

Old Aluminum Wiring Foils Safety

Copper is the preferred and predominate metal used in electrical wiring. However, due to a surge in copper prices between the late 1960s and the mid-1970s, many homes instead used aluminum wire throughout residential distribution systems. Years later, reports of fires began to reveal hazardous conditions caused by the use of aluminum wiring.

Many receptacles and switches manufactured during this time were not intended for use with aluminum wire. This incompatible equipment, combined with poor installation practices, resulted in loose or deteriorating electrical connections, which pose a potential fire hazard. A national survey conducted by Franklin Research Institute for the U.S. Consumer Product Safety Commission showed that homes built before 1972, and wired with aluminum, are 55 times more likely to have one or more wire connections at outlets reach "Fire Hazard Conditions" than homes wired with copper.

According to the CPSC, an estimated 2 million homes were built or remodeled between the late 1960's



and mid-1970's to include aluminum wiring. If you are unsure whether your home is among them, look at the printed or embossed markings on the outer jacket of the electric cables, which are visible in unfinished basements, attics, or garages. Cable with aluminum conductors will be marked on the sheath with "Al" or "Aluminum" along its length. If you are unable to determine the type of wiring, contact a qualified electrician to investigate.

There are a variety of options to help mitigate the risk of fire caused by aluminum wiring. To understand your home's unique risks and needs, a qualified electrician should conduct an inspection. Together you can explore solutions to accommodate your budget, ranging from complete replacement with copper wiring to permanent repairs at the connections. This is not a do-it-yourself project and all modifications to installed wiring should be performed and inspected in compliance with local regulations.

IS YOUR HOME AT RISK?



- Is your home **40 years old or older**?
- In the last 10 years, has your home undergone a **renovation or added a major new appliance**, such as a refrigerator or air conditioner?
- Are you the **new owner of a previously owned home**?

If any of the above are true, ESFI recommends you have an electrical inspection conducted by a qualified electrician or electrical inspector to ensure your home's safety.



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