CISCO SYSTEMS

®

Doc. No. 78-6678-01

Regulatory Compliance and Safety Information for the Cisco 633 CSU/DSU Modem

This document provides regulatory compliance and safety information for the Cisco 633 symmetric digital subscriber line (SDSL) channel service unit / data service unit (CSU/DSU) modem. Use this document in conjunction with the publications that shipped with your product.

This document contains the following sections:

Safety Recommendations

To ensure general safety, follow these guidelines:

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

- Keep tools away from walk areas where you and others could fall over them.

- Wear a ground strap when performing any work to your PC or related electronic equipment.

- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.

Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA

1

General Site Requirements

Place the Cisco 633 modem on a desktop. The following precautions will help you plan an acceptable operating environment for your equipment.

- Electrical equipment generates heat. Ambient air temperature might not be adequate to cool equipment to acceptable operating temperatures without adequate circulation.

- Ensure that the room in which you operate your system has adequate air circulation.

- Check the power at your site to ensure that you are receiving "clean" power (free of spikes and noise). Install a power conditioner if necessary.

Agency Approvals

The following agency approvals apply to the Cisco 633 modem:

- FCC Part 15, 1997—United States Federal Communications Commission Part 15, Subpart B

- CSA Std. C108.8 (1993)—EMC (Industry Canada, Radio Interference Regulations, Issue 2 1992) Canadian Standard C108.8

- UL-Listed 1950 3rd Edition

- CE Marked for EMC and Safety

FCC Directives Compliance

The following information is for FCC compliance of Class A devices: 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 users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: The equipment described in this manual generates and may radiate radio-frequency energy. If it is not installed in accordance with Cisco's installation instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in part 15 of the FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Modifications to this product not authorized by Cisco Systems, Inc. could void the FCC approval and negate your authority to operate the product.

Translated Safety Warnings

This section includes translations in multiple languages of the warnings that appear in your equipment documentation. Before working on equipment, be aware of the hazards involved with electrical circuitry and standard safety practices to prevent accidents.

Warning Definition

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.

Waarschuwing Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen.

Varoitus Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista.

Attention Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents.

Warnung Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt.

Avvertenza Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti.

Advarsel Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du vare oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker.

Aviso Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes.

¡Advertencia! Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes. .

Varning! Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador.

Installation Warning

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

Waarschuwing   Raadpleeg de installatie-aanwijzingen voordat u het systeem met de voeding verbindt.

Varoitus   Lue asennusohjeet ennen järjestelmän yhdistämistä virtalähteeseen.

Attention   Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.

Warnung   Lesen Sie die Installationsanweisungen, bevor Sie das System an die Stromquelle anschließen.

Avvertenza   Consultare le istruzioni di installazione prima di collegare il sistema all'alimentatore.

Advarsel   Les installasjonsinstruksjonene før systemet kobles til strømkilden.

Aviso   Leia as instruções de instalação antes de ligar o sistema à sua fonte de energia.

¡Atención!   Ver las instrucciones de instalación antes de conectar el sistema a la red de alimentación.

Varning!   Läs installationsanvisningarna innan du kopplar systemet till dess strömförsörjningsenhet.

Product Disposal Warning

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

Waarschuwing   Dit produkt dient volgens alle landelijke wetten en voorschriften te worden afgedankt.

Varoitus   Tämän tuotteen lopullisesta hävittämisestä tulee huolehtia kaikkia valtakunnallisia lakeja ja säännöksiä noudattaen.

Attention   La mise au rebut définitive de ce produit doit être effectuée conformément à toutes les lois et réglementations en vigueur.

Warnung   Dieses Produkt muß den geltenden Gesetzen und Vorschriften entsprechend entsorgt werden.

Avvertenza   L'eliminazione finale di questo prodotto deve essere eseguita osservando le normative italiane vigenti in materia.

Advarsel   Endelig disponering av dette produktet må skje i henhold til nasjonale lover og forskrifter.

Aviso   A descartagem final deste produto deverá ser efectuada de acordo com os regulamentos e a legislação nacional.

¡Advertencia!   El desecho final de este producto debe realizarse según todas las leyes y regulaciones nacionales.

Varning!   Slutlig kassering av denna produkt bör skötas i enlighet med landets alla lagar och föreskrifter.

Lightning Activity Warning

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

Waarschuwing Tijdens onweer dat gepaard gaat met bliksem, dient u niet aan het systeem te werken of kabels aan te sluiten of te ontkoppelen.

Varoitus Älä työskentele järjestelmän parissa äläkä yhdistä tai irrota kaapeleita ukkosilmalla.

Attention Ne pas travailler sur le système ni brancher ou débrancher les câbles pendant un orage.

Warnung Arbeiten Sie nicht am System und schließen Sie keine Kabel an bzw. trennen Sie keine ab, wenn es gewittert.

Avvertenza Non lavorare sul sistema o collegare oppure scollegare i cavi durante un temporale con fulmini.

Advarsel Utfør aldri arbeid på systemet, eller koble kabler til eller fra systemet når det tordner eller lyner.

Aviso Não trabalhe no sistema ou ligue e desligue cabos durante períodos de mau tempo (trovoada).

¡Advertencia! No operar el sistema ni conectar o desconectar cables durante el transcurso de descargas eléctricas en la atmósfera.

Varning! Vid åska skall du aldrig utföra arbete på systemet eller ansluta eller koppla loss kablar.

No On/Off Switch Warning

Warning Unplug the power cord before you work on a system that does not have an on/off switch.

Waarschuwing Voordat u aan een systeem werkt dat geen aan/uit schakelaar heeft, dient u de stekker van het netsnoer uit het stopcontact te halen.

Varoitus Ennen kuin teet mitään sellaiselle järjestelmälle, jossa ei ole kaksiasentokytkintä, kytke irti virtajohto.

Attention Avant de travailler sur un système non équipé d'un commutateur marche-arrêt, débrancher le cordon d'alimentation.

Warnung Bevor Sie an einem System ohne Ein/Aus-Schalter arbeiten, ziehen Sie das Netzkabel heraus.

Avvertenza Prima di lavorare su un sistema che non è dotato di un interruttore on/off, scollegare il cavo di alimentazione.

Advarsel Før det skal utføres arbeid på et system som ikke har en av/på-bryter, skal strømledningen trekkes ut.

Aviso Antes de começar a trabalhar num sistema que não possua um interruptor ON/OFF, desligue o cabo de alimentação.

¡Advertencia! Antes de trabajar sobre cualquier sistema que carezca de interruptor de Encendido/Apagado (ON/OFF), desenchufar el cable de alimentación.

Varning! Dra ur nätsladden innan du utför arbete på ett system utan strömbrytare.

SELV Circuit Warning

Warning The ports labeled "Serial," "PWR," and "MGT" are safety extra-low voltage (SELV) circuits. Only connect SELV circuits to other SELV circuits. Because the BRI circuits are treated like telephone-network voltage, avoid connecting the SELV circuit to the telephone network voltage (TNV) circuits.

To avoid electric shock, do not connect safety extra-low voltage (SELV) circuits to telephone-network voltage (TNV) circuits. LAN ports contain SELV circuits, and WAN ports contain TNV circuits. Some LAN and WAN ports both use RJ-45 connectors. Use caution when connecting cables.

Waarschuwing De poorten die "Serial," "PWR," en "MGT" zijn gelabeld, zijn veiligheidscircuits met extra lage spanning (genaamd SELV = Safety Extra-Low Voltage). SELV-circuits mogen alleen met andere SELV-circuits verbonden worden. Omdat de BRI-circuits op dezelfde manier als telefoonnetwerkspanning behandeld worden, mag u het SELV-circuit niet verbinden met de telefoonnetwerkspanning (TNV) circuits.

Om elektrische schokken te vermijden, mogen veiligheidscircuits met extra lage spanning (genaamd SELV = Safety Extra-Low Voltage) niet met telefoonnetwerkspanning (TNV) circuits verbonden worden. LAN (Lokaal netwerk) poorten bevatten SELV circuits en WAN (Regionaal netwerk) poorten bevatten TNV circuits. Sommige LAN en WAN poorten gebruiken allebei RJ-45 connectors. Ga voorzichtig te werk wanneer u kabels verbindt.

Varoitus Portit, joissa on nimet "Serial," "PWR," ja "MGT", ovat erityisen pienen jännityksen omaavia turvallisuuspiirejä (SELV-piirejä). Tällaiset SELV-piirit tulee yhdistää ainoastaan muihin SELV-piireihin. Koska perusluokan liitäntöjen (Basic Rate Interface- eli BRI-liitännät) jännite vastaa puhelinverkoston jännitettä, vältä SELV-piirin yhdistämistä puhelinverkoston jännitepiireihin (TNV-piireihin).

Jotta vältyt sähköiskulta, älä kytke pienjännitteisiä SELV-suojapiirejä puhelinverkkojännitettä (TNV) käyttäviin virtapiireihin. LAN-portit sisältävät SELV-piirejä ja WAN-portit puhelinverkkojännitettä käyttäviä piirejä. Osa sekä LAN- että WAN-porteista käyttää RJ-45-liittimiä. Ole varovainen kytkiessäsi kaapeleita.

Attention Les ports étiquetés « Serial », « PWR », et « MGT » sont des circuits de sécurité basse tension (Safety Extra-Low Voltage ou SELV). Les circuits SELV ne doivent être interconnectés qu'avec d'autres circuits SELV. Comme les circuits BRI sont considérés comme des sources de tension de réseau téléphonique, éviter de connecter un circuit SELV à un circuit de tension de réseau téléphonique (telephone network voltage ou TNV).

Pour éviter une électrocution, ne raccordez pas les circuits de sécurité basse tension (Safety Extra-Low Voltage ou SELV) à des circuits de tension de réseau téléphonique (Telephone Network Voltage ou TNV). Les ports du réseau local (LAN) contiennent des circuits SELV et les ports du réseau longue distance (WAN) sont munis de circuits TNV. Certains ports LAN et WAN utilisent des connecteurs RJ-45. Raccordez les câbles en prenant toutes les précautions nécessaires.

Warnung Die mit "Serial," "PWR," und "MGT" beschrifteten Buchsen sind Sicherheitskreise mit Sicherheitskleinspannung (Safety Extra-Low Voltage, SELV). SELV-Kreise sollten ausschließlich an andere SELV-Kreise angeschlossen werden. Da die BRI-Kreise wie Telefonnetzspannungen behandelt werden, ist der SELV-Kreis nicht an Telefonnetzspannungskreise (TNV) anzuschließen.

Zur Vermeidung von Elektroschock die Sicherheits-Kleinspannungs-Stromkreise (SELV-Kreise) nicht an Fernsprechnetzspannungs-Stromkreise (TNV-Kreise) anschließen. LAN-Ports enthalten SELV-Kreise, und WAN-Ports enthalten TNV-Kreise. Einige LAN- und WAN-Ports verwenden auch RJ-45-Steckverbinder. Vorsicht beim Anschließen von Kabeln.

Avvertenza Le porte contrassegnate da "Serial," "PWR,"e "MGT" sono circuiti di sicurezza con tensione molto bassa (SELV). I circuiti SELV devono essere collegati solo ad altri circuiti SELV. Dato che i circuiti BRI vengono trattati come tensioni di rete telefonica, evitare di collegare il circuito SELV ai circuiti in cui è presente le tensione di rete telefonica (TNV).

Per evitare scosse elettriche, non collegare circuiti di sicurezza a tensione molto bassa (SELV) ai circuiti a tensione di rete telefonica (TNV). Le porte LAN contengono circuiti SELV e le porte WAN contengono circuiti TNV. Alcune porte LAN e WAN fanno uso di connettori RJ-45. Fare attenzione quando si collegano cavi.

Advarsel Utgangene merket "Serial," "PWR," og "MGT" er lavspentkretser (SELV) for ekstra sikkerhet. SELV-kretser skal kun kobles til andre SELV-kretser. Fordi BRI-kretsene håndteres som telenettspenning, unngå å koble SELV-kretsen til kretser for telenettspenning (TNV).

Unngå å koble lavspenningskretser (SELV) til kretser for telenettspenning (TNV), slik at du unngår elektrisk støt. LAN-utganger inneholder SELV-kretser og WAN-utganger inneholder TNV-kretser. Det finnes både LAN-utganger og WAN-utganger som bruker RJ-45-kontakter. Vær forsiktig når du kobler kabler.

Aviso As portas "Serial," "PWR," and "MGT" são circuitos de segurança de baixa tensão (SELV). Estes circuitos deverão ser apenas ligados a outros circuitos SELV. Devido ao facto de os circuitos BRI (Interface de Ritmo Básico) serem tratados como sendo de tensão equivalente à da rede telefónica, evite ligar o circuito SELV aos circuitos TNV (tensão de rede telefónica).

Para evitar choques eléctricos, não conecte os circuitos de segurança de baixa tensão (SELV) aos circuitos de tensão de rede telefónica (TNV). As portas LAN contêm circuitos SELV e as portas WAN contêm circuitos TNV. Algumas portas LAN e WAN usam conectores RJ-45. Tenha o devido cuidado ao conectar os cabos.

¡Advertencia! Los puertos "Serial," "PWR," y "MGT" son circuitos de muy baja señal que garantizan ausencia de peligro (Safety Extra-Low Voltage = SELV). Estos circuitos SELV deben ser conectados exclusivamente con otros también de tipo SELV. Puesto que los circuitos tipo BRI se comportan como aquéllos con voltajes de red telefónica, debe evitarse conectar circuitos SELV con circuitos de voltaje de red telefónica (TNV).

Para evitar la sacudida eléctrica, no conectar circuitos de seguridad de voltaje muy bajo (safety extra-low voltage = SELV) con circuitos de voltaje de red telefónica (telephone network voltage = TNV). Los puertos de redes de área local (local area network = LAN) contienen circuitos SELV, y los puertos de redes de área extendida (wide area network = WAN) contienen circuitos TNV. En algunos casos, tanto los puertos LAN como los WAN usan conectores RJ-45. Proceda con precaución al conectar los cables.

Varning! De portar som är märkta "Serial," "PWR," och "MGT" är SELV-kretsar, d.v.s. skyddskretsar med extra låg spänning (SELV: Safety Extra-Low Voltage = skyddsklenspänning). SELV-kretsar får endast anslutas till andra SELV-kretsar. Eftersom BRI-kretsar behandlas liksom telefonnätsspänning bör SELV-kretsen inte anslutas till telefonnätsspänningskretsar (TNV-kretsar).

För att undvika elektriska stötar, koppla inte säkerhetskretsar med extra låg spänning (SELV-kretsar) till kretsar med telefonnätspänning (TNV-kretsar). LAN-portar innehåller SELV-kretsar och WAN-portar innehåller TNV-kretsar. Vissa LAN- och WAN-portar är försedda med RJ-45-kontakter. Iaktta försiktighet vid anslutning av kablar.

Additional Warnings

There are currently no translations available for the additional warnings listed below.

Warning To prevent dangerous overloading of the power circuit, read the label on the rear of the Cisco 633 that indicates maximum power load ratings. Failure to follow these rating guidelines could result in a dangerous situation.

Warning Do not use this product near water; for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.

Warning Never install telephone wiring during an electrical storm.

Warning Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.

Warning Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

Warning Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

Warning Do not use a telephone to report a gas leak in the vicinity of the leak.

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides standard and value-added services to Cisco customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com

- WWW: http://www-europe.cisco.com

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note   Support for this product is normally provided by your service provider. Please contact your service provider for your first level of support. If you need technical assistance and have purchased this product directly from Cisco or have a support contract with Cisco, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

If you are reading Cisco product documentation on the World Wide Web, you can submit comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco. We appreciate your comments.