

TRUMPCARD[®]

*Installation Guide for Macintosh
PowerBooks*

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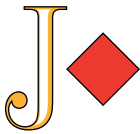
Preface

The Four of Diamonds is an Ethernet LAN PC Card. The MacJack of Diamonds is an Ethernet LAN and 33.6Kbps Data+Fax Modem PC Card. Both TRUMPCARDS conform to Type II PC Card standards.

About this Manual

This guide provides installation instructions for the Four of Diamonds and MacJack of Diamonds. The *Installation Guide for Macintosh PowerBooks* explains how to install the necessary software, enable an Ethernet network connection and a TRUMPCARD modem.

The following icons denote which sections of this manual are relevant to which TRUMPCARD:



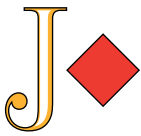
MacJack of Diamonds



Four of Diamonds

Notes: This manual is intended as a supplement to the Modem User's Guide. For modem commands, refer to the Modem User's Guide.

Please refer to the Read Me First file on the Macintosh Drivers and Utilities disk for any release notices and post-press changes to this manual.



FCC Notice

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 the 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 or television technician for help.

Modifications

The FCC requires the user be notified that any changes or modifications made to this device that are not expressly approved by Ositech Communications Inc. may void the user's authority to operate this equipment.

Operating Conditions

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

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

Canadian Electromagnetic Compatibility Advisory

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Conseil sur la compatibilité des Electromagnétiques, pour le Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

U.S. Regulations Governing the Use of Modems

This equipment complies with Part 68 of the FCC rules. Located on the Modem is a label that contains, among other information, the FCC Registration Number and Ringer Equivalent Number (REN) for this equipment. Upon request, you must provide this information to your telephone company.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all, areas the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your telephone line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area. The REN for this device is 0.7B.

If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will also be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, contact your local telephone company for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Canadian Regulations Governing the Use of Modems

Canadian Regulations Governing the Use of Modems

Note: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing the equipment, ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of

connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). Be aware that the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility, designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request that the equipment be disconnected.


Make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: *Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.*

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a terminal loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the Load Numbers of all devices does not exceed 100. An alphabetic suffix is also specified in the Load Number for the appropriate ringing type (A or B), if applicable. For example, LN=20 A designates a Load Number of 20 and an "A" type ringer.

The Load Number for this device is 6.

For information on the location of the authorized Canadian maintenance facility nearest you, contact Ositech Communications Inc.

This product contains SPECTRUM CONNECTED  cellular data communication technology, which can be activated for data communication over a cellular network when a license is obtained from SPECTRUM, and the product is combined with an appropriate cellular telephone driver and corresponding cable compatible with popular brands of cellular telephones. To obtain a license and to determine the availability of an appropriate driver and cable for a cellular telephone, contact Ositech Communications, Inc.

FCC Notice



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 the 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 or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device, that are not expressly approved by Ositech Communications Inc., may void the user's authority to operate this equipment.

Operating Conditions

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

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

Canadian Electromagnetic Compatibility Advisory

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Conseil sur la compatibilité des Electromagnétiques, pour le Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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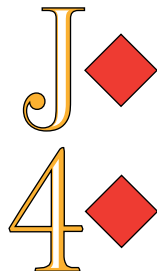
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Unpacking and Inspecting the Package Contents



Carefully inspect the contents of the box (listed below) to verify that everything you should have is included, and that nothing has been damaged during transportation. Retain the packing material in case the unit needs to be returned for service.

Package Contents

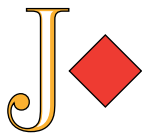
Use the appropriate list to check the contents of the package:

MacJack of Diamonds:

- The MacJack of Diamonds PC Card.
- The *Macintosh Drivers and Utilities* disk.
- The *Installation Guide for Macintosh PowerBooks*, *Modem User's Guide*, and Macintosh modem software manual.
- The direct-connect modem cable.
- An Ethernet 10BaseT direct-connect Ethernet cable or Media Access Module for 10BaseT and 10Base2.
- The Macintosh modem software.

Four of Diamonds:

- The Four of Diamonds PC Card.
- The *Macintosh Drivers and Utilities* disk.
- The *Installation Guide for Macintosh PowerBooks*.
- An Ethernet 10BaseT direct-connect Ethernet cable or Media Access Module for 10BaseT and 10Base2.



TRUMPCARD Software Installation



Before installing the TRUMPCARD software on your PowerBook, the following sections should be reviewed.

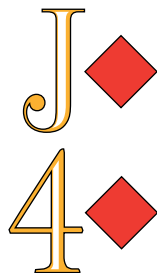
Preparing for Software Installation

To configure the Four of Diamonds for network operation, or the MacJack of Diamonds for simultaneous Ethernet and modem operations, you require:

- ☐ The supplied *Macintosh Drivers and Utilities* disk.
- ☐ The Macintosh PC Card Manager version 2.0 installed on your PowerBook's hard drive.
- ☐ The Network Operating System workstation software for your LAN: Classic AppleTalk networking or OpenTransport networking.

Note: *If any other Ethernet PC Card was installed in your PowerBook prior to the TRUMPCARD, The PC Card's network drivers must be removed via their installation program. Failure to do this might cause the TRUMPCARD to operate incorrectly.*

Installing the Software



Ositech provides automatic installation and configuration software for the Macintosh PowerBook. The installation process will copy any required files to the hard drive.

To install the TRUMPCARD software:

- 1 Restart your PowerBook with the *Shift* key held down to disable the extensions. Hold the *Shift* key down until the message “Extensions off” appears during the start up process.
- 2 Insert the *Macintosh Drivers and Utilities* disk in the 3.5" floppy drive, and double-click on the disk icon. The TRUMPCARD *Software Installer* window appears.
- 3 Double-click the TRUMPCARD Installer icon.
- 4 Click *Continue* to close the splash window.
- 5 In the TRUMPCARD Installer window, select either *Easy Install* or *Custom Install*.

Select *Easy Install* to use the default installation process. Select *Custom Install* to load only the specific files you select.

- 6 Click *Install*. A window will confirm a successful installation and prompt you to click *Restart*.

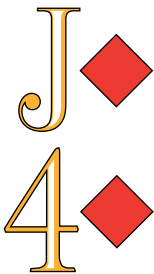
After restarting, a TRUMPCARD icon will appear on the desktop when your TRUMPCARD is inserted in a PC Card slot of your PowerBook.



Jack of Diamonds



Four of Diamonds



Enabling Ethernet Networking

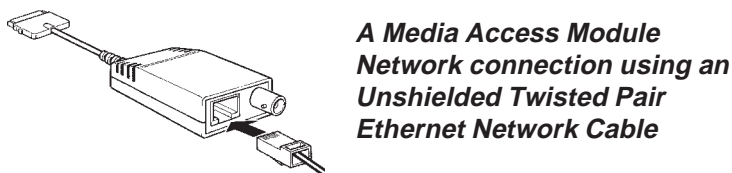
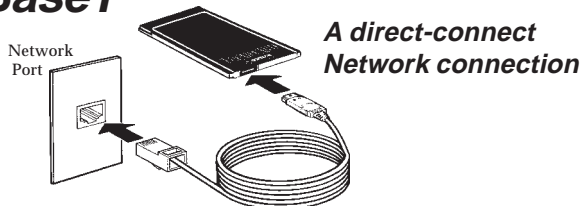
This section applies to both the Four of Diamonds and MacJack of Diamonds. To use an Ethernet network connection, your TRUMPCARD must be connected to an Ethernet network and inserted in the PC Card slot of your PowerBook. You may then select a networking mode, and connect to a server on an AppleTalk network.

To connect and install your TRUMPCARD

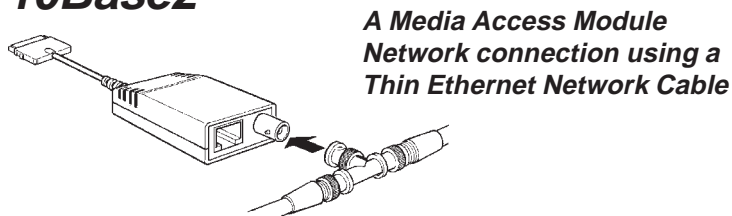
- 1 Connect your TRUMPCARD to the network.

For 10BaseT use a direct-connect Ethernet cable or a Media Access Module; for 10Base2 use a Media Access Module.

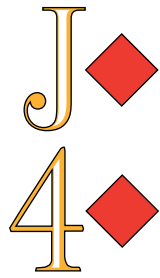
10BaseT



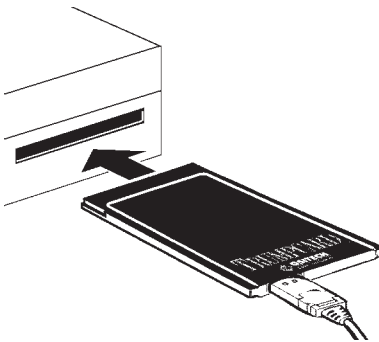
10Base2



Note: The TRUMPCARD will ONLY work with a 10Base2 (COAX) cable if the LAN cable is connected to the TRUMPCARD before the TRUMPCARD is inserted into the PC Card slot of the PowerBook. If 10Base2 cabling is attached to the TRUMPCARD after it is inserted into the PC Card slot, the LAN connection will not work.



- 2 Insert the TRUMPCARD into the PC Card slot of your PowerBook.



A TRUMPCARD icon appears on the desktop.

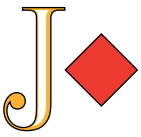


Jack of Diamonds

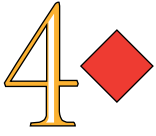


Four of Diamonds

The TRUMPCARD is now connected and installed. You may select a networking mode (if you do not, the default networking mode is used). To do so, follow the appropriate procedure.



To select a networking mode



You can use either OpenTransport or Classic AppleTalk networking. If you do not select a networking mode the default networking mode is used. To select a networking mode follow the appropriate procedure.

To Select OpenTransport Networking:

- 1 Double-click on the TRUMPCARD icon. The *AppleTalk* control panel opens.



Jack of Diamonds Four of Diamonds

- 2 In the *AppleTalk* control panel, select *Alternate Ethernet* and then the zone you want to use.
- 3 Close the window. When prompted, save the *AppleTalk* connection.

To Select Classic AppleTalk Networking:

- 1 Double-click on the TRUMPCARD icon. The *Network* control panel opens.



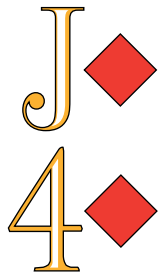
Jack of Diamonds Four of Diamonds

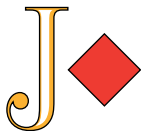
- 2 In the *Network* control panel, select *EtherTalk Alternative*.
- 3 Click *OK* to confirm the connection change.
- 4 Close the windows to save the *EtherTalk Alternative* connection.

To connect to a server on an AppleTalk network

- 1 From the *Apple* menu select *Chooser*.
- 2 Click the *AppleShare* icon.
- 3 If your network has multiple *AppleTalk* zones, select one from the list.
- 4 From the *Select a File Server* scroll box, select a file server.
- 5 Click *OK*.
- 6 Select the Server Resource you want to use.
- 7 Click *OK*.

The network connection is complete. The network connection appears as an icon on the desktop.





Enabling the TRUMPCARD Modem

This section applies only to the MacJack of Diamonds which is both an Ethernet LAN and modem PC Card.

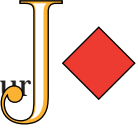
To use the MacJack of Diamonds modem:

- 1 Insert the TRUMPCARD into either the upper or lower PC Card slot of your PowerBook.

Note: If your communications software is configured to use a particular PC Card slot (i.e., upper) and the TRUMPCARD is inserted into the other slot (i.e., lower) your communications software will not locate or initialize the modem. If your communications software cannot locate or initialize the modem, identify which slot your communication software uses, and insert the MacJack of Diamonds into that slot. Alternatively, reconfigure your communications software to use the PC Card slot in which you have inserted the MacJack of Diamonds.

When the *Jack of Diamonds* icon appears on the desktop the modem is ready to use.

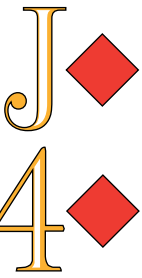
- 2 Connect the PC Card connector end of the direct-connect modem cable to the MacJack of Diamonds, and the RJ-12 connector to an analog telephone jack.

- 
- 3 Start your communications software. From your communications software's *Serial Port* list, select the PC Card slot in which you inserted the MacJack of Diamonds. The modem can be used with any communications package by selecting the *Upper PC Card Slot* or *Lower PC Card Slot* from the *Serial Port* list box within your communications application.

Note: Refer to the *Modem User's Guide* for details about the modem's data, fax and cellular operations, modem command references, and modem test procedures.

Modem Scripts

Several scripts are provided for use with third party communications software. They are installed in the *:TRUMPCARD:Jack Modem Scripts* folder. The *Apple Remote Access* application and *OT/PPP* scripts are installed in your system's *Extensions* folder and are accessible from the *Modem Control Panel* and *Apple Remote Access* application. For specific instructions about each script refer to the folders containing the script in the *:TRUMPCARD:Jack Modem Scripts* folder.



Ejecting the TRUMPCARD

To eject the TRUMPCARD from your PowerBook, drag the TRUMPCARD icon onto the *Trash* icon on the desktop.

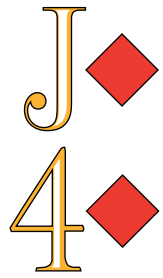
If a dialogue box appears reporting that the TRUMPCARD “cannot be ejected because it is in use”:

- 1 Select a form of networking other than *EtherTalk Alternative* in the *AppleTalk* or *Network Control Panels*.
- 2 Close any communications programs that might be using the modem, including fax programs configured to receive incoming faxes automatically, or any PPP connections.
- 3 Repeat the ejection procedure.

Or, the TRUMPCARD can be ejected when the PowerBook is shutdown but has a power source (i.e., a charged battery or A/C power source). To eject the TRUMPCARD, press the PC Card ejection button beside the PC Card slot in which your TRUMPCARD is inserted.

Note: Refer to the Macintosh PowerBook User’s Guide for further instructions about ejecting a PC Card when the PowerBook is not connected to a power source.

Removing the TRUMPCARD Software

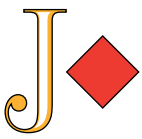


Ositech's TRUMPCARD Installer provides a method of removing all TRUMPCARD software from your PowerBook.

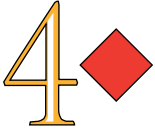
To remove the TRUMPCARD software:

- 1 Restart your PowerBook with the *Shift* key held down to disable the extensions. Hold the *Shift* key down until the message "Extensions off" appears during the start up process.
- 2 Insert the *Macintosh Drivers and Utilities* disk in the 3.5" floppy drive, and double-click on the disk icon. The TRUMPCARD *Software Installer* window appears.
- 3 Double-click the TRUMPCARD Installer icon.
- 4 Click *Continue* to close the splash window.
- 5 In the TRUMPCARD Installer window that appears next, select *Custom Remove* from the pop-up menu on the top left of the TRUMPCARD Installer window.
- 6 From the list select the items to be removed, and click *Remove*.
- 7 When prompted, click *Restart*.

The TRUMPCARD software is removed from your PowerBook. Before using the TRUMPCARD again, a full re-installation of the Ositech TRUMPCARD software is required.



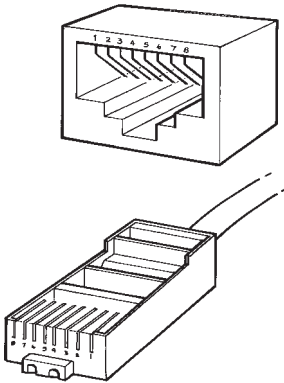
10BaseT Reference



This section covers interface cabling and pinout information, concentrators and twisted pair network characteristics.

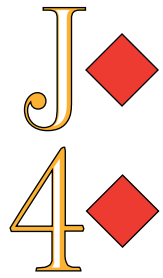
Interface Cabling and Pinout

The direct-connect 10BaseT Ethernet cable provided with the TRUMPCARD is wired for direct connection to an Ethernet 10BaseT Concentrator. If the wiring scheme you are using does not match the wiring scheme shown below, then contact Ositech for assistance on how to make a 10BaseT network connection in your environment.



Lead	Signal
1	TX+
2	TX-
3	RX+
4	nc
5	nc
6	RX-
7	nc
8	nc

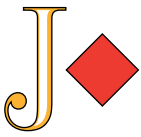
Concentrators



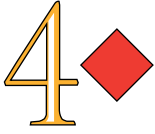
The TRUMPCARD, when used with a 10BaseT Twisted-pair cable, must always connect to a concentrator. This results in a star-wired network with the concentrator at the centre of the star. The TRUMPCARD is compatible with 10BaseT concentrators from a variety of vendors.

Twisted Pair Network Characteristics

Standard	IEEE 802.3 10BaseT
Data Rate	10 Mbps
Maximum length of connecting nodes per network	100m (328')
Maximum number of computer nodes per network	1024
Twisted-pair cable	Category 3 (10 Mbps) or Category 4 (16 Mbps) or Category 5 (100 Mbps) that meet the requirements of EIA/TIA-568 and EIA/TIA TSB-36



Media Access Module LED Indicators



The Media Access Module has two LED indicators used to provide a visual indication of the state of the network link. The LED indicators operate only once the TRUMPCARD network driver has been loaded or during Diagnostic testing.

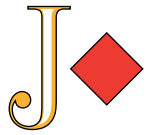
Activity LED (RED)

The Activity LED flashes whenever network activity is detected by the Media Access Module. The Activity LED can be used as a simple method of determining if the Media Access Module is exchanging data with the network.

Link LED (GREEN)

The Link LED lights whenever a twisted pair connection between the Media Access Module and the 10BaseT concentrator has been made. The Link LED is not used for 10Base2 thin coax connections. If the Link LED is not lit a connection between the Media Access Module and the 10BaseT concentrator has not been detected. Verify the wiring and make sure that a TRUMPCARD network driver has been loaded.

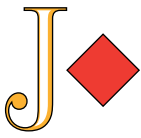
Technical Specifications



MacJack of Diamonds

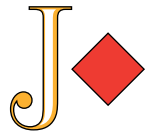
Common

PC Card compatibility	Type II Release 2.01
Registration	FCC Part 68 and Part 15 Class B Canadian DOC and selected International Countries
Power Consumption measured in mA @ 5V	Ethernet and Modem powered down: 33600 (17 mA) Modem only: 33600 (222 mA) Ethernet Only: 10BaseT (86 mA) 10Base2 (203 mA) Combined Ethernet & Modem: 33600: 10BaseT (292 mA) 10Base2 (430 mA)
Operating Environment	Temperature 0°C- 50° C (32°F-122°F), Humidity 10%-80% non-condensing



Modem

Data Access Arrangement	Internal	
Network Interface	2 wire switched	
Network Connection	Direct via supplied RJ-12 cable	
Compatibility & Data Speeds	Bell 103 Bell 212A V.21 V.22 V.22bis V.23 V.32 V.32bis *V.FC/V.34	300 bps 1200 bps 300 bps 600/1200 bps 1200/2400 bps 75Tx/1200Rx bps or 1200Tx/75Rx bps 4800/7200/9600/ 14400 bps 14400/16800/19200/ 21600/26400/ 28800 bps 31200 bps 33600 bps
4800/9600 bps		
Compatibility & Fax Speeds	V.21 V.26bis V.27ter V.29 V.17 V.33	300 bps 1200/2400 bps 2400/4800 bps 4800/7200/9600 bps 7200/9600/12000/ 14400 bps 12000/14400 bps
Data Rate Adaptation	300, 600, 1200, 2400, 4800, 9600, 4400, 19200, 23400, 38400. 57600, 115200	
Format Sensing	10 & 11 data bits	
Parity Sensing	Odd, Even, Mark, Space, None	
Transmit level	-10 dBm	
Receive level	-9 dBm to -43 dBm	
Call progress tones detected	Answer, Dial, Busy and Ring Back	
Diagnostics	Local analog loopback with self test Local digital loopback with self test Remote digital loopback with self test Line signal strength and Line quality monitoring	



Ethernet

	Twisted Pair	Coax
Network Interface	IEEE802.3 10BaseT	IEEE802.3 10Base2
Network Connection	Direct cable with RJ-45 or External module with RJ-45 female connector	External module with coax BNC connector
Cable Type	Unshielded Twisted Pair	RG58 A/U or C/U, 50 Ohm
Cable Category	Category 3 or better	n.a.
Operating Distance	100m (328 feet)	185m (607') standard 300m (984') extended
Diagnostic LEDs	Activity and Link on external module only	Activity on external module only
Data Transfer	Programmed I/O	Programmed I/O
Data Bus Width	16 bits	16 bits



Four of Diamonds

Common

PCMCIA compatibility	Type II Release 2.01
Registration	Part 15 Class A
Power Consumption @ 5 Volts	Ethernet powered down: (45 mA) Ethernet: (105 mA) 10BaseT (220 mA) 10Base2
Operating Environment	Temperature 0°C - 50°C (32°F-122°F), Humidity 10% - 80% non-condensing

Ethernet

	Twisted Pair	Coax
Network Interface	IEEE802.3 10BaseT	IEEE802.3 10Base2
Network Connection	Direct cable with RJ-45 or External module with RJ-45 female connector	External module with coax BNC connector
Cable Type	Unshielded Twisted	RG58 A/U or Pair C/U, 50 Ohm
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Diagnostic LEDs	Activity and Link on external module only	Activity on external module only
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Data Bus Width	16 bits	16 bits