

Why do my LED Lights Flicker?



All mains-powered light sources flicker all the time, but the flicker is not interpreted by the human eye when the flicker rate is high. Some people report that their LED lights flicker, including newly-installed bulbs. Some reasons why LEDs may flicker are:

Dimmers

Putting a dimmer on an LED circuit poses more risks for flickering. Old style dimmers are not compatible with LED lights, so if you are installing LEDs, you **MUST** upgrade the dimmer to one that is declared compatible with the LED manufacturer's specifications.

Drivers (Transformers)

LED lights must be matched with a specific quality driver, usually specified by the manufacturer who has often undertaken extensive tests. A mismatched or low-cost driver can be a source of flickering.

The Ripple Effect

The ripple effect is a consequence of "ripple control", which allows electricity suppliers to manage the peak demand for electricity. Without it, electricity grids wouldn't be able to cater to everyone's needs.

As ripple control reduces energy supply, having numerous appliances on can make the ripple effect more obvious. Even if energy supply drops, these devices continue to consume the same amount of energy. This means there would be less power left for the LED lights.

Inrush Current from Other Appliances

Inrush current is the initial energy drawn by appliances when you first switch them on. Because they suck a lot of power, they can cause a voltage reduction which can cause LED lights to flicker or dim. Since LEDs use less energy, further reducing the flow of current to them can make them turn on and off.

Overloaded Circuits

If the circuits on your switchboard are overloaded due to too many appliances, one sign could be flickering LED lights. As you keep adding appliances to your home, a circuit overload can occur, causing flickering in LED lights.

Loose Connections & Dirty Sockets

Sometimes, flickering LED lights are a simple case of loosely-fitting bulbs. Even the slightest bulb movement can lead to intermittent flickering.

Over time, dust can accumulate on the surfaces of your LED bulbs and creep into the socket. If the lighting fixtures haven't been wiped for a long time dirt may be causing flickering LEDs.

Loose Electrical Wiring

Many older homes develop an array of electrical problems that might be the reason your LED lights keep flickering.

Conclusion

There are many factors that affect the performance of your LED lights. We will work to find the best technical solution we can, but we cannot control any of the problems that can occur within your household's environment.

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