



NETELLIGENT 1005
10BASE-T HUB

USER GUIDE

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Compaq Netelligent 1005 10Base-T Hub User Guide

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Netelligent 1005 10Base-T Hub

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Netelligent 1005 10Base-T Hub

This guide contains information necessary to install and operate the Netelligent 1005 10Base-T Hub. The guide is designed for the experienced network installer. Please read through the following information to familiarize yourself with the hub's features and installation requirements.

Package Contents

Your package includes the following:

- Netelligent 1005 10Base-T Hub
- Hub stand
- Compaq Netelligent User Guide CD
- *Compaq Netelligent 10Base-T Hub Quick Install Guide*
- Power Adapter
- Warranty Registration Card

NOTE: The Netelligent 1005 10Base-T Hub comes with a 3-year warranty. To qualify the hub for a lifetime warranty, please fill in the enclosed Warranty Registration Card and return it to the Compaq location nearest you as indicated on the card.

Hardware Description

This section describes the hub's main components. The following illustration shows the hub's front panel, back panel, and hub stand.

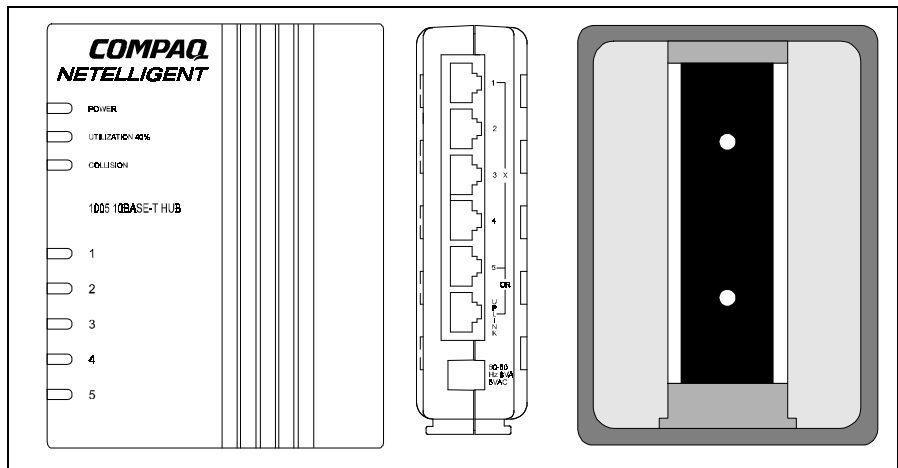


Figure 1 . Front and Side Panels, and Hub Stand

LED Indicators

The 1005 hub provides LED indicators that let you instantly monitor the status of each port plus the overall status of the hub.

LED	Color	Indication
Power	Green	Power indicator.
Utilization 40%	Yellow	Traffic is 40% or more of Ethernet bandwidth (10Mbps).
Collision	Yellow	Collision indicator; flashes to show network collision.
	Unlit	No collisions.
Link-RX/Partition	Green	RJ-45 port linked; flashes to indicate traffic is being received.
	Yellow	RJ-45 port partitioned.

RJ-45 Ports

There are five RJ-45 MDI-X station ports and one RJ-45 MDI uplink port, each providing a 10 Mb/s Ethernet channel. To connect to a workstation or server, attach straight-through unshielded or shielded twisted-pair cabling to any station port.

To connect to another Netelligent 1005 or compatible hub, attach straight-through twisted-pair cabling to the UPLINK port. You can also connect to another hub by running straight-through twisted-pair cabling from a station port on this hub to a crossover port on the other hub. However, if you must connect to another hub via station ports at both ends of the cable, use crossover cabling.

NOTE: Using the UPLINK port disables Port 5.

Power Connector

The power adapter plugs into this connector. The power adapter plugs into the main AC power source at 100V, 120V, 220-230V, or 240V at 50 to 60Hz.

Installing the Hub

This section describes different ways of using the supplied hub stand and explains how to attach the hub to devices in your network.

Using the Hub Stand

You can attach and use the hub stand in the following ways:

- To stand the hub upright on a desk or shelf, slide the stand onto the base of the hub.
- To lay the hub flat, slide the stand onto the back of the hub.
- To mount the hub directly on a wall or office partition, first attach the stand to the mounting location with two small screws. Then slide the back of the hub onto the stand.

Making Hub Connections

Follow these steps to connect the hub to devices in your network.

1. Select an appropriate location.
2. Connect a workstation to any available RJ-45 station port (1-5) on the hub using unshielded twisted-pair (UTP) cable. All connected devices must be within 100 meters of the hub. You can connect up to five workstations if you use the hub in a stand-alone configuration.

Uplinking Hubs

To uplink hubs, connect one hub's UPLINK port to a normal workstation port of another 1005 or compatible hub.

To limit the number of hubs in a path (when cascading more than two hubs), link several hubs to one central hub. Be sure there is only one path between any two stations on the network.

3. Plug the power adapter into the hub, and connect it to a grounded electrical outlet.
-

Troubleshooting

Symptom: The partition indicator lights steadily or flashes.

Causes: The hub has a partitioned port, or a workstation's network adapter or network software is defective. Flashing green and yellow indicates activity while the port is partitioned.

Solution: If a port has been partitioned, the hub automatically enables the port when the fault is corrected, or the hub detects activity without incurring a collision.

Symptom: The port link indicator remains off.

Causes: A workstation's network adapter, cable, or hub port is defective.

Solution: The most common cause is a defective network adapter or cable connection. Check the corresponding cable connections, or the workstation's network adapter for possible defects. Verify that the correct cable type (straight or crossover) is being used. (Note that crossover cable is only required if you cascade hubs via the RJ-45 station ports; that is, the UPLINK port is not used.) Replace the defective cable or adapter.

Other Important Tips

- Ensure that cable distances, repeater limits, and other physical aspects of the installation do not exceed IEEE 802.3 recommendations.
- Verify that the cabling type used is correct. Then tighten all cable connections.
- Be sure the network adapter cards installed in the workstations and cable connections are in good working condition.
- Be sure the network is properly configured and that all hubs are connected to the network. Sometimes, hubs may be unintentionally disconnected from the network.
- You cannot use Port 5 and the UPLINK port at the same time. Be sure that when you use the UPLINK port, Port 5 is not connected to a node.

Hub's RJ-45 Pin Assignments

The following table and illustrations show the pin wiring for both straight and crossover twisted-pair cable. (Note that crossover cable is required only if you cascade hubs using RJ-45 Ports 1-5; that is, the UPLINK port is not used.)

Pin	MDI-X Assignment (Port 1~5)	MDI-Assignment (UPLINK Port)
1	Input Receive Data +	Output transmit Data +
2	Input Receive Data -	Output transmit Data -
3	Output transmit Data +	Input Receive Data +
6	Output transmit Data -	Input Receive Data -
4,5,7,8	Not Used	Not Used

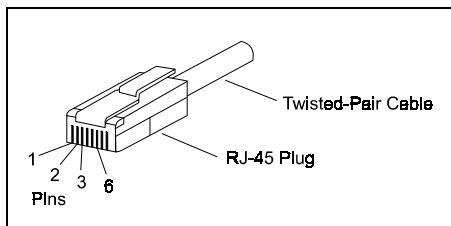
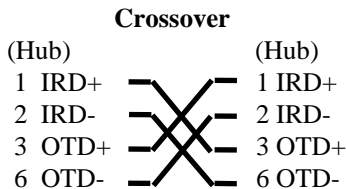
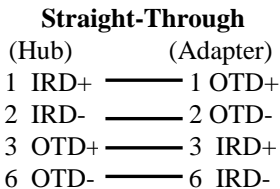


Figure 2 . RJ-45 Pin Configuration



Specifications

Transmission Technique:	Baseband
Topology:	Tree or Star
Access Method:	CSMA/CD, 10 Mb/s
Standard Conformance:	IEEE 802.3 10Base-T
Media Supported:	Category 3, 4, 5 twisted-pair cable
Interfaces:	Five RJ-45 station ports, One RJ-45 uplink port
Hub-to-Workstation Distance:	100m max cable length
Dimensions:	4.72 x 3.78 x 1.10 Inches (12.1 x 9.7 x 2.82 cm)
Power Requirements:	8VAC, 50/60 Hz, 5 watts Power Adapter: External power adapter - 8 VAC, 8VA for 100V/120V/220-230V/240V AC input
Temperature:	0°C to 50°C (Standard Operating)
Humidity:	5% to 95% (Noncondensing)
Certification:	CE Mark
Emissions:	FCC Class B, VCCI Class 2, CISPR Class B
Immunity:	IEC 801-2,3,4, EN60555-2 Class D, EN60555-3
Safety:	UL, CSA, TÜV/GS

EMI Warning

FCC Class B Certification

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

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.



WARNING: 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 the one which the receiver is connected to
 - Consult the dealer or an experienced radio/TV technician for help
-

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

You may use unshielded twisted-pair (UTP) for RJ-45 connections.



WARNING: Wear an antistatic wrist strap or take other suitable measures to prevent electrostatic discharge whenever handling this equipment.

The Interference Handbook

You may find the *Interference Handbook* a helpful resource. This booklet, prepared by the Federal Communication Commission, is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-00345-4. You can also view this document on the World Wide Web at the following address:

www.fcc.gov/Bureaus/Compliance/WWW/tvibook.html

NOTE: In order to maintain compliance with the limits of a Class B digital device, Compaq requires that you use a quality interface cable when connecting to this device. Changes or modifications not expressly approved by Compaq could void the user's authority to operate this equipment. Suggested cable type is: Category 3, 4, or 5 twisted-pair (10Base-T).

VCCI Class 2 Compliance

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取扱説明書に従って正しい取り扱いをして下さい。

This product also complies with CISPR22 Class B (EN55022 Class B).

EN55022 Declaration of Conformance

This is to certify that the Compaq 1005 10Base-T Hub is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN55022:1987 Class B (CISPR 22:1985/BS 6527:1988).

CE Mark Declaration of Conformance

This is to certify that this product complies with ISO/IEC Guide 22 and EN45014. It conforms to the following specifications:

EMC: EN55022(1988)/CISPR-22(1985) class B

EN60555-2(1995) class D

EN60555-3 prEN55024-2(1990)/IE801-2(1991) 4kV CD, 8kV AD pr

EN55024-3(1991)/IE801-3(1984) 3V V/m pr

EN55024-4(1992)/IE801-4(1988) 1kV - (power line) 0.5kV - (signal line)

This product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC.



WARNING: The connectors are not for telephone system use.
Les raccordeurs ne sont pas utilisé pour le système téléphonique!

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