SNMP/Web Management Accessory Card

Model: SNMPWEBCARD

Read this manual carefully before installation. A separate User's Guide (PDF format) is included on the CD-ROM bundled with the accessory card. Refer to the User's Guide for additional information about configuration and operation.
Installation

Warning: When handling the SNMPWEBCARD, follow standard ESD (electrostatic discharge) precautions to avoid damaging the card. For your safety, you should also read the documentation that came with your UPS system or PDU to familiarize yourself with precautions against electric shock.

The SNMPWEBCARD allows users to operate any compatible Tripp Lite UPS System or network-enabled PDU as a managed device on the network, accessible via Web browser, Network Management Station or telnet. This manual refers to installing the card in a UPS system, but the same instructions apply to installing the card in a compatible PDU.

1 - Preparation

1-1 Confirm Package Contents: In addition to this manual, your package should include the accessory card in an anti-static bag, a configuration cable (73-1025), several faceplates and a CD-ROM containing additional documentation and Management Information Base (MIB) files for use with Network Management Systems (not otherwise required). If anything is missing, contact your supplier immediately.

1-2 Install UPS: Install your UPS system and turn it on before installing the SNMPWEBCARD. Ensure that the accessory card slot is accessible.

1-3 Locate MAC Address: The 12-digit MAC address (000667xxxxxx) is printed in two locations: a label attached to the underside of the card and a duplicate label inside the box. Attach the duplicate label to the UPS system or keep it in a secure location for easy reference.

1-4 Determine Installation Method: If your network's DHCP server will assign a dynamic IP address to the SNMPWEBCARD automatically, proceed to 2 - Dynamic IP Address Assignment. If you will assign a static IP address to the SNMPWEBCARD manually, proceed to 3 - Static IP Address Assignment. If you are uncertain which method to use, contact your network administrator for assistance before continuing the installation process.
Installation

2 - Dynamic IP Address Assignment

2-1 Insert SNMPWEBCARD in Accessory Slot: Use a screwdriver to remove the accessory slot cover from the UPS. While the UPS is turned on, align the SNMPWEBCARD with the guides in the accessory slot and push the card into the slot until the ports are nearly even with the rear surface of the UPS.

2-2 Connect SNMPWEBCARD to Network: Connect a standard Ethernet patch cable to the RJ-45 Ethernet port on the card. Note: This port does not support PoE (Power over Ethernet) applications. The card will attempt to obtain an IP address via DHCP. This may take as long as several minutes, depending on your network environment.

2-3 Discover IP Address: Contact your network administrator to determine which IP address has been assigned to the card by the DHCP server. The card can be identified on the DHCP server by referring to its MAC address (see Step 1-3). You may wish to request a long-term lease period for the IP address, depending on your application. After you have discovered the IP address, proceed to 4 - Test and Configure. Note: The DHCP address is also displayed during boot-up when connected to a computer through the configuration cable and a terminal emulation program.

3 - Static IP Address Assignment/Terminal Menu Configuration Settings

3-1 Determine IP Information: Before assigning a static IP address, you'll need to know the IP address, gateway address and subnet mask. If you do not have this information, contact your network administrator for assistance.
Configure Terminal Emulation Program: Open a VT100-compatible terminal emulation program (such as the HyperTerminal program bundled with Microsoft® Windows®) on a computer with an available DB9 serial port. (A notebook computer may be the most convenient choice.) Set the terminal emulation program to use the COM port A that corresponds to the DB9 serial port. Specify the parameters B required to communicate with the SNMPWEBCARD terminal interface:

<table>
<thead>
<tr>
<th>Bits per second:</th>
<th>9600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data bits:</td>
<td>8</td>
</tr>
<tr>
<td>Parity:</td>
<td>None</td>
</tr>
<tr>
<td>Stop bits:</td>
<td>1</td>
</tr>
<tr>
<td>Flow control:</td>
<td>None</td>
</tr>
</tbody>
</table>

If the terminal emulation program supports multiple emulation modes, you may also need to specify VT100 emulation C.

*Note: The following message will appear in the terminal startup menu:*

IAM:Got AUTO-CONFIGURED IPv6 address FE80::4200:FF:FE01:8 on interface eth0:3
IPv6 is not currently supported. Tripp Lite is working on IPv6 for a future release.
Installation

**3-3 Insert SNMPWEBCARD in Accessory Slot:** Use a screwdriver to remove the accessory slot cover from the UPS. While the UPS is turned on, align the SNMPWEBCARD with the guides in the accessory slot and push the card into the slot until the ports are nearly even with the rear surface of the UPS.

**3-4 Connect SNMPWEBCARD to Computer:** Use the mini-DIN to DB9 serial cable (part number 73-1025) included with the card to connect the card to the computer. The circular connector A at one end of the cable attaches to the 8-pin mini-DIN serial port B on the card. (Align the connector carefully to avoid damaging the pins.) The DB9 connector C at the other end of the cable connects to the computer's serial port D.

**3-5 Connect SNMPWEBCARD to Network:** Connect a standard Ethernet patch cable to the RJ-45 Ethernet port on the card. *Note: This port does not support PoE (Power over Ethernet) applications.*

**3-6 Configure SNMPWEBCARD in Terminal Mode:** After a brief pause, an initialization page should appear in the terminal emulation program. Press any key on the keyboard within 5 seconds to change the card's settings. (If the 5-second period has elapsed, you can reboot the card by removing it and then re-seating it in the accessory slot.)
Installaton

Follow the sequence of responses below in order to assign an IP address to the card. The default terminal mode password is TrippLite. Sample IP settings are shown - supply your own IP information when you configure your card.

This card’s hostname [ ]?
This card’s domain [ ]?
Obtain IP settings automatically using DHCP for Ethernet interface? [Y]
IP address? [10.2.0.98]
Subnet mask? [255.0.0.0]
Gateway address? [10.0.0.1]
DNS server 1? [10.0.0.5]
DNS server 2? [10.2.0.10]
This card’s host name? [cornflakes]
This card’s domain? [tlsoftwaredev.local]

SNMP Settings

Enable SNMP Community 0 [Y]? y
Choose a community privilege level:
- 0 - noAccess
- 1 - v1UserReadOnly
- 2 - v1UserReadWrite
- 3 - v2cUserReadOnly
- 4 - v2cUserReadWrite
Privilege Level [4]:
Community Name [tripplite]:
Allowable Address Range: [0.0.0.0]?
Allowable Address Mask: [0.0.0.0]?
Enable SNMP Community 1 [N]? n
Enable SNMP Community 2 [N]? n
Enable SNMP Community 3 [N]? n

Note: Default SNMP access is:
Community 0 enable with v2 read only community public
Community 1 enable with v2 read/write community tripplite
Installation

Additional Settings

Additional Ethernet Settings:

- Enable SNTP? [N]
- Enable http? [Y]
- Port number? [80]
- Enable https? [N]
- Port number? [23]
- Enable ssh? [Y]
- Port number? [22]
- Enable telnet? [Y]
- Port number? [23]

Hardware Parameters:

Would you like to update the RTC date/time in GMT? [N]

Time Zone (0 is GMT-12, 6 is CST):

<table>
<thead>
<tr>
<th>Western Hemisphere</th>
<th>Eastern Hemisphere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour Off-Set</td>
<td>Location</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>0</td>
<td>Greenwich, England</td>
</tr>
<tr>
<td>1</td>
<td>SE Greenland</td>
</tr>
<tr>
<td>2</td>
<td>Atlantic Ocean</td>
</tr>
<tr>
<td>3</td>
<td>Greenland Time</td>
</tr>
<tr>
<td>4</td>
<td>Atlantic Time</td>
</tr>
<tr>
<td>5</td>
<td>Eastern Standard Time</td>
</tr>
<tr>
<td>6</td>
<td>Central Standard Time</td>
</tr>
<tr>
<td>7</td>
<td>Mountain Standard Time</td>
</tr>
<tr>
<td>8</td>
<td>Pacific Standard Time</td>
</tr>
<tr>
<td>9</td>
<td>Alaska Time</td>
</tr>
<tr>
<td>10</td>
<td>Hawaii</td>
</tr>
<tr>
<td>11</td>
<td>Pacific Ocean</td>
</tr>
<tr>
<td>+/-12</td>
<td>International Date Line</td>
</tr>
</tbody>
</table>

Do you wish to configure the advanced settings [y/n]? [Y]

This interface must have a unique MAC address.

Ethernet MAC Address? [00:06:67:01:00:08]

DO NOT MODIFY UNLESS DIRECTED BY YOUR ADMINISTRATOR

Do you want to completely erase the file system? [N]
Installation

DO NOT MODIFY UNLESS DIRECTED BY TRIPP LITE TECHNICAL SUPPORT

Default Ethernet setting (0=AUTO, 1=10 Half, 2=10 Full, 3=100 Half, 4=100 Full)? [Auto]

DO NOT MODIFY UNLESS DIRECTED BY YOUR ADMINISTRATOR

You can also change the root password, real-time clock and other settings. (Tripp Lite recommends against changing the default settings unless you are an advanced user with a specific purpose.) After you have finished entering settings, the card will save changes to memory and reboot (this may take several minutes). After the card reboots, the initialization page should display the new static IP settings.

3-7 Remove Serial Cable: Using one hand to hold the card in place, remove the serial cable. Proceed to 4-Test and Configure.

4 - Test and Configure

4-1 Test Network Connection: After an IP address has been assigned to the card, try to access it with a Web browser that supports frames, forms and Java™. Open a Web browser on a computer connected to the LAN and enter the card's IP address. You should be prompted for a password. The user name is admin and the default password is admin. After you enter the user name and password, the PowerAlert Status page will appear in the browser window. For more information about configuration and operation of the managed device, refer to the SNMPWEBCARD User's Guide, included on the CD-ROM bundled with the card.

4-2 Default UPS Shutdown Setting: During a loss of utility power, the SNMPWEBCARD is configured to shut down the UPS system 2 minutes after a low battery signal is received from the UPS. This allows the UPS to provide the maximum available runtime to connected equipment. If you want to change the default setting, follow these instructions:
From the initial PowerAlert Status page, click the Settings button A at the top of the screen, then click the Events button B that appears at the left side of the screen.

From the Event Settings page, confirm that the Low Battery C and Shutdown D box is checked and then click the Details Tab E, or double-click the checked box to access the Setting Details page.

From the Details page F, choose your preferred settings from the Settings drop down menu G and click the Save Changes button H.

**Attach Faceplate:** Using one hand to hold the card in place, temporarily detach the network cable. Align and attach the faceplate that matches your UPS system, using screws from the accessory slot cover. Reattach the network cable.

*Note for Network Management System Users Only:* Two MIB files - Tripplite.mib and RFC1628.mib - must be loaded on each Network Management Station that will monitor the UPS system via SNMP. The files are provided on the CD-ROM included in the product package.
Features

A  **PS/2 Port:** Use this port to connect a Tripp Lite ENVIROSENSE environmental sensor to provide remote temperature/humidity monitoring and a dry contact interface to control and monitor alarm, security and telecom devices. Contact Tripp Lite Customer Support at (773) 869-1234 for ordering information. Note: Do not connect a keyboard or mouse to this port.

B  **Mini-DIN Serial Port:** Use this port to provide a direct terminal connection to a computer with a terminal emulation program. A serial cable (part number 73-1025) is included with the SNMPWEBCARD. If you need to order a replacement cable, contact Tripp Lite Customer Support at (773) 869-1234.

C  **Ethernet Port:** Use this RJ-45 jack to connect the SNMPWEBCARD to the network with a standard Ethernet patch cable. The Link LED **C1** and Status LED **C2** indicate several operating conditions, as shown in the table below. Does not support PoE (Power Over Ethernet) applications.

<table>
<thead>
<tr>
<th>C1 Link LED Color</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>No Network Connection</td>
</tr>
<tr>
<td>Flashing Amber</td>
<td>100 Mbps Network Connection</td>
</tr>
<tr>
<td>Flashing Green</td>
<td>10 Mbps Network Connection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C2 Status LED Color</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Card Not Initialized</td>
</tr>
<tr>
<td>Steady Green</td>
<td>Card Initialized and Operational</td>
</tr>
<tr>
<td>Flashing Amber</td>
<td>Error - Card Not Initialized</td>
</tr>
</tbody>
</table>
Technical Support

Technical Support can be found at: www.tripplite.com/support
E-mail: techsupport@tripplite.com

Warranty and Warranty Registration

LIMITED WARRANTY
Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of 2 years (except internal UPS system batteries outside USA and Canada, 1 year) from the date of initial purchase. If the product should prove defective in material or workmanship within that period, Seller will repair or replace the product, in its sole discretion. Service under this Warranty can only be obtained by your delivering or shipping the product (with all shipping or delivery charges prepaid) to: Tripp Lite, 1111 W. 35th Street, Chicago, IL 60609, USA. Seller will pay return shipping charges. Visit www.tripplite.com/support before sending any equipment back for repair.

THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLECT. SELLER MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSLY SET FORTH HEREIN. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE; AND THIS WARRANTY EXPRESSLY EXCLUDES ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES. (Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from jurisdiction to jurisdiction).

WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability or fitness of these devices for any specific application.

Not compatible with PoE (Power over Ethernet) applications.

WARRANTY REGISTRATION
Visit www.tripplite.com/warranty today to register the warranty for your new Tripp Lite product. You’ll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

FCC Notice
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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. The user must use shielded cables and connectors with this product. Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Regulatory Compliance Identification Numbers
For the purpose of regulatory compliance certifications and identification, your Tripp Lite product has been assigned a unique series number. The series number can be found on the product nameplate label, along with all required approval markings and information. When requesting compliance information for this product, always refer to the series number. The series number should not be confused with the marking name or model number of the product.

Tripp Lite has a policy of continuous improvement. Product specifications are subject to change without notice.