



# INTRODUCTION

#### THANK YOU

Thank you for purchasing the Minn Kota® Raptor shallow water anchor. This revolutionary shallow water anchor uses state-of-the-art technology to deliver unprecedented levels of boat control. Intuitive features and wireless control enable Raptor to accurately position your boat and improve your bait presentation. Raptor holds your boat in position so you can focus on fishing.

#### REGISTRATION

Remember to keep your receipt and immediately register your Raptor. To receive all the benefits of your product warranty, please fill out and mail the registration card. You may also register your product online at minnkota.johnsonoutdoors.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 Raptor is located on the mounting bracket beneath the Arm.



#### RAPTOR INFORMATION

(For Consumer Reference Only)

Model:	
Serial Number:	
Purchase Date:	
Store Where Purchased:	

NOTICE: Do not return your Minn Kota product 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 Raptor to the Minn Kota Factory Service Center; sending or taking your product to any Minn Kota authorized service center. A list of authorized service centers is available on our website, at minnkota.johnsonoutdoors.com. Please include proof of purchase, serial number and purchase date for warranty service with any of the above options.

Made for iPhone® 11 and iPhone X

For updated iOS, Humminbird® and Minn Kota® compatibility, visit minnkota.johnsonoutdoors.com





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

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# **SAFETY CONSIDERATIONS**

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

### 

You are responsible for the safe and prudent operation of your boat or vessel, and Raptor(s). This product does not relieve you from the responsibility of safe operation of your boat. It may be hazardous to operate your Raptor in rough or turbulent water conditions, such as fast currents or changing environmental conditions. Do not deploy your Raptor if these conditions are present, especially when the underwater topography is unknown. Failure to follow this warning may result in unexpected operation or failure of the Raptor to operate or anchor and could cause death or serious injury. You must avoid hazards to anchoring and always maintain a permanent watch so you can maintain proper control of your boat. 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.

### 

The Raptor should be disconnected from the power source when it is not in use or is off the water for more than a month. When connecting the power-supply cables of the Raptor to the battery or power switch, 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 Raptor 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 the product. Always disconnect the Raptor from battery(s) before cleaning or checking the Raptor. In the event of unexpected operation, remove power leads from the battery. Avoid submerging the Pump Assembly as water may enter, considerable damage to the product can occur. This damage will not be covered by warranty. The constant noise pressure level of the Raptor during use is less than 70dB(A). The overall vibration level does not exceed 2,5 m/sec2.

## **MARNING**

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

### **↑** CAUTION

Never leave the boat unattended with the Raptor as your only boat anchor. The Raptor is not intended to provide primary anchorage.

### 

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

### WARNING

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



- 1. This product contains a button/coin cell battery. Heed all safety considerations:
  - a) Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
  - b) Even used batteries may cause severe injury or death.
  - c) Call a local poison control center for treatment information.
  - d) The compatible battery type is CR2450.
  - e) The nominal battery voltage is 3.0 VDC.
  - f) Non-rechargeable batteries are not to be recharged.
  - g) Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating of 70 °C) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- 2. This product contains a replaceable button/coin cell battery. Heed all safety considerations:
  - a) Ensure the batteries are installed correctly according to polarity (+ and -).
  - b) Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
  - c) Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
  - d) Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

# WARRANTY

#### WARRANTY ON MINN KOTA RAPTOR SHALLOW WATER ANCHORS

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

#### Minn Kota Five-Year Limited Warranty

Johnson Outdoors Marine Electronics, Inc. warrants to the original purchaser, that the purchaser's entire Minn Kota Raptor shallow water anchor's system, to include all mechanical, electrical, and hydraulic components, are free from defects in materials and workmanship appearing within five (5) years after the date of purchase. Johnson Outdoors Marine Electronics, Inc. will (at its option) either repair or replace free of charge, any mechanical, electrical, or hydraulic components found to be defective during the term of this warranty. Such repair or replacement shall be the sole and exclusive liability of Johnson Outdoors Marine Electronics, Inc. and the sole and exclusive remedy of the purchaser for breach of this warranty. The Raptor spike is covered by the five year warranty (plus parts and labor to install). After the five year warranty, the spike will be covered by the limited lifetime warranty (part only).

### Minn Kota Lifetime Limited Warranty on the Spike

Johnson Outdoors Marine Electronics, Inc. warrants to the original purchaser that the spike of the purchaser's Minn Kota Raptor shallow water anchor is free from defects in materials and workmanship appearing within the original purchaser's lifetime. Johnson Outdoors Marine Electronics, Inc. will provide a new spike, free of charge, to replace any spike found to be defective more than five (5) years after the date of purchase. Providing a new spike shall be the sole and exclusive liability of Johnson Outdoors Marine Electronics, Inc. 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 spike provided by Johnson Outdoors Marine Electronics, Inc.

#### **Terms and Conditions**

These limited warranties do not apply to products used in saltwater (except the Chargers, Talon, Raptor and Riptide models) or commercially, nor do they cover normal wear and tear, blemishes that do not affect the operation of the product, or damage caused by accidents, abuse, alteration, modification, misuse or improper 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 defective are the responsibility of the purchaser.

#### Minn Kota Service Information

To obtain warranty service in the U.S., the product believed to be defective, and proof of original purchase (including the date of purchase), must be presented to a Minn Kota Authorized Service Center. Go to minnkota.johnsonoutdoors.com/support/service-providers/locate to find a Minn Kota Authorized Service Center. Any charges incurred for service calls, transportation or shipping/freight to/from the Minn Kota Authorized Service Center, labor to haul out, remove, re-install or re-rig products removed for warranty service, or any other similar items are the sole and exclusive responsibility of the purchaser. Products purchased outside of the U.S. must be returned prepaid with proof of purchase (including the date of purchase and serial number) to any Authorized Minn Kota Service Center in the country of purchase. To contact Minn Kota Customer Service go to minnkota-help.johnsonoutdoors. com. Products repaired or replaced will be warranted for the remainder of the

Service Provider Locator

Contact Customer Service

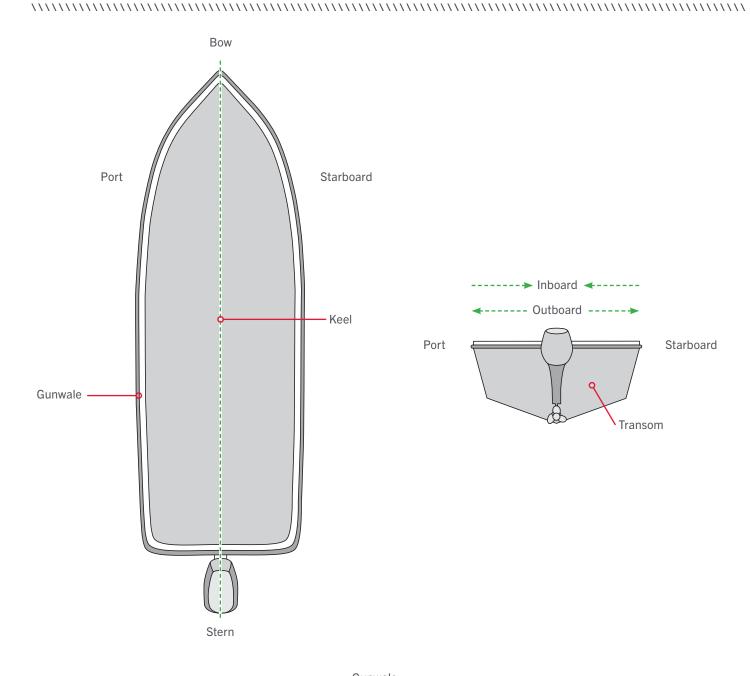
original warranty period, or for 90 days from the date of repair or replacement, whichever is longer. For any product that is returned for warranty service that JOME finds to be not covered by or not in breach of this limited warranty, there will be a billing for services rendered at the prevailing labor rate of the applicable Minn Kota Authorized Service Center and for a minimum of at least one hour.

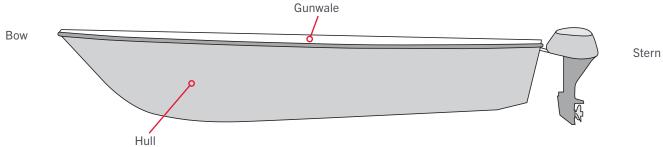
NOTICE: Do not return your Minn Kota product to your retailer. Your retailer is not authorized to repair or replace products.

**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 Raptor.

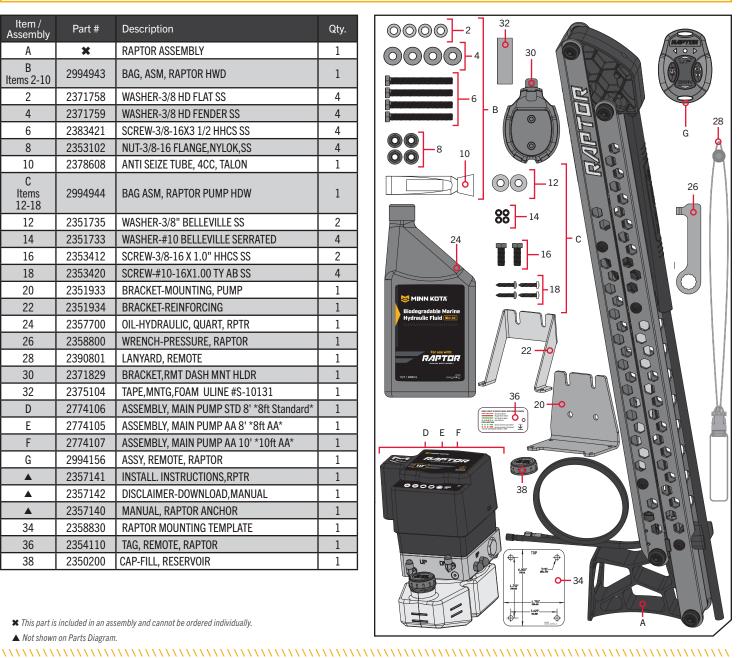
# **INSTALLATION**

#### INSTALLING THE RAPTOR SHALLOW WATER ANCHOR

Your new Raptor comes out of the box with the hardware needed to install it directly to the transom of your boat. If you have an irregularly shaped transom that cannot accept a direct mount, or you prefer to mount the Raptor with an adapter bracket for ease of mounting and removal, please visit minnkota.johnsonoutdoors.com for details on our Raptor adapter brackets. For installation with a Raptor adapter bracket, refer to the installation instructions provided with the bracket. For compatible Raptor adapter brackets, to locate the nearest dealer, or for additional product support, please visit minnkota.johnsonoutdoors.com. To install the Raptor directly to the boat, please follow the directions provided in these installation instructions. Please review the parts list, mounting considerations, and installation tools needed before starting.

#### INSTALLATION PARTS LIST >

Item / Assembly	Part #	Description	Qty.
А	×	RAPTOR ASSEMBLY	1
B Items 2-10	2994943	BAG, ASM, RAPTOR HWD	1
2	2371758	WASHER-3/8 HD FLAT SS	4
4	2371759	WASHER-3/8 HD FENDER SS	4
6	2383421	SCREW-3/8-16X3 1/2 HHCS SS	4
8	2353102	NUT-3/8-16 FLANGE,NYLOK,SS	4
10	2378608	ANTI SEIZE TUBE, 4CC, TALON	1
C Items 12-18	2994944	BAG ASM, RAPTOR PUMP HDW	1
12	2351735	WASHER-3/8" BELLEVILLE SS	2
14	2351733	WASHER-#10 BELLEVILLE SERRATED	4
16	2353412	SCREW-3/8-16 X 1.0" HHCS SS	2
18	2353420	SCREW-#10-16X1.00 TY AB SS	4
20	2351933	BRACKET-MOUNTING, PUMP	1
22	2351934	BRACKET-REINFORCING	1
24	2357700	OIL-HYDRAULIC, QUART, RPTR	1
26	2358800	WRENCH-PRESSURE, RAPTOR	1
28	2390801	LANYARD, REMOTE	1
30	2371829	BRACKET,RMT DASH MNT HLDR	1
32	2375104	TAPE,MNTG,FOAM ULINE #S-10131	1
D	2774106	ASSEMBLY, MAIN PUMP STD 8' *8ft Standard*	1
E	2774105	ASSEMBLY, MAIN PUMP AA 8' *8ft AA*	1
F	2774107	ASSEMBLY, MAIN PUMP AA 10' *10ft AA*	1
G	2994156	ASSY, REMOTE, RAPTOR	1
<b>A</b>	2357141	INSTALL. INSTRUCTIONS, RPTR	1
<b>A</b>	2357142	DISCLAIMER-DOWNLOAD, MANUAL	1
<b>A</b>	2357140	MANUAL, RAPTOR ANCHOR	1
34	2358830	RAPTOR MOUNTING TEMPLATE	1
36	2354110	TAG, REMOTE, RAPTOR	1
38	2350200	CAP-FILL, RESERVOIR	1



- \* This part is included in an assembly and cannot be ordered individually.
- ▲ Not shown on Parts Diagram.

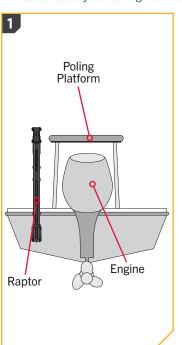
#### MOUNTING CONSIDERATIONS >

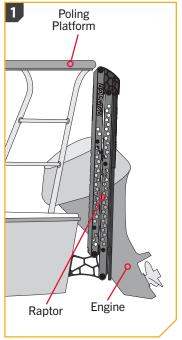
### Anchor Mounting Considerations

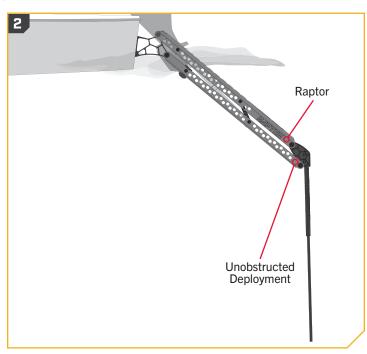
Minn Kota recommends mounting the Raptor directly to the Transom of the boat with the built-in Mounting Bracket. The Raptor includes all the necessary hardware to mount directly to the Transom. The Raptor may also be mounted using an optional adapter bracket when direct transom mounting is unworkable or desired due to obstructions or irregularly shaped transoms. For more information on universal adapter brackets and other Minn Kota® Raptor accessories, please visit minnkota.johnsonoutdoors.com. When using an adapter bracket to mount the Raptor, please use the instructions included with the accessory.

Meet the following conditions to use the direct mount installation:

- 1. Unobstructed Mounting When selecting the Raptor Mounting Bracket mounting location, examine the boat to ensure that no obstructions are present when drilling into the Transom for hardware and that the Transom is accessible for hardware assembly. Ensure the Transom is strong enough to accept the Raptor mounted at the intended location.
- 2. Unobstructed Deployment and Retraction The Raptor mounts on either the Port or Starboard side of the Transom. The Raptor must have a clear, unobstructed path to deploy. Check to ensure that the proposed location allows the anchor to deploy and retract without hitting trim tabs, poling platforms, ladders, the engine, or other obstructions. You should also consider your fishing methods when selecting the mounting location.





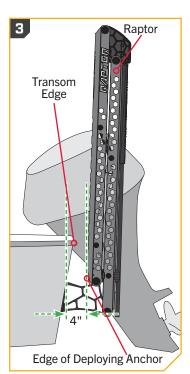


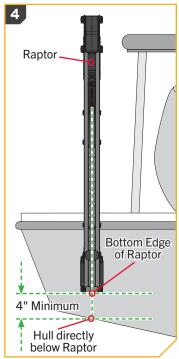
### **CAUTION**

Follow all instructions and heed all safety considerations. Minn Kota recommends having a second person help with installation. Not following proper installation and rigging instructions may result in injury. Mounting the Raptor too low can cause undue drag from the Raptor or Mounting Bracket when operating the boat. It is important to mount the Raptor as recommended to avoid unsafe driving conditions.



View accessories available for your Raptor at minnkota. johnsonoutdoors.

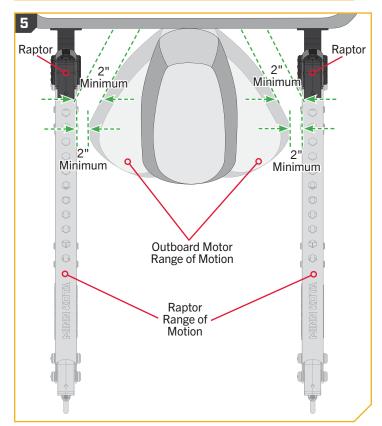




- 3. Transom to Raptor Clearance The Raptor Mounting Bracket included with the anchor will allow for approximately 4" of clearance or setback from the Transom to the front edge of the deploying anchor.
- 4. Raptor to Hull Clearance The bottom edge of the Raptor should never be less than 4" above the hull directly below the anchor to prevent spray and drag conditions.
- 5. Raptor to Engine Clearance When selecting a mounting location, ensure no interference exists between the Raptor and the engine during normal operation. Once the mounting location is selected, trim the engine fully up and down and steer the engine entirely to the left and right to confirm proper engine clearance. Ensure there is a minimum of two to three inches of clearance from any point on the Raptor in all states of stow and deploy.

If these conditions are unmet, please consider using an optional Minn Kota adapter bracket accessory. Many Minn Kota adapter

Raptor **Bottom Edge** of Raptor 4" Minimum Hull directly below Raptor



**NOTICE:** In some instances, boat manufacturers have begun to make hollow boat Transoms. Minn Kota recommends speaking with the local boat dealer or OEM Manufacturer for mounting recommendations.

bracket designs allow for greater adjustment capability and clearance of the Raptor mount to operate the anchor without obstructions. Please visit minnkota.johnsonoutdoors.com to learn more about selecting and installing an adapter bracket.

Review the mounting considerations for the hydraulic pump and hose routing before installing the anchor to the boat.

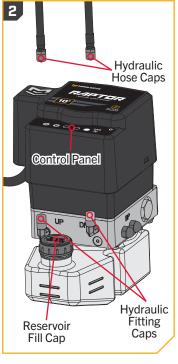
### Hydraulic Pump Mounting Considerations

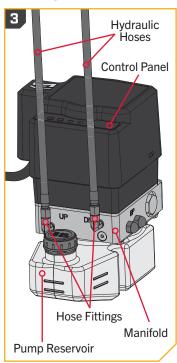
Minn Kota recommends reviewing all mounting considerations for the hydraulic pump and hose routing to ensure the unobstructed operation of the Raptor before installation.

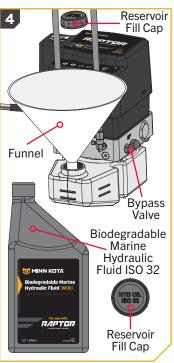
To successfully route the hydraulic hoses and mount the hydraulic pump, please consider the following:

1. Hydraulic Hose Routing - The hydraulic hoses exit the anchor near the top of the built-in mounting bracket and will be routed to the hydraulic pump. When selecting the mounting location for the hydraulic pump, examine the boat to ensure that the hydraulic hoses route to the intended hydraulic pump mounting location and the hoses can be connected once the pump is mounted. Hoses may route over or through the hull of the boat. Minn Kota recommends routing hoses through an established routing system on the boat, such as where the main engine lines are present. If routing through an established routing on the boat, such as the manufacturer's boot, etc., ensure they are re-rigged and tightened to their original state when installation is complete. If drilling holes into the boat hull is necessary, ensure the drilled location is free from obstructions that could damage existing gas or electrical lines. Ensure the hoses have enough slack so the anchor can be deployed and stowed without creating pinch points or excessive tightness along the path for the intended mounting locations. Ensure that the hoses do not pass over sharp surfaces or edges that could cause abrasions over time. Ensure hydraulic hoses are not kinked or bent when routing through the boat compartment. The minimum bend radius for hose routings is 1.25 inches. Hydraulic lines shall route away from heat sources. There shall be no joints or connections in hydraulic lines directly over exhaust lines or high-temperature manifolds. Make sure that the routed hoses do not create a tripping hazard.





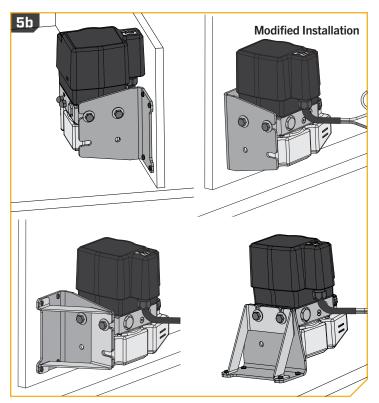


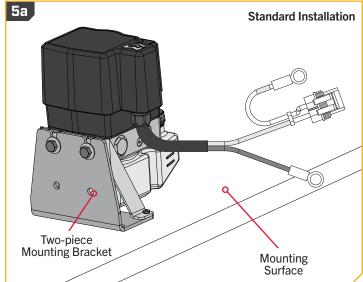


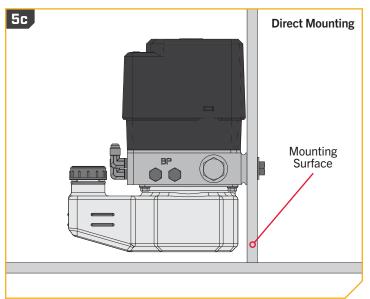
- 2. Keep Hydraulic Lines Clean During installation, take precautions to prevent foreign material from entering components or hydraulic lines. Note the black and green caps on the hose fittings on the hydraulic pump and hoses. Do not prematurely remove the protective caps from the ends of the hydraulic hoses that exit the anchor or the hose fittings on the pump assembly. Keep the fill cap on the pump reservoir in place unless filling the reservoir to keep dirt and debris from entering.
- **3.** Hose Attachment Install the pump with space between the compartment or mounting locations and the pump to attach hoses. The hose fittings are on the hydraulic pump manifold between the pump reservoir and the control panel. Be sure that the location will have room for the hoses to pass through, and maintain proper hose placement to prevent the hoses from bending or kinking.

4. Hydraulic Fluid and Filling Access - Ensure the mounting location allows the pump to be filled with hydraulic fluid. The cap to the pump assembly must be accessible to fill the hydraulic pump reservoir with hydraulic fluid. Be sure that the installation location allows access to the reservoir with a funnel or similar tool to aid in filling. The pump is filled with fluid, as noted on the red cap marked "Hyd Oil ISO 32". Minn Kota provides Biodegradable Marine Hydraulic Fluid ISO 32 (Item# 2357700) for the installation.

- 5. Secured Mounting Mount the pump in a secure location where it will remain affixed to a rigid surface. Securely affix hydraulic components to the boat's structure to withstand the potential forces transmitted. Minn Kota recommends mounting the hydraulic pump with the Two-piece Mounting Bracket provided. The Pump Assembly must be mounted vertically. If adjustments to the mounting are necessary, adjust the position of the Two-piece Bracket to accommodate keeping the Pump Assembly vertical. Ensure enough room to use the tools needed to secure the installation hardware to the intended mounting location. Ensure the hydraulic hoses are not kinked or bent when attached to the pump. Options for mounting the pump include:
  - a. Standard Installation Mounting the pump with the Two-piece Mounting Bracket.
  - b. Modified Installation Mounting the pump using either both of the pieces from the Two-piece Mounting Bracket rotated to fit your specific mounting needs or just the Pump Mounting Bracket (Item #20) on its own rotated to fit your specific mounting needs.
  - c. Direct Mounting Mounting the Hydraulic Pump directly to a secure structure on the boat without the use of the bracket.







- **6. Power Source** Ensure the power cord can reach its intended power source and will not pose as a tripping hazard. Minn Kota recommends mounting the pump as close to the power source as possible to create the least obtrusive routing for cables between the pump and the power source.
- 7. Bypass Access On the side of the hydraulic pump manifold, there are two acorn nuts that cover manual Bypass Valves in the event of the need to Emergency Stow. The installation kit comes with a Pressure Wrench (Item #2358800). Be sure that the installation location allows a minimum of 1-1/2 inch clearance around the "BP" on the pump manifold to access these acorn nuts and the Bypass Valves below them and enough space to utilize the Pressure Wrench. Store the pressure wrench in the boat.
- 8. Reservoir Clearance When selecting the mounting location, it may be necessary to rotate the position of the reservoir on the hydraulic pump to accommodate tight mounting locations. The hydraulic pump comes out of the box with the reservoir fill cap directly below the hydraulic hose fittings on the pump manifold. The reservoir can be rotated 90 degrees to the right or the left. When rotating the reservoir, the fill cap is directly below the power cord or

Pump Assembly

Power Cord

Pressure
Wrench

Phydraulic
Hoses

Hydraulic
Hoses

Power Control Ranel

Pressure
Wrench

**NOTICE:** The orientation of the Pump Reservoir may affect the use of the Two-piece Mounting Bracket.

the bypass valves on the manifold. The option to rotate the reservoir accommodates a variety of installation options. If the Pump Reservoir needs rotating, please see the "Rotating the Pump Reservoir" section of these instructions.



# **WARNING**

Do not run the Hydraulic Pump until after hydraulic fluid has been added. Running the Hydraulic Pump without hydraulic fluid can damage the pump.

#### TOOLS AND RESOURCES REQUIRED >

- Drill
- 5/16" Drill Bit
- 9/16" Box End or Socket Wrench
- Marine Grade Sealant
- Cable Ties
- 30ft/lb capacity Torque Wrench
- Awl or similar marking tool

- A second person to help with installation
- Funnel
- Masking Tape
- 7/16" Drill Bit
- 5/16" Deep Well Socket or 5/16" Ratchet Wrench

- 1/8" Drill Bit
- 3/4" Drill Bit
- Anti-seize
- 5/32" Drill Bit
- File, sand paper, or emery board
- #2 Phillips Bit
- Tie Wraps

INSTALLATION >

### Installing the Raptor

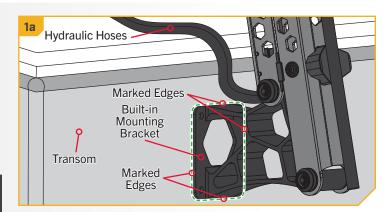
#### **ITEM(S) NEEDED**

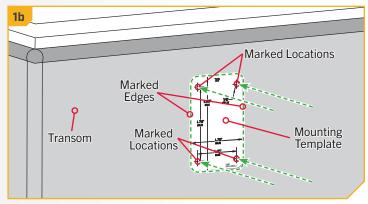


Review the Mounting Considerations to determine if it is acceptable to complete a direct mount of the Raptor Built-in Mounting Bracket. Move the Hydraulic Hoses away from the bracket and out of the way for installation. If acceptable, position the Built-in Mounting Bracket (Item #A) at the selected location and mark the edge of the bracket with a pen or similar marking tool. Mark at least two of the four edges, then set the Mounting Bracket aside.

**NOTICE:** The Raptor weighs approximately 27lbs. Minn Kota recommends having a second person to help with installation.

b. With the Raptor set aside, place the Mounting Template (Item #34) along the marked edges. Using a level along the edge of the Mounting Template, rotate the position of the template so that it sits level. Use an awl or similar marking tool and mark all four Mounting Holes. Use all four Mounting Holes to install the Raptor.

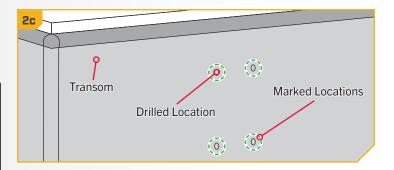




2

c. Double-check that the mounting location is precise for drilling holes. Use a Drill with a 7/16" Drill Bit to drill through the boat Transom/Stern at the marked locations.

**NOTICE:** When drilling holes into fiberglass, first cover the surface with masking tape. Masking tape will help keep the boat surface unmarked and aid in cleanup. Cover the surface and then mark the location to drill. With the holes drilled, remove the masking tape before continuing installation.



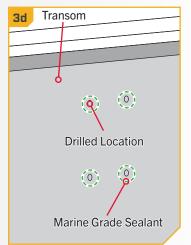
**NOTICE:** When drilling the marked holes, ensure the drill bit is perpendicular to the Transom/Stern of the boat and that the drill holes are straight. Not drilling the holes straight will give the mounting hardware a poor fit.

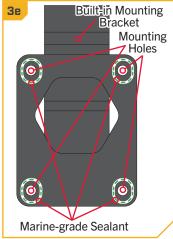
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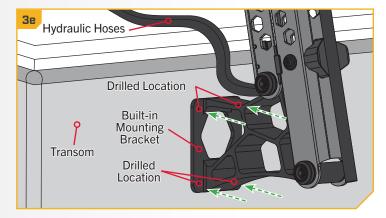
- d. Place a 1/8" bead of Marine Grade Sealant on the Transom of the boat around the drilled holes.
- e. Place the Marine-grade Sealant around the Mounting Holes on the face of the Built-in Mounting Bracket, which will contact the boat Transom/Stern when mounted. Keep the sealant approximately centered between the outside edge of the Mounting Bracket and the Mounting Holes. Once the sealant is in place, align the Built-in Mounting Bracket with the holes drilled in the Transom/Stern in the desired orientation. Ensure the Hydraulic Hoses are out of the way when installing the hardware.

## **↑** CAUTION

Do not use the Built-in Mounting Bracket or Raptor as a step to enter the boat. The bracket will be slippery when wet and not designed to support people. Using this product as a step may result in injury.







#### **ITEM(S) NEEDED**

© #2 x 4

(O) #4 x 4

#6 x 4

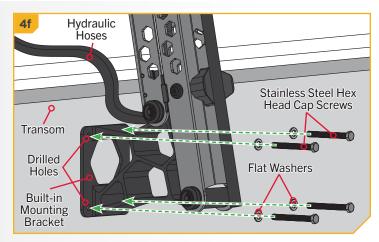
@ #8 x 4

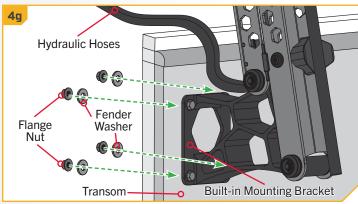
#10 x 1

- f. Take each of the four 3-1/2" Stainless Steel Hex Head Cap Screws (Item #6) and place one Flat Washer (Item #2) on them. Apply anti-seize (Item #10) to the hardware. Place one Screw in each of the Mounting Holes so that it passes through the Built-in Mounting Bracket and the drilled holes on the boat Transom.
- Place a Fender Washer (Item #4) on the end of each Screw on the inside of the Transom and then secure each with a Flange Nut (Item #8). Apply anti-seize to the threads before tightening. Tighten the screws with a 9/16" Box End or Socket Wrench. Do not over-tighten. Tighten to 20 ft-lbs. Recheck mounting hardware periodically to make sure it remains tight.

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

**NOTICE:** If you are replacing a Talon with the Raptor, DO NOT REUSE the 5/16" Talon mounting hardware for mounting purposes.





### Notating the Pump Reservoir

After reviewing the mounting considerations for the installation, it may be necessary to rotate the reservoir on the Pump Assembly. If the installation requires rotating the Pump Reservoir, please follow the instructions below. If the installation does not require rotating the Pump Reservoir, please see the "Installing the Hydraulic Pump" section of these instructions.

1

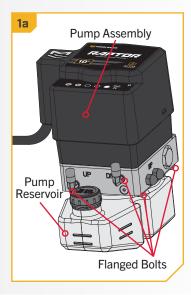
#### ITEM(S) NEEDED

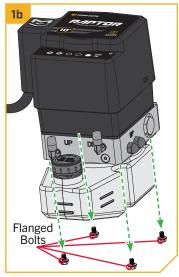


**#D, E, or F x 1** 

- Take the Pump Assembly (Assembly D, E, or F) and identify the four Flanged Bolts that hold the Pump Reservoir in place on the Pump Assembly.
- b. Using a 5/16" Deep Well Socket or 5/16" Ratchetstyle Wrench, remove all four Flanged Bolts and set them aside.

**NOTICE:** Do not pull the Pump Reservoir off of the Pump Assembly. Minn Kota recommends rotating the Pump Reservoir without separating the Pump Reservoir and Pump Assembly to maintain a proper seal between the components.

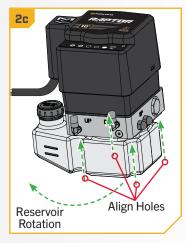


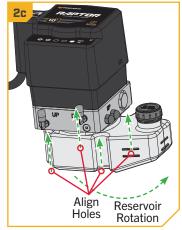


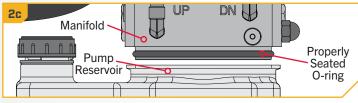
2

c. Determine which direction to rotate the Pump Reservoir. While firmly holding the top of the Pump Assembly, rotate the Pump Reservoir to its new position. Complete the rotation by ensuring the holes in the Pump Reservoir align with the holes for the Flanged Bolt.

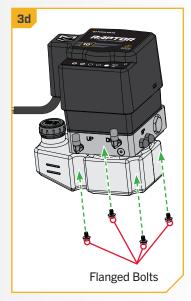
**NOTICE:** If the Pump Reservoir becomes detached from the Pump Assembly, ensure the O-ring sits on the bottom of the Pump Manifold and is fully seated in the groove along the assembly. If the reservoir needs to be pushed into place on the Pump Assembly, ensure the O-ring does not get pinched between the pieces. An improperly seated seal between components will affect pump operation.

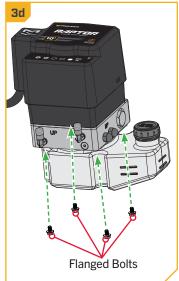






- d. With the Pump Reservoir rotated and seated in place, use the 5/16" Deep Well Socket or 5/16" Ratchet-style Wrench to replace the four Flanged Bolts. Tighten to 12 in-lbs.
- e. With the Flanged Bolts back in place, continue with the Hydraulic Pump installation.









### Installing the Hydraulic Pump

Review the mounting considerations at the beginning of the installation. When rotating the Pump Assembly is necessary, please refer to the "Rotate the Pump Assembly" section of these instructions. When ready to install the Pump, follow the directions below.

**NOTICE:** Installation of the Pump Assembly may vary from the standard installation. Review the mounting <u>considerations</u> for variations in mounting.

1

#### ITEM(S) NEEDED



#D, E, or F x 1



#20 x 1



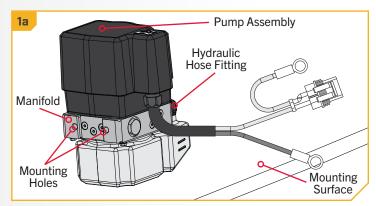
22 x

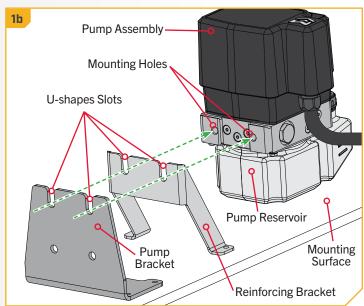
### **A CAUTION**

Avoid the risk of electric shock. Do not connect the Pump Assembly to a power source before installation.

- a. Take the Pump Assembly (Assembly D, E, or F) and identify the two mounting holes on the Manifold. The mounting holes are on the opposite side of the Pump from the brass-colored Hydraulic Hose Fittings. Position the Pump Assembly at the intended mounting location. Review the mounting considerations and make sure the selected location is acceptable.
- b. The Two-piece Mounting Bracket consists of the Pump Bracket (Item #20) and the Reinforcing Bracket (Item #22). The Reinforcing Bracket sits nested on top of the Pump Bracket with the U-shaped slots aligned for a standard installation. Take the Two-piece Mounting Bracket and align the U-shaped slots.
- c. Slide the Pump Bracket and Reinforcing Bracket together. Then, slide the Pump Assembly into the combined brackets. In a standard installation, the angled sides of the Reinforcing Bracket fit along each side of the Pump Reservoir. Review the mounting considerations and position the Pump Assembly with the Two-piece Bracket in the intended mounting location.

**NOTICE:** The Reinforcing Bracket cannot be installed when the Pump Reservoir is rotated. The position of the Pump Bracket may vary for your installation based on conditions outlined in the mounting considerations.





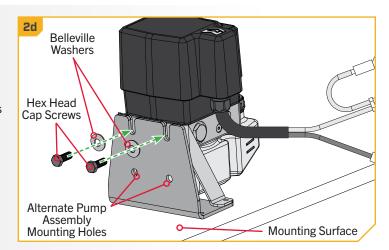
**NOTICE:** The Pump Assembly must be mounted vertically. If adjustments to the mounting need to be made, rotate the position of the Two-piece bracket to accommodate and keep the Pump vertical.

#### ITEM(S) NEEDED



(o) #12 X 2

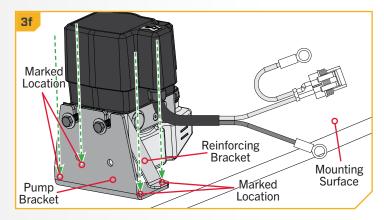
- d. The U-shaped Slots on the Mounting Bracket allow for adjustment capability between the Pump and the mounting bracket. Take both Hex Head Cap Screws (Item #16) and place one 3/8" Belleville Washer (Item #12) on each. The Hex Head Cap Screws will hold the Pump in place along the U-shaped slots. Insert the bolts with the washers in place to partially install them into the Mounting Holes on the Pump. The washers should sit on the outside of the Mounting Bracket, farthest from the Pump Assembly on the screws. Hand tighten or use a 9/16" Wrench to install the bolts. It may be easier to install the screws and washers partially and then lower the Pump Assembly to fit in the U-shaped slot on the brackets, making sure the washer is closest to the screw head.
- e. Once partially installed, check the mounting location and determine the final position of the Pump Assembly and mounting bracket at the intended mounting location.

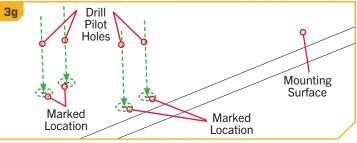


**NOTICE:** The U-shaped slots and the larger holes on the Pump Bracket may be used to mount the Pump Assembly to the bracket. The holes used will depend on individual mounting circumstances.

- Once positioned, take a pen or similar marking tool and mark the Mounting Surface where the Reinforcing Bracket and Pump Bracket overlap at the Mounting Hole on each side of the Pump Reservoir. Mark the bottom holes on the Pump Bracket, Minn Kota recommends marking all four Mounting Holes in the Mounting Bracket.
- g. Set the Pump Assembly aside and use a Drill with a 1/8" Drill Bit to drill Mounting Holes in the Mounting Surface at the marked locations.

**NOTICE:** When drilling holes, especially into fiberglass, it is helpful to cover the surface with masking tape. Use a 5/32" Drill Bit when drilling into fiberglass for the Pilot Holes. Masking Tape will help keep the boat surface unmarked and help with cleanup. Cover the surface and then mark the location to drill. With the pilot holes drilled, remove the masking tape before continuing installation.



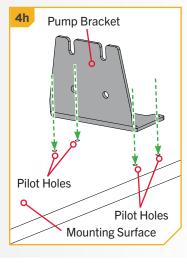


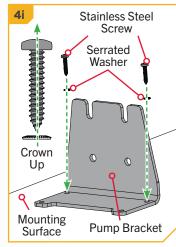
#### **ITEM(S) NEEDED**

#### o #14 X 2

#18 X 2

- Replace the Pump Bracket only and align the Mounting Holes with the Pilot Holes.
- Take two 1" Stainless Steel Screws (Item #18) and two Serrated Washers (Item #14). Place one washer on the end of each screw so that the crown of the washer is facing up towards the head of the screw. Install the Screws with a drill and a #2 Phillips Bit. The screws should pass through the Serrated Washer and Pump Bracket and then into the Mounting Surface.





5

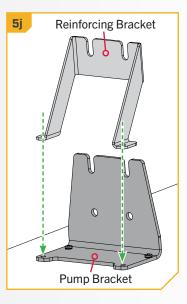
#### **ITEM(S) NEEDED**

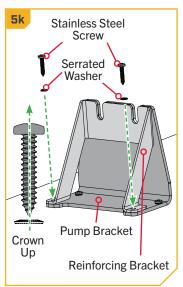
#### o #14 X 2

#18 X 2

- With the two Screws installed, replace the Reinforcing Bracket together with the Pump Bracket so that the mounting holes are again aligned.
- k. Take the two remaining 1" Stainless Steel Screws (Item #18) and two Serrated Washers (Item #14). Place one washer on the end of each screw so that the crown of the washer is facing up towards the head of the screw. Install the Screws with a Drill and a #2 Phillips Bit in the overlapping holes of the Two-Piece Mounting Bracket. The Screws should pass through the Serrated Washer, Reinforcing Bracket, and Pump Bracket and into the Mounting Surface.

**NOTICE:** If the Pump Reservoir is rotated for installation, it is not possible to install the Reinforcing Bracket. To complete the installation, Minn Kota recommends the use of all four Stainless Steel Screws and serrated Washers to secure the Pump Bracket to the Mounting Surface.



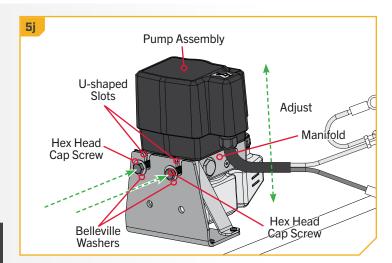




With the Two-Piece Mounting Bracket fully installed, replace the Pump Assembly on the Mounting Bracket. Make sure that the Belleville Washers sit between the head of the screw and the Mounting Bracket. Secure the Pump Assembly to the mounting bracket by tightening the Hex Head Cap Screws previously put in place on the Manifold.

m. Slide the Pump Assembly up or down in the U-shaped slots to find the best position for your installation. When satisfied with the position, tighten the hardware with a 9/16" Wrench to 12 ft-lbs.

**NOTICE:** When direct-mounting the Pump Assembly, use only the two Hex Head Cap Screws for the installation. If direct-mounting the Pump Assembly, use a Drill with a 7/16" Drill Bit to drill Pilot Holes in the Mounting Location. Secure the Pump Assembly in place by placing a Belleville Washer on each screw. Then place the screw through the mounting surface and into the mounting holes on the Manifold of the Pump Assembly.



#### **ITEM(S) NEEDED**



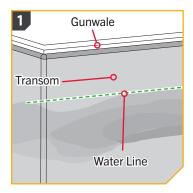
#26 X 1

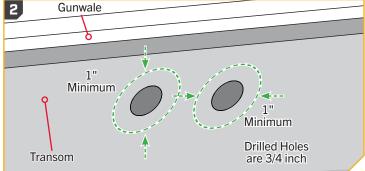
n. Take the Pressure Wrench (Item #26) and store it in a secure location on the boat. The Pressure Wrench is only needed if the pressure in the hydraulic system needs to be manually relieved. To learn more, please refer to the Owner's Manual.

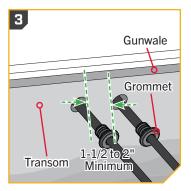
### Installing Hydraulic Hoses

Review the Mounting Considerations at the beginning of the installation and locate the Hydraulic Hoses attached to the Raptor. There will be a green Cap on one hose, which designates the hose controlling the UP/retract function. The hose with the black Cap is for the DOWN/ deploy function. The hose with the black Cap (DOWN) extends further from the Raptor due to its mounting position within the Raptor. Determine if hydraulic hoses may route from the Raptor to the Hydraulic Pump through an established route on the boat. The Hydraulic Hoses are 15 feet in length. Minn Kota recommends the Raptor Hydraulic Hose Extension Kit 2771401 if the installation needs longer hoses. The installation requires a suitable routing to connect the hydraulic hoses from the Raptor to the Hydraulic Pump. If drilling holes, please consider the following to provide a suitable routing:

- **1. Above Water Line -** If drilling holes to route the Hydraulic Hoses through the Hull, Transom, or other appropriate structure of the boat, ensure any holes drilled are above the water line when the boat sits in the water.
- 2. Minimum Clearance Minn Kota recommends placing the holes at least 1 inch from any obstruction to allow for complete installation of the Grommet. Placement obstructions may include structural changes to the selected location seams or structural supports and any existing hardware, such as ladders, brackets, and accessories.
- 3. Hole Spacing Drill two holes for the Hydraulic Hoses, one for each. Minn Kota provides one rubber Grommet for each hose. Use the Grommets to cover the space between the hose and the Transom at the drilled holes. Drill the holes between 1-1/2 and 2 inches apart to allow space for the hoses and a proper seal on the Grommet.







## **WARNING**

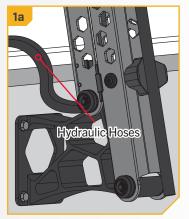
- Only use the hydraulic hose approved by Johnson Outdoors with the Raptor. Using unapproved hydraulic components may cause damage, unexpected operation, or injury.
- Do not allow hoses to kink, twist, curl, be crushed, or bend in a manner that blocks or reduces fluid flow within the hose. The minimum bend radius of the hydraulic hose is 1.25 inches.

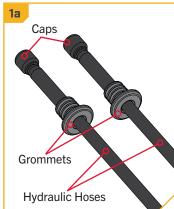
· Do not over tighten hydraulic connections.

Locate the Hydraulic Hoses that exit the Raptor and note the Grommet on each hose. If the Hydraulic Hoses are tie-wrapped in a circle, it may be necessary to carefully cut the tie wrap with scissors or a similar cutting tool and unwrap the hoses. One hose will have a green cap, designated as the hose controlling the UP/retract function. The hose with the black Cap designates the DOWN/deploy function.

## CAUTION

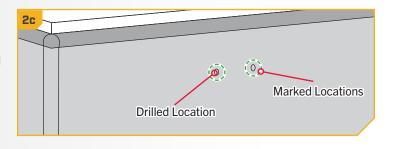
Do not remove the black and green Caps from the end of the Hydraulic Hoses until instructed. Keeping the Caps in place until needed keeps the hydraulic lines clean. Dirt in the hydraulic fluid may affect hydraulic operation.





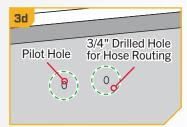
**NOTICE:** Removing the Grommets when routing the Hydraulic Hose through an established routing system on the boat is optional.

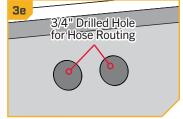
- Review the installation considerations for the hoses at the beginning of this section. Use a measuring tool and a pen or similar marking tool and select, measure, and mark the location on the boat for drilling holes and routing the Hydraulic Hoses.
- Ensure the drilled location is clear to drill holes. Pull the Hydraulic Hoses aside so they do not pose an obstruction and the marked location is clear. Using a Drill with a 5/16" Drill Bit, drill Pilot Holes through the Marked Locations.



NOTICE: Cover the surface with masking tape when drilling holes into fiberglass. Use a 5/16" Drill Bit when drilling into fiberglass for the Pilot Holes. Masking Tape will help keep the boat surface unmarked and help with cleanup. Cover the surface and then mark the location to drill. With the pilot holes drilled, remove the masking tape before continuing installation.

- d. With the Pilot Holes drilled, use a Drill with a 3/4" Drill Bit in each 5/16" Pilot Hole. The final holes for hose routing should have a diameter of 3/4" each.
- Use a file, sandpaper, or an emery board to smooth the edge of the drilled hole, which will come into contact with the Hydraulic Hoses and aid in the easier placement of the Grommets.



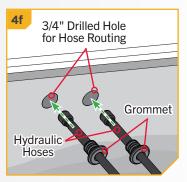


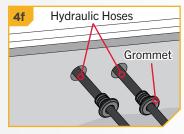


- f. Take the Hydraulic Hoses with the green and black Caps still in place and insert one hose into each drilled hole. If necessary, slide the Grommets back so the Hydraulic Hose has enough slack on the other side of the drilled location to reach the Pump Assembly.
- g. Push most of the length of the Hydraulic Hoses into the hull so that each hose can be attached to the Hydraulic Hose Fittings on the Pump Assembly. While pulling the hoses through the hull, ensure the hoses do not kink. Most of the hose should be routed into the boat, but leave slack outside the hull for the anchor to deploy and not pull the hose, but not excessive slack to cause the hoses to kink. Then, return to the Hydraulic Hoses and Grommets at the Drilled Location.



Do not connect the Pump Assembly to a power source when installing hoses to avoid the risk of electric shock.

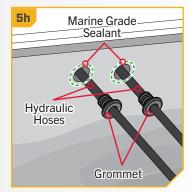


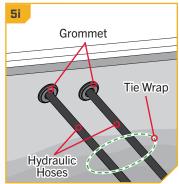






- h. With the hoses routed to the Pump Assembly, seal the Mounting surface. To seal the space around the Grommet and finish installing it, first apply a 1/8" bead of marine-grade sealant around each Drilled Hole. The sealant should be reasonably close to the edge of the hole so that it will sit under the edge of the Grommet when pressed in place.
- i. Once the sealant is applied, press the Grommets in place so they are seated against the mounting surface. When the hose routing is complete, Minn Kota recommends loosely securing the Hydraulic Hoses to each other with a tie wrap between the anchor and the main entrance point on the boat to keep the hose routing clean.



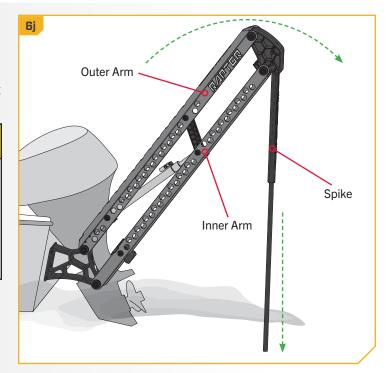


6

j. With the help of a second person, carefully lower the Raptor so that the Spike rests on the ground after installing the Hydraulic Hoses and Grommets. Watch for pinch points when lowering the anchor, and ensure it is clear from obstructions or persons before lowering it to the ground.

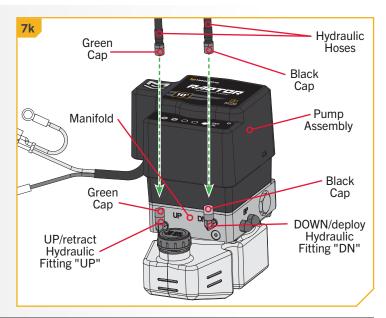
### **⚠** CAUTION

Ensure the Raptor is clear of obstructions and persons while deploying or retracting. The spaces between the Raptor, including the Outer Arm, Inner Arm, Spike, and brackets, can create a pinch point. To avoid the risk, do not come in contact with an area of the Raptor that may cause a pinch point while it is moving in any direction.



7

k. Return to the routed hoses and the Hydraulic Fittings on the Pump Assembly. The Hydraulic Fitting with the green Cap on the Manifold will correspond to the UP/retract function. The Manifold has a "UP" label. The Hydraulic Fitting with the black Cap on the Manifold will correspond to the DOWN/deploy function and is labeled "DN" on the Manifold. The Hydraulic Hose with the green Cap connects to the Hydraulic Fitting with the green Cap. The Hydraulic Hose with the black Cap connects to the Hydraulic Fitting with the black Cap.

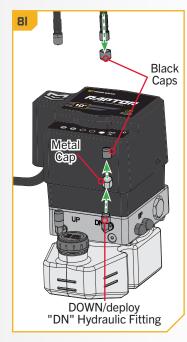


## **↑** CAUTION

With no hydraulic pressure present, ensure the Raptor anchor is deployed, and the Spike touches the ground before the Pump Assembly is filled with hydraulic fluid and any time making changes to the Hydraulic Circuit. Changes to the Hydraulic Circuit may include adjustments to the Hydraulic Hoses or bypass valves. Changes to pressure in the Hydraulic Circuit may cause the Raptor to fall and pose a striking hazard due to gravity. Rest the Spike on the ground to avoid this hazard.

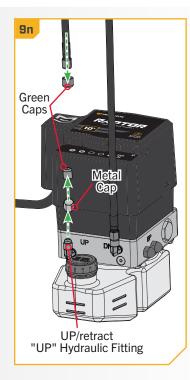
- 8
- . Remove the black Cap on the Hydraulic Hose and the black Cap on the "DN" Hydraulic Fitting. The Hydraulic Hose with the black Cap is the longest of the two hoses from the Raptor. Under the black Cap on the "DN" Hydraulic Fitting is a Metal Cap sealing the fitting. Using a 9/16" Wrench, remove the Metal Cap by turning it counterclockwise.
- m. Attach the Hydraulic Hose to the "DN" Hydraulic Fitting by turning the threaded connection on the Hydraulic Hose onto the Hydraulic Fitting on the pump by turning 5 to 7 times by hand. If the threads are not freely turning, they are misaligned. Lift off and try again. Hand-tighten in a clockwise direction until seated. Then, finish tightening with a 9/16" Wrench to 120 in-lbs.

**NOTICE:** Do not apply anything to the ends of the Hydraulic Hoses or the Hydraulic Fittings on the pump. If using the Flats Method to tighten the Hydraulic Hose onto the Hydraulic Fitting, Minn Kota recommends an additional 1.25 to 1.5 rotation.





- 9
- n. Remove the green Cap on the Hydraulic Hose and the green Cap on the "UP" Hydraulic Fitting. The Hydraulic Hose with the green Cap will have a shorter extension from the Raptor than the other hose. Under the green Cap on the "UP" Hydraulic Fitting, another Metal Cap seals the fitting. Using a 9/16" Wrench, remove the Metal Cap by turning it counterclockwise.
- o. Attach the Hydraulic Hose end to the "UP" Hydraulic Fitting by hand by turning the threaded connection on the Hydraulic Hose onto the Hydraulic Fitting on the pump. Turn five to seven times. If the threads are not freely turning, they are misaligned. Lift off and try again, then hand-tighten clockwise until seated. Then finish tightening with a 9/16" Wrench.





### Installing the Remote Bracket

The Raptor comes with two remotes. Mounting the Remote Bracket to your boat is an option installation. The Remote Bracket holds one Remote. Mounting the Remote Bracket in the boat is based on personal preference. Minn Kota recommends mounting the Remote Bracket to a flat surface where the Remote is easily accessible for anchor control. Avoid a space where the buttons on the remote may be accidentally activated. To mount the bracket, follow the steps below:

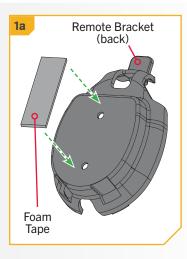
#### **ITEM(S) NEEDED**

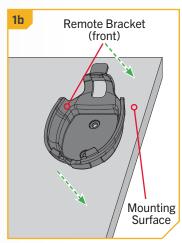
#32 X 1



#30 X 1

- a. Select a flat mounting location for the Remote Bracket. Check the location for fit and function of the Bracket Holder. Clean and thoroughly dry the mounting surface. Once satisfied with the location, take the Foam Tape (Item #32) and pull the backing off of one side of it. Install the Foam Tape with the exposed adhesive facing toward the bracket, approximately centered on the back of the Remote Bracket (Item #30). Press and hold in place for 30 seconds.
- b. Remove the backing from the outside of the Foam Tape to expose the adhesive. Press the Bracket Holder onto the tape at the mounting location. Firmly press and hold for 30 seconds.





#### **ITEM(S) NEEDED**

#28 X 1



#G X 1

- Place the Raptor Remote (Assembly G) in the Bracket Holder.
- d. Attaching the Lanyard (Item #28) to the Raptor remote is optional.

**NOTICE:** The Raptor remote that comes with the Raptor from the factory is already paired. If the network connection between the remote and the anchor is interrupted, please see the "Pairing the Raptor" section of these instructions.





# 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.

## **A CAUTION**

Please read the following information before connecting your Raptor(s) to your battery in order to avoid damaging your product and/or voiding your warranty.

## **<u>∧</u> CAUTION**

These guidelines apply to general rigging to support your Minn Kota product. Powering multiple Raptors 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. The table below gives recommended guidelines for circuit breaker sizing.

**NOTICE:** A strong 12V power supply to Raptor is important. Wherever possible, Minn Kota recommends wiring directly to the starting battery. Raptor's premium in-line 30A resettable breaker is rigorously tested to support Raptor's power demands, which can briefly draw up to 70A. Minn Kota does not recommend removing this in-line breaker regardless of other disconnects or breaker systems you may choose to connect to. Removal of this factory 30A resettable breaker may result in damage to your product, and may void your warranty.

#### CONDUCTOR GAUGE AND CIRCUIT BREAKER SIZING TABLE

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

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

Max Amp Draw Circuit Breaker	Civarit Dragkov	Wire Extension Length				
	Circuit Breaker	5 feet	10 feet	15 feet	20 feet	25 feet
70 Amps	50 Amp @ 12 VDC	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG

**NOTICE:** Wire Extension Length refers to the distance from the batteries to the Raptor leads. 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 Raptor will operate with any lead acid, marine 12 volt battery. For best results, Minn Kota recommends connecting to the starting battery. The Raptor may operate with a Lithium Ion battery. 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. For more information on battery selection and rigging, please visit minnkota.johnsonoutdoors.com.

The Raptor draws a small amount of residual current from the battery even when not in use. If the Raptor will not be used for more than a month, the Raptor power leads should be disconnected from the battery. Avoid connecting the Raptor to the same batteries that a trolling motor or other accessories are connected to. It is recommended the Raptor be connected to the Starting Battery through a battery selector or power disconnect switch. This will disconnect power to the Raptor when the Power Switch is "off". If you are not using a battery selector/power disconnect switch, the Raptor may be connected directly to the Starting Battery.

### 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.

For proper ABYC compliance, when the factory fuse has been removed, the user must install a 30A fuse within 7" of the positive battery terminal.

NOTICE: The in-line re-settable 30A fuse is designed to protect the system. If this fuse repeatedly trips, faulty wiring could be the cause and must be corrected. If the re-settable fuse itself is suspect, Minn Kota recommends contacting customer service for a proper replacement.

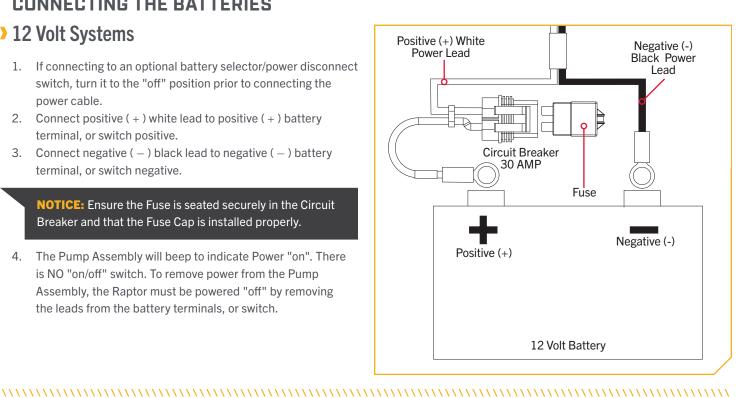
#### CONNECTING THE BATTERIES

### > 12 Volt Systems

- 1. If connecting to an optional battery selector/power disconnect switch, turn it to the "off" position prior to connecting the power cable.
- 2. Connect positive (+) white lead to positive (+) battery terminal, or switch positive.
- 3. Connect negative ( ) black lead to negative ( ) battery terminal, or switch negative.

NOTICE: Ensure the Fuse is seated securely in the Circuit Breaker and that the Fuse Cap is installed properly.

The Pump Assembly will beep to indicate Power "on". There is NO "on/off" switch. To remove power from the Pump Assembly, the Raptor must be powered "off" by removing the leads from the battery terminals, or switch.



#### **CONNECTING THE BATTERIES**

## **⚠ WARNING**

Observe proper polarity and follow instructions in your boat owner's manual regarding polarity.

### **⚠ WARNING**

Do not run the Hydraulic Pump until after hydraulic fluid has been added. Running the Hydraulic Pump without hydraulic fluid can damage the pump.

### 

- The Raptor draws a small amount of residual current from the battery even when not in use. If the Raptor is not be used for more than a month, or while the battery/batteries are being charged, the Raptor power leads should be disconnected from the battery. It is recommended the Raptor be connected to the Starting Battery through a battery selector or power disconnect switch. This will disconnect power to the Raptor when the Power Switch is "off". If you are not using a battery selector/switch, the Raptor may be connected directly to the starting battery.
- Keep lead wire connections tight and solid to the battery or switch terminals.
- The Starting Battery should be located in a ventilated compartment to avoid sparks from combustible materials.

### 

Never disconnect hydraulic components while power is applied and bypass valves are not open.

# COMPLETING THE INSTALLATION

#### COMPLETING THE RAPTOR INSTALLATION

At this point in the installation, the Raptor shallow water anchor and Pump Assembly are successfully mounted to the boat and connected to a power source. The Hydraulic Hoses are routed and connected to the Pump Assembly. Since the motion of the anchor is also controlled by hydraulics, to complete the installation, the Pump Assembly needs to be filled with hydraulic fluid and go through a deploy/retract sequence to bleed the hydraulic lines. Before using the Raptor for its intended purpose, verify that the installation of the components is complete and then finalize the installation for successful operation.

### CAUTION

Because of the mechanical pressure from hydraulics, avoid injury by ensuring the Raptor anchor and Pump Assembly installation is complete before finalizing the hydraulic installation. Hydraulic pressure from unsecured components may cause unexpected operation and movement of components.

#### COMPLETING THE INSTALLATION >

### > Filling the Pump with Hydraulic Fluid and Bleeding the Hydraulic Lines

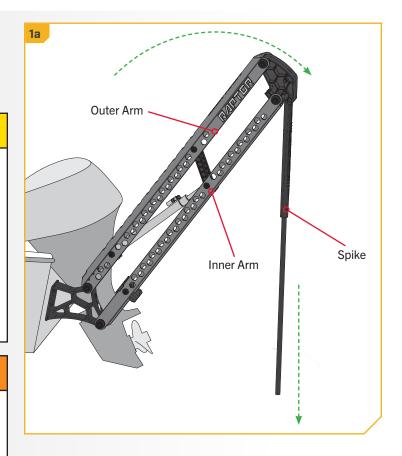
In a complete installation, the Pump Assembly connects to a power source. If the pump is not connected to a power source, review the "Battery & Wiring Installation" section of these instructions.

Extend the Raptor so the Spike is resting on the ground. If the Spike is not resting on the ground from the previous installation steps, carefully lower the anchor with the help of a second person. Watch for pinch points when manually moving the Raptor.

Ensure the Raptor is clear of obstructions and persons while deploying or retracting. The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. To avoid the risk, please do not come in contact with any area of the Raptor that may cause a pinch point while it is moving in any direction. Stay clear of the anchor if it is not held in place under the power of the Hydraulic Circuit or physical restraint. Not lowering the Spike before filling the Hydraulic Circuit and bleeding the hydraulic lines can result in a striking hazard created by the force of gravity on an unsecured anchor. Lower the Spike to avoid the risk.

### WARNING

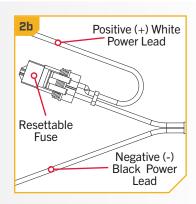
Running the Hydraulic Pump without hydraulic fluid will damage the pump. A damaged pump could result in serious injury. Do not run the Hydraulic Pump without the hydraulic fluid.

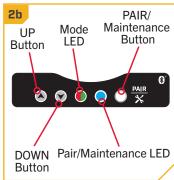


#### COMPLETING THE INSTALLATION

2

b. When the Pump Assembly was attached to a power source, it beeped to indicate Power "on". To test that there is power to the Pump Assembly, remove the Resettable Fuse from the positive (+) white power lead and re-insert it. When the Power is restored, the LEDs will flash in a series, and the pump will beep. The Mode LED will flash red at the same time as the Pair/Maintenance LED flashes blue. Then, the LEDs will shut off, and the Mode LED will flash green. When the Mode LED turns off, the pump will beep to confirm power is restored. The Pump Assembly is ready to be filled with Hydraulic Fluid.





### **⚠** CAUTION

The Pump Assembly is connected to a power source during this step of the installation. Review the "Battery & Wiring Installation" section of these instructions to become familiar with the risks involved in working with electrical currents.

3

#### **ITEM(S) NEEDED**



#### #24 X 1

- Pull out the Fluid Absorbent Insert sealing the Pump Assembly. Remove the complete Fluid Absorbent Insert and discard it.
- d. Place a clean Funnel or similar tool onto the Reservoir.

  Notice the maximum and minimum fill lines on the Reservoir. The Raptor Pump Reservoir holds one quart of Hydraulic Fluid. Take the Biodegradable Marine Hydraulic Fluid ISO 32 (Item #24) and fill the Reservoir with at least half of the quart until the Reservoir fills to the Maximum Fill Line.

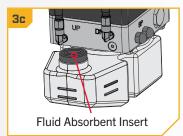
## **A CAUTION**

Biodegradable Marine Hydraulic Fluid ISO 32

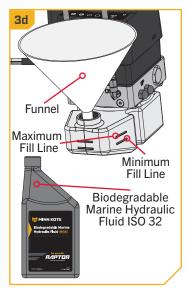
**First Aid:** Keep out of reach of children - do not induce vomiting

**Eye Contact:** Flush affected eyes with water for at least 15 minutes.

**Skin Contact:** Wash any exposed skin portion thoroughly with soap and water.



**NOTICE:** Raptor is 100% quality and performance tested with hydraulic fluid. Discard the residual fluid-absorbing insert. The insert is for shipping purposes only.



NOTICE: Minn Kota recommends using Biodegradable Marine Hydraulic Fluid ISO 32 (Part #2357700). If additional Hydraulic Fluid is needed, order online at minnkota.johnsonoutdoors.com or find an equivalent ISO 32 biodegradable marine-grade hydraulic fluid.

#### **ITEM(S) NEEDED**



#38 X 1

- e. Take the Reservoir Cap (Item #38) and place it on the Pump Reservoir. Close the Reservoir Cap to finger-tight by turning.
- Use the Up ▲ and Down ♥ Buttons on the Hydraulic Pump to cycle through the retract (up) and deploy (down) sequence. After one to two deploy and retract cycles, check the Reservoir to ensure the Hydraulic Fluid is not below the Minimum Fluid Line.

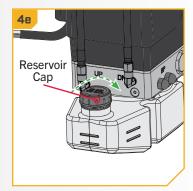
**NOTICE:** If the Reservoir Cap (Part #2350200) becomes lost or dirty, order a new one online at

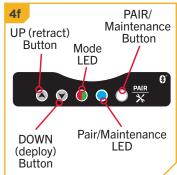
**NOTICE:** During the first few deploy/retract cycles, it is normal for the anchor to present little movement when pressing the Up and Down Buttons. The Hydraulic Lines and Cylinder must be filled with Hydraulic Fluid before normal, smooth movements occur.

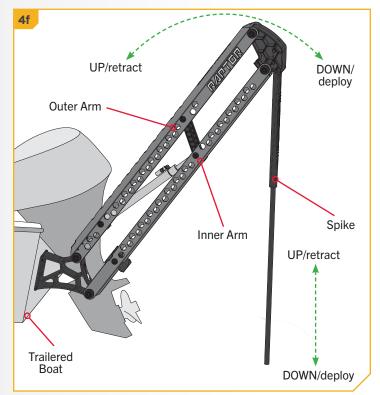
## WARNING

Take care that neither you nor other persons approach the Raptor Spike too closely while operating, neither with body parts nor with objects. The Raptor is powerful and may endanger or injure you or others. While the Raptor is operating, watch out for persons and obstructions while controlling the Raptor.

- If the Hydraulic Fluid is below the minimum, add more by following the procedure above. Then, cycle the Raptor through at least ten deploy/retract cycles.
- h. After ten cycles are complete, return to filling the Reservoir. If the Hydraulic Fluid level is below the minimum, add more by following the procedure above. Repeat five more retract/deploy cycles. Finish with the Raptor in the fully retracted state.







#### COMPLETING THE INSTALLATION

5

i. Before regular use of the Raptor, bleed the Hydraulic Circuit. Trailer the boat to a body of water, unload the boat into the water, and drive it to water that is no less than the depth of your anchor or a minimum of 10 feet. Minn Kota recommends going into no less than 10 feet of water to ensure the anchor can actuate in its full range of motion to bleed Hydraulic Fluid through the circuit and remove any air present.

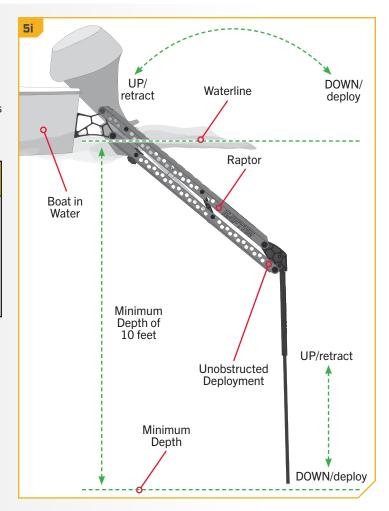
### **⚠ CAUTION**

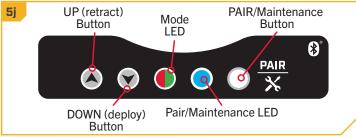
To successfully complete the installation and clear air from the Hydraulic Circuit, purge the Hydraulic Circuit of air. Failure to purge the Hydraulic Circuit may result in unexpected anchor operation. Purging the Hydraulic Circuit requires the anchor to retract and deploy fully. Complete the on-water deploy and retract sequences to purge the lines entirely.

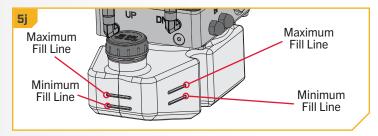
- j. Actuate the pump to its full length of travel using the Up ♠ and Down ♥ Buttons on the Hydraulic Pump to cycle through the deploy (down) and retract (up) sequence. Repeat the cycle ten times. Finish with the Raptor in the retracted state. Once complete, the Hydraulic Circuit is ready for regular use.
- k. The Raptor should be in the retracted state, and the Hydraulic Circuit fully purged. Double-check the fluid in the Reservoir to ensure the Hydraulic Fluid is adequate. If there is Hydraulic Fluid left after filling the Reservoir, retain it for future maintenance. Periodically check the Hydraulic Fluid level during use to ensure it is adequate.

**NOTICE:** The Maximum Fill Line and the Minimum Fill Line are located on three sides of the Reservoir to ensure that the Hydraulic Fluid level is easily identifiable regardless of Reservoir orientation.

**NOTICE:** After bleeding the Hydraulic Pump, review the hose routing to ensure it is clean and secure it in place with ties. For details, review the "Secure the Hydraulic Hoses" section of the manual.







#### COMPLETING THE INSTALLATION

## Securing the Hydraulic Hoses

With the Hydraulic Pump bled, the Hydraulic Hoses should be ready for their final hose routings. Securing the hoses is essential to ensure the routings remain clean and maintained for safe operation. Minn Kota recommends securing the Hydraulic Hoses with tie wraps along the hose routings.

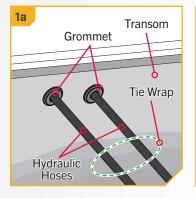
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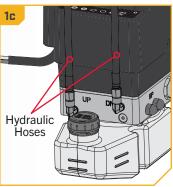
- Periodically inspect hoses for signs of wear or damage. Operation of the Raptor system with a worn or damaged hydraulic hose may cause harm, unexpected operation, or injury.
- If a hydraulic hose ruptures, bursts, or becomes disconnected during operation, immediately shut off power at the pump assembly and manually relieve pressure in the hydraulic system using the manual bypass valves.

- Do not grasp a leaking pressurized hose with your hands. Do not feel for hydraulic leaks with your hands. The force of escaping hydraulic fluid can cause serious injury.
- 1
- Begin by examining the Hydraulic Hoses between the Raptor and the boat Transom. Where necessary, place a Tie Wrap to secure any loose hoses.

**NOTICE:** Review the mounting consideration at the beginning of the installation instructions for recommendations on Hydraulic Hose routings.

- Follow the hose routing along the established route on the boat. Secure the Hydraulic Hoses to maintain their placement within the intended routing.
- Follow the Hydraulic Hoses back to the Hydraulic Pump and use a Tie Wrap to secure the Hydraulic Hoses the entire distance as necessary.





# **ONE-BOAT NETWORK**

#### **ONE-BOAT NETWORK OVERVIEW**

As one company, Humminbird and Minn Kota constantly look for ways our products can seamlessly integrate and communicate — unlocking more features and capabilities and putting you in command of a fully connected fishing system. That's why we created the One-Boat Network: a commitment to making the most advanced fishing gear even better by allowing it to work together.

Download the One-Boat Network App to get the most out of your time on the water. With the One-Boat Network app, you can control your shallow water anchors and trolling motor, transfer charts to your APEX, SOLIX, or HELIX series fish finder, update system software from your mobile device to your Humminbird and Minn Kota products, and receive real-time technical support with our Request A Call Back feature. You can also purchase, download, and display Humminbird CoastMaster and LakeMaster charts and create, save, and navigate waypoints, routes, and tracks.

The One-Boat Network allows for communication of the following Humminbird, Minn Kota, and Cannon products:

- Minn Kota trolling motor with Advanced GPS Navigation Systems and Built-in Mega Imaging
- Humminbird APEX, SOLIX, and select HELIX Multi-functional displays
- Minn Kota Shallow Water Anchors
- All Minn Kota and Humminbird-related remotes and wireless foot switches
- The One-Boat Network app
- Cannon Optimum Downriggers

With the full power of the One-Boat Network, you can:

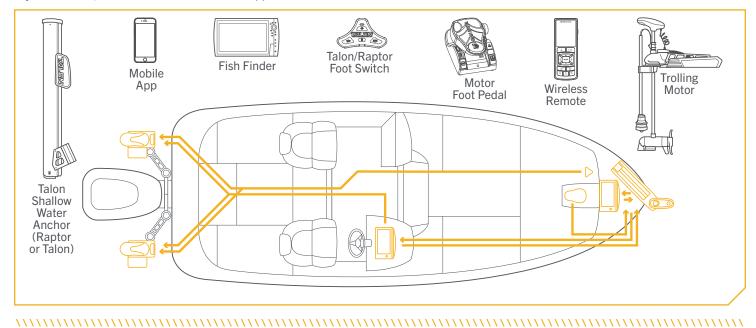
**CAST MORE, STEER LESS** - Select a depth contour (or the shoreline) and activate the "Follow" function to automatically navigate your boat along a depth contour.

**TAKE COMMAND WITHOUT LIFTING A FINGER** - Take total control of your trolling motor to easily steer, engage Spot-Lock, and even stow or deploy on select motors directly from a Wireless Remote, the One-Boat Network app, or a Humminbird fish finder.

**ANCHOR FROM ANYWHERE** - Deploy, retract or adjust anchor settings of a Talon, or Raptor shallow water anchor directly from a Wireless Remote, the One-Boat Network app, or a Humminbird fish finder.

**PRECISION DEPTH CONTROL** - Wirelessly network up to four Cannon Optimum downriggers and control them all or individually from one screen.

**ON-THE-GO ACCESS** - Take control with you. The One-Boat Network app lets you transfer software updates wirelessly, view and manage your network, and connect with technical support.



#### THE ONE-BOAT NETWORK AND RAPTOR >

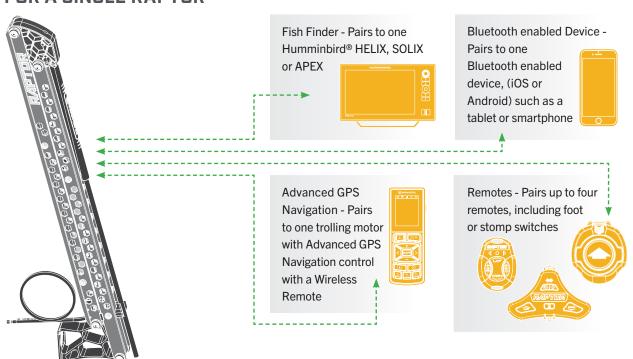
Within the One-Boat Network, the Raptor pairs with many devices to make control seamless and easy. This network includes controlling the Raptor on the One-Boat Network app when paired with a device with Bluetooth. A Raptor network may consist of:

- a Raptor
- a trolling motor with Advanced GPS Navigation
- · a HELIX, SOLIX, or APEX Humminbird fish finder
- · a device with Bluetooth, such as a table or smartphone
- up to four remotes, including a Raptor remote, foot switch, or stomp switch

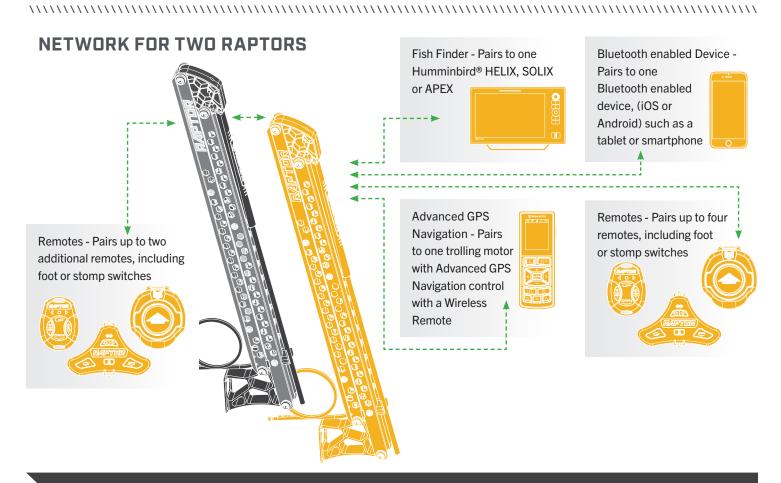
Within the network, the number of connected devices, remotes, and other One-Boat Network products varies depending on whether a single or dual Raptor is in the network. Pair each connected device separately. Review the networks for a single Raptor or two Raptors. For a Raptor to pair with the Humminbird fish finder, please see the Owner's Manual for the fish finder found online at humminbird. johnsonoutdoors.com. Pair the Raptor with a foot or stomp switch using the pairing instructions provided with these accessories. For more information on how to pair and control a Raptor on an Advanced GPS Navigation Wireless Remote, please see the corresponding Owner's Manual.

The network will accept the maximum number of remotes, devices, fish finders, or products paired with the Raptor. When the maximum number of allotments in the network is reached, the network will operate on a "least recently used out" system. For example, if an additional remote, foot, or stomp switch is paired to the Raptor when all four allotted spaces are full, the Raptor will replace the least recently used one with the new one.

#### NETWORK FOR A SINGLE RAPTOR



#### **ONE-BOAT NETWORK**



**NOTICE:** For more information on Pairing and controlling the Raptor(s) from a Humminbird, please see the Owner's Manual for the Humminbird. For more information on how to Pair and control a Raptor on an Advanced GPS Navigation Wireless Remote, please see the corresponding Owner's Manual.

## 

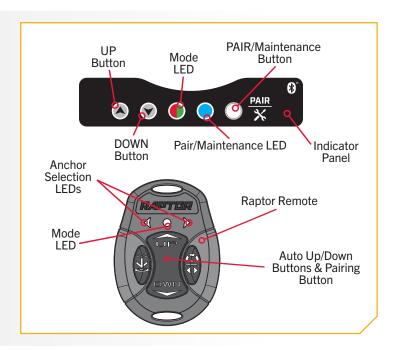
Be sure that the Raptor is clear of obstructions and persons while deploying or retracting. Take care that neither you nor other persons approach the Raptor too closely while operating, neither with body parts nor with objects. The Raptor is powerful and may endanger or injure you or others. While the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

#### PAIRING THE ONE-BOAT NETWORK FOR RAPTOR >

## Pairing a Remote with a Single Raptor

Every Raptor comes directly from the factory with a remote already paired to the Raptor. If more remotes are paired to the Raptor than the network allows, the Raptor will pair the new remote and remove the remote that was least recently used from the network. The Raptor pairs with up to four remotes.

- Press and hold the Up p button and the Down button on the Remote at the same time until the Anchor Selection LEDs and the Mode LED on the Remote begin to scroll **Tollow** red, green, red, and red. Then release them.
- b. Immediately press but do not hold the Pair button on the Indicator Panel on the Raptor Pump Assembly. The PAIR/Maintenance LED will begin to flash blue. The Raptor and Remote will go into Pairing Mode for 30 seconds. If a signal with three fast beeps occurs, the Raptor and Remote have successfully paired. If 30 seconds pass while in Pairing Mode and they do not successfully pair, a chirp will sound from the Pump Assembly, signaling that the Pairing has timed out.
- c. If the Pairing is unsuccessful, repeat the process.



## Pairing a Device with a Single Raptor

Pair a Raptor Shallow Water Anchor that is Bluetooth enabled with a single device, and use the One-Boat Network app to control the Raptor. Before pairing the device with the Raptor, download the One-Boat Network app and set up an account. Confirm that the

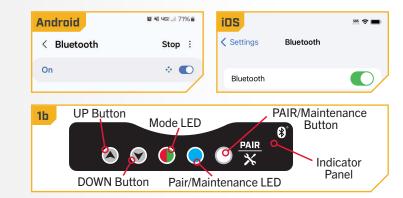
**NOTICE:** A device can only connect to and pair with a Raptor if Bluetooth is enabled on the device.

OBN app downloads successfully by opening the app on the device. Find the OBN app setup in the One-Boat Network Owner's Manual online at humminbird.johnsonoutdoors.com. Once confirmed, close the app on the device to begin the pairing process.

#### ONE-BOAT NETWORK

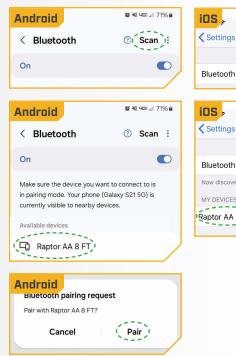
- 1
- a. On the device pairing with the Raptor, open the Bluetooth setting and turn Bluetooth "on". Keep the device on the Bluetooth screen.

b. Press the Pair O button on the Indicator Panel located on the Raptor Pump Assembly. The PAIR/ Maintenance LED will flash O blue, and the Raptor will go into Pairing Mode for 30 seconds.



- 2
- c. On an Android device, select the Scan button to begin the pairing process on the device.
- **d. On an iOS device**, as soon as the Bluetooth menu opens, the scanning process starts automatically.
- e. When the device recognizes the Raptor, the Raptor will appear on the list of available devices. Select the Raptor from the list of available devices.
- f. Selecting the Raptor from the list will pair the Raptor with the device. The Raptor will emit three quick beeps to confirm a successful pairing.
- g. On an Android device, select "Pair" if it appears.

**NOTICE:** When the device Bluetooth is scanning for the Raptor, the Raptor must be in Pairing Mode. If the Raptor or the device timed out, re-initiate the pairing process.





Bluetooth

3

h. On the device, Bluetooth must remain "on" for the device and the Raptor to stay connected. After the device pairs with the Raptor, the device will connect and begin communicating with the Raptor. When the Raptor is paired and communicating with the device, the One-Boat Network app will automatically recognize the Raptor if paired. If the pair is unsuccessful, repeat the process.

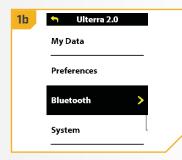
**NOTICE:** The device and the Raptor know each other when paired. When the Raptor and the device are actively communicating, they are connected. The device must be paired to and communicate with the One-Boat Network app to detect the Raptor.

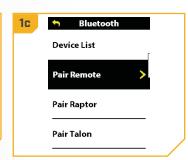
## Pair the Advanced GPS Navigation System Wireless Remote to a Trolling Motor

The Advanced GPS Navigation controller in the trolling motor Control Head may pair up to three remotes. A combination of remotes includes the standard Wireless Remotes and Micro Remotes. In addition, pair the controller to one mobile device for the One-Boat Network Application. If the trolling motor came with the full-featured Advanced GPS Navigation Wireless Remote, it came already paired to the trolling motor from the factory. Pair any additional remotes using the following steps. Once paired with the maximum number of remotes, the controller will start replacing the oldest paired remote in memory with the new remote. To control the Raptor on the Wireless Remote, pair the Wireless Remote and the Raptor to the trolling motor. First, pair the Wireless Remote, then follow the instructions for "Pair the Advanced GPS Navigation System to a Single Raptor." The products pair separately but integrate once paired.



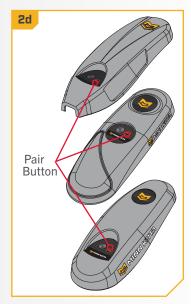
- Press the Menu 💷 button.
- Use the Speed Up or Speed Down button to find Bluetooth. Use the Steer Right button to select Bluetooth.
- c. Use the Speed Up or Speed Down button in the Bluetooth Menu to find Pair Remote. Press the Steer Right button to select Pair Remote.

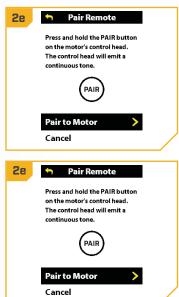




**NOTICE:** Ensure the remote stays within range of the Control Head during the pairing process.

- d. To pair the Wireless Remote to the trolling motor, enable Pairing Mode on the trolling motor. Press and hold the Pair button on the trolling motor's control head. The trolling motor will emit a continuous tone while in Pairing Mode.
- e. Use the Steer Right button on the remote to select Pair to Motor. The remote will scan for the motor. Continue to hold the Pair button on the trolling motor during this process.
- f. If successfully paired, the trolling motor will emit three beeps, and the remote is paired. Release the Pair button.
- g. If 30 seconds pass while in Pairing Mode and the pair is unsuccessful, an error tone will sound from the trolling motor, signaling that the pairing has timed out. If unsuccessful, repeat the process.
- h. When complete, press and hold the Menu [15] button to return to the Dashboard.



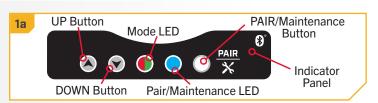


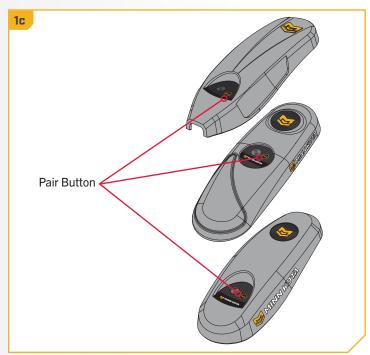
### ONE-BOAT NETWORK

## Pairing the Advanced GPS Navigation System with a Single Raptor

The Advanced GPS Navigation system is paired to the Raptor using the trolling motor Control Head and the Pair O button on the Indicator Panel located on the Raptor Pump Assembly. Before pairing the Raptor with the trolling motor, ensure the Advanced GPS Navigation Wireless Remote is paired to the trolling motor. The Raptor is paired to the trolling motor but controlled by the Wireless Remote, which must also pair to the trolling motor. Find instructions on how to pair the Wireless Remote to the trolling motor in the Advanced GPS Navigation Wireless Remote Owner's Manual online at minnkota.johnsonoutdoors.com. For trolling motors equipped with Advanced GPS Navigation, also find instructions to pair the Wireless Remote in the Quick Start Guide included with the trolling motor.

- a. Press the Pair button on the Indicator Panel on the Raptor Pump Assembly. The PAIR/Maintenance LED flashes blue, and the Raptor will go into Pairing Mode for 30 seconds.
- b. Power up the trolling motor.
- c. Locate the Pair button at the top of the Control Head, Push and hold the Pair button down. The Control Head will emit a consistent tone and scan for the Raptor.
- d. If a signal with three fast beeps occurs, the Raptor and Control Head have successfully paired. The LEDs on the Indicator Panel of the Raptor will perform a sequence to confirm that the Control Head and Raptor are paired.
- e. If 20 seconds pass while in Pairing Mode and the Raptor and Control Head do not successfully pair, a chirp will sound, signaling that the pairing has timed out.
- If the pair is unsuccessful, repeat the process.





## Pairing with Two Raptors

To pair a remote or device with two Raptors, the two Raptors must first pair with each other. When networking with two Raptors, Minn Kota recommends first pairing the two Raptors together, then adding additional items to the network, such as the Raptor remotes, devices, and the Wireless Remote. If a single Raptor network is present, it is best to clear and rebuild the network to add a second Raptor. Pair two Raptors following the instructions in the "Pairing Two Raptors and Programming the Mounting Location" section. With two Raptors paired, pair the device or remote with one of the Raptors. After pairing two Raptors, follow the directions to pair with a device, remote, or the Advanced GPS Navigation System for a single Raptor. Pair the Raptor with a foot or stomp switch using the pairing instructions provided with these accessories. Please see the "One-Boat Network" portions of the Raptor Owner's Manual to learn more.

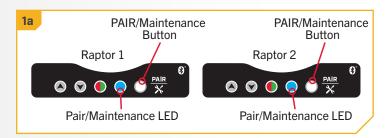
## Pairing Two Raptors and Programming the Mounting Location

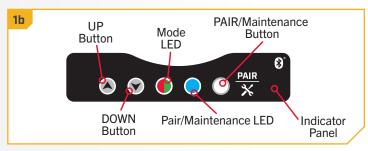
Every Raptor comes directly from the factory with a remote already paired to the Raptor. When installing two Raptors, it is first necessary to clear all devices from both Raptor networks. To clear each Raptor, follow the instructions in the "Clearing Paired Remotes or Devices from the Raptor" section of the Owner's Manual.

With both Raptor networks clear, pair the Raptors together. The clear Raptor networks will allow the system to complete an automated process during pairing that will designate the Port and Starboard positions of the two Raptors as installed on the boat. The process below pairs the Raptors together. It also identifies which side of the boat each Raptor, either Port or Starboard, is installed on.

Once pairing the Raptors is complete, re-pair the Raptor remotes to the dual Raptor system. Please see the "Pairing with Two Raptors" section of this Owner's Manual to pair a Raptor with a remote or device. Additional Bluetooth-enabled devices are paired to the One-Boat Network after the Raptors are paired. All remotes or devices paired to one Raptor will operate both when the pairing process is complete. Adding more than three devices per Raptor may affect communication within the Bluetooth network.

- Press the Pair button on the Indicator Panel on one of the Raptors. The PAIR/Maintenance LED will begin to flash oblue. Immediately follow this step on the second Raptor.
- b. The Raptors are in Pairing Mode and will search for each other for 30 seconds. If they do not pair after 30 seconds, an error tone will sound. The error tone signals that the pairing has timed out. If this occurs, start the process again.
- c. When the Raptors successfully pair, a confirmation tone with three fast beeps occurs. The Raptors must be programmed to designate the Port or Starboard locations. This process will automatically begin when two Raptors have successfully paired.



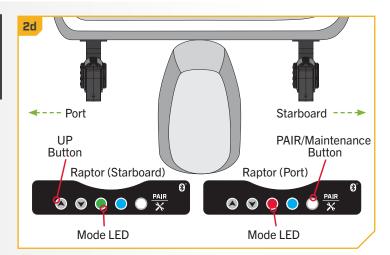


#### **ONE-BOAT NETWORK**

2

**NOTICE:** The process to identify the mounting location of each Raptor will automatically begin when two Raptors have successfully paired to each other.

d. The Mode Indicator LED will turn green on both Raptors, and the Pump Assemblies will emit a repeating beep. On the Indicator Panel of the Starboard Raptor, press the Up button. The Raptor will accept the selection. The Mode LED of the Raptor on the Port side will flash red, and then the LEDs on both Raptors will turn off. Now, the Raptors have successfully paired together and know their mounted position.



**NOTICE:** When the process is complete, all remotes paired to an individual Raptor must be re-paired. Please see the "Pairing with two Raptors" section of this manual.

# **ONE-BOAT NETWORK APP**

#### THE ONE-BOAT NETWORK MOBILE APP

The One-Boat Network allows for control of a Shallow Water Anchor (SWA) when paired with the One-Boat Network® app. The One-Boat Network app is a free iOS and Android application. Download the app to a mobile device, to provide unparalleled control over all One-Boat Network-connected products. To get the most from your One-Boat Network, download the One-Boat Network app onto a smart device and review the One-Boat Network section of this document. Use the One-Boat Network app to control the Raptor using a device paired to the Raptor with a Bluetooth connection. Find more information about pairing the Raptor with the One-Boat Network in the "One-Boat Network" section.

## Confirm Compatibility

Visit minnkota.johnsonoutdoors.com/us/ learn/technology/one-boat-network to confirm mobile device compatibility and the required software version.

In addition to the instructions in this section, confirm the mobile device has Location Services enabled for GPS tracking and a Wi-Fi or cellular data connection for downloading charts and software updates.

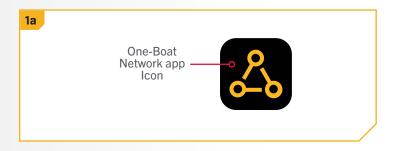


Required Software Version	
Apple iOS	Google Android
12.0 or newer	6.0 or newer (API level 23)

**NOTICE:** Some information and instructions may only apply to some mobile devices. Refer to the instructions included with your mobile device.

## Download the One-Boat Network Mobile App

- Apple iOS: Open the App Store. Google Android: Open the Play Store.
- b. Search the app store for "One-Boat Network."
- Download the One-Boat Network app to your device.
- d. Follow the on-screen instructions to complete the app download.

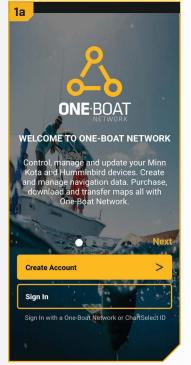


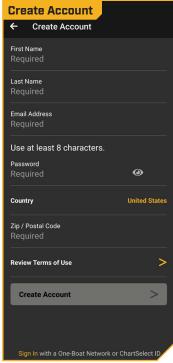
#### **ONE-BOAT NETWORK APP**

## > Account Setup and Sign-in

- 1
- a. When opening the One-Boat Network application, the app will ask to create an account or sign in with an existing One-Boat Network or Humminbird® ChartSelect ID.
- To Create an Account tap "Create Account" from the One-Boat Network Launch screen. Use the on-screen keyboard to type in account credentials.
   Tap "Create Account".
- c. To Sign In tap "Sign In" from the One-Boat Network Launch screen. Use an existing One-Boat Network or Humminbird® ChartSelect ID account. Use the on-screen keyboard to type in an email address and password. Tap "Sign In".
- d. To benefit from all the features of One-Boat, you will need to set up your devices by pairing your mobile device to your Minn Kota and Humminbird devices. Please see "Pairing a Device with a Single Raptor" to complete the pairing process.

NOTICE: Once signed in to the One-Boat Network app, the app will go through connecting a mobile device to Humminbird and Minn Kota products. Complete the pairing or skip this step and return to it later. To return to the Bluetooth Pairing menu in the app, select Self Help from the Home Screen and then select Bluetooth Pairing. Read the "One-Boat Network" section of this Owner's Manual for additional information.





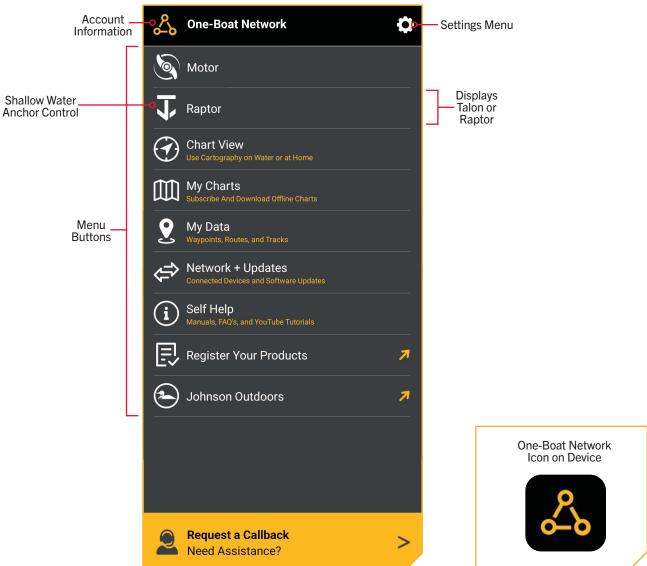




#### THE ONE-BOAT NETWORK FOR RAPTOR

The One-Boat Network app opens to display the Home screen.

# **One-Boat Network App Home Screen**



NOTICE: Specifications are subject to change without notice. This diagram is for reference only and may differ from the current app interface. Be sure to download the correct app, as other Minn Kota® apps will not work with the Raptor.

#### ONE-BOAT NETWORK APP

#### ONE-BOAT NETWORK HOME SCREEN MENU ICONS >



#### Motor

Display the motor app, which allows control of the trolling motor from a paired mobile device.



#### Anchor

Display the Talon or Raptor app, which includes quick-access menus to deploy and retract the anchor and change the anchor mode.



#### **Chart View**

Display high-definition lake maps. Customize depth highlight, shallow water highlight, water level offset, and more. Use GPS-enabled navigation for location, speed, and course on water.



## My Charts

Subscribe to get access to 10,000+ USA and Canada lake and coastal charts. These include high-detail contour lines, aerial imagery, shaded relief, and bottom hardness.



### My Data

Manage saved waypoints, routes, and tracks - import and export navigation data.



## **Network & Updates**

Pair a mobile device with a Bluetooth-enabled Humminbird fish finder to enable the downloading of Humminbird software updates.



## **Self Help**

Access product manuals, install guides, and FAQs.



## **Register Your Products**

Register Minn Kota and Humminbird products to receive the latest Minn Kota and Humminbird news, including accessory compatibility and software update information.



## Request a Callback

Contact Technical Support to initiate a callback request.



## **One-Boat Settings**

Set default units of measurement, disable auto-lock, restore purchases, and send diagnostic information.

**NOTICE:** Find more information about One-Boat Settings in the One-Boat Network Owner's Manual online at minnkota.johnsonoutdoors.com.



### **One-Boat Network Account**

Select to open and change account-specific information.



#### Johnson Outdoors

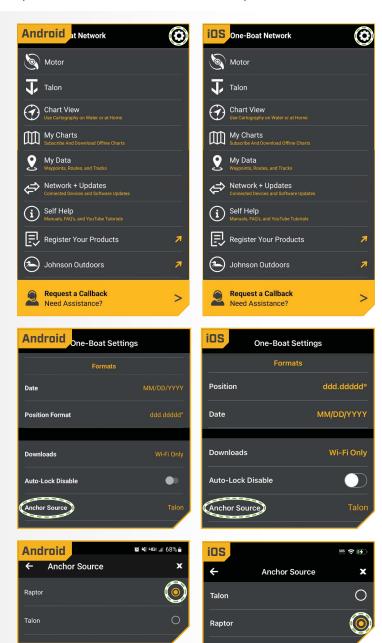
Select to open the Johnson Outdoors website on the device's internet browser.

#### **ONE-BOAT NETWORK APP**

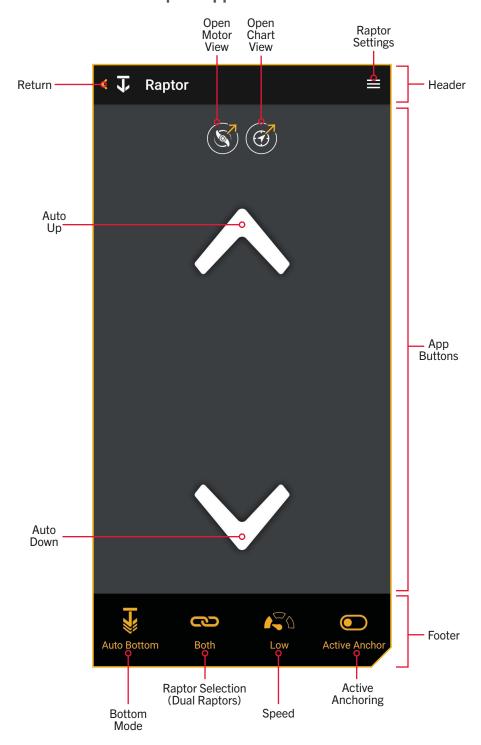
#### > Select Anchor Source

Use the One-Boat Network app to control a Minn Kota shallow water anchor. The app is dynamic and will change depending on whether it is connected to a Talon or Raptor shallow water anchor. Select the Raptor as the anchor source to control the Raptor.

- With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the One-Boat Settings icon on the Home Screen to open the One-Boat Settings menu.
- c. Scroll and search for Anchor Source and tap it.
- d. Tap the radio button to select Raptor.



## **Raptor App Home Screen**



**NOTICE:** Specifications are subject to change without notice. This diagram is for reference only and may differ from the actual app interface. The Raptor App will only work with Bluetooth® enabled Raptors. Be sure to download the correct app, as other Minn Kota® apps will not work with the Raptor.

#### RAPTOR APP BUTTONS >



## **Auto Up**

The anchor auto-retracts with a single press. Press and hold to retract the anchor continually. The anchor will continue to retract when the button is held until the button is released.



#### Auto Down

The anchor is auto-deployed with a double press. Double press and hold the second press to deploy the anchor continually. The anchor will continue to deploy with the button held until it reaches its full range of operation or until the button is released.



#### **Pause**

When pressed, the action of deploying or retracting the anchor is paused. The Raptor(s) will remain at the current depth until another command. The pause button may appear in place of the Auto Up or Auto Down buttons during deploying or retracting and will disappear when pressed after the unit pauses.



#### Standard Mode

When put in Standard Mode, the Mode Indicator LED in the Indicator Panel will toggle between red and green



## Rough Water Mode

In Rough Water Mode, the Mode LED on the Indicator Panel will be lit red . In Rough Water Mode, the anchor will operate with maximum down-force when anchoring.



#### Soft Bottom Mode

In Soft Bottom Mode, the Auto Deploy operates at a reduced power with a single hit. During calm conditions or on the water with muddy or soft sandy bottoms, Soft Bottom Mode prevents the Raptor from over-anchoring. In Soft Bottom Mode, the Mode Indicator LED will flash green on the Indicator Panel.



#### **Auto Bottom Mode**

In Auto Bottom Mode, the anchor uses pressure readings to determine how best to anchor the Raptor. Auto Bottom Mode is only available on Raptors equipped with Active Anchoring, and the Raptors have a Mode LED that flashes slowly from green to green 



## **Raptor Selection - Both**

Indicates that both the Port and Starboard Raptors are selected and controlled together while operating. This option is only available when the One-Boat Network

**NOTICE:** The Raptor Selection options are only visible when the Raptor App is set up to control two Raptors.



## Raptor Selection - Individual

Indicates individual control of each Raptor while operating. Press to Toggle between controlling Raptors individually or together.

app is paired to control two Raptors. Press to Toggle between having both Raptors selected or controlled individually.



## Speed Button

Toggle the speed at which the anchor retracts and deploys between low, medium, and high. Alternatively, find the speed setting in the App Menu.



#### ONE-BOAT NETWORK APP



## **Active Anchoring**



Enables Active Anchoring, which allows the Raptor to adjust to changes in pressure while anchored.



single press. When the Mode LED odisplays green, it is enabled. When the Mode LED odisplays red, it is disabled. If Active Anchoring is unavailable for the model, the selection will be gray.



## Low Battery

When the app recognizes that the Raptor is powered by a low battery.



## **Raptor Settings**

When selected, the Menu gives additional options to control the Raptor, such as anchor speed, software updates, the setup guide, and more product control and support.

**NOTICE:** When the device is not connected to a Raptor, the Menu will bring up the option to enter Demo Mode. Once the device connects to a Raptor, Demo Mode exits, and the Demo Mode option is unavailable.

**NOTICE:** Active Anchoring is only available in select models,

and the selection is not available in the Standard Model.



#### **Direction Indication**

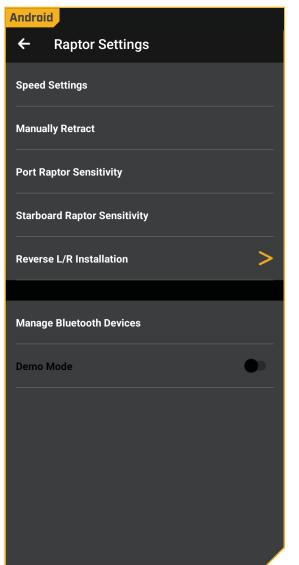
Shows the direction of deployment and retraction when the Raptor is in use.

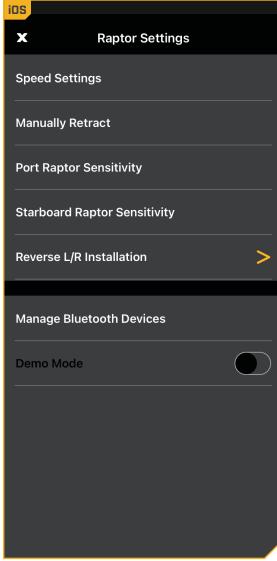
# WARNING

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

## **Raptor App Settings**





#### ONE-BOAT NETWORK APP

RAPTOR SETTINGS >

## **Speed Settings**

Toggles Speed between Slow, Medium, and Fast. Slow, Medium, and Fast can be controlled further by changing the range of each option to fit personal preference. Within the range of options, the lower the number, the lower the Speed; the higher the number, the quicker the Raptor will move at the selected Speed.

## **Manually Retract**

If the Raptor does not retract by command from the OBN app, the Indicator Panel, or any other paired device, turn Manual Retract on and off.

## Port Raptor Sensitivity/ Starboard Raptor Sensitivity

Raptor Sensitivity is a setting that controls the final position of the Raptor when it stows and deploys. The Sensitivity of the Raptor when it stows is the Up Sensitivity, and when it deploys, it is the Down Sensitivity. In a Dual Raptor system, the ideal sensitivity may differ for both Raptors and should be adjusted independently for Port and Starboard.

### Reverse L/R Installation

Corrects the known position of each Raptor if the incorrect Port and Starboard locations are programmed when two Raptors pair. The Reverse L/R Installation selection is only available on the App Menu with a dual Raptor System. It reverses the mounting location as recognized by the Raptor System.

## **Manage Bluetooth Devices**

The app displays a list of all Bluetooth connections.

#### **Demo Mode**

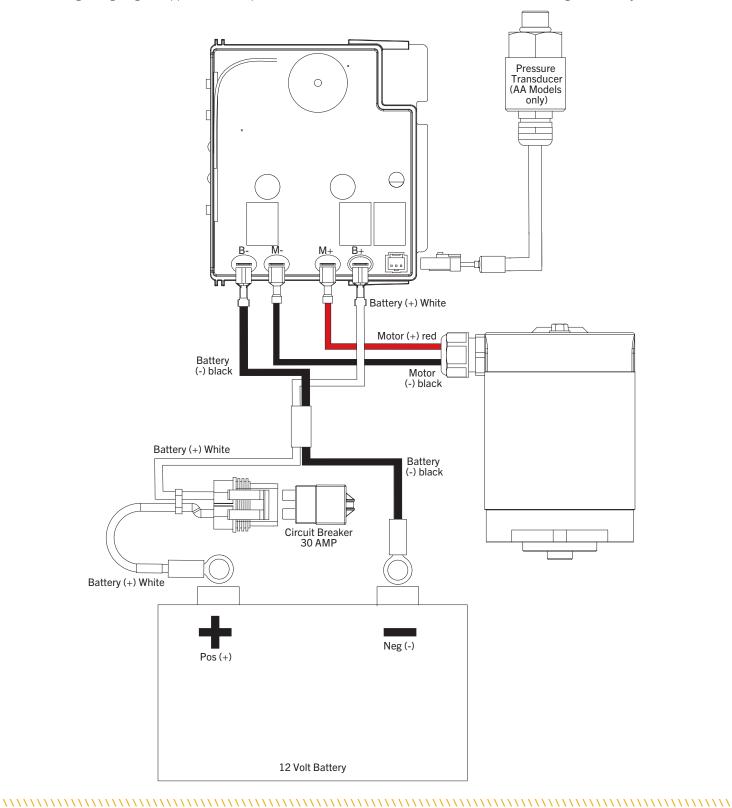
Turn Demo mode on and off.

**NOTICE:** When the device is not connected to a Raptor, the Menu displays the option to enter Demo Mode. When the device connects or pairs to a Raptor, Demo Mode will exit, and the choice grays out.

# **WIRING DIAGRAM**

#### RAPTOR

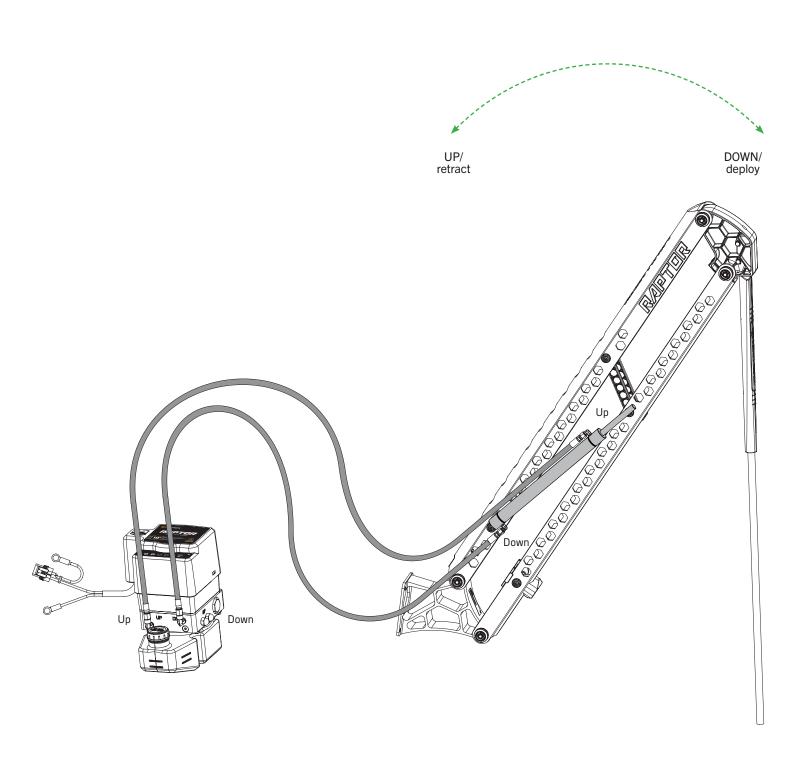
The following wiring diagram applies to the Raptor. The Pressure Transducer is included in Active Anchoring Models only.



# **HYDRAULIC DIAGRAM**

#### **RAPTOR**

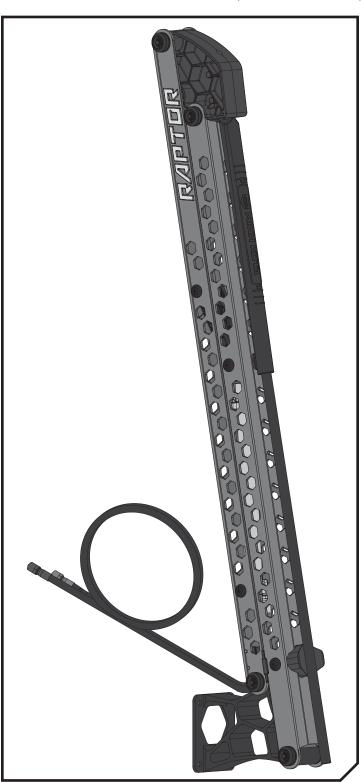
The following hydraulic diagram applies to all Raptors.



# **USING THE RAPTOR**

#### RAPTOR FEATURES

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



#### Auto Drive

In select Modes, Auto-Drive will automatically power the Spike to the bottom with two successive hits. The Raptor drives the anchor in automatically to ensure the anchor is seated. When pressure is sufficient on Raptor models, with Active Anchoring, the number of hits reduces.

## Active Anchoring

This feature is only available on select Raptor models. It enables the anchor to tell if the pressure on the Spike at the anchored location has changed and allows the Spike to reengage the bottom based on the pressure reading. This feature allows the Raptor to be anchored more effectively and adapt to changing conditions.

#### **USING THE RAPTOR**

#### Mode Functions

The Raptor operates in three different modes, and the Raptor with Active Anchoring operates in four modes. The design of each Mode is for specific on-water scenarios. The anchoring behavior of the Raptor changes when deploying changes with each Mode. Modes are identified on the Indicator Panel and the Raptor remotes. The Raptor can anchor in most conditions, and selecting the correct anchoring Mode is important. The four different Mode functions are:

- 1. Standard Mode Standard Mode is the default anchoring Mode for Raptor units without Active Anchoring. When in Standard Mode, the Mode LED on the Indicator Panel toggles between red and green several times and then turns off. In Standard Mode, Raptor's Auto Deploy will operate with maximum down-force and a complete Auto-Drive cycle of two hits spaced three seconds apart.
- 2. Soft Bottom Mode In Soft Bottom Mode, the Mode LED on the Indicator Panel is lit green. The Auto Deploy will operate a single hit with reduced power in Soft Bottom Mode.
- 3. Rough Water Mode In Rough Water Mode, the Mode LED on the Indicator Panel is lit red. The Auto Deploy will operate with maximum down-force with three Auto-Drive cycles of two hits each, spaced three seconds apart in Rough Water Mode.. The three Auto-Drive cycles are at 10-second intervals.
- 4. Auto Bottom Mode (Active Anchoring Models only) The system detects the bottom type and automatically adjusts the force and number of hits accordingly. This is the default mode for all Active Anchoring models. The Mode LED flashes green, green, red, red, green, green, and off to indicate this Mode is in effect.

Mode," or "Auto Bottom" and will return to the previously known Mode. However, if left in "Rough Water Mode" and power cycles, the Raptor reverts to the default Mode. Reverting to the default Mode is done to prevent Raptor from unnecessarily over-anchoring.

from over-anchoring.

**NOTICE:** In calm conditions or on water with muddy or soft

sandy bottoms, Soft Bottom Mode will prevent the Raptor

**NOTICE:** If power cycles to the Raptor, the Raptor will "remember" if it was last in "Standard Mode," "Soft Bottom

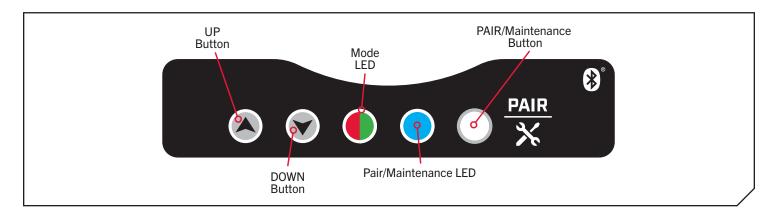








#### CONTROLLING THE RAPTOR WITH THE INDICATOR PANEL >





Press and hold to retract the anchor. The anchor will continue to retract when the button is held until the button is released.



#### **DOWN**

Press and hold to deploy the anchor. The anchor deploys until the button is released or the anchor has reached its full range of deployment.



### Mode LED

The Mode LED identifies the different Anchor Modes. and red for three seconds when the anchor is in Standard Mode. The Mode LED illuminates red in Rough Water Mode. The Mode LED illuminates green in Soft Bottom Mode. The Mode LED flashes green and green and then red and red when Auto Bottom is selected. The Mode LED is used to identify Active Anchoring. The Mode LED will briefly pulse green when Active Anchoring is enabled, and the Mode LED will briefly pulse red when disabled. The Mode LED will continue to pulse between green and red while Active Anchoring is enabled and the anchor deploys. The Mode LED will also flash red to identify system errors.



### Pair/Maintenance LED

While the anchor is in PAIR Mode, the Pair/Maintenance LED will flash blue. While in Maintenance Mode, the Pair/Maintenance LED will illuminate blue.



## PAIR/Maintenance Button

Single-press the button to enter PAIR Mode. The anchor stays in PAIR Mode until successfully paired. Press the PAIR button again to cancel PAIR Mode or wait until the pairing process times out after 30 seconds. Press and hold the PAIR button to enter Maintenance Mode. While in Maintenance Mode, the anchor motor is disabled. To cancel Maintenance Mode, press the PAIR button again.

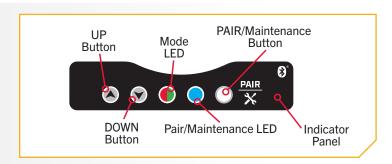
#### **USING THE RAPTOR**

## **>** Deploy the Raptor from the Indicator Panel

Use the buttons on the Indicator Panel to deploy the Raptor anchor.



- a. To deploy the Raptor, press and hold the Down button on the Indicator Panel.
- b. Pause the deploy action while the anchor deploys by releasing the Down v button.
- c. Resume the paused deployment by holding the Down which button again.
- d. Once the deploying anchor reaches its full length of travel or comes in contact with the bottom, it will stop.



## **№ WARNING**

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

## **↑** CAUTION

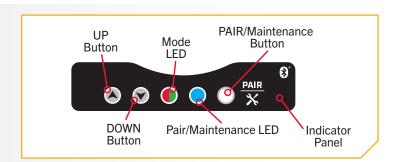
The spaces between the Outer Arm, Inner Arm, Spike, and Brackets of the Raptor can create a pinch point. Do not contact an area of the Raptor that may cause a pinch point while it is moving in any direction to avoid the risk.

## Retract the Raptor from the Indicator Panel

Use the buttons on the Indicator Panel to retract the Raptor anchor.



- a. To retract the Raptor, press and hold the Up A button on the Indicator Panel.
- b. Pause the retracting anchor by letting go of the Up A button on the Indicator Panel.
- c. To resume the paused retraction, press and hold the Up A button again.
- d. Once the retracting anchor becomes fully retracted, release the Up A button.



## WARNING

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

# CAUTION

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

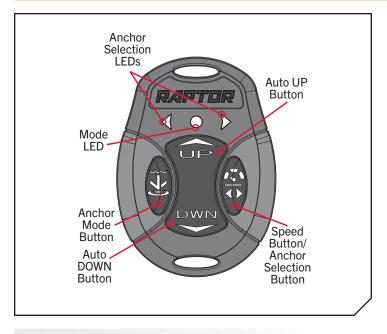
## Pairing the Raptor

For instructions on how to Pair the Raptor, please see the "Pairing the One-Boat Network for Raptor" section of these instructions.

#### Maintenance Mode

For instructions on how to put the Hydraulic Pump into Maintenance Mode, please see the "Service & Maintenance" section of these instructions.

#### CONTROLLING THE RAPTOR WITH THE REMOTE >





## **Auto Up Button**

Single press to auto-retract the anchor. Press and hold to retract the anchor continually. The anchor will continue to retract when the button is held until the button is released. Use the Auto Up button to pair a Remote to a Raptor.



## **Auto Down Button**

Double press to auto-deploy the anchor. Double press and hold the second press to deploy the anchor continually. The anchor will continue to deploy when the button is held until it reaches its full range of operation or until the button is released. Use the Auto Down button to pair a Remote to a Raptor.

## **↑** CAUTION

Never leave the boat unattended with the Raptor as your only boat anchor. Raptor is not intended to provide primary anchorage. This includes operating the remote at a safe distance. Minn Kota does not recommend leaving the boat while operating the Raptor with the remote. Doing so is at the owner's risk. This product does not relieve you from the responsibility of safe boat operation.



#### **Anchor Mode Button**

Single press to display the current Anchor Mode on the LEDs. When the Mode is displayed, continue to single press through the Anchor Modes to change the Mode. When toggling through the Anchor Modes, the order is Standard, Rough Water, Soft Bottom, and Auto Bottom. The Mode LED flashes between red and green of for Standard Mode. The Mode LED flashes red for Rough Water Mode, and the Mode LED flashes green for Soft Bottom Mode. Auto Bottom Mode is only available on the Active Anchoring Model, and the Mode LED flashes slowly from green to green and then red to red The Anchor Mode button turns Active Anchoring on and off on Raptors with the feature. Active Anchoring is engaged and disengaged by a single press and hold. When the Mode LED displays green , Active Anchoring is enabled, and when the Mode LED displays red , Active Anchoring is disabled.



# Speed Button / Anchor Selection Button

Single press the button to display the current operating speed. While the speed is displayed, continue to single press through the operating speed to toggle between slow, medium, and fast. The Mode LED will flash red three consecutive times at the speed corresponding with the selected speed. Pressing and holding the button toggles the remote to control either the Port, Starboard, or both anchors (with two anchors paired in the system). The Raptor Selection LEDs will illuminate to correspond to the anchor(s) selected. The right LED illuminates when the Starboard anchor is selected, and the left LED illuminates when the Port anchor is selected. Both the right and left LEDs illuminate when both anchors are selected.

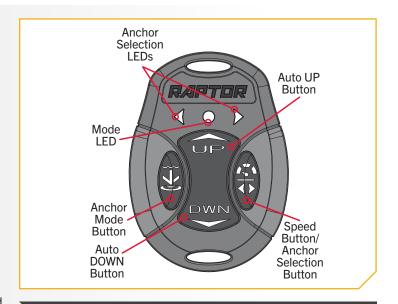
**NOTICE:** The Raptor remote that comes with the Raptor from the factory is already paired. If the network connection between the remote and the anchor is interrupted, please see the "Pairing the Raptor" section of these instructions.

## Deploy the Raptor from the Remote

Use the buttons on the Remote to deploy the Raptor anchor.



- To auto-deploy the Raptor, double press and release the Down button on the Remote. To continually **deploy** the Raptor, double press the Down button and hold the second press.
- b. Pause the auto-deploy action by pressing the Down button again. Pause the Raptor as it continually deploys on the Remote by releasing the Down Button.
- c. The paused deployment can be resumed by pressing the Down button again in the same manner.
- If auto-deploying the anchor, once the deploying anchor gets to its full length of travel or comes in contact with the bottom, it will go through an anchoring sequence determined by the current Mode and then stop. If continually deploying the Raptor, and the anchor reaches its full length of travel, it will stop.



**NOTICE:** With two Raptors paired, the anchor of the Raptor selected on the Remote will retract. The selection can be Port, Starboard, or both.

# WARNING

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

# **CAUTION**

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

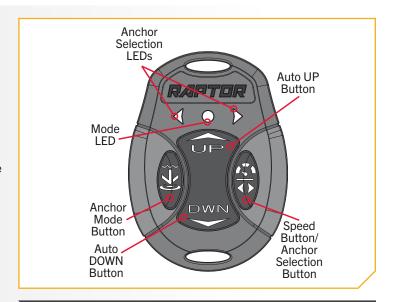
#### **USING THE RAPTOR**

## > Retracting the Raptor from the Remote

Use the buttons on the Remote to retract the Raptor anchor.



- a. To **auto-retract** the Raptor, press and then release the Up pure button on the Remote. To **continually retract** the Raptor, press and hold the Up pure button.
- b. Pause **auto-retract** by pressing the Up putton again or by pressing the Down button. Pause the Raptor when it **continually retracts** by releasing the Up putton on the Remote.
- c. The paused retraction can be resumed by pressing the Up button again in the same manner.
- d. If auto-retracting, the anchor will stop when the anchor is fully retracted. If continually retracting the Up button should be released when the anchor is fully retracted.



**NOTICE:** With two Raptors paired, the anchor of the Raptor selected on the Remote will retract. The selection can be Port, Starboard, or both.

# **MARNING**

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

# **↑** CAUTION

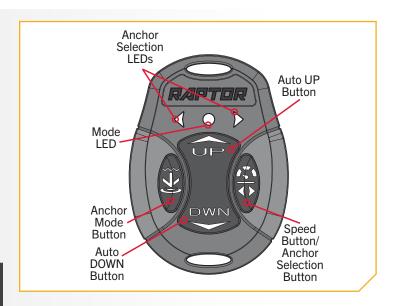
The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. Do not contact an area of the Raptor that may cause a pinch point while it is moving in any direction to avoid the risk.

## > Toggle the Mode from the Remote

Toggle the Mode on the Remote when the water or anchoring conditions change to fit your anchoring needs.

- 1
- a. Single press the Anchor Mode button to display the current Mode.
- b. While the Mode displays via the Mode LED, continue to single-press through the Modes to toggle between Standard, Rough Water, Soft Water, and Auto Bottom. The Mode LED flashes between red and green to identify Standard Mode. The Mode LED flashes red to identify Rough Water Mode, and the Mode LED flashes green to identify Soft Bottom Mode. Auto Bottom Mode is only available on the Pro Model. The Mode LED flashes slowly from green to green and then red to red

**NOTICE:** When two Raptors are paired to each other, changing the Anchor Mode on one Raptor changes the Anchor Mode for both Raptors. See the "Using the Raptor" section of this manual to learn more about Modes.

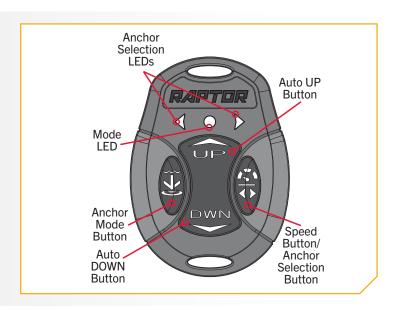


## > Toggle Active Anchoring

Active Anchoring is a feature that comes already installed on select Raptor models. To learn more about Active Anchoring, see the "Using the Raptor" section of these instructions.



a. Turn Active Anchoring on and off with a single press and hold of the Anchor Mode button. The Mode LED displays three short flashes, and then one longer flash of green Active Anchoring is turned on. The Mode LED displays three short flashes, and then one longer flash of red Active Anchoring is turned off.

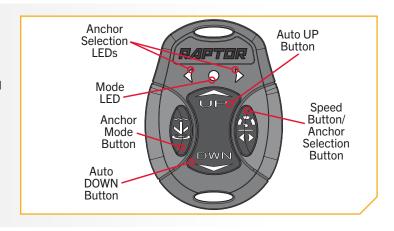


#### USING THE RAPTOR

## > Select Anchor Operating Speed

Use the Raptor Speed/Anchor Selection button to select the speed at which the anchor operates when stowing and deploying. Set the speed to slow, medium, or fast. Follow the directions below to set the speed.

- 1
- a. Single-press the Speed/Anchor Selection button to display the current operating speed.
- b. While the speed is displayed via the Mode LED, continue to single-press through the operating speed to toggle between slow, medium, and fast. The Mode LED will flash red three consecutive times at the speed that corresponds with the selected speed.



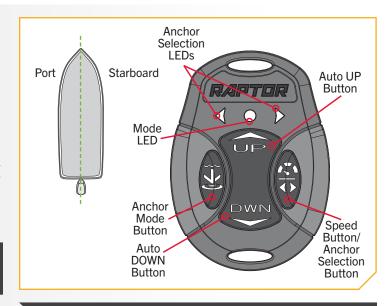
## Selecting a Raptor to Operate with the Remote

The Raptor Speed/Anchor Selection button toggles the Raptor that the remote controls when two Raptors are installed on the boat and paired with each other. The selection toggles between a Raptor mounted on the Port or Starboard side of the boat, or it can control both Raptors at the same time. The Anchor Selection LEDs are lit based on the selection made.



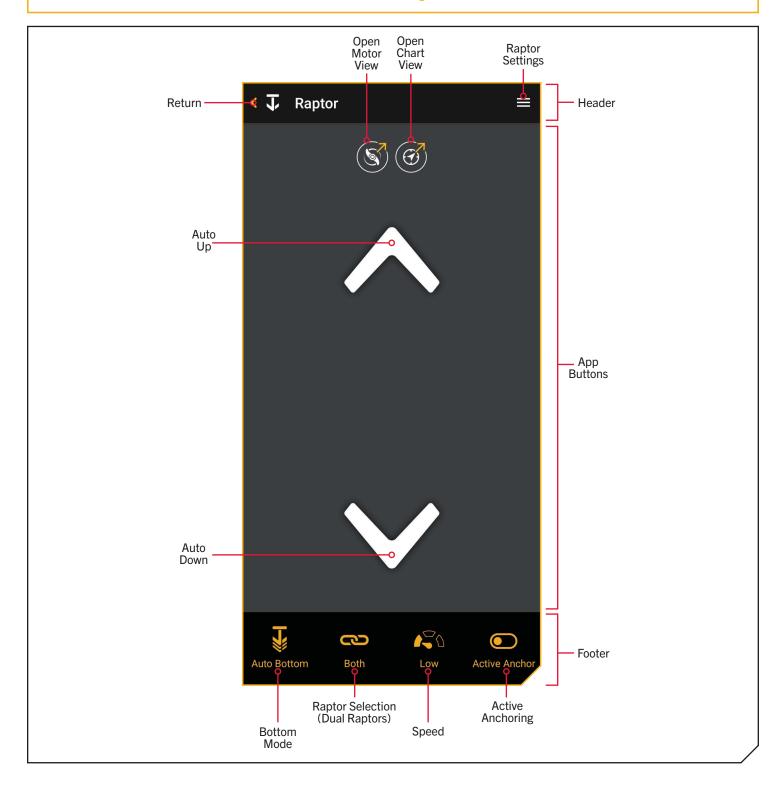
- To toggle the Raptor selection, press and hold the Speed/Anchor Selection button.
- b. When the Speed/Anchor Selection button is pressed, one or both of the Anchor Selection LEDs ✓ ▶ illuminate. The Anchor Selection LEDs illuminate to correspond to the anchor(s) selected. The right LED ▶ illuminates when the Starboard anchor is selected, and the left LED ✓ illuminates when the Port anchor is selected. Both the right and left LEDs ▼ illuminate when both anchors are selected. Release the Speed/Anchor Selection ♥ button when the desired Raptor(s) is/are selected.

**NOTICE:** With two Raptors paired, the anchors may not be in sync when retracting and deploying.



**NOTICE:** The Raptor Remote will remember the last selection made unless the Remote or Raptor loses power.

#### CONTROLLING THE RAPTOR WITH THE ONE-BOAT NETWORK APP



## Deploy the Raptor from the OBN App

1

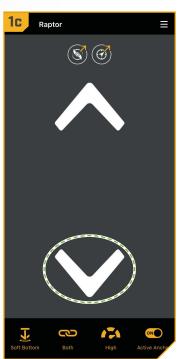
70 | minnkota.johnsonoutdoors.com

- When the One-Boat Network app is open and paired with the Raptor, bring up the One-Boat Network app's Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. To deploy, double-tap the Auto Down button.
- d. While the anchor is deploying, pause by tapping the Pause button once.
- e. Tap the Auto Down button again to resume deployment, or tap the Auto Up button to retract.

**NOTICE:** With two Raptors paired, the anchor of the selected Raptor will deploy. The selection can be Port, Starboard, or both.

**NOTICE:** The anchors may not be in sync when retracting and deploying with two Raptors paired.





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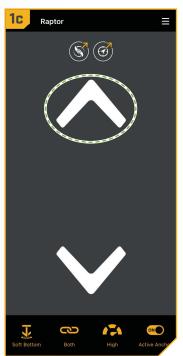
## > Retract the Raptor from the OBN App

- When the One-Boat Network app is open and paired with the Raptor, bring up the One-Boat Network app's Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. To retract, tap the Auto Up button.
- d. While the anchor is retracting, pause by tapping the Pause button once.
- e. Tap the Auto Up button again to resume retracting, or double-tap the Auto Down button to deploy.

**NOTICE:** With two Raptors paired, the anchor of the selected Raptor will deploy. The selection can be Port, Starboard, or both.

**NOTICE:** The anchors may not be in sync when retracting and deploying with two Raptors paired.





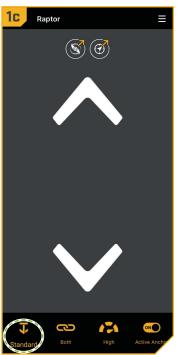


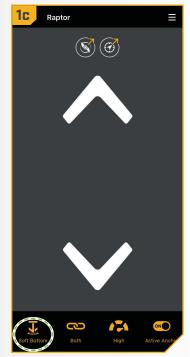
## > Change the Bottom Mode for the Raptor

- 1
- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Raptor icon on the Home Screen to open the Raptor app Home Screen.
- c. Tap the Bottom Mode icon to toggle through Standard, Rough Water, Soft Bottom, and Auto Bottom Mode.

**NOTICE:** When toggling between single and dual Raptor control, the Anchor Mode for dual Raptors will default to the last selected Mode.



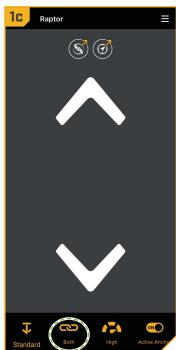


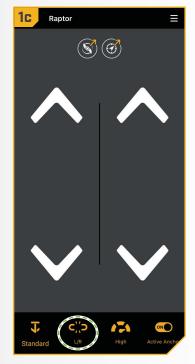


## Raptor Selection

- 1
- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. Tap the Raptor Selection icon to toggle between both and individual(L/R).



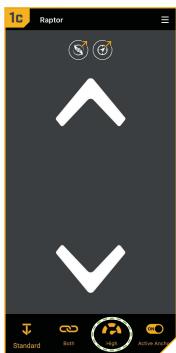


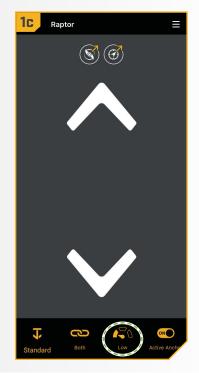


## Raptor Speed

- 1
- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. Tap Speed to toggle between low, medium, and high.







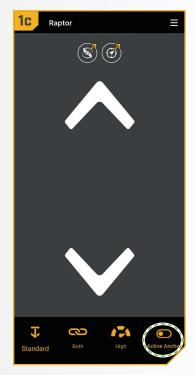
## Active Anchoring

- 1
- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. Tap the Active Anchoring icon to toggle between ON and OFF.

**NOTICE:** Active Anchoring is only available on select models.







## Change the Range of Speed for the Raptor Speed Button

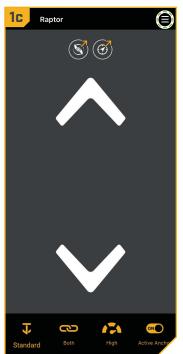
The Raptor Speed can be toggled between Slow, Medium, and Fast from the App using the Speed Medium. Low, Medium, and High can be controlled further by changing the range of each option to fit personal preference. Low can be adjusted from 1 to 4 with the default set to 4. Medium can be adjusted from 5 to 7 with the default set to 7, and High is adjusted from 8 to 10 with the default being 10. Within the range of options, the lower the number, the lower the Speed; the higher the number, the quicker the Raptor will move at the selected Speed. Follow the instructions below to adjust the Speed for each option.

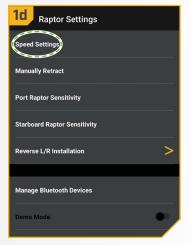
- 1
- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- c. From the Raptor Home Screen, select the Menu Button.
- d. With the Menu open, select "Speed Settings" to open the Speed Settings.

**NOTICE:** When changing the Speed on a dual Raptor system, changing the Speed for one Raptor will change the Speed for both Raptors.

e. The menu for Speed Settings will list separate selections for Low Speed, Medium Speed, and High Speed. The current selection for each Speed will also list the default, or currently selected Speed which will start at 4, 7 and 10 respectively.



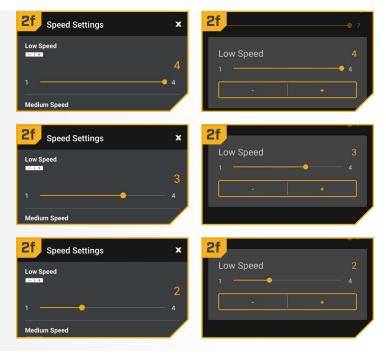






To edit the current range, select the Speed to adjust.

When selected, the Speed will bring up a sliding range for the Speed chosen. When Low Speed is selected, the full range will appear along the sliding bar. The status of the bar reflects the desired speed. Use a finger to slide along the range or select the (+) or (-) option on the screen. When satisfied with the range, close the menu by selecting "OK". Select "CANCEL" to close the sliding bar to keep the previous selection.



## Adjusting Raptor Sensitivity

Raptor Sensitivity is a setting that controls the final position of the Raptor when it stows and deploys. The Raptor's Sensitivity when it stows is the Up Sensitivity, and when it deploys, it is the Down Sensitivity. Raptor Sensitivity for both Up and Down ranges from -10 to 10, with the default being 0. In a Dual Raptor system, the ideal Sensitivity may differ for both Raptors and should be adjusted independently.

**UP SENSITIVITY** - When responding to Auto Up and the Raptor completes the stow sequence but does not fully stow when the sequence is complete, turn down the Up Sensitivity. If the Raptor completes the stow sequence, and the Hydraulic Pump continues to run after the Raptor fully stows, turn up the Up Sensitivity.

**NOTICE:** If the Raptor is pulsing upward when NOT stuck in the mud, decrease the Up Sensitivity setting.

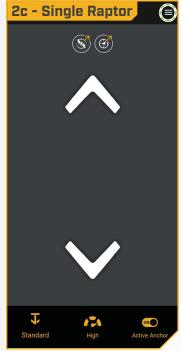
**DOWN SENSITIVITY** - When the Raptor completes the deploy sequence while responding to the Auto Down and the Raptor does not fully deploy, turn down the Down Sensitivity. If the Raptor completes the deploy sequence and the Hydraulic Pump continues to run after the Raptor fully deploys, turn up the Down Sensitivity.

- 1
- a. When the One-Boat Network app is open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.



From the Raptor Home Screen, select the Menu 

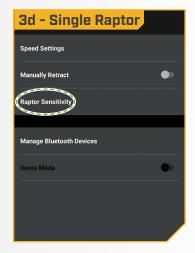
Button.





3 For a single Raptor, select "Raptor Sensitivity". Select either "Port Raptor Sensitivity" or "Starboard Raptor Sensitivity" for a dual Raptor system.

> **NOTICE:** The Sensitivity Setting is adjusted specifically for each Raptor. In a Dual-Raptor system, the Sensitivity can be adjusted separately for both Raptors.







- e. The Raptor Sensitivity lists the selection of "Up Sensitivity" and "Down Sensitivity". The default or currently selected Sensitivity will follow the selection.
- f. To change the Sensitivity, select a Sensitivity to change and a sliding scale for adjusting the Sensitivity displays. The Sensitivity ranges from -10 to 10, with the default 0 in the middle. Use a finger to slide along the range or tap the (+) or (-) option on the screen.











## Reverse Raptor Left/Port and Right/Starboard Installation

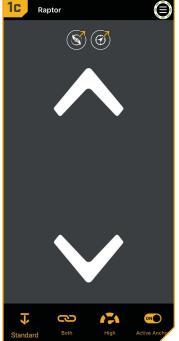
Corrects the known position of each Raptor if the incorrect Port and Starboard locations are programmed when two Raptors pair. The Reverse L/R Installation selection is only available on the App Menu with a dual Raptor System. It reverses the mounting location as recognized by the Raptor System.

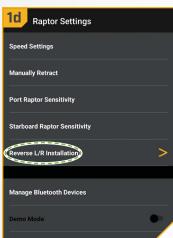
**NOTICE:** The Reverse L/R Installation selection is only available on the App Menu with a dual Raptor System.

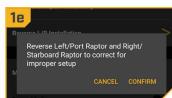


- a. When the One-Boat Network app is open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- From the Raptor Home Screen, select the Menu Button.
- d. With the Menu open, select "Reverse L/R/Installation".
- e. When selected, a dialogue box displays, "Reverse Left/ Port Raptor and Right/Starboard Raptor to correct for improper setup?". Select "CONFIRM" to reverse the current setup or "CANCEL" to leave it.

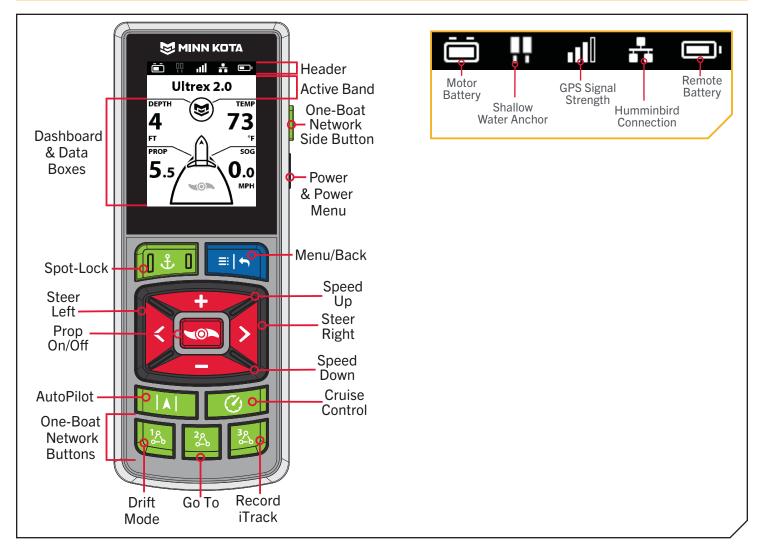








#### CONTROLLING THE RAPTOR WITH THE ADVANCED GPS NAVIGATION WIRELESS REMOTE 🕽



## MENU CONTROL



#### Power

Press to turn the Remote on. During operation, press once for the power and lighting menu options and SWA and motor controls. Press and hold for 3 seconds to power off.



## Menu/Back

Press to move in or out of the menu(s). Press and hold to close the menu(s) and return to the Dashboard.

**NOTICE:** The remote is waterproof, but will not float.

### MANUAL CONTROL



## Speed Up & Speed Down



Press to increase or decrease motor speed. Press to scroll up and down in a menu.



## Steer Left & Steer Right

Press to steer the motor to the left or the right. Press to move left or right in a menu.



#### Prop On/Off

Press to turn the Prop on and off.

**NOTICE:** If Steer Right or Steer Left is held down for more than eight seconds, the steering will stop to prevent the coil cord from wrapping around the shaft.

#### NAVIGATION



### Spot-Lock

Press to turn Spot-Lock ON and OFF.



#### AutoPilot

Press to turn AutoPilot ON and OFF.



#### **Cruise Control**

Press to turn Cruise Control ON and OFF.



### **One-Boat Network**



# Press to turn the One-Boat Network (OBN) functions ON and OFF.

#### **HEADER**



#### **Motor Battery**

Battery level when the Prop is disengaged. ♦ ■



#### **Shallow Water Anchor**

The icon displays the connection with one or two Shallow Water Anchors (SWA).



#### **GPS Signal Strength**

The icon displays the level of GPS signal strength. If no bars appear or the bars are flashing, the system has not yet acquired a GPS fix.



### **Humminbird Connection**

Displays white when Humminbird is connected.



The icon displays the battery level of the Remote.

**NOTICE:** QUEST series trolling motors, such as the Minn Kota RT Instinct QUEST, Terrova QUEST, and Ultrex QUEST, will have a built-in heading sensor. Non-QUEST series trolling motors like the Minn Kota Terrova, PowerDrive, Ulterra, and Ultrex may be paired with an external heading sensor. If the motor is connected to a Heading Sensor, the Speed Down (backward), Speed Up (forward), Steer Right (right), and Steer Left (left) buttons function change to Jog the boat while in Spot-Lock.

**NOTICE:** Grey icons in the Header indicate there is no

never connected, the icon will not appear.

connection. If a Humminbird or a Shallow Water Anchor has

## Powering up the Advanced GPS Navigation System

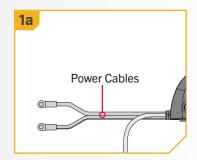
Follow these simple steps each time you power up your trolling motor for successful operation:

a. Connect the trolling motor to power.

**NOTICE:** Please see the "Battery & Wiring Installation" section of the trolling motor Owner's Manual for instructions on connecting the trolling motor to power.

Deploy the trolling motor into the water.

**NOTICE:** Advanced GPS Navigation startup varies slightly between trolling motor models. The controller in the Control Head can communicate with the Remote when the motor stows as long as the motor and Remote have power. When the motor stows, the Remote buttons are disabled.





- Press and hold the Power on the Wireless Remote. The display screen will turn on. A message about the Advanced GPS Navigation system operation will appear on the display screen. Read the disclaimer before continuing.
- d. An "I Agree" button will be at the bottom of the Content Area. After reading the disclaimer, select the "I Agree" button" by pressing the Steer Right button.
- e. The content on the Dashboard will populate.
- All manual functions in the Remote, including Speed Up , Speed Down , Steer Left , Steer Right , and Prop On/Off are active.
- g. After the Advanced GPS Navigation system has obtained a minimum GPS signal strength of one bar, all remaining functions will become available.





**NOTICE:** The appearance of the Dashboard will vary slightly depending on the motor model.

## Deploying the Raptor(s)

Deploy the Raptor using the Power Menu on the Wireless Remote. Customize the OBN buttons to deploy the Raptor shallow



- Press the Power button.
- Use the Speed Up or Speed Down button to find Raptor Down.

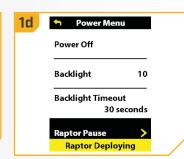
**NOTICE:** The Raptor Down menu option can only be found in the Power Menu on the Wireless Remote paired with a retracted Raptor.

- c. Once Raptor Down highlights, press the Steer Right button to deploy it. Double press and hold the second press on the Steer Right button to deploy the anchor continually.
- d. The Raptor will deploy. A banner displaying Raptor Deploying will appear at the bottom of the screen for three seconds.

**NOTICE:** To deploy the Raptor using the OBN button customized for Raptor, double-press the assigned OBN button.

NOTICE: When two Raptors are paired, the Wireless Remote will engage both Raptors. The Wireless Remote cannot specify whether to engage only the Port or Starboard Raptor. Select the Raptor in a dual system with the Raptor remote or the OBN app.





# WARNING

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

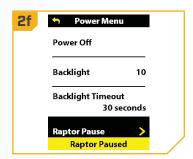
## **CAUTION**

The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. To avoid risk, do not contact any area of the Raptor that may cause a pinch point when it is moving in any direction.



- e. While the Raptor is deploying, it is possible to pause the action. To pause the action, make sure that Raptor Pause highlights. Use the Speed Up or Speed Down button to highlight Raptor Pause.
- f. Press Steer Right button to select it. A banner displaying Raptor Paused appears at the bottom of the screen for three seconds.
- g. Resume deploying the Raptor by pressing the Steer Right button to select Raptor Down.
- h. Once the deploying anchor reaches its full length of travel or comes in contact with the bottom, it will go through an anchoring sequence determined by the current anchoring Mode and then stop.





## Retracting the Raptor(s)

Retract the Raptor using the Power Menu on the Wireless Remote. Customize the OBN buttons to retract the Raptor shallow water anchor.



- a. Press the Power button.
- b. Use the Speed Up or Speed Down button to find Raptor Up.

NOTICE: The Raptor Up menu option can only be found in the Power Menu on the Wireless Remote paired with a deployed Raptor.

- c. Once Raptor Up highlights, press the Steer Right button to retract it. Double press and hold the second press on the Steer Right button to retract the anchor continually.
- d. Once Raptor Up is highlighted, press the Steer Right button to engage it. Double press and hold the second press on the Steer Right button to continually retract the anchor.
- e. The Raptor will retract. A banner displaying Raptor Stowing appears at the bottom of the screen for three seconds.

**NOTICE:** When two Raptors are paired, the Wireless Remote will engage both Raptors. The Wireless Remote cannot specify whether to engage only the Port or Starboard Raptor. Select the Raptor in a dual system with the Raptor remote or the OBN app.





# **WARNING**

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

# CAUTION

The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. To avoid risk, do not contact any area of the Raptor that may cause a pinch point when it is moving in any direction.

- f. While the Raptor is stowing, it is possible to pause the action. To pause the action, make sure that Raptor Pause is highlighted. Use the Speed Up or Speed Down button to highlight Raptor Pause.
- g. Press the Steer Right button to select it. A banner displaying Raptor Paused appears at the bottom of the screen for three seconds.
- h. To resume stowing the Raptor, press the Steer Right button and select Raptor Up.
- i. Once the Raptor fully retracts, it will stop.

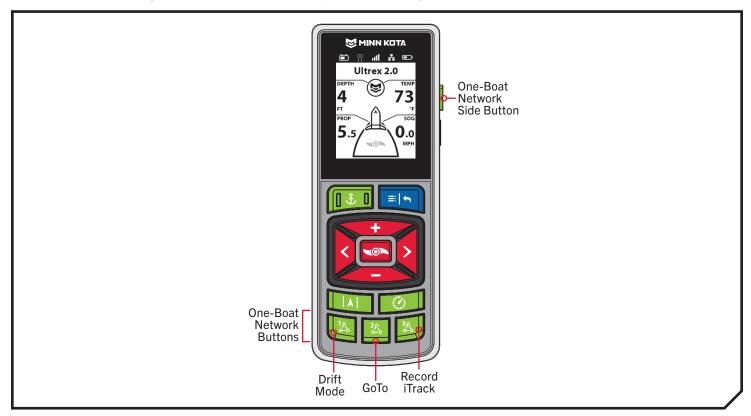




# CONTROLLING THE RAPTOR WITH THE OBN BUTTONS ON THE ADVANCED GPS NAVIGATION WIRELESS REMOTE

# CONTROLLING THE RAPTOR WITH THE OBN BUTTONS ON THE ADVANCED GPS NAVIGATION WIRELESS REMOTE

Control Minn Kota Shallow Water Anchors through the One-Boat Network on the Wireless Remote. When paired to the Advanced GPS Navigation System, control a Raptor through the Power Menu on the Wireless Remote or by programming an OBN button. The Raptor and Advanced GPS Navigation Wireless Remote must be paired to the trolling motor to control the Raptor on the Wireless Remote.



One-Boat Network Default Buttons					
125	Drift Mode	328	Record iTrack		
200	GoTo		Mark a Waypoint/Deployment Mode		

## CONTROLLING THE RAPTOR WITH THE OBN BUTTONS ON THE ADVANCED GPS **NAVIGATION WIRELESS REMOTE**

Function	Icon	Description	
Drift Mode		Drift Mode is the default function for OBN Button 1. Press once to engage Drift Mode, and press a second time to Adjust Course.	
Go To	4	Go To is the default for the OBN Button 2. Press once to open the Go To Menu. The Go To options are Spot-Locks, Waypoints, iTracks, and Drift.	
Record iTrack	्री	Record iTrack is the default function for OBN Button 3. Press once to start recording an iTrack, and press a second time to save the iTrack.	
Waypoint	尺	Mark Waypoint if the default function for the OBN Side Button on motors that do not have Deployment Mode. Press once to save a Waypoint.	
Max Speed		First, customize Max Speed to one of the OBN buttons. Double press to engage Max Speed. Single press to return to the previous speed.	
Talon/Raptor	!!	First, customize one of the OBN buttons to the shallow water anchor function. Depending on the configuration, the shallow water anchor function displays as Talon or Raptor. Double-press to deploy the anchor. Press once to pause or stow the anchor.	
Deployment Mode	Deployment Mode is the default function for the OBN Side Button on the Wireless Remote for trolling motors equipped with a stow/deploy and trim function. Depending on the configuration, the Deployment Mode function will display as Ulterra QUEST & Riptide Instinct QUEST. Press the OBN Button once to bring up the Ulterra QUEST & Riptide Instinct QUEST menu.		

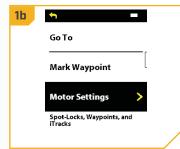
## > Customize the One-Boat Network Buttons on the Wireless Remote



- a. On the Wireless Remote, press the Menu 💷 button to open the Motor Menu.
- b. In the Motor Menu, use the Speed Down or Speed Up button to find the Motor Settings menu. Use the Steer Right button to select Motor Settings.
- c. In the Motor Settings menu, use the Speed Down or Speed Up button to find One-Boat Network. Use the Steer Right button to select One-Boat Network.
- d. In the One-Boat Network Menu, use the Speed Down or Speed Up button to find Remote Buttons. Use the Steer Right button to select Remote Buttons.









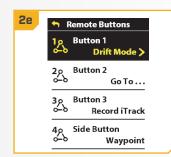
## CONTROLLING THE RAPTOR WITH THE OBN BUTTONS ON THE ADVANCED GPS **NAVIGATION WIRELESS REMOTE**



- Use the Speed Down or Speed Up button to highlight the OBN button to customize. There are four options: Button 1, Button 2, Button 3, or Side Button. Press the Steer Right button to make the selection.
- Use the Speed Down or Speed Up button to scroll through the options. Use the Steer Right button to select the function.

**NOTICE:** Use the Steer Right button to customize the function of the One-Boat Network button. When selected. the radio button next to the desired function fills in. The function options listed are specific to the trolling motor and additional devices paired with the Advanced GPS Navigation network.

g. Press and hold the Menu 💷 button to close and return to the Home Screen.



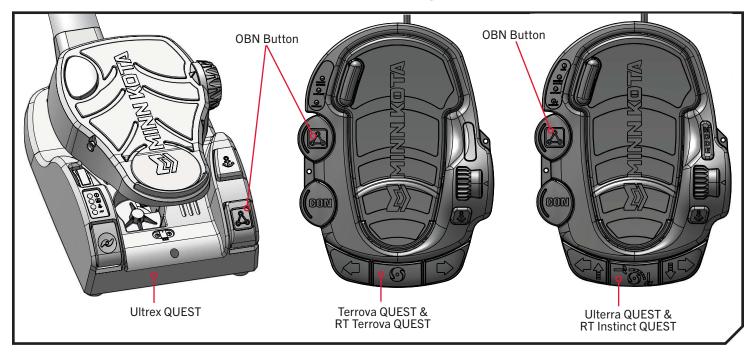


**NOTICE:** For quick customization, press and hold the OBN button to bring up the customization screen quickly.

## CONTROLLING THE RAPTOR WITH THE OBN BUTTON ON THE TROLLING MOTOR **FOOT PEDAL**

## CONTROLLING THE RAPTOR WITH THE OBN BUTTON ON THE TROLLING MOTOR **FOOT PEDAL**

Minn Kota trolling motors equipped with Advanced GPS Navigation are compatible with devices enabled with the One-Boat Network, such as the Foot Pedal. Customize the One-Boat Network button through the One-Boat Network app on a paired mobile device or the Advanced GPS Navigation Wireless Remote. One-Boat Network functions are turned on and off through the Foot Pedal with the One-Boat Network button. To select the function for the Foot Pedal on a paired device with the One-Boat Network app, pair the device and the Advanced GPS Navigation Wireless Remote to a QUEST trolling motor. To select the function for the Foot Pedal on the Advanced GPS Navigation Wireless Remote, pair the Advanced GPS Navigation Wireless Remote to the QUEST trolling motor. To use the Foot Pedal to engage or disengage the selected function, ensure the Foot Pedal is connected to the QUEST trolling motor.



The One-Boat Network & button on the Foot Pedal can be customized to control the following functions:

Function	Icon	Operation	LED Indication	
AutoPilot (default)	IAI	Engage and disengage AutoPilot	A red LED will illuminate when AutoPilot turns ON and stays on until turned OFF.	
Waypoint	又	Mark a Waypoint	A red LED illuminates when the One-Boat Network button is pressed and then turns off, signaling that a Waypoint was marked.	
Shallow Water Anchor (Raptor/Talon)	ļļ.	Deploy and retract a Raptor/Talon	The red LED steadily flashes when the Shallow Water Anchor deploys or stows. The red LED stays illuminated when the anchor is in any state of deployment, including when it pauses. The red LED turns off when the anchor fully stows.	

## CONTROLLING THE RAPTOR WITH THE OBN BUTTON ON THE TROLLING MOTOR **FOOT PEDAL**

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

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

**NOTICE:** The on-screen prompt only appears once each time the app launches. If the prompt was previously displayed, the Motor app home screen appears.



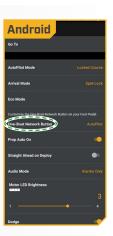




- d. On the Motor app home screen, locate the Motor Settings button in the top-right corner and tap it.
- e. On an Android, in Motor Settings, locate the "One-Boat Network Button" and tap it.
- f. On iOS, in Motor Settings, locate "Foot Pedal" and
- g. In the One-Boat Network Button menu, select the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







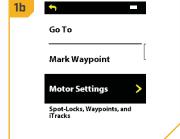


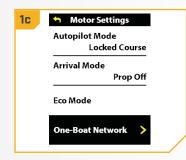
## Customize the One-Boat Network Button on the Foot Pedal with the Wireless Remote



- On the Wireless Remote, press the Menu button to open the Motor Menu.
- In the Motor Menu, use the Speed Down or Speed Up button to find the Motor Settings menu. Use the Steer Right button to select Motor Settings.
- In the Motor Settings menu, use the Speed Down
   or Speed Up button to find One-Boat
   Network. Select One-Boat Network using the Steer
   Right button.









- d. In the One-Boat Network menu, use the Speed Down or Speed Up button to find Foot Pedal. Use the Steer Right button to select Foot Pedal.
- e. In the Foot Pedal menu, use the Speed Down or Speed Up button to find the desired function. Use the Steer Right button to select the function.
- f. Press and hold the Menu button to close and return to the Home Screen.





**NOTICE:** Use the Steer Right button to customize the function of the One-Boat Network button. When selected, the radio button next to the desired function fills in. AutoPilot is the default selection for Ulterra QUEST and Riptide Instinct QUEST series trolling motors. The function options listed are specific to the trolling motor and additional devices paired with the Advanced GPS Navigation network.

# CAUTION

Before beginning any maintenance work, disconnect the Raptor from the battery, or if connected to a battery selector switch or power disconnect switch, make sure that it is turned to the "off" position. Failure to disconnect power during maintenance work may result in shock, unexpected operation and/or injury. Minn Kota recommends having the Raptor serviced by an qualified marine technician at an Authorized Service Center.

### REPLACING THE REMOTE BATTERY

#### TOOLS AND RESOURCES REQUIRED >

Large Coin

INSTALLATION >

# **MARNING**

Do not ingest battery. Chemical Burn Hazard.

## WARNING

[The remote control(s) supplied with] This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

## **<b> WARNING**

Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

# WARNING

THIS PRODUCT CONTAINS A BUTTON BATTERY. If swallowed, a lithium button battery can cause severe or fatal injuries within two hours. Keep batteries out of reach of children. If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

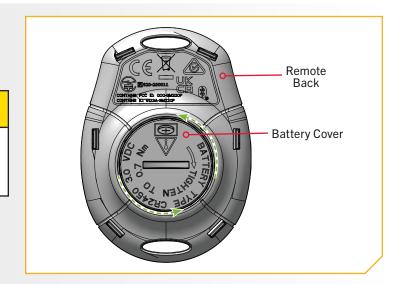
1

 Ensure hands are clean, dry, and static-free.
 Temporarily ground yourself by touching a grounded metal object to discharge any static electricity in the body.

# **A** CAUTION

Static electricity can damage the circuit board. Before beginning the remote battery replacement, discharge any static electricity by touching a grounded metal object.

b. With the remote upside down, use a large coin to rotate the Battery Cover counterclockwise to remove it.



2

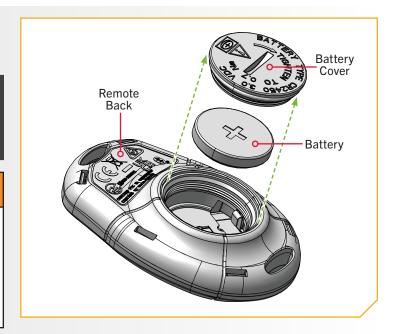
c. Remove the Battery Cover, then the old battery, and replace it with a new CR2450 coin cell battery. Note the proper polarity of the battery.

**NOTICE:** The replacement battery must be a model CR2450 coin cell type. Minn Kota strongly recommends using a high-quality battery. The positive (+) of the battery should be facing toward the Battery Cover.

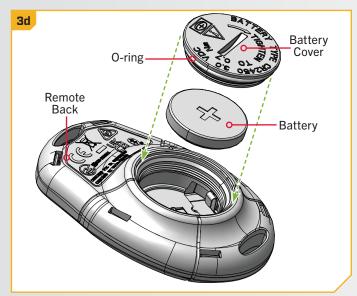
## **MARNING**

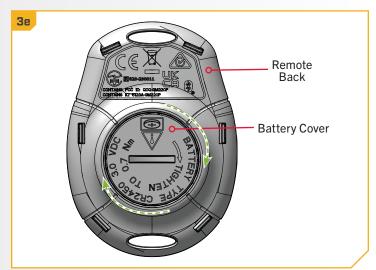
THIS PRODUCT CONTAINS A BUTTON BATTERY.

If swallowed, a lithium button battery can cause severe or fatal injuries within two hours. Keep batteries out of reach of children. If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.



- 3
- d. Ensure the rubber O-ring is seated correctly on the underside of the Battery Cover. Replace the Battery Cover.
- e. Press the Battery Cover down and rotate it clockwise for two full turns. Continue to turn and tighten the Battery Cover to 0.7 Nm.





## **MARNING**

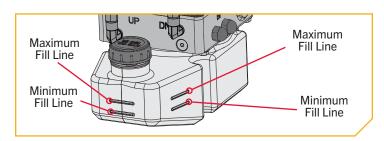
Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

### CHECKING HYDRAULIC FLUID LEVELS

The Raptor Pump Reservoir has a minimum and maximum hydraulic fluid level marked on the side of the Pump Reservoir. Maintaining the proper fluid level allows for the appropriate pump operation. Minn Kota recommends using Biodegradable ISO 32 Marine Hydraulic Fluid. Periodically check fluid levels to ensure the Hydraulic Fluid level is adequate for pump operation.

Note the color of the Hydraulic Fluid. A change in the coloration of

the Hydraulic Fluid over time may be a sign of contamination. Change the fluid and check the Seal on the Pump Reservoir, the Seal between the Hydraulic Hoses and the Hydraulic fittings on the Manifold, and the Hydraulic Hoses and the Hydraulic Cylinder on the anchor to ensure that the Hydraulic Circuit remains sealed.

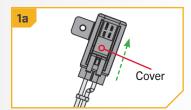


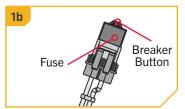
## RESETTING THE FUSE

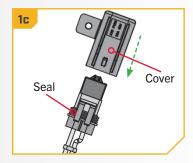
If the Fuse needs resetting, follow the instructions below. The factory-installed 30 amp Fuse should be located no more than seven inches from the Positive Battery terminal on the Positive Lead (+). If an alternate Fuse is installed, please refer to directions from the Fuse manufacturer to reset it correctly.



- a. Remove the protective Cover from the Fuse Assembly, exposing the 30 amp Fuse.
- b. Reset the Fuse by pushing the Breaker Button to engage the Fuse.
- c. Ensure the Seal is in place, and replace the protective housing on the Fuse Assembly. Ensure the Cover snaps together to provide a watertight seal.







## MAINTENANCE MODE AND THE BYPASS VALVES

If the Raptor needs to be moved manually for stowing, deploying, or performing maintenance work, it is essential to put the Hydraulic Pump in Maintenance Mode and open the Hydraulic Circuit. Maintenance Mode is turned "on" and "off" via the Indicator Panel on the Pump Assembly or in the One-Boat Network app. The Pump Assembly contains Bypass Valves on the side of the Manifold marked with a "BP". They relieve pressure with the Pressure Wrench after the Pump is put into Maintenance Mode. The Pump Assembly is placed into Maintenance Mode to release the pressure on the Hydraulic Lines. Maintenance Mode allows the Raptor to be manually stowed and deployed. When both the Hydraulic Pump is placed into Maintenance Mode AND the Bypass Valves are opened, the Raptor moves under manual control, and the Hydraulic Pressure is relieved.

# **⚠ WARNING**

Never disconnect hydraulic components while power is applied and bypass valves are not open.

## **⚠** CAUTION

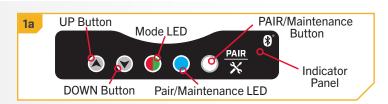
Before beginning any maintenance work on the Raptor, place the Raptor in Maintenance Mode. Failure to place the Raptor in Maintenance Mode may result in shock, unexpected operation, and/or injury. Do not remove power from the Raptor while in Maintenance Mode.

**NOTICE:** When a Hydraulic Pump is placed in Maintenance Mode, it turns off the control of any paired devices or remotes that can control the Pump. With two Raptors paired, the disengaged Raptor is specific to the Hydraulic Pump for each Raptor placed in Maintenance Mode. If the second Raptor, in a paired system, is not placed in Maintenance Mode, the devices and remotes can still control the Raptor, which is not placed in Maintenance Mode. The Maintenance Mode status is independent for two Raptors paired together.

## Turn Maintenance Mode ON for the Raptor from the Indicator Panel

Maintenance Mode is turned "on" and "off" via the Indicator Panel on the Pump Assembly or in the One-Boat Network app.

- a. Press and hold the Pair/Maintenance button on the Indicator Panel on the Pump Assembly. The Pump will beep three consecutive times, confirming it is in Maintenance Mode. The Pair/Maintenance LED will illuminate blue and stay lit while in Maintenance Mode.
- b. To perform maintenance work, open the Bypass Valves. For directions, please see the "Open the Bypass Valves" section of this Manual.



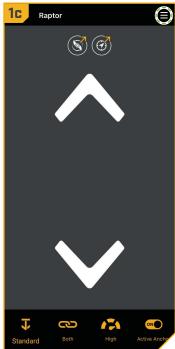
**NOTICE:** After the Hydraulic Pump is in Maintenance Mode, it is essential to open the Hydraulic Circuit to perform maintenance work on the Raptor.

## > Turn Maintenance Mode ON for the Raptor from the One-Boat Network App

Maintenance Mode is turned "on" and "off" via the Indicator Panel on the Pump Assembly or in the One-Boat Network app.

- With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- From the Raptor Home Screen, select the Menu Button.

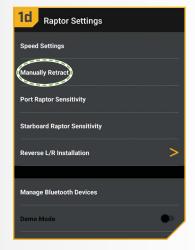


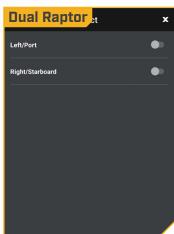


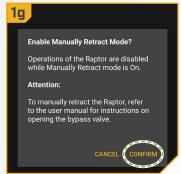
2

- d. In Raptor Settings, select Manually Retract.
- e. For a single Raptor, selecting Manually Retract brings up a confirmation screen.
- f. For a dual Raptor system, the Manually Retract Menu appears and displays Left/Port and Right/ Starboard. Select the Raptor to manually retract. The confirmation screen appears.
- g. The OBN app displays a confirmation message, "Enable Manually Retract Mode? Operations of the Raptor are disabled while Manually Retract Mode is On." Select "Confirm". The Raptor is now in Maintenance Mode.
- h. The Pump for the respective Raptor will beep three consecutive times, confirming it is in Maintenance Mode. The Pair/Maintenance LED will illuminate blue and stay lit while in Maintenance Mode.
- To perform maintenance work, open the Bypass Valves. For directions, please see the "Open the Bypass Valves" section of this Manual.
- j. For a dual Raptor system, repeat the process to place the other Raptor in Maintenance Mode.

**NOTICE:** After the Hydraulic Pump is in Maintenance Mode, it is essential to open the Hydraulic Circuit to perform maintenance work on the Raptor.







**NOTICE:** When a Hydraulic Pump is placed in Maintenance Mode, it turns off the control of any paired devices or remotes that can control the Pump. With two Raptors paired, the disengaged Raptor is specific to the Hydraulic Pump for each Raptor placed in Maintenance Mode. If the second Raptor, in a paired system, is not placed in Maintenance Mode, the devices and remotes can still control the Raptor, which is not placed in Maintenance Mode. The Maintenance Mode status is independent for two Raptors paired together.

## Open the Bypass Valves

# **WARNING**

Never disconnect hydraulic components while power is applied and bypass valves are not open.

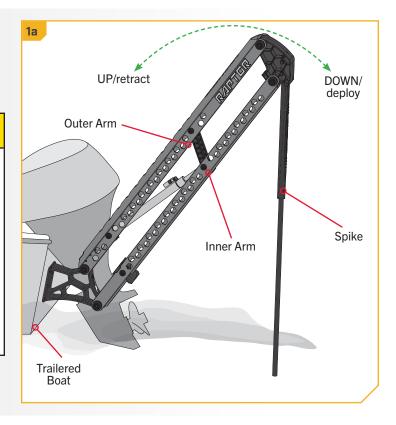
# **CAUTION**

Before beginning any maintenance work on the Raptor, place the Raptor in Maintenance Mode. Failure to place the Raptor in Maintenance Mode may result in shock, unexpected operation, and/or injury. Do not remove power from the Raptor while in Maintenance Mode.

a. If the Raptor is retracted, even if only partially, secure the Spike and/or ensure the path of travel for the Raptor is clear so that the Raptor will not pose a striking hazard when the Bypass Valves are opened. Keep fingers clear of pinch points and moving parts.

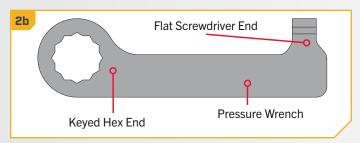
## CAUTION

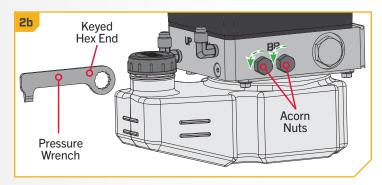
Ensure the Raptor is clear of obstructions and persons while deploying or retracting. The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. Do not contact any area of the Raptor that may cause a pinch point while it is moving in any direction to avoid the risk. Stay clear of the Raptor if it is not held in place under the power of the Hydraulic Circuit or physical restraint. When the Hydraulic Circuit is open, a lack of Hydraulic Pressure can result in a striking hazard created by the force of gravity on an unsecured anchor. Secure the Raptor to avoid the risk.

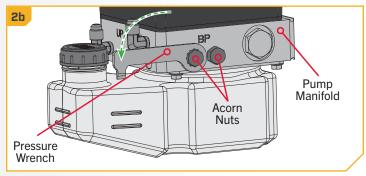


2

b. Use the Pressure Wrench (Part No. 2358800) to open the Bypass Valves on the Hydraulic Pump. The Pressure Wrench has two ends. The Keyed Hex End is used to loosen the Acorn Nuts covering the Bypass Valves on the side of the Pump Manifold, and the Flat Screwdriver End is used to open the Valves. Locate the Acorn Nuts on the side of the Hydraulic Pump Manifold. The Acorn Nuts are marked with "BP". Use the Keyed Hex End of the Pressure Wrench to loosen and remove both Acorn Nuts covering the Bypass Valves by turning counterclockwise. With the Acorn Nuts removed, set them aside in a secure location for re-installation later.





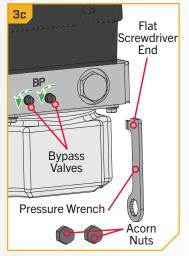


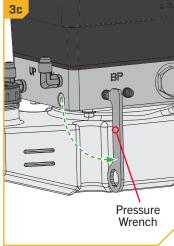
3

Screwdriver End of the Pressure Wrench to turn both Bypass Valves one turn in a counterclockwise direction to open the Hydraulic Circuit. Turning the Bypass Valves more than one turn or continuing to turn the Bypass Valves counterclockwise will not increase the degree to which the Hydraulic Circuit opens. Do not turn the Bypass Valves so much that they become removed. Additional turning of the Bypass Valve will not increase the amount of relief on the Hydraulic Circuit. Once the Circuit is relieved, the Raptor anchor can be manually adjusted into the desired position.

# **CAUTION**

Minn Kota recommends securing the Raptor for transport, including when taking it in and out of Maintenance Mode and making changes to the Hydraulic Circuit. Securing the Raptor will prevent unexpected deployment that may result from changes to pressure in the Hydraulic Circuit.





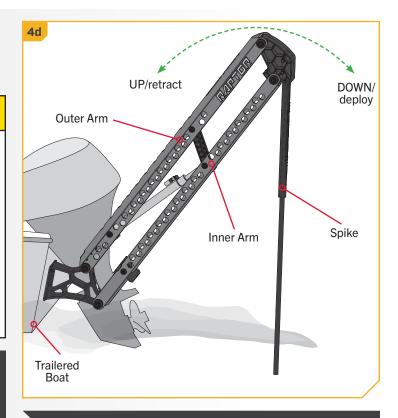
d. The anchor can now freely move into the desired position. Move the Raptor into the desired position and secure it. It may be necessary to have a second person help move and secure the anchor.

# CAUTION

Ensure the Raptor is clear of obstructions and persons while deploying or retracting. The spaces between the Outer Arm, Inner Arm, Spike, and brackets of the Raptor can create a pinch point. Do not contact any area of the Raptor that may cause a pinch point while it is moving in any direction to avoid the risk. Stay clear of the Raptor if it is not held in place under the power of the Hydraulic Circuit or physical restraint. When the Hydraulic Circuit is open, a lack of Hydraulic Pressure can result in a striking hazard created by the force of gravity on an unsecured anchor. Secure the Raptor to avoid the risk.

**NOTICE:** Placing the Hydraulic Pump into Maintenance Mode prevents other methods of control for the Pump, including paired remotes and devices through Bluetooth connections. If two Raptors are paired together, placing one Raptor into Maintenance Mode will NOT put the other paired Raptor into Maintenance Mode. With two paired Raptors, place the Pump for each Raptor into Maintenance Mode independently to prevent paired devices and remotes from controlling the Raptors.

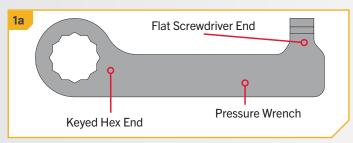
f. When maintenance work is complete, close the Hydraulic Circuit by closing the Bypass Valves and turning the Maintenance Mode OFF. To close the Hydraulic Circuit, please see "Close the Bypass Valves." When the Hydraulic Circuit is closed, use either the Indicator Panel on the Pump Assembly or the One-Boat Network app to turn Maintenance Mode "off."

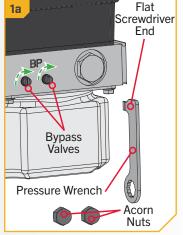


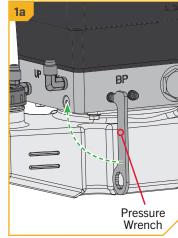
**NOTICE:** Removing power from the Hydraulic Pump removes it from Maintenance Mode. If power is re-applied to a Hydraulic Pump that was in Maintenance Mode, it will no longer be in Maintenance Mode when power is restored.

## Close the Bypass Valves

With the anchor in the desired position, use the Flat Screwdriver End of the Pressure Wrench (Part No. 2358800) to turn both Bypass Valves one turn clockwise to close the Hydraulic Circuit. Use the Pressure Wrench to hand-tighten the Bypass Valves until they are tight. Once the Circuit is closed, the Raptor is held in position by the Hydraulic pressure and should not move freely.

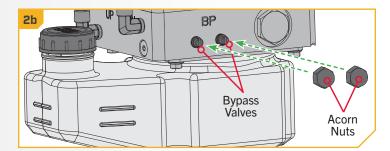


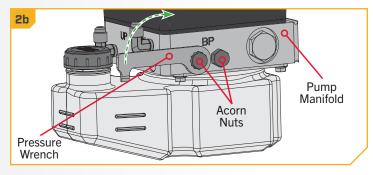




**NOTICE:** The Raptor should be in Maintenance Mode with Power ON when working with the Bypass Valves.

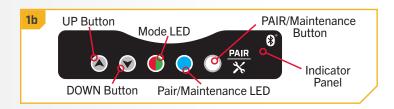
- Replace the Acorn Nuts over the Bypass Valves. Use the Keyed Hex End of the Pressure Wrench to tighten and replace both Acorn Nuts covering the Bypass Valves by turning clockwise. Tighten the Acorn Nuts to 120 in-lbs.
- c. When maintenance work is complete and the Bypass Valves are closed, turn Maintenance Mode OFF.
- d. To turn Maintenance Mode OFF, please use either the Indicator Panel on the Pump Assembly or the One-Boat Network app. See "Turn Maintenance Mode OFF for the Raptor from the Indicator Panel" or "Turn Maintenance Mode OFF for the Raptor from the One-Boat Network App".





## > Turn Maintenance Mode OFF for the Raptor from the Indicator Panel

- Ensure the Bypass Valves are closed before turning Maintenance Mode OFF. Read the "Closing the Bypass Valves" section to learn how.
- b. To remove the Hydraulic Pump from Maintenance Mode press the Pair/Maintenance O button on the Indicator Panel on the Pump Assembly. The Pump will beep three consecutive times to confirm that it is out of Maintenance Mode. When Maintenance Mode turns OFF the Pair/Maintenance LED will turn off, and the Hydraulic Pump can be controlled by any paired devices and Remotes.

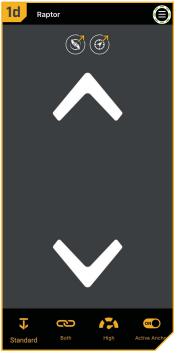


## Turn Maintenance Mode OFF for the Raptor from the One-Boat Network App

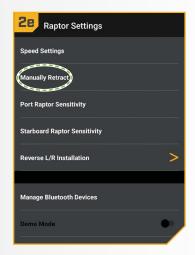


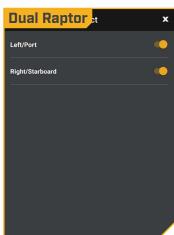
- Ensure the Bypass Valves are closed before turning Maintenance Mode OFF. Read the "Closing the Bypass Valves" section to learn how.
- b. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- c. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- From the Raptor Home Screen, select the Menu Button.

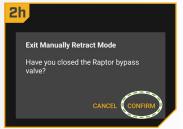




- In Raptor Settings, select Manually Retract.
- For a single Raptor, selecting Manually Retract brings up a Exit screen.
- g. For a dual Raptor system, the Manually Retract Menu appears and displays Left/Port and Right/Starboard. Select the Raptor to manually retract. The Exit screen appears.
- h. The OBN app displays a Exit message asking, "Have you closed the Raptor bypass valve?" If the Bypass Valves are closed select Confirm. If the Bypass Valves are open, complete the instructions to close them before turning Maintenance Mode OFF.
- i. The Pump will beep three consecutive times to confirm that it is out of Maintenance Mode. When Maintenance Mode turns OFF the Pair/Maintenance LED will turn off, and the Hydraulic Pump can be controlled by any paired devices and Remotes.
- For a dual Raptor system, repeat the process for each Raptor to turn Maintenance Mode OFF.







## REPLACING THE SPIKE

The Spike for your Raptor comes with a lifetime guarantee. See the Warranty section of the manual for further details. To replace the Spike, ensure the top of the Raptor anchor is safely reachable. The Raptor must be in Maintenance Mode when performing service or

maintenance work on the Raptor. See the "Maintenance Mode and Opening the Bypass Valves" section of this manual to place the Raptor in Maintenance Mode before beginning any work on replacing the Spike. Placing the Raptor in Maintenance Mode prevents unintended movement and allows the Raptor to move so

**NOTICE:** The Spike Replacement Kit for the 8-foot Raptor is 2772019. The Spike Replacement Kit for the 10-ft Raptor is 2772020.

the hardware holding the Spike in place is easily accessible. When work is complete, take the Raptor out of Maintenance Mode to return the product to regular operation. If the Spike needs replacing, follow the directions below to adjust the bolts and replace the Spike.

#### TOOLS AND RESOURCES REQUIRED >

Pin Punch 1/8"

Hammer

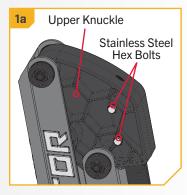
• (2) 7/16" Socket Wrenches

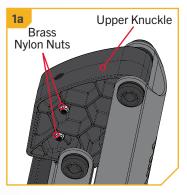
#### INSTALLATION >

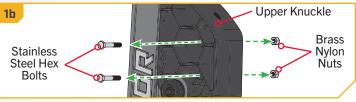
# CAUTION

Before beginning any maintenance work on the Raptor, place the Raptor in Maintenance Mode. Failure to place the Raptor in Maintenance Mode may result in shock, unexpected operation, and/or injury. See "Maintenance Mode and the Bypass Valves" section of this manual for instructions. Do not remove power from the Raptor while in Maintenance Mode.

- a. The Upper Knuckle, located at the top of the Raptor, contains two 1/4 - 20 X 1.75-inch Stainless Steel Hex Bolts and two Brass Nylon Nuts that retain the Spike.
- b. To replace the Spike, take two 7/16-inch socket wrenches and place one Wrench on the head of one of the Stainless Steel Bolts. Hold the placed Wrench securely and put the other Wrench on the Brass Nylon Nut holding the Hex Bolt in place. While holding the Wrench securing the Bolt, turn the other Wrench counterclockwise to loosen and remove the Nut. Pull the Hex Bolt out.
- c. Repeat the process with the two wrenches on the second Hex Bolt.





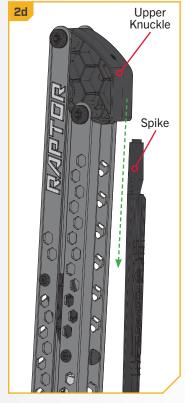


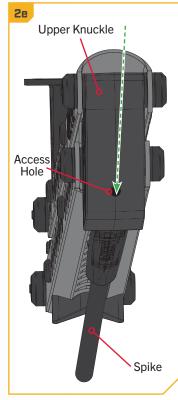
**NOTICE:** A deep socket or socket extension may be necessary because the Hex Bolts and Brass Nylon Nuts recess into the Upper Knuckle.

# CAUTION

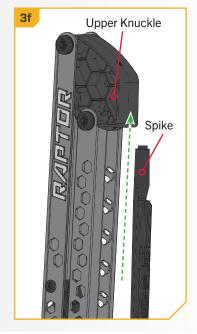
When wet, the Raptor may become slippery. Do not lean on the Raptor as a support. Take care not to slip and fall when working with the Raptor.

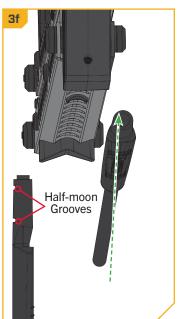
- With the Hex Bolts removed, the Spike should slide out freely. Pull the Spike out.
- e. If the Spike does not slide out, locate the Access Hole on the top of the Upper Knuckle. Use a 1/8-inch Pin Punch through the Access Hole and a Hammer to tap the Spike out if wedged in place.





With the Spike removed, take the new Spike and place it back into the Upper Knuckle. Note that the top of the Spike has two half-moon grooves perpendicular to the length of the Spike. The halfmoon grooves help position the Spike into the Upper Knuckle in the correct direction to be captured by the Hex Bolts. Replace the Spike and align the halfmoon grooves on the top of the Spike with the holes in the Upper Knuckle. The logo on the Spike molding should be facing away from the Raptor.

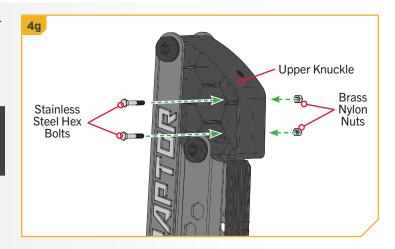




With the Spike in place, take the two 1/4 - 20 X 1.75inch Stainless Steel Hex Bolts and replace them on the Upper Knuckle. Be sure to correctly capture the Spike as the Bolts pass through the Upper Knuckle, past the Spike grooves, and exit the other side.

**NOTICE:** If purchasing a Spike Replacement Kit, use the two new Hex Bolts and two Brass Nylon Nuts from the Kit to reinstall a new Spike.

- h. Take the Brass Nylon Nuts and place one on each of the Hex Nuts.
- i. Use two 7/16-inch Socket Wrenches to tighten the Nuts and Bolts back in place. Place one Wrench on the head of one of the Stainless Steel Bolts. Hold the first Socket Wrench in place and place the second Socket Wrench on the Brass Nylon Nut holding the Hex Bolt in place. While holding the first Wrench, turn the second Wrench clockwise to tighten to 60 in-lbs and secure the Nut.
- Repeat the process with the two Socket Wrenches on the second Hex Bolt.

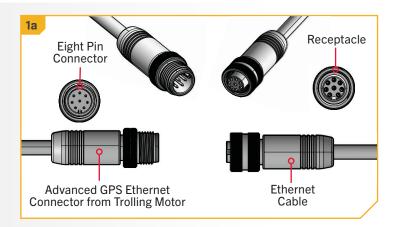


NOTICE: Check the Spike periodically for wear and fractures. Replace the Spike when excessive wear and/ or fractures are present.

#### CONNECT THE ADVANCED GPS NAVIGATION SYSTEM TO THE HUMMINBIRD

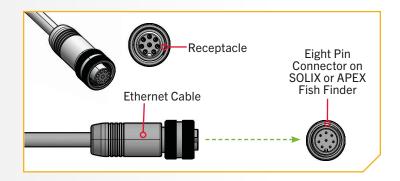
Connect the Ethernet cable for the Advanced GPS Navigation system on the trolling motor directly to the Humminbird or to the Humminbird Ethernet Switch (optional). If purchasing the Ethernet Switch, install it using the instructions in the Ethernet Installation Guide. The Ethernet Extension Cable is optional for the installation. Purchase Ethernet switches, Ethernet cables, and extension cables online at humminbird johnsonoutdoors.com. Depending on the shape of the Ethernet port on the Humminbird fish finder, an additional Ethernet adapter cable may be required for the installation. Refer to the fish finder operations manual or see the Advanced GPS Navigation System Compatibility Chart online at minnkota.johnsonoutdoors.com.

- Follow the instructions in the trolling motor Owner's Manual to connect and route the Eight-Pin Advanced GPS Ethernet Connector to the Ethernet Cable. The exact location and routing instructions will vary depending on the motor model.
- b. To install the Ethernet Cable, align the Advanced GPS Ethernet Connector pins from the trolling motor with the Receptacle on the Ethernet Cable. Notice the keyed connectors. Press the ends together and tighten the Collar from the Ethernet Cable to secure the connection.
- c. The Ethernet Cable plugs directly into a SOLIX fish finder, APEX fish finder, or the HELIX Adapter Cable.



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

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



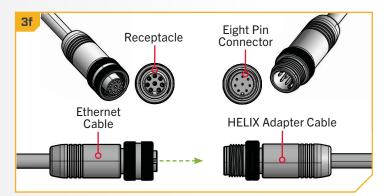
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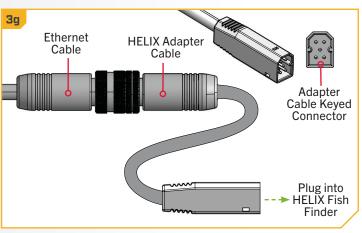
f. If installing directly to a HELIX Adapter Cable, align the Receptacle on the Ethernet Cable with the HELIX Adapter Cable Eight Pin Connector provided. Notice the keyed connectors. Tighten the Collar from the Ethernet Cable to secure the connection.

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

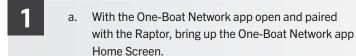
g. The HELIX Adapter Cable directly connects the Ethernet Cable to a HELIX fish finder. Locate the HELIX Adapter Cable Keyed Connector on the back of the fish finder. Plug the HELIX Adapter Cable into the back of the HELIX fish finder to complete the connection.

**NOTICE:** Once the Ethernet connection is complete, secure the connection cables before operating the trolling motor. Follow the instructions "Securing the Connection Cables" section in the trolling motor owner's manual.





#### CHECK THE ONE-BOAT NETWORK APP SOFTWARE VERSION



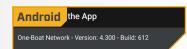
- b. Tap the One-Boat Settings icon on the Home Screen to open the One-Boat Settings menu.
- c. Scroll and search for About One-Boat Network and tap it. The version and build will display.

**NOTICE:** Identify if app updates are successful by noting the app version before and after the update.

**NOTICE:** The version and build may vary between an Android and iOS device.

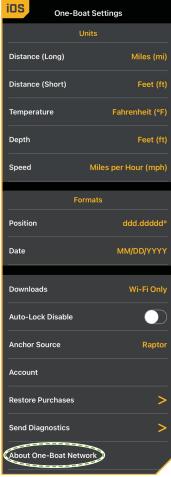






ıt One-Boat Netv







#### CHECK THE SOFTWARE VERSION OF THE RAPTOR ON THE OBN APP

- With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap Network + Updates on the Home Screen to open the Network + Updates Menu.
- c. Find the Raptor listed. The Installed Software will display the Raptor software currently installed on the Raptor.

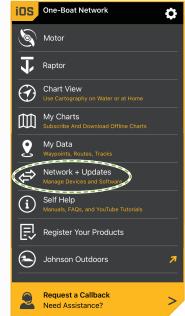
or

**NOTICE:** Identify if software updates are successful by noting the software version before and after the update.

**NOTICE:** If the app cannot communicate directly with the Raptor, it will show the software version that it detected the last time the device was paired and communicating with the Raptor.









- With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- e. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- Tap the Raptor Settings on the Raptor app Home Screen.
- In Raptor Settings, tap Manage Bluetooth Devices.
- In the Manage Bluetooth Device Menu, look for the Raptor under the Classic Bluetooth Menu.
- Find the Raptor listed. The Software Version (Android) or Installed Software (iOS) will display the Raptor software currently installed on the Raptor.

**NOTICE:** If the app cannot communicate directly with the Raptor, it will show the software version that it detected the last time the device was paired and communicating with the Raptor.

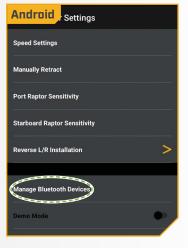
**NOTICE:** Identify if software updates are successful by noting the software version before and after the update.





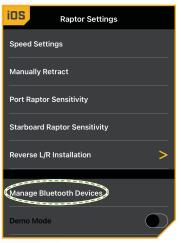












## UPDATE THE RAPTOR SOFTWARE WITH THE ONE-BOAT NETWORK APP **FOR ANDROID**

- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap Network + Updates on the Home Screen to open the Network + Updates Menu.
- Find the Raptor listed. Below the Raptor, the list will contain Installed Software and Available Updates, if any. When an update is available, tap Download Update and the available update will be downloaded to the OBN app. After the update downloads, the Network + Updates Menu displays Transfer Software. Tap Transfer Software. Selecting the Ellipsis also brings up a menu with an option to Transfer Software.

**NOTICE:** If two Raptors are paired, the update will transfer and update both Raptors.

**NOTICE:** If the app cannot communicate directly with the Raptor, it will show the software version that it detected the last time the device was paired and communicating with the Raptor. The device and Raptor must communicate during the update for the update to transfer.



Manage Bluetooth Devices



Raptor AA 10 FT



- While the software is transferring, keep the device in range of the Raptor and both the Raptor and device powered on.
- e. When the software load is complete on the Raptor, the LED will go through a startup sequence, and the Raptor will beep to signal a restart. The app will display Raptor Update Complete. Raptor is restarting.
- After the Raptor restarts, give the OBN app a moment to reconnect to the Raptor and display the updated software information. The Installed Software matches the previous Available Update, and no Available Update is displayed.

**NOTICE:** Identify if software updates are successful by noting the software version before and after the update.









### UPDATE THE RAPTOR SOFTWARE WITH THE ONE-BOAT NETWORK APP FOR IOS

- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap Network + Updates on the Home Screen to open the Network + Updates Menu.
- Find the Raptor listed. The Installed Software will display the Raptor software currently installed on the Raptor. The Available Update will list available software for update. Select the Ellipsis to bring up the update menu. Tap Transfer Software.

**NOTICE:** If two Raptors are paired, the update will transfer and update both Raptors.

NOTICE: If the app cannot communicate directly with the Raptor, it will show the software version that it detected the last time the device was paired and communicating with the Raptor. The device and Raptor must communicate during the update for the update to transfer.

- d. While the software is transferring, keep the device in range of the Raptor and both the Raptor and device powered on.
- e. When the software load is complete on the Raptor, the LED will go through a startup sequence, and the Raptor will beep to signal a restart. The app may display "Raptor Update Complete. Raptor is restarting". Tap Confirm if present.
- f. After the Raptor restarts, give the OBN app a moment to reconnect to the Raptor and display the updated software information. The Installed Software matches the previous Available Update, and no Available Update is displayed when tapping the Ellipsis.

**NOTICE:** Identify if software updates are successful by noting the software version before and after the update.











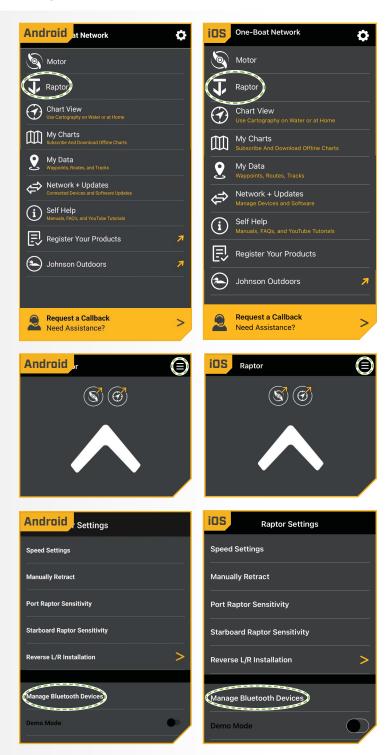


#### MANAGE BLUETOOTH DEVICES

The app displays a list of all Bluetooth connections and allows the app to forget the device.

- a. With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the Anchor icon on the Home Screen to open the Raptor app Home Screen.
- From the Raptor Home Screen, select the Menu 

  Button.



- On an Android device, a Device List with Classic and Smart Bluetooth Devices appears. The Raptor(s) appear(s) under the Classic Bluetooth tab.
- e. On an iOS device, a Bluetooth Devices List with Classic and Smart Bluetooth Devices appears. The Raptor(s) appear(s) under the Classic Bluetooth tab.
- Review the Devices connected. To forget a paired Bluetooth Device, tap Forget Device.
- On an Android device, the device will disappear from the list.
- h. On an iOS device, a confirmation message will appear. Tap Forget Device on the iOS device to confirm the selection.









#### RAPTOR CONTROL AND DISABLE AUTO-LOCK

Most devices are programmed to Auto-Lock the device screen after a certain amount of time has lapsed where the device has been inactive. When returning to an open One-Boat Network app on a device, the device may lock the screen because the device is inactive. It is only possible to control the Raptor with the OBN app when the device is unlocked. Turn off the Auto-Lock feature from the One-Boat Network app to prevent the device from locking and allow immediate control of the Raptor when the device has been inactive.

- 1
- With the One-Boat Network app open and paired with the Raptor, bring up the One-Boat Network app Home Screen.
- b. Tap the One-Boat Settings icon on the Home Screen to open the One-Boat Settings menu.
- c. Scroll and search for Auto-Lock Disable and tap it.

**NOTICE:** When the toggle for Auto-Lock Disable is on, the device will not lock when the app is open and the device is inactive.









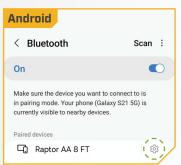
#### FORGETTING A RAPTOR ON A DEVICE

Once a device pairs with a Raptor, it will remember the device, even if the device and the Raptor are not actively communicating. Sometimes, clearing the device memory and forgetting any paired Raptors may be necessary. To do this, use the Bluetooth settings on the device.



- a. Open the Bluetooth settings on the device and ensure Bluetooth is turned "on."
- b. A list of paired devices will appear. The appearance of the list will vary from an Android to an iOS device.
- c. On an Android device, select the Settings con next to the device in the list of Paired Devices. When the following screen appears, find the option to "Unpair" the device and select it. Confirm the decision if presented with a second confirmation to unpair.
- d. On an iOS device, select the "i" ① icon next to the device in the My Devices list. When the following screen appears, find the option to "Forget this Device" and select it.
- e. Once the device is unpaired or forgotten, the device is no longer paired or communicating with the Raptor and the Raptor will not be visible to the device or the One-Boat Network app.















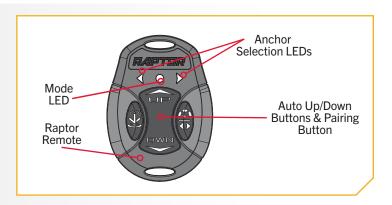
#### CLEARING PAIRED RAPTORS FROM THE REMOTE

The Remote's design allows all paired Raptors to be cleared from memory.

1

a. Press and hold the Up button and the Down button on the Remote at the same time until the Anchor Selection LEDs and the Mode LED on the Remote begin to scroll Ted, green, red and red. Then release them. The Remote will go into Pairing Mode for 30 seconds. Once Pairing times out the paired Raptor will be cleared.

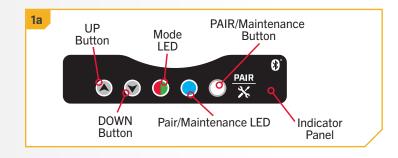
**NOTICE:** Putting the Remote into Pairing Mode, even if it is accidental, without pairing the Remote with a Raptor will clear a paired Raptor.



#### CLEARING PAIRED REMOTES OR DEVICES FROM THE RAPTOR

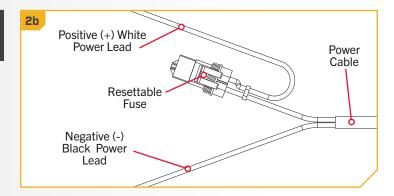
The Remote's design allows all paired Raptors to be cleared from memory. Clear the memory of any Raptor that was part of a network before paring it to a new network. If a single Raptor is paired with a second Raptor, ensure that the memory of both Raptors is clear before pairing the Raptors and setting up a new network.

Retract the anchor on the Raptor by pressing the Up A button on the Indicator Panel on the Pump Assembly.



**NOTICE:** This may require assistance from another person.

- b. Turn the power to the Raptor "off" by removing the resettable Fuse on the Raptor Power Cable.
- c. Hold the Up A button on the Indicator Panel, and restore power to the Raptor. The Pump Assembly emits a long, steady tone that repeats until the Up A button is released. The red and blue LEDs pulse with the tone.
- d. Release the Up A button. A short beep sounds when the Up A Button is released, and the green LED flashes.
- e. Remove the Fuse to power cycle the Raptor again. Wait a full 30 seconds and then replace the Fuse. The LEDs will flash red and blue and then green. A short beep will sound.
- f. The Raptor memory is clear of all previously paired devices.



#### TROUBLESHOOTING

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

- 1. Do I need a separate battery to operate the Raptor?
  - No. Minn Kota recommends connecting the Raptor to the starting/cranking battery on the boat.
- 2. How do I determine where and how to mount the Raptor?
  - This will vary from one boat to the next. When laying out the installation, it is important to check for proper steering and trimming clearances. See the "Installation" section of this Manual for detailed instructions.

- 3. Which side of the boat do I want to install the Raptor?
  - The Raptor can be installed on either side or both sides of the boat. Review the mounting considerations in the "Installation Instructions" section of this document to ensure that the Raptor can be installed at the intended location.
- 4. How do I know when I should use a mounting adapter bracket?
  - Some boats have irregular-shaped transoms, and the standard Raptor mounting bracket cannot be mounted directly to the transom. In other cases, there are other accessories, such as trim tabs, transducers, poling platforms, etc., that may require additional clearance. Review the mounting considerations in the "Installation" section of this manual and browse the Raptor adapter brackets online at minnkota.johnsonoutdoors.com to select the proper application for your boat.
- 5. Why do the battery level readings for the Raptor remote seem sporadic?
  - The Raptor remote is powered by a coin cell battery. The battery level is displayed as a simple voltage measurement, converted to a percent of usable life. The reading is updated about once per hour when the Raptor is in use. The voltage of a coin cell battery can vary drastically based on the intensity of prior use and ambient temperature. The voltage change created by these conditions is reflected in the battery reading. The remote battery level is displayed on the following devices when paired to a Raptor system: Humminbird fish finder, i-Pilot or i-Pilot Link remote, and a Bluetooth-enabled device such as a tablet or smartphone.

**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 online at minnkota.johnsonoutdoors.com, or by calling our customer service number at 800-227-6433.

**NOTICE:** For additional Raptor troubleshooting information, including instructional videos, please visit the Minn Kota Help Center minnkota-help.johnsonoutdoors.com.

#### FOR FURTHER TROUBLESHOOTING AND REPAIR

#### FOR FURTHER TROUBLESHOOTING AND REPAIR

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



# **Buy Parts Online**

You can buy parts on-line directly from our website at minnkota.johnsonoutdoors.com. 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 minnkota.johnsonoutdoors.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 minnkota.johnsonoutdoors.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.



# **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 Raptors are not subject to the disposal regulations EAG-VO (electric devices directive) that implements the WEEE directive. Nevertheless, never dispose of your Minn Kota Raptor 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

# Raptor

CONTROLLER: 2354041 - WITHOUT ACTIVE ANCHORING 2354040 - WITH ACTIVE ANCHORING

• IC: 4397A-RAPTORCTR FCC ID: T62-RAPTORCTR

**REMOTE: 2994156** 

• IC: 4397A-RAPTORREM FCC ID: T62-RAPTORREM













#### **COMPLIANCE STATEMENTS**

#### 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

#### RADIO OPERATION

#### CONTROLLER

- Frequency band: 2402 MHz to 2480 MHz
- Maximum RF power transmitted: +10 dBm

#### REMOTE

- Frequency band: 2402 MHz to 2480 MHz
- Maximum RF power transmitted: +10 dBm

## **TRADEMARKS**

Minn Kota®, Humminbird®, i-Pilot® and i-Pilot® Link™ are trademarked by or registered trademarks of Johnson Outdoors Marine Electronics, Inc.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Johnson Outdoors Inc is under license. Other trademarks and trade names are those of their respective owners.

Android is a trademark of Google LLC.

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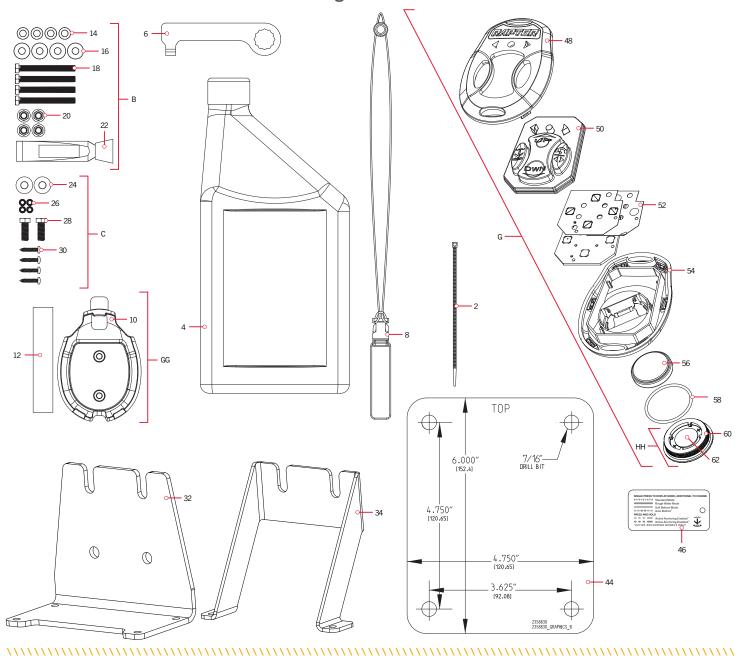
#### RAPTOR

#### 12 VOLT - 8'/10' RAPTOR

The parts diagram and parts list provide 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.

#### RAPTOR INSTALLATION HARDWARE AND REMOTE >

# > Installation Hardware & Remote Parts Diagram



# Installation Hardware & Remote Parts List

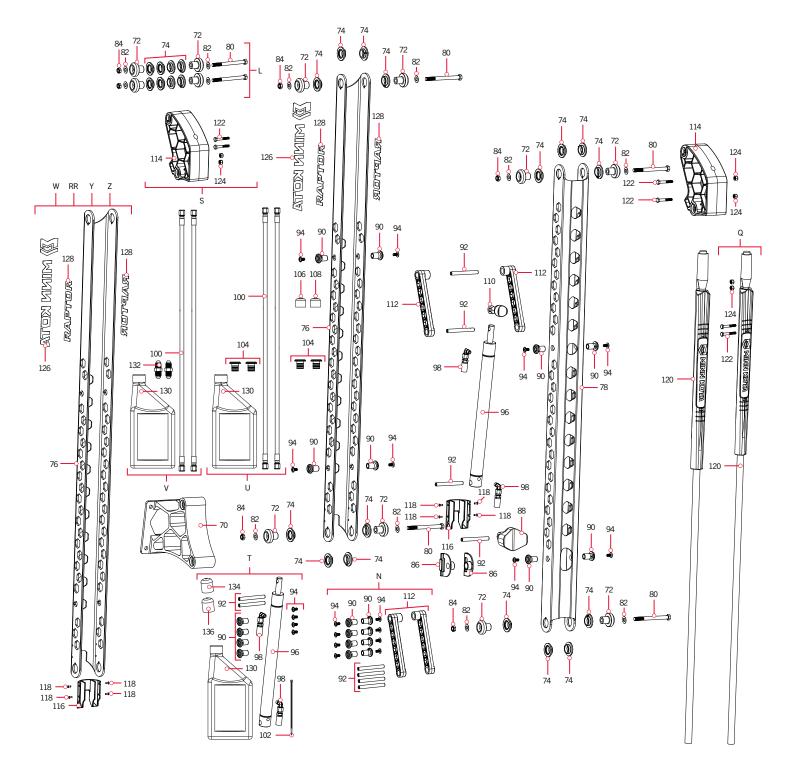
Assembly	Part #	Description	Notes	Quantity
В	2994943	BAG, ASM, RAPTOR HWD		1
С	2994944	BAG ASM, RAPTOR PUMP HDW		1
G	2994138	ASSY, REMOTE, RAPTOR		1
GG	2771829	BRACKET, DASH MNT HLDR/TAPE KIT		1
НН	2886424	COVER ASY, BATTERY COMP 3 TURN		1
Item	Part #	Description	Notes	Quantity
2	2376310	TIE WRAP-DH35 11.5"		1
4	2357700	OIL-HYDRAULIC, QUART, RPTR		1
6	2358800	WRENCH-PRESSURE, RAPTOR		1
8	2390801	LANYARD, REMOTE		1
10	2371829	BRACKET,RMT DASH MNT HLDR	*ASSEMBLY GG*	1
12	2375104	TAPE,MNTG,FOAM ULINE #S-10131	*ASSEMBLY GG*	1
14	2371758	WASHER-3/8 HD FLAT SS	*ASSEMBLY B*	4
16	2371759	WASHER-3/8 HD FENDER SS	*ASSEMBLY B*	4
18	2383421	SCREW-3/8-16X3 1/2 HHCS SS	*ASSEMBLY B*	4
20	2353102	NUT-3/8-16 FLANGE,NYLOK,SS	*ASSEMBLY B*	4
22	2378608	ANTI SEIZE TUBE, 4CC, TALON	*ASSEMBLY B*	1
24	2351735	WASHER-3/8" BELLEVILLE SS	*ASSEMBLY C*	2
26	2351733	WASHER-#10 BELLEVILLE SERRATED	*ASSEMBLY C*	4
28	2353412	SCREW-3/8-16 X 1.0" HHCS SS	*ASSEMBLY C*	2
30	2353420	SCREW-#10-16X1.00 TY AB SS	*ASSEMBLY C*	4
32	2351933	BRACKET-MOUNTING, PUMP		1
34	2351934	BRACKET-REINFORCING		1
36	2357141 🔺	INSTALL. INSTRUCTIONS, RPTR		1
38	2357142 🛦	DISCLAIMER-DOWNLOAD, MANUAL		1
40	2357140 🛦	MANUAL, RAPTOR ANCHOR		1
42	2006819 🛦	LABEL-CARTON ,"CAUTION HEAVY"		1
44	2358830	RAPTOR MOUNTING TEMPLATE		1
46	2354110	TAG, REMOTE, RAPTOR		1
48	×	CASE-REMOTE, TOP, TALON 3	*ASSEMBLY G*	1
50	×	KEYPAD-REMOTE, TALON 3	*ASSEMBLY G*	1
52	×	CTRL BOARD,TRNSMTR,TALON 3	*ASSEMBLY G*	1
54	×	CASE, REAR, RMT, RAPTOR	*ASSEMBLY G*	1
56	×	BATTERY CR2450	*ASSEMBLY G*	1
58	2376941	GASKET,BATTERY COMPARTMENT	*ASSEMBLY G*	1
60	×	COVER, BATTERY	*ASSEMBLY G* *ASSEMBLY HH*	1
62	×	PAD-FOAM, I-PILOT 1.5	*ASSEMBLY G* *ASSEMBLY HH*	1

<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

RAPTOR ANCHOR >

# > Raptor 8ft Parts Diagram



# > Raptor 8ft Parts List

Assembly	Part #	Description	Notes	Quantity
L	2777301	BUSHING KIT, MAIN, RAPTOR	*ASSEMBLY S QTY 2*	1
N	2777303	BUSHING KIT, CENTER, 8' RAPTOR	*8FT*	1
Q	2772019	SPIKE KIT 8' RAPTOR	*8FT*	1
S	2777300	UPPER KNUCKLE KIT, RAPTOR		1
Т	2778411	CYLINDER KIT, RAPTOR		1
U	2771400	HYDRAULIC HOSE REP KIT, RAPTOR		1
V	2771401	HYDRAULIC HOSE EXT KIT, RAPTOR	*NOT INCLUDED FROM THE FACTORY*	1
W	2776512	RAPTOR UPPER ARM, 8', SILVER	*8FT*	1
RR	2776513	RAPTOR UPPER ARM, 8', BLACK	*8FT*	1
Υ	2776514	RAPTOR UPPER ARM, 8', WHITE	*8FT*	1
Z	2776515	RAPTOR UPPER ARM, 8', RED	*8FT*	1
Item	Part #	Description	Notes	Quantity
70	2351908	BRACKET, LOWER MOUNT, PAINTED		1
70	2351908	BRKT, LWR MNT, PAINT WHT	*WHITE*	1
72	2357310	BUSHING, PIVOT LINK, ANODIZED		8
74	2357301	BUSHING, FLANGE	*ASSEMBLY S* *ASSEMBLY L QTY 8*	16
	2356513	EXTRUSION-OUTER, BLACK 8'	*BLACK* *8FT* *ASSEMBLY RR*	1
7.0	2356512	EXTRUSION-OUTER, CLEAR 8'	*SILVER* *8FT* *ASSEMBLY W*	1
76	2356514	EXTRUSION-OUTER, WHITE 8'	*WHITE* *8FT* *ASSEMBLY Y*	1
	2356515	EXTRUSION-OUTER, RED 8'	*RED* 8FT* *ASSEMBLY Z*	1
	2356523	EXTRUSION-INNER, BLACK 8'	*BLACK* *8FT*	1
70	2356522	EXTRUSION-INNER, CLEAR 8'	*SILVER* *8FT*	1
78	2356524	EXTRUSION-INNER, WHITE 8'	*WHITE* *8FT*	1
	2356525	EXTRUSION-INNER, RED 8'	*RED* *8FT*	1
80	2353500	BOLT-3/8-16 X 4.25" HEX HD SS	*ASSEMBLY S* *ASSEMBLY L QTY 2*	4
82	2351734	WASHER-3/8" FLAT SS	*ASSEMBLY S* *ASSEMBLY L QTY 4*	8
84	2263115	NUT-NYLOK JAM 3/8-16 UNC SS	*ASSEMBLY S* *ASSEMBLY L QTY 2*	4
86	2351721	SPACER, COMPRESSION SHIM		2
88	2355125	BUMPER, SPIKE LOWER		1
90	2357302	BUSHING, CENTER SUPPORT	*ASSEMBLY T QTY 4* *ASSEMBLY N*	8
92	2352610	PIN, CYLINDER BASE, RAPTOR	*ASSEMBLY N* *ASSEMBLY T*	4
94	2353403	SCREW-1/4-20 FLANGED BTTN HEAD	*ASSEMBLY T QTY 4* *ASSEMBLY N*	8
96	2358411	CYLINDER-HYDRAULIC, SS	*ASSEMBLY T*	1
98	2354602	FITTING-HYDRAULIC	*ASSEMBLY T*	2
100	2351400	HOSE,HYDRL ASM #JO-HOH-W-02-0	*ASSEMBLY V* *ASSEMBLY U*	2
102	2376310	TIE WRAP-DH35 11.5"	*ASSEMBLY T*	1
104	2352920	GROMMET-THRU HULL	*ASSEMBLY U*	2

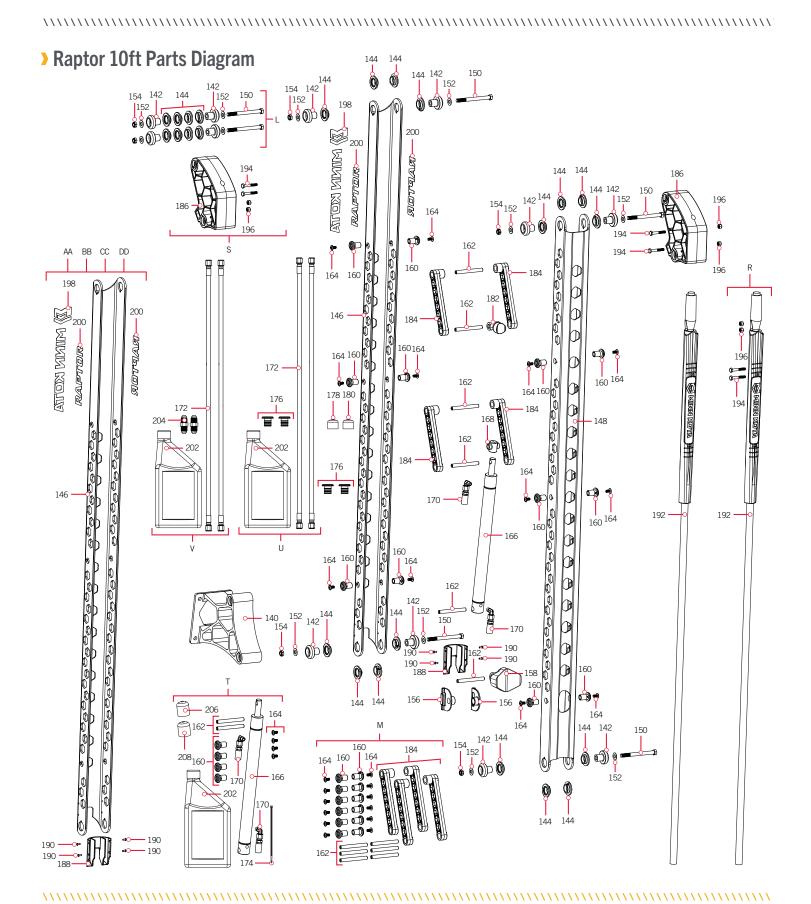
<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

Item	Part #	Description	Notes	Quantity
106	2350207	CAP-VINYL, .562" X 1/2" BLACK		1
108	2350208	CAP-VINYL, .562" X 1/2" GREEN		1
110	2355120	BUMPER, SPIKE UPPER		1
112	2352300	SUPPORT, CENTER CYLINDER	*ASSEMBLY N*	2
114	2351926	BRACKET, UPPER KNUCKLE, MACH	*ASSEMBLY S*	1
116	2351930	BRACKET, HOSE ROUTE LOWER	*ASSEMBLY Z* *ASSEMBLY Y* *ASSEMBLY RR* *ASSEMBLY W*	1
118	2358600	RIVET-POP, 1/8"	*ASSEMBLY Z* *ASSEMBLY Y* *ASSEMBLY RR* *ASSEMBLY W*	4
120	2352019	SPIKE, 8', .750" OVERMOLDED	*8FT* *ASSEMBLY Q*	1
122	2353501	BOLT-1/4-20 X 1.75 HEX SS	*ASSEMBLY S* *ASSEMBLY Q*	2
124	2353110	NUT-1/4-20 BRASS NYLON INSERT	*ASSEMBLY S* *ASSEMBLY Q*	2
126	2355642	DECAL, MINN KOTA RAPTOR BLK	*WHITE* *AA* *ASSEMBLY Z* *ASSEMBLY RR* *ASSEMBLY W*	1
120	2355640	DECAL, MINN KOTA RAPTOR WHT	*BLACK* *RED* *SILVER* *ASSEMBLY Y*	1
128	2355641	DECAL, RAPTOR SIDE	*ASSEMBLY Z* *ASSEMBLY Y* *ASSEMBLY RR* *ASSEMBLY W*	2
130	2357700	NRA-OIL-HYDRAULIC, QUART, RPTR	*ASSEMBLY V* *ASSEMBLY U* *ASSEMBLY T*	1
132	2350800	UNION, STRGHT, JIC MALE-MALE	*ASSEMBLY V* *NOT INCLUDED FROM THE FACTORY*	2
134	2350205	CAP-VINYL, .406" X 1/2" BLACK	*ASSEMBLY T* *NOT INCLUDED FROM THE FACTORY*	1
136	2350206	CAP-VINYL, .406" X 1/2" GREEN	*ASSEMBLY T* *NOT INCLUDED FROM THE FACTORY*	1

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

<sup>▲</sup> Not shown on Parts Diagram.



# > Raptor 10ft Parts List

Assembly	Part #	Description	Notes	Quantity
L	2777301	BUSHING KIT, MAIN, RAPTOR	*ASSEMBLY S QTY 2*	1
М	2777302	BUSHING KIT, CENTER,10' RAPTOR	*10FT*	1
R	2772020	SPIKE KIT 10' RAPTOR	*10FT*	1
S	2777300	UPPER KNUCKLE KIT, RAPTOR		1
T	2778411	CYLINDER KIT, RAPTOR		1
U	2771400	HYDRAULIC HOSE REP KIT, RAPTOR		1
V	2771401	HYDRAULIC HOSE EXT KIT, RAPTOR	*NOT INCLUDED FROM THE FACTORY*	1
AA	2776532	RAPTOR UPPER ARM, 10', SILVER	*10FT*	1
ВВ	2776533	RAPTOR UPPER ARM, 10', BLACK	*10FT*	1
CC	2776534	RAPTOR UPPER ARM, 10', WHITE	*10FT*	1
DD	2776535	RAPTOR UPPER ARM, 10', RED	*10FT*	1
Item	Part #	Description	Notes	Quantity
140	2351908	BRACKET, LOWER MOUNT, PAINTED		1
140	2351908	BRKT, LWR MNT, PAINT WHT	*WHITE*	1
142	2357310	BUSHING, PIVOT LINK, ANODIZED		8
144	2357301	BUSHING, FLANGE	*ASSEMBLY S* *ASSEMBLY L QTY 8*	16
	2356534	EXTRUSION-OUTER, WHITE 10'	*AA* *WHITE* *10FT* *ASSEMBLY CC*	1
140	2356535	EXTRUSION-OUTER, RED 10'	*AA* *RED* *10FT* *ASSEMBLY DD*	1
146	2356532	EXTRUSION-OUTER, CLEAR 10'	*AA* *SILVER* *10FT* *ASSEMBLY AA*	1
	2356533	EXTRUSION-OUTER, BLACK 10'	*AA* *BLACK* *10FT* *ASSEMBLY BB*	1
	2356544	EXTRUSION-INNER, WHITE 10'	*AA* *WHITE* *10FT*	1
140	2356545	EXTRUSION-INNER, RED 10'	*AA* *RED* *10FT*	1
148	2356542	EXTRUSION-INNER, CLEAR 10'	*AA* *SILVER* *10FT*	1
	2356543	EXTRUSION-INNER, BLACK 10'	*AA* *BLACK* *10FT*	1
150	2353500	BOLT-3/8-16 X 4.25" HEX HD SS	*ASSEMBLY S* *ASSEMBLY L QTY 2*	4
152	2351734	WASHER-3/8" FLAT SS	*ASSEMBLY S* *ASSEMBLY L QTY 4*	8
154	2263115	NUT-NYLOK JAM 3/8-16 UNC SS	*ASSEMBLY S* *ASSEMBLY L QTY 2*	4
156	2351721	SPACER, COMPRESSION SHIM		2
158	2355125	BUMPER, SPIKE LOWER		1
160	2357302	BUSHING, CENTER SUPPORT	*ASSEMBLY T QTY 4* *ASSEMBLY M*	12
162	2352610	PIN, CYLINDER BASE, RAPTOR	*ASSEMBLY M* *ASSEMBLY T*	6
164	2353403	SCREW-1/4-20 FLANGED BTTN HEAD	*ASSEMBLY T QTY 4* *ASSEMBLY M*	12
166	2358411	CYLINDER-HYDRAULIC, SS	*ASSEMBLY T*	1
168	2351720	SPACER, CYLINDER ROD END	*10FT AA*	1
170	2354602	FITTING-HYDRAULIC	*ASSEMBLY T*	2
172	2351400	HOSE,HYDRL ASM #JO-HOH-W-02-0	*ASSEMBLY V* *ASSEMBLY U*	2

<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

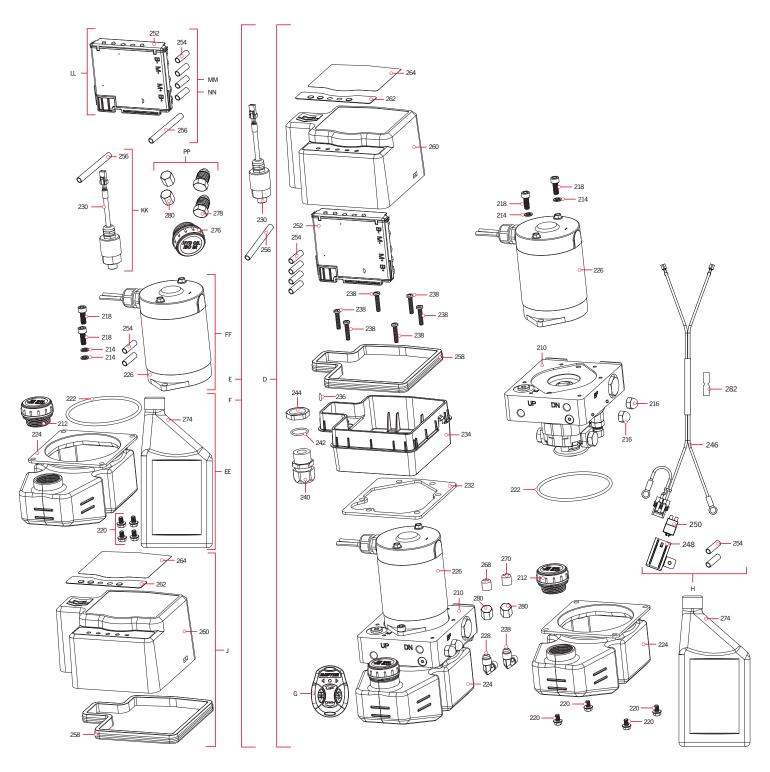
Item	Part #	Description	Notes	Quantity
176	2352920	GROMMET-THRU HULL	*ASSEMBLY U*	2
174	2376310	TIE WRAP-DH35 11.5"	*ASSEMBLY T*	1
178	2350207	CAP-VINYL, .562" X 1/2" BLACK		1
180	2350208	CAP-VINYL, .562" X 1/2" GREEN		1
182	2355120	BUMPER, SPIKE UPPER		1
184	2352300	SUPPORT, CENTER CYLINDER	*ASSEMBLY M*	4
186	2351926	BRACKET, UPPER KNUCKLE, MACH	*ASSEMBLY S*	1
188	2351930	BRACKET, HOSE ROUTE LOWER	*ASSEMBLY DD* *ASSEMBLY CC* *ASSEMBLY BB* *ASSEMBLY AA*	1
190	2358600	RIVET-POP, 1/8"	*ASSEMBLY DD* *ASSEMBLY CC* *ASSEMBLY BB* *ASSEMBLY AA*	4
192	2352021	SPIKE, 10', .750 OVERMOLDED	*10FT* *ASSEMBLY R*	1
194	2353501	BOLT-1/4-20 X 1.75 HEX SS	*ASSEMBLY S* *ASSEMBLY R*	2
196	2353110	NUT-1/4-20 BRASS NYLON INSERT	*ASSEMBLY S* *ASSEMBLY R*	2
	2355642	DECAL, MINN KOTA RAPTOR BLK	*WHITE* *AA* *ASSEMBLY BB* *ASSEMBLY AA*	1
198	2355640	DECAL, MINN KOTA RAPTOR WHT	*BLACK* *RED* *SILVER* *ASSEMBLY DD* *ASSEMBLY CC*	1
200	2355641	DECAL, RAPTOR SIDE	*ASSEMBLY DD* *ASSEMBLY CC* *ASSEMBLY BB* *ASSEMBLY AA*	2
202	2357700	OIL-HYDRAULIC, QUART, RPTR	*ASSEMBLY T* *ASSEMBLY U* *ASSEMBLY V*	1
204	2350800	UNION, STRGHT, JIC MALE-MALE	*ASSEMBLY V* *NOT INCLUDED FROM THE FACTORY*	2
206	2350205	CAP-VINYL, .406" X 1/2" BLACK	*ASSEMBLY T* *NOT INCLUDED FROM THE FACTORY*	1
208	2350206	CAP-VINYL, .406" X 1/2" GREEN	*ASSEMBLY T* *NOT INCLUDED FROM THE FACTORY*	1

<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

#### RAPTOR HYDRAULIC PUMP >

# > Raptor Hydraulic Pump Parts Diagram



# > Raptor Hydraulic Pump Parts List

Assembly	Part #	Description	Notes	Quantity
D	2994106	ASSEMBLY, MAIN PUMP 8'	*8FT*	1
E	2994105	ASSEMBLY, MAIN PUMP W/AA 8'	*8FT AA*	1
F	2994107	ASSEMBLY, MAIN PUMP W/AA 10'	*10FT AA*	1
G	2994156	TRANSMITTER ASM, RAPTOR	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
Н	2778500	LEADWIRE KIT, RAPTOR		1
J	2776410	RAPTOR PUMP COVER KIT		1
EE	2776550	RESERVOIR RPLCMNT KIT, RAPTOR		1
FF	2777803	MOTOR ASSEMBLY, RAPTOR		1
KK	2778210	PRESSURE TRANSDUCER ASM, RAPTOR		1
LL	2774046	RAPTOR CTRL BOARD ASM	*8FT*	1
MM	2774043	RAPTOR W/AA CTRL BRD ASM 8'	*8FT AA*	1
NN	2774044	RAPTOR W/AA CTRL BRD ASM 10'	*10FT AA*	1
PP	2776720	CAP AND PLUG KIT, RAPTOR	*NOT INCLUDED FROM THE FACTORY*	1
Item	Part #	Description	Notes	Quantity
210	2354005	PUMP,HYDRAULIC,BILLET MANIFOLD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
212	2350200	CAP-FILL, RESERVOIR	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY EE*	1
214	2351731	WASHER-LOCK, M6 SS	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY FF*	2
216	2353120	NUT-M8 CAP	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	2
218	2353511	BOLT-SHCS M6 X 16 MM SS	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY FF*	2
220	2353515	BOLT-FLANGED, M5 X 8 MM SS	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY EE*	4
222	2354622	O-RING, 3.55 MM X 87.5 MM	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY EE*	1
224	×	RESERVOIR, PUMP	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY EE*	1
226	*	MOTOR, PUMP DRIVE	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY K* *ASSEMBLY FF*	1
228	2354602	FITTING-HYDRAULIC	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	2
230	2358210	TRANSDUCER-PRESSURE, 12VDC, SS	*AA* *ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY KK*	1
232	2356900	GASKET, SHROUD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
234	2351935	BASE, SHROUD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
236	2355130	VENT PATCH	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
238	2353410	SCREW-#8-32 X .88 PPH SS	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	6
240	2374630	FITTING-NPT 1/2" CD13NA-BK	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
242	2374631	O-RING,SEALCON #OR-18-BN	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
244	2353115	NUT-1/2" NPT BLK NYLON LOCKING	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1

<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

Item	Part #	Description	Notes	Quantity
246	2358500	POWER CORD, RAPTOR	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY H*	1
248	2370279	CAP-RESETTABLE FUSE HOLDER	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY H*	1
250	2358200	BREAKER, 30A RESETTABLE	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY H*	1
	2354041	PCB ASM, RAPTOR	*ASSEMBLY LL* *ASSEMBLY D*	1
252	2354040	PCB ASM, RAPTOR W/AA	*AA* *ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY MM* *ASSEMBLY NN*	1
254	2305404	SHRINK TUBE374 ID X 1.0"	*ASSEMBLY MM QTY 4* * ASSEMBLY NN QTY 4* *ASSEMBLY LL QTY 4* *ASSEMBLY FF QTY 2* *ASSEMBLY D QTY 4* *ASSEMBLY E QTY 4* *ASSEMBLY F QTY 4* *ASSEMBLY HH QTY 2*	4
256	2305402	SHRINK TUBE374 OD X 2.25"	*ASSEMBLY MM QTY 1* * ASSEMBLY NN QTY 1* *ASSEMBLY KK QTY 1* *ASSEMBLY E QTY 1* *ASSEMBLY F QTY 1*	1
258	2354610	SEAL, SHROUD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY J*	1
260	2356410	COVER, SHROUD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY J*	1
262	2356610	DECAL, SHROUD	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D* *ASSEMBLY J*	1
	2356620	DECAL-TOP, 8'	*8FT* *ASSEMBLY D* *ASSEMBLY J*	1
264	2356621	DECAL-TOP, 8' W/AA	*8FT AA* *ASSEMBLY E* *ASSEMBLY J*	1
	2356622	DECAL-TOP, 10' W/AA	*10FT AA**ASSEMBLY F* *ASSEMBLY J*	1
266	2355805 ▲	DECAL-COMPLIANCE, PUMP, RAPTOR	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
268	2350207	CAP-VINYL, .562" X 1/2" BLACK	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
270	2350208	CAP-VINYL, .562" X 1/2" GREEN	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
272	2007729 🛦	LOCTITE 243 HENKEL P/N 1329467	*ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
274	2357700	OIL-HYDRAULIC, QUART, RPTR	*ASSEMBLY EE* *ASSEMBLY F* *ASSEMBLY E* *ASSEMBLY D*	1
276	2356720	PLUG, M30 X 2, RESERVOIR	*ASSEMBLY PP*	1
278	2356721	PLUG, JIC 37 DEG, 7/16-20	*ASSEMBLY PP*	2
280	2350215	CAP, JIC 37 DEG, 7/16-20	*ASSEMBLY PP*	4
282	2395528	DECAL-WARNING		1

<sup>\*</sup> This part is included in an assembly and cannot be ordered individually.

<sup>▲</sup> Not shown on Parts Diagram.

# NOTES

# RECOMMENDED ACCESSORIES

## RAPTOR CONTROL

#### RAPTOR WIRELESS FOOT SWITCH

Raptor wireless foot switch allows for hands free control of your Raptor. Control one or two Raptors independently or simultaneously. Foot switch is waterproof, includes LED indicator lights and has an easy access battery compartment. Convenient Modular deck mount for easy removal and storage.



# RAPTOR MOUNTING ADAPTER BRACKETS

Raptor mounting brackets come in a variety of configurations to meet your mounting needs. They feature a light weight, aluminum construction for superior strength. Constructed with a powder coated exterior for corrosion resistance and include stainless steel mounting hardware. All brackets include a 5-year warranty.

#### DIRECT MOUNT ANGLE BRACKET

In direct transom mount applications, maximizes holding power by providing optimal angle for Raptor deployment.





#### UNIVERSAL SANDWICH ADAPTER

Mounts by en your ja-'---- or by and transom, for use in port or starboard applications.





#### 3" SETBACK BRACKET

Provides 3" of additional setback to all mounting applications where specific clearances are required.





# JACK PLATE BRACKETS

Mounts directly to your jack plate on the Port or Starboard side of your boat. Comes in a 4" or 6" rise.







Minn Kota Consumer & Technical Service Johnson Outdoors Marine Electronics, Inc. PO Box 8129 Mankato, MN 56001 121 Power Drive
Mankato, MN 56001
Phone (800) 227-6433
ax (800) 527-4464



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Part #2357140

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