

KINGSTON TECHNOLOGY

ETHERX SOHO 5 PORT & 8 PORT 10BASE-T ETHERNET HUBS

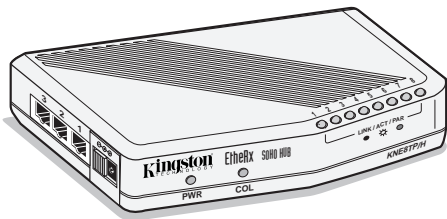
MODEL(S): KNE5TP/H, KNE8TP/H

PART NO. 44600047-001.B00

Congratulations on the purchase of your Kingston EtherX SOHO (*Small Office Home Office*) series Ethernet hubs. There are two models: KNE5TP/H and KNE8TP/H, 5-Port and 8-Port Ethernet hubs, respectively. The pocket-sized EtherX SOHO design is ideal for starting a small office network.

The EtherX SOHO hubs provide five or eight UTP (Unshielded Twisted-Pair) ports for 10BASE-T Ethernet connections, depending on the model. The uplink port (Port 5 or Port 8) uses a cable switch to support both crossover or straight-through cable wiring for uplinking to another 10BASE-T hub. The front panel includes a variety of diagnostic LEDs including: Power, Collision, and UTP port LEDs which display Link, Activity and Partition status.

The EtherX SOHO Hubs are designed to comply with the Institute of Electrical and Electronics Engineers (IEEE) 802.3 Section 9 for Basic Repeater functions, and IEEE 802.3i for 10BASE-T Twisted-Pair Transceiver Functions. The EtherX hubs are intended for use with Ethernet networks which adhere to the 10BASE-T standard using UTP cables.



Model KNE8TP/H

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FEATURES

- Pocket-sized 10BASE-T Ethernet hub
- 5 or 8 UTP ports for 10BASE-T connections
- Cable Selection Switch on the last UTP port supports crossover or straight-through cable wiring for cascading to other Ethernet hubs
- Link, Activity, and Partition Status LEDs for easy troubleshooting
- Power LED
- Collision LED to monitor data collisions
- Automatic partition and reconnection
- Conforms to IEEE 802.3 10BASE-T Ethernet standards
- Velcro™ adhesive strip for easy attachment to most surfaces
- External AC power adapter included
- Optional In-line Keyboard DC Power Cables for PS/2-type and AT-type keyboard connections. Avoids the need of attaching an external AC power adapter.

PACKAGE CONTENTS

Your EtherX SOHO package should contain the following items:

- KNE5TP/H or KNE8TP/H SOHO Ethernet hub
- AC Power Adapter: one of the following versions:
 - ◆ U.S. 120VAC, or
 - ◆ European 230VAC, or
 - ◆ United Kingdom 240VAC, or
 - ◆ Australia / New Zealand 240VAC
- Velcro™ Self-Adhesive Strip for easy mounting
- User's Guide

If any of the items are missing or damaged, please contact your Kingston dealer for a replacement. Be sure the items you receive are genuine Kingston Technology products. If the Kingston name and logo are not on the front panel of your unit, it's not a genuine Kingston product.

SUPPLYING POWER TO THE UNIT

The EtherX SOHO hubs can be powered by either a 120VAC (U.S.), 230VAC (European), 240VAC (U.K.), or 240VAC (Australia / New Zealand) power adapter. The power connector is located on the left side panel. Kingston also offers *optional* in-line Keyboard Power Cables (sold separately) which use power from the keyboard port of your computer (for further details please see page 6).

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HARDWARE INSTALLATION

Before you begin installing network cables, please take a few moments to familiarize yourself with the EtherX SOHO hub.

POWER LED

The green LED indicates the power status. The LED will light when the AC power adapter is connected from a power source to the hub.

COLLISION LED

The amber LED displays the collision status. If a collision is detected on the network, the amber LED will flash. For the Ethernet CSMA/CD network, collisions can be quite common. A collision occurs when two or more stations try to transmit data simultaneously. Both workstations will stop transmitting and retransmit after a random period of time.

LINK /ACTIVITY /PARTITION

The UTP ports use dual color LEDs to display three functions. A solid green LED indicates a good link has been established. As data is received and re-transmitted, the green LED will blink. A solid amber LED indicates the port has been partitioned.

If the LED does not display solid green indicating a good link, check the following:

1. Make sure the power is turned on for both the PC and EtherX hub. The power LED should be lit.
2. Verify the network adapter has loaded its drivers from the PC. Some network adapters require the drivers to be loaded to establish a proper link.
3. Make sure the correct cable type is selected.
4. Make sure the cable is wired properly and connected on both ends.
5. If steps 1, 2, 3, and 4 are correct, the cable may be defective or not wired correctly. Replace the cable and try again.

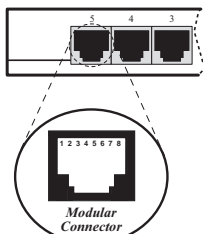
UTP PORTS

The EtherX SOHO hubs have 5 or 8 ports (depending on the model) for 10BASE-T connections. All hub ports are generally configured as MDI-X. However, the last UTP port supports both MDI and MDI-X port configuration.

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UTP PORT PIN ASSIGNMENTS

UTP Ports use RJ-45 Unshielded Twisted Pair (UTP) cabling. RJ-45 modular plugs and their pin numbers and wiring assignments are listed below. Twisted-Pair cables can be wired with either Straight-Through or Crossover pin assignments.



Pin Number	MDI-X / >=c	MDI / =
1	Receive Data +	Transmit Data +
2	Receive Data -	Transmit Data -
3	Transmit Data +	Receive Data +
4,5	Not Used	Not Used
6	Transmit Data -	Receive Data -
7,8	Not Used	Not Used

ORDER INFORMATION

Model Numbers	
Part Number	Description
KNE5TP/H	5-Port Ethernet hub (U.S. version)
KNE5TP/H-CE	5-Port Ethernet hub (European version)
KNE5TP/H-UK	5-Port Ethernet hub (U.K. version)
KNE5TP/H-AZ	5-Port Ethernet hub (Australia / New Zealand)
KNE8TP/H	8-Port Ethernet hub (US)
KNE8TP/H-CE	8-Port Ethernet hub (CE)
KNE8TP/H-UK	8-Port Ethernet hub (UK)
KNE8TP/H-AZ	8-Port Ethernet hub (A/NZ)

Accessories	
Part Number	Description
KNA-KB/PS2	PS/2 Keyboard Cable
KNA-KB/AT	AT Keyboard Cable
KNA-PA120	AC Power Adapter (U.S. 120VAC)
KNA-PA230CE	AC Power Adapter (European 230VAC)
KNA-PA240UK	AC Power Adapter (U.K. 240VAC)
KNA-PA240AZ	AC Power Adapter (Australia /NZ 240VAC)

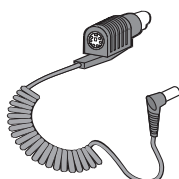
If you experience any difficulty or require additional assistance during the installation of your Ethernet adapter, please contact Kingston's Technical Support department at (800) 435-0640, (714) 435-2639.

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OPTIONAL IN-LINE KEYBOARD POWER CABLES

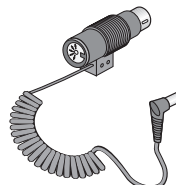
Kingston offers an optional in-line keyboard power cable to draw power from your computer's keyboard port without interfering with the keyboard connection, thus avoiding the need for an external power adapter. There are two models of the optional keyboard power cable: KNA-KB/PS2 and KNA-KB/AT, for PS/2-type and AT-type keyboard connections. Call your Kingston sales representative to order these optional accessories:

PS/2-Type Keyboards



Model KNA-KB/PS2

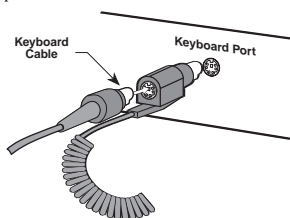
AT-Type Keyboards



Model KNA-KB/AT

To use the optional Keyboard Power Cable in place of the AC power adapter:

1. Slide the power connector cover from left to right, to access the DC keyboard power connector.
2. Make sure the computer is turned off.
3. Remove the keyboard cable from the keyboard port.
4. Insert the power cable to the keyboard port.
5. Connect the keyboard cable to the back of the power cable as shown below.
6. Turn the computer power on.



Installing the Keyboard Port Power Cable

Note: When using power from the keyboard port, turning off the computer will also disable the SOHO hub and all network connections.

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SPECIFICATIONS

Compliance:	IEEE 802.3i 10BASE-T Standards IEEE 802.3 CSMA/CD Standards
Media Interface:	5 UTP ports for 10BASE-T connections 8 UTP ports for 10BASE-T connections
KNES TP/H: KNES TP/H:	5 or 8 LEDs for Link (steady green) /Activity (flashing green) / Partition (steady amber)
Diagnostic LEDs:	1 LED for Collision Detection
Connector Type:	RJ-45, 8 pin Female
Cable Types:	UTP 26 to 22 AWG
Cable Grade:	Category 3, 4, 5 or better

ENVIRONMENTAL

Operating Temperature:	0°C to 45°C (32°F to 113°F)
Storage Temperature:	-20°C to 60°C (-4°F to 140°F)
Relative Humidity:	10% to 90% non-condensing

ELECTRICAL

Input AC Voltage:	
U.S. version:	120VAC, 60Hz
CE version:	230VAC, 50Hz
UK /Australia / NZ:	240VAC, 50Hz
Output DC Voltage (all versions):	7.5VDC, 600mA
Power Consumption:	(based on AC Power Adapters)
KNES TP/H:	2.5 Watts typical, 3.0 Watts max.
KNES TP/H:	3.2 Watts typical, 3.4 Watts max.

PHYSICAL

Dimensions (HxWxD):	1.28" x 4.72" x 3.54" (32.5mm x 120mm x 90mm)
Weight:	
KNES TP/H:	0.322 lbs (0.146 kg)
KNES TP/H:	0.356 lbs (0.162 kg)

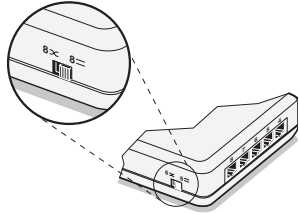
CERTIFICATION

EMI Standards:	FCC Class B, CE CISPR B
EMC Standards:	EN55022, IEC801-2, IEC801-3, IEC801-4
Low Voltage Directive:	EN60950

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
CABLE SELECTION SWITCH



The cable switch provides cable wiring flexibility on the last UTP Port (5 or 8) for connecting to a workstation or cascading to another Ethernet hub.



Cable Switch location

SETTING THE CABLE SWITCH

By default, the cable switch is set to “” or *crossover* for an internally-crossed or MDI-X port. The cable switch may be changed to “” or *straight-through* for use as an MDI port.

Switch Position	Port Config	For Connection to MDI-X Hub Port	For Connection to Network Adapter or Router
	MDI-X	Use Crossover cable	Use Straight-through cable
	MDI	Use Straight-through cable	Use Crossover cable

MDI (Media Dependent Interface) is the standard that defines the mechanical and electrical configuration of a UTP port. For any two devices to communicate with each other, the transmitter of one device must be connected to the receiver of the other device. This can be achieved by using a crossover cable, or by using one MDI-X port that implements the crossover internally.

F.C.C. CERTIFICATION

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to 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

CE AND C-TICK NOTICE

The official CE & C-Tick symbols indicate compliance of this Kingston product to the EMC directive of the European Community and Australian Communications Authority respectively.

- Declarations of CE & C-Tick Conformity in accordance with the required standards have been made and are on file at Kingston Technology.



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