OWNER’S MANUAL
INSTALLATION • OPERATION • MAINTENANCE
SAFETY PRECAUTIONS • REPAIR PARTS

S3000, S4000, S5000
12 & 24 Volt DC Electric Winches
With Remote Control

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

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U.S.A.
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Abbe Rise, Whitchurch Road
Tavistock, Devon PL 19 9DR
England
Tel. (1822) 614101
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89-12792 Rev - 1/30/04
Thank you for purchasing an S series 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; (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 before installing 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 could result. We have included several features in the winch to minimize this possibility; however, your safety ultimately depends on your caution when using this product.

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.

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: The Superwinch S series winch is designed primarily for intermittent duty general use. 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**

![Diagram of winch components: Freespool Clutch, In-Drum Brake, Permanent Magnet Motor, Integrated Solenoids, Roller Fairlead, Remote Switch Receptacle]

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Working Load*</th>
<th>Wire Rope</th>
<th>Motor</th>
<th>Gear Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3000</td>
<td>3,000 lb. (1361 kg)</td>
<td>3/16&quot; x 60'</td>
<td>12V or 24VDC 1.3 hp (0.97 kW) peak</td>
<td>159:1</td>
</tr>
<tr>
<td>S4000</td>
<td>4,000 lb. (1814 kg)</td>
<td>7/32&quot; x 60'</td>
<td>12V or 24VDC 1.8 hp (1.34 kW) peak</td>
<td>159:1</td>
</tr>
<tr>
<td>S5000</td>
<td>5,000 lb. (2268 kg)</td>
<td>1/4&quot; x 50'</td>
<td>12V or 24VDC 2.1 hp (1.57 kW) peak</td>
<td>159:1</td>
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</table>

*R Based on first layer performance

**ROLLING LOAD CAPACITIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Slope*</th>
<th>10% (6°)</th>
<th>20% (11°)</th>
<th>30% (17°)</th>
<th>100% (45°)</th>
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</thead>
<tbody>
<tr>
<td>S3000</td>
<td>Lbs.**</td>
<td>12,563</td>
<td>8,503</td>
<td>6,527</td>
<td>3,213</td>
</tr>
<tr>
<td></td>
<td>kg**</td>
<td>5,698</td>
<td>3,857</td>
<td>2,961</td>
<td>1,457</td>
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<tr>
<td>S4000</td>
<td>Lbs.**</td>
<td>17,588</td>
<td>11,905</td>
<td>9,138</td>
<td>4,499</td>
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<tr>
<td></td>
<td>kg**</td>
<td>7,978</td>
<td>5,400</td>
<td>4,145</td>
<td>2,041</td>
</tr>
<tr>
<td>S5000</td>
<td>Lbs.**</td>
<td>22,613</td>
<td>15,306</td>
<td>11,749</td>
<td>5,784</td>
</tr>
<tr>
<td></td>
<td>kg**</td>
<td>10,257</td>
<td>6,943</td>
<td>5,329</td>
<td>2,624</td>
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</table>

*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.
This carton contains the following items. Please unpack carefully. **Read instructions before beginning.**

**Description** | **Quantity**
--- | ---
Winch assembly with wire rope including lead wires | 1
Circuit breaker assembly with hardware | 1
Handsaver | 1
Mounting hardware kit | 1
Remote pendant | 1
Owner’s manual | 1

**PERFORMANCE**

**S3000**

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
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<tbody>
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<td>kg</td>
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<td>1</td>
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<tr>
<td>2</td>
<td>2,250</td>
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<tr>
<td>3</td>
<td>2,000</td>
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<tr>
<td>4</td>
<td>1,750</td>
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<table>
<thead>
<tr>
<th>Load lbs.</th>
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<th>Speed ft/min</th>
<th>m/min</th>
<th>Motor Current Amps</th>
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<tbody>
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<td>0</td>
<td>17.0</td>
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<td>15</td>
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<tr>
<td>1,000</td>
<td>454</td>
<td>12.5</td>
<td>3.8</td>
<td>70</td>
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<td>2,000</td>
<td>907</td>
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<tr>
<td>2,500</td>
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<td>2.3</td>
<td>155</td>
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<td>3,000</td>
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<td>1.4</td>
<td>220</td>
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**S4000**

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<tr>
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<tr>
<td>4</td>
<td>2,000</td>
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<table>
<thead>
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<th>Load lbs.</th>
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<th>Speed ft/min</th>
<th>m/min</th>
<th>Motor Current Amps</th>
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<td>2,000</td>
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<tr>
<td>2,500</td>
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<td>1361</td>
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**S5000**

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
<th>Max. Pulling Capacity</th>
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</thead>
<tbody>
<tr>
<td>lbs.</td>
<td>kg</td>
</tr>
<tr>
<td>1</td>
<td>5,000</td>
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<tr>
<td>2</td>
<td>4,000</td>
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<td>4</td>
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<table>
<thead>
<tr>
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<th>kg</th>
<th>Speed ft/min</th>
<th>m/min</th>
<th>Motor Current Amps</th>
</tr>
</thead>
<tbody>
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<tr>
<td>1,000</td>
<td>454</td>
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<td>80</td>
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<td>2,000</td>
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<tr>
<td>3,000</td>
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<td>2.2</td>
<td>200</td>
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<tr>
<td>5,000</td>
<td>2268</td>
<td>4.5</td>
<td>1.4</td>
<td>350</td>
</tr>
</tbody>
</table>

* Based on first layer performance

**DIMENSIONS**

**S3000, S4000, S5000**

**NOTES**

1. All dimensions are in inches [millimeters].
2. Typical mount is to flat surface capable of handling the loads. Bolts to be Grade 5 or better.
INTERMITTENT DUTY

An electric winch is like any other motor driven power tool such as an electric drill or saw. The electric motor should not be allowed to become excessively hot. Normal precautions will extend the life of your motor. Keep the duration of pulls as short as possible. If the end of the motor becomes uncomfortably hot to touch, stop winching and allow the motor to cool down.

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

FEATURES

**Electric Motor** – 1.3 (S3000), 1.8 (S4000), 2.1 (S5000) peak hp (.97 (S3000), 1.34 (S4000), 1.57 (S5000) kW) 12V or 24Volt Permanent Magnet.

**Braking** – A wrap spring brake which will hold 50% of rated load on the first wrap. Reducing by approximately 10% per layer thereafter.

**Drum** – Die cast aluminum running in maintenance free bearings.

**Freespool Clutch** – Operated by an easy action lever 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** – 30’ (13.64 m) hand held pendant switch assembly with toggle switch.

**Mounting** – Optional custom engineered mounting kits are available for vehicle frame attachment.

GENERAL SAFETY INFORMATION

Your S series winch is a very powerful machine. Treat it with respect, use it with caution and always follow the safety guidelines.

**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. The S3000, S4000, and S5000 winch is rated at 3,000, 4,000, and 5,000 pounds (1361, 1814, 2268 kg) (single line) capacity on the wire rope layer closest to the drum. DO NOT OVERLOAD. DO NOT ATTEMPT PROLONGED PULLS AT HEAVY LOADS. Do not maintain power to the winch if the motor stalls. Overloads can damage the winch and/or the wire rope and create unsafe operating conditions. FOR LOADS OVER 2/3 RATED CAPACITY, WE RECOMMEND THE USE OF THE OPTIONAL PULLEY BLOCK TO DOUBLE LINE THE WIRE ROPE (Figures 3 & 18). This reduces the load on the winch and the strain on the wire rope by approximately 50%. If attaching back to vehicle, attach to the frame or other load bearing part. The vehicle engine should be running during winch operation to minimize battery drain and maximize winch power and speed. If considerable winching is performed with the engine off, the battery may be too weak to restart the engine.

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. KEEP WINCHING AREA CLEAR. Do not allow people to remain in the area during winching operations. ALWAYS STAND CLEAR OF WIRE ROPE, HOOK AND WINCH. IN THE UNLIKELY EVENT OF ANY COMPONENT FAILURE, IT IS 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 EVEN WHEN WEARING GLOVES.
7. NEVER WINCH WITH LESS THAN 5 TURNS of wire rope AROUND THE WINCH DRUM since the wire rope end fastener will NOT withstand a load. ALWAYS USE THE HANDSAVER when guiding the wire rope in or out (see Figure 4).

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. Never guide a wire rope onto the drum with your hand.

9. NEVER HOOK THE WIRE ROPE BACK ONTO ITSELF because you could damage the wire rope. Use a nylon sling (Figure 5).

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 6). If a wire rope failure should occur, the cloth will act as a damper and help prevent the rope from whipping. Raise the hood of the vehicle for added protection.

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

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

13. AVOID CONTINUOUS PULLS FROM EXTREME ANGLES as this will cause the wire rope to pile up at one end of the drum (Figure 7). This can jam the wire rope in the winch, causing damage to the rope or the winch.

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.

17. NEVER RELEASE FREESPOOL CLUTCH WHEN THERE IS A LOAD ON THE WINCH.

18. STORE THE REMOTE PENDANT ASSEMBLY IN A SAFE PLACE when not in use to prevent use by children or other unauthorized persons.

19. DO NOT OPERATE WINCH WHEN UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR MEDICATION.

20. ALWAYS UNPLUG THE REMOTE PENDANT BEFORE WORKING IN OR AROUND THE FAIRLEAD OR WINCH DRUM (THE DANGER ZONE) 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 parking 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. Superwinch offers a wide variety of tie downs. Contact your local Superwinch dealer.

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 power the winch out for more than 50 feet (15.2m) or longer than 2 minutes.

**WARNING** The drum and wire rope may get very hot (Figure 8).

27. DO NOT CONNECT WINCH TO EITHER 110V AC HOUSE CURRENT OR 220V MAINS AS WINCH BURNOUT OR FATAL SHOCK MAY OCCUR!

28. Never allow shock loads to be applied to winch or wire rope.

29. 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.
**MOUNTING YOUR WINCH**

Superwinch mounting (fitting) kits are available for most popular vehicles. If you can’t locate a kit locally contact Superwinch at the address listed on the front of this manual for the name of a Superwinch dealer near you.

Detailed Mounting instructions are provided with each mounting kit. Read and follow directions carefully to ensure proper winch alignment and trouble free operation.

**WARNING**

This winch **MUST be mounted with the wire rope in the underwind direction. Improper mounting could damage your winch and void your warranty.**

**MINIMUM ELECTRICAL REQUIREMENTS**

For 12 volt winches, a 60 ampere alternator and battery with 440 cold-cranking amperes capacity are the minimum recommended power sources. If the winch is in heavy use, an auxiliary battery and heavy duty alternator are recommended.

**Step (1)**

Install mounting kit or structural support for winch.

**Step (2)**

Mount the winch to the mount that you have designed. Mounting bolts supplied are the correct length for use with up to a 1/4” (6.3mm) thick plate.

**INSTALLATION CONT.**

**WARNING**

Do not substitute any strength grade weaker than grade 5.

When attaching wires to the motor terminals and solenoid (relay), hold the inner nut when tightening the outer nut. Do not allow the motor terminals to rotate for it may cause internal wire breakage or part misalignment. Be especially careful in preventing the solenoid (relay) terminals from rotating. Any rotation can damage the solenoid (see Figure 10).

**Step (3)**

Disconnect the vehicle battery leads.

**INSTALLATION CONT.**

**WARNING**

Automobile 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.

**Step (4)**

Route the two (2) wires through the vehicle grille to the battery. To ensure against insulation abrasion and/or cutting, apply several layers of electrical tape where wiring may come in contact with sharp metal parts of the vehicle. Attach the circuit breaker assembly to the end of the blue terminated wire. Wrap the circuit breaker assembly with electrical tape to prevent accidental short circuits.

**Roller Fairlead Screws**

**Drum Support Plate Screws**

**Motor Screws**

**NOTES**

1. All dimensions are in inches [millimeters].
2. Typical mount is to flat surface capable of handling the loads. Bolts to be Grade 5 or better.
PULLING OUT THE WIRE ROPE

The wire rope has been installed on your winch under minimal load at the factory. The wire rope must be respooled onto the drum under load so that the outer layers will not draw down into the inner ones, thereby damaging the wire rope.

Lift the clutch lever to the “Free” position as shown in Figure 13. If there is a load on the wire rope, the clutch lever may not turn easily. **DO NOT FORCE THE CLUTCH LEVER.**

Release tension on the wire rope by jogging out some of the wire rope. Releasing 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 lever to the “Engaged” position (see Figure 14).

**TIPS FOR EXTENDING THE LIFE OF YOUR WINCH**

1. **KEEP THE WIRE ROPE TIGHTLY WOUND ON THE 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.** Remember, the winch is for intermittent use only. During long or heavy pulls the motor will get hot. For pulling at rated capacity, allow motor to cool after 20 seconds of “On” time. At loads less than 50% of rated capacity, allow to cool after 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 15).
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.

**MAINTENANCE AND REPAIRS**

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

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

**LUBRICATION**
The gearbox and drum bearing are permanently lubricated with a high performance gear lube. If relubrication is necessary (after repair or disassembly) only use Shell Alvenia EP2 or equivalent.

**REPLACING THE WIRE ROPE**

Figure 18

Never substitute a heavier or lighter wire rope. Never use rope made of any material 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 18). Tighten the set screw securely.

It is important that the wire rope be wound tightly onto the drum. A good way to do this is to attach the wire rope hook to a fixed object at the top of a slight incline, then winch the vehicle up the incline.

**BRAKE OPERATION**

Your S Series winch has a wrap spring brake that stops and holds loads up to 50% rated capacity on the first layer of wire rope closest to drum.

Each additional layer of wire rope reduces brake capacity approximately 10%. When powering the winch in, the brake is disengaged and does not become activated until the motor is turned off and the load tries to pull the wire rope off the drum. When the winch is powered out, as in releasing a load, the brake is engaged and the motor must over power the brake drag to rotate the drum. Therefore, it is normal for the winch to operate faster in one direction than the other. The brake is designed for the wire rope to be used in the underwind position only. DO NOT OVERWIND. Powering against the brake will cause heat to build up in the drum and may transfer heat to the wire rope (Figure 19). DO NOT POWER OUT FOR MORE THAN 50 FEET (15.2m) OR 2 MINUTES.

**WARNING** The drum and wire rope may get very hot.

When wire rope is removed from the drum, as in bringing the hook to the load, the freewheel feature of the winch should be used.
## Replacement Parts List

<table>
<thead>
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<th>Description</th>
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<td>Sun Gear</td>
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<td>13</td>
<td>Stationary Ring Gear</td>
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<td>14</td>
<td>Free Wheel Repair Kit</td>
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<td>15</td>
<td>(Includes Shaft, Lever, Handle, and Rivet)</td>
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<tr>
<td>16</td>
<td>Free Wheel Spring</td>
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<td>17</td>
<td>M6 x 1 x 16mm Flat Head Screw</td>
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<td>18</td>
<td>Housing Assembly (includes 21 &amp; 22)</td>
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<td>19</td>
<td>Needle Bearing (.8125 x 1.125 x .750)</td>
<td>89-23263-03</td>
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<td>20</td>
<td>Motor Shaft Bearing</td>
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<tr>
<td>21</td>
<td>S5000 Logo</td>
<td>89-17332</td>
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<td>22</td>
<td>S4000 Logo</td>
<td>89-17331</td>
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<td>23</td>
<td>S3000 Logo</td>
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<td>24</td>
<td>M6 x 1 x 13mm Button Head Screw</td>
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<td>25</td>
<td>Cable Tension Spring</td>
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<td>26</td>
<td>Handsaver</td>
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<td>27</td>
<td>Wire Rope Assembly w/hook 1/4&quot;x50' (S5000)</td>
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<td>28</td>
<td>Wire Rope Assembly w/hook 3/16&quot;x60' (S3000)</td>
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<td>29</td>
<td>M6 x 1 x 16mm Button Head Screw</td>
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<td>30</td>
<td>12 Volt Complete Motor (S5000)</td>
<td>90-33294</td>
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<tr>
<td>31</td>
<td>24 Volt Complete Motor</td>
<td>89-33298</td>
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<td>32</td>
<td>12 Volt Complete Motor (S4000)</td>
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<td>33</td>
<td>24 Volt Complete Motor</td>
<td>89-33297</td>
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<tr>
<td>34</td>
<td>12 Volt Complete Motor (S3000)</td>
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<td>35</td>
<td>24 Volt Complete Motor</td>
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<td>36</td>
<td>Motor Cover</td>
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<td>37</td>
<td>&quot;Superwinch&quot; Nameplate</td>
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<td>38</td>
<td>M4 x 0.7 x 6mm Hex Washer Head Screw</td>
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<td>39</td>
<td>Drum</td>
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<td>40</td>
<td>Brake Spring</td>
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<td>Brake Adapter</td>
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<td>42</td>
<td>Roller Fairlead</td>
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<td>43</td>
<td>Roller Fairlead Frame</td>
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<td>44</td>
<td>Roller Fairlead Shaft (Long)</td>
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<tr>
<td>45</td>
<td>Retainer Ring</td>
<td>90-23029-08</td>
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<td>46</td>
<td>5/8 x 2.352 Roller</td>
<td>90-12568-04</td>
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<td>47</td>
<td>5/8 x 4.735 Roller</td>
<td>90-12568-06</td>
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<td>48</td>
<td>Roller Fairlead Shaft (Short)</td>
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### REPLACEMENT PARTS LIST

<table>
<thead>
<tr>
<th>Reference Number</th>
<th>Description</th>
<th>Part Number</th>
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<tr>
<td>52</td>
<td>12V Wired Solenoid Assembly</td>
<td>89-32327</td>
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<td>24V Wired Solenoid Assembly</td>
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<td>53</td>
<td>S3000, S4000 BAWG x 5’ (neg.) Leadwire Assy</td>
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<td>S5000 2AWG x 5’ (pos.) Leadwire Assembly</td>
<td>89-22635-34</td>
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<td>S3000, S4000 BAWG x 5’ (pos.) Leadwire Assy</td>
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<td>S5000 6AWG x 5’ (neg.) Leadwire Assembly</td>
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<td>55</td>
<td>Ground Strap</td>
<td>89-23356</td>
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<td>56</td>
<td>5/16 Hel Spring Lock Washer</td>
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<td>57</td>
<td>5/16-18 Hex Nut</td>
<td>90-23149-07</td>
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<td>60</td>
<td>6AWG x 3 1/2” Leadwire Assembly</td>
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<td>61</td>
<td>12V Solenoid</td>
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<td>24V Solenoid</td>
<td>90-20331</td>
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<td>62</td>
<td>Buss Bar Assembly</td>
<td>92-10200</td>
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<td>63</td>
<td>Buss Bar</td>
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<td>64</td>
<td>S3000, S4000 BAWG x 9 3/8” Leadwire Assy.</td>
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<td>S5000 6AWG x 9 3/8” Leadwire Assembly</td>
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<td>65</td>
<td>S3000, S4000 BAWG x 6” Leadwire Assembly</td>
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<td>S5000 6AWG x 6” Leadwire Assembly</td>
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<td>66</td>
<td>12V Solenoid Sub-Assembly</td>
<td>90-32250</td>
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<td>24V Solenoid Sub-Assembly</td>
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<tr>
<td>67</td>
<td>Socket Half Connector</td>
<td>90-25048</td>
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<td>68</td>
<td>Remote Control Assembly</td>
<td>90-40270-02</td>
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<tr>
<td>69</td>
<td>Safety Label. 3/4” icon, 3 x 2</td>
<td>89-20330</td>
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</tbody>
</table>

### TORQUE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Torque Specifications</th>
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<tbody>
<tr>
<td>Drum Support Plate Screws</td>
<td>50-60 lb in</td>
</tr>
<tr>
<td>Hawse (Roller Fairlead) Screws</td>
<td>45-55 lb in</td>
</tr>
<tr>
<td>Base Screws</td>
<td>65-75 lb in</td>
</tr>
<tr>
<td>Motor</td>
<td>35-40 lb in</td>
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</tbody>
</table>

⚠️ **WARNING**

Over torquing could damage your winch and void your warranty.
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause(s)</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor will not operate or runs in one direction only</td>
<td>1. Damaged or stuck solenoid</td>
<td>1. <strong>CAUTION</strong> Disengage clutch before performing this test to prevent powering the wire rope drum. If a solenoid sticks once, it is likely to stick again and must be replaced immediately. Tap solenoid to free stuck contacts. Check by applying voltage to the small solenoid terminal. Be sure solenoid is grounded back to source. A solenoid that is not stuck will make an audible “click” when first energized. 2. Switch inoperative 3. Broken wires or bad connection</td>
</tr>
<tr>
<td>Winch will not shut off</td>
<td>1. Solenoid stuck “On”</td>
<td>1. If a solenoid sticks on, reverse direction and hold trigger switch until the power lead can be disconnected. A safety disconnect switch is available as an accessory</td>
</tr>
<tr>
<td>Motor runs but with insufficient power or line speed</td>
<td>1. Weak battery 2. Battery to winch wire too long 3. Poor battery connection 4. Poor ground 5. Damaged brake</td>
<td>1. Recharge or replace battery. Check charging system 2. Use larger diameter wire 3. Check battery terminals for corrosion. Clean as required 4. Check and clean connections 5. Repair or replace brake</td>
</tr>
<tr>
<td>Motor runs but drum doesn’t turn</td>
<td>1. Clutch not engaged</td>
<td>1. Engage clutch</td>
</tr>
<tr>
<td>Winch will not hold load</td>
<td>1. Excessive load 2. Worn or damaged brake</td>
<td>1. Reduce load or double line 2. Repair or replace brake</td>
</tr>
</tbody>
</table>