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4655 Great America Parkway
Santa Clara, CA 95054

Installing the BayStack 425-24T 10/100/1000 Switch, Software Version 2.0

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Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it 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 take whatever measures may be necessary to correct the interference at their own expense.

EN 55 022 Declaration of Conformance

This is to certify that the Nortel Networks BayStack 425-24T 10/100/1000 switch is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class A (CISPR 22).

Caution: This device is a Class A product. In a domestic environment, this device can cause radio interference, in which case the user may be required to take appropriate measures.

About this guide

This guide provides instructions to install the Nortel Networks BayStack 425-24T 10/100/1000 switch on a table or in an equipment rack. For more detailed information about the switch, refer to *Using the BayStack 425-24T 10/100/1000 Switch* (part number 215661-A).

This guide includes information about the following topics:

- Environmental requirements for the installation site (next)
- Installing the switch on a table (page 7) or in a rack (page 8)
- Network connection requirements (page 9)
- Connecting AC power (page 11)
- Descriptions of LEDs (page 11)
- Initial switch setup (page 12)

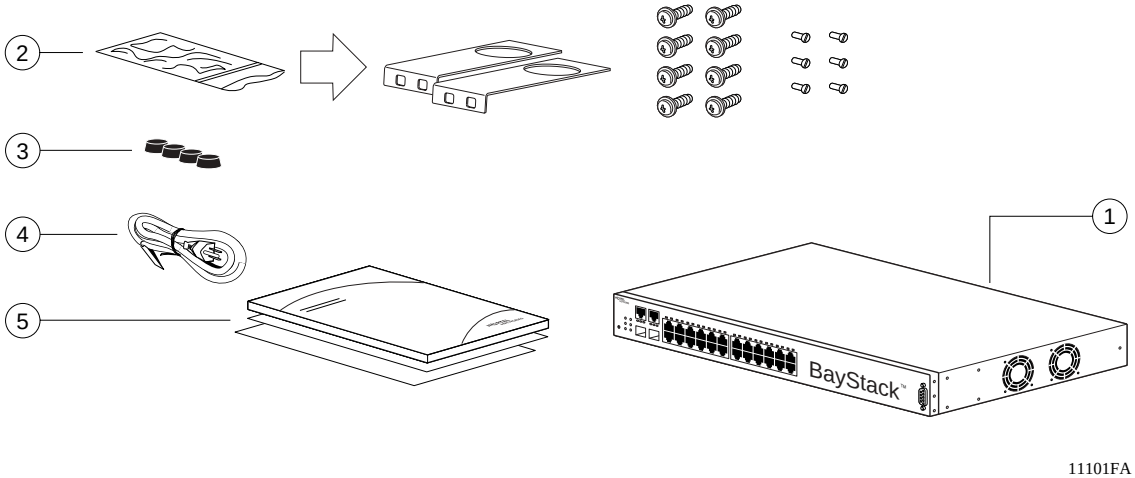
Before you begin

Make sure the area where you will install and use the BayStack 425-24T switch meets these environmental requirements:

- Ambient temperature between 41° and 104° F (5° and 40° C)
- Relative humidity between 5% and 85% noncondensing
- No nearby heat sources such as hot air vents or direct sunlight
- No nearby sources of severe electromagnetic noise
- No excessive dust
- Adequate power source within six feet; one 15-Amp circuit required for each unit
- At least 2 inches (5.08 cm) on each side of the switch unit for ventilation.
- Adequate space at the front and rear of the switch for access to cables.

If you are installing a single BayStack 425-24T switch on a table or shelf, make sure the surface will support at least 15 to 20 pounds (7 to 9 kilograms).

Package contents



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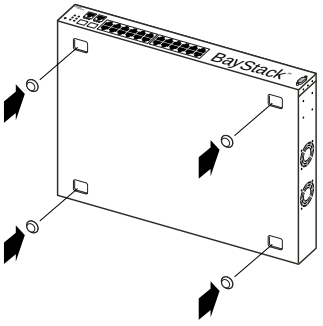
1 = BayStack 425-24T switch
2 = Rack-mounting hardware:
- Rack-mount brackets
- Screws for attaching brackets to the switch
- Screws for attaching the switch to the equipment rack

3= Rubber footpads
4= AC power cord
5= Documentation

Installing the switch on a table or shelf

You can install a single BayStack 425-24T switch on any flat surface that can safely support the weight of the switch and attached cables (15 to 20 pounds or 7 to 9 kilograms).



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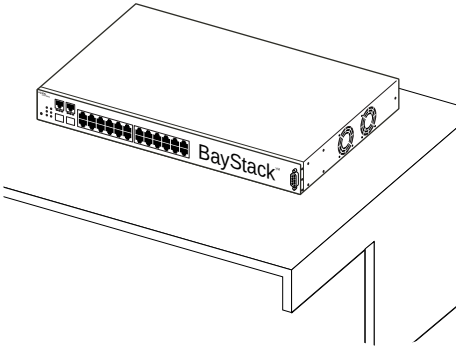
1 Attach the rubber feet at the marked locations.

Allow at least 2 inches (5.1 cm) on each side for proper ventilation and at lease 5 inches (12.7 cm) at the back for power cord clearance.



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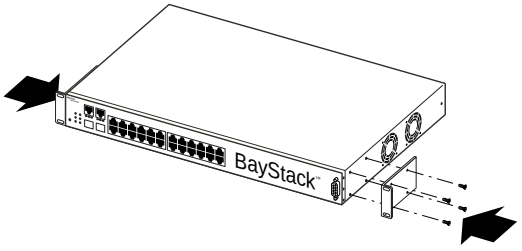
2 Set the switch on a table or shelf.

Installing the switch in an equipment rack

Required tool: Phillips screwdrivers (#1 and # 2) for attaching brackets to the switch (#1) and to the rack (#2).

Rack requirements:

- A space of 2.8 inches is provided for each switch in an EIA or IEC standard 19-inch (48.2-centimeter) equipment rack.
- The rack is bolted to the floor and braced if necessary.
- The rack is grounded to the same grounding electrode used by the power service in the area. The ground path must be permanent and must not exceed 1 ohm of resistance from the rack to the grounding electrode.



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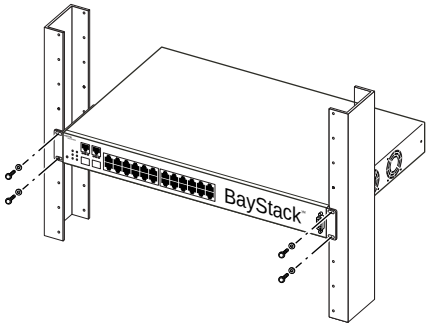

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1 Attach a bracket to each side of the switch.

The bracket with the round holes goes on the right side of the switch, where the round fan vents are located.

2 Slide the switch into the rack. Insert and tighten the rack-mount screws.

Connection requirements

Required cables:

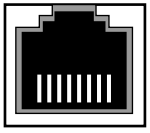
10/100BASE-T ports:	For 10 Mb/s operation: Category 3, 4, or 5 UTP cable with an RJ-45 connector For 100 Mb/s operation: Category 5 UTP cable with an RJ-45 connector For 1000 Mb/s operation: Category 5 UTP cable with an RJ-45 connector
Console Port:	Straight-through serial cable with DB-9 female connector to one end
SFP GBIC ports:	Varies with the installed SFP GBIC; refer to the documentation that was shipped with the SFP GBIC for specifications.

Note: The RJ-45 ports on the switch are wired as MDI-X connectors to connect end stations using straight-through cables. If you are connecting an RJ-45 port to another MDI-X port, such as another switch or a hub, use a crossover cable.

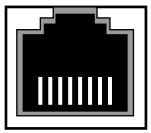
Note: Auto-polarity and Auto MDI/MDI-X support are available only when the ports is configured with autonegotiation enabled.

Refer to the following table connector pin assignments.

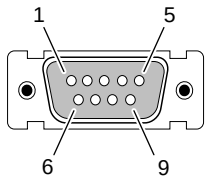
Pin assignments in the 10/100BASE-T port

Connector	Pin Number	Signal for 10/100BASE-T MDI Configuration	Signal for 10/100BASE-T MIDI-X Configuration
 87654321 9464EA	1	Output transmit data + (TX+)	Input receive data + (RX+)
	2	Output transmit data - (TX-)	Input receive data - (RX-)
	3	Input receive data + (RX+)	Output transmit data + (TX+)
	6	Input receive data - (RX-)	Output transmit data - (TX-)
	4, 5, 7, 8	Not used	

Pin assignments for the 1000BASE-T MDI and 1000BASE-T MIDI-X Configurations

Connector	Pin number	Signal for 1000BASE-T MDI Configuration	Signal for 1000BASE-T MIDI Configuration
 87654321 9464EA	1	TP0+	TP1+
	2	TP0-	TP1-
	3	TP1+	TP0+
	4	TP2+	TP3+
	5	TP2-	TP3-
	6	TP1-	TP0-
	7	TP3+	TP2+
	8	TP3-	TP2-

Pin assignments in the console port

Connector	Pin number	Signal	
 9473EA	2	Transmit data (TXD)	
	3	Receive data (RXD)	
	5	Signal ground (GND)	
	1,4,5, 6, 7,8, 9	Not used	

AC Power specifications

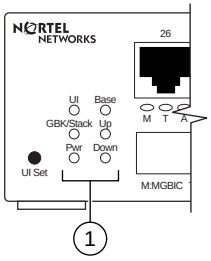
Input current:	2 A
Input voltage (rms):	100 to 240 VAC at 50 to 60 Hz
Power consumption:	70 W
Thermal rating:	240 BTU/hr maximum

Checking LEDs

Refer to the illustration and tables that follow for descriptions of the LEDs on the BayStack 425-24T switch. The tables describe LED operation for a switch that has completed its power-on self-tests.

Note: The push button on the front panel is not active for this release.

Figure 1 BayStack 425-24T switch LED display panel



1 = Switch LEDs

LEDs on the BayStack 425-24T switch

Label	Color/Status	Meaning
UI	Green	The switch is operating normally.
	Amber	A flash error occurred.
	Off	The switch is inactive.

LEDs on the BayStack 425-24T switch (continued)

Label	Color/Status	Meaning
Base	Green	This switch is the active base unit in the stack.
	Amber	This switch is configured as the base unit, but is not currently the active base unit.
	Off	This switch is not the base unit, or is in a stand-alone configuration.
GBIC/ Stack	Green	The GBIC port is linked.
	Off	The GBIC port is not linked.
Up	Green	A connection was detected to a unit through the stack up connector.
	Off	No connection was detected to a unit through the stack up connector.
Pwr	Green	Power is available to the switch.
	Off	No power is available to the switch.
Down	Green/steady	A connection was detected to a unit through the stack down connector.
	Off	No connection was detected to a unit through the stack down connector.

SFP GBIC Port LEDs on the BayStack 425-24T

Label	Color/Status	Meaning
M (MGBIC)	Green	This port has a good connection (fiber).
	Off	This port does not have a good connection (fiber).
T (Copper)	Green	This port has a good connection (copper - at 1000 Mbps).
	Amber Amber/Green	This port has a good connection (copper - at 100 Mbps). This port has a good connection (copper - at 10 Mbps)
	Off	This port does not have a good connection.
A (Activity)	Green (blinking)	There is activity on this port.
	Off	There is no activity on this port.

Initial switch setup

The BayStack 425-24T switch begins switching as soon as you attach network devices and connect the switch to power. To manage the switch over the network or to perform TFTP operations, you must set certain IP parameters. Refer to *Using the BayStack 425-24T 10/100/1000 Switch* for more information about the console menus and configuring your switch.

Setting IP parameters

For the initial setup of a standalone switch, you must set the following IP parameters:

- IP address of the switch or the stack
- Subnet mask
- Gateway address.

To set the IP parameters:

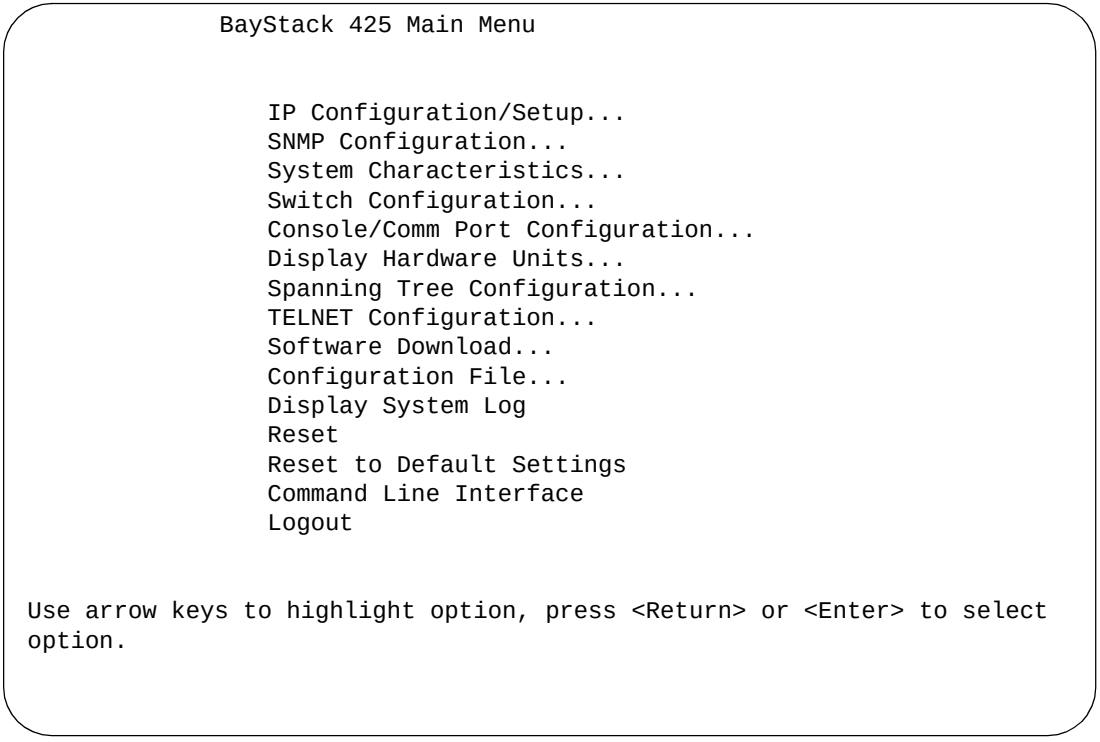
1. Connect a terminal to the Console port on the switch.

   Set the terminal protocol as described in *Using the BayStack 425-24T 10/100/1000 Switch*.

2. Connect the switch to power.
3. After the BayStack logo is displayed, press [Ctrl]-Y to display the Main Menu.

   The screen displays the Main Menu for a standalone switch.

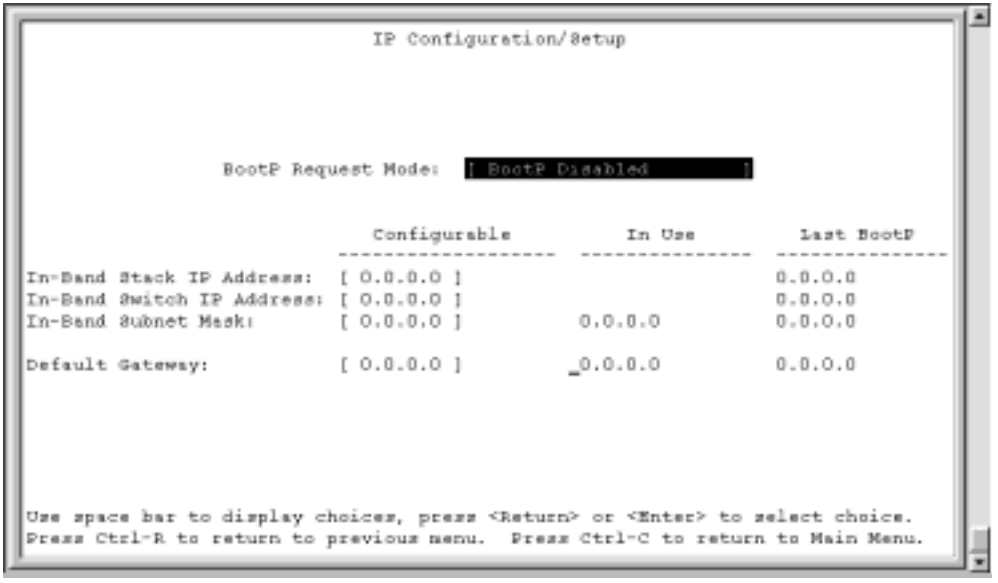
Figure 2 BayStack 425-24T Main Menu screen



4 Select IP Configuration/Setup (or press i) to display the IP Configuration/Setup menu.

Note: The default management VLAN in the BayStack 425-24T switch is VLAN 1. To manage the switch, make sure the network management station is on the management VLAN or is connected to the management VLAN through routers.

Figure 3 IP Configuration/Setup screen



5 For a standalone switch, in the In-Band Switch IP Address field, enter the IP address of the switch in dotted-decimal notation.

Note: If the In-Band Subnet Mask field does not already contain a value when you enter the IP address in the In-Band IP Address field, the switch software provides an in-use default value for the In-Band Subnet Mask field. This value is based on the class of the entered IP address.

6 In the In-Band Subnet Mask field, enter the IP subnet mask address.

7 In the Default Gateway field, enter the default gateway address.