

(A) Accessibility. Ballasts, transformers, electronic power supplies, and Class 2 power sources shall be located where accessible and shall be securely fastened in place.

(B) Location. Ballasts, transformers, electronic power supplies, and Class 2 power sources shall be installed as near to the lamps or neon tubing as practicable to keep the secondary conductors as short as possible.

(C) Wet Location. Ballasts, transformers, electronic power supplies, and Class 2 power sources used in wet locations shall be of the weatherproof type or be of the outdoor type and protected from the weather by placement in a sign body or separate enclosure.

(D) Working Space. A working space at least 900 mm (3 ft) high × 900 mm (3 ft) wide × 900 mm (3 ft) deep shall be provided at each ballast, transformer, electronic power supply, and Class 2 power source or at its enclosure where not installed in a sign.

(E) Attic and Soffit Locations. Ballasts, transformers, electronic power supplies, and Class 2 power sources shall be permitted to be located in attics and soffits, provided there is an access door at least 900 mm × 562.5 mm (36 in. × 22½ in.) and a passageway of at least 900 mm (3 ft) high × 600 mm (2 ft) wide with a suitable permanent walkway at least 300 mm (12 in.) wide extending from the point of entry to each component. At least one lighting outlet containing a switch or controlled by a wall switch shall be installed in such spaces. At least one point of control shall be at the usual point of entry to these spaces. The lighting outlet shall be provided at or near the equipment requiring servicing.

(F) Suspended Ceilings. Ballasts, transformers, electronic power supplies, and Class 2 power sources shall be permitted to be located above suspended ceilings, provided that their enclosures are securely fastened in place and not dependent on the suspended-ceiling grid for support. Ballasts, transformers, and electronic power supplies installed in suspended ceilings shall not be connected to the branch circuit by flexible cord.

600.22 Ballasts.

(A) Type. Ballasts shall be identified for the use and shall be listed.

(B) Thermal Protection. Ballasts shall be thermally protected.

600.23 Transformers and Electronic Power Supplies.

(A) Type. Transformers and electronic power supplies shall be identified for the use and shall be listed.

(B) Secondary-Circuit Ground-Fault Protection. Transformers and electronic power supplies other than the following shall have secondary-circuit ground-fault protection:

- (1) Transformers with isolated ungrounded secondaries and with a maximum open circuit voltage of 7500 volts or less

- (2) Transformers with integral porcelain or glass secondary housing for the neon tubing and requiring no field wiring of the secondary circuit

(C) Voltage. Secondary-circuit voltage shall not exceed 15,000 volts, nominal, under any load condition. The voltage to ground of any output terminals of the secondary circuit shall not exceed 7500 volts, under any load condition.

(D) Rating. Transformers and electronic power supplies shall have a secondary-circuit current rating of not more than 300 mA.

(E) Secondary Connections. Secondary circuit outputs shall not be connected in parallel or in series.

(F) Marking. Transformers and electronic power supplies that are equipped with secondary-circuit ground-fault protection shall be so marked.

600.24 Class 2 Power Sources. Class 2 transformers, power supplies, and power sources shall comply with the requirements of Class 2 circuits and 600.24(A), (B), (C), and (D).

(A) Listing. Class 2 power supplies and power sources shall be listed for use with electric signs and outline lighting systems or shall be a component in a listed electric sign.

(B) Equipment Grounding Conductor. Metal parts of Class 2 power supplies and power sources shall be connected to the equipment grounding conductor.

(C) Wiring Methods on the Supply Side of the Class 2 Power Supply. Conductors and equipment on the supply side of the power source shall be installed in accordance with the appropriate requirements of Chapter 3.

(D) Secondary Wiring. Secondary wiring on the load side of a Class 2 power source shall comply with 600.12(C) and 600.33.

Part II. Field-Installed Skeleton Tubing, Outline Lighting, and Secondary Wiring

600.30 Applicability. Part II of this article shall apply to all of the following:

- (1) Field-installed skeleton tubing
- (2) Field-installed secondary circuits
- (3) Outline lighting
- (4) Field-installed retrofit kits

These requirements shall be in addition to the requirements of Part I.

600.31 Neon Secondary-Circuit Wiring, 1000 Volts or Less, Nominal.

(A) Wiring Method. Conductors shall be installed using any wiring method included in Chapter 3 suitable for the conditions.