

### 2000 LB Winch Owner's Manual & Operating Instructions

**Performance Specifications** 

Max Line Pull 2000lbs (907kgs)

Gear reduction ratio 153:1

Motor Permanent magnet DC12V motor with 0.9 hp output

<u>Overall Dimensions</u> 11.5IN (292mm) L x 4.45IN (113mm) W x 4.25IN(108mm) H

<u>Drum size</u>

1.24IN (31.5mm) D x 2.88IN (73mm) L

<u>Cable</u> 49FT (15m) L of 5/32IN (4mm) D

<u>Net weight</u>

18.98lbs (8.6kgs)

#### **Product Overview**

This winch is equipped with a permanent magnet motor and is designed for intermittent duty general use. This winch is not to be used for industrial or lifting. Never use winch for moving people. Improper operating could damage your winch and void your warranty.

Free spool clutch is operated by a pull and turn, which can disengage the gearbox, and wire rope can be pulled out.

# Line speed and Motor current (First layer)

Line Pull	Line Speed Ft/min (m/min)	Motor Current Amps
lb (kgs)	12V DC	12V DC
0	10.5(3.2)	12
500(227)	9.2(2.8)	25
1000(454)	7.5(2.3)	40
1500(680)	5.9(1.8)	60
2000(907)	3.3(1.0)	90

# Line pull and Cable capacity

Layer of Cable	Rated line pull per Layer lb (kgs)	Cable Capacity per Layer ft (m)
1	2000(907)	6.5(2.0)
2	1630(740)	14.0(4.3)
3	1380(626)	22.0(6.7)
4	1190(540)	31.0(9.4)
5	1050(476)	41.0(12.5)
6	940(426)	49.0(15.0)

#### INSTALLATION

Correct installation of your winch is required for proper operation. • Mount the winch on the vehicle or other fixed installation by using screw (M8 $\times$ 1.25 $\times$ 30mm), M8 nut,  $\Phi$ 8 flat washer and  $\Phi$ 8 spring washer (two sets).

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

Route the two couple of lines from the switch to the motor and battery respectively. Connect the red line to the positive (1) terminal and the green (or black) line to the negative (2) terminal of the battery. (See Fig. 1).

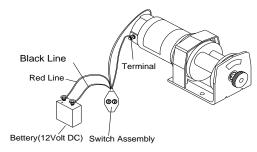


Fig. 1

• Check rotating direction of the drum. Pull and turn the clutch knob to the "Off" position (drum can be turning free). Pull out some cable from the drum, and then turn the clutch knob to the "In" position. Press the "Cable out" button on the handheld switch; if the cable is releasing then it is properly connected. Otherwise please change the line connected the motor. You should exchange the two lines and repeat the above-mentioned operation.

#### OPERATION

• Pull and turn the clutch knob, so the drum can turn freely by hand.

• Use Hand saver bar to hitch hook of the cable assembly and pull cable to the loads. Attach to the load.

• Never approach or span the wire rope when the winch is under load

• When using your winch to move a load, place the vehicle transmission in neutral, set vehicle brake, and chock all wheels. The vehicle engine should be running during winch operation so that battery has full electricity. Never use the winch under circumstance of lacking voltage.

• Never disconnect free spool clutch when there is a load on the winch.

• Always stand clear of wire rope, hook and winch. You should disconnect the clutch first then use the Hand saver bar to hitch hook to pull wire rope.

• Inspect winch, wire rope, hooks and other accessories frequently. A frayed wire rope with broken strands should be replaced immediately. Use heavy leather gloves when handling wire rope. Do not let wire rope slide through your hands. Inspect wire rope before use. Mashed, pinched, frayed or kinked areas severely reduce the load-carrying capability. You should replace damaged wire rope. The replacement ropes must be respooled under 100lbs.

• To keep stated tensile, re-spool the cable around the drum tightly after operating.

• Do not operate winch when under the influence of drugs, alcohol or medication. Always stay alert during operation. If there is something wrong you should cut the battery at once then check it carefully.

• Wear eye protection and personal protective equipment while operating winch.

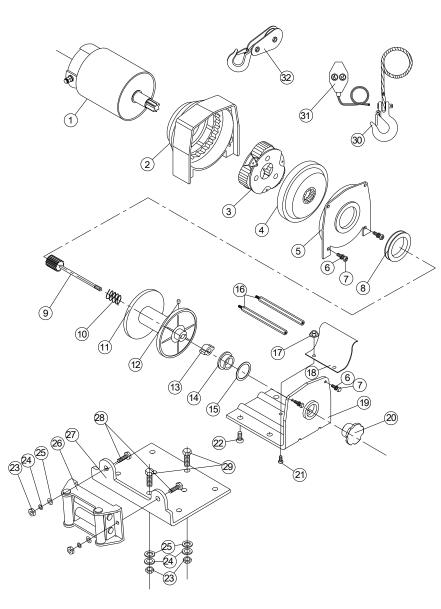
• Do not machine or meld any part of the winch.

• Take good care of your winch when it is out of use.

• For loads over 70% of rated line pull, we recommend the use of the pulley block/snatch block to double the wire rope line.

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# WINCH PARTS LIST (2000LBS)



ITEM#	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	200001	1	Drum Support Plate
6	200002	4	Spring Washer Φ4
7	200003	4	Pan Head Screw M4 X 12
8	200004	1	Drum Support Bushing
9	200500	1	Clutch Assembly
10	200005	1	Spring
11	200006	1	Drum
12	200007	1	Screw M5 x 8
13	200008	1	Separation And Cake
14	200009	1	Bush (II)
15	200010	0-2	Adjustive Washer
16	200011	2	Tie Bar
17	200012	2	Hex Flange Nut M5
18	200013	1	Tension Plate
19	200014	1	Base Plate
20	200015	1	Clutch Handle
21	200016	2	Screw M5 x 10
22	200017	2	Hex Fh Screw M6 x 16
23	200018	4	Hex Flange Nut M8
24	200019	4	Locking Washer Φ8
25	200020	4	Thick Flat Washer Φ8
26	200600	1	Roller Fairlead
27	200021	1	Mounting Channel
28	200022	2	Screw M8 x 20
29	200023	2	Screw M8 x 35
30	200700	1	Cable Assembly
31	200800	1	Switch Assembly
32	200900	1	Pulley Block

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#### SAFETY PRECAUTIONS

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

Never overload. Be sure all equipment used meets the winch's maximum line pull rating. When double-lining, pulley blocks should be rated to a minimum of two times the winch's line pull rating.
Do not attempt prolonged pulls with heavy loads. The electric winch is designed for intermittent use only, and should not be used in a constant duty application. Never pull for more than one minute or near the rated load. If the winch motor becomes very hot to the touch, stop the winch and let it cool down for several minutes.

•Never operate winch with less than 5 turns of wire rope around the winch drum since the wire rope end may not withstand full load.

•Avoid continuous pulls from extreme angles because this will cause the wire rope to pile up on one end of the drum and damage the wire rope. Be aware that the winch's line pull capacity is the max line pull of the first layer. Never operate winch pulling a load reach or even over the capacity.

•Never hook the wire rope back to itself because it could damage the wire rope.

•Be sure the winch is mounted hard on the vehicle or bracket before operation.

•Before moving a load, inspect wire rope. Prevent kinks and uneven wire layer before they occur. Apply proper tension to loads under 100lbs.

•Do not move your vehicle to assist the winch in pulling the load. It will be easy to overload, and cause wire rope damage. Be aware of the danger zone. Keep away from the danger zone during the operation. The danger zone is the area of the winch drum, the fairlead (if fitted), the wire rope, the pulley block (if used), the hook, and motor. **WARNING:** Check that there are at least five turns of wire rope remaining on the drum before operation.

• Switch clutch knobs back to the "In" position. At the same time drum can't be turned by hand.

**CAUTION:** Clutch must be fully engaged before winching. Never operate the clutch while drum is turning. Do not readjust clutch knob as it has been adjusted and permanently locked in place with a thread-locking compound in the factory.

• Press the "Cable In" button on the handheld to respool the cable. Press the "Cable Out" button to reverse directions. Wait until the motor stops before reversing directions.

• Respool the cable after completing the operation.

#### MAINTENANCE

• Periodically check tightness of mounting bolts and electrical connections. Remove all the dirt or corrosion and always keep clean.

• Do not attempt to disassemble the gearbox. Repairs should be done by the manufacturer or authorized repair center.

• The gearbox has been lubricated using high temperature lithium grease in the factory. No internal lubrication is required except when being repaired.

## REPLACE THE WIRE ROPE

• Engage the clutch by turning the clutch knob to the "In" position.

• When inserting the wire rope into the drum, insert it into the correct end of the hole provided. Tighten the screws.

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

**CAUTION:** To keep the stated tension, be sure the wire rope is rolled on the drum tightly.

**WARNING:** Always replace damaged wire rope with manufacturer's identical replacement part.