FREE HOMEOWNER GUIDE

Do I need to replace my Federal Pacific or Zinsco panel?

Why these two brands get flagged

Homes throughout Portland, Beaverton, Tigard, and Hillsboro still have electrical panels installed decades ago, and two brands in particular are known industry-wide as unsafe: Federal Pacific Electric (often labeled "Stab-Lok") and Zinsco. Home inspectors and insurance companies routinely flag both. If you have found one of these in your home, this guide covers what it means and what to do.

Unlike a panel that is merely old or full, these two are considered defective by design. The concern is not capacity but whether the panel will protect you at all. That is a different and more urgent problem than a generic outdated panel, and it is why these brands have their own dedicated replacement service.

The core danger: breakers that fail to trip

A breaker has one critical job, to cut power during an overload or fault before the wiring overheats. The defining problem with these panels is that their breakers can fail to do that. Independent testing over the years has found that a significant share of Federal Pacific Stab-Lok breakers fail to trip under overload conditions, and Zinsco breakers have a known failure mode where the breaker melts to the bus bar and stays stuck in the ON position even when switched off.

When a breaker does not trip, an overloaded or faulted circuit keeps drawing current and heating up, with nothing standing between it and a fire. That is the heart of why electricians treat these panels differently from an ordinary old panel: the safety device you are counting on may not work when it matters most.

Hidden damage and insurance

Even when one of these panels looks fine from the outside, they often hide internal problems: melted or damaged bus bars, breakers that no longer seat tightly, burnt wiring, and corrosion from years of heat. Most homeowners never know anything is wrong until a breaker overheats or an inspector opens the cover.

The insurance side is just as real. Many Oregon insurers will decline to write a policy, refuse to renew, or require immediate replacement when they learn a home has a Federal Pacific or Zinsco panel. If you are buying, selling, or shopping for a new policy, one of these panels can hold up the whole transaction until it is replaced. If your carrier has already sent a letter or an inspection report has flagged the panel, our insurance-required panel replacement page explains what to gather and what happens next.

- [ ] Warm or buzzing panel
- [ ] Breakers tripping randomly, or never tripping at all
- [ ] Lights flickering when appliances run

- [ ] A burning smell near the panel
- [ ] Discoloration or scorch marks on or around the panel

Why repair is not the answer

A reasonable first instinct is to ask whether a bad breaker or a damaged part can just be swapped out. For these two brands, the answer from most electricians, including us, is no. Because the hazard is built into how the panel and its breakers are designed, replacing individual parts does not remove the underlying risk, and replacement breakers for these panels are themselves a question mark.

The recommended fix is a full panel replacement with a modern panel and breakers that trip reliably. If you notice any of the warning signs above, especially a burning smell, buzzing, or scorch marks, treat it as urgent, keep heavy loads off the panel, and have a licensed electrician assess it promptly rather than waiting.

What replacement involves and what it costs

Replacing one of these panels is a service upgrade: the old panel comes out and a modern one goes in, with updated grounding, current-code connections, and reliable breakers. In the Portland metro that means a load calculation (accounting for any EV charger, heat pump, or remodel you are planning), an electrical permit and inspection, and coordination with PGE or Pacific Power for a temporary shutoff.

These panels were most heavily installed in homes built roughly between 1950 and 1985, so if your home is from that era it is worth having the panel identified. Replacement costs in the Portland area typically fall between $2,500 and $7,500, depending on panel size, the condition of the meter and service mast, indoor versus outdoor location, and how much utility coordination is needed. A licensed electrician should inspect your specific panel before quoting. See our panel upgrade service for how the upgrade itself works.

Frequently asked questions

Are Federal Pacific and Zinsco panels really that dangerous?

Both are considered unsafe industry-wide because their breakers can fail to trip during an overload or fault. Federal Pacific Stab-Lok breakers have been found to fail to trip at high rates in testing, and Zinsco breakers can melt to the bus bar and stay energized. A breaker that does not trip leaves an overloaded circuit heating up with nothing to stop it, which is a fire risk.

Can a Federal Pacific or Zinsco panel just be repaired?

Most electricians, including us, do not recommend repairing these panels. The hazard is built into the design, so swapping individual breakers or parts does not remove the underlying risk. The recommended fix is a full replacement with a modern panel and breakers that trip reliably.

Will my insurance require me to replace the panel?

Often, yes. Many Oregon insurers will decline coverage, refuse to renew, or require immediate replacement when a home has a Federal Pacific or Zinsco panel. It commonly comes up during a home sale or when shopping for a new policy, and can hold up the transaction until the panel is replaced.

How much does it cost to replace one of these panels?

In the Portland metro, replacement typically ranges from $2,500 to $7,500, depending on the panel size, the condition of the meter and service mast, indoor versus outdoor location, and utility coordination. A licensed electrician should inspect your specific panel before giving a firm number.

Sources

1. Residential Electrical Permits, City of Portland Permitting & Development. https://www.portland.gov/ppd/residential-permitting/residential-electrical-permits

> **Need a licensed electrician in the Portland area?**
> Call Smiley Electric at (503) 484-7556 (Mon–Sat, 7am–5pm) or visit smileyelectric.net/contact. For sparks, smoke, a burning smell or a hot panel, turn off the power if it is safe and call right away.

Reviewed by Joshua Smiley, owner & master electrician, Smiley Electric. Last reviewed November 13, 2026. Online version: smileyelectric.net/help/federal-pacific-zinsco-replacement-guide/. General information, not a substitute for an on-site inspection.

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