



Home Inspection Services Newsletter

September, 2009

Educational: **Common electrical defects**

Electricity is dangerous! Electrical work should be done by an electrical contractor who knows current safety standards, proper installation practices, and is familiar with devices that are suited to the job at hand. We find electrical issues on over half of the properties that we inspect. Here are common deficiencies:

1. **Miss wired electrical receptacles:** Usually hot and neutral reversed
 - o This is a most basic electrical task. A miss wired receptacle is an indication of unprofessional workmanship. Since most electrical wiring is hidden in the walls, this mistake raises concerns about the rest of the electrical work.
2. **Miss wired light fixtures:** Another basic task
 - o Miss wired light fixtures exist but are seldom found because inspectors don't test for it. I found one the other day when I was shocked when changing a light bulb (Hot & neutral were reversed so the bulb threads were hot).
3. **Unprotected electrical wiring:** Electrical wires have to be physically protected from damage and UV (sunlight).
 - o We see unprotected wiring (not in the wall or in conduit) on the outside of houses, in cabinets, entering the ground, in garages, under kitchen cook tops, at dryers, etc.
4. **Missing or improperly wired junction boxes:** Electrical splices must be in junction boxes.
 - o Electrical splices (not in J-boxes) are common in attics, above the stove, on the patio, etc.
 - o Knowledge to perform this task is required. Proper grounding, strain relief, wire nut size, attachment, etc
5. **Double tapped circuit breakers:** Two wires on a circuit breaker that is designed for one wire

- o The label on the breaker states the designated number.
- 6. **Over fused circuits:** Circuit breakers that are too large for the wire size in the circuit
 - o A 20 Amp breaker on 14 AWG wire (rated for 15 Amps) won't trip when the circuit is overloaded.

Here's a thought for "do it yourself" electricians: When you sell your home, an inspector will recommend that electrical deficiencies be repaired by an electrical contractor. Since you'll probably pay then, why not hire a professional now (and be safer while living in the home)!

Question of the Month: What's a "fogged" window?

A Dual pane (thermopane) window consists of two panes of glass that are separated from each other and sealed to prevent entry of air. Some have air in between the panes; some have inert gas (usually argon). When the **seals fail**, moist air enters the space, condenses on the inside of the glass, and permanently mineral stains the window. This condition is called fogging. The solution is to replace the window.

Maintenance Items for September: Stucco painting

Stucco is a cement based product. Moisture and sunshine will degrade stucco over time. Paints and stains protect a home's stucco. In Arizona, five to seven years is the recommended time to paint the exterior stucco. The process is pretty simple: clean the stucco (power wash), seal or repair cracks and damaged areas, prime new stucco (or patched areas), apply two coats of quality paint.

Safety Tip of the September: Water heater TPR Piping

A TPR (temperature/pressure/relief) valve is a mandatory safety device on a water heater. All water heaters sold today have these devices. The installation of a TPR pipe is often missed by the non-professional. TPR pipes must terminate at the exterior, 6" to 24" above while facing the ground. The pipe must be 3/4 inch copper, galvanized steel, or CPVC.

Inspection classes for realtors: Please feel free to call on me.

Let our experience work for you!



Daryl Gates



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