3. Should you install it?
Installing an Outlet Branch Circuit AFCI/GFCI receptacle can be more complicated than installing a conventional receptacle. 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 Outlet Branch Circuit AFCI/GFCI 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 AFCI/GFCI. If there is only one cable entering the electrical box, it is the LINE cable. This cable should be connected to the AFCI/GFCI's LINE terminals only.

- **Load cable:**
  - Delivers power from the AFCI/GFCI to another receptacle in the circuit. This cable should be connected to the AFCI/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 receptacle on which you are working. Turn the lamp or radio OFF. Then, go to the service panel. Find the breaker or fuse that protects that receptacle. Place the breaker in the OFF position or completely remove the fuse. The lamp or radio should turn OFF.

6. Identify cables/wires
- **Procedure:** box with two (2) cables (4-6 wires):
  - (a) Detach one cable’s white wire and hot wires from the receptacle and cap each one separately with a wire connector. Make sure that they are from the same cable.
  - (b) Re-install the receptacle in the electrical box, attach the faceplate, then turn the power ON at the service panel.
  - (c) Determine if power is flowing to the receptacle. 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 receptacle.
  - (e) Go to step 7B.

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

2. AFCI/GFCI’s features
- **Main circuitry:**
  - Line terminal (Brass): Connection for the LINE cable's black wire
  - Load terminal (Brass): Connection for the LOAD cable's black wire

CAUTION
- To prevent severe shock or electrocution always turn the power OFF at the service panel before working with wiring.
- Use this Outlet Branch Circuit AFCI/GFCI with copper or copper-clad wire. Do not use it with aluminum wire.
- Do not install this Outlet Branch Circuit AFCI/GFCI on a circuit that powers life support equipment because if the AFCI/GFCI trips it will shut down the equipment.
- Must be installed in accordance with national and local electrical codes.
- This Outlet Branch Circuit AFCI/GFCI must be installed as the first outlet in the branch circuit.

CAUTION
- Any arc fault would be arcing that occurs due to severed power-supply conductors. A ground fault will allow electricity to deviate from its normal safe path to reach the ground. A defective appliance can cause a ground fault.
- An AFCI/GFCI does not protect against ground faults. In the event of an arc or ground fault, an AFCI/GFCI will trip and quickly stop the flow of electricity to mitigate the effects of the arcing that poses a fire risk, as well as providing protection against serious injury.

Definition of an arcing and grounding fault:
An arcing fault is an unintentional arcing condition in a circuit. Arcing occurs as a normal condition in some motors or when a switch opens. An unintentional arcing would be arcing that occurs due to severed power-supply conductors. A ground fault will allow electricity to deviate from its normal safe path to reach the ground. A defective appliance can cause a ground fault.

NOTE: Leviton’s AFCI/GFCI’s contain a lockout feature that will prevent RESET if:
- There is no power being supplied to the AFCI/GFCI
- The AFCI/GFCI is miswired due to reversal of the LINE and LOAD leads
- The AFCI/GFCI cannot pass its internal test, indicating that it may not be able to provide protection in the event of an arc or ground fault.

- An AFCI/GFCI is different from conventional receptacles. It is intended to provide protection to branch circuit wiring, cord sets, and power-supply cords connected to it against the unwanted effects of arcing, as well as protect against ground faults. In the event of an arc or ground fault, an AFCI/GFCI will trip and quickly stop the flow of electricity to mitigate the effects of the arcing that poses a fire risk, as well as providing protection against serious injury.

- The AFCI/GFCI is miswired due to reversal of the LINE and LOAD terminals. This cable should be connected to the AFCI/GFCI’s LOAD terminals. Do not remove the sticker at this time. The AFCI/GFCI must be installed in position A.

8. Sample circuit:
Always place an Outlet Branch Circuit AFCI/GFCI in position A. All outlets of the protected branch, including lighting and receptacle outlets must be connected to the load side of the AFCI/GFCI.
Procedure:
(a) This AFCI/GFCI is shipped from the factory in the tripped condition and cannot be reset until it is wired correctly and power is supplied to the device. Plug a lamp or radio into the AFCI/GFCI receptacle (and leave it plugged in). Turn the power ON at the service panel. Ensure that the AFCI/GFCI is still in the tripped condition by pressing the TEST button. If the lamp or radio is OFF, and the AFCI/GFCI will not reset, go to (b) Troubleshooting section or inspect the wiring connections.
(b) Press the RESET button fully and release. If the Status Indicator Light turns on, and the AFCI/GFCI has been installed correctly. If the Status Indicator Light turns on or continuously blinks red, or the AFCI/GFCI cannot be reset, go to (c) Test the Operation section.
(c) If you installed your AFCI/GFCI using step 7B, plug a lamp or radio into surrounding receptacles to see whether the AFCI/GFCI trips. In addition, if the AFCI/GFCI loses power when you press the Black Button, it may not prevent personal injury or death due to ground fault.
(d) Press the TEST button (then RESET button) every month to assure proper operation. If the Status Indicator Light does not turn on when the RESET button is depressed and then released, or if the AFCI/GFCI cannot be reset, it must be replaced.

TROUBLESHOOTING
Turn the power OFF and check the wiring connections against the appropriate wiring diagram in step 7A or 7B. Make sure that all box wiring connections are correct and that all the devices are properly wired to avoid a ground fault. If you miswired the AFCI/GFCI it may not prevent personal injury or death due to a ground fault, but will also display two quick flashes of RED every five seconds. Press the RESET button to reset the AFCI/GFCI. If the AFCI/GFCI cannot be reset, it must be replaced.

DEVICE OPERATION

- An AFCI/Self-Test GFCI receptacle has all the features of a conventional GFCI receptacle. In addition, this receptacle tests itself periodically to confirm the AFCI/GFCI electronics and function of AFCI/GFCI. If the AFCI/GFCI is wired correctly, is reset and working correctly.
- Self-Test Wires: If the Status Indicator Light is solid or a constant flashing RED a problem may exist. Press the TEST button to trip the AFCI/GFCI. If unable to reset, replace the AFCI/GFCI. NOTE: The status indicator may flash RED all power OFF and RESET.
- AFCI Trip – If the AFCI/GFCI trips either from a ground fault or pressing of the TEST button, the indicator will flash RED for five seconds. Press the RESET button to reset the AFCI/GFCI. If the device trips and continues to indicate an AFCI button press it contain an electrical fault.

FCC STATEMENT
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

IC STATEMENT
This product is covered by U.S. Patent Nos. 6,040,967; 6,246,558; 6,282,070; 6,381,112; 6,437,953; 6,646,838; 6,657,834; 6,864,766; 6,944,001; 7,336,458; 7,400,479; 8,019,663 and 8,599,523.

LIMITED 2 YEAR WARRANTY AND EXCLUSIONS
Leviton warrants to the original consumer purchaser (“Purchaser”) of this product, when installed and used in accordance herewith, that it shall be free of defects in materials and workmanship under normal and proper use for two years from the purchase date. Leviton’s only obligation is to correct such defects by repair or replacement, at its option. Leviton’s sole responsibility is for replacement of this product or its repair. Leviton disclaims liability for any implied warranty, for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or negligently or if Purchaser fails to follow installation instructions provided herein. If so installed or handled, no warranty or implied warranty applies. This warranty excludes and there is disclaimed liability for Purchaser’s costs or expenses of any kind, including merchandise replacement, labor for a particular purpose or of a particular value. The warranty is not transferable, and the warranty of all implied warranties is limited to the benefits available under this warranty. Leviton disclaims liability for any implied warranty, including merchantability or fitness for a particular purpose or any other implied warranty. Purchaser is responsible for determining whether this product is suitable for Purchaser’s purpose and use. Leviton disclaims liability for any implied warranty, whether based on contract, tort, or otherwise.

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