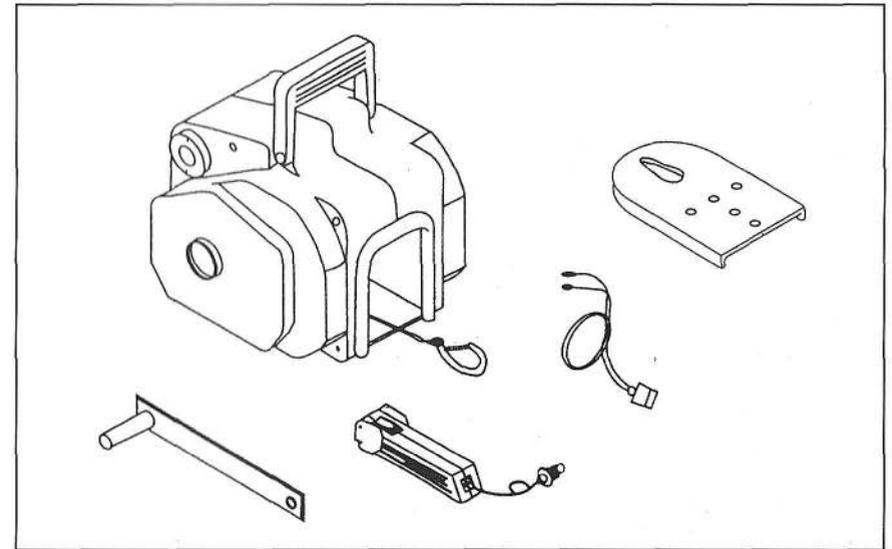


12 VOLT WINCH (POWER IN / POWEROUT)

ASSEMBLY AND OPERATING INSTRUCTIONS



PRODUCT SPECIFICATIONS

Item	Description
Electrical Requirements	12 Volt DC Input
Load Capacities	10,500 Lbs.(Rolling) 9,000 Lbs.(Marine) 3,500 Lbs.(Pulling)
Power In and Out Capability	Yes
Line Speed	10 Ft. Per Minute with Load
Cable Length/Diameter	36 Ft/ ϕ 5.8mm
Battery Cable Lengths	10 Ft.
Remote Cable Length	10 Ft.
Mounting Plate Dimensions	8-3/4" L x 4-15/16" H x 3/16"W
Main Hook Size	5/8" Opening x 4-1/4" Long
Pulley Hook Size	5/8" Opening x 7-5/8" Long
Net Weight	46 Lbs.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY WARNINGS AND PRECAUTIONS

1. **KEEP WORK AREA CLEAN AND DRY.** Cluttered, damp, or wet work areas invite injuries.
2. **KEEP CHILDREN AWAY FROM WORK AREA.** Do not allow children to handle this product.
3. **STORE IDLE EQUIPMENT.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
4. **DO NOT USE THIS PRODUCT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.

5. **USE EYE PROTECTION.** Wear safety impact eye goggles when assembling and using this product.
6. **DRESS SAFELY.** Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.
7. **DO NOT OVERREACH.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
8. **INDUSTRIAL APPLICATIONS MUST FOLLOW OSHA REQUIREMENTS.**
9. **STAY ALERT.** Watch what you are doing at all times. Use common sense. Do not use this product when you are tired or distracted from the job at hand.
10. **CHECK FOR DAMAGED PARTS.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.
11. **REPLACEMENT PARTS AND ACCESSORIES:** When servicing, use only identical replacement parts. Only use accessories intended for use with this product.
12. **MAINTAIN THIS PRODUCT WITH CARE.** Keep this product clean and dry for better and safer performance.
13. **MAINTENANCE:** For your safety, service and maintenance should be performed regularly by a qualified technician.
14. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool, and do not use this tool for a purpose for which it was not intended.
15. **WARNING:** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS

1. **DO NOT EXCEED THE MAXIMUM RATED LOAD CAPACITY FOR THE WINCH;** (10,500 LBS. ROLLING),(9,000LBS. MARINE),(3,500LBS.PULLING). Never use the Hand Crank (part #1) to "assist" the Winch. Overloading the Winch could cause serious personal injury and/or property damage.
2. **THE WINCH IS DESIGNED FOR INTERMITTENT USE ONLY.** Do not use the Winch in a constant duty application. The duration of the pulling job should be kept as short as possible. If the Winch becomes very hot to the touch, stop the Winch and let it cool down for several minutes. Never pull for more than one minute at or near the rated load capacities. Do not maintain power to the Winch if the Motor (part #65) stalls.
3. **MAKE SURE TO READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS AS OUTLINED IN THE MANUFACTURER'S MANUAL FOR THE VEHICLE/TRAILER TO WHICH THE WINCH WILL BE ATTACHED.**
4. **MAKE SURE TO READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS AS OUTLINED IN THE MANUFACTURER'S MANUAL FOR THE OBJECT YOU WILL WINCH.** Make sure to attach the Winch Cable Hook (part #57) of the Winch to the manufacturer's recommended pulling point.
5. **ALWAYS EXAMINE THE WINCH FOR STRUCTURAL CRACKS, BENDS, DAMAGE, FRAYED CABLE, AND ANY OTHER CONDITIONS THAT MAY AFFECT THE SAFE OPERATION OF THE WINCH.** Do not use the Winch even if minor damage appears.
6. **MAINTAIN A SAFE WORKING ENVIRONMENT.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris.
7. **ALWAYS KEEP HANDS AND FINGERS AWAY FROM THE GEARS OF THE WINCH WHEN APPLYING OR RELEASING A LOAD.** Remain clear of the Winch Cable Hook (part #57) when pulling a load. Do not stand in line with the Cable Assembly, as it could whip violently should it break. People and animals should be kept at a safe distance when using the Winch.
8. **USE EXTREME CAUTION WHEN APPLYING OR RELEASING A LOAD.** Never allow the load to suddenly release. Slowly and carefully apply and release the load.

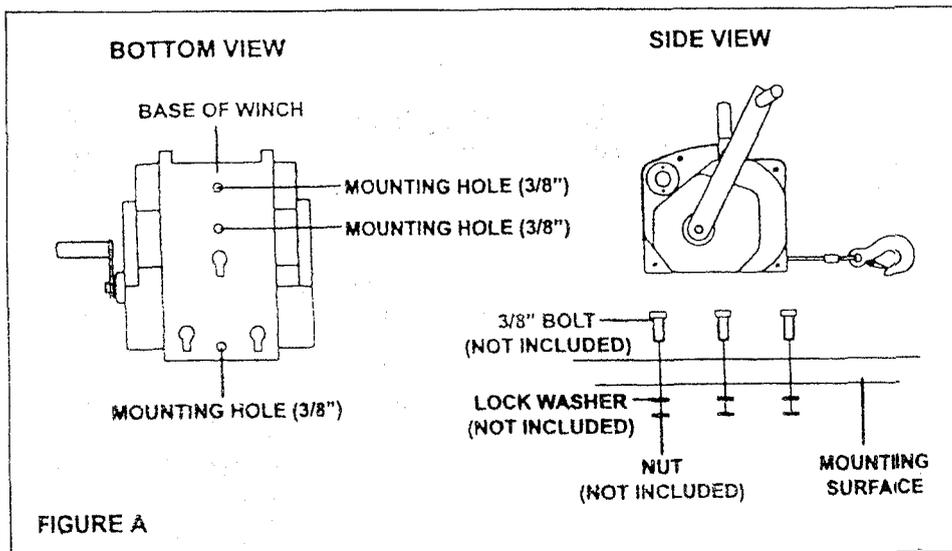
9. **NEVER WINCH A BOAT OR OTHER OBJECT WITH ANYONE IN OR ON IT.** Use a spotter to assist you in assuring that it is safe to operate the Winch. Make sure this person is out of the way of the vehicle and the Steel Cable before activating the Winch.
10. **WHEN MOUNTING THE WINCH ON A VEHICLE/TRAILER, MAKE SURE TO ALLOW SUFFICIENT SPACE FOR THE WINCH'S HAND CRANK (PART #1) TO BE TURNED A FULL 360 DEGREES.**
11. **THE WINCH IS DESIGNED FOR MOUNTING ON SQUARE OR RECTANGULAR SURFACES ONLY.** Do not attempt to mount the Winch on a rounded surface.
12. **THE WINCH IS NOT DESIGNED TO ACCOMMODATE ROPES OR FIBER-GLASS STRAPS.** Do not replace the Steel Cable with a Cable of lesser strength.
13. **THE STEEL CABLE MUST BE PULLED STRAIGHT IN.** Keep the load in line with the Winch. Pulling at an angle (off to the side) may cause excessive stress on the Winch.
14. **ALWAYS LEAVE AT LEAST FOUR TURNS OF STEEL CABLE ON THE CABLE ASSEMBLY SHAFT TO PREVENT PULLING THE STEEL CABLE COMPLETELY OUT OF THE WINCH.**
15. **DO NOT LEAVE THE WINCH UNATTENDED WHILE IT IS UNDER A LOAD.**
16. **WARNING:** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

ASSEMBLY INSTRUCTIONS

NOTE: For additional references to the parts listed below, refer to the **Assembly Diagram** (page 16).

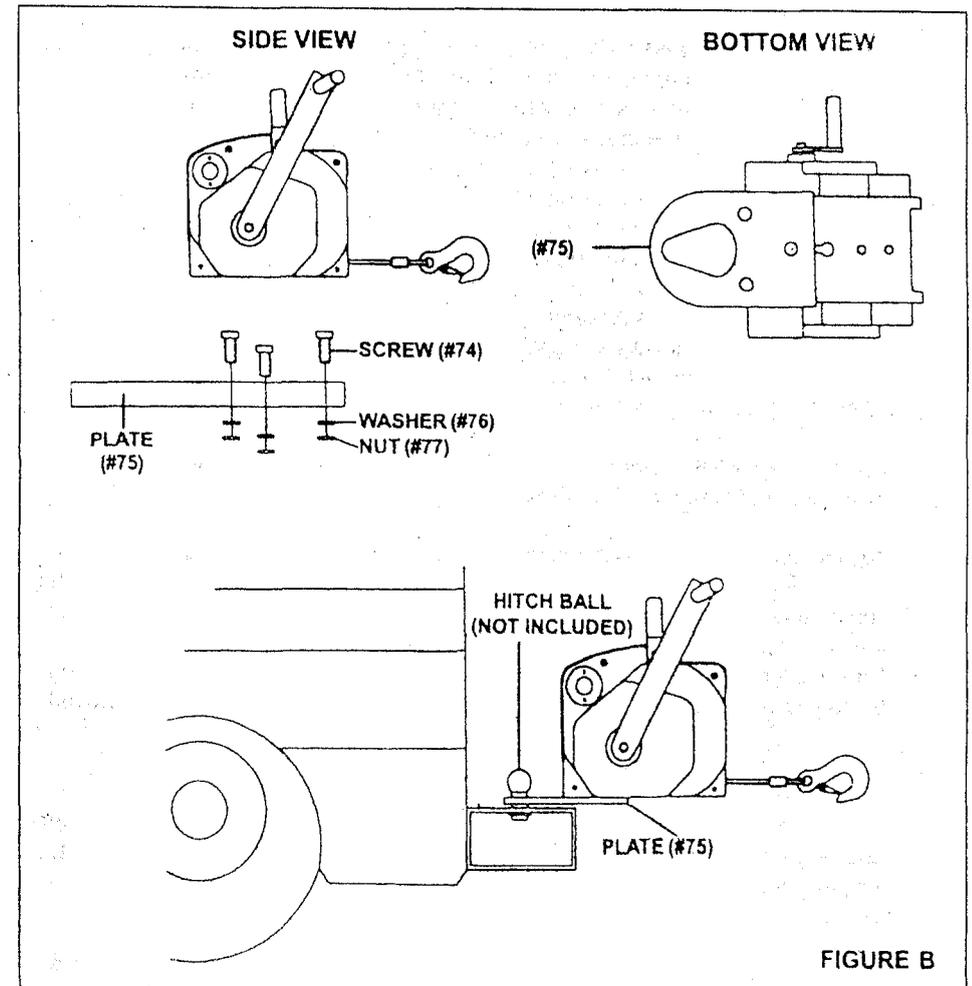
Permanent Mounting Of The Winch:

1. Select a mounting site on the bed of a truck, trailer, or other suitable location. **CAUTION: This Winch can generate 10,500 pounds rolling, 9,000 pounds marine, and 3,500 pounds pulling force. Make sure the location selected can withstand this much force. It may be required to use steel reinforcement plates (not included), and/or to weld additional bracing (not included), depending on the desired mounting location.**
2. Align the Base of the Winch with the desired location, and mark for drilling the **three** mounting holes required to attach the Winch to the desired location. Then, drill these three mounting holes on the vehicle/trailer. (See Figure A.)
3. Use three hardened Steel Bolts at least 3/8" in diameter, three Lock Washers, and three Nuts (all not included), to securely attach the Winch to the desired location. (See Figure A.)



Temporary Mounting Of The Winch:

1. Insert three Screws (part #74) into the three mounting holes in the Adapter Plate and secure the Screws to the Adapter Plate, using three Washers (part #76), and three Nuts (part #77). (See Figure B.)
2. Insert the heads of the three Screws (part #74) into the three keyhole slots on the Base of the Winch. (See Figure B.)
3. Attach the Winch with its Plate (part #75) to the vehicle's Hitch Ball (not included) by inserting the Hitch Ball through the teardrop-shaped hole in the Adapter Plate. (See Figure B.)



To Connect The Electrical Wiring:

1. **NOTE:** Depending on your level of knowledge regarding electrical wiring, you may wish to have this procedure performed by a qualified technician.
2. **CAUTION:** Prior to performing this procedure, make sure the vehicle engine is turned off. Make sure the vehicle transmission is in its "Park" position and emergency brake is on. Also, make sure the engine, transmission, and exhaust system is cool to the touch.
3. **To connect the wiring,** plan a route for the Wire Harness Assembly (part #64) from the point of where the Winch will be mounted on the vehicle to the vehicle's 12 Volt DC Battery. The route should be secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, the Power Cord may be routed under the vehicle, attaching it to the frame using suitable fasteners (not included). Do not attach the Power Cord to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage to the Power Cord through heat or motion, or create a fire hazard. If a hole is drilled through the bumper or any other part of the vehicle, make sure to install a rubber grommet (not included) in the hole to prevent fraying of the wires at that point.
4. Route the Wire Harness Assembly (part #64), following the precautions discussed in Step #3. Once the Wire Harness Assembly (part #64) is routed to the Battery, attach the RED, color coded, Ring Electrical Connector to the POSITIVE (+) terminal of the Battery. (See Figure C.)
5. Attach the BLACK, color coded, Ring Electrical Connector to the NEGATIVE (-) terminal of the Battery. (See Figure C.)
6. **WARNING:** Never continue using the Winch until the vehicle's 12 Volt DC Battery is run down. You may wish to keep the engine running while using the Winch to continually recharge the Battery. However, make sure the vehicle is in "neutral", the vehicle's emergency brake has been set and, whenever possible, the vehicle's wheels have been chocked. Do not use a dirty, corroded, or leaking Battery to avoid injury from possible acid burns. Always wear ANSI approved safety eye goggles when working with or around a Battery.
7. **CAUTION:** Carbon Monoxide is a colorless, odorless, vapor emitted from the engine's exhaust and may kill or injure when inhaled. Do not run the engine in an enclosed area.

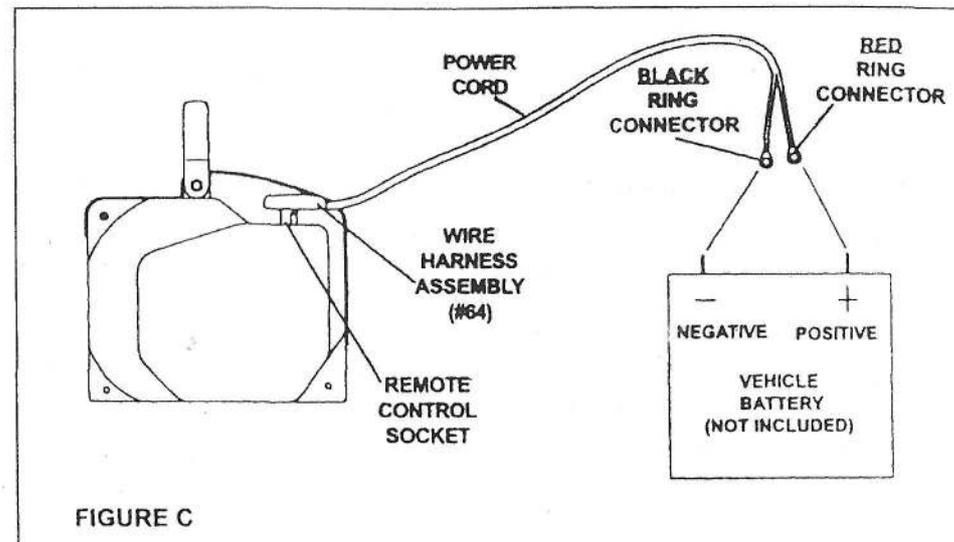


FIGURE C

To Connect The Remote Control:

1. Lift the Rubber Seal on the left side of the Winch, and insert the Cord Plug (part #8) into the Remote Control Socket. Then, set the Remote Control Housing in a safe place until ready for use. (See Figure D.)

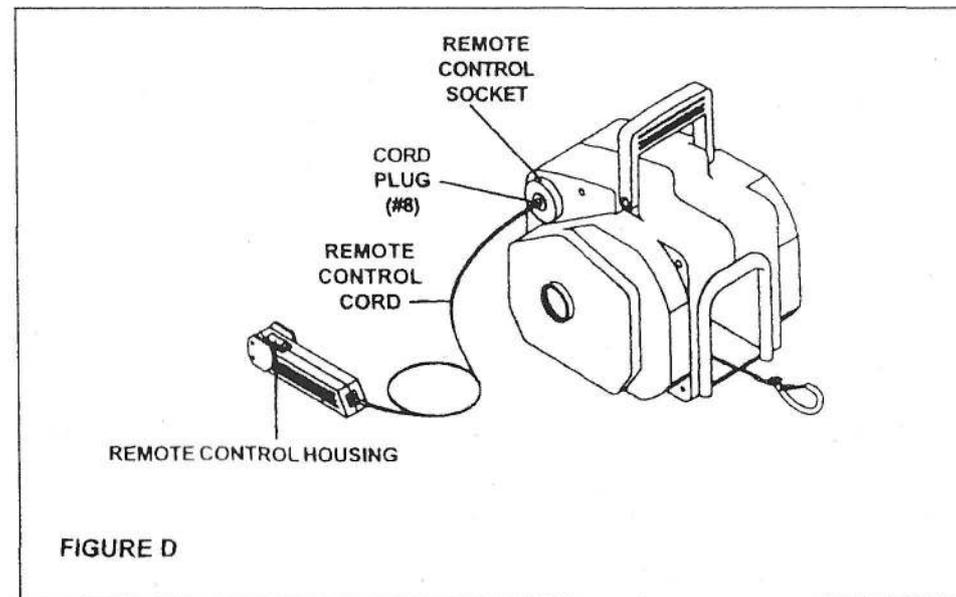
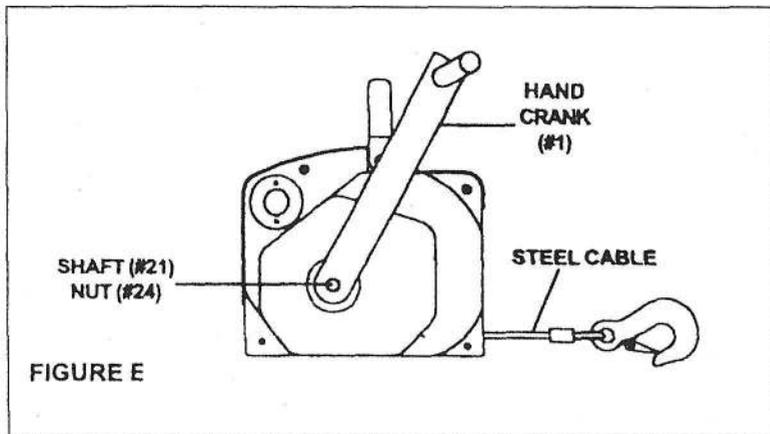


FIGURE D

To Attach The Hand Crank:

1. Insert the mounting hole of the Hand Crank (part #1) onto the Shaft (part #21). Then secure the Hand Crank to the Shaft, using one Nut (part #24). (See Figure E.)



OPERATING INSTRUCTIONS

To Use The Winch Manually:

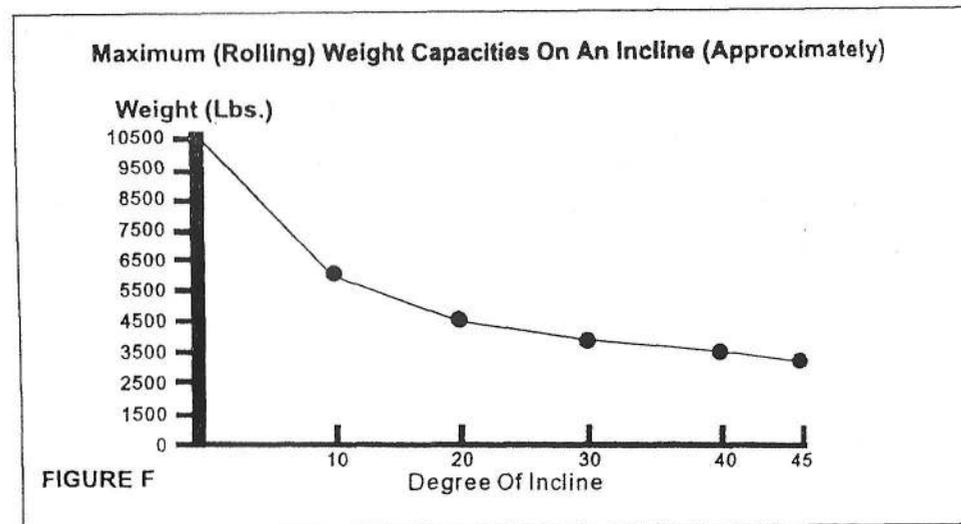
1. **WARNING:** Do not use the Hand Crank (part #1) to assist a powered Winch. This will damage the Winch, and may cause personal injury. (See Figure E.)
2. Place the vehicle's transmission in "Park." Turn off the engine. Set the emergency brake, and block the wheels from rolling, using suitable chocks (not included).
3. To operate the Hand Crank (part #1), turn the Clutch Knob clockwise until hand tight. Do not force it or overtighten. (See Figure E.)
4. Rotate the Hand Crank (part #1) clockwise to tighten the Steel Cable. Continue turning the Hand Crank clockwise until the Steel Cable has been completely retracted. (See Figure E.)

To Estimate Pulling Capacity:

1. The Winch has a pulling capacity of 3,500 pounds. Applying this measurement

to practical applications, you can use the Winch to move the following:

- a. Move a load from a dead stop of up to 3,500 pounds on ground.
 - b. Move a water borne marine craft of up to 9,000 pounds.
 - c. Maintain a movement of a wheeled vehicle of up to 10,500 pounds
2. **NOTE:** The Winch's pulling capacity is reduced as inclines increase. For example, Rolling capacity is reduced from 10,500 pounds on flat ground to approximately 2,500 pounds on a 45 Degree incline. Refer to the Chart for estimated pulling capacity (rolling weight) on various inclines. (See Figure F.)



To Use The Electrically Powered Winch:

1. Place the vehicle's transmission in "Park." Set the emergency brake, and block the wheels from rolling, using suitable chocks (not included).
2. **NOTE:** You may wish to keep the vehicle's engine running while using the Winch to continually recharge the battery. However, use extreme caution when working around a vehicle with its engine running.
3. Pull out the Steel Cable to the desired length, using the "Power Out" feature located on the Switch (part #10). Always leave at least four turns of

Steel Cable on the Spool of the Cable Assembly to prevent pulling the Steel Cable completely out of the Winch. (See Figure G.)

- Hook onto the object using a pulling point, tow strap, or chain (all not included). Never wrap the Steel Cable around the object or hook onto the object itself. This can cause damage to the object being pulled, and kink or fray the Steel Cable. (See Figure G.)

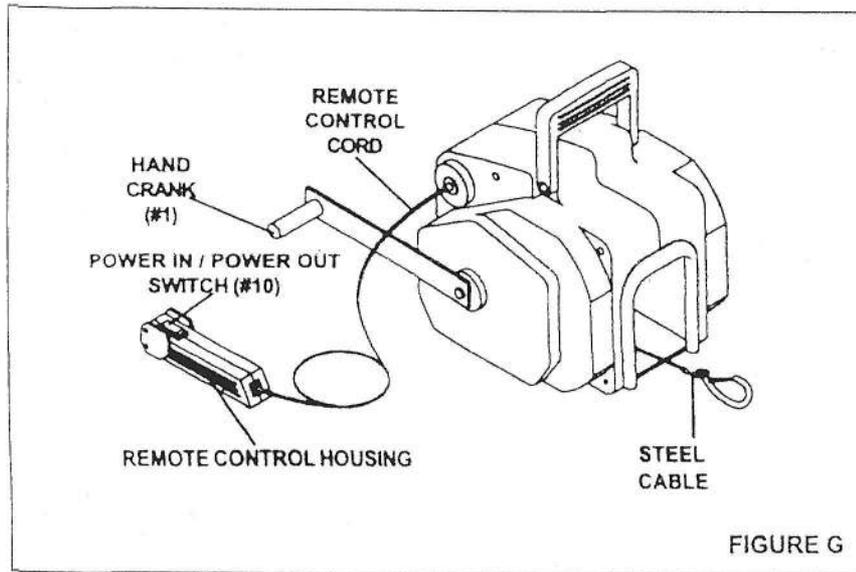


FIGURE G

- CAUTION:** Never allow anyone to stand near the Steel Cable, or in line with the Steel Cable behind the Winch while it is under power. Should the Steel Cable slip or break it can suddenly whip back towards the Winch, causing a hazard for anyone in the area. Always stand well to the side while winching.
- Stand clear and, when it is safe to do so, use the "Power In" feature on the Switch (part #10) to retract the Steel Cable and winch the object as desired. (See Figure G.)

To Use The Pulley Hook:

- With the Winch Cable Hook (part #57) and the accessory Pulley Block Assembly (part #56) attached to the Steel Cable, the Pulley Block Assembly (part #56) allows you to offset the Winch but retain a straight shot. The Pulley Block Assembly (part #56) can also be used to nearly double the Winch's capacity by simply attaching the Pulley Block Assembly (part #56) directly to the load and the Winch Cable Hook (part #57) to a sturdy mount near the Winch (such as the rear bumper). (See Figure H.)
- To attach the Pulley Block Assembly (part #56) to the Steel Cable, remove the two Nuts on the Pulley Hook. Then, remove one Side Plate on the Pulley Hook. (See Figure H.)
- Insert the Steel Cable beneath the Pulley. Then, reattach the Side Plate and the two Nuts. (See Figure H.)

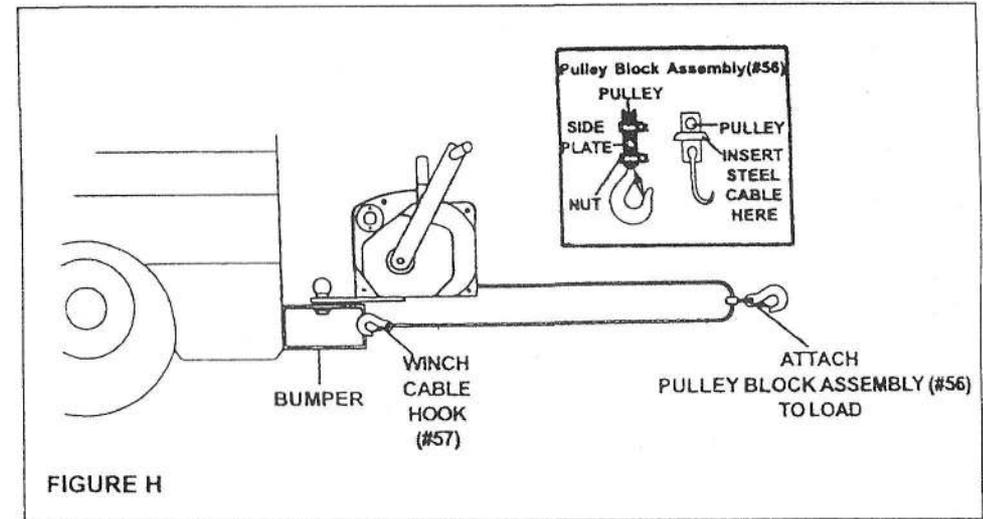


FIGURE H

INSPECTION, MAINTENANCE, AND CLEANING

- CAUTION:** Always release a load from the Winch, and disconnect the Winch from its 12 Volt DC electrical supply source, before performing any inspection, maintenance, or cleaning.
- BEFORE EACH USE,** inspect the general condition of the Winch. Check for

loose screws, misalignment or binding of moving parts, cracked, bent or broken parts, frayed Steel Cable, and any other condition that may affect its safe operation. Inspect the entire unit for corrosion that may be caused by exposure to salt water or weather. If abnormal noise or vibration occurs, have the problem corrected before further use. Do not use damaged equipment.

3. **PERIODICALLY**, use a premium quality, lightweight oil to lubricate the Steel Cable.
4. **EVERY SIX MONTHS**, separate the Left and Right Shells (parts #4, #60) to grease the Gears (parts #23, #28, #36, #19). Use any good quality, waterproof, gear grease.
5. **TO CLEAN**, wipe with a clean, damp cloth. If necessary, a mild detergent may be used.

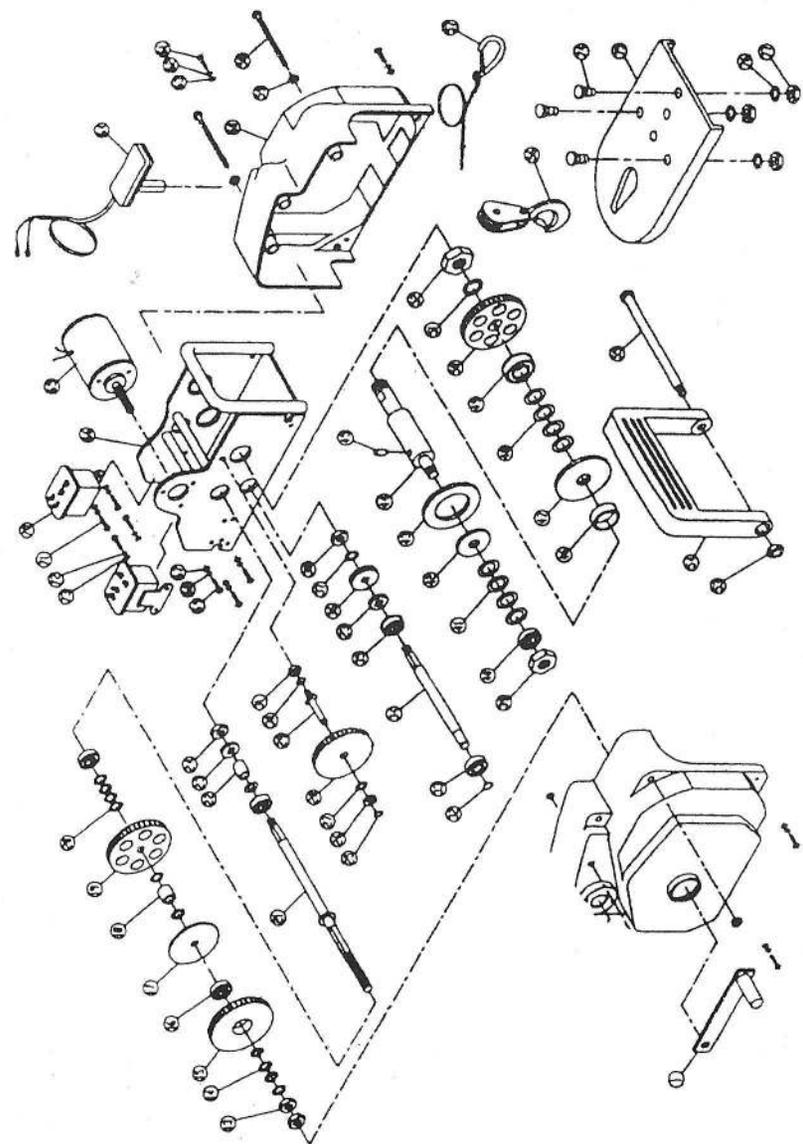
PLEASE READ THE FOLLOWING CAREFULLY

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.

PARTS LIST

Part #	Description	Part #	Description
1	Hand Crank	40	Bearing(4)
2	Nut M4	41	Washer
3	Nut M3	42	Plate(L)
4	Right Shell	43	Plate(S)
5	Rubber Cover	44	Cable Collar
6	Remote Control Socket	45	Cable Fastener
7	Screw M3x12	46	Cable Spacer
8	Cord Plug	47	Flange Drum
9	Remote Control Left Housing	48	Spacer
10	Switch	49	Bearing(4)
11	Remote Control Right Housing	50	Gear 55T
12	Stun Screw 5T 2.9x16	51	Spring Washer
13	Nut M12	52	Nut M20
14	Lock Nut	53	Nut M6
15	Clutch Lining 55T	54	Handle
16	Bearing(1)	55	Screw(3)
17	Clutch Plate	56	Pulley Block Assembly
18	Spacer	57	Winch Cable Hook
19	Drive Gear 55T	58	Screw M4x60
20	Washer	59	Nut M4
21	Main Shaft	60	Left Shell
22	Shaft Spacer	61	Screw M5X10
23	Pinion Gear	62	Spring Washer
24	Nut M12	63	Washer
25	Thrust Washer	64	Wire Harness Assembly
26	Retaining Ring	65	Motor
27	Washer	66	Frame Assembly
28	Connecting Gear 124T	67	Washer
29	Connecting Gear Shaft	68	Spring Washer
30	Lock Washer	69	Screw(6) M5x10
31	Nut M12	70	Circuit Breaker Assembly
32	Spacer	71	Screw M5x8
33	Bearing(2)	72	Spring Washer
34	Shaft	73	Washer
35	Bearing(3)	74	Screw M10
36	Idler Gear 23T	75	Plate
37	Spring Washer	76	Washer
38	Screw M12	77	Nut M10
39	Nut M12		

ASSEMBLY DIAGRAM



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