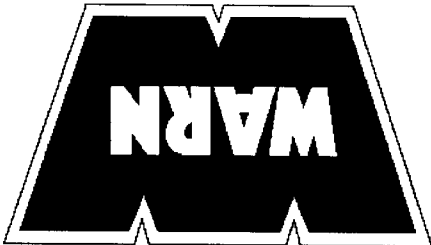
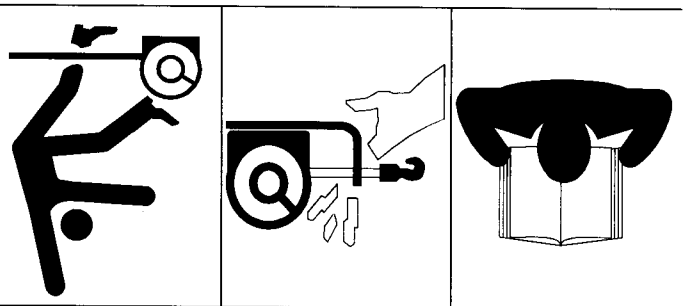


Installation Instructions, Operator's Manual and Replacement Parts List for the **A2000** **ATV WINCH**

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



SAFETY PRECAUTIONS



TO PREVENT SERIOUS INJURY AND PROPERTY DAMAGE:

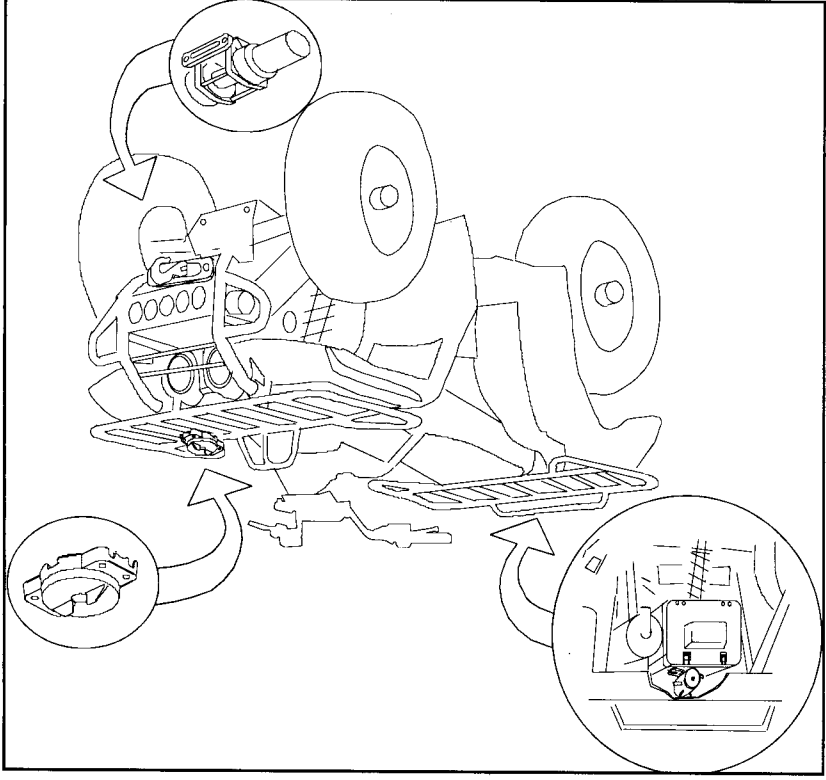
MOVING PART HAZARD

- 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.

INSTALLATION INSTRUCTIONS

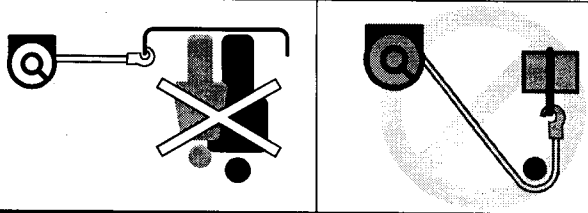
STEP ONE - SAFETY FIRST

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.



APPLICATION INFORMATION

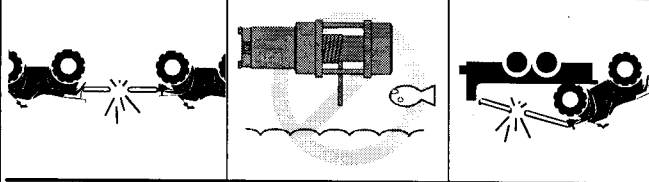
! WARNING



TO PREVENT SERIOUS INJURY:

- Do not use as a hoist.
- Do not use to move persons.

! CAUTION



TO AVOID INJURY AND PROPERTY DAMAGE:

- Do not use winch to secure a load during transport.
- Do not submerge in water.
- Do not use to tow other vehicles.

Maximum single line pulling capacity : 2000 lb. (900 kg).

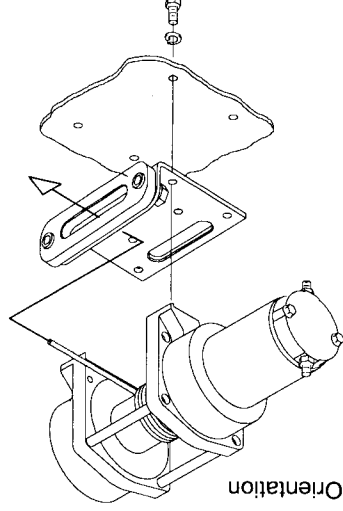
- Intermittent duty rating.
- 12 Volts DC.
- Use only 3/16" (4.8 mm) 7 x 19 aircraft wire rope.

STEP TWO - WINCH MOUNTING

ATV winch mounting kits are available from Warn Industries to satisfy nearly all ATV applications. For information on available kits, contact your Warn product dealer. Additionally, the winch may be custom installed.

For custom installations, always remember:

- Choose a mounting location that is sufficiently strong enough to withstand the loads you intend to winch.



To secure the winch, always use:

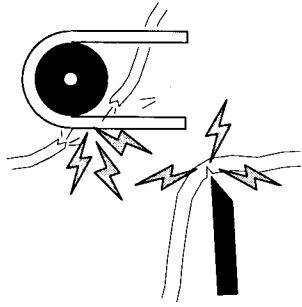
- A flat, secure mounting location at least 3/16 in. (4.8 mm) thick.
- 5/16 in. lockwasher x 4.
- 5/16-18 x 1 in. long, hex head cap screw, Grade 5 or better x 4.
- Torque mounting bolts to 12 ft-lbs.

STEP THREE - SOLENOID INSTALLATION

⚠ 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.
- Read and follow all wiring instructions included in operators manual.
- Insulate and protect all exposed wiring and electrical terminals.



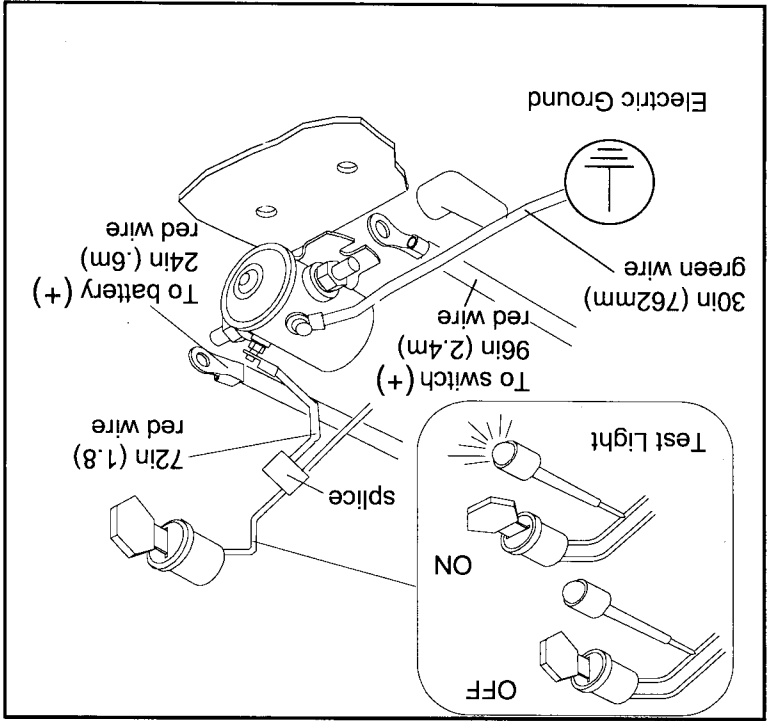
The solenoid is a primary safety feature in your winch system. It disconnects your winch from its power source when the ATV is not in use. Carefully follow the instructions for installation. The solenoid must be correctly installed to work properly. Choose a mounting location that will remain protected and dry. Mounting under the ATV seat or in the storage box is usually a good choice.

- **Caution** - Place the supplied terminal boots on wires before securing to the solenoid.
- Attach the small eyelet of the green, 30in (762 mm), 20ga wire to the small left solenoid control post. Attach the small eyelet of the red, 72in (1.8 m), 20ga wire to the small right solenoid control post (see page 8).
- Attach the red 24in (0.6m) 8ga wire to the large right solenoid post. Attach the red 96in (2.4m) 8ga wire to the large left solenoid post (see page 8).
- Attach the large eyelet of the green, 30in (762 mm), 20ga wire to an electrical ground such as the negative battery post or a frame member. Splice the other end of the red, 72in (1.8 m), 20ga wire to a key controlled electrical wire of the ATV. Using a test light, locate a suitable wire from the ATV key switch (see page 8). The wire should only have power when the key is in the "ON" position.
- **Caution** - When the key is turned to the ON position, the red 96in (2.4m) 8ga wire will be hot. Avoid touching the terminal end to the bike frame.
- Test for proper installation. When the key is turned to the ON position, the solenoid will make an audible "click" indicating that it is energized. Otherwise, check proper grounding and splice connection.

STEP FOUR - MAKING CONNECTIONS

- Turn ATV key switch to OFF position.

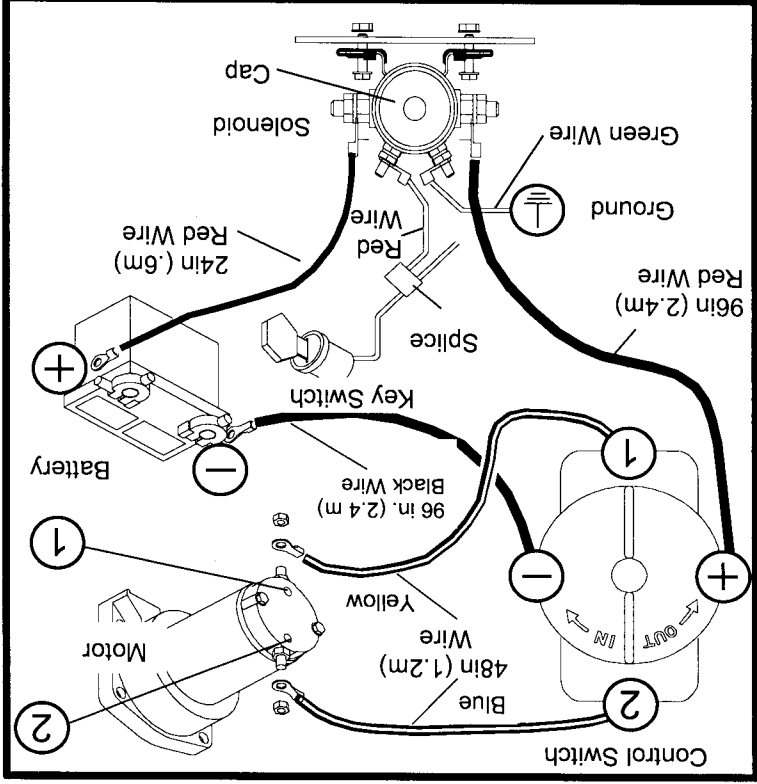
- Identify mounting location of control switch (see page 10). Route the yellow and blue 48in (1.2m) wires from which motor to control switch mounting location (Do not attach wires to the control switch at this time). Slide terminal boots over the motor end of the wires. Attach the yellow wire to motor terminal #1 and the blue wire to motor terminal #2 and cover with boots.
- Attach and route the black 96in (2.4m) wire labeled negative (-) from negative battery terminal to the control switch mounting location (see page 11). Route the red 96in (2.4m) wire from the solenoid to the control switch (Do not attach wires to the control switch at this time).



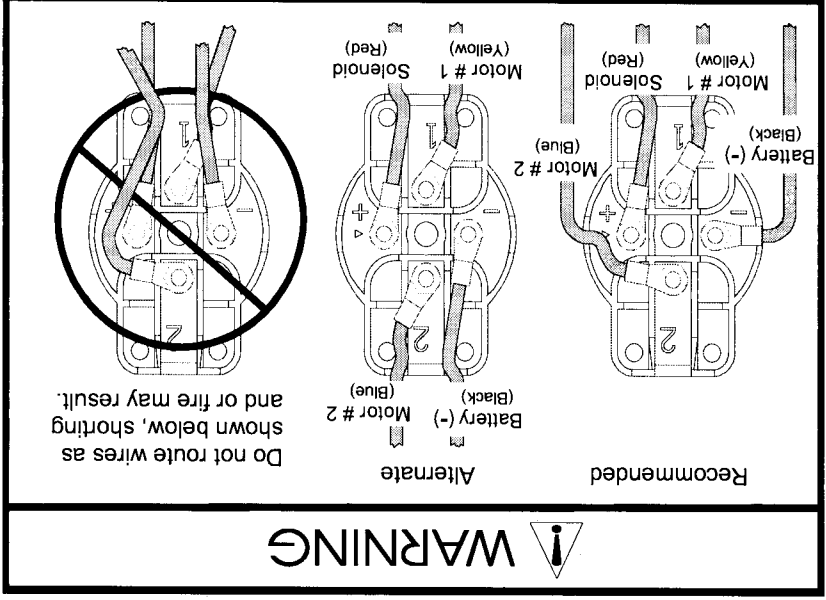
STEP FIVE - CONTROL SWITCH INSTALLATION

WARNING - Improper installation may result in permanent damage to the control switch. Carefully follow the instructions for installation. The control switch must be correctly installed to work properly.

- Connect the four remaining wire ends to the appropriate control switch posts.
- Bend the cables and terminals as required. The control switch has molded labels (1, 2, +, -) to identify the proper connections.
- Mount the control switch. Be sure to use the insulator plate between the bottom of the switch and the mounting surface.



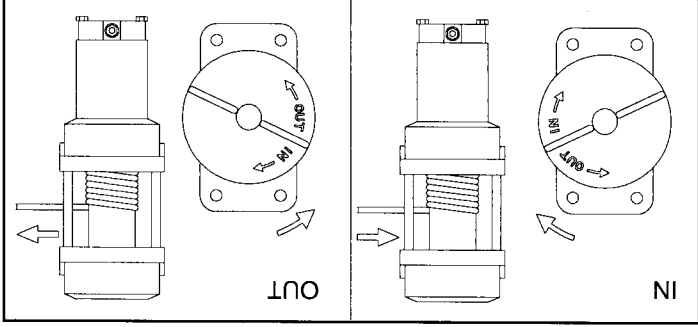
- Assume that cables do not cross sharp edges or contact items that may become hot.



STEP SIX - SYSTEM CHECK

Before using the winch, verify the following:

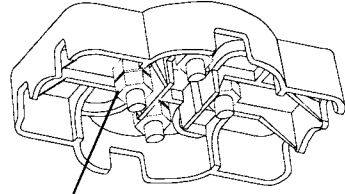
- Wiring to all components is correct.
- There are no exposed wiring or terminals, cover any existing exposures with insulator plate, terminal boots, heat shrink tubing or electricians tape.
- The solenoid is properly grounded.
- Turn ATV key switch to ON position. Check winch for proper operation.



CAUTION

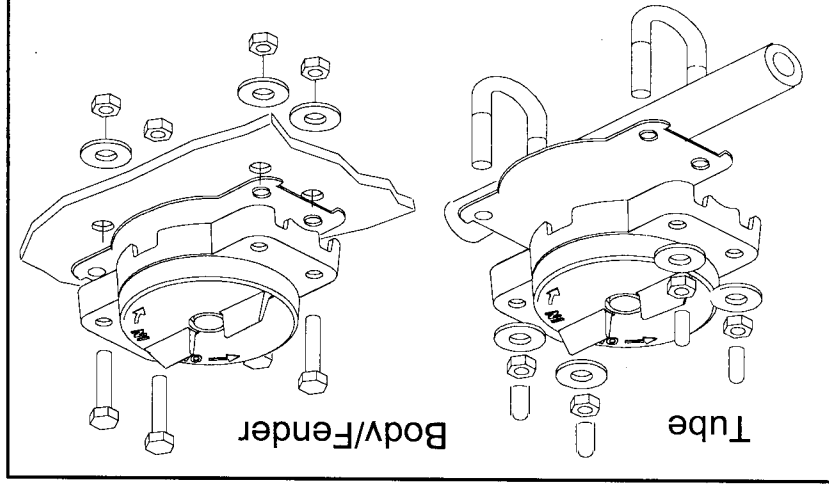
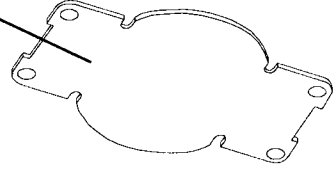
KNOW YOUR WINCH: Take time to fully understand your winch and the winching operation.

WARNING




Remove only the top nuts to install wire terminals

After wiring switch, install insulator plate to avoid shorts to the mounting surface

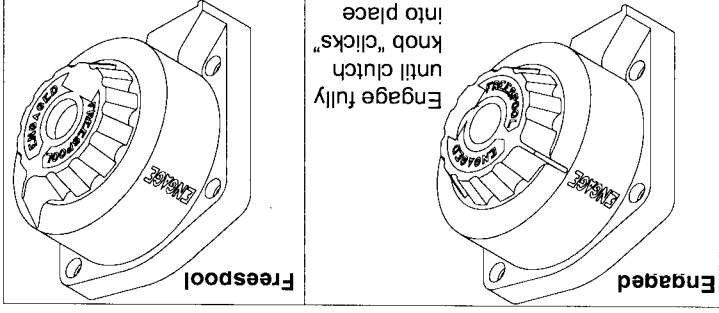


OPERATING INSTRUCTIONS

CLUTCH OPERATION

 WARNING	<p>TO PREVENT SERIOUS INJURY OR PROPERTY DAMAGE:</p> <ul style="list-style-type: none"> • Do not disengage clutch if winch is under load or wire rope is in tension.
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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 10 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.

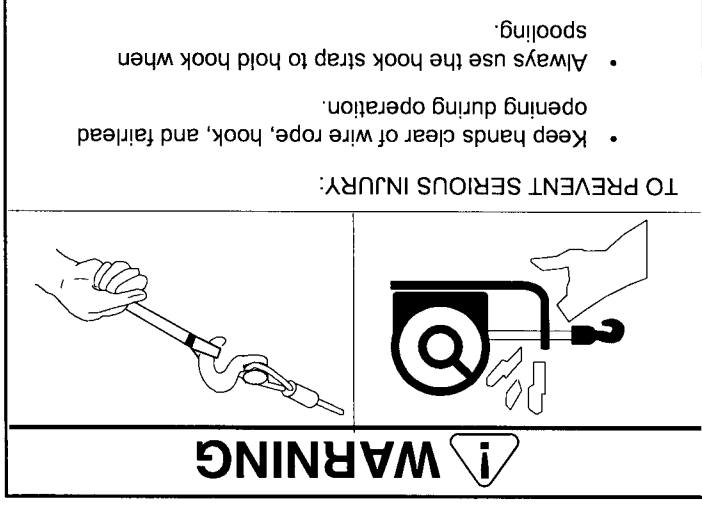
SPOOLING OUT

Freepooling is generally the quickest and easiest way to spool out wire rope. Before freepooling 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 freepool by manually spooling out enough wire rope for the winching operation.

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

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 entire 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.



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.

SPOOLING IN UNDER NO LOAD


- **Assisted:** Have your assistant hold the hook with the hook strap 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 hook strap 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.

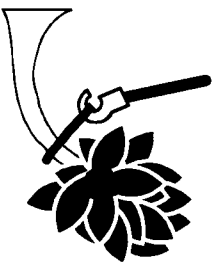
RIGGING

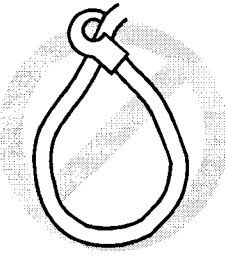
- Always spool out as much wire rope as possible when preparing rigging. Pick an anchor as far away as is practical; this provides the winch with its greatest pulling power.
- Rigging a double line with a snatch block will reduce the load on the winch to half without significant loss of spooling speed.
- 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.



WARNING







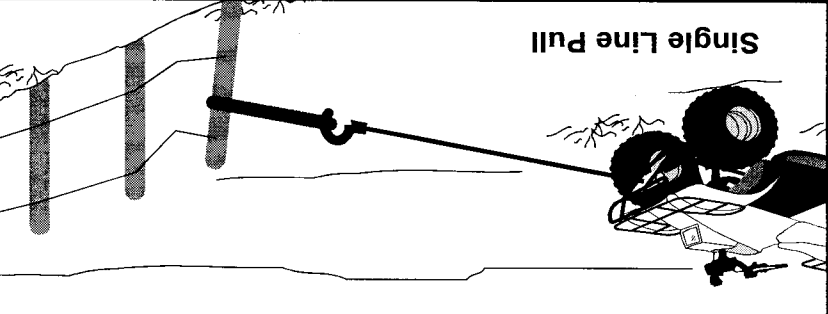
TO PREVENT SERIOUS INJURY:

- Stand clear of wire rope and load during operation.
- Be certain the anchor will withstand the load.
- Always use a choker chain, wire choker rope, or tree trunk protector on the anchor.
- Take your time, sloppy rigging causes accidents.

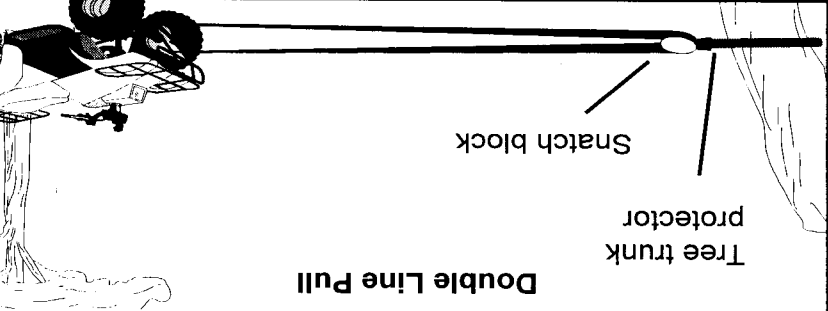
• Approximate pulling power:

Wire Rope Layer	Pulling Power
1st layer closest to drum core	2000 lb. (907kg)
2nd layer	1750 lb. (794kg)
3rd layer	1550 lb. (703kg)
4th layer	1400 lb. (635kg)

• Some of the most commonly used riggings are shown on page 18.



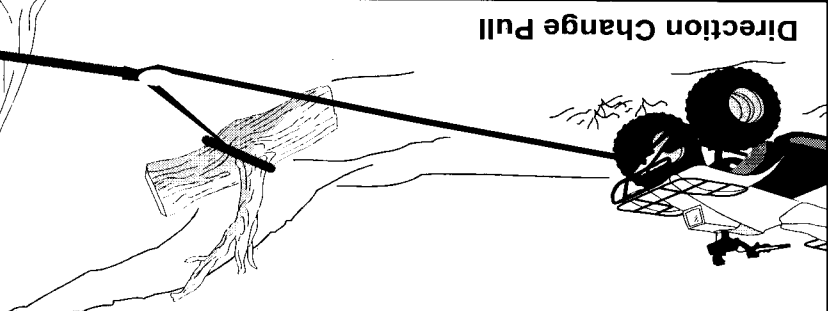
Single Line Pull



Double Line Pull

Tree trunk protector

Snatch block



Direction Change Pull

**WARN A2000 ATV WINCH
REPLACEMENT PARTS LIST**

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

ITEM	QTY	NUMBER	DESCRIPTION
1	1	38030	Endhousing, Clutch Assy (includes items 3 & 4)
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	1	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, No Clutch
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	4	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	4	21422	Boot, Electric terminal
26a	1	64014	Cable Assy., 8 GA, yellow, 48 in
26b	1	64015	Cable Assy., 8 GA, blue, 48 in
29	1	21552	Cable Assy., 8 GA, red, 24 in
30	1	62871	Solenoid Assembly
31	2	21841	Boot, Electric terminal
32	1	21840	Cable Assy., 20 GA, red, 72 in
33	1	21842	Splice, 20 GA
34	2	64016	Cable Assy., 8 GA, red, 96 in
35	2	37205	U-bolt, 1/4-20 x 1 x 1 3/4
36	1	36015	Control Switch Assy (includes part # 37526, 6725, & 37543)
37	4	6725	Nut, 1/4-20 W/Nylon Insert
38	4	37526	Cap, Vinyl
39	1	37543	Insulator, Switch, ATV
40	4	1402	5/16 Lockwasher
41	4	21331	5/16-18 Hex Head Capscrew
43	1	28718	Fairlead, Hawse
44	1	39557	Hook, 5/16 Clevis Slip w/ Strap
45	1	21666	Fairlead, Plate Mounting
46	1	38293	Strap, Hook
47	1	28929	Roller Fairlead (Optional)
48	1	36928	Wire, 20 GA, Green, 30 in, Ground
49	1	62759	Nut 7/16-14 W/Nylon Insert
50	1	62760	Socket Head Capscrew 7/16-14 X 3/4
64056	1		Cable Assy., 8 GA, black, 96 in

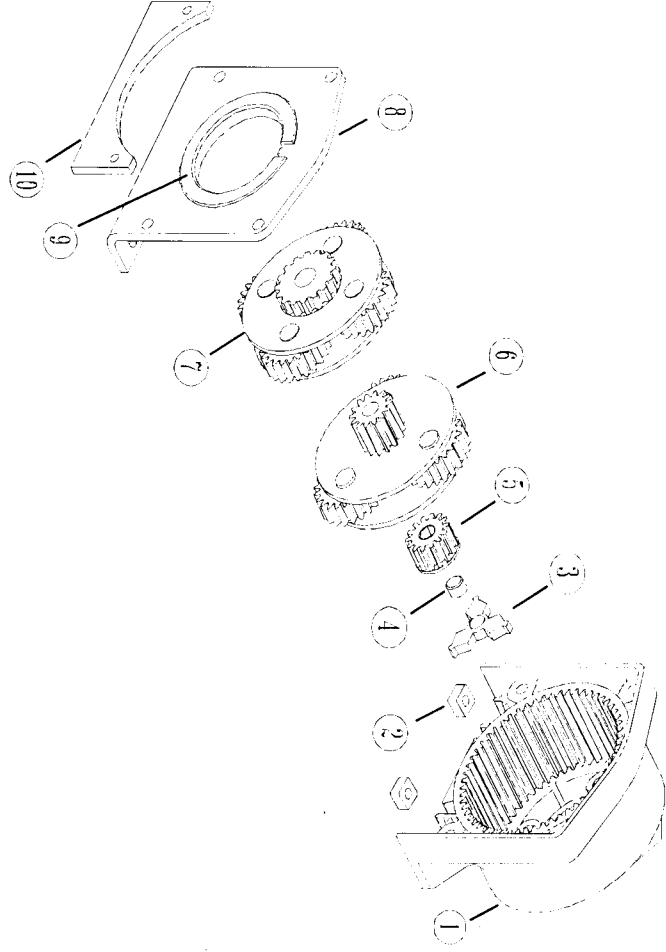
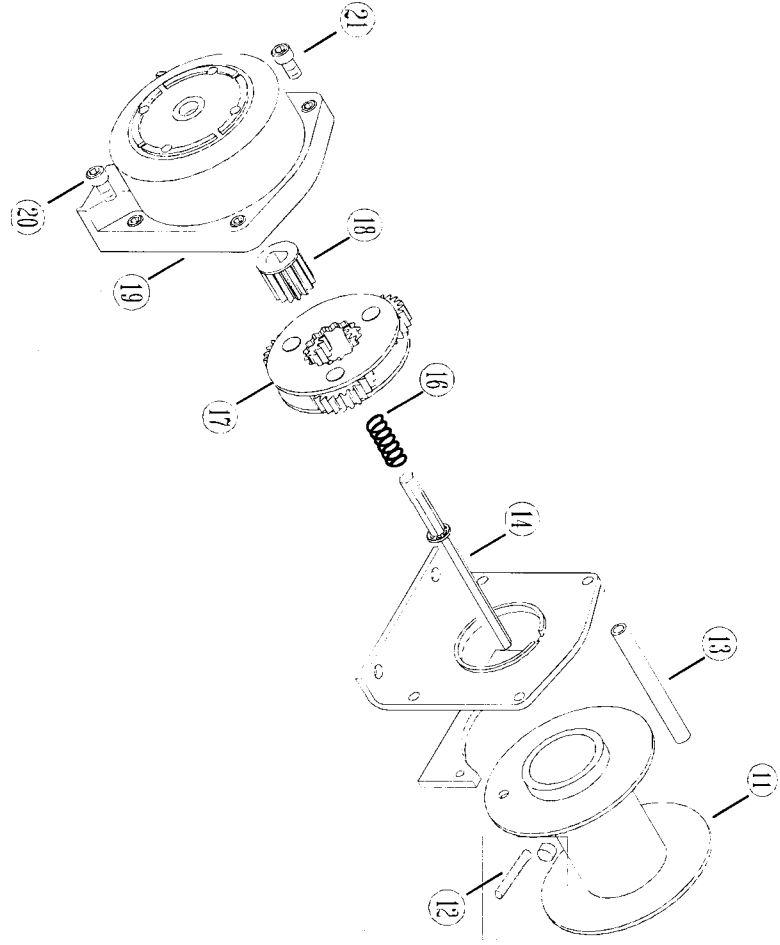
Should you encounter a problem during installation or operation of your winch, please follow these steps toward resolving the problem:

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.

Warranty

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



PARTS BREAKDOWN

