

# 2000 Lb. Electric Winch

## Assembly & Operating Instructions



## **2000LB.WINCH SPECIFICATIONS**

Capacity:	6000 Lb.Rolling,
	5000 Lb.Marine
	2000 Lb.Pulling Capacity
Max Boat Size:	18 Feet
Max.Boat Weight	5000 Lb.
Line Speed:	6 Feet/Minute with Load
Cable Length:	30 Ft.
Hook Size:	3/4"Opening x 3-3/4"L
Power Supply:	12Volts
Power Cord:	6'L.Negative Lead
	14'9"L.Positive Lead
Remote Switch:	9'9"L.
Mounting Plate:	8-3/4" x 4-15/16" x 3/16"
Overall Dimensions:	9-1/2" x 7-1/2" x 10"
Net Weight:	18.6Lbs.

### **INCLUDED ACCESSORIES**

1. Power Lead, fitted with water sealed plug and circuit breaker.
2. Remote Switch with water sealed plug, for safe operation.
3. 30' Aircraft Cable with attached hook
4. Mounting Bracket for Trailer Hitch
5. Emergency Crank Handle and adjustable clutch.

### **PRODUCT FEATURES**

1. Convenient,portable power for pulling boats, stuck vehicles and other heavy items.
2. Powerful 2,000 Lb pulling power.
3. 12Volt powered for convenient use without extension cords or small gas engines.
4. Portable, with built-in carrying handle and quick-attach mounting plate.

### **SAVE THIS MANUAL**

You will need this manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, trouble shooting, parts list, and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep both this manual and your invoice in a safe, dry place for future reference.

### **NOTICE**

**The Warnings, Cautions, and Instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur.It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

## **SAFETY WARNING & CAUTIONS**

*WARNING: When using powered equipment, basic safety precautions should always be followed to reduce the risk of personal injury and hazards.*

### **READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!**

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **OBSERVE WORK AREA CONDITIONS.** Do not use tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered equipment in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** Children must never be allowed in the work area. Do not let them handle machines, tools, or equipment.
4. **STORE IDLE EQUIPMENT.** When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **DO NOT FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.
6. **USE THE RIGHT TOOL FOR THE JOB.** Do not use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY** Do not wear loose clothing or jewelry, as they can be caught in moving parts. Non-skid footwear is recommended. Wear restrictive hair covering to contain long hair. Always wear appropriate work clothing.
8. **USE EYE, EAR AND BREATHING PROTECTION.** Always wear ANSI approved impact safety goggles if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists. Use ANSI approved ear protection when working in a loud or noisy environment.
9. **DO NOT ABUSE THE POWER CORD.** Protect the power cord from damage, either from impacts, pulling or corrosive materials. Do not yank machine's cord to disconnect it from the receptacle.
10. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across running machines.
11. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect power cord periodically and, if damaged, have it repaired by an authorized technician. Inspect all moving parts and mounting bolts prior to use. Control handle and power switch must be kept clean, dry, and free from oil and grease at all times.



12. REMOVE ADJUSTING KEYS AND WRENCHES. Be sure that keys and adjusting wrenches are removed from the tool or machine work surface before operation.

13. AVOID UNINTENTIONAL STARTING. Be sure that you are prepared to begin work before turning the start switch on.

14. STAY ALERT. Watch what you are doing. Do not operate this machine when you are tired.

15. DO NOT OPERATE THIS MACHINE WHILE UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR PRESCRIPTION MEDICINES.

16. CHECK FOR DAMAGED PARTS. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts, any broken parts or mounting fixtures, and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.

17. REPLACEMENT PARTS AND ACCESSORIES. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use parts and accessories intended for use with this tool, which are available from Harbor Freight Tools.

### **SPECIAL WARNINGS WHEN USING THIS ELECTRIC WINCH**

*Using this powerful tool may create special hazards.*

*Take particular care to safeguard yourself and those around you.*

#### **The Cable.**

Be sure the cable is in good condition, and is attached properly.

Do not use the winch if the cable is frayed.

Do not replace the cable with a cable of lesser strength.

#### **The Battery.**

Be sure the battery is in good condition. Avoid contact with battery acid or other contaminants.

Always wear ANSI approved eye protection when working around a battery.

Have the engine running when using the winch, to avoid running the battery down.

#### **Stand Back.**

Stay out of the direct line that the cable is pulling. In case it slips or breaks, it will "whiplash" along this line.

Keep hands, clothing, hair and jewelry clear of the winch while in use.

Use a spotter to assist you in assuring that it is safe to operate the winch. Make sure this person is out of the way of the vehicle and the cable before activating the winch.

#### **Power Limits.**

Do not attempt to exceed the pulling limits of this winch.

Never use the hand crank to "assist" the winch. This will damage the winch and may cause personal injury.

## INSTALLATION

### ***Wiring your Electric Winch***

***Your Winch may be used with temporary wiring or permanent wiring***

#### ***Temporary Wiring***

1. Lift the rubber seal, and plug the CORD SOCKET (#37) of the ELECTRIC CORD (#39) into the CORD PLUG (#36) on the right side of the winch body. This plug is labeled "Power". Route the Electric Cord from the winch to your battery, being careful to avoid tangling it in moving equipment, or causing a tripping hazard.
2. Connect the Black Clamp Handle of the ELECTRIC CORD (#39) to the frame of your vehicle, establishing a ground connection. Connect the Red Clamp Handle to the Positive (+ / Red) terminal of your battery. *Note: Be sure you are using a 12V automotive battery or equivalent, in good condition.*
3. Lift the rubber seal on the left side of the winch body. Taking the Remote Control Unit, insert the Socket (#33) at the end of the cord into the Plug on the left side of the winch body labeled "Remote Control".
4. Set the remote control aside in a safe place until ready for use.

#### ***Permanent wiring***

1. Attach the CIRCUIT BREAKER (#45) to the Positive (+ / Red) terminal of your battery, using the battery terminal clamp bolt.
2. Plan a route for the wiring from the point of the vehicle where the winch will be mounted or used to the battery. This route must be secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, you may wish to route the wires under the vehicle, attaching it to the frame using suitable fasteners. Do not attach the wires to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage the wiring through heat or motion, or create a fire hazard.
3. If you drill through the bumper or any part of the body to route the wires, be sure to install a rubber grommet in the hole to prevent fraying of the wires at that point.
4. Route the ELECTRIC CORD (#39) from the point the winch will be used to the battery, following the precautions discussed above.
5. Remove the Red Clamp handle, and attach the red wire to the CIRCUIT BREAKER (#45), which is mounted onto the Positive (+ / Red) terminal of your battery.
6. Remove the Black Clamp handle, and attach the black wire to the frame of your vehicle, creating a secure electrical ground.

## WARNING

1. Always connect Red to Red (Positive to Positive) and Black to the frame, making a ground connection, when using battery power from your vehicle.
2. Never continue use of your winch or other accessory until the battery is completely run down.
3. You may wish to keep your engine running while using this winch, to continually recharge the engine. However, exercise extreme caution when working around a running vehicle.
4. Do not use a dirty, corroded or leaking battery. You may suffer injury from acid burns.
5. Always wear ANSI approved safety glasses when working around or with a battery.



## **MOUNTING YOUR WINCH**

*Your Winch is designed to be mounted temporarily, using the Trailer Hitch Mounting Bracket. However, you may also mount your winch permanently.*

### *Permanent Mounting*

1. Select a mounting site on the bumper of your vehicle, truck bed, boat trailer, or other suitable location. *NOTE: This winch can generate 2,000 Lbs. pulling force. Be sure the location you select can withstand this much force. You may need to use steel reinforcement plates, or weld on additional bracing, depending on the desired mounting location.*
2. Align the winch with the desired location, and mark for drilling the locations of the 4 holes on the base of the winch.
3. Drill these locations on your vehicle.
4. Using hardened steel bolts at least 3/8" in diameter, install your winch to the location.

### *Temporary Mounting*

1. Attach the (3) Plate Stud Bolts to the Adapter Plate, as shown, using the supplied Nuts. Tighten securely.
2. Index the heads of the Plate Studs into the keyhole slots on the back of the winch.
3. Attach the Winch/ Adapter Plate assembly to your trailer hitch, by inserting the trailer hitch ball through the shaped hole in the Adapter Plate.

## **USING YOUR WINCH**

1. Put your vehicle in Neutral. (Never winch with your vehicle in Gear or in Park, since this could damage your vehicle's transmission.) Put your emergency brake On. Block the wheels from rolling, using suitable chocks.
2. To pull out the cable, turn the Clutch Knob (#19) counterclockwise to loosen it, then pull out the cable you need. Always leave at least three turns of cable on the spool to prevent pulling the cable out of the winch.
3. Hook onto the object using a pulling point, tow strap or chain. Never wrap the cable around the object and hook onto the cable itself. This can cause damage to the object being pulled, and kink or fray the cable.
4. Re-tighten the clutch knob.
5. Stand clear, and when it is safe to do so, use the power switch in the remote control to retract the cable, and winch the item as desired.

### **WARNING:**

1. Keep hands, clothing, hair, and jewelry clear of the drum area and cable when winching.
2. Never use the winch if the cable is frayed, kinked or damaged.
3. Never allow anyone to stand near the cable, or in line with the cable behind the winch while it is under power. If the cable should slip or break, it can suddenly whip back towards the winch, causing a hazard for anyone in the area. Always stand well to the side while winching.

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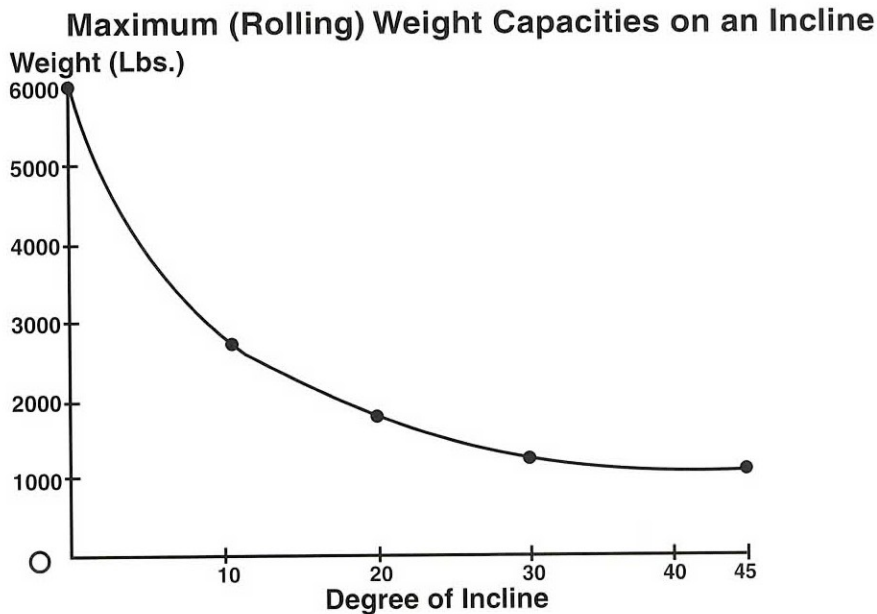
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## PULLING CAPACITY

1. This winch has a capacity of 2,000 Lbs. Applying this measurement to practical applications, you can use this winch to move the following.
  - a. Move a load from a dead stop of up to 2,000 Lbs. on level ground.
  - b. Move a water bourne craft of up to 4,800 Lbs.
  - c. Maintain movement of a wheeled vehicle of up to 6,000 Lbs.
2. Pulling Capacity is reduced as incline increases. For example, rolling capacity is reduced from 6,000 Lbs on flat ground to 1,100 Lbs. on a 45° incline. Please refer to the following chart for estimated pulling capacity (rolling weight) on various inclines.



## USING THE EMERGENCY HAND CRANK

***Warning: Do Not Use the crank to assist an operating winch. This will damage the winch and may cause personal injury.***

1. Turn the clutch knob clockwise until hand tight. Do not force it or overtighten.
2. Place the end of the hand crank over the flattened end of threaded shaft on the left side of the winch.
3. Rotate the hand crank clockwise to tighten the cable. Continue to turn until the cable has been completely retracted.

## MAINTENANCE

1. Lubricate the cable occasionally with a light oil.
2. Grease the gears every 6 months. To do this, remove the clutch knob and separate the left and right housing. Use any good quality waterproof grease.



## PARTS LIST MODEL #39997 ELECTRIC WINCH

<b>Part #</b>	<b>Description</b>	<b>Part#</b>	<b>Description</b>
1	Screw	33	Lock Washer
2	Left Shell	34	Screw
3	Shaft	35	Fast Plate
4	Nut	36	Screw
5	Right Shell	37	Fast Plate
6	Socket	38	Relay
7	Cord Plug	39	Lock Washer
8	Electrical Cord	40	Lock Spring
9	Clamp	41	Screw
10	Switch	42	Shaft
11	Remote Control Housing	43	Gear Assembly(Small)
12	Remote Control Housing	44	Lock Washer
13	Self-Tapping Screw	45	Nut
14	Spring Lock	46	Shaft
15	Hexagon Shaft	47	Lock Washer
16	Lock Washer	48	Claw Lock
17	Gear Assembly(Big)	49	Shaft Lock
18	Screw	50	Nut
19	Gear Assembly(Small)	51	Lock washer
20	Shaft Assembly	52	Spring
21	Hand Crank	53	Gear Assembly(Big)
22	Clutch Knob	54	Lock Washer
23	Friction Plate	55	Screw
24	Gear Assembly(Big)	56	Adapter Plate
25	Plate	57	Plate
26	Lock Washer	58	Cable Assembly
27	Bearing	59	Plate
28	Circular Breaker	60	Cable
29	Lock Washer	61	Nut
30	Nut	62	Lock Washer
31	Frame	63	Hook
32	Motor	64	Fastening Sleeve Of Cable

### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS HERETO.

