

The Safer Home

Your Square D Electrical System and YOU



 **SQUARE D**™

by **Schneider Electric**



Congratulations!

Your home is protected with the market-leading Square D Electrical Distribution System; the number one choice of Builders, Electrical Contractors, and Homeowners.

Your Square D™ by Schneider Electric™ Electrical Distribution System provides reliable protection against electrical hazards in your home; hazards that in years past, or in your previous house, may have gone undetected.

These hazards can be hidden in:

- Walls
- Cords
- Plugs
- Inside devices plugged into a receptacle (like vacuums, brand-new TVs, etc.)

Your home is protected with the latest technology and innovation in circuit protection and fire prevention. Just like the airbags in your car and technology on your smartphone, circuit breakers are more advanced and sophisticated than ever before. Square D circuit breakers are engineered and designed to help keep you, your family, and your property safe from electrical hazards that were previously undetectable.

Much like the smoke alarm in your home when the toast gets burned, this protection can sometimes seem inconvenient, but can ensure you and your family are protected at all times. It doesn't always alarm at a convenient time nor is it always easy to reach, but in the end, it is watching over you and your family to help protect you from danger.

Your electrical system operates in the same way. When a circuit breaker trips, it is an indication that conditions on the circuit may be hazardous. It's important to realize the circuit breaker is helping to protect people and property from a potentially dangerous condition. **A little inconvenience is far better than a little fire! It's hard to put a price on the personal safety of you and your loved ones.**

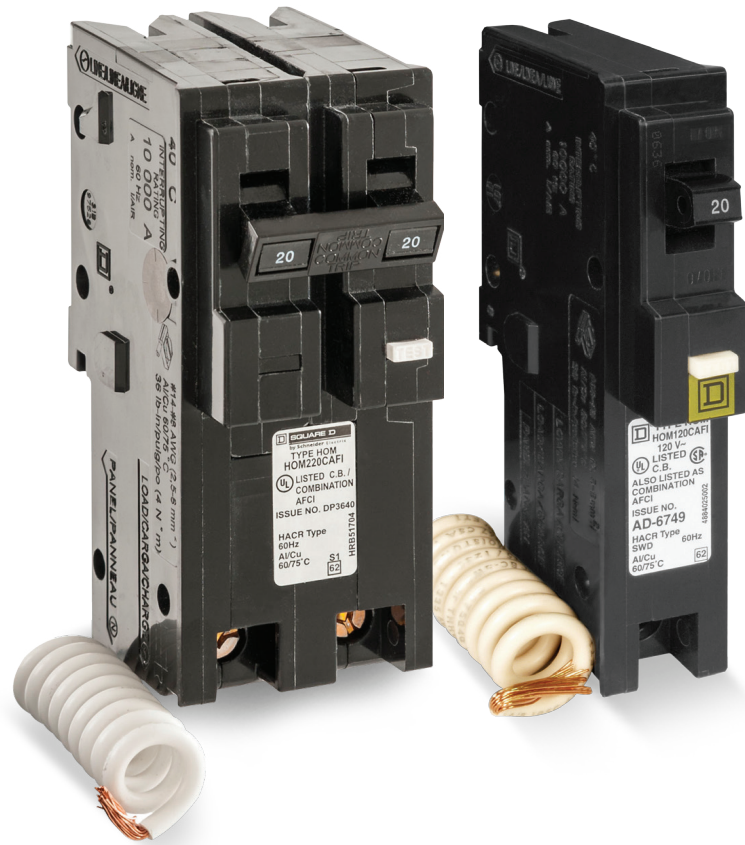
To help you better understand the protection of your home electrical system, let's take a look at three state-of-the-art types of circuit breakers that may be installed in your distribution system:

- **Combination Arc Fault**
- **Ground Fault**
- **Dual Function**

Ground Fault Circuit Interrupters (GFCIs)

GFCIs are designed to protect people from the dangers of electrical shock. These circuit breakers are typically installed on circuits where water sources may be present. The National Electrical Code (NEC) requires ground fault circuit protection in the garage, outdoor areas, bathrooms, and in spa areas within the home.

The QO and Homeline Ground Fault Circuit Breakers provide Class A protection, sensing and responding to very low levels of ground faults by tripping or shutting off power, preventing serious electrical shock to people.



Combination Arc Fault Circuit Interrupters (CAFIs)

CAFIs help provide protection against dangerous arcing; the precursor to many electrical fires.

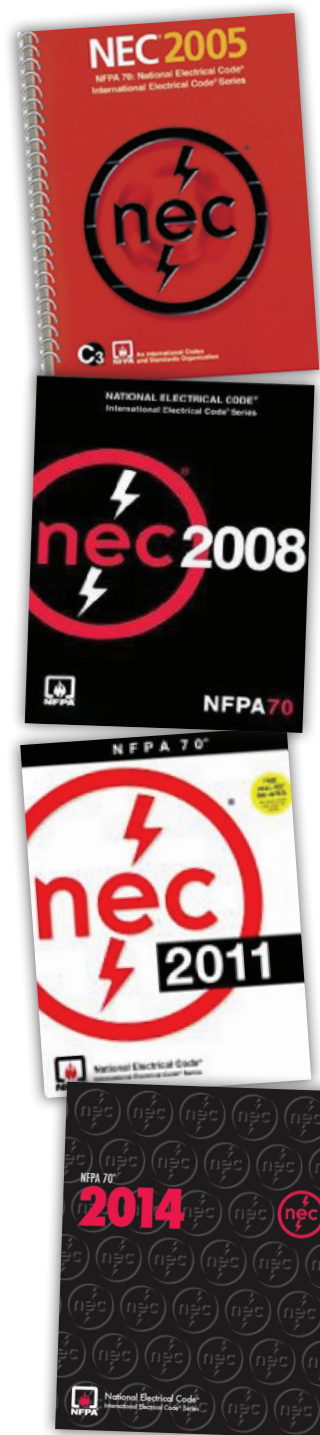
Square D QO™ and Homeline™ CAFIs help protect people and property from fires caused by electrical arcing. These devices continuously monitor the branch circuit and trip when a potentially dangerous condition is detected.

Dual Function (CAFI + GFCI)

Two critical, state-of-the-art technologies in one device.

The innovative Square D QO and Homeline Dual Function Circuit Breakers combine two critical, state-of-the-art technologies: Combination Arc Fault and Ground Fault (Class A) Protection in one circuit breaker. Dual Function Circuit Interrupters provide a higher level of protection than any other residential circuit breaker. These devices combine both Ground Fault Protection and Combination Arc Fault Protection in a single device. And these devices protect the entire circuit on which they are installed, not just a part of the circuit like electronic receptacles (GFI or AFI) do.





The NEC is expanding to keep you safe

The National Electrical Code (NEC) requirements for Arc Fault protection continue to expand. In 1999, the only rooms requiring this level of protection were bedrooms. Since that time, the code has extended this protection to family rooms, living rooms, dens, home offices, and other similar rooms.

The 2014 NEC has extended the requirements yet again. As areas begin to adopt the new 2014 code, the regulations require all new homes be equipped with Combination Arc Fault protection **and** Ground Fault protection on all 120 V kitchen and laundry circuits. With this new addition, there are very few circuits that do not require either Arc Fault or Ground Fault protection and as noted, several circuits where both protections (Dual Function) are required.

Your safety is the number one priority

While a circuit breaker trip can be inconvenient, if it keeps you, your family, and your property safe, it is definitely worth it. When a circuit breaker does trip, it is an indication that the breaker has detected conditions on the circuit that appear to be abnormal and potentially hazardous.

In such instances, the circuit breaker will err on the side of caution and trip to help prevent harm from occurring. **Keep in mind there are many causes of tripping:**

- Short circuits
- Overloads
- Arcing
- Ground faults

While some of these causes are relatively obvious, others can be extremely difficult to find, even for the most seasoned electrician. For example, if a detectable issue is occurring within a device (i.e., TV, vacuum cleaner, etc.) plugged into the circuit, it may be difficult or even impossible for an electrician to find. In such a case, you may need to involve the manufacturer of the device or a specialized repair person (i.e., TV repairman) to solve the issue.

What can you do as a homeowner to help ensure your home is safe?

1. The first and easiest thing to do is verify the circuit breaker is functioning properly. With power applied to the load center and the circuit breaker in the "on" position, simply press the Push-To-Test button located on the face of the circuit breaker (see picture below). If the breaker trips, it is functioning properly. If it does not trip, contact a certified electrician to investigate further. If the circuit breaker trips, showing it is functioning properly, simply reset the circuit breaker by moving the handle to the "off" position then back to the "on" position to restore power.



2. If the circuit breaker is working properly, you can try to narrow down the cause of the tripping by tracking the device(s) plugged into the circuit that tripped. This may include mobile loads, like laptop power supplies, cell phone chargers, and the like. Try to narrow down the issue by removing devices one at a time until the problem device is identified (i.e., the tripping goes away). Again, if you cannot identify the cause, you may need to retain the services of a qualified electrician to assist.

If you have questions regarding your
Square D Electrical Distribution system
please call 1-888-SQUARED (1-888-778-2733)



by **Schneider** Electric

Schneider Electric – USA

800 Federal Street
Andover, MA 01810
Tel: 978-794-0800
www.schneider-electric.com/us