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HP References in this Manual

This manual may contain references to HP or Hewlett-Packard. Please note that Hewlett-Packard's former test and measurement, semiconductor products and chemical analysis businesses are now part of Agilent Technologies. We have made no changes to this manual copy. In other documentation, to reduce potential confusion, the only change to product numbers and names has been in the company name prefix: where a product number/name was HP XXXX the current name/number is now Agilent XXXX. For example, model number HP8648A is now model number Agilent 8648A.

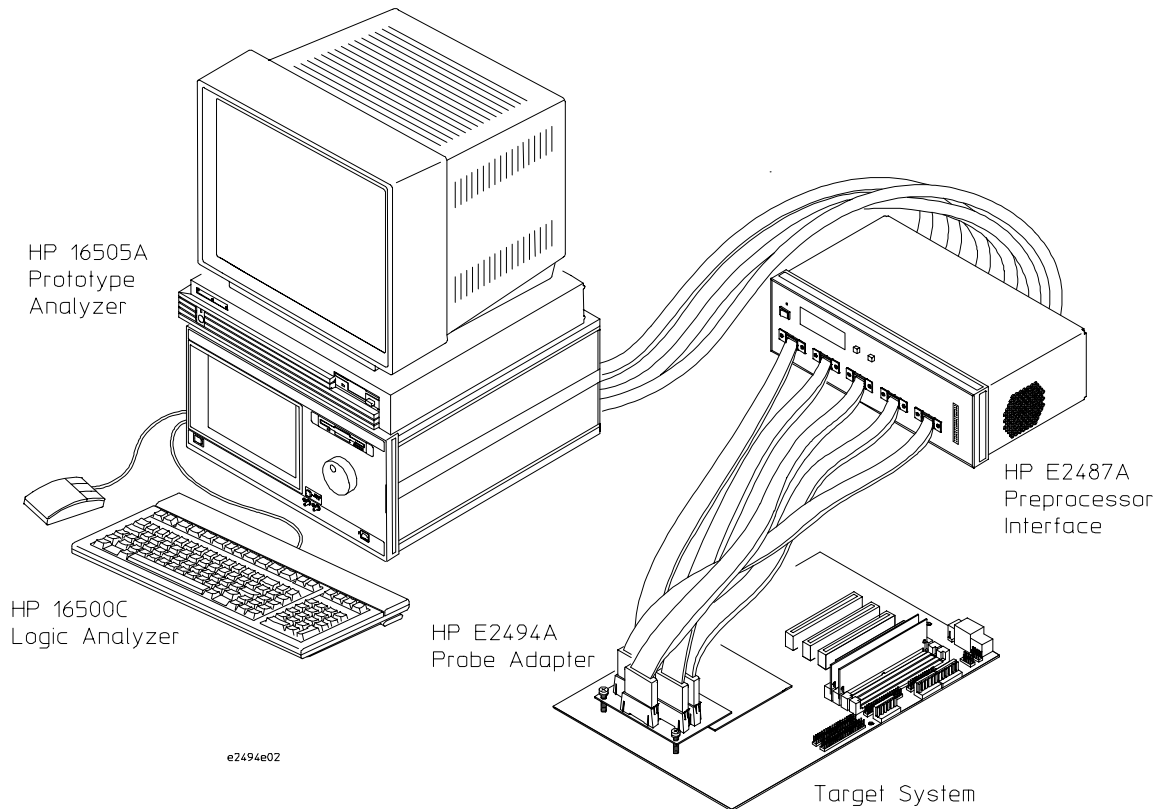
Installation Guide

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March 1998

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HP E2494A Probe Adapter for the Intel Pentium[®] II Mobile Processor

Installation at a Glance



This Installation Guide shows how to connect Hewlett-Packard's HP E2494A Probe Adapter to an Intel Mobile Pentium[®] II processor. This probe adapter provides a quick and reliable means of connecting the HP E2487A Preprocessor Interface to supported target systems, using the 190-pin Mictor connector. The supported target systems include the Pentium II Instrumented Mobile Module, and the Pentium II Mobile Processor mounted on Intel's Instrumented Interposer board.

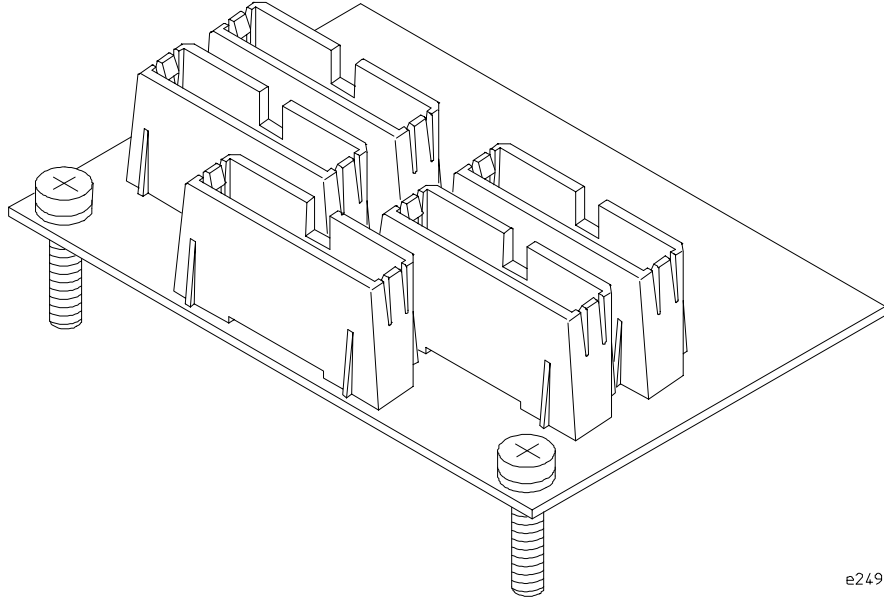
Installation Overview

- Connect the preprocessor interface to the probe adapter.
- Connect the probe adapter to the target system 190-pin Mictor connector, and adjust the adjustment screws.

Pentium[®] is a U.S. registered trademark of Intel Corporation.

Equipment Supplied

- Probe adapter
- This Installation Guide



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Minimum Equipment Required

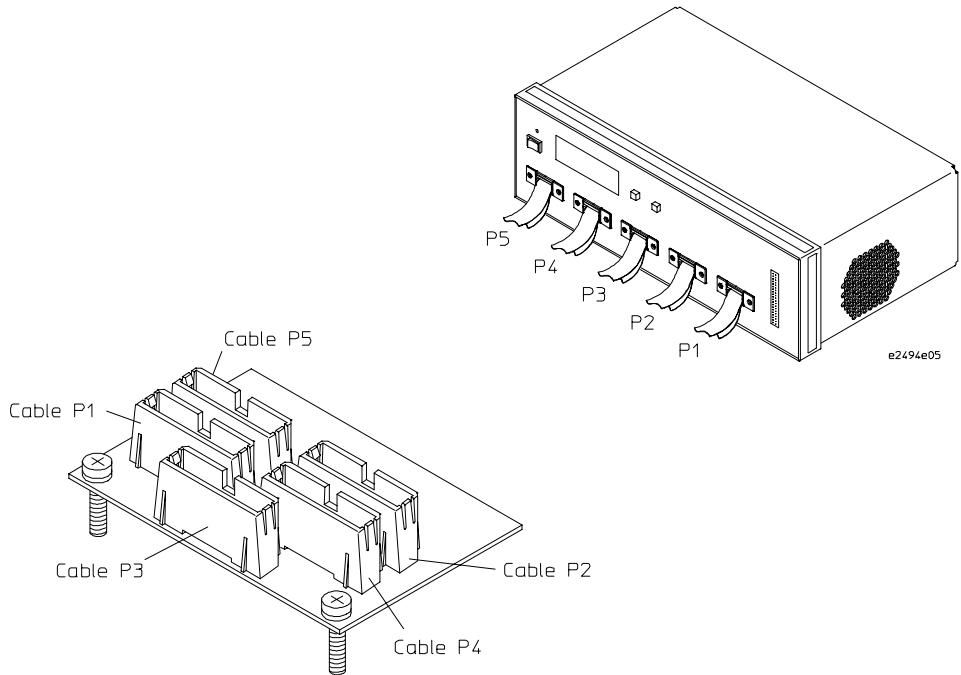
- For target systems using a Pentium II Mobile Module, a Pentium II **Instrumented** Mobile Module is required.
- For target systems using a Pentium II Mobile Processor, an **Instrumented** Interposer board is required.

To connect the probe adapter to the HP E2487A Preprocessor Interface

The probe adapter has five high-density connectors, labeled Cable P1 through Cable P5. The HP E2487A Preprocessor Interface also has five high-density cables, labeled P1 through P5. Connect the preprocessor cables to the correspondingly-numbered probe adapter connectors.

CAUTION

To prevent equipment damage, you must connect the preprocessor interface cables to the probe adapter before connecting the probe adapter to the target system.



CAUTION

To prevent equipment damage, when disconnecting the preprocessor interface from the probe adapter use the procedure on page 11.

To connect to the target system

The HP E2494A probe adapter connects to both the Pentium II Instrumented Mobile Module, and the Pentium II Mobile Processor mounted on Intel's Instrumented Interposer board, using the 190-pin Mictor connector. The probe adapter connects to both types of target systems in a similar manner.

You must have the appropriate board for connecting the HP E2494A to your target system. For target systems using a Pentium II Mobile Module, a Pentium II Instrumented Mobile Module is required. For target systems using a Pentium II Mobile Processor, an Instrumented Interposer board is required. These boards have the 190-pin Mictor connectors mounted on them. They are available from Intel.

Connecting to Pentium II Instrumented Mobile Module systems

CAUTION

To protect your equipment, remove the power from both the preprocessor interface and the target system before you make or break connections.

- 1** Remove the Pentium II Instrumented Mobile Module board from the target system.
- 2** Connect the HP E2487A preprocessor interface cables to the HP E2494A probe adapter, as shown on page 4.

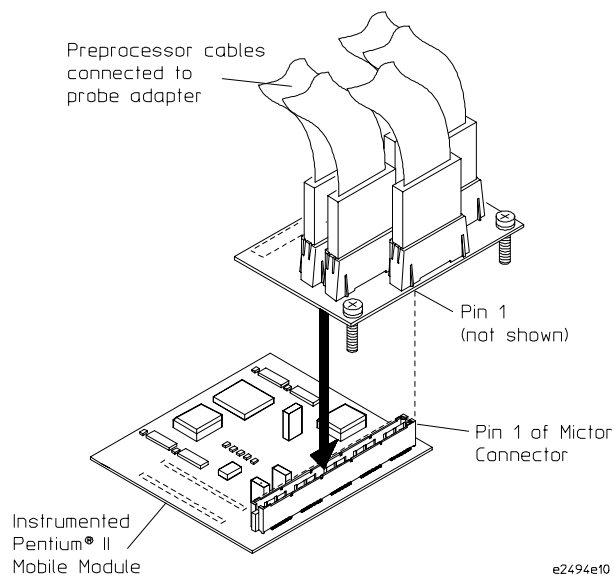
CAUTION

Connecting the preprocessor interface cables to the probe adapter after the probe adapter is already connected to the mobile module may exert excessive stress on the mobile module and the probe adapter. Excessive stress can damage the mobile module and/or the probe adapter.

- 3 Plug the probe adapter into the 190-pin Mictor connector on the Pentium II Instrumented Mobile Module, ensuring that Pin 1 is properly aligned (see illustration below).

CAUTION

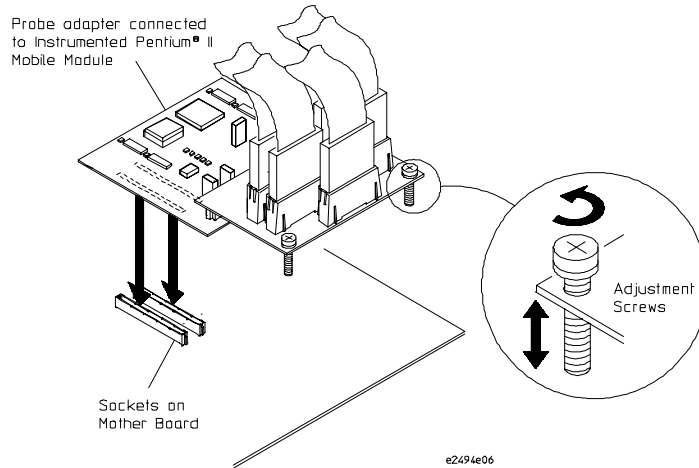
Damage to the connectors on the target system and probe adapter can result from incorrect connection. Note the position of Pin 1 of the 190-pin Mictor connectors on the probe adapter and the Instrumented Mobile Module board prior to making any connection. Take care to align the probe adapter connector with the pins on the Instrumented Mobile Module board connector so that all pins are making contact. Also, ensure that the probe adapter is firmly seated in the 190-pin Mictor connector, and that the probe adapter is parallel within $\pm 4^\circ$ with the Pentium II Instrumented Mobile Module.



Connecting the probe adapter to the Pentium II Instrumented Mobile Module board

- 4 Loosen the adjustment screws to ensure that there will be adequate clearance once you connect the assembly to the target system.

- 5 Attach the fully-connected probe adapter/Instrumented Mobile Module assembly to the connectors on the mother board.

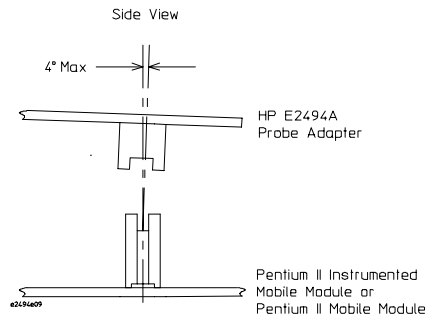


Connecting to the Pentium II Instrumented Mobile Module target system

- 6 Adjust the screws until they are making contact with the mother board. Ensure that the probe adapter is firmly seated in the 190-pin Mictor connector, and that the probe adapter is parallel within $\pm 4^\circ$ with the mother board (see below).

CAUTION

The adjustment screws must be properly adjusted so that they are touching the mother board, and the probe adapter is parallel within $\pm 4^\circ$ with the mother board. If the probe adapter is not supported by the adjustment screws, or if the probe adapter is not seated so that it is parallel within $\pm 4^\circ$ with the mother board, damage may occur to the Mictor connectors.



Required alignment for probe adapter and target system

Connecting to the Pentium II Mobile Processor mounted on Intel's Instrumented Interposer board

CAUTION

To protect your equipment, remove the power from both the HP E2487A Preprocessor Interface and the target system before you make or break connections.

- 1** If you are already using an Instrumented Interposer board, remove the Instrumented Interposer board from the target system. If you are not already using an Instrumented Interposer board, remove the microprocessor from the target system and plug it into the Instrumented Interposer board.
- 2** Connect the HP E2487A preprocessor interface cables to the HP E2494A probe adapter, as shown on page 4.

CAUTION

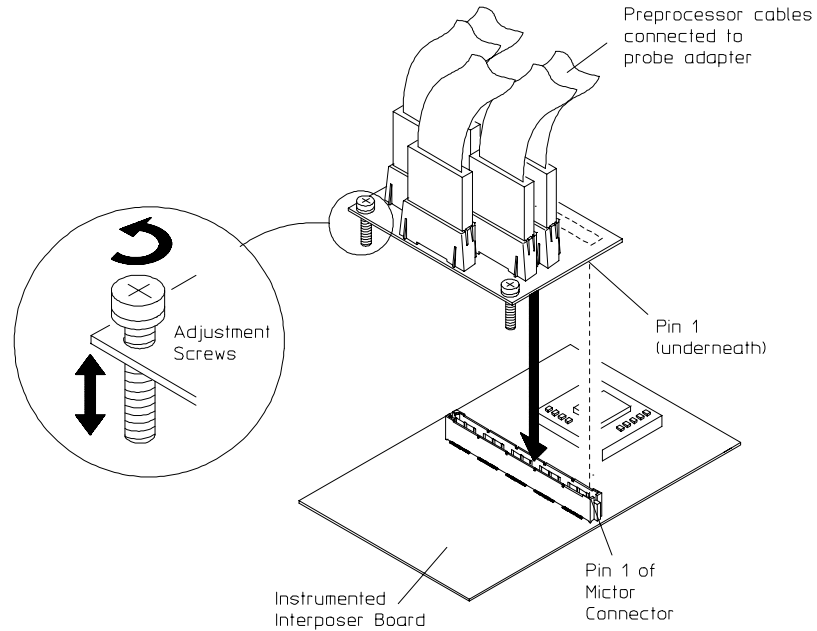
Connecting the preprocessor interface cables to the probe adapter after the probe adapter is already connected to the interposer board may exert excessive stress on the interposer board and the probe adapter. Excessive stress can damage the interposer board and/or the probe adapter.

- 3** Loosen the adjustment screws to ensure that there will be adequate clearance once you connect the probe adapter to the Instrumented Interposer board.

- 4 Plug the probe adapter into the 190-pin Mictor connector on the Instrumented Interposer board (see illustration below).

CAUTION

Damage to the connectors on the target system and probe adapter can result from incorrect connection. Note the position of Pin 1 of the 190-pin Mictor connectors on the probe adapter and target system prior to making any connection. Also, take care to align the probe adapter connector with the pins on the target system connector so that all pins are making contact.



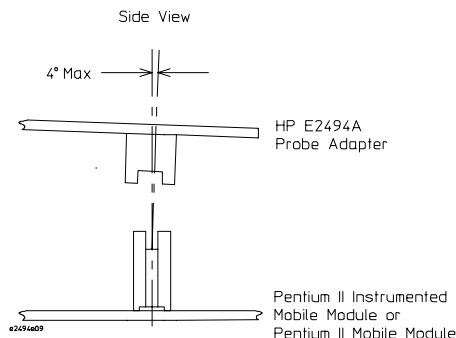
Connecting the probe adapter to the Instrumented Interposer board

To connect to the target system

- 5 Adjust the adjustment screws until they are making contact with the interposer board. Ensure that the probe adapter is firmly seated in the 190-pin Mictor connector, and that the probe adapter is parallel within $\pm 4^\circ$ with the interposer board (see illustration below).

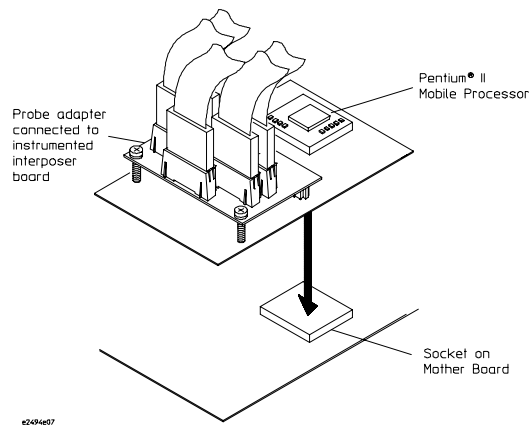
CAUTION

The adjustment screws must be properly adjusted so that they are touching the interposer board, and the probe adapter is parallel within $\pm 4^\circ$ with the interposer board. If the probe adapter is not supported by the adjustment screws, or if the probe adapter is not seated so that it is parallel within $\pm 4^\circ$ to the interposer board, damage may occur to the Mictor connectors.



Required alignment for connecting probe adapter to Intel's Instrumented Interposer board

- 6 Attach the fully-connected probe adapter/Instrumented Interposer to the connectors on the mother board.



Connecting to the Instrumented Interposer target system

To disconnect the preprocessor interface from the probe adapter

The Mictor connectors can be damaged by excessive stress. Always disconnect using the reverse procedure as connecting. Disconnect the assembly from the target system, then the probe adapter from the instrumented board, then the preprocessor interface cables from the probe adapter.

CAUTION

To protect your equipment, remove the power from both the HP E2487A Preprocessor Interface and the target system before you make or break connections.

Power requirements

The probe adapter draws a maximum 100 mA @ 5V, which is supplied by the logic analyzer.

CAT I, Pollution degree 2.

This product is intended for indoor use only.

Cleaning

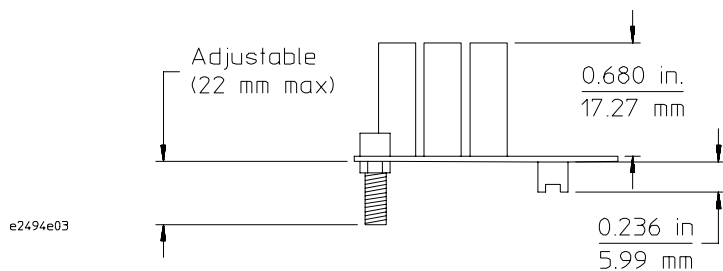
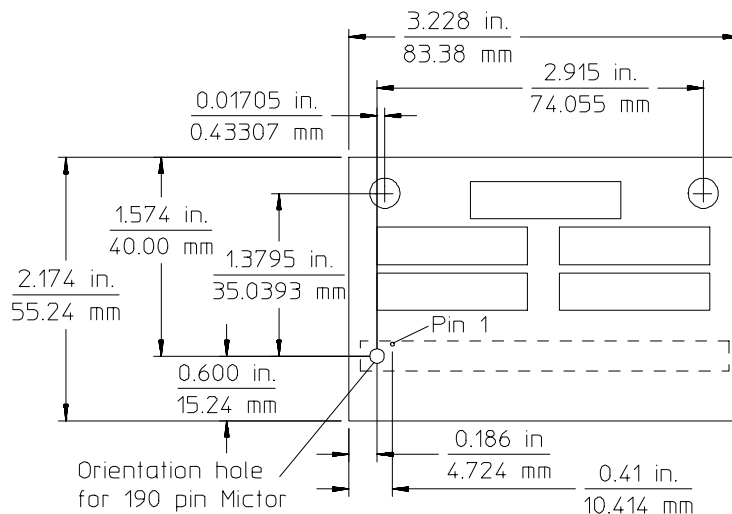
Remove any dust or debris from the probe adapter with precision dusting cleaner (otherwise known as inert dusting gas or compressed air).

Replaceable parts

The repair strategy for this probe is product replacement.

Probe dimensions

The figure below gives the dimensions for the HP E2494A Probe Adapter. The dimensions are listed in inches and millimeters.



Dimensions

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Safety

This apparatus has been designed and tested in accordance with IEC Publication 348, Safety Requirements for Measuring Apparatus, and has been supplied in a safe condition. This is a Safety Class I instrument (provided with terminal for protective earthing). Before applying power, verify that the correct safety precautions are taken (see the following warnings). In addition, note the external markings on the instrument that are described under "Safety Symbols."

Warning

- Service instructions are for trained service personnel. To avoid dangerous electric shock, do not perform any service unless qualified to do so. Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.
- Whenever it is likely that the ground protection is impaired, you must make the instrument inoperative and secure it against any unintended operation.
- Do not operate the instrument in the presence of flammable gasses or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.
- Do not install substitute parts or perform any unauthorized modification to the instrument.

Safety Symbols



Instruction manual symbol: the product is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against damage to the product.



Hazardous voltage symbol.



Earth terminal symbol: Used to indicate a circuit common connected to grounded chassis.

WARNING

The Warning sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond a Warning sign until the indicated conditions are fully understood and met.

CAUTION

The Caution sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood or met.

Product Warranty

This Hewlett-Packard system product is warranted against defects in material and workmanship for a period of one year from date of purchase. During the warranty period, Hewlett-Packard Company will, at its option, either repair or replace products that prove to be defective. Products must be returned to a service facility designated by HP.

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Certification

Hewlett-Packard Company certifies that this product met its published specifications at the time of shipment from the factory. Hewlett-Packard further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology, to the extent allowed by the Institute's calibration facility, and to the calibration facilities of other International Standards Organization members.

About this edition

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New editions are complete revisions of the manual. Many product updates do not require manual changes and manual corrections may be done without accompanying product changes. Therefore, do not expect a one-to-one correspondence between product updates and manual updates.



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