

# Facility Safety

Identify & correct potential electrical safety hazards  
& maximize machine uptime in the workplace





## Personnel Protection

**Hazard:** Permanently installed non-GFCI receptacles installed in wet or damp indoor locations, on roofs or other outdoor locations.

**Summary:** The National Electrical Code requires GFCI protection for power outlets in all wet or damp locations, such as bathrooms, kitchens, garages, outdoor areas, rooftops, locker rooms, etc. Use Leviton SmartLock Pro GFCI receptacles to satisfy this code requirement.

**Remedy:** Install GFCI receptacles in all such locations. Leviton's SmartLock Pro GFCI receptacles are available with safety features such as tamper-resistant shutters, pilot and guide lights and weather-resistant construction for outdoor locations.

**Applicable Standards:** NEC Article 210.8(B), OSHA 29 CFR PART 1910.304(b)(3), 1926.304(b)(3), NFPA 70E Article 110.4(C)



### Notes

## Portable Personnel Protection

**Hazard:** Portable power tools being used on circuits without GFCI Protection.

**Summary:** A portable GFCI must be able to trip if a neutral wire is open. Leviton's patented SmartLock Pro GFCI technology will trip if an open neutral is detected, and prevent reset until it is fixed. Leviton provides GFCI protected cord sets and field attachable plugs for 15A and 20A, 120V applications that will satisfy this code requirement.

**Remedy:** Use GFCI cord-sets or install user-attachable plugs on equipment. Leviton GFCI cord sets are available in both automatic and manual reset, and provide required open-neutral protection for added safety.

**Applicable Standards:** UL 943 section 6.7.2.1, OSHA 29 CFR PART 1926.404(B)(1), NFPA 70E Article 110.4(C)



### Notes

### Temporary Power Distribution

**Hazard:** Temporary power systems not providing sufficient over-current or GFCI protection.

**Summary:** OSHA requires that all 120V, single-phase 15A and 20A receptacle outlets on construction sites be GFCI protected. The 2011 NEC expands that to 120/240V and up to 30A. Leviton's The Box™ Series Power Distribution Boxes will satisfy these code requirements. They are constructed of reinforced metal housing and legs which can withstand heavy abuse, ideal for temporary use in industrial and commercial applications.

**Remedy:** Utilize Leviton power distribution centers that provide individual over-current and GFCI protection for each line.

**Applicable Standards:** NEC Article 590.6, OSHA 29 CFR PART 1926.404(B)(1)



Notes

### Power Pendants

**Hazard:** Using standard electrical boxes that are not listed for use as pendants.

**Summary:** NEC Article 110.12 requires that unused openings in boxes be closed off to provide the same level of protection they would get from a wall. Using wall boxes as pendants violates this provision. Use of Leviton's non-metallic portable outlet boxes satisfies both NEC and OSHA requirements. Additionally, Leviton offers cover plates with weather-resistant flip lids, providing NEMA 3R protection to receptacles while not in use.

**Remedy:** Use Leviton non-metallic portable outlet boxes that are designed for this purpose.

**Applicable Standards:** NEC Article 110.12, OSHA 29 CFR PART 1910.303(b)(1), 1926.403(b)(1)



Notes



## Outdoor or Indoor Wet and Damp Locations

**Hazard:** Plugs and connectors are failing due to contact from moisture and debris.

**Summary:** Unless identified for use in the operating environment, electrical conductors must not be used in damp or wet locations where they may be subjected to liquids, vapors, or other deteriorating agents having a deteriorating effect on the conductors. Leviton's Wetguard® watertight devices feature environmental ratings of NEMA 4, 4X, 6 & 6P and IEC IP66 & IP67, and are constructed of materials that satisfy these Standards' requirements.

**Remedy:** Utilize Leviton Wetguard® watertight plugs and connectors in areas that are exposed to moisture.

**Applicable Standards:** NEC Article 110.11, OSHA 29 CFR PART 1910.303(b)(6), 1926.432



### Notes

## Receptacles in Damp or Wet Locations

**Hazard:** Receptacles mounted outdoors or in wet or damp locations are subject to corrosion and damage from water and UV exposure.

**Summary:** All 15A and 20A, 125V and 250V receptacles installed in damp or wet locations must be listed as weather resistant. Leviton offers a comprehensive line of weather-resistant receptacles, both standard and GFCI that satisfy this requirement.

**Remedy:** Use Leviton weather-resistant receptacles.

**Applicable Standards:** NEC Article 406.9(A) and (B)

**Hazard:** Receptacles mounted in damp or wet locations do not have appropriate covers installed.

**Summary:** All 15A and 20A, 125V and 250V receptacles installed outdoors in a location protected from weather or in other damp locations must be protected with a weatherproof cover when not in use.

If they are installed in wet locations, they must be protected by a cover that is weatherproof both while-in-use or not in use.

**Remedy:** Use Leviton weatherproof covers.

**Applicable Standards:** NEC Article 406.9(A) and (B)



### Notes





### Mechanical Interlocks

**Hazard:** Plugs and connectors are disconnected under load, potentially damaging or shortening the lifespan of both the connectors and connected equipment.

**Summary:** Not all disconnecting devices are rated for interrupting load currents. Disconnecting “live” circuits can result in arcing that can damage the device and connected equipment, while at the same time creating a safety hazard for the operator. Powerswitch® mechanical interlocks provide the required level of safety by preventing the unplugging of a device under load – the safety disconnect will de-energize the circuit before allowing the plug to be disconnected.

**Remedy:** Install a Leviton Powerswitch® Mechanical Interlock, available for both IEC 60309 and NEMA configured plugs and receptacles.

**Applicable Standards:** NEC 430.102(B), 430.109(F), UL 60947-4-1 (supersedes UL 508), NFPA 70E Article 120



**Notes**

---

---

---

---

---

---

---

---

---

---

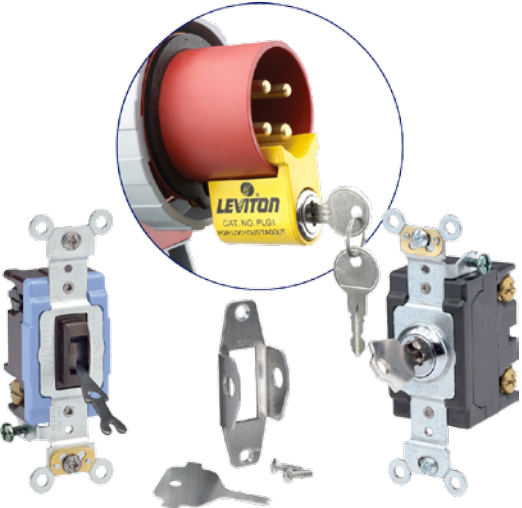
### Control of Hazardous Energy (Lockout/Tagout)

**Hazard:** Workers performing service or maintenance on machinery may be exposed to injuries from the unexpected startup of the machinery.

**Summary:** Employers must establish an energy control program, consisting of energy control procedures, employee training, and periodic inspections to ensure that before service and maintenance is performed, machines and equipment that could unexpectedly startup are isolated from their energy source(s).

**Remedy:** Leviton offers a variety of devices that can be used to prevent accidental reenergization of equipment.

**Applicable Standards:** NFPA 70E Article 120, OSHA 29 CFR PART 1910.147



**Notes**

---

---

---

---

---

---

---

---

---

---

