Visit our website at: http://www.harborfreight.com

Read this material before using this product. Failure to do so can result in serious injury.
SAVE THIS MANUAL.

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 10c
SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product’s serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE is used to address practices not related to personal injury.

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

The warnings, precautions, 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.

INSTALLATION PRECAUTIONS

1. Mounting location and hardware must support winch and load.
2. Wear ANSI-approved safety goggles during installation, operation and service.
3. Use supplied power cords and wire rope listed in manual only. Do not use thinner/longer cables or link multiple cables together.
4. Always connect the red wire to the positive battery terminal and the black wire to the negative battery terminal.
5. Do not use a dirty, corroded or leaking battery. You may suffer injury from acid burns.
6. Verify that installation surface has no hidden components or structural pieces that will be damaged before drilling.

**OPERATION PRECAUTIONS**

1. Do not exceed load capacity. **Be aware of dynamic loading!** Sudden load movement may briefly create excess load causing product failure.

2. Wear ANSI-approved safety goggles and heavy-duty leather work gloves during operation.

3. Do not disengage clutch under load. Engage clutch before starting.

4. Keep clear of Fairlead when operating. Do not try to guide wire rope.

5. Stay out of the direct line that the wire rope is pulling. In case it slips or breaks, it will “whiplash” along this line.

6. Do not winch a boat or other object with anyone in or on it.

7. Use a spotter to assist you in assuring that it is safe to operate the winch. Make sure the spotter is out of the way of the wire rope before activating the winch.

8. Use as intended only. Do not lift items vertically or use for aircraft purposes.

9. Prevent entanglement. 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.

10. Inspect before every use; do not use if damaged or parts loose. Examine the winch for structural cracks, bends, damage, frayed wire rope, and any other conditions that may affect the safe operation of the winch. Do not use the winch even if minor damage appears.

11. Keep children and bystanders away while operating. Distractions can cause you to lose control.

12. Stay alert, watch what you are doing and use common sense when operating. Do not use a winch while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating winches may result in serious personal injury.

13. Do not overreach. Keep proper footing and balance at all times. This enables better control of the winch in unexpected situations.

14. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to a heart pacemaker could cause pacemaker interference or pacemaker failure.

15. Do not power the hook all the way into the fairlead or winch.

16. **Hook onto the object using a pulling point, tow strap or chain. Do not wrap the wire rope around the object and hook onto the wire rope itself. This can cause damage to the object being pulled, and kink or fray the wire rope.**

17. Secure load after moving. NO LOCKING MECHANISM.

18. **Do not use a Recovery Strap while winching.** They are designed to stretch and can suddenly whip back towards the operator during a winching operation.

19. Keep at least 5 full turns of wire rope on the drum.
20. If the wire rope begins to get entangled, stop the winch immediately and release the wire rope using the switch.

21. Do not operate the winch at extreme angles - do not exceed the angles shown above.

**SERVICE PRECAUTIONS**

1. Wear ANSI-approved safety goggles during installation, operation and service.

2. Use supplied power cords/wire rope or cables listed in manual only. Do not use thinner/longer cables or link multiple cables together.

3. Have the winch serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the winch is maintained.

4. Maintain labels and nameplates on the winch. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

5. **WARNING:** Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, *et seq.*)
SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>2,000 lb. Single Line Pull on Layer 1</td>
</tr>
<tr>
<td>Motor</td>
<td>Permanent Magnet (or Series Wound) 1-1/2 HP</td>
</tr>
<tr>
<td>Recommended Power Supply</td>
<td>12 VDC Minimum 18 Amp-hr (not included)</td>
</tr>
<tr>
<td>Switch</td>
<td>Power IN, Power OUT</td>
</tr>
<tr>
<td>Automatic Load Holding Brake</td>
<td>Yes</td>
</tr>
<tr>
<td>Gear Train</td>
<td>2-Stage Planetary 153:1 Ratio</td>
</tr>
<tr>
<td>Overall Dimensions</td>
<td>12.72&quot; L x 4.13&quot; W x 4.35&quot; H</td>
</tr>
<tr>
<td>Drum Size</td>
<td>1-1/4&quot; Dia. x 2-7/8&quot; W</td>
</tr>
<tr>
<td>Hook Opening</td>
<td>3/16&quot;</td>
</tr>
<tr>
<td>Mounting Plate</td>
<td>1-7/8&quot; x 3&quot;</td>
</tr>
<tr>
<td>Mounting Hardware</td>
<td>3 sets: Bolt M8 x 25, Nut, Washer, Spring Washer</td>
</tr>
<tr>
<td>Power Cords</td>
<td>50&quot;, 10 Gauge (AWG)</td>
</tr>
<tr>
<td>Wire Rope</td>
<td>5/32&quot; x 50' Galvanized Aircraft* type Steel 2800 lb. Nominal Strength</td>
</tr>
</tbody>
</table>

* "Aircraft" refers to the wire rope type, not the function of the winch.

Performance of First Layer

<table>
<thead>
<tr>
<th>Line Pull (lb.)</th>
<th>Line Speed (ft./min)</th>
<th>Amp Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12.5</td>
<td>19</td>
</tr>
<tr>
<td>1,000</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>1,500</td>
<td>8.2</td>
<td>90</td>
</tr>
<tr>
<td>2,000</td>
<td>7.6</td>
<td>110</td>
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</table>

Line Pull and Wire Rope Capacity by Layer

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
<th>Rated Line Pull (lb.)</th>
<th>Wire Rope Capacity (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,000</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>1,636</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>1,385</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>1,200</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>1,059</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>947</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: If a winch is to be used to pull a vehicle, it should optimally be rated to a single line pull at least twice the vehicle’s weight.

UNPACKING

When unpacking, make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353 as soon as possible.

COMPONENTS

Figure 1

For technical questions, please call 1-800-444-3353.
INSTALLATION AND SETUP

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Mounting

1. Select a mounting site that will withstand the maximum horizontal pulling capacity of the winch.

**NOTE:** This winch can generate extreme forces. Select a location that can withstand the rated capacity without damage or weakening. You may need to use steel reinforcement plates, or weld on additional bracing, depending on the mounting location.

**Figure 2**

2. Mark the locations of the three Mounting Frame (17) mounting holes on the installation surface.

3. Before drilling, verify that the installation surface has no hidden components or structural pieces that will be damaged.

4. Remove the winch and drill 5/16” holes at the marked locations.

5. Install the winch using the mounting hardware listed in the Specifications chart.

Wiring

**WARNING** TO PREVENT SERIOUS INJURY FROM EXPLOSION DUE TO SPARKING AT THE BATTERY CONNECTION:
Begin with all wires disconnected, then attach wires in the order in the instructions.

**WARNING** TO PREVENT SERIOUS INJURY FROM LEAKING BATTERY ACID:
Do not use a dirty, corroded or leaking battery. Only use a 12V automotive (or equivalent) battery, in good condition.

**Figure 3**

1. Route the wires on the Switch (1) from the point the winch will be used to the battery, as shown above. An inline fuse or circuit breaker (sold separately) capable of handling the winch’s amp load should be installed in the positive wire to the battery.
2. Remove the nuts and washers from the Negative and Positive connections on the Motor (2). Working with the two Motor wires (the unlabeled wires), slide the black wire over the negative connection and the red wire over the positive connection. Secure in place with the washers and nuts.

3. Working with the wires marked “Battery”, attach the red wire to the Positive Terminal on the battery, and the black wire to the negative terminal of the battery.

### Operating The Clutch

1. **Clutch Disengaged (OUT position):**
   - To disengage the Clutch: [a] pull out the Clutch Handle (7), and [b] rotate it until the pins on the side of the Handle rest on the outside of the winch, then release the Handle.

2. **Clutch Engaged (IN position):**
   - To re-engage the Clutch: [a] pull out the Clutch Handle, and [b] rotate it until you can [c] guide the pins back into the unit, then release the Handle.

### Testing the Winch

1. Disengage the Clutch.
2. Using the Hook Strap (13), pull the cable out about five feet.
3. Re-engage the Clutch.
4. Press the Power IN button on the Switch to retract the cable. Press the Power OUT button to extend the cable.

**Note:** When the Clutch is engaged, only press the Power OUT button for a short burst, just to loosen the cable enough to unhook the winch, or to test the winch. For all other purposes, first disengage the Clutch and pull the cable out manually.

**Preparing the Wire Rope**

**BEFORE FIRST USE:**

1. The wire rope must be properly coiled under tension to be able to support a load without damage.

2. Disengage the Clutch.

3. Uncoil the wire rope, except for 5 full wraps.

4. Re-engage the clutch then recoil the wire rope back into the winch under at least 250 lb. of tension.
OPERATION

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product. The instructions that follow are basic guidelines only and cannot cover all situations encountered during use. The operator and assistants must carefully plan usage to prevent accidents.

1. Examine the wire rope. Do not use the winch if the wire rope is frayed, kinked or damaged.

2. Make sure the battery is fully charged.

3. Check the winch’s electrical connections. All connections must be tight and clean.

4. Disengage the clutch.

5. Slide the Hook Strap (13) into the Hook (21) and pull the cable to the desired length, then attach the Hook to the item being pulled.

**WARNING!** Leave at least five full turns of wire rope on the drum.

6. When attaching the Hook onto the object, use a pulling point, tow strap, tree strap, or chain. Make sure the Hook’s spring-loaded latch is closed. **Do not wrap the wire rope around the object and hook onto the wire rope itself.** This can damage the object being pulled, and kink or fray the wire rope.

7. **Do not use a Recovery Strap while winching.** They are designed to stretch and can suddenly whip back towards the operator during a winching operation.

8. Re-engage the clutch.

9. **WARNING!** Do not allow anyone to stand near the wire rope, or in line with the wire rope behind the winch while it is under power. If the wire rope should slip or break, it can suddenly whip back towards the winch, causing a hazard for anyone in the area. Stand well to the side while winching.

10. When it is safe to do so, use the Power IN button on the Switch (1) to retract the wire rope, and winch the item as desired. **Do not power the hook all the way into the fairlead to prevent damage.**

11. Do not operate the winch at extreme angles - do not exceed the angles shown above. Pay attention to how the wire rope is coiling onto the drum. If it is

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**Double Line Rigging:**

A double line system should be used whenever possible. It reduces the load on the winch, allowing it to work longer with less heat buildup. It reduces load on the winch in two ways:

- it utilizes the lower layers of wire rope that have higher capacity, and
- it halves the load on the winch through pulley action.

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SKU 92860  For technical questions, please call 1-800-444-3353.
building up on one end of the drum, stop, uncoil the wire rope and recoil it from a less severe angle to prevent damage.

12. Do not continue use of the winch until the battery is completely run down.

**CAUTION** Do not use the winch in a constant duty application, it is designed for INTERMITTENT USE ONLY. Keep the duration of the pulling job as short as possible. If the motor becomes very hot to the touch, stop and let it cool down for several minutes. Do not pull for more than one minute at or near the rated load. Do not maintain power to the Winch if the motor stalls. Double Line Rigging will help prevent overloading and should be used whenever practical.

13. After moving, secure the load and power out the winch briefly to release tension on the wire rope.

14. To prevent accidents, turn off the winch and disconnect its power supply after use. Clean, then store the winch indoors out of children’s reach. If cable got wet, dry it then apply light oil right after use.
MAINTENANCE AND SERVICING

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠️ WARNING ⚠️

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Disconnect the Switch control cables before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM WINCH FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE,** inspect the general condition of the winch. Check for loose hardware, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, corroded or loose terminals, and any other condition that may affect its safe operation. Examine the wire rope. Do not use the winch if the wire rope is frayed, kinked or damaged.

2. **AFTER USE,** wipe external surfaces of the winch with clean cloth.

3. Lubricate the wire rope occasionally with a light oil.

4. The winch’s internal mechanism is permanently lubricated. Do not open the housing. However, if the winch is submerged, it should be opened, dried, and re-lubricated by a qualified technician as soon as possible to prevent corrosion.

5. Do not pull battery wires against any surfaces which could damage them.

6. Periodically remove and clean wire connections to the battery. Corrosion will reduce performance or may cause a short.

7. Secure and cover the winch when not in use.

Cable Replacement

*(To be performed only by a qualified technician)*

1. Disengage the Clutch.

2. Manually pull the Cable out to it’s full length. Note how the existing cable is connected to the inside of the drum.

3. Remove the old Cable and attach a new Cable.

⚠️ WARNING! Do not replace with inferior cable. Use only the approved replacement part from Harbor Freight Tools.

4. The cable must be rewound in the direction shown on the winch.

5. Coil the wire rope 5 full wraps.

6. Then, coil the wire rope into the winch under at least 250 lb. of tension being careful to keep it from kinking.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Causes</th>
<th>Likely Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winch will not start.</td>
<td>1. Battery and Motor wires not connected properly.</td>
<td>1. Check all wiring connections.</td>
</tr>
<tr>
<td></td>
<td>2. Battery needs charging.</td>
<td>2. Fully charge battery.</td>
</tr>
<tr>
<td></td>
<td>3. Defective Switch Assembly.</td>
<td>3. Replace Switch Assembly.</td>
</tr>
<tr>
<td></td>
<td>4. Defective motor.</td>
<td>4. Check for voltage at armature port with Switch pressed. If voltage is present, replace motor.</td>
</tr>
<tr>
<td></td>
<td>5. Water has entered motor.</td>
<td>5. Allow unit to drain and dry. Run in short bursts without load until completely dry.</td>
</tr>
<tr>
<td></td>
<td>6. Internal damage or wear.</td>
<td>6. Have technician service winch.</td>
</tr>
<tr>
<td>Winch operates slowly</td>
<td>1. Insufficient current or voltage.</td>
<td>1. Battery weak. Recharge. Run winch with vehicle motor running.</td>
</tr>
<tr>
<td>or overheats.</td>
<td>2. Loose or corroded battery cable connections.</td>
<td>2. Clean, tighten or replace.</td>
</tr>
<tr>
<td></td>
<td>3. Incorrect power cords.</td>
<td>3. Use only supplied power cords.</td>
</tr>
<tr>
<td>Motor overheating.</td>
<td>Winch running time is too long.</td>
<td>Allow winch to cool down periodically.</td>
</tr>
<tr>
<td>Motor runs in one</td>
<td>Defective Switch Assembly.</td>
<td>Replace Switch Assembly.</td>
</tr>
<tr>
<td>direction only.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Follow all safety precautions whenever diagnosing or servicing the winch. Disconnect power supply before service.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR 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 THERETO.
<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Switch</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Motor</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Gear Ring</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Spacer</td>
<td>2</td>
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<tr>
<td>5</td>
<td>Gear Carrier</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Rotator Gear</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Clutch Handle</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Tension Plate</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Nut M5</td>
<td>2</td>
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<tr>
<td>10</td>
<td>Drum</td>
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</tr>
<tr>
<td>11</td>
<td>Bushing</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Gearbox Cover</td>
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<tr>
<td>13</td>
<td>Hook Strap</td>
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<tr>
<td>14</td>
<td>Spring Washer M5</td>
<td>4</td>
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<tr>
<td>15</td>
<td>Screw M5 x 12</td>
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<tr>
<td>16</td>
<td>Drum Support</td>
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<tr>
<td>17</td>
<td>Mounting Frame</td>
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<tr>
<td>18</td>
<td>Screw M6 x 16</td>
<td>2</td>
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<tr>
<td>19</td>
<td>Screw M6 x 12</td>
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<tr>
<td>20</td>
<td>Roll Pin Ø2.5 X 14</td>
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<tr>
<td>21</td>
<td>Cable Asm. 5/32” x 50’</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Mounting Bolt M8 x 25 &amp; Nut</td>
<td>3</td>
</tr>
</tbody>
</table>

For technical questions, please call 1-800-444-3353.
90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353

Record Product's Serial Number Here:_______________________________________________

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

SKU 92860 For technical questions, please call 1-800-444-3353.