

Generator Installations 2014 NEC

110.21 (B) Markings: field applied,

- Permanently affixed
- Not hand written
- Sufficient durability to withstand environment

110.25 Lockable Disconnect,

- Lockable in open position
- Cord and Plug okay

445.18 Generator must have lockable disconnect,

- Exceptions - Portable, cord can be unplugged

Or

- Generator can be shut off and has transfer switch so it cannot provide electricity when the power is restored.

702.7 Signs,

- At service entrance (meter), grounding language as outlined in the NEC
- Panel, stating alternate power source as outlined in the NEC

Portable Generators - required power inlet signage

- if the inlet is wired for a separately derived it must be labeled accordingly as outlined in 2014 NEC

- If the inlet is wired for a nonseparately derived system it must be labeled accordingly as outlined in 2014 NEC

702.12 Outdoor Generator Sets – Disconnects

- all permanently installed and for portable generators over 15KW –

If the generator disconnect is readily accessible and within sight of the building no

additional disconnect is required. NOTE: If a disconnect is required it must be service rated per 225.36

- Portable Generators less than 15KW –
Cord and plug is okay, no disconnect is required

EXACT CODE SECTION LANGUAGE USED TO CREATE THIS INSTALLATION GUIDE.

ARTICLE 100 Definitions

Accessible, Readily (Readily Accessible). Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to actions such as to use tools, to climb over or remove obstacles, or to resort to portable ladders, and so forth.

In Sight From (Within Sight From, Within Sight). Where this *Code* specifies that one equipment shall be “in sight from,” “within sight from,” or “within sight of,” and so forth, another equipment, **the specified equipment is to be *visible*** and not more than 15 m (50 ft) distant from the other.

ARTICLE 110 - Requirements for electrical installations.

110.21 – (B) Field Applied Hazard markings

Where caution, warning, or danger signs or labels are required by this *Code*, the labels shall meet the following requirements:

- (1) The marking shall adequately warn of the hazard using effective words and/or colors and/or symbols.
- (2) The label shall be permanently affixed to the equipment or wiring method and shall not be hand written.
- (3) The label shall be of sufficient durability to withstand the environment involved.

110.25 Lockable Disconnecting Means

Where a disconnecting means is required to be lockable open elsewhere in this *Code*, it shall be capable of being locked in the open position. The provisions for locking shall remain in place with or without the lock installed.

ARTICLE 445 - Generators

445.18 Disconnecting Means Required for Generators

Generators shall be equipped with a disconnect(s), lockable in the open position by means of which the generator and all protective devices and control apparatus are able to be disconnected entirely from the circuits supplied by the generator except where the following conditions apply:

- (1) Portable generators are cord- and plug-connected, or

(2) Both of the following conditions apply:

a. The driving means for the generator can be readily shut down, is rendered incapable of restarting, and is lockable in the OFF position in accordance with 110.25.

b. The generator is not arranged to operate in parallel with another generator or other source of voltage.

ARTICLE 702 – Optional Standby Systems

702.7 Signs

(A) Standby. A sign shall be placed at the service-entrance equipment that indicates the type and location of on-site optional standby power sources. A sign shall not be required for individual unit equipment for standby illumination.

(B) Grounding. Where removal of a grounding or bonding connection in normal power source equipment interrupts the grounding electrode conductor connection to the alternate power source(s) grounded conductor, a warning sign shall be installed at the normal power source equipment stating:

WARNING
SHOCK HAZARD EXISTS IF GROUNDING
ELECTRODE CONDUCTOR OR BONDING JUMPER
CONNECTION IN THIS EQUIPMENT IS REMOVED
WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

The warning sign(s) or label(s) shall comply with 110.21(B).

(C) Power Inlet. Where a power inlet is used for a temporary connection to a portable generator, a warning sign shall be placed near the inlet to indicate the type of derived system that the system is capable of based on the wiring of the transfer equipment.

The sign shall display one of the following warnings:

WARNING:
FOR CONNECTION OF A SEPARATELY DERIVED
(BONDED NEUTRAL) SYSTEM ONLY

or

WARNING:
FOR CONNECTION OF A NONSEPARATELY DERIVED
(FLOATING NEUTRAL) SYSTEM ONLY

702.12 Outdoor Generator Sets

(A) Permanently Installed Generators and Portable Generators Greater Than 15 kW.

Where an outdoor housed generator set is equipped with a readily accessible disconnecting means in accordance with 445.18, and the disconnecting means is located within sight of the building or structure supplied, an additional disconnecting means shall not be required where ungrounded conductors serve or pass through the building or structure. Where the generator supply conductors terminate at a disconnecting means in or on a building or structure, the disconnecting means shall meet the requirements of 225.36.

NOTE:

- ***The disconnect must be visible on the generator from the building and not farther than 50' away.***
- ***Capable of being reached quickly for operation without the use of tools or removing obstacles.***
- ***The small side access door on some models will be accepted if it is facing the building and is labeled "disconnect".***

(B) Portable Generators 15 kW or Less.

Where a portable generator, rated 15 kW or less, is installed using a flanged inlet or other cord- and plug-type connection, a disconnecting means shall not be required where ungrounded conductors serve or pass through a building or structure.

- ***Portable Generators less than 15KW –
Cord and plug is okay, no disconnect is required***

Additional Disconnect

- Generators that do not meet these specification listed above will require the addition disconnect at the building.