HP 33474 and HP 33475
Memory Board
Installation Information

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

5b

4a

SERIAL

PARALLEL

1

33474-XXXXX

33475-XXXXX

6

SERIAL PARALLEL

4b

SERIAL PARALLEL

2

SERIAL PARALLEL

7

5a

IAL PARALLEL

3
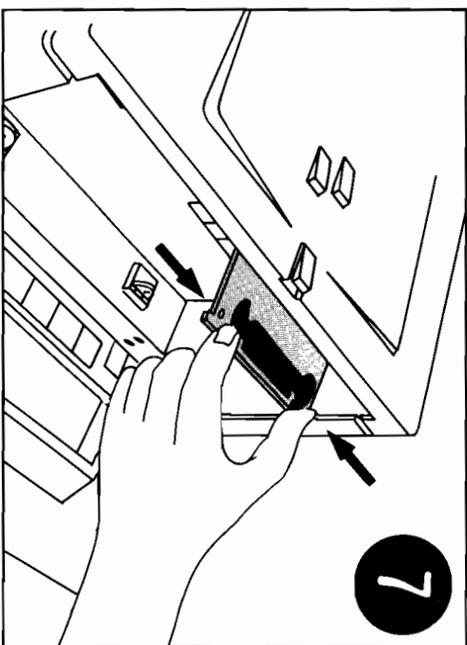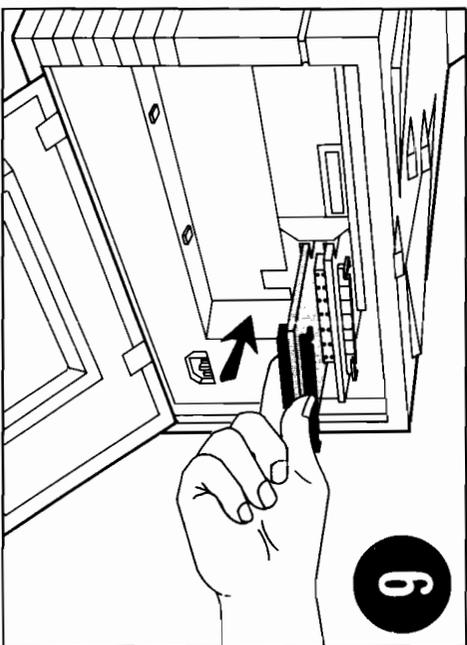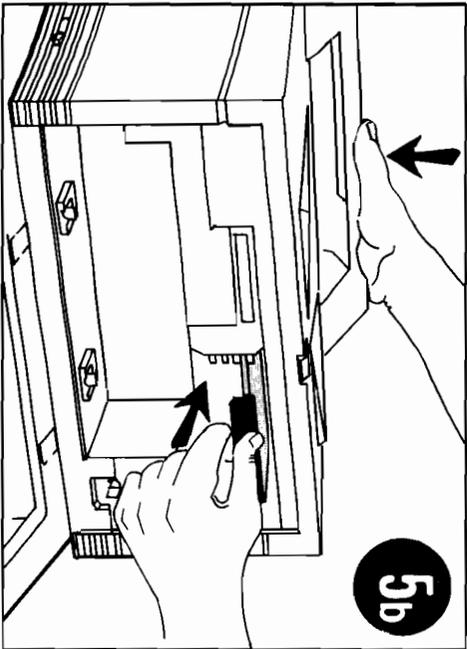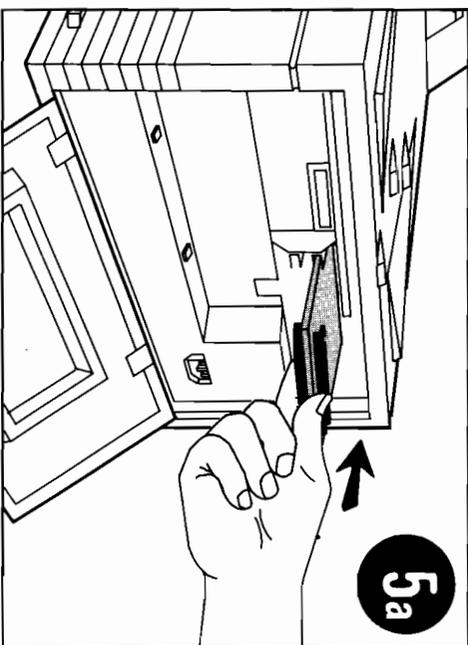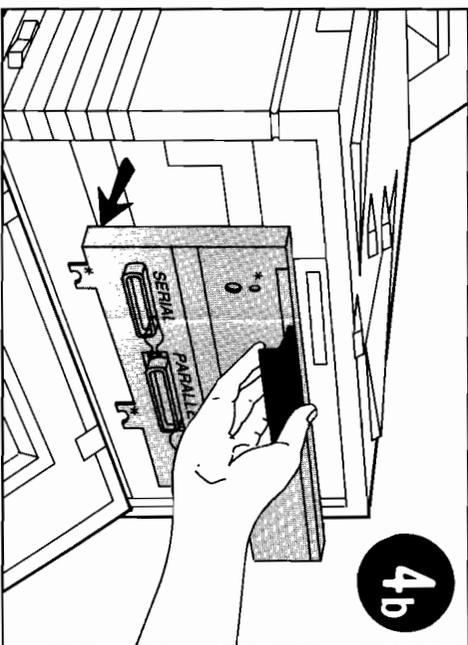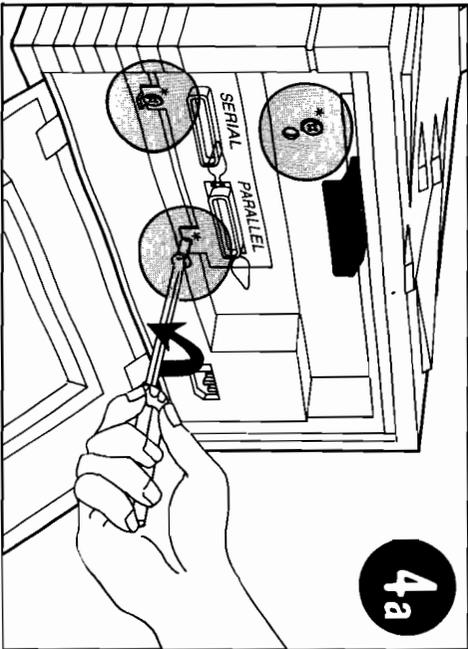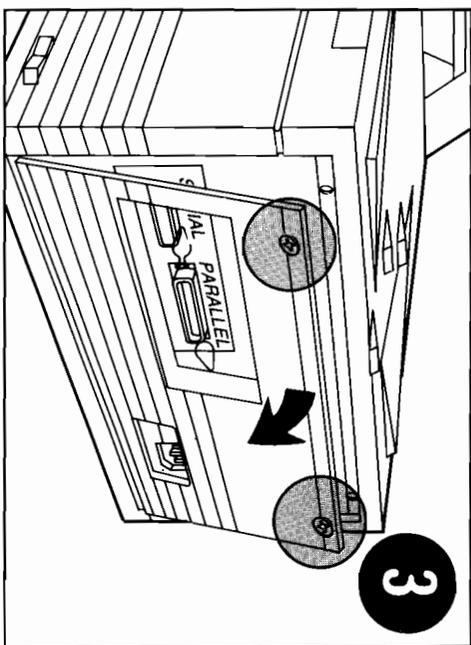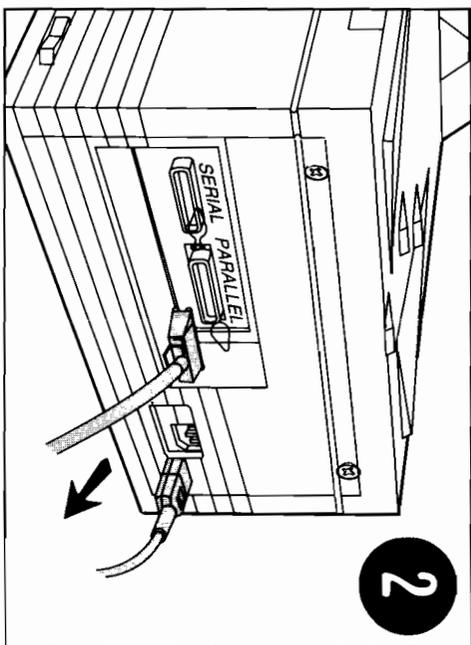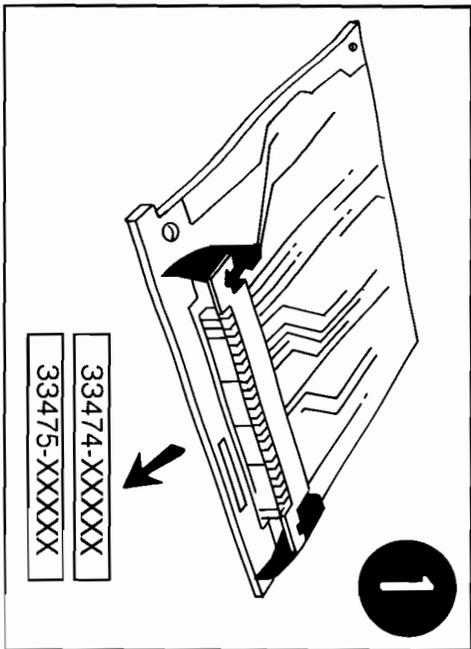
English

MEMORY BOARD INFORMATION FOR ALL APPLICATIONS

Installation of the HP 33474 one-megabyte or HP 33475 two-megabyte RAM memory board allows your device's standard memory to be incrementally expanded. For detailed installation instructions for all devices except the LaserJet IIP Printer, consult your user's manual. For the LaserJet IIP Printer only, installation instructions which are appropriate for any version of the HP 33474 or HP 33475 memory board follow in this document.

1 **PROTECT THE BOARD:** Since the memory board contains electrical components easily damaged by small amounts of static electricity, precautions such as using grounding devices and maintaining contact with any bare sheet metal surface on the device while handling the board should be taken to eliminate static discharge. To help prevent static electricity buildup, avoid activities such as moving about the work area, especially if it is carpeted. Handle the board carefully at all times as described in your user's manual. Avoid touching board components or circuit paths. Never flex or put excessive pressure on it.

2 **INSTALLATION:** Except for the LaserJet IIP, consult your user's manual for detailed installation Instructions. (Installation instructions for the LaserJet IIP Printer for all memory board versions follow in this document.)

Español

INFORMACION SOBRE LA TARJETA DE MEMORIA PARA TODAS LAS APLICACIONES

La instalacion de la tarjeta de memoria RAM HP 33474 de un megabyte o HP 33475 de dos megabyte permite a la memoria estandar de su dispositivo se incrementa. Para instrucciones detalladas de instalacion de todos los dispositivos excepto la impresora LaserJet IIP, consulte el manual de usuario. Para la impresora LaserJet IIP, las instrucciones de instalación adecuadas para cualquier versión de la tarjeta de memoria HP 33474 o HP 33475 vienen a continuación en este documento.

1 **PROTEJA LA TARJETA:** Debido, a que la placa de memoria contiene componentes eléctricos que se pueden dañar facilmente con pequeñas cantidades de electricidad estática, precauciones como utilizar dispositivos con toma de tierra o mantener el contacto con superficies con alguna cara metálica en el dispositivo mientras maneja la tarjeta, deberan ser tomadas para eliminar las descargas elétricas. Para ayudar a prevenir la electricidad estática, evite actividades tales cómo moverse cerca del área de trabajo, especialmente si está enmoquetado. Maneje la tarjeta con cuidado en todo momento como se describe en el manual de usuario. Evite colocar los componentes de la tarjeta o las conexiones del circuito. Nunca la doble o apriete en exceso.

2 **INSTALACION:** Excepto para la LaserJet IIP, consulte el manual de usuario para instrucciones de instalación detalladas. Las instrucciones de instalación de todas las versiones de tarjetas de memoria para la impresora LaserJet IIP vienen a continuación en este documento.

Français

INFORMATIONS D'INSTALLATION DE LA CARTE MEMOIRE

L'installation d'une carte mémoire HP 33474, d'un méga-octet, ou d'une carte HP 33475, de deux méga-octets, permet à la mémoire standard d'un système d'être progressivement augmentée. Consultez votre manuel d'utilisation pour des informations plus détaillées sur l'installation. Pour l'imprimante LaserJet IIP seulement, les instructions d'installation propres aux différentes versions de la carte mémoire HP 33474 ou HP 33475 sont à la suite de ce document.

1 **PROTECTION DE LA CARTE :** le fait que la carte mémoire contient des composants électroniques la rend sensible aux décharges, même faibles, d'électricité statique. Il y a donc lieu d'adopter des

English

Installation of the HP 33474 one-megabyte or HP 33475 two-megabyte RAM memory board allows the LaserJet IIP printer's standard memory to be expanded up to an additional four megabytes. There are only two memory expansion slots; any combination of one- or two-megabyte boards can be installed. Four megabytes is the maximum expanded memory the printer can use. If the board is to be installed in a printer other than the LaserJet IIP, consult the manual for that printer. Additional printer memory allows full-page, 300-DPI graphics to be printed, more data to be stored in the page buffer, more soft fonts to be downloaded, and more macros to be defined.

PROTECT THE BOARD AND YOURSELF

| CAUTION |

Since the memory board contains electrical components easily damaged by small amounts of static electricity, the following cautions should be observed:

- If possible, use an anti-static wrist strap and a grounding mat such as those included in the Electrically Conductive Field Service Grounding Kit (HP 9300-0933).

OR

Before removing the board from its anti-static bag, touch the surface of the bag and touch any bare sheet metal surface on the rear of the printer.

- To prevent static electricity buildup, avoid activities such as moving about the work area, especially if it is carpeted.

- Handle the board carefully at all times. Never flex or put excessive pressure on it. Avoid touching board components.

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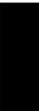
Hazardous voltages are present in the printer. Never remove any access cover or work near exposed electrical parts when power is connected.

INSTALL THE BOARD

First, read all instructions carefully. The numbers in green circles below refer to numbers on the fold-out illustration. A Phillips screwdriver is needed. Make sure you understand all installation procedures before beginning installation.

① Before installation, identify the board. (Refer to table; xxxxx indicates that the last five digits are manufacturer's numbers that may change.)

BOARD IDENTIFICATION TABLE	
PART NUMBER	SIZE
33474-xxxxx	1 Megabyte
33475-xxxxx	2 Megabyte

If the board will not be installed immediately, place it in a cool, dry place in its original packaging. If you have not received the correct board, notify your local Hewlett-Packard Sales and Service Office or authorized dealer immediately.

② Switch printer off and unplug power cord. Disconnect any serial and/or parallel I/O cables from rear of printer.

③ Open hinged rear access panel by loosening two captive screws. Be careful to loosen only these two screws (see illustration). Do not attempt to raise the printer's top cover. To discharge static electricity which could damage sensitive internal printer components, touch any bare sheet metal surface on rear of printer.

English

④ Remove I/O interface plate by removing three screws indicated on plate by asterisks (see illustration) and rotating plate toward you and downward by pulling green handle. I/O plate should slip out of slots at bottom. Board guide rails and pin connector should now be visible.

⑤ To install first board, remove board from anti-static packaging, holding it with green-tab-side up, and slide it into printer using upper slot guide rails (see steps 5-a, 5-b, and 6 in illustration). To fully seat board, hold printer with free hand, then firmly push against flat green plastic area.

⑥ If a second board is to be installed, insert it below first board in same manner (see illustration). Second board connects to previously installed board; be sure to firmly push against green plastic area to properly seat board pin connector.

Replace I/O plate by putting tabs into slots and rotating it into an upright position. Be sure plate pin connector is firmly seated by pushing green handle. Replace the three screws removed in step 4. Then rotate rear access panel into place and secure with the two captive screws.

TEST INSTALLED BOARD

A. With power switch off, plug in power cord and I/O cables, then switch printer on.

B. Run a SELF TEST by taking printer off line, then, while holding down the ALT key, clicking the TEST key (see User's Manual). Wait for printout to appear. If board is operating correctly, the self test printout will show one of the messages in the SELF TEST MESSAGE TABLE.

SELF TEST MESSAGE TABLE		
Upper Slot	Lower Slot	RAM Size Message
1M	None	RAM size 1536K bytes
2M	None	RAM size 2560K bytes
1M	1M	RAM size 2560K bytes
1M	2M	RAM size 3584K bytes
2M	1M	RAM size 3584K bytes
2M	2M	RAM size 4608K bytes

IN CASE OF DIFFICULTY

- If RAM size is incorrectly reported, access memory board by repeating steps 2 through 6 and check to be sure board pin connector is firmly seated.

- 53 ERROR or 53 ERROR UNIT X: Indicates an error on one or more RAM expansion boards. The X value (1 or 2), if available, indicates which expansion board failed (1 is the top board). To resume printing, hold down the ALT key and click the CONTINUE key. If you see this error, notify your local Hewlett-Packard Sales and Service Office or authorized dealer for assistance.

- 57 ERROR UNIT X: Indicates that more than four megabytes of expanded memory has been installed. The extra memory will be ignored. To resume printing, hold down the ALT key and click the CONTINUE key.

- 63 SERVICE ERROR: If this message appears, the board may be defective or incorrectly installed. Check to be sure board is seated properly. Attempt to clear the error by switching the printer off and then on again. If you still see this error, notify your local Hewlett-Packard Sales and Service Office or authorized dealer for assistance.

MEMORY BOARD REMOVAL

⑦ To remove a board, first access memory card by repeating steps 2, 3, and 4, then unseat it by squeezing green tabs together while pulling toward you. Place board in antistatic packaging.