

Troubleshooting Incandescent Christmas Light Strings

Brian Saper

Plug in string and see if it lights

Unplug string and count bulbs. Inspect for loose or missing bulbs, Wiggle bulbs to see if they are firmly seated.

Check each bulb to see if the filament looks intact. Alternately if you have an electrical test for good bulbs you could remove each bulb, inspect that the leads are in correct position down sides and test the bulb to see if it lights or at least has an electrical path through it. Bad bulbs could be replaced and another plug in test.

Use a clothes pin to keep marked where in the string you have tested.

Put bad bulbs in a dish separate from spare bulbs.

Remember shunts make bad bulbs test good but they won't light. But they won't prevent the good bulbs from lighting.

Using noncontact voltage tester you can follow the power as it goes around the string of bulbs. Plug in the string and start at the plug wire and follow the wires to first bulb. Slide the bulb holder with its 2 wires away from the bundle of wires. See if the noncontact voltage tester (NCVT) lights after you turn it on and hold it close to the 2 wires. If it doesn't, unplug the string and reverse the plug to position 180 degrees from the first orientation and plug back in. See if the voltage tester sees power at first bulb now. If it does move down the wire to next lamp holder and pull it away from bundle. You should see power on this bulb's wires. Continue following the wire until you have no power. Mark spot with clothes pin. Then test the bulb and the previous one. Unplug string and remove and test bulbs. Replace if bad and put bad bulbs in dish. Plug back in. Continue until the string lights by repeating.