

Toolbox Talk Training: Basic Electrical Safety – What Are Listing & Labeling Requirements?

It is not uncommon for electrical devices or components to be used—whether by mistake or on purpose—in ways they were never designed for. The question is: how do we know what is acceptable use and what is not? OSHA electrical safety standards are clear that electrical equipment must only be used in accordance with its “listed instructions.”

Most electrical products are evaluated by independent testing organizations, such as Underwriters Laboratories (UL), to confirm they are safe for specific applications. If a product passes testing, it is labeled and comes with instructions that define how it can be properly used. Those instructions are not optional—they are part of the product’s safety certification.

Here are a couple of common examples where listed electrical equipment is often misused on job sites:

- **Power Strips (Relocatable Power Taps)**

Power strips, sometimes called relocatable power taps, may include built-in circuit breakers or surge protection. According to UL listing requirements, these devices are intended for indoor use only and are not approved for construction sites or similar harsh environments. They must be plugged directly into a permanently installed wall receptacle and must never be connected in series (daisy-chained) with other power strips or extension cords. They are also not intended to be permanently mounted to walls, tables, or benches, nor used as a substitute for fixed wiring. In addition, they are typically rated for 20 amps or less, meaning they are suitable for low-load equipment such as computers and printers—not high-demand tools or appliances like heaters, refrigerators, grinders, or drills.

- **Electrical Outlet Boxes on Extension Cords**

In some workplaces, you may see a standard metal outlet box attached to the end of an extension cord and used as a temporary power source. However, UL guidelines and the National Electrical Code (NEC), specifically Article 314, require that standard outlet boxes be permanently installed on a fixed structure such as a wall or approved electrical system. They are not designed or approved to be mounted on the end of a cord for temporary power use. Doing so creates an unsafe and non-compliant setup that should not be used.

These are just two examples of electrical equipment being used outside of its listed purpose. Can anyone think of other situations where electrical devices are being misused on the job site? If you encounter anything like this, report it to your supervisor or safety representative so the issue can be corrected promptly. Thank you for attending today’s Free toolbox talk from Toolboxtalk.com 2017. Do not sell, modify, or use on commercial websites for profit. toolbox talk. Please remember to sign the training certification form to receive credit for your participation.

