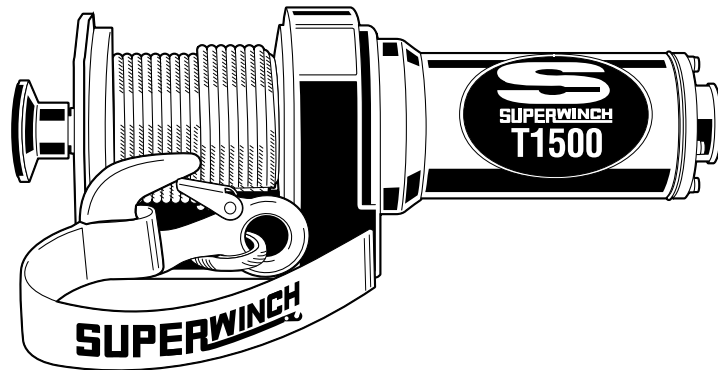


SUPERWINCH®



OWNER'S MANUAL

INSTALLATION • OPERATION • MAINTENANCE
SAFETY PRECAUTIONS • REPAIR PARTS

T1500 12 Volt DC Electric Winch

⚠ CAUTION

**READ AND UNDERSTAND THIS MANUAL BEFORE INSTALLATION
AND OPERATION OF YOUR SUPERWINCH PRODUCT.**

Superwinch, Inc.
Winch Drive
Putnam, CT 06260
U.S.A.
Tel. (860) 928-7787
Fax (860) 963-0811

Superwinch, Ltd.
Abbey Rise, Whitchurch Road
Tavistock, Devon PL 19 9DR
England
Tel. +44 (0) 1822 614101
Fax +44 (0) 1822 615204

INTRODUCTION

Thank you for purchasing a T1500 winch from Superwinch. It has been designed and manufactured to provide years of trouble-free operation. We hope you will be pleased with its performance. If you are not, for any reason, please contact our Customer Service Department: (860) 928-7787 USA; +44 (0) 1822 614101 England.

When requesting information or ordering replacement parts; always give the following information:

1. Winch Part Number
2. Serial Number (found on housing)
3. Part Number (found in Replacement Parts List section)
4. Part Description

Please read and understand this Owner's Manual prior to installing and using your winch. Pay particular attention to the General Safety Information. Your winch is a very powerful machine. If used unsafely or improperly, there is a possibility that property damage or personal injury can result. We have included several features in this winch to minimize this possibility; however, your safety ultimately depends on your caution when using this product.

SAFETY PRECAUTIONS

Throughout this manual, you will find notations with the following headings:

- ⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. This notation is also used to alert against unsafe practices.

The following symbols on the product and in the Owner's manual are used:



Note: Indicates additional information in the installation and operation procedures of your winch.

Correct installation of your winch is a requirement for proper operation.

Please Note: Winch is designed primarily for intermittent applications. This winch is not designed to be used in industrial or hoisting applications and Superwinch does not warrant it to be suitable for such use. Superwinch manufactures a separate line of winches for industrial/ commercial use. Please contact our Customer Service Department for further information. Congratulations on your choice!

GENERAL DESCRIPTION

Each winch is equipped with a permanent magnet motor and is designed for intermittent duty general use. The winch is not designed to be used in industrial or hoisting applications and the manufacturer does not warrant it to be suitable for such use.

Freespool Clutch is operated by a pull and turn knob which disengages the gearbox to allow the wire rope to be pulled out without using electric power. A tension plate reduces backlash and snarling when pulling out the wire rope.

Remote Switch allows a wide variety of mounting options.

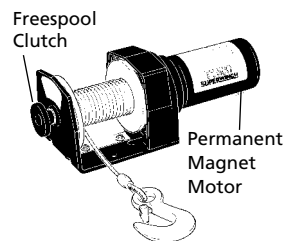


Figure 1

ROLLING LOAD CAPACITIES

Slope*	10% (6°)	20% (11°)	30% (17°)	100% (45°)
Lbs.**	7,525	5,100	3,925	1,925
kg**	3413	2313	1780	873

Ratings assume a 10% coefficient of friction.

* A 10% slope is a rise of one foot in ten feet. Slope in approximate degrees is also shown above.

** All loads shown are for single-line operation. Double-line operation with optional pulley block (see Figure 2) approximately doubles capacity of winch.

UNPACKING

This carton contains the following items. Please unpack carefully.

Read instructions before beginning.

Description	Quantity
Winch assembly with wire rope	1
Circuit breaker assembly with hardware	1
Switch	1
Handsaver	1
Hardware kit	1
Switch bracket	1

PERFORMANCE

Wire Rope Layer	Max. Pulling Capacity lbs.	kg
1	1,500	680
2	1,225	556
3	1,025	465
4	900	408

Load lbs.	kg	Speed ft/min	m/min	Motor Current Amps 12V
0	0	14.5	4.4	8
250	113	12.7	3.9	20
500	227	11.3	3.4	30
1,000	454	8.5	2.6	60
1,500	680	5.2	1.6	90

*Based on first layer performance

SPECIFICATIONS

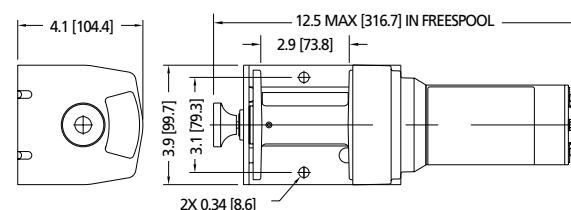
Working Load* 1,500 lb. (680 kg)
Wire Rope 5/32" x 25'

Motor 12 VDC 0.67 hp
(0.5 kW) peak

Gear Ratio 153:1

*Based on first layer performance

DIMENSIONS



NOTES:
1. All dimensions are in inches [millimeters].

GENERAL SAFETY INFORMATION

Your winch is a very powerful machine. If used unsafely or improperly, there is a possibility that property damage or personal injury could result.

⚠ WARNING *The wire rope may break before the winch stalls. For heavy loads, use a pulley block to reduce the load on the wire rope.*

1. Maximum working load capacity is on the wire rope layer closest to the drum. **DO NOT OVERLOAD. DO NOT ATTEMPT PROLONGED PULLS AT HEAVY LOADS.** Overloads can damage the winch and/or the wire rope and create unsafe operating conditions. **FOR LOADS OVER 1,000 POUNDS (454 kg), WE RECOMMEND THE USE OF THE OPTIONAL PULLEY BLOCK TO DOUBLE LINE THE WIRE ROPE (Figure 2).** This reduces the load on the winch and the strain on the wire rope by approximately 50%. Attach hook to load bearing part. **The vehicle engine should be running during winch operation.** If considerable winching is performed with the engine off, the battery may be too weak to restart the engine.

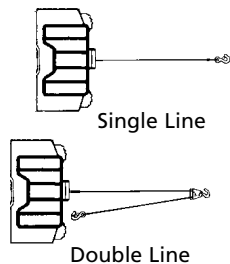


Figure 2

2. **AFTER READING AND UNDERSTANDING THIS MANUAL, LEARN TO USE YOUR WINCH.** After installing the winch, practice using it so you will be familiar with it when the need arises.



3. **DO NOT "move" your vehicle** to assist the winch in pulling the load. The combination of the winch and vehicle pulling together could overload the wire rope and the winch.

4. **ALWAYS STAND CLEAR OF WIRE ROPE, HOOK AND WINCH. IN THE UNLIKELY EVENT OF ANY COMPONENT FAILURE IT'S BEST TO BE OUT OF HARM'S WAY.**

5. **INSPECT WIRE ROPE AND EQUIPMENT FREQUENTLY. A FRAYED WIRE ROPE WITH BROKEN STRANDS SHOULD BE REPLACED IMMEDIATELY.**

Always replace wire rope with the manufacturer's identical replacement part (see Replacement Parts List). Periodically check the winch installation to ensure that all bolts are tight.

6. **USE HEAVY LEATHER GLOVES** when handling wire rope. **DO NOT LET WIRE ROPE SLIDE THROUGH YOUR HANDS.**

7. **NEVER WINCH WITH LESS THAN 5 TURNS** of wire rope **AROUND THE WINCH DRUM** since the wire rope end fastener may **NOT** withstand full load.

GENERAL SAFETY INFORMATION (CONT.)

8. **KEEP CLEAR OF WINCH, TAUT WIRE ROPE AND HOOK WHEN OPERATING WINCH.**

Never put your finger through the hook. If your finger should become trapped in the hook, you could lose your finger.



ALWAYS USE THE HANDSAVER when guiding the wire rope in or out (See Figure 3).

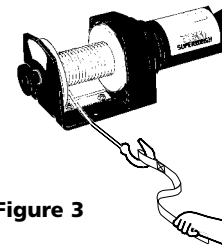


Figure 3

9. **NEVER HOOK THE WIRE ROPE BACK ONTO ITSELF** because you could damage the wire rope. Use a nylon sling (Figure 4).

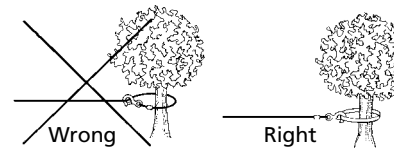


Figure 4

10. It is a good idea to lay a heavy blanket or jacket over the wire rope near the hook end when pulling heavy loads (Figure 5). If a wire rope failure should occur, the cloth will act as a damper and help prevent the rope from whipping.

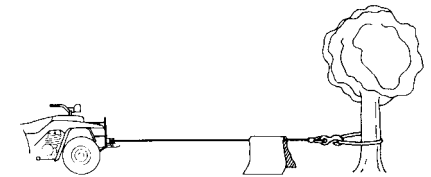


Figure 5

11. **NEVER USE YOUR WINCH FOR LIFTING OR MOVING PEOPLE.**



12. Your winch is not intended for overhead hoisting operations.

13. **AVOID CONTINUOUS PULLS FROM EXTREME ANGLES** as this will cause the wire rope to pile up on one end of the drum (Figure 6). This can jam the wire rope in the winch, causing damage to the rope or the winch.

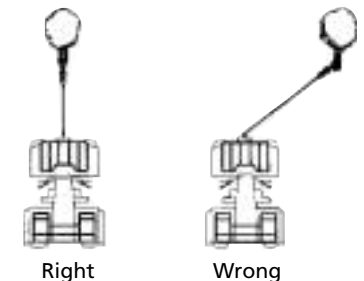


Figure 6

14. **NEVER OBSCURE THE WARNING INSTRUCTION LABELS.**

15. Always operate winch with an unobstructed view of the winching operation.

16. Equipment such as tackle, hooks, pulley blocks, straps, etc. should be sized to the winching task and should be periodically inspected for damage that could reduce their strength.

GENERAL SAFETY INFORMATION (CONT.)

17. NEVER RELEASE FREESPOOL CLUTCH WHEN THERE IS A LOAD ON THE WINCH.
18. NEVER WORK ON OR AROUND THE WINCH DRUM WHEN WINCH IS UNDER LOAD.
19. DO NOT OPERATE WINCH WHEN UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR MEDICATION.
20. ALWAYS DISCONNECT WINCH POWER LEADS TO BATTERY BEFORE WORKING IN OR AROUND THE WINCH DRUM so that the winch cannot be turned on accidentally.
21. When moving a load, slowly take up the wire rope slack until it becomes taut. Stop, recheck all winching connections. Be sure the hook is properly seated. If a nylon sling is used, check the attachment to the load.
22. When using your winch to move a load, place the vehicle transmission in neutral, set vehicle brake, and chock all wheels.
23. DO NOT USE THE WINCH TO HOLD LOADS IN PLACE. Use other means of securing loads such as tie down straps. 
24. USE ONLY FACTORY APPROVED SWITCHES, REMOTE CONTROLS AND ACCESSORIES. Use of non-factory approved components may cause injury or property damage and could void your warranty.
25. DO NOT MACHINE OR WELD ANY PART OF THE WINCH. Such alterations may weaken the structural integrity of the winch and could void your warranty.
26. DO NOT CONNECT WINCH TO EITHER 110V AC HOUSE CURRENT OR 220V MAINS AS WINCH BURNOUT OR FATAL SHOCK MAY OCCUR.
27. Never allow shock loads to be applied to winch or wire rope.
28. Use caution when pulling or lowering a load up and down a ramp or incline. Keep people, pets and property clear of the path of the load.

INSTALLATION

Correct installation of your winch is required for proper operation.

⚠ WARNING *This winch **MUST** be mounted with the wire rope in the under-wind direction. Improper mounting could damage your winch and void your warranty.*

Step (1)

Install mounting kit or structural support for winch.

Step (2)

Mount the winch to the mounting kit base plate or to the mount that you have designed. Typical mount is to a flat surface capable of handling the loads.

The M8 x 1.25 x 30mm mounting bolts supplied are the correct length for use with a 1/4" (6.3mm) thick mounting plate.

⚠ WARNING *Do not substitute any strength grade weaker than ISO grade 4.6*

Step (3)

Disconnect the vehicle battery leads.

⚠ WARNING *Batteries contain gasses which are flammable and explosive. Wear eye protection during installation and remove all metal jewelry. Do not lean over battery while making connections.*

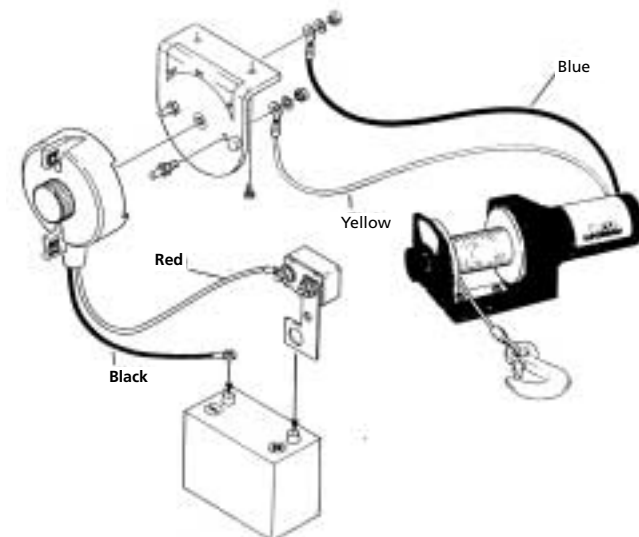


Figure 7

Step (4)

Refer to Figure 7 for wiring diagram.

Note: Your winch may be supplied with spade terminal ends on the blue and yellow motor leads. Before connecting these leads to the switch, attach the terminal adapters to the ends of these leads to ensure a proper connection.

Route the two wires from the motor to the switch bracket. Route the two wires from the switch to the battery. Attach the circuit breaker to battery end of the red wire. Wrap the circuit breaker with electrical tape to prevent accidental short circuits.

Apply several layers of electrical tape where wiring may come into contact with sharp metal parts of the vehicle to prevent insulation abrasion or cutting. Use the nylon cable ties provided to secure the wires.

Install switch bracket terminals, bracket, motor wires and switch wires using the hardware supplied.

Note: If you choose to locate the winch at a greater distance than the wires provided will permit, winch speed or pulling capacity may decrease.

Attach the circuit breaker directly to the battery positive terminal and reattach the terminal to the battery. If your battery is equipped with side pole terminals, it may be necessary to obtain auxiliary side terminal bolts from your local auto parts dealer. Connect the remaining black switch wire to the battery negative terminal and connect the terminal to the battery.

Step (5)

Pull and turn (see Figure 8) the freespool clutch knob to the "Free" position. Pull several feet of wire rope off the drum. Return the clutch knob back to the "Engaged" position. Activate the winch in Cable Out momentarily to check drum rotation direction. If the drum rotates in the wrong direction, recheck your wiring.

SWITCH OPERATION



CAUTION *The winch assembly must be kept free of dirt and moisture to ensure safe operation.*

The switch and bracket are designed so the switch will be mounted properly only when installed as shown in Fig 7. Do not attempt to install the switch in the opposite direction. If the switch is installed incorrectly and electrical contact is made, the winch will run opposite the direction indicated on the product label. **Improper installation may result in injury.**

The screw threads into the tapped hole in the bracket. Secure the switch to the bracket by tightening the round thumb screw on the outside of the switch. Do not over-tighten the thumb screw.

After the switch is in place, remove excess slack from the wiring harness in the vehicle by doubling over slack areas and tying securely. Do not leave any dangling or loose wires.

In the "OFF" position, an electrical shunt provides dynamic braking action which will reduce the possibility of the winch coasting. In the "OFF" position, the shunt reduces the action of a load backdriving the winch. However, a load can cause the winch to creep.

FREESPOOL OPERATION

Pull and turn the clutch knob to the "Free" position as shown in Figure 8. If there is a load on the wire rope, the clutch knob may not pull out easily. DO NOT FORCE THE

CLUTCH KNOB. Release tension on the clutch by joggling out some of the wire rope. Release the clutch and pull out the wire rope and secure to anchor or load. Check that there are at least five (5) turns of wire rope left on the drum. Re-engage the drum by returning the clutch knob to the "Engaged" position. (See Figure 8).



CAUTION *Clutch must be fully engaged before winching. Never engage clutch knob while drum is turning.*

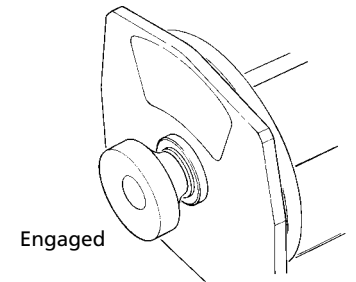
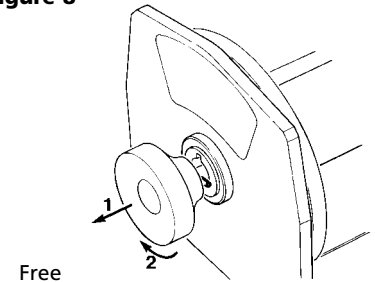


Figure 8



CAUTION *The clutch knob has been adjusted and permanently locked in place with a thread locking compound at the factory. Do not attempt to re-adjust the knob.*

EXTENDING THE LIFE OF YOUR WINCH

1. **KEEP A TIGHTLY WOUND WIRE ROPE DRUM.** Do not allow the wire rope to become loosely wound. A loosely-wound spool allows a wire rope under load to work its way down into the layers of wire rope on the drum. When this happens, the wire rope may become wedged within the body of the windings damaging the wire rope. To prevent this problem, keep the wire rope tightly and evenly wound on the drum at all times. A good practice is to rewind the wire rope under tension after each use. One way to do this is to attach the hook to a stationary object at the top of a gradual incline and winch your vehicle up the incline.
2. **DO NOT ALLOW WINCH MOTOR TO OVERHEAT.** Keep the duration of pulls as short as possible. If the motor becomes uncomfortably hot to the touch, stop winching and allow the motor to cool down. At 1,250 lb. (567 kg) allow motor to cool after 20 seconds of ON time. At loads of 500 lb. (227 kg) or less allow to cool after 2 1/2 minutes of ON time. **KEEP THE ENGINE RUNNING TO RECHARGE THE BATTERY** during this break.
3. **USE A PULLEY BLOCK FOR HEAVY LOADS.** To maximize winch and wire rope life, use a pulley block to double line heavier loads (Figure 2).

CAUTION *If the winch motor stalls, do not continue to apply power.*

4. The pull required to start a load moving is often much greater than the pull required to keep it moving. **AVOID FREQUENT STOPS AND STARTS** during pull.
5. **PREVENT KINKS BEFORE THEY OCCUR.**

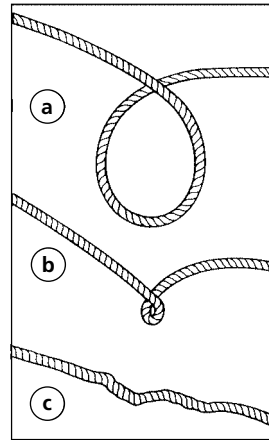


Figure 10

- a. This is the start of a kink. Wire rope should be straightened.
- b. Wire rope was pulled and loop has tightened into a kink. Wire rope is now permanently damaged and must be replaced.
- c. Result of kinking is that each strand pulls a different amount causing strands under greatest tension to break and reduce load capacity of wire rope. The wire rope must be replaced.

REPLACING THE WIRE ROPE

Never substitute a heavier or lighter wire rope. Never use rope made of any other materials other than wire.

Always replace damaged wire rope with manufacturer's identical replacement part (see Replacement Parts list). Pass attaching end of wire rope through the fairlead (if equipped) and attach it to the drum. When inserting the wire rope into the drum, insert it into the correct end of the hole provided (Figure 11). Tighten the set screw securely.

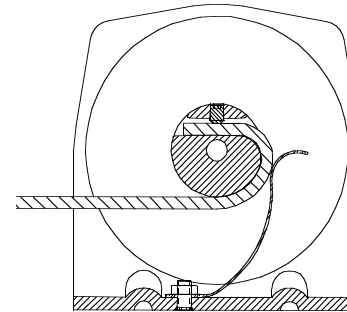


Figure 11

MAINTENANCE AND REPAIR

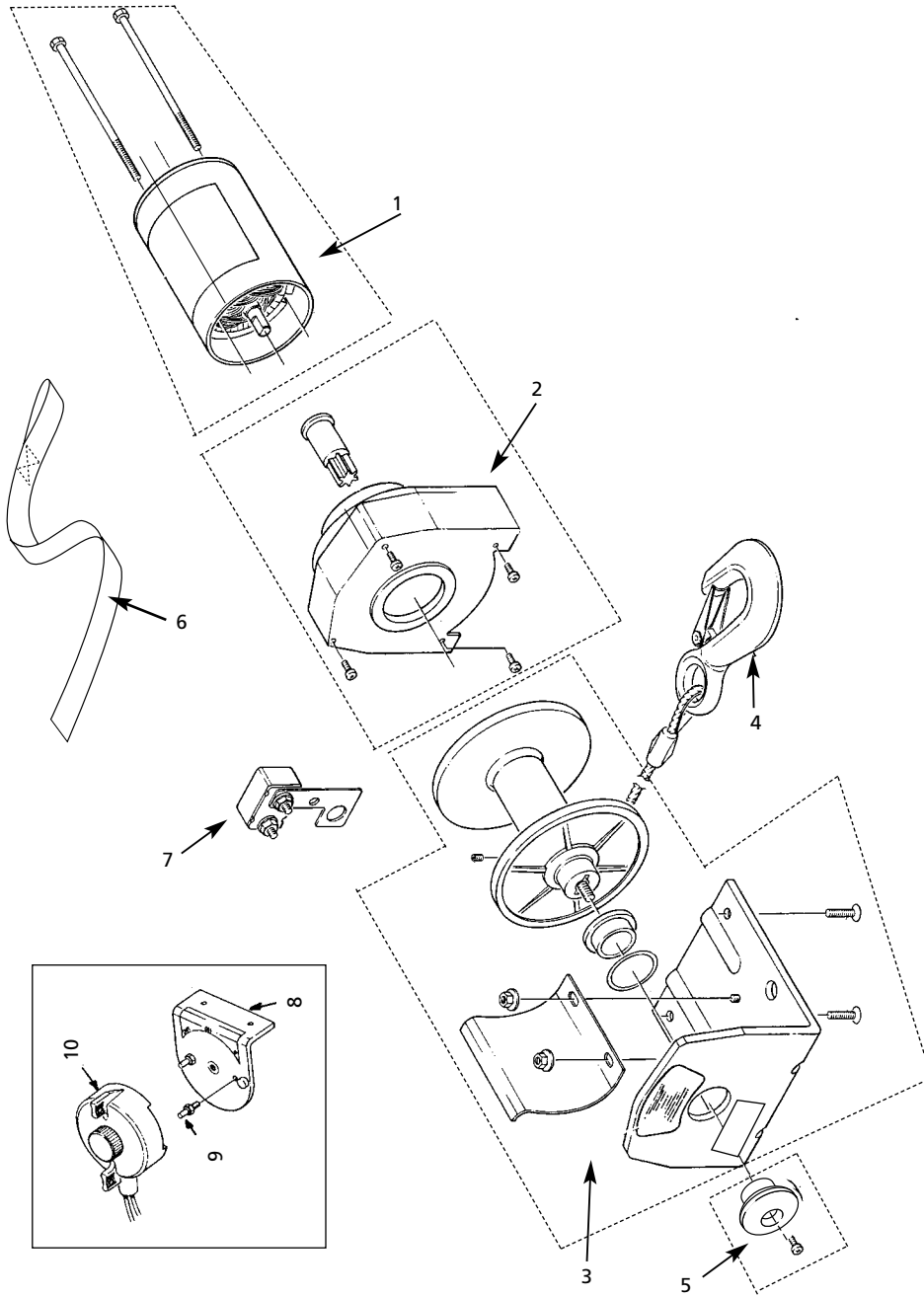
Periodically check tightness of mounting bolts and electrical connections. Remove any dirt or corrosion that may have accumulated on the electrical connections.

Repairs should be done by Authorized Superwinch Repair Centers ONLY. Do not attempt to disassemble the gearbox. Disassembly will void warranty.

LUBRICATION

The gearbox is permanently lubricated. Relubrication is necessary after repair or disassembly. Use Shell Alvenia EP2 or equivalent.

WINCH ASSEMBLY



REPLACEMENT PARTS LIST

Reference Number	Description	Part Number	Qty
1	Motor, 12V, T-Series	87-20422	1
2	Gearbox Assembly	87-20408	1
3	Drum / Base Plate Assembly	87-20409	1
4	Wire Rope Assembly, 25'	1535A	1
5	Freewheel Knob Assembly	87-10871	1
6	Handsaver Strap	2239	1
7	Circuit Breaker Kit	87-22873-11	1
8	Switch Bracket w/terminal studs	87-25062	1
9	Terminal Studs only	90-12475	2
10	Switch	90-23377-06	1
D	Manual	87-10916	1
D	Hardware Kit	87-10471-05	1

D Not Shown

TROUBLESHOOTING CHART

If a problem arises, contact your nearest Superwinch dealer or repair center.

Symptom	Possible Cause(s)	Corrective Action
Motor will not operate or runs in one direction only	1. Switch inoperative 2. Broken wires or bad connection 3. Damaged motor	1. Replace switch 2. Check for poor connections 3. Replace or repair motor
Motor runs extremely hot	1. Long period of operation 2. Damaged motor	1. Allow to cool 2. Replace or repair motor
Motor runs but with insufficient power or line speed	1. Weak battery 2. Battery to winch wire too long 3. Poor battery connection 4. Poor ground 5. Damaged motor	1. Recharge or replace battery. Check charging system 2. Keep winch within distance allowed by lead wires 3. Check battery terminals for corrosion. Clean as required 4. Check and clean connections 5. Repair or replace motor
Motor runs but drum doesn't turn	1. Clutch not engaged	1. Engage clutch
Winch runs backwards	1. Motor wires reversed 2. Switch wires reversed 3. Switch installed incorrectly	1. Recheck wiring 2. Recheck wiring 3. Check switch installation
Winch coasts	1. Excessive load	1. Reduce load or double line

SUPERWINCH®

WARRANTY REPAIR CENTERS

USA

Superwinch Inc.
Winch Drive
Putnam, CT 06260
phone: 860-928-7787
repair@superwinch.com

Electric Motor Repair
2010 North 4th Street
Minneapolis, MN 55411
phone: 612-588-4693

Berens & Associates
124 Hegenberger Loop
Oakland, CA 94621
phone: 800-540-2858
berens94621@yahoo.com

Zorko's Alternator Service
241 Wells Road
Home, PA 15747
phone: 800-468-5055
zasapw@microserve.net

Electric Motors of Iowa City
50 Commercial Court
Iowa City, IA 52246
phone: 319-354-4040
emic4040@aol.com

CANADA

Demand Electric
228-39th St. N.E.
Calgary, AB T2E 2M5
403-230-2709

Harold Supply
3 Southerland Ave.
Sudbury, Ont. P3C 3A7
705-761-4455

Explora Industries Ltd.
9605-5th Ave.
Edmonton, AB T6E 0B2
780-430-8591

Dayworth Sales
1 Saunders Rd. Unit 2
Barrie, Ont. 9A7 9A7
705-726-7778

Les Equipment Twin
10401 Parkway Blvd.
Ville D'Anjou, PQ H1J 1R4
514-353-1190

Buffalo Industries
251-253 Princess Street
Winnipeg, Manitoba R2C 1M1
204-942-1951

Power Plus Tool Repair
57 Millenium Ave.
Moncton, NB E1E 2G2
560-855-8665

Muskoka Auto Parts
11 King William St.
Huntsville, Ont. P1H 2K8
705-789-2321

Lou Dennis Auto
Hiway 11 South
Sundridge, Ont. P0A 1Z0
705-384-5345

Outdoors Plus
128 Regional St.
P.O. Box 1349
Port Aux Basques, NF A0M 1C0
709-695-7533

Bobcaygeon Auto and Marine
91 Main St.
Bobcaygeon, Ont. K0M 1A0
705-738-2317

MAP Bracebridge
19 Taylor Rd.
Bracebridge, Ont. P1L 1W3
705-645-8785

MAP Fenelon Falls
165 Lindsay St.
Fenelon Falls, Ont. K0M 1N0
705-887-6232

Central Electric Motor Rewind
#1-1960 Windsor Rd.
Kelowna, BC V1Y 2Y3
250-860-4415
jnelsoncentral@netscape.net

Delta Tool Repair Limited
114-7533, 135th St.
Surrey, BC V3W 0N6
604-591-3230

Ted's Power Tool Repair
426-44th St. East
Saskatoon, SK S7K 0W1
306-934-6155

Bob's Electric Truck Service
845-B Macdonald Ave.
Regina, SK S4N 2X5
306-721-4148

Off Road Canada
251-12th St. "B" North
Lethbridge, AB T1H 2K8
403-327-7722

Gary's Starter & Alternator
P.O.Box 7 Site 4
RR 1 Mount Uniacke B0N 1Z0
Contact: Gary Thorne
902-757-2388

Power Blitz Mfg. & Maintenance
577 Edgeley Blvd. Unit 6
Concord, Ont. L4K 4B2
905-669-8209
ali@powerblitz.com

Bruce's Recreation
92 Balbo Dr.
Shoal Harbour Nfld A5A 4A8
709-466-3355

Atlantic Recreation & Marine
5 School St.
Sydney, Nova Scotia
B1S 3G1
902-567-1697
sbidart@thearm.ca

UNITED KINGDOM

Superwinch, LTD
Abbey Rise, Whitchurch road
Tavistock, Devon PL19 9DR
+44 (0) 1822 614101

WORLDWIDE Contact your Local Superwinch Distributor or call Superwinch.