

Transcript:

Mitigating Electronic Product Radiation a.k.a. Radio Frequency Interference (RFI)

Many electrical devices emit radio frequency radiation during operation and can therefore cause symptoms of radio frequency sickness.

The radiation emitted is also called Radio Frequency Interference (RFI). It is a biologically important source of exposure to radio frequency radiation.

RFI and "dirty" electricity exposure can easily be reduced using simple capacitive filters.

The FCC and FDA should be protecting public health by requiring RFI sources to be filtered sufficiently to prevent biological effects.

This demonstration utilizes DC motors, but AC electronic products also emit RFI and cause "dirty" electricity.

[The narrator shows that there are no capacitive filters in the first sump pump with the green tape, but that there are capacitive filters in the second sump pump. Red writing: This motor does not have a capacitor filter installed. You can still hear the loud noise when the motor is away from the radio. Green writing: This motor has the RF filter installed which eliminates a lot of RF noise frequency. The radio has to be close to the motor before you hear some noise.]

Capacitive filter: 0.1microfarad ceramic capacitors, rated for 100 volts

Filtering capacitors should be rated at least four times higher than the operating voltage which is 24 volts DC in this case.

We are using an AM radio to detect the RFI emitted by these sump pumps.

[This is followed by a demonstration showing how loud the RF emissions of the unfiltered sump pump are compared to the filtered sump pump.]

This was a simple filtering job by non-electrical engineers. Engineers should be able to do much better if the FCC and FDA require them to.

This demonstration of electronic product radiation clearly shows why individuals with radiofrequency sickness get symptoms with exposure to many electrical devices.

It also demonstrates why over-exposure to certain electronic products during operation can CAUSE radio frequency sickness.

We gratefully acknowledge CPS Motor Repair for their assistance with installation of the capacitive filters and filming the demonstration.

Please see www.ElectricalPollution.com for more information.