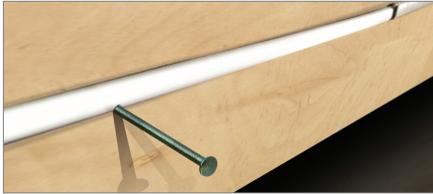


What Causes Arc-Faults?

Often unseen, arc faults can occur anywhere in the home's electrical system including:



Within walls from nails, screws or staples inadvertently driven into wires



Through old or cracked wires or cords



At loose electrical connections or cords damaged by doors closing on them



Within electrical cords accidentally damaged by furniture resting or pressing upon them

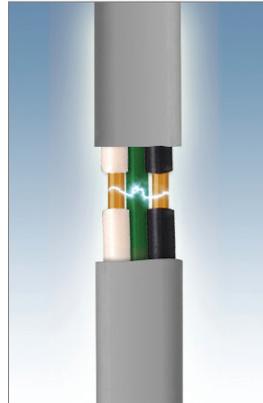


Through wires or cords damaged by heat, sunlight or humidity

What are Arc-Faults?

An arc-fault is an unintentional arcing condition in a circuit. Arcing creates high intensity heating at the point of the arc resulting in burning particles that can exceed 10,000 degrees Fahrenheit and may over time ignite surrounding material such as wood framing or insulation. There are two types of potentially dangerous arcs – parallel arcs and series arcs. The illustrations below depict the dangerous current flow as it occurs in both events.

Parallel arc



Series arc



The U.S. Fire Administration (USFA) National Fire Incident Reporting System reported that in 2011, an estimated 47,700 home structure fires reported to U.S. fire departments involved some type of electrical failure or malfunction as a factor contributing to ignition. These fires resulted in 418 civilian deaths, 1,570 civilian injuries, and \$1.4 billion in direct property damage. According to the National Fire Protection Association (NFPA), arc-faults are “the principle electrical failure mode resulting in fire”.



SmartlockPro® Outlet Branch Circuit AFCI Receptacle



Leviton Manufacturing Co., Inc.

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Telephone: 1-800-323-8920 • FAX: 1-800-832-9538
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NEC is a registered trademark of the National Fire Protection Association, Inc.

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Advanced technology helps protect against electrical fires resulting from arc-faults.

Whole house electrical safety is a tall order, but with the new SmartlockPro® Outlet Branch Circuit (OBC) AFCI Receptacle Leviton is the first to develop a receptacle to offer added protection from arc-faults. The Leviton OBC AFCI Receptacle is designed to identify potentially dangerous arc-faults and respond by interrupting power to help prevent arc-faults that may lead to a fire. SmartlockPro OBC AFCIs may be used on any wiring system as specified by the National Electrical Code® and are easy to install in both new construction and retrofit applications.

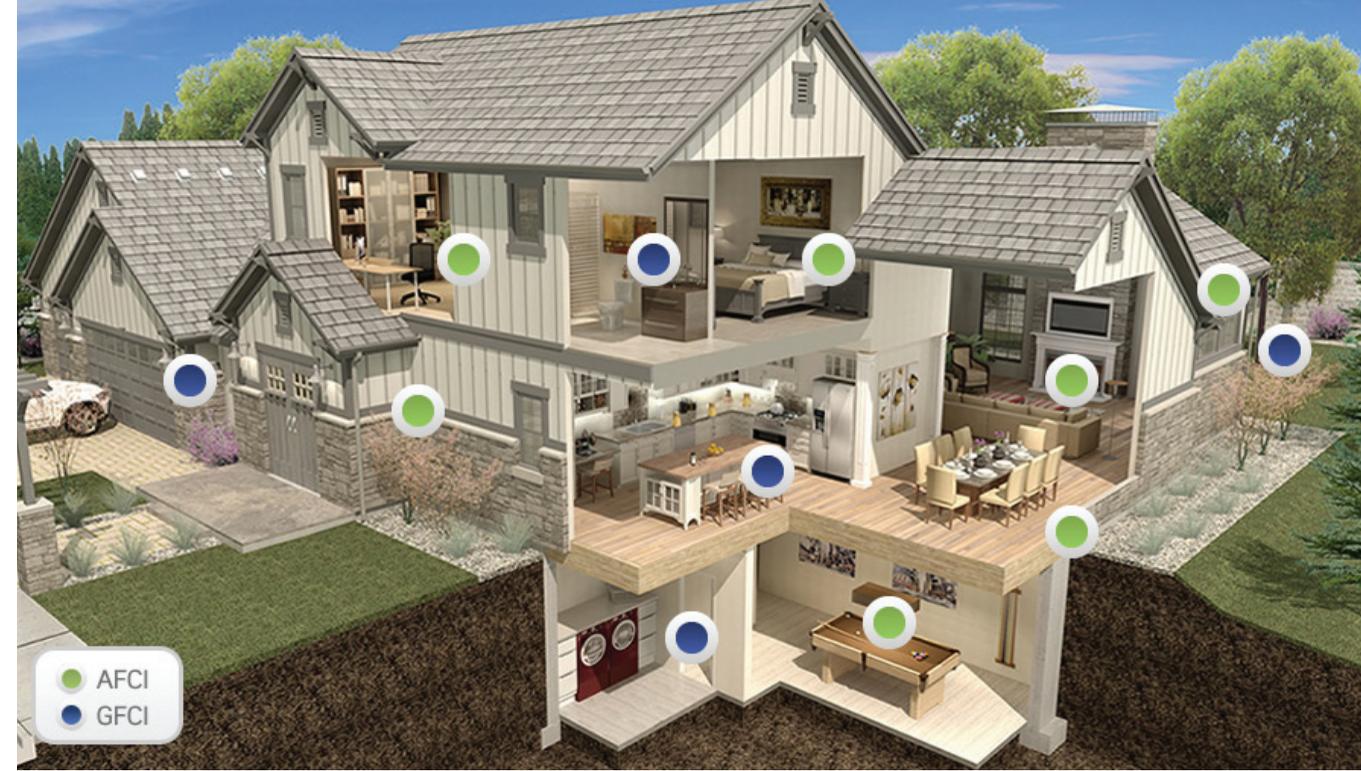
Based on the wiring method employed, the SmartlockPro OBC AFCI Receptacle provides a sensible option to arc fault breakers. The device features a TEST and RESET button on the face of the receptacle which offers homeowners the convenience of localized control so there is no need to examine the circuit breakers. Leviton OBC AFCI Receptacles provide feed-through protection and are able to detect downstream arc-faults, both parallel and series, as well as upstream series arc-faults.



● Meets latest UL Requirements

Lockout Action

- Automatically tests the AFCI every time the RESET button is depressed; the AFCI will not reset if the AFCI circuit is not functioning properly or if protection has been compromised
- A line-load reversal diagnostic feature is provided which prevents the AFCI from being reset and stops power from being fed to the AFCI receptacle face or through to downstream devices if the AFCI is incorrectly installed



According to the current National Electrical Code, AFCIs are required in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways or similar rooms or areas. The Code* applies to new construction and for branch circuit modifications, extensions or replacement receptacles. It is also very easy to add AFCI protection to existing wiring in older homes.

GFCIs are required by code in wet or damp locations such as kitchens, bathrooms, basements, laundry rooms, garages, porches and any other areas where water may be present.

*To learn more about Code requirements for AFCIs in your state visit leviton.com/afci

AFCI vs. GFCI

AFCI	GFCI
Provides protection from electrical fires that could result from arc-faults	Protects people from shocks and electrocution
Works by detecting potentially hazardous arc-faults and quickly cutting off power	Works by interrupting power if a ground fault is detected

