

# AFCI PROTECTION

## ARC FAULT CIRCUIT INTERRUPTERS

### 2013 CALIFORNIA ELECTRICAL CODE 210.12

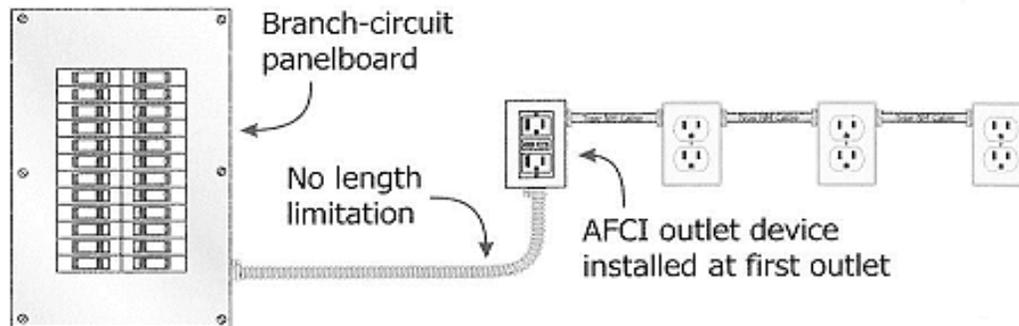
AFCI's are intended to provide fire protection by opening the circuit if an arcing fault is detected. They look similar to GFCI breakers and AFCI's do provide some protection against shock hazards, though not at the level required for GFCI's.

All AFCI's are required to be the "combination" type, rather than a "branch/feeder". Protection can be in the form of a circuit breaker or an outlet. However, the wiring from the circuit breaker to the AFCI outlet must be metal clad. The outlet downstream may be wired using non-metallic sheathed cable.

AFCI protection is required for 15A & 20A branch circuits supplying outlets in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, & similar rooms or areas. An outlet is defined as a point on the wiring system at which current is taken to supply utilization equipment. Outlets include lights, switches, receptacles, and smoke detectors/carbon monoxide alarms.

### 210.12(A) Ex. No. 1 Outlet Type AFCI

Main rule at 210.12(A) requires AFCI combination-type protection installed to provide protection of the entire branch circuit



**Ex. No. 1:** If RMC, IMC, EMT, Type MC or steel armored Type AC cables meeting the requirements of 250.118 and metal outlet and junction boxes are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a outlet branch-circuit Type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.