

Federal Communications Commission (FCC) Statement

RADIO FREQUENCY INTERFERENCE STATEMENT

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 the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any special accessories needed for compliance must be specified in the instruction manual.

Warning: A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

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

C75

100-1-200

---

*2-Port Switching Hub for Workgroup*

---

**FCC Compliance Statement**

This device complies with 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.

**NOTE**

This equipment has been tested and found to comply with the limits for a Class A 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 that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

---

**2-Port Switching Hub for Workgroup**

---

**CE Compliance Statement**

We hereby certify that the Ethernet Hub complies with the EN 50081-1 and EN 50082-1 requirements

**NOTE:**

EN 50082-1 standard : IEC 801-2  
(Electrostatic Discharge)  
: IEC 801-3  
(Radiated Immunity)  
: IEC 801-4  
(Electrical Fast Transient/Burst)

*All registered trademarks are the property of their respective owners.*

---

*2-Port Switching Hub for Workgroup*

---

**CONTENTS**

|                                           |          |
|-------------------------------------------|----------|
| <b>FCC Compliance Statement .....</b>     | <b>1</b> |
| <b>CE Compliance Statement .....</b>      | <b>2</b> |
| <b>Introduction .....</b>                 | <b>4</b> |
| Summary of features .....                 | 4        |
| Package Contents .....                    | 5        |
| Front and Back views of the Hub .....     | 5        |
| LED Indicators .....                      | 4        |
| MDI-X/MDI Switch .....                    | 7        |
| FDX/HDX Switch .....                      | 7        |
| <b>Installing the PCMCIA adapter.....</b> | <b>7</b> |
| Pre-Installation Requirements .....       | 7        |
| <b>Specifications .....</b>               | <b>8</b> |
| <b>Appendix .....</b>                     | <b>9</b> |

---

***2-Port Switching Hub for Workgroup***

---

**Section 1 Introduction**

The 10/100 PCMCIA Ethernet Adapter is a high performance Ethernet adapter, that is compliant with PCMCIA release 2.1, JEIDA 4.01 and IEEE 802.3 standards. This dual-speed PCMCIA adapter provides data transfer switching between 10 and 100 Mbps operation.

The full-duplex operation helps speed the network bandwidth from 10 Mbps to 20 Mbps and from 100 Mbps to 200 Mbps. In addition, the PCMCIA Ethernet adapter includes a complete set of drivers for all popular Network Operating Systems. It also provide two LED indicators for easily monitor the operating status, as well as network troubleshooting.

**Summary of features**

- Compliance with 10BASE-T, 100BASE-TX specifications of the IEEE 802.3 standards
- Compliant with PCMCIA release 2.1 and JEIDA 4.01 standards
- Single RJ-45 connector for use at either speed (Category 3, 4, or 5 UTP cable for 10 Mbp operation, and Category 5 UTP cable for 100 Mbps operation)
- Automatic selection for 10 or 100 Mbps network operation
- Full-duplex operation at both 10 Mbps and 100 Mbps
- Two (2) LEDs for monitoring link, speed, and activity status
- Hot-swap insertion and removal
- Diagnostic software and network drivers on the diskette
- Built-in store-and-forward data transmission mode

**Package Contents**

The package of your dual-speed PCMCIA adapter should contain the following items:

---

---

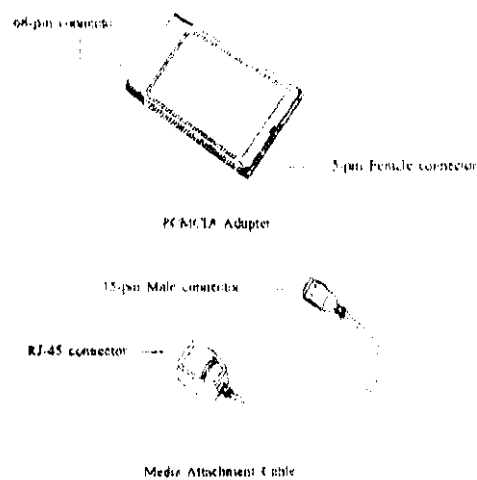
### *2-Port Switching Hub for Workgroup*

---

- One 10/100 Mbps PCMCIA adapter
- One media attachment cable
- One network driver diskette
- This user's manual

**NOTE:** If any items are missing or damaged, please contact your dealer for replacement.

Figure 1-1 shows the product view of the PCMCIA Ethernet adapter.



*Figure 1-1 Product view of the PCMCIA adapter*

### **LED Indicators**

Your PCMCIA adapter provides two informative LEDs for easily status viewing and troubleshooting.

---

### 2-Port Switching Hub for Workgroup

---

#### Link / Act. LED

This green LED displays the linking, activity status. If a good link is detected through the RJ-45 connector, this green LED will be continuously lit, indicating a valid network connection between the PCMCIA node and the hub.

When data is transmitted through the RJ-45 connector, the green LED will flash.

#### 100 LED

This green LED displays the data transfer rate of both ports. If a 100 Mbps (such as a 100 Mbps Ethernet adapter or 100 Mbps Ethernet hub) connection is detected on the RJ-45 port, this green LED will be continuously lit, indicating a valid 100 Mbps network connection between the network node and the switching hub.

#### NOTE:

Figure 1-2 shows the LEDs indication of the PCMCIA adapter

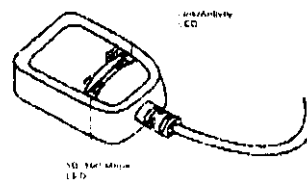


Figure 1-2 LEDs Indicator

---

*2-Port Switching Hub for Workgroup*

---

**Section 2 Installing the PCMCIA adapter****Pre-Installation Requirements**

Before you connect the 2-port switching hub to the network, make sure that you have provided the proper operating environment. To provide the proper operating condition, verify the following installation requirements:

- **Cable Requirement:** The 10/100BASE-TX PCMCIA adapter requires Category 3, 4, or 5 UTP cable wiring for the 10/100 Mbps RJ-45 port (Category 3, 4, 5 used for 10 Mbps, Category 5 used for 100 Mbps).

**Category 5 Specification:**

- Two pairs of wiring are required
- Cable type: Shield Twisted-Pair (STP) or Unshielded Twisted-Pair (UTP)
- Wire gauge: 18 to 26 AWG
- Nominal impedance: 100 ohms
- Maximum cable length: 300 (100m)
- Nominal attenuation: less than 11.5db

**RJ-45 Pin Assignments**

| Pin No. | MDI-X Signal         | MDI Signal           |
|---------|----------------------|----------------------|
| 1       | RD+ Receive from UTP | TD+ Transmit to UTP  |
| 2       | RD- Receive from UTP | TD- Transmit to UTP  |
| 3       | TD+ Transmit to UTP  | RD+ Receive from UTP |
| 6       | TD- Transmit to UTP  | RD- Receive from UTP |

---

*2-Port Switching Hub for Workgroup*

---

**Section 3 Specifications**

|                          |                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------|
| IEEE 802.3 standards:    | 10BASE-T, 100BASE-TX                                                                                                         |
| Wiring Connectors        | RJ-45                                                                                                                        |
| Weight                   | 40g                                                                                                                          |
| Dimensions:              | 54mm x 85mm                                                                                                                  |
| Emission Certifications: | FCC Part 15 Class A                                                                                                          |
| Immunity Certifications: | IEC 801-2<br>(Electrostatic Discharge)<br>IEC 801-3<br>(Radiated Immunity)<br>IEC 801-4<br>(Electrical Fast Transient/Burst) |
| Power Consumption:       | 600mA, @12V                                                                                                                  |
| Operating Temperature:   | 0 to 55 degrees Centigrade                                                                                                   |
| Operating Humidity:      | 10% to 90%, non-condensing                                                                                                   |
| Operating Altitude:      | 10,000ft (3,000m) maximum                                                                                                    |

---

*2-Port Switching Hub for Workgroup*

---

**Section 2 Installing the PCMCIA adapter****Pre-Installation Requirements**

Before you connect the 2-port switching hub to the network, make sure that you have provided the proper operating environment. To provide the proper operating condition, verify the following installation requirements:

- Cable Requirement: The 10/100BASE-TX PCMCIA adapter requires Category 3, 4, or 5 UTP cable wiring for the 10/100 Mbps RJ-45 port (Category 3, 4, 5 used for 10 Mbps, Category 5 used for 100 Mbps).

**Category 5 Specification:**

- Two pairs of wiring are required
- Cable type: Shield Twisted-Pair (STP) or Unshielded Twisted-Pair (UTP)
- Wire gauge: 18 to 26 AWG
- Nominal impedance: 100 ohms
- Maximum cable length: 300 (100m)
- Nominal attenuation: less than 11.5db

**RJ-45 Pin Assignments**

| Pin No. | MDI-X Signal         | MDI Signal           |
|---------|----------------------|----------------------|
| 1       | RD+ Receive from UTP | TD+ Transmit to UTP  |
| 2       | RD- Receive from UTP | TD- Transmit to UTP  |
| 3       | TD+ Transmit to UTP  | RD+ Receive from UTP |
| 6       | TD- Transmit to UTP  | RD- Receive from UTP |

---

**2-Port Switching Hub for Workgroup**

---

**Section 3 Specifications**

|                          |                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------|
| IEEE 802.3 standards:    | 10BASE-T, 100BASE-TX                                                                                                         |
| Wiring Connectors:       | RJ-45                                                                                                                        |
| Weight:                  | 40g                                                                                                                          |
| Dimensions:              | 54mm x 85mm                                                                                                                  |
| Emission Certifications: | FCC Part 15 Class A                                                                                                          |
| Immunity Certifications: | IEC 801-2<br>(Electrostatic Discharge)<br>IEC 801-3<br>(Radiated Immunity)<br>IEC 801-4<br>(Electrical Fast Transient/Burst) |
| Power Consumption:       | 600mA, @12V                                                                                                                  |
| Operating Temperature:   | 0 to 55 degrees Centigrade                                                                                                   |
| Operating Humidity:      | 10% to 90%, non-condensing                                                                                                   |
| Operating Altitude:      | 10,000ft (3,000m) maximum                                                                                                    |

---

### *2-Port Switching Hub for Workgroup*

---

#### Section 4 Appendix A

##### RJ-45 pin assignments

| Pin No.    | Assignment (TIA/EIA)     | Assignment (RJ-45)       |
|------------|--------------------------|--------------------------|
| 1          | TX+ (Transmit Data Pair) | TX+ (Transmit Data Pair) |
| 2          | TX- (Transmit Data Pair) | TX- (Transmit Data Pair) |
| 3          | TX+ (Transmit Data Pair) | TX+ (Transmit Data Pair) |
| 6          | TX- (Transmit Data Pair) | TX- (Transmit Data Pair) |
| 4, 5, 7, 8 | Not Used                 | Not Used                 |

Table A-1 RJ-45 connector pin assignments

##### RJ-45 pin connector



Phone Side



Plug Side

Table A-2 RJ-45 connector pin locations