PARADYNE™

T1 Frame Relay Access Unit
Model 9120/9121
Quick Reference

June 1997

This Quick Reference summarizes the configuration options accessed when you select *Configuration* from the Main Menu. The table references apply to the tables contained in the Technical Reference's configuration sections, Chapter 4, *Setting Up*, (Document No. 9121-A2-GH30).

The Menu Hierarchy shows the menus or branches that appear when starting a session via an async (or other VT100-compatible) terminal or Telnet session.

Configuration Menu

- Network (including Physical, Frame Relay, and DLCI Records)
- DSX-1
- Data Ports (including Physical, Frame Relay, and DLCI Records)
- ISDN BRI (including Physical, Frame Relay, and DLCI Records)
- Time Slot Assignment
- PVC Connections
- General
- User Interface
- Alarm
- Management and Communication
- Auto Backup Criteria

Configuration Shortcuts

This feature is provided to simplify basic setup of the access unit and its features.

- Select Configuration Templates to speed setup of the access unit.
- Select Frame Relay Discovery for automatic configuration and cross-connection of DLCIs (and EDLCIs) and management PVCs based upon information coming from the network via the LMI protocol.

Configuration Options

Physical

Select to configure the physical characteristics of each interface, the T1 network, DSX-1, data ports, and ISDN BRI DBM (if installed).

Network

Select Network to configure the physical characteristics of the T1 network interface.

Network — Table 4-1

Configuration Option	Settings (Default in [**Bold**])
Line Framing Format	D4, [**ESF**]
Line Coding Format	AMI, [**B8ZS**]
Line Build Out (LBO)	[**0.0**], –7.5, –15, –22.5
Bit Stuffing	[**62411**], Part68, Disable
Network Initiated LLB	[**Enable**], Disable
Network Initiated PLB	[**Enable**], Disable
ANSI Performance Report Messages	Enable, [**Disable**]
Loss of Signal (LOS) Alarm	[**Enable**], Disable
Out of Frame (OOF) Alarm	[**Enable**], Disable
Yellow Alarm	[**Enable**], Disable
Alarm Indication Signal (AIS) Alarm	[**Enable**], Disable
Excessive Error Rate (EER) Alarm	[**Enable**], Disable
Excessive Error Rate Threshold	[**10E-4**], 10E-5, 10E-6, 10E-7, 10E-8, 10E-9
Circuit Identifier	*Text Field,* [**Clear**]

DSX-1

Select DSX-1 to configure the DSX-1 interface and designate each DSX-1 timeslot as clear channel or robbed bit signaling (RBS).

DSX-1	Table 4-2
Configuration Option	**Settings** Default in [**Bold**]
Interface Status	[**Enable**], Disable
Line Framing Format	D4, [**ESF**]
Line Coding Format	AMI, [**B8ZS**]
Line Equalization	[**0 –133**], 133 – 266, 266 – 399, 399 – 533, 533 – 655
Send all Ones on DSX-1 Failure	[**Enable**], Disable
DSX-1 Signaling (D*nn*) – Time Slot Assignment Matrix [1]	[**RBS**], None
Loss of Signal (LOS)	[**Enable**], Disable
Out of Frame (OOF)	[**Enable**], Disable
Alarm Indication Signal (AIS)	[**Enable**], Disable
Yellow Alarm	[**Enable**], Disable
[1] See Appendix B, *Configuration Worksheets*, of the Technical Reference for assistance in configuring this matrix.	

Data Ports

Select Data Ports to configure Port 1 or Port 2.

Ports	Table 4-3
Configuration Option	**Settings** Default in [**Bold**]
Port-*n*	[**Enable**], Disable
Physical Characteristics of the Port	
Port Type	[**E530**], V.35, RS449, X.21
Port Rate (Kbps) for Port-1:	4.8, 9.6, 14.4, 16.8, 19.2, 24, 28.8, 38.4, 48, 56, 64, 128, 192, [**256**], 320, 384, 448, 512, 576, 640, 704, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1280, 1344, 1408, 1472, and 1536 kbps
for Port-2:	64, 128, 192, [**256**], 320, 384, 448, 512, 576, 640, 704, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1280, 1344, 1408, 1472, and 1536 kbps
Transmit Clock Source	[**Internal**], External
Invert Transmit Clock	Enable, [**Disable**]
Port (DTE) Initiated Loopbacks	Local, [**Disable**]
Control Leads Supported	Force, DTR, RTS, [**Both**]

ISDN BRI

Select ISDN BRI to configure an internal Basic Rate Interface Dial Backup Module for dial backup.

ISDN BRI DBM		Table 4-4
Configuration Option	**Settings**	Default in [**Bold**]
BRI-B1	Enable, [**Disable**]	
BRI-B2	Enable, [**Disable**]	
Physical Characteristics of the ISDN BRI DBM		
Originate or Answer	Originate, [**Answer**]	
Switch Type	AT&T, DMS100, [**NI-1**], NI-2	
BRI-B1 Service Profile ID (SPID) [1]	*ASCII text entry,* Clear	[3 – 20 digits]
BRI-B1 Phone Number [1]	*ASCII text entry,* Clear	[7 digits]
BRI-B2 Service Profile ID (SPID) [1,2]	*ASCII text entry,* Clear	[3 – 20 digits]
BRI-B2 Phone Number [1,2]	*ASCII text entry,* Clear	[7 digits]

[1] Initially blank when New is selected; no factory default.
Tab to field, and press the spacebar. The first valid value appears.

[2] If Originate and Answer is set to Originate, both B1 and B2 channels must be configured.

Time Slot Assignment

Select Time Slot Assignment to define network interface DS0s to the DSX-1 port and the frame relay pipe to the network.

Time Slot Assignment		
Network Channel	**Settings**	Default in [**Bold**]
N01 – N24 [1]	[**Unassgnd**], FrameRly, DSX*nn*	

[1] See Appendix B, *Configuration Worksheets*, of the Technical Reference for assistance in configuring this matrix.

Frame Relay

Select Frame Relay to configure frame relay connectivity for each interface, specifying the characteristics of the LMI (local management interface) that manage PVCs.

Frame Relay for Each Interface — Table 4-5

Configuration Option	Settings (Default in [**Bold**])
Link Status	[**Enable**], [**Auto**], Disable
Inbound CIR Enforcement Mode	[**Forced**], Standard, Discard
Outbound CIR Enforcement Mode	[**Forced**], Standard, Buffered
LMI Personality	[**User Side**], [**Network Side**], None
LMI Protocol [1]	Standard, [**Annex-D**], Annex-A
LMI Error Event (N2) [1]	1, [**2**], 3, 4, 5, 6, 7, 8, 9, 10
LMI Clearing Event (N3) [1]	1, 2, 3, [**4**], 5, 6, 7, 8, 9, 10
LMI Status Enquiry (N1) [1]	1, [**2**], 3, . . . 255
LMI Heartbeat (T1) [1]	5, [**10**], 15, 20, 25, 30
LMI Inbound Heartbeat (T2) [1]	5, 10, [**15**], 20, 25, 30
LMI N4 Measurement Period (T3) [1]	5, 10, 15, [**20**], 25, 30
LMI Link Status Change Alarm [1, 2]	[**Enable**], Disable
DLCI Status Change Alarm	[**Enable**], Disable
Frame Relay DS0s Base Rate [3]	[**Nx64**], Nx56

[1] Does not appear when LMI Personality is set to None.

[2] For the DBM, only appears when Originate or Answer is set to Originate.

[3] Only appears when the interface is Network.

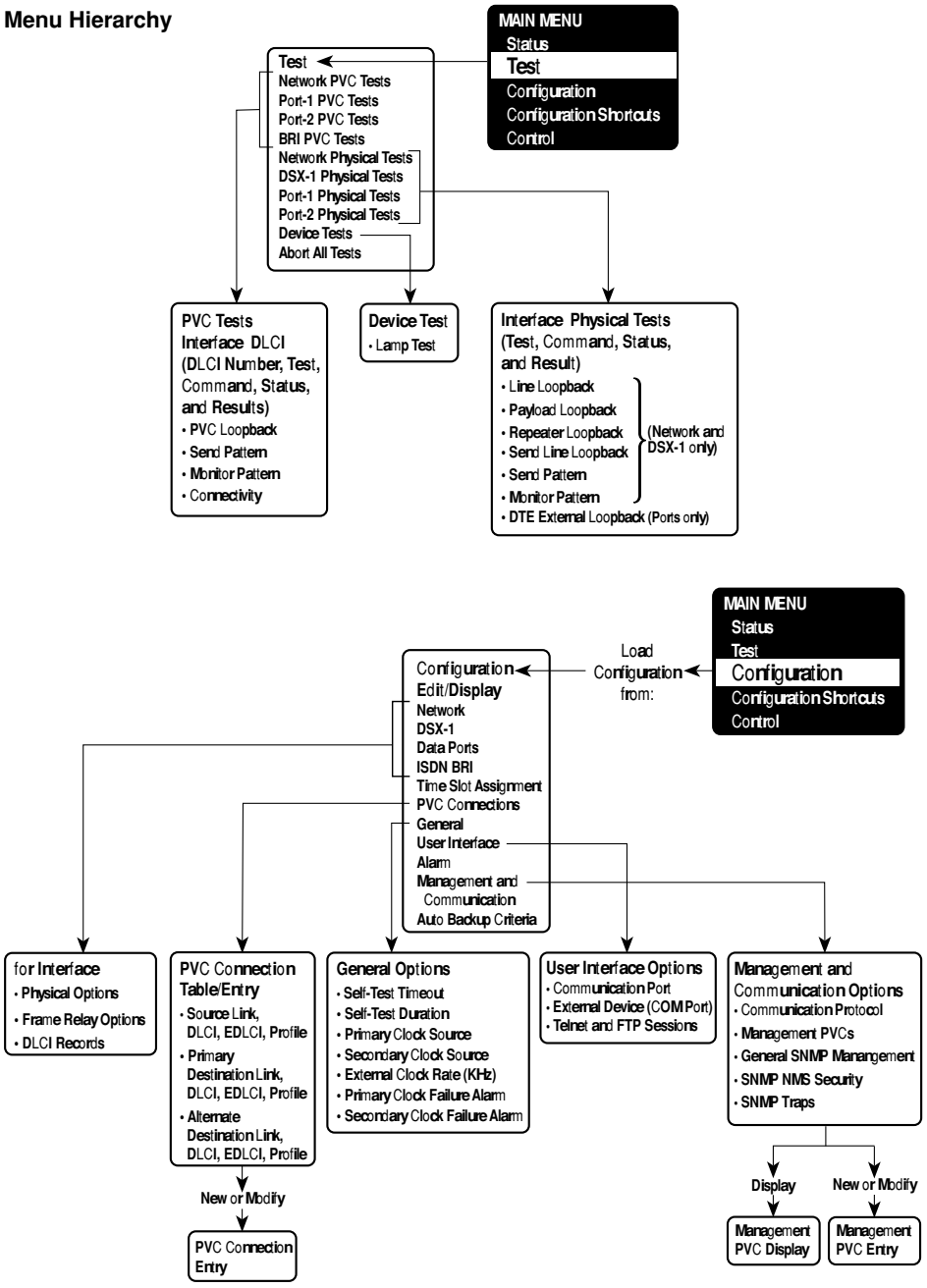
DLCI Records

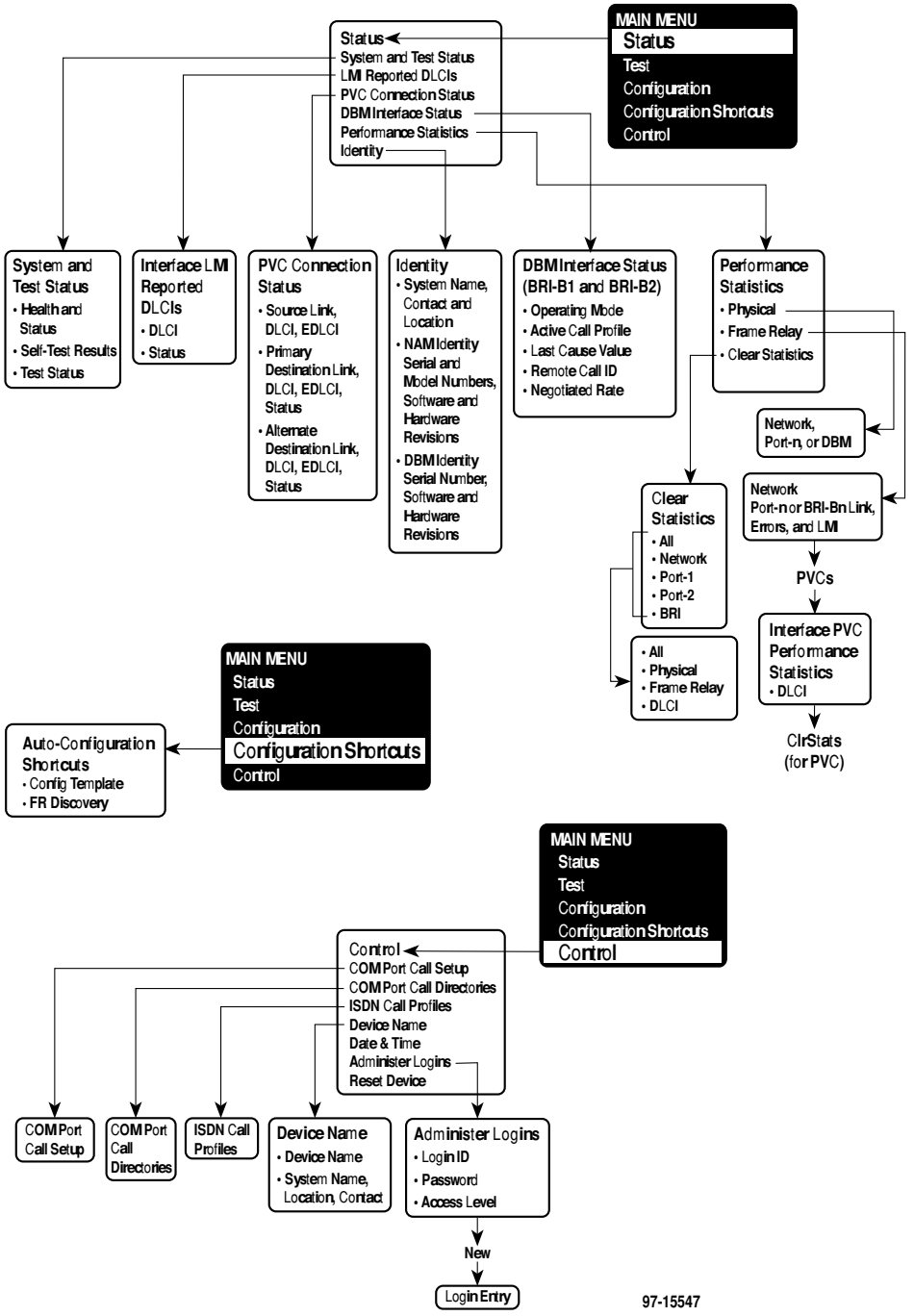
Select DLCI Records to manually configure DLCI records for each interface. The Configuration Shortcuts feature provides automatic DLCI record configuration.

DLCI Records for Each Interface — Table 4-6

Configuration Option	Settings (Default in [**Bold**])
DLCI Number	16, 17, 18, . . . 1007
DLCI Status	[**Active**], Inactive
DLCI Type	[**Standard**], Multiplexed
CIR (bps)	0 – 15360001 [**56,000** for BRI] [**256,000** for other interfaces]
Excess Burst Size (Bits)	0 – 999,999 [**0**]
DLCI Priority	Low, [**Medium**], High

Menu Hierarchy




MAIN MENU
Status
Test
Configuration
Configuration Shortcuts
Control
Status
System and Test Status
LMI Reported DLCIs
PVC Connection Status
DBM Interface Status
Performance Statistics
Identity
System and Test Status
• Health and Status
• Self-Test Results
• Test Status
Interface LMI Reported DLCIs
• DLCI
• Status
PVC Connection Status
• Source Link, DLCI, EDLCI
• Primary Destination Link, DLCI, EDLCI, Status
• Alternate Destination Link, DLCI, EDLCI, Status
Identity
• System Name, Contact and Location
• NAM Identity Serial and Model Numbers, Software and Hardware Revisions
• DBM Identity Serial Number, Software and Hardware Revisions
DBM Interface Status (BRI-B1 and BRI-B2)
• Operating Mode
• Active Call Profile
• Last Cause Value
• Remote Call ID
• Negotiated Rate
Performance Statistics
• Physical
• Frame Relay
• Clear Statistics
Network, Port-n, or DBM
Network Port-n or BRI-Bn Link, Errors, and LMI
PVCs
Interface PVC Performance Statistics
• DLCI
ClrStats (for PVC)
Clear Statistics
• All
• Network
• Port-1
• Port-2
• BRI
• All
• Physical
• Frame Relay
• DLCI
MAIN MENU
Status
Test
Configuration
Configuration Shortcuts
Control
Auto-Configuration Shortcuts
• Config Template
• FR Discovery
MAIN MENU
Status
Test
Configuration
Configuration Shortcuts
Control
Control
COM Port Call Setup
COM Port Call Directories
ISDN Call Profiles
Device Name
Date & Time
Administer Logins
Reset Device
COM Port Call Setup
COM Port Call Directories
ISDN Call Profiles
Device Name
• Device Name
• System Name, Location, Contact
Administer Logins
• Login ID
• Password
• Access Level
New
Login Entry
97-15547

PVC Connections

Select PVC Connections to configure the logical connections between the network interface and the data ports. The *Configuration Shortcuts* feature provides automatic configuration of PVC connections.

PVC Connections	Table 4-7
Configuration Option	**Settings** Default in [**Bold**]
Source Link[1]	Network, Port-1, Port-2, BRI-B1, BRI-B2, Clear
Source DLCI[1]	16 – 1007
Source EDLCI[1]	0 – 62
Source Profile[1, 2]	*ISDN Call Profiles Source*
Primary Destination Link[1]	Network, Port-1, Port-2, BRI-B1, BRI-B2, Clear
Primary Destination DLCI[1]	16 – 1007
Primary Destination EDLCI[1]	0 – 62
Primary Destination Profile[1, 2]	*ISDN Call Profiles Destinations*
Alternate Destination Link[1]	Network, Port-1, Port-2, BRI, [2] Clear
Alternate Destination DLCI[1]	16 – 1007
Alternate Destination EDLCI[1]	0 – 62
Alternate Destination Profile[1, 2]	*ISDN Call Profiles Destinations*

[1] Initially blank when New is selected; no factory default.
Tab to field, and press the spacebar. The first valid value appears.

[2] Only appears when the link is set to BRI. Select ISDN Call Profiles from the Control menu to define profile destinations.

General

Select General to configure a timeout period and duration for user-initiated loopbacks and pattern tests.

General	Table 4-8
Configuration Option	**Settings** Default in [**Bold**]
Test Timeout	[**Enable**], Disable
Test Duration (min)	1 – 120 [**10**]
Primary Clock Source	[**Network**], DSX-1, Internal, External, DBM
Secondary Clock Source	Network, DSX-1, [**Internal**], External, DBM
External Clock Rate (kHz)	8, [**1544**], 2048
Primary Clock Failure Alarm	[**Enable**], Disable
Secondary Clock Failure Alarm	[**Enable**], Disable

User Interface

Select User Interface to configure the access unit's communications port, or to configure for connection to an external modem for sending ASCII alarms and SNMP traps or for Telnet sessions.

User Interface	
Configuration Option	**Settings** Default in [**Bold**]
Communication Port	**Table 4-9**
Port Use	[**Terminal**], Net Link, Alarms
Port Type	[**Asynchronous**], Synchronous
Data Rate (Kbps)	9.6, 14.4, [**19.2**], 28.8, 38.4
Port Type – Synchronous	
Clock Source [1]	[**Internal**], External
RIP [2, 3]	[**None**], Proprietary
Port Type – Asynchronous	
Character Length [2]	7, [**8**]
Parity [2]	[**None**], Even, Odd
Stop Bits [2]	[**1**], 1.5, 2
Ignore Control Leads [2]	[**Disable**], DTR
Login Required [2]	Enable, [**Disable**]
Port Access Level [2]	[**Level-1**], Level-2, Level-3
Inactivity Timeout [2]	Enable, [**Disable**]
Disconnect Time (Minutes) [2]	1 – 60 [**5**]
External Device (COM Port)	**Table 4-10**
External Device Commands	[**Disable**], AT, Other
Dial-In Access	Enable, [**Disable**]
Connect Prefix [4]	*ASCII text entry,* [**Clear**]
Connect Indication String [4]	*ASCII text entry,* [**Clear**]
Escape Sequence [4]	*ASCII text entry,* [**Clear**]
Escape Sequence Delay (Sec) [4]	[**None**], 0.2, 0.4, 0.6, 0.8, 1.0
Disconnect String [4]	*ASCII text entry,* [**Clear**]

[1] Only appears when Port Use is set to Net Link.

[2] Only appears when Port Use is set to Terminal.

[3] Only appears when Inactivity Timeout is set to Enable.

[4] Only appears when External Device Commands is set to Other.

User Interface (cont'd)		
Configuration Option	**Settings**	Default in [**Bold**]
Telnet and FTP Sessions		**Table 4-11**
Telnet Session	Enable, [**Disable**]	
Telnet Login Required	Enable, [**Disable**]	
Session Access Level	[**Level-1**], Level-2, Level-3	
Inactivity Timeout	Enable, [**Disable**]	
Disconnect Time (Minutes)	1 – 60	[**5**]
FTP Session	Enable, [**Disable**]	
FTP Login Required	Enable, [**Disable**]	

Alarm

Select Alarm to configure ASCII alarms and SNMP traps.

Alarm		Table 4-12
Configuration Option	**Settings**	Default in [**Bold**]
ASCII Alarm Messages	Com Port, [**Disable**]	
Alarm & Trap Dial-Out	Enable, [**Disable**]	
Trap Disconnect	[**Enable**], Disable	
Call Retry	Enable, [**Disable**]	
Dial-Out Delay Time (Min)	1 – 10	[**5**]
Alternate Dial-Out Directory	[**None**], 1 – 5	

Management and Communication

Select Management and Communication to configure the access unit so it can be managed by an NMS or Telnet terminal, and to select the appropriate protocols.

Management and Communication		
Configuration Option	**Settings**	Default in [**Bold**]
Communication Protocol		**Table 4-13**
Node IP Address	[**000.000.000.000**] – 223.255.255.255,[1] Clear	
Node Subnet Mask	[**000.000.000.000**] – 255.255.255.255, Clear	
Default Network Destination	[**None**], COM, *PVCname*	

[1] First digit (i.e., 000.) cannot be 127; 127 is a reserved number.

Management and Communication (cont'd)	
Configuration Option	**Settings** Default in [**Bold**]
Communication Port	
IP Address	[**000.000.000.000**] – 223.255.255.255, [1] Clear
Subnet Mask	[**000.000.000.000**] – 255.255.255.255, Clear
Link Protocol	[**PPP**], SLIP
Alternate IP Address	[**000.000.000.000**] – 223.255.255.255, [1] Clear
Alternate Subnet Mask	[**000.000.000.000**] – 255.255.255.255, Clear
Management PVCs	**Table 4-14**
Name	*ASCII text entry* [4 chars.]
Interface IP Address	[**Node-IP-Address**], Special (a*ddress entry: 000.000.000.000 – 223.255.255.255* [1])
Interface Subnet Mask	[**Node-Subnet-Mask**], Calculate, Special
Primary Link	Network, [2] Port-1, Port-2, BRI-B1, [2] BRI-B2, [2] Clear
Primary DLCI [3]	16 – 1007
Primary EDLCI [3]	0 – 62
Primary Profile [4]	*ASCII text entry* [8-chars.]
Alternate Link	Network, [2] Port-1, Port-2, BRI, [2] Clear
Alternate DLCI [3]	16 – 1007
Alternate EDLCI [3]	0 – 62
Alternate Profile [4]	*ASCII text entry* [8-chars.]
Set DE	Enable, [**Disable**]
RIP [2]	[**None**], [**Proprietary**]
General SNMP Management	**Table 4-15**
SNMP Management	Enable, [**Disable**]
Community Name 1	*ASCII text entry,* [**Public**], Clear
Name 1 Access	[**Read**], Read/Write
Community Name 2	*ASCII text entry,* [**Clear**]
Name 2 Access	[**Read**], Read/Write

[1] First digit (i.e., 001.) cannot be 127; 127 is a reserved number.

[2] RIP only appears when Primary Link has been set to Network or BRI-B1.

None is the default for data ports, Proprietary (Prop) is the default for the network and BRI (when Primary Link is set to Network or BRI).

[3] Initially blank when New is selected; no factory default.

Tab to field, and press the spacebar. The first valid value appears.

[4] Only appears when the link is set to BRI and an ISDN Call Profile has been defined (selected from the Control menu).

Management and Communication (cont'd)		
Configuration Option	**Settings**	Default in [**Bold**]
SNMP NMS Security		**Table 4-16**
NMS IP Validation	[**Disable**], Enable	
Number of Managers	[**1**] – 10	[**1**]
NMS *n* IP Address	[**000.000.000.000**] – 223.255.255.255, [1] Clear	
Access Type	[**Read**], Read/Write	
SNMP Traps		**Table 4-17**
SNMP Traps	[**Disable**], Enable	
Number of Trap Managers	[**1**] – 6	[**1**]
NMS *n* IP Address	**001.000.000.000** – 223.255.255.255, [1] [**Clear**]	
Destination	[**Default**], COM, *PVCname*	
General Traps	Disable, Warm, AuthFail, [**Both**]	
Enterprise Specific Traps	Enable, [**Disable**]	
Link Traps	Disable, Up, Down, [**Both**]	
Link Traps Interfaces	Network, DSX-1, T1s, Ports, DBM, [**All**]	
DLCI Traps on Interfaces	Network, Ports, DBM, [**All**]	

Auto Backup Criteria

Select Auto Backup Criteria to configure automatic backup.

Auto Backup Criteria		**Table 4-18**
Configuration Option	**Settings**	Default in [**Bold**]
Auto Backup	Enable, [**Disable**]	
When Auto Backup Allowed	[**Always**], Restrict	
Backup Allowed: *Day* From [1]	[**00:00**] – 23:00, None	
Backup Allowed: *Day* To [1]	00:00 – [**24:00**]	

[1] Only appears when When Auto Backup Allowed is set to Restrict.
Day is Monday through Sunday.