#### Operating Instructions and Replacement Parts List

**Powerwinch**®

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Unpacking

When unpacking, inspect carefully for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc., are tightened before putting unit into service.

# General Safety Information

#### **A DANGER**

cause death or serious injury if the warning is ignored.

Warning means a hazard that could

Danger means a

hazard that will

cause death or serious injury if the warning is ignored.

Caution means a hazard that may cause minor or moderate injury if the warning is ignored. It also may mean a hazard that will

only cause damage to property. NOTE: Note means any additional information

pertaining to the product or its proper usage.

The following safety precautions must be followed at all times:

1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Only

> persons well acquainted with these rules of safe operation should be allowed to use the winch.

**A DANGER** 

Never stand between load or

anchor point and product. If rope breaks it could snap with enough force to cause serious injury or death.

# **A DANGER**

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Do not use electrical wire sizes or types other than those specified or included with this product.

#### Always tie off anchor to a secure

mount while cruising to prevent anchor from breaking free.

- 2. This product is intended to lift anchors. Never use product to lift or move people or animals.
- 3. Do not wear loose fitting clothing, scarves, or neck ties while operating product. Loose clothing may become caught in moving parts and result in serious personal injury or death.

#### Use

supplied or recommended circuit breakers for safe installation. The warranty will be void and fire could result from using improper circuit breakers.

4. Make sure area around anchoring area is clear of people or objects before releasing or retrieving anchor.

#### not in use or when trailering the boat, tie off anchor to relieve motor

5. Never substitute cable for rope.

tension and prevent boat damage.

wiring harness from battery before attempting to install, service or relocate.

6. Use of a davit with an open loop is not recommended with this product. Use a davit with a closed loop to prevent serious personal injury and/or property damage.

#### Never place any object on the capstan while retrieving the anchor.

- 7. Use genuine Powerwinch<sup> $\mathbb{R}$ </sup> rope or rope recommended by Powerwinch<sup>®</sup> when replacing rope.
- 8. Never use chain or shackles on the capstan. Shackles or chain will damage the winch, void the warranty and could cause personal injury.
- 9. Stand away from winch when in use and keep children away from winch location at all times.

Do not attempt to **A** CAUTION pull load heavier than

rated load of the anchor winch.

- 10. Do not operate the product under the influence of alcohol and/or drugs.
- 11. Inspect the entire rope for weak or worn condition or kinking (short tight twist or curl) before use. Replace worn or kinked rope to maintain proper performance and avoid damage or injury.

#### This product A DANGER

requires use of a closed loop davit or bow roller. Davit or bow roller must be installed prior to installing the anchor winch to ensure proper performance.

## Installation

To install anchor winch, refer to Figure 1 and the following instructions:

#### TOOLS REQUIRED (NOT INCLUDED)

- 1. Electric drill
- 2. 11/32" drill bit
- 3. 5/8" drill bit
- Adjustable wrenches 4.
- 5. Terminal crimping tool and wire cutter
- 6. Center punch
- 7. Hammer
- 8. Voltmeter

#### MATERIAL REQUIRED (NOT INCLUDED)

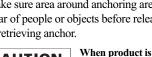
NOTE: A wiring kit from Powerwinch<sup>®</sup> (Part No. P55800) is available which contains items 2-11

- 1. Marine plywood for under deck support (optional)
- 2. Two 1/4" 20 x 1/2" hex head stainless steel screws
- Two 1/4" 20 x 1/2" stainless steel nuts 3.
- 4. Four 5/16" 8-gauge ring terminals
- 5. #8 AWG red wire class 105°C
- #8 AWG black wire class 105°C 6.
- 7. 1" diameter heat shrink tubing
- 8. 2" diameter heat shrink tubing
- Wire ties 9.
- 10. Two #8, 8-gauge ring terminals





Capstan 300





Always disconnect

# Capstan 300

# Installation (Continued)

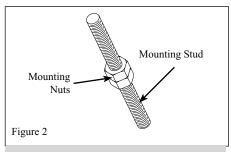
- 11. Two #10, 8-gauge ring terminals
- 12. Loctite<sup>®</sup> 242 thread locker (optional)
- 13. Silicone sealer

MOUNTING ANCHOR WINCH ONTO DECK

- 1. Place mounting template in desired position on deck and secure with tape. Ensure centerline of capstan lines up with centerline of davit or bow roller.
- 2. Using a punch, mark center of each mounting hole to be drilled. Remove template and drill holes perpendicular to deck with an electric drill.
- Insert three mounting studs into the threaded 3 holes on underside of winch. A small amount of thread locker can be used to secure studs in housing. Use two mounting nuts to help tighten studs into housing as shown in Figure 2.
- 4. Slide mounting studs into the three 11/32" mounting holes in deck.

IMPORTANT: Be sure to feed wiring harness through 5/8" hole while lowering winch flush to deck.

- 5. Slide flat washers and lock washers onto mounting studs. Tighten nuts to fully secure winch.
- 6. Examine winch to make sure unit is securely fastened and centerline of capstan is aligned with center line of bow roller or davit.



### Wiring Installation

# **A** CAUTION

Do not use electrical wire sizes or types other than those specified or included with this product.

#### Use

supplied or recommended circuit breakers for safe installation. The warranty will be void and fire can result from using improper circuit breakers.

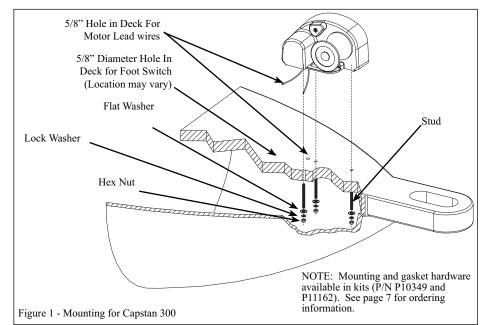
Always disconnect wiring harness from battery before attempting to install, service or relocate unit.

Follow the order of **A**CAUTION wiring steps to ensure power is not applied to anchor winch until all wires and circuit breakers are installed.

# 

Always keep wires away from intense sources of heat. Be sure newly installed wires are away from any exposed bare wires.





#### SWITCH INSTALLATION

- 1. Using dimensions from mounting template (or in another suitable location that allows the switch to be easily reached), drill a 5/8" hole.
- Unscrew protective rubber cap from top of 2. switch and install switch from underside of deck. The metal switch button should protrude slightly above top surface of boat deck.
- 3. Secure switch by replacing rubber cap and screwing it down completely.
- Tighten adjusting nut on switch from below 4. deck to complete switch installation.

#### ANCHOR WINCH WIRING **INSTALLATION**

#### ANCHOR WINCH TO NEGATIVE BATTERY TERMINAL

1. Measure and cut 8-gauge black wire to run from anchor winch to battery.

NOTE: Black wire does not run through switch.

Allow some slack to prevent connections being too short leaving enough room to crimp end of wire. Install wire in boat before crimping any connections. Use cable ties to secure wiring to boat.

#### DANGER A Always

keep wires away from intense sources of heat. Be sure newly installed wires are away from any exposed bare wires.



- 2. After wire is installed, crimp a 5/16" ring terminal to both ends of wire.
- Using a 1/4"-20 x 1/2" screw, connect black 3. wire coming from anchor winch to newly installed 8-gauge black wire. Tighten a 1/4"-20 nut to secure ring terminals together. Protect the junction by placing a 1" diameter piece of heat shrink tubing over connection and applying heat until tubing is secure.
- Connect 8-gauge black wire to negative 4 battery terminal.

#### ANCHOR WINCH TO SWITCH

1. Measure and cut 8-gauge red wire to run from anchor winch to switch. Allow some slack to prevent connections being too short leaving enough room to crimp end of wire. Run wire in boat before crimping any connections.

### **A DANGER**

Always keep wires away from intense sources of heat. Be sure newly installed wires are away from any exposed bare wires.



# Installation (Continued)

- 2. After wire is run, crimp a 5/16" ring terminal to end of wire to be connected to motor.
- Using a 1/4"-20 x 1/2" screw, connect green wire coming from anchor winch to 8-gauge red wire. Tighten a 1/4"-20 nut to secure ring terminals together. Protect junction by placing a 1" diameter piece of heat shrink tubing over connection and apply heat until tubing is secure.
- 4. Crimp a #8, 8-gauge ring terminal to other end of this wire.
- Connect remaining end of 8-gauge red wire to one of the switch terminals using the #8, 8-gauge ring terminal.

#### SWITCH TO BATTERY

 Measure and cut 8-gauge red wire to run from switch to battery. Allow some slack to prevent connections being too short leaving, enough room to crimp end of wire. Run wire in boat before crimping any connections. Use cable ties to secure wiring to boat.

Always

## **A DANGER**

keep wires away from intense sources of heat. Be sure newly installed wires are away from any exposed bare wires.



- 2. Crimp a #8, 8-gauge ring terminal to end of wire.
- Connect this wire end to switch using #8, 8-gauge ring terminal.
- Crimp a #10, 8-gauge ring terminal to other end of wire. This end will be attached to post marked "aux" on circuit breaker.
- 5. Cut a 1' section of 8-gauge red wire and crimp a 5/16" ring terminal to one end. Crimp a #10, 8-gauge ring terminal to the other end. This will be used as a circuit breaker jumper.
- Assemble circuit breaker to wire by placing ring terminal onto post marked "bat" and secure with nut on circuit breaker.
- 7. Attach remaining 8-gauge red wire coming from switch to post on the circuit breaker

## Green Wire From Motor Anchor Winch Black Wire From Motor Black 8-Gauge Wire Black 8-Gauge Wire From Motor Black 8-Gauge Wire Black 8-Gauge Wire Black 8-Gauge Wire Black 8-Gauge Wire

gure 5 - Withig Diagram for Caps

marked "aux".

8. Protect connection by placing a 2" diameter piece of heat shrink tubing over the connection and applying heat until the tubing is secure. Connect the 5/16" ring terminal to battery.

#### UNIT TEST

- With no rope on capstan, press switch down. If wiring to motor leads are correct, capstan will spin counterclockwise.
- 2. If capstan does not turn, but motor runs, motor polarity is incorrect.
- To correct, reverse red and black wires at motor leads.

# Anchoring Instructions

### LOADING ROPE

**AWARNING** Use of rope NOT specified by

Powerwinch<sup>®</sup> could cause unit or property damage or personal injury and will void warranty.

1. Feed rope through davit or bow roller and pull toward anchor winch. Make sure rope is not twisted or kinked and can freely run through bow roller or davit.

#### USING PROPER ROPE

This product is a uniquely designed device to raise and lower anchors using specific rope types. It is very important that only sizes and brands of rope specified by Powerwinch<sup>®</sup> are

# Powerwinch<sup>®</sup> Recommended Rope

<sup>11</sup>/<sub>4</sub>2" to 5/8" diameter, three strand, medium lay,

Capstan 300

Product Model

premium nylon

Chart 2 - Recommended Rope

damage. Use of non-specified ropes will also void warranty. RETRIEVING THE ANCHOR Tie off anchor line to a deck cleat. Do NOT use anchor winch to tie off anchor.

used with this product. Use of non-specified ropes could cause reduced levels of perform-

ance or serious personal injury and/or property

• Untie anchor line from deck cleat.

- To retrieve anchor, align bow of boat with anchor rope.
- Place motor(s) in forward and move boat slowly toward anchor point. While moving, press anchor winch switch down to allow retrieval of anchor rope.

# **A CAUTION** Do NOT use anchor winch to pull boat

#### to anchor point or to free the anchor.

To retrieve anchor, face capstan end and make four wraps with rope counter-clockwise around capstan. Push foot switch down to activate and pull rope in hand over hand. When anchor is in bow roller or davit, release switch. Make sure anchor is secured in davit or bow roller.

# Maintenance

- 1. Following each boat outing, flush exterior of winch with fresh water. Use only mild detergents to clean exterior. Use of solvents may cause damage and reduce effectiveness of corrosion resistant parts, paint and gaskets, as well as void product warranty.
- Check rope periodically for abrasion or deep cuts. Never splice an old rope with a new rope.
- 3. Inspect the capstan every 6 months for wear.

# Maintenance (Continued)

Replace worn components.

 Check electrical connections every 6 months for corrosion. Replace any connection or wire which is damaged, corroded, frayed or worn.

# Technical Assistance

For information regarding the operation or repair of this product, please call 800-243-3097 for assistance.

## Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Product will not operate	Disconnected, bad wiring or bad circuit breakers	Check each connection with a voltmeter with switch engaged. Check circuit breaker connections closely
Rope slips when retrieving	1. Wrong rope size	<ol> <li>Replace rope with three strand, medium lay, premium nylon 1/2" to 5/8" diameter rope</li> </ol>
	2. Rope is frayed and worn	2. Replace rope
	3. Rope is too stiff	3. Replace rope
Anchor will not retrieve		
	Rope is wound around capstan in reverse	Wind rope in proper rotation around capstan. Face capstan end ther feed rope over the top of capstan and wind counterclockwise

# Notes

# For Replacement Parts, Call 1-800-243-3097

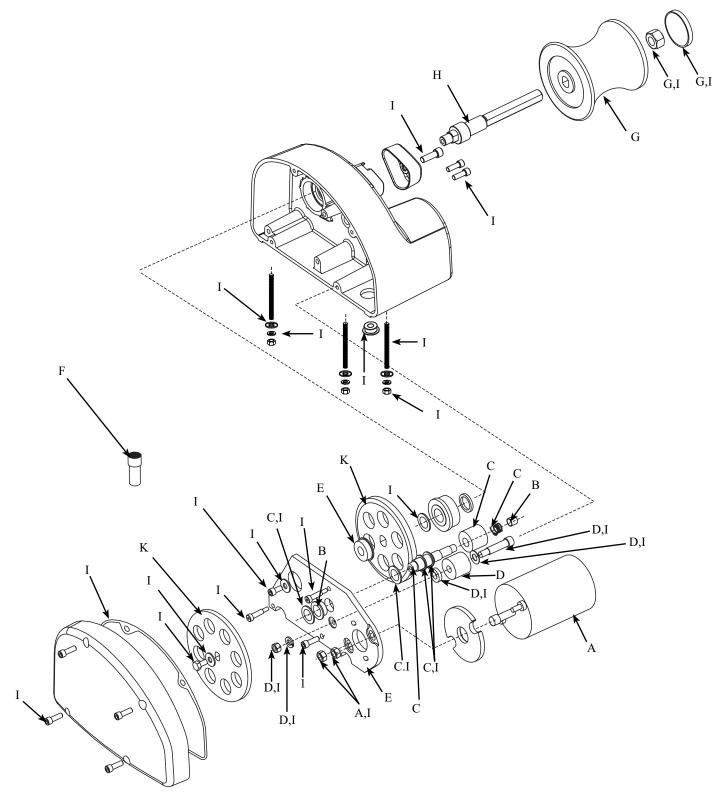


Figure 4 - Replacement Parts Illustration for Capstan 300

# For Replacement Parts, Call 1-800-243-3097

Please provide following information: -Model number -Serial number (if any) -Part description and number as shown in parts list

Address parts correspondence to: Carefree/Powerwinch 2145 West 6th Street Broomfield, CO 80020

PART NUMBER	DESCRIPTION	ITEM
R001451	REPLACEMENT MOTOR KIT	А
R001452	REPLACEMENT BEARING KIT	В
R001446	REPLACEMENT INTERMEDIATE SHAFT KIT	С
R001453	REPLACEMENT LOCKING GEAR KIT	D
R001440	REPLACEMENT MOTOR PLATE KIT	Е
P7817600AJ	REPLACEMENT FOOTSWITCH KIT	F
R001455	REPLACEMENT CAPSTAN KIT	G
R001456	REPLACEMENT CAPSTAN SHAFT KIT	Н
R001457	REPLACEMENT FASTENER/SEAL KIT	
P1027600AJ	REPLACEMENT CIRCUIT BREAKER KIT	J
R001438	REPLACEMENT GEAR KIT	К

### LIMITED WARRANTY

- A. This Limited Warranty is given by the Powerwinch Division of the Scott Fetzer Company (the "Company") to the original purchaser (the "Purchaser") of a Powerwinch Product (the "Product") specified in this manual. This Limited Warranty is not transferable to any other party.
- B. Responsibilities of the Company under this Limited Warranty:
  - 1. Repair or replace (at the discretion of the Company) any part or parts of the Product found by the Company to be defective within a two (2) year period from the date of purchase.
  - 2. The Company will pay the transportation charge for shipment back to the Purchaser of any Product received for legitimate Warranty repair.
- C. Responsibilities of the Purchaser under this Limited Warranty:
  - 1. Complete (fully and accurately) and return to the Company, the Warranty card included in the box. Otherwise, Purchaser will have to show dated proof of purchase to qualify for service under the provisions of the Limited Warranty.
  - 2. Promptly notify the Seller or the Company of any claim hereunder.
  - 3. Use reasonable care in maintenance, operation, use and storage of the Product in accordance with the instructions contained in the Owner's Manual.
  - 4. Have Warranty work performed by an authorized Powerwinch warranty repair center or representative approved by the Company.
- 5. Except as noted in B.2., transportation charges are the responsibility of the Purchaser.
- D. This Limited Warranty covers:
  - 1. Defects in workmanship or materials.
- 2. Any part or parts of the Product sold or manufactured by the Company.
- E. This Limited Warranty does not cover:
  - 1. Any failure that results from improper installation of the Product.
  - 2. Any failure that results from accident, Purchaser's abuse, neglect, modification, improper maintenance, or failure to operate and use the Product in accordance with the instructions provided in the Owner's Manual supplied with the Product.
- F. There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from date of purchase. This is the exclusive remedy and any liability for any and all incidental or consequential damages or expenses whatsoever is excluded. Some states do not allow limitations on how long an implied warranty lasts, or do not allow exclusion or limitation of incidental or consequential damages, the above limitations may not apply to you.

# Do Not Return Your Product To The Factory. Unauthorized Returns Will Delay Repair of Your Product and Incurr Additional Shipping Charges to You.

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Powerwinch reserves the right to alter specifications on any product without notice.

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