



TERROVA

BOW-MOUNT TROLLING MOTOR

Owner's Manual

INTRODUCTION

THANK YOU

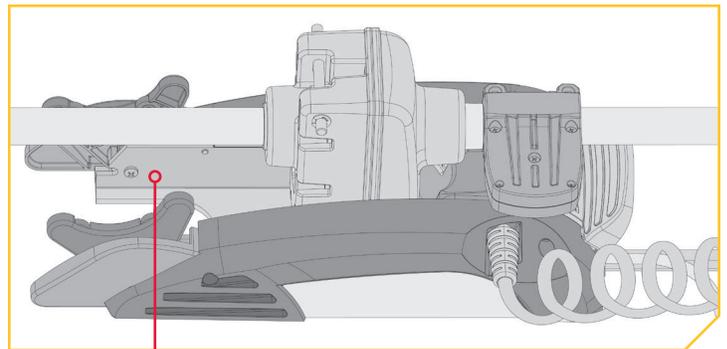
Thank you for choosing Minn Kota. We believe that you should spend more time fishing and less time positioning your boat. That's why we build the smartest, toughest, most intuitive trolling motors on the water. Every aspect of a Minn Kota trolling motor is thought out and rethought until it's good enough 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. A registration card is included with your motor or you can complete registration on our website at minnkotamotors.com.

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. We recommend that you write the serial number down so that you have it available for future reference.



NOTICE: The serial number on your Terrova is located inside the mount below the motor rests.

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 minnkotamotors.com. Please include proof of purchase, serial number and purchase date for warranty service with any of the above options.

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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 who lack the 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

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

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 & 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

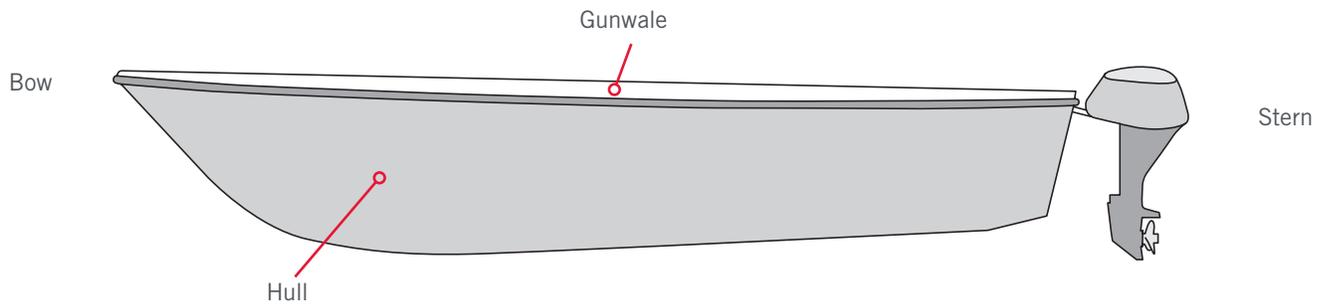
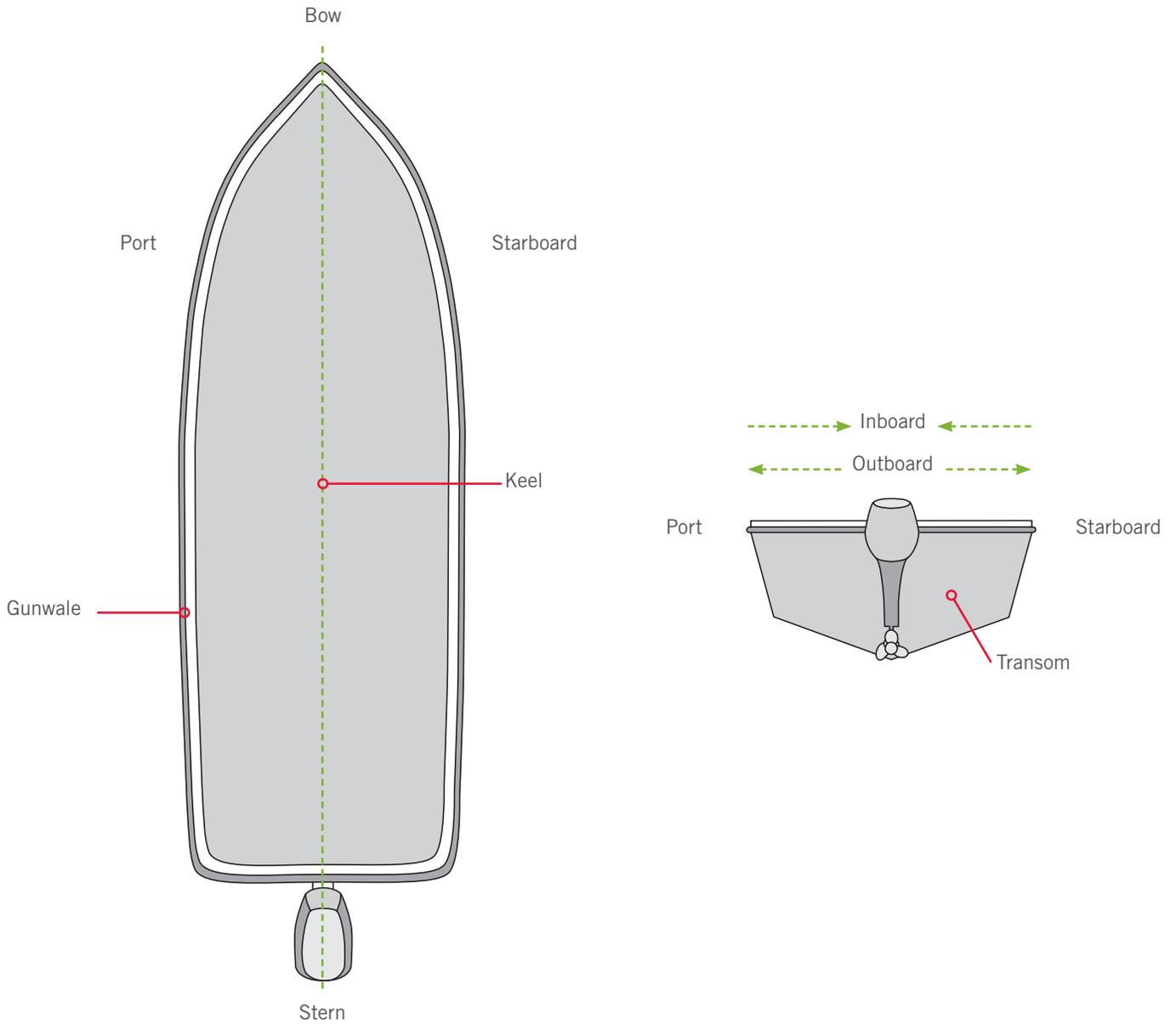
To obtain warranty service in the U.S., the product believed to be defective, and proof of original purchase (including the date of purchase), must be presented to a Minn Kota Authorized Service Center or to Minn Kota's factory service center in Mankato, MN. Any charges incurred for service calls, transportation or shipping/freight to/from the Minn Kota Authorized Service Center or factory, 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. Warranty service can be arranged by contacting a Minn Kota Authorized Service Center or by contacting the factory at 1-800-227-6433 or email service@minnkotamotors.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 posted labor rate and for a minimum of at least one hour.**

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

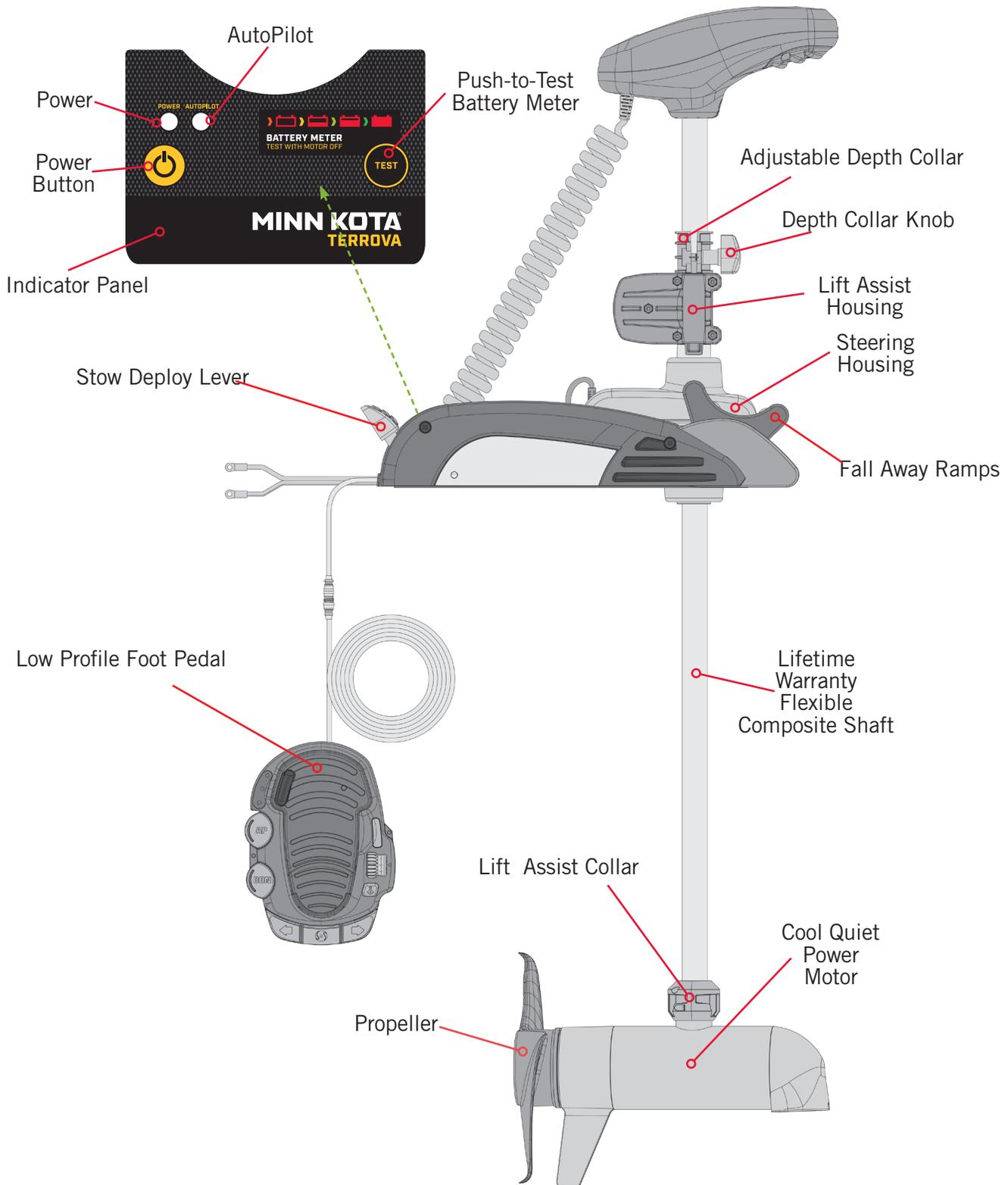
NOTICE: THERE ARE NO EXPRESS WARRANTIES OTHER THAN THESE LIMITED WARRANTIES. IN NO EVENT SHALL ANY IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, EXTEND BEYOND THE DURATION OF THE RELEVANT EXPRESS LIMITED WARRANTY. IN NO EVENT SHALL JOME BE LIABLE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

Your new Terrova comes with everything you'll need to directly 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 minnkotamotors.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 minnkotamotors.com.

INSTALLATION PARTS LIST

Item / Assembly	Part #	Description	Qty.
AA	2994864	BAG ASSEMBLY - (BOLT, NUT, WASHERS)	1
1	2263462	BOLT-MOUNTING-1/4X2 W/STG	6
2	2261713	WASHER-1/4	6
3	2263103	NUT NYLOK 1/4-20 MTG	6
4	2301720	WASHER-MOUNTING RUBBER	6
5	✘	MOTOR ASSEMBLY	1
6	2390800 ◆●	LANYARD, REMOTE W/ CARABEENER	1
7	2994075 ◆	REMOTE ASY, IPILOT	1
▲	2397106 ◆	MANUAL, QUICK REF., IPILOT 1.6	1
8	2994076 ●	REMOTE ASSEMBLY LINK TOUCHSCREEN	1
9	2373241 ●	CABLE, USB REMOTE CHARGER LINK	1
10	2375901 ●	ADAPTER, USB DC POWER LINK	1
11	2996400 ◆●	HEADING SENSOR ASSEMBLY	1
12	490389-1 ●	CABLE, ETH (M12-M-M12-F, 30'	1
13	2211415 +	CABLE-EXTENSION, PD/AP 110" *PRE-INSTALLED*	1
	490507-1 →	CABLE, ADP-INT MDI 14 M12-120" *PRE-INSTALLED*	1
14	2092600	PIN-DRIVE 1.06" LG (SS)	1
	2262658	PIN-DRIVE 1" X 3/16" S/S	1
15	2151726	WASHER-5/16 STD (S/S)	1
	2091701	WASHER-PROP (LARGE)	1
16	2053101	NUT-PROP,NYLOC (MED) 5/16 SS	1
	2093101	NUT-PROP,NYLOC,LG, 3/8 SS	1
17	2091160	PROP-WW2 (3-5/8") REAMED	1
	2341160	PROP-WW2 (4.5) W/ADP.RING	1
	2331160	PROP-WW2 (4") W/ADP.RING	1
BB	1378131	PROP IND 2091160 WDLS WDG II	1
CC	1378160	PROP KIT 2341160 112# WW2	1
DD	1378132	PROP IND 2331160 WDLS WDG II	1
EE	2994722	FT PED ASY, TRV, W/SPOT LCK	1
FF	2994859	BAG, ASY-TERROVA/V2, RUB BUMPERS	1
18	2325110	PAD, FOOT PEDAL	5
▲	2327132	INSTALLATION INSTRUCTIONS TERROVA	1
▲	2397107 ●	MANUAL, QUICK REF., IPILOT LINK 3.0	1

▲ Not shown on Parts Diagram.

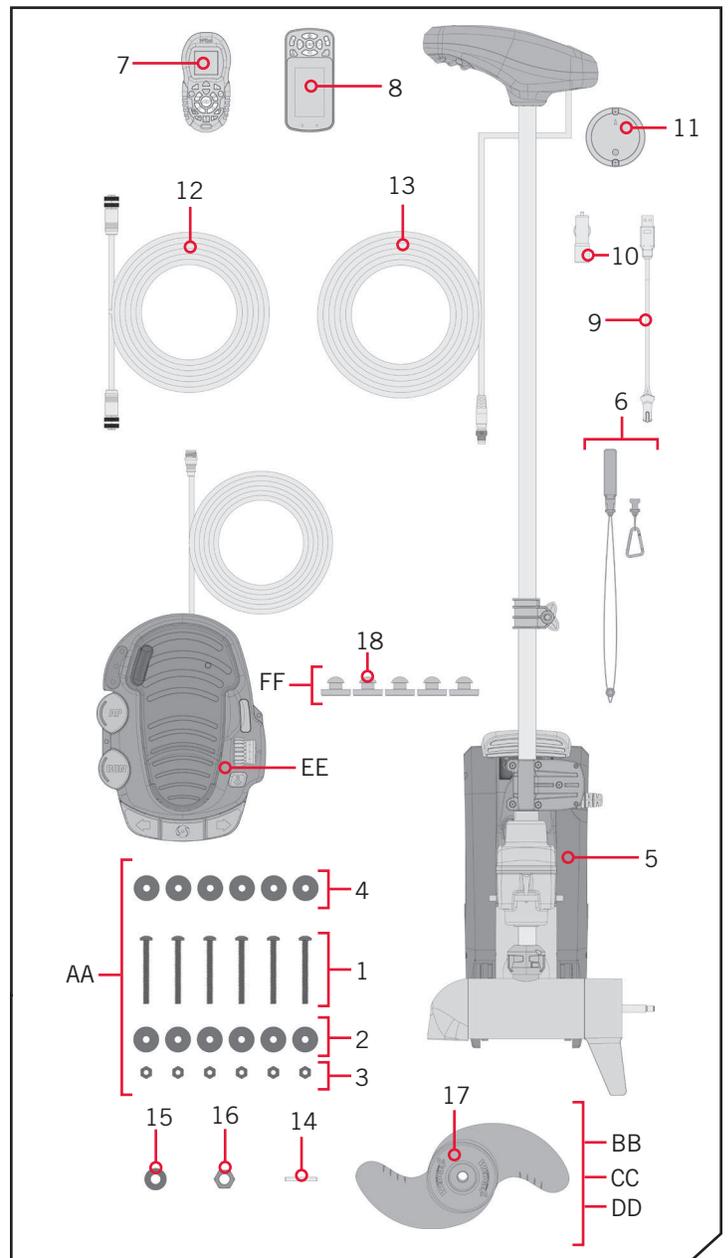
✘ This part is included in an assembly and cannot be ordered individually.

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

+ Only available with models factory installed with Universal Sonar.

→ Only available with models factory installed with Built-in MEGA Down Imaging.



INSTALLING THE TERROVA

MOUNTING CONSIDERATIONS

It is recommended that the motor be mounted as close to the 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 minnkotamotors.com.



View accessories available for your trolling motor at minnkotamotors.com.

TOOLS AND RESOURCES REQUIRED

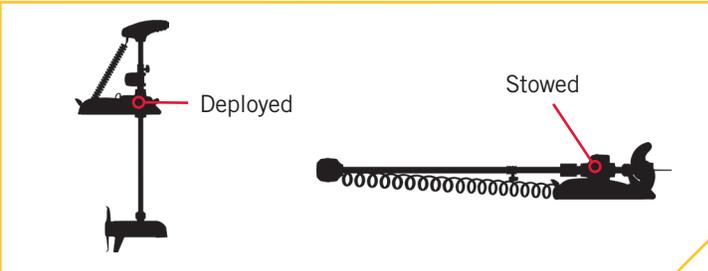
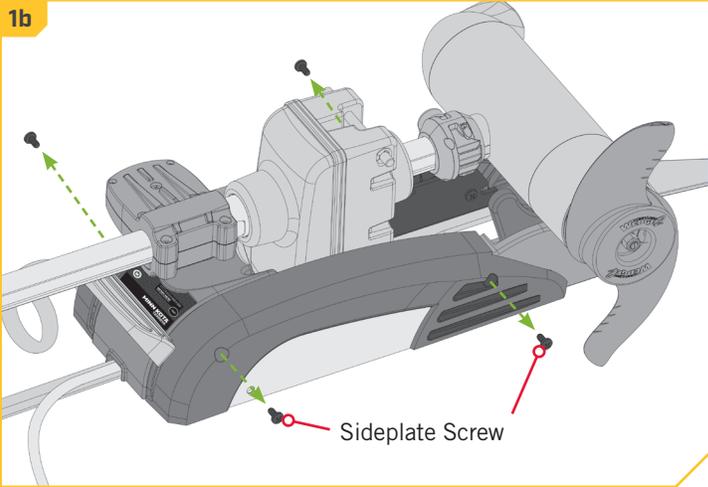
- #3 Phillips Screw Driver
- Drill
- 9/32" Drill Bit
- 7/16" Box End Wrench
- A second person to help with the installation

INSTALLATION

INSTALLING THE TERROVA

1. a. Place the mount 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.
b. Remove the four sideplate screws using a #3 Phillips screwdriver. Two of these screws will be located on each side of the mount.

NOTICE: This motor weighs approximately 65lbs. We recommend having a second person help with the installation.

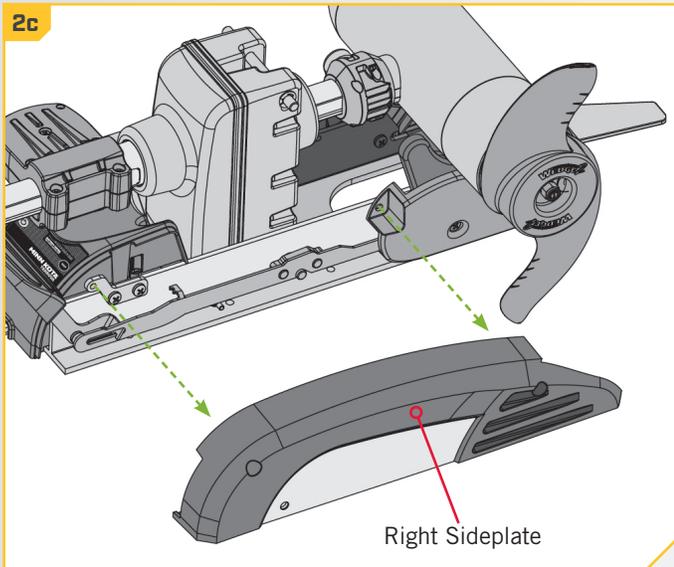


INSTALLING THE TERROVA

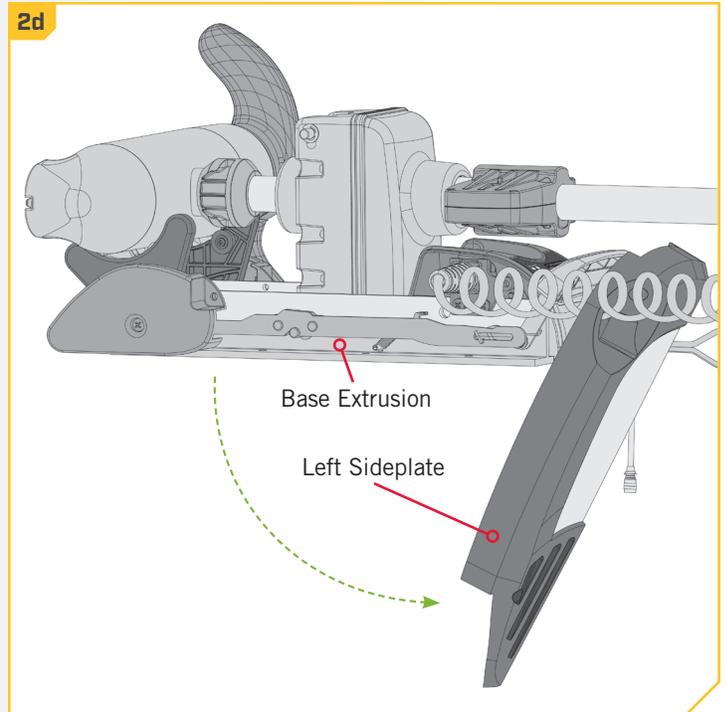
2

- c. Remove the Right Sideplate.
- d. Swing the Left Sideplate out and away from the Base Extrusion.

2c



2d

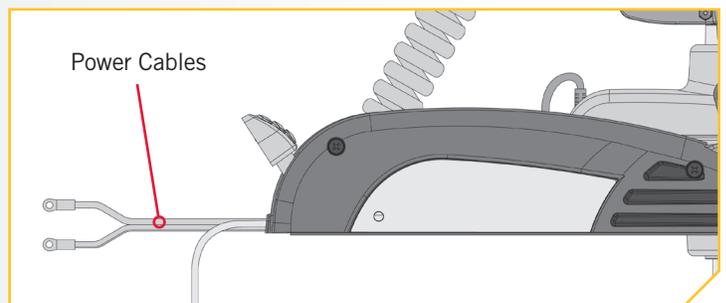


3

- e. Make sure that the Power Cables from the battery are disconnected, or that the breaker, if equipped, is "off".

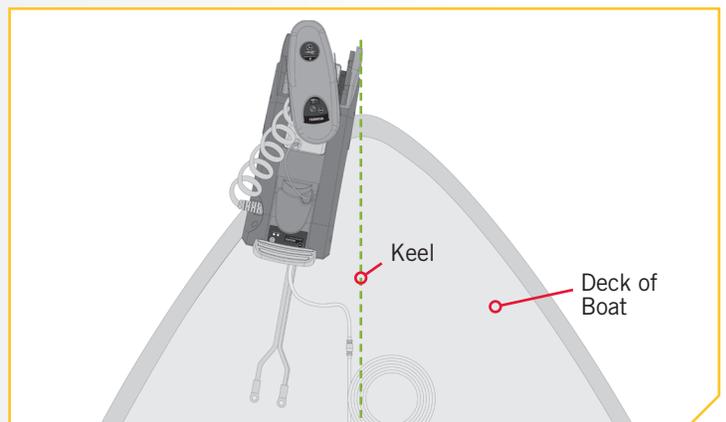
WARNING

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



4

- f. Place the mount as close to the centerline or keel of the boat as possible. The motor can be installed on either the Port or Starboard side of the boat based on personal preference. Check placement with the motor in the stowed and deployed positions. Review the mounting considerations at the beginning of the installation.

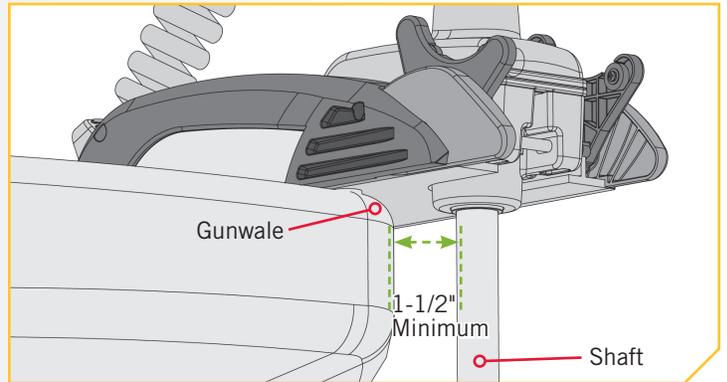


5

ITEM(S) NEEDED

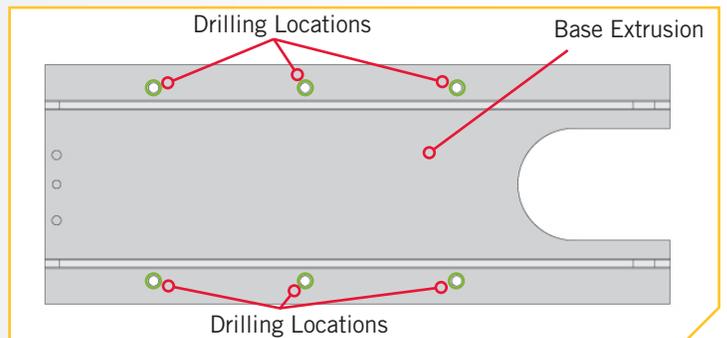
- #4 x 6

- g. When the motor is in the deployed position, make sure that the Shaft is 1-1/2" out past the Gunwale of the boat. The lower unit, when stowed and deployed must not encounter any obstructions.
- h. Check to be sure that the mount is level. Use the Rubber Washers (Item #4) provided to create a level surface if necessary.



6

- i. It is recommended to mark at least 4 of the 6 holes in the Base Extrusion and to have a minimum of two bolts on each side that are located the farthest apart. Ideal installation would allow for 6 bolts to be used, with a minimum of 4.
- j. Drill through the deck of the boat using a 9/32" Drill Bit on the marked locations.



INSTALLING THE TERROVA

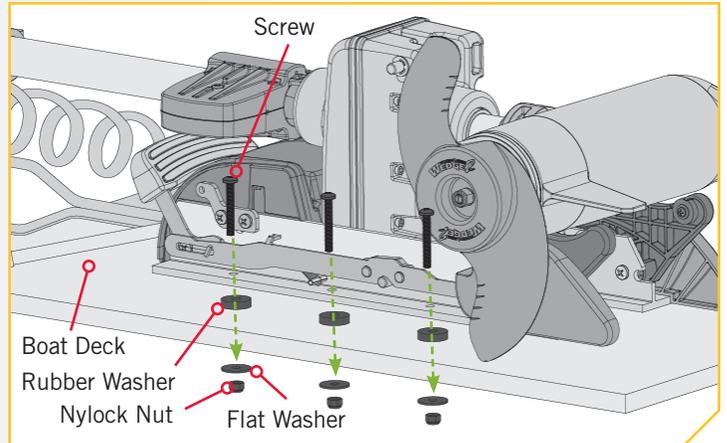
7

ITEM(S) NEEDED

- #2 x 6
- | #1 x 6
- #3 x 6
- #4 x 6

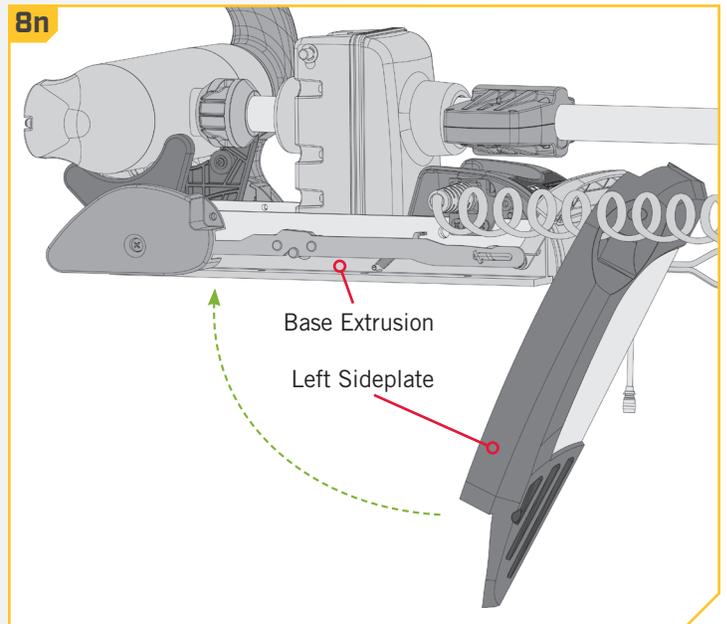
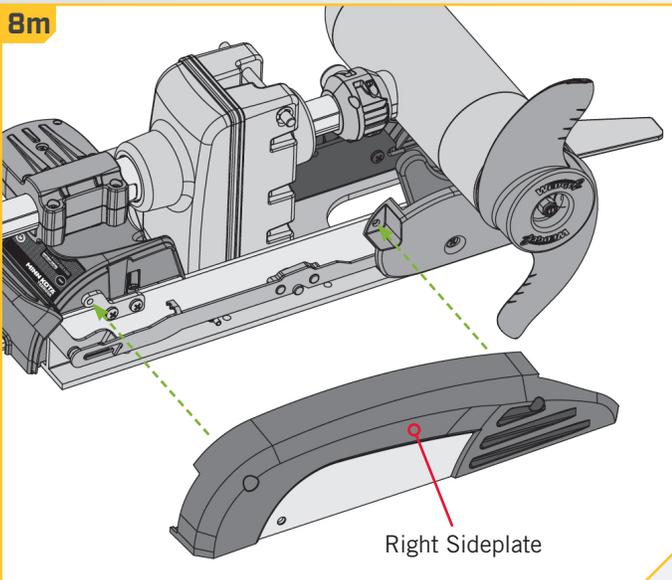
- k. Put a 1/4-20 x 2" (Item #1) screw in each of the drilled locations. The screw should pass through the Base Extrusion and the boat deck. If the rubber washers (Item #4) are used, they should sit between the Base Extrusion and boat deck. Make sure to secure the motor with screws on each side of the Base Extrusion.
- l. Place a Flat Washer (Item #2) and then a Nylock Nut (Item #3) at the end of each screw as shown and secure. 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.



8

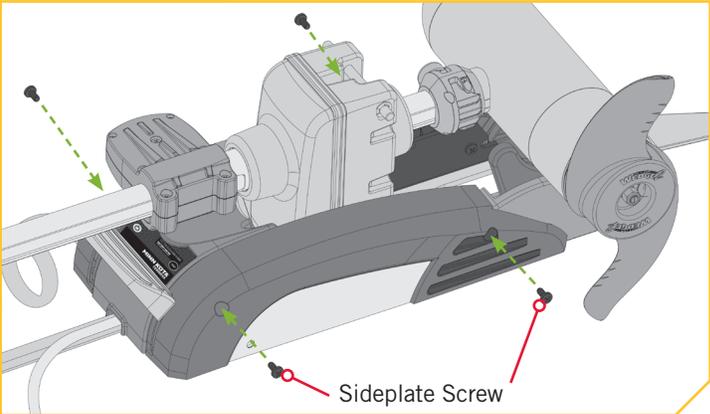
- m. Replace the Right Sideplate.
- n. Swing the Left Sideplate back into its correct position on the Base Extrusion.



INSTALLING THE TERROVA

9

- o. Replace the four sideplate screws using a #3 or #2 Phillips screwdriver. Two of these screws will be located on each side of the mount.



10

ITEM(S) NEEDED

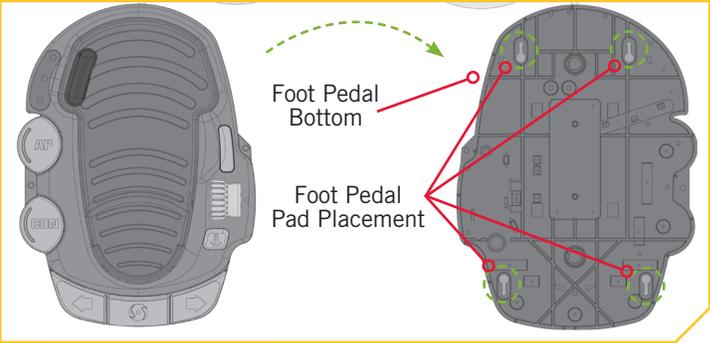
 #18 x 5



#EE x 1

- p. Take the Foot Pedal (Item #EE) and turn it over. Put a Foot Pedal Pad (Item #18) in each of the pad locations.

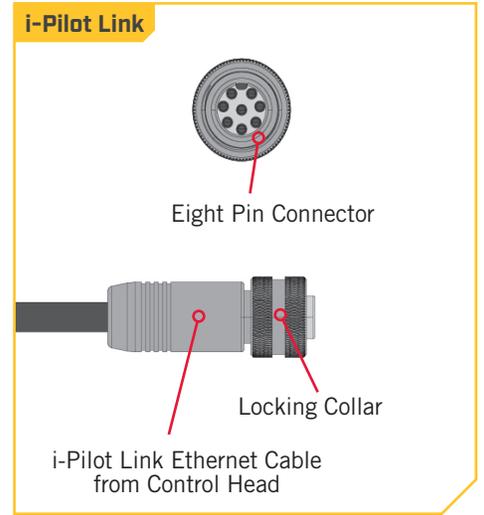
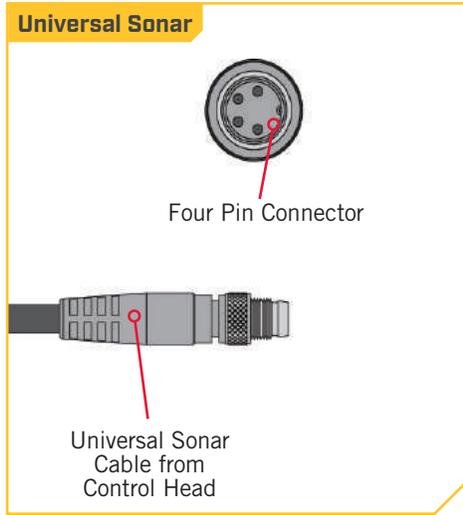
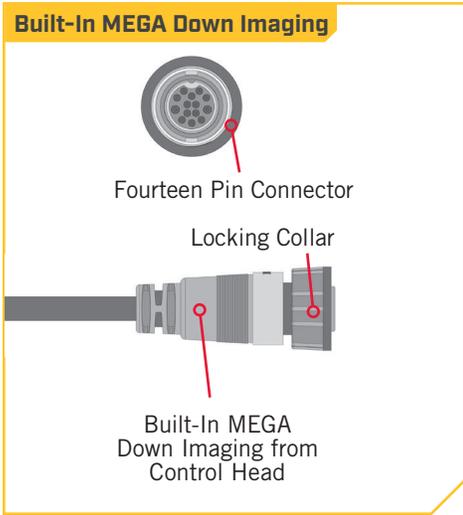
NOTICE: The pads are recommended when using the Foot Pedal on non-carpeted surfaces.



ROUTING UNIVERSAL SONAR & i-PILOT LINK CABLES

IDENTIFYING TROLLING MOTOR FEATURES BY THEIR ASSOCIATED CABLES

Your trolling motor may be pre-installed with Built-In MEGA Down Imaging OR Universal Sonar, and may include i-Pilot Link. All of these features require cables to be connected to an output device. These connections are present on the trolling motor and have cables that exit below the Control Head. To better identify cables present, refer to the diagrams below that detail what the Built-In MEGA Down Imaging, Universal Sonar and i-Pilot Link cable connectors look like.



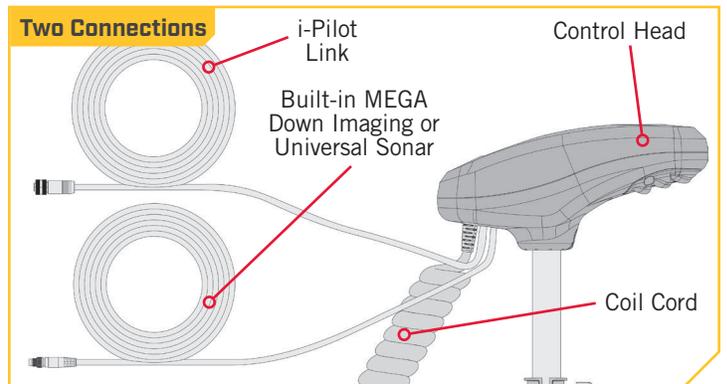
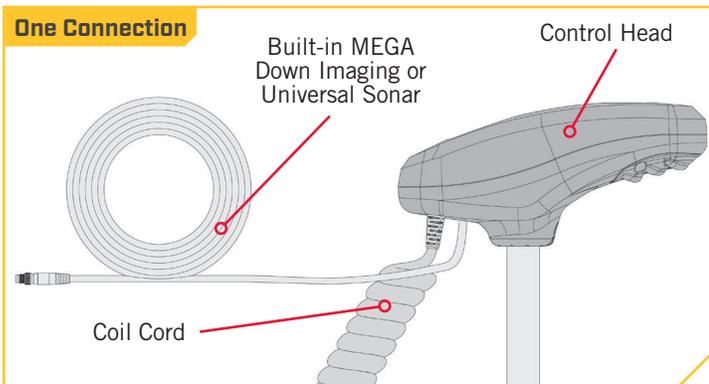
If **one** connection below the Control Head is present, the motor may be equipped with:

1. i-Pilot and Universal Sonar,
2. i-Pilot and Built-in MEGA Down Imaging,
3. ONLY Universal Sonar, or
4. ONLY Built-in MEGA Down Imaging.

NOTICE: The i-Pilot system does not have an external wired connection.

If **two** connections below the Control Head are present, the motor may be equipped with either:

1. i-Pilot Link and Universal Sonar or
2. i-Pilot Link and Built-in MEGA Down Imaging



ROUTING CONNECTION CABLES

Please follow these instructions for routing any and all of the cables present for any of the pre-installed features that may come with your trolling motor. This routing should be followed whether there are one or two connection cables present. If you are unsure of the cables present, please review the “Identifying Trolling Motor Features By Their Associated Cables” section of these Installation Instructions.

ROUTING UNIVERSAL SONAR & i-PILOT LINK CABLES

1

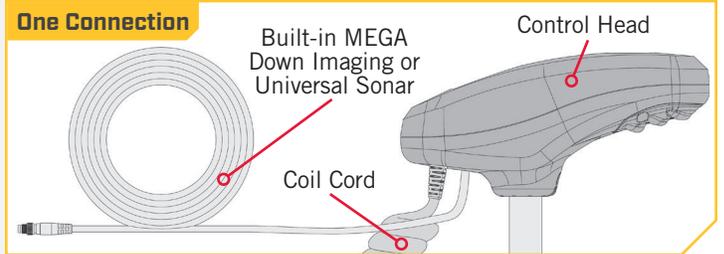
- a. Place the motor in the deployed position.
- b. Locate the Built-in MEGA Down Imaging, i-Pilot Link and/or Universal Sonar cable(s), at the base of the Control Head.

CAUTION

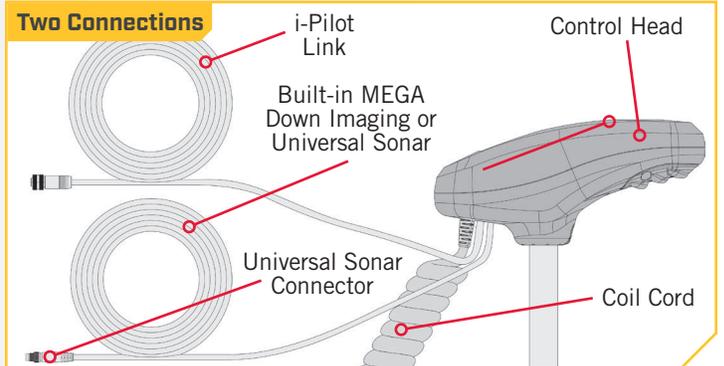
Not following the recommended wire routing for the Built-in MEGA Down Imaging, i-Pilot Link and/or Universal Sonar cable(s), if equipped, may cause damage to the product and void your product warranty. Route cables away from pinch points or other areas that may cause them to bend in sharp angles. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed.

NOTICE: Universal Sonar connector shown for illustration purposes.

One Connection



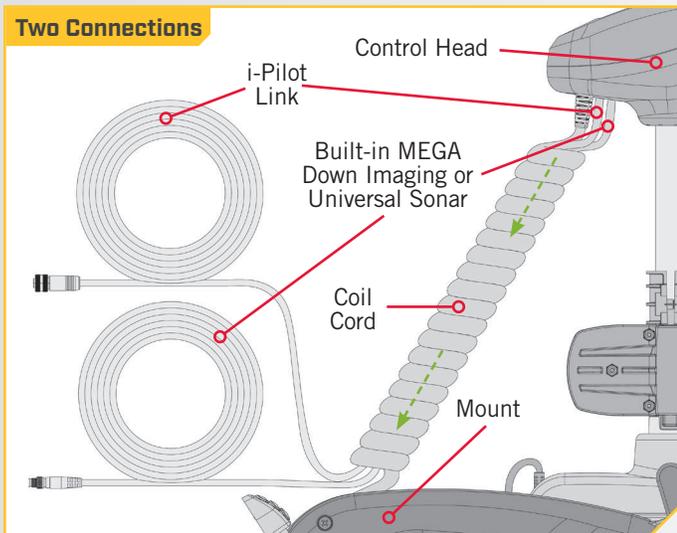
Two Connections



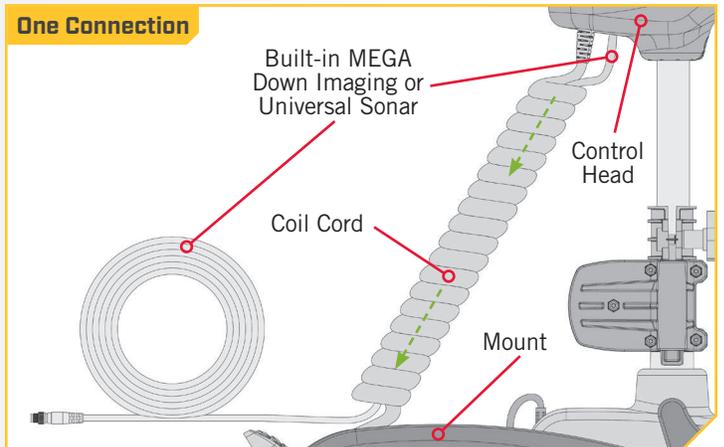
2

- c. The cable(s) should be fed all the way through the Coil Cord. It/they should exit the Coil Cord at the bottom of the Coil Cord, where it connects to the Mount.

Two Connections



One Connection



NOTICE: After the cable(s) exit(s) the Coil Cord, it/they should be routed through an established routing system on the boat, in an area with minimal interference. Power cables or other elements that may produce interference for the sonar signals. Inspect the selected route carefully to ensure that there are no sharp edges, obstacles, or obstructions that may damage the cables.

CONNECTING A UNIVERSAL SONAR EXTENSION CABLE

FEATURE OVERVIEW AND CONNECTING THE CABLES

The cable(s) from the Control Head for each feature installed on the trolling motor is connected to an output device separately. Once the features that may be installed are identified, follow the instructions below to ensure the cables are connected correctly.

› Built-In MEGA Down Imaging

Built-In MEGA Down Imaging delivers nearly 3X the output of standard Side Imaging®, and takes fishfinding into the megahertz frequency for the very first time. The Minn Kota flagship families of trolling motors, including Ultrex, Ulterra, Terrova, and Fortrex, now include Built-In MEGA Down Imaging sonar, the clearest imaging available only from Humminbird. With Humminbird MEGA imaging sonar built right into the trolling motor, you now have a crystal clear view of what's directly beneath the boat, without having to manage all of the cables that come with external transducers. 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.

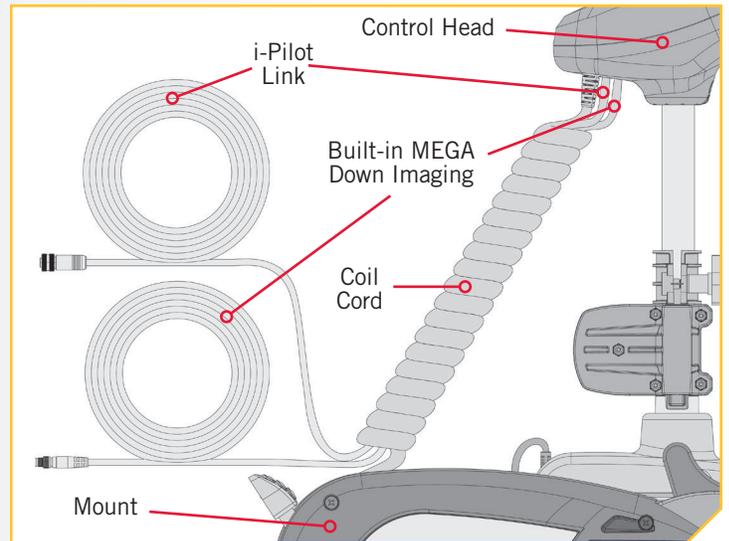
The Built-in MEGA DI transducer will provide both MEGA Down Imaging and 2D CHIRP Digital Sonar to select Humminbird models. All Built-In MEGA DI trolling motors, will come "Solix Ready" out of the box. An adapter cable accessory (MKR-MDI-1 1852085 or MKR-MDI-2 1852086) is available for purchase that will allow the connection of any compatible Humminbird Helix fish finder. The MKR-MDI-1 is used on Helix 8, 9, 10 and 12 models. The MKR-MDI-2 is used for Humminbird Helix 7 models only. See the [Built-In MEGA Down Imaging Compatibility](#) chart online.

NOTICE: You can only view MEGA Down Imaging with a MEGA DI or MEGA SI HELIX G2N or G3N Series model and a required adapter, or with any SOLIX Series model. The built-in transducer cannot supply MEGA Down Imaging to Humminbird models that do not already have the capability. If you have a G2/G2N or a G3/G3N HELIX that is not a MEGA SI or MEGA DI model, you will still get 2D CHIRP Digital Sonar from the transducer. Built-In MEGA DI is not supported by HELIX G1 models or other brands of fish finders.

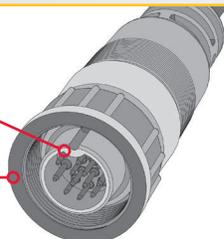
1

- a. Place the motor in the deployed position.
- b. The Built-In MEGA Down Imaging connector from the Control Head is a 14 pin connector. Built-In MEGA Down Imaging may be installed on its own, or in conjunction with an i-Pilot or i-Pilot Link system. It will never be installed with Universal Sonar. Locate and identify the correct connection for Built-in MEGA Down Imaging cable(s), at the base of the Control Head.

NOTICE: Built-in MEGA Down Imaging is always paired with either i-Pilot or i-Pilot Link on Terrova, Ulterra and Ultrex motors. It may be pre-installed on a Fortrex motor without other features that require external connections.



Fourteen Pin Connector
Built-in MEGA Down Imaging cable from Control Head



NOTICE: Critical cable routing for 60" and 72" motors with i-Pilot Link and Built-in MEGA Down Imaging. Accessory Cables must exit the Coil Cord leaving three or more open coils between where the cables exit and the motor base; as assembled by the factory. Routing the cables in any other manner will not allow the motor to stow properly.

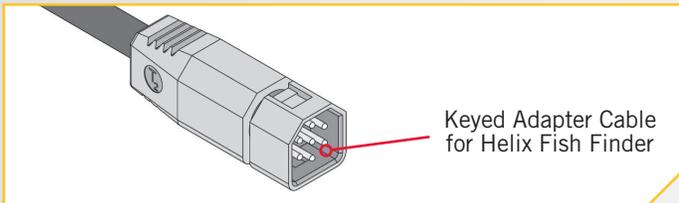
CONNECTING A UNIVERSAL SONAR EXTENSION CABLE

2

- c. **When installing with a Solix**, the Built-In MEGA Down Imaging cable can be plugged directly into the Solix fish finder. Plug the Built-in MEGA Down Imaging cable into the corresponding connection on the Solix fish finder.
- d. **When installing with a Helix**, first attach the Adapter Cable and then plug the Adapter Cable into the Helix fish finder. The Adapter Cable will only have one connection that is keyed on the back of the Helix fish finder. Plug the Adapter Cable into the only matching keyed connection.

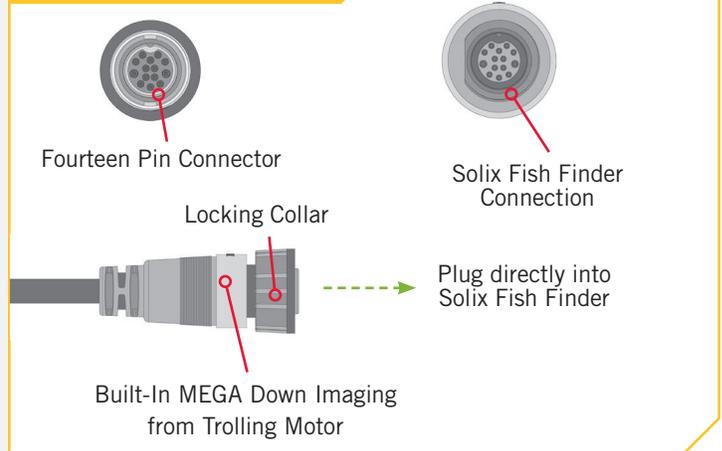
NOTICE: Check for compatibility or any required adapter cables online at minnkotamotors.com. The cable from the trolling motor can be extended with a [10' Extension Cable #720081-1](#) or the [30' Extension Cable #720081-2](#) found at humminbird.com.

NOTICE: If any cables need to be routed, please follow the guidelines in the Routing Connection Cables section of these installation instructions.

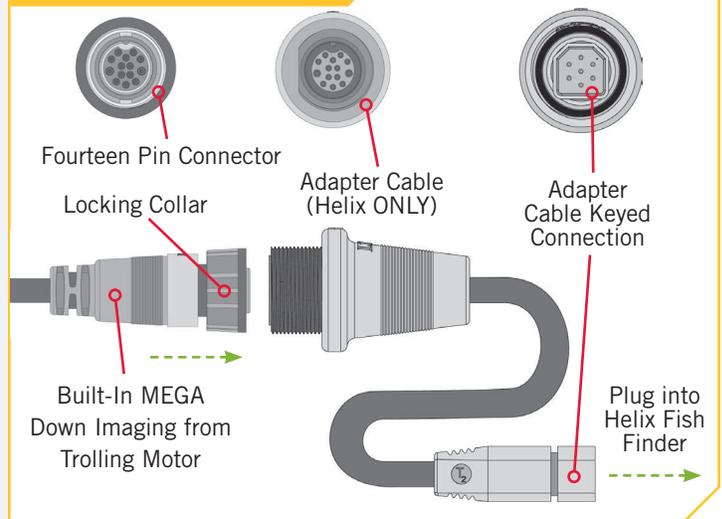


NOTICE: The connectors are keyed to prevent reversed installation.

Humminbird Solix Fish Finder



Humminbird Helix Fish Finder



› Universal Sonar

Your trolling motor may be pre-installed with a Universal Sonar transducer system. Universal Sonar is a 2D sonar transducer with a temperature sensor that is integrated into the lower unit of the trolling motor. It has an operating frequency of 83/200 kHz. Connecting this transducer to a compatible fish finder gives you a 2D sonar view of what is happening directly below your trolling motor. The integrated design protects the transducer from underwater hazards, and prevents tangles and damage to the transducer cables.

All Universal Sonar 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.

CONNECTING A UNIVERSAL SONAR EXTENSION CABLE

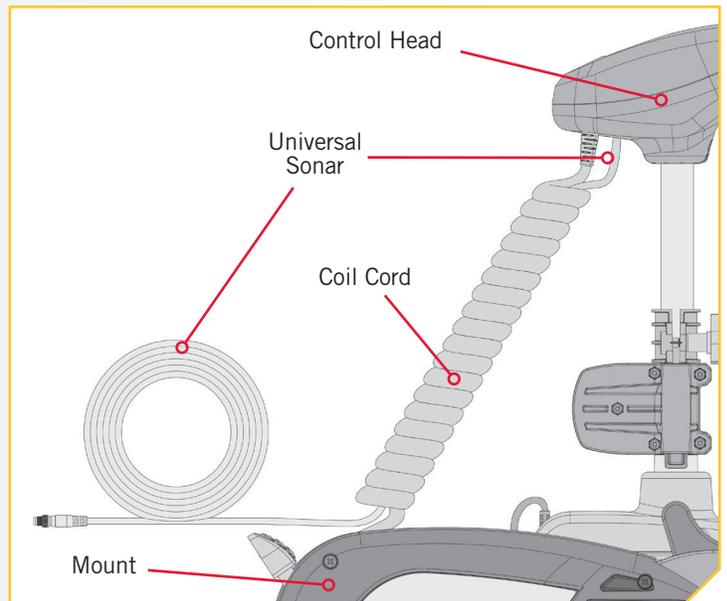
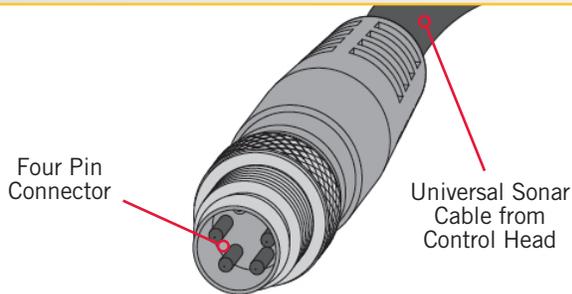
The Universal Sonar Cables are shielded to minimize interference. To protect this shielding the cables should not be pulled tight against sharp angles or hard objects. If using cable ties, do not over-tighten. Any excess cable should be bundled in a loose loop of no less than 4" in diameter. In certain situations, air bubbles may adhere to the surface of the Universal Sonar transducer, and effect the performance. If this happens simply wipe the surface of the transducer with your finger.

NOTICE: Universal Sonar does not support imaging screens that require higher frequencies such as 455 kHz or 800 kHz (Down Imaging, Side Imaging, etc.). Down Imaging (DI) specific units are not compatible with Universal Sonar. See compatibility chart for a list of compatible fish finders at minnkotamotors.com.

The connector for Universal Sonar exits the trolling motor below the Control Head and consists of a 4 pin plug. An adapter cable (MKR-US2) that is sold separately is required for all installations. For a current list of compatible fish finders and the correct adapter cable, or more information on Universal Sonar, please visit minnkotamotors.com.

- 1
 - a. Place the motor in the deployed position.
 - b. Locate the Universal Sonar, if equipped, at the base of the Mount.
 - c. Locate the Universal Sonar four pin connector at the end of Universal Sonar Extension Cable. The connector is black with a stainless steel threaded locking collar.

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



NOTICE: If the cable length does not reach the desired fish finder installation location, a 14.5' extension cable is available (MKR-US2-11) (sold separately).

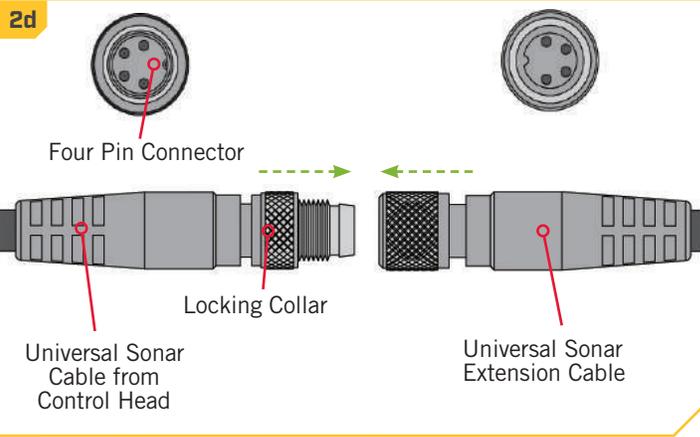
CONNECTING A UNIVERSAL SONAR EXTENSION CABLE

2

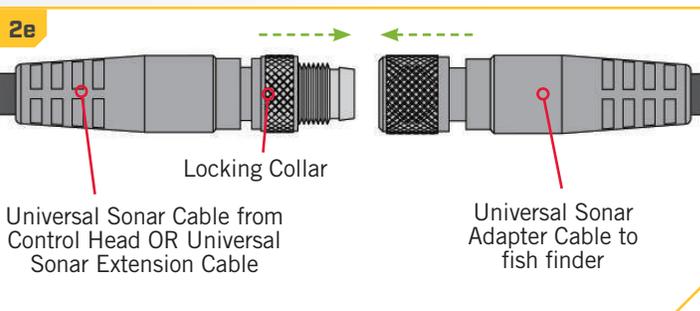
NOTICE: The Universal Sonar Cable may not be long enough to reach the fish finder. If the cable length does not reach the desired fish finder installation location, a 14.5' extension cable is available to purchase. Minn Kota recommends using the MKR-US2-11.

- d. Take the Universal Sonar Extension Cable, if needed, and attach it to the Universal Sonar Cable exiting the Control Head. Firmly push the plug together and twist the locking collar until it is snug.
- e. Install the Universal Sonar Cable that exits the Control Head or the Universal Sonar Extension Cable (if used) to the appropriate Universal Sonar Adapter Cable. Install the Adapter Cable to your fish finder. Refer to your fish finder manual for complete installation instructions.

NOTICE: If any cables need to be routed, please follow the guidelines in the Routing Connection Cables section of these installation instructions.



NOTICE: The connectors are keyed to prevent reversed installation.



> i-Pilot Link

i-Pilot Link allows your Minn Kota trolling motor and Humminbird to communicate with each other to change the way you fish. i-Pilot Link delivers a large array of GPS capabilities 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 i-Pilot Link navigation system, please refer to the Owner's Manual by visiting minnkotamotors.com.

The i-Pilot Link remote and controller make up the i-Pilot Link navigation system. The i-Pilot Link remote comes paired to the controller from the factory. The i-Pilot Link controller contains a very sensitive compass and is where all GPS satellite and i-Pilot Link remote signals are received. The i-Pilot Link controller is contained in the trolling motor Control Head and is connected to a fish finder from a connection cable that exits the Control Head.

The Ethernet cable for the i-Pilot Link system has an 8 pin connector. The i-Pilot Link system can be connected directly to the Humminbird or to the Humminbird Ethernet Switch (optional). If you purchase an Ethernet Switch, install it using the instructions included in the Ethernet Installation Guide. The Ethernet Extension Cable is optional for your installation. To purchase Ethernet switches, Ethernet cables, and extension cables, visit the web site humminbird.com or call Humminbird Customer Service at 1-800-633-1468. Depending on the shape of the Ethernet port on your Humminbird fish finder, an additional ethernet adapter cable (**Ethernet Adaptor Cable AS EC QDE #720074-1 for Helix fish finders**) may be required for the installation. Refer to your fish finder operations manual or see the **i-Pilot Link Compatibility Chart** on our web site with a list of all compatible Humminbird Units and SC Cards.

NOTICE: The i-Pilot Link system needs an external wired connection. The i-Pilot system does not need an external wired connection.

CONNECTING A UNIVERSAL SONAR EXTENSION CABLE

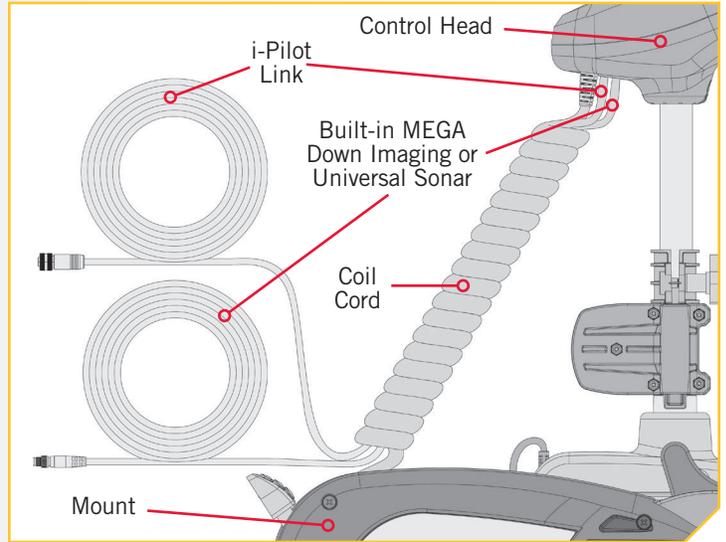
1

- a. Place the motor in the deployed position.
- b. The i-Pilot Link connector from the Control Head is an 8 pin connector. Locate and identify the correct connection for i-Pilot Link, at the base of the Control Head.

NOTICE: i-Pilot Link will be paired with either Built-in MEGA Down Imaging or Universal Sonar on Ultrex, Ulterra or Terrova. i-Pilot Link is not a feature offered on Fortrex motors.

NOTICE: Paired with a Universal Sonar connector for illustration purposes. A Built-in MEGA Down Imaging connector may be present instead.

NOTICE: Critical cable routing for 60" and 72" motors with i-Pilot Link and Built-in MEGA Down Imaging. Accessory Cables must exit the Coil Cord leaving three or more open coils between where the cables exit and the motor base; as assembled by the factory. Routing the cables in any other manner will not allow the motor to stow properly.



2

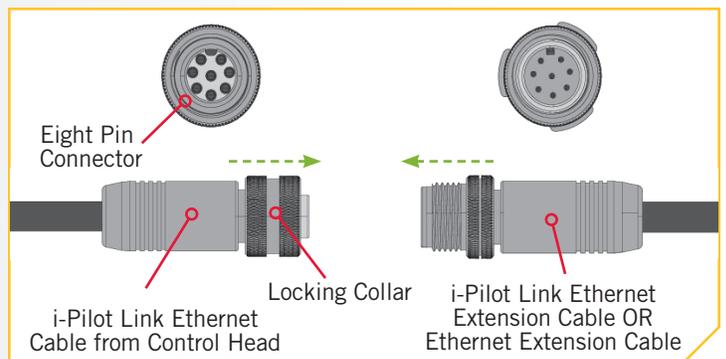
ITEM(S) NEEDED



- c. If necessary, to reach the installed fish finder, take the i-Pilot Link Ethernet Cable (Item #12) and attach it to the i-Pilot Link cable exiting the Control Head.

NOTICE: If any cables need to be routed, please follow the guidelines in the Routing Connection Cables section of these installation instructions.

- d. Install the i-Pilot Link Ethernet Cable directly into the Humminbird fish finder, or refer to your fish finder installation manual for complete installation instructions. If an Adapter Cable is needed (Ethernet Adaptor Cable AS EC QDE for Helix fish finders), install it on the end of the i-Pilot Link Ethernet Cable and refer to your fish finder installation manual for complete installation instructions.



NOTICE: The connectors are keyed to prevent reversed installation.

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 5% voltage drop allowed at full motor power based on published product power requirements.

Motor Thrust / Model	Max Amp Draw	Circuit Breaker	Wire Extension Length				
			5 feet	10 feet	15 feet	20 feet	25 feet
30 lb.	30	50 Amp @ 12 VDC	10 AWG	10 AWG	8 AWG	6 AWG	4 AWG
40 lb., 45 lb.	42		10 AWG	8 AWG	6 AWG	4 AWG	4 AWG
50 lb., 55 lb.	50	60 Amp @ 12 VDC	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG
70 lb.	42	50 Amp @ 24 VDC	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG
80 lb.	56	60 Amp @ 24 VDC	8 AWG	8 AWG	8 AWG	6 AWG	6 AWG
101 lb.	46	50 Amp @ 36 VDC	8 AWG	8 AWG	8 AWG	8 AWG	8 AWG
Engine Mount 101	50	60 Amp @ 36 VDC	8 AWG	8 AWG	8 AWG	8 AWG	8 AWG
112 lb.	52	60 Amp @ 36 VDC	8 AWG	8 AWG	8 AWG	8 AWG	8 AWG
Engine Mount 160	116	(2) x 60 Amp @ 24 VDC	6 AWG	6 AWG	4 AWG	2 AWG	2 AWG
E-Drive	40	50 Amp @ 48 VDC	10 AWG	10 AWG	10 AWG	10 AWG	10 AWG

NOTICE: Wire Extension Length refers to the distance from the batteries to the trolling motor leads. Consult website for available thrust options. Maximum Amp Draw values only occur intermittently during select conditions and should not be used as continuous amp load ratings.

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

The motor will operate with any lead acid, deep cycle marine 12 volt battery/batteries. For best results, use a deep cycle, marine battery with at least a 105 amp-hour rating. Maintain battery at full charge. Proper care will ensure having battery power when you need it, and will significantly improve the 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. We offer a wide selection of chargers to fit your charging needs. If you are using a crank battery to start a gasoline outboard, we recommend that you use a separate deep cycle marine battery/batteries for your Minn Kota trolling motor. For more information on battery selection and rigging, please visit minnkotamotors.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-19 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 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.

› 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.

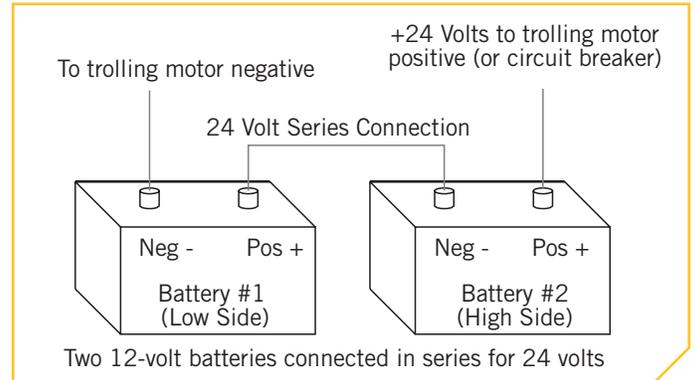
CONNECTING THE BATTERIES IN SERIES

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

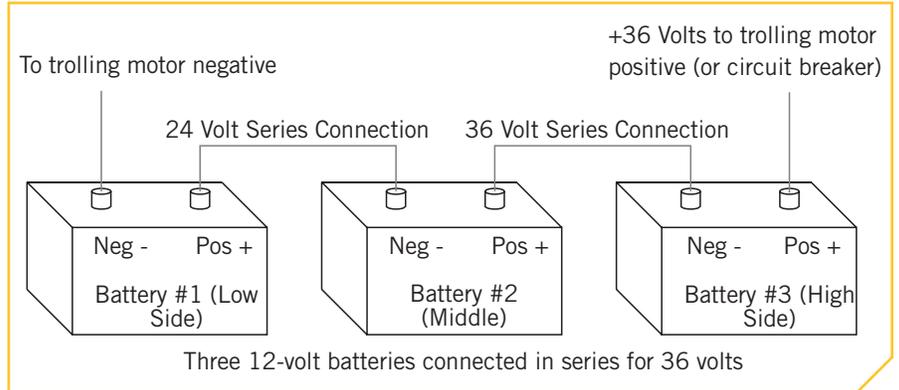
- For safety reasons, disconnect the motor from the battery or batteries when the motor is not in use or while the battery/batteries are being charged.
- Improper wiring of 24/36 volt systems could cause battery explosion.
- Keep leadwire wing nut connections tight and solid to battery terminals.
- Locate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

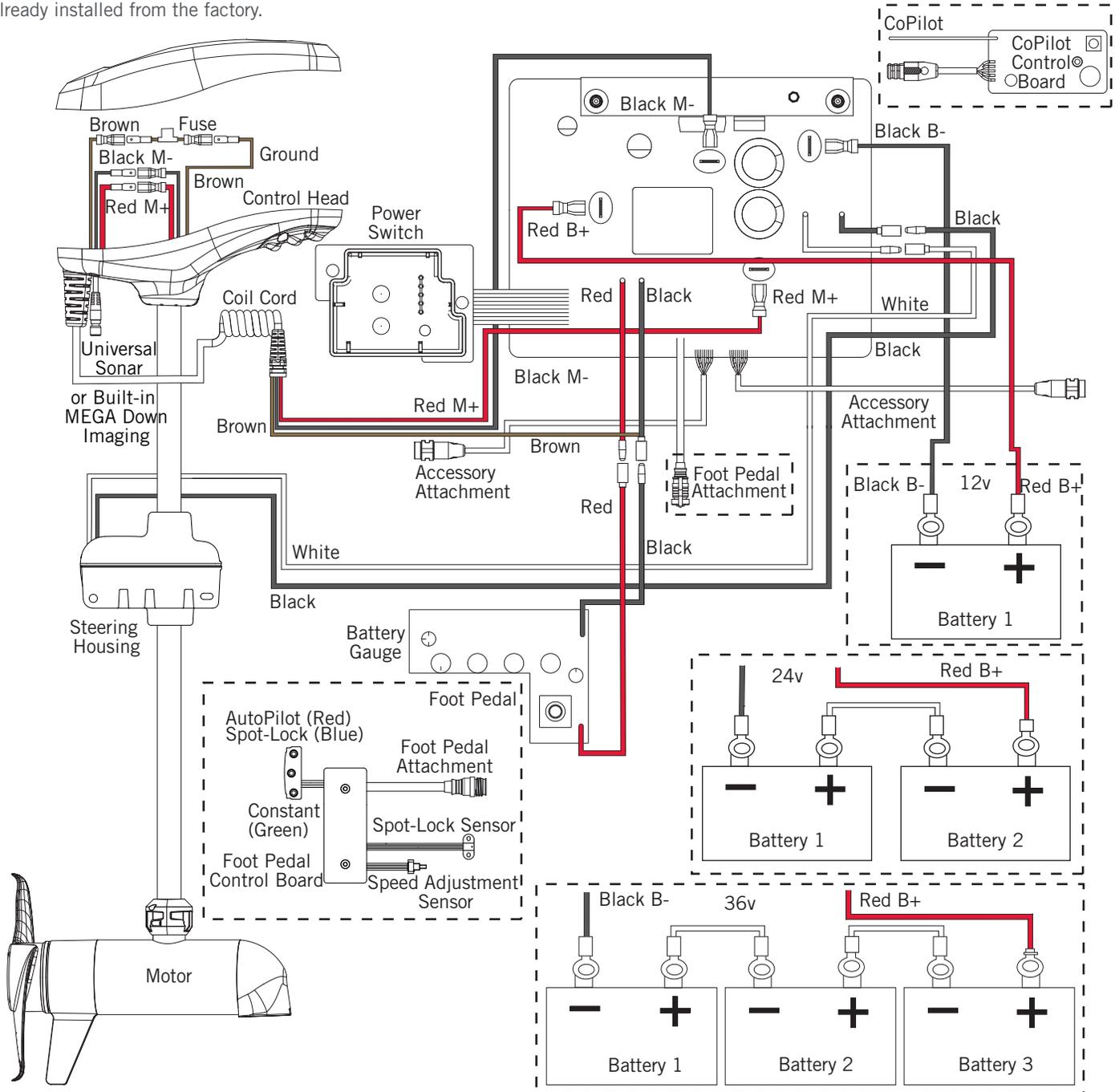
WARNING

- 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.

MOTOR WIRING DIAGRAM

TERROVA

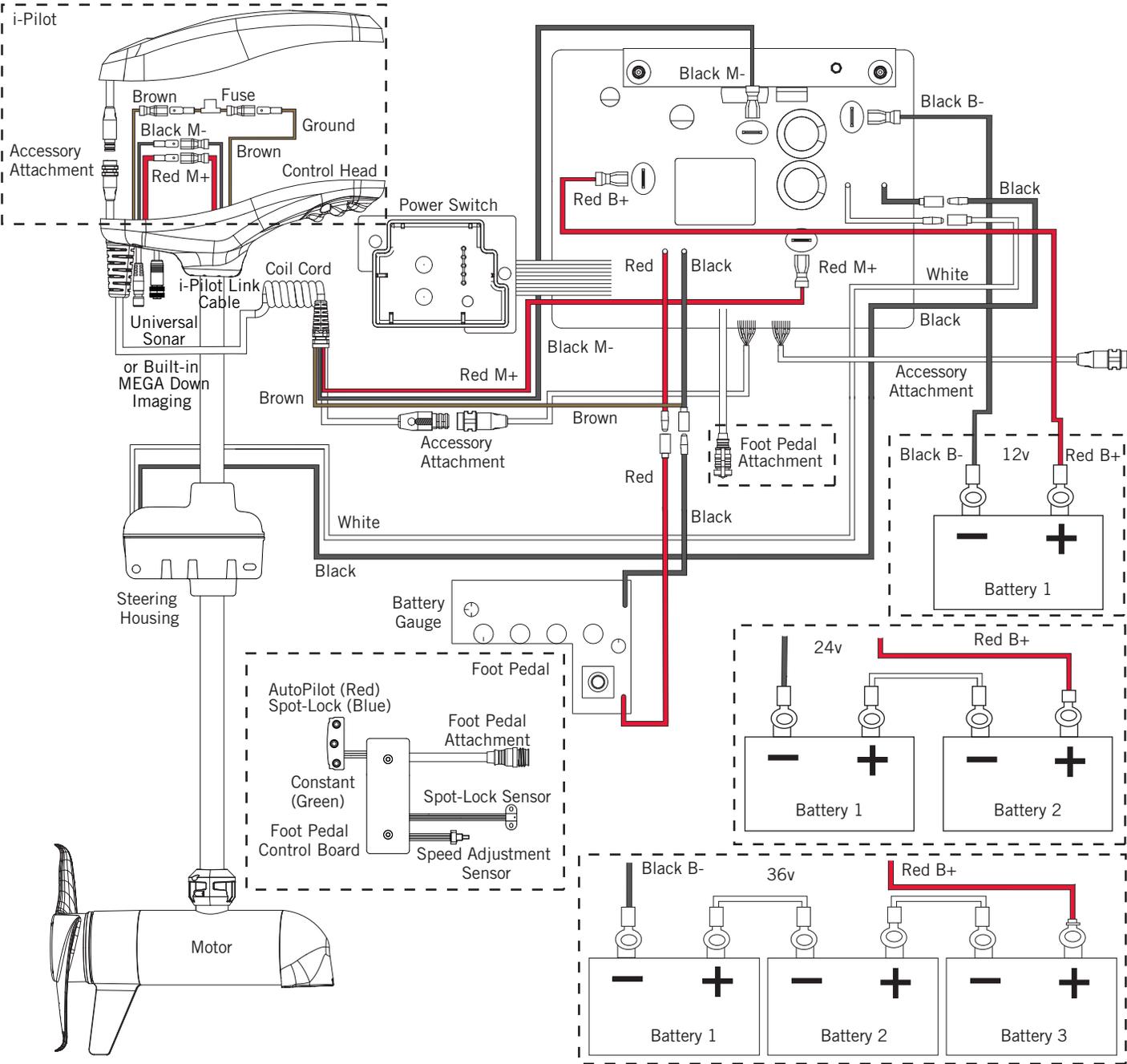
The following Motor Wiring Diagram applies to all Terrova models that do not come factory installed i-Pilot or i-Pilot Link. Not all models come with Universal Sonar or Built-in MEGA Down Imaging. CoPilot can be installed on these models, but this feature may not come already installed from the factory.



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. If equipped with Universal Sonar or Built-in MEGA Down Imaging, please visit the website at minnkotamotors.com for additional information.

TERROVA WITH i-PILOT OR i-PILOT LINK

The following Motor Wiring Diagram applies to all Terrova models that come factory installed with either i-Pilot or i-Pilot Link.

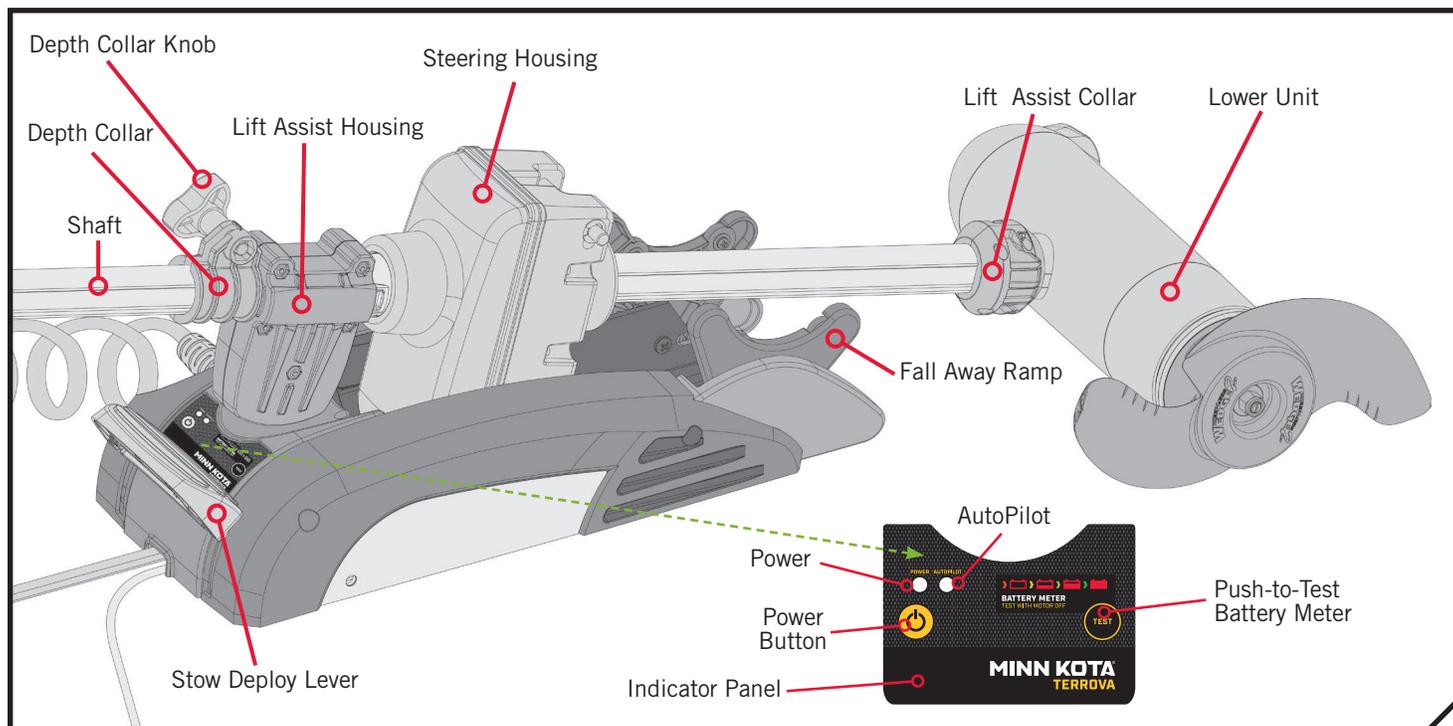


NOTICE: This is a multi-voltage diagram. Double-check your motor's voltage for proper connections. Over-Current Protection Devices are not shown in this illustration. If equipped with Universal Sonar or Built-in MEGA Down Imaging, please visit the website at minnkotamotors.com for additional information.

USING & ADJUSTING THE MOTOR

MOUNT FEATURES

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



› Depth Collar & Depth Collar Knob

The Depth Collar is located on the Shaft above the Lift Assist Housing. It functions to hold the motor at the proper depth while deployed. It also functions to hold the Lower Unit in place when stowed while not in use and during transport. The Depth Collar Knob is used to loosen and tighten the Depth Collar so that it can be used to slide up and down the motor shaft.

⚠ WARNING

When the motor is being transported, it is important to place the Depth Collar snug against the Lift Assist Housing and tighten. This provides a secure stow and holds the motor in place during transportation when it is subject to high levels of shock and vibration. Failure to secure the motor may result in injury or damage to the unit.

› Fall Away Ramps

The Fall Away Ramps hold the Lower Unit when the Motor is stowed and rotate to release the Lower Unit as the unit is being deployed. When the Stow Deploy Lever is pressed it unlocks the position of the Fall Away Ramps and the Ramps rotate to guide the Lower Unit back onto the mount when the motor is stowed.

⚠ WARNING

When stowing or deploying the motor, keep fingers clear of all hinge and pivot points and all moving parts.

› Power Button

The Power button  is located on the Indicator Panel on the Mount. The Terrova must be manually powered "on" and "off". When the Motor is powered "on", the Power Indicator will be illuminated green . When the Motor is powered "off", the Power Indicator will not be illuminated .

STOWING AND DEPLOYING THE MOTOR

CAUTION

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. If the motor control is left on and the propeller rotation is blocked, severe motor damage can result.

› AutoPilot

The AutoPilot Indicator is located on the Indicator Panel on the Mount. It is illuminated green  when AutoPilot is engaged and it is not illuminated  when AutoPilot is not engaged.

› Stow Deploy Lever

The Stow Deploy Lever is located at the top of the mount. The Stow Deploy Lever functions to unlatch the Fall Away Ramps which rotate to guide the Lower Unit. The Stow Deploy Lever is actuated by pressing it down.

STOWING AND DEPLOYING THE MOTOR

› To Deploy the Motor

Loosen the Depth Collar, then push firmly down on the Stow Deploy Lever to release the Lift Assist Collar and slide the motor forward, out from the Fall Away Ramp. Lower the motor to the desired depth. Make sure it clicks into a secure, vertical position. Once at the desired depth, slide the Depth Collar against the Lift Assist Housing and tighten.

› To Stow the Motor

Loosen the Depth Collar and depress the Stow Deploy Lever. Raise the motor by pulling up on the Shaft or Control Head. Pull the motor toward the stern until it rests securely on the Fall Away Ramp and the Fall Away Ramps captures the Lower Unit. Slide the Depth Collar down and secure it against the top of the Lift Assist Housing to secure the motor in place and prevent accidental deployment.

PUSH-TO-TEST BATTERY METER

This motor is equipped with a Push-to-Test Battery Meter. The LED located on the Indicator Panel on the Mount of the motor. The Battery Meter provides an accurate display of the remaining charge in the battery. It is only accurate when the motor is off. The meter reads as follows:

- One light indicates recharge.
- Two lights indicate low charge.
- Three lights indicate good charge.
- Four lights indicate full charge.

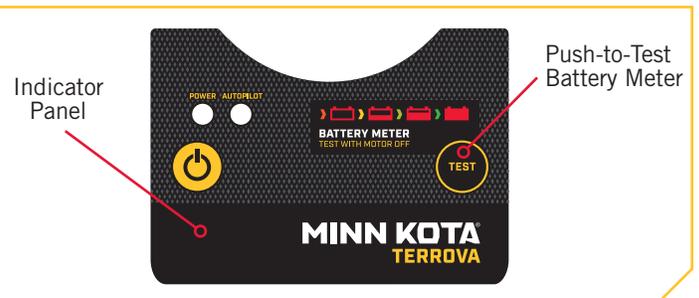
WARNING

When stowing or deploying the motor, keep fingers clear of all hinge and pivot points and all moving parts.

WARNING

The Control Head will create a pinch point if the Depth Collar Knob is loosened 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.

Practice proper ergonomics when stowing and deploying the motor to prevent injury.



WARNING

Moving parts can cut or crush. The Lift Assist Housing can come off of Steering Housing and create a crushing hazard. Keep fingers clear of all moving parts.

ADJUSTING THE DEPTH OF THE MOTOR

MOTOR ADJUSTMENTS >

ADJUSTING THE DEPTH OF THE MOTOR

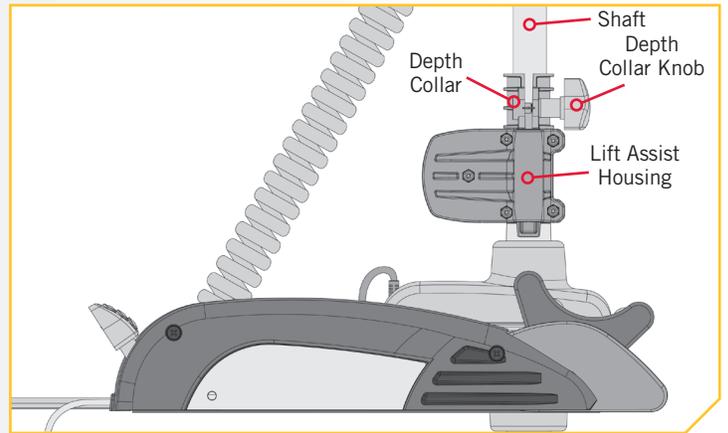
Once the boat is on the water, it may be necessary to adjust the Lower Unit up or down to achieve an optimum depth for motor performance. When setting the depth of the motor, be sure the top of the motor is submerged at least 12" below the surface of the water to avoid churning or agitation of surface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

- 1 a. With the motor in the deployed position, locate the Depth Collar on the Shaft above the Lift Assist Housing.
- b. While holding the Shaft, loosen the Depth Collar Knob until the Shaft can slide up and down freely.



WARNING

The Control Head will create a pinch point if the Depth Collar Knob is loosened 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.



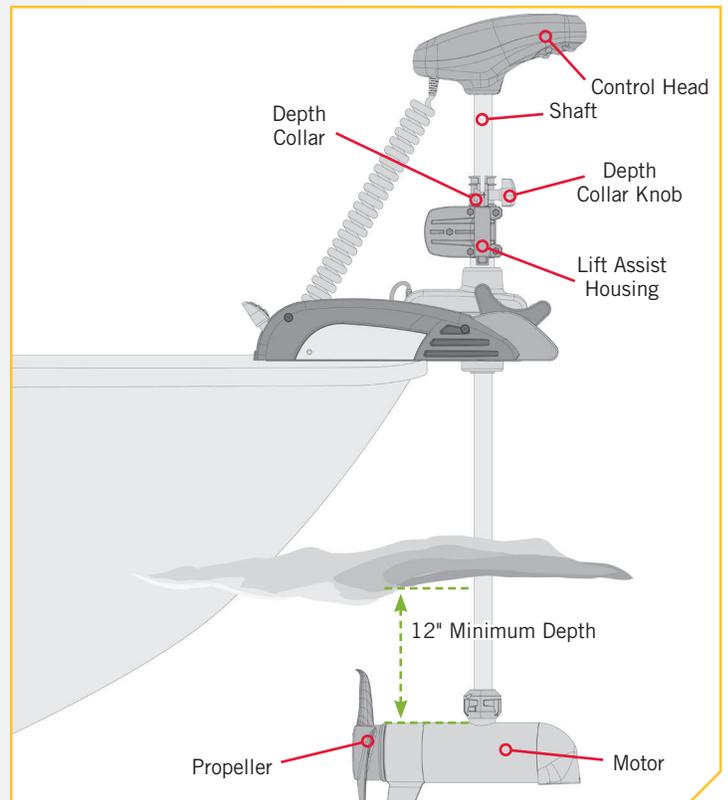
- 2 c. Raise or lower the motor to the desired depth.
- d. Turn the motor Control Head to the desired position.
- e. Slide the Depth Collar against the Steering Housing and tighten the Depth Collar Knob to secure the motor in place.

NOTICE: Be sure the top of the motor is submerged at least 12" below the surface of the water to avoid churning or agitation of surface water.



WARNING

The Lift Assist Housing contains a spring that may break from excessive wear. Watch for sharp points that can be a puncture hazard. Always use care when handling the motor.



ADJUSTING THE LOWER UNIT FOR A SECURE STOW

ADJUSTING THE LOWER UNIT FOR A SECURE STOW

When the Motor is stowed, the Lower Unit should rest on the Fall Away Ramps, a part of the Motor Mount. It is recommended to secure 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 Fall Away Ramps.

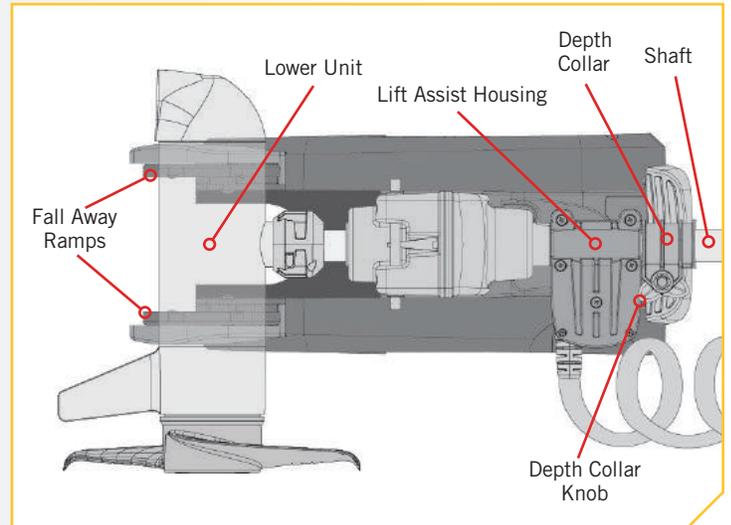
NOTICE: The correct positioning of the Lower Unit will place it directly on the Fall Away Ramps.

- b. If the Lower Unit does not sit on the Fall Away Ramps, deploy the motor, and stow it again.
- c. Be sure to press the Stow Deploy Lever and adjust the Motor to allow it to rest on the Fall Away Ramps.



CAUTION

The Lower Unit should be placed on the Mount Ramps every time the motor is transported. If the Lower Unit is improperly placed, either above or below the Motor Rest Area, damage to the Lower Unit or Shaft will occur and the Shaft will be incorrectly captured. Not following the recommended placement for the Lower Unit will cause damage to the product and void your product warranty.



NOTICE: Slide the Depth Collar down and secure it against the top of the Steering Housing when stowed to secure the motor in place and prevent accidental deployment.



WARNING

When the motor is being transported, it is important to place the Depth Collar snug against the Lift Assist Housing and tighten. This provides a secure stow and holds the motor in place during transportation when it is subject to high levels of shock and vibration. Failure to secure the motor may result in injury or damage to the unit.

INSTALLING AN EXTERNAL TRANSDUCER

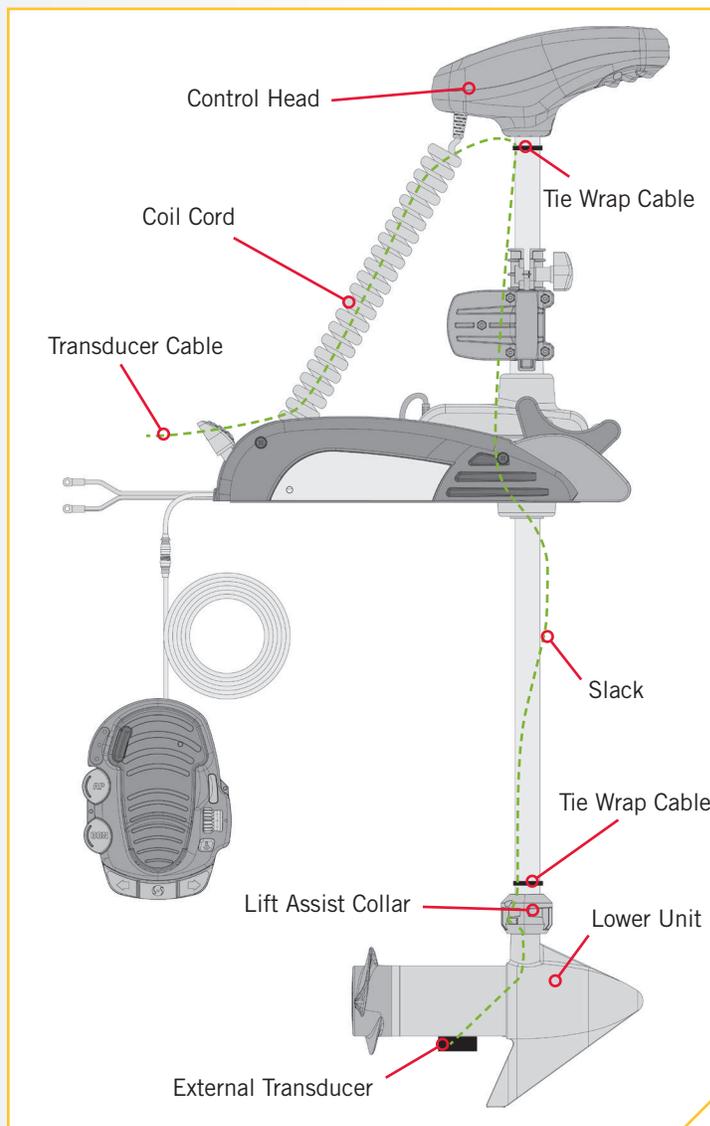
INSTALLING AN EXTERNAL TRANSDUCER

An external transducer is not included with your trolling motor. An external transducer can be installed onto motors that have Universal Sonar or motors that do not have a built in transducer. For more information on Universal Sonar, please visit minnkotamotors.com. Installing an external transducer is not recommended for motors with Built-in MEGA Down 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 Lift Assist Collar and just below the Control Head.
 - d. Run the Transducer Cable through the Coil Cord to the power supply.

CAUTION

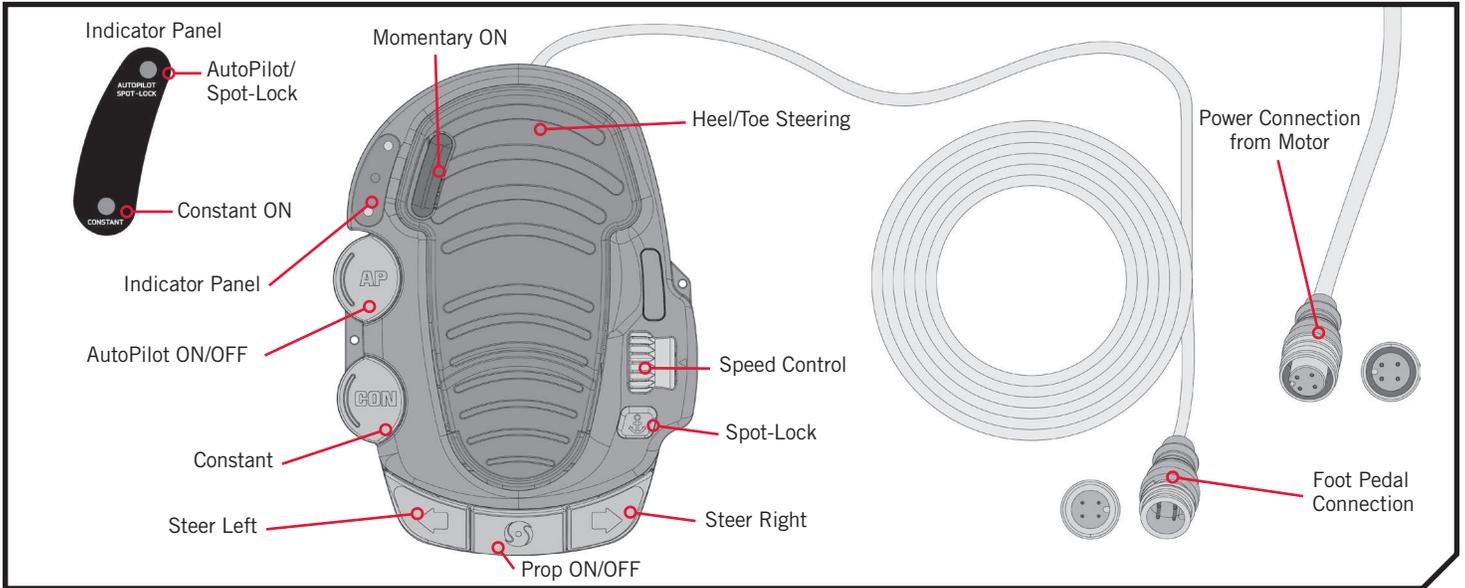
Not following the recommended wire routing for the Universal Sonar and External Transducer Cables may cause damage to the product and void your product warranty. Take care to test the length and placement of cable to be sure that there is enough slack where needed and that cables are free of being entangled in moving parts. Routing the cables in any way other than directed may cause damage to the cables by being pinched or severed.



USING THE FOOT PEDAL

CONTROLLING SPEED & STEERING WITH THE FOOT PEDAL

The foot pedal is used to operate the motor, and controls on the foot pedal are easy to operate by either foot or hand. A light touch is all that is necessary. The motor can also be controlled by an i-Pilot or i-Pilot Link remote, as well as any compatible Minn Kota remote. Please refer to the [i-Pilot](#), [i-Pilot Link](#) or compatible remote manual on how the remote controls the motor. To learn more about accessories that are compatible with the Terrova please visit minnkotamotors.com.



› Motor Speed

The Speed Control knob is located on the right side of the Foot Pedal above the Spot-Lock button. Turn the Speed Knob forward to increase speed and backwards to decrease speed. The Speed Control knob can be set in a range from 0 to 10. Speed can also be adjusted using the remote.

› Spot-Lock

The Spot-Lock button  is located on the bottom, 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 a temporary memory location. The blue light  next to the Spot-Lock label 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 either the i-Pilot or i-Pilot Link Manual.

WARNING

You are responsible for the safe and prudent operation of your vessel. We have designed the Terrova 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 Terrova in an area free from hazards and obstacles.

Practice proper ergonomics when operating the foot pedal to prevent injury.

USING THE FOOT PEDAL

› Steer Right/Steer Left

The Steer Right  and Steer Left  buttons are located at the bottom of the Foot Pedal. They function to steer right and left. Holding the Steer Right or Steer Left buttons down will continue to steer the motor to the left or right. Small steering changes of less than one degree can be made by quickly tapping the Steer Right and Steer Left buttons. The position and direction of the Steering Head directly corresponds to the position of the motor. The direction of the motor can also be controlled with the remote.

CAUTION

The steering system is designed to turn your motor 360 degrees. Be careful to avoid over-wrapping the Coil Cord around the trolling motor Shaft. Overwrapping the coil cord will cause damage and prevent operation.

› Prop ON/OFF

The Prop ON/OFF  button is located in the bottom, middle of the Foot Pedal. It functions to turn the Prop on and off. The Prop will turn on when pressure is applied and turn off when pressure to the button is removed.

NOTICE: The motor will not auto correct to drive straight when it encounters an obstruction.

› Constant

The Constant button  is located on the left side of the Foot Pedal, towards the bottom, right below the AutoPilot button. It functions to toggle the motor between Constant Motor Operation and Momentary Motor Operation. The green light  on the Indicator Panel will be illuminated when the motor is in Constant Motor Operation. In Constant Mode, the propeller will continually run, regardless of whether or not force is being applied to the Momentary button or Prop ON/OFF button. While in Constant Motor Operation, the propeller will run continuously at the speed set by the Speed Control knob, or by the i-Pilot or i-Pilot Link remote.

If a propeller encounters an obstruction while either in Momentary or Constant Mode, while the propeller is running, the increased electrical current being generated by the obstruction will signal the motor to decrease the power to the propeller to prevent damage. If the current overload is detected for more than 20 seconds, 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.

› AutoPilot

The AutoPilot  button is located in the middle, on the left side of the Foot Pedal. Pressing the AutoPilot button toggles the feature on and off for motor that are installed with this feature. The red light  on the Indicator Panel is illuminated when this feature is engaged. When AutoPilot is initiated from the Foot Pedal, the default AutoPilot mode is determined by the remote. AutoPilot can also be engaged and disengaged using the remote. For more specific directions on how to use AutoPilot, please refer to either the i-Pilot or i-Pilot Link Manual. The AutoPilot Indicator on the Mount will also be illuminated when AutoPilot is engaged.

› Momentary

In Momentary Motor Operation, the propeller will only run while downward force is applied to the Momentary button. The Momentary button is on the Toe End of the Heel/Toe Steering pedal. Applying downward pressure to the Momentary button will turn the propeller on. The motor will then run at the speed set by the Speed Knob or remote. Removing downward force to the Momentary button will turn the propeller off. No indicator light is associated with the Momentary button. The Momentary button functions very similar to the Prop ON/OFF button.

› Heel/Toe Steering

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 Control Head directly corresponds to the position of the motor. You must use your foot on the pedal to control the steering direction during manual operation. The direction of the motor can also be controlled with the remote.

› Steering in Reverse

The propeller always turns in the forward direction. You can reverse the direction of thrust by turning the motor 180°.

SERVICE & MAINTENANCE

PROPELLER REPLACEMENT

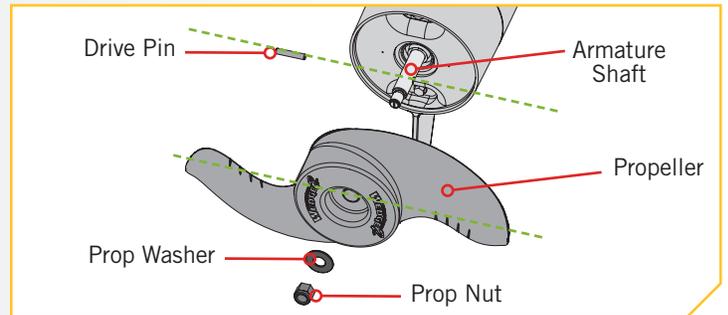
TOOLS AND RESOURCES REQUIRED >

- 9/16" Open End Wrench
- Flat Blade Screwdriver

INSTALLATION >

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

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.



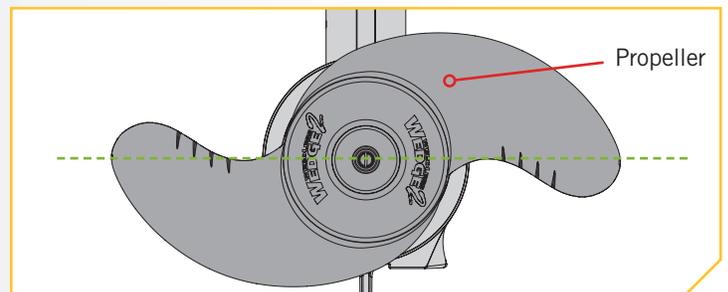
⚠ CAUTION

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

- Turn the old prop to horizontal and pull it straight off. If drive pin falls out, push it back in.

⚠ CAUTION

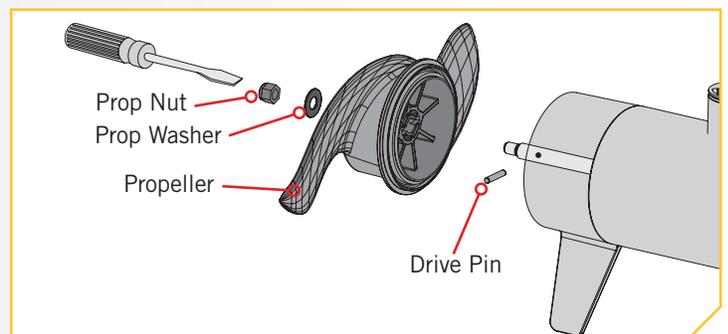
If the prop does not readily slide off, take care to not bend the Armature Shaft while removing the prop by pulling the prop evenly off the Armature Shaft.



- Align the new Propeller with the Drive Pin.
 - Install the Prop Washer and Prop Nut.
 - Tighten the Prop Nut 1/4 turn past snug at 25-35 inch-lbs.

⚠ CAUTION

Do not over tighten as this can damage the prop.



SERVICE & MAINTAINANCE



GENERAL MAINTENANCE

- After use, the entire motor should be rinsed with freshwater. 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 propeller must be inspected and cleaned from weeds and fishing line after every use. Fishing line 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.
- For maximum battery life recharge the battery(s) as soon as possible after use. For maximum motor performance restore battery to full charge prior to use.
- Keep battery terminals clean with fine sandpaper or emery cloth.
- The propeller is designed to provide weed free operation with very high efficiency. To maintain this top performance, the leading edge of the blades must be kept smooth. If they are rough or nicked from use, restore to smooth by sanding with fine sandpaper.

TROUBLESHOOTING

1. Motor fails to run or lacks power:
 - 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 knob on the bracket
 - Lubricate the composite shaft.
4. You experience prop vibration during normal operation:
 - Remove and rotate the prop 180°. See removal instructions in the Propeller 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.

NOTICE: For all other malfunctions, visit an Authorized Service Center. You can search for an Authorized Service Center in your area by visiting our Authorized Service page, found on-line at minnkotamotors.com, or by calling our customer service number at 800-227-6433.





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 minnkotamotors.com. Orders confirmed by 12 Noon Central Time, with Overnight Shipping selected, should ship the same business day if the parts are in stock. All other orders should ship within the next 3 business days, depending on the shipment method chosen, and if the parts are in stock.



Frequently Asked Questions

We have FAQs available on our website to help answer all of your Minn Kota questions. Visit minnkotamotors.com and click on “Frequently Asked Questions” to find an answer to your question.



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 email our consumer service department with questions regarding your Minn Kota products. To email your question, visit minnkotamotors.com and click on “Support”.



Authorized Service Centers

Minn Kota has over 800 authorized service providers in the United States and Canada where you can purchase parts or get your products repaired. Please visit our Authorized Service Center page on our website to locate a service provider 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 wheelie 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

› i-Pilot Equipped Motors

For regulatory information on motors that come factory installed with i-Pilot, please refer to the i-Pilot Owner's Manual online at minnkotamotors.com.

› i-Pilot Link Equipped Motors

For regulatory information on motors that come factory installed with i-Pilot Link, please refer to the i-Pilot Link Owner's Manual online at minnkotamotors.com.



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.

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

ENVIRONMENTAL RATINGS

Ambient operating temperature range: -10C to 50C

Ambient operating humidity range: 5% to 95%

Maximum operating altitude: 10,000 feet



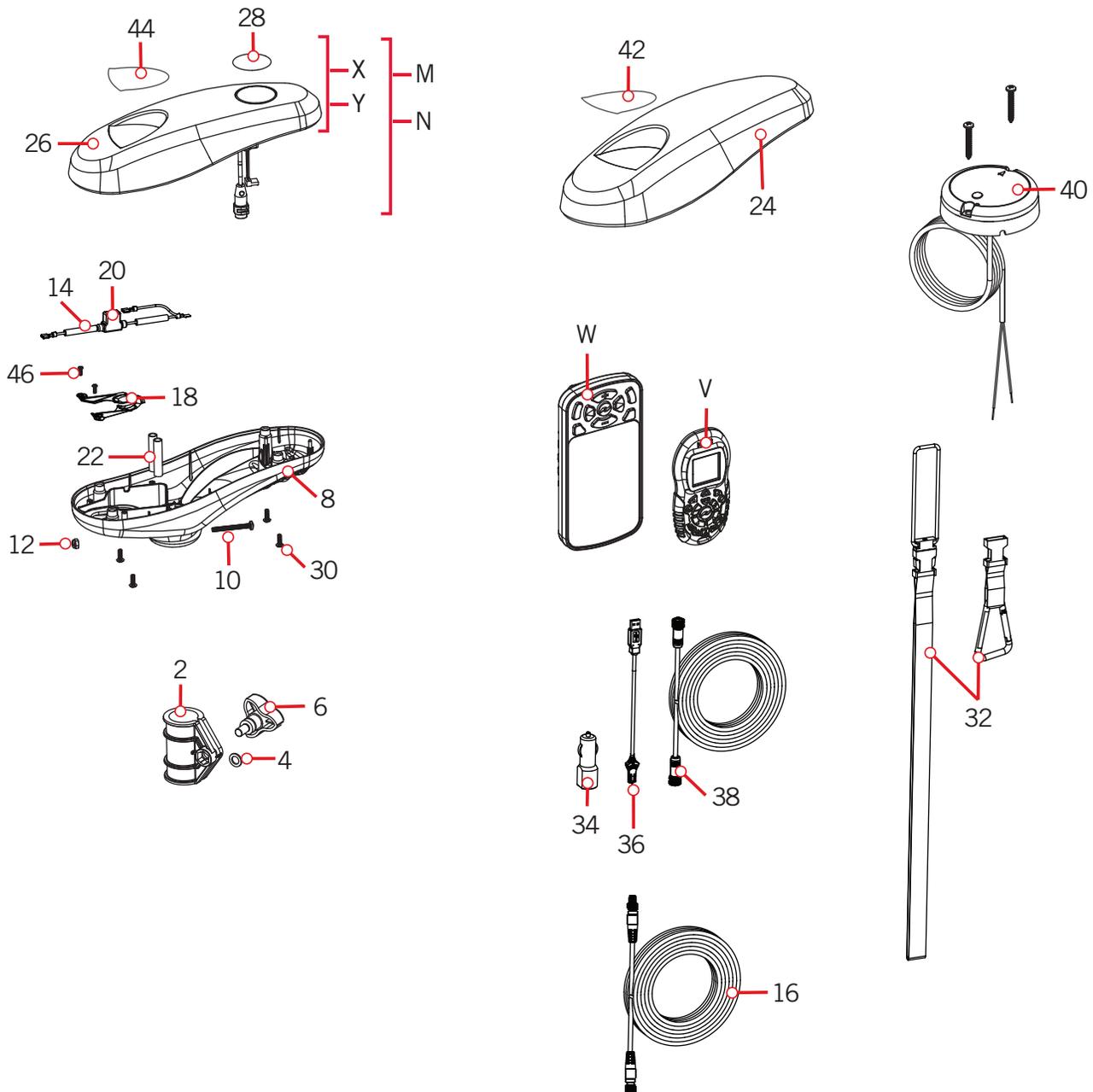
PARTS DIAGRAM & PARTS LIST

TERROVA - 55/80/112 LBS THRUST - 12/24/36 VOLT - 45"/54"/60"/72" 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.

TERROVA CONTROL HEAD >

> Control Head Parts Diagram



PARTS DIAGRAM & PARTS LIST

› Control Head Parts List

Assembly	Part #	Description	Quantity
M	2774176 ♦	MOTOR KIT, iPLT 1.6 TRV,UTX *I-PILOT RECEIVER*	1
N	2774177 ●	MOTOR KIT, iPLT 3.0 TRV,UTX *I-PILOT LINK RECEIVER*	1
V	2994075 ♦	REMOTE ASSY, IPILOT 1.6	1
W	2994076 ●	REMOTE ASSY, IPILOT LINK *I-PILOT LINK ONLY*	1
X	2770233 ♦	COVER KIT, IPLT 1.6 TRV, ULTREX *I-PILOT* *COVER & DECALS ONLY*	1
Y	2770234 ●	COVER KIT, IPLT 3.0 TRV, ULTREX *I-PILOT LINK* *COVER & DECALS ONLY*	1
Item	Part #	Description	Quantity
▲	✘	SEAL,BUNG LOWER	1
▲	✘	SEAL,BUNG UPPER,FW	1
2	2321505	DEPTH COLLAR, LIFT ASSIST	1
4	2321702	WASHER-FLAT .375 NYLON	1
6	2260905	KNOB-SOFT GRIP,HG/DR,ZNC	1
8	2292500	CONTROL BOX, ULTREX	1
10	2332102	SCREW-#10-24 X 1-3/4 PPH SS	1
12	2333101	NUT-HEX #10-24 UNC-2B NYL SS	1
14	2065400	WIRE INSULATOR-LGE 1-3/4, BLUE	2
16	2211415 +	CABLE-EXTENSION, 110" *US2*	1
	490507-1 →	CABLE, ADP-INT MDI 14 M12-120"	1
▲	2256300	TIE WRAP-5.5" BLACK	2
18	2224706	INSERT-PLUG	1
▲	9950433	TIE WRAP-4" BLACK	2
20	2218201	FUSE HOLDER ASSEMBLY	1
22	2375400	SHRINK TUBE-1/4OD X 1-3/4	2
24	2290217	COVER,CTRL BOX	1
26	✘	CVR, CTRL BX IP	1
28	2395545 ♦	DECAL, DOMED, iPILOT FW	1
	2395547 ●	DECAL, DOMED, iPILOT LINK FW	1
30	2372100	SCREW-#8-18 X 5/8 THD (SS)	7
32	2390800 ♦●	LANYARD, REMOTE W/ CARABINER	1
34	2375901 ●	ADAPTER, USB DC POWER *LINK ONLY*	1
36	2373241 ●	CABLE, USB REMOTE CHARGER *LINK ONLY*	1
38	490389-1 ●	CABLE, ETHERNET, 30' * LINK ONLY*	1
40	2996400	HEADING SENSOR ASSEMBLY	1
▲	2397106 ♦	QUICK - QUICK REF, IPILOT 1.6	1
▲	2397107 ●	QUICK - QUICK REF, IPILOT 3.0	1

▲ Not shown on Parts Diagram.

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

♦ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

+ Only available with models factory installed with Universal Sonar.

→ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
42	2325631	DECAL, COVER, TERROVA 55 *55LB THRUST*	1
	2325632	DECAL, COVER, TERROVA 80 *80LB THRUST*	1
▲	2394900	INSTRUCTION HEADING SENSOR	1
44	2325634	DECAL, PUSH BTN TOP, TRV/iP 112	1
	2395554	DECAL, PUSH BTN TOP, T2/iP 80	1
	2395550	DECAL, PUSH BTN TOP, T2/iP 55	1
46	2372103	SCREW. #6 x 3/8 PLASTITE	2
▲	2327130	MANUAL TERROVA BT FW	1
▲	2397100	MANUAL, iPILOT 1.6	1
▲	2327133	INSTALLATION INSTRUCTIONS TERROVA FW BT	1
▲	2397102	MANUAL, iPILOT LINK 3.0	1
▲	2297165	MANUAL - DISCLAIMER, DOWNLOAD INFO	1
▲	2215700	LABEL, DI CABLE EXIT LOCATION	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

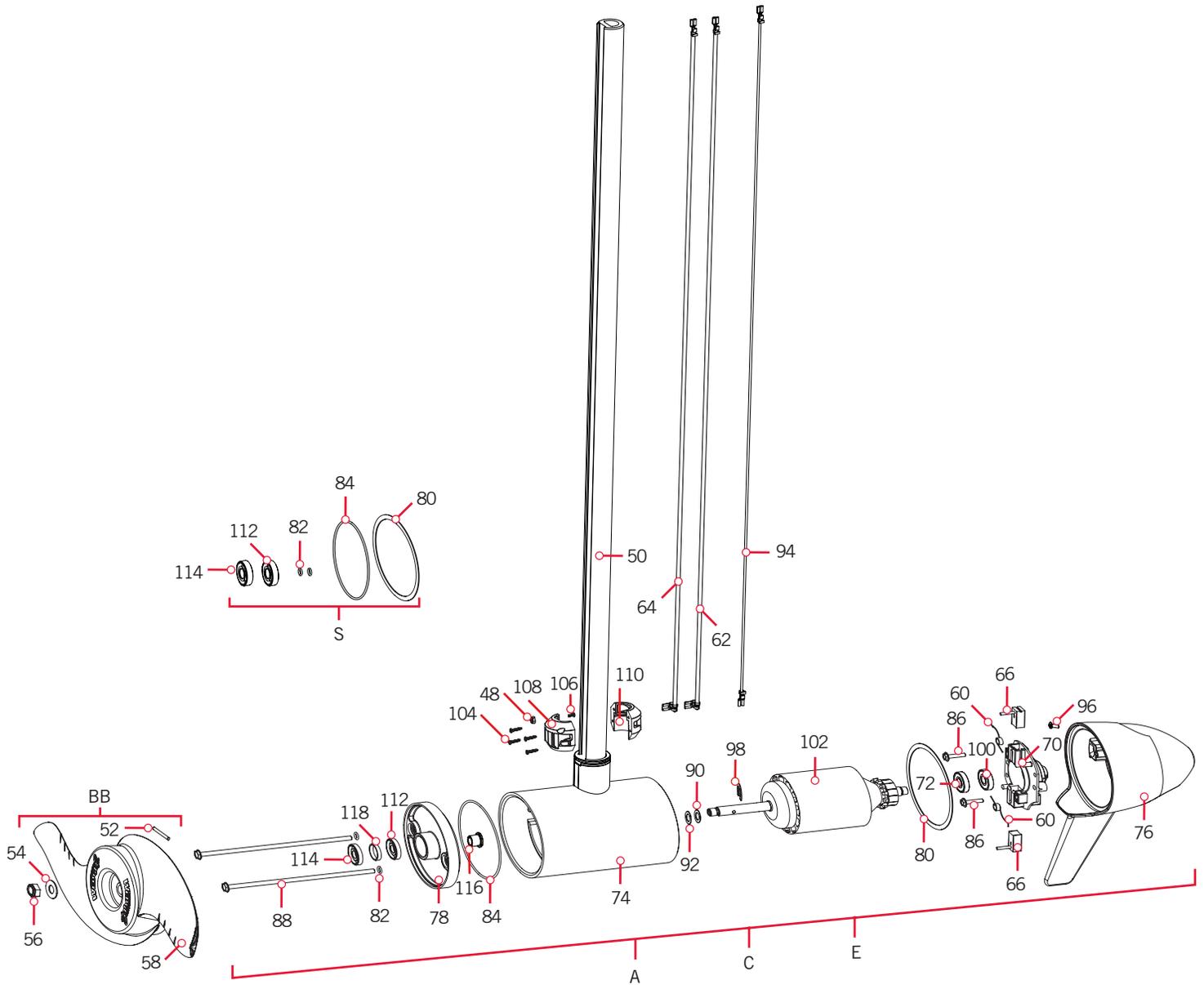
✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.



TERROVA MOTOR

12 Volt 3.626" Motor Parts Diagram



PARTS DIAGRAM & PARTS LIST

▶ 12 Volt 3.626" Motor Parts List

Assembly	Part #	Description	Quantity
A	2779032 +	MTR/TUBE ASM 55# 45" TRV/US2 BT *45* *3.625* *UNIVERSAL SONAR*	1
C	2779024	MTR/TUBE ASM 55# 54" TRV BT *54* *3.625*	1
E	2779033 +	MTR/TUBE ASM 55# 54" TRV/US2 BT *54* *3.625* *UNIVERSAL SONAR*	1
BB	1378131	PROP IND 2091160 WDLS WDG II *3.625* *55LB THRUST*	1
S	2888460	SEAL & O-RING KIT *55LB THRUST* *3.625*	1
Item	Part #	Description	Quantity
48	2323110	NUT-HEX, 6-32 NYLOK SS	1
50	✘	TUBE-COMP,BLK,45",1/4" WALL,T2 *45"*	1
	✘	TUBE-COMP,BLK,54",1/4" WALL,T2 *54"*	1
52	2262658	PIN-DRIVE 1" X 3/16" S/S *55LB THRUST* *3.625*	1
54	2151726	WASHER-5/16 STD (S/S) *55LB THRUST* *3.625*	1
56	2053101	NUT-PROP,NYLOC (MED) 5/16 SS *55LB THRUST* *3.625*	1
58	2091160	PROP-WW2 (3-5/8") REAMED *55LB THRUST* *3.625*	1
60	975-040	SPRING - TORSION *3.625* *55LB THRUST*	2
62	640-006	LEADWIRE BLK 10 AWG 61 3/4" GPT *45"*	1
	640-023	LEADWIRE BLK 10 AWG 69" GPT *3.625* *55LB THRUST* *54"*	1
64	640-151	LEADWIRE RED 10 AWG 70.375 GPT *3.625* *55LB THRUST* *54"*	1
	640-115	LEADWIRE RED 10 AWG 61 3/4" GPT *45"*	1
66	188-036	BRUSH ASSEMBLY *3.625* *55LB THRUST*	2
70	2-600-217	BRUSH PLATE ASSEMBLY 54"	1
	2-600-018	BRUSH PLATE ASSEMBLY *45"*	1
72	725-050	PAPER TUBE - BRUSH RETENTION *3.625* *55LB THRUST*	1
74	✘	CTR HSG ASY 3.62 FW-MAGNET CB *55LB THRUST* *3.625*	1
76	421-050	HSG BRSH END FW CB *55LB THRUST* *3.625* *NON US2*	1
	✘ +	HSG BRSH END FW CB *55LB THRUST* *3.625* *US2*	1
78	2-400-101A	PLAIN END HSG ASY *55LB THRUST* *3.625*	1
80	337-036	GASKET *55LB THRUST* *3.625*	1
82	701-008	O-RING *55LB THRUST* *3.625*	2
84	701-081	O-RING *55LB THRUST* *3.625*	1
86	830-007	SCREW, # 8-32 *55LB THRUST* *3.625*	2
88	830-008	THRU BOLT 10-32 x 9.205 *55LB THRUST* *3.625*	2
90	990-067	WASHER - STEEL THRUST *55LB THRUST* *3.625*	1
92	990-070	WASHER - NYLATRON *55LB THRUST* *3.625*	1
94	640-316	LEADWIRE BROWN 18 AWG 71" GPT *55LB THRUST* *3.625* *54"*	1
	640-315	LEADWIRE BROWN 18 AWG 62" GPT*55LB THRUST* *3.625* *45"*	1
96	2302102 +	SCREW-#6-20 X 1/2 THD CUTS	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

+ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
98	788-015	RETAINING RING *3.625*	1
100	140-010	BREARING	1
102	2-100-146	ARM ASY 12V 3.62 55#CB/LS *55LB THRUST* *3.625*	1
104	3393450	SCREW-#6-19 X.75 PPH HI-LOW SS	4
106	2323429	SCREW #6-32 X .50" SS BHCS	1
108	2321523	COLLAR-FRONT, LIFT ASSIST, FW	1
110	2321527	COLLAR-BACK, LIFT ASSIST, FW	1
112	880-003	SEAL	1
114	880-006	SEAL WITH SHIELD	1
▲	✘ +	TRANSDUCER ASSY 73" GEN2.5 W/T 54"	1
▲	✘ +	TRANSDUCER ASSY 67" GEN2.5 W/T	1
116	144-049	BEARING - FLANGE	1
118	725-035	PAPER TUBE - SEAL BORE	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

+ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.



PARTS DIAGRAM & PARTS LIST

▶ 24 Volt 4" Motor Parts List

Assembly	Part #	Description	Quantity
B	2777018	MTR/TUBE ASM 80# 45" TRV/US2 BT *45* *4.0*	1
F	2777038	MTR/TUBE ASM 80# 54" TRV/US2 BT *54* *4.0* *UNIVERSAL SONAR*	1
G	2777006	MTR/TUBE ASM 80# 60" TRV BT *60* *4.0*	1
J	2777012	MTR/T2777134	1
L	2777041	MTR/TUBE ASM 80# 72" TRV/US2 BT *72* *4.0* *UNIVERSAL SONAR*	1
P	2777019	MTR/TUBE 80# 45" TRV/US2-M BT *45* *4.0* *UNIVERSAL SONAR* *EUROPE ONLY*	1
Q	2777039	MTR/TUBE 80# 54" TRV/US2-M BT *54* *4.0* *UNIVERSAL SONAR* *EUROPE ONLY*	1
R	2777007	MTR/TUBE ASM 80# 60" TRV-M BT *60* *4.0* *EUROPE ONLY*	1
Z	2777014	MTR/TUBE 80# 60" TRV/US2-M BT *60* *4.0* *UNIVERSAL SONAR* *EUROPE ONLY*	1
DDD	2777196	CTR HSG, CB, 80#, FW, UP TO 60" *TUBE*	1
FFF	2777197	CTR HSG, CB, 80#, FW, 72" TUBE *TUBE*	1
CC	1378160	PROP KIT 2341160 112# WW2 *4.5* *112LB THRUST*	1
T	2889460	SEAL & O-RING KIT *80LB THRUST* *4*	1
KK	9421-290	PLN END HSG/TRANDUCER ASY 4.0 *80LB THRUST* *60"* *TRANSDUCER* *UNIVERSAL SONAR*	1
LL	9421-287	PLN END HSG/TRANDUCER ASY 4.0 *80LB THRUST* *45"* *TRANSDUCER* *UNIVERSAL SONAR*	1
MM	9421-288	PLN END HSG/TRANDUCER ASY 4.0 *80LB THRUST* *54"* *TRANSDUCER* *UNIVERSAL SONAR*	1
NN	9421-291	PLN END HSG/TRANDUCER ASY 4.0 *80LB THRUST* *72"* *TRANSDUCER* *UNIVERSAL SONAR*	1
K	2777134	MTR/TUBE ASM 80# 72" TRV/MDI BT *80 LB* *72"*	1
GG	2777130	MTR/TUBE ASM 80# 45" TRV/MDI BT *80 LB* *45"*	1
SS	2777132	MTR/TUBE ASM 80# 60" TRV/MDI BT *80 LB* *60"*	1
Item	Part #	Description	Quantity
120	✘	TUBE-CMP,BLK,45",1/4" WLL	1
	✘	TUBE-CMP,BLK,45",1/4",MDI	1
	✘	TUBE-CMP,BLK,60",1/4" WLL	1
	✘	TUBE-CMP,BLK,54",1/4" WLL	1
	✘	TUBE-CMP,BLK,72",1/4" WLL	1
	✘	TUBE-CMP,BLK,45",1/4", "M"	1
	✘	TUBE-CMP,BLK,60",1/4",MDI	1
	✘	TUBE-CMP,BLK,60",1/4", "M"	1
122	✘	PLAIN END HOUSING, PNT 4.0 DI	1
124	830-110	SCREW-5-16-18 X 5/8 SHCS SS	2
126	230-039	CABLE CLAMP, 1/4" STEEL	1
128	792-001	GUARD, TRANSDUCER, PNT 4.0 DI	1
130	2092600	PIN-DRIVE 1.06" LG (SS) *80LB THRUST* *4* *112LB THRUST* *4.5*	1
132	2091701	WASHER-PROP (LARGE) *80LB THRUST* *4* *112LB THRUST* *4.5*	1
134	2093101	NUT-PROP,NYLOC,LG, 3/8 SS *80LB THRUST* *4* *112LB THRUST* *4.5*	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
136	2341160	PROP-WW2 (4.5) w/ADP.RING *112LB THRUST* *4.5*	1
138	188-094	BRUSH W/TERMINAL *4* *80LB THRUST*	2
140	975-041	SPRING - TORSION *4* *80LB THRUST*	2
142	640-016	LEADWIRE BLK 10 AWG 56 1/2 XLP	1
	640-053	LEADWIRE BLK 10 AWG 82.375 XLP *4* *80LB THRUST*	1
	640-052	LEADWIRE BLK 10 AWG 70.125 XLP *4* *80LB THRUST*	1
	640-022	LEADWIRE BLK 10 AWG 72.5 XLP *4* *80LB THRUST*	1
144	640-148	LEADWIRE RED 10 AWG 83" GPT *4* *80LB THRUST*	1
	640-152	LEADWIRE RED 10 AWG 69.625 XLP *4* *80LB THRUST*	1
	640-118	LEADWIRE RED 10 AWG 56 XLP *4* *80LB THRUST*	1
	640-126	LEADWIRE RED 10 AWG 71" XLP *4* *80LB THRUST*	1
▲	✘	BRUSH HOLDER *4* *80LB THRUST*	2
146	9-738-004	BRUSH PLATE 4" TERMINAL *4* *80LB THRUST*	1
	2-600-176	BRUSH PLATE ASM 4" ELEC. CB	1
	2-600-155	BRUSH PLATE ASM 4" ELEC.66" CB	1
	2-600-196	BRUSH PLATE ASSEMBLY 4"	1
	2-600-195	BRUSH PLATE ASSEMBLY 4"	1
▲	2260730	CONNECTOR 1/4 MALE TAB QD *4* *80LB THRUST*	2
148	✘	BEAD-FERRITE	1
150	2-100-214	ARM ASSY 24V 4" 80# (WW2) *80LB THRUST* *4.0*	1
152	140-010	BEARING - BALL *55LB THRUST* *3.625* *80LB THRUST* *4.0*	1
154	✘	CTR HSG ASY 4.0 FW MGNTZ *80LB THRUST* *4.0*	1
156	2-300-170	BRUSH END HSG ASY 4.0 FW *80LB THRUST* *4.0*	1
	420-070	HSG BRSH END 4.0 FW CB (SUB)	1
	421-070	HSG BRSH END 4.0 FW CB	1
158	421-276	HSG PLN END 4" PAINTED FW BS *80LB THRUST* *4.0* *NON US2* *NON MDJ*	1
160	✘	PLAIN END HSG-PNTD-4"US2.5 CB *80LB THRUST* *4.0*	1
162	701-009	O-RING *80LB THRUST* *4.0*	2
164	701-043	O-RING *80LB THRUST* *4.0*	2
166	830-027	SCREW - SELF-THREAD 10-32X2.25 *80LB THRUST* *4.0*	2
168	830-095	THRU BOLT 12-24 x 9.79 *80LB THRUST* *4.0*	2
170	990-051	WASHER - STEEL THRUST *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
172	990-052	WASHER - NYLATRON *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
174	640-316	LEADWIRE BROWN 18 AWG 71" GPT *55LB THRUST* *3.625* *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
	640-315	LEADWIRE BROWN 18 AWG 62" GPT *80LB THRUST* *4.0*	1
	640-317	LEADWIRE BROWN 18 AWG 86" GPT *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
176	582-013	CLIP, RETAINING SHORT *80LB THRUST* *4.0*	1
178	973-025	SPACER - BRUSHPLATE *80LB THRUST* *4.0*	2

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.



PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
180	992-010	WASHER - BELLEVILLE *80LB THRUST* *4.0*	2
182	990-045	SPACER - THRUST *80LB THRUST* *4.0*	1
184	2302104	SCREW-#6-20 X 3/8 THD CUTS *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
186	230-038	CABLE CLAMP *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
188	788-040	RETAINING RING	1
190	880-025	SEAL	2
192	725-095	PAPER TUBE, SEAL	1
	725-035	PAPER TUBE, SEAL	1
194	144-017	BEARING, FLANGE	1
	144-049	BEARING, FLANGE	1
▲	✘	RIVET - .25" *4* *80LB THRUST* *4.5* *112LB THRUST*	6
196	3393450	SCREW-#6-19 X.75 PPH HI-LOW SS	4
198	2323429	SCREW #6-32 X .50" SS BHCS	1
200	2321523	COLLAR-FRONT, LIFT ASSIST, FW	1
202	2321527	COLLAR-BACK, LIFT ASSIST, FW	1
204	2323110	NUT-HEX, 6-32 NYLOK SS	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

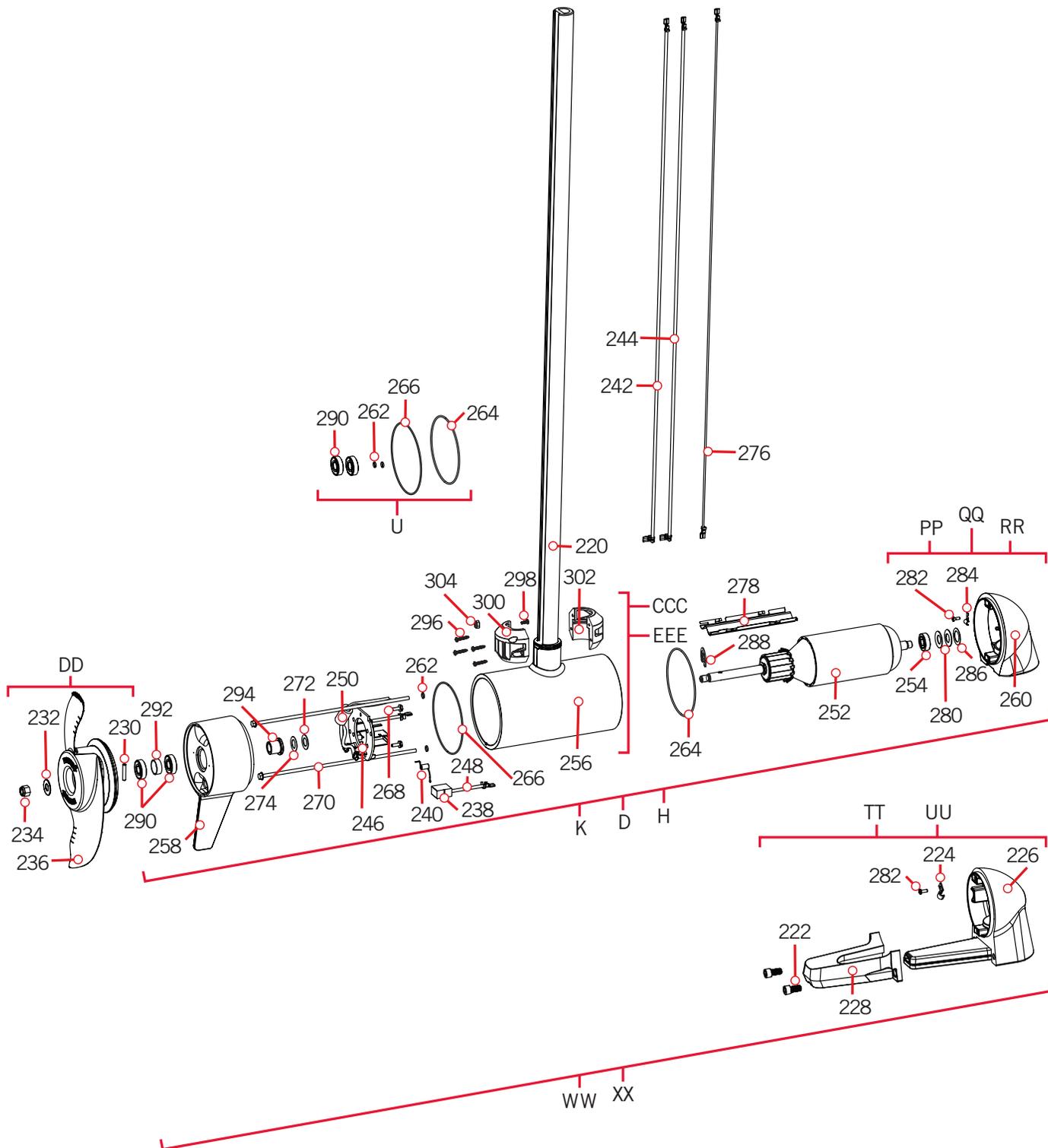
✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.



PARTS DIAGRAM & PARTS LIST

36 Volt 4.5" Motor Parts Diagram



PARTS DIAGRAM & PARTS LIST

▶ 36 Volt 4.5" Motor Parts List

Assembly	Part #	Description	Quantity
D	2777090	MTR/TUBE 112# 54" TRV/US2 BT *54* *4.5* *UNIVERSAL SONAR*	1
H	2777078	MTR/TUBE 112# 60" TRV/US2 BT *60* *4.5* *UNIVERSAL SONAR*	1
K	2777079	MTR/TUBE 112# 72" TRV/US2 BT *72* *4.5* *UNIVERSAL SONAR*	1
CCC	2777241	CTR HSG, CB, 112#, FW, UP TO 60" *TUBE* *NON UNIVERSAL SONAR* *NON MDI*	1
EEE	2777242	CTR HSG, CB, 112#, FW, 72" TUBE *TUBE* *NON UNIVERSAL SONAR* *NON MDI*	1
DD	1378132	PROP IND 233160 WDLS WDG II *4* *80LB THRUST*	1
U	2881450	SEAL & O-RING KIT *112LB THRUST* *4.5*	1
PP	9421-246	PLN END HSG/TRANDUCER ASY 4.5 *112LB THRUST* *60"* *TRANSDUCER* *UNIVERSAL SONAR*	1
QQ	9421-245	PLN END HSG/TRANDUCER ASY 4.5 *112LB THRUST* *54"* *TRANSDUCER* *UNIVERSAL SONAR*	1
RR	9421-247	PLN END HSG/TRANDUCER ASY 4.5 *112LB THRUST* *72"* *TRANSDUCER* *UNIVERSAL SONAR*	1
TT	2773005	PLN END HSG/TRNDCR 4.5 MDI *112 LB THRUST* *72"* *TRANSDUCER* *MDI*	1
UU	2773006	PLN END HSG/TRNDCR 4.5 MDI *112 LB THRUST* *60"* *TRANSDUCER* *MDI*	1
XX	2777154	MTR/TUBE ASM 112#72"TRV/MDI BT *72"* *MDI*	1
WW	2777152	MTR/TUBE ASM 112#60"TRV/MDI BT *60"*	1
Item	Part #	Description	Quantity
220	✘	TUBE-CMP,BLK,45",1/4" WLL	1
	✘	TUBE-CMP,BLK,45",1/4",MDI	1
	✘	TUBE-CMP,BLK,60",1/4" WLL	1
	✘	TUBE-CMP,BLK,54",1/4" WLL	1
	✘	TUBE-CMP,BLK,72",1/4" WLL	1
	✘	TUBE-CMP,BLK,45",1/4", "M"	1
	✘	TUBE-CMP,BLK,60",1/4",MDI	1
	✘	TUBE-CMP,BLK,60",1/4", "M"	1
222	830-110	SCREW-5-16-18 X 5/8 SHCS SS	2
224	230-039	CABLE CLAMP, 1/4" STEEL	1
226	✘	PLAIN END HOUSING, PNT 4.5 DI	1
228	792-005	GUARD, TRANSDUCER, PNT 4.5 DI	1
230	2092600	PIN-DRIVE 1.06" LG (SS) *80LB THRUST* *4* *112LB THRUST* *4.5*	1
232	2091701	WASHER-PROP (LARGE) *80LB THRUST* *4* *112LB THRUST* *4.5*	1
234	2093101	NUT-PROP,NYLOC,LG, 3/8 SS *80LB THRUST* *4* *112LB THRUST* *4.5*	1
236	2331160	PROP-WW2 (4") w/ADP.RING *80LB THRUST* *4*	1
238	188-095	BRUSH *4.5* *112LB THRUST*	2
240	975-045	SPRING - TORSION *4.5* *112 LB THRUST*	2
242	640-021	LEADWIRE BLK 10 AWG 69.5 XLP *112 LB THRUST* *54"*	1
	640-049	LEADWIRE BLK 10 AWG 88.50 GPT *4.5* *112LB THRUST* *72"*	1
	640-045	LEADWIRE BLK 10 AWG 76.5" GPT *4.5* *112LB THRUST* *60"*	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



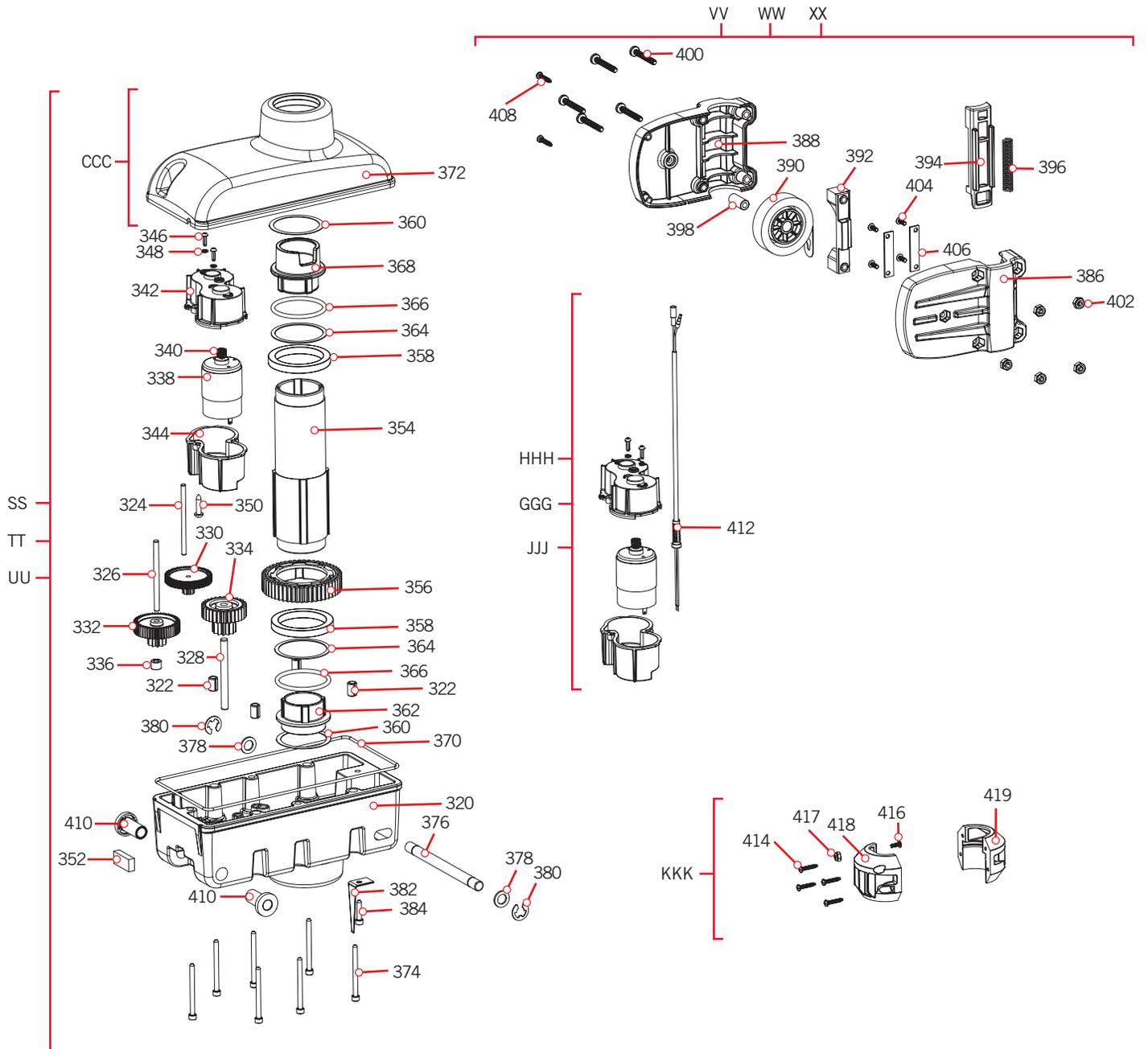
Item	Part #	Description	Quantity
244	640-149	LEADWIRE RED 10 AWG 88 GPT *4.5* *112LB THRUST* *72**	1
	640-143	LEADWIRE RED 10 AWG 68 1/2" GPT *112LB THRUST* *54**	1
	640-145	LEADWIRE RED 10 AWG 75 7/8" GPT *112LB THRUST* *60**	1
▲	✘	BRUSH HOLDER *4.5* *112LB THRUST*	2
246	9-738-011	BRUSH PLATE *4.5* *112LB THRUST*	1
	2-600-244	BRUSH PLATE ASM 4.5" HAND 62" *112LB THRUST*	1
	2-600-249	BRUSH PLATE ASM 4.5" 72" *112LB THRUST*	1
248	2260731	TERMINAL 1/4" MALE TAB-THREE *4.5* *112LB THRUST*	2
250	2307312	BEAD-FERRITE	1
252	2-100-245	ARMATURE ASY 4.5"LWR UNIT *112LB THRUST* *4.5*	1
254	140-014	BEARING-BALL 6000 *112LB THRUST* *4.5*	1
256	✘	CTR HSG ASY 4.5" MAG FW CB *112LB THRUST* *4.5*	1
258	2-300-155	BRUSH END HSG ASY 4.5" FW *112LB THRUST* *4.5*	1
260	✘	PLN END HSG 4.5" US2.5 PNT FW *112LB THRUST* *4.5*	1
262	701-009	O-RING *112LB THRUST* *4.5*	2
264	701-098	O-RING, 98MM X 2MM *112LB THRUST* *4.5*	1
266	701-103	O-RING, 103MM X 3.00MM, 70 BUNA *112LB THRUST* *4.5*	1
268	2053410	SCREW-#8-32 X 1/2 TRI-LOBE HEX *112LB THRUST* *4.5*	2
270	830-094	THRU BOLT 12-24 X10.31 *80LB THRUST* *4.0* *112LB THRUST* *4.5*	2
272	990-051	WASHER - STEEL THRUST *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
274	990-052	WASHER - NYLATRON *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
276	640-316	LEADWIRE BROWN 18 AWG 71" GPT *55LB THRUST* *3.625* *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
	640-315	LEADWIRE BROWN 18 AWG 62" GPT *80LB THRUST* *4.0*	1
	640-317	LEADWIRE BROWN 18 AWG 86" GPT *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
278	582-016	CLIP-RETAINING, SONAR *112LB THRUST* *4.5*	1
280	992-011	WASHER - BELLEVILLE *112LB THRUST* *4.5*	2
282	2302104	SCREW-#6-20 X 3/8 THD CUTS *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
284	230-038	CABLE CLAMP *80LB THRUST* *4.0* *112LB THRUST* *4.5*	1
286	990-011	WASHER-SHIM OD 1",ID.630"SS *112LB THRUST* *4.5*	1
288	788-040	RETAINING RING	1
290	880-025	SEAL	2
▲	✘	RIVET - .25" *4* *80LB THRUST* *4.5* *112LB THRUST*	6
292	725-035	PAPER TUBE, SEAL	1
294	144-017	BEARING, FLANGE	1
	144-049	BEARING, FLANGE	1
296	3393450	SCREW-#6-19 X.75 PPH HI-LOW SS	4
298	2323429	SCREW #6-32 X .50" SS BHCS	1
300	2321523	COLLAR-FRONT, LIFT ASSIST, FW	1
302	2321527	COLLAR-BACK, LIFT ASSIST, FW	1
304	2323110	NUT-HEX, 6-32 NYLOK SS	1

- ▲ Not shown on Parts Diagram.
- ✘ This part is included in an assembly and cannot be ordered individually.
- ◆ Only available with models factory installed with i-Pilot.
- Only available with models factory installed with i-Pilot Link.
- ✚ Only available with models factory installed with Universal Sonar.
- ➔ Only available with models factory installed with Built-in MEGA Down Imaging.



TERROVA STEERING HOUSING

Steering Housing Parts Diagram



PARTS DIAGRAM & PARTS LIST

Steering Housing Parts List

Assembly	Part #	Description	Quantity
SS	2997060	STEERING HSG ASM 12V FW	1
TT	2997061	STEERING HSG ASM 24V FW	1
UU	2997062	STEERING HSG ASM 36V FW	1
VV	2992720	LIFT ASSIST, 55# FW	1
WW	2992721	LIFT ASSIST, 80# FW	1
XX	2992722	LIFT ASSIST, 112# FW	1
CCC	2776561	STEERING HSG TOP FW/GEAR KIT	1
GGG	2777060	STEERING MOTOR KIT, 12V T2	1
HHH	2777061	STEERING MOTOR KIT, 24V T2	1
JJJ	2777062	STEERING MOTOR KIT, 36V FW T2	1
KKK	2771522	COLLAR-FRONT/BACK, LIFT KT	1
Item	Part #	Description	Quantity
320	2326566	HOUSING-STEERING, BTM, FW	1
322	✘	PIN-ROLL 5/16" X 1/2"	4
324	✘	SHAFT-GEAR, FIRST CLUSTER	1
326	✘	SHAFT-GEAR,INTERMED.CLUSTER	1
328	✘	SHAFT-GEAR, THIRD CLUSTER	1
330	2322210	GEAR & PINION, DR.HSG, STAGE 2	1
332	2302250	GEAR & PINION,DR. HSG, STAGE 3	1
334	2302255	GEAR & PINION,DR. HSG, STAGE 4	1
336	2321730	SPACER,GEAR CLUSTER	1
338	✘	MOTOR, STEERING 12V FW T2	1
	✘	MOTOR, STEERING 24V FW T2	1
	✘	MOTOR, STEERING 36V FW T2	1
340	2322215	GEAR-PINION, DR.HSG, STAGE 1	1
342	2322520	CASE-MOTOR,STRG HSG,TOP	1
344	2322525	CASE-MOTOR,STRG HSG,BTM	1
346	2053422	SCREW-X6 X /375 PLASTITE SS	2
348	2051710	SPLIT LOCK WASHER 3MM	2
350	2043412	SCREW-#8-18 X 3/4 TY AB SS PPH	1
352	2308601	BREATHER FILTER, DR.HOUSING	1
354	2322030	TUBE-OUTPUT, MACHINED	1
356	2322200	GEAR-OUTPUT	1
358	2327308	BEARING-BALL,SEALED	2
360	2321704	WASHER-THRUST, STEERING	2
362	2321510	COLLAR-DRIVE,BOTTOM	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
364	2321720	SHIM,O-RING	2
366	2324608	O-RING,224, STR HSG	2
368	2321530	LINER OUTPUT TUBE,LFT AST	1
370	2324604	O-RING, CASE SEAL	1
372	✘	HOUSING-STEERING, TOP, FW	1
374	2323408	SCREW-#8-32 X 2.0 SHCS SS	7
376	2322600	PIN-LATCH, ZP	1
378	2321702	WASHER-FLAT .375 NYLON	2
380	2263011	E-RING 3/8 DIA. SHAFT*	2
382	2322702	SPRING, LATCH PIN SS	2
384	2323410	SCREW-#8-32 X .75 SHCS SS	1
386	2326545	HOUSING-RIGHT,LIFT ASSIST	1
388	2326540	HOUSING-LEFT, LIFT ASSIST	1
390	2997900	ASM-HUB/SPRING, 55# SS	1
	2997901	ASM-HUB/SPRING, 80# SS	1
	2997902	ASM-HUB/SPRING, 112# SS	1
392	2322300	GUIDE,DR.DOG, LIFT ASSIST	1
394	2328605	ENGAGEMENT DOG, LIFT ASST	1
396	2322726	SPRING,COMPRESSION,.360" OD SS	1
398	2322610	PIN-AXLE, LIFT ASSIST	1
400	2323430	SCREW-#10-24 X 1-3/8, PPH	5
402	2333101	NUT-HEX #10-24 UNC-2B NYL SS	5
404	2372103	SCREW-#6 X .375 PLASTITE SS	4
406	2321955	BRACKET, LIFT ASSIST	2
408	3393450	SCREW-#6-19 X .75 PPH HI-LO	2
410	2327310	BUSHING, PIVOT PIN	2
412	✘	LEADWIRE, STEERING MOTOR	1
414	3393450	SCREW-#6-19 X.75 PPH HI-LOW SS	4
416	2323429	SCREW #6-32 X .50" SS BHCS	1
417	2323110	NUT-HEX, 6-32 NYLOK SS	1
418	2321523	COLLAR-FRONT, LIFT ASSIST, FW	1
419	2321527	COLLAR-BACK, LIFT ASSIST, FW	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

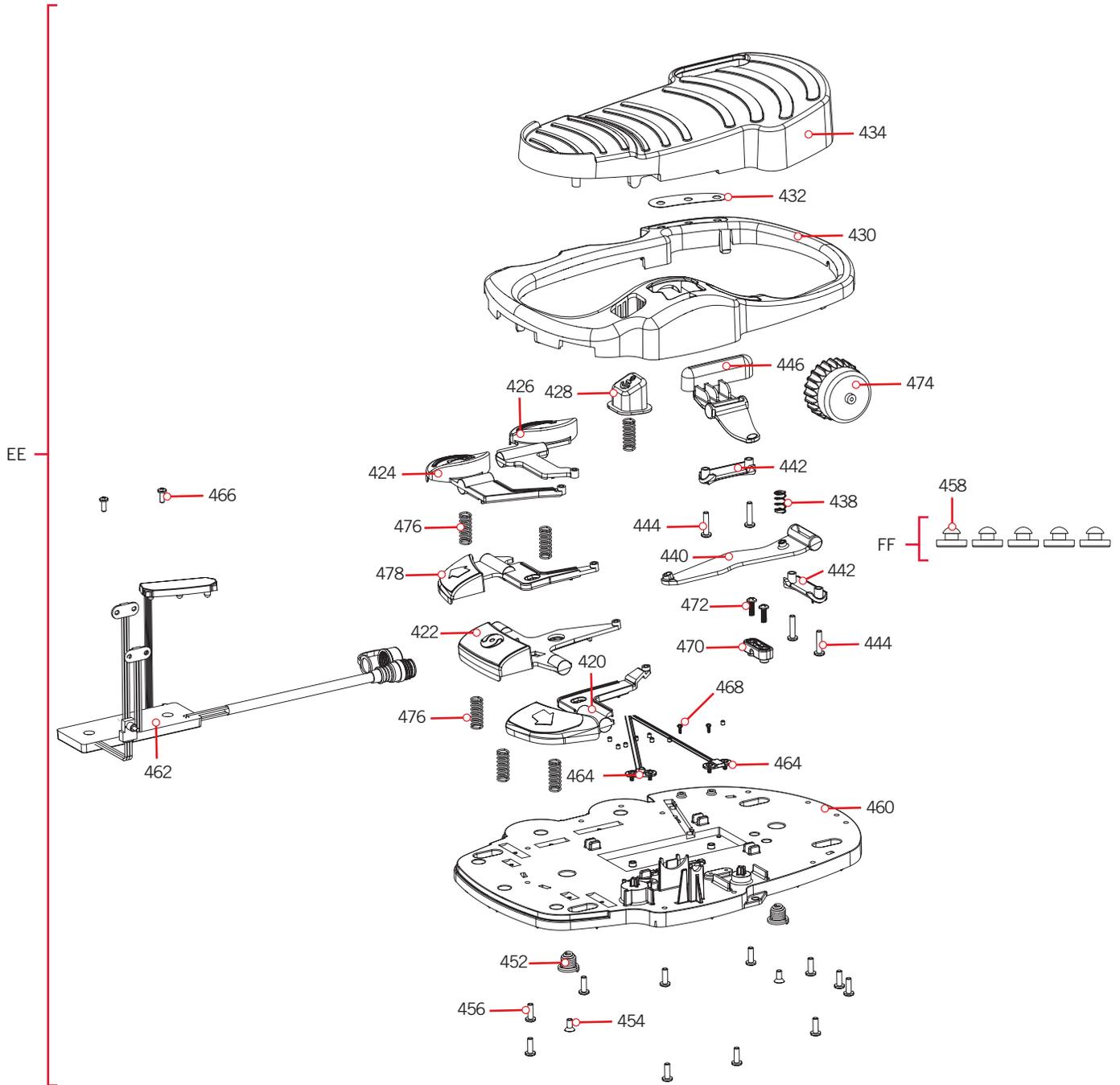
➔ Only available with models factory installed with Built-in MEGA Down Imaging.



PARTS DIAGRAM & PARTS LIST

TERROVA FOOT PEDAL

Foot Pedal Parts Diagram



Foot Pedal Parts List

Assembly	Part #	Description	Quantity
EE	2994722	FOOT PEDAL ASM, TRV BT	1
FF	2994859	BAG ASY-TERROVA/V2,RUB.BUMPERS	1
Item	Part #	Description	Quantity
420	2323731	BUTTON, RIGHT STEER, TERROVA	1
422	2323735	BUTTON, MOMENTARY, TERROVA	1
424	2323715	BUTTON,MOM/CON,FT PEDAL	1
426	2323725	BUTTON,AP,FT PEDAL	1
428	2203720	BUTTON, SPOT LOCK,ULTERRA/TRRV	1
430	2320206	COVER,HEEL TOE FT PED,TRV	1
432	2325655	DECAL, 3 INDICATORS, TERROVA	1
434	2324401	PEDAL,HEEL/TOE FOOT PEDAL	1
438	2322714	SPRING SS	1
440	2328600	FLEX FINGER, FOOT PEDAL	1
442	2321300	CLAMP, FT PEDAL	2
444	2223430	SCREW-#8x3/4 PPH,TYPE 25,SS	4
446	2323710	BUTTON,MOM,FT PEDAL	1
452	2322706	SPRING-BARREL SS	2
454	2323420	SCREW-#8-18 X 3/8" PFH SS TY B	2
456	2301310	SCREW-#8-18 X 1/2 (SS)*	11
458	2325110	PAD, FOOT PEDAL	5
460	2204500	BASE PLATE-ULTERRA / TERROVA	1
462	✘	CONTROL BOARD ASSY, FOOT PEDAL, TERROVA	1
464	2373440	SCREW-#4-24 X 1/4 PHCR SS TY B	4
466	2332103	SCREW-#6-20 X 3/8 THD*(SS)	2
468	2302100	SCREW-#6-20 X 1/2 THD CUTS	2
470	2322900	STRAIN RELIEF, FOOT PEDAL	1
472	2372100	SCREW-#8-18 X 5/8 THD* (SS)	2
474	2320100	KNOB-SPEED, FOOT PEDAL	1
476	2322704	SPRING, LARGE SHORT SS	6
478	2323730	BUTTON, LEFT STEER, TERROVA	1

▲ Not shown on Parts Diagram.

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

◆ Only available with models factory installed with i-Pilot.

● Only available with models factory installed with i-Pilot Link.

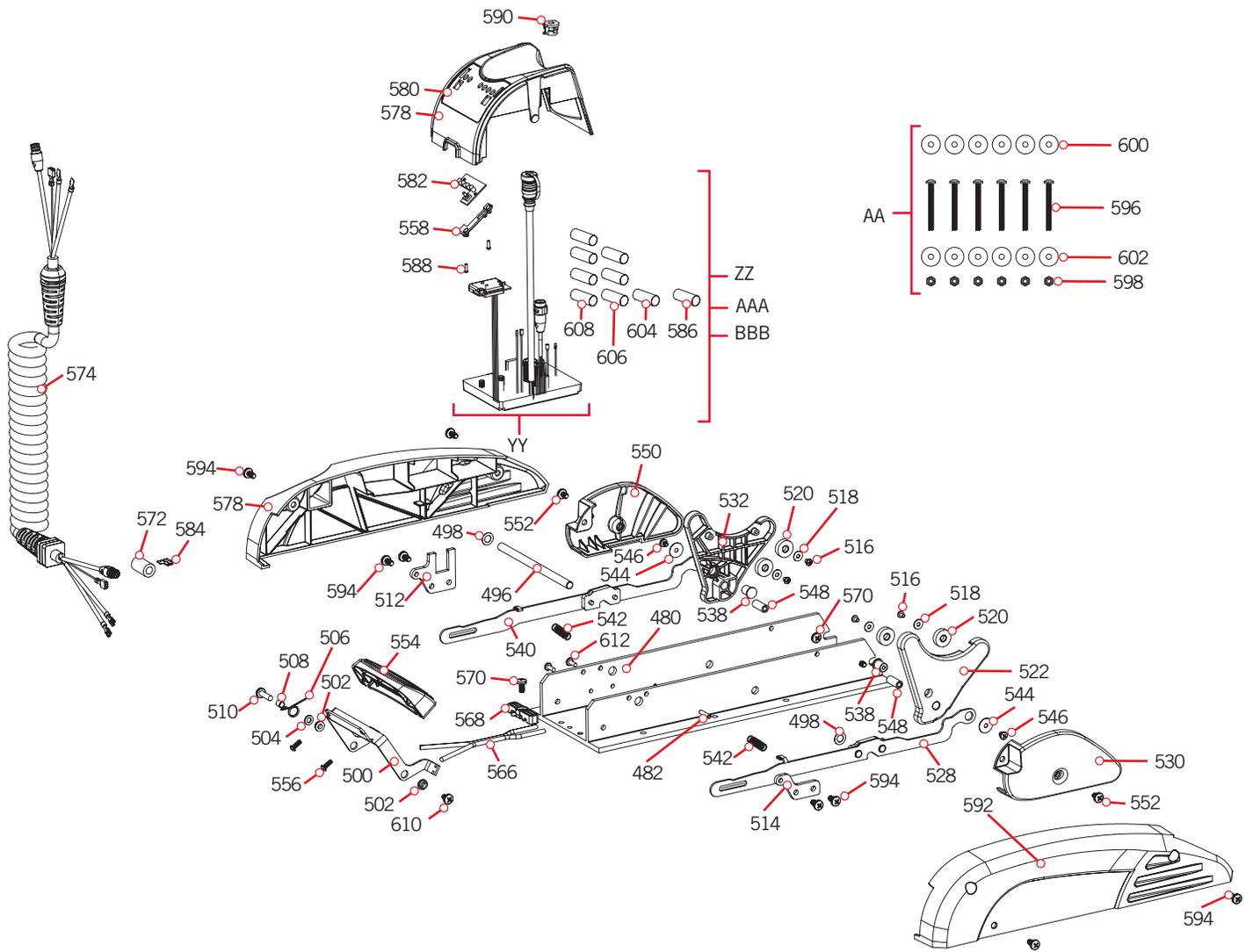
✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST

TERROVA MOUNT >

> Mount Parts Diagram



PARTS DIAGRAM & PARTS LIST

Mount Parts List

Assembly	Part #	Description	Quantity
YY	2774065	CONTROL BRD, 12V TERROVA BT *NO SHRINKS*	1
ZZ	2774066	CTRL BRD, 24/36V TRV BT w/SHRNK *SHRINK TUBES*	1
AAA	2774067	CTRL BRD, 12V IP TRV BT w/SHRNK *SHRINK TUBES* *i-PILOT/i-PILOT LINK*	1
BBB	2774069	CTRL BRD, 24/36V IP TRV BT, SHRNK *SHRINK TUBES* *i-PILOT/i-PILOT LINK*	1
AA	2994864	BAG ASSY-TERROVA/V2,MNTG HDW	1
Item	Part #	Description	Quantity
480	2321907	BASE, EXTRUSION, MACHINED	1
482	2322912	PIN-ROLL .1875 X 1.000 SS	2
▲	2325502	DECAL, STOW / DEPLOY, T2	1
496	2322602	PIN-PIVOT, ZP	1
498	2013100	NUT-SPEED	2
500	2320405	HANDLE, RELEASE, FW	1
502	2322604	BUSHING,HANDLE,GOBEIL	2
504	2071716	WASHER-FLAT SS .253 x .470	1
506	2322701	SPRING, TORSION	1
508	2301700	SPACER-RELEASE LEVER-BRASS	1
510	2073408	SCREW-1/4-20 X 7/8 PPH S/S	1
512	2321940	BRACKET, STRAIN RELIEF FW	1
514	2321950	BRACKET, SIDEPLATE FW	1
516	2323412	SCREW-#8-18 X .25 PPH SS TY B	4
518	2321706	WASHER-FLAT #8 .50 OD/.188 SS	4
520	2325115	PAD, RUBBER REST, BLACK	4
522	2323910	RAMP-MOTOR, RIGHT 3-5/8"	1
	2323931	RAMP-MOTOR, RIGHT 4.5"	1
	2323930	RAMP-MOTOR, RIGHT 4"	1
528	2994204	ARM/SUPPORT BLOCK ASSY,R,FW	1
530	2321920	PLATE-SKID, RIGHT FW *4.0* *3.625* *55LB THRUST* * 80LB THRUST*	1
	2321922	PLATE-SKID, RIGHT FW *4.5* *112LB THRUST*	1
532	2323915	RAMP-MOTOR, LEFT 3 5/8"	1
	2323935	RAMP-MOTOR, LEFT 4"	1
	2323936	RAMP-MOTOR, LEFT 4.5"	1
538	2324705	INSERT-MOTOR RAMP,METAL,ZP	2
540	2994202	ARM/SUPPORT BLOCK ASSY,L,FW	1
542	2322716	SPRING, EXTENSION, T2	2
544	2321700	WASHER #10 SS	2
546	2323422	SCREW-#10-24 X .25" PPH SS MCH	2

▲ Not shown on Parts Diagram.

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

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● Only available with models factory installed with i-Pilot Link.

✚ Only available with models factory installed with Universal Sonar.

➔ Only available with models factory installed with Built-in MEGA Down Imaging.

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
548	2322920	STAND-OFF, ALUMINUM PLAIN	2
550	2321925	PLATE-SKID, LEFT FW *4.0* *3.625* *55LB THRUST* * 80LB THRUST*	1
	2331927	PLATE-SKID, LEFT FW *4.5* *112LB THRUST*	1
552	2323403	SCREW-1/4-20 X.375 MCH SS CRPH	2
554	2320217	COVER, HANDLE COSMETIC FW	1
556	2383446	SCREW-#8-16 X .50" PLASTITE SS	2
558	2320830	LOCKING TAB,PWR/BAT.METER	1
▲	2383428	SCREW-#4-24 X 3/8 HI-LO SS	2
▲	2320203	CAP-DUST,CONNECTOR,FEMALE	1
▲	2323406	SCREW-#10-24 X .50 CRPH SS	2
566	2090651	LEADWIRE,10 GA	1
568	2321310	STRAIN RELIEF	1
570	2323405	SCREW-1/4-20 X 1/2" MCH SS	3
572	2307313	BEAD-FERRITE	1
574	2991272	COIL CORD ASY 54"/60" U.SONAR	1
	2991276	COIL CORD ASSY 472" U.SONAR	1
	2991274	COIL CORD ASSY 45"/48" U.SONAR	1
	2991271	COIL CORD ASY 54"/60" NON-US2	1
576	2323927	SIDEPLATE-LEFT, TERROVA	1
578	2326530	HOUSING-CENTER, TERROVA	1
580	2325657	DECAL, B. MTR/CON/PWR/STATUS FW	1
582	2074072	BATTERY METER, 36V, FW	1
	2074071	BATTERY METER, 24V, FW	1
	2074070	BATTERY METER, 12V, FW	1
584	2320710	TERMINAL-AMP (T-TAB)	1
586	2325401	SHRINK TUBE-3/4 ID X 2" W/ADHS	1
▲	2321315	HOLDER-CONNECTOR,NYLON,BLACK	1
588	2332103	SCREW-#6-20 X 3/8 THD*(SS)	2
590	2322901	STRAIN RELIEF, HEYCO P/N 1852	1
592	2323922	SIDEPLATE-RIGHT, TERROVA	1
594	2323404	SCREW-1/4-20 X 1/2" T-L ZP	8
596	2263462	SCREW-1/4-20 X 2" S/S PPH ADJT	6
598	2263103	NUT-1/4-20 NYLOCK SS	6
600	2301720	WASHER-MOUNTING - RUBBER	6
602	2261713	WASHER-1/4 FLAT 18-8 SS	6
604	2305415	SHRINK TUBE-.472 ID X 2.25"	1
606	2305410	SHRINK TUBE-.315 OD X 2.25"	3

▲ Not shown on Parts Diagram.

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PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
608	2305401	SHRINK TUBE-.374 ID X `1.5"	4
610	2332104	SCREW-1/4-20 X 5/8 S/S	1
612	2323402	SCREW-1/4-20 X .375 T-L, ZP	2
▲	2327130	MANUAL, TERROVA BT*ONLINE ONLY*	1
▲	2327132	MANUAL, INSTALL GUIDE, TRRV BT	1
▲	2397100 ◆	MANUAL, IPILOT 1.6 *ONLINE ONLY*	1
▲	2397102 ●	MANUAL, IPILOT 3.0 *ONLINE ONLY*	1
▲	2297165	MANUAL - DISCLAIMER. DOWNLOAD INFO	1

▲ Not shown on Parts Diagram.

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