

FrameSaver™ 9120

Quick Reference

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Overview

This Quick Reference summarizes the configuration options accessed when you select *Configuration* from the Main Menu. The table references apply to the configuration tables contained in Chapter 4, *Setting Up*, of the *FrameSaver 9120 Technical Reference*.

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

Configuration Menu

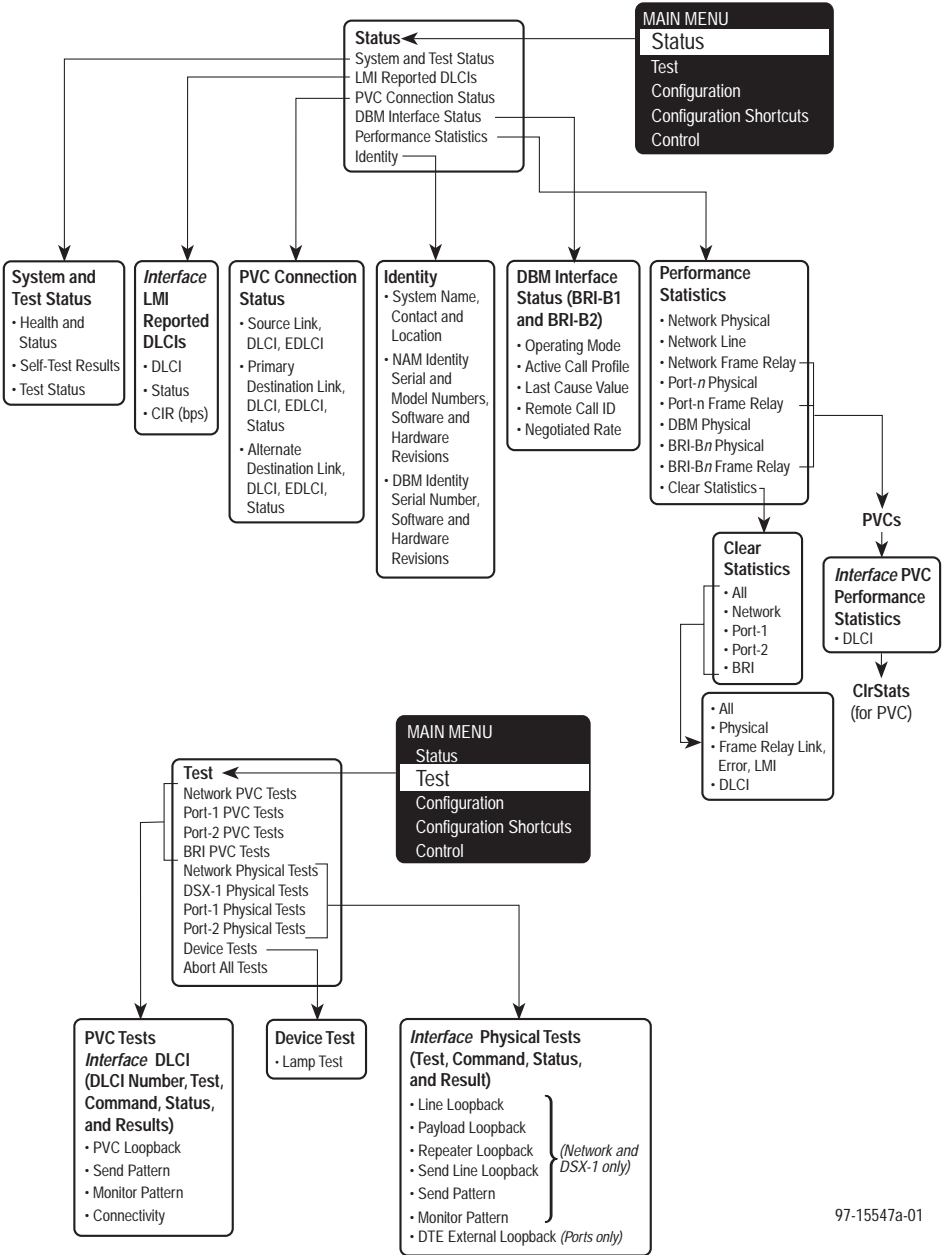
- Network (including Physical, Frame Relay, and DLCI Records)
- DSX-1
- Data Ports (including Physical, Frame Relay, and DLCI Records)
- ISDN BRI (including Physical, Frame Relay, and DLCI Records)
- Time Slot Assignment
- PVC Connections
- General
- User Interface
- Alarm
- Management and Communication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

Configuration Shortcuts

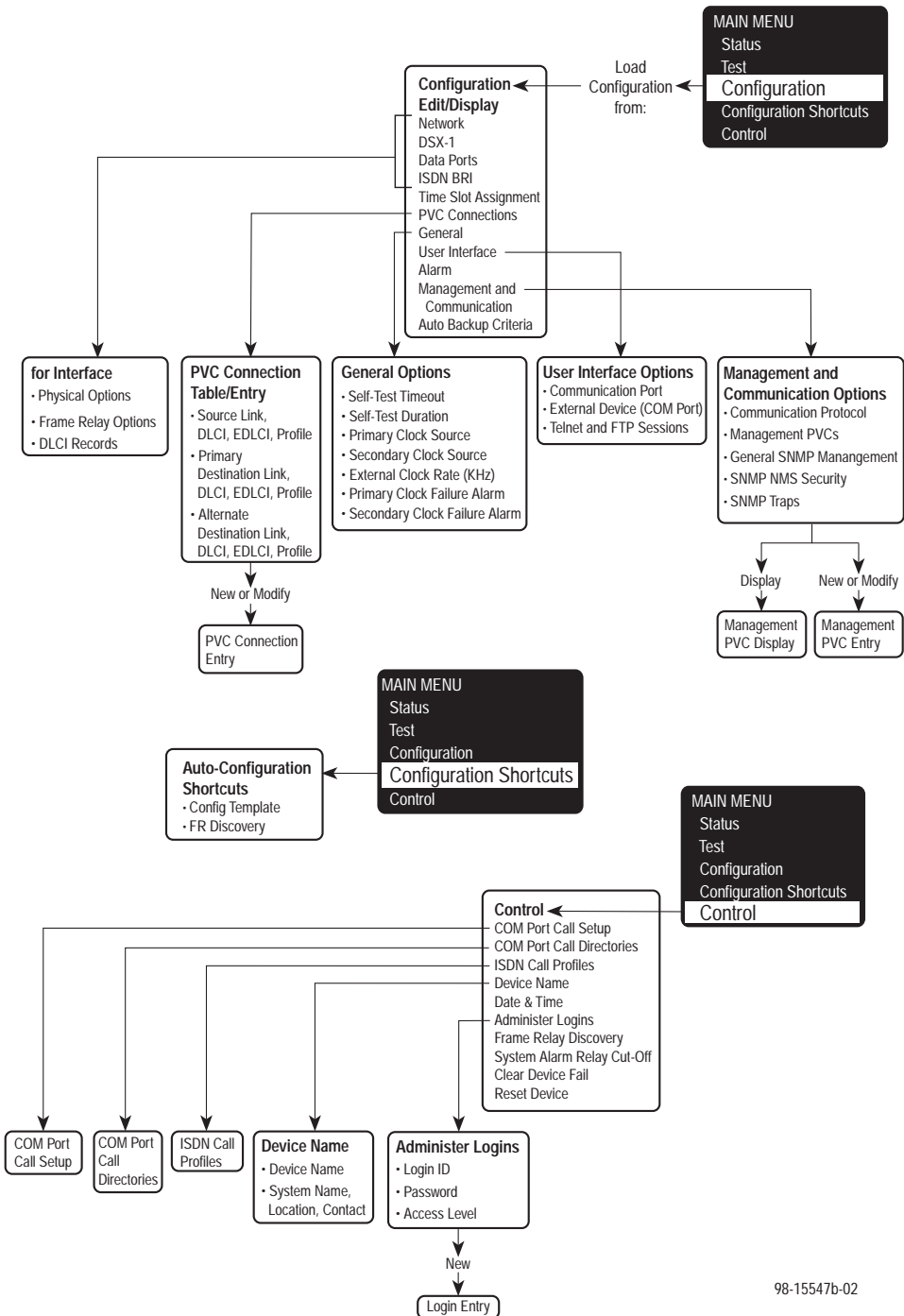
This feature is provided to simplify basic setup of the access unit and its features.

- 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.

Menu Hierarchy



97-15547a-01



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	<i>Text Field</i> , [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 (Dnn) – 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, <i>Configuration Worksheets</i> , of the Technical Reference for assistance in configuring this matrix.		

Data Ports

Select Data Ports to configure the physical characteristics of Port 1 or Port 2.

Ports	
Configuration Option	Settings Default in [Bold]
Port- <i>n</i>	[Enable], Disable
Physical Characteristics of the Port Table 4-3	
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, 1536, 1600, 1664, 1728, 1792, 1856, 1920, 1984, and 2048 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, 1536, 1600, 1664, 1728, 1792, 1856, 1920, 1984, and 2048 kbps
Timing Options	[Internal], External, Terminal ¹
Invert Transmit Clock	Enable, [Disable]
Port (DTE) Initiated Loopbacks	Local, [Disable]
Control Leads Supported	Force, DTR, RTS, [Both]
¹ Applies to Port 2 only	

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	NI-1	<i>(Read only)</i>
BRI-B1 Service Profile ID (SPID) ¹	<i>ASCII text entry</i> , Clear	[3 – 20 digits]
BRI-B1 Phone Number ¹	<i>ASCII text entry</i> , Clear	[7 – 19 digits]
BRI-B2 Service Profile ID (SPID) ^{1,2}	<i>ASCII text entry</i> , Clear	[3 – 20 digits]
BRI-B2 Phone Number ^{1,2}	<i>ASCII text entry</i> , Clear	[19 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	
Configuration Option	Settings
Initial Frame Relay Time Slot and LMI Protocol Discovery	[Enable] , Disable
Network Channel	Default in [Bold]
N01 – N24 ¹	[Unassgnd] , FrameRly, DSXnn
¹ See Appendix B, <i>Configuration Worksheets</i> , 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 ¹	[Enable], [Auto], Disable	
Inbound CIR Enforcement Mode	[Forced], Standard, Discard	
Outbound CIR Enforcement Mode	[Forced], Standard, Buffered	
LMI Behavior	[Independent], Port-1_Follows_Network, Port-2_Follows_Network, Both_Ports_Follow_Network, Network_Follows_Port-1, Network_Follows_Port-2, Port-1_Codependent_with_Network, Port-2_Codependent_with_Network	
LMI Personality ²	[User Side], [Network Side], None ⁶	
LMI Protocol ^{1, 2}	Standard, Annex-A, [Annex-D]	
LMI Error Event (N2) ³	1, 2, [3], 4, 5, 6, 7, 8, 9, 10	
LMI Clearing Event (N3) ³	[1], 2, 3, 4, 5, 6, 7, 8, 9, 10	
LMI Status Enquiry (N1) ^{3, 4}	1, 2, 3, 4, 5, [6], . . . 255	
LMI Heartbeat (T1) ^{3, 4}	5, [10], 15, 20, 25, 30	
LMI Inbound Heartbeat (T2) ^{3, 5}	5, 10, [15], 20, 25, 30	
LMI N4 Measurement Period (T3) ^{3, 5}	5, 10, 15, [20], 25, 30	
LMI Link Status Change Alarm ³	[Enable], Disable	
DLCI Status Change Alarm ^{3, 4}	[Enable], Disable	
Frame Relay DS0s Base Rate ²	[Nx64], Nx56	
<p>¹ Enable is the default for data ports and the network interface; Auto is the default for an ISDN BRI DBM.</p> <p>² User Side is the default for the network interface; Network Side is the default for the Port <i>n</i> interface and answering BRI B-channel.</p> <p>³ Not shown when the port's LMI Personality is set to None.</p> <p>⁴ Not shown when the interface's LMI Personality is set to Network Side.</p> <p>⁵ Not shown when the interface's LMI personality is set to User Side.</p> <p>⁶ Not shown for the network interface.</p>		

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)	0–2048000 ¹	[56,000 for BRI] [256,000 for other interfaces]
Excess Burst Size (Bits)	[0]–2048000 ¹	
DLCI Priority	Low, [Medium], High	
¹ The 2048000 rate is only available for Models 9121-A1-433.		

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}	<i>ISDN Call Profiles Source</i>	
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}	<i>ISDN Call Profiles Destinations</i>	
Alternate Destination Link ¹	Network, Port-1, Port-2, BRI, Clear	
Alternate Destination DLCI ¹	16–1007	
Alternate Destination EDLCI ¹	0–62	
Alternate Destination Profile ^{1, 2}	<i>ISDN Call Profiles Destinations</i>	
¹ Initially blank when <u>N</u> ew 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 ¹	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	
¹ Setting should be changed to DBM if running backup.		

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, Alarm
Port Type	[Asynchronous], Synchronous
Data Rate (Kbps)	9.6, 14.4, [19.2], 28.8, 38.4, 57.6, 115.2
Port Type – Synchronous	
Clock Source ¹	[Internal], External
RIP ^{1, 2, 3}	[None], Proprietary
Port Type – Asynchronous	
Character Length ²	7, [8]
Parity ²	[None], Even, Odd
Stop Bits ²	[1], 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	<i>ASCII text entry</i> , [Clear]
Connect Indication String ⁴	<i>ASCII text entry</i> , [Clear]
Escape Sequence ⁴	<i>ASCII text entry</i> , [Clear]
Escape Sequence Delay (Sec) ⁴	[None], 0.2, 0.4, 0.6, 0.8, 1.0
Disconnect String ⁴	<i>ASCII text entry</i> , [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 [10]
FTP Session	[Enable], Disable
FTP Login Required	Enable, [Disable]

Alarm

Select Alarm to configure ASCII alarms and SNMP traps.

Alarm	
Configuration Option	Settings Default in [Bold]
Table 4-12	
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
System Alarm Relay	Enable, [Disable]

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, <i>PVCname</i>
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	<i>ASCII text entry</i> [4 chars.]
<i>Interface</i> IP Address	[Node-IP-Address] , Special (<i>address entry: 000.000.000.000 – 223.255.255.255,</i> ¹ Clear
<i>Interface</i> 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	<i>ASCII text entry</i> [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	<i>ASCII text entry</i> [8-chars.]
Set DE	Enable, [Disable]
RIP ²	[None] , [Proprietary]
<p>¹ First digit (i.e., 001.) cannot be 127; 127 is a reserved number.</p> <p>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).</p> <p>³ Initially blank when <u>N</u>ew is selected; no factory default. Tab to field, and press the spacebar. The first valid value appears.</p> <p>⁴ Only appears when the link is set to BRI and an ISDN Call Profile has been defined (selected from the Control menu).</p>	

Management and Communication (cont'd)	
Configuration Option	Settings Default in [Bold]
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
SNMP NMS Security Table 4-16	
NMS IP Validation	Enable, [Disable]
Number of Managers	[1]-10
NMS <i>n</i> IP Address	[000.000.000.000] – 223.255.255.255, ¹ Clear
Access Type	[Read], Read/Write
SNMP Traps Table 4-17	
SNMP Traps	Enable, [Disable]
Number of Trap Managers	[1]-6
NMS <i>n</i> 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]
¹ First digit (i.e., 001.) cannot be 127; 127 is a reserved number.	

Auto Backup Criteria

Select Auto Backup Criteria to configure automatic backup.

Auto Backup Criteria	
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]
² Only appears when When Auto Backup Allowed is set to Restrict. Day is Monday through Sunday.	

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