

EXHIBIT 250.8 Grounding connection to the grounded conductor at the transformer and at the service equipment.

(4) Main Bonding Jumper as Wire or Busbar. If the main bonding jumper specified in 250.28 is a wire or busbar and is installed from the grounded conductor terminal bar or bus to the equipment grounding terminal bar or bus in the service equipment, the grounding electrode conductor shall be permitted to be connected to the equipment grounding terminal, bar, or bus to which the main bonding jumper is connected.

(B) Load-Side Grounding Connections. A grounded conductor shall not be connected to normally non-current-carrying metal parts of equipment, to equipment grounding conductor(s), or be reconnected to ground on the load side of the service disconnecting means except as otherwise permitted in this article.

Informational Note: See 250.30 for separately derived systems, 250.32 for connections at separate buildings or structures, and 250.142 for use of the grounded circuit conductor for grounding equipment.

Except under limited conditions, 250.24(B) prohibits connecting the grounded conductor of an electrical system to a grounding electrode or grounding electrode system anywhere on the load side of the service disconnecting means. This prohibition correlates with the requirement of 250.142(B), which is a general prohibition on the use of the grounded conductor for grounding equipment. This prevents parallel paths for neutral current on the load side of the service disconnecting means. Parallel paths could include metal raceways, metal piping systems, metal ductwork, structural steel, and other continuous metal paths that are not intended to be current-carrying conductors under normal conditions.

(C) Main Bonding Jumper. For a grounded system, an unspliced main bonding jumper shall be used to connect the equipment grounding conductor(s) and the service-disconnect

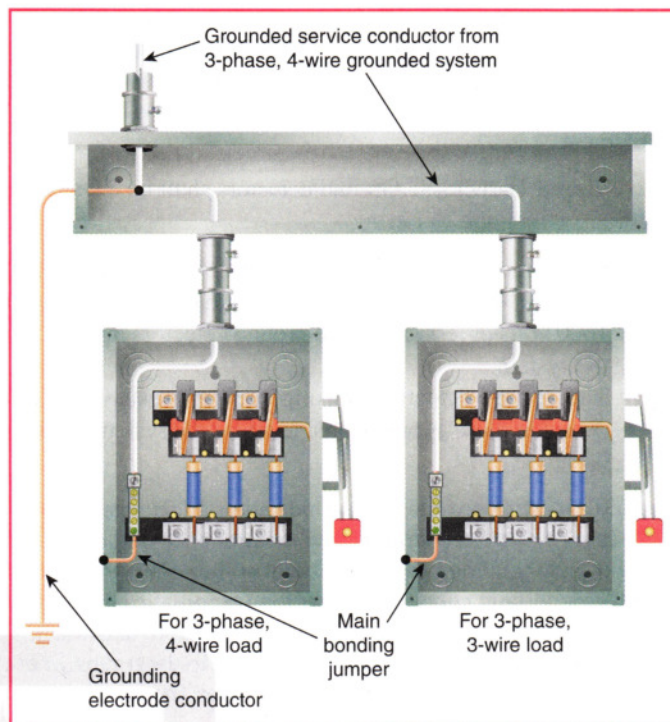


EXHIBIT 250.9 A grounded system in which the grounded service conductor is bonded to the enclosure supplying 3-phase, 4-wire service loads and to the enclosure supplying 3-phase, 3-wire loads.

enclosure to the grounded conductor within the enclosure for each service disconnect in accordance with 250.28.

Where the service equipment of a grounded system consists of multiple disconnecting means in separate enclosures, a main bonding jumper for each separate service disconnecting means is required to connect the grounded service conductor, the EGC, and the service equipment enclosure. The size of the main bonding jumper in each enclosure is determined in accordance with 250.28(D)(1). See Exhibit 250.9.

Exception No. 1: If more than one service disconnecting means is located in an assembly listed for use as service equipment, an unspliced main bonding jumper shall bond the grounded conductor(s) to the assembly enclosure.

Where multiple service disconnecting means are part of an assembly listed as service equipment, all grounded service conductors are required to be run to and bonded to the assembly. However, only one section of the assembly is required to have the main bonding jumper connection. See Exhibit 250.10.

Exception No. 2: Impedance grounded systems shall be permitted to be connected in accordance with 250.36 and 250.187.

(D) Grounded Conductor Brought to Service Equipment. If an ac system operating at 1000 volts or less is grounded at any point, the grounded conductor(s) shall be routed with the ungrounded conductors to each service disconnecting means and shall be connected to each disconnecting means grounded