# Preparing for Installation

This chapter lists safety warnings and describes the checks and preparations to make before you install the Cisco CTE 1450.

## Safety

This section lists the general safety warnings and cautions and describes electrical and environmental safety issues to consider before you install the device.

## Warnings and Cautions

Read Chapter 3, "Installing the Cisco CTE 1450," before you connect the system to its power source. Failure to read and follow these guidelines could lead to an unsuccessful installation and possible damage to the system and components.

You should observe the following safety warnings when working with any equipment that connects to electrical power or telephone wiring. They can help you avoid injuring yourself and damaging the Cisco CTE 1450.

The following warnings and cautions are provided to help you prevent damage to the devices or injury to yourself:

**Warning** **This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.**

**Warning** **The safety cover is an integral part of the product. Do not operate the unit without the safety cover installed. Operating the unit without the cover in place will invalidate the safety approvals and pose a risk of fire and electrical hazards.**

**Warning** **Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.**

**Warning**    Before working on a chassis or working near power supplies, unplug the power cord on AC units.

**Warning**    Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.

**Warning**    Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

**Warning**    This equipment is intended to be grounded. Ensure that the host is connected to earth ground during normal use.

**Warning**    Do not work on the system or connect or disconnect cables during periods of lightning activity.

**Warning**    Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.

**Warning**    Ultimate disposal of this product should be handled according to all national laws and regulations.

**Warning**    Read the installation instructions before you connect the system to its power source.

**Warning**    The ports labeled "10BaseT," "100BaseTX," and "10/100" are safety extra-low voltage (SELV) circuits. SELV circuits should only be connected to other SELV circuits. Avoid connecting these circuits to telephone network voltage (TNV) circuits.

**Warning**    There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

**Warning**    The device is designed to work with TN power systems.

# General Precautions

Observe the following general precautions for using and working with your Cisco CTE 1450:

- Keep the Cisco CTE 1450 away from radiators and heat sources, and do not block its cooling vents.

- Do not spill food or liquids on the Cisco CTE 1450 components, and never operate the product in a wet environment. If the Cisco CTE 1450 gets wet, contact the Cisco TAC.

- Do not push any objects into the openings of the Cisco CTE 1450 components. Doing so can cause fire or electric shock by shorting out interior components.

- Position system cables and power cables carefully; route system cables and the power cable and plug so that they cannot be stepped on or tripped over. Be sure that nothing rests on your system component cables or power cable.

- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local and national wiring rules.

**Note**      For translations of safety warnings, see Appendix C, "Translated Safety Warnings."

The following guidelines will help ensure your safety and protect the equipment. This list does not cover all potentially hazardous situations, so *be alert*.

- The installation of your Cisco CTE 1450 should be in compliance with national and local electrical codes. In the United States, the relevant code is National Fire Protection Association (NFPA) 70, United States National Electrical Code. In Canada, it is Canadian Electrical Code, part I, CC22.1. In other countries, you should observe the standards of the International Electrotechnical Commission (IEC) 364, part 1 through part 7.

- Review the safety warnings listed in Appendix C, "Translated Safety Warnings," before installing, configuring, troubleshooting, or maintaining the Cisco CTE 1450.

- Never attempt to lift an object that might be too heavy for one person to lift alone. If you are not sure how much a particular object or device weighs, see the appropriate device specifications listed in the tables in Appendix A, "Technical Specifications."

- Always turn OFF all power supplies and unplug all power cables before opening, installing, or removing a Cisco CTE 1450.

- Keep the area clear and dust-free during and after installation.

- Keep tools and chassis components away from walk areas.

- Do not wear loose clothing, jewelry (including rings and chains), or other items that might become trapped in the chassis. Fasten your tie or scarf and roll up your sleeves.

- The Cisco CTE 1450 ships with 3-wire electrical grounding-type plugs, which will fit only into grounding-type power outlets. This is a safety feature. The equipment grounding should be in accordance with national and local electrical codes.

- Be sure to use the Cisco CTE 1450 in accordance with its marked electrical ratings and product usage instructions to guarantee safe operation.

# Maintaining Safety with Electricity

Follow these guidelines when working on equipment powered by electricity:

- If any of the following conditions occur, contact the Cisco TAC:
    - The power cable, extension cable, or plug is damaged
    - An object has fallen into the product
    - The product has been exposed to water
    - The product has been dropped or damaged
    - The product does not operate correctly when you follow the operating instructions

- Use the correct external power source. Operate the product only from the type of power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult the Cisco TAC or a local power company.

- To help prevent electric shock, plug the Cisco CTE 1450, components, and peripheral power cables into properly grounded electrical outlets. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a three-wire cable with properly grounded plugs.

- Observe extension cable and power strip ratings. Make sure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the extension cable with properly grounded plugs.

- To help protect your Cisco CTE 1450 from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptable power supply (UPS).

- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local and national wiring rules.

## Power Protection Devices

A number of devices are available that protect against power problems such as power surges, transient currents, and power failures. The following subsections describe some of these devices.

### Surge Protectors

Surge protectors are available in a variety of types and usually provide a level of protection commensurate with the cost of the device. Surge protectors prevent voltage spikes, such as those caused during an electrical storm, from entering a system through the electrical outlet. Surge protectors, however, do not offer protection against brownouts, which occur when the voltage drops more than 20 percent below the normal AC line voltage level.

### Line Conditioners

Line conditioners go beyond the overvoltage protection of surge protectors. Line conditioners keep the voltage of a system's AC power source at a fairly constant level and, therefore, can handle brownouts. Because of this added protection, line conditioners cost more than surge protectors—up to several hundred dollars. However, these devices cannot protect against a complete loss of power.

### Uninterruptable Power Supplies

UPS systems offer the most complete protection against variations in power because they use battery power to keep the system running when AC power is lost. The battery is charged by the AC power while it is available, so once AC power is lost, the battery can provide power to the system for a limited amount of time—from 15 minutes to an hour or so—depending on the UPS system.

UPS systems range in price from a few hundred dollars to several thousand dollars, with the more expensive units allowing you to run larger systems for a longer period of time when AC power is lost. UPS systems that provide only 5 minutes of battery power let you conduct an orderly shutdown of the system, but are not intended to provide continued operation. Surge protectors should be used with all UPS systems, and the UPS system should be Underwriters Laboratories (UL) safety-approved.

# Preventing Electrostatic Discharge Damage

Static electricity can harm delicate components inside your computer. To prevent static damage, discharge static electricity from your body before you touch any of your computer's electronic components. You can do so by touching an unpainted metal surface on the computer chassis.

As you continue to work inside the computer, periodically touch an unpainted metal surface to remove any static charge your body might have accumulated.

You can also take the following precautions to prevent damage from electrostatic discharge (ESD):

*   When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component in your computer. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.

*   When transporting a sensitive component, first place it in an antistatic container or packaging.

*   Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads and workbench pads.

# Preventing Electromagnetic Interference

When you run wires for any significant distance in an electromagnetic field, electromagnetic interference (EMI) can occur between the field and the signals on the wires.

Note the following:

*   Bad plant wiring can result in radio frequency interference (RFI).

*   Strong EMI, especially when it is caused by lightning or radio transmitters, can destroy the signal drivers and receivers in the system, and can even create an electrical hazard by conducting power surges through lines and into the system.

To predict and remedy strong EMI, consult RFI experts.

# Preparing Your Site for Installation

This section describes the requirements your site must meet for safe installation and operation of your Cisco CTE 1450. Ensure that your site is properly prepared before beginning installation.

## Site Environment

The environmental monitoring functionality in the Cisco CTE 1450 protects it and its components from potential damage from overvoltage and overtemperature conditions. After installation, make sure the site maintains an ambient temperature of 50 to 95˚F (10 to 35˚C), and keep the area around the chassis as free from dust as is practical.

When planning your site layout and equipment locations, keep in mind the precautions described in this section to help prevent equipment failures and reduce the possibility of environmentally caused shutdowns. If you are currently experiencing shutdowns or unusually high errors with your existing equipment, these precautions will help you isolate the cause of failures and prevent future problems.

Use the following precautions when planning the operating environment for your Cisco CTE 1450:

- Always follow the precautions recommended in the "Preventing Electrostatic Discharge Damage" section on page 2-5 to avoid damage to equipment. Damage from static discharge can cause immediate or intermittent equipment failure.

- Make sure the chassis cover is secure. The chassis is designed to allow cooling air to flow effectively within it. An open chassis allows air leaks, which could interrupt and redirect the flow of cooling air from internal components.

- Electrical equipment generates heat. Ambient air temperature might not be adequate to cool equipment to acceptable operating temperatures without adequate circulation. Make sure that the room in which you operate has adequate air circulation.

## Choosing a Site for Installation

**Warning**    **This unit is intended for installation in restricted access areas. A restricted access area is where access can only be gained by service personnel through the use of a special tool, lock and key, or other means of security, and is controlled by the authority responsible for the location.**

- Choose a site with a dry, clean, well-ventilated and air-conditioned area.

- Choose a site that maintains an ambient temperature of 50 to 95˚F (10 to 35˚C).

## Grounding the Cisco CTE 1450

**Warning**    **Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.**

## Creating a Safe Environment

Follow these guidelines to create a safe operating environment:

- Keep tools and chassis components off the floor and away from foot traffic.

- Clear the area of possible hazards, such as moist floors, ungrounded power extension cables, and missing safety grounds.

- Keep the area around the chassis free from dust and foreign conductive material (such as metal flakes from nearby construction activity).

# Site Requirements

This section describes how to prepare the site for the Cisco CTE 1450.

# Environmental

This section describes environmental conditions and precautions required for the Cisco CTE 1450 to function correctly, including factors such as temperature, ventilation, and space requirements. Please review the information shown in Table 2-1 and confirm that the site you wish to place your Cisco CTE 1450 in meets these requirements.

*Table 2-1    Environmental Specifications*

| | |
|---|---|
| Operating temperature | 50 to 95˚F (10 to 35˚C) |
| Storage temperature | –40 to 149˚F (–40 to 65˚C) |
| Operating relative humidity | 8 to 80% (noncondensing) with a humidity gradation of 10% per hr |
| Storage relative humidity | 5 to 95% (noncondensing) |
| Operating maximum vibration | 0.25 G (half-sine wave) at a sweep of 3 to 200 Hz for 15 min |
| Storage maximum vibration | 0.5 G at 3 to 200 Hz for 15 min |
| Operating maximum shock | Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 41 G for up to 2 ms |
| Storage (non-operational) maximum shock | Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for 2 ms |
| Operating altitude | –50 to 6500 ft (–16 to 2000 m) |
| Storage altitude | –50 to 35,000 ft (–16 to 10,600 m) |

# Power

> ⚠ **Warning**    **The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.**

The AC-input power supply operates on input voltage and frequency within the ranges of 100 to 240 VAC and 50 to 60 Hz. Each AC-input power supply operating at 120 VAC requires up to 5A service.

> ✎ **Note**    Cisco recommends powering the Cisco CTE 1450 from a 15A (100 to 120 VAC) or a 10A (200 to 240 VAC) receptacle at the power source. Cisco recommends that you use an uninterruptable power source to protect against power failures at your site.

See Table 2-2 for Cisco CTE 1450 power requirements.

*Table 2-2    Power Requirements*

| AC power supply wattage | 125W |
|---|---|
| AC power supply voltage | 100 to 120 VAC or 200 to 240 VAC, 50 to 60 Hz |
| System battery | CR2032 3V lithium coin cell |

# Plant Wiring

Following are guidelines for setting up the plant wiring and cabling at your site. When planning the location of the new system, consider the distance limitations for signaling, EMI, and connector compatibility. Each issue and its effect on Cisco CTE 1450 site planning is described in the sections that follow.

## Interference Considerations

When wires are run for any significant distance in an electromagnetic field, interference can occur between the field and the signals on the wires. The potential presence of interference has two implications for the construction of plant wiring:

- Bad wiring practice can result in RFI emanating from the plant wiring.

- Strong EMI, especially when it is caused by lightning or radio transmitters, can destroy the signal drivers and receivers in the Cisco CTE 1450. EMI can even create an electrical hazard by conducting power surges through lines and into equipment. For more information on the effects of EMI, review the safety warnings in the section "Preventing Electrostatic Discharge Damage" on page 2-5.

> ✎ **Note**    To predict and remedy strong EMI, you might also need to consult experts in RFI.

Follow these guidelines to reduce the possibility of extraneous interference and damage from EMI pulses:

- Use twisted-pair cable in your plant wiring with a good distribution of grounding conductors to reduce or eliminate the chance of RFI. If you must exceed the recommended wiring distances, use a high-quality twisted-pair cable with one ground conductor for each data signal.

- If wires exceed recommended distances or pass between buildings, give special consideration to the effect of a lightning strike in your vicinity. The electromagnetic pulse caused by lightning or other high-energy phenomena can easily couple enough energy into unshielded conductors to destroy electronic devices. If you have had problems of this sort in the past, you might want to consult experts in electrical surge suppression and shielding.

## Distance Limitations and Interface Specifications

The size of your networks and the distances between connections depend on the type of signal, the signal speed, and the transmission media (the type of cabling used to transmit signals). For example, standard coaxial cable has a greater channel capacity than twisted-pair cabling and can transmit signals more clearly for a greater distance.

The distance and rate limits in the following descriptions are the IEEE (Institute of Electrical and Electronics Engineers) recommended maximum speeds and distances for signaling.

**Note** Cisco recommends that you not exceed specified transmission rate and distance limits. However, if you understand the electrical problems that might arise and can compensate for them, you can obtain good results with rates and distances greater than those shown here. For example, the recommended maximum rate for V.35 is 2 Mbps. Still, it is commonly used at 4 Mbps without any problems. **Be advised that you exceed the recommended limits at your own risk.**

When preparing your site for network connections to the Cisco CTE 1450, you must consider a number of factors related to each type of interface:

- Type of cabling required for each type (fiber, thick or thin coaxial, foil twisted-pair [FTP], or unshielded twisted-pair [UTP] cabling)

- Distance limitations for each signal type

- Specific cables you need to connect each interface

- Any additional interface equipment you need, such as transceivers, hubs, switches, modems, channel service units (CSUs), or data service units (DSUs)

For ordering information for any additional special equipment that you might require, contact a Cisco customer service representative (see Obtaining Technical Assistance, page xii). Keep in mind, however, that the Cisco CTE 1450 is preconfigured in the configuration that you ordered. All devices, cables, documentation, and miscellaneous parts should be included with the system.

## Precautions for Rack-Mounting

Observe the following precautions for rack stability and safety. Also, refer to any installation documentation accompanying the rack for specific warning and caution statements and procedures.

Servers, storage systems, and appliances are considered components in a rack. Thus, "component" refers to any server, storage system, or appliance, as well as to various peripherals or supporting hardware.

- Do not move large racks by yourself. Due to the height and weight of the rack, a minimum of two people are needed to accomplish this task.

- Make sure that the rack is level and stable before extending a component from the rack.

- Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.

- Ensure that proper airflow is provided to components in the rack.

- Do not step on or stand on any system or component when servicing other system or components in a rack.

**Warning**   **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:**

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.

- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.

- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

Observe the following guidelines when working with options:

- Do not connect or use a modem or telephone during a lightning storm. There is a risk of electrical shock from lightning.

- Never connect or use a modem or telephone in a wet environment.

- Do not plug a modem or telephone cable into the network interface card (NIC) receptacle.

**Caution**   Always install the cable management arm during the initial installation of the rack kit. See Chapter 3, "Installing the Cisco CTE 1450," for instructions on installing the cable management arm. Failure to properly install the cable management arm and its associated support bracket could result in accidental disengagement of the system while you are extending the rack rail slides and could potentially cause damage to the system or cause you bodily harm.

# European Community, Switzerland, Norway, Iceland, and Liechtenstein

## Declaration of Conformity with Regard to the Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC

The Declaration of Conformity related to this product is located at this URL: http://www.ciscofax.com/

| Deutsch: | Dieses Gerät entspricht den wesentlichen Anforderungen und weiteren Bestimmungen der Richtlinien 73/23/EWG und 89/336/EWG mit der Ergänzung durch Richtlinie 93/68/EWG. |
|---|---|
| Dansk: | Dette udstyr er i overensstemmelse med de ufravigelige hensyn og andre bestemmelser i direktiv  73/23/EEC og 89/336/EEC som ændred i direktiv 93/68/EEC. |
| English: | This equipment is in compliance with the essential requirements and other provisions of Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC. |
| Español: | Este equipo cumple con los requisitos esenciales y otras disposiciones de las Directrices 73/23/EEC y 89/336/EEC de acuerdo a las modificaciones de la Directriz 93/68/EEC. |
| Έλληνας: | Αυτός ο εξοπλισμός συμμορφώνεται με τις ουσιώδεις απαιτήσεις και τις λοιπές διατάξεις των Οδηγιών 73/23/ΕΟΚ και 89/336/ΕΟΚ, όπως τροποποιήθηκαν με την Οδηγία 93/68/ΕΟΚ. |
| Français: | Cet appareil remplit les principales conditions requises et autres dispositions des Directives  73/23/EEC et 89/336/EEC, modifiées par la Directive 93/68/EEC. |
| Íslenska: | essir búna ur samr mist lögbo num kröfum og ö rum ákvæ um tilskipana 73/23/EBE og 89/336/EBE, me  breytingum skv tilskipun 93/68/EBE. |
| Italiano: | Questa apparecchiatura è conforme ai requisiti essenziali e altre disposizioni delle Direttive 73/23/EEC e 89/336/EEC modificate con la Direttiva 93/68/EEC. |
| Nederlands: | Deze apparatuur voldoet aan de belangrijkste eisen en andere voorzieningen van richtlijnen 73/23/EEC en 89/336/EEC zoals gewijzigd door richtlijn 93/68/EEC. |

| | |
|---|---|
| **Norsk:** | **Dette utstyret samsvarer med de vesentligste kravene og andre regler i direktivene 73/23/EEC og 89/336/EEC samt i tilleggsdirektiv 93/68/EEC.** |
| **Português:** | **Este equipamento satisfaz os requisitos essenciais e outras provisões das Directivas 73/23/EEC e 89/336/EEC, conforme amendados pela Directiva 93/68/EEC.** |
| **Suomalainen:** | **Tämä laite on direktiivien 73/23/ETY ja 89/336/ETY (kuten muutettu direktiivissä 93/68/ETY) keskeisten vaatimusten ja määräysten mukainen.** |
| **Svenska:** | **Denna utrustning uppfyller de väsentliga kraven och andra villkor i direktiven 73/23/EEC och 89/336/EEC enligt ändringarna i direktiv 93/68/EEC.** |

# Regulatory Standards Compliance

The Cisco CTE 1450 complies with the standards listed in Table 2-3.

*Table 2-3    Regulatory Standards Compliance*

| Item | Description |
|---|---|
| Regulatory compliance | Products bearing the CE mark indicate compliance with the 72/23/EEC and 89/33/EEC directives, which include the safety and EMC standards in this table. |
| Safety | UL 1950 |
| | CSA-C22.2 No. 950 |
| | EN 60950 |
| | IEC 60950 |
| EMC | FCC Part 15 (CFR 47) Class A |
| | EN 55022 Class A |
| | CISPR22 Class A |
| | AS/NZS 3548 Class A |
| | VCCI Class A |
| | EN55024 |
| | EN 61000-3-2 |
| | EN 61000-3-3 |
| | EN-50082-1 |
| | EN ETS 300 386 |
| | ICES 003 Class A |

# EMC Environmental Conditions in the European Union

This equipment is intended to operate under the following conditions with respect to EMC:

- The equipment must be located in a separate defined area under the user's control.
- Earthing and bonding must meet the requirements of ETS 300 253 or CCITT K27.
- Where applicable, AC power distribution must be one of the following types: TN-S or TN-C [as defined in IEC 364-3].

In addition, if equipment is operated in a domestic environment, RFI may occur.

## FCC Class A warning

⚠️ **Warning** **Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations and you may be required to correct any interference to radio or television communications at your own expense.**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

## Canada Class A Warning

⚠️ **Warning** **This Class A digital apparatus complies with Canadian ICES-003.**
**Cet appareil numèrique de la classe A est conforme á la norme NMB-003 du Canada.**

## CISPR 22 Class A Warning

This is a class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

## Japan VCCI Class A Warning

⚠

Warning    **This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.**

この装置は，情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

## Taiwan (BSMI) Class A Warning

⚠

Warning    **This is a Class A Information Product, when used in residential environment, it may cause radio frequency interference, under such circumstances, the user may be requested to take appropriate countermeasures.**

警告使用者：這是甲類資訊產品，在居住環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

## Hungary Class A Warning

⚠

Warning    **This equipment is a Class A product and should be used and installed properly according to the Hungarian EMC Class A requirements (MSZEN55022). The Class A equipment is derived for typical commercial establishments for which special conditions of installation and protection distance are used.**

Figyelmeztetés a felhasználói kézikönyv számára: Ez a berendezés "A" osztályú termék, felhasználására és üzembe helyezésére a magyar EMC "A" osztályú követelményeknek (MSZ EN 55022) megfeleloen kerülhet sor, illetve ezen "A" osztályú berendezések csak megfelelo kereskedelmi forrásból származhatnak, amelyek biztosítják a megfelelo speciális üzembe helyezési körülményeket és biztonságos üzemelési távolságok alkalmazását.

## Korean Class A Warning

**Warning**    **This is a Class A Device and is registered for EMC requirements for industrial use. The seller or buyer should be aware of this. If this type was sold or purchased by mistake, it should be replaced with a residential-use type.**

주의    A급 기기 이 기기는 업무용으로 전자파 적합 등록을 한 기기이

오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약

잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

## Required Tools and Equipment

This section lists the tools required to install the Cisco CTE 1450.

Your Cisco CTE 1450 has been fully configured at the factory; no assembly is required. However, you will need the following tools and equipment to install the Cisco CTE 1450:

- Documentation (see the "Related and Referenced Documents" section on page xi for a complete list of relevant documents)
- ESD-preventive wrist strap for each person
- Number 2 Phillips screwdriver
- Masking tape or a felt-tip pen, for use in marking the mounting holes to be used
- Standard clippers or knife (to cut packaging binding)
- Protective gloves and safety glasses
- Tape measure
- Level (optional)

## Verifying the Contents of Your Shipment

**Note**    Do not discard the shipping container or the packing slip. You will need the container if you need to ship the Cisco CTE 1450 in the future, such as for repair, and you will need the packing slip to verify your order.

This section lists the contents of the shipping box in which the product was shipped and describes what to do if something is missing.

When you receive your Cisco CTE 1450, use the following procedure to check the contents of the shipping container. Use the component list in Table 2-4 and the system installation checklist in Table 2-5 to ensure you received all the components you ordered.

**Step 1**    Verify that the following are included in the shipping container (the accessories box might be separate):

- 1 Cisco CTE 1450, fully assembled
- 1 accessories box
- Bezel

**Step 2**    Check the contents of the accessories box against the Installation Checklist, Table 2-4, and the packing slip to verify that you received all listed equipment.

*Table 2-4    Cisco CTE 1450 System Component List*

| Component | Description | Quantity Received |
|---|---|---|
| Read Me First bag | • A printout of your requested configuration<br>• A disk containing backup files for your requested configuration | |
| Accessory kits | • Cisco CTE 1450 documentation set and CD-ROM package<br>• 2 RJ-45 cables, 1 straight-through, 1 crossover<br>• ESD wrist strap<br>• DB9 to RJ45 adapter<br>• Mounting hardware<br>• Recovery CD<br>• Diagnostic CD<br>• CTE Design Studio installation CD | |

**Step 3**    To begin installation, see the "Site Log" section on page B-1, and then Chapter 3, "Installing the Cisco CTE 1450."

# Site Preparation Checklist

This section lists the environmental, electrical, EMI, and space requirements in a checklist format.

To monitor your installation procedure and to provide a historical record of each installation step, use the Cisco CTE 1450 installation checklist in Table 2-5.

Photocopy this checklist and then indicate on it when each procedure or verification is completed. When the checklist is completed, place it in your site log (see the "Site Log" section on page B-1) along with additional Cisco CTE 1450 records.

*Table 2-5    Cisco CTE 1450 Installation Checklist*

| Task | Verified by | Date |
|---|---|---|
| Photocopy installation checklist | | |
| Review safety recommendations and guidelines | | |
| Establish site log and enter background information | | |

*Table 2-5    Cisco CTE 1450 Installation Checklist (continued)*

| Task | Verified by | Date |
|------|-------------|------|
| Verify site power voltages | | |
| Install and test network connection circuits | | |
| Verify site environmental specifications | | |
| Assign required passwords, IP addresses, device names | | |
| Gather required tools | | |
| Gather network connection equipment | | |
| Unpack Cisco CTE 1450 system and all accessories | | |
| Verify types and numbers of interfaces | | |
| Check Cisco CTE 1450 system cabling | | |
| Connect AC power cable(s) to AC source(s) and Cisco CTE 1450 system; secure retention clip | | |
| Check captive installation screws | | |
| Connect network cables | | |
| Attach ASCII terminal or modem to console port | | |
| Set console port for 9600 baud, 8 data bits, no parity, and 1 stop bit (9600 8N1) | | |
| Power up system (DC OK LEDs) | | |
| Complete system boot | | |
| Check that all LEDs light properly | | |
| Check that console screen displays correct hardware configuration (displayed after system banner) | | |

When the checklist is complete, the system is ready for global and interface-specific configuration.