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Volume 1 / Issue 1

Why do some light bulbs blow frequently?

The frequent blowing of light bulbs does not mean you have a major wiring fault. This is a common issue that has been looked into many times over the years. If you were to have a wiring fault in your circuit then it would have been picked up by your fuses or MCB's long before it gets to the bulb. Simply put once power is getting to the light fitting at the correct voltage the bulb will light.

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Q: What is the main reason for bulbs and lamps to blow?

A: There are a few reasons why bulbs blow. The major one however is the fitting of cheap bulbs, in particular the ones purchased from supermarkets or large DIY chains. The elements in these cheap bulbs are much thinner than those of the more expensive branded bulbs and a surge of power, however slight, simply breaks them. Vibrations caused by closely located machinery (Fans, Pumps etc.) can have the same effect.

Q: Are there other reasons for bulbs and lamps to blow?

A: A loose connection in the fittings bulb holder can also cause bulbs to blow. This is because the circuit is not completed as tightly and securely as it should be and the electricity may have to 'arc' or jump across the contacts rather than simply flowing through it. When this 'arcing' happens it produces more heat in the fitting than is expected or catered for by the bulb. Over a relatively short period of time this will weaken the bulb and the bulb will prematurely blow.

Q: Any other reasons?

A: The same can happen if the spring loaded connection in the bulb holder is loose. This again will cause 'arcing' across the contact, this causes too much heat and again the bulb will prematurely blow. This can be easily diagnosed by inspecting the contacts at the bottom of the bulb to see if the contacts are pitted. Arcing electricity effectively melts the metal it is arcing onto (the same way arc welding works) so if the bulb contacts are being subjected to arcing, tiny little indentations can occur, this is called pitting.

SAFETY FIRST: Before you attempt any work on your electrical system you must isolate properly the circuit you are working on. If you are in any doubt whatsoever then please call a qualified electrician who can advise you accordingly.



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Q: Why do my circuit breakers (MCB's) trip when my bulb blows?

A: When a bulb or lamp blows, 90% of the time the fuse for the lighting circuit will blow or the breaker (MCB) will trip. This makes the problem seem a lot worse than it is. The reason for a blowing bulb or lamp tripping an MCB is that the bulb or lamp element gets thinner during its life to the point where it breaks at its thinnest point, this part of the element will melt just before failure. The resistance of the overheating element will momentarily be very low and a current surge is then caused thus tripping the MCB or blowing the fuse.

Q: Is it worthwhile changing my bulbs and lamps to compact fluorescent or LED types?

A: Absolutely ! Not only are fluorescent and LED bulbs and lamps much cheaper to run but there is no element to 'blow'. This on its own will reduce the rate that you end up changing them.

So, some things to look into if your bulbs keep blowing:

- Your bulb supplier - Buy expensive (branded) bulbs it's cheaper in the long run □ The connections inside your bulb holder- Are the screw terminals tight and secure ?
- The bulbs electrical contacts – The point of contact for the bulb to the fitting is often spring loaded
- Changing bulb type - Consider changing your bulbs to compact fluorescent or LED types

“Is it worth changing my bulb type ? Absolutely ! Not only are fluorescent and LED bulbs much cheaper to run but there is no element to 'blow'”

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