



24FT LED STRING LIGHTS

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 #5042761

READ & 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 (if applicable): _____

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 product is designed for certain applications only. Northern Tool and 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

This String Lights are the perfect outdoor garden light for your backyard or garden. Just string them between trees, along a fence line, or in clusters around your space.

Packaging Contents

- String light (1)
- Bulb (14)
- Owner' s Manual (1)
- Fuse (2)
- label (2)
- End cap (1)

Technical Specifications

Property	Specification
Length	24ft
Lighted length	22ft
Spacing	2ft
Input	120v 60Hz
Max wattage per socket	11W
Max String light rated wattage	132W
Connect string lights maximum of Watts total.	432W

Important Safety Information

WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- 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 tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product 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 equipment was designed. This product will be safer and do a better job 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

PROP 65

- This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.p65warnings.ca.gov.
- Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
 - - lead from lead-based paints,
 - - crystalline silica from bricks and cement and other masonry products, and
 - - arsenic and chromium from chemically-treated lumber.
- Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.
- Handling power cords on corded products may expose you to lead, a chemical known to the state of California to cause cancer and birth defects or other reproductive harm. Wash your 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 product in confined work areas may put you dangerously close to cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠️WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool 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.
- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.

⚠CAUTION

PRODUCT USE AND CARE

- Do not force the product. 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 product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Do not use a product with a malfunctioning switch. Any power tool that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power/air supply from the product and place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the product when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product. 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.
- Keep guards in place and in working order. Never operate the product without the guards in place.
- Do not leave the tool running unattended.

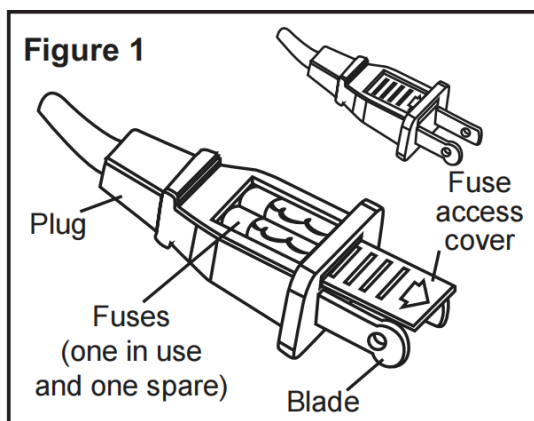
Specific Operation Warnings

⚠WARNING

- Use only two-wire outdoor extension cords that have two-prong grounding plugs and grounding

receptacles that accept the appliance's plug

- Ground Fault Circuit Interrupter (GFC) protection is to be provided on the circuit (s) or outlet (s) to be used for the wet location portable luminaire. Receptacles are available having built-in GFCI protection and are able to be used for this measure of safety
- Use only with an extension cord for outdoor use , such as an extension cord of cord type SEW , SEOW , SE00W , SOWSOOW STW STOW STOOW SJEW SJEOW SJE00W SJWSJOW SJOOW SJTW SJTOW or SJTOOW
- This portable luminaire has a polarized plug (one blade is wider than the other) as a feature to reduce the risk of electric shock . This plug will fit in a polarized outlet only one way . If the plug does not fitfully in the outlet , reverse the plug . If it still does not fit , contact a qualified electrician . Never use with an extension cord unless plug can be fully inserted . Do not alter the plug
- Support cable and hardware not included (sold separately)
- Avoid damage to the insulation during installation . DO NOT pierce or otherwise compromise outer covering of wire or socket ,jacket , or sheathing . DO NOT secure light string to buildings or other structural supports using nails , staples or other sharp , conducting materials that may damage the cord
- This product employs overload protection (fuse). A blown fuse indicates an overload or short-circuit situation. If the fuse blows, unplug the product from the outlet. Also unplug any additional strings or products that may be attached to the product. Replace the fuse as per the user servicing instructions (follow product marking for proper fuse rating) and check the product. If the replacement fuse blows, a short- circuit may be present and the product should be discarded. See Figure1..



- Replace the fuse. (a) Grasp plug and remove from the receptacle or other outlet device. Do not unplug by pulling on cord. (b) Open fuse cover. Slide open fuse access cover on top of attachment plug towards blades. (c) Remove fuse carefully. (d) Risk of fire. Replace fuse only with 5 Amp, 125 Volt fuse (provided with product). (e) Close fuse cover. Slide closed the fuse access cover on top of attachment plug. (f) Risk of fire. Do not replace attachment plug. Contains a safety device (fuse) that should not be removed. Discard product if the attachment plug is damaged.
- Use only 125-volt fuse, 5-amp. max.
- This product is intended for all-year use.
- Always unplug this product before installing or replacing fuses.

Grounding

⚠WARNING

- This machine must be grounded while in use to protect the operator from electrical shock. This unit is equipped with an electrical cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances.
- **DO NOT MODIFY THE PROVIDED PLUG.** If it will not fit the receptacle, have the proper receptacle installed by a qualified electrician.
- **CHECK** with a qualified electrician or service person if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.
- Install or re-lamp light string only during dry and calm weather conditions . Ambient temperatures around 18-35 C / 65-95 F are ideal so the light string will be more flexible

Grounded Tools: Tools with 3-Prong Plugs

Tools marked with **Grounding Required** have a 3-wire cord and 3-prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically live terminal.

Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration.

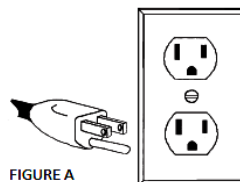


FIGURE A

Double Insulated Tools: Tools with Two-Prong Plugs

Tools marked **Double Insulated** do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B.)

Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration.

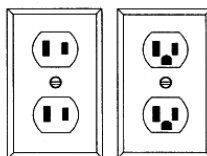


FIGURE B

Extension Cords

⚠WARNING

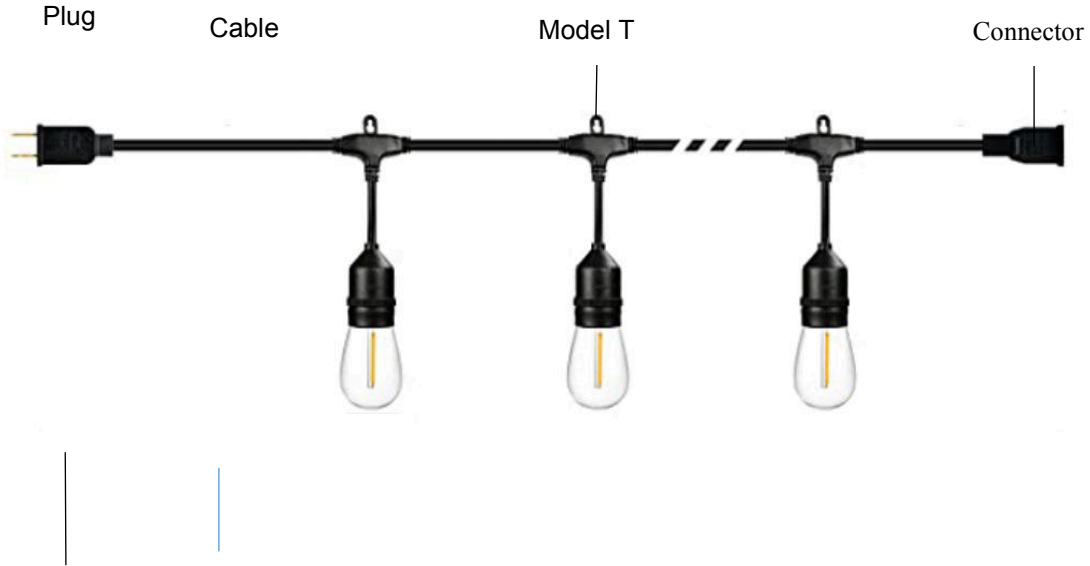
- **USE A PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and cause overheating.
- Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it. Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

- Grounded tools require a 3-wire extension cord. Double Insulated tools can use either a 2- or 3-wire extension cord.
- As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.
- The smaller the wire's gauge number, the greater the capacity of the cord. For example, a 14-gauge cord can carry a higher current than a 16-gauge cord. Minimum extension cord wire size is shown in the following table:


Minimum Wire Size Of Extension Cords				
Nameplate AMPS	Cord Length			
	25'	50'	100'	150'
0-6	18 AWG	16 AWG	16 AWG	14 AWG
6-10	18 AWG	16 AWG	14 AWG	12 AWG
10-12	16 AWG	16 AWG	14 AWG	12 AWG
12-16	14 AWG	12 AWG	NOT RECOMMENDED	

- When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required.
- If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.
- If you are using an extension cord outdoors, make sure it is marked with the suffix **W-A** (**W** in Canada) to indicate it is acceptable for outdoor use.
- Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
- Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

Main Parts of Product



Subassembly	
Plug	_____
Flexible cord	_____
Cable	_____
Model T	_____
Socket	_____
Connector	_____
Flexible cord	_____
Socket	_____
Bulb	_____
Bulb	_____
End cap	_____



End cap

Assembly Instructions

⚠WARNING

- NA

Before Each Use

⚠WARNING

- Before beginning assembly, installation, or operation of product, make sure all parts are present.

Disconnect power at the source prior to attempting to install or service the light string Remove the shrink-wrap on the bulbs prior to use

Operating Instructions

⚠WARNING

- NOTE: Install or re-lamp light string only during dry and calm weather conditions . Ambient temperatures around 18-35 C / 65-95 F are ideal so the light string Will be more flex bile
- NOTE: Support cable and hardware not included (sold separately)
- NOTE: Avoid damage to the insulation during installation . DO NOT pierce or otherwise compromise outer covering of wire or socket jacket , or sheathing . DO NOT secure light string to buildings or other structural supports using nails , staples or other sharp , conducting materials that may damage the cord
- IMPORTANT : When interconnecting multiple light strings , prevent the connection from separating . Mount to support cable or use twine or wire to connect the first and last sockets via the mounting hole at the top of each

Installation: Close plug cap on female end if not connecting multiple string lights, or last set of connected string lights. Then plug the light string into a 120V AC outlet and be sure each light bulb lights. If not, note which one(s) did not light, ALWAYS UNPLUG THE LIGHT STRING, then carefully turn the unlighted bulb(s) until they make contact with the terminal at the top of the socket. Repeat until all bulbs light

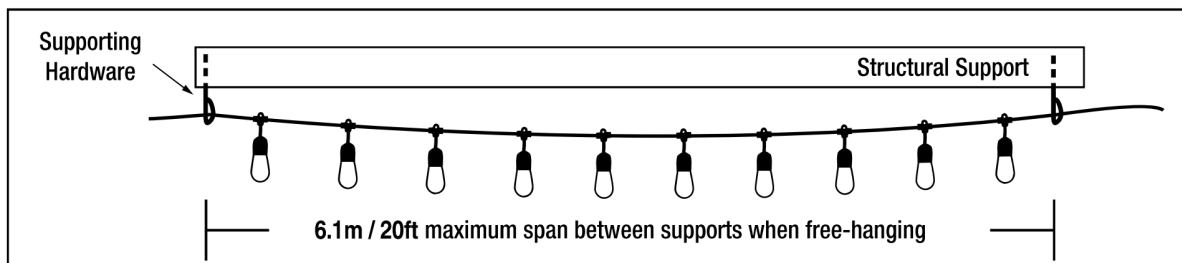
Hanging the light string

a) the light string must be securely attached to a support structure at each end of each span . The maximum unsupported span distance for a Commercial Light String is 6 . 1m / 20ft

b) Secure the light string to supporting hardware (eyebolts , brackets , etc , not included) using cable ties (not included)

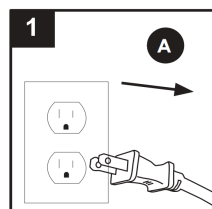
c) For spans exceeding 6 . 1m / 20ft , use properly rated cable support system and cable ties (not included) and follow local codes for hanqing structures and loads

d) Light sockets must be hung so that bulbs are facing down ONLY .DO NOT mount the light string with sockets facing upward Bulbs should hang freely in a downward direction with a minimum of 7.6 cm / 3 in space from the nearest object . DO NOT cluster the bulbs



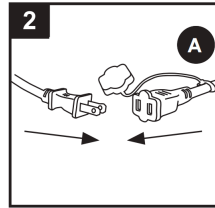
EXTENDING THE SERIES

Ensure that all string lights (A) are unplugged before adding additional string light (A) segments



to the series.

.Connect two string lights together by pushing the male and female end connections together, then tightening the screw-on connection cover. Ensure the last string in the series has its end cap attached.



After Each Use

⚠️WARNING

- NA

Please cut off the power in time when not in use

Maintenance

⚠️WARNING

Disconnect power at the source prior to beginning installation or servicing product

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Maintain the product by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures. It is recommended that the general condition of any tool be examined before it is used. Keep your tool in good repair. Keep all cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control. Keep handles dry, clean, and free from oil and grease. Also refer to the engine manufacturer's instruction manual for additional information about engine maintenance. The following chart is based on a normal operation schedule.

VENDOR: Here is an example of a maintenance chart. Follow the format given. Replace the information in the table (example below) with the correct information. Add any additional information as needed.

Maintenance Interval	Maintenance Point
Every month	<ul style="list-style-type: none"> • If the product is placed on a tree, the tree should be well secured and stable. • Before using or reusing, inspect product carefully. Discard any products that have cut, damaged, or frayed wire insulation or cords, cracks in the lamp-holders or enclosures, loose connections, or exposed copper wire. • When storing the product, carefully remove the product

	from wherever it is placed, including trees, branches, or bushes in order to avoid any undue strain or stress on the product conductors, connections, and wires.
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Troubleshooting

⚠️WARNING

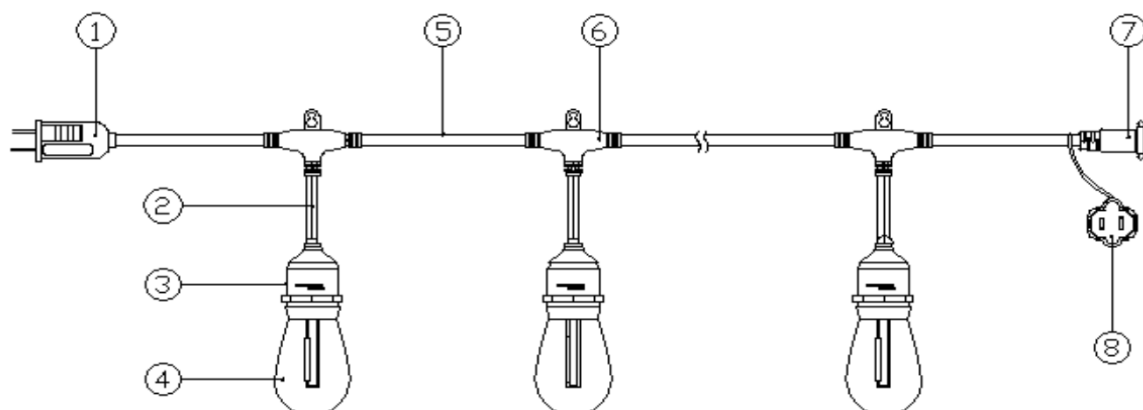
- Check the product carefully. Any cut, damaged or worn product. Wire insulation or cracks, loose connections or exposed copper wires in wires, lamp holders or housings. Do not operate the product

VENDOR: Describe any problems that may occur with the product and how to fix the problems. Use the table below as an example on how to fill in the table. Replace the information in the table (example below) with the information. Add any additional information as needed.

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
The lights will not turn on	bulb is burned out	Replace the light bulb
	The power is off	Ensure the power supply is turned on
	There is a faulty switch	Test or replace the switch
	here is a faulty Wire connection	Check the wiring
	The bulb is not making contact with the terminal.	Check the position of the terminal inside the socket
	The fuse blows or the circuit breaker trips ,	Replace the spare fuse

Parts Diagram



Parts List

Part Number	Part Description	Quantity
1	plug	1
2	Flexible wire	12
3	socket	12
4	bulb	14
5	Cable	1
6	Model T	12
7	Connector	1
8	end cap	1

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 reference 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.



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www.northerntool.com

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