



Endurance Marine Products Ltd.

Notice

Limited Motor Warranty

MOTOR – The power train is provided by a 2.2 horsepower DC 12 Volt motor and a dual carriage, six planetary gear system with a 121 to 1 gear ratio. These gears make a substantial noise (approx. 80db) when running. **NOTE:** (this noise is normal and there is nothing wrong with your winch.) These gears are sealed and do not require maintenance. The direction that the motor turns may be reversed by changing the polarity. Simply connect the battery wire leads the opposite way, to run the motor in the opposite direction. The motor has a steel housing which is subject to corrosion. Should the paint become scratched it should be spray painted to prevent further rusting. **NOTE:** The motor will draw up to 60 amps under large loads. We provide an 80 amp breaker which we recommend be connected between the battery and motor. When operating the **WINCH**, the boat motor should be running to provide adequate charge to the system's battery.

- **This 2.2 hp DC motor has been specifically engineered to provide a longer than normal duty cycle.**
- **This type of motor produces heat when operating.**
- **The maximum operating cycle under minimum load is 10 minutes.**
- **The maximum operating cycle under maximum load is 5 minutes.**
- **When operated for any longer periods the operator must periodically feel the motor casing for heat buildup.**
- **In the event of overheating, allow the motor to cool for 5 minutes prior to reusing.**

The 80 amp thermal breaker (provided) must be installed on the positive terminal as close to the battery as possible.

The polarity may be reversed to change the direction of rotation.

OVER HEATING WILL VOID THE WARRANTY

Endurance Marine Products Ltd.

210-19138 26 ave
Surrey, BC V3S 3V7
Phone: 604-535 0669
Fax: 604-535-0681
Toll free: 877 535 0669
Email: info@endurance-marine.com
www.endurance-marine.com

Installation Instructions

Windlass Model WCH 1000

Horizontal Mount



CONTENTS IN PACKAGE

WCH1000WINDLASS

Circuit breaker assembly with bracket, nut, and bolt

12 volt DC solenoid 100amp

Deck foot switch package

REQUIRED TO PURCHASE

1. 4-5/16" (8mm) stainless steel flat head bolts. (length to be determined by deck thickness).
2. 4-5/16" (8mm) nuts and washers.
3. 18 ga insulated wire, length as required between the solenoid and deck foot switch.
4. 1-1/4" hole saw.
5. 8 ga insulated wire if run from battery 20ft or less.
6. 6 ga insulated wire if run from battery over 20ft.

INSTRUCTIONS

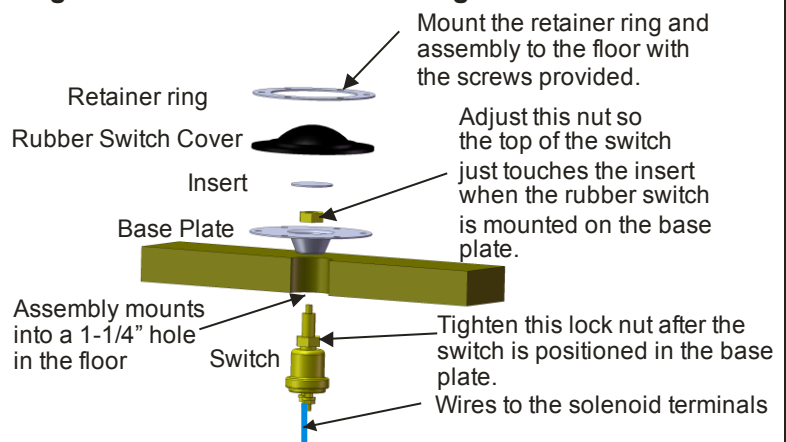
1. Select the proper position on deck for the Windlass. Make sure that this area of the deck is strong enough to withstand windlass loads and have adequate access to retrieve the anchor line or boat. Reinforce the deck with a backing plate if necessary.
2. Use the windlass base holes to make the 4 mounting bolts. Drill 4-3/8" (10mm) holes through the deck.
3. Drill a 3/8" (10mm) hole through the windlass base hole for the 6-8 ga wires.
4. With sealant, bolt the windlass to the deck with the 5/16" bolts and washers. Run the wires through the windlass base and deck and seal the hole.
5. Select a location for the foot-activated deck switch where you can activate the windlass while handling the line. Use the 1-1/4" hole saw to drill through the deck. The assembled switch with wiring will fit in this hole. Adjust the height of the switch in the bottom switch plate with the inner nut (as noted in Diagram A, lock the bottom nut, and connect the two 18 ga wires to the terminals. With sealant, mount the foot switch assembly on the deck with the screws purchased.

As you probably know, a capstan is a very flexible piece of hauling gear since the strength with which it pulls is proportional to the light pull you apply to the tail end of the line. The more coils on the capstan drum, the greater the friction and the lower the pull required by the operator.

The motor unit develops nearly one horsepower and is designed for intermittent, not continuous duty. After using the windlass for a period, let it cool down as much as possible before again stressing it.

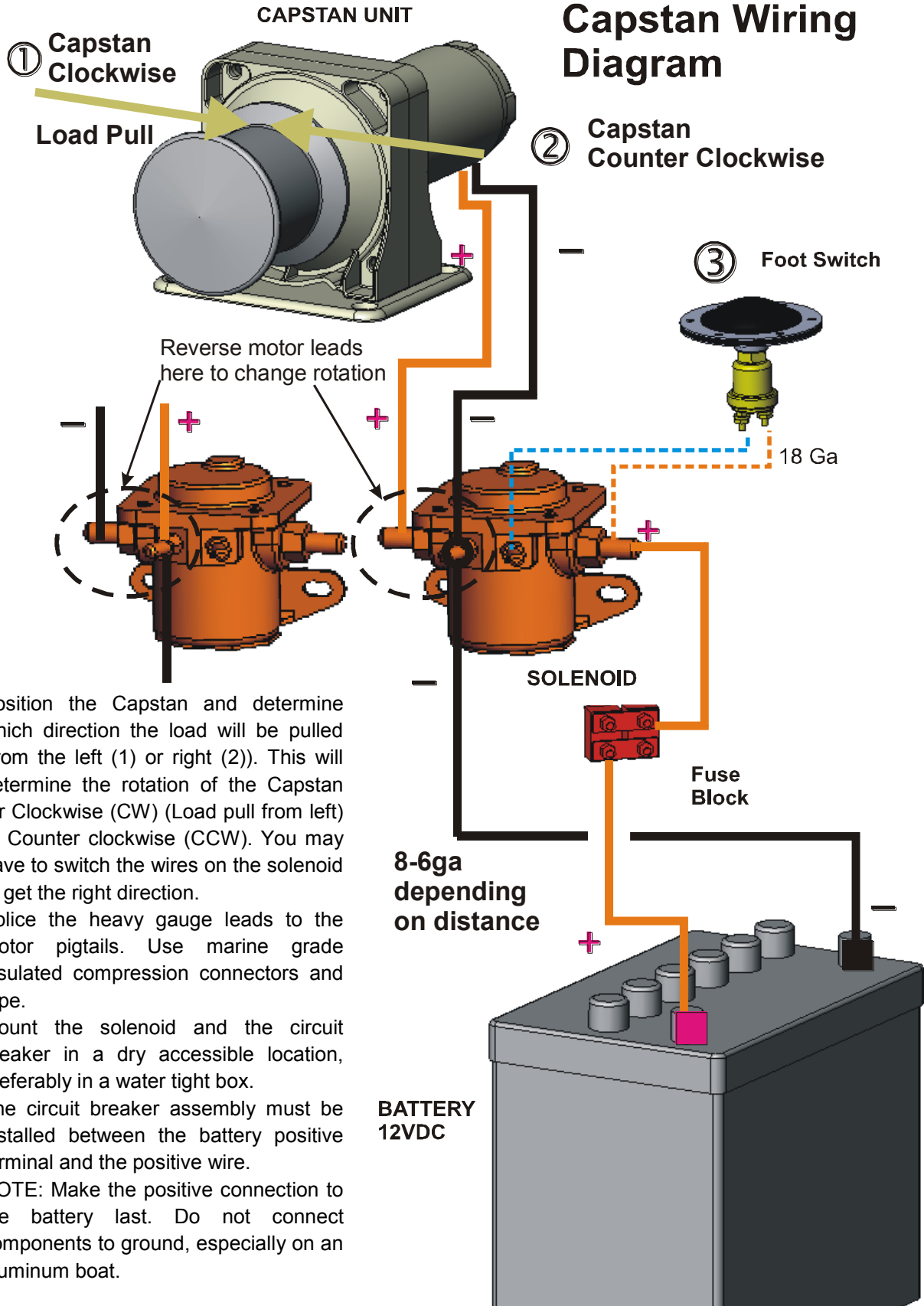
This way you will be assured for a long operation life

Diagram A: Foot Switch Mounting



Endurance Marine Products Ltd
Surrey, British Columbia, Canada, V3S 3V7
Phone Toll Free 877.535.0669
Phone 604.535.0669 Fax 604.535.0681

Capstan Wiring Diagram



1. Position the Capstan and determine which direction the load will be pulled (from the left (1) or right (2)). This will determine the rotation of the Capstan for Clockwise (CW) (Load pull from left) or Counter clockwise (CCW). You may have to switch the wires on the solenoid to get the right direction.
2. Splice the heavy gauge leads to the motor pigtails. Use marine grade insulated compression connectors and tape.
3. Mount the solenoid and the circuit breaker in a dry accessible location, preferably in a water tight box.
4. The circuit breaker assembly must be installed between the battery positive terminal and the positive wire.
5. NOTE: Make the positive connection to the battery last. Do not connect components to ground, especially on an aluminum boat.

WARRANTY: LIMITED WARRANTY Endurance Marine warrants all parts and components to be free from defects in materials and workmanship for a period of one year from the provable date of purchase. Any Endurance product which is defective will be repaired or replaced without charge to the Buyer, upon compliance with these procedures.