

Kiln Corner

Why Circuit Breakers Trip

by Arnold Howard

Photo Courtesy of Paragon Industries, L.P.

Though Arnold Howard works for Paragon Industries, L.P., the information here applies to all brands of glass kilns. Feel free to send questions for this column no matter what brand of kiln you own.

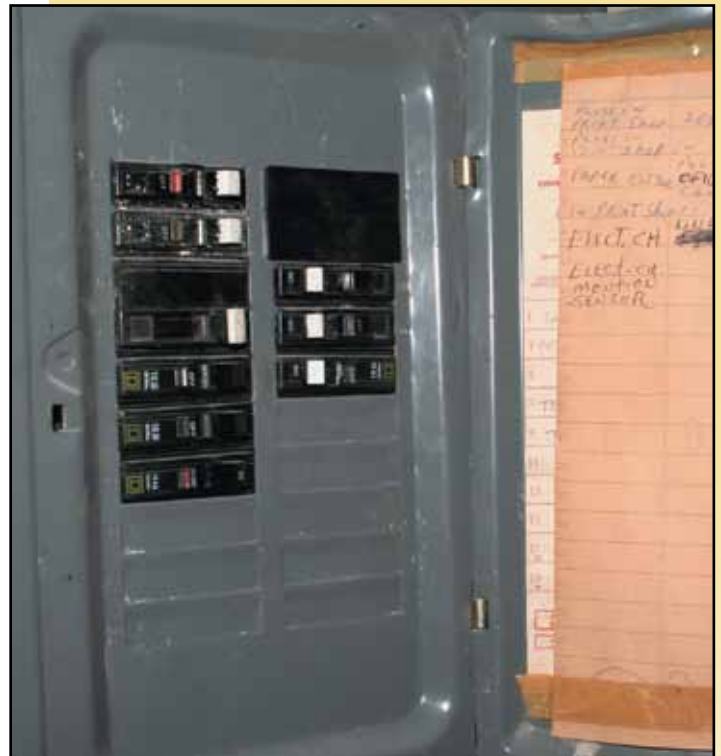
Why does my circuit breaker trip?

The circuit breaker is a switch that shuts off the electricity to protect the wiring from overheating. Since the circuit breaker is triggered by heat, it's important to keep the kiln at least 3 feet to 4 feet from the circuit breaker box. Here are some common problems that can cause circuit breakers to trip.

- **Overloaded circuits.** For example, at my house there is a circuit breaker that trips when a microwave and a toaster are both on at the same time, because together the appliances pull more amperage than the circuit is designed to handle.
- **An overly sensitive circuit breaker.** Those can trip even when the wires are not overloaded. Breakers can become overly sensitive as they age. In that case, the solution is to replace the breaker.
- **A loose connection.** Circuit breakers are triggered by heat when a tiny heating element heats a thermostat inside the breaker. A loose connection on the circuit breaker can cause the breaker to trip prematurely, because heat builds up from tiny sparks forming between the surfaces of the loose connection. An unusually warm circuit breaker panel indicates a loose connection.
- **Corroded connections.** These can also trip the breaker and can be a problem especially in humid areas such as Hawaii.
- **A dead short.** These will trip the circuit breaker, because the short causes a large amount of electricity to flow through the wires. Dead shorts trip the breaker immediately after the appliance is turned on. If the breaker trips when you turn on your kiln, open the kiln's control panel and look to see if there is a wire or heating element that is touching the kiln's steel case.



Be sure you always observe safety precautions any time you are dealing with electrical issues and don't forget to disconnect the power to your kiln before opening the kiln's switch box.



The breaker box is usually in the garage or basement of homes. The boxes are located throughout industrial buildings such as the Paragon kiln factory.

I can't find the circuit breaker box. Where is it usually located?

Look for a small gray steel door mounted to a wall. The breaker box is usually in the garage or basement of a home. In one house where I lived, however, the breaker box was in a bedroom closet. Industrial locations such as the Paragon factory have breaker boxes throughout the building.

Breaker boxes usually have a paper on the inside of the door listing the breakers and the types of circuits (for example, dryer, air conditioner, etc.). When you find the circuit for your kiln, write "kiln" on the line for the appropriate breaker for ease in finding the correct breaker in the future.



Arnold Howard writes instruction manuals and advertisements for Paragon Industries, L.P. His hobbies are glass fusing and karate. He also enjoys studying history and watching classic movies. You can reach Arnold at ahoward@paragonweb.com with questions for future columns. Sign up for his kiln newsletter at www.paragonweb.com.

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