

## Old Electrical Panels

At the turn of the last century when electricity was relatively new to Alberta, the initial 120 volt 30 amp overhead electrical services, that came across our yards from the pole in the back alley, used to be protected by glass fuses. These first electrical residential services were sufficient to supply our lights, and the early appliances. As technology evolved and our demands became greater, electrical equipment also evolved and the invention of electrical breaker panels occurred.

Initially the first breaker panels were manufactured by Federal Pioneer or Square D. These consisted of 4 breakers in a small metal box usually located by the back door of the house. Today residential electrical panels can be 84 circuit and be supplied with 200 amps of power.

This brings me to the intent of this article. One of the most common questions I receive, comes from homeowners who are just moving into a newly purchased older home. Customers ask "Should I upgrade my old panel to a newer one?" A lot of older panels are a maximum of 16 or 24 spaces for circuits.

There are 3 ways I can reply to this question. The first is, space saver breakers. These are breakers for specific manufacturers that take the spaces of a single breaker but have 2 handles. This means that a single space in a panel can now accommodate 2 circuits. A 24 circuit panel can now accommodate 48 circuits. This solves the problem of a lack of space.

The second possible answer, is to install a small panel (sub panel) beside the existing. This will expand the capabilities of the electrical system by providing the capability to install additional circuits. One of the problems people experience is that the sub panels are being installed with low capabilities. This means that if you're planning a kitchen renovation, for example, and your depending on using this new sub



panel, you will not have the ability to accommodate the needs of the kitchen.

The 3rd option is to replace the existing panel with a new larger one. The advantage to this scenario is that any new additional circuits you need to install will be fed from the 100 amps being supplied to your home. It's best to get advice from an electrical contractor you trust when it comes to making these decisions. You could spend a lot of money on installing a useless sub panel when, for not much more, you can have the complete panel upgraded.

" Do my old breakers need to be replaced"? I get asked this question quite often. Everything deteriorates over time. Personally, if I bought an older home with the original breakers existing, I would change them for new ones. I have also found that a breaker that has been tripped numerous times, will weaken and trip easier than a new one. These should also be replaced. Unfortunately, there are a number of panel manufactures that have stopped producing breakers so replacement with new ones may not be impossible. This is where a panel replacement is inevitable. Speak to a knowledgeable electrician before making any decisions.