# DIY: Sealing Gaps Around Electrical Outlets and Switches

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**Safety Precautions: Working around electricity can be very dangerous. Switch the breaker for the outlet/switch you plan to work on before starting. It is a good idea to check the outlet with a multimeter to make sure there is no power to it, wear gloves, and have someone observing in case an electrical shock occurs.**

**Difficulty:** Beginner

**Cost:** <$5 per outlet/switch

**Time:** 5-10 minutes per outlet/switch

**Materials:**
- minimal expanding foam spray
- screwdriver
- utility knife
- foam outlet gasket
- multimeter
- caulk
- caulk gun

**Safety Equipment:**
Gloves

**Before You Start:** Switch the breaker for the outlet/switch you plan to work and use a multimeter to make sure no power is going to the outlet/switch before starting.

1. Check the outlet/switch with a multimeter. Do this by switching your multimeter to test for AC voltage. Choose a voltage setting above 120V (or 240V) for an accurate reading. For an outlet, place one lead in each flat receptacle (the order isn't important for an AC circuit). If the multimeter reads anything other than 0V then the outlet is live and poses a shock hazard.

2. For a switch, remove the cover and locate the black, white, and green (or copper) wires. The black wire (also red or white with red/black tape) is hot and carries 120V (avoid touching this wire until you have determined there is no power to the circuit). The white wire is neutral and the green (or bare copper) wire is ground, both are normally 0V. Touch one multimeter lead to the hot wire and one lead to either neutral or ground. If the multimeter reads anything other than 0V then the switch is live and poses a shock hazard.

3. Once the outlet/switch is safe to work on, remove the cover if you haven't done so already. The outlet/switch will be located inside a small box in the wall. If the gap between the box and the wall is less than ¼ inches fill it in with caulk, wipe away any excess, and allow it to dry. If the gap is greater than ¼ inches use a minimally expanding foam spray to fill in the gap. Once the expanding foam spray has dried use a utility knife to cut off any excess.

4. Place a foam gasket behind the outlet/switch cover and put the cover back.

Adapted from: http://www.familyhandyman.com/walls/close-gaps-around-electrical-outlets-and-switches

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