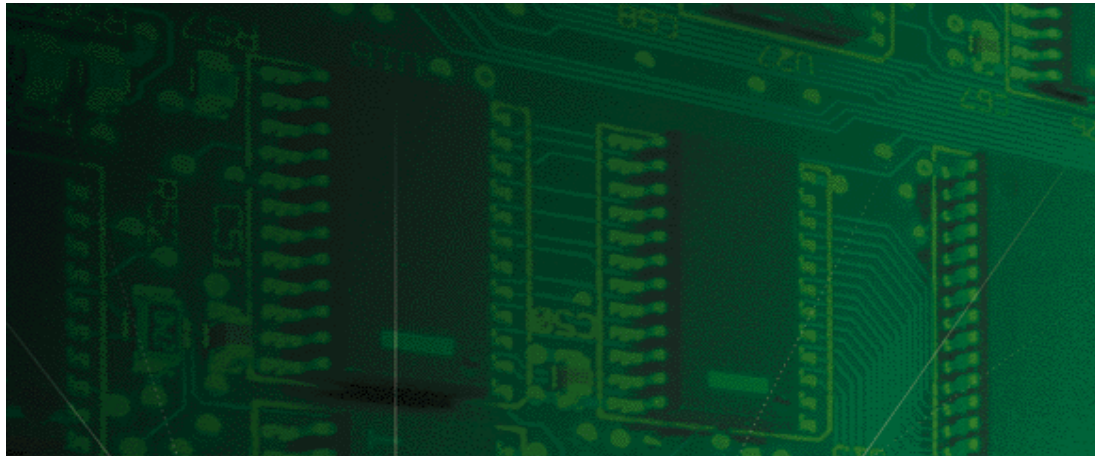




PCI Dual 10/100Base-T Ethernet

Network Interface Card Getting Started Guide



Part No. 1.024.1330-02

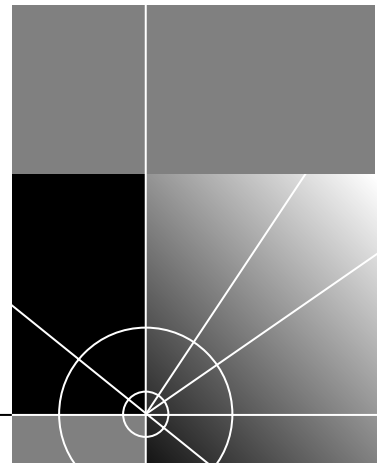


PCI Dual 10/100Base-T Ethernet

Network Interface Card Getting Started Guide

<http://www.3com.com/>

Part No. 1.024.1330-02



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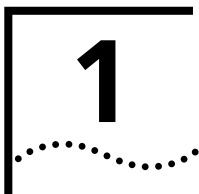
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OVERVIEW

This chapter provides an overview of:

- Contacting 3Com
- Document conventions
- Product description
- Product compatibility

Contacting 3Com

Call the appropriate toll free number listed below for technical support.



For European countries that do not have a toll free number listed, call +31 30 602 9900.

Country	Toll Free Number	Country	Toll Free Number
Austria	06 607468	Netherlands	0800 0227788
Belgium	0800 71429	Norway	800 11376
Canada	1800 2318770	Poland	00800 3111206
Denmark	800 17309	Portugal	0800 831416
Finland	0800 113153	South Africa	0800 995014
France	0800 917959	Spain	900 983125
Germany	0800 1821502	Sweden	020 795482
Hungary	00800 12813	Switzerland	0800 553072
Ireland	1800 553117	UK	0800 966197
Israel	0800 9453794	United States	1800 2318770
Italy	1678 79489	All Other Locations (Outside Europe)	1847 7976600

Refer to the Total Control Hub Documentation CD-ROM for more information regarding product warranty.



For information about Customer Service, including support, training, contracts, and documentation, visit our website at <http://totalservice.3com.com>

Document Conventions

These tables list conventions used throughout this guide.

Icon	Notice Type	Description
	Information note	Information that contains important features or instructions.
	Caution	Information to alert you to potential damage to a program, system, or device.
	Warning	Information to alert you to potential personal injury or fatality. May also alert you to potential electrical hazard.
	ESD	Information to alert you to take proper grounding precautions before handling a product.

Convention	Description
Text represented as a screen display	This <code>typeface</code> represents displays that appear on your terminal screen, for example: <code>Netlogin:</code>
Text represented as commands	This typeface represents commands that you enter for example: <code>setenv TCMHOME directory</code> <i>This guide always gives the full form of a command in uppercase and lowercase letters. However, you can abbreviate commands by entering only the uppercase letters and the appropriate value. Commands are not case-sensitive.</i>
Text represented as menu or sub-menu names .	This typeface represents all menu and sub-menu names within procedures, for example: On the File menu, click New .

Product Description The PCI Dual 10/100Base-T Ethernet Network Interface Card (NIC) provides an Ethernet interface between a particular Network Application Card (NAC) in the 3Com Total Control chassis and your network.

This NIC features two high speed Ethernet ports capable of auto-detecting between 10Base-T and 100Base-TX interfaces. In addition, the NIC also features an RS-232 user interface (UI) console port.

The PCI Dual 10/100Base-T Ethernet NIC is installed in the rear of the chassis behind its corresponding NAC.

Product Compatibility The PCI Dual 10/100Base-T Ethernet NIC is compatible with the following NACs:

- HiPer Access Router Card
- EdgeServer Pro

2

INSTALLATION

This chapter contains PCI Dual 10/100Base-T Ethernet Network Interface Card (NIC) installation information.

Installation Tools

To install this NIC in the Total Control chassis, you need a #2 Phillips and flat-head screwdriver.

Installation Procedure

To install this NIC:



ESD: To reduce the risk of electrostatic discharge (ESD), take proper grounding precautions before handling the NIC.

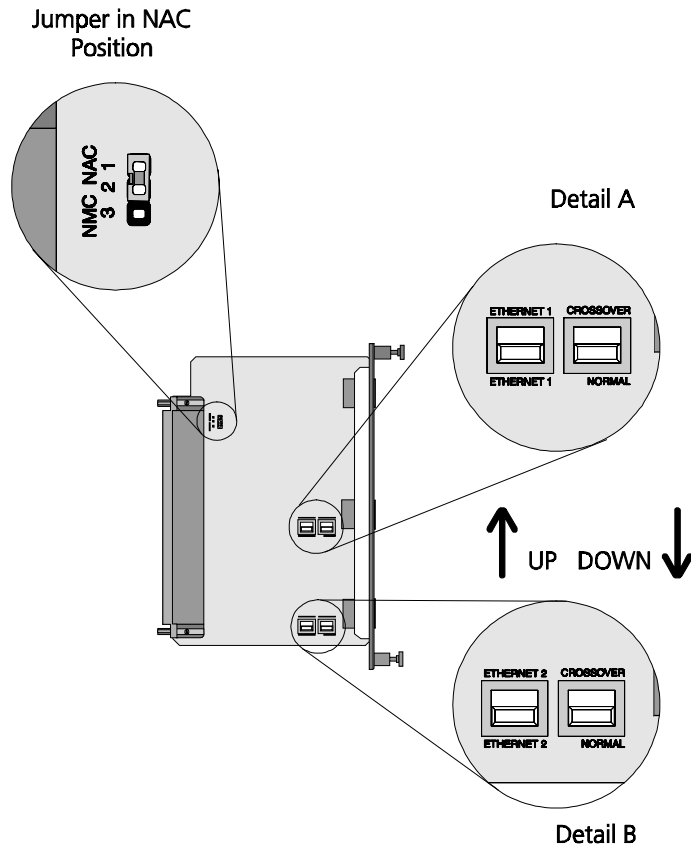


Install the NIC with or without power applied to the chassis.

- 1 Configure the NIC via the jumper and switches. Put the jumper in the NAC position. Refer to the following graphic for more information.



This NIC **must** be configured with the jumper in the **NAC** position in order to function properly.



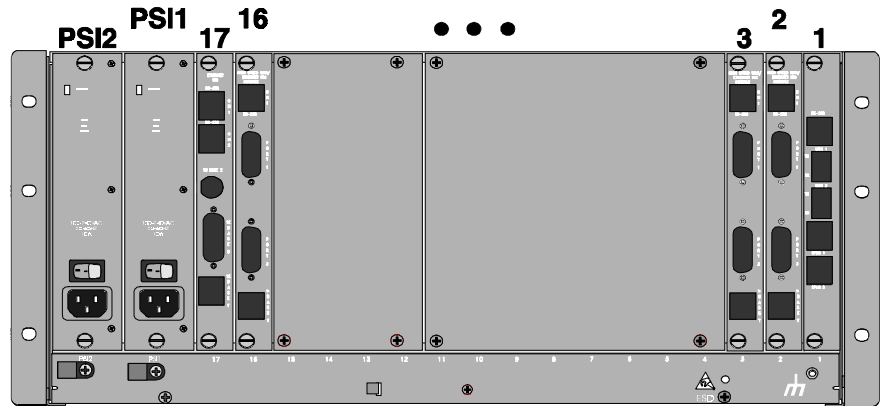
To...	Do this...
Configure the Ethernet 1 port to connect directly to another NIC	Push both switches in <i>Detail A</i> in the <i>up</i> position
Configure the Ethernet 1 port to connect to a hub	Push switches in <i>Detail A</i> in the <i>down</i> position
Configure the Ethernet 2 port to connect directly to another NIC	Push both switches in <i>Detail B</i> in the <i>up</i> position
Configure the Ethernet 2 port to connect to a hub	Push both switches in <i>Detail B</i> in the <i>down</i> position

- 2 Select a slot at the rear of the Total Control chassis for installing the NIC.

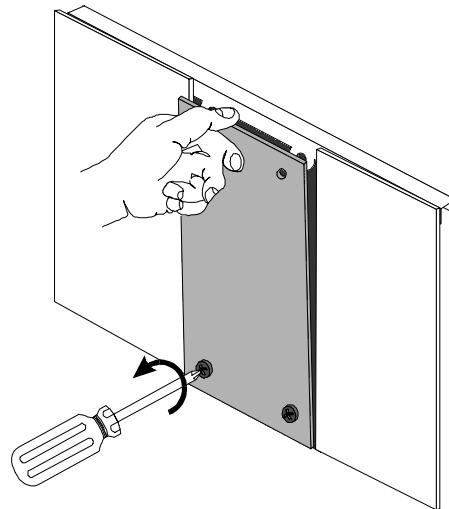
Install this NIC in slot(s): 1–16.



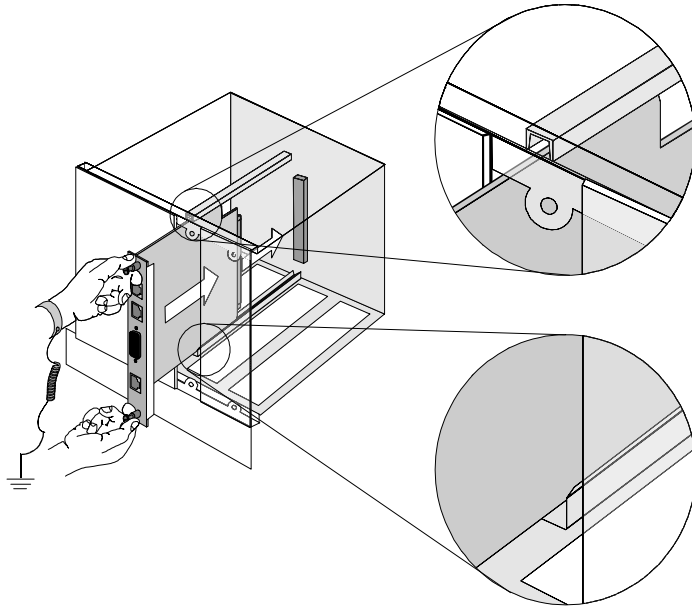
For managed chassis, slot 17 is reserved for the Network Management Card (NMC) NIC.



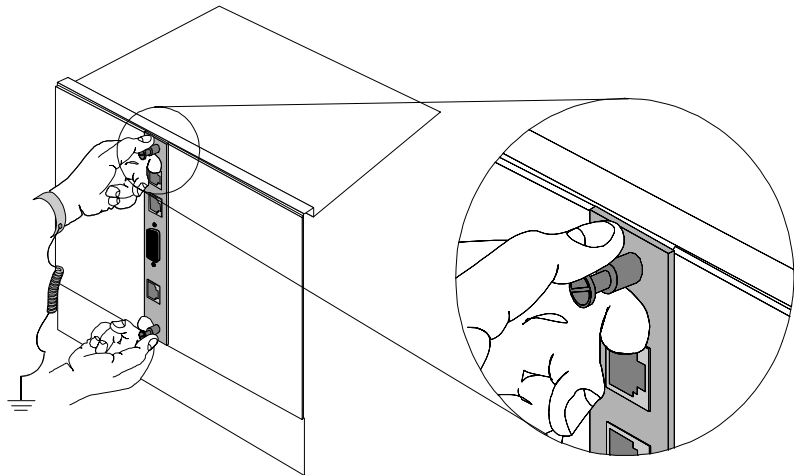
- 3 Use a #2 Phillips screwdriver to remove the safety panel covering this slot.



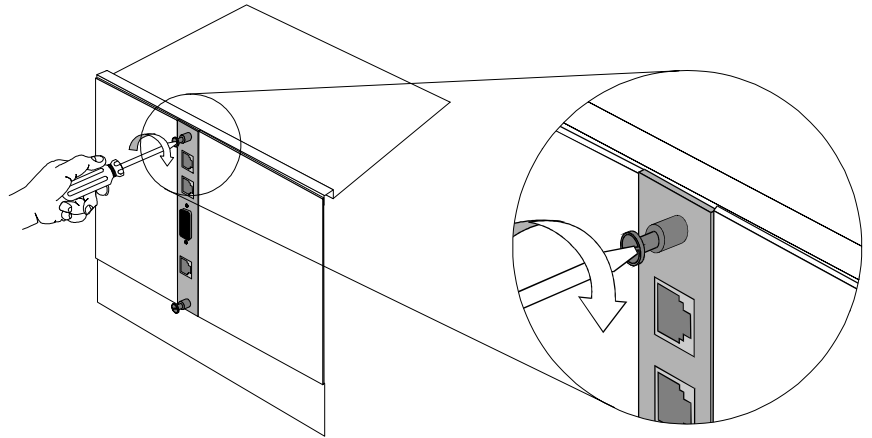
- 4 Insert the NIC between the slot's upper and lower card guides.



- 5 Slide the NIC into the chassis, until the front of the NIC is flush with the chassis.



- 6 Use a flat-head screwdriver to tighten the screws on the front panel.



- 7 Cover any unused chassis slots with safety panels.
- 8 Install the Network Application Card (NAC) corresponding to this NIC. Refer to the NAC's Getting Started Guide for more information.

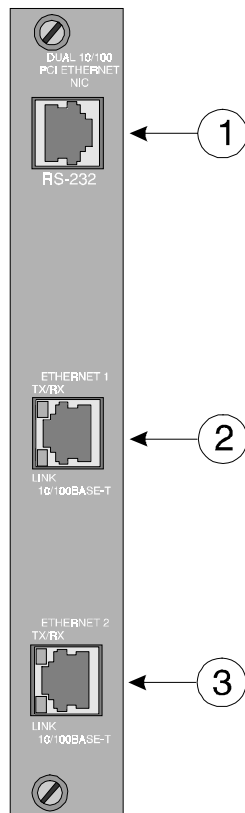
3

NETWORK INTERFACE CARD CABLING

This chapter provides information about the physical interfaces of the PCI Dual 10/100Base-T Ethernet Network Interface Card (NIC) and instructions for accessing the corresponding Network Application Card (NAC) through the user interface (UI).

Physical Interfaces

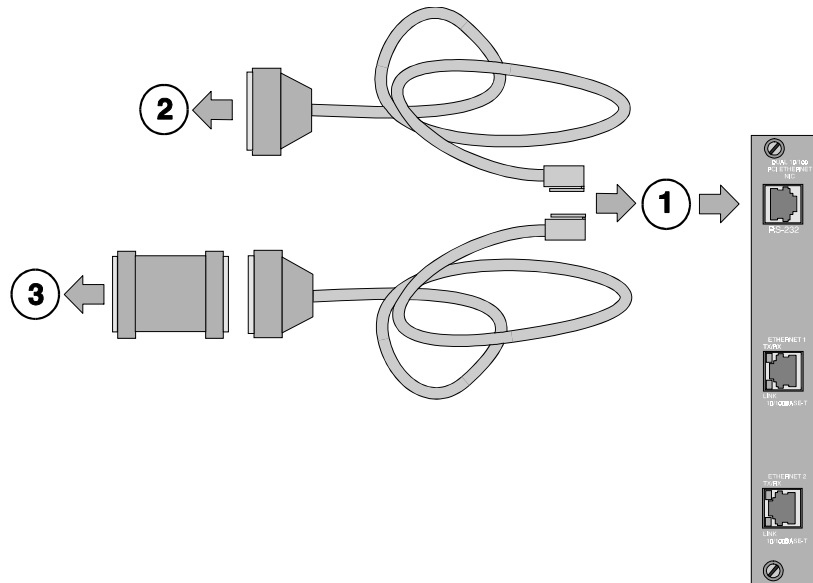
The PCI Dual 10/100Base-T Ethernet NIC has the following physical interfaces:



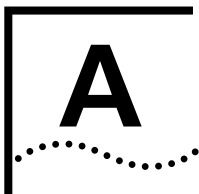
Callout	Interface Description
1	<p>RS-232:</p> <p>RJ-45 DTE port.</p> <p>Connect to this port to access the corresponding NAC's UI. This port's speed is determined by DIP switch settings on the NAC.</p>
2	<p>Ethernet 1:</p> <p>RJ-45 10/100Base-T Ethernet port.</p> <p>Features TX/RX and link LEDs. Refer to the <i>Trouble Clearing</i> section for LED details.</p>
3	<p>Ethernet 2:</p> <p>RJ-45 10/100Base-T Ethernet port.</p> <p>Features TX/RX and link LEDs. Refer to the <i>Trouble Clearing</i> section for LED details.</p>

Accessing the User Interface

To access the UI of the corresponding NAC, connect the following cables to the NIC's console port.



Callout	Description
1	RJ-45 connector to NIC's console port
2	DB-25 male connector to modem for remote operations
3	DB-25 female-to-female null modem adapter to PC or terminal COM port



TROUBLE CLEARING AND TECHNICAL SPECIFICATIONS

Trouble Clearing

This table describes Ethernet port LEDs and provides trouble clearing information.

LED	Color	Description/Trouble Clearing
Link	Green	Valid Ethernet connection
	None	No Ethernet connection detected; to get an Ethernet connection, check the: <ul style="list-style-type: none">■ User interface console port cabling■ Cable for damage■ Power
TX/RX	Flashes Green	Receiving data
	Flashes Yellow	Transmitting data
	None	No activity



The Ethernet port must be configured properly in order to transmit and receive data. Refer to the NAC's Product Reference guide for additional hardware trouble clearing information. The NAC's user interface (UI) console has status screens that supply information on power-up self tests and card status.

Technical Specifications

Certification EMC

CISPR 22, Class B, radiated and line conducted

FCC Part 15, Class A, radiated and line conducted

VDE 0878

EN 55022, EMI

EN 55022, Electrostatic Discharge

EN 55022, Immunity (Susceptibility), radiated and line conducted

Safety

UL 1950, as applicable in this case

Final Product will be evaluated to UL 1950

CSA approved C22.2 No. 0.7; C22.2 No. 225-M 1986; CSA 950

IEC 950, IEC 380

EN 41003, EN 60950

Regulatory Compliance Statements

United States

FCC Part 15 Compliance Statement

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Interface Specifications

RS-232 Port

Electrical specification	RS-232-C (EIA/TIA-232-E standard)
Connector	RJ-45, 8 position modular jack
Configuration	Data Terminal Equipment (DTE)
Transmission method	Unbalanced RS-232
Transmission rate	115,200 bps maximum

Ethernet 10Base-T/100 Base-TX Ports

Data Transfer Rate	10/100 Mbps Auto-negotiated
Connector	8-position modular jack, Stewart 88-360808 or equivalent
Accessing Scheme	CSMA/CD (Carrier Sense Multiple Access with Collision Detection)
Topology	Star Wired Hub (using multiport repeater)
Maximum Nodes	Limited only by repeater used
Transmission medium	Unshielded Twisted Pair (UTP) cable type CAT3 or CAT5 (CAT5 recommended) for 10Base-T applications, CAT5 for 100Base-TX
Network Lobe Distance	100 meters (328 ft.) suggested maximum (Longer cabling can be used at the expense of reduced receiver squelch levels)

Current Draw +5.2 VDC @ 2.0 A typical maximum



Typical maximum refers to the maximum current draw under most typical configurations.

Environment Shipping and Storage

Temperature	-25° to 75° C, -13° to 167° F
Relative Humidity	0 – 100%, non-condensing

Operating

Temperature	0° to 50° C, 32° to 122° F
Relative Humidity	0 – 95%, non-condensing

Physical Dimensions

	Inches	Centimeters
Length	4.40	11.18
Width	.79	2.01
Height	6.40	16.26



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