

§68.214

wiring for multiple line services, for use with systems such as PBX and key telephone systems, are controlled by §68.215 of these rules.

(b) *Wiring authorized.* Unprotected premises wiring may be used to connect units of terminal equipment or protective circuitry to one another, and to carrier-installed facilities if installed in accordance with these rules. The provider of wireline telecommunications is not responsible, except pursuant to agreement between it and the customer or undertakings by it, otherwise consistent with Commission requirements, for installation and maintenance of wiring on the subscriber's side of the demarcation point, including any wire or jacks that may have been installed by the carrier. The subscriber and/or premises owner may install wiring on the subscriber's side of the demarcation point, and may remove, reconfigure, and rearrange wiring on that side of the demarcation point including wiring and wiring that may have been installed by the carrier. The customer or premises owner may not access carrier wiring and facilities on the carrier's side of the demarcation point. Customers may not access the protector installed by the provider of wireline telecommunications. All plugs and jacks used in connection with inside wiring shall conform to the published technical criteria of the Administrative Council for Terminal Attachments. In multiunit premises with more than one customer, the premises owner may adopt a policy restricting a customer's access to wiring on the premises to only that wiring located in the customer's individual unit wiring that serves only that particular customer. See §68.105 in this part. The customer or premises owner may not access carrier wiring and facilities on the carrier's side of the demarcation point. Customers may not access the protector installed by the provider of wireline telecommunications. All plugs and jacks used in connection with inside wiring shall conform to the published technical criteria of the Administrative Council for Terminal Attachments.

(c) *Material requirements.* (1) For new installations and modifications to existing installations, copper conduc-

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tors shall be, at a minimum, solid, 24 gauge or larger, twisted pairs that comply with the electrical specifications for Category 3, as defined in the ANSI EIA/TIA Building Wiring Standards.

(2) Conductors shall have insulation with a 1500 Volt rms minimum breakdown rating. This rating shall be established by covering the jacket or sheath with at least 15 cm (6 inches) (measured linearly on the cable) of conductive foil, and establishing a potential difference between the foil and all of the individual conductors connected together, such potential difference gradually increased over a 30 second time period to 1500 Volts rms, 60 Hertz, then applied continuously for one minute. At no time during this 90 second time interval shall the current between these points exceed 10 milliamperes peak.

(3) All wire and connectors meeting the requirements set forth in paragraphs (c)(1) and (c)(2) shall be marked, in a manner visible to the consumer, with the symbol "CAT 3" or a symbol consisting of a "C" with a "3" contained within the "C" character, at intervals not to exceed one foot (12 inches) along the length of the wire.

(d) *Attestation.* Manufacturers (or distributors or retailers, whichever name appears on the packaging) of non-system telephone premises wire shall attest in a letter to the Commission that the wire conforms with part 68, FCC Rules.

[49 FR 21734, May 23, 1984, as amended at 50 FR 29392, July 19, 1985; 50 FR 47548, Nov. 19, 1985; 51 FR 944, Jan. 9, 1986; 55 FR 28630, July 12, 1990; 58 FR 44907, Aug. 25, 1993; 62 FR 36464, July 8, 1997; 65 FR 4140, Jan. 26, 2000; 66 FR 7583, Jan. 24, 2001]

§68.214 Changes in other than "fully protected" premises wiring that serves fewer than four subscriber access lines.

Operations associated with the installation, connection, reconfiguration and removal (other than final removal) of premises wiring that serves fewer than four subscriber access lines must be performed as provided in §68.215(c) if

the premises wiring is not “fully protected.” For this purpose, the supervisor and installer may be the same person.

[66 FR 7584, Jan. 24, 2001]

§ 68.215 Installation of other than “fully protected” system premises wiring that serves more than four subscriber access lines.

(a) *Types of wiring authorized*—(1) *Between equipment entities.* Unprotected premises wiring, and protected premises wiring requiring acceptance testing for imbalance, may be used to connect separately-housed equipment entities to one another.

(2) *Between an equipment entity and the public switched telephone network interface(s).* Fully-protected premises wiring shall be used to connect equipment entities to the public switched telephone network interface unless the provider of wireline telecommunications is unwilling or unable to locate the interface within 7.6 meters (25 feet) of the equipment entity on reasonable request. In any such case, other than fully-protected premises wiring may be used if otherwise in accordance with these rules.

(3) *Hardware protection as part of the facilities of the provider of wireline telecommunications.* In any case where the carrier chooses to provide (and the customer chooses to accept, except as authorized under paragraph (g) of this section), hardware protection on the network side of the interface(s), the presence of such hardware protection will affect the classification of premises wiring for the purposes of § 68.215, as appropriate.

(b) *Installation personnel.* Operations associated with the installation, connection, reconfiguration and removal (other than final removal of the entire premises communications system) of other than fully-protected premises wiring shall be performed under the supervision and control of a supervisor, as defined in paragraph (c) of this section. The supervisor and installer may be the same person.

(c) *Supervision.* Operations by installation personnel shall be performed under the responsible supervision and control of a person who:

(1) Has had at least six months of on-the-job experience in the installation of telephone terminal equipment or of wiring used with such equipment;

(2) Has been trained by the registrant of the equipment to which the wiring is to be connected in the proper performance of any operations by installation personnel which could affect that equipment's continued compliance with these rules;

(3) Has received written authority from the registrant to assure that the operations by installation personnel will be performed in such a manner as to comply with these rules.

(4) Or, in lieu of paragraphs (c) (1) through (3) of this section, is a licensed professional engineer in the jurisdiction in which the installation is performed.

(d) *Workmanship and material requirements*—(1) *General.* Wiring shall be installed so as to assure that there is adequate insulation of telephone wiring from commercial power wiring and grounded surfaces. Wiring is required to be sheathed in an insulating jacket in addition to the insulation enclosing individual conductors (see below) unless located in an equipment enclosure or in an equipment room with restricted access; it shall be assured that this physical and electrical protection is not damaged or abraded during placement of the wiring. Any intentional removal of wiring insulation (or a sheath) for connections or splices shall be accomplished by removing the *minimum* amount of insulation necessary to make the connection or splice, and insulation equivalent to that provided by the wire and its sheath shall be suitably restored, either by placement of the splices or connections in an appropriate enclosure, or equipment rooms with restricted access, or by using adequately-insulated connectors or splicing means.

(2) *Wire.* Insulated conductors shall have a jacket or sheath with a 1500 volt rms minimum breakdown rating, except when located in an equipment enclosure or an equipment room with restricted access. This rating shall be established by covering the jacket or sheath with at least 15 cm (6 in) (measured linearly on the cable) of conductive foil, and establishing a potential