

Agenda

Presented by JD White

Introduction to Grounding and Bonding

Ground/earth	Definitions
Ground fault paths/bonding	GFCI operation
Review of Ohm's law	Electric shock hazards

Grounding Electrode System

250.52 - Grounding electrodes	250.53 - Grounding electrode system installation
250.54 - Auxiliary grounding electrodes	

Grounding Electrode Conductors

250.62 - GEC materials	250.64 - GEC installation
250.66 - GEC sizing	250.68 - GEC and bonding
250.70 - Methods of grounding and bonding	

System Grounding Part 1

250.20 - AC systems to be grounded	250.21 - AC systems not required to be grounded
250.22 - Circuits not to be grounded	250.24(A) - System grounding connections

System Grounding Part 2

250.24(B) - Main bonding jumpers	250.24(C) - Grounded conductors in service equipment
250.30 - Grounding separately derived AC systems	
250.32 - Separate building feeders	

Equipment Grounding and Conductors Part 1

250.110 - Equipment fastened in place	250.114 - Equipment connected by cord and plug
250.119 - ID of equipment grounding conductors	
250.120 - EGC installation	250.122 - EGC sizing
250.126 - ID of wiring device terminals	

Equipment Grounding and Conductors Part 2

250.110 - Equipment fastened in place	250.114 - Equipment connected by cord and plug
250.119 - ID of equipment grounding conductors	
250.120 - EGC installation	250.122 - EGC sizing
250.126 - ID of wiring device terminals	

Bonding Part 1

250.90 - General requirements	250.92 - Bonding of services
250.96 - Bonding other enclosures	

Bonding Part 2

250.102 - Bonding conductors and jumpers
250.104 - Bonding pipe systems and structural metal
250.106 - Lightning protection systems

Methods of Equipment Grounding

250.130 - EGC connections
250.136 - Equipment considered grounded
250.142 - Grounded conductor and grounding equipment
250.148 - EGC continuity and attachment

National Electrical Code: Grounding and Bonding

Live, Interactive Webinar - Wed., December 2, 2020

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Learning Objectives

You'll be able to:

Understand and use common terminology found in the National Electrical Code.

Review Ohms law, and discuss ground fault paths and electric shock hazards.

Review requirements for grounding electrode systems.

Identify AC systems to be grounded and circuits not to be grounded.

Differentiate grounding requirements for equipment fastened in place and equipment connected by cord and plug.

Comply with requirements for bonding of services, and for bonding conductors and jumpers.

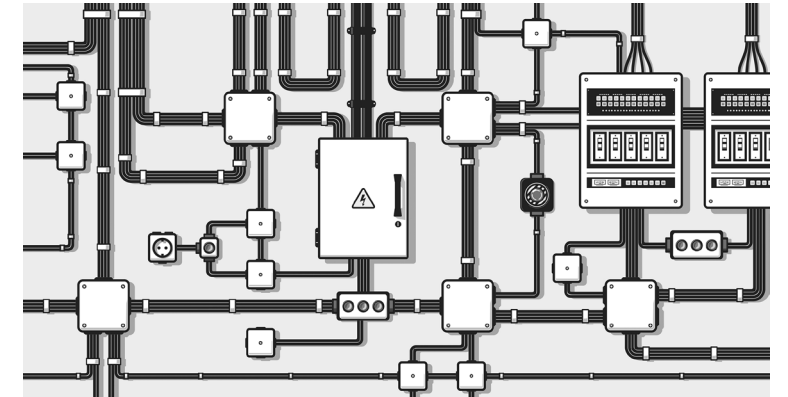


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National Electrical Code: Grounding and Bonding

Live, Interactive Webinar - Wednesday, December 2, 2020



Review the basics of grounding and bonding

Get tips on system grounding

Learn about grounding electrode systems and conductors

Review requirements for equipment grounding and conductors

Comply with general requirements for bonding

Discuss methods of equipment grounding

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JD White *Consultant at Freelance Electrical System Design and Drafting*

Mr. White’s past ten years with Columbus State Community College in Columbus, Ohio, as its Skilled Trades Program coordinator, has provided him with insights beyond teaching, including migration to semesters, and providing oversight of 144 apprenticeship courses and 28 open enrollment courses covering construction, carpentry, electrical, plumbing, and welding. Mr. White helped craft 15 plans for study for various certificates, AAS majors, and ATS majors. He has been an active part of articulation agreements, with various vocational career programs and apprenticeship programs. He started a new open enrollment program in June of 2007, which had over 200 active students, and filled 28 course sections per term, prior to him handing it over to a new faculty member. Mr. White is presently working with 10 apprenticeship partnerships with annual enrollment of 1,500 students. He has oversight of five labs, equipment, materials, and lab personnel.

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National Electrical Code: *Grounding and Bonding*

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