

**LIMITED LIFETIME WARRANTY ON COMPOSITE SHAFT,  
LIMITED THREE-YEAR WARRANTY ON ENTIRE PRODUCT:**

**Composite Shaft**

Johnson Outdoors Inc. warrants to the original purchaser that the composite shaft of the purchaser's Minn Kota® trolling motor is free from defects in materials and workmanship appearing within the original purchaser's lifetime. Johnson Outdoors will provide a new shaft, free of charge, to replace any composite shaft found to be defective more than three years after the date of purchase. Providing such a new shaft shall be the sole liability of Johnson Outdoors Inc. and the sole remedy of the purchaser for breach of this warranty; and purchaser shall be responsible for installing, or for the cost of labor to install, any new composite shaft provided by Johnson Outdoors Inc.

**Entire Product**

Johnson Outdoors Inc. warrants to the original purchaser that the purchaser's entire Minn Kota® trolling motor is free from defects in materials and workmanship appearing within three (3) years after the date of purchase. Johnson Outdoors will, at its option, either repair or replace, free of charge, any parts, including any composite shaft, found to be defective during the term of this warranty. Such repair or replacement shall be the sole liability of Johnson Outdoors Inc. and the sole remedy of the purchaser for breach of this warranty.

**Terms Applicable to Both Warranties**

These limited warranties do not apply to motors used commercially nor do they cover normal wear and tear, blemishes that do not affect the operation of the motor, or damage caused by accidents, abuse, alteration, modification, misuse or improper care or maintenance. Wiring a starter battery in series or parallel with the trolling motor supply batteries will void this warranty. The cost of normal maintenance or replacement of parts which are not defective are the responsibility of the purchaser.

To obtain warranty service in the U.S., the motor or part believed to be defective, and proof of original purchase (including the date of purchase), must be presented to a Minn Kota® Authorized Service Center or to Minn Kota's factory service center in Mankato, MN. Any charges incurred for service calls or transportation to/from the Minn Kota® Authorized Service Center or factory are the responsibility of the purchaser. Motors purchased outside of the U.S. (or parts of such motors) must be returned pre-paid with proof of purchase (including the date of purchase and serial number) to any Authorized Minn Kota® Service Center in the country of purchase. Warranty service can be arranged by contacting a Minn Kota® Authorized Service Center listed on the enclosed sheet, or by contacting the factory at 1-800-227-6433, 1-507-345-4623 or fax 1-800-527-4464. Note: Do not return your Minn Kota® motor or parts to your retailer. Your retailer is not authorized to repair or replace them.

**THERE ARE NO EXPRESS WARRANTIES OTHER THAN THESE LIMITED WARRANTIES. IN NO EVENT SHALL ANY IMPLIED WARRANTIES (EXCEPT ON THE COMPOSITE SHAFT), INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, EXTEND BEYOND THREE YEARS FROM THE DATE OF PURCHASE. IN NO EVENT SHALL JOHNSON OUTDOORS INC. BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.**

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.

"WARNING: This product contains chemical(s) known to the state of California to cause cancer and/or reproductive toxicity."



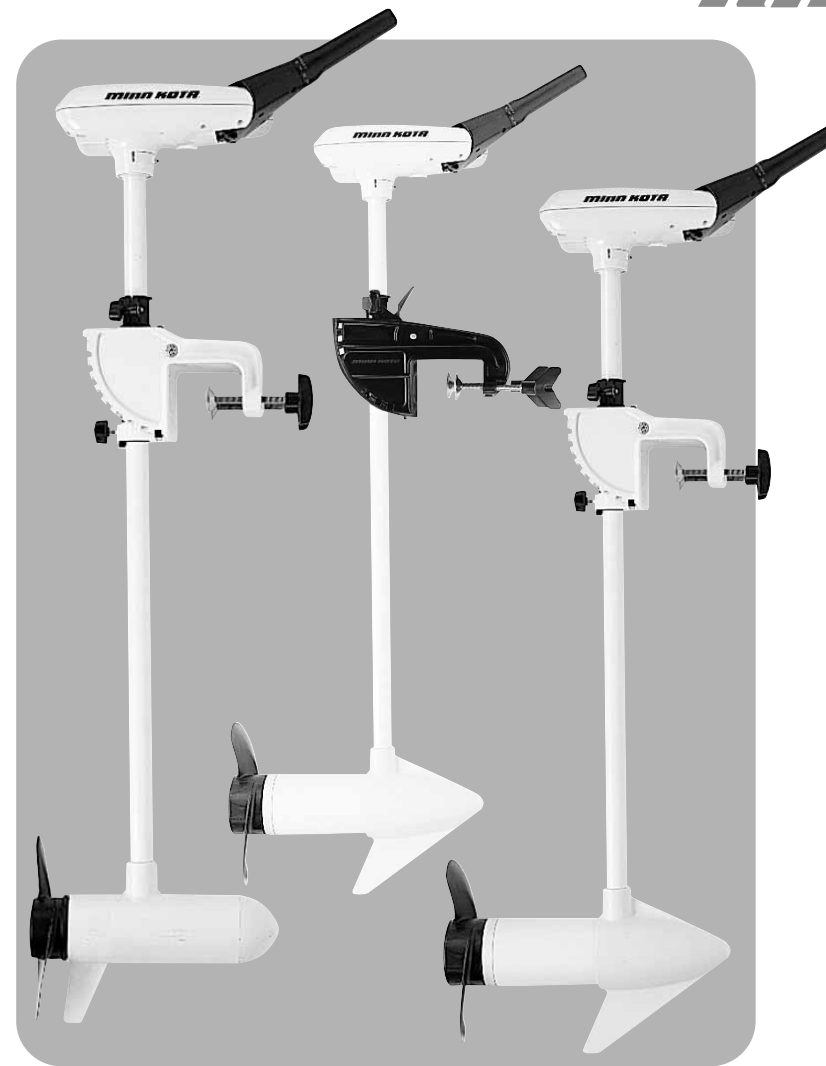
**Anywhere. Anytime.**

Visit our website at [www.minnkotamotors.com](http://www.minnkotamotors.com)

P/N 2097123 REV. C 5-03

# MINN KOTA®

## RIPTIDE



### RT/S

**Transom Mount  
Hand Control  
Saltwater  
Trolling Motors**

**OWNER'S MANUAL**

**CAUTION: READ THIS MANUAL CAREFULLY BEFORE OPERATING YOUR NEW TROLLING MOTOR. RETAIN FOR FUTURE REFERENCE.**

SERIAL NUMBER **MK** \_\_\_\_\_  
PURCHASE DATE \_\_\_\_\_

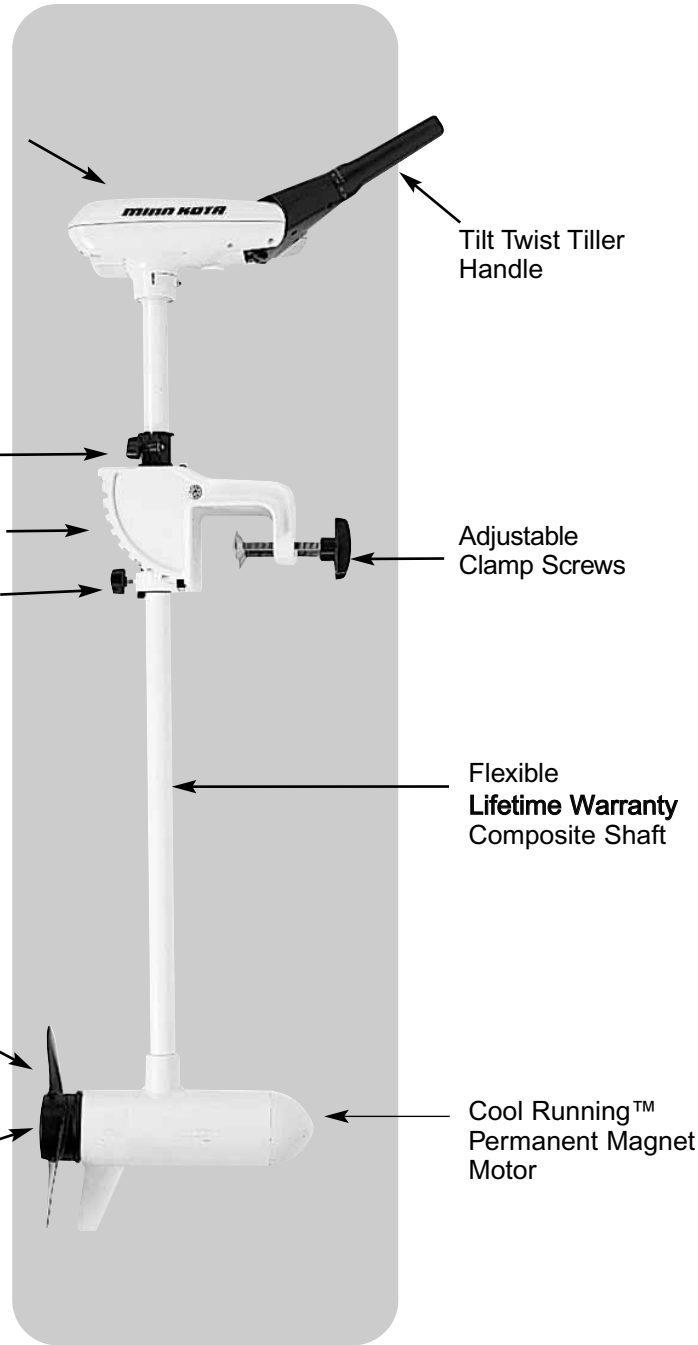
NOTE: DO NOT RETURN YOUR MINN KOTA MOTOR TO YOUR RETAILER. YOUR RETAILER IS NOT AUTHORIZED TO REPAIR OR REPLACE THIS UNIT. YOU MAY OBTAIN SERVICE BY:

- CALLING MINN KOTA AT: 1-800-227-6433 OR 1-507-345-4623;
- RETURNING YOUR MOTOR TO THE MINN KOTA FACTORY SERVICE CENTER;
- SENDING OR TAKING YOUR MOTOR TO ANY MINN KOTA AUTHORIZED SERVICE CENTER ON ENCLOSED LIST.

PLEASE INCLUDE PROOF OF PURCHASE, SERIAL NUMBER AND PURCHASE DATE FOR WARRANTY SERVICE WITH ANY OF THE ABOVE OPTIONS.

Feature Information \_\_\_\_\_ pg. 2  
Installation \_\_\_\_\_ pg. 3  
Operation \_\_\_\_\_ pg. 4  
Maximizer \_\_\_\_\_ pg. 4  
Battery \_\_\_\_\_ pg. 5-6  
Wiring Diagram \_\_\_\_\_ pg. 7-9  
Propeller Replacement \_\_\_\_\_ pg. 10  
Maintenance \_\_\_\_\_ pg. 11  
Troubleshooting \_\_\_\_\_ pg. 11  
Limited Warranty \_\_\_\_\_

Maximizer / Permanently Sealed Electronics [except RT40/42/50/S/W]



**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.

**MAINTENANCE:**

1. After use in salt or brackish water these units should be rinsed with fresh water, then wiped down with a cloth dampened with an aqueous based silicone spray such as Armoral®.
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 anode/nut is secure.
4. For prolonged storage, disconnect battery from motor and lightly coat all metal parts with silicone spray.
5. For maximum performance, restore battery to full charge before each use and keep battery terminals clean with fine sandpaper or emery cloth.
6. The composite shaft requires periodic cleaning and lubrication for proper retraction and deployment. A coating of Armoral® will provide "like new" operation.
7. The weedless 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.
8. Replace the sacrificial anode/nut and washer after 2000 hours of run time or 1.5 seasons, whichever comes first. See Propeller Replacement, steps 1 - 2 and 5 - 6.

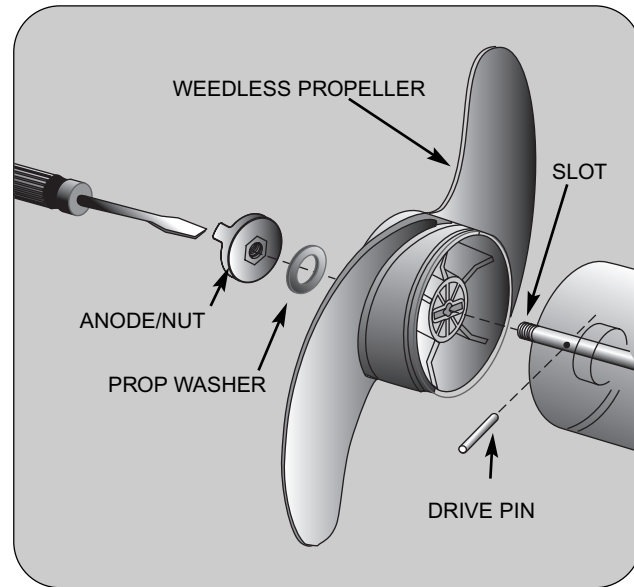
**TROUBLESHOOTING:**

1. Motor fails to run or lacks power:
    - Check battery connections for proper polarity.
    - Make sure terminals are clean and corrosion free. Use fine sandpaper or emery cloth to clean terminals.
    - Check battery water level. Add water if needed.
    - If connections are good and battery/batteries has full charge, obtain service as instructed in warranty.
  2. Motor loses power after a short running time:
    - Check battery / batteries charge, if low, restore to full charge.
  3. Motor is hard to steer.
    - Loosen steering tension knob.
    - Lubricate the composite shaft.
  4. If 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.

**CAUTION: DISCONNECT THE MOTOR FROM THE BATTERY BEFORE BEGINNING ANY PROP WORK OR MAINTENANCE.**

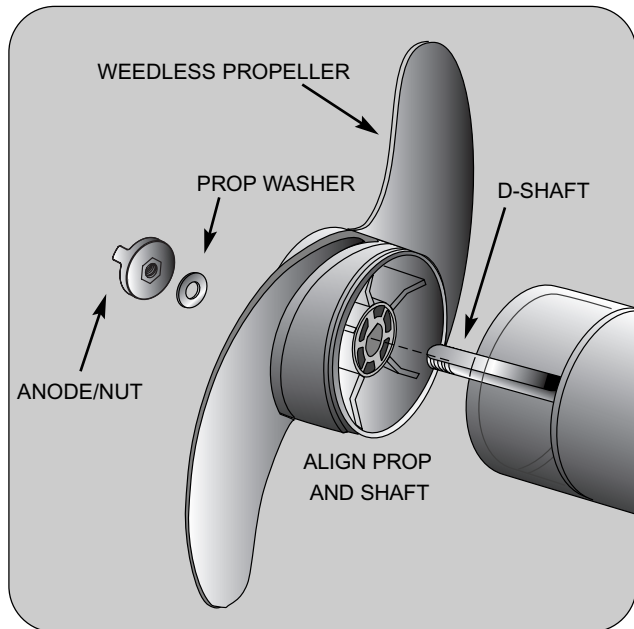
**PROPELLER REPLACEMENT:  
12 VOLT OR 24 VOLT MODEL**

1. Hold the propeller and loosen the anode/nut with a pliers or a wrench.
2. 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.
3. Turn the old prop to horizontal ( as illustrated ) and pull it straight off. If drive pin falls out, push it back in.
4. Align new propeller with drive pin.
5. Install prop washer and anode/nut .
6. Tighten anode/nut 1/4 turn past snug or to 25-35 inch lbs. Be careful, over tightening the anode/nut can damage the prop.



**PROPELLER REPLACEMENT:  
36 VOLT MODEL**

1. Hold the propeller and loosen the anode/nut with a pliers or a wrench.
2. Remove anode/nut and washer.
3. Turn the old prop to horizontal ( as illustrated ) and pull it straight off. If the drive pin falls out, push it back in.
4. Align the new propeller with the D-shaft.
5. Install the prop washer and anode/nut .
6. Tighten the anode/nut 1/4 turn past snug or to 25-35 inch lbs. Be careful, over tightening can damage the prop.



**MOUNT THE MOTOR:**

Install the motor on the transom of the boat. Be sure to [ *hand only* ] tighten the clamp screws securely.

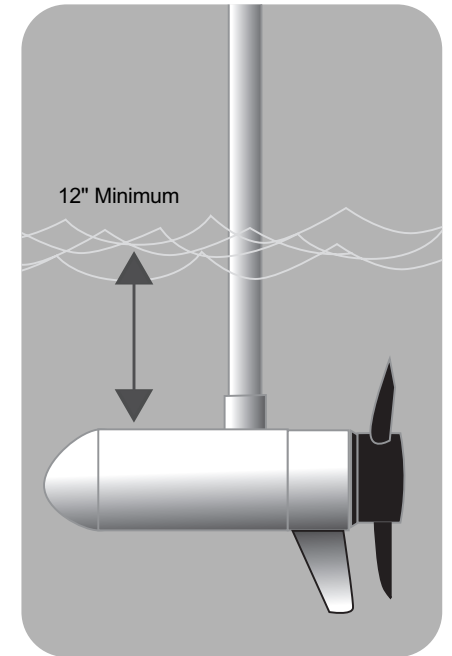
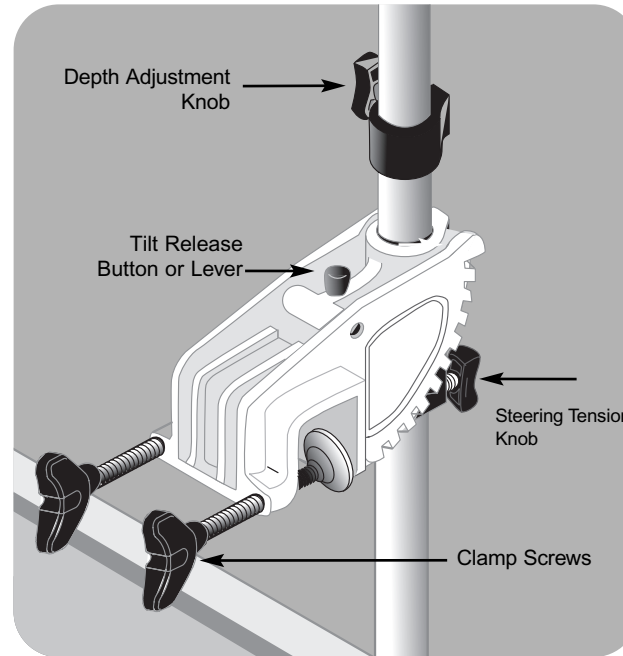
**DEPTH ADJUSTMENT:**

- Firmly grasp the composite shaft and hold it steady. Be careful, the RT101 is heavy.
- Loosen the steering tension knob and depth collar knob until the shaft slides freely.
- Raise or lower the motor to the desired depth.
- Tighten depth collar 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 the steering tension knob to provide enough tension to allow the motor to turn freely, yet remain in any position without being held or;
- Tighten the knob and lock the motor in a preset position to leave your hands free for fishing.



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

**BRACKET ADJUSTMENT:**

You can lock your motor in a vertical position, angle it for shallow water or tilt it completely out of the water.

- Firmly grasp the control head or composite shaft.

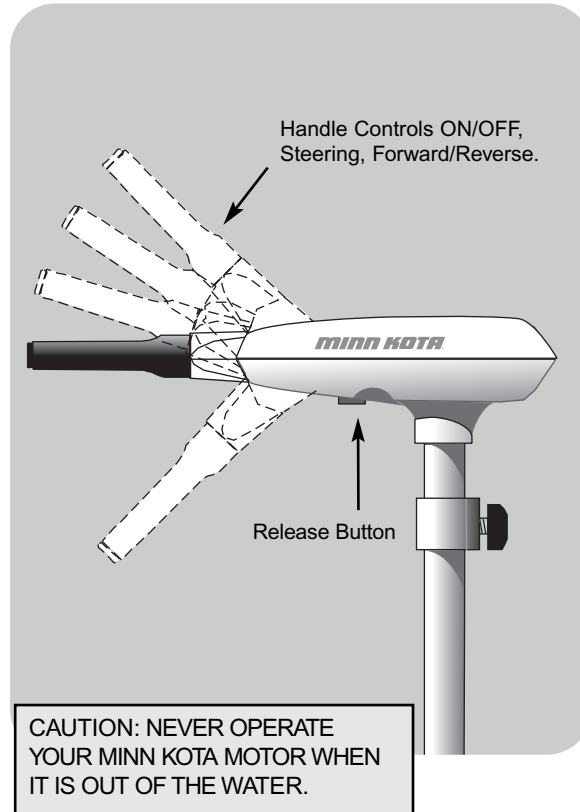
- Depress and hold the tilt release button.
- Tilt to any of the positions on the mounting bracket.
- Release the tilt button.

**TWIST TILLER**

These Riptide motors [except RT40/42/50/S/W] offer a choice of infinitely variable speeds as provided by the built-in Maximizer pulse width modulation system. The speed control may be operated in either direction, forward or reverse. Turn the tilt twist tiller handle counterclockwise from O (OFF) to increase reverse speed and clockwise from O (OFF) to increase forward speed. Thrust decreases as you approach O from either direction. The numbers printed on the twist grip handle represent a percentage of maximum thrust.

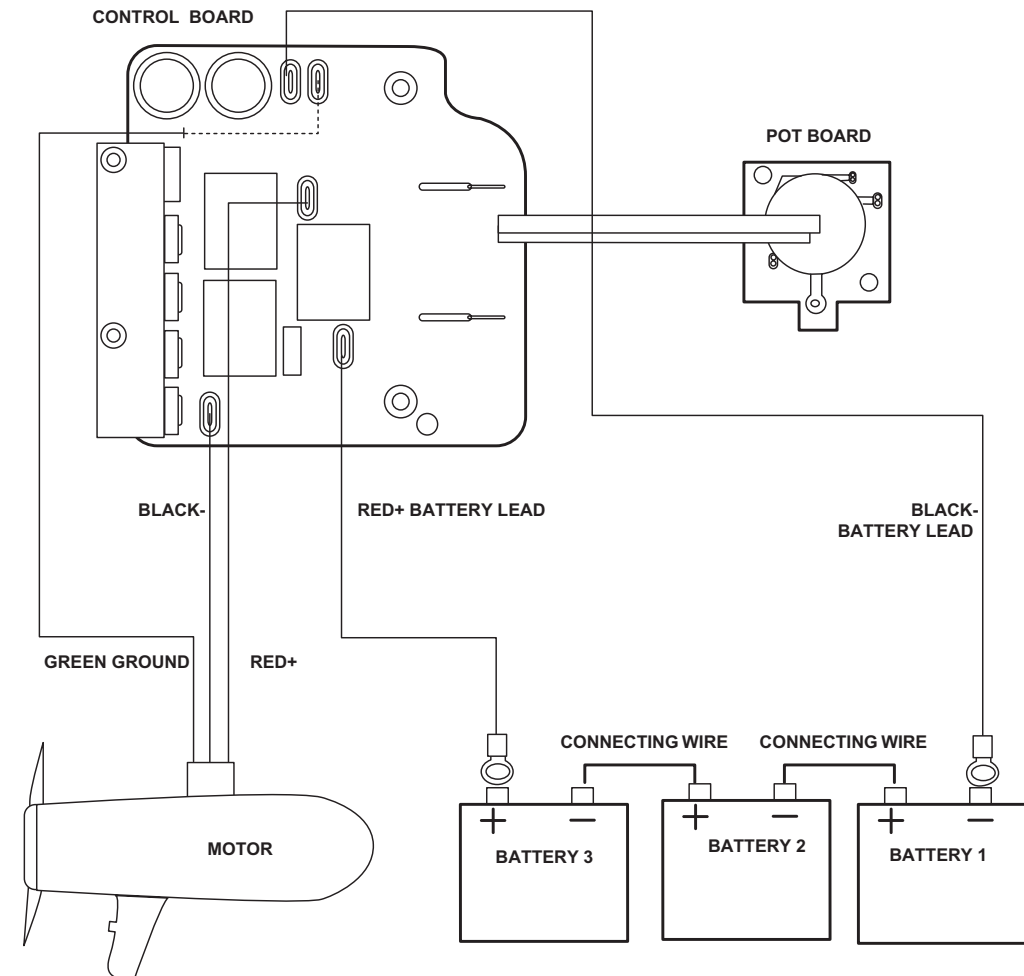
The RT40/42/50/S/W offers a choice of three reverse and five forward speeds.

The twist grip tiller handle is shipped in the down position. Firmly pull the handle up to the horizontal position. The handle has five available positions: 45° down, horizontal, 15°, 30° and 45° tilted up. The handle locks in the horizontal position, but can be tilted down by pushing the release button located on the left underside of the handle pivot.

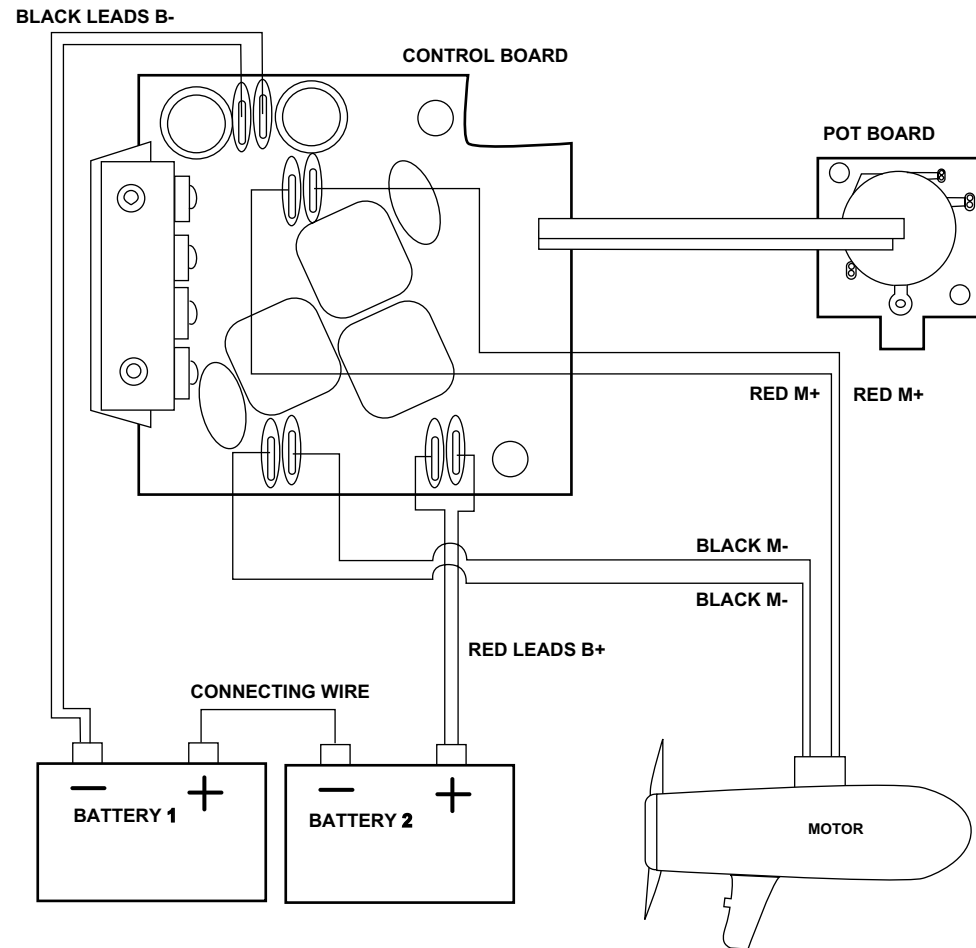
**MAXIMIZER: except RT40/42/50/S/W**

The built-in Maximizer's solid state 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 batteries for your trolling motor to alleviate this condition.

**VARIABLE SPEED 36 VOLT MODELS**

## VARIABLE SPEED 24 VOLT MODELS

**BATTERY INFORMATION:**

Riptide 12V motors will operate with a deep cycle marine 12 volt battery; 24V motors require two 12V batteries wired in series; 36 volt motors require three 12V batteries wired in series. For best results, use deep cycle Minn Kota marine batteries with at least a 105 ampere hour rating. As a general on the water estimate, your 12 volt motor will draw 1.0 ampere/hour, your 24 volt motor will draw .75 ampere/hour, 36 volt will draw .5 ampere/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 batteries 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. For best results, use a variable rate Minn Kota charger to avoid overcharging.

**BATTERY CONNECTION:****12 Volt System:**

- Connect the positive (+) red lead to the positive (+) battery terminal.
- Connect the negative (-) black lead to the negative (-) battery terminal.

**24 Volt System:**

Two 12 volt batteries are required. The batteries must be wired in series, as directed in wiring diagram to provide 24 volts.

- Connect the negative (-) black lead to negative (-) terminal of battery 1.
- Connect the connector cable to positive (+) terminal of battery 1 and to the negative (-) terminal of battery 2.
- Connect the positive (+) red lead to the positive (+) terminal on battery 2.

**36 Volt System:**

Three 12 volt marine batteries are required. The batteries must be wired in series, only as directed in wiring diagram, to provide 36 volts.

- Connect the negative (-) black lead to negative (-) terminal of battery 1.
- Connect a connector cable to positive (+) terminal of battery 1 and to the negative (-) terminal of battery 2.

- Connect another connector cable to positive (+) terminal of battery 2 and to the negative (-) terminal of battery 3.
- Connect the positive (+) red lead to the positive (+) terminal on battery 3.

Although the RIPTIDE 101 will run on voltages slightly below 24V, maximum thrust, at this level, will be reduced significantly (50%).

**NOTE: Do not use your crank battery as one of the supply batteries; crank batteries are not built for deep discharge service. Using the crank battery as one of the supply batteries will cause corrosion damage to your trolling motor and void the warranty.**

Refer to the wiring diagram on following pages before beginning hook-up.

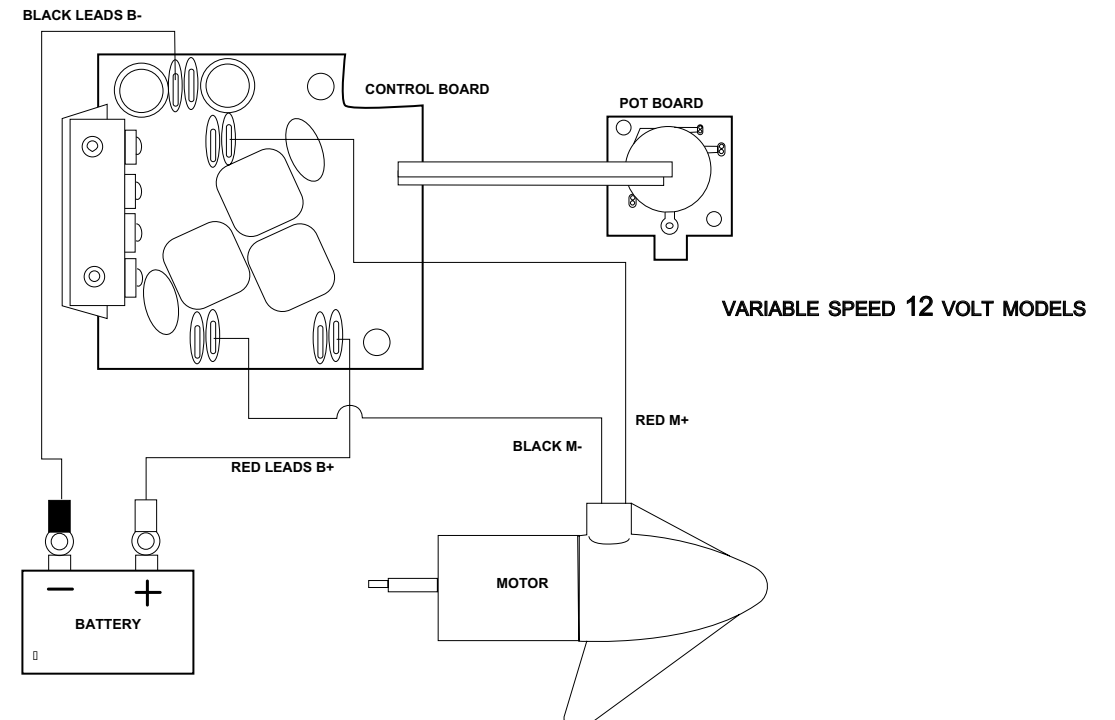
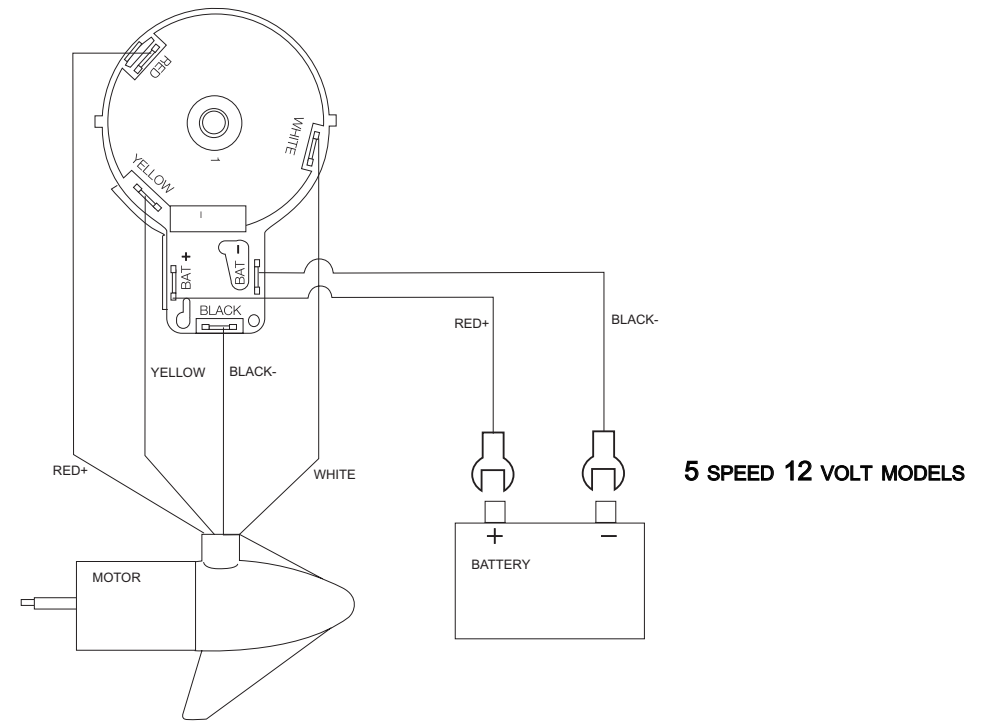
If installing a leadwire plug, observe proper polarity and follow instructions in your boat owner's manual.

**WARNING:**

- BEFORE CONNECTING BATTERY, MAKE SURE THE TWIST TILLER HANDLE IS IN THE OFF POSITION.
- USE 6 GAUGE WIRE TO EXTEND POWER LEAD.
- KEEP LEADWIRE CONNECTION TIGHT AND SOLID TO BATTERY TERMINALS.
- LOCATE BATTERIES IN A VENTILATED COMPARTMENT.
- WORKING WITH OR NEAR LEAD ACID BATTERIES IS DANGEROUS. BATTERIES CONTAIN SULFURIC ACID AND PRODUCE EXPLOSIVE GASES. IMPROPER WIRING MAY CAUSE BATTERY EXPLOSION AND COULD RESULT IN LOSS OF EYESIGHT OR SERIOUS BURNS.

NOTE: 36 VOLT MODEL- IF YOU EXPERIENCE DEPTH FINDER INTERFERENCE, ATTACH THE GREEN MOTOR GROUND WIRE TO THE CONTROL BOARD GROUND AS SHOWN IN THE WIRING DIAGRAM.

NOTE: USING THE CRANK BATTERY AS ONE OF THE SUPPLY BATTERIES, WILL CAUSE CORROSION DAMAGE TO YOUR TROLLING MOTOR AND WILL VOID YOUR WARRANTY.

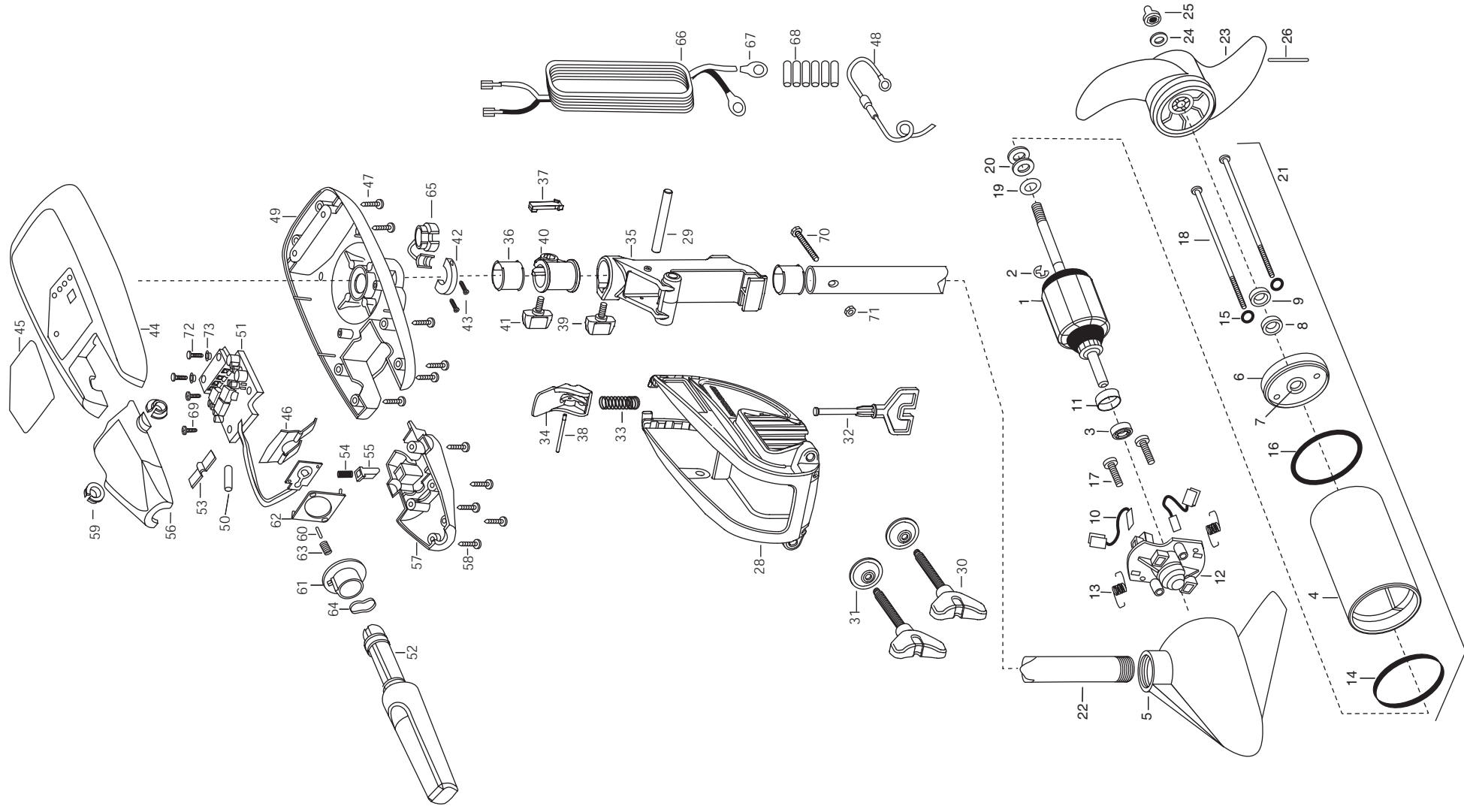








RT55/SW  
55 LBS. THRUST  
12 VOLT  
36" OR 42" SHAFT



In the U.S.A., replacement parts may be ordered directly from MINN KOTA Parts Dept., 706 Holly Lane, P.O.Box 8129, Mankato, Minnesota 56002-8129. In Canada, parts may be ordered from any of the Canadian Authorized Service Centers shown on the enclosed list. Be sure to provide the MODEL and SERIAL numbers of your motor when ordering parts. Please use the correct part numbers from the parts list. Payment for any parts ordered from the MINN KOTA parts department, may be by cash, personal check, Discover Card, MasterCard or VISA. To order, call 1-800-227-6433 or FAX 1-800-527-4464.

Fuera de los Estados Unidos, consultar la lista anexa para ubicar el Centro de servicio autorizado MINN KOTA. No dejar de incluir el número del MODELO y el número de SERIE del motor para el cual se solicitan las piezas. Usar siempre los números de pieza correctos indicados en la lista de piezas.

Hors de États-Unis, voir la liste ci-jointe pour le Centre de Service Agréé MINN KOTA le plus proche. Lors d'une commande, ne pas oublier de fournir le numéro de modèle et le numéro de série du moteur. Toujours mentionner le numéro de pièce exact figurant sur la liste des pièces de rechange.

Fora da América do Norte, queira consultar a lista anexa para identificar o Centro de Serviço Autorizado MINN KOTA. Não deixe de incluir o número do MODELO e o número de SÉRIE do seu motor ao pedir peças. Sempre use os números corretos das peças da lista de peças.

1	2-100-013	ARMATURE ASSEMBLY12V 3.625 55#	37	2062800	TENSION BLOCK- SNAP IN" [2.EA ]
2	788-015	RETAINING RING	38	2060516	PIN-TILT LEVER ENDURA
3	140-010	BEARING -BALL	39	2011386	SCREW-TENSION/NEW KNOB
4	2-200-301	CENTER HOUSING ASSEMBLY 3.62 SW WHT	40	2061520	COLLAR-DEPTH
5	421-336	HOUSING BRUSH END 3.625 SW WH	41	2011366	SCREW-COLLAR/NEW KNOB SS [2.EA ]
6	2-400-337	PLAIN END HOUSING 3.625 S/W	42	2061517	COLLAR-CTRL BOX WHITE
7	144-049	BEARING - FLANGE (SERVICE ONLY)	43	2263434	SCREW-#8X1" PPH TYPE 25 SS [2.EA]
8	880-003	SEAL	44	2300219	COVER-CONTROL BOX RIPTIDE WHITE
9	880-006	SEAL WITH SHIELD	45	2095681	DECAL-COVER RT55/S/B WHT
10	188-036	BRUSH ASSEMBLY [2. EA]	46	2302743	SPRING-DETENT HANDLE-TILT
11	725-050	BRUSH RETENTION	47	2303412	SCREW- 6-20X5/8 SELF TAP [6.EA ]
12	738-036	BRUSH PLATE W/HOLDER	48	2060310	CONNECT'GROUND WIRE-FUSED
13	975-040	SPRING - TORSION [2.EA]	49	2062596	CONTROL BOX,SW, WHT .725 BORE
14	337-036	GASKET	50	2305410	SHRINK TUBING
15	701-008	O-RING [2. EA]	51	2334006	CONTROL BOARD ASSEMBLY
16	701-081	O-RING	52	2990915	HANDLE ASSEMBLY W/O U-JOINT
17	830-007	SCREW #8-32 [2.EA ]	53	2302742	SPRING-DETENT (OFF) SS
18	830-042	THRU BOLT 10-32X8.83 [2. EA]	54	2302745	SPRING-RELEASE BUTTON SS
19	990-067	WASHER - STEEL THRUST	55	2303720	RELEASE BUTTON-HANDLE
20	990-070	WASHER - NYLATRON [2.EA]	56	2060411	HANDLE- TOP HALF MAXIMIZE
21	2099096	MOTOR ASSEMBLY 12V 3.625 VARS SW	57	2060415	HANDLE- LOWER HALF
22	2032031	TUBE (COMPOSITE) 36"	58	2303412	SCREW- 6-20X5/8 SELF TAP [5.EA ]
	2032032	TUBE (COMPOSITE) 42"	59	2060005	BEARING-HANDLE PIVOT [2.EA ]
	■ 1378122	PROPELLER KIT	60	2302600	PIN-ACTUATOR
23	2091150	PROPELLER W/WEDGE	61	2302850	ACTUATOR-CAM
24	2151726	WASHER- 5/16 STD SS	62	2302851	ACTUATOR-FWD/REV
25	2198400	ANODE-ZINC 3.25/3.625 LWR U	63	2302740	SPRING- ACTUATOR
26	2092600	PIN-DRIVE	64	2302741	SPRING- CAM ZNC PLTD STEEL
	■ 2991814	BRACKET & HINGE ASSEMBLY ENDURA SW	65	2052900	STRAIN RELIEF-C.CORD/SP.C
28	2061910	BRACKET	66	2090600	LEADWIRE (10 GA) RINGS
29	2330511	PIN-HINGE ENDURA SS	67	2020700	TERMINAL RING, 3/8" [2.EA ]
30	2061301	SCREW-CLAMP ENDURA [2.EA ]	68	2305401	SHRINK TUBE- .374 X 1.50 [4 EA.]
31	2331700	WASHER-CLAMP SCREW 1.5 OD [2.EA ]	69	2372100	SCREW- 8-18X5/8 THD SS [2.EA ]
32	2063605	T-BAR PLASTIC ENDURA	70	2263406	SCREW- 10-24X2 SS
33	2062706	SPRING- T-BAR ENDURA	71	2333101	NUT-10-24 NYLOCK UNC-2B
34	2067201	LEVER- TILT ENDURA BLACK	72	2301310	SCREW- 8-18X1/2 SS [2.EA ]
35	2061810	HINGE- PLASTIC ENDURA	73	2301710	WASHER-INSUL. TRANSF.BAR [2.EA ]
36	2037301	BUSHING-HINGE [2.EA ]			

\* This item is part of an assembly. This item cannot be sold separately due to machining and /or assembly that is required. p/n 2094905 REV.B 1-04