

2015 International Residential Code Errata

(Portions of text and tables not shown are unaffected by the errata)

Applicable to the 1st, 2nd, 3rd and 4th PRINTINGS (This Errata Posted: April 22, 2022)

Chapter 39 POWER AND LIGHTING DISTRIBUTION

E3905.4.2 Utilization equipment.

Outlet and device boxes that enclose devices or utilization equipment shall have a minimum internal depth that accommodates the rearward projection of the equipment and the size of the conductors that supply the equipment. The internal depth shall include that of any extension boxes, plaster rings, or raised covers. The internal depth shall comply with all of the applicable provisions that follow. [314.24(B)]

~~Exception: Utilization equipment that is listed to be installed with specified boxes.~~

1. Large equipment. Boxes that enclose devices or utilization equipment that projects more than $1\frac{7}{8}$ inches (48 mm) rearward from the mounting plane of the box shall have a depth that is not less than the depth of the equipment plus $\frac{1}{4}$ inch (6.4 mm). [314.24(B)(1)]
2. Conductors larger than 4 AWG. Boxes that enclose devices or utilization equipment supplied by conductors larger than 4 AWG shall be identified for their specific function. [314.24(B)(2)]
3. Conductors 8, 6, or 4 AWG. Boxes that enclose devices or utilization equipment supplied by 8, 6, or 4 AWG conductors shall have an internal depth that is not less than $2\frac{1}{16}$ inches (52.4 mm). [314.24(B)(3)]
4. Conductors 12 or 10 AWG. Boxes that enclose devices or utilization equipment supplied by 12 or 10 AWG conductors shall have an internal depth that is not less than $1\frac{3}{16}$ inches (30.2 mm). Where the equipment projects rearward from the mounting plane of the box by more than 1 inch (25.4 mm), the box shall have a depth that is not less than that of the equipment plus $\frac{1}{4}$ inch (6.4 mm). [314.24(B)(4)]
5. Conductors 14 AWG and smaller. Boxes that enclose devices or utilization equipment supplied by 14 AWG or smaller conductors shall have a depth that is not less than $1\frac{5}{16}$ inch (23.8 mm). [314.24(B)(5)]

Exception: Utilization equipment that is listed to be installed with specified boxes.

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Applicable to the 1st, 2nd, 3rd and 4th PRINTINGS (This Errata Posted: January 14, 2022)

Chapter 39 POWER AND LIGHTING DISTRIBUTION

Section E3901.2 General purpose receptacle distribution. ..specified in Sections E3901.2.1 through ~~E3901.2.3~~ E3901.2.4 (see....

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Applicable to the 1st and 2nd PRINTING (This Errata Posted: December 5, 2018)

CHAPTER 39 POWER AND LIGHTING DISTRIBUTION

TABLE E3905.12.1 [Table 314.16(A)]
MAXIMUM NUMBER OF CONDUCTORS IN METAL BOXES^a

BOX DIMENSIONS (inches trade size and type)	MAXIMUM CAPACITY (cubic inches)	MAXIMUM NUMBER OF CONDUCTORS ^a						
		18 Awg	16 Awg	14 Awg	12 Awg	10 Awg	8 Awg	6 Awg
4 x 2 ¹ / ₈ square	30.3	20	17	15	13	12	10	6
4 ¹¹ / ₁₆ x 4¹/₄ <u>1¹/₄</u> square	25.5	17	14	12	11	10	8	5
4 ¹¹ / ₁₆ x 4¹/₂ <u>1¹/₂</u> square	29.5	19	16	14	13	11	9	5
4 ¹¹ / ₁₆ x 2 ¹ / ₈ square	42.0	28	24	21	18	16	14	8

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(Portions of text and tables not shown are unaffected by the errata)

1st PRINTING (October 30, 2014)

CHAPTER 39 POWERING AND LIGHTING DISTRIBUTION

E3902.16 Arc-fault circuit-interrupter protection. Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sun-rooms, recreations rooms, closets, hallways, laundry areas and similar rooms or areas shall be protected by any of the following: [210.12(A)]

1. A listed combination-type arc-fault circuit interrupter, installed to provide protection of the entire branch circuit. [210.12(A)(1)]
2. A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit. [210.12(A)(2)]
3. A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:
 - 3.1. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.
 - 3.2. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.
 - 3.3. The first outlet box on the branch circuit shall be marked to indicate that it is the first outlet on the circuit. [210.12(A)(3)]
4. A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:
 - 4.1. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.
 - 4.2. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.
 - 4.3. The first outlet box on the branch circuit shall be marked to indicate that it is the first outlet on the circuit.
 - 4.4. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination-type AFCI and shall be listed as such. [210.12(A)(4)]
5. Where metal outlet boxes and junction boxes and RMC, IMC, EMT, Type MC or steel-armored Type AC cables meeting the requirements of Section E3908.8, metal wireways or metal auxiliary gutters are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed outlet branch-circuit type AFCI installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit. [210.12(A)(5)]
6. Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 2 inches (50.8 mm) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed outlet branch-circuit type AFCI installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit. [210.12(A)(6)]

Note: the yellow paragraph below was just moved to the left so as not to appear as an exception to item # 6. Should not be indented under item # 6.

Exception: AFCI protection is not required for an individual branch circuit supplying only a fire alarm system where the branch circuit is wired with metal outlet and junction boxes and RMC, IMC, EMT or steel-sheathed armored cable Type AC or Type MC meeting the requirements of Section E3908.8.

E3906.11 Exposed combustible finish. Combustible wall or ceiling finish exposed between the edge of a fixture canopy or pan and the outlet box shall be covered with noncombustible material where required by Section E4004.2. [314.25(B)]