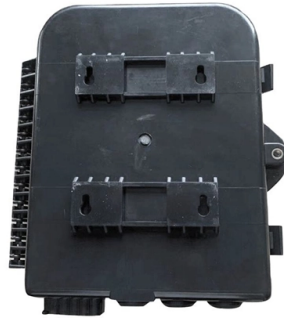
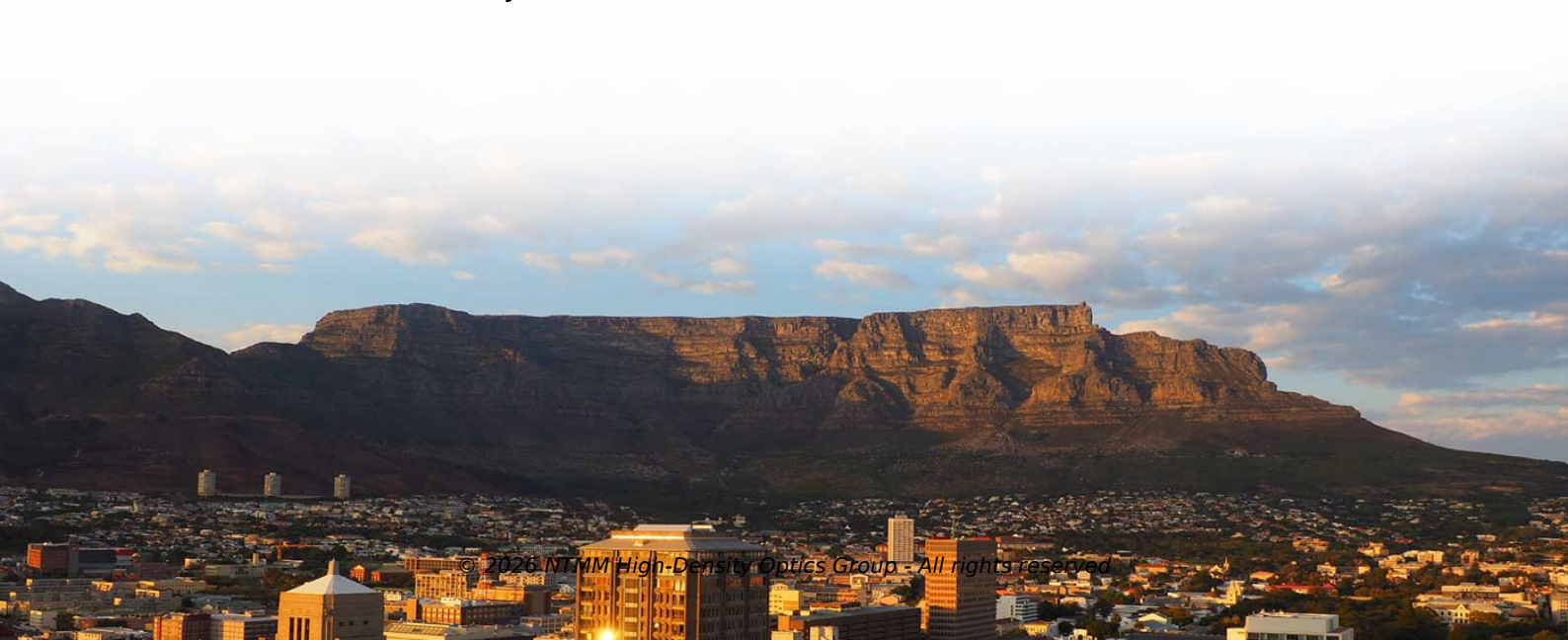


Equipment must not be connected to the secondary distribution box



Overview

According to NEC Article 250, both the neutral and ground wires must be connected only in the main panel or at the first service disconnect. In my opinion, two locations within the power distribution system present unique challenges for the electrical worker, service entrance equipment and the equipment directly on the secondary of a transformer. 1 (C) provides the designators for raceway trade sizes. All conductors of a circuit, including the neutral and equipment grounding conductors, must be run in the same raceway. From there, it is routed to individual building distribution boxes (secondary distribution boxes), which subsequently supply power to unit-level distribution boxes (tertiary distribution boxes), and finally to household systems. The six disconnect rule per the 2017 version of NEC stated “The. Metal raceways, cable trays, cable armor, cable sheath, enclosures, frames, fittings, and other metal noncurrent-carrying parts that are to serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure.



Article Content

Jun 02, 2026

Understanding National Electrical Code (NEC) six disconnect

Executive summary—What is the NECT six disconnect rule? Generally, two locations within the power distribution system are important and play a unique role for the electrical workers on the field, service ...

Dec 17, 2025

Why are Neutral and Ground Wires Bonded in a Subpanel?

They should never be connected together downstream of the service equipment, such as in subpanels or other parts of the circuits. This practice is essential for maintaining safety and ensuring the proper ...

Oct 01, 2025

The 6-Disconnect Rule - IAEI Magazine

A prime example is the equipment found directly on the secondary side of power distribution transformers regardless of their location in the system. As this discussion progresses, we ...

Jun 29, 2026

Wiring Methods, Part 1, based on the 2020 NEC

Ex 2: Raceways and cables installed into the bottom of open-bottom equipment such as switchboards, motor control centers, and floor or pad-mounted transformers are not required to be mechanically ...

Jun 09, 2026

1910.305

Unless installed in a continuous grounded metallic raceway or metallic covered cable, each branch circuit shall contain a separate equipment grounding conductor and all receptacles shall be ...

Feb 04, 2026

Service Disconnect Rules per NEC Article 230, Part VI

This equipment must be installed in a way that works seamlessly with the service disconnect rules. Staying current with the nuances of NEC Article 230 is not just about passing an inspection; it's about ...

May 29, 2026

WAC 296-46B Electrical Safety Standards, Administration, and ...

063 Equipment requiring servicing. 22 WAC

296-46B-215 Feeders. 22

Aug 19, 2025

NEC Requirements for Switchboards and Panelboards | EC& M

Switchboards and panelboards must have a short-circuit current rating not less than the available fault current on the line side of the equipment. In other than one- and two-dwelling units, the available fault ...

Aug 09, 2025

700.10 (B) Emergency System Wiring.

The general rule in 700.10 (B) is to keep wiring from an emergency source or emergency source distribution overcurrent device to the emergency loads entirely separate from all other wiring and ...

Aug 13, 2025

The Meaning and Function of Primary, Secondary, and Tertiary ...

Generally does not supply power directly to end-use equipment. Equipment inside usually includes isolating switches, circuit breakers, and residual current devices (RCDs).

Contact Us

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