



FIGURE 805.154 Cable Substitution Hierarchy.

Part V. Listing Requirements

- Δ **805.170 Protectors.** Protectors shall be listed in accordance with 805.170(A) or 805.170(B).

(A) Primary Protectors. The primary protector shall be listed and consist of an arrester connected between each line conductor and ground in an appropriate mounting. Primary protector terminals shall be marked to indicate line and ground as applicable.

Informational Note: See ANSI/UL 497-2017, *Standard for Protectors for Paired Conductor Communications Circuits*, to determine applicable requirements for a listed primary protector.

(B) Secondary Protectors. The secondary protector shall be listed as suitable to provide means to safely limit currents to less than the current-carrying capacity of listed indoor communications wire and cable, listed telephone set line cords, and listed communications terminal equipment having ports for external wire line communications circuits. Any overvoltage protection, arresters, or grounding connection shall be connected on the equipment terminals side of the secondary protector current-limiting means.

Informational Note: See ANSI/UL 497A-2019, *Standard for Secondary Protectors for Communications Circuits*, to determine applicable requirements for a listed secondary protector.

- **805.173 Drop Wire and Cable.** Communications wires and cables without a metallic shield, running from the last outdoor support to the primary protector, shall be listed as being suitable for the purpose and shall have current-carrying capacity as specified in 805.90(A)(1)(b) or (A)(1)(c).

ARTICLE 810

Antenna Systems

Part I. General

810.1 Scope. This article covers antenna systems for radio and television receiving equipment, amateur and citizen band radio transmitting and receiving equipment, and certain features of transmitter safety. This article covers antennas such as wire-strung type, multi-element, vertical rod, flat, or parabolic and also covers the wiring and cabling that connect them to equipment. This article does not cover equipment and antennas used for coupling carrier current to power line conductors.

Article 810 covers wiring requirements for television and radio receiving equipment, specifically including digital satellite receiving equipment for television signals and wiring for amateur radio equipment and citizens band (CB) radio equipment. Chapters 1 through 4 cover wiring to the power supply.

- Δ **810.3 Other Articles.** Wiring from the source of power to and between devices connected to the interior wiring system shall comply with the following:

- (1) Chapters 1 through 4 other than as modified by Parts I and II of Article 640.
- (2) Coaxial cables that connect antennas to equipment shall comply with the appropriate article of Chapter 8.
- (3) Wiring and equipment installed in hazardous (classified) locations shall comply with the appropriate requirements in Chapter 5.

810.4 Community Television Antenna. The installation of the antenna shall comply with this article. The installation of the distribution system shall comply with the appropriate article of Chapter 8.

810.5 Radio Noise Suppression. Radio interference eliminators, interference capacitors, or noise suppressors connected to power-supply leads shall be of a listed type. They shall not be exposed to physical damage.

810.6 Antenna Lead-In Protectors. If an antenna lead-in surge protector is installed, it shall be listed as being suitable for limiting surges on the cable that connects the antenna to the receiver/transmitter electronics and shall be connected between the conductors and the grounded shield or other ground connection. The antenna lead-in protector shall be grounded using a bonding conductor or grounding electrode conductor installed in accordance with 810.21(F).

Informational Note: See UL 497E, *Outline of Investigation for Protectors for Antenna Lead-In Conductors*, for information concerning protectors for antenna lead-in conductors.