EMI FILTER

LIFEMI1

EMI FILTER FOR 240VAC SMOKE ALARMS

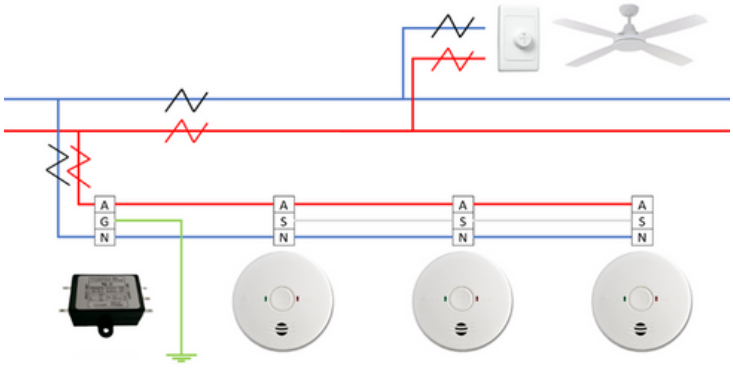
If you have ever experienced random or unexplainable false alarms, sporadic chirping, or alarms triggered from switching a ceiling fan, light switch or when your hot water system turns on, then your smoke alarm is probably being affected by EMI.

What is Electromagnetic Interference?

Electromagnetic Interference or EMI is unwanted or unpredictable behavior from an electronic device when it is exposed to Electromagnetic noise. Electromagnetic noise can be broken down into two different categories, Naturally Occurring, (EMI caused by lightning Storms), or Manmade (EMI caused by electrical circuits). As electronic devices become more complex and sophisticated, they are becoming more sensitive to EMI then and problems may begin to arise. One of the most common sources of EMI is when you change the speeds of your fan. The sudden change in current load causes electromagnetic pulse within the circuit, this can negatively affect anything on a connected circuit and can sometimes cause smoke alarms to trigger.

How does the LIFEMI1 work?

There are three EMI ways EMI can affect a device. EMI is either radiated, coupled, or conducted. The LIFEMI1 Electromagnetic Filter is designed to filter out conducted which is EMI that is transmitted through wiring or cables directly connecting an EMI source to the smoke alarm.



EMI is usually high frequency, so the LIFEMI1 is designed to filter out High frequency noise and give the unwanted currents a path to ground and allow the clean current to flow through to the smoke alarm or device. The LIFEMI1 is best used at the start of a circuit before the smoke alarm or device which is being affected. It's important that there are no other devices present on the circuit after the EMI filter, otherwise EMI can be created after the filter and affect the smoke alarm.