

Surface-mounted electrical box with repeated grounding



Article Overview

When installing multiple receptacles in a surface-mounted metal box, the equipment grounding conductor (EGC) must connect directly to the box, and self-grounding receptacles alone are not sufficient for code compliance.

Grounding Requirements

For metal surface-mounted boxes, the National Electrical Code (NEC) requires that the equipment grounding conductor (EGC) be connected directly to the metal box. This ensures that the box itself is bonded and provides a safe path for fault currents. Simply relying on a self-grounding receptacle to bond the box is not sufficient, especially when adding additional receptacles or circuits later .

Multiple Receptacles in One Box

When installing two or more receptacles in a single surface-mounted box:

- Each receptacle should have a ground pigtail connecting it to the box if the box is metal .
- If the box has a metal cover, the cover may not require a separate bonding jumper to the receptacle, but the EGC must still terminate on the box itself .
- Self-grounding receptacles can supplement grounding but cannot replace the direct connection of the EGC to the box

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receptacle grounding, surface mounted box/cover 250.146 (a)

Hello - I have a grounding / code question and would appreciate any comments or opinions. from NEC 250.146(A)

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