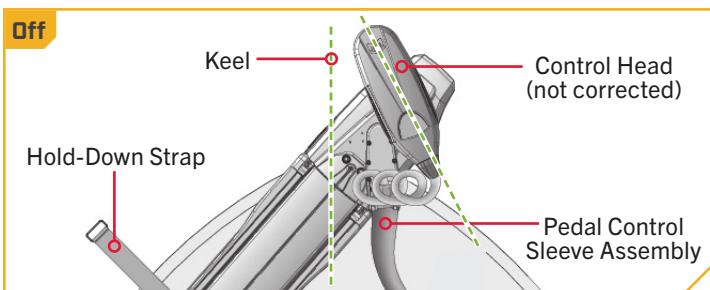
## 4

- j. If the trolling motor needs to be adjusted, locate the Return button on the top-left corner of the app screen. Tap the Return button three times until the Motor app home screen displays.
- k. Use the Steer Right > and Steer Left < buttons to point the motor forward and parallel to the keel.
- l. When satisfied with the placement of the trolling motor, locate the Motor Settings button in the top-right corner and tap it.
- m. In the Motor Settings menu, find and tap Setup and Calibration.
- n. In Setup and Calibration, find and tap Keel Mount Offset. If the placement of the trolling motor is pointing forward and parallel to the keel, tap Set.
- o. The degree of Keel Mount Offset shows at the bottom of the app Display. Tap Return to close the Keel Mount Offset and return to the home screen.



## › Straight on Deploy

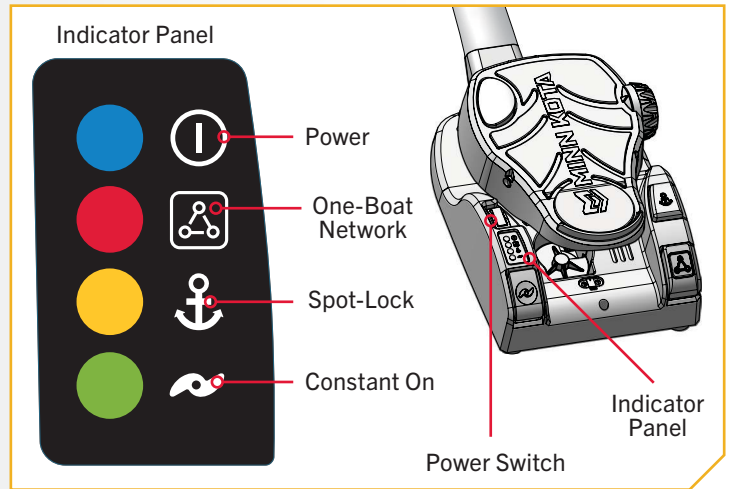
Minn Kota recommends setting the Keel Offset when the position of the Lower Unit is parallel with the Keel. Save the Keel Offset before exploring the Straight on Deploy feature. Straight on Deploy uses the position recorded in Keel Offset to know where to position the Lower Unit to be parallel with the Keel. When Straight on Deploys is engaged, the trolling motor will deploy the motor and automatically rotate the Lower Unit to the position saved to memory in Keel Offset. By default, the Lower Unit will be parallel to the Keel when the Mount is parallel to the Keel. If the Keel Offset was programmed to another angle, the Straight on Deploy feature will correct the position to match the corrected angle when turned “on”. If straight on deploy is turned “off” the trolling motor will not correct the position in any direction.



# STRAIGHT ON DEPLOY

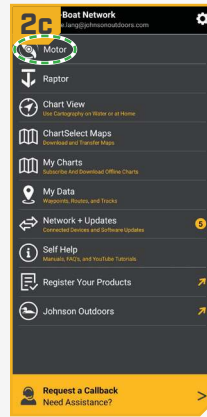
1

- a. Power "on" the trolling motor. When the blue LED next to the Power icon is illuminated, the system is ready.



2

- b. Open the One-Boat Network (OBN) app on the mobile device. Make sure the mobile device is paired with the trolling motor.
- c. From the OBN home screen, tap the Motor menu. The Motor menu opens the Motor app home screen.
- d. Before the Motor app home screen will open, tap Agree on the on-screen prompt.

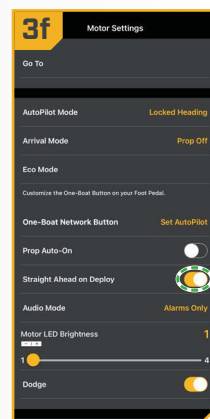
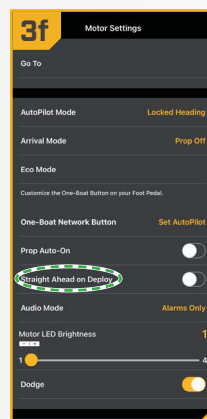


**NOTICE:** The on-screen prompt will only display once each time the app is launched. If the prompt has displayed, the Motor app home screen appears.

- e. On the Motor app home screen, locate the Motor Setting button in the upper right-hand corner and tap it.

3

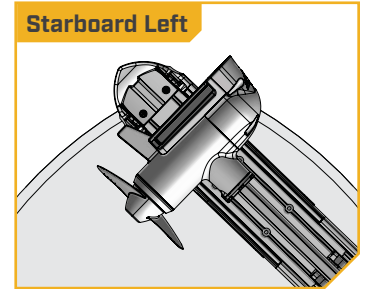
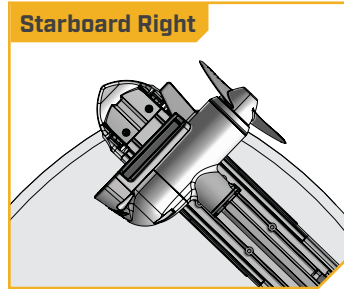
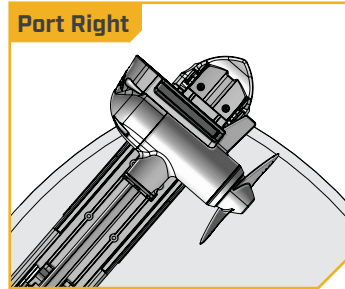
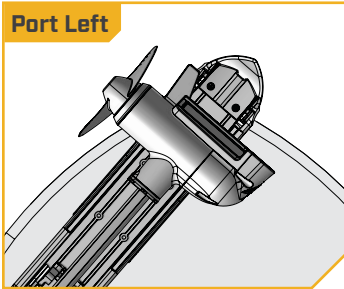
- f. In the Motor Settings menu, find the Straight Ahead on Deploy toggle. Tap to turn the toggle "on" and "off". When highlighted yellow the toggle is "on".



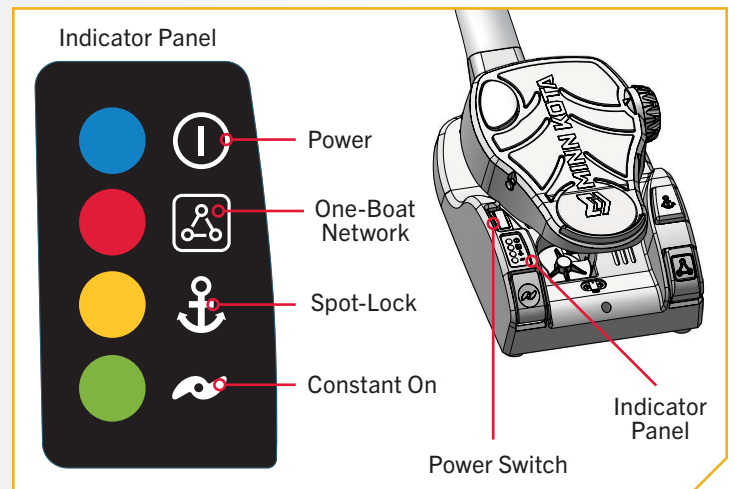


## Stow Orientation

The Stow Orientation is a term used to describe the lower unit and Prop position when the motor is stowed. The factory default for the lower unit is for the Prop to face outboard (Prop Left) on a Port installation. Setting the Park Position allows the installation to be customized to fit boat positioning for either a Port or Starboard installation. Also, use the setting to configure the Prop left or right to accommodate fishing or trailering applications.



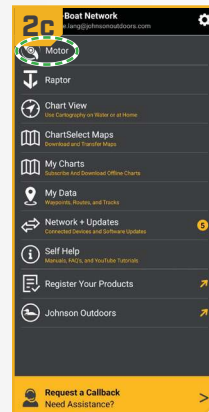
- 1 a. Power "on" the trolling motor. When the blue LED next to the Power icon is illuminated, the system is ready.



- 2 b. Open the One-Boat Network (OBN) app on the mobile device. Make sure the mobile device is paired with the trolling motor.
- c. From the OBN home screen, tap the Motor menu.
- d. Before the Motor app home screen will open, tap Agree on the on-screen prompt.

**NOTICE:** The on-screen prompt will only display once each time the app is launched. If the prompt has displayed, the Motor app home screen appears.

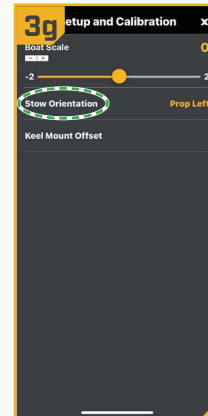
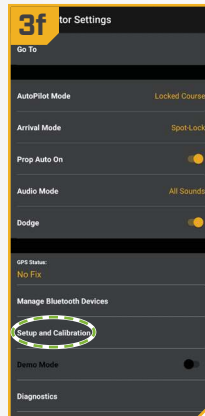
- e. On the Motor app home screen, locate the Motor Setting button in the upper right-hand corner and tap it.



# BOAT SCALE

3

- f. In the Motor Settings menu, find and tap Setup and Calibration.
- g. In Setup and Calibration, find and tap Stow Orientation.
- h. Set the feature to Prop Right or Prop Left.



## Boat Scale

Trolling motor performance can be impacted by factors including, but not limited to, wind, water conditions, boat specifications, battery health, wiring, etc.

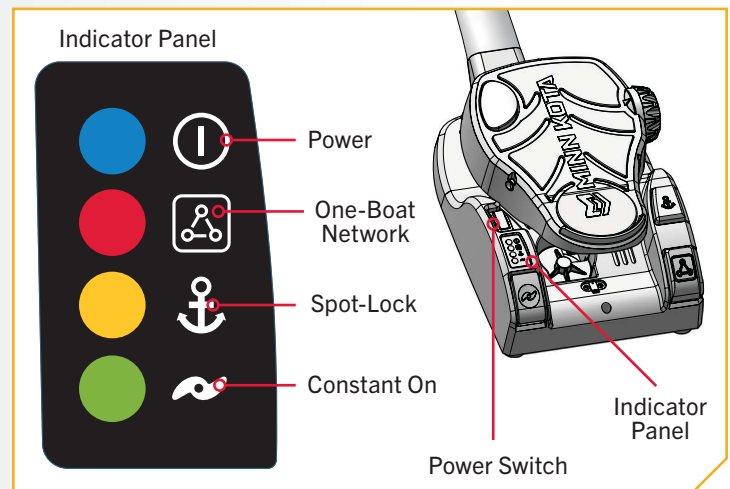
Boat Scale provides a method of adjusting how the trolling motor will perform to account for these and other variables. The Minn Kota trolling motor comes from the factory with Boat Scale set to zero. Boat Scale can be adjusted up (+2) or down (-2) to increase or decrease how the motor control software applies power while using a navigation mode like Spot-Lock.

An example showing the need to reduce Boat Scale would be while using Spot-Lock and the motor is over-correcting or making frequent adjustments. In this case, try reducing Boat Scale -1 to reduce this behavior. If the behavior continues, reduce Boat Scale to -2.

An example showing the need to increase Boat Scale while using Spot-Lock would be the motor is drifting away from its target location frequently or needs help to make corrections. Try increasing Boat Scale to +1 to help improve the trolling motor accuracy in this case. If the behavior continues, increase Boat Scale to +2.

1

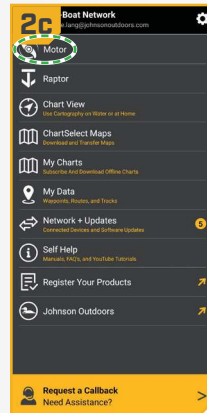
- a. Power "on" the trolling motor. When the blue LED next to the power icon is illuminated, the system is ready.



2

- b. Open the One-Boat Network (OBN) app on the mobile device. Make sure the mobile device is paired with the trolling motor.
- c. From the OBN home screen, tap the Motor menu. The Motor menu opens the Motor app home screen.
- d. Before the Motor app home screen will open, tap Agree on the on-screen prompt.

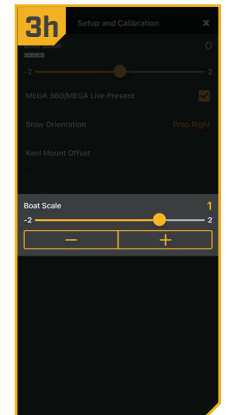
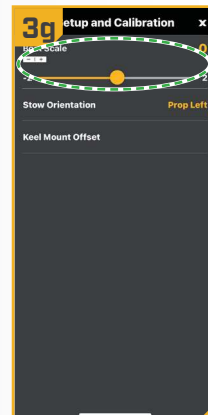
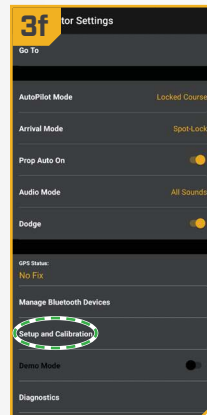
**NOTICE:** The on-screen prompt will only display once each time the app is launched. If the prompt has displayed, the Motor app home screen appears.




- e. On the Motor app home screen, locate the Motor Setting button in the upper right-hand corner and tap it.

3

- f. In the Motor Settings menu, find and tap Setup and Calibration.
- g. In Setup and Calibration, find and tap the Boat Scale.
- h. Set the feature to increase or decrease Boat Scale.



## Customize One-Boat Network Button on the Foot Pedal

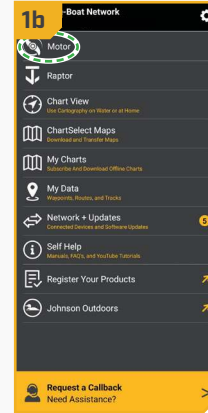
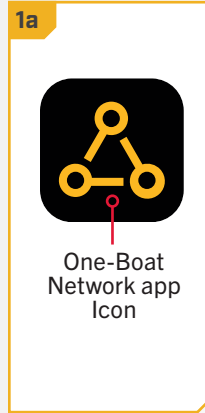
Minn Kota trolling motors equipped with Advanced GPS Navigation are compatible with devices enabled with the One-Boat Network, such as the Foot Pedal. The One-Boat Network button can be customized through either the One-Boat Network app on a paired mobile device or the Advanced GPS Navigation Wireless Remote. One-Boat Network functions are enabled and disabled through the Foot Pedal with the One-Boat Network  button. The One-Boat Network button on the Foot Pedal can be customized to control the following functions:

Function	Operation	LED Indication
AutoPilot (default)	Engage and disengage AutoPilot	Red LED will illuminate when AutoPilot is engaged and stay on until disengaged.
Waypoint	Mark a Waypoint	Red LED will illuminate when the One-Boat Network button is pressed and then turn off, signaling that a Waypoint was marked.
Shallow Water Anchor (Raptor/Talon)	Deploy and retract a Raptor/Talon	Red LED will steadily flash when the Shallow Water Anchor is deploying or stowing. Red LED will stay illuminated when the anchor is at any state of deployment, including when it is paused. Red LED will turn off when the anchor is fully stowed.

1

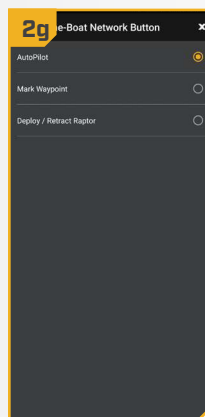
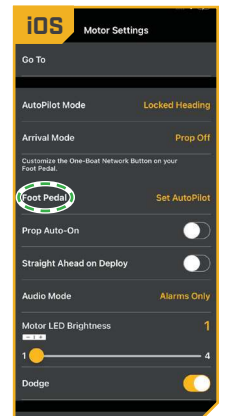
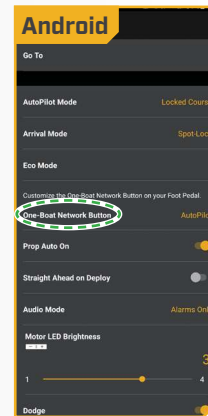
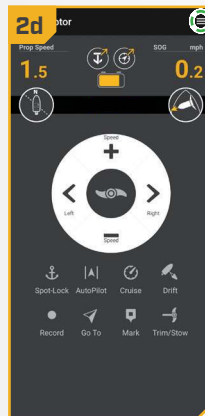
- a. With the trolling motor on, open the One-Boat Network (OBN) app on the mobile device. Make sure the mobile device is paired with the trolling motor.
- b. From the OBN home screen, tap the Motor menu. The Motor menu opens the Motor app home screen.
- c. Before the Motor app home screen will open, tap Agree on the on-screen prompt.

**NOTICE:** The on-screen prompt will only display once each time the app launches. If the prompt has been displayed, the Motor app home screen appears.



2

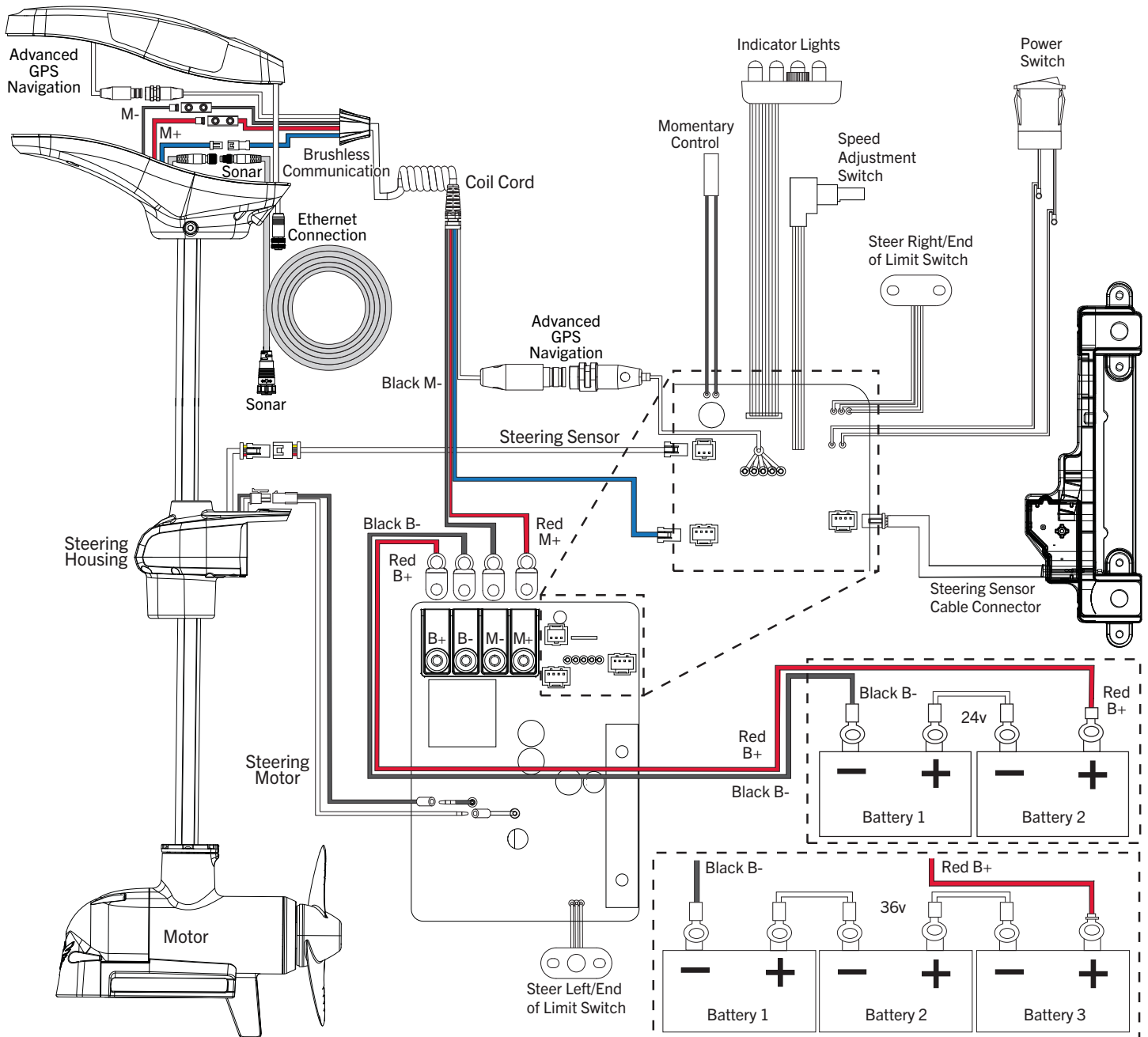
- d. On the Motor app home screen, locate the Motor Settings button in the top-right corner and tap it.
- e. On an Android, in Motor Settings, locate “One-Boat Network Button” and tap it.
- f. On iOS, in Motor Settings, locate “Foot Pedal” and tap it.
- g. In the One-Boat Network Button menu, choose the desired function. The radio button next to the selected function will be highlighted.



# MOTOR WIRING DIAGRAM

## ULTREX QUEST

The following Motor Wiring Diagram applies to all Ultrex QUEST models that come factory installed with Advanced GPS Navigation, a Foot Pedal and Sonar. Sonar is either Dual Spectrum CHIRP or Built-in MEGA Side Imaging.

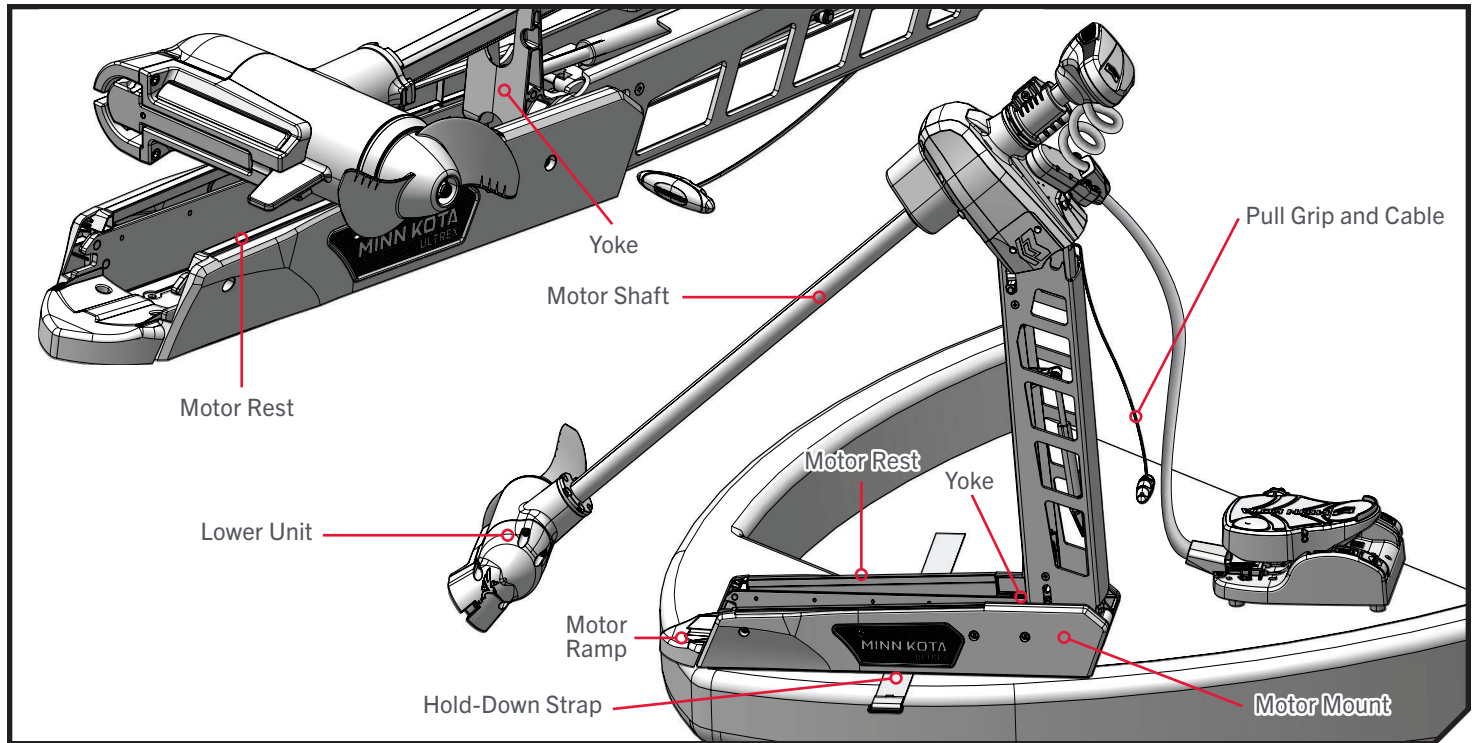


**NOTICE:** This is a multi-voltage diagram. Double-check your motor's voltage for proper connections. Over-Current Protection Devices are not shown in this illustration.

# USING & ADJUSTING THE MOTOR

## MOUNT FEATURES

Become familiar with the features of the motor to maximize the capabilities this product offers.



### › Motor Mount

The Motor Mount is designed to securely hold the motor in place on the deck of the boat. It functions to stow and lock the motor flat on the deck when not in use by providing secure stowage for transport. The Motor Mount also positions the motor when it is in the deployed position.

### › Pull Grip and Cable

The Pull Grip and Cable releases the lock bar on the Motor Mount, which automatically engages when the unit is stowed or deployed into position. The Pull Grip and Cable should be used to assist when both stowing and deploying the unit. Inspect the Pull Grip and Cable during each use and replace when it shows signs of wear.



## WARNING

When stowing or deploying the motor, keep fingers clear of all hinges, pivot points and moving parts. Always use the Pull Grip and Cable to stow and deploy the motor to prevent injury.

### › Motor Rest and Yoke

The Motor Rest positions the lower unit as it comes into contact with the nose of the mount and guides it onto the Motor Mount. The Yoke sits in the middle of the Motor Rest and captures the motor shaft. The Yoke keeps the lower unit centered on the Motor Rest when in the stowed position.

### › Hold-Down Strap

The Hold-Down Strap must be used to place pressure on the motor shaft to hold the Lower Unit tightly against the Motor Rest when stowed. The Hold-Down Strap runs under the Mount and is properly secured when the motor is secured on the Motor Rest and the strap is secured to itself. The Hold-Down Strap should be secured every time the motor is stowed to prevent damage from high wind, rough water or vibrations, including while the boat is trailered.



## STOWING AND DEPLOYING THE MOTOR

### › To Deploy the Motor

Make sure that the Hold-Down Strap is not secured and then simply pull back and lift the motor off of the mount with the Pull Grip and Cable. Lower the motor into the water using the Pull Grip and Cable. The motor will lock into the deployed position. Once the motor is deployed, make sure it is seated and locked into position.

 <b>WARNING</b>
When stowing or deploying the motor, keep fingers clear of all hinges, pivot points and moving parts.

### › To Stow the Motor

Pull back and lift the motor out of the water with the Pull Grip and Cable. Guided by the Pull Grip and Cable, the lower unit will drop down onto the Motor Rest. The motor will lock into the stowed position. Once the motor is stowed, make sure it is seated and locked into position. Wrap the Hold-Down Strap over top of the motor shaft to secure the motor. When stowing the motor, it automatically disables the operational function of the foot pedal or paired remote. "Motor stowed" will be displayed on the screen of any applicable remote.

## BATTERY MONITORING

Minn Kota understands the importance of maximizing time on the water to gain a competitive edge. Minn Kota QUEST Series trolling motors provide real-time battery and runtime readings of the trolling motor battery system when connected to a compatible Humminbird fish finder. Compatible Humminbird fish finders include HELIX G3N and newer and all SOLIX and APEX models. Answer a few easy questions on the Humminbird to set the battery chemistry and system type, then let the system monitor the batteries connected to the trolling motor while the prop is running. The fish finder will display the remaining battery in 1% increments, giving essential data about the trolling motor battery system, including time remaining and time at empty - all displayed on an intuitive dashboard on the Humminbird fish finder. Please see the Humminbird fish finder Owner's Manual online at [humminbird.johnsonoutdoors.com](http://humminbird.johnsonoutdoors.com) to learn more about Minn Kota Battery Monitoring.



# STOWING AND DEPLOYING THE MOTOR

## MOTOR ADJUSTMENTS

### Adjusting the Lower Unit for a Secure Stow

When the Motor is stowed, the Lower Unit should lie on the Motor Rest Rails just inside the sideplates of the Motor Mount. Minn Kota recommends securing the motor using the following instructions to avoid damage to the motor and shaft from vibrations during transport.

1

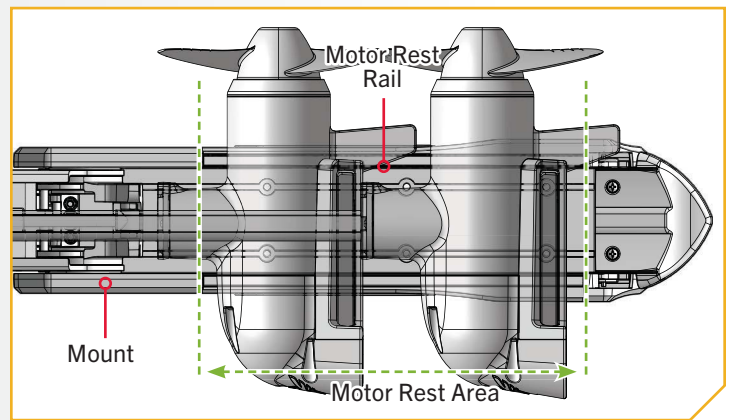
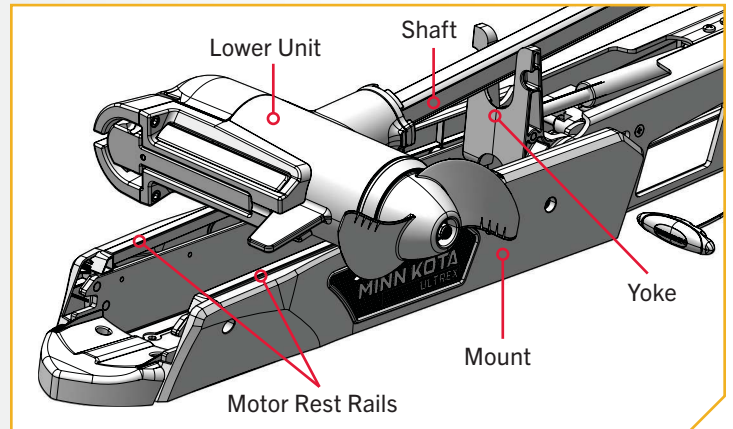
- a. Before transporting the boat over water or land, stow the motor to determine where the Lower Unit rests on the Mount.

**NOTICE:** The correct positioning of the Lower Unit will place it directly on the Motor Rest located on the Motor Mount.

- b. If the Lower Unit does not sit on the Motor Rest, deploy the motor so the Depth Collar can be unlatched and the motor can be adjusted to allow it to lie on the Motor Rest.

## CAUTION

The Lower Unit should be placed on the Motor Rest Rails within the Motor Rest Area every time the motor is transported. If the Lower Unit is improperly placed, either above or below the Motor Rest Area, the Shaft will be incorrectly captured in the Yoke and damage to the Lower Unit or Shaft will occur. Failure to follow the recommended placement for the Lower Unit will cause damage to the product and void your product warranty.

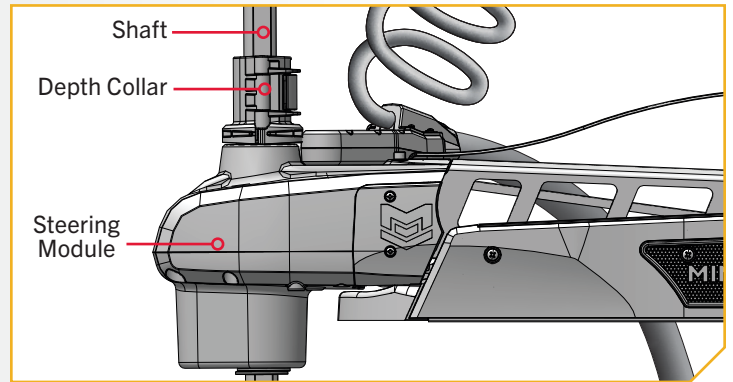




## ADJUSTING THE DEPTH OF THE MOTOR

2

- c. With the motor in the deployed position, firmly grasp the motor Shaft above the Steering Module.
- d. Locate the Depth Collar on the Shaft. While holding the Shaft in place, unlatch the Depth Collar so that the Shaft can slide freely.
- e. Raise or lower the motor to the desired depth.
- f. Re-latch the Depth Collar to secure the motor in place.
- g. Stow the motor again and confirm that the Lower Unit is resting on the Motor Rest Rails within the Motor Rest Area. If it is not resting in the recommended location, re-deploy the motor and re-adjust until it sits where recommended when stowed.



**NOTICE:** Once the Lower Unit is sitting in the proper position on the Motor Rest, always secure it in place with the Hold-Down Strap.

### Adjusting the Depth of the Motor

Once the boat is on the water, it may be necessary to adjust the lower unit up or down to achieve an optimum depth for motor performance. When setting the depth of the motor, be sure that the top of the motor is submerged at least 12" below the surface of the water to avoid churning or agitation of surface water.

1

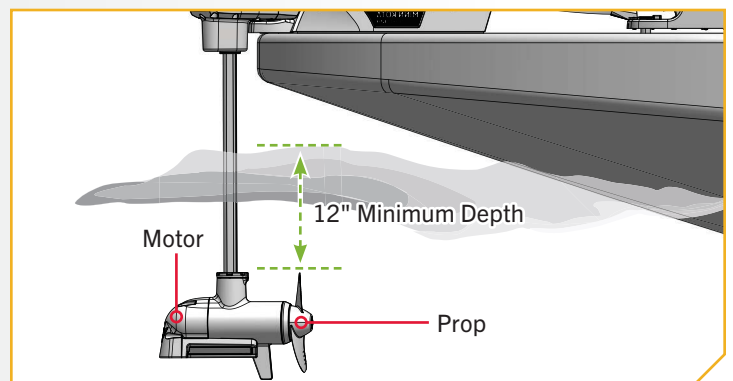
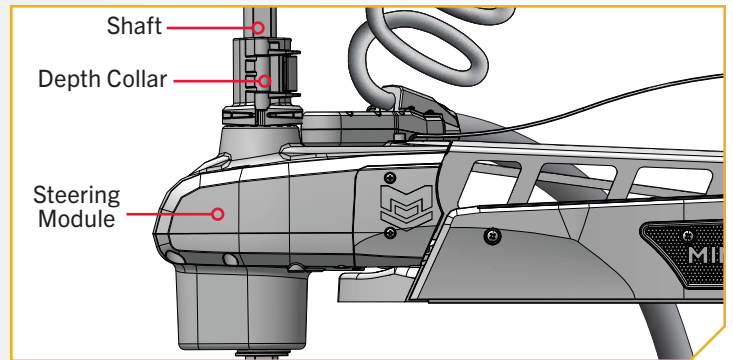
- a. With the motor in the deployed position, firmly grasp the motor Shaft above the Steering Module.
- b. Locate the Depth Collar on the Shaft. While holding the Shaft in place, unlatch the Depth Collar so that the Shaft can slide freely.

### WARNING

The Control Head will create a pinch point if the Depth Collar is unlatched and the Control Head slides to the top of the Depth Collar. Grasp the Shaft and prevent it from sliding all the way down to prevent the pinch point.

- c. Raise or lower the motor to the desired depth.
- d. Re-latch the Depth Collar to secure the motor in place.

**NOTICE:** Please be sure that the top of the motor is submerged at least 12" below the surface of the water to avoid churning or agitating the water surface.



# ADJUSTING THE PULL GRIP AND CABLE

## Adjusting the Pull Grip and Cable

The length of the Cable on the Pull Grip and Cable can be adjusted based on personal preference. Before beginning the adjustment, the Gas Springs must be disengaged and the Steering Module must be removed. Please refer to the "Removal of the Steering Module" section and follow the procedure to "Disconnect the Gas Springs" and "Remove Motor from Mount". It is important to remove the Gas Springs and the Steering Module in order to access the Cable and associated hardware to make any adjustments.

1

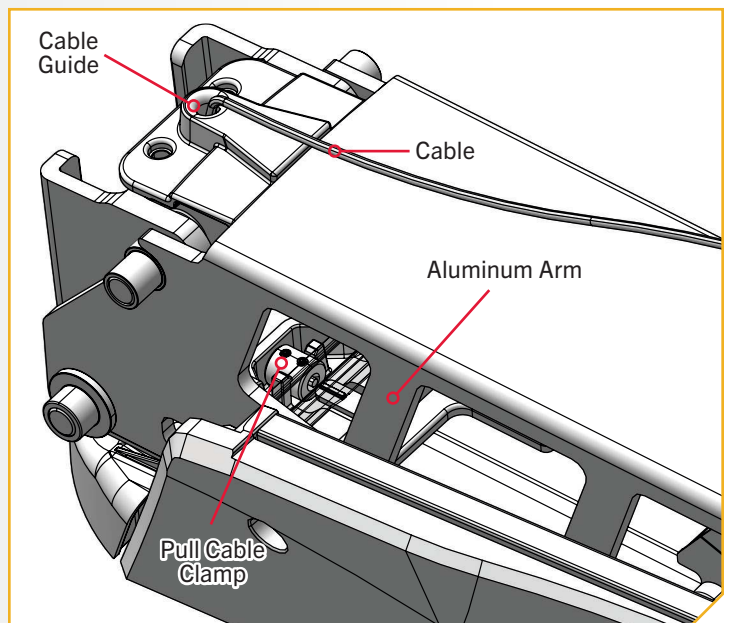
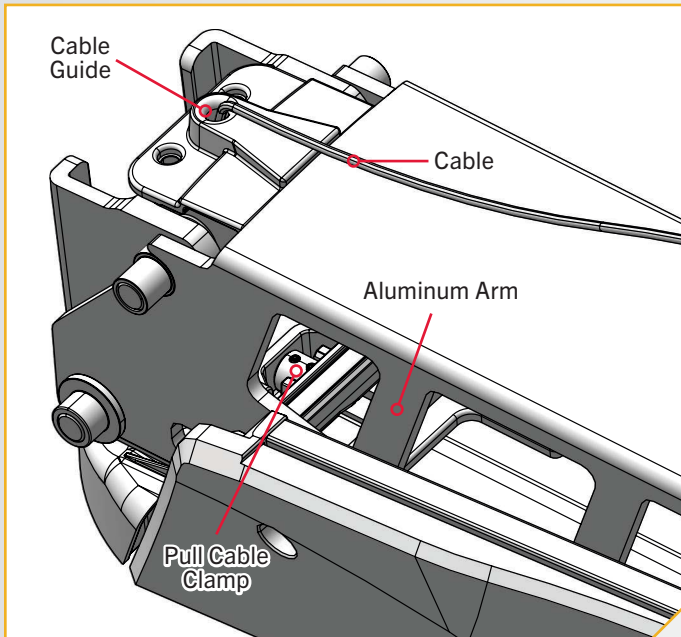
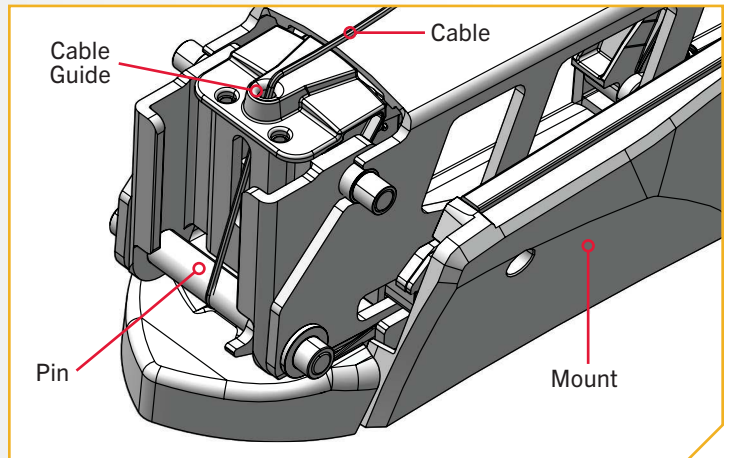
### **WARNING**

Please refer to the "Removal of the Steering Module" section of this manual and follow the procedure to "Disconnect the Gas Springs" and "Remove Motor from Mount". It is important to remove the Steering Module and Disconnect the Gas Springs in order to access the Cable and associated hardware to make the adjustment. Failure to complete these necessary steps will prevent the adjustment from being possible and will result in risk of injury.

- a. With the Gas Springs disconnected and the Steering Module removed, ensure that the mount is in the deployed position.

**NOTICE:** Observe how the Cable is routed through the Cable Guide, around the Pin, and into the Pins on the Latch Strap Cable Pull Bracket.

- b. Locate the end of the Cable and the Pull Cable Clamp inside the Aluminum Arm of the Mount.



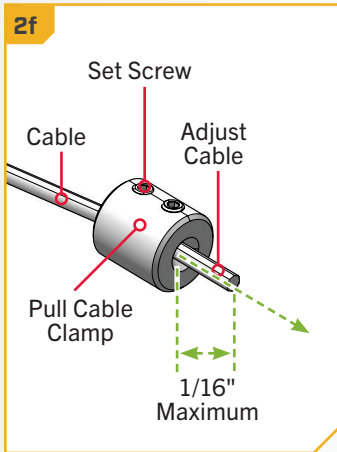
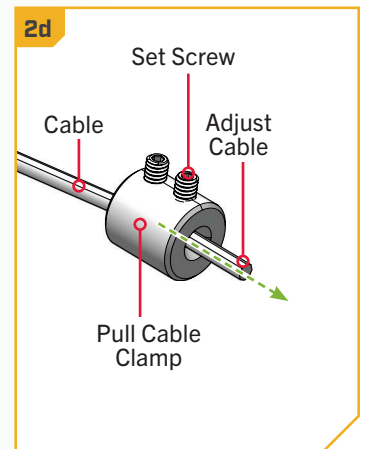
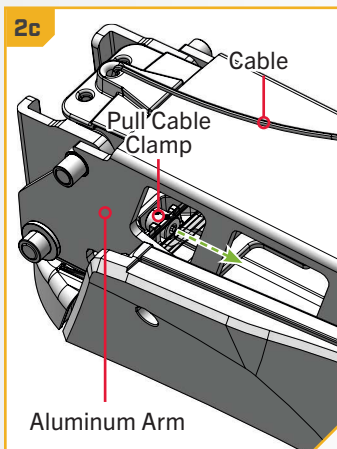
## ADJUSTING THE PULL GRIP AND CABLE

2

- c. Grasp the Pull Cable Clamp and Cable and pull it out of the Aluminum Arm.
- d. The Pull Cable Clamp contains two Set Screws. Loosen- but do not remove- these two screws with a 5/64" Allen Wrench until the Cable can slide in the Pull Cable Clamp.
- e. Adjust the Cable to the desired length.
- f. Re-tighten the two Set Screws using the 5/64" Allen Wrench. Tighten the Set Screws to 16-19 in-lbs. Be sure that the Set Screws are properly seated on the Cable in the Pull Cable Clamp. The Set Screws must provide adequate tension on the Cable to keep it retained in the Pull Cable Clamp during normal operation. When the two Set Screws are properly tightened, they must be recessed slightly below the surface of the Pull Cable Clamp.

**NOTICE:** Be sure the two Set Screws are tightened adequately. When properly tightened, the two Set Screws must at least be recessed below the Pull Cable Clamp to maintain tension on the Cable in the Pull Cable Clamp during normal operation.

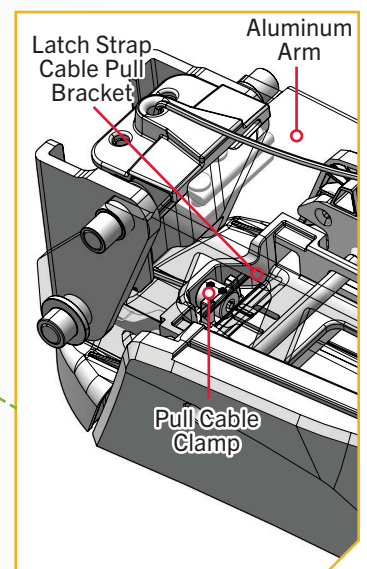
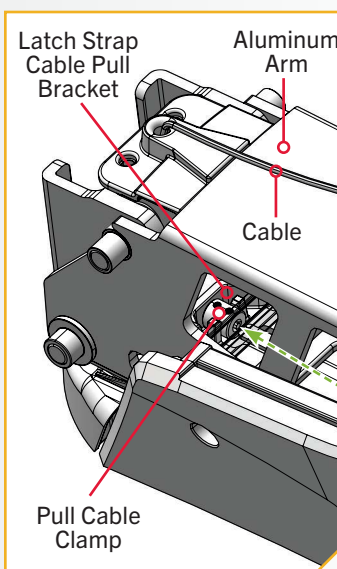
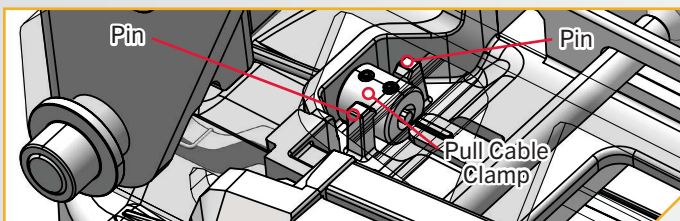
- g. Using a Hack Saw, trim the Cable so there is no more than 1/16" excess beyond the Pull Cable Clamp.



**NOTICE:** Ensure the Cable is trimmed precisely so that it will fit back into the Pins on the Latch Strap Cable Pull Bracket. If the Cable is too long, the Pull Cable Clamp will not re-seat correctly.

3

- h. Once the Cable has been cut to length, take the Pull Grip and pull the Cable back into place until it is seated against the Latch Strap Cable Pull Bracket. Ensure that the Pull Cable Clamp is seated into the Pins on the Latch Strap Cable Pull Bracket.
- i. After the Cable is in place, refer to the "Removal of the Steering Module" section of these instructions and follow the procedure to "Reassemble the Steering Module."



# INSTALLING AN EXTERNAL TRANSDUCER

## INSTALLING AN EXTERNAL TRANSDUCER

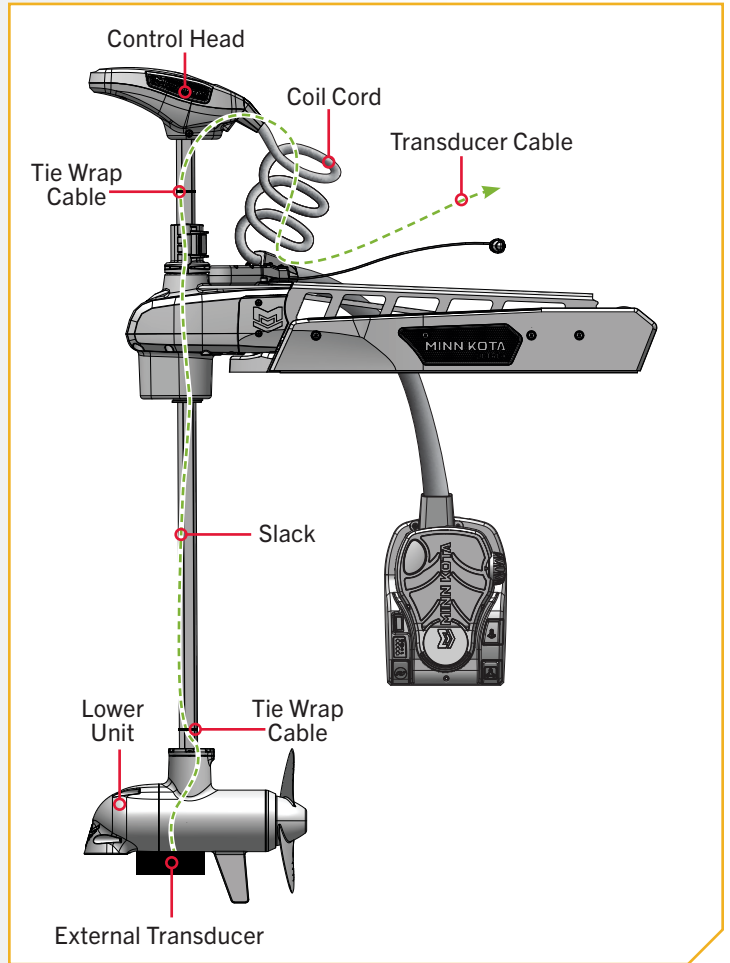
An external transducer is not included with your trolling motor. An external transducer can be installed onto motors that have Advanced GPS Navigation. Installing an external transducer is not recommended for motors with Built-in MEGA Imaging.

- 1
  - a. Mount the External Transducer according to directions provided with the transducer.
  - b. Leave enough slack in the Transducer Cable between the Lower Unit and Control Head to allow the motor to properly stow and deploy.
  - c. Use two tie wrap cables to secure the Transducer Cable to the Shaft just above the Lower Unit and just below the Control Head.
  - d. Run the Transducer Cable through the Coil Cord to the power supply.

### CAUTION

The Lower Unit should be placed on the Motor Rest Rails within the Motor Rest Area every time the motor is transported. If the Lower Unit is improperly placed, either above or below the Motor Rest Area, the Shaft will be incorrectly captured in the Yoke and damage to the Lower Unit or Shaft will occur. Failure to follow the recommended placement for the Lower Unit will cause damage to the product and void your product warranty.

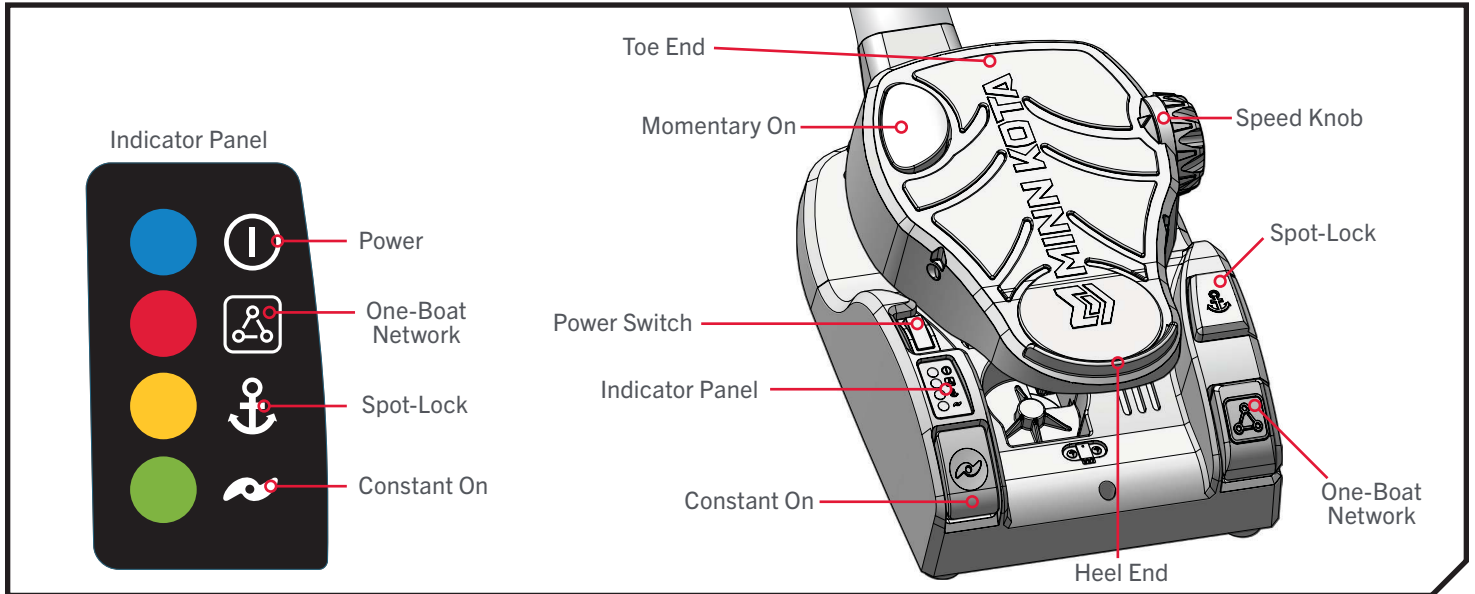
**NOTICE:** For additional details on cable routing, see the "Securing Accessory Cables" section of this manual.



# USING THE FOOT PEDAL

## CONTROLLING SPEED & STEERING

The Foot Pedal is used to operate the motor, and controls on the Foot Pedal are easy to operate by either foot or hand. The motor can also be controlled by an Advanced GPS Navigation Wireless Remote or the One-Boat Network app, as well as any compatible Minn Kota remote. Please refer to the Advanced GPS Navigation or One-Boat Network (OBN) app Owner's Manual to learn how to control the motor with each.



### › Power

The Power Switch is located on the left hand side of the Foot Pedal and used to turn the power on and off. The blue LED next to the Power icon (ⓘ) on the Indicator Panel is illuminated when the power is on. Do not try to steer this motor with the Foot Pedal when it has lost power.

**NOTICE:** Remember to turn the power off when the motor is not in use to prevent the motor from draining the battery.

### › Motor Speed

The Speed Knob is located on the top right side of the Toe End of the foot pedal. Turn the Speed Knob clockwise to increase speed and counter-clockwise to decrease speed. Speed can also be adjusted using the remote.

### › Momentary Motor Operation

In Momentary Motor Operation, the Prop will only run while downward force is applied to the Momentary On button. The Momentary On button is located on the top left Toe End of the Foot Pedal. Applying downward pressure to the Momentary On button will turn the Prop on. The motor will then run at the speed set by the Speed Knob. Removing downward force to the Momentary On button will turn the Prop off. No indicator LED is associated with the Momentary On button.

### › Constant Motor Operation

To switch to Constant Motor Operation, press the Constant On button. The Constant On button is located on the bottom left Heel End of the foot pedal and is labeled on the foot pedal with a Prop symbol. With Constant Motor Operation engaged, the Prop will continually run, regardless of whether or not force is being applied to the Momentary On button. While in Constant Motor Operation, the Prop will run continuously at the speed set by the Speed Knob, or by the Advanced GPS Navigation Wireless Remote or the One-Boat Network app. The green LED next to the Constant On icon (🐟) on the Indicator Panel will be illuminated when the motor is in Constant Motor Operation.


# CONTROLLING SPEED & STEERING



If a propeller encounters an obstruction while either in Momentary or Constant Motor Operation, while the Prop is running, the increased electrical current being generated by the obstruction will signal the motor to decrease the power to the Prop to prevent damage. If a current overload is detected, the prop will be disabled to prevent damage to the motor. In this event, the operator can turn the prop back on after being sure that the obstruction has been cleared.

## › Turn Left or Right


Push the Toe End of the Foot Pedal down to turn right and push the Heel End of the Foot Pedal down to turn left. The position and direction of the Steering Head directly corresponds to the position of the motor. When turning left or right, the steering motion will end when the cables controlling the direction of the Steering Head and Motor have come to the end of their range of motion. You must use your foot on the pedal to control the steering direction during manual operation. The Foot Pedal is pressure-sensitive. Applying gradual pressure to either the Toe or Heel End of the Foot Pedal will cause the direction to turn gradually. A higher amount of pressure will turn the unit more quickly in the engaged direction. The direction of the motor can also be controlled with the remote or the One-Boat Network app (OBN). Since the direction of the motor is controlled by pressure applied to the Foot Pedal and the reaction of the cables to the pressure, the motor will not turn straight without applying pressure to the Foot Pedal either manually or with the remote to align the cables to engage the motor to steer it straight. Due to the Steering Lock feature, the Steering Head and Motor will remain at the last steered position. Turning left or right can also be controlled by the Advanced GPS Navigation Wireless Remote or the One-Boat Network app. Refer to the corresponding Owner's Manuals to learn more.


 <b>CAUTION</b>
Make sure that the Power switch is turned off when the motor is not in use. If the motor control is left on and the Prop rotation is blocked, severe motor damage can result.
For safety reasons, disconnect the motor from the battery/batteries when the motor is not in use or while the battery/batteries are being charged.
Moving parts can cut or crush. Avoid pinch points when operating the Foot Pedal.

## › Steering in Reverse

The Control Head always indicates the direction of travel. To reverse the direction of travel, turn the Control Head in the complete opposite direction of its current location. Keep in mind the steering motion will end when the cables controlling the direction of the Control Head have come to the end of their range of motion.

## › Spot-Lock

The Spot-Lock button is located on the right side of the Foot Pedal and is labeled with an anchor symbol. When the Spot-Lock button is pressed, the location of the motor is recorded to memory. The yellow LED next to the Spot-Lock icon  on the Indicator Panel is illuminated when Spot-Lock is engaged. To engage Spot-Lock press the Spot-Lock button, to disengage, press the Spot-Lock button again. When engaging Spot-Lock, a tone will be emitted. When disengaging Spot-Lock with the Spot-Lock button, no tone will be emitted. Steering the motor with the Foot Pedal or adjusting the speed using the Speed Knob will cancel Spot-Lock and a High-Low, High-Low, High-Low tone will be emitted. Spot-Lock can also be controlled with the remote. For more specific directions on how to use Spot-Lock, please refer to your remote manual.

 <b>WARNING</b>
You are responsible for the safe and prudent operation of your vessel. We have designed Ultrex QUEST to be an accurate and reliable tool that will enhance boat operation and improve your ability to catch fish. This product does not relieve you from the responsibility for safe operation of your boat. You must avoid hazards to navigation and always maintain a permanent watch so you can respond to situations as they develop. You must always be prepared to regain manual control of your boat. Learn to operate your Ultrex QUEST in an area free from hazards and obstacles.

## › One-Boat Network

The One-Boat Network (OBN) button is located on the bottom right corner of the Foot Pedal. It is a customizable button that may change functions based on user selection. Pressing the OBN button will activate the assigned OBN function. The red One-Boat Network (OBN) LED on the Indicator Panel is illuminated when this feature is engaged. Each function has a different LED pattern. AutoPilot is the default OBN function. Please review the “One-Boat Network” section of these instructions to learn more.

## › Steering Lock

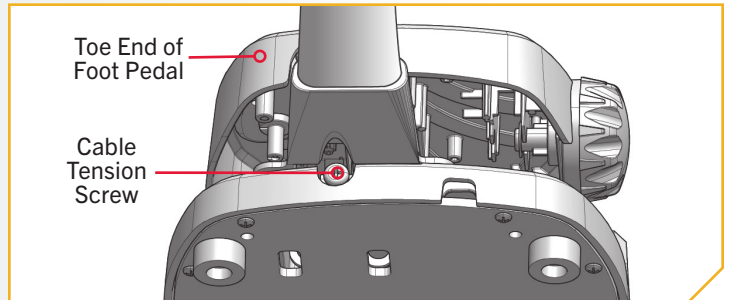
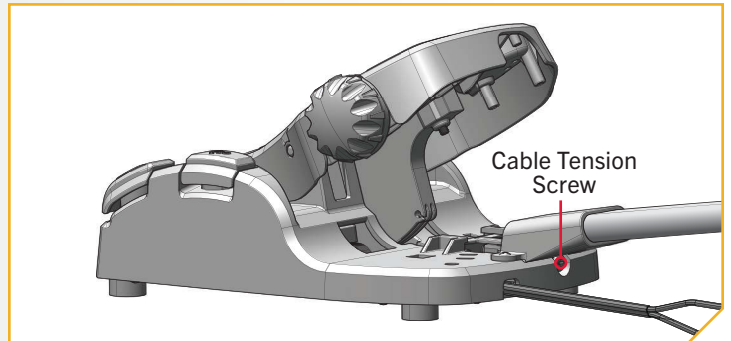
When you take your foot off Ultrex QUEST's Foot Pedal, the motor head remains pointed in the direction you left it. No recoil or readjustment, just easier steering every day.

### FOOT PEDAL ADJUSTMENTS ›

## › Adjusting the Steering Cable

The steering cable tension is pre-set at the factory but, through normal use, may need occasional adjustment.

- 1** a. The Cable Tension Screw is located at the base of the Foot Pedal on the Toe End. The screw is below the Steering Cable Cover. The tension of the screw can be adjusted using a #3 Phillips Screwdriver.
- b. Turn the screw clockwise to increase tension and counter-clockwise to decrease tension.



### **CAUTION**


If the cables become too loose, they may disengage from the Wrap Drum that sits on the Steering Housing or the Cable Pulley in the foot pedal.

### **CAUTION**

Do not over-tighten the Cable Tension Screw past 10 - 12 in-lbs. Over-tightening the screw will cause damage from excessive tension.

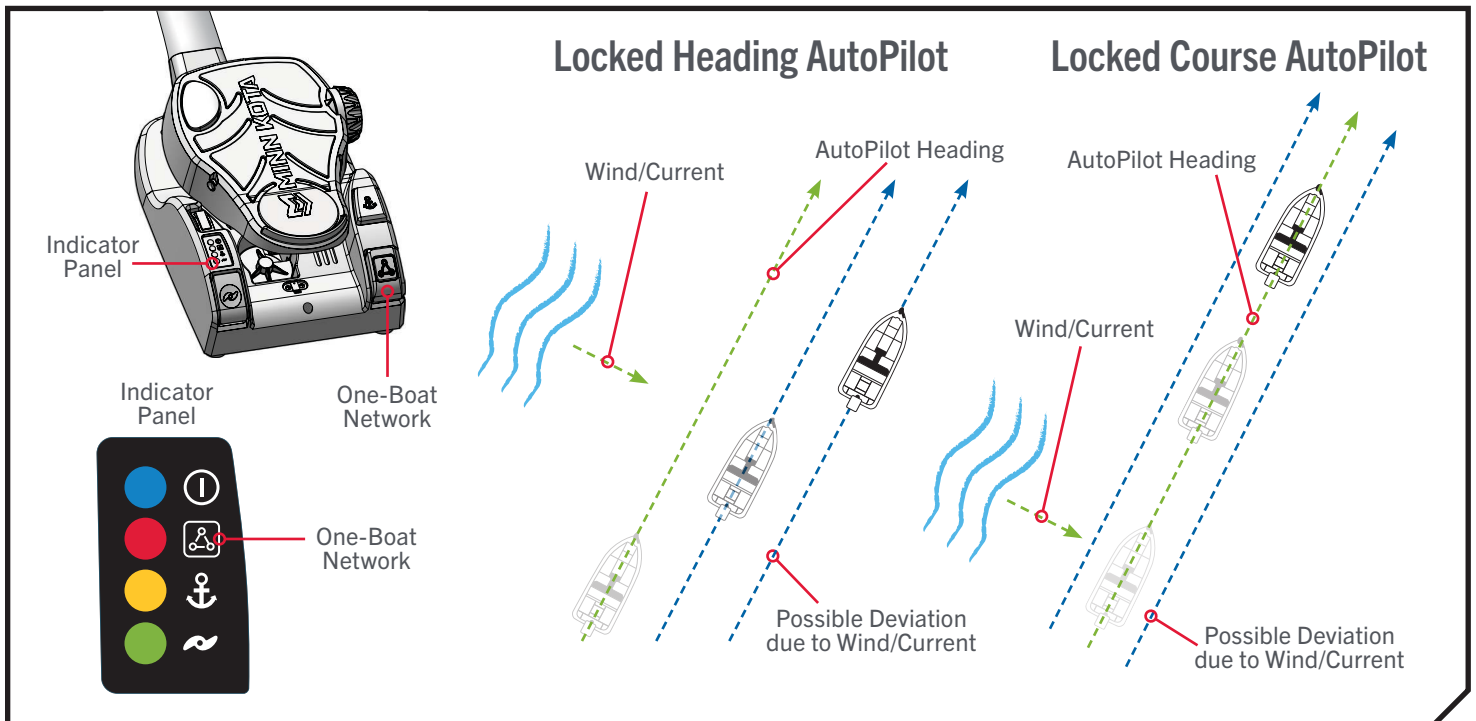
# AUTOPILOT

## AUTOPILOT AND THE ONE-BOAT NETWORK

AutoPilot on the Advanced GPS Navigation System uses an internal compass to keep the trolling motor pointed in the same compass direction. If the One-Boat Network (OBN)  button on the Advanced GPS Navigation System on the Foot Pedal is customized to the AutoPilot function, the button will engage and disengage AutoPilot.

## AUTOPILOT MODES

Two different modes of AutoPilot are available, Locked Heading AutoPilot and Locked Course AutoPilot. Both are collectively referred to as AutoPilot. There are distinct differences between the two AutoPilot Modes and how they control the boat. Both Locked Heading and Locked Course AutoPilot are valuable tools anglers can use for accurate and precise bait presentation. Minn Kota highly recommends getting on the water and trying both Locked Heading AutoPilot and Locked Course AutoPilot in various fishing situations and applications. The AutoPilot mode can be set using the Advanced GPS Navigation Wireless Remote or the One-Boat Network app.



### › Locked Heading AutoPilot

AutoPilot uses an internal compass to provide heading lock. When Locked Heading AutoPilot is on, it keeps the motor pointed in the same compass direction. If a manual steering correction is made, Locked Heading AutoPilot locks onto the new compass heading to which the boat was steered. This method of heading tracking does not take into account external forces such as a side wind or currents, which can allow side drift.

### › Locked Course AutoPilot

Locked Course AutoPilot uses not only compass heading but also GPS data to correct for crosswinds, currents, and other external forces to keep the boat on the intended course. When Locked Course AutoPilot is turned on, it creates a course that the trolling motor will follow. When the user steers to a new heading, a new course is created. Locked Course AutoPilot will keep the boat on the course in most conditions. When very extreme conditions exist, such as very strong winds or currents, the trolling motor may not have enough power to control the boat smoothly. In these extreme cases, it may be best to use Locked Heading AutoPilot and let the boat move with the wind or current if the motor is not powerful enough to overcome it.





**CAUTION**

This unit uses a magnetic compass to detect the direction of travel. The compass can be adversely affected by magnets or large, ferrous metal objects near (within 12" of) the trolling motor control head.


Obstructions on the Prop may cause excessive vibration of the motor control head. This vibration can cause the compass to wander and erratic steering to occur. Clear the obstruction to return the motor to normal operation.

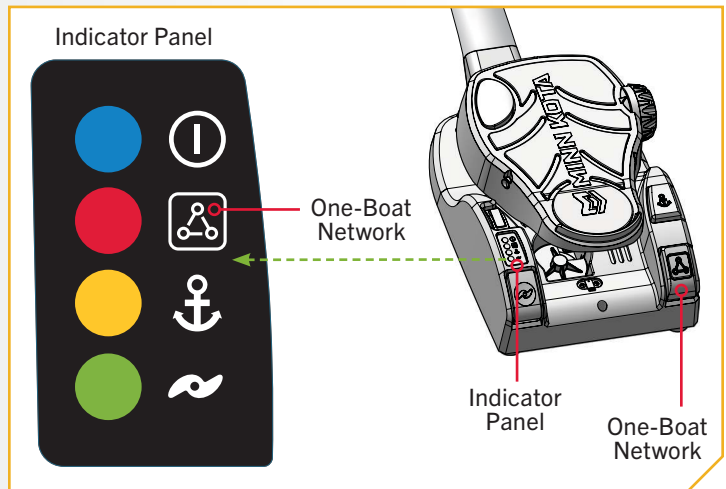
The trolling motor has automatic steering shutdown for safety. In conditions where an obstruction prevents the trolling motor from turning, or in extremely windy conditions, the automatic steering may stop. Any steering input will reset the system to normal.

**Toggle AutoPilot On/Off**

- 1
  - a. When the motor is powered "on," AutoPilot can be turned on by pressing the One-Boat Network  button located on the Foot Pedal.
  - b. The red One-Boat Network  LED on the Indicator Panel will illuminate when AutoPilot is engaged. While AutoPilot is on, steer the trolling motor as desired.

**NOTICE:** After steering to a new direction, there is a short delay before the direction is locked in to allow the compass to stabilize. When broad speed changes are made, the AutoPilot heading may change slightly. This is normal.

- c. To turn AutoPilot off, press the One-Boat Network  button.




**CAUTION**

Power is being supplied to the electronics even when the trolling motor is in the stowed position, when the power switch is "on". The trolling motor should not be stored in this condition for long periods as power is still being applied to all electronics. Always turn AutoPilot off and disconnect your motor from the battery when storing your boat.

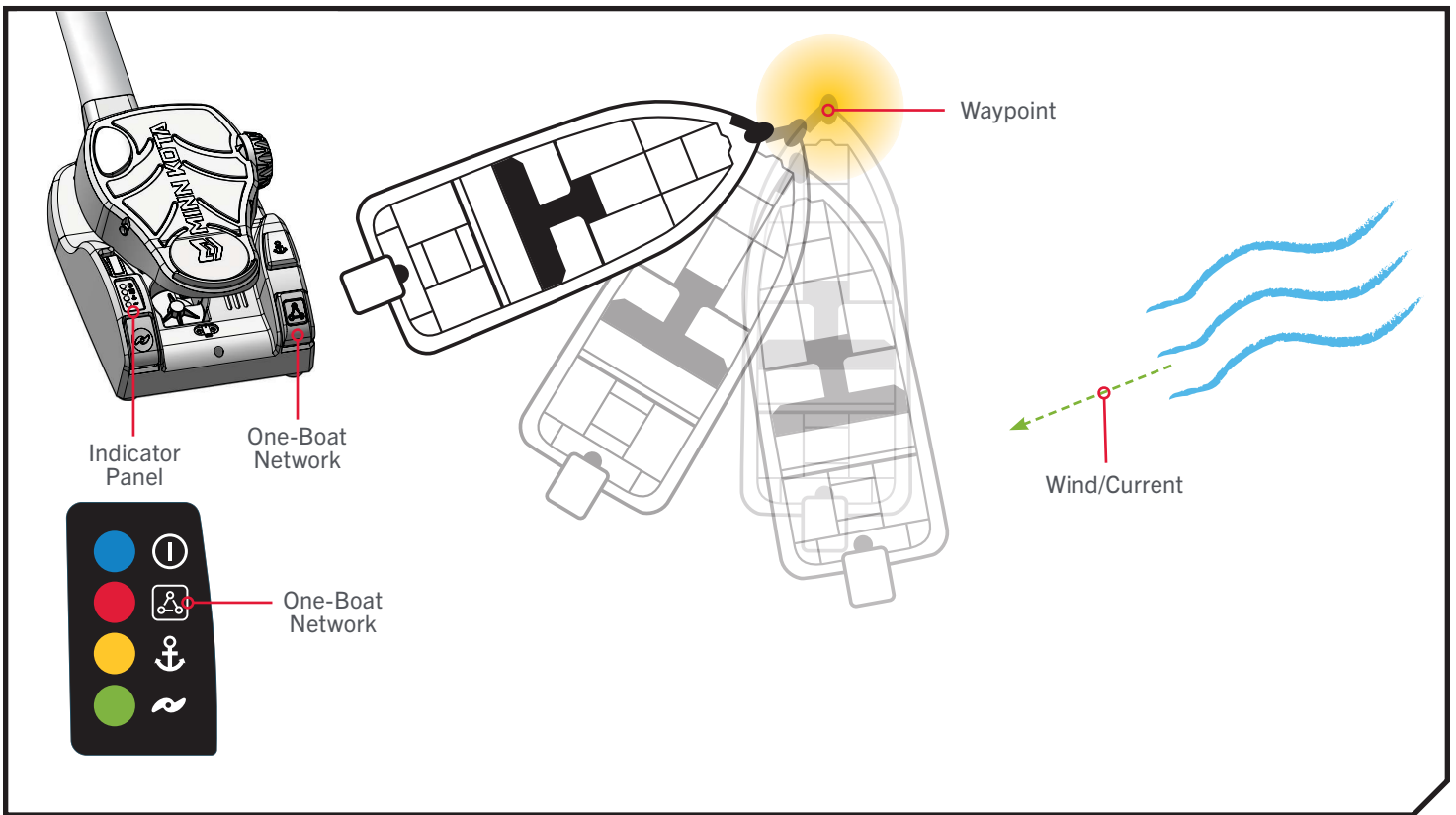
# WAYPOINTS

## WAYPOINTS AND THE ONE-BOAT NETWORK

Waypoints are saved latitude/longitude positions. They mark a position of interest, such as favorite fishing areas, structures, or marker buoys. Waypoints work similarly to Spot-Locks. If the One-Boat Network (OBN)  button on the Foot Pedal is customized to the Waypoint function, the button will mark Waypoints in the Advanced GPS Navigation System when pressed. For more information on working with Waypoints, please see your Advanced GPS Navigation System or Humminbird owner's manual.



### **WARNING**

Watch for a turning Prop when working with Waypoints. Auto Prop On is set to "off" by default on the Advanced GPS Navigation System. If Auto Prop On is turned "on" the Prop will automatically turn on when a Waypoint is engaged, even if the engagement is accidental. A turning Prop can cause injury. If Auto Prop On is turned "off", the Prop must be enabled before the boat will begin navigating to a Waypoint.

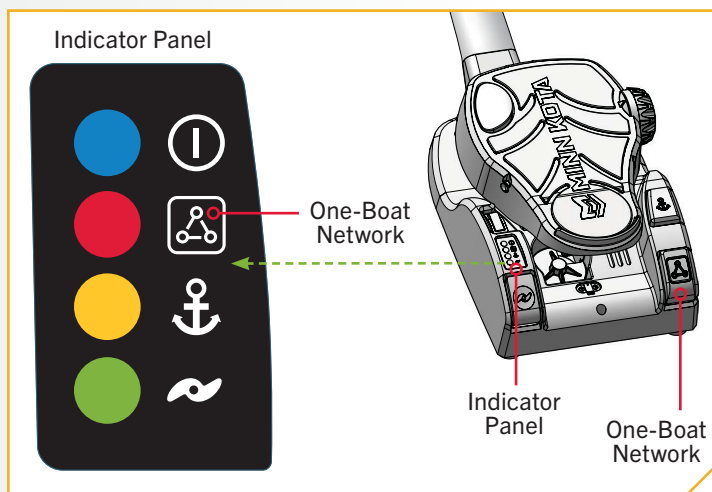


## › Mark a Waypoint

1

- a. While the trolling motor is running, mark a Waypoint by pressing the One-Boat Network  button. The red One-Boat Network  LED on the Indicator Panel will briefly illuminate and then turn off to indicate a Waypoint is marked.

**NOTICE:** Please see the One-Boat Network section of these instructions to learn how to customize the function of the One-Boat Network button on the Foot Pedal.



# SHALLOW WATER ANCHOR

## SHALLOW WATER ANCHOR CONTROL AND THE ONE-BOAT NETWORK

The One-Boat Network allows for control of a Shallow Water Anchor (SWA) when one is paired with the Advanced GPS Navigation Bluetooth Network. SWAs that can pair with the Advanced GPS Navigation system include the Minn Kota Bluetooth enabled Raptor and Talon. For more information on how to pair the SWA with the Advanced GPS Navigation system, please see the Raptor or Talon Owner's Manual.

When two Raptors are paired together or two Talons are paired together, the anchor selected and controlled by the Foot Pedal can be Port, Starboard or both. To change the selection of which anchor is selected, use the remote or app paired to the Shallow Water Anchor.

### **WARNING**

Be sure that the Raptor/Talon is clear of obstructions and persons while deploying or retracting. Take care that neither you nor other persons approach the Raptor/Talon too closely while operating, neither with body parts nor with objects. The Raptor/Talon is powerful and may endanger or injure you or others. While the Raptor/Talon is operating, watch out for persons swimming and for floating objects. Persons who lack the ability to run the Raptor/Talon or whose reactions are impaired by alcohol, drugs, medication, or other substances are not permitted to use this product.

### **CAUTION**

The Talon is equipped with a Deployment Notification Alarm. The Alarm is needed to comply with warranty requirements and when properly installed the alarm will only sound when the ignition key is turned on when the Talon is not fully retracted. Boat control may be affected by a deployed Talon. Take note of the Alarm, and always watch to make sure that the Talon is fully retracted while the boat is operating.

### **CAUTION**

The spaces between the Outer Arm, Inner Arm, Spike and brackets of the Raptor can create a pinch point. Do not come in contact with an area of the Raptor that may cause a pinch point while it is moving in any direction to avoid the risk.

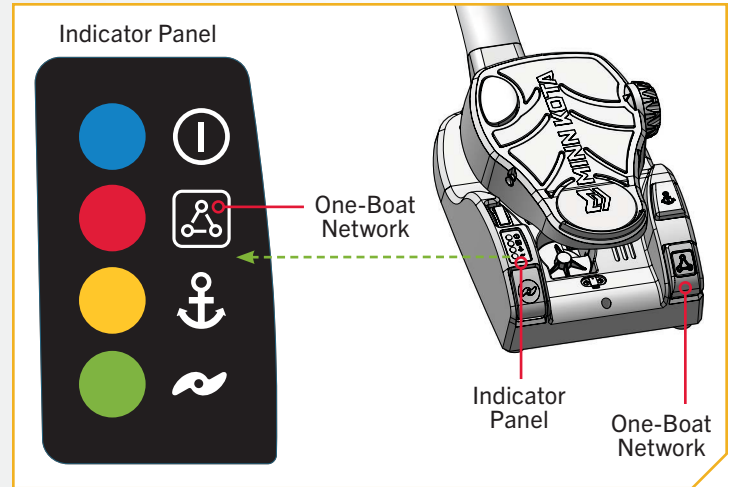
## Deploy the Shallow Water Anchor

1

- a. Check to make sure that the Shallow Water Anchor (Raptor/Talon) is powered “on” and paired to the One-Boat Network app.
- b. Locate the One-Boat Network button located on the Foot Pedal and double-press it to deploy the Raptor/Talon.

**NOTICE:** The One-Boat Network button does not need to be held in to keep the Raptor/Talon deploying. The Raptor/Talon will automatically continue to deploy when the button is double-pressed until it has reached its full deployment, received input to stop, or anchors.

- c. The red One-Boat Network LED on the Indicator Panel will steadily flash when the anchor is deploying and stay on when the anchor is at any state of deployment.



**NOTICE:** While the Raptor/Talon is deploying, the action can be paused by pressing the One-Boat Network button on the Foot Pedal once.

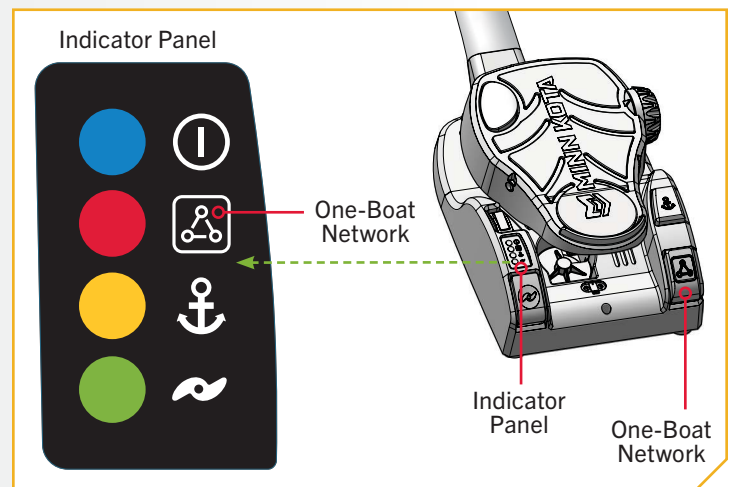
## Retract the Shallow Water Anchor

1

- a. Check to make sure that the Shallow Water Anchor (Raptor/Talon) is powered “on” and paired to the One-Boat Network app.
- b. Locate the One-Boat Network button located on the Foot Pedal and single press it to retract the Raptor/Talon.


**NOTICE:** While the Raptor/Talon is retracting, the action can be paused by pressing the One-Boat Network button on the Foot Pedal.

- c. The red One-Boat Network LED on the Indicator Panel will steadily flash when the anchor is retracting and stay on when the anchor is at any state of deployment.



# SPOT-LOCK

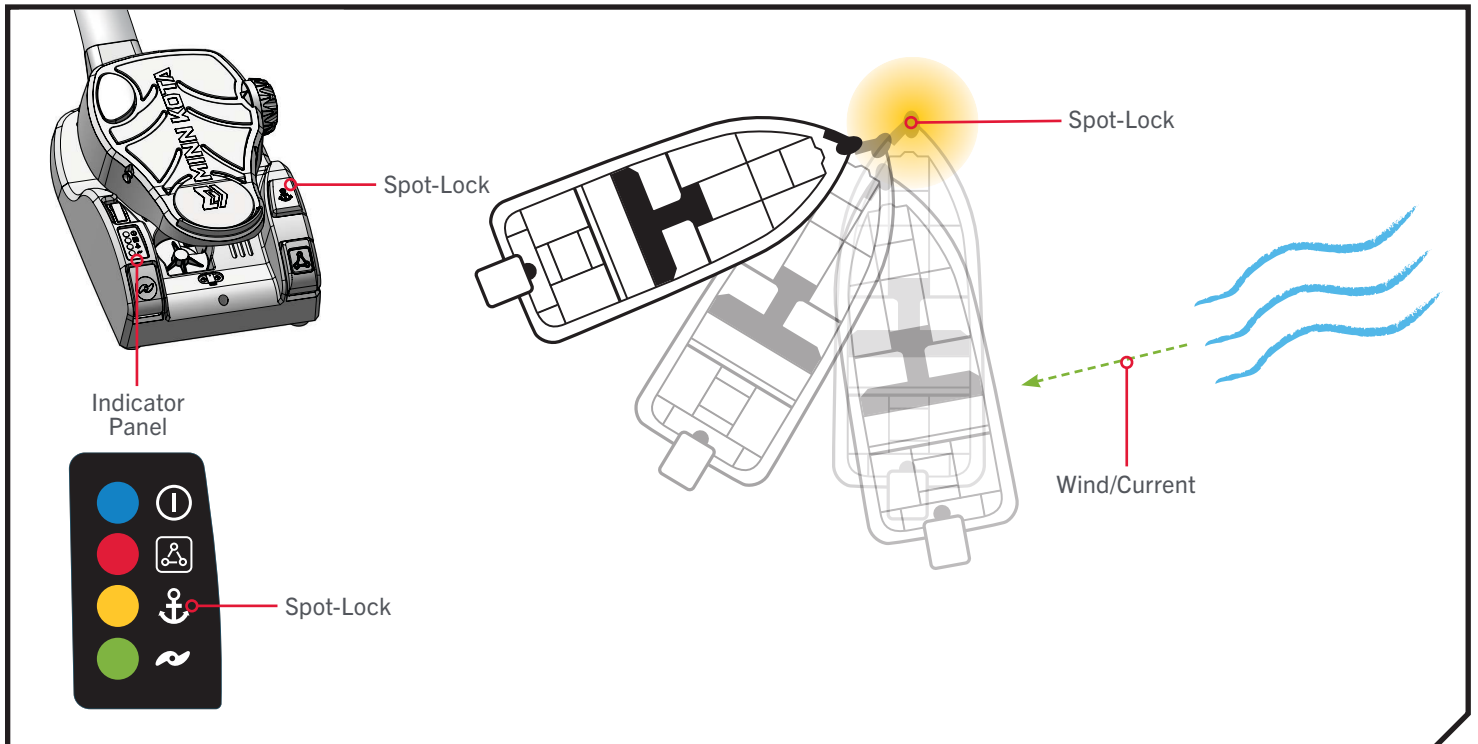
## HOW SPOT-LOCK WORKS

Spot-Lock uses a single point of reference that is recorded when the Spot-Lock  button is pressed. The reference point is a set of GPS coordinates captured at the location of the trolling motor at the moment the button is pressed. This point is recorded and can be saved into one of the Spot-Lock memory locations. Spot-Lock works by recognizing the GPS coordinates and will automatically navigate the boat to keep it at the Spot-Lock location. If your motor recognizes it is not positioned at the Spot-Lock location, it will control motor speed and direction in an attempt to keep the motor on the Spot-Lock. For more specific instructions on using Spot-Lock, please refer to your Wireless Remote owner's manual.

**NOTICE:** Spot-Lock is based on the location of the trolling motor, not on the location or direction of the boat. Outside forces such as wind and current will cause the boat to move. Spot-Lock will navigate to maintain the motor on the Spot-Lock location regardless of the position of the boat.



## WARNING

Watch for a turning propeller when working with Spot-Lock. The propeller will automatically turn on when Spot-Lock is engaged, even if the engagement is accidental. A turning propeller can cause injury. The propeller will turn "on" for Spot-Lock, regardless of the Prop Auto On setting used on the other control methods in the Advanced GPS Navigation System.



» Toggle Spot-Lock On/Off

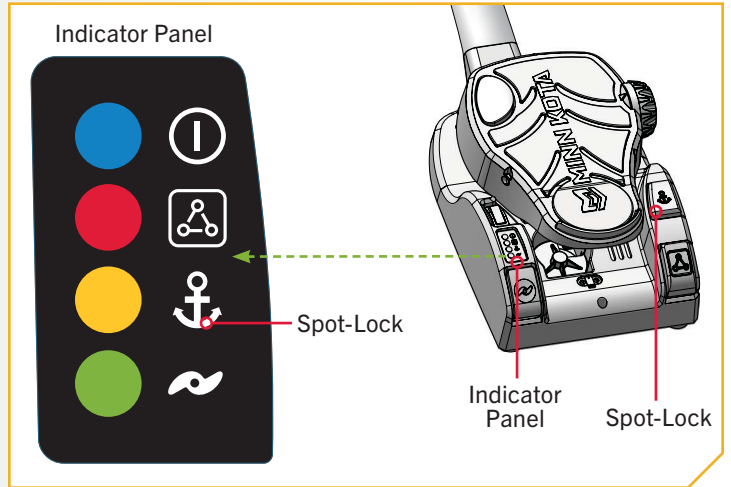
1

- a. While the motor is running, Spot-Lock can be turned on by pressing the Spot-Lock  button located on the Foot Pedal. The yellow SPOT-LOCK  LED on the Indicator Panel is illuminated when Spot-Lock is engaged.

**NOTICE:** In the default Audio Mode, a tone is emitted when Spot-Lock is engaged. If the Audio Mode is set to Alarm Only, a tone will not be emitted when Spot-Lock is engaged. To learn more about Audio Modes, refer to the One-Boat Network app owner's manual.

- b. To disengage Spot-Lock when engaged, press the Spot-Lock button again, or press any button on the Foot Pedal to manually steer the trolling motor.

**NOTICE:** When disengaging Spot-Lock with the Spot-Lock button on the Foot Pedal, no tone will be emitted. Steering the motor with the Foot Pedal or adjusting the speed using the Speed Knob will cancel Spot-Lock, and a High-Low, High-Low, High-Low tone will be emitted.



**NOTICE:** Pressing any button on the Foot Pedal or manually steering the motor with the Foot Pedal will disengage Spot-Lock. Manually steering or adjusting the Prop Speed with a paired remote will also cancel Spot-Lock.

# SERVICE & MAINTENANCE

## PROP REPLACEMENT

### TOOLS AND RESOURCES REQUIRED >

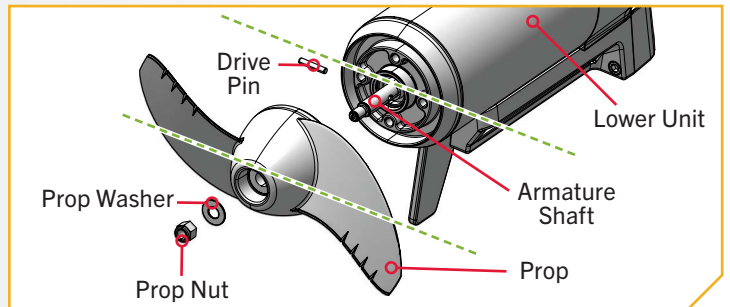
- 9/16" Deep Well Socket

### INSTALLATION >

- 1**
- Disconnect the motor from all sources of power prior to changing the Prop.
  - Hold the Prop and loosen the Prop Nut with a pliers or a wrench.

**NOTICE:** If the Drive Pin is sheared or broken, you will need to hold the shaft stationary with a flat blade screwdriver pressed into the slot on the end of the shaft while you loosen the Prop Nut.

- Remove the Prop Nut and Prop Washer.



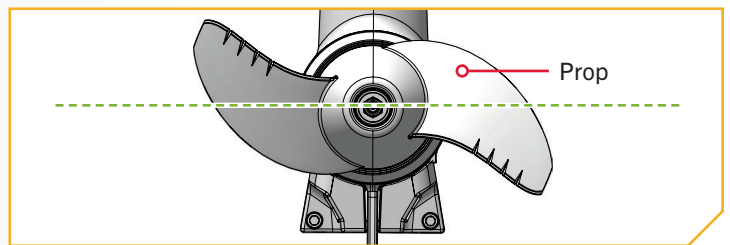
### CAUTION

Disconnect the motor from the battery before beginning any prop work or maintenance.

- 2**
- Turn the old Prop horizontally and pull it straight off. If Drive Pin falls out, push it back in.

### CAUTION

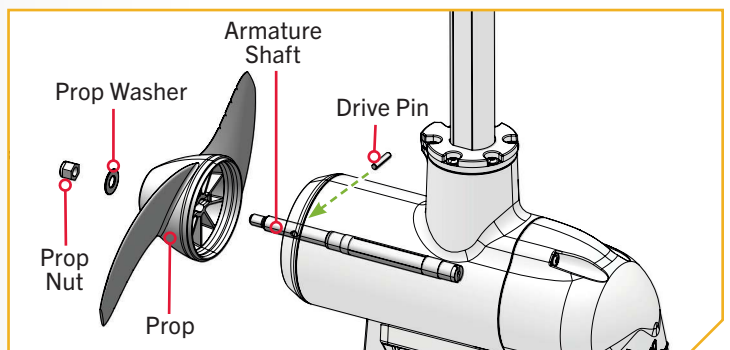
If the Prop does not readily slide off, take care not to bend the Armature Shaft while removing the Prop by pulling the Prop evenly off the Armature Shaft.



- 3**
- Align the new Prop with the Drive Pin.
  - Install the Prop Washer and Prop Nut.
  - Tighten the Prop Nut to 25-35 inch-lbs with a 9/16" Deep Well Socket.

### CAUTION

Do not over-tighten as this can damage the Prop.



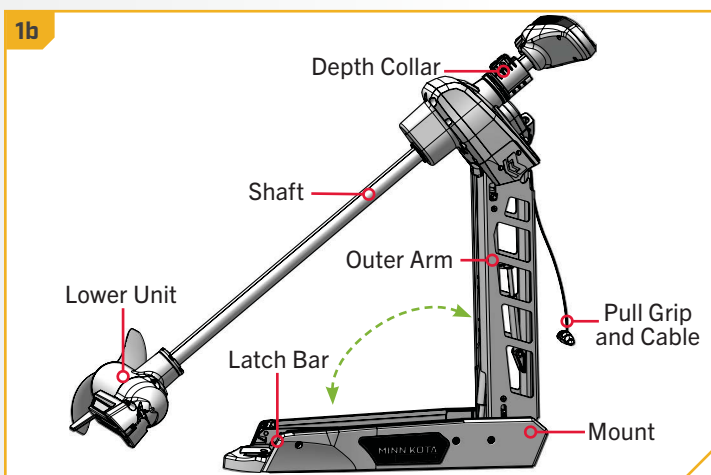
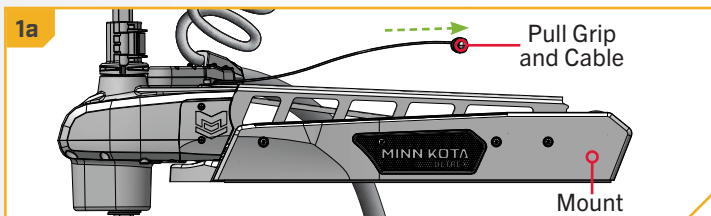


# REMOVAL OF THE STEERING MODULE

## REMOVAL OF THE STEERING MODULE

### › Disconnect the Gas Springs

- 1
  - a. Use the Pull Grip and Cable to disengage the Latch Bar on the Mount.
  - b. With the help of a second person, loosen the Depth Collar and position the motor halfway between the stowed and deployed position. Position the Outer Arm nearly perpendicular to the Base of the Mount.



### **WARNING**

Moving parts can cut or crush. The gas assist lift mechanism is under pressure. Disconnect gas springs before removing motor from mount. Do not engage the Pull Grip and Cable until gas springs are disconnected.

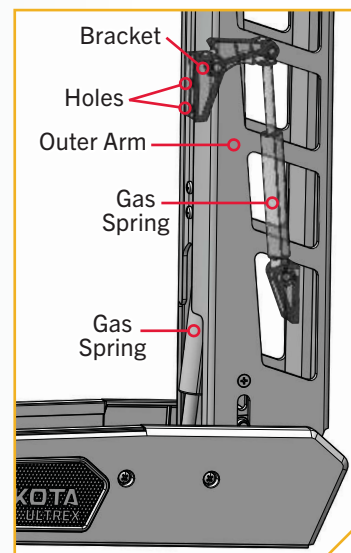
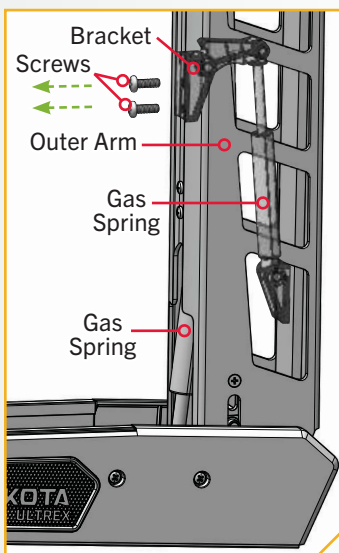
### **WARNING**

The gas assist lift mechanism in this unit is under high spring pressure when the motor is in the deployed position. Do not remove the Steering Module assembly from the mount without disconnecting one end of both gas springs. Failure to do this can create a condition where accidental pulling of the Pull Grip and Cable may cause the mount to spring open rapidly, striking anyone or anything in the direct path.

**NOTICE:** Adjust the Depth Collar on the Shaft as necessary to position the motor. Hold the motor while the two Gas Springs are disconnected.

- 2
  - c. Two Gas Springs are located inside the Outer Arm. Start with the smaller Gas Spring that is positioned closer to the Steering Module.
  - d. Take a #3 Screwdriver and remove the two Pan Head Phillips Machine Screws holding the Bracket at the end of the Gas Spring to the Outer Arm.

**NOTICE:** Use a #3 Philips screwdriver to remove the screws. Failure to use the recommended tool can cause damage and prevent them from being removed.



# REMOVE MOTOR FROM MOUNT

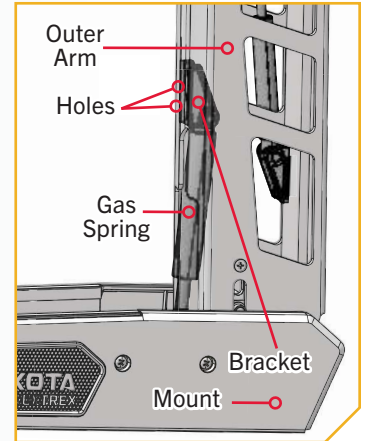
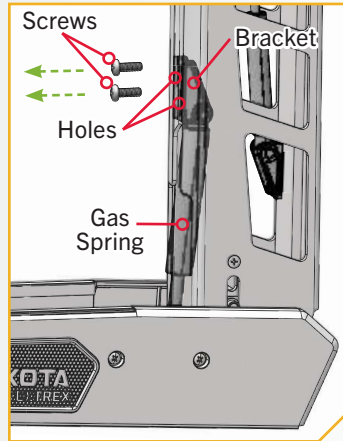
3

- e. The Bracket attachment for the second Gas Spring is closer to the Boat Deck.
- f. Take a #3 Screwdriver and remove the two Pan Head Phillips Machine Screws holding the Bracket at the end of the Gas Spring to the Outer Arm.



## WARNING

Do not damage the Gas Springs. Damage to one or both Gas Springs may affect the motor operation and cause unpredictable Mount movement when reinstalled. Replace Gas Springs if damaged to avoid unexpected operations.



## Remove Motor From Mount

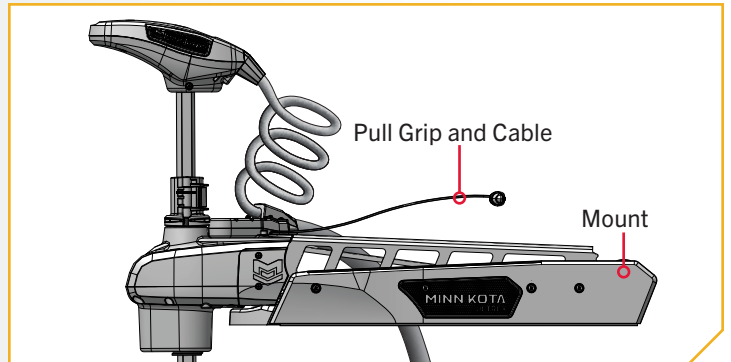
1

- a. With the Gas Springs disconnected, place the motor in the deployed position.



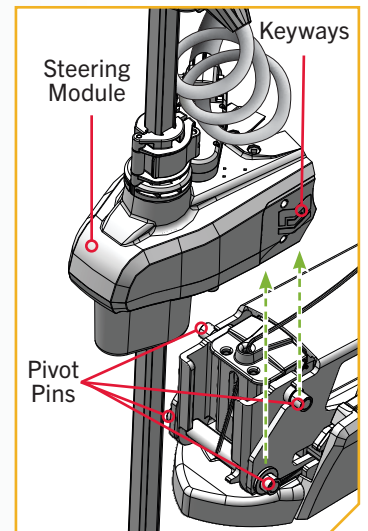
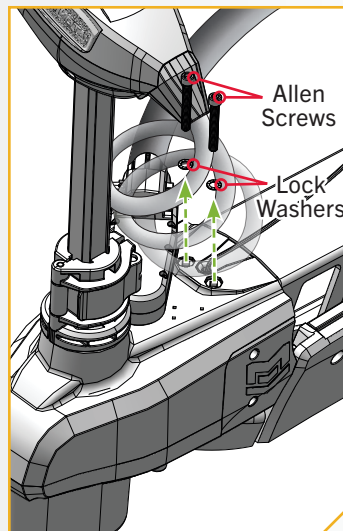
## WARNING

Moving parts can cut or crush. The gas assist lift mechanism is under pressure. Disconnect gas spring before removing motor from mount. Do not engage the Pull Grip and Cable until gas spring is disconnected.



2

- b. Remove the 5/16" Allen Screws with a 1/4" Allen Wrench. The 5/16" Allen Screws are located on the opposite end of the Mount from the hinge that opens and closes when the Mount is stowed and deployed.
- c. Once the Allen Screws and Lock Washers are removed, lift the Steering Module straight up until it is free from the Mount.



# REASSEMBLE THE STEERING MODULE

## ➤ Reassemble the Steering Module

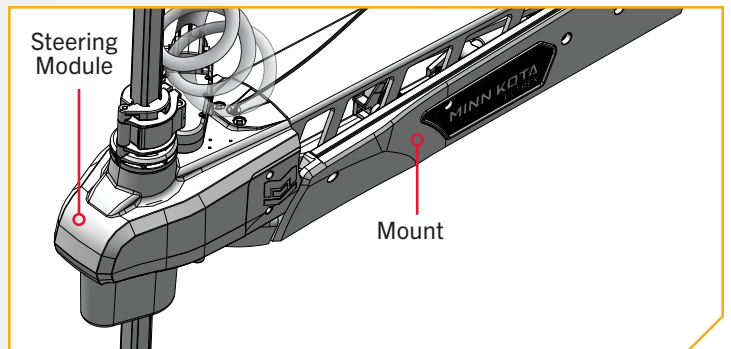
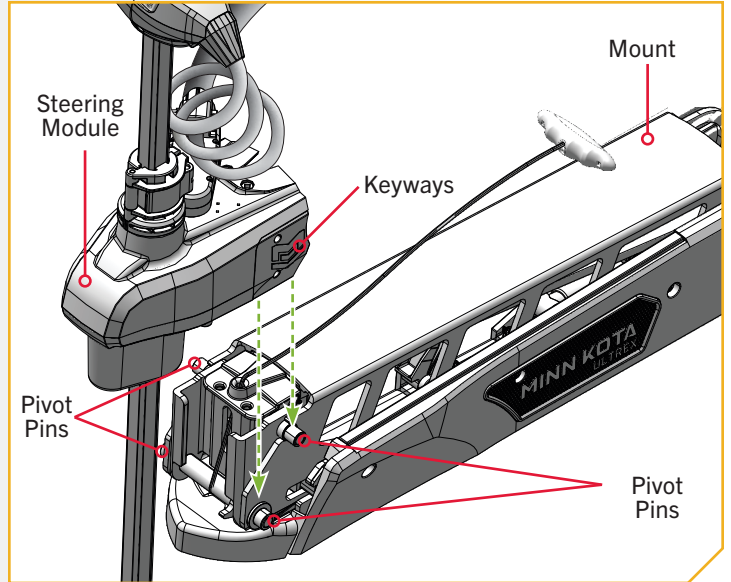
1

- To reassemble the Steering Module, ensure the mount is in the deployed position.
- Take the Steering Module and align the Keyways on the inside of the Steering Module with the Pivot Pins on the Mount. Do this by positioning the Steering Module above the Pivot Pins on the Mount.
- Lower the Motor Assembly straight down until the Steering Module is seated.



### WARNING

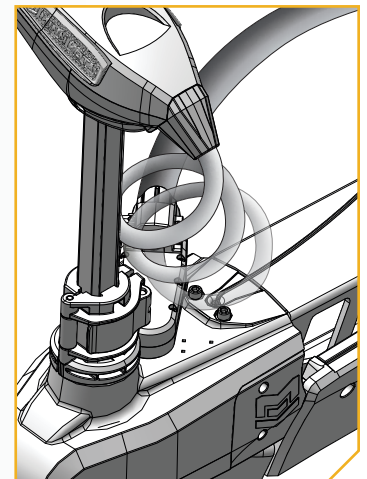
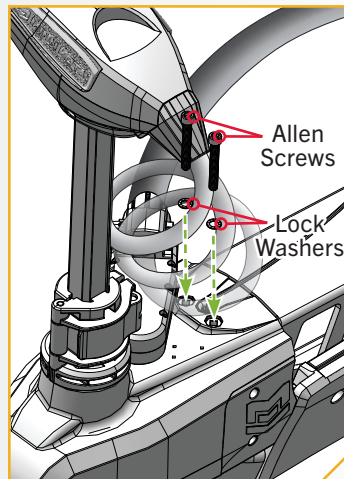
Carefully lower the Steering Module into place to avoid creating a pinch point between the Steering Module and Mount.



2

- Reinstall the two 5/16" Allen Screws and Lock Washers with a 1/4" Allen Wrench and tighten to 18 to 20 ft-lbs with a Torque Wrench.

**NOTICE:** The 5/16" Allen Screws must be tightened when installed and periodically tightened to 18 to 20 ft-lbs. This will allow the motor to be stowed properly. Tighten the Allen Screws when the Mount is in the deployed position.



# REINSTALLING THE GAS SPRINGS

## › Reinstalling the Gas Springs

The Ultrex QUEST contains two Gas Springs inside the Mount. The Gas Springs work to enable Lift-Assist and are located inside the Outer Arm, a part of the Mount. The Gas Springs are not fully assembled and may move around inside the Mount when stowing and deploying the motor. The Gas Springs can become damaged while deploying the motor, and the damage will prevent the Lift-Assist feature from operating correctly once fully assembled. Handle the motor carefully to ensure that the Gas Springs are not damaged in the Mount during reinstallation. With the Steering Module installed on the Mount, and the Mount secured to the boat deck, install the two Gas Springs.

1

- a. Complete the Steering Module assembly prior to reinstalling the Gas Springs. Then use the Pull Grip and Cable to disengage the Latch Bar on the Mount.
- b. With the help of a second person, loosen the Depth Collar and position the motor halfway between the stowed and deployed position. Position the Outer Arm nearly perpendicular to the Base of the Mount.



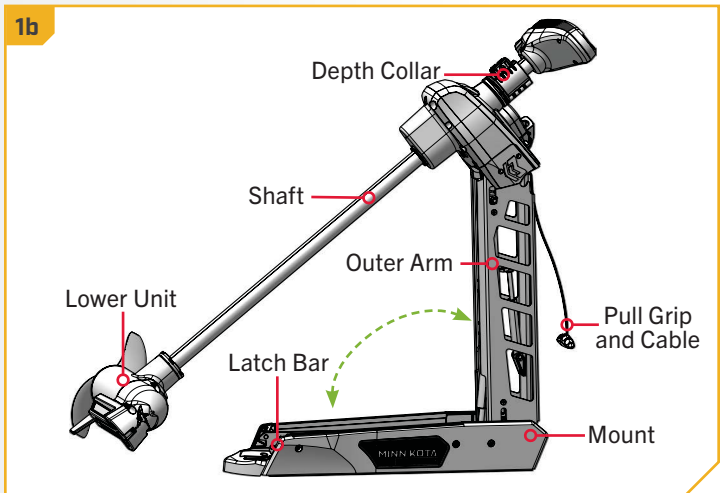
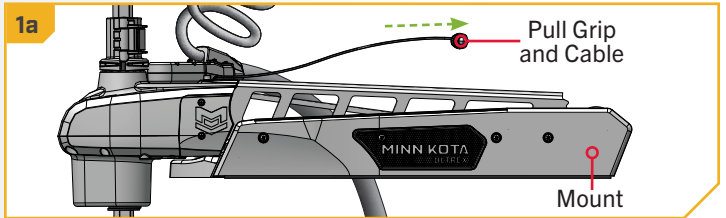
### WARNING

Moving parts can cut or crush. The gas assist lift mechanism is under pressure. Disconnect gas springs before removing motor from mount. Do not engage the Pull Grip and Cable until Gas Springs are disconnected.



### WARNING

The gas assist lift mechanism in this unit is under high spring pressure when the motor is in the deployed position. Do not remove the Steering Module assembly from the mount without disconnecting one end of both Gas Springs. Failure to do this can create a condition where accidental pulling of the Pull Grip and Cable may cause the mount to spring open rapidly, striking anyone or anything in the direct path.

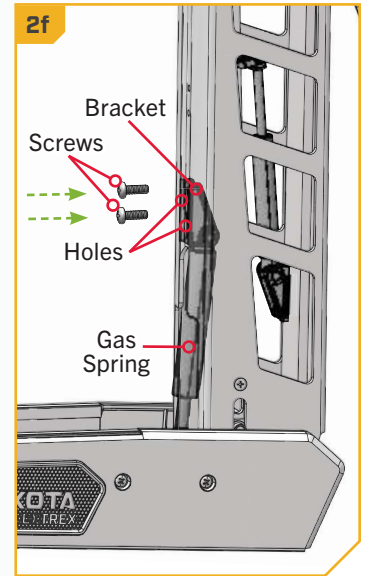
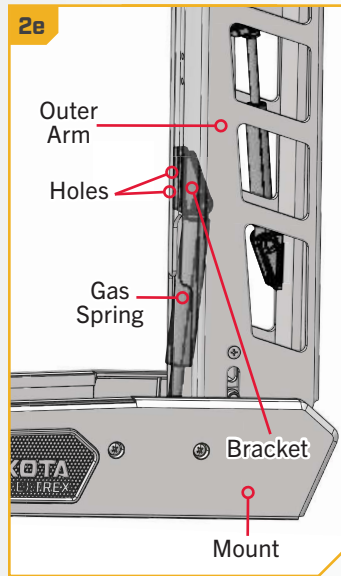


**NOTICE:** Adjust the Depth Collar on the Shaft as necessary to position the motor. Hold the motor while the two Gas Springs are installed.

## REINSTALLING THE GAS SPRINGS

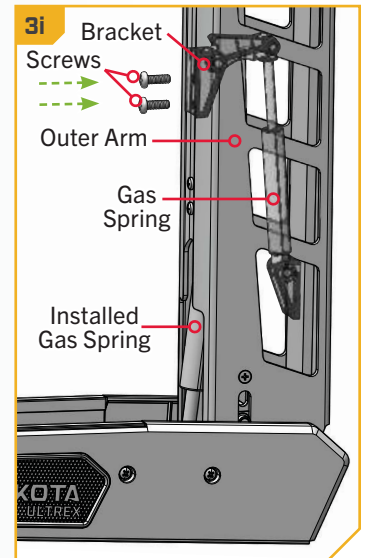
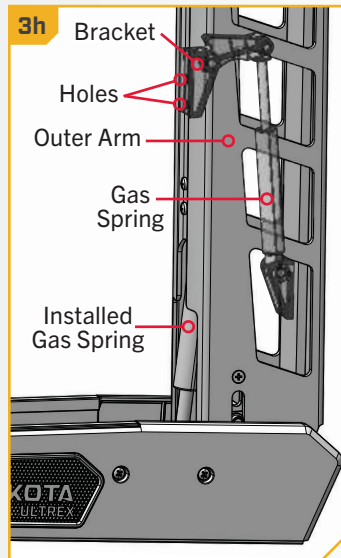
**2**

- c. Two Gas Springs are located inside the Outer Arm. Once the motor is correctly positioned, the Gas Springs can be secured.
- d. Start with the larger Gas Spring closest to the Boat Deck.
- e. There is a loose Bracket on the end of the Gas Spring with holes and recessed Nylock Nuts. Align the Bracket with the lower two holes in the Outer Arm. Adjust the motor as needed to align the Bracket.
- f. Take two Pan Head Phillips Machine Screws and install them through the holes in the Outer Arm and into the Bracket at the end of the Gas Spring using a #3 Screwdriver. Tighten to 35 in-lbs.



**3**

- g. The Bracket attachment for the second, smaller Gas Spring sits above the Gas Spring just installed.
- h. Align the Bracket of the second Gas Spring with the upper two holes in the Outer Arm. Adjust the motor as needed.
- i. Take two Pan Head Phillips Machine Screws and install them through the holes in the Outer Arm and into the Bracket at the end of the Gas Spring using a #3 Screwdriver. Tighten to 35 in-lbs.



# GENERAL MAINTENANCE



## GENERAL MAINTENANCE

- After use, the entire motor should be rinsed with fresh water. This series of motors is not equipped for saltwater exposure.
- The composite shaft requires periodic cleaning and lubrication for proper retraction and deployment. A coating of an aqueous-based silicone spray will improve operation.
- The Prop must be inspected and cleaned from weeds and any fishing line after every use. Fishing lines and weeds can get behind the Prop, damage the seals and allow water to enter the motor.
- Verify the Prop Nut is secure each time the motor is used.
- To prevent accidental damage during transportation or storage, disconnect the battery whenever the motor is off of the water. For prolonged storage, lightly coat all metal parts with an aqueous-based silicone spray.
- When using Lithium batteries, it is best to charge them right before using them. Storing Lithium batteries in a fully charged state for long periods of time may cause damage to the batteries. Check with the battery manufacturer for specifics on the battery.
- For maximum battery life of all other batteries except lithium, recharge the battery(s) as soon as possible after use. For maximum motor performance, restore the battery to full charge prior to use. Check with the battery manufacturer for specifics on the battery.
- Keep battery terminals clean with fine sandpaper or emery cloth.
- The Prop is designed to provide operation with very high efficiency. The leading edge of the blades must be kept smooth to maintain the top performance of the Prop. If the edges are rough or nicked from use, restore them to smoothness by sanding them with fine sandpaper.
- Stow the motor after each use to allow water to drain from the Steering Housing. Water that sits in the Steering Housing when the motor is not in use may cause damage.
- The 5/16" Allen Screws securing the Steering Module to the Mount must be tightened when installed and periodically tightened to 18 to 20 ft-lbs. Tighten the Allen Screws when the Mount is in the deployed position.
- The rail covers on the motor rest are intended to be a wear item and may need to be replaced periodically.



**TROUBLESHOOTING**

1. Motor fails to run or lacks power:

- Check the state of the batteries and replace if necessary. Low battery voltage will cause an error.
- Check battery connections for proper polarity.
- Make sure terminals are clean and corrosion-free. Use fine sandpaper or emery cloth to clean terminals.
- Check battery water level. Add water if needed.

2. Motor loses power after a short running time:

- Check battery charge. If low, restore to full charge.

3. Motor is difficult to steer:

- Loosen the Steering Tension Screw on the Foot Pedal.
- Lubricate the composite shaft.

4. You experience Prop vibration during normal operation:

- Replace the Prop
- Remove and rotate the Prop 180°. See removal instructions in the Prop Replacement section.

5. Experiencing interference with your fishfinder:

- You may, in some applications, experience interference in your depth finder display. We recommend that you use a separate deep cycle marine battery for your trolling motor and that you power the depth finder from the starting/cranking battery. If problems still persist, call our service department at 1-800-227-6433.

6. Experience flashing red LED on the Foot Pedal Indicator Panel

- The trolling motor is communicating that there is an error. Cycle power to the trolling motor. If the LED continues to flash, please contact our service department. If all four LEDs are flashing, the trolling motor is updating. To learn more about updates, please see the Owner's Manual for the One-Boat Network app or the Advanced GPS Navigation Wireless Remote.

**NOTICE:** For all other malfunctions, visit an Authorized Service Center. You can search for an Authorized Service Center in your area by visiting [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com), or by calling our customer service number at 800-227-6433.

## FOR FURTHER TROUBLESHOOTING AND REPAIR



## FOR FURTHER TROUBLESHOOTING AND REPAIR

We offer several options to help you troubleshoot and/or repair your product. Please read through the options listed below.

### Buy Parts Online

You can buy parts on-line directly from our website at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com). From screws to sideplates, you can order replacement parts for your Minn Kota products.

### Frequently Asked Questions

Find answers to general inquiries, battery and rigging installation, and networking scenarios. We have FAQs available on our website at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com) to help answer all of your Minn Kota questions.

### Call Us (for U.S. and Canada)

Our consumer service representatives are available Monday – Friday between 7:00 a.m. – 4:30 p.m. CST at 800-227-6433. If you are calling to order parts, please have the 11-character serial number from your product, specific part numbers, and credit card information available. This will help expedite your call and allow us to provide you with the best consumer service possible. You can reference the parts list located in your manual to identify the specific part numbers.

### Email Us

You can contact our consumer service department with questions regarding your Minn Kota products. To inquire, visit [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

### Authorized Service Centers

Minn Kota has over 800 authorized service centers in the United States and Canada where you can purchase parts or get your products repaired. Please visit our website to locate a service center in your area.



Scan to visit  
Minn Kota  
service online.



# COMPLIANCE STATEMENTS

## ENVIRONMENTAL COMPLIANCE STATEMENT

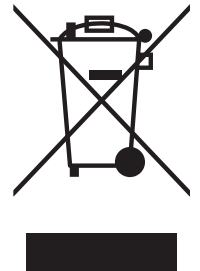
It is the intention of JOME to be a responsible corporate citizen, operating in compliance with known and applicable environmental regulations, and a good neighbor in the communities where we make or sell our products.

### WEEE DIRECTIVE

EU Directive 2002/96/EC “Waste of Electrical and Electronic Equipment Directive (WEEE)” impacts most distributors, sellers, and manufacturers of consumer electronics in the European Union. The WEEE Directive requires the producer of consumer electronics to take responsibility for the management of waste from their products to achieve environmentally responsible disposal during the product life cycle.

WEEE compliance may not be required in your location for electrical & electronic equipment (EEE), nor may it be required for EEE designed and intended as fixed or temporary installation in transportation vehicles such as automobiles, aircraft, and boats. In some European Union member states, these vehicles are considered outside of the scope of the Directive, and EEE for those applications can be considered excluded from the WEEE Directive requirement.

This symbol (WEEE wheelee bin) on product indicates the product must not be disposed of with other household refuse. It must be disposed of and collected for recycling and recovery of waste EEE. Johnson Outdoors Inc. will mark all EEE products in accordance with the WEEE Directive. It is our goal to comply in the collection, treatment, recovery, and environmentally sound disposal of those products; however, these requirements do vary within European Union member states. For more information about where you should dispose of your waste equipment for recycling and recovery and/or your European Union member state requirements, please contact your dealer or distributor from which your product was purchased.



### DISPOSAL

Minn Kota motors are not subject to the disposal regulations EAG-VO (electric devices directive) that implements the WEEE directive. Nevertheless never dispose of your Minn Kota motor in a garbage bin but at the proper place of collection of your local town council.

Never dispose of battery in a garbage bin. Comply with the disposal directions of the manufacturer or his representative and dispose of them at the proper place of collection of your local town council.

## REGULATORY COMPLIANCE INFORMATION

### › Advanced GPS Navigation

For regulatory information on motors that come factory installed with Advanced GPS Navigation, please refer to the Advanced GPS Navigation Owner's Manual online at [minnkota.johnsonoutdoors.com](http://minnkota.johnsonoutdoors.com).

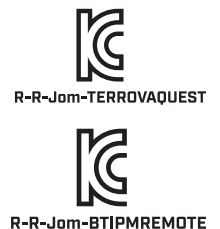
### › KC Certification

#### CONTROLLER

- R-R-Jom-ULTREXQUEST

#### REMOTE

- R-R-Jom-BTIPMREMOTE



# FCC COMPLIANCE



## FCC COMPLIANCE

This device complies with Part 15 of the FCC rules. **Operation is subject to the following two conditions:**

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Johnson Outdoors Marine Electronics, Inc. could void the user’s authority to operate this equipment.

**NOTICE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. **If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## INDUSTRY CANADA COMPLIANCE

This product meets the applicable Industry Canada technical specifications. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## ENVIRONMENTAL RATINGS

- Ambient operating temperature range: -10C to 50C
- Ambient operating humidity range: 5% to 95%
- Maximum operating altitude: 10,000 feet



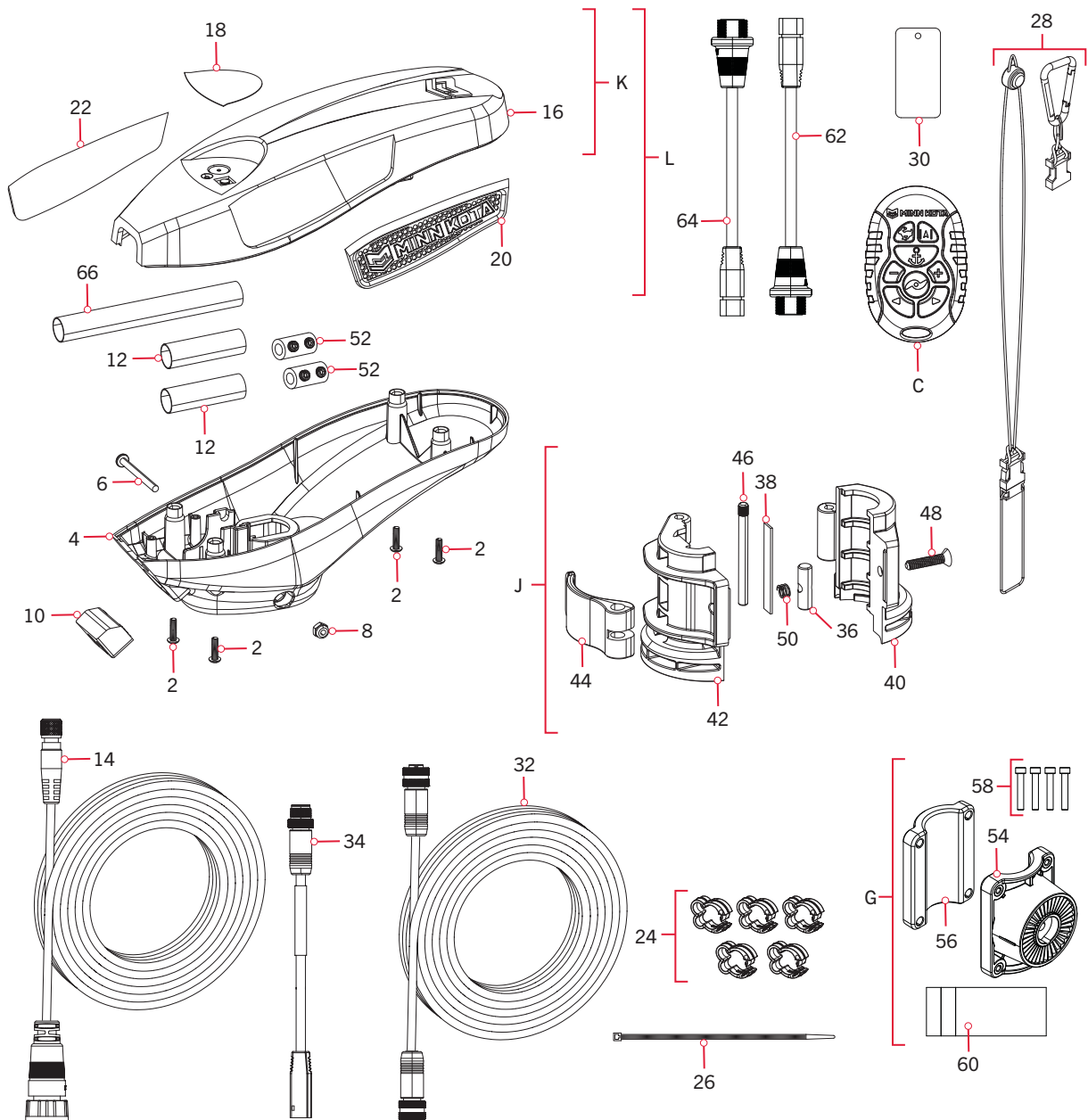
# PARTS DIAGRAM & PARTS LIST

## ULTREX QUEST - 90/115 THRUST - 24/36 VOLT - 45"/52"/60" SHAFT

The parts diagram and parts list provides Minn Kota® WEEE compliance disassembly instructions. For more information about where you should dispose of your waste equipment for recycling and recovery and/or your European Union member state requirements, please contact your dealer or distributor from which your product was purchased. Tools required, but not limited to: flat head screwdriver, Phillips screwdriver, socket set, pliers, wire cutters.

### ULTREX QUEST CONTROL HEAD >

#### > Control Head Parts Diagram



# PARTS DIAGRAM & PARTS LIST

## Control Head Parts List

Assembly	Part #	Description	Notes	Quantity
C	2994175	REMOTE ASM, MICRO REMOTE		1
J	2991532	DEPTH COLLAR ASSEMBLY		1
K	2774193	MTR KIT, 4.0 BL FW MR	*COVER AND DECALS*	1
L	2994191	MTR KIT, 4.0 BL FW MR GND	*COVER, ELECTRONICS, AND DECALS*	1
G	540321-1	HDWE, BGD, 1.5" SHAFT MNT-ML	*HUMMINBIRD 360 BRACKET ADAPTER*	1
Item	Part #	Description	Notes	Quantity
2	2293450	SCREW-#6-19 X 1.0 PPH HI-LO		4
4	2202520	CONTROL BOX BASE,ULT/UTX FW		1
6	2263406	SCREW-#10-24 X 2" S/S PPH		1
8	2333101	NUT-HEX #10-24 UNC-2B NYL SS		1
10	2206711	PLUG, RUBBER, 2D		1
12	2205413	SHRINK TUBE-3/4 X 2.25"		2
14	490575-2	CABLE, ADPTR, 14 PIN, 175"-DSC		1
16	2200220	CONTROL BOX COVER,ULT/UTX		1
18	2395590	DECAL,PUSH BTN U2 FW SERV		1
20	2205540	DECAL, CTRL BOX MK RIGHT FW		1
22	2205545	DECAL, CTRL BOX MK LEFT FW		1
24	2290845	CLIP, CABLE ROUTING		5
26	9953310	TIE WRAP-8.5"		1
28	2390802	LANYARD w/CARABINR, IP RMT		1
30	2394110	TAG, MICRO REMOTE		1
32	490384-4	CABLE, ETHERNET (M12-M12), 30'		1
34	490380-1	CABLE, ETHERNET PIGTAIL-700 HD		1
36	2292617	PIN, HINGE		1
38	2295110	PAD, FRICTION		1
40	2291532	DEPTH COLLAR, BOLT HALF		1
42	2291537	DEPTH COLLAR, CAM HALF		1
44	2297200	LEVER, CAM LOCK		1
46	2062610	PIN 3/8" DIA., CAM LOCK		1
48	2063400	SCREW-1/4-28 X 1 1/4" PFH SS		1
50	2062720	SPRING,DEPTH COLLAR,TRAXX		1
52	2375444	SPLICER, 6-10 AWG, TIN PLTD		2
▲	2297166	MANUAL, ULTREX 2		1
▲	2394910	INSTRUC. SHEET, MICRO REMOTE		1
▲	2297165	MANUAL-DISCLAIMER,DNLOAD INFO		1
▲	2394912	QCK REF.GUIDE, MICRO REMOTE		1
▲	2297167	INSTALL GUIDE, ULTREX 2		1
▲	2294950	INSTRC-OBN & REMOTE PAIR		1
▲	2207131	STANDARD QS SETUP GUIDE		1
54	✘	ASSY, MOUNT, TM SHAFT, 1.5"	*SEE ASSEMBLY G*	1
56	✘	MOUNT, CLAMP, TM SHAFT 1.5"	*SEE ASSEMBLY G*	1
58	✘	SCREW,#10-32x1-1/8, SHCS	*SEE ASSEMBLY G*	4
60	✘	PAD, RUBBER, 1/8"- ML	*SEE ASSEMBLY G*	1
62	2994960	BAG ASM, CABLE ADPT, 490518-1	*490518-1* *MKR-MDI-2*	1
64	2994961	BAG ASM, CABLE ADPT, 490537-2	*490537-2* *MKR-MI-1*	1
66	2205415	SHRINK TUBE-.472 ID X 5"		1

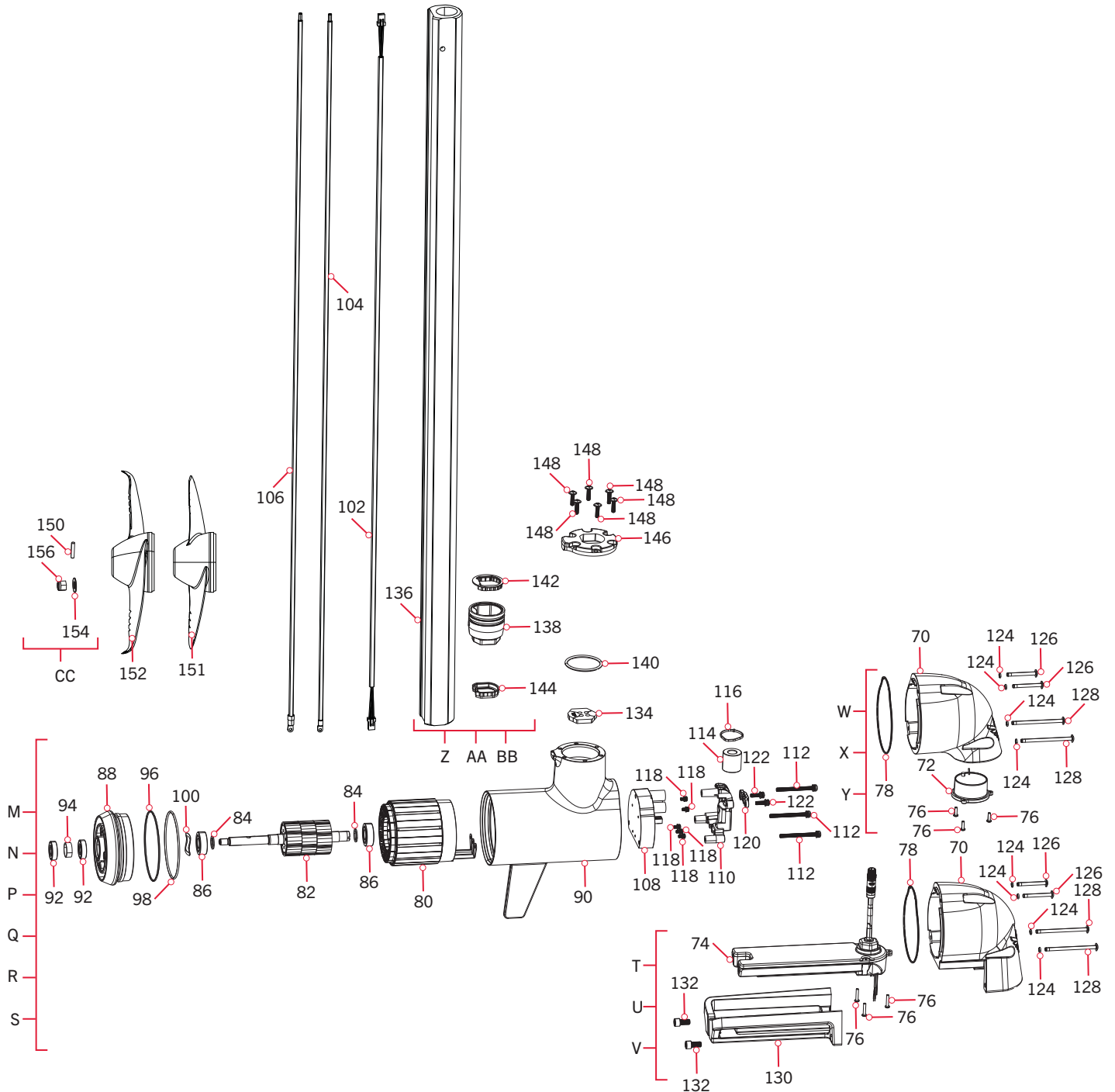
▲ Not shown on Parts Diagram.

✘ This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST

## ULTREX QUEST MOTOR

### 24/36 Volt 3.625" 90/115 Thrust Motor Parts Diagram



# PARTS DIAGRAM & PARTS LIST

## ▶ 24/36 Volt 3.625" 90/115lb Thrust Motor Parts List

Assembly	Part #	Description	Notes	Quantity
M	2771060	MTR ASY 85/115#DSC FW BLK	*45" DSC*	1
N	2771061	MTR ASY 85/115#DSC FW BLK	*52" DSC*	1
P	2771062	MTR ASY 85/115#DSC FW BLK	*60" DSC*	1
Q	2771080	MTR ASY 85/115#MSI FW BLK	*45" MSI*	1
R	2771081	MTR ASY 85/115#MSI FW BLK	*52" MSI*	1
S	2771082	MTR ASY 85/115#MSI FW BLK	*60" MSI*	1
T	2773031	SC FRONT END 45" QUEST	*DSC* *45"*	1
U	2773032	DSC FRONT END 52" QUEST	*DSC* *52"*	1
V	2773033	DSC FRONT END 60" QUEST	*DSC* *60"*	1
W	2773072	MSI FRONT END 45" QUEST	*MSI* *45"*	1
X	2773073	MSI FRONT END 52" QUEST	*MSI* *52"*	1
Y	2773074	MSI FRONT END 60" QUEST	*MSI* *60"*	1
Z	2771064	BL ASM FW DSC/MSI 45"U2,T3	*SHAFT* *45"*	1
AA	2771061	BL ASM FW DSC/MSI 52" U2	*SHAFT* *52"*	1
BB	2771065	BL ASM FW DSC/MSI 60"U2,T3	*SHAFT* *60"*	1
CC	2772604	BAG ASSM, PROP HARDWARE		1
Item	Part #	Description	Notes	Quantity
70	✘	FRONT ENDBELL, US3, FW	*DSC*	1
	✘	FRONT ENDBELL, MSI, FW	*MSI*	1
72	✘	DSC XDUCER ASSY 62" HW T	*DSC* *45"*	1
	✘	DSC XDUCER ASSY 67" HW T	*DSC* *52"*	1
	✘	DSC XDUCER ASSY 73" HW T	*DSC* *60"*	1
74	✘	BUILT-IN MSI+ 67" for U2	*MSI* *45"*	1
	✘	BUILT-IN MSI+ 73" for U2	*MSI* *52"*	1
	✘	BUILT-IN MSI+ 79" for U2	*MSI* *60"*	1
76	✘	SCREW-#6-32 X 1/2" TORX PHSS		3
78	880-032	SEAL-FRONT, BL MOTORS		1
80	✘	STATOR ASSEMBLY		1
82	✘	ROTOR ASSEMBLY		1
84	✘	WASHER BEARING		2
86	✘	BALL BEARING		2
88	✘	REAR ENDBELL, FW PAINT		1
90	✘	CENTER HSG, FW PAINT		1
92	✘	SEAL		2
94	✘	PAPER TUBE - SEAL BORE		1
96	✘	O-RING		1
98	✘	O-RING		1
100	✘	WASHER-WAVE		1
102	195-030	CABLE-COM 22GA TWST PAIR 62.38	*45"*	1
	195-031	CABLE-COM 22GA TWST PAIR 69.13	*52"*	1
	195-032	CABLE-COM 22GA TWST PAIR 76.25	*60"*	1
104	640-470	LEADWIRE RED 8 AWG 64.88"	*45"*	1
	640-471	LEADWIRE RED 8 AWG 71.63"	*52"*	1
	640-472	LEADWIRE RED 8 AWG 78.75"	*60"*	1

▲ Not shown on Parts Diagram.

\* This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST

Item	Part #	Description	Notes	Quantity
106	640-420	LEADWIRE BLK 8 AWG 64.88	*45"	1
	640-421	LEADWIRE BLK 8 AWG 71.63"	*52"	1
	640-422	LEADWIRE BLK 8 AWG 78.75"	*60"	1
108	2994130	CONTROL BRD ASM, BL		1
110	979-029	STRAIN RELIEF, BTM MACH		1
112	830-118	SCREW-DBL SEM M5X.8MMX60MM		3
114	2307318	FERRITE BEAD, BRUSHLESS		1
116	9953310	TIE WRAP-8.5"		1
118	830-120	SCREW-M4X .7X8 PPH ZPS		5
120	979-022	STRAIN RELIEF, TOP CAST		1
122	830-121	SCREW-M5 X .8X18 PPH ZPS		2
124	701-010	O-RING, SCREW		4
126	830-105	SCREW-FRONT, TOP, RAW, BL MTR		2
128	830-106	SCREW-FRONT, BTM RAW, BL MTR		2
130	791-030	GUARD-SONAR, MSI, MACHINED	*MSI*	1
132	830-110	SCREW-5-16-18 X 5/8 SHCS SS	*MSI*	2
134	880-041	SEAL-WIRE, BL MTR, UNIV. CHIRP	*DSC*	1
	880-040	SEAL-WIRE, BL MTR, MSI/MDI	*MSI*	1
136	✘	TUBE-1CM, BLK 45", 1.5 X .875	*45"	1
	✘	TUBE-1CM, BLK 52", 1.5 X .875	*52"	1
	✘	TUBE-1CM, BLK 60", 1.5 X .875	*60"	1
138	✘	PLUG, COMP SHAFT, PAINTED		1
140	2294630	O-RING, 226, 70 SHORE A		1
142	✘	SEAL-TOP SHAFT, BL, CLR		1
144	✘	SEAL-LWR SHAFT, BL, CLR		1
146	2296432A	PLATE, CLAMP, PAINTED		1
148	830-013	SCREW-M5 X .8 FSHCS SS CTD		6
150	2262659	PIN-DRIVE 1" X 3/16" SS 17-4		1
151	2321170	PROP, POWER REAMED		1
152	2321162	PROP-WW2 BRUSHLESS MACHINE		1
154	2091701	WASHER-PROP (LARGE) MAX101		1
156	2093101	NUT-PROP,NYLOC,LG,MX101 3/8 SS		1

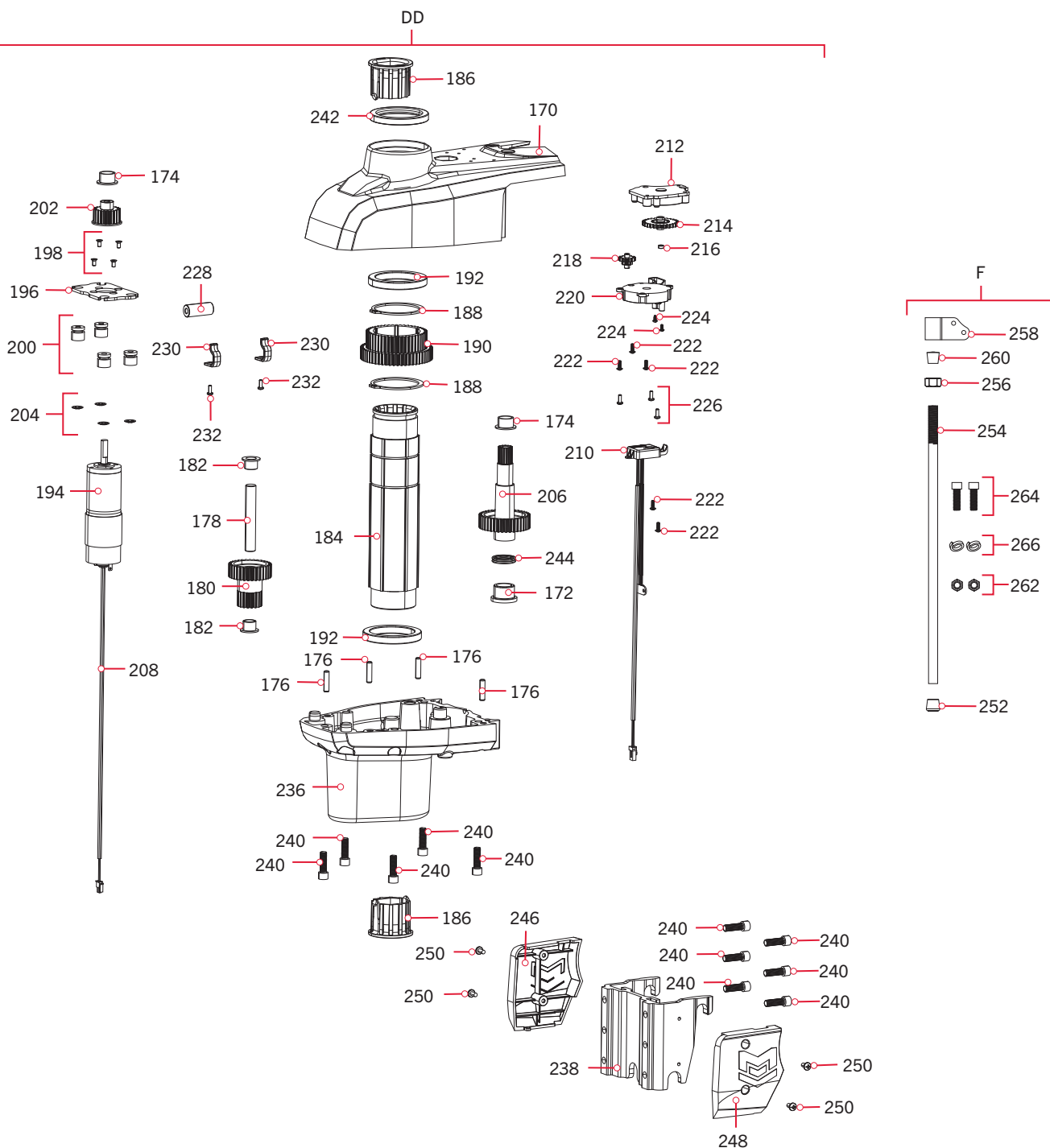
▲ Not shown on Parts Diagram.

✘ This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST

## ULTREX QUEST STEERING HOUSING

### Steering Housing Parts Diagram





# PARTS DIAGRAM & PARTS LIST

## Steering Housing Parts List

Assembly	Part #	Description	Qty.
DD	2996508	STEERING MODULE ASSEMBLY	1
F	2991925	BRACKET STABLZR ARM ASY	1
Item	Part #	Description	Qty.
170	✘	HOUSING UPPER, PAINTED FW	1
172	✘	BUSHING-1216-12	1
174	✘	BUSHING-1012-08	2
176	✘	PIN-DOWEL, 1/4" X 1.0" SS	4
178	✘	PIN-MACH, 1/2 DIA. X 3 1/4" SS	1
180	✘	GEAR-CLUSTER 18T - 33T	1
182	✘	BUSHING, IDLER GEAR	2
184	✘	TUBE, STEERING, MACHINED, 1.5"	1
186	✘	BUSHING, OUTPUT TUBE, BTM	2
188	✘	RETAINING RING, 2 3/8"	2
190	✘	GEAR-CLUSTER 48T - 57T	1
192	✘	BEARING-RADIAL 6811 2RS	2
194	✘	MOTOR-DRIVE	1
196	✘	PLATE, MOTOR, ULTREX 2	1
198	✘	SCREW-M4 X 8MM, FHP, SS	4
200	✘	BUSHING, DAMPENING 57A	4
202	✘	GEAR-MOTOR 20T	1
204	✘	NUT-PUSH, 1/4" ZP	4
206	✘	GEAR-CABLE, WRAPDRUM	1
208	✘	WIRE HARNESS, MOTOR	1
210	✘	SENSOR, STEERING, ROTATIONAL, U	1
212	✘	BRACKET, STEERING SENSOR	1
214	✘	GEAR, STEERING SENSOR	1
216	✘	MAGNET, 1/4 X 1/8	1
218	✘	GEAR-CLUSTER,STEER.SENSOR	1
220	✘	COVER, STEERING SENSOR	1
222	✘	SCREW-#6-20 X 3/8 THD*(SS)	5
224	✘	SCREW-#4-24 X 1/4 PHCR SS TY B	2
226	✘	SCREW-#6 X .375 PLASTITE SS	3
228	✘	BEAD-FERRITE	1
230	✘	CLIP, CABLE ANCHOR	2
232	✘	SCREW-#6-20 X 3/8 THD*(SS)	2
▲	✘	TIE WRAP-8.5"	1
236	✘	HOUSING LOWER, PAINTED FW	1
238	2291931	MOUNT, STEERING MOD, MACH	1
240	2263423	SCREW-5/16-18 X 1" SHCS ZP	11
242	✘	SEAL, OUTPUT	1
244	✘	SEAL, QUAD RING, 3/4"	1
246	2293925	COVER, RIGHT SIDE, FW	1
248	2293920	COVER, LEFT SIDE, FW	1
250	2323409	SCREW-#10-24 X 3/8 PPH MACH SS	4
252	2265100	BUMPER STABILIZER	1

▲ Not shown on Parts Diagram.

✘ This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Qty.
254	2263624	STABILIZER ROD	1
256	2263107	NYLON HEX NUT 3/4 - 10 UNC	1
258	2281929	BRACKET	1
260	2260221	VINYL CAP	1
262	2223100	NUT 5/16-18 NYLOCS SS	2
264	2263422	BOLT 5/16-18 X 1" SS	2
266	2281700	5/16 "ID X .457 OD HIGH COLLAR LOCK WASHER	2

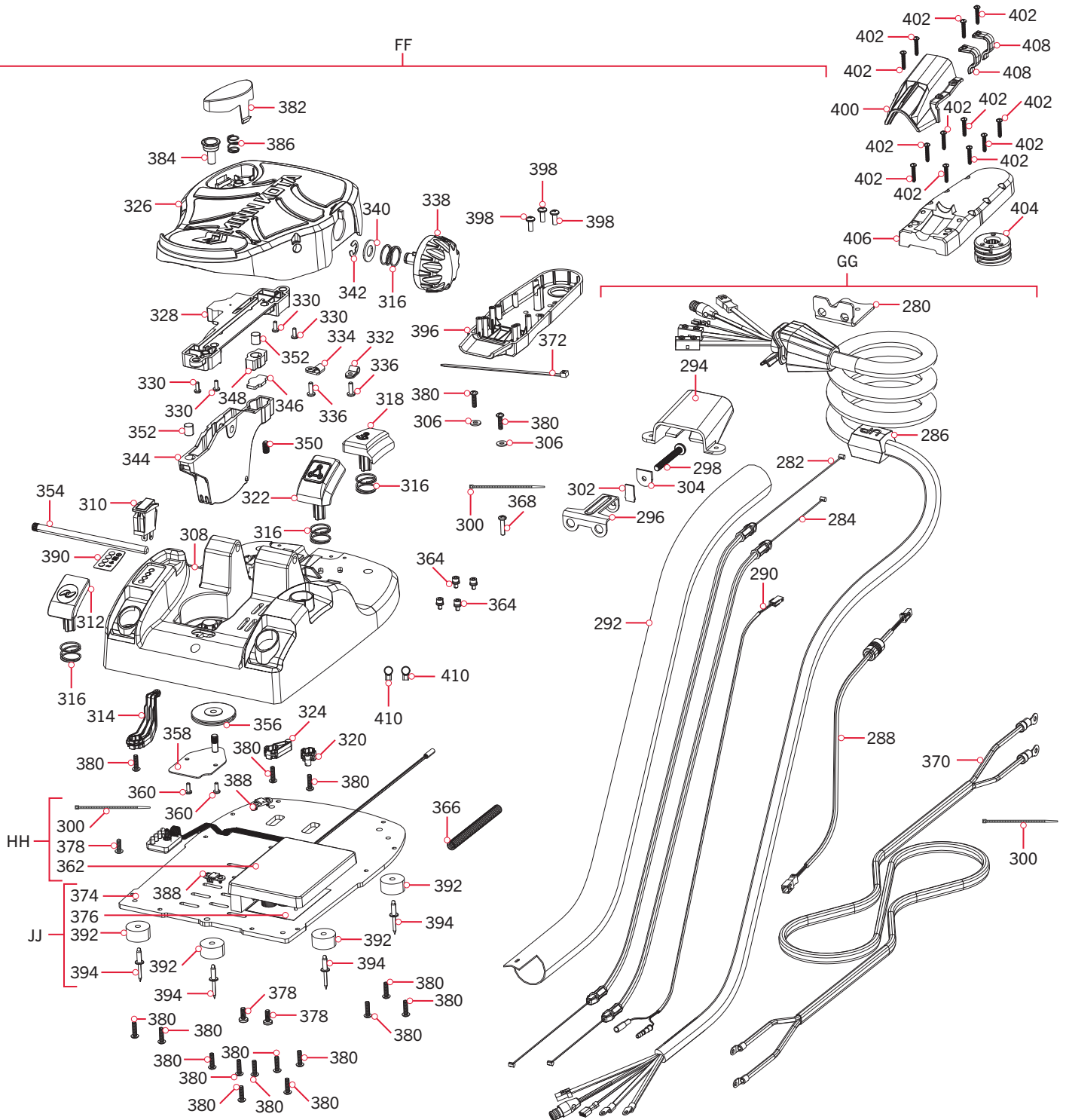
▲ Not shown on Parts Diagram.

✘ This part is included in an assembly and cannot be ordered individually.



## ULTRIX QUEST FOOT PEDAL

### Foot Pedal Parts Diagram



# PARTS DIAGRAM & PARTS LIST

## Foot Pedal Parts List

Assembly	Part #	Description	Notes	Quantity
FF	2992160	FOOT PEDAL w/BASE, 24/36V		1
GG	2771210	COIL CORD ASM UTX QUEST		1
HH	2774038	CTRL BRD KIT, MAIN, UTX QUEST		1
JJ	2771923	ULTREX FOOT PEDAL PLATE ASM		1
Item	Part #	Description	Notes	Quantity
280	2291911	BRACKET, CABLE ANCHOR		1
282	2297506	CABLE ASM, RIGHT (5')		1
284	2297516	CABLE ASM, LEFT (5')		1
286	2291210	COIL CORD ASM, ULTREX 2		1
288	2297412	WIRE HARNESS, STR.SENSOR, LONG		1
290	2297411	WIRE HARNESS, MOTOR, LONG		1
292	2295411	CABLE JACKET, NOTCHED		1
294	2295120	BOOT, FOOT PEDAL BASE		1
296	2263210	BRACKET-CONDUIT ADJUSTMEN[B060		1
298	2263466	SCREW-1/4-20 X 2" PPH SS/REI		1
300	2256300	TIE WRAP-6.0" BLACK [D080		3
302	2266413	TENSION SCREW PLATE FTPEDAL		1
304	2263140	KEEPER-NYLOCK		1
306	2261714	WASHER-MAXXUM FT PDL 18/8 SS		2
308	2994505	BASE w/PIN, FOOT PEDAL, BL		1
310	2294011	SWITCH-POWER w/WIRES		1
312	2293710	BUTTON-PROP, FOOT PEDAL		1
314	2993715	ARM-SENSOR, PROP w/MAGNET		1
316	2292700	SPRING, BUTTON, FOOT PEDAL		4
318	2293720	BUTTON-SL, FOOT PEDAL		1
320	2993725	ARM-SENSOR, SL w/MAGNET		1
322	2293700	BUTTON, OBN, FOOT PEDAL		1
324	2993735	ARM-SENSOR, AP w/MAGNET		1
326	2994451	FOOT PEDAL w/MAGNET, ULTREX		1
328	2294027	CONTROL BRD,SENSOR BRD (SUB)		1
330	2332103	SCREW-#6-20 X 3/8 THD*(SS)		4
332	2052510	CABLE CLAMP, 3/16", NYLON		1
334	2290840	P-CLIP, ULTREX FOOT PEDAL		1
336	2301310	SCREW-#8-18 X 1/2 (SS)*		2
338	2290100	KNOB-SPEED CONTROL		1
340	3391722	WASHER-FLAT 7/16 SAE		1
342	2263000	E-RING TRU-ARC#5133-43 [A090		1
344	2294400	LOWER-ROCKER, FOOT PEDAL		1
346	2294430	BACKER, CARRIER		1
348	2294420	CARRIER, ACTUATOR		1
350	2293401	SCREW-1/4-20 X 1/2 SET, 316 SS		1
352	2294410	ACTUATOR-SENSOR, DIA. .375 MAX		2
354	2260511	PIN-PIVOT A/T FT PDL		1
356	2262301	PULLEY (FOOT PEDAL)		1
358	2266401	COVER-PULLEY (STAMPING)		1

▲ Not shown on Parts Diagram.

\* This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Notes	Quantity
360	2373450	SCREW-#8-18 X 3/8" THRD.CUT SS		2
362	2294035	CONTROL BOARD ASM, ULTREX 2		1
364	830-122	SCREW-M4X .7X8MM SCKT DBL		4
366	2298800	LOOM-WIRE, 1/4 X 4"		1
368	2223430	SCREW-#8x3/4 PPH,TYPE 25,SS		1
370	2290625	LEADWIRE ASM,8AWG,UTX 2 (DPLX)		1
372	9953310	TIE-WRAP-8.5"		1
374	2291920	PLATE-BOTTOM		1
376	2365107	INSULATING PAD(2.3 X 3.2)		1
378	2223455	SCREW-#10-32 X 1/2" ZP MACHINE		2
380	2372100	SCREW-#8-18 X 5/8 THD* (SS		17
382	2993705	PUSH BTTN/MAGNET ASSY (SUB)		1
384	2260810	CLIP, REED SENSOR		1
386	2302732	SPRING-LOWER PEDAL S/S (A120		1
388	2373440	SCREW-#4-24 X 1/4 PHCR SS TY B		4
390	2295627	DECAL, INDICATOR LIGHTS		1
392	2265126	BUMPER PAD, FOOT PEDAL (N156)		4
394	2378600	RIVET-POP,3/16 X 3/4 ALUM.SHNK		4
396	2296545	HOUSING, CABLE BOTTOM		1
398	2323406	SCREW-#10-24 X .50 CRPH SS		3
400	2292930	RETAINER, COIL CORD		1
402	2293450	SCREW-#6-19 X 1.0 PPH HI-LO		12
404	2297900	WRAP DRUM, ULTREX 2		1
406	2296540	HOUSING, CABLE TOP		1
408	2290846	CLIP, CABLE ANCHOR		2
410	2040340	CONNECTOR, SCOTCHLOK, UY2		2

▲ Not shown on Parts Diagram.

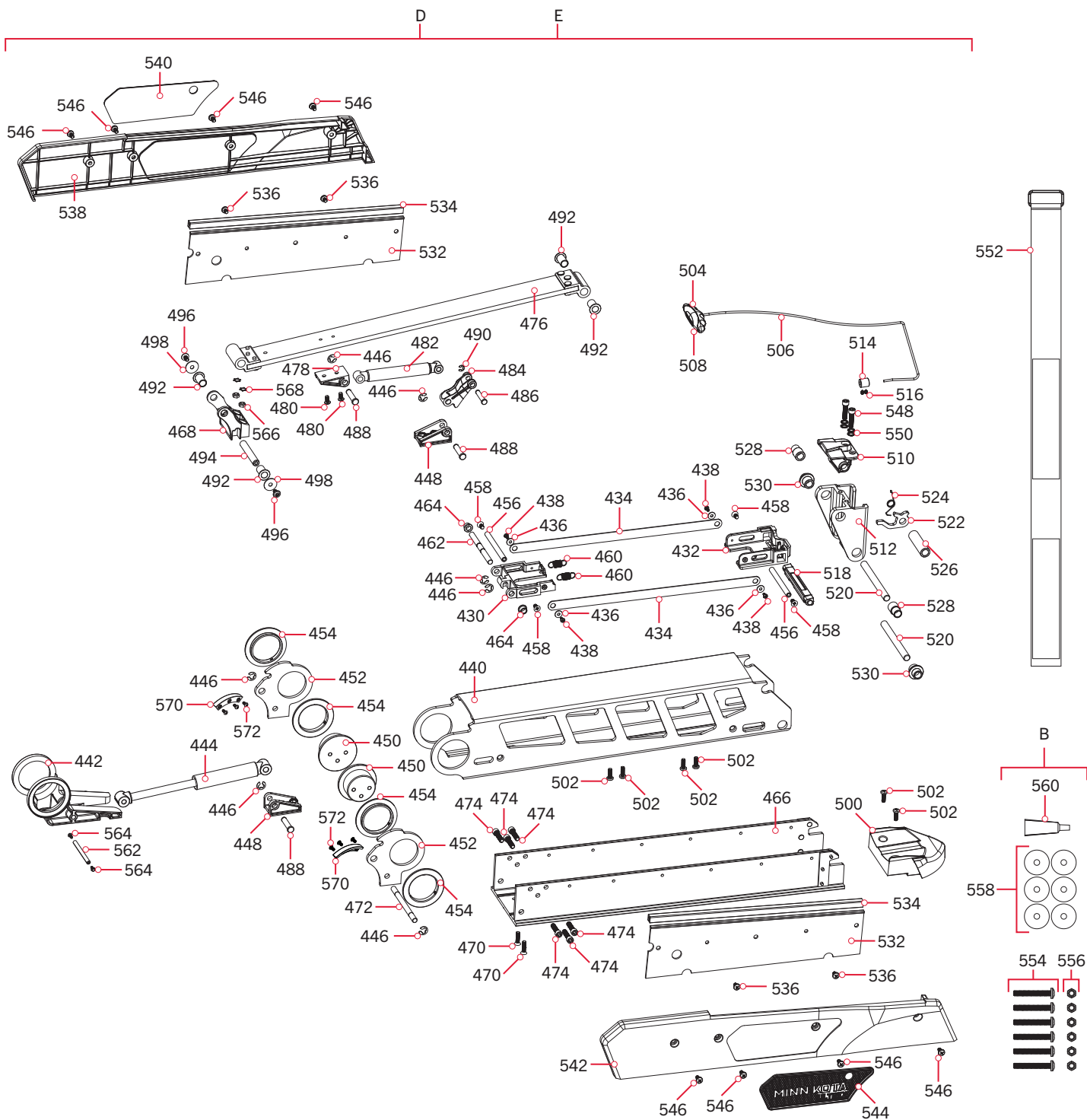
✘ This part is included in an assembly and cannot be ordered individually.



# PARTS DIAGRAM & PARTS LIST

## ULTREX QUEST MOUNT

### Mount Parts Diagram



# PARTS DIAGRAM & PARTS LIST

## Mount Parts List

Assembly	Part #	Description	Notes	Quantity
D	2771665	MOUNT ASSEMBLY, UTX QUEST STD	*45**	1
E	2771666	MOUNT ASSEMBLY UTX QUEST LONG	*52** *60**	1
B	2994947	BAG ASM,ULTREX 2 HARDWARE		1
Item	Part #	Description	Notes	Quantity
430	2298620	CARRIER, REAR RELEASE		1
432	2291955	BRACKET, LATCH		1
434	2283602	LATCH STRAP, SHORT, SS	*45**	2
	2283603	LATCH STRAP, LONG	*52** *60**	2
436	2261732	WASHER-#8, NYLON BLACK		4
438	2373450	SCREW-#8-18 X 3/8" THRD.CUT SS		4
440	2294212	ARM-OUTER, SHORT, ANDZ	*45**	1
	2294222	ARM-OUTER, LONG, ANDZ	*52** *60**	1
442	2291520	YOKE, CYLINDER MOUNT		1
444	2298400	GAS SPRING	*45**	1
	2298402	GAS SPRING	*52** *60**	1
446	2263011	E-RING 3/8 DIA. SHAFT*		7
448	2991662	MNT ASM, GAS SPRING, OUTR ARM 1		2
450	2293300	PIVOT, REAR		2
452	2291950	BRACKET, LATCH REAR		2
454	2297322	BUSHING, REAR PIVOT		4
456	2292616	PIN, MOUNT, SS		2
458	2283410	SCREW-1/4-20 X .500" PFH		4
460	2292710	SPRING, RELEASE, SS		2
462	2292622	PIN, REAR LOCK, SS		1
464	2297301	BUSHING, LATCH		2
466	2991663	BASE ASM, ULTREX, FW, SHORT	*45**	1
	2991664	BASE ASM, ULTREX, FW, LONG	*52** *60**	1
468	2291725	SPACER, REAR LOCK		1
470	2283411	SCREW-1/4-20X1.00 FHS RIE TORX		2
472	2292620	PIN, REAR CARRIER, SS		1
474	2293402	SCREW-5/16-18, SHCS, RIE,STEEL		6
476	2994340	INNER ARM ASSEMBLY, SHORT, FW	*45**	1
	2994345	INNER ARM ASSEMBLY, LONG, FW	*52** *60**	1
478	2291961	MOUNT, GAS SPRING, INNER ARM		1
480	2223418	SCREW-1/4-20X 1/2 SS BHCS		2
482	2298405	GAS SPRING, DEPLOY		1
484	2297910	CAM, CYLINDER MOUNT		1
486	2292631	PIN-CLEVIS, 5/16, ZP		1
488	2292630	PIN-CLEVIS, 3/8, ZP		3
490	2263006	E-RING,5/16,S/S GAS ASSIST		1
492	2297323	BUSHING, INNER ARM		4
494	2292621	PIN, REAR LATCH, SS		1
496	2353403	SCREW-1/4-20 FLANGED BTTN HEAD		2
498	2261713	WASHER-1/4 FLAT 18-8 SS		2
500	2993900	MOTOR RAMP/MAGNET ASSEMBLY		1
502	2373434	SCREW-1/4-20 X 3/4 SS PPMS		6

▲ Not shown on Parts Diagram.

✱ This part is included in an assembly and cannot be ordered individually.

# PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Notes	Quantity
504	2280405	PULL GRIP, SOFT, BOTTOM (SUB)		1
506	2291400	CABLE, PULL HANDLE, SS		1
508	2280401	PULL GRIP,SFT, TOP,FTX,UTX(SUB)		1
510	2292320	ROPE GUIDE		1
512	2292311	ROPE GUIDE, MACHINED		1
514	2290800	CLAMP, PULL CABLE (SUB)		1
516	2293404	SCREW-SET-#8X 5/16,POINTED,SS		2
518	2993611	LATCH BAR ASSEMBLY		1
520	2292605	PIN-PIVOT FRONT, SS		2
522	2293621	SAFETY LATCH		1
524	2292720	SPRING, TORSION, SS		1
526	2292301	PULLEY, LIFT CABLE		1
528	2297325	BUSHING,PIVOT PIN FRONT		2
530	2297324	BUSHING, PIVOT FRONT		2
532	2283631	RAIL, MACH., MOTOR REST		2
534	2286400	COVER-RAIL, MOTOR REST (SUB)		2
536	2323403	SCREW-1/4-20 X.375 MCH SS CRPH		4
538	2293910	SIDEPLATE, LEFT, SHORT,FW	*45**	1
	2293911	SIDEPLATE, LEFT, LONG, FW	*52** *60**	1
540	2295541	DECAL, SIDEPLATE LEFT FW		1
542	2293915	SIDEPLATE, RIGHT,SHORT,FW	*45**	1
	2293916	SIDEPLATE, RIGHT, LONG,FW	*52** *60**	1
544	2295540	DECAL, SIDEPLATE RIGHT FW		1
546	2323405	SCREW-1/4-20 X 1/2" MCH SS		8
548	2293412	SCREW-5/16-18 X 2.25 SHCS, RIE		2
550	2291700	WASHER-5/16, M8 WEDGE LCK		2
▲	2295801	HANG TAG, ULTREX 2		1
▲	2285803	HANG TAG, WARNING, FORTREX		1
▲	2006819	LABEL-CARTON "CAUTION HEAVY"		1
▲	2006522	LABEL, PROP 65 WARNING LG DI2		1
▲	2285801	HANG TAG, HOOK AND LOOP STRAP		1
▲	2015800	HANG TAG "CAUTION..TILT HINGE"		1
552	2263806	STRAP-HLD DWN,33",HOOK&LP		1
554	2293406	SCREW-5/16-18X2.25"PPH SS		6
556	2223100	NUT-5/16-18 NYLOCK S/S		6
558	2291701	WASHER-5/16 X 1.5 FLAT SS		6
560	2378608	ANTI SEIZE TUBE, 4CC, TALON		1
562	2292619	PIN, UPPER SHOCK		1
564	2293408	SCREW - #8-32X.375 FLNG HEX HEAD SS		2
▲	2292005	TUBE-PAPER, LA CYLINDER		1
566	2073100	NUT-HEX 1/4-20 NYLOC-JAM SS		2
568	3394722	INSERT, PUSH ON		2
570	2291954	LATCH WEAR RAMP		2
572	2293409	SCREW-M4 X 8MM, BHSS, SS		6
▲	2205810	DECAL-MINN KOTA 12" PROMO		1

▲ Not shown on Parts Diagram.

✘ This part is included in an assembly and cannot be ordered individually.





# NOTES



A large area for taking notes, consisting of 25 horizontal lines spaced evenly down the page.



# RECOMMENDED ACCESSORIES

## › ON-BOARD & PORTABLE BATTERY CHARGERS

Stop buying new batteries and start taking care of the ones you've got. Many chargers can actually damage your battery over time – creating shorter run times and shorter overall life. Digitally controlled Minn Kota chargers are designed to provide the fastest charge that protect and extend battery life.



MK212PCL



MK210D



MK110PD

## › TALON SHALLOW WATER ANCHOR

Talon is the only shallow water anchor with up to 15' of anchoring depth, multiple anchoring modes, and control from the bow, transom, console, remote or mobile device.



### BUILT-IN WORK LIGHT

Lets you tie lines and work from the transom any time of day — or night. Includes both white and blue LED lights with three brightness settings.



### BLUETOOTH® CONNECTIVITY

Lets you control Talon from your mobile device and easily update it. Also opens up communication to other control options.



### UP TO 15' DEEP

Control more water and catch more fish with the first 15' shallow water anchor.



### MORE CONTROL OPTIONS

- Control Panel
- Wireless Remote
- Mobile App
- Wireless Foot Switch
- Humminbird® Connectivity
- Advanced GPS Navigation System Remote



## › MINN KOTA ACCESSORIES

We offer a wide variety of trolling motor accessories, including:

- 60-Amp Circuit Breaker
- Mounting Brackets
- Stabilizer Kits
- Extension Handles
- Battery Connectors
- Battery Boxes
- Quick Connect Plugs

