Dual PRI

Network Application Card
Getting Started Guide

Part No. 1.024.1304-00

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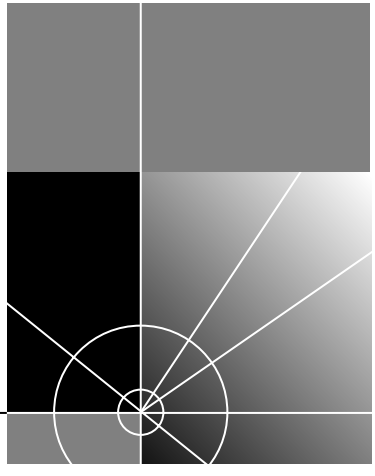

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Part No. 1.024.1304-00

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CONTENTS

1 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 typeface` represents displays that appear on your terminal screen, for example: `Netlogin:`
Text represented as **`commands`**	**`This typeface`** represents commands that you enter for example: **`setenv TCMHOME directory`** *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.*
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 Dual PRI Network Application Card (NAC) is a 386-based trunk card capable of supporting a variety of T1 and E1 applications within the 3Com Total Control Enterprise Network Hub. The applications supported are:

- T1/PRI
- E1/PRI
- E1/CAS
- Channelized T1 (versions 4.0 or later)
- E1/DASS2

With the Dual T1 or E1 Network Interface Card (NIC), the Dual PRI NAC interfaces with a T1 or E1 span and performs digital service unit (DSU) and private branch exchange (PBX) functions within the chassis.

Product Compatibility

T1 Applications

The Dual PRI NACs supporting T1/PRI or Channelized T1 (CH T1) are compatible with the following NICs:

- Dual T1 DS-1, for long-haul
- Dual DSX-1, for long or short-haul

E1 Applications

The Dual PRI NACs supporting E1/PRI, E1/CAS, or E1/DASS2 are compatible with the Dual E1 NIC.

2 INSTALLATION

This chapter contains Dual PRI Network Application Card (NAC) installation information.

Installation Tools

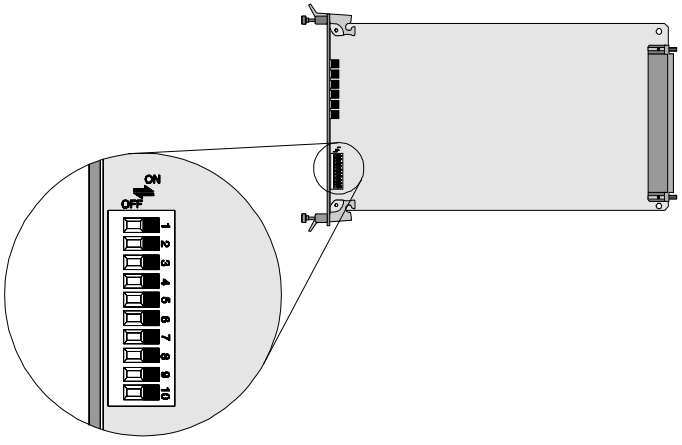
To install this NAC in the Total Control chassis, you need a #2 Phillips and flat-head screwdriver.

Installation Procedure

To install this NAC:

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

1. Install the Network Interface Card (NIC) corresponding to this NAC. Refer to the NIC's Getting Started Guide for more information.
2. Configure the NAC via the DIP switches.



DIP Switch	Applications	Function		
1,2	All	T1 or E1 NIC CH1 Port Rate		
		DIP1	DIP2	Selects
		OFF	OFF	9600 bps
		OFF	ON	19200 bps
		ON	OFF	38400 bps
		ON	ON	Reserved
3	CH T1	OFF: Hardware Flow Control disabled		
		ON: Hardware Flow Control enabled		
	T1/PRI	Reserved		
	E1/PRI			
	E1/CAS			
	E1/DASS2			
4	T1/PRI E1/PRI E1/DASS2	OFF: User Interface console password protection disabled ON: User Interface console password protection enabled		
	CH T1	Reserved		
	E1/CAS			
5–10		Reserved		

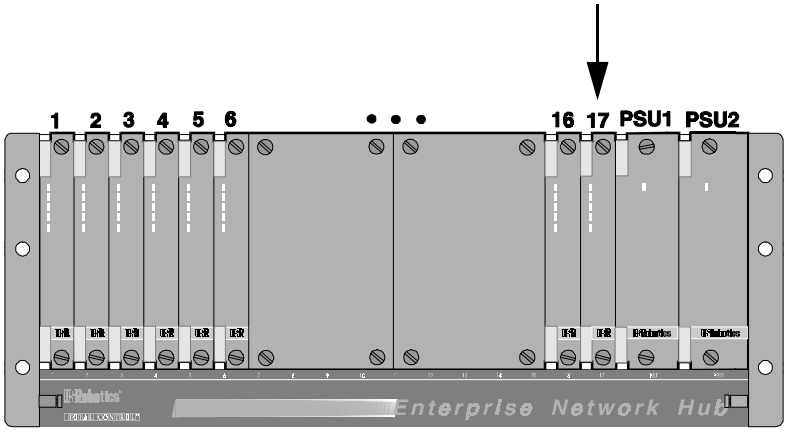
For proper operation, do not change DIP Switch settings marked as reserved.

Install the NAC whether or not power is applied to the chassis.

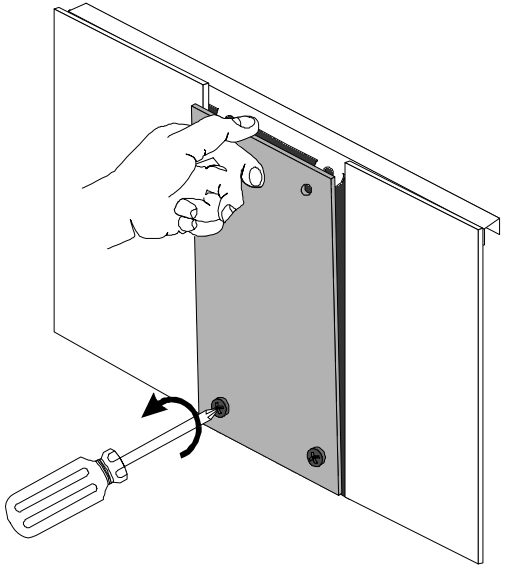
3 Select a slot at the front of the Total Control chassis for installing the NAC.

This NAC can be installed in slots 1–5.

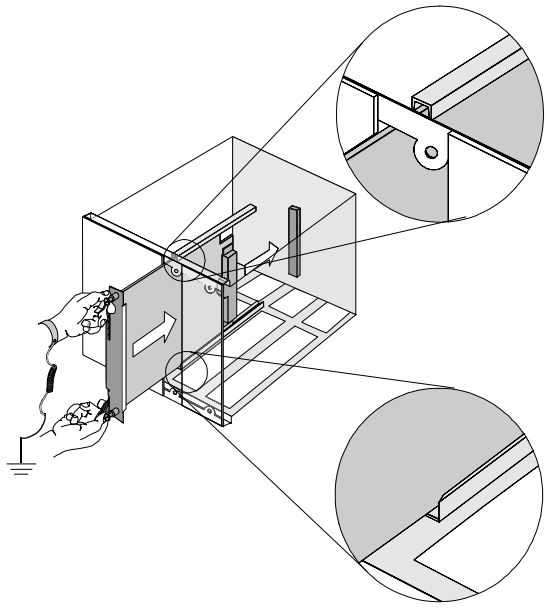
For managed chassis, slot 17 is reserved for the Network Management Card (NMC).



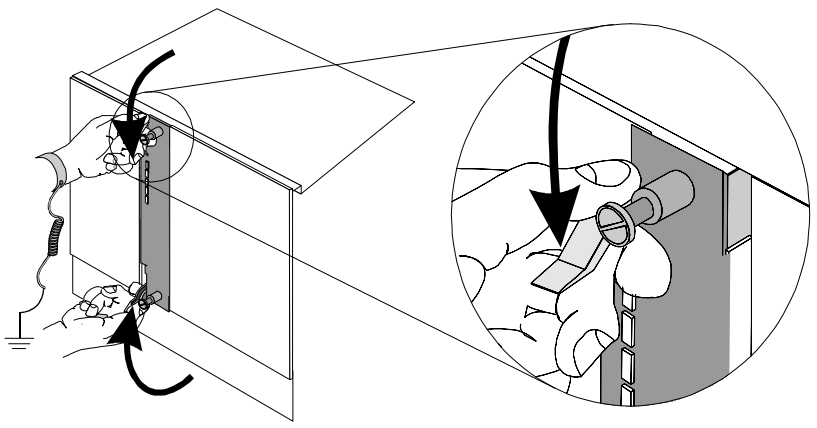
4 Use a #2 Phillips screwdriver to remove the safety panel covering this slot.



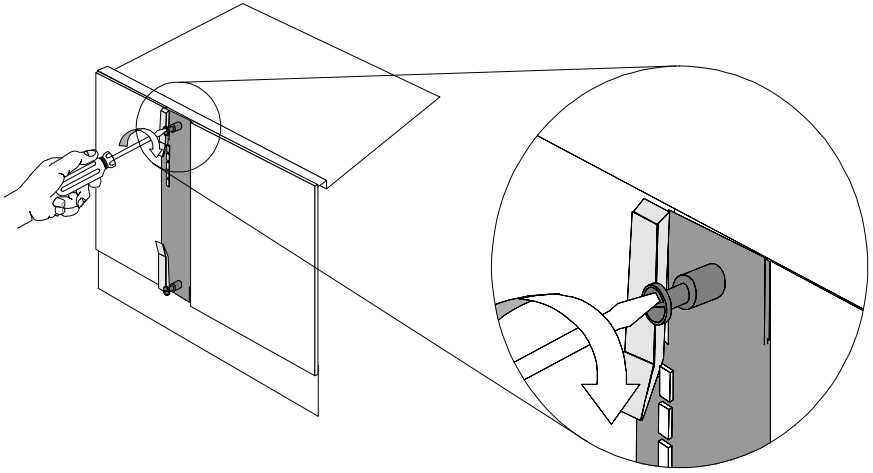
5 Insert the NAC between the slot's upper and lower card guides.



6 Holding the tabs perpendicular to the NAC's front panel, slide the NAC into the chassis, until the front of the NAC is flush with the chassis. Push the tabs toward each other to secure the NAC.



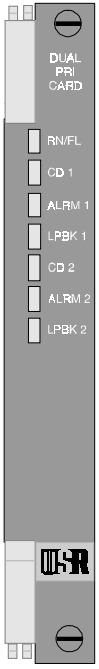
7 Use a flat-head screwdriver to tighten the screws on the front panel.



8 Cover any unused chassis slots with safety panels.

9 Apply power to the chassis, if power is not already applied.

10 After the NAC boots, verify that the RN/FL (run/fail) light emitting diode (LED) is green.



- If the RN/FL LED does not light, or is solid red or flashing red, there is an error. Refer to the *Trouble Clearing* section for more information.
- If the RN/FL LED is green, continue configuring the Dual PRI NAC. Refer to the Product Reference for configuration information.

A

TROUBLE CLEARING AND TECHNICAL SPECIFICATIONS

Trouble Clearing

This table provides Dual PRI Network Application Card (NAC) trouble clearing information for problems occurring at power-up.

Symptom	Cause	Trouble Clearing
RN/FL LED is showing no indicator light	Improper installation	Remove NAC and reinstall
RN/FL LED is solid red	Improper installation	Remove NAC and reinstall
RN/FL LED is flashing red	The NAC did not detect a Network Interface Card (NIC)	Install the NIC directly behind the NAC—refer to the NIC's Getting Started Guide
ALRM1 is solid red	The NAC did not detect a span connected to the NIC	Verify that the NIC is installed properly
	The span options are not configured properly	Verify that the span is connected to the proper span interface on the NIC
ALRM2 is solid red	The NAC did not detect a span connected to the NIC	Verify that the NIC is installed properly
	The span options are not configured properly	Verify that the span is connected to the proper span interface on the NIC

Refer to the NAC's Product Reference 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

T1 Applications

EMI/RFI	■ EN55022 A ■ FCC 15A
Safety	■ UL 1950 ■ C-UL ■ EN 60950 ■ JATE
Telco	■ FCC 68 ■ IC CS-03

E1 Applications

EMI/RFI	■ EN55022 A ■ AUSTEL ■ VCCI
Immunity	■ EN 50082
Safety	■ EN 60950 ■ EN 41003 ■ AUSTEL
Telco	■ NET5 ■ NTR 11 ■ ITU-T R2 ■ P7

BABT Declared Host Combinations

The Dual PRI NAC is designed only for use in the following Total Control chassis by 3Com:

- Enterprise Network Hub/16 35/45 Amp with AC or DC PSU
- Enterprise Network Hub/16 70/130 Amp with AC or DC PSU
- Enterprise Network Hub/6 with AC PSU

Use of a chassis other than one of the above may result in a hazard and will invalidate the regulatory approval.

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.

Current Draw

+5.2 vDC @ 1.5 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
Humidity:	0 to 100%, Non-condensing

Operating

Temperature:	0 to 40° C, 32 to 104° F
Humidity:	0 to 95%, Non-condensing

Physical Dimensions

	Inches	Centimeters
Length:	12.95	32.89
Width:	.79	2.00
Height:	6.90	17.53

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