

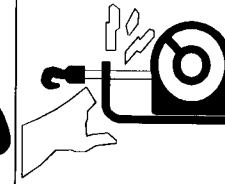
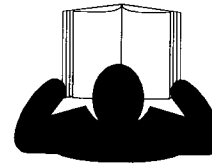


12900 S.E. Capps Rd. \* Clackamas, Oregon 97015 \* USA 503-722-1200 \* Customer Service Line: 1-800-543-WARN  
Fax: 503-722-3000

Installation Instructions,  
Operator's Manual and  
Replacement Parts List for  
the  
**A2500**  
**ATV WINCH**

## SAFETY PRECAUTIONS

### **WARNING**



### **MOVING PART HAZARD**

TO PREVENT SERIOUS INJURY AND PROPERTY DAMAGE:

- Do not operate or install winch without reading and understanding the operators manual.
- Keep hands clear of wire rope, hook, and fairlead opening during operation and when spooling.
- Stand clear of wire rope and load during operation.
- Keep others away.
- Always inspect winch installation and wire rope condition before operating winch.
- Do not exceed winch rated capacity.
- Never touch wire rope or hook while in tension.

## APPLICATION INFORMATION

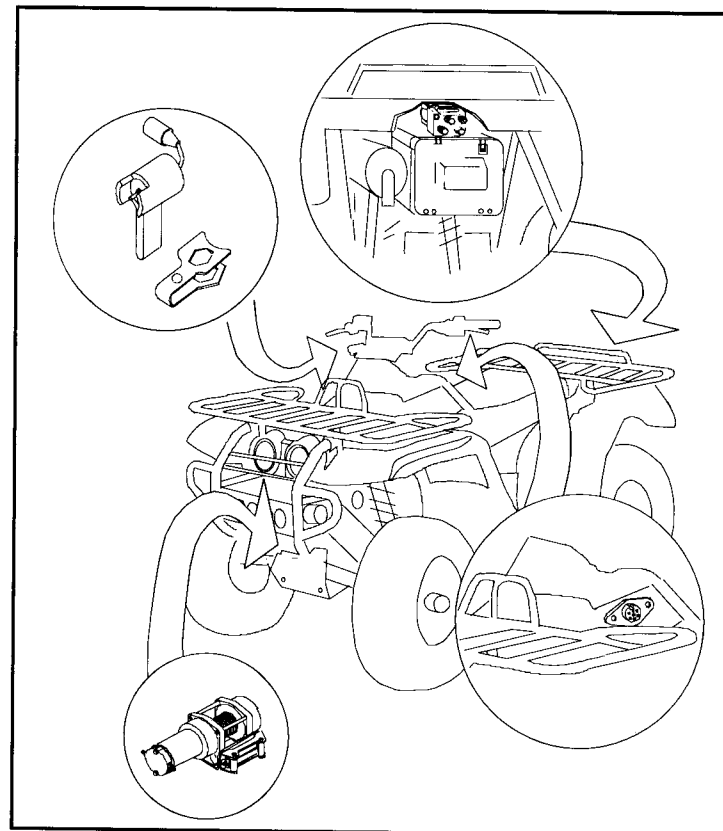
 <b>WARNING</b>		
		
TO PREVENT SERIOUS INJURY:		
<ul style="list-style-type: none"><li>• Do not use as a hoist.</li><li>• Do not use to move persons.</li></ul>		
 <b>CAUTION</b>		
		
TO AVOID INJURY AND PROPERTY DAMAGE:		
<ul style="list-style-type: none"><li>• Do not use winch to secure a load during transport.</li><li>• Do not submerge in water.</li><li>• Do not use to tow other vehicles.</li></ul>		

- Maximum single line pulling capacity : 2500 lb. (1100 kg).
- Intermittent duty rating.
- 12 Volts DC.
- Use only 3/16" (4.8 mm) 7 x 19 aircraft wire rope.

## INSTALLATION INSTRUCTIONS

### STEP ONE - SAFETY FIRST

When installing your ATV winch system, read and follow all mounting and safety instructions. Always use caution when working with electricity and remember to verify that no exposed electrical connections exist before energizing your winch circuit.




## STEP TWO - WINCH MOUNTING

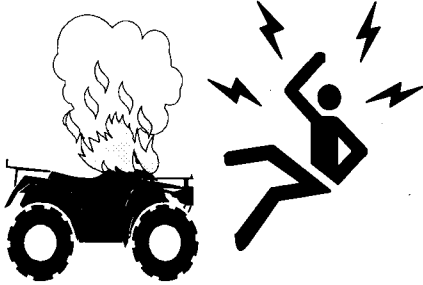
ATV winch mounting kits are available from your Warn Dealer to satisfy nearly all ATV applications. For information on available kits, contact your Warn product dealer.

To secure the winch, always use:

- A flat, secure mounting location at least 3/16 in. (4.8 mm) thick.
- 5/16 in. (8mm) Lockwasher.
- Must use the 5/16-18 x 1 in. , grade 5 hex head capscrews supplied.
- Torque mounting bolts to 12 ft-lbs (1.7 kg-m).

## STEP THREE - REMOTE SOCKET INSTALLATION


**WARNING**

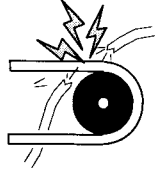
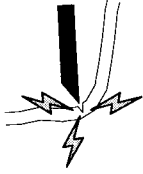


**TO PREVENT SERIOUS INJURY OR DEATH FROM EXPLOSION :**

- Do not drill into gas tank.
- Verify the area is clear behind the mounting location before drilling.

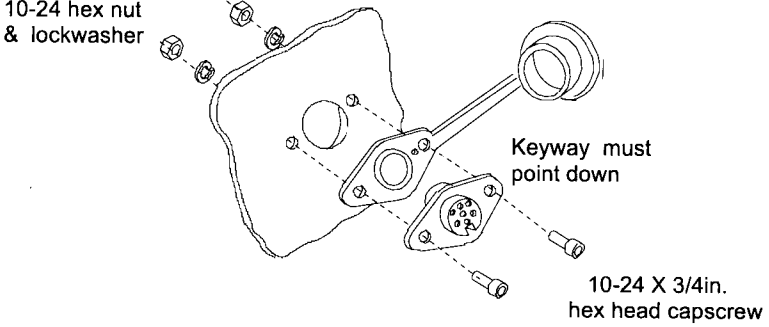
After determining the mounting location for the remote socket plug drill three holes and install (see page 6)

**WARNING**



**TO PREVENT SERIOUS INJURY OR DEATH FROM ELECTRICAL FIRE:**

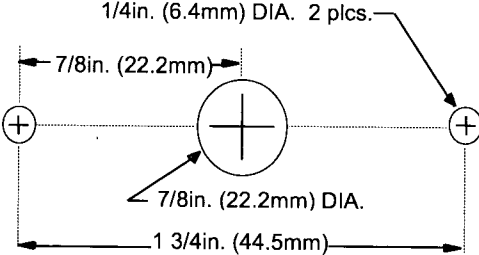
- Do not route electrical cables across sharp edges.
- Do not route electrical cables through or near moving parts.
- Point keyway of the remote control socket down.



10-24 hex nut & lockwasher

Keyway must point down

10-24 X 3/4in. hex head capscrew



1/4in. (6.4mm) DIA. 2 plcs.

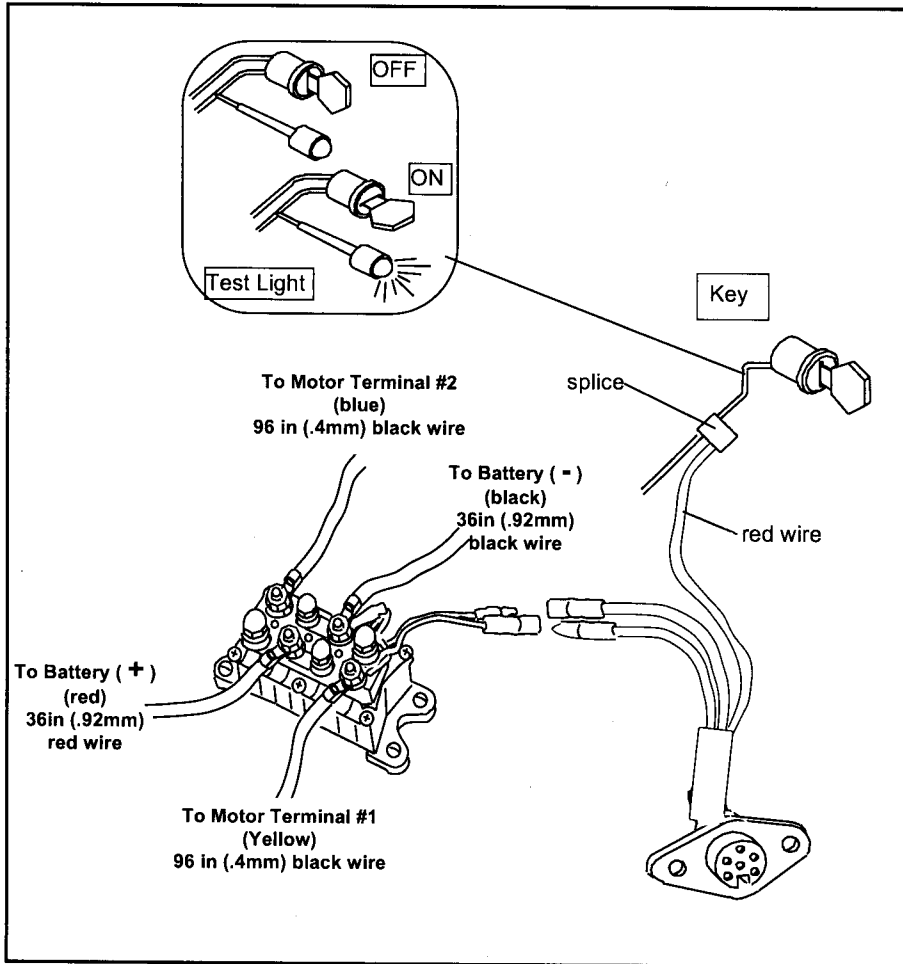
7/8in. (22.2mm)

7/8in. (22.2mm) DIA.

1 3/4in. (44.5mm)

Not to scale. Do not use as a template

Once the remote socket is mounted, run the two bullet terminals wires up to where the contactor pack will be mounted. Splice the end of the red 20ga wire to a key controlled electrical wire of the ATV. Using a test light, locate a suitable wire from the ATV key switch. The wire should only have power when the key is in the "ON" position.



## STEP FOUR - SOLENOID INSTALLATION

The solenoid is a primary safety feature in your winch system. It disconnects your winch from its power source when the ATV is not in use. Carefully follow the instructions for installation. The solenoid must be correctly installed to work properly.

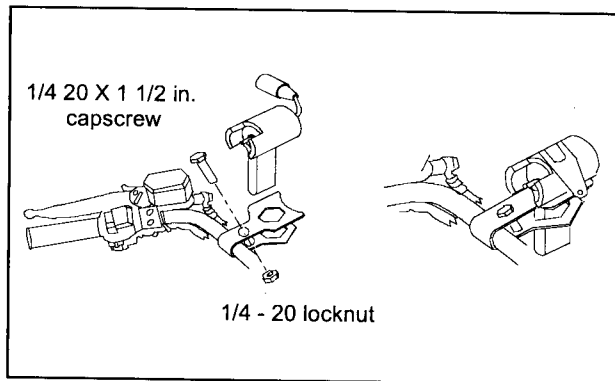
It is recommended, if possible, that the solenoid be mounted in the location shown on page 4. This may require the removal of the storage box from the ATV frame. Once the storage box is removed use the solenoid as a template to drill the mounting holes on top of the storage box.

**Caution** - All wires must be attached to the solenoid before mounting the storage box back to the ATV frame. Place the supplied terminal boots on wires before securing to the solenoid.

- Attach the male and female bullet terminals of the green and black remote socket wires to the male and female bullet terminals of the solenoid as shown on page 7.
- Attach the 36in (.92m), 6ga red wire to the positive solenoid post (bottom left terminal) and battery (shrink wrapped end to battery). Attach the 36in (.92m), 6ga black wire to the negative solenoid post (top right terminal) and battery.
- Attach the two 96in (2.4m) 6ga wire marked **#1, yellow and #2, blue** to the blue and yellow solenoid posts (see page 7) and to motor terminals 1, yellow and 2, blue.
- Attach the solenoid to the storage box and reassemble the storage box to the ATV frame. Assure that cables do not cross sharp edges, moving parts, or contact items that may become hot.

## STEP FIVE - REMOTE CONTROL INSTALLATION

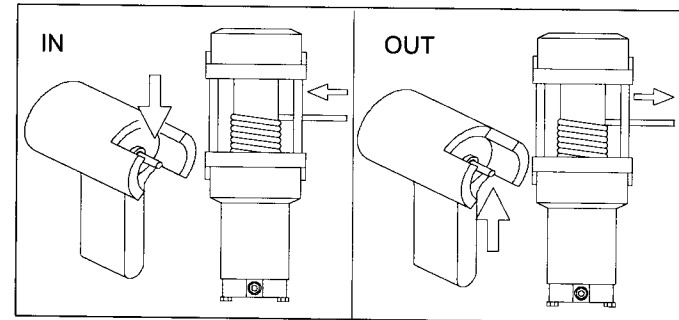
- It is recommended that the remote control holder be installed on the left handle bar. A piece of electrical tape around the handle bar will help secure the holder.
- Do not tighten over hoses or any cables.
- Place the remote into the holder and attach the strap.
- When the winch is not in use it is recommend that the remote control be unplugged and placed in the storage box.



## STEP SIX - SYSTEM CHECK

Before using the winch, verify the following:

- Wiring to all components is correct. All loose wires are tie wrapped tight.
- There are no exposed wiring or terminals, cover any existing exposures with the insulator plate, terminal boots, heat shrink tubing or electricians tape.
- The solenoid is properly grounded.
- Turn ATV key switch to ON position. Check winch for proper operation.



## ! CAUTION

KNOW YOUR WINCH: Take time to fully understand your winch and the winching operation.

## OPERATING INSTRUCTIONS

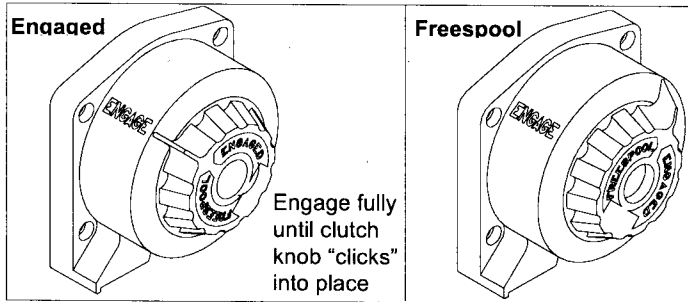
### CLUTCH OPERATION

## ! WARNING

TO PREVENT SERIOUS INJURY OR PROPERTY DAMAGE:

- Do not disengage clutch if winch is under load or wire rope is in tension.

When the clutch is engaged the gear train is coupled to the wire rope drum and power may be transferred from the winch motor. When the clutch is in free spool the gear train and wire rope drum are uncoupled allowing the drum to rotate freely. The clutch knob, located on the winch housing opposite the motor, controls the clutch position. To prevent damage, always fully engage or fully disengage the clutch knob.



### OVERLOADING/OVERHEATING



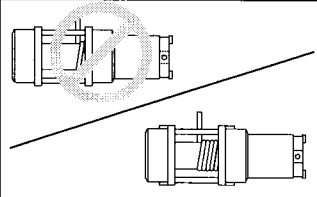
This winch is rated for intermittent duty. It should not be operated with the motor slowed down to a low RPM. When the motor approaches stall speed, a very rapid heat build-up occurs which may cause motor damage. To judge safe running time, stop winching and lay your hand on the motor. If the temperature is uncomfortable, shut down and cool the motor. This can be used as an opportunity to recharge the battery. Double line rigging will reduce the amperage draw from the motor allowing longer continual use (see rigging section).

### BATTERY RECOMMENDATIONS

A fully charged battery and good connections are essential to the proper operation of your winch. The minimum requirements for a 12 volt DC battery is 12 AMP hours.

### MAINTENANCE

- No lubrication is required for the life of the winch.
- Check battery cables at 90 day intervals to be certain that they are clean and tight at all connections.
- Inspect the wire rope before and after each winching operation. Replace when damaged.


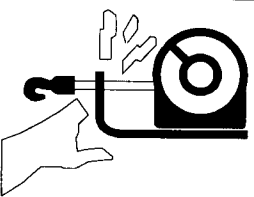
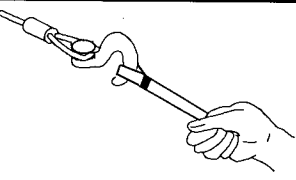
 <b>CAUTION</b>	
	
<b>TO AVOID INJURY AND PROPERTY DAMAGE:</b>	
<ul style="list-style-type: none"> <li>• Wear heavy leather gloves when handling wire rope.</li> <li>• Never winch with less than 5 wraps of wire rope around drum.</li> </ul>	

### SPOOLING OUT

Freespooling is generally the quickest and easiest way to spool out wire rope. Before freespooling wire rope out from the winch, power out enough rope to remove any tension the wire rope may be under before disengaging the clutch. Now freespool by manually spooling out enough wire rope for the winching operation.

### STRETCHING THE WIRE ROPE

The life of a wire rope is directly related to the care and use it receives. During its first use, a new wire rope must be spooled onto its drum under a load of at least 500 lb. (227kg). Spool out the wire rope length leaving 5 wraps on the drum, then power in the wire rope under a load of 500 lb. (227kg) or more. This will stretch new wire rope and create a good wire wrap around the drum. Failure to do so may result in the outer wire wraps drawing into the inner wraps, binding, and damaging the wire rope. Wire rope damage is specifically excluded from warranty.

 <b>WARNING</b>	
	
<p>TO PREVENT SERIOUS INJURY:</p> <ul style="list-style-type: none"> <li>• Keep hands clear of wire rope, hook, and fairlead opening during operation.</li> <li>• Always use the hook strap to hold hook when spooling.</li> </ul>	

#### SPOOLING IN UNDER LOAD




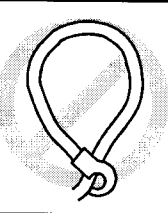
- The wire rope must always spool onto the drum as indicated by the drum rotation decal on the winch.
- Power in the wire rope evenly and tightly on the drum. This prevents the outer wire wraps from drawing into the inner wraps, binding and damaging the wire rope.
- Avoid shock loads when spooling, by using the control switch intermittently to take up wire rope slack. Shock loads can momentarily far exceed the winch and wire rope ratings.
- When powering in wire rope during side pull operations the wire rope will stack up at one end of the drum. Eventually this stack will become large enough to cause serious damage to the winch. To prevent damage, line up pulls as straight ahead as possible and stop winching if the wire rope comes close to the tie rods or mounting plate. To correct an uneven stack, spool out that section of the rope and reposition it to the opposite end of the drum which will free up space for continued winching.

#### SPOOLING IN UNDER NO LOAD

- **Assisted:** Have your assistant hold the hook with a cord or rag putting as much constant tension on the wire rope as possible. While keeping tension, the assistant should walk toward the winch while you operate the control switch spooling in the wire rope. Release the switch when the hook is a minimum of 4 ft (1.2m) from the fairlead opening. Spool in the remainder for storage.
- **Unassisted:** Arrange the wire rope to be spooled so it will not kink or tangle when spooled. Be sure any wire rope on the drum is tightly and evenly layered. Spool enough wire rope to complete the next full layer on the drum. Tighten and straighten the layer. Repeat process until the hook is a minimum of 4ft (1.2m) from the fairlead. Spool in the remainder for storage.

#### SPOOLING REMAINDER FOR STORAGE

Keep hands clear of wire rope, hook, and fairlead opening. Always use a rag or cord to hold hook when spooling under no load. Carefully power in the remaining wire rope, jogging the control switch to take up the last of the slack. Secure the hook to a suitable anchor point near the winch. Be careful not to over tighten or damage may occur to the wire rope or anchor point.

 <b>WARNING</b>		
		
<p>TO PREVENT SERIOUS INJURY:</p> <ul style="list-style-type: none"> <li>• Stand clear of wire rope and load during operation.</li> <li>• Be certain the anchor will withstand the load.</li> <li>• Always use a choker chain, wire choker rope, or tree trunk protector on the anchor.</li> <li>• Take your time, sloppy rigging causes accidents.</li> </ul>		

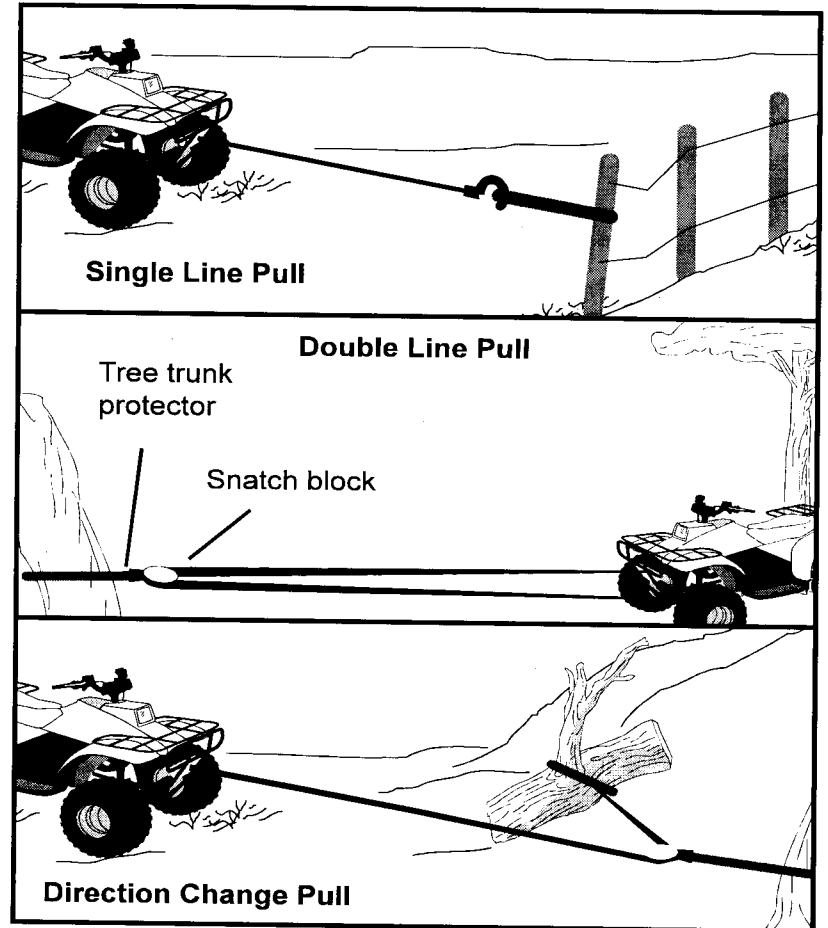
## RIGGING

Always spool out as much wire rope as possible when preparing rigging. Pick an anchor as far away as practical. This provides the winch with its greatest pulling power.

- Rigging a double line with a snatch block will reduce the load on the winch to half without significant loss of spooling speed.
- Natural anchors such as trees, stumps and rocks are the handiest when available. Attach the choker chain, wire choker rope or tree trunk protector on the anchor as low as possible to avoid pulling the anchor down. If several possible anchors are available but they are not strong enough individually, it may be practical to attach a wire or chain choker around several anchors to form a strong collective anchor point.

<u>Pulling Power</u>	<u>Wire Rope Layer</u>
2500 lb. (1134kg)	1st layer closest to drum core
2200 lb. (998kg)	2nd layer
1930 lb. (875kg)	3rd layer
1700 lb. (771kg)	4th layer

- Some of the most commonly used riggings are shown on page 16.





## Service

Should you encounter a problem during installation or operation of your winch, please follow these steps toward resolving the problem:

1. Refer to your operator's guide and installation instructions. It has illustrations and detailed information on the installation and safe and proper operation of your winch. It also includes a replacement parts list and assembly diagrams. If you are unable to resolve the problem, then go to step 2.
2. Contact your dealer where you purchased your winch. If, after discussing the problem with their parts and service staff, you are still unable to resolve the problem then go to step 3.
3. Call an Authorized Warn Service Center from the list provided on the back of the warranty sheet included with the product. When calling, please have the following information available: winch model number and purchase date, make, model & year of ATV.
4. If you are unable to resolve the problem to your satisfaction, please call Warn Industries customer service at 1-800-543-9276. When calling, please have the following information available: winch model number and purchase date; make, model & year of ATV. You may also contact Warn by visiting our website [www.warn.com](http://www.warn.com).

## Warranty

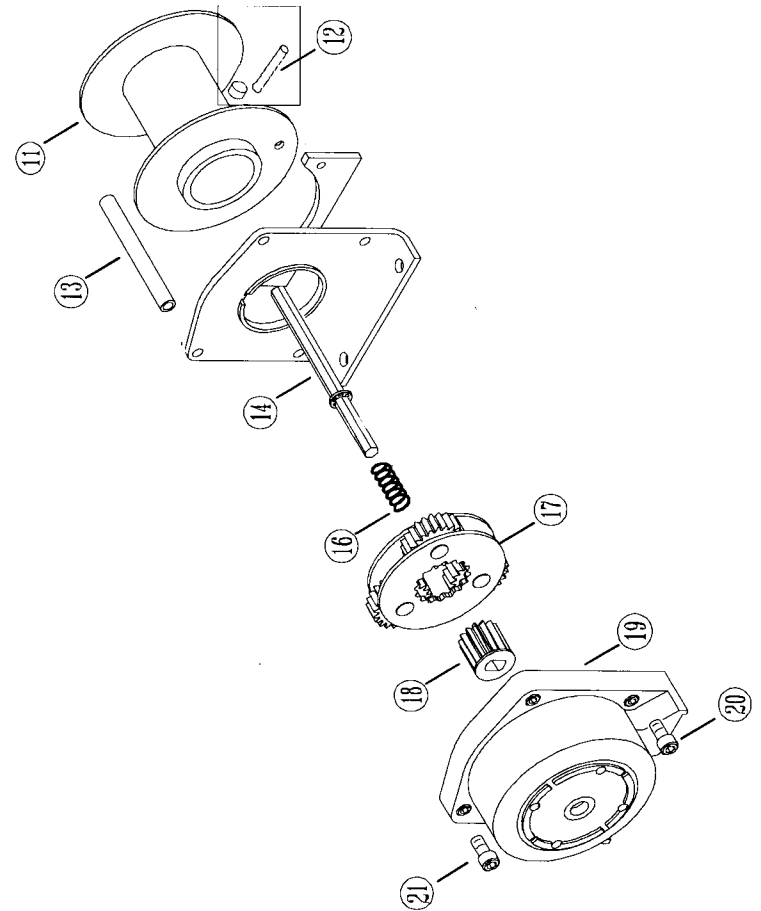
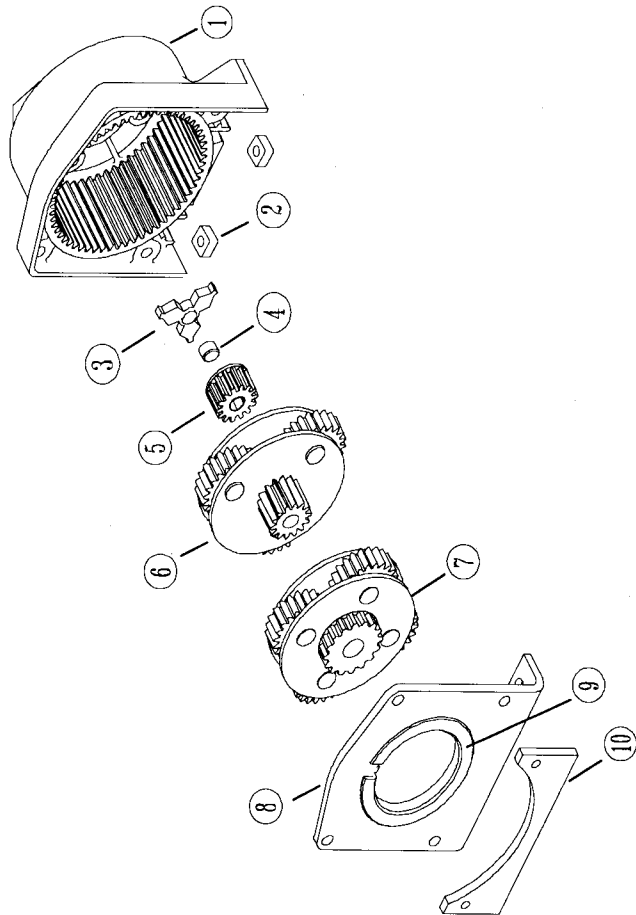
Please refer to the warranty sheet enclosed with your winch for details.

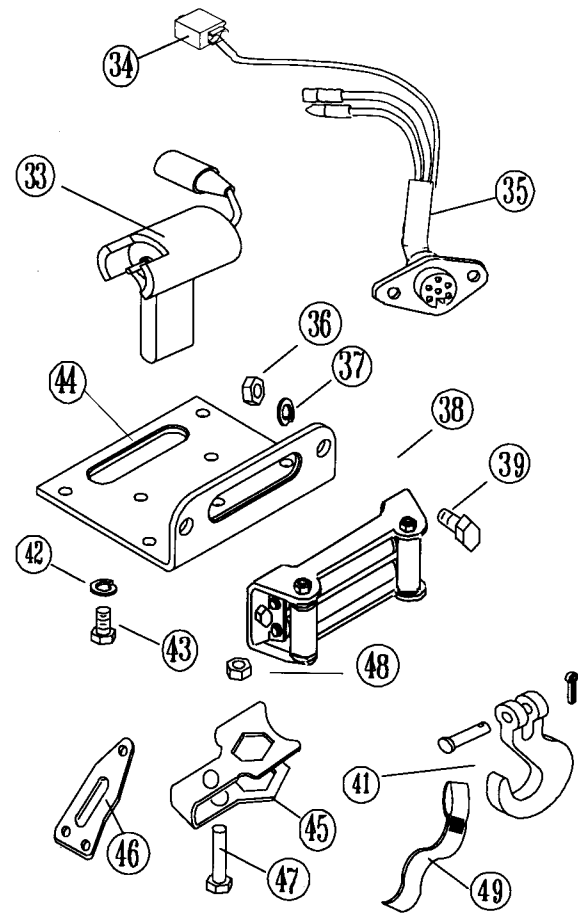
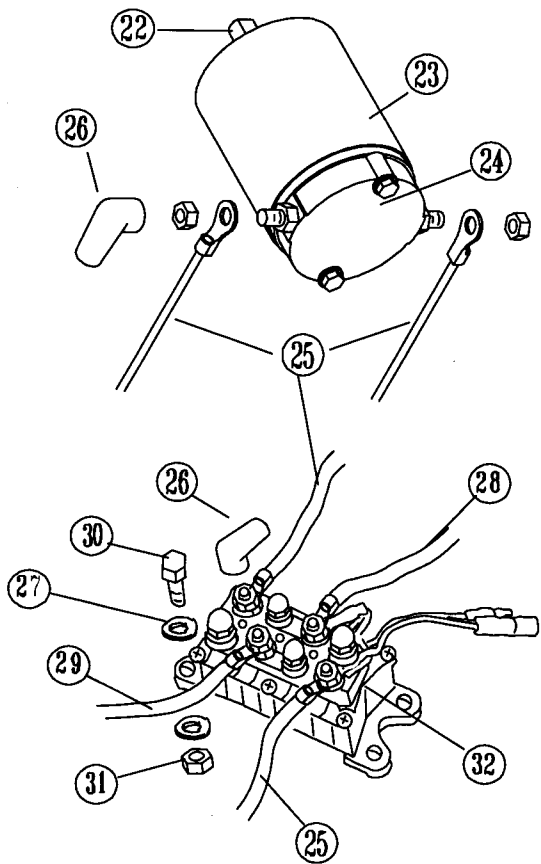
## WARN A2500 ATV WINCH REPLACEMENT PARTS LIST

ORDERING INFORMATION: Parts may be obtained through your local dealer or distributor.

ITEM	QTY	NUMBER	DESCRIPTION
1	1	36030	Endhousing, Clutch Assy (includes items 3 & 4)
1	1	36053	Endhousing, No Clutch
2	4	7953	Square Nut
3	1	21872	Cam Follower
4	1	21895	Thrust Plate
5	1	21292	Sun Gear, Stage 2
6	1	21329	Carrier Assy., Stage 2
7	1	21330	Carrier Assy., Stage 3
8	2	21665	Drum Support
9	2	21296	Drum Bushing
9	2	21597	Drum Support with Bushing
10	2	25257	Cable Protector
11	1	60078	Drum Assy (no wire rope)
11	1	39315	Drum Assy
12	1	60076	Wire Rope Assy., 3/16" x 50'
13	2	21268	Tie Rod
14	1	34797	Drive Shaft
14	1	30468	Drive Shaft, No Clutch
16	1	21883	Clutch Return Spring
17	1	21320	Carrier Assy., Stage 1
18	1	21290	Sun Gear, Stage 1
19	1	36054	Endhousing, Motor Assy (includes part # 35033 & 21316)
20	4	8956	Socket Head Capscrew 1/4-20 X 1/2
21	4	1936	Socket Head Capscrew 1/4-20 X 5/8
22	1	21594	Armature, 12 VDC Motor
22	1	22572	Armature, 24 VDC Motor
23	1	36031	Motor, 12 VDC
23	1	36032	Motor, 24 VDC
24	1	31928	Cap Assy, 12 & 24 VDC Motor
25	2	34786	Cable Assy, 6ga, black, 96in
26	6	2090	Boot, Electric terminal
27	4	1321	1/4 washer
28	1	62259	Cable Assy, 6ga, black, 36in
29	1	62263	Cable Assy, 6ga, red, 36in
30	4	1319	1/4-20 X 3/4 Hex Capscrew
31	4	1322	1/4-20 Hex Nut
32	1	62135	Contact, 12 VDC
33	1	37677	Remote control, 6ft
34	1	21842	Splice, 20 GA
35	1	62258	Remote control socket
36	2	2317	3/8-16 fin hex nut
37	2	1829	3/8 lockwasher
38	1	28929	Roller fairlead
39	2	2228	3/8-16 hex head capscrew
41	1	39557	Hook, 5/16 Clevis Slip w/ Strap
42	4	1402	5/16 Lockwasher
43	4	21331	5/16-18 Hex Head Capscrew
44	1	21666	Fairlead, Plate Mounting
45	1	37676	Handle bar mount
46	1	37674	Rubber Strap
47	1	2514	1/4-20 X 1.5 Hex Head Capscrew
48	1	6725	1/4in Locknut
49	1	38293	Strap, Hook

# PARTS BREAKDOWN





PN 38136 REV. C1