



CE Master User Manual for **RIPTIDE SM**



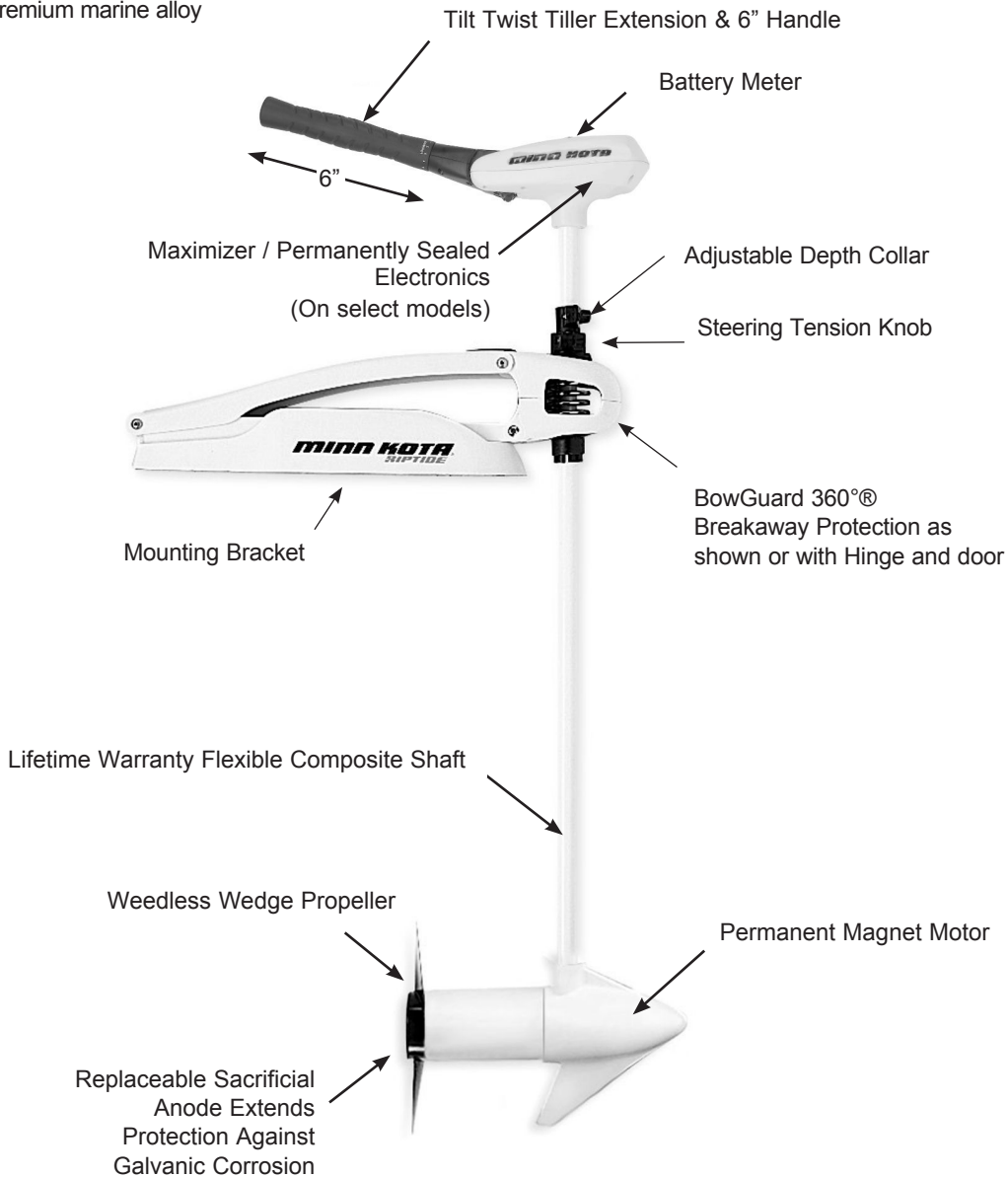
BOW MOUNT HAND CONTROL SALTWATER MOTORS

PLEASE THOROUGHLY READ THIS USER MANUAL. FOLLOW ALL INSTRUCTIONS AND HEED ALL SAFETY & CAUTIONARY NOTICES BELOW. USE OF THIS MOTOR IS ONLY PERMITTED FOR PERSONS THAT HAVE READ AND UNDERSTOOD THESE USER INSTRUCTIONS. MINORS MAY USE THIS MOTOR ONLY UNDER ADULT SUPERVISION.

RIPTIDE OVERVIEW

Advanced Saltwater Corrosion Protection:

- 3-mil acrylic paint
- E-coated epoxy
- Chromate conversion coat
- 7-step cleaning process
- Premium marine alloy



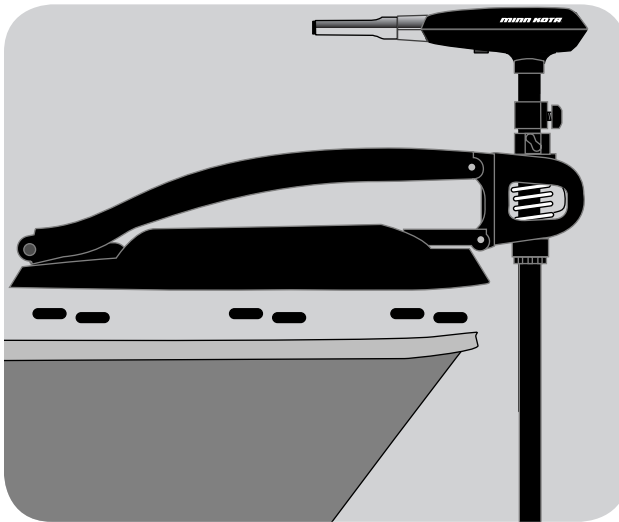
Specifications subject to change without notice.

INSTALLATION OF THE BOWMOUNT:

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

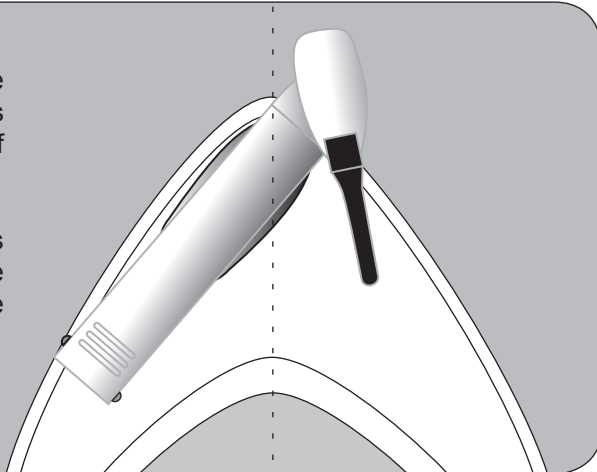
1. For installation, do not remove the shaft/motor from the Bowguard. The Bowguard spring is under tension and must always remain secured.
2. Place the mount, with the motor in the fully retracted (flat) position, on the deck of the boat:
 - The motor should be mounted as close to the centerline of the boat as possible.
 - Make sure bow area under the chosen location is clear and unobstructed for drilling.

- Make sure the motor rest is positioned far enough beyond the edge of the boat. The motor, as it is lowered into the water or raised into the boat, must not encounter any obstructions.
3. Once in position, mark at least four (4) of the holes provided in the bow plate and drill through the marks using a (9/32") bit.
 4. Mount the plate to the bow through the drilled holes using the provided (1/4-20 x 3-1/2") bolts, nuts and washers.
- NOTE:** If possible, secure all sets of mounting bolts, nuts and washers.



CAUTION: MAKE SURE YOUR MOTOR IS MOUNTED ON A LEVEL SURFACE

- We recommend that the motor be mounted as close to the centerline of the boat as possible.
- Make sure the mount is positioned so that the shaft is out beyond the rub strip of the boat.



BOW MOUNT OPERATION:

- The bow mount is designed to fold back and lock the motor flat on deck when not in use.
- The motor rest positions the lower unit as it comes in contact with the nose of the mount and guides it onto the motor rest.
- The tube lock tilts up and engages the shaft to lock it for transport.
- The hold down strap assembly crosses over the shaft

and the rectangular ring / Velcro® secures the motor.

- Pull the rope to release the lock bar, which automatically engages when the unit is lowered or raised into position. The pull grip and rope should be used to both lower and raise the unit.
- If the rope disengages from the lock bar assembly, release the lock bar with a screwdriver.

WARNING : WHEN RAISING OR LOWERING MOTOR, KEEP FINGERS CLEAR OF ALL HINGE AND PIVOT POINTS AND ALL MOVING PARTS.

Tilt and Extension Handle Operation:

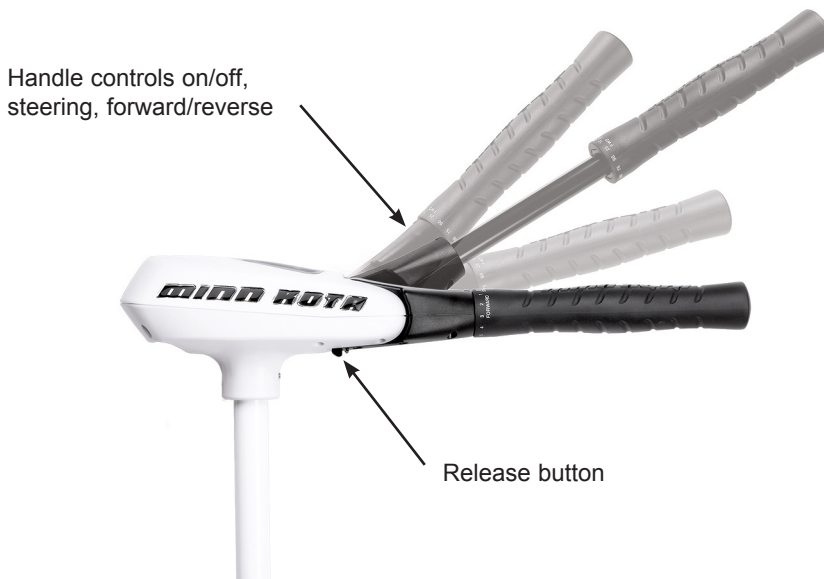
Your MAXXUM trolling motor features 7 usable handle tilt positions...45°, 30°, and 15° up and down from the 0° (horizontal) position. To use the down positions, you must first press the release button located on the left underside of the pivot handle.

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

First press the release button located on the left underside of the pivot handle, then push the handle down until you feel the handle "lock in" to the stowed position. This will be almost parallel to the motor shaft.

To extend the handle, pull the handle towards you to the desired position. The handle will extend a full 6 inches. To retract, push the handle in until it meets the face of the motor control head.

IMPORTANT: THE MOTOR MUST BE IN THE OFF POSITION TO USE THE STOW POSITION! FAILURE TO PUT THE MOTOR IN THE OFF POSITION BEFORE STOWING THE HANDLE WILL RESULT IN JOINT FAILURE.



CAUTION: NEVER OPERATE YOUR MOTOR WHEN IT IS OUT OF THE WATER.

OPERATION OF THE PRODUCT CONT'D:

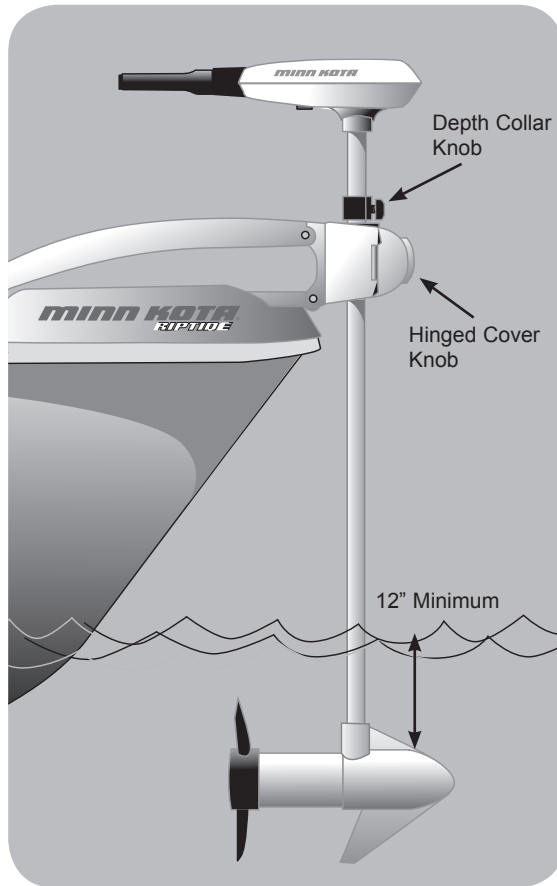
Depth Adjustment

- Firmly grasp the outer shaft or control head and hold it steady.
- Loosen depth setting knob on the hinge cover until the shaft slides freely.
- Raise or lower the motor to the desired depth.
- Turn the motor control head to the desired position.
- Tighten depth setting knob to secure the motor in place.

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

STEERING ADJUSTMENT:

- Adjust steering tension knob to provide enough tension to allow the motor to turn freely, yet remain in any position without being held or; Tighten the knob and lock the motor in a preset position to leave your hands free for fishing.



Attention:

- Avoid running your motor with the propeller outside of the water. This may result in injuries from the rotating propeller.
- It is recommended to set the speed selector to zero and place the motor in the deployed position prior to connecting power cables. Disconnect power cables prior to stowing.
- Always ensure that the power cables are not twisted or kinked; and that they are securely routed to avoid a safety or trip hazard. Ensure cables are unobstructed in all locations to avoid damaging the wire insulation. Damage to the insulation could result in failure or injury.
- Always inspect the insulation of the power cables prior to use to ensure they are not damaged.
- Disregarding these safety precautions may result in an electrical short of the battery(s) and/or motor. Always disconnect the motor from the battery(s) before cleaning or checking the propeller.
- Avoid submerging the complete motor as water may enter the lower unit through control head and shaft. Water in the lower unit may cause an electrical short and damage the lower unit. This damage will not be covered by warranty.

Caution!

- Always operate the motor in a safe distance away from obstructions. Never approach the motor when the propeller is running. Contact with a spinning propeller may endanger you or others.
- Always exercise safe practices when using your motor; stay clear of other watercrafts, swimmers, and any floating objects. Always obey water regulations applicable to your area of operation.
- Never operate the motor while under the influence of alcohol, drugs, medication, or other substances which may impair your ability to safely operate equipment.
- This motor is not suitable for use in strong currents exceeding the thrust level of the motor.

The constant noise pressure level of the motor during use is less than 70dB(A). The overall vibration level does not exceed 2,5m/sec².

Boat Rigging and Motor Installation:

An over-current protection device (circuit breaker or fuse) must be used with this motor. Coast Guard requirements dictate that each ungrounded current-carrying conductor must be protected by a manually reset, trip-free circuit breaker or fuse. The type (voltage and current rating) of the fuse or circuit breaker must be sized accordingly to the trolling motor used. The following breaker sizes are recommended guidelines:

Maximum thrust Voltage / Recommended circuit breaker rating

30# to 45# 12V 50A @ 12VDC
50# to 55# 12V 60A @ 12VDC
65# to 70# 24V 50A @ 24VDC
80# 24V 60A @ 24VDC
101# 36V 50A @ 36VDC
E-Drive 48V 40A @ 48VDC

The appropriate wire size needed to connect your trolling motor to the trolling motor batteries varies depending on the length of cable needed and voltage of the motor. For additional information, please consult appropriate ABYC (American Boat and Yacht Council) and Coast Guard requirements.

Reference:

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

BATTERY INFORMATION:

The motors will operate with any deep cycle marine 12 volt battery/batteries. For best results use a deep cycle, marine battery with at least a 115 ampere hour rating. As a general on the water estimate, your 12 volt motor will draw one ampere per hour and your 24 volt motor will draw .75 ampere per hour for each pound of thrust produced when the motor is running on high. The actual ampere draw is subject to your particular environmental conditions and operation requirements. 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 variable rate charger to avoid overcharging.

If you are using a crank battery to start a gasoline outboard, we recommend that you use a separate deep cycle marine battery/batteries for your Minn Kota trolling motor.

Advice regarding batteries:

Never connect the (+) and the (-) terminals of the 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 utmost fire danger.

Recommendation: Use battery boxes and covered battery

terminal clamps like Minn Kota accessory #MK-BC-1. These motors are equipped with a “push to test” battery gauge. The LED provides an accurate display of the remaining charge in the battery. It is only accurate when the motor is off. The gauge reads as:

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



BATTERY CONNECTION

12 Volt Systems:

1. Make sure that the motor is switched off (speed selector on “0”).
2. Connect positive (+) red lead to positive (+) battery terminal.
3. Connect negative (-) black lead to negative (-) battery terminal.
4. For safety reasons do not switch the motor on until the propeller is in the water.

24 Volt Systems:

1. Make sure that the motor is switched off (speed selector on “0”).
2. Two 12 volt batteries are required.
3. The batteries must be wired in series, only as directed in wiring diagram, to provide 24 volts.
 - a. Connect a connector cable to positive (+) terminal of battery 1 and to negative (-) terminal of battery 2.
 - b. Connect positive (+) red lead to positive (+) terminal on battery 2.
 - c. Connect negative (-) black lead to negative (-) terminal of battery 1.
4. For safety reasons do not switch the motor on until the propeller is in the water.

36 Volt Systems:

1. Make sure that the motor is switched off (speed selector on “0”).
2. Three 12 volt batteries are required.
3. The batteries must be wired in series, only as directed in wiring diagram, to provide 36 volts.
 - a. Connect a connector cable to positive (+) terminal of battery 1 and to negative (-) terminal of battery 2.
 - b. Connect a connector cable to positive (+) terminal of battery 2 and to negative (-) terminal of battery 3.
 - c. Connect positive (+) red lead to positive (+) terminal on battery 3.
 - d. Connect negative (-) black lead to negative (-) terminal of battery 1.
4. For safety reasons do not switch the motor on until the propeller is in the water.

If installing a leadwire plug, observe proper polarity and follow instructions in your boat owner’s manual.

See wiring diagram on following pages.

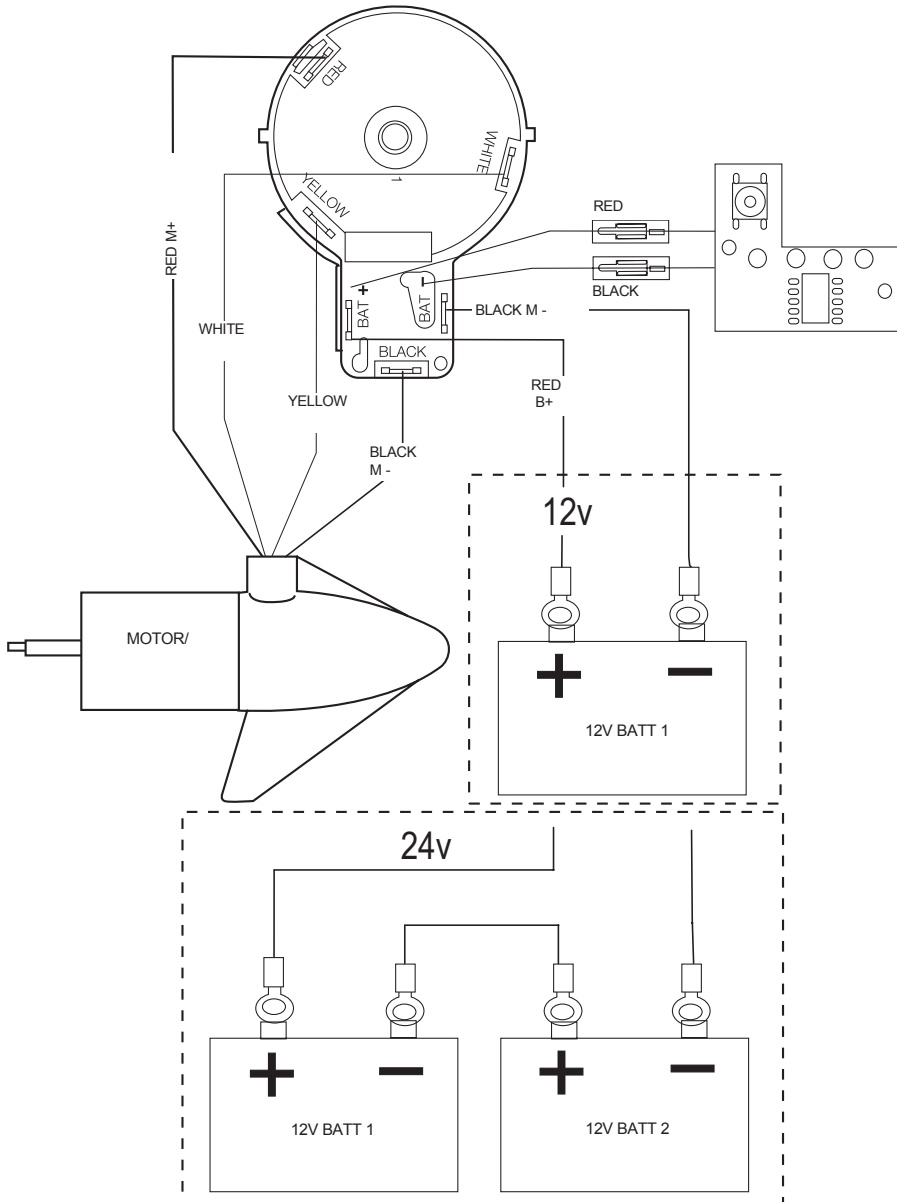
- **IMPROPER WIRING OF 24/36 VOLT SYSTEM COULD CAUSE BATTERY EXPLOSION!**
- **KEEP LEADWIRE WING NUT CONNECTION TIGHT AND SOLID TO BATTERY TERMINALS.**
- **LOCATE BATTERY IN A VENTILATED COMPARTMENT.**

12-24 VOLT 5 SPEED MODELS

THIS IS A UNIVERSAL MULTI-VOLTAGE DIAGRAM. DOUBLE CHECK YOUR MOTORS VOLTAGE FOR PROPER CONNECTIONS

Over-Current Protection Devices not shown in illustrations.

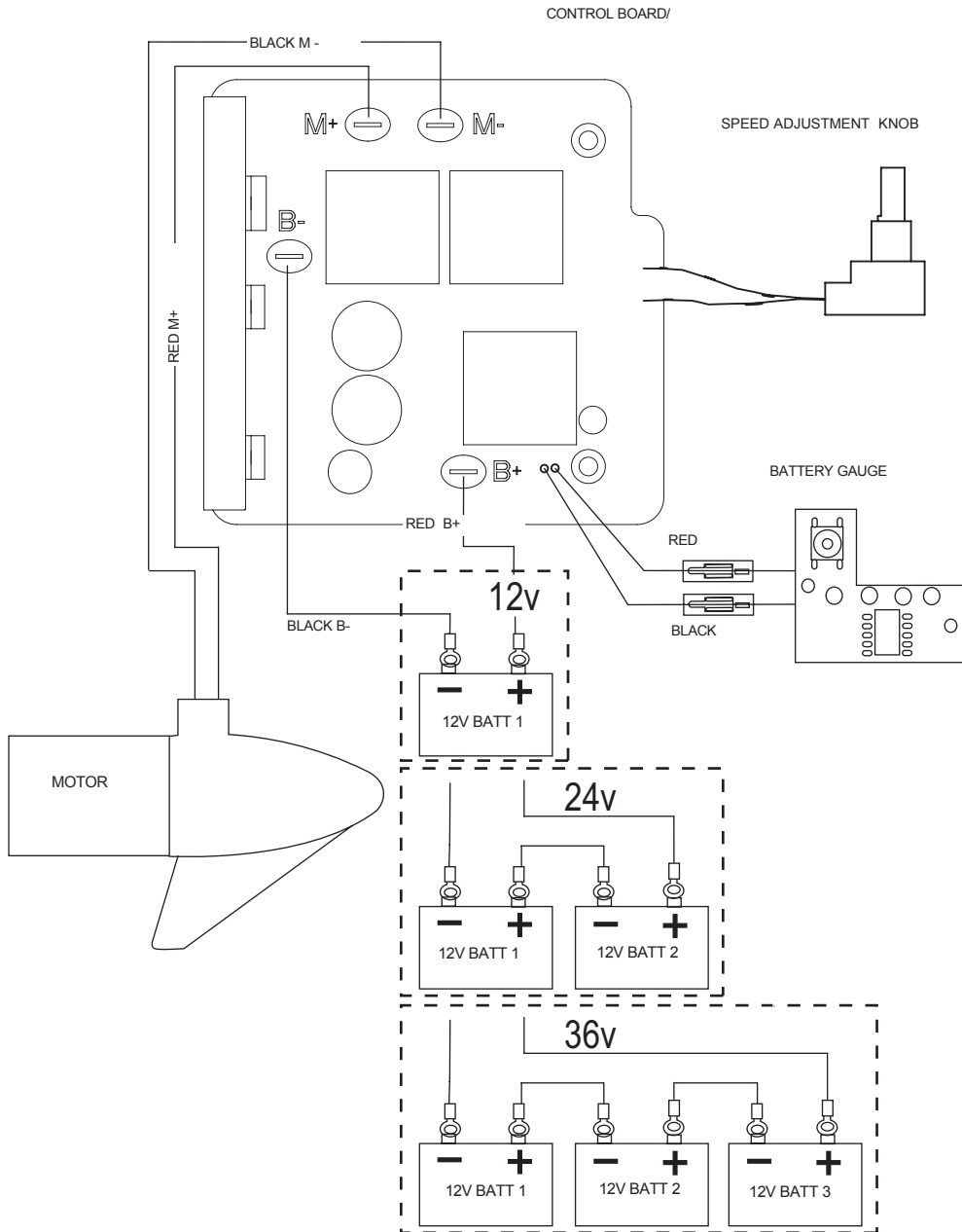
FIVE SPEED SWITCH



12-24-36 VOLT VARIABLE SPEED MODELS

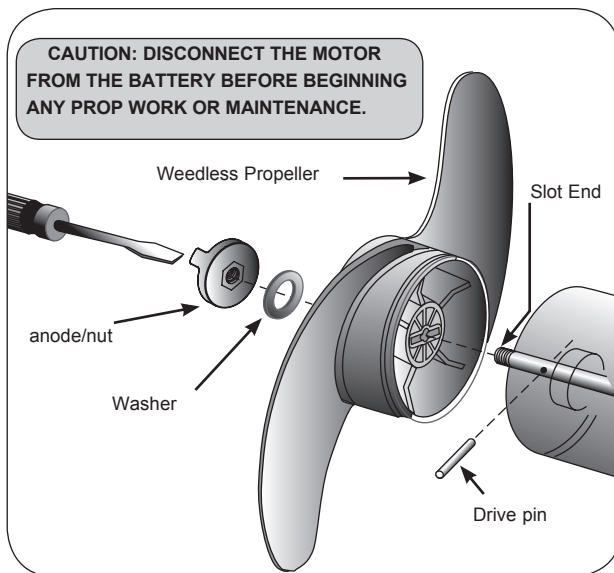
THIS IS A UNIVERSAL MULTI-VOLTAGE DIAGRAM. DOUBLE CHECK YOUR MOTORS VOLTAGE FOR PROPER CONNECTIONS

Over-Current Protection Devices not shown in illustrations.



PROPELLER REPLACEMENT:

- Disconnect motor from battery prior to changing the propeller.
- Hold the propeller and loosen the anode/nut with a wrench.
- Remove anode/nut and washer. If the drive pin is sheared/broken, you will need to hold the shaft steady with a screwdriver blade pressed into the slot on the end of the shaft.
- Turn the old prop to horizontal (as illustrated) and pull it straight off. If drive pin falls out, push it back in.
- Align new propeller with drive pin.
- Install prop washer and anode/nut.
- Tighten anode/ nut 1/4 turn past snug. [25-35 inch lbs.] Be careful, over tightening can damage prop.



MAXIMIZER™: (On Select Models)

The built-in Maximizer's electronics create pulse width modulation to provide longer running time and extended battery life. With the Maximizer speed control, you may, in some applications, experience interference in your depth finder display. We recommend that you use a separate deep cycle marine battery for your trolling motor and that you power the depth finder from the starting / cranking battery.

MAINTENANCE OF THE PRODUCT:

1. After use, these units should be rinsed with fresh water, then wiped down with a cloth dampened with an aqueous based silicone spray such as Armor All®.
2. The propeller must be cleaned of weeds and fishing line. The line can get behind the prop, wear away the seals and allow water to enter the motor. Check this after every 20 hours of operation.
3. Before each use, check to see that the prop nut is secure.
4. To prevent accidental damage during trailering or storage, disconnect the battery whenever the motor is off of the water. For prolonged storage, lightly coat all metal parts with an aqueous based silicone spray.
5. For maximum performance, restore battery to full charge before each use.
6. Keep battery terminals clean with fine sandpaper or emery cloth.
7. The weedless wedge propeller is designed to provide absolute weed free operation with very high efficiency. To maintain this top performance, the leading edge of the blades must be kept smooth. If they are rough or nicked from use, restore to smooth by sanding with fine sandpaper.

TROUBLESHOOTING:

1. Motor fails to run or lacks power:
 - Check motor for obstructions. The motor may have gone into current limit. To reset: return to off position, remove obstruction and resume operation.
 - Failure to put the motor in the off position before stowing the handle will result in joint failure.
 - Check battery connections for proper polarity.
 - Make sure terminals are clean and corrosion free. Use fine sandpaper or emery cloth to clean terminals.
 - Check battery water level. Add water if needed.
 2. Motor loses power after a short running time:
 - Check battery charge, if low, restore to full charge.
 3. Motor is hard to steer:
 - Loosen the steering tension knob on the top of bracket.
 - Lubricate the composite shaft.
 4. Bracket shifts or "walks" on transom:
 - With some boats, the transom bracket may loosen or shift during heavy use.
 5. You experience prop vibration during normal operation:
 - Remove and rotate the prop 180°. See removal instructions in prop section.
- NOTE:** For all other malfunctions, see enclosed authorized service center listing for nearest service center.

ENVIRONMENTAL COMPLIANCE STATEMENT:

It is the intention of Johnson Outdoors Marine Electronics, Inc. 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 Marine Electronics, Inc. will mark all EEE products in accordance with the WEEE Directive. It is our goal to comply in the collection, treatment, recovery, and environmentally sound disposal of those products; however, these requirements do vary within European Union member states. For more information about where you should dispose of your waste equipment for recycling and recovery and/or your European Union member state requirements, please contact your dealer or distributor from which your product was purchased.



Disposal:

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

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

BOAT RIGGING AND PRODUCT INSTALLATION:

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

CAUTION: These guidelines apply to general rigging to support your Minn Kota Motor. Powering multiple motors or additional electrical devices from the same power circuit may impact the recommended conductor gauge and circuit breaker size. If you are using wire longer than that provided with your unit, follow the conductor gauge and circuit breaker sizing table below. If your total conductor length is more than 50 feet we recommend that you contact a qualified marine technician.

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

*Conductor Gauge and Circuit Breaker Sizing Table

Total Conductor Length (length of all conductors in the total circuit)

Motor Thrust	Circuit Breaker	10 feet	20 feet	30 feet	40 feet	50 feet
30#	50 Amp @ 12 VDC	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG
40#, 45#		10 AWG	8 AWG	6 AWG	4 AWG	4 AWG
50#, 55#	60 Amp @ 12 VDC	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG
70#	50 Amp @ 24 VDC	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG
80#	60 Amp @ 24 VDC	8 AWG	8 AWG	8 AWG	6 AWG	6 AWG
101#	50 Amp @ 36 VDC	8 AWG	8 AWG	8 AWG	8 AWG	8 AWG
E-Drive	40 Amp @ 48 VDC	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG

***The conductor and circuit breaker sizing table above is only valid for the following assumptions.**

1. No more than 3 conductors are bundled together inside of a sheath or conduit outside of engine spaces.
2. Each conductor has 105°C temp rated insulation.
3. No more than 5% voltage drop allowed at full motor power based on published product power requirements.

Reference:

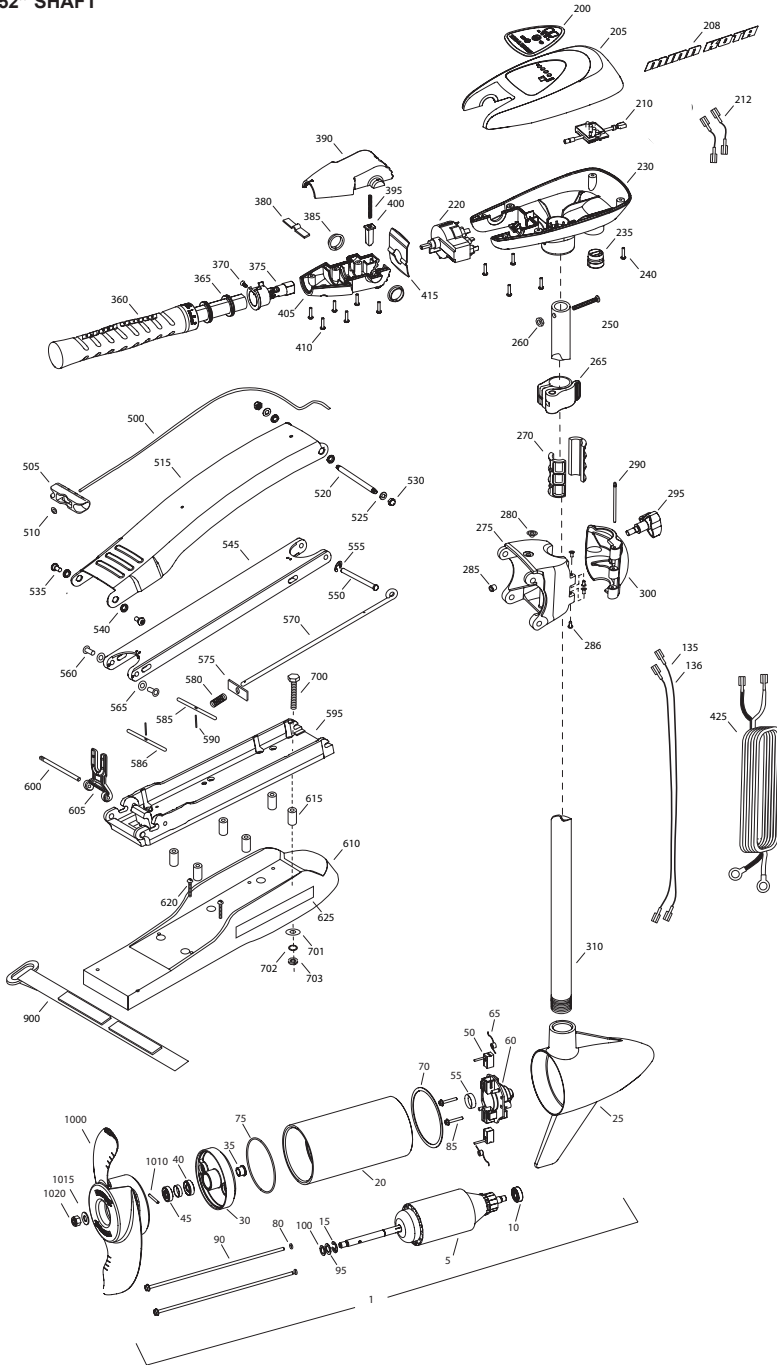
United States Code of Federal Regulations: 33 CFR 183 – Boats and Associated Equipment

ABYC E-11: AC and DC Electrical Systems on Boats

**RT55/SM/SC LATCH &
DOOR
55 LBS THRUST
12 VOLT
42" & 52" SHAFT**

This page provides MinnKota® 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: Flat head screw driver, Phillips screw driver, Socket set, Pliers, Wire cutters.



Item	P/N	Description	Qty	Item	P/N	Description	Qty	Item	P/N	Description	Qty	Item	P/N	Description	Qty
1	2097097	12V Motor 52" SW	1	■	2990956	Handle assy, 5SPD [360-410]	1	■	1378131	Propeller kit WW2					
5	2-100-121	Armature assembly	1	360	2990451	Grip/handle assy, 5SPD [360-375]	1	■	2994875	Propeller bag assy					
10	140-010	Bearing	1	365	2060015	Bearing, handle	2	1000	2091160	Propeller WW2	1				
15	788-015	Retaining ring	1	370	2063405	Screw, #6 PFH SS	1	1010	2092600	Drive pin, small	1				
20	2,200-301	Center housing assembly	1	375	2884091	Yoke / spider assy, 5SPD	1	1015	2151726	Washer, prop, small	1				
25	2,300-337	Brush end housing assembly	1	380	2302742	Spring, detent, off	1	1020	2198400	Nut, nylock, prop, Anode	1				
30	2,400-337	Plain end housing assembly	1	385	2060005	Bearing, handle pivot	2								
35	144-049	Flange bearing	1	390	2060900	Handle pivot, top	1								
40	880-003	Seal	1	395	2302745	Spring, release button	1								
45	880-006	Seal with shield	1	400	2063700	Button, release	1								
50	188-036	Brush	2	405	2060905	Handle pivot, bottom	1								
55	725-050	Paper tube	1	410	2303412	Screw, #6 x 5/8 SS	6								
60	738-036	Brush plate assembly	1												
65	975-040	Brush spring	2	415	2062715	Spring, handle pivot	1								
70	337-036	Gasket	1	425	2992523	Leadwire assy	1								
75	701-081	O-ring, motor	1												
80	701-008	O-ring, thru-bolt	2	■	2991845	Mount, Bow Assy									
85	830-007	Screw, 8-32	2			500-625]									
90	830-042	Thru-bolt	2	500	2251601	Rope	1								
95	990-067	Washer, steel	2	505	2150400	Pull grip	1								
100	990-070	Washer, nylon	2	510	2151700	Washer	1								
135	640-008	Leadwire, black	1	515	2264244	Arm, upper, std, sw	1								
136	640-107	Leadwire, red	1	520	2262604	Pin, bowguard, upper	1								
■	2888460	Seal and O-ring Kit		525	2261722	Washer, 5/16", ss	2								
				530	2223100	Nut, 5/16-18 SS	2								
200	2195656	Decal, c-box cover	1	535	2263500	Bolt, shoulder	2								
205	2060296	C-box cover	1	540	2293501	Bushing, SS	2								
208	2325666	Decal - MinnKota	2	545	2994351	Arm, Lower, std, sw	1								
210	2074080	Battery meter, 12v SW	1	550	2262622	Pin, clevis ss	1								
212	2070304	Wire, battery meter, blk	1	555	2263011	E-clip, ss	1								
	2070305	Wire, battery meter, red	1	560	2267318	Bushing, nylon	2								
220	2064028	Switch 5 speed	1	565	2261708	Washer, spacer, .010 thk	as reqd								
230	2062506	Control box, 5 SPD, SW	1	570	2153603	Eyeshaft, ss	1								
235	2062905	Strain relief	1	575	2262703	Spring stop	1								
240	2303412	Screw, #6 x 5/8 SS	6	580	2152701	Spring, lock bar, ss	1								
250	2033403	Screw, #10-24 x 1-3/4" PPH SS	1	585	2233621	Lock bar, front, ss	1								
260	2383124	Nut, 10-24, nylock, SS	1	586	2233623	Lock bar, back, ss	1								
265	2991521	Cam lock/depth collar assy	1	590	2152612	Spring pin, ss	2								
				595	2773983	Bowplate w/ insert, std, fw	1								
■	2991808	Hinge & door assembly [270-300]		600	2260505	Hinge pin, ss	1								
270	2151532	Hinge sleeve	2	605	2293811	Yoke, Max	1								
275	2991782	Hinge base assembly	1	610	2263917	Motor rest, std, fw	1								
280	2232315	Eyelet SS	1	615	2261505	Spacer, motor rest	6								
286	2236001	Bushing, nylon	4	620	2263434	Screw, #8, SS	2								
285	2264706	Insert, hinge base	1	625	2065677	Decal, motor rest	2								
290	2262642	Pin, hinge door	1												
295	2260902	Knob, door	1	■	2994830	Bag assembly									
300	2261859	Hinge door	1	700	2263431	Screw, 1/4-20 x 3 1/2" PPH, SS	6								
				701	2301720	Washer, rubber mounting	6								
310	2002013	Tube Composite 42"	1	702	2261713	Washer, 1/4 SS	6								
	2002014	Tube Composite 52"	1	703	2263101	Nut, 1/4-20 Nylock, SS	6								
				900	2263804	Strap, hold down (52" motor only)	1								

* This item is part of an assembly. This item cannot be sold separately due to machining and /or assembly that is required.

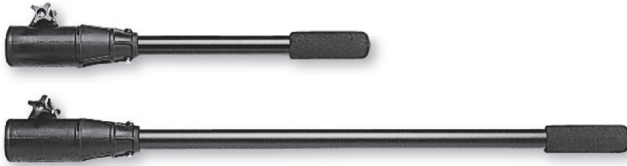
Minn Kota accessories available for your motor.



Portable Chargers



Power Center



Extension Handles



Quick Plugs

Minn Kota provides the best in boat motors equipment.