



## 100 Ft. 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 #56957

**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: \_\_\_\_\_

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 light set 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

The Ironton 100 Ft. String Lights feature 10 lamp holders with plastic lamp guards spaced 10 feet apart on a single 125V, 15 Amp, 14/3 cord with a grounded plug. The light set provides an even string of bright lighting.

## Technical Specifications

Property	Specification
Power Supply	125 Volt AC
Max Current Consumption	15 Amps
Cord	14/3
String Length	100 Feet

## 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**

#### **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.
- 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**

### **LIGHT SET USE AND CARE**

- Do not force the light set. 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 light set 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**

- Electrical Shock and Fire Hazard. Do not exceed the marked lamp holder wattage or string maximum wattage including any additional string loads.
- Do not plug in an additional light or appliance that exceeds 375 watts.
- Electric shock hazard. Do not use with an extension cord near water or where water may accumulate. Do not use in wet or damp areas.
- Electric shock hazard. Do not use while standing on wet or damp areas.
- Keep lamp at least 16 feet (5m) from pools and spas.
- Keep plugs and receptacles dry. For use only on GFCI protected circuits in accordance with article 590 of the NEC.
- Do not submerge the light in water. The light is not waterproof. Use extreme caution in any wet location.
- Risk of fire. Keep away from combustibles. Do not leave the light unattended when it is plugged into an electrical outlet. Turn off the light, and unplug it from its electrical outlet before leaving.
- Do not use in the proximity of vehicles or equipment, when there are flammable liquids present.
- Burn Hazard. Do not touch hot surfaces.
- Unplug and allow to cool before replacing bulb. Bulb gets HOT quickly! Only contact On/Off Button/Plug when turning on. Do not touch hot lens, guard, or enclosure. Do not remain close to the light if skin feels warm. Do not look directly at lighted lamp.
- Do not operate without guard.
- Do not touch the bulb at any time. Use a soft cloth. Oil from your skin may damage the bulb.
- Turn off/unplug and allow to cool before replacing the bulb. The bulb gets HOT quickly! Only contact On/Off Button/Plug when turning on. Do not touch hot lens, guard, or enclosure. Do not stand close to the light if your skin feels warm. Do not look directly at the lighted lamp. Keep lamp away from materials that may burn.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
  - Avoid operating alone.
  - Properly maintain and inspect to avoid electrical shock.
  - Properly ground the power cord. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.

- Use plug cover when not in use.
- Not for use by or around children.

## Grounding

### ⚠WARNING

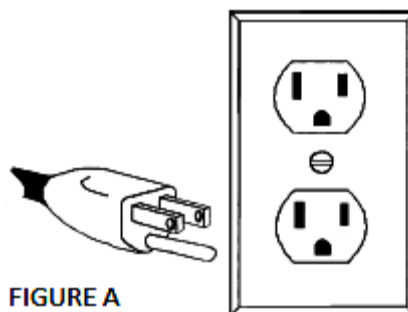
- This machine must be grounded while in use to protect the operator from electrical shock. This unit is equipped with an electrical cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching receptacle that is properly installed and grounded in 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.

### 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.



### 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.

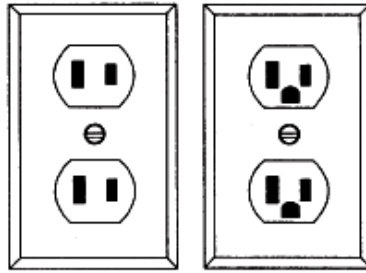


FIGURE B

## 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 gauge number of the wire, 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 Light Set

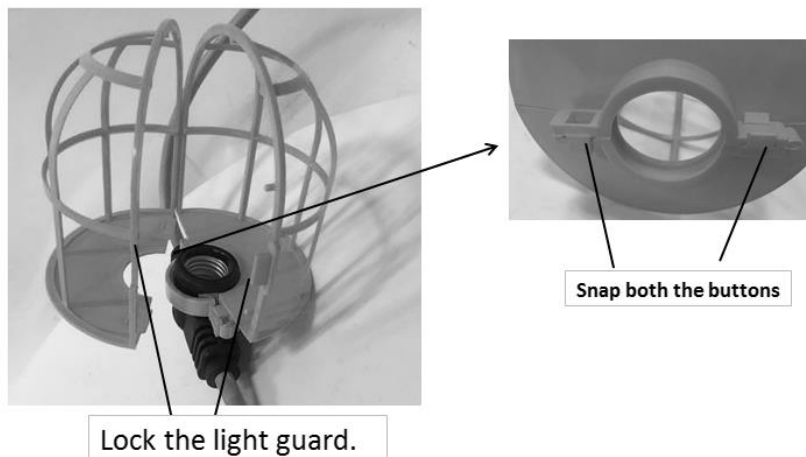
Reference	Subassembly
1	100ft String Light Set
2	Lamp Guards

## Assembly Instructions

### ⚠WARNING

- This light set must be used with the lamp guards installed.
- Make sure the power is turned off.
- There is a risk of accidental starting, resulting in serious personal injury. Deviation from the assembly instructions may result in a risk of fire or electric shock.
- The light string must be supported every 10 feet. Do not use the conductors to support the light set. Hooks or a steel cable must be used.

- Insert the light bulb into the socket (not included).
- Snap the buttons under the lamp guard around the socket, and then close the lamp guard.



- Repeat the process for the remaining nine string lights.
- Connect to the power.

## Before Each Use

### **⚠WARNING**

- The light string must be supported every 10 feet. Do not use the conductors to support the light set. Hooks or a steel cable must be used.
- Always check damaged or worn out parts before using the work light. Broken parts will affect the work light operation.

Inspect the general condition of the light set. Check for:

- Loose hardware,
- Damaged cord/electrical wiring,
- Cracked or broken parts.
- Any other condition that may affect its safe operation.

## Operating Instructions

### **⚠WARNING**

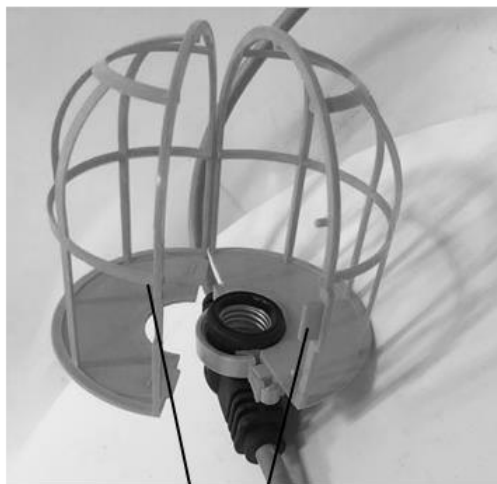
- Electrical Shock and Fire Hazard. Do not exceed the marked lamp holder wattage or string maximum wattage including any additional string loads.
- Do not plug in an additional light or appliance that exceeds 375 watts.
- Electric shock hazard. Do not use with an extension cord near water or where water may accumulate. Do not use in wet or damp areas.
- Electric shock hazard. Do not use while standing on wet or damp areas.
- Keep lamp at least 16 feet (5m) from pools and spas.
- Keep plugs and receptacles dry. For use only on GFCI protected circuits in accordance with article 590 of the NEC.
- Do not submerge the light in water. The light is not waterproof. Use extreme caution in any wet location.
- Risk of fire. Keep away from combustibles. Do not leave the light unattended when it is plugged into an electrical outlet. Turn off the light, and unplug it from its electrical outlet before leaving.
- Do not use in the proximity of vehicles or equipment, when there are flammable liquids present.
- Burn Hazard. Do not touch hot surfaces.
- Unplug and allow to cool before replacing bulb. Bulb gets HOT quickly! Only contact On/Off Button/Plug when turning on. Do not touch hot lens, guard, or enclosure. Do not remain close to the light if skin feels warm. Do not look directly at lighted lamp.
- Do not operate without guard.
- Do not touch the bulb at any time. Use a soft cloth. Oil from your skin may damage the bulb.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in

close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:

- Avoid operating alone.
- Properly maintain and inspect to avoid electrical shock.
- Properly ground the power cord. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.

### Replacing Bulbs

- Unlock the button on the lamp guard and remove the broken bulb.



Unlock the lamp guard

- Insert the bulb (not included) into the socket.
- Close the light guard.

### After Each Use

#### **⚠WARNING**

- Unplug and allow to cool before replacing bulb. Bulb gets HOT quickly! Only contact On/Off Button/Plug when turning on. Do not touch hot lens, guard, or enclosure. Do not remain close to the light if skin feels warm. Do not look directly at lighted lamp.
- Do not touch the bulb with bare hands. Oil from skin will drastically shorten the life span of the bulb if not cleaned with rubbing alcohol and allowed to dry before use.
- Handle the bulb with a soft, clean cloth or clean work gloves.

Allow light set to cool and then wipe external surfaces with a clean cloth.

## Maintenance

### ⚠WARNING

- If the supply cord of this light is damaged, it must be replaced only by a qualified service technician.
- Procedures not specifically explained in this manual must be performed only by a qualified technician.

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 handles dry, clean, and free from oil and grease. The following chart is based on a normal operation schedule.

**TO PREVENT SERIOUS INJURY FROM LIGHT FAILURE:** Do not use damaged equipment. If damage is noted, have the problem corrected before further use.

Maintenance Interval	Maintenance Point
Daily before operating	Inspect the general condition of the light. Check for: loose hardware, damaged cord/electrical wiring, cracked or broken parts, and any other condition that may affect its safe operation.
After each use	Allow the light set to cool and then wipe external surfaces of the light set with a clean cloth.

## Troubleshooting

### ⚠WARNING

- Do not modify the work light in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Always check damaged or worn out parts before using the work light. Broken parts will affect the work light operation.
- When work light is not in use, store it in a secure place, out of the reach of children.
- Inspect it for good working condition prior to storage and before re-use 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
Light does not work.	No power.	Be sure you have power at the source and fixture is properly plugged into the power source.
	Bulb improperly installed.	Be sure that bulb is properly installed

		and both ends of electrical contacts are against the contacts on each end of bulb.
	Bulb is damaged.	Bulb may have been damaged in shipment. Check lamp with another bulb or check bulb with a continuity tester. If bad, replace bulb.

## Parts Diagram



## Parts List

Part	Part Description	Quantity
1	Power Cord with Plug, Outlet, and Socket	1
2	Lamp Guard	10
3	Hooks (not shown)	10
4	Carrying Bag (not shown)	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 **90 days** 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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