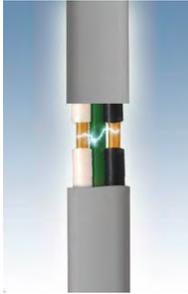


## CONSUMER AFCI FAQ's

### ***What is an arc-fault?***

The UL Standard for AFCIs defines an arc-fault as an unintentional arcing condition in a circuit (wiring). Arcing creates high intensity heat (may exceed 10,000 degrees Fahrenheit) resulting in burning particles that may over time ignite surrounding material such as wood framing or insulation. Samples of types of arcing that can occur:



**Parallel Arc**



**Series Arc**

### ***What causes an arc-fault?***

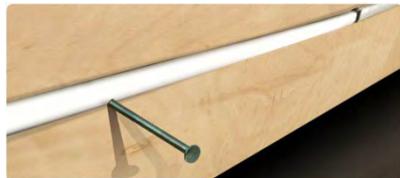
There are a wide range of conditions that may cause arcing.

#### **Wire Degradation**

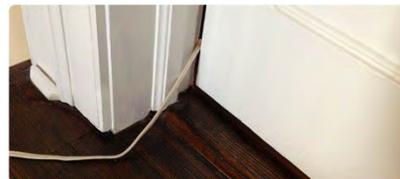
- Natural degradation through age
- Humidity or heat
- Extended mechanical stress
- Extended voltage stress

#### **Physical Damage**

- Animals chewing through insulation
- Nails, tacks from construction or picture hanging driven into a wall puncturing or damaging a wire(s)
- Extension or power supply cord damage from sharp bends or furniture pressing on against cords
- General cord damage
- Poor wiring or connection at devices/j-boxes



or



***What is an Arc Fault Circuit Interrupter (AFCI) outlet and how does it work?***

AFCI outlets are designed to recognize many types of potentially hazardous arc-faults and respond by interrupting power, reducing the likelihood of the home's electrical system being an ignition source of a fire. Often unseen, arc-faults can occur anywhere in the home's electrical system including within walls, at loose electrical connections or within electrical cords accidentally damaged by impinging furniture.

***Why do I need AFCI outlets?***

AFCI outlets provide arc-fault protection which is extremely important since arc-faults are often unseen and can occur anywhere in the home's electrical system including within walls and at loose electrical connections. The Leviton OBC AFCI outlet offers the benefit of localized TEST and RESET, providing a convenient option to AFCI breakers.

***Does an AFCI outlet provide GFCI protection?***

No, an AFCI outlet provides protection against arc-faults. A GFCI outlet provides protection against ground faults. However, they can be used together on the same circuit

***What is the difference between an AFCI outlet and a GFCI outlet?***

The function of a GFCI is to directly protect people from the potentially fatal hazards of electric shock that could occur if parts of an electrical appliance or tool they are using become energized due to a ground fault. The function of an AFCI is to provide protection against dangerous arc-faults that could initiate an electrical fire, potentially injuring people and damaging homes.

***Does every outlet in my home have to be an AFCI?***

No, every outlet doesn't need to be an AFCI. All AFCIs provide "feed-through" protection, which means they provide protection for all wiring and extensions attached to the load side. If an AFCI replaces the first outlet in the branch circuit, it will provide protection to the remaining outlets on that circuit as well as protection against series arcs on the wiring feeding the AFCI.

***How do I know where the first outlet in the branch circuit is?***

Unless you are familiar with your home's wiring, contact an electrician. If you are comfortable with replacing receptacles, to begin, **TURN THE BREAKER OFF**. Remove the outlet that you believe is the most likely to be first in the circuit. Cap the wires. Turn the breaker back on and test the other outlets. If you chose correctly, all the others will be dead. If you chose incorrectly, put the original outlet back in and try another and repeat the process.

***What's the difference between an AFCI breaker and an AFCI outlet?***

An AFCI breaker is located in the service panel and when tripped, requires the user to reset the breaker at the panel. An AFCI outlet replaces a standard outlet and when tripped, requires the user to reset by pressing a button located on the outlet.

***Are AFCI outlets tamper-resistant?***

Leviton AFCI outlets are tamper-resistant to meet the latest National Electrical Code® child safety requirements. The shutter mechanism inside the outlet blocks access to the contacts unless a two-pronged plug is inserted.

***What is a combination type AFCI?***

This is an AFCI that protects against both series and parallel arcing. Current editions of the NEC® require that when using an AFCI breaker it must be a combination type.

***Are AFCI outlets required by the electric code?***

The NEC provides options for using either combination type AFCI breakers or PBC AFCI outlets, or receptacles. For more information on code requirements go to [www.leviton.com/afci](http://www.leviton.com/afci) or <http://www.nema.org/Technical/FieldReps/Pages/National-Electrical-Code.aspx>

***Are Leviton AFCI outlets UL listed?***

Yes, all Leviton AFCI outlets meet UL Standard 1699A (Arc-Fault Circuit-Interrupters, Outlet Branch Circuit Type) for AFCI and meet UL Standard 498 for outlet.

***Why would I use AFCI outlet instead of breaker?***

The AFCI outlet can be a great alternative depending on the circumstance. AFCI outlets work with any type of wiring and are not dependent on the type of breaker in the panel. They are also easily accessible and have a level of familiarity with users with the TEST and RESET buttons that are also present on GFCI outlets.

***Does the AFCI outlet require a neutral wire to work?***

Yes, all outlets require a neutral wire to work.

***Where can AFCI outlets be purchased?***

The AFCI outlets are available through electrical distributors, retail and online merchants. Visit [www.leviton.com](http://www.leviton.com) and click “where to buy” for more information.

***Can an AFCI outlet and a GFCI outlet be used on the same circuit?***

Yes, they both can be used on the same circuit.

***Can AFCI outlets be used on the two wire circuits found in older homes?***

Yes, AFCI outlets can be used in older homes that contain two wire circuits.

***Can the same neutral wire be used for the installation of more than one AFCI outlet?***

While OBC AFCI outlets can work with a shared neutral on the line side, please refer to specific code requirements regarding acceptable methods for feeding an AFCI outlet. If you are unfamiliar with the function of a neutral wire, contact a licensed electrician.

***How many outlets are protected downstream from an AFCI outlet?***

All OBC AFCI outlets are rated as 20A feed-through. This means they can protect all outlets on both 15A and 20A branch circuits