

iPAQ Networking 5 Port 10/100 Fast Ethernet Auto Sensing Switch



User and Setup Guide

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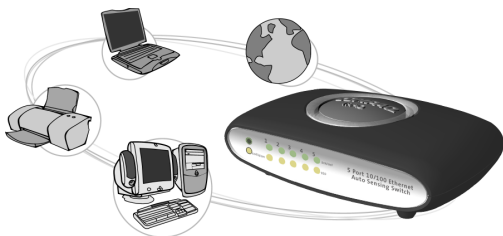
iPAQ Networking 5 Port 10/100 Fast Ethernet Auto Sensing Switch
Installation and Setup Guide
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Introduction

Welcome to iPAQ Networking! Thank you for your purchase of the iPAQ Networking 5 Port 10/100 Fast Ethernet Auto Sensing Switch. The Compaq family of iPAQ Networking products will help simplify your life and connect your world. With iPAQ Networking, you can connect all of your PCs for simultaneous access to files, printers, peripheral devices, and the Internet.



This guide is designed to help you:

- > Get acquainted with the features of your Ethernet Switch
- > Install the product correctly
- > Locate technical specifications, customer service information, and troubleshooting

Features and Benefits

The iPAQ Networking 5 Port 10/100 Fast Ethernet Auto Sensing Switch connects all your PCs to each other for fast, easy networking

<i>Features</i>	<i>Benefits</i>
Connect All Your Computers	Your switch is the center of the network, and you can connect up to five computers per switch on a single network. Every port on the Ethernet Switch can be used as an uplink port.
Easy-to-Read LEDs	Easy-to-read LED lights let you easily diagnose problems on the network and verify that all computers are connected properly.
High Performance Networking	<ul style="list-style-type: none">• Your switch can achieve speeds up to 200 Mbps in full duplex mode and seamlessly integrates with any combination of 10BaseT, 100BaseTX, and 10/100 network adapters.• Advanced Store and Forward technology manages and optimizes data transfer by efficiently channeling data to and from its intended destination.• Embedded on-chip memory creates a flow control buffer to prevent data loss, even during heavy network traffic.

What's in the Box?

- > **One iPAQ Networking 10/100 Fast Ethernet Auto Sensing Switch.** This is the device that links your PC to the network.
- > **One AC Power Adapter.** This is the device that provides power to the switch.
- > **User and Setup Guide.** Step-by-step instructions help you quickly install the product.
- > **Warranty card.** This card explains the iPAQ Networking standard warranty.

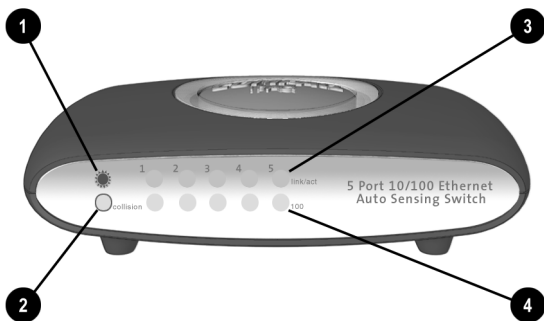
What Else Do I Need?

In addition to the box contents, you will also need the following minimal equipment to set up a complete network:

- > **Network interface cards or adapters.** One for each computer on the network.
- > **Ethernet cabling.** To connect each computer to the switch/hub or standard wiring system, you will need a twisted-pair Ethernet cable with an RJ-45 jack (purchased separately). This type of cable is commonly available at computer stores. The maximum desired cable length is 100 meters (328 feet). Use Category 3, 4, or 5 cable for connection to 10 Mbps Ethernet, or Category 5 cable for connections to 100 Mbps Fast Ethernet.

What's in Front?

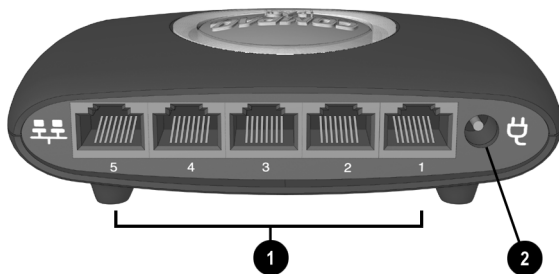
The LED indicators help you monitor system status.



LED (Color)	Description
1 PWR (Green)	On: System power on Off: System power off
2 COL (Amber)	Off: No collision Flash: Collision
3 LINK/ACT (Green)	On: Link up Off: Link down Flash: Data transmitting/receiving
4 100 (Amber)	On: 100 Mbps Unlighted: 10 Mbps

What's in Back?

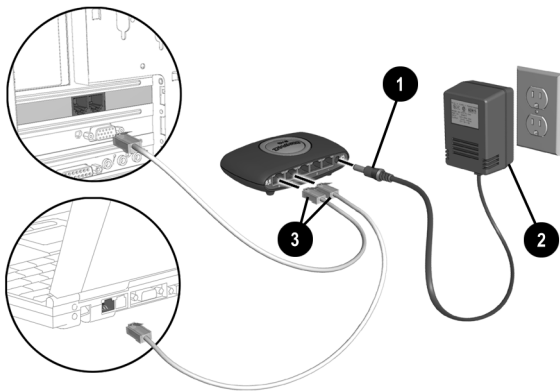
The back panel lets you connect the power and networking cables.



- 1 Five RJ-45 ports are available, each labeled with a port number. You can connect your Ethernet Switch to other hubs or switches using any port as an uplink port.
- 2 The DC-jack power socket accepts exactly DC +5V power from the AC adapter (included) with input of 100VAC and 50-60Hz.

Connecting the Product

Now that you understand your Ethernet Switch, follow the steps below to get your network connected in minutes.



1. Place your Ethernet Switch on a flat surface.
2. Connect the output cord of the AC Adapter to the DC-jack on the rear panel of the switch. ❶

3. Connect the AC Adapter to a power outlet. ②
4. Connect your other hubs, switches, or PCs one-by-one to the ports of the Ethernet Switch using Category 3 or 5 cables (not included). ③

Note: The cable length between your Ethernet Switch and hub/PC should not exceed 100 meters. If you will operate at 10 Mbps speed, use a Category 3 or 5 cable. If you will run your network at 100 Mbps, use a Category 5 cable or better.

Note: Any type of hub or PC can connect to your Ethernet Switch by using straight-through wires (not included). You can connect your Ethernet Switch to other hubs or switches using any port as an uplink port, increasing the number of PCs you can add to your network.

Technical Specifications

Model	HNE-400
Port	(5) RJ-45, auto senses 10/100 speeds and full/half duplex
Standards	IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX, IEEE 802.3x
Certifications	FCC Part 15B, CE
Cable	10BaseT Category 3 or better 100BaseTX Category 5 or better
Access Protocol	CSMA/CD
Data Rate	Full Duplex 20 Mbps or 200 Mbps Half Duplex 10 Mbps or 100 Mbps
LEDs	Power (green) steady indicates power connection Collision (amber) flashing indicates network collision Link/Act (green) steady indicates network connection; flashing indicates data transfer 10/100 (yellow) steady indicates connection in 100BaseTX network, no light indicates connection in 10BaseT network
Dimensions	4.9 x 3.2 x 1.5 in (125 x 82 x 40 mm)
Unit Weight	4.7 oz (135 g)
Temperature	Operating: - 0°C ~ 45°C Storage: - 20°C ~ 75°C

Humidity: Operating: 10%-90% RH
 Storage: 5% - 90% RH

External +5VDC/1000mA
Power
Adapter

RJ-45 Pin Assignments:

Pin	Port 1~5
1	Input Receive Data +
2	Input Receive Data -
3	Output Transmit Data+
6	Output Transmit Data-
4,5,7,8	Not used

For More Information

This booklet contains all the information you need to get your Ethernet Switch connected. To learn more about Compaq networking products, components, or technology, see the website **compaq.com/athome**.

Registration

You can register your new product online at the website **compaq.com/register**.

Technical Support

If you have a networking problem not addressed in the troubleshooting section, Compaq offers technical support online at **compaq.com/consumersupport**. You can also call 1-888-302-7358.

Troubleshooting

Problem: Link LED does not light.

Solution: The most common cause is a defective network adapter or bad cable connection. Check your cable connection and the workstation network adapter first. Make sure that you have the correct cables. A crossover cable is not required because your Ethernet Switch automatically determines whether or not it needs to cross over for each port.

Problem: Low performance.

Solution: Check the network interface card and the Ethernet Switch to see whether each is set to full or half duplex. They should have the same setting: Mismatched duplex settings can result in lower performance.

Glossary

This glossary provides a brief list of commonly used networking terms used in this manual.

10BaseT/100BaseT. Standard local area networking protocols, which run at speeds of 10 Mbps and 100 Mbps, respectively. Most older networks use 10BaseT, while newer networks use 100BaseT.

Access rate. The speed at which users connect to the network. This is generally measured in bits per second (bps), kilobits per second (Kbps), or megabits per second (Mbps). Also called “access speed.”

Adapter card. A card (usually PCI or ISA) installed in a computer that provides network communication capabilities to and from that computer. Also called a “network interface card.”

Ethernet. A LAN used to connect devices within a single building or campus at speeds up to 10 Mbps.

Fast Ethernet. A LAN used to connect devices within a single building or campus at speeds up to 100 Mbps.

LAN (local area network). A data communications network covering a small area, usually within the confines of a building or floors within a building. Common LAN protocols are Ethernet and Token Ring.

LED (light-emitting diode). An electronic device that lights up when electricity is passed through it.

Mbps (megabits per second). A measure of bandwidth capacity or transmission speed. It represents a million bits per second.

Network card or NIC (network interface controller). The circuit board or other form of computer hardware that serves as the interface between a computer (or other form of data terminal equipment) and the communications network.

UTP or STP (unshielded or shielded twisted pair). This is a type of cable that consists of two shielded or unshielded wires twisted around each other. It is used extensively for LAN and telephone connections.

Regulatory Compliance

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 or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Compaq Computer Corporation may void the user's authority to operate the equipment.

Declaration of Conformity for products marked with the FCC logo - United States only

This device complies with Part 15 of the FCC Rules. Operation 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.

For questions regarding this product, contact:

Compaq Computer Corporation
P. O. Box 692000, Mail Stop 530113
Houston, Texas 77269-2000

Or, call 1-800-652-6672 (1-800-OK COMPAQ)

For questions regarding this FCC declaration, contact:

Compaq Computer Corporation
P. O. Box 692000, Mail Stop 510101
Houston, Texas 77269-2000

Or, call (281) 514-3333

To identify this product, refer to the part, series, or model number found on the product.

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