



2000-Lb. 12 V DC Electric Marine Winch

Owner's Manual



⚠ WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item #54127

SAVE THESE INSTRUCTIONS

Thank you very much for choosing an Ironton™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This electric marine winch is designed for certain applications only. Northern Tool & Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

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Intended Use

The Ironton 2000-Lb. 12 V DC Electric Marine Winch can be mounted permanently on your trailer, truck bed, bumper, or you can use the adapter plate to anchor the winch to your trailer ball. The weather resistant high-impact housing has a molded handle for easy portability.

Technical Specifications

Property	Specification
Power Supply	12V DC Battery
Rated Capacity	Dead pull: 2000 lb. Marine pull: 5000 lb. Rolling stock pull: 6000 lb.
Motor	12V DC, 9/25 HP
Maximum Boat Weight	5,000 lb. (18 ft. boat length)
Drum (Dia. X L)	1" X 3-1/8"
Overall Dimensions (L X D X H)	13.3" X 4.25 X 4.5"
Gear Ratio	464:1
Wire Rope	3/16" x 30' Galvanized Steel
Hook Opening	11/16"

Line Pull		Line Speed		Amp Draw
lb.	kg.	fpm	mpm	
0	0	4.5	1.4	3.1
500	227	3.6	1.1	6
1000	454	2.9	2.3	11
1500	680	2.3	0.9	17
2000	907	1.7	0.5	21

Layer	Rated Line Pull		Cable Capacity	
	lb.	kg.	feet	meters
1	2000	907	4.7	1.4
2	1520	689	10.8	3.3
3	1226	556	18.4	5.6
4	1027	466	27.5	8.4
5	884	401	38.0	11.6

Important Safety Information

⚠WARNING

- Read and understand all instructions. Failure to follow all instructions may result in fire, serious injury and /or DEATH.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this electric winch. Always be aware of the environment and ensure that the electric winch is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the electric winch until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this electric winch in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the electric winch. There are specific applications for which the electric winch was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this electric winch was designed. The tool will be a safer and do the job better at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.

- Industrial or commercial applications must follow OSHA requirements.

⚠WARNING

This product may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

⚠WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well-lit. Cluttered, wet, or dark work areas can result in injury. Using the electric winch in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the electric winch.

⚠WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the electric winch. Do not use the electric winch while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.

⚠CAUTION

ELECTRIC WINCH USE AND CARE

- Inspect before every use, do not use if damaged or parts loose. Examine the winch for structural cracks, bends, damage, frayed or kinked wire rope, and any other conditions that may affect the safe operate of the winch. Do not use the winch even if minor damage appears. A kink permanently weakens the wire rope, even after it is straightened out; kinked wire rope can fail suddenly and must not be used.
- Do not force the electric winch. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct electric winch for the job.
- Store the electric winch when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the electric winch for good working condition prior to storage and before re-use.

- Use only accessories that are recommended by the manufacturer for use with your electric winch. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.

Specific Operation Warnings

⚠WARNING

GENERAL SAFETY

- To prevent injury or property damage, read and understand all instructions before operating winch.
- Wear ANSI Z87.1 compliant safety goggles and heavy duty leather work gloves during operation.
- Do not exceed the rated load capacity. Be aware of dynamic loading! Sudden load movement may briefly create excess load causing product failure.

INSTALLATION SAFETY

- Choose a mounting location that can support the winch and rated load capacity.
- Do not weld mounting bolts
- Use supplied power cords and wire rope listed in manual only. Do not use thinner/longer cables or link multiple cables together.
- Keep hands clear of winch rope, hook loop, hook and fairlead opening during installation, operation, and when spooling in or out.
- Wrap the wire rope under 500 lb. of tension before use. Otherwise, the wire rope may bind during operation.
- Do not route electrical cables near sharp edges or parts that will move or become hot.
- Ventilate area well before and while working on battery. Explosive hydrogen gas can accumulate and explode when ignited by a spark or open flame.
- Only connect to a clean, corrosion free battery.
- Remove all jewelry and metallic objects before working near battery.

WINCHING SAFETY

- Inspect winch rope, hook, and slings before operating winch. Frayed, kinked, or damaged winch rope must be replaced immediately. Damaged components must be replaced before operation.
- Do not maintain power to the winch if the motor stalls. Verify the load is within the rated capacity for the wire rope layer. Make sure the battery is fully charged. Use double line rigging whenever possible.
- Do not engage or disengage clutch while under load.
- Always ensure hook latch is closed and not supporting load.
- Never apply load to hook tip or latch. Apply load only to the center of hook.
- Never use a hook whose throat opening has increased, or whose top is bent or twisted.
- Keep clear of fairlead when operating. Do not try to guide wire rope.
- Do not place any fingers through the hook. Fingers may be caught and get pulled into the fairlead or drum. Use the included strap to hold the hook instead.

- Stay out of the direct line that the wire rope is pulling. If it slips or breaks, it will create a whiplash effect. Utilize a winch dampener to help absorb the force released if the wire rope breaks.
- Do not use for overhead hoisting. This winch is intended to be used for pulling only.
- Use a spotter to assist you in ensuring that it is safe to operate the winch. Make sure the spotter is out of the way of the vehicle and the wire rope before activating the winch.
- Do not use the hand crank, if equipped, to assist the winch.
- Do not use vehicle to pull on the wire rope and “assist” the winch.
- Do not use to transport people or animals.
- Disconnect battery cables before working near the wire rope, drum, fairlead or load, to prevent accidental starting.
- Keep wire rope straight to avoid kinking the wire rope.
- Keep children and bystanders away while operating.
- Hook onto the object using a pulling point, tow strap or chain. Do not wrap the wire rope around the object and hook onto the wire rope itself.
- Do not use a recovery strap while winching.
- Secure the load after moving. Do not lock the mechanism.
- Keep at least 5 full turns of wire rope on the drum.
- Keep clear of the wire rope, hook, and load while winching. Do not step over the wire rope. Do not push sideways against the wire rope under tension; wire rope might break under this load and recoil back, striking the person pushing against it or a bystander.
- If the wire rope begins to get entangled, stop the winch immediately and release the wire rope using the switch.
- Only winch with the winching vehicle’s transmission placed in neutral. Winching with a vehicle’s transmission in gear or park may damage the transmission. A vehicle’s transmission is not designed to handle this type of load.
- Do not operate the winch on extreme slopes. Do not exceed the angles for a roller fairlead. For a hawse fairlead, the angle should be as close to 180 degrees as possible.
- People with pacemakers should consult their physicians before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- Remove any element or obstacle that may interfere with safe operation of the winch.
- Always use supplied hook strap whenever spooling winch rope in or out, during installation and during operation.
- Always take time to use appropriate rigging techniques for winch pull.

Assembly Instructions

⚠WARNING

- Read the entire Important Safety Information section at the beginning of this manual including all text under subheadings before set up or use of this electric winch.
- At the start of winching when using temporary winch mounting, take up slack slowly and make sure winch is securely and properly mounted to hitch ball.

- Remove the winch after use. Do not drive vehicle with winch temporarily mounted.

Temporary Winch Mounting

1. Use the adapter plate (31) to temporarily attach the winch to a hitch ball on a vehicle.
2. The adapter plate has three pre-mounting plate stud bolt (38)/Nut (30)/Lock Washer (29) sets. Push the bolt heads into the keyhole slots on the bottom of the frame assembly (34) and slide them into the narrow section of the keyholes.
3. Bolt the adapter plate to the winch frame assembly using holes provided to lock components together.
4. Place teardrop-shaped hole in the adapter plate over hitch ball.

Permanent Winch Mounting

1. Select a mounting site on the boat trailer, vehicle bumper, truck bed, or other suitable location.
2. If a mounting plate is used, it must be flat and rated to at least the winch's capacity.
3. Align the winch perpendicular to the center line of the vehicle at the desired location. Use mounting holes in the winch frame assembly (34) as a template to mark the spots where holes will need to be drilled in the installation surface.
4. Before drilling, verify that the installation surface has no hidden components or structural pieces that will be damaged.
5. Drill 3/8" holes at the marked locations.
6. Bolt the winch to the installation surface using 3/8" galvanized/zinc plated bolts, nuts, and washers (not included) of SAE grade 5 or higher.

Note: This winch can generate extreme forces. Select a location that can withstand the rated capacity without damage or weakening. Steel reinforcement plates may be needed or a certified welder may need to weld on additional bracing depending on the mounting location. This winch is not waterproof and is not intended for use underwater. Do not mount in locations that are subject to submersion in water.

Temporary Wiring

1. Remove the protective cover on the right side of the winch body and insert the female battery cable plug at the end of the battery cable (44) into the male socket. There is only one way for correct polarity.
2. Route the battery cable from the winch to the battery, being careful to avoid tangling it in moving equipment, or causing a tripping hazard.
3. Connect the black battery clamp of the battery cable to the frame of the vehicle, establishing a ground connection. Connect the red battery clamp to the positive (+/red) terminal of the battery.
4. Insert the male remote control cable plug at the end of the remote control cable (43) into the female socket on the right side of the winch body. The plug fits into the socket only one way for correct polarity.

Permanent Wiring

1. Plan a route for the wiring from the point of the vehicle where the winch will be mounted, or used, to the battery. This route must be secured and out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, you may wish to route the wires under the vehicle, attaching it to the frame using suitable fasteners. Do not attach the wires to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage to the wiring through heat or motion, or create a fire hazard.

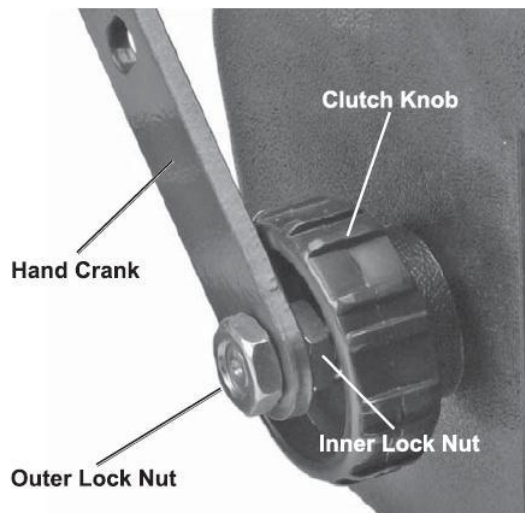
2. If you drill through the bumper or any part of the body to route the wires, be sure to install a rubber grommet in the hole to prevent fraying of the wires at that point.
3. Route the cables (44) from the solenoid to the battery and from the solenoid to the winch, following the precautions discussed above.
4. Remove the red battery clamp from the red wire and attach the wire to the positive (+/red) terminal of the battery.
5. Remove the black battery clamp from the black wire and attach the wire to the frame of the vehicle, creating a secure electrical ground.

Preparing the Wire Rope

1. The wire rope must be properly coiled under tension to be able to support a load without damage.
2. Uncoil the wire rope, expect for 5 full warps.
3. Recoil the rope back into the winch under at least 500 lb. of tension.

Attaching the Hand Crank

1. Attach the hand crank (18) only when manually rewinding.
2. To attach the hand crank, tighten the clutch first by turning the clutch knob (19) clockwise until you are able to hand tighten. Remove the outer lock nut and slide the hand crank over the thread shaft up against the inner lock nut. Secure the hand crank in place with the outer lock nut.



Before Each Use

⚠WARNING

- Inspect winch rope, hook, and slings before operating winch. Frayed, kinked, or damaged winch rope must be replaced immediately. Damaged components must be replaced before operation.
- Wrap the wire rope under 500 lbs. of tension before use. Otherwise, the wire rope may bind during operation.
- Ventilate the area well before and while working on the battery. Explosive hydrogen gas can accumulate and explode when ignited by a spark or open flame.
- Remove all jewelry and metallic objects before working near the battery.

Operating Instructions

⚠ WARNING

- Read the entire Important Safety Information section at the beginning of this manual, including all text under subheadings before set up or use of this electric winch.
- The instructions that follow are basic guidelines only and cannot cover all situations encountered during use. The operator and assistants must carefully plan usage to prevent accidents.

Components and Controls



Basic Operation

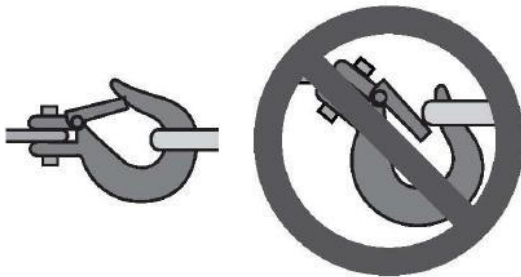
1. Examine the wire rope. Do not use the winch if the wire rope is frayed, kinked, or damaged.
2. Fully charge the vehicle's battery.
3. Check the winch's electrical connections. All connections must be tight and clean.
4. Put the vehicle's transmission in 'neutral'.
5. If the vehicle (located where the winch is mounted) is not supposed to be moved, engage the emergency brake and block the wheels using wheel chocks (sold separately).

- To pull out the wire rope, disengage the clutch control by loosening two lock nuts and turning the clutch knob (19) counterclockwise, to loosen it. Slide the loop of the hook strap over the hook and then pull on the hook strap to pull out the wire rope.

⚠WARNING

Leave at least five full turns of wire rope on the drum.

- Hook onto the object using a pulling point. Do not wrap the wire rope around the object and hook onto the wire rope itself. This can damage the object being pulled, and kink or fray the wire rope.
- The attachment point must be centered in the loop of the hook and the hook's safety clasp must be fully closed. See the illustration below.

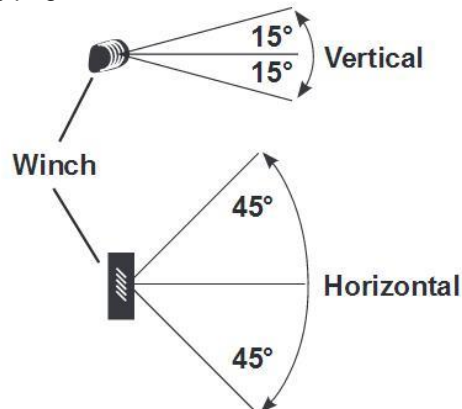


- Do not use a recovery strap while winching. They are designed to stretch and can suddenly whip back towards the operator during a winching operation.
- Place a heavy rag or carpet (not included) over the wire rope span, 6 feet from the hook, to help absorb the force released if the wire rope breaks.
- Re-engage the clutch by turning the clutch knob (19) clockwise until tight. Do not force it or overtighten.

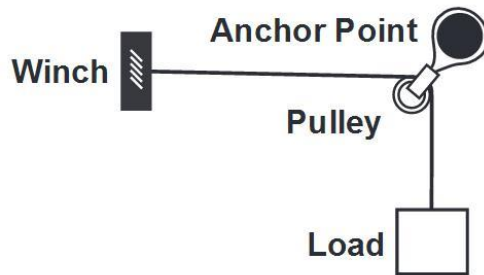
⚠WARNING

Do not allow anyone to stand near the wire rope or in line with the wire rope behind the winch while it is under power. If the wire rope should slip or break, it can suddenly whip back towards the winch, causing a hazard for anyone in the area. Stand to the side while winching.

- Operate the controls briefly to ensure they work properly.
- When it is safe to do so, use the power switch on the pendant controller to retract the wire rope, and winch the item as desired. Do not power the hook all the way into the fairlead to prevent damage.
- Do not operate the winch at extreme angles. Do not exceed the angles, shown in the illustration on the following page, for a roller fairlead.



15. If the object to be pulled must be pulled at an angle in relation to the winch, use a pulley (sold separately) and an anchor point directly in front of the winch, as shown in the illustration below, to keep the wire rope pulled straight.



16. Do not continue to use the winch until the battery is drained.
17. When possible, keep the engine running while using this winch, to continually recharge the battery and prevent the battery from being drained so much that the vehicle cannot start. Exercise extreme caution when working around a running vehicle and ONLY operate a vehicle in an outdoor area

⚠CAUTION

Do not use the winch in a constant duty application – it is designed for INTERMITTENT USE ONLY. Keep the duration of the pulling job as short as possible. If the motor becomes very hot to touch, stop and let it cool down for several minutes. Do not pull for more than one minute at or near the rated load. Do not maintain power to the winch if the motor stalls. Double line rigging will help prevent overloading and should be used whenever practical.

18. When finished pulling the load, release the tension on the wire rope, unfasten the hook from the load, and reel in the wire rope.
19. To prevent accidents, disconnect the power supply and the remote control after use. Clean, then secure and cover the winch when not in use. If the wire rope gets wet, dry it and then apply light oil right after use.

After Each Use

⚠WARNING

Wipe external surfaces of the winch with a clean cloth.

Maintenance

⚠WARNING

- To prevent serious injury from accidental operation: disconnect the battery cables before performing any inspection, maintenance, or cleaning procedures.
- To prevent serious injury from winch failure: do not use damaged equipment. If an abnormal noise or vibration occurs, have the problem corrected before further use.
- Lubricate the wire rope occasionally with a light oil.
- The winch's internal mechanism is permanently lubricated. Do not open the housing. However,

if the winch is submerged, it should be opened, dried, and re-lubricated by a qualified technician as soon as possible to prevent corrosion.

Troubleshooting

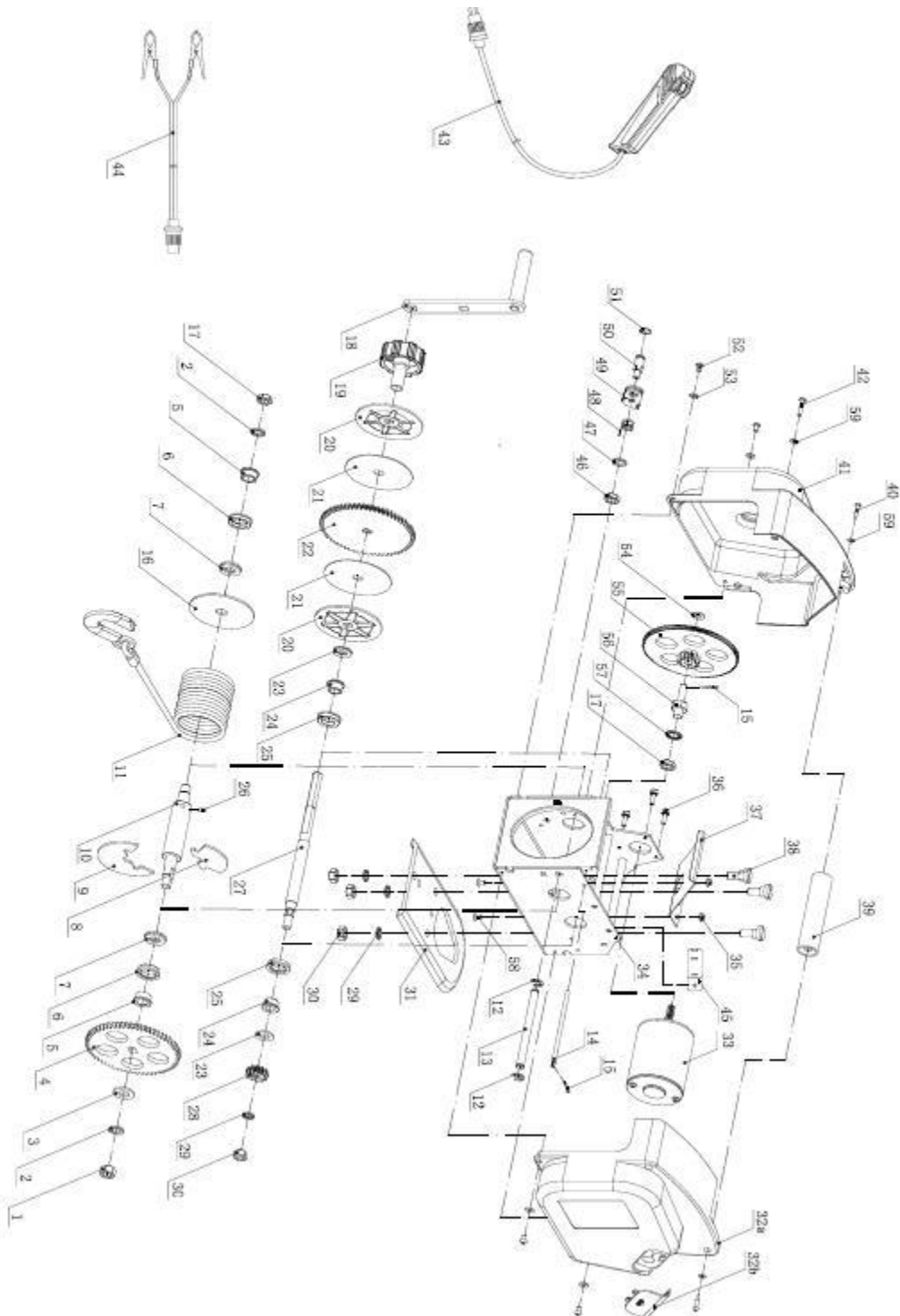
⚠WARNING

- Follow all safety precautions whenever diagnosing or servicing the tool.
- Disconnect power supply before service.

Use the table below to troubleshoot problems before contacting service personnel or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

Failure	Possible Cause	Corrective Action
Motor overheats.	<ol style="list-style-type: none"> 1. Incorrect power cords. 2. Winch running time is too long. 	<ol style="list-style-type: none"> 1. Use only supplied power cords 2. Allow winch to cool down periodically
Motor does not turn on.	<ol style="list-style-type: none"> 1. Switch not connected properly. 2. Loose battery cable connections. 3. Vehicle battery needs charging. 4. Solenoid malfunctioning. 5. Remote is damaged. 6. Defective motor. 7. Water has entered motor. 8. Internal damage or wear. 	<ol style="list-style-type: none"> 1. Connect switch properly. 2. Tighten nuts on all cable connections. 3. Fully charge battery. 4. Tap solenoid to loosen contacts. Apply 12 volts to coil terminals directly. A clicking indicates proper activation. 5. Replace remote. 6. Check for voltage at armature port with switch pressed. If voltage is present, replace motor. 7. Allow to drain and dry. Run in short bursts without load until completely dry. 8. Have technician service winch.
Motor runs slowly or without normal power.	<ol style="list-style-type: none"> 1. Insufficient current or voltage. 2. Loose or corroded battery cable connections. 3. Incorrect power cords. 	<ol style="list-style-type: none"> 1. Battery weak, recharge. Run winch with vehicle motor running. 2. Clean, tighten, or replace. 3. Use only supplied power cords.

Parts Diagram



Parts List

Part Number	Description	Quantity
1	M12 Nut	1
2	Spring Washer	2
3	Washer	1
4	Driver Gear (Big)	1
5	Bearing Housing	2
6	Oil Bearing	2
7	Washer	2
8	Small Plate	1
9	Big Plate	1
10	Shaft	1
11	Wire rope & Hook	1
12	10 Ring-Shield	2
13	Shaft	1
14	Shaft	1
15	Cotter Pin	2
16	Plate	1
17	M12 Nut	2
18	Hand Crank	1
19	Clutch Knob	1
20	Frication Plate	2
21	Frication Plate	2
22	Large Gear Assembly 2	1
23	12 Washer	2
24	Bearing Housing (long)	2
25	Oil Bearing (long)	2
26	M5 x10 Screw	1
27	Shaft	1
28	Driver Gear (small)	2
29	D10 Spring Washer	4
30	M10 Nut	4
31	Adapter Plate	1
32a	Right Shell	1
32b	Plug Cover	1
33	Motor	1
34	Frame Assembly	1
35	M5 Nut	2
36	M5x16 Screw	3
37	Cable Tensioner	1
38	Plate Stud Bolt	3
39	Handle	1
40	M4 x 20 Screw	2
41	Left Shell	1
42	M4x35 Screw	2
43	Remote Control	1
44	Battery Cable (with plug & clamps)	1
45	Circuit Breaker	1
46	M8 Nut	1
47	D8 Spring Washer	1
48	Torsion Spring	1
49	Claw Lock	1
50	Shaft Lock	1
51	12 Ring-Shield	1

52	M5x8 Screw	4
53	D5 Washer	4
54	D10 Washer	1
55	Large Gear Assembly 1	1
56	Shaft Assembly	1
57	D12 Washer	2
58	M5 x10 Screw	4

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Ironton product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of one year from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



Distributed by:

Northern Tool & Equipment Company, Inc.

Burnsville, Minnesota 55306

www.northerntool.com

Made in China