Cabinet. An enclosure that is designed for either surface mounting or flush mounting and is provided with a frame, mat, or trim in which a swinging door or doors are or can be hung.

Both cabinets and cutout boxes are covered in Article 312. Cabinets are designed for surface or flush mounting with a trim to which a swinging door(s) is hung. Cutout boxes are designed for surface mounting with a swinging door(s) secured directly to the box. Panelboards are electrical assemblies designed to be placed in a cabinet or cutout box. (See the definitions of cutout box and panelboard.)

Cable Routing Assembly. A single channel or connected multiple channels, as well as associated fittings, forming a structural system that is used to support and route communications wires and cables, optical fiber cables, data cables associated with information technology and communications equipment, Class 2 and Class 3 cables, and power-limited fire alarm cables.

Charge Controller. Equipment that controls dc voltage or dc current, or both, and that is used to charge a battery or other energy storage device.

Circuit Breaker. A device designed to open and close a circuit by nonautomatic means and to open the circuit automatically on a predetermined overcurrent without damage to itself when properly applied within its rating.
FPN: The automatic opening means can be integral, direct acting with the circuit breaker, or remote from the circuit breaker.

Adjustable (as applied to circuit breakers). A qualifying term indicating that the circuit breaker can be set to trip at various values of current, time, or both, within a predetermined range.

Instantaneous Trip (as applied to circuit breakers). A qualifying term indicating that no delay is purposely introduced in the tripping action of the circuit breaker.

Inverse Time (as applied to circuit breakers). A qualifying term indicating that there is purposely introduced a delay in the tripping action of the circuit breaker, which delay decreases as the magnitude of the current increases.

Nonadjustable (as applied to circuit breakers). A qualifying term indicating that the circuit breaker does not have any adjustment to alter the value of current at which it will trip or the time required for its operation.

Setting (of circuit breakers). The value of current, time, or both, at which an adjustable circuit breaker is set to trip.

Clothes Closet. A non-habitable room or space intended primarily for storage of garments and apparel.
**Communications Equipment.** The electronic equipment that performs the telecommunications operations for the transmission of audio, video, and data, and includes power equipment (e.g., dc converters, inverters, and batteries) and technical support equipment (e.g., computers), and conductors dedicated solely to the operation of the equipment.

This definition indicates that communications equipment includes related power supplies and computers. These related items are subject to the same requirements that apply to communications equipment. This definition correlates with NFPA 76, *Standard for the Fire Protection of Telecommunications Facilities*.

**Communications Raceway.** An enclosed channel of nonmetallic materials designed expressly for holding communications wires and cables, typically communications wires and cables and optical fiber and data (Class 2 and Class 3) in plenum, riser, and general-purpose applications.

**Concealed.** Rendered inaccessible by the structure or finish of the building.

Raceways and cables supported or located within hollow frames or permanently closed in by the finish of buildings are considered concealed. Open-type work — such as raceways and cables in unfinished basements; in accessible underfloor areas or attics; or behind, above, or below panels designed to allow access; and that may be removed without damage to the building structure or finish — is not considered concealed. [See definition of exposed (as applied to wiring methods).]

Informational Note: Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.

**Conductor, Bare.** A conductor having no covering or electrical insulation whatsoever.

**Conductor, Covered.** A conductor encased within material of composition or thickness that is not recognized by this Code as electrical insulation.

Typical covered conductors are the green-covered equipment grounding conductors contained within a nonmetallic-sheathed cable or the uninsulated grounded system conductors within the overall exterior jacket of a Type SE cable. Covered conductors should always be treated as bare conductors for working clearances because they are really uninsulated conductors.

**Conductor, Insulated.** A conductor encased within material of composition and thickness that is recognized by this Code as electrical insulation.

For the covering on a conductor to be considered insulation, the conductor with the covering material generally is required to pass minimum testing required by a product standard. One such product standard is UL 83, Thermoplastic-Insulated Wires and Cables. To meet the requirements of UL 83, specimens of finished single-conductor wires must pass specified tests that measure (1) resistance to flame propagation, (2) dielectric
strength, even while immersed, and (3) resistance to abrasion, cracking, crushing, and
impact. Only wires and cables that meet the minimum fire, electrical, and physical
properties required by the applicable standards are permitted to be marked with the letter
designations found in Tables 310.13(A) and 310.13(C). See 310.13 for the exact
requirements of insulated conductor construction and applications.

**Conduit Body.** A separate portion of a conduit or tubing system that provides access
through a removable cover(s) to the interior of the system at a junction of two or more
sections of the system or at a terminal point of the system.
Boxes such as FS and FD or larger cast or sheet metal boxes are not classified as conduit
bodies.
Conduit bodies are a portion of a raceway system with removable covers to allow access
to the interior of the system. They include the short-radius type as well as capped elbows
and service-entrance elbows.
Some conduit bodies are referred to in the trade as “condulets” and include the LB, LL,
LR, C, T, and X designs. (See 300.15 and Article 314 for rules on the usage of conduit
bodies.)
Type FS and Type FD boxes are not classified as conduit bodies; they are listed with
boxes in Table 314.16(A).

**Connector, Pressure (Solderless).** A device that establishes a connection between two
or more conductors or between one or more conductors and a terminal by means of
mechanical pressure and without the use of solder.

**Continuous Load.** A load where the maximum current is expected to continue for 3
hours or more.

**Control Circuit.** The circuit of a control apparatus or system that carries the electric signals
directing the performance of the controller but does not carry the main power current.

**Controller.** A device or group of devices that serves to govern, in some predetermined
manner, the electric power delivered to the apparatus to which it is connected.
A controller may be a remote-controlled magnetic contactor, switch, circuit breaker, or
device that is normally used to start and stop motors and other apparatus and, in the case
of motors, is required to be capable of interrupting the stalled-rotor current of the motor.
Stop-and-start stations and similar control circuit components that do not open the power
conductors to the motor are not considered controllers.

**Cooking Unit, Counter-Mounted.** A cooking appliance designed for mounting in or on
a counter and consisting of one or more heating elements, internal wiring, and built-in or
mountable controls.

**Coordination (Selective).** Localization of an overcurrent condition to restrict outages to
the circuit or equipment affected, accomplished by the selection and installation of overcurrent
protective
devices and their ratings or settings for the full range of available overcurrents, from overload to the maximum available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents.

Fuses and circuit breakers have time/current characteristics that determine the time it takes to clear the fault for a given value of fault current. Selectivity occurs when the device closest to the fault opens before the next device upstream operates. Any fault on a branch circuit should open the branch-circuit breaker rather than the feeder overcurrent protection. All faults on a feeder should open the feeder overcurrent protection rather than the service overcurrent protection.

With coordinated overcurrent protection, the faulted or overloaded circuit is isolated by the selective operation of only the overcurrent protective device closest to the overcurrent condition. The main goal of selective coordination is to isolate the faulted portion of the electrical circuit quickly while at the same time maintaining power to the remainder of the electrical system. The electrical system overcurrent protection must guard against short circuits and ground faults to ensure that the resulting damage is minimized while other parts of the system not directly involved with the fault are kept operational until other protective devices clear the fault. Where a series-rated system is used, an upstream device in the series will operate to protect a downstream device. For example, a current-limiting fuse will limit the available fault current to the downstream circuit breaker.

Selective coordination requirements include emergency systems, legally required standby systems, and critical operations power systems in 700.28, 701.27, and 708.54, respectively. Requirements for selective coordination for elevator feeders are in 620.62. In 517.30(G), coordination is required only for faults that exceed 0.1 second in duration.

**Copper-Clad Aluminum Conductors.** Conductors drawn from a copper-clad aluminum rod with the copper metallurgically bonded to an aluminum core. The copper forms a minimum of 10 percent of the cross-sectional area of a solid conductor or each strand of a stranded conductor.

**Cutout Box.** An enclosure designed for surface mounting that has swinging doors or covers secured directly to and telescoping with the walls of the box proper.