



Cutler-Hammer

IMPORTANT SAFETY INSTRUCTIONS FOR INSTALLING CIRCUIT BREAKER ALSO LISTED AS BRANCH/FEEDER ARC FAULT CIRCUIT INTERRUPTER (AFCI) and GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

Cutler-Hammer type BR115AFGF or CH115AFGF 15 amp 120 volts.
type BR120AFGF or CH120AFGF 20 amp 120 volts.

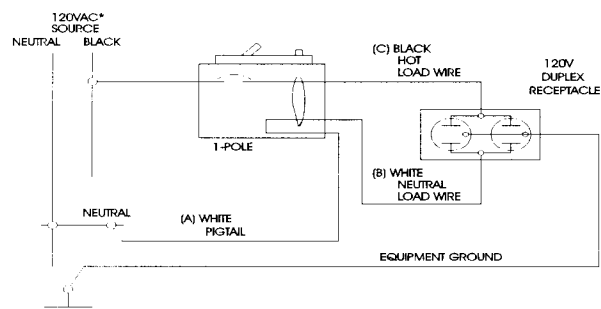
What is an Arc Fault Breaker and GFCI?

It is a new type of circuit breaker with additional circuit protection which mitigates the effects of an arcing fault and also provides personnel ground fault protection.

READ ALL INSTRUCTIONS BEFORE USING WARNING

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN DEATH,
PERSONAL INJURY OR PROPERTY DAMAGE.

1. Circuit breaker should be installed by a qualified electrician only.
2. Install circuit breaker on a single phase 120 VAC 60 Hz power supply system only.
3. **WARNING. TURN OFF POWER AT THE MAIN BREAKER BEFORE BEGINNING INSTALLATION. FAILURE TO DO SO WILL RISK ELECTRICAL SHOCK & POSSIBLY DEATH, PERSONAL INJURY OR PROPERTY DAMAGE.**
4. To turn off power to circuit breaker, move main breaker handle firmly to the "OFF" position.
5. Plug the circuit breaker into the desired pole position.
6. Diagram shown is for typical NM-B cable.



- (A) Connect the coiled, white "pigtail" wire from the circuit breaker to the panel or enclosure neutral bus terminal and secure tightly.
- (B) Connect the white (neutral) load wire to the terminal of the circuit breaker marked "LOAD NEUTRAL".
- (C) Connect the black (hot) load wire to the remaining circuit breaker terminal marked "LOAD".

* Breaker is intended for use only with 120 VAC 60 Hz applications.
DO not use breaker on a shared neutral circuit.

Can be used with BX and in systems without an equipment ground (e.g. knob and tube).

7. Installer to use the "TEST" button on front of ARC FAULT BREAKER and GFCI to test the breaker's Arc Fault and Ground Fault test circuit by tripping the breaker. The breaker handle moves to either the middle position or "OFF" position opening the circuit. To restore power move handle firmly to the "OFF" position and then to the "ON" position. Move the "TEST" button towards the letter "GF" shown on the front label of the breaker. If test fails to trip breaker, the breaker must be replaced. Restore power to breaker. Move the "TEST" button towards the letter "AF" shown on the front label of the breaker. This will test the arc fault detection feature of the breaker. If test fails to trip breaker, the breaker must be replaced. Installer to verify circuit by connecting a 40-watt or higher light bulb to the branch circuit. Turn "ON" the breaker, if breaker stays on installation is correct.
8. Information is on breaker relating to required wire (gauge, material, strip gauge), connector (torque rating, temperature).
9. To report suspicious breaker tripping call the toll free Cutler-Hammer Help desk phone (800) 326-9513.
10. Attach the glue-on label "HOMEOWNER INSTRUCTIONS" to the front of the panelboard and give a copy of instructions to homeowner.

CAUTION

Do not reverse-feed or back-wire, and do not subject to megger, high voltage or high-pot test. Remove the circuit breaker before high-potting occurs on the circuit or the system.

HOMEOWNER INSTRUCTIONS

1. For Circuit Breaker also listed as BRANCH/FEEDER ARC FAULT CIRCUIT INTERRUPTER (AFCI) and GROUND FAULT CIRCUIT INTERRUPTER (GFCI). Listing mark is on front of breaker.

How do you locate an Arc Fault Breaker and GFCI inside the panel?

2. Look for the circuit breaker that has a label on its front that reads ARC FAULT BREAKER and GFCI. The label and the "TEST" button can be seen without removing the front trim of the panelboard.
3. Test regularly, at least once per month. Homeowner to use the dual "TEST" button on the front of the breaker. Test both functions of the breaker using this method. Move the "TEST" button towards the letter "GF" shown on the front label of the breaker. This will test the Ground Fault test circuit of the breaker. The breaker handle moves to either the middle position or "OFF" position opening the circuit. If test fails to trip the breaker, the breaker must be replaced. Restore power to breaker. Move the "TEST" button towards the letter "AF" shown on the front label of the breaker. This will test the Arc Fault test circuit feature of the breaker. If test fails to trip breaker, the breaker must be replaced. A qualified electrician should be used to replace the breaker.

4. To restore power move handle firmly to the "OFF" position and then to the "ON" position.

What do you do if an Arc Fault Breaker and GFCI trips?

5. If the breaker trips (handle moves to "OFF" position or to a mid-position) remove all loads from the receptacles in this branch circuit. Restore power to the breaker to see if it will stay "ON". If the breaker trips again, have an electrician check the permanent electrical wiring by first turning off any wall switches that control light fixtures or outlets. The fault could be arcing, poor insulation, shorted wires, wet connections, wet conduit, a neutral lead pinched to a grounded metal box, receptacle leakage, or ground faults which could cause the safety features of the circuit breaker to open the circuit. If the breaker stays on, then switch the breaker to the "OFF" position and reconnect one of the loads. First connect a 40-watt or higher light bulb to the circuit. Turn the breaker "ON" and switch on that load. If the breaker trips with just this load connected, then please call an electrician to resolve. If the breaker remains "ON", and the load operates normally, add an additional load. This process should be continued until the breaker trips or stays on. The load which has been added last and caused a trip should be examined for possible faults. The fault could be among those listed above. The total load on the breaker should also be calculated to determine if a possible overload condition exists before reusing the device (see Note A below). Loads suspected of having faults should not be restored to service. If the breaker remains "ON" with all of the original loads reconnected, push the breaker handle to the "OFF" position, wait 1 or 2 minutes, and move the handle to the "ON" position. Breaker tripping would indicate that inrush currents are too high. Reduce load until breaker can stay on.

Note A: Possible overload conditions can be checked by adding the currents drawn by various loads (watts/120) and comparing the sum to the breaker handle rating.

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