

Inspecting Holiday Light Sets

Decorative Christmas tree lights make the holiday season brighter, but they can be hazardous, causing electric shock and fire. About one-fifth of the injuries from holiday decorations treated in hospital emergency rooms are associated with Christmas tree lights, according to U.S. Consumer Product Safety Commission (CPSC) reports.

To ensure a safer holiday season, Texas State Fire Marshal Chris Connealy urges Texans to take a few extra moments -- before beginning to decorate -- to examine holiday light sets for possible defects. These basic safety precautions can help reduce the risks of fire or electric shock from defective bulbs or light sets.

For all types of Christmas lights:

With the lights unplugged, check light strings for frayed insulation, loose connections, and exposed bare wires. Repair or discard sets displaying these potential trouble spots.

Check all light sockets to make sure none of them is broken or cracked. If sockets are broken or cracked, throw the light set away. After examining each set, place it on a non-flammable surface and plug it in for 10-15 minutes before decorating. If the set is not working properly, or if bulbs don't light, repair or discard it. Unplug the set when decorating.

Do not cover bulbs with decorations not supplied with the set. The set may not be designed to handle the increased heating and could melt, thereby exposing live parts.

For miniature Christmas lights:

When replacing miniature bulbs, use bulbs with the same voltage rating (e.g., a 3 volt bulb to replace a 3 volt bulb, a 12 volt bulb to replace a 12 volt bulb) to prevent dangerous overheating, melting, and possible fire. Bulbs are not marked individually with a voltage rating, so save the voltage information on the bulb packaging.

Promptly replace burned out bulbs because the remaining bulbs burn brighter and hotter for each burned out bulb. Light sets with bulbs that burn out rapidly or sets that show signs of melting around bulbs are early indications of defective or incorrect lamps. These sets should not be used.

People often tightly wrap or bunch miniature lights together into a cup or pot for special effects. Unless the set is designed or recommended for this use, the heat generated by bunching the lights together may result in melting, which could expose live parts. Christmas lights are designed for decorating trees and objects where bulbs are separated and their heat is not concentrated.

For Christmas light sets with standard-size bulbs:

Examine each light bulb for improper assembly. If the glass readily separates from the bulb's base, the bulb should not be used.

Check each light bulb for protruding wires from the solder tip at the bulb's base or at the side of the bulb where the glass meets the base. If you find wire protrusions, repair the defect by cutting as much of the protruding wire off as possible. Check each light bulb for excessive or irregular solder at the bottom and side of each bulb base, which may prevent complete insertion of the bulb into the socket. Bulbs in this condition should not be used.

Inspect carefully the interior of each light socket. Light sets with standard-size bulbs often have bulbholders with two metal tabs inside each socket. With the set unplugged, check to see if tabs are used. If they are, there should be a side tab and a center contact at the bottom. If these two

metal parts come together when a bulb is inserted, or if these two parts are both upright, a short circuit will occur when the set is used. If you are not sure that the tabs in the socket are correctly located, have a knowledgeable repair person check the set before you use it.