



User Guide

Gateway Unmanaged Ethernet Switch

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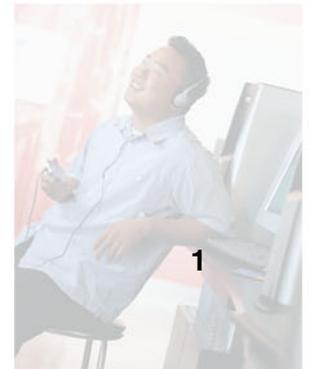


Introduction

1

This chapter provides you with an introduction to several Gateway unmanaged switches. Read this chapter to learn about:

- Gigabit Ethernet technology
- Switching technology
- Switch descriptions
- Features
- Front panel components
- LED indicators
- Rear panel descriptions
- Side panel descriptions



Gigabit Ethernet technology

Gigabit Ethernet is an extension of IEEE 802.3 Ethernet. It uses the same packet structure, format, and support for CSMA/CD protocol, full duplex, and flow control, but with a tenfold increase in theoretical throughput over 100-Mbps Fast Ethernet and a hundredfold increase over 10-Mbps Ethernet. Because it is compatible with all 10-Mbps and 100-Mbps Ethernet environments, Gigabit Ethernet provides a straightforward upgrade without wasting a company's existing investment in hardware, software, and trained personnel.

The increased speed and extra bandwidth offered by Gigabit Ethernet are essential to coping with the network bottlenecks that frequently develop as computers and their busses get faster and more users use applications that generate more traffic. Upgrading key components, such as your backbone and servers, to Gigabit Ethernet can greatly improve network response times as well as significantly speed up the traffic between your subnets.

Gigabit Ethernet supports video conferencing, complex imaging, and similar data-intensive applications.

Because data transfers occur 10 times faster than Fast Ethernet, servers outfitted with Gigabit Ethernet NIC's are able to perform 10 times the number of operations in the same amount of time.

Switching technology

Another key development pushing the limits of Ethernet technology is in the field of switching technology. A switch bridges Ethernet packets at the MAC address level of the Ethernet protocol transmitting among connected Ethernet or Fast Ethernet LAN segments.

Switching is a cost-effective way of increasing the total network capacity available to users on a local area network. A switch increases capacity and decreases network loading by making it possible for a local area network to be divided into different *segments* which do not compete with each other for network transmission capacity, giving a decreased load on each.

The switch acts as a high-speed selective bridge between the individual segments. Traffic that needs to go from one segment to another (from one port to another) is automatically forwarded by the switch, without interfering with any other segments (ports). This allows the total network capacity to be multiplied, while still maintaining the same network cabling and adapter cards.

For Fast Ethernet or Gigabit Ethernet networks, a switch is an effective way of eliminating problems of chaining hubs beyond the “two-repeater limit.” A switch can be used to split parts of the network into different collision domains, for example, making it possible to expand your Fast Ethernet network beyond the 205-meter network diameter limit for 100BASE-TX networks. Switches supporting both traditional 10Mbps Ethernet and 100Mbps Fast Ethernet are also ideal for bridging between existing 10Mbps networks and new 100Mbps networks.

Switching LAN technology is an improvement over the previous generation of network bridges, which were characterized by higher latencies. Routers have also been used to segment local area networks, but the cost of a router and the setup and maintenance required make routers relatively impractical. Today’s switches are an ideal solution to most kinds of local area network congestion problems.

Switch descriptions

These unmanaged switches were designed for easy installation and high performance in an environment where traffic on the network and the number of users increase continuously.

Features

- 16 or 24 10/100Mbps Fast Ethernet ports. (Gateway 7201-16 or 7201-24)
- 5, 8, or 24 10/100/1000Mbps Gigabit Ethernet ports. (Gateway 7401-05, 7401-08, and 7401-24 switches)
- 24 10/100Mbps + 2Gps Ethernet ports (Gateway 7201-24.2)
- Supports Auto-Negotiation for speed and duplex mode.
- Supports Auto-MDIX for each port.
- Full-/half-duplex transfer mode for 10Mbps and 100Mbps.
- Full-duplex transfer mode for 1000Mbps.
- Store-and-Forward switching method.
- IEEE 802.3x flow control for full-duplex mode.
- Backpressure flow control for half-duplex mode.
- Integrated address Look-Up Engine, supports 4K absolute MAC addresses.

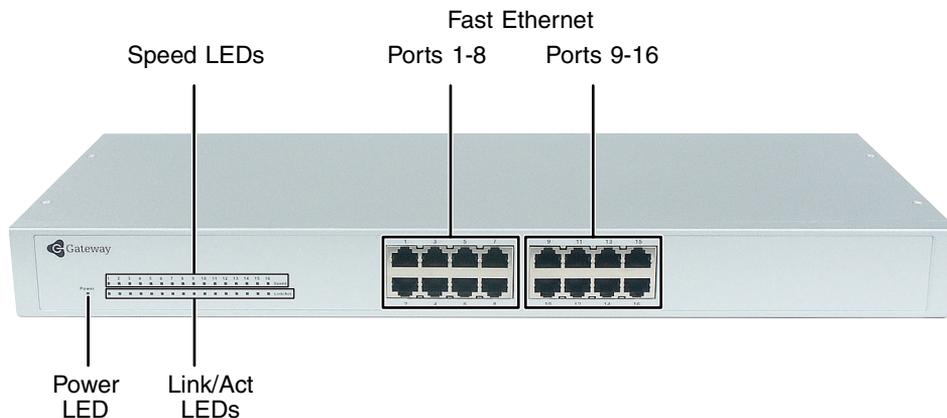
- Supports 2M bits data buffer per device.
- Front-panel indicator LEDs.

Front-panel components

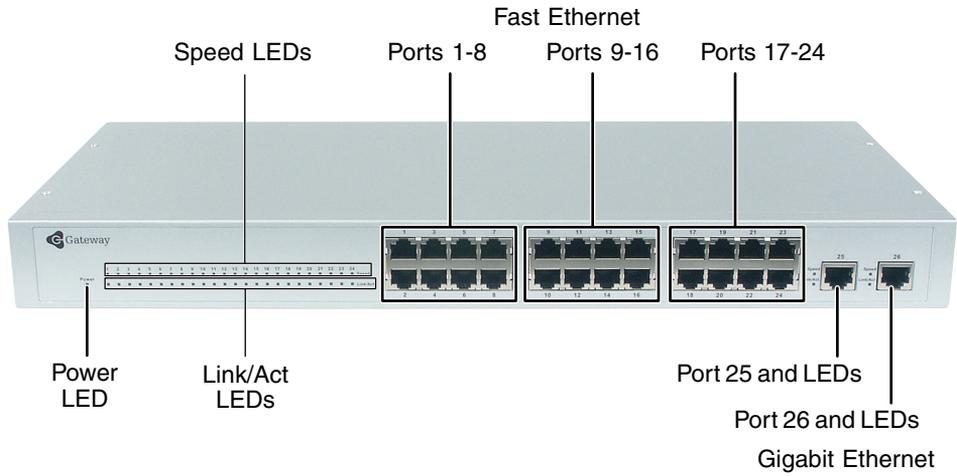
The front panels of the switches consist of LED indicators and fast Ethernet or gigabit Ethernet ports. The number of LEDs, and the number and speed of the ports, depends on the switch model selected.

Comprehensive LED indicators display the status of the switches and the network.

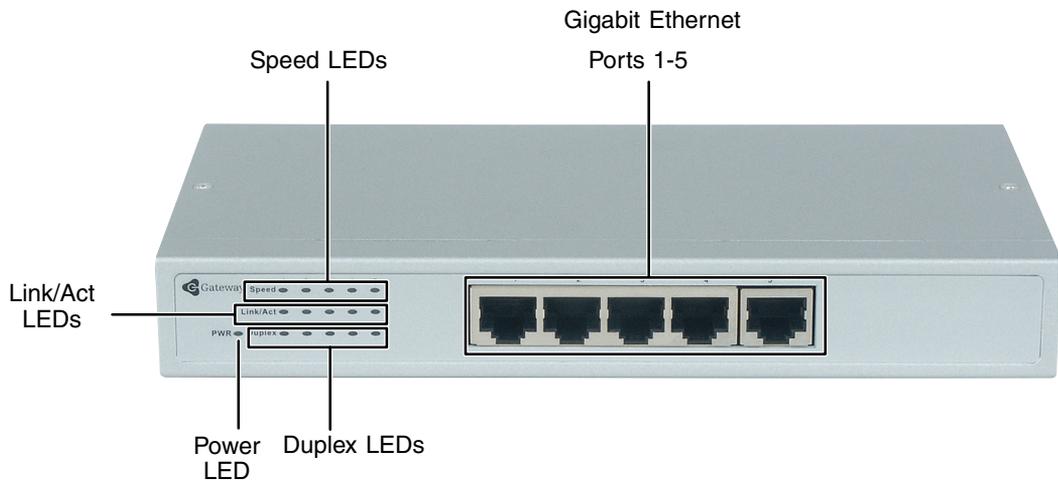
Gateway 7201-16 (shown) and 7201-24 fast Ethernet switches



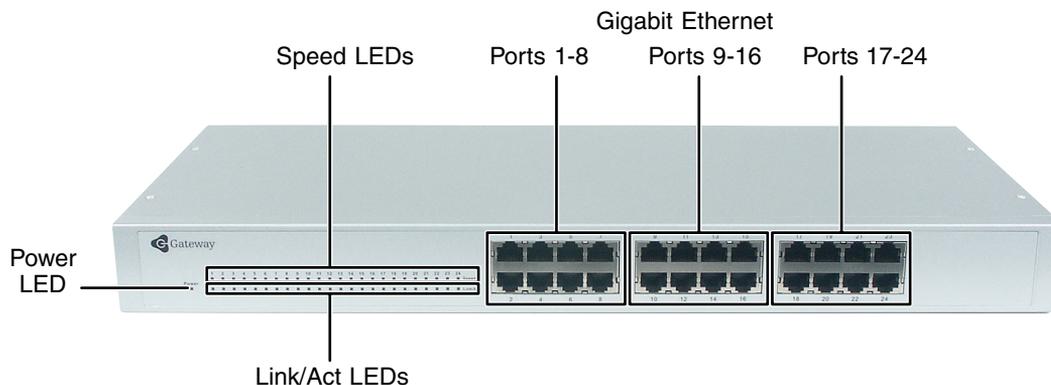
Gateway 7201-24.2 fast Ethernet/gigabit Ethernet switch



Gateway 7401-05 (shown) and 7401-08 gigabit Ethernet switches



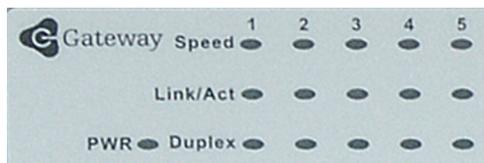
Gateway 7401-24 gigabit Ethernet switch



LED Indicators

The LED indicators on the switches include Power, Link/Act, and Speed. The Gateway 7401-05 and 7401-08 also have a Duplex LED. The following shows the LED indicators for the various switches, and the table provides an explanation of what each LED indicates.

Gateway 7401-05 (shown) and 7401-08 switches



Gateway 7201-16, 7201-24 (shown), 7201-24.2, and 7401-24 switches



LED	Indicates
Power	This indicator will light steady green immediately after the switch is powered on to indicate the ready state of the device.
Link/Act	This indicator lights green when the port is connected to a Gigabit Ethernet, Fast Ethernet, or Ethernet station. If the indicator is blinking green, data is either being transmitted or received.
Speed	This LED indicator is dark when the port is connected to a 10 Mbps Ethernet or 100 Mbps Fast Ethernet station, and it lights green when the port is connected to a 1000 Mbps Gigabit Ethernet station (on gigabit capable models).
Duplex	This LED indicator lights green when the port active in full duplex mode.

Rear panel description

The rear panels of the switches consists of the power connector only, and are not shown. The AC power connector (Gateway 7201-16, 7201-24, 7201-24.2, and 7401-24) is a standard three-pronged connector that supports the power cord. Plug one end of the power cord into the socket and the other end into the power outlet. The switch automatically adjusts its power setting to any supply voltage in the range from 100 ~ 240 VAC at 50 ~ 60 Hz.

The rear panel of the Gateway 7401-05 and 7401-08 switches consists of the DC power jack (AC power adapter supplied). The AC power adapter automatically adjusts its power setting to any supply voltage in the range from 100 ~ 240 VAC at 50 ~ 60 Hz.

Side panel description

The sides of the system provide heat vents that help to dissipate heat. Do not block these openings, and leave at least 6 inches (152.3 mm) of space at the rear and sides of the switch for correct ventilation.

Warning



Without correct heat dissipation and air circulation, system components might overheat, which could lead to system failure.

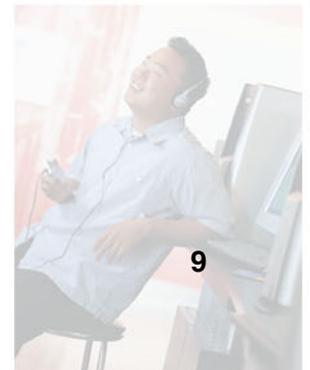
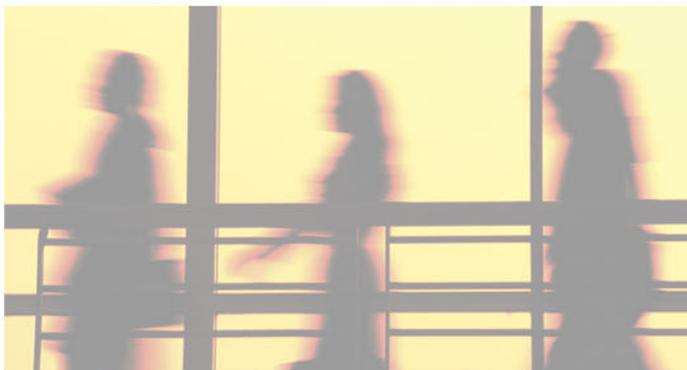


Installation

2

This chapter provides you with information on how to install your Gateway switch. Read this chapter to learn about:

- Package contents
- Preparing to connect to the network
- Installing the 5- and 8-port switches
- Installing the 16- and 24-port switches



Before you connect to the network

The site where you install the switch may greatly affect its performance. Please follow these guidelines for setting up the switch:

- Install the switch on a sturdy, level surface that can support at least 6.6 lbs. (3 kg) of weight. Do not place heavy objects on the switch.
- The power outlet should be within 6 feet (1.82 meters) of the switch.
- Visually inspect the power cord and see that it is fully secured to the AC power port.
- Make sure that there is correct heat dissipation from and adequate ventilation around the switch. Leave at least 6 inches (152.3 mm) of space at the front and rear of the switch for ventilation.
- Install the switch in a fairly cool and dry place for the acceptable temperature and humidity operating ranges.
- Install the switch in a site free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight.
- When installing the switch on a level surface, attach the rubber feet to the bottom of the device. The rubber feet cushion the switch, protect the casing from scratches, and prevent it from scratching other surfaces.

Installing the 5- and 8-port switches

Package contents

Open the shipping carton and carefully unpack its contents. The carton should contain the following items:

- One Gateway 7401-05 5-port, or 7401-08 8-Port 10/100/1000BASE-T Gigabit Ethernet switch
- Four rubber feet with adhesive backing
- One external power adapter
- This manual

If any item is found missing or damaged, contact Gateway for a replacement.

Attaching the rubber feet

Position and apply rubber feet to the underside of the switch.

Provide for adequate ventilation

Warning



Do not place any device on top of the switch or place the switch on top of any device or object that will block the free flow of air through the ventilation slots on the sides, top, and bottom of the switch's case. In addition, care should be taken not to locate the switch next to, on top of, or underneath any device that generates a significant amount of heat. For the switch to perform at its optimal level, the switch must have adequate ventilation to prevent the switch from overheating and becoming damaged.

Power on

Plug one end of the AC power adapter into the power connector on the switch and the other end into the local power source outlet.

After the switch is turned on, the LED indicators will momentarily blink, showing a reset of the system.

Power failure

If a power failure occurs, unplug the switch. When power is resumed, plug the switch back in.

Installing the 16- and 24-port switches

Package contents

Open the shipping carton of the switch and carefully unpack its contents. The carton should contain the following items:

- One Gateway 7201-16, 16-port or 7201-24, 24-port 10/100BASE-T Fast Ethernet switch, or 7401-24, 24-port 10/100/1000BASE-T Gigabit Ethernet switch, or 7401-24.2, 24-port + 2 10/100/1000BASE-T Gigabit Ethernet switch.
- Accessory pack, including 2 mounting brackets and screws.
- Four rubber feet with adhesive backing.
- One AC power cord.
- This manual.

If any item is missing or damaged, contact Gateway for replacement.

Installing the 16- and 24-port switches without a rack

When installing the switch on a desktop or shelf, you should attach the rubber feet included with the switch on the bottom, at each corner of the device. Allow enough ventilation space between the switch and any other objects in the vicinity.

Warning



Do not place any device on top of the switch or place the switch on top of any device or object that will block the free flow of air through the ventilation slots on the sides, top, and bottom of the switch's case. In addition, care should be taken not to locate the switch next to, on top of, or underneath any device that generates a significant amount of heat. For the switch to perform at its optimal level, the switch must have adequate ventilation to prevent the switch from overheating and becoming damaged.

Installing the 16- and 24-port switches in a rack

The switch can be mounted in a standard 19" rack. Use the following illustrations to guide you.

Warning



Before attaching rack mounting hardware, make sure that the switch is turned off and all power cords are unplugged.

Warning

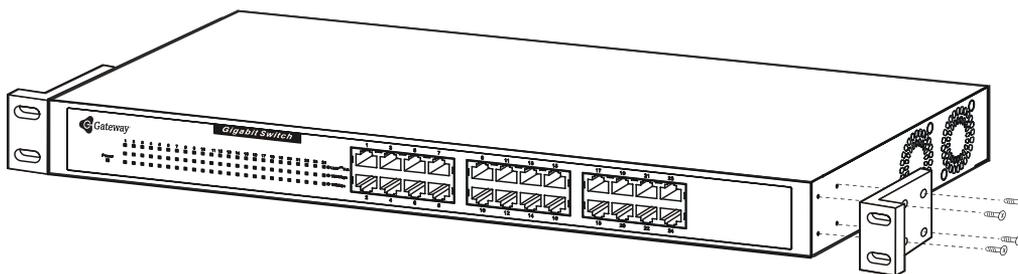


The rack cabinet must provide sufficient airflow to the front of the switch to maintain correct cooling. It must also include ventilation sufficient to exhaust the heat generated by the equipment installed in the rack.

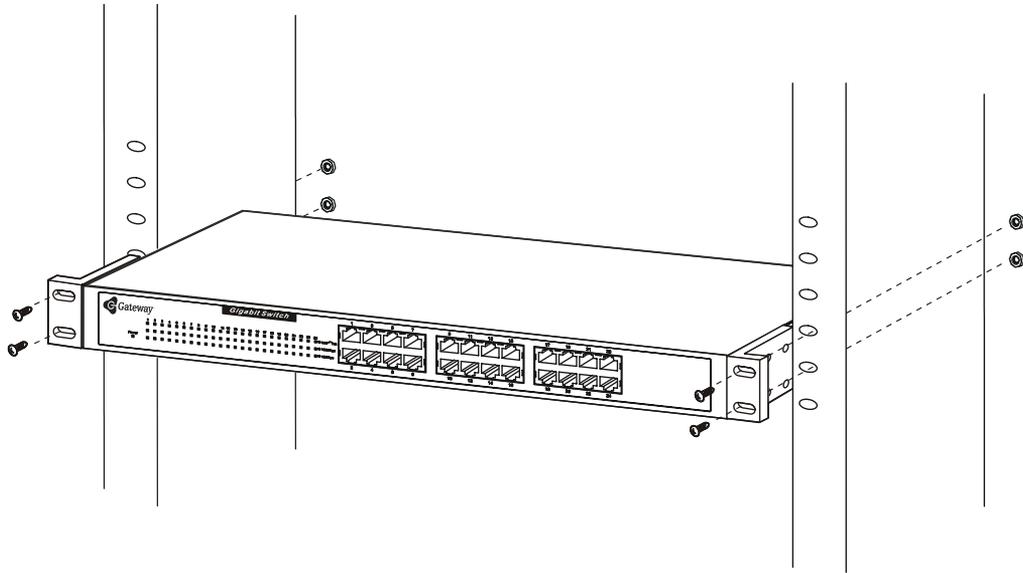


To install the switch in a rack:

- 1 Make sure that the switch is turned off and all cables and cords are unplugged.
- 2 Attach the rack mounting brackets to both sides of the switch with the machine screws provided.



- 3 With the assistance of another person, hold the switch in place in the rack and secure with two screws and nuts on each side (provided).



- 4 Install the cables and power cord.



Power on

Plug one end of the AC power cord into the power connector of the switch and the other end into the local power source outlet.

After the switch is turned on, the LED indicators will momentarily blink. This blinking of the LED indicators represents a reset of the system.

Power failure

If a power failure occurs, unplug the switch. When power is resumed, plug the switch back in.

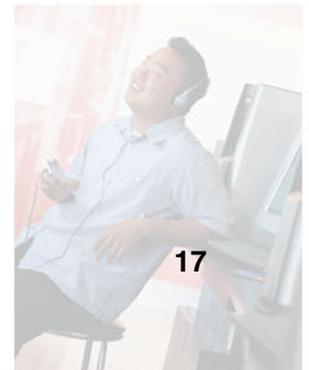


Connecting the Switch

3

This chapter provides you with information on connecting Gateway unmanaged switches. Read this chapter to learn about:

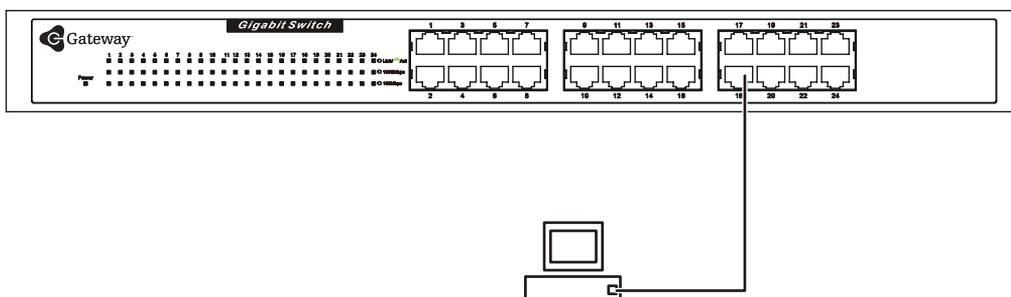
- Connecting to an end node
- Connecting to a hub or switch
- Connecting to a network backbone or server



Connecting to an end node

For the Gateway 7201-16 and 7201-24 switches, end nodes include computers with 10, 100, or 10/100 Mbps RJ-45 Ethernet/Fast Ethernet Network Interface Cards (NIC). For the Gateway 7401-05, 7401-08, 7401-24, and 7201-24.2 switches, end nodes include computers with 10, 100, or 1000 Mbps RJ-45 Ethernet/Fast Ethernet/Gigabit Network Interface Cards (NIC). End nodes can also include most routers.

An end node can be connected to the switch through a twisted-pair Category 3, 4, or 5 UTP/STP cable. The end node should be connected to any port on the switch. End nodes with Gigabit capability should be connected to the Gigabit capable ports on the Gateway 7201.24.2 switch.

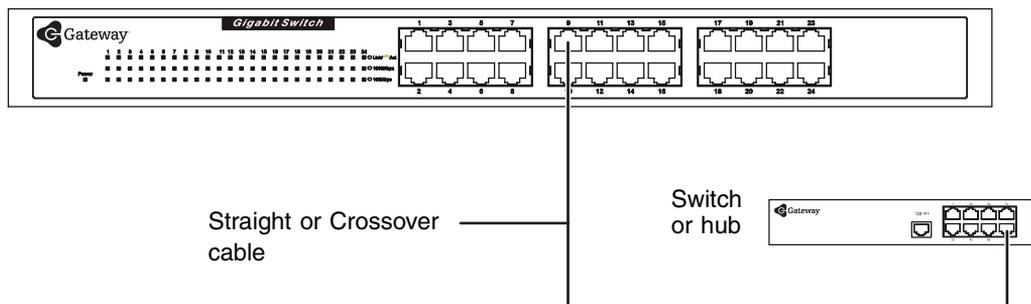


The Link/Act LEDs for each UTP port light green when the port is connected to a Gigabit Ethernet, Fast Ethernet, or Ethernet station. If the indicator is blinking green, data is being transmitted or received.

Connecting to a hub or switch

These connections can be accomplished in a number of ways using a standard Ethernet cable.

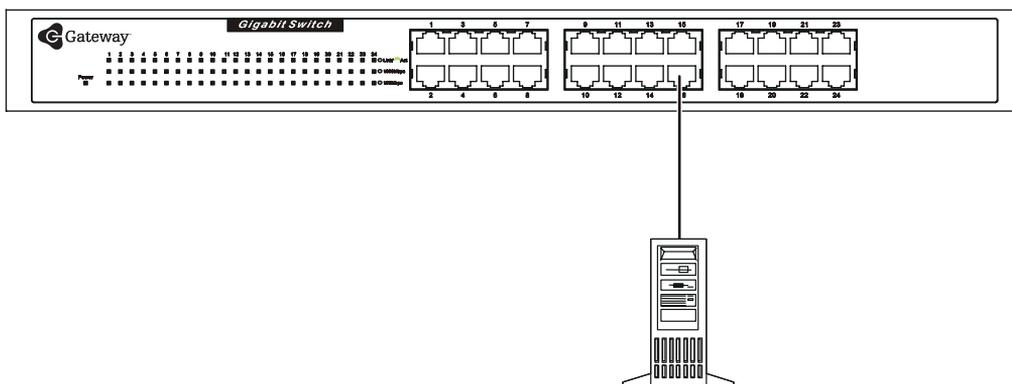
- A 10BASE-T hub or switch can be connected to the switch through a twisted-pair Category 3, 4, 5, or 5e UTP/STP cable. Either straight-through or crossover cables can be used.
- A 100BASE-TX hub or switch can be connected to the switch through a twisted-pair Category 5 UTP/STP cable. Either straight-through or crossover cables can be used.
- A 1000BASE-TX switch can be connected to the switch through a twisted-pair Category 5e or better UTP/STP cable. Either straight-through or crossover cables can be used.



Connecting to a network backbone or server

On all of the switches, any of the ports are satisfactory for uplinking to a network backbone or network server. On the Gateway 7201-24.2 switch, use one of the two Gigabit ports for optimum performance. These ports operate at 1000 Mbps in full-duplex mode.

A valid connection is indicated when the Link LED is lit.

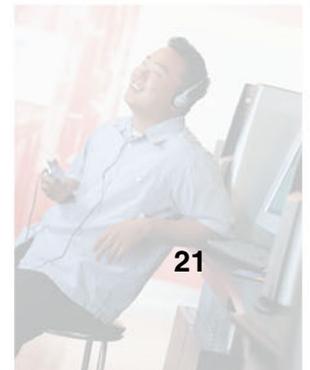
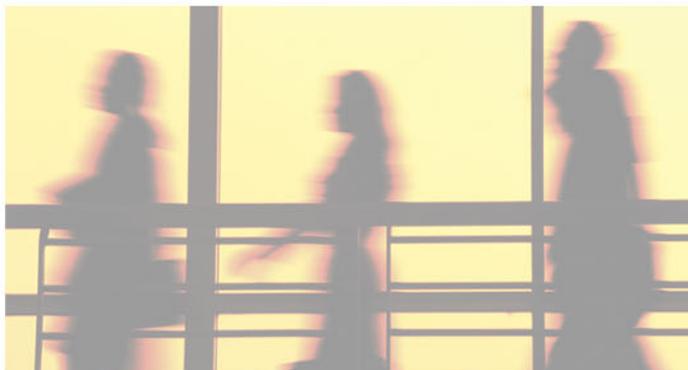




Specifications

A

This chapter provides you with the specifications for Gateways' unmanaged switches.



Gateway 7401-24 (24-port), gigabit Ethernet switch

General	
Standards:	IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3 10BASE-T Ethernet IEEE 802.3 NWay Auto-negotiation IEEE 802.3x Flow Control
Protocols:	CSMA/CD
Data Transfer Rates:	Ethernet: 10Mbps (Half-duplex) 20Mbps (Full-duplex) Fast Ethernet: 100Mbps (Half-duplex) 200Mbps (Full-duplex) Gigabit Ethernet: 2000Mbps (Full-duplex)
Topology:	Star
Network Cables:	Ethernet: 2-pair UTP Cat. 3, 4, 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Fast Ethernet: 2-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Gigabit Ethernet: 4-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP)
Ports	24 10/100/1000BASE-T Gigabit Ethernet ports
Physical & Environmental	
AC Inputs:	100 - 240 VAC, 50/60 Hz (internal universal power supply)
Power Consumption:	40 Watts maximum
Operating Temperature:	32 to 104 degrees Fahrenheit (0 to 40 degrees Celsius)

Physical & Environmental

Storage Temperature:	14 to 158 Fahrenheit (-10 to 70 degrees Celsius)
Humidity:	Operating: 5% to 95% RH, non-condensing Storage: 0% to 95% RH, non-condensing
Dimensions:	17.36 x 8.15 x 1.73 inches (440 mm x 210 mm x 44 mm) 1U, 19 inch rack-mount width
Weight:	6.6 lbs. (3 Kg)

Performance

Transmission Method:	Store-and-forward
RAM Buffer:	2M bits per device
Filtering Address Table:	4K MAC address per device
MAC Address Learning:	Self-learning, auto-aging

Gateway 7401-05 (5-port), and 7401-08 (8-port) gigabit Ethernet switches

General	
Standards:	IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3 10BASE-T Ethernet IEEE 802.3x Flow Control
Protocols:	CSMA/CD
Data Transfer Rates:	Ethernet: 10Mbps (Half-duplex) 20Mbps (Full-duplex) Fast Ethernet: 100Mbps (Half-duplex) 200Mbps (Full-duplex) Gigabit Ethernet: 2000Mbps (Full-duplex)
Topology:	Star
Network Cables:	Ethernet: 2-pair UTP Cat. 3, 4, 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Fast Ethernet: 2-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Gigabit Ethernet: 4-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP)
Ports	5 or 8 10/100/1000BASE-T Gigabit Ethernet ports
Physical & Environmental	
DC Inputs:	5V/3A
Power Consumption:	11 Watts maximum,
Operating Temperature:	32 to 104 degrees Fahrenheit (0 to 40 degrees Celsius)

Physical & Environmental

Storage Temperature:	14 to 158 Fahrenheit (-10 to 70 degrees Celsius)
Humidity:	Operating: 5% to 95% RH, non-condensing Storage: 0% to 95% RH, non-condensing
Dimensions:	9.25 × 6.37 × 1.4 inches (235 mm × 161.9 mm × 35.6 mm)
Weight:	6.6 lbs. (3 Kg)

Performance

Transmission Method:	Store-and-forward
RAM Buffer:	1M Bytes per device
Filtering Address Table:	4K MAC address per device
Packet Filtering/Forwarding Rate:	Full wire speed
MAC Address Learning:	Self-learning, auto-aging

Gateway 7201-16 (16-port), and 7201-24 (24-port), fast Ethernet switches

General	
Standards:	IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3 10BASE-T Ethernet IEEE 802.3x Flow Control
Protocols:	CSMA/CD
Data Transfer Rates:	Ethernet: 10Mbps (Half-duplex) 20Mbps (Full-duplex) Fast Ethernet: 100Mbps (Half-duplex) 200Mbps (Full-duplex)
Topology:	Star
Network Cables:	Ethernet: 2-pair UTP Cat. 3, 4, 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Fast Ethernet: 2-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP)
Ports	16 or 24 10/100/BASE-T Fast Ethernet ports
Physical & Environmental	
AC Inputs:	100 - 240 VAC, 50/60 Hz (internal universal power supply)
Power Consumption:	40 Watts maximum,
Operating Temperature:	32 to 104 degrees Fahrenheit (0 to 40 degrees Celsius)
Storage Temperature:	14 to 158 Fahrenheit (-10 to 70 degrees Celsius)
Humidity:	Operating: 5% to 95% RH, non-condensing Storage: 0% to 95% RH, non-condensing
Dimensions:	5.55 × 8.15 × 1.69 inches (441 mm × 207 mm × 43 mm)

Physical & Environmental

Weight: 6.6 lbs. (3Kg)

Performance

Transmission Method: Store-and-forward

RAM Buffer: 1M Bytes per device

Filtering Address Table: 4K MAC address per device

Packet Filtering/Forwarding Rate: Full wire speed

MAC Address Learning: Self-learning, auto-aging

Gateway 7201-24.2 (24-port), fast Ethernet switch + 2GTP switch

General	
Standards:	IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3 10BASE-T Ethernet IEEE 802.3x Flow Control
Protocols:	CSMA/CD
Data Transfer Rates:	Ethernet: 10Mbps (Half-duplex) 20Mbps (Full-duplex) Fast Ethernet: 100Mbps (Half-duplex) 200Mbps (Full-duplex) Gigabit Ethernet: 2000Mbps (Full-duplex)
Topology:	Star
Network Cables:	Ethernet: 2-pair UTP Cat. 3, 4, 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Fast Ethernet: 2-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP) Gigabit Ethernet: 4-pair UTP Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (UTP)
Ports	24 10/100BASE-T Fast Ethernet ports 2 10/100/1000BASE-T Gigabit Ethernet ports
Physical & Environmental	
AC Inputs:	100 - 240 VAC, 50/60 Hz (internal universal power supply)
Power Consumption:	40 Watts maximum,
Operating Temperature:	32 to 104 degrees Fahrenheit (0 to 40 degrees Celsius)

Physical & Environmental

Storage Temperature:	14 to 158 Fahrenheit (-10 to 70 degrees Celsius)
Humidity:	Operating: 5% to 95% RH, non-condensing Storage: 0% to 95% RH, non-condensing
Dimensions:	5.55 × 8.15 × 1.69 inches (441 mm × 207 mm × 43 mm)
Weight:	6.6 lbs. (3Kg)

Performance

Transmission Method:	Store-and-forward
RAM Buffer:	1M Bytes per device
Filtering Address Table:	4K MAC address per device
Packet Filtering/ Forwarding Rate:	Full wire speed
MAC Address Learning:	Self-learning, auto-aging



Safety, Regulatory, and Legal Information

B

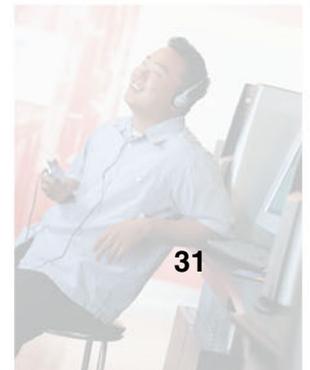
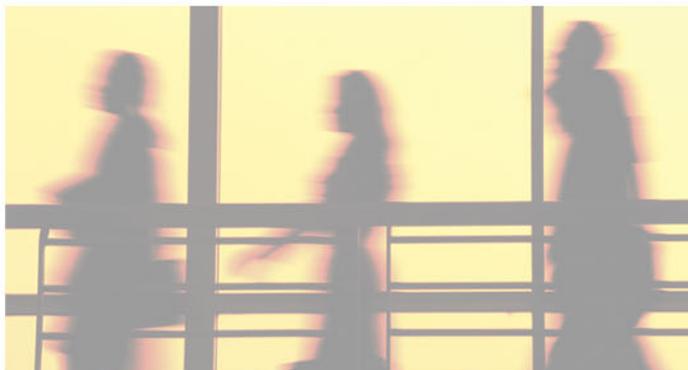
Important safety information

Your Gateway switch is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.

Warning



Always follow these instructions to help guard against personal injury and damage to your Gateway switch.



Setting up your switch

- Read and follow all instructions marked on the product and in the documentation before you operate your switch. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the switch on a stable work surface.
- The product should be operated only from the type of power source indicated on the rating label.
- If your switch has a voltage selector switch, make sure that the switch is in the correct position for your area. The voltage selector switch is set at the factory to the correct voltage.
- Openings in the case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the ventilation openings.
- Some products are equipped with a three-wire power cord to make sure that the product is correctly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- If you use an extension cord with this switch, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.

General precautions for rack-mountable products

Observe the following precautions for rack stability and safety. Also refer to the rack installation documentation accompanying the system and the rack for specific caution statements and procedures.

Systems are considered to be components in a rack. Thus, “component” refers to any system as well as to various peripherals or supporting hardware.

Warning



High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable jack. During an electrical storm, unplug both the surge protector and the modem.

Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.

Always load the rack from the bottom up, and load the heaviest item in the rack first.

Make sure that the rack is level and stable before extending a component from the rack.

Use caution when pressing the component rail release latches and sliding a component into or out of a rack; the slide rails can pinch your fingers.

After a component is inserted into the rack, carefully extend the rail into a locking position, and then slide the component into the rack.

Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.

Ensure that correct airflow is provided to components in the rack.

Do not step on or stand on any component when servicing other components in a rack.

Important



A qualified electrician must perform all connections to DC power and to safety grounds. All electrical wiring must comply with applicable local or national codes and practices.

Warning



Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

Warning



The switch chassis must be positively grounded to the rack cabinet frame. Do not attempt to connect power to the switch until grounding cables are connected. Completed power and safety ground wiring must be inspected by a qualified electrical inspector. An electrical hazard will exist if the safety ground cable is omitted or disconnected.

Preventing static electricity discharge

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Warning



ESD can permanently damage electrostatic discharge-sensitive components in your computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem and network cables before opening the case.

Before opening the computer case, follow these guidelines:

- Turn off your computer.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your computer.

Warning



To prevent risk of electric shock, do not insert any object into the vent holes of the power supply.

- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and the modem and network cables.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold expansion cards by their edges or their metal mounting brackets. Avoid touching the edge connectors and components on the cards. Never slide expansion cards or components over any surface.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the switch. The best way to avoid spills is to avoid eating and drinking near your switch.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.
- When a computer is turned off, a small amount of electrical current still flows through it. To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before cleaning the switch.
- Unplug the switch from the wall outlet and refer servicing to qualified personnel if:
 - The power cord or plug is damaged.
 - Liquid has been spilled into the switch
 - The switch does not operate correctly when the operating instructions are followed.
 - The switch was dropped or the case is damaged.
 - The switch performance changes.

Replacement parts and accessories

Use only replacement parts and accessories recommended by Gateway.

Important



Do not use Gateway products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

Regulatory compliance statements

United States of America

Federal Communications Commission (FCC) Unintentional emitter per FCC Part 15

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Compliance Accessories: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

FCC declaration of conformity

Responsible party:

Gateway Companies, Inc.
610 Gateway Drive, North Sioux City, SD 57049
(605) 232-2000 Fax: (605) 232-2023

Products:

- Gateway 7201-16
- Gateway 7201-24
- Gateway 7201-24.2
- Gateway 7401-05
- Gateway 7401-08
- Gateway 7401-16
- Gateway 7401-24

For unique identification of the product configuration, please submit the 10-digit serial number found on the product to the responsible party.

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

Caution



Changes or modifications not expressly approved by Gateway could void the FCC compliance and negate your authority to operate the product.

Canada

Industry Canada (IC)

Unintentional emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Warning



To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number (REN)** assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

California Proposition 65 Warning

Warning



This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or reproductive harm.

Notices

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Poway, CA 92064 USA

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Macrovision statement

If your computer has a DVD drive and an analog TV Out port, the following paragraph applies:

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

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