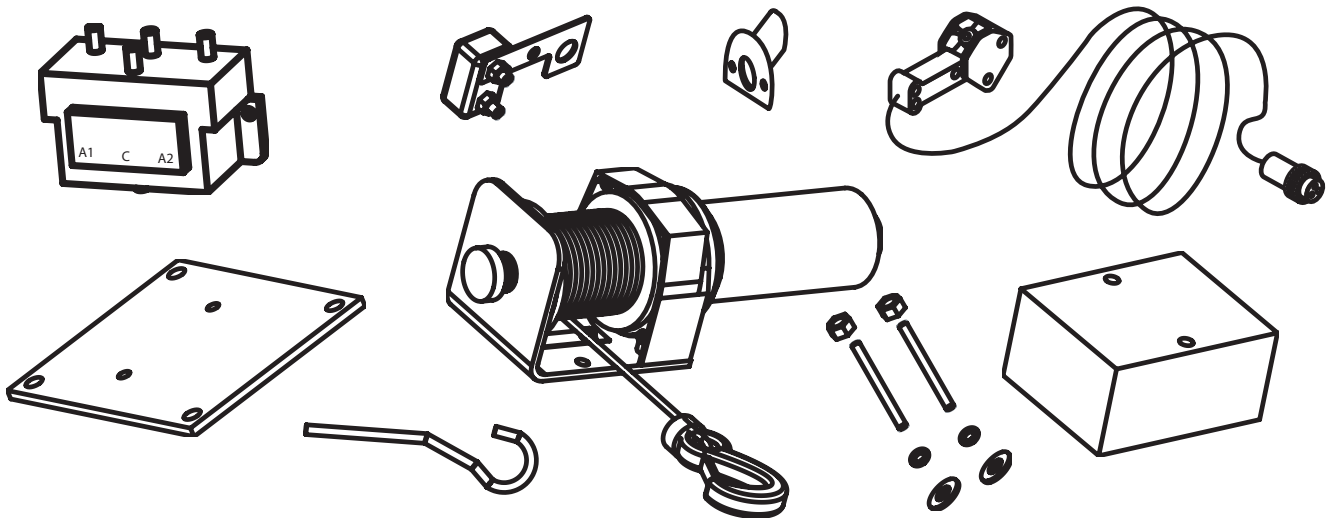


Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions could result in personal injury and/or property damage. Retain instructions for future reference

**Powerwinch**<sup>®</sup>  
Quality Winches Since 1956

**PULLING SYSTEM**



**Description:** The Powerwinch Open Spool Winch is used to load and unload vehicles such as motorcycles or ATV's from Sport Utility Trailers. The system features a power in/power out/free wheel out 12V winch with remote control that can be mounted in the trailer.

**Unpacking:** When unpacking, inspect the product carefully for any damage that may have occurred in transit. Make sure any loose fittings, bolts, etc., are tightened before putting this unit into service.

## General Safety Information

Throughout this manual potential safety hazards will be noted with the following terms. Please read and understand these terms before operating the product.

### **⚠ DANGER**

Danger means a hazard that will cause death or serious injury if the warning is ignored.

### **⚠ WARNING**

Warning means a hazard that could cause death or serious injury if the warning is ignored.

### **⚠ CAUTION**

Caution means a hazard that may cause minor or moderate injury if the warning is ignored. It also may mean a hazard that will only cause damage to property

# General Safety Information (continued)

The following safety precautions must be followed at all times

Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Only persons well acquainted with these rules of safe operation should be allowed to use this product.

**▲ WARNING** Always disconnect the power to the winch in order to prevent accidental starting of the winch during installation, service, relocation, or maintenance.

**▲ WARNING** Always stand clear of the area behind and between the load, anchor point, and the winch. Serious injury could occur if the cable breaks.

Always secure the load to the trailer before moving the trailer. Do not use the winch to support the load during transit.

The cable fasteners on this winch are not designed to hold rated loads. Always leave a minimum of 5 wraps of cable on the drum to achieve a rated load.

Broken or worn cable may break before the winch stalls. Always inspect cable before use and replace any cable with worn or kinked areas.

1. Maximum working load capacity is on the cable closest to the spool. **DO NOT OVERLOAD. DO NOT ATTEMPT PROLONGED PULLS OF HEAVY LOADS.** Overloads can damage winch and/or cable and create unsafe operating conditions. **FOR LOADS OVER 1000 POUNDS (454 KG) WE RECOMMEND THE USE OF AN OPTIONAL PULLEY BLOCK TO DOUBLE LINE THE WIRE ROPE.** The Powerwinch pulley block kit can be ordered under part number P7904300AJ by calling 1-800-793-4793.

2. For best performance, the towing vehicle motor should be running during any winch operation. Considerable power is consumed by the winch and may weaken a battery to levels preventing it from starting the engine.

3. Do not move the towing vehicle to assist the winch in pulling the load. The combination of the winch and the vehicle could overload the cable and winch.

4. Always stand clear of the cable, hook, and winch during operation to prevent injury in the event a component fails.

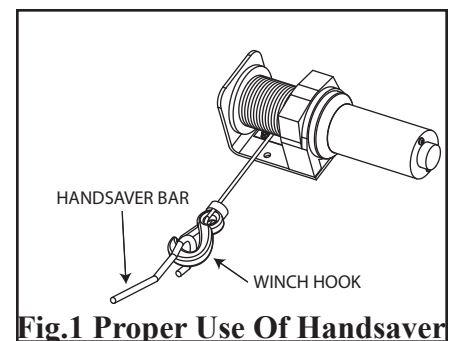
5. Frequently inspect cable and winch. Frayed and/or kinked cable should be replaced immediately.

Always replace cable with suggested Powerwinch replacement cable.

6. Use heavy leather gloves when handling cable. Under normal wear, cable may develop sharp strands which may cut unprotected hands.

7. Do not slide the cable through your hands.

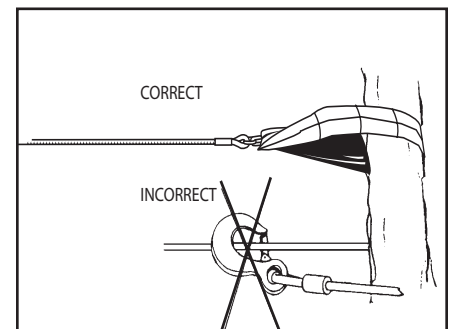
7. Never put your finger through the hook at the end of the cable. If your finger should become trapped, you could lose your finger. Always use the hand saver bar when guiding the cable in and out. See Figure 1.



**Fig.1 Proper Use Of Handsaver Bar**

8. Never hook the cable back onto itself because you could damage the cable. Use a properly rated nylon strap. See Figure 2.

**Fig. 2 Use Of Strap To pull Load.**

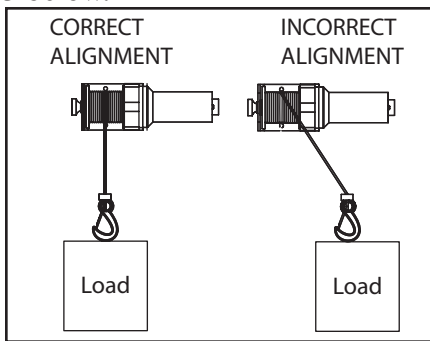


9. Place a heavy blanket or tarp over the cable when pulling heavy loads. If the cable should fail, the blanket or tarp will dampen the whipping action from a broken cable and protect bystanders.

# General Safety Information (continued)

The following safety precautions must be followed at all times

10. NEVER USE WINCH FOR LIFTING OR PULLING PEOPLE.  
 11. THIS WINCH IS NOT INTENDED FOR OVERHEAD HOISTING OPERATIONS.  
 12. Avoid continuous pulls from extreme angles. Extreme angle pulls result in the cable winding only on one end of the spool. This can jam the winch and damage the cable. ALWAYS CENTER THE LOAD WITH THE MIDDLE OF THE CABLE SPOOL. See Figure 3 below.



**Fig. 3 Load Alignment**

13. Do not remove or obscure warning or instruction labels.  
 14. Always operate the winch with a clear view of the load and surrounding area.  
 15. Never release the freespool clutch when there is a load on the winch.  
 16. Never work on or near the spool of the winch when the winch is under load.  
 17. When moving a load, slowly bring in cable slack until it becomes taut. Make sure the hook is properly seated on the load and any straps being used are safely attached to the load.  
 18. Do not operate this product under the influence of drugs, alcohol, or medication.

19. Use only a suitable anchoring point for the winch. Failure to do so could cause damage to the winch and/or personal injury. Suitable anchoring points can be found by referencing the trailer's owner's manual or directly contacting the trailer manufacturer.  
 20. Do not modify the winch or remote control. Modifications, including welding, may weaken the structural INTEGRITY of the winch frame and could void your warranty.  
 21. Do not connect the winch or wiring harnesses to either 110V house current or 220V mains. Fatal shock or fire may occur.  
 22. Never allow shock loads to be applied to the winch or cable.  
 23. Use caution when pulling or lowering loads up and down an incline. Keep people, pets, and property clear of the winch and the path of the load.  
 24. Do not wear loose fitting clothing, scarves, or neck ties when operating the winch. Loose clothing may become caught in moving parts and result in serious personal injury.  
 25. Never substitute rope for cable.  
 26. Always block trailer and towing vehicle wheels when using winch to prevent these vehicles from rolling during winch operation.

## UNPACKING

Contents of the Powerwinch Pulling System are listed below. Refer to the parts list at the end of this manual for correct part number. If you are missing any items, please call 1-800-793-4793 to speak to a Powerwinch Customer Service Representative.

### Powerwinch Pulling System

Contents:

Description	Qty
Winch	1
Solenoid	1
Remote Control	1
Mounting Block	1
Mounting Plate	1
Power Socket	1
Hand Saver Bar	1

## PRODUCT SPECIFICATIONS

Working Load*	1500 lb. (680 kg)
Stall Load	1950 lb. (885 kg)
Wire Rope Size	3/16" dia X 40' (4mm dia x 9m)
Motor	12VDC 0.45 hp (0.3 kW peak)
Gear Ratio	153:1
Weight	13 lb. (5.9 kg)
L x W x H	14" x 8" x 16" (36cm x 21 cm x 41cm)

\*Working load based on empty spool performance.

### Winch Performance Information

Table 1. Maximum Pulling Power Per Layer of Cable

Cable Layer	Maximum Pulling Capacity	
	lbs.	Kg.
1	1500	680
2	1225	556
3	1025	465
4	900	408

Table 2. Current Draw and Cable Speed At Different Loads

Load (lbs.)	Load (kg)	Speed		Motor Current Draw (Amps)
		Ft/min	m/min	
0	0	14.5	4.4	8
250	113	12.7	3.9	20
500	227	11.3	3.4	30
1000	454	8.5	2.6	60
1500	680	5.2	1.6	90

## Powerwinch Open Spool Winch Installation

Read throughly before attempting to install. Follow all safety precautions.

The Powerwinch Pulling System is shipped with the items shown in Figure 4. Please review these items before installation.

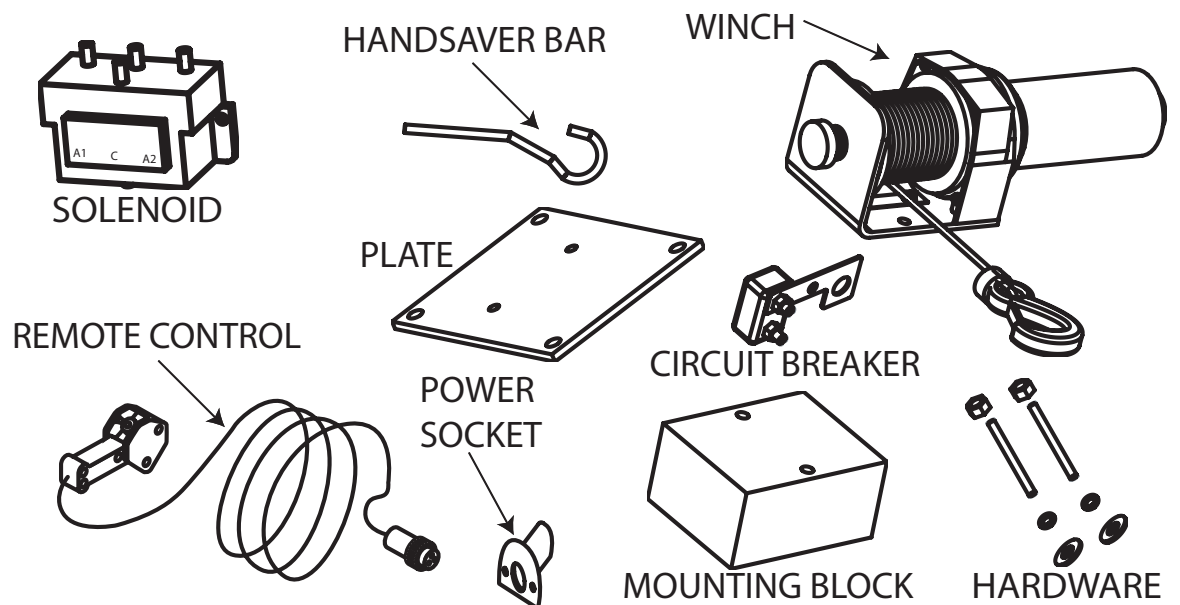


Fig 4. Pulling System Components

## WIRING INSTRUCTIONS FOR POWERWINCH PULLING SYSTEM

The wiring process is broken down into three easy to follow steps. Make sure that the solenoid is mounted securely no more than four feet from the winch before wiring.

### STEP #1

#### WIRE THE WINCH TO THE SOLENOID

1. MOUNT THE SOLENOID CLOSE ENOUGH TO THE WINCH SO THAT THE WINCH MOTOR LEADS WILL BE ABLE TO REACH IT.
2. ATTACH THE RED MOTOR LEAD FROM THE WINCH TO THE STUD ON THE SOLENOID SHOWN IN THE PICTURE.
3. ATTACH THE BLACK MOTOR LEAD FROM THE WINCH TO THE STUD ON THE SOLENOID SHOWN IN THE PICTURE.

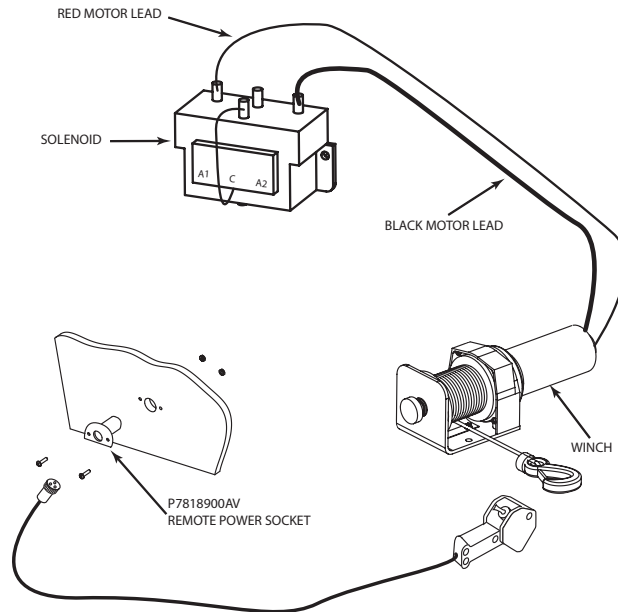


Fig 5. Winch Wired to Solenoid

### STEP #2

#### WIRE THE SOLENOID TO THE REMOTE CONTROL

1. RUN #16 WIRE FROM THE SILVER PLUG ON THE BACK SIDE OF THE P7818900AV POWER SOCKET TO THE STUD ON THE SOLENOID SHOWN IN THE PICTURE. THIS CIRCUIT SHOULD BE PROTECTED WITH A 10-AMP FUSE.
2. RUN #16 WIRE FROM ONE OF THE COPPER PLUGS ON THE BACK SIDE OF THE P7818900AV POWER SOCKET TO THE TAB MARKED "A1" ON THE SOLENOID.
3. RUN #16 WIRE FROM THE OTHER COPPER PLUG ON THE BACK SIDE OF THE P7818900AV POWER SOCKET TO THE TAB MARKED "A2" ON THE SOLENOID.

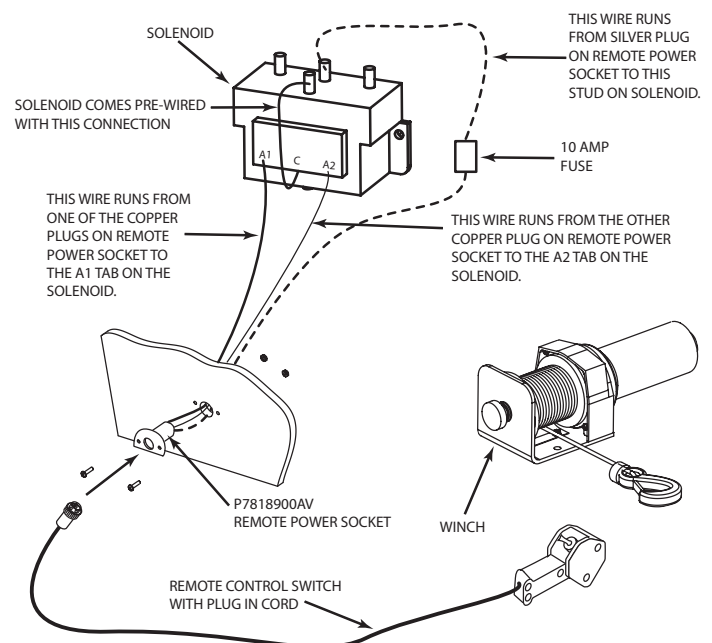


Fig 6. Solenoid Wired to Remote Control

## WIRING INSTRUCTIONS FOR POWERWINCH PULLING SYSTEM (CONTINUED)

### STEP #3

#### WIRE THE SOLENOID TO THE BATTERY

1. BE SURE TO USE THE CHART TO HELP DETERMINE THE CORRECT GAGE OF WIRE FOR THIS CIRCUIT. MEASURE AND CUT THE CORRECT LENGTH OF RED AND BLACK WIRE TO RUN FROM THE SOLENOID TO THE 12-VOLT BATTERY.
2. ATTACH THE RED WIRE TO THE STUD ON THE SOLENOID SHOWN IN THE PICTURE. ATTACH THE 40-AMP CIRCUIT BREAKER TO THE OPPOSITE END OF THE RED WIRE. BE SURE TO ATTACH THE WIRE TO THE STUD MARKED "AUX" ON THE CIRCUIT BREAKER. ATTACH THE BUSS BAR TO THE STUD MARKED "BAT" ON THE CIRCUIT BREAKER AND THEN CONNECT THE BUSS BAR TO THE POSITIVE TERMINAL ON THE BATTERY.
3. ATTACH THE BLACK WIRE TO THE STUD ON THE SOLENOID SHOWN IN THE PICTURE. ATTACH THE OPPOSITE END OF THE BLACK WIRE TO THE NEGATIVE TERMINAL ON THE BATTERY. THE WINCH IS NOW READY TO OPERATE

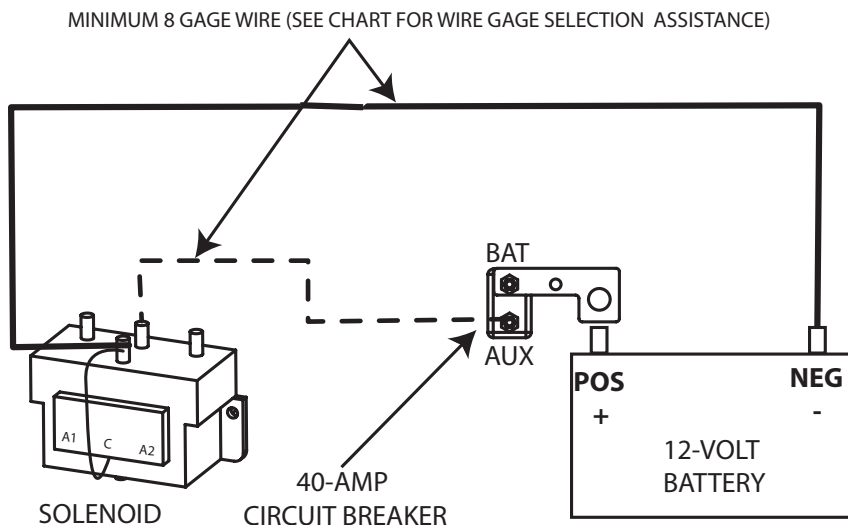


Fig 7. Solenoid Wired to Battery

#### WIRE GAGE SELECTION CHART

(THE PURPOSE OF USING A LARGER DIAMETER WIRE AS THE LENGTH OF THE CIRCUIT INCREASES IS TO MINIMIZE THE VOLTAGE DROP AT THE WINCH MOTOR.

LENGTH OF CIRCUIT	SUGGESTED WIRE GAGE
45 FT & UNDER	#8 GAGE
45 FT - 60 FT	#6 GAGE
60 FT - 75 FT	#4 GAGE

## MOUNTING PROCEDURE FOR POWERWINCH PULLING SYSTEM

1. THE STEEL PLATE SHOULD BE SECURED TO THE FRAME OF THE TRAILER WITH FOUR 7/16" GRADE 5 BOLTS (NOT INCLUDED WITH PULLING SYSTEM).
2. SECURE THE P10289 STUDS INTO THE STEEL PLATE WITH A PERMANENT THREAD LOCKER (LOCTITE 680 IS RECOMMENDED).
3. SLIDE THE MOUNTING BLOCK AND WINCH OVER THE STUDS AND SECURE THEM BOTH TO THE STEEL PLATE WITH THE LOCK WASHERS, WASHERS, AND HEX NUTS.

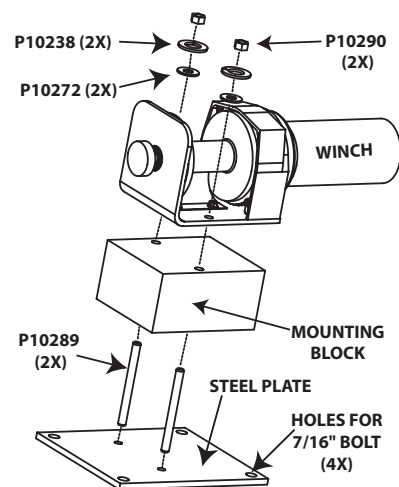


Fig 8. Mounting Diagram



## Winch Operation

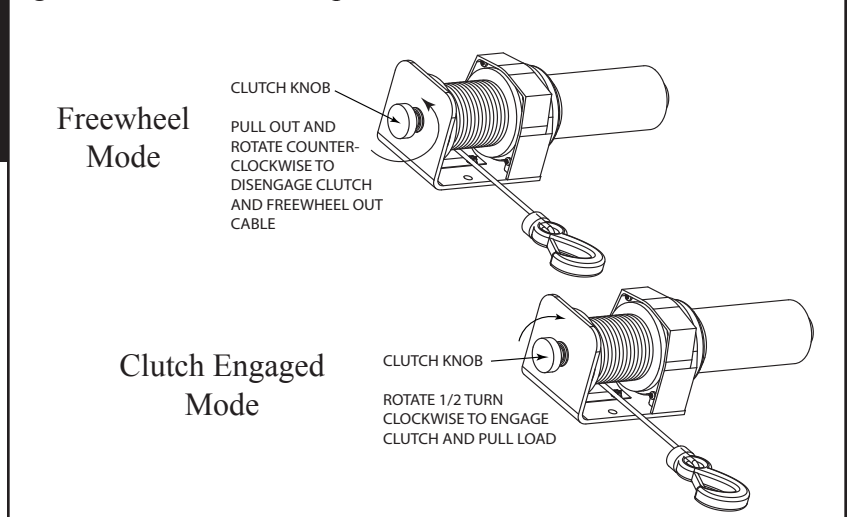
1. Insert the remote control plug into the power socket plug that you have installed into the wall.
2. The remote control plug will only go into the socket in one orientation. Gently plug the plug into the socket. If the plug does not go in, rotate the plug 1/3 of a turn and try again. **Do not force the plug into the socket or damage may occur to the plug.**
3. The installation is now complete and you are ready to use to the winch to pull a load.

## Winch Operation Loading

1. Make sure the load to be pulled and the winch are aligned as shown in Fig 3.
2. Locate the clutch knob on the side of the winch. See Figure 9.
3. Pull knob out and rotate 1/2 turn counter-clockwise.
4. The winch is now in freewheel mode and the cable can be manually pulled out. **Note: The cable could be powered out of the winch by pressing the switch on the remote in the up position, however, this is a much slower operation and puts unnecessary drain on the battery.**
5. Using the hand saver bar (See Fig. 1) pull the cable out of the winch and attach the hook to the load.

**▲ CAUTION** Make sure to leave at least five wraps of cable on the winch spool. The cable fasteners on the spool are not designed to support the pulling power of the winch and need at least five wraps of cable to

Figure 9. Clutch Knob Operation



safely support the load.

6. Return to the winch and turn the clutch knob 1/2 turn clockwise to lock the clutch in and pull in the load.

**▲ CAUTION**

Never touch the

clutch knob while the winch is operating. Serious injury can occur.

7. Press remote switch in down position to begin retrieving load.
8. Slowly retrieve load into trailer making sure load stays aligned with the winch.
9. When load has been fully retrieved, secure load to trailer using strap tiedowns or other methods. Do not use winch to secure load to trailer.

**▲ DANGER** Do not use

winch to secure load to trailer during transport. The clutches in the winch are not designed to withstand dynamic loads from transporting.

Using the winch to secure the load during transport may result in serious injury and/or property damage.

10. Make sure load is secured to trailer. Remove the hook from the load and spool the remaining cable up on the winch by powering in. You may have to power the cable out slightly to release tension from hook.

## Winch Operation Unloading

1. Make sure the load to be released and the winch are aligned as shown in Fig 3.
2. Pull knob out and rotate 1/2 turn counter-clockwise.
3. The winch is now in free-wheel mode and can be manually pulled out. **Note: The cable could be powered out of the winch by pressing the switch on the remote in the up position, however, this is a much slower operation and puts unnecessary drain on**

on the battery.

4. Using the hand saver bar (See Fig. 2) pull the cable out of the winch and attach the hook to the load.

**▲ CAUTION** Make sure to leave at least five wraps of cable on the winch spool. The cable fasteners on the spool are not designed to support the pulling power of the winch and need at least five wraps of cable to safely support the load.

5. Return to the winch and turn the clutch knob 1/2 turn clockwise to lock the clutch in and pull in the load.

**▲ CAUTION** Never touch the clutch knob while the winch is operating. Serious injury can occur.

6. The load can now be eased off the trailer.

7. Press the remote switch in the up position to power the cable out. The winch will not push the load out. The load may need a push to get started.

8. Once the load is moving, slowly power the cable out making sure the load is under control at all times.

**▲ CAUTION** Make sure to leave at least five wraps of cable on the winch spool. The cable fasteners on the spool are not designed to support the pulling power of the winch and need at least five wraps of cable to safely support the load.

**▲ CAUTION** Never allow

shock loads on the winch cable. Shock loads can be prevented by slowly releasing winch cable with the remote control. Shock loads may cause the load to be unstable and damage the winch. Serious personal injury and or property damage could occur.

9. Once the load has been unloaded from the trailer the winch cable can be removed.

10. Make sure the load is secure and not being held in place by the winch.

11. Release the hook from the load and power the cable back into the spool.

12. Make sure the cable winds evenly on the spool. The hook and cable can be guided back into the winch using the hand-saver bar as shown in Figure 1.

13. Remove remote control plug.

spray lubricant. A light coating is all that is needed. Too much oil will attract dirt and cause excessive cable wear.

3. The cable hook should be inspected for cracks or being bent. If the hook is bent or cracked, the entire cable assembly should be replaced.

### Winch Maintenance

The winch gearbox is permanently lubricated and sealed. No additional lubricant is required for proper operation. There are no user serviceable parts inside the winch.

## Winch Maintenance

The Powerwinch Pulling system requires a few maintenance items to keep the winch running at top performance.

### Cable Maintenance

1. The cable should be frequently inspected for kinks and/or frays. If kinks and or frays are found, the cable should be replaced immediately. Use only Powerwinch replacement cable.
2. The life of the cable can be extended by frequently lubricating the cable with an oil based



# Powerwinch Pulling System Troubleshooting

Symptom	Possible Causes	Corrective action
Motor will not operate or runs in only one direction.	<ol style="list-style-type: none"> <li>1. Remote handle plug not fully in socket.</li> <li>2. Broken wires or poor connection in power wiring harness and/or caddy power wiring harness.</li> <li>3. Winch motor is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure plug is fully engaged in socket.</li> <li>2. Check wiring harnesses for breaks, cuts, or abrasions.</li> <li>3. Replace winch.</li> </ol>
Motor runs extremely hot and/or continuously trips circuit breaker.	<ol style="list-style-type: none"> <li>1. Overloading and long load retrieves.</li> <li>2. Faulty circuit breaker.</li> <li>3. Winch motor is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Allow motor to cool for 5 minutes. Reduce load. Use pulley block to reduce strain on winch.</li> <li>2. Replace circuit breaker.</li> <li>3. Replace winch.</li> </ol>
Motor runs but with insufficient power or line speed.	<ol style="list-style-type: none"> <li>1. Weak battery.</li> <li>2. Poor battery connection.</li> <li>3. Winch motor is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Recharge or replace battery. Keep towing vehicle motor running during loading or unloading.</li> <li>2. Check battery terminals for corrosion. Remove power wiring harness and clean terminals.</li> <li>3. Replace winch.</li> </ol>
Motor runs but drum does not turn	<ol style="list-style-type: none"> <li>1. Clutch not engaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Engage clutch. Refer to Figure 9.</li> </ol>
Winch runs backward.	<ol style="list-style-type: none"> <li>1. Power wiring harness connected backwards.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Figure 7. Make sure red wire is attached to positive battery terminal.</li> </ol>
Winch coasts.	<ol style="list-style-type: none"> <li>1. Excessive load.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce load or use pulley block to reduce strain on winch.</li> </ol>

## Limited Warranty

A. This Limited Warranty is given by the Powerwinch Division of the Scott Fetzer Company (the "Company") to the original purchaser (the "Purchaser") of a Powerwinch Product (the "Product") specified in this manual. This Limited Warranty is not transferable to any other party.

B. Responsibilities of the Company under this Limited Warranty:

1. Repair or replace (at the discretion of the Company) any part or parts of the Product found by the Company to be defective within a one (1) year period from the date of purchase.
2. The Company will pay the transportation charge for shipment back to the Purchaser of any Product received for legitimate Warranty repair.

C. Responsibilities of the Purchaser under this Limited Warranty:

1. Complete (fully and accurately) and return to the Company, the Warranty card included in the box. Otherwise, Purchaser will have to show dated proof of purchase to qualify for service under the provisions of the Limited Warranty.
2. Promptly notify the Seller or the Company of any claim hereunder.
3. At the Option of the Company, return the Product to the Company for inspection. Authorization must be given prior to any Product return. Call the Company at 1-800-793-4793 or write the Company at 2268 Fairview Blvd., Fairview, TN 37062 for authorization and complete instructions on how to return the Product directly to the Company.
4. Use reasonable care in maintenance, operation, use and storage of the Product in accordance with the instructions contained in the Owner's Manual.
5. Have Warranty work performed by a dealer or representative approved by the Company.
6. Except as noted in B.2., transportation charges are the responsibility of the Purchaser.

D. This Limited Warranty covers:

1. Defects in workmanship or materials.
2. Any part or parts of the Product sold or manufactured by the Company.

E. This Limited Warranty does not cover:

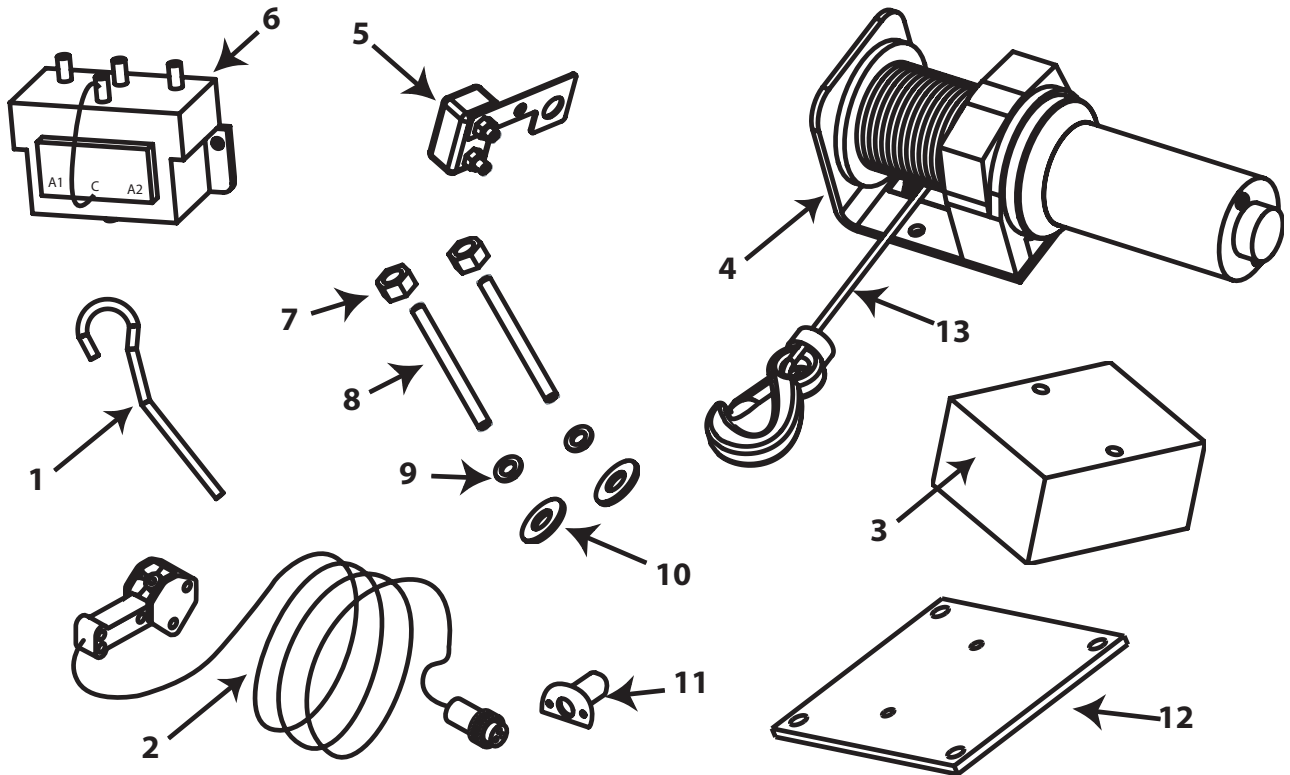
1. Any failure that results from improper installation of the Product.
2. Any failure that results from accident, Purchaser's abuse, neglect, modification, improper maintenance, or failure to operate and use the Product in accordance with the instructions provided in the Owner's Manual supplied with the Product.

F. There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from date of purchase. This is the exclusive remedy and any liability for any and all incidental or consequential damages or expenses whatsoever is excluded. Some states do not allow limitations on how long an implied warranty lasts, or do not allow exclusion or limitation of incidental or consequential damages, the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

# Powerwinch®

Pulling System  
Part Number P55200

For Replacement Parts Please Call  
**1-800-793-4793**



Item#	Powerwinch Part Number	Description
1	P89637	Handsaver Bar
2	P7840800AJ	Remote Control Assembly with Plug
3	P55202	Mounting Block
4	P55204	Open Spool Winch
5	P78106	40-Amp Circuit Breaker
6	P10282	Motor Reversing Solenoid
7	P10290	Hex Nut 5/16-18
8	P10289	Threaded Stud 5/16-18 X 3.5"
9	P10272	Lock Washer 5/16"
10	P10238	Washer 5/16"
11	P7818900AV	Remote Plug In Socket
12	P55201	Steel Mounting Plate
13	P55203	Replacement Cable with Hook (40 Feet)