

MotorGuide®

**Operation
Maintenance
Installation
Warranty
Manual**

R3-30/R3-40/R3-45/R3-55


EU Compliance Statement

Attwood Corporation hereby declares that the MotorGuide R3 trolling motor is in compliance with the essential requirements and other relevant provisions of the 99/5/EC R&TTE directive.

CE Declaration

Manufacturer: **Attwood Corporation**

Product: **MotorGuide R3 Series**

Model: includes all 12, 24, and 36  volt DC models

Council Directive 2004/108/EC - Electromagnetic Compatibility

- **EN 55012:2008; A1:2010** - Vehicles, boats and internal combustion engines.

Council Directive 98/96/EC - Maritime Equipment Directive

- **EN 60945:2002+C1:2008** - Maritime navigation and radiocom. equip. (Motor systems)
 - CISPR16 - Conducted and Radiated Emissions
 - EN61000-4-2:2008 ESD
 - EN61000-4-3:2006 Radiated Immunity
 - EN61000-4-4:2004 EFT
 - EN61000-4-5:2005 Surges
 - EN61000-4-6:2008 Conducted Susceptibility
 - EN61000-4-8:2001 Magnetic Field Immunity
 - EN6100-4-11:2004 Voltage Dips and Interrupts

Council Directive 2006/42/EC - Machinery

- **EN ISO 12100** - Safety of machinery - General principles for design, risk assessment and reduction

Thank You

Thank you for choosing MotorGuide, one of the finest trolling motors available. Years of experience have been committed to the goal of producing the finest quality products. This led to MotorGuide's reputation for strict quality control, excellence, durability, long-lasting performance and being the best at providing after-the-sale service and support.

Please read this manual carefully before operating your motor. This manual has been prepared to assist you in the operation, safe use, and care of your trolling motor.

Again, thank you for your confidence in MotorGuide.

GENERAL INFORMATION

Boater's Responsibilities

The operator (driver) is responsible for the correct and safe operation of the boat and safety of its occupants and general public. It is strongly recommended that each operator (driver) read and understand this entire manual before operating the trolling motor.

Be sure at least one additional person on board is instructed in the basic operation of the trolling motor in case the driver is unable to operate the boat.

Protecting People in the Water

WHILE YOU ARE TROLLING

It is very difficult for a person in the water to take quick action to avoid a boat heading in their direction, even at slow speeds.



Always slow down and exercise extreme caution any time you are boating in an area where there might be people in the water.

WHILE THE BOAT IS STATIONARY

▲ WARNING

A spinning propeller, a moving boat, or any solid device attached to the boat can cause serious injury or death to swimmers. Stop the trolling motor immediately whenever anyone in the water is near your boat.

Shut off the trolling motor before allowing people to swim or be in the water near your boat.

Passenger Safety Message

Whenever the boat is in motion, observe the location of all passengers. A sudden reduction in boat speed, such as a sharp change of boat direction, could throw them off the boat.

Safe Boating Suggestions

In order to safely enjoy the waterways, familiarize yourself with local and other governmental boating regulations and restrictions, and consider the following suggestions.

GENERAL INFORMATION

Use flotation devices. It is the law to have an approved personal flotation device of suitable size for each person aboard and have it readily accessible.

Do not overload your boat. Most boats are rated and certified for maximum load (weight) capacities, refer to your boat capacity plate. If in doubt, contact your dealer or the boat's manufacturer.

Perform safety checks and required maintenance. Follow a regular schedule and ensure all repairs are made properly.

Never be under the influence of alcohol or drugs while boating (it is the law). Alcohol or drug use impairs your judgment and greatly reduces your ability to react quickly.

Passenger boarding. Stop the trolling motor whenever passengers are boarding or unloading.

Be alert. The operator of the boat is responsible by law to maintain a proper lookout by sight and hearing. The operator must have an unobstructed view particularly to the front. No passengers, load, or fishing seats should block the operators view when operating the boat.

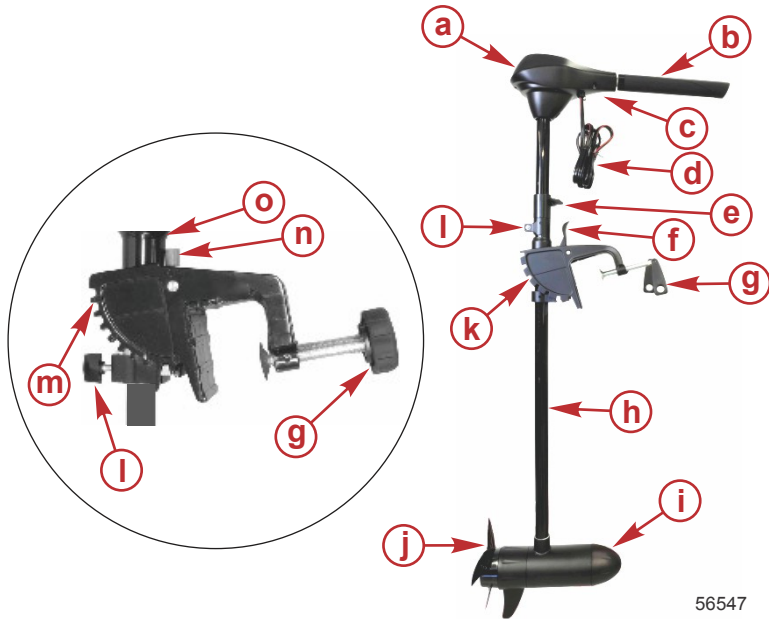
Underwater hazards. Reduce speed and proceed with caution whenever navigating in shallow water.

Tripping hazards. To avoid a trip hazard, route all cables and wiring neatly and out of the way.

Report accidents. Boat operators are required by law to file a Boating Accident Report with their state boating law enforcement agency when their boat is involved in certain boating accidents. A boating accident must be reported if 1) there is loss of life or probable loss of life, 2) there is personal injury requiring medical treatment beyond first aid, 3) there is damage to boats or other property where the damage value exceeds \$500.00 or 4) there is complete loss of the boat. Seek further assistance from local law enforcement.

PRODUCT OVERVIEW

R3-30/R3-40/R3-45/R3-55 MotorGuide Trolling Motor



- a** - Top housing
- b** - Extendable speed control tiller handle
- c** - Serial number
- d** - Positive and negative battery leads
- e** - Depth adjustment collar (R3-45/55 model shown)
- f** - Tilt lock release lever (R3-45/55 model shown)
- g** - Transom clamp screws
- h** - Column
- i** - Lower unit
- j** - Propeller
- k** - Clamp bracket (R3-45/55 model shown)
- l** - Steering tension collar
- m** - Clamp bracket assembly (R3-30/40 model shown)
- n** - Tilt lock release button (R3-30/40 model shown)
- o** - Collar (R3-30/40 model shown)

56547

PRODUCT OVERVIEW

Specifications

Model	Control	Freshwater/ Saltwater	Volts	Speeds Forward/ Reverse	Peak Thrust	Shaft Length
R3-30	Extendable hand/ twist-tiller	Freshwater	12 V	5/2	13.6 kgf (30 lbf)	76.2 cm (30 in.)
R3-40	Extendable hand/ twist-tiller	Freshwater	12 V	5/2	18.1 kgf (40 lbf)	91.4 cm (36 in.)
R3-40 FW Digital	Extendable hand/ twist-tiller	Freshwater	12V	Variable	18.1 kgf (40 lbf)	91.4 cm (36 in.)
R3-45	Extendable hand/ twist-tiller	Freshwater	12 V	5/2	20.4 kgf (45 lbf)	91.4 cm (36 in.)
R3-45 SW Digital	Extendable hand/ twist-tiller	Saltwater	12 V	Variable	20.4 kgf (45 lbf)	45.7 cm (18 in.)
R3-45 SW Digital	Extendable hand/ twist-tiller	Saltwater	12 V	Variable	20.4 kgf (45 lbf)	91.4 cm (36 in.)
R3-45 FW Digital	Extendable hand/ twist-tiller	Freshwater	12 V	Variable	20.4 kgf (45 lbf)	91.4 cm (36 in.)
R3-55	Extendable hand/ twist-tiller	Freshwater	12 V	5/2	24.9 kgf (55 lbf)	91.4 cm (36 in.)
R3-55 FW Digital	Extendable hand/ twist-tiller	Freshwater	12 V	Variable	24.9 kgf (55 lbf)	91.4 cm (36 in.)
R3-55 FW Digital	Extendable hand/ twist-tiller	Freshwater	12 V	Variable	24.9 kgf (55 lbf)	106.7 cm (42 in.)
R3-55 SW Digital	Extendable hand/ twist-tiller	Saltwater	12 V	Variable	24.9 kgf (55 lbf)	91.4 cm (36 in.)

WIRING AND BATTERY INFORMATION

Wiring and Battery Information

⚠ WARNING

An operating or charging battery produces gas that can ignite and explode, spraying out sulfuric acid, which can cause severe burns. Ventilate the area around the battery and wear protective equipment when handling or servicing batteries.

⚠ WARNING

Performing service or maintenance without first disconnecting the battery can cause product damage, personal injury, or death due to fire, explosion, electrical shock, or unexpected motor starting. Always disconnect the battery cables from the battery before maintaining, servicing, installing, or removing motor components.

Standard Practices and Procedures

When installing or removing this trolling motor, follow these guidelines:

- Disconnect the trolling motor from the trolling motor battery.
- Do not use the main engine battery to power the trolling motor.

Battery Recommendations

- Use 12-volt, deep cycle marine batteries. The number of batteries required varies according to the model of your trolling motor. Refer to **Battery Connection**.
- As a general rule, deep cycle batteries with a higher amp-hour rating or reserve capacity rating will provide longer run times and better performance.
- Install a manual reset circuit breaker in line with the trolling motor positive leads within 180 cm (72 in.) of the batteries.
- Do not extend the included 10-gauge battery cables more than 1.8 m (6 ft) for a total of 3 m (10 ft). If longer battery cables are required, MotorGuide offers accessory 8 mm² (8-gauge) battery cables.
- Use nylock nuts to secure the battery cables to their terminals. Using wing nuts to secure the battery cables can cause loose connections.
- Any depth sounders or fish finders must be powered from the engine starting battery. Connecting electronic equipment to the trolling motor batteries can cause electrical interference and possible electrolysis.

Battery Precautions

⚠ WARNING

An operating or charging battery produces gas that can ignite and explode, spraying out sulfuric acid, which can cause severe burns. Ventilate the area around the battery and wear protective equipment when handling or servicing batteries.

WIRING AND BATTERY INFORMATION

When charging batteries, an explosive gas mixture forms in each cell. Part of this gas escapes through holes in the vent plugs and may form an explosive atmosphere around the battery if ventilation is poor. This explosive gas may remain in or around the battery for several hours after it has been charged. Sparks or flames can ignite this gas and cause an internal explosion, which may shatter the battery.

The following precautions should be observed to prevent an explosion:

1. Do not smoke near batteries being charged or which have been charged very recently.
2. Do not break live circuits at terminals of batteries, because a spark usually occurs at the point where a live circuit is broken. Always be careful when connecting or disconnecting cable clamps on chargers. Poor connections are a common cause of electrical arcs which cause explosions.
3. Do not reverse polarity of battery terminal to cable connections.

Wire and Cable Routing

- Route the trolling motor wires on the opposite side of the boat from other boat wiring.
- Sensitive electronics, such as depth finders, should be connected directly to the main engine battery. Single battery systems require separate connection cables.

Battery Connection

▲ CAUTION

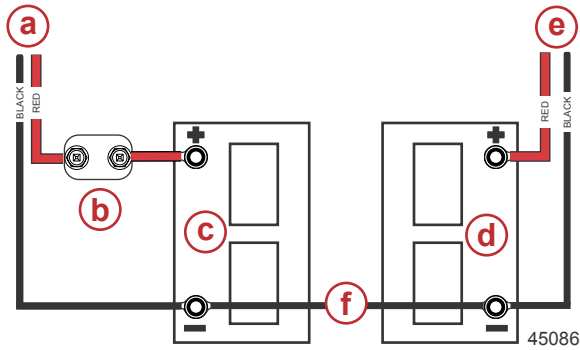
Disconnecting or connecting the battery cables in the incorrect order can cause injury from electrical shock or can damage the electrical system. Always disconnect the negative (-) battery cable first and connect it last.

12-VOLT BATTERY CONNECTION

1. Install a 50-amp (good) or 60-amp (best) manual reset circuit breaker in line with the trolling motor power cable positive (+) lead and the battery positive (+) terminal. Connect the trolling motor positive lead to the trolling motor battery positive (+) terminal.
2. Connect the black trolling motor power cable negative (-) lead to the trolling motor battery negative (-) terminal.

WIRING AND BATTERY INFORMATION

3. Connect a common ground bond from the trolling motor battery negative (-) terminal to the engine starting battery negative (-) terminal.



- a** - Power cables to trolling motor
- b** - Manual reset circuit breaker
- c** - Trolling motor battery
- d** - Engine starting battery
- e** - Power cables to engine
- f** - Common ground bond

Recommended MotorGuide Accessory Description	Part Number
8-gauge battery cable and terminals with 50-amp manual reset circuit breaker	MM309922T
50-amp manual reset circuit breaker	MM5870
60-amp manual reset circuit breaker	8M0064076

TROLLING MOTOR INSTALLATION AND OPERATION

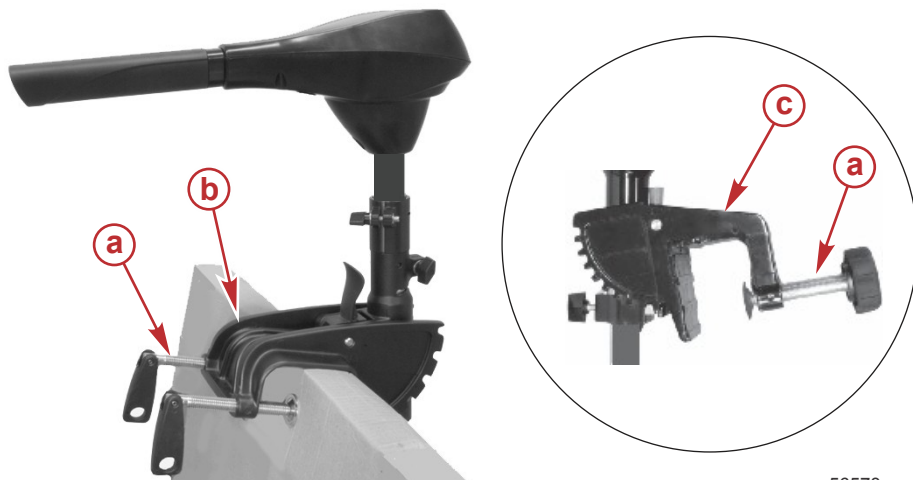
Transom Mount Installation

NOTE: The R3-30 and R3-40 fit transoms up to 7.62 cm (3 in.). The R3-45 and R3-55 fit transoms up to 8.9 cm (3.5 in.).

1. Place the trolling motor on the transom of the boat.

IMPORTANT: Overtightening the transom clamp screws can weaken or damage the mount bracket.

2. Tighten the transom clamp screws securely by hand.



56578

- a - Transom clamp screw
- b - Mount bracket (R3-45/55 model shown)
- c - Mount bracket (R3-30/40 model shown)

Stowing and Deploying the Trolling Motor

⚠ WARNING

Rotating propellers can cause serious injury or death. Never start or operate the motor out of water.

STOWING THE MOTOR

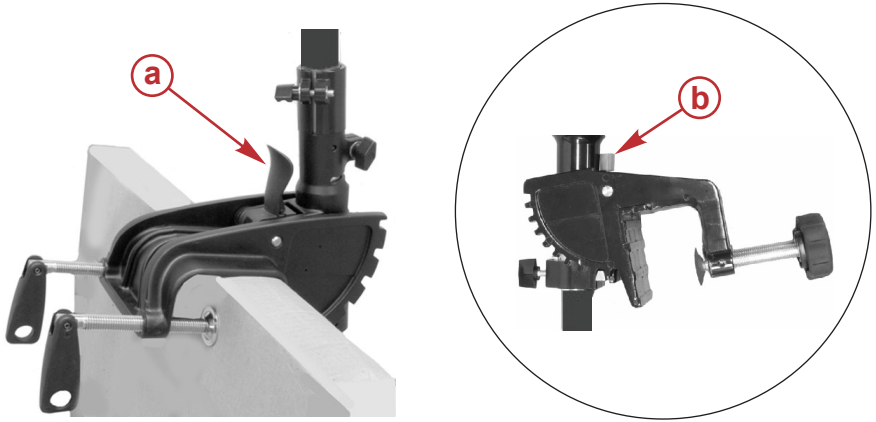
⚠ CAUTION

Moving parts, such as hinges and pivot points, can cause serious injury. Keep away from moving parts when stowing, deploying, or tilting the motor.

1. To change the drive angle or tilt the trolling motor:

TROLLING MOTOR INSTALLATION AND OPERATION

- R3-30 and R3-40 models - push down on the tilt lock release pin while simultaneously pulling on the trolling motor head/column. Do not exert downward force on the tiller handle to assist in tilting the trolling motor.
- R3-45 and R3-55 models - push aft on the tilt lock release lever while simultaneously pulling on the trolling motor head/column. Do not exert downward force on the tiller handle to assist in tilting the trolling motor.

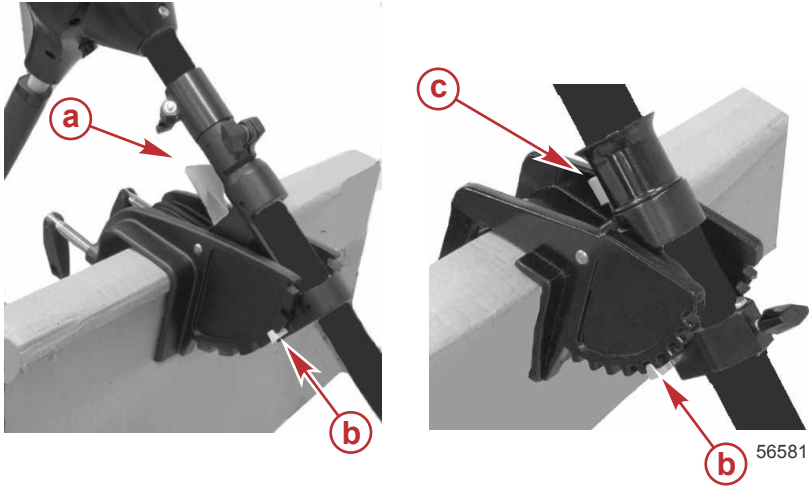


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- a** - Tilt lock release lever (R3-45 and R3-55 model shown)
- b** - Tilt lock release pin (R3-30 and R3-40 model shown)

TROLLING MOTOR INSTALLATION AND OPERATION

- When the desired tilt position is achieved, release the tilt lock release pin/lever. Verify that the latch pin is securely engaged.



- a** - Tilt lock release lever (R3-45 and R3-55 model shown)
- b** - Latch pin
- c** - Tilt lock release pin (R3-30 and R3-40 model shown)

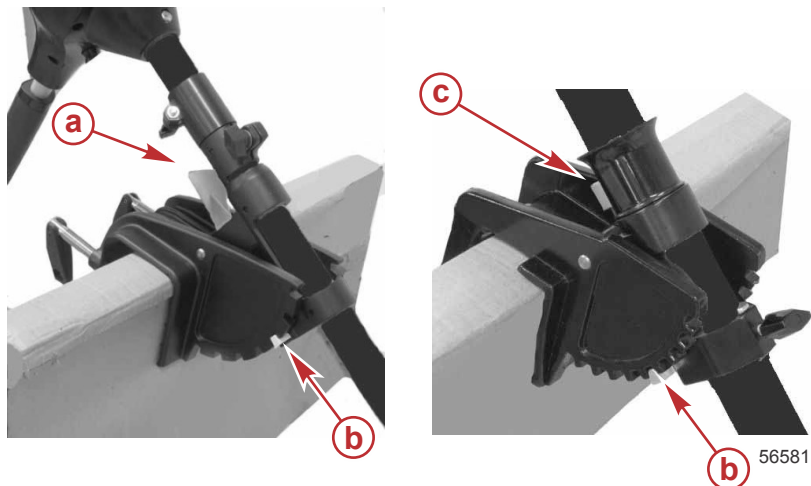
DEPLOYING THE MOTOR

⚠ CAUTION

Moving parts, such as hinges and pivot points, can cause serious injury. Keep away from moving parts when stowing, deploying, or tilting the motor.

TROLLING MOTOR INSTALLATION AND OPERATION

1. Firmly grasp the trolling motor head/column and press on the tilt lock release pin/lever.



- a** - Tilt lock release lever (R3-45 and R3-55 model shown)
- b** - Latch pin
- c** - Tilt lock release pin (R3-30 and R3-40 model shown)

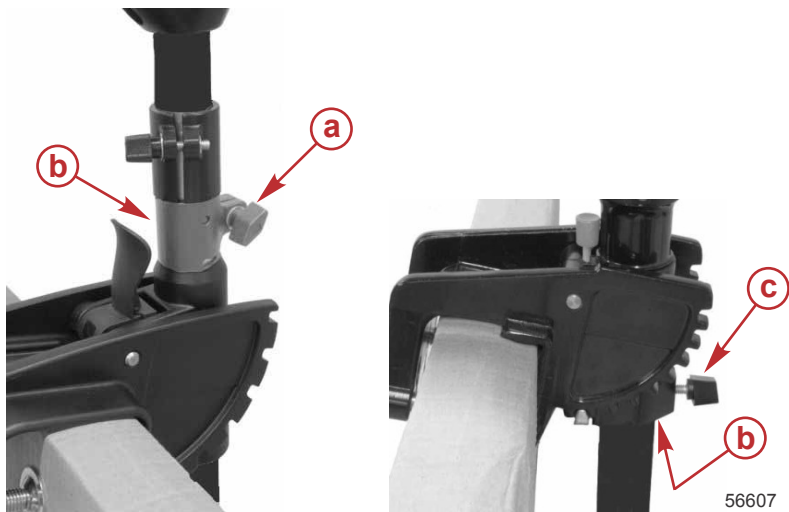
2. Adjust the angle of the motor to the desired position.
3. Release the tilt lock release pin/lever. Verify that the latch pin is securely engaged.

Adjusting the Steering Tension

1. Turn the steering tension knob clockwise to increase steering effort.

TROLLING MOTOR INSTALLATION AND OPERATION

- Turn the steering tension knob counterclockwise to decrease steering effort.



- a** - Steering tension knob (R3-45 and R3-55 model shown)
- b** - Friction strip
- c** - Steering tension knob (R3-30 and R3-40 model shown)

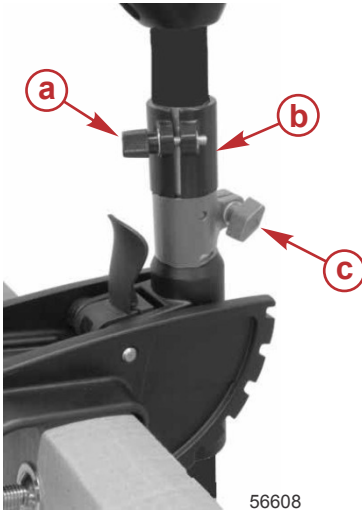
Adjusting the Motor Depth

Adjusting the depth of the motor improves trolling motor performance in various water depths.

NOTE: It may be necessary to loosen the steering tension knob before adjusting the motor depth. High steering tension will prevent the motor column from moving up and down freely.

TROLLING MOTOR INSTALLATION AND OPERATION

Firmly grasp the column with one hand while turning the depth collar adjustment knob counterclockwise until the motor column slides freely. To secure the column in the desired depth position, turn the depth collar adjustment knob clockwise and tighten securely. Readjust steering tension if necessary.



- a - Depth collar adjustment knob
- b - Depth collar
- c - Steering tension knob (R3-45 and R3-55 model shown)

IMPORTANT: When adjusting the motor depth, ensure that the lower unit is submerged at least 25 cm (9.8 in.) to avoid propeller cavitation in choppy water.

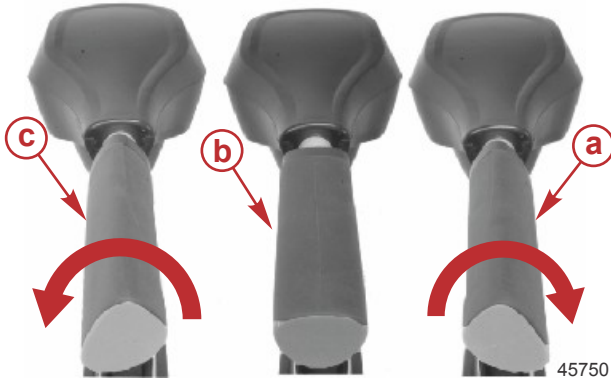
Speed Control—Hand-Operated Models

Adjust the speed control to the desired direction and thrust level. Rotate the twist-tiller handle clockwise for forward movement or counterclockwise for reverse movement. The "off" handle position stops the motor.

Five-speed models have five forward speed settings and two reverse speed settings.

TROLLING MOTOR INSTALLATION AND OPERATION

Digital variable speed models allow you to select any speed from 0–10 in forward or reverse.



- a** - Forward speed control
- b** - Off
- c** - Reverse speed control

Battery Indicator Light (Digital Models Only)

The battery indicator light (located on the head cover) provides battery state-of-charge information at a glance. The battery light will turn on when the trolling motor is connected to the battery, and will remain on the entire time that the motor is connected to the battery. Depending on the battery state-of-charge, the light will either be green (charged) or red (discharged).

MAINTENANCE

Trolling Motor Care

To keep your trolling motor in the best operating condition and retain its dependability, it is important that your trolling motor receive periodic inspections and maintenance. We urge you to keep it maintained properly to ensure the safety of you and your passengers.

WARNING

Neglecting to inspect, maintain, or repair your trolling motor can result in product damage or serious injury or death. Do not perform maintenance or service on your trolling motor if you are not familiar with the correct service and safety procedures.

SELECTING REPLACEMENT PARTS

We recommend using original MotorGuide Certified Tough replacement parts.

Inspection and Maintenance Schedule

BEFORE EACH USE

- Check the trolling motor for tightness on the transom.
- Check the tightness of the battery lead connections.
- Visually inspect for loose or corroded wiring connections.
- Check the tightness of the propeller nut.
- Check the propeller blades for damage.

AFTER EACH USE

- Disconnect the battery cables from the power source.
- Check the propeller and the propeller shaft for debris such as weeds and fishing line. Remove all debris.
- Rinse the trolling motor with clean water to remove dirt and dust that may scratch the surface.

EVERY 100 HOURS OF USE OR ANNUALLY

- Periodically lubricate all the pivot points. Refer to **Lubricating the Pivot Points**.
- Check the tightness of bolts, nuts, and other fasteners.
- Inspect the battery. Refer to **Battery Inspection**.

STORAGE PREPARATION

The major consideration in preparing the trolling motor for storage is to protect it from corrosion and damage caused by freezing of trapped water.

Complete the appropriate care instructions to prepare the trolling motor for storage. Store the trolling motor in a dry location where it will not be affected by temperatures below -29 °C (-20 °F).

MAINTENANCE


IMPORTANT: Trolling motors stored in temperatures below 0 °C (32 °F) should be operated slowly for a minimum of 15 minutes before going above 30% operation.

Lubricating the Pivot Points

To reduce friction, lubricate the following pivot points periodically:

- Pivot pin
- Latch pin
- Tilt positioning pin/lever
- Tilt positioning pin/lever spring

IMPORTANT: Never use an aerosol lubricant to grease or oil any part of the unit. Many aerosol lubricants contain harmful propellants that can cause damage to various parts of the trolling motor.

Tube Ref No.	Description	Where Used	Part No.
 95	2-4-C with PTFE	Pivot points	92-802859A 1

Battery Inspection

The battery should be inspected at periodic intervals to ensure proper trolling motor operation.

IMPORTANT: Read the safety and maintenance instructions which accompany your battery.

1. Ensure that the battery is secured to the vessel.
2. Ensure that the battery cable terminals are clean, tight, and correctly installed. For installation instructions, refer to **Battery Connection**.
3. Ensure that the battery is equipped with a battery box to prevent accidental shorting of the battery terminals.

Propeller Replacement

WARNING

Performing service or maintenance without first disconnecting the battery can cause product damage, personal injury, or death due to fire, explosion, electrical shock, or unexpected motor starting. Always disconnect the battery cables from the battery before maintaining, servicing, installing, or removing motor components.

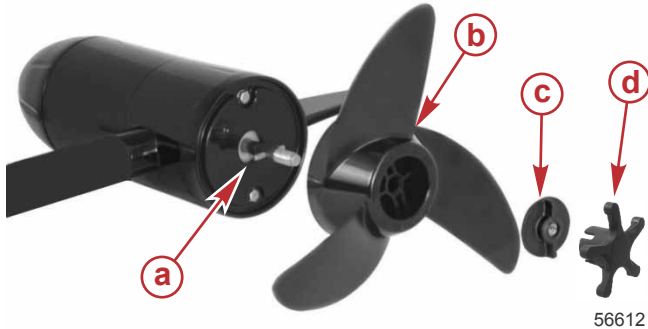
REMOVING THE PROPELLER

1. Disconnect the power cables from the battery.
2. While holding the propeller blade with one hand, use a prop wrench to remove the propeller nut.

MAINTENANCE

IMPORTANT: Remove the propeller nut with a prop wrench. Using another tool may damage the propeller nut or shaft. If the propeller cannot be removed easily, use a rubber mallet to lightly tap the back side of the opposite blade. If the propeller cannot be removed, have the propeller removed by an authorized dealer.

NOTE: If the propeller pin is bent, replace the propeller pin.



- a** - Propeller pin
- b** - Propeller
- c** - Propeller nut
- d** - Prop wrench

Recommended MotorGuide Accessory Description	Part Number
MotorGuide Prop Wrench Kit	MGA050B6

INSTALLING THE PROPELLER

1. Rotate the motor shaft to insert the propeller pin horizontally.
2. Install the propeller onto the motor shaft by engaging the propeller onto the propeller pin.
3. Install the propeller nut. Tighten the propeller nut securely.
4. Use the prop wrench to tighten the propeller nut another $\frac{1}{4}$ turn.

TROUBLESHOOTING

Trolling Motor Performance

Symptom	Possible Cause	Resolution
Loss of power	Weak battery	Refer to Wiring and Battery Information .
	Loose or corroded battery connections	
	Propeller is loose, damaged, or off-balance	Refer to Maintenance .
	Wiring or electrical connection faulty	Wire gauge from the battery to the trolling motor is insufficient. Six-gauge wire is recommended.
	Weeds, fishing line, or debris wrapped around propeller	Remove weeds, fishing line, or debris from propeller.
Excessive noise, vibration	Motor shaft is bent	Refer to Warranty Information .
	Propeller is loose, damaged, or off-balance	Refer to Maintenance .
Motor failure (all speeds)	Weak battery	Refer to Wiring and Battery Information .
	Loose or corroded battery connections	
	Electrical	Check the connector for a loose or damaged connection. Refer to Wiring and Battery Information .
	Fuse on circuit breaker is open	Replace the fuse or reset the circuit breaker only after determining the root cause of the problem.
Motor failure (one or more speeds)	Propeller is loose, damaged, or off-balance	Refer to Maintenance .
	Wiring or electrical connection faulty.	Refer to Warranty Information .

TROUBLESHOOTING

Symptom	Possible Cause	Resolution
Difficulty removing propeller	Bent propeller pin	Hold one blade and lightly tap the opposite blade with a rubber mallet.
		Use a putty knife on both sides of the propeller to apply equal pressure.
	Bent armature shaft	Refer to service center.