

# NETGEAR® Installation Guide

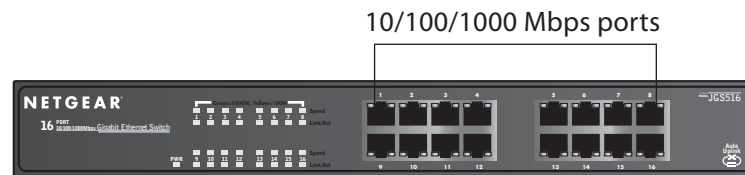
Gigabit Ethernet Switch Series JGS500

## Start Here

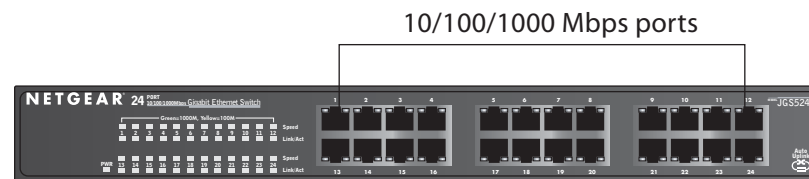
The NETGEAR JGS516 16-port Gigabit Ethernet Switch and JGS524 24-port Gigabit Ethernet Switch provide you with a low-cost, high performance network solution, designed to support power workgroups operating at speeds from 10 megabits per second (Mbps) to 1000 Mbps.

Gigabit Ethernet switches provide 10 times the bandwidth that Fast Ethernet switches do, boosting the speed at which files, voice, video, imaging, or other applications move across your network.

Each of the JGS500 series switches offer both non-blocking performance to maximize your network throughput and plug-and-play simplicity to use it. Every port negotiates to the highest supported speed, enabling you to mix legacy Ethernet gear with newer products on one network. This simplifies your upgrade to a complete gigabit network and keeps the project within your budget.



JGS516 16-port 10/100/1000 Mbps Gigabit Ethernet Switch



JGS524 24-port 10/100/1000 Mbps Gigabit Ethernet Switch

## LEDs

Label	Color	Activity	Description
PWR (Power)	Green	On	Power is supplied to the Switch
		Off	Power is disconnected
Speed	Green	On	The port is operating in 1000 Mbps mode
	Yellow	On	The port is operating in 100 Mbps mode
	Off	Off	The port is operating in 10 Mbps mode
Link/Activity	Green	Solid	Valid link on the port
		Blinking	Packet transmission or receiving on the port

## Network Port

All ports on the switch are 10/100/1000 Mbps capable ports that auto negotiate for speed, and duplex. Additionally, all ports have Auto Uplink™ to make the right connection.

### Auto Uplink™

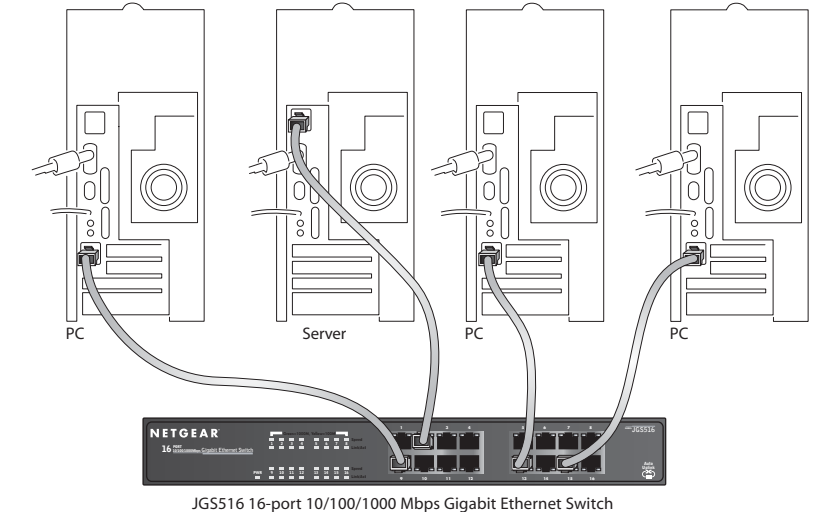
The Auto Uplink technology that Netgear has included in this product will automatically sense whether the straight-through cable plugged into any port should have a “normal” connection, e.g., connecting to a PC; or an “uplink” connection, e.g. connecting to a router, switch, or hub. That port will then configure itself to the correct configuration. This feature also eliminates the need to worry about crossover cables, as Auto Uplink will accommodate either type of cable to make the right connection.

**Note:** Auto Uplink will compensate for setting uplink connections, and crossover or straight-through cables. Using Auto Uplink to create multiple paths between any two network devices will disable your network.

## Applications

### Desktop Switching

Model JGS516/JGS524 Gigabit Ethernet Switch is used as a desktop switch to build a small network that enables users to have 1000 Mbps access to file servers. Due to the the full-duplex nature of Gigabit Ethernet, each connection will actually move 2000 Mbps of data (1000 Mbps in each direction).



JGS516 16-port 10/100/1000 Mbps Gigabit Ethernet Switch

	JGS516	JGS524
Standards Compatibility	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 Compatible with major network software, including Windows, NetWare and Linux	
Network Interface	RJ-45 connector for 10BASE-T, 100BASE-TX, or 1000BASE-T Ethernet interfaces	
Power	25 W max	40 W max
Dimensions	330x207x43mm / 13x8.15x1.70 inch	330x207x43mm / 13x8.15x1.70 inch
Weight	2kg/4.4 lbs	2kg/4.4 lbs
Environmental Specifications Operating Temperature Operating Humidity	0 to 40° C (32 to 104° F) 90% maximum relative humidity, noncondensing	
Electromagnetic Compliance	VCCI Class A/TUV/FCC Class A/CE/C-tick	
Safety Agency Approvals	UL, CUL	
Performance Specifications	Frame filter rate:     1,480,000 for 1000 Mbps 1,48,000 for 100 Mbps 14,800 for 10 Mbps Frame forward rate:  1,480,000 for 1000 Mbps 1,48,000 for 100 Mbps 14,800 for 10 Mbps Network latency (Using 64-byte packets) 1000 Mbps to 1000 Mbps: 20 µs max MAC Address database size: 8,000	
Packet Buffer Memory	2 Mb	



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## Install the Switch

To install your switch on a flat surface, you do not need any special tools. Be sure the switch is positioned with at least 2 inches of space on all sides for ventilation.

To install the switch in a rack, first attach the mounting brackets to the side of the switch. Insert the screws provided in the rack mount kit through each bracket mounting hole in the switch. Tighten the screws with a #1 Phillips screwdriver to secure each bracket. Align the mounting holes in the brackets with the holes in the rack and insert two pan-head screws with nylon washers through each bracket and into the rack. Tighten the screws with a #2 Phillips screwdriver to secure the switch in the rack.

## Connect the Devices

To connect devices to the switch:

1. Connect the devices to the 10/100/1000 Mbps ports on the switch, using Category 5 UTP cable and RJ-45 plug.

**Note:** Ethernet specifications limit the cable between your PC or server and the switch to 328 feet (100 meters) in length.

2. Connect one end of the DC power adapter cable to the power outlet on the rear panel of the switch and other end of the power adapter cable to wall outlet.

## Technical Support

PLEASE REFER TO THE SUPPORT INFORMATION CARD THAT SHIPPED WITH YOUR PRODUCT.

By registering your product at [www.NETGEAR.com/register](http://www.NETGEAR.com/register), we can provide you with faster expert technical support and timely notices of product and software upgrades.

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