



## INSTALLATION AND SERVICE MANUAL

# 7914ST MASS STORAGE SUBSYSTEM

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### OPTIONS COVERED

This manual covers options 002, 015, 114, 240, and 800 as well as the standard subsystem.



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Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

HEWLETT-PACKARD COMPANY  
P.O. BOX 39 BOISE, IDAHO 83707, U.S.A.

# PRINTING HISTORY

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# SAFETY CONSIDERATIONS

**GENERAL** - This product and related documentation must be reviewed for familiarization with safety markings and instructions before operation.

## SAFETY SYMBOLS



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



Indicates hazardous voltages.



Indicates earth (ground) terminal.

### WARNING

The **WARNING** sign denotes a hazard. It calls attention to a procedure or practice 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 or practice 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** sign until the indicated conditions are fully understood and met.

**SAFETY EARTH GROUND** - This is a safety class I product and is provided with a protective earthing terminal. An uninterruptible safety earth ground must be provided from the main power source to the product input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, the product must be made inoperative and be secured against any unintended operation.

**BEFORE APPLYING POWER** - Verify that the product is configured to match the available main power source according to the input power configuration instructions provided in this manual.

If this product is to be operated with an autotransformer make sure that the common terminal is connected to the earth terminal of the main power source.

## SERVICING

### WARNING

Any servicing, adjustment, maintenance, or repair of this product must be performed only by service-trained personnel.

Adjustments described in this manual may be performed with power supplied to the product while protective covers are removed. Energy available at many points may, if contacted, result in personal injury.

Capacitors inside this product may still be charged after the product has been disconnected from the main power source.

To avoid a fire hazard, fuses with the proper current rating and of the specified type (normal blow, time delay, etc.) must be used for replacement.

To install or remove a fuse, first disconnect the power cord from the device. Then, using a small flat-bladed screw driver, turn the fuseholder cap counterclockwise until the cap releases. Install either end of a properly rated fuse into the cap. Next, insert the fuse and fuseholder cap into the fuseholder by pressing the cap inward and then turning it clockwise until it locks in place.



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## 1-1. INTRODUCTION

This section contains general information about the HP 7914ST Mass Storage Subsystem. This information consists of a general description, power requirements, documentation, characteristics, and available options.

## 1-2. GENERAL DESCRIPTION

The HP 7914ST Mass Storage Subsystem, hereafter referred to as the subsystem, consists of an HP 7914R Disc/Tape Drive (less cartridge tape drive) and an HP 7974A Digital Magnetic Tape Unit mounted in a 29453-series subsystem cabinet. Additional space is available in the subsystem cabinet to accommodate a second HP 7914R (less cartridge tape drive) or an HP 1000 A-Series computer. The subsystem is designed for connection to the Hewlett-Packard Interface Bus (HP-IB).<sup>\*</sup> All necessary cabling is provided with the subsystem.

The subsystem is equipped with a complete electrical system, UL approved and wired in accordance with current International Electrotechnical Commission (IEC) electrical specifications. The electrical system includes a Power Distribution Unit (PDU) which supplies power to all cabinet components. Input power to the PDU is controlled by the PDU circuit breaker (CB1). Power to the cabinet components is supplied via five CEE-22 female receptacles mounted on the top of the PDU: Three of the receptacles provide unfiltered power to the HP 7974A, the HP 7914R(s), and an optional HP 1000 A-Series computer; the two additional receptacles provide a filtered power output for products that require a filtered supply. The receptacles have a maximum rating of 6A at 250 Vac. The subsystem is supplied with a power cord which is wired into the PDU during installation.

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<sup>\*</sup>HP-IB: Not just IEEE-488, but the hardware, documentation, and support that delivers the shortest path to a computation system.

## 1-3. POWER REQUIREMENTS

The subsystem is available with two input power configurations: the standard subsystem is configured for 120V, 60 Hz operation; the option 015 subsystem is configured for 220v, 50 Hz operation. In addition, the subsystem can be configured for 240V, 50 Hz operation (refer to table 2-1). The power specification label, which is installed on the rear of the cabinet during the initial installation of the subsystem, reflects the current subsystem power configuration.

The subsystem is normally operated from single-phase ac mains power; however, a system configured for 120V can be operated from a 240V, 60 Hz two-phase ac mains power source. If two-phase power is used, the resulting phase loading is unbalanced. The PDU wiring connections are shown in figure 2-2.

Note: The power cord supplied with the subsystem is terminated with a NEMA 5-20P plug (see figure 4-1, item 26). This plug requires a NEMA 5-20R mating receptacle.

## 1-4. DOCUMENTATION

The following documentation is supplied with the subsystem:

- *HP 7914ST Mass Storage Subsystem Installation and Service Manual*, part no. 07914-90912
- *HP 7911/7912/7914 Disc/Tape Drives Operator Instructions*, part no. 07912-90901
- *HP 7911, 7912, and 7914 Disc/Tape Drives Operating and Installation Manual*, part no. 07912-90902
- *Site Environmental Requirements for Disc/Tape Drives*, part no. 5955-3456

•HP 7974A Operator's Manual, part no. 07974-90000

•HP 7974A Service Manual, part no. 07974-90030

The following documentation, which may be ordered from the nearest Hewlett-Packard Sales and Support Office listed at the rear of this manual, provides additional information on the operation and service of the individual components of the subsystem:

•HP 7911, 7912, and 7914 Disc/Tape Drives Service Manual, part no. 07912-90903

•CS/80 Instruction Set Programming Manual, part no. 5955-3442

•CS/80 External Exerciser Manual, part no. 5955-3462

## 1-5. AVAILABLE OPTIONS

A list of the available subsystem options is provided in table 1-1.

## 1-6. CHARACTERISTICS

Table 1-2 lists the HP 7914ST characteristics. The physical dimensions of the subsystem are shown in figure 1-1.

Table 1-1. Available Options

OPTION NO.	DESCRIPTION
002	Adds a cartridge tape drive with dedicated controller to the HP 7914R. (For HP 3000 systems only.)
015	Configures the subsystem for 220V, 50 Hz operation.
114	Adds a second HP 7914R (without a cartridge tape drive) to the subsystem.
240	Adds a cartridge tape drive to the HP 7914R.
800	Adds the 800 CPI option to the HP 7974A.

Table 1-2. HP 7914ST Characteristics

Safety

- CSA certified to CSA 22.2 No. 154.
- Meets all applicable safety standards of IEC 380 and IEC 435.
- UL listed to UL 114 and UL 478.

Physical Characteristics

Overall Height:	1613 mm (63.5 in.)
Overall Width:	600 mm (23.6 in.)
Overall Depth:	813 mm (32.0 in.)
Net Weight:	
Standard	261 kg (574 lb)
Option 114	301 kg (663 lb)
Shipping Weight:	
Cabinet w/HP 7974A	204 kg (450 lb)
HP 7914R	90 kg (198 lb)

Power Characteristics

Voltage:	
Single phase	120/240V; +5%, -10% 220V; +/-5%
Two phase	240V; +5%, -10%
Frequency:	48 to 66 Hz*
Power:	
Standard	860 watts
Option 114	1440 watts
Line dropout:	No effect on performance; no operator intervention required for dropout equal to or less than one-half cycle of the ac line frequency (10.6 ms, 50 Hz; 8.3 ms, 60 Hz).

\*The HP 7914R requires a belt and pulley change to operate over this frequency range.

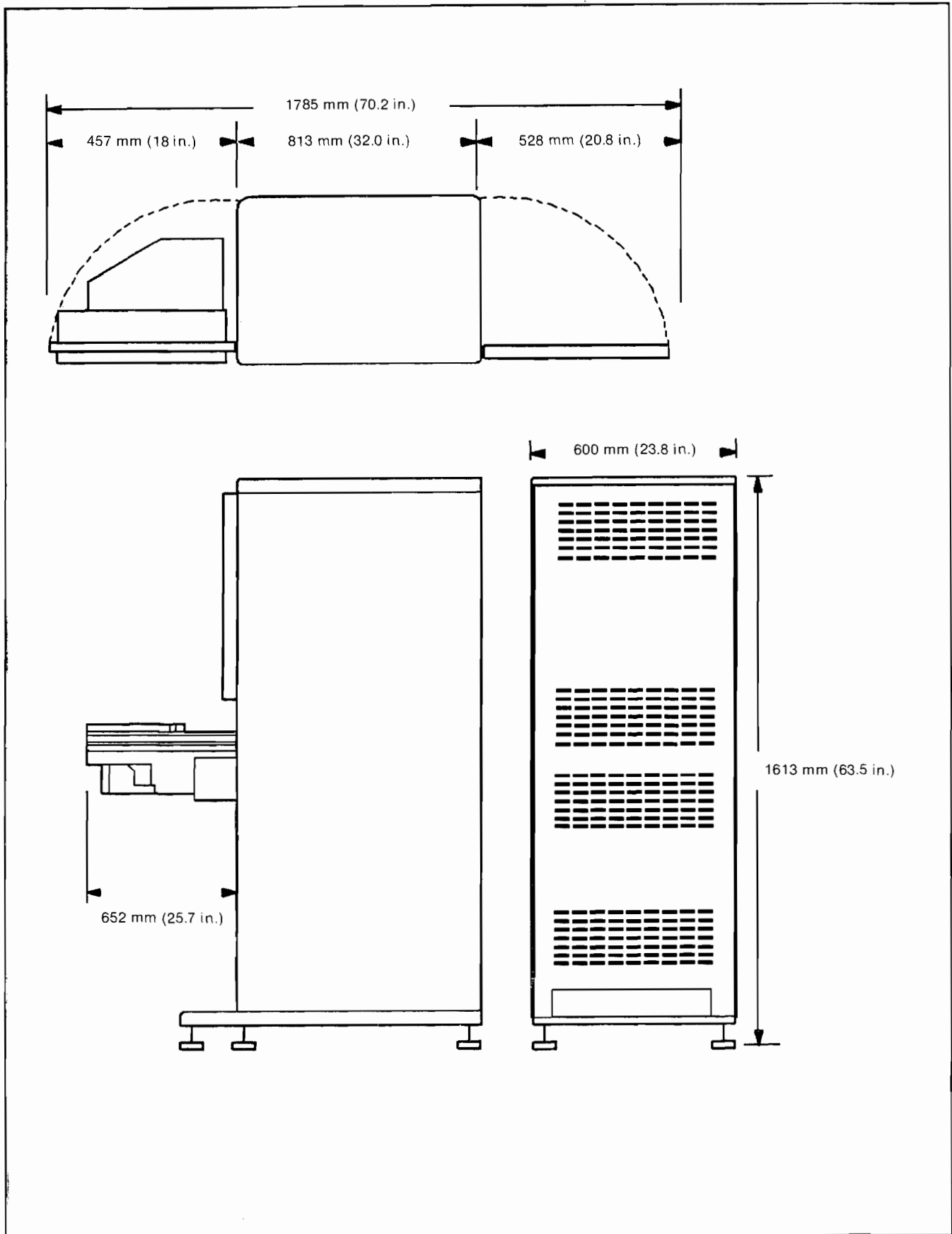


Figure 1-1. Subsystem Dimensions

## 2-1. INTRODUCTION

This section provides information for the unpacking and installation of the subsystem. Also included in this section are repackaging instructions; therefore, retain this manual in case it is necessary to repack the subsystem for shipment.

## 2-2. UNPACKING/INSPECTION

The subsystem is shipped in two reusable containers: one contains the HP 7974A mounted in the subsystem cabinet; the other contains the HP 7914R. When the shipment arrives, ensure that the containers have been received as specified by the carrier's bill of lading. Inspect the containers immediately upon receipt for evidence of mishandling during transit. If the containers are damaged or water-stained, request that the carrier's agent be present when the containers are unpacked. If the containers appear to be in satisfactory condition, proceed with the unpacking instructions.

Note: Do not destroy or discard the shipping containers or packaging material. These items must be used if it becomes necessary to repack the subsystem.

## 2-3. UNPACKING

To unpack the HP 7914, refer to the *HP 7911, 7912, and 7914 Disc/Tape Drives Operating and Installation Manual*, part no. 07912-90902. This manual, which is shipped with the HP 7914R, contains detailed unpacking instructions.

To unpack the subsystem cabinet, proceed as follows:

### **WARNING**

Protective glasses should be worn while cutting the strapping bands around the shipping carton. These bands are under tension and when

cut could spring back and cause serious eye or other injury.

- a. Cut the strapping bands around the shipping carton.
- b. Using a flat-blade screwdriver, pry the metal clips off the shipping sleeve and remove the sleeve.
- c. Lift the unloading ramp and packing material off the top of the cabinet (see figure 2-1, view 1).
- d. Pull the plastic bag off the subsystem cabinet.
- e. Remove the wooden bumper from the pallet base.
- f. Attach the unloading ramp to the pallet base (see figure 2-1, view 2).

### **WARNING**

The cabinet leveling feet must be raised when the cabinet is rolled down the ramp. If not, they could catch on the ramp and cause the unit to tip over.

- g. Ensure that the cabinet leveling feet are raised at least 1/2-inch above the pallet. If they are not, use an adjustable wrench to raise them.

### **WARNING**

Two people are required when unloading the subsystem cabinet: one pushing and one guiding.

- h. Carefully roll the subsystem cabinet down the ramp.

Installation  
7914ST

- g. Attach the anti-tip feet to the subsystem cabinet using the socket-head screws provided (see figure 2-3).
- h. Using an adjustable wrench, lower the anti-tip leveling feet until they make solid contact with the floor.

### 2-10. AC POWER CABLE INSTALLATION

The subsystem is supplied with an ac power cord which must be wired into the PDU by qualified personnel.

Note: In addition to the PDU power cord, a second power cord is included in the accessories box. This power cord is used on the second HP 7914R in two-disc systems. **DO NOT** throw this second power cord away.

To install the PDU power cord, proceed as follows:

- a. Set the cabinet circuit breaker to the off (0) position.
- b. Using a 5/32-inch allen wrench, unlock and open the cabinet rear door.
- c. Remove the PDU access cover (23, figure 4-1).
- d. Feed the unterminated end of the power cord through the conduit connector (52).
- e. Connect the power cord wiring to the proper terminal block contacts and the ground terminal (see figure 2-2).
- f. Install the PDU access cover.
- g. Tighten the conduit connector around the power cord.
- h. Close and lock the cabinet rear door.

### 2-11. RACK MOUNTING PROCEDURES

The following paragraphs explain the procedure for mounting the subsystem components in the cabinet.

**2-12. HP 7914R RACK MOUNTING.** The standard subsystem includes one HP 7914R. A second HP 7914R (optional) can be installed in the cabinet directly below the first disc drive. If two disc drives are installed in the cabinet, the upper one must have the cartridge tape drive deleted (device option 140); a standard HP 7914R will not fit in the upper position. The following procedure applies when rack mounting either disc drive; any differences in the rackmounting procedure for the two drives are noted in the appropriate steps.

#### **WARNING**

The disc drive weighs approximately 67 kg (148 lb); more than one person may be required to install it in the subsystem cabinet.

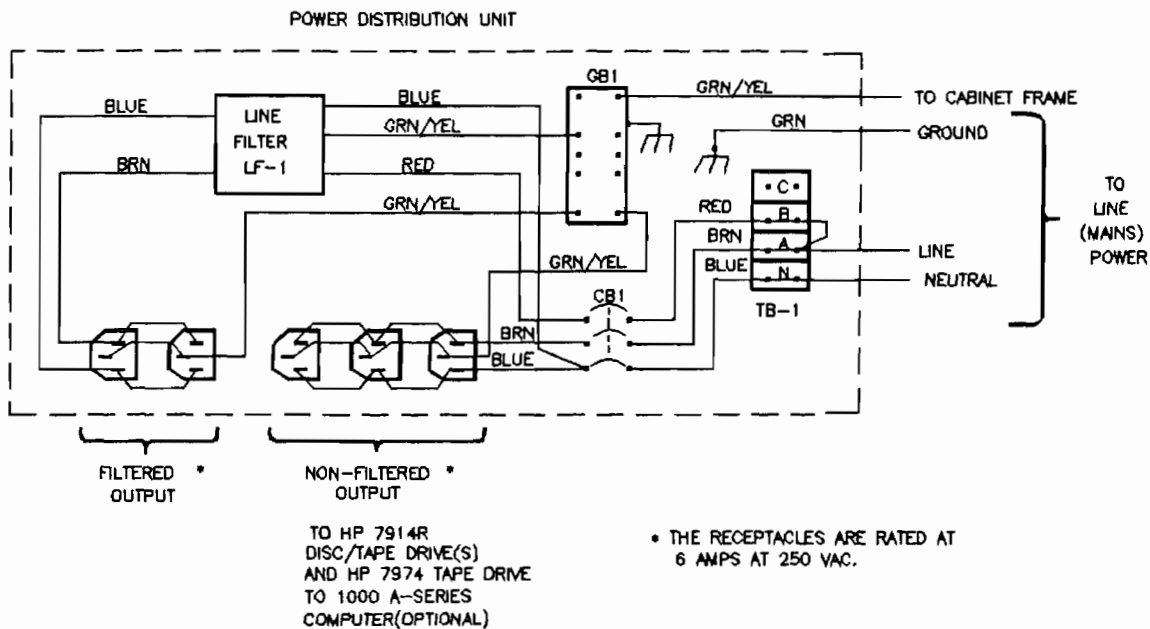
Before installing the disc drive, install the anti-tip feet on the cabinet.

- a. Install the anti-tip feet on the cabinet (refer to paragraph 2-9).
- b. Using a 5/32-inch allen wrench, unlock and open the cabinet front door.

Note: Perform steps c through e only when installing a second (lower) HP 7914R in the subsystem cabinet.

- c. Install the mounting nuts for the second (lower) drive and its rack slides. The proper position for the rack slide mounting nuts is the twenty-first hole up from the cabinet bottom; the proper positions for the drive mounting nuts are the twenty-first and twenty-fourth holes up from the cabinet bottom.

### SINGLE PHASE CONNECTION (120/220/240 VAC)



### TWO-PHASE CONNECTION (240 VAC)

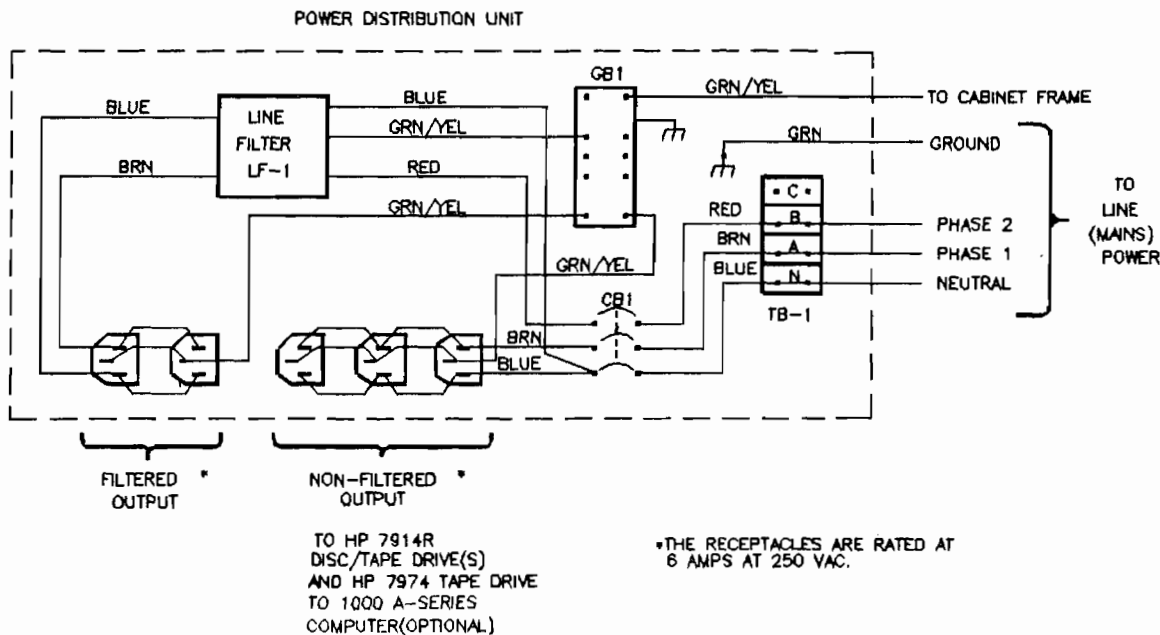


Figure 2-2. PDU Wiring Connections



- d. Install the rack slides in the cabinet using the four 10-32 slot-head mounting screws (108, figure 4-1). The slides must be partially extended to gain access to the front mounting holes (see figure 2-3).

Note: When installing the rack slides, ensure that the mounting pin on the top of the rack slide is pointing up (see figure 2-3, detail A). This will eliminate the possibility of installing the rack slides incorrectly (e.g., the right-hand slide on the left side of the cabinet).

- e. Tighten the rack slide mounting screws to 25 inch-pounds.
- f. Extend the rack slides until the slide lockouts engage.
- g. Install the air baffle (85, figure 4-1) on the rear of the disc drive using the single mounting screw provided (86). The baffle is packed in the accessories box shipped with the subsystem cabinet.

### WARNING

When lowering the disc drive onto the rack slides, do not release the drive until the weight of the drive is supported by the installation brackets.

- h. Lower the disc drive onto the rack slides, ensuring that the installation brackets fit over the rack slides (see figure 2-3).
- i. Move the drive along the rack slides until the mounting pins on the rack slides engage the mounting holes in the rack mount chassis (see figure 2-3, detail A).

Note: TORX<sup>(R)</sup> \* hardware is used when installing the HP 7914R. This hardware requires the use of special drivers. Any reference to this type of hardware will be accompanied by the appropriate driver size (e.g., T15).

- j. Install the six T15 mounting screws (83, figure 4-1) in the following order:

- (1) First, install a screw in the front mounting hole of each rack slide.
- (2) Next, install a screw in the middle mounting hole of each rack slide.
- (3) Last, install a screw in the rear mounting hole of each rack slide.

Note: The rear screw on the left rack slide must be installed using the T-15 key supplied in the accessories box (see figure 2-3, detail B).

- k. Tighten all six mounting screws to 12 inch-pounds.

### CAUTION

When performing the HP 7914R installation procedures, unlock the spindle and actuator.

1. Perform all necessary HP 7914R installation procedures. The installation procedures are described in the *HP 7911, 7912, and 7914 Disc/Tape Drives Operating and Installation Manual*, part no. 07912-90902.

- m. Remove the installation brackets.

Note: Keep the installation brackets and mounting screws. They must be reused whenever the drive is removed and reinstalled on the rack.

- n. Place a piece of the acoustic foam on top of the drive.
- o. Remove the two screws (80) securing each rack spacer (84) to the cabinet frame. Retain these screws to install the drive.
- p. Depress the slide lockouts and push the disc drive into the cabinet.

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\*TORX<sup>(R)</sup> is a registered trademark of the Camcar Division of Textron, Inc.

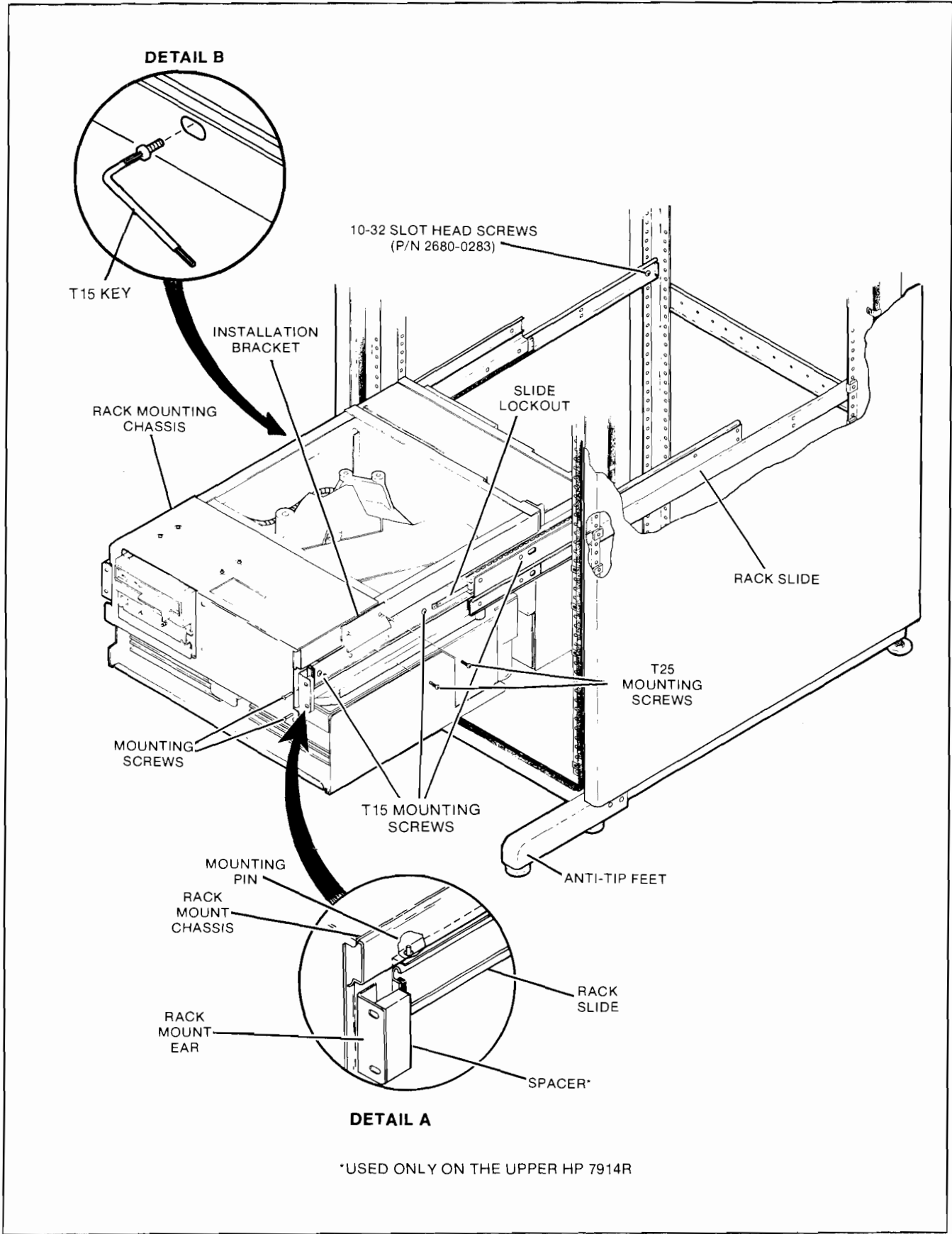


Figure 2-3. HP 7914R Rackmounting

Note: When installing a second (lower) drive in the cabinet, skip step q.

- q. Position the rack spacers between the rack mount chassis ears and the cabinet (see figure 4-2, detail A).
- r. Install the four mounting screws (80, figure 4-1) that secure the drive to the cabinet. Tighten the four screws to 12 inch-pounds.
- s. Install the front panel by pushing it into place.

Note: If two disc drives are installed in the subsystem cabinet, do not install a front panel on the lower drive. The front panel supplied with the second drive should be retained for use as a spare for the upper disc drive.

- t. Remove the anti-tip feet from the cabinet. Store the feet in the bottom of the subsystem cabinet.
- u. Close and lock the cabinet front door.

**2-13. COMPUTER RACK MOUNTING.** An HP 1000 A-Series computer may be installed in the subsystem cabinet directly below the HP 7914R. All the necessary installation hardware is supplied with the computer. To install the computer, proceed as follows:

- a. Install the mounting brackets in the cabinet. The proper position for the brackets is the twelfth hole up from the bottom of the cabinet.
- b. Using the hardware supplied, install the computer in the cabinet.
- c. For additional information on computer interconnection and configuration, refer to the appropriate manual:
  - *A600+ Computer Installation and Service Manual*, part number 02156-90002
  - *A700 Computer Installation and Service Manual*, part number 02137-90002
  - *A900 Computer Installation and Service Manual*, part number 02139-90002

## 2-14. VOLTAGE SELECTION

The standard subsystem is configured for 120V, 60 Hz operation; option 015 configures the subsystem for 220V, 50 Hz operation. If the subsystem is not configured for the power available, check and, if necessary, change the voltage settings of the subsystem components. The proper component voltage settings for the various input voltages are shown in table 2-1. Additionally, check the frequency setting of the HP 7914R (indicated on the HP 7914R power specification label); if the disc drive is not configured for operation on the available line frequency, perform the HP 7914R frequency conversion procedure.

For instructions on voltage selection and frequency conversion for the HP 7914R, refer to the *HP 7911, 7912, and 7914 Disc/Tape Drives Operating and Installation Manual*, part no. 07912-90902. For instructions on HP 7974A voltage selection, refer to the *HP 7974A Service Manual*, part no. 07974-90030.

## 2-15. FINAL INSTALLATION

The following procedure describes the final installation of the subsystem. Included are system connection and initial power-up.

To complete the installation of the subsystem, proceed as follows:

- a. Set the cabinet power switch to the OFF (0) position.
- b. Using a 5/32-inch allen wrench, unlock and open the cabinet rear door.
- c. Remove the power cord retaining bracket (18, figure 4-1).
- d. Using the power cords provided, connect the HP 7914R(s) to the unfiltered power receptacle(s) on top of the PDU. If an HP 1000 A-Series computer is installed in the cabinet, connect it to an unfiltered power receptacle.
- e. Set the power switch on the rear of the HP 7914R to the ON (1) position.

Table 2-1. Component Voltage Settings

INPUT VOLTAGE	COMPONENT VOLTAGE SETTING	
	7974A	7914R*
120 Vac	120 Vac	120 Vac
220 Vac	220 Vac	220 Vac
240 Vac	240 Vac	240 Vac
240 Vac**	120 Vac	120 Vac

NOTES:

\*The HP 7914R requires a belt and pulley change when switching from 60 Hz to 50 Hz operation or vice versa.

\*\*Two-phase power source

f. Install the power cord retaining bracket.

**CAUTION**

Do not connect (or disconnect) the subsystem components to the system bus while the bus is in an active state.

g. Connect the HP-IB cables to the subsystem components. Consult the appropriate interface or installation manual (refer to paragraph 1-4) for detailed instructions on subsystem component interconnection.

Note: The standard subsystem represents two HP-IB equivalent loads on the system HP-IB channel.

h. Route the HP-IB cables out the rear of the cabinet through the opening in the dress panel (103). Figure 2-4 illustrates the proper cable routing.

i. Locate the appropriate subsystem warranty label and fasten it to the lower-right rear corner of the subsystem cabinet. The warranty label is packed in the accessories box that is shipped with the HP 7914R.

Note: The information on this warranty label applies only to the HP 7974A and the subsystem cabinet. The HP 7914R has its own warranty label located on the rear of the disc drive.

j. Locate the appropriate subsystem power specification label and attach it to the area indicated on the PDU. The power specification labels are packed in the accessories box shipped with the subsystem cabinet. Ensure that the label selected reflects the current subsystem power configuration.

k. Close and lock the cabinet rear door.



## 3-1. INTRODUCTION

This section provides information for servicing the subsystem. Included is general maintenance information and instructions for removing and installing the major subsystem assemblies.

## 3-2. SERVICE PREPARATION

### **WARNING**

To avoid dangerous electrical shock, do not perform any service operations until the ac mains power is removed from the subsystem.

Before servicing, power must be disconnected from the subsystem. To disconnect power, proceed as follows:

### **CAUTION**

Do not turn the subsystem power off (or on) while the system bus is in an active state.

- a. Set the cabinet circuit breaker to the OFF (0) position.
- b. Disconnect the ac power cord from the wall outlet.

## 3-3. MAINTENANCE

The subsystem requires minimal maintenance. The only maintenance task involves checking and, if necessary, cleaning any filters inside the subsystem components. Refer to the appropriate manual(s) for information concerning the location, removal, and cleaning of any component filters. In addition, the HP 7974A tape path must be kept clean: For

cleaning instructions, refer to the *HP 7974A Service Manual*, part no. 07974-90030.

## 3-4. REMOVAL/REPLACEMENT

### **WARNING**

The subsystem does not contain any operator-serviceable parts. To prevent electrical shock, refer all service activities to service-trained personnel.

The following paragraphs contain detailed removal and replacement procedures for the major subsystem assemblies: HP 7974A, HP 7914R, power distribution unit (PDU), and the cabinet doors. If an HP 1000 A-Series computer system is installed in the subsystem cabinet, remove it by reversing the rack mounting procedure described in paragraph 2-13.

### 3-5. CABINET DOORS

To remove either the front or rear cabinet door, proceed as follows:

- a. Using a 5/32-inch allen wrench, unlock and open the cabinet door.
- b. Remove the screw (2, figure 4-1) attaching the ground wire (1) to the door.
- c. Remove the two hinge pins and the door will fall free.

To install the door, reverse the above procedure.

### 3-6. HP 7914R

To remove the HP 7914R from the subsystem cabinet, reverse the rack mounting procedure described in paragraph 2-12.

### 3-7. HP 7974A

#### **WARNING**

The tape unit weighs approximately 49.9 kg (110 lb); more than one person may be required to remove it from the subsystem cabinet.

Before removing the tape drive, install the anti-tip feet on the cabinet.

- a. Disconnect power from the subsystem (refer to paragraph 3-2).
- b. Install the anti-tip feet on the cabinet (refer to paragraph 2-9).
- c. Using a 5/32-inch allen wrench, unlock and open the cabinet rear door.
- d. Remove the protector panel (57, figure 4-1).
- e. Disconnect the power cord and the HP-IB cable from the rear of the HP 7974A. Pull the power cord out of its cable clamp (61).
- f. Remove the cabinet front door (refer to paragraph 3-5).
- g. Open the cover door of the tape unit (see figure 3-1).
- h. Using a 5/32-inch allen wrench, turn the mounting latch screw (figure 3-1) counterclockwise to release the mounting latch.
- i. From the rear of the cabinet, push the tape drive out of the cabinet just far enough for the front tab on the mounting latch to clear the cabinet frame.
- j. Rotate the mounting latch counterclockwise until the rear tab on the latch is clear of the cabinet frame.
- k. Push the tape drive far enough out of the cabinet to gain access to the tape drive ground wire.

l. Remove the screw (70, figure 4-1) and nut (72) that attach the tape drive ground wire to the cabinet frame.

m. Disable the slide bar (62) by removing the nut (68) that attaches the bar to the separator panel.

#### **WARNING**

With the slide bar disabled, the tape drive can swing completely out of the cabinet. When swinging the tape drive out of the cabinet, avoid placing the hands in a position where they could be caught between the right edge of the casting door and the cabinet.

n. From the front of the cabinet, swing the tape drive out of the cabinet.

o. Get a firm grip on the tape drive and lift it off the hinge pins.

To install the tape unit, reverse the above procedure.

### 3-8. PDU

To remove the PDU, proceed as follows:

- a. Disconnect power from the subsystem (refer to paragraph 3-2).
- b. Using a 5/32-inch allen wrench, unlock and open the cabinet rear door.
- c. Remove the power cord retaining bracket (18, figure 4-1).
- d. Disconnect all power cords from the receptacles on the PDU.
- e. Remove the screw (11) that attaches the PDU ground wire to the cabinet frame.
- f. Remove the four mounting screws (15) and slide the PDU out of the cabinet.

To install the PDU, reverse the above procedure.

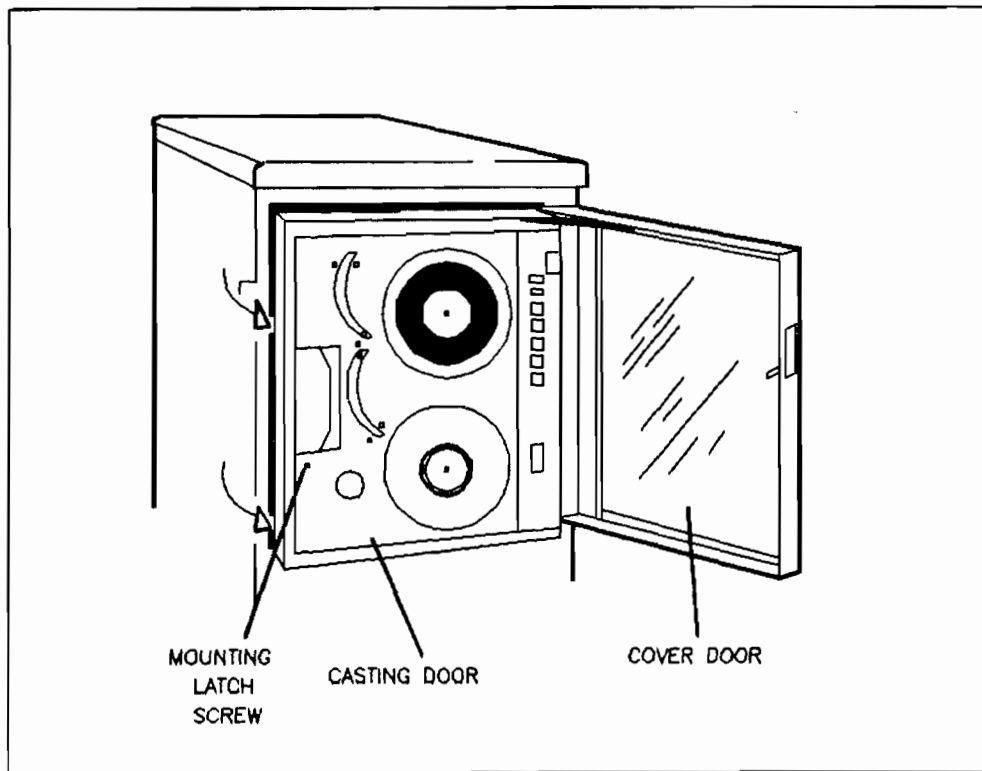


Figure 3-1. HP 7974A Removal







## 4-1. INTRODUCTION

This section provides listings of all field-replaceable parts and an illustrated parts breakdown for the subsystem, as well as replaceable parts ordering information.

Replaceable parts for the subsystem are listed in disassembly order in table 4-1 and illustrated in figure 4-1. In the table, attaching parts are listed immediately after the item they attach. Items in the DESCRIPTION column are indented to indicate relationship to the next higher assembly. In addition, the symbol "--- X ---" follows the last attaching part for that item. Indentation of the items in the tables is as follows:

Major Assembly

\* Replaceable Assembly

\* Attaching Parts for Replaceable Assembly

\*\*Subassembly or Component Part

\*\*Attaching Parts for Subassembly or Component Part

The replaceable parts listings provide the following information for each part:

- a. FIG. & INDEX NO. The figure and index number which indicates where the replaceable part is illustrated.
- b. HP PART NO. The Hewlett-Packard part number for each replaceable part.

- c. DESCRIPTION. A description of each replaceable part. Refer to table 4-2 for an explanation of abbreviations used in the DESCRIPTION column.

- d. MFR CODE. The 5-digit code that denotes a typical manufacturer of a part. Refer to table 4-3 for a listing of manufacturers that correspond to the codes.

- e. MFR PART NO. The manufacturer's part number of each replaceable part.

- f. UNITS PER ASSY. The total quantity of each part used in the major assembly.

The MFR CODE and MFR PART NO. for common hardware items are listed as 00000 and OBD (order by description), respectively, because these items can usually be purchased locally.

## 4-2. ORDERING INFORMATION

To order replaceable parts for the subsystem, address the order to your local Hewlett-Packard Sales and Support Office. Sales and Support Offices are listed at the back of this manual. Specify the following information for each part ordered:

- a. Model and full serial number.
- b. Hewlett-Packard part number.
- c. Complete description for each part as provided in the replaceable parts listings.

Table 4-1. HP 7914ST, Replaceable Parts (continued)

FIG.& INDEX NO.	HP PART NO.	DESCRIPTION	MFR CODE	MFR PART NO.	UNITS PER ASSY
68	0590-0050	*NUT, hex, plastic locking, 10-32	00000	OBD	2
69	2680-0119	*SCREW, pozi, fh, 10-32, 0.625 in. - - - X - - -	00000	OBD	1
70	0515-0644	*SCREW, hex-head, M6.0 by 1.0, 12 mm	00000	OBD	1
71	2190-0013	*WASHER, lock, ext-tooth, 1/4 inch	00000	OBD	1
72	0535-0038	*NUT, hex, M 6.0 by 1.0	00000	OBD	1
73	7974A	*MAGNETIC TAPE UNIT	28480	7974A	1
74	07974-84400	*HINGE ASSEMBLY	28480	07974-84400	1
75	07914-00036	*LOCATING TAB (Attaching Parts)	28480	07914-00036	1
76	0515-0442	*SCREW, T30, M6.0 by 1.0, 16 mm, w/scw	00000	OBD	2
77	2190-0592	*WASHER, lock, helical, 6 mm	00000	OBD	2
78	0535-0021	*NUT, hex, M 6.0 by 1.0 - - - X - - -	00000	OBD	2
79	7914R	*DISC/TAPE DRIVE, device option 140	28480	7914R	1
	7914R	*DISC/TAPE DRIVE, standard (subsystem option 240)	28480	7914R	REF
	7914R	*DISC/TAPE DRIVE, device option 001 (subsystem option 002) (Attaching Parts)	28480	7914R	REF
80	2680-0109	*SCREW, pnh, pozi, 10-32, 0.875 in.	00000	OBD	4
81	2190-0467	*WASHER, lock, ext-tooth, no. 10	00000	OBD	4
82	2190-0402	*WASHER, flat, no. 10	00000	OBD	4
83	0515-0381	*SCREW, pnh, T15, M4.0 by 0.7, 10 mm	00000	OBD	6
84	07914-20003	*SPACER, rack - - - X - - -	28480	07914-20003	2
	7914R	*DISC/TAPE DRIVE, device option 140 (not shown, second drive added by subsystem option 114) (Attaching Parts)	28480	7914R	1
	2680-0103	*SCREW, pnh, pozi, 10-32, 0.50 in.	00000	OBD	4
	2190-0467	*WASHER, lock, ext-tooth, no. 10	00000	OBD	4
	2190-0402	*WASHER, flat, no. 10	00000	OBD	4
	0515-0381	*SCREW, pnh, T20, M4.0 by 0.7, 10 mm - - - X - - -	00000	OBD	6
85	07914-00038	*AIR BAFFLE (Attaching Parts)	28480	07914-00038	1
86	0515-0054	*SCREW, pozi, M 3.0 by 0.5, 10 mm	00000	OBD	1
87	2190-0586	*WASHER, flat, no. 6 - - - X - - -	00000	OBD	1
88	29400-00001	*CABINET CAP (Attaching Parts)	28480	29400-00001	1
89	0515-0418	*SCREW, pnh, pozi, M 5.0 by 0.8, 10 mm - - - X - - -	00000	OBD	2
90	07914-60039	*GROUND WIRE, side panel (Attaching Parts)	28480	07914-60039	2
91	0624-0216	*SCREW, 8-32, pozi, slftpg	00000	OBD	2
92	2190-0413	*WASHER, lock, no. 8, ext-tooth - - - X - - -	00000	OBD	2

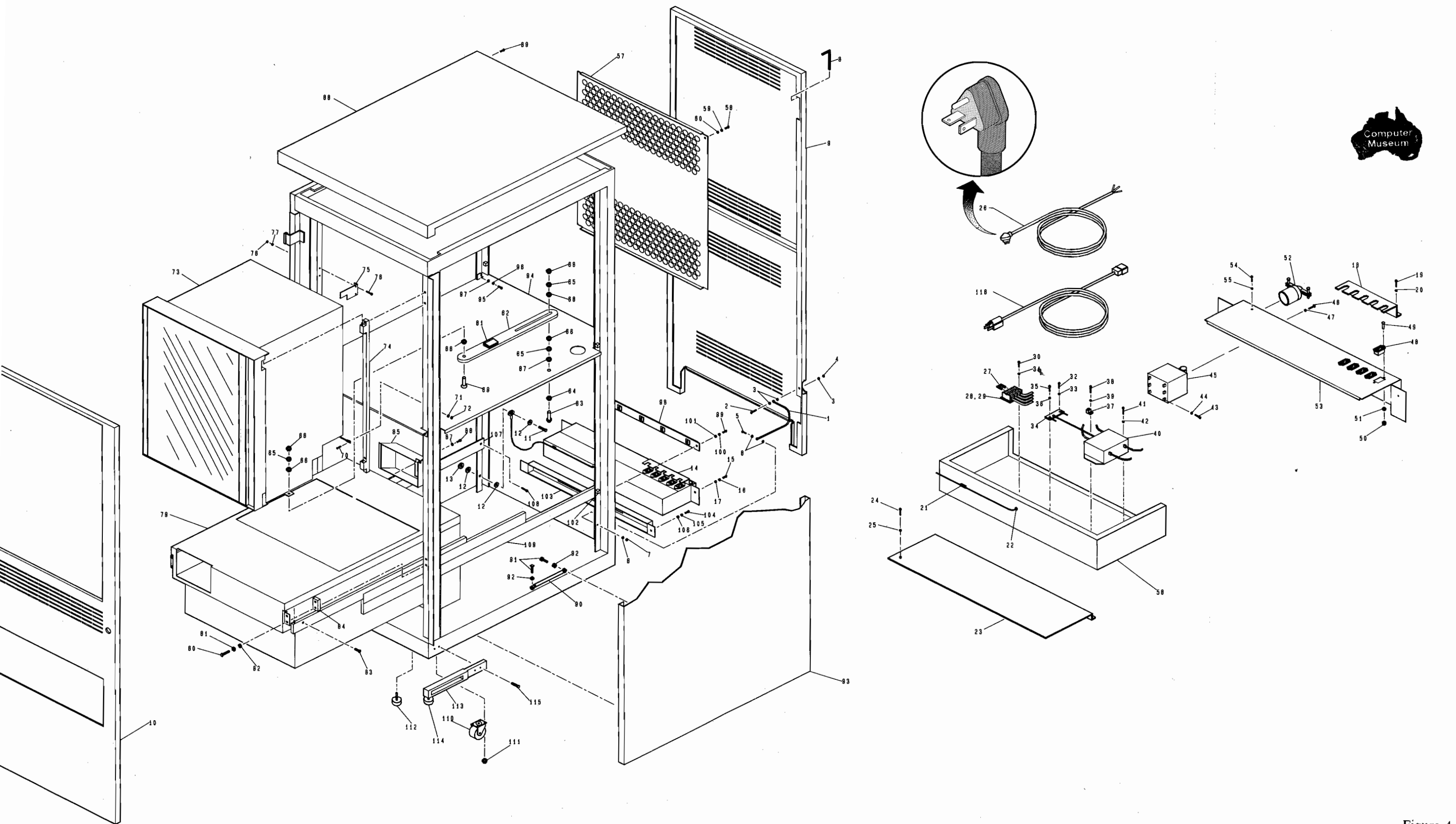


Figure 4-1. HP 7914S

Table 4-1. HP 7914ST, Replaceable Parts (continued)

FIG.& INDEX NO.	HP PART NO.	DESCRIPTION	MFR CODE	MFR PART NO.	UNITS PER ASSY
93	29453-00002	*SIDE PANEL (Attaching Parts)	28480	29453-00002	2
	0515-0418	*SCREW, pnh, pozi, M 5.0 by 0.8, 10 mm - - - X - - -	00000	OBD	2
94	07914-00021	*SEPARATOR PANEL (Attaching Parts)	28480	07914-00021	1
95	2680-0103	*SCREW, pnh, pozi, 10-32, 0.500 in.	00000	OBD	4
96	2190-0467	*WASHER, lock, ext-tooth, no. 10	00000	OBD	4
97	2190-0402	*WASHER, flat, no. 10 - - - X - - -	00000	OBD	4
98	29431-00069	*BRACKET, cable dress (Attaching Parts)	28480	29431-00069	1
99	2680-0103	*SCREW, pnh, pozi, 10-32, 0.500 in.	00000	OBD	2
100	2190-0467	*WASHER, lock, ext-tooth, no. 10	00000	OBD	2
101	2190-0402	*WASHER, flat, no. 10	00000	OBD	2
102	0590-0804	*NUT, sheetmetal, 10-32 - - - X - - -	00000	OBD	2
103	07914-00012	*DRESS PANEL (Attaching Parts)	28480	07914-00012	1
104	2680-0103	*SCREW, pnh, pozi, 10-32, 0.500 in.	00000	OBD	2
105	2190-0467	*WASHER, lock, ext-tooth, no. 10	00000	OBD	2
106	2190-0402	*WASHER, flat, no. 10 - - - X - - -	00000	OBD	2
107	07912-00071	*RACK SLIDE, left (Attaching Parts)	28480	07912-00071	1
108	2680-0283	*SCREW, pnh, slot, 10-32, 0.5 in. - - - X - - -	00000	OBD	2
109	07912-00072	*RACK SLIDE, right (Attaching Parts)	28480	07912-00072	1
	2680-0283	*SCREW, pnh, slot, 10-32, 0.5 in. - - - X - - -	00000	OBD	2
110	1492-0098	*CASTER, swivel (Attaching Parts)	28480	1492-0098	4
111	0590-1267	*NUT, hex, 5/16 in. - - - X - - -	00000	OBD	4
112	0403-0419	*LEVELING FOOT, subsystem cabinet	28480	0403-0419	4
113	07914-20002	*ANTI-TIP FOOT	28480	07914-20002	2
114	0403-0419	*LEVELING FOOT, anti-tip	28480	0403-0419	2
115	0515-0963	*SCREW, hex-head, M 8.0 by 1.25, 25 mm	00000	OBD	4
116	8120-2683	*POWER CORD, 16 AWG, 48 inch (used with second HP 7914R in two-drive systems.)	28480	8120-2683	1

Table 4-2. Abbreviations

A	= ampere(s)	incand	= incandescent	qty	= quantity
ac	= alternating current	incl	= include(s)	rdh	= round head
AR	= as required	intl	= internal	rect	= rectifier
assy	= assembly	I/O	= input/output	ref	= reference
brkt	= bracket	k	= kilo ( $10^3$ ), kilohm	rf	= radio frequency
c	= centi ( $10^{-2}$ )	kg	= kilogram	rfi	= radio frequency interference
C	= Celsius, centigrade	lb	= pound	rh	= right hand
cer	= ceramic	LED	= light-emitting diode	rpm	= revolutions per minute
cm	= centimetre	lh	= left hand	rwv	= reverse working voltage
comp	= composition	M	= mega ( $10^6$ ), megohm	sb	= slow blow
conn	= connector	m	= milli ( $10^{-3}$ )	SCR	= semiconductor-controlled rectifier
d	= deci ( $10^{-1}$ )	mach	= machine	scw	= square cone washer
dc	= direct current	mb	= medium blow	Se	= selenium
deg	= degree(s)	met oxd	= metal oxide	Si	= silicon
dia	= diameter	mfr	= manufacturer	slftpg	= self-tapping
dpdt	= double-pole, double-throw	misc	= miscellaneous	spdt	= single-pole, double throw
dpst	= double-pole, single throw	mm	= millimetre	spst	= single pole, single throw
elctlt	= electrolytic	mtg	= mounting	sst	= stainless steel
encap	= encapsulated	My	= Mylar	stl	= steel
ext	= external	n	= nano ( $10^{-9}$ )	sw	= switch
F	= Fahrenheit, farad	n.c.	= normally closed	T	= TORX <sup>(R)</sup> screw
fb	= fast blow	no.	= number	Ta	= tantalum
fh	= flat head	NSR	= not separately replaceable	tgl	= toggle
fig.	= figure	ntd	= no time delay	thd	= thread
filh	= fillister head	OBD	= order by description	Ti	= titanium
flm	= film	OD	= outside diameter	tol	= tolerance
fw	= full wave	ovh	= oval head	U (u)	= micro ( $10^{-6}$ )
fxd	= fixed	oxd	= oxide	V	= volt(s)
G	= giga ( $10^9$ )	p	= pico ( $10^{-12}$ )	var	= variable
Ge	= germanium	PCA	= printed-circuit assembly	Vdcw	= direct current working volts
H	= Henry, Henries	phh	= phillips head	W	= watt(s)
hd	= head	pnh	= pan head	w/	= with
hex	= hexagon, hexagonal	P/O	= part of	WIV	= inverse working volts
hlcl	= helical	pot	= potentiometer	ww	= wire-wound
Hz	= Hertz	pozi	= Pozidriv		
ID	= inside diameter				
in.	= inch, inches				

TORX<sup>(R)</sup> is a registered trademark of the Camcar Division of Textron, Inc. (abbrev-8/83)

Table 4-3. Code List of Manufacturers

The following code numbers are from the Federal Supply Code for Manufacturers Cataloging Handbooks H4-1, and H4-2, and their supplements.		
CODE NO.	MANUFACTURER	ADDRESS
05254	Corcom Inc.....	Chicago, IL
07355	Airpax Electronics Inc.....	Ft. Lauderdale, FL
28480	Hewlett-Packard Co.....	Palo Alto, CA
74159	Teledyne Co Penn-Union Electric Div.....	Edinboro, PA
75037	3M Co.....	St. Paul, MN
82389	Switchcraft Inc.....	Chicago, IL
89020	Amerace Corp.....	Union, NJ

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Arranged alphabetically by country



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A Analytical

CM Components

C Computer Systems Sales only

CH Computer Systems Hardware Sales and Services

CS Computer Systems Software Sales and Services

E Electronic Instruments & Measurement Systems

M Medical Products

P Personal Computation Products

\* Sales only for specific product line

\*\* Support only for specific product line

**IMPORTANT:** These symbols designate general product line capability. They do not insure sales or support availability for all products within a line, at all locations. Contact your local sales office for information regarding locations where HP support is available for specific products.

*HP distributors are printed in italics.*

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Telex: 21-6588 HPAT GR  
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Telex: 1 3 4425 HEPA A

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P.O.Box 999  
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458 Todos Os Santos  
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CH

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**SANTIAGO 21**  
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CH,CS,P

## CHINA, People's Republic of

China Hewlett-Packard Co., Ltd.  
6th Floor, Sun Hung Kai Centre  
30 Harbour Road  
**HONG KONG**  
Tel: 5-8323211  
Telex: 36678 HEWPA HX  
A,C,CH,CS,E,M,P

*China Hewlett-Packard Rep. Office  
P.O. Box 418  
1A Lane 2, Luchang St.  
Beiwei Rd., Xuanwu District*

**BEIJING**  
Tel: 33-1947, 33-7426  
Telex: 22601 CTSHP CN  
Cable: 1920  
A,CH,CM,CS,E,P

## COLOMBIA

*InstrumentaciA On  
H. A. Langebaek & Kier S.A.  
Carrera 4A No. 52A-26*  
**Apartado Aereo 6287**  
**BOGOTA 1, D.E.**  
Tel: 212-1466  
Telex: 44400 INST CO  
Cable: AARIS Bogota  
CM,E,M

*Nefromedicas Ltda.  
Calle 123 No. 9B-31*  
**Apartado Aereo 100-958**  
**BOGOTA D.E., 10**  
Tel: 213-5267, 213-1615  
Telex: 43415 HEGAS CO  
A

*Procesa, S.A.  
CRA 7 No. 24-89 Piso 25*  
**Torre Colpatria**  
**Apartado Aereo No. 49667**  
**BOGOTA D.E.**  
Tel: 2344925, 2344958, 2344742  
Telex: 43127 COVER CO  
C,P

*Compumundo  
Avenida 15 # 107-80*  
**BOGOTA D.E.**  
Tel: 214-4458  
Telex: 45466 MARICO  
P

## COSTA RICA

*Cientifica Costarricense S.A.  
Avenida 2, Calle 5*  
**San Pedro de Montes de Oca**  
**Apartado 10159**

**SAN JOSÉ**  
Tel: 24-38-20, 24-08-19  
Telex: 2367 GALGUR CR  
CM,E,M

## CYPRUS

*Telerexa Ltd.  
P.O. Box 4809*  
**14C Stassinou Avenue**  
**NICOSIA**  
Tel: 62698  
Telex: 2894 LEVIDO CY  
E,M,P

## DENMARK

Hewlett-Packard A/S  
Datavej 52  
**DK-3460 BIRKEROD**  
Tel: (02) 81-66-40  
Telex: 37409 hpas dk  
A,CH,CM,CS,E,M,P  
Hewlett-Packard A/S  
Rølhedsvej 32  
**DK-8240 RISSKOV, Aarhus**  
Tel: (06) 17-60-00  
Telex: 37409 hpas dk  
CH,E

## DOMINICAN REPUBLIC

*Microprog S.A.  
Juan Tomás Mejía y Cotes No. 60*  
**Arroyo Hondo**  
**SANTO DOMINGO**  
Tel: 565-6268  
Telex: 4510 ARENTA DR (RCA)  
P

## ECUADOR

*CYEDE Cia. Ltda.  
Avenida Eloy Alfaro 1749*  
**y Belgica**  
**Casilla 6423 CCI**  
**QUITO**  
Tel: 450-975, 243-052  
Telex: 2548 CYEDE ED  
CM,E,P

*Hospitalar S.A.  
Robles 625*  
**Casilla 3590**  
**QUITO**  
Tel: 545-250, 545-122  
Telex: 2485 HOSPTEL ED  
Cable: HOSPITALAR-Quito  
M

**QUITO**  
Tel: 2-238-951  
Telex: 2298 ECUAME ED

## EGYPT

*Egyptian International  
Office for Foreign Trade*  
**P.O. Box 2558**  
**42 El-Zahraa Street**  
**Dokki, CAIRO,**  
Tel: 712230  
Telex: 93337 EGPOR UN  
Cable: EGYPOR  
P,A

# SALES & SUPPORT OFFICES

Arranged alphabetically by country

3



## EGYPT (Cont'd)

### INFORMATIC FOR SYSTEMS

22 Talaat Harb Street

CAIRO,

Tel: 759006

Telex: 93697 SAFLM UN  
CS

International Engineering Associates

24 Hussein Hegazi Street

Kasr-el-Aini

CAIRO,

Tel: 23829, 21641

Telex: 93830 IEA UN

Cable: INTEGASSO  
E

S.S.C. Medical

40 Gezerat El Arab Street

Mohandessin

CAIRO,

Tel: 803844, 805998, 810263

Telex: 20503 SSC UN

M\*

## EL SALVADOR

IPESA de El Salvador S.A.

29 Avenida Norte 12 16

SAN SALVADOR

Tel: 26-6858, 26-6868

Telex: 20539 IPESASAL

A,CH,CM,CS,E,P

## FINLAND

Hewlett-Packard Oy

Piispankalliontie 17

02200 ESPOO

Tel: 00358-0-88721

Telex: 121563 HEWPA SF

CH,CM,SS,P

Hewlett-Packard Oy

(Olarinluoma 7)

PL 24

02101 ESPOO 10

Tel: (90) 4521022

A,E,M

Hewlett-Packard Oy

Aatoksenkatu 10-C

SF-40720-72 JYVASKYLA

Tel: (941) 216318

CH

Hewlett-Packard Oy

Kainvuntie 1-C

SF-90140-14 OULU

Tel: (981) 338785

CH

## FRANCE

Hewlett-Packard France

Z.I. Mercure B

Rue Berthelot

F-13763 Les Milles Cedex

AIX-EN-PROVENCE

Tel: (42) 59-41-02

Telex: 410770F

A,CH,E,M,P\*

Hewlett-Packard France

64, rue Marchand Saillant

F-61000 ALENCON

Tel: (33) 29 04 42

Hewlett-Packard France

Boite Postale 503

F-25026 BESANCON

28 rue de la Republique

F-25000 BESANCON

Tel: (81) 83-16-22

Telex: 361157

CH,M

Hewlett-Packard France

13, Place Napoleon III

F-29000 BREST

Tel: (98) 03-38-35

Hewlett-Packard France

Chemin des Mouilles

Boite Postale 162

F-69130 ECULLY Cedex (Lyon)

Tel: (78) 833-81-25

Telex: 310617F

A,CH,CS,E,M

Hewlett-Packard France

Parc d'Activite du Bois Briard

Ave. du Lac

F-91040 EVRY Cedex

Tel: 6 077-8383

Telex: 692315F

E

Hewlett-Packard France

5, Avenue Raymond Chanas

F-38320 EYBENS (Grenoble)

Tel: (76) 62-67-98

Telex: 980124 HP GRENOB EYBE

CH

Hewlett-Packard France

Centre d'Affaire Paris-Nord

Bâtiment Ampère 5 étage

Rue de la Commune de Paris

Boite Postale 300

F-93153 LE BLANC MESNIL

Tel: (1) 865-44-52

Telex: 211032F

CH,CS,E,M

Hewlett-Packard France

Parc d'Activités Caderea

Quartier Jean Mermoz

Avenue du Président JF Kennedy

F-33700 MERIGNAC (Bordeaux)

Tel: (56) 34-00-84

Telex: 550105F

CH,E,M

Hewlett-Packard France

Immueble "Les 3 B"

Nouveau Chemin de la Garde

ZAC de Bois Briard

F-44085 NANTES Cedex

Tel: (40) 50-32-22

Telex: 711085F

CH\*\*

Hewlett-Packard France

125, rue du Faubourg Banner

F-45000 ORLEANS

Tel: (38) 68 01 63

Hewlett-Packard France

Zone Industrielle de Courtaboeuf

Avenue des Tropiques

F-91947 Les Ulis Cedex ORSAY

Tel: (6) 907-78-25

Telex: 600048F

A,CH,CM,CS,E,M,P

Hewlett-Packard France

Paris Porte-Maillet

15, Avenue de L'Amiral Bruix

F-75782 PARIS CEDEX 16

Tel: (1) 502-12-20

Telex: 613663F

CH,M,P

Hewlett-Packard France

124, Boulevard Tourasse

F-64000 PAU

Tel: (59) 80 38 02

Hewlett-Packard France

2 AIIAEe de la Bourgonnette

F-35100 RENNES

Tel: (99) 51-42-44

Telex: 740912F

CH,CM,E,M,P\*

Hewlett-Packard France

98 Avenue de Bretagne

F-76100 ROUEN

Tel: (35) 63-57-66

Telex: 770035F

CH\*\* ,CS

Hewlett-Packard France

4 Rue Thomas Mann

Boite Postale 56

F-67033 STRASBOURG Cedex

Tel: (88) 28-56-46

Telex: 890141F

CH,E,M,P\*

Hewlett-Packard France

Le PAEripole

20, Chemin du Pigeonnier de la

CAEpiGEere

F-31083 TOULOUSE Cedex

Tel: (61) 40-11-12

Telex: 531639F

A,CH,CS,E,P\*

Hewlett-Packard France

9, rue Baudin

F-26000 VALENCE

Tel: (75) 42 76 16

Hewlett-Packard France

Carolor

ZAC de Bois Briard

F-57640 VIGY (Metz)

Tel: (8) 771 20 22

CH

Hewlett-Packard France

Immeuble PERicentre

F-59658 VILLENEUVE D'ASCQ Cedex

Tel: (20) 91-41-25

Telex: 160124F

CH,E,M,P\*

## GERMAN FEDERAL REPUBLIC

Hewlett-Packard GmbH

Geschäftsstelle

Keithstrasse 2-4

D-1000 BERLIN 30

Tel: (030) 24-90-86

Telex: 018 3405 hpbln d

A,CH,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Herrnberger Strasse 130

D-7030 BÖBLINGEN

Tel: (7031) 14-0

Telex: 07265739

A,CH,CM,CS,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Emanuel-Leutze-Strasse 1

D-4000 DUSSELDORF

Tel: (0211) 5971-1

Telex: 085/86 533 hpdd d

A,CH,CS,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Schleefstr. 28a

D-4600 DORTMUND-Aplerbeck

Tel: (0231) 45001

Hewlett-Packard GmbH

Vertriebszentrale Frankfurt

Berner Strasse 117

Postfach 560 140

D-6000 FRANKFURT 56

Tel: (0611) 50-04-1

Telex: 04 13249 hpffm d

A,CH,CM,CS,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Aussenstelle Bad Homburg

Luisenstrasse 115

D-6380 BAD HOMBURG

Tel: (06172) 109-0

Hewlett-Packard GmbH

Geschäftsstelle

Kapstadtring 5

D-2000 HAMBURG 60

Tel: (040) 63804-1

Telex: 021 63 032 hphh d

A,CH,CS,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Heidering 37-39

D-3000 HANNOVER 61

Tel: (0511) 5706-0

Telex: 092 3259

A,CH,CM,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Rosslauer Weg 2-4

D-6800 MANNHEIM

Tel: (0621) 70050

Telex: 0462105

A,C,E

Hewlett-Packard GmbH

Geschäftsstelle

Messerschmittstrasse 7

D-7910 NEU ULM

Tel: 0731-70241

Telex: 0712816 HP ULM-D

A,C,E\*

Hewlett-Packard GmbH

Geschäftsstelle

Ehhericherstr. 13

D-8500 NÜRNBERG 10

Tel: (0911) 5205-0

Telex: 0623 860

CH,CM,E,M,P

Hewlett-Packard GmbH

Geschäftsstelle

Eschenstrasse 5

D-8028 TAUFKIRCHEN

Tel: (089) 6117-1

Telex: 0524985

A,CH,CM,E,M,P

## GREAT BRITAIN

See United Kingdom



# SALES & SUPPORT OFFICES

Arranged alphabetically by country

## GREECE

Hewlett-Packard A.E.  
178, Kifissias Avenue  
6th Floor  
Halandri-ATHENS  
Greece  
Tel: 6471673, 6471543, 6472971  
A,CH,CM\*\*,CS\*\*,E,M,P

Kostas Karaynnis S.A.  
8 Omirou Street  
**ATHENS 133**  
Tel: 32 30 303, 32 37 371  
Tel: 215962 RKAR GR  
A,CH,CM,CS,E,M,P  
PLAISIO S.A.

Eliopoulos Brohers Ltd.  
11854

## ATHENS

Tel: 34-51-911  
Tel: 216286  
P

## GUATEMALA

### IPESA

Avenida Reforma 3-48, Zona 9  
**GUATEMALA CITY**  
Tel: 316627, 314786  
Tel: 4192 TELTRO GU  
A,CH,CM,CS,E,M,P

## HONG KONG

Hewlett-Packard Hong Kong, Ltd.  
G.P.O. Box 795  
5th Floor, Sun Hung Kai Centre  
30 Harbour Road  
**HONG KONG**  
Tel: 5-8323211  
Tel: 66678 HEWPA HX  
Cable: HEWPACK HONG KONG  
E,CH,CS,P

### CET Ltd.

10th Floor, Hua Asia  
Bldg. Gloucester  
64-66 Gloucester Road  
**HONG KONG**

### IS-REYKJAVIK

Tel: (5) 200922  
Tel: 85148 CET HX  
CM

Schmidt & Co. (Hong Kong) Ltd.  
18th Floor, Great Eagle Centre  
23 Harbour Road, Wanchai  
**HONG KONG**

### IS-REYKJAVIK

Tel: 5-8330222  
Tel: 74766 SCHMC HX  
A,M

## ICELAND

Elding Trading Company Inc.  
Hafnarholvi-Tryggvagotun  
P.O. Box 895  
**IS-REYKJAVIK**  
Tel: 1-58-20, 1-63-03  
M

## INDIA

Computer products are sold through  
Blue Star Ltd. All computer repairs and  
maintenance service is done through  
Computer Maintenance Corp.

Blue Star Ltd.  
Sabri Complex II Floor  
24 Residency Rd.

### BANGALORE 560 025

Tel: 55660  
Telex: 0845-430  
Cable: BLUESTAR  
A,CH\*,CM,CS\*,E

Blue Star Ltd.  
Band Box House  
Prabhadevi

### BOMBAY 400 025

Tel: 422-3101  
Tel: 011-3751  
Cable: BLUESTAR  
A,M

Blue Star Ltd.

Sahas  
414/2 Vir Savarkar Marg  
Prabhadevi

### BOMBAY 400 025

Tel: 422-6155  
Tel: 011-71193  
Cable: FROSTBLUE  
A,CH\*,CM,CS\*,E,M

Blue Star Ltd.  
Kalyan, 19 Vishwas Colony  
Aikapuri, **BORODA**, 390 005  
Tel: 65235

Cable: BLUE STAR  
A

Blue Star Ltd.  
7 Hare Street  
**CALCUTTA 700 001**  
Tel: 12-01-31

Telex: 021-7655  
Cable: BLUESTAR  
A,M

Blue Star Ltd.  
133 Kodambakkam High Road  
**MADRAS 600 034**

Tel: 82057  
Tel: 041-379  
Cable: BLUESTAR  
A,M

Blue Star Ltd.  
Bhandari House, 7th/8th Floors  
91 Nehru Place

### NEW DELHI 110 024

Tel: 682547  
Tel: 031-2463  
Cable: BLUESTAR  
A,CH\*,CM,CS\*,E,M

Blue Star Ltd.  
15/16-C Wellesley Rd.  
**PUNE 411 011**

Tel: 22775  
Cable: BLUE STAR  
A

Blue Star Ltd.  
2-2-47/1108 Bolarum Rd.  
**SECUNDERABAD 500 003**

Tel: 72057  
Tel: 0155-459  
Cable: BLUEFROST  
A,E

Blue Star Ltd.  
T.C. 7/603 Poornima  
Maruthankuzhi  
**TRIVANDRUM 695 013**

Tel: 65799  
Tel: 0884-259  
Cable: BLUESTAR  
E

Computer Maintenance Corporation Ltd.

115, Sarojini Devi Road  
**SECUNDERABAD 500 003**

Tel: 310-184, 345-774  
Tel: 031-2960  
CH\*\*

## INDONESIA

BERCA Indonesia P.T.  
P.O.Box 496/Jkt.

Jl. Abdul Muis 62

### JAKARTA

Tel: 21-373009  
Tel: 46748 BERSAL IA  
Cable: BERSAL JAKARTA  
P

BERCA Indonesia P.T.

P.O.Box 2497/Jkt  
Antara Bldg., 17th Floor  
Jl. Medan Merdeka Selatan 17

### JAKARTA-PUSAT

Tel: 21-344-181  
Tel: BERSAL IA  
A,CS,E,M

BERCA Indonesia P.T.

P.O. Box 174/SBY.  
Jl. Kutei No. 11

### SURABAYA

Tel: 68172  
Tel: 31146 BERSAL SB  
Cable: BERSAL-SURABAYA  
A\*,E,M,P

## IRAQ

Hewlett-Packard Trading S.A.  
Service Operation  
Al Mansoor City 9B/3/7

### BAGHDAD

Tel: 551-49-73  
Tel: 212-455 HEPAIRAQ IK  
CH,CS

## IRELAND

Hewlett-Packard Ireland Ltd.  
82/83 Lower Leeson Street

### DUBLIN 2

Tel: 0001 608800  
Tel: 30439  
A,CH,CM,CS,E,M,P

Cardiac Services Ltd.

Kilmore Road

Artane

### DUBLIN 5

Tel: (01) 351820  
Tel: 30439  
M

## ISRAEL

Eidan Electronic Instrument Ltd.  
P.O.Box 1270

### JERUSALEM 91000

16, Ohaliav St.

### JERUSALEM 94467

Tel: 533 221, 553 242  
Tel: 25231 AB/PAKRD IL  
A,M

Computation and Measurement  
Systems (CMS) Ltd.  
11 Masad Street  
67060

### TEL-AVIV

Tel: 388 388  
Tel: 33569 Motil IL  
CH,CM,CS,E,P

## ITALY

Hewlett-Packard Italiana S.p.A.  
Traversa 99C

Via Giulio Petroni, 19  
I-70124 **BARI**

Tel: (080) 41-07-44  
M,CH

Hewlett-Packard Italiana S.p.A.

Via Martin Luther King, 38/III  
I-40132 **BOLOGNA**

Tel: (051) 402394  
Tel: 511630

CH,CS,E,M

Hewlett-Packard Italiana S.p.A.

Via Principe Nicola 43G/C  
I-95126 **CATANIA**

Tel: (095) 37-10-87  
Tel: 970291

CH

Hewlett-Packard Italiana S.p.A.

Via G. Di Vittorio 9  
I-20063 **CERNUSCO SUL**

### NAVIGLIO

(Milano)

Tel: (02) 923691  
Tel: 334632

A,CH,CM,CS,E,M,P

Hewlett-Packard Italiana S.p.A.

Via C. Colombo 49  
I-20090 **TREZZANO SUL**

### NAVIGLIO

(Milano)

Tel: (02) 4459041

Tel: 322116

CH,CS

Hewlett-Packard Italiana S.p.A.

Via Nuova San Rocco a  
Capodimonte, 62/A  
I-80131 **NAPOLI**

Tel: (081) 7413544

Tel: 710698

A\*,CH,CS,E,M

Hewlett-Packard Italiana S.p.A.

Viale G. Modugno 33  
I-16156 **GENOVA PEGLI**

Tel: (010) 68-37-07

Tel: 215238

E,C

Hewlett-Packard Italiana S.p.A.

Via Pelizzo 15

### I-35128 PADOVA

Tel: (049) 664888

Tel: 430315

A,CH,CS,E,M

Hewlett-Packard Italiana S.p.A.

Viale C. Pavese 340

### I-00144 ROMA EUR

Tel: (06) 54831

Tel: 610514

A,CH,CS,E,M,P\*

# SALES & SUPPORT OFFICES

Arranged alphabetically by country



## ITALY (Cont'd)

Hewlett-Packard Italiana S.p.A.  
Via di Casellina 57/C  
I-50018 **SCANDICCI-FIRENZE**  
Tel: (055) 753863  
CH,E,M

Hewlett-Packard Italiana S.p.A.  
Corso Svizzera, 185  
I-10144 **TORINO**  
Tel: (011) 74 4044  
Telex: 221079  
A\*,CS,CH,E

## JAPAN

Yokogawa-Hewlett-Packard Ltd.  
152-1, Onna

**ATSUGI**, Kanagawa, 243  
Tel: (0462) 28-0451  
CM,C\*,E

Yokogawa-Hewlett-Packard Ltd.  
Meiji-Seimei Bldg. 6F  
3-1 Hon Chiba-Cho  
**CHIBA**, 280  
Tel: 472 25 7701  
E,CH,CS

Yokogawa-Hewlett-Packard Ltd.  
Yasuda-Seimei Hiroshima Bldg.  
6-11, Hon-dori, Naka-ku  
**HIROSHIMA**, 730  
Tel: 82-241-0611

Yokogawa-Hewlett-Packard Ltd.  
Towa Building  
2-3, Kaigan-dori, 2 Chome Chuo-ku  
**KOBE**, 650  
Tel: (078) 392-4791  
C,E

Yokogawa-Hewlett-Packard Ltd.  
Kumagaya Asahi 82 Bldg  
3-4 Tsukuba  
**KUMAGAYA**, Saitama 360  
Tel: (0485) 24-6563  
CH,CM,E

Yokogawa-Hewlett-Packard Ltd.  
Asahi Shinbun Daiichi Seimei Bldg.  
4-7, Hanabata-cho  
**KUMAMOTO**, 860  
Tel: (0963) 54-7311  
CH,E

Yokogawa-Hewlett-Packard Ltd.  
Shin-Kyoto Center Bldg.  
614, Higashi-Shiokoji-cho  
Karasuma-Nishiiru  
Shiokoji-dori, Shimogyo-ku  
**KYOTO**, 600  
Tel: 075-343-0921  
CH,E

Yokogawa-Hewlett-Packard Ltd.  
Mito Mitsui Bldg  
4-73, Sanno-maru, 1 Chome  
**MITO**, Ibaraki 310  
Tel: (0292) 25-7470  
CH,CM,E

Yokogawa-Hewlett-Packard Ltd.  
Meiji-Seimei Kokubun Bldg. 7-8  
Kokubun, 1 Chome, Sendai  
**MIYAGI**, 980  
Tel: (0222) 25-1011  
Telex:  
C,E

Yokogawa-Hewlett-Packard Ltd.  
Sumitomo Seimei 14-9 Bldg.  
Meieki-Minami, 2 Chome  
Nakamura-ku  
**NAGOYA**, 450  
Tel: (052) 571-5171  
CH,CM,CS,E,M

Yokogawa-Hewlett-Packard Ltd.  
Chuo Bldg.,  
4-20 Nishinakajima, 5 Chome  
Yodogawa-ku  
**OSAKA**, 532  
Tel: (06) 304-6021  
Telex: YHPOSA 523-3624  
A,CH,CM,CS,E,M,P\*

Yokogawa-Hewlett-Packard Ltd.  
27-15, Yabe, 1 Chome  
**SAGAMIHARA** Kanagawa, 229  
Tel: 0427 59-1311

Yokogawa-Hewlett-Packard Ltd.  
Daiichi Seimei Bldg.  
7-1, Nishi Shinjuku, 2 Chome  
Shinjuku-ku, **TOKYO** 160  
Tel: 03-348-4611  
CH,E

Yokogawa-Hewlett-Packard Ltd.  
29-21 Takaido-Higashi, 3 Chome  
Suginami-ku **TOKYO** 168  
Tel: (03) 331-6111  
Telex: 232-2024 YHPTOK  
A,CH,CM,CS,E,M,P\*

Yokogawa-Hewlett-Packard Ltd.  
Daiichi Asano Building  
2-8, Odori, 5 Chome  
**UTSUNOMIYA**, Tochigi 320  
Tel: (0286) 25-7155  
CH,CS,E

Yokogawa-Hewlett-Packard Ltd.  
Yasuda Seimei Nishiguchi Bldg.  
30-4 Tsuruya-cho, 3 Chome  
**YOKOHAMA** 221  
Tel: (045) 312-1252  
CH,CM,E

## JORDAN

Scientific and Medical Supplies Co.  
P.O. Box 1387

## AMMAN

Tel: 24907, 39907  
Telex: 21456 SABCO JO  
CH,E,M,P

## KENYA

ADCOM Ltd., Inc., Kenya  
P.O.Box 30070

## NAIROBI

Tel: 331955  
Telex: 22639  
E,M

## KOREA

Samsung Hewlett-Packard Co. Ltd.  
12 Fl. Kinam Bldg.  
San 75-31, Yeoksam-Dong  
Kangnam-Ku  
Yeongdong P.O. Box 72  
**SEOUL**

Tel: 555-7555, 555-5447  
Telex: K27364 SAMSAN  
A,CH,CM,CS,E,M,P

## KUWAIT

Al-Khaldiya Trading & Contracting  
P.O. Box 830

## SAFAT

Tel: 424910, 411726  
Telex: 22481 AREEG KT  
Cable: VISCOUNT  
E,M,A

Photo & Cine Equipment  
P.O. Box 270

## SAFAT

Tel: 2445111  
Telex: 22247 MATIN KT  
Cable: MATIN KUWAIT  
P

W.J. Towell Computer Services  
P.O. Box 75

## SAFAT

Tel: 2462640/1  
Telex: 30336 TOWELL KT  
C

## LEBANON

Computer Information Systems  
P.O. Box 11-6274

## BEIRUT

Tel: 89 40 73  
Telex: 42309  
C,E,M,P

## LUXEMBOURG

Hewlett-Packard Belgium S.A./N.V.  
Blvd de la Woluwe, 100  
Woluwedal  
B-1200 **BRUSSELS**  
Tel: (02) 762-32-00  
Telex: 23-494 paloben bru  
A,CH,CM,CS,E,M,P

## MALAYSIA

Hewlett-Packard Sales (Malaysia)  
Sdn. Bhd.  
1st Floor, Bangunan British  
American  
Jalan Semantan, Damansara Heights  
**KUALA LUMPUR** 23-03

Tel: 943022  
Telex: MA31011  
A,CH,E,M,P\*

Protel Engineering  
P.O.Box 1917

Lot 6624, Section 64  
23/4 Pending Road

Kuching, **SARAWAK**

Tel: 36299  
Telex: MA 70904 PROMAL  
Cable: PROTELENG  
A,E,M

## MALTA

Philip Toledo Ltd.  
Notabile Rd.

## MRIEHEL

Tel: 447 47, 455 66  
Telex: Media MW 649  
E,P,M

## MEXICO

Hewlett-Packard Mexicana, S.A.  
de C.V.  
Av. Periferico Sur No. 6501  
Tepepan, Xochimilco  
16020 **MEXICO D.F.**  
Tel: 6-76-46-00  
Telex: 17-74-507 HEWPACK MEX  
A,CH,CS,E,M,P

Hewlett-Packard Mexicana, S.A.  
de C.V.  
Czda. del Valle  
409 Ote. 1 °Piso  
Colonia del Valle  
Municipio de Garza García  
66220 **MONTERREY**, Nuevo LeAOn  
Tel: 78 42 41  
Telex: 038 410  
CH

Equipos Cientificos de Occidente, S.A.  
Av. Lazaro Cardenas 3540

## GUADALAJARA

Tel: 21-66-91  
Telex: 0684186 ECOMÉ  
A

Infograficas y Sistemas del Noreste, S.A.  
Rio Orinoco #171 Oriente

Despacho 2001  
Colonia Del Valle

## MONTERREY

Tel: 782499, 781259A  
A

## MOROCCO

Dolbeau  
81 rue Karatchi  
**CASABLANCA**  
Tel: 3041-82, 3068-38  
Telex: 23051, 22822  
E

## Gerep

2 rue d'Agadir  
Boite Postale 156

## CASABLANCA

Tel: 272093, 272095  
Telex: 23 739  
P

Sema-Maroc

Rue Lapebie

## CASABLANCA

Tel: 26.09.80  
CH,CS,P

## NETHERLANDS

Hewlett-Packard Nederland B.V.  
Van Heuven Goedhartlaan 121  
NL 1181KK **AMSTELVEEN**

P.O. Box 667

NL1180 AR **AMSTELVEEN**

Tel: (020) 47-20-21

Telex: 13 216 HEPAC NL

A,CH,CM,CS,E,M,P

Hewlett-Packard Nederland B.V.

Bongerd 2

NL 2906VK **CAPELLE A/D IJSSEL**

P.O. Box 41

NL 2900AA **CAPELLE A/D IJSSEL**

Tel: (10) 51-64-44

Telex: 21261 HEPAC NL

A,CH,CS,E

Hewlett-Packard Nederland B.V.

Pastoor Petersstraat 134-136

NL 5612 LV **EINDHOVEN**

P.O. Box 2342

NL 5600 CH **EINDHOVEN**

Tel: (040) 326911

Telex: 51484 hepae nl

A,CH\*\*,E,M



# SALES & SUPPORT OFFICES

Arranged alphabetically by country

## NEW ZEALAND

Hewlett-Packard (N.Z.) Ltd.  
5 Owens Road  
P.O. Box 26-189

Epsom, **AUCKLAND**  
Tel: 687-159

Cable: HEWPAK Auckland  
CH,CS,CM,E,P\*

Hewlett-Packard (N.Z.) Ltd.  
4-12 Cruickshank Street  
Kilbirnie, **WELLINGTON 3**  
P.O. Box 9443

Courtenay Place, **WELLINGTON 3**  
Tel: 877-199

Cable: HEWPACK Wellington  
CH,CS,CM,E,P

*Northrop Instruments & Systems Ltd.*  
369 Khyber Pass Road  
P.O. Box 8602

## **AUCKLAND**

Tel: 794-091  
Telex: 60605  
A,M

*Northrop Instruments & Systems Ltd.*  
110 Mandeville St.

P.O. Box 8388

## **CHRISTCHURCH**

Tel: 488-873  
Telex: 4203  
A,M

*Northrop Instruments & Systems Ltd.*  
Sturdee House

85-87 Ghuznee Street

P.O. Box 2406

## **WELLINGTON**

Tel: 850-091  
Telex: NZ 3380  
A,M

## **NORTHERN IRELAND**

See **United Kingdom**

## **NORWAY**

Hewlett-Packard Norge A/S  
Folke Bernadottes vei 50  
P.O. Box 3558

N-5033 **FYLLINGSDALEN** (Bergen)  
Tel: 0047/5/16 55 40

Telex: 16621 hpnas n  
CH,CS,E,M

Hewlett-Packard Norge A/S  
UCOsterndalen 16-18

P.O. Box 34

N-1345 **OCUSTERÅS**

Tel: 0047/2/17 11 80  
Telex: 16621 hpnas n  
A,CH,CM,CS,E,M,P

## **OMAN**

Khimjil Ramdas  
P.O. Box 19

## **MUSCAT**

Tel: 722225, 745601  
Telex: 3289 **BROKER MB MUSCAT**  
P

*Suhail & Saud Bahwan*  
P.O.Box 169

## **MUSCAT**

Tel: 734 201-3  
Telex: 3274 **BAHWAN MB**  
E

*Imtac LLC*  
P.O. Box 8676

## **MUTRAH**

Tel: 601695  
Telex: 5741 Tawoos On  
A,C,M

## **PAKISTAN**

*Mushko & Company Ltd.*  
House No. 16, Street No. 16  
Sector F-6/3

## **ISLAMABAD**

Tel: 824545  
Cable: **FEMUS Islamabad**  
A,E,M,P\*

*Mushko & Company Ltd.*  
Oosman Chambers

Abdullah Haroon Road  
**KARACHI 0302**

Tel: 524131, 524132

Telex: 2894 **MUSKO PK**  
Cable: **COOPERATOR Karachi**  
A,E,M,P\*

## **PANAMA**

*ElectrOnico Balboa, S.A.*  
Calle Samuel Lewis, Ed. Alfa  
Apartado 4929

## **PANAMA 5**

Tel: 63-6613, 63-6748  
Telex: 3483 **ELECTRON PG**  
A,CM,E,M,P

## **PERU**

*Cía Electro Médica S.A.*  
Los Flamencos 145, San Isidro  
Casilla 1030

## **LIMA 1**

Tel: 41-4325, 41-3703  
Telex: Pub. Booth 25306  
CM,E,M,P

## **SAMS**

Rio De La Plata 305

## **SAN ISIDRO**

Tel: 419928  
Telex: 394 20450 **PELIBERTAD**  
P

## **PHILIPPINES**

*The Online Advanced Systems*  
Corporation  
Rico House, Amorsolo Cor. Herrera  
Street

Legaspi Village, Makati

P.O. Box 1510

## **Metro MANILA**

Tel: 815-38-11 (up to 16)  
Telex: 63274 **Online PN**  
A,CH,CS,E,M

*Electronic Specialists and*  
Proponents Inc.  
690-B Epitanio de los Santos  
Avenue

## **CUBAO, QUEZON CITY**

P.O. Box 2649 Manila  
Tel: 98-96-81, 98-96-82, 98-96-83

Telex: 40018, 42000 **ITT GLOBE MAC-**  
**KAY BOOTH**  
P

## **PORTUGAL**

*Mundinter*  
Intercambio Mundial de ComAErcio  
S.A.R.L.

P.O. Box 2761  
Av. Antonio Augusto de Aguiar 138

## **P-LISBON**

Tel: (19) 53-21-31, 53-21-37  
Telex: 16691 munter p  
M

*Soquimica*

Av. da Liberdade, 220-2  
1298 **LISBOA Codex**

Tel: 56 21 81/2/3

Telex: 13316 **SABASA**  
P

*Telectra-Empresa Técnica de*  
Equipmentos Eléctricos S.A.R.L.  
Rua Rodrigo da Fonseca 103

P.O. Box 2531

## **P-LISBON 1**

Tel: (19) 68-60-72  
Telex: 12598  
CM,E

*Rarcentro Ltda*

R. Costa Cabral 575

## **4200 PORTO**

Tel: 499174/495173

Telex: 26054

CH,CS

## **PUERTO RICO**

Hewlett-Packard Puerto Rico

101 MuAnoz Rivera Av

Esu. Calle Ochoa

**HATO REY**, Puerto Rico 00918

Tel: (809) 754-7800

A,CH,CS,CM,M,E,P

## **QATAR**

*Computer Arabia*

P.O. Box 2750

## **DOHA**

Tel: 883555  
Telex: 4806 **CHPARB**  
P

*Nasser Trading & Contracting*

P.O.Box 1563

## **DOHA**

Tel: 422170  
Telex: 4439 **NASSER DH**  
M

## **SAUDI ARABIA**

*Modern Electronic Establishment*

Hewlett-Packard Division

P.O. Box 281

Thuobah

## **AL-KHOBAR**

Tel: 895-1760, 895-1764

Telex: 671 106 **HPMEEK SJ**

Cable: **ELECTA AL-KHOBAR**

CH,CS,E,M

*Modern Electronic Establishment*

Hewlett-Packard Division

P.O. Box 1228

Redec Plaza, 6th Floor

## **JEDDAH**

Tel: 644 38 48  
Telex: 4027 12 **FARNAS SJ**  
Cable: **ELECTA JEDDAH**  
A,CH,CS,CM,E,M,P

*Modern Electronic Establishment*

Hewlett-Packard Division

P.O.Box 22015

## **RIYADH**

Tel: 491-97 15, 491-63 87

Telex: 202049 **MEERYD SJ**

CH,CS,E,M

Abdul Ghani El Ajou

P.O. Box 78

## **RIYADH**

Tel: 40 41 717

Telex: 200 932 **EL AJOU**  
P

## **SCOTLAND**

See **United Kingdom**

## **SINGAPORE**

Hewlett-Packard Singapore (Sales)  
Pte. Ltd.

#08-00 Inchcape House

450-2 Alexandra Road

P.O. Box 58 Alexandra Rd. Post

Office

**SINGAPORE, 9115**

Tel: 631788

Telex: **HPSGSO RS 34209**

Cable: **HEWPACK, Singapore**

A,CH,CS,E,MS,P

*Dynamar International Ltd.*

Unit 05-11Block 6

Kolam Ayer Industrial Estate

**SINGAPORE 1334**

Tel: 747-6188

Telex: **RS 26283**

CM

## **SOUTH AFRICA**

Hewlett-Packard So Africa (Pty.) Ltd.

P.O. Box 120

Howard Place **CAPE PROVINCE 7450**

Pine Park Center, Forest Drive, Pine-

lands

**CAPE PROVINCE 7405**

Tel: 53-7954

Telex: 57-20006

A,CH,CM,E,M,P

Hewlett-Packard So Africa (Pty.) Ltd.

P.O. Box 37099

Overport Drive 92

**DURBAN 4067**

Tel: 28-4178

Telex: 6-22954

CH,CM

Hewlett-Packard So Africa (Pty.) Ltd.

6 Linton Arcade

511 Cape Road

Linton Grange

**PORT ELIZABETH 6001**

Tel: 041-301201

CH

Hewlett-Packard So Africa (Pty.) Ltd.

Fountain Center

Kalkden Str.

Monument Park

Ext 2

**PRETORIA 0105**

Tel: 45-5723

Telex: 32163

CH,E

# SALES & SUPPORT OFFICES

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## **SOUTH AFRICA (Cont'd)**

Hewlett-Packard So Africa (Pty.) Ltd.  
Private Bag Wendywood  
**SANDTON 2144**  
Tel: 802-5111, 802-5125  
Telex: 4-20877  
Cable: HEWPACK Johannesburg  
A,CH,CM,CS,E,M,P

## **SPAIN**

Hewlett-Packard Española S.A.  
Calle Entenza, 321  
**E-BARCELONA 29**  
Tel: 322.24.51, 321.73.54  
Telex: 52603 hpbee  
A,CH,CS,E,M,P  
Hewlett-Packard Española S.A.  
Calle San Vicente S/No  
Edificio Albia II 7B  
**E-BILBAO 1**  
Tel: 423.83.06  
A,CH,E,M

Hewlett-Packard Española S.A.  
Crta. de la Coruña, Km. 16, 400  
Las Rozas  
**E-MADRID**  
Tel: (1) 637.00.11  
Telex: 23515 HPE  
CH,CS,M

Hewlett-Packard Española S.A.  
Avda. S. Francisco Javier, S/no  
Planta 10. Edificio Sevilla 2,  
**E-SEVILLA 5**  
Tel: 64.44.54  
Telex: 72933  
A,CS,M,P

Hewlett-Packard Española S.A.  
C/Isabel La Católica, 8  
**E-46004 VALENCIA**  
Tel: 0034/6/351 59 44  
CH,P

## **SWEDEN**

Hewlett-Packard Sverige AB  
Sunnanvagen 14K  
S-22226 **LUND**  
Tel: (046) 13-69-79  
Telex: (854) 17886 (via Spånga  
office)  
CH

Hewlett-Packard Sverige AB  
Östra Tullgatan 3  
S-21128 **MALMÖ**  
Tel: (040) 70270  
Telex: (854) 17886 (via Spånga  
office)

Hewlett-Packard Sverige AB  
Våstra Vintergatan 9  
S-70344 **ÖREBRO**  
Tel: (19) 10-48-80  
Telex: (854) 17886 (via Spånga  
office)  
CH

Hewlett-Packard Sverige AB  
Skalholtsgatan 9, Kista  
Box 19  
S-16393 **SPÅNGA**  
Tel: (08) 750-2000  
Telex: (854) 17886  
Telefax: (08) 7527781  
A,CH,CM,CS,E,M,P

Hewlett-Packard Sverige AB  
Fröttällisgatan 30  
S-42132 **VÄSTRA-FRÖLUNDA**  
Tel: (031) 49-09-50  
Telex: (854) 17886 (via Spånga  
office)  
CH,E,P

## **SWITZERLAND**

Hewlett-Packard (Schweiz) AG  
Clarastrasse 12  
CH-4058 **BASEL**  
Tel: (61) 33-59-20  
A

Hewlett-Packard (Schweiz) AG  
7, rue du Bois-du-Lan  
Case Postale 365  
CH-1217 **MEYRIN 2**  
Tel: (0041) 22-83-11-11  
Telex: 27333 HPAG CH  
CH,CM,CS

Hewlett-Packard (Schweiz) AG  
Allmend 2  
CH-8967 **WIDEN**  
Tel: (0041) 57 31 21 11  
Telex: 53933 hpag ch  
Cable: HPAG CH  
A,CH,CM,CS,E,M,P

## **SYRIA**

General Electronic Inc.  
Nuri Basha Ahnaf Ebn Kays Street  
P.O. Box 5781  
**DAMASCUS**  
Tel: 33-24-87  
Telex: 411 215  
Cable: ELECTROBOR DAMASCUS  
E

Middle East Electronics  
P.O.Box 2308  
Abu Rummaneh  
**DAMASCUS**  
Tel: 33 45 92  
Telex: 411 304  
M

## **TAIWAN**

Hewlett-Packard Taiwan  
Kaohsiung Office  
11/F 456, Chung Hsiao 1st Road  
**KAOHSIUNG**  
Tel: (07) 2412318  
CH,CS,E

Hewlett-Packard Taiwan  
8th Floor Hewlett-Packard Building  
337 Fu Hsing North Road  
**TAIPEI**  
Tel: (02) 712-0404  
Telex: 24439 HEWPACK  
Cable: HEWPACK Taipei  
A,CH,CM,CS,E,M,P  
Ing Lih Trading Co.  
3rd Floor, 7 Jen-Ai Road, Sec. 2  
**TAIPEI 100**  
Tel: (02) 3948191  
Cable: INGLIH TAIPEI  
A

## **THAILAND**

Unimesa  
30 Patpong Ave., Suriwong  
**BANGKOK 5**  
Tel: 235-5727  
Telex: 84439 Simonco TH  
Cable: UNIMESA Bangkok  
A,CH,CS,E,M  
Bangkok Business Equipment Ltd.  
5/5-6 Dejo Road

**BANGKOK**  
Tel: 234-8670, 234-8671  
Telex: 87669-BEQUIPT TH  
Cable: BUSIQUIPT Bangkok  
P

## **TOGO**

Societe Africaine De  
Promotion  
B.P. 12271  
**LOME**  
Tel: 21-62-88  
Telex: 5304  
P

## **TRINIDAD & TOBAGO**

Caribbean Telecoms Ltd.  
Corner McAllister Street &  
Eastern Main Road, Laventille  
P.O. Box 732  
**PORT-OF-SPAIN**  
Tel: 624-4213  
Telex: 22561 CARTEL WG  
Cable: CARTEL, PORT OF SPAIN  
CM,E,M,P  
Computer and Controls Ltd.  
P.O. Box 51  
66 Independence Square  
**PORT-OF-SPAIN**  
Tel: 623-4472  
Telex: 3000 POSTLX WG  
P

## **TUNISIA**

Tunisie Electronique  
31 Avenue de la Liberte  
**TUNIS**  
Tel: 280-144  
CH,CS,E,P  
Corema  
1 ter. Av. de Carthage  
**TUNIS**  
Tel: 253-821  
Telex: 12319 CABAM TN  
M

## **TURKEY**

E.M.A  
Mediha Eldem Sokak No. 41/6  
Yenisehir  
**ANKARA**  
Tel: 319175  
Telex: 42321 KTX TR  
Cable: EMATRADE ANKARA  
M  
Kurt & Kurt A.S.  
Mithatpasa Caddesi No. 75  
Kat 4 Kizilay  
**ANKARA**  
Tel: 318875/6/7/8  
Telex: 42490 MESR TR  
A

Saniva Bilgisayar Sistemleri A.S.  
Buyukdere Caddesi 103/6  
Gayrettepe  
**ISTANBUL**  
Tel: 1673180  
Telex: 26345 SANI TR  
C,P

Teknim Company Ltd.  
Iran Caddesi No. 7  
Kavaklıdere  
**ANKARA**  
Tel: 275800  
Telex: 42155 TKNM TR  
E,CM

## **UNITED ARAB EMIRATES**

Emitac Ltd.  
P.O. Box 1641  
**SHARJAH,**  
Tel: 591181  
Telex: 68136 EMITAC EM  
Cable: EMITAC SHARJAH  
E,C,M,P,A  
Emitac Ltd.  
P.O. Box 2711  
**ABU DHABI,**  
Tel: 820419-20  
Cable: EMITACH ABUDHABI

Emitac Ltd.  
P.O. Box 8391  
**DUBAI,**  
Tel: 377951  
Emitac Ltd.  
P.O. Box 473  
**RAS AL KHAIMAH,**  
Tel: 28133, 21270

## **UNITED KINGDOM**

**GREAT BRITAIN**  
Hewlett-Packard Ltd.  
Trafalgar House  
Navigation Road  
**ALTRINCHAM**  
Cheshire WA14 1NU  
Tel: 061 928 6422  
Telex: 668068  
A,CH,CS,E,M,M,P  
Hewlett-Packard Ltd.  
Miller House  
The Ring, **BRACKNELL**  
Berks RG12 1XN  
Tel: 44344 424898  
Telex: 848733  
E

Hewlett-Packard Ltd.  
Elstree House, Elstree Way  
**BOREHAMWOOD,** Herts WD6 1SG  
Tel: 01 207 5000  
Telex: 8952716  
E,CH,CS,P  
Hewlett-Packard Ltd.  
Oakfield House, Oakfield Grove  
Clifton **BRISTOL,** Avon BS8 2BN  
Tel: 0272 736806  
Telex: 444302  
CH,CS,E,P



# SALES & SUPPORT OFFICES

Arranged alphabetically by country

## GREAT BRITAIN (Cont'd)

Hewlett-Packard Ltd.  
Bridewell House  
Bridewell Place  
**LONDON EC4V 6BS**  
Tel: 01 583 6565  
Telex: 298163  
CH,CS,P

Hewlett-Packard Ltd.  
Fourier House  
257-263 High Street  
**LONDON COLNEY**  
Herts. AL2 1HA, St. Albans  
Tel: 0727 24400  
Telex: 1-8952716  
CH,CS

Hewlett-Packard Ltd.  
Pontefract Road  
**NORMANTON**, West Yorkshire WF6 1RN  
Tel: 0924 895566  
Telex: 557355  
CH,CS,P

Hewlett-Packard Ltd.  
The Quadrangle  
106-118 Station Road  
**REDHILL**, Surrey RH1 1PS  
Tel: 0737 68655  
Telex: 947234  
CH,CS,E,P

Hewlett-Packard Ltd.  
Avon House  
435 Stratford Road  
Shirley, **SOLIHULL**, West Midlands  
B90 4BL  
Tel: 021 745 8800  
Telex: 339105  
CH,CS,E,P

Hewlett-Packard Ltd.  
West End House  
41 High Street, West End  
**SOUTHAMPTON**  
Hampshire S03 3DQ  
Tel: 04218 6767  
Telex: 477138  
CH,CS,P

Hewlett-Packard Ltd.  
King Street Lane  
Winnersh, **WOKINGHAM**  
Berkshire RG11 5AR  
Tel: 0734 784774  
Telex: 847178  
A,CH,CS,E,M,P

Hewlett-Packard Ltd.  
Nine Mile Ride  
Easthampstead, **WOKINGHAM**  
Berkshire, 3RG11 3LL  
Tel: 0344 773100  
Telex: 848805  
CH,CS,E,P

## IRELAND

### NORTHERN IRELAND

Hewlett-Packard Ltd.  
Cardiac Services Building  
95A Finaghy Road South  
**BELFAST BT10 0BY**  
Tel: 0232 625-566  
Telex: 747626  
CH,CS

## SCOTLAND

Hewlett-Packard Ltd.  
**SOUTH QUEENSFERRY**  
West Lothian, EH30 9TG  
Tel: 031 331 1188  
Telex: 72682  
CH,CM,CS,E,M,P

## UNITED STATES

### Alabama

Hewlett-Packard Co.  
700 Century Park South, Suite 128  
**BIRMINGHAM, AL 35226**  
Tel: (205) 822-6802  
C,CH,CS,P\*

Hewlett-Packard Co.  
420 Wynn Drive  
P.O. Box 7700  
**HUNTSVILLE, AL 35807**  
Tel: (205) 830-2000  
C,CH,CM,CS,E,M\*

### Alaska

Hewlett-Packard Co.  
3601 C St., Suite 1234  
**ANCHORAGE, AK 99503**  
Tel: (907) 563-8855  
CH,CS,E

### Arizona

Hewlett-Packard Co.  
8080 Pointe Parkway West  
**PHOENIX, AZ 85044**  
Tel: (602) 273-8000  
A,CH,CM,CS,E,M

Hewlett-Packard Co.  
2424 East Aragon Road  
**TUCSON, AZ 85706**  
Tel: (602) 573-7400  
CH,E,M\*\*

### California

Hewlett-Packard Co.  
99 South Hill Dr.  
**BRISBANE, CA 94005**  
Tel: (415) 330-2500  
CH,CS

Hewlett-Packard Co.  
P.O. Box 7830 (93747)  
5060 E. Clinton Avenue, Suite 102  
**FRESNO, CA 93727**  
Tel: (209) 252-9652  
CH,CS,M

Hewlett-Packard Co.  
1421 S. Manhattan Av.  
**FULLERTON, CA 92631**  
Tel: (714) 999-6700  
CH,CM,CS,E,M

Hewlett-Packard Co.  
320 S. Kellogg, Suite B  
**GOLETA, CA 93117**  
Tel: (805) 967-3405  
CH

Hewlett-Packard Co.  
5400 W. Rosecrans Blvd.  
**LAWDALE, CA 90260**  
P.O. Box 92105  
**LOS ANGELES, CA 90009**  
Tel: (213) 643-7500  
Telex: 910-325-6608  
CH,CM,CS,M

Hewlett-Packard Co.  
3155 Porter Drive  
**PALO ALTO, CA 94304**  
Tel: (415) 857-8000  
CH,CS,E

Hewlett-Packard Co.  
4244 So. Market Court, Suite A  
P.O. Box 15976  
**SACRAMENTO, CA 95813**  
Tel: (916) 929-7222  
A\*,CH,CS,E,M

Hewlett-Packard Co.  
9606 Aero Drive  
P.O. Box 23333  
**SAN DIEGO, CA 92123**  
Tel: (619) 279-3200  
CH,CM,CS,E,M

Hewlett-Packard Co.  
2305 Camino Ramon 'C'  
**SAN RAMON, CA 94583**  
Tel: (415) 838-5900  
CH,CS

Hewlett-Packard Co.  
3005 Scott Boulevard  
**SANTA CLARA, CA 95050**  
Tel: (408) 988-7000  
Telex: 910-338-0586  
A,CH,CM,CS,E,M

Hewlett-Packard Co.  
5703 Corsa Avenue  
**WESTLAKE VILLAGE, CA 91362**  
Tel: (213) 706-6800  
E\*,CH\*,CS\*

### Colorado

Hewlett-Packard Co.  
24 Inverness Place, East  
**ENGLEWOOD, CO 80112**  
Tel: (303) 649-5000  
A,CH,CM,CS,E,M

### Connecticut

*Eff. Dec. 1, 1984*  
Hewlett-Packard Co.  
500 Sylvan Av.  
**BRIDGEPORT, CT 06606**  
Tel: (203) 371-6454  
CH,CS,E

Hewlett-Packard Co.  
47 Barnes Industrial Road South  
P.O. Box 5007  
**WALLINGFORD, CT 06492**  
Tel: (203) 265-7801  
A,CH,CM,CS,E,M

### Florida

Hewlett-Packard Co.  
2901 N.W. 62nd Street  
P.O. Box 24210  
**FORT LAUDERDALE, FL 33307**  
Tel: (305) 973-2600  
CH,CS,E,M,P\*

Hewlett-Packard Co.  
4080 Woodcock Drive, Suite 132  
**JACKSONVILLE, FL 32207**  
Tel: (904) 398-0663  
C\*,CH\*,M\*\*

Hewlett-Packard Co.  
6177 Lake Ellenor Drive  
P.O. Box 13910  
**ORLANDO, FL 32859**  
Tel: (305) 859-2900  
A,C,CH,CM,CS,E,P\*

Hewlett-Packard Co.  
4700 Bayoue Blvd.  
Building 5  
**PENSACOLA, FL 32505**  
Tel: (904) 476-8422  
A,C,CH,CM,CS,M

Hewlett-Packard Co.  
5550 Idlewild, #150  
P.O. Box 15200  
**TAMPA, FL 33684**  
Tel: (813) 884-3282  
A\*,C,CH,CS,E\*,M\*,P\*

### Georgia

Hewlett-Packard Co.  
2000 South Park Place  
P.O. Box 105005  
**ATLANTA, GA 30348**  
Tel: (404) 955-1500  
Telex: 810-766-4890  
A,C,CH,CM,CS,E,M,P\*

### Hawaii

Hewlett-Packard Co.  
Kawaiahao Plaza, Suite 190  
567 South King Street  
**HONOLULU, HI 96813**  
Tel: (808) 526-1555  
A,CH,E,M

### Illinois

Hewlett-Packard Co.  
304 Eldorado Road  
P.O. Box 1607  
**BLOOMINGTON, IL 61701**  
Tel: (309) 662-9411  
CH,M\*\*

Hewlett-Packard Co.  
525 W. Monroe, #1300  
**CHICAGO, IL 60606**  
Tel: (312) 930-0010  
CH,CS

Hewlett-Packard Co.  
1200 Diehl  
**NAPERVILLE, IL 60566**  
Tel: (312) 357-8800  
CH\*,CS

Hewlett-Packard Co.  
5201 Tollview Drive  
**ROLLING MEADOWS, IL 60008**  
Tel: (312) 255-9800  
Telex: 910-687-1066  
A,CH,CM,CS,E,M

### Indiana

Hewlett-Packard Co.  
11911 N. Meridian St.  
**CARMEL, IN 46032**  
Tel: (317) 844-4100  
A,CH,CM,CS,E,M

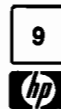
### Iowa

Hewlett-Packard Co.  
4070 22nd Av. SW  
**CEDAR RAPIDS, IA 52404**  
Tel: (319) 390-4250  
CH,CS,E,M



# SALES & SUPPORT OFFICES

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Hewlett-Packard Co.  
4201 Corporate Dr.  
**WEST DES MOINES, IA 50265**  
Tel: (515) 224-1435  
A\*\*,CH,M\*\*

**Kentucky**  
Hewlett-Packard Co.  
10300 Linn Station Road, #100  
**LOUISVILLE, KY 40223**  
Tel: (502) 426-0100  
A,CH,CS,M

**Louisiana**  
Hewlett-Packard Co.  
160 James Drive East  
**ST. ROSE, LA 70087**  
P.O. Box 1449  
**KENNER, LA 70063**  
Tel: (504) 467-4100  
A,C,CH,E,M,P\*

**Maryland**  
Hewlett-Packard Co.  
3701 Koppers Street  
**BALTIMORE, MD 21227**  
Tel: (301) 644-5800  
Telex: 710-862-1943  
A,CH,CM,CS,E,M  
Hewlett-Packard Co.  
2 Choke Cherry Road  
**ROCKVILLE, MD 20850**  
Tel: (301) 948-6370  
A,CH,CM,CS,E,M

**Massachusetts**  
Hewlett-Packard Co.  
1775 Minuteman Road  
**ANDOVER, MA 01810**  
Tel: (617) 682-1500  
A,C,CH,CS,CM,E,M,P\*  
Hewlett-Packard Co.  
32 Hartwell Avenue  
**LEXINGTON, MA 02173**  
Tel: (617) 861-8960  
CH,CS,E

**Michigan**  
Hewlett-Packard Co.  
4326 Cascade Road S.E.  
**GRAND RAPIDS, MI 49506**  
Tel: (616) 957-1970  
CH,CS,M  
Hewlett-Packard Co.  
39550 Orchard Hill Place Drive  
**NOVI, MI 48050**  
Tel: (313) 349-9200  
A,CH,CS,E,M  
Hewlett-Packard Co.  
1771 W. Big Beaver Road  
**TROY, MI 48084**  
Tel: (313) 643-6474  
CH,CS

**Minnesota**  
Hewlett-Packard Co.  
2025 W. Larpenteur Ave.  
**ST. PAUL, MN 55113**  
Tel: (612) 644-1100  
A,CH,CM,CS,E,M

**Missouri**  
Hewlett-Packard Co.  
1001 E. 101st Terrace  
**KANSAS CITY, MO 64131**  
Tel: (816) 941-0411  
A,CH,CM,CS,E,M  
Hewlett-Packard Co.  
13001 Hollenberg Drive  
**BRIDGETON, MO 63044**  
Tel: (314) 344-5100  
A,CH,CS,E,M

**Nebraska**  
Hewlett-Packard  
10824 Old Mill Rd., Suite 3  
**OMAHA, NE 68154**  
Tel: (402) 334-1813  
CM,M

**New Jersey**  
Hewlett-Packard Co.  
120 W. Century Road  
**PARAMUS, NJ 07652**  
Tel: (201) 265-5000  
A,CH,CM,CS,E,M  
Hewlett-Packard Co.  
20 New England Av. West  
**PISCATAWAY, NJ 08854**  
Tel: (201) 981-1199  
A,CH,CM,CS,E

**New Mexico**  
Hewlett-Packard Co.  
11300 Lomas Blvd., N.E.  
P.O. Box 11634  
**ALBUQUERQUE, NM 87112**  
Tel: (505) 292-1330  
CH,CS,E,M

**New York**  
Hewlett-Packard Co.  
5 Computer Drive South  
**ALBANY, NY 12205**  
Tel: (518) 458-1550  
A,CH,E,M  
Hewlett-Packard Co.  
9600 Main Street  
P.O. Box AC  
**CLARENCE, NY 14031**  
Tel: (716) 759-8621  
CH,CS,E

Hewlett-Packard Co.  
200 Cross Keys Office Park  
**FAIRPORT, NY 14450**  
Tel: (716) 223-9950  
A,CH,CM,CS,E,M  
Hewlett-Packard Co.  
7641 Henry Clay Blvd.  
**LIVERPOOL, NY 13088**  
Tel: (315) 451-1820  
A,CH,CM,CS,E,M  
Hewlett-Packard Co.  
No. 1 Pennsylvania Plaza  
55th Floor  
34th Street & 8th Avenue  
**MANHATTAN NY 10119**  
Tel: (212) 971-0800  
CH,CS,M\*

Hewlett-Packard Co.  
15 Myers Corner Rd.  
**WAPPINGER FALLS, NY 12590**  
CM,E

Hewlett-Packard Co.  
250 Westchester Avenue  
**WHITE PLAINS, NY 10604**  
Tel: (914) 684-6100  
CM,CH,CS,E

Hewlett-Packard Co.  
3 Crossways Park West  
**WOODBURY, NY 11797**  
Tel: (516) 921-0300  
A,CH,CM,CS,E,M

**North Carolina**  
Hewlett-Packard Co.  
305 Gregson Dr.  
**CARY, NC 27511**  
Tel: (919) 467-6600  
C,CH,CM,CS,E,M,P\*  
Hewlett-Packard Co.  
9600-H Southern Pine Blvd.  
**CHARLOTTE, NC 28210**  
Tel: (704) 527-8780  
CH\*,CS\*

Hewlett-Packard Co.  
5605 Roanne Way  
P.O. Box 26500  
**GREENSBORO, NC 27420**  
Tel: (919) 852-1800  
A,C,CH,CM,CS,E,M,P\*

**Ohio**  
Hewlett-Packard Co.  
9920 Carver Road  
**CINCINNATI, OH 45242**  
Tel: (513) 891-9870  
CH,CS,M

Hewlett-Packard Co.  
16500 Sprague Road  
**CLEVELAND, OH 44130**  
Tel: (216) 243-7300  
A,CH,CM,CS,E,M

Hewlett-Packard Co.  
980 Springboro Pike  
**MIAMISBURG, OH 45343**  
Tel: (513) 859-8202  
A,CH,CM,E\*,M

Hewlett-Packard Co.  
675 Brookside Blvd.  
**WESTERVILLE, OH 43081**  
Tel: (614) 436-1041  
CH,CM,CS,E\*

**Oklahoma**  
Hewlett-Packard Co.  
304 N. Meridian, Suite A  
P.O. Box 75609  
**OKLAHOMA CITY, OK 73147**  
Tel: (405) 946-9499  
C,CH,CS,E\*,M

Hewlett-Packard Co.  
3840 S. 103rd E. Ave., #100  
P.O. Box 35747  
**TULSA, OK 74153**  
Tel: (918) 665-3300  
A\*\*,C,CH,CS,M\*,E,P\*

**Oregon**  
Hewlett-Packard Co.  
9255 S. W. Pioneer Court  
P.O. Box 328  
**WILSONVILLE, OR 97070**  
Tel: (503) 682-8000  
A,CH,CS,E\*,M

**Pennsylvania**  
Hewlett-Packard Co.  
50 Dorchester Rd.  
P.O. Box 6080  
**HARRISBURG, PA 17111**  
Tel: (717) 657-5900  
C

Hewlett-Packard Co.  
111 Zeta Drive  
**PITTSBURGH, PA 15238**  
Tel: (412) 782-0400  
A,CH,CS,E,M  
Hewlett-Packard Co.  
2750 Monroe Boulevard  
P.O. Box 713  
**VALLEY FORGE, PA 19482**  
Tel: (215) 666-9000  
A,CH,CM,CS,E,M

**South Carolina**  
Hewlett-Packard Co.  
Brookside Park, Suite 122  
1 Harbison Way  
P.O. Box 21708  
**COLUMBIA, SC 29221**  
Tel: (803) 732-0400  
A,C,CH,CS,M  
Hewlett-Packard Co.  
100 Executive Cntr. Dr.  
Koger Executive Center  
Chesterfield Bldg., Suite 124  
**GREENVILLE, SC 29615**  
Tel: (803) 297-4120  
C

**Tennessee**  
Hewlett-Packard Co.  
One Energy Centr. #200  
Pellissippi Pkwy.  
P.O. Box 22490  
**KNOXVILLE, TN 37933**  
Tel: (615) 966-4747  
A,C,CH,CS,M  
Hewlett-Packard Co.  
3070 Directors Row  
**MEMPHIS, TN 38131**  
Tel: (901) 346-8370  
A,C,M

Hewlett-Packard Co.  
220 Great Circle Road, Suite 116  
**NASHVILLE, TN 37228**  
Tel: (615) 255-1271  
C,M,P\*

**Texas**  
Hewlett-Packard Co.  
11002-B Metric Boulevard  
**AUSTIN, TX 78758**  
Tel: (512) 835-6771  
C,CM,E,P\*  
Hewlett-Packard Co.  
5700 Cromo Dr  
P.O. Box 12903  
**EL PASO, TX 79913**  
Tel: (915) 833-4400  
CH,E\*,M\*\*



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Hewlett-Packard Co.  
3952 Sand Shell St  
**FORT WORTH, TX 76137**  
Tel: (817) 232-9500  
A,C,CH,E,M

Hewlett-Packard Co.  
10535 Harwin Drive  
P.O. Box 42816  
**HOUSTON, TX 77042**  
Tel: (713) 776-6400  
A,C,CH,CS,E,M,P\*

Hewlett-Packard Co.  
511 W. John W. Carpenter Fwy.  
Royal Tech. Center #100  
**IRVINE, TX 75062**  
Tel: (214) 556-1950  
C,CH,CS,E

Hewlett-Packard Co.  
930 E. Campbell Rd.  
P.O. Box 83/1270  
**RICHARDSON, TX 75083-1270**  
Tel: (214) 231-6101  
A,CH,CM,CS,E,M,P\*

Hewlett-Packard Co.  
1020 Central Parkway South  
P.O. Box 32993  
**SAN ANTONIO, TX 78232**  
Tel: (512) 494-9336  
A,C,CH,CS,E,M,P\*

### Utah

Hewlett-Packard Co.  
3530 W. 2100 South  
P.O. Box 26626  
**SALT LAKE CITY, UT 84126**  
Tel: (801) 974-1700  
A,CH,CS,E,M

### Virginia

Hewlett-Packard Co.  
4305 Cox Road  
**GLEN ALLEN, VA 23060**  
P.O. Box 9669  
**RICHMOND, VA 23228**  
Tel: (804) 747-7750  
A,C,CH,CS,E,M,P\*

### Washington

Hewlett-Packard Co.  
15815 S.E. 37th Street  
**BELLEVUE, WA 98006**  
Tel: (206) 643-4000  
A,CH,CM,CS,E,M

Hewlett-Packard Co.  
708 North Argonne Road  
P.O. Box 3808  
**SPOKANE, WA 99220-3808**  
Tel: (509) 922-7000  
CH,CS

### West Virginia

Hewlett-Packard Co.  
4604 MacCorkle Ave.  
**CHARLESTON, WV 25304**  
Tel: (304) 925-0492  
A,M

### Wisconsin

Hewlett-Packard Co.  
275 N. Corporate Dr.  
**BROOKFIELD, WI 53005**  
Tel: (414) 784-8800  
A,CH,CS,E\*,M

### URUGUAY

*Pablo Ferrando S.A.C. e i.*  
*Avenida Italia 2877*  
*Casilla de Correo 370*  
**MONTEVIDEO**  
*Tel: 80-2586*  
*Telex: Public Booth 901*  
A,CM,E,M

*Mini Computadores, Ltda.*  
*Avda. del Libertador Brig*  
*Gral Lavalleja 2071*  
*Local 007*

### MONTEVIDEO

*Tel: 29-55-22*  
*Telex: 901 P BOOTH UY*  
P

*Olympia de Uruguay S.A.*  
*Maquinas de Oficina*  
*Avda. del Libertador 1997*  
*Casilla de Correos 6644*

### MONTEVIDEO

*Tel: 91-1809, 98.-3807*  
*Telex: 6342 OROU UY*  
P

## VENEZUELA

Hewlett-Packard de Venezuela C.A.  
3RA Transversal Los Ruices Norte  
Edificio Segre 1, 2 & 3  
Apartado 50933  
**CARACAS 1071**  
Tel: 239-4133  
Telex: 251046 HEWPACK  
A,CH,CS,E,M,P

Hewlett-Packard de Venezuela C.A.  
Residencias Tia Betty Local 1  
Avenida 3 y con calle 75  
**MARACAIBO, Estado Zulia**  
Apartado 2646  
Tel: (061) 75801-75805-75806-80304  
Telex: 62464 HPMAR  
C,E\*

Hewlett-Packard de Venezuela C.A.  
Urb. Lomas de Este  
Torre Trebol — Piso 11  
**VALENCIA, Estado Carabobo**  
Apartado 3347  
Tel: (041) 222992/223024  
CH,CS,P

*Albis Venezolana S.R.L.*  
*Av. Las Marias, Ota. Alix,*  
*El Pedregal*  
*Apartado 81025*  
**CARACAS 1080A**  
*Tel: 747984, 742146*  
*Telex: 24009 ALBIS VC*  
A

*Tecnologica Medica del Caribe, C.A.*  
*Multicentro Empresarial del Este*  
*Ave. Libertador*  
*Edif. Libertador*  
*Nucleo "C" - Oficina 51-52*  
**CARACAS**  
*Tel: 339867/333780*  
M

## GIZUCA

*Cientifica Zulia C.A.*  
*Calle 70, Los Olivos*  
*No. 66-86*  
*Apartado 1843*  
**MARACAIBO**  
*Tel: 54-64-37, 54-63-85, 54-64-94*  
*Telex: 62144*  
A

## YUGOSLAVIA

*Do Hermes*  
*General Zdanova 4*  
*Telex: YU-61000 BEOGRAD*  
A,CH,E,P  
*Hermes*  
*Titova 50*  
*Telex: YU-61000 LJUBLJANA*  
CH,CS,E,M,P

*Elektrotehna*  
*Titova 51*  
*Telex: YU-61000 LJUBLJANA*  
CM

## ZAMBIA

R.J. Tilbury (Zambia) Ltd.  
P.O. Box 32792  
**LUSAKA**  
Tel: 215590  
Telex: 40128  
E

## ZIMBABWE

*Field Technical Sales*  
*45 Kelvin Road, North*  
*P.B. 3458*  
**SALISBURY**  
*Tel: 705 231*  
*Telex: 4-122 RH*  
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