

# Netra™ ft 1800 Compliance and Safety Manual

---



THE NETWORK IS THE COMPUTER™

**Sun Microsystems, Inc.**  
901 San Antonio Road  
Palo Alto, CA 94303-4900 USA  
650 960-1300 Fax 650 969-9131

Part No.: 805-7019-10  
Revision A, February 1999

Copyright 1999 Sun Microsystems, Inc., 901 San Antonio Road • Palo Alto, CA 94303 USA. All rights reserved.

This product or document is protected by copyright and distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, AnswerBook, Java, the Java Coffee Cup, Netra and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc. Registered Excellence (and Design) is a certification mark of Bellcore.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

**RESTRICTED RIGHTS:** Use, duplication, or disclosure by the U.S. Government is subject to restrictions of FAR 52.227-14(g)(2)(6/87) and FAR 52.227-19(6/87), or DFAR 252.227-7015(b)(6/95) and DFAR 227.7202-3(a).

**DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.**

Copyright 1999 Sun Microsystems, Inc., 901 San Antonio Road • Palo Alto, CA 94303 Etats-Unis. Tous droits réservés.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, AnswerBook, Java, le logo Java Coffee Cup, Netra et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

CETTE PUBLICATION EST FOURNIE "EN L'ETAT" ET AUCUNE GARANTIE, EXPRESSE OU IMPLICITE, N'EST ACCORDEE, Y COMPRIS DES GARANTIES CONCERNANT LA VALEUR MARCHANDE, L'APTITUDE DE LA PUBLICATION A REPONDRE A UNE UTILISATION PARTICULIERE, OU LE FAIT QU'ELLE NE SOIT PAS CONTREFAISANTE DE PRODUIT DE TIERS. CE DENI DE GARANTIE NE S'APPLIQUEAIT PAS, DANS LA MESURE OU IL SERAIT TENU JURIDIQUEMENT NUL ET NON AVENU.



Please  
Recycle



# Contents

---

## **Part I    Compliance Statements**

**USA – Electromagnetic Compatibility Information   3**

**European Union Notice   5**

**Canada   7**

## **Part II   Safety**

**Safety   11**



PART I      **Compliance Statements**

---



# USA – Electromagnetic Compatibility Information

---

## System Classes

Please read all of the following information to determine the class of system you have and the environment in which it should be installed and operated.

In the United States, the Federal Communications Commission (FCC) governs the levels of electromagnetic emissions from a digital device. Electromagnetic emissions can interfere with radio and television transmission. To reduce the risk of harmful interference, the FCC has established requirements for manufacturers of digital devices.

A manufacturer of a digital device must test and label the product to inform an end-user of the maximum emission level from the product when used in accordance with its instructions. The FCC has established two classes of levels, Class A and Class B. A system that meets the FCC Class A requirements may be marketed for use in an industrial or a commercial area. A system that meets the more stringent FCC Class B requirements may be marketed for use in a residential area in addition to use in an industrial or a commercial area.

An end-user in the United States is responsible for ensuring that his system is suitable for its environment as stated in the above paragraph and bears the financial responsibility for correcting harmful interference.

For a system to be considered an FCC Class B system, all peripherals of the system (workstation, monitor, keyboard, mouse, external disk and tape drives, modem, printer, etc.) must be labeled as such. If any peripheral or the system itself is labeled as FCC Class A, the entire system becomes FCC Class A and should not be used in a residential area.

To determine if your system is FCC Class A or FCC Class B, you must check the marking on each peripheral and on your workstation. Each piece of equipment should have an FCC statement marked on the unit. The FCC statement should identify the equipment as Class A or Class B. If there is no indication of the Class in the FCC statement, consider it to be Class A unless there is a mark which states 'FCC ID:' followed by alphanumeric characters. If it has this FCC ID mark, it is Class B. If any of the peripherals in your system is not marked with an FCC statement, the equipment should not be used in a home because of the greater likelihood of interference to radio and television reception. Contact the manufacturer of the peripheral if you have any questions.

## Modifications

If the end-user adds single in-line memory modules (SIMMs) or internal drives or PCI cards to the system, the FCC Class of the machine could be affected. All DIMMs and internal drives offered by Sun for use in a Sun™ product have been tested and will not change the FCC Class labeled on the product if it is installed per the instructions in the Sun Netra ft 1800 Installation Guide.

If memory, drives, or PCI cards are purchased from sources other than Sun, the FCC Class of the system may be adversely affected. Modifications not approved by Sun may void the authority granted by the FCC to operate the equipment.

## Shielded Cables

Connections between the system and other external equipment must be made using shielded cables, earthed at both ends, in order to maintain compliance with FCC radio frequency emission limits.

## FCC Class A Notice

---

**Note –** 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 Sun Installation Guide, 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 own expense.

---

# European Union Notice

---

## English

Products with the CE marking comply with the protection requirements of the following EU Directives:

- EMC Directive 89/336/EEC, as amended by 93/68/EEC, by application of the following harmonised standards:
  - EN 55022: 1994—Electromagnetic Interference
  - EN 50082-1: 1997—Electromagnetic Immunity
- Low Voltage Directive 73/23/EEC, as amended by 93/68/EEC, by application of the following harmonised standard:
  - EN60950: 1992 AMD11, Safety of Information Technology Equipment.

---

**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 to correct this interference.

---

## To Ensure Compliance

The following additional components or accessories are required:

1. Shielded cables having earthed metal shells shall be used for connection to all input/output ports.
2. The system must be reliably connected to earth.

---

## Français

### Garantie de Conformité

Les composants et accessoires suivants sont requis :

1. Des câbles blindés équipés de fiches en métal doivent être utilisés pour toutes les connexions aux raccordements d'entrée/ de sortie de l'appareil.
  2. Le système doit être mis à la terre conformément aux prescriptions.
- 

## Deutsch

### Sicherstellen der Konformität

Die folgenden Zubehörteile und zusätzlichen Komponenten werden benötigt

1. Für alle Verbindungen zu den Anschlüssen des Gerätes sollen abgeschirmte Kabel verwendet werden, die mit Metallsteckern ausgerüstet sind.
2. Das System muß stets vorschriftsmäßig geerdet sein.

# Canada

---

## Renseignements de compatibilité électromagnétique – Canada

Communications Canada (c'est-à-dire le DOC, Ministère des Communications) réglemente les dispositifs numériques de façon analogue aux prescriptions de la FCC (Commission fédérale des communications) aux Etats Unis. Chaque produit doit être étiqueté ou livré avec une documentation spécifiant sa classe. Le DOC définit, comme le fait la FCC, l'environnement dans lequel un dispositif numérique doit être utilisé. La classe A, spécifiée par le DOC, s'applique aux zones industrielles ou commerciales, alors que la classe B s'applique aux zones résidentielles, industrielles ou commerciales.

Comme il en est le cas avec la FCC, chaque périphérique d'un système doit répondre aux spécifications de la classe B définie par le DOC afin qu'un système puisse être considéré comme faisant partie de cette classe. Si un périphérique ou un poste de travail quelconque appartient à la classe A, le système appartient alors à la classe A définie par le DOC et par conséquent ne doit pas être mis en service dans une zone résidentielle.

Au Canada il revient à l'utilisateur de s'assurer que son système est approprié pour l'environnement auquel il appartient, tel que spécifié dans le paragraphe ci-dessus.

Si des unités internes ou des barrettes de mémoire SIMM sont ajoutées à un poste de travail, la classe du DOC de la machine risque d'être affectée. Toutes les unités internes et barrettes de mémoire SIMM offertes par Sun et destinées à être utilisées sur un poste de travail Sun ont été soumises à des essais. Elles ne changeront pas la classe du DOC figurant sur le poste de travail si l'installation est conformée aux instructions spécifiées dans le Guide d'installation Sun. Si l'utilisateur se procure des unités et des barrettes de mémoire ailleurs que chez Sun, la classe du poste de travail définie par le DOC risque d'être défavorablement affectée.

## Avis concernant les systèmes appartenant à la classe A du DOC

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

---

## Electromagnetic Compatibility Information – Canada

Communications Canada (i.e., the Department of Communications) regulates digital devices similar to the FCC in the United States. Every product should be labeled or provided with documentation that states the class of the product. The DOC defines the environment in which a digital device should be used as the FCC does, DOC Class A is for an industrial or a commercial area and DOC Class B is for a residential, an industrial, or a commercial area.

As it is with the FCC, every peripheral of a system must meet DOC Class B levels in order for a system to be considered DOC Class B. If any peripheral or the workstation is DOC Class A, the system is DOC Class A and should not be used in a residential area.

An end-user in Canada is responsible for ensuring that his system is suitable for its environment as stated in the above paragraph.

If single in-line memory modules (SIMMs) or internal drives are added to the workstation, the DOC Class of the machine could be affected. All SIMMs and internal drives offered by Sun for use in a Sun workstation have been tested and will not change the DOC Class labeled on the workstation if installed per the instructions in the Sun Installation Guide. If memory or drives are purchased from sources other than Sun, the DOC Class of the workstation may be adversely affected.

## DOC Class A Notice

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

**PART II    Safety**

---



# Safety

---

## Symbols

---

**Note** – A note provides information which should be considered by the reader.

---



**Caution** – Cautions identified by this Attention icon carry information about procedures or events which if not considered may cause damage to the data or hardware of your system.

---



**Caution** – Cautions identified by this Hazard icon carry information about procedures which must be followed to reduce the risk of electric shock and danger to personal health. Follow all instructions carefully.

---

---

## Handling and Taking Care of Your CD-ROM Disks

Please observe the following precautions when handling CD-ROM disks:

- DO NOT touch the data side of the disk (the side of the disk with no label).
- DO NOT apply paper labels or write on any part of the disk, data side or label side.
- If dust or fingerprints get on to the disk, wipe with a dry cloth from the center of the disk to the edge.

- DO NOT place the disk in any place where it will be subjected to direct sunlight or high temperature.



**Caution** – Do not use Benzene, Paint Thinner, Record Cleaner, Static Repellent or any type of CD Lens cleaner. These chemicals can damage the surface of the CD-ROM disk. In addition, these fluids will build up on the lens cleaning brush in your CD-ROM reader, reducing effectiveness.

**Note** – In some circumstances, if your CD-ROM disk does not have a clean data surface, your system may fail to boot.

## Safety Precautions

The following general safety precautions must be observed during all phases of operation, service and repair of this equipment. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture and intended use of the equipment. Sun Microsystems assumes no liability for the customer's failure to comply with these requirements.

The safety precautions listed below represent warnings of certain dangers of which Sun Microsystems is aware. You, as the user of the product, should note these warnings and all other safety precautions necessary for the safe operation of the equipment in your operating environment.

## Safety Requirements

For protection, observe the following safety precautions when setting up the equipment:

- Follow all cautions, warnings and instructions marked on the equipment.
- Ensure that the voltages and frequency rating of the power receptacle match the electrical rating label on the equipment.
- Never push objects of any kind through openings in the equipment. They may touch dangerous voltage points or short components resulting in fire or electric shock.
- Refer servicing of equipment to qualified personnel.



## Ground the Instrument

Class 1 equipment:

To minimize shock hazard, the equipment enclosure must be reliably connected to an electrical ground. This DC unit is provided with an equipment grounding connection point. The equipment grounding conductor must be securely fastened to the identified ground point.



## Do Not Operate in an Explosive Atmosphere

Do not operate the equipment in the presence of flammable gases or fumes. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.



## Keep Away From Live Circuits

Only trained personnel may remove equipment covers for internal subassembly or component replacement or any internal adjustment. Under certain conditions, dangerous voltages may exist even with the power supply removed.

## Lithium Cells



---

**Caution** – Each CPUset contains two NVRAM chips containing lithium cells. In the unlikely event that one of these requires replacement, the chip must be disposed of safely in accordance with the manufacturer's instructions.

---



## Do Not Service or Adjust Alone

Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.



## Do Not Substitute Parts or Modify Equipment

Because of the danger of introducing additional hazards and/or the possibility of compromising emissions compliance, do not install substitute parts or perform any unauthorized modification of the equipment. Contact your local support organization for service and repair to ensure that safety features are maintained.



If CD-ROM is fitted:

Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.