

## 2008 NEC Study Guide For “Branch Circuit Requirements”

*(This Study Guide was prepared by Gaylord Poe)*

The purpose of this study guide is to help the reader determine how to apply NEC branch circuit requirements. Branch circuit requirements are often misunderstood and misapplied by both installers and inspectors. This study guide will help you formulate a logical approach to the rules.

### 1. What is a branch circuit?

NEC Art.100 provides us 5 separate definitions regarding branch circuits: Branch Circuit, Branch Circuit – Appliance, Branch Circuit – General-Purpose, Branch Circuit – Individual, and Branch Circuit – Multiwire. Take a few minutes and review these definitions now. *(Note: When reviewing the definition of “Branch Circuit, General-Purpose” note the distinction between “receptacles” and “outlets”. These are two separate items, separately defined in the NEC yet are often used as interchangeable terms. Such use causes misapplication of other NEC rules.)*

2. The following chart illustrates certain branch circuit requirements found in the NEC that are often misapplied. The list is not all-inclusive but it does illustrate some of the major differences. How often have you thought you had to follow a rule (or forgot to follow a rule!) that is found on the following list? *(Note: Before you check out the list, take a moment and look in Art. 100 for the definition of Dwelling Unit.)*

<b><u>Rule</u></b>	<b><u>For Dwelling Units?</u></b>	<b><u>For Non-Dwelling Units?</u></b>
210.4 (B)	Yes	Yes
210.4 (D)	Yes	Yes
210.5 (C)	Yes	Yes
210.6 (A)	Yes	Yes
210.7 (B)	Yes	Yes
210.8 (A)	Yes	No
210.8 (B)	No	Yes
210.11 (C)	Yes	No
210.12 (B)	Yes	No
210.25	Yes	Yes
210.52	Yes	No
210.60	No	Yes
210.62	No	Yes
210.63	Yes	Yes
210.70 (A)	Yes	No
210.70 (B)	No	Yes
210.70 (C)	No	Yes