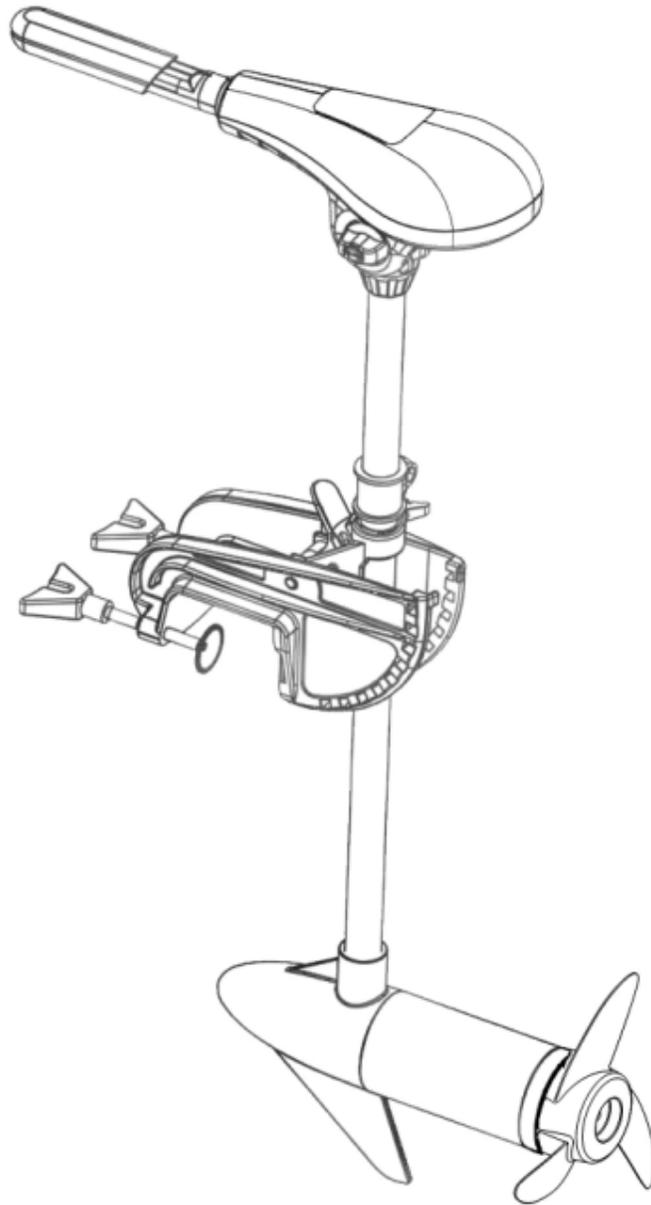


Seamax Electric Motor User Manual

X Series - DC 12V & 24V



Seamax
adventure on water

Thanks for read and retain this manual

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NOTE

Please record your boat's Hull Identification Number (HIN) and engine model / serial number (SN). The HIN is located on the back of the boat on the starboard side. The engine model / serial number is located on the swivel bracket. You will need this information to obtain parts, warranty service or provide information to your local law enforcement agency if your boat is lost or stolen.

Boat Model & HIN:
Engine Model & Serial #:
Owner Information:
Place of Purchase & Invoice #:
Date of Purchase:

Thank you for purchasing our product and we wish that you enjoy it.

GENERAL INFORMATION

SEAMAX trolling motors are designed and developed by professional engineers and have been continually developed over a number of years. There is a wide range of **SEAMAX** outboard motors, making from 40lbs trust through to 86lbs trust, available on short shaft and long shaft models, to suit every customer's requirements and application.

Please read and retain this manual before using this electrical motor. This manual contains information that describes the procedure for safe operation and daily maintenance of your electrical motor. Safe operation will prevent personal injury and product damage.

SPECIFICATIONS

ITEMS-NO.	THRUST	INPUT	INPUT POWER	NET WEIGHT	CIRCUIT BREAKER (optional)
NRS-40X	40 Lbs.	12V, 34A	408W	16 Lbs.	12V/ 36A
NRS-46X	46 Lbs.	12V, 40A	480W	17 Lbs.	12V/ 43A
NRS-55X	55 Lbs.	12V, 52A	624W	19 Lbs.	12V/ 55A
NRS-62X	62 Lbs.	12V, 58A	696W	21 Lbs.	12V/ 60A
NRS-86X	86 Lbs.	24V, 48A	1152W	24 Lbs.	24V/ 50A

WIRING AND BATTERY RECOMMENDATIONS

Recommended battery(s): 12V Deep Cycle Marine Batter (24/27/31DC). To extend running time, either purchase a larger capacity or an additional battery can be used. If you want to build the battery group, the battery connection must be parallel type. See section on Battery Connection Method.

Note: 86 Lbs model requires a 24V power source (2 x 12V Batteries with Series Connection).



WARNING

Be sure Motor and all switches are in the OFF position before connecting to battery or batteries. Electrical arcing near the battery could ignite hydrogen gas and cause the battery to explode. Keep your battery away from fuel tank.

Circuit Protection

It is recommended to install a manual reset circuit breaker in the electric outboard motor leads within 1.8m (72 Inches) of the battery(s). Using a circuit breaker could extend up to 2 times of electric motor's life time. Please read the spec sheet for your motor's circuit breaker standard.

Cable Size

If extending the standard battery cable supplied with the product, **SEAMAX** recommends the use of 13mm² wires (6-gauge wire, AWG).

Note: This electric motors package does not include batteries.

SAFETY INFORMATION

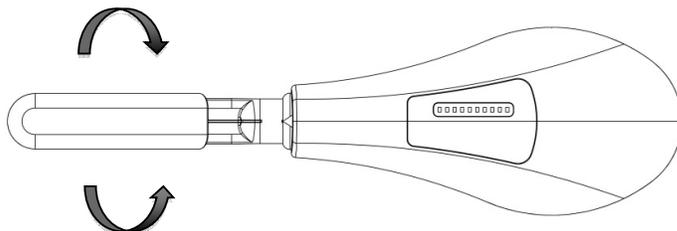
- Do not allow children to operate the electric outboard motor.
- Do not modify the unit in any way or add accessories not intended for this product.
- Do not submerge the motor upper-unit controller box. If unit is accidentally submersed disconnect battery right the way. The motor need a full service within 24 hours if such a water damage.
- Always disconnect power of the motor when replacing propeller or transport.
- To prevent accidental damage of the fiberglass shaft, do not over tighten the mounting bracket.
- Only use this product between the temperatures of -20C to +45C (-4F to +113F).

WARNING

Batteries contain sulphuric acid, which can cause severe burns. Avoid contact with skin, eyes and clothing. The battery also produces hydrogen and oxygen gases when being charged. This potentially explosive mixture escapes through the fill vent cell caps and may form an explosive atmosphere around the battery for several hours after it has been charged. Electrical arcing or flames can ignite the gas and cause an explosion, which may shatter the battery and could cause blindness or other serious injury.

FIRST TIME RUNNING (TESTING)

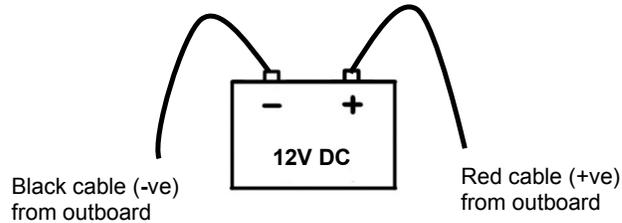
1. Place Electric Outboard onto the back of the vessel in the Stow away position. Loosely tighten Transom Mounting Screws till they grip the Transom Mount. Press the Tilt Lever and slowly let the motor enter the water.
2. Use the Depth Adjuster Collar to adjust the height of motor (Recommend running depth between 150mm and 300mm below the waterline).
- 3 When you are satisfied that the motor is at a safe depth and isn't too close or in danger of hitting the bottom of the lake, river or other water ways you may proceed to tighten the Transom Mounting Screws.
- 4 Once this is done, it should be safe to connect the battery to the motor. Ensure that the twist grip is in the neutral position and that the nuts are tight on the terminals to prevent a poor connection.
5. Select the desired speed and direction using twist grip on the tiller arm. Do not go from full forward speed to full reverse speed without letting the propeller stop turning first or motor damage may occur.



BATTERY CONNECTION

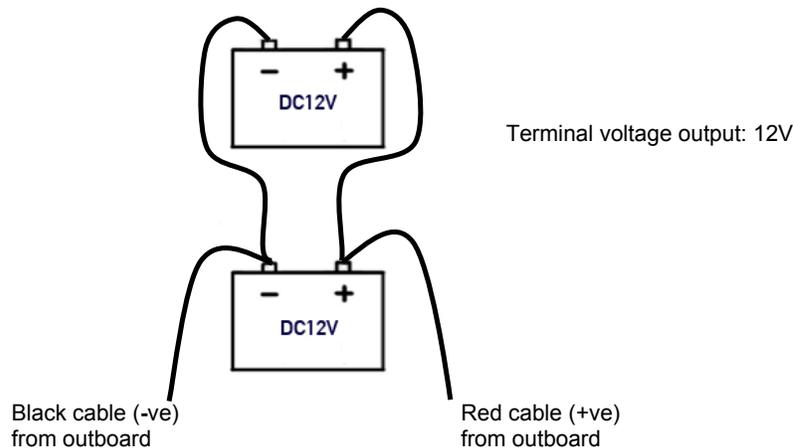
Connection with one battery (12V DC)

The red wire should connect to positive; the black wire should connect to negative.
(It is recommended install a circuit breaker in line with positive lead.)



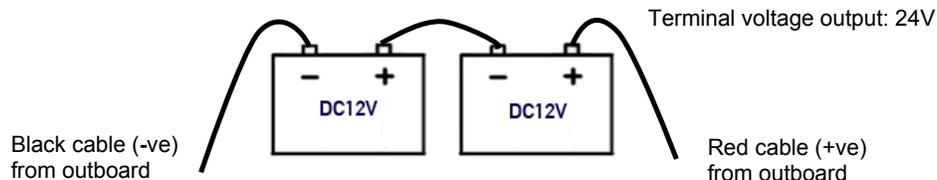
Connection with two batteries in parallel (12V DC)

The red wire should connect to positive; the black wire should connect to negative.



Battery Connection Method 24 Volt - Connection with two 12V batteries in series position

The red wire should connect to positive; the black wire should connect to negative. Best to have 2 same model batteries to build the 24V battery group.



WARNING

Remember always disconnect from the battery(s) once the motor leaves water as a rotating propeller can cause personal injury.

MOTOR OPERATION

On/Off Speed Control

Rotate handle clockwise to obtain any of the 5 forward speeds. Rotate handle anticlockwise for any of the 3 reverse speeds. To stop the motor from running, position the handle following the arrow marker and position on level 0.

Battery Level/Voltage Indicator

There are 10 LED lights on the top cover, seven of them are green and the rest are red. When seven (7) green LED's are out, the meter is indicating that the input voltage is less than 9.5V (normal voltage draw, 12V). It is advised to disconnect the motor from the battery to prevent damage to the battery and recharge the battery.

Adjusting Motor Depth

Position the depth adjustment collar so the propeller blades will be submerged 150mm - 300mm (6inches - 12inches) below the water's surface.

Raising the Motor

It is recommended to disconnect the battery before carrying out this procedure to prevent accidental running of the motor. To raise the motor out of the water push and hold the tilt lever and with the other hand push down on the end of the handle to bring the motor up and out of the water. Then release the tilt lever to lock in place.

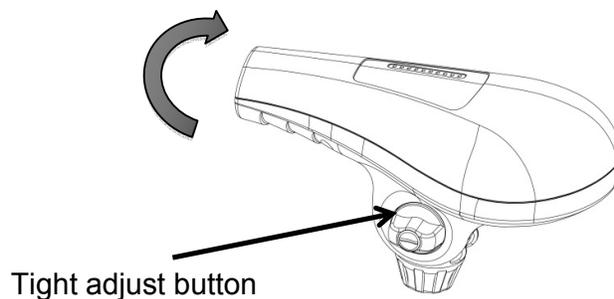
Lowering the Motor

It is recommended to disconnect the battery before carrying out this procedure to prevent accidental running of the motor. Press the tilt lever whilst with the other hand; hold onto the end of the handle to steady the motor into the water. Once motor is lowered release the tilt lever to lock into position.

CAUTION

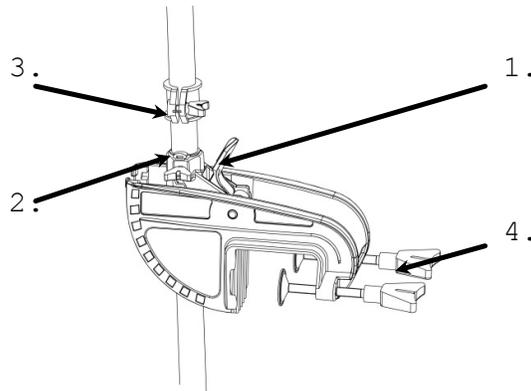
Remember to wash the motor by using fresh water after being used in salt water as it can greatly reduce the possibility of corrosion.

Adjust the Angle of Handle



SEAMAX X series motor is able to adjust the angle (Max $\pm 30^\circ$) of handle to make comfortable for user's control. Please follow these steps to make adjustment: 1). Loose the button so that the handle can move upwards and downwards freely. 2). Keep the handle to the adequate angle that is suitable to control. 3). Tight the button to finish the adjustment.

TRANSOM MOUNT INSTALLATION



CAUTION

Before the installation, Make sure the area between column and bracket is clear.

1. Tilt Position Lever - This lever allows the user to adjust the tilt (angle) of the motor. Push tilt position lever, adjust tilt of motor, release lever.

2. Steering Tension Adjustment -To adjust the steering resistance, simply tighten or loosen the tension knob located on front of the mount.

3. Depth Adjustment Collar -The depth of the motor can be adjusted up and down by loosening the depth collar tension knob located on the column directly above the mount. The column can be adjusted and the motor can be positioned at the desired depth by retightening the tension knob.

4. Transom Screws -The transom clamp screws allow for easy motor removal and installation. Mount your motor on the transom then tighten the transom clamp screws securely.

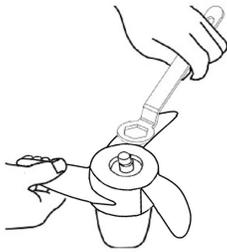
CAUTION

The motor can only be used in water deeper than 0.7m.

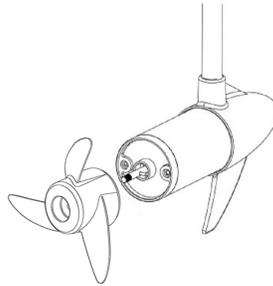
HOW TO REPLACE THE PROPELLER

Make sure that the motor has been disconnected from batteries. Hold the propeller blade and loosen the propeller nut using the prop spanner supplied or a set of needle nose pliers. Remove the propeller nut. Pull the propeller straight off. If prop is stuck, grasp one blade with one hand and tap on the

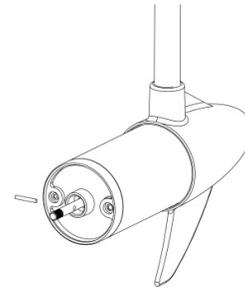
backside of the opposite blade lightly with a rubber mallet, until the propeller comes off. If the propeller pin is bent, replace it. Align the new propeller with the propeller pin. Reinstall the propeller nut and tighten firmly by hand, tighten with spanner another 1/4 turn.



Step 1



Step 2



Step 3

 **CAUTION**

Do not strike bent prop pin with hammer to remove pin. Damage to motor armature may occur that would not be covered by warranty.

DAILY MAINTAINANCE

1. Check behind the propeller after each day for weeds, fishing line or other debris that may get wrapped behind the propeller.
2. Lubricate all the pivot points with a **non-aerosol** lubricant. Never use an aerosol lubricant as many types contain harmful propellants that can cause damage to various parts of your electric motor.
3. Check tightness of the battery lead connections.
4. Visually check condition of main battery cables.
5. Inspect for loose or corroded wiring connections.
6. Always thoroughly rinse your electric outboard motor with fresh water after every use in salt water. Only rinse the areas that have been in contact with salt water, avoid getting the top cover wet as this may damage the circuitry inside.
7. Inspect for tightness of all nuts, bolts and screws.
8. Recharge batteries after each use. Follow the battery manufacture's recommendations for battery maintenance.
9. During freezing temperatures, when your electric motor is not being used, it should be stored in an area where it will not freeze.
10. Never connect the wire with wrong battery terminal. You must disconnect the battery during maintenance.

TROUBLE SHOOTING

Loss of Power

Propeller may be fouled. Remove propeller, clean and replace.

Battery connections may be corroded.

Battery has low voltage, recharge.

Battery may be faulty, recharge and check.

Insufficient cable size from battery to motor wiring, 13mm² thickness / 6 gauge wire (AWG) recommended.

Bad or faulty connection in boat wiring or electric motor wiring

Permanent magnet cracked or chipped. Motor will whine or grind.

Motor Makes Excessive Noise or Vibration

Propeller may be fouled.

Propeller may be damaged or unbalanced.

Check to see if propeller is secured.

Bent armature. Remove propeller, set at medium speed, turn unit on and check for armature wobble.

Turn propeller by hand. It should turn freely with a slight magnetic drag.

Bearing bushes may be worn out.

Motor Fails To Run

Check fuse or circuit breaker on boat for electric motor.

Check for loose or corroded connections.

Check plug for loose or bad connection.

Test main rotary switch.

Turn prop by hand. It should turn freely with a slight magnetic drag.

Total battery failure. Recharge battery and check voltage.

Propeller Fouled.

Motor Loses One or More Speeds

Lose wire on rotary switch. Check wiring diagram.

Lose connection in top housing.

Rotary switch damaged.

Speed coils in lower unit may be burned.

PLEASE NOTE:

During the usage of the electric outboard motor, the propeller is possible to get stuck by the weeds, fishing lines and fishing webs, or sometimes due to the variance of the water depth, the propeller is covered by the silt. If those situations stated above happen, please disconnect the battery in time and clean up the propeller. (Please DO NOT rise steps and increase the thrust of electric outboard motor to solve the problem, or it may cause permanent damages to the electric outboard motor.)

The characteristics between the electric outboard motor and gasoline outboard motor are different, if the propeller of the motor gets stuck, the gasoline outboard motor will only shut down and not cause any permanent damage to the motor itself, however, the electric outboard will draw extremely large current due to the motor stall and generate large amount of heat to damage important components in the motor such as switch, rotor and other connecting parts or even cause serious battery explosions.

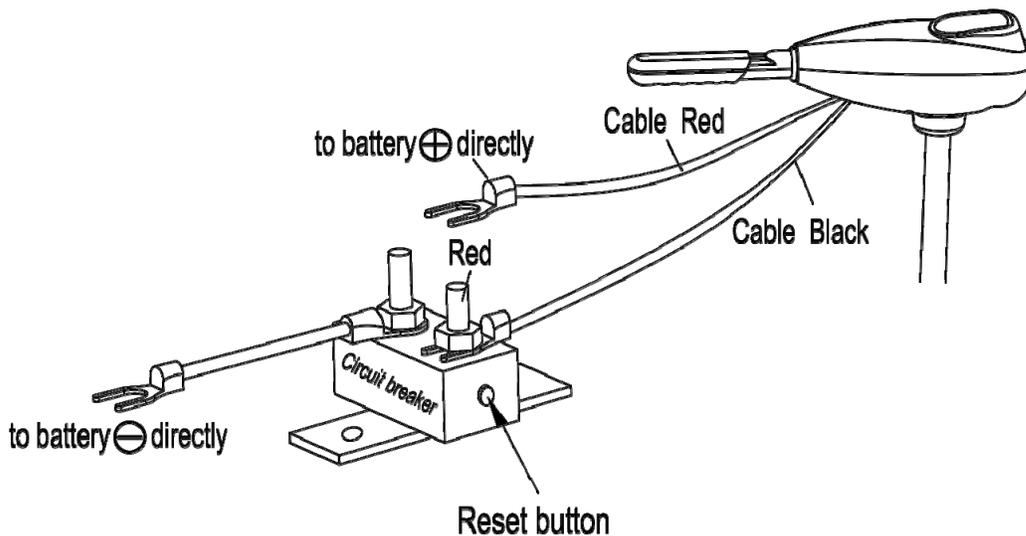
In some muddy water areas, user is hardly to recognize that motor is stuck and shut down the power. To prevent these situations occur, it is strongly recommended to use circuit breaker to protect the electric outboard motor. If the current draw of the electric outboard motor exceeds the limit of normal usage, the circuit breaker will cut off the power automatically to prevent any possible damage to the electric outboard motor. The circuit breaker has the reset button and is therefore reusable.

To prevent the rotor coil damage from exceeding current, it is highly suggested to circuit breaker to protect electric outboard motor.

FUNCTION OF THE CIRCUIT BREAKER

During the usage of the electric outboard motor, when the propeller is stuck by the weeds, small stones, fishing lines or so forth, the circuit breaker will cut off the power automatically to prevent the damage of the electrical parts.

If the circuit breaker cuts off the power please disconnect the battery first, then check and clean any obstacles. At last, press the reset button on the circuit breaker and reconnect the battery, the electric outboard motor is able to continue the work.



WARRANTY

Duration of Coverage

This Limited Warranty provides coverage for two (2) years from the date the product is first manufactured from factory. Therefore the ultimate purchaser may have limited warranty coverage period for less than two (2) years due to the time of transferring, sale and storage. The only reference for duration of warranty coverage is the serial No., which is imprinted on the surface of motor's transom mount. The repair or replacement of parts, or the performance of service under this warranty, does not extend the life of this warranty beyond its original expiry date.

Conditions That Must Be Met In Order To Obtain Warranty Coverage

Warranty coverage is only available from an authorized dealer to distribute the product in the country in which the sale occurred. Routine maintenance out-lined in the Operation and Maintenance section must be performed in order to maintain warranty coverage. If the retail customer performs maintenance, **SEAMAX** reserves the right to make future warranty coverage possible only with proof of proper maintenance.

How to Obtain Warranty Coverage

Delivering the product to an authorized dealer for inspection should make warranty claims; proof of purchase will be required to receive warranty. The dealer will then arrange for the inspection and any necessary repair. The purchaser in that case shall pay for all related transport charges and/or travel time. If the service provided is not covered by the warranty, purchaser shall pay for all related labor and material, and any other expenses associated with that service.

What Is Not Covered

This limited warranty does not cover routine maintenance items, adjustments, normal wear and tear, damage caused by abuse, abnormal use, operation of the product in a manner inconsistent with the recommended operation/duty cycle section of the Operation and Maintenance Manual, neglect, accident, submersion, improper installation (proper installation specification and techniques are set forth in the Operations and First time running sections in this manual), improper service, use of an accessory or part not manufactured or sold by us, or alteration or removal of parts. Expenses related to haul-out, launch, towing, storage, telephone, rental, inconvenience, slip fees, insurance coverage, loan payments, loss of time, loss of income, or any other types of accidental or consequential damages are not covered by this warranty.

Terms of Seamax Limited Warranty Coverage

Motor Rotor	Free replacement within 2 Years,
Motor Magnet	Free replacement within 2 Years,
Speed Turning Switch	Free replacement within 2 Year,
Carbon Brush Holder	Free replacement within 1 Year,
Propeller	Free replacement within 1 Year
Telescopic Handle	Free replacement within 1 Year,
Battery Meter	Free replacement within 1 Year,
Power Cord Wire	Free replacement within 1 Year,
Other Electrical Parts	Free replacement within 1 Year,
Other Metal or Plastics Parts	Free replacement within 1 Year,

Note: All warranty coverage is not including the Physics Damage

LIABILITY FREE CLAUSE

Damage caused by dropping, crashing, cuts, piercing or other man-made behaviors; The end-user did not follow the instruction manual; The end-user ignored the **SEAMAX** warning information; Placed or changed the motors under wet circumstances which may damage the batteries, the circuit or other electric parts. User used parts or accessories that are not genuine **SEAMAX** components.

CONTACT US

Local Customer: Please first contact the place of purchase for your motor service.

Online Customer: Please contact Seamax customer service 1877-907-7766 or/ email support@seamaxboat.com for all your inquiries.

Note: Please don't return the motor to Amazon.

Product Service and Return Address

Ship to:

Seamax Marine - RMA Department

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Tel: 604-277-7766

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