





#### Introduction

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

#### Setting the Transmit Interfaces

Setting PDH Transmit Interface	
Setting SONET Transmit Interface	
Setting Jitter Transmit Interface	
Setting Wander Transmit Interface	
Setting SONET THRU Mode	
Setting PDH THRU Mode (DS1/DS3 only)	TRANSMIT [PDH/DSn] MAIN SETTINGS DS1/DS3 [THRU MODE]
Setting ATM in the Transmitter	TRANSMIT [SONET] SETTINGS MAPPING [][][ATM] TRANSMIT [PDH/DSn] MAIN MAPPING [][][ATM]
Setting POS in the Transmitter	

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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	
Setting ATM in the Receiver	
Setting POS in the Receiver	

## 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	
Using Transmit Overhead BER Test Function	

#### Selecting and Using Signal Features

Adding Frequency Offset to the SONET Signal	
Adding Frequency Offset to the PDH Signal	
Setting up the Signaling Bits	TRANSMIT [PDH/DSn] _ MAIN SETTINGS SIGNAL [DS1] PAYLOAD TYPE [ESF] [STRUCTURED]
	STRUCT'D PAYLOAD TEST SIGNAL [56 kb/s] DS1 ESF ABCD BITS [ <select>]</select>
SettingTransmit Structured Payload/Test Signal	
Setting Receive Structured Payload/Test Signal	
Connecting A Telephone Handset	TRANSMIT [SONET] STRUCT'D 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]
	TRANSMIT [PDH/DSn] STRUCTD SETTINGS TEST SIGNAL [Nx64kb/s]
Setting Receive N X 64 kb/s Structured Payload/Test Signal	RECEIVE [SONET] STRUCTD TEST SIGNAL [Nx64kb/s]

Inserting an External PDH Payload/Test Signal	TRANSMIT [SONET] STRUCT'D DS1 PAYLOAD [INSERT DS1/s]
Dropping an External Payload/Test Signal	RECEIVE [SONET] STRUCTD DS1 PAYLOAD [DROP DS1/s]
Adding Errors & Alarms at the SONET Interface	
Adding Errors & Alarms to the PDH Interface/PDH Payload	
Using FEAC Codes in the OmniBER	
Setting PDH Spare Bits	TRANSMIT [SONET] TEST TUNCTION [PDH PAYLD] [SPARE BITS]
Adding Pointer Adjustments	
Using Pointer Graph Test Function	

Generating Automatic Protection Switch Messages	TRANSMIT [SONET] OVERHEAD SETUP [APS MESSAGES]
Inserting Data Communications Channel	
Dropping Data Communications Channel	
Setting ATM Transmitter Scrambling	TRANSMIT [SONET] SETTINGS SETUP [CONV SUBLAYER]SCRAMBLING [ <select>]</select>
	TRANSMIT DH/DSn]SETUP [CONV SUBLAYER] SCRAMBLING [ <select>]</select>
Setting ATM Receiver Scrambling	RECEIVE [SONET] SETUP [CONV SUBLAYER] SCRAMBLING [ <select>]</select>
	RECEIVE [PDH/DSn] SETUP [CONV SUBLAYER] SCRAMBLING [select>]
Setting up an ATM Foreground Signal	
Receiving an ATM Signal	

Setting up ATM Errors and Alarms	
Setting ATM Policing Function	
Setting POS Transmitter HDLC Framing	
Setting POS Transmitter Scrambling	TRANSMIT [SONET] POS SCRAMBLING <select></select>
Setting POS Transmitter HDLC FCS	TRANSMIT [SONET] POS HDLC FCS <select></select>
Setting POS Transmitter IP Header	TRANSMIT [SONET] POS SETTINGS SETUP [IP HEADER] <select></select>
Setting POS Transmitter Packet Size/Gap	TRANSMIT [SONET] POS SETUP [PACKET SIZE/GAP] <select></select>
Setting up POS Transmitter IP Address	TRANSMIT [SONET] POS SETUP [IP ADDRESS] <select></select>

Setting up POS Transmitter IP Payload	
Setting POS Errors and Alarms	
Setting POS Receiver HDLC Framing	RECEIVE [SONET] SELECT>
Setting POS Receiver Descrambling	RECEIVE [SONET] SETTINGS DESCRAMBLING <select></select>
Setting POS Receiver HDLC FCS	RECEIVE [SONET] POS SETTINGS HDLC FCS <select></select>
Setting up POS Receiver payload	RECEIVE [SONET] SETTINGS PAYLOAD <select></select>

## **Making Measurements**

Using Overhead BER Test Function	RECEIVE [SONET] 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 [PDH PAYLOAD] [ERROR ANALYSIS]
Measuring Jitter	RESULTS RESULTS [JITTER]
Measuring Frequency	RESULTS [SONET] [FREQUENCY]
Measuring Optical Power	RESULTS [SONET] [OPTICAL POWER]
Measuring Round Trip Delay	RESULTS [PDH PAYLOAD] [TRIP DELAY]
Measuring Service Disruption Time	RESULTS [SERVICE DISRUPT]

#### Making Measurements (cont'd)

Performing a SONET Tributary Scan	RESULTS [SONET TRIB SCAN]
Performing a SONET Alarm Scan	RESULTS [SONET ALM SCAN]
Performing a PDH Alarm Scan	RESULTS [PDH ALM SCAN]
Measuring Jitter Tolerance	
Measuring Jitter Transfer	TRANSMIT [PDH/DSn] JITTER JITTER [TRANSFER FN]
Measuring ATM Service Disruption	RESULTS [SRVC DISRUPT]
Measuring ATM results	RESULTS [ATM PAYLOAD]
Measuring POS results	RESULTS [POS PAYLOAD]

# 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
Test Period Logging	OTHER	FUNCTION [LOGGING] TEST PERIOD LOGGING [ON]
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 Printe	OTHER	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [RS232]
Logging Results Content	OTHER	FUNCTION [LOGGING] SETUP [CONTENT]
Logging Results Period	OTHER	FUNCTION [LOGGING] SETUP [PERIOD]

## 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]
		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] SETUP [DEMAND] LOG ON DEMAND [SCREEN DUMP]
Setting Screen Brightness and Color	OTHER	FUNCTION [COLOR CONTROL]
Running Self Test	OTHER	FUNCTION [SELF TEST]
Selecting Trigger Output	OTHER	FUNCTION [TRIGGER OUTPUT]

### In This Guide

Instructions on how to quickly select main instrument functions.

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