Powerwinch
a Scott Fetzer company

WINDLASS

MODEL 825

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.

Description

The model 825 anchor windlass retrieves and spools any type of anchor. The uniquely designed rope and chain windlass features a worm gear drive system for fast power-up and power-down operation and manual free fall. This windlass is rated for a maximum working load of 1,000 lbs.

Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit.

General Safety Information

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 windlass.

⚠ WARNING ⚠

ALWAYS UNPLUG THE WIRING HARNESS TO PREVENT ACCIDENTAL STARTING BEFORE ATTEMPTING TO INSTALL, SERVICE, RELOCATE OR PERFORM ANY MAINTENANCE.

2. Never use the windlass to lift or move people or animals.
3. Stand away from the windlass when in use and keep children free from windlass area at all times.
4. Always keep hands clear of gypsy.

General Safety (Continued)

⚠ WARNING ⚠

ALWAYS STAND CLEAR OF THE AREA BETWEEN THE LOAD OR ANCHOR POINT AND THE WINDLASS. SERIOUS INJURY COULD OCCUR, IF THE ROPE BREAKS.

5. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result in serious personal injury.
6. Always wire the windlass with a circuit breaker. Failure to use the breaker could cause overheating thus creating a potential fire hazard or motor damage.

⚠ CAUTION

When the windlass is not in use, the anchor must be tied-off onto a cleat to relieve motor tension and prevent boat damage. Also, when trailering the boat the anchor must be tied-off. Failure to do so invalidates the warranty.

7. Inspect the entire rope for weak or worn condition or kinking (short tight twist or curl) before each use.
8. When replacing the rope, **always** use a Powerwinch rope. The rope affects the performance of the gypsy.
9. Never substitute cable for rope. Possible injury could occur.
10. Do not attempt to pull a load greater than the rated load of the windlass.
11. Do not operate the windlass under the influence of drugs, alcohol, or medication.

Specifications

Model	Anchor Type	No Load Line Line Speed (FPM)	Line Size	Voltage (Volt)	Circuit Breaker (Amps)	Unit Weight (lbs)	Gear Ratio
825	Any	55	Chain 5/16 or 3/8" P.C.* Rope 1/2" or 5/8"	12	200	75	192:1

* P.C. - Proof Coil - See page 7 for details

Unit Length	Unit Height	Unit Width	Approximate Boat Size	Maximum Working Load
15-3/4"	8"	11-1/4"	26' - 50'	1,000 lbs.

Installation

MOUNTING

To mount the windlass, refer to Figure 1 and follow the procedures outlined below.

Tools Required:

- Electric drill and 1/2", 1-1/8" and 2" drill bits
- Terminal crimping tool
- Adjustable wrench
- Flat-head screwdriver No. 2

Material Required (not included):

- 3/8"-16 bolts (4 stainless steel) Bolt length depends upon deck thickness. Calculate the deck thickness and add an additional 1-1/4" length for the overall bolt length. Example:
  1-1/2" deck + 1-1/4" clearance =2-3/4" bolt length.
- 3/8" diameter flat and lock washers (4 stainless steel)
- Marine plywood (optional) for underdeck support back plate
- #8 wood screws (4) for the switch mounting plate (Bolt length depends upon mounting location)
- Anchor
- Battery terminal (2)
- #2 gauge wire - red - battery to control unit
- #2 gauge wire - black - battery to control unit
- #2 gauge lugs (6)
- #16 gauge wire - blue - switch to control unit
- #16 gauge wire - green - switch to control unit
- #16 gauge wire - white - switch to control unit
- #16 wood screws (4) - control unit
- 5/16"-18 x 1" Hex head screw (1) ┐
- 5/16" lock washer (1) ├ Circuit breaker connections
- 5/16" nut (1) ┘

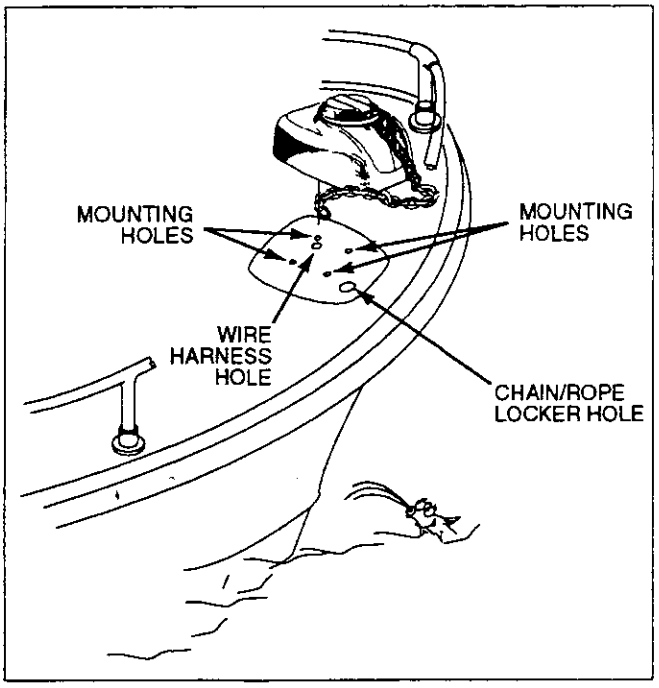


Figure 1 Mounting And Wiring Hole Locations

1. Place the **enclosed** template in the desired position on the deck and tape into position. Be sure the centerline of the template is on the centerline of the bow.

IMPORTANT: Be absolutely certain that the windlass is installed over the rope/chain locker before drilling any mounting holes. The anchor rope will feed into the rope locker through a two inch hole in the deck of the boat.

2. Spot and drill the holes as shown on the template. There are four 1/2" mounting holes, one 1-1/8" hole for the wiring harness and one 2" hole for the rope/chain hole to the locker (See Figure 1 and/or mounting template). If using the optional marine plywood base underneath, use the same mounting template for hole locations.

3. Place the windlass in position and bolt the windlass to the deck using 3/8"-16 bolts, lock washers and flat washer.

CONTROL UNIT INSTALLATION

To install control unit, refer to Figure 2 and follow the outlined procedures.

⚠CAUTION

Install the control unit assembly in the vertical direction with the arrows pointing in the upward position. Do not mount the control unit with the arrows pointing in the downward position or the control unit will not operate properly.

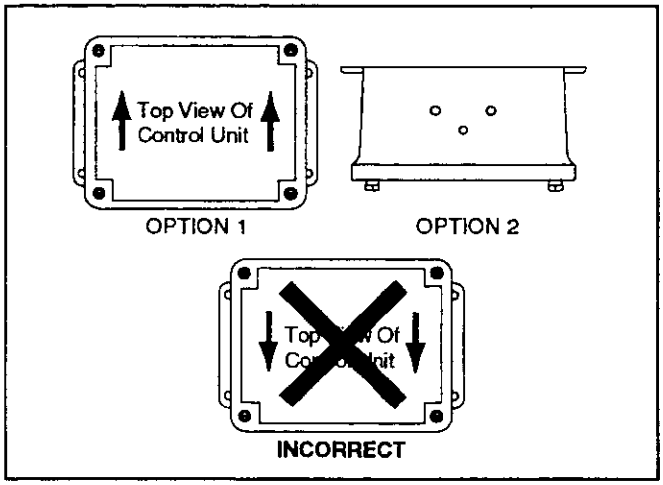


Figure 2 Control Unit Mounting Positions

1. Mount the control unit inside the rope/chain locker where the unit will **not** be immersed in water and **not** be battered by the rope or chain. The preferred location is under the deck close enough to the windlass so that the wires can be connected directly to the control unit.

Installation (Continued)

2. If possible, mount the control unit vertically shown in Figure 2 - Option 1. **Never** mount the control unit with the arrow pointing in the downward position or the unit will not operate properly. Horizontal mounting is acceptable, but not preferred (Option 2).

3. Drill the mounting holes using the control unit as a template.

4. Fasten the control unit with four #16 wood screws.

WIRE INSTALLATION FROM THE CONTROL UNIT TO THE WINDLASS

To wire the control unit to the windlass, refer to Figure 3 and follow the outlined procedures.

1. Measure and cut the required lengths of #2 gauge red and black to connect the **control unit** to the **windlass.**
2. Crimp a #2 gauge lug to one end of both the red and black wires.
3. Remove the top nut from the post on the left-hand side of the control unit (Post #4). Attach the **red** wire on the post and tighten the nut securely.
4. Remove the top nut from the post on the right-hand side of the control unit (Post #1). Attach the **black** wire on the post and tighten the nut securely.
5. Connect the **red** wire from the control unit to the **red** wire on the windlass by using the butt connector.
6. Connect the **black** wire for the control unit to the **black** wire on the windlass by using the butt connector.

SWITCHPLATE INSTALLATION

To install the switchplate, follow the outlined procedures.

1. Select the suitable location (bulkhead, console, etc.). Make sure there is enough room behind for the entire switch and wires.
2. Cut a hole 1-3/4" high and 1" wide.
3. Apply a thin bead of silicone sealer around the edge of the switch mounting plate and attach the plate using the four #8 round head wood screws.

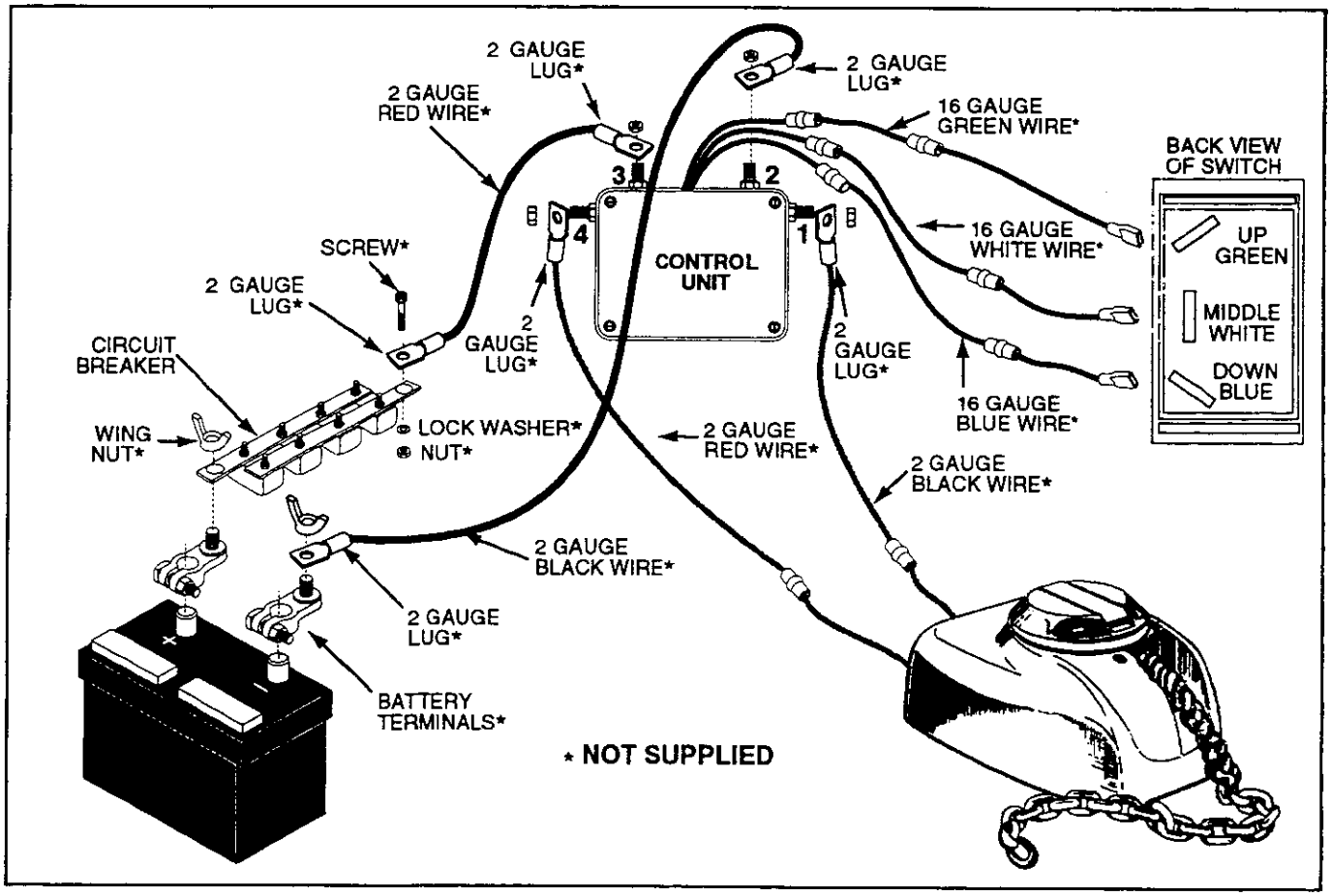


Figure 3 Wiring Diagram

Installation (Continued)

WIRE INSTALLATION FROM THE SWITCH TO THE CONTROL UNIT

To wire the switch to the control unit, refer to Figure 3 and follow the outlined procedures.

1. Measure and cut the required lengths of #16 gauge green, white and blue wires to connect the **switch** to the **control unit**.

2. Connect the #16 gauge **green** wire to the **green** wire on the control unit and the **green** wire on the switch using butt connectors.

3. Connect the #16 gauge **white** wire to the **white** wire on the control unit and the **white** wire on the switch using butt connectors.

3. Connect the #16 gauge **blue** wire to the **blue** wire on the control unit and the **blue** wire on the switch using butt connectors.

WIRE INSTALLATION FROM THE CONTROL UNIT TO THE BATTERY

To wire the control unit to the battery, refer to Figure 3 and follow the outlined procedures.

1. Measure and cut the required lengths of #2 gauge red and black wires to connect the **control unit** to the **battery.**

2. Crimp a #2 gauge lug to all four ends of the wires.

⚠CAUTION

Never attach the circuit breaker to the battery ground terminal (negative (-) post).

3. Attach the circuit breaker to the **positive (+)** side of the battery.

4. Attach one end of the **red** wire to the other end of the circuit breaker by using a 5/16"-18 x 1" hex head screw with a 5/16" lock washer and nut.

5. Remove the top nut from the post located to the left of the green, white and blue wires used to connect the switch to the control unit (Post #3). Attach the **red** wire on the post and tighten the nut securely.

⚠CAUTION

Never attach the black wire to the battery hot terminal (positive (+) post).

6. Attach the **black** wire to the **negative (-)** side of the battery.

7. Remove the top nut from the post located to the right of the green, white and blue wires used to connect the switch to the control unit (Post #2). Attach the **black** wire on the post and tighten the nut securely.

RODE INSTALLATION

The windlass is designed to accept anchor line, chain or a combination of the two. However, it is important that the rope-to-chain splice be done correctly. A shackle **will not** fit through the chain gypsy. The warranty is invalidated if a shackle is used. Use an eye splice to attach the anchor chain to the rope. This procedure should be done by a professional at a marina. However, complete rope splicing instruction are available in *Chapman Piloting Seamanship and Small Boat Handling,* Charles E. Chapman.

Use 5/16" or 3/8" Acco® proof coil chain or 1/2" or 5/8" Powerwinch line only. Run the chain through the windlass before splicing to ensure there is an exact match between the chain and the gypsy.

ANCHOR ATTACHMENT

The typical type of anchor used on this windlass is a danforth anchor. Refer to Figure 4 and attach the anchor to the thimble using a shackle (not supplied).

⚠CAUTION

Never cut the thimble connected to the rope. This will reduce the anchoring capacity and/or result in possible anchor loss. Cutting the factory splice automatically invalidates the warranty.

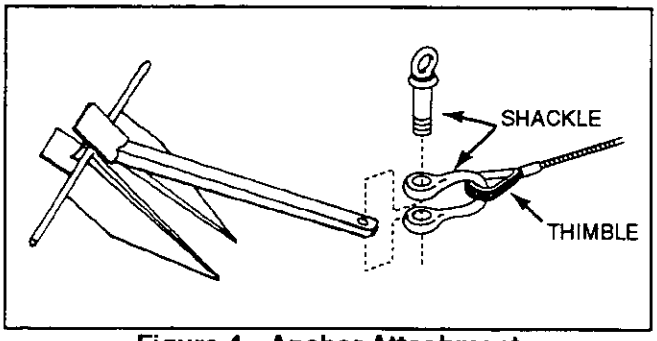


Figure 4 Anchor Attachment

Operation

There are two operating methods for the windlass: automatic and free-fall. The following sections describe each mode. Always keep hands clear of gypsy.

⚠WARNING⚠

ALWAYS STAND CLEAR OF THE AREA BETWEEN THE LOAD OR ANCHOR POINT AND THE WINDLASS. SERIOUS INJURY COULD OCCUR, IF THE ROPE BREAKS.

Operation (Continued)

⚠CAUTION

When the windlass is not in use, the anchor must be tied-off onto a cleat to relieve motor tension and prevent boat damage. Also, when trailering the boat the anchor must be tied-off. Failure to do so invalidates the warranty.

AUTOMATIC MODE

The windlass can be operated automatically using the switch. To lower the anchor, simply hold the switch in the "down" position until the desired line length is released. To raise the anchor, hold the switch in the "up" position until the anchor is retrieved.

⚠CAUTION

Never change the switch direction quickly without allowing the motor to come to a complete stop. Motor damage could occur.

FREE-FALL MODE

The windlass can be operated in a free-fall method by unfolding the clutch handle on top of the windlass and turning the handle counterclockwise until the desired line length is released (See Figure 5).

The rope/chain gypsy under the clutch knob spins freely from the force generated by the rope, chain and falling anchor. The more the clutch is disengaged, the faster the anchor will fall.

After the desired line length is reached, tighten the clutch by rotating the handle on top of clutch knob clockwise. This action tightens the clutch cones on the gypsy and fully engages the clutch.

Use the windlass to take in the line until the line runs vertically. When the line is vertical, break the anchor loose by slowly running the boat forward.

⚠CAUTION

Never use the windlass to break the anchor free.

Maintenance

This windlass requires WD40 or equivalent lubricant during the operating season and before storage. To lubricate the windlass, refer to Figure 6 and follow the outlined procedures.

1. Remove the lubrication screw on top of the windlass.
2. Insert the tip of the tube into the opening and squeeze for four seconds.
3. Replace the screw.

The rope must also be checked periodically for abrasion or deep cuts. Never splice an old rope with a new rope. Also check the eye splice, the loop connecting the rope and chain for wear. Replace the rope only with the Powerwinch rope that is specifically designed for this windlass. A piece of leather, sewn into the loop of the rope, will protect the rope from chafing and abrasion by the chain.

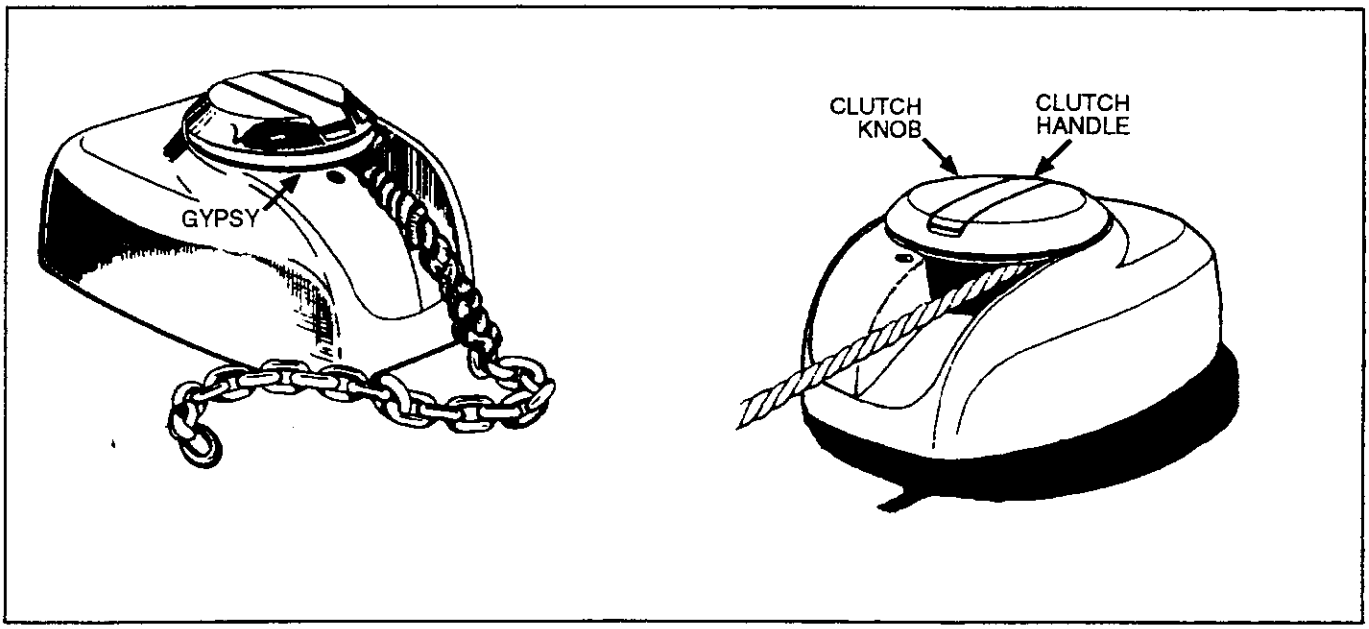


Figure 5 Clutch Adjustments

Check the electrical connections annually for corrosion. Replace any connection or wire which is damaged, corroded, frayed or worn.

Once a year, remove the corner of the chain tube cover on the front of the unit and flush the chain tube with two quarts of fresh water (See Figure 6).

Technical Service

For information regarding the operation or repair of this product, please call 1-800-243-3097 for assistance.

Replacement Parts Information

For information regarding where to order replacement parts, call toll free 1-800-243-3097. Please provide the following information:

- Model number
- Serial number
- Part number and description

Address parts correspondence to:

Powerwinch
100 Production Drive
Harrison, Ohio 45030

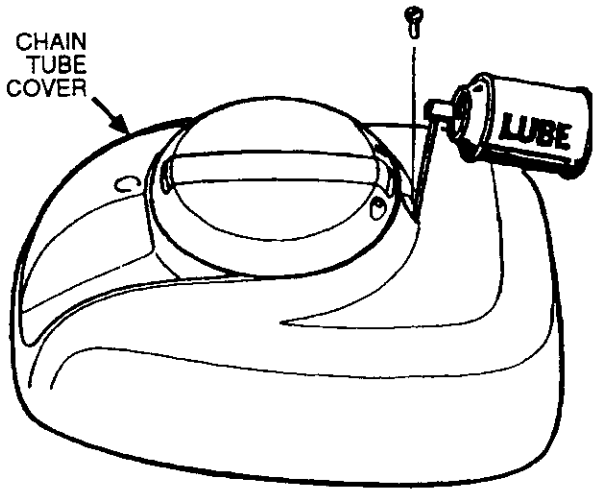


Figure 6 Lubrication

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Windlass will not operate	1. Disconnected or bad wiring or bad circuit breakers	1. Start checking the wiring at the battery. Bypass the circuit breakers and test the windlass by running a #2 gauge wire directly from the battery to the switch. If the windlass operates, the circuit breaker or some of the wiring between the battery and the switch is faulty. Double check the wiring and connections. If the problem continues, replace the circuit breakers.
		⚠ DANGER ⚠
		Bypass the circuit breaker to diagnose an electrical problem only. Always use a circuit breaker in normal operation.
	2. Bad switch or control unit.	2. Bypass the switch and if the windlass operates properly, check the wiring and connections at the switch. If all connections are tight, replace the switch. After replacing the switch and problems exist, replace the control unit.
Line slipping when retrieving	1. Wrong rope size	1. Make sure the rope size is 1/2" or 5/8" Powerwinch rope.
	2. Loose clutch	2 Tighten the clutch by flipping the handle open on the top of the unit and rotating clockwise. The clutch is constructed to occasionally handle extremely hard use. Do not be afraid to apply pressure on the clutch.
		3. Check the eye splice for tightness.
Chain binds on the gypsy	1. Wrong chain size	3 Make sure the chain size is 5/16" or 3/8" proof coil chain. If the chain is jammed, reverse the until to free the chain.

Proof Coil Specifications

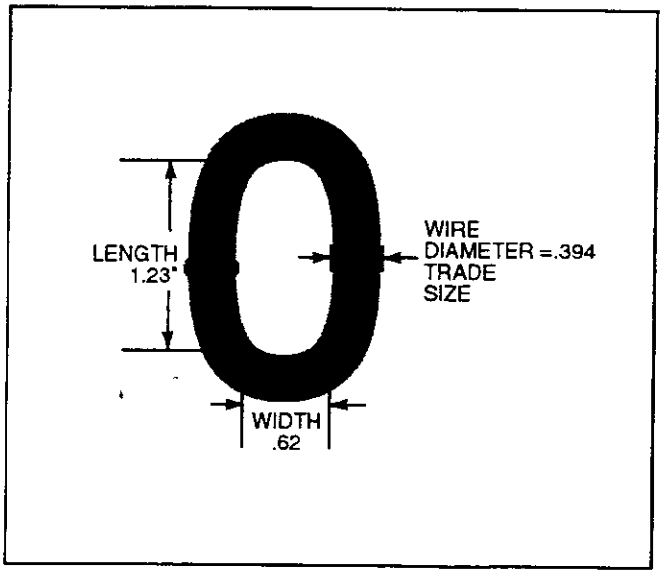


Figure 7 3/8" Proof Coil

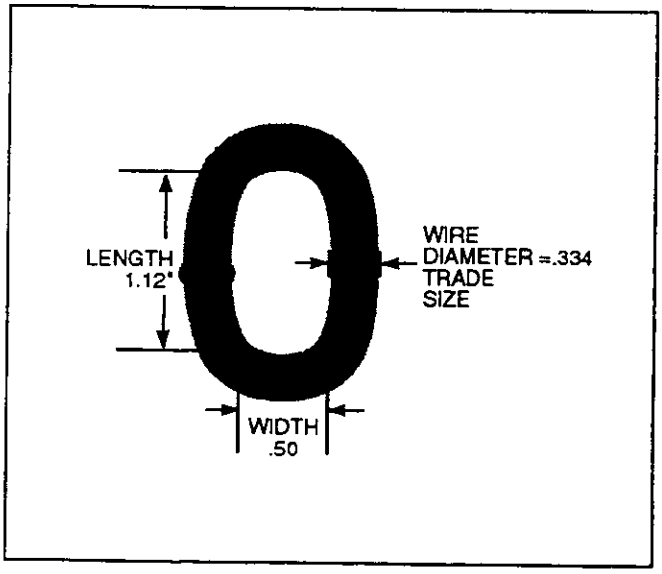


Figure 8 5/16" Proof Coil

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. 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 1-800-243-3097 or write the Company at 100 Production Drive, Harrison, OH 45030, 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.
3. Any cable replacement other than a break. Cable is a wear item and will fray and twist during normal use.

F. THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO TWO (2) YEARS 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.

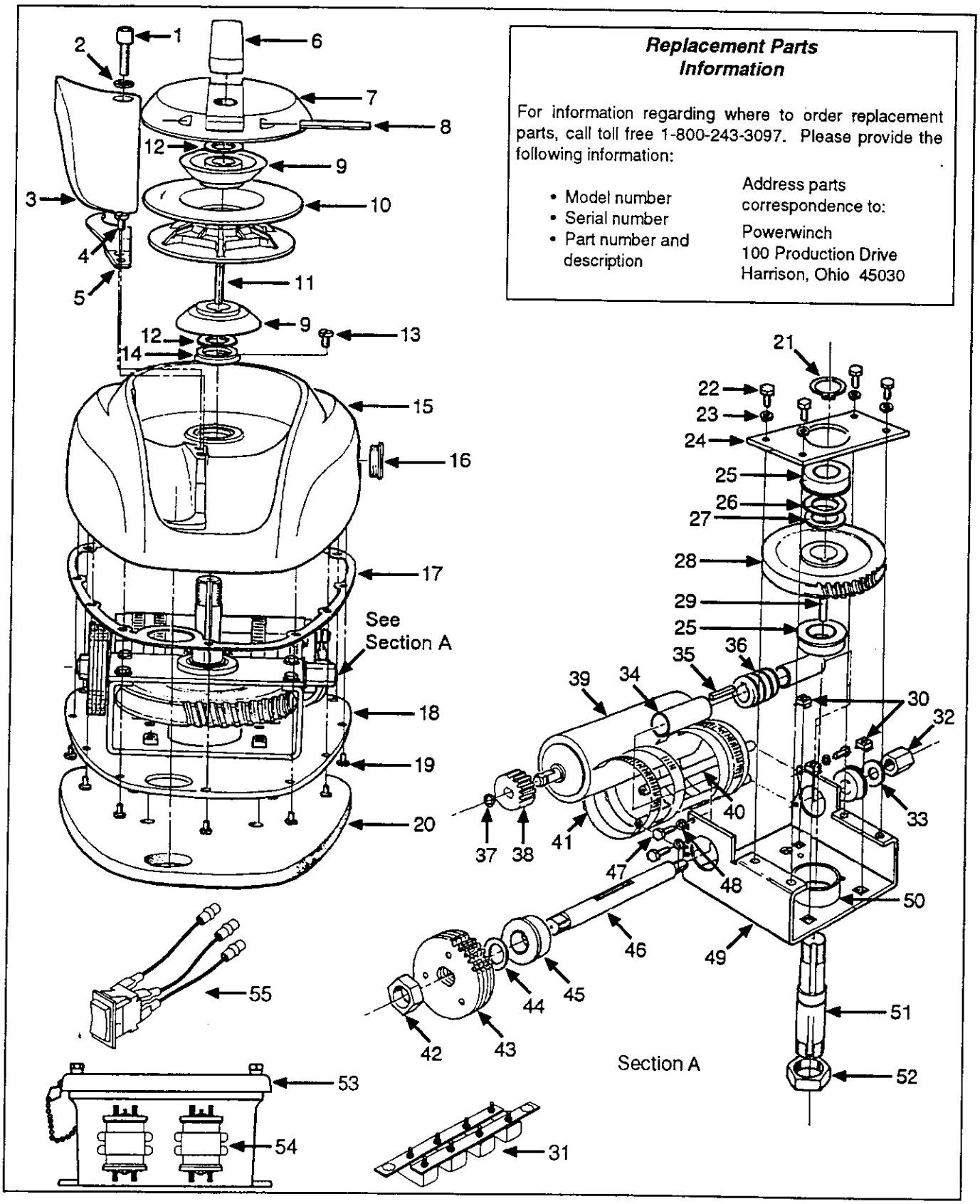
REPLACEMENT PARTS LIST

Powerwinch

a Scott Polar company

WINDLASS

MODEL 825



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- Serial number
- Part number and description

Address parts correspondence to:

Powerwinch
100 Production Drive
Harrison, Ohio 45030

Replacement Parts List

REF. NO.	DESCRIPTION	PART NO.	QTY.
1	Screw, socket head 1/4 - 20 x 1-1/4"	P79518	1
2	1/4 Lockwasher, stainless steel	P79525	1
3	Chain tube cover	P74190	1
4	Screw, pan head 1/4 - 20 x 1/2"	ST074004AV	1
5	Chain stripper	P73731	1
6	Clutch knob extension	P79413	1
7	Clutch knob	P79414	1
8	Pin	P79415	1
9	Clutch cone	P75303	2
10	Gypsy	P73716	1
11	Key, clutch cone	P79982	1
12	Washer 1.25 x .825	P79853	2
13	Screw, pan head #10 - 24 x 1/2"	P79527	1
14	Cover seal	P75922	1
15	Cover	P74191	1
16	Plug, manual crank hole	P71644	1
17	Gasket, base	P75920	1
18	Base plate	P75308	1
19	Screw, pan head #10 - 24 x 1/2"	P79527	10
20	Gasket, deck	P75921	1
21	1" Retaining ring	P79855	1
22	5/16 - 24 x 5/8 Screw, hex head	P79510	4
23	5/16 Lockwasher	P79807	4
24	Chassis top plate	P70128	1
25	Bearing, gypsy shaft	P71602	2
26	Washer 1.56 x 1.00 x .062	P79817	2
27	Washer 1.50 x 1.003 x .028	P79818	1
28	Worm gear	P71789	1
29	Key, worm gear	P79981	1
30	Nut, retaining	P79706	4
31	Circuit breaker	P78329	1
32	Nut, manual hex drive	P79730	1
33	Spacer, manual hex drive nut 1/2 x 1-1/4 x 1/4	P71811	1
34	Tube, worm spacer	P71814	2
35	Key, worm pinion	P79980	1
36	Gear, worm pinion	P71790	1
37	Snap ring	P79851	1
38	Gear, motor pinion	P71704	1
39	Motor	P72021	1
40	Motor mounting rod	P72203	3
41	Motor strap	P79899	4
42	3/4 Nut, worm shaft	P79716	1
43	Spur gear assembly	P71744	1
44	Washer	P79822	2
45	Bearing, worm shaft	P71606	2
46	Worm shaft	P71003	1
47	1/4 - 20 x 3/4" Screw, hex head	P79521	4
48	1/4 Lockwasher	P79805	4
49	Chassis/ frame	P70129	1
50	Bearing collar	P71849	1
51	Gypsy shaft	P71004	1
52	1" Nut, gypsy shaft	P79717	1
53	Control unit assembly with solenoids	P78196	1
54	Solenoid	P78193	2
55	Switch assembly	P78307	1