10Mbps ETHERNET HUB
USER'S MANUAL

10Mbps Ethernet Hub

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Trademarks:

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Federal Communications Commission Statement

This equipment generates, uses and radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. This equipment has been tested and found to comply with the limits for a Class A computing device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility, EN55022 class A for ITE and EN50082-1, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Table of Contents

CHAPTER 1

INTRODUCTION

Congratulations on your purchase of a Ethernet hub. Your hub was designed and manufactured to give you years of trouble-free and reliable service.

The hub is designed for plug-and-play installation and easy management. The hub provides an Uplink connection for your network expansion via a RJ-45 connector, making it easy to link two hubs together.

The hub features Link/Activity LEDs to show the connection and activity status of each port. Power and Collision indicators show the status of the hub as a whole.

Product Features

- Compliance to IEEE 802.3 10Base-T/2 standard.
- Automatic partitioning function of each port to isolate network failure.
- LED indicators for each twisted pair port for network link and activity reporting diagnosis.
- Compact design in mini size.
- The hub's housing made by Aluminum material provides the excellent performance for heat dispatching and EMI.

1

Product Specifications

Media	EHU-0500T	EHU-0501TB	EHU-0900TB
10Base-T/STP	5	4	8
10Base-2/BNC		1	1
Uplink port	1	1	1
LED indicators			
Power/PWR	✳	✳	✳
Collision/COL	✳	✳	✳
BNC Partition		✳	✳
LINK	✳	✳	✳
Activity/ACT	✳	✳	✳
Utilization UTIL%		✳	
Power Supply			
Keyboard pwr cable	5V	5V	
Power Adapter	7.5V/1A	7.5V/1A	5V/2A
Safety Regulation			
CE	✪	✪	✪
FCC class A	✪	✪	✪
Dimension (mm)	141x102x30	128x102x30	190x102x30
Housing	Aluminum	Aluminum	Aluminum
Packing list			
Hub	EHU-0500T	EHU-0500TB	EHU-0900TB
Power Supply	✓	✓	✓
Power Cord			
Manual	✓	✓	✓
50-ohm Terminator		✓	✓
T-connector		✓	✓

2

Product Specifications

| Media	17 port		
10Base-T/STP	16		
10Base-2/BNC	1		
Uplink port	1		
LED indicators			
Power/PWR	✳		
Collision/COL	✳		
BNC Partition	✳		
LINK	✳		
Activity/ACT	✳		
Power Supply			
Power Adapter	5V/2A		
Safety Regulation			
CE	✪		
FCC class A	✪		
Dimension (mm)	310x102x30		
Housing	Aluminum		
Packing list			
Hub	17 port		
Power Supply	✓		
Power Cord			
Manual	✓		
50-ohm Terminator	✓		
T-connector	✓		

The Rear and Front Panel of PALM Hub
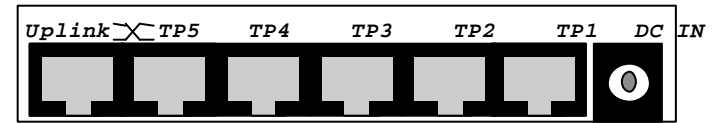
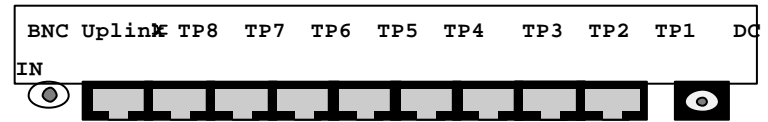**(The Rear Panel of EHU-0500T)**
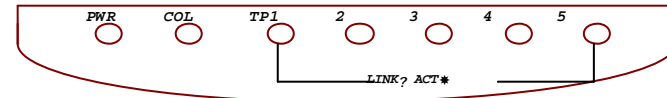
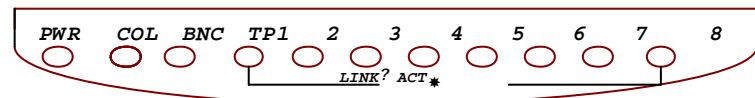**(The Front Panel of EHU-0500T)**

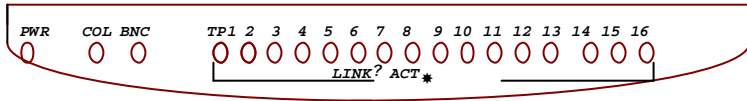**(The Rear Panel of EHU-0501TB)**
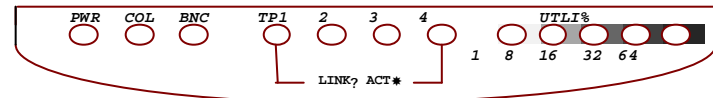
(The Front Panel of EHU-0501TB)

(The Rear Panel of EHU-0900TB)

(The Front Panel of EHU-0900TB)

The Rear and Front Panel of PALM Hub

(The Rear Panel of EHU-1700TB)

```
PWR    COL BNC      TP1 2  3  4  5  6  7  8  9 10 11 12 13 14 15 16
 O      O   O        O O O O O O O O O O O O O O  O O O
                          LINK? ACT
```

(The Front Panel of EHU-1700TB)

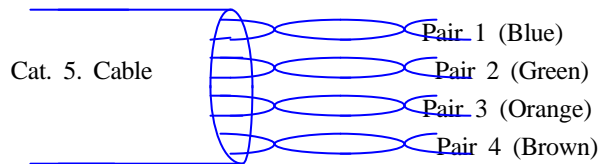|	
Power/PWR:	Lit whenever the hub is connected to a power source and is turned on.
Collision/COL:	Lit whenever a packet collision occurs on the Ethernet network. A collision means that two or more stations have tried to transmit the same time. Frequent collisions may mean that network segment is congested.
Link/TP:	Lit when there is a good connection between the workstation and the port that is connected to.
Activity/ACT:	Blinked whenever a packet is transmitted or received.
BNC:	Lit when the BNC port didn't connect the 50-ohm Terminator or Coaxial cable. Blinks when the data is transmitted.

Rear Panel indicators:

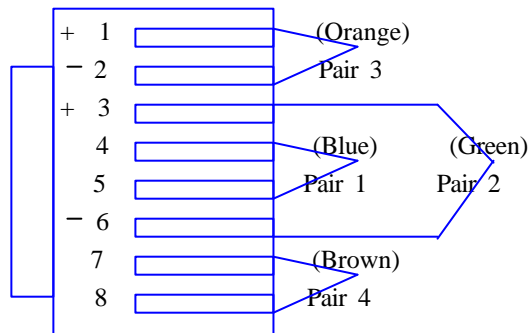|	
Uplink ⟩⟨TP:	This is a module, you may use either the Uplink for cascade another hub or TP port for normal workstation connection.

LED indicators:

CHAPTER 2

INSTALLATION

TWISTED PAIR CABLE

You may use Cat. 3 or better cables for your 10Base-T Ethernet environment. It is important that the pairings of wires in the modular plug match the pairs in the modular jack as well as the horizontal and backbone wiring. If they don't, the data being transmitted may be paired with incompatible signals.

Cat. 5. Cable

- Pair 1 (Blue)
- Pair 2 (Green)
- Pair 3 (Orange)
- Pair 4 (Brown)

The pin assignment on modular jack:

```
+  1        (Orange)
-  2        Pair 3
+  3
   4        (Blue)      (Green)
   5        Pair 1      Pair 2
-  6
   7        (Brown)
   8        Pair 4
```

INTERCONNECTION GUIDELINES

The Ethernet Hub makes your various types of Ethernet networks interconnection comes true. Using the hub, you can efficiently build up and flexibly interconnect twisted-pair Ethernet networks. Furthermore, having great expansion capability, the hub keeps your existing coaxial Ethernet system still valuable, capable of connecting different Ethernet cabling systems together with wide range of configuration.

No matter what kind of medium and configuration you choose to build up your network, certain guidelines must be observed.

1. The Distance Guidelines of Twisted-pair Wire, Coaxial Cable.

Medium	Connection	Max. Distance
Twisted Pair	hub to station	100 meters
Twisted Pair	hub to hub	100 meters
Twisted Pair	hut to AUI adapter	100 meters
Thin cable	hub to hub	185 meters

2. Guidelines for the maximum Ethernet Network Length

- A maximum of three to four Ethernet hubs or repeaters may be attached within the path between any two stations, according to your network environment.

- Once three coaxial segments are used, the remainder must be a 10Base-T link segment.
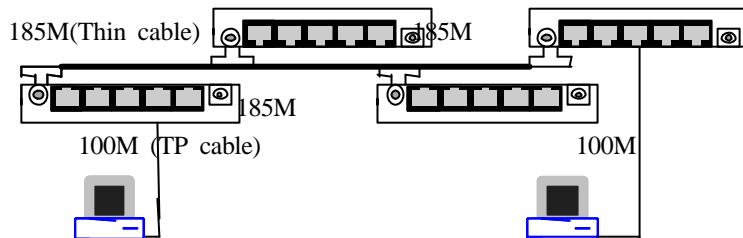
Referring to the following examples will improve your understanding:

I. Network Interconnection via Twisted-Pair Wire:
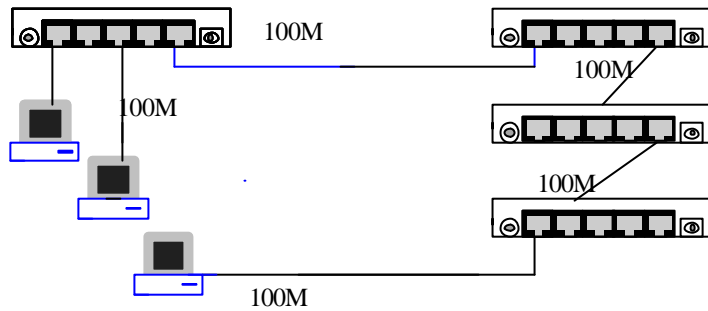
Note: The maximum Ethernet network length via twisted-pair is 500 meters.

II. Network Interconnection via Thin cable:

Note: The maximum Ethernet network length via thin cable is 755 meters. (Thin cable = RG-58 or Coaxial cable)

Establish a Basic Twisted-Pair Network

1. Placing the hub

The hub should be located in a secure place accessible only to the network administrator. It should be close to a power source, since it requires power in order to operate.

When a suitable location is identified, connect one end of the power to the hub and plug the other end into the power outlet.

After plugging the hub into a power outlet, you should check the Power LED. If the power LED lights, then the hub is receiving power and you can go on to the next step.

2. Connecting to the network
Once you have found an appropriate place for your hub, you can connect network stations to it using 10Baes-T twisted pair, 10Base2 thin coaxial.

For twisted pair connections, you should use Category 3 or better twisted pair cable. Your cable should be installed by qualified professional to insure that every part of your installation is capable of carrying 10Base-T signals.

3.   Connecting 10Base-T Twisted Pair Cabling
To connect station using twisted pair cabling, simply plug the cable's RJ-45 connector into an available RJ-45 connector on the hub.

4. Connecting 10Base-2 Thin Coaxial Cabling
To connect the 10Base-2 network, attach the cable's BNC T connector to the BNC port on the hub.

Note: If the BNC port on the hub is not used, a 50 ohm
terminator must be attached on it.

Cascading the hubs by Uplink port

When connecting two hubs, one hub is used UpLink port and the other end is on the normal port of hub. The UpLink port connect directly to a normal Twisted Pair cable, and the crossover cable is not needed.
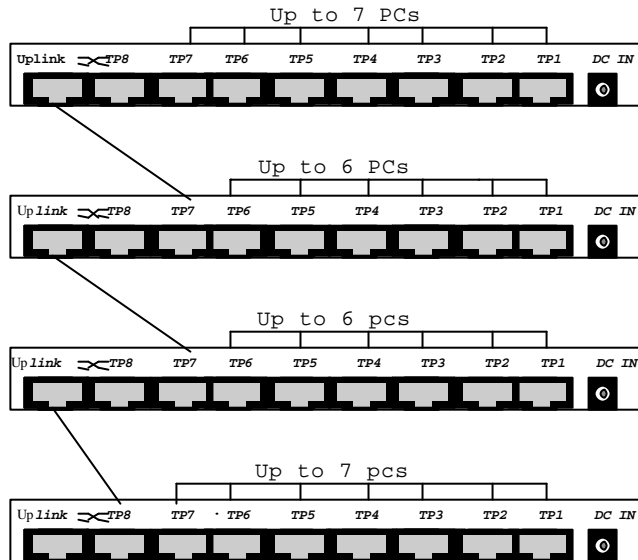
(Diagram illustrates of 8 port 10Base-T hub cascading)