

ELECTRICAL INSPECTION BULLETIN
B-10-806
Installation of Grounding Conductors for Isolated Systems



(Effective 12/01/2015)

The installation of a System Grounding Conductor as may be required for isolated systems (see CEC Rule 10-206) shall be installed in accordance with CEC Rule 10-806.

Specifically, Rule 10-806(1) requires that the integrity of a grounding conductor be without joint or splice throughout its length. There are three notable exceptions which will allow the splicing or joining of system grounding conductors. These exceptions are:

- (1) bolted connections when joining sections of bus bars
- (2) use of thermit welds, and
- (3) use of in-line compression connections applied with a compression tool.

Bolted mechanical connections are not permitted when interconnecting, splicing, or joining system grounding conductors.

● System grounding conductors shall be connected to the system ground electrode as permitted in CEC Rule 10-906.

A common practice in large electrical installation is the use of solid copper grounding buss which is normally installed in an electrical room. This buss bar shall be sized to handle the equivalent fault level rating as the ground conductor. Recommended size is 6 mm x 76 mm as per drawing "B".

Installed grounding conductors may be attached to solid copper buss bars by means of a long barrel compression terminal installed with a compatible compression installation tool and mechanically bolted to the copper bus bar by means of a high quality bolt, washer and hex nut system.

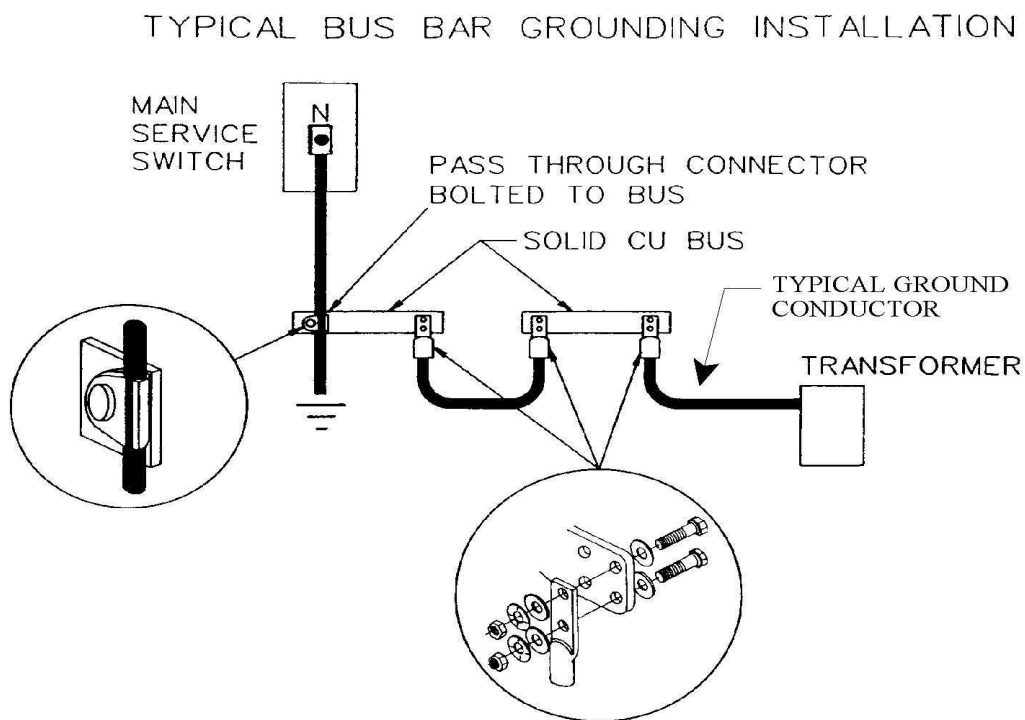
It is recommended that only two hole terminals be used. Terminals may be installed back-to-back on the bus bar but shall not be installed back to back with each other.

All bolt installations shall be properly torqued and installed in a good workmanship like fashion.

The main service system grounding conductor shall, where practicable, be without splice or joint from the point where it originates at the main system neutral block to its point of termination at the system ground electrode

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Drawing "A"



Two hole long barrel terminal c/w hexagon nut and washers.

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Drawing "B"

TYPICAL GROUNDING BUS BAR

