

# ARTICLE 250

# GROUNDING AND BONDING

## Introduction to Article 250—Grounding and Bonding

Article 250 covers the general requirements for bonding and grounding electrical installations. The terminology used in this article has been a source of much confusion over the years so pay careful attention to the definitions pertaining to Article 250. Understanding the difference between bonding and grounding will help you correctly apply the provisions of this article. Because of the massive size and scope of Article 250, Figure 250.1 in the *NEC* is provided as a reference for the locations of the different types of rules. Of the ten parts contained in this article only parts one through seven are covered in this material. *Topics* covered in this material for Article 250 include:

- ▶ General Requirements for Grounding and Bonding
- ▶ Objectionable Current
- ▶ Protection of Clamps and Fittings
- ▶ System Grounding Requirements
- ▶ Bonding Jumpers
- ▶ Generator Bonding
- ▶ Grounding Electrode System
- ▶ Service Equipment Bonding
- ▶ Piping System and Structural Steel Bonding
- ▶ Equipment Grounding conductors (EGCs)

Article 250 consists of ten parts:

- ▶ Part I. General
- ▶ Part II. System Grounding
- ▶ Part III. Grounding Electrode System and Grounding Electrode Conductor (GEC)
- ▶ Part IV. Enclosure, Raceway, and Service Cable Connections
- ▶ Part V. Bonding
- ▶ Part VI. Equipment Grounding Conductors (EGC)
- ▶ Part VII. Methods of EGC Connections
- ▶ Part VIII. Direct-Current Systems
- ▶ Part IX. Instruments, Meters, and Relays
- ▶ Part X. Grounding of Systems and Circuits of over 1000 Volts

## 250.140 Frames of Ranges, Ovens, and Clothes Dryers

The frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, and clothes dryers must be connected to the circuit equipment grounding conductor in accordance with 250.140(A) or (B).

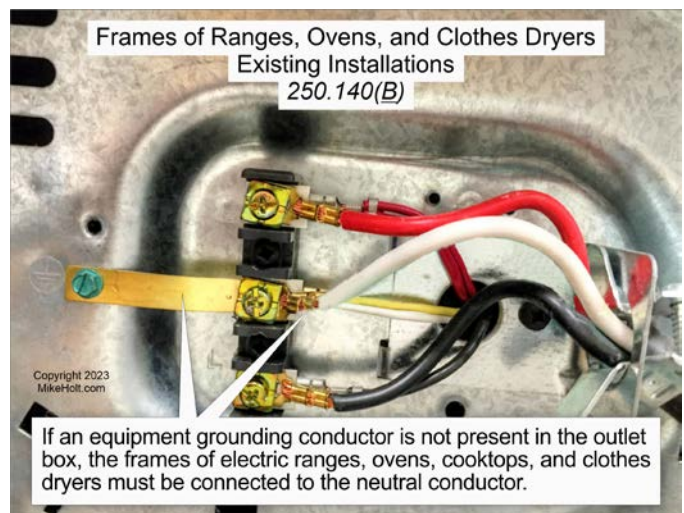
**(A) Equipment Grounding Conductor.** The circuit supplying electric ranges, ovens, cooktops, and clothes dryers must include an equipment grounding conductor connected to the frame of the appliance.

▶Figure 250-247

**(B) Neutral Conductor.** For existing installations, if an equipment grounding conductor is not present in the outlet box, the frames of electric ranges, ovens, cooktops, and clothes dryers must be connected to the neutral conductor. ▶Figure 250-248



▶Figure 250-247



▶Figure 250-248