

# FEDERAL PACIFIC ELECTRIC (FPE) ELECTRICAL PANELS

**Federal Pacific Electric** (FPE, aka Stab-Lok) electric panels have a history of breakers not tripping when they should.

## The Problem

Circuit breakers are supposed to shut off when current reaches levels that could start a fire or damage equipment. Due to design and/or quality control problems, the FPE Stab-Lok circuit breakers do not always work reliably. Testing has shown that roughly 30% of the 2-pole circuit breakers fail to trip when they should. Virtually 100% of some lots of these breakers are defective.

Fuses served the same safety function before we had circuit breakers. The situation with the FPE circuit breakers is the same as...

"...the old unsafe (but common) practice of overfusing or putting a penny in the fuse socket behind the fuse itself to deal with the nuisance of fuses frequently blowing... There isn't an inspector or electrical contractor (or even a realtor) who would not agree that these conditions should be corrected. And fast!"

The difference is that overfusing is easy to see, but there is usually no visual clue if the breaker is working correctly or not. "... the homeowner's perception is that *'the breakers work fine'*." There is no way for an electrician to look at a panel and know if the breakers will trip when they should.

## The Solution

Recently some companies have started making replacement breakers for FPE panels. In most cases these are manufactured with the same problematic design of the original, and there is no data that they are more reliable. Also, replacing the breakers does not address problems with the buss bars in FPE panels that are not as well documented as the circuit breaker problem. The only solution that addresses all of these problems is to replace the entire panel.

In closing, remember that any repair work should be performed by a licensed electrician.

\*Safety sheet provided by SCC Electrical, Inc. a Colorado Licensed Electrical Contractor, 719.219.0960. Information derived from <http://www.cornerstone-inspection.com/fpe.html>, a home inspection web site.

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