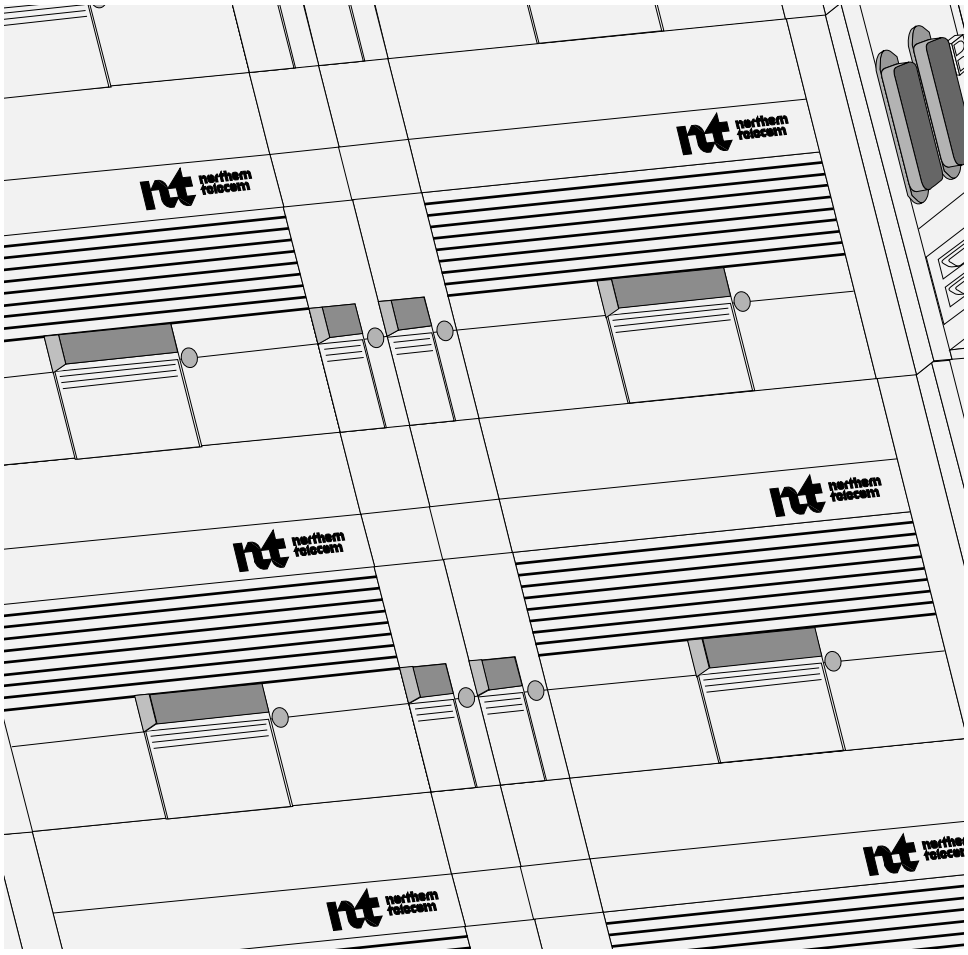
P0904238 **323-3001-002**

SONET Products

AccessNode / AccessNode Express

Master Index

Issue 2.0 October 1999



NORTEL NETWORKS™

SONET Products

AccessNode/AccessNode Express

Master Index

Document number: 323-3001-002
Document release: Issue 2.0
Date: October 1999

Copyright © 1993–1999 Northern Telecom, All Rights Reserved.

Printed in Canada

All information contained in this document is subject to change without notice. Nortel Networks reserves the right to make changes to equipment design or program components, as progress in engineering, manufacturing methods, or other circumstances may warrant.

ACCESSNODE, NORTEL NETWORKS, and ACCESSNODE EXPRESS are trademarks of Nortel Networks Corporation.

Publication history

October 1999

AN17.20 Standard release of the document, Issue 2.0.

June 1999

AN17 Standard release of the document, Issue 1.0.

February 1999

AN16 Standard release of the document, Issue 1.0.

June 1998

AN15 Standard 01.01 release of the document.

September 1997

AN14 Standard 01.01 release of the document.

April 1997

AN12.21 Standard 01.01 release of the document.

July 1996

AN12 Standard 01.01 release of the document.

November 1995

AN11 Standard 02.01 release of the document.

April 1995

AN10 Standard release of the document.

March 1995

Update package containing replacement pages for the standard AN08 release of the document.

December 1994

Standard AN08 release of the document.

November 1994

Reissue of the standard AN07 release of the document.

April 1994

Standard AN07 release of the document.

May 1993

Standard FWP06 release of the document.

Table of contents

About this document **vii**
How to interpret an index entry vii
Volume identifiers viii
Document numbers ix

AccessNode, AccessNode Express, and Universal Edge 9000 documents **1-1**
Chapter contents 1-1
Web delivery 1-2
CD-ROMs 1-2
Printed documentation 1-2
AccessNode library, NT4K00LA 1-3
AccessNode Express library, NT4K00LH 1-10
UE9000 library, NTNP00AA 1-13

AccessNode Index **2-1**

AccessNode Express Index **3-1**

Universal Edge 9000 Index **4-1**

About this document

Use this index as a guide to the AccessNode, AccessNode Express, and Universal Edge 9000 libraries. Major topics of the documentation suite are listed alphabetically in this index.

The UE9000 index is included as a separate index. Its entries are also combined with the AccessNode index.

How to interpret an index entry

A typical entry in this index indicates the location of a topic by volume, by document number, and by page number. Here is an example:

Section-level overhead
(V2A 100) 12-4
carried by SONET overhead bus (V2A 102) 3-3

This index entry refers to two separate documents.

- Page 12-4 of *Configuration and Equipment Description*, 323-3001-100, in *Description*, Volume 2A contains information on the section-level overhead.
- Page 3-3 of *Signal Flow and Circuit Pack Description*, 323-3001-102, in *Description*, Volume 2A contains information on how the section-level overhead is carried by the SONET overhead bus.

  Note: Separately bound documents will not have a Volume designation. Here is an example:

  ModCab
  description (119) 5-10

  This index entry refers to this document.

- Page 5-10 of *Modular Cabinet Description*, 323-3001-119.

Alphabetical chapter prefixes

For entries in *Log Report Manual*, 323-3001-840, in *Maintenance*, Volume 5B, the prefix to the page number is alphabetic rather than numeric. For example, the index entry for HMU logs is

HMU (NE log) (V5B 840) HMU-1

This entry indicates that page HMU-1 of *Log Report Manual*, 323-3001-840, in *Maintenance*, Volume 5B contains information on HMU network element logs.

Volume identifiers

The index uses the volume identifiers shown below.

Volume Identifier	Name of the volume
(V1)	Engineering, Configuration, and Ordering Guide
(V2A) (V2B)	Description
(V3A) (V3B)	Commissioning and Testing
(V4A) (V4B) (V4C)	Operations, Administration, and Provisioning
(V5A) (V5B) (V5C)	Maintenance
(ANX)	AccessNode Express
“Volume Name”	Name of Installation guides and other separately bound documents

Some volumes require two binders. These binders are indicated by a letter (A or B) that appears after the volume number.

Note: AccessNode Volumes 1 through 5 are shipped with AccessNode product orders only. The AccessNode Express volume is shipped with AccessNode Express product orders only. Separately bound documents are included with the products to which they refer.

Document numbers

The index lists the last three digits of the ten-digit document number for the NTP. For example, the number 100 identifies document 323-3001-100, which is *Configuration and Equipment Description.*

AccessNode, AccessNode Express, and Universal Edge 9000 documents

This chapter describes the documentation in the AccessNode, AccessNode Express, and Universal Edge libraries, and lists the contents of all volumes and related documents in the library.

For ordering information on AccessNode documents, refer to *Engineering and Ordering Information*, 323-3001-032, in *Engineering, Configuration, and Ordering*, Volume 1.

Chapter contents

This chapter contains the following information:

Topic	See
Web delivery	page 1-2
CD-ROMs	page 1-2
Printed documentation	page 1-2
AccessNode library, NT4K00LA	page 1-3
AccessNode Express library, NT4K00LH	page 1-10
UE9000 library, NTNP00AA	page 1-13

Web delivery

AccessNode documentation is now available on the worldwide web in an easy-to-use format. Contact your regional Nortel Networks representative for more information.

CD-ROMs

The following CD-ROMs are available:

NTP number	Document title	Order number
–	*CD-ROM* (PDF files, multimedia interface) — contains AN, ANX, and UE9000 documents	NT4K00LP/A0778318
–	*CD-ROM* (PDF files, Helmsman interface) — contains AN, ANX, and UE9000 documents	NT4K00LR/A0778742
–	*ANX 24L/48L Installation CD-ROM*	NT4K00LT/A0779810

Printed documentation

The issue of a document is indicated by the issue number. The issue number is a two-digit number separated by a decimal point; for example, 1.0.

A major change is indicated by an increment in the first digit. A minor change is indicated by an increment in the second digit.

For example, the issue of a document is at 1.0. If a major change is incorporated, the issue number of the document changes to 2.0. If a minor change is incorporated, the issue number of the document changes to 1.1.

AccessNode library, NT4K00LA

The AccessNode library includes five volumes. Other documents are available separately. The following sections contain short descriptions of the volumes and the other documents. The AccessNode library can also be ordered using the common product code (CPC) A0778314.

Engineering, Configuration, and Ordering Guide, Volume 1

The *Engineering, Configuration, and Ordering Guide* provides engineers and product evaluators with information about how to engineer, order, and configure AccessNode equipment. The guide contains information about new installations as well as upgrading existing systems. It also includes information about traffic engineering, installation planning, and performance specifications.

> ***Note:*** Volume 1 is part of the AccessNode library and is shipped when NT4K00LA is ordered. Volume 1 can be ordered separately using the CPC P0904223.

The *Engineering, Configuration, and Ordering Guide* comes in one binder, containing the following documents in the sequence shown below.

NTP number	Document title	Issue
323-3001-030	*About the AccessNode Library*	4.0
323-3001-032	*Engineering and Ordering Information*	3.0
323-3001-154	*Mapper Layouts Planning Guide*	3.0
323-3001-155	*Line Card Application and Special Services Engineering*	3.0
323-3001-200	*Site Installation Planning and Engineering*	2.0

Description, Volume 2

The *Description* volume is for strategic planners, provisioners, engineers, and network administrators. It describes the types of AccessNode systems that are available, as well as configurations, equipment, modular layout, features, and services. It provides brief descriptions of the system topologies and the software used by AccessNode.

> ***Note:*** Volume 2 is part of the AccessNode library and is shipped when NT4K00LA is ordered. Volume 2 can be ordered separately using the CPC P0904231.

The *Description* volume comes in two binders, Volume 2A and Volume 2B. The volume consists of the following documents in the sequence shown.

NTP number	Document title	Issue
Volume 2A		
323-3001-100	*Configuration and Equipment Description*	3.0
323-3001-102	*Signal Flow and Circuit Pack Description*	2.0
323-3001-103	*Protection Switching Description*	2.0
323-3001-104	*Alarms and Surveillance Description*	2.0
323-3001-105	*Performance Monitoring Description*	1.0
Volume 2B		
323-3001-115	*Line and Loop Testing Overview*	3.0
323-3001-180	*System Specifications*	1.0
323-3001-181	*Line Card Specifications*	3.0

- *Features and Services Description*, 323-3001-101, has been replaced by the *AccessNode Application and Feature Overview.*

Commissioning and Testing, Volume 3

The *Commissioning and Testing* volume contains the information needed to test and commission each network element, to connect the tested network elements into the required system configuration, and to perform system tests.

> ***Note:*** Volume 3 is part of the AccessNode library and is shipped when NT4K00LA is ordered. Volume 3 can be ordered separately using the CPC P0904232.

The *Commissioning and Testing* volume is divided into two binders. The first binder contains four separately bound documents that contain the procedures for setting up your system based on system type. The second binder contains the remainder of Volume 3. The volume consists of the following documents in the sequence shown below.

NTP number	Document title	Order Number	Issue
Volume 3A			
323-3001-230	*Setting Up Your System: VTBM*	P0906796	2.0
323-3001-235	*Setting Up Your System: DFA*	P0906797	3.0
323-3001-240	*Setting Up Your System: Point-to-Point*	P0906798	3.0
323-3001-245	*Setting Up Your System: Single-Ended*	P0906799	2.0
Volume 3B			
323-3001-220	*Optional Commissioning Procedures*	–	2.0
323-3001-221	*Site Testing Procedures*	–	2.0
323-3001-222	*System Testing Procedures*	–	1.0
323-3001-223	*Line Test Interface Commissioning Procedures*	–	2.0
323-3001-225	*DS1 Feeder Testing Procedures*	–	2.0

Operations, Administration, and Provisioning, Volume 4

The *Operations, Administration, and Provisioning* volume contains the operations, administration, and provisioning tasks that can be performed from the operations controller (OPC) user interface, and from the network element (NE) user interface. This volume also includes system-expansion information.

> ***Note:*** Volume 4 is part of the AccessNode library and is shipped when NT4K00LA is ordered. Volume 4 can be ordered separately using the CPC P0904233.

The *Operations, Administration, and Provisioning* volume comes in three binders, Volume 4A, Volume 4B, and Volume 4C. The volume consists of the following documents in the sequence shown below.

NTP number	Document title	Order number	Issue
Volume 4A			
323-3001-300	*Network Element User Interface Description*	–	2.0
323-3001-301	*OPC User Interface Description*	–	4.0
323-3001-302	*System Administration Procedures*	–	4.0
323-3001-304	*Data Administration Procedures*	–	1.0
Volume 4B			
323-3001-310	*Provisioning and Operations Procedures*	–	2.0
323-3001-311	*Protection Switching Procedures*	–	2.0
323-3001-315	*Line Card Provisioning Procedures*	–	3.0
323-3001-316	*Line Card Testing Procedures*	–	3.0
Volume 4C			
323-3001-324	*System Expansion Procedures*	P0904347	2.0
–	*Span of Control Consolidation*	P0887941	1.0
–	*Addition of AN Nodes in a VTBM Ring*	P0887942	1.0
–	*Removal of AN Nodes in a VTBM Ring*	P0887943	1.0

Maintenance, Volume 5

The *Maintenance* volume contains the maintenance tasks that can be performed from the operations controller (OPC) user interface and from the network element (NE) user interface. The volume includes trouble-clearing, recovery, and maintenance procedures.

> ***Note:*** Volume 5 is part of the AccessNode library and is shipped when NT4K00LA is ordered. Volume 5 can be ordered separately using the CPC P0904236.

The *Maintenance* volume comes in three binders, Volume 5A, Volume 5B, and Volume 5C. The volume consists of the following documents in the sequence shown below.

NTP number	Document title	Issue
Volume 5A		
323-3001-543	*Alarm and Trouble Clearing Procedures*	3.0
Volume 5B		
323-3001-840	*Log Report Manual*	3.0
Volume 5C		
323-3001-510	*Network Surveillance Procedures*	1.0
323-3001-520	*Performance Monitoring Procedures*	2.0
323-3001-545	*Recovery Procedures*	1.0
323-3001-546	*Routine Maintenance Procedures*	2.0
323-3001-547	*Module Replacement Procedures*	3.0
323-3001-548	*Circuit Testing from the OPC User Interface*	1.0

Separate documents in the AccessNode library

In addition to the volumes, additional documents are included in the AccessNode library and are shipped with the AccessNode suite.

Some documents are ordered based on your configuration. These documents provide network planners, engineers, and installers with information on how to install AccessNode equipment and enclosures.

Separately bound documents that ship with the AccessNode suite

NTP number	Document title	Order number	Issue
323-3001-002	*Master Index*	P0904238	2.0
323-3001-850	*List of Terms*	P0904251	1.0
323-3001-152	*Traffic and Bandwidth Engineering Information* (engineering tool software is on the Helmsman CD-ROM)	P0904247	1.0
323-3001-190	*TL1 Interface Description*	P0904250	1.0
323-3001-201	*Bay in Central Office Installation Manual—ABM*	P0911128	1.0
–	*ABM Bay Cable Connection Quick Reference Guide*	P0887749	1.0
323-3001-202	*Bay in Central Office Installation Manual—TBM*	P0887754	2.0
–	*Provisioning Quick Reference Guide*	P0887750	1.0
–	*Group and Slot Quick Reference Card*	P0887751	1.0
–	*Technical Support Quick Reference Card*	P0887752	1.0
–	*AccessNode Incremental Software Delivery QRC*	P0904353	1.0
–	*TL1 at the Command Line QRG*	P0904352	1.0
–	*Install/Replace Digital Test Access Pair QRC*	P0904831	1.0

AccessNode separately bound documents ordered based on configuration

NTP number	Document title	Order number	Issue
323-3001-110	*Modular Business Package Description*	P0887756	1.0
Addendum 1 to 323-3001-200	*MBP Site Installation Planning and Engineering*	P0911127	1.0
323-3001-206	*Modular Business Package Cabinet Installation Manual*	P0887757	1.0
–	*MBP VTBM Ring Installation Guide*	P0887758	1.0
–	*MBP VTBM Ring User Guide*	P0904244	1.0
323-3001-118	*Series 800A Outside Plant Cabinet Description*	P0887760	1.0
323-3001-210	*Series 800A Outside Plant Cabinet Installation Manual*	P0887761	1.0
323-3001-119	*Modular Cabinet Description*	P0887762	1.0
323-3001-211	*Modular Cabinet Installation Guide*	P0887763	2.0
–	*AccessNode Multiple ABMs in a Bay (NT4K03CA) QRC*	P0891391	1.0
–	*Quick Reference Guide*	NT4K00KG/A0746248	1.0
–	*MCOT to ABM Commissioning QRG*	P0903573	1.0
–	*AN2016 User Guide*	P0905277	1.0
–	*AN Step-In Cabinet Guide*	P0905278	1.0
–	*AN17 Planning Guide*	NTR410LA/A0778676	1.0

Note: The *Data Direct User Guide* has been discontinued.

AccessNode Express library, NT4K00LH

The AccessNode Express library contains the *AccessNode Express* volume (one binder). Other documents are available separately.

Note: The AccessNode Express library can also be ordered using the CPC A0778681.

AccessNode Express volume

The *AccessNode Express* volume consists of the following documents in the sequence shown below.

NTP number	Document title	Order number	Issue
323-3001-030	*About the AccessNode Library*		4.0
323-3051-032	*AccessNode Express Customer Ordering Guide*	P0904254	3.0
323-3051-100	*AccessNode Express Configuration and Equipment Description*		3.0
323-3051-220	*AccessNode Express Commissioning and OAM&P*		3.0
323-3001-850	*List of Terms*	P0904251	1.0

The following documents have been moved:

- *AccessNode Express List of Terms,* 323-3051-850 has been replaced with the *List of Terms,* 323-3001-850.

Separate documents in the AccessNode Express library

In addition to the volume, additional documents are included in the AccessNode Express library and are shipped with the AccessNode Express suite.

Some documents are ordered based on your configuration. These documents provide network planners, engineers, and installers with information on how to install AccessNode equipment and enclosures.

Separately bound documents that ship with the AccessNode Express suite

NTP number	Document title	Order number	Issue
323-3051-210	*AccessNode Express Installation Guide*	P0904252	2.0
323-3051-211	*AccessNode Express Maintenance Guide*	P0904253	2.0
–	*AccessNode Express PC Access Assist User Guide*	P0904255	1.0
323-3051-312	*AccessNode Express TL1 User Guide*	P0904262	2.0
323-3051-543	*AccessNode Express Alarm and Trouble Clearing Procedures*	P0904266	1.0
–	*AccessNode Express Commissioning Quick Reference Guide*	P0904267	1.0
–	*AccessNode Express Voice Module Quick Reference Card*	P0887774	1.0
–	*AccessNode Express Auxiliary Bracket/Shelf Quick Reference Card*	P0911134	1.0
–	*AccessNode Express Grounding Procedure Quick Reference Card*	P0887776	1.0
–	*AccessNode Express SONET CX Installation Quick Reference Card*	P0889655	1.0
–	*TL1 at the Command Line QRG*	P0904352	1.0
–	*Fractional T1 QRG*	P0904350	1.0
–	*OC-1 Fed ANX to OC-3 Express Commissioning QRG*	P0906843	2.0

AccessNode Express separately bound documents ordered based on configuration

NTP number	Document title	Order number	Issue
–	*AccessNode Express Modular Cabinet Installation Guide*	P0911131	1.0
323-3051-118	*AccessNode Express Modular Cabinet Description*	P0887772	1.0
–	*AccessNode Express HDSL Installation and Reference Guide*	P0904259	1.0
–	*AccessNode Express 24-Line Cabinet Installation Guide*	P0911130	1.0
–	*AccessNode Express (ANX-24L for CPE/CPL) Grounding Quick Reference Card*	P0889658	1.0
–	*AccessNode Express 1-Meg Modem Reference and Troubleshooting Guide*	P0905280	1.0
–	*AccessNode Express Installing 1-Meg Modem Service Using PC Access Assist QRC*	P0905282	1.0
–	*AccessNode Express Commissioning 1-Meg Modem Service Quick Reference Card*	P0905281	1.0
–	*AccessNode Express Installing the 1-Meg-Modem Loop Extender Quick Reference Card*	P0905283	1.0
–	*AccessNode Express 24-line Enclosure Installation Quick Reference Card*	P0911132	1.0
–	*Reconfiguration from CServer to HDT*	P0887944	1.0
–	*Reconfiguration from DS1 to HDSL Feeder*	P0888972	1.0
323-3051-240	*AccessNode Express 100 Cabinet User Guide*	NT4A67AA/ A0747963	1.02
–	*AccessNode Express Point-to-Multipoint Reunion User Guide*	NTN565BA/ A0747965	1.01
–	*AccessNode Express Mini-Cabinet User Guide*	NTN565AA/ A0747964	1.0

Note: The *AccessNode Express Data Module User Guide*, NT4K00KJ/A0746249 has been discontinued.

UE9000 library, NTNP00AA

The following documents are included in the UE9000 library. The order number is shown for each document.

Note: The UE9000 library can be ordered using the CPC A0778313.

UE9000 documents

NTP number	Document title	Order number	Issue
–	*UE9000 Adjacent Bay Installation Guide*	P0903857	2.0
–	*UE9000 Customer Ordering Guide*	P0907599	3.0
	UE9000 Data Network Design Guidelines	P0908903	1.0
	UE9000 Data OAM&P User Guide	P0902804	2.0
	UE9000 Data System Set Up Quick Reference	P0908899	2.0
–	*UE9000 Installation Quick Reference*	P0902807	2.0
–	*UE9000 LED Quick Reference*	P0902805	1.0
–	*UE9000 Pre-installation Quick Reference*	P0902808	2.0
–	*UE9000 System Set Up Guide*	P0902806	1.0
–	*UE9000 Voice OAM&P User Guide*	P0902809	1.0

AccessNode Index

Numbers

1+1 protection switching.
See Protection switching, nonrevertive.

1:n protection switching.
See Protection switching, revertive.

3DS0 ISDN
provisioning Vol. 4B 315 4-18

-48 V dc cabling
MBP cabinet with VTBM
installing MBP VTBM Ring Inst 9-7
TBM bay
installing TBM Inst 202 4-16

800-service.
See Service, 800-service

A

A0368415--ABM BIP lamp
Vol. 5C 546 2-8

A0368415--TBM BIP lamp
Vol. 5C 546 2-8, Vol. 5C 546 2-12

A0378090--TBM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-2

A0380959--TBM BIP lamp
Vol. 5C 546 2-8

A0381919--ABM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-5

A0381920--ABM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-5

A0381921--ABM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-5

A0383922--Air filter assembly, MBP
Vol. 5C 546 5-3

A0622542--ABM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-5

A0627317--ABM BIP circuit breaker
Vol. 5C 547 5-1, Vol. 5C 547 5-5

ABCD signaling
Vol. 2A 101 2-19

ABM shelf
copper-distribution Vol. 2A 103 2-4
DS1s Vol. 2A 103 2-5
DS3s Vol. 2A 103 2-8
functions
DS1 circuit pack groups Vol. 5A 543 1-17
DS3 circuit pack groups Vol. 5A 543 1-18
OC-3 tributaries Vol. 2A 103 2-10

ABM.
See Access bandwidth manager bay or shelf

ac
dedicated ac panel
ABM Bay Cable Conn QRG 1-1
power requirements
ABM Bay Cable Conn QRG 1-1
powering for MBP Site Inst P&E Add 4-3,
Site Inst P&E Add 4-8
receptacles
with CBN ABM Bay Cable Conn QRG 1-2
with IBN ABM Bay Cable Conn QRG 1-2
utility ABM Bay Cable Conn QRG 1-2

ac cabling
connecting to MPP cabinet
MBP Cab Inst 206 7-48,
MBP Cab Inst 206 15-6
installation ABM Inst 201 3-24
placement TBM Inst 202 4-37
routing TBM Inst 202 4-36

AC circuit breakers
in ModCab Mod Cab Desc 119 7-9

AC grounding electrode
safety codes Mod Cab Inst 211 1-13

ac load box option
S800A Cab Inst 210 1-19
anchor plate S800A Cab Inst 210 1-18
conduit openings S800A Cab Inst 210 3-3
earth ground for S800A Cab Inst 210 3-5
wiring S800A Cab Inst 210 13-8
wiring as a branch circuit S800A Cab Inst 210 3-7
wiring as a main service entrance
S800A Cab Inst 210 3-10

ac load box, narrow
S800A Cab Inst 210 1-19

ac load box, wide
S800A Cab Inst 210 1-18

AC power
cabling in Modular Business Package
Site Inst P&E Add 8-5
cabling in Virtual tributary bandwidth manager
Modular Business Package
MBP VTBM Ring Inst 6-21
frequency variation range Mod Cab Inst 211 4-1
input for Virtual tributary bandwidth manager
Modular business package
MBP VTBM Ring User 2-28
input for VTBM MBP MBP VTBM Ring Inst 2-31
voltage range variations Mod Cab Inst 211 4-1

AC power (continued)
outlets in S800A S800A OP Cab Desc 118 3-4
pedestal option S800A Cab Inst 210 3-4,
S800A Cab Inst 210 3-13
wiring S800A Cab Inst 210 13-11
power compartment in S800A
S800A OP Cab Desc 118 4-1
power supply in S800A
S800A OP Cab Desc 118 4-9
requirements in S800A
S800A OP Cab Desc 118 6-2

AC power pedestal
ac requirements in ModCab
Mod Cab Desc 119 7-4
conduit entry ports in ModCab
Mod Cab Desc 119 7-5
in ModCab Mod Cab Desc 119 7-3
wiring S800A Cab Inst 210 3-17

AC power pedestal option
S800A Cab Inst 210 1-6, S800A Cab Inst 210 2-5
anchor plate S800A Cab Inst 210 1-20

AC power pedestal option of ModCab
wiring Mod Cab Inst 211 4-7

Access bandwidth manager
BIP circuit breaker Vol. 5C 547 5-7
A0381919 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0381920 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0381921 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0622542 Vol. 5C 547 5-1
A0627317 Vol. 5C 547 5-1
CEP Vol. 5C 547 2-56
circuit pack position numbering for Virtual tributary
bandwidth manager Modular business
package MBP VTBM Ring User 2-15
description Mod Cab Desc 119 5-4
in VTBM MBP MBP VTBM Ring Inst 4-17
installing circuit packs in VTBM MBP
MBP VTBM Ring Inst 10-13
ordering circuit packs for VTBM MBP
MBP VTBM Ring User 11-9
shelf layout with slot numbers Vol. 2A 102 4-3

Access bandwidth manager bay
-48 V cabling installation ABM Inst 201 6-75
add-drop mux configuration ABM Inst 201 2-9
add-drop start-up configuration ABM Inst 201 2-7
configurations ABM Inst 201 2-2
DS1/DS3 mixed cable installation
ABM Inst 201 6-30
DS3 cable installation ABM Inst 201 6-24
end guard extender installation ABM Inst 201 8-1
external cables ABM Inst 201 2-16
finishing installation ABM Inst 201 7-1
installing external bay cabling ABM Inst 201 5-1

Access bandwidth manager bay (continued)
installing orderwire extension cable
ABM Inst 201 5-16
installing VF cabling ABM Inst 201 5-11
intershelf cables ABM Inst 201 2-14
metallic test access cable installation
ABM Inst 201 6-55
numbering of CDSs (figure) Vol. 4C 324 9-3
positioning and securing ABM Inst 201 7-2
power cabling installation ABM Inst 201 6-75
Prewired configuration ABM Inst 201 2-5
securing the bay frame ABM Inst 201 3-12
transmission ground reference panel installation
ABM Inst 201 6-52
unpacking ABM Inst 201 3-1
upgrade add-drop mux to add-drop start-up
ABM Inst 201 5-10

Access Bandwidth Manager shelf
TBOS displays Vol. 2A 104 6-1

Access bandwidth manager shelf
672-line system Vol. 2A 101 1-2
98 DS1 Vol. 2A 101 1-2
AIC location Mix & Match DFA Recon QRG 1-3
bay cable connections Vol. 1 200 5-2
common equipment, powering up
Vol. 3A 230 2-17, Vol. 3A 235 2-21,
Vol. 3A 240 2-42, Vol. 3A 245 2-21,
MCOT to ABM QRG 3-20
definition Vol. 4C 324 1-23
DFA configuration
Mix & Match DFA Recon QRG 1-8
dimensions Vol. 2A 100 7-6
DS1 group and slot association Vol. 1 154 2-8
DS1 mappers Mix & Match DFA Recon QRG 1-8
DS1 protection bridge card Vol. 1 154 2-9
ETIC location
Mix & Match DFA Recon QRG 1-8
external cables ABM Inst 201 2-16
handling 9 DS3s Vol. 1 154 2-16
handling 98 DS1s Vol. 1 154 2-11
in Modular Business Package
MBP Cab Inst 206 5-12
in S800A cabinet S800A OP Cab Desc 118 9-3
installing environmental control panel cover
ABM Inst 201 8-6
installing MBP cover MBP Cab Inst 206 16-2
intershelf cables ABM Inst 201 2-14
LAIC location
Mix & Match DFA Recon QRG 1-8
layout Vol. 2A 100 7-8
OPC location Mix & Match DFA Recon QRG 1-8
restrictions when mixed cards Vol. 1 154 2-6
signal flow Vol. 2A 102 2-2
slot usage Vol. 1 154 2-6
slots in Vol. 2A 100 7-8
structure Vol. 2A 100 7-8
traffic-handling capacity Vol. 1 154 2-6
TXC location Mix & Match DFA Recon QRG 1-8

Access bandwidth manager shelf (continued)
usage Vol. 2A 100 7-3
used as OPC shelf Vol. 2A 100 7-15
used in MBP MBP Desc 110 2-12
wiring S800A Cab Inst 210 13-34
with OPC on-shelf
Mix & Match DFA Recon QRG 3-7

Access failure
clear alarm Vol. 5A 543 3-42

Access identifier (AID)
for AccessNode TL1 Interface Desc 190 3-92,
TL1 Interface Desc 190 5-3
for AccessNode Express TL1 Interface Desc
190 3-91, TL1 Interface Desc 190 5-3
supported in TL1 surveillance TL1 Interface Desc
190 3-86

Access interface card
Vol. 2A 102 5-3, Vol. 5C 547 2-23
alarm Vol. 4B 310 15-6
alarm point, enabling and disabling
Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-97
description Vol. 2A 100 8-5
equipment troubleshooting Vol. 5A 543 3-20
equipping rules Vol. 2A 102 5-7
failed Vol. 5C 547 2-23
in-service Vol. 5C 547 2-23
LED, troubleshooting Vol. 5A 543 7-12
NT4K55 Vol. 5C 547 2-2, Vol. 5C 547 2-23
out-of-service Vol. 5C 547 2-23
replacing in VTBM MBP
MBP VTBM Ring User 7-22
Access Interface Card. See also AIC

Access logs
Vol. 2A 101 1-2

AccessNode
access identifiers (AID) TL1 Interface Desc
190 3-92, TL1 Interface Desc 190 5-3
call attempts
defined T&B Eng Info. 152 1-3
call blocking
defined T&B Eng Info. 152 1-1, T&B Eng Info.
152 3-1
commissioning Vol. 4C Add Nodes VTBM 2-10
configuration Vol. 4C Add Nodes VTBM 2-11
default provisioning Vol. 2A 101 1-5
DMS Access Vol. 2A 100 5-11,
Vol. 2A 100 5-14, Vol. 2A 101 1-6
GR-303 DMS host switch
requirements T&B Eng Info. 152 3-2
GR-303 MVI host switch
description T&B Eng Info. 152 3-4
grade of service objectives
defined T&B Eng Info. 152 1-2

AccessNode (continued)
holding time
defined T&B Eng Info. 152 1-3
host switch transport architectures T&B Eng Info. 152 3-1
network elements
defined T&B Eng Info. 152 2-2
switch transport architectures T&B Eng Info. 152 3-1
system description Mod Cab Desc 119 1-2
TR-08 host switch
requirements T&B Eng Info. 152 3-4
traffic engineering
basic concepts T&B Eng Info. 152 1-1
CLASS lines defined T&B Eng Info. 152 2-3
coin lines defined T&B Eng Info. 152 2-4
electronic business set defined T&B Eng Info. 152 2-4
GR-303 DMS host switch
requirements T&B Eng Info. 152 3-2
GR-303 DMS services T&B Eng Info. 152 2-3
GR-303 MVI host switch
description T&B Eng Info. 152 3-4
host switch transport architectures T&B Eng Info. 152 3-1
integrated service digital network lines defined T&B Eng Info. 152 2-6
Meridian digital centrex lines defined T&B Eng Info. 152 2-4
network element and service requirements T&B Eng Info. 152 2-1
network elements defined T&B Eng Info. 152 2-2
POTS lines defined T&B Eng Info. 152 2-3
remote fiber terminal defined T&B Eng Info. 152 2-3
remote site locations defined T&B Eng Info. 152 2-1
software tool T&B Eng Info. 152 4-1
purpose T&B Eng Info. 152 4-2
software tool command bar and buttons T&B Eng Info. 152 4-8
software tool function T&B Eng Info. 152 4-3
software tool information requirements T&B Eng Info. 152 4-3
software tool installation T&B Eng Info. 152 4-12
software tool interface description T&B Eng Info. 152 4-3
software tool system requirements T&B Eng Info. 152 4-3
special circuits defined T&B Eng Info. 152 2-6
switch transport requirements T&B Eng Info. 152 3-1
TR-08 host switch
requirements T&B Eng Info. 152 3-4
universal voice grade lines defined T&B Eng Info. 152 2-5
traffic engineering software tool
AccessNode system configuration T&B Eng Info. 152 4-13

AccessNode (continued)
closing traffic tool T&B Eng Info. 152 4-32
exiting traffic tool T&B Eng Info. 152 4-32
input questionnaire procedure T&B Eng Info. 152 4-16
printing all traffic tool data T&B Eng Info. 152 4-31
printing worksheet data T&B Eng Info. 152 4-29
remote location specification T&B Eng Info. 152 4-15
saving traffic tool and all data T&B Eng Info. 152 4-30
saving worksheet data T&B Eng Info. 152 4-27
starting the tool T&B Eng Info. 152 4-14
system data calculation T&B Eng Info. 152 4-22
viewing worksheet data T&B Eng Info. 152 4-29
transport architectures T&B Eng Info. 152 3-1

AccessNode Express
access identifiers (AID) TL1 Interface Desc 190 3-91, TL1 Interface Desc 190 5-3
LAIC replacement Vol. 5C 547 2-23

ACD.
See Service, automatic call distributor

ACO
command
silencing alarms Vol. 5A 543 1-5
failure
causes Vol. 5A 543 1-5

ACO/LT button
local craft access panel Vol. 5A 543 1-5

Add-drop bus
Vol. 2A 102 3-6

Add-drop multiplexer
ring
adding Vol. 3A 230 4-3, Vol. 3A 240 3-16
APS ID, editing Vol. 4B 310 3-6
deleting a ring configuration Vol. 4B 310 3-11
displaying ring ADMs in a configuration Vol. 4B 310 3-4
ring name, editing Vol. 4B 310 3-9
ring, testing Vol. 4B 311 3-13, Vol. 4B 311 3-16
single, testing Vol. 4B 311 3-14, Vol. 4B 311 3-19

Add-drop mux ABM bay
ABM Inst 201 2-9

Add-drop mux configuration
ABM Inst 201 2-9

Add-drop start-up ABM bay
ABM Inst 201 2-7

Add-drop start-up configuration
Vol. 2A 100 6-3, Vol. 2A 100 6-5, ABM Inst 201 2-7

Adding DS1
bidirectional cross-connect in a linear system MCOT to ABM QRG 1-68
equipment MCOT to ABM QRG 1-56
facilities MCOT to ABM QRG 1-56

Adjacent bay installation
UE9000 Ad Bay QR 1-1

ADM.
See Add-drop multiplexer.

Administration procedures
Vol. 4A 302 1-1

ADSL
troubleshooting UE9000 Data OAMP UG 6-18
fails loopback test UE9000 Data OAMP UG 6-30
no hardware flag for ADSL UE9000 Data OAMP UG 6-38

ADSL subscriber circuit
provisioning UE9000 Data OAMP UG 1-35
state, changing UE9000 Data OAMP UG 5-9

AGC
See Automatic gain control

AIC
alarm Vol. 5A 543 1-10
failure, troubleshooting Vol. 5A 543 3-63, Vol. 5A 543 3-65
NE log Vol. 5B 840 2-1, Vol. 5B 840 2-4, Vol. 5B 840 2-6, Vol. 5B 840 2-8, Vol. 5B 840 2-10, Vol. 5B 840 2-12, Vol. 5B 840 2-15
See also Access interface card.

Air filter
changing for VTBM MBP MBP VTBM Ring User 10-6
changing unit for bay Vol. 5C 547 6-6
cooling unit
changing Vol. 5C 546 2-2
locating Vol. 5C 546 2-2
removing Vol. 5C 546 2-2
replacement interval Vol. 5C 546 2-2
MBP
changing Vol. 5C 546 5-3
replacement interval Vol. 5C 547 6-6

Air induction roof
Vol. 5C 546 6-17
See also Series 800A outside-plant cabinet

Air induction.
See Series 800A outside plant cabinet, air induction roof

AIS insertion into G1OUT and G2OUT
Vol. 2A 100 11-45, Vol. 2A 101 1-8

AIU.
See Alarm interface unit

Alarm
Vol. 5A 543 2-6, Vol. 5A 543 3-335
access interface card Vol. 4B 310 15-6, Vol. 5A 543 1-10
ACO failure Vol. 5A 543 1-5
active
displaying according to class and severity Vol. 5C 510 8-7
alarm point
enabling and disabling COMM facility Vol. 4B 310 6-14
enabling and disabling DS1 facility Vol. 4B 310 6-6
enabling and disabling DS3 facility Vol. 4B 310 6-9
enabling and disabling OC-12 facility Vol. 4B 310 6-12
enabling and disabling OC-3 facility Vol. 4B 310 6-12
enabling and disabling STS-1 facility Vol. 4B 310 6-6
alarm point, enabling and disabling
equipment Vol. 4B 310 5-11
integrated remote test unit Vol. 4B 310 5-11
interface cards Vol. 4B 310 5-11
mappers Vol. 4B 310 5-11
metallic test access card Vol. 4B 310 5-11
OC-12 optical interface Vol. 4B 310 5-11
OC-3 optical interface Vol. 4B 310 5-11
processor Vol. 4B 310 5-11
test access card Vol. 4B 310 5-11
timing and cross-connect card Vol. 4B 310 5-11
archive Vol. 2A 101 1-2, Vol. 2A 104 2-3
assigning a remote alarm Vol. 4A 302 15-11
assigning defaults to a signal distribution point Vol. 4A 302 10-13
assigning to a signal distribution point Vol. 4A 302 10-8
ATM card UE9000 Voice OAMP UG 6-5
audible
turning off Vol. 4B 310 15-2
audible alarm specifications Vol. 2B 180 13-1
audible, silencing Vol. 5A 543 1-5
banner line
user view Vol. 5C 510 6-8
bay high temperature, test Vol. 3A 230 9-39
category listing Vol. 5C 510 6-8
checking system status Mix & Match DFA Recon QRG 2-2

Alarm (continued)
circuit packs Vol. 5A 543 2-5
class Vol. 2A 104 2-5, Vol. 5A 543 1-9
Env (Environmental) Vol. 5A 543 5-1
Eqp (Equipment) Vol. 5A 543 3-1
Fac (Facility) Vol. 5A 543 4-1
clear critical Vol. 3B 225 4-47
clear major Vol. 3B 225 4-46
clear minor Vol. 3B 225 4-45
clearing Vol. 5A 543 1-8, Mix & Match DFA Recon QRG 2-2
how to begin Vol. 5A 543 1-2
how to look up alarm procedures Vol. 5A 543 1-12
cluster display Vol. 4A 302 10-4
COMM facility
faulty path Vol. 5A 543 4-11
common equipment Vol. 4B 310 15-6
common-equipment Vol. 5A 543 1-10
common-equipment circuit pack
OPC, MIC, and ESI Vol. 5A 543 2-7
configuring
beeps Vol. 5C 510 6-9
contacts
electrical specifications Vol. 2B 180 13-2
copper-distribution shelf Vol. 4B 310 15-6, Vol. 5A 543 1-10
copper-distribution shelf power Vol. 4B 310 15-6, Vol. 5A 543 1-10
criteria for raising Vol. 2A 104 1-3
critical Vol. 2A 104 1-6, Vol. 3B 225 4-44
both planes non-operational Vol. 5A 543 3-48
circuit pack fail Vol. 5A 543 3-20, Vol. 5A 543 3-80, Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21, Vol. 5A 543 3-81, Vol. 5A 543 3-116
circuit pack missing Vol. 5A 543 3-22, Vol. 5A 543 3-83, Vol. 5A 543 3-117
comm overhead clock/frame loss Vol. 5A 543 3-23
comm overhead data loss Vol. 5A 543 3-24
critical test alarm Vol. 5A 543 3-53
D-link interface fail Vol. 5A 543 3-26
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
line RFI Vol. 5A 543 4-129
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
protection version mismatch Vol. 5A 543 3-110
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
shelf assembly fail Vol. 5A 543 3-68
STS1 intercard fail Vol. 5A 543 3-111, Vol. 5A 543 3-129
switcher circuit pack mismatch Vol. 5A 543 3-131

Alarm, critical (continued)
switcher circuit pack missing Vol. 5A 543 3-132
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
cutoff Vol. 2A 101 1-3, Vol. 2B 180 13-1
audible Vol. 2A 104 3-21
remote Vol. 2A 104 3-22
system-level Vol. 2A 104 2-3, Vol. 2A 104 3-22
defined Vol. 2A 104 1-3
defining
subsets Vol. 5C 510 6-10
degradation of service Vol. 5A 543 1-8
deleting from a signal distribution point Vol. 4A 302 10-11
digital test access pair Vol. 5A 543 1-10
disabled Vol. 2A 104 2-2
disconnect Vol. 4C Rem Nodes VTBM 5-52
display Vol. 5C 510 8-1
active Vol. 5C 510 6-5, Vol. 5C 510 8-1
display priority Vol. 5A 543 1-4
display procedures Vol. 5C 510 8-1
displaying
active Vol. 4B 310 15-4, Vol. 5C 510 8-3
alarm report Vol. 4B 310 15-11
alarm report (detailed) Vol. 4B 310 15-12
alarm reports Vol. 5C 510 8-5
detailed reports Vol. 5C 510 8-6
history Vol. 5C 510 8-10
new Vol. 5C 510 6-3, Vol. 5C 510 8-4
new alarms Vol. 4B 310 15-10
performance monitoring Vol. 5C 520 3-11
subsets Vol. 4B 310 15-9
displays
log Vol. 2A 104 4-11
network element user interface Vol. 2A 104 4-2
OPC user interface Vol. 2A 104 4-6
DMS-10NA Vol. 2A 104 2-7
DS1 transport Vol. 4B 310 15-6, Vol. 5A 543 1-10
DS3 transport Vol. 4B 310 15-6, Vol. 5A 543 1-10
embedded operations channel Vol. 2A 104 2-4
enable and disable TIC STS-1 and VT1.5 Vol. 3A 235 3-40, Vol. 3A 240 4-31, Vol. 3B 221 4-2, MCOT to ABM QRG 4-41
enable and disable TIC/STS-1, VT 1.5 Vol. 3B 225 6-5
enabled Vol. 2A 104 2-2
enabled or disabled Vol. 2A 104 2-2
encoding, alarmenc ones Vol. 3B 225 3-7
environmental
48 V dc CDS breaker tripped ext bay Vol. 5A 543 5-21
48 V dc CDS breaker tripped main bay Vol. 5A 543 5-22
48V battery A CE supply fail Vol. 5A 543 5-15
48V battery B CE supply fail Vol. 5A 543 5-18
high CE shelf temperature Vol. 5A 543 5-10

Alarm (continued)
equipment Vol. 5A 543 3-1, Vol. 5A 543 3-20, Vol. 5A 543 3-22, Vol. 5A 543 3-43, Vol. 5A 543 3-80, Vol. 5A 543 3-115, Vol. 5A 543 3-333
access failure Vol. 5A 543 3-42
autoprovisioning mismatch Vol. 5A 543 3-47
BNC I/O card 1 fail Vol. 5A 543 3-330
BNC I/O card 1 fail -DoNotRemove Vol. 5A 543 3-112
BNC I/O card 1 mismatch Vol. 5A 543 3-113, Vol. 5A 543 3-331
BNC I/O card 1 missing Vol. 5A 543 3-114, Vol. 5A 543 3-332
BNC I/O card 2 fail -DoNotRemove Vol. 5A 543 3-112
BNC I/O card 2 mismatch Vol. 5A 543 3-113
BNC I/O card 2 missing Vol. 5A 543 3-114
BNC I/O card 3 fail -DoNotRemove Vol. 5A 543 3-112
BNC I/O card 3 mismatch Vol. 5A 543 3-113
BNC I/O card 3 missing Vol. 5A 543 3-114
both planes non-operational Vol. 5A 543 3-48
circuit pack mismatch Vol. 5A 543 3-21, Vol. 5A 543 3-44, Vol. 5A 543 3-81, Vol. 5A 543 3-116, Vol. 5A 543 3-334
circuit pack missing Vol. 5A 543 3-45, Vol. 5A 543 3-83, Vol. 5A 543 3-117
clock failure Vol. 5A 543 3-46
comm overhead data loss Vol. 5A 543 3-24
critical test alarm Vol. 5A 543 3-53
data available Vol. 5A 543 2-5
database not restored. Type Q APPROVE at NE Vol. 5A 543 3-54
datasync fail Vol. 5A 543 3-293
default K bytes Vol. 5A 543 3-260
D-link interface fail Vol. 5A 543 3-26
DS1 or DS3 Vol. 5A 543 2-6
end VCO range Vol. 5A 543 3-141
entry to SONET clock acquire Vol. 5A 543 3-264
entry to SONET clock freerun Vol. 5A 543 3-56
entry to SONET clock holdover Vol. 5A 543 3-266
equipment forced switch request Vol. 5A 543 3-142
equipment lockout request Vol. 5A 543 3-143
equipment manual switch request Vol. 5A 543 3-144
equipment protection switch complete Vol. 5A 543 3-145
equipment protection switch fail Vol. 5A 543 3-146
exerciser fail Vol. 5A 543 3-59
facility provisioning mismatch Vol. 5A 543 3-84, Vol. 5A 543 4-203
failure to lock Vol. 5A 543 3-147
firmware failure Vol. 5A 543 3-336
firmware version mismatch Vol. 5A 543 3-29, Vol. 5A 543 3-206

Alarm, equipment (continued)
firmware/software incompatible Vol. 5A 543 3-337
forced switch request Vol. 5A 543 3-85, Vol. 5A 543 3-338
input card fail -DoNotRemove Vol. 5A 543 3-86
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
intercard fail Vol. 5A 543 3-148
invalid neighbor detected Vol. 5A 543 3-273
LED driver fail Vol. 5A 543 3-209
lockout protection operation fail Vol. 5A 543 3-241
lockout protection request Vol. 5A 543 3-275
lockout request Vol. 5A 543 3-89, Vol. 5A 543 3-119, Vol. 5A 543 3-242, Vol. 5A 543 3-339
lockout working request Vol. 5A 543 3-276
loss of data synchronization Vol. 5A 543 3-60
lost peer OPC Vol. 5A 543 3-294
major test alarm Vol. 5A 543 3-60, Vol. 5A 543 3-61
manual switch request Vol. 5A 543 3-90, Vol. 5A 543 3-120, Vol. 5A 543 3-340
minor test alarm Vol. 5A 543 3-62
output card fail -DoNotRemove Vol. 5A 543 3-91
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
plane A non-operational Vol. 5A 543 3-63
plane B non-operational Vol. 5A 543 3-65
plane messaging corruption Vol. 5A 543 3-30, Vol. 5A 543 3-198
power filter A missing Vol. 5A 543 3-36
power filter B missing Vol. 5A 543 3-39
prot bridge in card failed Vol. 5A 543 3-94
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card failed Vol. 5A 543 3-97
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
protection path fail Vol. 5A 543 3-101, Vol. 5A 543 3-121, Vol. 5A 543 3-341
protection switch complete Vol. 5A 543 3-105, Vol. 5A 543 3-124, Vol. 5A 543 3-344
protection switch fail Vol. 5A 543 3-106, Vol. 5A 543 3-126, Vol. 5A 543 3-345
protection version mismatch Vol. 5A 543 3-110
shelf assembly fail Vol. 5A 543 3-68
shelf ID bus fail Vol. 5A 543 3-69
software trap Vol. 5A 543 3-70
SONET overhead clock loss Vol. 5A 543 3-71
STS-1 intercard fail Vol. 5A 543 3-111, Vol. 5A 543 3-129, Vol. 5A 543 3-347
subunit mismatch Vol. 5A 543 3-150
subunit, fail Vol. 5A 543 3-149
subunit, missing Vol. 5A 543 3-151
switcher circuit pack mismatch Vol. 5A 543 3-131, Vol. 5A 543 3-348

Alarm, equipment (continued)
switcher circuit pack missing Vol. 5A 543 3-132, Vol. 5A 543 3-349
tape backup/restore fail Vol. 5A 543 3-309
Threshold 1 DS0 exceeded Vol. 5A 543 3-34
Threshold 2 DS0 exceeded Vol. 5A 543 3-34
timing generation primary reference fail Vol. 5A 543 3-73
timing generation secondary reference fail Vol. 5A 543 3-73
timing generation, entry to acquire Vol. 5A 543 3-152
timing ref lockout request Vol. 5A 543 3-405
timing ref prot oscillation control activated Vol. 5A 543 3-406
timing ref prot switch complete Vol. 5A 543 3-407
timing ref prot switch fail Vol. 5A 543 3-408
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
traffic problem detected Vol. 5A 543 3-133, Vol. 5A 543 3-350
traffic upgrade in progress Vol. 5A 543 3-77
VT connection provisioning mismatch Vol. 5A 543 3-136
warning test alarm Vol. 5A 543 3-78, Vol. 5A 543 3-80
external equipment Vol. 5A 543 2-2
external indicator contacts Vol. 2A 104 3-16
NT7E56 breaker interface panel Vol. 2A 104 3-19
external indicators Vol. 2A 104 3-16
external synchronization interface Vol. 4B 310 15-6, Vol. 5A 543 1-10
facility Vol. 5A 543 4-1
frequency out of range Vol. 5A 543 4-69
high traffic threshold exceeded Vol. 5A 543 4-24
laser bias current Vol. 5A 543 4-128
line FE CV threshold Vol. 5A 543 4-71
line FE ES threshold Vol. 5A 543 4-71
line FE SES threshold Vol. 5A 543 4-71
line RFI Vol. 5A 543 4-129
line Rx CV threshold 1, 2 Vol. 5A 543 4-25
line Rx ES threshold 1, 2 Vol. 5A 543 4-25
line Rx SES threshold 1, 2 Vol. 5A 543 4-25
loopback Vol. 5A 543 4-28, Vol. 5A 543 4-170
loss of frame Vol. 5A 543 2-2
low traffic threshold exceeded Vol. 5A 543 4-29
path Rx CV threshold 1, 2 Vol. 5A 543 4-30
path Rx ES threshold 1, 2 Vol. 5A 543 4-30
path Rx SAS threshold 1, 2 Vol. 5A 543 4-30
path Rx SES threshold 1, 2 Vol. 5A 543 4-30
path Rx UAS threshold 1, 2 Vol. 5A 543 4-30
PRI link OOS Vol. 5A 543 4-33, Vol. 5A 543 4-186
Rx AIS Vol. 5A 543 4-34
Rx bipolar violation Vol. 5A 543 4-171
Rx bipolar violation>10E-3 Vol. 5A 543 4-36

Alarm, facility (continued)
Rx line AIS Vol. 5A 543 4-181
Rx loss of frame Vol. 5A 543 4-40, Vol. 5A 543 4-174
Rx loss of pointer Vol. 5A 543 4-177
Rx loss of signal Vol. 5A 543 4-43, Vol. 5A 543 4-178
Rx RFI Vol. 5A 543 4-182
Rx yellow Vol. 5A 543 4-45
STS-1 path CV threshold 1,2 Vol. 5A 543 4-46
STS-1 path ES threshold 1,2 Vol. 5A 543 4-46
STS-1 path FE CV threshold 1,2 Vol. 5A 543 4-91
STS-1 path SES threshold 1,2 Vol. 5A 543 4-46
STS-1 path UAS threshold 1,2 Vol. 5A 543 4-46
STS-1 Rx AIS Vol. 5A 543 4-155
STS-1 RX loss of pointer Vol. 5A 543 4-159
STS1 Rx path trace failure Vol. 5A 543 4-51
STS-1 Rx RFI Vol. 5A 543 4-54, Vol. 5A 543 4-96, Vol. 5A 543 4-187
STS1 Rx unequipped Vol. 5A 543 4-56
STS-1 signal label mismatch Vol. 5A 543 4-58, Vol. 5A 543 4-99
STS1 signal label mismatch Vol. 5A 543 4-58
VT Rx AIS Vol. 5A 543 4-59
VT Rx loss of pointer Vol. 5A 543 4-61
VT Rx RFI Vol. 5A 543 4-65
VT Rx unequipped Vol. 5A 543 4-67
facility COMM
faulty path Vol. 5A 543 4-11
filtering Vol. 2A 104 2-2
for Series 800A outside plant cabinet
CRO definitions S800A Cab Inst 210 8-6
E2A definitions S800A Cab Inst 210 8-4
low voltage disconnect alarm S800A Cab Inst 210 10-26
provisioning S800A Cab Inst 210 8-3
wiring S800A Cab Inst 210 13-32
for Series 800A outside-plant cabinet
testing Vol. 3B 225 4-34
fuse alarm, test Vol. 3A 230 9-40
generated by threshold crossings Vol. 2A 105 3-9
generating
testing Vol. 4B 310 17-33
generating, for testing purposes Vol. 5A 543 8-32
hierarchy Vol. 5A 543 2-2
AccessNode circuit packs Vol. 5A 543 2-8
circuit pack Vol. 5A 543 2-5
circuit pack failures Vol. 5A 543 2-2
common-equipment circuit pack Vol. 5A 543 2-7
diagnostics Vol. 5A 543 2-6
environmental Vol. 5A 543 2-8
equipment Vol. 5A 543 2-5, Vol. 5A 543 3-1
facility Vol. 5A 543 2-2
inter-card failures Vol. 5A 543 2-2
MIC Circuit pack fail Vol. 5A 543 2-7
parent equipment Vol. 5A 543 2-8
processor common-equipment Vol. 5A 543 2-7
serial telemetry port failure Vol. 5A 543 2-7

Alarm, hierarchy (continued)
switcher circuit pack missing Vol. 5A 543 2-5
telemetry latch Vol. 5A 543 2-8
indication signal Vol. 5A 543 2-2
indicators Vol. 2A 101 1-13
insert relay card Vol. 3A 230 9-46
integrated remote test unit Vol. 4B 310 15-6, Vol. 5A 543 1-10
interpreting information Vol. 5A 543 1-1, Vol. 5A 543 1-7
investigation Vol. 4B 310 15-1
lamp. See breaker interface panel, replacing lamp
LEDs Vol. 2A 101 1-5
line card Vol. 4B 310 15-6, Vol. 5A 543 1-10
enabling or disabling Vol. 4B 315 5-11
enabling or disabling ISDN alarms Vol. 4B 315 5-14
setting Vol. 4B 315 5-1
line cards Vol. 2A 104 1-4
software Vol. 2A 101 1-12
line interface card Vol. 4B 310 15-6, Vol. 5A 543 1-11
line-card level Vol. 4B 315 5-7
list, changing contents Vol. 5C 510 6-13
list of active alarms
updating Vol. 5C 510 8-8
loss of frame Vol. 5A 543 2-2
low temperature sensor, test Vol. 3A 230 9-39
low voltage Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
maintenance interface card Vol. 4B 310 15-6, Vol. 5A 543 1-11
major Vol. 2A 104 1-6, Vol. 3B 225 4-44
BNC I/O card x fail -DoNotRemove Vol. 5A 543 3-112
BNC I/O card x mismatch Vol. 5A 543 3-113
BNC I/O card x missing Vol. 5A 543 3-114
circuit pack fail Vol. 5A 543 3-43
circuit pack mismatch Vol. 5A 543 3-44
circuit pack missing Vol. 5A 543 3-45
facility provisioning mismatch Vol. 5A 543 3-84, Vol. 5A 543 4-203
failure to lock Vol. 5A 543 3-147
input card fail -DoNotRemove Vol. 5A 543 3-86
intercard fail Vol. 5A 543 3-148
invalid neighbor detected Vol. 5A 543 3-273
major test alarm Vol. 5A 543 3-61
output card fail -DoNotRemove Vol. 5A 543 3-91
prot bridge in card fail -DoNotRemove Vol. 5A 543 3-94
prot bridge out card fail -DoNotRemove Vol. 5A 543 3-97
protection path fail Vol. 5A 543 3-101, Vol. 5A 543 3-121
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
shelf ID bus fail Vol. 5A 543 3-69
STS-1 Rx RFI Vol. 5A 543 4-54
subunit fail Vol. 5A 543 3-149

Alarm, major (continued)
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
timing generation primary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74
traffic problem detected Vol. 5A 543 3-133
metallic test access card Vol. 4B 310 15-6, Vol. 5A 543 1-11
MIC Circuit pack fail Vol. 5A 543 2-7
minor Vol. 2A 104 1-6, Vol. 3B 225 4-44
autoprovisioning mismatch Vol. 5A 543 3-47
BNC I/O card x fail -DoNotRemove Vol. 5A 543 3-112
circuit pack fail Vol. 5A 543 3-20, Vol. 5A 543 3-43, Vol. 5A 543 3-80, Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21, Vol. 5A 543 3-44, Vol. 5A 543 3-81, Vol. 5A 543 3-116
circuit pack missing Vol. 5A 543 3-22, Vol. 5A 543 3-45, Vol. 5A 543 3-83, Vol. 5A 543 3-117
CNet link fail Vol. 5A 543 3-51
comm overhead clock/frame loss Vol. 5A 543 3-23
comm overhead data loss Vol. 5A 543 3-24
database not restored. Type Q APPROVE at NE Vol. 5A 543 3-54
datasync fail Vol. 5A 543 3-293
D-link interface fail Vol. 5A 543 3-26
equipment forced switch request Vol. 5A 543 3-142, Vol. 5A 543 3-264
equipment lockout request Vol. 5A 543 3-143
equipment manual switch request Vol. 5A 543 3-144
equipment protection switch fail Vol. 5A 543 3-146
exerciser fail Vol. 5A 543 3-59
failure to lock Vol. 5A 543 3-147
forced switch request Vol. 5A 543 3-85, Vol. 5A 543 3-118
input card fail -DoNotRemove Vol. 5A 543 3-86
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
intercard fail Vol. 5A 543 3-148
lockout protection operation fail Vol. 5A 543 3-241
lockout protection request Vol. 5A 543 3-275
lockout request Vol. 5A 543 3-89, Vol. 5A 543 3-119
lockout working request Vol. 5A 543 3-276
lost peer OPC Vol. 5A 543 3-294
manual switch request Vol. 5A 543 3-90, Vol. 5A 543 3-120
minor test alarm Vol. 5A 543 3-62
output card fail -DoNotRemove Vol. 5A 543 3-91
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93

Alarm, minor (continued)
power filter A missing Vol. 5A 543 3-36
power filter B missing Vol. 5A 543 3-39
prot bridge in card fail -DoNotRemove Vol. 5A 543 3-94
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card fail -DoNotRemove Vol. 5A 543 3-97
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
protection path fail Vol. 5A 543 3-101, Vol. 5A 543 3-121
protection switch fail Vol. 5A 543 3-106, Vol. 5A 543 3-126
protection version mismatch Vol. 5A 543 3-110
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
software trap Vol. 5A 543 3-70
SONET overhead clock loss Vol. 5A 543 3-71
STS1 intercard fail Vol. 5A 543 3-111, Vol. 5A 543 3-129
subunit fail Vol. 5A 543 3-149
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
switcher circuit pack mismatch Vol. 5A 543 3-131
switcher circuit pack missing Vol. 5A 543 3-132
tape backup/restore fail Vol. 5A 543 3-309
timing generation primary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
traffic problem detected Vol. 5A 543 3-133
VT connection provisioning mismatch Vol. 5A 543 3-136
monitoring Vol. 4B 310 15-1, Vol. 5C 510 6-1
monitoring for network elements Vol. 5C 510 6-1
monitoring network status Vol. 5C 510 4-1 to Vol. 5C 510 4-7
MPP, test Vol. 3A 230 9-30
multi-circuit line card UE9000 Voice OAMP UG 6-9
network element
list Vol. 5A 543 1-4
unique number Vol. 5C 510 8-5
new
resetting count Vol. 5C 510 6-4
symbol Vol. 5C 510 6-3
not service-affecting
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
notification
new incoming Vol. 5C 510 6-3

Alarm (continued)
obtaining list
network element alarms Vol. 5A 543 1-2
operations controller interface alarms Vol. 5A 543 1-2
OC-12 transport Vol. 4B 310 15-6, Vol. 5A 543 1-11
OC-3 transport Vol. 4B 310 15-6, Vol. 5A 543 1-11
office, test ABM shelf Vol. 3A 230 9-45
office, test TBM shelf Vol. 3A 230 9-55
operations controller Vol. 4B 310 15-6, Vol. 5A 543 1-11
optical interface component failure Vol. 5A 543 2-6
optical-laser failure Vol. 5A 543 2-6
OSP cabinet, testing Vol. 3B 225 4-34
outside plant cabinet, testing Vol. 3A 230 9-36
parallel telemetry connection Vol. 2A 104 5-5
printing
details Vol. 5C 510 6-16
processor circuit pack Vol. 4B 310 15-6, Vol. 5A 543 1-11
provisioning Vol. 2A 101 1-3
provisioning screen
almprov Vol. 3B 225 2-3, Vol. 3B 225 2-4
provisioning severity of telemetry inputs Vol. 4A 302 9-7
raise critical Vol. 3B 225 4-46
raise major Vol. 3B 225 4-45
raise minor Vol. 3B 225 4-44
rejected Vol. 2A 104 2-2
remote Vol. 2B 180 13-3
remote access Vol. 2A 104 2-3
remote cutoff Vol. 2A 101 1-19
report ID number Vol. 5A 543 1-4
reporting Vol. 2A 104 2-4
reporting and surveillance Vol. 5A 543 1-1, Vol. 5A 543 2-1
reset the display of new alarms Vol. 5C 510 4-4
reverse condition Vol. 3B 225 4-9
RPTR fuse, test Vol. 3A 230 9-41
screen
reverse video, turning off Vol. 4B 310 15-3
screen blinking, turning off Vol. 4B 310 15-3
screening Vol. 2A 101 1-3, Vol. 5A 543 2-2
selecting to print Vol. 5C 510 6-17
serial telemetry connection Vol. 2A 104 5-3
series 800A outside plant cabinet, testing Vol. 3A 230 9-36
service-affecting Vol. 5A 543 1-7
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
service-level Vol. 4B 315 5-1, Vol. 4B 315 5-3
set all to zero Vol. 5C 510 4-7
severity Vol. 2A 104 1-6, Vol. 2B 180 13-3, Vol. 5A 543 1-7
critical Vol. 5A 543 1-7, Vol. 5A 543 1-8
major Vol. 5A 543 1-7, Vol. 5A 543 1-8
minor Vol. 5A 543 1-7, Vol. 5A 543 1-8
not service-affecting Vol. 5A 543 1-8

Alarm, severity (continued)
service-affecting Vol. 5A 543 1-8
warning Vol. 5A 543 1-7, Vol. 5A 543 1-8
severity type
adding and removing Vol. 5C 510 6-11
SI card UE9000 Voice OAMP UG 6-15
silencing
how to Vol. 5A 543 1-5
removing alarm relay card Vol. 5A 543 1-5
using ACO command Vol. 5A 543 1-5
using ACO/LT button Vol. 5A 543 1-5
using remote ACO Vol. 5A 543 1-5
sorting
list Vol. 5C 510 6-14
STS-1 transport Vol. 4B 310 15-6, Vol. 5A 543 1-10
surveillance Vol. 2A 101 1-3
suspect due to loss of communications Vol. 5C 510 6-3
system-level reporting Vol. 2A 104 2-3
telemetry latch Vol. 5A 543 2-8
test Vol. 3B 225 4-1
test access card Vol. 4B 310 15-7, Vol. 5A 543 1-11
test MBP/MPP Vol. 3B 225 6-7
test office Vol. 3B 225 6-9
test series 800A Vol. 3B 225 6-7
testing
critical Vol. 5A 543 3-53
major Vol. 5A 543 3-61
minor Vol. 5A 543 3-62
warning Vol. 5A 543 3-78
TIC/STS-1 Vol. 3B 225 2-2
TR08 Vol. 2A 102 3-11
transport interface card Vol. 4B 310 15-7, Vol. 5A 543 1-11
troubleshooting
AIC equipment Vol. 5A 543 3-20 to Vol. 5A 543 3-32
CDSP equipment Vol. 5A 543 3-42 to Vol. 5A 543 3-46
CE equipment Vol. 5A 543 3-47 to Vol. 5A 543 3-78
COMM facility Vol. 5A 543 4-11, Vol. 5A 543 4-22
copper-distribution-shelf equipment Vol. 5A 543 3-36 to Vol. 5A 543 3-46
DS1 equipment Vol. 5A 543 3-80 to Vol. 5A 543 3-111
DS1 facility Vol. 5A 543 4-25, Vol. 5A 543 4-65
DS1 facility STS-1 Vol. 5A 543 4-51
DS1 facility VT1.5 Vol. 5A 543 4-59
DS3 equipment Vol. 5A 543 3-112 to Vol. 5A 543 3-136
DS3 facility Vol. 5A 543 4-69, Vol. 5A 543 4-102
DS3 facility STS-1 Vol. 5A 543 4-92
environmental Vol. 5A 543 5-1
ESI equipment Vol. 5A 543 3-141 to Vol. 5A 543 3-157

Alarm, troubleshooting (continued)
ESI facility Vol. 5A 543 4-104, Vol. 5A 543 4-118
IRTU equipment Vol. 5A 543 3-137, Vol. 5A 543 3-158, Vol. 5A 543 3-167
LC equipment Vol. 5A 543 3-170, Vol. 5A 543 3-181
LED Vol. 5A 543 7-1 to Vol. 5A 543 7-34
LIC equipment Vol. 5A 543 3-182
metallic test access Vol. 5A 543 6-1
MIC equipment Vol. 5A 543 3-201, Vol. 5A 543 3-218
MTAC equipment Vol. 5A 543 3-220, Vol. 5A 543 3-222
OC-12 equipment Vol. 5A 543 3-226, Vol. 5A 543 3-258
OC-12 facility Vol. 5A 543 4-147, Vol. 5A 543 4-148, Vol. 5A 543 4-165
OC-12 NE equipment Vol. 5A 543 3-288
OC-3 equipment Vol. 5A 543 3-226, Vol. 5A 543 3-258
OC-3 facility Vol. 5A 543 4-147, Vol. 5A 543 4-148, Vol. 5A 543 4-165
OC-3/OC-12 facility Vol. 5A 543 4-155, Vol. 5A 543 4-159
OPC equipment Vol. 5A 543 3-298
pair gain test controller/metallic test access Vol. 5A 543 6-1
proc equipment Vol. 5A 543 3-312, Vol. 5A 543 3-325
STS-1 equipment Vol. 5A 543 3-330 to Vol. 5A 543 3-352
STS-1 facility Vol. 5A 543 4-166 to Vol. 5A 543 4-182
TAC equipment Vol. 5A 543 3-354, Vol. 5A 543 3-363
TIC equipment Vol. 5A 543 3-366, Vol. 5A 543 3-373
TIC facility Vol. 5A 543 4-46, Vol. 5A 543 4-91, Vol. 5A 543 4-216
TIC facility VT1.5 Vol. 5A 543 4-204
TIC facility, STS1 Vol. 5A 543 4-46, Vol. 5A 543 4-91
TXC equipment Vol. 5A 543 3-374, Vol. 5A 543 3-405
turning off
audible Vol. 4B 310 15-2
reverse video Vol. 4B 310 15-3
screen blinking Vol. 4B 310 15-3
type Vol. 2A 104 2-5, Vol. 5A 543 1-9
typical events Vol. 2A 104 1-3
updating list Vol. 5C 510 6-15
manually or automatically Vol. 5C 510 6-15
verifying alarms for dc distribution shelf S800A Cab Inst 210 10-23
viewing Vol. 5C 510 5-1
detailed information Vol. 5C 510 6-5
visual Vol. 2B 180 13-1
visual indicators
breaker interface panel Vol. 2A 104 3-2
common-equipment shelves Vol. 2A 104 3-9

Alarm, visual indicators (continued)
cooling unit Vol. 2A 104 3-5
copper-distribution shelves Vol. 2A 104 3-16
local craft access panels Vol. 2A 104 3-6
warning Vol. 2A 104 1-6
access failure Vol. 5A 543 3-42
clock failure Vol. 5A 543 3-46
CNet performance degraded Vol. 5A 543 3-52
D-link interface fail Vol. 5A 543 3-26
end VCO range Vol. 5A 543 3-141
entry to SONET clock freerun Vol. 5A 543 3-56
equipment protection switch complete Vol. 5A 543 3-145
not-service affecting line FE CV threshold Vol. 5A 543 4-71
not-service affecting, laser bias current Vol. 5A 543 4-128
not-service affecting, line FE CV threshold Vol. 5A 543 4-71
not-service affecting, line FE ES threshold Vol. 5A 543 4-71
not-service affecting, line FE SES threshold Vol. 5A 543 4-71
not-service affecting, line FE UAS threshold Vol. 5A 543 4-71
plane A non-operational Vol. 5A 543 3-63
plane B non-operational Vol. 5A 543 3-65
protection switch complete Vol. 5A 543 3-105, Vol. 5A 543 3-124
required action Vol. 5A 543 1-8
service effects Vol. 5A 543 1-8
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31
traffic upgrade in progress Vol. 5A 543 3-77
warning test alarm Vol. 5A 543 3-78
with multihosting Vol. 2A 104 2-4

Alarm cable
used in VTBM MBP MBP VTBM Ring Inst 6-15

Alarm cable used with MBP
MBP Cab Inst 206 8-11

Alarm clearing
48 V dc battery A
common equipment supply fail Vol. 5A 543 5-15
48 V dc battery B
common equipment supply fail Vol. 5A 543 5-18
48 V dc CDS breaker tripped
ext bay Vol. 5A 543 5-21
main bay Vol. 5A 543 5-22

Alarm Cut Off.
See ACO

Alarm hierarchies
Vol. 5A 543 2-2

alarm history
displaying Vol. 5C 510 8-10

Alarm indicator (visual)
breaker interface panel Vol. 2A 104 3-2
breaker interface panel (NT4K14), illus. Vol. 2A 104 3-3
breaker interface panel (NT7E56), illus. Vol. 2A 104 3-4
common-equipment shelves Vol. 2A 104 3-9
cooling unit, illus. Vol. 2A 104 3-5
copper-distribution shelf Vol. 2A 104 3-16
local craft access panels, illus. Vol. 2A 104 3-6

Alarm interface unit
Mod Cab Desc 119 5-9

Alarm management
E2A Alarm Manager tool Vol. 2A 104 5-8
maintenance interface card Vol. 2A 104 2-2

Alarm monitor
Vol. 4C Span of Con Cons 2-9

Alarm Monitor tool
alarm list
display limits Vol. 5C 510 6-10
Alarm Monitor Display Options dialog Vol. 4A 301 9-5, Vol. 4A 301 10-4, Vol. 4A 301 12-5, Vol. 4A 301 12-8
Auto Update list Vol. 5C 510 6-15
changing
alarms list contents Vol. 5C 510 6-13
customizing
user view Vol. 5C 510 6-8
defining
filters Vol. 5C 510 6-10
user view Vol. 5C 510 6-8
display
active alarms Vol. 5C 510 6-5
maximum number of alarms Vol. 5C 510 6-10
network protection summary Vol. 5C 510 6-7
new alarms Vol. 5C 510 6-3
display by network element Vol. 5C 510 6-10
list
network element, adding or removing Vol. 5C 510 6-10
main window Vol. 4A 301 10-2
network element
adding to user view Vol. 5C 510 6-9
removing from user view Vol. 5C 510 6-9
printing
alarm details Vol. 5C 510 6-16
alarm from the Alarm Details dialog Vol. 5C 510 6-16
one to five alarms from the Alarms list Vol. 5C 510 6-16
sorting
alarms list Vol. 5C 510 6-14
status line symbols Vol. 5C 510 1-2

Alarm Monitor tool (continued)
updating
alarms list Vol. 5C 510 6-15
viewing
alarms Vol. 5C 510 6-5
all active alarms Vol. 5C 510 6-13
by network element Vol. 5C 510 6-14
by severity Vol. 5C 510 6-14
by time Vol. 5C 510 6-14
new alarms Vol. 5C 510 6-13

Alarm point
enabling and disabling
UE9000 Voice OAMP UG 1-5

Alarm Provisioning Manager
setting line-card level logs and alarms Vol. 4B 315 5-7
setting service-level logs and alarms Vol. 4B 315 5-3

Alarm relay card
Vol. 2A 100 7-20, Vol. 5C 547 5-23
description Vol. 2A 100 8-22
removing to silence alarm Vol. 5A 543 1-5
replacing for VTBM MBP
MBP VTBM Ring User 6-2

alarm report
displaying Vol. 5C 510 8-5
displaying detailed Vol. 5C 510 8-6

Alarms
TL1 Interface Desc 190 3-1, Vol. 4C Add Nodes VTBM 5-6
AIC TL1 Interface Desc 190 3-97
cable routing ModCab Mod Cab Inst 211 12-2
CDSP TL1 Interface Desc 190 3-98
common-equipment TL1 Interface Desc 190 3-94
connecting in ModCab Mod Cab Inst 211 12-1
customer-assignable in ModCab
Customer-assignable alarms in ModCab Mod Cab Inst 211 12-4
DATACOMM facility TL1 Interface Desc 190 3-114
DS1
equipment TL1 Interface Desc 190 3-98
facility TL1 Interface Desc 190 3-115
DS3
equipment TL1 Interface Desc 190 3-101
facility TL1 Interface Desc 190 3-116
E2A Vol. 4C Span of Con Cons 3-9, Vol. 4C Span of Con Cons 11-2
environmental TL1 Interface Desc 190 3-124
ESI equipment TL1 Interface Desc 190 3-103
ESI facility TL1 Interface Desc 190 3-118
Facility COMM
list of Vol. 5A 543 4-1
Facility DS1
list of Vol. 5A 543 4-2

Alarms (continued)
Facility DS3
list of Vol. 5A 543 4-4
Facility ESI
list of Vol. 5A 543 4-5, Vol. 5A 543 4-6, Vol. 5A 543 4-7
Facility OC-12
list of Vol. 5A 543 4-7
Facility OC-3/OC-12
list of Vol. 5A 543 4-8
Facility STS1
list of Vol. 5A 543 4-9
Facility TIC
list of Vol. 5A 543 4-10
for ModCab
low voltage disconnect alarm Mod Cab Inst 211 14-20
verifying alarms for dc distribution shelf Mod Cab Inst 211 14-18
for modular business package cabinet
wiring MBP Cab Inst 206 2-24
IRTU TL1 Interface Desc 190 3-104
LIC TL1 Interface Desc 190 3-105
messages
autonomous TL1 Interface Desc 190 3-2, TL1 Interface Desc 190 3-6
non-autonomous TL1 Interface Desc 190 3-2, TL1 Interface Desc 190 3-15
parameters TL1 Interface Desc 190 3-52
MIC TL1 Interface Desc 190 3-106
MTAC TL1 Interface Desc 190 3-107
OC-3/OC-12
equipment TL1 Interface Desc 190 3-107
facility TL1 Interface Desc 190 3-119
OPC
provisioning Vol. 4B 310 13-1
operations controller
Vol. 4C Span of Con Cons 1-1
provisioning in ModCab Mod Cab Inst 211 12-2
shelf TL1 Interface Desc 190 3-110
SOAM TL1 Interface Desc 190 3-110
status Vol. 4C Span of Con Cons 13-2
STS1 facility TL1 Interface Desc 190 3-120
STSn facility TL1 Interface Desc 190 3-120
TAC TL1 Interface Desc 190 3-111
TIC TL1 Interface Desc 190 3-112
TR-08 facility TL1 Interface Desc 190 3-122
TXC TL1 Interface Desc 190 3-112
VT1.5 facility TL1 Interface Desc 190 3-123
wire-wrap block connections
Mod Cab Inst 211 12-5

Alert
Vol. 5A 543 2-6
defined Vol. 2A 104 1-6, Vol. 5A 543 1-8
definition of the term Vol. 2A 105 3-9
displaying Vol. 5C 520 3-11
viewing Vol. 5C 510 5-1

A-link
Vol. 2A 102 3-8
connection to narrowband line-interface card
Vol. 2A 102 6-20

Anchor bolt
S800A Cab Inst 210 2-29
for Series 800A outside plant cabinet
S800A Cab Inst 210 2-3

Anchor kit
for Series 800A outside plant cabinet
S800A Cab Inst 210 1-8
for Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring User 2-9
Series 800A outside plant cabinet
S800A Cab Inst 210 1-4
assembly S800A Cab Inst 210 1-9
used in VTBM MBP MBP VTBM Ring Inst 2-9
Modular Business Package Site Inst P&E Add 2-7

Anchor plate
S800A Cab Inst 210 1-18,
S800A Cab Inst 210 1-19
for Series 800A outside plant cabinet
S800A Cab Inst 210 2-3
ac power pedestal, wide
S800A Cab Inst 210 1-20
sealant kit Mod Cab Inst 211 1-12

Anchor plate for ModCab
kits Mod Cab Inst 211 1-5, Mod Cab Inst 211 2-2

Antistatic wrist strap
Vol. 5C 547 1-2
grounding Vol. 5C 547 1-2

ANXUPGCI
reset Mix & Match DFA Recon QRG 4-18

APC 2000
Vol. 2A 101 1-3

Application
Bidirectional line-switched ring Vol. 2A 102 5-71
STS-1 channel usage Vol. 2A 102 5-76
bidirectional line-switched ring
definition Vol. 4C 324 1-25
bidirectional line-switched ring (BLSR)
Vol. 1 154 4-4
business access Vol. 2A 100 4-2
central-office modernization Vol. 2A 100 4-4
combined Vol. 1 154 4-4, Vol. 3B 222 2-2, Vol. 3B 222 3-2, Vol. 4C 324 1-25
definition Vol. 2A 100 1-2
DS1-fed AccessNode
integrated Vol. 1 154 4-4, Vol. 3B 222 2-2, Vol. 3B 222 3-2

Application (continued)
of S800A cabinet S800A OP Cab Desc 118 1-2, S800A OP Cab Desc 118 8-1
single-ended AccessNode Vol. 4C 324 1-25
SONET feeder Vol. 2A 100 4-6
TR08 Vol. 3B 222 2-2, Vol. 3B 222 2-3
universal Vol. 1 154 4-4, Vol. 3B 222 3-2
virtual tributary bandwidth manager ring
definition Vol. 4C 324 1-25

Applications
ModCab Mod Cab Desc 119 1-2

Approve command
potential service affects Vol. 5A 543 3-54

APS
Vol. 4C Add Nodes VTBM 2-22

Architecture
for TR08 Vol. 2A 100 5-9
protection Vol. 2A 103 2-1

archive cycle
network element logs Vol. 5C 510 5-12

Association
breaker to CEP Vol. 5C 547 2-58
DS1 input card Vol. 5C 547 2-6
DS1 output card Vol. 5C 547 2-8
group and slot
DS1 and DS3 I/O cards Vol. 5C 547 1-10
DS1, DS3, OC-3, and OC-12 Vol. 5C 547 1-9

Asynchronous fiber-optic system
Vol. 2A 100 4-6

Asynchronous transfer mode.
See ATM

Asynchronous transport interface card
Vol. 2A 100 8-15

ATIC
Vol. 2A 100 8-15

ATM
commissioning UE9000 Data Sys Setup QR 1-1

ATM card
adding UE9000 Voice OAMP UG 1-3
alarms UE9000 Voice OAMP UG 6-5
deleting UE9000 Voice OAMP UG 1-10
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-11
parameters, displaying
UE9000 Voice OAMP UG 3-3
provisioning UE9000 Voice OAMP UG 1-1

ATM circuit card
provisioning UE9000 Data OAMP UG 1-25
replacing UE9000 Data OAMP UG 5-15
restarting UE9000 Data OAMP UG 5-11
software upgrade UE9000 Data OAMP UG 4-3, UE9000 Data OAMP UG 4-5
state, changing UE9000 Data OAMP UG 5-3

Attached Modular Power Package
description MBP Desc 110 3-2

Attached MPP
Vol. 2A 100 6-27

Attendant console application
Vol. 1 155 1-39

Attribute
balance resistance Vol. 4B 315 3-12
busy tone Vol. 4B 315 3-12
cable Vol. 4B 315 3-12
customer remote test Vol. 4B 315 3-12
data rate Vol. 4B 315 3-12
DDS line type Vol. 4B 315 3-12
dial pulse mode Vol. 4B 315 3-12
equalization Vol. 4B 315 3-12
error correction Vol. 4B 315 3-12
for line card service codes
COIN Vol. 4B 315 3-7
digital data service Vol. 4B 315 3-10
DPO Vol. 4B 315 3-5
DPT Vol. 4B 315 3-5
DX Vol. 4B 315 3-8
E&M Vol. 4B 315 3-11
ETO Vol. 4B 315 3-6, Vol. 4B 315 3-9
FXO Vol. 4B 315 3-5, Vol. 4B 315 3-9
FXS Vol. 4B 315 3-5, Vol. 4B 315 3-10
ILCPOTS Vol. 4B 315 3-7
MRD Vol. 4B 315 3-7
PLAR Vol. 4B 315 3-7
PLR Vol. 4B 315 3-11
POTS Vol. 4B 315 3-7
TDM Vol. 4B 315 3-11
TO Vol. 4B 315 3-6, Vol. 4B 315 3-8
UVG Vol. 4B 315 3-7
for service codes Vol. 4B 315 3-12
full-time on-hook transmission Vol. 4B 315 3-13
hybrid balance Vol. 4B 315 3-13
impedance Vol. 4B 315 3-13
latching loopback Vol. 4B 315 3-13
off hook trunk conditioning Vol. 4B 315 3-13
receive blocking Vol. 4B 315 3-13
receive equalizer bandwidth Vol. 4B 315 3-13
receive equalizer height Vol. 4B 315 3-13
receive equalizer slope Vol. 4B 315 3-13
receive gain Vol. 4B 315 3-13
receive impedance Vol. 4B 315 3-13
receive OHT gain Vol. 4B 315 3-13
red lined connection Vol. 4B 315 3-13
sealing current Vol. 4B 315 3-13

Attribute (continued)
secondary channel Vol. 4B 315 3-13
signaling leads Vol. 4B 315 3-13
test head Vol. 4B 315 3-14
transmit blocking Vol. 4B 315 3-14
transmit equalizer bandwidth Vol. 4B 315 3-14
transmit equalizer height Vol. 4B 315 3-14
transmit equalizer slope Vol. 4B 315 3-14
transmit gain Vol. 4B 315 3-14
transmit impedance Vol. 4B 315 3-14
transmit OHT gain Vol. 4B 315 3-14
type Vol. 4B 315 3-14
values Vol. 4B 315 3-3
zero code suppression Vol. 4B 315 3-14

Audible alarm
cutoff Vol. 2A 104 3-21

Autolockout.
See Protection-switching oscillation control.

automatic
Vol. 3B 225 3-18

Automatic call distributor.
See Service, automatic call distributor

Automatic gain control
changing Vol. 4B 315 3-32
turning off Vol. 4B 315 3-32

Automatic in-service
UE9000 Voice OAMP UG 1-8

Automatic line insulation test
Vol. 2A 101 2-7, Vol. 2B 115 9-15
description Vol. 2B 115 7-61

Automatic line test
Vol. 2A 101 2-7, Vol. 2B 115 9-14
description Vol. 2B 115 7-61

Automatic lockout
OC-12 interface circuit packs Vol. 2A 101 1-18
OC-3 interface circuit packs Vol. 2A 101 1-18

Automatic protection switching.
See Protection switching, automatic.

Autoprovisioning
Vol. 2A 101 1-4

Autoprovisioning mismatch
clear alarm Vol. 5A 543 3-47

Average-busy-season-busy-hour
defined T&B Eng Info. 152 1-2

B

B channel
ISDN-U interface Vol. 2A 101 2-9

B3ZS coding
definition Vol. 2A 105 1-15

B8ZS
AZC provisioning combination Vol. 5A 543 3-110
coding definition Vol. 2A 105 1-12
DS1 in-bay tests Vol. 3B 225 3-7

B8ZS line coding and AZC alarm encoding
troubleshooting Vol. 5A 543 3-84

Backup
backup and recovery software Vol. 2A 101 1-5
backup list
review at OPC Vol. 3B 225 5-15
Backup/Restore Manager tool
deleting an NE database backup from the OPC Vol. 4A 304 1-5
description Vol. 4A 301 6-4
displaying all backups stored on the OPC Vol. 4A 304 1-4
displaying backups for an NE Vol. 4A 304 1-3
main window Vol. 4A 301 6-4
performing a manual NE database backup Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-10
restoring an NE database Vol. 4A 304 1-12
setting the backup schedule on the NE Vol. 4A 304 1-7
deleting from the OPC Vol. 4A 304 1-5
displaying NE backups on the OPC Vol. 4A 304 1-4
displaying network element backups on the OPC Vol. 4A 304 1-3
identifying the tape Vol. 4A 304 2-16
managing NE database backups from NE to OPC Vol. 4A 304 1-1
performing a manual NE database backup Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-10
query Vol. 4A 304 1-4
restoring an NE database from the OPC Vol. 4A 304 1-12
restoring OPC data from tape Vol. 4A 304 2-10
saving OPC data to tape Vol. 3A 230 4-63, Vol. 3A 235 3-65, Vol. 3A 240 4-52, Vol. 4A 304 2-3, MCOT to ABM QRG 4-60
schedule for NE
displaying Vol. 4A 302 11-4
scheduling on OPC Vol. 4A 304 2-6
setting the backup schedule for an NE Vol. 4A 304 1-7
transferring OPC data to the backup OPC Vol. 4A 304 2-14

Backup OPC.
See Operations controller module, backup.

Balance resistance
line card attribute Vol. 4B 315 3-12

Bandwidth
ATM interface engineering guidelines UE9000 Data Net Design 5-1, UE9000 Data Net Design 5-2, UE9000 Data Net Design 5-3, UE9000 Data Net Design 5-4, UE9000 Data Net Design 5-5
average UE9000 Data Net Design 3-13
DS1 to ETIC mapping Mix & Match DFA Recon QRG 3-3
line card attribute for receive equalizer Vol. 4B 315 3-13
line card attribute for transmit equalizer Vol. 4B 315 3-14
management
DS0-level Vol. 2A 101 1-6
synchronous transport signal-level Vol. 2A 101 1-22
peak UE9000 Data Net Design 3-13

Basic fiber-fed AccessNode
host switches for Vol. 2A 100 5-2
product description Vol. 2A 100 2-3

Battery
adjustment Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
back-up in MBP Site Inst P&E Add 4-5, Site Inst P&E Add 4-7
battery and return circuits ABM Bay Cable Conn QRG 3-2
battery return bar ABM Bay Cable Conn QRG 3-2
breaker panel Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
cables for MBP Site Inst P&E Add 8-7
connecting to Modular Business Package MBP Cab Inst 206 7-53
connection Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
description
used in SONET transport system bandwidth manager Modular Power Package MBP Desc 110 3-9
used in standard Modular Power Package MBP Desc 110 3-9
used in Virtual tributary bandwidth manager Modular Business Package MBP Desc 110 3-9
distribution fuse bay for Modular Business Package MBP Cab Inst 206 7-22
float voltage range
ModCab Mod Cab Inst 211 1-15
fuse Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11

Battery (continued)
in S800A cabinet
description S800A OP Cab Desc 118 10-4
strings S800A OP Cab Desc 118 3-4
installing and connecting S800A Cab Inst 210 9-1
installing in Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-8
isolation Site Inst P&E Add 4-15
internal Site Inst P&E Add 4-15
location S800A Cab Inst 210 9-6
ModCab
description Mod Cab Desc 119 5-10
installing and connecting Mod Cab Inst 211 13-1
rejuvenating for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-31
rejuvenating in Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 8-5
replacing S800A Cab Inst 210 12-6
testing in Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-5
vault used with S800A S800A OP Cab Desc 118 12-1

Battery breaker panel
circuit breakers S800A Cab Inst 210 9-5, S800A Cab Inst 210 9-15, Mod Cab Inst 211 13-4
dc power connections S800A Cab Inst 210 13-22
in S800A cabinet
description S800A OP Cab Desc 118 10-5

Battery distribution fuse bay
ABM Bay Cable Conn QRG 3-1

Battery equipment module
circuit breaker numbering for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 2-18
description MBP Desc 110 1-4
installing alarm cable in VTBM MBP MBP VTBM Ring Inst 6-27
installing batteries in Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-8

battery isolation
Vol. 1 200 4-15
internal Vol. 1 200 4-16

Battery replacement
safety requirements Mod Cab Inst 211 1-15

Bay
access bandwidth manager
installation planning Vol. 1 200 1-3
Access Node Express
temperature and humidity specifications Vol. 2B 180 3-3
AccessNode
temperature and humidity specifications Vol. 2B 180 3-2
central office
dimensions Vol. 1 200 2-8
configurations TBM Inst 202 2-1, TBM Inst 202 2-6
customer-located equipment
dimensions Vol. 1 200 3-10
dimensions Vol. 2A 100 6-2, Vol. 2B 180 2-2
central office Vol. 1 200 2-8
customer-located equipment Vol. 1 200 3-10
environmental specifications Vol. 2B 180 3-1
finishing installation ABM Inst 201 7-1
floor space requirements Vol. 1 200 3-11
for central-office bays Vol. 1 200 2-10
for customer-located equipment Vol. 1 200 3-11
footprint Vol. 1 200 2-9, Vol. 1 200 3-11, TBM Inst 202 4-4
framework anchoring TBM Inst 202 4-9
installation planning Vol. 1 200 1-1
installing end guard extenders ABM Inst 201 8-11
installing end guards ABM Inst 201 8-8
installing external bay cabling ABM Inst 201 5-1
installing the frame extenders ABM Inst 201 3-20
marking and drilling floor TBM Inst 202 4-2
orderable predefined configurations Vol. 2A 100 6-2
planning for future expansion of bay framework Vol. 1 200 2-11
positioning and securing ABM Inst 201 7-2
possible locations for Vol. 2A 100 6-2
predefined configurations Vol. 2A 100 6-2
securing the bay frame TBM Inst 202 4-5
securing the frame ABM Inst 201 3-12
TBM shelf TBM Inst 202 2-4, TBM Inst 202 2-9
transport bandwidth manager
installation planning Vol. 1 200 1-7
unpacking ABM Inst 201 3-1, TBM Inst 202 3-2
upgrade add-drop mux to add-drop start-up ABM Inst 201 5-10

Bay end guard
installing ABM Inst 201 8-1, TBM Inst 202 6-5

Bay end guard extenders
installing ABM Inst 201 8-1, ABM Inst 201 8-11

Bay end guards
installing ABM Inst 201 8-8

Bay frame extenders
installing TBM Inst 202 4-10
installing Access bandwidth manager bay
installing bay frame extenders
ABM Inst 201 3-20

BBP.
See battery breaker panel

BDFB.
See Battery distribution fuse bay

BEM.
See Battery equipment module

Bidirectional line-switched ring.
See Application, bidirectional line-switched ring

Bidirectional protection switching
protection mode
description Vol. 2A 103 3-2

BIP
wire-wrap block in ModCab
Mod Cab Inst 211 12-5
See also Breaker interface panel

Bipolar violation
parameter definition Vol. 2A 105 1-12

Bit error rate
measuring at min optical receive level
Vol. 3B 222 2-35
OC-3 tributary, DS1 Vol. 3B 222 4-12
OC-3 tributary, DS3 Vol. 3B 222 4-13
OC-3 tributary, STS-1 Vol. 3B 222 4-13
ring ADM nodes
long-term tests Vol. 3B 222 5-35
short-term tests Vol. 3B 222 5-22

BITS.
See Building Integrated Timing Source

Blocking
line card attribute
receive Vol. 4B 315 3-13
transmit Vol. 4B 315 3-14

Blower
powering in VTBM MBP
MBP VTBM Ring Inst 10-8

Blower module
Vol. 5C 547 11-2
replacing for VTBM MBP
MBP VTBM Ring User 10-10

Blower power cable used with MBP
MBP Cab Inst 206 8-8

BNC I/O card
Vol. 2A 102 5-8
description Vol. 2A 100 8-5
equipping rules Vol. 2A 102 5-10,
Vol. 2A 102 5-12
replacing in VTBM MBP
MBP VTBM Ring User 7-3

BNC I/O card 1 fail
clearing alarm Vol. 5A 543 3-330

BNC I/O card 1 fail -DoNotRemove
clear alarm Vol. 5A 543 3-112

BNC I/O card 1 mismatch
clear alarm Vol. 5A 543 3-113
clearing alarm Vol. 5A 543 3-331

BNC I/O card 1 missing
clear alarm Vol. 5A 543 3-114
clearing alarm Vol. 5A 543 3-332

BNC I/O card 2 fail -DoNotRemove
clear alarm Vol. 5A 543 3-112

BNC I/O card 2 mismatch
clear alarm Vol. 5A 543 3-113

BNC I/O card 2 missing
clear alarm Vol. 5A 543 3-114

BNC I/O card 3 fail -DoNotRemove
clear alarm Vol. 5A 543 3-112

BNC I/O card 3 mismatch
clear alarm Vol. 5A 543 3-113

BNC I/O card 3 missing
clear alarm Vol. 5A 543 3-114

BNC I/O card ID PROM failure
troubleshooting Vol. 5A 543 3-112

Bonding clamp
S800A Cab Inst 210 7-2

Both planes non-operational
clear alarm Vol. 5A 543 3-48

Bottom cover assembly
installing front panel ABM Inst 201 8-7

Breaker association
Vol. 5C 547 2-58

Breaker interface panel
Vol. 5C 546 2-8, ABM Bay Cable Conn QRG 3-2
ABM Vol. 5C 546 2-8

Breaker interface panel (continued)

ABM circuit breaker
A0381919 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0381920 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0381921 Vol. 5C 547 5-1, Vol. 5C 547 5-5
A0622542 Vol. 5C 547 5-1
A0627317 Vol. 5C 547 5-1
adjacent bay, cable UE9000 Ad Bay QR 1-1
bulb requirement Vol. 5C 546 2-8, Vol. 5C 546 2-12
circuit breaker designations in VTBM MBP MBP VTBM Ring Inst 2-19
control circuit pack Vol. 5C 547 5-31
description Mod Cab Desc 119 5-8
installing circuit packs in VTBM MBP MBP VTBM Ring Inst 10-9
lamp circuit pack Vol. 5C 547 5-31
model NT4K14 Vol. 2A 100 7-19
alarm relay card in Vol. 2A 100 7-20
alarm relay card replacing in VTBM MBP MBP VTBM Ring User 6-2
circuit breaker designations for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 2-17
circuit breakers in Vol. 2A 100 7-21
connectors on sides of Vol. 2A 100 7-21
description MBP Desc 110 2-16
dimensions Vol. 2A 100 7-20
external alarm contacts Vol. 2A 104 3-16
in S800A cabinet S800A OP Cab Desc 118 9-5
installing wire-wrap connections ABM Inst 201 6-71
LEDs, troubleshooting Vol. 5A 543 7-34
Modular Business Package MBP Cab Inst 206 7-18
parallel telemetry contacts Vol. 2A 104 5-6
plug-in modules for Vol. 2A 100 8-22
power connector locations S800A Cab Inst 210 13-26
replacing LEDs for VTBM MBP MBP VTBM Ring User 6-6
talk battery filter card replacing for VTBM MBP MBP VTBM Ring User 6-4
talk battery filter card in Vol. 2A 100 7-20
visual alarm indicators Vol. 2A 104 3-3
wirewrap pins on Vol. 1 200 5-8, Vol. 2A 100 7-23, S800A Cab Inst 210 8-7
model NT7E56 Vol. 2A 100 7-25
circuit breakers in Vol. 2A 100 7-27
connecting office alarms TBM Inst 202 4-24, TBM Inst 202 4-31
connecting to office battery TBM Inst 202 4-16
description MBP Desc 110 2-22
DIP switches TBM Inst 202 4-27, TBM Inst 202 5-39
DIP switches on Vol. 2A 100 7-27
DIP switches, illus. TBM Inst 202 4-29
external-alarm contacts Vol. 2A 104 3-19
LED, troubleshooting Vol. 5A 543 7-34
modem cable installation TBM Inst 202 5-35

Breaker interface panel, model NT7E56 (continued)

office alarm board in Vol. 2A 100 7-28
office alarm connections TBM Inst 202 4-31
office battery connections TBM Inst 202 4-16, TBM Inst 202 4-22
optional modem in Vol. 2A 100 7-29
visual alarm indicators Vol. 2A 104 3-4
wirewrap pins on Vol. 1 200 6-5, Vol. 2A 100 7-29
modem test for TBM shelf Vol. 3A 230 9-62
modules
BIP. See Breaker interface panel.
NT4K14
changing lamp Vol. 5C 546 2-8
circuit breaker Vol. 5C 547 5-5
installing cover Vol. 5C 546 3-3, Vol. 5C 547 9-5
removing cover Vol. 5C 546 3-2, Vol. 5C 547 9-3
replacing alarm relay card Vol. 5C 547 5-23
replacing module Vol. 5C 547 5-1
replacing talk battery filter card Vol. 5C 547 5-19
NT7E56
changing lamp Vol. 5C 546 2-8
circuit breaker Vol. 5C 547 5-2
replacing LED Vol. 5C 547 5-11
replacing module Vol. 5C 547 5-1
NT7E90AA
replacing optional modem Vol. 5C 547 5-25
NT7E90BA
replacing optional modem Vol. 5C 547 5-28
ordering modules for VTBM MBP MBP VTBM Ring User 11-13
pinouts ABM Bay Cable Conn QRG 4-9
power feed schematic Vol. 5C 547 5-10
powering Vol. 3B 225 2-7
removing the cover in VTBM MBP MBP VTBM Ring User 3-14
replacing lamp Vol. 5C 546 2-8
replacing modules for VTBM MBP MBP VTBM Ring User 6-1
TBM Vol. 5C 546 2-8
TBM circuit breaker
A0378090 Vol. 5C 547 5-1, Vol. 5C 547 5-2
TBM display circuit pack Vol. 5C 547 5-1, Vol. 5C 547 5-31
testing the lamps Vol. 5A 543 8-6, Vol. 5A 543 8-8

Building integrated timing source

Vol. 2A 100 10-3, Vol. 2A 100 11-15, Vol. 2A 102 5-41
DFA Vol. 2A 103 6-6
protection switching for external synchronization interface card Vol. 2A 103 6-2
use as a reference timer Vol. 5A 543 3-73

Building point ground
central office ABM Bay Cable Conn QRG 2-3
in small buildings
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9

Building principle ground
grounding remote locations
ABM Bay Cable Conn QRG 2-5

Building-integrated timing supply (BITS)
provisioning BITS outputs
MCOT to ABM QRG 1-28

Build-out
lbo Vol. 3B 225 3-7

Bulb.
See breaker interface panel, replacing lamp

Bulk provisioning.
See Provisioning, bulk

Bus
add-drop Vol. 2A 102 3-6
communication overhead Vol. 2A 102 3-4
control Vol. 2A 102 3-2
DS1 protection Vol. 2A 102 5-24
maintenance Vol. 2A 102 3-2
maintenance overhead Vol. 2A 102 3-5
metallic test Vol. 2A 102 3-6
SONET overhead Vol. 2A 102 3-3
test buses in copper-distribution drawers
Vol. 2A 102 3-7

Buses and links
Vol. 2A 102 1-2

Business access application
Vol. 2A 100 4-2

Business service.
See Service, business services

Busy season
defined T&B Eng Info. 152 1-1

Busy tone
line card attribute Vol. 4B 315 3-12

Byte synchronous
setting for DS1 Vol. 3B 225 3-7

C

CA ABSBH
defined T&B Eng Info. 152 1-3

Cabinet
arrangement
multiplexer MBP Desc 110 4-2
standard 480-line MBP Desc 110 4-4
standard 672-line MBP Desc 110 4-4
standard 96-line MBP Desc 110 4-3
STSBM MBP Desc 110 4-8
VTBM MBP Desc 110 4-10
VTBM MBP MBP VTBM Ring Inst 2-7,
MBP VTBM Ring User 2-7
construction Mod Cab Desc 119 3-4
cover removal
VTBM MBP MBP VTBM Ring User 3-2
description
S800A S800A OP Cab Desc 118 2-2
VTBM MBP MBP VTBM Ring Inst 2-7
VTBM MBP expansion
MBP VTBM Ring Inst 2-7
VTBM MBP master MBP VTBM Ring Inst 2-7
dimensions
ModCab Mod Cab Desc 119 3-4
VTBM MBP MBP VTBM Ring Inst 2-32
expansion cabinet
VTBM MBP configurations
MBP VTBM Ring Inst 2-13,
MBP VTBM Ring User 2-7,
MBP VTBM Ring User 2-12
features Mod Cab Desc 119 3-2
floor space requirements
MBP Site Inst P&E Add 5-8
footprint
MBP Site Inst P&E Add 5-6
master cabinet
VTBM MBP MBP VTBM Ring User 2-7
VTBM MBP configurations
MBP VTBM Ring Inst 2-11,
MBP VTBM Ring User 2-10
MBP
arrangements
SONET TSBM Site Inst P&E Add 2-4
standard Site Inst P&E Add 2-3
VTBM Site Inst P&E Add 2-5
cable access MBP Desc 110 1-5
covers MBP Desc 110 1-5
modules MBP Desc 110 1-2
powering
VTBM MBP MBP VTBM Ring Inst 2-15,
MBP VTBM Ring User 2-14
removing ABM cover
VTBM MBP MBP VTBM Ring User 3-12
removing BIP cover
VTBM MBP MBP VTBM Ring User 3-14
removing DEM separator bars
VTBM MBP MBP VTBM Ring User 3-10

Cabinet (continued)
removing pedestal grille
VTBM MBP MBP VTBM Ring User 3-6
removing top cap
VTBM MBP MBP VTBM Ring User 3-8
types
MBP Site Inst P&E Add 2-2
VTBM MBP MBP VTBM Ring User 2-7
weight
VTBM MBP MBP VTBM Ring Inst 2-31, MBP VTBM Ring User 2-28
weights for Modular Business Package
Site Inst P&E Add 5-2

Cabinet module
ac power pedestal Mod Cab Desc 119 2-2
common equipment Mod Cab Desc 119 2-5
copper-distribution Mod Cab Desc 119 2-7
dc power Mod Cab Desc 119 2-3
description Mod Cab Desc 119 2-2
large termination Mod Cab Desc 119 2-8
optional equipment Mod Cab Desc 119 2-9

Cable
-48 V dc
installing in VTBM MBP cabinet
MBP VTBM Ring Inst 6-12
ac power cables ABM Inst 201 3-24
connecting to MBP Site Inst P&E Add 8-5
connecting to MPP MBP Cab Inst 206 7-48, MBP Cab Inst 206 15-6
connecting to VTBM MBP
MBP VTBM Ring Inst 6-21
alarm cable
routing in ModCab Mod Cab Inst 211 12-2
VTBM MBP MBP Cab Inst 206 8-11, MBP VTBM Ring Inst 6-15
cable length affecting equipment location
for central-office bays Vol. 1 200 2-11
for customer-located equipment
Vol. 1 200 3-12
configurations ABM Inst 201 2-1
connections for ABM bays Vol. 1 200 5-2
control network cable
to ABM Vol. 1 200 5-13
to TBM Vol. 1 200 6-10
D/VT link access cable
connecting to MBP MBP Cab Inst 206 8-6, MBP Cab Inst 206 13-11
dc power cable, MPP to DSX/repeaters
used with MBP, connecting
MBP Cab Inst 206 14-2
dc power cables
connecting DSX/repeater to MBP
MBP Cab Inst 206 7-42, MBP Cab Inst 206 14-9
connecting MBP dc power distribution harnesses MBP Cab Inst 206 7-18
connecting MPP to DSX/repeaters for MBP
MBP Cab Inst 206 7-34

Cable, dc power cables (continued)
connecting to MBP MBP Cab Inst 206 7-22, MBP Cab Inst 206 7-27
connecting to MPP MBP Cab Inst 206 7-27
dc power distribution harnesses
connecting to MBP MBP Cab Inst 206 13-2
diagram
TBM bays Vol. 1 200 6-2
VTBM MBP MBP VTBM Ring Inst 2-22, MBP VTBM Ring User 2-21
DS1 and maintenance pairs
used with ModCab Mod Cab Inst 211 10-1
DS1 cable
connecting to MBP MBP Cab Inst 206 9-3, MBP Cab Inst 206 9-36
to ABM Vol. 1 200 5-14
to TBM Vol. 1 200 6-12
DS1 pigtail
connecting to MBP MBP Cab Inst 206 8-15, MBP Cab Inst 206 14-19
DS3 cable
connecting to MBP MBP Cab Inst 206 9-27, MBP Cab Inst 206 9-36
to ABM Vol. 1 200 5-52
to TBM Vol. 1 200 6-38
external
definition for MBP Site Inst P&E Add 8-2
requirements for MBP Site Inst P&E Add 8-3
external bay cabling installation ABM Inst 201 5-1
external for VTBM MBP
MBP VTBM Ring Inst 2-22
external synchronization cable
to ABM Vol. 1 200 5-17
to TBM Vol. 1 200 6-15
fiber in S800A S800A OP Cab Desc 118 5-2
fiber optic patchcords and pigtails
MBP VTBM Ring Inst 8-2
general rules for MBP Site Inst P&E Add 8-2
grounding external signal
for ABM bay Vol. 1 200 5-12
for TBM bay Vol. 1 200 6-9
installation
-48 Vdc cabling ABM Inst 201 6-75
control network cable ABM Inst 201 5-40
control network cable in TBM bay
TBM Inst 202 5-29
D/VT link access cable ABM Inst 201 4-20
dc power distribution harnesses
ABM Inst 201 4-8
DS1 cable
mixed installation with DS3 cables
ABM Inst 201 6-30
DS1 cable for TBM bay TBM Inst 202 5-68
DS1/DS3 mixed cables in TBM bay
TBM Inst 202 5-100
DS3 cable ABM Inst 201 6-24
mixed installation with DS1 cables
ABM Inst 201 6-30
DS3 cable with transmission ground reference panel in TBM bay TBM Inst 202 5-123
DS3 cables in TBM bay TBM Inst 202 5-88

Cable, installation (continued)
external bay cabling ABM Inst 201 5-1
external synchronization cable
ABM Inst 201 5-52
external synchronization cable in TBM bay
TBM Inst 202 5-21
external TBM bay cabling TBM Inst 202 5-1
fiber patch cords ABM Inst 201 5-57
fiber patch cords in TBM bay TBM Inst 202 5-4
fiber storage tray in TBM bay
TBM Inst 202 5-4
LCAP user interface cable in TBM bay
TBM Inst 202 5-130
local craft access panel user interface cable in
TBM bay TBM Inst 202 5-130
Metallic test access cable ABM Inst 201 4-25
modem cable ABM Inst 201 5-35
modem cable in TBM bay TBM Inst 202 5-35
OPC cable ABM Inst 201 5-26
OPC Ethernet cable kit ABM Inst 201 5-88
operations controller Ethernet cable kit
TBM Inst 202 5-126
optical patch cords ABM Inst 201 5-58
optical patch cords in TBM bay
TBM Inst 202 5-5
optical pigtails in TBM bay TBM Inst 202 5-7
optical pigtails with MVOA in TBM bay
TBM Inst 202 5-7
orderwire extension cable ABM Inst 201 5-16
orderwire extension cable in TBM bay
TBM Inst 202 5-64
pair gain test controller (PGTC)/metallic test
access cable (MTAC) ABM Inst 201 6-55
parallel telemetry cable ABM Inst 201 5-47,
TBM Inst 202 5-25
PSTN cable in TBM bay TBM Inst 202 5-18
serial telemetry cable ABM Inst 201 5-22
serial telemetry cable in TBM bay
TBM Inst 202 5-55
user interface cable to the NT4K14 LCAP
ABM Inst 201 6-81
VF cable ABM Inst 201 5-11
installing S800A Cab Inst 210 4-1
installing test access path cable
TAP function ABM Inst 201 6-66
internal for VTBM MBP
MBP VTBM Ring Inst 2-24
intershelf cables ABM Inst 201 2-14
line card attribute Vol. 4B 315 3-12
MBP blower power cable MBP Cab Inst 206 8-8
MBP, routing and connecting
MBP VTBM Ring Inst 7-1
metallic test access cable
connecting to MBP MBP Cab Inst 206 8-4,
MBP Cab Inst 206 13-5
modem cable
ABM Vol. 1 200 5-19
connecting to MBP MBP Cab Inst 206 9-78
TBM for external modem Vol. 1 200 6-17
TBM for integral modem Vol. 1 200 6-19

Cable (continued)
OPC cable
to ABM side interconnect left Vol. 1 200 5-25
to TBM side interconnect left Vol. 1 200 6-20
OPC cable to ABM and I/O area Vol. 1 200 5-22
OPC ethernet cable kit to ABM Vol. 1 200 5-31
OPC ethernet cable kit to TBM Vol. 1 200 6-27
ordering for VTBM MBP
MBP VTBM Ring User 11-4
orderwire extension cable
connecting to MBP MBP Cab Inst 206 9-74
to TBM Vol. 1 200 6-31
orderwire extension cable to ABM Vol. 1 200 5-35
outside plant cable S800A Cab Inst 210 4-1
ground wire S800A Cab Inst 210 4-19
outside-plant cable
used with ModCab
ground wire Mod Cab Inst 211 6-9,
Mod Cab Inst 211 7-22
installing Mod Cab Inst 211 6-1
overhead drop hardware requirements
for central-office bays Vol. 1 200 2-11
for customer-located equipment
Vol. 1 200 3-12
pair gain test controller/metallic test access cable
Vol. 1 200 5-37
pinouts Vol. 3B 223 2-2
parallel telemetry cable
to ABM Vol. 1 200 5-39
to TBM Vol. 1 200 6-33
pinout
control network cable for TBM bay
TBM Inst 202 5-34
external synchronization cable in TBM bay
TBM Inst 202 5-24
local craft access panel user interface cable
TBM Inst 202 5-131
modem cable in TBM bay TBM Inst 202 5-41
operations controller cable in TBM bay
TBM Inst 202 5-51, TBM Inst 202 5-63
orderwire extension cable for TBM bay
TBM Inst 202 5-67
parallel telemetry cable in TBM bay
TBM Inst 202 5-28
PSTN cable in TBM bay TBM Inst 202 5-20
serial telemetry cable TBM Inst 202 5-56
power cables
to ABM bay Vol. 1 200 5-9
to TBM bay Vol. 1 200 6-6
requirements
for ABM bay Vol. 1 200 5-1
for TBM bay Vol. 1 200 6-1
routing and terminating DS1 in ModCab
Mod Cab Inst 211 11-3
routing and termination S800A Cab Inst 210 6-1
serial telemetry cable
to ABM Vol. 1 200 5-41
to TBM Vol. 1 200 6-35
T1 and maintenance pairs
used with Series 800A outside plant cabinet
S800A Cab Inst 210 5-1

Cable (continued)
test access path cable Vol. 1 200 5-43, Vol. 1 200 5-45
connecting to MBP MBP Cab Inst 206 9-64, MBP Cab Inst 206 9-69
pinouts Vol. 3B 223 2-3, Vol. 3B 223 2-4
TBP function ABM Inst 201 6-61
user interface cable
to the NT4K16 LCAP Vol. 1 200 5-46
to the NT7E5047 LCAP Vol. 1 200 6-36
user interface cable to the NT4K14 LCAP
connecting to MBP MBP Cab Inst 206 9-87
VF cable S800A Cab Inst 210 6-1
connecting to MBP MBP Cab Inst 206 9-82, MBP Cab Inst 206 13-15
in ModCab
routing and termination
Mod Cab Inst 211 8-1
VF cable in ModCab
routing and termination to 710
Mod Cab Inst 211 9-1
VF cable to ABM Vol. 1 200 5-49
wirewrap connections in ABM bay Vol. 1 200 5-7
wirewrap connections in TBM bay Vol. 1 200 6-5

Cable access
for Modular Business Package and Modular Power Package MBP Desc 110 1-5

Cable conduits
placement Mod Cab Inst 211 1-5

Cable extender kit
MBP and MPP MBP Cab Inst 206 6-20
used in VTBM MBP MBP VTBM Ring Inst 5-18

Cable organizer panel
Vol. 2A 100 7-62, Vol. 5C 547 8-1, MBP Desc 110 2-19
cooling unit
accessing and clearing cables Vol. 5C 547 8-3
alarm cable Vol. 5C 547 8-17
auxiliary in TBM bay Vol. 5C 547 8-1
installing LCAP in COPCU Vol. 5C 547 8-15
loss of service Vol. 5C 547 8-2
maintenance kit Vol. 5C 547 8-1
NT4K19AT Vol. 5C 547 8-1
NT7E7801 Vol. 5C 547 8-1, Vol. 5C 547 8-15, Vol. 5C 547 8-16
NT7E7802 Vol. 5C 547 8-17
NT7E7804 Vol. 5C 547 8-11
overheating Vol. 5C 547 8-2, Vol. 5C 547 8-3
power cable Vol. 5C 547 8-11
reassembling bay Vol. 5C 547 8-17
removing Vol. 5C 547 8-11
removing bottom air filter element Vol. 5C 547 8-10
replacing in TBM bay Vol. 5C 547 8-1
replacing module Vol. 5C 547 6-1

Cable organizer panel (continued)
description Vol. 2A 100 7-62
used with transport bandwidth manager shelf Vol. 2A 100 7-62

Cable ports
in ModCab Mod Cab Inst 211 5-2

Cable rack
requirements for Modular Business Package Site Inst P&E Add 5-9

Cable routing in ModCab
Mod Cab Inst 211 11-1

Cable routing ports in ModCab
Mod Cab Inst 211 11-2

Cables
fiber-optic Nodal Conn Mgr QRG 1-59, MCOT to ABM QRG 1-16

Cabling
-48 V dc S800A Cab Inst 210 9-4, S800A Cab Inst 210 9-14, S800A Cab Inst 210 9-26
MBP cabinet, installing
MBP Cab Inst 206 7-18, MBP Cab Inst 206 7-22, MBP Cab Inst 206 7-27
external ABM Bay Cable Conn QRG 4-1
external connections
ABM Bay Cable Conn QRG 4-5
intershelf ABM Bay Cable Conn QRG 4-1
intershelf connections
ABM Bay Cable Conn QRG 4-2

Calculating link-loss budget
Vol. 1 200 9-12
blank budget sheet Vol. 1 200 9-14
example Vol. 1 200 9-13

Call attempts
traffic load
defined T&B Eng Info. 152 1-3

Call blocking
defined T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1

Call forward feature
Vol. 1 155 1-39

Call park feature
Vol. 1 155 1-39

Call pick up feature
Vol. 1 155 1-39

Call reference values
listing unassigned Vol. 3A 230 4-73, Vol. 3A 235 5-21, Vol. 3A 240 6-21, Vol. 3A 245 4-26, Vol. 4B 315 4-12
modifying Vol. 4B 315 4-6
unassigning Vol. 3A 230 4-71, Vol. 3A 235 5-19, Vol. 3A 240 6-19, Vol. 3A 245 4-24, Vol. 4B 315 4-11

Call transfer feature
Vol. 1 155 1-39

Call waiting feature
Vol. 1 155 1-39

CALRS testing software
Vol. 2A 101 2-3

CALRS.
See Centralized Automated Loop Reporting System.

Capacitor
calculating values
ABM Bay Cable Conn QRG 3-2

Card
Vol. 5C 547 2-1

Carrier bypass
concept Vol. 2B 115 1-4
line/loop testing
test access card Vol. 2B 115 2-3
metallic test access Vol. 2B 115 4-5
operation Vol. 2B 115 4-1
pair gain test controller Vol. 2B 115 4-2
testing capabilities Vol. 2B 115 3-5
testing TR-08 services Vol. 2B 115 4-8

Carrier group alarm
Vol. 2A 101 1-18

Carrier Serving Area guidelines
Vol. 1 155 4-6

CBIC-based card failure
troubleshooting Vol. 5A 543 3-68, Vol. 5A 543 3-69

CCS
See Centum call seconds

CCS ABSBH
defined T&B Eng Info. 152 1-2

CDS
Vol. 3A 240 1-33
replacing Vol. 5C 547 4-1
See also Copper-distribution shelf.

CDSP.
See copper-distribution shelf power card or copper-distribution shelf power converter

CE.
See Common equipment

Central office
building point ground
ABM Bay Cable Conn QRG 2-3
planning installations in Vol. 1 200 2-1

Centralized Automatic Loop Reporting System
Vol. 2B 115 9-3
description Vol. 2B 115 7-19
verifying setup to DRTU Vol. 3B 223 2-7
verifying setup to IRTU Vol. 3B 223 2-12

Centralized User Administration (CUA)
functions TL1 En Sec QRG 2-4
number of accounts allowed TL1 En Sec QRG 2-4
user profile TL1 En Sec QRG 2-4

Centralized User Administration tool
Vol. 4A 301 7-2, Vol. 4A 302 4-1
changing an existing toolset Vol. 4A 302 4-49
changing existing user account Vol. 4A 302 4-25
changing user group attributes Vol. 4A 302 4-43
changing user passwords Vol. 4A 302 4-31
creating auto-start tools Vol. 4A 302 4-54
creating new user groups Vol. 4A 302 4-38
deleting a toolset Vol. 4A 302 4-52
deleting a user group Vol. 4A 302 4-41
deleting user accounts Vol. 4A 302 4-28
enabling/disabling user accounts Vol. 4A 302 4-33
filtering users list Vol. 4A 302 4-63
main window Vol. 4A 301 7-2, Vol. 4A 301 7-42
moving users between user groups Vol. 4A 302 4-60
Schedule User Profile Audit dialog Vol. 4A 301 7-8

Central-office modernization application
Vol. 2A 100 4-4

Centum call seconds
defined T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1

CEP.
See common-equipment power card

Change overhead bit event report
changing status of Vol. 4B 315 4-14
viewing status of Vol. 4B 315 4-14

Character mode terminal user interface
peak processing
refreshing a screen Vol. 4A 300 2-4, Vol. 4A 301 6-1, Vol. 4A 301 7-2, Vol. 4A 301 8-1, Vol. 4A 301 9-1, Vol. 4A 301 10-1, Vol. 4A 301 11-1, Vol. 4A 301 12-1, Vol. 4A 301 13-1

Chgstate is
Vol. 3A 230 7-13, Vol. 3A 230 8-11

chgstate is
Vol. 3B 225 2-20, Vol. 3B 225 2-30, Vol. 3B 225 4-6
initiate diagnostics Vol. 3B 225 2-25

Chgstate oos
Vol. 3A 230 7-11 Vol. 3B 225 2-24, Vol. 3B 225 2-27, Vol. 3B 225 2-30, Vol. 3B 225 3-10

CI tool
ANXUPGCI
Mix & Match DFA Recon QRG 4-18
reset Mix & Match DFA Recon QRG 4-18
definition Vol. 4A 300 4-2
DMSPROV UE9000 Voice OAMP UG 2-1
entering a command Vol. 4A 300 4-6
help
displaying Vol. 4A 300 4-5
opening Vol. 4A 300 4-4
SYSMON Vol. 5C 520 4-1
cpstats Vol. 5C 520 4-3
lcstats Vol. 5C 520 4-4
opening Vol. 5C 520 4-2
port Vol. 5C 520 4-8
showcard Vol. 5C 520 4-12
showpath Vol. 5C 520 4-9
TL1 UE9000 Voice OAMP UG 1-17
UEUPG UE9000 Voice OAMP UG 4-1
using Vol. 4A 300 4-2
VLCM Vol. 5C 520 5-1
ds1status Vol. 5C 520 5-4
opening Vol. 5C 520 5-2
tranlcm Vol. 5C 520 5-8
vlcmstatus Vol. 5C 520 5-3

Circuit
adding Vol. 4B 315 3-17
ADSL parameters UE9000 Data Net Design 6-1, UE9000 Data Net Design 6-2, UE9000 Data Net Design 6-3
bulk provisioning Vol. 4B 315 2-1
configurations Vol. 4B 315 1-7
connection setup Vol. 4B 316 7-4
definition of DS1 tandem Vol. 4C 324 1-23
deleting Vol. 4B 315 3-1
deleting existing Vol. 4B 315 3-27

Circuit (continued)
description of Provisioning Manager interface Vol. 4B 315 3-2
digital multiplex switch Vol. 3B 222 2-3, Vol. 3B 222 3-2, Vol. 4C 324 1-24
DS1 tandem Vol. 3A 230 1-7, Vol. 3A 240 1-8, Vol. 3B 222 2-3, Vol. 3B 222 3-2
analog special services, testing Vol. 4B 316 4-31
DS1tandem Vol. 3A 230 1-7, Vol. 3A 235 1-5, Vol. 3A 245 1-5, MCOT to ABM QRG 2-4
endpoint types Vol. 4B 315 3-16
equalization adjustment Vol. 4B 316 3-3
integrated digital loop carrier Vol. 3A 230 1-8, Vol. 3A 240 1-8, Vol. 3A 245 1-5
lineup
2-wire Vol. 4B 316 3-5
4-wire or 6/8-wire Vol. 4B 316 3-13
overview Vol. 4B 316 3-2
worksheet Vol. 4B 316 3-23 to Vol. 4B 316 3-27
modifying Vol. 4B 315 3-1
POTS
bulk provisioning Vol. 4B 315 2-2
provisioning Vol. 4B 315 3-1
DS1 tandem Vol. 4B 315 3-1
DS1 tandem VT Vol. 4B 315 3-1
TR-08 Vol. 4B 315 3-1
TR-08 VT Vol. 4B 315 3-1
universal Vol. 4B 315 3-1
PVC UE9000 Data Net Design 3-2
TR-08
bulk provisioning Vol. 4B 315 2-5
TR08 Vol. 3B 222 2-3
universal Vol. 3A 230 1-8, Vol. 3A 240 1-9, Vol. 4C 324 1-24
universal definition Vol. 3B 222 2-3, Vol. 3B 222 3-2

circuit
adding Vol. 4B 315 3-17
modifying Vol. 4B 315 3-23

Circuit breaker
battery equipment module for VTBM MBP MBP VTBM Ring User 2-18
breaker interface panel in VTBM MBP MBP VTBM Ring Inst 2-19
dc distribution unit for VTBM MBP MBP VTBM Ring User 2-18
in battery breaker panel in Series 800A outside plant cabinet S800A Cab Inst 210 9-5, S800A Cab Inst 210 9-15, S800A Cab Inst 210 13-23
in dc distribution shelf in Series 800A outside plant cabinet S800A Cab Inst 210 13-19
in NT4K14 breaker interface panel S800A Cab Inst 210 13-27
in S800A breaker interface panel S800A OP Cab Desc 118 9-5

Circuit breaker (continued)
in S800A power pedestal
S800A OP Cab Desc 118 4-6
NT4K14 BIP Vol. 5C 547 5-5
NT4K14 BIP for VTBM MBP
MBP VTBM Ring User 2-17
NT4K14 breaker interface panel Vol. 2A 100 7-21
NT7E56 BIP Vol. 5C 547 5-2
NT7E56 breaker interface panel Vol. 2A 100 7-27
power feed schematic Vol. 5C 547 5-10
S800A battery breaker panel
S800A OP Cab Desc 118 10-5
TBFCE Vol. 3B 225 2-8

Circuit breakers
in battery breaker panel in ModCab
Mod Cab Inst 211 13-4
locations in VTBM MBP
MBP VTBM Ring Inst 9-15

Circuit card
ATM
software upgrade
UE9000 Data OAMP UG 4-3,
UE9000 Data OAMP UG 4-5
replacing UE9000 Data OAMP UG 5-15,
UE9000 Data OAMP UG 5-17
UE9000, ATM
cannot communicate with uEMS
UE9000 Data OAMP UG 6-24
cannot ping uEMS GUI
UE9000 Data OAMP UG 6-33
no hardware flag
UE9000 Data OAMP UG 6-28
not sending traps to UEMS
UE9000 Data OAMP UG 6-36
reboots with old software load
UE9000 Data OAMP UG 6-25
replacing UE9000 Data OAMP UG 6-40
troubleshooting
UE9000 Data OAMP UG 6-16,
UE9000 Data OAMP UG 6-39

Circuit engineering
Vol. 1 155 2-3

Circuit engineering guidelines
Vol. 1 155 4-1

Circuit pack
Vol. 5C 547 2-1, Vol. 5C 547 2-10,
Vol. 5C 547 2-12
ABM and CDS, inserting Vol. 3A 230 2-16,
Vol. 3A 235 2-17, Vol. 3A 240 2-39,
Vol. 3A 245 2-18,
MCOT to ABM QRG 3-16
alarm hierarchy Vol. 5A 543 2-5
alarm point, enabling and disabling
Vol. 4B 310 5-11
antistatic wrist strap Vol. 5C 547 1-2

Circuit pack (continued)
automatic in-service
UE9000 Voice OAMP UG 1-8
diagnosing Vol. 3B 225 6-5
common-distribution shelf Vol. 3B 225 2-26
common-equipment shelf Vol. 3B 225 2-24
failures Vol. 3A 230 5-21, Vol. 3A 235 3-47,
Vol. 3A 240 4-15, Vol. 3A 240 4-33,
Vol. 4B 316 2-50, Vol. 4C 324 9-23,
Vol. 4C 324 9-26, Vol. 4C 324 9-28,
MCOT to ABM QRG 4-43
displaying parameters Vol. 4B 310 7-5
DS3 synchronous mapper Vol. 3A 230 8-20
ETICs required
Mix & Match DFA Recon QRG 1-9
fail
clear alarm Vol. 5A 543 3-20,
Vol. 5A 543 3-43, Vol. 5A 543 3-80,
Vol. 5A 543 3-115, Vol. 5A 543 3-333
failed, diagnosing Vol. 3B 225 2-23
failure
alarm Vol. 5A 543 2-6
group and slot association Vol. 4C 324 1-27
guidelines Vol. 4A 302 1-2, Vol. 4C 324 1-2
handling Vol. 4B 316 1-2
storing and transporting Vol. 4B 316 1-2
handling Vol. 3A 230 1-9, Vol. 3A 235 1-8,
Vol. 3A 240 1-10, Vol. 3A 245 1-7,
Vol. 3B 220 1-2, Vol. 3B 221 1-4,
Vol. 3B 225 1-2, Vol. 4A 302 1-2,
Vol. 5C 547 1-2, MCOT to ABM QRG 2-7
handling guidelines Vol. 4B 315 1-2
handling requirements Vol. 2B 180 8-3
inserting MCOT to ABM QRG 1-35
installing DS1/VT mappers
Mix & Match DFA Recon QRG 3-31
installing LAICs
Mix & Match DFA Recon QRG 3-28
inventory Vol. 3A 230 5-18, Vol. 3B 225 6-5
inventory, performing Vol. 3B 225 2-18
LAICs required
Mix & Match DFA Recon QRG 1-9
latch positions
Mix & Match DFA Recon QRG 3-27
mismatch
alarm Vol. 5A 543 2-6
missing
clear alarm Vol. 5A 543 3-22,
Vol. 5A 543 3-45, Vol. 5A 543 3-335
OC-3/OC-12 Vol. 3B 222 2-14
ordering for VTBM MBP
MBP VTBM Ring User 11-9
parameters, displaying
UE9000 Voice OAMP UG 3-3
performing a manual diagnostic test
Vol. 5A 543 8-10
querying state Vol. 4B 310 7-9
removing MCOT to ABM QRG 1-35

Circuit pack (continued)
replacing TICs with ETICs
Mix & Match DFA Recon QRG 3-22
storing Vol. 4A 302 1-2, Vol. 5C 547 1-2
storing and transporting Vol. 3B 225 1-3
storing and transporting guidelines Vol. 4B 315 1-2, Vol. 4C 324 1-2
STS-1 interface card Vol. 3A 230 8-20
TBM, inserting Vol. 3A 230 2-26, Vol. 3A 240 2-11
testing the LEDs Vol. 5A 543 8-6, Vol. 5A 543 8-8
transporting Vol. 4A 302 1-2, Vol. 5C 547 1-2
types supported
Mix & Match DFA Recon QRG 1-8

Circuit pack group
adding Vol. 3A 230 3-26, Vol. 4B 310 5-8, Vol. 4B 310 5-16, Vol. 4B 310 5-24, UE9000 Voice OAMP UG 1-3
changing operating state Vol. 4B 310 16-2
deleting Vol. 4B 310 5-26, UE9000 Voice OAMP UG 1-10
detailed information, displaying Vol. 4B 311 2-44, Vol. 4B 311 2-45
protection information Vol. 4B 311 2-43
operating state, changing
UE9000 Voice OAMP UG 3-11

Circuit pack inventory, performing
Vol. 3B 225 2-18

Circuit pack mismatch
clear alarm Vol. 5A 543 3-21, Vol. 5A 543 3-44, Vol. 5A 543 3-81, Vol. 5A 543 3-116
clearing alarm Vol. 5A 543 3-334

circuit pack missing
clear alarm Vol. 5A 543 3-83, Vol. 5A 543 3-117

Circuit pack status
Vol. 2A 101 1-5

CLASS lines
defined T&B Eng Info. 152 2-3

Clear critical
Vol. 3B 225 4-47

Clear major
Vol. 3B 225 4-46

Clear minor
Vol. 3B 225 4-45

Clock failure
clear alarm Vol. 5A 543 3-46

Clock source
Vol. 2A 100 11-13
querying on OPC Vol. 4A 302 6-9
selecting for OPC Vol. 4A 302 6-10
settings
ESI Vol. 2A 100 11-14
freerun Vol. 2A 100 11-13
linetimed Vol. 2A 100 11-14
looptimed Vol. 2A 100 11-13
txc Vol. 3A 230 4-14, Vol. 3A 245 4-15, Vol. 3B 225 5-5

Clock source reference
provisioning Vol. 4C Add Nodes VTBM 2-17

Cluster
alarms in display Vol. 4A 302 10-4
definition Vol. 2A 100 1-2
display Vol. 4A 302 10-3

Cluster level
inventory report, sorting Vol. 4A 302 5-24
inventory reports, generating Vol. 4A 302 5-11
inventory reports, searching Vol. 4A 302 5-22
reports, managing Vol. 4A 302 5-17
summary report, generating Vol. 4A 302 5-14

Cluster Level Inventory tool
domains Vol. 4A 302 5-2
main window Vol. 4A 301 8-51
reports
inventory report Vol. 4A 302 5-4
summary report Vol. 4A 302 5-6
searching Vol. 4A 302 5-9
sorting Vol. 4A 302 5-10

Cluster-level display
Vol. 2A 104 8-1
TBOS Vol. 2A 104 5-4

CMT user interface
getting help Vol. 4A 301 2-13
using a command pane Vol. 4A 301 2-35
using dialogs Vol. 4A 301 2-29
using menus Vol. 4A 301 2-20

CNET
Vol. 4C Add Nodes VTBM 5-41

CNet
cabling Vol. 5A 543 3-52
connectors, unused
terminating Vol. 5A 543 3-52
link fail
clear alarm Vol. 5A 543 3-51
performance degraded
clear alarm Vol. 5A 543 3-52

CNET.
See Control network

CO trunk applications
Vol. 1 155 1-48

COH bus.
See Communication overhead bus.

Coin lines
defined T&B Eng Info. 152 2-4

Coin service.
See Service, coin.

Collection of data at OPC
Vol. 2A 105 1-25

COM
NE log Vol. 5B 840 3-1, Vol. 5B 840 3-2, Vol. 5B 840 3-3, Vol. 5B 840 3-4, Vol. 5B 840 3-5, Vol. 5B 840 3-6, Vol. 5B 840 3-7

Combined application.
See Application, combined

COML
NE log Vol. 5B 840 4-1, Vol. 5B 840 4-2, Vol. 5B 840 4-4

COMM facility
alarm points, enabling and disabling Vol. 4B 310 6-14

Comm overhead
clock/frame loss
clear alarm Vol. 5A 543 3-23
data loss
clear alarm Vol. 5A 543 3-24

Command
DLT-USER-SECU TL1 En Sec QRG 3-7
ED-USER-SECU TL1 En Sec QRG 3-9
ENT-USER-SECU TL1 En Sec QRG 3-12
RTRV-USER-SECU TL1 En Sec QRG 3-15

Command screening
Vol. 2A 101 1-5

Command, CDS
DGN-EQPT TL1 Interface Desc 190 4-7
RMV-EQPT TL1 Interface Desc 190 4-9
RST-EQPT TL1 Interface Desc 190 4-10

Commissioning
Vol. 2A 101 1-5, Vol. 4C Span of Con Cons 8-2
AccessNode Express Mix & Match DFA Recon QRG 1-7
data, clearing Vol. 3B 220 4-16

Commissioning (continued)
editing OPC data Mix & Match DFA Recon QRG 3-14, Mix & Match DFA Recon QRG 3-19
enable clear Vol. 4A 301 15-5
main window Vol. 4A 301 15-5
tasks Vol. 4A 301 15-6
line and loop testing checklist Vol. 3B 223 1-2
line equipment, powering up Vol. 3A 230 5-4
NE, decommissioning Vol. 3B 220 4-19
network element data, entering Vol. 3A 230 3-18, Vol. 3A 235 3-14, Vol. 3A 240 3-11, Vol. 3A 245 3-16, MCOT to ABM QRG 4-14
network element name, setting Vol. 3A 230 3-25, Vol. 3A 235 3-39, Vol. 3A 240 4-9, Vol. 3A 240 4-30, Vol. 3A 245 3-24, MCOT to ABM QRG 4-40
new system
process Vol. 3B 220 1-1
remote OPCs Vol. 3B 220 4-13
software, downloading Vol. 3A 230 3-21, Vol. 3A 235 3-18, Vol. 3A 240 3-19, Vol. 3A 245 3-20, MCOT to ABM QRG 4-18
system setup forms Vol. 3A 235 1-13, MCOT to ABM QRG 2-12
CDS Shelf Setup Form Vol. 3A 235 1-26, Vol. 3A 240 1-33
CNet Tracking Form Vol. 3A 235 1-21, Vol. 3A 240 1-24
DS1 Assignments Setup Form Vol. 3A 235 1-28, Vol. 3A 240 1-34, Vol. 3A 240 1-35
ESI Clock Information Setup Form Vol. 3A 240 1-32
Host Provisioning Setup Form Vol. 3A 235 1-22, Vol. 3A 240 1-25
Network Element Setup Form Vol. 3A 235 1-26
Network Elements Setup Form Vol. 3A 240 1-34
OPC Setup Form Vol. 3A 235 1-20, Vol. 3A 240 1-23
Optical Measurements Setup Form Vol. 3A 240 1-31
Optional Circuit Packs Form Vol. 3A 235 1-25, Vol. 3A 240 1-28, Vol. 3A 240 1-30
Required Circuit Packs Form Vol. 3A 235 1-24, Vol. 3A 240 1-27, Vol. 3A 240 1-29
system-level data, entering Vol. 3A 230 3-14, Vol. 3A 245 3-12
time zone, date, time Vol. 3A 235 3-31, Vol. 3A 240 3-39, Vol. 3A 245 3-30, MCOT to ABM QRG 4-30
UE9000 Mix & Match DFA Recon QRG 1-7

Commissioning Data Record Form
Vol. 3A 230 11-1, Vol. 3A 230 12-1, Vol. 3A 230 13-1, Vol. 3A 230 14-1, Vol. 3A 245 8-1

Commissioning manager
Vol. 4C Add Nodes VTBM 2-6

Commissioning Manager tool
Vol. 4A 301 9-2
main window Vol. 4A 301 9-3

Commissioning results form
Vol. 3A 230 10-1

Commissioning the OC-3 Express network element
MCOT to ABM QRG 1-47,
MCOT to ABM QRG 1-50

Common bonding network
ABM Bay Cable Conn QRG 2-1,
ABM Bay Cable Conn QRG 3-2
in central office locations
ABM Bay Cable Conn QRG 2-1
in remote locations
ABM Bay Cable Conn QRG 2-1

common bonding network
ABM Bay Cable Conn QRG 1-1

Common equipment
alarm Vol. 4B 310 15-6
alarm point, enabling and disabling
Vol. 4B 310 5-11
circuit pack inventory, performing
Vol. 3B 225 2-18
installing circuit packs in a CDS Vol. 4C 324 9-7
powering ABM shelf Vol. 3A 230 2-17,
Vol. 3A 235 2-21, Vol. 3A 240 2-42,
Vol. 3A 245 2-21,
MCOT to ABM QRG 3-20
powering the TBM shelf Vol. 3A 230 2-31,
Vol. 3A 240 2-18
redundant cards, verifying Vol. 3B 225 2-28
restarting (manual) Vol. 4B 310 17-26
shelf inventory Vol. 3B 225 2-19
verifying redundant cards Vol. 3A 230 5-26,
Vol. 3A 235 3-52, Vol. 3A 240 4-18,
Vol. 3A 240 4-38,
MCOT to ABM QRG 4-48

Common equipment module
description Mod Cab Desc 119 5-2

Common procedures
Vol. 5C 546 3-1

Common signaling channel
Vol. 2A 101 2-20, Vol. 2A 101 3-5,
Vol. 2A 102 3-4
provisioning LAPD parameters Vol. 4B 310 6-38

Common-equipment
alarm Vol. 5A 543 1-10
shelf, equipment troubleshooting Vol. 5A 543 3-47

Common-equipment power card
Vol. 2A 102 5-14, Vol. 5C 547 2-56
ABM shelf Vol. 5C 547 2-56
association to breaker Vol. 5C 547 2-58
description Vol. 2A 100 8-5
disconnecting power cable Vol. 5C 547 2-58
equipping rules Vol. 2A 102 5-14
NT4K58MA Vol. 5C 547 2-2, Vol. 5C 547 2-56
replacing in VTBM MBP
MBP VTBM Ring User 7-30
TBM shelf Vol. 5C 547 2-56
turning off breaker Vol. 5C 547 2-58

Common-equipment shelf
D3 mapper card Vol. 2A 104 3-15
installing cover Vol. 5C 546 3-4
locating module Vol. 5C 547 9-2
maintenance interface card Vol. 2A 104 3-13
modules Vol. 2A 102 4-2
network specifications Vol. 2B 180 7-6
operations controller Vol. 2A 104 3-11
optical interface card Vol. 2A 104 3-10
processor card Vol. 2A 104 3-9
removing cover Vol. 5C 546 3-6
replacing module Vol. 5C 547 2-1
specifications Vol. 2B 180 2-2
visual alarm indicators Vol. 2A 104 3-9
weight specifications Vol. 2B 180 2-3
See also Shelf Vol. 5A 543 2-7

Communication
with a parallel-telemetry system Vol. 2A 104 5-5
with a serial-telemetry system Vol. 2A 104 5-3
with operations system Vol. 2A 104 5-11

Communication (COMM)
facility troubleshooting Vol. 5A 543 4-11

Communication overhead bus
Vol. 2A 102 3-4
connection to processor card Vol. 2A 102 5-91

Communication port
provisioning, in or out of service Vol. 3B 222 6-7
status, displaying Vol. 3B 222 6-5

Concatenated payload
Vol. 2A 100 12-12

Conduit
ac load box option S800A Cab Inst 210 3-3
ac power pedestal S800A Cab Inst 210 3-4
ac power pedestal openings
S800A Cab Inst 210 2-5

Conduit (continued)
openings S800A Cab Inst 210 3-4
termination compartment
S800A Cab Inst 210 4-3,
S800A Cab Inst 210 6-3,
S800A Cab Inst 210 7-4
PVC in ModCab Mod Cab Desc 119 6-2,
Mod Cab Inst 211 6-1, Mod Cab Inst 211 7-4
Series 800A outside plant cabinet
ac load box option openings
S800A Cab Inst 210 1-5,
S800A Cab Inst 210 2-4
ac power pedestal openings
S800A Cab Inst 210 1-6
ac side knockouts S800A Cab Inst 210 2-22
placement S800A Cab Inst 210 1-7
PVC S800A Cab Inst 210 3-3,
S800A Cab Inst 210 4-3
termination compartment openings
S800A Cab Inst 210 1-4,
S800A Cab Inst 210 2-4
termination side knockouts
S800A Cab Inst 210 2-25
trade sizes S800A Cab Inst 210 1-5,
S800A Cab Inst 210 1-7,
S800A Cab Inst 210 2-6
trimming heights S800A Cab Inst 210 2-11
Series 800A outside plant cabinet (PVC)
S800A Cab Inst 210 1-4,
S800A Cab Inst 210 2-3

conduit
S800A Cab Inst 210 2-4

Conduit, ModCab
PVC Mod Cab Inst 211 2-2

Conference calling feature
Vol. 1 155 1-39

Configuration
add-drop mux ABM Inst 201 2-9
add-drop start-up ABM Inst 201 2-7
ADSL parameters UE9000 Data Net Design 6-3,
UE9000 Data Net Design 6-4,
UE9000 Data Net Design 6-5
AIC location in ABM shelf
Mix & Match DFA Recon QRG 1-8
alarm
changing list Vol. 5C 510 6-13
sorting the list Vol. 5C 510 6-14
auditing all ADMs in a ring Vol. 4B 310 14-3
auditing at a ring ADM Vol. 4B 310 14-6
considerations
Mix & Match DFA Recon QRG 1-8,
Mix & Match DFA Recon QRG 3-2
definition Vol. 2A 100 1-2
DS1 mappers Mix & Match DFA Recon QRG 1-8
ETIC location in ABM shelf
Mix & Match DFA Recon QRG 1-8

Configuration (continued)
LAIC location in ABM shelf
Mix & Match DFA Recon QRG 1-8
matched nodes Vol. 2A 103 4-14
Mix & Match DFA
Mix & Match DFA Recon QRG 1-8
moving the OPC
Mix & Match DFA Recon QRG 3-11
OPC Mix & Match DFA Recon QRG 1-8
predefined, for bays
add-drop start-up Vol. 2A 100 6-3,
Vol. 2A 100 6-5
enhanced TBM shelf bay, single-shelf
Vol. 2A 100 6-9
enhanced TBM shelf bay, three-shelf
Vol. 2A 100 6-9
enhanced TBM shelf bay, two-shelf
Vol. 2A 100 6-9
multiplexer Vol. 2A 100 6-3, Vol. 2A 100 6-7
prewired for 672 copper lines Vol. 2A 100 6-2,
Vol. 2A 100 6-3
transport bay, single-shelf Vol. 2A 100 6-9,
Vol. 2A 100 6-10
transport bay, three-shelf Vol. 2A 100 6-9,
Vol. 2A 100 6-13
transport bay, two-shelf Vol. 2A 100 6-9,
Vol. 2A 100 6-13
requirements TL1 Interface Desc 190 2-1
ring
adding Vol. 3A 240 3-16
S800A cabinet S800A OP Cab Desc 118 1-2,
S800A OP Cab Desc 118 8-1
scheduling an audit Vol. 4B 310 14-9
selecting Mod Cab Desc 119 2-13
sending to a ring ADM Vol. 4B 310 14-14
standard and VTBM-ready TBM Inst 202 2-1,
TBM Inst 202 2-6
standard MBP expansion Vol. 2A 100 6-25
standard MBP master Vol. 2A 100 6-19,
Vol. 2A 100 6-30
standard MPP Vol. 2A 100 6-27
STSBM Zone 2 MBP master Vol. 2A 100 6-19,
Vol. 2A 100 6-30
STSBM Zone 2 MPP Vol. 2A 100 6-27
STSBM Zone 4 MBP master Vol. 2A 100 6-19
STSBM Zone 4 MPP Vol. 2A 100 6-27,
Vol. 2A 100 6-30
subscriber loop performance
UE9000 Data Net Design 6-3,
UE9000 Data Net Design 6-4,
UE9000 Data Net Design 6-5
transferring to the backup OPC Vol. 4B 310 14-12
TXC location in ABM shelf
Mix & Match DFA Recon QRG 1-8
VTBM Zone 4 MBP expansion Vol. 2A 100 6-25
VTBM Zone 4 MBP master Vol. 2A 100 6-19
X.25 Vol. 3A 245 6-9

Configuration manager
Vol. 4C Add Nodes VTBM 5-58

Configuration Manager tool
Vol. 4A 301 8-10
Configuration Manager
Ring tool Vol. 4A 301 8-16
main window Vol. 4A 301 8-10
point-to-point configurations
deleting Vol. 4B 310 2-8
editing Vol. 4B 310 2-5
restrictions and limitations Vol. 4B 310 2-1
sorting and displaying Vol. 4B 310 2-3
tasks Vol. 4B 310 2-2
point-to-point window Vol. 4A 301 8-12
ring configuration
adding Vol. 3A 230 4-3, Vol. 3A 240 3-16
ADMs, displaying all Vol. 4B 310 3-4
APS ID, editing for a selected ring ADM Vol. 4B 310 3-6
configuration data, auditing at a selected ring ADM Vol. 4B 310 14-6
configuration data, auditing at all ring ADMs Vol. 4B 310 14-3
configuration data, scheduling an audit Vol. 4B 310 14-9
configuration data, sending to a selected ring ADM Vol. 4B 310 14-14
configuration data, transferring to the backup OPC Vol. 4B 310 14-12
deleting Vol. 4B 310 3-11
main window Vol. 4B 310 3-4
tasks Vol. 4B 310 3-2, Vol. 4B 310 14-1

Configurations ABM Inst 201 2-2
Modular Power Package STSBM MBP Desc 110 3-4
Modular Power Package VTBM MBP Desc 110 3-4
MPP Standard MBP Desc 110 3-2
Standard Modular Business Package expansion MBP Desc 110 2-7
Standard Modular Business Package master MBP Desc 110 2-2
Standard MPP MBP Desc 110 3-2
STSBM Modular Business Package expansion MBP Desc 110 2-7
STSBM Modular Business Package master MBP Desc 110 2-2
STSBM MPP MBP Desc 110 3-2
VTBM Modular Business Package expansion MBP Desc 110 2-7
VTBM Modular Business Package master MBP Desc 110 2-2

Connecting
fiber-optic cable to the OC-3 interface MCOT to ABM QRG 1-42
modem MCOT to ABM QRG 1-32
terminal MCOT to ABM QRG 1-32

Connection
ADSL data network UE9000 Data Net Design 3-4
ATM PVCs UE9000 Data Net Design 3-2
Nodal Connection Manager tool Mix & Match DFA Recon QRG 5-1
OPC Mix & Match DFA Recon QRG 3-6, Mix & Match DFA Recon QRG 3-7, Mix & Match DFA Recon QRG 3-8, Mix & Match DFA Recon QRG 3-10
performing an audit Mix & Match DFA Recon QRG 2-15
red lined Vol. 4B 315 3-13

Connection Manager tool
Vol. 2A 100 5-10, Vol. 4A 301 8-20, Vol. 4A 301 11-12
Assign as TR-08 dialog Vol. 4A 301 8-40
Audit Connections dialog Vol. 4A 301 8-32
Contained VTs dialog Vol. 4A 301 8-48
default maps Vol. 3A 245 4-4, Vol. 4B 310 12-9
dialogs Vol. 4A 301 8-26, Vol. 4B 310 12-36, Vol. 4B 310 12-63
engineering rules Vol. 4B 310 12-5
main window Vol. 4B 310 12-63
Manage Default/STS-1 Cross Connects dialog Vol. 4A 301 8-34
Manage Facility Assignments dialog Vol. 4A 301 8-36
Manage VT Connections dialog Vol. 4A 301 8-42
provisioning default connections Vol. 3A 235 3-23, Vol. 3A 245 4-13, Vol. 4B 310 12-17, MCOT to ABM QRG 4-22
provisioning DS1 facility assignments Vol. 3A 235 3-25, Vol. 3A 245 4-16, MCOT to ABM QRG 4-24
recording add/drop traffic Vol. 4C Rem Nodes VTBM 2-12
restrictions and limitations Vol. 3A 245 4-6, Vol. 4B 310 12-14, Nodal Conn Mgr QRG 1-33
Schedule Connection Audit dialog Vol. 4A 301 8-43
Set Preferences for Apply dialog Vol. 4A 301 8-43
STS connection data
audit, immediate, performing Vol. 4B 310 12-51
audit, scheduling Vol. 4B 310 12-48
connection data tables Vol. 4B 310 12-14
manual backup, performing Vol. 4B 310 12-54, Vol. 4B 310 12-60
STS connections
adding Vol. 3A 230 4-43
deleting Vol. 4B 310 12-26, Prov QRG 1-66
displaying Vol. 4B 310 12-35
editing Vol. 4B 310 12-24
finding available channels and tributaries Vol. 4B 310 12-19
modifying the connection list Vol. 4B 310 12-42

Connection Manager tool, STS connections (continued)
STS connection information table Vol. 4B 310 12-15
STS-1 Channel Usage dialog Vol. 4A 301 8-44
Subrate Usage dialog Vol. 4A 301 8-45
tasks Vol. 4B 310 12-1
Tributary Usage dialog Vol. 4A 301 8-45, Vol. 4A 301 8-46
using Vol. 4B 310 12-1
VLCM dialog Vol. 4A 301 8-41
VT Channel Usage dialog Vol. 4A 301 8-47
VT-managed connections
adding Vol. 3A 230 4-50
deleting Vol. 4B 310 12-29, Prov QRG 1-67, Prov QRG 1-69
displaying Vol. 4B 310 12-35
editing Vol. 3A 230 4-56
finding available channels and tributaries Vol. 4B 310 12-19
modifying the connection list Vol. 4B 310 12-42
VT connection information table Vol. 4B 310 12-16
VT-managed STS-1 connections
deleting Vol. 4B 310 12-32

Connection Services Command Interface
Vol. 3B 221 3-2

Connector
blocks used in S800A S800A OP Cab Desc 118 5-7, S800A OP Cab Desc 118 5-10
side interconnect left ABM Bay Cable Conn QRG 4-11
side interconnect right ABM Bay Cable Conn QRG 4-12
systems used in S800A S800A OP Cab Desc 118 5-5

Connector J06
Vol. 3B 225 4-6

Control bus
Vol. 2A 102 3-2
connection to maintenance interface card Vol. 2A 102 5-57

Control bus interface
Vol. 2A 101 1-5

Control display
ABM shelf Vol. 2A 104 6-26
TBM shelf Vol. 2A 104 7-25
TBOS Vol. 2A 104 5-4

Control network
Vol. 2A 102 3-7
cable pinout TBM Inst 202 5-34
cable pinouts TBM Inst 202 5-34
connectors for Vol. 2A 100 10-6
definitions Vol. 2B 180 7-6
maximum number of nodes Vol. 2B 180 7-7
specifications Vol. 2B 180 7-6

Control network cable
installing ABM Inst 201 5-40
TBM bay
installing TBM Inst 202 5-29
to ABM Vol. 1 200 5-13
to TBM Vol. 1 200 6-10

Control network termination plugs
for ABM Vol. 1 200 5-14
for TBM Vol. 1 200 6-11
installing ABM Inst 201 5-40

Control Network.
See CNet

Control path
provisioning Vol. 3A 245 5-6

Controlled-environment vault
location for a bay Vol. 2A 100 6-2

Conversion
of performance monitoring counts Vol. 2A 105 3-12

Cooling module
Vol. 2A 100 7-31, Vol. 5C 547 6-2

Cooling unit
Vol. 2A 100 7-31, Vol. 2A 100 7-62, Vol. 5C 547 8-1
accessing and clearing cables Vol. 5C 547 8-3
adjacent bay, cable UE9000 Ad Bay QR 1-1
description Vol. 2A 100 7-62
heavy equipment Vol. 5C 546 2-6
installing LCAP in COPCU Vol. 5C 547 8-15
ordering modules for VTBM MBP MBP VTBM Ring User 11-13
personal injury Vol. 5C 546 2-6
reassembling bay Vol. 5C 547 8-17
removing Vol. 5C 547 8-11
removing bottom air filter element Vol. 5C 547 8-10
replacing air filter Vol. 5C 546 2-2
replacing in TBM bay Vol. 5C 547 8-1
replacing module Vol. 5C 547 6-1
used in Modular Business Package MBP Desc 110 1-2
vacuuming grille Vol. 5C 546 2-4
visual alarm indicators Vol. 2A 104 3-5

COP.
See Cable organizer panel

COPCU.
See cable organizer panel cooling unit

Copper line
interface to Vol. 2A 100 10-3

Copper-distribution drawer
Vol. 2A 100 7-35, Vol. 2A 102 6-6 to Vol. 2A 102 6-9
common-equipment modules Vol. 2A 102 4-7
component
metallic test access card Vol. 2A 102 6-22
narrowband line-interface card Vol. 2A 102 6-20
components
line cards Vol. 2A 102 6-10
power filter Vol. 2A 102 6-24
duplicated modules Vol. 2A 103 2-20
layout Vol. 2A 102 6-8
midplane Vol. 2A 102 6-8
slot numbering Vol. 4B 316 2-9
troubleshooting LED Vol. 5A 543 7-7

Copper-distribution drawers
plug-in modules Vol. 2A 102 4-5

Copper-distribution shelf
Vol. 2A 100 7-35, Vol. 5C 547 3-1, Vol. 5C 547 4-1
alarm Vol. 5A 543 1-10
circuit pack state Vol. 5C 547 4-4, Vol. 5C 547 4-7, Vol. 5C 547 4-8
common equipment card, testing Vol. 3A 230 5-32
component
daisy flex Vol. 2A 102 6-6
EMI cards Vol. 2A 102 6-5
power flex Vol. 2A 102 6-5
components
signal flex Vol. 2A 102 6-5
connecting to Modular Business Package MBP Cab Inst 206 13-1
connectors Vol. 2A 100 7-38
deleting Vol. 4B 310 5-30
description Mod Cab Desc 119 5-6
equipment troubleshooting Vol. 5A 543 3-36
equipping and testing Vol. 4C 324 9-1
external cables ABM Inst 201 2-17
function of Vol. 2A 102 6-2
in Modular Business Package
installing MBP Cab Inst 206 11-1
in S800A cabinet S800A OP Cab Desc 118 9-7
in Series 800A outside plant cabinet
cabling S800A Cab Inst 210 13-62
installing circuit packs in VTBM MBP MBP VTBM Ring Inst 10-10
installing common circuit packs Vol. 4C 324 9-7
installing side cable covers ABM Inst 201 8-2

Copper-distribution shelf (continued)
intershelf cables ABM Inst 201 2-15
layout Vol. 2A 102 6-2
line card layout Vol. 4B 316 2-3
line cards, layout Vol. 3A 230 5-33
line drawer slot numbering for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 2-16
non-interchangeable versions Vol. 5C 547 4-6
numbering
ABM bay Vol. 4B 316 2-4
MBP cabinet Vol. 4B 316 2-5, Vol. 4B 316 2-6
Series 800A OSP cabinet Vol. 4B 316 2-7
numbering in a Series 800A outside plant cabinet Vol. 4C 324 9-6
numbering in an ABM bay Vol. 4C 324 9-3
numbering in an MBP cabinet Vol. 4C 324 9-4, MBP Desc 110 2-13
numbering in MBP Site Inst P&E Add 2-26
ordering circuit packs for VTBM MBP MBP VTBM Ring User 11-12
outside plug-in modules Vol. 2A 102 4-5
plug-in modules Vol. 2A 102 4-5
copper-distribution shelf power converter Vol. 2A 100 8-16
line cards Vol. 2A 100 8-19
line cards, Epsilon station Vol. 2A 100 8-19
line cards, manual ringdown 2-wire Vol. 2A 100 8-20
line cards, Omega 2-wire office Vol. 2A 100 8-19
line cards, Omega 2-wire station Vol. 2A 100 8-19
line cards, Omega 4-wire Vol. 2A 100 8-19
line cards, Omega 6/8-wire Vol. 2A 100 8-19
line cards, universal voice grade Vol. 2A 100 8-20
metallic test access card Vol. 2A 100 8-21
narrowband line-interface card Vol. 2A 100 8-21
power filter Vol. 2A 100 8-21
power
alarm Vol. 4B 310 15-6
power card Vol. 5C 547 3-2
alarm point, enabling and disabling Vol. 4B 310 5-11
power converter Vol. 2A 102 6-4, Vol. 5C 547 3-2
replacing in VTBM MBP MBP VTBM Ring User 5-3
power converters Vol. 2A 102 4-5
powering up Vol. 3A 230 5-4, Vol. 3B 225 2-7
Prewired ABM bay ABM Inst 201 2-5
removing cable cover Vol. 5C 547 4-5
replacing module Vol. 5C 547 3-1
replacing modules in VTBM MBP MBP VTBM Ring User 5-1
replacing shelf Vol. 5C 547 4-1

Copper-distribution shelf (continued)
shelf numbering for Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring User 2-16
shelf numbering in VTBM MBP
MBP VTBM Ring Inst 2-11,
MBP VTBM Ring Inst 2-13
signal flow Vol. 2A 102 2-10
slot numbering in VTBM MBP
MBP VTBM Ring Inst 10-12
specifications Vol. 2B 180 2-3
testing Vol. 3B 225 2-34, Vol. 4C 324 9-12
used in MBP MBP Desc 110 2-13
visual alarm indicators Vol. 2A 104 3-16
weight Vol. 5C 547 4-15, Vol. 5C 547 4-16

Copper-distribution shelf power
alarm Vol. 5A 543 1-10

Copper-distribution shelf power converter
Vol. 2A 100 8-16

Copper-distribution shelves
line cards Vol. 2A 103 7-1

Copper-distribution-shelf power converter
equipment troubleshooting Vol. 5A 543 3-42
LED, troubleshooting Vol. 5A 543 7-15

Cornerstone voice
Vol. 2A 101 2-4

Cover
ABM shelf
removing in VTBM MBP
MBP VTBM Ring User 3-12
BIP
installing Vol. 5C 546 3-3
removing Vol. 5C 546 3-2
BIP cover
removing in VTBM MBP
MBP VTBM Ring User 3-14
cabinet, removing in VTBM MBP
MBP VTBM Ring User 3-2
common-equipment shelf
installing Vol. 5C 546 3-4
removing Vol. 5C 546 3-6
pedestal grille, removing in VTBM MBP
MBP VTBM Ring User 3-6
side panel, removing in VTBM MBP
MBP VTBM Ring User 3-4
top cap grille, removing in VTBM MBP
MBP VTBM Ring User 3-8

cpstats command
Vol. 5C 520 4-3

Crane usage with ModCab
Mod Cab Inst 211 1-7

Critical alarm
Vol. 2A 104 1-6, Vol. 3B 225 4-44
both planes non-operational Vol. 5A 543 3-48
circuit pack fail Vol. 5A 543 3-20,
Vol. 5A 543 3-80, Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21,
Vol. 5A 543 3-81, Vol. 5A 543 3-116
circuit pack missing Vol. 5A 543 3-22,
Vol. 5A 543 3-83, Vol. 5A 543 3-117
comm overhead clock/frame loss
Vol. 5A 543 3-23
comm overhead data loss Vol. 5A 543 3-24
critical test alarm Vol. 5A 543 3-53
D-link interface fail Vol. 5A 543 3-26
generation
using FWALTSCI tool Vol. 5A 543 3-53
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
protection version mismatch Vol. 5A 543 3-110
shelf assembly fail Vol. 5A 543 3-68
STS1 intercard fail Vol. 5A 543 3-111,
Vol. 5A 543 3-129
switcher circuit pack mismatch Vol. 5A 543 3-131
switcher circuit pack missing Vol. 5A 543 3-132
T-link interface fail Vol. 5A 543 3-30,
Vol. 5A 543 3-31, Vol. 5A 543 3-198

Critical default K bytes
Vol. 5A 543 3-260

Critical test alarm
clear alarm Vol. 5A 543 3-53

Critical, not service-affecting alarm
critical test alarm Vol. 5A 543 3-53

Critical, service-affecting alarm
both planes non-operational Vol. 5A 543 3-48
circuit pack fail Vol. 5A 543 3-80
circuit pack mismatch Vol. 5A 543 3-81
circuit pack missing Vol. 5A 543 3-83
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
shelf assembly fail Vol. 5A 543 3-68
switcher circuit pack mismatch Vol. 5A 543 3-131
switcher circuit pack missing Vol. 5A 543 3-132

Cross-connect
creating Mix & Match DFA Recon QRG 5-7
deleting Mix & Match DFA Recon QRG 5-9
displaying Mix & Match DFA Recon QRG 5-3
options in S800A S800A OP Cab Desc 118 5-5
specifications
for DS1s Vol. 2B 180 7-1
for DS3s Vol. 2B 180 7-3
STS-1 Mix & Match DFA Recon QRG 5-1

CRV range Vol. 4B 315 4-2

CSC.
See Common signaling channel.

Cserver
definition Vol. 2A 100 1-3

CU.
See cooling unit

Current
line card attribute for sealing Vol. 4B 315 3-13

Current filter mode
ESI Vol. 5A 543 3-73

Customer line card applications Vol. 1 155 1-1

Customer remote test
line card attribute Vol. 4B 315 3-12

Customer-located equipment
definition MBP Desc 110 1-1

Cutoff
audible alarms Vol. 2A 104 3-21
remote Vol. 2A 104 3-22
system-level Vol. 2A 104 3-22

D

D channel
Vol. 2A 101 2-9

D/VT link access cable
connecting to MBP MBP Cab Inst 206 8-6
reseating Vol. 5A 543 3-27
used with MBP
connecting MBP Cab Inst 206 13-11

Daisy flex
Vol. 2A 102 6-6

Daisy-chain
DS1 circuits Vol. 3A 230 7-19
ILANs MCOT to ABM QRG 1-30

Daisy-chaining network processors
MCOT to ABM QRG 1-30

Danger
personal injury
CDS Vol. 5C 547 4-10

DARTS
Vol. 2B 115 6-6

Data
ATM network interface
UE9000 Data Net Design 3-12
backing up to and restoring from tape
Vol. 4A 304 2-1
editing OPC commissioning data
Mix & Match DFA Recon QRG 3-14,
Mix & Match DFA Recon QRG 3-19
identifying the backup tape Vol. 4A 304 2-16
loss Vol. 5C 547 1-5
network design UE9000 Data Net Design 1-6
network management
UE9000 Data Net Design 1-7
network management guidelines
UE9000 Data Net Design 4-1
rate attribute for line cards Vol. 4B 315 3-12
recommended average rates
UE9000 Data Net Design 2-4
restoring from tape Vol. 4A 304 2-10
saving to tape Vol. 3A 230 4-63,
Vol. 3A 235 3-65, Vol. 4A 304 2-3,
MCOT to ABM QRG 4-60
scheduling a backup Vol. 4A 304 2-6
transferring between OPCs Vol. 4A 304 3-7
transferring to the backup OPC Vol. 4A 304 2-14
UE9000 data network components
UE9000 Data Net Design 1-2
UE9000 network overview
UE9000 Data Net Design 1-1
UE9000 setup UE9000 Data Sys Setup QR 1-1

Data (continued)
user network performance
UE9000 Data Net Design 3-5
user traffic UE9000 Data Net Design 1-6,
UE9000 Data Net Design 2-1,
UE9000 Data Net Design 2-2,
UE9000 Data Net Design 2-3

Data communication
displaying ports status Vol. 3B 222 6-5
provisioning Vol. 3B 222 6-1, Vol. 3B 222 6-7
testing Vol. 3B 222 6-1

Data communication equipment port
Vol. 2A 102 5-57

Data processor
replacing UE9000 Data OAMP UG 6-40
troubleshooting UE9000 Data OAMP UG 6-16
circuit card UE9000 Data OAMP UG 6-39
not sending traps to uEMS
UE9000 Data OAMP UG 6-36

Data rate
ATM interface engineering guidelines
UE9000 Data Net Design 5-1,
UE9000 Data Net Design 5-2,
UE9000 Data Net Design 5-3,
UE9000 Data Net Design 5-4,
UE9000 Data Net Design 5-5
delay criteria UE9000 Data Net Design 2-4
downstream UE9000 Data Net Design 6-4
line card attribute Vol. 4B 315 3-12
throughput criteria UE9000 Data Net Design 2-4
upstream UE9000 Data Net Design 6-4
users supported on 2 DS1-IMA ports
UE9000 Data Net Design 3-16,
UE9000 Data Net Design 3-17
users supported on 4 DS1-IMA ports
UE9000 Data Net Design 3-16
users supported on 8 DS1-IMA ports
UE9000 Data Net Design 3-13,
UE9000 Data Net Design 3-14,
UE9000 Data Net Design 3-15

Data service
packet loss UE9000 Data Net Design 3-7
round-trip delay UE9000 Data Net Design 3-6,
UE9000 Data Net Design 3-7,
UE9000 Data Net Design 3-10
round-trip delay calculations
UE9000 Data Net Design 3-11
TCP/IP considerations
UE9000 Data Net Design 3-8,
UE9000 Data Net Design 3-9,
UE9000 Data Net Design 3-10,
UE9000 Data Net Design 3-11
testing customer loop Vol. 4B 316 4-44
typical tariffed rates UE9000 Data Net Design 3-5
users supported UE9000 Data Net Design 3-13

Data terminal equipment port
Vol. 2A 102 5-57

Database
Mix & Match DFA Recon QRG 2-6
administering UE9000
UE9000 Data OAMP UG 4-9
backing up UE9000 Data OAMP UG 4-12
backup and recovery Vol. 2A 101 1-5
backups from NE to OPC Vol. 4A 304 1-1
checking backup
Mix & Match DFA Recon QRG 2-4
HP OpenView UE9000 Data OAMP UG 4-9
monitoring partition sizes
UE9000 Data OAMP UG 4-10
performing a manual NE database backup on the
OPC Vol. 3A 230 4-67, Vol. 3A 240 4-25,
Vol. 3A 240 4-51, Vol. 4A 304 1-10
removing UE9000 equipment
UE9000 Data OAMP UG 1-42
restoring Vol. 4A 304 1-12,
UE9000 Data OAMP UG 4-12
saving to tape Mix & Match DFA Recon QRG 2-8
var partition UE9000 Data OAMP UG 4-10

Database not restored. Type Q APPROVE at NE
clear alarm Vol. 5A 543 3-54

datasync fail
clear alarm Vol. 5A 543 3-293

dc
power consumption in MBP
Site Inst P&E Add 4-6

dc distribution harness
connecting to MBP MBP Cab Inst 206 7-18,
MBP Cab Inst 206 13-2
installation ABM Inst 201 4-8

dc distribution harnesses
installing ABM Inst 201 4-8

DC distribution shelf
description
used in MPP cabinet MBP Desc 110 3-8

Dc distribution shelf
in Series 800A outside plant cabinet
adjusting the low voltage alarm
S800A Cab Inst 210 10-26
circuit breakers in S800A Cab Inst 210 13-19
dc power wiring S800A Cab Inst 210 13-18
DIP switches S800A Cab Inst 210 10-5
verifying alarms for S800A Cab Inst 210 10-23

dc distribution shelf
in ModCab
adjusting the low voltage alarm
Mod Cab Inst 211 14-20
DIP switches Mod Cab Inst 211 14-3
verifying alarms for Mod Cab Inst 211 14-18
in Series 800A outside-plant cabinet
description S800A OP Cab Desc 118 10-8
used in MPP cabinet MBP Desc 110 3-8
used in the MBP VTBM master cabinet
MBP Desc 110 2-21

dc distribution unit
NT4K35 circuit breakers for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 2-18

DC power
consumption for VTBM MBP
MBP VTBM Ring Inst 2-31
dissipation for VTBM MBP
MBP VTBM Ring Inst 2-31

dc power
cabling
DSX/repeater for MBP MBP Cab Inst 206 7-42
MPP to DSX/repeaters for MBP
MBP Cab Inst 206 7-34
cabling for MBP Site Inst P&E Add 8-6
cabling, DSX/repeater
connecting to MBP MBP Cab Inst 206 14-9
cabling, MPP to DSX/repeaters
connecting to MBP MBP Cab Inst 206 14-2
consumption for VTBM MBP
MBP VTBM Ring User 2-28
dissipation for VTBM MBP
MBP VTBM Ring User 2-28
requirements in Series 800A outside plant cabinet
S800A OP Cab Desc 118 6-3

DC power module
description Mod Cab Desc 119 7-2

DC voltage output
acceptable levels Mod Cab Inst 211 1-15

DCE.
See Data communication equipment.

DCP.
See Drop and continue on protection

DCW.
See Drop and continue on working

DDL.
See Derived data link.

DDS line type
line card attribute Vol. 4B 315 3-12

DDS.
See Service, digital data service

Dead-system recovery.
See Recovery

dedicated ac panel
with CBN grounding
ABM Bay Cable Conn QRG 1-1
with IBN grounding
ABM Bay Cable Conn QRG 1-1

Default K bytes
clear alarm Vol. 5A 543 3-260

Default map
for DS1 in transport bandwidth manager
Vol. 1 154 3-40
for DS3 in fiber central office terminal
Vol. 1 154 3-41
GR-303 DMS
Mix & Match DFA Recon QRG 6-2
using the DMSPROV to consolidate LENs
Mix & Match DFA Recon QRG 6-4

Default Provisioning Manager
Vol. 4A 301 11-9
Default Provisioning Error Browser
Vol. 4A 301 11-11
main window Vol. 4A 301 11-10

Delete User Security (DLT-USER-SECU) command
TL1 En Sec QRG 3-7

Deleting DS1
bidirectional cross-connect in a linear system
MCOT to ABM QRG 1-68
equipment MCOT to ABM QRG 1-56
facilities MCOT to ABM QRG 1-56

DEM.
See Dual equipment module

Derived data link
TR-08 Vol. 2A 102 3-11

Description
ModCab Mod Cab Desc 119 1-1
S800A cabinet S800A OP Cab Desc 118 1-1

DGN-EQPT command
TL1 Interface Desc 190 4-7

Diagnostic
circuit packs in a CDS Vol. 4B 316 2-50
common equipment circuit pack failures
Vol. 4C 324 9-23, Vol. 4C 324 9-26, Vol. 4C 324 9-28

Diagnostic (continued)
facility UE9000 Voice OAMP UG 5-37
for the manual ringdown 2-wire line card Vol. 2B 181 6-2
for the Omega 2-wire office line card Vol. 2B 181 3-3
for the Omega 4-wire line card Vol. 2B 181 4-3
for the Omega 6/8-wire line card Vol. 2B 181 5-11
for the universal voice grade station line card Vol. 2B 181 7-3
line card Vol. 4B 316 2-36, Vol. 5C 548 1-1, Vol. 5C 548 1-5, Vol. 5C 548 1-6
special services Vol. 4B 316 7-7
test access card Vol. 2B 115 2-3
testing Vol. 2B 115 1-6
testing capability Vol. 2B 115 3-12
performing manually Vol. 4B 310 17-12
TDM card UE9000 Voice OAMP UG 5-40

Diagnostics
for the Epsilon station line card Vol. 2B 181 1-3
for the Omega 2-wire station line card Vol. 2B 181 2-3
in progress, oos-diagnose Vol. 3B 225 2-25
line card Vol. 2A 101 1-13
system Vol. 2A 101 1-22

Dial pulse mode
line card attribute Vol. 4B 315 3-12

Dial pulse originating service.
See Service, dial pulse originating.

Dialable short circuit
description Vol. 2B 115 8-3
for station installation Vol. 2A 101 1-22

DID.
See Service, Direct Inward Dialing

Digital analog remote test system
description Vol. 2A 100 8-8
software Vol. 2A 101 2-4
standards compliance TL1 Interface Desc 190 1-4, MCOT to ABM QRG 1-4

Digital audio tape
handling Vol. 3A 230 3-11, Vol. 3A 245 3-11, Vol. 3B 220 3-2, Vol. 4A 304 2-2
storing Vol. 3A 230 3-11, Vol. 3A 245 3-11, Vol. 3B 220 3-2, Vol. 4A 304 2-2

Digital copper system
Vol. 2A 100 4-6

Digital data service
jack access Vol. 2B 115 3-9, Vol. 4B 316 6-3, Vol. 4B 316 6-14, Vol. 4B 316 6-34
testing
customer loop Vol. 4B 316 4-44
DDS (OCUDP) on DS1 tandem Vol. 4B 316 4-36
end-to-end data services Vol. 4B 316 4-49

Digital data storage
certified cleaning cassette Vol. 5C 546 4-6
cleaning interval Vol. 5C 546 4-5
cleaning tape drive head Vol. 5C 546 4-5
data loss Vol. 5C 546 4-7
information storage Vol. 5C 546 4-7
LED indicator Vol. 5C 546 4-5
life of tape Vol. 5C 546 4-6
NT7E24TB Vol. 5C 546 4-6
required cleaning cassette Vol. 5C 546 4-6

Digital jack access
testing capabilities Vol. 2B 115 3-8

Digital line
interface to Vol. 2A 100 10-2

Digital loop carrier system
compatibility with AccessNode Vol. 2A 100 4-8

Digital receiver test set
Vol. 3A 230 6-44

Digital remote test unit
commands Vol. 2B 115 10-1
emulation with IRTU Vol. 2B 115 5-5
verifying setup for CALRS Vol. 3B 223 2-7

Digital test access
basic concept Vol. 2B 115 1-3
constraints Vol. 2B 115 3-3
DTAP card Vol. 2A 102 5-15
line/loop testing
test access card Vol. 2B 115 2-3
testing capabilities Vol. 2B 115 3-8

Digital test access pair
alarm Vol. 5A 543 1-10

Dimension
Modular Business Package expansion cabinets MBP Desc 110 1-7
Modular Power Package power cabinets MBP Desc 110 1-7
of Modular Business Package cabinets Site Inst P&E Add 5-6

Dimensions
cabinet modules in ModCab Mod Cab Desc 119 3-4

Dimensions of cabinet
in VTBM MBP MBP VTBM Ring Inst 2-32

DIP switch
in Series 800A outside plant cabinet
S800A Cab Inst 210 10-5
on NT7E56 breaker interface panel
Vol. 2A 100 7-27, TBM Inst 202 4-27
illus. TBM Inst 202 4-29

DIP switches
in ModCab dc distribution shelf
Mod Cab Inst 211 14-3

Direct Inward Dialing.
See Service, Direct Inward Dialing

Direct Outward Dialing.
See Service, Direct Outward Dialing

Disk
initializing the replacement OPC disk
Vol. 5C 547 7-30

Distribution
ac power Vol. 1 200 4-6
dc power Vol. 1 200 4-1
power and ground Vol. 1 200 4-1

D-link interface fail
clear alarm Vol. 5A 543 3-26

DLT-EC1
TL1 Interface Desc 190 4-78

DLT-OC3
TL1 Interface Desc 190 4-84

DMS Access
description Vol. 2A 100 5-11
distance restrictions Vol. 1 200 5-6
translation table Vol. 4B 315 6-1
VLCM Vol. 2A 100 5-14, Vol. 2A 101 1-6

DMS SuperNode
MAP testing with IRTU (MTU emulation)
Vol. 2B 115 7-53
provisioning for TR-08 line testing
Vol. 3B 223 1-17
station installation tests Vol. 2B 115 8-1
testing with test bypass pair Vol. 2B 115 7-58,
Vol. 2B 115 9-12

DMS SuperNode integration software
Vol. 2A 101 2-5

DMS-1 Urban
compatibility with AccessNode Vol. 2A 100 4-8

DMS-100 host switch
GR-303 DMS interface Vol. 2A 101 2-20
GR-303 multivendor interface Vol. 2A 101 2-19

DMS-10NA alarm reporting
Vol. 2A 104 2-7

DMSPROV CI tool
UE9000 Voice OAMP UG 2-1

DMSTerm tool
Vol. 4A 301 4-46, Vol. 4A 301 13-6

DMS-X interface to APC-100
distance restrictions Vol. 1 200 5-7

Documentation
Modular Business Package product
MBP Desc 110 1-8
references applicable to Modular Business Package
Site Inst P&E Add 9-1
VTBM MBP related
MBP VTBM Ring User 11-14

DOD.
See Service, Direct Outward Dialing

Door
on Series 800A outside plant cabinet
S800A OP Cab Desc 118 2-3

DPO.
See Service, dial pulse originating.

DPT.
See Service, Direct Inward Dialing, supported by
Omega 2-wire office line card.

Drawer-link
cabling
adjacent bay UE9000 Ad Bay QR 1-1
carried by daisy flex Vol. 2A 102 6-6
connection to narrowband line-interface card
Vol. 2A 102 6-20
path Vol. 2A 102 3-9
connection to the CDS Vol. 2A 102 2-9

Drive points
Vol. 2A 102 5-58

Drop and continue on protection
limits Vol. 2A 103 4-18
protection Vol. 2A 103 4-17
signal flow Vol. 2A 103 4-18

Drop and continue on working
connection Vol. 2A 103 4-15
signal flow Vol. 2A 103 4-15

DRTU.
See Digital remote test unit

DRTU.
See Digital remote test unit.

DS0
Vol. 4C Span of Con Cons 1-2
bandwidth management Vol. 2A 101 1-6
provisionable attributes TL1 Interface Desc 190 4-20
provisioning line terminations and cross-connects UE9000 Voice OAMP UG 1-20
provisioning messages
for DS0 cross-connect TL1 Interface Desc 190 4-11
trunk conditioning Vol. 2A 101 1-18

DS0-link
Vol. 2A 102 3-9

DS1
Vol. 1 154 3-15, Vol. 1 154 3-20, Vol. 1 154 3-21, Vol. 5C 547 2-4, Vol. 4C Add Nodes VTBM 7-20
adding a bidirectional cross-connect in a linear system MCOT to ABM QRG 1-68
adding a facility MCOT to ABM QRG 1-56
adding equipment Vol. 4C 324 2-4, MCOT to ABM QRG 1-56
alarm, equipment Vol. 5A 543 2-6
assignment
GR-303 Vol. 2A 101 1-9
tandem Vol. 2A 101 1-9
TR08 Vol. 2A 101 1-9
association Vol. 5C 547 1-10, Vol. 5C 547 2-6, Vol. 5C 547 2-8
ATM interface UE9000 Data Net Design 3-12
ATM interface engineering guidelines UE9000 Data Net Design 5-1, UE9000 Data Net Design 5-2, UE9000 Data Net Design 5-3, UE9000 Data Net Design 5-4, UE9000 Data Net Design 5-5
bit error rate, OC-3 tributary Vol. 3B 222 4-12
cable test Vol. 3B 225 6-7
cables
installing TBM Inst 202 5-68
to ABM Vol. 1 200 5-14
to TBM Vol. 1 200 6-12
cabling
connecting to MBP MBP Cab Inst 206 9-3, MBP Cab Inst 206 9-36
connecting to MBP
mixed installation with DS3 cables MBP Cab Inst 206 9-36
connections, OC-3 tributary tests Vol. 3B 222 4-1
converting to a DS1/DS3-mix Vol. 4C 324 5-1

DS1 (continued)
cross-connect specifications Vol. 2B 180 7-1
daisy-chain Vol. 3A 230 7-19
deactivating facilities Vol. 4C Rem Nodes VTBM 5-26
default maps Vol. 1 154 2-22, Vol. 1 154 3-40
definition for transport Vol. 4C 324 1-23
deleting a bidirectional cross-connect in a linear system MCOT to ABM QRG 1-68
deleting a facility MCOT to ABM QRG 1-56
deleting equipment MCOT to ABM QRG 1-56
display edit menu Vol. 3A 230 7-11
DS3s in the same shelf Vol. 2A 101 1-8
end-to-end tests Vol. 3B 225 5-1
equipment
converting from DS3 to mixed DS1/DS3 Vol. 4C 324 6-1
moving (TR-303 DMS/DS1 tandem) Vol. 4C 324 5-4, Vol. 4C 324 5-10
removing Vol. 4C 324 5-3
testing continuity Vol. 4C 324 2-16
testing continuity for IDLC or tandem DS1s Vol. 4C 324 2-22
troubleshooting alarms Vol. 5A 543 3-111
equipment alarms TL1 Interface Desc 190 3-98
equipment provisioning messages TL1 Interface Desc 190 4-68
facility
setting or releasing a loopback Vol. 5A 543 8-14
troubleshooting Vol. 5A 543 4-25
facility alarms TL1 Interface Desc 190 3-115
facility edit screen, quit Vol. 3A 230 7-13
facility screen Vol. 3A 230 7-11
feeder test results form Vol. 3B 225 6-1
feeder testing
overview Vol. 3B 225 1-1
GR-303 DMS Vol. 2A 100 5-5
group and slot association Vol. 5A 543 1-15, Vol. 5C 547 1-10
group and slot associations Vol. 4B 311 2-2
group, slot association Vol. 3A 230 7-3, Vol. 3A 230 8-3, Vol. 3B 221 2-3
I/O card slots Vol. 5A 543 1-16
I/O cards, connect test cable Vol. 3A 230 6-41
I/O numbers Vol. 4B 311 2-5, Vol. 5C 547 1-11
in-bay test, task list Vol. 3B 225 1-7
in-bay tests Vol. 3B 225 3-1
initial provisioning, performing Vol. 3A 230 7-9, Vol. 3B 225 3-5
input card Vol. 2A 102 5-20, Vol. 3B 225 3-9, Vol. 5C 547 2-2, Vol. 5C 547 2-6
description Vol. 2A 100 8-5
replacing in VTBM MBP MBP VTBM Ring User 7-7
input card ID PROM failure
troubleshooting Vol. 5A 543 3-86
interface specifications Vol. 2B 180 7-1
line Vol. 2A 105 1-7
LineTimed Vol. 3A 230 4-14, Vol. 3A 235 3-38, Vol. 3A 245 4-15, Vol. 3B 225 5-5

DS1 (continued)
loopback Vol. 2A 101 1-7
manual provisioning Vol. 2A 101 1-14
mappers Vol. 3B 225 2-24
modifying a facility MCOT to ABM QRG 1-62
modifying equipment MCOT to ABM QRG 1-60
NT4K31 Vol. 5C 547 2-2, Vol. 5C 547 2-4
NT4K32 Vol. 5C 547 2-2, Vol. 5C 547 2-6
NT4K33 Vol. 5C 547 2-2, Vol. 5C 547 2-8
NT7E04 Vol. 5C 547 2-2, Vol. 5C 547 2-84
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
Operations maintenance channel Vol. 2A 100 2-8, Vol. 2A 102 3-4, Vol. 2A 102 3-12, Vol. 2A 102 3-13, Vol. 3B 225 5-3
optical in-bay tests Vol. 3A 230 7-1
output card Vol. 2A 102 5-22, Vol. 3B 225 3-9, Vol. 5C 547 2-2, Vol. 5C 547 2-8
description Vol. 2A 100 8-5
replacing in VTBM MBP MBP VTBM Ring User 7-9
output card ID PROM failure troubleshooting Vol. 5A 543 3-91
path Vol. 2A 105 1-6
performance monitoring Vol. 2A 105 1-6, TL1 Interface Desc 190 3-125
displaying equipment thresholds Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
facility threshold alarms and alerts, disabling Vol. 5C 520 3-45
facility threshold alarms and alerts, enabling Vol. 5C 520 3-42
facility threshold status, changing Vol. 5C 520 3-33
facility threshold value, changing Vol. 5C 520 3-37
facility thresholds, displaying full precision Vol. 5C 520 3-69
performance monitoring facility
counters, clearing Vol. 5C 520 3-15
history, displaying Vol. 5C 520 3-21
report type, changing Vol. 5C 520 3-29
statistics, displaying Vol. 5C 520 3-12
thresholds, displaying Vol. 5C 520 3-25
untimed interval clock, starting Vol. 5C 520 3-18
pigtails
connecting to MBP MBP Cab Inst 206 8-15, MBP Cab Inst 206 14-19
protection bridge card Vol. 2A 102 5-24, Vol. 5C 547 2-2, Vol. 5C 547 2-4
description Vol. 2A 100 8-6
replacing in VTBM MBP MBP VTBM Ring User 7-4
protection bridge in card ID PROM failure troubleshooting Vol. 5A 543 3-94

DS1 (continued)
protection bridge out card ID PROM failure troubleshooting Vol. 5A 543 3-97
protection bus Vol. 2A 102 5-24
protection hardware failure troubleshooting Vol. 5A 543 3-101
protection parameters Vol. 4B 311 2-32
protection status Vol. 3B 222 2-50
provisionable attributes TL1 Interface Desc 190 4-37
provisioning Vol. 3B 225 6-7
provisioning a bidirectional cross-connect in a linear system MCOT to ABM QRG 1-68
provisioning messages TL1 Interface Desc 190 4-56
removing existing DS1 mappers Vol. 4C 324 8-3
repeater shelf
connecting to MBP MBP Cab Inst 206 14-1
connecting to Modular Business Package MBP Cab Inst 206 7-34
used in Modular Business Package MBP Cab Inst 206 7-42
retrieving a facility MCOT to ABM QRG 1-62
retrieving equipment MCOT to ABM QRG 1-60
signal continuity, verifying Vol. 3B 225 2-41, Vol. 3B 225 3-9
signals
coming from the optical fiber Vol. 2A 102 2-7
going into the optical fiber Vol. 2A 102 2-4
site test Vol. 3A 230 7-9
software
AccessNode Vol. 2A 101 1-7
interfaces Vol. 2A 101 1-6
performance monitoring Vol. 2A 101 2-5
protection-switching for FCOTs Vol. 2A 101 1-7
protection-switching for RFTs Vol. 2A 101 2-5
Tandem circuit Vol. 3B 225 5-3
tandem circuit
analog special services, testing Vol. 4B 316 4-31
DDS (OCUDP), testing Vol. 4B 316 4-36
definition Vol. 3A 230 1-7, Vol. 3A 235 1-5, Vol. 3A 245 1-5, Vol. 3B 222 3-2, MCOT to ABM QRG 2-4
definition of circuit Vol. 4C 324 1-23
service types Vol. 4B 315 1-9
tandem VT circuit
facility assignments Vol. 4B 315 3-2
test cord Vol. 3B 225 3-9
test protection switch Vol. 3B 225 6-7
TR-08
bulk provisioning circuits Vol. 4B 315 2-5
TR08 Vol. 2A 100 5-9
TR-08 circuit Vol. 3B 225 5-3
definition Vol. 4C 324 1-24
TR-303 circuit
definition Vol. 4C 324 1-24
TR-303 DMS Vol. 3B 225 5-3
transmission test set, verifying Vol. 3B 225 3-3
transmitter-receiver test set Vol. 3A 230 7-7

DS1 (continued)
transport alarm Vol. 4B 310 15-6, Vol. 5A 543 1-10
tributary cards
in access bandwidth manager Vol. 1 154 2-7
in transport bandwidth manager Vol. 1 154 3-11
untimed interval Vol. 3B 222 2-59
verifying performance of the transmission test set Vol. 4C 324 2-2
visibility Vol. 2A 100 12-10
VT mapper Vol. 5C 547 2-2, Vol. 5C 547 2-84
VT mapper, verify protection Vol. 3A 230 7-21
worksheets
DS1-fed systems Vol. 1 154 4-12

DS1 and maintenance pair cables
used with ModCab cabinet Mod Cab Inst 211 10-1

DS1 cable
mixed installation with DS3 cables ABM Inst 201 6-30

DS1 equipment
adding DS3s Vol. 4C 324 3-2
adding STS-1s Vol. 4C 324 4-2

DS1 facility
adding Vol. 4B 310 6-3
alarm points, enable and disable Vol. 4B 310 6-6
deleting Vol. 4B 310 6-60
DS3
activating/deactivating Vol. 4C 324 3-4
loopback test, setting or releasing Vol. 4B 310 17-16
performance threshold provisioning Vol. 4B 310 6-41
provisioning Mix & Match DFA Recon QRG 5-1
provisioning and deprovisioning Vol. 4B 310 6-1
provisioning operating parameters Vol. 3A 230 4-35, Vol. 3A 235 3-42, Vol. 3A 240 4-11, Vol. 4B 310 6-21, Nodal Conn Mgr QRG 1-92
provisioning parameters Mix & Match DFA Recon QRG 5-20
STS-1
activating/deactivating Vol. 4C 324 4-4
testing a new transport facility Vol. 4C 324 2-9
testing on a DS1-fed system Vol. 4C 324 2-35

DS1 facility, provisioning
UE9000 Data OAMP UG 1-29

DS1 group and slot association
in access bandwidth manager shelf Vol. 1 154 2-3

DS1 I/O slots in ModCab
Mod Cab Inst 211 11-4

DS1 input card
in access bandwidth manager Vol. 1 154 2-8
in transport bandwidth manager Vol. 1 154 3-11

DS1 output card
in access bandwidth manager Vol. 1 154 2-9
in transport bandwidth manager Vol. 1 154 3-12

DS1 protection bridge card
in transport bandwidth manager Vol. 1 154 3-14

DS1 repeater shelf
MBP Desc 110 2-28

DS1/DS3
capacity Vol. 3A 230 2-30, Vol. 3A 240 2-17
installing mixed cables TBM Inst 202 5-100

DS1/VT mapper
Vol. 2A 102 5-25, Vol. 3B 222 2-11, Vol. 3B 225 3-9
alarm point, enabling and disabling
protection group Vol. 4B 310 5-11
working group Vol. 4B 310 5-11
automatic protection switching Vol. 2A 103 5-6
bandwidth mapping Mix & Match DFA Recon QRG 3-3
circuit pack, deleting Vol. 4B 310 5-26
circuit pack failure, troubleshooting Vol. 5A 543 3-80
description Vol. 2A 100 8-6
forced-switching command Vol. 2A 103 5-6
I/O cards Mix & Match DFA Recon QRG 3-33
I/O cards associated with Vol. 1 154 3-11
in access bandwidth manager Vol. 1 154 2-10
in transport bandwidth manager Vol. 1 154 3-15
NT7E04CA Vol. 1 154 3-15
in transport three-shelf bay Vol. 1 154 3-23
installing Mix & Match DFA Recon QRG 3-31
LED
troubleshooting Vol. 5A 543 7-27
line rate tolerance Vol. 2B 180 7-1
lockout command Vol. 2A 103 5-6
manual-switching command Vol. 2A 103 5-7
number supported Mix & Match DFA Recon QRG 1-8
priority-select command Vol. 2A 103 5-7
product engineering codes Vol. 5A 543 3-84
protection switching Vol. 2A 103 2-22
unavailable during an activity switch Vol. 2A 103 5-2, Vol. 2A 103 5-4
replacing in VTBM MBP MBP VTBM Ring User 7-45
slot location in FCOT_BLSR Vol. 1 154 3-17, Vol. 1 154 3-18
slot location in TN_BLSR Vol. 1 154 3-17, Vol. 1 154 3-18
supporting TR-08 DS1s Vol. 1 154 2-10, Vol. 1 154 3-15, Vol. 2A 102 5-25
test Vol. 3B 225 3-10

DS1/VT mappers
adding Mix & Match DFA Recon QRG 1-9

DS1/VT protection mapper mismatch
troubleshooting Vol. 5A 543 3-81

DS1facility
parameters Vol. 3B 225 5-4

DS1-fed AccessNode
Vol. 2A 100 2-6, Vol. 3B 225 2-2
adjusting OMC bandwidth Vol. 4C 324 14-3
host switches for Vol. 2A 100 5-2
Mix & Match configuration
Mix & Match DFA Recon QRG 1-8
moving an OMC link Vol. 4C 324 14-8
operations maintenance channel Vol. 4C 324 14-2
recovery procedure Vol. 5C 545 2-1
site test a RFT Vol. 3B 225 1-6
system expansion procedures Vol. 4C 324 14-1
testing DS1 facilities Vol. 4C 324 2-35
topology Vol. 2A 100 3-22

DS1-fed AccessNode.
See also Application, DS1-fed AccessNode

DS1-fed systems
worksheets
preparing Vol. 1 154 4-12

DS1s Vol. 3B 225 5-3
IDLC. See DS1s, TR303 DMS
TR303 DMS Vol. 2A 101 1-9
TR303 MVI Vol. 2A 101 1-9

ds1status command
Vol. 5C 520 5-4

DS3
Vol. 3A 230 7-1, Vol. 4C Add Nodes VTBM 7-20
adding equipment and facilities Vol. 4C 324 3-1
adding to an existing system Vol. 4C 324 3-2
alarm, equipment Vol. 5A 543 2-6
association Vol. 5C 547 1-10
bit error rate test, OC-3 tributary Vol. 3B 222 4-13
cables
installing TBM Inst 202 5-88
cabling
connecting to MBP MBP Cab Inst 206 9-27
to ABM Vol. 1 200 5-52
to TBM Vol. 1 200 6-38
circuit pack
deleting Vol. 4B 310 5-26
connecting to MBP
mixed installation with DS1 cables
MBP Cab Inst 206 9-36
connections
OC-3 tributary tests Vol. 3B 222 4-1

DS3 (continued)
deactivating facilities
Vol. 4C Rem Nodes VTBM 5-26
default maps Vol. 1 154 2-24, Vol. 1 154 3-41
definition for transport Vol. 4C 324 1-23
DS1s in the same shelf Vol. 2A 101 1-8
edit menu Vol. 3A 230 8-10
equipment
adding Vol. 4C 324 3-2
performance monitoring, thresholds, displaying
Vol. 5C 520 3-71, Vol. 5C 520 3-73,
Vol. 5C 520 3-75, Vol. 5C 520 3-77,
Vol. 5C 520 3-78, Vol. 5C 520 3-80
removing Vol. 4C 324 6-2
equipment alarms TL1 Interface Desc 190 3-101
equipment provisioning messages TL1 Interface
Desc 190 4-68
facility
activating/deactivating Vol. 4C 324 3-4
troubleshooting Vol. 5A 543 4-69
facility alarms TL1 Interface Desc 190 3-116
group and slot association Vol. 5A 543 1-15,
Vol. 5C 547 1-10
group and slot associations Vol. 3A 230 8-2,
Vol. 3B 221 2-2, Vol. 4B 311 2-2
I/O card Vol. 5C 547 2-2, Vol. 5C 547 2-3
I/O card slots Vol. 5A 543 1-16
I/O numbers Vol. 4B 311 2-6, Vol. 5C 547 1-12
interface
specifications Vol. 2B 180 7-3
interface specifications Vol. 2B 180 7-4
line Vol. 2A 105 1-9
mapping
non-default maps Vol. 1 154 3-43
mappings
non-default maps Vol. 1 154 2-28
not supported
in DS1-fed systems Vol. 2A 102 5-33
in single-ended systems Vol. 1 154 2-15,
Vol. 2A 102 5-33
not supported in DS1-fed systems Vol. 2A 100 2-8
not supported in single-ended systems
Vol. 2A 100 2-11
NT4K30 Vol. 5C 547 2-2, Vol. 5C 547 2-3
NT7E08 Vol. 5C 547 2-2, Vol. 5C 547 2-97
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
optical end-to-end tests Vol. 3B 222 3-1
optical in-bay test Vol. 3B 221 2-1
parity correction Vol. 2A 101 2-6
path Vol. 2A 105 1-8
performance monitoring Vol. 2A 105 1-8, TL1
Interface Desc 190 3-126
facility threshold alarms and alerts, disabling
Vol. 5C 520 3-45
facility threshold alarms and alerts, enabling
Vol. 5C 520 3-42
facility threshold status, changing
Vol. 5C 520 3-33

DS3, performance monitoring (continued)
facility threshold value, changing Vol. 5C 520 3-37
facility thresholds, displaying full precision Vol. 5C 520 3-69
performance monitoring facility
counters, clearing Vol. 5C 520 3-15
history, displaying Vol. 5C 520 3-21
report type, changing Vol. 5C 520 3-29
statistics, displaying Vol. 5C 520 3-12
thresholds, displaying Vol. 5C 520 3-25
untimed interval clock, starting Vol. 5C 520 3-18
protection mapper
replacement Vol. 5A 543 3-123
protection parameters Vol. 4B 311 2-34
protection switch card Vol. 2A 102 5-30
description Vol. 2A 100 8-6
equipping rules Vol. 2A 102 5-32
protection switch circuit pack Vol. 5C 547 2-62
protection switching
counters, clearing Vol. 5C 520 3-63
history, displaying Vol. 5C 520 3-67
statistics, displaying Vol. 5C 520 3-62
untimed interval clock, starting Vol. 5C 520 3-65
provisionable attributes TL1 Interface Desc 190 4-40
provisioning messages TL1 Interface Desc 190 4-62
removing existing DS3 mappers Vol. 4C 324 8-4
signals
coming from the optical fiber Vol. 2A 102 2-7
going into the optical fiber Vol. 2A 102 2-4
software
interfaces Vol. 2A 101 2-5
performance monitoring Vol. 2A 101 2-6
STS mapper Vol. 5C 547 2-2, Vol. 5C 547 2-97
synchronous mapper circuit pack Vol. 3A 230 8-20
Synchronous mappers Vol. 3A 230 8-2, Vol. 3B 221 2-2
TBM FCOT_BLSR group limitations Vol. 5A 543 1-15
test equipment Vol. 3B 222 3-3
testing new facility on in-service DS3/STS mapper Vol. 4C 324 3-7
transmission ground reference panel installation
TBM bay TBM Inst 202 5-123
transmission test set
verifying performance Vol. 4C 324 3-5
transmitter test set Vol. 3A 230 8-6
transport
alarm Vol. 5A 543 1-10
verify signal continuity Vol. 3A 230 8-12

DS3 cables
installing ABM Inst 201 6-24
mixed installation with DS1 cable ABM Inst 201 6-30

DS3 facility
adding Vol. 4B 310 6-3
alarm points, enabling and disabling Vol. 4B 310 6-9
deleting Vol. 4B 310 6-60
loopback test, setting or releasing Vol. 4B 310 17-16
performance threshold provisioning Vol. 4B 310 6-41
provisioning and deprovisioning Vol. 4B 310 6-1
provisioning operating parameters Vol. 4B 310 6-27

DS3 I/O card.
See BNC I/O card

DS3 mapper
alarm point, enabling and disabling
protection group Vol. 4B 310 5-11
working group Vol. 4B 310 5-11
description Vol. 2A 100 8-6, Vol. 2A 100 8-7
slot location in access bandwidth manager Vol. 1 154 2-15

DS3 protection switch card
in access bandwidth manager Vol. 1 154 2-14
in transport bandwidth manager Vol. 1 154 3-25
slot location in access bandwidth manager Vol. 1 154 2-14

DS3/STS mapper
Vol. 1 154 2-15, Vol. 2A 102 5-33, Vol. 2A 102 5-37
automatic protection switching Vol. 2A 103 5-6
equipping restrictions when mix of cards in transport bandwidth manager Vol. 1 154 3-31, Vol. 1 154 3-34
forced-switching command Vol. 2A 103 5-6
I/O cards associated with Vol. 1 154 3-32
in transport bandwidth manager Vol. 1 154 3-26
interface specifications Vol. 2B 180 7-3
LED, troubleshooting Vol. 5A 543 7-28
lockout command Vol. 2A 103 5-6
manual-switching command Vol. 2A 103 5-7
not supported
in DS1-fed systems Vol. 1 154 2-15
priority-select command Vol. 2A 103 5-7
protection switching Vol. 2A 103 2-21
unavailable during an activity switch Vol. 2A 103 5-2, Vol. 2A 103 5-4
replacing in VTBM MBP MBP VTBM Ring User 7-50
slot location in access bandwidth manager Vol. 1 154 2-15
slot location in transport bandwidth manager Vol. 1 154 3-32

DSX-1
cross connect shelf
connecting to MBP MBP Cab Inst 206 14-1
connecting to Modular Business Package
MBP Cab Inst 206 7-34
used in Modular Business Package
MBP Cab Inst 206 7-42
cross-connect
in S800A S800A OP Cab Desc 118 5-5,
S800A OP Cab Desc 118 10-10
cross-connect panel Vol. 3A 230 7-14,
Vol. 3B 225 3-9
connection to TBM shelf TBM Inst 202 5-68

DSX-1 cross-connect shelf
MBP Desc 110 2-26

DTAP.
See Digital Test Access Pair

DTE.
See Data terminal equipment.

dtllic
Vol. 3B 225 2-20, Vol. 3B 225 2-26

Dual equipment module
description MBP Desc 110 1-3
installing in MBP and MPP cabinets
MBP Cab Inst 206 16-6
removing the separator bar in VTBM MBP
MBP VTBM Ring User 3-10

Dual switching plane
Vol. 2A 103 7-1

Dual-craft line up of special services
Vol. 2A 101 1-8

Duct
wiring in Vol. 1 200 8-5

Duplex signaling
application Vol. 1 155 1-66
determining DX balance resistance
Vol. 1 155 3-14
supported by Omega 4-wire line card
Vol. 2B 181 4-13
common functions Vol. 2B 181 4-13
parameters Vol. 2B 181 4-13
specifications Vol. 2B 181 4-14
testing Vol. 4B 316 4-62

DX.
See Duplex

E

E&M signaling
supported by Omega 6/8-wire line card
Vol. 2A 102 6-16, Vol. 2B 181 5-13
common functions Vol. 2B 181 5-13
parameters Vol. 2B 181 5-13,
Vol. 2B 181 5-14
specifications Vol. 2B 181 5-14

E2A Alarm Manager
dialogs Vol. 4A 301 8-9, Vol. 4A 301 8-18
main window Vol. 4A 301 8-6

E2A Alarm Manager tool
Vol. 2A 104 5-8
assigning default alarms to signal distribution
points Vol. 4A 302 10-13
cluster display Vol. 4A 302 10-3
deleting an alarm from signal distribution points
Vol. 4A 302 10-11
monitor displays Vol. 4A 302 10-2
signal distribution points
assigning alarms Vol. 4A 302 10-8
tasks Vol. 4A 302 10-6
viewing signal distribution points
Vol. 4A 302 10-7

E2A OS support
Vol. 2A 101 1-8

E2A TBOS
activating port Vol. 4A 302 8-5
adding or changing port displays Vol. 4A 302 8-6
deactivating port Vol. 4A 302 8-5
deleting a display from a port Vol. 4A 302 8-8
display
adding or changing Vol. 4A 302 8-6
deleting from E2A TBOS port Vol. 4A 302 8-8
enabling or disabling a TBOS port
Vol. 4A 302 8-9
displaying port parameters Vol. 4A 302 8-3
enabling or disabling port display Vol. 4A 302 8-9
querying another port Vol. 4A 302 8-4

E2A.
See Serial telemetry

E2WS.
See Epsilon 2-wire station line card

Earth ground for ac power pedestal
S800A Cab Inst 210 3-13

EBS.
See Service, Electronic Business Set.

ED-EC1
TL1 Interface Desc 190 4-77

Edit User Security (ED-USER-SECU) command
TL1 En Sec QRG 3-9

ED-OC3
TL1 Interface Desc 190 4-83

Electrical
requirements in S800A
S800A OP Cab Desc 118 6-2
protection Vol. 2B 180 5-1

Electrical requirements
in ModCab Mod Cab Desc 119 9-1

Electromagnetic
compatibility Vol. 2B 180 8-1
interference Vol. 5C 546 3-4

Electronic business set
defined T&B Eng Info. 152 2-4

Electronic Business Set.
See Service, Electronic Business Set.

Electronics compartment
in S800A cabinet
description S800A OP Cab Desc 118 3-2

Electro-optical modules
Vol. 2A 102 5-66

Electrostatic discharge
Vol. 2B 180 8-2, Vol. 4A 302 1-1, Vol. 4B 315 1-2, Vol. 5C 547 1-2, Vol. 5C 547 8-2
COPCU Vol. 5C 547 8-2
description Vol. 4B 316 1-2, Vol. 4C 324 1-2

Embedded operations channel
Vol. 2A 101 2-19, Vol. 2A 101 2-20, Vol. 2A 101 3-5, Vol. 2A 102 3-4
carrying alarm information Vol. 2A 104 2-4
provisioning LAPD parameters Vol. 4B 310 6-38

Emergency power for Series 800A outside plant cabinet
S800A Cab Inst 210 12-33, S800A Cab Inst 210 12-36

Emergency supplement update
Vol. 2A 101 2-7

EMI circuit pack assemblies
Vol. 2A 102 6-5

EMI filter
on DS1 input card Vol. 2A 102 5-20
on DS1 output card Vol. 2A 102 5-22

EMI. See electromagnetic interference

Enable clear commissioning
main window Vol. 4A 301 15-5
tool tasks Vol. 4A 301 15-6

End guard
installing TBM Inst 202 6-5

End VCO range
clear alarm Vol. 5A 543 3-141

Endpoint
types Vol. 4B 315 3-16

Engineering of line card services
Vol. 1 155 2-3

Engineering rule
common bonding network
central office ABM Bay Cable Conn QRG 2-3
remote locations
ABM Bay Cable Conn QRG 2-5
integrated bonding network
ABM Bay Cable Conn QRG 2-7

Enhanced administration software package
Vol. 2A 101 2-6

Enhanced maintenance software package
Vol. 2A 101 2-7

Enhanced TBM shelf bay configuration
single-shelf Vol. 2A 100 6-9
three-shelf Vol. 2A 100 6-9
two-shelf Vol. 2A 100 6-9

Enhanced testing capabilities
Vol. 2B 115 5-1
DRTU emulation Vol. 2B 115 5-5
MTU emulation Vol. 2B 115 5-7
TR834 emulation Vol. 2B 115 5-2

Enhanced transport interface card
Vol. 2A 100 8-15
bandwidth mapping
Mix & Match DFA Recon QRG 3-3
replacing TIC
Mix & Match DFA Recon QRG 3-22

ENT-EC1
TL1 Interface Desc 190 4-76

Enter User Security (ENT-USER-SECU) command
TL1 En Sec QRG 3-12

ENT-OC3
TL1 Interface Desc 190 4-82

Entry to SONET
clear alarm
clock acquire Vol. 5A 543 3-264
clock freerun Vol. 5A 543 3-56
clock holdover Vol. 5A 543 3-266

Environmental
alarms TL1 Interface Desc 190 3-124
considerations for S800A cabinet
S800A OP Cab Desc 118 2-5
specifications for MBP Site Inst P&E Add 3-1

Environmental alarm
hierarchy Vol. 5A 543 2-8
troubleshooting Vol. 5A 543 5-1

Environmental control panel
cover for access bandwidth manager shelf
installing ABM Inst 201 8-6
installing on TBM shelf TBM Inst 202 6-4

Environmental controls
in ModCab Mod Cab Desc 119 3-7

Environmental requirements
for central-office equipment Vol. 1 200 2-2
for customer-located equipment Vol. 1 200 3-4

EOC.
See Embedded operations channel.

Epsilon 2-wire station line card
Vol. 5C 547 3-4
NT4K65 Vol. 5C 547 3-1, Vol. 5C 547 3-4

Epsilon station line card
Vol. 1 155 1-5, Vol. 2A 102 6-11
description Vol. 2A 100 8-19
diagnostics Vol. 2B 181 1-3
functional description Vol. 2B 181 1-2
LED, troubleshooting Vol. 5A 543 7-16
maintenance and testing Vol. 2B 181 1-3
physical description Vol. 2B 181 1-2
provisioning Vol. 2B 181 1-2
replacing in VTBM MBP
MBP VTBM Ring User 5-5
signaling Vol. 2B 181 1-5
specifications Vol. 2B 181 1-7
subscriber loop access Vol. 2B 181 1-4
testing Vol. 2B 181 1-4
testing by the test access card Vol. 2B 181 1-3
transient protection Vol. 2B 181 1-4
transmission Vol. 2B 181 1-5
voice frequency transmission specifications
Vol. 2B 181 1-4

eq lic
Vol. 3B 225 2-20

eq mtac
Vol. 3B 225 2-26

eq tic
Vol. 3B 225 2-31

EQP
NE log Vol. 5B 840 5-1, Vol. 5B 840 5-3,
Vol. 5B 840 5-17, Vol. 5B 840 5-21,
Vol. 5B 840 5-23, Vol. 5B 840 5-25,
Vol. 5B 840 5-27, Vol. 5B 840 5-28,
Vol. 5B 840 5-32, Vol. 5B 840 5-36,
Vol. 5B 840 5-38, Vol. 5B 840 5-41,
Vol. 5B 840 5-42, Vol. 5B 840 5-43,
Vol. 5B 840 5-44, Vol. 5B 840 5-46,
Vol. 5B 840 5-48

EQP606 log generation
Vol. 5A 543 3-85, Vol. 5A 543 3-89,
Vol. 5A 543 3-90, Vol. 5A 543 3-105,
Vol. 5A 543 3-118, Vol. 5A 543 3-119,
Vol. 5A 543 3-120, Vol. 5A 543 3-124

EQP608 log
using to determine exerciser failure
Vol. 5A 543 3-59

Equalization
determining settings (4-wire) Vol. 1 155 3-1
determining settings (4-wire, cable makeup
unknown) Vol. 1 155 5-1
fine-tuning guidelines Vol. 1 155 5-11
line card attribute Vol. 4B 315 3-12
receive bandwidth Vol. 4B 315 3-13
receive height Vol. 4B 315 3-13
receive slope Vol. 4B 315 3-13
transmit bandwidth Vol. 4B 315 3-14
transmit height Vol. 4B 315 3-14
transmit slope Vol. 4B 315 3-14

Equalize voltage
Vol. 5C 546 6-3, Vol. 5C 546 6-7,
Vol. 5C 546 6-9, Vol. 5C 546 6-11
setting OSP level Vol. 5C 546 6-7
setting the level in Virtual tributary bandwidth
manager Modular business package
MBP VTBM Ring Inst 9-19,
MBP VTBM Ring User 8-21

Equalized transmission only.
See Service, TO/ETO

Equipment
AccessNode
compliance Vol. 2B 180 11-1
flammability Vol. 2B 180 11-2
safety guidelines and warnings
Vol. 2B 180 11-1

Equipment (continued)
AccessNode Express
temperature and humidity specifications Vol. 2B 180 3-3
adding circuit pack groups Vol. 3A 230 3-26, Vol. 4B 310 5-8
adding DS1s Vol. 4C 324 2-4
alarm points
external synchronization, enabling and disabling Vol. 4B 310 4-14
ATM circuit card
replacing UE9000 Data OAMP UG 5-15
restarting UE9000 Data OAMP UG 5-11
state, changing UE9000 Data OAMP UG 5-3
ATM network UE9000 Data Net Design 1-4
bay frame location ID Vol. 4B 310 5-16
cabinet modules in Modular Business Package MBP Desc 110 1-3
cautions and warnings Vol. 3B 225 1-1
CDS shelf for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 2-16
CDS shelf in VTBM MBP MBP VTBM Ring Inst 2-18
circuit pack groups
adding Vol. 4B 310 5-24
circuit pack groups, adding UE9000 Voice OAMP UG 1-3
circuit pack groups, deleting UE9000 Voice OAMP UG 1-10
circuit pack parameter, displaying Vol. 4B 310 7-5
circuit pack parameters, displaying UE9000 Voice OAMP UG 3-3
circuit pack state, querying Vol. 4B 310 7-9
circuit pack states, querying UE9000 Voice OAMP UG 3-6
common equipment shelf, restarting (manual) Vol. 4B 310 17-26
configurations ABM Inst 201 2-1
CPE UE9000 Data Net Design 1-3
data network design UE9000 Data Net Design 1-6
data network management UE9000 Data Net Design 1-4
deprovisioning Vol. 4B 310 5-1
deleting circuit pack groups Vol. 4B 310 5-26
deleting copper-distribution shelf Vol. 4B 310 5-30
dimensions
for central-office bays Vol. 1 200 2-8
for customer-located equipment Vol. 1 200 3-10
DS1
testing continuity for IDLC or tandem DS1s Vol. 4C 324 2-22
testing continuity for transport DS1s Vol. 4C 324 2-16
DS1 protection, provisioning Vol. 4B 311 2-32
DS3 protection, provisioning Vol. 4B 311 2-34

Equipment (continued)
effects of cable length on location
for central-office bays Vol. 1 200 2-11
for customer-located equipment Vol. 1 200 3-12
environmental specifications Vol. 2B 180 3-1
equipment shelf, restarting (manual) Vol. 4B 310 17-26
forced switch request
clear alarm Vol. 5A 543 3-142
in S800A cabinet
description S800A OP Cab Desc 118 9-1
peripheral S800A OP Cab Desc 118 10-1
inventorying UE9000 Data OAMP UG 5-2
line card, resetting Vol. 4B 310 17-30
line cards
replacing UE9000 Data OAMP UG 5-17
restarting UE9000 Data OAMP UG 5-13
state, changing UE9000 Data OAMP UG 5-7
lockout request
clear alarm Vol. 5A 543 3-143
logical data connections UE9000 Data Net Design 1-5
manual switch request
clear alarm Vol. 5A 543 3-144
MBP shelf modules MBP Desc 110 2-1
Modular Power Package shelf modules MBP Desc 110 3-1
network element performance monitoring
thresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
OC-12 protection, provisioning Vol. 4B 311 2-38
OC-3 protection, provisioning Vol. 4B 311 2-36
operating state, changing Vol. 4B 310 16-2, UE9000 Voice OAMP UG 3-11
ordering for VTBM MBP MBP VTBM Ring User 11-2
planning for bay frames Vol. 1 200 1-1
processor card
parameters, provisioning Vol. 4B 310 5-15
restarting (manual) Vol. 4B 310 17-21
switching activity Vol. 4B 310 17-19, Vol. 4B 311 2-14, UE9000 Voice OAMP UG 5-43
protection switch complete
clear alarm Vol. 5A 543 3-145
protection switch fail
clear alarm Vol. 5A 543 3-146
provisionable attributes TL1 Interface Desc 190 4-42
provisioning Vol. 4B 310 5-1
alarm point, enabling and disabling Vol. 4B 310 5-11
circuit pack state, querying Vol. 4B 310 7-9
equipment parameters, displaying Vol. 4B 310 7-1
equipment parameters, querying Vol. 4B 310 7-1

Equipment, provisioning (continued)
OC-12 performance thresholds Vol. 4B 310 5-21
OC-3 performance thresholds Vol. 4B 310 5-17
parameters
circuit pack, displaying Vol. 4B 310 7-5
shelf inventory, displaying Vol. 4B 310 7-3
shelf parameters, displaying Vol. 4B 310 7-2
provisioning messages TL1 Interface Desc 190 4-68
provisioning order UE9000 Data OAMP UG 1-3
receiving and moving
central-office equipment Vol. 1 200 2-15
customer-located equipment Vol. 1 200 3-15
removing UE9000 UE9000 Data OAMP UG 1-42
service gateway UE9000 Data Net Design 1-5
shelf inventory, displaying Vol. 4B 310 7-3
shelves
access bandwidth manager MBP Desc 110 2-12
breaker interface panel MBP Desc 110 2-16, MBP Desc 110 2-22
cable organizer panel MBP Desc 110 2-19
copper-distribution shelf MBP Desc 110 2-13
DS1 repeater MBP Desc 110 2-28
DSX-1 cross-connect MBP Desc 110 2-26
fan unit MBP Desc 110 2-11
fiber patch panel MBP Desc 110 2-25
local craft access panel MBP Desc 110 2-17
low voltage disconnect MBP Desc 110 2-20
MPR-25 rectifier MBP Desc 110 2-23
rectifier shelf MBP Desc 110 2-23
transport bandwidth manager MBP Desc 110 2-18
status of UE9000 Data OAMP UG 8-2
STS-1 protection, provisioning Vol. 4B 311 2-34
TDM card
restarting (manual) UE9000 Voice OAMP UG 5-45
tests
exercising processor card Vol. 4B 310 17-5
NEUI lamp Vol. 4B 310 17-7
performing Vol. 4B 310 17-1
UE9000 UE9000 Data Net Design 1-3
unpacking ABM Inst 201 3-7
updating information UE9000 Data OAMP UG 1-40
warning label Vol. 4A 302 1-4, Vol. 4B 316 1-4, Vol. 4C 324 1-4
weight
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-9

Equipment alarm
clearing Vol. 5A 543 3-1
data available Vol. 5A 543 2-5
DS1 or DS3 Vol. 5A 543 2-6

Equipment bay
grounding ABM Bay Cable Conn QRG 2-9

Equipment covers
installing ABM Inst 201 8-1

Equipment damage
ABM shelf cover Vol. 5C 546 3-4, Vol. 5C 546 3-6
air induction roof Vol. 5C 546 6-17
OSP Vol. 5C 546 6-5
rectifier Vol. 5C 546 6-8
replacement rectifier Vol. 5C 546 6-5

Equipment ID
Vol. 3B 225 2-24

Equipment rooms
floor loading for Modular Business Package Site Inst P&E Add 5-2
restricted Site Inst P&E Add 2-6
size requirements for Modular Business Package Site Inst P&E Add 5-1
unrestricted Site Inst P&E Add 2-6

Equipment type
Vol. 3B 225 2-24

Equipment warning label
Vol. 3B 225 1-5, Vol. 5C 547 1-4

Error correction
digital data service Vol. 1 155 1-72
line card attribute Vol. 4B 315 3-12

ESD jacks
MCOT to ABM QRG 1-35

ESD.
See electrostatic discharge

ESI
alarm, common-equipment circuit pack Vol. 5A 543 2-7
card, LED, troubleshooting Vol. 5A 543 7-31
installation Vol. 4C Add Nodes VTBM 7-2
provisioning Vol. 4C Add Nodes VTBM 2-15

ESI.
See External synchronization interface

Ethernet
adapter module Nodal Conn Mgr QRG 1-53, Nodal Conn Mgr QRG 1-65, Nodal Conn Mgr QRG 1-77
CNET link to OPC Mix & Match DFA Recon QRG 3-8
default configuration TL1 Interface Desc 190 2-9
interface TL1 Interface Desc 190 2-9
port, initializing on OPC Vol. 3A 245 6-11
requirements TL1 Interface Desc 190 2-9
standards compliance TL1 Interface Desc 190 1-3, MCOT to ABM QRG 1-4

Ethernet (continued)
TL1 tools, accessing Vol. 4A 302 3-1
TL1 verification TL1 Interface Desc 190 2-9

Ethernet administration
main window Vol. 4A 301 15-7

Ethernet administration tool
Vol. 4A 301 15-7

Ethernet administration tool tasks
Vol. 4A 301 15-9

Ethernet port
Vol. 2A 100 10-5, Vol. 2A 100 10-9
initializing Vol. 3B 220 5-15

ETIC
Vol. 2A 100 8-15
See also enhanced transport interface card

ETO.
See Service, TO/ETO

Event
UE9000 Data OAMP UG 7-2,
UE9000 Data OAMP UG 8-2
deleting UE9000 Data OAMP UG 7-5
Event Browser UE9000 Data OAMP UG 8-16
Event Categories window
UE9000 Data OAMP UG 7-2,
UE9000 Data OAMP UG 8-4
severity UE9000 Data OAMP UG 7-3,
UE9000 Data OAMP UG 9-12
viewing UE9000 Data OAMP UG 7-2,
UE9000 Data OAMP UG 7-3

Event browser
occurrences Vol. 5C 510 5-9
reason Vol. 5C 510 5-9
unit Vol. 5C 510 5-9

Event Browser tool
Vol. 4A 301 9-12, Vol. 4A 301 10-11,
Vol. 4A 301 14-4
detailed event reports
displaying Vol. 5C 510 5-2
displaying events
by network element Vol. 5C 510 5-6
event details
printing Vol. 5C 510 5-13
events list
class, displaying by Vol. 5C 510 5-6
filtering Vol. 5C 510 5-6
New Events icon Vol. 5C 510 5-5
severity, displaying by Vol. 5C 510 5-6
sorting Vol. 5C 510 5-4
time range, displaying by Vol. 5C 510 5-6
updating Vol. 5C 510 5-5
main window Vol. 4A 301 6-8

Event Browser tool (continued)
selecting an event by event number
Vol. 5C 510 5-3
using to troubleshoot
communication problems Vol. 5A 543 1-3

Event logs
Vol. 2A 101 1-15

Event Reporting CI commands Vol. 4B 315 4-13
listing Vol. 4B 315 4-15

Event reporting commands
listing Vol. 4B 315 4-13

Event reporting in the AccessNode
Vol. 2A 104 1-2

Event-completion log, defined
Vol. 2A 104 1-7

Event-in-progress log, defined
Vol. 2A 104 1-7

EVNT
NE log Vol. 5B 840 6-1, Vol. 5B 840 6-4

Exerciser
Vol. 2A 101 1-18
automatic-protection-switching exerciser in a ring
Vol. 2A 101 1-24
displaying schedule for NE Vol. 4A 302 11-4
from an OPC
all ADMs, running Vol. 4B 311 3-13
all ADMs, scheduling Vol. 4B 311 3-16
single ADM, running Vol. 4B 311 3-14
single ADM, scheduling Vol. 4B 311 3-19
OC-12 interface circuit pack Vol. 2A 103 3-9
OC-3 interface circuit pack Vol. 2A 103 3-9
processor card Vol. 2A 103 6-2
ring protection switching Vol. 2A 103 4-25
schedule, changing Vol. 4A 302 11-5

Exerciser fail
clear alarm Vol. 5A 543 3-59

Exerciser schedule
Vol. 4C Add Nodes VTBM 2-12

Expansion cabinet dimensions
Modular Business Package MBP Desc 110 1-7

Express orderwire
Vol. 2A 102 5-59, Vol. 2B 180 12-1
carried by communication overhead bus
Vol. 2A 102 3-5
carried by SONET overhead bus Vol. 2A 102 3-3
interfaces for Vol. 2A 100 10-7

External alarm indicator
NT4K14 Vol. 2A 104 3-16
NT7E56 Vol. 2A 104 3-19

External cable
definition for MBP Site Inst P&E Add 8-2
in VTBM MBP MBP VTBM Ring Inst 2-22
requirements for MBP Site Inst P&E Add 8-3
TBM bay
installing TBM Inst 202 5-1

External communication
operations systems Vol. 2A 104 5-11
parallel telemetry Vol. 2A 104 5-5
serial telemetry Vol. 2A 104 5-3

External synchronization
carrier Vol. 2B 180 9-3
interface description Vol. 2B 180 9-3
interface specifications Vol. 2B 180 9-3
internal clock specifications Vol. 2B 180 9-3
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
timing distribution
output parameters, changing Vol. 4B 310 4-7
timing reference signals
locking out Vol. 4B 311 2-27
timing reference source Vol. 2B 180 9-2

External synchronization cable
installing ABM Inst 201 5-52
installing in TBM bay TBM Inst 202 5-21
pinouts TBM Inst 202 5-24
to ABM Vol. 1 200 5-17
to TBM Vol. 1 200 6-15

External synchronization carrier
Vol. 2A 100 11-18

External synchronization interface
Vol. 5C 547 2-106, Vol. 5C 547 2-112
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-10
carrier
reseating Vol. 5A 543 3-57
clock source Vol. 2A 100 11-14
current filter mode Vol. 5A 543 3-73
equipment alarms TL1 Interface Desc 190 3-103
equipment troubleshooting Vol. 5A 543 3-141
ESI freerun vs. SONET freerun Vol. 5A 543 3-73
external timing reference input parameters, changing Vol. 3A 230 4-16, Vol. 3A 240 4-6
facility alarms TL1 Interface Desc 190 3-118
facility troubleshooting Vol. 5A 543 4-104
hardware Vol. 2A 100 11-18
NT7E19 Vol. 5C 547 2-2, Vol. 5C 547 2-106
setting up Vol. 3B 225 5-5
software Vol. 2A 101 1-8

External synchronization interface (continued)
status Vol. 5A 543 3-73
temporary loss of synchronization Vol. 5A 543 3-75
target filter mode, changing Vol. 3A 230 4-13
timing reference
source, changing Vol. 3A 230 4-8, Vol. 3A 240 4-5
timing reference parameters, setting Vol. 3B 225 5-8

External synchronization interface card
Vol. 2A 100 11-18, Vol. 2A 102 5-40
adding ESI cards Vol. 4C 324 15-1, Vol. 4C 324 15-2
alarm point, enabling and disabling Vol. 4B 310 5-11
clocks provided by Vol. 2A 100 11-15
connector Vol. 2A 100 10-3
description Vol. 2A 100 8-7
equipping rules Vol. 2A 102 5-47, Vol. 2A 102 5-48
holdover tests Vol. 4C 324 15-15
older and newer versions of Vol. 2A 100 11-23
output timing signals Vol. 2A 100 11-24
G1OUT and G2OUT Vol. 2A 100 11-17, Vol. 2A 100 11-45
protection switching Vol. 2A 103 2-22, Vol. 2A 103 6-2
provisioning parameters
target filter mode Vol. 4B 310 4-17
timing modes Vol. 2A 100 11-18
acquire mode Vol. 2A 100 11-19
fast mode Vol. 2A 100 11-20
freerun mode Vol. 2A 100 11-19
holdover mode Vol. 2A 100 11-20
normal mode Vol. 2A 100 11-20
timing reference signals Vol. 2A 103 6-3

External synchronization interface.
See ESI

External timing
Vol. 2A 100 11-6

F

FAC
NE log Vol. 5B 840 7-1, Vol. 5B 840 7-8, Vol. 5B 840 7-11, Vol. 5B 840 7-13, Vol. 5B 840 7-16, Vol. 5B 840 7-18, Vol. 5B 840 7-20, Vol. 5B 840 7-21, Vol. 5B 840 7-24, Vol. 5B 840 7-26, Vol. 5B 840 7-28, Vol. 5B 840 7-29, Vol. 5B 840 7-30, Vol. 5B 840 7-32, Vol. 5B 840 7-34, Vol. 5B 840 7-35

Facility
adding Vol. 4C 324 8-6
ADSL subscriber circuit
state, changing UE9000 Data OAMP UG 5-9
alarm
loss of frame Vol. 5A 543 2-2
alarm hierarchy Vol. 5A 543 2-2
alarm points
COMM, enabling and disabling Vol. 4B 310 6-58
DS1, enabling and disabling Vol. 4B 310 6-6
external synchronization, enabling and disabling Vol. 4B 310 4-13
changing operating state Vol. 4B 310 16-7, Nodal Conn Mgr QRG 1-85
creating GR-303 assignment Mix & Match DFA Recon QRG 5-13
deprovisioning Vol. 4B 310 6-1
deleting a facility Vol. 4B 310 6-60
diagnostics UE9000 Voice OAMP UG 5-37
DS1
testing a new DS1 transport facility Vol. 4C 324 2-9
testing on a DS1-fed system Vol. 4C 324 2-35
DS1 facility
state, changing UE9000 Data OAMP UG 5-5
FE UAS threshold crossing
line FE UAS threshold Vol. 5A 543 4-71
loopback Vol. 3B 225 3-11
loopback test, setting up Vol. 4B 310 17-1
network element performance monitoring
counters, clearing Vol. 5C 520 3-15
history, displaying Vol. 5C 520 3-21
report type, changing Vol. 5C 520 3-29
statistics, displaying Vol. 5C 520 3-12
threshold alarms and alerts, disabling Vol. 5C 520 3-45
threshold alarms and alerts, enabling Vol. 5C 520 3-42
threshold status, changing Vol. 5C 520 3-33
threshold value, changing Vol. 5C 520 3-37
thresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
thresholds, displaying Vol. 5C 520 3-25
thresholds, displaying full precision Vol. 5C 520 3-69

Facility, network element performance monitoring (continued)
untimed interval clock, starting Vol. 5C 520 3-18
operating state, changing UE9000 Voice OAMP UG 3-13
provisioning
mismatch alarm clearing Vol. 5A 543 3-84, Vol. 5A 543 4-203

Facility alarms
list of Vol. 5A 543 4-1

Facility COMM alarms
list of Vol. 5A 543 4-1

Facility DS1 alarms
list of Vol. 5A 543 4-2

Facility DS3 alarms
list of Vol. 5A 543 4-4

Facility DSI alarms
list of Vol. 5A 543 4-5, Vol. 5A 543 4-6, Vol. 5A 543 4-7

Facility OC-12 alarms
list of Vol. 5A 543 4-7

Facility OC-3
OC-12 alarms
list of Vol. 5A 543 4-8

Facility provisioning
adding a facility Vol. 4B 310 6-3
COMM alarm points, enabling and disabling Vol. 4B 310 6-14
DS1
alarm points, enabling and disabling Vol. 4B 310 6-6
facility operating parameters Vol. 3A 230 4-35, Vol. 3A 235 3-42, Vol. 3A 240 4-11, Vol. 4B 310 6-21, Nodal Conn Mgr QRG 1-92
performance thresholds Vol. 4B 310 6-41
DS1 facility parameters Mix & Match DFA Recon QRG 5-20
DS3
alarm points, enabling and disabling Vol. 4B 310 6-9
facility operating parameters Vol. 4B 310 6-27
performance thresholds Vol. 4B 310 6-41
facility parameters, displaying Vol. 4B 310 8-1, Vol. 4B 310 8-3, UE9000 Voice OAMP UG 3-5
COMM facility Vol. 4B 310 8-6
VLCM facility Vol. 4B 310 8-10, Vol. 4B 310 8-12

Facility provisioning (continued)
facility parameters, querying Vol. 4B 310 8-1, UE9000 Voice OAMP UG 3-8
ESI Vol. 4B 310 8-6
OC-12 Vol. 4B 310 8-6
OC-3 Vol. 4B 310 8-6
OC-12
alarm points, enabling and disabling Vol. 4B 310 6-12
facility operating parameters Vol. 4B 310 6-35
performance thresholds Vol. 4B 310 6-48
OC-3
alarm points, enabling and disabling Vol. 4B 310 6-12
facility operating parameters Vol. 4B 310 6-35
performance thresholds Vol. 4B 310 6-48
OMC DS1 facility parameters Mix & Match DFA Recon QRG 5-26
procedures Vol. 4B 310 6-1
STS
alarm points, enabling and disabling Vol. 4B 310 6-6
path performance thresholds Vol. 4B 310 6-53
VT path performance thresholds Vol. 4B 310 6-53

Facility STS1 alarms
list of Vol. 5A 543 4-9

Facility TIC alarms
list of Vol. 5A 543 4-10

Failure to lock
clear alarm Vol. 5A 543 3-147

Fan
filter replacement
Series 800A OSP air induction roof Vol. 5C 546 6-17
Series 800A OSP heat exchanger roof Vol. 5C 546 6-15
MBP cabinet VTBM-ready
description MBP Desc 110 2-11
shelf installation
Series 800A outside plant cabinet S800A Cab Inst 210 12-59
shelf replacement
Series 800A outside plant cabinet S800A Cab Inst 210 12-50

Fan shelf
in S800A cabinet S800A OP Cab Desc 118 9-9

Fan.
See Cooling module

Fans
See Series 800A outside-plant cabinet, fans

Fault isolation
Vol. 2A 101 1-18

FE UAS threshold crossing
line FE UAS threshold Vol. 5A 543 4-71

Feed cable size
ABM Bay Cable Conn QRG 1-1

FEM.
See Field expansion module

Fiber cable
duct wiring Vol. 1 200 8-5
hazards Vol. 1 200 8-7
in S800A S800A OP Cab Desc 118 5-2
installing MBP VTBM Ring Inst 8-4
patchcords and pigtails MBP VTBM Ring Inst 8-2
placement Vol. 1 200 8-4
pulling eyes Vol. 1 200 8-4
pulling technique Vol. 1 200 8-6
safety precautions Vol. 1 200 8-7

Fiber central office terminal
analog switch interface Vol. 2A 101 1-9
bidirectional line switched ring
DS3 equipment layout Vol. 1 154 3-29
DS3 group and slot association table Vol. 1 154 3-31, Vol. 1 154 3-34
group and slot association table Vol. 1 154 3-20
traffic-handling capacity Vol. 1 154 3-22
definition Vol. 2A 100 1-3
non-switched interface Vol. 2A 101 1-9
TBM shelf
DS3 group and slot association table Vol. 1 154 3-31, Vol. 1 154 3-34
transport bandwidth manager shelf
traffic-handling capacity Vol. 1 154 3-22

Fiber management storage tray
description Vol. 2A 100 7-41

Fiber Manager Compact 8
MBP Cab Inst 206 9-91
installing MBP Cab Inst 206 10-1
used in MBP MBP Desc 110 2-25

Fiber patch cord
connecting to MBP MBP Cab Inst 206 9-91
TBM bay
installing TBM Inst 202 5-4

Fiber patch cords
installing ABM Inst 201 5-57

Fiber patch panel
in S800A cabinet
description S800A OP Cab Desc 118 10-7
used in MBP MBP Desc 110 2-25
used in Modular Business Package MBP Cab Inst 206 9-91
installing MBP Cab Inst 206 10-1

Fiber pigtail
reconnecting Vol. 3B 222 2-15

Fiber storage panel
description Vol. 2A 100 7-41
TBM shelf
description Vol. 2A 100 7-64

Fiber storage tray
description Vol. 2A 100 7-43
TBM bay
installing TBM Inst 202 5-4

Fiber-fed system
synchronization Vol. 2A 100 11-1
topology Vol. 2A 100 3-2
ring Vol. 2A 100 3-2

Fiber-optic cable
connecting to the OC-3 interface
MCOT to ABM QRG 1-42
routing Nodal Conn Mgr QRG 1-59,
MCOT to ABM QRG 1-16
verifying connections Vol. 5A 543 3-71

FiberWorld alarm test command interpreter
displaying Vol. 3A 230 9-46

Field expansion module
description MBP Desc 110 1-4
installing with MBP cabinet
MBP Cab Inst 206 12-1

Filtering alarm Vol. 2A 104 2-2

Firmware failure
clearing alarm Vol. 5A 543 3-336

Firmware version mismatch
clear alarm Vol. 5A 543 3-29
clearing alarm Vol. 5A 543 3-206

Firmware/software incompatible
clearing alarm Vol. 5A 543 3-337

Float voltage
Vol. 5C 546 6-9
adjusting for Virtual tributary bandwidth manager
Modular business package
MBP VTBM Ring Inst 9-21
adjusting in Virtual tributary bandwidth manager
Modular business package
MBP VTBM Ring User 8-23
adjusting in VTBM MBP
MBP VTBM Ring User 10-3
adjustment procedure
Series 800A Outside Plant Cabinet
Vol. 5C 546 6-9
rectifier settings Vol. 5C 546 6-3,
Vol. 5C 546 6-7, Vol. 5C 546 6-11

Floor
loading Vol. 2B 180 2-1
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-8
for Modular Business Package
Site Inst P&E Add 5-2
marking and drilling ABM Inst 201 3-2,
TBM Inst 202 4-2
space planning
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-8
space requirements Vol. 2B 180 2-1,
TBM Inst 202 4-3
for central-office bays Vol. 1 200 2-10
for customer-located equipment
Vol. 1 200 3-11
template
used in VTBM MBP
MBP VTBM Ring Inst 3-10

Floor ground bar
grounding ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5

Flowchart
site testing a remote fiber terminal Vol. 3B 225 1-6

Flow-through provisioning
phase 1 Vol. 2A 101 1-9
phase 2 Vol. 2A 101 1-10

FLT
NE log Vol. 5B 840 8-1

forced op
Vol. 3B 222 2-27
command Vol. 3A 230 7-21

Forced protection switching
from an OPC Vol. 4B 311 3-8

Forced protection switching.
See Protection switching, forced switch.

forced re
Vol. 3B 222 2-28
command Vol. 3A 230 7-22

forced re sec
command Vol. 3B 225 5-7

Forced switch
causing critical alarm Vol. 5A 543 3-95,
Vol. 5A 543 3-96
releasing Vol. 5A 543 3-85
request
clearing alarm Vol. 5A 543 3-85,
Vol. 5A 543 3-338
releasing Vol. 5A 543 3-142

Forced-switching command
DS1/VT mapper Vol. 2A 103 5-6
DS3/STS mapper Vol. 2A 103 5-6
external synchronization interface card Vol. 2A 103 6-3
how to Vol. 4B 311 2-21
OC-12 interface circuit pack Vol. 2A 103 3-9
OC-12 VTBM circuit packs Vol. 2A 103 4-23
OC-3 interface circuit pack Vol. 2A 103 3-9
timing and cross-connect timing reference Vol. 4B 311 2-28
timing reference Vol. 4B 311 2-29

Foreign exchange office.
See Service, FXO.

Foreign exchange station.
See Service, FXS.

Foreign exchange.
See Service, FX

FPP.
See Fiber patch panel

Frame extenders
installing TBM Inst 202 4-10

Frame ground
attaching ABM Inst 201 3-21
connecting TBM Inst 202 4-12, TBM Inst 202 4-14
in MBP Site Inst P&E Add 4-16
wire ABM Bay Cable Conn QRG 2-11

Freerun clock source
description Vol. 2A 100 11-13

Freerun timing
Vol. 2A 100 11-5
by ESI card Vol. 2A 100 11-19
by OC-12 VTBM circuit pack Vol. 2A 100 11-27
description Vol. 2A 100 11-13

Frequency response
roll-off guideline Vol. 1 155 4-3

Front junction bar
installing ABM Inst 201 7-7

Front panel
installing on bottom cover assembly ABM Inst 201 8-7

Full-time on-hook transmission
line card attribute Vol. 4B 315 3-13

FWALTSCI tool
using to test critical alarm Vol. 5A 543 3-53
using to test generation of minor alarm Vol. 5A 543 3-62
using to test major alarm Vol. 5A 543 3-61
using to test warning alarm Vol. 5A 543 3-78

FWDB
NE log Vol. 5B 840 9-1, Vol. 5B 840 9-2, Vol. 5B 840 9-4, Vol. 5B 840 9-5, Vol. 5B 840 9-6, Vol. 5B 840 9-7

FWPUI
Vol. 3B 225 2-6, Vol. 3B 225 2-19, Vol. 3B 225 4-34, Vol. 3B 225 4-44
log in Vol. 3A 230 9-36
log out Vol. 3A 230 9-33
verifying processor card redundancy Vol. 3B 225 2-29

FX testing
4-wire FXS/FXO signaling Vol. 4B 316 4-56

FXO.
See Service, FXO.

FXS.
See Service, FXS.

G

G1OUT and G2OUT
Vol. 2A 100 11-17
AIS insertion Vol. 2A 100 11-45

Gain
adjustment
2-wire special service circuit Vol. 4B 316 3-11, Vol. 4B 316 3-12
4-wire or 6/8-wire special service circuit Vol. 4B 316 3-19, Vol. 4B 316 3-20
automatic gain control
changing Vol. 4B 315 3-32
determining settings (4-wire) Vol. 1 155 3-1
determining settings (4-wire, cable unknown) Vol. 1 155 5-1
line card attribute for receive Vol. 4B 315 3-13
line card attribute for transmit Vol. 4B 315 3-14
on-hook transmission
line card attribute Vol. 4B 315 3-14

Gain transfer
2-wire guidelines Vol. 1 155 4-1

GEN
OPC log Vol. 5B 840 10-1, Vol. 5B 840 10-2, Vol. 5B 840 10-4, Vol. 5B 840 10-5, Vol. 5B 840 10-6, Vol. 5B 840 10-7, Vol. 5B 840 10-8, Vol. 5B 840 10-9, Vol. 5B 840 10-10, Vol. 5B 840 10-11, Vol. 5B 840 10-12, Vol. 5B 840 10-13

GR-303
DMS
compared with GR-303 multivendor interface Vol. 2A 101 2-21
generic description Vol. 2A 101 2-18
GR-303-CORE Vol. 2A 101 2-18
max lines supported Mix & Match DFA Recon QRG 1-5
multivendor interface
5ESS switch Vol. 2A 101 2-19
compared with GR-303 DMS Vol. 2A 101 2-21
description Vol. 2A 101 2-19
DMS-100 MVI Vol. 2A 101 2-19, Vol. 4B 315 4-17
logs Vol. 5B 840 25-4
preprovisioning line card services using MVIPROV Vol. 4B 315 4-1
provisioning UE9000 Voice OAMP UG 1-19
software upgrade support Vol. 2A 101 2-22
test response circuit
line/loop testing Vol. 2B 115 2-4

GR-303 alarm reporting
Vol. 2A 104 2-7

GR-303 DMS
description Vol. 2A 101 2-20

GR-303 DMS host switch
requirements T&B Eng Info. 152 3-2

GR-303 MVI
bypass pair integrity test Vol. 2B 115 9-15
in a DS1-fed system (fig) Vol. 2A 100 2-12
in a point-to-point system (fig) Vol. 2A 100 2-12
in a single-ended system (fig) Vol. 2A 100 2-13
in a VTBM system (fig) Vol. 2A 100 2-14
line and loop testing Vol. 2B 115 9-1
topologies supported Vol. 2A 100 2-11

GR-303 MVI host switch
description T&B Eng Info. 152 3-4

GR-303 service options
list of Vol. 4B 315 4-3

Grade of service objectives
defined T&B Eng Info. 152 1-2

Graphical user interface
editing text Vol. 4A 301 3-42
help Vol. 4A 301 3-24
logging in Vol. 4A 301 3-5
logging out Vol. 4A 301 3-47
menu Vol. 4A 301 3-8
window functions Vol. 4A 301 3-12
workspace, using the Vol. 4A 301 3-7

Ground
attaching the frame ground ABM Inst 201 3-21
distribution Vol. 1 200 4-1
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
external signal cables
for ABM bay Vol. 1 200 5-12
for TBM bay Vol. 1 200 6-10
frame Vol. 1 200 4-15
ground isolation specifications for IRTU Vol. 2B 180 14-17
grounding and isolation description Vol. 2B 180 6-3
grounding requirements Vol. 2B 180 6-1
logic Vol. 1 200 4-14
ModCab
ground wire for outside-plant cables Mod Cab Inst 211 6-9, Mod Cab Inst 211 7-22
schemes planning Vol. 1 200 4-9
Series 800A outside plant cabinet
earth ground, for ac load box option S800A Cab Inst 210 3-5
ground wire for outside plant cables S800A Cab Inst 210 4-19

Ground wire
bay frame ABM Bay Cable Conn QRG 2-11

Grounding
ac receptacles for MBP Site Inst P&E Add 4-14
antistatic wrist strap Vol. 5C 547 1-2
attaching the frame ground TBM Inst 202 4-12
building point ground
ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9
building principle ground
ABM Bay Cable Conn QRG 2-5
cable racks in MBP Site Inst P&E Add 4-16
CBN schematic for MBP Site Inst P&E Add 4-17,
Site Inst P&E Add 4-18
central office location
ABM Bay Cable Conn QRG 2-1
common bonding network
central office ABM Bay Cable Conn QRG 2-3
DS1 cables TBM Inst 202 5-82
equipment bays ABM Bay Cable Conn QRG 2-9
floor ground bar ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5
for MBP and MPP MBP Cab Inst 206 7-1,
MBP Cab Inst 206 7-6
frame ground in MBP Site Inst P&E Add 4-16
ground wire ABM Bay Cable Conn QRG 2-11
IBN schematic for MBP Site Inst P&E Add 4-19,
Site Inst P&E Add 4-20
in MBP Site Inst P&E Add 4-5
in ModCab Mod Cab Desc 119 9-4
in S800A S800A OP Cab Desc 118 6-4
in VTBM MBP
no collector MBP VTBM Ring Inst 6-3
with collector MBP VTBM Ring Inst 6-8
installing the NTZX16TG transmission ground
reference panel ABM Inst 201 6-52
interconnect panel
ABM Bay Cable Conn QRG 2-9
main distribution frame
ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5,
ABM Bay Cable Conn QRG 2-7
receive DS1 cable
ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5,
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9
remote location ABM Bay Cable Conn QRG 2-1
S800A outside plant cabinet
Mod Cab Desc 119 9-4
schemes ABM Bay Cable Conn QRG 2-1
schemes for MBP and MPP
Site Inst P&E Add 4-14
single point ground
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9

Grounding (continued)
subscriber lines ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5,
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9
transmit DS1 cable
ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5,
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9

Grounding and battery isolation
Site Inst P&E Add 4-15

grounding and battery isolation
Vol. 1 200 4-15, Vol. 1 200 4-16

Group
Vol. 1 154 3-31, Vol. 1 154 3-34

Group and slot association
DS1 Vol. 4B 311 2-2
DS1 and DS3 I/O cards Vol. 5C 547 1-10
DS1, DS3, STS-1, OC-3, and OC-12
Vol. 5C 547 1-9
DS1, DS3, STS-1, OC-3, OC-12 Vol. 5A 543 1-15
DS3 Vol. 4B 311 2-2
for circuit packs Vol. 4C 324 1-27
for DS1 in access bandwidth manager
Vol. 1 154 2-8
for DS3s in transport bandwidth manager
Vol. 1 154 3-31, Vol. 1 154 3-34
for transport bandwidth manager Vol. 1 154 3-15
OC-12 Vol. 4B 311 2-2
OC-3 Vol. 4B 311 2-2
of OC-3/OC-12 in transport bandwidth manager
Vol. 1 154 3-36
STS-1 Vol. 4B 311 2-2

Group and slot associations
Vol. 5C 520 1-6

H

Hand-held terminal user interface
Vol. 2A 101 1-10

Handling
guidelines for circuit packs Vol. 4B 315 1-2
guidelines for optical fibers Vol. 4B 315 1-3

Hardware
verifying baseline
Vol. 4C Add Nodes VTBM 5-25
redundancy Vol. 2A 101 1-10

HDBH blocking
defined T&B Eng Info. 152 1-2

HDBH to ABSBH ratio
defined T&B Eng Info. 152 1-2

Heat exchanger roof
Vol. 5C 546 6-15
See also Series 800A outside plant cabinet, heat exchanger roof

Heater
in ModCab Mod Cab Desc 119 3-6
in S800A cabinet S800A OP Cab Desc 118 2-4

Heavy equipment
cooling unit Vol. 5C 546 2-6

Height of Modular Business Package and Modular Power Package cabinets
MBP Desc 110 1-7

Help
Vol. 2A 101 1-16
displaying for CI tool Vol. 4A 300 4-5

Hewlett Packard OpenView, starting
UE9000 Data OAMP UG 9-5

Hierarchy violation
Vol. 2A 100 11-42
preventing Vol. 2A 100 11-42

High CE shelf temperature
clearing alarm Vol. 5A 543 5-10

High day busy hour
defined T&B Eng Info. 152 1-2

High voltage shutdown
Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
adjusting for replacement rectifiers
Vol. 5C 546 6-2

High voltage shutdown (continued)
adjusting in Virtual tributary bandwidth manager
MBP MBP VTBM Ring User 8-16
adjustment in Virtual tributary bandwidth manager
Modular business package
MBP VTBM Ring Inst 9-16

High-speed performance-monitoring software package
Vol. 2A 101 2-8

History, viewing the installation history dialog
Vol. 3B 220 3-13

HMU
NE log Vol. 5B 840 11-1, Vol. 5B 840 11-4, Vol. 5B 840 11-8, Vol. 5B 840 11-9, Vol. 5B 840 11-12

Holding time
defined T&B Eng Info. 152 1-3

Holdover timing
by ESI card Vol. 2A 100 11-20
by OC-12 VTBM circuit pack Vol. 2A 100 11-28

Hong Kong network
Vol. 2A 101 1-10

Host messaging unit
Vol. 2A 102 5-91

Host provisioning data, listing
Vol. 4B 315 4-10

Host Provisioning Manager tool
Vol. 4A 301 8-54, Vol. 4A 301 11-12
main window Vol. 4A 301 8-54

Host switch
adding host Vol. 3A 230 4-41, Vol. 3A 235 3-21, Vol. 3A 240 3-22, Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
deleting host Vol. 4B 310 11-4
designating as primary host Vol. 3A 245 4-11
listing all Vol. 3A 245 4-8
provisioning to an RFT Vol. 3B 221 4-16

Hut
location for a bay Vol. 2A 100 6-2

HVSD.
See high voltage shutdown

Hybrid balance
guideline Vol. 1 155 4-3
line card attribute Vol. 4B 315 3-13

Hybrid signaling
Vol. 2A 101 2-19

I

I/O card
associated with DS1/VT mapper Vol. 1 154 3-11
associated with DS1/VT mapper in access bandwidth manager Vol. 1 154 2-14
associated with DS3 in access bandwidth manager Vol. 1 154 2-18
associated with DS3 in transport bandwidth manager Vol. 1 154 3-32
DS1/VT mapper slot association Mix & Match DFA Recon QRG 3-33
troubleshooting failure Vol. 5A 543 3-68

I/O card failure
troubleshooting Vol. 5A 543 3-69

IBN.
See integrated bonding network

IDLC DS1s.
See TR303 DMS DS1s

IDSL
provisioning Vol. 4B 315 4-18

IG values
listing unassigned Vol. 3A 230 4-73, Vol. 3A 235 5-21, Vol. 3A 240 6-21, Vol. 3A 245 4-26, Vol. 4B 315 4-12
modifying Vol. 4B 315 4-6
unassigning Vol. 3A 230 4-71, Vol. 3A 235 5-19, Vol. 3A 240 6-19, Vol. 3A 245 4-24, Vol. 4B 315 4-11

ILAN
daisy-chaining MCOT to ABM QRG 1-30

Impedance
line card attribute for receive Vol. 4B 315 3-13
line card attribute for transmit Vol. 4B 315 3-14

Incremental Software Delivery tool
Vol. 4A 301 6-15
displaying increments Vol. 4A 301 6-17, Vol. 4A 301 6-18
main window Vol. 4A 301 6-16
trial increments Vol. 4A 301 6-15

Initiate diagnostics
chgstate is Vol. 3B 225 2-25

Input card
fail -DoNotRemove
clear alarm Vol. 5A 543 3-86
mismatch
clear alarm Vol. 5A 543 3-87
missing
clear alarm Vol. 5A 543 3-88

Input parallel telemetry
FCOT Vol. 2A 101 1-11
RFT Vol. 2A 101 1-11

Installation
-48 Vdc cabling ABM Inst 201 6-75
ABM bay frames ABM Inst 201 3-1
ac cabling and ac receptacle ABM Inst 201 3-24
adjacent bay UE9000 Ad Bay QR 1-1
bay end guard ABM Inst 201 8-1
bay end guard extender ABM Inst 201 8-1
bay end guard extenders ABM Inst 201 8-11
bay end guards ABM Inst 201 8-8
bay frame extenders ABM Inst 201 3-20
BIP wire-wrap connections ABM Inst 201 6-71
canceling an OPC software installation Vol. 3B 220 3-7
common-equipment circuit packs in CDS Vol. 4C 324 9-7
control network cables and termination plugs ABM Inst 201 5-40
dc distribution harnesses ABM Inst 201 4-8
DS1/VT mappers Mix & Match DFA Recon QRG 3-31
DS3 cables ABM Inst 201 6-24
environmental control panel cover ABM Inst 201 8-6
equipment covers ABM Inst 201 8-1
Ethernet adapter module Nodal Conn Mgr QRG 1-53, Nodal Conn Mgr QRG 1-65, Nodal Conn Mgr QRG 1-77
ETIC Mix & Match DFA Recon QRG 3-22
external bay cabling ABM Inst 201 5-1
external synchronization cable ABM Inst 201 5-52
fiber patch cords ABM Inst 201 5-57
finishing the bay installation ABM Inst 201 7-1
front junction bar ABM Inst 201 7-7
front panel on a bottom cover assembly ABM Inst 201 8-7
HPOV UE9000 Data Sys Setup QR 1-1
LAIC
Lexan isolator sheets Mod Cab Inst 211 3-3
line card Vol. 4B 316 2-26
metallic test access cables ABM Inst 201 4-25, ABM Inst 201 6-55
mix of DS1 and DS3 cables ABM Inst 201 6-30
modem cable ABM Inst 201 5-35
NTZX16TG transmission ground reference panel ABM Inst 201 6-52
OC-3 interface circuit pack MCOT to ABM QRG 1-10
OPC cable ABM Inst 201 5-26
OPC Ethernet cable kit ABM Inst 201 5-88
OPC software on remote OPC Vol. 3B 220 3-3
orderwire extension cable ABM Inst 201 5-16
pair gain test controller (PGTC)/metallic test access cable (MTAC) ABM Inst 201 6-55
parallel telemetry cable ABM Inst 201 5-47
planning overview Vol. 1 200 1-1
positioning and securing a bay ABM Inst 201 7-2

Installation (continued)
protective fiber sheathing ABM Inst 201 7-8
serial telemetry cable ABM Inst 201 5-22
shelf covers ABM Inst 201 8-4
shelf processor circuit pack
MCOT to ABM QRG 1-4
side cable covers on copper-distribution shelves
ABM Inst 201 8-2
TBM bay
control network cable TBM Inst 202 5-29
DS1 cable TBM Inst 202 5-68
DS1/DS3 mixed cables TBM Inst 202 5-100
DS3 cables TBM Inst 202 5-88
external cabling TBM Inst 202 5-1
external synchronization cable
TBM Inst 202 5-21
fiber patch cords TBM Inst 202 5-4
fiber storage tray TBM Inst 202 5-4
Local craft access panel TBM Inst 202 5-130
modem cable TBM Inst 202 5-35
operations controller cable port 1
TBM Inst 202 5-46
operations controller cable port 2
TBM Inst 202 5-59
operations controller Ethernet cable kit
TBM Inst 202 5-126
optical patch cords TBM Inst 202 5-5
optical pigtails TBM Inst 202 5-7
orderwire extension cable TBM Inst 202 5-64
parallel telemetry cable TBM Inst 202 5-25
PSTN cable TBM Inst 202 5-18
serial telemetry cable TBM Inst 202 5-55
test access path cable ABM Inst 201 6-61
TAP function ABM Inst 201 6-66
tributary circuit packs MCOT to ABM QRG 1-12
UE9000 UE9000 Inst QR 1-1
uEMS UE9000 Data Sys Setup QR 1-1
user interface cable to the LCAP
ABM Inst 201 6-81
VF cables ABM Inst 201 5-11
viewing the history dialog for OPC
Vol. 3B 220 3-13
VTX circuit pack MCOT to ABM QRG 1-4

Integrated application.
See Application, integrated

Integrated bonding network
transport bandwidth manager bay
TBM Inst 202 5-123

Integrated Remote Test Unit
alarms TL1 Interface Desc 190 3-104

Integrated remote test unit
Vol. 2A 102 5-15, Vol. 2A 102 5-49,
Vol. 5C 547 2-34, Vol. 5C 547 2-46
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-10
alarm point, enabling and disabling
Vol. 4B 310 5-11

Integrated remote test unit (continued)
calibration Vol. 2B 115 2-9
description Vol. 2A 100 8-7, Vol. 4B 316 5-1
dial subscriber's line specifications
Vol. 2B 180 14-8
DRTU
commands supported Vol. 2B 115 5-5,
Vol. 2B 115 5-6, Vol. 2B 115 5-8
DRTU emulation Vol. 2B 115 5-7
enhanced testing capabilities Vol. 2B 115 5-1
equipment troubleshooting Vol. 5A 543 3-137,
Vol. 5A 543 3-158
equipping rules Vol. 2A 102 5-19,
Vol. 2A 102 5-54
frequency measurement specifications
Vol. 2B 180 14-2
functional block diagram
figure Vol. 2B 115 2-7
ground isolation specifications Vol. 2B 180 14-17
integrated remote test unit line card
Vol. 2A 101 1-23
LED, troubleshooting Vol. 5A 543 7-14
level and frequency measurement
Vol. 2B 180 14-6
line card attribute for test head Vol. 4B 315 3-14
line cards Vol. 2B 115 2-9
equipping rules Vol. 2B 115 2-12
figure Vol. 2B 115 2-11
provisioning ILCs Vol. 2B 115 2-12
MAP testing components, verifying
Vol. 4B 316 5-10
MTU emulation commands Vol. 2B 115 11-1
NT4K57 Vol. 5C 547 2-2, Vol. 5C 547 2-46
operating state, changing Vol. 4B 310 16-6
PCM specifications Vol. 2B 180 14-4
peak-to-average ratio (P/AR) generation
specifications Vol. 2B 180 14-10
receive dialing specifications Vol. 2B 180 14-9
replacing in VTBM MBP
MBP VTBM Ring User 7-26
RID operation Vol. 2B 180 14-3
ringing specifications Vol. 2B 180 14-12
shock and vibration specifications
Vol. 2B 180 14-16
signal generation and measurement circuits
Vol. 2B 180 14-2
simultaneous test sessions Vol. 2B 115 2-8
specifications Vol. 2B 180 14-1
support for MAP commands Vol. 2B 115 12-1
test emulation Vol. 2B 115 5-2
DRTU commands Vol. 2B 115 5-5
DRTU emulation Vol. 2B 115 5-5
MTU commands Vol. 2B 115 5-8
MTU emulation Vol. 2B 115 5-7
TR834 commands Vol. 2B 115 5-3
TR834 test head Vol. 2B 115 5-2
test head
figure Vol. 2B 115 2-11
testing concepts Vol. 2B 115 2-6
TR834 test head
commands supported Vol. 2B 115 5-3

Integrated remote test unit (continued)
verifying setup for CALRS Vol. 3B 223 2-12
voiceband noise measurement Vol. 2B 180 14-7

Integrated service digital network lines
defined T&B Eng Info. 152 2-6

Inter-cabinet cabling in VTBM MBP
MBP VTBM Ring Inst 2-22

Intercard fail
clear alarm Vol. 5A 543 3-148

Interconnect circuit pack
Vol. 5C 547 2-10, Vol. 5C 547 2-12

Interconnect panel
in grounding ABM Bay Cable Conn QRG 2-9

Interface
DMS Access Vol. 2A 100 5-11
for control network Vol. 2A 100 10-6
for Ethernet Vol. 2A 100 10-5
for external synchronization interface
Vol. 2A 100 10-3
for operations controller Vol. 2A 100 10-3
for orderwire Vol. 2A 100 10-7
for parallel telemetry Vol. 2A 100 10-6
for serial telemetry Vol. 2A 100 10-6
for X.25 Vol. 2A 100 10-5
group Mix & Match DFA Recon QRG 1-4
network element user interface Vol. 4A 300 2-1
OPC character-mode user interface
Vol. 4A 301 2-2
OPC graphical user interface Vol. 4A 301 3-1
OPC GUI Vol. 4A 301 1-3
See also Graphical user interface
Vol. 4A 301 3-1
OSS
setting Vol. 3A 245 6-1
provisioning
setting the TIDs Vol. 3A 245 6-2
supported Mix & Match DFA Recon QRG 1-4
surveillance
setting the TIDs Vol. 3A 245 6-2
to copper lines Vol. 2A 100 10-3
to digital lines Vol. 2A 100 10-2
to optical lines Vol. 2A 100 10-2
TR08 Vol. 2A 100 5-8

Interface ports status screen
Vol. 3B 225 4-6

Interface Worksheet
Vol. 3A 245 9-1

Interfaces
Vol. 2A 100 10-13
DMS-X interface to APC-100 Vol. 2A 100 5-14,
Vol. 2A 101 1-6

Intergrated remote test unit
description Vol. 3A 245 5-1

Internal cabling in VTBM MBP
MBP VTBM Ring Inst 2-24

Interrupting service
Vol. 5C 547 1-5

Intershelf cable
TBM shelf TBM Inst 202 2-3, TBM Inst 202 2-8

Invalid neighbor detected
clear alarm Vol. 5A 543 3-273

Inventory
Vol. 2A 101 1-11
circuit pack Vol. 3A 230 5-18, Vol. 3B 225 6-5
cluster domains Vol. 4A 302 5-2
displaying UE9000 Voice OAMP UG 3-15
equipment shelf, displaying Vol. 4B 310 7-3
generating reports Vol. 4A 302 5-11
line cards Vol. 4B 316 2-29
network, software Vol. 2A 101 2-8
provisioned services Vol. 4B 316 2-31,
Vol. 4B 316 2-32, Vol. 4B 316 2-33,
Vol. 4B 316 2-37, Vol. 4B 316 2-41,
Vol. 4B 316 2-46
reports Vol. 4A 302 5-4
sorting reports Vol. 4A 302 5-24

Inventory, UE9000 equipment
UE9000 Data OAMP UG 5-2

inventry ce
shelf inventory Vol. 3B 225 2-19

IP Routing Admin tool
Vol. 4A 301 7-38

IRTU
NE log Vol. 5B 840 12-1, Vol. 5B 840 12-3,
Vol. 5B 840 12-5, Vol. 5B 840 12-6,
Vol. 5B 840 12-8, Vol. 5B 840 12-9,
Vol. 5B 840 12-11
See also Integrated Remote Test Unit

IS
Vol. 5A 543 3-48

ISDN.
See Service, ISDN.

ISDN-U integration software
Vol. 2A 101 2-9

ISNMS TL1 surveillance OS interface software
Vol. 2A 101 2-9

Isolated bonding network
ABM Bay Cable Conn QRG 1-1,
ABM Bay Cable Conn QRG 2-1,
ABM Bay Cable Conn QRG 3-2
engineering rules ABM Bay Cable Conn QRG 2-7
in central office locations
ABM Bay Cable Conn QRG 2-1
in remote locations
ABM Bay Cable Conn QRG 2-1

Isolator pad
installing TBM Inst 202 4-2

J

Jack
for 0TLP Vol. 2A 100 10-10
for Digital Data Service Vol. 2A 100 10-10
for metallic test access Vol. 2A 100 10-10

Jack access
Vol. 2B 115 9-15
0TLP Vol. 2B 115 3-8, Vol. 4B 316 6-3
accessing another line card Vol. 4B 316 6-39,
UE9000 Voice OAMP UG 5-30
arrangements Vol. 4B 316 6-1
commands Vol. 4B 316 6-4
DDS Vol. 4B 316 6-3
description Vol. 2B 115 2-23
digital data service Vol. 2B 115 3-9
error messages Vol. 4B 316 6-6
metallic Vol. 2B 115 3-4, Vol. 4B 316 6-2,
UE9000 Voice OAMP UG 5-24
procedures Vol. 4B 316 6-1
quitting and resuming Vol. 4B 316 6-41,
UE9000 Voice OAMP UG 5-32
setup
0TLP Vol. 4B 316 6-19
DDS Vol. 4B 316 6-14
metallic Vol. 4B 316 6-9
simultaneous metallic and digital
Vol. 4B 316 6-34
signaling control in 0TLP Vol. 4B 316 6-24
system responses Vol. 4B 316 6-5,
UE9000 Voice OAMP UG 5-25
UE9000 UE9000 Voice OAMP UG 5-26
warnings Vol. 4B 316 6-5,
UE9000 Voice OAMP UG 5-25

Jack access, OTLP
Vol. 2A 101 1-11

Jitter specifications
Vol. 2B 180 7-4

Johnson Controls TEL 12-90
Mod Cab Inst 211 1-15

K

keyboard, using the
Vol. 4A 301 3-5

L

LAIC.
See loopback access interface card

Lamp
Vol. 5C 546 2-8
changing in BIP Vol. 5C 546 2-8
line card, testing Vol. 4B 316 2-28
locating defective Vol. 5C 546 2-8
replacing in BIP Vol. 5C 546 2-8
testing Vol. 2A 101 1-11, Vol. 3A 230 5-7
testing from ACO/LT button Vol. 4B 310 17-9
testing from network element user interface Vol. 4B 310 17-7
testing replacement Vol. 5C 546 2-9

LAPD.
See Link access protocol—D channel.

Laser bias current
Vol. 2A 105 3-5, Vol. 2A 105 3-8, TL1 Interface Desc 190 3-131
clear alarm Vol. 5A 543 4-128
OC-12
near-end Vol. 2A 105 1-24
OC-3/OC-12 Vol. 5C 520 3-6
performance statistics, displaying Vol. 5C 520 3-48
threshold status, changing Vol. 5C 520 3-54
threshold value, changing Vol. 5C 520 3-56
thresholds, displaying Vol. 5C 520 3-50
performance monitoring Vol. 2A 105 1-24

Laser radiation
Vol. 5C 547 1-3
guidelines Vol. 4A 302 1-2, Vol. 4B 315 1-3, Vol. 4B 316 1-3, Vol. 4C 324 1-3
safety Mod Cab Inst 211 1-14

Last number redial feature
Vol. 1 155 1-39

Latching loopback
line card attribute Vol. 4B 315 3-13

Layout
CDS and line cards Vol. 3A 230 5-33

LC
NE log Vol. 5B 840 13-1, Vol. 5B 840 13-2, Vol. 5B 840 13-3, Vol. 5B 840 13-4, Vol. 5B 840 13-5, Vol. 5B 840 13-6, Vol. 5B 840 13-7, Vol. 5B 840 13-8, Vol. 5B 840 13-10, Vol. 5B 840 13-12, Vol. 5B 840 13-13, Vol. 5B 840 13-14, Vol. 5B 840 13-15, UE9000 Voice OAMP UG 7-22, UE9000 Voice OAMP UG 7-23,

LC, NE log (continued)
UE9000 Voice OAMP UG 7-25,
UE9000 Voice OAMP UG 7-27,
UE9000 Voice OAMP UG 7-30,
UE9000 Voice OAMP UG 7-32,
UE9000 Voice OAMP UG 7-33,
UE9000 Voice OAMP UG 7-34,
UE9000 Voice OAMP UG 7-37,
UE9000 Voice OAMP UG 7-38

LC.
See Line card

LCAP.
See local craft access panel

LCLOADCI
changing automatic gain control Vol. 4B 315 3-32

lcstats command
Vol. 5C 520 4-4

LED
access interface card (AIC), troubleshooting Vol. 5A 543 7-12
active service module Vol. 5C 547 1-5
BIP Vol. 5C 547 5-11
breaker interface panel, model NT4K14, troubleshooting Vol. 5A 543 7-34
breaker interface panel, model NT7E56, troubleshooting Vol. 5A 543 7-34
circuit pack alarm
clearing Vol. 5A 543 1-1
copper-distribution drawer, troubleshooting Vol. 5A 543 7-7
copper-distribution-shelf power (CDSP), troubleshooting Vol. 5A 543 7-15
driver fail
clearing alarm Vol. 5A 543 3-209
DS1/VT mapper, troubleshooting Vol. 5A 543 7-27
DS3/STS mapper, troubleshooting Vol. 5A 543 7-28
Epsilon 2-wire station line card (E2WS), troubleshooting Vol. 5A 543 7-16
external synchronization interface (ESI), troubleshooting Vol. 5A 543 7-31
failed status in VTBM MBP MBP VTBM Ring User 4-4
inactive service module Vol. 5C 547 1-5
in-service status in VTBM MBP MBP VTBM Ring User 4-2
integrated remote test unit (IRTU), troubleshooting Vol. 5A 543 7-14
interpreting Vol. 5A 543 7-1 to Vol. 5A 543 7-34
interpreting status of Vol. 5C 547 1-7, Vol. 5C 547 1-8
maintenance interface card (MIC), troubleshooting Vol. 5A 543 7-9

LED (continued)
metallic test access card (MTAC), troubleshooting Vol. 5A 543 7-21, Vol. 5A 543 7-22
narrowband line-interface card, troubleshooting Vol. 5A 543 7-20
OC-12, troubleshooting Vol. 5A 543 7-25
OC-3, troubleshooting Vol. 5A 543 7-24
Omega 2-wire office line card (O2WO), troubleshooting Vol. 5A 543 7-18
Omega 2-wire station line card (O2WS), troubleshooting Vol. 5A 543 7-17
Omega 4-wire line card (O4W), troubleshooting Vol. 5A 543 7-19
Omega 6/8-wire line card (O68W), troubleshooting Vol. 5A 543 7-23
OPC tape drive, troubleshooting Vol. 5A 543 7-32
operations controller (OPC), troubleshooting Vol. 5A 543 7-30
out-of-service status in VTBM MBP MBP VTBM Ring User 4-3
processor (Proc), troubleshooting Vol. 5A 543 7-8
rectifier Vol. 5C 546 6-13
replacing in VTBM MBP BIP MBP VTBM Ring User 6-6
status
in-service Vol. 5A 543 7-4
STS-1 interface card, troubleshooting Vol. 5A 543 7-26
test access card (TAC), troubleshooting Vol. 5A 543 7-11
test fail Vol. 3B 222 2-62
testing Vol. 3A 230 5-7
transport interface card (TIC), troubleshooting Vol. 5A 543 7-13
troubleshooting Vol. 5A 543 7-1 to Vol. 5A 543 7-34
UE9000 UE9000 Ad Bay 1-2

LENs
provisioning UE9000 Voice OAMP UG 2-1

LEX
removing MCOT to ABM QRG 1-39

Lexan isolator sheets
Mod Cab Inst 211 3-3

LIC
full diagnostics Vol. 3B 225 2-32
verify Vol. 3B 225 2-20
verify redundancy Vol. 3B 225 2-32

LIC.
See Line Interface Card

Light-Emitting Diode. See LED

Lightning
ABM Bay Cable Conn QRG 3-1

Line
coding violations
OC-12, OC-3 Vol. 2A 105 1-21
DMS-100 MAP position, testing Vol. 4B 316 5-11
DS1 Vol. 2A 105 1-7
DS3 Vol. 2A 105 1-9
errored seconds
OC-12, OC-3 Vol. 2A 105 1-22
Rx Vol. 2A 105 1-15
failure count Vol. 2A 105 1-22
OC-12 Vol. 2A 105 1-12
OC-3 Vol. 2A 105 1-12
severely errored second
OC-12, OC-3 Vol. 2A 105 1-22
Rx Vol. 2A 105 1-15
size supported
Mix & Match DFA Recon QRG 1-3
STS-1 Vol. 2A 105 1-10
unavailable seconds
OC-12, OC-3 Vol. 2A 105 1-22

Line and loop testing
OPC special-services optional software
Vol. 2A 101 2-13

Line build-out
Vol. 3B 225 6-7
parameter set up Vol. 3A 230 7-12
parameter test set Vol. 3A 230 8-10

Line card
Vol. 2A 102 4-6, Vol. 2A 102 6-10
2-wire card compatibility table (universal)
Vol. 1 155 1-13
2-wire DPO/DPT reverse battery wink test
Vol. 4B 316 4-28
2-wire DPO/DPT signaling test Vol. 4B 316 4-25
2-wire FX signaling test Vol. 4B 316 4-21
4-wire FXS/FXO signaling test Vol. 4B 316 4-56
adding circuits Vol. 4B 315 3-17
adjustment
FCOT for customer loop Vol. 4B 316 3-12, Vol. 4B 316 3-19
RFT for customer loop Vol. 4B 316 3-6, Vol. 4B 316 3-17
ADSL line card
software upgrade UE9000 Data OAMP UG 4-3
ADSL MLC
replacing UE9000 Data OAMP UG 5-17
restarting UE9000 Data OAMP UG 5-13
software upgrade UE9000 Data OAMP UG 4-7
state, changing UE9000 Data OAMP UG 5-7
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-10
enhancements Vol. 2A 101 1-12
event reporting Vol. 2A 104 1-4, Vol. 2A 104 1-5
interaction with ISDN alarms Vol. 2A 104 1-5
applications Vol. 1 155 1-1
2-wire PBX trunks Vol. 1 155 1-48
4-wire PBX tie trunks Vol. 1 155 1-66

Line card, applications (continued)
6/8-wire PBX tie trunks Vol. 1 155 1-78
800-service Vol. 1 155 1-44, Vol. 1 155 1-53, Vol. 1 155 1-64
attendant console Vol. 1 155 1-39
automatic call distributor trunk Vol. 1 155 1-64
business services Vol. 1 155 1-42
coin Vol. 1 155 1-36
digital data service Vol. 1 155 1-69
Electronic Business Set Vol. 1 155 1-39
FX 2-wire applications Vol. 1 155 1-53
FX 4-wire applications Vol. 1 155 1-64
FX 6/8-wire services Vol. 1 155 1-77
ISDN Vol. 1 155 1-46
local CO trunks Vol. 1 155 1-48
long distance trunk Vol. 1 155 1-64
manual ringdown Vol. 1 155 1-60
Meridian Digital Centrex Vol. 1 155 1-39
Off Premise Extension Vol. 1 155 1-44, Vol. 1 155 1-53
Off Premise Station Vol. 1 155 1-57, Vol. 1 155 1-79
POTS Vol. 1 155 1-33
private line (2-wire) Vol. 1 155 1-59
private line (4-wire) Vol. 1 155 1-68
private line automatic ringdown
Vol. 1 155 1-63
secretarial line Vol. 1 155 1-44, Vol. 1 155 1-53
single-party Vol. 1 155 1-39
TR-08 Vol. 1 155 1-51
WATS
2-wire Vol. 1 155 1-43, Vol. 1 155 1-53
4-wire Vol. 1 155 1-64
attribute
balance resistance Vol. 4B 315 3-12
busy tone Vol. 4B 315 3-12
cable Vol. 4B 315 3-12
customer remote test Vol. 4B 315 3-12
data rate Vol. 4B 315 3-12
DDS line type Vol. 4B 315 3-12
dial pulse mode Vol. 4B 315 3-12
equalization Vol. 4B 315 3-12
error correction Vol. 4B 315 3-12
full-time on-hook transmission Vol. 4B 315 3-13
hybrid balance Vol. 4B 315 3-13
impedance Vol. 4B 315 3-13
latching loopback Vol. 4B 315 3-13
off hook trunk conditioning Vol. 4B 315 3-13
receive blocking Vol. 4B 315 3-13
receive equalizer bandwidth Vol. 4B 315 3-13
receive equalizer height Vol. 4B 315 3-13
receive equalizer slope Vol. 4B 315 3-13
receive gain Vol. 4B 315 3-13
receive impedance Vol. 4B 315 3-13
receive OHT gain Vol. 4B 315 3-13
red lined connection Vol. 4B 315 3-13
sealing current Vol. 4B 315 3-13
secondary channel Vol. 4B 315 3-13
signaling leads Vol. 4B 315 3-13

Line card, attribute (continued)
test head Vol. 4B 315 3-14
transmit blocking Vol. 4B 315 3-14
transmit equalizer bandwidth Vol. 4B 315 3-14
transmit equalizer height Vol. 4B 315 3-14
transmit equalizer slope Vol. 4B 315 3-14
transmit gain Vol. 4B 315 3-14
transmit impedance Vol. 4B 315 3-14
transmit OHT gain Vol. 4B 315 3-14
type Vol. 4B 315 3-14
zero code suppression Vol. 4B 315 3-14
bulk provisioning circuits Vol. 4B 315 2-1
bulk provisioning TR-08 circuits Vol. 4B 315 2-5
bulk provisioning universal circuits with POTS Vol. 4B 315 2-2
cable pair color codes Vol. 4B 316 2-11
cable pair-slot association table Vol. 4B 316 2-12
circuit engineering Vol. 1 155 2-3
deleting Vol. 4B 315 3-1
description Vol. 2A 100 8-19
description of Provisioning Manager interface Vol. 4B 315 3-2
diagnostics Vol. 2A 101 1-13, Vol. 2B 115 3-12, Vol. 2B 115 9-16, Vol. 4B 316 2-36, Vol. 5C 548 1-1, Vol. 5C 548 1-5, Vol. 5C 548 1-6
circuit packs Vol. 4B 316 2-50
concept Vol. 2B 115 1-6
line/loop testing Vol. 2B 115 2-3
special services Vol. 4B 316 7-7
duplex (DX) signaling test Vol. 4B 316 4-62
E&M signaling test Vol. 4B 316 4-65
enabling or disabling alarms Vol. 4B 315 5-11
enabling or disabling ISDN alarms Vol. 4B 315 5-14
endpoint types Vol. 4B 315 3-16
end-to-end level test Vol. 4B 316 4-5
end-to-end performance tests Vol. 4B 316 4-1
Epsilon station Vol. 1 155 1-5, Vol. 2A 102 6-11
equipment troubleshooting Vol. 5A 543 3-170
faceplates Vol. 4B 316 2-8
idle-channel noise test Vol. 4B 316 4-12
installing Vol. 4B 316 2-1, Vol. 4B 316 2-26
inventory Vol. 4B 316 2-29, Vol. 4B 316 2-31, Vol. 4B 316 2-32, Vol. 4B 316 2-33, Vol. 4B 316 2-37, Vol. 4B 316 2-41, Vol. 4B 316 2-46
IRTU line cards
equipping rules Vol. 2B 115 2-12
provisioning Vol. 2B 115 2-12
testing Vol. 2B 115 2-9
jack access procedures Vol. 4B 316 6-1
lamp test Vol. 4B 316 2-28
layout in a CDS Vol. 4B 316 2-3
line termination, deleting Vol. 4B 316 2-45
logs
ANX Vol. 5B 840 25-5
manual ringdown 2-wire Vol. 1 155 1-8, Vol. 2A 102 6-12
modifying Vol. 4B 315 3-1
modifying circuits Vol. 4B 315 3-23

Line card (continued)
NEUI Vol. 4B 316 2-16
Omega 2-wire office Vol. 1 155 1-6, Vol. 2A 102 6-13
Omega 2-wire station Vol. 1 155 1-6, Vol. 2A 102 6-14
Omega 4-wire Vol. 1 155 1-7, Vol. 2A 102 6-15
Omega 6/8 wire Vol. 1 155 1-7
Omega 6/8-wire Vol. 2A 102 6-16
pair designations
2-wire and 4-wire services Vol. 4B 316 2-13
6-wire services Vol. 4B 316 2-14
8-wire services Vol. 4B 316 2-15
parameters, determining
4-wire gain, cable unknown Vol. 1 155 5-1
balance settings (2-wire) Vol. 1 155 2-1
equalization (2-wire) Vol. 1 155 2-1
equalization (4-wire) Vol. 1 155 3-1
equalization (cable unknown) Vol. 1 155 5-1
gain settings (2-wire) Vol. 1 155 2-1
gain settings (4-wire) Vol. 1 155 3-1
PECs and service codes Vol. 4B 315 3-4
PLR signaling test Vol. 4B 316 4-65
preprovisioning GR-303 MVI services using MVIPROV Vol. 4B 315 4-1
prescription settings Vol. 4B 315 3-2
provisionable attribute descriptions Vol. 4B 315 3-12
provisioning Vol. 2B 181 2-2, Vol. 3A 245 5-3, Vol. 4B 315 3-1, Vol. 4B 316 5-4
Epsilon station line card Vol. 2B 181 1-2
ILCs Vol. 2B 115 2-12
Omega 2-wire office line card Vol. 2B 181 3-2
Omega 2-wire station line card Vol. 2B 181 2-2
Omega 4-wire line card Vol. 2B 181 4-2
Omega 6/8-wire line card Vol. 2B 181 5-2
universal voice grade station line card Vol. 2B 181 7-5
provisioning ADSL MLC
UE9000 Data OAMP UG 1-32
provisioning and testing description Vol. 4B 316 1-10
recommissioning Vol. 4B 316 2-40
removing Vol. 4B 316 2-45
replacing Vol. 4B 316 2-40
resetting Vol. 4B 310 17-30, Vol. 4B 316 2-40
reviewing state Vol. 4B 316 2-33
service code
attribute values Vol. 4B 315 3-3
attributes
COIN Vol. 4B 315 3-7
DPO Vol. 4B 315 3-5
DPT Vol. 4B 315 3-5
DX Vol. 4B 315 3-8
E&M Vol. 4B 315 3-11
ETO Vol. 4B 315 3-6, Vol. 4B 315 3-9
FXO Vol. 4B 315 3-5, Vol. 4B 315 3-9
FXS Vol. 4B 315 3-5, Vol. 4B 315 3-10
ILCPOTS Vol. 4B 315 3-7
MRD Vol. 4B 315 3-7
PLAR Vol. 4B 315 3-7

Line card, service code attributes (continued)
PLR Vol. 4B 315 3-11
POTS Vol. 4B 315 3-7
TDM Vol. 4B 315 3-11
TO Vol. 4B 315 3-6, Vol. 4B 315 3-8
UVG Vol. 4B 315 3-7
attributes, digital data service Vol. 4B 315 3-10
service code attribute values Vol. 1 155 1-20
service code parameters Vol. 1 155 1-14
service codes supported Vol. 1 155 1-9
services Vol. 2A 101 3-1
signaling control codes Vol. 4B 316 6-28, Vol. 4B 316 6-29, Vol. 4B 316 6-30
slot arrangements for multislot cards Vol. 4B 316 2-10
slot numbering in a copper-distribution drawer Vol. 4B 316 2-9
telephone call-through test Vol. 4B 316 4-17
testing
analog special services on DS1 tandem Vol. 4B 316 4-31
DDS (OCUDP) on DS1 tandem Vol. 4B 316 4-36
DDS customer loops Vol. 4B 316 4-44
DDS end-to-end Vol. 4B 316 4-49
TR-08 requirements Vol. 4B 316 2-24
transmission levels Vol. 1 155 1-31
types Vol. 1 155 1-4
UE9000
ADSL UE9000 Data OAMP UG 6-18
troubleshooting, ADSL fails loopback test UE9000 Data OAMP UG 6-30
troubleshooting, no hardware flag for ADSL UE9000 Data OAMP UG 6-38
universal definition Vol. 4C 324 1-24
universal voice grade station Vol. 1 155 1-8, Vol. 2A 102 6-17

line card
diagnosing TL1 Interface Desc 190 4-7

Line coding violations
bipolar Vol. 2A 105 1-12
definition Vol. 2A 105 1-15

Line equipment
assigning DMS LENs Mix & Match DFA Recon QRG 6-1, Mix & Match DFA Recon QRG 6-12
displaying DMS LENs Mix & Match DFA Recon QRG 6-6
numbers, provisioning UE9000 Voice OAMP UG 2-1
power up Vol. 3A 230 5-4, Vol. 3B 225 2-7, Vol. 3B 225 6-5
unassigning DMS LENs Mix & Match DFA Recon QRG 6-10

Line errored seconds
definition Vol. 2A 105 1-12

Line FE CV threshold
clear alarm Vol. 5A 543 4-71

Line FE ES threshold
clear alarm Vol. 5A 543 4-71

Line FE SES threshold
clear alarm Vol. 5A 543 4-71

Line FE UAS threshold
clear alarm Vol. 5A 543 4-71

Line interface card
Vol. 5C 547 3-10
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
alarm point
enabling and disabling Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-105
diagnostics, performing Vol. 3A 230 5-31
NT4K70AA Vol. 5C 547 3-10
primary Vol. 5C 547 3-10
secondary Vol. 5C 547 3-10
verify redundancy Vol. 3A 230 5-30, Vol. 3A 235 3-60, Vol. 3A 240 4-47, MCOT to ABM QRG 4-56

Line RFI
clear alarm Vol. 5A 543 4-129

Line Rx BCV threshold
clearing alarm Vol. 5A 543 4-166

Line Rx BES threshold
clearing alarm Vol. 5A 543 4-166

Line Rx BSES threshold
clearing alarm Vol. 5A 543 4-166

Line Rx CV threshold
clearing alarm Vol. 5A 543 4-166

Line Rx ES threshold
clearing alarm Vol. 5A 543 4-166

Line severely errored seconds
definition Vol. 2A 105 1-13

Line side answer supervision
Vol. 1 155 1-34

Line termination
attribute descriptions Vol. 4B 315 3-12
removing Vol. 4B 316 2-45

Line test position
Vol. 2B 115 9-14
description Vol. 2B 115 7-60

Line timing
Vol. 2A 100 11-7
linetimed clock source Vol. 2A 100 11-14

Line/loop testing
TL1 Interface Desc 190 5-1
access path Vol. 2B 115 3-6
I/O cards Vol. 2B 115 2-20
AID definitions TL1 Interface Desc 190 5-3
basic concepts Vol. 2B 115 1-1
basic testing capabilities Vol. 2B 115 3-1
bypass pair Vol. 2B 115 3-5, Vol. 2B 115 4-1
MTA operation Vol. 2B 115 4-5
CALRS Vol. 2B 115 7-19, Vol. 2B 115 9-3
carrier bypass Vol. 2B 115 1-4, Vol. 2B 115 2-3, Vol. 2B 115 3-5, Vol. 2B 115 4-1
MTA operation Vol. 2B 115 4-5
CHG-SPLTSUPV command TL1 Interface Desc 190 5-118
commissioning checklist Vol. 3B 223 1-2
core software Vol. 2A 101 1-12
DDS Vol. 4B 316 4-44
definition Vol. 2B 115 1-2
dialable short circuit Vol. 2B 115 8-3
digital jack access Vol. 2B 115 3-8
digital test access Vol. 2B 115 1-3, Vol. 2B 115 2-3, Vol. 2B 115 3-8
constraints Vol. 2B 115 3-3
diode protocol test Vol. 2B 115 9-15
DMS SuperNode installation tests Vol. 2B 115 8-1
DMS-10NA Vol. 2B 115 7-45
DRTU emulation Vol. 2B 115 5-5
enabling or disabling R-TEC signature Vol. 3B 223 1-9
enhanced testing capabilities Vol. 2B 115 5-1
error responses and codes TL1 Interface Desc 190 5-113
GR-303
test response circuit Vol. 2B 115 2-4
GR-303 multivendor interface Vol. 2B 115 9-1
I/O card description Vol. 2B 115 2-20
integrated remote test unit Vol. 2B 115 2-6
calibration Vol. 2B 115 2-9
equipping rules Vol. 2B 115 2-12
functional block diagram Vol. 2B 115 2-7
line card diagram Vol. 2B 115 2-11
line cards Vol. 2B 115 2-9
provisioning ILCs Vol. 2B 115 2-12
simultaneous test sessions Vol. 2B 115 2-8
test head diagram Vol. 2B 115 2-11
IRTU
enhanced testing Vol. 2B 115 5-1
test emulation Vol. 2B 115 5-2
TR834 test head Vol. 2B 115 5-2
LCAP jack access Vol. 2B 115 2-23
line card diagnostics Vol. 2B 115 1-6, Vol. 2B 115 2-3, Vol. 2B 115 3-12
LMOS/MLT Vol. 2B 115 7-47
local testing system Vol. 2B 115 1-3
LSS testing Vol. 2B 115 7-1
MAP testing with multihosting Vol. 2B 115 7-55

Line/loop testing (continued)
MAPCI
ALIT Vol. 2B 115 7-61
LTP Vol. 2B 115 7-60
MAPCI ALIT Vol. 2B 115 9-15
MAPCI LTP Vol. 2B 115 9-14
messages TL1 Interface Desc 190 5-4
metallic test access Vol. 2B 115 2-3, Vol. 2B 115 2-21
constraints Vol. 2B 115 3-3
testing capabilities Vol. 2B 115 3-3
methods Vol. 2B 115 1-3
MTU emulation Vol. 2B 115 5-7
no-test trunk Vol. 2B 115 1-3
bypass pair Vol. 2B 115 7-40
external remote test unit Vol. 2B 115 7-22
IRTU (DRTU emulation) Vol. 2B 115 7-4
OPC Test Manager Vol. 2B 115 6-9
operations system Vol. 2B 115 1-7
pair gain test controller Vol. 2B 115 4-2
metallic test access I/O card Vol. 2B 115 2-20
parameters TL1 Interface Desc 190 5-90
provisioning Vol. 3B 223 1-1
provisioning for pair gain test controller or metallic test access Vol. 3B 223 1-4
provisioning for TR-08 line testing Vol. 3B 223 1-17
Reliance TSD Vol. 2B 115 7-62
remote test unit Vol. 2B 115 1-5
response circuit Vol. 2B 115 1-6
SARTS Vol. 2B 115 6-5
signaling configurations for UDLC services TL1 Interface Desc 190 5-111
silent switchperson Vol. 2B 115 8-1
special services Vol. 2B 115 6-1
lineup Vol. 2B 115 3-14
testing architecture Vol. 2B 115 6-1
station ringer test Vol. 2B 115 8-2
subscriber premises tests Vol. 2B 115 8-1
switch-directed testing with test bypass pair Vol. 2B 115 7-58, Vol. 2B 115 9-12
system controller Vol. 2B 115 1-7
Teradyne 4TEL Vol. 2B 115 7-63
test access card Vol. 2B 115 2-3
functional block diagram Vol. 2B 115 2-5
test buses Vol. 2B 115 2-20
test bypass pair Vol. 2B 115 1-4, Vol. 2B 115 2-3
I/O cards Vol. 2B 115 2-20
test response circuit Vol. 2B 115 2-16
GR-303 terminations Vol. 2B 115 2-17
testing resources Vol. 2B 115 2-1
TR-08 carrier bypass Vol. 2B 115 4-8
TR-303
test response circuit Vol. 2B 115 2-17
TR834 requirements TL1 Interface Desc 190 5-2
UE9000 UE9000 Voice OAMP UG 5-3

Line-level overhead
Vol. 2A 100 12-4
carried by SONET overhead bus Vol. 2A 102 3-3

Linetimed clock source
Vol. 2A 100 11-14

Lineup
special services manager tool Vol. 4B 316 7-1
test access connection, special services
Vol. 4B 316 7-4

Link
Vol. 2A 102 3-8, Vol. 2A 102 3-10
A-link Vol. 2A 102 3-8
derived data link for TR-08 Vol. 2A 102 3-11
D-link Vol. 2A 102 3-9
R-link Vol. 2A 102 3-10
STS-link Vol. 2A 102 3-10
T-link Vol. 2A 102 3-10

Link access protocol
Vol. 2A 101 2-19, Vol. 2A 101 3-5
provisioning transmission parameters
Vol. 4B 310 6-38

link access protocol (LAPD)
checking error statistics Vol. 3B 222 6-11

Link-loss budget sheet
blank Vol. 1 200 9-14
example Vol. 1 200 9-13

LIO
removing MCOT to ABM QRG 1-39

LMOS.
See Loop Maintenance Operations System/Mechanized Loop Tester.

LNADJ tool
help screen, displaying Vol. 4B 310 10-3
opening Vol. 4B 310 10-2
using Vol. 4B 310 10-1

load
S800A Cab Inst 210 1-5

Load sharing
adjusting replacement rectifiers
Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring User 8-25
adjustment for Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring Inst 9-23
adjustment in VTBM MBP
for replacement LVD
MBP VTBM Ring User 9-16
replacement rectifier Vol. 5C 546 6-11

Loaded cable
equalizing a 4-wire line card Vol. 1 155 3-6

Local alarm indicators
Vol. 2A 101 1-13

Local CO trunk applications
Vol. 1 155 1-48

Local craft access panel
Vol. 2B 115 9-15, Vol. 5C 547 8-2
description Mod Cab Desc 119 5-7
installing user interface cable TBM Inst 202 5-130
model NT4K16 Vol. 2A 100 7-44
connectors and indicators Vol. 2A 100 7-45
dimensions Vol. 2B 180 2-3
in S800A cabinet S800A OP Cab Desc 118 9-6
interfaces on Vol. 2A 100 10-13
jack access Vol. 2B 115 2-23
jack access procedures Vol. 4B 316 6-1
user interface cable to Vol. 1 200 5-46
model NT7E5047 Vol. 2A 100 7-65
interfaces on Vol. 2A 100 10-13, Vol. 2A 100 10-14
user interface cable to Vol. 1 200 6-36
model NT7E5051
connectors and indicators Vol. 2A 100 7-65
NT4K16
visual alarm indicators Vol. 2A 104 3-6
NT7E5047 Vol. 5C 547 8-16
visual alarm indicators Vol. 2A 104 3-8
NT7E5051 Vol. 5C 547 8-15
NT7E5053 Vol. 5C 547 8-15
UE9000 UE9000 Voice OAMP UG 5-24
user interface cable
installing in TBM bay TBM Inst 202 5-130
pinouts for TBM bay TBM Inst 202 5-131

Local orderwire
Vol. 2A 102 5-59, Vol. 2B 180 12-1
carried by communication overhead bus
Vol. 2A 102 3-5
carried by SONET overhead bus Vol. 2A 102 3-3
interfaces for Vol. 2A 100 10-7

Local terminal
port for Vol. 2A 100 10-9

Local test cabinet
description Vol. 2A 100 8-8

Local testing system
concept Vol. 2B 115 1-3

Locally switched service
2-wire applications Vol. 1 155 1-32
loop testing Vol. 2A 101 1-13
support Vol. 2A 101 1-13, Vol. 2A 101 1-15
testing Vol. 2B 115 7-1

Lock
on Series 800A outside plant cabinet
S800A OP Cab Desc 118 2-3

Lockout
OC-3/OC-12 Vol. 3B 222 2-14, Vol. 3B 222 2-18, Vol. 3B 222 2-23
performing
from an OPC Vol. 4B 311 3-4
timing and cross-connect reference termination Vol. 4B 311 2-27
protection operation fail
clear alarm Vol. 5A 543 3-241
request
clear alarm Vol. 5A 543 3-89, Vol. 5A 543 3-119, Vol. 5A 543 3-242
protection, clear alarm Vol. 5A 543 3-275
working, clear alarm Vol. 5A 543 3-276

Lockout command
DS1/VT mapper Vol. 2A 103 5-6
DS3/STS mapper Vol. 2A 103 5-6
Lockout of protection command
OC-12 VTBM circuit pack Vol. 2A 103 4-22
Lockout of working command
OC-12 VTBM circuit pack Vol. 2A 103 4-22
OC-12 interface circuit pack Vol. 2A 103 3-8
OC-3 interface circuit pack Vol. 2A 103 3-8

lockout op
Vol. 3B 222 2-14, Vol. 3B 222 2-18, Vol. 3B 222 2-23, Vol. 3B 222 2-24, Vol. 3B 222 2-34, Vol. 3B 222 2-44, Vol. 3B 222 2-52

lockout re
Vol. 3B 222 2-16, Vol. 3B 222 2-19, Vol. 3B 222 2-36, Vol. 3B 222 2-37, Vol. 3B 222 2-45, Vol. 3B 222 2-52
command Vol. 3A 230 7-21

lockout re sec
Vol. 3B 225 5-7

Lockout request
clear alarm Vol. 5A 543 3-339

Lockout, automatic.
See Protection-switching oscillation control.

Log
access logs Vol. 2A 101 1-2
ANX
line card Vol. 5B 840 25-5
ANX events (logs) Vol. 5B 840 1-1
archive cycle Vol. 5C 510 5-12
archive software feature Vol. 2A 101 1-13
clearing reports Vol. 4A 302 12-12
configuring a user interface port for a log output device Vol. 4A 302 12-2
connecting output device Vol. 4A 302 12-2
defined Vol. 2A 104 1-6
description of Vol. 5B 840 1-1
displaying NE log reports Vol. 4A 302 12-9

Log (continued)
displays Vol. 2A 104 4-11
enabling or disabling user interface ports for printing logs Vol. 4A 302 12-6
event categories (types) Vol. 2A 104 1-7
event logs Vol. 2A 101 1-15
event-completion log Vol. 2A 104 1-7
event-in-progress log Vol. 2A 104 1-7
GR-303 multivendor interface Vol. 5B 840 25-4
line-card level Vol. 4B 315 5-1, Vol. 4B 315 5-7
listing NE logs and log reports Vol. 4A 302 12-8
location fields Vol. 5B 840 25-2
log report format and field description Vol. 5B 840 25-1
log reports
introduction Vol. 5B 840 1-1
NE, summary Vol. 5B 840 1-1
numbering scheme (NE and OPC) Vol. 5B 840 1-4
OPC, summary Vol. 5B 840 1-3
network element
archive cycle Vol. 5C 510 5-12
number definitions Vol. 2A 104 1-7
printouts Vol. 2A 104 4-11
redisplaying the last log report Vol. 4A 302 12-11
selecting NE log format Vol. 4A 302 12-5
service-level Vol. 4B 315 5-1, Vol. 4B 315 5-3
setting NE monitoring parameters Vol. 4A 302 12-1
starting and stopping output to a terminal Vol. 4A 302 12-13
state-change log Vol. 2A 104 1-7
trouble log Vol. 2A 104 1-7
UE9000 UE9000 Voice OAMP UG 7-1
usage log Vol. 2A 104 1-7
variable location fields
explanation Vol. 5B 840 25-3, UE9000 Voice OAMP UG 7-2
viewing Vol. 5C 510 5-1

Logging in
network element user interface Vol. 3B 222 2-14
to a DMS-10NA Vol. 4A 301 4-46
to an OPC from a NE Vol. 4A 301 4-43
to the CMT environment
HP host systems Vol. 4A 301 2-2
Sun host systems Vol. 4A 301 2-3
to the OPC Vol. 4A 301 4-35
to the remote OPC from an OPC Vol. 4A 301 4-40

Logging out
from the OPC Vol. 4A 301 4-52

Lone operations controller
in a DS1-fed system Vol. 2A 100 3-28
in a single-ended system Vol. 2A 100 3-33

Long distance trunk.
See Service, long distance trunk

Loop
adjustment
FCOT line card Vol. 4B 316 3-12, Vol. 4B 316 3-19
RFT line card Vol. 4B 316 3-6, Vol. 4B 316 3-17

Loop engineering rules
Vol. 1 155 2-5

Loop Gnd Bus.
See Service, loop start/ground start business.

Loop Maintenance Operations System/Mechanized Loop Tester
description Vol. 2B 115 7-47

Loop start/ground start business.
See Service, loop start/ground start business.

Loop testing
Vol. 2A 101 1-13

Loop timing
Vol. 2A 100 11-6
looptimed clock source Vol. 2A 100 11-13

Loopback
clearing alarm Vol. 5A 543 4-170
commands
connect Vol. 5C 548 6-2
disconnect Vol. 5C 548 6-4
DS1s Vol. 2A 101 1-7
DS3s Vol. 2A 101 2-6
latching
line card attribute Vol. 4B 315 3-13
on digital data service Vol. 1 155 1-72
test, setting up Vol. 4B 310 17-1

Loopback access interface card
installing Mix & Match DFA Recon QRG 3-28
NT4K55 Vol. 5C 547 2-23
software upgrade
Mix & Match DFA Recon QRG 4-1

loopback op term
Vol. 3B 222 2-24

loopback re
Vol. 3B 222 2-56

Loopback, UE9000, ADSL fails test
UE9000 Data OAMP UG 6-30

Looptimed clock source
Vol. 2A 100 11-13

Loss of data synchronization
clearing alarm Vol. 5A 543 3-60

lost peer OPC
clear alarm Vol. 5A 543 3-294

Low voltage
alarm Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
disconnect Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11, MBP Desc 110 2-20
adjustment MBP VTBM Ring Inst 9-28
indicators MBP VTBM Ring Inst 9-25

Low voltage disconnect unit
adjustment MBP VTBM Ring User 9-13
indicators MBP VTBM Ring User 9-10
installing MBP VTBM Ring User 9-3
removing MBP VTBM Ring User 9-3

LSS.
See Locally switched services.

LTP.
See Line test position.

LVD.
See low voltage disconnect

LVD.
See low voltage disconnect unit

M

Main distribution frame
grounding ABM Bay Cable Conn QRG 2-3, ABM Bay Cable Conn QRG 2-5, ABM Bay Cable Conn QRG 2-7

Main power cable
ABM Bay Cable Conn QRG 3-2, ABM Bay Cable Conn QRG 3-3

Maintenance
See also routine maintenance
interface card Vol. 5C 547 2-17
of power feeds Vol. 5C 547 10-1
OPC procedure Vol. 5C 546 4-1
performing Vol. 5C 546 1-1, Vol. 5C 546 2-1
recovery procedures Vol. 5C 545 1-1
routine Vol. 5C 546 1-1, Vol. 5C 546 2-1
routine for VTBM MBP MBP VTBM Ring User 10-1

Maintenance Administration Position
Vol. 2A 101 2-7
ALIT testing from Vol. 2B 115 7-61, Vol. 2B 115 9-15
ALT testing from Vol. 2B 115 7-61, Vol. 2B 115 9-14

Maintenance bus
Vol. 2A 102 3-2

Maintenance interface card
Vol. 2A 102 5-55
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
common-equipment circuit pack Vol. 5A 543 2-7
alarm point
enabling and disabling Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-106
circuit pack fail
alarm Vol. 5A 543 2-7
description Vol. 2A 100 8-8
equipment troubleshooting Vol. 5A 543 3-201
equipping rules Vol. 2A 102 5-62, Vol. 2A 102 5-63
functions of Vol. 2A 102 5-55
LED, troubleshooting Vol. 5A 543 7-9
operation verification Vol. 5A 543 3-128
replacing in VTBM MBP MBP VTBM Ring User 7-17
role in alarm management Vol. 2A 104 2-2

Maintenance overhead bus
Vol. 2A 102 3-5
connection to the maintenance interface Vol. 2A 102 5-60

Major alarm
Vol. 2A 104 1-6, Vol. 3B 225 4-44
BNC I/O card x fail -DoNotRemove Vol. 5A 543 3-112
BNC I/O card x mismatch Vol. 5A 543 3-113
BNC I/O card x missing Vol. 5A 543 3-114
circuit pack fail Vol. 5A 543 3-43
circuit pack mismatch Vol. 5A 543 3-44
circuit pack missing Vol. 5A 543 3-45
facility provisioning mismatch Vol. 5A 543 3-84, Vol. 5A 543 4-203
failure to lock Vol. 5A 543 3-147
input card fail -DoNotRemove Vol. 5A 543 3-86
intercard fail Vol. 5A 543 3-148
major test alarm Vol. 5A 543 3-61
output card fail -DoNotRemove Vol. 5A 543 3-91
prot bridge in card fail -DoNotRemove Vol. 5A 543 3-94
prot bridge out card fail -DoNotRemove Vol. 5A 543 3-97
protection path fail Vol. 5A 543 3-101, Vol. 5A 543 3-121
shelf ID bus fail Vol. 5A 543 3-69
subunit fail Vol. 5A 543 3-149
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
test
clear alarm Vol. 5A 543 3-61
timing generation primary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74
traffic problem detected Vol. 5A 543 3-133
using FWALTSCI tool to test generation of Vol. 5A 543 3-61

Major test alarm
clear alarm Vol. 5A 543 3-60

Major, not service-affecting alarm
BNC I/O card x fail -DoNotRemove Vol. 5A 543 3-112
input card fail -DoNotRemove Vol. 5A 543 3-86
major test alarm Vol. 5A 543 3-61
output card fail -DoNotRemove Vol. 5A 543 3-91
prot bridge in card fail -DoNotRemove Vol. 5A 543 3-94
prot bridge out card fail -DoNotRemove Vol. 5A 543 3-97
shelf ID bus fail Vol. 5A 543 3-69
timing generation primary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74

Major, service-affecting alarm
BNC I/O card x
mismatch Vol. 5A 543 3-113
missing Vol. 5A 543 3-114
facility provisioning mismatch Vol. 5A 543 3-84, Vol. 5A 543 4-203

Manual protection switching.
See Protection switching, manual switch.

Manual provisioning
DS1s Vol. 2A 101 1-14
DS3s Vol. 2A 101 2-5
OC-12s and OC-3s Vol. 2A 101 1-14

Manual ringdown 2-wire line card
Vol. 1 155 1-8, Vol. 2A 102 6-12, Vol. 2B 181 6-1
amplitude tracking Vol. 2B 181 6-6
description Vol. 2A 100 8-20
diagnostics Vol. 2B 181 6-2
maintenance and testing Vol. 2B 181 6-2
NT4K78AA Vol. 5C 547 3-4
physical description Vol. 2B 181 6-2
replacing in VTBM MBP
MBP VTBM Ring User 5-5
signaling Vol. 2B 181 6-6
transient protection Vol. 2B 181 6-3
voice frequency transmission specifications Vol. 2B 181 6-3

Manual ringdown line card
Vol. 5C 547 3-4

Manual ringdown.
See Service, Manual ringdown

Manual switch
from an OPC Vol. 4B 311 3-11
how to Vol. 4B 311 2-25
timing and cross-connect timing reference Vol. 4B 311 2-30
timing reference Vol. 4B 311 2-31

Manual switch request
clear alarm Vol. 5A 543 3-90, Vol. 5A 543 3-120
clearing alarm Vol. 5A 543 3-340
releasing Vol. 5A 543 3-90, Vol. 5A 543 3-119, Vol. 5A 543 3-120

Manual transfer
in ModCab Mod Cab Desc 119 7-9

Manual-switching command
DS1/VT mapper Vol. 2A 103 5-7
DS3/STS mapper Vol. 2A 103 5-7
external synchronization interface card Vol. 2A 103 6-3
OC-12 interface circuit pack Vol. 2A 103 3-9
OC-12 VTBM circuit pack Vol. 2A 103 4-23
OC-3 interface circuit pack Vol. 2A 103 3-9

Map
description of UE9000 Data OAMP UG 8-5
for DS1s
default Vol. 1 154 2-22, Vol. 1 154 3-40

Map (continued)
for DS3s
default Vol. 1 154 2-24, Vol. 1 154 3-41
non-default Vol. 1 154 2-28, Vol. 1 154 3-43
for single-ended systems Vol. 2A 100 2-11
opening a temporary map
UE9000 Data OAMP UG 1-47

MAP.
See Maintenance Administration Position.

Mapper
adding OC-3 fed systems Vol. 1 154 5-15, Vol. 1 154 5-16

MARCH operations system
Vol. 2A 101 1-10

Marking and drilling the floor
ABM Inst 201 3-2

Master cabinet dimensions
Modular Business Package MBP Desc 110 1-7

Matched node
Vol. 2A 100 3-10
connection rules Vol. 2A 100 3-16
hardware and software requirements Vol. 2A 100 3-15
primary and secondary gateway Vol. 2A 100 7-49
primary and secondary gateways Vol. 2A 100 7-48
primary gateway Vol. 2A 100 3-11
protection methods Vol. 2A 100 3-12
secondary gateway Vol. 2A 100 3-11

Matched nodes
configuration Vol. 2A 103 4-14
protection Vol. 2A 103 4-14
signal flow Vol. 2A 103 4-14

Material requirement
Vol. 4C Add Nodes VTBM 3-1

MBP
MBP VTBM Ring User 2-27
See also Modular Business Package

MDC.
See Service, Meridian Digital Centrex

Mechanical shock specifications
Vol. 2B 180 4-1

Mechanized loop testing test method
compatible with
Epsilon station line card Vol. 2B 181 1-4

Meridian business set software
Vol. 2A 101 2-10

Meridian digital centrex lines
defined T&B Eng Info. 152 2-4

Message waiting
Vol. 1 155 1-39, Vol. 2B 181 2-20

Metallic jack access
Vol. 2A 101 1-11, Vol. 2B 115 3-4,
Vol. 2B 115 9-15, Vol. 4B 316 6-2,
UE9000 Voice OAMP UG 5-24
setup Vol. 4B 316 6-9
simultaneous metallic and digital Vol. 4B 316 6-34
UE9000 UE9000 Voice OAMP UG 5-26

Metallic test access Vol. 2A 100 10-10
architecture Vol. 2B 115 2-1
figure Vol. 2B 115 2-2
basic concept Vol. 2B 115 1-2
carrier bypass operation Vol. 2B 115 4-5
constraints Vol. 2B 115 3-3
jacks Vol. 2B 115 2-23
line/loop testing
test access card Vol. 2B 115 2-3
provisioning test access Vol. 3B 223 1-4
test bypass pair operation Vol. 2B 115 4-5
testing capabilities Vol. 2B 115 3-3

Metallic test access cable
connecting to MBP MBP Cab Inst 206 8-4,
MBP Cab Inst 206 13-5
installing ABM Inst 201 4-25,
ABM Inst 201 6-55

Metallic test access card
Vol. 2A 102 6-22, Vol. 5C 547 3-13
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
alarm point, enabling and disabling
Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-107
concepts Vol. 2B 115 2-21
connection to metallic test buses Vol. 2A 102 3-6,
Vol. 2A 102 6-22
description Vol. 2A 100 8-21
equipment troubleshooting Vol. 5A 543 3-220
LED, troubleshooting Vol. 5A 543 7-21,
Vol. 5A 543 7-22
NT4K73AA Vol. 5C 547 3-1, Vol. 5C 547 3-13
replacing in VTBM MBP
MBP VTBM Ring User 5-13

Metallic test bus
Vol. 2A 102 3-6
cables for Vol. 2A 102 6-3
carried by daisy flex Vol. 2A 102 6-6
connection to metallic test access card
Vol. 2A 102 6-22
connection to the copper-distribution drawers
Vol. 2A 102 2-12

MIC.
See Maintenance interface card.

Midplane of copper-distribution drawer
Vol. 2A 102 6-8

Minor alarm
Vol. 2A 104 1-6, Vol. 3B 225 4-44
autoprovisioning mismatch Vol. 5A 543 3-47
BNC I/O card x fail -DoNotRemove
Vol. 5A 543 3-112
circuit pack fail Vol. 5A 543 3-20,
Vol. 5A 543 3-43, Vol. 5A 543 3-80,
Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21,
Vol. 5A 543 3-44, Vol. 5A 543 3-81,
Vol. 5A 543 3-116
circuit pack missing Vol. 5A 543 3-22,
Vol. 5A 543 3-45, Vol. 5A 543 3-83,
Vol. 5A 543 3-117
CNet link fail Vol. 5A 543 3-51
comm overhead
clock/frame loss Vol. 5A 543 3-23
data loss Vol. 5A 543 3-24
database not restored. Type Q APPROVE at NE
Vol. 5A 543 3-54
datasync fail Vol. 5A 543 3-293
D-link interface fail Vol. 5A 543 3-26
equipment
forced switch request Vol. 5A 543 3-142,
Vol. 5A 543 3-264
lockout request Vol. 5A 543 3-143
manual switch request Vol. 5A 543 3-144
protection switch fail Vol. 5A 543 3-146
exerciser fail Vol. 5A 543 3-59
failure to lock Vol. 5A 543 3-147
forced switch request Vol. 5A 543 3-85,
Vol. 5A 543 3-118
input card fail -DoNotRemove Vol. 5A 543 3-86
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
intercard fail Vol. 5A 543 3-148
lockout request Vol. 5A 543 3-89,
Vol. 5A 543 3-119
lost peer OPC Vol. 5A 543 3-294
manual switch request Vol. 5A 543 3-90,
Vol. 5A 543 3-120
output card fail -DoNotRemove Vol. 5A 543 3-91
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
power filter A missing Vol. 5A 543 3-36
power filter B missing Vol. 5A 543 3-39
prot bridge in card fail -DoNotRemove
Vol. 5A 543 3-94
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card fail -DoNotRemove
Vol. 5A 543 3-97
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99

Minor alarm (continued)
protection path fail Vol. 5A 543 3-101, Vol. 5A 543 3-121
protection switch fail Vol. 5A 543 3-106, Vol. 5A 543 3-126
protection version mismatch Vol. 5A 543 3-110
software trap Vol. 5A 543 3-70
SONET overhead clock loss Vol. 5A 543 3-71
STS1 intercard fail Vol. 5A 543 3-111, Vol. 5A 543 3-129
subunit fail Vol. 5A 543 3-149
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
switcher circuit pack mismatch Vol. 5A 543 3-131
switcher circuit pack missing Vol. 5A 543 3-132
tape backup/restore fail Vol. 5A 543 3-309
test Vol. 5A 543 3-62
  clearing alarm Vol. 5A 543 3-62
timing generation primary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
traffic problem detected Vol. 5A 543 3-133
using FWALTSCI tool to test generation of Vol. 5A 543 3-62
VT connection provisioning mismatch Vol. 5A 543 3-136

Minor, not service-affecting alarm
autoprovisioning mismatch Vol. 5A 543 3-47
BNC I/O card x fail -DoNotRemove Vol. 5A 543 3-112
circuit pack fail Vol. 5A 543 3-80
circuit pack mismatch Vol. 5A 543 3-81
circuit pack missing Vol. 5A 543 3-83
CNet link fail Vol. 5A 543 3-51
database not restored. Type Q APPROVE at NE Vol. 5A 543 3-54
equipment forced switch request Vol. 5A 543 3-142, Vol. 5A 543 3-264
equipment lockout request Vol. 5A 543 3-143
equipment manual switch request Vol. 5A 543 3-144
equipment protection switch fail Vol. 5A 543 3-146
exerciser fail Vol. 5A 543 3-59
forced switch request Vol. 5A 543 3-85, Vol. 5A 543 3-118
input card fail -DoNotRemove Vol. 5A 543 3-86
input card mismatch Vol. 5A 543 3-87
input card missing Vol. 5A 543 3-88
lockout request Vol. 5A 543 3-89, Vol. 5A 543 3-119
manual switch request Vol. 5A 543 3-90, Vol. 5A 543 3-120
minor test alarm Vol. 5A 543 3-62

Minor, not service-affecting alarm (continued)
output card fail -DoNotRemove Vol. 5A 543 3-91
output card mismatch Vol. 5A 543 3-92
output card missing Vol. 5A 543 3-93
prot bridge in card fail -DoNotRemove Vol. 5A 543 3-94
prot bridge in card mismatch Vol. 5A 543 3-95
prot bridge in card missing Vol. 5A 543 3-96
prot bridge out card fail -DoNotRemove Vol. 5A 543 3-97
prot bridge out card mismatch Vol. 5A 543 3-98
prot bridge out card missing Vol. 5A 543 3-99
protection switch fail Vol. 5A 543 3-106, Vol. 5A 543 3-126
software trap Vol. 5A 543 3-70
SONET overhead clock loss Vol. 5A 543 3-71
switcher circuit pack mismatch Vol. 5A 543 3-131
switcher circuit pack missing Vol. 5A 543 3-132
timing generation primary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail Vol. 5A 543 3-74
timing generation secondary reference fail, when both primary and secondary are in alarm status Vol. 5A 543 3-74
VT connection provisioning mismatch Vol. 5A 543 3-136

Minor, service-affecting alarm
power filter A missing Vol. 5A 543 3-36
power filter B missing Vol. 5A 543 3-39

Mismatch
equalization (4-wire) Vol. 1 155 3-12

Mismatch, locating
Vol. 4C Span of Con Cons 5-3

MLT.
See Mechanized loop testing.

ModCab
ac circuit breakers Mod Cab Desc 119 7-9
ac power pedestal Mod Cab Desc 119 2-2, Mod Cab Desc 119 7-3
  wiring Mod Cab Inst 211 4-7
ac power requirements Mod Cab Desc 119 7-4
access bandwidth manager shelf Mod Cab Desc 119 5-4
AccessNode system description Mod Cab Desc 119 1-2
adjusting the low voltage alarm Mod Cab Inst 211 14-20
anchor plate
  kits Mod Cab Inst 211 1-5, Mod Cab Inst 211 2-2
applications Mod Cab Desc 119 1-2
batteries Mod Cab Desc 119 5-10
  installing and connecting Mod Cab Inst 211 13-1

ModCab (continued)
battery breaker panel
circuit breakers Mod Cab Inst 211 13-4
breaker interface panel shelf
Mod Cab Desc 119 5-8
cabinet construction Mod Cab Desc 119 3-4
cabinet features Mod Cab Desc 119 3-2
cabinet module descriptions
Mod Cab Desc 119 2-2
cable routing ports Mod Cab Inst 211 5-2
common equipment module
Mod Cab Desc 119 2-5,
Mod Cab Desc 119 5-2
conduit entry ports
in ac power pedestal Mod Cab Desc 119 7-5
connecting alarms Mod Cab Inst 211 12-1
copper-distribution module
Mod Cab Desc 119 2-7
copper-distribution shelf Mod Cab Desc 119 5-6
crane usage Mod Cab Inst 211 1-7
dc distribution shelf
DIP switches Mod Cab Inst 211 14-3
verifying alarms for Mod Cab Inst 211 14-18
dc power module Mod Cab Desc 119 2-3,
Mod Cab Desc 119 7-2
description Mod Cab Desc 119 1-1
dimensions Mod Cab Desc 119 3-4
DIP switches in dc distribution shelf
Mod Cab Inst 211 14-3
DS1 and maintenance pair cables
Mod Cab Inst 211 10-1
DS1 cabling Mod Cab Inst 211 11-3
DS1 I/O slots Mod Cab Inst 211 11-4
electrical requirements Mod Cab Desc 119 9-1
electrical specifications Mod Cab Desc 119 10-3
environmental controls Mod Cab Desc 119 3-7
environmental specifications
Mod Cab Desc 119 10-4
grounding Mod Cab Desc 119 9-4
for outside-plant cables Mod Cab Inst 211 6-9,
Mod Cab Inst 211 7-22
heaters Mod Cab Desc 119 3-6
large termination module Mod Cab Desc 119 2-8
lifting Mod Cab Inst 211 1-7
local craft access panel shelf
Mod Cab Desc 119 5-7
mechanical specifications Mod Cab Desc 119 10-2
moisture barrier installation
Mod Cab Inst 211 8-11,
Mod Cab Inst 211 9-11
optional equipment module
Mod Cab Desc 119 2-9,
Mod Cab Desc 119 8-1
pad Mod Cab Inst 211 3-3
peripheral equipment Mod Cab Desc 119 5-9
protector modules Mod Cab Desc 119 6-5,
Mod Cab Inst 211 15-2
provisioning alarms Mod Cab Inst 211 12-2
rectifier shelf Mod Cab Desc 119 7-3
regulatory compliance Mod Cab Desc 119 1-4
RFI notice Mod Cab Desc 119 1-2

ModCab (continued)
routing VF cables Mod Cab Inst 211 5-1
safety
mounting precautions Mod Cab Inst 211 3-11
service protection center Mod Cab Desc 119 6-4
services Mod Cab Desc 119 1-3
structure Mod Cab Desc 119 3-2
temperature compensator Mod Cab Desc 119 7-3
VF cable in
routing and termination Mod Cab Inst 211 8-1
VF cable in ModCab
routing and termination to 710
Mod Cab Inst 211 9-1
wire-wrap block Mod Cab Inst 211 12-5

ModCab cabling ports
Mod Cab Inst 211 11-2

ModCab internal cabling
Mod Cab Inst 211 11-1

Modem
configuring to support electronic software delivery
Vol. 4A 302 2-52
connecting to the OC-3 Express shelf
MCOT to ABM QRG 1-32
in central office grounding
ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-7
in NT7E56 breaker interface panel
Vol. 2A 100 7-29
on the test access card Vol. 2A 102 5-54
replacing in BIP Vol. 5C 547 5-25,
Vol. 5C 547 5-28
setting up for use with the OC-3 Express shelf
MCOT to ABM QRG 1-32

Modem cable
connecting to MBP MBP Cab Inst 206 9-78
installing ABM Inst 201 5-35
installing in TBM bay TBM Inst 202 5-35
pinouts TBM Inst 202 5-41
to ABM Vol. 1 200 5-19
to TBM for external modem Vol. 1 200 6-17
to TBM for integral modem Vol. 1 200 6-19

Modifying
DS1 equipment MCOT to ABM QRG 1-60
DS1 facilities MCOT to ABM QRG 1-62

Modular Business Package
Vol. 2A 100 6-17
192-line to 672-line configurations
MBP Cab Inst 206 2-12
96-line configuration MBP Cab Inst 206 2-11
A0383922 Vol. 5C 546 5-3
ac receptacles Site Inst P&E Add 4-9
access bandwidth manager in MBP Desc 110 2-12

Modular Business Package (continued)
access bandwidth manager shelf in
MBP Cab Inst 206 5-12
access bandwidth manager shelf in VTBM MBP
MBP VTBM Ring Inst 4-17
air filter
replacement interval Vol. 5C 546 5-3
replacing Vol. 5C 546 5-3
anchor kits Site Inst P&E Add 2-7
anchoring and seismic kits MBP Desc 110 1-5,
MBP Cab Inst 206 2-8,
MBP Cab Inst 206 3-2
anchoring kit in VTBM MBP
concrete floor MBP VTBM Ring Inst 3-2
arrangement
VTBM MBP MBP VTBM Ring Inst 2-7
battery
rejuvenating in Virtual tributary bandwidth manager Modular Business Package
MBP VTBM Ring User 8-5
replacing in Virtual tributary bandwidth manager MBP VTBM Ring User 8-8
battery equipment module MBP Desc 110 1-4
BEM alarm cabling MBP VTBM Ring Inst 6-27
BEM circuit breaker numbering for VTBM
MBP VTBM Ring User 2-18
blower module Vol. 5C 547 11-2
blower module, replacing for VTBM MBP
MBP VTBM Ring User 10-10
breaker interface panel in MBP Desc 110 2-16,
MBP Desc 110 2-22
cabinet
arrangements MBP Desc 110 4-1
cabinet arrangement for Virtual tributary bandwidth manager MBP VTBM Ring User 2-7
cabinet covers
installing MBP Cab Inst 206 16-12
cabinet equipment and cable configurations
MBP Cab Inst 206 2-1
cabinet expandability MBP Cab Inst 206 2-8
cabinet installation MBP Cab Inst 206 6-1
bracing rods and tie bars MBP Cab Inst 206 6-2
cabinets with anchor kits MBP Cab Inst 206 6-6
cabinets without anchor kits
MBP Cab Inst 206 6-14
overhead cable extender kit
MBP Cab Inst 206 6-20
cabinet modules MBP Desc 110 1-2
cabinet pedestal MBP Desc 110 1-2
cabinet specification Vol. 2B 180 15-1
cabinet types
MBP expansion Site Inst P&E Add 2-2
MBP master Site Inst P&E Add 2-2
VTBM MBP MBP VTBM Ring Inst 2-7
cabinet weights for Virtual tributary bandwidth manager MBP VTBM Ring User 2-28
cabinet weights for VTBM MBP
MBP VTBM Ring Inst 2-31
cabinets
dimensions MBP Desc 110 1-6
cable access MBP Desc 110 1-5

Modular Business Package (continued)
cable extender kit MBP Cab Inst 206 6-20,
MBP VTBM Ring Inst 5-18
cable organizer panel in MBP Desc 110 2-19
cabling
external in VTBM MBP
MBP VTBM Ring Inst 2-22
inter-cabinet in VTBM MBP
MBP VTBM Ring Inst 2-22
internal in VTBM MBP
MBP VTBM Ring Inst 2-24
cabling diagrams MBP Cab Inst 206 2-26
cabling requirements Site Inst P&E Add 8-3
CDSs, numbering Vol. 4B 316 2-5
changing air filter for VTBM MBP
MBP VTBM Ring User 10-6
circuit breaker locations in Virtual tributary bandwidth manager
MBP VTBM Ring Inst 9-15
common features Site Inst P&E Add 2-7
common features in VTBM MBP
MBP VTBM Ring Inst 2-9
configuration
expansion cabinet Vol. 2A 100 6-25,
MBP Desc 110 2-7
master cabinet Vol. 2A 100 6-19,
MBP Desc 110 2-2
multiplexer Site Inst P&E Add 2-9
SONET transport system bandwidth manager
Site Inst P&E Add 2-20
standard 480-line Site Inst P&E Add 2-12
standard 672-line Site Inst P&E Add 2-13,
Site Inst P&E Add 2-14
standard 96-line Site Inst P&E Add 2-10
STSBM Site Inst P&E Add 2-19
Virtual tributary bandwidth manager
Site Inst P&E Add 2-21,
Site Inst P&E Add 2-22
configuration descriptions Site Inst P&E Add 2-8
connecting batteries MBP Cab Inst 206 7-53
copper-distribution shelf MBP Desc 110 2-13
installing MBP Cab Inst 206 11-1,
MBP Cab Inst 206 13-1
copper-distribution shelf numbering
Site Inst P&E Add 2-26
covers Site Inst P&E Add 2-7
dc distribution shelf
description, in MBP VTBM cabinet
MBP Desc 110 2-21
dc power MBP Cab Inst 206 7-18,
MBP Cab Inst 206 7-22,
MBP Cab Inst 206 7-27
dc power consumption Site Inst P&E Add 4-6
description MBP Desc 110 1-1
expansion cabinet Vol. 2A 100 6-23,
MBP Desc 110 2-1
master cabinet Vol. 2A 100 6-19,
MBP Desc 110 2-1
VTBM MBP MBP VTBM Ring Inst 2-2
VTBM MBP expansion cabinet
MBP VTBM Ring Inst 2-7

Modular Business Package, description (continued)
VTBM MBP master cabinet
MBP VTBM Ring Inst 2-7
dimensions MBP Desc 110 1-7,
Site Inst P&E Add 5-6
in VTBM MBP MBP VTBM Ring Inst 2-32
DS1 repeater shelf MBP Desc 110 2-28,
MBP Cab Inst 206 7-34
installing MBP Cab Inst 206 14-1
DSX-1
cross-connect
shelf MBP Desc 110 2-26
cross-connect shelf MBP Cab Inst 206 14-1
DSX-1 cross-connect shelf
Site Inst P&E Add 2-15,
MBP Cab Inst 206 2-17,
MBP Cab Inst 206 7-34
dual equipment module MBP Desc 110 1-3
installing MBP Cab Inst 206 16-6
equipment modules MBP Desc 110 1-3
battery equipment module MBP Desc 110 1-4
DEM MBP Desc 110 1-3
field expansion module MBP Desc 110 1-4
SEM MBP Desc 110 1-4
expanding the system Vol. 4C 324 10-1,
MBP Desc 110 1-6, Site Inst P&E Add 2-26
expansion cabinet
VTBM MBP configurations
MBP VTBM Ring Inst 2-13
expansion cabinet configuration for Virtual tributary bandwidth manager
MBP VTBM Ring User 2-12
expansion cabinet for Virtual tributary bandwidth manager MBP VTBM Ring User 2-7
fan unit panel in MBP Desc 110 2-11
fiber manager MBP Desc 110 2-25,
MBP Cab Inst 206 9-91,
MBP Cab Inst 206 10-1
fiber patch panel Site Inst P&E Add 2-17,
MBP Cab Inst 206 2-17
field expansion module MBP Desc 110 1-4
installing MBP Cab Inst 206 12-1
floor loading Site Inst P&E Add 5-2
floor space Site Inst P&E Add 5-8
floor template for VTBM MBP
MBP VTBM Ring Inst 3-10
frame ground Site Inst P&E Add 4-16
grounding MBP Cab Inst 206 7-1,
MBP Cab Inst 206 7-6
grounding in MBP Site Inst P&E Add 4-2,
Site Inst P&E Add 4-5
grounding in VTBM MBP
MBP VTBM Ring Inst 6-3,
MBP VTBM Ring Inst 6-8
grounding schemes Site Inst P&E Add 4-14
installation
restricted areas and unrestricted areas
MBP Cab Inst 206 2-3

Modular Business Package (continued)
installing
circuit packs in VTBM MBP
MBP VTBM Ring Inst 10-9
installing cabinet side panels
MBP Cab Inst 206 16-4
key-lockable covers MBP Desc 110 1-5
local craft access panel in MBP Desc 110 2-17
low voltage disconnect unit MBP Desc 110 2-20
master cabinet
VTBM MBP configurations
MBP VTBM Ring Inst 2-11
master cabinet configuration for Virtual tributary bandwidth manager
MBP VTBM Ring User 2-10
mini-stack
handling optical fiber cables ABM Inst 201 1-3
warnings and safety precautions
ABM Inst 201 1-2
MPR-25 rectifiers in MBP Desc 110 2-23
multiplexer arrangement MBP Desc 110 4-2
multiplexer configuration MBP Cab Inst 206 2-10
numbering of CDS Vol. 4C 324 9-4
numbering of CDS shelves MBP Desc 110 2-13
OC-3 tributaries MBP Cab Inst 206 2-16
overhead cable option MBP Desc 110 1-5
overview of packaging option MBP Desc 110 1-1
pedestal MBP Desc 110 1-2
grille MBP Cab Inst 206 5-8
pedestal grille
installing MBP Cab Inst 206 16-10
pedestal grille in VTBM MBP
MBP VTBM Ring Inst 4-13
power and environmental alarm, testing
Vol. 3B 225 4-25
power connections, 48 Vdc
MBP Cab Inst 206 2-17
power distribution unit MBP Cab Inst 206 8-11
powering Site Inst P&E Add 2-6
powering in MBP Site Inst P&E Add 4-2
powering up in VTBM MBP
MBP VTBM Ring Inst 10-1
procedures Vol. 5C 547 11-1
rectifier numbering in VTBM MBP
MBP VTBM Ring Inst 2-11
rectifier shelf in MBP Desc 110 2-23
rectifiers
checking and adjusting for VTBM MBP
MBP VTBM Ring User 10-2
replacing in Virtual tributary bandwidth manager MBP VTBM Ring User 8-14
removing grille Vol. 5C 546 5-3
repeater shelf Site Inst P&E Add 2-15
repeater shelf. See Modular Business Package, DS1 repeater shelf
routine maintenance Vol. 5C 546 5-1
routine maintenance for VTBM MBP
MBP VTBM Ring User 10-1
side panels
installing MBP Cab Inst 206 16-4
single equipment module MBP Desc 110 1-4

Modular Business Package (continued)
specifications Vol. 2B 180 3-2, Vol. 2B 180 15-1
standard arrangement
480-lines MBP Desc 110 4-4
672-lines MBP Desc 110 4-4
96-lines MBP Desc 110 4-3
STSBM arrangement MBP Desc 110 4-8
T1 repeater shelf MBP Cab Inst 206 2-17
temperature and humidity specifications
Vol. 2B 180 3-2
tool-lockable covers MBP Desc 110 1-5
top cap grille in VTBM MBP
MBP VTBM Ring User 3-8
top cap module MBP Desc 110 1-2
grille MBP Cab Inst 206 5-6
top cap module grille
installing MBP Cab Inst 206 16-8
top cap module grille in VTBM MBP
MBP VTBM Ring Inst 4-11
transport bandwidth manager in
MBP Desc 110 2-18
types of cabinet MBP Cab Inst 206 2-2
types of covers MBP Desc 110 1-5,
MBP Cab Inst 206 2-8
unpacking the cabinet MBP Cab Inst 206 4-1
Virtual tributary bandwidth manager master cabinet
description MBP VTBM Ring User 2-7
VTBM arrangement MBP Desc 110 4-10
weight Site Inst P&E Add 5-2

Modular business package
ac cabling in VTBM MBP
MBP VTBM Ring Inst 6-21
dc distribution unit for Virtual tributary bandwidth
manager MBP VTBM Ring User 2-18
ordering cabinets for VTBM MBP
MBP VTBM Ring User 11-2
pedestal grille in VTBM MBP
MBP VTBM Ring User 3-6
rectifier numbering for Virtual tributary bandwidth
manager MBP VTBM Ring User 2-14
routing and connecting cable
MBP VTBM Ring Inst 7-1

Modular Power Package
ac cabling MBP Cab Inst 206 7-48
ac power cabling Site Inst P&E Add 8-5
ac powering Site Inst P&E Add 4-3,
Site Inst P&E Add 4-8
ac receptacles Site Inst P&E Add 4-9
adjusting rectifier Vol. 5C 546 5-2
anchoring and seismic kits MBP Desc 110 1-5,
MBP Cab Inst 206 2-8,
MBP Cab Inst 206 3-2
attached MPP MBP Desc 110 3-2
battery
description MBP Desc 110 3-9
battery back-up Site Inst P&E Add 4-5,
Site Inst P&E Add 4-7
cabinet Vol. 2A 100 6-17

Modular Power Package (continued)
cabinet covers
installing MBP Cab Inst 206 16-12
cabinet installation MBP Cab Inst 206 6-1
bracing rods and tie bars MBP Cab Inst 206 6-2
cabinets with anchor kits MBP Cab Inst 206 6-6
cabinets without anchor kits
MBP Cab Inst 206 6-14
overhead cable extender kit
MBP Cab Inst 206 6-20
cabinet types Site Inst P&E Add 2-2
cable extender kit MBP Cab Inst 206 6-20
cabling diagrams MBP Cab Inst 206 2-26
cabling requirements Site Inst P&E Add 8-5
checking rectifier Vol. 5C 546 5-2
checking rectifier voltage Vol. 5C 546 5-2
configuration
SONET transport system bandwidth manager
Site Inst P&E Add 2-25
standard Site Inst P&E Add 2-23,
Site Inst P&E Add 2-24
configuration descriptions Site Inst P&E Add 2-23
configurations Vol. 2A 100 6-27,
MBP Desc 110 3-2, MBP Cab Inst 206 2-20
standard MBP Desc 110 3-3
STSBM MBP Desc 110 3-5
copper distribution shelves
numbering MBP Cab Inst 206 2-22
dc distribution shelf
used in MPP cabinet MBP Desc 110 3-8
verifying Vol. 3B 220 2-14
dc power MBP Cab Inst 206 7-27
description Vol. 2A 100 6-27, MBP Desc 110 3-1
dimensions MBP Desc 110 1-7,
Site Inst P&E Add 5-6
equipment and cable configurations
MBP Cab Inst 206 2-1
expandability MBP Cab Inst 206 2-8
floor loading Site Inst P&E Add 5-2
floor space Site Inst P&E Add 5-8
frame ground Site Inst P&E Add 4-16
grounding MBP Cab Inst 206 7-6
grounding schemes Site Inst P&E Add 4-14
installation
restricted and unrestricted areas
MBP Cab Inst 206 2-3
power and environmental alarm, testing
Vol. 3B 225 4-25
powering Site Inst P&E Add 2-6,
Site Inst P&E Add 4-3,
Site Inst P&E Add 8-6,
MBP Cab Inst 206 2-22
procedures Vol. 5C 547 11-1
rectifier Vol. 5C 547 11-6
adjusting float voltage Vol. 5C 546 5-2
checking voltage Vol. 5C 546 5-2
equalizing voltage Vol. 5C 546 5-2
maintenance interval Vol. 5C 546 5-2
rectifier shelves MBP Desc 110 3-6
installing MBP Cab Inst 206 15-2
remote MBP Desc 110 3-2

Modular Power Package (continued)
removing cover Vol. 5C 546 5-2
routine maintenance Vol. 5C 546 5-1
shelf modules MBP Desc 110 3-6
specifications Vol. 2B 180 15-1
types of covers MBP Cab Inst 206 2-8
unpacking the cabinet MBP Cab Inst 206 4-1
weight Site Inst P&E Add 5-2

Modular power package
cabinet specification Vol. 2B 180 15-1

Modular power package rectifiers
installing Vol. 3B 220 2-3
verifying Vol. 3B 220 2-8

Module
Vol. 5C 547 2-1
BIP Vol. 2A 102 4-2
common-equipment
copper-distribution drawers Vol. 2A 102 4-7
shelves Vol. 2A 102 4-2
equipment in Modular Business Package
MBP Desc 110 1-3
locating in CES Vol. 5C 547 9-2
Modular Business Package cabinet
MBP Desc 110 1-2
plug-in
CDS Vol. 2A 102 4-5
copper-distribution drawers Vol. 2A 102 4-5
outside of CDS Vol. 2A 102 4-5
replacing
BIP Vol. 5C 547 5-1
CDS Vol. 5C 547 3-1
CES Vol. 5C 547 2-1
CU Vol. 5C 547 6-1
for VTBM MBP BIP
MBP VTBM Ring User 6-1
in a VTBM MBP copper-distribution shelf
MBP VTBM Ring User 5-1
shelf
Modular Business Package
MBP Desc 110 2-10
Modular Power Package MBP Desc 110 3-6

MOH bus.
See Maintenance overhead bus.

Monitor
commands
disconnect monitor Vol. 5C 548 5-2
set monitor bridge Vol. 5C 548 5-3
set monitor establish Vol. 5C 548 5-5
set monitor filter Vol. 5C 548 5-7
set monitor level Vol. 5C 548 5-9
set monitor listen Vol. 5C 548 5-11
set talk Vol. 5C 548 5-13

Monitor (continued)
display Vol. 4A 302 10-2
ABM shelf Vol. 2A 104 6-24
TBM shelf Vol. 2A 104 7-25
TBOS Vol. 2A 104 5-4

Mounting pad
Portland cement Mod Cab Inst 211 1-6

mouse, using the
Vol. 4A 301 3-5

MPP.
See Modular power package

MPR 25 rectifier
adjusting float voltage for Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-22
adjusting float voltage for VTBM MBP
MBP VTBM Ring User 10-3
faceplate in Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring Inst 9-14
faceplate in VTBM MBP
MBP VTBM Ring User 10-4
position numbering for Virtual tributary bandwidth manager Modular Business Package
MBP VTBM Ring User 2-14
position numbering in VTBM MBP
MBP VTBM Ring Inst 2-11
replacing in a Virtual tributary bandwidth manager Modular business package
MBP VTBM Ring User 8-14
used in Modular Business Package
MBP Desc 110 2-23

MRD.
See manual ringdown 2-wire line card

MRP25.
See Rectifier, MPR25

MTA.
See Pair gain test controller

MTAC.
See Metallic test access card

Multi-circuit line card
alarms UE9000 Voice OAMP UG 6-9
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-13
parameters, displaying
UE9000 Voice OAMP UG 3-3

Multihoming
definition of the term Vol. 2A 101 2-10

Multihosting
Vol. 2A 100 5-7
adding host Vol. 3A 230 4-41, Vol. 3A 235 3-21, Vol. 3A 240 3-22, Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
alarm reporting Vol. 2A 104 2-4
core software Vol. 2A 101 1-14
definition Vol. 2A 100 1-3
definition of the term Vol. 2A 100 5-3
deleting host Vol. 4B 310 11-4
designating primary host Vol. 3A 245 4-11
DMS MAP testing limitations Vol. 2B 115 7-55
figure Vol. 2A 100 5-7
GR-303 DMS DS1s for Vol. 2A 100 5-5
list all hosts Vol. 3A 245 4-8
optional software package Vol. 2A 101 2-10
ownership of lines Vol. 2A 100 5-6
provisioning Vol. 3A 245 4-1, Vol. 4B 310 11-1
RFT provisioning Vol. 3A 245 4-1, Vol. 4B 310 11-1

Multi-line test unit
emulation Vol. 2B 115 5-7

Multiplex application.
See Application, multiplex

Multiplexer configuration
Vol. 2A 100 6-3, Vol. 2A 100 6-7

MVI alarms
changing settings for Vol. 4B 315 4-14
viewing settings for Vol. 4B 315 4-14

MVI host IDT values, modifying
Vol. 4B 315 4-10

MVIPROV CI commands
Vol. 4B 315 4-3
listing Vol. 3A 230 4-73, Vol. 3A 235 5-21, Vol. 3A 240 6-21, Vol. 3A 245 4-26, Vol. 4B 315 4-12

MVIPROV CI tool
Vol. 4B 315 4-2

mVOA
Rx fiber Vol. 3A 230 6-36

N

NAD
OPC log Vol. 5B 840 14-1, Vol. 5B 840 14-2, Vol. 5B 840 14-4, Vol. 5B 840 14-6, Vol. 5B 840 14-8, Vol. 5B 840 14-10, Vol. 5B 840 14-12, Vol. 5B 840 14-13, Vol. 5B 840 14-14, Vol. 5B 840 14-16, Vol. 5B 840 14-17, Vol. 5B 840 14-18, Vol. 5B 840 14-19, Vol. 5B 840 14-20, Vol. 5B 840 14-24, Vol. 5B 840 14-25, Vol. 5B 840 14-26, Vol. 5B 840 14-27, Vol. 5B 840 14-28, Vol. 5B 840 14-29, Vol. 5B 840 14-30, Vol. 5B 840 14-31, Vol. 5B 840 14-32, Vol. 5B 840 14-33, Vol. 5B 840 14-34, Vol. 5B 840 14-35, Vol. 5B 840 14-36, Vol. 5B 840 14-37, Vol. 5B 840 14-38, Vol. 5B 840 14-39, Vol. 5B 840 14-40, Vol. 5B 840 14-41, Vol. 5B 840 14-42, Vol. 5B 840 14-43, Vol. 5B 840 14-44, Vol. 5B 840 14-45, Vol. 5B 840 14-48, Vol. 5B 840 14-49, Vol. 5B 840 14-50, Vol. 5B 840 14-51, Vol. 5B 840 14-52, Vol. 5B 840 14-53, Vol. 5B 840 14-54, Vol. 5B 840 14-55, Vol. 5B 840 14-56, Vol. 5B 840 14-58, Vol. 5B 840 14-60, Vol. 5B 840 14-62, Vol. 5B 840 14-63, Vol. 5B 840 14-64, Vol. 5B 840 14-65, Vol. 5B 840 14-66, Vol. 5B 840 14-67, Vol. 5B 840 14-68, Vol. 5B 840 14-69, Vol. 5B 840 14-70, Vol. 5B 840 14-71, Vol. 5B 840 14-72, Vol. 5B 840 14-73, Vol. 5B 840 14-74, Vol. 5B 840 14-75, Vol. 5B 840 14-76, Vol. 5B 840 14-77, Vol. 5B 840 14-78, Vol. 5B 840 14-79, Vol. 5B 840 14-80

Narrowband line interface card
Vol. 5C 547 3-10
replacing in VTBM MBP MBP VTBM Ring User 5-10

Narrowband line-interface card
Vol. 2A 102 6-20
description Vol. 2A 100 8-21
equipment troubleshooting Vol. 5A 543 3-182
LED, troubleshooting Vol. 5A 543 7-20

NCD19
loading from the OPC Vol. 3B 220 5-30, Vol. 3B 220 5-32

NCD19 configuration file
adding, changing, deleting Vol. 3B 220 5-26

NE
NE log Vol. 5B 840 15-1, Vol. 5B 840 15-2, Vol. 5B 840 15-3
See also Network element
Vol. 4C Span of Con Cons 2-2, Vol. 4C Add Nodes VTBM 5-3

NE Login Manager tool
Vol. 4A 301 13-2, Vol. 4A 301 14-7
main window Vol. 4A 301 13-2

NEC TL1 provisioning OS interface software
Vol. 2A 101 2-10

Network
ADSL network connections
UE9000 Data Net Design 3-4
ATM interface UE9000 Data Net Design 3-12
ATM interface engineering guidelines
UE9000 Data Net Design 5-1, UE9000 Data Net Design 5-2, UE9000 Data Net Design 5-3, UE9000 Data Net Design 5-4, UE9000 Data Net Design 5-5
ATM requirements UE9000 Data Net Design 1-6
congestion UE9000 Data Net Design 3-9
connections UE9000 Data Net Design 3-2
customizing user view Vol. 5C 510 6-8
data management guidelines
UE9000 Data Net Design 4-1
data management requirements
UE9000 Data Net Design 1-7
data packet loss UE9000 Data Net Design 3-7
defining user view Vol. 5C 510 6-8
DS1 UE9000 Data Net Design 3-12
management functions
UE9000 Data Net Design 4-2, UE9000 Data Net Design 4-3
maximum number of nodes Vol. 2B 180 7-7
packet loss UE9000 Data Net Design 3-9
round-trip delay UE9000 Data Net Design 3-6, UE9000 Data Net Design 3-7
synchronization and clocking Vol. 2B 180 9-1
TCP/IP considerations
UE9000 Data Net Design 3-8, UE9000 Data Net Design 3-9, UE9000 Data Net Design 3-10, UE9000 Data Net Design 3-11
UE9000 equipment requirements
UE9000 Data Net Design 1-6
UE9000 network overview
UE9000 Data Net Design 1-1
uEMS hardware UE9000 Data Net Design 4-5
uEMSsoftware UE9000 Data Net Design 4-5
user data traffic requirements
UE9000 Data Net Design 1-6

Network Admin toolset
Configuration Manager Vol. 4A 301 8-10
E2A Alarm Manager Vol. 4A 301 8-6
TBOS Mapping Vol. 4A 301 8-2

Network Browser tool
Vol. 4A 301 10-12, Vol. 4A 301 14-5
dialogs Vol. 4A 301 10-12, Vol. 4A 301 14-5
display
network protection summary data
Vol. 5C 510 3-5
displaying detailed shelf information
Vol. 5C 510 3-4
main window Vol. 4A 301 10-12
network element list Vol. 5C 510 3-2
symbols Vol. 5C 510 3-2
sorting the network element list Vol. 5C 510 3-7
surveying the network Vol. 5C 510 3-2

Network element
Vol. 4C Span of Con Cons 2-2, Vol. 4C Add Nodes VTBM 5-3
active alarm list Vol. 5A 543 1-4
active alarm summary Vol. 5C 510 8-3
adding to user view Vol. 5C 510 6-9
alarm
displaying history Vol. 5C 510 8-10
sorting list by class and severity
Vol. 5C 510 8-7
alarm counts
customizing lists of Vol. 5C 510 4-5
resetting for all network elements
Vol. 5C 510 4-7
resetting for selected network elements
Vol. 5C 510 4-4, Vol. 5C 510 4-6
alarm database Vol. 5C 510 8-1
Alarm Monitor tool
configure display Vol. 5C 510 6-10
alarm status
monitoring Vol. 5C 510 4-1 to Vol. 5C 510 4-7
ATM UE9000 Data Net Design 1-4
auditing connection data
Mix & Match DFA Recon QRG 2-15
Auto login command Vol. 5C 510 7-4
autologout feature Vol. 5A 543 1-2
backups Vol. 4C Span of Con Cons 4-2
Break key Vol. 5C 510 7-2
changing name Vol. 4A 302 11-3
checking associations
Mix & Match DFA Recon QRG 2-12
checking database backup
Mix & Match DFA Recon QRG 2-4
clearing log reports Vol. 4A 302 12-12
connecting Vol. 4C Span of Con Cons 8-5
connecting to system Vol. 3B 221 4-6, Vol. 3B 225 5-3
connecting VT100 terminal Vol. 4A 300 3-6, Vol. 4A 300 3-9, Vol. 4A 301 4-28
CPE UE9000 Data Net Design 1-3
data design UE9000 Data Net Design 1-6

Network element (continued)
data management UE9000 Data Net Design 1-4
database backups
manual Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-10
OPC Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-1, Vol. 4A 304 1-10
database, backing up Vol. 3A 235 3-64, Vol. 3A 245 3-28, MCOT to ABM QRG 4-59
defined T&B Eng Info. 152 2-2
definition Vol. 2A 100 1-4
displaying
detailed alarm information Vol. 5C 510 8-6
displaying backups on the OPC Vol. 4A 304 1-3
displaying log reports Vol. 4A 302 12-9
displaying new alarms Vol. 5C 510 8-4
enabling CNET link fail alarm Vol. 4C Rem Nodes VTBM 5-22
exerciser Vol. 4C Add Nodes VTBM 5-4
ID and name Vol. 5A 543 1-3
inspecting Vol. 3A 230 2-2, Vol. 3A 235 2-2, Vol. 3A 240 2-2, Vol. 3A 240 2-25, Vol. 3A 245 2-2, MCOT to ABM QRG 3-2
issuing commands locally Vol. 5A 543 2-1
listing display
scrolling Vol. 5C 510 5-2, Vol. 5C 510 5-4, Vol. 5C 510 5-5, Vol. 5C 510 5-6
listing logs and log reports Vol. 4A 302 12-8
log
archive cycle Vol. 5C 510 5-12
logging in Vol. 4C Add Nodes VTBM 5-3
logging in and out
from the Operations Controller Vol. 5C 510 7-1
logging in to
local Vol. 5C 510 7-1
remote Vol. 5C 510 7-1
logging in to the NEUI Mix & Match DFA Recon QRG 7-3
logging out Vol. 5C 510 7-4, Vol. 4C Add Nodes VTBM 5-77
logging out of the NEUI Mix & Match DFA Recon QRG 7-4
logical data connections UE9000 Data Net Design 1-5
Login Manager tool
logging in to an NE from the OPC Vol. 5C 510 7-3
restrictions and limitations Vol. 5C 510 7-2
login sessions
maximum Vol. 5C 510 7-3
logout
communications problems Vol. 5A 543 1-2
monitoring alarms Vol. 5C 510 6-1
network element lists, sorting Vol. 5C 510 3-7
obtaining list of alarms Vol. 5A 543 1-2
password, changing Vol. 4A 300 3-22
performance overview, displaying Vol. 5C 520 3-10

Network element (continued)
performing a manual backup using the OPC Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-10
performing database backup Mix & Match DFA Recon QRG 2-6
processor software, downloading Vol. 3A 230 3-11, Vol. 3A 245 3-10
protection summary Vol. 5C 510 6-7
provisioning messages TL1 Interface Desc 190 4-87
recovering from reload Vol. 5A 543 3-54
redisplaying the last log report Vol. 4A 302 12-11
removing Vol. 4C Span of Con Cons 12-13
removing from user view Vol. 5C 510 6-9
restoring a database from the OPC Vol. 4A 304 1-12
selecting NE log format Vol. 4A 302 12-5
service gateway UE9000 Data Net Design 1-5
setting date MCOT to ABM QRG 1-47
setting identifier MCOT to ABM QRG 1-47
setting log monitoring parameters Vol. 4A 302 12-1
setting time MCOT to ABM QRG 1-47
software
loads Vol. 3A 230 3-11, Vol. 3A 245 3-10
starting and stopping output to a terminal Vol. 4A 302 12-13
status
changes, identifying Vol. 5C 510 4-3
monitoring Vol. 5C 510 3-1 to Vol. 5C 510 3-7
status screen Vol. 3B 225 5-10
transferring Vol. 4C Span of Con Cons 2-2
UE9000 UE9000 Data Net Design 1-2
UE9000 equipment UE9000 Data Net Design 1-3
user interface Vol. 3A 230 4-14, Vol. 3A 245 4-15, Vol. 3B 225 5-5, Mix & Match DFA Recon QRG 1-11
obtaining list of alarms Vol. 5A 543 1-2
user interface session, opening Vol. 4A 300 3-20
using rlogin command Vol. 5C 510 7-2
verify Vol. 3A 230 5-1
verifying Vol. 3B 225 2-1, Vol. 4C Add Nodes VTBM 5-74
verifying basic operation Vol. 3A 230 5-2

Network element AccessNode
put into service Vol. 3B 225 1-4

Network Element Login Manager tool
alarm clearing Vol. 5A 543 1-3

Network element logs
AIC Vol. 5B 840 2-1, Vol. 5B 840 2-4, Vol. 5B 840 2-6, Vol. 5B 840 2-8, Vol. 5B 840 2-10, Vol. 5B 840 2-12, Vol. 5B 840 2-15

Network element logs (continued)
COM Vol. 5B 840 3-1, Vol. 5B 840 3-2, Vol. 5B 840 3-3, Vol. 5B 840 3-4, Vol. 5B 840 3-5, Vol. 5B 840 3-6, Vol. 5B 840 3-7
COML Vol. 5B 840 4-1, Vol. 5B 840 4-2, Vol. 5B 840 4-4
EQP Vol. 5B 840 5-1, Vol. 5B 840 5-3, Vol. 5B 840 5-17, Vol. 5B 840 5-21, Vol. 5B 840 5-23, Vol. 5B 840 5-25, Vol. 5B 840 5-27, Vol. 5B 840 5-28, Vol. 5B 840 5-32, Vol. 5B 840 5-36, Vol. 5B 840 5-38, Vol. 5B 840 5-41, Vol. 5B 840 5-42, Vol. 5B 840 5-43, Vol. 5B 840 5-44, Vol. 5B 840 5-46, Vol. 5B 840 5-48
EVNT Vol. 5B 840 6-1, Vol. 5B 840 6-4
FAC Vol. 5B 840 7-1, Vol. 5B 840 7-8, Vol. 5B 840 7-11, Vol. 5B 840 7-13, Vol. 5B 840 7-16, Vol. 5B 840 7-18, Vol. 5B 840 7-20, Vol. 5B 840 7-21, Vol. 5B 840 7-24, Vol. 5B 840 7-26, Vol. 5B 840 7-28, Vol. 5B 840 7-29, Vol. 5B 840 7-30, Vol. 5B 840 7-32, Vol. 5B 840 7-34, Vol. 5B 840 7-35
FLT Vol. 5B 840 8-1
FWDB Vol. 5B 840 9-1, Vol. 5B 840 9-2, Vol. 5B 840 9-4, Vol. 5B 840 9-5, Vol. 5B 840 9-6, Vol. 5B 840 9-7
HMU Vol. 5B 840 11-1, Vol. 5B 840 11-4, Vol. 5B 840 11-8, Vol. 5B 840 11-9, Vol. 5B 840 11-12
IRTU Vol. 5B 840 12-1, Vol. 5B 840 12-3, Vol. 5B 840 12-5, Vol. 5B 840 12-6, Vol. 5B 840 12-8, Vol. 5B 840 12-9, Vol. 5B 840 12-11
LC Vol. 5B 840 13-1, Vol. 5B 840 13-2, Vol. 5B 840 13-3, Vol. 5B 840 13-4, Vol. 5B 840 13-5, Vol. 5B 840 13-6, Vol. 5B 840 13-7, Vol. 5B 840 13-8, Vol. 5B 840 13-10, Vol. 5B 840 13-12, Vol. 5B 840 13-13, Vol. 5B 840 13-14, Vol. 5B 840 13-15, UE9000 Voice OAMP UG 7-22, UE9000 Voice OAMP UG 7-23, UE9000 Voice OAMP UG 7-25, UE9000 Voice OAMP UG 7-27, UE9000 Voice OAMP UG 7-30, UE9000 Voice OAMP UG 7-32, UE9000 Voice OAMP UG 7-33, UE9000 Voice OAMP UG 7-34, UE9000 Voice OAMP UG 7-37, UE9000 Voice OAMP UG 7-38
NE Vol. 5B 840 15-1, Vol. 5B 840 15-2, Vol. 5B 840 15-3
OPT Vol. 5B 840 16-1, Vol. 5B 840 16-2
SCHD Vol. 5B 840 17-1, Vol. 5B 840 17-3
SOFT Vol. 5B 840 19-1
SWCT Vol. 5B 840 21-1

Network element logs (continued)
TAC Vol. 5B 840 2-1, Vol. 5B 840 22-1, Vol. 5B 840 22-4, Vol. 5B 840 22-6, Vol. 5B 840 22-7, Vol. 5B 840 22-9, Vol. 5B 840 22-10, Vol. 5B 840 22-11, Vol. 5B 840 22-12, Vol. 5B 840 22-15
TPS Vol. 5B 840 23-1
VLCM Vol. 5B 840 24-1

Network element status screen
add circuit pack group Vol. 3A 230 7-11
eq ds 1 Vol. 3A 230 7-10
lockout re Vol. 3A 230 6-46
log in Vol. 3A 230 6-46, Vol. 3A 230 9-16
Network element time Vol. 3A 245 3-41
remove DS1 lockout Vol. 3A 230 6-47
shelf equipment screen Vol. 3A 230 5-18
shelf inventory Vol. 3A 230 5-18

Network element time
network element status screen Vol. 3A 245 3-41

Network element user interface
activating interface ports Vol. 4A 302 7-7
activating or deactivating E2A TBOS ports Vol. 4A 302 8-5
adding a facility Vol. 4B 310 6-3
adding or changing E2A TBOS port displays Vol. 4A 302 8-6
alarm displays Vol. 2A 104 4-2
  detailed information Vol. 2A 104 4-5
  in list form Vol. 2A 104 4-3
  summary on every screen Vol. 2A 104 4-2
alarm points (equipment), enabling or disabling UE9000 Voice OAMP UG 1-5
  circuit packs and common equipment shelf Vol. 4B 310 5-11
alarms
  generating for testing Vol. 4B 310 17-33
changing a scheduled shelf event or exercise Vol. 4A 302 11-5
changing interface port parameters Vol. 4A 302 7-4
changing NE name Vol. 4A 302 11-3
changing serial telemetry ports and displays Vol. 4A 302 8-1
changing telemetry input description Vol. 4A 302 9-11
changing the telemetry output port settings Vol. 4A 302 9-15
circuit pack parameters, displaying UE9000 Voice OAMP UG 3-3
circuit pack states, querying Vol. 4B 310 7-9, UE9000 Voice OAMP UG 3-6
clearing log reports Vol. 4A 302 12-12
COMM facility alarms, enabling and disabling Vol. 4B 310 6-14
command menus Vol. 4A 300 2-21
common equipment shelf, restarting (manual) Vol. 4B 310 17-26

Network element user interface (continued)
configuring a user interface port for a log output device Vol. 4A 302 12-2
connecting a log output device Vol. 4A 302 12-2
deleting copper-distribution shelf (deprovisioning) Vol. 4B 310 5-30
deleting display from E2A TBOS port Vol. 4A 302 8-8
deleting DS1/VT mapper, DS3, OC-3, and OC-12 circuit packs (deprovisioning) Vol. 4B 310 5-26
diagnostics (manual), circuit pack Vol. 4B 310 17-12
display
by alarm severity Vol. 5C 510 3-7
by network element Vol. 5C 510 3-7
displaying E2A TBOS port parameters Vol. 4A 302 8-3
displaying exerciser and backup schedule Vol. 4A 302 11-4
displaying interface port parameters Vol. 4A 302 7-3
displaying interface ports Vol. 4A 302 7-2
displaying NE log reports Vol. 4A 302 12-9
displaying parallel telemetry input port parameters Vol. 4A 302 9-2
displaying profile parameters Vol. 4A 302 11-2
displaying telemetry output port parameters Vol. 4A 302 9-13
DS1 and STS-1 facility alarm points, enabling and disabling Vol. 4B 310 6-6
DS1 facility
loopback test, setting or releasing Vol. 4B 310 17-16
DS3 facility
alarm points, enabling and disabling Vol. 4B 310 6-9
loopback test, setting or releasing Vol. 4B 310 17-16
enabling or disabling a TBOS port display Vol. 4A 302 8-9
enabling or disabling parallel telemetry input points Vol. 4A 302 9-5
enabling or disabling user interface ports for printing logs Vol. 4A 302 12-6
entering commands Vol. 4A 300 2-10
EOC/TMC/CSC transmission parameters, provisioning Vol. 4B 310 6-38
equipment shelf inventory, displaying Vol. 4B 310 7-3
facility diagnostics UE9000 Voice OAMP UG 5-37
facility parameters, displaying UE9000 Voice OAMP UG 3-5
facility parameters, querying UE9000 Voice OAMP UG 3-8
far-end, logging in Vol. 4A 300 3-15
features Vol. 4A 300 2-1
inventory, displaying UE9000 Voice OAMP UG 3-15
lamp testing Vol. 4B 310 17-7

Network element user interface (continued)
line card diagnostics Vol. 4B 316 2-36
line card inventory Vol. 4B 316 2-29
line card, resetting Vol. 4B 310 17-30
listing NE logs and log reports Vol. 4A 302 12-8
local, logging in and out Vol. 4A 300 3-11
Log Event Details dialog Vol. 5C 510 5-2
log in Vol. 3B 221 4-3
logging in Vol. 3A 230 5-7, Vol. 3B 222 2-14
logging in at RFT Vol. 3B 222 2-18
logging in, logging out Vol. 4A 300 3-17
logging out another user Vol. 4A 302 4-74
manually operating or releasing telemetry output relay Vol. 4A 302 9-19
menu hierarchy Vol. 4A 300 2-1
OC-12
performance monitoring thresholds Vol. 4B 310 5-21
OC-12 facility alarm points, enabling and disabling Vol. 4B 310 6-12
OC-3
performance monitoring thresholds Vol. 4B 310 5-17
OC-3 facility alarm points, enabling and disabling Vol. 4B 310 6-12
parallel telemetry parameters, setting Vol. 4A 302 9-1
parameters
circuit pack, displaying Vol. 4B 310 7-5
equipment shelf, displaying Vol. 4B 310 7-2
equipment, displaying Vol. 4B 310 7-1
equipment, querying Vol. 4B 310 7-1
facility, displaying Vol. 4B 310 8-1
facility, querying Vol. 4B 310 8-1
processor card, provisioning Vol. 4B 310 5-15
peak processing
refreshing a screen Vol. 4A 300 2-4, Vol. 4A 301 6-1, Vol. 4A 301 7-2, Vol. 4A 301 8-1, Vol. 4A 301 9-1, Vol. 4A 301 10-1, Vol. 4A 301 11-1, Vol. 4A 301 12-1, Vol. 4A 301 13-1
port parameters, changing Vol. 4A 302 7-1
preprovisioning GR-303 MVI line card services using MVIPROV Vol. 4B 315 4-1
processor card, exercising (manually) Vol. 4B 310 17-5
processor card, restarting (manual) Vol. 4B 310 17-21
processor card, switching activity Vol. 4B 310 17-19, UE9000 Voice OAMP UG 5-43
protection groups, testing (manually) Vol. 4B 310 17-3
provisioning alarm severity of telemetry inputs Vol. 4A 302 9-7
provisioning and deprovisioning UE9000 Voice OAMP UG 1-1
provisioning and deprovisioning AccessNode equipment Vol. 4B 310 5-1
provisioning service impact Vol. 4A 302 9-9
querying another E2A TBOS port Vol. 4A 302 8-4

Network element user interface (continued)
querying another telemetry output port Vol. 4A 302 9-14
querying interface ports Vol. 4A 302 7-6
querying parallel telemetry parameters Vol. 4A 302 9-3
redisplaying the last log report Vol. 4A 302 12-11
removing a line termination or line card Vol. 4B 316 2-45
screen attributes Vol. 4A 300 2-2
screen layout Vol. 4A 300 2-3
selecting NE log format Vol. 4A 302 12-5
session, opening Vol. 4A 300 3-20
setting parameters Vol. 4A 302 11-1
setting the backup schedule for an NE Vol. 4A 304 1-7
SONET data communications channel provisioning Vol. 4B 310 6-58
specifications Vol. 2B 180 13-4
starting and stopping log output to a terminal Vol. 4A 302 12-13
status messages Vol. 4A 300 2-19
system responses Vol. 4A 300 2-18
TDM card, restarting (manual) UE9000 Voice OAMP UG 5-45
Transport interface card facility alarm points, enabling and disabling Vol. 4B 310 6-16
userID
listing all on NE Vol. 4A 302 4-70
other user, logging out Vol. 4A 302 4-74
user logged in at a terminal, displaying Vol. 4A 302 4-73
users
listing all users logged into the NE Vol. 4A 302 4-71
listing all users logged into the NE and the device Vol. 4A 302 4-72
using commands effectively Vol. 4A 300 2-15
VLCM CI tool
opening Vol. 5C 520 5-2
tranlcm command Vol. 5C 520 5-6

Network element, provisioning
UE9000 Data OAMP UG 1-18

Network Manager software
Vol. 2A 101 2-11

Network processor
daisy-chaining MCOT to ABM QRG 1-30
setting date MCOT to ABM QRG 1-50
setting identifier MCOT to ABM QRG 1-50
setting time MCOT to ABM QRG 1-50

Network protection
displaying
summary Vol. 5C 510 6-7
summary data Vol. 5C 510 3-5

Network security
Centralized User Administration tool Vol. 4A 302 4-1
procedures Vol. 4A 302 4-1

Network Summary tool
alarm counts
resetting for all network elements Vol. 5C 510 4-7
resetting for selected network elements Vol. 5C 510 4-6
main window Vol. 4A 301 10-7
network element alarm count lists
customizing Vol. 5C 510 4-5
network status
changes, identifying Vol. 5C 510 4-3

Network surveillance
alarm display procedures Vol. 5C 510 8-1, Vol. 5C 510 8-10
Alarm Monitor tool Vol. 5C 510 1-1, Vol. 5C 510 6-1, Vol. 5C 510 6-5
environment Vol. 5C 510 1-1
Event Browser tool Vol. 5C 510 1-1, Vol. 5C 510 5-1, Vol. 5C 510 5-2, Vol. 5C 510 5-4
monitoring alarm status Vol. 5C 510 1-2
status line symbols Vol. 5C 510 1-2
Network Browser tool Vol. 5C 510 1-1, Vol. 5C 510 3-4, Vol. 5C 510 3-5, Vol. 5C 510 3-7
using Vol. 5C 510 3-2
network element list Vol. 5C 510 3-2
Network Element Login Manager tool Vol. 5C 510 1-1, Vol. 5C 510 7-1
Network Summary tool Vol. 5C 510 1-1, Vol. 5C 510 4-5, Vol. 5C 510 4-6, Vol. 5C 510 4-7
OPC Alarm Monitor tool Vol. 5C 510 8-1
Operations Controller Status tool Vol. 5C 510 1-1

Network Surveillance toolset
Event Browser Vol. 4A 301 6-8, Vol. 4A 301 9-12, Vol. 4A 301 10-11, Vol. 4A 301 14-4
Network Browser Vol. 4A 301 10-12, Vol. 4A 301 14-5

Network Upgrade Manager tool
Vol. 4A 301 6-12
requirements and restrictions Vol. 4A 301 6-14

Network-view inventory software package
Vol. 2A 101 2-8

NEUI.
See Network element user interface

NLIC.
See narrowband line interface card

NMA TL1 surveillance OS interface software
Vol. 2A 101 2-12

Node map
ring Vol. 2A 103 4-6

Node.
See Network element

Nonloaded cable
equalizing a 4-wire line card Vol. 1 155 3-8

Non-locally switched service
2-wire applications Vol. 1 155 1-52

Non-locally switched services
4-wire applications Vol. 1 155 1-64

Nonlocally switched services
Vol. 2A 101 1-15

Nonrevertive protection switching.
See Protection switching, nonrevertive.

Non-switched services
2-wire applications Vol. 1 155 1-56

Nonswitched services
Vol. 2A 101 1-15
4-wire applications Vol. 1 155 1-66
6/8-wire applications Vol. 1 155 1-78

No-test trunk
concept Vol. 2B 115 1-3
supported by core software Vol. 2A 101 1-13

No-test trunk testing
bypass pair
MTA, integrated Vol. 2B 115 7-43, Vol. 2B 115 7-45
MTA, universal Vol. 2B 115 7-40
PGTC emulation, integrated Vol. 2B 115 7-49
PGTC emulation, TR08 integrated Vol. 2B 115 7-50
PGTC, universal Vol. 2B 115 7-47
CALRS Vol. 2B 115 9-3
external RTU
MTA, integrated Vol. 2B 115 7-26
MTA, universal Vol. 2B 115 7-23
PGTC emulation, GR-303 integrated Vol. 2B 115 7-32
PGTC emulation, TR08 integrated Vol. 2B 115 7-37
PGTC, universal Vol. 2B 115 7-29
external RTU (PGTC emulation, TR303 integrated) Vol. 2B 115 9-6

No-test trunk testing (continued)
IRTU (DRTU emulation)
DS1 tandem, integrated Vol. 2B 115 7-18
MTA, universal Vol. 2B 115 7-4
PGTC, GR-303 integrated Vol. 2B 115 7-8, Vol. 2B 115 7-12
PGTC, TR08 integrated Vol. 2B 115 7-16
test bypass pair (PGTC emulation, integrated) Vol. 2B 115 9-9
with IRTU (DRTU emulation) Vol. 2B 115 7-4

NT4K12--CDS
Vol. 5C 547 4-3

NT4K1472--LED card in BIP
Vol. 5C 547 5-1, Vol. 5C 547 5-11

NT4K14AA--ABM BIP
Vol. 5C 546 2-8

NT4K14--BIP
Vol. 5C 547 5-1, Vol. 5C 547 5-5, Vol. 5C 547 5-11, Vol. 5C 547 9-3, Vol. 5C 547 9-5

NT4K15--air filter unit
Vol. 5C 547 6-6

NT4K17--cooling module
Vol. 5C 547 6-1, Vol. 5C 547 6-2

NT4K18--CU
Vol. 5C 547 6-1, Vol. 5C 547 6-2

NT4K19AT--COPCU maintenance kit
Vol. 5C 547 8-1

NT4K2030 shelf identification card failure
troubleshooting Vol. 5A 543 3-69

NT4K2620--MBP blower module
Vol. 5C 547 11-1, Vol. 5C 547 11-2

NT4K30--DS3 I/O card
Vol. 5C 547 2-2, Vol. 5C 547 2-3

NT4K31--DS1 protection bridge card
Vol. 5C 547 2-2, Vol. 5C 547 2-4

NT4K32--DS1 input card
Vol. 5C 547 2-2, Vol. 5C 547 2-6

NT4K33--DS1 output card
Vol. 5C 547 2-2, Vol. 5C 547 2-8

NT4K50--side interconnect left circuit pack
Vol. 5C 547 2-2, Vol. 5C 547 2-10

NT4K51AA--side interconnect right circuit pack
Vol. 5C 547 2-2, Vol. 5C 547 2-12

NT4K52--processor card
Vol. 5C 547 2-2, Vol. 5C 547 2-13

NT4K53--MIC
Vol. 5C 547 2-2, Vol. 5C 547 2-17

NT4K54--TAC
Vol. 5C 547 2-2, Vol. 5C 547 2-21

NT4K55--AIC
Vol. 5C 547 2-2, Vol. 5C 547 2-23

NT4K55--LAIC
Vol. 5C 547 2-23

NT4K56CA--ATIC
Vol. 5C 547 2-2

NT4K56--TIC
Vol. 5C 547 2-2, Vol. 5C 547 2-31

NT4K57--IRTU
Vol. 5C 547 2-2, Vol. 5C 547 2-46

NT4K58CA--TBP
Vol. 5C 547 2-2, Vol. 5C 547 2-48

NT4K58DA--PGTC/MTA
Vol. 5C 547 2-2, Vol. 5C 547 2-50

NT4K58KA--TAP
Vol. 5C 547 2-2, Vol. 5C 547 2-52

NT4K58LA--serial I/O card
Vol. 5C 547 2-2, Vol. 5C 547 2-54

NT4K58MA--CEP
Vol. 5C 547 2-2, Vol. 5C 547 2-56

NT4K60--DS3 protection switch circuit pack
Vol. 5C 547 2-2, Vol. 5C 547 2-62

NT4K61AA--talk battery filter card
Vol. 5C 547 5-1, Vol. 5C 547 5-19

NT4K61BA
Vol. 5C 547 5-21

NT4K61BA--talk battery filter card
Vol. 5C 547 5-1

NT4K62AA--CDSP
Vol. 5C 547 3-1, Vol. 5C 547 3-2

NT4K63--CDS power filter
Vol. 5C 547 4-15

NT4K64AA--alarm relay card
Vol. 5C 547 5-1, Vol. 5C 547 5-23

NT4K65--E2WS
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K67AB--O2WS
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K68AA--O2WO
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K69AA--O4W
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K70AA--NLIC
Vol. 5C 547 3-1, Vol. 5C 547 3-10

NT4K73AA--MTA
Vol. 5C 547 3-1, Vol. 5C 547 3-13

NT4K75--TXC
Vol. 5C 547 2-2, Vol. 5C 547 2-63

NT4K77AA--O68W
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K78AA--MRD
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT4K79AA--UVG
Vol. 5C 547 3-1, Vol. 5C 547 3-4

NT5C06--MPR25 MPP rectifier Vol. 5C 547 11-1, Vol. 5C 547 11-6

NT5C06--MPR25 rectifier Vol. 5C 546 5-2

NT7A6920--Fan filter replacement kit
Vol. 5C 546 6-17

NT7A6930--Fan filter replacement kit
Vol. 5C 546 6-15

NT7E01--OC-3 optical interface
Vol. 5C 547 2-2, Vol. 5C 547 2-66

NT7E02--OC-12 optical interface
Vol. 5C 547 2-2, Vol. 5C 547 2-76

NT7E04--DS1/VT mapper
Vol. 5C 547 2-2, Vol. 5C 547 2-84

NT7E05--OC-12 VTBM optical interface
Vol. 5C 547 2-2, Vol. 5C 547 2-89

NT7E08--DS3/STS mapper
Vol. 5C 547 2-2, Vol. 5C 547 2-97

NT7E09--STS-1 interface
Vol. 5C 547 2-2, Vol. 5C 547 2-101

NT7E19--ESI
Vol. 5C 547 2-2, Vol. 5C 547 2-106

NT7E24--OPC
Vol. 5C 547 2-2

NT7E24TB--DDS cleaning cassette
Vol. 5C 546 4-6

NT7E27--ESI
Vol. 5C 547 2-2, Vol. 5C 547 2-112

NT7E5047--LCAP
Vol. 5C 547 8-15 to Vol. 5C 547 8-16

NT7E5051--LCAP
Vol. 5C 547 8-15

NT7E5053--LCAP
Vol. 5C 547 8-15

NT7E5604--TBM BIP display circuit pack
Vol. 5C 547 5-1, Vol. 5C 547 5-31

NT7E5606--BIP lamp circuit pack (subassembly of NT7E5604)
Vol. 5C 547 5-31

NT7E5608--BIP control circuit pack (subassembly of NT7E5604)
Vol. 5C 547 5-31

NT7E56AA--TBM BIP
Vol. 5C 546 2-8

NT7E56AB--TBM BIP
Vol. 5C 546 2-8

NT7E56CA
Vol. 5C 546 2-12

NT7E56CA--TBM BIP
Vol. 5C 547 5-28

NT7E56--TBM BIP
Vol. 5C 547 5-2, Vol. 5C 547 5-25

NT7E7801--COPCU
Vol. 5C 547 8-1, Vol. 5C 547 8-15, Vol. 5C 547 8-16

NT7E7802--COPCU alarm cable
Vol. 5C 547 8-17

NT7E7804--COPCU 48 V power cable
Vol. 5C 547 8-11

NT7E90AA--2400-baud modem, TBM BIP
Vol. 5C 547 5-1, Vol. 5C 547 5-25

NT7E90BA--2400-baud modem, TBM BIP
Vol. 5C 547 5-1

NT7E90BA-modem, TBM BIP
Vol. 5C 547 5-28

NTT.
See No-test trunk.

Null modem adaptor
MBP Cab Inst 206 9-87

O

O2WO.
See omega 2-wire office line card

O2WS.
See omega 2-wire station line card

O4W.
See omega 4-wire line card

O68W.
See omega 6/8-wire line card

OAM&P functions of operations controller module
Vol. 2A 102 5-80, Vol. 2A 102 5-81

OC-1 equipment
Vol. 3A 230 7-1

OC-12
alarm
optical interface component failure
Vol. 5A 543 2-6
biconic connector Vol. 5C 547 2-78, Vol. 5C 547 2-82
circuit pack, deleting Vol. 4B 310 5-26
equipment
PM report type, changing Vol. 5C 520 3-52
PM statistics, displaying Vol. 5C 520 3-48
PM threshold alarms and alerts, disabling
Vol. 5C 520 3-60
PM threshold alarms and alerts, enabling
Vol. 5C 520 3-58
PM threshold status, changing
Vol. 5C 520 3-54
PM threshold value, changing Vol. 5C 520 3-56
PM thresholds currently enabled, displaying
Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
PM thresholds, displaying Vol. 5C 520 3-50
troubleshooting Vol. 5A 543 3-226
troubleshooting alarms Vol. 5A 543 3-288
equipment damage Vol. 5C 547 2-89, Vol. 5C 547 2-94, Vol. 5C 547 2-96
exerciser, enabling/disabling Vol. 4B 311 2-45
facility
adding Vol. 4B 310 6-3
alarm points, enabling and disabling
Vol. 4B 310 6-12
deleting Vol. 4B 310 6-60
PM counters, clearing Vol. 5C 520 3-15
PM history, displaying Vol. 5C 520 3-21
PM report type, changing Vol. 5C 520 3-29
PM statistics, displaying Vol. 5C 520 3-12
PM threshold alarms and alerts, disabling
Vol. 5C 520 3-45

OC-12, facility (continued)
PM threshold alarms and alerts, enabling
Vol. 5C 520 3-42
PM threshold status, changing
Vol. 5C 520 3-33
PM threshold value, changing Vol. 5C 520 3-37
PM thresholds currently enabled, displaying
Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
PM thresholds, displaying Vol. 5C 520 3-25
PM thresholds, displaying full precision
Vol. 5C 520 3-69
PM untimed interval clock, starting
Vol. 5C 520 3-18
performance threshold provisioning
Vol. 4B 310 6-48
provisioning and deprovisioning
Vol. 4B 310 6-1
provisioning operating parameters
Vol. 4B 310 6-35
group Vol. 3B 221 3-2
group and slot association Vol. 5A 543 1-15, Vol. 5C 547 1-9
group and slot associations Vol. 4B 311 2-2
guaranteed system gain specifications
Vol. 2B 180 1-7, Vol. 2B 180 1-10
interface circuit pack Vol. 2A 102 5-64, Vol. 5C 547 2-76
equipping rules Vol. 2A 102 5-69, Vol. 2A 102 5-70
LED, troubleshooting Vol. 5A 543 7-25
replacing in VTBM MBP
MBP VTBM Ring User 7-37
intermediate receiver specifications
Vol. 2B 180 1-6, Vol. 2B 180 1-9
line Vol. 2A 105 1-12
NT7E02 Vol. 5C 547 2-2, Vol. 5C 547 2-76
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
optical interface
alarm point, enabling and disabling
Vol. 4B 310 5-11
optical interface specifications Vol. 2B 180 1-5
optical performance monitoring Vol. 2A 101 1-15
performance monitoring Vol. 2A 105 1-11, TL1 Interface Desc 190 3-125
protection parameters Vol. 4B 311 2-38
protection switching Vol. 2A 101 1-15
counters, clearing Vol. 5C 520 3-63
history, displaying Vol. 5C 520 3-67
statistics, displaying Vol. 5C 520 3-62
untimed interval clock, starting
Vol. 5C 520 3-65
provisioning performance thresholds
Vol. 4B 310 5-21
section Vol. 2A 105 1-11
traffic loss Vol. 5C 547 2-90

OC-12 (continued)
transport
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
upgrade from OC-3 Vol. 4C 324 13-1
virtual tributary bandwidth manager circuit pack
in transport bandwidth manager Vol. 1 154 3-5
VTBM circuit pack Vol. 2A 102 5-71
VTBM circuit packs Vol. 3B 221 3-2, Vol. 3B 221 3-7
VTBM optical interface Vol. 5C 547 2-89
VTBM ring Vol. 4B 311 2-8
VTBM ring software Vol. 2A 101 2-12

OC-12 interface circuit pack
automatic protection switching Vol. 2A 103 3-5
description Vol. 2A 100 8-9
exerciser command Vol. 2A 103 3-9
forced-switching command Vol. 2A 103 3-9
lockout command Vol. 2A 103 3-8
manual-switching command Vol. 2A 103 3-9
protection switching Vol. 2A 103 2-20
user-initiated protection switching Vol. 2A 103 3-4

OC-12 VTBM circuit pack
automatic ring protection switching Vol. 2A 103 4-21
forced-switching Vol. 2A 103 4-23
lockout Vol. 2A 103 4-21
manual-switching Vol. 2A 103 4-23
protection switching Vol. 2A 103 2-21

OC-12 VTBM interface circuit pack
description Vol. 2A 100 8-10
timing modes Vol. 2A 100 11-26
acquire mode Vol. 2A 100 11-27
automatic control Vol. 2A 100 11-29
freerun mode Vol. 2A 100 11-27
holdover mode Vol. 2A 100 11-28
normal mode Vol. 2A 100 11-27
provisioning rules Vol. 2A 100 11-28

OC-12 VTM circuit pack
changing the target clock mode Vol. 3A 230 4-18, Vol. 4B 310 4-11

OC12.
See OC-12 transport

OC-3
alarm
optical interface component failure Vol. 5A 543 2-6
biconic connector Vol. 5C 547 2-72, Vol. 5C 547 2-74
circuit pack, deleting Vol. 4B 310 5-26
equipment
PM report type, changing Vol. 5C 520 3-52
PM statistics, displaying Vol. 5C 520 3-48

OC-3, equipment (continued)
PM threshold alarms and alerts, disabling Vol. 5C 520 3-60
PM threshold alarms and alerts, enabling Vol. 5C 520 3-58
PM threshold status, changing Vol. 5C 520 3-54
PM threshold value, changing Vol. 5C 520 3-56
PM thresholds, displaying Vol. 5C 520 3-50
PMthresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
troubleshooting Vol. 5A 543 3-226
exerciser, enabling/disabling Vol. 4B 311 2-45
facility
PM counters, clearing Vol. 5C 520 3-15
PM history, displaying Vol. 5C 520 3-21
PM report type, changing Vol. 5C 520 3-29
PM statistics, displaying Vol. 5C 520 3-12
PM threshold alarms and alerts, disabling Vol. 5C 520 3-45
PM threshold alarms and alerts, enabling Vol. 5C 520 3-42
PM threshold status, changing Vol. 5C 520 3-33
PM threshold value, changing Vol. 5C 520 3-37
PM thresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
PM thresholds, displaying Vol. 5C 520 3-25
PM thresholds, displaying full precision Vol. 5C 520 3-69
PM untimed interval clock, starting Vol. 5C 520 3-18
group and slot association Vol. 5A 543 1-15, Vol. 5C 547 1-9
group and slot associations Vol. 4B 311 2-2
guaranteed system gain specifications Vol. 2B 180 1-4
interface circuit pack Vol. 2A 102 5-79, Vol. 5C 547 2-66
equipping rules Vol. 2A 102 5-79
in access bandwidth manager Vol. 1 154 2-5, Vol. 1 154 2-18
LED, troubleshooting Vol. 5A 543 7-24
slot location in access bandwidth manager Vol. 1 154 2-5, Vol. 1 154 2-18
slot location in transport bandwidth manager Vol. 1 154 3-36
line Vol. 2A 105 1-12
NT7E01 Vol. 5C 547 2-2, Vol. 5C 547 2-66
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
optical interface
alarm point, enabling and disabling Vol. 4B 310 5-11
optical interface specifications Vol. 2B 180 1-2

OC-3 (continued)
performance monitoring Vol. 2A 105 1-11, TL1 Interface Desc 190 3-124
protection parameters Vol. 4B 311 2-36
protection switching
counters, clearing Vol. 5C 520 3-63
history, displaying Vol. 5C 520 3-67
statistics, displaying Vol. 5C 520 3-62
untimed interval clock, starting Vol. 5C 520 3-65
provisioning performance thresholds Vol. 4B 310 5-17
section Vol. 2A 105 1-11
transport
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
tributaries Vol. 2A 101 2-12
tributary
adding Vol. 4C 324 8-1, Vol. 4C 324 8-6
concatenated tributaries Vol. 2A 102 5-71
OC-3c (concatenated) Vol. 2A 102 5-71
preparing to add Vol. 4C 324 8-2
upgrading to OC-12 Vol. 4C 324 13-1
upgrading unprotected to protected Vol. 4C 324 8-8

OC-3 Express shelf
commissioning MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50
ESD jacks MCOT to ABM QRG 1-35

OC-3 facility
adding Vol. 4B 310 6-3
alarm points, enabling and disabling Vol. 4B 310 6-12
deleting Vol. 4B 310 6-60
performance threshold provisioning Vol. 4B 310 6-48
provisioning and deprovisioning Vol. 4B 310 6-1
provisioning operating parameters Vol. 4B 310 6-35

OC-3 interface
connecting fiber-optic cables MCOT to ABM QRG 1-42
installation MCOT to ABM QRG 1-10

OC-3 interface circuit pack
automatic protection switching Vol. 2A 103 3-5
description Vol. 2A 100 8-11
exerciser command Vol. 2A 103 3-9
forced-switching command Vol. 2A 103 3-9
lockout command Vol. 2A 103 3-8
manual-switching command Vol. 2A 103 3-9
protection switching Vol. 2A 103 2-20
user-initiated protection switching Vol. 2A 103 3-4

OC-3 optical performance monitoring
fiber optic feeder Vol. 2A 101 1-15
tributaries Vol. 2A 101 1-15, Vol. 2A 101 2-12

OC-3 protection switching
Vol. 2A 101 1-15

OC-3 tributary
DS1 bit error rate test Vol. 3B 222 4-12
DS3 bit error rate test Vol. 3B 222 4-13
end-to-end tests Vol. 3B 222 4-1
facility
deactivating Vol. 3B 222 4-17
deleting Vol. 3B 222 4-17
planning ABM Inst 201 2-11, ABM Inst 201 2-12
STS-1 bit error rate test Vol. 3B 222 4-13
system test setup Vol. 3B 222 4-5

OC3 tributary
inserting circuit packs Vol. 3A 230 2-29

OC-3/OC-12
equipment alarms TL1 Interface Desc 190 3-107
facility alarms TL1 Interface Desc 190 3-119
lockout and loopbacks, set up Vol. 3A 230 7-16
manual switching, test Vol. 3A 230 6-53
optical bandwidth upgrade procedure Vol. 4C 324 13-1
shelf timing source, changing Vol. 3A 230 4-14, Vol. 3A 235 3-38, Vol. 3A 240 4-4, Vol. 3A 240 4-29, Vol. 3A 245 4-15, MCOT to ABM QRG 4-39

Occurrences
events Vol. 5C 510 5-9

OEM.
See Optional equipment module

Off hook trunk conditioning
line card attribute Vol. 4B 315 3-13

Off premise Extension.
See services, Off Premise Extension

Office alarm
connecting to bay equipment TBM Inst 202 4-31
connecting to NT7E56 breaker interface panel TBM Inst 202 4-32
testing
ABM shelf Vol. 3A 230 9-45
TBM shelf Vol. 3A 230 9-55
wirewrap board pinouts TBM Inst 202 4-34

OHT gain.
See Gain, On-hook transmission

OMC
See also operations maintenance channel
channel numbering Vol. 4C Span of Con Cons 8-7

OMC.
See Operations maintenance channel.

Omega
2-wire office line card Vol. 5C 547 3-4
NT4K68AA Vol. 5C 547 3-1, Vol. 5C 547 3-4
2-wire station line card Vol. 5C 547 3-4
NT4K67AB Vol. 5C 547 3-1, Vol. 5C 547 3-4
4-wire line card Vol. 5C 547 3-4
NT4K69AA Vol. 5C 547 3-1, Vol. 5C 547 3-4
6/8-wire line card Vol. 5C 547 3-4
NT4K77AA Vol. 5C 547 3-1, Vol. 5C 547 3-4

Omega 2-wire office line card
Vol. 1 155 1-6, Vol. 2A 102 6-13, Vol. 2B 181 3-1
common functions Vol. 2B 181 3-3
description Vol. 2A 100 8-19
diagnostics Vol. 2B 181 3-3
LED, troubleshooting Vol. 5A 543 7-18
maintenance and testing Vol. 2B 181 3-3
provisioning Vol. 2B 181 3-2
replacing in VTBM MBP
MBP VTBM Ring User 5-5
transient protection Vol. 2B 181 3-3

Omega 2-wire station line card
Vol. 1 155 1-6, Vol. 2A 102 6-14, Vol. 2B 181 2-1
common functions Vol. 2B 181 2-3
description Vol. 2A 100 8-19, Vol. 2B 181 2-2
diagnostics Vol. 2B 181 2-3
LED, troubleshooting Vol. 5A 543 7-17
maintenance and testing Vol. 2B 181 2-3
physical description Vol. 2B 181 2-3
provisioning Vol. 2B 181 2-2
replacing in VTBM MBP
MBP VTBM Ring User 5-5
transient protection Vol. 2B 181 2-4

Omega 4-wire line card
Vol. 1 155 1-7, Vol. 2A 102 6-15, Vol. 2B 181 4-2
common functions Vol. 2B 181 4-3
description Vol. 2A 100 8-19
diagnostics Vol. 2B 181 4-3
LED, troubleshooting Vol. 5A 543 7-19
maintenance and testing Vol. 2B 181 4-3
physical description Vol. 2B 181 4-2
powering up the line equipment Vol. 3B 225 2-7
provisioning Vol. 2B 181 4-2
replacing in VTBM MBP
MBP VTBM Ring User 5-5
transient protection Vol. 2B 181 4-3

Omega 6/8-wire line card
Vol. 1 155 1-7, Vol. 2A 102 6-16, Vol. 2B 181 5-1
common functions Vol. 2B 181 5-11
common VF specifications Vol. 2B 181 5-12
description Vol. 2A 100 8-19
diagnostics Vol. 2B 181 5-11
E&M signaling Vol. 2B 181 5-13

Omega 6/8-wire line card (continued)
LED, troubleshooting Vol. 5A 543 7-23
maintenance and testing Vol. 2B 181 5-11
provisioning Vol. 2B 181 5-2
pulse link repeater signaling Vol. 2B 181 5-13
replacing in VTBM MBP
MBP VTBM Ring User 5-5
tandem signaling Vol. 2B 181 5-17

On-hook
line card attribute
full-time transmission Vol. 4B 315 3-13
receive gain Vol. 4B 315 3-13
transmit gain Vol. 4B 315 3-14

On-hook transmission gain
determining gain settings Vol. 1 155 2-13

On-line help
Vol. 2A 101 1-16

OPC
Vol. 4A 301 7-28
alarms, provisioning Vol. 4B 310 13-1
changing date and time
Vol. 4C Rem Nodes VTBM 7-2
connecting to the network Vol. 3B 220 5-23
deprovisioning Vol. 4C Rem Nodes VTBM 5-17
determining a new location
Vol. 4C Rem Nodes VTBM 2-6
determining existance in a node
Vol. 4C Rem Nodes VTBM 2-5
installing Vol. 4C Rem Nodes VTBM 5-20
password aging Vol. 4A 302 4-13
account status Vol. 4A 302 4-15
change notification period Vol. 4A 302 4-15
expiration date Vol. 4A 302 4-14
last changed date Vol. 4A 302 4-13
PM database Vol. 5C 520 2-1
recovering from a logout
Vol. 4C Rem Nodes VTBM 6-1
relocating Vol. 4C Rem Nodes VTBM 5-17
See also Operations controller
shutdown and removal
Vol. 4C Rem Nodes VTBM 5-19
switch tool Vol. 4A 301 15-2
main window Vol. 4A 301 15-2
window items Vol. 4A 301 15-3
switch tool tasks Vol. 4A 301 15-4
transferring data Vol. 4C Rem Nodes VTBM 5-66

OPC Admin toolset
OPC Alarm Provisioning tool Vol. 4A 301 7-14
OPC date Vol. 4A 301 7-30, Vol. 4A 301 9-14
OPC Save and Restore Vol. 4A 301 7-21, Vol. 4A 301 7-22
Port Configuration Vol. 4A 301 7-36
Remote OPC Software Installation
Vol. 4A 301 7-9

OPC Alarm Monitor tool
Vol. 5C 510 8-1

OPC Alarm Provisioning tool
main window Vol. 4A 301 7-14

OPC Date tool
Vol. 4A 301 7-30, Vol. 4A 301 9-14
1HZ Query dialog Vol. 4A 301 7-32, Vol. 4A 301 9-18
main window Vol. 4A 301 7-30

OPC date tool
date, setting Vol. 4A 302 6-4
querying current time adjustment Vol. 4A 302 6-8
querying the OPC clock source Vol. 4A 302 6-9

OPC GUI
See Graphical user interface

OPC logs
GEN Vol. 5B 840 10-1, Vol. 5B 840 10-2, Vol. 5B 840 10-4, Vol. 5B 840 10-5, Vol. 5B 840 10-6, Vol. 5B 840 10-7, Vol. 5B 840 10-8, Vol. 5B 840 10-9, Vol. 5B 840 10-10, Vol. 5B 840 10-11, Vol. 5B 840 10-12, Vol. 5B 840 10-13
NAD Vol. 5B 840 14-1, Vol. 5B 840 14-2, Vol. 5B 840 14-4, Vol. 5B 840 14-6, Vol. 5B 840 14-8, Vol. 5B 840 14-10, Vol. 5B 840 14-12, Vol. 5B 840 14-13, Vol. 5B 840 14-14, Vol. 5B 840 14-16, Vol. 5B 840 14-17, Vol. 5B 840 14-18, Vol. 5B 840 14-19, Vol. 5B 840 14-20, Vol. 5B 840 14-24, Vol. 5B 840 14-25, Vol. 5B 840 14-26, Vol. 5B 840 14-27, Vol. 5B 840 14-28, Vol. 5B 840 14-29, Vol. 5B 840 14-30, Vol. 5B 840 14-31, Vol. 5B 840 14-32, Vol. 5B 840 14-33, Vol. 5B 840 14-34, Vol. 5B 840 14-35, Vol. 5B 840 14-36, Vol. 5B 840 14-37, Vol. 5B 840 14-38, Vol. 5B 840 14-39, Vol. 5B 840 14-40, Vol. 5B 840 14-41, Vol. 5B 840 14-42, Vol. 5B 840 14-43, Vol. 5B 840 14-44, Vol. 5B 840 14-45, Vol. 5B 840 14-48, Vol. 5B 840 14-49, Vol. 5B 840 14-50, Vol. 5B 840 14-51, Vol. 5B 840 14-52, Vol. 5B 840 14-53, Vol. 5B 840 14-54, Vol. 5B 840 14-55, Vol. 5B 840 14-56, Vol. 5B 840 14-58, Vol. 5B 840 14-60, Vol. 5B 840 14-62, Vol. 5B 840 14-63, Vol. 5B 840 14-64, Vol. 5B 840 14-65, Vol. 5B 840 14-66, Vol. 5B 840 14-67, Vol. 5B 840 14-68, Vol. 5B 840 14-69, Vol. 5B 840 14-70, Vol. 5B 840 14-71, Vol. 5B 840 14-72, Vol. 5B 840 14-73, Vol. 5B 840 14-74, Vol. 5B 840 14-75, Vol. 5B 840 14-76, Vol. 5B 840 14-77, Vol. 5B 840 14-78, Vol. 5B 840 14-79, Vol. 5B 840 14-80

OPC logs (continued)
SDA Vol. 5B 840 18-1, Vol. 5B 840 18-2, Vol. 5B 840 18-3, Vol. 5B 840 18-5, Vol. 5B 840 18-7, Vol. 5B 840 18-9, Vol. 5B 840 18-11, Vol. 5B 840 18-13, Vol. 5B 840 18-15, Vol. 5B 840 18-16, Vol. 5B 840 18-17, Vol. 5B 840 18-18, Vol. 5B 840 18-19, Vol. 5B 840 18-20, Vol. 5B 840 18-21, Vol. 5B 840 18-22, Vol. 5B 840 18-23, Vol. 5B 840 18-25, Vol. 5B 840 18-27, Vol. 5B 840 18-29, Vol. 5B 840 18-31, Vol. 5B 840 18-32, Vol. 5B 840 18-33, Vol. 5B 840 18-34, Vol. 5B 840 18-36, Vol. 5B 840 18-37, Vol. 5B 840 18-38, Vol. 5B 840 18-39, Vol. 5B 840 18-40, Vol. 5B 840 18-41, Vol. 5B 840 18-42, Vol. 5B 840 18-43, Vol. 5B 840 18-44, Vol. 5B 840 18-45, Vol. 5B 840 18-46, Vol. 5B 840 18-47, Vol. 5B 840 18-48, Vol. 5B 840 18-50, Vol. 5B 840 18-51, Vol. 5B 840 18-52, Vol. 5B 840 18-53, Vol. 5B 840 18-54, Vol. 5B 840 18-55, Vol. 5B 840 18-57, Vol. 5B 840 18-58, Vol. 5B 840 18-59, Vol. 5B 840 18-60, Vol. 5B 840 18-62, Vol. 5B 840 18-64, Vol. 5B 840 18-65, Vol. 5B 840 18-67, Vol. 5B 840 18-70, Vol. 5B 840 18-71, Vol. 5B 840 18-72, Vol. 5B 840 18-73, Vol. 5B 840 18-74, Vol. 5B 840 18-75, Vol. 5B 840 18-76, Vol. 5B 840 18-77, Vol. 5B 840 18-78, Vol. 5B 840 18-79, Vol. 5B 840 18-80, Vol. 5B 840 18-81, Vol. 5B 840 18-82, Vol. 5B 840 18-83, Vol. 5B 840 18-84, Vol. 5B 840 18-85, Vol. 5B 840 18-86, Vol. 5B 840 18-87, Vol. 5B 840 18-88, Vol. 5B 840 18-89, Vol. 5B 840 18-90, Vol. 5B 840 18-91, Vol. 5B 840 18-92, Vol. 5B 840 18-93, Vol. 5B 840 18-94, Vol. 5B 840 18-95, Vol. 5B 840 18-96, Vol. 5B 840 18-97, Vol. 5B 840 18-98, Vol. 5B 840 18-99, Vol. 5B 840 18-100, Vol. 5B 840 18-101, Vol. 5B 840 18-102, Vol. 5B 840 18-103, Vol. 5B 840 18-104
STBY Vol. 5B 840 20-1, Vol. 5B 840 20-2, Vol. 5B 840 20-4, Vol. 5B 840 20-5, Vol. 5B 840 20-6, Vol. 5B 840 20-7, Vol. 5B 840 20-8, Vol. 5B 840 20-9, Vol. 5B 840 20-10, Vol. 5B 840 20-11, Vol. 5B 840 20-12, Vol. 5B 840 20-13, Vol. 5B 840 20-14, Vol. 5B 840 20-15, Vol. 5B 840 20-16, Vol. 5B 840 20-17, Vol. 5B 840 20-18, Vol. 5B 840 20-19, Vol. 5B 840 20-20, Vol. 5B 840 20-22, Vol. 5B 840 20-23

OPC Master Admin toolset
OPC Alarm Provisioning tool Vol. 4A 301 7-14
OPC Date Vol. 4A 301 7-30, Vol. 4A 301 9-14
OPC Save and Restore Vol. 4A 301 7-21, Vol. 4A 301 7-22

OPC module
initializing LAN port Vol. 3A 245 6-11

OPC Save and Restore tool
Vol. 4A 301 7-20, Vol. 4A 301 7-22
checking the OPC tape identification
Vol. 4A 304 3-5
identifying the backup tape Vol. 4A 304 2-16
main window
restore mode Vol. 4A 301 7-24
save mode Vol. 4A 301 7-22
restoring data from tape Vol. 4A 304 2-10
saving OPC data to tape Vol. 3A 230 4-63,
Vol. 3A 235 3-65, Vol. 4A 304 2-3,
MCOT to ABM QRG 4-60
scheduling a backup Vol. 4A 304 2-6
transferring data between OPCs Vol. 4A 304 3-7
transferring data to the backup OPC
Vol. 4A 304 2-14

OPC shelf
Vol. 2A 100 7-2
access bandwidth manager shelf used as
Vol. 2A 100 7-15
bay-sharing TBM
bay configuration used for Vol. 2A 100 6-16
definition Vol. 2A 100 1-5
for a basic fiber-fed system Vol. 2A 100 3-8
for a DS1-fed system Vol. 2A 100 3-29 to
Vol. 2A 100 3-30
for a single-ended system Vol. 2A 100 3-33
stand-alone ABM Vol. 2A 100 7-15
bay configuration used for Vol. 2A 100 6-7,
Vol. 2A 100 6-16
supporting operations maintenance channel
Vol. 2A 100 7-17
stand-alone TBM Vol. 2A 100 7-59
bay configuration used for Vol. 2A 100 6-11,
Vol. 2A 100 6-16
transport bandwidth manager shelf used as
Vol. 2A 100 7-59

OPC Shutdown tool
Vol. 4A 301 7-28, Vol. 4A 301 9-13,
Vol. 4A 304 3-2

OPC tool
Vol. 4A 301 5-1, Vol. 4A 301 6-1
Alarm Monitor Vol. 4A 301 10-2
Alarm Provisioning Manager tool
Vol. 4A 301 8-57, Vol. 4A 301 11-16
Backup/Restore Manager Vol. 4A 304 1-1
Backup/Restore Manager tool Vol. 4A 301 6-4
Centralized User Administration Vol. 4A 301 7-2
closing Vol. 4A 301 4-50
Cluster Level Inventory Vol. 4A 301 8-51
Commissioning Manager Vol. 4A 301 9-2
Configuration Manager Vol. 4A 301 8-10
Connection Manager Vol. 4A 301 8-20,
Vol. 4A 301 11-12

OPC tool (continued)
Default Provisioning Manager Vol. 4A 301 11-9
DMSTerm Vol. 4A 301 13-6
E2A Alarm Manager Vol. 4A 301 8-6
Event Browser Vol. 4A 301 9-12,
Vol. 4A 301 10-11, Vol. 4A 301 14-4
Host Provisioning Manager Vol. 4A 301 8-54,
Vol. 4A 301 11-12
Incremental Software Delivery Vol. 4A 301 6-15
IP Routing Admin Vol. 4A 301 7-38
NE Login Manager Vol. 4A 301 13-2,
Vol. 4A 301 14-7
Network Browser Vol. 4A 301 10-12,
Vol. 4A 301 14-5
Network Upgrade Manager Vol. 4A 301 6-12
OPC Date Vol. 4A 301 7-30, Vol. 4A 301 9-14
OPC Save and Restore Vol. 4A 301 7-20,
Vol. 4A 301 7-22, Vol. 4A 304 3-7
OPC Shutdown Vol. 4A 301 7-28,
Vol. 4A 301 9-13, Vol. 4A 304 3-2
opening Vol. 4A 301 4-48
OS Connection Manager Vol. 4A 301 9-14
Password Update Vol. 4A 301 13-9
PGTC/MTA Provisioning Manager
Vol. 4A 301 9-9
Port Configuration Vol. 4A 301 7-36
Protection Manager Vol. 4A 301 10-15,
Vol. 4A 301 14-6
Provisioning Manager Vol. 4A 301 11-2,
Vol. 4A 301 12-11
Reboot/Load Manager Vol. 4A 301 6-2,
Vol. 4A 301 9-12
Remote OPC Software Installation
Vol. 4A 301 7-9
Specials Lineup Manager Vol. 4A 301 12-2
specials lineup manager Vol. 4B 316 7-1
tasks
Alarm Monitor Vol. 4A 301 10-6
Alarm Provisioning Manager Vol. 4A 301 8-60
Backup/Restore Manager Vol. 4A 301 6-7
Centralized User Admin Vol. 4A 301 7-8,
Vol. 4A 301 7-44
Cluster Level Inventory Vol. 4A 301 8-53
Commissioning Manager Vol. 4A 301 9-7
Configuration Manager Vol. 4A 301 8-19
Connection Manager Vol. 4A 301 8-49
Default Provisioning Vol. 4A 301 11-11
DMSTerm Vol. 4A 301 13-8
E2A Alarm Manager Vol. 4A 301 8-9
Event Browser Vol. 4A 301 6-11
Host Provisioning Manager Vol. 4A 301 8-56
Incremental Software Delivery
Vol. 4A 301 6-15
NE Login Manager Vol. 4A 301 13-4
Network Alarm Summary Vol. 4A 301 10-10
Network Browser Vol. 4A 301 10-14
OPC date Vol. 4A 301 7-33
OPC Save and Restore Vol. 4A 301 7-27
OPC Shutdown Vol. 4A 301 7-29
OS Connection Manager Vol. 4A 301 9-19
Password Update Vol. 4A 301 13-10

OPC tool, tasks (continued)
PGTC/MTA Provisioning Manager Vol. 4A 301 9-12
Port Configuration Vol. 4A 301 7-37
Protection Manager Vol. 4A 301 10-17
Provisioning Manager Vol. 4A 301 11-7
Reboot and Load Manager Vol. 4A 301 6-3
Remote OPC Software Installation Vol. 4A 301 7-13, Vol. 4A 301 7-20
Specials Lineup Manager Vol. 4A 301 12-5
Telemetry - TBOS Mapping Vol. 4A 301 8-5
Test Manager Vol. 4A 301 12-10
TR-08 Default Provisioning Manager Vol. 4A 301 11-15
UNIX shell Vol. 4A 301 7-35
TBOS Mapping Vol. 4A 301 8-2
mapping displays to TBOS ports Vol. 4A 301 8-2
Test Manager Vol. 4A 301 12-6
TL1 Configuration Vol. 4A 301 7-42
TR-08 Default Provisioning Manager Vol. 4A 301 11-13
UNIX Shell tool Vol. 4A 301 7-34

OPC tools
Restricted toolset Vol. 4A 301 15-1

OPC toolset configurations
Network Admin Vol. 4A 301 5-2
Network Surveillance Vol. 4A 301 5-2
OPC Admin Vol. 4A 301 5-1
Provisioning Admin Vol. 4A 301 5-3
SLAT Vol. 4A 301 5-2
Software Admin Vol. 4A 301 5-1
Test Admin Vol. 4A 301 5-3
Utilities Vol. 4A 301 5-3

OPC user interface
alarm displays Vol. 2A 104 4-6
Alarm Monitor
alarm list Vol. 2A 104 4-8
banner lines Vol. 2A 104 4-7
displaying detailed information Vol. 2A 104 4-10
printing detailed information Vol. 2A 104 4-11
CMT OPC screens Vol. 2A 104 4-6
common procedures Vol. 4A 301 4-1
group and user lists, sorting Vol. 4A 302 4-62
logging in from an NE Vol. 4A 301 4-43
password
disabling Vol. 4A 302 4-33
enabling Vol. 4A 302 4-33
peak processing
refreshing a screen Vol. 4A 300 2-4, Vol. 4A 301 6-1, Vol. 4A 301 7-2, Vol. 4A 301 8-1, Vol. 4A 301 9-1, Vol. 4A 301 10-1, Vol. 4A 301 11-1, Vol. 4A 301 12-1, Vol. 4A 301 13-1

OPC user interface (continued)
user accounts
changing existing Vol. 4A 302 4-25
creating new Vol. 4A 302 4-17
deleting Vol. 4A 302 4-28
disabling Vol. 4A 302 4-33
enabling Vol. 4A 302 4-33
user groups
attributes, changing Vol. 4A 302 4-43
creating new Vol. 4A 302 4-38
deleting Vol. 4A 302 4-41
moving users between Vol. 4A 302 4-60

OPC Warm Standby Switch Activity
restrictions Vol. 4A 302 14-1

OPC.
See Operations contoller.

OPCUI.
See Operations controller user interface

Operating state
changing Vol. 4B 310 16-1
circuit pack, changing Vol. 4B 310 16-2, UE9000 Voice OAMP UG 3-11
facility, changing Vol. 4B 310 16-7, Nodal Conn Mgr QRG 1-85, UE9000 Voice OAMP UG 3-13
integrated remote test unit, changing Vol. 4B 310 16-6

Operations Controller
logging into an NE Vol. 5C 510 7-3
network surveillance Vol. 5C 510 1-1
alarm display procedures Vol. 5C 510 8-1, Vol. 5C 510 8-10
monitoring alarm status Vol. 5C 510 1-2
status, displaying Vol. 5C 510 2-1
user interface, obtaining alarm list Vol. 5A 543 1-2

Operations controller
Vol. 5C 546 2-14, Vol. 5C 547 2-54, Vol. 4C Add Nodes VTBM 2-10
alarm
common-equipment circuit pack Vol. 5A 543 2-7
alarms Vol. 4C Span of Con Cons 1-1
assigning an alarm to a signal distribution point Vol. 4A 302 10-8
assigning default alarms to signal distribution points Vol. 4A 302 10-13
backing up data Mix & Match DFA Recon QRG 3-14
backup Vol. 5C 546 4-2, Vol. 4C Span of Con Cons 2-8
checking associations Mix & Match DFA Recon QRG 2-12
cleaning DDS tape drive head Vol. 5C 546 4-5
cleaning tape drive head Vol. 5C 546 2-14

Operations controller (continued)
CNET cable connection
Mix & Match DFA Recon QRG 3-6,
Mix & Match DFA Recon QRG 3-8
communication link options
Mix & Match DFA Recon QRG 3-6
configuring a port
to support a printer Vol. 4A 302 2-27
to support a VT-100 terminal Vol. 4A 302 2-24
to support electronic software delivery (PPL connection) Vol. 4A 302 2-43
to support X.3 PAD Vol. 4A 302 2-32
connecting the cable Vol. 4A 302 2-64
connectivity Mix & Match DFA Recon QRG 3-6
deleting data Vol. 4C Span of Con Cons 12-2
editing commissioning data
Mix & Match DFA Recon QRG 3-14,
Mix & Match DFA Recon QRG 3-19
in ABM shelf Mix & Match DFA Recon QRG 3-7
limitations Vol. 4C Span of Con Cons 1-1
location options
Mix & Match DFA Recon QRG 3-6
logging in to the OPC UI
Mix & Match DFA Recon QRG 7-2
logging out of the OPC UI
Mix & Match DFA Recon QRG 7-5
maintenance Vol. 5C 546 4-2
maintenance interval Vol. 5C 546 4-2
module Vol. 2A 102 5-80, Vol. 5C 547 7-1
alarm Vol. 4B 310 15-6, Vol. 5A 543 1-11
backup Vol. 5C 547 7-1
backup replacement Vol. 5C 547 7-21
equipment troubleshooting Vol. 5A 543 3-298
equipping rules Vol. 2A 102 5-87,
Vol. 2A 102 5-88
functions of Vol. 2A 102 5-80
LED, troubleshooting Vol. 5A 543 7-30
NT7E24 Vol. 5C 547 2-2, Vol. 5C 547 7-1
primary Vol. 5C 547 7-1
primary (with backup OPC) Vol. 5C 547 7-4
primary (without backup OPC)
Vol. 5C 547 7-13
replacing (with backup OPC) Vol. 5C 547 7-4
replacing primary (no backup OPC present)
Vol. 5C 547 7-13
software
software management Vol. 2A 102 5-82
tape drive, LED, troubleshooting
Vol. 5A 543 7-32
obtaining list
network element alarms Vol. 5A 543 1-2
OMC link connection
Mix & Match DFA Recon QRG 3-6,
Mix & Match DFA Recon QRG 3-10
primary Vol. 5C 546 4-2
provisioning Vol. 4C Span of Con Cons 9-1
rebooting Vol. 4C Span of Con Cons 13-5
recording Vol. 4C Span of Con Cons 3-1
commissioning data
Vol. 4C Span of Con Cons 3-2
E2A alarm data Vol. 4C Span of Con Cons 3-9
STS/VT connections data
Vol. 4C Span of Con Cons 3-7
TBOS data Vol. 4C Span of Con Cons 3-14
userids Vol. 4C Span of Con Cons 3-17
relocating Mix & Match DFA Recon QRG 1-8
removing backup Vol. 4C Span of Con Cons 4-4
removing selected network element(s)
Vol. 4C Span of Con Cons 7-1
restoring data Vol. 4C Span of Con Cons 10-1
root user Vol. 4C Add Nodes VTBM 7-18
saving Vol. 4C Span of Con Cons 4-3
saving database to tape
Mix & Match DFA Recon QRG 2-8
serial number Vol. 5C 547 7-4, Vol. 5C 547 7-21
software verification Vol. 5C 547 7-2
spare, backup or slat removal
Vol. 4C Add Nodes VTBM 5-40
start or shut down
Vol. 4C Add Nodes VTBM 7-14
status
displaying Vol. 4A 301 4-58
tape backup
restoring the database Vol. 5A 543 3-55
tape drive head
LED indicator Vol. 5C 546 2-14
replacement interval Vol. 5C 546 2-14
required cleaning cassette Vol. 5C 546 2-14
testing the OPC
Mix & Match DFA Recon QRG 3-18
transferring data Vol. 4C Span of Con Cons 9-2,
Vol. 4C Add Nodes VTBM 5-81
transferring to another shelf
Mix & Match DFA Recon QRG 3-11
unconfiguring a port Vol. 4A 302 2-59
user interface
Mix & Match DFA Recon QRG 1-11
user interface specifications Vol. 2B 180 13-4
verifying Vol. 4C Add Nodes VTBM 5-2,
Vol. 4C Add Nodes VTBM 5-74
viewing state of a signal distribution point
Vol. 4A 302 10-7

Operations controller (OPC) user accounts
using TL1 to administer TL1 En Sec QRG 2-3

Operations controller module
activity switch Vol. 4A 302 14-1
adding a backup Vol. 4C 324 12-1
assigning a display to a TBOS port
Vol. 4A 302 15-6
assigning a remote alarm Vol. 4A 302 15-11
backing up files to and from tape Vol. 4A 304 2-1
backup Vol. 4A 304 2-1, Vol. 4A 304 2-10,
Vol. 4A 304 2-14
software Vol. 2A 101 2-14
backup and recovery of data, verifying
Vol. 3B 225 5-17
cabling to ABM and I/O area Vol. 1 200 5-22

Operations controller module (continued)
cabling to ABM side interconnect left Vol. 1 200 5-25
cabling to TBM side interconnect left Vol. 1 200 6-20
canceling a software installation Vol. 3B 220 3-7
canceling an activity switch Vol. 4A 302 14-9
checking tape identification Vol. 4A 304 3-5
commissioning Vol. 3B 220 1-1
communication, verifying Vol. 3B 222 7-5, Vol. 3B 225 5-20
configuration software Vol. 2A 101 1-16
configuring ports for X.25, terminal, or printer operation Vol. 4A 302 2-1
connecting Vol. 3B 220 5-23
connecting to a DMS-10NA Vol. 4A 301 4-30, Vol. 4A 301 4-32
connecting to a remote terminal Vol. 4A 301 4-27
connecting to an operations system Vol. 4A 302 13-4
creating an OS connection profile Vol. 4A 302 13-7
data
- saving to tape Vol. 3A 230 4-63, Vol. 3A 235 3-65, Vol. 4A 304 2-3, MCOT to ABM QRG 4-60
- transferring data between OPCs Vol. 4A 304 3-7

data transfer
- from portable to primary Vol. 3B 220 4-5, Vol. 3B 220 4-7
- from primary to backup Vol. 3A 230 4-69, Vol. 3A 245 3-26
- from primary to portable Vol. 3B 220 4-10

database backups to NE Vol. 4A 304 1-1
date, setting Vol. 4A 302 6-4
deleting a backup Vol. 4A 304 1-5
deleting a display from a TBOS port Vol. 4A 302 15-9
deleting alarms from a signal distribution point Vol. 4A 302 10-11
deleting an OS connection profile Vol. 4A 302 13-10
description Vol. 2A 100 8-12
disconnecting from an operations system Vol. 4A 302 13-5
displaying all backup files for the NEs Vol. 4A 304 1-4
displaying backups for a network element Vol. 4A 304 1-3
enabling an activity switch Vol. 4A 302 14-8
Ethernet cable kit
- installing TBM Inst 202 5-126
- pinouts TBM Inst 202 5-129

ethernet cable kit to ABM Vol. 1 200 5-31
ethernet cable kit to TBM Vol. 1 200 6-27
Ethernet port Vol. 2A 100 10-5, Vol. 2A 100 10-9
- controlling Vol. 3B 220 5-20

generating summary reports Vol. 4A 302 5-14
guidelines for placing Vol. 1 200 2-12
identifying the backup tape Vol. 4A 304 2-16

Operations controller module (continued)
identifying the software release on a remote OPC Vol. 3B 220 3-9
identifying the software release on the local OPC tape Vol. 3B 220 3-11
in a fiber-fed system Vol. 2A 100 3-8
initializing the replacement hard disk Vol. 5C 547 7-30
installing software on a remote OPC Vol. 3B 220 3-3
inventory reports Vol. 4A 302 5-11
LNADJ tool
- help screen, displaying Vol. 4B 310 10-3
- opening Vol. 4B 310 10-2

local
- identifying the software release on tape Vol. 3B 220 3-11

logging in Vol. 4A 301 4-35
logging out Vol. 4A 301 4-52
managing performance Vol. 5C 520 1-1
managing reports Vol. 4A 302 5-17
modifying an OS connection profile Vol. 4A 302 13-9
modifying the protocol identifier for an OS connection Vol. 4A 302 13-12
name, changing Vol. 4A 301 4-61
network security management Vol. 4A 302 4-1
password, changing Vol. 4A 301 4-54
performing a manual NE database backup Vol. 3A 230 4-67, Vol. 3A 240 4-25, Vol. 3A 240 4-51, Vol. 4A 304 1-10
portable Vol. 2A 100 7-60
portable, details
- connecting to a terminal Vol. 4A 301 4-18
- connecting to network element Vol. 4A 301 4-21

ports for Vol. 2A 100 10-3
possible locations
- in a basic fiber-fed system Vol. 2A 100 3-8
- in a DS1-fed system Vol. 2A 100 3-28
- in a single-ended system Vol. 2A 100 3-32

preventing an activity switch Vol. 4A 302 14-7
primary and backup Vol. 3B 225 6-9
Provisioning Manager
- description of interface Vol. 4B 315 3-2

PSTN tool
- help screen, displaying Vol. 4B 310 9-3
- Hong Kong PSTN load, selecting Vol. 4B 310 9-4
- North American PSTN load, selecting Vol. 4B 310 9-8
- opening Vol. 4B 310 9-2

querying clock source Vol. 4A 302 6-9
querying current time adjustment Vol. 4A 302 6-8
querying the clock source Vol. 4A 302 6-9
rebooting options Vol. 3A 230 3-11, Vol. 3A 245 3-10
remote, logging in Vol. 4A 301 4-40
replacing hard disk Vol. 5C 547 7-30

Operations controller module (continued)
resetting a virtual connection to an operations system Vol. 4A 302 13-6
restoring an NE database Vol. 4A 304 1-12
restoring OPC data from tape Vol. 4A 304 2-10
RFT multihosting
adding host Vol. 3A 230 4-41, Vol. 3A 235 3-21, Vol. 3A 240 3-22, Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
deleting host Vol. 4B 310 11-4
designating primary host Vol. 3A 245 4-11
list all Vol. 3A 245 4-8
provisioning Vol. 3A 245 4-1, Vol. 4B 310 11-1
scheduling a backup Vol. 4A 304 2-6
searching through inventory reports Vol. 4A 302 5-22
selecting the clock source Vol. 4A 302 6-10
shutting down or rebooting Vol. 4A 304 3-2
software
detecting and removing OPC software Vol. 3A 230 3-3, Vol. 3A 235 3-4, Vol. 3A 240 3-2, Vol. 3A 245 3-3, MCOT to ABM QRG 4-4
download to shelf Vol. 3A 230 3-12, Vol. 3A 245 3-10
installing Vol. 3A 230 3-6, Vol. 3A 235 3-10, Vol. 3A 240 3-7, Vol. 3A 245 3-6, MCOT to ABM QRG 4-10
installing on remote OPC Vol. 3B 220 3-1
sorting inventory reports Vol. 4A 302 5-24
span of control Vol. 2A 100 1-4, Vol. 2A 100 8-12
special services testing Vol. 2B 115 6-9
special-services testing
optional software package Vol. 2A 101 2-13
switching activity states of OPC pairs Vol. 4A 302 14-3
TBM bay cable installation
port 1 TBM Inst 202 5-46
port 2 TBM Inst 202 5-59
TBM cable pinout TBM Inst 202 5-51, TBM Inst 202 5-63
telnet session with X terminal Vol. 3B 220 5-25
time zone codes Vol. 3A 235 1-17, Vol. 3A 240 1-20, Vol. 4A 302 6-11
time zone, setting Vol. 4A 302 6-4
time, setting Vol. 4A 302 6-4
transferring OPC data to the backup OPC Vol. 4A 304 2-14
transferring to another shelf Vol. 4C 324 2-28
viewing a display assignment Vol. 4A 302 15-5
viewing the Installation History dialog Vol. 3B 220 3-13
warm activity switch Vol. 4A 302 14-1

Operations controller module cable
installing ABM Inst 201 5-26

Operations controller module Ethernet cable kit
installing ABM Inst 201 5-88

Operations controller module, backup
replacing Vol. 5C 547 7-21

Operations Controller Status tool
displaying status Vol. 5C 510 2-2

Operations Controller user interface
logging in to a network element Vol. 5C 510 7-1

Operations maintenance channel
Vol. 2A 102 3-5, Vol. 2A 102 3-12, Vol. 4C 324 14-2
adjusting bandwidth Vol. 4C 324 14-3
DS1 Vol. 2A 102 3-12
DS1s Vol. 2A 100 2-8, Vol. 2A 102 3-4, Vol. 2A 102 3-13
links Vol. 3B 225 5-4
moving OMC links Mix & Match DFA Recon QRG 1-9
moving to a new DS1 facility Vol. 4C 324 14-8
OPC link Mix & Match DFA Recon QRG 3-10
OPC shelf supporting Vol. 2A 100 7-17
provisioning Mix & Match DFA Recon QRG 5-1
provisioning parameters Mix & Match DFA Recon QRG 5-26

Operations Support
setting system interface Vol. 3A 245 6-1

Operations system
alarm communication (external) Vol. 2A 104 5-11
concept Vol. 2B 115 1-7
connecting Vol. 4A 302 13-4
creating a connection profile Vol. 4A 302 13-7
DARTS Vol. 2B 115 6-6
deleting a connection profile Vol. 4A 302 13-10
disconnecting Vol. 4A 302 13-5
managing connections Vol. 4A 302 13-1
modifying connection profile Vol. 4A 302 13-9
modifying the protocol identifier for an OS connection Vol. 4A 302 13-12
operations controller as gateway device for Vol. 2A 102 5-81
resetting a virtual connection Vol. 4A 302 13-6
SARTS Vol. 2B 115 6-5
test system controller Vol. 2B 115 1-7

OPS.
See Service, Off Premise Station

OPS/INE TL1 provisioning OS interface software
Vol. 2A 101 2-13
not supported for single-ended RFTs Vol. 2A 100 2-11

OPT
NE log Vol. 5B 840 16-1, Vol. 5B 840 16-2

Optical
end-to-end tests, DS1 Vol. 3B 222 2-1
equipment set up Vol. 3B 222 2-34
in-bay test
DS3 Vol. 3B 221 2-1
STS-1 Vol. 3B 221 2-1
test protection switching Vol. 3B 221 2-18
receive level, BER measure Vol. 3B 222 2-35
receiver sensitivity, measuring Vol. 3A 230 6-38
signal loss, test automatic switching
Vol. 3A 230 6-55, Vol. 3B 222 2-43
test Vol. 3A 230 6-48
tests, basic Vol. 3A 230 6-1
Optical cable integrity, verify Vol. 3A 230 6-30
Optical transmit power, measure
Vol. 3A 230 6-27, Vol. 3A 240 2-51,
Vol. 3A 240 2-54
SONET test set performance, verifying
Vol. 3B 221 3-4
tests, in-bay
QTRIB tool Vol. 3A 230 6-40,
Vol. 3A 230 6-51, Vol. 3A 230 7-19,
Vol. 3A 230 7-26

Optical bandwidth
expanding from OC-3 to OC-12 Vol. 4C 324 13-1

Optical circuit pack
Vol. 4C Add Nodes VTBM 2-24

Optical connectors
cleaning and assembling Vol. 3A 230 6-2

Optical equipment
PM report type, changing Vol. 5C 520 3-52
PM statistics, displaying Vol. 5C 520 3-48
PM threshold alarms and alerts, disabling
Vol. 5C 520 3-60
PM threshold alarms and alerts, enabling
Vol. 5C 520 3-58
PM threshold status, changing Vol. 5C 520 3-54
PM threshold value, changing Vol. 5C 520 3-56
PM thresholds, displaying Vol. 5C 520 3-50

Optical fiber
cable notice TBM Inst 202 1-2
guidelines
handling Vol. 4B 316 1-3
repairing Vol. 4B 316 1-4
splicing Vol. 4B 316 1-4
handling Vol. 3A 230 1-11, Vol. 3A 240 1-11,
Vol. 3A 245 1-8, Vol. 3B 222 1-4,
Vol. 3B 225 1-4, Vol. 4A 302 1-3,
Vol. 5C 547 1-3, TBM Inst 202 1-2
handling guidelines Vol. 4B 315 1-3,
Vol. 4C 324 1-3
repair Vol. 4A 302 1-4

Optical fiber (continued)
repairing Vol. 3A 230 1-11, Vol. 3A 240 1-12,
Vol. 3A 245 1-9, Vol. 3B 222 1-4,
Vol. 3B 225 1-4, Vol. 5C 547 1-4
repairing guidelines Vol. 4B 315 1-4,
Vol. 4C 324 1-4
routing in TBM shelf, illus. TBM Inst 202 5-10
safety Site Inst P&E Add 1-1
splicing Vol. 3A 230 1-11, Vol. 3A 240 1-11,
Vol. 3A 245 1-8, Vol. 3B 222 1-4,
Vol. 3B 225 1-4, Vol. 4A 302 1-3,
Vol. 5C 547 1-4
splicing guidelines Vol. 4B 315 1-4,
Vol. 4C 324 1-4

Optical fiber cable
handling in VTBM MBP
MBP VTBM Ring Inst 1-2

Optical fiber cables
handling in modular business package
mini-stack ABM Inst 201 1-3

Optical Interface circuit packs
determining need for change
Vol. 4C Rem Nodes VTBM 2-45

Optical interface circuit packs
OC-12 Vol. 2A 100 8-9
OC-12 VTBM Vol. 2A 100 8-10
OC-3 Vol. 2A 100 8-11

Optical interface component failure
alarm Vol. 5A 543 2-6

Optical line
interface to Vol. 2A 100 10-2

Optical link
engineering the link
calculating link-loss budget Vol. 1 200 9-12
connector losses Vol. 1 200 9-9
criteria Vol. 1 200 9-8
intraoffice cable losses Vol. 1 200 9-10
splice losses Vol. 1 200 9-10
system gain Vol. 1 200 9-9
unallocated link margin Vol. 1 200 9-9
fiber cable
handling Vol. 1 200 8-4
pulling technique Vol. 1 200 8-6
interface specifications Vol. 1 200 9-4
route planning Vol. 1 200 8-4
typical link layout Vol. 1 200 9-8
typical outside-plant layout Vol. 1 200 8-3

Optical patch cord
installing in TBM bay TBM Inst 202 5-5
TBM bay
installing with miniature variable optical
attenuator TBM Inst 202 5-6

Optical patch cord (continued)
used with MBP MBP Cab Inst 206 9-92
with miniature variable optical attenuator
MBP Cab Inst 206 9-93
used with Series 800A outside plant cabinet
S800A Cab Inst 210 7-22,
S800A Cab Inst 210 7-35
with miniature variable optical attenuator
S800A Cab Inst 210 7-22,
S800A Cab Inst 210 7-36

Optical patch cords
installing ABM Inst 201 5-58
with miniature variable optical attenuator
ABM Inst 201 5-59
to ABM Vol. 1 200 5-33
to TBM Vol. 1 200 6-29

Optical pigtail
installing in TBM bay TBM Inst 202 5-7
installing with miniature variable optical attenuator
TBM Inst 202 5-7
used with Series 800A outside plant cabinet
S800A Cab Inst 210 7-36

Optical pigtails
installing ABM Inst 201 5-60
with miniature variable optical attenuator
ABM Inst 201 5-60
used with MBP MBP Cab Inst 206 9-94,
MBP Cab Inst 206 10-2
with miniature variable optical attenuator
MBP Cab Inst 206 9-94,
MBP Cab Inst 206 10-2

Optical power
received, measuring Vol. 3B 222 2-13,
Vol. 3B 222 3-5, Vol. 3B 222 5-2

Optical signal
coming from the optical fiber Vol. 2A 102 2-6
going into the optical fiber Vol. 2A 102 2-3

Optical test
in-bay
ENDSLAT tool Vol. 3B 221 3-3
QTRIB tool Vol. 3B 221 3-3
SLAT tool Vol. 3B 221 3-2

Optical tests
Vol. 4C Add Nodes VTBM 5-58
in-bay connection services (CSCI) test tool
Vol. 3B 221 3-2
performance monitoring, verifying
Vol. 3B 222 2-57, Vol. 3B 222 3-52
received optical power, measuring
Vol. 3B 222 2-13, Vol. 3B 222 3-5,
Vol. 3B 222 5-2
receiver sensitivity, measuring Vol. 3B 222 2-29,
Vol. 3B 222 3-23

Optical type
Vol. 5A 543 3-50

Optical-laser failure
alarm Vol. 5A 543 2-6

Optional equipment module
description Mod Cab Desc 119 8-1

Ordering
circuit packs for VTBM MBP
MBP VTBM Ring User 11-9

Orderwire
accessing the PSTN using orderwire
Vol. 2A 101 1-17
audible alarm Vol. 2A 100 10-8
broadcast calling, testing Vol. 3B 222 7-10
capabilities Vol. 2A 100 10-7
channels Vol. 2A 101 1-16
connectors Vol. 2A 100 10-7
dial handset operation, testing Vol. 3B 222 7-11
express Vol. 2A 102 5-59
extension cable
connecting to MBP MBP Cab Inst 206 9-74
extension, testing Vol. 3B 222 7-14
interfaces Vol. 2B 180 12-2
interfaces for Vol. 2A 100 10-7
LEDs Vol. 2A 100 10-8
local Vol. 2A 102 5-59
making calls using orderwire Vol. 2A 101 1-17
not supported
in DS1-fed systems Vol. 2A 102 3-5
not supported in DS1-fed systems Vol. 2A 100 2-8
not supported in single-ended systems
Vol. 2A 100 2-11, Vol. 2A 102 3-5
operation Vol. 2A 101 1-17
public switched telephone network
calling Vol. 3B 222 7-13
push-buttons Vol. 2A 100 10-8
site IDs Vol. 2A 101 1-17
software Vol. 2A 101 1-16
specifications Vol. 2B 180 12-1
supported by maintenance interface card
Vol. 2A 102 5-59
testing Vol. 3B 222 7-6
via SONET overhead bus Vol. 2A 102 5-59

Orderwire extension cable
installing ABM Inst 201 5-16, TBM Inst 202 5-64
pinouts TBM Inst 202 5-67
to ABM Vol. 1 200 5-35
to TBM Vol. 1 200 6-31

OS Connection Manager
Vol. 4A 301 9-14
enabling Security Mode for TL1
TL1 En Sec QRG 4-2
main window Vol. 4A 301 9-14

OS connection manager
Vol. 4C Span of Con Cons 3-20

OS Connection Manager tool
operations systems
connecting Vol. 4A 302 13-4
disconnecting Vol. 4A 302 13-5
resetting virtual connections Vol. 4A 302 13-6
OS connection profiles
creating Vol. 4A 302 13-7
deleting Vol. 4A 302 13-10
modifying Vol. 4A 302 13-9
modifying the protocol identifier
Vol. 4A 302 13-12

Oscillator specifications
Vol. 2B 180 9-2

OSP.
See outside plant cabinet

out of service (OOS)
Vol. 3B 225 2-20

Output card
fail -DoNotRemove
clear alarm Vol. 5A 543 3-91
mismatch
clear alarm Vol. 5A 543 3-92
missing
clear alarm Vol. 5A 543 3-93

Outside plant cabinet
adjusting replacement rectifier Vol. 5C 546 6-2
air induction roof Vol. 5C 546 6-17
heat exchanger roof Vol. 5C 546 6-15
high voltage shutdown Vol. 5C 546 6-2
rectifier
adjusting float voltage Vol. 5C 546 6-9
adjusting load sharing Vol. 5C 546 6-11
equalizing voltage Vol. 5C 546 6-7
replacement Vol. 5C 546 6-7
replacement rectifier Vol. 5C 546 6-7
replacing fan filter Vol. 5C 546 6-15,
Vol. 5C 546 6-17

Outside-plant cable
used with ModCab
ground wire Mod Cab Inst 211 6-9,
Mod Cab Inst 211 7-22
installing Mod Cab Inst 211 6-1

Overhead
access to layers of Vol. 2A 100 12-6
layers of Vol. 2A 100 12-4
SONET Vol. 2A 100 12-3
STS line-level Vol. 2A 100 12-4
STS path-level Vol. 2A 100 12-4
STS section-level Vol. 2A 100 12-4
VT path-level Vol. 2A 100 12-6

Overhead cables
option with Modular Business Package
MBP Desc 110 1-5

Overview
Vol. 3B 221 1-1
DS1feeder testing Vol. 3B 225 1-1
site testing Vol. 3B 221 1-1

Overvoltage protection
Vol. 2B 180 6-2

P

p
Vol. 5A 543 4-30

Packaging option
bay Vol. 2A 100 6-2
Modular Business Package Vol. 2A 100 6-17
Series 800A outside plant cabinet
Vol. 2A 100 6-31

Packaging options
Modular Business Package MBP Desc 110 1-1

Pad
ModCab Mod Cab Inst 211 1-5,
Mod Cab Inst 211 3-3
Series 800A outside plant cabinet
S800A Cab Inst 210 1-3,
S800A Cab Inst 210 2-10

Pair gain test controller
controller/metallic test access card
testing concepts Vol. 2B 115 2-20
installing cable ABM Inst 201 6-55
line loop testing Vol. 2B 115 4-2
pair gain test controller/metallic test access cable
Vol. 1 200 5-37
installation ABM Inst 201 6-55
pinouts Vol. 3B 223 2-2
Pair gain test controller/metallic test access card
NT4K58DA Vol. 5C 547 2-2
pair gain test controller/metallic test access card
Vol. 2A 100 8-12, Vol. 2A 102 5-89,
Vol. 5C 547 2-50
equipping rules Vol. 2A 102 5-90
NT4K58DA Vol. 5C 547 2-50
pair gain test controller/metallic test access card
equipment, troubleshooting Vol. 5A 543 6-1
provisioning test access Vol. 3B 223 1-4
test method compatible with
Epsilon station line card Vol. 2B 181 1-4

Parallel telemetry
alarm data
incoming Vol. 2A 104 5-5
outgoing Vol. 2A 104 5-7
alarm scanner Vol. 2A 104 5-7
changing input description Vol. 4A 302 9-11
changing to telemetry output port settings
Vol. 4A 302 9-15
connection
NT4K14 breaker interface panel contacts
Vol. 2A 104 5-6, Vol. 2A 104 5-10
cross-connecting to serial systems Vol. 2A 104 5-9
displaying input port parameters Vol. 4A 302 9-2
displaying output port parameters
Vol. 4A 302 9-13
E2A Alarm Manager tool Vol. 2A 104 5-8

Parallel telemetry (continued)
enabling or disabling input points Vol. 4A 302 9-5
external alarm inputs Vol. 2B 180 13-5
input
FCOT Vol. 2A 101 1-11
RFT Vol. 2A 101 1-11
input port
displaying Vol. 5C 510 8-9
electrical characteristics Vol. 3B 225 4-2
verifying
ABM shelf Vol. 3B 225 4-13
input port, verifying
ABM shelf Vol. 3A 230 9-16
TBM shelf Vol. 3A 230 9-50
manually operating or releasing telemetry output relay Vol. 4A 302 9-19
output
FCOT Vol. 2A 101 1-4, Vol. 2A 101 1-8
RFT Vol. 2A 101 1-4, Vol. 2A 101 1-8
output port
electrical characteristics Vol. 3B 225 4-2
verifying
ABM shelf Vol. 3B 225 4-17
output port, verifying
ABM shelf Vol. 3A 230 9-20
TBM shelf Vol. 3A 230 9-53
port for Vol. 2A 100 10-6
ports, electrical characteristics Vol. 3A 230 9-2
provisioning Vol. 2A 101 1-23
provisioning alarm severity of inputs
Vol. 4A 302 9-7
provisioning service impact Vol. 4A 302 9-9
querying another telemetry output port
Vol. 4A 302 9-14
querying parameters Vol. 4A 302 9-3
remote alarm Vol. 2B 180 13-3
setting parameters Vol. 4A 302 9-1
supported by maintenance interface card
Vol. 2A 102 5-55
testing Vol. 3A 230 9-1, Vol. 3B 225 4-1

Parallel telemetry cable
installing ABM Inst 201 5-47
installing in TBM bay TBM Inst 202 5-25
pinout TBM Inst 202 5-28
to ABM Vol. 1 200 5-39
to TBM Vol. 1 200 6-33

Parent equipment
hierarchy Vol. 5A 543 2-8

Parity correction for DS3s
Vol. 2A 101 2-6

Part
ordering for VTBM MBP
MBP VTBM Ring User 11-3

Password
Vol. 4A 302 4-1
changing Vol. 4A 302 4-31
defaults Vol. 4A 302 4-1
disabling Vol. 4A 302 4-33
enabling Vol. 4A 302 4-33

Password Update tool
Vol. 4A 301 13-9
main window Vol. 4A 301 13-9

Passwords
account status Vol. 4A 302 4-15
aging Vol. 4A 302 4-13
expiration date Vol. 4A 302 4-14
last changed date Vol. 4A 302 4-13
notification period Vol. 4A 302 4-15

Path
alarm indication signal seconds Vol. 2A 105 1-16
code violations
Tx Vol. 2A 105 1-16
coding violations Vol. 2A 105 1-13
control Vol. 3A 245 5-2, Vol. 4B 316 5-3
DS1 Vol. 2A 105 1-6
DS3 Vol. 2A 105 1-8
errored seconds Vol. 2A 105 1-13, Vol. 2A 105 1-15, Vol. 2A 105 1-16
failure count Vol. 2A 105 1-14, Vol. 2A 105 1-15
SAS Vol. 2A 105 1-13
severely errored frame seconds Vol. 2A 105 1-16
severely errored seconds Vol. 2A 105 1-13, Vol. 2A 105 1-16
STS-1 Vol. 2A 105 1-9
talk Vol. 3A 245 5-2, Vol. 4B 316 5-3
unavailable seconds Vol. 2A 105 1-13, Vol. 2A 105 1-16
VT Vol. 2A 105 1-7

Path maintenance
Vol. 2A 101 1-18

Path protection switching
Vol. 2A 101 2-19, Vol. 2A 101 3-5, Vol. 2A 103 2-23

path Rx CV threshold 1, 2
Vol. 5A 543 4-30

Path-level overhead
STS path-level overhead Vol. 2A 100 12-4
VT path-level overhead Vol. 2A 100 12-6

Payload, concatenated
Vol. 2A 100 12-12

PBX trunk.
See Service, PBX trunk

PDU.
See Power distribution unit

PEC.
See product engineering code

Pedestal
part of Modular Business Package and Modular Power Package cabinets MBP Desc 110 1-2

Pedestal grille
removing in VTBM MBP
MBP VTBM Ring User 3-6

Performance monitoring
TL1 Interface Desc 190 3-1
bit error rate Vol. 2B 180 10-2
converting Vol. 2A 105 3-12
DS1 Vol. 2A 105 1-6, TL1 Interface Desc 190 3-125
DS1 facility thresholds, provisioning Vol. 4B 310 6-41
DS1 performance parameters Vol. 2A 105 1-12
DS1, verifying Vol. 3B 222 2-59
DS3 Vol. 2A 105 1-8, TL1 Interface Desc 190 3-126
DS3 facility thresholds, provisioning Vol. 4B 310 6-41
DS3 performance parameters Vol. 2A 105 1-15
DS3, verifying Vol. 3B 222 3-54
equipment
PM thresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
GR-303 Vol. 2A 105 1-24
inhibiting for DS1 Vol. 2A 105 1-14
inhibiting for DS3 Vol. 2A 105 1-17
inhibiting for OC-12, OC-3 Vol. 2A 105 1-23
intervals Vol. 2A 105 1-24
invalid data flags Vol. 5C 520 3-8, Vol. 5C 520 3-12
ISDN service Vol. 2B 181 2-49
line Vol. 2A 105 1-2
managing at the OPC Vol. 5C 520 2-1
measurement periods Vol. 2A 105 1-24
messages
autonomous TL1 Interface Desc 190 3-6
non-autonomous TL1 Interface Desc 190 3-15
parameters TL1 Interface Desc 190 3-52
network element
alarm, displaying Vol. 5C 520 3-11
alerts, displaying Vol. 5C 520 3-11
performance overview, displaying Vol. 5C 520 3-10
screen, displaying Vol. 5C 520 3-10
OC-12 Vol. 2A 105 1-11, TL1 Interface Desc 190 3-125
OC-12 facility thresholds, provisioning Vol. 4B 310 6-48

Performance monitoring (continued)
OC-12 performance parameters Vol. 2A 105 1-21
OC-3 Vol. 2A 105 1-11, TL1 Interface Desc 190 3-124
OC-3 facility thresholds, provisioning Vol. 4B 310 6-48
OC-3 performance parameters Vol. 2A 105 1-21
of protection-switching events Vol. 2A 105 2-1
OPC statistics Vol. 5C 520 1-1
optical, verifying Vol. 3B 222 2-57, Vol. 3B 222 3-52
overview Vol. 2A 105 1-2, Vol. 5C 520 1-6
path Vol. 2A 105 1-2
pmprov enable Vol. 3B 225 3-7
protection-switching events Vol. 2A 101 2-8
section Vol. 2A 105 1-2
software supporting Vol. 2A 105 1-2
statistics screen Vol. 3B 222 2-57
STS-1 Vol. 2A 105 1-9
STS-1 (far end) path performance parameters Vol. 2A 105 1-19
STS-1 (near end) path performance parameters Vol. 2A 105 1-18
STS-1 line performance parameters Vol. 2A 105 1-20
STS-1, verifying Vol. 3B 222 3-54
thresholds. See Performance thresholds
timed interval Vol. 2A 105 1-24
untimed interval Vol. 2A 105 1-25
VT path Vol. 2A 105 1-7
VT path (near end) performance parameters Vol. 2A 105 1-14

Performance monitoring facility
PM counters, clearing Vol. 5C 520 3-15
PM history, displaying Vol. 5C 520 3-21
PM report type, changing Vol. 5C 520 3-29
PM statistics, displaying Vol. 5C 520 3-12
PM threshold alarms and alerts, disabling Vol. 5C 520 3-45
PM threshold alarms and alerts, enabling Vol. 5C 520 3-42
PM threshold status, changing Vol. 5C 520 3-33
PM threshold value, changing Vol. 5C 520 3-37
PM thresholds currently enabled, displaying Vol. 5C 520 3-71, Vol. 5C 520 3-73, Vol. 5C 520 3-75, Vol. 5C 520 3-77, Vol. 5C 520 3-78, Vol. 5C 520 3-80
PM thresholds, displaying Vol. 5C 520 3-25
PM thresholds, displaying full precision Vol. 5C 520 3-69
PM untimed interval clock, starting Vol. 5C 520 3-18

Performance statistics
enabling and disabling Vol. 5C 520 1-1

Performance threshold
Vol. 2A 105 3-2
allowable value ranges Vol. 2A 105 3-3, TL1 Interface Desc 190 3-129
default values Vol. 2A 105 3-6, TL1 Interface Desc 190 3-127
DS1 facility provisioning Vol. 4B 310 6-41
DS3 facility provisioning Vol. 4B 310 6-41
enabled and disabled Vol. 2A 105 3-9
OC-12 equipment provisioning Vol. 4B 310 5-21
OC-12 facility provisioning Vol. 4B 310 6-48
OC-3 equipment provisioning Vol. 4B 310 5-17
OC-3 facility provisioning Vol. 4B 310 6-48
STS path facility provisioning Vol. 4B 310 6-53
triggering alarms Vol. 2A 105 3-9
UE9000 system UE9000 Data Net Design 3-2
VT path facility provisioning Vol. 4B 310 6-53

performing backup
Mix & Match DFA Recon QRG 2-6

Peripheral equipment
in common equipment module Mod Cab Desc 119 5-9

Personal injury
cooling unit Vol. 5C 546 2-6

PGTC.
See Pair gain test controller

PGTC/MTA Provisioning Manager tool
Vol. 4A 301 9-9
main window Vol. 4A 301 9-9

Pinout
control network cable TBM Inst 202 5-34
local craft access panel
user interface cable for TBM bay TBM Inst 202 5-131
modem cable TBM Inst 202 5-41
operations controller cable TBM Inst 202 5-51, TBM Inst 202 5-63
operations controller Ethernet cable kit TBM Inst 202 5-129
orderwire extension cable TBM Inst 202 5-67
pair gain test controller/metallic test access cable Vol. 3B 223 2-2
serial telemetry cable TBM Inst 202 5-56
TBM bay
external synchronization cable TBM Inst 202 5-24
parallel telemetry cable TBM Inst 202 5-28
PSTN cable TBM Inst 202 5-20
test access path cable Vol. 3B 223 2-3, Vol. 3B 223 2-4

Plane A non-operational
clear alarm Vol. 5A 543 3-63

Plane B non-operational
clear alarm Vol. 5A 543 3-65

Plane messaging corruption
clearing alarm Vol. 5A 543 3-30, Vol. 5A 543 3-198

Planning
considerations Site Inst P&E Add 1-3
considerations and topics, listed Vol. 1 200 1-10
entrance room requirements for customer-located equipment Vol. 1 200 3-8
floor space
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-8
future expansion
for customer-located equipment Vol. 1 200 3-14
of bay framework in central office Vol. 1 200 2-11

PLAR.
See Service, private line automatic ringdown

PLR.
See Pulse link repeater.

Plug-in modules
Vol. 2A 102 1-2

Pointers in SONET system
Vol. 2A 100 12-10

Points
drive Vol. 2A 102 5-58
scan Vol. 2A 102 5-57

Point-to-point
timing Vol. 2A 100 11-11
topology Vol. 2A 101 1-18
worksheets
preparing Vol. 1 154 4-8

Port
activating interface ports Vol. 4A 302 7-7
activating or deactivating E2A TBOS Vol. 4A 302 8-5
adding or changing E2A TBOS Vol. 4A 302 8-6
assign a display to a TBOS port Vol. 4A 302 15-5
changing interface port parameters Vol. 4A 302 7-4
changing the telemetry output port settings Vol. 4A 302 9-15
configuring a user interface port for a log output device Vol. 4A 302 12-2
deleting display from E2A TBOS port Vol. 4A 302 8-8

Port (continued)
deleting from a TBOS port Vol. 4A 302 15-9
displaying interface port parameters Vol. 4A 302 7-3
displaying interface ports Vol. 4A 302 7-2
displaying parallel telemetry input port parameters Vol. 4A 302 9-2
displaying telemetry output port parameters Vol. 4A 302 9-13
enabling or disabling a TBOS display Vol. 4A 302 8-9
enabling or disabling user interface ports for printing logs Vol. 4A 302 12-6
for external synchronization interface Vol. 2A 100 10-3
for local terminal Vol. 2A 100 10-9, Vol. 2A 102 5-57
for operations controller
Ethernet Vol. 2A 100 10-9
RS-232C Vol. 2A 100 10-9
serial Vol. 2A 100 10-4
for remote terminal Vol. 2A 100 10-9, Vol. 2A 102 5-57
for serial telemetry Vol. 2A 100 10-7
querying an E2A TBOS Vol. 4A 302 8-4
querying another telemetry input Vol. 4A 302 9-3
querying another telemetry output port Vol. 4A 302 9-14
querying interface ports Vol. 4A 302 7-6
setting parameters on the NE user interface ports Vol. 4A 302 7-1
setting serial telemetry ports with the NE user interface Vol. 4A 302 8-1

Port command
Vol. 5C 520 4-8

Port Configuration tool
Vol. 4A 301 7-36

Portable OPC
connect to network element Vol. 4A 301 4-21
connect to terminal Vol. 4A 301 4-18

POTS
bulk provisioning procedure Vol. 4B 315 2-2

POTS lines
defined T&B Eng Info. 152 2-3

POTS service.
See Service, POTS. See Service, single-party

Power
-48 V dc power feed requirements
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
ac requirements ABM Bay Cable Conn QRG 1-1
BIP(ABM shelf) Vol. 3A 230 2-9, Vol. 3A 240 2-29, Vol. 3A 245 2-5

Power (continued)
cables
for ABM bay Vol. 1 200 5-9
for TBM bay Vol. 1 200 6-6
dc conductors Vol. 1 200 4-14
dc power consumption requirements
for central-office equipment Vol. 1 200 2-5
for customer-located equipment Vol. 1 200 3-6
dc requirements ABM Bay Cable Conn QRG 3-1
dissipation guidelines
for central-office equipment Vol. 1 200 2-6
for customer-located equipment Vol. 1 200 3-8
distribution
ac power Vol. 1 200 4-6
dc power Vol. 1 200 4-1
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
main cable ABM Bay Cable Conn QRG 3-2, ABM Bay Cable Conn QRG 3-3
redundancy ABM Bay Cable Conn QRG 3-4
requirements Vol. 2B 180 6-1
for central-office equipment Vol. 1 200 2-3, Vol. 1 200 2-6
for customer-located equipment Vol. 1 200 3-5, Vol. 1 200 3-8
for dc consumption
for central-office equipment Vol. 1 200 2-5
requirements for dc consumption
for customer-located equipment Vol. 1 200 3-6
utility ac receptacles Vol. 1 200 4-14
verifying at the BIP (TBM shelf) Vol. 3A 230 2-5, Vol. 3A 240 2-6
voltage drop ABM Bay Cable Conn QRG 3-4

Power cabinet dimensions
Modular Business Package MBP Desc 110 1-8

Power cabling
installing ABM Inst 201 6-75

Power compartment
in S800A cabinet S800A OP Cab Desc 118 4-1

Power converters
CDS Vol. 2A 102 4-5

Power distribution unit.
See Modular Business Package, power distribution unit

Power feed maintenance
Vol. 5C 547 10-1
disconnecting power cable Vol. 5C 547 10-1
replacing fuse Vol. 5C 547 10-1
replacing power card Vol. 5C 547 10-1
schematic Vol. 5C 547 10-5

Power filter
Vol. 2A 100 8-21, Vol. 2A 102 6-24

Power filter A missing
clear alarm Vol. 5A 543 3-36

Power filter B missing
clear alarm Vol. 5A 543 3-39

Power flex
Vol. 2A 102 6-5

Power pedestal
in S800A S800A OP Cab Desc 118 4-6

Powering
battery back-up for MBP Site Inst P&E Add 4-2
customer-supplied for MBP
Site Inst P&E Add 4-2
from MPP or VTBM master cabinet
Site Inst P&E Add 4-3
Modular Business Package
general Site Inst P&E Add 2-6
powering up CDS, DLE, TAC Vol. 3A 230 5-4
powering up line equipment Vol. 3A 230 5-4

PPL.
See Protection path link.

Precision balance
guideline Vol. 1 155 4-3

Pre-equalization
4-wire Omega line card Vol. 1 155 3-12

Preparation
site
for central-office equipment Vol. 1 200 2-15
for customer-located equipment
Vol. 1 200 3-15

Preprovisioning of line cards
Vol. 2A 101 1-13

Prescription settings
line card Vol. 4B 315 3-2

Prewired for 672 copper lines, bay configuration
Vol. 2A 100 6-2, Vol. 2A 100 6-3
ABM ABM Inst 201 2-5
planning Vol. 1 200 1-3

Primary
OPC module (with backup OPC) Vol. 5C 547 7-4
OPC module (without backup OPC)
Vol. 5C 547 7-13

Printer
configuring OPC ports Vol. 4A 302 2-1

Printing
alarm details Vol. 5C 510 6-16
enabling or disabling user interface ports for printing logs Vol. 4A 302 12-6
selecting desired alarm Vol. 5C 510 6-17

Priority levels, for revertive protection switching.
See Priority-select command.

Priority-select command
DS1/VT mapper Vol. 2A 103 5-7
DS3/STS mapper Vol. 2A 103 5-7

Private line analog data.
See Service, Private line analog data

Private line automatic ringdown.
See Service, private line automatic ringdown

Proc.
See Processor circuit pack

Processor
alarm point, enabling and disabling Vol. 4B 310 5-11
circuit pack alarm Vol. 4B 310 15-6
downloading software Vol. 3A 230 3-11, Vol. 3A 245 3-10

Processor card
Vol. 5C 547 2-13
datasync on Vol. 3B 225 2-29
description Vol. 2A 100 8-13, Vol. 2A 102 5-91
equipment troubleshooting Vol. 5A 543 3-312
equipping rules Vol. 2A 102 5-93, Vol. 2A 102 5-94
exercising (manually) Vol. 4B 310 17-5
functions of Vol. 2A 102 5-91
LED, troubleshooting Vol. 5A 543 7-8
manual testing Vol. 4B 311 2-12
protection switching Vol. 2A 103 2-22, Vol. 2A 103 6-1
provisioning data synchronization Vol. 4B 310 5-15
provisioning operating parameters Vol. 4B 310 5-15
provisioning routine exerciser Vol. 4B 310 5-15
replacing in VTBM MBP MBP VTBM Ring User 7-14
restarting (manual) Vol. 4B 310 17-21
routine exercising, rexena on Vol. 3B 225 2-29
switching activity Vol. 4B 310 17-19, Vol. 4B 311 2-14
switching to backup Vol. 4B 311 2-41
verify redundancy Vol. 3A 230 5-27, Vol. 3A 235 3-53, Vol. 3A 240 4-19, Vol. 3A 240 4-39, Vol. 3B 225 2-29, MCOT to ABM QRG 4-48

Processor circuit pack
alarm Vol. 5A 543 1-11

Product engineering code
Vol. 5C 547 2-2, Vol. 5C 547 3-1, Vol. 5C 547 5-1, Vol. 5C 547 11-1

Progressive end-to-end tests
TA-1230 rings Vol. 3B 222 5-1

Prot bridge in card
fail -DoNotRemove
clear alarm Vol. 5A 543 3-94
mismatch
clear alarm Vol. 5A 543 3-95
missing
clear alarm Vol. 5A 543 3-96

Prot bridge out card
fail -DoNotRemove
clear alarm Vol. 5A 543 3-97
mismatch
clear alarm Vol. 5A 543 3-98
missing
clear alarm Vol. 5A 543 3-99

Protected components
Vol. 2A 103 2-2

Protected configuration
major, service-affecting alarm
intercard fail Vol. 5A 543 3-148
protection path fail Vol. 5A 543 3-101
minor, not service-affecting alarm
circuit pack fail Vol. 5A 543 3-20, Vol. 5A 543 3-43, Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21, Vol. 5A 543 3-44, Vol. 5A 543 3-116
circuit pack missing Vol. 5A 543 3-22, Vol. 5A 543 3-45, Vol. 5A 543 3-117
comm overhead clock/frame loss Vol. 5A 543 3-23
comm overhead data loss Vol. 5A 543 3-24
D-link interface fail Vol. 5A 543 3-26
failure to lock Vol. 5A 543 3-147
protection path fail Vol. 5A 543 3-121
protection version mismatch Vol. 5A 543 3-110
STS1 intercard fail Vol. 5A 543 3-111
subunit fail Vol. 5A 543 3-149
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
traffic problem detected Vol. 5A 543 3-133

Protection
availability Vol. 2A 103 2-1
copper-distribution shelves Vol. 2A 103 7-1
definition Vol. 2A 103 1-1

Protection (continued)
DS1/VT synchronous mapper
parameters, provisioning Vol. 4B 311 2-32
DS3/STS mapper
parameters, provisioning Vol. 4B 311 2-34
exerciser
for OC-12s and OC-3s Vol. 2A 101 1-18
in a ring Vol. 2A 101 1-24
ring protection Vol. 2A 103 4-25
using Vol. 3B 222 2-61
groups
manual test Vol. 4B 311 2-10, Vol. 4B 311 2-12
timing reference Vol. 4B 311 2-44
matched nodes Vol. 2A 103 4-14
OC-12 interface circuit pack
parameters, provisioning Vol. 4B 311 2-38
OC-12 VTBM ring provisioning
wait-to-restore period Vol. 4B 311 2-8
OC-3 interface circuit pack
parameters, provisioning Vol. 4B 311 2-36
oscillation control Vol. 2A 101 1-18
provisioning Vol. 2A 101 1-18
ring protection
link failure Vol. 2A 103 4-9
node failure Vol. 2A 103 4-11
ring protection exerciser Vol. 2A 101 1-24
status
ring ADMs on an OPC, displaying Vol. 4B 311 3-3
STS-1 interface card
parameters, provisioning Vol. 4B 311 2-34
testing groups manually Vol. 4B 310 17-3
timing and cross-connect
forced Vol. 4B 311 2-28
manual Vol. 4B 311 2-30
timing reference switching
forced Vol. 4B 311 2-29
manual Vol. 4B 311 2-31
timing references
software Vol. 2A 101 1-24

Protection bridge card
Vol. 5C 547 2-4
in access bandwidth manager Vol. 1 154 2-9

Protection exerciser
using Vol. 3B 222 2-61

Protection groups
manually testing Vol. 5A 543 8-2

Protection Manager tool
Vol. 4A 301 10-15, Vol. 4A 301 14-6
dialogs Vol. 4A 301 10-15, Vol. 4A 301 14-6
main window Vol. 4A 301 10-15

Protection method
drop and continue on protection Vol. 2A 100 3-14
drop and continue on working Vol. 2A 100 3-13

Protection-oscillation control
OC-12 VTBM circuit packs Vol. 2A 103 4-21

Protection path fail
clear alarm Vol. 5A 543 3-101, Vol. 5A 543 3-121
clearing alarm Vol. 5A 543 3-341

Protection path link
Vol. 2A 101 2-19, Vol. 2A 103 2-23

Protection switch
complete
clear alarm Vol. 5A 543 3-105, Vol. 5A 543 3-124
clearing alarm Vol. 5A 543 3-344
exerciser failure, troubleshooting Vol. 5A 543 3-121
fail
clear alarm Vol. 5A 543 3-106, Vol. 5A 543 3-126
clearing alarm Vol. 5A 543 3-345
lockout, releasing Vol. 5A 543 3-89

Protection switch card
in access bandwidth manager Vol. 1 154 2-14
in transport bandwidth manager Vol. 1 154 3-25

Protection switching
Vol. 4B 311 2-1
automatic Vol. 2A 103 1-2
DS1/VT mapper Vol. 2A 103 5-6
DS3/STS mapper Vol. 2A 103 5-6
external synchronization interface card Vol. 2A 103 6-2
OC-12 interface circuit pack Vol. 2A 103 3-5
OC-3 interface circuit pack Vol. 2A 103 3-5
processor card Vol. 2A 103 6-2
ring protection by OC-12 VTBM circuit pack Vol. 2A 103 4-21
timing and cross-connect card Vol. 2A 103 6-4
timing-reference signals Vol. 2A 103 6-3, Vol. 2A 103 6-5
bidirectional mode Vol. 2A 103 3-2
counters, clearing Vol. 5C 520 3-63
definition Vol. 2A 103 1-1
detailed information, displaying Vol. 4B 311 2-43, Vol. 4B 311 2-44, Vol. 4B 311 2-45
DS1, testing Vol. 3B 222 2-49
DS1/VT mapper Vol. 2A 103 2-22, Vol. 2A 103 5-1, Vol. 2A 103 5-2
unavailable during an activity switch Vol. 2A 103 5-2, Vol. 2A 103 5-4
DS3, testing Vol. 3B 222 3-43
DS3/STS mapper Vol. 2A 101 2-5, Vol. 2A 103 2-21, Vol. 2A 103 5-4
unavailable during an activity switch Vol. 2A 103 5-2

Protection switching (continued)
exerciser Vol. 2A 101 1-18, Vol. 3B 222 3-56
in a ring Vol. 2A 101 1-24
ring protection Vol. 2A 103 4-25
exerciser, from an OPC
all ADMs, running Vol. 4B 311 3-13
all ADMs, scheduling Vol. 4B 311 3-16
single ADM, running Vol. 4B 311 3-14
single ADM, scheduling Vol. 4B 311 3-19
external synchronization interface card Vol. 2A 103 2-22, Vol. 2A 103 6-2
for external-synchronization timing-reference signals Vol. 2B 180 9-2
forced switch Vol. 2A 103 1-2
operating or releasing Vol. 4B 311 2-21
forced switch, performing
from an OPC Vol. 4B 311 3-8
history, displaying Vol. 5C 520 3-67
lockout
operating or releasing Vol. 4B 311 2-16
lockout, performing
from an OPC Vol. 4B 311 3-4
maintenance features
DS1/VT mapper Vol. 2A 103 5-6
DS3/STS mapper Vol. 2A 103 5-6
OC-12 interface circuit packs Vol. 2A 103 3-8
OC-12 VTBM circuit packs Vol. 2A 103 4-21
OC-3 interface circuit packs Vol. 2A 103 3-8
manual switch Vol. 2A 103 1-2
operating or releasing Vol. 4B 311 2-25
manual switch, performing
from an OPC Vol. 4B 311 3-11
nonrevertive Vol. 2A 103 1-3
timing and cross-connect card Vol. 2A 103 6-4
OC-12 interface circuit pack Vol. 2A 101 1-15, Vol. 2A 103 2-20, Vol. 2A 103 2-21
OC-12 VTBM circuit pack Vol. 2A 103 2-21
OC-3 interface circuit pack Vol. 2A 101 1-15, Vol. 2A 103 2-20
optical, testing Vol. 3B 222 2-38, Vol. 3B 222 3-31
overview Vol. 4B 311 1-1
processor card Vol. 2A 103 2-22, Vol. 2A 103 6-1, Vol. 4B 311 2-41
protection status, displaying ring ADMs on an OPC Vol. 4B 311 3-3
revertive Vol. 2A 103 1-2
DS1/VT mapper Vol. 2A 103 5-4
DS3/STS mapper Vol. 2A 103 5-4
ring protection Vol. 2A 103 4-6
link failure Vol. 2A 103 4-9
node failure Vol. 2A 103 4-11
specifications Vol. 2B 180 9-4, Vol. 2B 180 10-1
statistics Vol. 2A 105 2-2
statistics, displaying Vol. 5C 520 3-62
STS-1, testing Vol. 3B 222 3-43
summary information, displaying Vol. 4B 311 2-42
test
DS1 facility Vol. 3A 230 7-23
OC-3/OC-12 circuit packs Vol. 3A 230 6-48

Protection switching (continued)
timing and cross-connect card Vol. 2A 103 2-22, Vol. 2A 103 6-4
timing and cross-connect, lockout Vol. 4B 311 2-27
timing reference signals Vol. 2A 103 6-3, Vol. 2A 103 6-5
tool, Protection Manager Vol. 4A 301 10-15, Vol. 4A 301 14-6
transport interface card Vol. 4B 311 2-41
unidirectional mode Vol. 2A 103 3-2
untimed interval clock, starting Vol. 5C 520 3-65
user-initiated
DS1/VT mapper Vol. 2A 103 5-6
DS3/STS mapper Vol. 2A 103 5-6
external synchronization interface card Vol. 2A 103 6-3
OC-12 interface circuit pack Vol. 2A 103 3-4
OC-3 interface circuit pack Vol. 2A 103 3-4
processor card Vol. 2A 103 6-2
timing and cross-connect card Vol. 2A 103 6-4

Protection version mismatch
clear alarm Vol. 5A 543 3-110

Protection-oscillation control
OC-12 interface circuit packs Vol. 2A 103 3-7
OC-3 interface circuit packs Vol. 2A 103 3-7

Protective fiber sheathing
installing ABM Inst 201 7-8

Protector
block used in S800A S800A OP Cab Desc 118 5-7
module used in S800A S800A OP Cab Desc 118 5-7

Protector module
in ModCab Mod Cab Desc 119 6-5, Mod Cab Inst 211 15-2
Series 800A outside plant cabinet S800A Cab Inst 210 11-3
used in S800A S800A OP Cab Desc 118 5-9

Protector test access cord
Series 800A outside plant cabinet S800A Cab Inst 210 12-42

Protocol identifier
modifying for an OS connection Vol. 4A 302 13-12

Provisioning
3DS0 ISDN Vol. 4B 315 4-18
AccessNode Express Mix & Match DFA Recon QRG 5-1
adding circuits Vol. 4B 315 3-17
adding, modifying, or deleting circuits Vol. 4B 315 3-1
alarm Vol. 2A 101 1-3

Provisioning (continued)
automatic
DS1s Vol. 2A 101 1-4
line cards Vol. 2A 101 1-4
OC-12s Vol. 2A 101 1-4
basic Vol. 2A 101 1-4
BITS outputs MCOT to ABM QRG 1-28
bulk
description Vol. 4B 315 1-6
POTS or TR-08 circuits Vol. 4B 315 2-1
bulk provisioning UE9000 Data OAMP UG 2-19
circuit pack group, adding
UE9000 Voice OAMP UG 1-3
circuit pack group, before you begin
Vol. 3A 230 3-26, Vol. 4B 310 5-8
circuit pack group, deleting Vol. 4B 310 5-26,
UE9000 Voice OAMP UG 1-10
circuit pack parameters, displaying
UE9000 Voice OAMP UG 3-3
circuit pack states, querying Vol. 4B 310 7-9,
UE9000 Voice OAMP UG 3-6
CLUI, getting help UE9000 Data OAMP UG 2-4
CLUI, using UE9000 Data OAMP UG 2-19
control path Vol. 3A 245 5-6
copper-distribution shelf, deleting
Vol. 4B 310 5-30
data communications Vol. 3B 222 6-1
data service, activating
UE9000 Data OAMP UG 1-38
default Vol. 2A 101 1-5
deleting a circuit Vol. 4B 315 3-27
description of Provisioning Manager Vol. 4B
315 3-1
DMS LENs UE9000 Voice OAMP UG 2-1
DS0 line terminations and cross-connects
UE9000 Voice OAMP UG 1-20
DS0 messages
for DS0 cross-connect TL1 Interface Desc
190 4-11
DS0 provisionable attributes TL1 Interface Desc
190 4-20
DS1 facility
operating parameters Vol. 3A 230 4-35,
Vol. 3A 235 3-42, Vol. 3A 240 4-11,
Vol. 4B 310 6-1, Vol. 4B 310 6-21,
Nodal Conn Mgr QRG 1-92
performance thresholds Vol. 4B 310 6-41
DS1 facility parameters
Mix & Match DFA Recon QRG 5-20
DS1 messages TL1 Interface Desc 190 4-56
DS1 protection parameters Vol. 4B 311 2-32
DS1 provisionable attributes TL1 Interface Desc
190 4-37
DS1 tandem circuits Vol. 4B 315 3-1
DS1 tandem VT circuits Vol. 4B 315 3-1
DS1, initial Vol. 3A 230 7-9, Vol. 3B 225 3-5
DS1-fed system Vol. 4B 310 1-6
DS3 facility
operating parameters Vol. 4B 310 6-1,
Vol. 4B 310 6-27
performance thresholds Vol. 4B 310 6-41

Provisioning (continued)
DS3 messages TL1 Interface Desc 190 4-62
DS3 protection parameters Vol. 4B 311 2-34
DS3 provisionable attributes TL1 Interface Desc
190 4-40
DS3, initial Vol. 3A 230 8-8
E2A telemetry Vol. 4A 302 10-1
EOC/TMC/CSC transmission parameters
Vol. 4B 310 6-38
equipment (before installing group in shelf)
Vol. 3A 230 3-26, Vol. 4B 310 5-8
equipment messages TL1 Interface Desc 190 4-68
equipment provisionable attributes TL1 Interface
Desc 190 4-42
equipment shelf inventory, displaying
Vol. 4B 310 7-3
error responses and codes TL1 Interface Desc
190 4-90
facility parameters, displaying
UE9000 Voice OAMP UG 3-5
facility parameters, querying
UE9000 Voice OAMP UG 3-8
fiber-fed point-to-point system Vol. 4B 310 1-3
fiber-fed ring system Vol. 4B 310 1-6
flow-through
phase 1 Vol. 2A 101 1-9
phase 2 Vol. 2A 101 1-10
for line and loop testing Vol. 3B 223 1-1
for TR-08 line testing Vol. 3B 223 1-17
GR-303 multivendor interface
UE9000 Voice OAMP UG 1-19
preprovisioning line card services using
MVIPROV Vol. 4B 315 4-1
host switch
adding host Vol. 3A 230 4-41,
Vol. 3A 235 3-21, Vol. 3A 240 3-22,
Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
deleting host Vol. 4B 310 11-4
designating primary host Vol. 3A 245 4-11
list all Vol. 3A 245 4-8
multiple Vol. 3A 245 4-1, Vol. 4B 310 11-1
IDSL Vol. 4B 315 4-18
line card Vol. 2B 181 2-2, Vol. 3A 245 5-3
manual
DS1s Vol. 2A 101 1-14
DS3s Vol. 2A 101 2-5
OC-12s and OC-3s Vol. 2A 101 1-14
message parameters TL1 Interface Desc 190 4-90
modifying circuits Vol. 4B 315 3-23
multiple switches Vol. 3A 245 4-1,
Vol. 4B 310 11-1
adding host Vol. 3A 230 4-41,
Vol. 3A 235 3-21, Vol. 3A 240 3-22,
Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
deleting host Vol. 4B 310 11-4
designating primary host Vol. 3A 245 4-11
list all Vol. 3A 245 4-8
network element messages TL1 Interface Desc
190 4-87

Provisioning (continued)
OC-12 facility
operating parameters Vol. 4B 310 6-1, Vol. 4B 310 6-35
performance thresholds Vol. 4B 310 6-48, Vol. 4B 310 5-21
OC-12 protection parameters Vol. 4B 311 2-8, Vol. 4B 311 2-38
OC-3 facility
operating parameters Vol. 4B 310 6-1, Vol. 4B 310 6-35
performance thresholds Vol. 4B 310 6-48
OC-3 performance thresholds Vol. 4B 310 5-17
OC-3 protection parameters Vol. 4B 311 2-36
OMC DS1 facility parameters Mix & Match DFA Recon QRG 5-26
OPC alarms Vol. 4B 310 13-1
order UE9000 Data OAMP UG 1-3
overview Vol. 3A 230 4-1, Vol. 3A 240 4-1, Vol. 4B 310 1-1
pair gain test controller or metallic test access test method Vol. 3B 223 1-4
parameters
circuit pack, displaying Vol. 4B 310 7-5
equipment shelf, displaying Vol. 4B 310 7-2
equipment, displaying Vol. 4B 310 7-1
equipment, querying Vol. 4B 310 7-1
facility, displaying Vol. 4B 310 8-1
facility, querying Vol. 4B 310 8-1
preprovisioning of line cards Vol. 2A 101 1-18
processor card operating parameters Vol. 4B 310 5-15
protection Vol. 2A 101 1-18
remote fiber terminal host switches, multiple Vol. 3A 245 4-1, Vol. 4B 310 11-1
removing UE9000 components UE9000 Data OAMP UG 1-42
service code
attribute values Vol. 4B 315 3-3
service code attribute values Vol. 1 155 1-20
service descriptor UE9000 Data OAMP UG 1-14
service descriptor group UE9000 Data OAMP UG 1-6, UE9000 Data OAMP UG 1-10
single-ended system Vol. 4B 310 1-6
slot assignments Mix & Match DFA Recon QRG 6-1
SONET data communications channel Vol. 4B 310 6-58
STS path facility performance thresholds Vol. 4B 310 6-53
STS-1 cross connects Mix & Match DFA Recon QRG 5-1
STS-1 protection parameters Vol. 4B 311 2-34
STS-1, initial Vol. 3A 230 8-8
talk path Vol. 3A 245 5-6
TBOS serial telemetry ports Vol. 4A 302 15-1
telemetry Vol. 2A 101 1-23
the TL1 interface TL1 Interface Desc 190 4-1
TIC facility parameters Vol. 4B 310 6-1
timing references, software Vol. 2A 101 1-24

Provisioning (continued)
TL1 over TCP/IP Vol. 4B 310 12-2
TR-08 UE9000 Voice OAMP UG 1-19
default provisioning map Vol. 4B 315 3-15
TR-08 circuits Vol. 4B 315 3-1
TR-08 circuits as bulk Vol. 4B 315 2-1
TR-08 VT circuits Vol. 4B 315 3-1
UE9000 UE9000 Voice OAMP UG 1-1
UE9000 equipment
ADSL line card UE9000 Data OAMP UG 1-32
ATM circuit card UE9000 Data OAMP UG 1-25
HSTP-Name UE9000 Data OAMP UG 2-4
network element UE9000 Data OAMP UG 1-18
network name UE9000 Data OAMP UG 2-4
shelf UE9000 Data OAMP UG 1-21
UE9000 facility
ADSL subscriber circuit UE9000 Data OAMP UG 1-35
DS1 facility UE9000 Data OAMP UG 1-29
universal circuits Vol. 4B 315 3-1
universal circuits as bulk Vol. 4B 315 2-1
UNIX scripts
at command UE9000 Data OAMP UG 2-23
scheduling UE9000 Data OAMP UG 2-23
using UE9000 Data OAMP UG 2-19
updating information UE9000 Data OAMP UG 1-40
virtual paths UE9000 Data OAMP UG 1-11
VT path facility performance thresholds Vol. 4B 310 6-53

Provisioning Admin toolset
Default Provisioning Manager Vol. 4A 301 11-9
Host Provisioning Manager Vol. 4A 301 8-54, Vol. 4A 301 11-12
Provisioning Manager Vol. 4A 301 11-2, Vol. 4A 301 12-11

Provisioning DS1
bidirectional cross-connect in a linear system MCOT to ABM QRG 1-68

Provisioning Manager
Vol. 4A 301 11-2, Vol. 4A 301 12-11 Vol. 4C Span of Con Cons 5-7
description for provisioning line cards Vol. 4B 315 3-1
interface description Vol. 4B 315 3-2

PSTN tool
definition Vol. 4A 300 4-2
help screen, displaying Vol. 4B 310 9-3
Hong Kong PSTN load, selecting Vol. 4B 310 9-4
North American PSTN load, selecting Vol. 4B 310 9-8
opening Vol. 4B 310 9-2
using Vol. 4B 310 9-1

Public switched telephone network
cable
connector for Vol. 2A 100 7-53
TBM bay cable installation TBM Inst 202 5-18
TBM bay cable pinouts TBM Inst 202 5-20

Pulling eyes
use of Vol. 1 200 8-4

Pulse link repeater
signaling supported by Omega 6/8-wire line card
Vol. 2A 102 6-16, Vol. 2B 181 5-13
common functions Vol. 2B 181 5-13
parameters Vol. 2B 181 5-13,
Vol. 2B 181 5-14
specifications Vol. 2B 181 5-14
testing signaling Vol. 4B 316 4-65

Q

Query
circuit pack states UE9000 Voice OAMP UG 3-6
facilities UE9000 Voice OAMP UG 3-8

R

Radio frequency emissions notice
TBM Inst 202 1-1

Raise
critical Vol. 3B 225 4-46
major Vol. 3B 225 4-45
minor Vol. 3B 225 4-44

Read-write control
Vol. 2A 101 1-5

Reason
events Vol. 5C 510 5-9

Reboot/Load Manager tool
Vol. 4A 301 6-2, Vol. 4A 301 9-12
main window Vol. 4A 301 6-2
processor software, downloading
Vol. 3A 230 3-11, Vol. 3A 245 3-10
restrictions Vol. 3A 230 3-11, Vol. 3A 245 3-10

Receive
blocking
line card attribute Vol. 4B 315 3-13
equalizer bandwidth
line card attribute Vol. 4B 315 3-13
equalizer height
line card attribute Vol. 4B 315 3-13
equalizer slope
line card attribute Vol. 4B 315 3-13
gain
line card attribute Vol. 4B 315 3-13
impedance
line card attribute Vol. 4B 315 3-13
OHT gain
line card attribute Vol. 4B 315 3-13

Receive DS1 cable
grounding rule ABM Bay Cable Conn QRG 2-3,
ABM Bay Cable Conn QRG 2-5,
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9

Receptacles
ABM Bay Cable Conn QRG 1-2
description in MBP Site Inst P&E Add 4-9
for MBP in a CBN Site Inst P&E Add 4-9,
Site Inst P&E Add 4-12
for MBP in an IBN Site Inst P&E Add 4-9,
Site Inst P&E Add 4-13
grounding for MBP Site Inst P&E Add 4-14
installing in MBP Site Inst P&E Add 8-6

Recovery
Vol. 4C Add Nodes VTBM 6-1
automatic and manual recovery actions
Vol. 5C 545 1-1
dead-system recovery Vol. 5C 545 1-2
reload-restart recovery Vol. 5C 545 1-2
procedures
for a network element in a DS1-fed system
Vol. 5C 545 2-1

Rectifier
Vol. 5C 547 11-6
adjusting
float voltage Vol. 5C 546 5-2, Vol. 5C 546 6-9
float voltage in Virtual tributary bandwidth
manager Modular business package
MBP VTBM Ring User 8-23
high voltage shutdown in Virtual tributary
bandwidth manager Modular business
package MBP VTBM Ring User 8-16
load sharing Vol. 5C 546 6-11
load sharing in Virtual tributary bandwidth
manager Modular business package
MBP VTBM Ring User 8-25
adjusting replacement Vol. 5C 546 6-2
adjustment Vol. 5C 546 6-3, Vol. 5C 546 6-7,
Vol. 5C 546 6-9, Vol. 5C 546 6-11
checking and adjusting in VTBM MBP
MBP VTBM Ring User 10-2
connection Vol. 5C 546 6-3, Vol. 5C 546 6-7,
Vol. 5C 546 6-9, Vol. 5C 546 6-11
equalizing voltage Vol. 5C 546 5-2
high voltage shutdown Vol. 5C 546 6-2
in S800A cabinet
description S800A OP Cab Desc 118 10-2
installing and adjusting for Virtual tributary
bandwidth manager Modular business
package MBP VTBM Ring Inst 9-13
LED indicator Vol. 5C 546 6-13
maintenance interval Vol. 5C 546 5-2
MPP
checking and adjusting Vol. 5C 546 5-2
MPR25 Vol. 5C 546 5-2
checking and adjusting Vol. 5C 546 5-2
used in Series 800A outside plant cabinet
S800A Cab Inst 210 10-1
NT5C06 Vol. 5C 546 5-2
position numbering for Virtual tributary bandwidth
manager Modular business package
MBP VTBM Ring User 2-14
position numbering in VTBM MBP
MBP VTBM Ring Inst 2-11
replacement
adjusting load sharing Vol. 5C 546 6-11
equalizing voltage Vol. 5C 546 6-7
replacement in OSP Vol. 5C 546 6-2
replacing in a Virtual tributary bandwidth manager
Modular business package
MBP VTBM Ring User 8-14

Rectifier (continued)
Series 800A OSP
adjusting float voltage Vol. 5C 546 6-9
adjusting for high-voltage shutdown Vol. 5C 546 6-2
adjusting load sharing Vol. 5C 546 6-11
equalizing voltage Vol. 5C 546 6-7
setting equalize voltage in Virtual tributary bandwidth manager Modular business package MBP VTBM Ring User 8-21
used in Series 800A outside plant cabinet
ac cabling S800A Cab Inst 210 13-15
adjustment settings S800A Cab Inst 210 10-11
DIP switches for S800A Cab Inst 210 10-5
installation and turn-up S800A Cab Inst 210 10-1
replacing S800A Cab Inst 210 12-13
used in Series 800A outside-plant cabinet
replacing Vol. 5C 547 12-8
voltage Vol. 5C 546 5-2

Rectifier shelf
in ModCab Mod Cab Desc 119 7-3
installing in Modular Power Package MBP Cab Inst 206 15-2
used in Modular Business Package MBP Desc 110 2-23
used in Modular Power Package MBP Desc 110 3-6

Rectifiers
MPR25
used in ModCab Mod Cab Inst 211 14-1
used in ModCab
adjustment settings Mod Cab Inst 211 14-7
DIP switches for Mod Cab Inst 211 14-3
installation and turn-up Mod Cab Inst 211 14-1
used in Modular Power Package
installing Vol. 3B 220 2-3
verifying Vol. 3B 220 2-8

Red lined connection
line card attribute Vol. 4B 315 3-13

Redundancy
Vol. 2A 101 1-10, ABM Bay Cable Conn QRG 3-4

Redundant common-equipment cards
verifying Vol. 3B 225 2-28

Referenced standards
AccessNode equipment Site Inst P&E Add 1-4

Regulatory compliance
ModCab Mod Cab Desc 119 1-4

Rejected alarm
enabled and disabled Vol. 2A 104 2-2
filtering Vol. 2A 104 2-2

Release
identifying the release on a remote OPC Vol. 3B 220 3-9
identifying the software release on the local OPC tape Vol. 3B 220 3-11

Reliance TSD testing
connecting the TBTU Vol. 3B 223 2-5
enabling the signature Vol. 3B 223 1-9

Reload-restart recovery.
See Recovery

Remote access
software feature Vol. 2A 101 1-19

Remote ACO
BIP wirewrap pins Vol. 5A 543 1-5

Remote alarm
Vol. 2A 104 2-3

Remote alarm cutoff
Vol. 2A 104 3-22
software feature Vol. 2A 101 1-19

Remote digital terminal
RFT as Vol. 2A 100 1-5

Remote display
cluster-level Vol. 2A 104 8-1
TBOS Vol. 2A 104 5-4

Remote fiber terminal
Vol. 5C 547 2-46
BLSR Vol. 1 154 2-2
defined T&B Eng Info. 152 2-3
definition Vol. 2A 100 1-5
description Vol. 1 154 2-2
host switch
adding host Vol. 3A 230 4-41, Vol. 3A 235 3-21, Vol. 3A 240 3-22, Vol. 3A 245 4-9, MCOT to ABM QRG 4-20
deleting host Vol. 4B 310 11-4
designating primary host Vol. 3A 245 4-11
list all Vol. 3A 245 4-8
site test flowchart Vol. 3B 225 1-6
verify, task list
Task list
verify remote fiber terminal Vol. 3B 225 1-6

Remote login
software feature Vol. 2A 101 1-19

Remote Modular Power Package
description MBP Desc 110 3-2

Remote OPC
installing OPC software Vol. 3B 220 3-3

Remote OPC Software Installation tool
Vol. 4A 301 7-9
canceling an installation Vol. 3B 220 3-7
identifying the software release on a remote OPC Vol. 3B 220 3-9
identifying the software release on the local OPC tape Vol. 3B 220 3-11
installing OPC software on a remote OPC Vol. 3B 220 3-3
main window Vol. 4A 301 7-9
viewing the Installation History dialog Vol. 3B 220 3-13

Remote terminal
connect to OPC
external modem Vol. 4A 301 4-28
internal modem Vol. 4A 301 4-27
port for Vol. 2A 100 10-9

Remote test unit
testing concept Vol. 2B 115 1-5

Removing
cover from NT4K14 BIP Vol. 5C 547 9-3
LEX MCOT to ABM QRG 1-39
LIO MCOT to ABM QRG 1-39
REX MCOT to ABM QRG 1-39
RIO MCOT to ABM QRG 1-39

Repair
guidelines for optical fibers Vol. 4B 315 1-4

Repeater shelf
in S800A cabinet
description S800A OP Cab Desc 118 10-12
in Series 800A outside plant cabinet
cabling S800A Cab Inst 210 13-51
used in Modular Business Package. See DS1 repeater shelf

Replacing
active
DS1/VT mapper Vol. 5C 547 2-84
DS3/STS mapper Vol. 5C 547 2-97
ESI Vol. 5C 547 2-112
OC-12 Vol. 5C 547 2-76
OC-3 Vol. 5C 547 2-67
processor card Vol. 5C 547 2-13
STS-1 interface Vol. 5C 547 2-101
TXC Vol. 5C 547 2-63
AIC Vol. 5C 547 2-23
air filter Vol. 5C 547 6-6
alarm relay card Vol. 5C 547 5-23
auxiliary COPCU in working TBM bay Vol. 5C 547 8-1
card Vol. 5C 547 2-1
CDSP Vol. 5C 547 3-2
CEP Vol. 5C 547 2-56
ABM shelf Vol. 5C 547 2-56
TBM shelf Vol. 5C 547 2-56

Replacing (continued)
circuit pack Vol. 5C 547 2-1
cooling module Vol. 5C 547 6-2
cover for NT4K14 BIP Vol. 5C 547 9-5
DS1
input card Vol. 5C 547 2-6
output card Vol. 5C 547 2-8
protection bridge card Vol. 5C 547 2-4
DS1/VT mapper Vol. 5C 547 2-84
DS3 I/O card Vol. 5C 547 2-3
DS3 protection switch circuit pack Vol. 5C 547 2-62
DS3/STS mapper Vol. 5C 547 2-97
E2WS Vol. 5C 547 3-4
ESI Vol. 5C 547 2-106, Vol. 5C 547 2-112
failed
AIC Vol. 5C 547 2-23
DS1/VT mapper Vol. 5C 547 2-84
DS3/STS mapper Vol. 5C 547 2-97
ESI Vol. 5C 547 2-112
IRTU Vol. 5C 547 2-46
LIC Vol. 5C 547 3-10
MTAC Vol. 5C 547 3-13
OC-12 Vol. 5C 547 2-76
OC-3 Vol. 5C 547 2-67
processor card Vol. 5C 547 2-13
STS-1 interface Vol. 5C 547 2-101
TIC Vol. 5C 547 2-31
TXC Vol. 5C 547 2-63
in-service
AIC Vol. 5C 547 2-23
IRTU Vol. 5C 547 2-46
IRTU Vol. 5C 547 2-34, Vol. 5C 547 2-46
lamp Vol. 5C 546 2-8
LIC Vol. 5C 547 3-10
MBP blower module Vol. 5C 547 11-2
MIC Vol. 5C 547 2-17
modem
NT7E90 BIP Vol. 5C 547 5-25
NT7E90BA BIP Vol. 5C 547 5-28
module Vol. 5C 547 2-1, Vol. 5C 547 3-1
BIP Vol. 5C 547 5-1
CU Vol. 5C 547 6-1
MPP rectifier Vol. 5C 547 11-6
MRD Vol. 5C 547 3-4
MTAC Vol. 5C 547 3-13
NLIC Vol. 5C 547 3-10
NT4K57 Vol. 5C 547 2-46
O2WO Vol. 5C 547 3-4
O2WS Vol. 5C 547 3-4
O4W Vol. 5C 547 3-4
O68W Vol. 5C 547 3-4
OC-12 interface circuit pack Vol. 5C 547 2-76
OC-12 VTBM optical interface Vol. 5C 547 2-89
OC-3 interface circuit pack Vol. 5C 547 2-66
OPC module
(primary/backup) Vol. 5C 547 7-1
backup Vol. 5C 547 7-21
primary (with backup OPC) Vol. 5C 547 7-4

Replacing (continued)
out-of-service
AIC Vol. 5C 547 2-23
DS1/VT mapper Vol. 5C 547 2-84
DS3/STS mapper Vol. 5C 547 2-97
IRTU Vol. 5C 547 2-46
LIC Vol. 5C 547 3-10
MTAC Vol. 5C 547 3-13
OC-12 Vol. 5C 547 2-76
OC-3 Vol. 5C 547 2-67
processor card Vol. 5C 547 2-13
STS-1 interface Vol. 5C 547 2-101
TIC Vol. 5C 547 2-31
PGTC/MTA Vol. 5C 547 2-50
primary
in-service TIC Vol. 5C 547 2-31
LIC Vol. 5C 547 3-10
primary OPC module (without backup OPC) Vol. 5C 547 7-13
processor card Vol. 5C 547 2-13
protection
DS1/VT mapper Vol. 5C 547 2-84
DS3/STS mapper Vol. 5C 547 2-97
STS-1 interface Vol. 5C 547 2-101
secondary
in-service TIC Vol. 5C 547 2-31
LIC Vol. 5C 547 3-10
serial I/O card Vol. 5C 547 2-54
side interconnect
left circuit pack Vol. 5C 547 2-10
right circuit pack Vol. 5C 547 2-12
standby
ESI Vol. 5C 547 2-112
OC-12 Vol. 5C 547 2-76
OC-3 Vol. 5C 547 2-67
processor card Vol. 5C 547 2-13
STS-1 interface Vol. 5C 547 2-101
STS-1 protection switch circuit pack Vol. 5C 547 2-62
TAC Vol. 5C 547 2-21
talk battery filter card Vol. 5C 547 5-19
TAP Vol. 5C 547 2-52
TBM BIP display circuit pack Vol. 5C 547 5-31
TBP Vol. 5C 547 2-48
TIC Vol. 5C 547 2-31
TXC Vol. 5C 547 2-63
duplex configuration Vol. 5C 547 2-63
simplex configuration Vol. 5C 547 2-63
UVG Vol. 5C 547 3-4

Report
Vol. 5B 840 3-3
clearing log reports Vol. 4A 302 12-12
displaying NE log reports Vol. 4A 302 12-9
listing NE logs and log reports Vol. 4A 302 12-8
managing Vol. 4A 302 5-17
redisplaying the last log report Vol. 4A 302 12-11
searching through inventory reports Vol. 4A 302 5-22
sorting Vol. 4A 302 5-24
summary Vol. 4A 302 5-14

Reportable event, definition
Vol. 2A 104 1-2

Requirements
Vol. 4C Add Nodes VTBM 3-1
-48 V dc power feed requirements
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
commercial 120 V ac power
for central-office equipment Vol. 1 200 2-6
for customer located equipment Vol. 1 200 3-8
dc power consumption
for central-office equipment Vol. 1 200 2-5
for customer-located equipment Vol. 1 200 3-6
environmental
for central-office equipment Vol. 1 200 2-2
for customer-located equipment Vol. 1 200 3-4
floor loading
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-8
overhead cable drop hardware
for central-office bays Vol. 1 200 2-11
for customer-located equipment Vol. 1 200 3-12
power
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
power and ground distribution
for central-office equipment Vol. 1 200 2-3
for customer-located equipment Vol. 1 200 3-5
power dissipation guidelines
for central-office equipment Vol. 1 200 2-6
for customer-located equipment Vol. 1 200 3-8
tools Vol. 1 200 7-1
tools and materials Vol. 4C Rem Nodes VTBM 3-1

Resistance
balance resistance line card attribute Vol. 4B 315 3-12

Restrictions
for mix of cards in access bandwidth manager Vol. 1 154 2-6
OC-3 circuit pack in transport bandwidth manager Vol. 1 154 3-39
of DS3 in transport bandwidth manager Vol. 1 154 3-31, Vol. 1 154 3-34

Retrieve User Security (RTRV-USER-SECU) command
TL1 En Sec QRG 3-15

Retrieving
DS1 equipment MCOT to ABM QRG 1-60
DS1 facilities MCOT to ABM QRG 1-62

Return loss, guideline
Vol. 1 155 4-3

Revertive protection switching.
See Protection switching, revertive.

REX, removing
MCOT to ABM QRG 1-39

rexena
off Vol. 3B 225 2-30
on Vol. 3B 225 2-29

RFI notice
Mod Cab Desc 119 1-2

RFT line card slots
assigning services to Vol. 4B 315 4-4

RFT slot assignments, listing
Vol. 4B 315 4-8

RFT.
See remote fiber terminal

RFT_BLSR
Vol. 1 154 2-2

RFT-switch communication facilities
Vol. 2A 101 3-5

Ring
BLSR Vol. 2A 103 4-2
node management
node map Vol. 2A 103 4-6
squelch map Vol. 2A 103 4-6, Vol. 2A 103 4-12
protection suspended or unavailable
clear alarm Vol. 5A 543 3-283
reconfiguration in progress
clear alarm Vol. 5A 543 3-67
signal flow Vol. 2A 103 4-2 to Vol. 2A 103 4-4

Ring again feature
Vol. 1 155 1-39

Ring map alarms
Vol. 3B 221 3-2

Ring topology.
See Topology, of a fiber-fed system, ring

RIO, removing
MCOT to ABM QRG 1-39

R-link Vol. 2A 102 3-10

RMV-EQPT command
TL1 Interface Desc 190 4-9

Robbed-bit signaling
Vol. 2A 101 2-19

Roof
air induction Vol. 5C 546 6-17
heat exchanger Vol. 5C 546 6-15
S800A cabinet options
S800A OP Cab Desc 118 2-5

Route planning
optical fiber link Vol. 1 200 8-4

Routine maintenance
MBP Vol. 5C 546 5-1
MPP Vol. 5C 546 5-1
OPC Vol. 5C 546 4-1
performing Vol. 5C 546 1-1, Vol. 5C 546 2-1

Routing
fiber-optic cable Nodal Conn Mgr QRG 1-59, MCOT to ABM QRG 1-16

RS-232C port
fiber central office terminal Vol. 2A 101 1-19
for operations controller Vol. 2A 100 10-9
remote fiber terminal Vol. 2A 101 1-19

RS-422 port
fiber central office terminal Vol. 2A 101 1-19
remote fiber terminal Vol. 2A 101 1-19

RST-EQPT command
TL1 Interface Desc 190 4-10

R-TEC testing
description Vol. 2B 115 7-62

RTRV-EC1 command
TL1 Interface Desc 190 4-75

RTRV-OC12 command
TL1 Interface Desc 190 4-85

RTRV-OC3 command
TL1 Interface Desc 190 4-81

RTRV-STS1 command
TL1 Interface Desc 190 4-74

RTRV-VT1 command
TL1 Interface Desc 190 4-73

RTU.
See Remote test unit.

Rx
clearing alarm
bipolar violation Vol. 5A 543 4-171
line AIS Vol. 5A 543 4-181
loss of frame Vol. 5A 543 4-174
loss of pointer Vol. 5A 543 4-177
loss of signal Vol. 5A 543 4-178
RFI Vol. 5A 543 4-182

S

Safety
battery replacement requirements
Mod Cab Inst 211 1-15
crane operation Mod Cab Inst 211 1-12
electric shock
talk battery filter card Vol. 5C 547 5-19, Vol. 5C 547 5-21
eye damage Vol. 5C 547 1-3
fire hazard Mod Cab Inst 211 1-15
grounding electrode Mod Cab Inst 211 1-13
guidelines and warnings Vol. 5C 547 1-1, Vol. 5C 547 1-2, MBP Cab Inst 206 1-1, MBP VTBM Ring User 1-1
guidelines and warnings for VTBM Modular business package MBP VTBM Ring Inst 1-1
heavy equipment/load
CDS Vol. 5C 547 4-15, Vol. 5C 547 4-16
cooling module Vol. 5C 547 6-4
laser radiation Vol. 5C 547 1-3, Mod Cab Inst 211 1-14
OC-12 VTBM optical interface Vol. 5C 547 2-93
personal injury
CDS Vol. 5C 547 4-8
cooling module Vol. 5C 547 6-4, Vol. 5C 547 6-11
COPCU Vol. 5C 547 8-11
MBP blower module Vol. 5C 547 11-2
power rectifiers Mod Cab Inst 211 1-16

SAI.
See Serving area interface

SARTS.
See Switched Access Remote Test System.

Save to tape
post system Vol. 4C Rem Nodes VTBM 5-65

Scan points
Vol. 2A 102 5-57

SCHD
NE log Vol. 5B 840 17-1, Vol. 5B 840 17-3

Schematic
circuit breaker power feed Vol. 5C 547 5-10
power feed Vol. 5C 547 10-5

SDA
OPC log Vol. 5B 840 18-1, Vol. 5B 840 18-2, Vol. 5B 840 18-3, Vol. 5B 840 18-5, Vol. 5B 840 18-7, Vol. 5B 840 18-9, Vol. 5B 840 18-11, Vol. 5B 840 18-13, Vol. 5B 840 18-15, Vol. 5B 840 18-16, Vol. 5B 840 18-17, Vol. 5B 840 18-18, Vol. 5B 840 18-19, Vol. 5B 840 18-20,

SDA, OPC log (continued)
Vol. 5B 840 18-21, Vol. 5B 840 18-22, Vol. 5B 840 18-23, Vol. 5B 840 18-25, Vol. 5B 840 18-27, Vol. 5B 840 18-29, Vol. 5B 840 18-31, Vol. 5B 840 18-32, Vol. 5B 840 18-33, Vol. 5B 840 18-34, Vol. 5B 840 18-36, Vol. 5B 840 18-37, Vol. 5B 840 18-38, Vol. 5B 840 18-39, Vol. 5B 840 18-40, Vol. 5B 840 18-41, Vol. 5B 840 18-42, Vol. 5B 840 18-43, Vol. 5B 840 18-44, Vol. 5B 840 18-45, Vol. 5B 840 18-46, Vol. 5B 840 18-47, Vol. 5B 840 18-48, Vol. 5B 840 18-50, Vol. 5B 840 18-51, Vol. 5B 840 18-52, Vol. 5B 840 18-53, Vol. 5B 840 18-54, Vol. 5B 840 18-55, Vol. 5B 840 18-57, Vol. 5B 840 18-58, Vol. 5B 840 18-59, Vol. 5B 840 18-60, Vol. 5B 840 18-62, Vol. 5B 840 18-64, Vol. 5B 840 18-65, Vol. 5B 840 18-67, Vol. 5B 840 18-70, Vol. 5B 840 18-71, Vol. 5B 840 18-72, Vol. 5B 840 18-73, Vol. 5B 840 18-74, Vol. 5B 840 18-75, Vol. 5B 840 18-76, Vol. 5B 840 18-77, Vol. 5B 840 18-78, Vol. 5B 840 18-79, Vol. 5B 840 18-80, Vol. 5B 840 18-81, Vol. 5B 840 18-82, Vol. 5B 840 18-83, Vol. 5B 840 18-84, Vol. 5B 840 18-85, Vol. 5B 840 18-86, Vol. 5B 840 18-87, Vol. 5B 840 18-88, Vol. 5B 840 18-89, Vol. 5B 840 18-90, Vol. 5B 840 18-91, Vol. 5B 840 18-92, Vol. 5B 840 18-93, Vol. 5B 840 18-94, Vol. 5B 840 18-95, Vol. 5B 840 18-96, Vol. 5B 840 18-97, Vol. 5B 840 18-98, Vol. 5B 840 18-99, Vol. 5B 840 18-100, Vol. 5B 840 18-101, Vol. 5B 840 18-102, Vol. 5B 840 18-103, Vol. 5B 840 18-104

SDA352 OPC log generation
replacement shelf ID card Vol. 5A 543 3-69

Sealant kit
used with Series 800A outside plant cabinet S800A Cab Inst 210 2-7

Sealing current
line card attribute Vol. 4B 315 3-13

Secondary channel
line card attribute Vol. 4B 315 3-13

Secretarial line.
See Service, secretarial line

Section
OC-12 Vol. 2A 105 1-11
OC-3 Vol. 2A 105 1-11

Section coding violations
OC-12, OC-3 Vol. 2A 105 1-21

Section errored second
OC-12, OC-3 Vol. 2A 105 1-21

Section severely errored frame second
OC-12, OC-3 Vol. 2A 105 1-21

Section severely errored second
OC-12, OC-3 Vol. 2A 105 1-21

Section-level overhead
as part of transport overhead Vol. 2A 100 12-4
carried by SONET overhead bus Vol. 2A 102 3-3

Securing a bay frame
ABM Inst 201 3-12

Security
administration Vol. 2A 101 1-15
basic Vol. 2A 101 1-4
HPOV file permissions
UE9000 Data OAMP UG 4-14
network UE9000 Data OAMP UG 4-14
procedures for network Vol. 4A 302 4-1
provided by operations controller
Vol. 2A 102 5-81
SNMP community strings
UE9000 Data OAMP UG 4-15
UE9000 data service
UE9000 Data OAMP UG 4-14
UNIX log in passwords
UE9000 Data OAMP UG 4-14
user UE9000 Data OAMP UG 4-14

Security Mode
disabling TL1 En Sec QRG 4-2
enabling TL1 En Sec QRG 4-2

SEM.
See Single equipment module

Separator bar
removing in VTBM MBP
MBP VTBM Ring User 3-10

Serial I/O card
Vol. 2A 102 5-95, Vol. 5C 547 2-54
description Vol. 2A 100 8-13
equipping rules Vol. 2A 102 5-96
replacing in VTBM MBP
MBP VTBM Ring User 7-28

Serial telemetry
cable Vol. 3B 225 4-4
connector Vol. 3B 225 4-4, Vol. 3B 225 4-6
cross-connecting to parallel systems
Vol. 2A 104 5-9
displays
assign to a TBOS port Vol. 4A 302 15-6
E2A interface specifications Vol. 2B 180 13-4

Serial telemetry (continued)
E2A TBOS
port display
adding or changing Vol. 4A 302 8-6
port, querying another Vol. 4A 302 8-4
E2A TBOS port display, enabling or disabling
Vol. 4A 302 8-9
external system connection Vol. 2A 104 5-3
interface, verify Vol. 3B 225 4-3
port parameters, displaying Vol. 4A 302 8-3
port, activating or deactivating Vol. 4A 302 8-5
port, deleting display Vol. 4A 302 8-8
ports for Vol. 2A 100 10-6
protocol Vol. 3B 225 4-3
provisioning Vol. 2A 101 1-23
remote alarm Vol. 2B 180 13-3
RS-422 port Vol. 2A 101 1-19
setting display with NE user interface
Vol. 4A 302 8-1
supported by maintenance interface card
Vol. 2A 102 5-58
TBOS
displays Vol. 2A 104 5-3, Vol. 2A 104 5-4
mapping tool Vol. 2A 104 5-5
ports, provisioning Vol. 4A 302 15-1
protocol Vol. 2A 104 5-3
TBOS interface Vol. 2B 180 13-4

Serial telemetry cable
installing ABM Inst 201 5-22
installing in TBM bay TBM Inst 202 5-55
pinouts TBM Inst 202 5-56
to ABM Vol. 1 200 5-41
to TBM Vol. 1 200 6-35

Serial telemetry port failure
alarm Vol. 5A 543 2-7

Series 800A outside plant cabinet
S800A Cab Inst 210 1-20
ac load box option
conduit openings S800A Cab Inst 210 2-4
earth ground S800A Cab Inst 210 3-5
ac outlets S800A OP Cab Desc 118 3-4
ac power compartment
S800A OP Cab Desc 118 4-1
ac power distribution S800A Cab Inst 210 13-7
ac power pedestal
anchor plate S800A Cab Inst 210 1-20
conduit openings S800A Cab Inst 210 2-5
earth ground S800A Cab Inst 210 3-13
ac power supply S800A OP Cab Desc 118 4-9,
S800A Cab Inst 210 3-3
adjusting the low voltage alarm
S800A Cab Inst 210 10-26
air induction roof S800A OP Cab Desc 118 2-12
air-induction roof
fans, replacing S800A Cab Inst 210 12-48
alarm. See Alarm, Series 800A outside plant cabinet

Series 800A outside plant cabinet (continued)
alarms. See Alarm, for Series 800A outside plant cabinet
alignment S800A Cab Inst 210 2-26
anchor bolts S800A Cab Inst 210 2-3
anchor kit S800A Cab Inst 210 1-4, S800A Cab Inst 210 1-8
assembly S800A Cab Inst 210 1-9
anchor plate
ac load box S800A Cab Inst 210 1-18, S800A Cab Inst 210 1-19
ac pedestal S800A Cab Inst 210 1-20
kits S800A Cab Inst 210 2-3
applications S800A OP Cab Desc 118 1-2, S800A OP Cab Desc 118 8-1
basic configuration S800A OP Cab Desc 118 8-2
battery breaker panel
circuit breakers S800A Cab Inst 210 9-5, S800A Cab Inst 210 9-15
dc power connections S800A Cab Inst 210 13-22
battery vault S800A OP Cab Desc 118 12-2
circuit breaker
ac power pedestal S800A OP Cab Desc 118 4-6
conduit openings in termination compartment S800A OP Cab Desc 118 5-6
configuration S800A OP Cab Desc 118 1-2
connector blocks S800A OP Cab Desc 118 5-7, S800A OP Cab Desc 118 5-10
connector systems S800A OP Cab Desc 118 5-5
copper-distribution shelf in
cabling S800A Cab Inst 210 13-62
cross-connect options S800A OP Cab Desc 118 5-5
dc distribution shelf
circuit breakers S800A Cab Inst 210 13-19
dc power wiring S800A Cab Inst 210 13-18
DIP switches S800A Cab Inst 210 10-5
verifying alarms for S800A Cab Inst 210 10-23
description Vol. 2A 100 6-31, S800A OP Cab Desc 118 1-1
DIP switches in S800A Cab Inst 210 10-5
door locks S800A OP Cab Desc 118 2-3, S800A OP Cab Desc 118 5-6
enabling S800A Cab Inst 210 2-31
doors S800A OP Cab Desc 118 2-3
DSX cross connect
cabling S800A Cab Inst 210 13-51
durometer pads S800A Cab Inst 210 2-9, S800A Cab Inst 210 2-26, S800A Cab Inst 210 2-27
earth ground, with ac load box option S800A Cab Inst 210 3-5
electrical requirements S800A OP Cab Desc 118 6-1
electronics compartment S800A OP Cab Desc 118 3-2
emergency power S800A Cab Inst 210 12-33, S800A Cab Inst 210 12-36
environmental specifications S800A OP Cab Desc 118 7-3

Series 800A outside plant cabinet (continued)
equipment description S800A OP Cab Desc 118 9-1
exterior S800A OP Cab Desc 118 2-2
fan shelf
installing S800A Cab Inst 210 12-59
replacing S800A Cab Inst 210 12-50
fan shelf description S800A OP Cab Desc 118 9-9
fans, replacing
in air-induction roof S800A Cab Inst 210 12-48
in heat-exchanger roof S800A Cab Inst 210 12-45
grounding S800A OP Cab Desc 118 6-4
earth ground, with ac power pedestal option S800A Cab Inst 210 3-13
for outside plant cables S800A Cab Inst 210 4-19
heat exchanger roof S800A OP Cab Desc 118 2-6
heaters S800A OP Cab Desc 118 2-4
heat-exchanger roof
fans, replacing S800A Cab Inst 210 12-45
maintenance operations S800A Cab Inst 210 12-3
mechanical specifications S800A OP Cab Desc 118 7-2
moisture barrier installation S800A Cab Inst 210 4-20
numbering of CDSs Vol. 4B 316 2-7
numbering of CDSs (figure) Vol. 4C 324 9-6
options S800A OP Cab Desc 118 11-2
pad S800A Cab Inst 210 2-10
pad installation S800A Cab Inst 210 1-3
power pedestal S800A OP Cab Desc 118 4-6
protector blocks S800A OP Cab Desc 118 5-7
protector module S800A Cab Inst 210 11-3
protector modules S800A OP Cab Desc 118 5-7, S800A OP Cab Desc 118 5-9
protector test access cord S800A Cab Inst 210 12-42
rectifier. See rectifier, Series 800A OSP
repeater shelves
cabling S800A Cab Inst 210 13-51
replacement parts S800A Cab Inst 210 12-5
replacing fan filter
air induction roof Vol. 5C 546 6-17
heat exchanger roof Vol. 5C 546 6-15
roof options S800A OP Cab Desc 118 2-5
routine maintenance Vol. 5C 546 6-1
sealant kit S800A Cab Inst 210 2-7
service protection center S800A OP Cab Desc 118 5-7
wiring S800A Cab Inst 210 13-67
serving area interface S800A OP Cab Desc 118 5-9
site selection S800A Cab Inst 210 1-2
structure S800A OP Cab Desc 118 2-1
swing frames S800A OP Cab Desc 118 3-4
T1 and maintenance pair cables S800A Cab Inst 210 5-1

Series 800A outside plant cabinet (continued)
termination compartment S800A Cab Inst 210 2-3
conduit openings S800A Cab Inst 210 1-4, S800A Cab Inst 210 6-3, S800A Cab Inst 210 7-4
test access cord S800A Cab Inst 210 12-41
weight S800A Cab Inst 210 2-16
wiring S800A Cab Inst 210 13-2

Series 800A outside-plant cabinet
air-induction roof
fans, replacing Vol. 5C 547 12-6
alarm. See Alarm, for Series 800A outside-plant cabinet
batteries S800A OP Cab Desc 118 10-4
battery breaker panel S800A OP Cab Desc 118 10-5
control and monitoring unit S800A OP Cab Desc 118 10-9
dc distribution shelf S800A OP Cab Desc 118 10-8
DS1 terminations S800A OP Cab Desc 118 10-12
DSX cross-connect S800A OP Cab Desc 118 10-10
fans
replacing
in air-induction roof Vol. 5C 547 12-6
in heat-exchanger roof Vol. 5C 547 12-2, Vol. 5C 547 12-4
fiber patching facilities S800A OP Cab Desc 118 10-7
peripheral equipment S800A OP Cab Desc 118 10-1
procedures Vol. 5C 547 12-1
rectifiers S800A OP Cab Desc 118 10-2
rectifiers. See Rectifiers, used in Series 800A outside-plant cabinet
repeater shelf S800A OP Cab Desc 118 10-12
serving area interface S800A OP Cab Desc 118 10-7
specifications Vol. 2B 180 16-1

Service
800-service Vol. 1 155 1-44, Vol. 1 155 1-53, Vol. 1 155 1-64
automatic call distributor trunk Vol. 1 155 1-64
business services Vol. 1 155 1-42
code
line card, parameters for each Vol. 1 155 1-14
supported on each line card Vol. 1 155 1-9
table of attribute values Vol. 1 155 1-20
COIN
line card attributes Vol. 4B 315 3-7
coin Vol. 1 155 1-36
charge-a-call Vol. 1 155 1-38
coin first Vol. 1 155 1-37
dial tone first Vol. 1 155 1-37
private coin Vol. 1 155 1-38
semi-postpay Vol. 1 155 1-37

Service (continued)
supported by Omega 2-wire office line card Vol. 2B 181 3-16, Vol. 2B 181 3-17, Vol. 2B 181 3-18
supported by Omega 2-wire station line card Vol. 2B 181 2-13, Vol. 2B 181 2-14, Vol. 2B 181 2-15
common functions Vol. 2B 181 2-13
DDS
line type line card attribute Vol. 4B 315 3-12
dial pulse originating
supported by Omega 2-wire station line card Vol. 2B 181 2-38, Vol. 2B 181 2-39, Vol. 2B 181 2-40
transmission attributes Vol. 2B 181 2-38
Digital Data Service
jacks for Vol. 2A 100 10-10
digital data service Vol. 1 155 1-69
error correction Vol. 1 155 1-72
jack access Vol. 2B 115 3-9
line card attributes Vol. 4B 315 3-10
loopback options Vol. 1 155 1-72
supported by Omega 4-wire line card Vol. 2B 181 4-16, Vol. 2B 181 4-17, Vol. 2B 181 4-18, Vol. 2B 181 4-19, Vol. 2B 181 4-21, Vol. 2B 181 4-22, Vol. 2B 181 4-23, Vol. 2B 181 4-24
synchronization Vol. 1 155 1-73
Direct Inward Dialing Vol. 2A 102 6-13, Vol. 2A 102 6-14
supported by Omega 2-wire office line card Vol. 2B 181 3-13, Vol. 2B 181 3-14, Vol. 2B 181 3-15
trunk applications Vol. 1 155 1-48
Direct Outward Dialing
trunk applications Vol. 1 155 1-48
DPO
line card attributes Vol. 4B 315 3-5
DPT
line card attributes Vol. 4B 315 3-5
DS1 tandem special service
DDS Vol. 4B 315 1-9
DPO Vol. 4B 315 1-9
DPT Vol. 4B 315 1-9
DX Vol. 4B 315 1-9
E&M Vol. 4B 315 1-9
ETO Vol. 4B 315 1-9
FX Vol. 4B 315 1-9
MRD Vol. 4B 315 1-9
PLAR Vol. 4B 315 1-9
PLR Vol. 4B 315 1-9
TDM Vol. 4B 315 1-9
TO Vol. 4B 315 1-9
DX
line card attributes Vol. 4B 315 3-8
DX. See Duplex signaling.
E&M
line card attributes Vol. 4B 315 3-11

Service (continued)
Electronic Business Set Vol. 1 155 1-39
supported by Omega 2-wire station line card Vol. 2B 181 2-41, Vol. 2B 181 2-42, Vol. 2B 181 2-43
ETO
line card attributes Vol. 4B 315 3-6, Vol. 4B 315 3-9
FX
2-wire applications Vol. 1 155 1-53
4-wire applications Vol. 1 155 1-64
6/8-wire applications Vol. 1 155 1-77
off-hook and OHT gain provisioning Vol. 1 155 2-18
FXO
line card attributes Vol. 4B 315 3-5, Vol. 4B 315 3-9
supported by Omega 2-wire office line card Vol. 2B 181 3-20, Vol. 2B 181 3-21, Vol. 2B 181 3-22
supported by Omega 2-wire office line cards Vol. 2B 181 3-22
supported by Omega 4-wire line card Vol. 2B 181 4-7, Vol. 2B 181 4-8
FXS
line card attributes Vol. 4B 315 3-5, Vol. 4B 315 3-10
supported by Omega 2-wire station line card Vol. 2B 181 2-23, Vol. 2B 181 2-24, Vol. 2B 181 2-26
specifications Vol. 2B 181 2-25
supported by Omega 4-wire line card Vol. 2B 181 4-10, Vol. 2B 181 4-11
GR-303 DMS
coin Vol. 4B 315 1-9
EBS Vol. 4B 315 1-9
LoopGndBus Vol. 4B 315 1-9
LoopStRes Vol. 4B 315 1-9
ILCPOTS
line card attributes Vol. 4B 315 3-7
ISDN Vol. 1 155 1-46
enabling or disabling ISDN alarms Vol. 4B 315 5-14
provisioning as GR-303 DMS circuit Vol. 4B 315 1-10
supported by Omega 2-wire station line card Vol. 2B 181 2-48, Vol. 2B 181 2-49, Vol. 2B 181 2-50
line cards Vol. 2A 101 3-1
long distance trunk Vol. 1 155 1-64
loop start/ground start business
supported by Omega 2-wire station line card Vol. 2B 181 2-18, Vol. 2B 181 2-20
supported by universal voice grade station line card Vol. 2B 181 7-16, Vol. 2B 181 7-18
manual ringdown Vol. 1 155 1-60
Meridian Digital Centrex Vol. 1 155 1-39
MRD
line card attributes Vol. 4B 315 3-7

Service (continued)
nonswitched
4-wire applications Vol. 1 155 1-66
6/8-wire applications Vol. 1 155 1-78
Off Premise Extension Vol. 1 155 1-44, Vol. 1 155 1-53
Off Premise Station Vol. 2A 102 6-13, Vol. 2A 102 6-14
2-wire applications Vol. 1 155 1-57
6/8-wire application Vol. 1 155 1-79
PBX trunk
2-wire DID, DOD, CO Vol. 1 155 1-48
4-wire tie trunks Vol. 1 155 1-66
6/8-wire tie trunks Vol. 1 155 1-78
PLAR
line card attributes Vol. 4B 315 3-7
PLR
line card attributes Vol. 4B 315 3-11
POTS Vol. 1 155 1-33
bulk provisioning procedure Vol. 4B 315 2-2
line card attributes Vol. 4B 315 3-7
line side answer supervision Vol. 1 155 1-34
off-hook and OHT loss Vol. 1 155 2-15
supported by Omega 2-wire office line card Vol. 2B 181 3-5, Vol. 2B 181 3-6, Vol. 2B 181 3-7
supported by Omega 2-wire station line card Vol. 2B 181 2-5, Vol. 2B 181 2-6, Vol. 2B 181 2-8
supported by universal voice grade station line card Vol. 2B 181 7-10, Vol. 2B 181 7-11, Vol. 2B 181 7-13
private line analog data
2-wire applications Vol. 1 155 1-59
4-wire application Vol. 1 155 1-68
private line automatic ringdown Vol. 1 155 1-63
supported by Omega 2-wire station line card Vol. 2B 181 2-44, Vol. 2B 181 2-45, Vol. 2B 181 2-46
quality objectives UE9000 Data Net Design 2-4
secretarial line Vol. 1 155 1-44, Vol. 1 155 1-53
service types
coin Vol. 4B 315 1-9
DS1 tandem Vol. 4B 315 1-9
GR-303 DMS Vol. 4B 315 1-9
special services Vol. 4B 315 1-9
TR-08 Vol. 4B 315 1-9
universal Vol. 4B 315 1-9
universal voice grade Vol. 4B 315 1-9
single-party Vol. 1 155 1-33, Vol. 1 155 1-39
supported by Omega 2-wire station line card Vol. 2B 181 2-5
supported by core software Vol. 2A 101 1-2
supported by Epsilon station line card Vol. 2A 102 6-11
supported by manual ringdown 2-wire line card Vol. 2A 102 6-12
supported by Omega 2-wire office line card Vol. 2A 102 6-13
supported by Omega 2-wire station line card Vol. 2A 102 6-14

Service (continued)
supported by Omega 4-wire line card Vol. 2A 102 6-15
supported by Omega 6/8-wire line card Vol. 2A 102 6-16
supported by universal voice grade station line card Vol. 2A 102 6-17
TDM
line card attributes Vol. 4B 315 3-11
TO
line card attributes Vol. 4B 315 3-6, Vol. 4B 315 3-8
TO/ETO (transmission only/equalized transmission only)
supported by Omega 2-wire office line card Vol. 2B 181 3-24, Vol. 2B 181 3-25, Vol. 2B 181 3-26
supported by Omega 2-wire station line card Vol. 1 155 1-59, Vol. 2B 181 2-34, Vol. 2B 181 2-35, Vol. 2B 181 2-36
supported by Omega 4-wire line card Vol. 1 155 1-68, Vol. 2B 181 4-4, Vol. 2B 181 4-5
TR-08
COINRT Vol. 4B 315 1-9
DPT Vol. 4B 315 1-9
POTSRT Vol. 4B 315 1-9
UVGRT Vol. 4B 315 1-9
universal special service
DDS Vol. 4B 315 1-9
DPO Vol. 4B 315 1-9
DPT Vol. 4B 315 1-9
DX Vol. 4B 315 1-9
E&M Vol. 4B 315 1-9
ETO Vol. 4B 315 1-9
FX Vol. 4B 315 1-9
MRD Vol. 4B 315 1-9
PLAR Vol. 4B 315 1-9
PLR Vol. 4B 315 1-9
TDM Vol. 4B 315 1-9
TO Vol. 4B 315 1-9
universal voice grade
off-hook switching loss and provisioned OHT loss Vol. 1 155 2-19
supported by Omega 2-wire office line card Vol. 2B 181 3-9, Vol. 2B 181 3-10, Vol. 2B 181 3-11
supported by Omega 2-wire station line card Vol. 2B 181 2-29, Vol. 2B 181 2-30, Vol. 2B 181 2-32
supported by universal voice grade station line card Vol. 2B 181 7-5, Vol. 2B 181 7-7, Vol. 2B 181 7-8
UVG line card attributes Vol. 4B 315 3-7
WATS
2-wire Vol. 1 155 1-43, Vol. 1 155 1-53
4-wire Vol. 1 155 1-64

Service alarm setting
changing Vol. 4B 315 4-13
setting Vol. 4B 315 4-14

Service assignments
automatic Vol. 4B 315 4-3
modifying Vol. 4B 315 4-3

Service code
2-wire office line card
COINCT for NT4K68 Vol. 4B 315 3-4
DPT for NT4K68 Vol. 4B 315 3-4
ETOO for NT4K68 Vol. 4B 315 3-4
FXO for NT4K68 Vol. 4B 315 3-4
POTSCT for NT4K68 Vol. 4B 315 3-4
TOO for NT4K68 Vol. 4B 315 3-4
UVGCT for NT4K68 Vol. 4B 315 3-4
2-wire station line card
COINRT for NT4K67 Vol. 4B 315 3-4
DPO for NT4K67 Vol. 4B 315 3-4
ETOS for NT4K67 Vol. 4B 315 3-4
FXS for NT4K67 Vol. 4B 315 3-4
MRD for NT4K78 Vol. 4B 315 3-4
PLAR for NT4K67 Vol. 4B 315 3-4
POTSRT for NT4K65 Vol. 4B 315 3-4
POTSRT for NT4K67 Vol. 4B 315 3-4
POTSRT for NT4K79 Vol. 4B 315 3-4
TOS for NT4K67 Vol. 4B 315 3-4
UVGRT for NT4K67 Vol. 4B 315 3-4
UVGRT for NT4K79 Vol. 4B 315 3-4
4-wire
DDS for NT4K69 Vol. 4B 315 3-4
DX for NT4K69 Vol. 4B 315 3-4
ETO for NT4K69 Vol. 4B 315 3-4
FXO for NT4K69 Vol. 4B 315 3-4
FXS for NT4K69 Vol. 4B 315 3-4
TO for NT4K69 Vol. 4B 315 3-4
6-wire or 8-wire
E&M1 for NT4K77 Vol. 4B 315 3-4
E&M2 for NT4K77 Vol. 4B 315 3-4
E&M3 for NT4K77 Vol. 4B 315 3-4
PLR1 for NT4K77 Vol. 4B 315 3-4
PLR2 for NT4K77 Vol. 4B 315 3-4
TDM1 for NT4K77 Vol. 4B 315 3-4
TDM1O for NT4K77 Vol. 4B 315 3-4
TDM1S for NT4K77 Vol. 4B 315 3-4
TDM2 for NT4K77 Vol. 4B 315 3-4
TDM2O for NT4K77 Vol. 4B 315 3-4
TDM2S for NT4K77 Vol. 4B 315 3-4
attribute descriptions Vol. 4B 315 3-12
attributes Vol. 4B 315 3-5
COIN Vol. 4B 315 3-7
digital data service Vol. 4B 315 3-10
DPO Vol. 4B 315 3-5
DPT Vol. 4B 315 3-5
DX Vol. 4B 315 3-8
E&M Vol. 4B 315 3-11
ETO Vol. 4B 315 3-6, Vol. 4B 315 3-9
FXO Vol. 4B 315 3-5, Vol. 4B 315 3-9
FXS Vol. 4B 315 3-5, Vol. 4B 315 3-10
ILCPOTS Vol. 4B 315 3-7
MRD Vol. 4B 315 3-7
PLAR Vol. 4B 315 3-7
PLR Vol. 4B 315 3-11
POTS Vol. 4B 315 3-7

Service code, attributes (continued)
TDM Vol. 4B 315 3-11
TO Vol. 4B 315 3-6, Vol. 4B 315 3-8
UVG Vol. 4B 315 3-7
by line card type Vol. 4B 315 3-4
COIN
for NT4K67 Vol. 4B 315 3-4
for NT4K68 Vol. 4B 315 3-4
DDS
for NT4K69 Vol. 4B 315 3-4
DPO
for NT4K67 Vol. 4B 315 3-4
DPT
for NT4K68 Vol. 4B 315 3-4
DX
for NT4K69 Vol. 4B 315 3-4
E&M
for NT4K77 Vol. 4B 315 3-4
ETO
for NT4K67 Vol. 4B 315 3-4
for NT4K68 Vol. 4B 315 3-4
for NT4K69 Vol. 4B 315 3-4
FXO
for NT4K68 Vol. 4B 315 3-4
for NT4K69 Vol. 4B 315 3-4
FXS
for NT4K67 Vol. 4B 315 3-4
for NT4K69 Vol. 4B 315 3-4
MRD
for NT4K78 Vol. 4B 315 3-4
PLAR
for NT4K67 Vol. 4B 315 3-4
PLR
for NT4K77 Vol. 4B 315 3-4
POTS
for NT4K65 Vol. 4B 315 3-4
for NT4K67 Vol. 4B 315 3-4
for NT4K68 Vol. 4B 315 3-4
for NT4K79 Vol. 4B 315 3-4
table of attribute values Vol. 4B 315 3-3
TDM
for NT4K77 Vol. 4B 315 3-4
TO
for NT4K67 Vol. 4B 315 3-4
for NT4K68 Vol. 4B 315 3-4
for NT4K69 Vol. 4B 315 3-4
UVG
for NT4K67 Vol. 4B 315 3-4
for NT4K68 Vol. 4B 315 3-4
for NT4K79 Vol. 4B 315 3-4

Service descriptor
provisioning UE9000 Data OAMP UG 1-14
submap UE9000 Data OAMP UG 8-15
viewing UE9000 Data OAMP UG 1-46

Service descriptor group
provisioning UE9000 Data OAMP UG 1-6, UE9000 Data OAMP UG 1-10
submap UE9000 Data OAMP UG 8-14

Service interruption Vol. 5C 547 1-5
typical Vol. 5C 547 1-6
worst case Vol. 5C 547 1-6

Service order system, DMS-100
Vol. 2A 101 2-21

Service protection center
in ModCab Mod Cab Desc 119 6-4
in S800A S800A OP Cab Desc 118 5-7
wiring S800A Cab Inst 210 13-67

Service-level alarm
setting Vol. 4B 315 5-3

Service-level log
setting Vol. 4B 315 5-3

Services
narrowband, in the CDS Vol. 2A 102 2-10
TR-08 Vol. 1 155 1-51

services Vol. 3B 221 3-2
ModCab Mod Cab Desc 119 1-3

Serving area interface
in S800A cabinet
description S800A OP Cab Desc 118 5-9, S800A OP Cab Desc 118 10-7

SERVORD.
See Service order system, DMS-100.

Setting
network element date MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50
network element time MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50
network identifier MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50
user account name MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50
user account password MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50

Severity levels of alarms
Vol. 2A 104 1-6

Shelf
alarms TL1 Interface Desc 190 3-110
deleting UE9000 Voice OAMP UG 1-13
detailed information, displaying Vol. 5C 510 3-4
numbering in ABM bays Vol. 1 200 1-2
UE9000 UE9000 Data Net Design 3-1

Shelf alarm monitoring
availability Vol. 5A 543 2-1

Shelf assembly fail
clear alarm Vol. 5A 543 3-68

Shelf capacity
OC-12 system
in transport bandwidth manager Vol. 1 154 5-9

Shelf cover
installing ABM Inst 201 8-4

Shelf ID bus fail
clear alarm Vol. 5A 543 3-69

Shelf inventory
inventry ce Vol. 3B 225 2-19

Shelf layout
ABM Bay Cable Conn QRG 4-10

Shelf processor circuit pack
installation MCOT to ABM QRG 1-4

Shelf type
access bandwidth manager Vol. 2A 100 7-3
copper-distribution shelf Vol. 2A 100 7-35
transport bandwidth manager Vol. 2A 100 7-48

Shelf types and modules
Vol. 2A 102 4-1

Shelf, provisioning
UE9000 Data OAMP UG 1-21

Shim (conductive)
TBM bay equipment installation
TBM Inst 202 4-8

Shim (non conductive)
TBM bay equipment installation
TBM Inst 202 4-8

showcard command
Vol. 5C 520 4-12

showpath command
Vol. 5C 520 4-9

SI card
alarms UE9000 Voice OAMP UG 6-15
automatic in-service
UE9000 Voice OAMP UG 1-8
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-11
parameters, displaying
UE9000 Voice OAMP UG 3-3

Side cable covers
installing on copper-distribution shelves
ABM Inst 201 8-2

Side interconnect
left circuit pack Vol. 5C 547 2-10
right circuit pack Vol. 5C 547 2-12

Side interconnect card failure
troubleshooting Vol. 5A 543 3-68

Side interconnect left
connectors ABM Bay Cable Conn QRG 4-11

Side interconnect left circuit pack
on access bandwidth manager shelf
Vol. 2A 100 7-9
connectors on Vol. 2A 100 10-11
wiring, in Series 800A outside plant cabinet
S800A Cab Inst 210 13-34,
S800A Cab Inst 210 13-44
on transport bandwidth manager shelf
Vol. 2A 100 7-53
connectors on Vol. 2A 100 10-12
replacing in VTBM MBP
MBP VTBM Ring User 7-11

Side interconnect right
connectors ABM Bay Cable Conn QRG 4-12

Side interconnect right circuit pack
Vol. 2A 100 7-12
replacing in VTBM MBP
MBP VTBM Ring User 7-13

Side panel
removing in VTBM MBP
MBP VTBM Ring User 3-4

Signal
carrying copper-based services
going into the optical fiber Vol. 2A 102 2-5
copper-based services
coming from the optical fiber Vol. 2A 102 2-8
DS1, going into the optical fiber Vol. 2A 102 2-4
DS3
coming from the optical fiber Vol. 2A 102 2-7
going into the optical fiber Vol. 2A 102 2-4
optical
coming from the optical fiber Vol. 2A 102 2-6
going into the optical fiber Vol. 2A 102 2-3

Signal degradation
Vol. 2A 103 3-7

Signal failure
Vol. 2A 103 3-5

Signal flex
Vol. 2A 102 6-5

Signal flow
conditions
failure Vol. 2A 103 4-4
normal Vol. 2A 103 4-3
matched nodes Vol. 2A 103 4-14
ring Vol. 2A 103 4-2

Signal flow and circuit packs
Vol. 2A 102 1-1

Signaling
4-wire FXS/FXO test Vol. 4B 316 4-56
configurations for UDLC
TL1 Interface Desc 190 5-111
control 0TLP jack access Vol. 4B 316 6-24
control codes Vol. 4B 316 6-28,
Vol. 4B 316 6-29, Vol. 4B 316 6-30
DX test Vol. 4B 316 4-62
E&M and PLR tests Vol. 4B 316 4-65
line card attribute for leads Vol. 4B 315 3-13

Signaling leads
line card attribute Vol. 4B 315 3-13

Silent switchman test
for station installation Vol. 2A 101 1-22

Silent switchperson test
description Vol. 2B 115 8-1

Simple network management protocol
community strings UE9000 Data OAMP UG 4-15

Single bit error inject button
Vol. 3B 225 3-4

Single bit error injection button
Vol. 3B 222 2-21, Vol. 3B 222 2-25,
Vol. 3B 222 2-34, Vol. 3B 222 2-35,
Vol. 3B 222 2-39

Single equipment module
description MBP Desc 110 1-4

Single point ground
in small buildings
ABM Bay Cable Conn QRG 2-7,
ABM Bay Cable Conn QRG 2-9

Single-ended AccessNode
Vol. 2A 100 2-8
default maps for Vol. 2A 100 2-11
software package Vol. 2A 101 2-14
topology Vol. 2A 100 3-31

Single-ended AccessNode.
See Application, single-ended AccessNode

Single-ended operations
Vol. 2A 101 1-19

Single-ended remote fiber terminal
worksheets
preparing Vol. 1 154 4-10

Single-party residential service.
See Service, POTS. See Service, single-party

Site
cautions for MBP Site Inst P&E Add 6-1
preparation
for central-office equipment Vol. 1 200 2-15
for customer-located equipment
Vol. 1 200 3-15
preparation for MBP Site Inst P&E Add 6-1

Site selection
environmental considerations
Mod Cab Desc 119 4-1
extreme conditions Mod Cab Desc 119 4-1
for Series 800A outside plant cabinet
S800A Cab Inst 210 1-2

Site test
DS1 Vol. 3A 230 7-9, Vol. 3A 230 7-23
signal continuity, verify Vol. 3A 230 7-14
DS3
initial provisioning, performing
Vol. 3A 230 8-8
protection switch, test Vol. 3B 221 2-32
verify signal continuity Vol. 3A 230 8-12
verify transmission test set Vol. 3A 230 8-6
overview Vol. 3B 221 1-1
preparations Vol. 3A 245 2-1, Vol. 3B 220 2-1
STS-1
initial provisioning, performing
Vol. 3A 230 8-8
protection switch, test Vol. 3B 221 2-32
verify signal continuity Vol. 3A 230 8-12
test optical protection switching Vol. 3B 221 2-18

Site tests
DS1 Vol. 3B 225 3-1
group and slot associations Vol. 3B 225 3-2
protection switching, testing Vol. 3B 225 3-14
preparations
circuit pack (ABM and CDS), inserting
Vol. 3A 230 2-16, Vol. 3A 235 2-17,
Vol. 3A 240 2-39, Vol. 3A 245 2-18,
MCOT to ABM QRG 3-16
circuit pack (TBM), inserting
Vol. 3A 230 2-26, Vol. 3A 240 2-11
common equipment (ABM), powering up
Vol. 3A 230 2-17, Vol. 3A 235 2-21,
Vol. 3A 240 2-42, Vol. 3A 245 2-21,
MCOT to ABM QRG 3-20

Site tests, preparations (continued)
common equipment (TBM), powering up
Vol. 3A 230 2-31, Vol. 3A 240 2-18
MPP rectifiers
installing Vol. 3B 220 2-3
verifying Vol. 3B 220 2-8
power (ABM), verifying Vol. 3A 230 2-9, Vol. 3A 240 2-29, Vol. 3A 245 2-5
power (TBM), verifying Vol. 3A 230 2-5, Vol. 3A 240 2-6

Site Tests Results form
Vol. 3B 225 6-1

SLAT
Vol. 2A 101 1-20
commissioning the OC-3 Express shelf
MCOT to ABM QRG 1-47, MCOT to ABM QRG 1-50

Slat
Vol. 4C Span of Con Cons 3-20

SLAT toolset
Event Browser Vol. 4A 301 6-8, Vol. 4A 301 9-12, Vol. 4A 301 10-11, Vol. 4A 301 14-4
OPC Alarm Provisioning tool Vol. 4A 301 7-14
OPC Date Vol. 4A 301 7-30, Vol. 4A 301 9-14
OPC Save and Restore Vol. 4A 301 7-21, Vol. 4A 301 7-22
OS Connection Manager Vol. 4A 301 9-14
PGTC/MTA Provisioning Manager Vol. 4A 301 9-9
Reboot/Load Manager Vol. 4A 301 6-2, Vol. 4A 301 9-12

SLC-96
Vol. 2A 100 5-8, Vol. 2A 102 3-11

Slope
line card attribute
receive equalizer Vol. 4B 315 3-13
transmit equalizer Vol. 4B 315 3-14

Slot
Vol. 1 154 3-22, Vol. 1 154 3-23, Vol. 1 154 3-36

Slot planning
OC-3-fed system Vol. 1 154 5-15, Vol. 1 154 5-16

SNMP.
See Simple network management protocol

SOFT
NE log Vol. 5B 840 19-1

Software
ANXUPGCI tool
Mix & Match DFA Recon QRG 4-18
backup and recovery Vol. 2A 101 1-5
canceling an OPC software installation Vol. 3B 220 3-7
compatibility matrix Vol. 2A 101 1-20
core Vol. 2A 100 9-2
672-line system Vol. 2A 101 1-2
alarm and indicator management Vol. 2A 101 1-2
alarm archive Vol. 2A 101 1-2
alarm cutoff Vol. 2A 101 1-3, Vol. 2A 101 1-19
alarm LEDs Vol. 2A 101 1-5
alarm screening at the network-element level Vol. 2A 101 1-3
alarm surveillance Vol. 2A 101 1-3
automated software upgrades Vol. 2A 101 1-4
automatic lockout. See Software, core, protection oscillation control.
automatic protection exerciser for network elements in a ring Vol. 2A 101 1-24
basic security Vol. 2A 101 1-4
circuit-pack status Vol. 2A 101 1-5
command screening Vol. 2A 101 1-5
commissioning Vol. 2A 101 1-5
control bus interface Vol. 2A 101 1-5
customized software upgrades Vol. 2A 101 1-4
database backup and recovery Vol. 2A 101 1-5
default provisioning Vol. 2A 101 1-5
delivery to operations controller Vol. 2A 101 1-20
download, operations controller to network element Vol. 2A 101 1-21
DS0 bandwidth management Vol. 2A 101 1-6
DS1 and DS3 mix Vol. 2A 101 1-8
DS1 assignment Vol. 2A 101 1-9
DS1 interfaces Vol. 2A 101 1-6
DS1 loopback Vol. 2A 101 1-7
DS1 protection switching for FCOTs Vol. 2A 101 1-7
DS1-fed AccessNode Vol. 2A 101 1-7
dual-craft line up of special services Vol. 2A 101 1-8
E2A OS support Vol. 2A 101 1-8
enhanced output parallel telemetry Vol. 2A 101 1-8
exerciser Vol. 2A 101 1-18
external synchronization interface Vol. 2A 101 1-8
FCOT-to-analog-switch interface Vol. 2A 101 1-9
FCOT-to-nonswitched interfaces Vol. 2A 101 1-9
flexible assignment of DS1s for TR303, tandem, and TR08 Vol. 2A 101 1-9
flow-through provisioning Vol. 2A 101 1-9
generic upgrades Vol. 2A 101 1-21
hardware redundancy Vol. 2A 101 1-10
help Vol. 2A 101 1-16

Software, core (continued)
Hong Kong network Vol. 2A 101 1-10
I/O ports on FCOT Vol. 2A 101 1-4, Vol. 2A 101 1-11
I/O ports on remote fiber terminal Vol. 2A 101 1-19
I/O ports on RFT Vol. 2A 101 1-4, Vol. 2A 101 1-11
integrated remote test unit line card Vol. 2A 101 1-23
inventory Vol. 2A 101 1-11
jack access Vol. 2A 101 1-11
lamp test Vol. 2A 101 1-11
line and loop testing Vol. 2A 101 1-12
line-card alarm enhancements Vol. 2A 101 1-12
line-card diagnostics Vol. 2A 101 1-13
local alarm indicators Vol. 2A 101 1-13
locally switched service Vol. 2A 101 1-13
log archive Vol. 2A 101 1-13
logs Vol. 2A 101 1-2, Vol. 2A 101 1-15
loop testing Vol. 2A 101 1-13
manual provisioning Vol. 2A 101 1-14
multihosting Vol. 2A 101 1-14
nonlocally switched services Vol. 2A 101 1-15
nonswitched services Vol. 2A 101 1-15
OC-12 performance monitoring Vol. 2A 101 1-15
OC-3 performance monitoring Vol. 2A 101 1-15
on-line help Vol. 2A 101 1-16
OPC configuration Vol. 2A 101 1-16
operations controller delivery Vol. 2A 101 1-20
operations controller download Vol. 2A 101 1-21
orderwire, fiber central office terminal-remote fiber terminal Vol. 2A 101 1-16
path maintenance and fault isolation Vol. 2A 101 1-18
point-to-point topology Vol. 2A 101 1-18
preprovisioning Vol. 2A 101 1-18
protection exerciser Vol. 2A 101 1-18
protection oscillation control Vol. 2A 101 1-18
protection switching for OC-12s and OC-3s Vol. 2A 101 1-15
provisioning Vol. 2A 101 1-3 to Vol. 2A 101 1-4, Vol. 2A 101 1-9, Vol. 2A 101 1-14, Vol. 2A 101 1-18, Vol. 2A 101 1-23
read-write control Vol. 2A 101 1-5
remote access Vol. 2A 101 1-19
remote login Vol. 2A 101 1-19
RS-232C Vol. 2A 101 1-19
RS-422 Vol. 2A 101 1-19
security administration Vol. 2A 101 1-15
services supported by Vol. 2A 101 1-2
single-ended operations Vol. 2A 101 1-19
single-step upgrade Vol. 2A 101 1-21
SLAT Vol. 2A 101 1-20
SONET phase 1 compliance Vol. 2A 101 1-21
SONET phase 2 compliance Vol. 2A 101 1-22

Software, core (continued)
station installation tests Vol. 2A 101 1-22
support for a mix of DS1s and DS3s Vol. 2A 101 1-8
synchronization-status messages Vol. 2A 101 1-24
synchronous transport signal bandwidth management Vol. 2A 101 1-22
system diagnostics and maintenance Vol. 2A 101 1-22
testing Vol. 2A 101 1-11, Vol. 2A 101 1-13, Vol. 2A 101 1-23
time-of-day synchronization Vol. 2A 101 1-23
timing-reference protection provisioning Vol. 2A 101 1-24
timing-reference provisioning Vol. 2A 101 1-24
user interface Vol. 2A 101 1-10, Vol. 2A 101 1-25
delivery
tape Vol. 2A 101 1-20
detecting and removing OPC software Vol. 3A 230 3-3, Vol. 3A 235 3-4, Vol. 3A 240 3-2, Vol. 3A 245 3-3, MCOT to ABM QRG 4-4
download Vol. 4C Add Nodes VTBM 5-21
downloading Vol. 2A 101 1-21
identifying the release on a remote OPC Vol. 3B 220 3-9
identifying the software release on the local OPC tape Vol. 3B 220 3-11
initializing the replacement OPC hard disk Vol. 5C 547 7-30
installing OPC Vol. 3A 230 3-6, Vol. 3A 235 3-10, Vol. 3A 240 3-7, Vol. 3A 245 3-6, MCOT to ABM QRG 4-10
installing OPC software on a remote OPC Vol. 3B 220 3-1, Vol. 3B 220 3-3
LAIC upgrade Mix & Match DFA Recon QRG 4-1
load Vol. 3A 230 3-11, Vol. 3A 245 3-10
management by operations controller Vol. 2A 102 5-82
OPC download to shelf Vol. 3A 230 3-12, Vol. 3A 245 3-10
optional Vol. 2A 100 9-6
CALRS testing package Vol. 2A 101 2-3
Cornerstone voice Vol. 2A 101 2-4
DARTS testing package Vol. 2A 101 2-4
dependencies Vol. 2A 101 2-3
DMS SuperNode integration package Vol. 2A 101 2-5
DS1 performance monitoring package Vol. 2A 101 2-5
DS1 protection switching package Vol. 2A 101 2-5
DS3 interfaces package Vol. 2A 101 2-5
DS3 performance monitoring package Vol. 2A 101 2-6
enhanced administration package Vol. 2A 101 2-6

Software, optional (continued)
enhanced maintenance package
Vol. 2A 101 2-7
GR-303 generic interface Vol. 2A 101 2-18 tc
Vol. 2A 101 2-22
high-speed performance-monitoring package
Vol. 2A 101 2-8
inventory Vol. 2A 101 2-8
ISDN-U integration package Vol. 2A 101 2-9
ISNMS TL1 surveillance OS interface package
Vol. 2A 101 2-9
Meridian business set package
Vol. 2A 101 2-10
multihosting package Vol. 2A 101 2-10
NEC TL1 provisioning OS interface package
Vol. 2A 101 2-10
Network Manager Vol. 2A 101 2-11
network-view inventory package
Vol. 2A 101 2-8
NMA TL1 surveillance OS interface package
Vol. 2A 101 2-12
OC-12 VTBM ring feature package
Vol. 2A 101 2-12
OPC special-services testing package
Vol. 2A 101 2-13
OPS/INE TL1 provisioning OS interface
package Vol. 2A 101 2-13
single-ended AccessNode Vol. 2A 101 2-14
standby OPC package Vol. 2A 101 2-14
TA-834 (201) analog special-service testing
package Vol. 2A 101 2-15
TL1 generic provisioning OS interface package
Vol. 2A 101 2-15
TL1 generic surveillance OS interface package
Vol. 2A 101 2-16
TR08 package Vol. 2A 101 2-23
upgrade support Vol. 2A 101 2-22
X.25 package Vol. 2A 101 2-23
processor software, downloading
Vol. 3A 230 3-11, Vol. 3A 245 3-10
UE9000 UE9000 Voice OAMP UG 4-1
upgrading Vol. 2A 101 1-21

Software Admin toolset
Backup/Restore Manager Vol. 4A 301 6-4
Event Browser Vol. 4A 301 9-12,
Vol. 4A 301 10-11, Vol. 4A 301 14-4
Incremental Software Delivery Vol. 4A 301 6-15
Network Upgrade Manager Vol. 4A 301 6-12
Reboot/Load Manager Vol. 4A 301 6-2,
Vol. 4A 301 9-12

Software administration
canceling an OPC software installation
Vol. 3B 220 3-7
identifying the release on a remote OPC
Vol. 3B 220 3-9
initializing the replacement OPC hard disk
Vol. 5C 547 7-30

Software administration (continued)
installing OPC software on a remote OPC
Vol. 3B 220 3-1, Vol. 3B 220 3-3
processor software, downloading
Vol. 3A 230 3-11, Vol. 3A 245 3-10

Software trap
clear alarm Vol. 5A 543 3-70

Software, ANX
CI tool
ANXUPGCI
Mix & Match DFA Recon QRG 4-18
manual software upgrade Vol. 5C 547 2-34
limitations Vol. 5C 547 2-36
process overview Vol. 5C 547 2-37
required material Vol. 5C 547 2-34
requirements Vol. 5C 547 2-36
traffic impact Vol. 5C 547 2-37

SOH bus.
See SONET overhead bus.

SONET
clock Vol. 5A 543 3-56
concatenated payloads Vol. 2A 100 12-12
data communication channels
section data communication channels
Vol. 2A 102 3-3
data communications channels
control network, CNet
status Vol. 3B 222 6-5
provisioning Vol. 3B 222 6-7
feeder application Vol. 2A 100 4-6
frame format Vol. 2A 100 12-2
overhead Vol. 2A 100 12-3
overhead bus Vol. 2A 102 3-3
carrying orderwire channels Vol. 2A 102 5-59
connection to maintenance interface card
Vol. 2A 102 5-60
connection to optical interface circuit pack
Vol. 2A 102 5-67
connection to processor card Vol. 2A 102 5-91
overhead clock loss
clear alarm Vol. 5A 543 3-71
pointers in Vol. 2A 100 12-10
purpose of Vol. 2A 100 12-1
software Vol. 2A 101 1-21
test equipment Vol. 3B 221 3-7

SONET data communications channel
provisioning Vol. 4B 310 6-58

SONET DCC
Vol. 3B 221 3-2

SONET test set
Vol. 3B 221 3-4

SONET transport system bandwidth manager cabinet
configuration Site Inst P&E Add 2-19, Site Inst P&E Add 2-20

Span A
mismatches Vol. 4C Span of Con Cons 5-1
transferring NEs from Vol. 4C Span of Con Cons 8-1
virtual circuits Vol. 4C Span of Con Cons 5-1

Span B
connecting to Vol. 4C Span of Con Cons 8-5

Span of control
Vol. 4C Span of Con Cons 1-1
collecting data Vol. 4C Add Nodes VTBM 2-6
collecting information Vol. 4C Rem Nodes VTBM 2-2
consolidation Vol. 4C Span of Con Cons 2-1
operations controller Vol. 2A 100 1-4, Vol. 2A 100 8-12
requirements Vol. 4C Span of Con Cons 2-7
saving databases Vol. 4C Span of Con Cons 4-1
span A Vol. 4C Span of Con Cons 1-1
span B Vol. 4C Span of Con Cons 1-1
verifying Vol. 4C Span of Con Cons 2-9

SPC.
See Service protection center

SPC-DM operations system
Vol. 2A 101 1-10

Special circuits
defined T&B Eng Info. 152 2-6

Special service
adjustment
equalization Vol. 4B 316 3-3
equalization on 2-wire circuits Vol. 4B 316 3-10
gain on 2-wire circuits Vol. 4B 316 3-11, Vol. 4B 316 3-12
gain on 4-wire or 6/8-wire circuits Vol. 4B 316 3-19, Vol. 4B 316 3-20

Special services
line/loop testing description Vol. 2B 115 6-9
lineup Vol. 2B 115 3-14, Vol. 4B 316 7-1
2-wire circuit Vol. 4B 316 3-5
4-wire or 6/8-wire circuits Vol. 4B 316 3-13
diagnostics Vol. 4B 316 7-7
setting up a connection Vol. 4B 316 7-4
summary Vol. 4B 316 3-2
OPC Test Manager Vol. 2B 115 6-9
signaling control codes Vol. 4B 316 6-28, Vol. 4B 316 6-29

Special services (continued)
testing Vol. 2B 115 6-1
analog circuits on DS1 tandem Vol. 4B 316 4-31
data services (OCUDP) on DS1 tandem Vol. 4B 316 4-36
testing architecture Vol. 2B 115 6-1

Specials Lineup Manager tool
Vol. 4A 301 12-2
diagnostics Vol. 4B 316 7-7
main window Vol. 4A 301 12-2
restrictions and limitations Vol. 4B 316 7-3
test access connection Vol. 4B 316 7-4
testing capabilities Vol. 2B 115 3-14

Specification
environmental for VTBM Modular business package MBP VTBM Ring Inst 2-30
Series 800A outside plant cabinet
ac power S800A Cab Inst 210 3-3
acoustical noise S800A Cab Inst 210 1-2
concrete S800A Cab Inst 210 1-23, S800A Cab Inst 210 1-24
PVC S800A Cab Inst 210 3-3, S800A Cab Inst 210 4-3
Series 800A outside plant cabinet PVC S800A Cab Inst 210 2-3
technical for VTBM Modular business package MBP VTBM Ring Inst 2-31

Specifications
ac power for ModCab Mod Cab Inst 211 1-8
Access Node
hazard test Vol. 2B 180 11-1
AccessNode Express
temperature and humidity Vol. 2B 180 3-3
bay
environmental Vol. 2B 180 3-1
bay frame dimensions Vol. 2B 180 2-1, Vol. 2B 180 2-2
concrete for ModCab Mod Cab Inst 211 1-6
control network Vol. 2B 180 7-6
DS1 interface Vol. 2B 180 7-1
DS3 interface Vol. 2B 180 7-3, Vol. 2B 180 7-4
electrical Mod Cab Desc 119 10-3
electrical, of alarm contacts Vol. 2B 180 13-2
environmental Mod Cab Desc 119 10-4
environmental in MBP Site Inst P&E Add 3-1
equipment
environmental Vol. 2B 180 3-1
ESI Vol. 2B 180 9-3
in S800A cabinet
environmental S800A OP Cab Desc 118 7-3
mechanical S800A OP Cab Desc 118 7-2
jitter Vol. 2B 180 7-5
MBP and MPP cabinets Vol. 2B 180 15-1
mechanical Mod Cab Desc 119 10-2
mechanical shock Vol. 2B 180 4-1

Specifications (continued)
ModCab
concrete Mod Cab Inst 211 2-13
network element user interface Vol. 2B 180 13-4
network synchronization and clocking
Vol. 2B 180 9-1
of integrated remote test unit Vol. 2B 180 14-1
OPC user interface Vol. 2B 180 13-4
optical link interface Vol. 1 200 9-4
orderwire Vol. 2B 180 12-1
protection switching Vol. 2B 180 9-4,
Vol. 2B 180 10-1
PVC in ModCab Mod Cab Desc 119 6-2,
Mod Cab Inst 211 6-1, Mod Cab Inst 211 7-4
Series 800A outside-plant cabinet
Vol. 2B 180 16-1
weight Vol. 2B 180 2-1

Splicing
guidelines for optical fibers Vol. 4B 315 1-4

Squelch map
ring Vol. 2A 103 4-6, Vol. 2A 103 4-12

Standard
Modular Business Package configuration
MBP Desc 110 2-3
Modular Power Package batteries
MBP Desc 110 3-9
MPP configuration MBP Desc 110 3-2

Standby OPC software
Vol. 2A 101 2-14

State-change log, defined
Vol. 2A 104 1-7

Static electricity
Vol. 5C 547 1-2

Station
installation tests Vol. 2A 101 1-22

Station installation tests
description Vol. 2B 115 8-1

Station ringer test
description Vol. 2B 115 8-2
for station installation Vol. 2A 101 1-22

Statistics
protection switching Vol. 2A 105 2-2

STBY
OPC log Vol. 5B 840 20-1, Vol. 5B 840 20-2,
Vol. 5B 840 20-4, Vol. 5B 840 20-5,
Vol. 5B 840 20-6, Vol. 5B 840 20-7,
Vol. 5B 840 20-8, Vol. 5B 840 20-9,
Vol. 5B 840 20-10, Vol. 5B 840 20-11,
Vol. 5B 840 20-12, Vol. 5B 840 20-13,

STBY (continued)
Vol. 5B 840 20-14, Vol. 5B 840 20-15,
Vol. 5B 840 20-16, Vol. 5B 840 20-17,
Vol. 5B 840 20-18, Vol. 5B 840 20-19,
Vol. 5B 840 20-20, Vol. 5B 840 20-22,
Vol. 5B 840 20-23

Storing guidelines for circuit packs
Vol. 4B 315 1-2

Stratum clock
synchronization Vol. 2A 100 11-2

Stratum-3
troubleshooting Vol. 5A 543 3-141

Structure
in S800A cabinet, description
S800A OP Cab Desc 118 2-1

STS path facility
performance threshold provisioning
Vol. 4B 310 6-53

STS.
See Synchronous transport signal

STS/VT
Vol. 4C Span of Con Cons 3-7
provisioning/verifying
Vol. 4C Span of Con Cons 9-5
removing connections
Vol. 4C Span of Con Cons 12-6
restoring connections
Vol. 4C Span of Con Cons 14-2

STS-1
Vol. 3A 230 7-1
adding equipment and facilities Vol. 4C 324 4-1
adding to an existing system Vol. 4C 324 4-2
auditing connection data
Mix & Match DFA Recon QRG 2-15
bit error rate test, OC-3 tributary Vol. 3B 222 4-13
connections, OC-3 tributary tests Vol. 3B 222 4-1
creating cross-connects
Mix & Match DFA Recon QRG 5-7
cross-connect panel Vol. 3A 230 8-1,
Vol. 3B 221 2-1
cross-connects
Mix & Match DFA Recon QRG 5-1
deleting connections
Vol. 4C Rem Nodes VTBM 5-35
deleting cross-connects
Mix & Match DFA Recon QRG 5-9
displaying cross-connects
Mix & Match DFA Recon QRG 5-3
edit menu Vol. 3A 230 8-10
equipment
adding Vol. 4C 324 4-2
removing Vol. 4C 324 7-2

STS-1 (continued)
facility
activating/deactivating Vol. 4C 324 4-4
alarm points, enabling and disabling Vol. 4B 310 6-6
provisioning and deprovisioning Vol. 4B 310 6-27
troubleshooting Vol. 5A 543 4-166
group and slot association Vol. 5A 543 1-15, Vol. 5C 547 1-10
group and slot associations Vol. 3A 230 8-2, Vol. 3B 221 2-2, Vol. 4B 311 2-2
I/O card Vol. 5C 547 2-2, Vol. 5C 547 2-3
I/O card slots Vol. 5A 543 1-16
I/O numbers Vol. 4B 311 2-6, Vol. 5C 547 1-13
intercard fail
clear alarm Vol. 5A 543 3-111, Vol. 5A 543 3-129
clearing alarm Vol. 5A 543 3-347
interface Vol. 5C 547 2-2
interface card Vol. 3A 230 8-2, Vol. 3A 230 8-20, Vol. 3B 221 2-2
LED, troubleshooting Vol. 5A 543 7-26
line Vol. 2A 105 1-10
mapping Mix & Match DFA Recon QRG 3-3
NT4K30 Vol. 5C 547 2-2, Vol. 5C 547 2-3
NT7E09 Vol. 5C 547 2-2, Vol. 5C 547 2-101
operating or releasing
forced protection switch Vol. 4B 311 2-21
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
optical end-to-end tests Vol. 3B 222 3-1
optical in-bay test Vol. 3B 221 2-1
path Vol. 2A 105 1-9
path FE CV threshold 1,2
clearing alarm Vol. 5A 543 4-91
performance monitoring Vol. 2A 105 1-9
facility counters, clearing Vol. 5C 520 3-15
facility history, displaying Vol. 5C 520 3-21
facility report type, changing Vol. 5C 520 3-29
facility statistics, displaying Vol. 5C 520 3-12
facility threshold alarms and alerts, disabling Vol. 5C 520 3-45
facility threshold alarms and alerts, enabling Vol. 5C 520 3-42
facility threshold status, changing Vol. 5C 520 3-33
facility threshold value, changing Vol. 5C 520 3-37
facility thresholds, displaying Vol. 5C 520 3-25
facility thresholds, displaying full precision Vol. 5C 520 3-69
facility untimed interval clock, starting Vol. 5C 520 3-18
point-to-point configuration Vol. 3B 225 2-2
protection parameters Vol. 4B 311 2-34
protection switch circuit pack Vol. 5C 547 2-62
removing existing STS-1 mappers Vol. 4C 324 8-5
RX AIS
clearing alarm Vol. 5A 543 4-155

STS-1 (continued)
facility
RX loss of pointer
clearing alarm Vol. 5A 543 4-159
Rx RFI
clearing alarm Vol. 5A 543 4-96, Vol. 5A 543 4-187
signal label mismatch
clearing alarm Vol. 5A 543 4-58, Vol. 5A 543 4-99
STS-1 interface Vol. 5C 547 2-101
test equipment Vol. 3B 222 3-3
TIC facility
alarm points, enabling and disabling Vol. 4B 310 6-16
transmission test set
verifying performance Vol. 4C 324 4-5
transport Vol. 4B 310 15-6, Vol. 5A 543 1-10
verify signal continuity Vol. 3A 230 8-12

STS-1 interface card
Vol. 3A 230 2-30

STS-1 or VT1.5 TIC facility
adding Vol. 4B 310 6-3
alarm points, enabling and disabling Vol. 4B 310 6-16

STS-3c
channel range Vol. 4A 301 8-22
connection Vol. 3B 221 3-3, Vol. 4A 301 8-22
PORT column Vol. 3B 221 3-3
synchronous transport signal column Vol. 3B 221 3-3

STSBM
cabinet
ac power cabling, Modular Power Package Site Inst P&E Add 8-5
cabling requirements Site Inst P&E Add 8-4
Modular Business Package configuration MBP Desc 110 2-2, MBP Desc 110 2-8, MBP Desc 110 2-9
Modular Power Package batteries MBP Desc 110 3-9
Modular Power Package configuration MBP Desc 110 3-4

STSBM cabinet
battery back-up
Modular Power Package Site Inst P&E Add 4-5

Submap
description of UE9000 Data OAMP UG 8-5
hierarchy of uEMS UE9000 Data OAMP UG 8-6
menu
pop-up UE9000 Data OAMP UG 9-4
pop-up, common selections UE9000 Data OAMP UG 9-7

Submap, menu (continued)
pop-up, opening UE9000 Data OAMP UG 9-6
pull-down UE9000 Data OAMP UG 9-3
menu bar UE9000 Data OAMP UG 9-2
name UE9000 Data OAMP UG 9-2
shortcuts, adding UE9000 Data OAMP UG 9-9
shortcuts, deleting UE9000 Data OAMP UG 9-10
status bar UE9000 Data OAMP UG 9-3
tool bar UE9000 Data OAMP UG 9-3

submap screen
UE9000 Data OAMP UG 9-2

Subscriber
line termination
attribute descriptions Vol. 4B 315 3-12
loop access Vol. 2B 181 1-4

Subscriber line
grounding ABM Bay Cable Conn QRG 2-3, ABM Bay Cable Conn QRG 2-5, ABM Bay Cable Conn QRG 2-7, ABM Bay Cable Conn QRG 2-9

Subscriber loop access
performance UE9000 Data Net Design 6-1, UE9000 Data Net Design 6-2, UE9000 Data Net Design 6-3

Subunit
fail
clear alarm Vol. 5A 543 3-149
mismatch, clear alarm Vol. 5A 543 3-150
missing, clear alarm Vol. 5A 543 3-151

Superframe format
framefmt superframe Vol. 3B 225 3-7

Surveillance (View) toolset
Protection Manager Vol. 4A 301 10-15, Vol. 4A 301 14-6

SWCT
NE log Vol. 5B 840 21-1

Swing frame
in S800A cabinet
description S800A OP Cab Desc 118 3-4

Switch
activity states of OPC pairs Vol. 4A 302 14-3
canceling Vol. 4A 302 14-9
compatibility matrix
Mix & Match DFA Recon QRG 1-4
digital multiplex
circuit definition Vol. 3A 230 1-8, Vol. 3A 240 1-8, Vol. 3A 245 1-5, Vol. 4C 324 1-24
service types for circuit Vol. 4B 315 1-9
enabling Vol. 4A 302 14-8

Switch (continued)
facility
GR-303 Mix & Match DFA Recon QRG 1-4
IDLC Mix & Match DFA Recon QRG 1-4
interfaces supported
Mix & Match DFA Recon QRG 1-4
managing an OPC activity switch
Vol. 4A 302 14-1
mode, bidirectional Vol. 2A 103 3-2
mode, unidirectional Vol. 2A 103 3-2
preventing Vol. 4A 302 14-7
reporting
multihosting Vol. 2A 104 2-4 to Vol. 2A 104 2-6
single digital host Vol. 2A 104 2-4
tandem Mix & Match DFA Recon QRG 1-4
tool tasks Vol. 4A 301 15-4
UDLC VF Mix & Match DFA Recon QRG 1-4

Switch tool
main window Vol. 4A 301 15-2
window items Vol. 4A 301 15-3

Switch, 5ESS
Vol. 2A 101 2-19

Switched Access Remote Test System
description Vol. 2A 100 8-8
line/loop testing description Vol. 2B 115 6-5

Switched access remote test system
standards compliance TL1 Interface Desc 190 1-4, MCOT to ABM QRG 1-4

Switcher circuit
pack mismatch, clear alarm Vol. 5A 543 3-131
pack mismatch, clearing alarm Vol. 5A 543 3-348
pack missing
clearing alarm Vol. 5A 543 3-349
pack missing, clear alarm Vol. 5A 543 3-132

Symbol
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
ATMIF UE9000 Data OAMP UG 8-10, UE9000 Data OAMP UG 8-13
Circuit UE9000 Data OAMP UG 8-12, UE9000 Data OAMP UG 8-13
colors UE9000 Data OAMP UG 9-12
ISO states UE9000 Data OAMP UG 9-14
CPE UE9000 Data OAMP UG 8-13
DS1 Link UE9000 Data OAMP UG 8-11
international electric used in VTBM MBP
MBP VTBM Ring Inst 1-3
Line Card UE9000 Data OAMP UG 8-10, UE9000 Data OAMP UG 8-13
NE UE9000 Data OAMP UG 8-8
Shelf UE9000 Data OAMP UG 8-9
uEMS UE9000 Data OAMP UG 8-2

Symbols
international electric
modular business package mini-stack
ABM Inst 201 1-5

Synchronization
AccessNode equipment functions
Vol. 2A 100 11-1
end-to-end, setting up Vol. 3B 221 4-9,
Vol. 3B 222 2-17, Vol. 3B 222 3-9
external. See External synchronization
hierarchy Vol. 2A 100 11-3
on digital data service Vol. 1 155 1-73
status messages Vol. 2A 100 11-31
status messages, software Vol. 2A 101 1-24
status messaging, benefits Vol. 2A 100 11-35
stratum clocks Vol. 2A 100 11-2
time-of-day Vol. 2A 101 1-23
timing islands Vol. 2A 100 11-36
timing islands, preventing Vol. 2A 100 11-37
timing reference Vol. 4B 310 4-1
VTBM circuit pack internal clock specifications
Vol. 2B 180 9-4

Synchronous payload envelope
in STS-1 Vol. 2A 100 12-3
in VT group Vol. 2A 100 12-6

Synchronous transport signal
bandwidth management Vol. 2A 101 1-22
base rate Vol. 2A 100 12-1
concatenated Vol. 2A 100 12-12
facility alarms TL1 Interface Desc 190 3-120

Synchronous transport signal path
coding violations Vol. 2A 105 1-18,
Vol. 2A 105 1-19
errored seconds Vol. 2A 105 1-18,
Vol. 2A 105 1-19
failure count Vol. 2A 105 1-18, Vol. 2A 105 1-19
severely errored seconds Vol. 2A 105 1-18,
Vol. 2A 105 1-19
unavailable seconds Vol. 2A 105 1-18,
Vol. 2A 105 1-19

SYSMON
cpstats Vol. 5C 520 4-3
lcstats Vol. 5C 520 4-4
opening Vol. 5C 520 4-2
port Vol. 5C 520 4-8
showcard Vol. 5C 520 4-12
showpath Vol. 5C 520 4-9
using Vol. 5C 520 4-1

System
checking alarms
Mix & Match DFA Recon QRG 2-2
definition of Vol. 2A 100 1-5

System (continued)
types of
basic fiber-fed. See Basic fiber-fed AccessNode
DS1-fed. See DS1-fed AccessNode
single-ended. See Single-ended AccessNode
UE900 performance UE9000 Data Net Design 3-2
verification Mix & Match DFA Recon QRG 2-1

System administration
network security Vol. 4A 302 4-1
procedures Vol. 4A 302 1-1

System diagnostics
failure troubleshooting Vol. 5A 543 3-101
fault notification Vol. 2A 101 1-22

System expansion
adding a backup OPC Vol. 4C 324 12-1
adding DS1 equipment Vol. 4C 324 2-4
adding DS1 equipment and facilities
Vol. 4C 324 2-1
adding DS3 equipment Vol. 4C 324 3-2
adding DS3 equipment and facilities
Vol. 4C 324 3-1
adding ESI cards Vol. 4C 324 15-1
guidelines for Vol. 4C 324 15-2
adding MBP equipment Vol. 4C 324 10-1
adding OC-3 tributaries Vol. 4C 324 8-1
adding STS-1 equipment Vol. 4C 324 4-2
adding STS-1 equipment and facilities
Vol. 4C 324 4-1
adjusting OMC bandwidth Vol. 4C 324 14-3
converting from DS3 to mixed DS1/DS3
Vol. 4C 324 6-1
DFA procedures Vol. 4C 324 14-1
equipping and testing copper-distribution shelf
Vol. 4C 324 9-1
installing CDS common circuit packs
Vol. 4C 324 9-7
Modular Business Package cabinet
Site Inst P&E Add 7-1
Modular Power Package cabinet
Site Inst P&E Add 7-1
moving an OMC link Vol. 4C 324 14-8
overview Vol. 4C 324 1-1
testing a new facility on an in-service DS3/STS
mapper Vol. 4C 324 3-7
testing CDSs Vol. 4C 324 9-12
testing DS1 facilities on a DS1-fed system
Vol. 4C 324 2-35
testing DS1 transport facilities Vol. 4C 324 2-9
testing DS1/VT mapper continuity
Vol. 4C 324 2-16, Vol. 4C 324 2-22
transferring an OPC to another shelf
Vol. 4C 324 2-28
upgrading from OC-3 to OC-12 Vol. 4C 324 13-1
verifying DS3 transmission test set performance
Vol. 4C 324 3-5, Vol. 4C 324 4-5

System expansion (continued)
verifying the performance of the DS1 transmission test set Vol. 4C 324 2-2
VTBM Modular business package
MBP VTBM Ring Inst 2-21

System integration
connecting NE to system Vol. 3B 221 4-6
NE to system, connecting Vol. 3B 225 5-3
preparing for Vol. 3B 221 4-1
provisioning DS1s for Vol. 3B 221 4-12
RFT Vol. 3B 225 1-8

System integrity test
Vol. 3B 222 7-1

System integrity testing
orderwire, testing Vol. 3B 222 7-6

System integrity tests
backup, restore NE data, testing Vol. 3B 225 5-13
communication between OPCs, verifying Vol. 3B 225 5-20
Operations controller data backup and recovery, verifying Vol. 3B 225 5-17

System line up and test
Vol. 2A 101 1-20

System Setup Checklist
Vol. 3A 245 7-1

System test
DS1 Vol. 3B 222 2-1
forced protection switching, testing Vol. 3B 222 2-51
manual protection switching, testing Vol. 3B 222 2-50
measure bit-error rate Vol. 3B 222 2-22
performance monitoring, verifying Vol. 3B 222 2-59
priority protection switching, testing Vol. 3B 222 2-53
protection switching lockout, testing Vol. 3B 222 2-52
transmission test set, verifying Vol. 3B 222 2-20
verify signal continuity Vol. 3B 222 2-22
DS3 Vol. 3B 222 3-1
bit-error rate, measuring Vol. 3B 222 3-15
performance monitoring, verifying Vol. 3B 222 3-54
protection switching
forced, testing Vol. 3B 222 3-46
lockout, testing Vol. 3B 222 3-47
manual, testing Vol. 3B 222 3-45
priority, testing Vol. 3B 222 3-48
signal continuity, verifying Vol. 3B 222 3-15
transmission test set, verifying Vol. 3B 222 3-11

System test (continued)
optical
performance monitoring, verifying Vol. 3B 222 2-57, Vol. 3B 222 3-52
protection switching Vol. 3B 222 2-38, Vol. 3B 222 3-31
receiver sensitivity, measuring Vol. 3B 222 3-23
protection exerciser, using Vol. 3B 222 3-56
STS-1 Vol. 3B 222 3-1
bit-error rate, measuring Vol. 3B 222 3-15
performance monitoring, verifying Vol. 3B 222 3-54
protection switching
forced, testing Vol. 3B 222 3-46
lockout, testing Vol. 3B 222 3-47
manual, testing Vol. 3B 222 3-45
priority, testing Vol. 3B 222 3-48
signal continuity, verifying Vol. 3B 222 3-15
transmission test set, verifying Vol. 3B 222 3-11
using protection exerciser Vol. 3B 222 2-61

System Test Results form
Vol. 3B 222 8-1

System tests
DS1
equipment required Vol. 3B 222 2-4
DS1, bit-error rate, measuring Vol. 3B 225 2-41
DS3
equipment required Vol. 3B 222 3-3
optical
receiver sensitivity, measuring Vol. 3B 222 2-29
STS-1
equipment Vol. 3B 222 3-3

System-level alarm
cutoff Vol. 2A 104 2-3, Vol. 2A 104 3-22
reporting Vol. 2A 101 1-2, Vol. 2A 104 2-3

T

T1 and maintenance pair cable
used with Series 800A outside plant cabinet
S800A Cab Inst 210 5-1

T1 repeater shelf.
See DS1 repeater shelf

TA-201 analog special-service
standards compliance TL1 Interface Desc 190 1-4, MCOT to ABM QRG 1-4

TA-834 (201) analog special-service testing optional software package
Vol. 2A 101 2-15

TAC
NE log Vol. 5B 840 2-1, Vol. 5B 840 22-1, Vol. 5B 840 22-4, Vol. 5B 840 22-6, Vol. 5B 840 22-7, Vol. 5B 840 22-9, Vol. 5B 840 22-10, Vol. 5B 840 22-11, Vol. 5B 840 22-12, Vol. 5B 840 22-15

TAC.
See Test Access Card

Talk battery
continuity
verifying Vol. 3B 225 2-7

Talk battery filter
card Vol. 2A 100 7-20
circuit card Vol. 5C 547 5-19
description Vol. 2A 100 8-22
internal capacitor Vol. 5C 547 5-19, Vol. 5C 547 5-21
replacing for VTBM MBP
MBP VTBM Ring User 6-4

Talk path
provisioning Vol. 3A 245 5-6

Tandem circuit
Vol. 3A 230 1-7, Vol. 3A 235 1-5, Vol. 3A 240 1-8, Vol. 3A 245 1-5, MCOT to ABM QRG 2-4
definition Vol. 4C 324 1-23
DS1 Vol. 2A 101 1-9

Tandem interface
software Vol. 2A 101 1-9

Tandem signaling
supported by Omega 6/8-wire line card Vol. 2A 102 6-16, Vol. 2B 181 5-17
parameters Vol. 2B 181 5-17, Vol. 2B 181 5-18
specifications Vol. 2B 181 5-18

Tandem/TR-08
Vol. 4C Span of Con Cons 6-3

TAP.
See test access path card

Tape
backing up Vol. 4A 304 2-1
checking identification Vol. 4A 304 3-5
digital audio Vol. 4A 304 2-2
displaying details Vol. 3A 230 4-64, Vol. 3A 235 3-66, Vol. 3A 240 4-53, Vol. 4A 304 2-4, Vol. 4A 304 2-12, Vol. 4A 304 2-16, Vol. 4A 304 3-5, MCOT to ABM QRG 4-61
identifying Vol. 4A 304 2-16
identifying the software release on the local OPC tape Vol. 3B 220 3-11
restoring OPC data Vol. 4A 304 2-10
saving OPC data Vol. 3A 230 4-63, Vol. 3A 235 3-65, Vol. 3A 240 4-52, Vol. 4A 304 2-3, MCOT to ABM QRG 4-60

tape backup/restore fail
clear alarm Vol. 5A 543 3-309

Tape drive.
See Operations controller module, tape drive

Target clock mode
changing
OC-12 VTM circuit pack Vol. 3A 230 4-18, Vol. 4B 310 4-11

Target filter mode
Vol. 3B 225 5-6

Task list
DS1 in-bay test Vol. 3B 225 1-7
system integration, RFT Vol. 3B 225 1-8
telemetry and alarm tests Vol. 3B 225 1-7

TBM bay.
See Transport bandwidth manager bay

TBM shelf
functions
STS-1 circuit pack groups Vol. 5A 543 1-19

TBM.
See transport bandwidth manager

TBOS
Vol. 2A 100 10-7, Vol. 2A 102 5-58, Vol. 4C Span of Con Cons 3-14
assigning remote alarms Vol. 4A 302 15-11
displays Vol. 4A 302 15-2
ABM shelf Vol. 2A 104 6-1
cluster-level Vol. 2A 104 5-4, Vol. 2A 104 8-1

TBOS, displays (continued)
control Vol. 2A 104 5-4, Vol. 2A 104 6-26, Vol. 2A 104 7-25
deleting from a TBOS port Vol. 4A 302 15-9
monitor Vol. 2A 104 5-4, Vol. 2A 104 6-24, Vol. 2A 104 7-25
remote Vol. 2A 104 5-4, Vol. 2A 104 8-1
TBM shelf Vol. 2A 104 7-1
viewing Vol. 4A 302 15-5
displays, ABM shelf Vol. 2A 104 6-1
edit menu Vol. 3B 225 4-6
emulation program Vol. 3B 225 4-3
mapping tool Vol. 2A 104 5-5
ports (3 and 4) Vol. 3B 225 4-3
protocol
AccessNode Vol. 2A 104 5-3
provisioning data Vol. 4C Span of Con Cons 11-3
test set Vol. 3A 230 9-6
test set configure Vol. 3B 225 4-4
test set, faceplate Vol. 3B 225 4-5

TBOS E2A
assigning a display to a port Vol. 4A 302 15-6
assigning a remote alarm Vol. 4A 302 15-11
assigning default alarms to a signal distribution point Vol. 4A 302 10-13
deleting a display from a TBOS port Vol. 4A 302 15-9
deleting an alarm from a signal distribution point Vol. 4A 302 10-11
displaying ports Vol. 4A 302 7-2
displays Vol. 4A 302 15-2
provisioning Vol. 4A 302 10-1
provisioning serial telemetry ports Vol. 4A 302 15-1
viewing a display assignment Vol. 4A 302 15-5
viewing the state of a signal distribution point Vol. 4A 302 10-7

TBOS Mapping tool
Vol. 4A 301 8-2
assigning a display to a TBOS port Vol. 4A 302 15-6
deleting a display assignment Vol. 4A 302 15-9
main window Vol. 4A 301 8-2
mapping displays to TBOS ports Vol. 4A 301 8-2
viewing a display assignment Vol. 4A 302 15-5

TBP.
See test bypass pair card

TCP/IP
configuring TL1 over Vol. 4A 302 2-74

TDM card
adding UE9000 Voice OAMP UG 1-3
automatic in-service UE9000 Voice OAMP UG 1-8
catalog file, updating UE9000 Voice OAMP UG 4-6

TDM card (continued)
deleting UE9000 Voice OAMP UG 1-10
diagnostics UE9000 Voice OAMP UG 5-40
LEDs UE9000 Ad Bay 1-2
logs UE9000 Voice OAMP UG 7-1
operating state, changing UE9000 Voice OAMP UG 3-11
parameters, displaying UE9000 Voice OAMP UG 3-3
provisioning UE9000 Voice OAMP UG 1-1
restarting (manual) UE9000 Voice OAMP UG 5-45
software, upgrading UE9000 Voice OAMP UG 4-1
software, viewing UE9000 Voice OAMP UG 4-15
switching activity UE9000 Voice OAMP UG 5-43
upgrade status UE9000 Voice OAMP UG 4-14
upgrading software UE9000 Voice OAMP UG 4-11

Technical support
Vol. 4C Span of Con Cons 15-1, Vol. 4C Add Nodes VTBM 8-1

Technical support information
TBM Inst 202 7-1, MBP Cab Inst 206 17-1

Telemetry
basic output parallel
FCOT Vol. 2A 101 1-4
RFT Vol. 2A 101 1-4
changing input description Vol. 4A 302 9-11
changing the telemetry output port settings Vol. 4A 302 9-15
displaying output port parameters Vol. 4A 302 9-13
displaying parallel telemetry parameters Vol. 4A 302 9-2
displaying ports Vol. 4A 302 7-2
E2A Vol. 4C Span of Con Cons 2-8
enabling or disabling input points Vol. 4A 302 9-5
enhanced output parallel
FCOT Vol. 2A 101 1-8
RFT Vol. 2A 101 1-8
input parallel
FCOT Vol. 2A 101 1-11
RFT Vol. 2A 101 1-11
input point screen Vol. 3A 230 9-16
latch alarm Vol. 5A 543 2-8
manually operating or releasing telemetry output relay Vol. 4A 302 9-19
output point screen
display Vol. 3A 230 9-21
provisioning Vol. 2A 101 1-23
provisioning alarm severity of inputs Vol. 4A 302 9-7
provisioning E2A information Vol. 4A 302 10-1
provisioning service impact Vol. 4A 302 9-9
provisioning TBOS serial telemetry ports Vol. 4A 302 15-1

Telemetry (continued)
querying another telemetry output port Vol. 4A 302 9-14
querying parallel telemetry parameters Vol. 4A 302 9-3
RS-232C
fiber central office terminal Vol. 2A 101 1-19
remote fiber terminal Vol. 2A 101 1-19
RS422 for serial
fiber central office terminal Vol. 2A 101 1-19
remote fiber terminal Vol. 2A 101 1-19
setting parallel telemetry parameters Vol. 4A 302 9-1
setting serial ports with NE user interface Vol. 4A 302 8-1
TBOS Vol. 4C Span of Con Cons 2-8
test Vol. 3B 225 4-1

Telemetry.
See Parallel telemetry

Telnet
configuring TL1 over TCP/IP Vol. 4B 310 12-67
enabling TL1 over TCP/IP Vol. 4B 310 12-65
provisioning TL1 over TCP/IP Vol. 4B 310 12-2
session between X terminal and OPC Vol. 3B 220 5-25

Temperature compensation
description in ModCab Mod Cab Desc 119 7-3

Teradyne
4TEL testing Vol. 2B 115 7-63
disabling R-TEC signature Vol. 3B 223 1-9

Terminal
configuring OPC ports Vol. 4A 302 2-1
connecting to a network element Vol. 4A 300 3-2
connecting to an OPC Vol. 4A 301 4-3
connecting to portable OPC Vol. 4A 301 4-18
connecting to the OC-3 Express shelf MCOT to ABM QRG 1-32
remote VT100-compatible
connecting to a network element Vol. 4A 300 3-6
setting up for use with the OC-3 Express shelf MCOT to ABM QRG 1-32

Termination compartment
in S800A cabinet
conduit openings S800A OP Cab Desc 118 5-6
description S800A OP Cab Desc 118 5-2
in Series 800A outside plant cabinet
conduit openings S800A Cab Inst 210 4-3, S800A Cab Inst 210 6-3, S800A Cab Inst 210 7-4
Series 800A outside plant cabinet S800A Cab Inst 210 1-4
conduit openings S800A Cab Inst 210 2-3

Termination plug
installing ABM Inst 201 5-40

Test
2-wire
DPO/DPT reverse battery wink test for line cards Vol. 4B 316 4-28
2-wire DPO/DPT signaling for line cards Vol. 4B 316 4-25
2-wire FX signaling test for line cards Vol. 4B 316 4-21
4-wire FXS/FXO signaling Vol. 4B 316 4-56
access card Vol. 5C 547 2-21
NT4K54 Vol. 5C 547 2-2, Vol. 5C 547 2-21
access connection for special services lineup Vol. 4B 316 7-4
access path Vol. 2B 115 3-6
access path card Vol. 5C 547 2-52
NT4K58KA Vol. 5C 547 2-2, Vol. 5C 547 2-52
AccessNode IDLC lines from DMS-100 MAP position Vol. 3A 245 5-1, Vol. 4B 316 5-1
Add-drop multiplexer
ring, testing Vol. 4B 311 3-16
ADMs
ring Vol. 4B 311 3-13
single Vol. 4B 311 3-14, Vol. 4B 311 3-19
analog special services Vol. 4B 316 4-31
automatic switch Vol. 3B 222 2-52
automatic switch, card failure Vol. 3B 225 3-19
automatic switch, signal degradation Vol. 3B 222 2-46
automatic switching override Vol. 3B 225 3-18
backup restore NE data Vol. 3B 225 5-13, Vol. 3B 225 6-9
basic optical Vol. 4C Rem Nodes VTBM 5-53
bypass pair
operation Vol. 2B 115 4-5
testing capabilities Vol. 2B 115 3-5
bypass pair card Vol. 5C 547 2-48
NT4K58CA Vol. 5C 547 2-2, Vol. 5C 547 2-48
bypass pair integrity test Vol. 2B 115 9-15
carrier bypass Vol. 2B 115 1-4
operation Vol. 2B 115 4-5
testing capabilities Vol. 2B 115 3-5
CDS Vol. 3B 225 6-5
copper-distribution shelf Vol. 4C 324 9-12
copper-distribution shelf,common equipment cards Vol. 3B 225 2-34
copper-distribution shelves, common equipment cards Vol. 3A 230 5-32
data communications Vol. 3B 222 6-1
data services
customer loop Vol. 4B 316 4-44
DS1 tandem Vol. 4B 316 4-36
description for line cards Vol. 4B 316 1-10
description of bus types Vol. 2B 115 2-20

Test (continued)
diagnostics
facility UE9000 Voice OAMP UG 5-37
failed circuit packs Vol. 4B 316 2-50
line cards Vol. 4B 316 2-36
TDM card UE9000 Voice OAMP UG 5-40
dialable short circuit Vol. 2B 115 8-3
digital jack access Vol. 2B 115 3-8
digital test access Vol. 2B 115 3-8
definition Vol. 2B 115 1-3
DS1 cables Vol. 3B 225 3-9, Vol. 3B 225 6-7
DS1 priority switch Vol. 3B 222 2-53
DS1 protection switch Vol. 3B 225 6-7
DS1 signal continuity Vol. 3B 225 6-7
DS1 transmission test set, verify Vol. 3A 230 7-7
DS1-fed AccessNode(DFA) Vol. 3B 225 5-1
DS3 optical end-to-end Vol. 3B 222 3-1
DX signaling Vol. 4B 316 4-62
E&M and PLR signaling Vol. 4B 316 4-65
end-to-end, Vol. 3B 225 5-1
DDS Vol. 4B 316 4-49
data services Vol. 4B 316 4-49
level test for line cards Vol. 4B 316 4-5
performance test for line cards Vol. 4B 316 4-1
end-to-end tests
OC-3 tributary Vol. 3B 222 4-1
SONET DCC Vol. 3B 222 6-1
TA-1230 rings Vol. 3B 222 5-1
enhanced through IRTU Vol. 2B 115 5-1
DRTU commands Vol. 2B 115 5-5
DRTU emulation Vol. 2B 115 5-5
MTU commands Vol. 2B 115 5-8
MTU emulation Vol. 2B 115 5-7
test emulation Vol. 2B 115 5-2
TR834 commands Vol. 2B 115 5-3
TR834 test head Vol. 2B 115 5-2
equipment for DS3 Vol. 3B 222 3-3
equipment for STS-1 Vol. 3B 222 3-3
flowchart for site test a remote fiber terminal Vol. 3B 225 1-6
forced switch Vol. 3B 222 2-51, Vol. 3B 225 3-19
high-speed tests, ring ADM nodes Vol. 3B 222 5-29
idle-channel noise test for line cards Vol. 4B 316 4-12
input/output cards Vol. 3B 225 3-9
integrated remote test unit
calibration Vol. 2B 115 2-9
concepts Vol. 2B 115 2-6
DRTU emulation Vol. 2B 115 5-2, Vol. 2B 115 5-5
enhanced testing Vol. 2B 115 5-1
equipping rules Vol. 2B 115 2-12
functional block diagram Vol. 2B 115 2-7
line card diagram Vol. 2B 115 2-11
line cards Vol. 2B 115 2-9
MTU emulation Vol. 2B 115 5-7
provisioning ILCs Vol. 2B 115 2-12
simultaneous test sessions Vol. 2B 115 2-8
test head Vol. 2B 115 2-11
TR834 test head Vol. 2B 115 5-2

Test (continued)
integrated remote test unit line card Vol. 2A 101 1-23
jack access at LCAP Vol. 4B 316 6-1
lamp test on line cards Vol. 4B 316 2-28
lamp testing from NEUI Vol. 4B 310 17-7
lamps and LEDS Vol. 3B 225 6-5
LCAP jack access Vol. 2B 115 2-23
line card
diagnostics Vol. 2B 115 1-6, Vol. 2B 115 3-12
line/loop testing
access path Vol. 2B 115 3-6
access path I/O card Vol. 2B 115 2-20
basic capabilities Vol. 2B 115 3-1
bypass pair Vol. 2B 115 3-5, Vol. 2B 115 4-1
carrier bypass Vol. 2B 115 1-4, Vol. 2B 115 2-3, Vol. 2B 115 3-5, Vol. 2B 115 4-1
definition Vol. 2B 115 1-2
dialable short circuit Vol. 2B 115 8-3
digital test access Vol. 2B 115 2-3, Vol. 2B 115 3-3
DMS SuperNode installation tests Vol. 2B 115 8-1
DRTU commands Vol. 2B 115 5-5
DRTU emulation Vol. 2B 115 5-5
GR-303
test response circuit Vol. 2B 115 2-4
GR-303 terminations Vol. 2B 115 2-17
I/O cards Vol. 2B 115 2-20
integrated remote test unit Vol. 2B 115 2-6, Vol. 2B 115 2-8
integrated remote test unit calibration Vol. 2B 115 2-9
IRTU
functional block diagram Vol. 2B 115 2-7
line card diagram Vol. 2B 115 2-11
line cards Vol. 2B 115 2-9, Vol. 2B 115 2-12
test head diagram Vol. 2B 115 2-11
IRTU enhanced testing Vol. 2B 115 5-1
IRTU test emulation Vol. 2B 115 5-2
IRTU TR834 commands Vol. 2B 115 5-3
IRTU TR834 test head Vol. 2B 115 5-2
LCAP jack access Vol. 2B 115 2-23
line card diagnostics Vol. 2B 115 1-6, Vol. 2B 115 2-3, Vol. 2B 115 3-12
local testing system Vol. 2B 115 1-3
LSS Vol. 2B 115 7-1
metallic test access Vol. 2B 115 1-2, Vol. 2B 115 2-3, Vol. 2B 115 2-21, Vol. 2B 115 3-3
metallic test access architecture Vol. 2B 115 2-1
MTA carrier bypass Vol. 2B 115 4-5
MTA test bypass pair Vol. 2B 115 4-5
MTA testing capabilities Vol. 2B 115 3-3
MTU commands Vol. 2B 115 5-8
MTU emulation Vol. 2B 115 5-7
no-test trunk Vol. 2B 115 1-3
OPC Test Manager Vol. 2B 115 6-9

Test, line/loop testing (continued)
- operations system Vol. 2B 115 1-7
- pair gain test controller Vol. 2B 115 4-2
- pair gain test controller/metallic test access I/O card Vol. 2B 115 2-20
- provisioning IRTU line cards Vol. 2B 115 2-12
- remote test unit Vol. 2B 115 1-5
- resources Vol. 2B 115 2-1
- response circuit Vol. 2B 115 1-6
- SARTS Vol. 2B 115 6-5
- silent switchperson Vol. 2B 115 8-1
- special service testing architecture Vol. 2B 115 6-1
- special services Vol. 2B 115 3-14, Vol. 2B 115 6-1
- station ringer test Vol. 2B 115 8-2
- subscriber premises tests Vol. 2B 115 8-1
- system controller Vol. 2B 115 1-7
- TAC functional block diagram Vol. 2B 115 2-5
- test access card Vol. 2B 115 2-3
- test bypass pair Vol. 2B 115 1-4, Vol. 2B 115 2-3
- test bypass pair I/O card Vol. 2B 115 2-20
- test response circuit Vol. 2B 115 2-16
- TR-08 carrier bypass Vol. 2B 115 4-8
- UE9000 UE9000 Voice OAMP UG 5-3

lockout from switch Vol. 3B 222 2-52
lockout from switching Vol. 3B 225 3-18
loop testing for locally switched services Vol. 2A 101 1-13
manual switch Vol. 3B 222 2-50
manual switching Vol. 3B 225 3-17
MBP/MPP alarm Vol. 3B 225 6-7
metallic test access
- concepts Vol. 2B 115 2-21
- line/loop testing Vol. 2B 115 2-1
- testing capabilities Vol. 2B 115 3-3

metallic testing Vol. 5C 548 1-1, Vol. 5C 548 1-5, Vol. 5C 548 1-8
- for Hong Kong Vol. 5C 548 1-4
- for North America Vol. 5C 548 1-2

methods Vol. 2B 115 1-3
new facility on in-service DS3/STS mapper Vol. 4C 324 3-7
office alarm Vol. 3B 225 6-9
office alarm (ABM shelf) Vol. 3B 225 4-43
OPC Test Manager Vol. 2B 115 6-9
operations system Vol. 2B 115 1-7
processor card exercising Vol. 4B 310 17-5
protection groups Vol. 4B 311 2-10, Vol. 4B 311 2-12
redundant common-equipment cards, verify Vol. 3A 230 5-26, Vol. 3A 235 3-52, Vol. 3A 240 4-18, Vol. 3A 240 4-38, MCOT to ABM QRG 4-48
remote network telemetry Vol. 3B 225 6-9
remote test unit Vol. 2B 115 1-5
response circuit Vol. 2B 115 1-6
SARTS Vol. 2B 115 6-5
Series 800A alarm Vol. 3B 225 6-7
silent switchperson Vol. 2B 115 8-1

Test (continued)
special services
- line/loop testing Vol. 2B 115 6-1
- lineup Vol. 2B 115 3-14
- testing architecture Vol. 2B 115 6-1

special services diagnostics Vol. 4B 316 7-7
station installation
- dialable short circuit Vol. 2A 101 1-22
- silent switchman Vol. 2A 101 1-22
- station ringer Vol. 2A 101 1-22

station ringer test Vol. 2B 115 8-2
STS-1 optical end-to-end Vol. 3B 222 3-1
system controller Vol. 2B 115 1-7
TA-1230 rings
- end-to-end tests Vol. 3B 222 5-1
- passthrough capabilities Vol. 3B 222 5-18
- STS time slot assignment Vol. 3B 222 5-18
- test setup for end-to-end tests for ADM nodes Vol. 3B 222 5-25
- test setup for progressive end-to-end tests Vol. 3B 222 5-11

telemetry and alarm Vol. 3B 225 1-7
telephone call-through for line cards Vol. 4B 316 4-17
test access card
- functional block diagram Vol. 2B 115 2-5

test bypass pair Vol. 2A 101 1-23, Vol. 2B 115 1-4
test response circuit
- concepts Vol. 2B 115 2-16
- GR-303 terminations Vol. 2B 115 2-17

Timing and cross-connect card
- synchronization Vol. 3B 225 6-9

timing ref protection switching Vol. 3B 225 5-6
TR-08
- carrier bypass Vol. 2B 115 4-8

TR-303
- test response circuit terminations Vol. 2B 115 2-17

tributary and transport groups Vol. 4B 311 2-45
troubleshooting problems Vol. 4B 316 4-69
TXC protection switch Vol. 3B 225 6-7
TXC synchronization Vol. 3B 225 5-5
TXC synchronization at OPC shelf Vol. 3B 225 5-5
verifying DS3 transmission test set performance Vol. 4C 324 3-5
verifying STS-1 transmission test set performance Vol. 4C 324 4-5

Test access
cord used in Series 800A outside plant cabinet S800A Cab Inst 210 12-41

Test access card
Vol. 2A 102 5-97
alarm Vol. 4B 310 15-7, Vol. 5A 543 1-11
alarm point, enabling and disabling Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-111

Test access card (continued)
description Vol. 2A 100 8-13
equipment troubleshooting Vol. 5A 543 3-354
equipping rules Vol. 2A 102 5-100
functional block diagram
figure Vol. 2B 115 2-5
LED, troubleshooting Vol. 5A 543 7-11
line/loop testing
carrier bypass Vol. 2B 115 2-3
concepts Vol. 2B 115 2-3
digital test access Vol. 2B 115 2-3
GR-303 test response circuit Vol. 2B 115 2-4
line card diagnostics Vol. 2B 115 2-3
metallic test access Vol. 2B 115 2-3
test bypass pair Vol. 2B 115 2-3
power up Vol. 3B 225 2-7
powering up Vol. 3A 230 5-4
replacing in VTBM MBP
MBP VTBM Ring User 7-20

Test access path
cable
connecting to MBP MBP Cab Inst 206 9-64, MBP Cab Inst 206 9-69

Test access path cable
Vol. 1 200 5-43
installing
TAP function ABM Inst 201 6-66
TBP function ABM Inst 201 6-61

Test access path card
Vol. 2A 102 5-101
cable Vol. 1 200 5-45
pinouts Vol. 3B 223 2-3, Vol. 3B 223 2-4
description Vol. 2A 100 8-14
equipping rules Vol. 2A 102 5-102
testing capabilities Vol. 2B 115 3-6
testing concepts Vol. 2B 115 2-20
wiring external test equipment Vol. 3B 223 2-5
wiring the R-TEC TBTU Vol. 3B 223 2-5
wiring the test bypass pair Vol. 3B 223 2-5

Test Admin toolset
Provisioning Manager Vol. 4A 301 11-2, Vol. 4A 301 12-11
Specials Lineup Manager Vol. 4A 301 12-2

Test bus
bus-sharing rules Vol. 2B 115 2-21

Test bypass pair
concept Vol. 2B 115 1-4
line/loop testing Vol. 2B 115 2-3
metallic test access Vol. 2B 115 4-5
operation Vol. 2B 115 4-1
pair gain test controller Vol. 2B 115 4-2
testing capabilities Vol. 2B 115 3-5
TR-08 services Vol. 2B 115 4-8

Test bypass pair card
Vol. 2A 102 5-103
description Vol. 2A 100 8-14
equipping rules Vol. 2A 102 5-104

Test bypass pair I/O card
testing concepts Vol. 2B 115 2-20

Test clip
BIX S800A Cab Inst 210 12-40

Test head
integrated Vol. 3A 245 5-1
line card attribute Vol. 4B 315 3-14

Test Manager tool
Vol. 4A 301 12-6, Vol. 5C 548 1-5
commands
connect battery Vol. 5C 548 3-2
connect ground Vol. 5C 548 3-4
connect loopback Vol. 5C 548 6-2
connect short Vol. 5C 548 3-6
disconnect loopback Vol. 5C 548 6-4
disconnect monitor Vol. 5C 548 5-2
disconnect termination Vol. 5C 548 3-25
get continuous result Vol. 5C 548 1-13
measure capacitance Vol. 5C 548 2-2
measure current Vol. 5C 548 2-4
measure intermodulation distortion Vol. 5C 548 4-5
measure noise Vol. 5C 548 4-7
measure outpulsing Vol. 5C 548 3-8
measure peak-to-average ratio (PAR) Vol. 5C 548 4-9
measure phase jitter Vol. 5C 548 4-11
measure resistance Vol. 5C 548 2-6
measure resistance simplex Vol. 5C 548 2-8
measure return loss Vol. 5C 548 4-13
measure signaling resistance Vol. 5C 548 3-10
measure signaling voltage Vol. 5C 548 3-12
measure supervision status Vol. 5C 548 3-14
measure tone Vol. 5C 548 4-15
measure transients Vol. 5C 548 4-17
measure voltage Vol. 5C 548 2-10
measure voltage simplex Vol. 5C 548 2-12
send intermodulation signal Vol. 5C 548 4-19
send peak-to-average ratio (PAR) signal Vol. 5C 548 4-21
send tone signal Vol. 5C 548 4-23
set bridge Vol. 5C 548 3-16
set monitor bridge Vol. 5C 548 5-3
set monitor establish Vol. 5C 548 5-5
set monitor filter Vol. 5C 548 5-7
set monitor level Vol. 5C 548 5-9
set monitor listen Vol. 5C 548 5-11
set split and supervision Vol. 5C 548 3-18
set talk Vol. 5C 548 5-13
stop measurement Vol. 5C 548 1-15
test outpulsing Vol. 5C 548 3-20
test ringing signal Vol. 5C 548 3-23

Test Manager tool (continued)
procedures
performing line card diagnostics
Vol. 5C 548 1-6
running a metallic testing session
Vol. 5C 548 1-8
testing special services Vol. 2B 115 6-9

Test response circuit
concept Vol. 2B 115 1-6
GR-303 terminations Vol. 2B 115 2-17
testing concepts Vol. 2B 115 2-16

Test system controller
concept Vol. 2B 115 1-7

Testing
line and loop Vol. 2A 101 1-12
mechanized loop testing Vol. 2B 181 1-4
pair gain test controller Vol. 2B 181 1-4

Testing capabilities
0TLP jack access Vol. 2B 115 3-8

Threshold 1 DS0 exceeded
clear alarm Vol. 5A 543 3-34

Threshold 2 DS0 exceeded
clear alarm Vol. 5A 543 3-34

Thresholds 1 and 2
Vol. 2A 105 3-2

Thresholds for performance monitoring.
See Performance thresholds

Through-flow cooling unit
Vol. 2A 100 7-31

TIC
Vol. 2A 100 8-15
See also transport interface card

TIC, transport interface card
verify redundancy Vol. 3B 225 2-31

TIC.
See Transport Interface Card

TID/NE mapping tool
Vol. 4A 301 7-45

Time
querying current adjustment Vol. 4A 302 6-8
setting Vol. 4A 302 6-4
time-of-day synchronization Vol. 2A 101 1-23

Time zone
code (OPC) Vol. 3A 235 1-17, Vol. 3A 240 1-20, Vol. 4A 302 6-11
setting Vol. 4A 302 6-4

Time zone code
Vol. 4C Add Nodes VTBM 2-2

Timed interval
Vol. 2A 105 1-24

Timeslot management channel
Vol. 2A 101 2-19, Vol. 2A 101 3-5
LAPD parameters, provisioning Vol. 4B 310 6-38

Timing
adding ESI cards Vol. 4C 324 15-1
AIS insertion Vol. 2A 100 11-45
clock source Vol. 2A 100 11-13
ESI Vol. 2A 100 11-14
freerun Vol. 2A 100 11-13
linetimed Vol. 2A 100 11-14
looptimed Vol. 2A 100 11-13
deviation detection by ESI cards Vol. 2A 100 11-23
distribution by ESI cards Vol. 2A 100 11-17, Vol. 2A 100 11-24, Vol. 2A 100 11-45
external timing Vol. 2A 100 11-6
freerun timing Vol. 2A 100 11-5
guidelines for adding ESI cards Vol. 4C 324 15-2
in a point-to-point topology Vol. 2A 100 11-11
in a ring topology Vol. 1 200 2-19, Vol. 2A 100 11-11
line timing Vol. 2A 100 11-7
loop timing Vol. 2A 100 11-6
output signals Vol. 2A 100 11-17
querying OPC clock source Vol. 4A 302 6-9
references
protection Vol. 2A 101 1-24
provisioning Vol. 2A 101 1-24
sources of external timing Vol. 2A 100 11-15
sources of line timing Vol. 2A 100 11-7
selecting the OPC clock source Vol. 4A 302 6-10
summary Vol. 2A 100 11-47

Timing and cross-connect
alarms TL1 Interface Desc 190 3-112
operating or releasing
manual protection switch Vol. 4B 311 2-25
protection switch lockout Vol. 4B 311 2-16
parameters, changing Vol. 4B 310 4-16
timing reference
forced switch Vol. 4B 311 2-28
manual switch Vol. 4B 311 2-30
protection status Vol. 4B 311 2-44
protection switch lockout Vol. 4B 311 2-27

Timing and cross-connect card
Vol. 2A 102 5-105, Vol. 5C 547 2-63
alarm point, enabling and disabling
Vol. 4B 310 5-11
clock source Vol. 3A 230 4-14, Vol. 3A 245 4-15, Vol. 3B 225 5-5
description Vol. 2A 100 8-14
EditTarg Vol. 3B 225 4-8, Vol. 3B 225 4-9, Vol. 3B 225 5-8
equipment screen Vol. 3B 225 5-6
equipment screen, eq txc Vol. 3B 225 5-10
equipping rules Vol. 2A 102 5-110
operating or releasing
forced protection switch Vol. 4B 311 2-21
primary timing ref, set Vol. 3B 225 5-10
PriTSrc Vol. 3B 225 5-8
protection switching Vol. 2A 103 2-22, Vol. 2A 103 6-4
provision target filter mode Vol. 3B 225 5-10
REFASrc Vol. 3B 225 5-9
REFBSrc Vol. 3B 225 5-9
Reference Protection screen Vol. 3B 225 5-10
secondary timing ref, set Vol. 3B 225 5-11
secondary timing source, set Vol. 3B 225 5-11
SecTSrc Vol. 3B 225 5-9
set timing ref parameters Vol. 3B 225 6-9
set timing reference parameters Vol. 3B 225 5-8
test Vol. 3B 225 6-7
test synchronization Vol. 3B 225 6-9
timing and cross connect parameters Vol. 3B 225 5-5
Timing Protection Vol. 3B 225 5-6
Timing ref source screen Vol. 3B 225 5-11
timing reference signals Vol. 2A 103 6-5
building integrated timing source Vol. 2A 103 6-6
timing source, set Vol. 3B 225 5-11

Timing and cross-connect circuit pack
duplex configuration Vol. 5C 547 2-63
NT4K75 Vol. 5C 547 2-2, Vol. 5C 547 2-63
simplex configuration Vol. 5C 547 2-63

Timing generation
entry to acquire
clearing alarm Vol. 5A 543 3-152
primary reference fail
clear alarm Vol. 5A 543 3-73
secondary reference fail
clear alarm Vol. 5A 543 3-73

Timing loop Vol. 2A 100 11-39
preventing Vol. 2A 100 11-39

Timing mode
ESI card
acquire mode Vol. 2A 100 11-19
fast mode Vol. 2A 100 11-20
freerun mode Vol. 2A 100 11-19
holdover mode Vol. 2A 100 11-20
normal mode Vol. 2A 100 11-20
OC-12 VTBM circuit pack
acquire mode Vol. 2A 100 11-27
automatic control Vol. 2A 100 11-29
freerun mode Vol. 2A 100 11-27
holdover mode Vol. 2A 100 11-28
normal mode Vol. 2A 100 11-27
provisioning rules Vol. 2A 100 11-28
retrieving MCOT to ABM QRG 1-22

Timing ref
lockout request
clearing alarm Vol. 5A 543 3-405
prot oscillation control activated
clearing alarm Vol. 5A 543 3-406
prot switch complete
clearing alarm Vol. 5A 543 3-407
prot switch fail
clearing alarm Vol. 5A 543 3-408

Timing reference
alarms
enabling and disabling Vol. 4B 310 4-10
secondary source Vol. 3B 225 5-7
switching
forced Vol. 4B 311 2-29
manual Vol. 4B 311 2-31
synchronization Vol. 4B 310 4-1

Timing reference, retrieving
MCOT to ABM QRG 1-23

TL1
commands
RTRV-EC1 TL1 Interface Desc 190 4-75
RTRV-OC12 TL1 Interface Desc 190 4-85
RTRV-OC3 TL1 Interface Desc 190 4-81
RTRV-STS1 TL1 Interface Desc 190 4-74
RTRV-VT1 TL1 Interface Desc 190 4-73
generic provisioning OS interface Vol. 2A 101 2-15
generic surveillance OS interface Vol. 2A 101 2-16
See also Transaction language 1

TL1 Configuration tool
Vol. 4A 301 7-42

T-link
Vol. 2A 102 3-10

T-link interface fail
clear alarm Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198

TLP
guidelines (4-wire) Vol. 1 155 3-6, Vol. 1 155 5-13

TMC.
See Timeslot management channel.

TN_BLSR
group and slot association table Vol. 1 154 3-21
mapper layout Vol. 1 154 3-7
traffic-handling capacity Vol. 1 154 3-23

TO/ETO.
See Service, TO/ETO.

today
Prov QRG 1-18, Prov QRG 1-19

Tool
ANXUPGCI
Mix & Match DFA Recon QRG 4-18
enable clear commissioning Vol. 4A 301 15-5
enable clear tasks Vol. 4A 301 15-6
Ethernet administration Vol. 4A 301 15-7
main window Vol. 4A 301 15-7
Ethernet administration tasks Vol. 4A 301 15-9
requirements Vol. 1 200 7-1
Restricted toolset Vol. 4A 301 15-1
switch Vol. 4A 301 15-2
main window Vol. 4A 301 15-2
using DMSPROV to consolidate LENs
Mix & Match DFA Recon QRG 6-4
using the Nodal Connection Manager for STS-1 cross-connects
Mix & Match DFA Recon QRG 5-1

tool
Vol. 4A 301 6-3

Tool requirement
Vol. 4C Add Nodes VTBM 3-1

Tools
Protection Manager Vol. 4A 301 10-15, Vol. 4A 301 14-6

Toolset
changing existing Vol. 4A 302 4-49
creating auto-start Vol. 4A 302 4-54
deleting Vol. 4A 302 4-52
restricted Vol. 4A 301 15-1

Top cap grille
removing in VTBM MBP
MBP VTBM Ring User 3-8

Top cap module
part of Modular Business Package and Modular Power Package cabinets MBP Desc 110 1-2

Topology
of a DS1-fed system Vol. 2A 100 3-22
of a fiber-fed system Vol. 2A 100 3-2
ring Vol. 2A 100 3-2
ring timing Vol. 1 200 2-19, Vol. 2A 100 11-11
of a single-ended system Vol. 2A 100 3-28
ring
software Vol. 2A 101 2-12

Topology configuration
Vol. 4C Span of Con Cons 8-3

Topology, deleting
Vol. 4C Span of Con Cons 12-8

TPS
NE log Vol. 5B 840 23-1

TR-08
circuit
bulk provisioning procedure Vol. 4B 315 2-5
definition Vol. 4C 324 1-24
service types Vol. 4B 315 1-9
default provisioning map Vol. 4B 315 3-15
deleting circuit Vol. 4B 315 3-27
DS0 channel constraints Vol. 4B 316 2-24
DS1 Vol. 2A 100 5-9
DS1 assignment restrictions Vol. 4B 316 2-25
DS1s
restrictions in access bandwidth manager Vol. 1 154 2-13
supported by DS1/VT mapper Vol. 1 154 2-10
facility alarms TL1 Interface Desc 190 3-122
frame format Vol. 5A 543 3-110
interface Vol. 2A 100 5-8
alarm messages Vol. 2A 102 3-11
line card layout Vol. 4B 316 2-19
line card requirements Vol. 4B 316 2-24
line card signaling Vol. 4B 316 6-30
line card slot constraints Vol. 4B 316 2-24
optional software package Vol. 2A 101 2-23
provisioning UE9000 Voice OAMP UG 1-19
service Vol. 1 155 1-51
troubleshooting Vol. 5A 543 3-84
shelve layout Vol. 4B 316 2-19
traffic Vol. 2A 102 2-5, Vol. 2A 102 2-8, Vol. 2A 102 2-9, Vol. 5C 547 2-84
derived data link Vol. 2A 102 3-11
potential loss Vol. 5A 543 3-81
VT circuit
deleting Vol. 4B 315 3-27

TR08
DS1s Vol. 2A 101 1-9

TR-08 Default Provisioning Manager tool
Vol. 4A 301 11-13

TR-08 host switch
requirements T&B Eng Info. 152 3-4

TR-303
circuit definition Vol. 4C 324 1-24
MVI
DMS-100 MVI
provisioning examples Vol. 4C 324 16-4
verifying connections at the RFT and the host switch Vol. 4C 324 16-2
TAC terminations Vol. 2B 115 2-17

TR303 DMS DS1s
Vol. 2A 101 1-9

TR-303 DMS.
See digital multiplex switch

TR303 MVI DS1s
Vol. 2A 101 1-9

TR834
test capabilities Vol. 2B 115 5-2

Traffic
Vol. 4C Span of Con Cons 13-3
DS3s
not supported in DS1-fed systems Vol. 2A 100 2-8
not supported in single-ended systems Vol. 2A 100 2-11
problem detected
clear alarm Vol. 5A 543 3-133
recommended average data rates
UE9000 Data Net Design 2-4
scenarios during peak busy hour
UE9000 Data Net Design 2-3
status Vol. 4C Span of Con Cons 13-3
subscriber side data engineering
UE9000 Data Net Design 3-5,
UE9000 Data Net Design 3-6,
UE9000 Data Net Design 3-7,
UE9000 Data Net Design 3-8,
UE9000 Data Net Design 3-9,
UE9000 Data Net Design 3-10,
UE9000 Data Net Design 3-11
supported by
basic fiber-fed systems Vol. 2A 100 2-5
basic single-ended systems Vol. 2A 100 2-10
DS1-fed systems Vol. 2A 100 2-7
TR08 Vol. 2A 102 2-5, Vol. 2A 102 2-8, Vol. 2A 102 2-9
UDLC
not supported in DS1-fed systems Vol. 2A 100 2-8
not supported in single-ended systems Vol. 2A 100 2-11
upgrade in progress
clear alarm Vol. 5A 543 3-77

Traffic (continued)
user data assumptions
UE9000 Data Net Design 2-1,
UE9000 Data Net Design 2-2
user data model for web browsing
UE9000 Data Net Design 2-3
users supported on 2 DS1-IMA ports
UE9000 Data Net Design 3-16,
UE9000 Data Net Design 3-17
users supported on 4 DS1-IMA ports
UE9000 Data Net Design 3-16
users supported on 8 DS1-IMA ports
UE9000 Data Net Design 3-13,
UE9000 Data Net Design 3-14,
UE9000 Data Net Design 3-15

Traffic alarm thresholds
setting or disabling Vol. 4B 315 4-15

Traffic alarms
viewing status of thresholds Vol. 4B 315 4-15

Traffic engineering
AccessNode
switch transport requirements T&B Eng Info. 152 3-1
basic concepts T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1
CA ABSBH
defined T&B Eng Info. 152 1-3
call blocking
defined T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1
centum call seconds
defined T&B Eng Info. 152 1-1
CLASS lines defined T&B Eng Info. 152 2-3
coin lines defined T&B Eng Info. 152 2-4
electronic business set defined T&B Eng Info. 152 2-4
GR-303 DMS host switch
requirements T&B Eng Info. 152 3-2
GR-303 DMS services T&B Eng Info. 152 2-3
GR-303 MVI host switch
description T&B Eng Info. 152 3-4
grade of service objectives
defined T&B Eng Info. 152 1-2
holding time
defined T&B Eng Info. 152 1-3
host switch transport architectures T&B Eng Info. 152 3-1
integrated service digital network lines defined T&B Eng Info. 152 2-6
Meridian digital centrex lines defined T&B Eng Info. 152 2-4
network element and service requirements T&B Eng Info. 152 2-1
network elements defined T&B Eng Info. 152 2-2
POTS lines defined T&B Eng Info. 152 2-3
remote fiber terminal defined T&B Eng Info. 152 2-3

Traffic engineering (continued)
remote site locations defined T&B Eng Info. 152 2-1
software tool T&B Eng Info. 152 4-1
AccessNode system configuration T&B Eng Info. 152 4-13
closing traffic tool T&B Eng Info. 152 4-32
command bar and buttons T&B Eng Info. 152 4-8
exiting traffic tool T&B Eng Info. 152 4-32
function T&B Eng Info. 152 4-3
information requirements T&B Eng Info. 152 4-3
input questionnaire procedure T&B Eng Info. 152 4-16
installing T&B Eng Info. 152 4-12
interface description T&B Eng Info. 152 4-3
printing all traffic tool data T&B Eng Info. 152 4-31
printing worksheet data T&B Eng Info. 152 4-29
purpose T&B Eng Info. 152 4-2
remote location specification T&B Eng Info. 152 4-15
saving traffic tool and all data T&B Eng Info. 152 4-30
saving worksheet data T&B Eng Info. 152 4-27
starting the tool T&B Eng Info. 152 4-14
system data calculation T&B Eng Info. 152 4-22
system requirements T&B Eng Info. 152 4-3
viewing worksheet data T&B Eng Info. 152 4-29
special circuits defined T&B Eng Info. 152 2-6
switch transport architectures T&B Eng Info. 152 3-1
TR-08 host switch
requirements T&B Eng Info. 152 3-4
traffic intensity
defined T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1
universal voice grade lines defined T&B Eng Info. 152 2-5

Traffic intensity
defined T&B Eng Info. 152 1-1, T&B Eng Info. 152 3-1

Traffic problem detected
clear alarm Vol. 5A 543 3-350

Traffic-handling capacity
FCOT_BLSR Vol. 1 154 3-22
fiber central office terminal transport bandwidth manager shelf Vol. 1 154 3-22
TN_BLSR Vol. 1 154 3-23

tranlcm command
Vol. 5C 520 5-8

Transaction language 1
generic provisioning OS interface software Vol. 2A 101 2-15
generic surveillance OS interface software Vol. 2A 101 2-16
interface Vol. 2A 104 5-11
test system controller Vol. 2B 115 1-7
testing concepts Vol. 2B 115 1-7

Transaction Language 1 (TL1)
acknowledgment messages MCOT to ABM QRG 1-10
case sensitivity MCOT to ABM QRG 1-12
compliance with
Bellcore standards MCOT to ABM QRG 1-3
DARTS standards MCOT to ABM QRG 1-4
Ethernet standards MCOT to ABM QRG 1-4
SARTS standards MCOT to ABM QRG 1-4
X.25 standards MCOT to ABM QRG 1-4
connectivity MCOT to ABM QRG 1-5
Ethernet interface
standards compliance MCOT to ABM QRG 1-4
features MCOT to ABM QRG 1-4
functions MCOT to ABM QRG 1-2
message types MCOT to ABM QRG 1-11
messages MCOT to ABM QRG 1-11
provisioning interface
OC-12 facility provisioning message TL1 Interface Desc 190 4-85
OC-3 facility provisioning message TL1 Interface Desc 190 4-79
response header MCOT to ABM QRG 1-11
session limitations MCOT to ABM QRG 1-5
standards compliance MCOT to ABM QRG 1-3
TID parameter MCOT to ABM QRG 1-13
X.25 interface, standards compliance MCOT to ABM QRG 1-4

Transaction language 1 (TL1)
accessing by Ethernet Vol. 4A 302 3-1
acknowledgment messages TL1 Interface Desc 190 1-9
adding a user account to the CUA TL1 Interface Desc 190 1-18
backup connection TL1 Interface Desc 190 3-5
case sensitivity TL1 Interface Desc 190 1-8
changing security parameters for a CUA user TL1 Interface Desc 190 1-21
closing an administration session TL1 Interface Desc 190 1-15
compliance with Bellcore standards TL1 Interface Desc 190 1-3
compliance with DARTS standards TL1 Interface Desc 190 1-4
compliance with Ethernet standards TL1 Interface Desc 190 1-3
compliance with SARTS standards TL1 Interface Desc 190 1-4

Transaction language 1 (TL1) (continued)
compliance with X.25 standards TL1 Interface Desc 190 1-3
configuring TL1 for Telnet Vol. 4B 310 12-67
configuring TL1 for true TCP/IP Vol. 4B 310 12-67
connectivity TL1 Interface Desc 190 1-5
default configuration TL1 Interface Desc 190 2-2
deleting a CUA user TL1 Interface Desc 190 1-24
enabling over TCP/IP for a Telnet connection Vol. 4B 310 12-65
engineering notes TL1 Interface Desc 190 3-5
error responses and codes TL1 Interface Desc 190 4-90, TL1 Interface Desc 190 5-113
Ethernet interface
configuration requirements TL1 Interface Desc 190 2-9
default configuration TL1 Interface Desc 190 2-9
standards compliance TL1 Interface Desc 190 1-3
verification TL1 Interface Desc 190 2-9
features TL1 Interface Desc 190 1-4
interface configurations TL1 Interface Desc 190 2-1
Interface Merge TL1 Interface Desc 190 2-2
Interface Router Service TL1 Interface Desc 190 2-2
configuring over TCP/IP Vol. 4A 302 2-74
configuring over X.25 Vol. 4A 302 2-65
line and loop testing interface TL1 Interface Desc 190 5-1
error responses and codes TL1 Interface Desc 190 5-113
messages TL1 Interface Desc 190 5-4
parameters TL1 Interface Desc 190 5-90
message types TL1 Interface Desc 190 1-7
messages TL1 Interface Desc 190 1-6
OPC user administration TL1 Interface Desc 190 1-11
opening an administration session TL1 Interface Desc 190 1-13
over TCP/IP TL1 Interface Desc 190 1-5
provisioning UE9000 Voice OAMP UG 1-19
provisioning interface TL1 Interface Desc 190 4-1
error responses and codes TL1 Interface Desc 190 4-90
message parameters TL1 Interface Desc 190 4-90
provisioning over TCP/IP Vol. 4B 310 12-2
response header TL1 Interface Desc 190 1-7
retrieving security parameters for an OPC user TL1 Interface Desc 190 1-16
session limitations TL1 Interface Desc 190 1-6
standards compliance TL1 Interface Desc 190 1-3
surveillance interface TL1 Interface Desc 190 3-1
autonomous messages TL1 Interface Desc 190 3-6
introduction TL1 Interface Desc 190 3-2

Transaction language 1 (TL1), surveillance interface (continued)
message association TL1 Interface Desc 190 3-91, TL1 Interface Desc 190 3-92, TL1 Interface Desc 190 5-3
message parameters TL1 Interface Desc 190 3-52
non-autonomous messages TL1 Interface Desc 190 3-15
supported AIDs TL1 Interface Desc 190 3-86
testing interface
MTA commands TL1 Interface Desc 190 5-120
X.25 commands TL1 Interface Desc 190 5-1
TID parameter TL1 Interface Desc 190 1-10
X.25 interface
configuration requirements TL1 Interface Desc 190 2-3
standards compliance TL1 Interface Desc 190 1-3
troubleshooting guidelines TL1 Interface Desc 190 2-7
verification TL1 Interface Desc 190 2-2

Transaction Language 1 (TL1) command
DLT-USER-SECU TL1 En Sec QRG 3-7
ED-USER-SECU TL1 En Sec QRG 3-9
ENT-USER-SECU TL1 En Sec QRG 3-12
RTRV-USER-SECU TL1 En Sec QRG 3-15

Transient current
ABM Bay Cable Conn QRG 2-1

Transient voltage
ABM Bay Cable Conn QRG 3-1

Transmission ground reference panel
installing ABM Inst 201 6-52
installing on TBM bay TBM Inst 202 5-123

Transmission only.
See Service, TO/ETO.

Transmit attribute
transmit blocking Vol. 4B 315 3-14
transmit equalizer bandwidth Vol. 4B 315 3-14
transmit equalizer height Vol. 4B 315 3-14
transmit equalizer slope Vol. 4B 315 3-14
transmit gain Vol. 4B 315 3-14
transmit impedance Vol. 4B 315 3-14
transmit OHT gain Vol. 4B 315 3-14

Transmit DS1 cable
grounding rule ABM Bay Cable Conn QRG 2-3, ABM Bay Cable Conn QRG 2-5, ABM Bay Cable Conn QRG 2-7, ABM Bay Cable Conn QRG 2-9

Transport
Vol. 1 154 3-29
circuit packs Vol. 4C 324 1-2
DS3s Vol. 2A 100 2-10
guidelines for circuit packs Vol. 4B 315 1-2, Vol. 4C 324 1-2

Transport bandwidth manager
2400-baud modem Vol. 5C 547 5-1, Vol. 5C 547 5-25
auxiliary COPCU Vol. 5C 547 8-1
BIP Vol. 5C 547 5-2, Vol. 5C 547 5-25, Vol. 5C 547 5-28
circuit breaker Vol. 5C 547 5-1, Vol. 5C 547 5-2
A0378090 Vol. 5C 547 5-1, Vol. 5C 547 5-2
display circuit pack Vol. 5C 547 5-31
CEP Vol. 5C 547 2-56
COPCU Vol. 5C 547 8-1
definition Vol. 4C 324 1-23
display circuit pack Vol. 5C 547 5-1
modem Vol. 5C 547 5-28
shelf layout with slot numbers Vol. 2A 102 4-4

Transport bandwidth manager bay
bay frame extender installation TBM Inst 202 4-10
configuration
single-shelf Vol. 2A 100 6-9, Vol. 2A 100 6-10
three-shelf Vol. 2A 100 6-9, Vol. 2A 100 6-13
two-shelf Vol. 2A 100 6-9, Vol. 2A 100 6-13
configurations TBM Inst 202 2-1, TBM Inst 202 2-6
control network cable installation TBM Inst 202 5-29
control network cable pinout TBM Inst 202 5-34
DS1 cable installation TBM Inst 202 5-68
DS1 cabling guidelines
enhanced TBM bay TBM Inst 202 5-71
standard TBM bay TBM Inst 202 5-69
DS1/DS3 mixed cable installation TBM Inst 202 5-100
DS3 cable installation TBM Inst 202 5-88
end guard installation TBM Inst 202 6-5
external cabling guidelines TBM Inst 202 5-1
external cabling installation TBM Inst 202 5-1
external synchronization cable installation TBM Inst 202 5-21
fiber patch cord installation TBM Inst 202 5-4
fiber storage tray TBM Inst 202 5-4
footprint TBM Inst 202 4-4
framework anchoring TBM Inst 202 4-9
installation overview TBM Inst 202 1-1
integrated bonding network
local craft access panel
user interface cable installation TBM Inst 202 5-130
marking and drilling floor TBM Inst 202 4-2
modem cable installation TBM Inst 202 5-35
modem cable pinout TBM Inst 202 5-41

Transport bandwidth manager bay (continued)
operations controller cable installation
port 1 TBM Inst 202 5-46
port 2 TBM Inst 202 5-59
operations controller cable pinout TBM Inst 202 5-51, TBM Inst 202 5-63
operations controller Ethernet cable kit installation TBM Inst 202 5-126
optical fiber routing, illus. TBM Inst 202 5-10
optical patch cord installation TBM Inst 202 5-5
optical pigtail installation TBM Inst 202 5-7
optical pigtail installation with MVOA TBM Inst 202 5-7
orderwire extension cable installation TBM Inst 202 5-64
parallel telemetry cable installation TBM Inst 202 5-25
parallel telemetry cable pinout TBM Inst 202 5-28
PSTN cable installation TBM Inst 202 5-18
securing the bay frame TBM Inst 202 4-5
serial telemetry cable installation TBM Inst 202 5-55
serial telemetry cable pinout TBM Inst 202 5-56
TBM shelf TBM Inst 202 2-4, TBM Inst 202 2-9
cabling configurations TBM Inst 202 2-3, TBM Inst 202 2-8
external cables TBM Inst 202 2-3, TBM Inst 202 2-8
intershelf cables TBM Inst 202 2-3, TBM Inst 202 2-8
TBM shelf cover installation TBM Inst 202 6-2
transmission ground reference panel installation TBM Inst 202 5-123
unpacking TBM Inst 202 3-2

Transport bandwidth manager shelf
Vol. 2A 100 7-48
cable diagrams for TBM bays Vol. 1 200 6-2
cabling configurations TBM Inst 202 2-3, TBM Inst 202 2-8
common equipment, powering up Vol. 3A 230 2-31, Vol. 3A 240 2-18
cover installation TBM Inst 202 6-2
dimensions Vol. 2A 100 7-49
DS1s Vol. 2A 103 2-11, Vol. 2A 103 2-13
DS3s Vol. 2A 103 2-13, Vol. 2A 103 2-16, Vol. 2A 103 2-17, Vol. 2A 103 2-18
environmental control panel cover installation TBM Inst 202 6-4
equipped as
FCOT_BLSR Vol. 1 154 3-5
TN_BLSR Vol. 1 154 3-7
equipped as FCOT Vol. 1 154 3-16
external cables TBM Inst 202 2-3, TBM Inst 202 2-8
functions
DS1 circuit pack groups Vol. 5A 543 1-17
DS3 circuit pack groups Vol. 5A 543 1-18
STS-1 circuit pack groups Vol. 5A 543 1-19
intershelf cables TBM Inst 202 2-3, TBM Inst 202 2-8

Transport bandwidth manager shelf (continued)
layout Vol. 2A 100 7-51
OC-3 tributaries Vol. 2A 103 2-19
signal flow Vol. 2A 102 2-2
slots in Vol. 2A 100 7-51
structure Vol. 2A 100 7-51
support Vol. 2A 101 1-1
supporting 126 DS1s Vol. 1 154 3-16
supporting 154 DS1s Vol. 1 154 3-5
supporting 168 DS1s Vol. 1 154 3-7
supporting 3 DS3s Vol. 1 154 3-28
TBOS displays Vol. 2A 104 7-1
used as OPC shelf Vol. 2A 100 7-59
used in Modular Business Package MBP Desc 110 2-18
wire-wrap connections to the BIP Vol. 1 200 6-5

Transport interface card
Vol. 2A 100 8-15, Vol. 2A 102 5-111, Vol. 5C 547 2-31
alarm Vol. 4B 310 15-7, Vol. 5A 543 1-11
alarm point, enabling and disabling Vol. 4B 310 5-11
alarms TL1 Interface Desc 190 3-112
equipment troubleshooting Vol. 5A 543 3-366
equipping rules Vol. 2A 102 5-114
facility
provisioning and deprovisioning Vol. 4B 310 6-1
facility troubleshooting Vol. 5A 543 4-46, Vol. 5A 543 4-91
failure
troubleshooting Vol. 5A 543 3-63, Vol. 5A 543 3-65
LED, troubleshooting Vol. 5A 543 7-13
replacing in VTBM MBP MBP VTBM Ring User 7-24
replacing with ETIC Mix & Match DFA Recon QRG 3-22
STS-1, VT1.5 alarm Vol. 3B 225 2-2
switch of activity Vol. 5A 543 3-49
switching from primary Vol. 4B 311 2-41
switching to backup Vol. 4B 311 2-41
verify redundancy Vol. 3A 230 5-28, Vol. 3A 235 3-55, Vol. 3A 235 3-57, Vol. 3A 240 4-41, MCOT to ABM QRG 4-51, MCOT to ABM QRG 4-53

Transport Interface Card.
See TIC

Transport three-shelf bay
DS1/VT mappers in Vol. 1 154 3-23

Transport-link
Vol. 2A 102 3-10

Trbl.
See Trouble

Tributary
circuit packs supported Mix & Match DFA Recon QRG 1-8
transport optics exerciser Vol. 4B 311 2-45

Tributary circuit packs
installation MCOT to ABM QRG 1-12

Trouble log, defined
Vol. 2A 104 1-7

Troubleshooting
Vol. 5A 543 1-1
AIC replacement Vol. 5C 547 2-23
B8ZS line coding and AZC alarm encoding Vol. 5A 543 3-84
biconic connector
OC-12 optical interface Vol. 5C 547 2-78, Vol. 5C 547 2-82
OC-3 optical interface Vol. 5C 547 2-72, Vol. 5C 547 2-74
BNC I/O card ID PROM failure Vol. 5A 543 3-112
bulb damage, TBM BIP display circuit pack Vol. 5C 547 5-31
CBIC-based card Vol. 5A 543 3-68, Vol. 5A 543 3-69
circuit breaker replacement Vol. 5C 547 5-2
clock Vol. 5C 547 2-106
data hits Vol. 5C 547 1-5
disconnecting power cable, CEP Vol. 5C 547 2-58
dropped calls Vol. 5C 547 1-5
DS1
input card ID PROM failure Vol. 5A 543 3-86
output card ID PROM failure Vol. 5A 543 3-91
protection bridge in card ID PROM failure Vol. 5A 543 3-94
protection bridge out card ID PROM failure Vol. 5A 543 3-97
protection hardware failure Vol. 5A 543 3-101
DS1/VT
mapper circuit pack failure Vol. 5A 543 3-80
protection mapper mismatch Vol. 5A 543 3-81
electrostatic sensitive device
backup OPC Vol. 5C 547 7-21
primary OPC Vol. 5C 547 7-4, Vol. 5C 547 7-13
equipment damage
CDS Vol. 5C 547 4-3, Vol. 5C 547 4-8, Vol. 5C 547 4-10, Vol. 5C 547 4-18
COPCU Vol. 5C 547 8-2
IRTU Vol. 5C 547 2-46
OC-12 VTBM optical interface Vol. 5C 547 2-89, Vol. 5C 547 2-94, Vol. 5C 547 2-96
talk battery filter card Vol. 5C 547 5-19, Vol. 5C 547 5-21
TBM BIP display circuit pack Vol. 5C 547 5-31
ESD, COPCU Vol. 5C 547 8-2
ESI Vol. 5C 547 2-106

Troubleshooting, (continued)
events UE9000 Data OAMP UG 7-3
Event Categories window
UE9000 Data OAMP UG 8-4
extended service interruption
CDS Vol. 5C 547 4-3
external synchronization interface
Vol. 5A 543 3-141, Vol. 5A 543 3-142, Vol. 5A 543 3-147, Vol. 5A 543 3-149
facility and equipment problems
Vol. 5A 543 3-133
fiber-optic cable connections Vol. 5A 543 3-71
I/O card failure Vol. 5A 543 3-68, Vol. 5A 543 3-69
LED indication Vol. 5C 547 1-5, Vol. 5C 547 1-6, Vol. 5C 547 1-7, Vol. 5C 547 1-8
locking screw
BIP cover Vol. 5C 547 9-3, Vol. 5C 547 9-5
cooling module Vol. 5C 547 6-2
loss of functionality
MIC Vol. 5C 547 2-18
side interconnect Vol. 5C 547 2-10
loss of protection switching
DS3 protection switch circuit pack
Vol. 5C 547 2-62
MIC Vol. 5C 547 2-17
loss of service
CDS Vol. 5C 547 4-3
COPCU Vol. 5C 547 8-2
DS1/VT mapper Vol. 5C 547 2-84, Vol. 5C 547 2-85
DS3 I/O card Vol. 5C 547 2-3
DS3/STS mapper Vol. 5C 547 2-97, Vol. 5C 547 2-98
processor card Vol. 5C 547 2-14
side interconnect right Vol. 5C 547 2-12
STS-1 interface Vol. 5C 547 2-101, Vol. 5C 547 2-102
NT4K2030 shelf identification card
Vol. 5A 543 3-69
OC-3/OC-12 optical interface card
Vol. 5A 543 3-103
overheating
COPCU Vol. 5C 547 8-2, Vol. 5C 547 8-3
power interruption
power feed Vol. 5C 547 10-3
protection switch exerciser failure
Vol. 5A 543 3-121
protection unavailable
DS1 protection bridge card Vol. 5C 547 2-4
service Vol. 5C 547 2-106
service interruption Vol. 5C 547 1-5, Vol. 5C 547 2-13, Vol. 5C 547 2-23
ABM BIP circuit breaker Vol. 5C 547 5-7
CDS Vol. 5C 547 4-6
DS1 input card Vol. 5C 547 2-6
DS1 output card Vol. 5C 547 2-8
side interconnect left Vol. 5C 547 2-10
typical Vol. 5C 547 1-6
worst case Vol. 5C 547 1-6

Troubleshooting (continued)
side interconnect card failure Vol. 5A 543 3-68
status of UE9000 equipment
UE9000 Data OAMP UG 8-2
Stratum-3 Vol. 5A 543 3-141
STS1 intercard failure Vol. 5A 543 3-111
system diagnostics failure Vol. 5A 543 3-101
TR-08 service Vol. 5A 543 3-84
traffic loss, OC-12 VTBM optical interface
Vol. 5C 547 2-90
turning off breaker, CEP Vol. 5C 547 2-58
UE9000
ADSL UE9000 Data OAMP UG 6-18
ADSL fails loopback test
UE9000 Data OAMP UG 6-30
ATM UE9000 Data OAMP UG 6-16, UE9000 Data OAMP UG 6-39
replacing UE9000 Data OAMP UG 6-40
ATM, not sending traps to uEMS
UE9000 Data OAMP UG 6-36
connection problems
UE9000 Data OAMP UG 6-19
CPE UE9000 Data OAMP UG 6-15
deleting events UE9000 Data OAMP UG 7-5
no hardware flag for ADSL
UE9000 Data OAMP UG 6-38
no hardware flag for ATM
UE9000 Data OAMP UG 6-28
slow data transfer speeds
UE9000 Data OAMP UG 6-3
uEMS GUI UE9000 Data OAMP UG 6-9
uEMS GUI cannot communicate with ATM
UE9000 Data OAMP UG 6-24
viewing events UE9000 Data OAMP UG 7-3
workstation cannot ping ATM
UE9000 Data OAMP UG 6-33
UE9000, ATM
reboots with old software load
UE9000 Data OAMP UG 6-25
uEMS UE9000 Data OAMP UG 9-11
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
events UE9000 Data OAMP UG 7-2
ISO states UE9000 Data OAMP UG 9-14
symbol colors UE9000 Data OAMP UG 9-12
voice glitch Vol. 5C 547 1-5

Trunk conditioning
DS0-level Vol. 2A 101 1-18
line card attribute Vol. 4B 315 3-13

TXC.
See Timing and cross-connect card.

Type
line card attribute Vol. 4B 315 3-14

U

U.S. Bureau of Radiological Health
Vol. 5C 547 1-3

UDLC.
See universal digital loop carrier

UDLC/DS1
Vol. 4C Span of Con Cons 6-3

UE9000
adjacent bay UE9000 Ad Bay QR 1-1
ADSL UE9000 Data Net Design 1-3,
UE9000 Data Net Design 1-4
alarms UE9000 Voice OAMP UG 6-1
configurations UE9000 Pre Inst 1-1
data network equipment
UE9000 Data Net Design 1-3,
UE9000 Data Net Design 1-4,
UE9000 Data Net Design 1-5
data services management
UE9000 Data Net Design 4-2
data setup UE9000 Data Sys Setup QR 1-1
data traffic UE9000 Data Net Design 2-4
equipment requirements
UE9000 Data Net Design 1-6
equipment, CPE UE9000 Data OAMP UG 6-15
Events Browser window
UE9000 Data OAMP UG 7-3
HPOV UE9000 Data Sys Setup QR 1-1
installation prerequisites UE9000 Pre Inst 1-1
installation, voice UE9000 Inst QR 1-1
LEDs UE9000 Ad Bay 1-2
line/loop testing UE9000 Voice OAMP UG 5-3
logs UE9000 Voice OAMP UG 7-1
management functions supported
UE9000 Data Net Design 4-3
network connections UE9000 Data Net Design 3-2
network equipment UE9000 Data Net Design 1-2,
UE9000 Data Net Design 1-3,
UE9000 Data Net Design 1-4,
UE9000 Data Net Design 1-5,
UE9000 Data Net Design 1-6
OAM&P UE9000 Data Net Design 1-4,
UE9000 Data Net Design 4-2,
UE9000 Data Net Design 4-4
performance characteristics
UE9000 Data Net Design 3-2
pre-installation UE9000 Pre Inst 1-1
protocol support UE9000 Data Net Design 3-2
provisioning and deprovisioning
UE9000 Voice OAMP UG 1-1,
UE9000 Voice OAMP UG 2-1
shelf engineering guidelines
UE9000 Data Net Design 3-1
shelf, deleting UE9000 Voice OAMP UG 1-13
uEMS UE9000 Data Net Design 1-4,
UE9000 Data Net Design 4-2,
UE9000 Data Net Design 4-4

UE9000 (continued)
uEMS hardware UE9000 Data Net Design 4-5
uEMS software UE9000 Data Net Design 4-5
voice setup UE9000 Voice Sys Setup 1-2
workstation, cannot ping ATM
UE9000 Data OAMP UG 6-33

UE9000 customer premise equipment modem, troubleshooting
UE9000 Data OAMP UG 6-15

UE9000 element management system
at command UE9000 Data OAMP UG 2-23
bulk provisioning UE9000 Data OAMP UG 2-19
CLUI UE9000 Data OAMP UG 8-5
command line, getting help
UE9000 Data OAMP UG 2-4
commands
ovstart UE9000 Data OAMP UG 4-12
ovstop UE9000 Data OAMP UG 4-12
database UE9000 Data OAMP UG 4-9
backing up UE9000 Data OAMP UG 4-12
monitoring partition sizes
UE9000 Data OAMP UG 4-10
restoring UE9000 Data OAMP UG 4-12
dialog box UE9000 Data OAMP UG 8-2
Event Categories window
UE9000 Data OAMP UG 7-2,
UE9000 Data OAMP UG 8-4
events UE9000 Data OAMP UG 7-2
deleting UE9000 Data OAMP UG 7-5
Event Categories window
UE9000 Data OAMP UG 8-4
severity UE9000 Data OAMP UG 7-3,
UE9000 Data OAMP UG 9-12
viewing UE9000 Data OAMP UG 7-2,
UE9000 Data OAMP UG 7-3
Events Browser window
UE9000 Data OAMP UG 7-3
GUI UE9000 Data OAMP UG 8-4
HSTP-Name UE9000 Data OAMP UG 2-4
installation UE9000 Data Sys Setup QR 1-1
inventorying equipment
UE9000 Data OAMP UG 5-2
keyboard shortcuts UE9000 Data OAMP UG 9-3
map UE9000 Data OAMP UG 8-5
map, opening UE9000 Data OAMP UG 1-47
menu UE9000 Data OAMP UG 8-2
network name UE9000 Data OAMP UG 2-4
provisioning UE9000 Data OAMP UG 1-3
ADSL line card UE9000 Data OAMP UG 1-32
ADSL subscriber circuit
UE9000 Data OAMP UG 1-35
ATM circuit card
UE9000 Data OAMP UG 1-25
data service, activating
UE9000 Data OAMP UG 1-38
DS1 facility UE9000 Data OAMP UG 1-29
network element
UE9000 Data OAMP UG 1-18

UE9000 element management system, provisioning (continued)
service descriptor
UE9000 Data OAMP UG 1-14
service descriptor group
UE9000 Data OAMP UG 1-6,
UE9000 Data OAMP UG 1-10
shelf UE9000 Data OAMP UG 1-21
updating information
UE9000 Data OAMP UG 1-40
virtual paths UE9000 Data OAMP UG 1-11
removing UE9000 components
UE9000 Data OAMP UG 1-42
restarting
ADSL line card UE9000 Data OAMP UG 5-13
ATM circuit card
UE9000 Data OAMP UG 5-11
screen UE9000 Data OAMP UG 9-2
searching UE9000 Data OAMP UG 9-8
service descriptor
viewing UE9000 Data OAMP UG 1-46
software upgrade
loading software on workstation
UE9000 Data OAMP UG 4-4
starting UE9000 Data OAMP UG 9-5
state, changing
ADSL line card UE9000 Data OAMP UG 5-7
ADSL subscriber circuit
UE9000 Data OAMP UG 5-9
ATM circuit card UE9000 Data OAMP UG 5-3
DS1 facility UE9000 Data OAMP UG 5-5
status UE9000 Data OAMP UG 9-11
submap UE9000 Data OAMP UG 8-5
Atmif UE9000 Data OAMP UG 8-11
description of UE9000 Data OAMP UG 8-5
hierarchy UE9000 Data OAMP UG 8-6
HSTP-Network UE9000 Data OAMP UG 8-8
illustration UE9000 Data OAMP UG 9-2
LC UE9000 Data OAMP UG 8-12
menu bar UE9000 Data OAMP UG 9-2
menu, opening pop-up
UE9000 Data OAMP UG 9-6
menu, pop-up UE9000 Data OAMP UG 9-4
menu, pull-down UE9000 Data OAMP UG 9-3
name UE9000 Data OAMP UG 9-2
NE UE9000 Data OAMP UG 8-9
permissions, read-write
UE9000 Data OAMP UG 9-3
pop-up menu common selections
UE9000 Data OAMP UG 9-7
Root UE9000 Data OAMP UG 8-3,
UE9000 Data OAMP UG 8-7
Shelf UE9000 Data OAMP UG 8-10
shortcuts, adding UE9000 Data OAMP UG 9-9
shortcuts, deleting
UE9000 Data OAMP UG 9-10
status bar UE9000 Data OAMP UG 9-3
Subscriber Loop
UE9000 Data OAMP UG 8-13
tool bar UE9000 Data OAMP UG 9-3

UE9000 element management system (continued)
submaps
shortcut, adding UE9000 Data OAMP UG 9-9
shortcut, deleting
UE9000 Data OAMP UG 9-10
symbol UE9000 Data OAMP UG 8-2
ATMIF UE9000 Data OAMP UG 8-10,
UE9000 Data OAMP UG 8-13
Circuit UE9000 Data OAMP UG 8-12,
UE9000 Data OAMP UG 8-13
CPE UE9000 Data OAMP UG 8-13
DS1 Link UE9000 Data OAMP UG 8-11
HSTP-Network UE9000 Data OAMP UG 8-7
Internet UE9000 Data OAMP UG 8-7
Line Card UE9000 Data OAMP UG 8-10,
UE9000 Data OAMP UG 8-13
NE UE9000 Data OAMP UG 8-8
Shelf UE9000 Data OAMP UG 8-9
troubleshooting UE9000 Data OAMP UG 9-11
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
events UE9000 Data OAMP UG 7-2
ISO states UE9000 Data OAMP UG 9-14
symbol colors UE9000 Data OAMP UG 9-12
UNIX scripts, scheduling
UE9000 Data OAMP UG 2-23
upgrading UE9000 Data OAMP UG 4-13

UE9000 shelf
provisioning UE9000 Data OAMP UG 1-21

uEMS GUI
troubleshooting UE9000 Data OAMP UG 6-9
ATM not sending traps
UE9000 Data OAMP UG 6-36
cannot ping ATM
UE9000 Data OAMP UG 6-33
no hardware flag for ATM
UE9000 Data OAMP UG 6-28

uEMS.
See UE9000 element management system

UEUPG CI tool
catalog file, updating
UE9000 Voice OAMP UG 4-6
closing UE9000 Voice OAMP UG 4-21
opening UE9000 Voice OAMP UG 4-5
resetting UE9000 Voice OAMP UG 4-19

UEUPGCI tool
TDM software, upgrading
UE9000 Voice OAMP UG 4-11
TDM software, viewing
UE9000 Voice OAMP UG 4-15
TDM upgrade status
UE9000 Voice OAMP UG 4-14

Unidirectional protection switching
Vol. 2A 103 3-2

Unit
events Vol. 5C 510 5-9

Universal application.
See Application, universal

Universal circuit
bulk provisioning with POTS Vol. 4B 315 2-2
circuit definition Vol. 3A 230 1-8, Vol. 3A 240 1-9, Vol. 4C 324 1-24
definition Vol. 3B 222 3-2
deleting Vol. 4B 315 3-27
service types Vol. 4B 315 1-9

Universal digital loop carrier
signaling configurations
TL1 Interface Desc 190 5-111

Universal digital loop carrier traffic
not supported in DS1-fed systems Vol. 2A 100 2-8
not supported in single-ended systems Vol. 2A 100 2-11

Universal voice grade line card
Vol. 5C 547 3-4
NT4K79AA Vol. 5C 547 3-1, Vol. 5C 547 3-4

Universal voice grade lines
defined T&B Eng Info. 152 2-5

Universal voice grade station line card
Vol. 1 155 1-8, Vol. 2A 102 6-17
common functions Vol. 2B 181 7-5
description Vol. 2A 100 8-20, Vol. 2B 181 7-2
diagnostics Vol. 2B 181 7-3
maintenance and testing Vol. 2B 181 7-3
provisioning Vol. 2B 181 7-5
replacing in VTBM MBP
MBP VTBM Ring User 5-5
service Vol. 2B 181 7-2
signaling attributes Vol. 2B 181 7-6
specifications Vol. 2B 181 7-7
transmission attributes Vol. 2B 181 7-5
voice-frequency specifications Vol. 2B 181 7-4

Universal voice grade.
See Service, universal voice grade

UNIX Shell tool
Vol. 4A 301 7-34

Unprotected configuration
critical, service-affecting alarm
circuit pack fail Vol. 5A 543 3-20, Vol. 5A 543 3-115
circuit pack mismatch Vol. 5A 543 3-21, Vol. 5A 543 3-116

Unprotected configuration, ciritical, service-affecting alarm (continued)
circuit pack missing Vol. 5A 543 3-22, Vol. 5A 543 3-117
comm overhead clock/frame loss Vol. 5A 543 3-23
comm overhead data loss Vol. 5A 543 3-24
D-link interface fail Vol. 5A 543 3-26
protection version mismatch Vol. 5A 543 3-110
STS1 intercard fail Vol. 5A 543 3-111, Vol. 5A 543 3-129
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31, Vol. 5A 543 3-198
major, service-affecting alarm
circuit pack fail Vol. 5A 543 3-43
circuit pack mismatch Vol. 5A 543 3-44
circuit pack missing Vol. 5A 543 3-45
failure to lock Vol. 5A 543 3-147
protection path fail Vol. 5A 543 3-121
subunit fail Vol. 5A 543 3-149
subunit mismatch Vol. 5A 543 3-150
subunit missing Vol. 5A 543 3-151
traffic problem detected Vol. 5A 543 3-133
minor, not service-affecting alarm
intercard fail Vol. 5A 543 3-148
protection path fail Vol. 5A 543 3-101
STS1 intercard fail Vol. 5A 543 3-129

Untimed interval
Vol. 2A 105 1-25, Vol. 2A 105 2-3
DS1 Vol. 3B 222 2-59

Unused CNet connectors
terminating Vol. 5A 543 3-52

Update alarm list
automatically Vol. 5C 510 6-15
manually Vol. 5C 510 6-15

Upgrade
ADSL MLC software
UE9000 Data OAMP UG 4-3, UE9000 Data OAMP UG 4-7
ANXUPGCI tool
Mix & Match DFA Recon QRG 4-18
ATM circuit card software
UE9000 Data OAMP UG 4-3, UE9000 Data OAMP UG 4-5
LAIC software
Mix & Match DFA Recon QRG 4-1
loading software on workstation
UE9000 Data OAMP UG 4-4
network element and OPC software
Vol. 4A 301 6-13
software upgrade process
UE9000 Data OAMP UG 4-3
TDM UE9000 Voice OAMP UG 4-1
UE9000, ATM, reboots with old software load
UE9000 Data OAMP UG 6-25

Upgrade (continued)
UE9000 software UE9000 Data OAMP UG 4-5, UE9000 Data OAMP UG 4-7
uEMS software UE9000 Data OAMP UG 4-13

Upgrade planning
Vol. 4C Add Nodes VTBM 1-1

Upgrade, ANX
CI tool
ANXUPGCI
Mix & Match DFA Recon QRG 4-18
manual software upgrade Vol. 5C 547 2-34
limitations Vol. 5C 547 2-36
process overview Vol. 5C 547 2-37
required material Vol. 5C 547 2-34
requirements Vol. 5C 547 2-36
traffic impact Vol. 5C 547 2-37

Upgrades
Vol. 2A 101 1-21

Usage log, defined
Vol. 2A 104 1-7

User account
changing Vol. 4A 302 4-25
creating new Vol. 4A 302 4-17
deleting Vol. 4A 302 4-28
enable or disable Vol. 4A 302 4-33
setting name MCOT to ABM QRG 1-47
setting password MCOT to ABM QRG 1-47

User account, network processor
setting name MCOT to ABM QRG 1-50
setting password MCOT to ABM QRG 1-50

User group
changing attributes Vol. 4A 302 4-43
creating auto-start tools Vol. 4A 302 4-54
creating new Vol. 4A 302 4-38
deleting Vol. 4A 302 4-41
moving users Vol. 4A 302 4-60

User interface
cable to the LCAP
connecting to MBP MBP Cab Inst 206 9-87
hand-held terminal Vol. 2A 101 1-10
HPOV
starting UE9000 Data OAMP UG 9-5
loggin in to the NEUI
Mix & Match DFA Recon QRG 7-3
loggin in to the OPC UI
Mix & Match DFA Recon QRG 7-2
logging out of the NEUI
Mix & Match DFA Recon QRG 7-4
logging out of the OPC UI
Mix & Match DFA Recon QRG 7-5

User interface (continued)
network element
command menus Vol. 4A 300 2-21
entering commands Vol. 4A 300 2-10
features Vol. 4A 300 2-1
menu hierarchy Vol. 4A 300 2-1
peak processing Vol. 4A 300 2-4
screen attributes Vol. 4A 300 2-2
screen layout Vol. 4A 300 2-3
status messages Vol. 4A 300 2-19
network element (NE)
Mix & Match DFA Recon QRG 1-11
Nodal Connection Manager
Mix & Match DFA Recon QRG 5-1
operations controller (OPC)
Mix & Match DFA Recon QRG 1-11
peak processing
refreshing a screen Vol. 4A 301 6-1, Vol. 4A 301 7-2, Vol. 4A 301 8-1, Vol. 4A 301 9-1, Vol. 4A 301 10-1, Vol. 4A 301 11-1, Vol. 4A 301 12-1, Vol. 4A 301 13-1
ports for Vol. 2A 100 10-9
supported by maintenance interface card
Vol. 2A 102 5-55
supported by the operations controller
Vol. 2A 102 5-81
UE9000
searching UE9000 Data OAMP UG 9-8
troubleshooting UE9000 Data OAMP UG 6-9
UE9000, uEMS GUI
ATM not sending traps
UE9000 Data OAMP UG 6-36
cannot communicate with ATM
UE9000 Data OAMP UG 6-24
cannot ping ATM
UE9000 Data OAMP UG 6-33
no hardware flag for ADSL
UE9000 Data OAMP UG 6-38
no hardware flag for ATM
UE9000 Data OAMP UG 6-28
uEMS UE9000 Data OAMP UG 9-2
at command UE9000 Data OAMP UG 2-23
bulk provisioning
UE9000 Data OAMP UG 2-19
CLUI UE9000 Data OAMP UG 8-5
command line, getting help
UE9000 Data OAMP UG 2-4
Events Browser window
UE9000 Data OAMP UG 7-3
GUI UE9000 Data OAMP UG 8-4
inventory UE9000 Data OAMP UG 5-2
map, opening UE9000 Data OAMP UG 1-47
removing components
UE9000 Data OAMP UG 1-42
screen UE9000 Data OAMP UG 9-2
shortcut, adding UE9000 Data OAMP UG 9-9
shortcut, deleting
UE9000 Data OAMP UG 9-10
starting UE9000 Data OAMP UG 9-5

User interface, uEMS (continued)
submap hierarchy
UE9000 Data OAMP UG 8-6
UNIX scripts, scheduling
UE9000 Data OAMP UG 2-23
VT100 Vol. 2A 101 1-25

User interface cable
to the LCAP in TBM bay Vol. 1 200 6-36

User interface cable to the LCAP
in ABM bay Vol. 1 200 5-46
installing ABM Inst 201 6-81

User list
filtering Vol. 4A 302 4-63
sorting Vol. 4A 302 4-62

User profile
Vol. 4C Add Nodes VTBM 5-73

Userid
restoring and assigning
Vol. 4C Span of Con Cons 11-4

Utilities
Vol. 4A 301 13-1

Utilities toolset
DMSTerm Vol. 4A 301 13-6
NE Login Manager Vol. 4A 301 13-2, Vol. 4A 301 14-7
Password Update Vol. 4A 301 13-9

Utility receptacle
ABM Bay Cable Conn QRG 1-2

UVG.
See Universal voice grade line card

V

VCO.
See Voltage Controlled Oscillator

Verification, end-to-end tests for TA-1230 rings
Vol. 3B 222 5-1

Verify
communication between OPCs Vol. 3B 225 6-9
DS1 transmission test set Vol. 3B 225 6-7
firmware Vol. 4C Rem Nodes VTBM 5-53
LIC redundancy Vol. 3B 225 6-5
OPC data backup restore Vol. 3B 225 6-9
parallel telemetry input port Vol. 3B 225 6-7
parallel telemetry output port Vol. 3B 225 6-7
processory redundancy Vol. 3B 225 6-5
redundant common equipment cards Vol. 3B 225 6-5
serial telemetry interface Vol. 3B 225 6-7
system connections
Mix & Match DFA Recon QRG 2-1
system settings
Mix & Match DFA Recon QRG 2-1
TIC redundancy Vol. 3B 225 6-5

Verify network element operation
Vol. 3A 230 5-2

Verify redundancy
LIC Vol. 3B 225 2-32

VF cable
Vol. 1 200 5-49
connecting to MBP MBP Cab Inst 206 13-15
installing ABM Inst 201 5-11
in Series 800A outside plant cabinet
S800A Cab Inst 210 6-1

VF cable routing in ModCab
Mod Cab Inst 211 5-1

VF measurements
measure impulse noise Vol. 5C 548 4-2
measure intermodulation distortion Vol. 5C 548 4-5
measure noise Vol. 5C 548 4-7
measure peak-to-average ratio Vol. 5C 548 4-9
measure phase jitter Vol. 5C 548 4-11
measure return loss Vol. 5C 548 4-13
measure tone Vol. 5C 548 4-15
measure transients Vol. 5C 548 4-17
send intermodulation signal Vol. 5C 548 4-19
send peak-to-average ratio signal Vol. 5C 548 4-21
send tone signal Vol. 5C 548 4-23

Virtual circuits
Vol. 4C Span of Con Cons 5-2
reprovisioning Vol. 4C Span of Con Cons 11-5

Virtual line cards.
See Integrated remote test unit, IRTU line cards.

Virtual line concentrating module
DMS Access Vol. 2A 100 5-14, Vol. 2A 101 1-6
DMS Access, description Vol. 2A 100 5-11

Virtual path identifie, provisioning
UE9000 Data OAMP UG 1-14

Virtual path, provisioning
UE9000 Data OAMP UG 1-11

Virtual tributary
deleting circuit Vol. 4B 315 3-27
facility assignments for DS1 tandem VT or TR-08 VT circuits Vol. 4B 315 3-2
groups Vol. 2A 100 12-6
sizes Vol. 2A 100 12-6

Virtual tributary bandwidth manager
Vol. 4C Span of Con Cons 3-7, Vol. 4C Rem Nodes VTBM 5-46
adding a node Vol. 4C Add Nodes VTBM 5-46
collection span of control information Vol. 4C Rem Nodes VTBM 2-2
commissioning Vol. 4C Add Nodes VTBM 5-15
deleting commissioning data Vol. 4C Rem Nodes VTBM 5-42
deleting ring ADM configuration data Vol. 4C Rem Nodes VTBM 5-39
Modular business package
cabinet
specifications MBP VTBM Ring User 2-28
weight MBP VTBM Ring User 2-28
equipment and cabling configurations MBP VTBM Ring User 2-1
reconfiguration
planning Vol. 4C Add Nodes VTBM 2-1
requirements for removal Vol. 4C Rem Nodes VTBM 1-1
restrictions for removal Vol. 4C Rem Nodes VTBM 1-2
ring node Vol. 4C Add Nodes VTBM 2-18
saving to tape Vol. 4C Add Nodes VTBM 5-12
verifying the system Vol. 4C Add Nodes VTBM 5-2
worksheets
preparing Vol. 1 154 4-5

Virtual tributary bandwidth manager cabinet
configuration Site Inst P&E Add 2-22
Modular Business Package configuration Site Inst P&E Add 2-21

Virtual tributary bandwidth manager circuit pack
in transport bandwidth manager Vol. 1 154 3-5
internal clock specifications Vol. 2B 180 9-4

Virtual tributary bandwidth manager.
See also Application, virtual tributary bandwidth manager

Visibility, of DS1s in SONET
Vol. 2A 100 12-10

Visual alarm indicator
breaker interface panel Vol. 2A 104 3-2
common-equipment shelf Vol. 2A 104 3-9
copper-distribution shelf Vol. 2A 104 3-16

VLCM
DMS Access, description Vol. 2A 100 5-11
ds1status Vol. 5C 520 5-4
NE log Vol. 5B 840 24-1
opening Vol. 5C 520 5-2
opening CI tool Vol. 5C 520 5-2
tranlcm Vol. 5C 520 5-8
using Vol. 5C 520 5-1
vlcmstatus Vol. 5C 520 5-3

VLCM circuit
adding coin service Vol. 4B 315 3-21

vlcmstatus command
Vol. 5C 520 5-3

Voice frequency cable
connecting to MBP MBP Cab Inst 206 9-82

Voice glitch
Vol. 5C 547 1-5

Voltage
adjusting float Vol. 5C 546 6-9
alarm Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
disconnect Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
equalize Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
float Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
low Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11
shutdown Vol. 5C 546 6-3, Vol. 5C 546 6-7, Vol. 5C 546 6-9, Vol. 5C 546 6-11

Voltage Controlled Oscillator
troubleshooting Vol. 5A 543 3-141

Voltage drop
ABM Bay Cable Conn QRG 3-4

VP.
See Virtual path

VPI.
See Virtual path identifier

VT 1.5 provision
Vol. 3B 225 2-4

VT connection provisioning mismatch
clear alarm Vol. 5A 543 3-136

VT path
Vol. 2A 105 1-7
AIS/LOSS of pointer seconds (ALS) Vol. 2A 105 1-15
performance monitoring Vol. 2A 105 1-7
facility, performance threshold provisioning Vol. 4B 310 6-53

VT1.5
facility alarms TL1 Interface Desc 190 3-123

VT1.5 alarm
Vol. 3B 225 2-2

VT1.5/TIC facility
alarm points, enabling and disabling Vol. 4B 310 6-16

VT100 user interface
Vol. 2A 101 1-25

VT100-compatible terminal
Vol. 5C 547 2-34
remote, connecting through BIP modem Vol. 4A 300 3-9, Vol. 4A 301 4-28

VT100-type terminal
port for Vol. 2A 100 10-9

VTBM
Vol. 3B 221 3-2
documentation for VTBM MBP MBP VTBM Ring User 11-14
lockout release Vol. 3B 221 3-19
MBP configuration MBP Desc 110 2-2
Modular Business Package configuration MBP Desc 110 2-9
Modular Power Package batteries MBP Desc 110 3-9
Modular Power Package configuration MBP Desc 110 3-4
module, PEC code Vol. 3B 221 3-13, Vol. 3B 221 3-17
OC-12 circuit packs Vol. 3B 221 3-2, Vol. 3B 221 3-7
optical error risk Vol. 3B 221 3-16
optical lockouts Vol. 3B 221 3-11

VTBM (continued)
ordering cabinets for VTBM MBP MBP VTBM Ring User 11-2
rings Vol. 3B 221 3-2
risk circuit pack damage Vol. 3B 221 3-10
See Virtual Tributary bandwidth manager Vol. 4C Add Nodes VTBM 1-1
See Virtual tributary bandwidth manager Vol. 4C Span of Con Cons 3-2

VTBM cabinet
ac power cabling Site Inst P&E Add 8-5
battery back-up Site Inst P&E Add 4-5
cabling requirements Site Inst P&E Add 8-4
powering Site Inst P&E Add 4-3

VTBM circuit pack
Vol. 2A 102 5-71

VTBM MBP cabinet
arrangement MBP VTBM Ring Inst 2-7
cabling diagrams MBP VTBM Ring Inst 2-22
circuit breakers MBP VTBM Ring Inst 2-19
description MBP VTBM Ring Inst 2-2
equipment configuration MBP VTBM Ring Inst 2-11
expansion cabinet description MBP VTBM Ring Inst 2-7
master cabinet description MBP VTBM Ring Inst 2-7
powering MBP VTBM Ring Inst 2-15
specifications MBP VTBM Ring Inst 2-30
types of cabinet MBP VTBM Ring Inst 2-7
weight MBP VTBM Ring Inst 2-31

VTBM-ready TBM bay
PEC codes TBM Inst 202 2-1, TBM Inst 202 2-6

vtselect
Vol. 3B 225 2-6

VTX circuit pack
installation MCOT to ABM QRG 1-4

W

Wait-to-restore period
DS1 and DS3 mappers Vol. 2A 103 5-7
ring protection Vol. 2A 103 4-24

Warning
alarm
access failure Vol. 5A 543 3-42
clock failure Vol. 5A 543 3-46
CNet performance degraded Vol. 5A 543 3-52
D-link interface fail Vol. 5A 543 3-26
end VCO range Vol. 5A 543 3-141
entry to SONET clock freerun Vol. 5A 543 3-56
equipment protection switch complete Vol. 5A 543 3-145
generation, using FWALTSCI tool Vol. 5A 543 3-78
plane A non-operational Vol. 5A 543 3-63
plane B non-operational Vol. 5A 543 3-65
protection switch complete Vol. 5A 543 3-105, Vol. 5A 543 3-124
traffic upgrade in progress Vol. 5A 543 3-77
warning test alarm Vol. 5A 543 3-78
alarm type Vol. 2A 104 1-6
and safety precautions MBP Cab Inst 206 1-1, MBP VTBM Ring User 1-1
and safety precautions for VTBM Modular business package MBP VTBM Ring Inst 1-1
batteries and rectifiers
Virtual tributary bandwidth manager Modular business package MBP VTBM Ring Inst 9-2
batteries and rectifiers in VTBM MBP MBP VTBM Ring Inst 10-2
crane usage with ModCab Mod Cab Inst 211 1-7
equipment Vol. 3B 222 1-4
fiber optic cable handling
modular business package mini-stack ABM Inst 201 1-3
fiber optic cable handling for VTBM Modular business package MBP VTBM Ring Inst 1-2
laser radiation Vol. 3B 222 1-3
lifting a ModCab Mod Cab Inst 211 1-7
message
traffic will/may be lost Vol. 5A 543 3-54
not service-affecting alarm
access failure Vol. 5A 543 3-42
clock failure Vol. 5A 543 3-46
CNet performance degraded Vol. 5A 543 3-52
D-link interface fail Vol. 5A 543 3-26
end VCO range Vol. 5A 543 3-141
entry to SONET clock acquire Vol. 5A 543 3-264
entry to SONET clock freerun Vol. 5A 543 3-56
entry to SONET clock holdover Vol. 5A 543 3-266
equipment protection switch complete Vol. 5A 543 3-145

Warning, not service-affecting alarm (continued)
plane A non-operational Vol. 5A 543 3-63
plane B non-operational Vol. 5A 543 3-65
protection switch complete Vol. 5A 543 3-105, Vol. 5A 543 3-124
T-link interface fail Vol. 5A 543 3-30, Vol. 5A 543 3-31
traffic upgrade in progress Vol. 5A 543 3-77
warning test alarm Vol. 5A 543 3-78
test alarm
clear alarm Vol. 5A 543 3-78, Vol. 5A 543 3-80

Warning label
Vol. 5C 547 1-4

Warnings
safety notices Vol. 5C 547 1-1

Warnings and safety precautions
modular business package mini-stack ABM Inst 201 1-2

Warnings/safety notices
Vol. 5C 547 1-2

WATS.
See Service, WATS

Weight
Vol. 2B 180 2-1
for central-office bays Vol. 1 200 2-7
for customer-located equipment Vol. 1 200 3-9
of Modular Business Package cabinets Site Inst P&E Add 5-2
Series 800A outside plant cabinet S800A Cab Inst 210 2-16

Wirewrap cable
in TBM bay Vol. 1 200 6-5

Wirewrap connections in ABM bay
Vol. 1 200 5-7

Wirewrap pin
NT4K14 breaker interface panel
external alarm contacts Vol. 2A 104 3-16
parallel telemetry contacts Vol. 2A 104 5-6, Vol. 2A 104 5-10
NT7E56 breaker interface panel TBM Inst 202 4-32
external alarm contacts Vol. 2A 104 3-19
on NT4K14 breaker interface panel Vol. 2A 100 7-23
on NT7E56 breaker interface panel Vol. 2A 100 7-29

Wirewrap pins
on NT4K14 breaker interface panel Vol. 1 200 5-8
on NT7E56 breaker interface panel Vol. 1 200 6-5

Worksheet
access bandwidth manager to access bandwidth manager Vol. 1 154 6-7
host messaging unit link access protocol D-link port calculation Vol. 1 154 6-3
operations management circuit link Vol. 1 154 6-13
preparing
DS1-fed systems Vol. 1 154 4-12
point-to-point Vol. 1 154 4-8
single-ended remote fiber terminal Vol. 1 154 4-10
virtual tributary bandwidth manager systems Vol. 1 154 4-5
transport bandwidth manager to access bandwidth manager Vol. 1 154 6-9
transport bandwidth manager to transport bandwidth manager Vol. 1 154 6-11
X.25 Interface Vol. 3A 245 9-1

Wrist strap
grounding Vol. 5C 547 1-2

X

X terminal
connecting to the OPC Vol. 3B 220 5-23
NCD19
configuration data, loading from the OPC Vol. 3B 220 5-30, Vol. 3B 220 5-32
configuration file, creating Vol. 3B 220 5-26
Telnet session with OPC, establishing Vol. 3B 220 5-25
reconfiguring after OPC upgrade Vol. 3B 220 5-33
session, terminating Vol. 3B 220 5-12

X.25
Vol. 3A 245 9-1
configuration
defining parameter values Vol. 3A 245 6-8
requirements TL1 Interface Desc 190 2-3
troubleshooting guidelines TL1 Interface Desc 190 2-7
configuration file, creating Vol. 3A 245 6-9
configuration file, sample Vol. 3A 245 9-5, Vol. 4A 302 2-14
configuration parameters
defining and enabling Vol. 4A 302 2-16
configuring OPC ports Vol. 4A 302 2-1
configuring TIRS for Vol. 4A 302 2-65
interface Vol. 2A 100 10-5
parameter descriptions Vol. 3A 245 9-3, Vol. 4A 302 2-13
parameters Vol. 4A 302 2-10
standards compliance TL1 Interface Desc 190 1-3, MCOT to ABM QRG 1-4
TL1 verification TL1 Interface Desc 190 2-2

X.25 optional software feature package
Vol. 2A 101 2-23

X11 terminal
Vol. 2A 100 10-5

Z

Zero code suppression
line card parameter Vol. 2B 181 4-23
line code attribute Vol. 4B 315 3-14

Zero TLP jack access
testing capabilities Vol. 2B 115 3-8

AccessNode Express Index

Numbers

1-Meg Modem
- alarms/logs and events, difference 1MM Ref & Tr 7-3
- applications 1MM Ref & Tr 1-3
- equipment
  - 1MM CPE 1MM Ref & Tr 6-12, 1MM Ref & Tr 6-13
  - data processor 1MM Ref & Tr 1-7
  - modem, customer premise 1MM Ref & Tr 1-12
  - shelf processor, enhanced 1MM Ref & Tr 1-14
  - xEMS GUI 1MM Ref & Tr 1-12
  - XnLC 1MM Ref & Tr 1-9
- events 1MM Ref & Tr 7-3
- Events Browser 1MM Ref & Tr 7-7
- MAC translation feature 1MM Ref & Tr 4-11
- OAM&P for voice 1MM Ref & Tr 1-4
- requirements 1MM Ref & Tr 1-3
- technical assistance 1MM Ref & Tr 9-1
- technical support 1MM Ref & Tr 9-1
- UNIX workstation
  - requirements, minimum 1MM Ref & Tr 1-13
- voice service
  - changes to voice services, because of 1MM 1MM Ref & Tr 1-4
- workstation
  - backing up databases 1MM Ref & Tr 4-17
  - cannot ping DP 1MM Ref & Tr 6-33
  - database administration 1MM Ref & Tr 4-11
  - monitoring partition sizes 1MM Ref & Tr 4-13
  - requirements, minimum 1MM Ref & Tr 1-13

1-Meg Modem component
- provisioning
  - using command line interface 1MM Ref & Tr 8-4
  - using xEMS GUI 1MM Ref & Tr 2-2, 1MM Ref & Tr 8-4
- searching for 1MM Ref & Tr 8-4, 1MM Ref & Tr 8-18
- unprovisioning 1MM Ref & Tr 2-10
  - using xEMS GUI 1MM Ref & Tr 2-10, 1MM Ref & Tr 8-4
- updating information
  - using xEMS GUI 1MM Ref & Tr 8-4

1-Meg Modem customer premise equipment modem
- provisioning
  - using xEMS GUI 1MM Ref & Tr 8-4
- troubleshooting 1MM Ref & Tr 6-12, 1MM Ref & Tr 6-13

303 multivendor interface
- ANX 100 2-3

A

ac ground, ANX
- description Mod Cab ANX Install 1-9

AC power pedestal
- earth ground cable entrance Mod Cab ANX Desc 118 6-2
- outside plant cable entrance Mod Cab ANX Desc 118 6-2
- system power description Mod Cab ANX Desc 118 8-2

AC power pedestal, ANX
- anchor plate Mod Cab ANX Install 2-3, Mod Cab ANX Install 2-4
- anchor plate assembly Mod Cab ANX Install 2-2, Mod Cab ANX Install 2-3
- commercial ac cable entrance Mod Cab ANX Install 2-3, Mod Cab ANX Install 4-2
- conduit opening Mod Cab ANX Install 2-3
- connecting commercial power Mod Cab ANX Install 4-1, Mod Cab ANX Install 4-6
  - warning & caution Mod Cab ANX Install 4-3
- connecting earth ground Mod Cab ANX Install 4-4, Mod Cab ANX Install 6-12
- earth ground cable entrance Mod Cab ANX Install 2-3, Mod Cab ANX Install 4-2
- outside plant cable entrance Mod Cab ANX Install 2-3, Mod Cab ANX Install 4-2

ac power pedestal, ANX
ac circuit breakers Mod Cab ANX Desc 118 4-4
ac power requirements
Mod Cab ANX Desc 118 4-2
anchor plate Mod Cab ANX Desc 118 4-3
branch circuit connectors
Mod Cab ANX Desc 118 4-1
cable entry port Mod Cab ANX Desc 118 4-3
circuit breaker protection
Mod Cab ANX Desc 118 4-1
commercial ac cable entrance
Mod Cab ANX Desc 118 4-3
description Mod Cab ANX Desc 118 4-1
earth ground cable entrance
Mod Cab ANX Desc 118 4-3
emergency generator connector
Mod Cab ANX Desc 118 4-4
manual transfer Mod Cab ANX Desc 118 4-4
outside plant cable entrance
Mod Cab ANX Desc 118 4-3

AC power, ANX
description Mod Cab ANX Install 1-9
power pedestal, ANX Mod Cab ANX Install 4-1
requirement Mod Cab ANX Install 1-9,
Mod Cab ANX Install 4-1
safety Mod Cab ANX Install 1-16

Access bandwidth manager shelf, ANX
circuit pack
deleting ANX 220 3-60
installing ANX 220 2-17
layout ANX 220 2-22,
OC-1 Fed ANX to OC-3 QRG 3-6
storing ANX 220 1-8
transporting ANX 220 1-8
common equipment, powering up ANX 220 2-33

Access bandwidth manager, ANX
auxiliary shelf, installing ANX Inst 210 5-6

Access processor card
ANX 100 5-4

AccessNode
DMS Access ANX 100 2-8
system description Mod Cab ANX Desc 118 1-4

AccessNode Express
acoustic noise specifications ANX 100 9-8
administration capabilities ANX 220 8-52
alarms and surveillance interfaces ANX 100 9-10
architecture ANX 100 2-9
auxiliary shelf ANX 100 4-19
bay mount ANX 100 3-6
dimensions ANX 100 9-2
DMS Access ANX 100 2-6
electrostatic discharge ANX 100 9-10
emissions ANX 100 9-10

AccessNode Express (continued)
engineering limitations ANX 100 9-11
environmental specifications ANX 100 9-7
Ethernet connection
IP address ANX PC Access Assist 4-9,
ANX PC Access Assist 5-19
firmware upgrading ANX 220 8-51
floor mount ANX 100 3-5
login procedure
host digital terminal ANX 220 6-12
OPC ANX 220 6-14
voice module ANX 220 6-10
Mini Cabinet ANX 100 3-12
Mod Cab ANX 100 3-11
operating altitude ANX 100 9-8
overview ANX 100 2-2,
ANX PC Access Assist 2-1
PAA
administration ANX PC Access Assist 6-1
alarms and events ANX PC Access Assist 9-1
commissioning ANX PC Access Assist 5-1
DS0 provisioning wizard
ANX PC Access Assist 8-1
installing ANX PC Access Assist 1-1
network administration
ANX PC Access Assist 13-1
Network View ANX PC Access Assist 2-5,
ANX PC Access Assist 3-3
on-line help ANX PC Access Assist 3-10
performance monitoring
ANX PC Access Assist 12-1
protection switching
ANX PC Access Assist 11-1
provisioning service and equipment
ANX PC Access Assist 8-1
requirements ANX PC Access Assist 1-5
retrieving inventory
ANX PC Access Assist 7-1
Shelf View ANX PC Access Assist 2-6,
ANX PC Access Assist 3-6
Shelf View, limited ANX PC Access Assist 3-8
technical assistance ANX PC Access Assist 2-9
testing ANX PC Access Assist 10-1
user interface ANX PC Access Assist 3-1
VT emulation ANX PC Access Assist 4-1
power and grounding specifications ANX 100 9-9
safety compliances ANX 100 9-10
security capabilities ANX 220 8-52
shock and vibration specifications ANX 100 9-8
software upgrading ANX 220 8-51
system fault scenarios ANX 220 8-4
temperature specifications ANX 100 9-7
user interfaces ANX 100 6-2
voice module ANX 100 4-9
weight data ANX 100 9-5

AccessNode network element user interface
alarm display ANX 100 7-6

ACT-USER command
ANX 312 12-2

Adding DS1
bidirectional cross-connect in a linear system
OC-1 Fed ANX to OC-3 QRG 2-47
equipment OC-1 Fed ANX to OC-3 QRG 5-13
facilities OC-1 Fed ANX to OC-3 QRG 5-13

Administration, ANX
system capabilities ANX 220 8-52

AIC firmware
Recon Cserver to HDT 6-2

Air deflector
in 8 VM bay assembly ANX Inst 210 3-4
in ABM bay ANX Inst 210 8-2
installing ANX Inst 210 8-67

Air-core cable, ANX
applying moisture barrier
Mod Cab ANX Install 9-8,
Mod Cab ANX Install 10-9

Alarm and event OAM&P
ANX 100 7-3

Alarm and surveillance interface
ANX 100 9-10

Alarm, ANX
alarm OAM&P ANX 220 8-13
class
environmental ANX 543 1-27
equipment ANX 543 1-27
facility ANX 543 1-27
clearing
PC GUI ANX 543 3-1
TL1 ANX 543 4-1
connection points Mod Cab ANX Install 12-4
display using an AccessNode network element user interface ANX 100 7-6
displaying
NEUI ANX 543 1-19
OPC ANX 543 1-19
PCGUI ANX 543 1-7
DS1
DS1 CSU line loopback ANX 543 3-17, ANX 543 4-17
DS1 facility loopback ANX 543 3-13, ANX 543 4-13
DS1 network loopback ANX 543 3-19, ANX 543 4-19
DS1 rx alarm indication signal ANX 543 3-21, ANX 543 4-21
DS1 rx babbling ANX 543 3-30, ANX 543 4-34
DS1 rx loss of frame ANX 543 3-32, ANX 543 4-37

Alarm, ANX (continued)
DS1 rx loss of signal ANX 543 3-37, ANX 543 4-44
DS1 rx yellow ANX 543 3-42, ANX 543 4-50
DS1 terminal loopback ANX 543 3-15, ANX 543 4-15
DSX1
DSX1 facility loopback ANX 543 3-49, ANX 543 4-55
DSX1 rx alarm indication signal ANX 543 3-53, ANX 543 4-59
DSX1 rx babbling ANX 543 3-62, ANX 543 4-72
DSX1 rx loss of frame ANX 543 3-64, ANX 543 4-75
DSX1 rx loss of signal ANX 543 3-69, ANX 543 4-82
DSX1 rx yellow ANX 543 3-74, ANX 543 4-88
DSX1 terminal loopback ANX 543 3-51, ANX 543 4-57
Rx bipolar violation - 10 E3 ANX 543 4-91
Rx bipolar violation - 10E-3 ANX 543 3-77
Rx bipolar violation - 10E-4 ANX 543 3-79, ANX 543 4-92
E2A provisionable Mod Cab ANX Install 12-4
environmental ANX 100 7-4
environmental events/problems ANX 100 7-3
environmental inputs ANX 100 7-5
equipment ANX 100 7-4
external Mod Cab ANX Install 12-1
customer-assigned equipment Mod Cab ANX Install 12-1
environmental Mod Cab ANX Install 12-1
power Mod Cab ANX Install 12-1
facility ANX 100 7-4
fan shelf Mod Cab ANX Install 12-3
HDSL
Circuit pack fail ANX 543 3-188, ANX 543 4-215
Circuit pack mismatch ANX 543 3-189, ANX 543 4-216
HDSL errored seconds ANX 543 3-81, ANX 543 4-93
HDSL errored seconds threshold exceeded ANX 543 3-81, ANX 543 4-93
HDSL loopback active ANX 543 3-85, ANX 543 4-97
HDSL loss of synchronization ANX 543 3-86, ANX 543 4-98
HDSL margin ANX 543 3-88, ANX 543 4-101
HDSL margin threshold exceeded ANX 543 3-88, ANX 543 4-101
HDT denies connection - shelf mismatch ANX 543 3-124, ANX 543 4-138
Loopback ANX 543 3-85, ANX 543 4-97
Loss of sync ANX 543 3-86, ANX 543 4-98
Rx bipolar violation - 10 E3 ANX 543 4-53
Rx bipolar violation - 10E-3 ANX 543 3-45
Rx bipolar violation - 10E-4 ANX 543 3-47, ANX 543 4-54

Alarm, ANX, HDSL (continued)
Shelf mismatch ANX 543 3-124, ANX 543 4-138
heat exchanger Mod Cab ANX Install 12-3
hierarchy ANX 543 2-8
DS1 facility ANX 543 2-8
equipment alarms ANX 543 2-9
ITU alarms ANX 543 2-9
PS alarms ANX 543 2-10
SP alarms ANX 543 2-11
internal Mod Cab ANX Install 12-1
ITU
circuit pack fail ANX 543 3-94, ANX 543 4-107
circuit pack mismatch ANX 543 3-95, ANX 543 4-108
circuit pack missing ANX 543 3-96, ANX 543 4-109
Line card
Line card fail ANX 543 3-97, ANX 543 4-110
Line card missing ANX 543 3-97, ANX 543 4-110
Loss of power at NT1 ANX 543 3-97, ANX 543 4-110
NT1 power status changed ANX 543 3-97, ANX 543 4-110
NT1 test mode changed ANX 543 3-97, ANX 543 4-110
Sync lost with NT1 ANX 543 4-110
OC1 rx loss of frame ANX 543 3-136, ANX 543 4-155
PC GUI
AID ANX 543 1-13
alarm banner ANX 543 1-15
alarm details screen ANX 543 1-17
alarm monitor screen ANX 543 1-16
clearing an alarm ANX 543 3-1
severity ANX 543 1-12
Power supply
circuit pack fail ANX 543 3-98, ANX 543 4-111
circuit pack mismatch ANX 543 3-100, ANX 543 4-113
circuit pack missing ANX 543 3-101, ANX 543 4-114
provisioning, description Mod Cab ANX Install 12-4
routing cabling, description Mod Cab ANX Install 12-4
screens
NEUI ANX 543 1-25
OPC ANX 543 1-25
PCGUI ANX 543 1-12
severity
NEUI ANX 543 1-25
OPC ANX 543 1-25
PCGUI ANX 543 1-12
Shelf processor
ANX loss of comms ANX 543 3-113, ANX 543 4-128

Alarm, ANX, Shelf processor (continued)
circuit pack fail ANX 543 3-104, ANX 543 4-117
circuit pack mismatch ANX 543 3-106, ANX 543 4-119
circuit pack missing ANX 543 3-109, ANX 543 4-122
duplex SP comms failure ANX 543 3-110, ANX 543 4-123
environmental alarm hw fail ANX 543 3-112, ANX 543 4-126
HDT comms failure ANX 543 3-113, ANX 543 4-128
HDT denies connection - unexpected SID ANX 543 4-150
HDT denies connection - unexpected SID, PC GUI ANX 543 3-132
ITU comms failure ANX 543 3-125, ANX 543 4-139
ITU datasync fail ANX 543 3-126, ANX 543 4-141
loss of primary timing reference ANX 543 3-128, ANX 543 4-144
loss of secondary timing reference ANX 543 3-130, ANX 543 4-147
SID mismatch ANX 543 3-132, ANX 543 4-150
software release mismatch ANX 543 3-150, ANX 543 4-171
SP datasync fail ANX 543 3-151, ANX 543 4-172
timing generation entry to freerun ANX 543 3-153
upgrade in progress ANX 543 3-155, ANX 543 4-177
TL1
ANX loss of comms ANX 543 4-128
circuit pack fail, HDSL SP ANX 543 4-215
circuit pack fail, ITU ANX 543 4-107
circuit pack fail, PSU ANX 543 4-111
circuit pack fail, SP ANX 543 4-117
circuit pack mismatch, HDSL SP ANX 543 4-216
circuit pack mismatch, ITU ANX 543 4-108
circuit pack mismatch, PSU ANX 543 4-113
circuit pack missing, ITU ANX 543 4-109
circuit pack missing, PSU ANX 543 4-114
circuit pack missing, SP ANX 543 4-122
DS1 CSU line loopback ANX 543 4-17
DS1 facility loopback ANX 543 4-13
DS1 network loopback ANX 543 4-19
DS1 rx alarm indication signal ANX 543 4-21
DS1 rx babbling ANX 543 4-34
DS1 rx loss of frame ANX 543 4-37
DS1 rx loss of signal ANX 543 4-44
DS1 rx yellow ANX 543 4-50
DS1 terminal loopback ANX 543 4-15
DSX1 facility loopback ANX 543 4-55
DSX1 rx alarm indication signal ANX 543 4-59
DSX1 rx babbling ANX 543 4-72
DSX1 rx loss of frame ANX 543 4-75

Alarm, TL1 (continued)
DSX1 rx loss of signal ANX 543 4-82
DSX1 rx yellow ANX 543 4-88
DSX1 terminal loopback ANX 543 4-57
duplex SP comms failure ANX 543 4-123
environmental alarm hw fail ANX 543 4-126
HDSL errored seconds ANX 543 4-93
HDSL errored seconds threshold exceeded ANX 543 4-93
HDSL loopback active ANX 543 4-97
HDSL loss of synchronization ANX 543 4-98
HDSL margin ANX 543 4-101
HDSL margin threshold exceeded ANX 543 4-101
HDT comms failure ANX 543 4-128
HDT denies connection - shelf mismatch ANX 543 4-138
HDT denies connection - unexpected SID ANX 543 4-150
ITU comms failure ANX 543 4-139
ITU datasync fail ANX 543 4-141
Line card fail ANX 543 4-110
Line card missing ANX 543 4-110
Loopback ANX 543 4-97
Loss of power at NT1 ANX 543 4-110
loss of primary timing reference ANX 543 4-144
loss of secondary timing reference ANX 543 4-147
Loss of sync ANX 543 4-98
NT1 power status changed ANX 543 4-110
NT1 test mode changed ANX 543 4-110
remote environmental critical ANX 543 4-217
remote environmental major ANX 543 4-219
remote environmental minor ANX 543 4-221
Shelf mismatch ANX 543 4-138
SID mismatch ANX 543 4-150
software release mismatch ANX 543 4-171
SP datasync fail ANX 543 4-172
Sync lost with NT1 ANX 543 4-110
Talk battery failure ANX 543 4-8
timing generation entry to freerun ANX 543 4-175
upgrade in progress ANX 543 4-177
troubleshooting ANX 543 2-2
ANX failure point diagram ANX 543 2-2
type, VM ANX 543 1-27
Voice module
ANX loss of comms ANX 543 3-113, ANX 543 4-128
circuit pack fail, HDSL SP ANX 543 3-188, ANX 543 4-215
circuit pack fail, ITU ANX 543 3-94, ANX 543 4-107
circuit pack fail, PSU ANX 543 3-98, ANX 543 4-111
circuit pack fail, SP ANX 543 3-104, ANX 543 4-117
circuit pack mismatch, HDSL SP ANX 543 3-189, ANX 543 4-216

Alarm, Voice module (continued)
circuit pack mismatch, ITU ANX 543 3-95, ANX 543 4-108
circuit pack mismatch, PSU ANX 543 3-100, ANX 543 4-113
circuit pack mismatch, SP ANX 543 3-106, ANX 543 4-119
circuit pack missing, ITU ANX 543 3-96, ANX 543 4-109
circuit pack missing, PSU ANX 543 3-101, ANX 543 4-114
circuit pack missing, SP ANX 543 3-109, ANX 543 4-122
clearing ANX 543 3-2
DS1 CSU line loopback ANX 543 3-17
DS1 facility loopback ANX 543 3-13
DS1 network loopback ANX 543 3-19
DS1 rx alarm indication signal ANX 543 3-21, ANX 543 4-21
DS1 rx babbling ANX 543 3-30, ANX 543 4-34
DS1 rx loss of frame ANX 543 3-32, ANX 543 4-37
DS1 rx loss of signal ANX 543 3-37, ANX 543 4-44
DS1 rx yellow ANX 543 3-42, ANX 543 4-50
DS1 terminal loopback ANX 543 3-15
DSX1 facility loopback ANX 543 3-49
DSX1 rx alarm indication signal ANX 543 3-53, ANX 543 4-59
DSX1 rx babbling ANX 543 3-62, ANX 543 4-72
DSX1 rx loss of frame ANX 543 3-64, ANX 543 4-75
DSX1 rx loss of signal ANX 543 3-69, ANX 543 4-82
DSX1 rx yellow ANX 543 3-74, ANX 543 4-88
DSX1 terminal loopback ANX 543 3-51
duplex SP comms failure ANX 543 3-110, ANX 543 4-123
environmental alarm hw fail ANX 543 3-112, ANX 543 4-126
HDSL errored seconds ANX 543 3-81, ANX 543 4-93
HDSL errored seconds threshold exceeded ANX 543 3-81
HDSL loopback active ANX 543 3-85, ANX 543 4-97
HDSL loss of synchronization ANX 543 3-86, ANX 543 4-98
HDSL margin ANX 543 3-88, ANX 543 4-101
HDSL margin threshold exceeded ANX 543 3-88
HDT comms failure ANX 543 3-113, ANX 543 4-128
HDT denies connection - shelf mismatch ANX 543 3-124, ANX 543 4-138
HDT denies connection - unexpected SID ANX 543 3-132, ANX 543 4-150

Alarm, Voice module (continued)
ITU comms failure ANX 543 3-125, ANX 543 4-139
ITU datasync fail ANX 543 3-126, ANX 543 4-141
Line card fail ANX 543 3-97, ANX 543 4-110
Line card missing ANX 543 3-97, ANX 543 4-110
Loopback ANX 543 3-85
Loss of power at NT1 ANX 543 3-97, ANX 543 4-110
loss of primary timing reference ANX 543 3-128, ANX 543 4-144
loss of secondary timing reference ANX 543 3-130, ANX 543 4-147
Loss of sync ANX 543 3-86
NT1 power status changed ANX 543 3-97, ANX 543 4-110
NT1 test mode changed ANX 543 3-97, ANX 543 4-110
remote environmental critical ANX 543 3-190, ANX 543 4-217
remote environmental major ANX 543 3-191, ANX 543 4-219
remote environmental minor ANX 543 3-192, ANX 543 4-221
Rx bipolar violation - 10E-3 ANX 543 3-45, ANX 543 3-77
Rx bipolar violation - 10E-4 ANX 543 3-47, ANX 543 3-79
Shelf mismatch ANX 543 3-124
SID mismatch ANX 543 4-150
software release mismatch ANX 543 3-150, ANX 543 4-171
SP datasync fail ANX 543 3-151, ANX 543 4-172
Sync lost with NT1 ANX 543 3-97, ANX 543 4-110
Talk battery failure ANX 543 3-8, ANX 543 4-8
timing generation entry to freerun ANX 543 3-153, ANX 543 4-175
TL1 ANX 543 4-1
upgrade in progress ANX 543 3-155, ANX 543 4-177
wiring external Mod Cab ANX Install 12-5

Alarm/fuse panel in 8 VM bay assembly
ANX Inst 210 3-5

Alarms
Recon DS1 to HDSL Feeder 3-20
ac failure Mod Cab ANX Desc 118 5-4
alarm monitor Recon Cserver to HDT 2-3
battery high temperature Mod Cab ANX Desc 118 5-4
battery on discharge Mod Cab ANX Desc 118 5-4
clearing OC-1 Fed ANX to OC-3 QRG 3-19

Alarms (continued)
clearing on ANX OC-1 Fed ANX to OC-3 QRG 4-20
controller failure Mod Cab ANX Desc 118 5-4
fuse alarm Mod Cab ANX Desc 118 5-4
high current Mod Cab ANX Desc 118 5-5
low voltage Mod Cab ANX Desc 118 5-4
low voltage disconnect Mod Cab ANX Desc 118 5-4
rectifier failure Mod Cab ANX Desc 118 5-4
status Recon Cserver to HDT 6-9
temperature Mod Cab ANX Desc 118 5-7
thermal shutdown Mod Cab ANX Desc 118 5-5

Alert
ANX 543 1-26

ALW-MSG-ALL command
ANX 312 2-2

ALW-PMREPT-T1 command
ANX 312 10-2

Anchor plate, ANX
assembly Mod Cab ANX Install 2-2
overview Mod Cab ANX Install 1-6
power pedestal Mod Cab ANX Install 4-2

ANX
clearing alarms OC-1 Fed ANX to OC-3 QRG 4-20
commissioning OC-1 Fed ANX to OC-3 QRG 4-3
events ANX 543 6-1
cancel upgrade failed ANX 543 6-7
cancel upgrade passed ANX 543 6-9
commit upgrade partially passed ANX 543 6-10
commit upgrade passed ANX 543 6-14
common fields ANX 543 6-4
data restore failed ANX 543 6-15
initialization complete ANX 543 6-17
invoke upgrade passed ANX 543 6-19
manual cold initialization will occur ANX 543 6-20
manual switch will occur ANX 543 6-22
manual synchronization switch to internal clock ANX 543 6-24
manual synchronization switch to primary reference ANX 543 6-26
manual synchronization switch to secondary reference ANX 543 6-28
manual warm initialization will occur ANX 543 6-30
ring amplifier capacity exceeded ANX 543 6-32
synchronization switch to primary reference ANX 543 6-35
synchronization switch to secondary reference ANX 543 6-37
viewing ANX 543 6-3

ANX, events (continued)
working SP automatically restored to IS
ANX 543 6-39
software requirements for 1MM
1MM Ref & Tr 1-13

ANX circuit packs
installing OC-1 Fed ANX to OC-3 QRG 4-7

ANX equipment
retrieve parameters ANX 312 6-15

ANX equipment OAM&P
ANX 100 7-3

ANX facility OAM&P
ANX 100 7-3

ANX line card
diagnosing ANX 312 6-3

ANX loss of comms
ANX 543 3-113, ANX 543 4-128

ANX serial telemetry
TBOS ANX 100 7-6
TBOS/E2A ANX 100 7-6

ANX shelf
adjust service parameters ANX 312 6-5
delete ANX 312 6-2
provision ANX 312 6-7
test LEDs ANX 312 6-10

ANX upgrade
cancel ANX 312 8-2
check release number ANX 312 8-3
erase old ANX 312 8-4
execute new ANX 312 8-9
load ANX 312 8-10

ANXTRFCI
traffic monitoring ANX 220 8-40

ANXUPGCI
reset ANX 220 9-50

Application
definition ANX 100 1-2

Asynchronous transport interface card
ANX 100 5-10

At the HDT NEUI (steps 1 thru 4)
ANX 543 3-22, ANX 543 3-54, ANX 543 4-23,
ANX 543 4-61

ATIC
ANX 100 5-10

Auxiliary shelf
Mod Cab ANX Desc 118 5-3
definition ANX 100 1-2
dimensions ANX 100 9-4
ITBP ANX 100 5-13
plug-in modules ANX 100 5-12
talk battery filter ANX 100 5-12
voice module power supply unit ANX 100 5-12

Auxiliary shelf, ANX
grounding ANX Inst 210 5-22
in 8 VM bay assembly ANX Inst 210 3-2
installing
L-frame ANX Inst 210 5-4
wall-mount ANX Inst 210 5-4
rectifier, connecting ANX Inst 210 8-14
unpacking ANX Inst 210 5-3

B

Backup
network element Recon Cserver to HDT 6-10
network element database
Recon Cserver to HDT 3-2
operations controller Recon Cserver to HDT 6-10
provisioning schedules
Recon Cserver to HDT 5-10
recording schedules Recon Cserver to HDT 2-26

Bandwidth, ANX
configuration ANX 100 4-5

Basic configuration, ANX
Mod Cab ANX Mod Cab ANX Desc 118 1-2

Battery breaker, ANX
installing ANX Inst 210 6-24

Battery tray, ANX
battery breaker, installing ANX Inst 210 6-24
installing ANX 24L Cab Inst Guide 3-8

Battery, ANX
breaker panel
Mod Cab ANX Mod Cab ANX Install 14-3
connecting ANX Inst 210 8-59
drawer Mod Cab ANX Install 14-1
equalize shutdown level
Mod Cab ANX Install 15-2
float shutdown level Mod Cab ANX Install 15-2
float voltage range Mod Cab ANX Install 1-18
float voltage setting Mod Cab ANX Install 15-6
heaters Mod Cab ANX Desc 118 5-7
high-voltage shutdown level
Mod Cab ANX Install 15-2
installation
Mod Cab ANX Mod Cab ANX Install 14-3
installation procedures ANX Inst 210 6-1
installing ANX Inst 210 6-20,
ANX 24L Cab Inst Guide 5-2
Johnson Controls TEL 12-45
Mod Cab ANX Desc 118 5-6
Mod Cab ANX Mod Cab ANX Install 14-2
low voltage disconnect adjustment
Mod Cab ANX Install 15-10
Mod Cab ANX
battery tray layout
Mod Cab ANX Desc 118 5-6
Mod Cab drawer Mod Cab ANX Desc 118 5-1
replacement
safety requirement Mod Cab ANX Install 1-18,
Mod Cab ANX Install 14-2
reserve power
Mod Cab ANX Mod Cab ANX Install 14-1
specifications
Mod Cab ANX Mod Cab ANX Install 14-1

Battery, ANX (continued)
string layout
Mod Cab ANX Mod Cab ANX Desc 118 5-6
temperature probe connector
Mod Cab ANX Mod Cab ANX Desc 118 5-5
tray description
Mod Cab ANX Mod Cab ANX Desc 118 5-7
tray layout
Mod Cab ANX Mod Cab ANX Desc 118 5-6
voltage range
Mod Cab ANX Mod Cab ANX Install 14-3

Bay
8 VM assembly ANX Inst 210 3-1

Bidirectional line-switched ring, ANX
ANX application description ANX 100 2-20

Binder group, ANX
punching down on BIX connectors
Mod Cab ANX Install 9-7

BIX connector, ANX
punching down binder groups
Mod Cab ANX Install 9-7
terminating OSP cables Mod Cab ANX Install 9-1

Branch circuit connectors
Mod Cab ANX Desc 118 4-1

Breaker interface panel, ANX
power, verifying ANX 220 2-13,
ANX Inst 210 5-22

C

Cabinet door, ANX
gaskets Mod Cab ANX Desc 118 3-2

Cabinet, ANX
construction Mod Cab ANX Desc 118 3-2
door locks Mod Cab ANX Desc 118 3-2
equipment design Mod Cab ANX Desc 118 5-7
features Mod Cab ANX Desc 118 3-2
life expectancy Mod Cab ANX Desc 118 3-2
mounting Mod Cab ANX Desc 118 3-2
security Mod Cab ANX Desc 118 3-2

Cable
ANX
fiber cables
pulling into STM Mod Cab ANX Install 7-4
routing to fiber manager
Mod Cab ANX Install 7-5,
Mod Cab ANX Install 7-6
ground cables
pulling into STM Mod Cab ANX Install 6-3
voice frequency cables
butting and stripping
Mod Cab ANX Install 6-4
pulling into STM Mod Cab ANX Install 6-3
punching down binder groups on BIX connectors Mod Cab ANX Install 9-7
terminating to 710/3M MS2 DPM connectors without SAI cross-connect facilities
Mod Cab ANX Install 10-7
terminating to SAI cross-connect facilities (using 710/3M MS2 DPM connectors)
Mod Cab ANX Install 10-4
terminating to SAI cross-connect facilities (using BIX connectors)
Mod Cab ANX Install 9-5
bonding clamp, ANX
installing Mod Cab ANX Install 6-7
boot, ANX
sealing Mod Cab ANX Install 6-11
conduit
anchor plate assembly
Mod Cab ANX Install 2-2
placement Mod Cab ANX Install 1-6
power pedestal Mod Cab ANX Install 4-2
small termination module
Mod Cab ANX Install 6-2

Cable connection
710/3M MS2 DPM connector
terminating with SAI cross-connect facilities
Mod Cab ANX Install 10-4
without cross-connect
Mod Cab ANX Install 10-7

Cable entry port, ANX
Mod Cab ANX Desc 118 4-3

Cable entry ports, ANX
Mod Cab ANX Desc 118 6-2
OSP fiber cable Mod Cab ANX Desc 118 6-1
voice frequency Mod Cab ANX Desc 118 6-1

Cable, ANX
8 VM bay assembly connections ANX 032 2-29, ANX 100 3-9, ANX Inst 210 3-4
DS1 cable ANX 24L Cab Inst Guide 4-2
DS1 cables, connecting to voice module
ANX Inst 210 8-42
ITBP cables
central office cables, connecting
ANX Inst 210 8-52
remote cables, connecting ANX Inst 210 8-45
voice frequency cables
attaching to voice module drawer
ANX Inst 210 8-30
connecting ANX Inst 210 8-30,
ANX 24L Cab Inst Guide 4-2

Cables
fiber-optic OC-1 Fed ANX to OC-3 QRG 2-19

Cabling
Mod Cab ANX description
Mod Cab ANX Desc 118 1-4

Cancel upgrade failed, ANX
ANX 543 6-7

Cancel upgrade passed, ANX
ANX 543 6-9

CANC-UPGRD command, ANX
ANX 312 8-2

CANC-USER command, ANX
ANX 312 12-4

Card cage, ANX
DS1 cables, connecting
ANX 24L Cab Inst Guide 4-4
external parallel telemetry wiring
ANX 24L Cab Inst Guide 4-8
power supply/ring amplifier card, installing
ANX 24L Cab Inst Guide 5-5

Caution, ANX
Mod Cab ANX Install 1-13

Central office
site requirements
ANX HDSL Inst&Ref 1-5

Charge control setting, ANX
adjusting Mod Cab ANX Install 15-13

CHG-MJACK-CFG command, ANX
ANX 312 7-44

CHK-UPGRD command, ANX
ANX 312 8-3

CI tool
ANXTRFCI
traffic monitoring ANX 220 8-40
ANXUPGCI ANX 220 9-50
reset ANX 220 9-50
help
displaying ANX 220 8-49

Circuit breaker, ANX
emergency Mod Cab ANX Desc 118 4-4
GFI Mod Cab ANX Desc 118 4-4
heater duplex outlets Mod Cab ANX Desc 118 4-4
main Mod Cab ANX Desc 118 4-4
rectifiers Mod Cab ANX Desc 118 4-4

Circuit breakers
Mod Cab ANX Desc 118 4-4

Circuit card
1-Meg Modem
DP 1MM Ref & Tr 1-7
DP, can't communicate with xEMS
1MM Ref & Tr 6-22
DP, cannot ping xEMS GUI
1MM Ref & Tr 6-33
DP, MAC translation feature
1MM Ref & Tr 4-11
DP, no hardware flag 1MM Ref & Tr 6-27
DP, not sending traps to xEMS
1MM Ref & Tr 6-38
DP, reboots with old software load
1MM Ref & Tr 6-25
DP, replacing 1MM Ref & Tr 6-45
DP, testing 1MM Ref & Tr 5-2
DP, troubleshooting 1MM Ref & Tr 6-9,
1MM Ref & Tr 6-42
DP, upgrading software 1MM Ref & Tr 4-5
shelf processor, enhanced 1MM Ref & Tr 1-14
tests, in-service 1MM Ref & Tr 5-2
tests, out-of-service 1MM Ref & Tr 5-2

Circuit pack
initialize ANX 312 8-5, ANX 312 8-7
inserting OC-1 Fed ANX to OC-3 QRG 5-2
removing OC-1 Fed ANX to OC-3 QRG 5-2

Circuit pack fail
HDSL SP ANX 543 3-188, ANX 543 4-215
ITU ANX 543 3-94, ANX 543 4-107
PSU ANX 543 3-98, ANX 543 4-111
SP ANX 543 3-104, ANX 543 4-117

Circuit pack mismatch
HDSL SP ANX 543 3-189, ANX 543 4-216
ITU ANX 543 3-95, ANX 543 4-108
PSU ANX 543 3-100, ANX 543 4-113
SP ANX 543 3-106, ANX 543 4-119

Circuit pack missing
ITU ANX 543 3-96, ANX 543 4-109
PSU ANX 543 3-101, ANX 543 4-114
SP ANX 543 3-109, ANX 543 4-122

Circuit pack, ANX
ABM and BIP, inserting ANX 220 2-17,
ANX 220 2-21
deleting ANX 220 3-60
handling ANX 220 1-7, ANX Maint 211 1-2
host digital terminal ANX 100 2-11
installing ANX 220 2-17
layout ANX 220 2-22,
OC-1 Fed ANX to OC-3 QRG 3-6
storing ANX 220 1-8
storing and transporting ANX Maint 211 1-2
transporting ANX 220 1-8

Circuit, ANX
creating ANX 312 4-4, ANX 312 4-9
deleting ANX 312 4-2, ANX 312 4-15
displaying ANX 312 4-12
retrieving ANX 312 4-6

Cluster, ANX
definition ANX 100 1-2

CMMT-UPGRD command
ANX 312 8-4

Command, ANX
ACT-USER ANX 312 12-2
ALW-MSG-ALL ANX 312 2-2
ALW-PMREPT-T1 ANX 312 10-2
CANC-UPGRD ANX 312 8-2
CANC-USER ANX 312 12-4
CHG-MJACK-CFG ANX 312 7-44
CHK-UPGRD ANX 312 8-3
CMMT-UPGRD ANX 312 8-4
CONN-MJACK ANX 312 7-46
DGN-EQPT ANX 312 6-3
DISC-TACC ANX 312 7-48
DLT-CKT-TO ANX 312 4-2
DLT-CRS-TO ANX 312 4-15
DLT-EQPT ANX 312 6-2
DLT-SECU-User ANX 312 12-6
DLT-TO ANX 312 7-21
ED-EQPT ANX 312 6-5
ED-SECU-PID ANX 312 12-8
ED-SECU-USER ANX 312 12-11
ED-T1 ANX 312 7-25
ED-TO ANX 312 7-19
ENT-CKT-TO ANX 312 4-4
ENT-CRS-TO ANX 312 4-9

Command, ANX (continued)
ENT-EQPT ANX 312 6-7
ENT-T0 ANX 312 7-17
INH-MSG-ALL ANX 312 2-4
INH-PMREPT-T1 ANX 312 10-3
INIT-COLD ANX 312 8-5
INIT-REG-T1 ANX 312 10-14
INIT-WARM ANX 312 8-7
INVK-UPGRD ANX 312 8-9
LAMP-TEST ANX 312 6-10
LOAD-UPGRD ANX 312 8-10
OPR-EXT-CONT ANX 312 5-2
OPR-LPBK-T1 ANX 312 9-2
RLS-EXT-CONT ANX 312 5-5
RLS-LPBK-T1
T1 loopback, release ANX 312 9-4
RMF-T1 ANX 312 7-28
RMV-EQPT ANX 312 6-11
RST-EQPT ANX 312 6-13
RST-T1 ANX 312 7-30
RTRV-ACTIVE-USER ANX 312 12-17
RTRV-ALM-ALL ANX 312 2-5
RTRV-ALM-ENV ANX 312 5-7
RTRV-AO ANX 312 2-10
RTRV-ATTR-CONT ANX 312 5-11
RTRV-ATTR-ENV ANX 312 5-13
RTRV-CKT-TO ANX 312 4-6
RTRV-COND-ALL ANX 312 2-13
RTRV-CRS-TO ANX 312 4-12
RTRV-EQPT ANX 312 6-15
RTRV-EXT-CONT ANX 312 5-17
RTRV-HDR ANX 312 3-2
RTRV-PM-T1 ANX 312 10-25
RTRV-RMSCHED-T1 ANX 312 10-30
RTRV-RTG-TBL ANX 312 3-4
RTRV-SECU-UPC ANX 312 12-19
RTRV-SECU-USER ANX 312 12-21
RTRV-T0 ANX 312 7-23
RTRV-T1 ANX 312 7-32
RTRV-TBOS ANX 312 14-2
RTRV-TH-T1 ANX 312 10-36
SCHED-PMREPT-T1 ANX 312 10-38
SET-ATTR-ENV ANX 312 5-20
SET-SID ANX 312 12-24
SET-TH-T1 ANX 312 10-47
SW-DX-EQPT ANX 312 11-7

Command, CDS
INIT-COLD ANX 312 6-21

Commissioning and testing, ANX
performing Mod Cab ANX Install 10-1

Commissioning Data Record form
ANX 220 11-1

Commissioning manager
Recon Cserver to HDT 2-5,
Recon DS1 to HDSL Feeder 3-23

Commissioning Results form
ANX 220 10-1

Commissioning the OC-3 Express network element
OC-1 Fed ANX to OC-3 QRG 2-31,
OC-1 Fed ANX to OC-3 QRG 2-34

Commissioning, ANX
data, clearing ANX 220 3-43
equipment
powering up ANX 220 5-11
host digital terminal
BIP power, verifying ANX 220 2-12
circuit pack group, deleting ANX 220 3-60
circuit packs, installing ANX 220 2-17
date and time setting ANX 220 3-49
de-commissioning NE ANX 220 3-46
DS1/VT mapper assignments ANX 220 2-24,
OC-1 Fed ANX to OC-3 QRG 3-8
equipment requirements ANX 220 2-3
equipment, inspecting ANX 220 2-9
equipment, powering ANX 220 2-32
Hong Kong software downloading ANX 220 3-30
NE database, manual backup ANX 220 3-38
NEID guidelines ANX 220 3-6
network element data, entering ANX 220 3-12
network element, naming ANX 220 3-22
OMC data link, provisioning ANX 220 3-24
OPC backup/restore, testing ANX 220 2-45
OPC data, clearing ANX 220 3-43
OPC portable/primary data transfer ANX 220 3-28
OPC primary/backup data transfer ANX 220 3-33
OPC primary/portable data transfer ANX 220 3-35
OPC remote commissioning ANX 220 3-40
OPC serial number, verifying ANX 220 2-44
OPC software, removing ANX 220 2-37
preparation ANX 220 2-1
process ANX 220 3-3
software, downloading to NE ANX 220 3-17
system data, entering ANX 220 3-7
terminology ANX 220 3-3
time and date setting ANX 220 3-49
introduction ANX 220 1-1
NE, decommissioning ANX 220 3-46
network element data, entering ANX 220 3-12
network element name, setting ANX 220 3-22
process ANX 220 3-3
remote OPCs ANX 220 3-40
software, downloading ANX 220 3-17
system-level data, entering ANX 220 3-7
time zone, date, time ANX 220 3-49
voice module ANX 220 5-1

Commit upgrade partially passed, ANX
ANX 543 6-10

Commit upgrade passed ANX
ANX 543 6-14

Common equipment cards
installing OC-1 Fed ANX to OC-3 QRG 3-16

Common equipment, ANX
powering ABM shelf ANX 220 2-32

Common-equipment shelf
ANX 100 1-5

Concrete pad
anchor plates Mod Cab ANX Desc 118 3-2

Configuration
definition ANX 100 1-2
requirements ANX 312 1-1

Configuration, ANX
Mod Cab Mod Cab ANX Desc 118 1-2

Connecting
fiber-optic cable to the OC-1 interface
OC-1 Fed ANX to OC-3 QRG 2-26
modem OC-1 Fed ANX to OC-3 QRG 2-23
terminal OC-1 Fed ANX to OC-3 QRG 2-23

Connector
emergency generator
Mod Cab ANX Desc 118 4-4

Connector, ANX
3M MS2 4000D Super-Mini
Mod Cab ANX Install 10-2

Connector,ANX
3M MS2 4000D Super-Mini
terminating OSP cables
Mod Cab ANX Install 10-2

CONN-MJACK command
ANX 312 7-46

Copper distribution shelves
ANX 100 2-2

Copper-distribution shelf
Mod Cab ANX Desc 118 5-1

Crane
connecting to the cabinets
Mod Cab ANX Install 3-7
operation Mod Cab ANX Install 1-9
setup warnings Mod Cab ANX Install 3-7

Cross-connect option, ANX
serving area interface Mod Cab ANX Install 9-3

C-Server
Recon Cserver to HDT 2-12
de-commissioning Recon Cserver to HDT 3-7
decommissioning and shut down
Recon Cserver to HDT 3-1
location Recon Cserver to HDT 1-3
recording synchronization data
Recon Cserver to HDT 2-13

Cserver
definition ANX 100 1-2

Customer premise modem
1MM Ref & Tr 1-12

D

D4 channel bank
ANX 100 2-3

Daisy-chaining ILANs
OC-1 Fed ANX to OC-3 QRG 5-11

Daisy-chaining network processors
OC-1 Fed ANX to OC-3 QRG 5-11

Data Direct
definition ANX 100 1-2

Data processor
MAC translation feature 1MM Ref & Tr 4-11
provisioning
using xEMS GUI 1MM Ref & Tr 8-4
replacing 1MM Ref & Tr 6-45
troubleshooting 1MM Ref & Tr 6-9
circuit card 1MM Ref & Tr 6-42
not sending traps to xEMS 1MM Ref & Tr 6-38
upgrading software 1MM Ref & Tr 4-5

Data restore failed, ANX
ANX 543 6-15

Database
1-Meg Modem
administering the HP OpenView database 1MM Ref & Tr 4-11
backing up databases 1MM Ref & Tr 4-17
HP OpenView database 1MM Ref & Tr 4-11
monitoring partition sizes 1MM Ref & Tr 4-13

database error
1MM Ref & Tr 7-14

dbicCommunicationsDown
1MM Ref & Tr 7-17

dbicHardwareRemoved
1MM Ref & Tr 7-20

dbicLinkPerformance
1MM Ref & Tr 7-23

DC voltage output
acceptable level Mod Cab ANX Install 1-18

Default connections
downloading OC-1 Fed ANX to OC-3 QRG 3-18

Deleting DS1
bidirectional cross-connect in a linear system OC-1 Fed ANX to OC-3 QRG 2-47
equipment OC-1 Fed ANX to OC-3 QRG 5-13
facilities OC-1 Fed ANX to OC-3 QRG 5-13

DGN-EQPT command
ANX 312 6-3

DIP switches, ANX
adjusting ANX Inst 210 6-9

DISC-TACC command
ANX 312 7-48

Dissipation
power ANX 100 9-9

DLT-CKT-T0 command
ANX 312 4-2

DLT-CRS-T0 command
ANX 312 4-15

DLT-CRS-T1 Command
ANX 312 4-19

DLT-EQPT command
ANX 312 6-2

DLT-SECU-USER command
ANX 312 12-6

DLT-T0 command
ANX 312 7-21

DMS Access
OPC test manager based testing ANX 100 8-12

DMS Access, ANX
line/loop testing ANX 100 8-6, ANX 220 6-18
processor requirements ANX 220 2-3, ANX 220 2-17
translation table ANX 220 13-1

DMS-X interface to APC-100
OPC test manager based testing ANX 100 8-12

DS0
creating connection ANX 312 4-4
deleting connection ANX 312 4-2
line card service
displaying ANX 312 7-23
line card testing ANX 100 7-7
line termination
changing ANX 312 7-19
creating ANX 312 7-17
deleting ANX 312 7-21
retrieving connection ANX 312 4-6

DS1
ANX 100 4-18, Recon Cserver to HDT 2-17
adding a bidirectional cross-connect in a linear system OC-1 Fed ANX to OC-3 QRG 2-47
adding a facility
OC-1 Fed ANX to OC-3 QRG 5-13
adding equipment
OC-1 Fed ANX to OC-3 QRG 5-13
ANX
cross connect Mod Cab ANX Install 11-4
I/O module Mod Cab ANX Install 11-3
ANX loss of comms ANX 543 3-113, ANX 543 4-128
cable connection
Recon DS1 to HDSL Feeder 3-14
deleting a bidirectional cross-connect in a linear system OC-1 Fed ANX to OC-3 QRG 2-47
deleting a facility
OC-1 Fed ANX to OC-3 QRG 5-13
deleting equipment
OC-1 Fed ANX to OC-3 QRG 5-13
DSX
DS1s from I/O module
Mod Cab ANX Install 11-3
group and slot association ANX 543 1-30
HDT Recon Cserver to HDT 5-5
HDT comms failure ANX 543 3-113, ANX 543 4-128
input card
group and slot association ANX 543 1-30
line testing ANX 100 7-7
modifying a facility
OC-1 Fed ANX to OC-3 QRG 2-40
modifying equipment
OC-1 Fed ANX to OC-3 QRG 2-38
output card
group and slot association ANX 543 1-30
provisioning a bidirectional cross-connect in a linear system OC-1 Fed ANX to OC-3 QRG 2-47
Reconfiguration Recon DS1 to HDSL Feeder 2-1
retrieving a facility
OC-1 Fed ANX to OC-3 QRG 2-40
retrieving equipment
OC-1 Fed ANX to OC-3 QRG 2-38
rx alarm indication signal ANX 543 3-21, ANX 543 4-21
rx babbling ANX 543 3-30, ANX 543 4-34
rx loss of frame ANX 543 3-32
rx loss of signal ANX 543 3-37
rx yellow ANX 543 3-42
status Recon DS1 to HDSL Feeder 3-18

DS1 cable, ANX
connecting to the card cage
ANX 24L Cab Inst Guide 4-4
connecting to the voice module pinouts
ANX Inst 210 8-42

DS1 facility
performance monitoring data ANX 100 7-8

DS1 facility testing, ANX
performing ANX 220 8-30

DS1 links
provisioning OC-1 Fed ANX to OC-3 QRG 3-22

DS1 Tandem
provisioning OC-1 Fed ANX to OC-3 QRG 4-30
provisioning facility assignments
OC-1 Fed ANX to OC-3 QRG 3-34

DS1, ANX
DS1 Feeder Test Results form ANX 220 12-1
DS1 line OAM&P ANX 220 8-21
synchronization ANX 220 7-16

DS1/VT mapper card
ANX 100 5-4

DS1/VT mapper, ANX
group and slot associations ANX 220 2-24, OC-1 Fed ANX to OC-3 QRG 3-8

DSX
DS1 cross connect Mod Cab ANX Install 11-4

DSX1
rx alarm indication signal ANX 543 3-53, ANX 543 4-59
rx babbling ANX 543 3-62, ANX 543 4-72
rx loss of frame ANX 543 3-64
rx loss of signal ANX 543 3-69
rx yellow ANX 543 3-74

Duplex SP comms failure
ANX 543 3-110

E

Earth ground cable, ANX
connecting to enclosure
ANX 24L Cab Inst Guide 3-5

Earth ground, ANX
connecting to ac power pedestal
Mod Cab ANX Install 4-4,
Mod Cab ANX Install 6-12

ED-EQPT command
ANX 312 6-5

ED-OC1 Command
ANX 312 7-36

ED-SECU-PID command
ANX 312 12-8

ED-SECU-USER command
ANX 312 12-11

ED-STS1 Command
ANX 312 7-50

ED-T0 command
ANX 312 7-19

ED-T1 command
ANX 312 7-25

Electrical specifications
Mod Cab ANX Desc 118 7-4

Electromagnetic conductance
filtering Mod Cab ANX Desc 118 8-2

Electrostatic discharge
ANX 100 9-10

Emergency generator connector
Mod Cab ANX Desc 118 4-4

Emissions ANX 100 9-10

End-to-end DS1 facility testing, ANX, performing
ANX 220 8-33

Engineering Limitations
ANX 100 9-11

Enhanced transport interface card
ANX 100 5-10

ENT-CKT-T0 command
ANX 312 4-4

ENT-CRS-T0 command
ANX 312 4-9

ENT-CRS-T1 Command
ANX 312 4-17

ENT-EQPT command
ANX 312 6-7

ENT-T0 command
ANX 312 7-17

Environment
considerations
dust Mod Cab ANX Desc 118 2-2
high moisture Mod Cab ANX Desc 118 2-2
extreme Mod Cab ANX Desc 118 2-2
gasket seals Mod Cab ANX Desc 118 3-2
specifications
acoustical noise Mod Cab ANX Desc 118 7-5
altitude Mod Cab ANX Desc 118 7-5
environmental controls
Mod Cab ANX Desc 118 7-5
ice and snow loading
Mod Cab ANX Desc 118 7-5
non-operating environment
Mod Cab ANX Desc 118 7-5
operating environment
Mod Cab ANX Desc 118 7-5
relative humidity Mod Cab ANX Desc 118 7-5
temperature sensors
Mod Cab ANX Desc 118 7-5
wind Mod Cab ANX Desc 118 7-5

Environmental
specifications for ANX ANX 100 9-7

Environmental alarm hw fail
ANX 543 3-112, ANX 543 4-126

Environmental alarm, ANX
voice module provisioning ANX 220 7-52

Epsilon II line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

Equalize shutdown level, ANX
Mod Cab battery Mod Cab ANX Install 15-2

Equipment
Mod Cab ANX Install 1-1

Equipment grounding methods, ANX
description ANX 24L Cab Inst Guide 1-2

ESD jacks
OC-1 Fed ANX to OC-3 QRG 5-2

Ethernet
default configuration ANX 312 1-9
interface, ANX ANX 312 1-9
requirements ANX 312 1-9
verification ANX 312 1-9

ETIC
ANX 100 5-10

Event, ANX
cancel upgrade failed ANX 543 6-7
cancel upgrade passed ANX 543 6-9
commit upgrade partially passed ANX 543 6-10
commit upgrade passed ANX 543 6-14
common fields ANX 543 6-4
data restore failed ANX 543 6-15
equipment ANX 100 7-4
event reports
overview ANX 543 6-1
facility ANX 100 7-4
initialization complete ANX 543 6-17
invoke upgrade passed ANX 543 6-19
line card ANX 543 6-5
manual cold initialization will occur
ANX 543 6-20
manual switch will occur ANX 543 6-22
manual synchronization switch to internal clock
ANX 543 6-24
manual synchronization switch to primary
reference ANX 543 6-26
manual synchronization switch to secondary
reference ANX 543 6-28
manual warm initialization will occur
ANX 543 6-30
ring amplifier capacity exceeded ANX 543 6-32
synchronization switch to primary reference
ANX 543 6-35
synchronization switch to secondary reference
ANX 543 6-37
working SP automatically restored to IS
ANX 543 6-39

events, severity of
1MM Ref & Tr 7-8

Exerciser
provisioning schedules
Recon Cserver to HDT 5-10
recording schedules Recon Cserver to HDT 2-26

External alarm, ANX
customer-assigned equipment alarm
Mod Cab ANX Install 12-1
environmental Mod Cab ANX Install 12-1
power Mod Cab ANX Install 12-1
wiring Mod Cab ANX Install 12-5

External control, ANX
voice module provisioning ANX 220 7-58

F

facility assignments
provisioning
DS1 Tandem
OC-1 Fed ANX to OC-3 QRG 3-34
GR-303 DMS
OC-1 Fed ANX to OC-3 QRG 3-25
GR-303 MVI
OC-1 Fed ANX to OC-3 QRG 3-29
TR-08 OC-1 Fed ANX to OC-3 QRG 3-32

Fan shelf
Mod Cab ANX Desc 118 5-4

Feeder, ANX
OC-1, connecting Mod Cab ANX Install 11-6
T1, connecting Mod Cab ANX Install 11-7

Ferrite
installing ANX Inst 210 8-31, ANX Inst 210 8-42
kit ANX Inst 210 8-30, ANX Inst 210 8-42

Ferrite, ANX
installing ANX 24L Cab Inst Guide 4-2

Fiber cable, ANX
pulling into STM Mod Cab ANX Install 7-4
routing to fiber manager
Mod Cab ANX Install 7-5,
Mod Cab ANX Install 7-6
safety Mod Cab ANX Install 1-16
warnings and cautions Mod Cab ANX Install 7-2

Fiber central office terminal
ANX 100 1-3

Fiber feeder - virtual ring, ANX
ANX application description ANX 100 2-20

Fiber management kit
installing ANX 220 5-4,
OC-1 Fed ANX to OC-3 QRG 4-9

Fiber management shelf
Mod Cab ANX Desc 118 6-4
description Mod Cab ANX Desc 118 6-4

Fiber management shelf, ANX
description Mod Cab ANX Desc 118 5-1

Fiber manager, ANX
OSP cables routing Mod Cab ANX Install 7-5

Fiber patch cord, ANX
routing from OC-1 cards to fiber manager
Mod Cab ANX Install 7-6

Fiber-fed AccessNode, ANX
OC-12 ring application ANX 100 2-19
point-to-point application ANX 100 2-18

Fiber-optic cable
connecting to the OC-1 interface
OC-1 Fed ANX to OC-3 QRG 2-26
routing OC-1 Fed ANX to OC-3 QRG 2-19

Firmware, ANX
upgrading ANX 220 8-51

Float shutdown level, ANX
Mod Cab battery Mod Cab ANX Install 15-2

Float voltage, ANX
adjusting Mod Cab ANX Install 15-4

Fractional T1
definition ANX 100 1-3, ANX 850 1-11

FT1
creating ANX 312 4-9
deleting ANX 312 4-15
displaying ANX 312 4-12

G

Generator, ANX
connector Mod Cab ANX Desc 118 4-4

GR-303
ANX 100 4-15

GR-303 DMS
provisioning facility assignments
OC-1 Fed ANX to OC-3 QRG 3-25

GR-303 MVI
provisioning facility assignments
OC-1 Fed ANX to OC-3 QRG 3-29

Ground cable, ANX
pulling into STM Mod Cab ANX Install 6-3

Grounding
ac power Mod Cab ANX Desc 118 6-3
bus bar Mod Cab ANX Desc 118 5-1
description for ANX Modular Cabinet
Mod Cab ANX Desc 118 8-1

Grounding, ANX
alternative grounding ANX Inst 210 8-8
in cabinet or bay ANX Inst 210 4-2
outside plant requirements ANX Inst 210 8-7
system requirements ANX Inst 210 8-5

Group and slot association
Accessnode ANX 543 1-29
ANX ANX 543 1-32
DS1 ANX 543 1-30
DS1 I/O cards ANX 543 1-30

H

HDSL
Recon DS1 to HDSL Feeder 1-1,
Recon DS1 to HDSL Feeder 3-18
Circuit pack fail ANX 543 3-188, ANX 543 4-215
Circuit pack mismatch ANX 543 3-189,
ANX 543 4-216
feeder Recon DS1 to HDSL Feeder 2-1
HDSL errored seconds ANX 543 3-81,
ANX 543 4-93
HDSL errored seconds threshold exceeded
ANX 543 3-81, ANX 543 4-93
HDSL loopback active ANX 543 3-85,
ANX 543 4-97
HDSL loss of synchronization ANX 543 3-86,
ANX 543 4-98
HDSL margin ANX 543 3-88, ANX 543 4-101
HDT denies connection - shelf mismatch
ANX 543 3-124, ANX 543 4-138
Loopback ANX 543 3-85, ANX 543 4-97
Loss of sync ANX 543 3-86, ANX 543 4-98
Shelf mismatch ANX 543 3-124, ANX 543 4-138

HDSL errored seconds
ANX 543 3-81, ANX 543 4-93

HDSL errored seconds threshold exceeded
ANX 543 3-81, ANX 543 4-93

HDSL line unit
alarms ANX HDSL Inst&Ref 7-3
block diagram ANX HDSL Inst&Ref 1-13
demultiplexer ANX HDSL Inst&Ref 1-14
description ANX HDSL Inst&Ref 1-11
DS0 time slots ANX HDSL Inst&Ref 1-14
DS1 line code option ANX HDSL Inst&Ref 3-2
DSX-1 interface ANX HDSL Inst&Ref 1-15
enabling the ALM option
ANX HDSL Inst&Ref 7-2
features ANX HDSL Inst&Ref 1-11
front panel
messages ANX HDSL Inst&Ref 6-6
loopback options ANX HDSL Inst&Ref 6-1
multiplexer ANX HDSL Inst&Ref 1-14
power consumption limits
ANX HDSL Inst&Ref 3-2
power converters ANX HDSL Inst&Ref 1-15
switch S2 ANX HDSL Inst&Ref 1-15
system options ANX HDSL Inst&Ref 2-3

HDSL loopback active
ANX 543 3-85, ANX 543 4-97

HDSL loss of synchronization
ANX 543 3-86, ANX 543 4-98

HDSL management unit
alarms ANX HDSL Inst&Ref 7-1
connecting a VT100 terminal
ANX HDSL Inst&Ref 2-8
description ANX HDSL Inst&Ref 1-8
front panel
LEDs ANX HDSL Inst&Ref 1-8
switch ANX HDSL Inst&Ref 1-8
installing ANX HDSL Inst&Ref 4-23
pinouts ANX HDSL Inst&Ref 1-9
remote modem access ANX HDSL Inst&Ref 2-9
shelf options ANX HDSL Inst&Ref 2-11
using screens ANX HDSL Inst&Ref 2-10

HDSL margin
ANX 543 3-88, ANX 543 4-101

HDSL margin threshold exceeded
ANX 543 3-88, ANX 543 4-101

HDSL shelf
connectors ANX HDSL Inst&Ref 1-5
description ANX HDSL Inst&Ref 1-5
installing ANX HDSL Inst&Ref 4-2
pinouts ANX HDSL Inst&Ref 1-5

HDT
Recon Cserver to HDT 1-1,
Recon DS1 to HDSL Feeder 1-4
clearing alarms
OC-1 Fed ANX to OC-3 QRG 3-19
commissioning
OC-1 Fed ANX to OC-3 QRG 3-13
commissioning and download
Recon Cserver to HDT 4-1
commissioning the ANX
OC-1 Fed ANX to OC-3 QRG 4-3
downloading OPC software
OC-1 Fed ANX to OC-3 QRG 3-15
hardware set-up Recon Cserver to HDT 4-3
provisioning Recon Cserver to HDT 5-1
provisioning synchronization
OC-1 Fed ANX to OC-3 QRG 3-36
restoring
critical parameters Recon Cserver to HDT 5-3
default cross-connections
Recon Cserver to HDT 5-2
DS1 facilities provisioning
Recon Cserver to HDT 5-5
synchronization Recon Cserver to HDT 5-4
setting NE name
OC-1 Fed ANX to OC-3 QRG 3-21

HDT comms failure
ANX 543 3-113, ANX 543 4-128

HDT denies connection - shelf mismatch
ANX 543 3-124, ANX 543 4-138

HDT denies connection - unexpected SID
ANX 543 3-132

HDT.
See Host digital terminal, ANX

Heat deflector.
See air deflector.

Heat exchanger
Mod Cab ANX Desc 118 5-1,
Mod Cab ANX Desc 118 5-7

Helios mini System 500/48
Mod Cab ANX Desc 118 5-1,
Mod Cab ANX Desc 118 5-4,
Mod Cab ANX Desc 118 8-2

Helios mini System 500/48 controller
Mod Cab ANX Desc 118 5-4

Helios Mini System 500/48, ANX
16 Amp distribution module
Mod Cab ANX Install 15-1
adjusting Mod Cab ANX Install 15-1
charge control setting adjustment
Mod Cab ANX Install 15-13
float voltage adjustment
Mod Cab ANX Install 15-4
low voltage disconnect adjustment
Mod Cab ANX Install 15-10
status indicator Mod Cab ANX Install 15-3
temperature compensation slope adjustment
Mod Cab ANX Install 15-7
troubleshooting and maintenance
Mod Cab ANX Install 15-3

Help
1-Meg Modem
displaying help for the command line interface
1MM Ref & Tr 8-4
displaying for CI tool ANX 220 8-49

High-bit-rate digital subscriber line.
See HDSL

High-voltage shutdown level, ANX
Mod Cab battery Mod Cab ANX Install 15-2

Host digital terminal
ANX 100 2-2, ANX 100 2-9
access processor card ANX 100 5-4
cabling ANX HDSL Inst&Ref 4-5
circuit pack ANX 100 2-11
definition ANX 100 1-4
DS1/VT mapper ANX 100 5-4
HDSL kit
NT4K48LA ANX HDSL Inst&Ref 4-8
NT4K48LB ANX HDSL Inst&Ref 4-11
NT4K48LC ANX HDSL Inst&Ref 4-13
HDSL kits
loose ANX HDSL Inst&Ref 4-7
ordering flowcharts ANX HDSL Inst&Ref 8-1

Host digital terminal, HDSL kits (continued)
pre-wired ANX HDSL Inst&Ref 4-6
wiring connections ANX HDSL Inst&Ref 4-16
loopback access interface card ANX 100 5-6
maintenance interface card ANX 100 5-8
operations controller ANX 100 5-8
overview ANX 100 4-2
plug-in modules ANX 100 5-4
provisioning
using xEMS GUI 1MM Ref & Tr 8-4
test access card ANX 100 5-8
timing and cross-connect card ANX 100 5-8

Host digital terminal, ANX
BIP power, verifying ANX 220 2-12
circuit pack group, deleting ANX 220 3-60
circuit packs, installing ANX 220 2-17
commissioning ANX 220 3-1
de-commissioning NE ANX 220 3-46
deleting circuit pack group ANX 220 3-60
DS1/VT mapper assignments ANX 220 2-24,
OC-1 Fed ANX to OC-3 QRG 3-8
equipment, inspecting ANX 220 2-9
equipment, powering ANX 220 2-32
equipping rules ANX 220 2-20
Hong Kong software downloading ANX 220 3-30
introduction ANX 220 2-2
login procedure ANX 220 6-12
login requirements ANX 220 6-5
manually backing up NE database ANX 220 3-38
NE database, manual backup ANX 220 3-38
network element data, entering ANX 220 3-12
network element, naming ANX 220 3-22
OMC data link, provisioning ANX 220 3-24
OPC backup/restore, testing ANX 220 2-45
OPC data, clearing ANX 220 3-43
OPC Ethernet port configuration ANX 220 6-8
OPC portable/primary data transfer ANX 220 3-28
OPC primary/backup data transfer ANX 220 3-33
OPC primary/portable data transfer ANX 220 3-35
OPC remote commissioning ANX 220 3-40
OPC serial number, verifying ANX 220 2-44
OPC serial port configuration ANX 220 6-6
OPC software, removing ANX 220 2-37
physical connection requirements ANX 220 6-3
processor requirements ANX 220 2-3
software, downloading to NE ANX 220 3-17
system data, entering ANX 220 3-7
system interfaces ANX 220 6-2

HP OpenView
background processes, disabling
1MM Ref & Tr 4-17

Hubbell part number 4100B connector
Mod Cab ANX Desc 118 4-4

Hubbell part number 460B12W connector
Mod Cab ANX Desc 118 4-4

I

I/O module
Mod Cab ANX Desc 118 5-3

I/O module, ANX
installing ANX Inst 210 7-3
installing in voice module
Mod Cab ANX Install 13-3

ILAN
daisy-chaining
OC-1 Fed ANX to OC-3 QRG 5-11

Independent test bypass pair cable, ANX
central office cables, connecting
ANX Inst 210 8-52
remote cables, connecting ANX Inst 210 8-45

INH-MSG-ALL command
ANX 312 2-4

INH-PMREPT-T1 command
ANX 312 10-3

Initialization complete,
ANX ANX 543 6-17

INIT-REG-STM0 command
ANX 312 10-4

INIT-REG-STS1 Command
ANX 312 10-8

INIT-REG-T1 command
ANX 312 10-14

Installation
1-Meg Modem
minimum workstation requirements
1MM Ref & Tr 1-13
xEMS software requirements
1MM Ref & Tr 1-13
OC-1 interface circuit pack
OC-1 Fed ANX to OC-3 QRG 2-11
shelf processor circuit pack
OC-1 Fed ANX to OC-3 QRG 2-4
tributary circuit packs
OC-1 Fed ANX to OC-3 QRG 2-14
VTX circuit pack
OC-1 Fed ANX to OC-3 QRG 2-4

Installation, ANX
battery Mod Cab ANX Install 14-3
cable bonding clamps Mod Cab ANX Install 6-7
completing Mod Cab ANX Install 16-1
fiber cable Mod Cab ANX Install 7-1
modular cabinet, ANX Mod Cab ANX Install 3-11
to Mod Cab ANX Install 3-13

Installation, ANX (continued)
outside plant voice frequency cables
Mod Cab ANX Install 10-4
overview ANX Inst 210 1-2
protector modules Mod Cab ANX Install 16-1

INT-COLD command
ANX 312 6-21, ANX 312 8-5

Integrated test bypass card, ANX
installing Mod Cab ANX Install 16-8
wiring Mod Cab ANX Install 16-5

Integrated test bypass pair card, ANX
installing ANX 24L Cab Inst Guide 5-13
installing in central office ANX Inst 210 5-17
installing remote card ANX Inst 210 5-11
replacing ANX Maint 211 4-13

Integrated test unit
Mod Cab ANX Desc 118 5-3
channel test ANX 100 7-8
GR-303 DMS line card diagnostics ANX 100 7-8
GR-303 MVI line card diagnostics ANX 100 7-8
line card diagnostics ANX 100 7-8
metallic test access ANX 100 7-8

Integrated test unit, ANX
replacing using PAA ANX Maint 211 2-23
replacing using TL1 ANX Maint 211 2-11
voice module, installing in ANX 220 5-8

Interface
DMS Access ANX 100 2-8
DMS-X interface to APC-100 ANX 100 2-8

Internal alarm, ANX
software-controlled Mod Cab ANX Install 12-1

INT-WARM command
ANX 312 8-7

INVK-UPGRD command
ANX 312 8-9

Invoke upgrade passed, ANX
ANX 543 6-19

ITBP
port setup Recon DS1 to HDSL Feeder 3-22

ITBP.
See Integrated test bypass pair card.

ITU comms failure
ANX 543 3-125, ANX 543 4-139

ITU datasync fail
ANX 543 3-126, ANX 543 4-141

J

Jack, ANX
connecting ANX Maint 211 2-2

Johnson Controls TEL 12-45, ANX
float voltage setting Mod Cab ANX Install 15-6
float voltages ANX Inst 210 6-9,
Mod Cab ANX Install 15-2
low voltage disconnect adjustment
Mod Cab ANX Install 15-10
Mod Cab ANX Mod Cab ANX Desc 118 5-6

L

LAMP-TEST command
ANX 312 6-10

Laser radiation, ANX
safety Mod Cab ANX Install 1-17
warning Mod Cab ANX Install 7-2

LED, ANX
power system status Mod Cab ANX Install 15-3
status
in-service ANX Maint 211 1-5

Leveling platform
mounting the modular cabinet
Mod Cab ANX Install 3-14

LEX
removing OC-1 Fed ANX to OC-3 QRG 5-7

L-frame, ANX
assembling ANX Inst 210 2-3
auxiliary shelf, installing ANX Inst 210 5-4
installing cabinets ANX Inst 210 2-7

Line card
1-Meg Modem
services supported 1MM Ref & Tr 1-15
troubleshooting, no hardware flag for XnLC
1MM Ref & Tr 6-40
troubleshooting, XnLC fails loopback test
1MM Ref & Tr 6-31
voice service 1MM Ref & Tr 1-15
XnLC 1MM Ref & Tr 1-9,
1MM Ref & Tr 6-11
XnLC, testing 1MM Ref & Tr 5-2
alarms, ANX
Line card fail ANX 543 3-97, ANX 543 4-110
Line card missing ANX 543 3-97,
ANX 543 4-110
Loss of power at NT1 ANX 543 3-97,
ANX 543 4-110
NT1 power status changed ANX 543 3-97,
ANX 543 4-110
NT1 test mode changed ANX 543 3-97,
ANX 543 4-110
Sync lost with NT1 ANX 543 3-97,
ANX 543 4-110
events, ANX ANX 543 6-5
initialize ANX 312 6-21
service code attribute values ANX 100 5-22

Line card fail
ANX 543 3-97, ANX 543 4-110

Line card missing
ANX 543 3-97, ANX 543 4-110

Line card, ANX
diagnosing in a voice module
using NEUI ANX Maint 211 3-9
using PAA ANX Maint 211 3-13
using TL1 ANX Maint 211 3-11
layout ANX Maint 211 3-2
replacing in a voice module
using NEUI ANX Maint 211 3-3
using PAA ANX Maint 211 3-7
using TL1 ANX Maint 211 3-5
voice module
installing 2-wire ANX 220 5-9
installing 4-wire ANX 220 5-10
testing ANX 220 7-49

Line unit
technical specifications ANX HDSL Inst&Ref 3-4

Line/loop testing
DMS Access ANX 100 8-12
DMS-X interface to APC-100 ANX 100 8-12
OPC test manager based testing ANX 100 8-12

Line/loop testing, ANX
capabilities ANX 100 8-1
configuration procedure ANX 220 6-16
DMS Access ANX 100 8-6, ANX 220 6-18
DS1 OAM&P ANX 220 8-21
ITBP loop length calculation ANX 100 8-22
line card diagnostics ANX 100 8-20
resources ANX 100 8-2
software supported ANX 100 8-6
testing configurations ANX 100 8-8

LIO, removing
OC-1 Fed ANX to OC-3 QRG 5-7

LNADJ tool
help screen, displaying ANX 220 4-3
opening ANX 220 4-2
using ANX 220 4-1

LOAD-UPGRD command
ANX 312 8-10

Login command
ANX 312 12-2

Logout command
ANX 312 12-4

Loopback
ANX 543 3-85, ANX 543 4-97
1-Meg Modem 1MM Ref & Tr 5-3
XnLC fails test 1MM Ref & Tr 6-31

Loopback access interface card
ANX 100 2-2, ANX 100 5-6
manual software upgrade
software release, verifying ANX 220 9-9
software upgrade, verifying ANX 220 9-29
software, upgrading ANX 220 9-17
software release, verifying ANX 220 9-9
software upgrade, verifying ANX 220 9-29
software, upgrading ANX 220 9-17

Loss of power at NT1
ANX 543 3-97, ANX 543 4-110

Loss of primary timing reference
ANX 543 3-128, ANX 543 4-144

Loss of secondary timing reference
ANX 543 3-130, ANX 543 4-147

Loss of sync
ANX 543 3-86, ANX 543 4-98

Low consumption mode
adjusting Mod Cab ANX Install 15-16

Low voltage
disconnect adjustment
Mod Cab ANX Install 15-10

M

Main equipment module
description Mod Cab ANX Desc 118 5-1
equipment Mod Cab ANX Desc 118 5-1
fan shelf Mod Cab ANX Desc 118 5-4

Main equipment module, ANX
anchor plate Mod Cab ANX Install 2-5
anchor plate assembly Mod Cab ANX Install 2-2
battery breaker panel Mod Cab ANX Install 14-3
battery installation Mod Cab ANX Install 14-1
cable routing ports Mod Cab ANX Install 5-2
Helios Mini System 500/48
Mod Cab ANX Install 15-1
voice frequency cabling Mod Cab ANX Install 5-1

Maintenance
DS0 blocking
setting options ANX HDSL Inst&Ref 6-9
HDSL system ANX HDSL Inst&Ref 6-1
loopback testing ANX HDSL Inst&Ref 6-13
using A1LB test mode
ANX HDSL Inst&Ref 6-15
using GNLB test mode
ANX HDSL Inst&Ref 6-14

Maintenance, ANX
alarm OAM&P ANX 220 8-13
DS1 line OAM&P ANX 220 8-21
equipment OAM&P ANX 220 8-10
event OAM&P ANX 220 8-13
facility OAM&P ANX 220 8-12
modem ANX Maint 211 6-1
monitoring traffic usage ANX 220 8-45
overview ANX Maint 211 1-1
performance monitoring ANX 220 8-37
traffic monitoring ANX 220 8-40
traffic threshold alarms ANX 220 8-40

Maintenance.
See also Routine maintenance

Management unit
configuring HDSL cards settings
ANX HDSL Inst&Ref 4-24
technical specifications ANX HDSL Inst&Ref 3-3

Manual cold initialization will occur
ANX ANX 543 6-20

Manual loopback
performing from HLU front panel
ANX HDSL Inst&Ref 6-4

Manual ringdown 2-wire line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

Manual switch will occur, ANX
ANX 543 6-22

Manual synchronization switch to internal clock
ANX ANX 543 6-24

Manual synchronization switch to primary reference, ANX
ANX 543 6-26

Manual synchronization switch to secondary reference, ANX
ANX 543 6-28

Manual transfer
power source Mod Cab ANX Desc 118 4-4

Manual warm initialization will occur, ANX
ANX 543 6-30

Mechanical interlock device
switching power source
Mod Cab ANX Desc 118 4-4

Mechanical specifications
Mod Cab ANX Desc 118 7-2
cable ports Mod Cab ANX Desc 118 7-3
color Mod Cab ANX Desc 118 7-2
construction Mod Cab ANX Desc 118 7-2
door locks Mod Cab ANX Desc 118 7-3
emergency power transfer
Mod Cab ANX Desc 118 7-3
exterior dimensions Mod Cab ANX Desc 118 7-2
interior volume Mod Cab ANX Desc 118 7-2
swing frame rack mounting space
Mod Cab ANX Desc 118 7-3
weight Mod Cab ANX Desc 118 7-2

Metallic jack access
change configuration ANX 312 7-44
connect ANX 312 7-46
disconnect ANX 312 7-48

Mini-250 rectifier, ANX
installing ANX Inst 210 6-18
replacing ANX Maint 211 4-9
unpacking ANX Inst 210 6-17

Mini-500 rectifier battery fuses, ANX
replacing ANX Maint 211 4-6

Mini-500 rectifier cards, ANX
replacing ANX Maint 211 4-8

Mini-500 rectifier controller card, ANX
replacing ANX Maint 211 4-7

Mini-500 Rectifier shelf, ANX
unpacking ANX Inst 210 6-3

Mini-500 rectifier shelf, ANX
replacing ANX Maint 211 4-2

Mini-500 rectifier, ANX
installing ANX Inst 210 6-4

missing
ANX 543 4-110

Mod Cab
definition ANX 100 1-4

Mod Cab ANX.
See Modular cabinet, ANX

Modem
3COM US Robotics ANX Maint 211 6-2
connecting ANX Maint 211 6-1
connecting to the OC-3 Express shelf
OC-1 Fed ANX to OC-3 QRG 2-23
Hayes Accura ANX Maint 211 6-4
maintenance ANX Maint 211 6-1
Microcomm Desporte ANX Maint 211 6-5
pinouts ANX Maint 211 6-2
setting up for use with the OC-3 Express shelf
OC-1 Fed ANX to OC-3 QRG 2-23
Zoom/9600/V.42bis ANX Maint 211 6-6

Modifying
DS1 equipment
OC-1 Fed ANX to OC-3 QRG 2-38
DS1 facilities OC-1 Fed ANX to OC-3 QRG 2-40

Modular cabinet, ANX
commissioning Mod Cab ANX Install 16-10
configuration Mod Cab ANX Install 1-8,
Mod Cab ANX Install 1-9,
Mod Cab ANX Install 3-1
equipment Mod Cab ANX Install 1-4
lifting Mod Cab ANX Install 1-8,
Mod Cab ANX Install 3-7,
Mod Cab ANX Install 3-11,
Mod Cab ANX Install 3-14
mounting to the leveling platform
Mod Cab ANX Install 3-14
mounting to the pad Mod Cab ANX Install 3-11
protector modules, installing
Mod Cab ANX Install 16-2
securing pole-mount platform upper braces
Mod Cab ANX Install 3-16
site considerations Mod Cab ANX Install 1-6
site testing Mod Cab ANX Install 16-10
unpacking Mod Cab ANX Install 3-2

Moisture barrier
applying to air-core cables
Mod Cab ANX Install 9-8,
Mod Cab ANX Install 10-9

Mounting pad, ANX
aggregates Mod Cab ANX Install 1-7
cement specifications Mod Cab ANX Install 1-7
concrete pouring Mod Cab ANX Install 2-12
concrete specifications Mod Cab ANX Install 1-7
floating Mod Cab ANX Install 1-6
installing Mod Cab ANX Install 2-1
Portland cement Mod Cab ANX Install 1-7
preparation Mod Cab ANX Install 1-6,
Mod Cab ANX Install 2-1,
Mod Cab ANX Install 3-3,
Mod Cab ANX Install 3-4
water Mod Cab ANX Install 1-7
wooden form preparation
Mod Cab ANX Install 2-7

Mounting pole
preparation Mod Cab ANX Install 1-8

Mounting template
Mod Cab ANX Desc 118 3-2

Muffin XL DC fan
Mod Cab ANX Desc 118 5-4

Multihosting
definition ANX 100 1-4

MVI
ANX 100 2-3

N

NE.
See Network element

Network element
backup Recon Cserver to HDT 6-10,
Recon DS1 to HDSL Feeder 3-23
C-Server reconfiguration
Recon Cserver to HDT 1-1
database backup Recon Cserver to HDT 3-2
definition ANX 100 1-4
saving database to tape Recon Cserver to HDT 3-4
software
administration overview ANX 24L
RTC QRC 1-2

Network element user interface, ANX
displaying alarms ANX 543 1-19

Network element, ANX
database, backing up ANX 220 3-38
inspecting ANX 220 2-9

Network Manager
ANX 100 2-2

Network manager
ANX 100 6-5

Network processor
daisy-chaining
OC-1 Fed ANX to OC-3 QRG 5-11
setting date OC-1 Fed ANX to OC-3 QRG 2-34
setting identifier
OC-1 Fed ANX to OC-3 QRG 2-34
setting time OC-1 Fed ANX to OC-3 QRG 2-34

NT1 power status changed
ANX 543 3-97, ANX 543 4-110

NT1 test mode changed
ANX 543 3-97, ANX 543 4-110

O

OC-1, ANX feeders, connecting
Mod Cab ANX Install 11-6

OC-1 interface
connecting fiber-optic cables
OC-1 Fed ANX to OC-3 QRG 2-26
installation OC-1 Fed ANX to OC-3 QRG 2-11

OC-1 shelf processor
ANX 100 4-10, ANX 100 5-31
adding cross connects
OC-1 Fed ANX to OC-3 QRG 4-17
installing ANX 220 5-4,
OC-1 Fed ANX to OC-3 QRG 4-9

OC-1 shelf processor, ANX
replacing using TL1 ANX Maint 211 2-7

OC-1 shelf processor, protection
installing OC-1 Fed ANX to OC-3 QRG 4-12

OC-1 shelf processor, redundant
installing ANX 220 5-7

OC-3 Express shelf
commissioning
OC-1 Fed ANX to OC-3 QRG 2-31,
OC-1 Fed ANX to OC-3 QRG 2-34
ESD jacks OC-1 Fed ANX to OC-3 QRG 5-2

OC-3 Express, ANX
ANX application description ANX 100 2-21

Omega 2-wire office line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

Omega 2-wire station line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

Omega 4-wire line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

OPC
downloading software to HDT
OC-1 Fed ANX to OC-3 QRG 3-15
See also Operations controller
Recon DS1 to HDSL Feeder 1-3
span of control
commissioning HDT
OC-1 Fed ANX to OC-3 QRG 3-13

OPC
See Operations controller, ANX

OPC shelf
definition ANX 100 1-5

OPC software
installing OC-1 Fed ANX to OC-3 QRG 3-10

Operations controller
Recon DS1 to HDSL Feeder 1-3
backup Recon Cserver to HDT 6-10
definition ANX 100 1-5
relocating Recon Cserver to HDT 7-2
removing the backup Recon Cserver to HDT 3-5
saving database to tape Recon Cserver to HDT 3-4

Operations controller module
LNADJ tool
help screen, displaying ANX 220 4-3
opening ANX 220 4-2
PSTN tool
Hong Kong PSTN load, selecting ANX 220 4-4
software
administration overview ANX 24L
RTC QRC 1-2
installing ANX 220 2-41

Operations controller relocating
Recon Cserver to HDT 7-2

Operations controller, ANX
circuit pack group, deleting ANX 220 3-60
data transfer
portable/primary ANX 220 3-28
primary/backup ANX 220 3-33
primary/portable ANX 220 3-35
date and time setting ANX 220 3-49
de-commissioning NE ANX 220 3-46
displaying alarms ANX 543 1-19
login procedure ANX 220 6-14
OPC data, clearing ANX 220 3-43
OPC remote commissioning ANX 220 3-40
software
detecting and removing OPC software
ANX 220 2-37

Operations maintenance channel
Recon Cserver to HDT 2-14
links mapping Recon Cserver to HDT 2-16
links provisioning Recon Cserver to HDT 5-9
links removal Recon Cserver to HDT 3-8
parallel telementry data
Recon Cserver to HDT 2-8
TBOS data Recon Cserver to HDT 2-10

Operations maintenance channel, ANX
host digital terminal provisioning ANX 220 3-24

OPR-EXT-CONT command
ANX 312 5-2

OPR-LPBK-T1 command
ANX 312 9-2

OPR-PROTNSW-OC1 Command
ANX 312 11-6

OPR-PROTNSW-STM0 Command
ANX 312 11-2

OPR-SYNCSW Command
ANX 312 11-4

Optical cable, ANX
safety Mod Cab ANX Install 1-16

Optical fiber, ANX
handling ANX Maint 211 1-3
repairing ANX Maint 211 1-4
splicing ANX Maint 211 1-4

OSP cable sheathing
Mod Cab ANX Desc 118 6-3

OSP fiber cable entry ports
Mod Cab ANX Desc 118 6-1

OSP.
See Outside plant cable, ANX

Outside plant cable, ANX
cable bonding clamps, installing and correcting
Mod Cab ANX Install 6-7
ground cables
pulling into STM Mod Cab ANX Install 6-3
installation, finishing Mod Cab ANX Install 6-11
T1 connections
pulling into STM Mod Cab ANX Install 8-3
routing cables to the protection block
Mod Cab ANX Install 8-4
voice frequency cables
butting and stripping Mod Cab ANX Install 6-4
pulling into STM Mod Cab ANX Install 6-3

P

PAA, ANX
- alarms
  - descriptions ANX PC Access Assist 9-9
  - types ANX PC Access Assist 9-3
- dialogs
  - Add Cross Connect ANX PC Access Assist 8-17
  - Add Shelf ANX PC Access Assist 5-13
  - Add T1 Cross Connect ANX PC Access Assist 8-21
  - Add/Edit User ANX PC Access Assist 6-7
  - Alarm Banner ANX PC Access Assist 9-31
  - Alarm Details ANX PC Access Assist 9-36
  - Alarm Monitor ANX PC Access Assist 9-32
  - Alarm Monitor Filter ANX PC Access Assist 9-35
  - Automatic Output ANX PC Access Assist 9-39
  - AutoSLAT ANX PC Access Assist 13-3
  - Change Password ANX PC Access Assist 6-8
  - Comm Log - Auto Update ANX PC Access Assist 13-9
  - Configure Comms ANX PC Access Assist 5-18
  - Cross-Connection Table ANX PC Access Assist 8-20
  - Delete Shelf ANX PC Access Assist 5-18
  - DS1 Facilities ANX PC Access Assist 8-36
  - Edit Contact Types ANX PC Access Assist 9-40
  - Edit Shelf ANX PC Access Assist 5-16
  - Event Details ANX PC Access Assist 9-42
  - Event Monitor ANX PC Access Assist 9-41
  - External Alarms ANX PC Access Assist 9-43
  - External Controls ANX PC Access Assist 9-44
  - Initialize ANX PC Access Assist 5-20
  - Inventory ANX PC Access Assist 7-1
  - ITU Status ANX PC Access Assist 8-28
  - LC Status and Provisioning ANX PC Access Assist 8-31
  - Login ANX ANX PC Access Assist 5-11
  - OC-1/STS-1 Facilities Status and Provisioning ANX PC Access Assist 8-33
  - PM Statistics - Current ANX PC Access Assist 12-2
  - PM Thresholds ANX PC Access Assist 12-8
  - Protection ANX PC Access Assist 11-4
  - PS Status ANX PC Access Assist 8-29
  - Retrieve Available NE(s) ANX PC Access Assist 6-9
  - Set ANX Name ANX PC Access Assist 5-12
  - Software Upgrade ANX PC Access Assist 13-4
  - SP Status and Provisioning ANX PC Access Assist 8-24
  - Synchronization ANX PC Access Assist 11-7
  - T1 Cross Connection Table ANX PC Access Assist 8-23
  - TBOS ANX PC Access Assist 9-46

PAA, ANX dialogs (continued)
  - Testing Functions ANX PC Access Assist 10-8
  - TL1 Command Builder ANX PC Access Assist 13-6
  - User Profile ANX PC Access Assist 6-5
- Ethernet connection
  - IP address ANX PC Access Assist 4-9, ANX PC Access Assist 5-19
- installing ANX PC Access Assist 1-1
- Network View ANX PC Access Assist 2-5, ANX PC Access Assist 3-3
- on-line help ANX PC Access Assist 3-10
- OPC
  - modem connection with PAA ANX PC Access Assist 1-9
  - setting up to use PAA ANX PC Access Assist 1-7
  - using as a gateway ANX PC Access Assist 4-8
- security levels ANX PC Access Assist 6-1
- Shelf View ANX PC Access Assist 2-6, ANX PC Access Assist 3-6
  - limited ANX PC Access Assist 3-8
- software, loading ANX PC Access Assist 1-6
- tasks
  - 3DS0 ISDN IDSL cross connection, adding ANX PC Access Assist 8-9
  - alarm counts, observing ANX PC Access Assist 9-1
  - alarm details, viewing ANX PC Access Assist 9-2
  - communication port, configuring ANX PC Access Assist 5-2
  - communications log, viewing ANX PC Access Assist 13-2
  - cross connection, adding ANX PC Access Assist 8-5
  - cross connection, deleting ANX PC Access Assist 8-10
  - diagnostics, running on line cards ANX PC Access Assist 10-5
  - DS0 provisioning wizard, using ANX PC Access Assist 8-1
  - DS1s, looping back ANX PC Access Assist 10-1
  - FT1 cross connection, adding ANX PC Access Assist 8-7, ANX PC Access Assist 8-8, ANX PC Access Assist 8-9
  - GR-303 cross connection, adding ANX PC Access Assist 8-7
  - HDT, disconnecting ANX PC Access Assist 4-5
  - HDT, logging in ANX PC Access Assist 4-3
  - HDT, using as a gateway ANX PC Access Assist 4-5
  - jack-access testing, performing ANX PC Access Assist 10-3
  - lamp test, initiating ANX PC Access Assist 10-6
  - line card services, creating ANX PC Access Assist 8-4

PAA, ANX tasks (continued)
line card services, editing
ANX PC Access Assist 8-4
line card, resetting ANX PC Access Assist 10-6
line cards, testing ANX PC Access Assist 10-5
logging in ANX PC Access Assist 5-8
logging in, loss of communication
ANX PC Access Assist 5-9
OPC, disconnecting
ANX PC Access Assist 4-8
OPC, logging in ANX PC Access Assist 4-7
OPC, using as a gateway
ANX PC Access Assist 4-8
password, changing
ANX PC Access Assist 6-4
section and path trace parameters, provisioning
ANX PC Access Assist 8-14
shelf, adding ANX PC Access Assist 5-3
shelf, deleting ANX PC Access Assist 5-6
SP circuit pack, replacing
ANX PC Access Assist 5-7
T0 cross connection, adding
ANX PC Access Assist 8-6
timing reference, checking status
ANX PC Access Assist 11-3
user profile, deleting
ANX PC Access Assist 6-4
user profile, editing ANX PC Access Assist 6-3
user, adding ANX PC Access Assist 6-2
voice module, logging in
ANX PC Access Assist 4-11
voice module, logging out
ANX PC Access Assist 4-12
VT emulator, starting
ANX PC Access Assist 4-3
technical assistance ANX PC Access Assist 2-9
user interface ANX PC Access Assist 3-1
VT emulation ANX PC Access Assist 4-1

Pad
mounting template
Mod Cab ANX Desc 118 3-2

Parallel telemetry
ANX 100 7-4
external control outputs ANX 100 7-5

Parallel telemetry, ANX
voice module provisioning ANX 220 7-52

Password
edit ANX 312 12-8

Path trace parameters
provisioning OC-1 Fed ANX to OC-3 QRG 4-13

PC GUI, ANX
AID
[1..8] ANX 543 1-14
ANXVM ANX 543 1-14
DS1-[1..6] ANX 543 1-14
ITU ANX 543 1-14
LC-[1..48] ANX 543 1-14
PS-[A,B] ANX 543 1-14
SP-[A,B] ANX 543 1-13
SP-[A,B]-HDSL-[1,2] ANX 543 1-13
displaying alarms ANX 543 1-7
keyboard command exceptions ANX 543 1-4
keyboard commands ANX 543 1-2
screens
alarm banner ANX 543 1-15
alarm details screen ANX 543 1-17
alarm monitor screen ANX 543 1-16

PCGUI
Recon DS1 to HDSL Feeder 3-5

Performance monitoring
ANX 100 7-8
1-Meg Modem 1MM Ref & Tr 5-5
DS1 facility ANX 100 7-8
initialize T1 data ANX 312 10-14
retrieve schedule ANX 312 10-30
retrieve T1 data ANX 312 10-25
retrieve threshold level ANX 312 10-36
schedule reports ANX 312 10-38
set threshold ANX 312 10-47

Performance monitoring, ANX
description ANX 220 8-37
tasks ANX 220 8-38

Plug-in modules
ANX 100 5-14

Pole mounting
Mod Cab ANX Install 1-8

Pole for Mod Cab
Mod Cab ANX Install 1-8

Pole-mount kit, ANX
preparation Mod Cab ANX Install 3-5

Ports
input Recon Cserver to HDT 5-11
output Recon Cserver to HDT 5-11

Positive locking knife switch
switching power source
Mod Cab ANX Desc 118 4-4

POTS
provisioning from GR-303 DMS interface
OC-1 Fed ANX to OC-3 QRG 4-26
provisioning from GR-303 MVI interface
OC-1 Fed ANX to OC-3 QRG 4-28

Power
description for ANX Modular Cabinet
Mod Cab ANX Desc 118 8-1

Power and grounding
ANX 100 9-9

Power cabling
in 8 VM bay assembly ANX Inst 210 3-5
in systems without a recitfier ANX Inst 210 8-9

Power dissipation
ANX 100 9-9

Power pedestal, ANX
earth ground, connecting
Mod Cab ANX Install 4-4
power leads, connecting power
Mod Cab ANX Install 4-6

Power supply
16 Amp distribution module
Mod Cab ANX Install 15-1
controller module Mod Cab ANX Install 15-1
Helios Mini System 500/48
Mod Cab ANX Install 15-1
rectifier modules Mod Cab ANX Install 15-1
See also Helios Mini System 500/48

Power supply unit
ANX 100 4-11

Power supply, ANX
replacing using PAA ANX Maint 211 2-24
replacing using TL1 ANX Maint 211 2-12

Power supply.
See Helios mini System 500/48

Power supply/ring amplifier card, ANX
installing ANX Inst 210 7-10,
Mod Cab ANX Install 13-9,
ANX 24L Cab Inst Guide 5-5

Power system
Mod Cab ANX Desc 118 5-4

Power system indicator, ANX
list Mod Cab ANX Install 15-3

Power, ANX
BIP (ABM shelf) ANX 220 2-12
voice module ANX 220 5-11

Preparation
pole-mount kit Mod Cab ANX Install 3-5

Preparing to lift
Mod Cab ANX Install 3-7

Preplanning
Mod Cab ANX Desc 118 2-2

Protection switching
duplex equipment ANX 312 11-7

Protector module, ANX
installation Mod Cab ANX Install 16-2
safety information Mod Cab ANX Install 1-20
solid state Mod Cab ANX Install 16-3

Provisioning
1-Meg Modem
components 1MM Ref & Tr 8-4
unprovisioning a component
1MM Ref & Tr 2-10
updating a component's information
1MM Ref & Tr 8-4
bulk provisioning 1MM Ref & Tr 3-4
CLUI, using 1MM Ref & Tr 3-4
service code attribute values ANX 100 5-22
UE9000 equipment
HSTP-Name 1MM Ref & Tr 3-2
network name 1MM Ref & Tr 3-2
UNIX scripts, crontab file 1MM Ref & Tr 3-8
UNIX scripts, scheduling 1MM Ref & Tr 3-8
UNIX scripts, using 1MM Ref & Tr 3-4

Provisioning DS1
bidirectional cross-connect in a linear system
OC-1 Fed ANX to OC-3 QRG 2-47

Provisioning, ANX
alarm Mod Cab ANX Install 12-4
host digital terminal
OMC data link ANX 220 3-24
operations maintenance channel ANX 220 3-24
voice module ANX 220 7-1
DS0 services ANX 220 7-18
DS1 synchronization ANX 220 7-16
environmental alarms ANX 220 7-52
external controls ANX 220 7-58
fractional T1 services ANX 220 7-40,
ANX 220 7-46
parallel telemetry ANX 220 7-52
shelf ANX 220 7-3, ANX 220 7-12

PSTN tool
Hong Kong PSTN load, selecting ANX 220 4-4

R

Radio frequency emissions notice
Mod Cab ANX Install 1-13,
Mod Cab ANX Desc 118 1-5

Rectifier
Mod Cab ANX Install 14-3,
Mod Cab ANX Desc 118 5-1,
Mod Cab ANX Desc 118 5-4
ANX
safety information Mod Cab ANX Install 1-19
usage Mod Cab ANX Install 15-3
system cabling, without ANX Inst 210 8-9

Rectifier card, ANX
installing ANX Inst 210 6-13

Rectifier controller, ANX
installing ANX Inst 210 6-8

Rectifier I/O distribution card, ANX
installing ANX Inst 210 6-6

Rectifier shelf, ANX
batteries, installing ANX Inst 210 6-20
battery strings, installing ANX Inst 210 6-20
connecting to auxiliary shelf ANX Inst 210 8-14
connecting to single point ground
ANX Inst 210 8-12
controller, installing ANX Inst 210 6-8
I/O distribution card, installing ANX Inst 210 6-6
Mini-250 rectifier, installing ANX Inst 210 6-18
Mini-500 rectifier, installing ANX Inst 210 6-4
rectifier cards, installing ANX Inst 210 6-13
unit cover, installing ANX Inst 210 6-8,
ANX Inst 210 6-15
unpacking ANX Inst 210 6-17

Rectifiers
power conversion specifications
Mod Cab ANX Desc 118 8-2

Regulatory compliance
Mod Cab ANX Desc 118 3-3

Regulatory compliance, ANX
requirements Mod Cab ANX Install 1-11

Remote drawer-link extension shelf
Mod Cab ANX Desc 118 5-1

Remote environmental
critical ANX 543 3-190, ANX 543 4-217
major ANX 543 3-191, ANX 543 4-219
minor ANX 543 3-192, ANX 543 4-221

Removing
LEX OC-1 Fed ANX to OC-3 QRG 5-7
LIO OC-1 Fed ANX to OC-3 QRG 5-7
REX OC-1 Fed ANX to OC-3 QRG 5-7
RIO OC-1 Fed ANX to OC-3 QRG 5-7

REPT^ALM^ENV message
ANX 312 2-2

REPT^ALM^EQPT message
ANX 312 2-2

REPT^ALM^OC1 message
ANX 312 2-2

REPT^ALM^STS1 message
ANX 312 2-2

REPT^ALM^T1 message
ANX 312 2-2

REPT^ALM^VT1 message
ANX 312 2-2

REPT^EVT^EQPT message
ANX 312 2-2

REPT^EVT^OC-1 message
ANX 312 2-2

REPT^EVT^STS1 message
ANX 312 2-2

REPT^EVT^T1 message
ANX 312 2-2

REPT^PM message
inhibit ANX 312 10-3
resume ANX 312 10-2

Requirements
Recon DS1 to HDSL Feeder 1-3

Retrieving
DS1 equipment
OC-1 Fed ANX to OC-3 QRG 2-38
DS1 facilities OC-1 Fed ANX to OC-3 QRG 2-40

REX, removing
OC-1 Fed ANX to OC-3 QRG 5-7

Ring amplifier capacity exceeded, ANX
ANX 543 6-32

RIO, removing
OC-1 Fed ANX to OC-3 QRG 5-7

RLS-EXT-CONT command
ANX 312 5-5

RLS-LPBK-T1 command
ANX 312 9-4

RLS-PROTNSW-OC1 command
ANX 312 11-5

RMU communication
Mod Cab ANX Install 16-6

RMV-EQPT command
ANX 312 6-11

RMV-OC1 command
ANX 312 7-38

RMV-T1 command
ANX 312 7-28

Routine maintenance, performing
ANX Maint 211 1-1

Routing, fiber-optic cable
OC-1 Fed ANX to OC-3 QRG 2-19

RST-EQPT command
ANX 312 6-13

RST-OC1 command
ANX 312 7-39

RST-T1 command
ANX 312 7-30

RTRV-ACTIVE-USER command
ANX 312 12-17

RTRV-ALM-ALL command
ANX 312 2-5

RTRV-ALM-ENV command
ANX 312 5-7

RTRV-AO command
ANX 312 2-10

RTRV-ATTR-CONT command
ANX 312 5-11

RTRV-ATTR-ENV command
ANX 312 5-13

RTRV-CKT-T0 command
ANX 312 4-6

RTRV-COND-ALL command
ANX 312 2-13

RTRV-CRS-T0 command
ANX 312 4-12

RTRV-CRS-T1 command
ANX 312 4-18

RTRV-EQPT command
ANX 312 6-15

RTRV-EXT-CONT command
ANX 312 5-17

RTRV-HDR command
ANX 312 1-2, ANX 312 3-2

RTRV-OC1 command
ANX 312 7-40

RTRV-PM-OC1 command
ANX 312 10-18

RTRV-PMSCHED-T1 command
ANX 312 10-30

RTRV-PM-STS1 command
ANX 312 10-23

RTRV-PM-T1 command
ANX 312 10-25

RTRV-PTHTRC-STS1 command
ANX 312 7-52

RTRV-RTG-TBL command
ANX 312 3-4

RTRV-SECU-UPC command
ANX 312 12-19

RTRV-SECU-USER command
ANX 312 12-21

RTRV-T0 command
ANX 312 7-23

RTRV-T1 command
ANX 312 7-32

RTRV-TBOS command
ANX 312 14-2

RTRV-TH-OC1 command
ANX 312 10-33

RTRV-TH-STS1 command
ANX 312 10-35

RTRV-TH-T1 command
ANX 312 10-36

RTRV-TRC-OC1 Command
ANX 312 7-43

S

Safety
compliance
AccessNode Express ANX 100 9-10

Safety, ANX
battery Mod Cab ANX Install 1-18
battery replacement requirement
Mod Cab ANX Install 1-18,
Mod Cab ANX Install 14-2
crane operation Mod Cab ANX Install 1-9,
Mod Cab ANX Install 1-14
fiber cable Mod Cab ANX Install 1-16,
Mod Cab ANX Install 7-2
fire hazard Mod Cab ANX Install 1-18,
Mod Cab ANX Install 4-3,
Mod Cab ANX Install 14-2,
Mod Cab ANX Install 15-2,
Mod Cab ANX Install 16-4
general Mod Cab ANX Install 1-20
ground-to-earth resistance
Mod Cab ANX Install 1-9
laser radiation Mod Cab ANX Install 1-17
power Mod Cab ANX Install 1-16
power connection Mod Cab ANX Install 1-9
grounding Mod Cab ANX Install 1-11
power rectifiers Mod Cab ANX Install 1-19
power system cautions and warnings
Mod Cab ANX Install 15-2
protector modules Mod Cab ANX Install 1-20
regulation compliance listing
Mod Cab ANX Install 1-11
warnings and cautions Mod Cab ANX Install 1-13

SCHED-PMREPT-T1 command
ANX 312 10-38

Schedule 40 PVC
Mod Cab ANX Install 2-2,
Mod Cab ANX Install 2-6,
Mod Cab ANX Install 4-2,
Mod Cab ANX Install 6-2,
Mod Cab ANX Install 7-3,
Mod Cab ANX Install 8-2

Section trace parameters
provisioning OC-1 Fed ANX to OC-3 QRG 4-13

Security
1-Meg Modem
broadcast filtering 1MM Ref & Tr 4-4
capabilities 1MM Ref & Tr 4-2,
1MM Ref & Tr 4-3
data service security capabilities
1MM Ref & Tr 4-2
IP address filtering 1MM Ref & Tr 4-4

Security, ANX
system capabilities ANX 220 8-52

Service
1-Meg Modem
activating subscriber data service
1MM Ref & Tr 2-9
affect on voice services 1MM Ref & Tr 1-4
changes to voice services 1MM Ref & Tr 1-5
data service features 1MM Ref & Tr 1-7
unprovisioning components
1MM Ref & Tr 2-10
voice service features 1MM Ref & Tr 1-14

Service adaptive access
ANX 100 4-12

Service code
table of attribute values ANX 100 5-22

Service protection center
Mod Cab ANX Desc 118 6-3
connector Mod Cab ANX Desc 118 6-3
protector block Mod Cab ANX Desc 118 6-3
protector module Mod Cab ANX Desc 118 6-4

Serving area interface
Mod Cab ANX Desc 118 6-1

SET-ATTR-ENV command
ANX 312 5-20

SET-SID command
ANX 312 12-24

SET-TH-OC1 Command
ANX 312 10-42

SET-TH-STS1 Command
ANX 312 10-45

SET-TH-T1 command
ANX 312 10-47

Shelf mismatch
ANX 543 3-124, ANX 543 4-138

Shelf processor
Recon DS1 to HDSL Feeder 1-1
connecting to the HDSL shelf
ANX HDSL Inst&Ref 5-4
default software upgrade ANX 220 8-51
installing ANX HDSL Inst&Ref 5-1
manual software upgrade
canceling ANX 220 9-58
software release, verifying ANX 220 9-9
upgrade failure ANX 220 9-48

Shelf processor, manual software upgrade (continued)
upgrade failure recovery procedures
ANX 220 9-52, ANX 220 9-53, ANX 220 9-54
upgrading ANX 220 9-31, ANX 220 9-41
verifying ANX 220 9-45
software release, verifying ANX 220 9-9
software upgrade failure ANX 220 9-48
software upgrade, canceling ANX 220 9-58
software upgrade, verifying ANX 220 9-45
software, upgrading ANX 220 9-31, ANX 220 9-41
upgrade failure recovery procedures
ANX 220 9-52, ANX 220 9-53, ANX 220 9-54

shelf processor, description
ANX 100 5-31

Shelf processor circuit pack
installation OC-1 Fed ANX to OC-3 QRG 2-4

Shelf processor, ANX
hierarchy
duplex ANX 543 2-11
simplex ANX 543 2-11
replacing using PAA ANX Maint 211 2-18
replacing using TL1 ANX Maint 211 2-3
restart
cold ANX Maint 211 5-2
warm ANX Maint 211 5-2
restarting using PAA ANX Maint 211 5-6
restarting using TL1 ANX Maint 211 5-4
voice module, installing in ANX 220 5-3

Shell shelf
definition ANX 100 1-5
dimensions ANX 100 9-4, ANX 100 9-5

Shell shelf, ANX
in 8 VM bay assembly ANX 032 2-29, ANX 100 3-9, ANX Inst 210 3-2
in access bandwidth manager bay
ANX Inst 210 4-10
installing
in wall-mount or L-frame ANX Inst 210 4-8
unpacking ANX Inst 210 4-7
voice module drawer
installing ANX Inst 210 7-5
securing ANX Inst 210 7-8

SID.
See System identifier.

SID mismatch
ANX 543 3-132, ANX 543 4-150

Site consideration, ANX
description Mod Cab ANX Install 1-6

Site selection
Mod Cab ANX Desc 118 2-2

Site selection and preparation, ANX
references ANX Inst 210 1-2, ANX 24L Cab Inst Guide 1-2

Site test, ANX
circuit packs (ABM and BIP), inserting
ANX 220 2-17, ANX 220 2-21
common equipment (ABM), powering up
ANX 220 2-32
power (ABM), verifying ANX 220 2-12
preparations ANX 220 2-1

Site Tests Results form
ANX 220 12-1

SLAT
commissioning the OC-3 Express shelf
OC-1 Fed ANX to OC-3 QRG 2-31, OC-1 Fed ANX to OC-3 QRG 2-34

Slim-line fan shelf
Mod Cab ANX Desc 118 5-1, Mod Cab ANX Desc 118 5-4

Small termination module
cable conduits Mod Cab ANX Desc 118 6-2
cable entry port Mod Cab ANX Desc 118 6-2
connector Mod Cab ANX Desc 118 6-3
description Mod Cab ANX Desc 118 6-1
equipment Mod Cab ANX Desc 118 6-3
grounding Mod Cab ANX Desc 118 6-3
protector block Mod Cab ANX Desc 118 6-3
protector module Mod Cab ANX Desc 118 6-4
service protection center
Mod Cab ANX Desc 118 6-3

Small termination module, ANX
anchor plate Mod Cab ANX Install 2-6, Mod Cab ANX Install 6-2, Mod Cab ANX Install 7-3, Mod Cab ANX Install 8-2
anchor plate assembly Mod Cab ANX Install 2-2
cable conduit entry ports
Mod Cab ANX Install 7-3, Mod Cab ANX Install 8-2
cable routing ports Mod Cab ANX Install 7-3, Mod Cab ANX Install 8-2
conduit openings Mod Cab ANX Install 2-6
connector options Mod Cab ANX Install 9-1
cross-connect options Mod Cab ANX Install 9-3
ground cables, pulling Mod Cab ANX Install 6-3
outside plant cable entrance
Mod Cab ANX Install 8-2
outside plant cables Mod Cab ANX Install 6-7, Mod Cab ANX Install 6-11

Small termination module, ANX
outside plant fiber cable entrance
Mod Cab ANX Install 2-6,
Mod Cab ANX Install 6-2,
Mod Cab ANX Install 7-3
serving area interface Mod Cab ANX Install 10-4
stripping voice frequency cables
Mod Cab ANX Install 6-4

Small termination module, ANX (continued)
voice frequency cable entrance
Mod Cab ANX Install 2-6,
Mod Cab ANX Install 6-2,
Mod Cab ANX Install 7-3,
Mod Cab ANX Install 8-2
voice frequency cable, butting
Mod Cab ANX Install 6-4
voice frequency cable, pulling
Mod Cab ANX Install 6-3
voice frequency cabling Mod Cab ANX Install 5-2
voice frequency protector block layout
Mod Cab ANX Install 5-3

SNMP timeout
1MM Ref & Tr 7-26

Software
administration overview ANX 24L RTC QRC 1-2
installing OPC ANX 220 2-41

Software and firmware
upgrading ANX 100 7-9

Software release mismatch
ANX 543 3-150, ANX 543 4-171

Software, ANX
CI tool
ANXUPGCI ANX 220 9-50
default software upgrade ANX 220 8-51,
ANX 220 9-1
manual software upgrade ANX 220 8-51,
ANX 220 9-1, ANX 220 9-3
canceling ANX 220 9-58
LAIC software release, verifying ANX 220 9-9
LAIC software upgrade, verifying
ANX 220 9-29
LAIC software, upgrading ANX 220 9-17
limitations ANX 220 9-6
process overview ANX 220 9-7
required material ANX 220 9-4
requirements ANX 220 9-6
SP software release, verifying ANX 220 9-9
SP software upgrade failure ANX 220 9-48
SP software, upgrading ANX 220 9-31,
ANX 220 9-41
SP software, verifying ANX 220 9-45
traffic impact ANX 220 9-7

Software, ANX, manual software upgrade (continued)
upgrade failure recovery procedures
ANX 220 9-52, ANX 220 9-53,
ANX 220 9-54
OPC software
detecting and removing ANX 220 2-37
troubleshooting ANX 220 9-48
upgrading ANX 220 8-51

Solid state protectors
Mod Cab ANX Desc 118 6-4

SP datasync fail
ANX 543 3-151, ANX 543 4-172

SPC.
See service protection center

Specifications
electrical Mod Cab ANX Desc 118 7-4
environmental Mod Cab ANX Desc 118 7-5
mechanical Mod Cab ANX Desc 118 7-2

Standard
compliance
sand and dust Mod Cab ANX Install 1-11
sunlight Mod Cab ANX Install 1-11,
Mod Cab ANX Install 1-12
water intrusion Mod Cab ANX Install 1-11

Standards
compliance
grounding Mod Cab ANX Install 1-11

Status indicator
power system Mod Cab ANX Install 15-3

Submap
pop-up menus 1MM Ref & Tr 8-9

Sunlight
Mod Cab ANX Install 1-12

SW-DX-EQPT command
ANX 312 11-7

Swing frame
shipping bracket ANX, removing
Mod Cab ANX Install 3-10

Switching
duplex equipment ANX 312 11-7

Sync lost with NT1
ANX 543 3-97, ANX 543 4-110

Synchronization
provisioning on HDT
OC-1 Fed ANX to OC-3 QRG 3-36

Synchronization switch to primary reference, ANX
ANX 543 6-35

Synchronization switch to secondary reference, ANX
ANX 543 6-37

System
definition of ANX 100 1-6
verifying status Recon Cserver to HDT 2-3

System administration
AccessNode Express ANX 100 7-9

System Data Record
ANX 220 11-1

System identifier
SET-SID command ANX 312 12-24
setting ANX 312 12-24

System preparation
Recon DS1 to HDSL Feeder 3-2

System security
AccessNode Express ANX 100 7-9

System setting
Recon DS1 to HDSL Feeder 3-12

T

T1
loopback
set ANX 312 9-2
parameter
edit ANX 312 7-25
protector blocks Mod Cab ANX Desc 118 6-1

T1 connection, ANX
pulling cables into STM Mod Cab ANX Install 8-3
routing cables to the protection block
Mod Cab ANX Install 8-4

T1 cross connections
provisioning OC-1 Fed ANX to OC-3 QRG 4-17

T1 feeder, ANX
connecting Mod Cab ANX Install 11-7

Talk battery failure
ANX 543 3-8, ANX 543 4-8

Talk battery filter
circuit card, ANX
installing ANX Inst 210 5-8

Talk battery filter card
installing Mod Cab ANX Install 16-7

Talk battery filter card, ANX
connecting ANX Inst 210 8-26
installing ANX 24L Cab Inst Guide 5-6

Talk battery filter, ANX
replacing ANX Maint 211 4-10

Tandem/UDLC
ANX 100 4-16

TBOS
Recon Cserver to HDT 2-19
provisioning data Recon Cserver to HDT 5-13

TBOS.
See telemetry byte-oriented serial (TBOS) surveillance

Technical assistance
1MM Ref & Tr 9-1

Technical specifications, ANX
description ANX Inst 210 1-4,
ANX 24L Cab Inst Guide 1-3

Technical support
1MM Ref & Tr 9-1, Recon Cserver to HDT 8-1,
Recon DS1 to HDSL Feeder 4-1

Technical support information
ANX Inst 210 9-1, ANX 24L Cab Inst Guide 6-1

Telemetry
Recon Cserver to HDT 2-10

telemetry byte-oriented serial (TBOS) surveillance
ANX 100 7-4

Temperature compensation slope
adjusting Mod Cab ANX Install 15-7

Terminal
connecting to the OC-3 Express shelf
OC-1 Fed ANX to OC-3 QRG 2-23
setting up for use with the OC-3 Express shelf
OC-1 Fed ANX to OC-3 QRG 2-23

Test
1-Meg Modem
circuit card tests, in-service 1MM Ref & Tr 5-2
circuit card tests, out-of-service
1MM Ref & Tr 5-2
line card and loop testing 1MM Ref & Tr 5-5
loopback tests 1MM Ref & Tr 5-3
performance monitoring 1MM Ref & Tr 5-5
DS0 line card ANX 100 7-7
DS1 line ANX 100 7-7

Test access card
ANX 100 5-8

Thermostatic sensors
fan control Mod Cab ANX Desc 118 5-7
temperature alarms Mod Cab ANX Desc 118 5-7

TIC
ANX 100 5-10

Timing and cross-connect card
ANX 100 5-8

Timing generation entry to freerun
ANX 543 3-153, ANX 543 4-175

Timing mode, retrieving
OC-1 Fed ANX to OC-3 QRG 2-57

TL1
Recon DS1 to HDSL Feeder 3-12
See also Transaction language 1

TL1 command line interface
ANX 100 6-3

TL1 interface configuration
TL1 X.25 interface ANX 312 1-1

TL1 Interface Router Service
ANX 312 1-2

TL1, ANX
alarms
ANX loss of comms ANX 543 4-128
Circuit pack fail, HDSL SP ANX 543 4-215
circuit pack fail, ITU ANX 543 4-107
circuit pack fail, PSU ANX 543 4-111
circuit pack fail, SP ANX 543 4-117
Circuit pack mismatch, HDSL SP
ANX 543 4-216
circuit pack mismatch, ITU ANX 543 4-108
circuit pack mismatch, PSU ANX 543 4-113
Circuit pack mismatch, SP ANX 543 4-119
circuit pack missing, ITU ANX 543 4-109
circuit pack missing, PSU ANX 543 4-114
circuit pack missing, SP ANX 543 4-122
clearing ANX 543 4-1
DS1 CSU line loopback ANX 543 4-17
DS1 facility loopback ANX 543 4-13
DS1 network loopback ANX 543 4-19
DS1 rx alarm indication signal ANX 543 4-21
DS1 rx babbling ANX 543 4-34
DS1 rx loss of frame ANX 543 4-37
DS1 rx loss of signal ANX 543 4-44
DS1 rx yellow ANX 543 4-50
DS1 terminal loopback ANX 543 4-15
DSX1 facility loopback ANX 543 4-55
DSX1 rx alarm indication signal ANX 543 4-59
DSX1 rx babbling ANX 543 4-72
DSX1 rx loss of frame ANX 543 4-75
DSX1 rx loss of signal ANX 543 4-82
DSX1 rx yellow ANX 543 4-88
DSX1 terminal loopback ANX 543 4-57
duplex SP comms failure ANX 543 4-123
environmental alarm hw fail ANX 543 4-126
HDSL errored seconds ANX 543 4-93
HDSL errored seconds threshold exceeded
ANX 543 4-93
HDSL loopback active ANX 543 4-97
HDSL loss of synchronization ANX 543 4-98
HDSL margin ANX 543 4-101
HDSL margin threshold exceeded
ANX 543 4-101
HDT comms failure ANX 543 4-128
HDT denies connection - shelf mismatch
ANX 543 4-138
HDT denies connection - unexpected SID
ANX 543 4-150
ITU comms failure ANX 543 4-139
ITU datasync fail ANX 543 4-141
Line card fail ANX 543 4-110
Line card missing ANX 543 4-110
Loopback ANX 543 4-97
Loss of power at NT1 ANX 543 4-110
loss of primary timing reference
ANX 543 4-144
loss of secondary timing reference
ANX 543 4-147
Loss of sync ANX 543 4-98

TL1, ANX, alarms (continued)
NT1 power status changed ANX 543 4-110
NT1 test mode changed ANX 543 4-110
remote environmental critical ANX 543 4-217
remote environmental major ANX 543 4-219
remote environmental minor ANX 543 4-221
Rx bipolar violation - 10E-3 ANX 543 4-53, ANX 543 4-91
Rx bipolar violation - 10E-4 ANX 543 4-54, ANX 543 4-92
Shelf mismatch ANX 543 4-138
SID mismatch ANX 543 4-150
software release mismatch ANX 543 4-171
SP datasync fail ANX 543 4-172
Sync lost with NT1 ANX 543 4-110
Talk battery failure ANX 543 4-8
timing generation entry to freerun ANX 543 4-175
upgrade in progress ANX 543 4-177

TR-08
ANX 100 4-15
provisioning OC-1 Fed ANX to OC-3 QRG 4-30
provisioning facility assignments OC-1 Fed ANX to OC-3 QRG 3-32

Traffic
Recon DS1 to HDSL Feeder 3-21

Traffic monitoring, ANX
description ANX 220 8-40
monitoring traffic usage ANX 220 8-45
provisioning ANX 220 8-41
traffic threshold alarms ANX 220 8-40

Transaction language 1 (TL1)
acknowledgment messages ANX 312 15-6
ANX AID definitions ANX 312 15-7
configuration requirements ANX 312 1-1
Ethernet interface ANX 312 1-9
functions ANX 312 15-2
interface configuration
X.25 communication requirements ANX 312 1-1
X.25 interface default configuration ANX 312 1-2
Interface Router Service ANX 312 1-2
level 1 commands ANX 312 16-5
level 2 commands ANX 312 16-4
level 3 commands ANX 312 16-3
level 4 commands ANX 312 16-2
message notation ANX 312 15-3
message types ANX 312 15-4
operations controller interfaces ANX 312 15-3
response header ANX 312 15-4
security access level ANX 312 15-2
standards compliance ANX 312 15-3
target identifier ANX 312 15-6
TIRS ANX 312 1-2
user interface ANX 312 15-2

Transaction language 1 (TL1) (continued)
verification ANX 312 1-2
X.25 configuration requirements ANX 312 1-2
X.25 troubleshooting guidelines ANX 312 1-7

Transaction level 1 (TL1)
interface configuration
X.25 interface verification ANX 312 1-2

Transport bandwidth manager
ANX 100 1-5

Transport element, ANX
installing in wall-mount ANX Inst 210 4-11

Transport interface card (TIC)
ANX 100 5-10

Transport wiring, ANX
diagram Mod Cab ANX Install 11-2

Tributary circuit packs
installation OC-1 Fed ANX to OC-3 QRG 2-14

Troubleshooting
1-Meg Modem
1MM CPE 1MM Ref & Tr 6-12, 1MM Ref & Tr 6-13
alarms 1MM Ref & Tr 7-9
connection problems 1MM Ref & Tr 6-14
database error 1MM Ref & Tr 7-14
dbicCommunicationsDown 1MM Ref & Tr 7-17
dbicHardwareRemoved 1MM Ref & Tr 7-20
dbicLinkPerformance 1MM Ref & Tr 7-23
DP 1MM Ref & Tr 6-9, 1MM Ref & Tr 6-42
DP, not sending traps to xEMS 1MM Ref & Tr 6-38
DP, reboots with old software load 1MM Ref & Tr 6-25
DP, replacing 1MM Ref & Tr 6-45
events 1MM Ref & Tr 7-3, 1MM Ref & Tr 7-9
Events Browser 1MM Ref & Tr 7-7
events, severity of 1MM Ref & Tr 7-8
no hardware flag for DP 1MM Ref & Tr 6-27
no hardware flag for XnLC 1MM Ref & Tr 6-40
slow data transfer speeds 1MM Ref & Tr 6-20
SNMP timeout 1MM Ref & Tr 7-26
symbols, status of 1MM Ref & Tr 4-19
viewing events 1MM Ref & Tr 7-5
workstation cannot ping DP 1MM Ref & Tr 6-33
xEMS GUI 1MM Ref & Tr 6-3
xEMS GUI can’t communicate with DP 1MM Ref & Tr 6-22
XnLC 1MM Ref & Tr 6-11
XnLC fails loopback test 1MM Ref & Tr 6-31

U

UDLC, provisioning
OC-1 Fed ANX to OC-3 QRG 4-32

UE9000 element management system
background processes, disabling
1MM Ref & Tr 4-17
bulk provisioning 1MM Ref & Tr 3-4
commands
ovstart 1MM Ref & Tr 4-18
ovstop 1MM Ref & Tr 4-17,
1MM Ref & Tr 4-18
crontab file 1MM Ref & Tr 3-8
HSTP-Name 1MM Ref & Tr 3-2
network name 1MM Ref & Tr 3-2
UNIX script, scheduling 1MM Ref & Tr 3-8

Universal pad mounting template
Mod Cab ANX Desc 118 3-2

Universal voice grade station line card, ANX
replacing ANX Maint 211 3-3,
ANX Maint 211 3-5, ANX Maint 211 3-7,
ANX Maint 211 3-9, ANX Maint 211 3-11,
ANX Maint 211 3-13

Unpacking, ANX
ANX 24-line enclosure
ANX 24L Cab Inst Guide 2-2
equipment ANX 24L Cab Inst Guide 2-2

Upgrade in progress
ANX 543 3-155, ANX 543 4-177

Upgrade, ANX
CI tool, ANXUPGCI ANX 220 9-50
default software upgrade ANX 220 9-1
failure ANX 220 9-48
manual software upgrade ANX 220 9-1,
ANX 220 9-3
canceling ANX 220 9-58
LAIC software release, verifying ANX 220 9-9
LAIC software upgrade, verifying
ANX 220 9-29
LAIC software, upgrading ANX 220 9-17
limitations ANX 220 9-6
process overview ANX 220 9-7
required material ANX 220 9-4
requirements ANX 220 9-6
SP software release, verifying ANX 220 9-9
SP software upgrade failure ANX 220 9-48
SP software, upgrading ANX 220 9-31,
ANX 220 9-41
SP software, verifying ANX 220 9-45
traffic impact ANX 220 9-7
upgrade failure recovery procedures
ANX 220 9-52, ANX 220 9-53,
ANX 220 9-54
troubleshooting ANX 220 9-48

Upgrades, 1-Meg Modem
DP reboots with old software load
1MM Ref & Tr 6-25
upgrading DP software 1MM Ref & Tr 4-5

User account, ANX
delete ANX 312 12-6
edit ANX 312 12-11

User account, network processor
setting name OC-1 Fed ANX to OC-3 QRG 2-34
setting password
OC-1 Fed ANX to OC-3 QRG 2-34

User interface
1-Meg Modem
symbol status 1MM Ref & Tr 4-19
troubleshooting 1MM Ref & Tr 6-3
xEMS command line interface
1MM Ref & Tr 8-2
xEMS GUI 1MM Ref & Tr 8-2
xEMS GUI,
navigating 1MM Ref & Tr 8-4
xEMS GUI, can't communicate with DP
1MM Ref & Tr 6-22
xEMS GUI, cannot ping DP
1MM Ref & Tr 6-33
xEMS GUI, DP not sending traps
1MM Ref & Tr 6-38
xEMS GUI, no hardware flag for DP
1MM Ref & Tr 6-27
xEMS GUI, no hardware flag for XnLC
1MM Ref & Tr 6-40
xEMS GUI, pop-up menus 1MM Ref & Tr 8-9
xEMS GUI, provisioning components
1MM Ref & Tr 2-2
xEMS GUI, screen 1MM Ref & Tr 8-2
xEMS GUI, searching for 1MM components
1MM Ref & Tr 8-18
xEMS GUI, starting 1MM Ref & Tr 8-17
xEMS GUI, unprovisioning components
1MM Ref & Tr 2-10
xEMS GUI, updating a component's parameters
1MM Ref & Tr 2-12
uEMS
bulk provisioning 1MM Ref & Tr 3-4
crontab file 1MM Ref & Tr 3-8
UNIX script, scheduling 1MM Ref & Tr 3-8

User interface, ANX
network manager ANX 100 6-5
NEUI ANX 100 6-3
PAA ANX 100 6-3
TL1
command line ANX 100 6-3

User interfaces, ANX
voice module ANX 543 1-2

V

Virtual tributary bandwidth manager, ANX
ANX application description ANX 100 2-20

Voice frequency
cable, ANX
BIX connectors, terminating
Mod Cab ANX Install 9-5
butting and stripping Mod Cab ANX Install 6-4
connecting to serving area interface
Mod Cab ANX Install 9-5
layout Mod Cab ANX Install 10-2
origination point Mod Cab ANX Install 5-4
pulling into STM Mod Cab ANX Install 5-3
termination points Mod Cab ANX Install 5-4
wiring, ANX
diagram Mod Cab ANX Install 9-2

Voice frequency (VF) signals
ANX 100 4-17

Voice frequency cable entry ports
Mod Cab ANX Desc 118 6-1

Voice frequency cable, ANX
attaching to voice module drawer
ANX Inst 210 8-30
pinouts ANX Inst 210 8-36,
ANX 24L Cab Inst Guide 4-3

Voice frequency protector blocks
Mod Cab ANX Desc 118 6-1

Voice module
Recon DS1 to HDSL Feeder 1-1
alarm indicators ANX 100 5-25
definition ANX 100 1-6
I/O module ANX 100 5-26
ITU ANX 100 5-28
line card numbering ANX 100 5-15
line cards ANX 100 5-17
PCGUI Recon DS1 to HDSL Feeder 3-5
plug-in modules ANX 100 5-14
provisioning services
OC-1 Fed ANX to OC-3 QRG 4-25
PSURA ANX 100 5-28
shelf processor ANX 100 5-31

Voice module, ANX
alarms
ANX loss of comms ANX 543 3-113
circuit pack fail, HDSL SP ANX 543 3-188,
ANX 543 4-215
circuit pack fail, ITU ANX 543 3-94,
ANX 543 4-107
circuit pack fail, PSU ANX 543 3-98,
ANX 543 4-111

Voice module, ANX, alarms (continued)
circuit pack fail, SP ANX 543 3-104,
ANX 543 4-117
circuit pack mismatch, HDSL SP
ANX 543 3-189, ANX 543 4-216
circuit pack mismatch, ITU ANX 543 3-95,
ANX 543 4-108
circuit pack mismatch, PSU ANX 543 3-100,
ANX 543 4-113
circuit pack mismatch, SP ANX 543 3-106,
ANX 543 4-119
circuit pack missing, ITU ANX 543 3-96,
ANX 543 4-109
circuit pack missing, PSU ANX 543 3-101,
ANX 543 4-114
circuit pack missing, SP ANX 543 3-109,
ANX 543 4-122
class ANX 543 1-27
clearing ANX 543 3-2, ANX 543 4-2
DS1 CSU line loopback ANX 543 3-17
DS1 facility loopback ANX 543 3-13
DS1 network loopback ANX 543 3-19
DS1 rx alarm indication signal ANX 543 3-21,
ANX 543 4-21
DS1 rx babbling ANX 543 3-30,
ANX 543 4-34
DS1 rx loss of frame ANX 543 3-32,
ANX 543 4-37
DS1 rx loss of signal ANX 543 3-37,
ANX 543 4-44
DS1 rx yellow ANX 543 3-42, ANX 543 4-50
DS1 terminal loopback ANX 543 3-15
DSX1 facility loopback ANX 543 3-49
DSX1 rx alarm indication signal
ANX 543 3-53, ANX 543 4-59
DSX1 rx babbling ANX 543 3-62,
ANX 543 4-72
DSX1 rx loss of frame ANX 543 3-64,
ANX 543 4-75
DSX1 rx loss of signal ANX 543 3-69,
ANX 543 4-82
DSX1 rx yellow ANX 543 3-74,
ANX 543 4-88
DSX1 terminal loopback ANX 543 3-51
duplex SP comms failure ANX 543 3-110,
ANX 543 4-123
environmental alarm hw fail ANX 543 3-112,
ANX 543 4-126
HDSL errored seconds ANX 543 3-81,
ANX 543 4-93
HDSL errored seconds threshold exceeded
ANX 543 3-81, ANX 543 4-93
HDSL loopback active ANX 543 3-85,
ANX 543 4-97
HDSL loss of synchronization ANX 543 3-86,
ANX 543 4-98
HDSL margin ANX 543 3-88, ANX 543 4-101
HDSL margin threshold exceeded
ANX 543 3-88, ANX 543 4-101
HDT comms failure ANX 543 3-113,
ANX 543 4-128

Voice module, ANX, alarms (continued)
HDT denies connection - shelf mismatch
ANX 543 3-124, ANX 543 4-138
HDT denies connection - unexpected SID
ANX 543 3-132, ANX 543 4-150
ITU comms failure ANX 543 3-125,
ANX 543 4-139
ITU datasync fail ANX 543 3-126,
ANX 543 4-141
Line card fail ANX 543 3-97, ANX 543 4-110
Line card missing ANX 543 3-97,
ANX 543 4-110
Loopback ANX 543 3-85, ANX 543 4-97
Loss of power at NT1 ANX 543 3-97,
ANX 543 4-110
loss of primary timing reference
ANX 543 3-128, ANX 543 4-144
loss of secondary timing reference
ANX 543 3-130, ANX 543 4-147
Loss of sync ANX 543 3-86, ANX 543 4-98
NT1 power status changed ANX 543 3-97,
ANX 543 4-110
NT1 test mode changed ANX 543 3-97,
ANX 543 4-110
OC1 rx line AIS ANX 543 3-134,
ANX 543 4-152, ANX 543 4-153,
ANX 543 4-154
OC1 rx loss of frame ANX 543 3-136,
ANX 543 4-155
OC1 rx loss of signal ANX 543 3-137,
ANX 543 4-158
OC1 rx RFI ANX 543 3-140, ANX 543 4-161
OC1 rx section trace mismatch
ANX 543 3-142, ANX 543 4-163
OC1 rx signal degrade ANX 543 3-144,
ANX 543 4-165
OC1 rx signal failure ANX 543 3-147,
ANX 543 4-168
remote environmental critical ANX 543 3-190,
ANX 543 4-217
remote environmental major ANX 543 3-191,
ANX 543 4-219
remote environmental minor ANX 543 3-192,
ANX 543 4-221
Rx bipolar violation - 10E-3 ANX 543 3-45,
ANX 543 3-77, ANX 543 4-53,
ANX 543 4-91
Rx bipolar violation - 10E3 ANX 543 4-53,
ANX 543 4-91
Rx bipolar violation - 10E-4 ANX 543 3-47,
ANX 543 3-79, ANX 543 4-54,
ANX 543 4-92
Shelf mismatch ANX 543 3-124,
ANX 543 4-138
SID mismatch ANX 543 3-132,
ANX 543 4-150
software release mismatch ANX 543 3-150,
ANX 543 4-171
SP datasync fail ANX 543 3-151,
ANX 543 4-172
STS rx AIS ANX 543 3-156, ANX 543 4-178

Voice module, ANX, alarms (continued)
STS rx excessive BIP error rate
ANX 543 3-158, ANX 543 4-181
STS rx loss of pointer ANX 543 3-161,
ANX 543 4-184
STS rx path trace mismatch ANX 543 3-163,
ANX 543 4-186
STS rx signal degrade ANX 543 3-167,
ANX 543 4-190
STS rx signal label mismatch ANX 543 3-168,
ANX 543 4-193
STS rx unequipped ANX 543 3-170,
ANX 543 4-195
Sync lost with NT1 ANX 543 3-97,
ANX 543 4-110
Talk battery failure ANX 543 3-8,
ANX 543 4-8
timing generation entry to freerun
ANX 543 3-153, ANX 543 4-175
TL1 ANX 543 4-1
type ANX 543 1-27
upgrade in progress ANX 543 3-155,
ANX 543 4-177
VT rx AIS ANX 543 3-172, ANX 543 3-180,
ANX 543 4-198, ANX 543 4-206
VT rx excessive BIP error rate ANX 543 3-175,
ANX 543 4-201
VT rx loss of pointer ANX 543 3-178,
ANX 543 4-204
VT rx signal degrade ANX 543 3-181,
ANX 543 4-207
VT rx signal label mismatch ANX 543 3-184,
ANX 543 4-210
VT rx unequipped ANX 543 3-186,
ANX 543 4-212
alerts ANX 543 1-26
circuit pack ANX Maint 211 2-1
commissioning ANX 220 5-1
displaying using PC GUI ANX 543 1-7
drawer
installing Mod Cab ANX Install 13-5
securing Mod Cab ANX Install 13-7
DS0 services, provisioning ANX 220 7-18
DS1 cables, connecting ANX Inst 210 8-42
external parallel telemetry wiring
ANX Inst 210 8-55
DS1 synchronization, provisioning ANX 220 7-16
environmental alarms, provisioning
ANX 220 7-52
external controls, provisioning ANX 220 7-58
fractional T1 services, adding a cross-connect
ANX 220 7-46
fractional T1 services, provisioning ANX 220 7-40
in 8 VM bay assembly ANX 032 2-29,
ANX 100 3-9, ANX Inst 210 3-2
integrated test unit, installing ANX 220 5-8
I/O module, installing Mod Cab ANX Install 13-3
ANX Inst 210 7-3

Voice Module, ANX (continued)
voice module drawer
installing in shell shelf ANX Inst 210 7-5
installing power supply/ring amplifier card ANX Inst 210 7-10
securing in shell shelf ANX Inst 210 7-8
line card
installing 2-wire ANX 220 5-9
installing 4-wire ANX 220 5-10
testing ANX 220 7-49
login procedure ANX 220 6-10
login requirements ANX 220 6-5
parallel telemetry, provisioning ANX 220 7-52
physical connection requirements ANX 220 6-3
power supply ring amplifier, installing Mod Cab ANX Install 13-9
power, connecting ANX Inst 210 8-19
powering up ANX 220 5-11
provisioning ANX 220 7-1
replacing I/O module ANX Maint 211 2-16, ANX Maint 211 2-28
replacing line cards ANX Maint 211 3-1
shelf processor, installing ANX 220 5-3
shelf, provisioning ANX 220 7-3, ANX 220 7-12
system interfaces ANX 220 6-2
unpacking ANX Inst 210 7-2 Mod Cab ANX Install 13-2
user interfaces ANX 543 1-2
direct connection ANX 543 1-2
NEUI ANX 543 1-6
OPC ANX 543 1-6
PCGUI ANX 543 1-2
remote connection ANX 543 1-6

Voltage shutdown level, ANX
Mod Cab battery Mod Cab ANX Install 15-2

VT100-compatible terminal
ANX 220 9-4

VTX circuit pack
installation OC-1 Fed ANX to OC-3 QRG 2-4

W

Wall box
ANX 100 1-6

Wall-mount cabinet, ANX
auxiliary shelf, installing ANX Inst 210 5-4
installation overview ANX Inst 210 1-2
installing cabinets ANX Inst 210 2-7
shell shelf, installing ANX Inst 210 4-8
transport elements
cabling ANX Inst 210 8-65
installing ANX Inst 210 4-11
unpacking ANX Inst 210 2-3

Wall-mount enclosure, ANX
installing ANX 24L Cab Inst Guide 3-2
unpacking ANX 24L Cab Inst Guide 2-2

Warning, ANX
caution Mod Cab ANX Install 1-13
Safety precautions ANX Maint 211 1-2

Wiring diagram
kit #1 ANX HDSL Inst&Ref 8-6
kit #2 ANX HDSL Inst&Ref 8-7
kit #3 ANX HDSL Inst&Ref 8-8

Wiring, ANX
external parallel telemetry wiring ANX Inst 210 8-55, ANX 24L Cab Inst Guide 4-8
pinouts ANX Inst 210 8-56, ANX 24L Cab Inst Guide 4-12

Working SP automatically restored to IS, ANX
ANX 543 6-39

X

X.25, ANX
communication ANX 312 1-6
configuration requirements ANX 312 1-2
default configuration ANX 312 1-5
interface configuration ANX 312 1-1
troubleshooting guidelines ANX 312 1-7

xEMS GUI
command line interface 1MM Ref & Tr 1-12
components
provisioning 1MM Ref & Tr 2-2
searching for 1MM Ref & Tr 8-18
unprovisioning 1MM Ref & Tr 2-10
events 1MM Ref & Tr 7-3
severity of 1MM Ref & Tr 7-8
viewing 1MM Ref & Tr 7-5
Events Browser window 1MM Ref & Tr 7-7
features 1MM Ref & Tr 1-12
graphical user interface 1MM Ref & Tr 1-12
maps 1MM Ref & Tr 8-4
navigating 1MM Ref & Tr 8-4
pop-up menus 1MM Ref & Tr 8-9
provisioning
components 1MM Ref & Tr 2-2
screen 1MM Ref & Tr 8-4
explanation of 1MM Ref & Tr 8-2
searching for 1MM components
1MM Ref & Tr 8-4, 1MM Ref & Tr 8-18
software requirements 1MM Ref & Tr 1-13
starting 1MM Ref & Tr 8-4, 1MM Ref & Tr 8-17
submap 1MM Ref & Tr 8-4
AN 1MM Ref & Tr 8-7
ANX VM Drawer 1MM Ref & Tr 8-7
hierarchy 1MM Ref & Tr 8-4
HSTP-Network 1MM Ref & Tr 8-6
root 1MM Ref & Tr 8-4, 1MM Ref & Tr 8-5
Subscriber Loop 1MM Ref & Tr 8-7
symbols
status of 1MM Ref & Tr 4-19
troubleshooting 1MM Ref & Tr 6-3
cannot ping DP 1MM Ref & Tr 6-33
DP not sending traps 1MM Ref & Tr 6-38
no hardware flag for DP 1MM Ref & Tr 6-27
unprovisioning components 1MM Ref & Tr 2-10
updating 1MM parameters 1MM Ref & Tr 2-12
user interfaces 1MM Ref & Tr 1-12,
1MM Ref & Tr 8-2
workstation
requirements, minimum 1MM Ref & Tr 1-13
UNIX 1MM Ref & Tr 1-12

XnLC
provisioning 1MM Ref & Tr 8-4
troubleshooting 1MM Ref & Tr 6-11
fails loopback test 1MM Ref & Tr 6-31
no hardware flag for XnLC
1MM Ref & Tr 6-40

Universal Edge 9000 Index

A

Adjacent bay
installation UE9000 Ad Bay QR 1-1

ADSL
troubleshooting UE9000 Data OAMP UG 6-18
fails loopback test
UE9000 Data OAMP UG 6-30
no hardware flag for ADSL
UE9000 Data OAMP UG 6-38

ADSL subscriber circuit
provisioning UE9000 Data OAMP UG 1-35
state, changing UE9000 Data OAMP UG 5-9

Alarm
ATM card UE9000 Voice OAMP UG 6-5
multi-circuit line card
UE9000 Voice OAMP UG 6-9
SI card UE9000 Voice OAMP UG 6-15

Alarm point
enabling and disabling
UE9000 Voice OAMP UG 1-5

Alarm.
See Event

Asynchronous transfer mode.
See ATM

ATM, commissioning
UE9000 Data Sys Setup QR 1-1

ATM card
adding UE9000 Voice OAMP UG 1-3
alarms UE9000 Voice OAMP UG 6-5
deleting UE9000 Voice OAMP UG 1-10
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-11
parameters, displaying
UE9000 Voice OAMP UG 3-3
provisioning UE9000 Voice OAMP UG 1-1

ATM circuit card
provisioning UE9000 Data OAMP UG 1-25
replacing UE9000 Data OAMP UG 5-15
restarting UE9000 Data OAMP UG 5-11
software upgrade UE9000 Data OAMP UG 4-3;
UE9000 Data OAMP UG 4-5
state, changing UE9000 Data OAMP UG 5-3

Automatic in-service
UE9000 Voice OAMP UG 1-8

B

Bandwidth
ATM interface engineering guidelines
UE9000 Data Net Design 5-1;
UE9000 Data Net Design 5-2;
UE9000 Data Net Design 5-3;
UE9000 Data Net Design 5-4;
UE9000 Data Net Design 5-5
average UE9000 Data Net Design 3-13
peak UE9000 Data Net Design 3-13

Breaker interface panel
adjacent bay, cable UE9000 Ad Bay QR 1-1

C

CI tool
DMSPROV UE9000 Voice OAMP UG 2-1
TL1 UE9000 Voice OAMP UG 1-17
UEUPG UE9000 Voice OAMP UG 4-1

Circuit
ADSL parameters UE9000 Data Net Design 6-1;
UE9000 Data Net Design 6-2;
UE9000 Data Net Design 6-3
PVC UE9000 Data Net Design 3-2

Circuit card
ATM
software upgrade
UE9000 Data OAMP UG 4-3;
UE9000 Data OAMP UG 4-5
replacing UE9000 Data OAMP UG 5-15;
UE9000 Data OAMP UG 5-17
UE9000, ATM
cannot communicate with uEMS
UE9000 Data OAMP UG 6-24
cannot ping uEMS GUI
UE9000 Data OAMP UG 6-33
no hardware flag
UE9000 Data OAMP UG 6-28
not sending traps to UEMS
UE9000 Data OAMP UG 6-36
reboots with old software load
UE9000 Data OAMP UG 6-25
replacing UE9000 Data OAMP UG 6-40
troubleshooting
UE9000 Data OAMP UG 6-16, 6-39

Circuit pack
automatic in-service
UE9000 Voice OAMP UG 1-8
parameters, displaying
UE9000 Voice OAMP UG 3-3

Circuit pack group
adding UE9000 Voice OAMP UG 1-3
deleting UE9000 Voice OAMP UG 1-10
operating state, changing
UE9000 Voice OAMP UG 3-11

Configuration
ADSL parameters UE9000 Data Net Design 6-3;
UE9000 Data Net Design 6-4;
UE9000 Data Net Design 6-5
subscriber loop performance
UE9000 Data Net Design 6-3, 6-4, 6-5

Connection
ADSL data network UE9000 Data Net Design 3-4
ATM PVCs UE9000 Data Net Design 3-2

Cooling unit
adjacent bay, cable UE9000 Ad Bay QR 1-1

D

Data
ATM network interface
UE9000 Data Net Design 3-12
network design UE9000 Data Net Design 1-6
network management
UE9000 Data Net Design 1-7
network management guidelines
UE9000 Data Net Design 4-1
recommended average rates
UE9000 Data Net Design 2-4
UE9000 data network components
UE9000 Data Net Design 1-2
UE9000 network overview
UE9000 Data Net Design 1-1
UE9000 setup UE9000 Data Sys Setup QR 1-1
user network performance
UE9000 Data Net Design 3-5
user traffic UE9000 Data Net Design 1-6;
UE9000 Data Net Design 2-1;
UE9000 Data Net Design 2-2;
UE9000 Data Net Design 2-3

Data processor
replacing UE9000 Data OAMP UG 6-40
troubleshooting UE9000 Data OAMP UG 6-16
circuit card UE9000 Data OAMP UG 6-39
not sending traps to uEMS
UE9000 Data OAMP UG 6-36

Data rate
ATM interface engineering guidelines
UE9000 Data Net Design 5-1;
UE9000 Data Net Design 5-2;
UE9000 Data Net Design 5-3;
UE9000 Data Net Design 5-4;
UE9000 Data Net Design 5-5
delay criteria UE9000 Data Net Design 2-4
downstream UE9000 Data Net Design 6-4
throughput criteria UE9000 Data Net Design 2-4
upstream UE9000 Data Net Design 6-4
users supported on 2 DS1-IMA ports
UE9000 Data Net Design 3-16;
UE9000 Data Net Design 3-17
users supported on 4 DS1-IMA ports
UE9000 Data Net Design 3-16
users supported on 8 DS1-IMA ports
UE9000 Data Net Design 3-13;
UE9000 Data Net Design 3-14;
UE9000 Data Net Design 3-15

Data service
packet loss UE9000 Data Net Design 3-7
round-trip delay UE9000 Data Net Design 3-6;
UE9000 Data Net Design 3-7;
UE9000 Data Net Design 3-10
round-trip delay calculations
UE9000 Data Net Design 3-11

Data service (continued)
TCP/IP considerations
UE9000 Data Net Design 3-8;
UE9000 Data Net Design 3-9;
UE9000 Data Net Design 3-10;
UE9000 Data Net Design 3-11
typical tariffed rates UE9000 Data Net Design 3-5
users supported UE9000 Data Net Design 3-13

Database
administering UE9000
UE9000 Data OAMP UG 4-9
backing up UE9000 Data OAMP UG 4-12
HP OpenView UE9000 Data OAMP UG 4-9
monitoring partition sizes
UE9000 Data OAMP UG 4-10
removing UE9000 equipment
UE9000 Data OAMP UG 1-42
restoring UE9000 Data OAMP UG 4-12
var partition UE9000 Data OAMP UG 4-10

Diagnostic
facility UE9000 Voice OAMP UG 5-37
TDM card UE9000 Voice OAMP UG 5-40

DMSPROV CI tool
UE9000 Voice OAMP UG 2-1

Drawer-link
cabling
adjacent bay UE9000 Ad Bay QR 1-1

DS0
provisioning line terminations and cross-connects
UE9000 Voice OAMP UG 1-20

DS1
ATM interface UE9000 Data Net Design 3-12
ATM interface engineering guidelines
UE9000 Data Net Design 5-1;
UE9000 Data Net Design 5-2;
UE9000 Data Net Design 5-3;
UE9000 Data Net Design 5-4;
UE9000 Data Net Design 5-5

DS1 facility, provisioning
UE9000 Data OAMP UG 1-29

E

Equipment

ATM circuit card
- replacing UE9000 Data OAMP UG 5-15
- restarting UE9000 Data OAMP UG 5-11
- state, changing UE9000 Data OAMP UG 5-3

ATM network UE9000 Data Net Design 1-4
circuit pack groups, adding
UE9000 Voice OAMP UG 1-3
circuit pack groups, deleting
UE9000 Voice OAMP UG 1-10
circuit pack parameters, displaying
UE9000 Voice OAMP UG 3-3
circuit pack states, querying
UE9000 Voice OAMP UG 3-6
CPE UE9000 Data Net Design 1-3
data network design UE9000 Data Net Design 1-6
data network management
UE9000 Data Net Design 1-4
inventorying UE9000 Data OAMP UG 5-2
line cards
- replacing UE9000 Data OAMP UG 5-17
- restarting UE9000 Data OAMP UG 5-13
- state, changing UE9000 Data OAMP UG 5-7

logical data connections
UE9000 Data Net Design 1-5
operating state, changing
UE9000 Voice OAMP UG 3-11
processor card
- switching activity
  UE9000 Voice OAMP UG 5-43

provisioning order UE9000 Data OAMP UG 1-3
removing UE9000 UE9000 Data OAMP UG 1-42
service gateway UE9000 Data Net Design 1-5
status of UE9000 Data OAMP UG 8-2
TDM card, restarting (manual)
UE9000 Voice OAMP UG 5-45
UE9000 UE9000 Data Net Design 1-3
updating information
UE9000 Data OAMP UG 1-40

Event

UE9000 Data OAMP UG 7-2;
UE9000 Data OAMP UG 8-2
deleting UE9000 Data OAMP UG 7-5
Event Browser UE9000 Data OAMP UG 8-16
Event Categories window
UE9000 Data OAMP UG 7-2;
UE9000 Data OAMP UG 8-4
severity UE9000 Data OAMP UG 7-3;
UE9000 Data OAMP UG 9-12
viewing UE9000 Data OAMP UG 7-2;
UE9000 Data OAMP UG 7-3

F

Facility

ADSL subscriber circuit
- state, changing UE9000 Data OAMP UG 5-9

diagnostics UE9000 Voice OAMP UG 5-37
DS1 facility
- state, changing UE9000 Data OAMP UG 5-5

operating state, changing
UE9000 Voice OAMP UG 3-13

Facility provisioning

facility parameters, displaying
UE9000 Voice OAMP UG 3-5
facility parameters, querying
UE9000 Voice OAMP UG 3-8

G

GR-303
provisioning UE9000 Voice OAMP UG 1-19

H

Hewlett Packard OpenView, starting
UE9000 Data OAMP UG 9-5

I

Installation
adjacent bay UE9000 Ad Bay QR 1-1
HPOV UE9000 Data Sys Setup QR 1-1
UE9000 UE9000 Inst QR 1-1
uEMS UE9000 Data Sys Setup QR 1-1

Inventory
displaying UE9000 Voice OAMP UG 3-15

Inventory, UE9000 equipment
UE9000 Data OAMP UG 5-2

J

Jack access
accessing another line card
UE9000 Voice OAMP UG 5-30
metallic UE9000 Voice OAMP UG 5-24
quitting and resuming
UE9000 Voice OAMP UG 5-32
system responses UE9000 Voice OAMP UG 5-25
UE9000 UE9000 Voice OAMP UG 5-26
warnings UE9000 Voice OAMP UG 5-25

L

LC
NE log UE9000 Voice OAMP UG 7-22;
UE9000 Voice OAMP UG 7-23;
UE9000 Voice OAMP UG 7-25;
UE9000 Voice OAMP UG 7-27;
UE9000 Voice OAMP UG 7-30;
UE9000 Voice OAMP UG 7-32;
UE9000 Voice OAMP UG 7-33;
UE9000 Voice OAMP UG 7-34;
UE9000 Voice OAMP UG 7-37;
UE9000 Voice OAMP UG 7-38

LED
UE9000 UE9000 Ad Bay 1-2

LENs
provisioning UE9000 Voice OAMP UG 2-1

Line card
ADSL line card
software upgrade UE9000 Data OAMP UG 4-3
ADSL MLC
replacing UE9000 Data OAMP UG 5-17
restarting UE9000 Data OAMP UG 5-13
software upgrade UE9000 Data OAMP UG 4-7
state, changing UE9000 Data OAMP UG 5-7
provisioning ADSL MLC
UE9000 Data OAMP UG 1-32
UE9000
ADSL UE9000 Data OAMP UG 6-18
troubleshooting, ADSL fails loopback test
UE9000 Data OAMP UG 6-30
troubleshooting, no hardware flag for ADSL
UE9000 Data OAMP UG 6-38

line equipment
numbers, provisioning
UE9000 Voice OAMP UG 2-1

Line/loop testing
UE9000 UE9000 Voice OAMP UG 5-3

Local craft access panel
UE9000 UE9000 Voice OAMP UG 5-24

Log
UE9000 UE9000 Voice OAMP UG 7-1
variable location fields
explanation UE9000 Voice OAMP UG 7-2

Loopback, UE9000, ADSL fails test
UE9000 Data OAMP UG 6-30

M

Map
description of UE9000 Data OAMP UG 8-5
opening a temporary map
UE9000 Data OAMP UG 1-47

Metallic jack access
UE9000 Voice OAMP UG 5-24
UE9000 UE9000 Voice OAMP UG 5-26

Multi-circuit line card
alarms UE9000 Voice OAMP UG 6-9
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-13
parameters, displaying
UE9000 Voice OAMP UG 3-3

N

Network

ADSL network connections
UE9000 Data Net Design 3-4
ATM interface UE9000 Data Net Design 3-12
ATM interface engineering guidelines
UE9000 Data Net Design 5-1;
UE9000 Data Net Design 5-2;
UE9000 Data Net Design 5-3;
UE9000 Data Net Design 5-4;
UE9000 Data Net Design 5-5
ATM requirements UE9000 Data Net Design 1-6
congestion UE9000 Data Net Design 3-9
connections UE9000 Data Net Design 3-2
data management guidelines
UE9000 Data Net Design 4-1
data management requirements
UE9000 Data Net Design 1-7
data packet loss UE9000 Data Net Design 3-7
DS1 UE9000 Data Net Design 3-12
management functions
UE9000 Data Net Design 4-2;
UE9000 Data Net Design 4-3
packet loss UE9000 Data Net Design 3-9
round-trip delay UE9000 Data Net Design 3-6;
UE9000 Data Net Design 3-7
TCP/IP considerations
UE9000 Data Net Design 3-8;
UE9000 Data Net Design 3-9;
UE9000 Data Net Design 3-10;
UE9000 Data Net Design 3-11
UE9000 equipment requirements
UE9000 Data Net Design 1-6
UE9000 network overview
UE9000 Data Net Design 1-1
uEMS hardware UE9000 Data Net Design 4-5
uEMSsoftware UE9000 Data Net Design 4-5
user data traffic requirements
UE9000 Data Net Design 1-6

Network element

ATM UE9000 Data Net Design 1-4
CPE UE9000 Data Net Design 1-3
data design UE9000 Data Net Design 1-6
data management UE9000 Data Net Design 1-4
logical data connections
UE9000 Data Net Design 1-5
provisioning UE9000 Data OAMP UG 1-18
service gateway UE9000 Data Net Design 1-5
UE9000 UE9000 Data Net Design 1-2
UE9000 equipment UE9000 Data Net Design 1-3

Network element logs

LC UE9000 Voice OAMP UG 7-22;
UE9000 Voice OAMP UG 7-23;
UE9000 Voice OAMP UG 7-25;
UE9000 Voice OAMP UG 7-27;
UE9000 Voice OAMP UG 7-30;
UE9000 Voice OAMP UG 7-32;
UE9000 Voice OAMP UG 7-33;
UE9000 Voice OAMP UG 7-34;
UE9000 Voice OAMP UG 7-37;
UE9000 Voice OAMP UG 7-38

Network element user interface

alarm points (equipment), enabling or disabling
UE9000 Voice OAMP UG 1-5
circuit pack parameters, displaying
UE9000 Voice OAMP UG 3-3
circuit pack states, querying
UE9000 Voice OAMP UG 3-6
facility diagnostics
UE9000 Voice OAMP UG 5-37
facility parameters, displaying
UE9000 Voice OAMP UG 3-5
facility parameters, querying
UE9000 Voice OAMP UG 3-8
inventory, displaying
UE9000 Voice OAMP UG 3-15
processor card, switching activity
UE9000 Voice OAMP UG 5-43
provisioning and deprovisioning
UE9000 Voice OAMP UG 1-1
TDM card, restarting (manual)
UE9000 Voice OAMP UG 5-45

O

Operating state
circuit pack, changing
UE9000 Voice OAMP UG 3-11
facility, changing UE9000 Voice OAMP UG 3-13

P

Performance threshold
UE9000 system UE9000 Data Net Design 2-2

Provisioning
bulk provisioning UE9000 Data OAMP UG 2-19
circuit pack group, adding
UE9000 Voice OAMP UG 1-3
circuit pack group, deleting
UE9000 Voice OAMP UG 1-10
circuit pack parameters, displaying
UE9000 Voice OAMP UG 3-3
circuit pack states, querying
UE9000 Voice OAMP UG 3-6
CLUI, getting help UE9000 Data OAMP UG 2-4
CLUI, using UE9000 Data OAMP UG 2-19
data service, activating
UE9000 Data OAMP UG 1-38
DMS LENs UE9000 Voice OAMP UG 2-1
DS0 line terminations and cross-connects
UE9000 Voice OAMP UG 1-20
facility parameters, displaying
UE9000 Voice OAMP UG 3-5
facility parameters, querying
UE9000 Voice OAMP UG 3-8
GR-303 multivendor interface
UE9000 Voice OAMP UG 1-19
order UE9000 Data OAMP UG 1-3
removing UE9000 components
UE9000 Data OAMP UG 1-42
service descriptor UE9000 Data OAMP UG 1-14
service descriptor group
UE9000 Data OAMP UG 1-6;
UE9000 Data OAMP UG 1-10
TR-08 UE9000 Voice OAMP UG 1-19
UE9000 UE9000 Voice OAMP UG 1-1
UE9000 equipment
ADSL line card UE9000 Data OAMP UG 1-32
ATM circuit card
UE9000 Data OAMP UG 1-25
HSTP-Name UE9000 Data OAMP UG 2-4
network element
UE9000 Data OAMP UG 1-18
network name UE9000 Data OAMP UG 2-4
shelf UE9000 Data OAMP UG 1-21
UE9000 facility
ADSL subscriber circuit
UE9000 Data OAMP UG 1-35
DS1 facility UE9000 Data OAMP UG 1-29
UNIX scripts
at command UE9000 Data OAMP UG 2-23
scheduling UE9000 Data OAMP UG 2-23
using UE9000 Data OAMP UG 2-19
updating information
UE9000 Data OAMP UG 1-40
virtual paths UE9000 Data OAMP UG 1-11

Q

Query
circuit pack states UE9000 Voice OAMP UG 3-6
facilities UE9000 Voice OAMP UG 3-8

S

Security
HPOV file permissions
UE9000 Data OAMP UG 4-14
network UE9000 Data OAMP UG 4-14
SNMP community strings
UE9000 Data OAMP UG 4-15
UE9000 data service
UE9000 Data OAMP UG 4-14
UNIX log in passwords
UE9000 Data OAMP UG 4-14
user UE9000 Data OAMP UG 4-14

Service
quality objectives UE9000 Data Net Design 2-4

Service descriptor
provisioning UE9000 Data OAMP UG 1-14
submap UE9000 Data OAMP UG 8-15
viewing UE9000 Data OAMP UG 1-46

Service descriptor group
provisioning UE9000 Data OAMP UG 1-6;
UE9000 Data OAMP UG 1-10
submap UE9000 Data OAMP UG 8-14

Shelf
deleting UE9000 Voice OAMP UG 1-13
UE9000 UE9000 Data Net Design 3-1

Shelf, provisioning
UE9000 Data OAMP UG 1-21

SI card
alarms UE9000 Voice OAMP UG 6-15
automatic in-service
UE9000 Voice OAMP UG 1-8
LEDs UE9000 Ad Bay 1-2
operating state, changing
UE9000 Voice OAMP UG 3-11
parameters, displaying
UE9000 Voice OAMP UG 3-3

Simple network management protocol
community strings UE9000 Data OAMP UG 4-15

SNMP.
See Simple network management protocol

Software
UE9000 UE9000 Voice OAMP UG 4-1

Submap
description of UE9000 Data OAMP UG 8-5
hierarchy of uEMS UE9000 Data OAMP UG 8-6
menu
pop-up UE9000 Data OAMP UG 9-4
pop-up, common selections
UE9000 Data OAMP UG 9-7
pop-up, opening UE9000 Data OAMP UG 9-6
pull-down UE9000 Data OAMP UG 9-3
menu bar UE9000 Data OAMP UG 9-2
name UE9000 Data OAMP UG 9-2
shortcuts, adding UE9000 Data OAMP UG 9-9
shortcuts, deleting UE9000 Data OAMP UG 9-10
status bar UE9000 Data OAMP UG 9-3
tool bar UE9000 Data OAMP UG 9-3

submap screen
UE9000 Data OAMP UG 9-2

Subscriber loop access
performance UE9000 Data Net Design 6-1;
UE9000 Data Net Design 6-2;
UE9000 Data Net Design 6-3

Symbol
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
ATMIF UE9000 Data OAMP UG 8-10;
UE9000 Data OAMP UG 8-13
Circuit UE9000 Data OAMP UG 8-12;
UE9000 Data OAMP UG 8-13
colors UE9000 Data OAMP UG 9-12
ISO states UE9000 Data OAMP UG 9-14
CPE UE9000 Data OAMP UG 8-13
DS1 Link UE9000 Data OAMP UG 8-11
Line Card UE9000 Data OAMP UG 8-10;
UE9000 Data OAMP UG 8-13
NE UE9000 Data OAMP UG 8-8
Shelf UE9000 Data OAMP UG 8-9
uEMS UE9000 Data OAMP UG 8-2

System
UE900 performance UE9000 Data Net Design 3-2

T

TDM card
adding UE9000 Voice OAMP UG 1-3
automatic in-service
UE9000 Voice OAMP UG 1-8
catalog file, updating
UE9000 Voice OAMP UG 4-6
deleting UE9000 Voice OAMP UG 1-10
diagnostics UE9000 Voice OAMP UG 5-40
LEDs UE9000 Ad Bay 1-2
logs UE9000 Voice OAMP UG 7-1
operating state, changing
UE9000 Voice OAMP UG 3-11
parameters, displaying
UE9000 Voice OAMP UG 3-3
provisioning UE9000 Voice OAMP UG 1-1
restarting (manual)
UE9000 Voice OAMP UG 5-45
software, upgrading
UE9000 Voice OAMP UG 4-1
software, viewing UE9000 Voice OAMP UG 4-15
switching activity UE9000 Voice OAMP UG 5-43
upgrade status UE9000 Voice OAMP UG 4-14
upgrading software
UE9000 Voice OAMP UG 4-11

Test
diagnostics
facility UE9000 Voice OAMP UG 5-37
TDM card UE9000 Voice OAMP UG 5-40
line/loop testing
UE9000 UE9000 Voice OAMP UG 5-3

TR-08
provisioning UE9000 Voice OAMP UG 1-19

Traffic
recommended average data rates
UE9000 Data Net Design 2-4
scenarios during peak busy hour
UE9000 Data Net Design 2-3
subscriber side data engineering
UE9000 Data Net Design 3-5;
UE9000 Data Net Design 3-6;
UE9000 Data Net Design 3-7;
UE9000 Data Net Design 3-8;
UE9000 Data Net Design 3-9;
UE9000 Data Net Design 3-10;
UE9000 Data Net Design 3-11
user data assumptions
UE9000 Data Net Design 2-1;
UE9000 Data Net Design 2-2
user data model for web browsing
UE9000 Data Net Design 2-3

Traffic (continued)
users supported on 2 DS1-IMA ports
UE9000 Data Net Design 3-16;
UE9000 Data Net Design 3-17
users supported on 4 DS1-IMA ports
UE9000 Data Net Design 3-16
users supported on 8 DS1-IMA ports
UE9000 Data Net Design 3-13;
UE9000 Data Net Design 3-14;
UE9000 Data Net Design 3-15

Transaction language 1 (TL1)
provisioning UE9000 Voice OAMP UG 1-19

Troubleshooting
events UE9000 Data OAMP UG 7-3
Event Categories window
UE9000 Data OAMP UG 8-4
status of UE9000 equipment
UE9000 Data OAMP UG 8-2
UE9000
ADSL UE9000 Data OAMP UG 6-18
ADSL fails loopback test
UE9000 Data OAMP UG 6-30
ATM UE9000 Data OAMP UG 6-16;
UE9000 Data OAMP UG 6-39
replacing
UE9000 Data OAMP UG 6-40
ATM, not sending traps to uEMS
UE9000 Data OAMP UG 6-36
connection problems
UE9000 Data OAMP UG 6-19
CPE UE9000 Data OAMP UG 6-15
deleting events UE9000 Data OAMP UG 7-5
no hardware flag for ADSL
UE9000 Data OAMP UG 6-38
no hardware flag for ATM
UE9000 Data OAMP UG 6-28
slow data transfer speeds
UE9000 Data OAMP UG 6-3
uEMS GUI UE9000 Data OAMP UG 6-9
uEMS GUI cannot communicate with ATM
UE9000 Data OAMP UG 6-24
viewing events UE9000 Data OAMP UG 7-3
workstation cannot ping ATM
UE9000 Data OAMP UG 6-33
UE9000, ATM
reboots with old software load
UE9000 Data OAMP UG 6-25
uEMS UE9000 Data OAMP UG 9-11
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
events UE9000 Data OAMP UG 7-2
ISO states UE9000 Data OAMP UG 9-14
symbol colors UE9000 Data OAMP UG 9-12

U

UE9000
adjacent bay UE9000 Ad Bay QR 1-1
ADSL UE9000 Data Net Design 1-3;
UE9000 Data Net Design 1-4
alarms UE9000 Voice OAMP UG 6-1
configurations UE9000 Pre Inst 1-1
data network equipment
UE9000 Data Net Design 1-3;
UE9000 Data Net Design 1-4;
UE9000 Data Net Design 1-5
data services management
UE9000 Data Net Design 4-2
data setup UE9000 Data Sys Setup QR 1-1
data traffic UE9000 Data Net Design 2-4
equipment requirements
UE9000 Data Net Design 1-6
equipment, CPE UE9000 Data OAMP UG 6-15
Events Browser window
UE9000 Data OAMP UG 7-3
HPOV UE9000 Data Sys Setup QR 1-1
installation prerequisites UE9000 Pre Inst 1-1
installation, voice UE9000 Inst QR 1-1
LEDs UE9000 Ad Bay 1-2
line/loop testing UE9000 Voice OAMP UG 5-3
logs UE9000 Voice OAMP UG 7-1
management functions supported
UE9000 Data Net Design 4-3
network connections UE9000 Data Net Design 3-2
network equipment UE9000 Data Net Design 1-2;
UE9000 Data Net Design 1-3;
UE9000 Data Net Design 1-4;
UE9000 Data Net Design 1-5;
UE9000 Data Net Design 1-6
OAM&P UE9000 Data Net Design 1-4;
UE9000 Data Net Design 4-2;
UE9000 Data Net Design 4-4
performance characteristics
UE9000 Data Net Design 3-2
pre-installation UE9000 Pre Inst 1-1
protocol support UE9000 Data Net Design 3-2
provisioning and deprovisioning
UE9000 Voice OAMP UG 1-1;
UE9000 Voice OAMP UG 2-1
shelf engineering guidelines
UE9000 Data Net Design 3-1
shelf, deleting UE9000 Voice OAMP UG 1-13
uEMS UE9000 Data Net Design 1-4;
UE9000 Data Net Design 4-2;
UE9000 Data Net Design 4-4
uEMS hardware UE9000 Data Net Design 4-5
uEMS software UE9000 Data Net Design 4-5
voice setup UE9000 Voice Sys Setup 1-2
workstation, cannot ping ATM
UE9000 Data OAMP UG 6-33

UE9000 customer premise equipment modem, troubleshooting
UE9000 Data OAMP UG 6-15

UE9000 element management system
at command UE9000 Data OAMP UG 2-23
bulk provisioning UE9000 Data OAMP UG 2-19
CLUI UE9000 Data OAMP UG 8-5
command line, getting help
UE9000 Data OAMP UG 2-4
commands
ovstart UE9000 Data OAMP UG 4-12
ovstop UE9000 Data OAMP UG 4-12
database UE9000 Data OAMP UG 4-9
backing up UE9000 Data OAMP UG 4-12
monitoring partition sizes
UE9000 Data OAMP UG 4-10
restoring UE9000 Data OAMP UG 4-12
dialog box UE9000 Data OAMP UG 8-2
Event Categories window
UE9000 Data OAMP UG 7-2;
UE9000 Data OAMP UG 8-4
events UE9000 Data OAMP UG 7-2
deleting UE9000 Data OAMP UG 7-5
Event Categories window
UE9000 Data OAMP UG 8-4
severity UE9000 Data OAMP UG 7-3;
UE9000 Data OAMP UG 9-12
viewing UE9000 Data OAMP UG 7-2;
UE9000 Data OAMP UG 7-3
Events Browser window
UE9000 Data OAMP UG 7-3
GUI UE9000 Data OAMP UG 8-4
HSTP-Name UE9000 Data OAMP UG 2-4
installation UE9000 Data Sys Setup QR 1-1
inventorying equipment
UE9000 Data OAMP UG 5-2
keyboard shortcuts UE9000 Data OAMP UG 9-3
map UE9000 Data OAMP UG 8-5
map, opening UE9000 Data OAMP UG 1-47
menu UE9000 Data OAMP UG 8-2
network name UE9000 Data OAMP UG 2-4
provisioning UE9000 Data OAMP UG 1-3
ADSL line card UE9000 Data OAMP UG 1-32
ADSL subscriber circuit
UE9000 Data OAMP UG 1-35
ATM circuit card
UE9000 Data OAMP UG 1-25
data service, activating
UE9000 Data OAMP UG 1-38
DS1 facility UE9000 Data OAMP UG 1-29
network element
UE9000 Data OAMP UG 1-18
service descriptor
UE9000 Data OAMP UG 1-14
service descriptor group
UE9000 Data OAMP UG 1-6;
UE9000 Data OAMP UG 1-10
shelf UE9000 Data OAMP UG 1-21
updating information
UE9000 Data OAMP UG 1-40
virtual paths UE9000 Data OAMP UG 1-11
removing UE9000 components
UE9000 Data OAMP UG 1-42

UE9000 element management system (continued)
restarting
ADSL line card UE9000 Data OAMP UG 5-13
ATM circuit card
UE9000 Data OAMP UG 5-11
screen UE9000 Data OAMP UG 9-2
searching UE9000 Data OAMP UG 9-8
service descriptor
viewing UE9000 Data OAMP UG 1-46
software upgrade
loading software on workstation
UE9000 Data OAMP UG 4-4
starting UE9000 Data OAMP UG 9-5
state, changing
ADSL line card UE9000 Data OAMP UG 5-7
ADSL subscriber circuit
UE9000 Data OAMP UG 5-9
ATM circuit card UE9000 Data OAMP UG 5-3
DS1 facility UE9000 Data OAMP UG 5-5
status UE9000 Data OAMP UG 9-11
submap UE9000 Data OAMP UG 8-5
Atmif UE9000 Data OAMP UG 8-11
description of UE9000 Data OAMP UG 8-5
hierarchy UE9000 Data OAMP UG 8-6
HSTP-Network UE9000 Data OAMP UG 8-8
illustration UE9000 Data OAMP UG 9-2
LC UE9000 Data OAMP UG 8-12
menu bar UE9000 Data OAMP UG 9-2
menu, opening pop-up
UE9000 Data OAMP UG 9-6
menu, pop-up UE9000 Data OAMP UG 9-4
menu, pull-down UE9000 Data OAMP UG 9-3
name UE9000 Data OAMP UG 9-2
NE UE9000 Data OAMP UG 8-9
permissions, read-write
UE9000 Data OAMP UG 9-3
pop-up menu common selections
UE9000 Data OAMP UG 9-7
Root UE9000 Data OAMP UG 8-3;
UE9000 Data OAMP UG 8-7
Shelf UE9000 Data OAMP UG 8-10
shortcuts, adding UE9000 Data OAMP UG 9-9
shortcuts, deleting
UE9000 Data OAMP UG 9-10
status bar UE9000 Data OAMP UG 9-3
Subscriber Loop
UE9000 Data OAMP UG 8-13
tool bar UE9000 Data OAMP UG 9-3
submaps
shortcut, adding UE9000 Data OAMP UG 9-9
shortcut, deleting
UE9000 Data OAMP UG 9-10
symbol UE9000 Data OAMP UG 8-2
ATMIF UE9000 Data OAMP UG 8-10;
UE9000 Data OAMP UG 8-13
Circuit UE9000 Data OAMP UG 8-12;
UE9000 Data OAMP UG 8-13
CPE UE9000 Data OAMP UG 8-13
DS1 Link UE9000 Data OAMP UG 8-11
HSTP-Network UE9000 Data OAMP UG 8-7

UE9000 element management system, symbol (continued)
Internet UE9000 Data OAMP UG 8-7
Line Card UE9000 Data OAMP UG 8-10; UE9000 Data OAMP UG 8-13
NE UE9000 Data OAMP UG 8-8
Shelf UE9000 Data OAMP UG 8-9
troubleshooting UE9000 Data OAMP UG 9-11
alert bubbles UE9000 Data OAMP UG 9-14
annotation text UE9000 Data OAMP UG 9-14
events UE9000 Data OAMP UG 7-2
ISO states UE9000 Data OAMP UG 9-14
symbol colors UE9000 Data OAMP UG 9-12
UNIX scripts, scheduling UE9000 Data OAMP UG 2-23
upgrading UE9000 Data OAMP UG 4-13

UE9000 shelf
provisioning UE9000 Data OAMP UG 1-21

uEMS GUI
troubleshooting UE9000 Data OAMP UG 6-9
ATM not sending traps UE9000 Data OAMP UG 6-36
cannot ping ATM UE9000 Data OAMP UG 6-33
no hardware flag for ATM UE9000 Data OAMP UG 6-28

uEMS.
See UE9000 element management system

UEUPG CI tool
catalog file, updating UE9000 Voice OAMP UG 4-6
closing UE9000 Voice OAMP UG 4-21
opening UE9000 Voice OAMP UG 4-5
resetting UE9000 Voice OAMP UG 4-19

UEUPGCI tool
TDM software, upgrading UE9000 Voice OAMP UG 4-11
TDM software, viewing UE9000 Voice OAMP UG 4-15
TDM upgrade status UE9000 Voice OAMP UG 4-14

Upgrade
ADSL MLC software UE9000 Data OAMP UG 4-3; UE9000 Data OAMP UG 4-7
ATM circuit card software UE9000 Data OAMP UG 4-3; UE9000 Data OAMP UG 4-5
loading software on workstation UE9000 Data OAMP UG 4-4
software upgrade process UE9000 Data OAMP UG 4-3
TDM UE9000 Voice OAMP UG 4-1

Upgrade (continued)
UE9000
ATM reboots with old software load UE9000 Data OAMP UG 6-25
UE9000 software UE9000 Data OAMP UG 4-5; UE9000 Data OAMP UG 4-7
uEMS software UE9000 Data OAMP UG 4-13

User interface
HPOV
starting UE9000 Data OAMP UG 9-5
UE9000
searching UE9000 Data OAMP UG 9-8
troubleshooting UE9000 Data OAMP UG 6-9
UE9000, uEMS GUI
ATM not sending traps UE9000 Data OAMP UG 6-36
cannot communicate with ATM UE9000 Data OAMP UG 6-24
cannot ping ATM UE9000 Data OAMP UG 6-33
no hardware flag for ADSL UE9000 Data OAMP UG 6-38
no hardware flag for ATM UE9000 Data OAMP UG 6-28
uEMS UE9000 Data OAMP UG 9-2
at command UE9000 Data OAMP UG 2-23
bulk provisioning UE9000 Data OAMP UG 2-19
CLUI UE9000 Data OAMP UG 8-5
command line, getting help UE9000 Data OAMP UG 2-4
Events Browser window UE9000 Data OAMP UG 7-3
GUI UE9000 Data OAMP UG 8-4
inventory UE9000 Data OAMP UG 5-2
map, opening UE9000 Data OAMP UG 1-47
removing components UE9000 Data OAMP UG 1-42
screen UE9000 Data OAMP UG 9-2
shortcut, adding UE9000 Data OAMP UG 9-9
shortcut, deleting UE9000 Data OAMP UG 9-10
starting UE9000 Data OAMP UG 9-5
submap hierarchy UE9000 Data OAMP UG 8-6
UNIX scripts, scheduling UE9000 Data OAMP UG 2-23

V

Virtual path identifier, provisioning
UE9000 Data OAMP UG 1-14

Virtual path, provisioning
UE9000 Data OAMP UG 1-11

VP.
See Virtual path

VPI.
See Virtual path identifier

SONET Products

AccessNode / AccessNode Express

Master Index

Copyright © 1993–1999 Nortel Networks, All Rights Reserved.

All information contained in this document is subject to change without notice. Nortel Networks reserves the right to make changes to equipment design or program components, as progress in engineering, manufacturing methods, or other circumstances may warrant.

ACCESSNODE, NORTEL NETWORKS, and ACCESSNODE EXPRESS are trademarks of Nortel Networks Corporation.

Publication number: 323-3001-002
Document release: Issue 2.0

Date: October 1999
Printed in Canada

NORTEL NETWORKS™