

# HEWLETT-PACKARD



Getting Started with Your  
HP 9133/HP 9134  
Disc Drive

# Change Sheet

## Limited Warranty



### One-year Limited Hardware Warranty

This Hewlett-Packard peripheral/accessory is warranted against defects in materials and workmanship for a period of one-year from receipt by the end user. If HP receives notice of such defects during the warranty period, HP will either, at its option, repair or replace products which prove to be defective.

Should HP be unable to repair or replace the product within a reasonable amount of time, Customer's alternate exclusive remedy shall be a refund of the purchase price upon return of the product.

Products purchased as part of an HP system in a coordinated shipment are warranted against defects in material and workmanship during the same period as the HP system.

### Exclusions

The above warranty shall not apply to defects resulting from: improper or inadequate maintenance by customer; customer-supplied software or interfacing; unauthorized modification or misuse; operation outside of the environmental specifications for the product; or improper site preparation and maintenance.

The selection and use of media, supplies, and consumables is the customer's responsibility. Hewlett-Packard reserves the right to exclude from the warranty or service agreement any repairs for damage to HP products which HP reasonably determines or believes were caused by use of non-HP media or cleaning supplies. Hewlett-Packard will, upon request, repair such damage on a time and material basis.

### Obtaining Warranty Service

To obtain warranty service, products must be returned to a service facility designated by HP. HP may repair on-site at the option of the customer. Customer is responsible for travel charges when on-site repair is requested.

Warranty service for products purchased as part of a system will be subject to service in accordance with the system support services.

Customer shall prepay shipping charges for products returned to HP for warranty service and HP shall pay for return of the products to customer. However, customer shall pay all shipping charges, duties, and taxes for products returned to HP from another country.

Printed in U.S.A. 9/85

09142-90016

**Warranty Limitations**

HP makes no other warranty, either expressed or implied, with respect to this product. HP specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. Some states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion may not apply to you. However, any implied warranty of merchantability or fitness is limited to the one-year duration of this written warranty.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state, or province to province.

**Exclusive Remedies**

The remedies provided herein are customer's sole and exclusive remedies. In no event shall HP be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

HP offers complete service and maintenance worldwide. Maintenance agreements are available for HP peripheral products. Advantages of these agreements to the customer include a fixed annual cost, individualized cost-effective contracts, and a choice of response time. Current rates can be determined by contacting your local HP Sales Office.

## Change Sheet

### Transporting Your Disc Drive

#### 20 Megabyte Disc Drive (HP 9133/9134H)

Before moving your 20 megabyte Winchester disc drive, you should park the read/write head. Parking the read/write head will minimize the possibility of data loss. To park the head in an area away from your data location, follow these steps:

1. Disconnect the HP-IB Cable.
2. Turn on the disc drive. On completion of the selftest with the HP-IB cable removed, the read/write head is parked.
3. Turn off the disc drive and repack it in its carton for transportation.

#### 40 Megabyte Disc Drive (HP 9133/9134L)

The 40 megabyte Winchester disc drive automatically parks the read/write head each time it is turned off.

### Configuration Switch Settings

(Addition to pages 3-2 and  
4-2 of *Using Your HP 9133H  
Disc Drive*, P/N 09133-90071)

The configuration switch allows you to partition your Winchester disc drive into several volumes. This allows you the flexibility of installing different operating systems or overcoming address limitations of some systems.

Please see the supplement accompanying this manual for specific configuring instructions and recommendations, but refer to the following two tables for correct configuration switch settings and volume sizes for the 20 and 40 megabyte Winchester disc drives.

# **HP Computer Museum**

**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

### 20 Megabyte Disc Drive (HP 9133/9134H)

Config Setting	Number of Volumes	Capacity/Volume 256 byte Sectors	Capacity/Volume 1 K byte Sectors *
0	1	19.92	22.33
1	1	19.92	22.33
2	2	9.92	11.09
3	3	6.61	7.37
4	4	4.94	5.49
5	5	3.93	4.34
6	6	3.27	3.61
7	7	2.81	3.09
8	8	2.45	2.69
9	2	Volume 0 4.68 Volume 1 15.20	5.20 17.03

### 40 Megabyte Disc Drive (HP 9133/9134L)

Config Setting	Number of Volumes	Capacity/Volume 256 byte Sectors	Capacity/Volume 1 K byte Sectors *
0	1	39.85	44.74
1	1	39.85	44.74
2	2	19.90	22.30
3	3	13.23	14.79
4	4	9.91	11.06
5	5	7.90	8.80
6	6	6.59	7.32
7	7	5.65	6.26
8	8	4.91	5.44
9**	1 (Two Units)	19.90	22.30

\* For only those systems that support the 1K byte sectors (HP Series 200 and Series 300 etc.)

\*\* Configuration switch = 9 (2 Units)  
The drive is split into two units, not two volumes

Addressing	Unit 0	Unit 1	Unit 2
HP-IB 0-7	Fixed Disc	Fixed Disc	Flexible Disc
HP-IB 8-9	Flexible Disc	Fixed Disc	Fixed Disc

---

# Getting Started with Your HP 9133/HP 9134 Disc Drive



**March 1, 1985**

**Manual Part No.  
09133-90070**

## Warranty and Service

Hewlett-Packard products are warranted against defects in materials and workmanship. For Hewlett-Packard products sold in the U.S.A. and Canada, this warranty applies for ninety (90) days from date of installation.\* Hewlett-Packard will, at its option, repair or replace equipment which proves to be defective during the warranty period. A copy of the complete warranty statement is available upon request.

HP offers complete service and maintenance worldwide. Maintenance agreements are available for all HP peripheral products. Advantages of these agreements to the customer include a fixed annual cost, individualized cost-effective contracts, and a choice of response time. Current U.S.A. rates can be determined by contacting your local HP Sales Office.

The selection and use of media, supplies, and consumables is the customer's responsibility. Hewlett-Packard reserves the right to exclude from the warranty or service agreement any repairs for damage to HP products which HP reasonably determines or believes were caused by use of non-HP media or cleaning supplies. Hewlett-

Packard will, upon request, repair such damage on a time and material basis.

Repairs necessitated by misuse of the equipment, or by hardware, software, or interfacing not provided by Hewlett-Packard are not covered by this warranty.

NO OTHER WARRANTY IS EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. HEWLETT-PACKARD SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES.

\* For other countries, contact your local Sales and Support Office to determine warranty terms.

### **Federal Communications Commission Radio Frequency Interference Statement USA Only**

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing



device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- reorient the receiving antenna
- relocate the computer with respect to the receiver
- move the computer away from the receiver
- plug the computer into a different outlet so that computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve  
Radio-TV  
Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

---

**Note**

This manual describes the use of the HP 9133/HP 9134 disc drive with Hewlett-Packard computers. If you connect your disc drive to an IBM or Compaq computer, please use the manual, *Using Hewlett-Packard Disc Drives and Tape Drives* (Hewlett-Packard part number 88500-90000), that comes with your interface card.

---

# **Essentials**

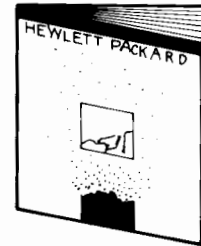
---

**Principes Essentiels  
Wesentliche Grundlagen  
Elementos Esenciales  
Informazioni Essenziali  
Nødvendige Trin  
Essentiël  
Perusominaisuudet  
Nødvendige Trinn  
Väsentlig**

# Table of Contents

## 1 INTRODUCTION

Introduction  
Einführung  
Introducción  
Introduzione  
Introduktion  
Inleidng  
Johdanto  
Innledning  
Introduktion



## 2 VOLTAGE

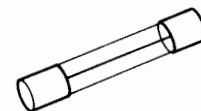
Tension  
Spannung  
Voltaje  
Tensione  
Strömstyrke  
Voltage  
Jännite  
Spänning  
Sänning



CAUTION

## 4 FUSE

Fusible  
Sicherung  
Fusible  
Fusibile  
Sikring  
Zekering  
Sulake  
Sikring  
Säkring



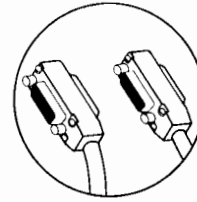
WARNING

## 6 ADDRESS

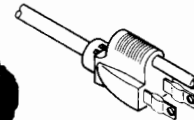
Adresse  
Adressa  
Dirección  
Indirizzo  
Programkode  
Adres  
Osote  
Adresse  
Adressa



8 HP-IB  
HP-IB  
HP-IB  
HP-IB  
HP-IB  
HP-IB  
HP-IB  
HP-IB  
HP-IB



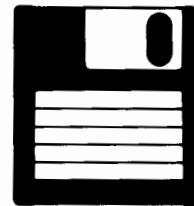
11 POWER  
Mise sous tension  
Stromversorgung  
Alimentación  
Alimentazione  
Tilalutning  
Vermogen  
Teho  
Strømtilførsel  
Effekt



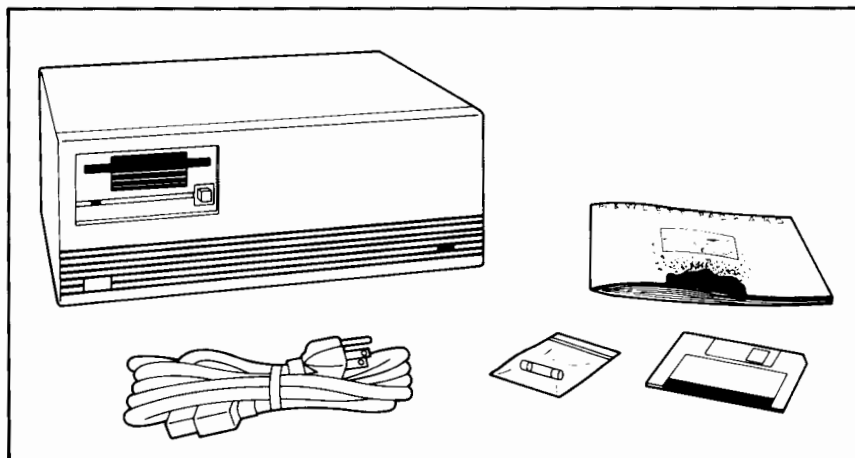
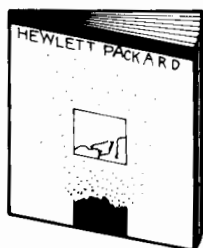
12 SELFTEST  
Autotest  
Selbtest  
Autoprueba  
Prova di autocontrollo  
Automatisk test  
Zelftest  
Itsetarkastuskoe  
Kontrollprøve  
Självtest



15 USING YOUR FLEXIBLE DISC  
Benutzen de Diskette  
Uso de los Discos flexibles  
Uso dei dischi flessibili  
Anvendelse af fleksible discs  
Gebruik van de Flexibele Diskette  
Levyjen käyttö  
Bruk av fleksible disketter  
Att använda skrivminnen









**CAUTION**

Make sure the voltage switch is set correctly for your local power. Always turn off the disc drive before changing the voltage setting.

Assurez-vous que le sélecteur de tension est mis sur la position qui correspond à votre courant. Arrêtez toujours l'unité de disques avant de changer la position du sélecteur.

Prüfen Sie nach, ob die Einstellung des Spannungsschalters der Netzspannung entspricht. Schalten Sie das Gerät jedesmal aus, bevor Sie die Spannungseinstellung verändern.

Asegúrese de que el selector de voltaje está debidamente ajustado, de acuerdo con la red local. Apague siempre la unidad de disco antes de cambiar el ajuste de voltaje.

Assicuratevi che il selettore di tensione sia posizionato correttamente per la vostra corrente locale. Disinserite sempre l'unità disco prima di cambiare il posizionamento della tensione.

Sørg for at spændingsknappen er korrekt indstillet til Deres strømstyrke. Sluk altid for disc-aktivatoren før De ændrer strømstyrke.

Verzekert U zich ervan dat de voltageschakelaar juist is afgesteld voor Uw plaatselijke stroom. Zet de disk drive altijd af alvorens de voltageschakelaar af te stellen.

Varmista, että jännitekytkin on asetettu paikallisen tehon mukaan. Kytke aina levyasema pois päältä ennenkuin vaihdat jänniteasetusta.

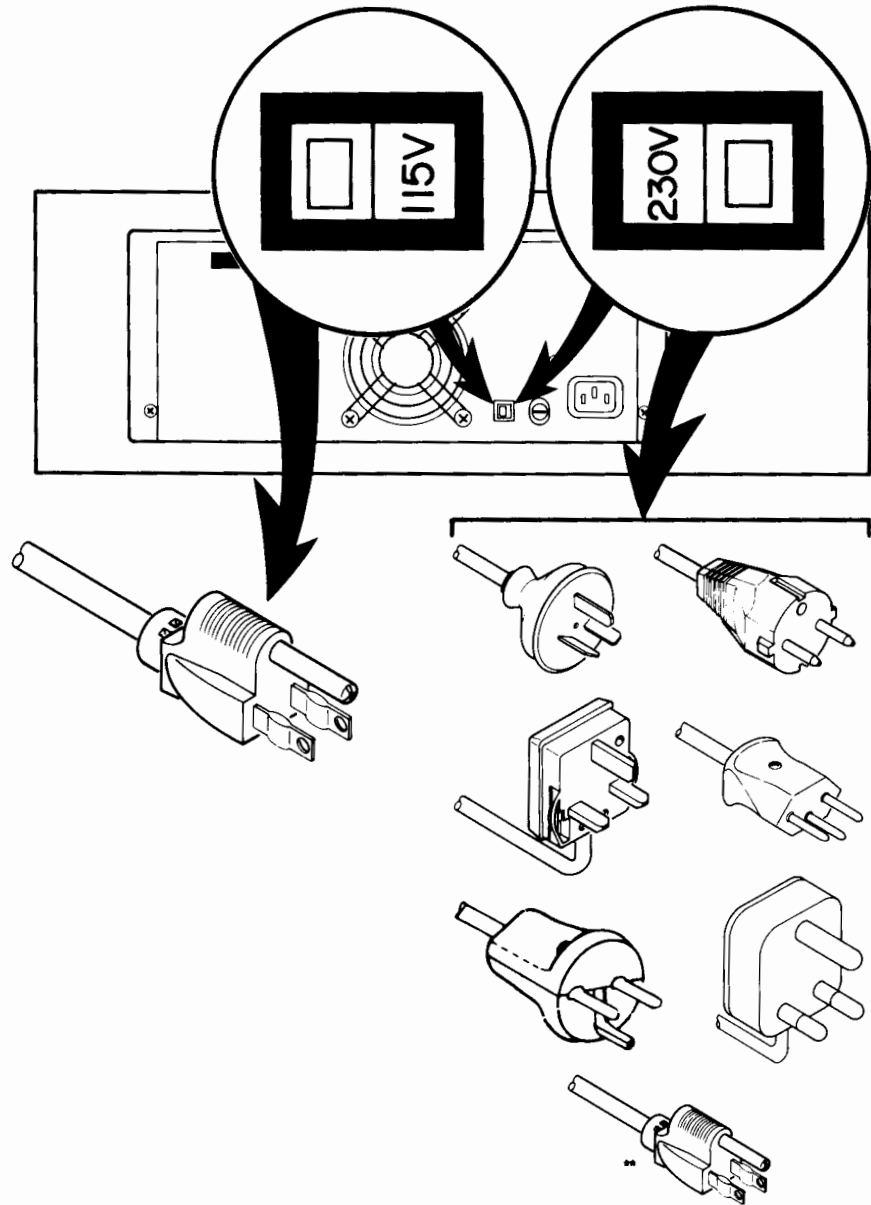
Bekreft at spenningsbryteren er innstilt på den rette nettspenningen. Skru alltid av disc-driven før De forandrer spenningsbryteren.

Försäkra dig om att spänningsomkopplaren har korrekt inställning enligt tillgänglig effekt. Slå alltid ifrån drivenheten för skivminne innan du ändrar spänningsinställningen.

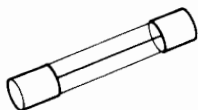




CAUTION



\*\* Peru - 230V



#### WARNING

Because of a potential shock hazard, always unplug the power cord if you need to change a fuse. Put the fuse in the fuse-holder, and then put the fuse-holder back into the drive.

Au moment de changer un fusible, débranchez toujours le cordon d'alimentation, pour ne pas risquer de recevoir une décharge électrique. Insérez le fusible dans le porte-fusible, puis remplacez l'ensemble dans l'unité de disques.

Da die Gefahr besteht, einen Stromschlag zu erhalten, ziehen Sie das Stromkabel aus der Steckdose, bevor Sie die Sicherung auswechseln. Setzen Sie die Sicherung zuerst in den Sicherungsschalter ein und dann in den Sicherungskasten.

Para evitar el peligro de electrocución, desenchufe siempre el cordón de alimentación antes de reemplazar un fusible. Coloque el fusible en el portafusible y luego coloque éste en la unidad de disco.

Per evitare il possibile rischio di una scossa elettrica staccate sempre il cavo di alimentazione se dovete cambiare un fusibile. Mettete il fusibile nel porta-fusibili e poi rimettete il porta-fusibili nell'unità disco.

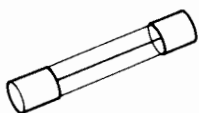
Træk – på grund af risiko for elektrisk stød – altid stikket ud, hvis det er nødvendigt at skifte sikring. Anbring sikringen i sikringsholderen og sæt derpå denne tilbage i disc-aktivatoren.

Om schokgevaar te voorkomen dient U altijd eerst de stekker uit het stopkontakt te verwijderen indien U een zekering moet vervangen. Plaats de zekering in de zekeringsdoos en plaats de zekering weer in de disk drive.

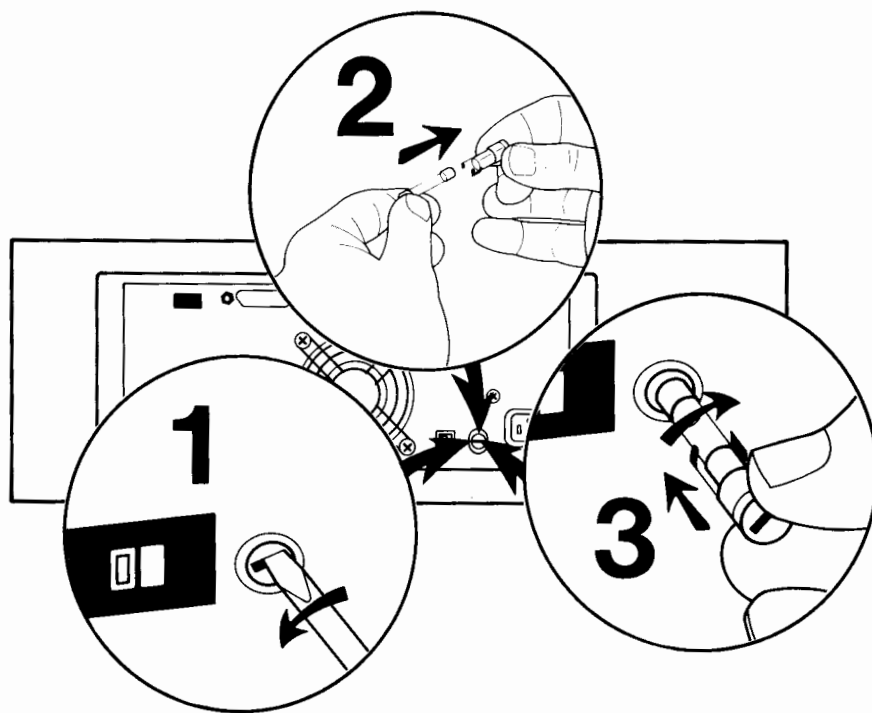
Mahdollisen sähköiskuvaaran takia on liitännäjohtin irroitettava aina ennen sulakkeen vaihtamista. Pane sulake sulakkeenpitimeen ja aseta sulakkeenpidin takaisin levyasemaan.

På grunn av eventuell fare for støt, trekk alltid ut den strømførende ledningen, hvis De må skifte sikring. Sett sikringen inn i sikringsbeholderen og sett så sikringsbeholderen tilbake i disc-driven.

På grund av ev. stötfara, försäkra dig om att nätsladden är fränkopplad, om du behöver byta en säkring. Sätt säkringen i säkringshållaren och sätt sedan säkringshållaren tillbaka i drivenheten för skivminne.



**WARNING**





If you connect your disc drive to an HP Touchscreen PC, set the address wheel to 9. If you connect your disc drive to a Series 200 computer, set the address wheel to 0.

Quand vous connectez votre unité de disques à un HP 150 à écran tactile, tournez l'adresse sur 9. Quand vous la connectez à un ordinateur de la série 200, tournez l'adresse sur 0.

Stellen Sie den Adressendrehschalter auf 9, wenn Sie Ihr Plattenlaufwerk an einen HP 150 personal Computer anschließen. Schließen Sie Ihr Plattenlaufwerk an einen Computer der Serie 200 an, stellen Sie den Adressendrehschalter auf 0.

Si usted conecta una unidad impulsora de disco a un computador personal HP 150, ponga la ruedecilla de dirección en el 9. Si conecta la unidad a un computador de la Serie 200, ponga la ruedecilla en el 0.

Se connettete la vostra unità disco ad un'HP Touchscreen PC, posizionate la ruota dell'indirizzo a 9. Se connettete la vostra unità disco ad un computer Serie 200, posizionate la ruota dell'indirizzo a zero.

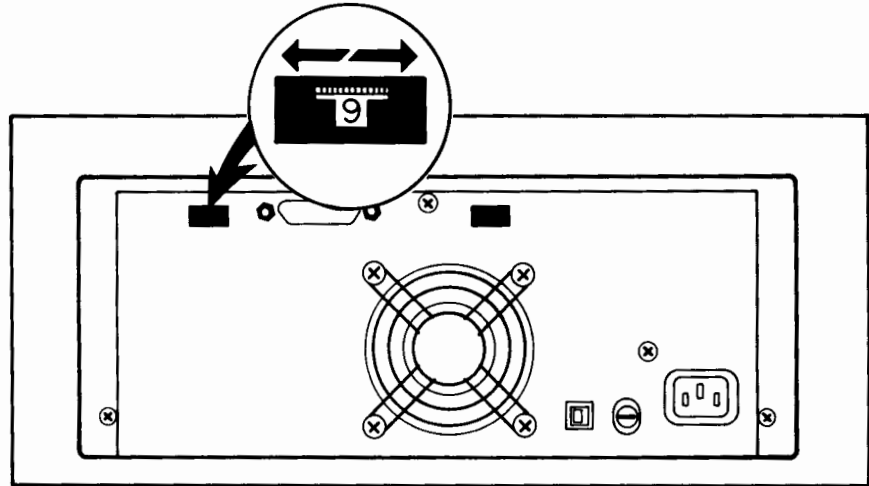
Hvis disk driven forbindes til en HP 150, sæt adressehjulet på 9. Hvis disk driven forbindes til en Series 200 computer, sæt adressehjulet på 0.

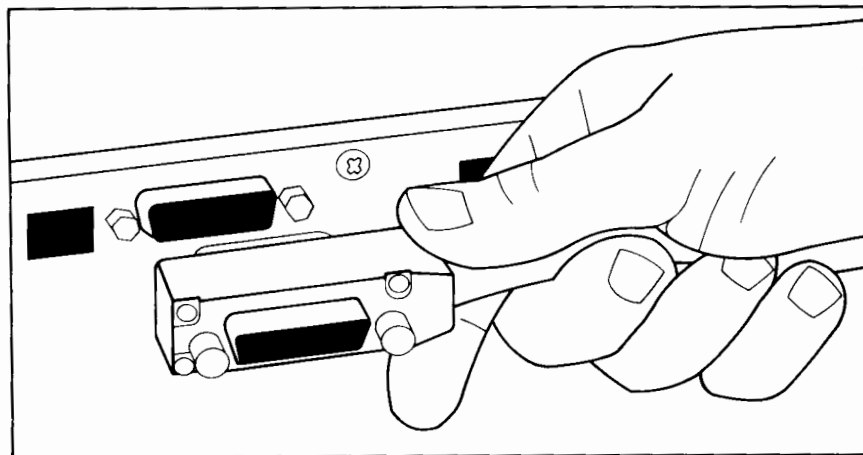
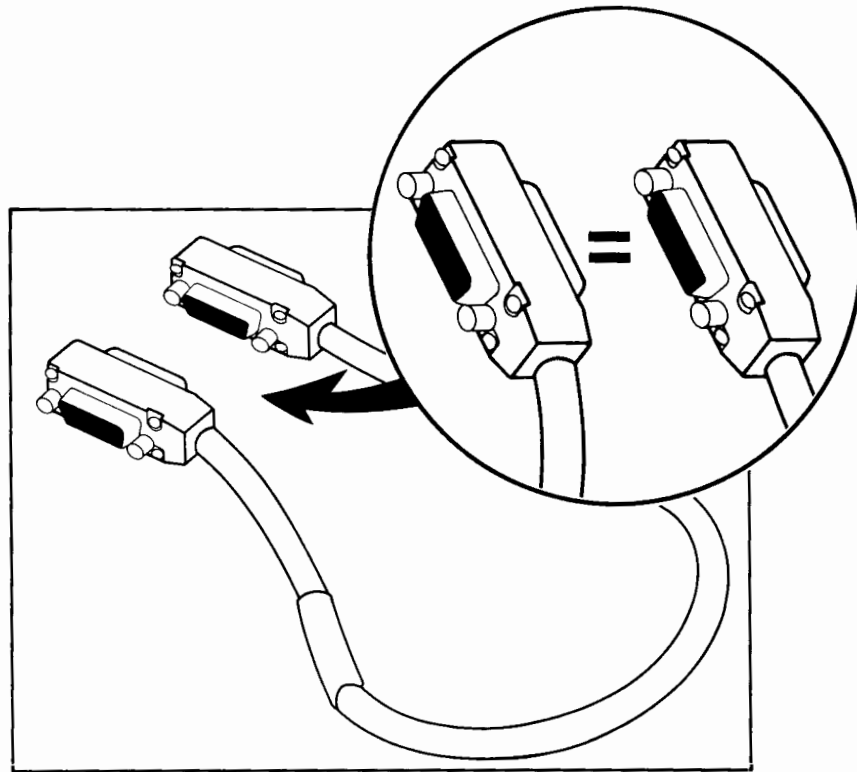
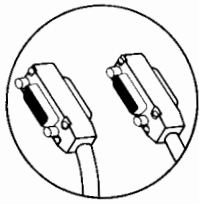
Indien U Uw disk drive op een HP 150 aansluit, dient U het adreswiel op 9 af te stellen. Indien U Uw disk drive op een Serie 200 computer aansluit, dient U het adreswiel op 0 af te stellen.

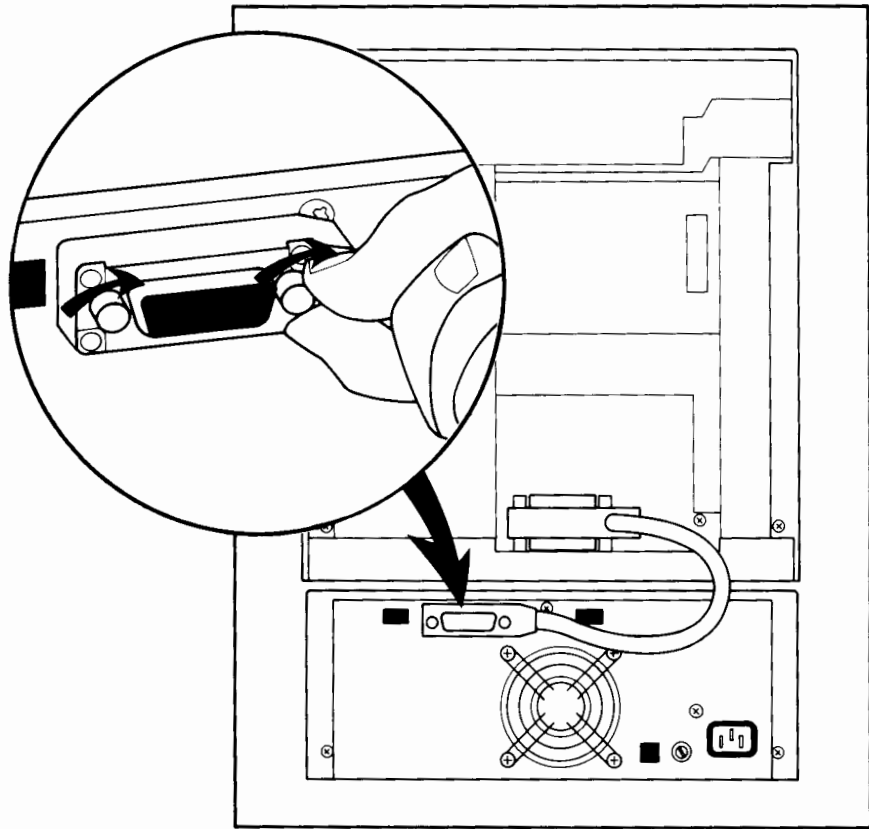
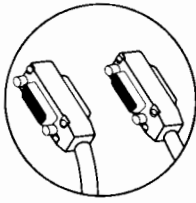
Jos yhdistät levyaseman HP 150, aseta osoitepyörä asentoon 9. Jos levyasema yhdistetään Sarja 200 tietokoneeseen, on osoitepyörä asetettava 0-asentoon.

Hvis platedrevet forbindes til en HP 150, sett adressehjulet på 9. Hvis platedrevet forbindes til en Series 200 datamaskin, sett adressehjulet på 0.

Om du ansluter din drivenhet för skivminne till HP 150, bör tumhjulsomkopplaren vara i läge 9. Om du ansluter din drivenhet för skivminne till en 200-serie dator, bör tumhjulsomkopplaren vara i läge 0.

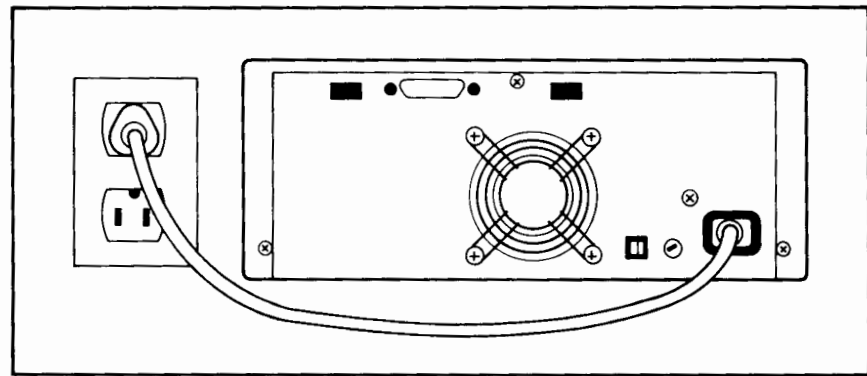
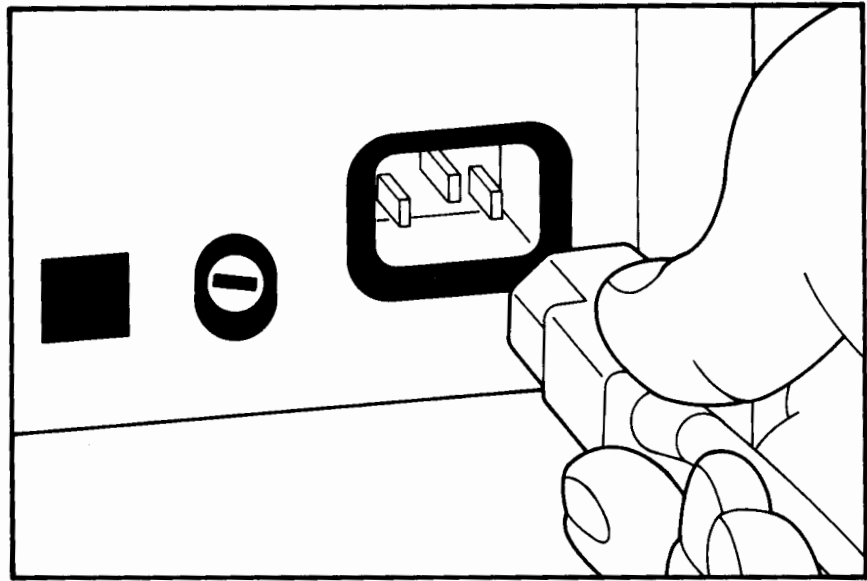
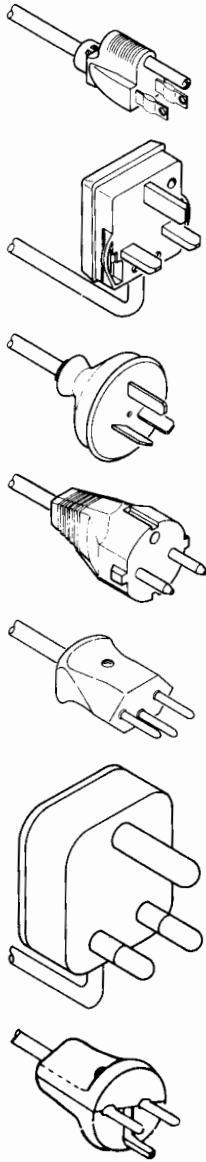














A power-on selftest is performed when you turn on your disc drive. If the fault light remains lit after 40 seconds, the disc drive has not passed the selftest.

Un autotest de mise en route se déclenche à la mise sous tension de l'unité de disques. Si, après 40 secondes, le voyant lumineux reste allumé, l'unité de disques n'a pas passé l'autotest.

Beim Einschalten des Geräts wird automatisch ein Selbsttest durchgeführt. Leuchtet die Fehleranzeige für mehr als 40 Sekunden auf, verlief der Selbsttest nicht erfolgreich.

Quando se enciende la unidad impulsora de disco se efectúa automáticamente una autopruueba de la unidad. Si la luz indicadora de falla permanece encendida después de transcurridos 40 segundos, ello significa que la unidad no ha pasado la autopruueba.

Una prova di autocontrollo all'accensione viene eseguita quando inserite la vostra unità disco. Se il segnale luminoso di guasto rimane acceso dopo 40 secondi, l'unità disco non ha superato il test diagnostico.

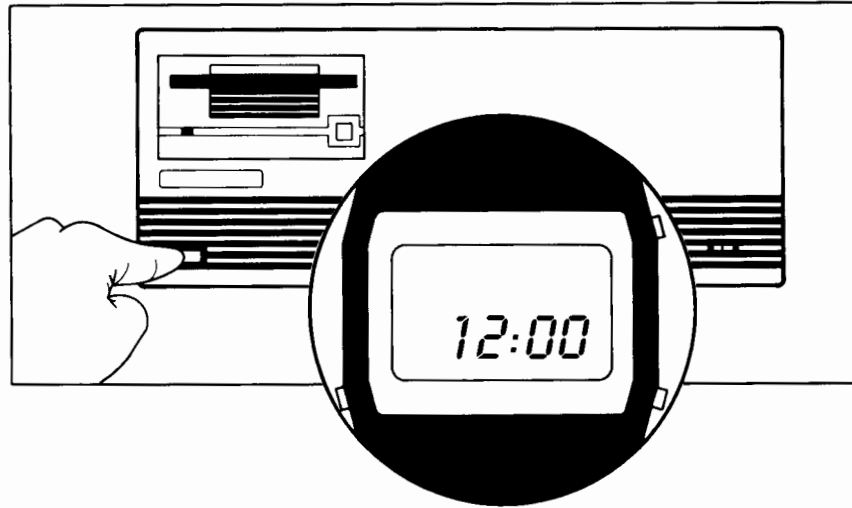
Når disk driven aktiveres, udføres der samtidigt en kontrol af "Power-on". Hvis kontrollampen forbliver tændt mere end 40 sekunder, har disk driven ikke bestået kontrollen.

Een zelftest wordt uitgevoerd wanneer U Uw disk drive aanzet. Indien het storingslicht langer dan 40 sekonden blijft branden, is de zelftest van Uw disk drive niet geslaagd.

Kone suorittaa automaattisen virrantarkastuskokeen, kun kytket virran levyasemaan. Mikäli virhevalo on edelleen päällä 40 sek. Jälkeen, tiedät, ettei levyasema läpäissyt tarkastuskoetta.

En "Power-on" kontrollprøve utføres samtidig som platedrevet blir slått på. Hvis feillyset fremdeles står på etter 40 sekunder, har platedrevet ikke bestått kontrollprøven.

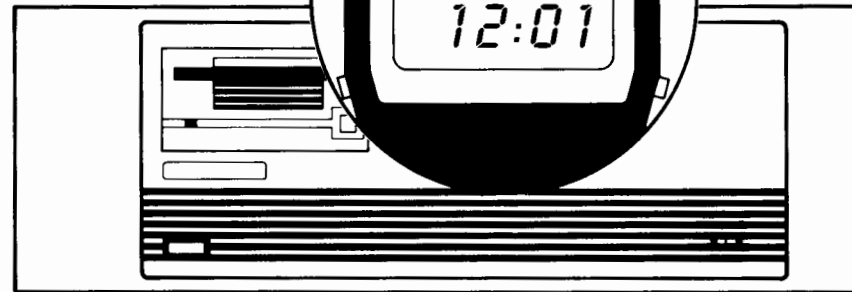
Datorn utför ett självtest när du kopplar på din drivenhet för skivminne. Om felindikeringslampan fortasätter att lysa mer än 40 sekunder, kan självtestet inte fullbordas.



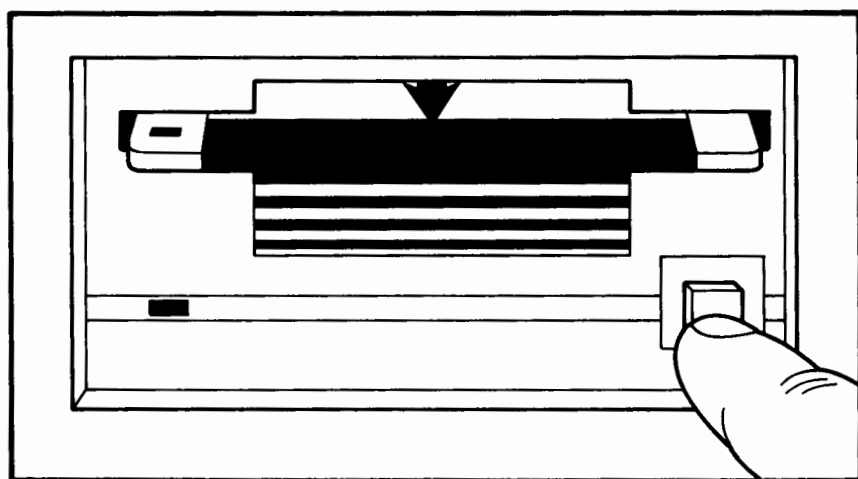
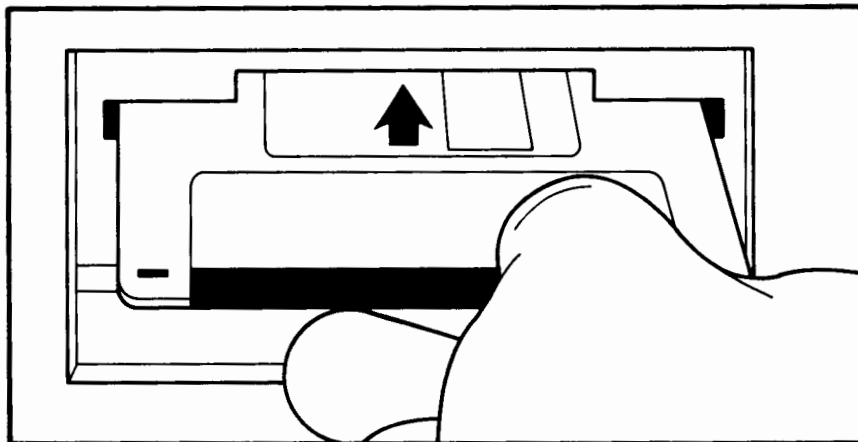
Pass  
Passe  
Bestehen  
Paso  
Superato  
Operationel  
Geslaagd  
Läpäise  
Bestått  
Fullbordat

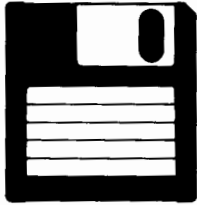


Fail  
Echec  
Versagen  
Fallä  
Bocciato  
Ikke operationel  
Niet geslaagd  
Epäonnistui  
Ikke bestått  
Misslyckat









Write protecting ensures that the disc drive cannot change or delete information on the disc. To write protect a disc, slide the plastic write protect button down.

La protection de l'enregistrement garantit que l'unité de disques ne peut altérer ou effacer les données enregistrées sur le disque. Pour mettre cette protection, il suffit de pousser le taquet en plastique prévu à ce effet sur le disque.

Der Schreibschutz verhindert das Ändern und Löschen der auf der Platte gespeicherten Information. Um eine Platte vor dem Überschreiben zu schützen, schieben Sie den Schreibschutzknopf nach unten.

La protección contra escritura asegura el que la unidad impulsora de disco no podrá alterar o borrar información registrada en el disco. Para poner en efecto esta protección, deslice hacia abajo el botón de plástico correspondiente.

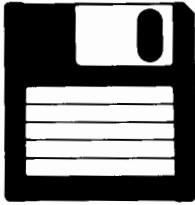
La protezione contro la sovrascrittura assicura che l'unità disco non può cambiare o cancellare informazioni sul disco. Se volete proteggere un disco contro la sovrascrittura, mettete una linguetta di protezione contro la sovrascrittura nella scanalatura di protezione contro la sovrascrittura.

Skrivebeskyttelsen sikrer, at disk driven ikke kan ændre eller slette information på disketten. For at opnå skrivebeskyttelse af en diskette skubbes skrivebeskyttelsesknappen ned.

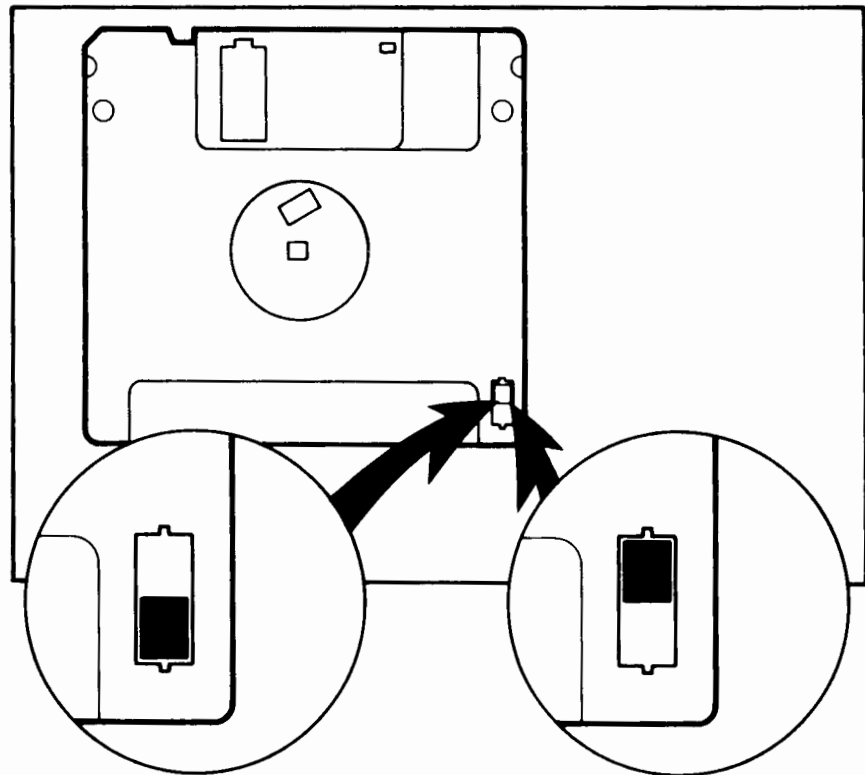
Schriftbescherming verzekert U ervan dat de disk drive geen gegevens op de disk kan veranderen of uitwissen. Indien U schriftbescherming wilt toepassen op een disk, dient U de plastic schriftbeschermingstoets naar beneden te schuiven.

Kirjoituksen soujaus varmistaa, ettei levyasema muuta tai poista levykkeelle talletettua tietoa. Jos haluat suojata levykkeellä olevan kirjoituksen, siirrä muovinen kirjoitussuojanappi alas.

Skrivebeskyttelse forsikrer at platedrevet ikke kan forandre eller utviske informasjonen på magnetplaten. For å skrivebeskytte en magnetplate, la skrivebeskytterknappen gli ned.



Skrivskydda-funktionen förhindrar att en drivenhet för skivminne inte ändrar eller tar bort information på disketten. För att skrivskydda en diskett, skjut plastknappen ner.



WRITE-PROTECTED

PROTÉGÉ

SCHREIBGESCHÜTZT

PROTEGIDO CONTRA ESCRITURA

PROTETTO CONTRO LA SOVRASCRITTURA

SKRIVEBESKYTTET

SCHRIFTBESCHERMD

KIRJOITUSSUOJATTU

SKRIVEBESKYTTET

SKRIVSKYDDAD

NOT WRITE-PROTECTED

NON PROTÉGÉ

NICHT SCHREIBGESCHÜTZT

NO PROTEGIDO CONTRA ESCRITURA

NON PROTETTO CONTRO LA SOVRASCRITTURA

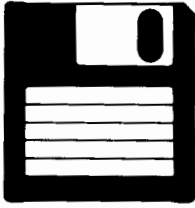
IKKE SKRIVEBESKYTTET

NIET SCHRIFTBESCHERMD

EI KIRJOITUSSUOJATTU

IKKE SKRIVEBESKYTTET

ICKE SKRIVSKYDDAD



The Media Monitor automatically monitors the use of each individual disc. When the flexible disc access light begins blinking and a clicking sound is heard, copy the disc you are using.

Le Moniteur de Média surveille l'état de chacun des disques que vous utilisez. Si le témion d'accès au disque clignote ou si vous entendez un cliquetis, copiez immédiatement le disque que vous êtes en train d'utiliser.

Der Medienmonitor überwacht die Abnutzung jeder einzelnen Diskette. Kopieren Sie die Diskette, wenn die Zugriffsanzeige zu blinken beginnt und ein tickendes Geräusch zu hören ist.

El Monitor de Discos vigila automáticamente el uso de cada disco individual. Cuando la luz de acceso de disco flexible comienza a parpadear y se escucha un sonido de clics, copie el disco que esté utilizando.

Il Controllo del Supporto (Media Monitor) controlla automaticamente l'uso di ogni disco individuale. Quando il segnale luminoso di accesso al disco flessibile comincia a lampeggiare e si sente un ticchettio, copiate il disco che state usando.

Media monitoren overvåger automatisk brugen af hver enkelt diskette. Når adgangsløset for den fleksible diskette begynder at blinke og der samtidigt høres en klikkende lyd, kopier da den diskette der benyttes.

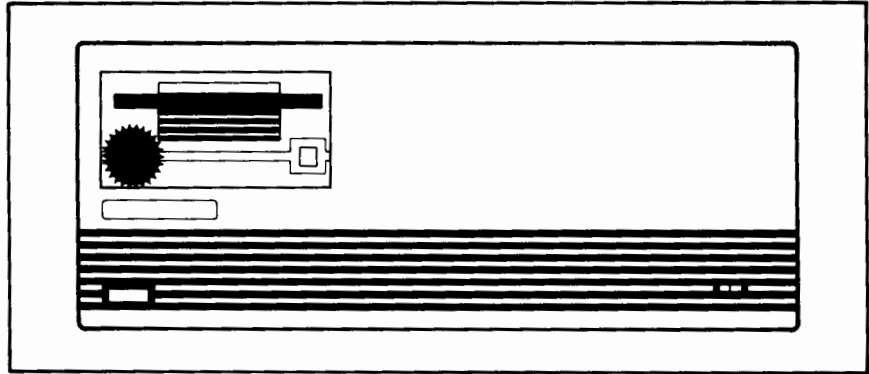
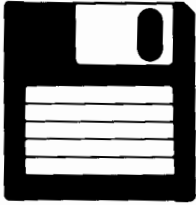
De Media Monitor controleert automatisch het gebruik van iedere afzonderlijke disk. Wanneer het flexibele disk toevoerlicht begint te knipperen en U een getik hoort, dient U de disk die U gebruikt te kopiëren.

Media Monitor ohjaa automaattisesti jokaisen levykkeen käytön. Kun levykemerkkivalo alkaa vilkkua ja kuulet naksahduksen, kopioi käyttämäsi levyke.

Media Monitor overvåker automatisk bruken av hver enkel magnetplate. Når adgangsløset til den fleksible magnetplaten begynner å blinke og en klikkende lyd blir hørt, kopier magnetplaten som brukes.

Media Monitorn kontrollerar automatiskt användning av varje individuell diskett. När en indikeringslampa börjar blinka och du hör ett knäppande ljud, bör du kopiera disketten som du använder.







# Reference Section

## Table of Contents

---

### Chapter 1

#### Introduction

- 1-1 About This Manual
- 1-1 About Your Disc Drive

### Chapter 2

#### Setting Up

- 2-1 Step 1: Checking Your Disc Drive
- 2-2 Step 2: A Look at Your Disc Drive
- 2-4 Step 3: Setting the Address
- 2-5 Step 4: Setting the Configuration Switch
- 2-6 Step 5: Connecting the HP-IB Cable
- 2-7 Step 6: Changing the Fuse
- 2-8 Step 7: Setting the Voltage
- 2-10 Step 8: Connecting the Power Cord
- 2-11 Step 9: Try It!
- 2-11 Using Your Disc Drive

### Chapter 3

#### Using Flexible Discs

- 3-1 A Look at the Flexible Disc
- 3-3 Loading the Flexible Disc
- 3-4 The Media Monitor
- 3-5 Single-Sided versus Double-Sided Discs
- 3-6 Handling the Flexible Disc
- 3-7 Labeling the Flexible Disc
- 3-8 Ordering Flexible Discs

---

## **Chapter 4**

### **Repairs, Supplies and Problem Solving**

- 4-1**    Caring for the Case
- 4-1**    Warranty
- 4-2**    Maintenance
- 4-2**    What If Something Goes Wrong?
- 4-5**    How to Order Supplies

## **Appendix A**

- A-1**    Technical Specifications
- A-1**    Performance Characteristics
- A-2**    Environmental Ranges
- A-3**    Physical Characteristics
- A-3**    Power Requirements

## **Glossary**

## **Index**

# 1

## Introduction

---

### About This Manual

This reference section elaborates on the contents of Part I. Additionally, this section describes the use of flexible discs and what to do if something goes wrong with your discs or disc drive.

### About Your Disc Drive

The HP 9133 disc drive contains a 5 1/4-inch fixed disc drive and a 3 1/2-inch double-sided flexible disc drive. The HP 9134 disc drive contains only a 5 1/4-inch fixed disc drive.

A disc drive is a device that allows a computer to read data that is stored on a disc or write data to a disc. A disc is similar to a phonograph record that stores programs and data instead of music. A disc drive may be flexible or fixed.

A flexible disc can be removed from the disc drive. The discs are called "flexible" because they are made from flexible pieces of polyester.

A fixed disc is called "fixed," because the disc cannot be removed from the disc drive. The disc is also referred to as "hard," because the disc is made from rigid aluminum. Additionally, you may hear the fixed disc referred to as a "Winchester" disc.



# 2

## Setting Up

---

This chapter describes the nine steps involved in setting up your disc drive.

### **Step 1: Checking Your Disc Drive**

- The disc drive is a precision instrument. The shock that occurs if you drop the disc drive may damage the Winchester disc and other internal parts. Use care when moving the disc drive.
- Hewlett-Packard supplies a power cord, an extra fuse and this manual with your disc drive. With the HP 9133, Hewlett-Packard also supplies a blank 3 1/2-inch disc.
- Inspect your disc drive for any physical damage that may have occurred during shipment.
- If you find any damage, notify your dealer or Hewlett-Packard sales office. Also, file a claim with the carrier.
- If you plan to move the disc drive in the future, save the shipping carton. When the time for the move arrives, insert the cardboard shipping disc in the flexible disc drive. Seal the disc drive in a plastic bag and repack in the shipping carton.

## Step 2: A Look at Your Disc Drive

- Look at the parts of your disc drive illustrated in Figures 2-1, 2-2 and 2-3.

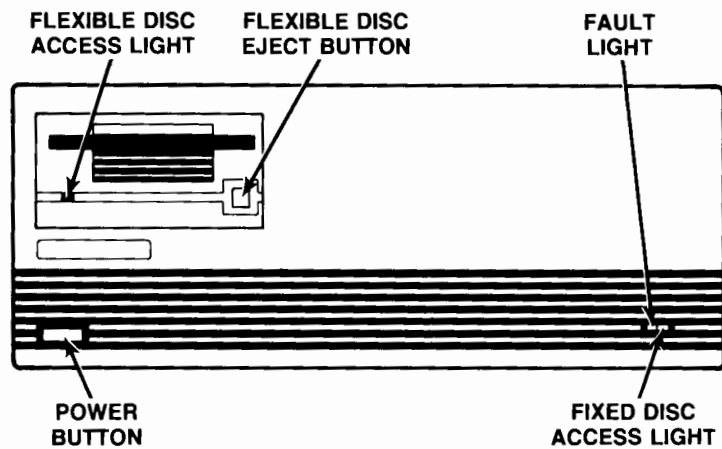


Figure 2-1: HP 9133 Front Panel

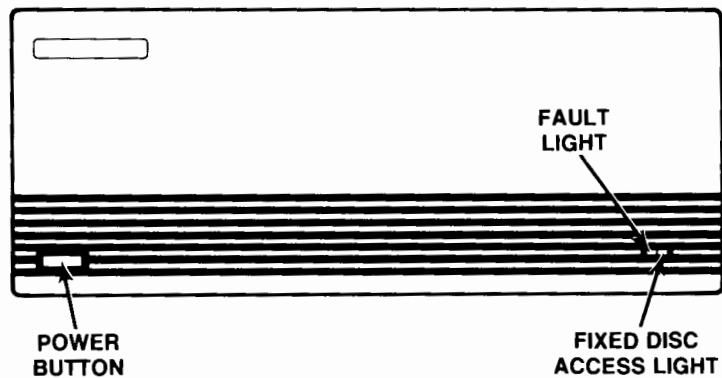


Figure 2-2: HP 9134 Front Panel



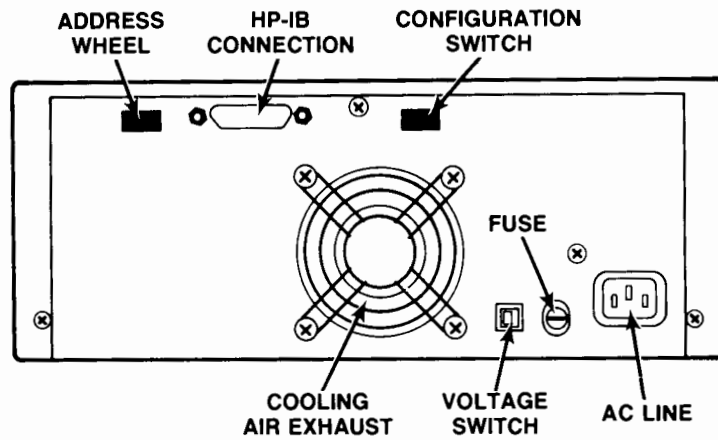


Figure 2-3: HP 9133 and 9134 Rear Panel

**Caution** The disc access light on the front of each drive indicates usage of that drive. The HP 9133 has two disc access lights, one for the flexible disc and one for the fixed disc. The HP 9134 has one disc access light for the fixed disc. Do not remove the flexible disc when the disc access light is on.

- The disc drive is on when the power button is in and off when the button is out.
- Note the cooling air exhaust on the rear panel. When positioning your disc drive, do not block this exhaust.
- The disc access light is lit whenever your computer is storing data on the disc or retrieving data from the disc.

### Step 3: Setting the Address

You have an address that is different from your neighbor's address. Your address helps people locate you when they have a message for you or when they need information from you. Similarly, each peripheral device on a computer needs an address so the computer can contact the peripheral to get or give information.

- Each peripheral device must have a unique address.
- Hewlett-Packard sets your disc drive address at 9.
- **If you connect your disc drive to an HP Touchscreen PC** and this is the first time the disc drive is being used, make sure the address wheel is set at 9. For subsequent use of your disc drive, please see the supplement that comes with this manual.
- **If you connect your disc drive to a Series 200 computer,** reset your address wheel to 0.
- If you need to change the address setting:
  - Turn off the disc drive.
  - Turn the thumb wheel to the desired address.
  - Turn the disc drive back on. Remember, if you do not complete all three of these steps when changing the address wheel, your system will not know that you have changed the address.

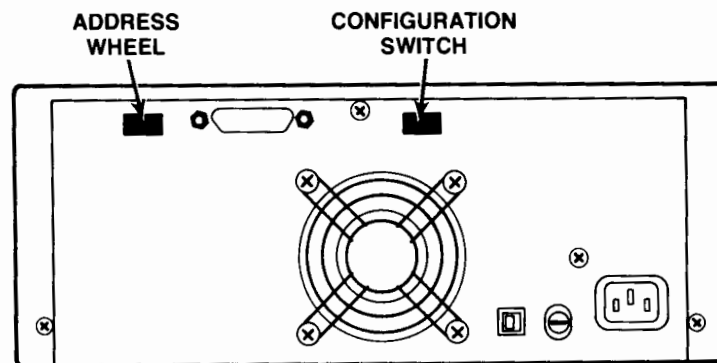


Figure 2-4: Address Wheel and Configuration Switch.

## Step 4: Setting the Configuration Switch

The configuration switch allows you to partition your fixed disc into multiple volumes for use with Series 200 computers.

---

### Caution

The configuration switch changes disc formatting. Improper switch setting can result in loss of data.

---

- If you connect your disc drive to an HP Touchscreen PC make sure the configuration switch is set at 0.
- If you connect your disc drive to an HP Series 200 computer, please see the supplement that comes with this manual for information on configuration switch settings.

## Step 5: Connecting the HP-IB Cable

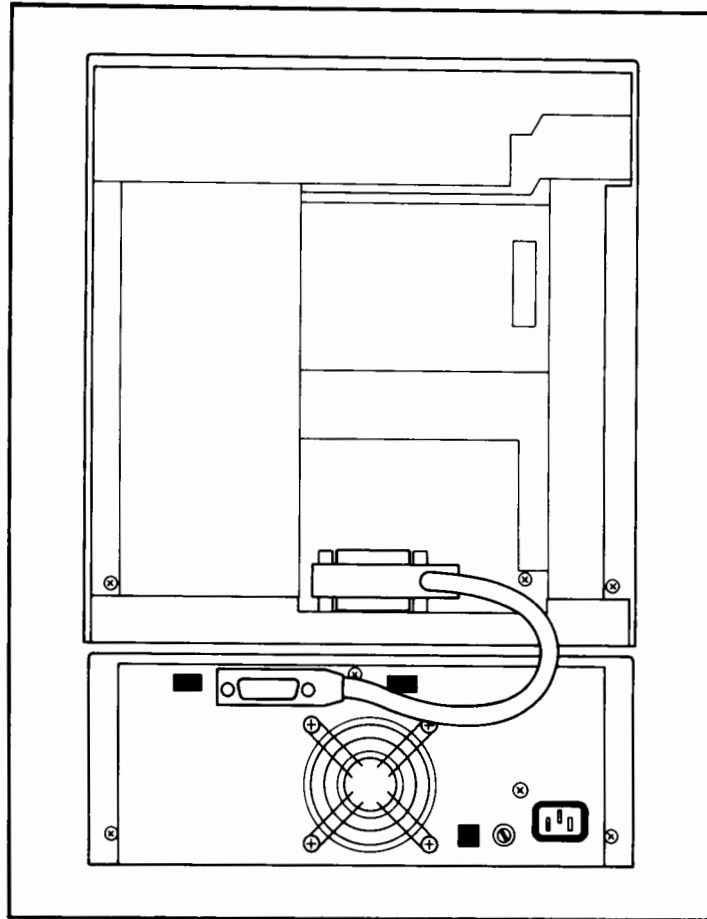


Figure 2-5: HP-IB Cable

- Turn off your disc drive and computer.
- Attach one end of the HP-IB cable onto the HP-IB connector of your disc drive, and tighten the screws on the HP-IB cable with your fingers.
- Attach the other end of the HP-IB cable onto the HP-IB connector of your computer, and tighten the screws on the HP-IB cable with your fingers.

## Step 6: Changing the Fuse

Use the following steps when you need to change a fuse:

---

### Warning

Because of a potential shock hazard, always unplug the power cord if you need to change a fuse. Place the fuse into the fuse-holder cap and then into the unit.

For continued protection against fire hazard, replace fuses only with the same type and rating of fuses.

---

- Use a screwdriver to turn the fuse-holder in a counter-clockwise direction while pushing in gently.
- When you have loosened the fuse-holder, pull it out with your fingers.
- Remove the old fuse.
- Put a new 3.0 AF 250 V fuse (Hewlett-Packard part number 2110-0003) into the fuse-holder cap. Insert the fuse-holder into the disc drive. Do not hold the metal portion of the fuse while inserting the fuse into the disc drive. Turn the fuse-holder in a clockwise direction while pushing gently.

## Step 7: Setting the Voltage

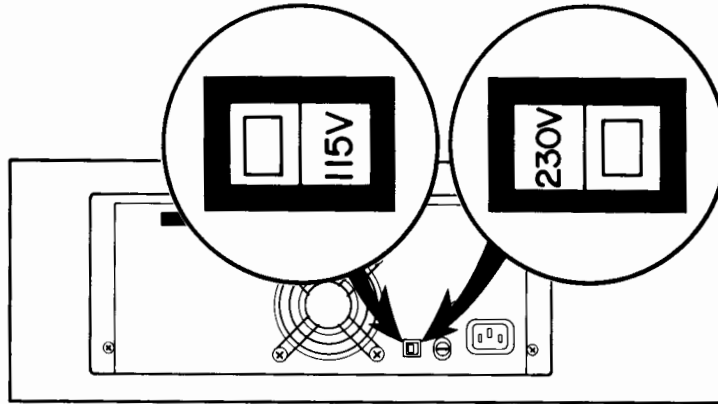


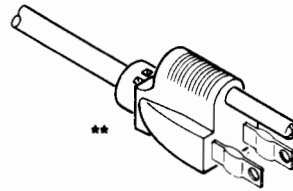
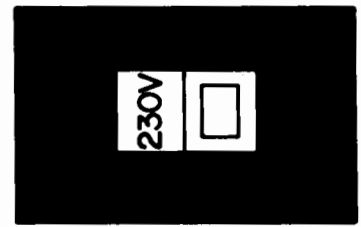
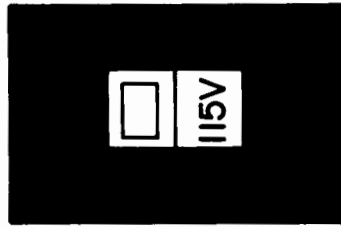
Figure 2-6: Voltage Switch Settings

---

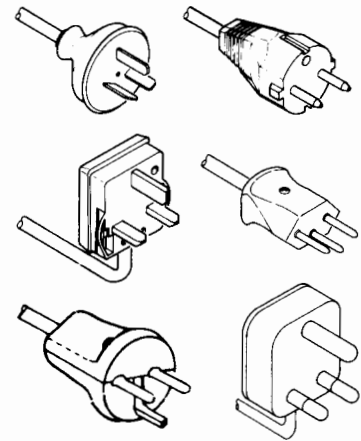
**Caution** Always turn off the disc drive before changing the voltage setting in order to avoid damage to the disc drive.

---

- Find the voltage switch on the rear panel of your disc drive.
- Make sure the voltage switch is set correctly for your local power.
- If necessary, use your fingernail or a screwdriver to push the voltage switch sideways until the switch displays the proper setting.
- Figure 2-7 illustrates the power cords that may be used with each voltage setting.



**\*\* Peru allows usage of this power cord at a voltage setting of 230V.**



**Figure 2-7: Voltage setting and power cords**

## Step 8: Connecting the Power Cord

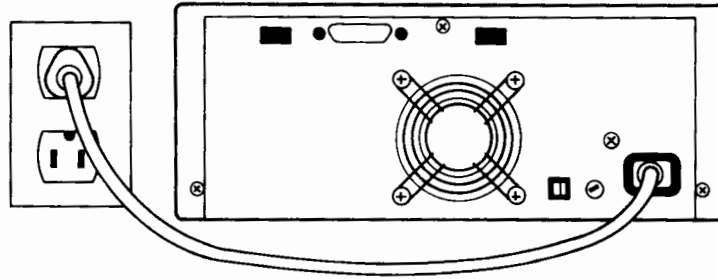


Figure 2-8: Power Cord Connection

### Warning

This product is equipped with a power cord and plug designed for the user's safety. Plug the power cord into a properly grounded receptacle to avoid possible electrical shock.

- Turn off your disc drive.
- Connect the power cord to the socket labeled "AC line" on the rear panel of your disc drive.
- Plug the power cord into the wall socket.

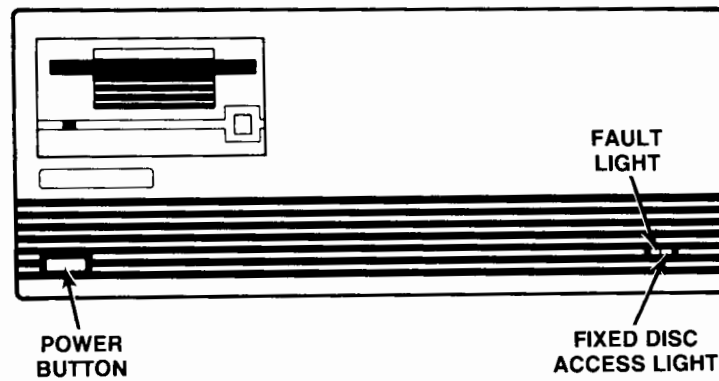


Figure 2-9: Power button and fault light



## STEP 9: Try It!

- You are now ready to turn on your disc drive. Remember always turn on your disc drive before turning on your computer.
- Locate the power button on the front panel of your disc drive. The disc drive is on when the button is in and off when the button is out. Turn on the disc drive.
- When you turn on your disc drive, a selftest is performed on the flexible and Winchester disc drives. The selftest takes about 40 seconds, and during this time the fault light on the front panel of your disc drive is lit.
- After about 40 seconds, the fault light should go out, indicating that your disc drive has passed the selftest.
- If the fault light remains on, turn off the disc drive. Turn the disc drive on again to repeat the selftest.
- If the fault light is still lit after this repetition of the selftest, contact your dealer or the nearest Hewlett-Packard sales office.

### Using Your Disc Drive

- You are now ready to use your disc drive.
- One of the first things you need to do with your disc drive is format the fixed disc. For information on formatting the fixed disc, see your computer manual. For your convenience, the supplement that comes with this manual also contains some information on formatting discs.
- For information on using your disc drive with your computer, refer to the disc drive or mass storage section of your computer manual.
- For your convenience, some information on using your disc drive with your HP Touchscreen PC may be found in the supplement that comes with this manual.



# 3

## Using Flexible Discs

### A Look at the Flexible Disc

Figure 3-1 illustrates the parts of the flexible disc. As you read the following description, please note the described features on your disc.

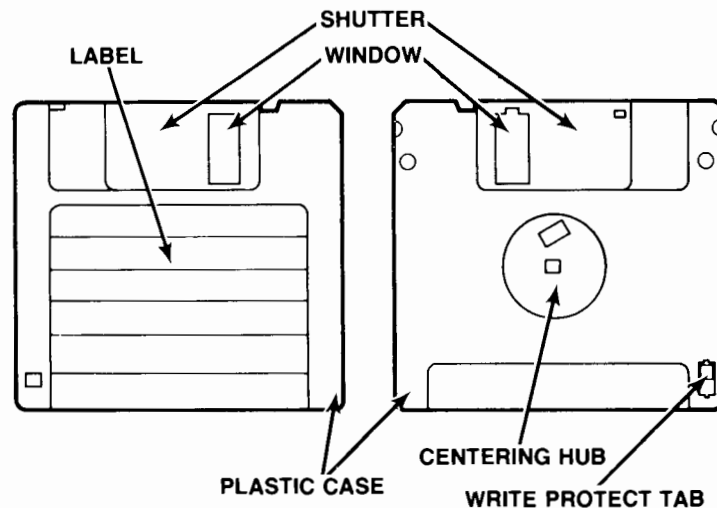


Figure 3-1: Parts of the Flexible Disc

### Window and Auto Shutter

The disc drive reads data from the disc and writes data on the disc in the space under the window. The window is covered by a metal shutter called the auto shutter.

When you place the flexible disc in the drive, the auto shutter automatically opens to expose the disc surface. You do not need to manually open the auto shutter. When you remove the disc from the drive, the auto shutter closes, helping to protect the disc surface.

### Centering Hub

On the back of the plastic case is a round metal center, called the centering hub. The centering hub ensures accurate positioning when the disc is inserted in the drive.

### Write-Protect Tab

- Write protecting ensures that the disc drive cannot write over or delete information on the disc.
- Write protect discs that contain valuable programs and data.

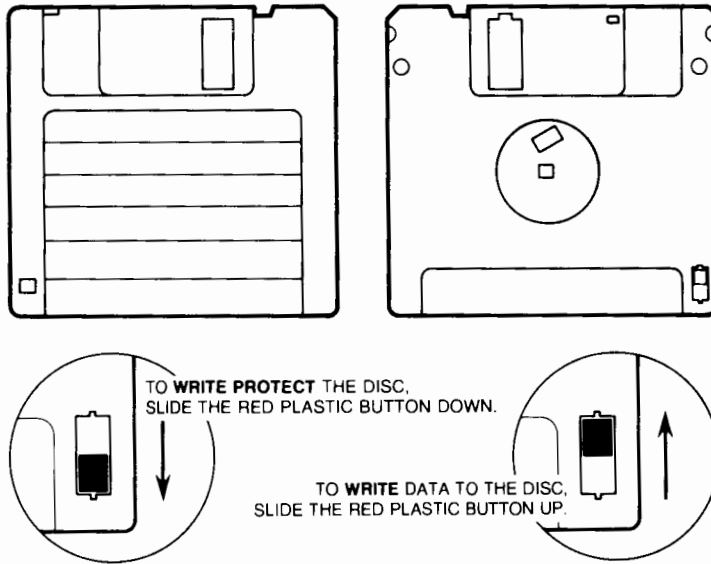


Figure 3-2: Write Protecting Double-Sided Discs

**If you want to write protect a double-sided Hewlett-Packard disc:**

- Place the tip of a pen in the small hole at the top of the write-protect tab.
- Slide the tab downward until it locks into place.

- If you no longer wish to write protect the disc, slide the tab up.
- If you have a disc with the write-protect tab missing, the disc is write protected. If you want to override the write protection, you can place tape over the tab opening in order to allow you to write data on the disc.

## Loading the Flexible Disc

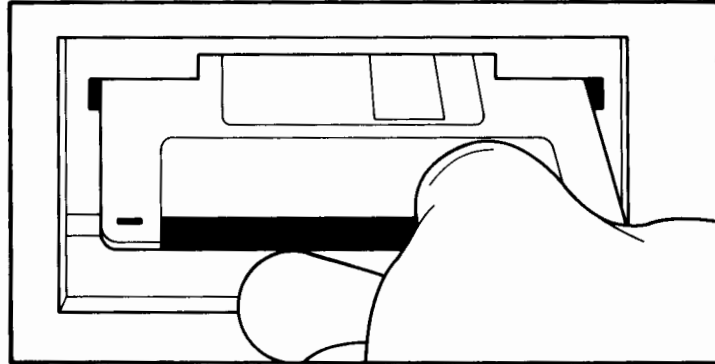


Figure 3-3: Loading the Flexible Disc

- Insert the flexible disc by holding the disc with the label on top and with the shutter pointing at the slot in the disc drive. Slide the disc completely into the slot until the disc clicks into place. Do not force the disc.
- Remove the disc by pressing the disc eject button. Pull the disc straight out.

## The Media Monitor

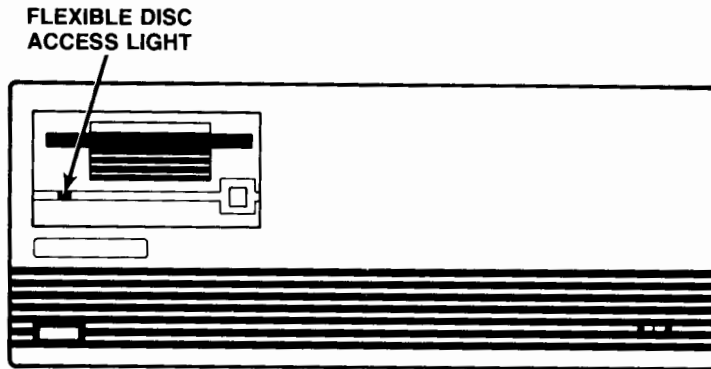


Figure 3-4: Flexible Disc Access Light

- Because the read/write heads touch the disc surface, flexible discs wear out after extended use. Through a feature called Media Monitor, your disc drive automatically monitors the cumulative use of each individual disc.
- When the usage of a disc approaches a level at which there is any risk of loss of data through normal disc wear, the flexible disc access light on the front panel blinks. Also, a clicking sound is heard when the computer is not using the disc. The blinking and clicking are the Media Monitor warning.
- The disc drive still accepts and performs commands from the computer. However, after a command has been performed, the disc drive immediately resumes the Media Monitor warning.
- When the Media Monitor warning occurs, copy the disc you are using at your earliest convenience. Begin using the copy, and discard the original disc. If you continue to use the original disc, the disc drive will eventually automatically write protect the disc. After that time, you will only be able to read data from the disc or copy the disc.

## Single-Sided versus Double-Sided Discs

The use of the terms double-sided and single-sided can be confusing because these terms are used in so many ways. Following is a glossary to help you understand the ways in which the terms double-sided and single-sided are used.

Single-Sided Disc Drive:	Has only one read/write head. Records data on only one side of a disc.
Double-Sided Disc Drive:	Has two read/write heads. Records data on both sides of a disc.
Single-Sided Disc:	Data can be recorded on only one side of this disc. Hewlett-Packard single-sided discs are blue and are labeled "single-sided."
Double-Sided Disc:	Data may be recorded on both sides of this disc. Hewlett-Packard double-sided discs are gray and are labeled "double-sided."
Single-Sided Formatting:	Prepares a disc for one-sided recording of data. You may format "single-sided" on either single-sided or double-sided discs.
Double-Sided Formatting:	Prepares a disc for two-sided recording of data. You can format "double-sided" ONLY on double-sided discs in a double-sided disc drive.



The HP 9133 records data on both sides of a flexible disc. **For daily use, we recommend gray double-sided Hewlett-Packard discs with an HP 9133.** Table 1 elaborates on the recommended usage of single-sided and double-sided discs with your HP 9133. Words used in the table are defined as follows:

- "Exchange only" means that the media should be used only for exchanging data and programs with single-sided disc drives, and should not be used on a daily basis.
- "OK" means that the media may be used on a daily basis.

**If you have an HP 9133**

Single-sided HP media	exchange only
Double-sided HP media in single-sided format	OK
Double-sided HP media in double-sided format	OK
HP software	OK

**Table 1: Recommended Usage of Discs**

## Handling the Flexible Disc

Because of the plastic case, metal shutter, positioning hub and Media Monitor, Hewlett-Packard's 3 1/2-inch flexible disc is more reliable than comparable 5 1/4-inch products. However, your discs contain valuable data and programs, and a good rule of thumb is to treat your discs as you would treat valuable record albums. The following guidelines have been developed to help you prolong the life of both your flexible discs and your disc drive.

- DO Make sure the shutter is closed when the disc is not in use.
- WHY? Protects the disc from dust, fingerprints, and scratches which can cause data loss.
- DO Use the disc in a clean environment.
- WHY? Minimizes the risk of dust or dirt particles scratching the disc and causing loss of data.
- DO Keep discs stored in a cool, dry place.
- WHY? Prevents moisture and heat damage.
- DO Avoid magnetic fields, such as appliances with motors.
- WHY? Prevents magnetically erasing the data on your discs.



- DON'T Touch the surface of the disc.
- WHY? Particle contamination can scratch the disc or cause the disc to wear out sooner than normal, and will probably result in loss of data.
- DON'T Try to clean the disc.
- WHY? The plastic jacket contains a mechanism for cleaning the disc surface. Other cleaning methods may damage the disc.

## Labeling the Flexible Disc

When you order boxes of flexible discs, you receive a packet of labels with the discs. Note that the labels come in a variety of colors. Position the label on the disc so that the colored portion of the label is folded over the lower edge of the disc. Write the name of the disc immediately beneath the colored edge of your disc, as shown in Figure 3-3.

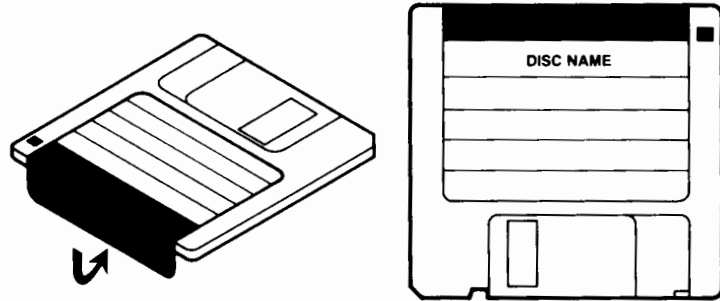


Figure 3-5: Positioning the Label

## Ordering Flexible Discs

A package of ten flexible double-sided discs may be ordered from Hewlett-Packard's Computer Supplies Operation (408-538-8787). Use Hewlett-Packard part number 92192A.

---

### Caution

Disc drive performance and reliability are dependent on the type of media used. Disc drive specifications can be assured only when using HP media. The use of improper media can result in premature disc failure or damage to the disc drive.

On some disc products, HP may qualify other non-HP media. When tested, this media met HP specifications. However, HP does not warrant or support this media and cannot control changes in its specifications or quality. The selection and use of such products is the customer's responsibility. HP reserves the right to exclude from warranty and maintenance agreement coverage any repairs which HP reasonably determines or believes were caused by the use of media not provided by HP. HP will, upon request, provide such repairs on a time and material basis.

---

# 4

## Repairs, Supplies, and Problem Solving

---

### Caring for the Case

Before cleaning the case, disconnect the power cord and HP-IB cables. Make sure that all discs are removed from the flexible disc drive. Dampen a clean, soft, lint-free cloth in a solution of clean water and mild soap. Wipe the soiled areas of the case, making sure that no cleaning solution gets inside the case. For cleaning more heavily soiled areas, a solution of 80% clean water and 20% isopropyl alcohol may be used. Wipe the areas clean with another clean, soft, lint-free cloth. A non-abrasive eraser may be used to remove pen and pencil marks.

---

### Caution

Chemical spray-on cleaners used for appliances and other household and industrial applications may damage the case finish. Do not use cleaners that contain ammonia, benzenes, chlorides or abrasives.

---

### Warranty

A warranty summary for the U.S. and Canada is included in the front of this manual. If you have questions concerning the warranty, please contact your dealer or the nearest Hewlett-Packard sales office. In countries other than the U.S. and Canada, contact your dealer or the nearest Hewlett-Packard sales office to determine warranty terms. On-site warranty may apply to this product if it is purchased with other Hewlett-Packard products or if a Service Agreement is purchased.

## Maintenance

Your disc drive does not require regular maintenance. However, the performance and life of the disc drive and the flexible discs depend on how carefully they are handled. Be sure to follow the disc care and handling guidelines presented in Chapter 3 and the environmental restrictions presented in Appendix A.

## What If Something Goes Wrong?

### 1. What if the flexible disc access light begins blinking and the disc drive makes a clicking noise?

The blinking of the flexible disc access light and the clicking noise are a feature of your disc drive, called the Media Monitor. This warning indicates that the flexible disc currently in use should be replaced. Immediately copy the worn disc and discard it. For further information about the Media Monitor, please see the "Media Monitor" section of Chapter 3.

### 2. What if my disc drive does not pass the selftest?

If your disc drive does not pass the selftest, take the following actions:

- A)** Turn off your disc drive. Then turn the disc drive back on and wait for the drive to repeat the selftest.
- B)** The temperature and humidity of the environment in which you use your disc drive are important. Make sure you are using your disc drive in an environment that matches the environmental specifications in Appendix A.
- C)** Your disc drive may have experienced abrupt temperature or humidity changes. For example, an abrupt change in temperature occurs when you take your disc drive out of an air-conditioned office, transport the disc drive in a warm car, and then set up the disc drive in another air-conditioned office. If your disc drive has been moved from one type of environment to another, allow the disc drive to stabilize in the new environment for two hours before turning on the disc drive. If this precaution is not observed, the disc drive may fail the selftest.

**D)** If your disc drive still fails the selftest, contact your dealer or Hewlett-Packard sales office.

**3. I get an error stating that the disc is write protected. What should I do?**

**A)** You may be using a disc that you have write protected. If you wish to write information on the disc, reverse the write-protect tab on the disc (see Chapter 3). If you wish to keep the disc write protected, insert another disc.

**B)** Also, the disc may have been automatically write protected by the Media Monitor. If the Media Monitor warning is on, copy the information to a new disc and discard the old disc.

**C)** If you still receive a write-protect error, try another disc. If you receive a write-protect error on several discs in a row, your disc drive may not be operating properly. Contact your dealer or Hewlett-Packard sales office.

**4. What should I do if I get a message that says, "Disc Not Present" or "No Discs Were Found"?**

**A)** Be sure the disc drive is turned on.

**B)** Check your cables to make sure they are secure.

**C)** Be sure that you have a disc in the flexible disc drive.

**D)** Be sure that the disc has been initialized.

**E)** Check your disc drive to make sure it is addressed correctly.

**F)** If all this fails, you may have a bad flexible disc. Try another flexible disc. If this fails, contact your dealer or Hewlett-Packard sales office.

**5. What if I get an error message saying, "Disc Error Reading Drive \_\_?"**

Your flexible disc is probably worn or damaged. Try using other flexible discs to see if you get the same message. If you receive the message on only one

flexible disc, copy the disc immediately and discard it. (Please note that if the disc is worn or damaged, the copy may not work.) If you receive the same message on several flexible discs, contact your dealer or Hewlett-Packard sales office.

If the error message refers to the fixed disc drive:

- A)** Copy the files from your fixed disc to flexible discs or to Hewlett-Packard's 1/4-inch cartridge tape backup.
  - B)** Format the fixed disc. Remember that formatting destroys any data already stored on the disc. Make sure you have copied the files from your fixed disc before you format the disc.
  - C)** Reinstall your operating system, software and files from the flexible discs or Hewlett-Packard's 1/4-inch cartridge tape backup.
  - D)** If you cannot format the Winchester disc or if you still receive an error message, contact your dealer or Hewlett-Packard sales office.
- 6. What should I do if I get a message that says, "Disc drive is empty, off, or undefined"?**
- A)** Be sure the disc drive is turned on.
  - B)** Be sure that you have a disc in your flexible disc drive.
  - C)** Check your disc drive to make sure it is addressed correctly.
  - D)** If all this fails, you may have a bad flexible disc. Try another disc. If this also fails, contact your dealer or Hewlett-Packard sales office.

Your disc drive can be repaired only by a trained service person. If you suspect that your disc drive is malfunctioning, contact your dealer or Hewlett-Packard Sales Office.

## How to Order Supplies

DESCRIPTION	HP PART NUMBER
Gray Double-Sided Flexible Discs (10 discs/box)	92192A
Fuse, 3.0 AF 250 V~	2110-0003
Power Cord*	See footnote
HP-IB Cable, 1 metre length	10833A
HP-IB Cable, 2 metre length	10833B
HP-IB Cable, 4 metre length	10833C
HP-IB Cable, 0.5 metre length	10833D
HP 9133/9134 Operator's Manual	09133-90070

\* Power cords are dependent on delivered location. Please consult your dealer or Hewlett-Packard sales office if you need to order a power cord.

Order supplies for your disc drive by contacting your dealer or Hewlett-Packard sales office. You may also contact the Hewlett-Packard Computer Supplies Operation at the following address:

Computer Supplies Operation  
1320 Kifer Road  
Sunnyvale, California 94086  
Telephone: (800) 538-8787 toll free in the United States  
(408) 738-4133 in California





# A

## Technical Specifications

### Performance Characteristics

	Double-Sided Flexible	20 Megabyte Fixed Disc	40 Megabyte Fixed Disc
<b>Formatted Capacity</b>			
Series 100	710k bytes	19.9 M bytes	39.8 M bytes
Series 200	630k bytes	19.9 M bytes	39.8 M bytes
Option 001*	630k bytes	22.3 M bytes	44.7 M bytes
<b>Bytes/Sector</b>			
Series 100	512	256	256
Series 200	256	256	256
Option 001*	256	1024	1024
<b>Sectors/Track</b>			
Series 100	9	32	32
Series 200	16	32	32
1024 Bytes/Sector	16	9	9

\* Option 001 specifies 1k byte sectors on the fixed disc.

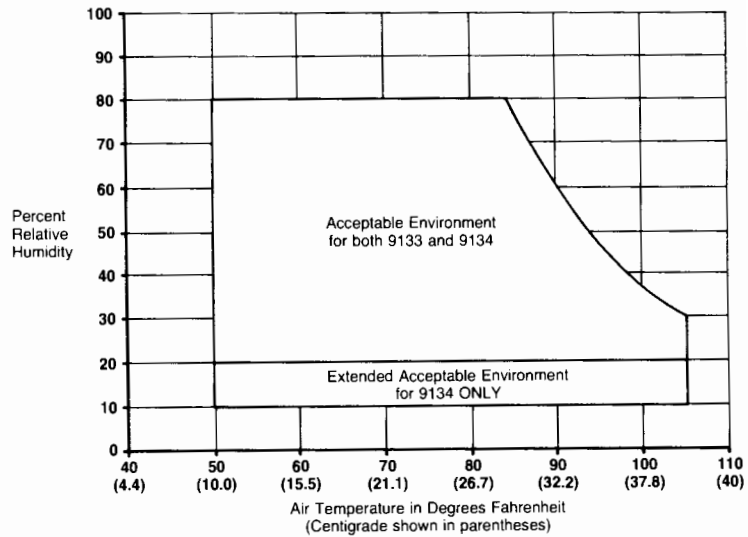
	Double-Sided Flexible	20 Megabyte Fixed Disc	40 Megabyte Fixed Disc
<b>Maximum Data Rate</b>	500k bit/sec	5 M bit/sec	5 M bit/sec
<b>Max. Sustained Transfer Rate*</b>	18 kb/sec	140 kb/sec	140 kb/sec
<b>Average Access Time</b>	497 msec	85 msec	40 msec
<b>Maximum Access Time</b>	1.74 sec	205 msec	80 msec
<b>Rotational Speed</b>	600 rpm	3600 rpm	3600 rpm
<b>Recording Format</b>	MFM	MFM	MFM
<b>Tracks per Surface</b>	80	612	977
<b>Tracks per Inch</b>	135	580	960

\* Varies with computer. These specifications are actual data transfer rates that have been achieved in testing.

## Environmental Ranges

	HP 9133	HP 9134
<b>Temperature</b>		
Operating	10 to 40 degrees C (50 to 104 degrees F)	10 to 40 degrees C (50 to 104 degrees F)
Non Operating	-40 to 60 degrees C (-40 to 140 degrees F)	-40 to 60 degrees C (-40 to 140 degrees F)
<b>Humidity</b>		
Operating (non-condensing) 26 degrees C maximum wet bulb	20% to 80%	8% to 80%
Non Operating (non-condensing)	5% to 95%	5% to 95%

**Note** The temperature and humidity of the environment in which you use your disc drive are important. The following chart illustrates acceptable temperature and humidity conditions.



<b>Altitude</b>					
Operating	0 to 4572m (0 to 15000 ft)		0 to 4572m (0 to 15000 ft)		
Non Operating	-304 to 15240m (-1000 to 50000 ft)		-304 to 15240m (-1000 to 50000 ft)		
<hr/>					
<b>Physical Characteristics</b>					
<hr/>					
<b>HP 9133/9134</b>					
<b>Dimensions</b>					
Height	132 mm ( 5.2 in)				
Width	325 mm (12.8 in)				
Depth	285 mm (11.2 in)				
<hr/>					
<b>Weight</b>	<b>HP 9133</b>		<b>HP 9134</b>		
	20 Mb.	40 Mb.	20 Mb.	40 Mb.	
	Net	9 kg 20 lbs	10.5 kg 23 lbs	8 kg 18 lbs	9.5 kg 21 lbs
	Shipping	13 kg 29 lbs	14.5 kg 32 lbs	12 kg 27 lbs	13.5 kg 30 lbs
<hr/>					
<b>Power Requirements</b>					
<hr/>					
Nominal Voltage (selectable by rear panel switch)		100-120V~ (115V setting) 200-240V~ (230V setting)			
Voltage Range		86-127V~ (115V setting) 195-253V~ (230V setting)			
Frequency Range		48-66 Hz			
Power		125W			
<hr/>					

Specifications **A-3**



## Glossary

ADDRESS	A number that identifies the exact location to which your computer can send data or from which your computer receives data. Just as you have a unique home address, your disc drive, plotter and printer must each have a unique address.
BACKUP	A backup is a duplicate copy of a disc made in case the original disc is lost or damaged.
BOOTING	Booting up your computer puts it in a ready-to-run condition. The computer literally “pulls itself up by its bootstraps” and gets ready to go. (Booting loads the operating system and utilities.)
BUS	A bus is a bundle of wires over which computer devices can communicate. The bus is similar to a telephone line shared by several telephones.
BYTE	A byte is used to represent one character, such as a single letter, number, or other symbol.
CABLE	Cables provide the connection between computers and peripherals (printers, plotters and disc drives). The cable used in this manual is the HP-IB (Hewlett-Packard Interface Bus).
CONFIGURATION SWITCH	A switch that allows Series 200 users to partition the fixed disc into more than one volume.
CRT	Acronym for cathode ray tube. The CRT is the video screen of the computer.
DIRECTORY	The table of contents for the files stored on a disc.
DISC	A circular plate of magnetically coated material used to store computer information. The disc is similar to a phonograph record that stores programs and data instead of music. Hewlett-Packard’s 3 1/2-inch flexible disc is enclosed in a plastic case. A disc may be flexible or hard. The flexible disc may also be single-sided or double-sided.

DISC ACCESS LIGHT	A light that comes on whenever the computer is getting information from the disc drive or sending information to the disc drive.
DISC DRIVE	A device that allows a computer to read data that is stored on a disc or write data on a disc.
FIXED DISC	A fixed disc is a disc that cannot be removed from your disc drive.
FLEXIBLE DISC	A flexible disc can be removed from your disc drive. The disc is called flexible because it is made from a flexible piece of polyester.
FORMATTING	The process by which a disc is prepared to receive and store data. Also known as "initializing."
	If you think of your disc as being like a filing cabinet, formatting is equivalent to getting an empty file cabinet and preparing the cabinet for use. First, you check the cabinet for any damage. Similarly, the disc drive checks the disc for any damaged areas in which data cannot be stored. Second, you place hanging folders and dividers in your file cabinet. Likewise, the disc drive sets up storage areas on the disc. Finally, you label your filing cabinet so that you know what is in each drawer. Similarly, the disc drive sets up a directory on your disc.
HARD DISC	A hard disc is called hard because it is made from rigid aluminum. Also called a fixed or Winchester disc.
HARDWARE	The physical parts of the computer system; the computer and the peripheral devices.
HEAD	The part of the disc drive that reads data from your disc and writes data onto your disc.
HP-IB	Stands for Hewlett-Packard Interface Bus. The HP-IB is a bundle of wires that allows the computer and the peripherals to communicate.
INITIALIZING	The process by which a disc is prepared to receive and store data. Also known as "formatting."
INTERLEAVE	Interleaving a disc is a method of alternately numbering sectors on the disc. The interleave factor selected affects performance. See the interleave section of your computer programming manual for additional information.

K BYTES	A unit of measurement for memory storage, also called "K" or "kilobyte." One k byte is technically equal to 1,024 bytes. However, we use the convention of k byte equalling 1,000 bytes.
LOAD	To read programs into a computer.
MBYTES	A megabyte is one million bytes.
MEDIA MONITOR	A feature of the disc drive that monitors the cumulative use of each individual disc. The Media Monitor gives a warning when the usage of a disc approaches a level at which there is any risk of loss of data through normal disc wear.
MFM	Modified frequency modulation (MFM) is a method for storing data on discs.
PERIPHERALS	Devices that are external to and controlled by the computer. Peripherals are so called because they are not part of the computer (e.g. tape drives, disc drives, printers and plotters).
PIGGYBACKING	Hooking one HP-IB cable into the back of another HP-IB cable. Piggybacking is one way to connect more peripheral devices to your computer system.
PROGRAM	A set of instructions or steps telling the computer how to handle a problem or task.
READ/WRITE HEAD	The part of the disc drive that reads data from your disc and writes data onto your disc.
SOFTWARE	A computer program or set of programs.
UTILITY	A utility is a program that performs a task required by most users. For example, most users need to make copies of discs. Therefore, the copy utility is a program that tells the computer how to copy discs.
WINCHESTER DISC	This is another name for the fixed disc. The original model of the fixed disc had two pieces of media that held 30 megabytes of data each. As the story goes, the inventors appropriately named this 30-30 disc after the famous western 30-30 rifle, the "Winchester."
WRITE PROTECT	A method of protecting disc information from being erased or overwritten.





# Index

<b>A</b>	<b>18, 2-2, 2-3, 3-4, 4-2</b>	Access Light
	<b>2-3, 2-10</b>	AC line
	<b>6, 7, 2-3, 2-4</b>	Address wheel
	<b>2-3</b>	Air Exhaust
	<b>3-1</b>	Auto Shutter
<b>B</b>	<b>18, 19, 3-4, 4-2</b>	Blinking Disc Access Light
	<b>15, 3-3</b>	Button, Disc Eject
	<b>13, 2-2, 2-3, 2-11</b>	Button, Power
<b>C</b>	<b>8, 9, 2-6</b>	Cable, HP-IB
	<b>3, 11, 2-9, 2-10</b>	Cable, Power
	<b>4-5</b>	Cables, How to Order
	<b>4-1</b>	Care of Disc Drive
	<b>3-6, 3-7</b>	Care of Discs
	<b>3-1, 3-2</b>	Centering Hub
	<b>4, 5, 2-7</b>	Changing the Fuse
	<b>4-1</b>	Cleaners, Spray-on
	<b>4-1</b>	Cleaning, Case
	<b>3-7</b>	Cleaning, Flexible Disc
	<b>4-2, 4-3, 4-4</b>	Computer Errors
	<b>2-3, 2-4, 2-5</b>	Configuration Switch
	<b>8, 9, 2-6</b>	Connection, HP-IB
	<b>2-3</b>	Cooling Air Exhaust
	<b>3, 11, 2-9, 2-10</b>	Cord, Power

<b>D</b>		<b>2-1</b>	Damaged Equipment
	<b>18, 2-2, 2-3, 3-4, 4-2</b>		Disc Access Light
	<b>18, 19, 3-4, 4-2</b>		Disc Access Light, Blinking
	<b>3-5, 3-6</b>		Disc, Double-Sided
	<b>15, 3-3</b>		Disc Eject Button
	<b>1-1</b>		Disc, Fixed
	<b>17, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8</b>		Disc, Flexible
	<b>3-6, 3-7</b>		Disc, Handling
	<b>1-1</b>		Disc, Hard
	<b>3-7</b>		Disc, Labeling
	<b>15, 3-3</b>		Disc, Loading
	<b>18, 19, 3-4, 4-2</b>		Disc, Media Monitor
	<b>3-8, 4-5</b>		Disc, Ordering
	<b>3-1</b>		Disc, Shutter
	<b>3-5, 3-6</b>		Disc, Single-Sided
	<b>3-1</b>		Disc, Window
	<b>3-5, 3-6</b>		Double-Sided Discs
<b>E</b>	<b>15, 3-3</b>		Eject Button
	<b>A-2</b>		Environment
	<b>4-2, 4-3, 4-4</b>		Errors
	<b>2-3</b>		Exhaust, Air
<b>F</b>	<b>12, 13, 2-2, 2-10, 2-11</b>		Fault light
	<b>1-1</b>		Fixed Disc
	<b>17, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7</b>		Flexible Disc
	<b>3-8, 4-5</b>		Flexible Discs, How to Order
	<b>2-11</b>		Formatting Discs

	<b>4, 5, 2-7</b>	Fuseholder
	<b>4, 5, 2-7, 4-5</b>	Fuses
	<b>4-5</b>	Fuses, How to Order
<b>G</b>	<b>2-10</b>	Grounded Receptacle
<b>H</b>	<b>3-6, 3-7</b>	Handling Discs
	<b>8, 9, 2-6</b>	HP-IB
	<b>2-4, 2-5, 2-11</b>	HP Touchscreen PC
	<b>3-1, 3-2</b>	Hub, Centering
	<b>4-2, A-2</b>	Humidity
<b>I</b>	<b>15, 3-3</b>	Inserting the Disc
<b>L</b>	<b>3-7</b>	Labeling discs
	<b>18, 2-2, 2-3, 3-4, 4-2</b>	Light, Disc Access
	<b>12, 13, 2-2, 2-10, 2-11</b>	Light, Fault
	<b>12, 13, 2-2, 2-10, 2-11</b>	Light, Selftest Indicator
	<b>15, 3-3</b>	Loading Discs
<b>M</b>	<b>4-2</b>	Maintenance
	<b>18, 19, 3-4, 4-2</b>	Media Monitor
	<b>2-1</b>	Moving the Disc Drive
<b>O</b>	<b>A-3</b>	Operating Altitude
	<b>A-2</b>	Operating Humidity
	<b>A-2</b>	Operating Temperature
	<b>3-8, 4-5</b>	Ordering Flexible Discs
	<b>4-5</b>	Ordering Supplies

<b>P</b>	<b>2-5</b>	Partitions
	<b>3, 11, 2-9, 2-10</b>	Power Cord
	<b>12, 13, 2-11, 4-2, 4-3</b>	Power on Selftest
	<b>12, 13, 2-2, 2-3, 2-11</b>	Power Switch
	<b>4-2, 4-3, 4-4</b>	Problems
	<b>16, 17, 3-1, 3-2</b>	Protect, Write
<b>S</b>	<b>12, 13, 2-11</b>	Selftest Indicator Light
	<b>12, 13, 2-11, 4-2, 4-3</b>	Selftest
	<b>2-4, 2-5</b>	Series 200 Computers
	<b>3-1</b>	Shutter
	<b>3-5, 3-6</b>	Single-Sided Discs
	<b>A-1, A-2, A-3</b>	Specifications
	<b>4-5</b>	Supplies, Ordering
	<b>2-5</b>	Switch, Configuration
	<b>12, 13, 2-2, 2-3, 2-11</b>	Switch, Power
	<b>2, 3, 2-3, 2-8, 2-9</b>	Switch, Voltage
<b>T</b>	<b>2-4, 2-5, 2-11</b>	Touchscreen PC
<b>V</b>	<b>2, 3, 2-8, 2-9</b>	Voltage Setting
	<b>2, 3, 2-3, 2-8, 2-9</b>	Voltage Switch
	<b>2-5</b>	Volumes
<b>W</b>	<b>4-1</b>	Warranty
	<b>6, 7, 2-3, 2-4</b>	Wheel, address
	<b>3-1</b>	Window
	<b>16, 17, 3-2</b>	Write protect

## Worldwide Sales Offices

Hewlett-Packard products are sold and supported worldwide through Hewlett-Packard Sales and Service Offices and through dealers.

- *To contact Hewlett-Packard:* There are more than 240 Hewlett-Packard Sales and Service Offices worldwide. To locate the one nearest you, use your telephone directory or contact one of the major Hewlett-Packard offices listed.
- *To contact a dealer:* Call 800/FOR-HPHC in the U.S. or call your local Hewlett-Packard Sales and Service Office. Ask for "Personal Computer Dealer Sales."

### Argentina

- Martinez  
Phone: 798-6086

### Australia

- North Ryde, N.S.W.  
Phone: 02/887-1611
- Blackburn, Victoria  
Phone: 03/890-6351

### Austria

- Vienna  
Phone: 222/3516210

### Belgium

**Supplies: 02/762-3200**

- Brussels  
Phone: 02/762-3200

### Brazil

- Alphaville, Barueri  
Phone: 011/421-1311

### Canada

**Software Assistance:  
1-800/267-6115  
(In English and French)  
Supplies: 514/697-4232**

- Edmonton, Alberta  
Phone: 403/452-3670
- Richmond, British Columbia  
Phone: 604/270-2277
- Mississauga, Ontario  
Phone: 416/678-9430

### Chile

HP Distributor:  
Olympia (Chile)  
Santiago  
Phone: 2/25-5044

### Denmark

- Birkerød  
Phone: 2/81-66-40

### El Salvador

HP Distributor  
IPESA  
San Salvador  
Phone: 503/26-6858

### Finland

- Espoo  
Phone: 90/455-0211
- Jyväskylä  
Phone: 41/216318
- Oulu  
Phone: 81/338785

### France

**Supplies: 6/928-32-64**

- Les Ulis  
Phone: 1/9077825

### Guatemala

HP Distributor:  
IPESA  
Guatemala City  
Phone: 2/31667

### Hong Kong

- Wanchai  
Phone: 5/832-3211

### Italy

- Cernusco Sul Naviglio  
Phone: 2/903691

### Japan

Yokogawa-Hewlett-Packard

- Osaka  
Phone: 6/304-6021

- Sagamihara  
Phone: 427/59-1311

- Tokyo  
Phone: 3/331-6111

### Malaysia

- Kuala Lumpur  
Phone: 03/943-022

### Mexico

- Xochimilco, Mexico City  
Phone: 905/676-8895

### The Netherlands

**Supplies: 020/47-06-39**

- Amstelveen  
Phone: 020/472021

### New Zealand

Pakuranga  
Phone: 9/68-7159

### Norway

- Oesteraas  
Phone: 2/17-11-80

### Puerto Rico

Carolina  
Phone: 809/762-725

### Saudi Arabia

- HP Distributor:  
Modern Electronics  
Riyadh  
Phone: 01/4919715

### Singapore

- Singapore  
Phone: 631788

**South Africa**

**Supplies: 802-5111  
53-7954  
28-4178**

- \* Sandton, Transvaal  
Phone: 11/802-511

**Spain**

- \* H.P. Española, S.A.  
Carretera Nacional  
Vi, Km. 16,400  
Las Rozas (Madrid)  
Phone: 637 00 11 -  
637 40 13

**Sweden**

- \* Spanga  
Phone: 8/750-2000

**Switzerland**

**Supplies: 057/31-22-54  
or 31-22-59**

- \* Widen  
Phone: 57/31-21-11

**Taiwan**

- \* Taipei  
Phone: 2/712-0404

**United Kingdom**

**Supplies: 0734/79-2868  
or 0734/79-2959**

- \* Altrincham  
Phone: 61/928-6422
- \* Winnersh, Wokingham  
Phone: 734/784-774

**United States**

**For assistance before  
your purchase, to  
locate an HP dealer, or  
to obtain your local  
Phone-In Software  
Assistance number:  
800/FOR-HPPC**

**Hardware maintenance  
information or Dealer  
Repair Center  
locations: 800/835-  
HPPH**

**Computer Supplies:**

**-All states except  
California, Alaska, and  
Hawaii:  
800/538-8787**

**-In California, Alaska,  
and Hawaii:  
408/738-4133 (collect)**

- \* Santa Clara, California  
Phone: 408/988-7000
- \* Los Angeles, California  
Phone: 213/970-7500
- \* Englewood, Colorado  
Phone: 303/649-5000
- \* Atlanta, Georgia  
Phone: 404/955-1500
- \* Rolling Meadows, Illinois  
Phone: 312/255-9800

- \* Rockville, Maryland  
Phone: 301/948-6370
- \* Andover, Massachusetts  
Phone: 617/861-8960
- \* Novi, Michigan  
Phone: 313/349-9200
- \* Paramus, New Jersey  
Phone: 201/265-5000
- \* King of Prussia,  
Pennsylvania  
Phone: 215/265-7000
- \* Richardson, Texas  
Phone: 214/231-6101

**Venezuela**

- \* Caracas  
Phone: 2/239-4133

**West Germany**

**Supplies: 07031/142829 or  
07031/223133**

- \* Boeblingen  
Phone: 7031/667750

- 
- \* Full Field Repair Center  
capabilities.



HEWLETT  
PACKARD

Printed in U.S.A. 3/85  
09133-90070