

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): AGFTR2152, AGFTR2153

3. Should you install it?

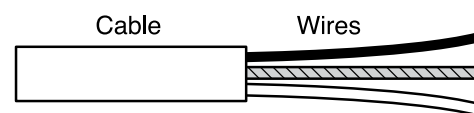
Installing a GFCI outlet can be more complicated than installing a conventional outlet.

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.

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:

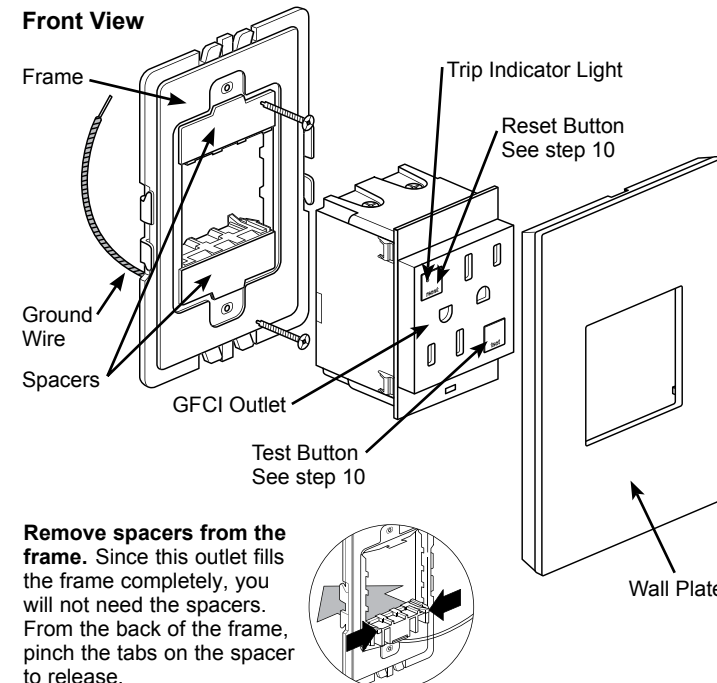
Instead of following its normal safe path, electricity passes through a person's body to reach the ground. For example, a defective appliance can cause a ground fault.

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.

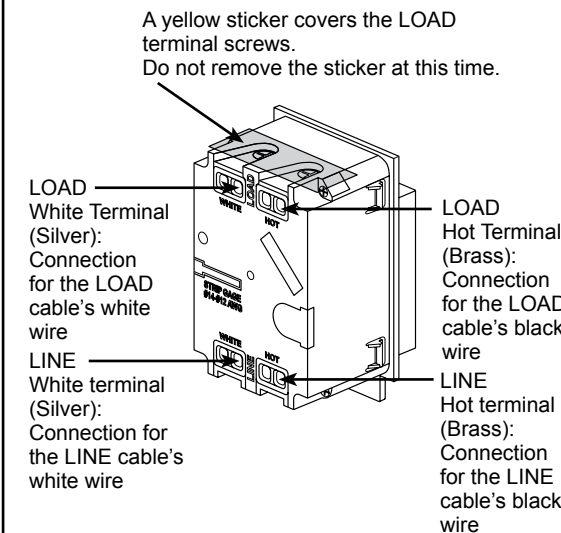
Self-Test GFCI Receptacle with SafeLock™ Protection

This is a **Self-Test GFCI Receptacle with SafeLock™ Protection**; it conducts an automatic test every three seconds, ensuring it's always ready to protect. If the device fails the test, the indicator light flashes to signal that the GFCI should be replaced. It also has our proven SafeLock Protection feature: if critical components are damaged and protection is lost, power to this receptacle, and any downstream receptacles, will be disconnected.

2. The GFCI's features

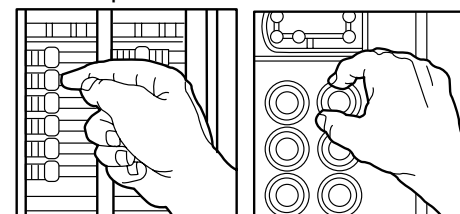


Back View



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.

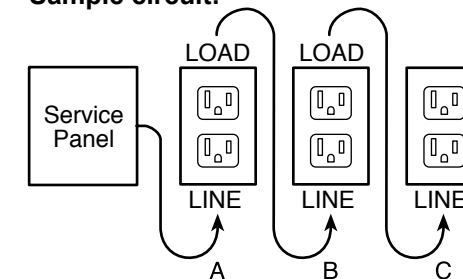
Procedure: box with two cables (4-6 wires)

- 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.
- Re-install the outlet in the electrical box, attach the faceplate, then turn the power ON at the service panel.
- 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.
- Turn the power OFF at the service panel, label the LINE and LOAD wires, then remove the outlet.
- 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



B: Two cables (4 or 6 wires) entering the box

Connect the grounding wires as shown at right:

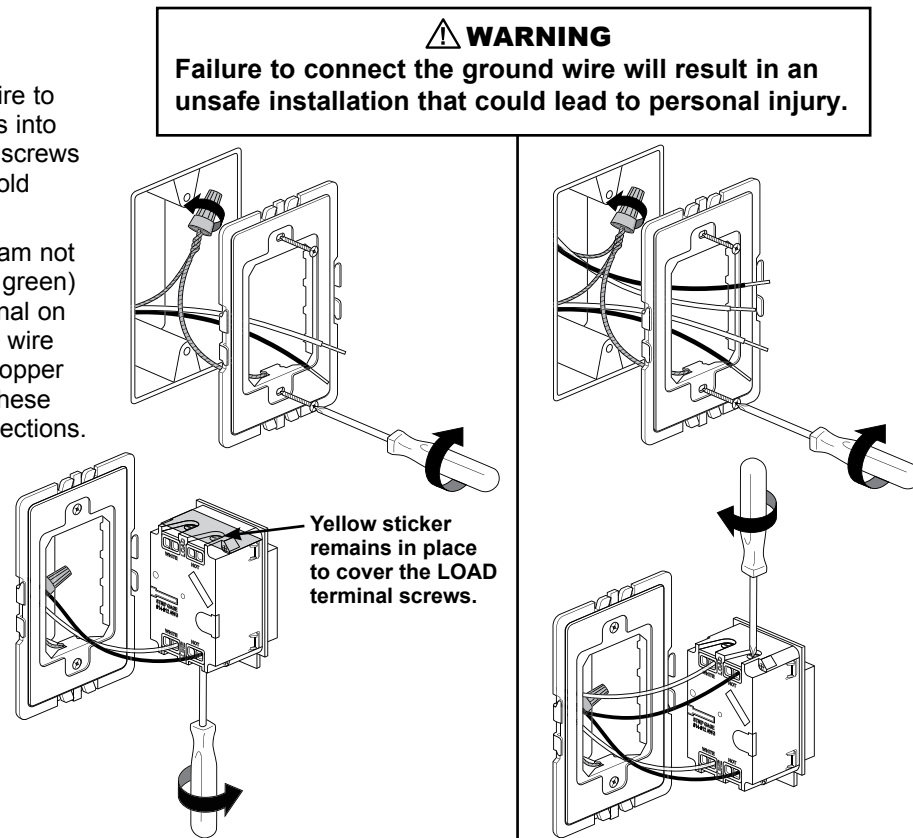
Use a wire nut to connect frame ground wire to bare ground wire in box. Fold ground wires into back of box. Mount frame to wall box with screws provided. Tighten screws just enough to hold frame in place. Do NOT over-tighten.

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:

- Make sure the terminal holes are clear.
- The white wire connects to the White terminal (Silver)
- The black wire connects to the Hot terminal (Brass)

Go to step 8.

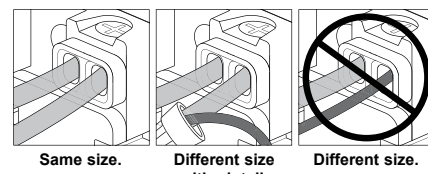


About wire connections.
If necessary, cut wires and strip insulation using stripping guide on back of outlet.

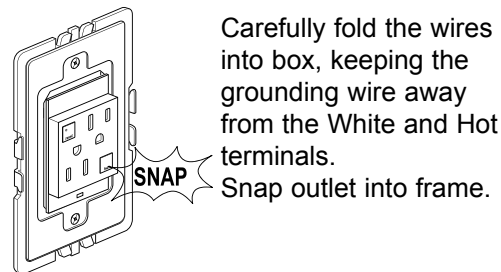
1. Insert wire to bottom of hole.
2. Securely tighten screw beneath wire hole to retain inserted wire.

Back Wire Holes
Wire $\pm .5$ inch \pm

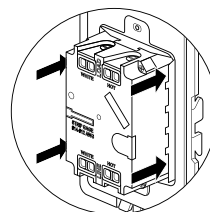
WARNING: Do not pair different size wires in the same terminal. If you have different size wires, use a wire nut to add a 6 inch pigtail of the same gauge wire to the smaller gauge wire.



8. Snap outlet into frame

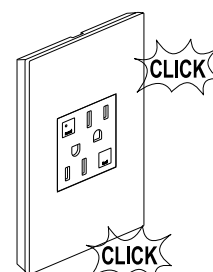


Carefully fold the wires into box, keeping the grounding wire away from the White and Hot terminals.
Snap outlet into frame.

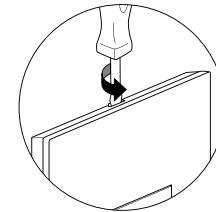


NOTE – If you need to remove outlet after snapping into frame, first remove frame from wall box to access the four locking tabs on the back of the outlet. Insert a flat screwdriver to depress tabs as you apply pressure to push outlet out.

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.

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:

- Make sure the terminal holes are clear.
- 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:

- Make sure the terminal holes are clear.
- 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.

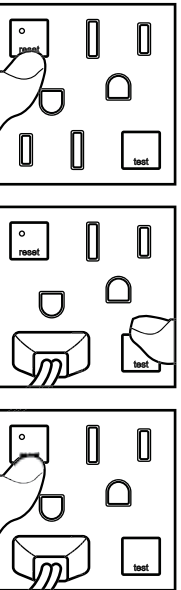
10. Test your work

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:

- 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.
- 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.
- 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.
- Press the TEST button (then RESET button) every month to assure proper operation.
- This is a **Self-Test GFCI Receptacle with SafeLock™ Protection**; it conducts an automatic test every three seconds, ensuring it's always ready to protect. If the device fails the test, the indicator light flashes to signal that the GFCI should be replaced. It also has our proven SafeLock Protection feature: if critical components are damaged and protection is lost, power to this receptacle, and any downstream receptacles, will be disconnected.



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: 341129

LIMITED LIFETIME WARRANTY

Limited lifetime warranty information for adorne® products is available at www.adornemyhome.com/warranty. Limited warranty information for adorne® products may also be obtained free of charge by sending a written request, along with your proof of purchase (including purchase date), to:

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Attn: adorne Customer Service/Warranty Department
50 Boyd Avenue
Syracuse, NY 13209