



NWGQ.E231449 Information Technology Equipment Including Electrical Business Equipment

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Information Technology Equipment Including Electrical Business Equipment

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TRIPP LITE, DIV OF TRIPPE MFG CO

E231449

1111 W 35TH ST
CHICAGO, IL 60609-1404 USA

Trademark and/or Tradename: "Minicom", "Minicom by Tripp Lite", "Tripp Lite", "Trippe MFG., Co", "Tripplite"

16 Port Console KVM with 17" LCD and Built-in IP Access, Model(s) B020-016-17-IP

16-Port NetDirector TM Rackmount Console KVM Switch with 17" LCD, Model(s) B020-016-17

17-in. USB/PS2 Dual Rail Console, Model(s) AGCB7995

19in Console IP KVM - 16Port, Model(s) AG-0175

19in Console IP KVM - 8Port, Model(s) AGCB7655

19in Console KVM - 16Port, Model(s) AG-0177

19in Console KVM - 8Port, Model(s) AG-0176

2 Port DVI + Audio Secure KVM and 4 Port DVI + Audio Secure KVM, Model(s) AG0027, B002-DUA2, B002-DUA4

8 Port Console KVM with 17" LCD and Built-in IP Access, Model(s) B020-008-17-IP

8-Port NetDirector TM Rackmount Console KVM Switch with 17" LCD, Model(s) B020-008-17

IP Remote Access Unit with Power Control, Model(s) B051-000-AC and AG0043

KVM over IP Switch, Model(s) AG-0211, AG-0210, AG-01F5, **AG-01F2**

LCD KVM Switch, Model(s) AGCB7531, AGCB7532

Multi-Server Managing System, Model(s) Phantom MXII and Phantom UPM with accessory units: Phantom Specter PS/2, Phantom Specter II PS/2, Phantom Specter II SUN, Phantom Specter II RS232 and Phantom Specter II USB); Model Smart CAT5 Switch with accessory units: RS232 Extender Local/Remote, RICC-PS/2, RICC-USB, and RICC-SUN; Model ServSwitch Panther with accessory units PS/2 SAM and USB SAM

Multi-User CAT 5 IP KVM Switch, Model(s) AGCB7630

Power Distribution Unit, Model(s) AG-0154, AG-0156

Power distribution units, Model(s) AGIB24016RMPDU, AGIB5144

Power On Cable, Model(s) POC1023

SINGLE PHASE PDU, Model(s) AG-010D

Universal Travel Surge Protector, Model(s) TRAVELERC6, AGIP7574, TRAVELERC8, AGIP7574

USB to PS2 Converter, Model(s) B015-000, B015-000-DL

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Information Technology Equipment Including Electrical Business Equipment

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Information Technology Equipment Including Electrical Business Equipment

[Guide Information for Electrical Equipment for Use in Ordinary Locations](#)

USE

This category covers equipment, appliances and systems rated 600 V or less normally found in offices and other business establishments, residences (homes), educational facilities, and other similar environments classified as ordinary locations.

This equipment has been investigated for installation in information technology equipment (computer) rooms as defined in ANSI/NFPA 75, "Fire Protection of Information Technology Equipment," and Article 645 of ANSI/NFPA 70, "National Electrical Code" (NEC), unless the equipment is otherwise identified by a marking or instruction.

EQUIPMENT TYPES

Equipment may be electronic or electromechanical in design or a combination thereof.

Various groupings of equipment are covered under this category, such as:

Displays: Flat-panel displays, LCD displays, monitors, plasma displays.

Information processing equipment: Central processing units (CPUs), hand-held computers (personal assistants), laptop computers, notebook computers, pen-based computers, personal computers, point-of-sale terminals, scanners (including portable barcode scanners), servers, work stations. **Accessories:** Docking stations, flash memory cards, keyboards, mouse, PCMCIA-memory-modem cards, port replicators, trackballs.

Information storage equipment: Automated information storage equipment, CD-ROM/RW drives, disk drives, DVD drives, tape drives, optical drives.

Telecommunication equipment: Cellular site equipment, cordless telephone sets, facsimile machines, ISDN systems and telephones, modems, key telephone systems, powerline communication equipment, private automated branch exchanges (PABXs), telephone answering machines, telephone sets, voicemail systems, IP telephones, IP systems, wireless telephony systems.

Office appliances: Adding machines, bursters, calculators, collators, dictation and transcribing machines, electric typewriters, erasers, folding, embossing and sealing machines, label printers, microfilm readers, motor-operated file cabinets, overhead projectors, paper cutters, paper shredders, pencil sharpeners, sorters, stackers, staplers.

Printers/Reproduction equipment: Copiers, duplicating machines, microfilm printers, mimeograph machines, plotters, printers.

Mailing, banking and currency-handling equipment: Cash registers, coin counters, feeders and dispensers, accounting machines, check-writing-, -assigning, -dating, -inserting, -mailing, -numbering and -stamping machines, point-of-sale terminals.

Multimedia equipment/accessories: Cable modems, digital cameras, DLP projectors, LCD projectors, microphones, set-top boxes, speakers, video conferencing systems.

Network equipment: Baluns, bridges, fiber optic transceivers, hubs, nodes, Power over Ethernet (PoE) equipment (e.g., power source equipment [PSE] and powered devices [PD]), repeaters, routers, switches, transceivers.

Wireless (RF, infrared) transceiving equipment: RF modems, hand-held computers with integral transceivers.

Static-neutralizing equipment: Power units with discharge bars used with or within copiers, collators, film-plate processors, digital printers, duplicating machines and similar equipment.

Interconnecting cable assemblies: Cable assemblies intended for use beneath raised floors of computer rooms. These assemblies are also covered under Computer Interconnection Cable Assemblies ([DVPJ](#)).

Included within the above groupings is equipment which is battery powered, either by standard-size consumer-replaceable batteries (e.g., AA, C, D), or nonstandard sizes specified by manufacturer, type and ratings.

This category also covers power distribution units (PDUs) and computer power centers investigated as part of a computer system for use exclusively in information technology equipment (computer) rooms in accordance with Article 645 of the NEC. This equipment is connected to branch circuits unless otherwise indicated in the manufacturer's installation instructions, and it distributes power to other units in the computer system by means of interconnecting cable assemblies complying with one or more of the wiring methods outlined in Article 645 of the NEC. Many of these units require special installation, such as a separate transformer, special grounding methods, motor-generator equipment, air conditioning, etc. Such features are covered in the manufacturer's installation instructions.

INSTALLATION

Some equipment has been investigated for installation in a restricted access location, such as a dedicated equipment room or telecommunication equipment closet, where access is limited to trained service personnel. Such equipment is provided with a marking or installation instructions that state "To be installed only in a Restricted Access Location," or similar wording. If also intended for installation over a concrete or noncombustible surface, such equipment will also be marked "Suitable for mounting on concrete or other noncombustible surface only," or similar wording.

Equipment installed in a restricted access location generally receives power from a centralized d.c. power source. If field wiring terminals are not contained in an internal compartment, both protection of exposed wiring terminals and wiring methods used for such equipment are intended to be provided in accordance with (1) markings on or instructions with the equipment, and (2) the provisions of Sections 110.26 and 110.27 of the NEC.

Products such as LAN transceivers and baluns investigated for use in air-handling spaces are marked "Suitable for Use in Other Environmental Air Space in Accordance with Section 300.22, (C) of the National Electrical Code" or "Suitable for Use in Air Handling Spaces." These products have been additionally investigated to [UL 2043](#), "Fire Test for Heat and Visible Smoke Release for Discrete Products and their Accessories Installed in Air-Handling Spaces." Products that bear the marking are suitable for installation in accordance with Section 300 of the NEC, Chapter 4 of ANSI/NFPA 90A, "Installation of Air-Conditioning and Ventilating Systems," Section 602 of the "International Mechanical Code," and Section 602 of the "Uniform Mechanical Code."

When certified equipment intended for use with a detachable power-supply cord is not provided with such a cord, a cord suitable for connection of the equipment to the branch circuit should be separately provided.

Equipment intended to be installed in closed and multiunit standard racks and cabinets has been determined to be suitable for use in ambient temperatures not exceeding the manufacturer's recommended ambient temperature as specified in the equipment's installation instructions.

Equipment identified with an Enclosure Type designation, or as "Raintight" or "Rainproof," is intended for use as indicated in Electrical Equipment for Use in Ordinary Locations ([AALZ](#)).

ACCESSORIES

Field-installed accessories to certified equipment are provided with suitable markings and/or instructions detailing proper installation or assembly of the accessory with either a specific or generic certified equipment specified in the markings or instructions.

OUTPUT CONNECTORS/CIRCUITS

Class 2 circuits are marked "Class 2." All other output circuits, including those associated with the Universal Serial Bus (USB), IEEE 1394 bus and PS/2 connectors are limited-power circuits supplied by [ANSI/UL 60950-1](#) limited-power sources, unless:

- the circuits are clearly telecommunication circuits (e.g., RJ series modular jack, 50-pin commercial connectors with insulation-piercing terminals). These circuits are limited to telecommunication network voltages (TNV) and are suitable for connection to the telecommunication network and distribution wiring in accordance with Article 800 of the NEC; or
- the circuits are marked, or otherwise identified in the installation instructions with the type of circuit (e.g., Class 1), intended cable type (e.g., DP-2) or specific equipment intended to be interconnected (e.g., mfr/model printer).

Limited-power circuits of certified ITE supplied by limited-power sources are recognized by Section 725.41(A)(4) of the NEC as being equivalent to Class 2 circuits for purposes of applying Article 725 Class 2 wiring requirements.

SPECIAL CONSIDERATIONS

The ability or reliability of these products to perform their intended function in a particular application has not been investigated.

Equipment investigated with respect to security or burglary resistance is covered under Access Control System Units (ALVY), Antitheft Alarms and Devices (ATJT) and other associated categories. Card readers, badge readers and similar identification equipment covered under this category has not been investigated with respect to security.

The burglary and theft protection features of coin-operated equipment, banking and currency-handling equipment, cash registers, coin counters and the like have not been investigated.

Automated teller machines (ATMs) investigated for security and burglary resistance are covered under Automated Teller Systems (TPEU). ATMs that have not been investigated for security protection are covered under Bank Equipment (BALT).

Equipment intended for use on commercial transport aircraft and passenger areas of commercial cargo aircraft, as specified in the individual certifications, are investigated within the scope of the standard(s) noted under **REQUIREMENTS** below. The investigation addresses use in unclassified locations as well as on aircraft, and specifically takes into account appropriate operating parameters and installation considerations including, as applicable, (a) electrical clearances based on a cabin pressurization of approximately 8000 ft (2400 m), (b) aircraft cabin temperature per the manufacturer's specification, (c) interface with the aircraft electrical infrastructure using a method that the aircraft has been designed to accommodate (such as by common electrical attachment plug and outlet configurations, special-purpose mated connections, standard communication and data ports), and (d) the equipment either being such size as to be covered under the existing airline regulations for stowage of portable electronic devices (such as laptops) during takeoff and landing, or having provision for stowage by airline personnel during takeoff and landing so as to not introduce a risk of injury due to kinetic energy (such as service-cart-mounted devices). The investigation does not take into account governmental regulations for airworthiness and therefore Authorities Having Jurisdiction should be consulted for the use on aircraft.

PHYSIOLOGICAL EFFECTS

The physiological effects of chemical substances used in or with this equipment have not been investigated.

The long-term characteristics or the possible physiological effects of radio frequency (RF) electromagnetic fields associated with this equipment have not been investigated.

For equipment establishing a virtual environment (virtual reality) as a function, the physiological effects of cyber sickness, motion sickness and similar side effects have not been investigated. Use of the equipment, including related precautions, if any, is intended to be in accordance with the manufacturer's instructions.

CATEGORY IDENTIFIER

One of the following category identifiers appears on the product:

60950-1

60950-21

60950-22

60950-23

ANSI/UL 60950-1

ANSI/UL 60950-21

ANSI/UL 60950-22

ANSI/UL 60950-23

Copier

Cordless Telephone

Info. Tech. Equip.

Information Technology Equipment

I.T.E.

ITE

Modem

NWGQ

Paper Shredder

Personal Computer

UL 1950

UL 60950

UL 60950-1

Other category identifiers may be used as shown in the individual certifications.

The category identifier for field-installed accessories includes the word "Accessory."

RELATED EQUIPMENT

Power distribution centers for communications equipment are covered under Power Distribution Centers for Communications Equipment ([QPOY](#)).

Uninterruptible power-supply (UPS) equipment intended for indoor and outdoor use that may be stationary or fixed is covered under Uninterruptible Power-supply Equipment ([YEDU](#)).

Automatic transfer switches intended for use in optional standby systems in accordance with Article 702 of the NEC are covered under Automatic Transfer Switches for use in Optional Standby Systems ([WPXT](#)).

Power supplies for information technology and telecommunication equipment are covered under Power Supplies, Information Technology Equipment Including Electrical Business Equipment ([QQGQ](#)) and Power Supplies, Telephone ([QQJE](#)).

Secondary (rechargeable) battery packs for use in transportable equipment are covered under Batteries, Household and Commercial ([BBFS](#)).

Static neutralizing equipment is covered under Static Neutralizing Equipment ([VWWZ](#)). High-voltage parts that may be accessible after installation have been investigated as limited-current circuits.

Air conditioning equipment for use in computer rooms or other areas in which information technology equipment is installed is covered under Air Conditioners, Special Purpose ([ACVS](#)) and Heating and Cooling Equipment ([LZFE](#)).

Fire-resistant materials, sprinklers, extinguishers and associated equipment intended for use in computer rooms is covered under Carbon Dioxide Extinguishers ([FXHV](#)) and Halogenated Agent Extinguishing System Units ([GLER](#)).

Filing cabinets covered under this category have not been investigated with respect to fire resistance or security. Fire-resistant filing cabinets are covered under Record Protection Equipment ([RYPH](#)).

Smoke detectors are covered under Smoke-automatic Fire Detectors ([UROX](#)); alarm equipment is covered under Single- and Multiple-station Smoke Alarms ([UTGT](#)).

Other equipment associated with information technology/processing but not intended for use in offices, residences or computer rooms is covered under Graphics Arts Equipment ([KCQT](#)), Inspection and Measuring Electrical Equipment ([NYOK](#)), Teaching and Instruction Equipment ([WYFW](#)), Laboratory Use Electrical Equipment ([OGTK](#)), Medical Equipment ([PIDF](#)), Marking and Coding Equipment, Electronic ([PGBE](#)) and Photographic Equipment ([QINT](#)). Other multimedia equipment and accessories are covered under Audio/Video Apparatus ([AZSO](#)) and Audio and Video Equipment ([AZUJ](#)). Other telecommunication appliances and equipment is covered under Telephone Appliances and Equipment ([WYQQ](#)).

Modular assemblies of telecommunication equipment (e.g., racks, circuit card assemblies) designed for field installation by trained service personnel are covered under Custom-built Telecommunication Equipment ([WYKM](#)).

Equipment intended to be installed on the network side of the subscriber demarcation point and installed and maintained by telephone companies, CATV companies and similar network communication companies, is covered under Communication Service Equipment ([DUZO](#)).

Cabinet, enclosure and rack/frame systems that are not complete information technology (IT) or telecommunication equipment, but include components and assemblies that are intended to power, protect, heat, cool or otherwise support IT or telecommunication equipment that will be installed at a later time are covered under Information Technology and Telecommunication Equipment Cabinets, Enclosures and Racks ([NWIN](#)).

Power distribution products intended for indoor use as relocatable multiple-outlet extensions of a single branch circuit not for exclusive use of ITE and consisting of an attachment plug and a

single length of flexible cord terminated in a single enclosure in which one or more receptacles are mounted are covered under Relocatable Power Taps ([XBYS](#)).

Power distribution products intended for installation in modular furniture are covered under Furniture Power Distribution Units ([IYNC](#)).

Equipment intended to protect against mains transients is covered under Surge-protective Devices ([VZCA](#)).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations ([AALZ](#)).

REQUIREMENTS

The basic standard used to investigate products in this category is [ANSI/UL 60950-1](#), "Information Technology Equipment - Safety - Part 1: General Requirements," in conjunction with [ANSI/UL 60950-21](#), "Information Technology Equipment - Safety - Part 21: Remote Power Feeding," [ANSI/UL 60950-22](#), "Information Technology Equipment - Safety - Part 22: Equipment to be Installed Outdoors," and/or [ANSI/UL 60950-23](#), "Information Technology Equipment - Safety - Part 23: Large Data Storage Equipment."

UL MARK

The Certification Mark of UL on the product, or the UL symbol on the product and the Certification Mark on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The [Certification Mark](#) for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

Alternate UL Mark

The Listing Mark of UL on the product, or the UL symbol on the product and the Listing Mark on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number or file number, and one of the following category identifiers: "UL 1950," "UL 60950," "UL 60950-1," "Information Technology Equipment" (or "Info. Tech. Equip.," "I.T.E." or "ITE"), "NWGQ," or the standard number with or without the "ANSI/UL" prefix (e.g., "ANSI/UL 60950-1," "60950-1"). The Listing Mark may also include one of the following product names: "Copier," "Modem," "Paper Shredder," "Personal Computer," "Cordless Telephone," or other appropriate product name as shown in the individual Listings.

The category identifier for field-installed accessories includes the word "Accessory."

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