

Electrical Safety at Christmas

Christmas lighting quick reference guide

Keep with your Christmas lights for future reference!



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Community Safety
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Are your old Christmas lights still Safe?


Once a year, twinkling fairy lights and colourful Christmas illuminations are retrieved from damp, dusty storage spaces to decorate our homes for the festive season. But, poorly stored, old electrical decorations and overloaded sockets can create unnecessary hazards at this time of year. Your existing lights may not be designed to contend with damp winter weather or meet new rigorous safety standards. If in doubt about the quality of your lights, the safest and most sensible solution is to replace them from a reputable supplier.


What to consider when buying new Christmas lights

Christmas lights operate at either mains voltage (230 volts) or extra-low voltage (typically 12-24 volts). Extra-low voltage Christmas lights are often described as “low voltage” on product packaging.

The safest Christmas lights operate at extra-low voltage because they are powered by a Safety Extra-Low Voltage transformer that will significantly reduce the risk of electric shock, even if there is a fault or a lamp breaks.

The rated voltage of Christmas lights should be marked on the product and is normally stated on the product packaging or user instructions.

Christmas lights that operate at **extra-low** voltage should be marked with a  symbol.

Christmas lighting chains that operate at **mains** voltage should be marked with a  symbol.

The most common types of Christmas lights use either traditional filament (incandescent) lamps or LEDs (light emitting diodes). Christmas lights that use traditional filament lamps can operate at either mains voltage or extra-low voltage, whereas LEDs only operate at extra-low voltage.

The Electrical Safety Council recommends the use of “LED” over traditional “filament” Christmas lighting because:

- they operate at extra-low voltage which significantly reduces the risk of electric shock
- they use much less power, generating little heat and so reducing the risk of fire and burns. This makes them safer to use.
- they are estimated to use 80-90% less electricity than filament lamps so they are less expensive to run and typically last up to 60 times longer.
- they are more durable. Because LED lights are made of a special plastic with no filament there are no glass lamps to break.
- they are a great deal more efficient to run and good at saving energy so are more environmentally friendly.

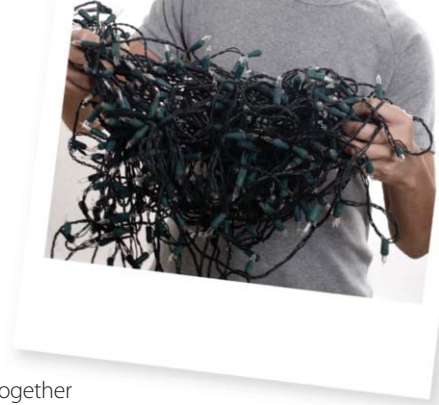
Simple precautions and checks:

Always

- ✓ read and follow the manufacturer's instructions, and retain instructions for future reference
- ✓ check that your Christmas lights are not damaged or broken before use and look out for loose wires
- ✓ use only replacement lamps of the same type and rating as those originally supplied with the lights
- ✓ ensure all outdoor lights are connected via a 30mA RCD protected socket. An RCD is a life-saving device that protects against dangerous electric shock and reduces the risk of electric fires
- ✓ replace failed lamps immediately to prevent overheating - if lamps are not replaceable, the whole lighting product may need to be replaced
- ✓ ensure that plugs and transformers are plugged-in indoors, even if the lighting is suitable for outdoor use
- ✓ switch Christmas lights off before you go to bed or go out - even Christmas lights need a break!
- ✓ keep lights away from flammable decorations and other materials that can burn easily
- ✓ keep the packaging for safe storage after use. Avoid storage in damp or excessively hot conditions

Never

- ✗ use the lights outdoors unless specially designed for such use
- ✗ connect different lighting sets together
- ✗ connect lights to the supply while in the packaging
- ✗ remove or insert lamps while the chain is connected to the supply
- ✗ overload sockets and try to avoid the use of extension leads or adaptors
- ✗ allow children to play with Christmas lights
- ✗ attempt to repair faulty lights – replace them
- ✗ use lights that are damaged or faulty




IN CASE OF AN EMERGENCY:

If somebody does suffer from an electric shock – make sure you switch off the electricity first, then remove the casualty from danger if safe to do so and contact the emergency services.

Make sure you know where your fuse box is located so you can reach it quickly in an emergency.

Other safety markings to look out for...

Christmas lights marked with a  symbol **should not** be used outdoors.

Christmas lights marked with a  symbol are suitable for mounting on normally flammable surfaces, such as wood.

Christmas lights suitable for outdoor use must, as a minimum, be classified as rain-proof.

Lighting suitable for outdoor use should be marked with a water drop symbol or an IP Code as shown in the table opposite.

IP Codes are sometimes referred to as "Ingress Protection Ratings". The last digit indicates the level of protection that the equipment provides against penetration of water. The higher the number, the greater the degree of protection, and to ensure that Christmas lights are safe for outdoor use, the number should be 3 or more.

The Electrical Safety Council wish you a Safe and Happy Christmas!

The Electrical Safety Council





Unit 331, Great Guildford Business Square, 30 Great Guildford Street, London SE1 0HS

Helpline: 020 3463 5100 Fax: 020 3463 5139

Email: enquiries@esc.org.uk Web: www.esc.org.uk

Registered Charity (England and Wales) No. 257376 (Scotland) No. SC039990

The Electrical Safety Council (ESC) is a charity committed to reducing deaths and injuries caused by electricity.

	Symbol	IP Code
Low		IPX3
Level of protection ↓ High		IPX4
		IPX5
		IPX7

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