

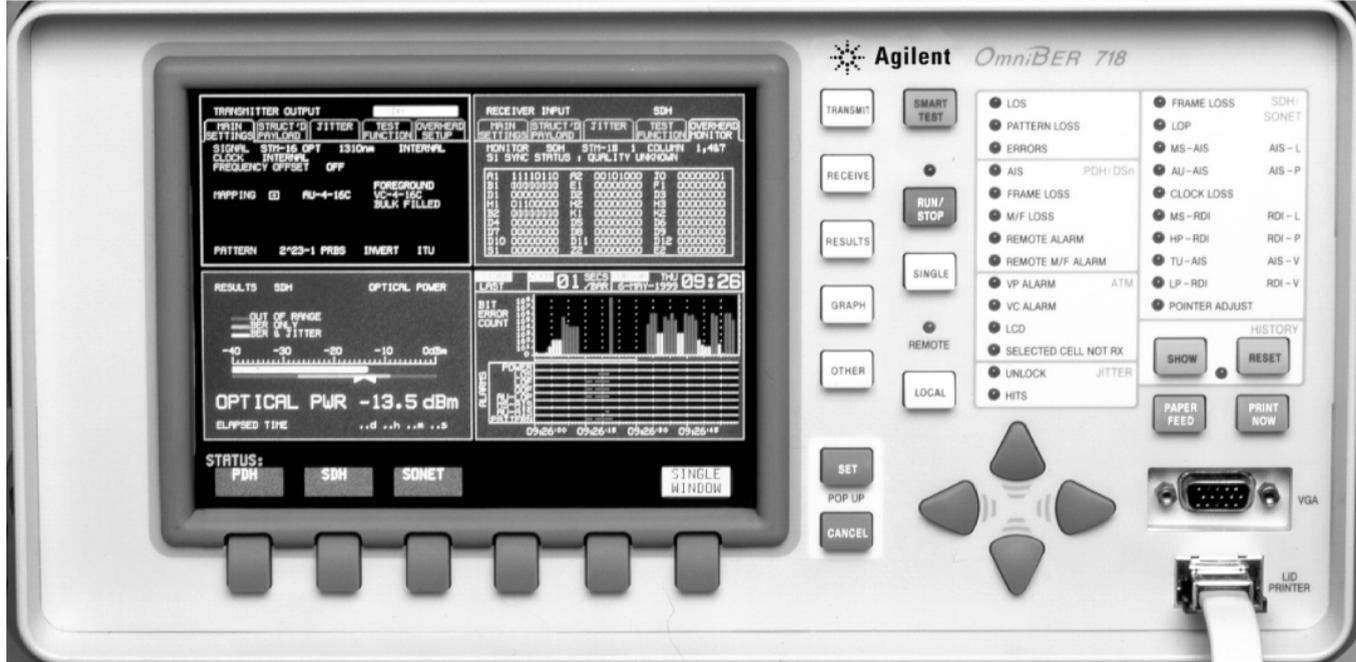


# Quick Reference Guide

**OmniBER 718**



**Agilent Technologies**



## 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] MAIN SETTINGS
Setting SDH Transmit Interface	TRANSMIT [SDH] MAIN SETTINGS
Setting Jitter Transmit Interface	TRANSMIT [SDH] JITTER OR TRANSMIT [PDH/DSn] JITTER
Setting Wander Transmit Interface	TRANSMIT [SDH] JITTER OR TRANSMIT [PDH/DSn] JITTER
Setting SDH THRU Mode	TRANSMIT [SDH] MAIN SETTINGS SIGNAL [THRU MODE]
Setting PDH THRU Mode (DS1/DS3 only)	TRANSMIT [PDH/DSn] MAIN SETTINGS DS1/DS3 [THRU MODE]
Setting ATM in the Transmitter	TRANSMIT [SDH] MAIN SETTINGS MAPPING [ ] [ ] [ATM] TRANSMIT [PDH/DSn] MAIN SETTINGS MAPPING [ ] [ ] [ATM]set ATM in the Receiver first
Setting POS in the Transmitter	TRANSMIT [SDH/SONET] MAIN SETTINGS MAPPING [ ] [ ] [POS]
Setting TCM in the Transmitter	TRANSMIT [SDH] MAIN SETTINGS TCM PATH [ ]

## Setting the Receive Interfaces

Using Smart Test	<b>Smart Test</b> [RUN TEST]
Setting PDH Receive Interface	<b>RECEIVE</b> [PDH/DSn] <b>MAIN SETTINGS</b>
Setting SDH Receive Interface	<b>RECEIVE</b> [SDH] <b>MAIN SETTINGS</b>
Setting Jitter Receive Interface	<b>RECEIVE</b> [SDH] <b>JITTER</b> OR <b>RECEIVE</b> [PDH/DSn] <b>JITTER</b>
Setting ATM in the Receiver	<b>RECEIVE</b> [SDH] <b>MAIN SETTINGS</b> MAPPING [ ] [ ] [ATM] <b>RECEIVE</b> [PDH/DSn] <b>MAIN SETTINGS</b> MAPPING [ ] [ ] [ATM]
Setting POS in the Receiver	<b>RECEIVE</b> [SDH/SONET] <b>MAIN SETTINGS</b> MAPPING [ ] [ ] [POS]
Setting TCM in the Receiver	<b>RECEIVE</b> [SDH] <b>MAIN SETTINGS</b> TCM PATH

## Selecting Test Features

### Selecting and Using Overhead Features

Using Transmit Overhead Setup	TRANSMIT	[SDH]	OVERHEAD SETUP	
Using Receive Overhead Monitor	RECEIVE	[SDH]	OVERHEAD MONITOR	
Setting Overhead Trace Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [TRACE MESSAGES]
Generating Overhead Sequences	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [SEQUENCES]
Using Receive Overhead Capture	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [O/H CAPTURE]
Setting TCM APId Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [TCM MESSAGE]
Using Transmit Overhead BER Test Function	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [OVERHEAD BER]

## Selecting and Using Signal Features

Adding Frequency Offset to the SDH Signal	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="MAIN SETTINGS"/> CLOCK [INTERNAL] FREQUENCY OFFSET [ON]
Adding Frequency Offset to the PDH Signal	<input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="MAIN SETTINGS"/> FREQUENCY OFFSET [<select>]
Setting up Signaling Bits	<input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="MAIN SETTINGS"/> SIGNAL [2Mb/s] PAYLOAD TYPE [PCM30] STRUCTURED <input type="button" value="STRUCT'D SETTINGS"/> 2M CAS ABCD BITS [<select>]
Setting Transmit Structured Payload/Test Signal	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="STRUCT'D PAYLOAD"/> OR <input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="STRUCT'D SETTINGS"/>
Setting Receive Structured Payload/Test Signal	<input type="button" value="RECEIVE"/> [SDH] <input type="button" value="STRUCT'D PAYLOAD"/> OR <input type="button" value="RECEIVE"/> [PDH/DSn] <input type="button" value="STRUCT'D SETTINGS"/>
Connecting A Telephone Handset	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="STRUCT'D PAYLOAD"/> TEST SIGNAL [64 kb/s] HANDSET [<select>] <input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="STRUCT'D SETTINGS"/> TEST SIGNAL [64 kb/s] HANDSET [<select>]
Setting Transmit N X 64 kb/s Structured Payload/Test Signal	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="STRUCT'D PAYLOAD"/> TEST SIGNAL [Nx64kb/s] <input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="STRUCT'D SETTINGS"/> TEST SIGNAL [Nx64kb/s]
Setting Receive N X 64 kb/s Structured Payload/Test Signal	<input type="button" value="RECEIVE"/> [SDH] <input type="button" value="STRUCT'D PAYLOAD"/> TEST SIGNAL [Nx64kb/s] <input type="button" value="RECEIVE"/> [PDH/DSn] <input type="button" value="STRUCT'D SETTINGS"/> TEST SIGNAL [Nx64kb/s]

## Selecting and Using Signal Features (cont'd)

Inserting an External PDH Payload/Test Signal	TRANSMIT [SDH] STRUCT'D PAYLOAD 2M PAYLOAD [INSERT 2Mb/s]
	TRANSMIT [PDH/DSn] STRUCT'D SETTINGS 2M PAYLOAD [INSERT 2Mb/s]
Dropping an External Payload/Test Signal	RECEIVE [SDH] STRUCT'D PAYLOAD 2M PAYLOAD [DROP 2Mb/s]
	RECEIVE [PDH/DSn] STRUCT'D SETTINGS 2M PAYLOAD [DROP 2Mb/s]
Adding Errors & Alarms at the SDH Interface	TRANSMIT [SDH] TEST FUNCTION TEST FUNCTION [SDH] [ERR & ALARM]
Adding Errors & Alarms to the PDH Interface/PDH Payload	TRANSMIT [SDH] TEST FUNCTION TEST FUNCTION [PDH PAYLD] [ERR & ALARM]
Using FEAC Codes in OmniBER	TRANSMIT [PDH/DSn] TEST FUNCTION
Setting PDH Spare Bits	TRANSMIT [SDH] TEST FUNCTION TEST FUNCTION [PDH PAYLD] [SPARE BITS]
Adding Pointer Adjustments	TRANSMIT [SDH] TEST FUNCTION TEST FUNCTION [SDH] [ADJUST PTR]
Using Pointer Graph Test Function	RECEIVE [SDH] TEST FUNCTION TEST FUNCTION [SDH] [PTR GRAPH]

## Selecting and Using Signal Features (cont'd)

Generating Automatic Protection Switch Messages	TRANSMIT [SDH] OVERHEAD SETUP SETUP [APS MESSAGES]
Inserting Data Communications Channel	TRANSMIT [SDH] TEST FUNCTION TEST FUNCTION [SDH] [DCC INSERT]
Dropping Data Communications Channel	RECEIVE [SDH] TEST FUNCTION TEST FUNCTION [SDH] [DCC DROP]
Setting ATM Transmitter Scrambling	TRANSMIT [SDH] ATM SETTINGS SETUP [CONV SUBLAYER] SCRAMBLING [<select>]
	TRANSMIT [PDH/DSn] ATM SETTINGS SETUP [CONV SUBLAYER] SCRAMBLING [<select>]
Setting ATM Receiver Scrambling	RECEIVE [SDH] ATM SETTINGS SETUP [CONV SUBLAYER] SCRAMBLING [<select>]
	RECEIVE [PDH/DSn] ATM SETTINGS SETUP [CONV SUBLAYER] SCRAMBLING [select>]
Setting up an ATM Foreground Signal	TRANSMIT [SDH] ATM SETTINGS SETUP [BACKGROUND]
	TRANSMIT [PDH/DSn] ATM SETTINGS SETUP [BACKGROUND]
Receiving an ATM Signal	RECEIVE [SDH] ATM SETTINGS SETUP [HEADERS/PAYLOAD]
	RECEIVE [PDH/DSn] ATM SETTINGS SETUP [HEADERS/PAYLOAD]

## Selecting and Using Signal Features (cont'd)

Setting up ATM Errors and Alarms	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [ATM]
	TRANSMIT	[PDH/DSn]	TEST FUNCTION	TEST FUNCTION [ATM]
Setting ATM Policing Function	RECEIVE	[SDH]	ATM SETTINGS	SETUP [POLICING]
	RECEIVE	[PDH/DSn]	ATM SETTINGS	SETUP [POLICING]
Setting POS Transmitter HDLC Framing	TRANSMIT	[SDH/SONET]	POS SETTINGS	HDLC FRAMING <SELECT>
Setting POS Transmitter Scrambling	TRANSMIT	[SDH/SONET]	POS SETTINGS	SCRAMBLING <SELECT>
Setting POS Transmitter HDLC FCS	TRANSMIT	[SDH/SONET]	POS SETTINGS	HDLC FCS <SELECT>
Setting POS Transmitter IP Header	TRANSMIT	[SDH/SONET]	POS SETTINGS	SETUP [IP HEADER] <SELECT>
Setting POS Transmitter Packet Size/Gap	TRANSMIT	[SDH/SONET]	POS SETTINGS	SETUP [PACKET SIZE/GAP] <SELECT>

## Selecting and Using Signal Features (cont'd)

Setting up POS Transmitter IP Address	TRANSMIT	[SDH/SONET]	POS SETTINGS	SETUP [IP ADDRESS] <SELECT>
Setting up POS Transmitter IP Payload	TRANSMIT	[SDH/SONET]	POS SETTINGS	SETUP [IP PAYLOAD] <SELECT>
Setting POS Errors and Alarms	TRANSMIT	[SDH/SONET]	TEST FUNCTION	TEST FUNCTION [POS]
Setting POS Receiver HDLC Framing	RECEIVE	[SDH/SONET]	POS SETTINGS	HDLC FRAMING <SELECT>
Setting POS Receiver Descrambling	RECEIVE	[SDH/SONET]	POS SETTINGS	DESCRAMBLING <SELECT>
Setting POS Receiver HDLC FCS	RECEIVE	[SDH/SONET]	POS SETTINGS	HDLC FCS <SELECT>
Setting up POS Receiver payload	RECEIVE	[SDH/SONET]	POS SETTINGS	PAYLOAD <SELECT>

## Making Measurements

Using 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] [ERROR ANALYSIS]
Making PDH Analysis Measurements	RESULTS	RESULTS [PDH PAYLOAD] [ERROR ANALYSIS]
Measuring Jitter	RESULTS	RESULTS [JITTER]
Measuring Frequency	RESULTS	RESULTS [SDH] [FREQUENCY]
Measuring Optical Power	RESULTS	RESULTS [SDH] [OPTICAL POWER]
Measuring Round Trip Delay	RESULTS	RESULTS [PDH PAYLOAD] [TRIP DELAY]
Measuring Service Disruption Time	RESULTS	RESULTS [SRVC DISRUPT]

## Making Measurements (cont'd)

Performing an SDH Tributary Scan	<input type="button" value="TRANSMIT"/> [SDH] <input type="button" value="TEST FUNCTION"/> TEST FUNCTION [TRIB SCAN] <input type="button" value="RESULTS"/> RESULTS [SDH TRIB SCAN]
Performing an SDH Alarm Scan	<input type="button" value="RESULTS"/> RESULTS [SDH ALM SCAN]
Performing a PDH Alarm Scan	<input type="button" value="RESULTS"/> [PDH ALM SCAN]
Measuring Jitter Tolerance	<input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="JITTER"/> JITTER [TOLERANCE]
Measuring Jitter Transfer	<input type="button" value="TRANSMIT"/> [PDH/DSn] <input type="button" value="JITTER"/> JITTER [TRANSFER FN]
Measuring ATM Source Disruption	<input type="button" value="RESULTS"/> RESULTS [SRVC DISRUPT]
Measuring ATM Results	<input type="button" value="RESULTS"/> RESULTS [ATM PAYLOAD]
Measuring POS Results	<input type="button" value="RESULTS"/> RESULTS [POS PAYLOAD]

## Storing, Logging and Printing

Saving Graphics Results to Instrument Store	<b>RESULTS</b>	[TIMING CONTROL] GRAPH STORAGE [1 MIN RESOL'N]
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
Test Period Logging	<b>OTHER</b>	FUNCTION [LOGGING] TEST PERIOD LOGGING [ON]
Logging Results to Centronics Printer	<b>OTHER</b>	FUNCTION [LOGGING] SETUP [DEVICE] LOGGING PORT [PARALLEL]
Logging Results to HP-IB Printer	<b>OTHER</b>	FUNCTION [LOGGING] SETUP [DEVICE] LOGGING PORT [GPIB]
Logging Results to Internal Printer	<b>OTHER</b>	FUNCTION [LOGGING] SETUP [DEVICE] LOGGING PORT [INTERNAL]

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

Logging Results to RS-232-C Printer	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] SETUP [DEVICE] LOGGING PORT [RS232]
Logging Results Content	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] SETUP [CONTENT]
Logging Results Period	<input type="button" value="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>]
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 Results Enable	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] MS-REI RESULT ENABLE
Inband DS1 Loopcode 156MTS Compatibility	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] INBAND DS1 LOOPCODE 156MTS COMPATIBILITY
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	<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] SETUP [DEMAND] LOG ON DEMAND [SCREEN DUMP]
Setting Screen Brightness and Color	<input type="button" value="OTHER"/>	FUNCTION [COLOR CONTROL]
Running Self Test	<input type="button" value="OTHER"/>	FUNCTION [SELF TEST]
Selecting Trigger Output	<input type="button" value="OTHER"/>	FUNCTION [TRIGGER OUTPUT]

## In This Guide

Instructions on how to quickly  
select main instrument functions.

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