#### Introduction

Use this book to quickly access the main instrument functions and tasks.

# Setting the Interfaces

#### Setting the Transmit Interfaces

Setting PDH Transmit Interface	Transmit [PDH/DSn] SETTINGS
Setting SONET Transmit Interface	
Setting Jitter Transmit Interface	Transmit [SONET] JITTER OR Transmit [PDH/DSn] JITTER
Setting Wander Transmit Interface	Transmit [SONET] JITTER OR Transmit [PDH/DSn] JITTER
Setting SONET THRU Mode	
Setting PDH THRU Mode (DS1/DS3 only)	Transmit [PDH/DSn] MAIN SETTINGS DS1/DS3 [THRU MODE]

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#### Setting the Receive Interfaces

Using Smart Test	Smart Test [RUN TEST]
Setting PDH Receive Interface	
Setting SONET Receive Interface	
Setting Jitter Receive Interface	

# **Selecting Test Features**

#### Selecting and Using Overhead Features

Using Transmit Overhead Setup	
Using Receive Overhead Monitor	
Setting Overhead Trace Messages	Transmit [SONET] OVERHEAD SETUP [TRACE MESSAGES]
Generating Overhead Sequences	
Using Receive Overhead Capture	

# Selecting and Using Signal Features

Adding Frequency Offset to the SONET Signal	Transmit [SONET] SETTINGS CLOCK [INTERNAL] FREQUENCY OFFSET [ON]
Adding Frequency Offset to the PDH Signal	Transmit [PDH/DSn] MAIN FREQUENCY OFFSET [ <select>]</select>
Setting up Signaling Bits	Transmit       [PDH/DSn]       STRUCTD SETTINGS       TEST SIGNAL [56 kb/s]         DS1       ESF ABCD BITS [ <select>]</select>
Setting Transmit Structured Payload/Test Signal	Transmit [SONET] STRUCTD OR Transmit [PDH/DSn] STRUCTD SETTINGS
Setting Receive Structured Payload/Test Signal	
Connecting A Telephone Handset	Transmit [SONET] STRUCTD TEST SIGNAL [64 kb/s] HANDSET [ <select>]</select>
	Transmit [PDH/DSn] STRUCT'D SETTINGS TEST SIGNAL [64 kb/s] HANDSET [ <select>]</select>
Setting Transmit N X 64 kb/s Structured Payload/Test Signal	Transmit [SONET] STRUCTD TEST SIGNAL [Nx64kb/s]
Setting Receive N X 64 kb/s Structured Payload/Test Signal	Receive [SONET] STRUCTD TEST SIGNAL [Nx64kb/s]
	Receive [PDH/DSn] STRUCTD SETTINGS TEST SIGNAL [Nx64kb/s]

# Selecting and Using Signal Features (cont'd)

Inserting an External PDH Payload/Test Signal	Transmit [SONET] STRUCTD DS1 PAYLOAD [INSERT DS1/s]
Dropping an External Payload/Test Signal	Receive [SONET] STRUCTD DS1 PAYLOAD [DROP DS1/s]
	Receive [PDH/DSn] STRUCTD SETTINGS DS1 PAYLOAD [DROP DS1/s]
Adding Errors & Alarms at the SONET Interface	
Adding Errors & Alarms to the PDH Interface/PDH Payload	Transmit [SONET] TEST TEST FUNCTION [PDH PAYLD] [ERR & ALARM]
Using FEAC Codes in the HP 37719A	
Setting PDH Spare Bits	Transmit [SONET] TEST TEST FUNCTION [PDH PAYLD] [SPARE BITS]
Adding Pointer Adjustments	Transmit [SONET] TEST TEST FUNCTION [SONET] [ADJUST PTR]
Using Pointer Graph Test Function	Receive [SONET] TEST TEST FUNCTION [SONET] [PTR GRAPH]

# Selecting and Using Signal Features (cont'd)

Generating Automatic Protection Switch Messages	Transmit [SONET] TEST TEST FUNCTION [SONET] [APS MESSAGES]
Inserting Data Communications Channel	
Dropping Data Communications Channel	

# Making Measurements

Using Overhead BER Test Function	Receive	[SONET] <b>TEST</b> TEST FUNCTION [SONET] [OVERHEAD BER]
Test Timing	Results	RESULTS [TIMING CONTROL]
Making SONET Analysis Measurements	Results	RESULTS [SONET RESULTS] [ERROR ANALYSIS]
Making PDH Analysis Measurements	Results	RESULTS [PDH PAYLOAD] [ERROR ANALYSIS]
Measuring Jitter	Results	RESULTS [JITTER]
Measuring Frequency	Results	RESULTS [SONET] [FREQUENCY]
Measuring Optical Power	Results	RESULTS [SONET] [OPTICAL POWER]
Measuring Round Trip Delay	Results	RESULTS [PDH PAYLOAD] [TRIP DELAY]
Measuring Service Disruption Time	Results	RESULTS [SERVICE DISRUPT]

# Making Measurements (cont'd)

Performing a SONET Tributary Scan	Results RESULTS [SONET TRIB SCAN]
Performing a SONET Alarm Scan	Results RESULTS [SONET ALM SCAN]
Performing a PDH Alarm Scan	Results [PDH ALM SCAN]
Measuring Jitter Tolerance	Transmit [PDH/DSn] JITTER JITTER [TOLERANCE]
Measuring Jitter Transfer	Transmit [PDH/DSn] JITTER JITTER [TRANSFER FN]

# Storing, Logging and Printing

Saving Graphics Results to Instrument Store	Results	[TIMING CONTROL] GRAPH STORAGE [1 MIN RESOL'N]
Recalling Stored Graph Results	Graph	TEXT RESULTS STORE STATUS
Viewing the Bar Graph Display	Graph	GRAPH RESULTS
Viewing the Graphics Error and Alarm Summaries	Graph	TEXT RESULTS
Logging Graph Displays	Other	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]
Logging Results	Other	FUNCTION [LOGGING] LOGGING SETUP [CONTROL]
Logging Results to Centronics Printer	Other	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [PARALLEL]
Logging Results to HP-IB Printer	Other	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [HP-IB]
Logging Results to Internal Printer	Other	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [INTERNAL]

# Storing, Logging and Printing (cont'd) Logging Results to RS-232-C Printer Other FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [RS232] Logging Jitter Tolerance Results Other FUNCTION [LOGGING] LOGGING SETUP [DEVICE] Logging Jitter Transfer Results Other FUNCTION [LOGGING] LOGGING SETUP [DEVICE]

# Using Instrument and Disk Storage

Storing Configurations in Instrument Store	Other	FUNCTION [STORED SETTINGS]
Storing Current Configurations on Disk	Other	FUNCTION [FLOPPY DISK]
Setting up a Title for Configurations in Instrument Store	Other	FUNCTION [STORED SETTINGS]
Recalling Configurations from Instrument Store	Other	FUNCTION [STORED SETTINGS]
Formatting a Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK] [FORMAT]
Labeling a Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK] [LABEL]
Managing Files and Directories on Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE]
Adding Descriptors to Disk Files	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK]
Saving Graphics Results to Disk	Results	[TIMING CONTROL] GRAPH STORAGE [DISK]
Saving Data Logging to Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [SAVE]
Recalling Configuration from Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [RECALL] FILE TYPE [CONFIGURATION]

# Using Instrument and Disk Storage (cont'd)

Recalling Graphics Results from Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [RECALL]FILE TYPE [GRAPHICS]
Copying Configuration from Instrument Store to Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [COPY] [FROM:] [CONFIGURATION]
Copying Configuration from Disk to Instrument Store	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [COPY] [TO:] [CONFIGURATION]
Copying Graphics Results from Instrument Store to Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [GRAPHICS]
Deleting a File on Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [DELETE] [DELETE FILE] NAME [ <select>]</select>
Deleting a Directory on Disk	Other	FUNCTION [FLOPPY DISK DISK OPERATION [FILE] [DELETE] [DELETE DIRECTORY]
Renaming a File on Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [RENAME]
Creating a Directory on Disk	Other	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [CREATE DIRECTORY]

# Selecting and Using "Other" Features

Coupling Transmit & Receive Settings	Other	FUNCTION [SETTINGS CONTROL]
		TRANSMITTER AND RECEIVER [COUPLED]
Suspending Test on Signal Loss	Other	FUNCTION [MISCELLANEOUS] SUSPEND TEST ON SIGNAL LOSS [ON]
MS-REI Results Enable	Other	FUNCTION [MISCELLANEOUS] MS-REI RESULT ENABLE
Inband DS1 Loopcode 156MTS Compatibility	Other	FUNCTION [MISCELLANEOUS] INBAND DS1 LOOPCODE 156MTS COM-
Setting Time & Date	Other	FUNCTION [TIME & DATE]
Enabling Keyboard Lock	Other	FUNCTION [MISCELLANEOUS] KEYBOARD LOCK [ON]
Enabling Beep on Received Error	Other	FUNCTION [MISCELLANEOUS] BEEP ON RECEIVED ERROR [ON]
Setting Error Threshold Indication	Other	FUNCTION [COLOR CONTROL]

# Selecting and Using "Other" Features (cont'd)

Dumping Display to Disk	Other	FUNCTION [LOGGING] LOGGING SETUP [CONTROL]
	LOG ON DEMAND [SCREEN DUMP]	
Setting Screen Brightness and Color	Other	FUNCTION [COLOR CONTROL]
Running Self Test	Other	FUNCTION [SELF TEST]