

**TE-800/TE-1710**

**10BASE-T ETHERNET HUB**  
**USER'S MANUAL**

# **10BASE-T ETHERNET HUB**

## **USER'S MANUAL**

Trademarks:

All product and brand names are trademarks and/or registered trademarks of their respective companies.

## **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.

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## CHAPTER 1 INTRODUCTION

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

This 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.

This 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.

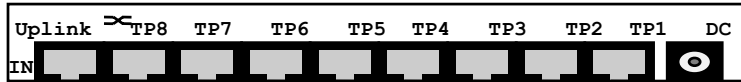
### Product Features

- 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.**
- **The hub's housing is made with Aluminum providing excellent performance for heat dissipation and EMI.**

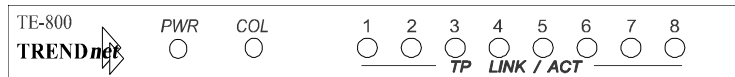
### Product Specifications

	8 port	9 port	17 port
<b>Media</b>			
10Base-T/STP	8	8	16
10Base-2/BNC		1	1
Uplink port	1	1	1
<b>LED indicators</b>			
Power/PWR	*	*	*
Collision/COL	*	*	*
BNC Partition		*	*
LINK	*	*	*
Activity/ACT	*	*	*
<b>Safety Regulation</b>			
CE	☼	☼	☼
FCC class A	☼	☼	☼
<b>Power Supply</b>			
<b>Power Adapter</b>	7.5V/1A	7.5V/1A	7.5V/1A
<b>Housing</b>			
Dimension (mm)	165x102x30	190x102x30	305x102x30
Housing Material	Aluminum	Aluminum	Aluminum
<b>Packing list</b>			
Hub	8 port	9 port	17 port
Power Supply	✓	✓	✓
Manual	✓	✓	✓
50-ohm Terminator		✓	✓
T-connector		✓	✓

### The Rear and Front Panel of MINI Hub



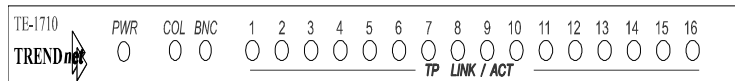
(The Rear Panel of 8 port PALM hub)



(The Front Panel of 8 port PALM hub)



(The Rear Panel of 17 port PALM hub)



(The Front Panel of 17 port PALM hub)

### LED indicators:

- 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: **Blinking** whenever a packet is transmitted or received.
- BNC: **Blinking** when the data is transmitted.

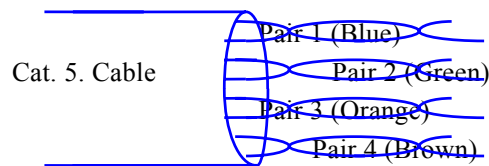
### Rear Panel indicators:

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

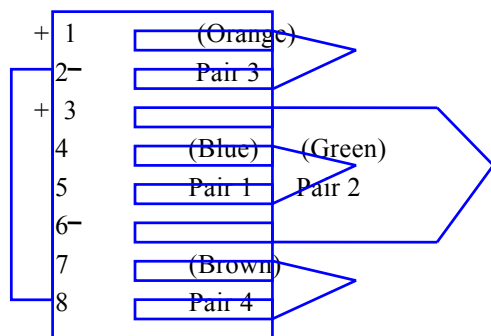
## CHAPTER 2 INSTALLATION

### 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.



The pin assignment on modular jack:



### 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.

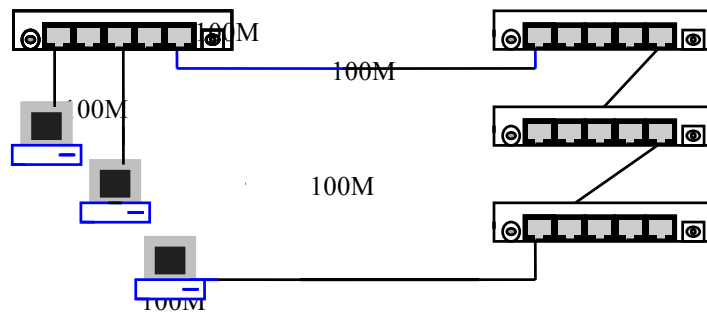
<u>Medium</u>	<u>Connection</u>	<u>Max. Distance</u>
Twisted Pair	hub to station	100 meters
Twisted Pair	hub to hub	100 meters
Twisted Pair	hub to AUI adapter	100 meters
Thin cable	hub to hub	185 meters

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.

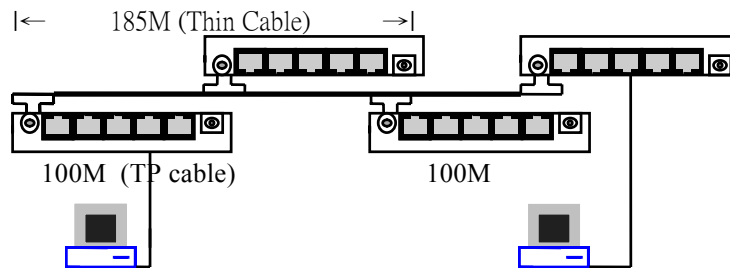
Referring to the following examples will improve your understanding:

### I. Network Interconnection via Twisted-Pair Wire:



*Note: The maximum cable distance from computer to hub or from hub to hub via twisted-pair is 100 meters. Maximum of 4 hubs can be uplinked together using the UTP cables.*

### II. Network Interconnection via Thin cable:



*Note: Thin cable = RG-58A/U or RG58/U, 50 Ohms cable. The open end of the T connector should be terminated with a 50 Ohms terminator. The maximum Ethernet network length via thin coax cable is 185M.*

## 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 10Base-T twisted pair, 10Base2 thin coaxial.

For twisted pair connections, you should use Category 3 or better twisted pair cable. The 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

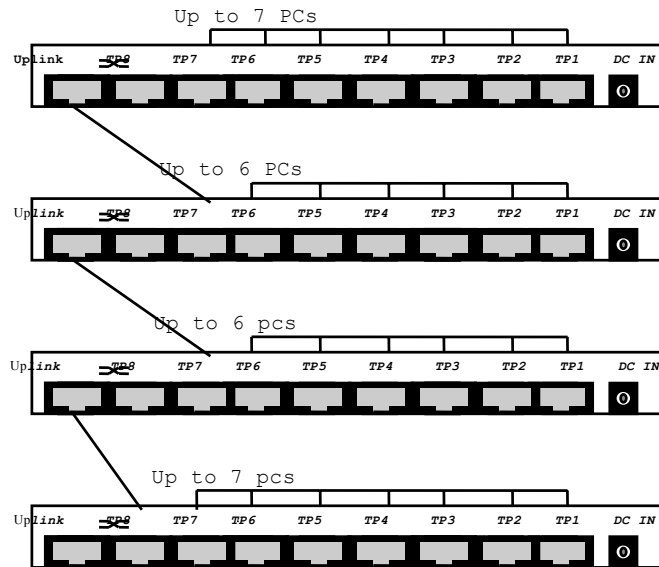
To connect station using twisted pair cabling, simply plug the cable's RJ-45 connector into an available RJ-45 connector on the hub.

#### 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. The open end of the T should be terminated by using a 50 Ohms Terminator.

#### Cascading the hubs by Uplink port

When connecting two hubs, one hub uses the UpLink port and the other end is on a normal port. The UpLink port connects directly to a normal Twisted Pair cable, no crossover cable is needed.



(Diagram illustrates of 8 port 10Base-T hub cascading)



