
PacketShaper[®] Quick Start Guide

For All PacketShaper Models



P/N 20-0233-02 Rev C

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For information on safety and regulatory compliance, see the “Safety and Regulatory Information” Appendix.

Packeteer, Inc.
10201 North De Anza Drive, Cupertino, CA 95014
www.packeteer.com

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TABLE OF CONTENTS

How to Use this Guide.....	1
Additional Resources	2
Installation	3
About Your PacketShaper	4
Step 1: Rack-Mounting the Unit (optional)	5
Step 2: Connecting a PacketShaper to the Network.....	7
Step 3: Powering the PacketShaper.....	10
Step 4: Accessing Guided Setup	11
Step 5: Logging In Via the Browser Interface	14
Where to Go Next	14
Appendix A: Console Port Pinout Descriptions	A-1
Appendix B: Grounding a PacketShaper.....	B-1
Appendix C: Safety and Regulatory Information.....	C-1
Safety Warnings	C-1
Electro-Magnetic Interference/Compatibility and Safety Compliance	C-8
Proper Disposal of Packeteer Products	C-12
RoHS Compliance.....	C-12

How to Use this Guide

This *Quick Start Guide* describes how to install a PacketShaper into your network. You can find additional product information, configuration, and operation resources on the *PacketGuide* CD included with your unit. Resources on the PacketGuide CD include:

- *CLI Commands* (CLI_commands_version.pdf): describes how to access the PacketWise software using a command-line interface (CLI), and provides a description of each command.
- *PacketShaper Deployment Topologies* (EntDevTopos.pdf): describes and illustrates various PacketShaper deployment options.
- *PacketGuide*: a locally-installable version of a browser-based resource that contains conceptual overviews, descriptions of configuration and operation tasks, recommendations on how to solve common network and application problems, and complete reference materials pertaining to the use of PacketWise software.
- *PacketShaper Release Notes* (PacketShaper_Release_Notes.pdf): contains descriptions of new features, resolved issues, and known issues, and provides instructions on how to back up configuration settings, and how to download and install new versions of PacketWise software.
- *Preconfigured Graphs* (graphs.pdf): provides examples and descriptions of graphs generated by PacketWise software.

Additional Resources

Online Help

The PacketShaper's browser interface contains context-sensitive help with sufficient detail to assist you in setting up and maintaining configurations. To access help, click the **help** button. The command-line interface (CLI) also has online help, which provides command syntax details.

Online Version of PacketGuide

While a version of PacketGuide is included on the PacketGuide CD, you can find the latest and most complete content online. To access PacketGuide online:

- In the PacketWise browser interface, click the **packetguide** tab.
- From the Support section of Packeteer's website, select the version of PacketGuide that matches the PacketWise software version loaded on your PacketShaper:
<http://support.packeteer.com/documentation/packetguide/version.htm>

Customer Support

If you have technical questions about your PacketShaper, go to the Packeteer customer support website:

<http://packeteer.com/support/>

This website contains a knowledgebase, known as the Technical Information Library (TIL), plus an Online Support Center.

Best Practices

The Best Practices website offers a central location where you can find deployment advice. It lists and describes the tasks involved at the various stages of deployment, and provides links to information contained elsewhere on Packeteer websites that can give you detailed specifics. The URL is:

<http://www.packeteer.com/support/BestPractices/>

Installation

This section describes the process to install your PacketShaper and prepare it for configuration:

- Step 1: Rack-Mounting the Unit (optional), page 5
- Step 2: Connecting a PacketShaper to the Network, page 7
- Step 3: Powering the PacketShaper, page 10
- Step 4: Accessing Guided Setup, page 11
- Step 5: Logging In Via the Browser Interface, page 14

Steps 1 through 3 describe how to physically install the PacketShaper and connect it to the network. If the unit will be configured remotely via the PolicyCenter auto-deployment feature, stop after completing step 3.

To manually configure your unit via Guided Setup, you will also need to complete steps 4 and 5. Before you run Guided Setup, make sure you have the following information:

- IP address to be assigned to the unit
- Subnet mask for the subnet on which the unit resides
- IP address of the access router to the link managed by the unit
- Gateway IP address
- *Optional*: IP address(es) of the domain name server(s) and default domain name
- Inbound and outbound link speeds

If you do not have this information, you can postpone the Guided Setup steps and perform them later. Network traffic will not be affected, and will continue to pass through the unit.

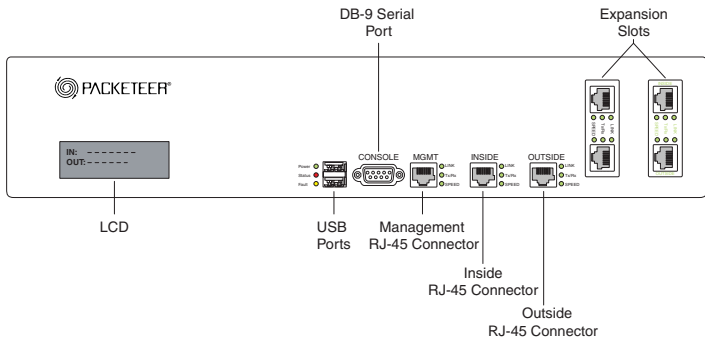
About Your PacketShaper


An example of a PacketShaper front panel is shown in the illustration below. While the front panel of your unit may differ in appearance, all models include the following features:

- Two network ports, **INSIDE** and **OUTSIDE**. On models designed for Ethernet LAN networks, these ports accept RJ-45 connectors. On models designed for fiber-optic networks, these ports will accept either SX or LX small form-factor pluggable (SFP) transceivers.
- One AT-compatible DB-9 serial port (**CONSOLE**) to connect a terminal or PC to the unit for local configuration

Some models are also equipped with:

- One RJ-45 Ethernet out-of-band management port (**MGMT**) to access and manage the unit on a management network
- Two backup network ports, **BACKUP INSIDE** and **BACKUP OUTSIDE**
- An LCD panel that indicates the unit's operating state
- Expansion slots for LAN Expansion Modules (LEMs)
- A bypass control port (**CONTROL**) to be used with the Packeteer Fiber Bypass Switch
- USB ports, reserved for future use



 **Note:** Additional information about specific PacketShaper models can be found in the Product Information section of PacketGuide.

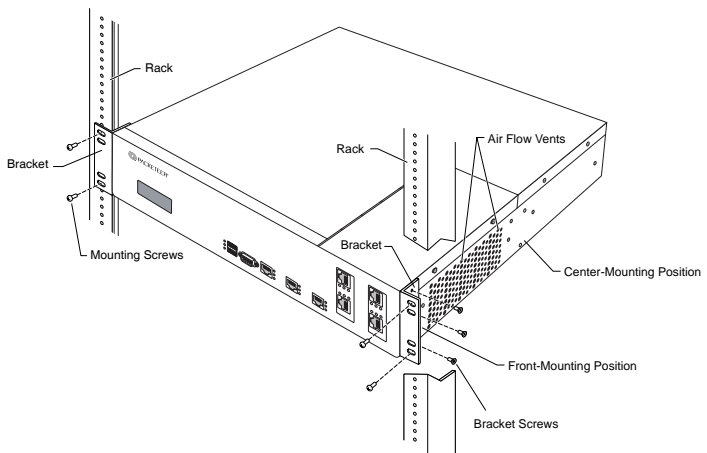
Step 1: Rack-Mounting the Unit (optional)

PacketShapers can be installed in standard 19-inch racks. Included with the unit are:

- 2 mounting brackets
- 6 bracket screws
- 4 mounting screws

Each side of the case has one to three sets of screw holes (located in the front, middle, and/or rear on some models) so that you can rack-mount the box in your choice of positions.

The following illustration shows details for rack installation:



To rack-mount a PacketShaper:

1. Decide where on the rack to mount the unit and locate the corresponding set of screw holes on the sides of the case.
2. Attach one bracket to the left side of the unit and one bracket to the right side, as shown. Each bracket requires three bracket screws.
3. Attach the PacketShaper to the rack with two mounting screws on the rack's left side and two mounting screws on the rack's right side, as shown.


When operating the unit in an equipment rack, ensure that:

- The ambient temperature around the unit (which may be higher than the room temperature) is within the limit specified for the unit
- There is sufficient airflow around the unit
- Electrical circuits are not overloaded — consider the nameplate rating of all the connected equipment, and make sure you have over-current protection
- The equipment is properly grounded
- No objects are placed on top of the unit

Step 2: Connecting a PacketShaper to the Network

This section describes how to connect your unit to a router or to a server in the data path of your network.

- Connecting Between a Router and Hub, page 7
- Connecting Between a Server and Hub, page 9

 Note: For more deployment options, refer to the *PacketShaper Deployment Guide* PDF, which can be found in the Documents section of PacketGuide.

Selecting the Right Cable

To ensure that your PacketShaper functions as a direct pass-through for network traffic when powered off or booting, you need to select the proper cable. Your choice of either a crossover or straight-through cable depends on the type of device you connect to your PacketShaper. Follow these guidelines when connecting devices:

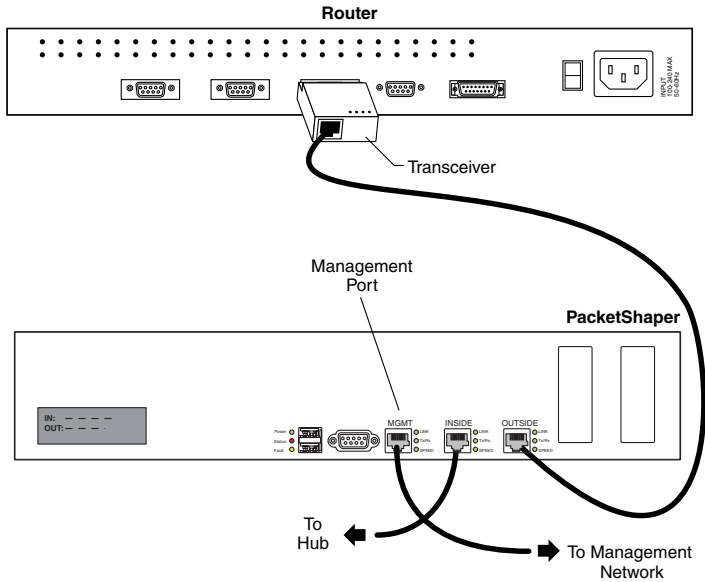
Between a PacketShaper and a:	Use this cable:
router	crossover (orange)
firewall	crossover (orange)
server	crossover (orange)
uplink ports	crossover (orange)
hub	straight-through
switch	straight-through

Connecting Between a Router and Hub

To connect a PacketShaper to a router:

1. On the router, disconnect the straight-through or fiber-optic cable that goes to the switch or hub.
2. Reconnect this cable to the front panel port labeled **INSIDE**.
3. Connect the **OUTSIDE** port to the router, using the orange crossover cable.

- Optional for units with a management port: connect an Ethernet cable from the **MGMT** port to a router on your management network.

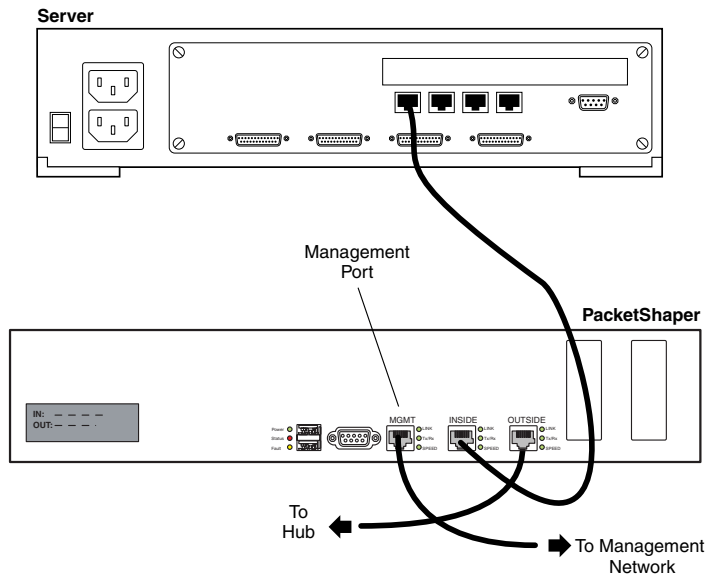


- Optional for units with backup network ports: repeat steps one through three to connect your backup router to the **BACKUP INSIDE** and **BACKUP OUTSIDE** ports of your PacketShaper.
- Proceed to “Step 3: Powering the PacketShaper” on page 10.

Connecting Between a Server and Hub

To connect a PacketShaper to a server:


1. On the server, disconnect the straight-through or fiber-optic cable that goes to the switch or hub.
2. Connect this cable to the front panel port labeled **OUTSIDE**.
3. Connect the orange crossover cable to the unit's port labeled **INSIDE**.
4. Connect the other end of this cable to the server.
5. Optional for units with a management port: connect an Ethernet cable from the **MGMT** port to a router on your management network.



6. Proceed to “Step 3: Powering the PacketShaper” on page 10.

Step 3: Powering the PacketShaper

Your PacketShaper will have either one power supply module, or two hot-swappable modules. On most models, each power supply has its own power switch, located on the back of the unit.

 **Note:** Some models, such as the PacketShaper 10000 (Revision G and higher), are equipped with a ground lug. If you plan to ground your unit, follow the grounding instructions in *Appendix B: Grounding a PacketShaper* (starting on page B-1) and then continue with this step.

1. Connect the power cord(s) to the PacketShaper's outlet(s) and plug the other end into AC power. When using two power supplies, be sure to connect the two power cords to outlets on separate circuit breakers.
2. Turn on the power switch(es) on the back of the unit. PacketShaper models lacking a power switch will power on when plugged into AC power.
3. If present on your unit, verify that the transmit (Tx) and receive (Rx) LEDs are illuminated and flickering on the front panel of your PacketShaper. If they are, the cables are connected correctly.
4. If you have all of the network information specified at the beginning of this section, proceed to "Step 4: Accessing Guided Setup" on page 11. Otherwise, leave your unit powered on so that it can be configured later.



Stop! If you are using PolicyCenter to configure and manage your unit(s), **stop here** and inform the PolicyCenter administrator that the unit is ready for configuration.

Step 4: Accessing Guided Setup

Guided Setup is an automated process for initial configuration of your PacketShaper and will automatically run the first time you access a new unit. There are three ways to access Guided Setup:

- Guided Setup via Web Browser, page 11
- Guided Setup via Remote Login, page 12
- Guided Setup via Direct Console Connection, page 12


Guided Setup via Web Browser

Start your browser (Netscape 7.1 or higher or Microsoft Internet Explorer v5.5 or higher) and enter either the factory-set IP address: `207.78.98.254`

or the DNS name:

`unconfigured.packetshaper.com`

into your browser's Address or Location box.

 **Note:** Using the DNS name to access an unconfigured unit works only if a DNS server is configured on your network and your desktop computer is connected to the PacketShaper's interface marked **INSIDE**.

Upon successfully accessing the PacketShaper, the Guided Setup window appears:

PACKETSHAPER GUIDED SETUP

PacketShaper can be configured standalone (local mode) or in PolicyCenter (shared mode).
What is your preference?

Setup Mode: local shared

1. Select **local** or **shared** mode.


Shared mode is used to configure multiple PacketShapers with the PolicyCenter software. If you are not using PolicyCenter, or if you want to configure the unit independently of other units, choose local mode.

2. Answer the questions about your network as they are asked.
3. When you are finished, click **Commit All Settings**. A dialog box notifies you that your configuration will be saved to your unit.

Proceed to “Step 5: Logging In Via the Browser Interface” on page 14.

Guided Setup via Remote Login

You are free to choose any remote login utility that is available for your operating system. For example, for clear text connections, you can use Telnet. For secure connections, you can choose any SSH client, such as SecureCRT for Windows or OpenSSH for UNIX operating systems.

 **Note:** If you run Guided Setup via Telnet and you enable shared configuration, your settings will not be applied. Packeteer recommends that you use a web browser or a console connection to run Guided Setup if you will be enabling shared mode (that is, using PolicyCenter).

To access Guided Setup using the command-line interface:

1. Connect to `unconfigured.packetshaper.com` (or `207.78.98.254`) at your login utility’s command line — for example `telnet 207.78.98.254` or `ssh 207.78.98.254`.

The PacketShaper’s factory-installed IP address and password prompt appear.

2. Press Enter to bypass the password for now. You will set the password and new IP address later.

When you successfully connect to Guided Setup, you will see a banner and prompt similar to the following:

```
PacketShaper v7.4 2006-9-1
Copyright (c) 1996-2006 Packeteer, Inc.
All rights reserved.
PacketShaper not yet configured. Do you wish to be
guided through initial setup of PacketShaper? (yes):
```

3. Press Enter.

After completing Guided Setup, proceed to “Step 5: Logging In Via the Browser Interface” on page 14.

Guided Setup via Direct Console Connection

To access the command-line interface and perform Guided Setup with a serial connection:

1. Attach a null-modem cable to the serial port on your workstation or PC, using the connector that matches your serial port configuration (9-pin or 25-pin).

2. Connect the 9-pin connector on the other end of the null-modem cable to the PacketShaper's port labeled CONSOLE.
3. Open a terminal emulation program (such as HyperTerminal).
4. Verify that you have configured your program with the following values to communicate with the PacketShaper's console serial port:

9600 bps, **8** data bits, **1** stop bit, **no** parity, **no** hardware flow control

If you are using a modem connected to the serial port, the modem must be set to: **9600** bps, **8** data bits, **1** stop bit, **no** parity, auto-answer (usually ATSO=1 in the standard Hayes command set), and DTR always on (usually the command AT&D0 or a DIP-switch setting). Check the modem manual for details.

5. Power on the PacketShaper if you have not already done so. If the unit was already turned on, you will need to press Enter several times to make the connection.

The password prompt appears. For example:

```
PacketShaper (console)
Password:
```

6. Press Enter to bypass this prompt. You will configure passwords during setup.

The PacketShaper prompt appears.

7. Press Enter to start Guided Setup.

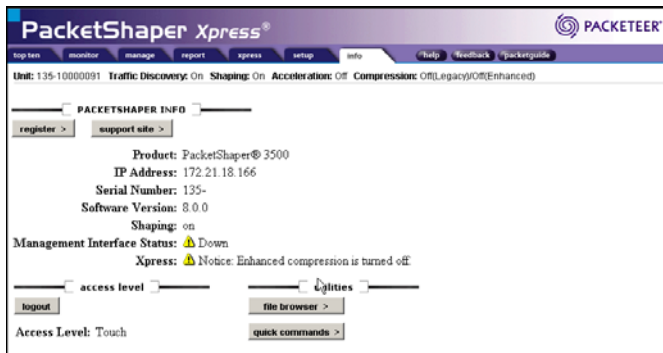
After completing Guided Setup, proceed to "Step 5: Logging In Via the Browser Interface" on page 14.

Step 5: Logging In Via the Browser Interface

After you complete Guided Setup, you can log in to your unit via the browser interface.

1. Enter the IP address of the unit in your web browser's Address or Location box.
2. Enter the password (if any) that you specified during Guided Setup.
3. If a secure HTTP over SSL connection is desired, select the **Secure Login** checkbox.
4. Click **login**.

When you successfully log in using a browser, the PacketWise software appears in your browser window. The **info** tab, shown below, is displayed initially.



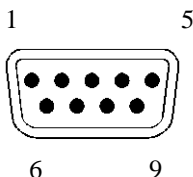
Where to Go Next

- To gain access to support and software downloads, click the **register** button to access the registration form.
- Access online documentation by clicking the **packetguide** button.

Thank you for choosing Packeteer!

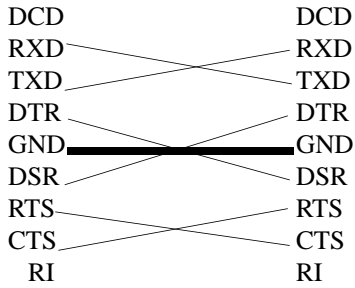
Appendix A: Console Port Pinout Descriptions

The PacketShaper's CONSOLE port is a standard DB-9 male connection, operating at 9600 baud, 8 bits, no parity, 1 stop bit:



Pin	Name	Function
1	DCD -Data Carrier Detect	Indicates there is a valid connection to another serial device
2	RXD - Received Data	Indicates incoming data (from the terminal to the PacketShaper)
3	TXD - Transmitted Data	Indicates outgoing data (from the PacketShaper to the terminal)
4	DTR - Data Terminal Ready	Indicates the "terminal" (the PacketShaper) is ready
5	GND - Signal Ground	Signal return for all signal lines
6	DSR - Data Set Ready	Indicates that the terminal is ready to receive data from the PacketShaper
7	RTS - Request To Send	Tells the terminal that the PacketShaper wants to send data
8	CTS - Clear To Send	Indicates the terminal is ready to receive data from the PacketShaper
9	RI - Ring Indicator	Not used by the PacketShaper

A null modem cable has the following configuration:



Appendix B: Grounding a PacketShaper

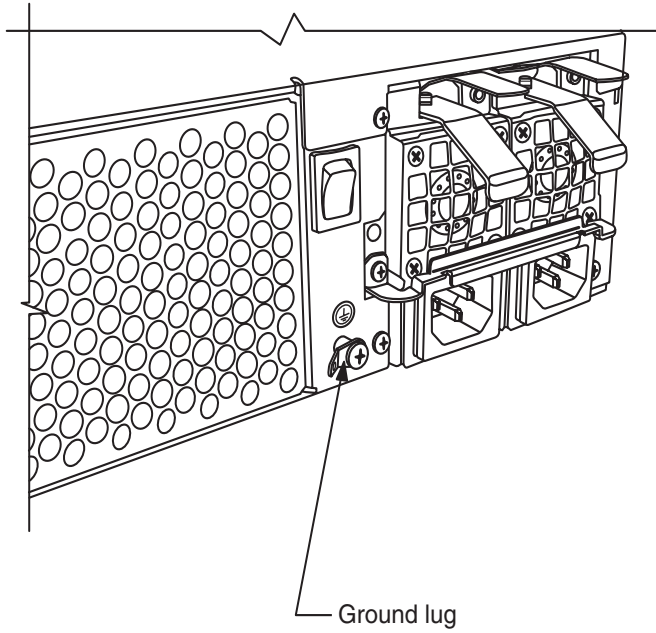
Some PacketShaper models, such as the PacketShaper 10000 (Revision G and higher), are equipped with a ground lug. When grounded to earth, the PacketShaper 10000:

- meets NEBS Level 1 requirements by addressing the personnel and equipment safety requirements of GR-63-CORE and GR-1089-CORE;
- is suitable for installation as part of a Common Bonding Network (CBN) or an Isolated Bonding Network (IBN);
- and is suitable for installation in Network Telecommunication Facilities.

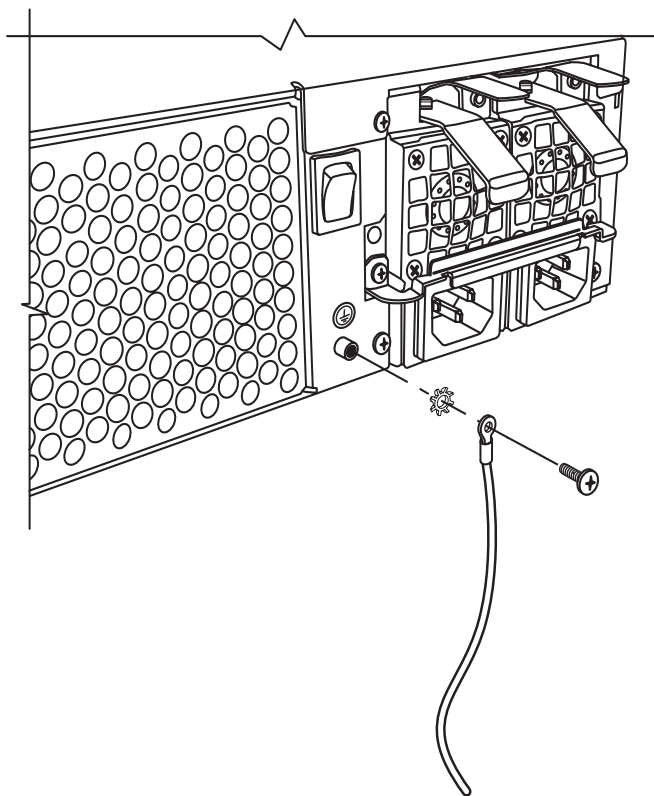
▣▣▣▣➔ **Caution:** To ensure that the equipment is reliably connected to earth ground, follow the grounding procedure instructions below and use a UL-listed lug suitable for #12 AWG wire and #6-32 ground-lug screws.

To ground the PacketShaper 10000:

1. Unscrew the ground-lug screw. Be sure to retain the lock washer between the screw and the chassis.



-
2. Align the lock washer, ring lug (attached to the ground wire), and ground-lug screw with the screw hole, and screw the items into place.



3. Attach the ground wire assembly to the system ground.

Appendix C: Safety and Regulatory Information

Safety Warnings

SAFETY

ELECTRICAL NOTICES



WARNING: ELECTRIC SHOCK HAZARD

To prevent ELECTRIC shock, do not remove cover. This unit contains HAZARDOUS VOLTAGES and should only be opened by a trained and qualified technician. To avoid the possibility of ELECTRIC SHOCK, disconnect electric power to the product before connecting or disconnecting the LAN cables.



LIGHTNING DANGER

DANGER: DO NOT WORK on equipment or CABLES during periods of LIGHTNING ACTIVITY.



CAUTION: POWER CORD IS USED AS THE MAIN DISCONNECT DEVICE.

Ensure that the socket outlet is located/installed near the equipment and is easily accessible.

CAUTION: THIS UNIT MAY HAVE MORE THAN ONE POWER SUPPLY CORD. Disconnect all power supply cords before servicing, to avoid electric shock



INSTALLATION

ELECTRICAL—TYPE CLASS 1 EQUIPMENT

THIS EQUIPMENT MUST BE GROUNDED. Power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.



CAUTION: Danger of explosion if battery is replaced with incorrect type. Replace only with the same type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



MOUNTING INSTRUCTIONS

CAUTION: Air vents must **not be blocked** and must have free access to the room ambient air for cooling.

CAUTION: MECHANICAL LOADING—Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven loading.

CAUTION: PacketShaper 1200, 1400, and 1550 models have no operator-serviceable parts inside. Refer service issues to the manufacturer or a factory-authorized service center.

When operating the unit in an equipment rack, ensure that:

- The ambient temperature around the unit (which may be higher than the room temperature) is within the limit specified for the unit
- There is sufficient airflow around the unit
- Electrical circuits are not overloaded — consider the nameplate rating of all the connected equipment, and make sure you have over current protection.
- The equipment is properly grounded
- No objects are placed on top of the unit

Operating Temperature

This product is designed for an ambient temperature of 32° to 104°F (0° to 40°C).

All Countries: Install product in accordance with local and national electrical codes.



CAUTION: RISK OF ELECTRIC SHOCK. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.

ENERGIE RAYONNEE

Ce matériel a été testé et est certifié conforme à la réglementation américaine aux normes définies pour les appareils.

SECURITE

INFORMATIONS SUR L'ELECTRICITE

AVERTISSEMENT: DANGER D'ELECTROCUTION

Pour empêcher les dangers d'ELECTROCUTION, ne pas enlever le couvercle. L'équipement ne contient aucun élément réparable par l'utilisateur. Cet appareil comprend des TENSIONS DANGEREUSES et ne doit être ouvert que par un technicien dûment qualifié. Pour éviter tout risque d'ELECTROCUTION, débrancher l'appareil de la prise de courant avant de connecter ou de déconnecter les cables LAN.





DANGER DE Foudre

DANGER: NE PAS MANIER l'équipement ou les CABLES pendant les périodes d'activité orageuse.

ATTENTION: CET APPAREIL COMPORTE PLUS D'UN CORDON D'ALIMENTATION. Rafin de prévenir les chocs électriques, débrancher les deux cordons d'alimentation avant de faire le dépannage.

ATTENTION: Le cordon d'alimentation est utilisé comme interrupteur général. La prise de courant doit être située ou installée à proximité du matériel et être facile d'accès.



INSTALLATION

ELECTRICITE—EQUIPEMENT DE CLASSE 1

CET APPAREIL DOIT ETRE MIS A LA TERRE. La prise de courant doit être branchée dans une prise femelle correctement mise à la terre. Sinon, des tensions dangereuses risqueraient d'atteindre les pièces métalliques accessibles à l'utilisateur.

ATTENTION: Pour ce qui est de la protection contre les courts-circuits (surtension), ce produit dépend de l'installation électrique du local. Vérifier qu'on fusible ou qu'un disjoncteur de 15A/250V est utilisé sur les circuits de CC.



ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

INSTRUCTIONS DE MONTAGE



ATTENTION: Ne pas bloquer les fentes d'aération, ce qui empêcherait l'air ambiant de circuler librement pour le refroidissement.

ATTENTION: REPARTITION DE LA CHARGE

MECANIQUE — Le montage des appareils dans le bâti doit être effectué de telle manière que la répartition de la charge mécanique ne pose aucun danger.

Temperature de Fonctionnement

Ce produit est capable de tolérer une température ambiante 0°–40°C.

Pour tous pays: Installer le produit conformément aux normes électriques nationales et locales.

Zur sicheren Trennung des Gerates vom Netz ist der Netzstecker zu ziehen. Vergewissern Sie sich, das die Steckdose leicht zugänglich ist.



Achtung. Explosionsgefahr wenn die Battery in umgekehrter Polarität eingesetzt wird. Nur mit einem gleichen oder ähnlichen, vom Hersteller empfohlenen Typ, ersetzen. Verbrauchte Batterien müssen per den Instructionen des Herstellers verwertet werden.



Warning: Read the installation instructions before connecting the system to the power source.

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

Warnung: Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.



Warning: This product relies on the building's installation for short-circuit (over current) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15 A U.S. (240 VAC, 10 A international) is used on the phase conductors (all current-carrying conductors).

Attention: Pour ce qui est de la protection contre les courts-circuits (surtension), ce produit dépend de l'installation électrique du local. Vérifier qu'un fusible ou qu'un disjoncteur de 120 V alt., 15 A U.S. maximum (240 V alt., 10 A international) est utilisé sur les conducteurs de phase (conducteurs de charge).

Warnung: Dieses Produkt ist darauf angewiesen, daß im Gebäude ein Kurzschluß- bzw. Überstromschutz installiert ist. Stellen Sie sicher, daß eine Sicherung oder ein Unterbrecher von nicht mehr als 240 V Wechselstrom, 10 A (bzw. in den USA 120 V Wechselstrom, 15 A) an den Phasenleitern (allen stromführenden Leitern) verwendet wird.



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

Attention: La combinaison de prise de courant doit être accessible à tout moment parce qu'elle fait office de système principal de déconnexion.

Warnung: Der Netzteilstecker muss immer zugänglich sein, da er als Hauptabschaltgerät dient.



Warning: The unit has more than one power supply connection; all connections must be removed to remove all power from the unit.

Attention: Cette unité est équipée de plusieurs raccordements d'alimentation. Pour supprimer tout courant électrique de l'unité, tous les cordons d'alimentation doivent être débranchés.

Warnung: Diese Einheit verfügt über mehr als einen Stromanschluß; um Strom gänzlich von der Einheit fernzuhalten, müssen alle Stromzufuhren abgetrennt sein.

**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.

Attention:

Pour éviter toute blessure corporelle pendant les opérations de montage ou de réparation de cette unité en casier, il convient de prendre des précautions spéciales afin de maintenir la stabilité du système.

Les directives ci-dessous sont destinées à assurer la protection du personnel:

- Si cette unité constitue la seule unité montée en casier, elle doit être placée dans le bas.
- Si cette unité est montée dans un casier partiellement rempli, charger le casier de bas en haut en plaçant l'élément le plus lourd dans le bas.
- Si le casier est équipé de dispositifs stabilisateurs, installer les stabilisateurs avant de monter ou de réparer l'unité en casier.

Warnung: Zur Vermeidung von Körperverletzung beim Anbringen oder Warten dieser Einheit in einem Gestell müssen Sie besondere Vorkehrungen treffen, um sicherzustellen, daß das System stabil bleibt.

Die folgenden Richtlinien sollen zur Gewährleistung Ihrer Sicherheit dienen:

- Wenn diese Einheit die einzige im Gestell ist, sollte sie unten im Gestell angebracht werden.
- Bei Anbringung dieser Einheit in einem zum Teil gefüllten Gestell ist das Gestell von unten nach oben zu laden, wobei das schwerste Bauteil unten im Gestell anzubringen ist.
- Wird das Gestell mit Stabilisierungszubehör geliefert, sind zuerst die Stabilisatoren zu installieren, bevor Sie die Einheit im Gestell anbringen oder sie warten.

Electro-Magnetic Interference/Compatibility and Safety Compliance

Overview

The EMI/EMC emissions and safety compliance information for PacketShaper models 1200, 1400, 1550, 1700, 2500, 3500, 6500, 7500, 9500, and 10000 is listed below.

EMI/EMC Standards	Safety Standards
AS/NZS 3548 Class A AS/NZS 4252.1 CNS 13438 Class A ICES-003, Class A EMC Directive 89/336/EEC EMC Directive 73/23/EEC EMC Directive 93/68/EEC EN 55022:1998 Class A EN 61000-3-2:1995_A1(98) +A2(98), & prA14(00) EN 61000-3-3:1995 EN 55024:1998 FCC 47 CFR part 15, subpart B, Class A GOST-R 60950-2002 GOST-R 51318.22-99, .24-99 KN55022 Class A KN6100-4-2,3,4,5,6,8,11 VCCI:2002, Class A	IEC 60950-1 EN 60950-1+A11 UL 60950-1: 03 CAN/CSA C22.2 No. 60950-1: 03 EN 60825-1,-2 Class I Laser

United States FCC Statement

This product 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 product 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this equipment off and on, the user is

encouraged to try to correct the interference by one or more of the following measures:

- Change the direction of the radio or TV antenna.
- To the extent possible, relocate the radio, TV, or other receiver away from the product.
- Plug the product into a different electrical outlet so that the product and the receiver are on different branch circuits.

If these suggestions don't help, consult your dealer or an experienced radio/TV repair technician for more suggestions.

NOTE: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Any modification to the equipment not expressly approved by Packeteer could void your authority to operate the equipment.

**Network
Equipment-
Building
System
(NEBS)
Statement**

The PacketShaper 10000 (Revision G and higher) complies with NEBS Level 1.

**European
Union (CE)
Statement**

This product is in conformity with the essential requirements of EU directives, specifically EU Directives 89/336/EEC, 73/23/EEC and 93/68/EEC, by applying the following standards EN55022: 1998, EN55024:1998, EN61000-3-2: 2001, EN61000-3-3: 1995 plus A1: 2001, EN60950-1: 2001

The Declaration of Conformity is available on the Internet at:

<http://support.packeteer.com/documentation/conformity/declaration.pdf>

**European
Union CISPR
22 Statement**

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
Statement**

Class A ITE

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じるよう要求されることがあります。

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.

Internal access to Packeteer devices is intended only for qualified service personnel.

**Canada
Compliance
Statement
(Industry
Canada)**

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: “Appareils Numériques”, NMB-003 édictée par le Ministre Canadien des Communications.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled: “Digital Apparatus,” ICES-003 of the Canadian Department of Communications.

**Taiwan BSMI
Class A EMI
Statement**

警告使用者：

這是甲類的資訊產品，在居住的環境中使用時，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。

**Australia C-
tick Statement**

WARNING

The system is designed to operate in a typical office environment. Choose a site that is:

- Clean and free of airborne particles (other than normal room dust)
- Well-ventilated and away from sources of heat including direct sunlight
- Away from sources of vibration or physical shock
- Isolated from strong electromagnetic fields produced by electrical devices

In regions that are susceptible to electrical storms, we recommend you plug your system into a surge suppressor and disconnect telecommunication lines to your modem during an electrical storm.

- Provided with a properly grounded wall outlet

Do not attempt to modify or use the supplied AC power cord if it is not the exact type required.

Ensure that the system is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is to be removed. Do not operate the system with the cover removed.

**Russia
Certification**



The PacketShaper 1200, 1400, 1550, 1700, 2500, 3500, 6500, 7500, and 10000 are Russia GOST-R certified.

**Korea MIC
Statement**

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

Proper Disposal of Packeteer Products



To reduce waste and to protect the environment from hazardous materials, waste electrical equipment must be disposed of properly.

The crossed-out wheelee bin symbol pictured here and labeled on Packeteer products (purchased after August 13, 2005) is a reminder that electrical equipment should not be mixed in with general trash or disposed of in a landfill. Once your Packeteer product or component has reached its end-of-life, you should dispose of it through a reputable, licensed hazardous materials processor.

If you are located in one of the European Union Member States, please refer to the product's end user license agreement for further information regarding the proper disposal, reporting, and/or return of the product to Packeteer.

For additional information and to obtain return instructions, please go to the Packeteer website:

<http://www.packeteer.com/program/recycling/>

RoHS Compliance

Packeteer supports the EU directive for Restriction of Hazardous Substances (RoHS). PacketShaper models 1400, 1700, 3500, 7500, and 10000 (Revision G and higher) are RoHS-compliant.