

PONTOON HAND CONTROL

BOW-MOUNT TROLLING MOTOR

USER MANUAL

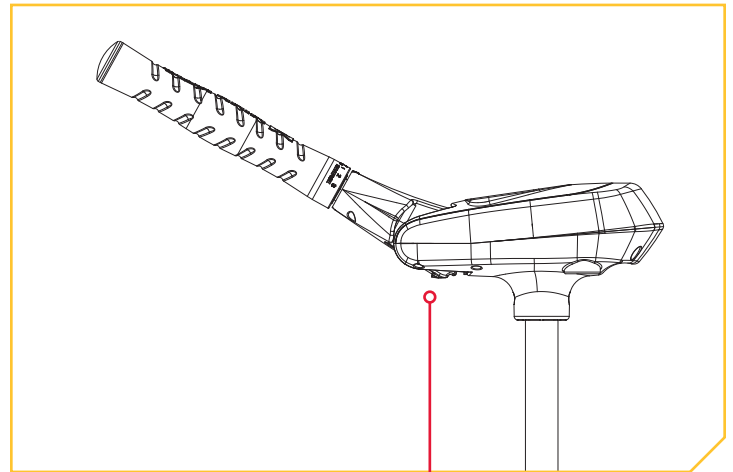
INTRODUCTION

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.

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 Pontoon Hand Control motor is located under the tiller handle.



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.

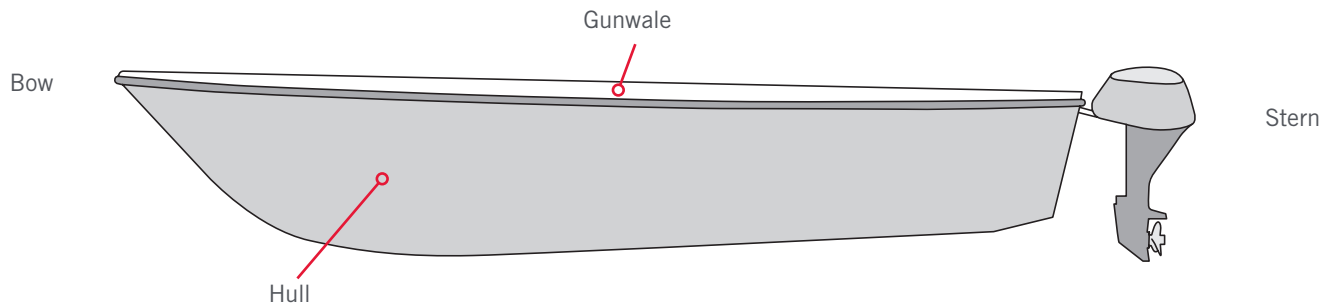
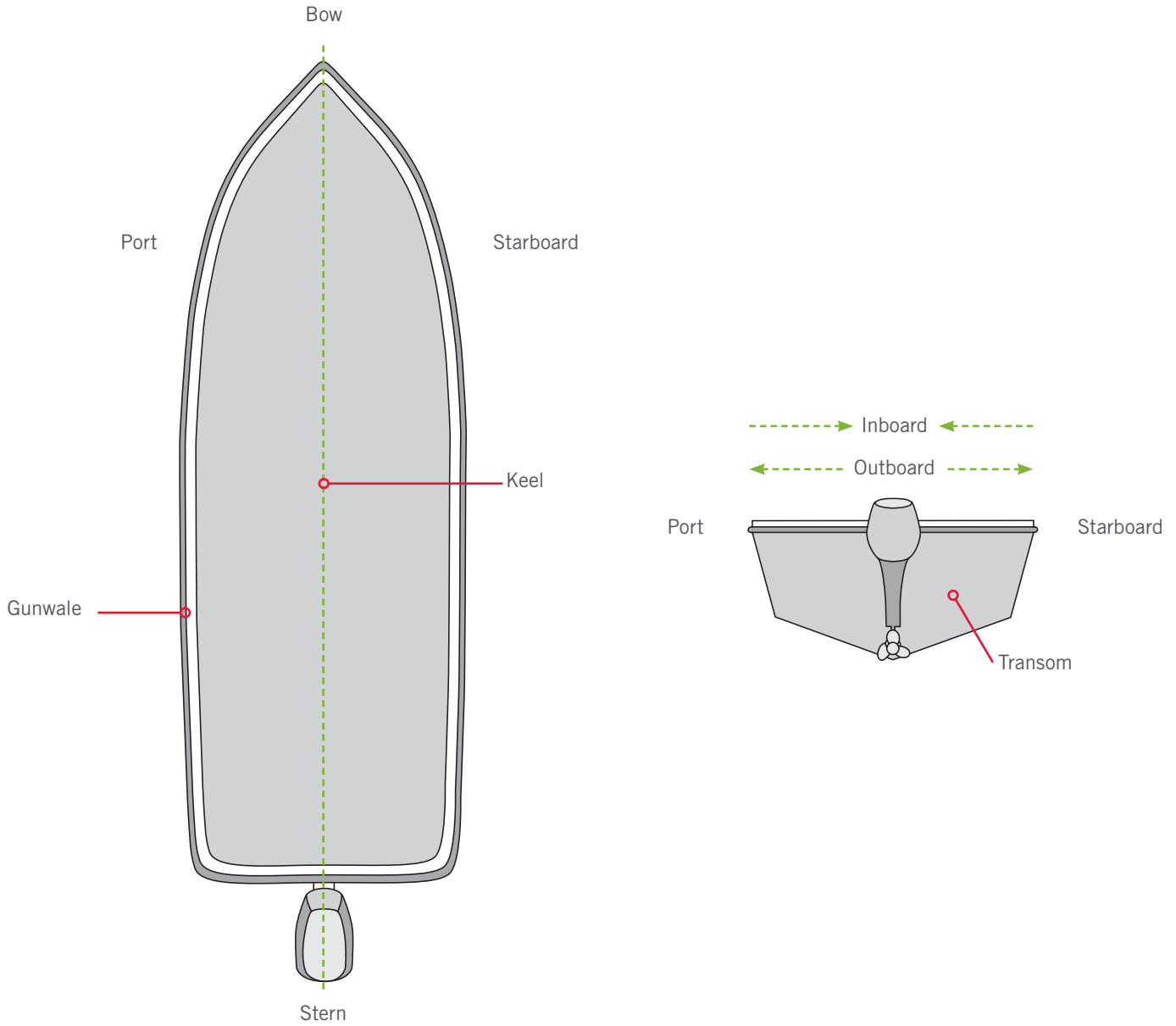
WARNING

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.

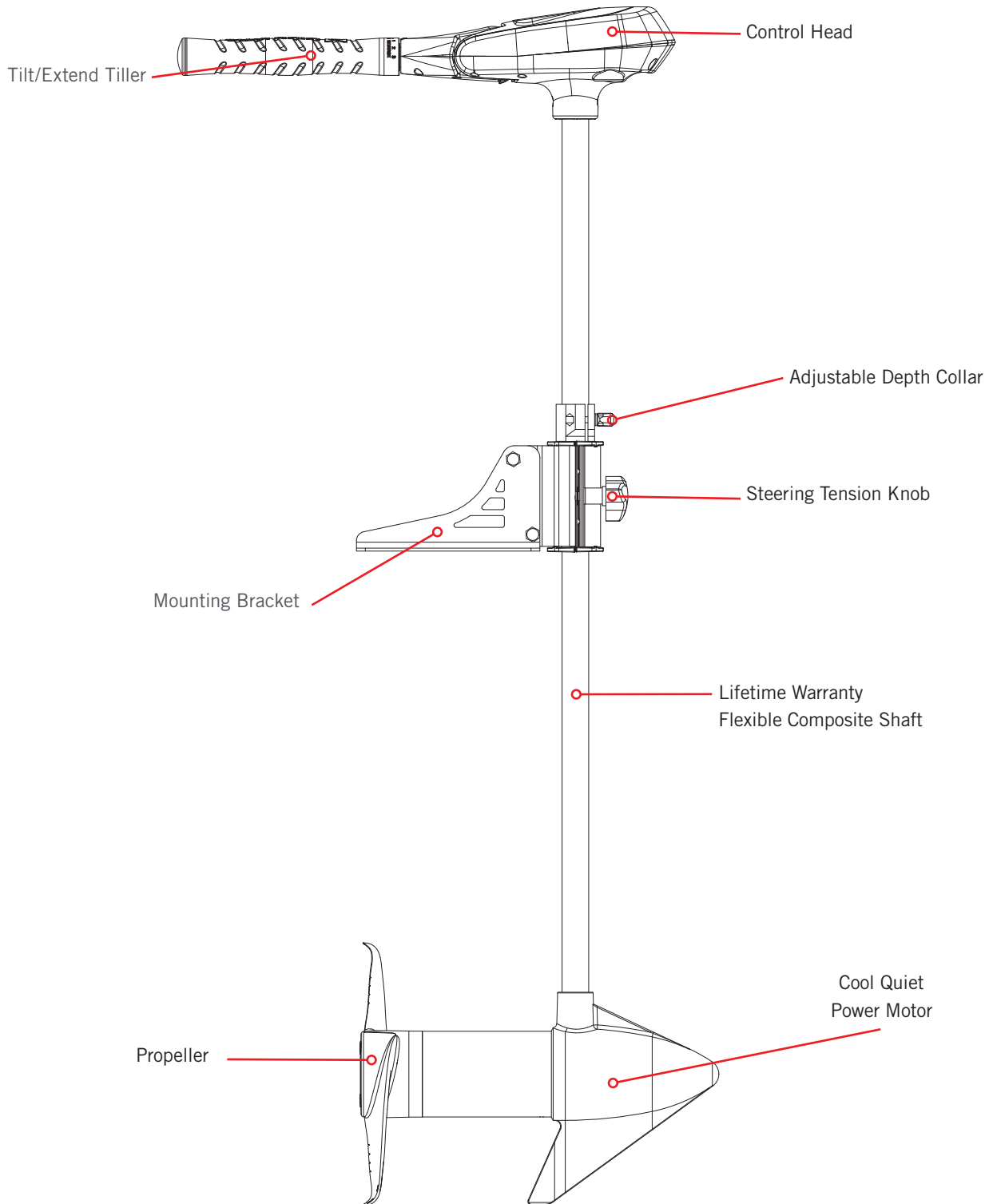
WARNING

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.

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

TOOLS AND RESOURCES REQUIRED >

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

INSTALLATION >

MOUNT INSTALLATION

Please review the following guidelines before beginning the installation of the Pontoon Hand Control:

- The Motor should be mounted as close to the centerline or keel of the pontoon as possible when it is deployed.
- Make sure the deck area under the chosen location is clear and unobstructed for drilling.
- Make sure the Mounting Bracket and Shaft are positioned far enough beyond the edge of the pontoon. The motor, as it is lowered into the water or raised into the pontoon, must not encounter any obstructions.
- Before you proceed, determine the desired mounting location for the motor. Verify that there are no obstacles that the Control Head, Tilt/Extend Tiller, or Prop might hit while in use that would restrict steering or cause damage to the motor.

NOTICE: We recommend that you have another person help with this procedure.

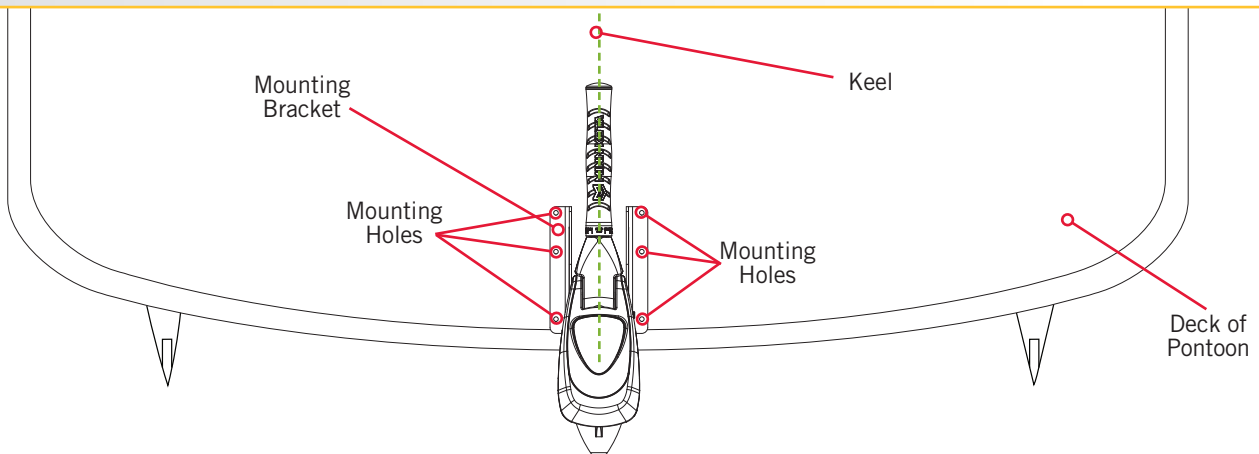
1

- a. Review the mounting considerations at the beginning of this section. Place the Mounting Bracket as close to the centerline or keel of the pontoon as possible, with the Motor in the deployed position, on the deck of the pontoon.



WARNING

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



WARNING

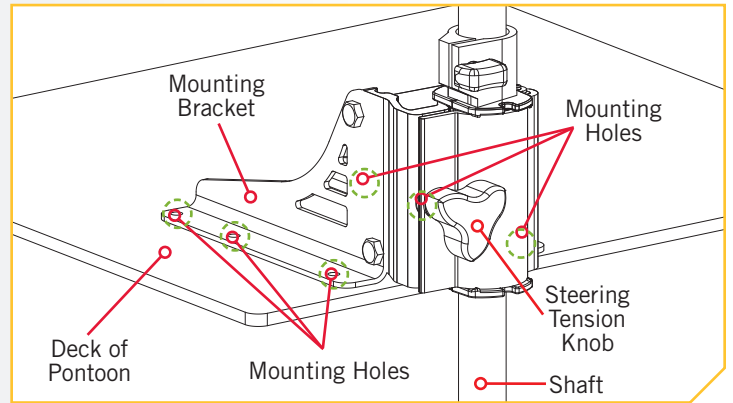
When raising or lowering motor, keep fingers clear of all hinge and pivot points and all moving parts.

INSTALLATION

2

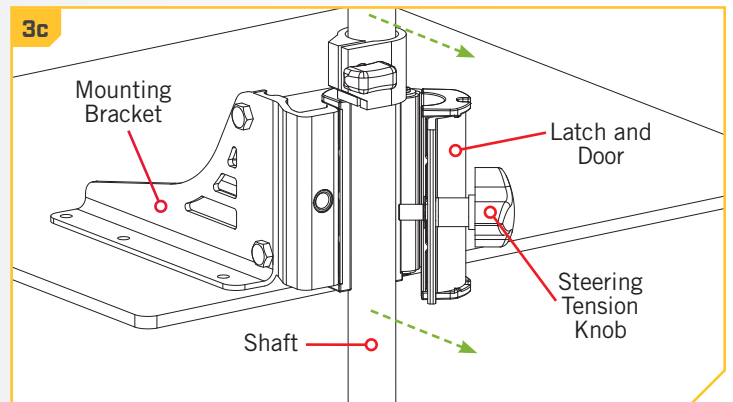
- b. Once in position, mark a minimum of four of the six Mounting Holes, two on each side. Drill through the marked holes using a 9/32 drill bit.

NOTICE: The four front Mounting Holes use the same bolt pattern as used on Minn Kota Quick Release Brackets for the MKA-21, RTA-17, MKA-16-03 and MKA-32. The Mounting Bracket for the Pontoon Hand Control may be attached to any of these for your mounting convenience.

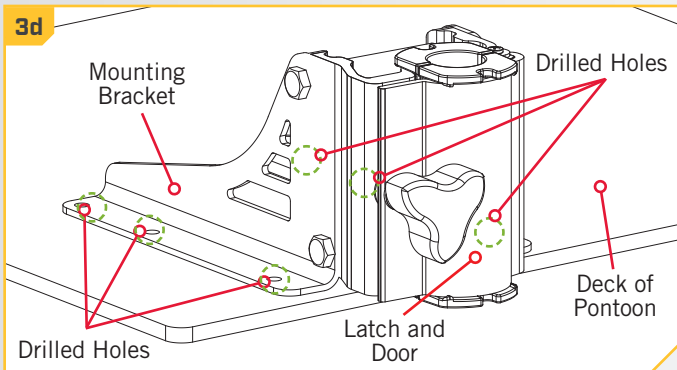


3

- c. Remove the Motor Assembly from the Mounting Bracket by loosening the Steering Tension Knob and opening the Latch and Door.
- d. Set the Motor Assembly aside and close the Latch and Door on the Mounting Bracket. Align the Mounting Bracket with the drilled holes.



3d

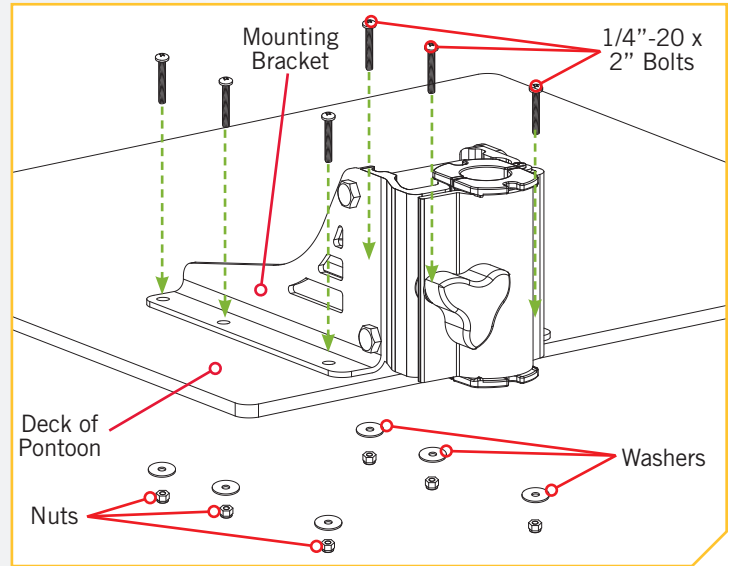


INSTALLATION

4

- e. Secure the Mounting Bracket to the deck of the pontoon through the drilled holes using the 1/4"-20 x 2" Bolts, Washers and Nuts provided.

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.



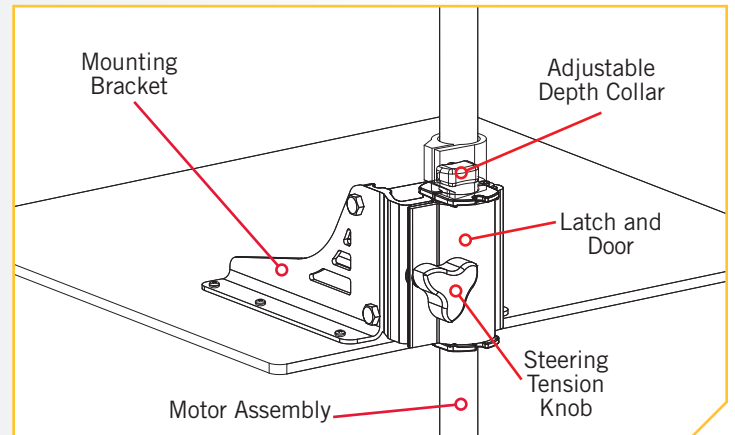
5

- f. Replace the Motor Assembly back inside the Latch and Door of the Mounting Bracket. Be sure that the Adjustable Depth Collar sits above the Latch and Door. Secure the Motor Assembly in place by tightening the Steering Tension Knob.

WARNING

When raising or lowering motor, keep fingers clear of all hinge and pivot points and all moving parts.

NOTICE: When setting the depth be sure the top of the motor is submerged at least 12" to avoid churning or agitation of surface water. The propeller must be completely submerged. To adjust the motor, you may need to loosen the Adjustable Depth Collar.



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.

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.





› Automatic Jump Start Systems and Selector Switches

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

CONNECTING THE BATTERIES

› 12 Volt Systems

1. Make sure that the motor is switched off (speed selector on “OFF” or “0”).
2. Connect positive (+) red lead to positive (+) battery terminal.
3. Connect negative (–) black lead to negative (–) battery terminal.

 **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.



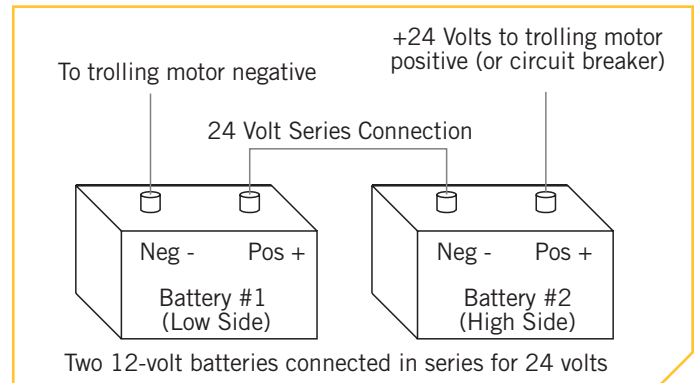
CONNECTING THE BATTERIES

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.

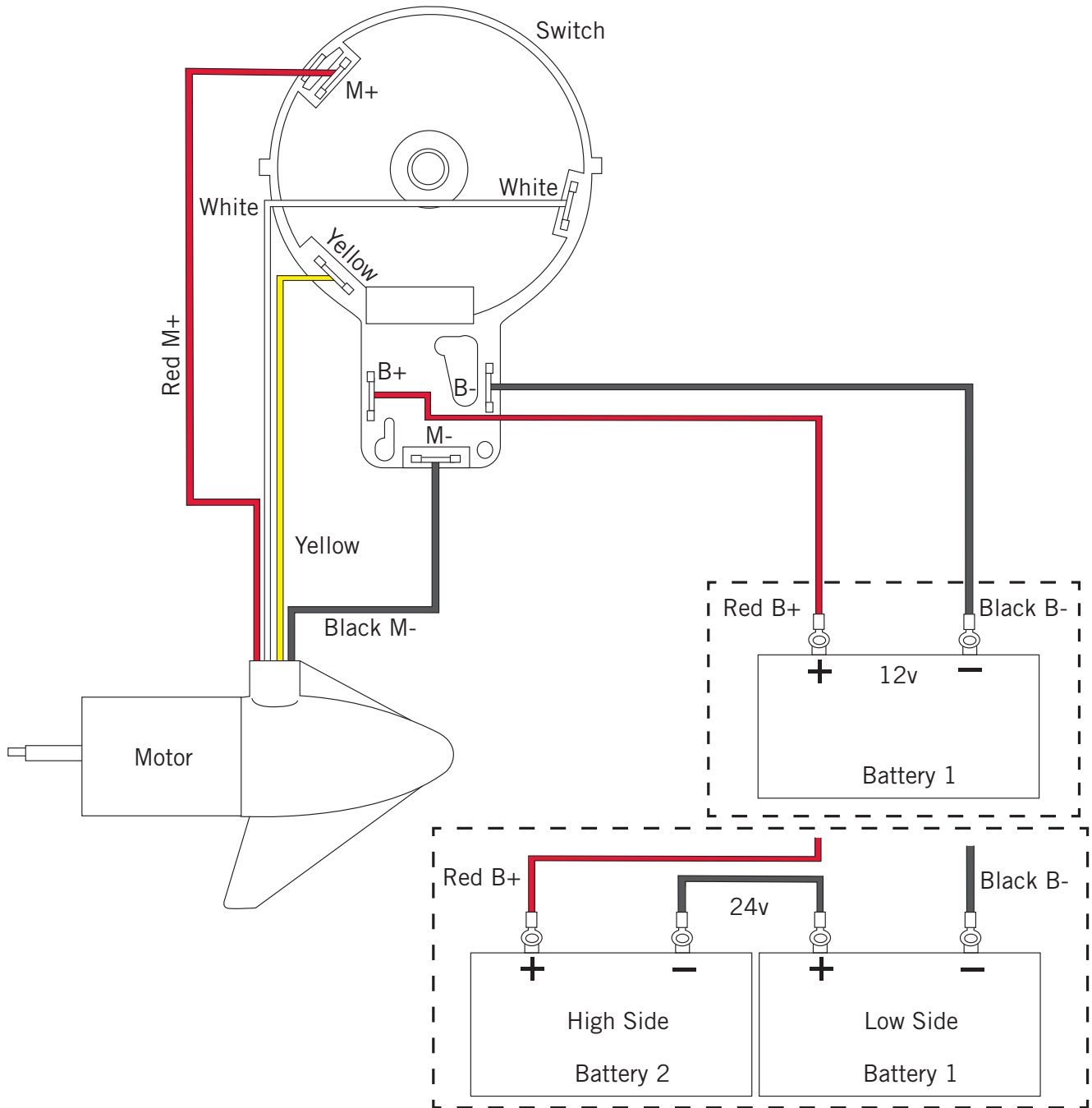
WARNING

- 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.

MOTOR WIRING DIAGRAM

PONTOON HAND CONTROL

The following Motor Wiring Diagram applies to all Pontoon Hand Control models.

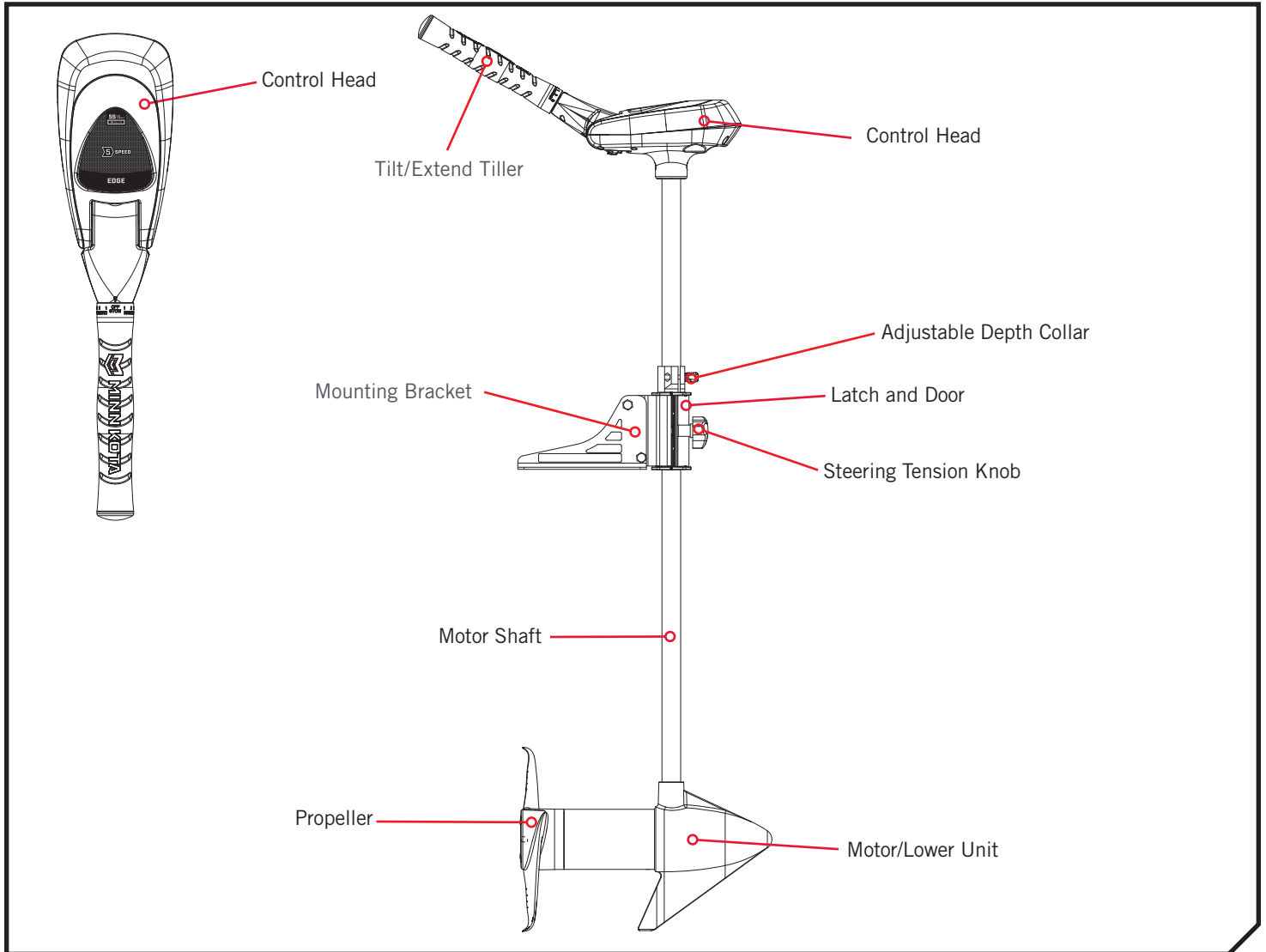


NOTICE: This is a multi-voltage diagram. Double-check your motor's voltage for proper connections. Over-Current Protection Devices are not shown in this illustration.

USING & ADJUSTING THE MOTOR

MOUNT FEATURES

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



WARNING

The Pontoon Hand Control is not intended to be a primary propulsion motor. Heavy use of the motor can cause elevated motor temperatures, which can be increased by an excessively hot operating environment. Use care when handling the Control Head to avoid burns or injuries from excessive heat. In the event that the motor or speed control would break, always be prepared to take manual control of the pontoon.



WARNING

Be alert for unexpected pontoon movement when operating the Pontoon Hand Control. The pontoon may encounter sharp turns and jolts if the steering is changed sharply or if broad changes in speed are made while operating. Maintain balance and observe safe motor operation.

USING & ADJUSTING THE MOTOR

WARNING

The prop may turn on unexpectedly if the switch fails. Prevent injury from a turning propeller and always know how to quickly disengage the power.

STOWING AND DEPLOYING THE MOTOR

WARNING

When stowing or deploying the motor, keep fingers clear of all hinge and pivot points and all moving parts. Practice proper ergonomics when stowing and deploying the motor to prevent injury.

WARNING

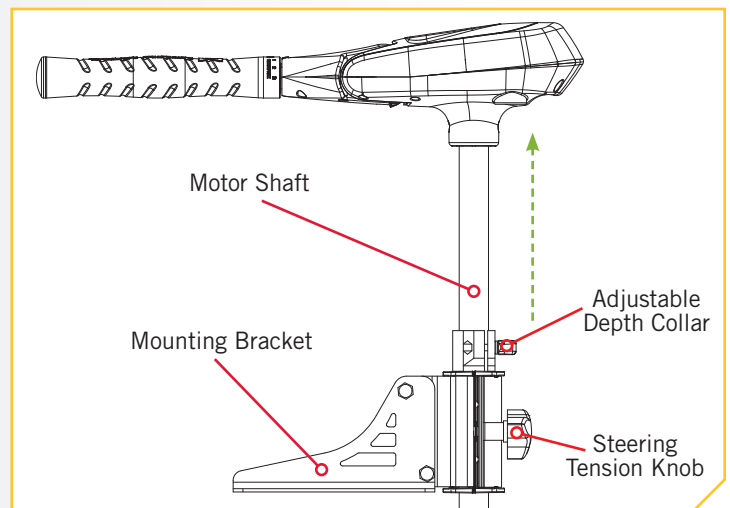
Moving the motor creates a variety of pinch points. The Control Head will create a pinch point if the Depth Adjustment Knob is loosened and the Control Head slides to the top of the Mounting Bracket. Grasp the Shaft and prevent it from sliding all the way down to prevent the pinch point. Grasp the motor away from the area that may come in contact with another area of the motor to prevent injury.

WARNING

When the motor is being transported, on water or land, it is important to place the Motor completely out of water. The Motor should be positioned up close to the Mounting Bracket. Always secure the Depth Adjustment Knob and slide the collar down to the top of the Mount for added security during transport. 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.

› Stowing the Motor

- 1**
 - a. Firmly grasp the Motor Shaft or Control Head.
 - b. Loosen the Steering Tension Knob and lift up on the Motor.
 - c. Retighten the Steering Tension Knob to retain the steering tension of the motor.
 - d. Slide the Adjustable Depth Collar down to the top of the Mounting Bracket to secure the motor in place.

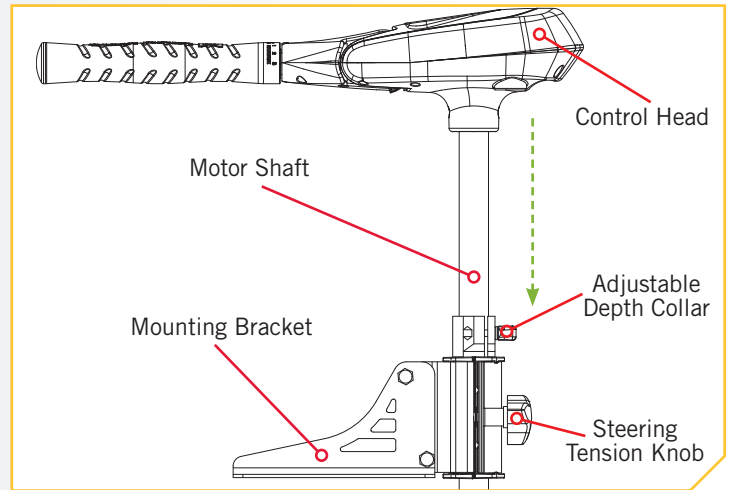


ADJUSTING THE DEPTH OF THE MOTOR

Deploying the Motor

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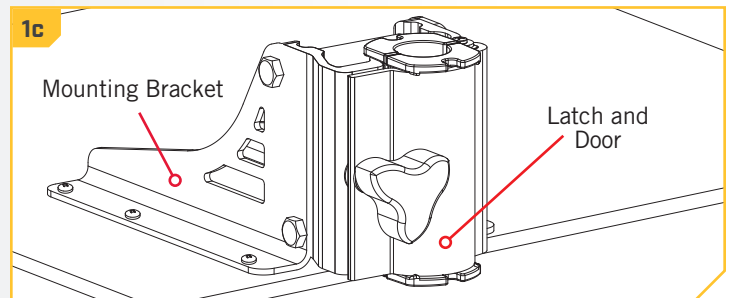
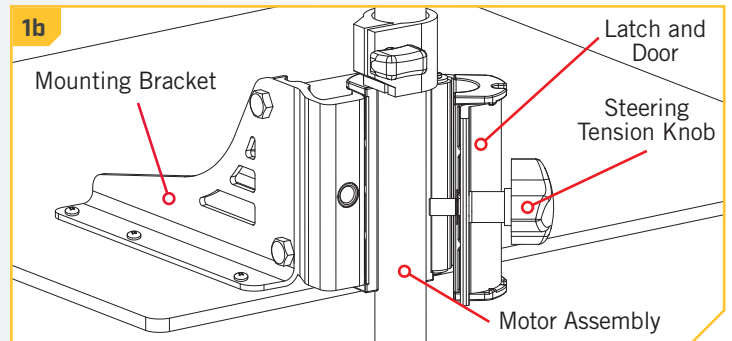
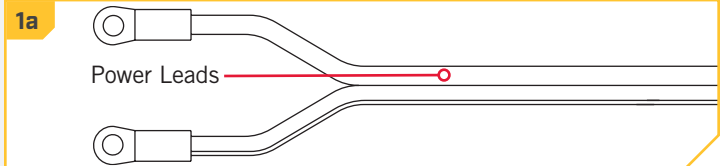
- a. Loosen the Adjustable Depth Collar.
- b. Hold the Motor Shaft or Control Head firmly, and loosen the Steering Tension Knob.
- c. Gently lower the motor into the water.
- d. Retighten the Adjustable Depth Collar. It should sit just on top of the Mounting Bracket.
- e. Retighten the Steering Tension Knob to the desired steering tension.



REMOVING FOR TRANSPORTATION/STORAGE

1

- a. Disconnect the motor from batteries by disconnecting the Power Leads.
- b. Loosen the Steering Tension Knob to open the Latch and Door on the Mounting Bracket. Remove the motor assembly from the Mounting Bracket.
- c. Close the Latch and Door on the Mounting Bracket and tighten the Steering Tension Knob so the Latch and Door remain closed.



WARNING

The Control Head will create a pinch point if the Depth Adjustment Knob is loosened and the motor Control Head slides to the top of the Mounting Bracket. Grasp the Shaft and prevent it from sliding all the way down to prevent the pinch point. Grasp the Motor away from the area that may come in contact with another area of the Motor to prevent injury. Watch for pinch points when opening and closing the Latch and Door.

ADJUSTING THE DEPTH OF THE MOTOR

MOTOR ADJUSTMENTS >

> Adjusting the Depth of the Motor

When setting the depth be sure the top of the Motor is submerged at least 12" to avoid churning or agitation of surface water. The propeller must be completely submerged.

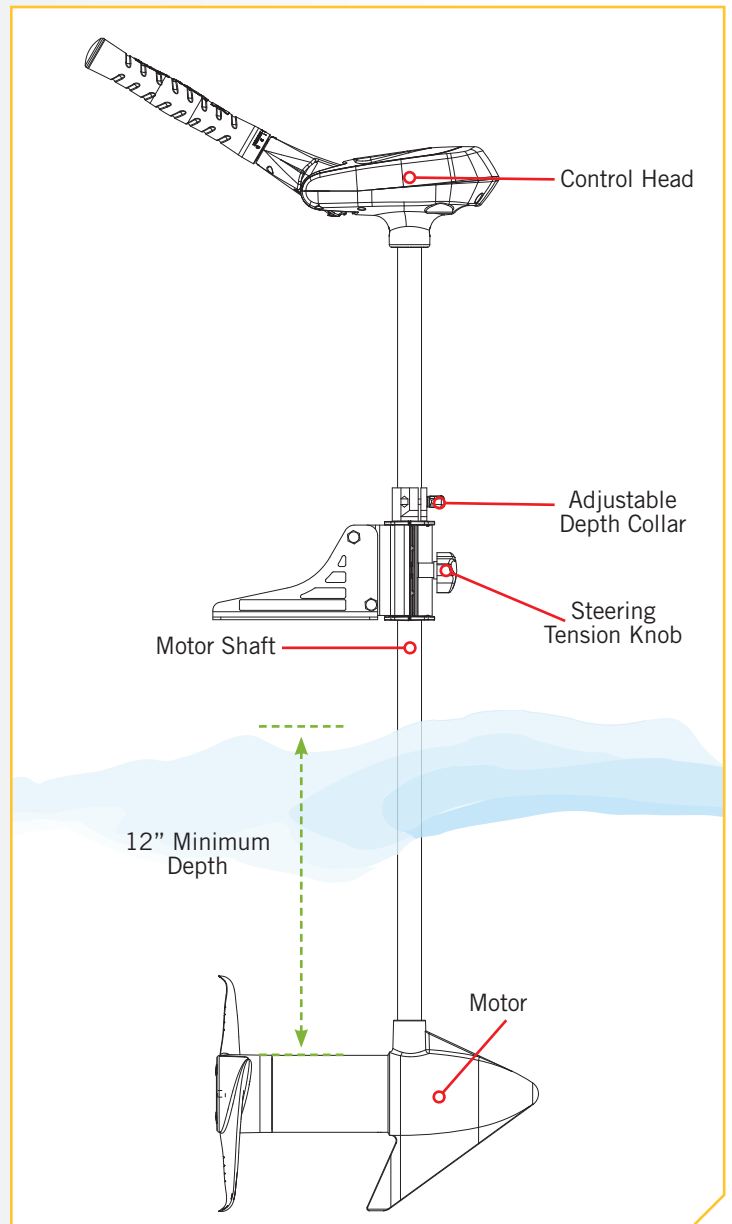
1

- a. Firmly grasp the Motor Shaft or Control Head and hold it steady.
- b. Loosen the Adjustable Depth Collar and Steering Tension Knob until the Shaft slides freely.
- c. Raise or lower the Motor to the desired depth.
- d. Turn the Control Head to the desired position.
- e. Tighten the Depth Adjustment Collar and Steering Tension 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

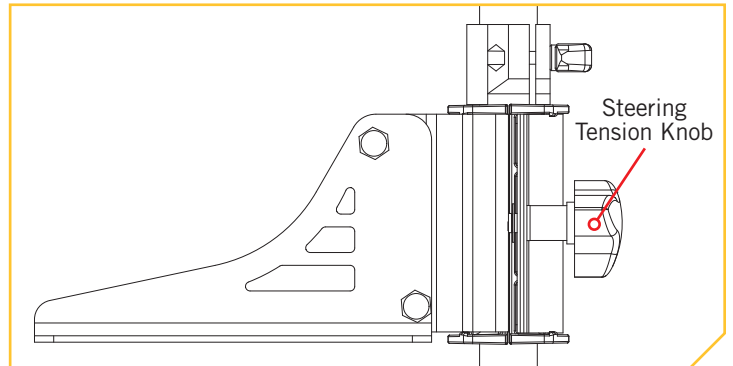
The Control Head will create a pinch point if the Depth Adjustment Knob is loosened and the motor Control Head slides to the top of the Mounting Bracket. Grasp the Shaft and prevent it from sliding all the way down to prevent the pinch point. Grasp the Motor away from the area that may come in contact with another area of the Motor to prevent injury.



ADJUSTING THE DEPTH OF THE MOTOR

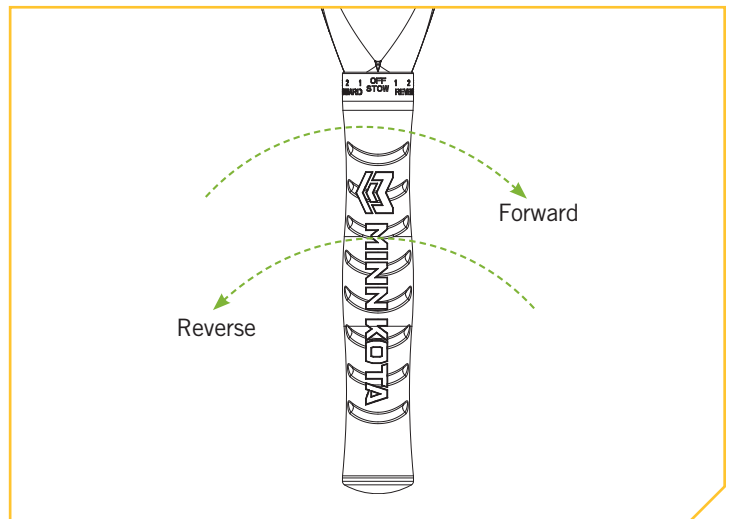
Adjusting the Steering

- Adjust the Steering Tension Knob to provide enough tension to allow the motor to turn freely, yet remain in any position without being held, or
- Tighten the Steering Tension Knob to place the motor in a preset position to leave your hands free for fishing.



Controlling Speed & Steering with the Tiller

This Motor offers 5 forward and 3 reverse speeds. The speed control may be operated in either direction, forward or reverse. Turn the tiller handle counterclockwise from (OFF) to increase reverse speed and clockwise from (OFF) to increase forward speed. Speed decreases as you approach (OFF) from either direction.



! WARNING

When the Motor is not in use, always turn the Tilt/Extend Tiller handle to "OFF/STOW". If the handle is set or accidentally engaged or bumped and is not positioned to "OFF/STOW" the prop will turn on unexpectedly. The prop may also turn on unexpectedly if the control board or 5 position switch fails. Prevent injury from a turning propeller and always know how to quickly disengage the power or correct the Tilt/Extend Tiller to turn the prop off.

WARNING

The Pontoon Hand Control is not intended to be a primary propulsion motor. Heavy use of the motor can cause elevated motor temperatures, which can be increased by an excessively hot operating environment. Use care when handling the control head to avoid burns or injuries from excessive heat. In the event that the motor or speed control would break, always be prepared to take manual control of the boat.

! WARNING

Be alert for unexpected boat movement when operating the Pontoon Hand Control. The boat may encounter sharp turns and jolts if the steering is changed sharply or if broad changes in speed are made while operating. Maintain balance and observe safe motor operation.

ADJUSTING THE DEPTH OF THE MOTOR

Adjusting the Tilt/Extend Tiller

Your trolling motor features 7 usable handle tilt positions: 45°, 30°, and 15° up and down from the 0° (horizontal) position. To use the down positions, you must first press the release button located on the left underside of the pivot handle.

Your trolling motor handle also features a unique stow position, that is useful for limiting the amount of space required for storage or travel.

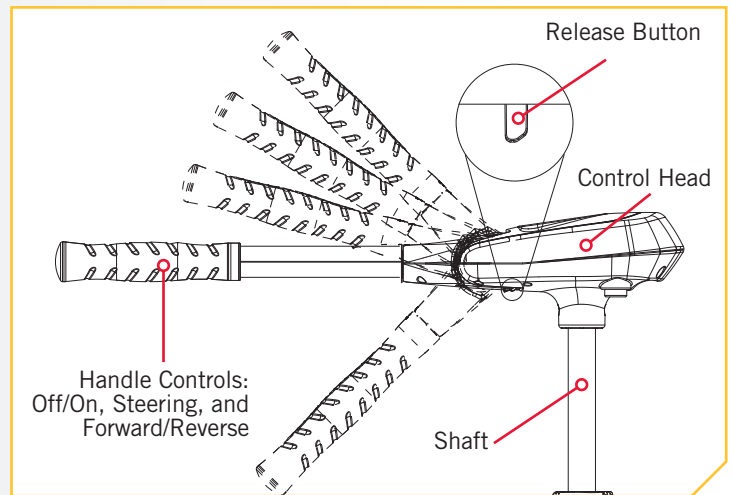
1

- a. Place the Tiller handle in the Off/Stow position, then press the Release Button located on the left underside of the pivot handle. Push the handle down until you feel the handle “lock in” to the stowed position. This will be almost parallel to the motor Shaft.
- b. To extend the handle, pull the handle towards you to the desired position. The handle will extend a full 6 inches. To retract, push the handle in until it meets the face of the motor Control Head.



WARNING

The Pontoon Hand Control is not intended to be a primary propulsion motor. Heavy use of the motor can cause elevated motor temperatures, which can be increased by an excessively hot operating environment. Use care when handling the Control Head to avoid burns or injuries from excessive heat. In the event that the motor or speed control would break, always be prepared to take manual control of the boat.



WARNING

The position of the Tilt/Extend Tiller may create a pinch point between it and the Control Head. Grasp the motor away from the area that may come in contact with another area of the motor to prevent injury.



CAUTION

Before attempting to put the handle in the stowed position, the speed selector must be in the OFF/STOW position. Failure to do so will damage the internal mechanism.

SERVICE & MAINTENANCE

PROPELLER REPLACEMENT

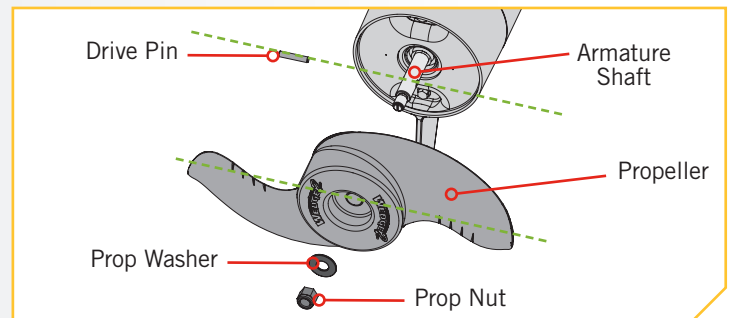
TOOLS AND RESOURCES REQUIRED >

- 1/2" 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.



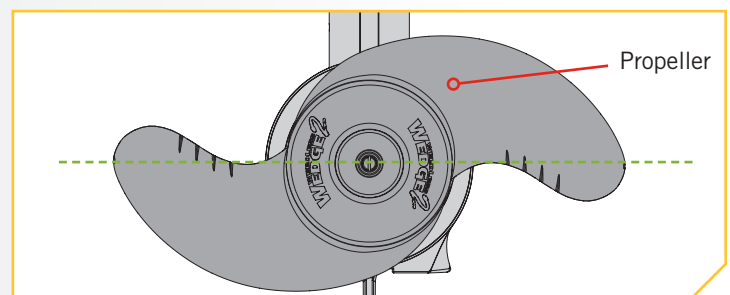
⚠ CAUTION

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

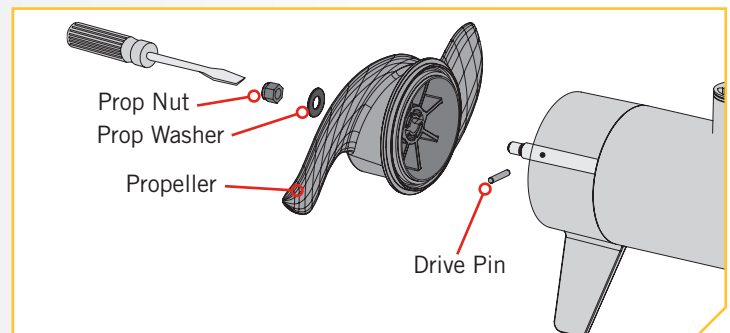
If the prop does not readily slide off, take care to not bend the Armature Shaft while removing the prop by pulling the prop evenly off the Armature Shaft.



- 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.





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.



COMPLIANCE STATEMENTS

ENVIRONMENTAL COMPLIANCE STATEMENT

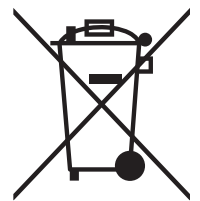
It is the intention of JOME to be a responsible corporate citizen, operating in compliance with known and applicable environmental regulations, and a good neighbor in the communities where we make or sell our products.

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.

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.

COMPLIANCE STATEMENTS



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



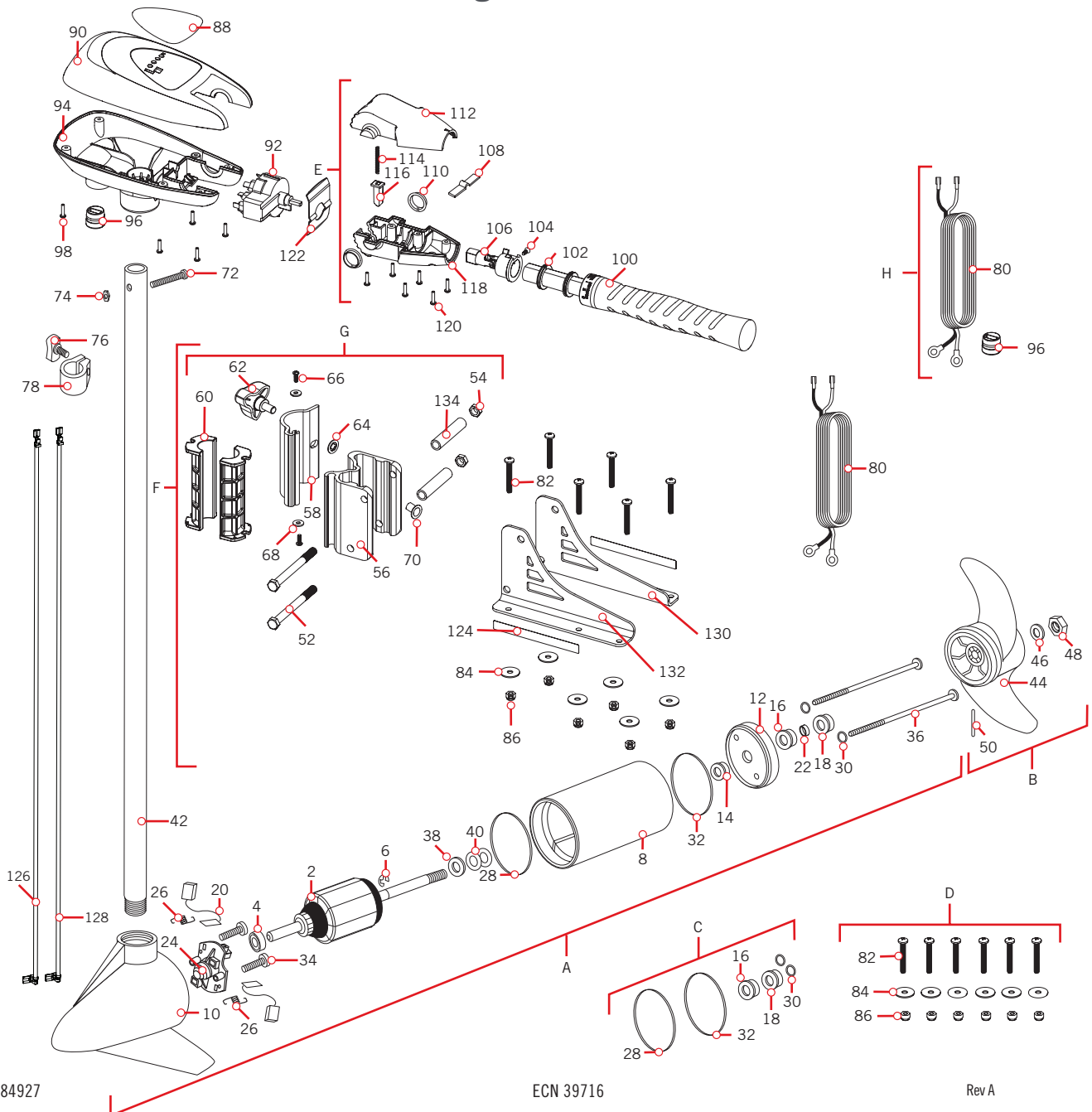
PARTS DIAGRAM & PARTS LIST

PONTOON HAND CONTROL - 70 LBS THRUST - 24 VOLT - 52" 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.

PONTOON HAND CONTROL 70 >

> Pontoon Hand Control 70 Parts Diagram



PARTS DIAGRAM & PARTS LIST

▶ Pontoon Hand Control 70 Parts List

Assembly	Part #	Description	Quantity
A	2096065	MTR ASY 24V 362	1
B	1378131	PROPELLER KIT 3.625	1
C	2888460	SEAL & O-RING KIT 3.625	1
D	2994838	BAG ASSEMBLY - BOLTS NUTS WASHERS	1
E	2990467	HANDLE ASM, 5-3 SPD FW/SW	1
F	2991645	PONTOON BRACKET	1
G	2991829	HINGE DOOR KNOB ASSEMBLY	1
H	2992527	LEADWIRE ASSEMBLY EDGE /HC	1
Item	Part #	Description	Quantity
2	2-100-128	ARMATURE ASM 24V 3.62", 70	1
4	140-010	BALL BEARING	1
6	788-015	RETAINING RING	1
8	2-200-005	CTR HSG ASY 3.6 FW	1
10	2-300-139	BRUSH END ASY 24V 3.625	1
12	2-400-101	PLAIN END HOUSING ASSEMBLY 3.625	1
14	144-049	BEARING	1
16	880-003	SEAL	1
18	800-006	SEAL W/SHIELD	1
20	188-038	BRUSH ASSEMBLY, 3.625, 70#	2
22	725-049	TUBE - BRUSH RETENTION	1
24	738-038	BRUSH PLATE, 3.625 70#	1
26	975-042	SPRING TORSION, 70# LOWER UNIT	2
28	337-036	GASKET	1
30	701-008	O-RING THRU BOLT	2
32	701-081	O-RING	1
34	830-007	#8-32 SCREW	2
36	830-008	THRU BOLT 10-32 x 9.205	2
38	990-067	WASHER, STEEL THRUST	1
40	990-070	WASHER, NYLATRON	2
42	2032068	COMPOSITE TUBE	1
44	2091160	PROPELLER	1
46	2151726	WASHER, 5/16 SS	1
48	2053101	NUT, PROP NYLOC	1
50	2092600	PIN, DRIVE	1
52	2263511	BOLT 3/8-16 X 4/25"	1
54	2263114	NUT - NYLOCK JAM 3/8-16	1
56	2261892	HINGE BASE, FW	1

▲ Not shown on Parts Diagram.

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

PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
58	2261897	HINGE DOOR, FW	1
60	2261537	HINGE SLEEVE	2
62	2260905	HANDLE - SOFT GRIP, L&D	1
64	2261728	WASHER - RETAINING 3/8"	1
66	2053415	SCREW - #8-32 X 3/8" TRI	2
68	2261732	WASHER #8, NYLON	2
70	2264703	INSERT - THREADED	1
72	2033400	SCREW - 10-24 X 1-3/4	1
74	2013110	NUT - 10-24 HEX (ZCP)	1
76	2011365	SCREW - COLLAR/NEW KNOB	1
78	2031520	COLLAR - DEPTH W/O INSERT	1
80	2992521	LEADWIRE - 10 GA RINGS	1
82	2263462	SCREW - 1/4-20X2 SS	6
84	2261713	WASHER - 1/4 FLAT 18-18	6
86	2263103	NUT - 1/4-20 NYLOC-JAM	6
88	2265786	DECAL, COVER EDGE 70/HC	1
90	2060298	COVER, CONTROL BOX, TRAXXIS FW	1
92	2064028	SWITCH 5 SPEED	1
94	2062505	CONTROL BOX, 5 SPD, FW	1
96	2062905	STRAIN RELIEF	1
98	2303412	SCREW, #6 X 5/8 SS	6
100	2990465	HANDLE ASM, 5-3 SPEED TRAXXIS	1
102	2060015	BEARING, HANDLE	2
104	2063405	SCREW, #6 PFH SS	1
106	2994091	YOKE / SPIDER ASSY, 5SPD	1
108	2062710	SPRING, EXT HDLE END	1
110	2060005	BEARING, HANDLE PIVOT	2
112	2060900	HANDLE PIVOT, TOP	1
114	2302745	SPRING, RELEASE BUTTON	1
116	2063700	BUTTON, RELEASE	1
118	2060905	HANDLE PIVOT, BOTTOM	1
120	2303412	SCREW, #6 X 5/8 SS	6
122	2062715	SPRING, HANDLE PIVOT	1
124	2265765	DECAL - MINN KOTA, PONTOON, MTR	2
126	640-006	LEADWIRE BLK 10 AWG 61 3/4 GPT	1
128	640-115	LEADWIRE RED 10 AWG 63 3/4 GPT	1
130	2261915	LEFT BRACKET	1
132	2261916	RIGHT BRACKET	1

▲ Not shown on Parts Diagram.

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



PARTS DIAGRAM & PARTS LIST



Item	Part #	Description	Quantity
134	2261727	BRACKET SPACER	2
▲	2186300	TIE WRAP, 11.5" TEMP -40 TO 180	1
▲	2015800	HANG TAG CAUTION TILT HINGE	1
▲	2187107	MANUAL, PONTOON/HC	1
▲	2184927	PARTS LIST EDGE/PONTOON 70	1

▲ Not shown on Parts Diagram.

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



RECOMMENDED ACCESSORIES

ON-BOARD & PORTABLE BATTERY CHARGERS

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



MK212PC



MK210D



MK110PD

TALON SHALLOW WATER ANCHOR

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



BUILT-IN WORK LIGHT

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



UP TO 15' DEEP

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



MORE CONTROL OPTIONS

- Control Panel
- Wireless Remote
- Mobile App
- Wireless Foot Switch
- Humminbird® Connectivity
- i-Pilot® & i-Pilot Link™ Remote



BLUETOOTH® CONNECTIVITY

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

MINN KOTA ACCESSORIES

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

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

