LEVITON®

GFCI Products Buying Guide

A Ground Fault Circuit Interrupter (GFCI) is an important safety device to have in a home to help protect people from electrical shocks due to hazardous ground faults. Ground faults occur when instead of following its normal safe path, electrical current "leaks" or otherwise follows an unsafe path, possibly flowing through to a person. For example:

- Operating electrical equipment in wet or damp conditions
- Electrical current leaks from appliances or tools
- Electrical wiring becomes frayed or damaged

How GFCIs Work

GFCI outlets are designed to help prevent people from receiving dangerous shocks. When a ground fault occurs and electricity from an appliance passes through the person's body, the resulting shock can cause serious injury or even death. GFCIs have special circuitry built into them. When any item is plugged into a GFCI outlet, it receives power, just as if it's plugged into a regular outlet. But, the GFCI monitors the electrical power that it feeds to the item plugged into the outlet. If it detects a ground fault, **IT SHUTS OFF POWER TO THE ITEM IN A FRACTION OF A SECOND**, to help prevent serious injury to a healthy person.

Where to Install GFCI Outlets

The National Electrical Code® (NEC®) requires the installation of GFCIs in the following areas of the home: kitchens, bathrooms, laundry rooms, workshops, basements, garages/carports and outdoor areas such as pools, decks and patios. GFCI outlets not only protect what's plugged into them, but also provide feed-through protection to ordinary outlets wired downstream (other outlets on the same circuit). For added protection, the UL Standard has been recently updated to require that GFCIs be self-testing, which incorporates an auto-monitoring feature into the GFCIs, beginning in mid-2015.

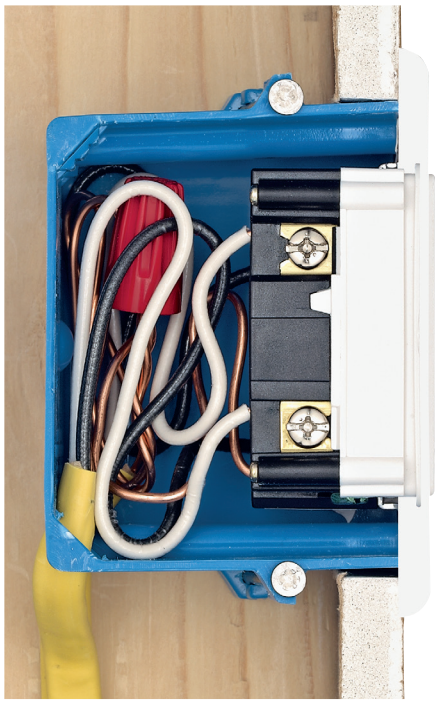
Benefits of Leviton SmartlockPro® GFCI Outlets

The patented reset lockout feature prevents reset if a SmartlockPro GFCI is damaged so that it cannot respond to a ground fault. Some older GFCIs may allow reset even if they are no longer providing protection. The SmartlockPro RESET button will not engage if:

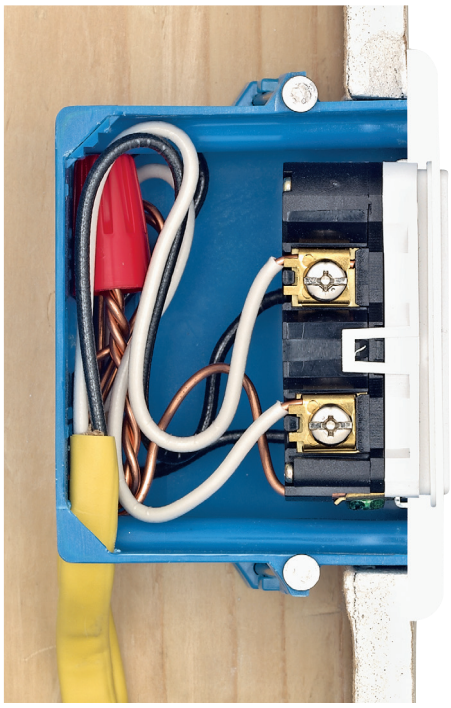
- The GFCI is miswired due to reversal of the line and load leads, delivery of power to feed-through terminal and face will be blocked
- There is no power being supplied to the GFCI
- The GFCI cannot pass its internal test

Leviton SmartlockPro GFCIs also have a slim design, taking up to 25% less space in the wallbox vs. other GFCIs. Reduced depth makes them easier to install in any electrical box, even shallow ones. Plus, the terminals allow for easy wiring options, with back and side wire capabilities.

Typical GFCI



SmartlockPro GFCI



Types of GFCIs

Options Available 15 Amp and 20 Amp	Benefit	Applications
Standard GFCI 	Provides protection to people from shocks or electrocution. SmartlockPro® GFCI has a reset lockout feature that automatically tests the GFCI every time the RESET button is pressed and will not allow it to reset if the circuit is not working properly or if protection has been compromised. Available in Tamper-Resistant to block access to the contacts unless a two prong plug is inserted.	Kitchens, bathrooms, basements, laundry rooms and garages.
Self Test GFCI 	This GFCI adds an extra level of safety, by testing itself to confirm that protected power is available. If the self-test detects any condition that would indicate GFCI protection might be compromised, visual indicators will provide an alert.	Can be used instead of a standard GFCI to help provide an extra level of safety. Self-Test, or auto-monitoring, will be phased in to all GFCI receptacles beginning mid-2015
GFCI with Guide Light 	This GFCI has the added benefit of a built in guide light that provides additional light at night or in dark areas while still allowing use of both outlets.	Most common area for use would be a bathroom or laundry room.
Combination GFCI/Switch (15 Amp only) 	This GFCI saves space by combining GFCI protection and a switch in one device.	Ideal in small scale kitchens, bathrooms and laundry rooms where a switch and GFCI are both needed.
GFCI with Audible Trip Alert 	GFCIs may be located in an out-of-the-way place, such as a back corner or storage area, making daily visual checks for tripping unlikely. When a condition exists causing the GFCI with Audible Trip Alert to trip, users are alerted by the sounding of an audible alarm.	Perfect for garages, basements or large commercial kitchens.

Types of GFCIs

Options Available 15 Amp and 20 Amp	Benefit	Applications
Blank Face GFCI 	When downstream protection is a priority this GFCI provides the necessary safeguards with a clean appearance that blends into the wall space.	The most common use would be for a spa/tub. Another use includes mounted inside the home to provide GFCI protection to weather-resistant outdoor outlets.
Weather-Resistant GFCI 	This GFCI is designed to be used outdoors when paired with a weather-resistant cover. Look for the WR symbol on the face to ensure it is rated for outdoor use.	Outdoor locations such as decks, patios, and pool areas.
Portable GFCI Cord Sets & User-Attachable Devices 	For temporary power equipment that requires GFCI protection, manual or automatic reset portable GFCIs can be used. Automatic reset models immediately provide power to a load when plugged in and automatically restore power to connected equipment after a power interruption; manual reset models require the simple push of a button to provide power to the connected equipment.	Used in a variety of temporary power applications, such as electric gardening equipment, electric power tools, power washers, boat hoists, holiday decorations, portable pools, and portable generators. For portable tools or equipment, manual-reset versions are recommended as they provide an extra level of protection against unintentionally powering a device while it's in the 'on' position.
Pilot Light GFCI 	Pilot light GFCI outlets from Leviton have high-visibility LEDs that provide a visual indication of power status - ideal for applications where receptacles are not easily accessible, as well as in poor lighting conditions. They are also perfect for dedicated circuit locations since there is only one outlet available for use.	These devices are ideal for use in storage areas, under sinks for garbage disposals or dishwashers, and in basements and garages.

Testing a GFCI Outlet

A GFCI outlet must be tested immediately after installation and then on a monthly basis going foward. If the GFCI is miswired it may not prevent personal injury or death due to a ground fault (electrical shock). If the LINE wires are mistakenly connected to the LOAD terminals, the GFCI will not reset and will not provide power to either the GFCI outlet face or any outlets fed from the GFCI.

How to Test a GFCI Outlet

1. Plug a lamp or radio into the GFCI outlet and turn ON the lamp or radio.

2. Push the TEST button on the GFCI. The GFCI will trip and power to the lamp or radio will be cut OFF.

3. The GFCI is working properly only if you can push the RESET button on the SmartlockPro GFCI to restore power to the lamp or radio. The SmartlockPro RESET button will not restore power if the GFCI is damaged and cannot respond to a ground fault. Some GFCIs can still be RESET and provide power even though they are not providing protection.

Important Reminder:
GFCIs can become damaged over time. They must be tested monthly to ensure they are providing protection.

FAQs

I thought circuit breakers protect my family from electrical shock. Why do I need GFCIs?

For a complete protection, you should have both. Circuit breakers and fuses protect against electrical shock and fire caused by dangerous *current overloads*. They will trip when a circuit is overloaded; however, the current level needed to trip a circuit breaker is many times greater than the amount that can deliver a powerful shock to a person. GFCIs are much more sensitive. They will respond to lower levels of dangerous current that would not cause a breaker to trip, protecting people from shock and electrocution.

What is the benefit of a "Slim" GFCI?

Leviton SmartlockPro® Slim GFCIs take up to 25% less space in the wallbox than traditional GFCIs. This makes for easier installation.

What is Reset/Lockout?

The patented Reset/Lockout feature on SmartlockPro GFCIs prevents reset of the device if for any reason it is unable to respond to a ground fault or if it is not wired correctly and receiving power. Some older GFCIs may allow reset of the device even if they are no longer providing protection.

Where should GFCIs be installed? Is there a Code requirement?

GFCIs are required by the National Electrical Code to be installed in wet or damp locations. This would include kitchens, bathrooms, basements, laundry rooms, garages, porches and any other areas where a water source is present.

Why do you need to test a GFCI?

It is recommended that GFCIs be tested monthly to ensure protected power is present. Note that Underwriters Laboratories (UL) will require ALL GFCIs to be self-testing beginning in mid-2015. Self-Test GFCIs perform a periodic internal self-test to confirm that protected power is available.

Learn more at www.leviton.com/gfci

Visit our Website at: www.leviton.com/gfci