legrand®

# adorne™

Tamper-Resistant GFCI Outlet, 2-Module, 15A
Tamper-Resistant GFCI Outlet, 3-Module, 15A

# Installing and Testing a GFCI Outlet

**Please read this leaflet completely before getting started.**

Use only with Legrand adorne system.

**For more information and helpful how-to videos, visit www.adornemyhome.com/install.**

Catalog Number(s): AGFTR152, AGFTR153

## ⚠ CAUTION

- To prevent severe shock or electrocution, always turn the power OFF at the service panel before working with wiring.
- Use this GFCI outlet with copper or copper-clad wire. Do not use it with aluminum wire.
- Do not install this GFCI outlet on a circuit that powers life support equipment because if the GFCI trips, it will shut down the equipment.
- For installation in wet locations, protect the GFCI outlet with a weatherproof cover that will keep both the outlet and any plugs dry.
- Must be installed in accordance with national and local electrical codes.

## 1. What is a GFCI?

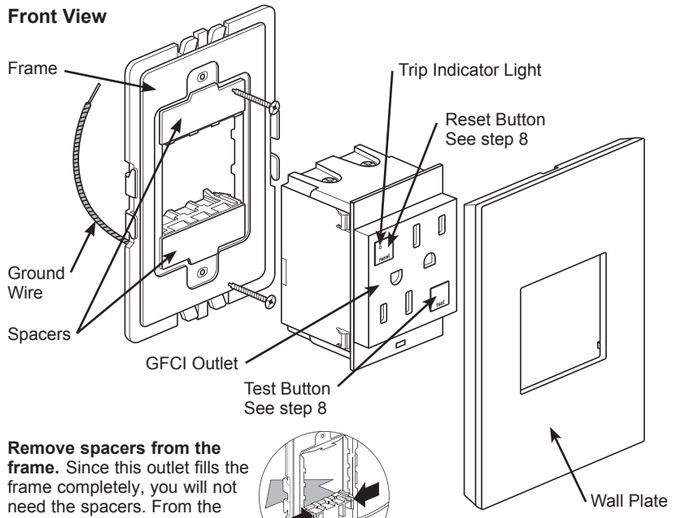
A GFCI outlet is different from conventional outlets. In the event of a ground fault, a GFCI will trip and quickly stop the flow of electricity to prevent serious injury.

*Definition of a ground fault:*
Instead of following its normal safe path, electricity passes through a person's body to reach the ground. For example, a defective appliance can cause a ground fault.

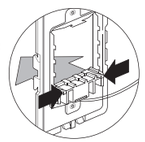
A GFCI outlet does not protect against circuit overloads, short circuits, or shocks. For example, you can still be shocked if you touch bare wires while standing on a non-conducting surface such as a wood floor.

## 2. The GFCI's features

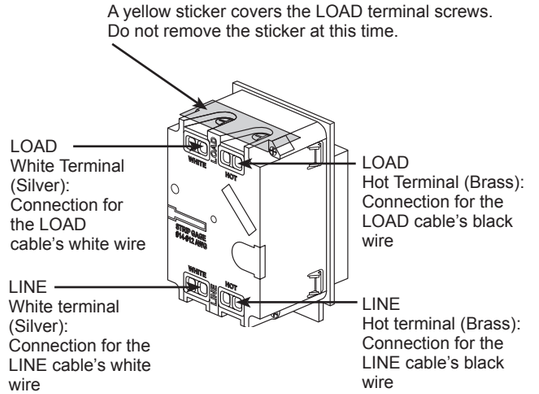
**Front View**




**Remove spacers from the frame.** Since this outlet fills the frame completely, you will not need the spacers. From the back of the frame, pinch the tabs on the spacer to release.



**Back View**




## 3. Should <u>you</u> install it?

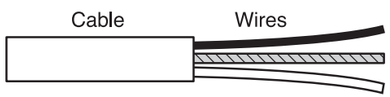
Installing a GFCI outlet can be more complicated than installing a conventional outlet.

Make sure that you:

- Understand basic wiring principles and techniques.
- Can interpret wiring diagrams.
- Have circuit wiring experience.
- Are prepared to take a few minutes to test your work, making sure that you have wired the GFCI outlet correctly.

## 4. LINE vs. LOAD

A cable consists of 2 or 3 wires.

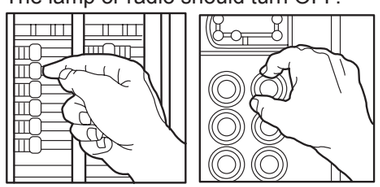



**LINE cable:**
Delivers power from the service panel (breaker panel or fuse box) to the GFCI. If there is only one cable entering the electrical box, it is the LINE cable. This cable should be connected to the GFCI's LINE terminals only.

**LOAD cable:**
Delivers power from the GFCI to another outlet in the circuit. This cable should be connected to the GFCI's LOAD terminals only. The LOAD terminals are under the yellow sticker. Do not remove the sticker at this time.

## 5. Turn the power OFF

Plug an electrical device, such as a lamp or radio, into the outlet on which you are working. Turn the lamp or radio on. Then, go to the service panel. Find the breaker or fuse that protects that outlet. Place the breaker in the OFF position or completely remove the fuse. The lamp or radio should turn OFF.



Next, plug in and turn ON the lamp or radio at the outlet's other outlet to make sure the power is OFF at both outlets. If the power is not OFF, stop work and call an electrician to complete the installation.

## 6. Identify cables/wires

**IMPORTANT:**
Do not install the GFCI outlet in an electrical box containing (a) more than 4 wires (not including the grounding wires) or (b) cables with more than two wires (not including the grounding wire). Contact a qualified electrician if either (a) or (b) is true.

- If you are replacing an old outlet, pull it out of the electrical box without disconnecting the wires.
- If you see one cable (2-3 wires), it is the LINE cable. The outlet is probably in position C (see diagram to the right). Remove the outlet and go to step 7A.
- If you see two cables (4-6 wires), the outlet is probably in position A or B (see diagram to the right). Follow steps a-e of the procedure to the right.

**Procedure: box with two cables (4-6 wires)**

(a) Detach one cable's white and hot wires from the outlet and cap each one separately with a wire connector. Make sure that they are from the same cable.

(b) Re-install the outlet in the electrical box, attach the faceplate, then turn the power ON at the service panel.

(c) Determine if power is flowing to the outlet. If so, the capped wires are the LOAD wires. If not, the capped wires are the LINE wires.

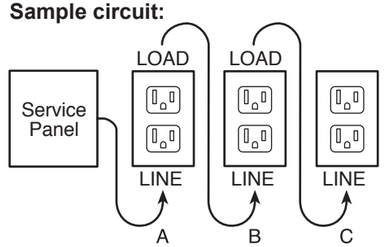
(d) Turn the power OFF at the service panel, label the LINE and LOAD wires, then remove the outlet.

(e) Go to step 7B.

**Placement in circuit:**

The GFCI's place in the circuit determines if it protects other outlets in the circuit.

**Sample circuit:**




Placing the GFCI in position A will also provide protection to "load side" outlets B and C. On the other hand, placing the GFCI in position C will not provide protection to outlets A or B. Remember that outlets A, B, and C can be in different rooms.

## 7. Connect the wires (choose A or B). . .only after reading other side completely

### A: One cable (2 or 3 wires) entering the box **or** B: Two cables (4 or 6 wires) entering the box

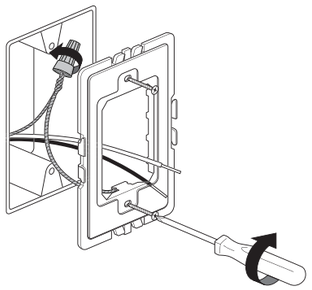
**⚠ WARNING**
**Failure to connect the ground wire will result in an unsafe installation that could lead to personal injury.**

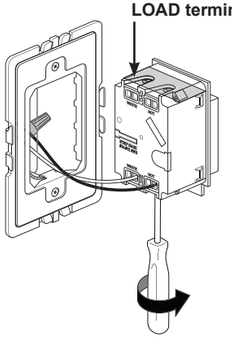
**Connect the grounding wires as shown at right:**
Use a wire nut to connect frame ground wire to bare ground wire in box. Fold ground wires into back of box. Mount frame to wall box with screws provided. Tighten screws just enough to hold frame in place. Do NOT over-tighten.

For a box with a grounding terminal (diagram not shown): Connect a 6-inch bare copper (or green) 12 or 14 AWG wire to the grounding terminal on the box. Connect that wire and the ground wire from the Frame to the LINE cable's bare copper (or green) wire using a wire connector. If these wires are already in place, check the connections.

**Connect the LINE cable wires to the LINE terminals:**
- The white wire connects to the White terminal (Silver)
- The black wire connects to the Hot terminal (Brass)

**Go to step 8.**






**About wire connections.**
If necessary,cut wires and strip insulation using stripping guide on back of outlet.
1. Insert wire to bottom of hole.
2. Securely tighten screw beneath wire hole to retain inserted wire.

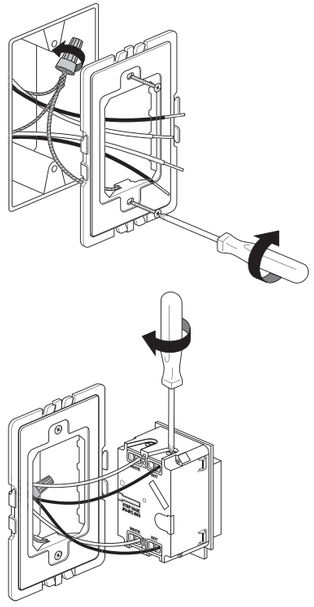
**Connect the grounding wires as shown at left:**
Use a wire nut to connect frame ground wire to bare ground wire in box. Fold ground wires into back of box. Mount frame to wall box with screws provided. Tighten screws just enough to hold frame in place. Do NOT over-tighten.

For a box with a grounding terminal (diagram not shown): Connect a 6-inch bare copper (or green) 12 or 14 AWG wire to the grounding terminal on the box. Connect that wire and the ground wire from the Frame to the LINE cable's bare copper (or green) wire using a wire connector. If these wires are already in place, check the connections.

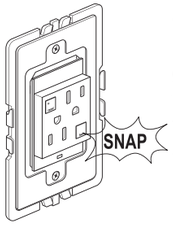
**Connect the LINE cable wires to the LINE terminals:**
- The white wire connects to the White terminal (Silver)
- The black wire connects to the Hot terminal (Brass)

**Connect the LOAD cable wires to the LOAD terminals:**
- Remove the yellow sticker to reveal the LOAD terminal screws
- The white wire connects to the White terminal (Silver)
- The black wire connects to the Hot terminal (Brass)

**Go to step 8.**

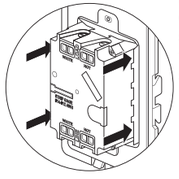


## 8. Snap outlet into frame

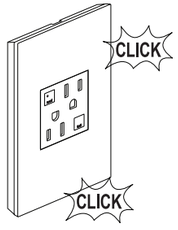



Carefully fold the wires into box, keeping the grounding wire away from the White and Hot terminals.
Snap outlet into frame.

**NOTE** – If you need to remove outlet after snapping into frame, first remove frame from wall box to access the four locking tabs on the back of the outlet. Insert a flat screwdriver to depress tabs as you apply pressure to push outlet out.

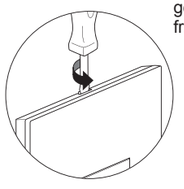


## 9. Snap wall plate to frame



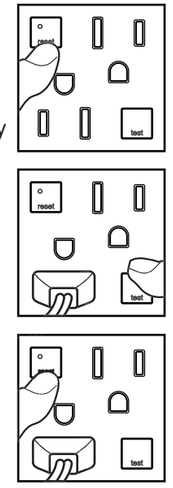

Snap wall plate to frame. There are three click-stops to adjust the fit of the wall plate to the outlet and the wall.

**NOTE** – To remove wall plate, insert a small, flat screwdriver in notches on wall plate and twist gently to pry from frame.



## 10. Test your work

**Why perform this test?**
- If you miswired the GFCI, it may not prevent personal injury or death due to a ground fault (electrical shock).




**Procedure:**
**(a)** Turn the power ON at the service panel. Press the RESET button fully. The RESET button should stay in. If the RESET button does not stay in, go to Troubleshooting. If the RESET button stays in, plug a lamp or radio into the GFCI (and leave it plugged in) to verify that the power is ON. If there is no power, go to Troubleshooting.
**(b)** Press the TEST button in order to trip the device. This should stop the flow of electricity, making the radio or lamp shut OFF and the GFCI's red Trip Indicator Light (if present) come on. Note that the RESET button will pop-out. If the power stays ON, or the red Trip Indicator Light stays off, go to Troubleshooting. If the power goes OFF, and the red Trip Indicator Light comes on, you have installed the GFCI outlet correctly. To restore power, press the RESET button.
**(c)** If you installed your GFCI using step 7B, plug a lamp or radio into surrounding outlets to see which one(s), in addition to the GFCI, lost power when you pressed the TEST button. Do not plug life saving devices into any outlets that lost power. Place a "GFCI Protected" sticker on every outlet that lost power.
**(d)** Press the TEST button (then RESET button) every month to assure proper operation.
**(e)** This GFCI will trip and be unable to be reset (no output power) when it has reached its end-of-life. To confirm that the GFCI has reached its end-of-life, unplug the appliances connected to the GFCI and any protected downstream outlets and press the Reset Button. If the GFCI continues to trip, then the GFCI has reached its end-of-life and should be replaced. If the GFCI resets, one of the appliances may be defective.

## TROUBLESHOOTING

*Turn the power OFF and check the wire connections against the appropriate wiring diagram in step 7A or 7B. Make sure that there are no loose wires or loose connections. Also, it is possible that you reversed the LINE and LOAD connections. LINE/LOAD reversal will be indicated by no power at the GFCI and by the RESET button not staying in when pressed, or by the red Trip Indicator Light remaining off after you press the GFCI's TEST button. Reverse the LINE and LOAD connections if necessary. Start the test from the beginning of step 8 if you rewired any connections to the GFCI.*

General Information

**Ratings:**
15A 125V 60Hz
20A 125V 60Hz

**Technical Assistance:**
(877) 295-3472
www.adornemyhome.com/install

No: 340953
03/12

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