Arc-Fault Circuit Interrupters (AFCIs): Prevent Electrical Fires Infographic





What is an Arc-Fault?

An Arc-Fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring or devices. Arc-faults can occur when older wires become frayed or cracked, when a nail or screw damages a wire behind a wall, or when outlets or circuits are compromised.

Why do I need Arc-Fault Protection?

The National Fire Protection Association reported 47,700 home fires involved some type of electrical failure or malfunction in 2011. The Consumer Product Safety Commission (CPSC) estimates that more than 50% of electrical fires that occur every

year can be prevented by Arc-Fault Circuit Interrupters (AFCIs).

Arc-Fault Circuit Interrupters are available as:

Breakers

- Branch / Feeder AFCI Breaker
  - First generation AFCI breaker protection. AFCI protection originally required by the 1999 National Electrical Code (NEC)
  - Moderate fire prevention
  - Trips when a parallel arc between hot and neutral conductors is detected
- Combination Type AFCI Breaker
  - Branch / Feeder AFCI breaker were phased out as of January 2008 and replaced with Combination Type AFCI breakers
  - Enhanced fire protection
  - Provides the same protection as Branch / Feeder AFCIs and detects lower level series arcing in both branch circuits and power cords

Receptacle

- AFCI Receptacle
  - Provides protection from Arc-Faults beyond branch circuit wiring extending to appliances and cords plugged into the receptacle
  - Enhanced fire protection
  - Protects all downstream wire and appliances from both parallel and series arcs, and also protects from series arcs upstream in the wiring between the source of the circuit and the first outlet of the circuit

AFCI Breakers and receptacles should be tested monthly
All electrical systems should have an electrical inspection if the home is older than 40 years or has had a major addition, renovation, or large appliance added
AFCIs should be installed by a qualified electrician

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