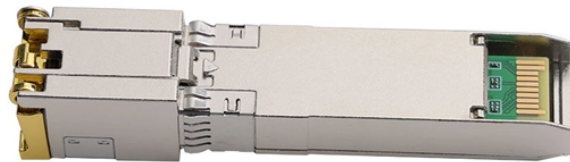


# Does the jumper connection of the distribution box need to be grounded



## Overview

This ground connection must be made using a system bonding jumper and formed at or before the first disconnecting means of the system. The neutral conductor is typically the grounded conductor connected to the system's neutral point, carrying current under normal operation. Grounding electrode conductors must be connected at. The grounding electrode conductor connection to the neutral conductor at service equipment must be made at any accessible point from the load end of the overhead service conductors, service drop, underground service conductors, or service lateral to the terminal or bus to which the service neutral. This bonding is typically achieved using a main bonding jumper that connects the grounded (neutral) conductor to the equipment grounding conductor. Main Panels and Distribution Boards In main service panels, the neutral is bonded to the equipment grounding conductors and the panel's metal. Grounding and bonding limit overvoltages, stabilize the voltage to the ground during regular functioning, and ease the proper operation of circuit breakers and fuses. 24 contains requirements for grounding of service-supplied AC systems. DC systems will be covered later. NEC Article 100 defines this as “ connecting to earth or to some conducting

body that serves in place of the earth.

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Equipment grounding is the connection to the ground of non-current-carrying conductive materials – e.g., cable trays, metallic conduits, junction boxes, transformer casings, and motor ...



Forming a ground connection with a transformer is easy. This ground connection must be made using a system bonding jumper and formed at or before the first disconnecting means of the ...



Bonding is not to be confused with grounding. Two pieces of equipment bonded together does not necessarily mean both pieces of equipment are grounded. However, it assures that the ...



The grounded conductor, typically the neutral, is the return path for the fault current from the panel back to the utility transformer. The connection made by the main bonding jumper forces the fault current ...



Clear directions in 250.148 specify that all of the equipment grounding conductors present in a box or enclosure are required to be connected, regardless of the circuit with which they are associated.



This article takes an in-depth look at the main and system bonding jumper and the role it plays in grounding and bonding, how we size it up and install it.



An equipment grounding conductor passing through the box without a splice is not required to be joined inside the box to others that are spliced in the box.



Correct grounding of services depends upon understanding the definition and role of the grounded conductor. The neutral conductor is typically the grounded conductor connected to the system's ...



Some inspectors require the grounding electrode conductor connection to the service neutral conductor to be made at the meter socket enclosure, while others insist the connection be made only within the ...

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