



HNC 4800 Controller

for the HLP 4800 platform

User's Guide

VERSION 1.0

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B of the Federal Communications Commission (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. It may cause harmful interference to radio communications if it is not installed and used in accordance with the instructions in this manual. Operation of this equipment in a residential area is likely to cause harmful interference. If this occurs, the user will be required to correct the interference at his or her own expense.

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.

Connections between the Harmonic equipment and other equipment must be made in a manner that is consistent with maintaining compliance with FCC radio frequency emission limits. Modifications to this equipment not expressly approved by Harmonic may void the authority granted to the user by the FCC to operate this equipment.

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Harmonic Inc. intends to comply fully with the European Union's Directive 2002/96/EC as amended by Directive 2003/108/EC, on Waste Electrical and Electronic Equipment, also known as "WEEE," and Directive 2002/95/EC, as amended, on the Restriction of use of Hazardous Substances, also known as "RoHS."

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Harmonic will ensure that its products will be either reused or recycled in compliance with the WEEE Directive. For the latest information concerning Harmonic's WEEE/RoHS Compliance Policy and its Recycling and Take-Back process, please visit our web site.



产品中的有毒有害物质或元素的名称及含量表

Names and Contents of the Toxic and Hazardous Substances or Elements in the Products if the Part is Present

该表显示哈雷公司产品中可能含有的有毒有害物质元配件的信息，除了来源于元配件供应商的物料成分资料，亦来自其它相关的机构与资料。哈雷产品不一定使用这些元配件。

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除非特殊注明，哈雷公司产品的环保使用期限 均为 20 年。该环保使用期限的有效条件为：必须遵循该产品使用手册的规定，对该产品进行使用或存储。

The Environmental Protective Use Period for Harmonic products is 20 years unless displayed otherwise on the product. The EPUP period is valid only when the products are operated or stored as per the conditions specified in the product manual.

部件名称 (Part name)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CrVI)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷线路板 (Printed Circuit Assemblies)	X	O	O	O	O	O
机械组件 (Mechanical Subassemblies)	X	O	O	O	O	O
光学组件 (Optical Subassemblies)	X	O	O	O	O	O
电源 (Power Supplies)	X	O	O	O	O	O
缆线 / 线束 (Cables, harnesses)	X	O	O	O	O	O
屏幕 / 显示器 (Screens, Monitors)	X	O	O	O	O	O
金属零件 (Metal Parts)	O	O	O	O	O	O
塑料 / 发泡材料 (Plastics, foams)	O	O	O	O	O	O
电池 (Batteries)	X	O	O	O	O	O

O: 表示在该部件的所有均质材料中，此类有毒有害物质的含量均小于 SJ/T11363-2006 标准所规定的限量。

O: Indicates the content of the toxic and hazardous substances at the homogeneous material level of the parts is below the limit defined in SJ/T11363 2006 standard.

X: 表示至少在该部件的某一均质材料中，此类有毒有害物质的含量超出 SJ/T11363-2006 标准规定的限量。

X: Indicates that the content of the toxic and hazardous substances in at least one of the homogeneous materials of the parts is above the limit defined in SJ/T11363 2006 standard.

Lithium Battery Notice

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.

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.

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.

Standards

The following tables list regulatory standards and approvals:

North America

Standards
EMI: FCC Part 15, Subpart B, Class A, ICES-003, Issue 3, Class A
Safety: UL 60950-1, CSA C22.2 No 60950-1, 21 CFR 1040 (CDRH)

Europe

Standards
EMI/EMC: EN55022, EN55024, EN61000-3-2, EN61000-3-3
Safety: EN 60950-1, EN 60825-1

Japan

Standards
EMI: VCCI V-3 / 2007.04

Australia and New Zealand

Standards
EMI: AS/NZS-CISPR 22:2005

Documentation Conventions

This manual uses some special symbols and fonts to call your attention to important information. The following symbols appear throughout this manual:



DANGER: The Danger symbol calls your attention to information that, if ignored, can cause physical harm to you.



CAUTION: The Caution symbol calls your attention to information that, if ignored, can adversely affect the performance of your Harmonic product, or that can make a procedure needlessly difficult.



LASER DANGER: The Laser symbol and the Danger alert call your attention to information about the lasers in this product that, if ignored, can cause physical harm to you.



NOTE: The Note symbol calls your attention to additional information that you will benefit from heeding. It may be used to call attention to an especially important piece of information you need, or it may provide additional information that applies in only some carefully delineated circumstances.



TIP: The Tip symbol calls your attention to parenthetical information that is not necessary for performing a given procedure, but which, if followed, might make the procedure or its subsequent steps easier, smoother, or more efficient.

In addition to these symbols, this manual uses the following text conventions:

- `Data Entry`: indicates text you enter at the keyboard.
- `User Interface`: indicates a button to click, a menu item to select, or a key or key sequence to press.
- `Screen Output`: shows console output or other text that is displayed to you on a computer screen.
- **Bold**: indicates the definition of a new term.
- *Italics*: used for emphasis, cross-references, and hyperlinked cross-references in online documents.

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1.1 Overview of this Manual

This manual is the user's guide to the HNC 4800 controller module for the HLP 4800 platform. Please read the entire document before beginning installation.

- Chapter 1, [Preface](#) (this chapter), gives an overview of the book.
- Chapter 2, [Overview](#), gives an overview of the HNC 4800.
- Chapter 3, [Installing the HNC 4800](#), describes the installation procedure.
- Chapter 4, [Using the Front Panel Interface](#), describes the front panel user interface.
- Chapter 5, [Using the WEB Interface](#), describes the WEB interface.
- Chapter 6, [Maintenance and Contacting Harmonic Support](#), has information about maintenance, and how to contact Harmonic, Inc.
- Appendix A, [Technical Specifications](#), provides technical specifications.

The HNC 4800 controls the communication bus of the HLP 4800 platform, enabling local and remote communication for system monitoring and control. The controller also provides the logic to operate the HNC 4800 front panel display.

The HNC 4800 is field-upgradeable and hot-swappable for ease of use. These actions are not service-affecting for the application modules.

Install the HNC 4800 in the dedicated controller slot of the HLP 4800, shown in [Figure 2-1](#) on page 9. The HLP 4800 measures three rack units in height and accommodates primary and backup power supplies, one HNC 4800 controller, and up to 10 of Harmonic's standard 1.3" wide plug-in modules.

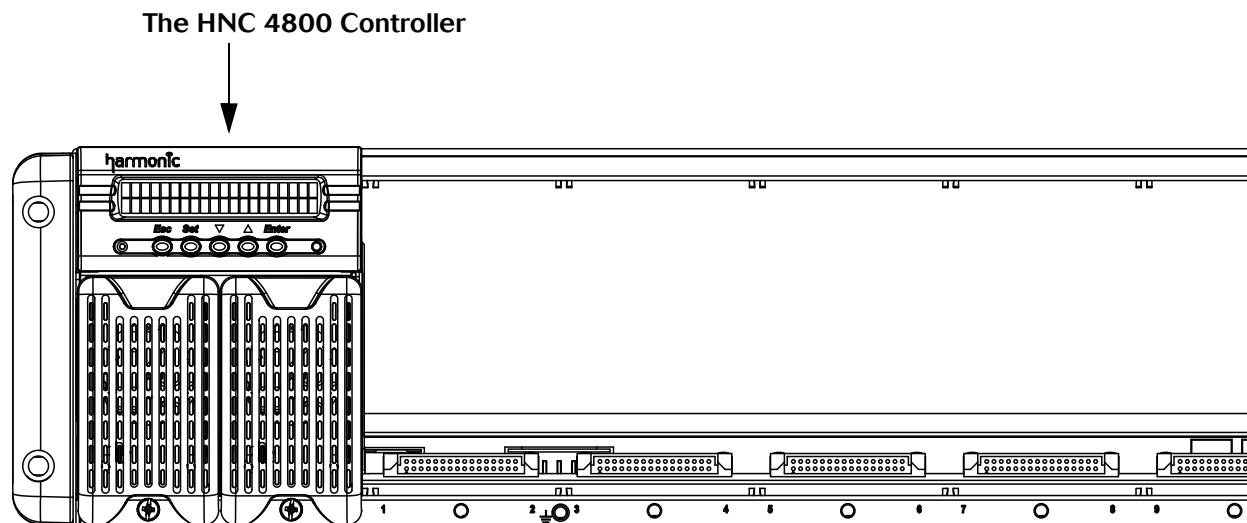


Figure 2-1: HLP 4800 Front View

For local control and monitoring of the HLP 4800 power supplies and application modules, the HNC 4800 is equipped with an easy to use five-key interface and 40-character display.

With the optional software license FW-HNC4800-WEB/SNMP, the HNC 4800 becomes a Web-based SNMP proxy agent that you can use to remotely configure and control the HLP 4800 application modules.

The HNC 4800 can detect alarms and send this information to a higher-level network management station. With a valid login and password, you can access the HNC 4800 from anywhere on the network using a standard Web browser.

2.1 HNC Front Panel

After the HNC 4800 is installed in the dedicated controller slot of the HLP 4800, you can use the momentary push buttons and forty-character display on the front panel to control and monitor the HNC 4800 and the HLP 4800 plug-in modules.

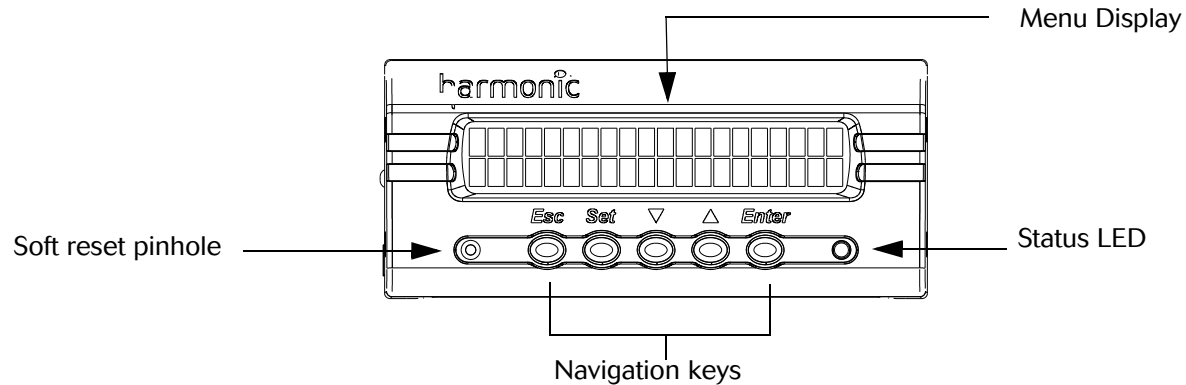


Figure 2-2: HNC 4800 front panel

2.1.1 Front Panel LED

There is one status LED on the front panel. The Status LED indicates the alarm state of the HNC 4800 and associated modules. Solid green indicates the unit is operating normally; red indicates an active alarm.

2.1.2 Front Panel Soft Reset

There is a controller soft-reset pinhole on the front panel. Access it using a bent paper clip.

2.2 Navigation Keys and Menu System.

2.2.1 The Menu System

There are six high-level menus on the HNC, and four navigation keys to select among them.

The menu system high-level choices are:

- System Ready
- Module Selection
- Address
- Contrast
- Backlight
- Power Supply

Figure 2-3 shows the menus, starting with System Ready.

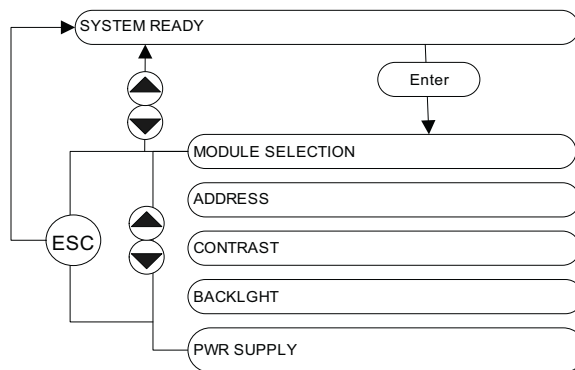


Figure 2-3: Front panel menus

Use the navigation keys to move through the menus and submenus:

- **Down-arrow** moves down the list.
- **Up-arrow** moves up the list.
- **Enter** moves you deeper into the menu structure.
- **ESC** returns to your previous selection. HNC Rear Panel

2.3 HNC Rear Panel

The HNC 4800 rear panel is shown in Figure 2-4.

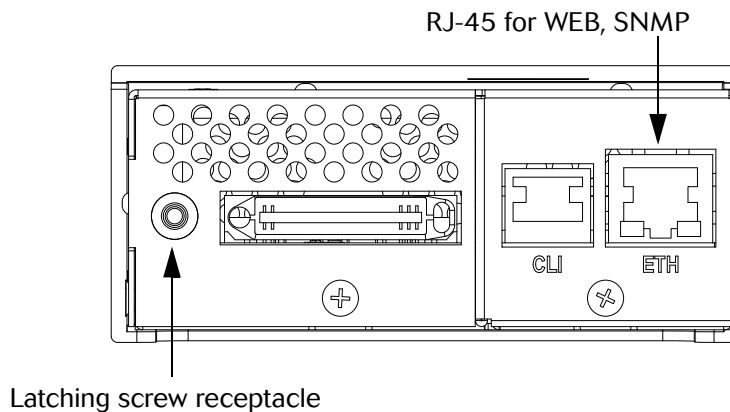


Figure 2-4: HNC Rear Panel

This chapter provides information on installing and setting up the HNC 4800 controller. Please read all the instructions before beginning installation.

This chapter describes:

- How to receive and inspect the HNC 4800
- How to mount the unit



CAUTION: ESD ALERT: Follow strict Electrostatic Discharge (ESD) precautions when handling or working on Harmonic equipment and related components.

3.1 Tools and Accessories

The following tools are necessary for installation and are not included with the CPS 4800:

- #2 Phillips screwdriver

3.2 Receiving and Inspecting

As you unpack your unit, inspect the shipping container and equipment for damage. Save the shipping material for future use. If the container or the equipment is damaged, notify both the freight carrier and Harmonic. See Chapter 6, *Maintenance and Contacting Harmonic Support* for contact information.



CAUTION: To protect yourself from potential injury and to protect the equipment from further damage, do not perform any operational tests if the equipment appears to be damaged.

3.3 Getting Ready

Before installing the HNC 4800, mount the HLP 4800 in an EIA standard 19-inch rack, as described in the *HLP 4800 User's Guide*.

3.4 Installing the HNC 4800

Insert the HNC 4800 module into the dedicated controller slot in the HLP 4800 platform as shown in [Figure 2-1](#) on page 9.

Once the module is seated, lock the unit into position by fitting the HNC rear panel module locking screw (see [Figure 3-1](#) on page 13) into the opening in the HNC rear panel.

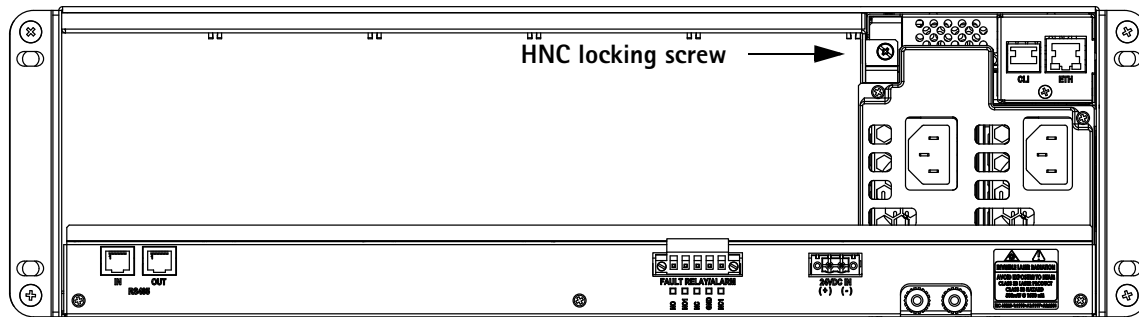


Figure 3-1: Locking screw fits into HNC rear panel

3.4.1 Powering the HLP 4800

To install and power the CPS4800 power supply see the *CPS 4800 User's Guide*. After you have successfully installed the CPS 4800 power supply, proceed to Chapter 4, *Using the Front Panel Interface*.

Using the Front Panel Interface

This chapter introduces the details of the HNC 4800 front panel interface.

You can use the front panel interface to monitor and control the operation of the HNC 4800 controller and HLP 4800 application modules. The front panel gives you access to all the adjustments and status information for the HLP 4800 platform, using a simple menu system.

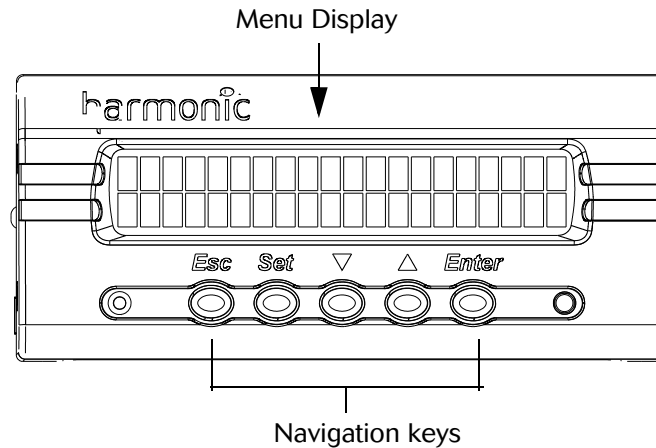


Figure 4-1: The HNC front panel

4.1 The Top-Level Menu System

The top level menu system has six choices, as shown in Figure 4-2. Use the **up-arrow** and **down-arrow** to move between selections. Use the **Enter** button to enter a selection; if there are submenus, they will open.

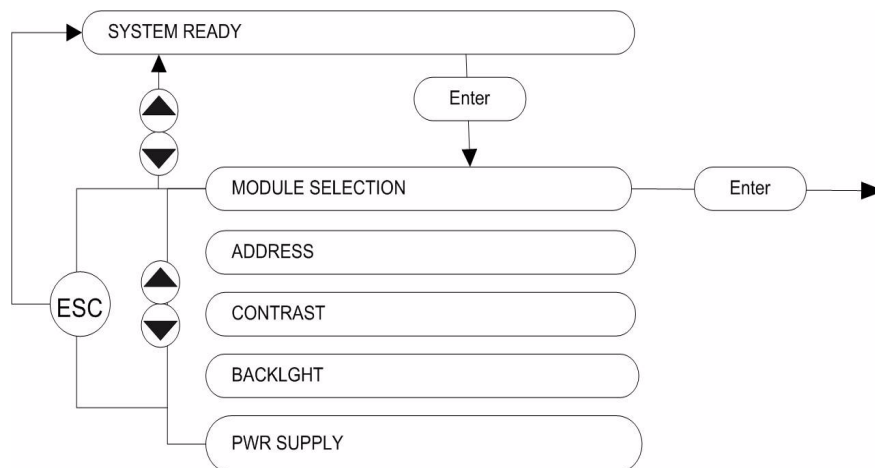


Figure 4-2: Front panel interface: menu

The top-level menu choices are:

System Ready.

Module Selection. Moves through the menu tree for the module installed in the HLP 4800, starting with the HNC 4800 controller.

Address. Sets the platform address. This feature is not currently used.

Contrast. Sets the contrast of the display. While holding the **Set** button, press the up- or down-**arrow** to increase or decrease the contrast. Press **Enter** to save the new setting.

Backlight. Sets the backlight intensity of the display. While holding Set, press the **up-arrow** to increase, or the **down-arrow** to decrease the backlight. Press **Enter** to save the new setting.

Power Supplies. Displays OK, ABSENT, or MALFUNCTION for each power supply.

4.1.1 The PLATFORM CONTROLLER Module

When you enter the Module Selection menu, you can navigate through the modules that are installed in the HLP 4800 platform. The first selection is the PLATFORM CONTROLLER - HNC4800, which is shown with its own submenus, in [Figure 4-3](#) on page 15.

Pressing the **Enter** key on the PLATFORM CONTROLLER HNC4800 button brings you to the PLATFORM CONTROLLER STATUS submenu. (See page 16.)

There are two other Platform submenus:

- The DIAGNOSTICS menu (See page 17.)
- The CONFIGURATION menu (See page 17.)

To enter a sub menu, use the up- and down-**arrows** to navigate to its field, then press the enter key.

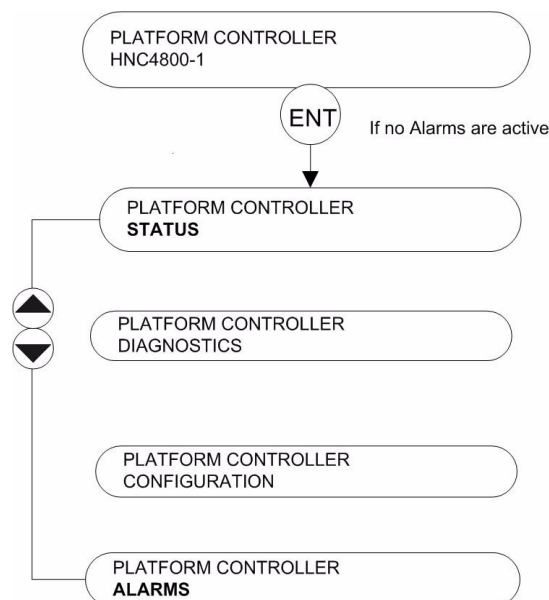


Figure 4-3: Platform Controller submenu

4.1.1.1 Platform Controller Alarm Submenu

An alarm will only appear in this submenu if - and only if - the corresponding alarm is active. An example of the menu is shown in [Figure 4-4](#) on page 16.

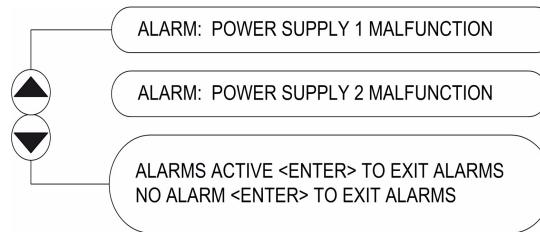


Figure 4-4: Platform Alarms submenu

4.1.1.2 Platform Controller Status Submenu

The Status submenu tells you several things:

- The current date and time
- The serial number of the HNC 4800
- Firmware version of the HNC 4800
- Whether SNTP is enabled or disabled
- The IP address
- The subnet mask
- Default gateway
- MAC address

To exit the Status menu, use up- and down-**arrows** to navigate to the last item, then press **Enter**.

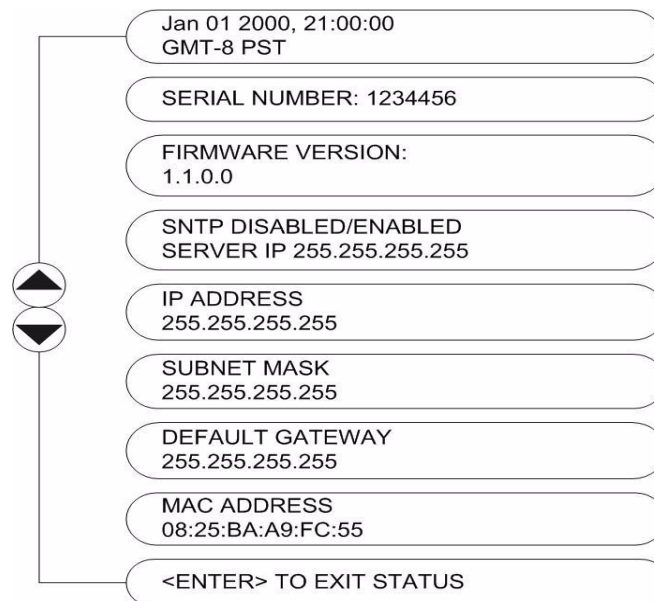


Figure 4-5: Platform Controller's Status submenu

4.1.1.3 Platform Controller Diagnostics Submenu

The Diagnostic submenu tells you the temperature of the HNC 4800.

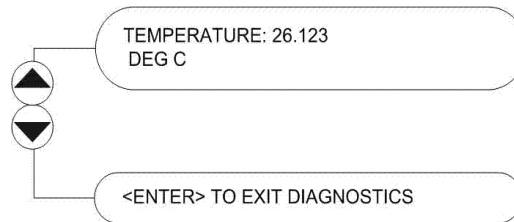


Figure 4-6: Platform Controller's Diagnostics submenu

To exit the Diagnostics menu, use the up- and down-**arrows** to navigate to the last item, and press **Enter**.

4.1.1.4 Platform Controller Configuration Submenu

Use the Configuration submenu to set configuration parameters.

Use the up- and down-**arrows** to navigate the submenu to the configuration parameter you want to set. When it highlights, follow the bracketed instructions to change the values:

- **<S+E>** means to press **Set** and **Enter** simultaneously to select the active field.
- **<S+U/D>** To change the value in a field, press **Set** and an **Up-arrow** to increment the value, or **Set** and a **Down-arrow** to decrement the value.
- **<S+E/U/D>** means to enter by pressing **Set** and **Enter** simultaneously, then change the value by simultaneously pressing **Set** and an **Up-arrow** or **Down-arrow**.
- **<Enter>** to save a changed value.

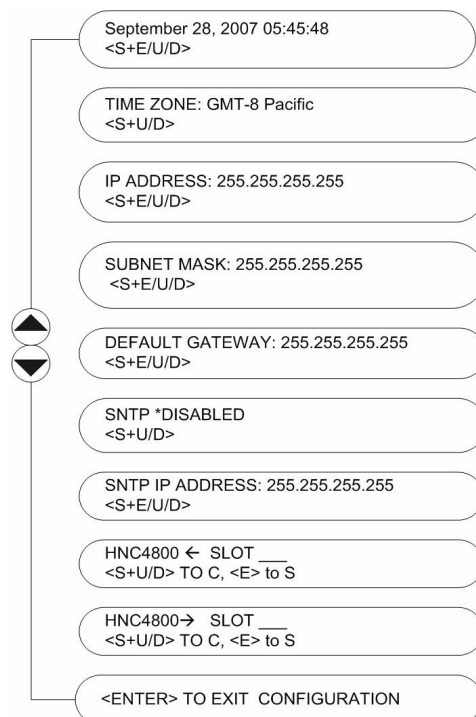


Figure 4-7: Platform Controller's Configuration submenu

4.1.2 Setting the HNC 4800 Clock

The HNC 4800 clock can be managed locally or externally through SNTP (Simple Network Time Protocol).

To manually set the clock:

1. From the Platform Controller submenu, navigate to the HNC 4800 CONFIGURATION submenu and press **Enter**.
2. Press the **down-arrow** until the display reads **SNTP**, then simultaneously press **Set** and the **Up-arrow** key, or **Set** and the **Down-arrow** key to disable SNTP.
3. Navigate to the time zone display in the HNC 4800 CONFIGURATION submenu. Simultaneously, press **Set** and one of the **arrow** keys to adjust the time zone.
4. Press **Enter** to save and exit the time zone configuration.
5. Navigate to the time display of the HNC 4800 CONFIGURATION submenu. Press **Set** and **Enter** to select the field. Then press **Set** and the **Up-** or **Down-arrow** key, to adjust a field: month, day, year, hour, minute, or second.
6. Press **Enter** to save the configuration and exit the **TIME** menu.

SNTP. Simple Network Time Protocol is the internet protocol used to synchronize the HNC 4800 clock to an external time reference. The setting toggles between disabled and enabled.



NOTE: To use the SNTP feature, the HNC 4800 must be properly installed, as described in Chapter 3, *Installing the HNC 4800*. The HNC 4800 must be connected to your IP network as described in [5.1.2 Connecting the Ethernet Cable](#) on page 21. Also, IP addresses must have been assigned to the HNC 4800 as described in [4.1.4 Assigning IP Addresses](#) on page 20.

SNTP IP address. The external time reference can be either a server managed internal to your network or one available on the internet. If you do not know the preferred IP address of your SNTP, contact your system administrator.

To set the clock using an SNTP server:

1. Navigate to the HNC 4800 CONFIGURATION submenu and enter.
2. Press the down-arrow until the display reads SNTP, then simultaneously press **Set** and the **up-** or the **down-arrow** to select **enable SNTP**. Press **Enter** to accept the change.
3. Press the **down-arrow** until the display reads **SNTP IP ADDRESS**, then simultaneously press the **Set** and **Enter** keys.
4. Simultaneously, press the **Set** and an **arrow** key to adjust the first field. Simultaneously, press the **Set** and **Enter** keys to navigate to each additional field.
5. Press **Enter** to save the selections and exit SNTP IP ADDRESS.

4.1.3 Module Memory

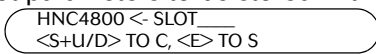
Store module configuration parameters in the HNC 4800 slot memory using the module memory feature.

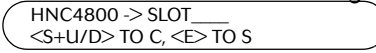
These commands are associated with the module memory feature:

HNC4800 <- SLOT____
<S+U/D> TO C, <E> TO S

and

HNC 4800 -> SLOT____
<S+U/D> TO C, <E> TO S

To select the slot parameters to be stored in the HNC4800 slot memory, use **S+U/D** on the menu button:  . Then, hit the **Enter** key to execute.

To select the slot location to accept stored HNC4800 slot configuration parameters, use **S+U/D** to select the slot location:  Then, hit the **Enter** key to execute.

For HNC4800 versions less than 1.5, the following modules are supported.

- PWL4XXX (firmware version 1.38 and higher)

- ☐ AGC/MGC
- ☐ RF PAD

- HRR4104

- ☐ OPTICAL ALARM
- ☐ OPTICAL ALARM LIMIT
- ☐ INPUT WAVELENGTH
- ☐ MUTE
- ☐ AGC MODE
- ☐ AGC PAD SETPOINT
- ☐ AGC OPT SETPOINT
- ☐ AGC PAD MAXIMUM
- ☐ AGC PAD MINIMUM
- ☐ MAN RF PAD

- RDR4002

- ☐ LINK LOSS ALARM
- ☐ OPTICAL ALARM
- ☐ OPTICAL ALARM LIMIT
- ☐ WAVELENGTH
- ☐ BER ALARM
- ☐ BER ALARM LIMIT
- ☐ RF PAD
- ☐ RF MUTE

- SPL7XXX

- ☐ AGC/MGC
- ☐ TRANSMISSION DISTANCE
- ☐ RF PAD
- ☐ RF LOW ALARM LIMIT

For HNC4800 versions greater or equal to 1.5, the following additional modules are supported.

- HLD7X05T
 - POWER REDUCTION AT LOW RF
 - FIBER LENGTH
 - RF PAD

- HLD7209T
 - RF PAD

4.1.4 Assigning IP Addresses

You must assign IP addresses to the HNC 4800, so that NMSs and web browsers can communicate with it. Use the front panel to assign the IP address, subnet mask, and default gateway.



NOTE: IP addresses are unique. If you do not know the IP addresses of the HNC 4800, contact your system administrator.

To manually assign an IP address:

1. Navigate to the HNC 4800 CONFIGURATION submenu and enter.
2. Press the **down-arrow** until the display reads IP ADDRESS, then simultaneously press the **Set** and **Enter** buttons.
3. Simultaneously press the **Set** and the up- or down-**arrow** buttons to adjust the first field. Simultaneously press **Set** and **Enter** to navigate to each additional field and adjust as needed.
4. Press **Enter** to save and exit the IP ADDRESS.
5. Repeat this process for the SUBNET MASK and the DEFAULT GATEWAY.

This chapter introduces the HNC 4800 web interface.

Once the HNC 4800 is operating, the web interface provides a convenient means of managing it. The HNC 4800 has an embedded HTTP server, which allows you to remotely view the status of alarms and settings, or make adjustments to the HNC 4800. With the purchase of a software license, you can use a web browser or a network management system to monitor and control the HNC 4800.

5.1 Requirements

You can access the HNC 4800 web interface from any computer that is connected to the same IP network and has an Internet Explorer web browser 6.0 or higher.

To use the web interface, these criteria must be met:

- The HNC 4800 must be properly installed, as described in Chapter 3, *Installing the HNC 4800*.
- You must have purchased a software license from Harmonic. (See [5.1.1 Purchasing the Software License](#) on page 21.)
- You need to know the HNC 4800's IP address. The HNC 4800 must be connected to your IP network as described in [5.1.2 Connecting the Ethernet Cable](#) on page 21.
- IP addresses must have been assigned to the HNC 4800 as described in [5.1.3 Assigning IP Addresses](#) on page 21.

5.1.1 Purchasing the Software License

To use the WEB/SNMP interface you must purchase FW-HNC4800-WEB/SNMP. For more information or to obtain a quotation, please contact your Harmonic Sales Representative or call Harmonic at 1-800-730-4099 (in the US and Canada) or from outside the US and Canada at +1-408-542-2771 for further assistance.

5.1.2 Connecting the Ethernet Cable

To connect the Ethernet cable, follow these steps:

1. Connect an Ethernet cable between the HNC 4800's RJ-45 Ethernet port and your TCP/IP network. The Ethernet port is located on the rear panel of the HNC 4800, as shown in [Figure 2-4](#) on page 11.
2. Verify that the green Link LED is illuminated, which means there is a connection. The Link LED is located on the Ethernet port on the rear panel.

5.1.3 Assigning IP Addresses

Assign the IP address to the HNC 4800 so that NMSs and web browsers can communicate with it.

Use the front panel to assign the IP address, subnet mask, and default gateway.



NOTE: IP addresses are unique. If you do not know the IP addresses of the HNC 4800, contact your system administrator.

To assign an IP address:

1. Navigate to the HNC 4800 CONFIGURATION submenu and press **Enter**.
2. Press the down-**arrow** until the display reads IP ADDRESS, then simultaneously press **Set** and **Enter**.
3. To adjust the first field, simultaneously press **Set** and the up- or down-**arrow**. To navigate through the fields, simultaneous press the **Set** and **Enter** buttons.
4. Press **Enter** to save changes and exit the IP ADDRESS menu.
5. Repeat this process for the SUBNET MASK and the DEFAULT GATEWAY.

5.1.4 Passwords

Once the HNC 4800 is operating, the web interface provides a convenient way to managing the HFC network, networked devices, and the HNC itself. The HNC 4800 provides two levels of access to the web interface. This allows your company to give different levels of access to different people, based on their job function or other criteria.

No one can access the HNC 4800 web interface without entering a user name and password. There are two user names: Config, and Monitor. Each user name has an associated password, and each user name provides a different level of HTTP (web) access.

Figure 5-1 on page 22 shows the two user names that allow access to the HNC 4800 web interface, the default passwords, and the functions permitted by each level of HTTP access control. Read access lets you view the settings. Write access lets you change the settings.

Table 5-1: HNC 4800 web user information

User Name	Default Password	functions Permitted
Config	config	Full read and write access to all functions.
Monitor	monitor	Read-only access to everything. No write access




NOTE: The user name and password are case-sensitive.

The HTTP access passwords cannot be changed in this release.

5.2 Accessing and Using the Web Interface

Follow these steps to access the web interface for the HNC 4800 from your browser.

1. Using a computer that is connected to the same TCP/IP network as the HNC4800, launch an Internet Explorer web browser.
2. In the web browser's Address (URL) field, type the IP address of the HNC4800, then press Enter. Your browser connects to the HNC 4800, and the web interface login page appears, as shown in *Figure 5-1: Web log on screen* on page 23.



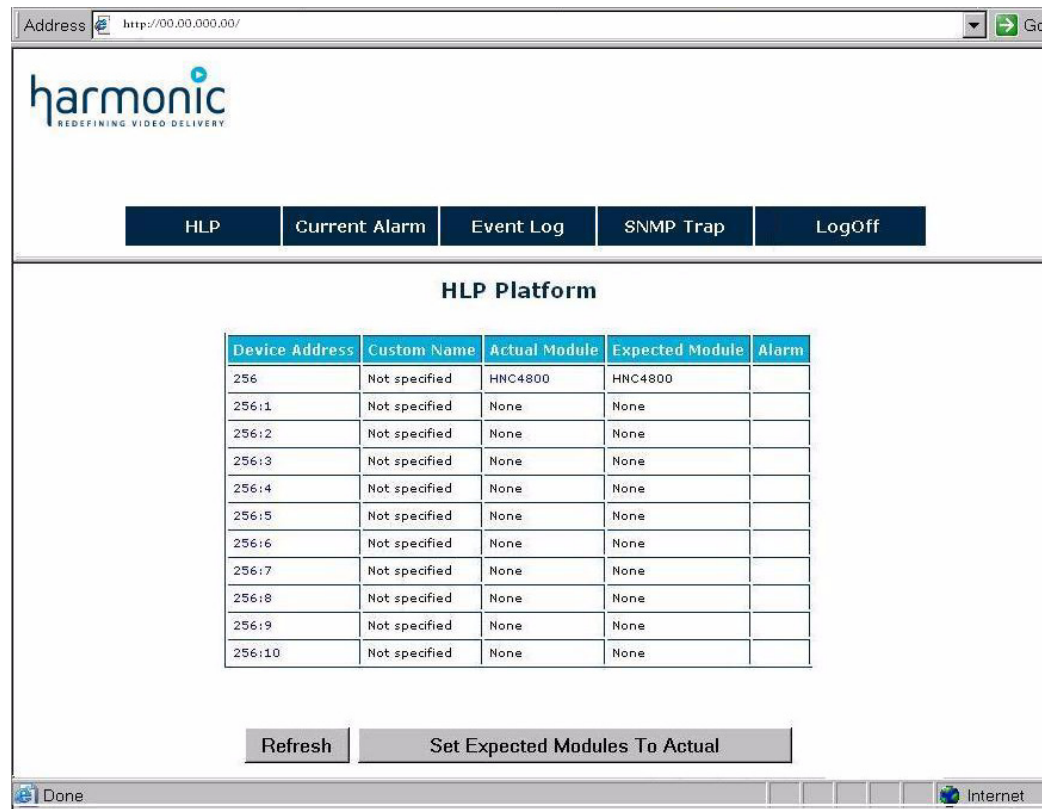
System Log On

User Name:

Password:

Figure 5-1: Web log on screen

3. Enter the appropriate username and password.
4. Click Log On. The HLP section of the HNC 4800 web interface appears in your browser, as shown in Figure [Figure 5-2](#) on page 23.



Address

harmonic
REDEFINING VIDEO DELIVERY

HLP **Current Alarm** **Event Log** **SNMP Trap** **LogOff**

HLP Platform

Device Address	Custom Name	Actual Module	Expected Module	Alarm
256	Not specified	HNC4800	HNC4800	
256:1	Not specified	None	None	
256:2	Not specified	None	None	
256:3	Not specified	None	None	
256:4	Not specified	None	None	
256:5	Not specified	None	None	
256:6	Not specified	None	None	
256:7	Not specified	None	None	
256:8	Not specified	None	None	
256:9	Not specified	None	None	
256:10	Not specified	None	None	

Done Internet

Figure 5-2: HNC 4800 web interface: HLP Platform page

5.3 Areas and Features of the Web Interface

[Table 5-2](#) on page 24 summarizes the features of the HNC 4800 web interface. Use this table as a handy quick reference.

The left column of the table shows the areas of the web interface. The right column tells you which functions you can carry out within each of these areas and provides a reference for further information.

The web interface always includes the five navigation links at the top of your browser. To access these areas of the web interface, click the links at the top of your browser.

Table 5-2: Features of the HNC4800 web interface

Web Interface Area	Enables You To:
HLP	<ul style="list-style-type: none"> -View and change the parameters of attached modules. -View and change custom names and custom labels. -Manage expected modules vs. actual modules. See 5.4 HLP Platform Management on page 24.
Current Alarms	<ul style="list-style-type: none"> -View current alarm status -Jump directly to alarmed modules. See 5.5 Viewing Current Alarms on page 27.
Event Log	View the Event Log. See 5.6 Viewing the Event Log on page 28.
SNMP Trap	Add and delete SNMP trap targets. See section 5.7 Adding Trap Destinations on page 29.
LogOff	As a security measure, Harmonic recommends that you always terminate your session by clicking LogOff.

5.4 HLP Platform Management

This section describes how to use the HNC 4800 web interface to manage networked devices.

To complete many of the functions described in this chapter, you must log into the HNC 4800 web interface using the Config username.

5.4.1 Configuring Platforms and Plug-in Modules

To configure platforms and plug-in modules, select the HLP tab at the top of your browser, which is shown in [Figure 5-2](#) on page 23.

The HLP platform page lists the plug-in modules installed in the platform, including a table with each module's address, custom name, actual module, expected module, and alarm state. To view the details of a specific plug-in module, click the link to the device in the Actual Module column. A device details page opens, as shown in [Figure 5-3](#) on page 25.

HLP	Current Alarm	Event Log	SNMP Trap	LogOff
------------	----------------------	------------------	------------------	---------------

256:3 - Power Link II

Property	Value	Alarm Description	TimeStamp	Severity
Model Name	PWL47xxT	12/24Vdc Switched	2009-4-1, 12:22:2.0	Major
Firmware	V1.45	RF SIGNAL LOW, CHECK RF INPUT	2009-4-1, 12:22:2.0	Minor
Manufacturer	Harmonic Inc.	Laser Temp. High	2009-4-1, 12:22:2.0	Minor
Description	PWL47xxT DFB TX			
Vendor Type	PowerLink 2			
Class	Module			
Field replaceable?	Yes			
Serial No.	1635164			
Expected Module	PowerLink II			
Environment				
Heat Sink Temp.	36 °C			
Fan Speed	Low			
RF				
Pad Level	<input type="text" value="0"/> dB			
Comp. RF	0 V			
Mode				
CW/Video Mode	CW			
AGC/MGC Mode	AGC <input type="button" value="v"/>			
Laser				
Output Power	5.7 dBm			
Temperature	39.9 °C			
Bias Current	1.7 mA			
Power Supplies				
Nominal Voltage	Offered Voltage			
12 Vdc	11.9 Vdc			
12 Vdc	0 Vdc			
15 Vdc	14.9 Vdc			
5 Vdc	5 Vdc			
-15 Vdc	-14.7 Vdc			
-3 Vdc	-2.9 Vdc			

Figure 5-3: Device details page of web interface

To change the configuration of the plug-in module, follow these steps:

1. Open the device details page.
2. Enter new values in the fields.
3. Click the Set Values button, and the changes will take effect.

For information on the configuration options, see the manual for the plug-in module.

5.4.2 Setting The Custom Name

To set the module's custom name, click the Device Address link which is located in the first column of the HLP Platform page, shown in [Figure 5-2](#) on page 23.

A custom attributes page appears, as shown in [Figure 5-4](#) on page 26.

Attribute	Value
Asset ID	<input type="text"/>
Custom Name	<input type="text"/>
Contact	<input type="text"/>
Location	<input type="text"/>
Phone No.	<input type="text"/>
Notes	<input type="text"/>

Refresh Set Values

Figure 5-4: The custom attributes page

Five attributes are pre-configured and labeled for your use:

- ☐ Asset ID
- ☐ Custom Name
- ☐ Contact
- ☐ Location
- ☐ Phone No.
- ☐ Notes.

The field Custom Name is displayed on the HLP Platform page. To change the values within the attributes, type the text you want, then click the Set Values button so that the changes take effect.

5.4.3 Managing Expected Modules vs. Actual Modules

When a platform is activated, the HNC 4800 automatically detects the plug-in modules installed in the platform.

You can manually set all the modules' expected type from the HLP Platform page by selecting the Set Expected Modules to Actual button shown in [Figure 5-2](#) on page 23.

The HNC 4800 then expects to find these modules in the same slots from that point forward. If the actual module installed in a slot is different from the expected module, the HNC4800 and module continue to function properly, and the HNC4800 sends an SNMP trap to all management systems with notification of the module type mismatch.

5.5 Viewing Current Alarms

The Current Alarm list shows all alarms on the network at the current time, including the module address, module type, alarm description, and date and time of alarm occurrence. To view the list of current alarms on the platform, select the Current Alarm link at the top of your browser. The Current Alarm Table appears as shown in [Figure 5-5](#) on page 27.

Module Address	Alarm Description	TimeStamp	Severity
256:7	Receiver 1 Link Loss Alarm	2009-4-1, 12:21:59.0	Major
256:7	Receiver 2 Link Loss Alarm	2009-4-1, 12:21:59.0	Major
256:3	12/24Vdc Switched	2009-4-1, 12:22:2.0	Major
256:3	RF SIGNAL LOW, CHECK RF INPUT	2009-4-1, 12:22:2.0	Minor
256:4	RF SIGNAL LOW, CHECK RF INPUT	2009-4-1, 12:22:0.0	Minor
256:3	Laser Temp. High	2009-4-1, 12:22:2.0	Minor
256:7	Receiver 1 Low optical Input	2009-4-1, 12:21:58.0	Major
256:7	Receiver 2 Low optical Input	2009-4-1, 12:21:59.0	Major
256:8	Low Optical Input Receiver A	2009-4-1, 12:21:52.0	Major
256:8	Low Optical Input Receiver B	2009-4-1, 12:21:53.0	Major
256:8	Low Optical Input Receiver C	2009-4-1, 12:21:53.0	Major
256:8	Low Optical Input Receiver D	2009-4-1, 12:21:53.0	Major
256:8	Mute Forced Receiver A	2009-4-1, 12:21:54.0	Major
256:8	Mute Forced Receiver B	2009-4-1, 12:21:54.0	Major
256:8	Mute Forced Receiver C	2009-4-1, 12:21:54.0	Major
256:8	Mute Forced Receiver D	2009-4-1, 12:21:54.0	Major

Figure 5-5: The Current Alarm Table

In the Current Alarm Table, the alarms are sorted according to their underlying MIB (management information base) numbering.

The alarm descriptions are color-coded. The colors and their meanings are shown in [Table 5-3](#) on page 27.

The Current Alarms list does not refresh automatically. If you want the list to refresh, click the Refresh Values button.

To view a module's configuration details, click the address of the module, and the web browser will navigate to the device details page for that module.

Table 5-3: Alarm descriptions: color coding

Color	Severity
Red	Major
Yellow	Minor

Table 5-3: Alarm descriptions: color coding

Color	Severity
Green	Nominal (alarm has been cleared)

5.6 Viewing the Event Log

The Event Log shows past network events, including the date and time, the address, and a description of each event. To view the Event Log, select the Event Log link at the top of your browser. The Event Log appears as shown in [Figure 5-6](#) on page 28.

Record No.	Module Address	Module Type	Severity	TimeStamp	Description
101	256:7	RDR4002A	Major	2009-4-1, 12:21:59.0	Receiver 1 Link Loss Alarm
102	256:7	RDR4002A	Major	2009-4-1, 12:21:59.0	Receiver 2 Low optical Input
103	256:7	RDR4002A	Major	2009-4-1, 12:21:59.0	Receiver 2 Link Loss Alarm
104	256:4	PWL4912S	Minor	2009-4-1, 12:22:0.0	RF SIGNAL LOW, CHECK RF INPUT
105	256:3	PowerLinkII	Nominal	2009-4-1, 12:22:1.0	Module Inserted
106	256:3	PWL47xxT	Minor	2009-4-1, 12:22:2.0	RF SIGNAL LOW, CHECK RF INPUT
107	256:3	PWL47xxT	Minor	2009-4-1, 12:22:2.0	Laser Temp. High
108	256:3	PWL47xxT	Major	2009-4-1, 12:22:2.0	12/24Vdc Switched
9	256:3	PWL47xxT	Minor	2009-3-19, 9:57:41.0	Laser Temp. High
10	256:3	PWL47xxT	Major	2009-3-19, 9:57:41.0	12/24Vdc Switched

Figure 5-6: Event Log

The following types of events are shown in the log:

- Devices added to or removed from the HLP chassis
- Alarms

The Event Log displays up to 10 events per page, up to a maximum of 100 events in total, across ten pages. To view additional pages, click the link to Previous or Next or select an available page number from the drop-down list, then click the “Go to Page” button.



NOTE: The event log updates in a cyclic-buffer manner, meaning that after 100 events have been logged, the 101st event will overwrite the first event, then the 102nd event will overwrite the next event, and so on.

5.7 Adding Trap Destinations

Whenever the HNC 4800 detects an alarm in the HLP 4800 platform, it immediately sends an SNMP trap to all management system IP addresses listed in the HNC 4800's trap destination table.

Each element management system must have an IP address. Before you begin adding trap destinations, you need to know these IP addresses. For instructions on assigning or determining the IP address of an element management system, refer to the manual for the element management system you are using.

To view the Trap Destination table, select the SNMP Trap link at the top of your browser. The Trap Destination table appears as shown in [Figure 5-7](#) on page 29.

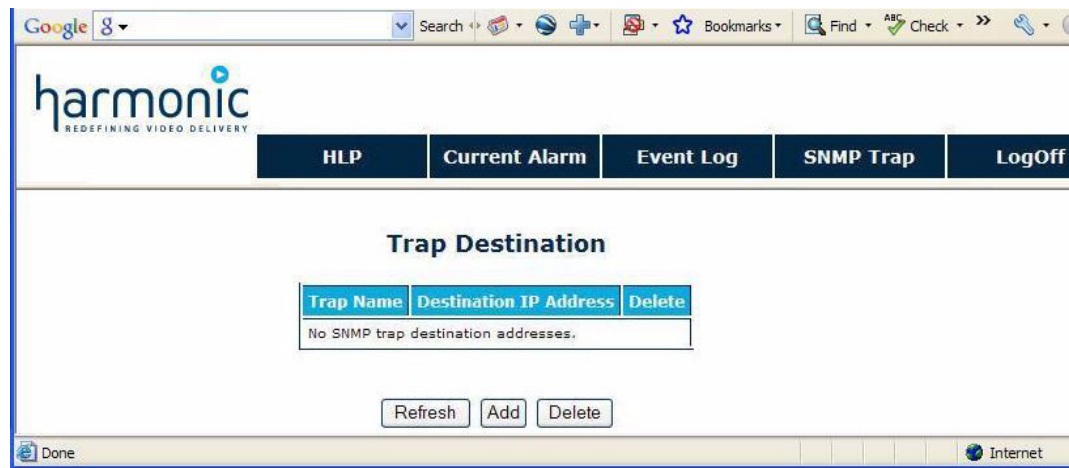


Figure 5-7: Trap Destination

To add a trap destination, first click the Add button. The entry appears, as shown in [Figure 5-8](#) on page 29.

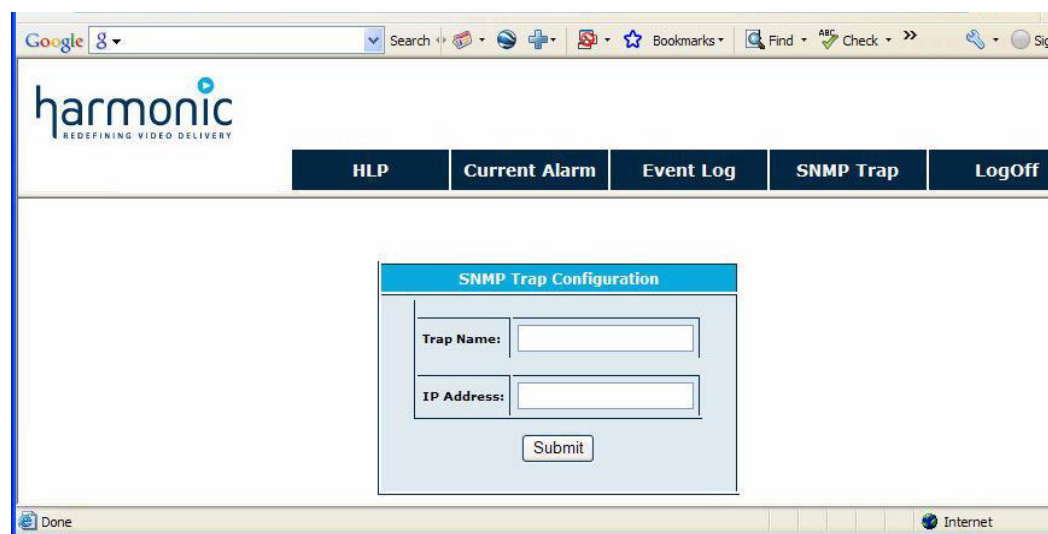


Figure 5-8: Add Trap Destination Configuration Login

Fill in the fields with the name and IP address of the element management system. You can use any name you want, as long as it is unique.

Click the Submit button. The List Of Trap Destinations reappears and includes the new name and IP address, as shown in [Figure 5-9](#) on page 30

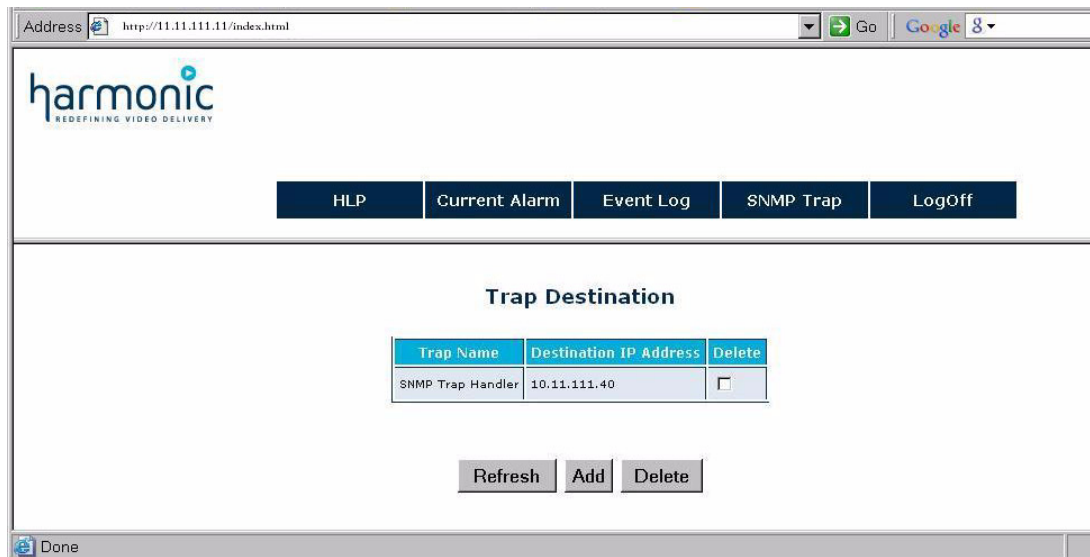


Figure 5-9: Add Trap Destination List

Locate and compile the Harmonic Alarm MIB (management information base) files for the HNC 4800. Copy the MIBs for the HNC 4800 into your NMS's MIB compiler.

Add the HNC 4800 as an SNMP trap target in your NMS, so that the NMS receives SNMP notifications from the HNC 4800.

Maintenance and Contacting Harmonic Support

6.1 Maintenance

There are no user-serviceable parts in the HNC 4800.

6.2 Upgrading the HNC 4800 Software

Harmonic will provide software updates as new features are released. You can upgrade the software via TFTP. The software upgrade process does not affect the operation of the HLP4800 modules.

6.3 Contacting Harmonic Support

The Harmonic Customer and Technical Support groups are available to help you with any questions or problems you may have regarding Harmonic products.

For assistance from within the U.S. and Canada, call toll free:

1.888.673.4896

For assistance from outside the U.S. and Canada, call:

1.408.490.6477

The fax number is 408.490.6770.

The email address is techhelp@harmonicinc.com.

The corporate address for Harmonic Inc. is:

Harmonic Inc.
549 Baltic Way
Sunnyvale, CA 94089, U.S.A.
Attn: Customer Support

The corporate telephone numbers for Harmonic Inc. are:

Tel. 1.800.788.1330 (from the U.S. and Canada)
Tel. +1.408.542.2500 (outside the U.S. and Canada)
Fax.+1.408.490.6708

The web address for Harmonic Inc. is www.harmonicinc.com.

A.1 Technical Specifications

User Interface

Front Panel	Five control buttons Bi-state status LED: Normal = green, alarm = red 40-character alphanumeric display Software reset pinhole
Rear Panel	RJ-45 Ethernet connection

Network Management

SNMP protocol v1, v2c
HTTP protocol HTTP 1.1 (with Web browser-based authentication)

Power Requirements

Consumption	4 W
-------------	-----

Environmental

Operating temperature range	0° to +50° C +32° to +122° F
Storage temperature range	-40 to +70° C -40° to +1158° F
Relative humidity	Maximum 95% non-condensing

Physical

Dimensions	10 cm W x 4.4 cm H x 31.5 cm D 3.9" W x 1.73" H x 12.4" D
Weight	0.8 kg / 1.8 lbs
Mounting HLP 4800 platform; dedicated controller slot	

Part Numbers

HLP 4800	Chassis
HNC 4800	Display and controller
CPS 4800-AC	AC power supply
CPS 4800-DC	DC power supply
FW-HNC 4800 - WEB/SNMP	WEB/SNMP license



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