

3000LBS ELECTRIC WINCH USER MANUAL



EW3000R







INTRODUCTION

Thank you for purchasing a 3000lbs winch from **Sunrise**. Please read and understand this Owner's Manual prior to installing and using your winch.

GENERAL DESCRIPTION

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

GENERAL SAFETY INFORMATION

1. Never lift people or hoist loads over people. Do not lift items vertically. The winch was designed for horizontal use only.

2. DO NOT OVERLOAD. FOR LOADS OVER 1 000LBS/1250LBS/1500LBS, WE REC-OMMEND THE USE OF THE OPTIONAL PULLEY BLOCK TO DOUBLE LINE THE WIRE ROPE(Figure 1)

3. Do not attempt to prolonged pulls at heavy loads. The electric winch is designed for intermittent use only. and should not be used in a constant duty application. The duration of the pulling job should be kept as short as possible. If the Winch motor becomes very hot to the touch, stop the Winch and let it cool down for several minutes. Never pull for more than one minute at or near the rated load.

4. **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.

5. **AVOID CONTINUOUS PULLS FROM EXTREME ANGLES** as this will cause the wire rope to pile up on one end of the drum (Figure 2) This can jam the wire rope in the winch, causing damage to the rope or the winch.

6. BE SURE THE INPUT VOLTAGE BETWEEN THE TERMINALS OF MOTOR IS ALWAYS DC 12V IN ORDER TO REACH THE MAX RATED LINE PULL DURING THE OPERATION. AND PLEASE NOTE THAT IT ONLY CAN REACH THE MAX RATED LINE PULL BY FIRST LAYER OF CABLE AROUND THE DRUM WHEN PULLING THE LOADS.



7. NEVER HOOK THE WIRE ROPE BACK TO ITSELF because you could damage the wire

rope. Use a nylon sling. (Figure 3)

8. Be sure the winch mounted on the vehicle or other objective before operation.

9. 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.

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 3). If a wire rope failure should occur. the cloth will act as a damper and help prevent the rope from whipping.

11. 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.

12. NEVER WORK ON OR AROUND THE WINCH DRUM WHEN WINCH IS UNDER LOAD. (KEEP AWAY THE WINCH AT LEST 1.5M DURING THE OPERATION)

13. DO NOT ACROSS OVER OR UNDER THE WIRE ROPE WHEN THE WINCH IS UNDER LOAD.

14. When suing your winch to move a load, place the vehicle transmission in neutral, set vehicle braked, and chock all wheels. 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.

15. NEVER RELEASE FREE SPOOL CLUTCH WHEN THERE IS A LOAD ON THE WINCH.

16. After operation, please release the load Do not allow the cable tight any more.

17. Always stand clear of wire rope, hook and winch.

18. INSPECT WIRE ROPE AND EQUIPMENT FREQUENTLY. A FRAYED WIRE ROPE WITH BROKEN STRANDS SHOULE BE REPLACED IMMEDIATELY. USE ONLY FACTORY AP-PROVED SWITCHES, REMOTE CONTROLS AND ACCESSORIES. USE HEAVY LEATHER GLOVES WHEN HANDLING WIRE ROPE. DO NOT LET WIRE ROPE SLIDE THROUGH YOUR HANDS.

19. Keep clear of winch, taut wire rope and hook when operation 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 hand saver bar when guiding the wire rope in or out.

20. After operated the winch, re-spool the cable around the drum tightly.



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

MEDICATION. Always stay alert during the operation.

22. Use eye and ear protection. Always wear impact safety goggles. Wear a full face shield if you are producing metal filings or wood chips. Wear a dust mask or respirator when working around metal, wood, and chemical dusts and mists.

23. 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. 24. Make some maintenance frequently to the winch.

INSTALLATION

Correct installation of your winch is required for proper operation.

1. Mount the winch on the vehicle or other object using Screw M8 x30, Lock washer, Washer-Flat offered. Other similar screw can be instead.

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

2. Route the two couple of lines from the switch to the motor and battery respectively. Connect the red line to the positive (+) terminal and the green (or black) line to the negative(-) terminal of the 12v battery. Connect the rest two lines to the terminal on the motor of the electric winch (Figure 4)

3. Check the direction of the drum turning.

Pull and turn the clutch knob to the "Off" position (drum can be turning free). pull out the cable from the drum then engage the clutch by turning the knob to the "In" position . Push the "cable in" button on the handheld, if the cable is re spooling then it is right way for connected. Otherwise please change the line connected the motor. And repeat the abovementioned operate.

OPERATION

1. Pull and turn the clutch knob to the "Off" position, so the drum can turn free by hand.

2. Grab the cable assembly hook and pull the cable to the desired length by handsaver bar. Then attach to item being pulled.

WARNING: CHECK THAT THERE ARE AT LEAST FIVE TURNS OF WIRE ROPE LEFT ON THE DRUM BEFORE OPERATION.



3. Engaged the clutch by turning the clutch knob to the "In" position.

WARNING: CLUTCH MUST BE FULLY ENGAGED BEFORE WINCHING. NEVER ENGAGE CLUTCH KNOB WHILE DRUM IS TURNING. 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.

4. Push and hold the "Cable In" button on the hanheld and the cable was re-spooled. Push and hold the "Cable Out" button to reverse directions. Wait until the motor stops before reversing directions.

5. Re-spooling cable after finished operation.

MAINTENANCE

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

2. Do not attempt to disassembly the gearbox. Disassembly wili void warranty. Repairs should be done manufacturer of authorized repaired center.

3. The gearbox having been lubricated using high temperature lithium grease at the factory. No internal lubrication is required.

REPLACE THE WIRE POPE

1. Engaged the clutch by turning the clutch knob to the "In" position.

2. When inserting the wire rope into the drum. insert it into the correct end of the hole provided.(Figure 5). Tighten the set screw securely.

3. Operate the winch and re-spool the wire rope around the drum.

CAUTION: ALWAYS REPLACE DAMAGED WIRE ROPE WITH MANUFACTURER'S IDENTICAL REPLACEMNT PART.



TROUBLESHOOTING

| FAULT | POSSIBLECAUSE | SUGGESTEDACTION | |
|---|--|---|--|
| Motor will not operate or runs in one direction only | -Switch in operative -Broken wires or bad connection -Defective motor | -Replace switch -check for poor connec- tions -Replace or repair motor | |
| Motor runs but drum does not turn | -Clutch not engaged | -Engage clutch | |
| Motor runs but with insufficient power or line speed | -Weak battery -Defective motor | -Recharge or replace battery. -Check battery terminals for corrosion.Clean as required -Check and clean connec- tions -Repair or replace motor | |
| Motor over- heading | -Winch running time too long -Defective motor | -Allow winch to cooldown periodically -Repair or replace motor | |





Figure 5



WINCH PARTS LIST

| ltem# | Part# | Qty | Description | |
|-------|--------|-----|----------------------------------|--|
| 1 | 200100 | 1 | Motor | |
| 2 | 200200 | 1 | Stationary Gear Housing Assembly | |
| 3 | 200300 | 1 | T-Series Carrier Assembly | |
| 4 | 200400 | 1 | T-Series Rotator Gear | |
| 5 | 200500 | 1 | Drum Support Plate | |
| 6 | 200600 | 4 | Pan Head Screw M4X12 | |
| 7 | 200700 | 1 | Drum Support Bushing | |
| 8 | 200800 | 1 | Clutch Assembly | |
| 9 | 200900 | 1 | Spring | |
| 10 | 200001 | 1 | Durm Assembly | |
| 11 | 200002 | 1 | Screw M5X5 | |
| 12 | 200003 | 1 | T-Series Bushing | |
| 13 | 200004 | 1 | Thick Flat Washer | |
| 14 | 200005 | 2 | Hex Flange Nut M5 | |
| 15 | 200006 | 1 | T-Series Baseplate Assembly | |
| 16 | 200007 | 1 | Tension Plate | |
| 17 | 200008 | 1 | T-Series F/W Knob Assembly | |
| 18 | 200009 | 1 | Elastic Pin 2.5x14 | |
| 19 | 200010 | 2 | Hex Ski FH Screw M6x16 | |
| 20 | 200011 | 2 | Screw | |
| 21 | 200012 | 2 | Screw M8x30 | |
| 22 | 200013 | 2 | Washer-Flat | |
| 23 | 200014 | 2 | Lock Washer | |
| 24 | 200015 | 2 | NutM8 | |
| 25 | 200016 | 1 | Red strap | |
| 26 | 200017 | 1 | Switch Assembly | |
| 27 | 200018 | 1 | Cable Assembly | |
| 28 | 200019 | 1 | Tie Bar | |
| 29 | 200021 | 1 | Control Box | |
| 30 | 200022 | 2 | Relay | |
| 31 | 200023 | 1 | Wire | |













SPECIFICATIONS

| Single line rated pull | 3000lbs(1361kg) |
|------------------------|--|
| Gear reduction ratio | 153:1 |
| Motor | Permanent magnet DC 12V motor with 0.85 hp output |
| Overall dimensions | 7.3" (L)x4.1" (W)x4.1" (H) 300(L)x105(W)x105(H)mm |
| Drum size | ø1.24(D)x2.88"(L) |
| | ø 31.5(D)x73(L)mm |
| | 30.lft(L) ofø 11/51″ Cable 9.2m(L) of ø5.5mm Cable |
| Cable length | 14.3lbs |
| Weight | 6.5kg |
| | |

Line speed and motor current(first layer)

| Line Pull | LBS | 0 | 1000 | 2000 | 3000 |
|------------------|------|------|------|------|------|
| | Kg | 0 | 454 | 906 | 1361 |
| Line speed | FPM | 10.5 | 7.5 | 4.2 | 2.3 |
| | MPM | 3.2 | 2.3 | 1.3 | 0.7 |
| Motor current | Amps | 10 | 40 | 90 | 145 |

Line pull and cable capacity

| Layer of | cable | 1 | 2 | 3 | 4 | 5 |
|---------------------------------|-------|------|------|------|------|------|
| Rated line pull per layer | LBS | 3000 | 2250 | 1890 | 1590 | 1370 |
| | KG | 1360 | 1022 | 859 | 722 | 622 |
| Cable capacity per layer | FT | 4.9 | 11.5 | 19.3 | 28.5 | 30.1 |
| | м | 1.5 | 3.5 | 5.9 | 8.7 | 9.2 |





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