# **Install the Switch**

To install **your switch** on a flat suface, 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 screw 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 Mbps ports on the switch, using Category 5 UTP cable and an RJ-45 Plug.
- Note: Ethernet specifications limit the cable length 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 swith and other end of the power adapter cable to wall outlet.

# NETGEAR®-

NETGEAR, Inc. 4500 Great America Parkway Santa Clara, CA 95054 http://www.NETGEAR.com

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#### Trademarks

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#### Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the profuct(s) or circuit layout(s) described herein.

#### Certificate of the Manufacturer/Importer

by certified that the NETGEAR Model JFS516/JFS524 Fast Ethernet Switch has been suppressed in accordance with the confitions set out in the BMPT-AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordace with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions. Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series fot compliance with the regulations.

#### Voluntary Control Council for Interference (VCCI) Statement

この装置は、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

#### EN 55 022 Declaration of Conformance

This is to certify that the NETGEAR Model JFS516/JFS524 Fast Ethernet Switch is shielded against the generation of radio inteerfernec in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN55 022 Class A (CISPR 22).

#### Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interfernece.
- This device must accept any interfernce received, including intrfernce that may cause undesired operation. Note: This equipment 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 communications. However, there is no guarantee that interference will not occur in a particular installation If this equipment does cause harmful interference to radio or 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 into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

## Canadian Department of Communications Radio Inerference Regulations

This digital apparatus (NETGEAR Model JFS516/JFS524 Fast Ethernet Switch) dos not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

#### Céflement sur le brouillage radioélectrique du mimistére des Communications

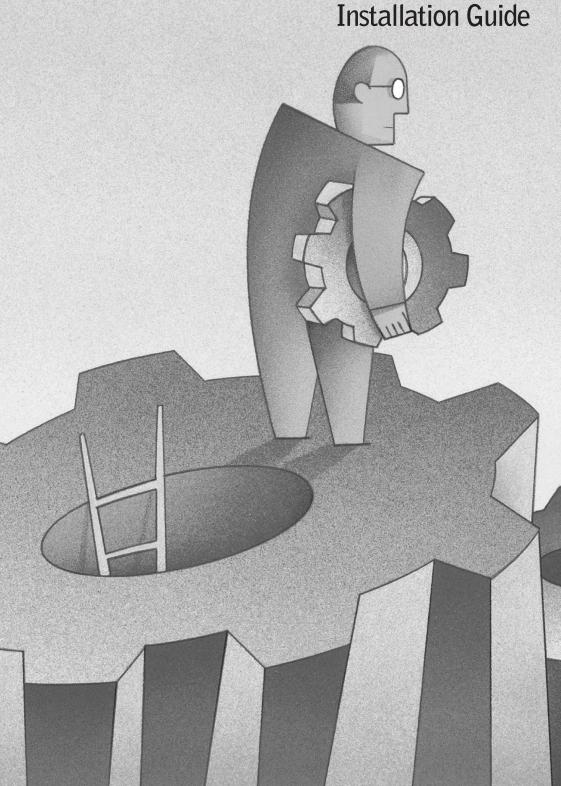
Cet appareil numérique (NETGEAR Model JF\$516/JF\$524 Fast Ethernet Switch) respecte les limites de bruits radioélectriques visant les appareils numériques de classe B rpescrites dans le Réglement sur le brouillage radioélectrique du ministére des Communications du Canada.



# NETGEAR®

MODEL JFS 516
MODEL JFS 524

Fast Ethernet Switch





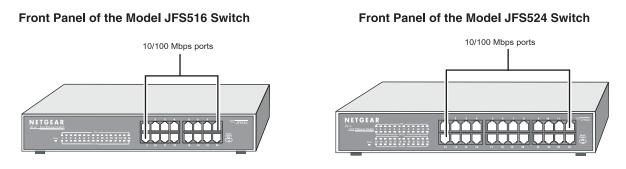
# **Start Here**

The NETGEAR<sup>®</sup> Model JFS516 16-Port Fast Ethernet Switch and Model JFS524 24-Port Fast Ethernet Switch provide you with a low-cost, high-performance network solution and are designed to support power workgroups operating at either 10 megabits per second (Mbps) or 100 Mbps.

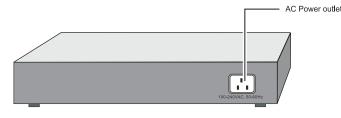
Ethernet switches provide private, dedicated, 10Mbps (or 100 Mbps) capacity to each connected PC/server or hub/workgroup segment, which is significantly higher than in a shared environment. The higher bandwidth enables the use of applications such as multimedia, imaging, video, or high-performance client-server functions among users who are spread out over the network.

With both the Model JFS516 switch and the Model JFS524 switch, improvement is accomplished very easily, with no change to the desktop (the network interface cards or software and the network wiring). As a result, the performance upgrade and the applications it enables are obtained very quickly and at a low cost.

# **Product Illustration**



#### Rear Panel of the Model JFS516/JFS524 Switch



## **LEDs**

The table below describes the activity of the LEDs.

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



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

Auto Uplink<sup>™</sup>

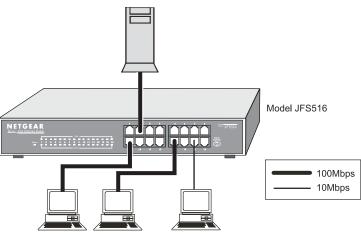
The Auto Uplink technology that NETGEAR has included in this product will automatically sense whether the straight-through cable plugged into any port should have a 'normal' connection, e.g. connecting to a PC; or an 'uplink' connection, e.g. connecting to a router, switch, or hub. That port will then 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 JFS516/JFS524 switch is used as a desktop switch to build a small network that enables users to have 100 Mbps access to a file server. If a full-duplex adapter card is installed in the server or PC, a 200Mbps connection is possible on the port where the server or PC is connected.



	JFS516NA	JFS524NA			
Standards Compatibility	IEEE 802.3i 10BASE-T Ethernet				
	IEEE 802.3u 100BASE-TX Fast Ethernet				
	IEEE 802.3x Flow Control				
	Compatible with major network software, including Windows, NetWare, and Linux				
Date Rate	100 Mbps with 4B/5B encoding and MLT-3 physical interface for 100BASE-TX				
	10 or 100 Mbps half-duplex/ 20 or 200 Mbps full-duplex				
Network Interface	RJ-45 connector for 10BASE-T or 100BASE-TX Ethernet interface				
Power	10.0w max	19.5w max			
	100-240VAC/50-60 Hz universal input	100 -240VAC/50-60 Hz universal input			
Dimensions	330x207x43mm / 13x8.15x1.70 inch	330x207x43mm / 13x8.15x1.70 inch			
Weight	2kg/4.4 lbs	2kg/4.4 lbs			
Environmental Specifications					
Operating temperature:	0 to 40° C (32 to 104° F)	0 to 40° C (32 to 104° F)			
Operating humidity:	90% maximum relative humidity, noncondensing	90% maximum relative humidity, noncondensing			
Electromagnetic Compliance	VCCI Class B / FCC Class B / CE / C-tick / MIC	VCCI Class B / FCC Class B / CE / C-tick / MIC			
Safety Agency Approvals	UL, CUL, TUV	UL, CUL, TUV			
Performance Specifications	Frame filter rate:148,000 for 100 Mbps	Frame filter rate:148,000 for 100 Mbps			
	:14,800 for 10 Mbps	:14,800 for 10 Mbps			
	Frame forward rate:148,000 for 100 Mbps	Frame forward rate:148,000 for 100 Mbps			
	:14,800 for 10 Mbps	:14,800 for 10 Mbps			
	Network latency	Network latency			
	(using 64-byte packets):100 Mbps to 100 Mbps: 80 µs max				
	Address database size: 8000 MAC addresses	Address database size: 4000 MAC addresses			
Queue buffer	512KB	768KB			

