

Older Houses May Need New Circuit Panels

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New electrical devices are making new demands on how our homes are built. If you own a home built before 1985, you may have an electrical system that's not fully ready for the demands you'll put on it: Central Air Conditioning, entertainment systems, computers and other appliances that didn't exist a generation ago are now commonplace in our homes, and can push older systems over the limit. Home owners who have the old, 100-amp panel box will want to Heavy-Up their service to make sure their wiring systems can handle the load. Without a safe panel, the smallest wiring defect or accident in the home can lead to disastrous consequences. Here are some common signs a homeowner can observe that indicate it's time to talk to a professional:

- **Frayed service cable:** The service cable (S.E.C.) is the cable running down the side of the home to the meter, and from the meter to the panel. It should be free from cuts or tears in the outer insulative layer and should be water-proof and protect against shocks even when wet. The 240 Volt electrical current in this cable is unfused (won't turn off if trouble occurs), and can cause serious bodily injuries or death if contacted. Older versions of the SEC cable were made with a cloth wrap which may become frayed and water permeable. This is a sign that age and/or extreme heat from overloading are taking their toll, and can lead to water ingress (moisture in the meter and panel) and shock and fire hazards. Please email us a photo at office@solutionselectric.com if you think you have a bad service cable immediately or call 301-879-8788 for a free safety checkup and estimate.
- **Meter box is small:** If your meter box looks like a glass bubble with a small square or rectangular box not much wider or taller than the glass part – you've probably got a 100 amp meter, and that's too small for most peoples' usage nowadays. The average home in the Washington DC Area needs at least 150 amps, and the recommended heavy up is 200 amps. This allows room for additional circuits and minimizes wear to circuit breakers and service equipment for a long, safe panel life-cycle.

- **Panel is old:** Antiquated circuit breakers are not reliable and may not be able to react quickly in the event of short-circuit or overload of one of your circuits. The panel may need replacing because its completely full, has fuses instead of breakers, or is rusty or has been exposed to water. Old circuit breakers often are not capable of reliable tripping. A circuit breaker must trip instantly in case of short circuit or electrical accident to minimize the risk of fire or injury. Modern breakers react ten times faster than breakers made 30 years ago and can be relied upon to 'trip out' at the precise current (amps) necessary for the circuit. Circuits that trip a lot, or circuits with dimming, flickering lights may be experiencing these panel unreliability issues. Other times the damage may be invisible to you, and the danger lurking, ready to strike without warning. If you have an old, rusty panel, please don't touch it, it may be very dangerous. Have us come out for a free inspection and estimate before serious problems occur.
- **Inadequate grounding:** Modern homes are equipped with 3-prong outlets to help avoid unnecessary risk of serious shocks and electrocution when using tools, vacuums, computers or small appliances. Three-prong outlets rely on the grounding at your panel to do their job correctly, so bringing your panel's grounding system up to code can be the most significant safety measure you'll ever make. You cannot know if your ground path is safe and adequate without a modern-type electrical service and panel.
- **Recent addition or remodel was performed without panel upgrade.** We find about half of the remodels and additions done in the Washington DC area require a panel upgrade in order to safely add the necessary circuits, and many of them did not get done! These homeowners are surprised to find out that their old, overloaded panel and service cable were made even more dangerous by a builder/contractor who didn't know or just did not care enough to check out the electrical service during the estimating process. The electrician may have told the builder at some point in the job cycle and been told to just hook up the circuits and keep quiet. Unfortunately this happens more often than you'd think... We are the kind of electrical contracting

company who will not leave a home in an unsafe condition, no matter what. The risk of fires and electrocution injuries are too great to take such chances.

If any of these conditions may apply to you, your home and your family may be in danger. Don't wait - get a licensed electrician to check your panel thoroughly, and take the necessary actions immediately.

Request Free Panel Evaluation and Estimate — call (301) 879-8788, or write to: office@solutionselectric.com

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