



1500-Lb. 120 Volt AC Electric 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 #54129

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 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**.

Table of Contents

Intended Use.....4

Technical Specifications4

Important Safety Information4

Specific Operation Warnings6

Grounding Instructions7

Assembly Instructions.....8

Before Each Use.....9

Operation Instructions.....9

After Each Use.....10

Maintenance10

Troubleshooting.....11

Parts Diagram12

Parts List13

Replacement Parts13

Limited Warranty14

Intended Use

Ironton's 1500-Lb. 120 Volt AC Electric Winch has tethered remote control, thermal overload protection, two stage planetary gearing, and pulls up to 1500 lbs. horizontally, making it perfect for shop or garage use. The winch is ideal for pulling disabled vehicles onto a lift or frame straightener. The tethered remote control provides better freedom of movement and lets you view the load from different angles as you work. It comes with a 35 ft. long, heavy duty aircraft steel cable assembly with a drop-forged sling hook.

Technical Specifications

Property	Specification
Rated Capacity	1,500 lb.
Electrical Rating	120 Volts AC / 60Hz (amperage listed below)
Motor	1.3HP
Gear Ratio	262:1
Drum Diameter	2"
Wire Rope	5/32"x35'
Remote Control Wire Length	116"
IP Rating	IP44

Line Pull lb.	Line Speed fpm	Amp Draw @12 VDC
0	10.5	1.2
375	8.3	3.3
750	6.4	5.6
1125	5.18	7.8
1500	4.2	9.2

Layer	Rated Line Pull	Cable Capacity
	lb.	ft.
1	1500	10.7
2	1310	23
3	1163	36.9
4	1045	35

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 lbs. 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.
- Explosive hydrogen gas can accumulate and explode when ignited by a spark or open flame.

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. 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.
- 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.

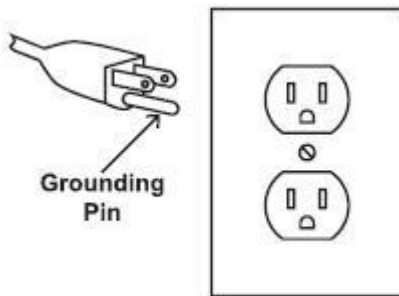
Grounding Instructions

⚠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.
- To prevent electric shock and death from incorrect grounding wire correction, read and follow these instructions.

1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with a green outer surface insulation or without yellow stripe is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
4. Check with a qualified electrician or service personnel if the grounding instruction is not completely understood, or if in doubt as to whether the winch is properly grounded.
5. Use only 3-wire extension cords that have 3-prong grounding plus and 3-pole receptacles that accept the winch's plug.
6. Repair or replace damaged or worn cord immediately.
7. This winch is intended for use on a circuit that has an outlet that looks like the one illustrated above in 125 VAC 3-Prong plug and outlet. The winch has a grounding plug that looks like the plug illustrated above in 125 VAC 3-Prong plug and outlet.



125 VAC 3-Prong Plug and Outlet (for up to 125 VAC and up to 15 A)

8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
9. Do not use an adapter to connect this to a different outlet.

Assembly Instructions

1. The supporting structure the winch is mounted to (including trolley, monorail, or crane) must be designed to withstand the loads and forces imposed by the winch for the rated load.
2. Secure the mounting frame (6) of the winch to the mounting channel (36). Use hardware of SAE grade 5 or higher. Torque to 12ft. lb. Insert bolts, nuts and washers through the base of the mounting frame and through the corresponding holes in the mounting channel. See Figure A.

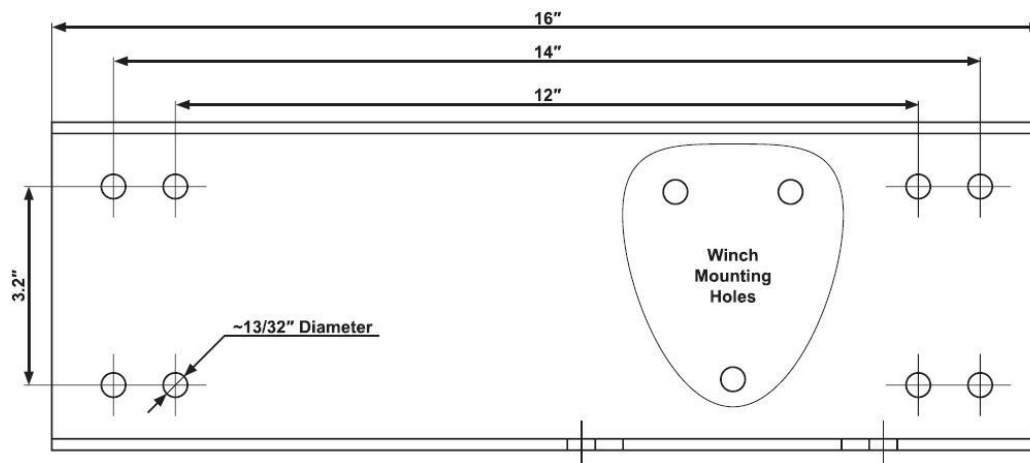


Figure A: Mounting Hole Diagram

3. Secure the fairlead (37) to the side of the mounting channel. Use hardware of SAE grade 5 or higher. Torque 12 ft.lb.

4. Bolt the mounting channel to a surface capable of withstanding 1500 lbs. of pulling force. Use galvanized/zinc plated hardware of SAE grade 5 or higher. Torque to 12ft.lb.

Before Each Use

⚠WARNING

- Inspect the general condition of the winch.
- Check for loose hardware, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, corroded or loose terminals, and any other condition that may affect its safe operation.
- Examine the wire rope. Do not use the winch if the wire rope is frayed, kinked or damaged.
- Stop the winch and release tension on the wire rope before moving a rag or carpet placed on it.

Operation Instructions

Before Operating Winch:

1. Familiarize yourself with all operating controls of the winch and with the operations to be performed. Instructions include the warnings on the winch, and the safety / operating instruction portion of this manual.
2. Do not operate a winch with an 'out of order' sign.
3. Only a qualified technician should perform maintenance to the winch.
4. Do not use the wire rope as a ground for welding. Do not touch a welding electrode to the wire rope.
5. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.
6. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord must reach the work area with enough extra length to allow free movement while working.
7. There must not be objects, such as utility lines, nearby that will present a hazard while working.
8. Inspect the winch after installation but before use.

Applying the Load:

1. Connect the power cord to a properly ground, 3-prong 120V outlet.
2. Disengage the clutch by pulling out, then turning the clutch knob (1) to lock it in the OUT position.
3. Use the hook strap (31) to pull the hook (33) out to the desired length. Attach the hook to the item being pulled. Make certain that the spring-loaded latch of the hook is set.
4. Do not warp the winch wire rope around the load.
5. Attach the load to the load hook securely by properly rated, suitable means, such as chains, shackles, hooks, lifting slings, etc. Load must be attached to prevent accidental disconnection.
6. Properly seat the sling or other device in the base (bowl or saddle) of the hook (Figure B). Do not allow the hook hitch to support any part of the load.

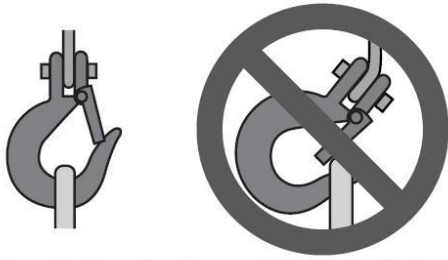


Figure B: Correct and incorrect load hook attachment

7. Before moving the load, make sure wire rope is not kinked or twisted so that multiple part wire ropes are not twisted around each other.
8. Do not operate the winch unless wire rope is seated properly on the drums, pulleys, or sprockets.
9. Do not pick up a load in excess of the rated load appearing on the winch or load block, except during properly authorized tests. The overload protector button will be bounced when overloaded; press the button and it will reset. Do not continue to press the overload protector button to pull over the maximum load.
10. Give specific attention to load balancing and hitching or sling to prevent load slipping.

Moving the Load:

1. Do not engage in any activity which will divert the operator's attention while operation the winch.
2. Respond to signals from a designated person only. However, always obey a stop signal, no matter who gives it.
3. Make sure the load and winch will clear all obstacles before moving or rotating the load.
4. Re-engage the clutch by turning the clutch knob until it locks in the IN position.
5. Do not pull a load more than a few inches until it is well-balanced in the sling or pulling device.
6. Each time a load approaching rated capacity is handled, check winch brake action by pulling the load just clear of supports and continuing only after verifying that the brake system is operating properly.
7. Do not lower the load below the point where less than two wraps remain on each anchorage of the winch drum, unless a lower limit device is provided, in which case no less than one wrap may remain on each anchorage of the winch drum.

Packing the Load:

1. Do not leave a supported load unattended unless specific precautions have been instituted and in place.
2. Press (and hold) the OUT button to release tension in the wire rope.
3. Exercise care when removing a sling from under a landed and blocked load.

After Each Use

⚠WARNING

Wipe external surfaces of the winch with a clean cloth.

Disconnect the pendant controller (if equipped) after use.

Maintenance

⚠WARNING

- 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

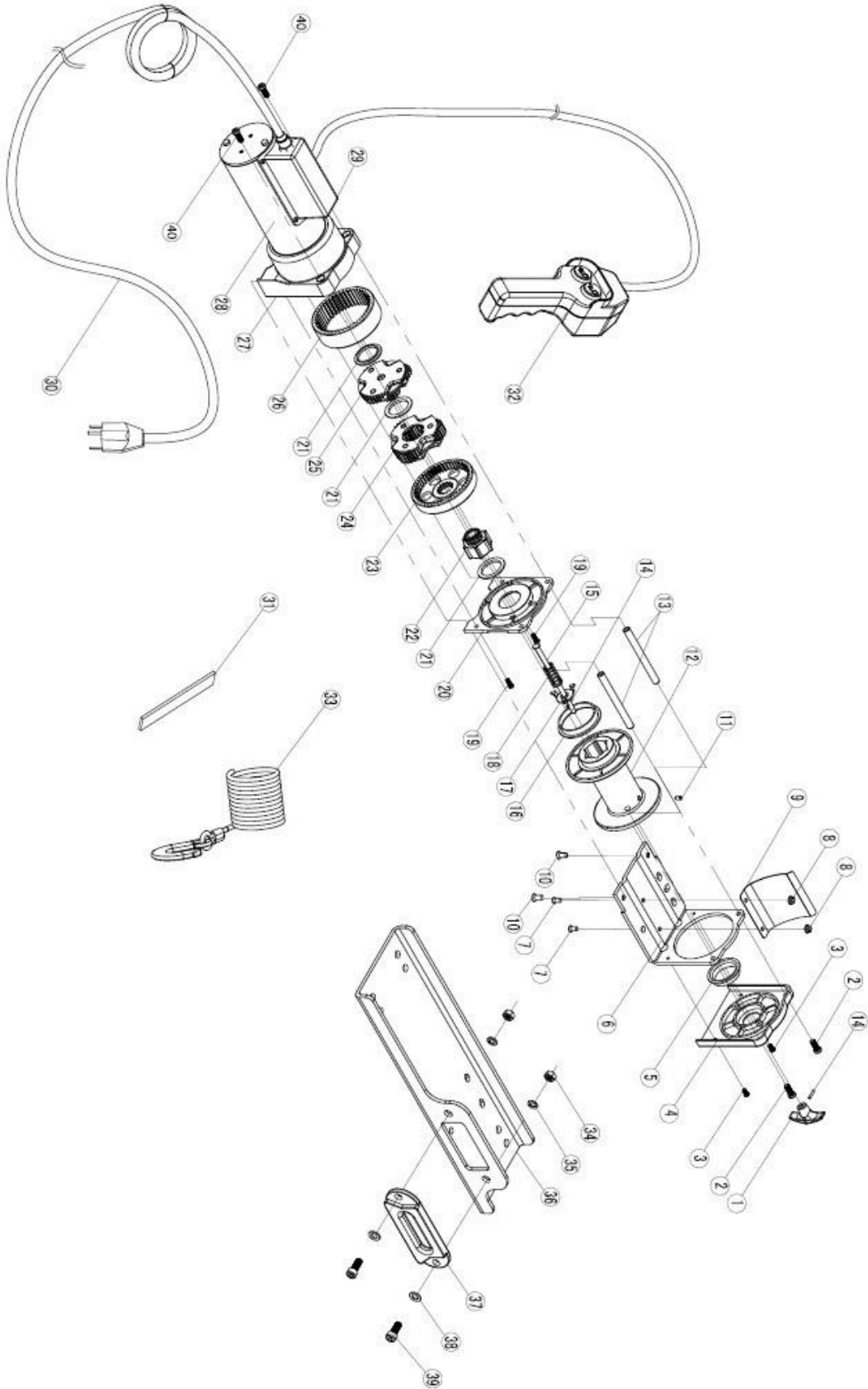
⚠WARNING

- 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 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. Solenoid malfunctioning 2. Remote damaged. 3. Defective motor 4. Water has entered motor 5. Internal damage or wear 	<ol style="list-style-type: none"> 1. Tap solenoid to loosen contacts. Apply 12 volts to coil terminals directly. A clicking indicates proper activation 2. Replace remote 3. Check for voltage at armature port with switch pressed. If voltage is present, replace motor 4. Allow to drain and dry. Run in short bursts without load until completely dry 5. Have technician service winch
Motor runs but Wire Rope drum does not turn	Clutch not engaged	Move the clutch handle to the engaged position. If problem persists, a qualified technician needs to check and repair
Motor runs slowly or without normal power	<ol style="list-style-type: none"> 1. Insufficient current or voltage 2. Incorrect power cords 	<ol style="list-style-type: none"> 1. Run winch with vehicle motor running 2. Use only supplied power cords
Motor runs in one direction only	<ol style="list-style-type: none"> 1. Defective or stuck solenoid 2. Remote damaged 	<ol style="list-style-type: none"> 1. Tap solenoid to loosen contacts Repair or replace solenoid 2. Replace remote

Parts Diagram



Parts List

Part Number	Description	Quantity
1	Clutch knob	1
2	Socket head cap screw M6	2
3	Cross screw M4	2
4	Side plate	1
5	Sliding bearing	1
6	Mounting frame	1
7	Cross screw M5	2
8	M5 Flange nut	2
9	Tension plate	1
10	Cross screw M6	2
11	Screw M6	1
12	Drum	1
13	Tie bar	2
14	Cotter pin	1
15	Clutch shaft	1
16	Sliding bearing	1
17	Spring location plate	1
18	Spring	1
19	Cross screw M4	2
20	Gearbox cover	1
21	Washer	3
22	Spline	1
23	Dish gear	1
24	2 nd planetary gear assembly	1
25	1 st planetary gear assembly	1
26	Ring gear	1
27	Motor bracket	1
28	Motor assembly	1
29	Control box assembly	1
30	Power cord	1
31	Hook strap	1
32	Switch	1
33	Wire rope & hook	1
34	Hexagon nut M8	2
35	Spring washer 8	2
36	Mounting channel	1
37	Hawse fairlead	1
38	Flat washer8	2
39	Socket head cap screw M8	2
40	Bracket screw	2

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 or 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.



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