



TERROVA[®] QUEST[™]

BOW-MOUNT TROLLING MOTOR

Owner's Manual

INTRODUCTION

THANK YOU

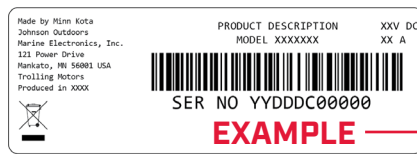
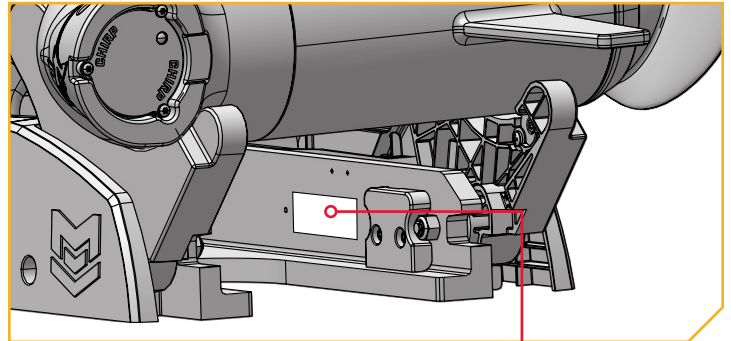
Thank you for choosing Minn Kota. We believe that you should spend more time fishing and less time positioning your boat. That's why we build the smartest, toughest, most intuitive trolling motors on the water. Every aspect of a Minn Kota trolling motor is thought out and rethought until it's good enough 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.

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. A duplicate copy of your serial number label has been included, which can also be entered in the One-Boat Network App for future reference.



NOTICE: The serial number for the Terrova QUEST is located on the inside of the Mount, behind the left Fall Away Ramp.

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. 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



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/sec².

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.

WARRANTY

WARRANTY ON MINN KOTA FRESHWATER TROLLING MOTORS

Minn Kota Freshwater Trolling Motors - Limited Lifetime Warranty On Composite Shaft And Limited Two-Year Warranty On The Entire Product

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 the Composite Shaft

JOME warrants to the original retail purchaser only that the composite shaft 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, free of charge, to replace any composite shaft found by JOME to be defective during the term of this warranty. Providing a new composite shaft shall be the sole and exclusive liability of JOME and the sole and exclusive remedy of the purchaser for breach of this warranty; and purchaser shall be responsible for installing, or for the cost of labor to install, any new composite shaft provided by JOME.

Exclusions and 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, acts of God, 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/us/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/hc/en-us. 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

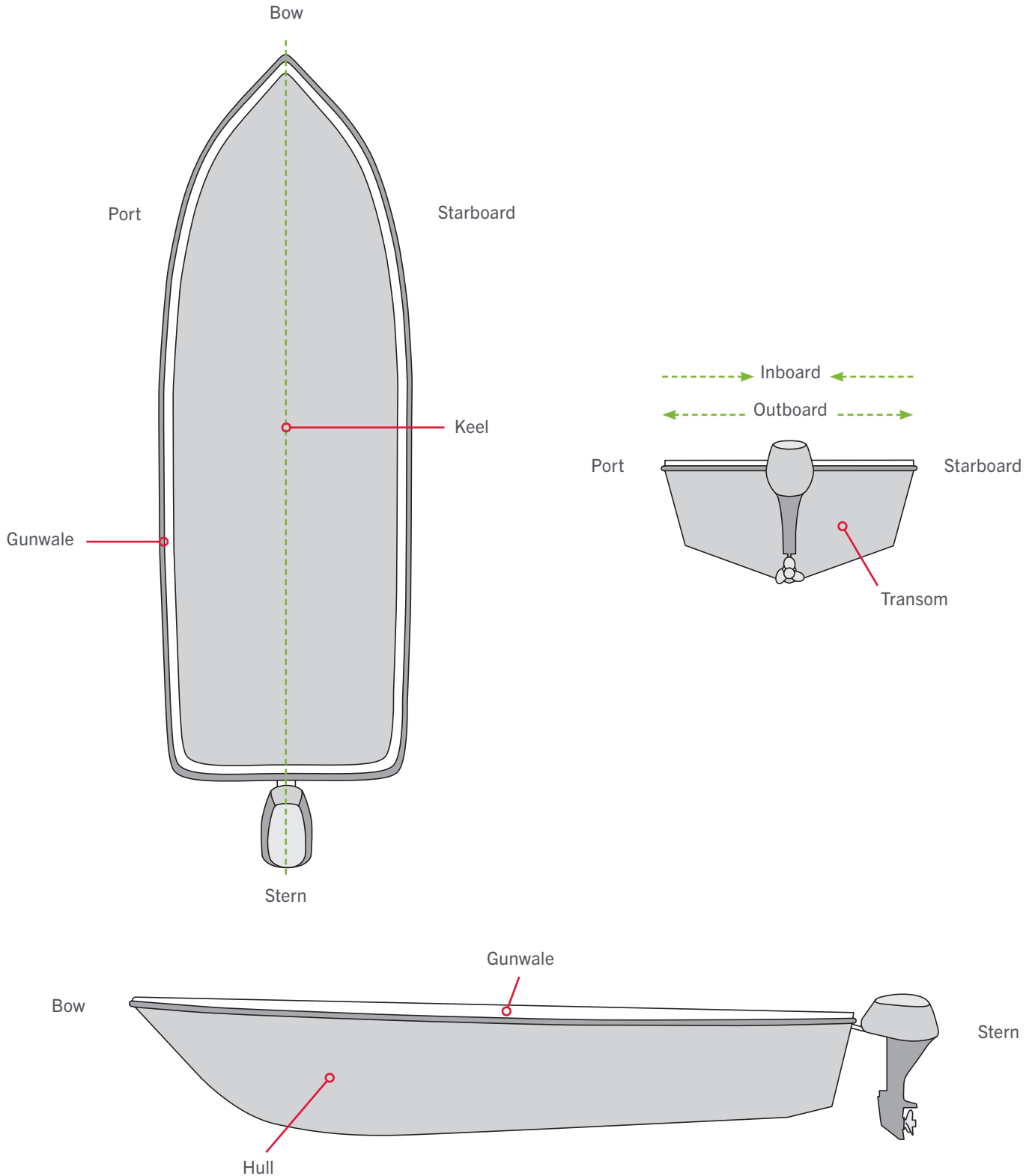


NOTICE: Do not return your Minn Kota product to your retailer. Your retailer is not authorized to repair or replace products.

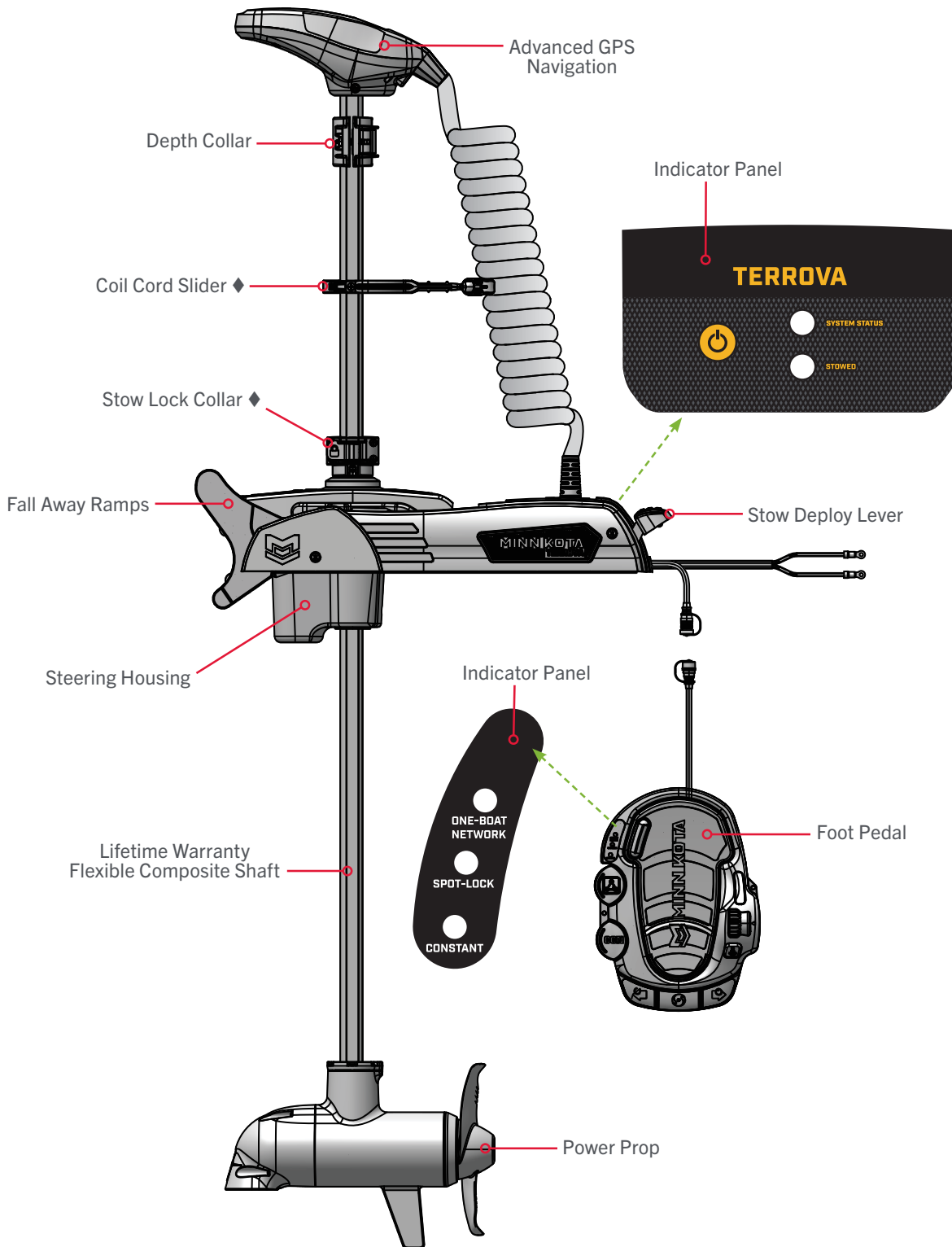
NOTICE: THERE ARE NO EXPRESS WARRANTIES OTHER THAN THESE LIMITED WARRANTIES. IN NO EVENT SHALL ANY IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, EXTEND BEYOND THE DURATION OF THE RELEVANT EXPRESS LIMITED WARRANTY. IN NO EVENT SHALL JOME BE LIABLE 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



◆ Only on models with a 72" shaft length.

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

INSTALLATION

INSTALLING THE TERROVA QUEST

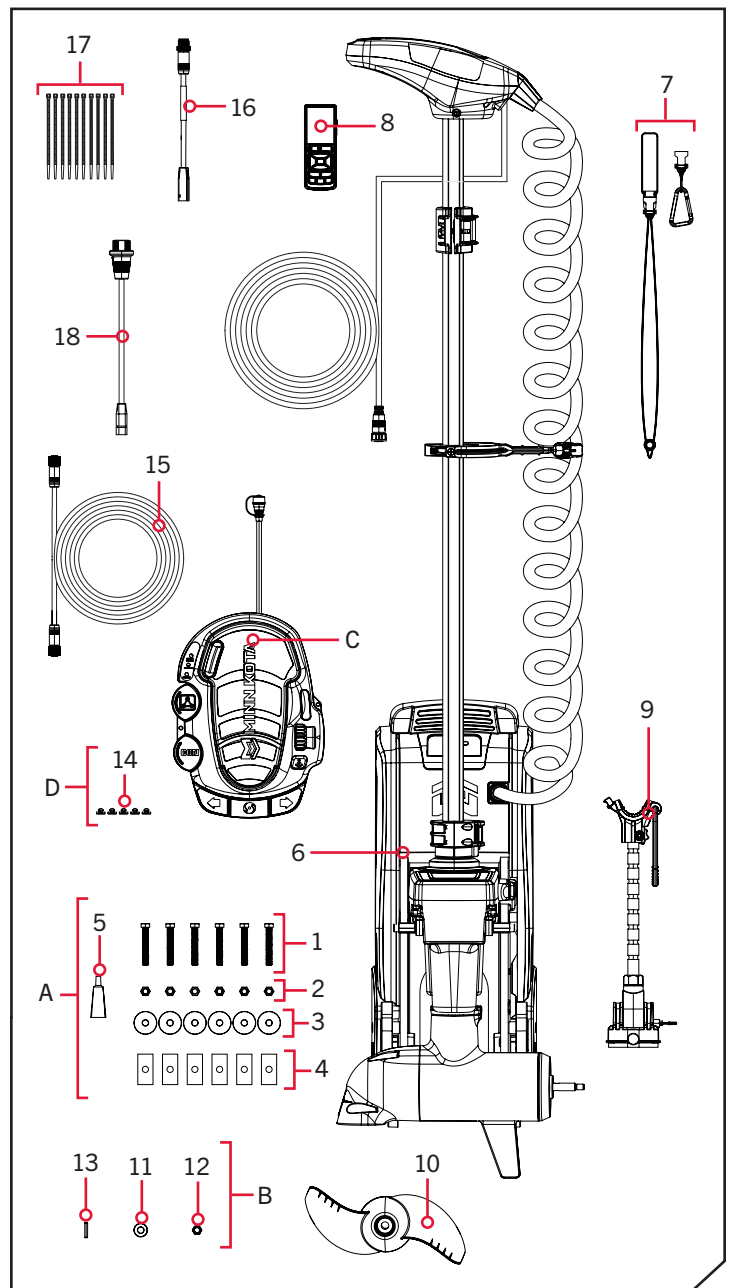
Your new Terrova QUEST comes with everything you'll need to install it directly to the boat. The motor can be mounted directly to the bow or coupled with a Minn Kota quick release bracket for ease of mounting and removal. For compatible quick release brackets and to locate your nearest dealer, visit minnkota.johnsonoutdoors.com. To install the motor directly to the boat, 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, visit minnkota.johnsonoutdoors.com.

INSTALLATION PARTS LIST

Item / Assembly	Part #	Description	Qty.
A (Includes 1-5)	2994948	BAG ASM, INSTINCT, T3 BL HDW	1
1	2323440	SCREW-3/8-16 X 2 1/2 HHCS SS	6
2	2383122	NUT 3/8-16 NYLON INST LOCKNUT	6
3	2321710	WASHER, RUBBER MOUNT	6
4	2371796	BACKUP BAR 3/16 X 1 X 2	6
5	2378608	ANTI SEIZE TUBE, 4CC, TALON	1
6	✘	MOTOR ASSEMBLY	1
7	2390802	LANYARD w/CARABINER IP RMT U2	1
8	411690-1	TROLLING MOTOR REMOTE	1
9	2992371	STABILIZER, BWMT ES TM ASM *72**	1
10	2321170	PROP, POWER REAMED	1
B (Includes 11-13)	2992604	BAG ASSM, PROP HARDWARE	1
11	2091701	WASHER-PROP (LARGE) MAX101	1
12	2093101	NUT-PROP, NYLOC, LG, MX101 3/8 SS	1
13	2262659	PIN-DRIVE 1" X 3/16 SS 17-4	1
C	2994735	FOOT PEDAL ASM, TRV 3 BL	1
D (Includes 14)	2994859	BAG ASY-TERROVA/V2, RUB. BUMPERS	1
14	2325110	PAD, FOOT PEDAL PD	5
15	490384-4	CABLE, ETHERNET (M12-M12), 30'	1
16	490380-1	CABLE, ETHERNET PIGTAIL-700 HD	1
17	2996300	BAG ASM, TIE WRAPS, LOW PRO 4"	1
18	2994961	BAG ASM, CABLE, ADPTR, 490537-2 *490537-2* *MKR-MI-1* *DSC* *MSI*	1
▲	2327138	MANUAL, TERROVA 3 BL	1
▲	2327140	MANUAL-INSTLL GUIDE T3 BL	1
▲	2397110	MANUAL, WIRELESS REMOTE	1
▲	2397115	GUIDE-QCK REFERENCE IP 4.0	1
▲	2294950	INSTRUCTIONS, OBN & REMOTE PAIR	1
▲	2207130	BRUSHLESS QS SETUP GUIDE	1
▲	2377179	INSTR. SHEET, MKA-60 STBLZR *72**	1

▲ Not shown on Parts Diagram.

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



MOUNTING CONSIDERATIONS



MOUNTING CONSIDERATIONS

It is recommended that the motor be mounted as close to the centerline or keel of the boat as possible. Make sure the area under the mounting location is clear to drill holes and install hardware. The mounting surface for the Terrova QUEST must be flat. Rubber washers can be used to shim the base extrusion flat before hardware is tightened.

The motor must not encounter any obstructions as it is lowered into the water or raised into the boat when stowed and deployed. When stowed, ensure that there is enough room for the Shaft and Control Head and that they do not extend off the side of the boat.



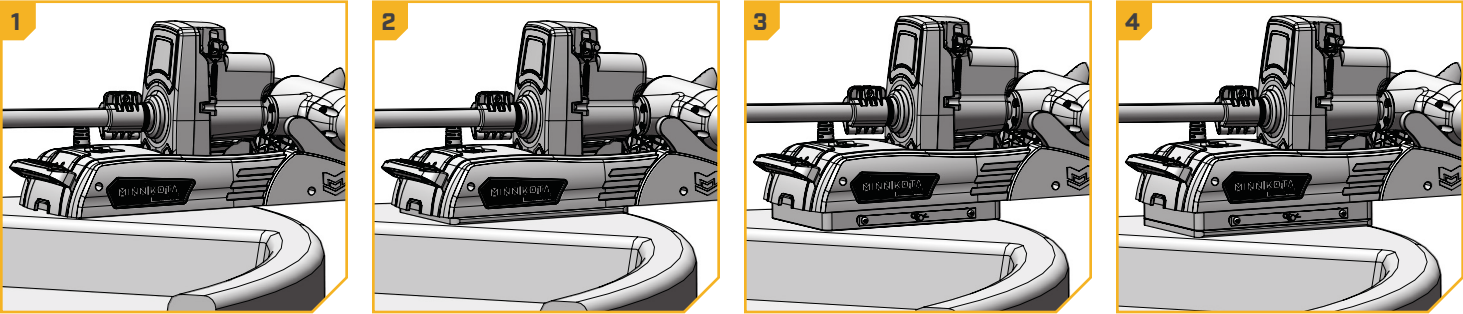
View accessories available for your trolling motor at minnkota.johnsonoutdoors.com.

All six mounting holes must be used when securing the Terrova QUEST to the boat deck. If the desired mounting location does not allow for all six mounting holes and mounting bolts, a Boat Deck Reinforcement Kit (1854058) should be used or a new mounting location selected. Consider a quick release bracket with the installation of your motor.

Mounting options for the Terrova QUEST include:

1. Installing the motor directly to the boat deck
2. Mounting the motor with an MKA-58 Boat Deck Reinforcement Kit (1854058)
3. Mounting the motor with an MKA-56/RTA-55 composite quick release bracket (1854056 - black/1854055 - white) or an MKA-57 sliding quick release bracket (1854057)
4. Combining an MKA-58 Boat Deck Reinforcement Kit and an MKA-56/RTA-55 Quick Release Bracket with the Terrova QUEST

When mounting the Terrova QUEST directly to the boat, follow the installation instructions outlined in this manual. If an accessory bracket will be used to mount the Terrova QUEST, follow the installation instructions provided with the mounting accessory. To view a list of compatible accessories, visit minnkota.johnsonoutdoors.com.



TOOLS AND RESOURCES REQUIRED

- #3 Phillips Screwdriver
- Drill
- 3/8" Drill Bit
- Needle-nose Pliers
- Awl or similar marking tool
- 9/16" Open/Box End Wrench
- 9/16" Deep Well Socket
- A second person to help with the installation



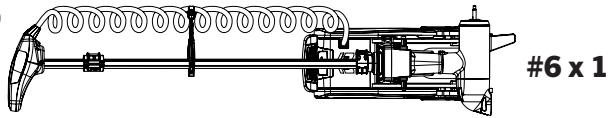
INSTALLING THE TERROVA QUEST

INSTALLATION >

INSTALLING THE TERROVA QUEST

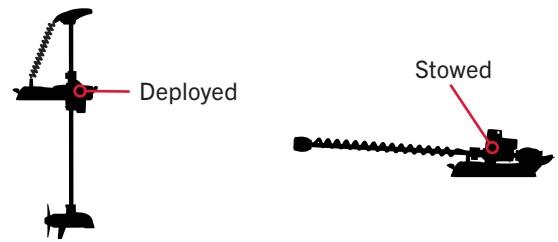
1

ITEM(S) NEEDED



- Place the trolling motor (Item #6) on an elevated, level surface, such as a workbench or the tailgate of a pickup. The motor, as removed from the box, should be in the stowed position.
- Make sure that the Power Cables from the battery are disconnected or that the breaker, if equipped, is "off."

1a

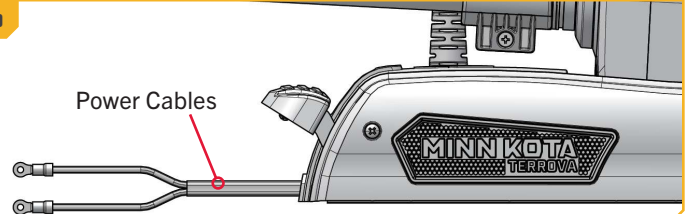


WARNING

Make sure the motor is on a level surface and is not connected to a power source.

NOTICE: The trolling motor weighs up to 90lb. Minn Kota recommends having a second person help with the installation.

1b

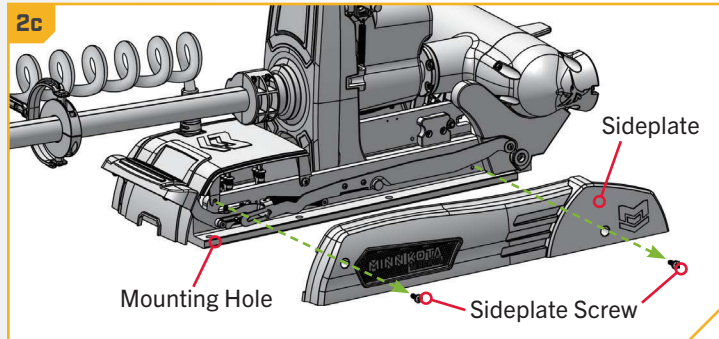


2

- Remove the four Sideplate Screws using a #3 Phillips Screwdriver. Two screws will be located on each side of the mount.
- Remove the Right Sideplate and Left Sideplate to expose the six mounting holes in the Base Extrusion.

NOTICE: Ensure that the area between the Mount and Steering Housing is clean and free of debris and that no installation hardware has fallen in. The Mount contains pads that contact the Steering Housing when stowed. The motor cannot stow securely if an obstruction is present on the pads.

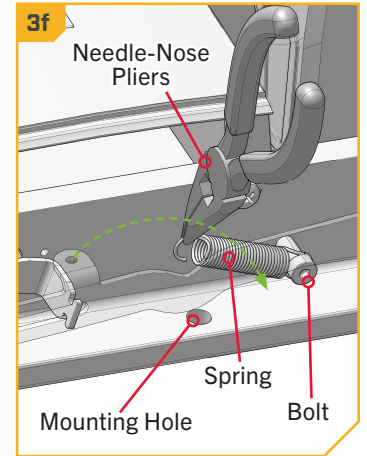
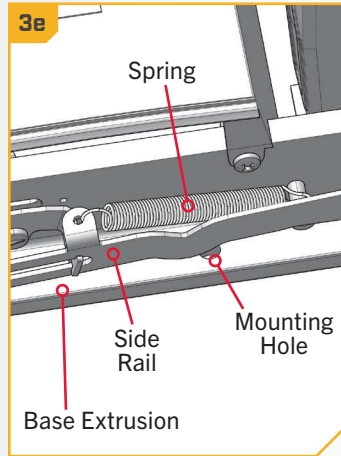
2c



INSTALLING THE TERROVA QUEST

3

- e. The center mounting hole on each side of the Base Extrusion is blocked by a Spring. One end of each Spring must be disconnected in order to access the mounting holes.
- f. To disconnect the Spring, take a Needle-nose Pliers and carefully grab the hooked end on the top half of the Spring. Unhook it from the hole in the Side Rail by pulling up and away. Guide it towards the bottom half of the Spring still attached to the Base Extrusion and gently set it down. Do not disconnect the end of the Spring that is wrapped around a bolt. Repeat this process with the remaining Spring on the other side of the mount.



⚠ CAUTION

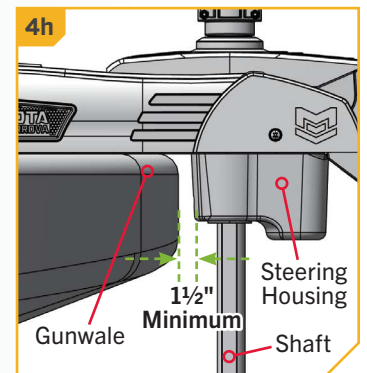
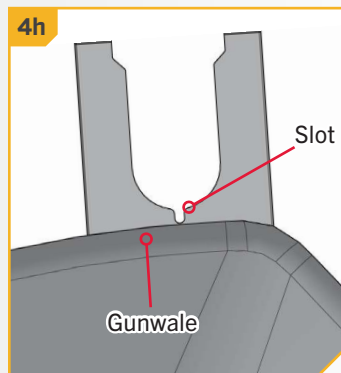
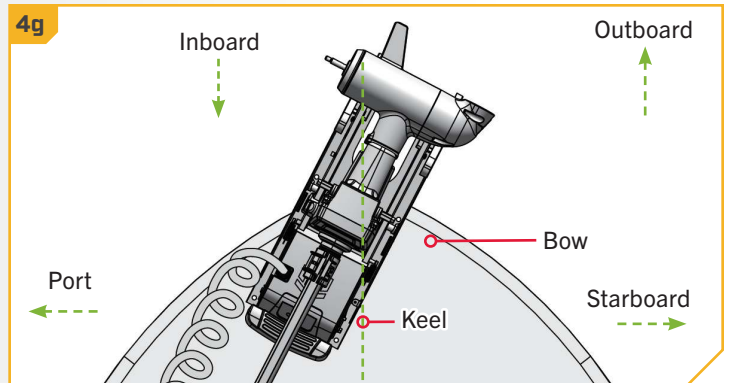
When maneuvering each Spring, carefully handle the Spring to avoid bending it. Do not grab the body of the Spring to avoid pinching between the spring coils. Always grab by the hooked end.

⚠ CAUTION

When handling each Spring, always keep the spring tension under control. Abruptly releasing the Spring while there is still tension could damage it and cause it to release unpredictably.

4

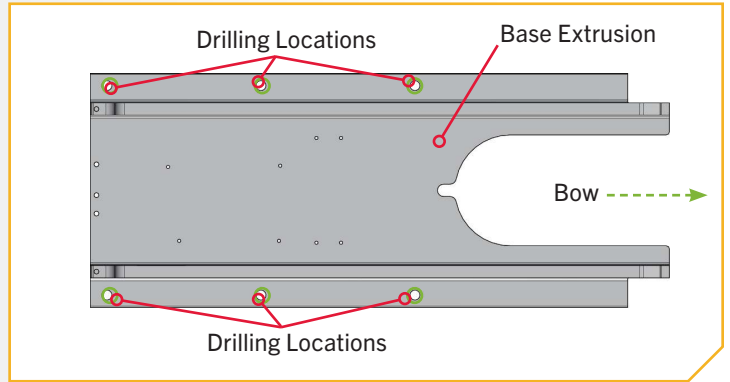
- g. Review the mounting considerations at the beginning of the Installation section for proper clearance. Place the motor on the bow of the boat at the intended mounting location, as close to the centerline or keel as possible. Ensure there is enough room for the Shaft and Control Head and that they do not extend off the side of the boat. The motor can be installed on either the Port or Starboard side of the bow, based on personal preference.
- h. Position the motor so that the Slot in the Base Extrusion is positioned beyond the boat Gunwale. For proper clearance, the entire Slot must be visible beyond the Gunwale. When the motor is deployed, there must be a minimum required distance of 1½" between the Gunwale and the bottom of the Steering Housing and Shaft.
- i. When mounting the Terrova QUEST, all six mounting holes must be used. If the desired mounting location does not allow for all six mounting holes, a Boat Deck Reinforcement Kit (1854058) should be used or a new mounting location selected.



INSTALLING THE TERROVA QUEST

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- j. With the motor at the intended mounting location, take an Awl or similar tool and mark all six mounting holes in the Base Extrusion.
- k. Slide the motor aside to drill the mounting holes.
- l. Drill through the boat deck using a Drill and a 3/8" Drill Bit on all six marked locations.
- m. Reposition the motor over the drilled holes to install mounting hardware.



NOTICE: New mounting holes are required when upgrading from a Terrova to a Terrova QUEST. New mounting holes will accommodate the higher thrust motor and ensure the installation is secure.

NOTICE: The mounting surface for the Terrova QUEST must be flat. Rubber Washers can be used to shim the Base Extrusion flat before hardware is tightened.

6

ITEM(S) NEEDED



#1 x 6



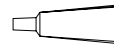
#2 x 6



#3 x 6



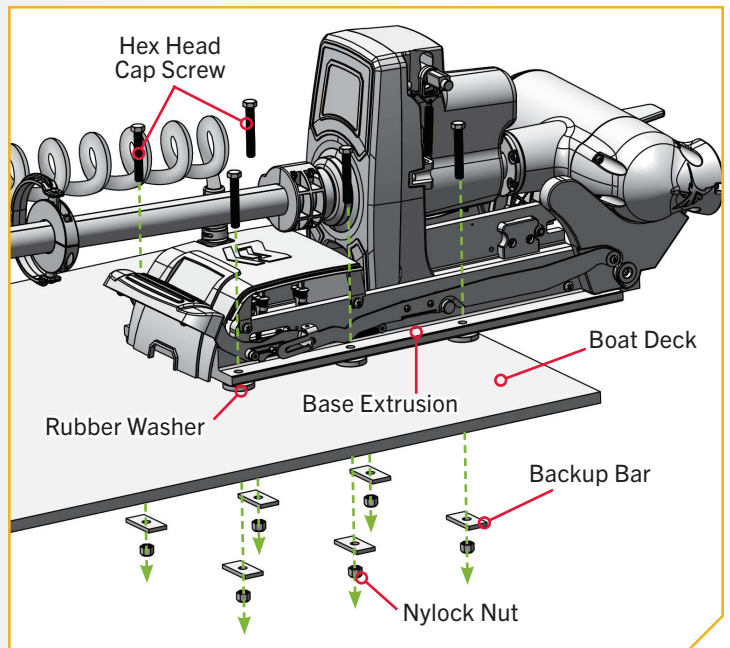
#4 x 6



#5 x 1

NOTICE: To prevent seizing of the stainless steel hardware, do not use high-speed installation tools. Wetting the screws or applying an anti-seize (Item #5) may help prevent seizing.

- n. Take six Hex Head Cap Screws (Item #1) and apply anti-seize (Item #5) to each Screw. Insert the Screws through the Base Extrusion and into each of the drilled locations. If Rubber Washers (Item #3) are used, the Rubber Washers should sit between the Base Extrusion and boat deck. Take care not to damage the loose Springs that were released to access the mounting holes.
- o. Place a Backup Bar (Item #4) and then a Nylock Nut (Item #2) on the end of each Screw. Tighten with a 9/16" Box End or Open End Wrench. Make sure all hardware is secure.



NOTICE: Use extra care to avoid pinching and damaging the sensor wires that run alongside the Base Extrusion when installing and tightening the mounting hardware.

INSTALLING THE TERROVA QUEST

7

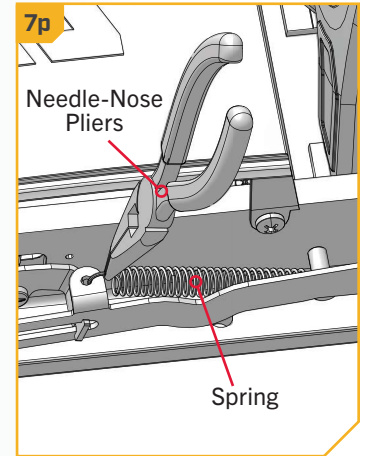
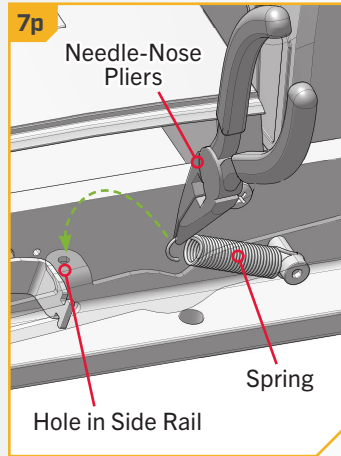
- p. With the mounting hardware secure, reassemble the Springs that were disconnected. Use a Needle-nose Pliers to grab the hooked end of the loose Spring. Reconnect it by pulling it upwards and hooking it in the hole on the Side Rail. The curved end of the Spring should be reattached from the top down. Make sure the Spring is not twisted when reattaching it. Reattach the Spring on both the right and left sides of the Base Extrusion.

CAUTION

When maneuvering each Spring, carefully handle the Spring to avoid bending it. Do not grab the body of the Spring to avoid pinching between the spring coils. Always grab by the hooked end.

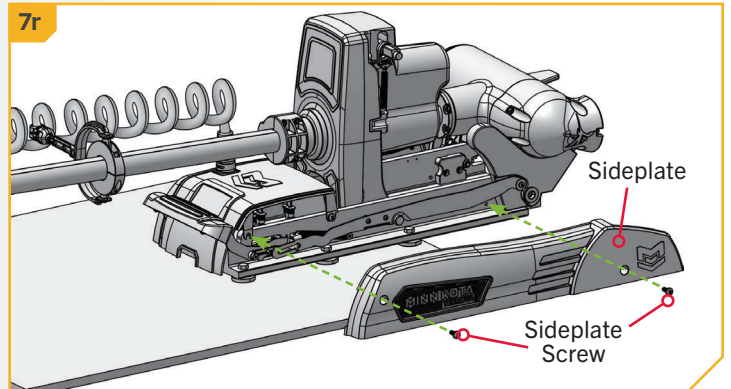
- q. With both Springs reattached, replace the Right Sideplate and Left Sideplate.
- r. Reinstall the four Sideplate Screws using a #3 Phillips Screwdriver. Two of these screws will be located on each side of the mount. Hand tighten.

NOTICE: When reinstalling the Sideplates, be sure not to pinch the sensor wires that run alongside the Base Extrusion.



CAUTION

When handling each Spring, always keep the spring tension under control. Abruptly releasing the Spring while there is still tension could damage it and cause it to release unpredictably.



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

QUEST series motors will operate with any deep cycle marine 12, 24 or 36-volt battery/batteries and have been optimized for use with LiFePO₄ 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 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.

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

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.

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 (1865115) 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.

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

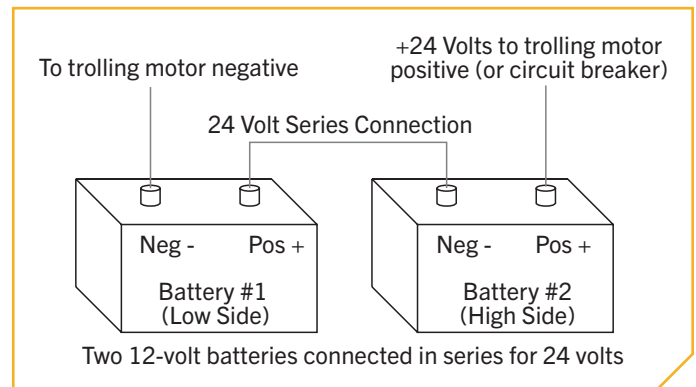
Automatic jump start systems and selector switches tie the negatives of the connected batteries together. Connecting these systems to the “High Side” Battery or “Middle” Battery in the diagrams below and will cause significant damage to your trolling motor and electronics. The only trolling motor battery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

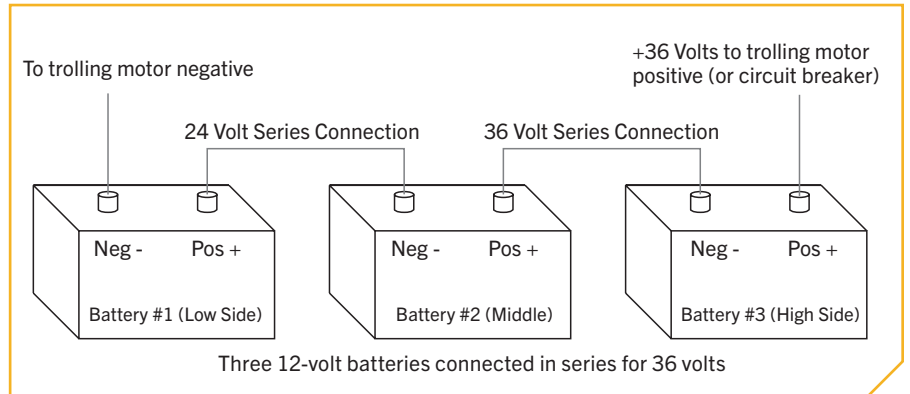
- For safety reasons, disconnect the motor from the battery or batteries when the motor is not in use or while the battery/batteries are being charged.
- Improper wiring of 24/36 volt systems could cause battery explosion.
- Keep leadwire wing nut connections tight and solid to battery terminals.
- Locate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




The Terrova QUEST is an advanced trolling motor. To maximize its performance, 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, 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.

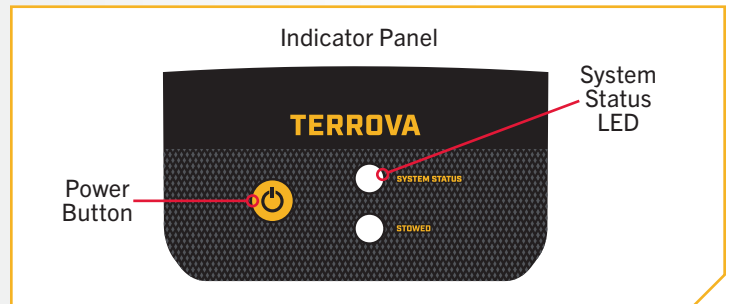
COMPLETING THE INSTALLATION >

> 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 verify power to the trolling motor, connect the Terrova QUEST to power. At specific points in the installation, power will be disconnected or turned "off" to ensure a safe environment for installation.

1

- a. Locate the Indicator Panel at the front of the Mount. Power on the trolling motor by pressing the Power  button on the Indicator Panel. When the trolling motor is on, the System Status  LED will be blue.
- b. To turn the motor "off," press and release the Power button. When the Motor is powered off, the System Status  LED will not be illuminated.



> Installing the Bow-Mount Stabilizer

Terrova QUEST motors with a 72" shaft length come with an MKA-60 Bow-Mount Stabilizer Kit (Item #9). This accessory stabilizes the shaft and control head when the motor is stowed for transport. Motors with shaft lengths under 72" may purchase the MKA-60 separately as an optional accessory (1862060). For instructions on installing the MKA-60 to the Terrova QUEST, refer to the document provided with the Bow-Mount Stabilizer Kit.

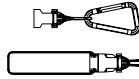
› Powering on the Wireless Remote

1







ITEM(S) NEEDED



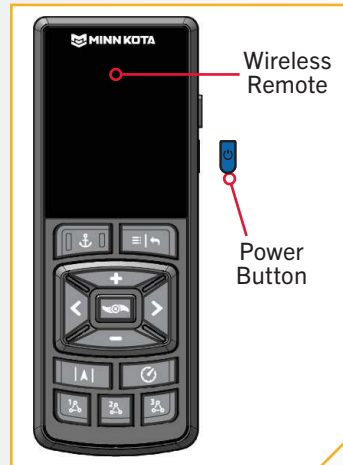
#8 x 1



#7 x 1

- Power on the trolling motor.
- To turn on the Wireless Remote (Item #8), press and hold the Power  button on the side of the Remote.
- A message will appear on the display screen. Read the disclaimer, then press the Steer Right  button to select "I Agree."
- The content on the display screen will populate. Remote functions to manually control the motor are now active, including Speed Up , Speed Down , Steer Left , Steer Right , and Prop On/Off.
- When the Advanced GPS Navigation system has obtained a minimum GPS signal strength of one bar, all remaining functions will become available.

NOTICE: Attaching the Lanyard (Item #7) to the Wireless Remote is optional.



Warning!

You are responsible for the safe and prudent operation of your boat. This product does not relieve you from the responsibility for safe operation of your boat.

I Agree



NOTICE: The Wireless Remote comes from the factory paired to the Terrova QUEST.

NOTICE: A Remote Cradle accessory (1866675) can be purchased for mounting the Wireless Remote or attaching the Remote to a belt clip.

INSTALLING THE FOOT PEDAL

Installing the Foot Pedal

1

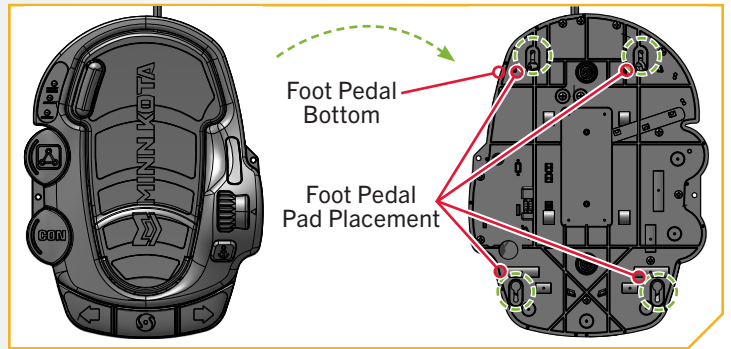
ITEM(S) NEEDED

 #14 x 4

 #C x 1

- a. Take the Foot Pedal (Item #C) and turn it over. Put a Foot Pedal Pad (Item #14) in each of the pad locations.

NOTICE: Adding the Foot Pedal pads is optional. The pads are recommended when using the Foot Pedal on non-carpeted surfaces.

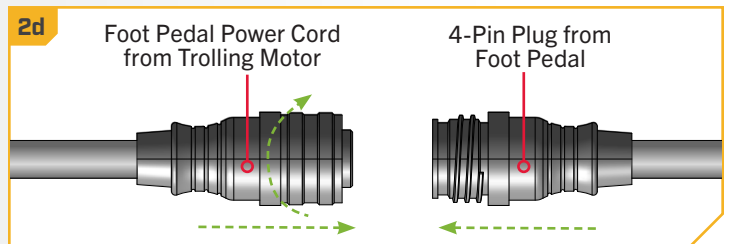
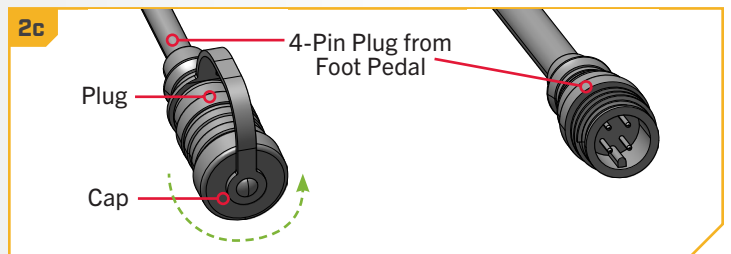
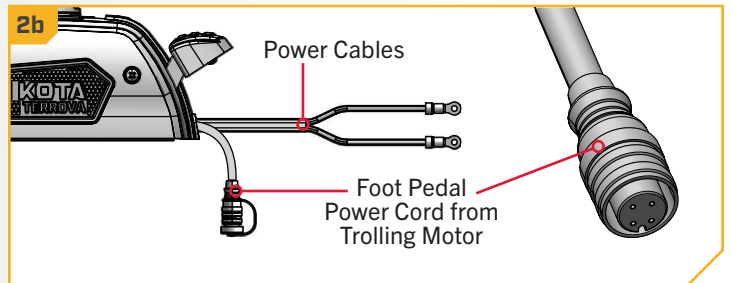


2

- b. Locate the Foot Pedal Power Cord that exits the Mount of the trolling motor, next to the Power Cables. Unscrew the Cap on the Plug at the end of the Foot Pedal Power Cord.
- c. Locate the 4-Pin Plug from the Foot Pedal and unscrew the Cap.
- d. Align the 4-Pin Plug from the Foot Pedal with the Plug from the trolling motor. Firmly push the Plugs together. Secure the connection by rotating the collar on the Foot Pedal Power Cord in a clockwise direction.

NOTICE: The connectors are keyed to prevent reversed installation.

NOTICE: When the Foot Pedal Power Cord is not in use, ensure that the Cap is on and firmly secured.

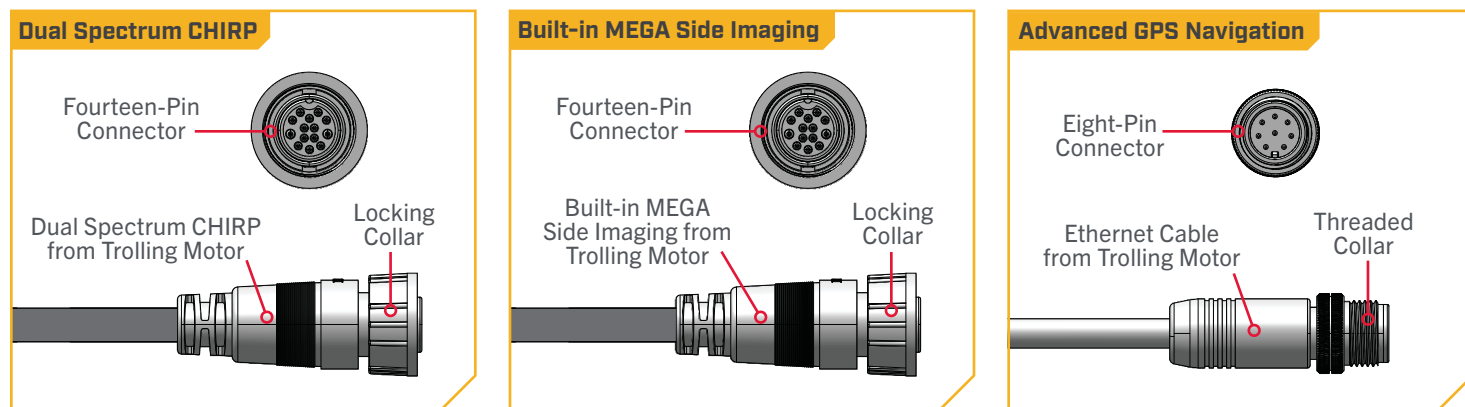


IDENTIFYING TROLLING MOTOR FEATURES AND THEIR ASSOCIATED CABLES

IDENTIFYING TROLLING MOTOR FEATURES AND THEIR ASSOCIATED CABLES

Feature & Cable Identification

The Terrova QUEST is pre-installed with Advanced GPS Navigation - including the ability to connect via Ethernet to a Humminbird unit. The motor is also pre-installed with sonar, either Dual Spectrum CHIRP or Built-in MEGA Side Imaging. These features may be installed on their own or in combination with another feature. 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. 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.

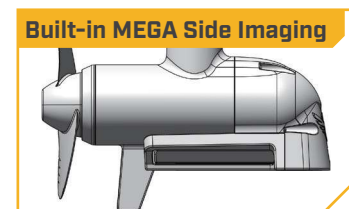
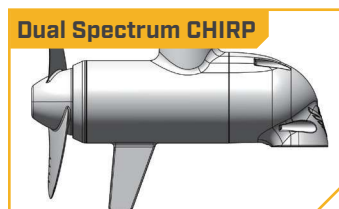
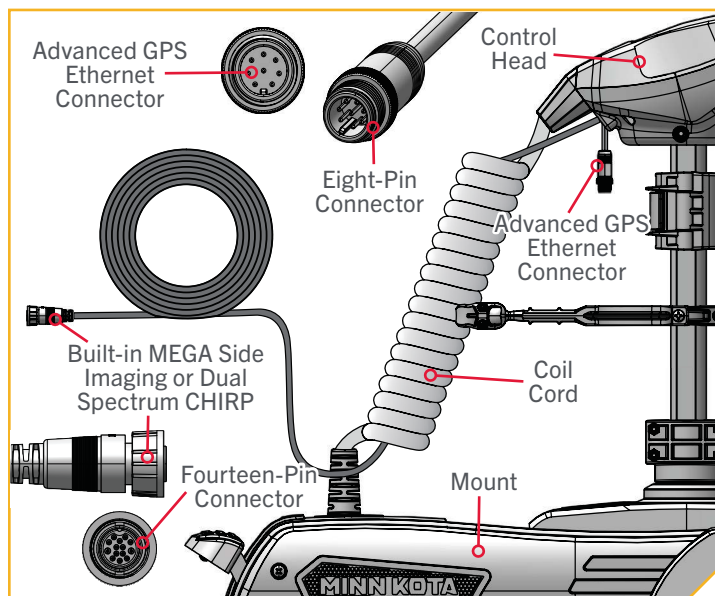


Identifying Connectors

Two connectors are 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 also pre-installed on your trolling motor. One Sonar Accessory Cable will exit the base of the Control Head and be bundled in a loose loop. The end of this Cable has 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

› 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.

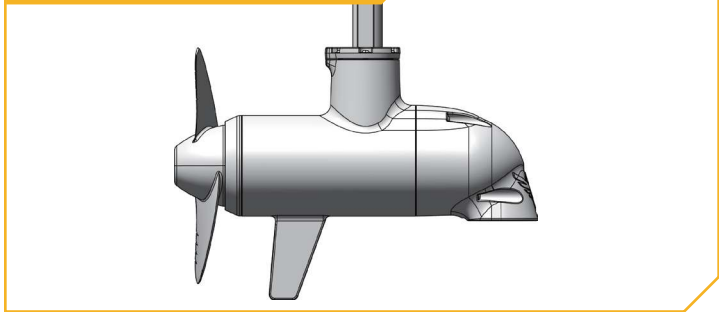
Dual Spectrum CHIRP features:

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.

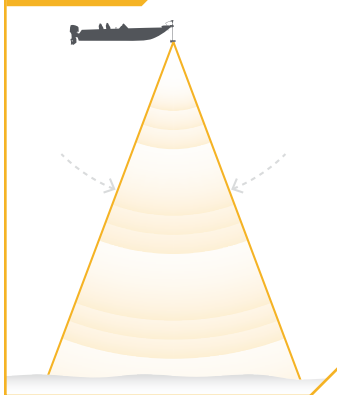
CLEARLY DEFINED FISH ARCHES - We've got bad news for your arch nemesis. Large game fish will show up on your screen as long, well-defined arches, for quick identification and accurate lure presentation.

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.

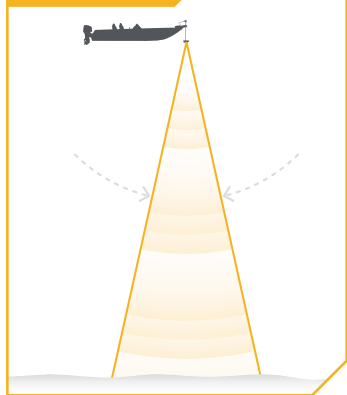
Dual Spectrum CHIRP Lower Unit



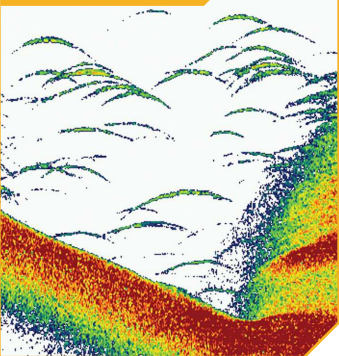
Wide Mode



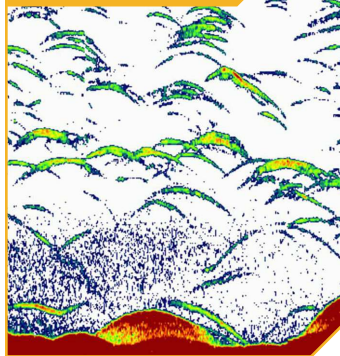
Narrow Mode



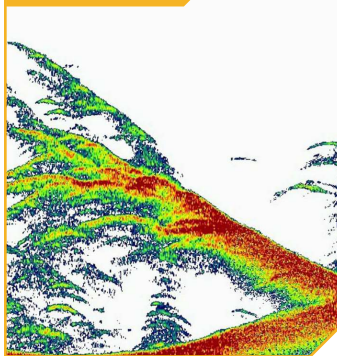
Target Separation



Defined Fish Arches



Strong Returns



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.

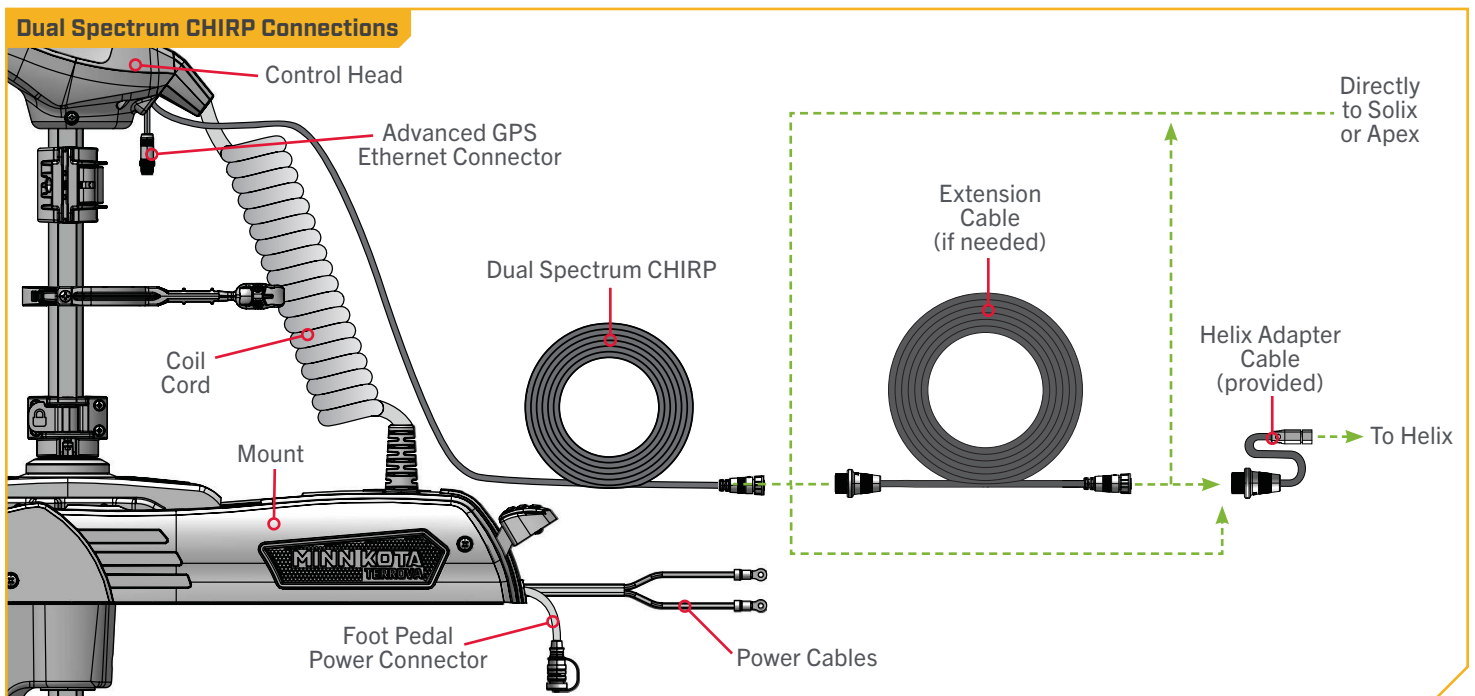
› Considerations for Connecting and Routing Dual Spectrum CHIRP

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 be bundled in a loose loop. Dual Spectrum CHIRP requires cables to be connected to an output device such as a Humminbird® fish finder. The Dual Spectrum CHIRP cable that exits the Control Head 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 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. 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.



DUAL SPECTRUM CHIRP

All Dual Spectrum CHIRP Terrova QUEST motors are equipped with an internal bonding wire. 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 Accessory Cables" to complete the output cable installation.

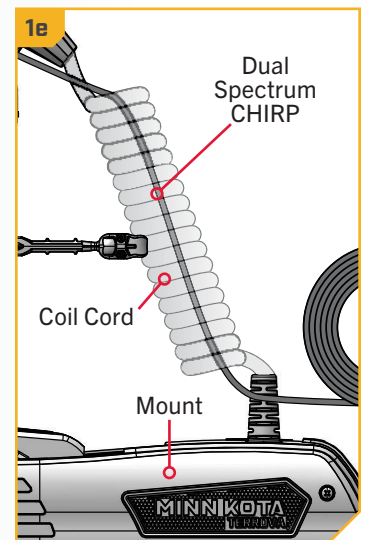
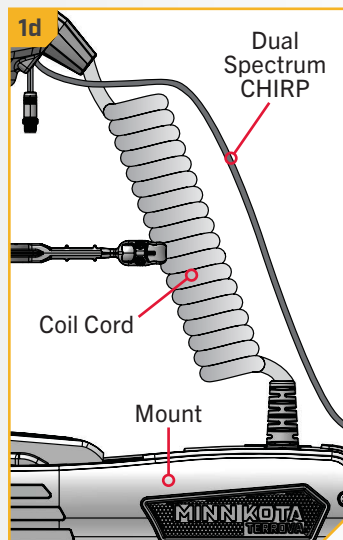
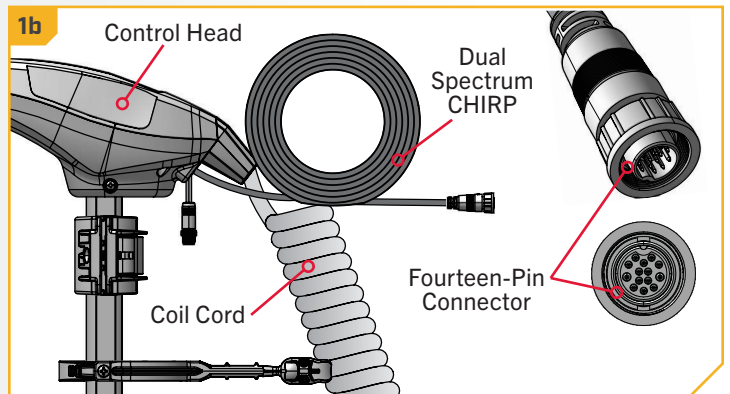
⚠ CAUTION

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 the cable ties as it may damage the wires.

1

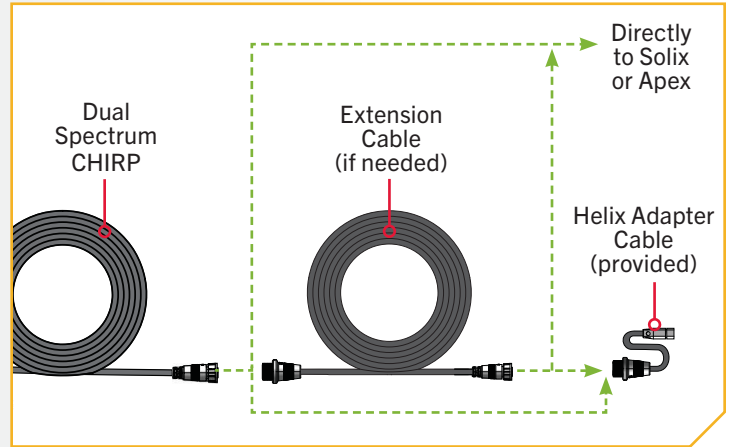
NOTICE: Your fish finder should be turned off until this procedure is complete.

- a. Place the motor in the deployed position.
- b. Locate the Fourteen-Pin Connector at the end of the Dual Spectrum CHIRP accessory cable. The accessory cable exits the base of the Control Head and will be bundled in a loose loop near the Control Head.
- c. Unwrap the Dual Spectrum CHIRP accessory cable.
- d. **If connecting additional accessory cables such as Ethernet**, keep the Dual Spectrum CHIRP cable unwound and free from the Coil Cord. All accessory cables will be zip-tied together and run through the center of the Coil Cord at the end of the installation. See the "Advanced GPS Navigation" and "Securing Accessory Cables" sections for instructions.
- e. **If only connecting Dual Spectrum CHIRP**, run the accessory cable down through the center of the Coil Cord. The cable should be inserted from the top and float freely inside the middle of the Coil Cord, with the Fourteen-Pin Connector exiting from the final coil near the Mount.



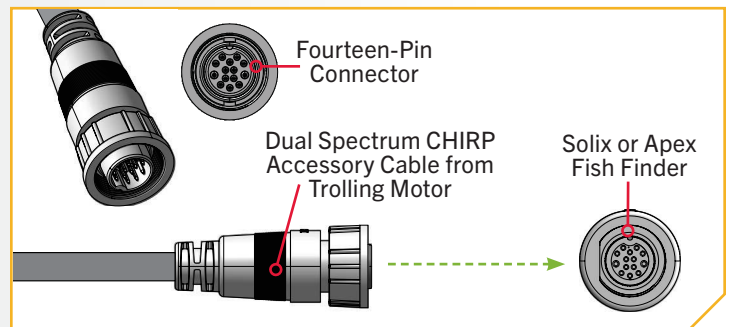
2

- f. 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.



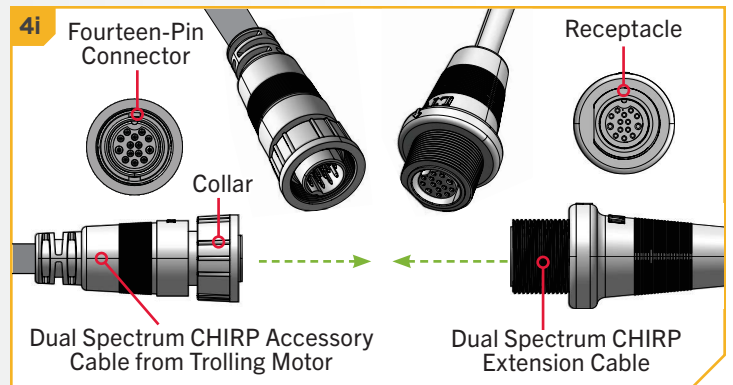
3

- g. If installing directly to a Solix or Apex, the connection will be flat on the back of the fish finder display.
- h. 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.



4

- i. 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.
- j. 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.

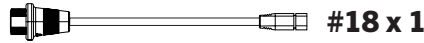


NOTICE: A 10-foot extension cable (EC M3 14W10 - 10' transducer extension cable - 720106-1) and a 30-foot extension cable (EC M3 14W30 - 30' transducer extension cable - 720106-2) are available from humminbird.johnsonoutdoors.com.

BUILT-IN MEGA SIDE IMAGING

5

ITEM(S) NEEDED

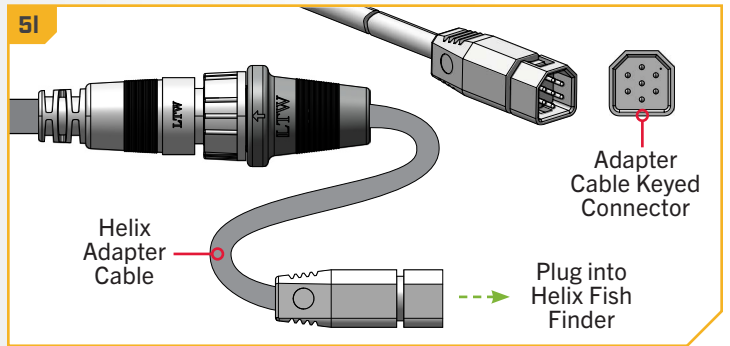
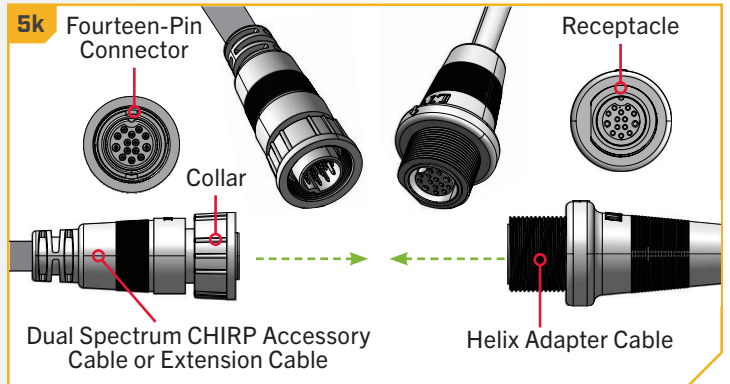


- k. If installing directly to a Helix Adapter Cable, align the pins on the accessory cable or extension cable with the receptacle on the Helix Adapter Cable (Item #18). Notice the keyed connectors. Tighten the Collar from the accessory cable or extension cable to secure the connection.
- l. If the Helix 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.

- m. 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 >

MEGA Imaging technology took fish finding into the megahertz frequency for the very first time. Now Built-in MEGA Side Imaging+ delivers up to 3X the output of standard Side Imaging®. Humminbird improved this technology even further by extending the depth range and expanding the side coverage areas, all while improving the crystal clear imagery. Built-in MEGA Side Imaging+ comes available in the Minn Kota flagship families of trolling motors, including Ultrex and Ulterra, with 200 feet of coverage on either side of your boat. With Humminbird MEGA imaging sonar built right into the trolling motor, you now have a crystal clear view of what's directly to the left and right of your boat, without having to manage all of the cables that come with external transducers. The Built-in MEGA SI transducer is only available on new models equipped from the factory and cannot be added to an existing trolling motor.

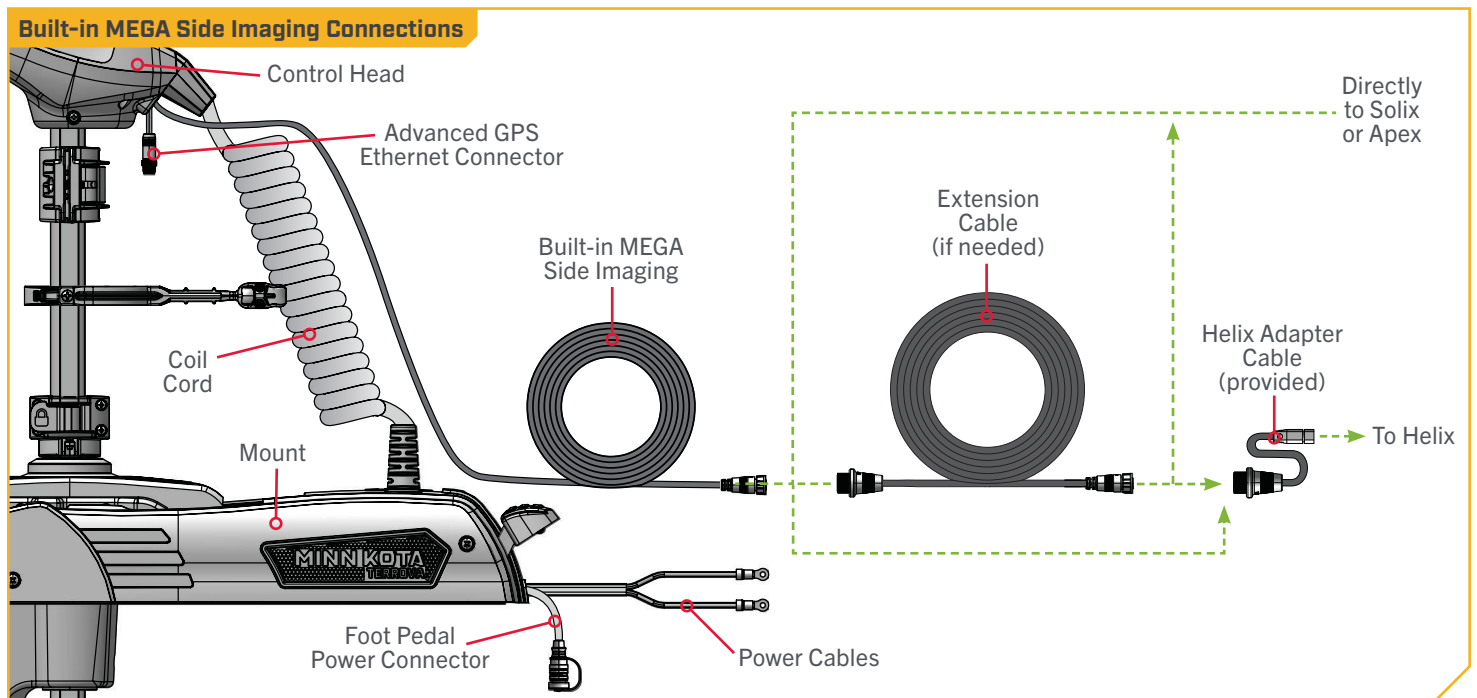
› Considerations for Connecting and Routing Built-in MEGA Side Imaging

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 be bundled in a loose loop. 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 exits the Control Head 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 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. 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.



BUILT-IN MEGA SIDE IMAGING

⚠ CAUTION

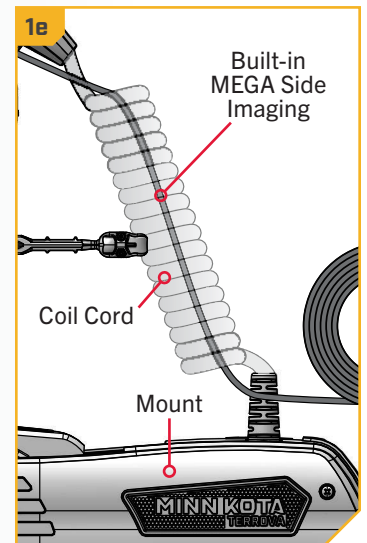
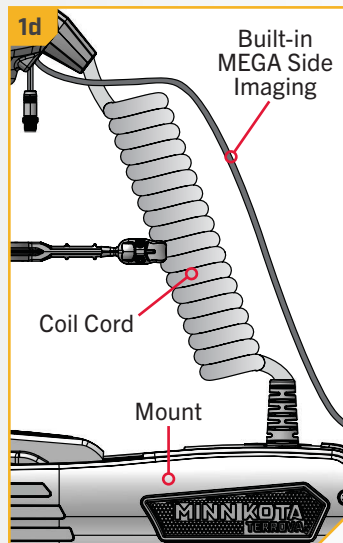
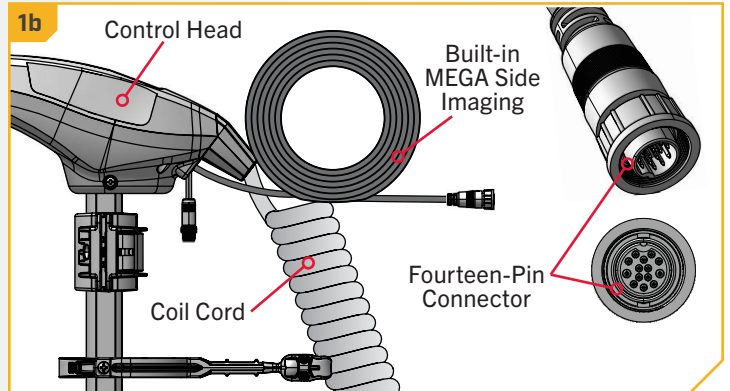
Failure to follow the recommended wire routing for installed features, if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause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

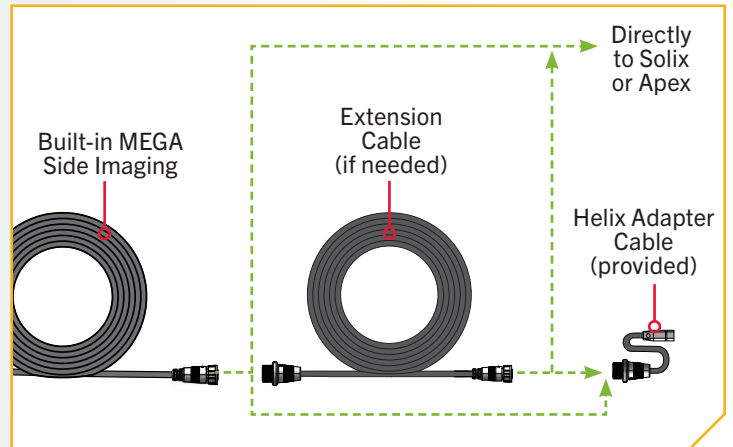
- a. Place the motor in the deployed position.
- b. Locate the Fourteen-Pin Connector at the end of the Built-in MEGA Side Imaging accessory cable. The accessory cable exits the base of the Control Head and will be bundled in a loose loop near the Control Head.
- c. Unwrap the Built-in MEGA Side Imaging accessory cable.
- d. **If connecting additional accessory cables such as Ethernet**, keep the Built-in MEGA Side Imaging cable unwound and free from the Coil Cord. All accessory cables will be zip-tied together and run through the center of the Coil Cord at the end of the installation. See the "Advanced GPS Navigation" and "Securing Accessory Cables" sections for instructions.
- e. **If only connecting Built-in MEGA Side Imaging**, run the accessory cable down through the center of the Coil Cord. The cable should be inserted from the top and float freely inside the middle of the Coil Cord, with the Fourteen-Pin Connector exiting from the final coil near the Mount.



BUILT-IN MEGA SIDE IMAGING

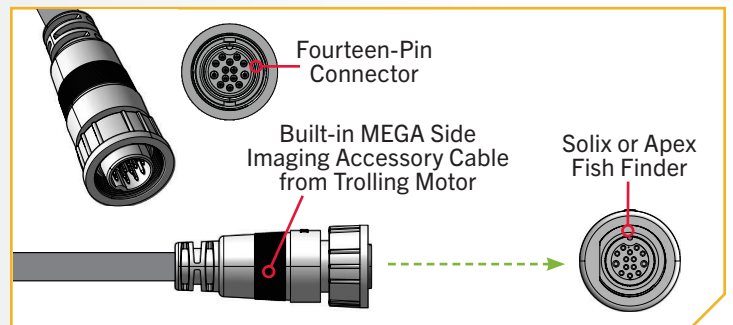
2

- f. Determine if the Plug on the end of the Built-in MEGA Side Imaging 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.



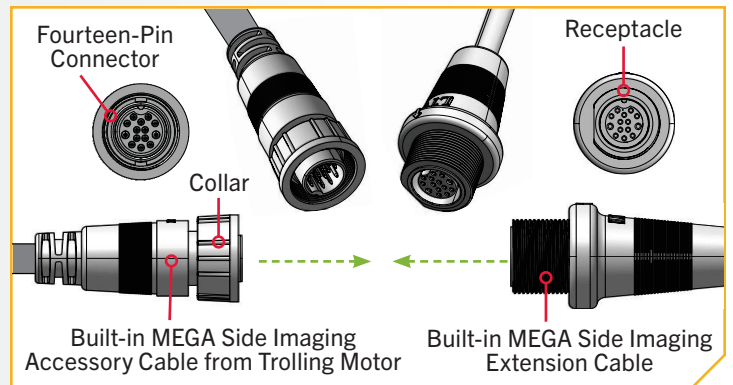
3

- g. If installing directly to a Solix or Apex, the connection will be flat on the back of the fish finder display.
- h. 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.



4

- i. 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.
- j. If the Built-in MEGA Side Imaging 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.

BUILT-IN MEGA SIDE IMAGING

5

ITEM(S) NEEDED

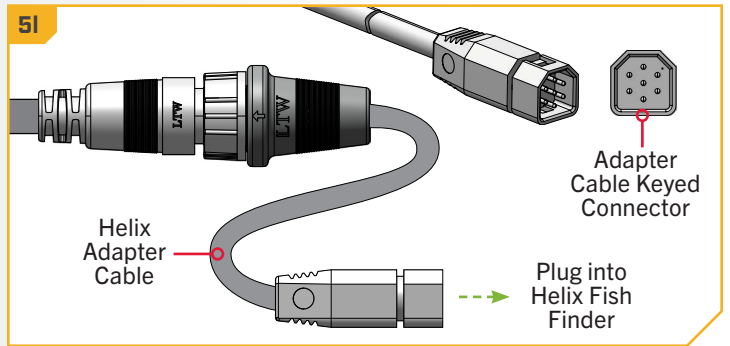
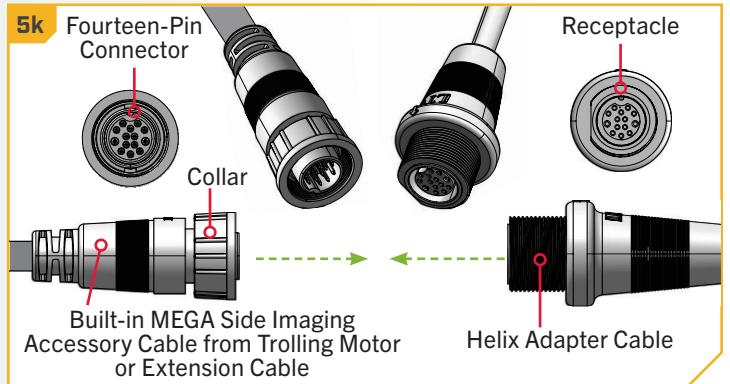


- k. If installing directly to a Helix Adapter Cable, align the pins on the accessory cable or extension cable with the receptacle on the Helix Adapter Cable (Item #18). Notice the keyed connectors. Tighten the Collar from the accessory cable or extension cable to secure the connection.
- l. If the Helix 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.

- m. 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 >

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 paths 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.

The Wireless Remote and GPS controller make up the Advanced GPS Navigation system. A Wireless 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 a connection 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 should 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 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 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. 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 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.

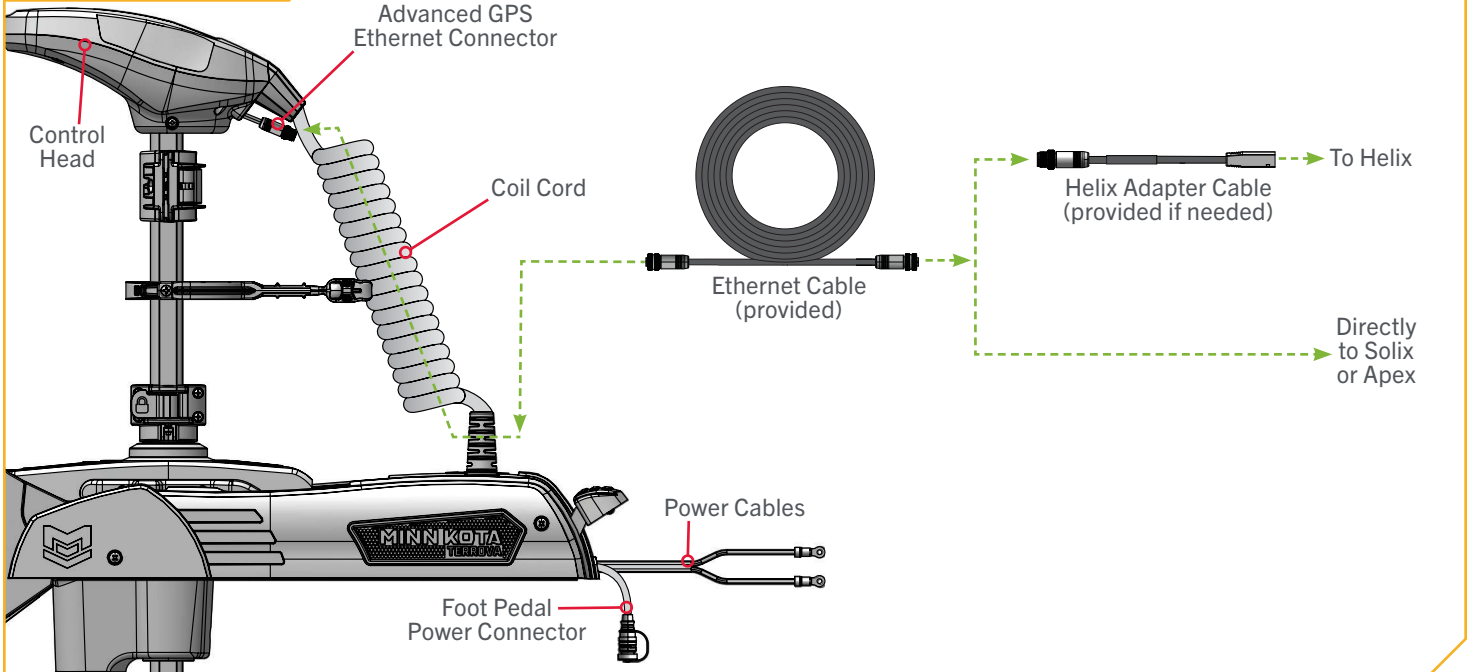
NOTICE: Minn Kota recommends routing the Ethernet Cable or Ethernet Extension Cable through the Coil Cord when making the Ethernet connection. The cables will be installed from the Mount to the Control Head through the Coil Cord and parallel to the Dual Spectrum CHIRP or Built-in MEGA Side Imaging Cable. Bypassing the Coil Cord when routing the Ethernet Cable or Ethernet Extension Cable is not recommended.

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.

ADVANCED GPS NAVIGATION

GPS Ethernet Connection

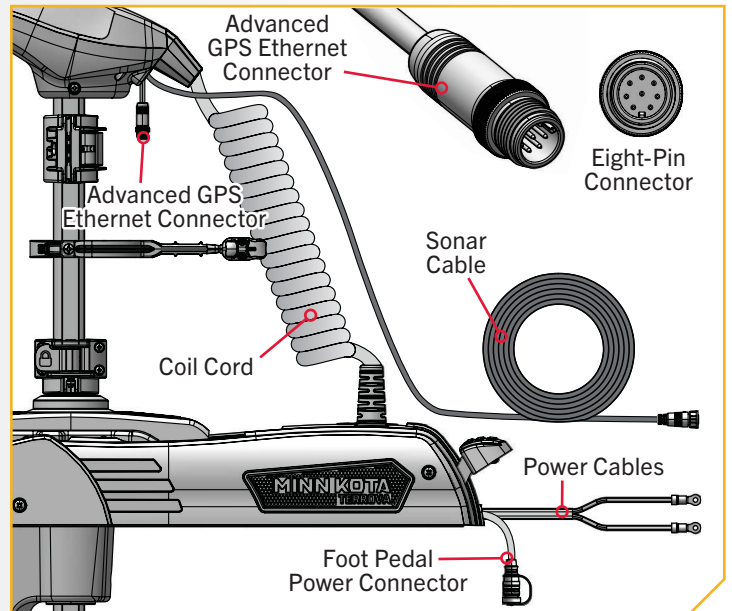


1

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

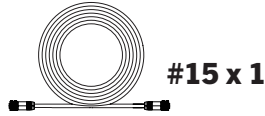
- a. Place the motor in the deployed position.
- b. Locate the Eight-Pin Advanced GPS Ethernet Connector below the Control Head. The Advanced GPS Ethernet Connector will exit the base of the Control Head and will rest just below the Control Head next to the Coil Cord.

NOTICE: Terrova QUEST trolling motors with Advanced GPS Navigation are also equipped with Sonar. Sonar is pre-installed from the factory and may be either Dual Spectrum CHIRP or Built-in MEGA Side Imaging. A Sonar Cable will be bundled in a loose loop below the Control Head. Review the “Identifying Trolling Motor Features and Their Associated Cables” of this document to identify and learn more about Sonar.



2

ITEM(S) NEEDED

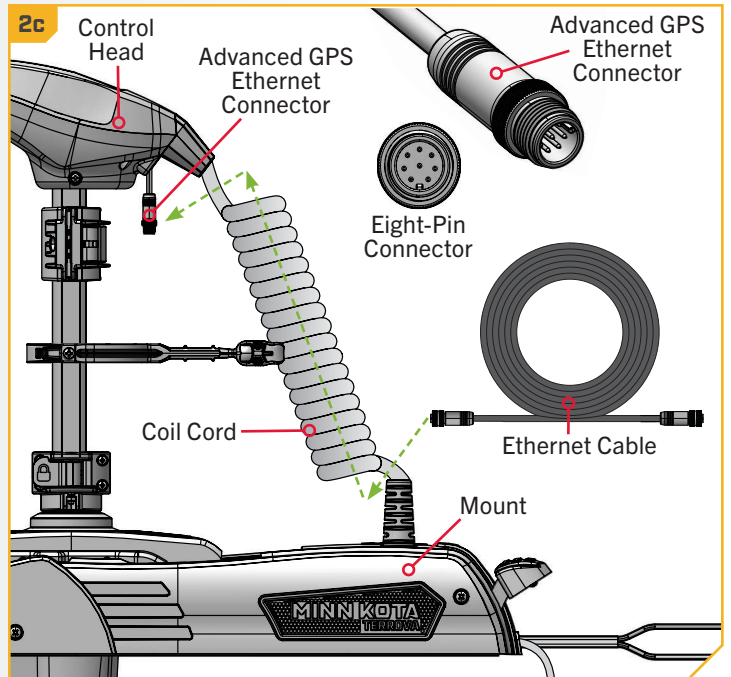


- c. Identify the keyed Receptacle on the Ethernet Cable (Item #15). It will be keyed to fit with the Eight-Pin Advanced GPS Ethernet Connector below the Control Head.

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

NOTICE: The 30' Ethernet Cable (AS EC 30E - 30' Ethernet Cable - 720073-4) is provided. If a different length is preferred, alternate cable lengths are available from humminbird.johnsonoutdoors.com.

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

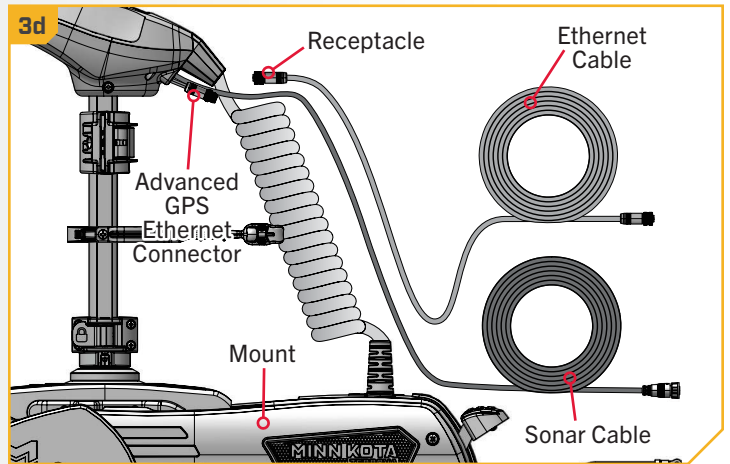


ADVANCED GPS NAVIGATION

3

- d. Take the Receptacle on the Ethernet Cable and run it parallel to the Sonar Cable, which should be unwound and hanging freely next to the Coil Cord. Allow enough slack in the cable to attach the Receptacle to the Advanced GPS Ethernet Connector.

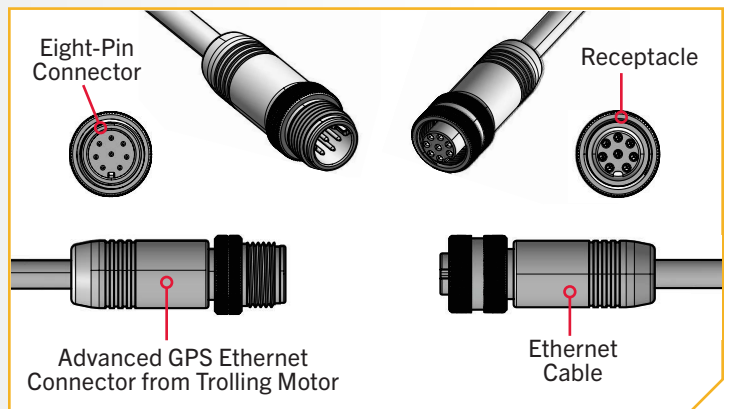
NOTICE: Once all accessory cables are connected, the final installation will require any cables present to be secured together and wound inside the Coil Cord. The final installation will vary based on motor features. See the “Securing Accessory Cables” section of this document for details once all connections are complete.



4

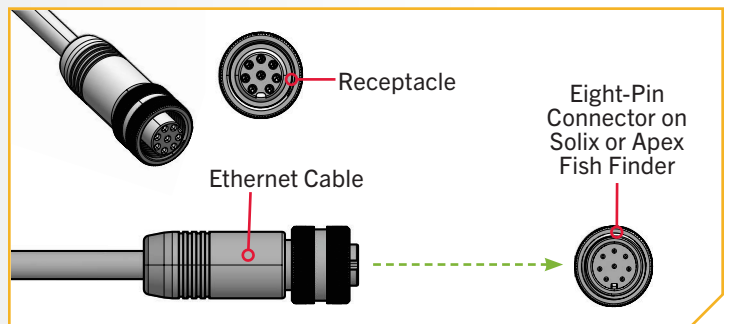
- e. **To install the Ethernet Cable**, align the pins on the Advanced GPS Ethernet Connector with the Receptacle on the Ethernet Cable. Notice the keyed connectors. Tighten the Collar from the Ethernet Cable to secure the connection.
- f. The Ethernet Cable will plug directly into a Solix or Helix Fish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

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.



5

- 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.



6

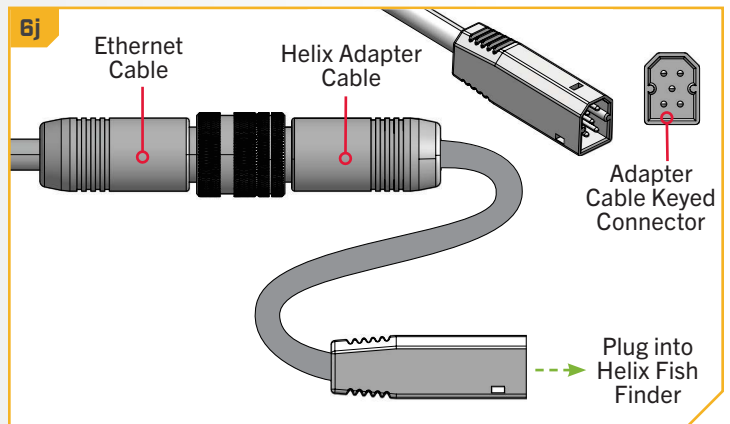
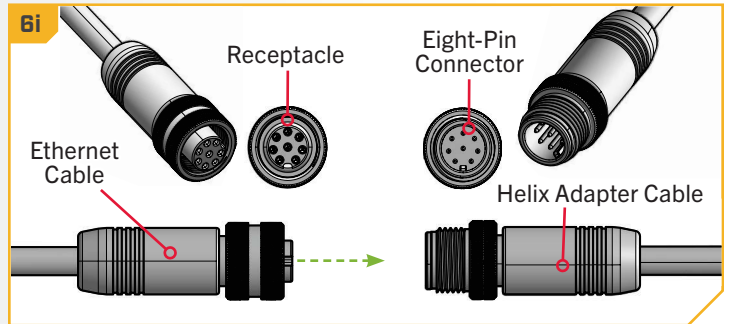
ITEM(S) NEEDED



- i. If installing directly to a Helix Adapter Cable (Item #16), 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.



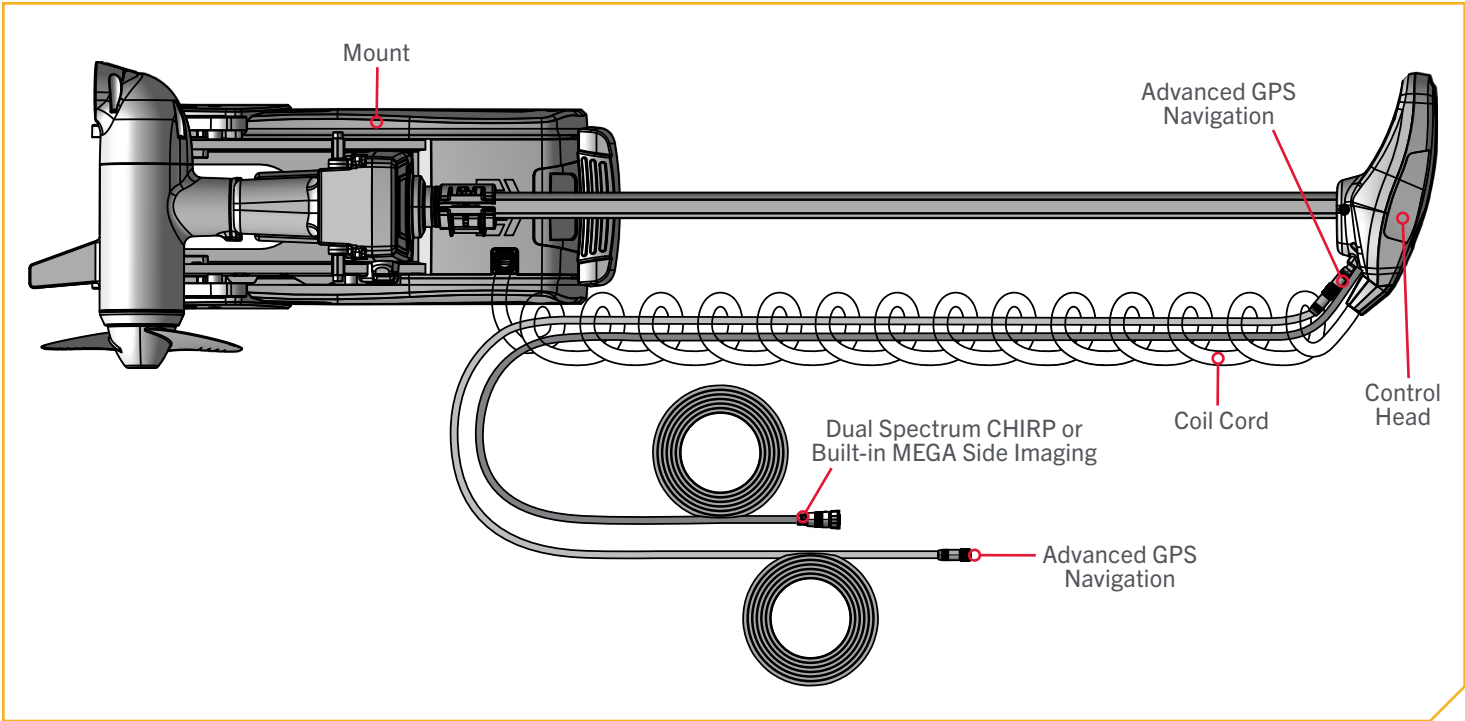
NOTICE: If unsure of what features your trolling motor may be installed with that require connection to an output device, please review the "Identifying Trolling Motor Features and Their Associated Cables" section of this manual.

SECURING ACCESSORY CABLES

Securing Accessory Cables

Before securing 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** connections are present below the Control Head. If only **one** cable is present below the Control Head, securing the Accessory Cables is not necessary. 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 feature cables should be routed and connected, review the "Advanced GPS Navigation" and "Dual Spectrum CHIRP" or "Built-in MEGA Side Imaging" sections of this document.

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



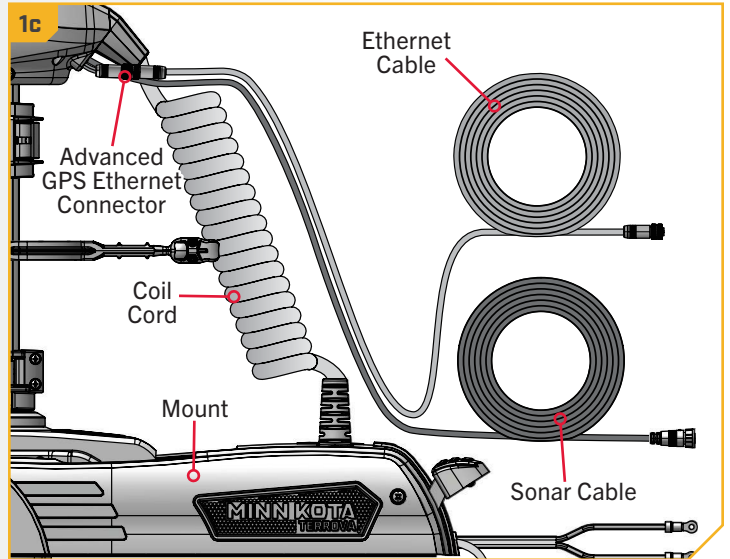
CAUTION

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 cable ties as it may damage the wires.

SECURING ACCESSORY CABLES

1

- a. With the trolling motor deployed, trim the lower unit to its highest setting.
- b. Confirm all Accessory Cables are connected to an output device as desired. With the motor in the deployed position, locate the Advanced GPS Ethernet Connector below the Control Head.
- c. Starting just below the Control Head, take both the Sonar and Ethernet accessory cables and make sure they are free from the Coil Cord and parallel to each other. Run them from the Control Head to the Mount, keeping them straight and parallel the entire length.



2

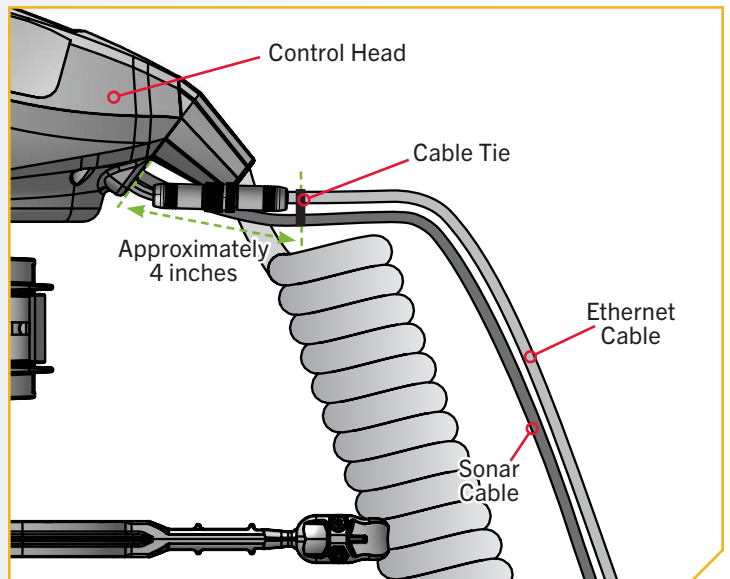
ITEM(S) NEEDED



- d. Starting approximately 4 inches below the Control Head, take a Cable Tie (Item #17) and place it around the Accessory Cables. The Cable Tie should be around the Ethernet Cable and Sonar Cable but not the Coil Cord.

NOTICE: Do NOT secure the Cables to the Coil Cord. ONLY secure the Cables to each other with the Cable Ties.

- e. Secure the Cable Tie around the Cables until it is fingertip tight. Do not over-tighten the Cable Tie as it may damage the Cables.



CAUTION

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

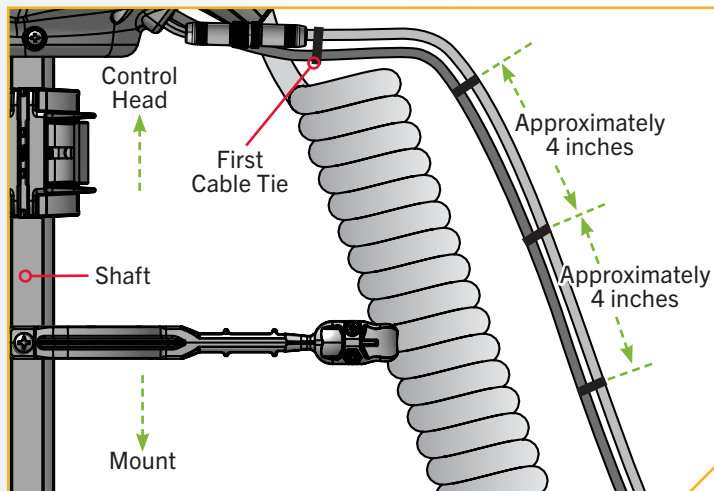
SECURING ACCESSORY CABLES

3

- f. Follow the Cables from the Control Head to the Mount and place additional Cable Ties every 4 inches around the Cables after the first Cable Tie. The number of Cable Ties needed will vary depending on motor Shaft lengths.

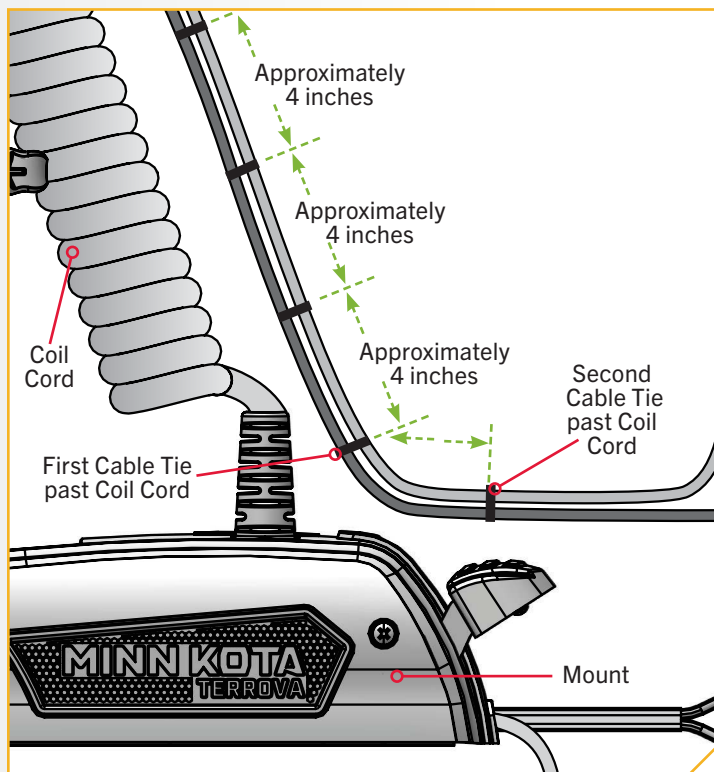
NOTICE: If additional Cable Ties are needed, a Service Assembly (#2996300 TIE WRAP ASM, 60") is available from the Parts Ordering Portal at minnkota.johnsonoutdoors.com.

NOTICE: Secure the Cable Ties fingertip tight. It is recommended to have them **ONLY** tight enough so that they do not slide around on the Accessory Cables and hold the Cables together.



4

- g. Continue placing Cable Ties around the Accessory Cables until there are two Cable Ties in place past the end of where the Coil Cord enters the Mount.

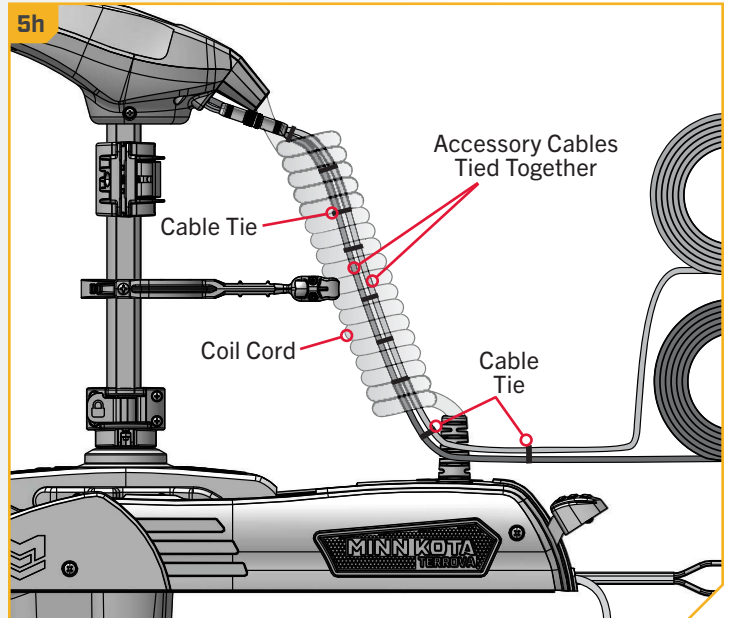


SECURING ACCESSORY CABLES

5

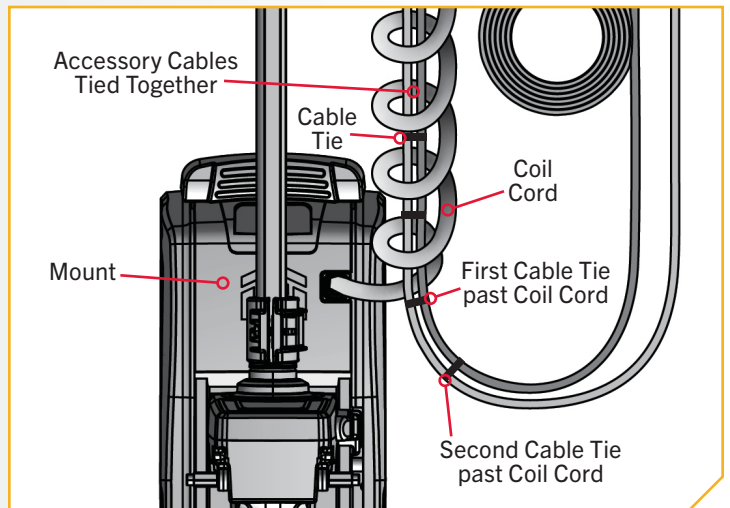
- h. With the Cable Ties in place, take the Accessory Cables that are tied together and wind them back into the Coil Cord. When successfully placed inside the Coil Cord, they should float freely on the inside of the Coil Cord. To successfully place the Accessory Cables inside the Coil Cord, it may be necessary to temporarily disconnect Accessory Cables that are attached to Extension or Adapter Cables or output devices such as a fish finder.

NOTICE: Minn Kota recommends routing the Accessory Cables through the Coil Cord. Bypassing the Coil Cord when routing Accessory Cables is not recommended.



6

- i. Place the Motor into the stowed position.
- j. Look at the placement of the Cable Ties and make sure that at least two Cable Ties are present on the Accessory Cables after they exit the Coil Cord. If additional Cable Ties are needed, it may be necessary to place the motor back into the deployed position to add additional Cable Ties at an increment of approximately 4" past the last Cable Tie.
- k. If no additional Cable Ties are needed, make sure to properly reconnect any Accessory Cables that may have been disconnected while winding the Accessory Cables into the Coil Cord.

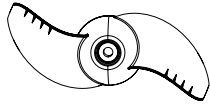


INSTALLING THE PROP

› Installing the Prop

1

ITEM(S) NEEDED



#10 x 1



#11 x 1



#12 x 1



#13 x 1

⚠ CAUTION

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

- Take the Drive Pin (Item #13) 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 #10) so it is 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 #11) and the Prop Nut (Item #12) onto the end of the Armature Shaft.
- While holding the Prop horizontal, tighten the Prop Nut with a 9/16" Deep Well Socket. Tighten the Prop Nut to 25-35 in-lbs.

⚠ CAUTION

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

