

contact with electric light or power conductors operating at greater than 300 volts to ground

- (5) Where insulated conductors in accordance with 805.50(A) are used to extend circuits to a building from cable with an effectively grounded metallic sheath member(s), and where (a) the combination of the primary protector and insulated conductors is listed as being suitable for this purpose for application with circuits extending from a cable with an effectively grounded metallic sheath member(s) and (b) the insulated conductors safely fuse on all currents greater than the current-carrying capacity of the primary protector and of the primary protector bonding conductor or grounding electrode conductor

Informational Note: See ANSI/IEEE C2-2017, *National Electrical Safety Code*, Section 9, for examples of methods of protective grounding that can achieve effective grounding of communications cable sheaths for cables from which communications circuits are extended.

**(2) Fused Primary Protectors.** Where the requirements listed under 805.90(A)(1)(a) through (A)(1)(e) are not met, fused-type primary protectors shall be used. Fused-type primary protectors shall consist of an arrester connected between each line conductor and ground, a fuse in series with each line conductor, and an appropriate mounting arrangement. Primary protector terminals shall be marked to indicate line, instrument, and ground, as applicable.

**(B) Location.** The primary protector shall be located in, on, or immediately adjacent to the structure or building served and as close as practicable to the point of entrance.

For purposes of this section, primary protectors located at mobile home service equipment within 9.0 m (30 ft) of the exterior wall of the mobile home it serves, or at a mobile home disconnecting means connected to an electrode by a grounding electrode conductor in accordance with 250.32 and located within 9.0 m (30 ft) of the exterior wall of the mobile home it serves, shall be considered to meet the requirements of this section.

Informational Note: Selecting a primary protector location to achieve the shortest practicable primary protector bonding conductor or grounding electrode conductor helps limit potential differences between communications circuits and other metallic systems.

**(C) Hazardous (Classified) Locations.** The primary protector shall not be located in any hazardous (classified) locations, as defined in 500.5 and 505.5, or in the vicinity of easily ignitable material.

*Exception: As permitted in 501.150, 502.150, and 503.150.*

**(D) Secondary Protectors.** Where a secondary protector is installed in series with the indoor communications wire and cable between the primary protector and the equipment, it shall be listed for the purpose in accordance with 805.170(B).

Informational Note: Secondary protectors on circuits exposed to accidental contact with electric light or power conductors operating at greater than 300 volts to ground are not intended for use without primary protectors.

**805.93 Grounding, Bonding, or Interruption of Non-Current-Carrying Metallic Sheath Members of Communications Cables.** Communications cables entering the building or terminating on the outside of the building shall comply with 805.93(A) or (B).

**(A) Entering Buildings.** In installations where the communications cable enters a building, the metallic sheath members of the cable shall be grounded or bonded as specified in 800.100 or interrupted by an insulating joint or equivalent device. The grounding, bonding, or interruption shall be as close as practicable to the point of entrance.

**(B) Terminating on the Outside of Buildings.** In installations where the communications cable is terminated on the outside of the building, the metallic sheath members of the cable shall be grounded or bonded as specified in 800.100 or interrupted by an insulating joint or equivalent device. The grounding, bonding, or interruption shall be as close as practicable to the point of termination of the cable.

#### Part IV. Installation Methods Within Buildings

**805.154 Substitutions for Listed Communications Cables.** The substitutions for communications cables listed in Table 805.154 and illustrated in Figure 805.154 shall be permitted.

**TABLE 805.154** Cable Substitutions

Cable Type	Permitted Substitutions
CMR	CMP
CMG, CM	CMP, CMR
CMX	CMP, CMR, CMG, CM

**805.156 Dwelling Unit Communications Outlet.** For new construction, a minimum of one communications outlet shall be installed within the dwelling in a readily accessible area and cabled to the service provider demarcation point.

The location of the communications outlet within a dwelling is not specified, but cable must be installed between the outlet location and the point at which the communications services provider installs its equipment or the point at which it connects to owner-supplied equipment. Although an increasing number of dwelling unit owners or occupants use cellular or personal communications services (PCS) telephones exclusively, having at least one wired communications outlet in every dwelling facilitates connection of dial-up devices used in home fire detection and security systems.