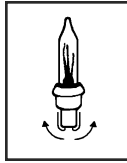


# Light String Troubleshooting

Occasionally a section of lights may go out in your artificial Christmas tree or other holiday decoration. This is typically the result of a bulb that has become loose from the socket. Removing and reinserting the loose bulb should remedy the problem.

Additionally, each light bulb has two small copper wires that come out of the base of the bulb, and fold upwards on each side (see diagram). If one or both of these wires are broken or not in their proper positions when placed into the bulb socket, the bulb will not light. Moving the copper wires into place or replacing the bulb should remedy the problem.



## “One Light Goes Out, the Rest Stay Lit”

This technology uses an internal shunt within the bulb to continue the flow of electricity throughout a light string, even if a bulb has burned out. However, the shunt can fail if a bulb is broken, loose or removed, causing the flow of electricity through the string to stop.

## Visual Inspection

**Discard any light sets that have cut, damaged, or frayed wire insulation or cords, cracks in the lamp holders or enclosures, loose connections, or exposed copper wire.**

An **individual bulb** that is not lighting can be easily replaced with one of the spare bulbs normally included with the product by following the directions in the Assembly Instructions Manual.

If the **entire string** does not light, a fuse may have blown and will need to be replaced. Fuses are located in the light string plug and can be replaced by following the directions in the Assembly Instructions Manual.

If a **section of bulbs** on a string are out, it is normally only one bulb causing the failure. A **Light Tester** is the best way to find the problem bulb. See additional information about Light Testers below.

## Trial and Error

To check for a bad bulb that is causing a section to not light, without the use of Light Tester, will require the removal of individual bulbs.

**Regular Light Strings and LED Light Strings:** Locate the section of unlit bulbs and starting at the end of the section, remove the first unlit bulb and replace it with a new bulb. If the string section does not light, move to the next unlit bulb. Remove this bulb and insert the bulb taken from the previous socket. Continue this sequence until the unlit section of bulbs relights.

**Ready-Lit™ Light Strings:** Though Ready-Lit strings are designed to stay lit under all conditions, there is the rare occasion where a single bulb may cause a section to not light. Locate the section of unlit bulbs and starting at the end of the section, remove the first unlit bulb. If the section lights, the bad bulb has been found and a new bulb can be inserted. If the section does not light, replace the bulb, move to the next unlit bulb, and repeat the process until the bad bulb has been found.

**Low-Voltage LED Light Strings<sup>1</sup>:** If a bulb burns out, the rest of the string will remain lit. Replace burnt out bulbs with the extras that came with the tree. If a bulb is purposely unlocked and removed, six additional bulbs will go out in that section of the string. The light strings are designed this way to aid in locating where a bulb has been removed by isolating the area.

**Low-Voltage LED Light Strings<sup>2</sup>:** If a bulb burns out or is purposely unlocked and removed, seven to eight additional bulbs will go out in that section of the string. The light strings are designed this way to aid in locating where a bulb is burnt out or has been removed, by isolating the area. If a burnt out bulb is causing the section to go out, each bulb will have to be checked individually by removing it and inserting a new bulb until the bad bulb is found.

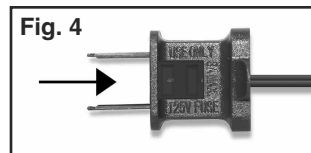
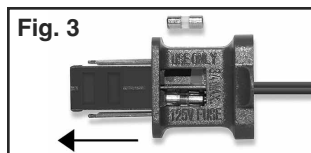
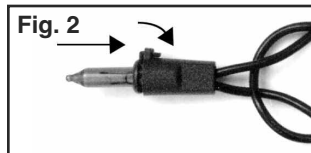
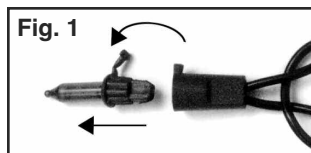
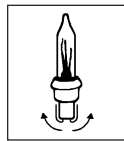
1. Trees produced in 2012 or after. 2. Trees produced prior to 2012.

### Light Testers

Light testers can be found at major retailers like Lowes and Home Depot, at local garden centers and at online stores such as Amazon. Follow the instructions that come with the tester for the easiest and most effective way to find the bulb causing a string section not to light.

## UL REGULAR & READY-LIT LIGHTS Bulb Replacement Instructions

1. Unplug light string from power source.
2. Pull up on the Bulb Lock unlatching the bulb from the bulb socket. Gently pull the bulb straight out (Figure 1).
3. Before inserting the new bulb into socket, make sure that the two wires on either side of the bulb base are straight up and flush with the base (diagram at right).
4. Carefully insert new bulb into socket and push down Bulb Lock until it snaps into place (Figure 2).



## FUSE Replacement Instructions (UL Regular & Ready-Lit Lights Only)

1. Unplug light string from power source.
2. Fuses are located in light string plug. Slide the fuse access cover away from cord side (in direction of arrow, Figure 3) exposing fuses.
3. Remove fuses from compartment and examine. Replace burnt out fuse with new one.
4. Close fuse compartment by sliding access cover back in towards cord side of plug (Figure 4).

## LOW VOLTAGE LED LIGHTS Bulb Replacement Instructions

1. Unplug light string from power source.
2. Pull up on the Bulb Lock unlatching the bulb from the bulb socket. Gently pull the bulb straight out.
3. Carefully insert new bulb into socket (bulb is keyed and only goes in one way) and push down Bulb Lock until it snaps into place.

