3. Should you install it?

Installing an Outlet Branch Circuit AFCI 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 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. If there is only one cable entering the electrical box, it is the LINE cable. This cable should be connected to the AFCI’s LINE terminals only.
- **LOAD cable**: Delivers power from the AFCI to another receptacle in the circuit. This cable should be connected to the AFCI’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 ON. 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 must turn OFF.

Next, plug in and turn ON the lamp or radio at the receptacle’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

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 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 7.

Placement in circuit:
The Outlet Branch Circuit Type AFCI must be placed as the first outlet in the circuit. Sample circuit:

Always place Outlet Branch Circuit Type AFCI in position A. All outlets of the protected branch, including lighting and receptacle outlets must be connected to the load side of the AFCI.
7. Connect the wires only after reading other side completely - Two cables (4 or 6 wires) entering the box

Grounding connection to box (if a grounding terminal)

Electrical Box

LOAD cable feeds power to other receptacle(s)

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 or Black)

Connect the LOAD cable wires to the LOAD terminals:
- Remove the YELLOW sticker to reveal the LOAD terminals
- The white wire connects to the WHITE terminal (Silver)
- The black wire connects to the HOT terminal (Brass or Black)

Connect the grounding wires (only if there is a grounding wire):
- Connect a 6-inch bare copper (or GREEN) 12 or 14 AWG wire to the grounding terminal on the box. Connect the ends of these wires to the LINE or LOAD cable’s bare copper (or GREEN) wire using a wire connector. If these wires are already in place, check the connections.

Complete the installation:
- Fold the wires into the box, keeping the grounding wire away from the WHITE and HOT terminals. Screw the receptacle to the box and attach the faceplate.
- Go to step 8.

About Wire Connections:

For Side wire:
- Insert bare wire fully and tighten terminal clamp on conductor ONLY

For Back wire:
- Loop clockwise 2/3 of the way around screw

Back Wire: Wire 5/8” (1.6 cm)

Limited 2-Year Warranty and Exclusions

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is 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. For details visit www.leviton.com or call 1-800-824-3005. This warranty excludes and there is a disclaimer liability for repair or removal of this product or reinstallation. This warranty is void if this product is installed improperly or is not in accordance with any instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to two years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedied product is returned to you, but shipping charges are not included in the coverage of this warranty. This warranty is void if this product is installed improperly or is not in accordance with any instructions. There are no other or implied warranties of any kind, including merchantability and fitness.

8. Test your work

Why perform this test?
- If you miswire the AFCI it may not mitigate the effects of arcing faults due to unintentional arcing in a circuit.
- If you mistakenly connect the LINE wires to the LOAD terminals, the AFCI will not reset and will not provide power to either the AFCI face or any receptacles fed from the AFCI.

Procedure:
(a) This AFCI 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. Turn the power OFF at the service panel. Ensure that the AFCI is still in the tripped condition by pressing the TEST button. If the indicator light on the AFCI face is ON go to the Troubleshooting section because LINE and LOAD wiring connections have been reversed. You will not be able to RESET the AFCI in this condition.
(b) Press the RESET button fully. If the Indicator Light turns ON, the AFCI has been installed correctly. If the AFCI cannot be reset, go to the Troubleshooting section.
(c) Press the TEST button, then plug a lamp or radio into surrounding receptacles to see which one(s), in addition to the AFCI, lost power when you pressed the TEST button. DO NOT plug life saving devices into any of the receptacles that lost power. Place a “AFCI PROTECTED OUTLET” sticker on every receptacle that lost power, then press the RESET button to reset the AFCI.
(d) Press the TEST button (then RESET button) every month to assure proper operation. If the Indicator light does not go out and come back on or if the AFCI cannot be reset, then it must be replaced.

Troubleshooting

Turn the power OFF and check the wire connections against the wiring diagram. Make sure that there are no loose wires or loose connections. Start the test from the beginning of step 1 if you rewired any connections to the AFCI.

For warranty information and other product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada Ltd. to the attention of the Quality Assurance Department, 185 Hymus Blvd., Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1-800-455-0325.

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