

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.

# Powerwinch®

Quality winches since 1956

## Capstan 1000

### 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

**▲ DANGER** *Danger means a hazard that will cause death or serious injury if the warning is ignored.*

**▲ WARNING** *Warning means a hazard that could cause death or serious injury if the warning is ignored.*

**▲ CAUTION** *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.

**▲ DANGER** *Never stand between load or anchor point and winch. If rope breaks it could snap with enough force to cause serious injury or death.*

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



**▲ DANGER** *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.

#### ▲ WARNING

*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.

**▲ CAUTION** *When product is not in use or when trailering the boat, tie off anchor to relieve motor tension and prevent boat damage.*

5. Never substitute cable for rope.

**▲ WARNING** *Always disconnect wiring harness from battery before attempting to install, service or relocate.*

**▲ DANGER** *This product 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.*

**▲ CAUTION** *Never place any object on the capstan while retrieving the load.*

6. Use genuine Powerwinch® rope or rope recommended by Powerwinch® when replacing rope.
7. Never use chain or shackles on the capstan. Shackles or chain will

damage the winch, void the warranty and could cause personal injury.

8. Stand away from winch when in use and keep children away from winch location at all times.

**▲ CAUTION** *Do not attempt to pull load heavier than rated load of the winch.*

9. Do not operate the product under the influence of alcohol and/or drugs.
10. 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.

### 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
4. Adjustable wrenches
5. Terminal crimping tool and wire cutter
6. Center punch
7. Hammer
8. Voltmeter

#### MATERIAL REQUIRED (NOT INCLUDED)

**NOTE:** A wiring kit from Powerwinch® (Part No. P10720) is available which contains items 2-10.

1. Marine plywood for under deck support (optional)
2. Four 1/4" - 20 x 1/2" hex head stainless steel screws
3. Four 1/4" - 20 x 1/2" stainless steel nuts
4. Six 3/8" 6-gauge ring terminals
5. #6 AWG red wire class 105°C

## Installation (Continued)

6. #6 AWG black wire class 105°C
7. 1" diameter heat shrink tubing
8. 2" diameter heat shrink tubing
9. Wire ties
10. Two #10, 6-gauge ring terminals
11. Loctite® 242 thread locker (optional)
12. 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.
3. Insert three mounting studs into the threaded 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.

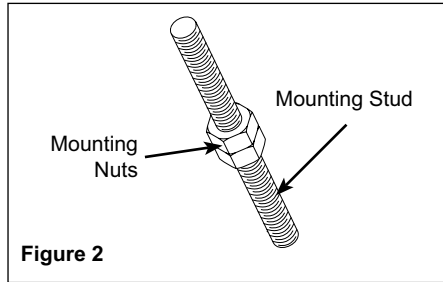


Figure 2

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

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

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



## WARNING

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



## CAUTION

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

## WARNING

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.
2. Unscrew protective rubber cap from top of 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.
4. Tighten adjusting nut on switch from below deck to complete switch installation.

## ANCHOR WINCH WIRING INSTALLATION

### ANCHOR WINCH TO NEGATIVE BATTERY TERMINAL

1. Measure and cut 6-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

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 3/8" ring terminal to both ends of wire.

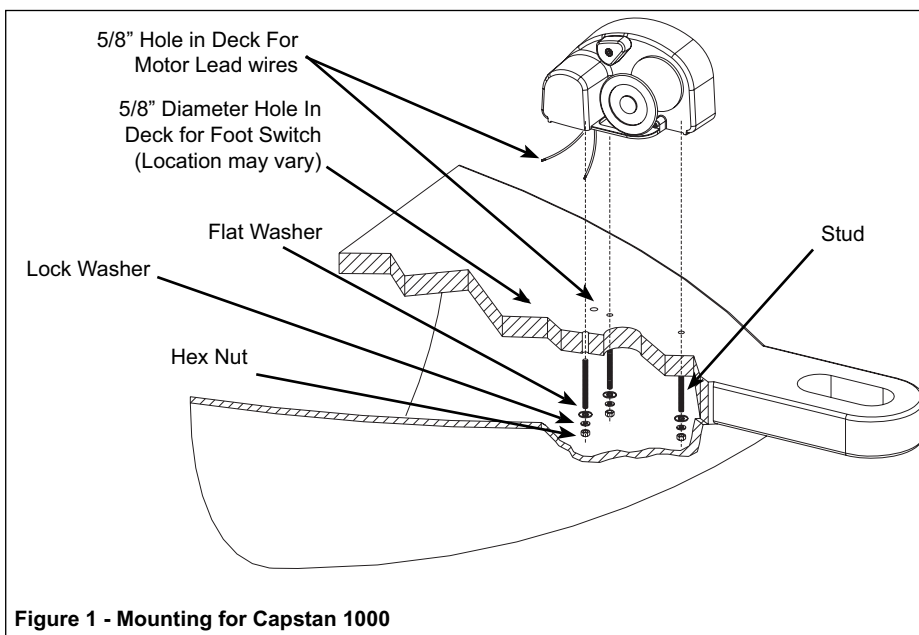


Figure 1 - Mounting for Capstan 1000

## Installation (Continued)

- Using a 1/4"-20 x 1/2" screw, connect black wire coming from anchor winch to newly installed 6-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 6-gauge black wire to negative battery terminal.

### ANCHOR WINCH TO SWITCH

- Measure and cut 6-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.

#### **⚠ DANGER**

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



- After wire is run, crimp a 3/8" ring terminal to end of wire to be connected to motor.
- Using a 1/4"-20 x 1/2" screw, connect the red wire coming from anchor winch to this 6-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.
- Crimp a 3/8", 6-gauge ring terminal to other end of this wire.
- Connect this ring terminal to one of the ring terminals coming from the pre-wired connections on the switch. Secure using a 1/4"-20 x 1/2" screw and nut. Protect junction by placing a 1" diameter piece of heat shrink tubing over connection and apply heat until tubing is secure.

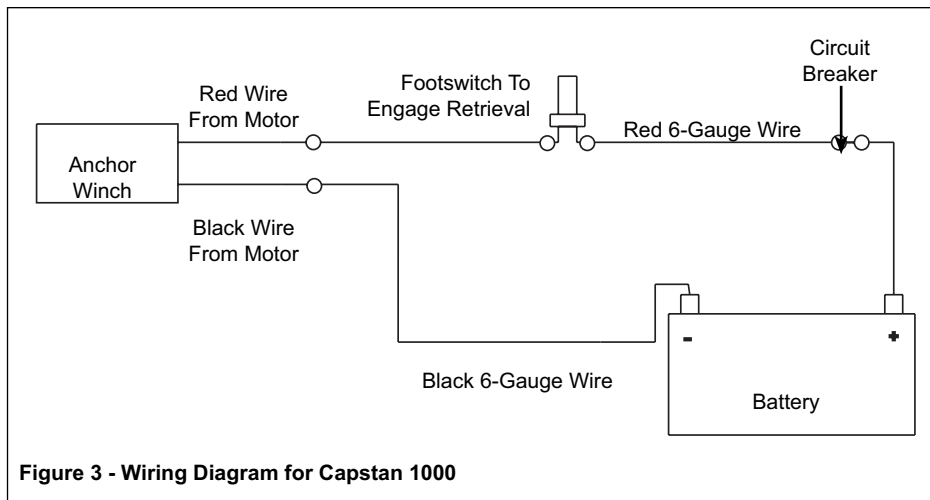


Figure 3 - Wiring Diagram for Capstan 1000

### SWITCH TO BATTERY

- Measure and cut 6-gauge red wire to run from switch to battery. Allow some slack to prevent connections being too short and leaving enough room to crimp end of wire. Run wire in boat before crimping any connections. Use cable ties to secure wiring to boat.

#### **⚠ DANGER**

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



- Crimp a 3/8" 6-gauge ring terminal to one end of wire.
- Using a 1/4"-20 x 1/2" screw, connect the remaining red wire coming from the switch to this 6-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.
- Crimp a #10, 6-gauge ring terminal to other end of wire. This end will be attached to post marked "aux" on circuit breaker.
- Cut a 1' section of 6-gauge red wire and crimp a 3/8" 6 gauge ring terminal to one end. Crimp a #10, 6-gauge ring

terminal to the other end. This will be used as a circuit breaker jumper.

- Assemble circuit breaker to wire by placing #10 ring terminal onto post marked "bat" and secure with nut on circuit breaker.
- Attach remaining 6-gauge red wire coming from switch to the post on the circuit breaker marked "aux".
- Protect connection by placing a 2" diameter piece of heat shrink tubing over the connection and applying heat until the tubing is secure. Finally, connect the 3/8" 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.
- If capstan does not turn, but motor runs, motor polarity is incorrect.
- To correct, reverse red and black wires at motor leads.

### LOADING ROPE

#### **⚠ WARNING**

*Use of rope NOT specified by*

*Powerwinch® could cause unit or property damage or personal injury and will void warranty.*

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

### Product Model

### Powerwinch® Recommended Rope

Capstan 1000

1/2" to 3/4" diameter, three strand, medium lay, premium nylon

Chart 1 - Recommended Rope

## 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® are used with this product. Use of non-specified ropes could cause reduced levels of performance or serious personal injury and/or property damage. Use of non-specified ropes will also void warranty.

## Unit Operation

**⚠ CAUTION** *Tie off anchor line to a deck cleat. Do NOT use anchor winch to tie off anchor.*

**⚠ CAUTION** *Do not allow the load to drive the winch backwards or serious gear train damage could result. In addition, your warranty will be voided.*

## RETRIEVING ANCHORS

1. To retrieve anchor, align bow of boat with anchor rope.
2. Place motor(s) in forward and move boat slowly toward anchor point.
3. Untie anchor line from deck cleat.
4. Face capstan end and make several wraps with rope counter-clockwise around capstan.
5. Push foot switch down to activate winch motor and pull line in allowing winch to lift the load. When anchor is in bow roller or davit, release switch. Make sure anchor is secured in davit or bow roller.

## RETRIEVING LOBSTER TRAPS OR POTS

1. Untie line from cleat.
2. Face capstan end and make several wraps with line counter-clockwise around capstan.
3. Push foot switch down to activate winch motor and pull line in allowing the winch to lift the load.
4. When load is retrieved, release switch and tie off to a deck cleat.

## RAISING SAILS

**⚠ CAUTION** *Do not allow the load to drive the winch backwards or serious gear train damage could result. In addition, your warranty will be voided.*

**⚠ CAUTION** *Do not use winch motor to statically support weight of sail or serious motor damage could result. In addition, your warranty will be voided.*

This winch can also be used to lift heavy sails into position. The winch is not to be used to lower sails as this would drive the winch gear train backwards and cause serious damage.

1. Untie sail line from deck cleat.
2. Face capstan end and make several wraps with the sail line counter-clockwise around capstan.
3. Push foot switch down to activate winch motor and pull line to raise sail. When sail is fully extended, release foot switch and tie sail line to cleat.

## Maintenance

1. Following each boating 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.
2. Check rope or lines periodically for abrasion or deep cuts. Never splice old rope with new rope.
3. Inspect the capstan every 6 months for wear or corrosion. Replace capstan if necessary.
4. Check electrical connections every 6 months for corrosion. Replace any connection or wire which is damaged, corroded or frayed.

## Technical Service

For information regarding the operation or repair of this product please call (800) 243-3097.

## 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	<ol style="list-style-type: none"><li>1. Wrong rope size</li><li>2. Rope is frayed and worn</li><li>3. Rope is too stiff</li></ol>	<ol style="list-style-type: none"><li>1. Replace rope with three strand, medium lay, premium nylon 1/2" to 3/4" diameter rope</li><li>2. Replace rope</li><li>3. Replace rope</li></ol>
Anchor will not retrieve	Rope is wound around capstan in reverse	Wind rope in proper rotation around capstan. Face capstan end then feed rope over the top of capstan and wind counterclockwise

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## Notes

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

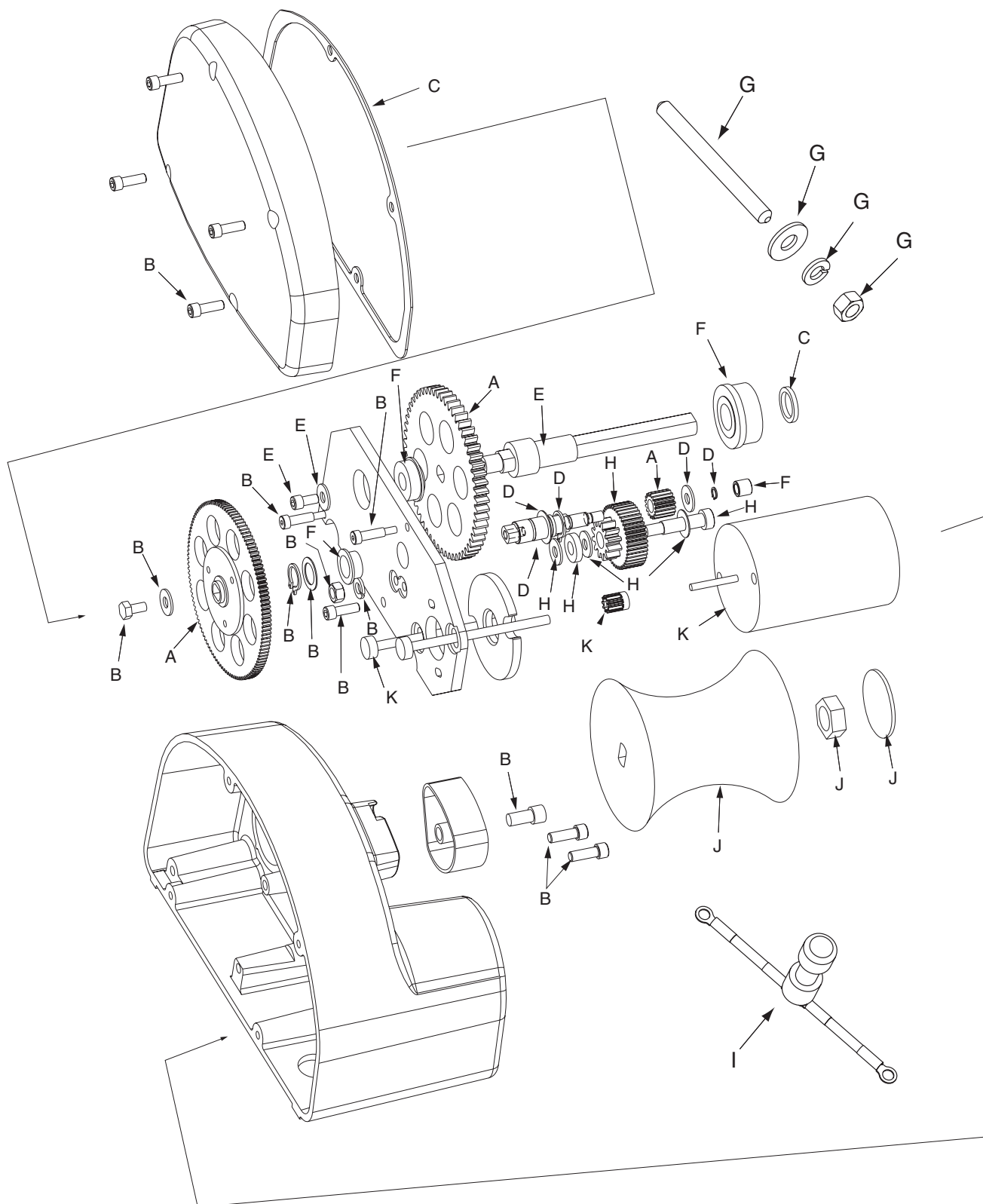


Figure 4 - Replacement Parts Illustration for Capstan 1000

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

Please provide following information:

- Model number
- Serial number
- Part description and number as shown in parts list

Address parts correspondence to:

Carefree/Powerwinch  
 2145 West 6th Ave  
 Broomfield, CO 80020

PART NUMBER	DESCRIPTION	ITEM
R001458	REPLACEMENT GEAR KIT	A
P10721	REPLACEMENT FASTENER KIT	B
P10722	REPLACEMENT GASKET/SEAL KIT	C
P10723	REPLACEMENT INTERMEDIATE SHAFT KIT	D
P10724	REPLACEMENT CAPSTAN SHAFT KIT	E
P10725	REPLACEMENT BEARING KIT	F
P10726	REPLACEMENT MOUNTING KIT	G
P10731	REPLACEMENT COMBINATION GEAR KIT	H
R001459	REPLACEMENT FOOTSWITCH KIT	I
R001461	REPLACEMENT CAPTSTAN KIT	J
R001462	REPLACEMENT MOTOR KIT	K
P1066800AJ	REPLACEMENT CIRCUIT BREAKER KIT	NOT SHOWN

### **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. 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. At the Option of the Company, return the Product to the Company for inspection. Authorization must be given prior to any Product return. Call the Company at 800-243-3097 or write the Company at 2145 West 6th Ave, Broomfield, CO 80020, for authorization and complete instructions on how to return the Product directly to the Company.
  4. Use reasonable care in maintenance, operation, use and storage of the Product in accordance with the instructions contained in the Owner's Manual.
  5. Have Warranty work performed by a dealer or representative approved by the Company.
  6. 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.
- 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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