

Electrical Safety First

The UK's electrical safety experts

Christmas lights

Electrical safety for the festive season



Are your old Christmas lights still safe?

Once a year, twinkling fairy lights and colourful Christmas illuminations are retrieved from damp, dusty storage spaces and used to decorate homes for the festive season. But, poorly stored and old electrical decorations and overloaded sockets can create unnecessary hazards at this time of year.

Lights you have used for years may not be designed to contend with damp winter weather or meet rigorous new safety standards.

Keep this leaflet with your Christmas lights for future reference.



What to consider when buying new Christmas lights

If in doubt about the quality of your lights, the safest and most sensible solution is to replace them from a reputable supplier.

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 its 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.

Electrical Safety First 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

If in doubt about the quality of your lights, the safest and most sensible solution is to replace them from a reputable supplier.

Always

- Read and follow the manufacturer's instructions, and keep them 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 by an RCD-protected socket. An RCD is a life-saving device that protects against dangerous electric shock and reduces the risk of electrical 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 lights off before you go to bed or go out.
- Keep lights away from flammable decorations and other materials that can burn easily.
- Keep the packaging for safe storage after use. Avoid storing lights in damp or excessively hot conditions.

Never

- Use lights outdoors unless they are specifically 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 rely on extension leads or adaptors.
- Allow children or pets to play with Christmas lights.
- Attempt to repair faulty lights – always 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 fusebox is located so you can reach it quickly in an emergency.

Other safety markings to look out for

To ensure that your lights are safe for their intended use, check the symbols and codes on the packaging and use the table below as a guide.

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

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. To ensure that your lights are safe for outdoor use, the number should be three or higher.

Outdoor lighting		Symbol	IP Code
	Rain-proof		IPX3
	Splash-proof		IPX4
	Jet-proof		IPX5
	Watertight		IPX7

Find out more

For more information about electrical safety visit:

electricalsafetyfirst.org.uk

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Electrical Safety First is the UK charity dedicated to reducing deaths and injuries caused by electrical accidents. Our aim is to ensure everyone in the UK can use electricity safely.

electricalsafetyfirst.org.uk

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