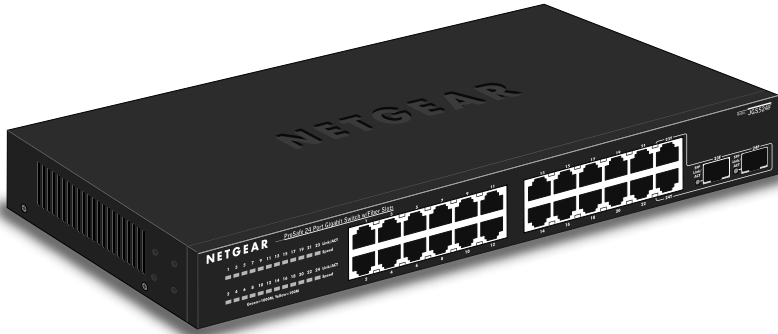


NETGEAR®

Connect with Innovation™

ProSafe 24 Port Gigabit Switch Installation Guide



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Statement of Conditions

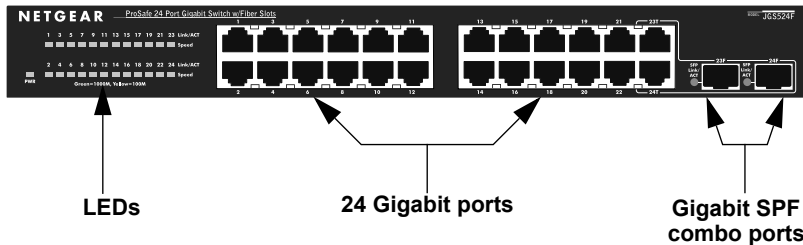
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Package Contents

Verify that all items are in the box. The package includes:

- ProSafe 24-port Gigabit Switch with 2 Gigabit SFP Combo Ports JGS524F V1
- Power cord with localized plug
- Adhesive feet
- Rack-mount brackets and hardware
- *Installation Guide* (this document)

Front View



The switch supports 10 Mbps, 100 Mbps, and 1000 Mbps connections. Using Gigabit Ethernet (1000 Mbps), the switch sends files across the network at speeds up of to 2000 Mbps due to the full-duplex nature of Gigabit Ethernet connections. You can either connect 24 Ethernet copper cables or 22 copper cables with 2 optical fibers.

The switch supports straight-through or crossover Ethernet cables on 24 ports. Each of these ports configures itself based on the cable that you plug into it. You can use the switch to connect Ethernet devices such as computers, file servers, printers, routers, switches, or hubs.

Select a Location

Decide where you want to place the switch. Find a flat horizontal surface or a 19-inch rack.

Make sure that the location is:

- Not in direct sunlight or near a heater or heating vent.
- Not cluttered or crowded. There should be at least 2 inches (5 cm) of clear space on all sides of the switch.
- Well ventilated, especially if it is in a closet.

Install the Switch

1. For each device that you want to connect to the switch, provide an enhanced Category 5 (Cat 5e) Ethernet cable with RJ-45 connections. Each Ethernet cable has to be less than 328 feet (100 meters) long.
2. Install the switch on a flat surface or in a standard 19-inch rack.
 - **Flat surface.** The switch comes with four self-adhesive footpads. Stick one footpad on each of the four concave spaces on the bottom of the switch. The footpads cushion the switch against shock and vibrations.
 - **Rack mounting.** Follow the instructions in the 19-Inch Rack Mounting section.

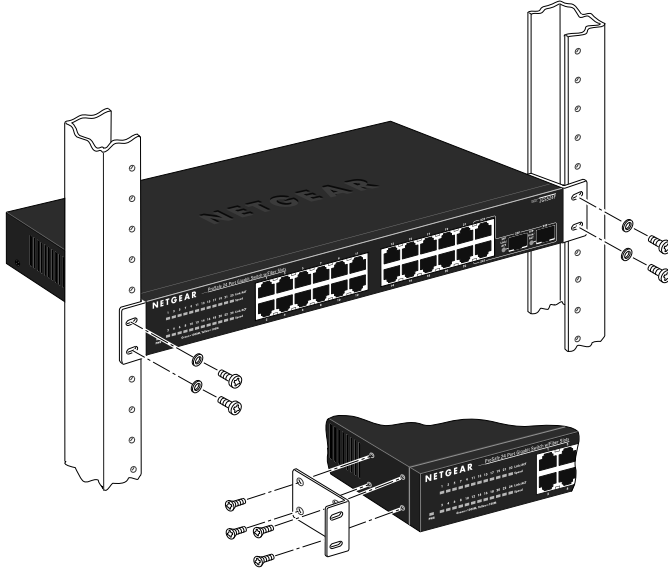
Verify Cable Connections

Before you apply power, perform the following checks:

1. Inspect the equipment thoroughly.
2. Verify that all cables are installed correctly.
3. Check cable routing to ensure that cables are not damaged and will not create a safety hazard.
4. Be sure that all equipment is mounted securely.

19-Inch Rack Mounting

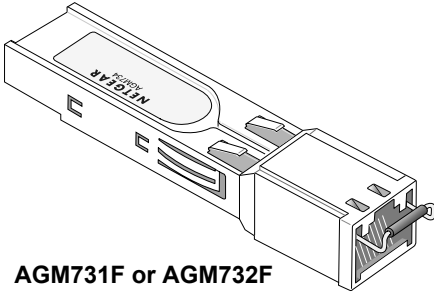
Use the rack-mount kit supplied with your switch.



1. Use the Phillips head screws to fasten the mounting brackets to the sides of the switch. Tighten the screws with a No. 1 Phillips screwdriver.
2. Align the bracket and rack holes. Use two pan-head screws with nylon washers to fasten each bracket to the rack. Tighten the screws with a No. 2 Phillips screwdriver to secure the switch in the rack.

Optical Modules (Sold Separately)

You can use compatible optical modules such as the NETGEAR ProSafe GBIC SFP Modules AGM731F and AGM732F with your switch. These modules provide full-duplex 1000 Mbps Ethernet operation in each direction for NETGEAR switches.



AGM731F or AGM732F

The switch automatically detects the module, so you can simply plug it into an available module slot. Plugging in an SFP module disables the associated RJ-45 port. The modules can be inserted or removed while the switch is operational..



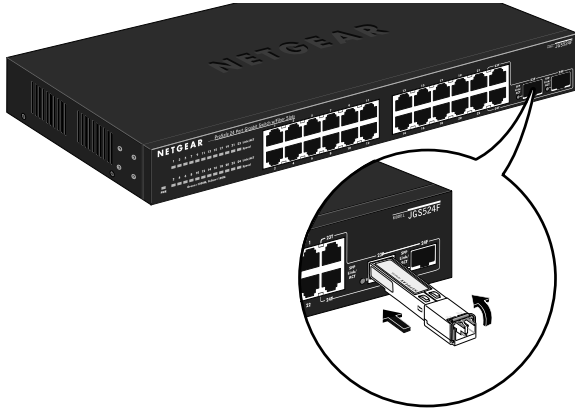
Class 1 laser product.

Class 1 LED product.

Because invisible laser radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to laser radiation, and do not stare into open apertures.

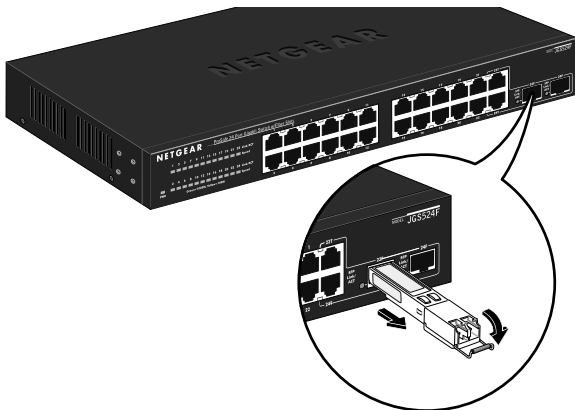
Install an Optical Module

Insert the module firmly into the slot that supports the SFP interface. You should hear a click when the module is firmly seated.



Remove an Optical Module

Release the module latch by pulling down the handle bar across the module, and pull the module out of the module slot.



Troubleshooting

You can use the LEDs to troubleshoot hardware problems.

Power LED Is Off

The switch has no power.

- Make sure that the power cord is securely connected to the switch.
- Make sure that the power cord is connected to a functioning power outlet. If it is connected to a power strip, make sure that the power strip is turned on. If the socket is controlled by a light switch, make sure the switch is in the on position.

Port LEDs

If a port LED is off for a connected device or the LED stays on continuously, there is a hardware connection problem.

- Make sure that the cable connectors are securely plugged in to the switch and the device.
- Make sure that the connected device is turned on.
- If the Ethernet cable is connected to a network interface card or other Ethernet adapter, make sure that the card or adapter is installed correctly and is working.
- Make sure that the cable is less than 328 feet (100 meters) long.

Gigabit switch technical specifications

Standards compatibility	IEEE 802.3z 1000BASE-X Gigabit over fiber, IEEE 802.3i 10BASE-T Ethernet, IEEE 802.3u, 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, IEEE 802.3x flow control, IEEE 802.1p priority, DSCP priority
Network interfaces	RJ-45-connectors for 10BASE-T, 100BASE-TX, or 1000BASE-T Ethernet interfaces
Power	100-240V 1.0A AC, 50/60 Hz internal universal power supply
Power consumption (full load)	18.2W max. (cable length > 10 meters)
Physical dimensions	328 x 169 x 43.2 mm (12.91 x 6.65 x 1.70 in)
Weight	1.688 kg (3.721 lbs)
Operating environment	Temperature: 0° to 50° C (storage: 0° to 70°C) Humidity: 10% to 90% (storage: 5% to 90%)
Electromagnetic and safety compliance	CE and CE LVD, Class A; FCC Class A; VCCI Class A; C-Tick; KCC; CB; CCC; and UL

Gigabit switch performance specifications

Frame filter/forward rates	14,880 frames/sec. max. for 10 M port 148,800 frames/sec. max. for 100 M port 1,488,000 frames/sec. max. for 1000 M port
Frame forward rate	14,880 frames/sec. max. for 10 M port 148,800 frames/sec. max. for 100 M port 1,488,000 frames/sec. max. for 1000 M port
Network latency	Using 64-byte-packets <ul style="list-style-type: none">• 10 Mbps to 10 Mbps: 35 μs max• 100 Mbps to 100 Mbps: 5.4 μs max• 1000 Mbps to 1000 Mbps: 2.8 μs max Using 1518-byte packets <ul style="list-style-type: none">• 10 Mbps to 10 Mbps: 35 μs max• 100 Mbps to 100 Mbps: 5.6 μs max• 1000 Mbps to 1000 Mbps: 2.8 μs max
Filtering address table	Up to 8 K entries
Jumbo frame	Up to 9 KB
MAC address learning	Automatic update
RAM buffer	2 Mb

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Thank you for selecting NETGEAR products.

After installing your device, locate the serial number on the label of your product and use it to register your product at www.NETGEAR.com/register. Registration is required before you can use the telephone support service. Registration through the NETGEAR website is strongly recommended.

Go to <http://support.netgear.com> for product updates and web support.

For complete DoC go to the NETGEAR EU Declarations of Conformity website at http://support.netgear.com/app/answers/detail/a_id/11621/.

For GNU General Public License (GPL) related information, go to http://support.netgear.com/app/answers/detail/a_id/2649.

WARNING: Do not stack equipment, or place equipment in tight spaces, in drawers, or on carpets. Make sure your equipment is surrounded by at least 2 inches of air space.

Compliance



This symbol is placed in accordance with the European Union Directive 2002/96 on the Waste Electrical and Electronic Equipment (the WEEE Directive). If disposed of within the European Union, this product should be treated and recycled in accordance with the laws of your jurisdiction implementing the WEEE Directive.

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