



First Edition
December 1997
696212-001

Technical Support:
http://support.intel.com
Hillsboro OR 97124-6497
5200 NE Elam Young Pkwy.
Intel Corporation

Intel Corporation assumes no responsibility for errors or omissions in this installation guide, nor does Intel make any commitment to update the information contained herein.

Copyright © 1997, Intel Corporation. All rights reserved.
Intel Corporation,
5200 NE Elam Young Parkway,
Hillsboro OR 97124-6497

Limited Lifetime Warranty

IEEE 802.3
IEEE 802.3u
CE Class A
Class A Part 15 FCC Rules

- YOUR PACKAGE CONTAINS:
- 8-Port Fast Hub Plus
 - Power Adapter
 - Quick Installation Poster
 - Networking Basics
 - CableKeeper Ring

Quick Installation Poster

Intel InBusiness™ 8-Port Fast Hub Plus

Start By Learning About Fast Ethernet Hub Plus

The Intel InBusiness™ 8-Port Fast Hub Plus is the perfect choice for networks working with intensive applications such as CAD/CAM, database management, imaging, and transferring large files. Fast Ethernet's 100Mbps data transfer speed means reliable networking at up to 10 times the speed of standard Ethernet.

A hub is the central device for any network. It connects computers and other devices into small networks or workgroups, making it possible to share files, programs, printers and other devices such as fax lines, modems, and even Internet connections.

In addition to the eight 100BASE-TX ports, your Fast Hub contains two additional ports. The first is labeled "Out to Hub/X". Use this port for easy connection (cascading) to an additional hub, switch, or bridge with a standard 100BASE-TX Ethernet cable. The auto-sensing 10/100Mbps port enables you to connect your Fast Ethernet workgroup to any 10 or 100Mbps hub, bridge, switch, or networked device. See "Choose the Right Cable" for cable requirements. *This hub is plug and play. No software is required.*

Before You Begin...

1. Each computer to be connected to the hub must have a 100BASE-TX Fast Ethernet network interface card. The card must contain an RJ-45 connection that will be used to connect the card to your hub.
2. Did the computer manufacturer pre-install the network interface card software? If so, you can begin making connections now.
3. If not, complete the installation of the card and software according to the directions of the supplier.



A Special Offer for Registering Your Hub

Registering your Intel InBusiness hub authorizes you to receive free installation assistance for 90 days. Locate the Warranty Registration card in the center of the *Networking Basics* book. Fill in the requested information and mail the postage-free card today. More information on technical service and the limited lifetime warranty is included in *Networking Basics*.

Choose the Right Cable

Port Type	Cable Type	Nodes (computers, servers, etc.)	Networking Equipment (switches, hubs, bridges, etc.)
Numbered Ports	Category 5 100BASE-TX	Network Standard	N/A
Out to Hub/X Port	Category 5 100BASE-TX	N/A	Network Standard
10Mbps Bridge connection	Category 3 or 5 10BASE-TX	Network Standard	Crossover*
100Mbps Bridge connection	Category 5 100BASE-TX	Network Standard	Crossover*

*A Crossover cable is a pre-configured twisted-pair cable that prevents conflicts in electrical signals between networking devices. Your networking retailer can provide these cables.

If you are unsure or need more information about what type of cable to use, see "Quality Cable Standards" in the *Networking Basics* book included with your hub. Answers to most questions about cabling, hubs and other networking products are explained in the book.

Have a Question?

This list will help resolve most common problems encountered following installation.

- ✓ Check all power connections and power switches. Make sure all connections are secure and devices are on and functioning. All devices must be powered on for link status lights to be lit on the hub.
- ✓ RJ-45 connections should be securely connected.
- ✓ Make certain you use the correct cable quality: this hub requires Category 5 100BASE-TX cable for all Fast Ethernet connections (100Mbps). Category 3 cable can be used for 10Mbps connections only.
- ✓ If all above conditions are met and you still do not have a link status light, replace the cable to the unlit port to determine if the cable is the source of the problem.
- ✓ Cable lengths and quality must be within standards. Keeping cable lengths as short as possible improves network performance.
- ✓ When cascading multiple hubs together, follow examples exactly.

Review *Networking Basics* for tips on keeping your network operating at peak performance.

Need More Help?

A trained technical specialist will take your call Monday through Friday between 7 a.m. and 8 p.m., and Saturday between 7 a.m. and 3 p.m., Pacific time. Locate the serial number on your product for faster service. Call 1-916-377-7000.

Now, open your poster for easy-to-follow installation instructions

3 Easy Steps

1 Connect the power adapter to the hub and to the power source.

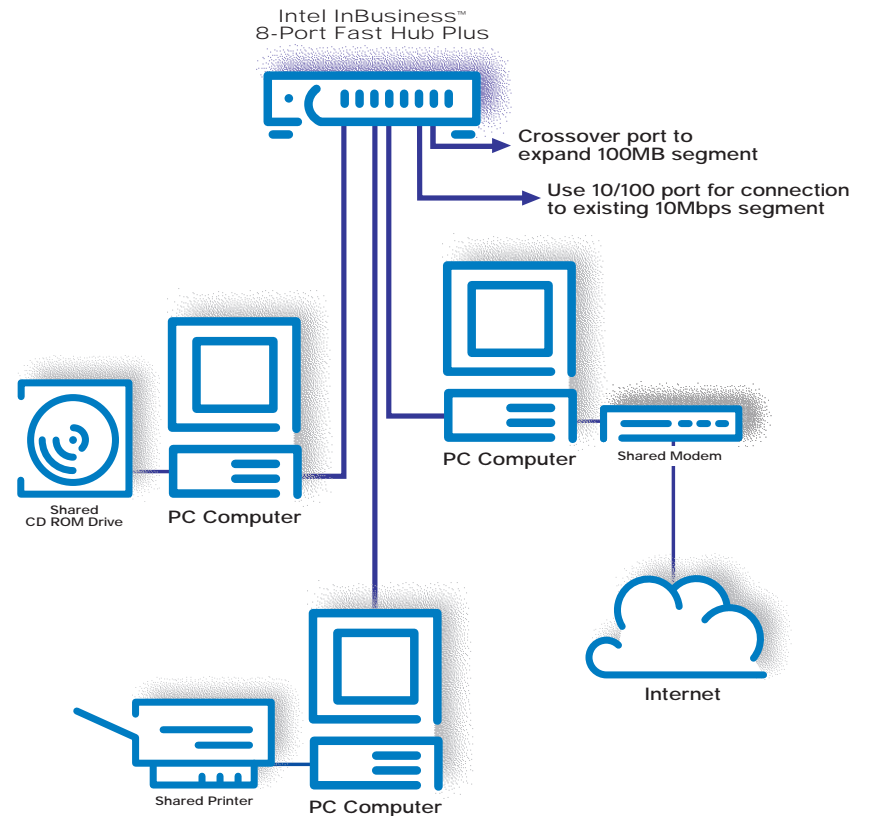
2 Make connections between devices and the hub using the correct cable. Start with port 1.

- Use the correct cable type and quality for each connection. Review "Choose the Right Cable" for reference.
- Ready to expand, add more nodes, or connect to another workgroup? Review "Cascading" below for easy instructions on using the "Out to Hub/X" port.
- Linking to another 10 or 100Mbps Ethernet device? Review "Making Plus Model Connections" below for information.

3 Turn on the hub and all connected devices. The hub's front panel light for each connected device should glow.

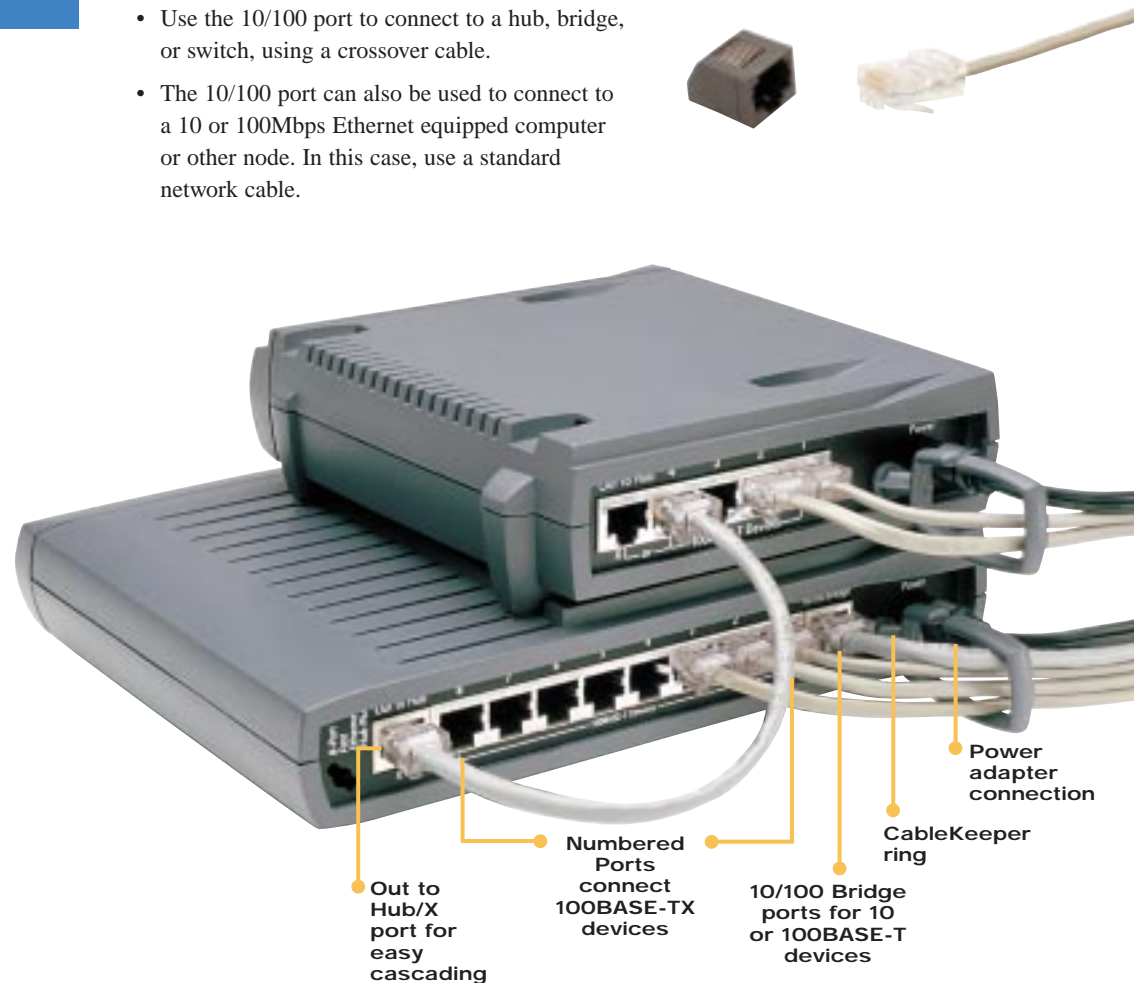
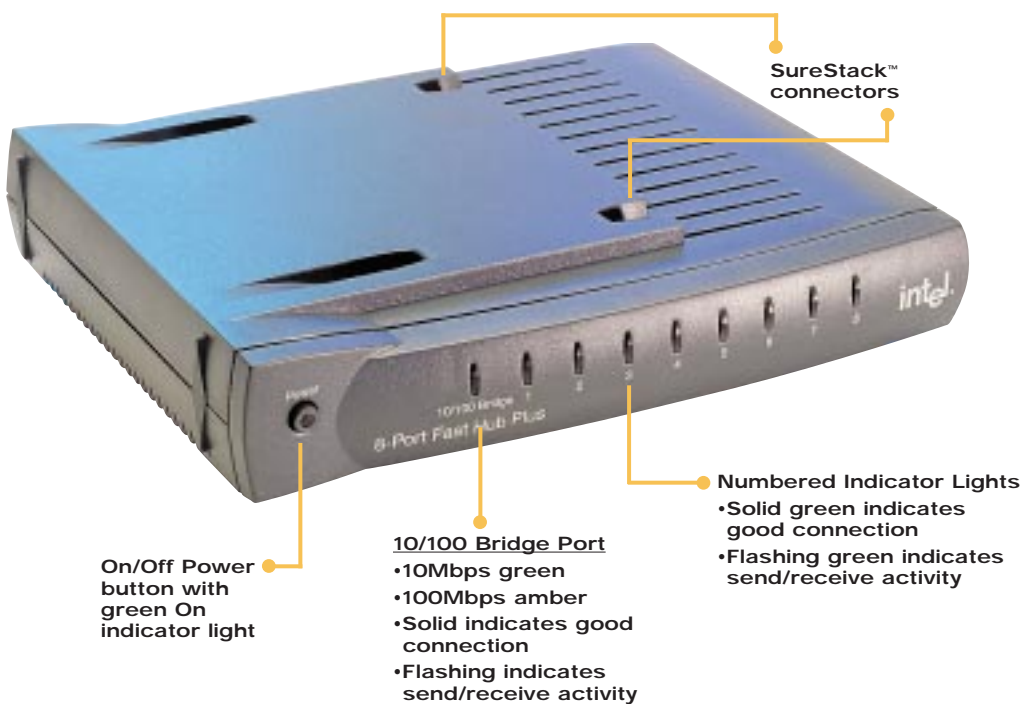
Basic installation is now complete!

Networking has never been easier!



Making Plus Model Connections

- Use the 10/100 port to connect to a hub, bridge, or switch, using a crossover cable.
- The 10/100 port can also be used to connect to a 10 or 100Mbps Ethernet equipped computer or other node. In this case, use a standard network cable.



Cascading-Connecting to Another Hub or Switch

Cascading is simple with Intel products using the "Out to Hub/X" port.

- Hub-to-hub or hub-to-switch connections are made by connecting the "Out to Hub/X" port of your hub to any standard port of the other device using standard 100BASE-TX cable. Follow the pictured example closely.

Note: When using the "Out to Hub/X" port, the adjoining port "8" cannot be used for normal node connections.

Important! When expanding beyond two linked hubs, you must connect to switch or bridge.

Place Hub in a Central Location

- ✓ Snap the CableKeeper ring into its slot and rotate to a vertical position. Draw the cables through the ring.
- ✓ Stack your Intel InBusiness products vertically or horizontally using the unique SureStack™ design. Press together firmly to ensure a good connection. When required, mount on a wall using the enclosed template as a guide. (Locate the template at the center of the *Networking Basics* book.)



Intel InBusiness™ Products

Intel InBusiness networking products provide everything that small offices need to share resources and increase productivity. Designed specifically for small networks, these products include hubs, switches, bridges, and the Internet Station, perfect for sharing Internet access over a small network.