



OWNER'S MANUAL

MODEL VS-190



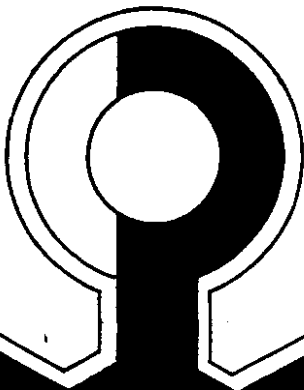
CAUTION

- Read Owner's Manual before use.
- Keep hands clear of cable spool.
- Stand away from unit when in use.
- Do not use this unit for overhead lifting of lifting humans.
- We recommend the use of Powerwinch accessories and replacement parts.



WARNING

WINCH MUST BE PLUGGED INTO
110-120 VOLT 3 WIRE GROUNDED OUTLET



POWERWINCH SAFETY RULES



WARNING: When using your winch basic safety precautions should always be followed to reduce the risk of electric shock, fire, or personal injury including the following items. Read all instructions and save them for further reference.

1. **READ YOUR OWNER'S MANUAL.** ONLY let people who know the Powerwinch Safety Rules use your winch.
2. **NEVER** use your winch to lift or move people or animals.
3. **DO NOT USE YOUR WINCH AS A HOIST!** It is not made to be used for vertical lifting.
4. Always stand away from the winch when in use and keep children free from winch area at all times.
5. **ALWAYS** ground your winch. Your winch is equipped with a three prong plug, it should be plugged into a three hole electrical outlet.
6. **Always** stand clear of the area between the load, or anchoring point, and your winch. If the cable snaps and you are in the winching area you may be seriously hurt.
7. **Always** inspect the entire cable before use to check for fraying or kinking. The cable could break if it is frayed or kinked.
(frayed-wear by rubbing)
(kinked-short tight twist or curl)
8. If you need to replace the cable **Always** replace it with one of the **same size and strength**. (Use Powerwinch cable **ONLY!** The winch's rating and the cable strength are carefully matched. Your warranty is **VOID** if any other cable is used.
9. **Never** use rope instead of cable. It will break, causing possible damage.
10. **Only** attempt to pull as much as your winch is rated to pull.
11. **Do not** use your winch to hold or support the load once you finish the job. Also, **do not** use your winch to secure the load for travelling. It is not meant to be used in these ways. **Always secure the load properly!** If you do not secure the load, you could damage your winch or lose the load.
12. **NEVER** wrap the winch cable around the load. This causes cable kinking which breaks down cable strength. Use an **ECO STRAP** or a chain.
13. Remove the emergency hand crank from the winch after you use it. Under power the handle will turn and could cause an injury.
14. **ALWAYS** wear leather gloves when handling the cable. Steel cable can be hard on hands.
15. Keep your hands, fingers and feet clear of the drum area. (where the cable winds)

⚠ WARNING ⚠

ALWAYS STAND CLEAR OF THE AREA BETWEEN THE LOAD OR ANCHOR POINT AND THE WINCH. SERIOUS INJURY COULD OCCUR, IF THE CABLE BREAKS.

⚠ DANGER

The cable fasteners on this or any winch are not designed to hold rated loads. Always leave a minimum of five wraps of cable on the drum at the bottom layer to achieve a rated load.

⚠ WARNING ⚠

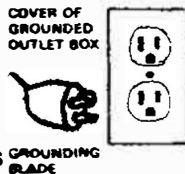
ALWAYS UNPLUG THE WIRING HARNESS TO PREVENT ACCIDENTAL STARTING BEFORE ATTEMPTING TO INSTALL, SERVICE, RELOCATE OR PERFORM ANY MAINTENANCE.

NOTE: Any **LIMITED WARRANTY** which may apply to this product may be **VOID** if said product has been damaged due to accident, unreasonable use, neglect, modification, or failure to observe these safety rules.

operating tips, hints for better operation and general safety information

MAXIMUM CAPACITY

- 3500 lbs. Single Line
- 6000 lbs. Double Line
- Not To Be Used For Lifting Humans



GROUNDING INSTRUCTIONS

Fig. 1

Winch should be grounded while in use to prevent the user from electric shock. The winch is equipped with an approved three conductor cord and three prong grounding-type plug to fit the proper grounding-type receptacle. (Fig 1) The green conductor in the cord is the grounding wire. NEVER connect the green wire to a live terminal.

GENERAL OPERATION

1. Insert plug into proper grounding-type receptacle.
2. Turn clutch/brake control knob counterclockwise (CCW) to the "UNLOAD FREE WHEEL" position.
3. Unreel cable to full extension operating length (last 5 turns of cable must remain on the drum). Pull out cable by the hook only.
4. Attach safety latch hook to the load. If handling a large load, use auxiliary chains or Powerwinch ECO Strap to secure the load.

CAUTION: NEVER WRAP THE WINCH CABLE AROUND THE LOAD.

5. Set the brake by turning the clutch/brake control knob clockwise (CW) to the "LOAD BRAKE" position.
6. Press the button on the remote control to winch in the load.

EMERGENCY HAND CRANK

Remove outer nut on rear shaft (on side opposite the control knob). Slide crank on shaft. Replace and tighten nut.

IMPORTANT Tighten control knob all the way clockwise. Otherwise there is no braking action.

IMPROPERLY WOUND CABLE

If for some reason your cable is not properly wound (either wound loosely or wound on one side), unwind cable and, keeping tension on it, rewind under power so that the cable is wound tightly and is wrapped evenly. Otherwise, the wrap of the cable may squeeze down to a lower layer, cause sticking, loss of power and may bend or break the level springs.

CABLE MAINTENANCE

Lubricate cable occasionally. As cable is being wound, spray Wire Rope Spray onto drum and cable. Don't apply by hand.

GEARS AND GREASING

The Tri-matic Roll-n-Gage assembly controls loading, unloading and braking. Maintaining this assembly is extremely important. See parts breakdown for the following instructions:

A. To lubricate, remove nut (79720) and unscrew Tri-matic control knob (79402). Remove case on control side and put control knob back on so that parts of the Roll-n-Gage control will not slip off.

B. Lubricate the stud (71101), thrust bearings (71609), roller clutch bearing inside (71716) compound drive gear and needle bearing inside (71755) compound pinion clutch gear assembly and needle thrust bearing (71609) with a good grade grease.

⚠ WARNING ⚠

DO NOT GET GREASE ON CLUTCH LINING (73602) OR SLIPPAGE COULD OCCUR.

⚠ CAUTION

Do not try to remove bearing from inside compound gear or compound pinion gear.

MAKING MINOR REPAIRS REPLACING MOTOR

Hand turn gears of old motor gently back and forth. Note slight backlash (.005). Gears of new motor should have about same degree of play.

Back off screws on motor bands and remove bands and wire.

Take out old motor.

Put new motor in place, taking care to see gears are meshed properly.

Fasten motor bands and connect wire.

Check your motor for correct backlash. Gears should not be too tight or too loose. Adjust by increasing or decreasing thickness of shims under motor.

If after checking electrical and mechanical as outlined above, the winch still does not function properly, please send us a report describing condition. By following this check list, most faults can be easily corrected. If not, the winch may be returned to the factory or a local service station for servicing, after receiving factory approval.



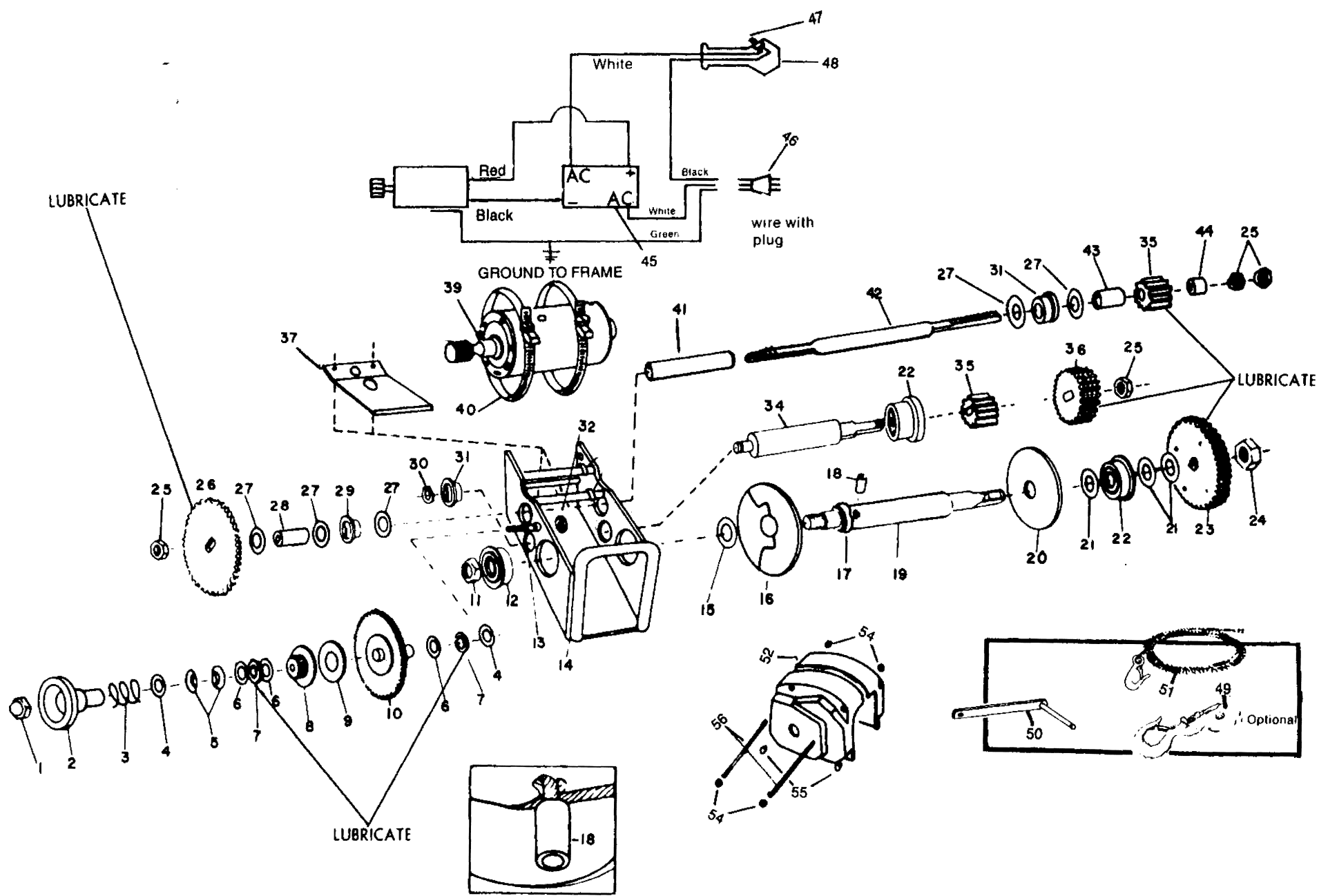
WARNING:

REPLACING CABLE

Replace cable with exact Powerwinch cable as originally supplied and wear leather gloves.

Remove old cable, insert new cable into drum shaft hole at end opposite counterbored end. Push cable through hole and out counterbored end. Next, draw cable through fastener so it is flush at shoulder end. Crimp fastener down onto cable then solder end of cable to fastener. Insert fastener into counterbored end of drum shaft hole. Pull cable until shoulder of fastener fits down into hole; top flush with drum shaft. Bend cable sharply around first groove of drum shaft. Keep tension on cable while winding around the drum.

WIRING DIAGRAM



VS190 WINCHPARTS LIST
MODEL NUMBER P77190
TO ORDER PARTS OR FOR TECHNICAL ASSISTANCE
PLEASE CALL 1-800-793-4793

ITEM	DESCRIPTION	PART NUMBER	QTY
1	JAM NUT	P10122	1
2	KNOB	P79402	1
3	BACKLASH SPRING	P71902	1
4	THRUST RACE, .030	P71612	2
5	SPRING WASHER	P79800	2
6	THRUST RACE, .060	P71613	3
7	BEARING	P71609	2
8	GEAR PINION ASSEMBLY	P71755	1
9	CLUTCH LINING	P73602	1
10	POWDERED METAL GEAR	P71716	1
11	5/8-16 HEX NUT	P79715	1
12	BEARING	P71605	1
13	CLUTCH ASSEMBLY STUD	P71101	1
14	FRAME	P70180	1
15	SPACING WASHER	P71820	3
16	DRUM FLANGE, SPLIT	P71953	1
17	DRUM COLLAR	P79087	1
18	7/32" CABLE FASTENER	P71858	1
19	DRUM SHAFT	P71402	1
20	DRUM SHAFT FLANGE	P71951	1
21	SPACING WASHER	P71821	5
22	BEARING	P71606	2
23	GEAR	P71795	1
24	3/4"-16 HEX NUT	P79716	1
25	1/2"-20 HEX NUT	P79712	4
26	DRIVE GEAR	P71703	1
27	SPACING WASHER	P71822	8
28	SHAFT SPACER "C"	P71818	1
29	BEARING	P71607	1
30	SNAP RING	ST070233AV	1
31	BEARING	P71608	2
32	1/2"-20 SHAFT NUT	P79713	1
34	INTERMEDIATE SHAFT	P71301	1
35	PINION GEAR	P71704	1
36	IDLER GEAR	P71796	1
37	LEVELWIND PLATE	P70205	1
39	MOTOR WITH GEAR	P72107	1
40	MOTOR STRAPS	ST161301AV	2
41	REAR SHAFT SPACER	P71819	1
42	REAR SHAFT	P71201	1
43	SHAFT SPACER "B"	P71817	1
44	SHAFT SPACER "A"	P71816	1
45	RECTIFIER	P78115	1
46	WIRE WITH PLUG	P78109	1
47	SWITCH	P78113	1
48	REMOTE HANDLE (LEFT AND RIGHT HALVES ONLY)	P74100	1
49	PULLEY BLOCK (OPTIONAL)	P79043	1
50	EMERGENCY HAND CRANK	P77041	1
51	7/32" DIA x 40 FT CABLE	P71888	1
52	COVER	P10558	1
54	COVER ROD NUTS	P79719	4
55	BOTTOM CASE SCREWS	P79566	4
56	CASE COVER ROD	P75603	2
57	REMOTE CONTROL ASSEMBLY (NOT SHOWN)	P78306	1

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 two (2) 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.
 3. Any cable replacement other than a break. Cable is a wear item and will fray and twist during normal use.
- F. THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO TWO (2) YEARS 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 reserves the right to alter specifications on any product without notice.*