



# Quick Reference Guide



*OmniBER 725*



Agilent Technologies

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<b>TRANSMITTER OUTPUT</b> SONET TEST SETTINGS      TEST FUNCTION      TEST OVERVIEW      SETUP SIGNAL: STS-48 B1H CLOCK INTERVAL: OFF FREQUENCY OFFSET: OFF PATTERN: 2*23-1 PRBS      INVERT      ITU FOREGROUND FULL SPE BURR FILLED		<b>RECEIVER INPUT</b> SONET TEST SETTINGS      TEST FUNCTION      TEST OVERVIEW      SETUP SIGNAL: STS-48 B1H PATTERN: 2*23-1 PRBS      INVERT      ITU FOREGROUND FULL SPE BURR FILLED	
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TRANSMIT

SMART TEST

- SIGNAL
- FRAME
- PATTERN
- ERRORS
- AIS
- FRAME LOSS
- M/F LOSS
- RAI / RAI (M/F)
- VP ALARM
- VC ALARM
- LCD
- SELECTED CELL NOT RX
- UNLOCK
- HITS

- FRAME LOSS      SDH/SONET
- LOP
- MS-AIS      AIS-L
- AU-AIS      AIS-P
- CLOCK LOSS
- MS-RDI      RDI-L
- HP-RDI      RDI-P
- TU-AIS      AIS-V
- LP-RDI      RDI-V
- POINTER ADJUST

RECEIVE

RUN/STOP

RESULTS

SINGLE

GRAPH

REMOTE

OTHER

LOCAL

HISTORY

SHOW

RESET

PAPER FEED

PRINT NOW

SET

POP UP

CANCEL



## Introduction

This book describes how to quickly access the main instrument functions and tasks.

The following examples use SDH applications. For SONET applications, replace [SDH] with [SONET]

### Setting the Transmit Interfaces

Setting SDH Transmit Interface	TRANSMIT	[SDH]	MAIN SETTINGS	
Setting Unframed SDH Transmit Interface	TRANSMIT	[UNFRAMED SDH]	MAIN SETTINGS	
Setting SDH Jitter Transmit Interface (J1409A only)	TRANSMIT	[SDH]	JITTER	
Setting SDH Wander Transmit Interface (J1409A only)	TRANSMIT	[SDH]	JITTER	
Setting SDH THRU Mode	TRANSMIT	[SDH]	MAIN SETTINGS	SIGNAL [THRU MODE]

## Setting the Receive Interfaces

Using Smart Test	<b>Smart Test</b>
Using Smartsetup	<b>Smart Test</b> [RUN TEST] [RESCAN]
Setting SDH Receive Interface	RECEIVE [SDH] <b>MAIN SETTINGS</b>
Setting Unframed SDH Receive Interface	RECEIVE [UNFRAMED SDH] <b>MAIN SETTINGS</b>
Setting SDH Jitter Receive Interface	RECEIVE [SDH] <b>JITTER</b>

## Selecting and Using Overhead Features

Using SDH Transmit Overhead Setup	TRANSMIT	[SDH]	OVERHEAD SETUP	
Using SDH Receive Overhead Monitor	RECEIVE	[SDH]	OVERHEAD MONITOR	
Setting SDH Overhead Trace Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [TRACE MESSAGES]
Receiving SDH Trace Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [TRACE]
Setting SDH Signal Labels	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [LABEL]
Receiving SDH Signal Labels	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [LABEL]
Setting SDH Synchronization Status Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [LABEL] S1 SYNC STATUS
Receiving SDH Synchronization Status Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [LABEL]
Generating SDH Overhead Sequences	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [SEQUENCES]
Using SDH Receive Overhead Capture	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [O/H CAPTURE]

## Selecting and Using Signal Features

Adding Frequency Offset to the SDH Signal	TRANSMIT	[SDH]	MAIN SETTINGS	CLOCK [INTERNAL] FREQUENCY OFFSET [ON]
Adding Errors & Alarms at the SDH Interface	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [ERR & ALARM]
Adding Errors in the test pattern	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [PDH PAYLD]
Adding SDH Pointer Adjustments	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [ADJUST PTR]
Using SDH Pointer Graph Test Function	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [PTR GRAPH]
Generating SDH Automatic Protection Switch (APS) Messages	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [APS MESSAGES]
Monitoring SDH Automatic Protection Switch (APS) Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	[APS MESSAGES]
Inserting Data Communications Channel, SDH	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [DCC INSERT]
Dropping Data Communications Channel, SDH	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [DCC DROP]

## Making Measurements

Transmitting SDH Overhead BER Test Function	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [OVERHEAD BER]
Receiving SDH Overhead BER Test Function	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [OVERHEAD BER]
Test Timing	RESULTS			RESULTS [TIMING CONTROL]
Making SDH Analysis Measurements	RESULTS			RESULTS [SDH RESULTS] [ERROR ANALYSIS]
Measuring Jitter (J1409A only)	RESULTS			RESULTS [JITTER]
Measuring SDH Frequency	RESULTS			RESULTS [SDH RESULTS] [FREQUENCY]
Measuring SDH Optical Power	RESULTS			RESULTS [SDH RESULTS] [OPTICAL POWER]
Results Summary	RESULTS			RESULTS [SDH] [ERROR SUMMARY]
Trouble Scan	RESULTS			RESULTS [TROUBLE SCAN]

## Making Measurements (cont'd)

Performing an SDH Tributary Scan	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="TEST FUNCTION"/> TEST FUNCTION [SDH TRIBSCAN] <input type="button" value="RESULTS"/> RESULTS [SDH TRIBSCAN]
Performing an SDH Alarm Scan	<input type="button" value="RESULTS"/> RESULTS [SDH ALM SCAN]
Measuring SDH Jitter Tolerance (J1409A only)	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="JITTER"/> JITTER/WANDER [JITTER] JITTER [AUTO TOLERANCE]
Measuring SDH Jitter Transfer (J1409A only)	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="JITTER"/> JITTER/WANDER [JITTER] JITTER [TRANSFER FUNCTION]



## Storing, Logging and Printing

Enabling Graphics Results to Instrument Store	<b>RESULTS</b>	[TIMING CONTROL] GRAPH STORAGE [resolution as required]
Recalling Stored Graph Results	<b>GRAPH</b>	TEXT RESULTS STORE STATUS
Viewing the Bar Graph Display	<b>GRAPH</b>	GRAPH RESULTS
Viewing the Graphics Error and Alarm Summaries	<b>GRAPH</b>	TEXT RESULTS
Logging Graph Displays	<b>OTHER</b>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]
Logging Results	<b>OTHER</b>	FUNCTION [LOGGING] LOGGING SETUP [CONTROL]
Logging Results to Centronics Printer	<b>OTHER</b>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [PARALLEL]
Logging Results to GPIB Printer	<b>OTHER</b>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [GPIB]

## Storing, Logging and Printing (cont'd)

Logging Results to Internal Printer (Option 602 only)	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [INTERNAL]
Logging Results to RS-232-C Printer	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [RS232]
Logging Jitter Tolerance Results (J1409A only)	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]
Logging Jitter Transfer Results (J1409A only)	<input type="button" value="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>]
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	<input type="button" value="OTHER"/>	FUNCTION [SETTINGS CONTROL] TRANSMITTER AND RECEIVER [COUPLED]
Suspending Test on Signal Loss	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] SUSPEND TEST ON SIGNAL LOSS [ON]
MS-REI, MS-AIS, or REI-L, AIS-L Results Enable	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] MS-REI, MS-AIS, REI-L, AIS-L RESULT ENABLE
Setting Time & Date	<input type="button" value="OTHER"/>	FUNCTION [TIME & DATE]
Enabling Keyboard Lock	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] KEYBOARD LOCK [ON]
Enabling Beep on Received Error	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] BEEP ON RECEIVED ERROR [ON]
Setting Error Threshold Indication with Color Control	<input type="button" value="OTHER"/>	FUNCTION [COLOR CONTROL]

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

Dumping Display to Disk	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [CONTROL] LOG ON DEMAND [SCREEN DUMP]
Setting Screen Brightness and Color with Color Control	<input type="button" value="OTHER"/>	FUNCTION [COLOR CONTROL]
Running Self Test	<input type="button" value="OTHER"/>	FUNCTION [SELF TEST]





## **In This Guide**

Instructions on how to quickly select main instrument functions.

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