

## Errata

**Title & Document Type:** 10330A/10331A Upgrade Kits Installation Instructions

**Manual Part Number:** 5958-3780

**Revision Date:** May 1985

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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. The HP XXXX referred to in this document is now the Agilent XXXX. For example, model number HP8648A is now model number Agilent 8648A.

### About this Manual

We've added this manual to the Agilent website in an effort to help you support your product. This manual provides the best information we could find. It may be incomplete or contain dated information, and the scan quality may not be ideal. If we find a better copy in the future, we will add it to the Agilent website.

### Support for Your Product

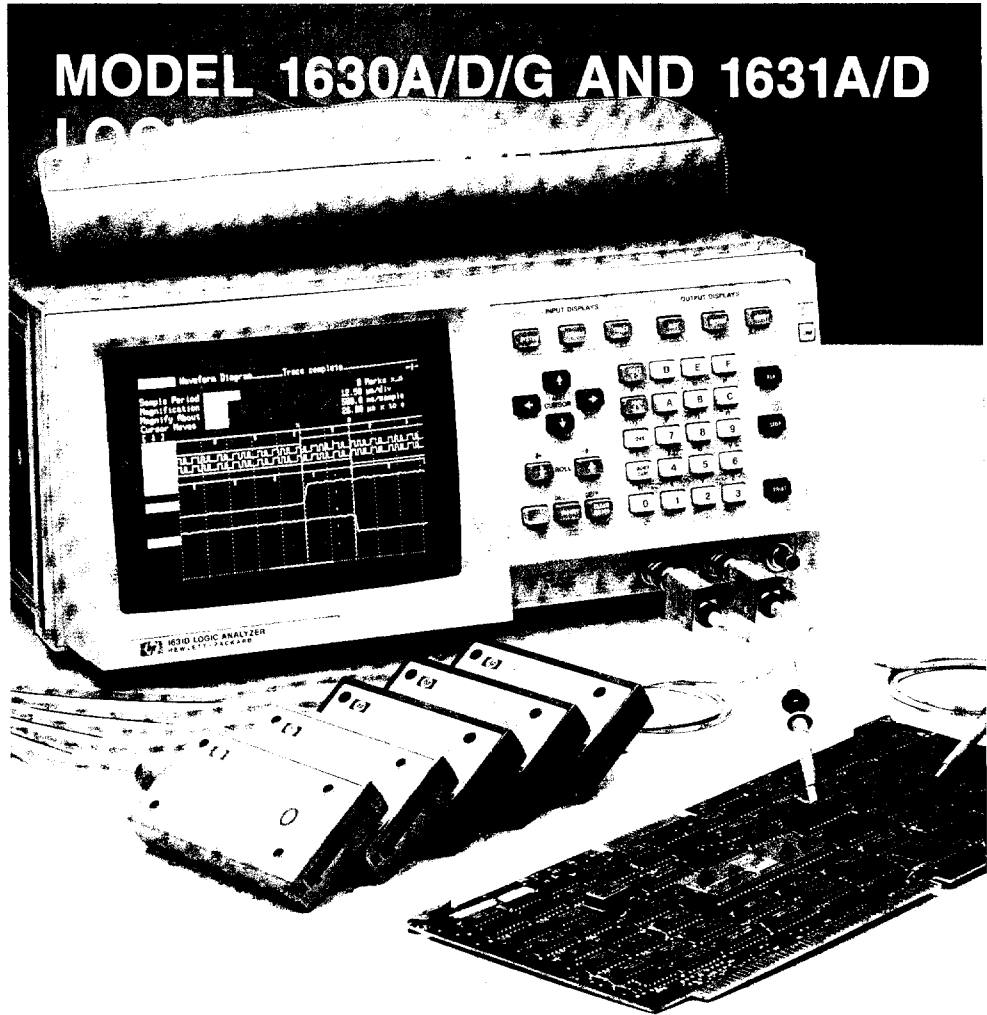
Agilent no longer sells or supports this product. You will find any other available product information on the Agilent Test & Measurement website:

[www.tm.agilent.com](http://www.tm.agilent.com)

Search for the model number of this product, and the resulting product page will guide you to any available information. Our service centers may be able to perform calibration if no repair parts are needed, but no other support from Agilent is available.

# SERVICE MANUAL

## MODEL 1630A/D/G AND 1631A/D



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## 1630 Family Upgrade Paths

The 1630 family is based on an architecture that allows any model in the family to be converted to any other model. These conversions can be done by the customer, but H-P recommends that all conversions be done by the H-P Service Centers for the following reasons:

- 1) The Service Centers have special equipment that allows them to verify that the unit functions just like a factory-new unit.
- 2) If the instrument is damaged by the customer when he's doing the conversion, the repair cannot be covered by H-P's warranty.

The following table shows what's needed to convert any model to any other model. Conversions typically take less than 90 minutes.

To: From: \	1630A, Tape (See Note 1)	1630D, Tape (See Note 1)	1630A, Disc (See Note 1)	1630D, Disc (See Note 1)	1630G	1631A	1631D
1630A, Tape (See Note 1)		01630-66508 10272A	01630-69523	01630-69523 01630-66508 10272A	10340A	10331A	10331A 01630-66508 10272A
1630D, Tape (See Note 1)	Remove: 10272A 01630-66508		01630-69523 Remove: 10272A 01630-66508	01630-69523	10340A Remove: 10272A 01630-66508	10331A Remove: 10272A 01630-66508	10331A
1630A, Disc (See Note 1)	ROM Set (See Note 2)	ROM Set (See Note 2) 01630-66508 10272A		01630-66508 10272A	10340A	10330A	10330A 01630-66508 10272A
1630D, Disc (See Note 1)	ROM Set (See Note 2) Remove: 10272A 01630-66508	ROM Set (See Note 2)	Remove: 10272A 01630-66508		10340A Remove: 10272A 01630-66508	10330A Remove: 10272A 01630-66508	10330A <u>\$ 3000</u>
1630G	ROM Set (See Note 2) Remove: 10273A 01630-66517	ROM Set (See Note 2) 01630-66508 Remove: 10273A 01630-66517	01630-69523 Remove: 10273A 01630-66517	01630-69523 01630-66508 10272A Remove: 10273A 01630-66517		10331A Remove: 10273A 01630-66517	10331A 01630-66508 <u>\$ 1000</u> 10272A <u>\$ 300</u> Remove: 10273A 01630-66517
1631A	ROM Set (See Note 2) Remove: 01631-66501	ROM Set (See Note 2) 01630-66508 10272A Remove: 01631-66501	Remove: 01631-66501	01630-66508 10272A Remove: 01631-66501	10340A Remove: 01631-66501		01630-66508 10272A
1631D	ROM Set (See Note 2) Remove: 10272A 01630-66508 01631-66501	ROM Set (See Note 2) Remove: 01631-66501	Remove: 10272A 01630-66508 01631-66501	Remove: 1631-66501	10340A Remove: 10272A 01630-66508 01631-66501	Remove: 10272A 01630-66508	

**Notes:**

- 1) 1630A/D shipped before February 1, 1985 uses an HP-IL cassette drive for mass storage. 1630A/D shipped after February 1, 1985 uses an HP-IB disc drive for mass storage.
- 2) This ROM Set consists of the following parts:

01630-80008	01630-80009	01630-80010	01630-80011
01630-80012	01630-80013	01630-80014	01630-80015



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# **MODELS 10330A/10331A UPGRADE KITS**

**INSTALLATION INSTRUCTIONS**

**PRINTED JANUARY 21 1985**  
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Part No. 5958-3780

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# 1630A/D to 1631A/D UPGRADE INSTRUCTIONS

## 1. INTRODUCTION

Any 1630A/D Logic Analyzer can be converted to a 1631A/D using the 1631A/D Upgrade Kit, P/N HP 10330A or 10331A. The 10330A kit is without CPU ROMs and the 10331A includes ROMs. ROM requirement is dependent on the serial number of the instrument. See your HP representative in the event of any questions.

This upgrade can be performed by the customer or by the local HP Sales and Service Center. Hewlett-Packard recommends conversion by experienced service personnel. Any damages to the instrument caused by the customer attempting the conversion cannot be covered under warranty.

**NOTE:** After installation, be sure to complete the warranty card and mail it immediately.

## 2. PARTS LIST

The HP 10330A and 10331A Upgrade Kits consist of the following parts:

*Table 1. List of parts included in kit.*

PART NO.	QTY	DESCRIPTION
01631-66501	1	1631A/D Analog Acquisition Board
10017A	2	10:1 Divider Probes
1250-1454	1	Probe to BNC Adapter
ROM set (see addendum 5958-5527 for part numbers)	1	(10331 Only)
	1	Identification Label
	1	Identification Label
54200-94301	1	Front panel label
3050-1016	3	1/2 inch ID flat washers
2950-0054	3	1/2 inch hex nuts
0515-0430	2	Machine screws
5958-3780	1	Installation Instructions
01631-90901	1	1631A/D Operating Manual

## 3. TOOLS REQUIRED

The only tools necessary for installation of the upgrade kits are a large Pozidriv® screwdriver, small Pozidriv® screwdriver, a torque wrench, and a small knife or other sharp tool.

#### 4. INSTALLATION INSTRUCTIONS

If the kit being installed does not include a set of ROMs (HP10330A) skip steps 3 through 11.

- 1) Remove the two rear feet (see figure 1).

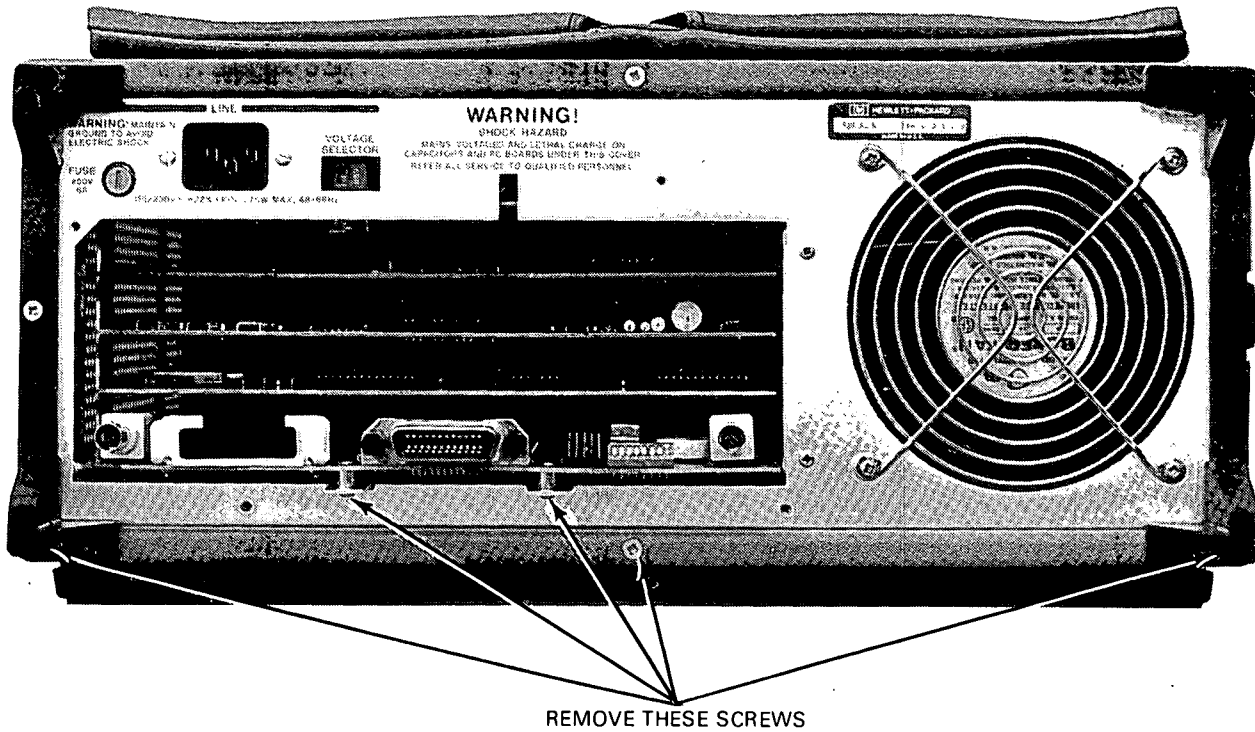


Figure 1.

- 2) Remove the bottom cover by loosening the screw at the center of the cover (see figure 1).
- 3) Disconnect two cables at the front of the CPU board (A3, see figure 2).

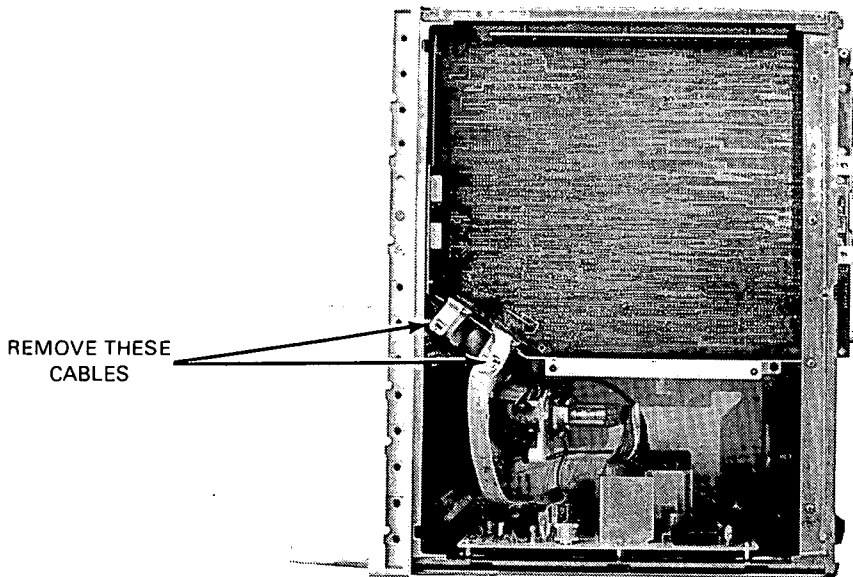


Figure 2.

- 4) Remove screws indicated in figure 3 and remove the rear door.

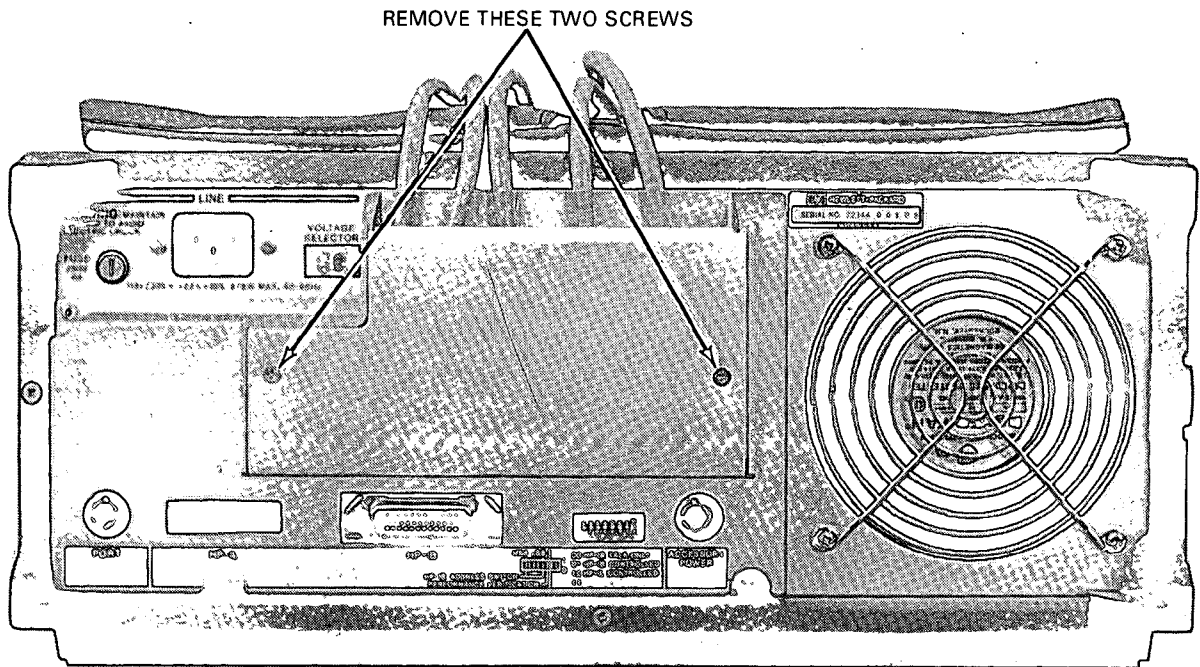


Figure 3.

- 5) Disconnect the acquisition probe plugs from the connectors on the back of the PC boards (see figure 4).

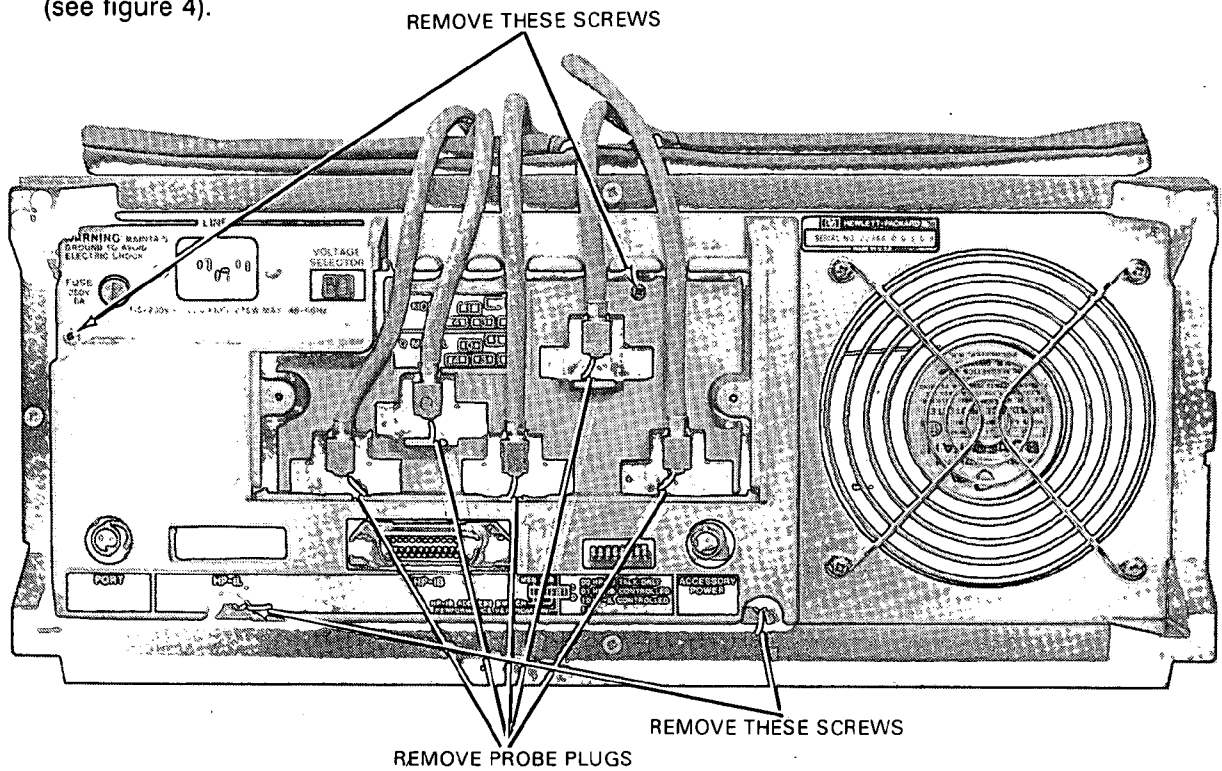


Figure 4.

- 6) Remove the screws that attach the rear casting and remove the casting (see figure 4).

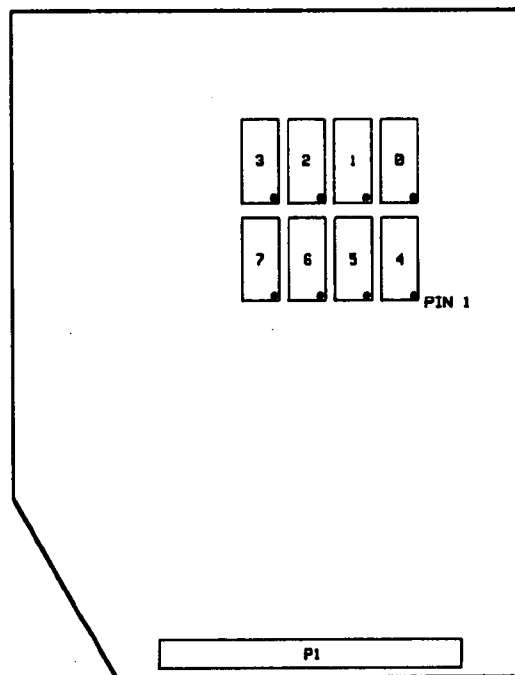


- 7) Remove the two screws beneath HP-IB connector (see figure 1).
- 8) Remove the CPU Board using the board extractor, or by gently moving the board from side to side while pulling outward. Be careful not to inadvertently change the DIP switch settings while removing the board.

**CAUTION**

*The ROMs are sensitive to electrostatic discharge (ESD). Use standard ESD precautions when handling these devices.*

- 9) Remove the eight ROMs from the sockets near the center of the board.
- 10) Install the eight ROMs from the upgrade kit. Figure 5 shows the proper order of installation.



*Figure 5. ROM Locations*

- 11) Install the CPU board in the bottom slot of the card cage by reversing steps 3, 7, and 8. Be sure to leave the bottom cover off.
- 12) Using a knife or other sharp tool, remove the blank protective label that covers the three BNC holes at the lower right corner of the front panel of the instrument.
- 13) Select the replacement label from the kit, remove the protective backing, and carefully place the label over the holes in the front panel.

- 14) Turn the instrument so that the bottom is up.
- 15) Carefully slide the 1631 Analog Board into the bottom of the instrument with the component side up. Push the BNC connectors through the front panel holes as the board bus connector mates with the connector on the motherboard. Be sure the board is fitted into the board guide (see figure 6).

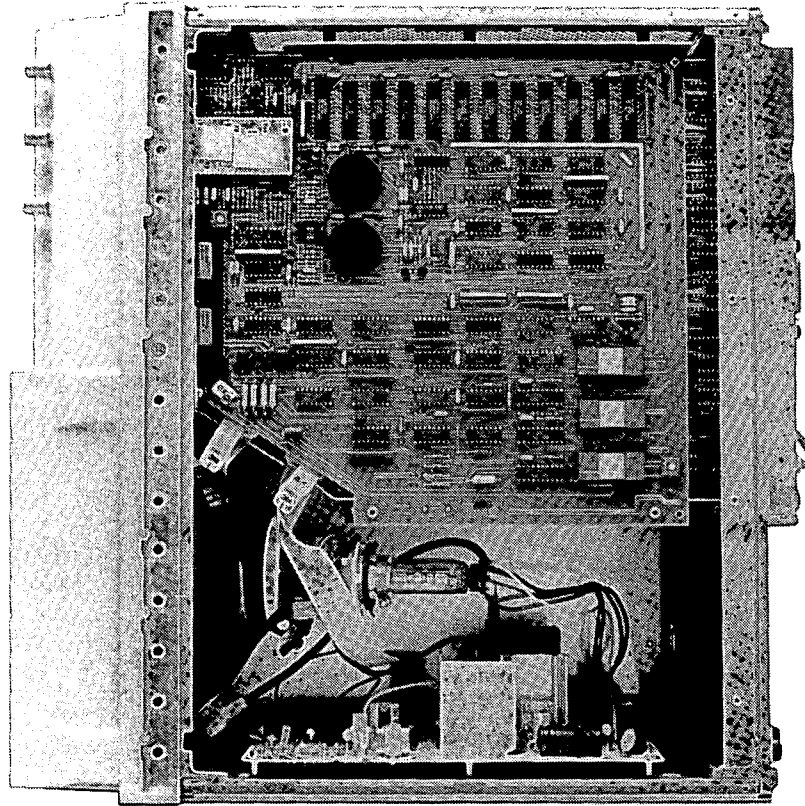


Figure 6.

- 16) Install the two machine screws along the edge of the board opposite the board guide.
- 17) Install the 1/2 inch washers and hex nuts over the BNC connectors on the front panel of the instrument. Tighten to 18 in/lb torque.
- 18) Replace the bottom cover.
- 19) Replace the rear feet.
- 20) Using the knife, remove the Model Identification label from the front panel. Select the applicable identification label from the kit. If the instrument being converted is a 1630A use the 1631A label. Remove the protective backing and carefully install the new label.

# MANUAL CHANGES

## MANUAL IDENTIFICATION

Model Number: 1630A/D/G 1631A/D  
 Date Printed: FEBRUARY 1986  
 Part Number: 01630-90916

This supplement contains important information for correcting manual errors and for adapting the manual to instruments containing improvements made after the printing of the manual.

To use this supplement:  
 Make all ERRATA corrections.  
 Make all appropriate serial number related changes indicated in the tables.

Serial Prefix or Number	Make Manual Changes	Serial Prefix or Number	Make Manual Changes
1631A/D	UPDATE		
1631A 2645A 1631D 2641A	REVISION 1		
1630A 2715A 1630D 2716A	REVISION 1		
1631A 2714A 1631D 2713A	REVISION 1		
1630A/D/G 2812A 1631A/D 2811A	REVISION 2		

► NEW ITEM

## ► INSTRUCTIONS

The replacement pages in this manual changes document will update and revise the 1630A/D/G, 1631A/D Service Manual so that it covers all serial prefixes up through the date on this change.

There have been three editions of this manual changes. If your manual was revised using a previous edition, it is only necessary to further revise it with the pages in later editions.

Since a page may have changed in more than one revision, and is included only with the latest revision where it changed, you cannot update a manual to an intermediate serial prefix. To ensure your manual is fully updated, be sure it includes all of the pages changed or added in each revision in this manual changes document.

## NOTE

Manual change supplements are revised as often as necessary to keep manuals as current and accurate as possible. Hewlett-Packard recommends that you periodically request the latest edition of this supplement. Free copies are available from all HP offices. When requesting copies quote the manual identification information from your supplement, or the model number and print date from the title page of the manual.

## **UPDATE**

The purpose of this update is the addition of Appendix C, a manual procedure for analog acquisition performance tests on the 1631A/D. Also provided, are manual pages changed to reflect the presence of this appendix in the manual.

Pages vii, 1-2, 1-7, 4-9:

Replace with pages vii, 1-2, 1-7/8, 4-9 respectively from this change.

Appendix C

Insert Appendix C (with tab page) from this change into the back of the Service Manual, right after Appendix B.

## **REVISION 1**

The following pages are changed to revise the manual to cover serial prefix changes and correct some errata. Replace the service manual pages with the pages following the blank blue sheet in this document.

Adjustments, Section 5: 5-9

Replaceable Parts, Section 6: 6-28, 31/32, 35, 37, 43, 47, 49

State Master, Section 8C: 8C-19

State Slave, Section 8F: 8F-13, 17

Appendix A: Replace the entire appendix (excluding tab page) with the pages provided.

## **► REVISION 2**

The following pages are changed or added to revise the manual to cover serial prefix changes and correct errata. Use the pages following the blank green sheet in this document.

Title page: replace with new page.

Adjustments, Section 5 (errata):

Replace pages 5-2 with the same page from this document.

Replaceable Parts, Section 6:

Remove pages 6-9 through 6-16 and replace with pages 6-9 through 6-16D.

Replace pages 6-19 through 6-24.

Instrument Changes, Section 7: relace pages 7-2, 3, 11/12.

Power Supply, Motherboard Service, Section 8A:

Replace pages 8A-i/ii

Add pages 8A-14A through 8A-14C.