

HP 8752C and HP 8753D Network Analyzers

Configuration Guide

300 kHz to 1.3, 3 or 6 GHz 30 kHz to 3 or 6 GHz

The HP 8752C and HP 8753D are part of a family of compatible products. For flexibility in specifying a solution that meets your exact needs, a system may be ordered as multiple line items. This guide should be used with the HP 8752C and HP 8753D Technical Specifications, which has a full description of the items listed.

System Configuration Summary

This summary lists the main components required to form basic measurement systems. Options or peripherals may be added to provide enhanced capability, data storage, or copies of the analyzer's data or display. This Configuration Guide provides descriptions of product options and compatible accessories. Information on HP 8753D systems begins on page 2. For HP 8752C systems, see page 7. Service and support products for both the HP 8753D and HP 8752C are listed on the last page.

Basic transmission/reflection measurements

- HP 8752C Network Analyzer
- Calibration kit for applicable connector type (optional)

Full S-parameter measurements

- **HP 8753D** Network Analyzer
- Test port return cables, 50 or 75 ohms
- Calibration kit for applicable connector type

System with user-selected test set

- **HP 8753D** Network Analyzer **Option 011** Delete Built-in Test Set
- Transmission/reflection or S-parameter test set
- Test port return cables for selected test set
- Calibration kit for applicable connector type

Ordering Information HP 8753D Network Analyzer (30 kHz to 3 or 6 GHz systems)

HP 8753D Network Analyzer

Integrated network analyzer with built-in color display, S-parameter test set, disk drive, and 30 kHz to 3 GHz synthesized source. A standard (50 ohm) HP 8753D has two 7 mm test ports. An operating and programming manual set is included with each instrument.

Option 002 Harmonic Measurement Capability

For measuring swept second and third harmonic responses.

Option 006 extends harmonic measurement capability to 6 GHz.

Option 006 6 GHz Frequency Extension

Provides source and receiver operation to 6 GHz.

Do not order Option 006 with Option 075.

Option 010 Time Domain Capability

For viewing reflection and transmission responses in time or distance

domain.

Option 011 Delete Built-in Test Set

Removes test set components and allows direct access to the R, A, and B

receiver inputs. Source start frequency limited to 300 kHz.

Do not order Option 011 with Option 075.

Option 075 75 Ohm Impedance

Replaces the standard 50 ohm test set with a 75 ohm test set.

Test ports are 75 ohm type-N connectors. Do not order Option 075 with

Option 006 or Option 011.

Option 1D5 High Stability Frequency Reference

Provides improved frequency accuracy over time and with temperature

variation.

Option 0B0 **Delete Operating Manual Set** Option 0B1 Add Extra Operating Manual Set **Option 1CM** Rack Mount Kit (without handles) **Option 1CP** Rack Mount Kit With Handles

Option 1BN MIL-STD 45662A Calibration Certification **Option 1BP** MIL-STD 45662A Calibration with Test Data **Option UK6** Commercial Calibration Certificate with Test Data

Option W08 Convert one year on-site warranty to three-year return-to-HP warranty

Two additional years of on-site service (where available) **Option W31**

The following localization options provide manuals that are partially or completely translated into the specified languages, depending on the region.

Option AB0 Taiwan - Chinese Localization Korea - Korean Localization Option AB1

Option AB2 China - Chinese Localization **Option ABD** Germany - German Localization

Option ABE Spain - Spanish Localization **Option ABF** France - French Localization **Option ABJ** Japan - Japanese Localization

Option ABZ Italy - Italian Localization

Measurement Accessories

Accessories are available in these connector types: 3.5 mm, 7 mm, 50 ohm type-N, 75 ohm type-N, and type-F. A standard or Option 075 HP 8753D includes a built-in test set. A calibration kit and test port cables should be added for a complete measurement system. For an HP 8753D Option 011 network analyzer, you will also need to add a power splitter or test set.

Test port cables are used to connect to the device under test. Calibration kits include standards, such as open/short circuits and loads, that are measured by the network analyzer for increased measurement accuracy. A verification kit is used to verify system performance.

For 50 ohm Device Measurement

Test Port Cables

- **HP 11857D** 50 Ohm 7 mm Test Port Return Cables
 A pair of 610 mm (24 in.) cables, for use with the standard HP 8753D network analyzer or the HP 85046A and HP 85047A test sets.
- HP 11851B 50 Ohm Type-N RF Cable Set
 For systems based on an HP 8753D Option 011. Includes three phase-matched 610 mm (24 in.)
 cables and one 860 mm (34 in.) cable. Used with the HP 85044A and HP 85044B test sets, and
 the HP 11850C and HP 11667A power splitters.

Calibration Kits

Choose a kit for each connector type to be used.

- **HP 85031B** 7 mm Calibration Kit
 - Contains fixed loads, and open/short circuit.
- **HP 85032B** 50 Ohm Type-N Calibration Kit Contains fixed loads, open and short circuits, and 7 mm to type-N adapters for both connector sexes for use with 7 mm test port cables.
- **HP 85033D** 3.5 mm Calibration Kit Contains fixed loads, one-piece open and short circuits, and 7 mm to 3.5 mm adapters for both connector sexes for use with 7 mm test port cables.
- **HP 85060** Series Electronic Calibration Modules and Control Unit
 This product family provides electronic calibration (ECal) capability. With ECal, the usual calibration kit standards are replaced by two solid state calibration modules which can be programmed by a control unit to present many different impedances to the test ports. A full two-port calibration can be done with a single connection in just a few minutes. There is less chance for error and less wear on connectors. ECal requires the HP 85060C ECal Control Unit in addition to HP 85060 series calibration modules in the appropriate connector type.

Verification Kit

■ HP 85029B 7 mm Verification Kit

Includes attenuators and mismatch attenuator with data on a 3.5 inch disk for use in confirming accuracy enhanced system measurement performance, traceable to national standards. Test procedure is provided in the service manual. For use with a standard HP 8753D, or with systems including an HP 8753D Option 011 and an HP 85044A, HP 85046A, or HP 85047A test set. The HP 85031B 7 mm calibration kit and HP 11857D test port cables are also required.

Adapters

■ **HP 11853A** 50 Ohm Type-N Accessory Kit Contains type-N male to type-N male adapters, type-N female to type-N female adapters, and type-N male and female shorts.

■ **HP 11854A** 50 Ohm BNC Accessory Kit Contains type-N to BNC adapters for both connector sexes and a BNC male short.

For 75 ohm Device Measurements

Test Port Cables

■ HP 11857B 75 Ohm Type-N Test Port Cables
A pair of 610 mm (24 in.) cables, for use with the HP 8753D Option 075 or the HP 85046B
S-parameter test set.

■ HP 11851B 50 Ohm Type-N RF Cable Kit
For systems based on an HP 8753D Option 011. Includes three phase-matched 610 mm
(24 in.) cables and one 860 mm (34 in.) cable. Used with the HP 85044A and HP 85044B
test sets, and the HP 11850C and HP 11667A power splitters. An HP 11852B minimum loss
pad is also required with the HP 85044B.

Calibration Kits

- **HP 85036B** 75 Ohm Type-N Calibration Kit Contains 75 ohm fixed loads, open/short circuits, and adapters.
- **HP 85039A** Type-F Calibration Kit Contains type-F male fixed load, open and short circuits, type-F female to type-F female adapters, and 75 ohm type-N to type-F adapters.

Minimum Loss Pads and Adapters

■ **HP 11852B** 50 to 75 ohm Minimum Loss Pad (300 kHz to 2 GHz) Adapts from 50 ohm type-N female to 75 ohm type-N male. Nominal insertion loss is 5.7 dB.

Option 004 Provides 50 ohm type-N male and 75 ohm type-N female connectors

- **HP 11855A** 75 Ohm Type-N Accessory Kit Contains 75 ohm type-N male to type-N male adapters, type-N female to type-N female adapters, type-N male and female shorts, and type-N male termination.
- **HP 11856A** 75 Ohm BNC Accessory Kit Contains 75 ohm type-N to 75 ohm BNC adapters for both connector sexes, a BNC male short, and BNC male termination.

Test Sets (For use with HP 8753D Option 011)

Transmission/reflection test sets provide the capability to measure transmission and reflection characteristics of a two-port device in the forward direction. S-parameter test sets can measure the characteristics of a two-port device in either direction with a single connection.

For 50 ohm Device Measurements

- **HP 85044A** 50 Ohm Transmission/Reflection Test Set 300 kHz to 3 GHz. Includes one 7 mm to type-N(f) adapter. Requires the HP 11851B RF Cable Kit for connection to the HP 8753D Option 011.
- **HP 85046A** 50 Ohm S-parameter Test Set 300 kHz to 3 GHz. Requires the HP 11857D 7 mm Test Port Return Cables for two-port device measurements. Includes a test set interconnect cable and four RF cables to connect to the HP 8753D Option 011.

Option 009 Substitute Mechanical Transfer Switch

Option 913 Rack Mount Kit

■ **HP 85047A** 50 Ohm S-parameter Test Set

300 kHz to 6 GHz. Requires the HP 11857D 7 mm Test Port Return Cables for two-port device measurements. Includes a test set interconnect cable and four RF cables to connect to the HP 8753D Option 011.

Option 009 Substitute Mechanical Transfer Switch

Option 913 Rack Mount Kit

- **HP 11850C** 50 Ohm Type-N Three-Way Power Splitter 300 kHz to 3 GHz. Requires the HP 11851B RF Cable Kit.
- **HP 11667A** 50 Ohm Type-N Two-Way Power Splitter DC to 18 GHz. Requires the HP 11851B RF Cable Kit.

For 75 Ohm Device Measurements

■ **HP 85044B** 75 Ohm Transmission/Reflection Test Set 300 kHz to 2 GHz. Includes one HP 11852B 50 to 75 ohm minimum loss pad. Requires the HP 11851B RF cable kit for connection to the HP 8753D Option 011.

■ **HP 85046B** 75 Ohm S-parameter Test Set

300~kHz to 2~GHz. Requires the HP 11857B 75 ohm test port return cables. Includes a test set interconnect cable and four RF cables to connect to the HP 8753D Option 011.

Option 009 Substitute Mechanical Transfer Switch
Option 913 Rack Mount Kit

■ HP 11850D 75 Ohm Type-N Three-Way Power Splitter 300 kHz to 2 GHz. Includes three HP 11852B 50 to 75 ohm minimum loss pads for use with the HP 8753D Option 011 (50 ohms). Requires the HP 11851B RF cable kit.

Other Accessories

Probe

■ **HP 85024A** High Frequency Probe Provides high impedance in-circuit test capability, from 300 kHz to 3 GHz.

Amplifier

■ **HP 8347A** RF Power Amplifier
Used to set leveled output power or increase system dynamic range, from 100 kHz to 3 GHz.

Power Meters

For accurate control of leveled test port power. Requires an HP 8480 series power sensor and an HP-IB cable for connection to the HP 8753D.

- **HP 436A** Power Meter
- **HP 437B** Power Meter
- **HP 438A** Dual Channel Power Meter

Keyboard

- **HP C1405B Option ABA** Keyboard with Mini-DIN Cable
- HP Part Number C1405-60015 Mini-DIN to DIN Adapter

The keyboard with cable and adapter can be connected to the HP 8753D's DIN interface to form a remote front panel and to provide a quicker, more convenient way to enter titles, labels, and file names. Both of these parts are required and must be ordered separately.

System Rack and Related Accessories

■ HP 85043D System Rack Kit

132~cm~(52.0~in)~high~x~60~cm~(23.6~in)~wide~x~90.5~cm~(35.6~in)~deep. Supplied with anti-static mat (part number 85043-80013), support rails, rack mounting hardware, and power distribution system.

Option 230 220/240 Volt Operation

■ **HP part number 85043-80013** Anti-Static Mat Kit

Retrofit Kits

These kits are used to add additional capability to the HP 8753D.

- **HP 11883A** Harmonic Measurement Upgrade Kit Includes installation at a local HP service center. The serial number of the HP 8753D to be retrofitted must be specified when ordering this kit.
- HP 11884B 6 GHz Upgrade Kit for HP 8753D

 Adds Option 006 to an HP 8753D that does not have Option 011.

 Includes installation at a local HP service center. The serial number of the HP 8753D to be retrofitted must be specified when ordering this kit. Do not use with an HP 8753D that has Option 011 or Option 075.

- **HP 11884C** 6 GHz Upgrade Kit for HP 8753D Option 011 Adds Option 006 to an HP 8753D with Option 011. Includes installation at a local HP service center. The serial number of the HP 8753D to be retrofitted must be specified when ordering this kit. Do not use with an HP 8753D that has Option 075.
- **HP 85019B** Time Domain Upgrade Kit
 The serial number of the HP 8753D to be retrofitted must be specified when ordering this kit. Installation is not included.
- **HP Part Number 08753-60236** High Stability Frequency Reference Retrofit Kit Installation not included.

Upgrade Kits for Other HP 8753 Products

These kits are used to upgrade older existing HP 8753 systems.

- **HP 11882A** HP 8753A to HP 8753B Upgrade Kit Includes installation at a local HP service center. The serial number of the HP 8753A to be upgraded must be specified when ordering this kit.
- **HP 86387B** Mixer Measurement Upgrade Kit for the HP 8753C Includes installation at a local HP service center. Not required for HP 8753C with Rev. 4.02 or higher firmware.
- **HP 86389A** Solid State Switch Upgrade Kit for the HP 85046A/B Includes installation at a local HP service center. Requires HP 8753B/C with Rev. 3.0 or higher firmware, or HP 8753D Option 011.
- **HP 86389B** Solid State Switch Upgrade Kit for the HP 85047A Includes installation at a local HP service center. Requires HP 8753B/C with Rev. 3.0 or higher firmware, or HP 8753D Option 011.

HP 8753C vs. HP 8753D Configuration Cross-Reference

The following table provides a summary to help customers who are familiar with the HP 8753C to decide what they need to order for an equivalent HP 8753D system.

Type of System	HP 8753C Configuration	HP 8753D Configuration
3 GHz S-parameter (50 ohm)	HP 8753C and HP 85046A	HP 8753D
6 GHz S-parameter (50 ohm)	HP 8753C Option 006 and HP 85047A	HP 8753D Option 006
75 ohm S-parameter	HP 8753C and HP 85046B	HP 8753D Option 075
3 GHz with user-selected test set	HP 8753C and test set	HP8753D Option 011 and test set
6 GHz with user-selected test set	Not available	HP 8753D Options 006 and 011 and test set

Ordering Information HP 8752C Network Analyzer (300 kHz to 1.3 GHz, 3 GHz, or 6 GHz systems)

■ **HP 8752C** Network Analyzer

Integrated network analyzer with built-in color display, transmission/reflection test set, and synthesized 300 kHz to 1.3 GHz source. Includes one type-N male to type-N male test port cable, whose errors have been removed by the built-in factory calibration. An operating and programming manual set is included with each instrument.

Option 003 3 GHz Frequency Extension

Provides source and receiver operation to 3 GHz. Do not order both

Option 003 and Option 006.

Option 004 Step Attenuator

Provides source output power range from -85 to +10 dBm.

Option 006 6 GHz Frequency Extension

Provides source and receiver operation to 6 GHz. Do not order

Option 006 with Option 003 or Option 075.

Option 010 Time Domain Capability

For viewing reflection and transmission responses in time or distance

domain.

Option 075 75 Ohm Impedance

Test ports are 75 ohm type-N connectors. Do not order Option 075

with Option 006.

Option 802 Add Dual Disk Drive and HP-IB Cable

Option AFN Add 50 Ohm Test Port Cable

Provides a second type-N male to type-N male test port cable, HP part number 8120-5639, and a type-N female to type-N female adapter, HP part number 1250-1472. Instructions are provided for storing a new internal calibration to account for the effect of this

cable.

Option AFP Add 75 Ohm Test Port Cable

Provides a 75 ohm type-N male to type-N female cable, HP part number 8120-2409. Instructions are provided for storing a new internal calibration to account for the effect of this cable.

Option 0B0 Delete Operating Manual Set
Option 0B1 Add Extra Operating Manual Set
Option 1CM Rack Mount Kit (without handles)
Option 1CP Rack Mount Kit With Handles

Option 1BN MIL-STD 45662A Calibration Certification
Option 1BP MIL-STD 45662A Calibration with Test Data
Option UK6 Commercial Calibration Certificate with Test Data

Option W08 Convert one year on-site warranty to three-year return-to-HP

warranty

Option W31 Two additional years of on-site service (whereavailable)

The following localization options provide manuals that are partially or completely translated into the specified languages,

depending on the region.

Option ABO
Option AB2
Option ABD
Option ABE
Option ABF
Option ABJ
Option ABJ
Option ABJ
Option ABJ
Option ABZ

Taiwan - Chinese Localization
Germany - German Localization
Spain - Spanish Localization
France - French Localization
Japan - Japanese Localization
Italy - Italian Localization

Measurement Accessories

Accessories are available in these connector types: 50 ohm type-N, 75 ohm type-N, 3.5 mm, BNC, and type-F. The HP 8752C's internal error correction compensates for loss and mismatch errors up to its type-N test ports. For most applications, no additional calibration is required. External user calibration is recommended to remove the effects of cables and adapters that are not part of the system, or when the highest accuracy is desired.

Calibration kits include standards that are required for vector accuracy enhancement. Unlike the HP 8753D system, the HP 8752C does not offer a verification kit. Instead, the HP 85032B 50 ohm and HP 85036B 75 ohm type-N calibration kits can be used to verify the performance of these systems.

Calibration Kits

Choose a kit for each connector type to be used.

■ **HP 85032B** 50 Ohm Type-N Calibration Kit

Contains fixed loads, open and short circuits, and 7 mm to type-N adapters for both connector sexes. This kit is also used to verify the HP 8752C system performance.

Option 001 Deletes 7 mm to type-N adapters

These adapters are not needed when this kit is used exclusively with an HP 8752C system.

■ **HP 85033D** 3.5 mm Calibration Kit

Contains fixed loads, one-piece open and short circuits, and 7 mm to 3.5 mm adapters for both connector sexes.

Option 001 Deletes 7 mm to 3.5 mm adapters

These adapters are not needed when this kit is used exclusively with an HP 8752C system.

■ **HP 85036B** 75 Ohm Type-N Calibration Kit

Contains 75 ohm fixed loads, open/short circuits, and 75 ohm type-N adapters of both sexes. This kit is also used to verify the HP 8752C option 075 system performance.

■ **HP 85039A** Type-F Calibration Kit

Contains fixed load, open and short circuits, type-F female to type-F female adapter, and 75 ohm type-N to type-F adapters.

Adapters

■ **HP 11852B** 50 to 75 Ohm Minimum Loss Pad (300 kHz to 2 GHz)

Adapts from 50 ohm type-N female to 75 ohm type-N male. Nominal insertion loss is 5.7 dB. **Option 004** Provides 50 ohm type-N male and 75 ohm type-N female connectors

■ **HP 11853A** 50 Ohm Type-N Accessory Kit

Contains type-N male to type-N male adapters, type-N female to type-N female adapters, and type-N male and female shorts.

■ **HP 11854A** 50 Ohm BNC Accessory Kit

Contains type-N to BNC adapters and a BNC male short.

■ **HP 11855A** 75 Ohm Type-N Accessory Kit

Contains 75 ohm type-N male to type-N male adapters, type-N female to type-N female adapters, type-N male and female shorts, and type-N male termination.

■ **HP 11856A** 75 Ohm BNC Accessory Kit

Contains 75 ohm type-N to 75 ohm BNC adapters for both connector sexes, a BNC male short, and BNC male termination.

■ **HP 11878A** 3.5 mm Adapter Kit

Contains 50 ohm type-N to 3.5 mm adapters.

■ **HP part number 08752-60020** Input/Output Control Adapter

Attaches to the "test set interconnect" on the rear panel of the HP 8752C to allow access to general purpose input/output signal lines. Female SMB connectors are provided for four TTL outputs, one TTL input, an end-of-sweep output, and a limit test output.

Test Port Cables

- **HP Part Number 8120-5639** 50 Ohm Type-N Test Port Cable (both connectors are type-N male)
- **HP Part Number 8120-2408** 75 Ohm Type-N Test Port Cable (both connectors are type-N male)
- HP Part Number 8120-2409 75 Ohm Type-N Test Port Cable (one male, one female connector)

Other Accessories

Retrofit Kits

These kits are used to add additional capability to the HP 8752C.

- **HP 11885A** 3 GHz Frequency Extension Upgrade Kit Includes installation at a local HP service center. The serial number of the HP 8752C to be retrofitted must be specified when ordering this kit.
- **HP 11884D** 6 GHz Upgrade Kit for the HP 8752C Includes installation at a local HP service center. The serial number of the HP 8752C to be retrofitted must be specified when ordering this kit. Do not use with an HP 8752C that has Option 075.
- **HP 85019C** Time Domain Retrofit Kit
 The serial number of the HP 8752C to be retrofitted must be specified when ordering this kit. Installation not included.
- **HP Part Number 08752-60019** Step Attenuator Retrofit Kit Installation is not included.

Peripherals

The following peripherals may be used with either the HP 8753D or the HP 8752C. Other peripherals not listed here may also be compatible with these instruments.

Monitors

- **HP 35741A** 12" Medium Resolution Color Monitor
- **HP 35741B** 12" Medium Resolution Color Monitor (international)

Plotters

An external computer is not required to copy the analyzer's display to a plotter.

- **HP 7475A Option 002** Six-Pen Graphics Plotter ISO A4 and A3 or 8.5 x 11 in. and 11 x 17 in. chart sizes. Option 002 specifies an HP-IB interface.
- **HP 7550B** Eight-Pen Graphics Plotter ISO A4 and A3 or 8.5 x 11 in. and 11 x 17 in. chart sizes.

Printers

An external computer is not required to copy or list data from the analyzer's display to a printer. Some printers have options to specify the interface. Consult your local HP office for more details. Other printers not listed here may also be compatible.

- **HP C2170A** DeskJet 520 Printer
- **HP C2168A** DeskJet 560C Printer
- **HP C2621A** DeskJet 310 Portable InkJet Printer
- **HP 3630A** PaintJet Color Graphics Printer
- **HP C2001A** LaserJet Series 4 Printer

Disk Drives

Measurement data, instrument states, calibration data, and test sequences may be stored directly to an external disk drive without the aid of a computer. The HP 8753D has a built-in disk drive, but an external disk drive can be added. The HP 8752C and HP 8753D are compatible with CS80 format drives, such as the ones listed here.

- **HP 9122C** 3.5 in. Dual Disk Drive May be ordered as HP 8752C Option 802.
- **HP 9153C** Winchester Disk Drive

Option 020 20 Mbyte Winchester hard drive with 3.5 in. floppy disk drive

Interface Cables

Choose the appropriate cables to connect each peripheral to the network analyzer.

- **HP 10833A** HP-IB Cable, 1.0 m (3.3 ft.)
- **HP 10833B** HP-IB Cable, 2.0 m (6.6 ft.)
- **HP 10833D** HP-IB Cable, 0.5 m (1.6 ft.)
- **HP 92284A** Centronics (Parallel) Printer Cable, 2.0 m (6.6 ft.)
- **HP C2913A** RS-232C Printer Cable, 1.2 m (3.9 ft.)
- \blacksquare **HP C2914A** Serial Plotter Cable, 1.2 m (3.9 ft.)

Printer Interface Adapter

Adapts the HP 8752C's HP-IB interface for connection to parallel printers or plotters. Not required for the HP 8753D since it has a built-in Centronics parallel interface.

- **HP ITEL-45CHVU** HP-IB to Parallel Interface Converter U.S. and Canada version. Converts HP-IB to Centronics parallel interface for connecting to printers.
- **HP ITEL-45CHVE** HP-IB to Parallel Interface Converter International version. Converts HP-IB to Centronics parallel interface for connecting to printers.

Service and Support Products

The HP 8752C and HP 8753D include a one-year on-site service warranty at no extra charge. On-site service may not be available in all areas. Return-to-HP service is provided where on-site service is unavailable. Customers may convert the standard one-year on-site warranty to a three-year return-to-HP warranty by ordering Option W08. Option W08 must be specified at the time of the analyzer's purchase.

Selected service and support products are listed below. For more information on training, service, and support products for these analyzers, consult your local HP sales and service office.

Follow-on On-site Service

- **HP 8752C Option W31** Two Additional Years of On-site Service
- **HP 8753D Option W31** Two Additional Years of On-site Service Option W31 adds two additional years of on-site support to the analyzer's normal one-year on-site warranty.
- **HP 8752C Option W51** Four Additional Years of On-site Service
- **HP 8753D Option W51** Four Additional Years of On-site Service Option W51 adds four additional years of on-site support to the analyzer's normal one-year on-site warranty.

Calibration Agreements

- HP 8752C Option W32 Three Year Customer Return Calibration Agreement
- **HP 8753D Option W32** Three Year Customer Return Calibration Agreement Option W32 provides return-to-HP commercial calibration in the second and third year, plus full calibration after any repair provided by HP for three full years.
- **HP 8752C Option W34** Three Year Customer Return Standards-Compliant Calibration Agreement
- **HP 8753D Option W34** Three Year Customer Return Standards-Compliant Calibration Agreement
 - Option W34 provides return-to-HP standards-compliant calibration in the second and third year, plus full calibration after any repair provided by HP for three full years.



For more information, call your local HP sales office listed in your telephone directory or an HP regional office listed below for the location of your nearest sales office.

United States:

Hewlett-Packard Company Test and Measurement Organization 5301 Stevens Creek Blvd. Bldg. 51L-SC Santa Clara, CA 95052-8059 1 800 452 4844

Canada:

Hewlett-Packard Canada Ltd. 5150 Spectrum Way Mississauga, Ontario L4W 5G1 (905) 206 4725

Europe:

Hewlett-Packard European Marketing Centre P.O. Box 999 1180 AZ Amstelveen The Netherlands

Japan:

Yokogawa-Hewlett-Packard Ltd. Measurement Assistance Center 9-1, Takakura-Cho, Hachioji-Shi, Tokyo 192, Japan (81) 426 48 0722

Latin America:

Hewlett-Packard Latin American Region Headquarters 5200 Blue Lagoon Drive, 9th Floor Miami, Florida 33126, U.S.A. (305) 267 4245/4220

Australia/New Zealand:

Hewlett-Packard Australia Ltd. 31-41 Joseph Street Blackburn, Victoria 3130, Australia Melbourne Caller 272 2555 (008) 13 1347

Asia Pacific:

Hewlett-Packard Asia Pacific Ltd. 17-21/F Shell Tower, Time Square, 1 Matherson Street, Causeway Bay, Hong Kong (852) 599 7070

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