CISCO SYSTEMS

Getting Started Guide for the Catalyst Express 500 Switches

Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

Text Part Number: OL-9340-01

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

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

Modifying the equipment without Cisco's written authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the Cisco equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

• Turn the television or radio antenna until the interference stops.

• Move the equipment to one side or the other of the television or radio.

• Move the equipment farther away from the television or radio.

• Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

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

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0601R)

Getting Started Guide for the Catalyst Express 500 Switches
© 2006 Cisco Systems, Inc. All rights reserved.

Getting Started Guide

About This Guide

This guide explains how to configure a Catalyst Express 500 switch for the first time. Basic configuration involves assigning network settings and a password to the switch.

After you complete the basic configuration, you can access the internal device manager application to manage and customize the switch. The device manager is an easy-to-use interface that provides tools for configuring, monitoring, and problem solving.

Before You Begin

Before you power or install the switch, review the safety information in the *Regulatory Compliance and Safety Information for the Catalyst Express 500 Switch* that accompanies this guide.

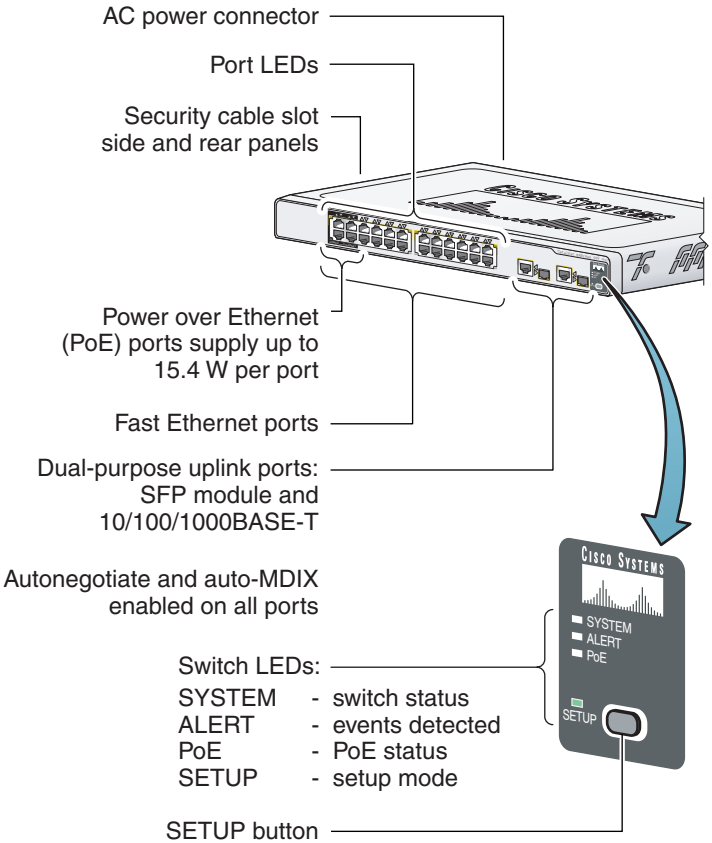
For More Information

For complete information about installing and using the switch, see the documentation online at **Cisco.com > Technical Support & Documentation > Switches > Cisco Catalyst Express 500 Series Switches**.

Quick Tour

This illustration shows the Ethernet ports, LEDs, and other features on the switch. To set up the switch, you use the SETUP button, an Ethernet port, and the SYSTEM, SETUP, and port LEDs.

The model shown is a Catalyst Express 500-24LC. Your switch model might look slightly different.



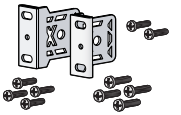
Box Contents

Verify that you have received the items shown here. If any item is missing or damaged, contact your Cisco representative or reseller for instructions.

Switch

Power cord

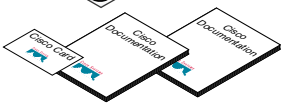
Rack-mounting brackets and screws



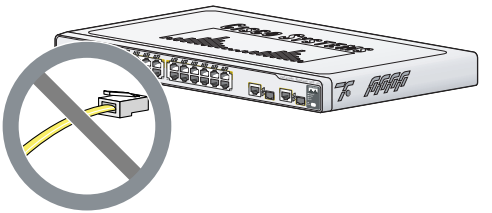
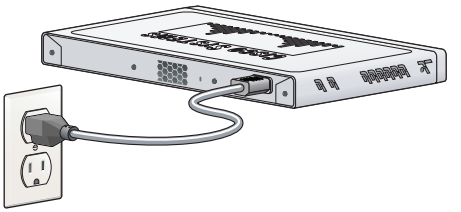
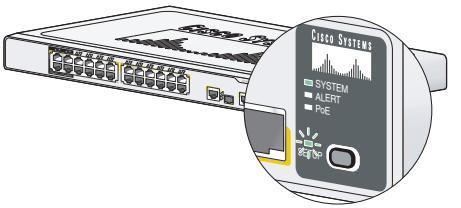
Cable guide and screw

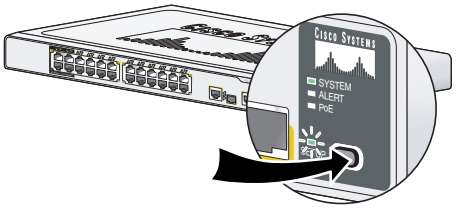
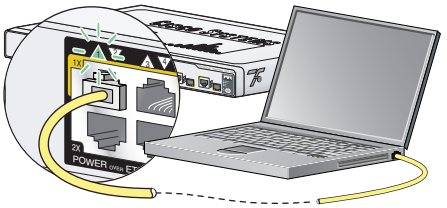
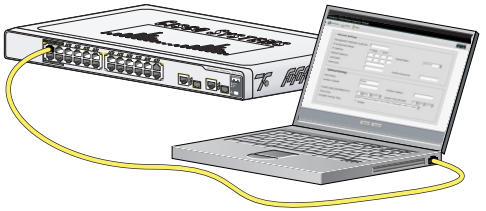
Mounting feet

Documentation

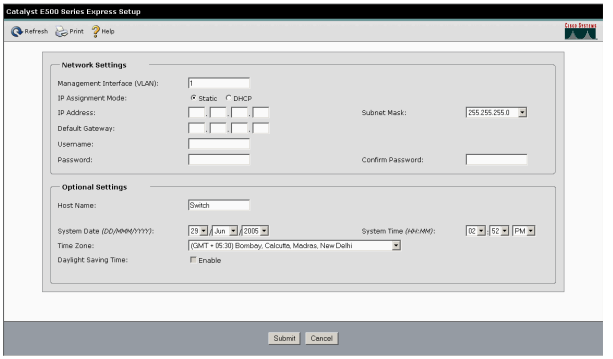


Run Express Setup

Step 1	You need this equipment to set up the switch: • A PC with Windows 2000 or XP installed. • A web browser (Internet Explorer 5.5, 6.0, Netscape 7.1 or later) with JavaScript enabled. • A straight-through or crossover Category 5 Ethernet cable to connect your PC to the switch. You should disable any pop-up blockers or proxy settings in your browser software and any wireless client running on your PC.	
Step 2	Make sure that nothing is connected to the switch.	
Step 3	Power the switch. When the switch powers on, it begins the power-on self-test (POST). POST lasts approximately 1 minute. During POST, the port and SYSTEM LEDs blink. When POST completes, the SYSTEM LED turns solid green.	
Step 4	Wait for the SETUP LED to blink green. When POST has completed and the SYSTEM LED is solid green, the SETUP LED blinks green. The switch is ready to be configured. (If the SETUP LED stops blinking, you can still continue with the next step.)	

Step 5	Press the SETUP button. When you press the SETUP button, a switch port LED begins blinking green.	
Step 6	When a switch port LED blinks green, connect your PC to that port. The port LEDs on your PC and the switch blink green while the switch configures the connection.	
Step 7	When the SETUP LED turns green, start a browser session on the PC. When you start a browser session on your PC, the set-up window automatically appears. If the window does not appear, check that any proxy settings or pop-up blockers are disabled on your browser and that any wireless client is disabled on your PC. You might also need to enter a URL in your browser, such as *cisco.com* or another well-known website. If you need help, see the Troubleshooting section.	

Step 8



Enter the network settings. **Note**: all entries must be in English letters and Arabic numbers.

- **Management Interface (VLAN)**: We recommend using the default, **VLAN 1**. The management VLAN establishes an IP connection to the switch.
- **IP Assignment Mode**: We recommend using the default, Static, which means that the switch always has the IP address that you assign. Use the **DHCP** setting when you want the switch to automatically obtain an IP address from a DHCP server.
- **IP Address**: Enter the IP address for the switch. (Later, you can use the IP address to access the switch through the device manager.)
- **Subnet Mask**: Select a mask from the drop-down list.
- **Default Gateway**: Enter the IP address of the router.
- **Username**: Enter a unique name.
- **Password**: Enter a password. The password can be from 1 to 25 alphanumeric characters, can start with a number, is case sensitive, allows embedded spaces, but does not allow spaces at the beginning or end. In the **Confirm Password** field, enter the password again.
- **Optional Settings**: Enter a **Host Name** for the switch. The date and time fields are populated from your PC.

For more information about the network settings, click **Help** on the device manager toolbar.

Step 9

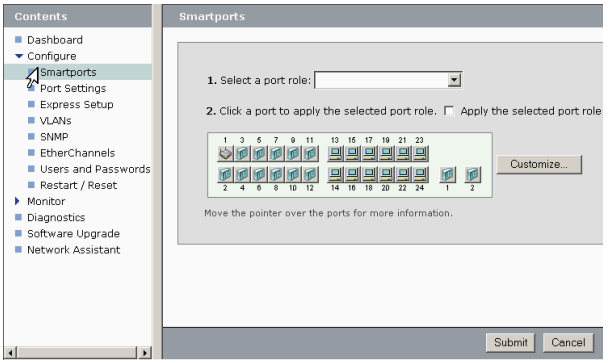
Click **Submit** to save changes and finish basic configuration. When you click **Submit**, the information that you entered is saved. You have completed the initial switch setup. If you click **Cancel**, the fields are cleared, and you can start over.

Step 10 Immediately after you click **Submit** in Step 9, the Smartports dialog window appears.

Click **Yes** and **Submit** to accept the predefined port roles. The Smartports window appears. Here you can change the predefined roles or apply new port roles.

Click **No** and **Submit** to apply the Smartports roles yourself. When the device manager window appears, locate the **Contents** menu on the left side of the window. Click **Configure** and then **Smartports**. Follow these steps:

1. Select a port role from the pull-down menu.
2. Click a port on which to apply the selected port role.
3. Click **Submit** to save the Smartports roles.



We recommend that you apply the Cisco Smartports roles now. The ports are then correctly configured before they are connected to devices. Smartports roles provide optimal performance on port connections, including appropriate levels of reliability, security, and availability. They also help prevent many problems caused by port misconfigurations.

The only requirements are to decide and write down which switch port will be connected to which device type. You can connect a WAN device to any port.

Apply the Router port role for this type of connection. Use an uplink port to connect to another switch and apply the Switch port role. See the Smartports Role Descriptions section for more information.

Step 11 When you are finished, disconnect your PC from the switch to end the session.

Smartports Role Descriptions

Smartports Roles	Description
Desktop	Apply this role on switch ports connecting to desktop devices, such as desktop PCs, workstations, notebook PCs, and other client-based hosts. **Note:** Do not apply the Desktop role on ports that are connected to routers or to other switches.
IP Phone+ Desktop	Apply this role on switch ports connecting to IP phones. A desktop device, such as a PC, can be connected to the IP phone. Both the IP phone and connected PC would have access to the network and the Internet.
Access Point	Apply this role on switch ports connecting to wireless access points (APs). Connected to the AP are mobile devices, such as wireless laptop PCs.
Printer	Apply this role on switch ports connecting to a printer, such as a network printer or an external print server.
Guest	Apply this role on switch ports that are used by guests and visitors. Guests have access to the Internet but not access to your internal network. You can connect an AP on this port to provide guest wireless access.
Server	Apply this role on switch ports connecting to servers that provide network services, such as exchange servers, collaborative servers, terminal servers, file servers, and DHCP servers.
Switch	Apply this role on switch ports connecting to other switches.
Router	Apply this role on switch ports connecting to WAN devices that connect to the Internet, such as routers, firewalls, or virtual private network concentrators.
Other	Apply this role on switch ports if you do not want to assign a specialized role on the port.

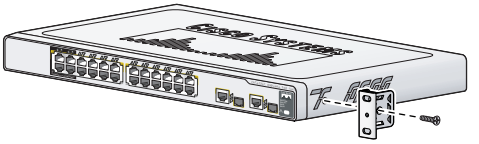
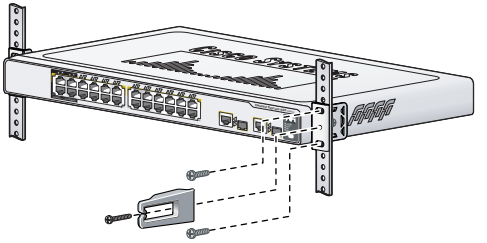
Install the Switch

Before you install the switch, review the *Regulatory Compliance and Safety Information for the Catalyst Express 500 Switch* document that came with your switch.

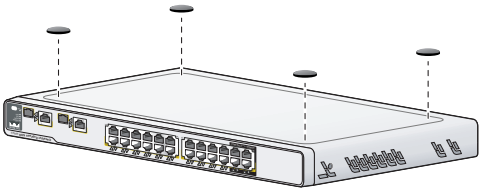
When selecting an installation site, observe these guidelines:

- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures.
- Clearance to the switch front and rear panels is such that
  - Airflow around the switch and through the vents is unrestricted.
  - Front-panel LEDs can be easily read.
  - Access to ports is sufficient for unrestricted cabling.
  - AC power cord can reach from the AC power outlet to the connector on the switch rear panel. The power outlet must be accessible at all time because it serves as the main method to disconnect power from the switch.
- Temperature does not exceed 113°F (45°C), humidity does not exceed 85 percent, and altitude at the installation site is not greater than 10,000 feet (3049 m).

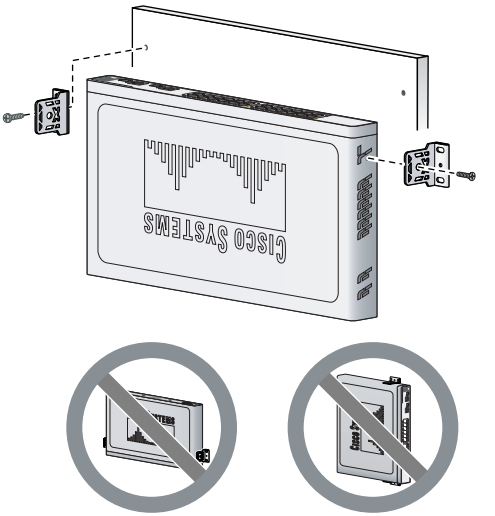
Rack-mounting

Step 1	Position the mounting bracket and screw on the side of the switch. Tighten the screw with a screwdriver. Repeat on the opposite side.	
Step 2	Insert the switch into the 19-inch rack, and align the bracket in the rack. Use either the 10-32 pan-head screws or the 12-24 pan-slotted screws to secure the switch in the rack. Use the black Phillips screw to attach the cable guide to either bracket.	

Desktop-mounting

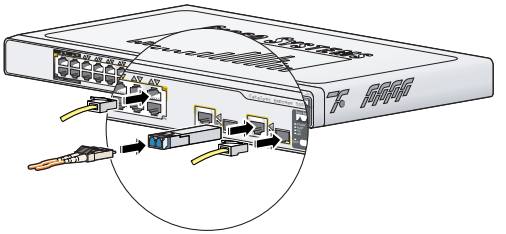
Step 1	Place the switch upside-down on a flat surface. Attach the four rubber pads to the recessed areas on the bottom of the switch. Place the switch on a desktop near an AC power source. If you are stacking switches, make sure that the mounting feet of the upper switch align with the recesses of the lower switch. Do not stack more than four units high.	

Wall-mounting

Step 1	Position the mounting bracket and screw on the side of the switch, rotated 90-degrees from the view shown in the rack-mounting illustration. Tighten the screw with a screwdriver. Repeat on the opposite side.	
Step 2	Mount the switch on the wall with the front panel facing up. For the best support of the switch and cables, make sure that the switch is attached securely to wall studs or to a firmly attached plywood mounting backboard. Screws for wall-mounting are not provided.	
Step 3	If your switch has a redundant power supply (RPS) connector on the rear panel, make sure that the cover plate is installed if an RPS is not connected to the switch.	

Connect Devices

When you connect devices to the switch ports, refer to the Smartports role assignments that you recorded in Step 10 of the Express setup procedure.



Ethernet Connections

- Use either straight-through or crossover Category 5 cables with RJ-45 connectors to connect from the switch Ethernet ports to other devices.
- By default, the PoE ports automatically provide up to 15.4 W power when IEEE 802.3af-compliant-powered devices are connected.
- By default, autonegotiation and auto-MDIX are enabled on the 10/100BASE-T and 10/100/1000BASE-T ports; the ports automatically provide the appropriate Ethernet connection.

Uplink port connections

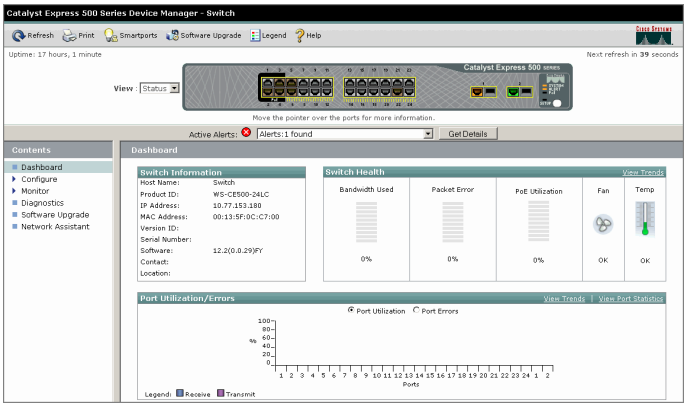
- Use the 10/100/1000BASE-T port or add a Cisco fiber-optic SFP module to the SFP module port for a Gigabit uplink connection to another switch. Use Category 5 cables with RJ-45 connectors to connect to a 10/100/1000BASE-T port. Use LC fiber connectors to connect to a fiber-optic SFP module.
- The dual-purpose uplink ports establish a link through either the SFP module port or the 10/100/1000BASE-T port, but not both at the same time. An SFP module port has precedence over a 10/100/1000BASE-T port. If an SFP module port has a link, that link is active. If the SFP port does not have a link and the 10/100/1000BASE-T port does, that link is active. Reselection occurs when the active link is disconnected.

For a list of supported modules, see the *Catalyst Express 500 Switch Release Notes* on Cisco.com. For detailed instructions on installing, removing, and connecting to SFP modules, see the documentation that accompanied the module.

More Information

This section includes information about the device manager, Cisco Network Assistant, and troubleshooting.

How to Access the Device Manager



The simplest way to configure, manage, and monitor the switch is by using the device manager. You can access the device manager from anywhere in your network through a web browser. Follow these steps:

1. Set up and install the switch in your network, and connect devices as described in this guide.
2. Launch a web browser on your PC.
3. Enter the switch IP address (the address that you assigned in Step 8) in the web browser, and press **Enter**. The device manager page appears.
4. To end the session, close your browser window.

About Cisco Network Assistant

Cisco Network Assistant is a free software program that you download from Cisco.com and run on your PC. Network Assistant offers advanced options for configuring and monitoring multiple devices. Click **Network Assistant** on the device manager menu for more information.

Troubleshooting

Help with the initial switch configuration is provided below. For additional assistance, refer to the online documentation at **Cisco.com > Technical Support & Documentation > Switches > Cisco Catalyst Express 500 Series Switches**.

Checklist	Recommendation
Was the SETUP LED blinking when you pressed the SETUP button?	If no, or you are not sure, restart the switch. Make sure that the SETUP LED is blinking when you press the SETUP button.
Did you connect your PC to the wrong switch port?	Verify that you are connected to the switch port with the blinking LED as shown in Step 6.
Did you start a browser session on your PC before the SETUP LED was solid green?	If yes, or you are not sure, restart the switch. Perform Step 2 through Step 6. When the SETUP LED is solid green, start a browser session on your PC. Complete the set-up procedure.
Did you start a browser session on your PC and the set-up page did not appear?	If the window does not appear, enter a URL in your browser, such as *cisco.com* or another well-known website.
Did you have a pop-up blocker running on your PC when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the pop-up blocker, and reconnect to the switch. Press the SETUP button to continue.
Did you have proxy settings enabled in your browser software when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the proxy settings, and reconnect to the switch. Press the SETUP button to continue.

Checklist	Recommendation
Did you have a wireless client running on your PC when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the wireless client, and reconnect to the switch. Press the SETUP button to continue.
Do you need to change the switch IP address after you have already completed the initial setup?	Go to the **Configure > Express Setup** device manager screen to change the switch IP address. For more information about changing the switch IP address, see the *User Guide for the Catalyst Express 500 Switches* online at Cisco.com.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/techsupport

You can access the Cisco website at this URL:

http://www.cisco.com

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML

documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

http://www.cisco.com/go/marketplace/

Ordering Documentation

Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

http://www.cisco.com/go/marketplace/

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—security-alert@cisco.com

  An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.*x* through 9.*x*.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco SMB Support Assistant provides service and support for the Catalyst Express 500 switches and other Cisco networking products. Cisco SMB Support Assistant offers simple-to-use Portal and Client applications, 8 hours a day, 5 days a week TAC support, and Advanced Replacement Next Business Day. If you do not hold a valid Cisco service contract, please contact your reseller.

SMB Support Assistant Portal and Client

The Cisco SMB Support Assistant Portal and Client applications are management tools designed specifically for SMBs. This secure portfolio of tools helps you access information and inventory as well as providing device management and technical support tools for covered Cisco networking devices.

The Cisco SMB Support Assistant Portal (*Portal*) is the online tool, serving as the how-to arm and starting point for a particular task. It is specifically designed to offer self-help and support for products covered by Cisco SMB Support Assistant.

The Cisco SMB Support Assistant Client (*Client*) is the application stored locally on your computer hard drive and can be installed much like common Windows-based programs. It runs the tools for performing particular tasks and interacts with the Portal in launching the support functions.

The Portal and Client are available 24 hours a day, 365 days a year, at this URL:

http://tools.cisco.com/Support/SMBSA/Login.do

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

http://tools.cisco.com/RPF/register/register.do

Submitting a Service Request

If you cannot successfully resolve an issue through the self-help tools, click the Open Service Request option in the Portal and fill out the online form. This will immediately submit the request to the Cisco SMB Technical Assistance Center (Cisco SMB TAC). Requests can be submitted at any time, 24 hours a day, 365 days a year. A Cisco SMB TAC engineer will then respond to the request within 1 business day during normal business hours.

If your issue is not resolved by using the recommended resources, your service request is assigned to a Cisco TAC engineer. To open a service request by telephone, use one of these numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

http://www.cisco.com/techsupport/contacts

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

  http://www.cisco.com/go/guide

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

  http://www.cisco.com/go/marketplace/

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

  http://www.cisco.com/packet

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

  http://www.cisco.com/go/iqmagazine

  or view the digital edition at this URL:

  http://ciscoiq.texterity.com/ciscoiq/sample/

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

  http://www.cisco.com/ipj

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

  http://www.cisco.com/en/US/products/index.html

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

  http://www.cisco.com/discuss/networking

- World-class networking training is available from Cisco. You can view current offerings at this URL:

  http://www.cisco.com/en/US/learning/index.html

Cisco Limited Lifetime Hardware Warranty Terms

There are special terms applicable to your hardware warranty and various services that you can use during the warranty period. Your formal Warranty Statement, including the warranties and license agreements applicable to Cisco software, is available on Cisco.com. Follow these steps to access and download the *Cisco Information Packet* and your warranty and license agreements from Cisco.com.

1. Launch your browser, and go to this URL:

   http://www.cisco.com/univercd/cc/td/doc/es_inpck/cetrans.htm

   The Warranties and License Agreements page appears.

2. To read the *Cisco Information Packet*, follow these steps:

   a. Click the **Information Packet Number** field, and make sure that the part number 78-5235-03B0 is highlighted.

   b. Select the language in which you would like to read the document.

   c. Click **Go**.

      The Cisco Limited Warranty and Software License page from the Information Packet appears.

   d. Read the document online, or click the **PDF** icon to download and print the document in Adobe Portable Document Format (PDF).

      Note You must have Adobe Acrobat Reader to view and print PDF files. You can download the reader from Adobe's website: http://www.adobe.com

3. To read translated and localized warranty information about your product, follow these steps:

   a. Enter this part number in the Warranty Document Number field:

      78-6310-02C0

   b. Select the language in which you would like to view the document.

   c. Click **Go**.

      The Cisco warranty page appears.

d. Read the document online, or click the **PDF** icon to download and print the document in Adobe Portable Document Format (PDF).

You can also contact the Cisco service and support website for assistance:

http://www.cisco.com/public/Support_root.shtml.

Duration of Hardware Warranty

A Cisco product hardware warranty is supported for as long as the original end user continues to own or use the product, provided that the fan and power supply warranty is limited to five (5) years. In the event of a discontinuance of product manufacture, the Cisco warranty support is limited to five (5) years from the announcement of the discontinuance.

Replacement, Repair, or Refund Policy for Hardware

Cisco or its service center will use commercially reasonable efforts to ship a replacement part within ten (10) working days after receipt of the Return Materials Authorization (RMA) request. Actual delivery times can vary, depending on the customer location.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

To Receive a Return Materials Authorization (RMA) Number

Contact the company from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

Complete the information below, and keep it for reference.

Company product purchased from	
Company telephone number	
Product model number	
Product serial number	
Maintenance contract number	