



# HP 9114B Disc Drive Operator's Manual



Manual Part No.  
09114-90005

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# Limited Warranty

## One-year Limited Hardware Warranty

Hewlett-Packard warrants this peripheral/accessory against defects in materials and workmanship for a period of one year from receipt by the end user, except when used as part of an HP system. 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.

If this product was purchased as part of an HP system in a coordinated shipment, it is 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.

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

**For research and education purposes only.**

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.

### **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.

**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.

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# Chapter 1

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## YOU, THIS MANUAL, AND THE HP 9114B

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### About This Manual

This manual is divided into three main chapters: “Essentials,” Chapter 2, “Things You Might Want to Know,” Chapter 3, and “Read This if You Have Problems,” Chapter 4. These chapters are constructed to allow you to quickly get into the right section of the manual and find what you need.

Here’s what you’ll find in this manual.

**Essentials** – takes you from unpacking the cartons through connecting the disc drive to your system. Turning the system on, verifying proper operation, and inserting a disc into the disc drive are also included.

**Things You Might Want to Know** – explains the care and handling of the discs and how to use the disc drive.

**Read This if You Have Problems** – talks more about the selftest and write protect and also explains Media Monitor and errors you can get with your computer. Also included is information on ordering supplies, maintenance, and warranty.

This manual also contains an index and a glossary for your use.



## **For First Encounters with HP Equipment**

If you have just received your HP 9114B Disc Drive and haven't had any previous experience connecting Hewlett-Packard equipment together, please see the chapter titled "Essentials." Then, please read Chapters 3 and 4.

## **For Experienced HP Users**

If you are an experienced HP-IL user, the HP-IL connections are the same as with any other HP-IL device, so you can skip the Essentials chapter (Chapter 2). Sometime in the future you may want to skim through the entire manual.

# **The HP 9114B Disc Drive**

The HP 9114B Disc Drive is a battery operated, electronic storage device. Data and programs from your computer are stored on a removable flexible disc used with the disc drive. The HP 9114B uses a 3 1/2-inch disc providing as much as 710 thousand characters of storage capacity. Additional features include the following.

- Media Monitor – Continual monitoring of media (flexible disc) useful life
- Battery charge indication – Three light gauge
- Low battery indication – Flashing power light (left indicator light on front panel)
- Turn-on selftest – OK TO USE indication
- Portability – Can be used away from home or office

The HP 9114B Disc Drive uses a 3 1/2-inch flexible disc. The disc is similar to a phonograph record that stores programs and data instead of music. The disc is called a flexible or micro-flexible disc or media. Data is stored on both sides of the disc, and thus the name double-sided disc.

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## Chapter 2

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# ESSENTIALS

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## Unpacking and Checking the Equipment Supplied

The following equipment is supplied with each HP 9114B.

Item	Part Number
One (1 metre) HP-IL cable	82167B
Battery Recharger	Dependent on Location
One Flexible Disc	--
Operator's Manual	09114-90005
Battery Pack	88014B

The HP 9114B contains rechargeable batteries. Please recharge the battery before initial use and keep the battery fully charged to maximize operating time.

If you find any damage, immediately notify your dealer or nearest Hewlett-Packard Sales Office. Also file a claim with the carrier.

# A Look at Your Disc Drive

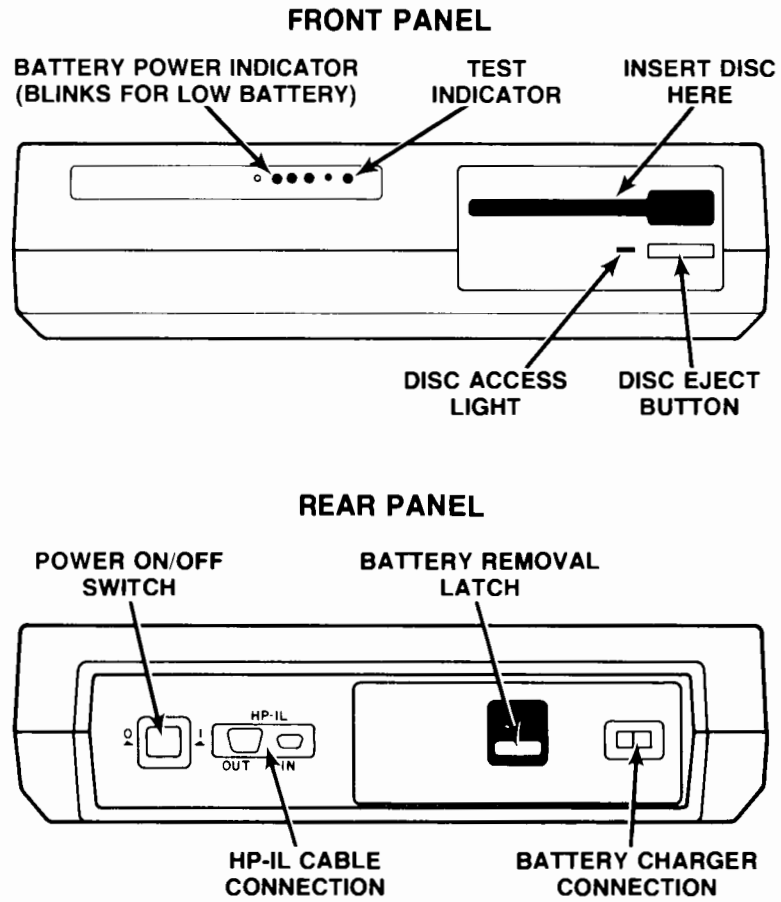


Figure 2-1. Controls and Indicators

# Connecting the Disc Drive to Your System

The disc drive is connected to your computer or computing system using the HP 82167 HP-IL cable. Each device must have two cables connected to it, an "In" and an "Out." This is shown next.

## DISC DRIVE AND COMPUTER ONLY

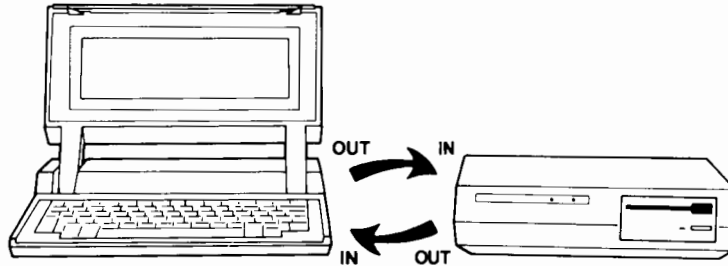


Figure 2-2. Disc Drive Interconnect

## DISC DRIVE AND COMPUTER SYSTEM

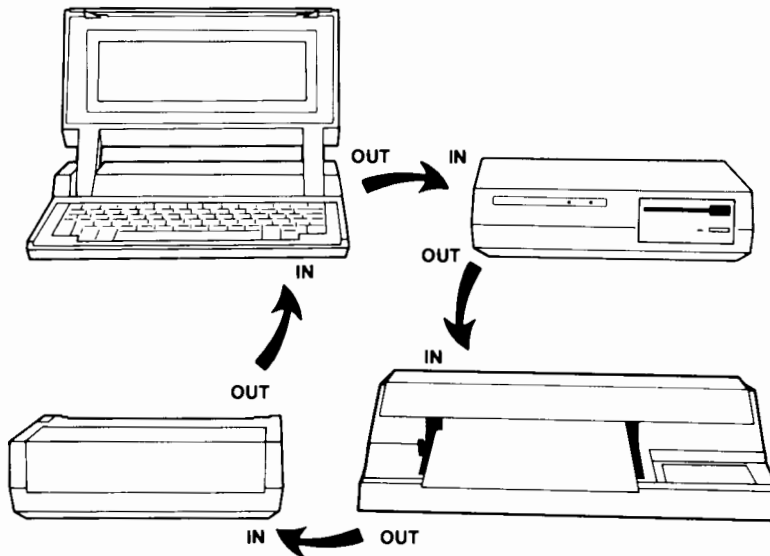


Figure 2-3. System Interconnects

These devices can be connected in any order. The devices can also be in any location.

## What is a Flexible Disc?

A flexible disc is similar to a phonograph record that stores programs and data instead of music. The computer can record data and programs on the disc and can later recall the programs and data from the disc. A box of 10 double-sided flexible discs can be ordered using HP part number 92192A.

### A Look at the Flexible Disc

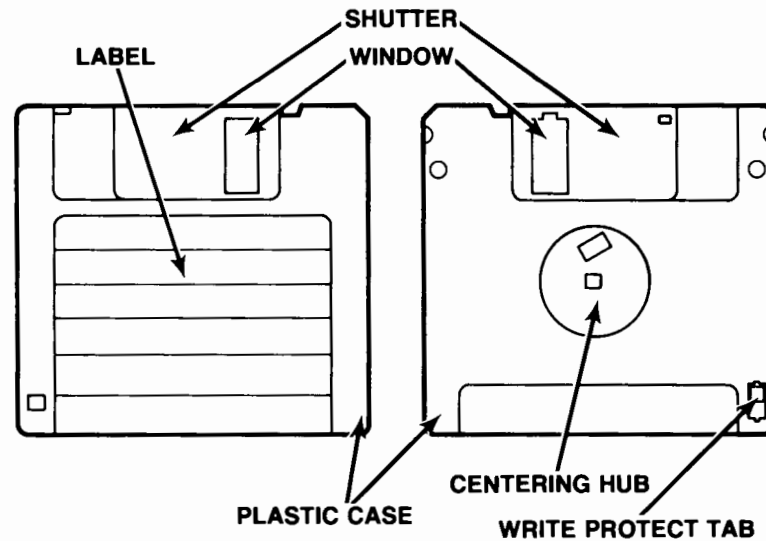


Figure 2-4. Parts of the Flexible Disc

### Window and Auto Shutter

The disc drive reads and writes data to and from the disc using a window space which exposes the disc. This window is covered by a metal shutter. The shutter helps protect the disc surface from particles and fingerprints.

The disc drive is equipped with a shutter opener. This means that when the disc is placed in the drive, the shutter is automatically opened, exposing the disc surfaces. You do not need to manually open the shutter before inserting the disc in the drive or close the shutter when removing the disc from the drive.

## Centering Hub

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

## Using the 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.

See Figure 2-5.

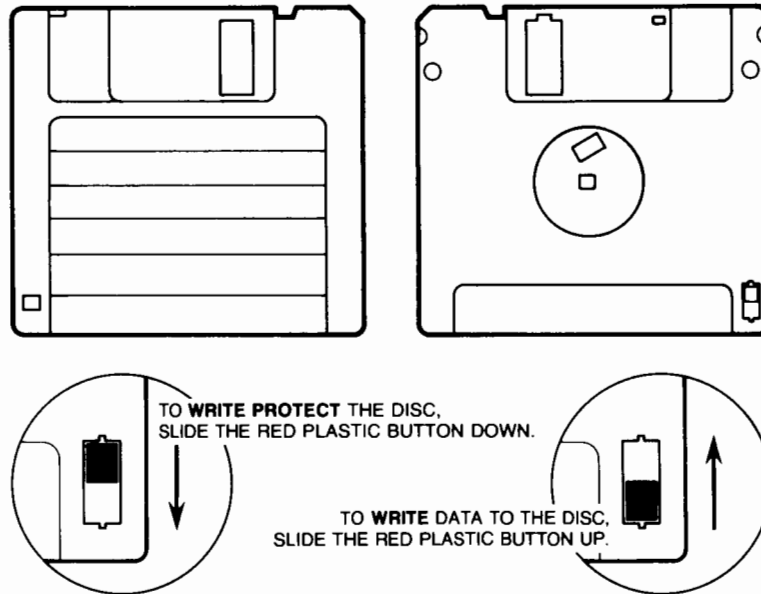


Figure 2-5. Write Protect Tab

## Loading the Flexible Disc

To insert and remove flexible discs, perform these steps.

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### CAUTION

Never turn the disc drive off or remove the disc from the drive when the disc access light is on; doing so can cause loss of data.

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1. Remove the plastic yellow disc or cardboard from the drive by pressing the disc eject button. (**Save this protective disc and insert it in the drive whenever you are transporting the 9114B.**)
2. Hold the disc with the label up (centering hub down).
3. Slide the disc into the drive (shutter side first) until you feel the disc drop into the drive. The disc physically drops about 1/8 inch. Do not force the disc.

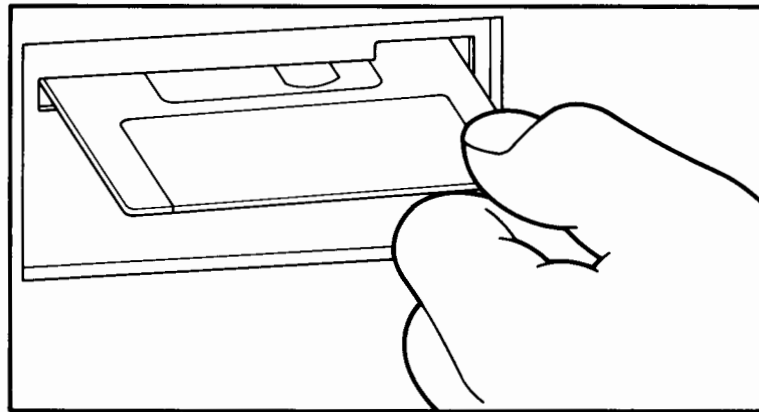


Figure 2-6. Proper loading of the flexible disc

4. Remove the disc by pressing the disc eject button. Pull the disc straight out.

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### 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.

Warranty and maintenance agreement coverage of repairs not caused by the use of non-HP media is unaffected.

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## TRY IT!

After connecting your system together, you are ready to turn on your disc drive. Locate the power (on/off) button on the back panel. This is a rocker switch with labeling on each side, "0" and "1". Pressing in the rocker on the "0" side turns the drive off. Pressing in on the side labeled "1" turns the drive on. Now, let's turn it on.

### Power-on Selftest

A power-on selftest is performed automatically when you turn on the disc drive. The test light (on the right side of the front panel) is on when selftest is in operation. The selftest takes approximately 6 seconds after which the test light goes out. If you have a disc inserted in the drive, read and write testing (involving the disc) takes an additional 5 seconds or a total of approximately 11 seconds. If the test light stays on after the normal testing time, an error within the disc drive has been detected. If this ever happens, please see Chapter 4. Make sure that the disc used in the selftest is not write protected. If this disc is write protected, only the 6 second test is performed.



## Use It

System operation information is included as a supplement to this manual. This supplement (P/N 09114-90013) is to be updated as system operation information becomes available. For further information on system operation see the following manuals.

HP 110 Portable Computer Owner's Manual P/N 00090-90004

HP 110 MS-DOS User's Guide P/N 00090-90006

HP Portable Plus "Getting Started" Manual P/N 45711-90009

HP 82401A HP-IL Owner's Manual P/N 82401-90001

HP 75 Owner's Manual P/N 00075-90001

HP 82160A HP-IL Owner's Manual P/N 82160-90001

## Installing the AC Recharger

There are three battery indicator lights on the front panel (see Figure 2-1). The battery is 2/3 to fully charged when all three lights are on. If only the left two lights are on, about 1/3 - 2/3 of the battery's capacity remains. If only the leftmost light is on, about 1/3 or less of the charge remains. When only 10 minutes of disc access time remain in the battery, the leftmost light flashes. If you continue to use this battery, the drive will protect your data by not completing read/write operations. Recharge your battery at this time. **To preserve your battery, use your recharger whenever possible.**

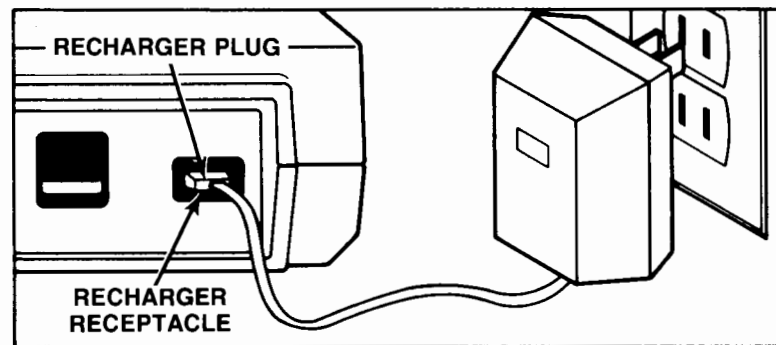


Figure 2-7. Connecting the Recharger

The recharger can be connected to the disc drive at any time. If you connect the recharger during read/write operations (disc access light is on), avoid jarring the drive.

Insert the recharger plug into the recharger receptacle on the back of the disc drive.

Insert the power plug of the recharger into an AC power outlet, after making certain that power is available from the outlet.

You can use the disc drive while the battery pack is charging. **We recommend that you use the recharger whenever possible, even when the battery is fully charged.**

After 5 hours of charging the battery pack will be 80% charged, and after approximately 16 hours the battery pack will be fully charged.

The sealed lead-acid battery operates best on shallow, less than 30% discharge cycles, or constant "trickle" charge with the recharger usually connected.

Replacement batteries are available; order HP 88014B Rechargeable Battery Pack.

To preserve the maximum capacity of your battery pack, charge it fully and operate as much as possible with the recharger connected.



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#### WARNING

Do not short the battery. This will blow a fuse internal to the battery pack and make the pack inoperative.

Do not incinerate. The battery can burst if thrown into a fire.

Do not put within reach of children.

Do not disassemble the battery. The strong acid electrolyte sealed inside can burn your skin and clothes.

If the battery is accidentally broken and the electrolyte (gelled sulfuric acid) leaks out, neutralize the acid with some available alkaline substance, such as ammonium solution or baking powder (sodium hydrogen carbonate) and wipe up the spill with a cloth.

**In the event electrolyte contacts the skin, immediately flush with water and consult a doctor.**

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## Rechargers

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### CAUTION

This battery pack is designed specifically to work with an HP recharger; HP is therefore not responsible for damages caused by using a non HP recharger.

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The rechargers listed next are recommended for use with the HP 88014B Rechargeable Battery Pack.

HP 82059B	90 to 120	United States
HP 82066B	210 to 250	Europe
HP 82067B	210 to 250	United Kingdom
HP 82067B Opt 001	210 to 250	Republic of South Africa
HP 82068B	210 to 250	Australia
HP 82069B	90 to 120	Europe

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# Chapitre 1

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## GUIDE PRATIQUE POUR

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### MÉMOIRES

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#### à DISQUES HP 9114B

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## Présentation de ce manuel

Ce manuel comprend quatre chapitres :

- 1 : Introduction
- 2 : Principes essentiels
- 3 : Réponse à vos questions
- 4 : Solutions aux difficultés éventuelles

La présentation de chaque chapitre a été spécialement étudiée pour faciliter l'accès à la section voulue.

Voici les grands points traités par ce manuel:

“Principes essentiels” : Du déballage du matériel à l'installation de la mémoire à disques sur votre système . Opérations de mise sous tension, de vérification et d'introduction du disque dans l'unité de disques.

“Réponse à vos questions” : Manipulation des disques et fonctionnement de l'unité de disques.

“Solution aux difficultés éventuelles” : Explications sur les tests incorporés, la protection de l'enregistrement, les messages d'erreur et le rôle du moniteur de disques. Nous avons aussi inclus les renseignements concernant la commande, l'entretien et la garantie.

En fin de volume, nous avons ajouté un index et un glossaire pour que vous puissiez retrouver aisément les différentes rubriques.



## **Conseils aux nouveaux venus dans la marque HP**

Si vous venez juste de recevoir votre mémoire à disques HP 9114B et si vous n'avez aucune expérience avec le matériel Hewlett-Packard, consultez le chapitre intitulé "Principes essentiels". Puis reportez-vous ensuite aux chapitres 3 et 4.

## **Conseils aux habitués de la marque HP**

Ceux qui ont déjà utilisé le HP-IL reconnaîtront les connexions HP-IL, les mêmes que pour n'importe quelle autre unité HP-IL ; passez directement au chapitre 3, vous n'avez pas besoin de lire le chapitre 2 sur les principes essentiels. Si vous le souhaitez, vous pourrez plus tard feuilleter l'intégralité du manuel.

## **La Mémoire à disques HP 9114B**

La Mémoire à disques HP9114B est une unité de stockage électronique qui fonctionne sur piles. Vos programmes et données sont enregistrés sur un disque souple interchangeable, que vous introduisez dans l'unité de disques. Le HP9114B utilise un disque de 3,5 pouces ayant une capacité de mémoire allant jusqu'à 710.000 caractères. L'appareil offre aussi les avantages suivants :

Moniteur de disque: surveillance constante de l'état du disque souple.

Témoins indicateurs de l'état de la pile : trois lumières.

Signalement de l'usure de la pile: clignotant témoin, situé à l'avant de l'appareil.

Test incorporé: signal "OK TO USE" (bon état de marche)

Maniabilité: appareil transportable partout

Le HP9114B utilise un disque souple de 3,5 pouces. Ce disque ressemble en tous points aux disques d'enregistrement musical, mais la musique est remplacée par vos programmes et vos données. C'est pourquoi nous l'appelons disque ou support "micro-souple". Les données sont enregistrées sur les deux faces, d'où le terme "doubles faces".

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## Chapitre 2

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### PRINCIPES ESSENTIELS

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## Déballage et Vérification du matériel reçu

Chaque HP9114B est fourni avec les accessoires suivants :

Article	Numéro de pièce
Un câble HP-IL (1 mètre)	82167B
Un Chargeur de pile	Suivant le pays
Un disque souple	
Un manuel d'utilisation	09114B-90005
La pile rechargeable	88014B

Le HP 9114B contient des piles rechargeables. Procédez au rechargement avant la première mise en route de l'appareil et maintenez un chargement maximum pour prolonger le temps de fonctionnement.

En cas d'avarie, mettez-vous immédiatement en rapport avec votre distributeur ou le bureau de ventes HP le plus proche. Faites toutes réclamations auprès du transporteur.

# Présentation de la Mémoire à Disques

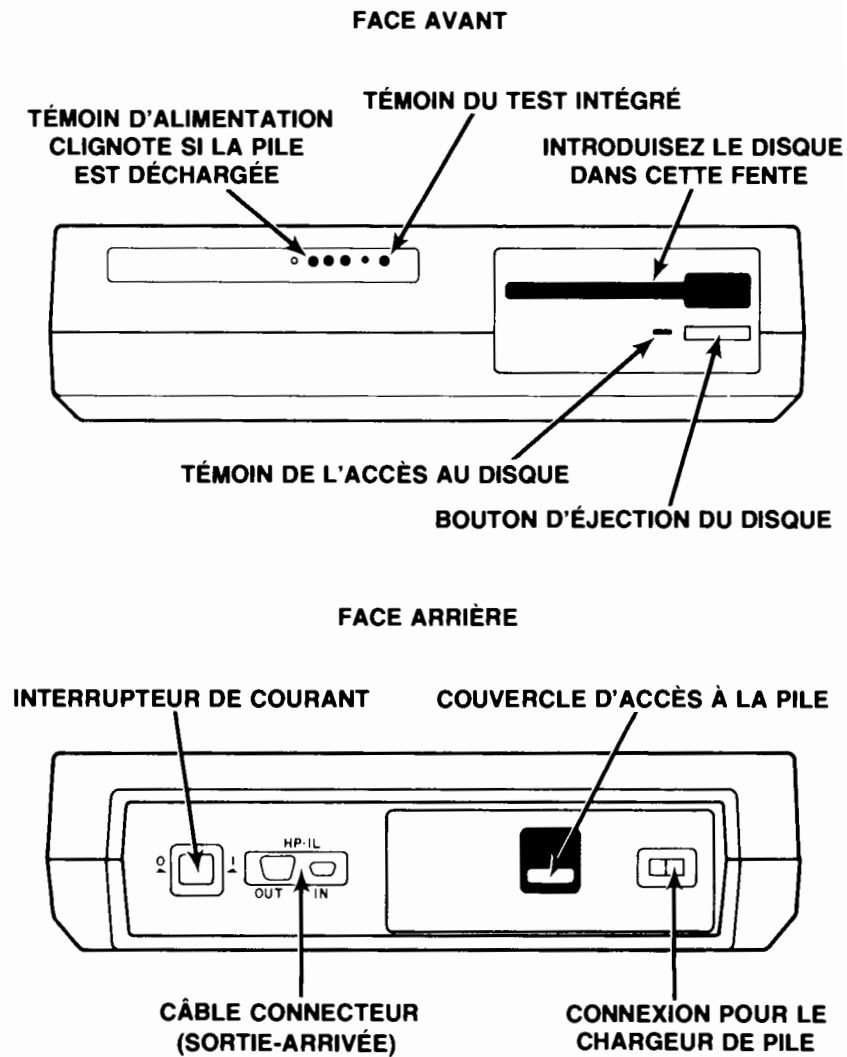


Figure 2-1. Commandes et Voyants

# Branchement de la mémoire à disques sur votre système

La Mémoire à disques est connectée à votre ordinateur ou à votre système informatique par l'intermédiaire du câble HP 82167 HP-IL. Chaque unité comporte deux câbles de connexion: "In"(Arrivée)-"Out"(Sortie). Consultez le diagramme suivant:

## Unité de disques adjointe à un ordinateur

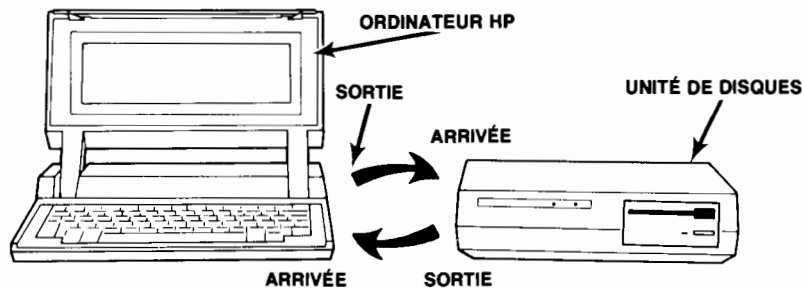


Figure 2-2. Interconnexion Ordinateur et Mémoire

## Unité de disques incorporée à un système

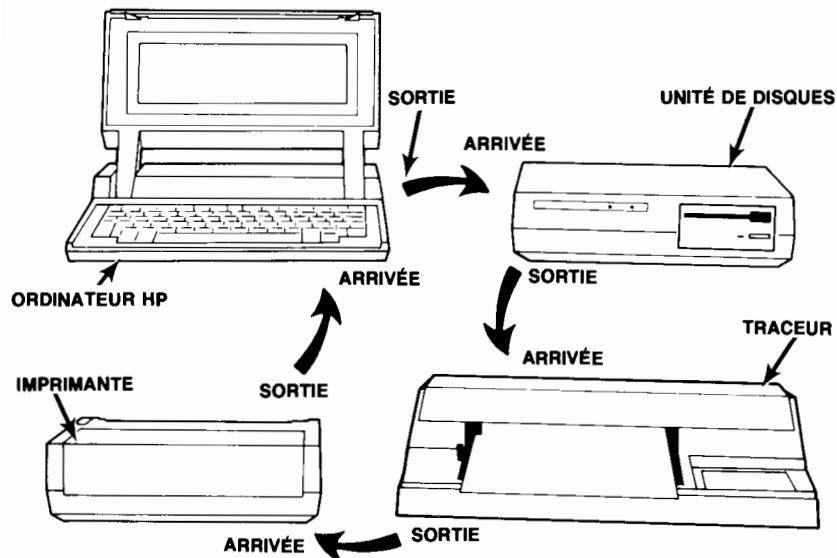


Figure 2-3. Interconnexions dans un système

Peu importe l'ordre d'interconnexion. De plus, ces appareils s'adaptent à tous pays.



## Qu'est-ce qu'un disque souple?

Un disque souple est en tous points semblable à un disque d'enregistrement ordinaire, mais la musique est remplacée par des programmes et des données. L'ordinateur enregistre les données et les programmes sur le disque et les reprend plus tard pour les afficher sur l'écran. On peut commander un coffret de dix disques souples doubles-faces sous la référence HP 92191A.

### Présentation du disque souple

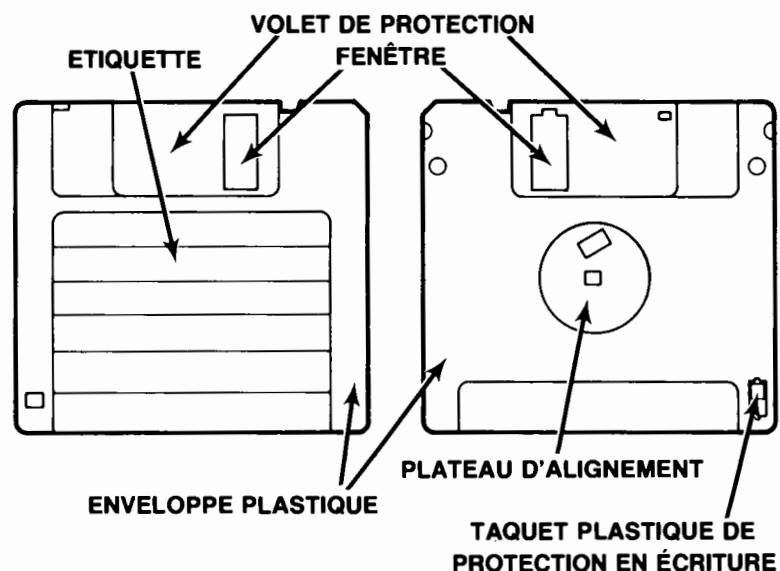


Figure 2-4. Aspect extérieur du Disque Souple

### Ouverture et Volet de protection automatique

La Mémoire à disques enregistre et saisit les données par une ouverture qui dégage une section du disque. Cette ouverture est recouverte par un volet métallique. Ce volet protège la surface du disque contre les corps étrangers et les empreintes digitales.

La Mémoire à disques est équipée d'un mécanisme qui ouvre automatiquement le volet protecteur. Ainsi, lorsque le disque est

introduit dans le lecteur, le volet glisse automatiquement et dégage les surfaces du disque. Vous n'avez pas besoin de manipuler ce volet vous-même, ni avant l'introduction du disque dans le lecteur, ni après l'en avoir extrait.

### Plateau d'alignement

La face arrière du disque porte un centre métallique qui sert de plateau d'alignement. Il permet le positionnement immédiat du disque, au moment de son introduction dans le lecteur.

### Utilisation de la Protection d'enregistrement

La protection de l'enregistrement empêche l'effacement dû à un nouvel enregistrement sur des données déjà inscrites.

Protégez l'enregistrement de vos programmes et données.

Procédez comme l'indique la Figure 2-5 :

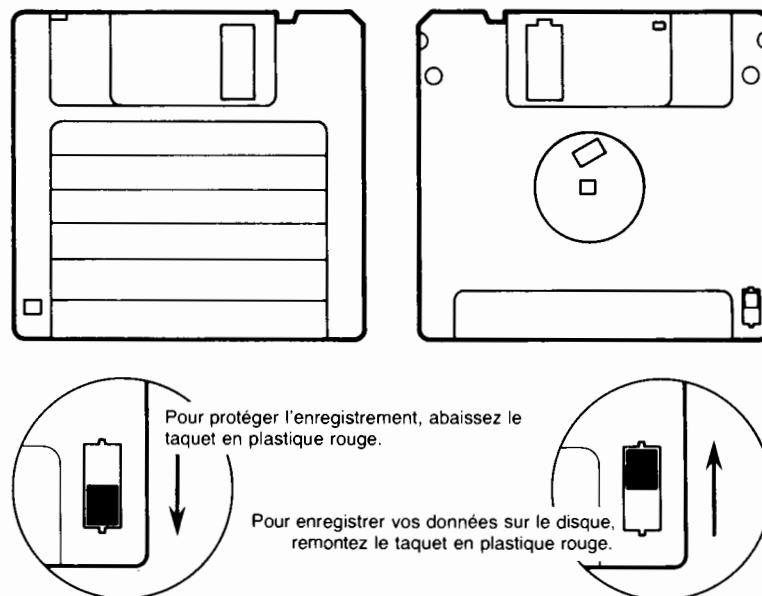


Figure 2-5. Taquet de Protection d'enregistrement

## Mise en place du disque souple

Pour l'introduction et le retrait des disques souples, suivez les étapes ci-dessous :

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### Avertissement

Ne pas débrancher l'appareil ou retirer le disque quand le témoin d'accès au disque est allumé ; une telle manoeuvre risquerait de détruire des données.

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1. Retirez de l'entraîneur le disque en carton ou en plastique jaune, en appuyant sur le bouton d'éjection de disque.  
(GARDEZ CE DISQUE PROTECTEUR POUR LE REMETTRE DANS LE LECTEUR, LORSQUE VOUS TRANSPORTEZ LA MEMOIRE 9114B.)
2. Tenez le disque à plat, avec le côté de l'étiquette au-dessus, tandis que le plateau d'alignement reste en dessous.
3. Introduisez en premier le côté qui porte le volet protecteur, et poussez délicatement le disque jusqu'à ce qu'il touche le fond du lecteur. Là, il s'enfonce à environ deux millimètres de profondeur. Ne jamais forcer.

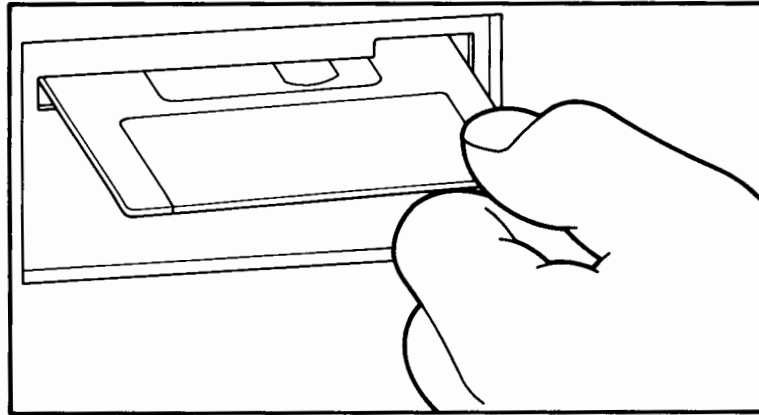


Figure 2-6. Mise en place normale du disque souple.

4. Retirez le disque en appuyant sur le bouton d'éjection de disque. Tirez tout droit.

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#### Avertissement

La fiabilité et la performance de la Mémoire à disques dépendent du type de disque utilisé. Nous n'en garantissons le bon fonctionnement qu'avec les disques HP. Tout support extérieur à la marque risque de se dégrader prématurément ou d'endommager l'appareil.

HP accepte les disques extérieurs qui correspondent aux spécifications HP et passent les tests HP. Cependant HP ne peut offrir ni garantie ni service après-vente sur des articles dont la qualité et les spécifications sont modifiables. Le choix et l'utilisation de tels produits n'engagent que la responsabilité du client. HP se réserve le droit d'exclure de la garantie et du contrat d'entretien toute réparation qui, en toute vraisemblance, semble due à la présence de supports d'autre origine. HP procédera sur demande à ces réparations et les facturera sur la base du tarif établi pour pièces et main d'oeuvre.

La garantie et le contrat d'entretien couvrent toutes les réparations qui ne sont pas imputables à l'utilisation de supports extérieurs à la marque HP.

---

## En marche!



Maintenant que les connexions de votre système sont en place, il vous suffit de mettre en marche votre Mémoire à disques. Repérez l'interrupteur de courant (M/A) à l'arrière de l'appareil. C'est un interrupteur à bascule dont un côté porte l'inscription "0" et l'autre "1". Si vous poussez sur "0", l'appareil s'arrête, si vous appuyez sur "1", l'appareil se met en marche. Essayez de suite!

### Test incorporé à la mise sous tension

Un test de vérification se met automatiquement en route à la mise sous tension de l'appareil. Le témoin d'autotest s'allume sur la droite à l'avant de l'unité ; il indique que la vérification est en cours. Ce test incorporé dure environ 6 secondes, puis le témoin

s'éteint. Si vous avez déjà introduit un disque dans l'appareil, le test vérifie aussi l'enregistrement et de la saisie. La durée approximative totale de l'autotest prend environ 11 secondes. Si le témoin d'autotest reste allumé au delà du temps normal de vérification, cela indique qu'une défectuosité a été détectée dans le fonctionnement. Dans ce cas, consultez le chapitre 4. Vérifiez si le disque utilisé pendant l'autotest n'est pas protégé contre l'enregistrement. En cas de protection d'enregistrement, seul se déroule le premier test de 6 secondes.

## **Au travail!**

Le fonctionnement du système est expliqué dans le supplément de ce manuel. Vous trouverez ce supplément sous la référence P/N 09114B-90013. Il est mis à jour régulièrement, selon les modifications apportées au fonctionnement du système. Pour tous les renseignements relatifs à l'exploitation du système, consultez les manuels suivants :

HP 110 Le Portable, Manuel d'utilisation P/N 00090-90004

HP 110 Guide de l'utilisateur avec MS-DOS P/N 00090-90006

HP Le Portable Plus, Manuel de Mise en Route P/N 45711-90009

HP 82401A HP-IL, Manuel d'utilisation P/N 82401-90001

HP-75, Manuel d'utilisation P/N 00075-90001

HP 82160A HP-IL, Manuel d'utilisation P/N 82160-90001

## **Installation du chargeur c.a.**

Trois témoins situés à l'avant de l'appareil indiquent le niveau de chargement de la pile (voir la figure 2-1). La pile est un tiers déchargée si les trois voyants sont allumés ; la capacité restante oscille entre le tiers et les deux tiers, si les deux voyants de gauche restent allumés ; enfin, quand la capacité tombe au-dessous du tiers, seul le voyant le plus à gauche reste allumé. Ce dernier voyant clignote lorsque la réserve ne permet plus que 10 minutes d'accès au disque. Si vous persistez sur la même pile, le lecteur n'opère plus de lecture ou d'enregistrement. Cette interruption automatique protège vos données. Rechargez la pile

immédiatement. UTILISEZ LE CHARGEUR AUTANT QUE POSSIBLE POUR MAINTENIR LA PILE EN BON ETAT DE MARCHE.

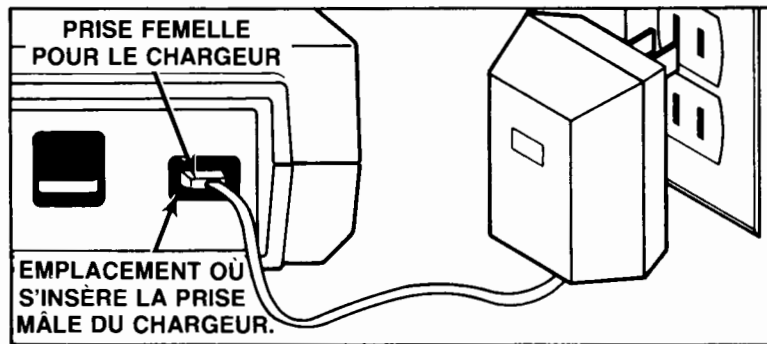


Figure 2-7. Branchement du chargeur.

On peut brancher le chargeur sur l'unité de disques à n'importe quel moment. Si vous devez le faire en cours de lecture/écriture, pendant que le témoin d'accès au disque est allumé, faites attention de ne pas bousculer l'appareil.

Enfoncez la fiche de connexion du chargeur dans la prise femelle à l'arrière de l'appareil.

Branchez la prise de courant du chargeur sur une ligne c.a., en état de marche.

Vous pouvez continuer à utiliser l'unité à disques pendant le rechargement de la pile. NOUS RECOMMANDONS D'UTILISER LE CHARGEUR EN TOUT TEMPS, MEME LORSQUE LA PILE EST CHARGÉE À FOND.

Après 5 heures de branchement, la pile est chargée à 80%; 16 heures suffisent approximativement pour charger complètement la pile.

La pile scellée au plomb fonctionne à son maximum en cycles de décharge de moins de 30%, ou en état de charge constant, lorsque le chargeur est branché.

Pour remplacer les piles, commandez un coffret pile rechargeable sous la référence HP 88014B.

Pour maintenir la pile à sa pleine capacité, rechargez-la complètement et travaillez autant que possible avec le chargeur branché.

---

#### **Avertissement**

Un court-circuit sur la pile fera sauter un fusible intérieur et enrayera le fonctionnement du rechargeur.

Ne jetez pas la pile dans le feu; elle pourrait éclater.

Ne laissez pas la pile à la portée des enfants.

Ne la démontez pas. La solution acide est très forte et brûle la peau et les vêtements.

Si la pile venait à s'ouvrir, en laissant échapper un gel d'acide sulfurique, neutralisez l'acide avec une solution alcaline, telle que de l'ammoniaque ou du bicarbonate de soude, puis essuyez le tout avec un chiffon.

DANS L'EVENTUALITE D'UN CONTACT AVEC LA PEAU,  
RINCEZ ABONDAMMENT à L'EAU CLAIRE ET CONSULTEZ  
UN MEDECIN.

---

## **Chargeurs**

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#### **Attention**

La pile a été spécialement étudiée pour fonctionner avec le chargeur HP; HP décline toute responsabilité pour les détériorations consécutives à l'utilisation du rechargeur d'une autre marque.

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Les chargeurs inscrits ci-dessous permettent de charger le système de pile rechargeable HP 88014B.

Modèle	Voltage c.a	Pays d'utilisation
HP 82059B	90 à 120	Etats-Unis
HP 82066B	210 à 250	Europe
82067B	210 à 250	Grande Bretagne
HP 82067B OPT 001	210 à 250	Afrique du Sud
HP 82068B	210 à 250	Australie
HP 82069B	90 à 120	Europe







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# Abschnitt 1

---

## DAS PLATTENSPEICHERGERÄT

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### HP 9114B UND DIESES

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### HANDBUCH

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## Eine Einführung

Neben dieser Einführung enthält dieses Handbuch noch drei Hauptabschnitte, ein Sachverzeichnis und einen Index, alle in englischer Sprache. Für unsere internationalen Kunden wurde zusätzlich eine Übersetzung der ersten beiden Abschnitte vorbereitet (in deutsch, französisch, spanisch und italienisch), um Ihnen das Lernen des Betriebs der HP9114B zu erleichtern.

Der zweite Abschnitt enthält die "Wesentlichen Grundlagen" für den Betrieb, Hinweise zur Betriebsvorbereitung, vom Auspacken und ersten Netzanschluß, zum Einlegen des Plattenspeichermediums, dem Funktionstest, und ersten Gebrauch.

Der dritte Abschnitt, "Wissenswertes", enthält zusätzliche Tips für die Handhabung des Plattenmediums und Benutzung des Plattengeräts.

Der vierte Abschnitt, "Zusätzliche Erklärungen bei Schwierigkeiten", enthält eine ausführlichere Beschreibung des Selbsttests, der Schreibschutzvorrichtung und eine Erläuterung des Medienmonitors und der Fehlermeldungen bei Betrieb des Computers. Außerdem finden Sie Hinweise zur Bestellung von Ersatzteilen, Wartung des Geräts und Garantiebedingungen.

## **Erstbenutzer von HP Geräten**

Haben Sie noch keine Erfahrung im Umgang mit Hewlett-Packard Geräten, so lesen Sie jetzt bitte den zweiten Abschnitt "Wesentliche Grundlagen" durch, bevor Sie beginnen das HP 9114B Plattengerät für den Betrieb vorzubereiten. Bei Bedarf lesen Sie die Abschnitte 3 und 4.

## **Erfahrene HP Benutzer**

Da die HP-IL Verbindungen denen anderer HP-IL Geräten entsprechen, können Sie als erfahrener HP-IL Benutzer den Abschnitt "Wesentliche Grundlagen" (Abschnitt 2) überspringen. Bei Gelegenheit überfliegen Sie den Rest des Handbuchs.

## **Das Plattengerät HP 9114B**

Das Plattengerät HP 9114B ist ein elektronisches Speichergerät mit Batteriebetrieb. Für das Gerät werden herausnehmbare Disketten verwendet, auf denen Daten und Programme gespeichert werden. Mit dem Gerät HP 9114B werden 3 1/2 Zoll Disketten verwendet, auf denen maximal 788.000 Zeichen gespeichert werden können. Das Gerät erfüllt außerdem noch folgende Funktionen:

Medienmonitor - Ständige Überprüfung der Verwendbarkeit der Plattenmedien

Batterieladungsanzeige - Ladezustand wird mit 3 Lämpchen angezeigt

Batterieerwarnung - Blinken des linken Lämpchen

Selbsttest beim Einschalten - Anzeige der Betriebsbereitschaft

Tragbares Speichergerät - Kann auch außerhalb von Büro und Heim benutzt werden

Für das Plattenspeichergerät HP 9114B müssen 3 1/2 Zoll Disketten verwendet werden. Eine Diskette kann mit einer Schallplatte verglichen werden, die Programme und Daten anstelle von Musik speichert. Die Platte wird als flexible Magnetplatte oder Diskette bezeichnet. Daten werden auf beiden Seiten der Diskette gespeichert, weshalb sie als "beidseitig beschreibbar" bezeichnet wird.

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## Abschnitt 2

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# WESENTLICHE GRUNDLAGEN

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## Auspacken und Überprüfen des gelieferten Geräts

Jedes HP 9114B Gerät enthält folgende Zusatzteile:

Bezeichnung	Bestellnummer
Ein (1 Meter) HP-IL Kabel	82167B
Ein Batterieladegerät	Ortsabhängig
Eine Diskette	--
Eine Bedienungsanleitung	09114-90005
Batteriegerät	88014B

Das HP9114B ist mit aufladbaren Batterien ausgestattet, die vor Erstgebrauch voll aufgeladen werden müssen. Für maximale Betriebszeit sollten Sie die Batterien, wenn immer möglich, in vollem Ladezustand halten.

Bei Beschädigung des Geräts benachrichtigen Sie sofort Ihren Vertragshändler oder die nächste HP Verkaufsniederlassung. Reichen Sie zusätzlich einen Schadensanspruch beim Lieferanten ein.

# Vorder- und Rückansicht des Plattenspeichergeräts

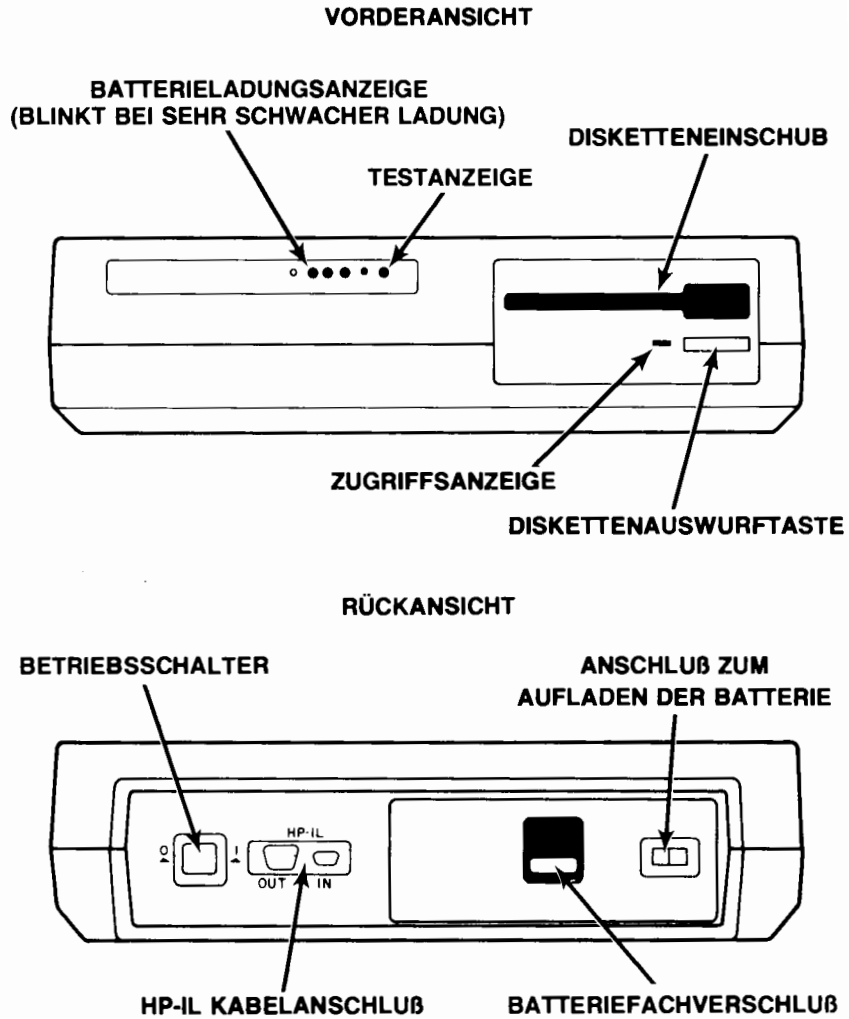


Abbildung 2-1. Schalter und Anzeigen

# Anschluß des Plattenspeichergeräts an den Computer

Das Plattenspeichergerät wird mit Hilfe des HP-IL Kabels an den Computer und andere Geräte angeschlossen. An jedes Gerät müssen 2 Verbindungskabel angeschlossen werden, ein Eingangskabel und ein Ausgangskabel. Siehe folgende Abbildung.

## VERKABELUNG ZWISCHEN 2 GERÄTEN (Computer und Platte)

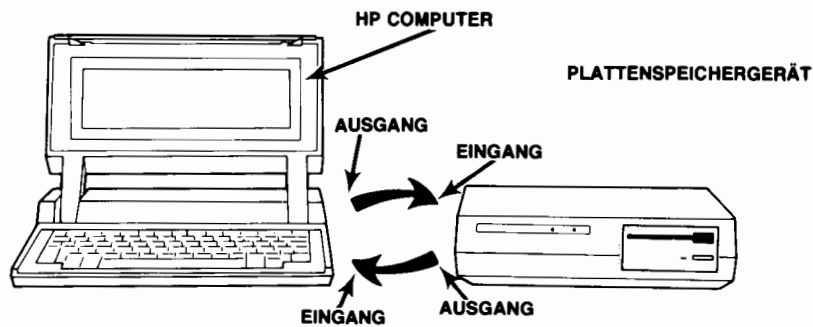


Abbildung 2-2. Anschluß eines Plattenspeichergeräts

## VERKABELUNG VON MEHREREN GERÄTEN

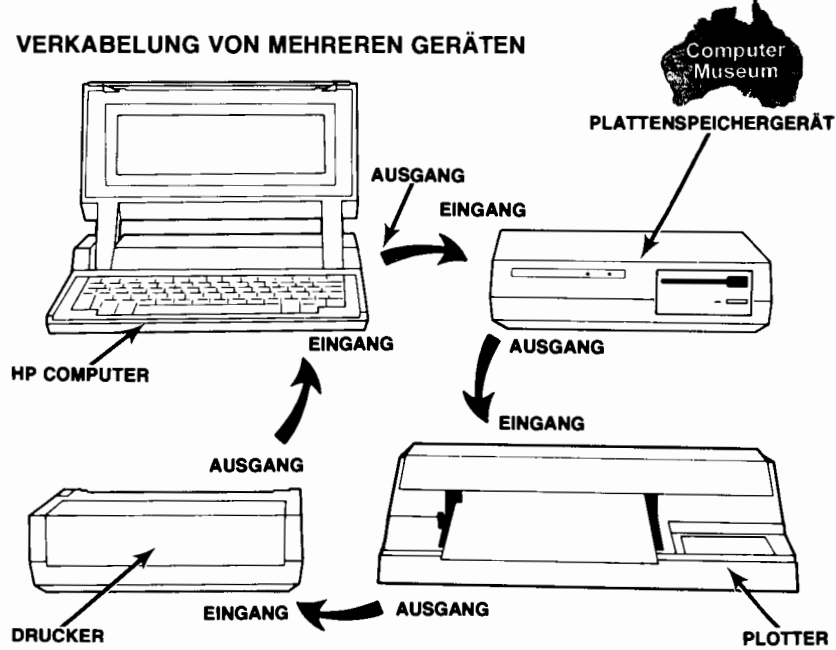


Abbildung 2-3. Anschluß von mehreren Geräten

Die Gerätefolge ist beliebig und es ist nicht notwendig, daß sie sich im selben Raum befinden.

## Was ist eine Diskette?

Eine Diskette kann mit einer Schallplatte verglichen werden, die Programme und Daten anstatt Musik speichert. Der Computer kann Daten und Programme auf der Diskette speichern und später wieder neu einlesen. Unter der HP Bestellnummer 92192A können Sie eine Schachtel mit 10 beidseitig geprüften Disketten anfordern.

### Abbildung einer Diskette

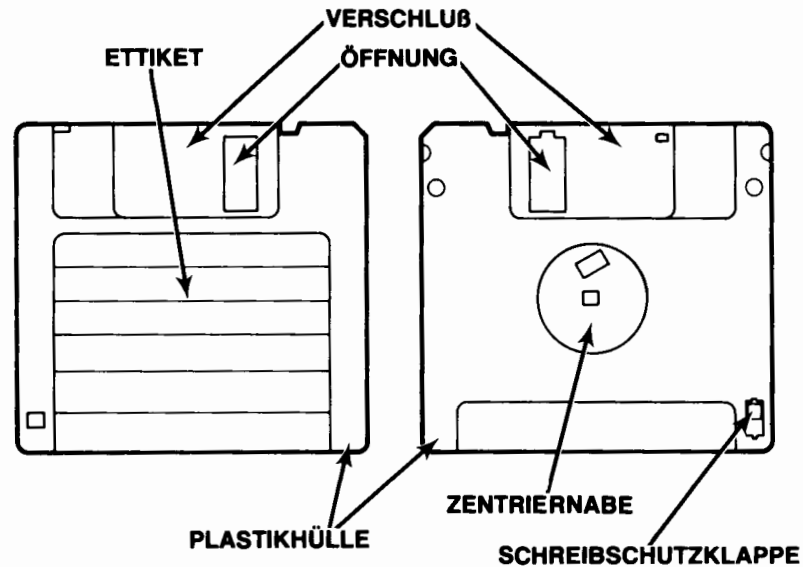


Abbildung 2-4. Teile der Diskette

### Öffnung und automatischer Verschuß

Das Lesen und Schreiben der Daten geschieht durch eine Öffnung, durch die die Diskettenoberfläche zugänglich wird. Diese Öffnung wird durch einen Metallverschluß abgedeckt, der die Plattenoberfläche vor Schmutzteilchen und Fingerabdrücken schützt.

Das Plattengerät besitzt einen automatischen Öffner des Diskettenschiebeverschlusses. Das heißt, nach Einsetzen der Diskette in das Laufwerk wird der Schiebeverschuß automatisch geöffnet und die Diskettenoberfläche zugänglich gemacht, und beim Ausnehmen wieder geschlossen.

Um die Diskette visuell zu überprüfen, kann der Schiebeverschuß mit einem Fingerdruck aufgeschoben werden. Bei Freigabe schließt ihn eine Sprungfeder wieder.

### Zentriernabe

Auf der Rückseite der Plastikhülle befindet sich eine Metallscheibe, die als Zentriernabe bezeichnet wird. Sie garantiert eine schnelle und präzise Positionierung, sobald die Diskette in das Laufwerk eingesetzt wird.

### Verwendung der Schreibschutzklappe

Durch die Schreibschutzvorrichtung wird verhindert, daß Information auf der Diskette überschrieben oder gelöscht wird.

Disketten, die wertvolle Programme und Daten enthalten, sollten schreibgeschützt werden. Siehe Abbildung 2-5.

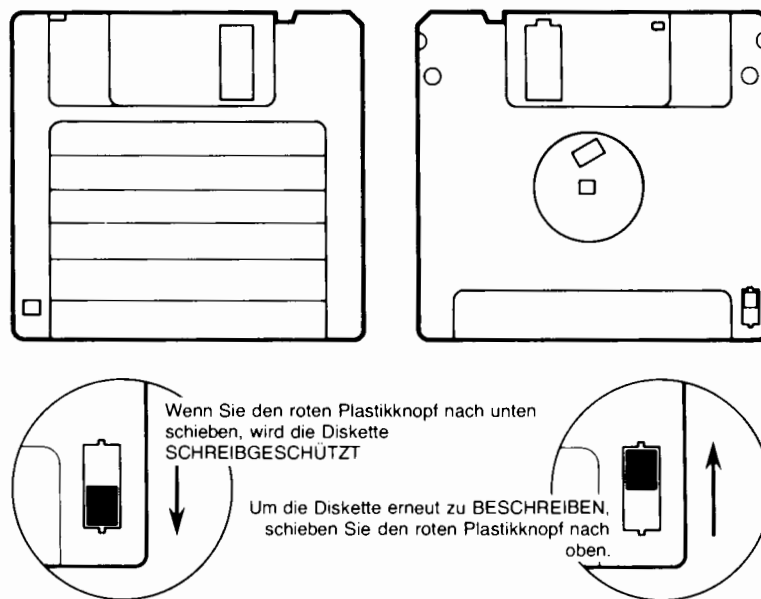


Abbildung 2-5. Schreibschutzklappe



## Laden der Diskette

Zum Einsetzen und Entfernen der Disketten beachten Sie die folgenden Schritte.

---

### HINWEIS

Solange die Zugriffsanzeige aufleuchtet, sollten Sie weder das Laufwerk ausschalten, noch die Diskette entnehmen; es könnte zum Verlust der Daten führen.

---

1. Entfernen Sie die Versandschutzdiskette (aus gelbem Plastik oder Pappe) mit der Auswurf-taste aus dem Laufwerk. **BITTE SICHER AUFBEWAHREN.**
2. Halten Sie die Diskette so, daß das Etikett nach oben zeigt (Zentriernabe nach unten).
3. Schieben Sie die Diskette in das Laufwerk (Verschluß zuerst), bis die Diskette in das Laufwerk eingeschnappt. Die Diskette gleitet ungefähr 3 mm nach unten. Bitte keine Gewalt anwenden.

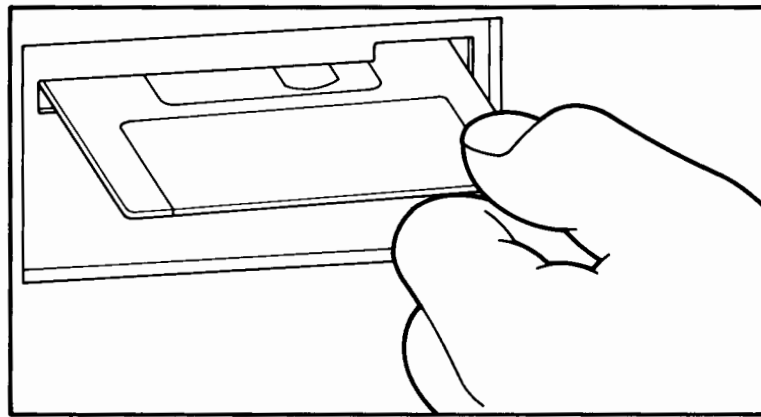


Abbildung 2-6. Ordnungsgemäßes Laden der Diskette

4. Entfernen Sie die Diskette, indem Sie die Auswurf-taste drücken. Ziehen Sie die Diskette gerade heraus.

---

## HINWEIS

Das verwendete Speichermedium beeinflusst Leistung und Zuverlässigkeit des Plattenspeichergeräts. Die technischen Leistungswerte können nur bei Verwendung von HP Medien erzielt werden. Benutzung ungemäßer Medien kann zur frühzeitigen Fehlleistung und Beschädigung des Speichergeräts führen.

Für bestimmte Speichergeräte werden von HP andere nicht von HP hergestellte Disketten zugelassen. Nach Durchführung des Testverfahrens entsprechen die Disketten den von HP vorgeschriebenen technischen Leistungswerten. Jedoch bietet HP keine Garantieleistungen für diese Medien und kann weder Qualität noch Einhaltung der Leistungswerte beeinflussen. Auswahl und Benutzung dieser Medien liegt in der Verantwortung des Kunden. HP besitzt da Recht, Reparaturen, von denen nach sorgfältiger Überprüfung festgestellt wurde, daß sie von Medien verursacht wurden, die nicht von HP hergestellt wurden, von Garantieleistungen und Wartungsverträgen auszuschließen. Gegen Berechnung von Material und Zeitaufwand können solche Reparaturen von HP beauftragt werden.

Garantieleistungen und Wartungsverträge, die nicht von herstellerfremden Medien verursacht wurden, sind davon ausgenommen.

---

## Versuchen sie es selbst

Nachdem Sie alle Geräte miteinander verbunden haben, können Sie das Plattengerät einschalten. Der Betriebsschalter (Ein/Aus) befindet sich auf der unteren Rückseite des Geräts. Dies ist ein Kippschalter mit der Beschriftung "0" und "1". Bitte schalten Sie jetzt das Gerät ein indem Sie auf die "1" drücken.

### Selbsttest beim Einschalten des Geräts

Beim Einschalten testet sich das Gerät selbst auf Funktionsfehler aus, wobei die Testlampe aufleuchtet (siehe Abbildung 2-1). Dieser Test dauert ungefähr 6 Sekunden. Befindet sich eine NICHT SCHREIBGESCHÜTZTE Diskette im Laufwerk, so wird ein Lese- und Schreibtest ausgeführt, der weitere 5 Sekunden dauert (also insgesamt 11 Sekunden). Erlöscht die Testlampe jedoch nach dieser (relativ kurzen) Zeit nicht, so zeigt dies einen Fehlers im Laufwerk an. In diesem Fall lesen Sie bitte den Abschnitt 4.

# Benutzen Sie jetzt das Plattengerät

Eine Bedienungsanleitung finden Sie im Anhang dieses Handbuchs. Zukünftige Änderungen der Bedienungsbeschreibung müssen in diesem Anhang (P/N 09114-90013) eingefügt werden. Weitere Information über das Steuergerät und die Bedienung des Geräts finden Sie in den folgenden Handbüchern.

HP-110 MS-DOS Benutzerhandbuch P/N 00090-90006

HP Portable Plus "Getting Started" Manual P/N 45711-90009

HP-71 HP-IL Interface Handbuch P/N 82401-90001

Serie 40 HP-IL Benutzerhandbuch P/N 82160-90001

## Anschluß des Ladegeräts

Auf der Vorderseite des Geräts befinden sich 3 Batterieanzeigelampen (siehe Abbildung 2-1), die den Batterieladezustand wie folgt anzeigen: Leuchten alle drei Lampen, so ist die Batterie mindestens 66% voll; leuchten nur zwei, so zeigt dies zwischen 33% und 66% Ladung an. Leuchtet nur die linke Lampe, so ist die Batterie weniger als 33% geladen; beginnt diese Lampe zu blinken, so verbleiben nur noch weniger als 10 Minuten Betriebszeit; bei zu geringer Ladung führt das Gerät Lese- und Schreiboperationen nicht mehr aus, um Daten, die sonst möglicherweise zerstört würden, zu schützen. Das Aufladen der Batterie ist jetzt absolut notwendig. ES WIRD EMPFOHLEN DIE BATTERIE SO OFT WIE MÖGLICH AN DAS LADEGERÄT ANZUSCHLIESSEN, DA DIES IHRE LEBENSZEIT VERLÄNGERT.

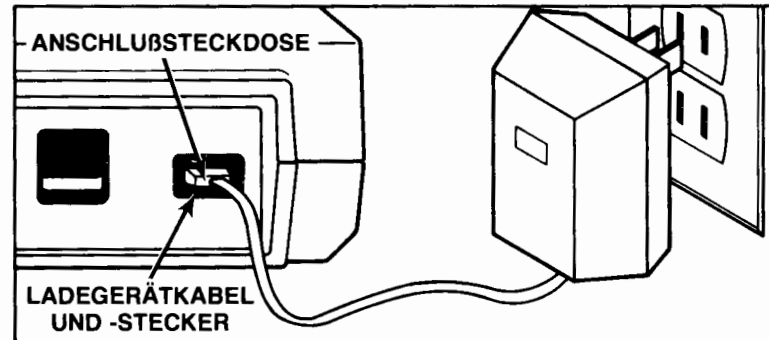


Abbildung 2-7. Anschluß des Ladegeräts

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### VORSICHT

Schließen Sie die Batterie nicht kurz. Dies würde eine Sicherung innerhalb des Batteriegehäuses beschädigen und die Batterie würde dadurch unbrauchbar.

Verbrennen Sie die Batterie nicht. Die Batterie kann platzen, wenn sie in das Feuer geworfen wird.

Bitte die Batterien immer außerhalb der Reichweite von Kindern aufbewahren.

Nehmen Sie die Batterie nicht auseinander. Die starke elektrolytische Säure, die sich in der Batterie befindet, kann Haut und Kleider ätzen.

Wurde die Batterie aus Versehen beschädigt und der Elektrolyt (gallertartige Sulfatsäure) läuft aus, neutralisieren Sie die Säure mit einer Lauge, wie zum Beispiel Ammoniaklösung, oder Backpulver (Natriumhydrogenkarbonat), und wischen Sie die verschüttete Flüssigkeit mit einem Tuch auf.

Sollte der Elektrolyt die Haut berühren, bitte sofort mit Wasser abspülen und einen Arzt aufsuchen.

---

Das Ladegerät kann jederzeit an das Plattengerät angeschlossen werden. Wenn Sie den Ladestecker während einer Schreib-/Leseoperation (Zugriffsanzeige leuchtet auf) anschließen, muß vermieden werden, daß das Sie das Laufwerk erschüttern.

Stecken Sie den Ladestecker in die Anschlußbuchse auf der Rückseite des Geräts.

Stecken Sie den Stromversorgungsstecker des Ladegeräts in eine Steckdose mit Wechselstrom. Versichern Sie sich, daß Strom vorhanden ist.

Auch während die Batterien geladen werden, kann das Laufwerk weiter benutzt werden. SELBST WENN DIE BATTERIEN VOLL GELADEN SIND, EMPFEHLEN WIR, DAß DAS LADEGERÄT ANGESCHLOSSEN BLEIBT.

Es dauert ungefähr 5 Stunden eine leere Batterie 80% zu laden; ungefähr 16 Stunden für 100% .

Die Nutzung der Bleisäure-Batterie ist am besten, wenn die Entladezyklen die Batterie nur schwach (weniger als 30% ) entladen, oder bei "rieselndem" Laden der Batterie, mit eingestecktem Ladegerät.

Ersatzbatterien können unter der Bestellnummer HP88014B angefordert werden.

Um das Leistungsvermögen der Batterie zu erhalten, laden Sie die Batterie ganz auf und schließen Sie das Ladegerät so oft wie möglich am Netz an.

## Ladegeräte

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### HINWEIS

Die Batterie wurde speziell für die Verwendung mit einem HP Ladegerät entwickelt. HP trägt deshalb nicht die Verantwortung für Schäden bei Benutzung von anderen Ladegeräten.

---

Die folgende Liste enthält Ladegeräte, die zur Verwendung mit der aufladbaren Batterie HP 88014B empfohlen werden.

Bezeichnung	Wechselstromspannung	Identifikation
HP 82059B	90 bis 120	Vereinigte Staaten
HP 82066B	210 bis 250	Europa
HP 82067B	210 bis 250	Großbritannien
HP 82067B Opt 001	210 bis 250	Südafrika
HP 82068B	210 bis 250	Australien
HP 82069B	90 bis 120	Europa

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# Capítulo 1

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## LA UNIDAD HP 9114B y SU MANUAL

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### Sobre este manual

El presente manual se divide en tres capítulos principales: el Capítulo 2, "Elementos esenciales"; el Capítulo 3, "Cosas que el usuario puede preguntarse"; y el Capítulo 4, "Orientación para el caso de que se confronten problemas". Estos capítulos están organizados de manera que el usuario pueda localizar rápidamente la sección de interés cuando necesite consultar el manual.

He aquí lo que lo que va a encontrar en este manual.

"Elementos esenciales" - Cubre todo lo que va desde abrir las cajas y desempacar el contenido, hasta la conexión de la unidad de disco al sistema. Cubre también lo que se refiere a encender el sistema, comprobar que funciona normalmente, e insertar un disco en la unidad de disco.

"Cosas que el usuario puede preguntarse" - Explica lo que atañe al cuidado y manipulación de los discos, y amplía las instrucciones para el empleo de la unidad de disco.

"Orientación para el caso de que se presenten problemas" - Se refiere a los procedimientos de autoprueba y de protección contra escritura, y explica también lo relativo al Media Monitor (monitoreo del medio de registro en discos) y los errores que pueden ocurrir con el computador. También se hallará aquí información sobre los pedidos de materiales gastables, el mantenimiento, y la garantía del equipo.

Por último, el presente manual comprende un índice y un glosario.

## **Primer encuentro con un equipo HP**

Si el usuario acaba de recibir su Unidad de Disco HP 9114B y es la primera vez que va a interconectar unidades de equipo Hewlett-Packard, se le recomienda que lea el capítulo "Elementos esenciales", y luego leer también los Capítulos 3 y 4.

## **Usuarios familiarizados con los equipos HP**

El usuario que ya tiene experiencia con el uso del HP-IL, comprobará que sus conexiones son iguales que las de cualquier otro dispositivo HP-IL, de manera que puede omitir la lectura del capítulo "Elementos esenciales" (Capítulo 2). Sin embargo, no estaría de más que en el futuro el usuario repase todo el manual.

## **Unidad de Disco HP 9114B**

La Unidad de Disco HP 9114B es un dispositivo de almacenamiento electrónico, alimentado por batería. Los datos y programas procedentes del computador se almacenan en un disco magnético flexible que se usa con la unidad de disco. La unidad HP 9114B utiliza un disco de 3-1/2 pulgadas (89 mm), con capacidad para almacenar 710 000 caracteres. Otras de sus características son las siguientes:

Monitor de medio de registro - Monitoraje continuo de la vida útil del medio de registro (disco flexible)

Indicación de carga de la batería - verificador de tres luces

Indicación de batería débil - Destellos de la luz piloto de alimentación (luz indicadora a la izquierda del panel frontal)

Autoprueba de encendido (Turn-on selftest) - Indicación OK TO USE (puede utilizarse)

Portabilidad - Puede utilizarse fuera de la casa o la oficina

La Unidad de Disco HP 9114B utiliza un disco de 3-1/2 pulgadas. Este disco es semejante a un disco fonográfico, con la diferencia de que almacena programas y datos, en lugar de música, y recibe los nombres de disco flexible o microdisco flexible o medio de registro. Los datos se almacenan sobre ambos lados del disco, y de ahí viene la designación de disco de registro bilateral (double-sided disc).

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## Chapitre 2

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### PRINCIPES ESSENTIELS

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## Desempaque y comprobación del equipo recibido

Con cada unidad HP 9114B se suministra el siguiente equipo.

<u>Partida</u>	<u>Número de pieza</u>
Cable HP-IL de 1 (un) metro	82167B
Recargador de batería	según la localidad
Un (1) disco flexible	-
Manual del operador	09114-90005
El Bloque de Batería Recargable	88014B

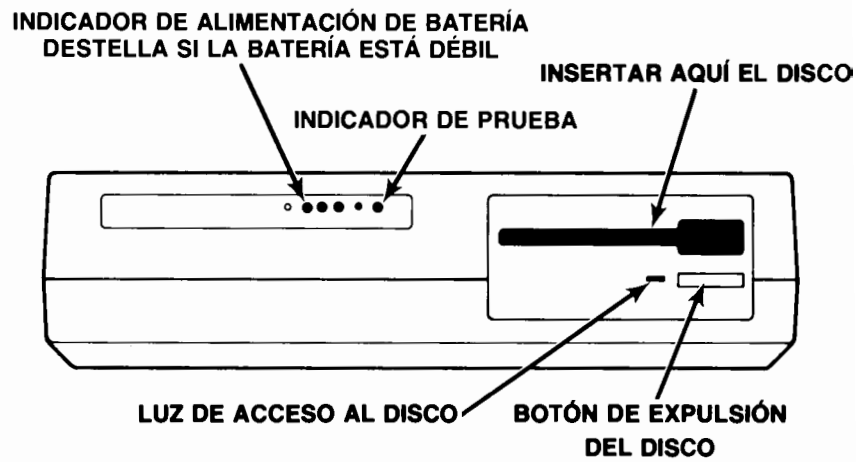
La unidad HP 9114B contiene una batería recargable. Esta batería debe recargarse antes de usarla por primera vez y debe mantenerse siempre plenamente cargada para maximizar el período de funcionamiento.

Si se descubre cualquier daño, notifíquese inmediatamente al agente o la oficina de ventas Hewlett-Packard más cercana, y preséntese la correspondiente reclamación a la empresa de transportes.



# Examen general de la unidad de disco

## PANEL FRONTAL



## PANEL POSTERIOR

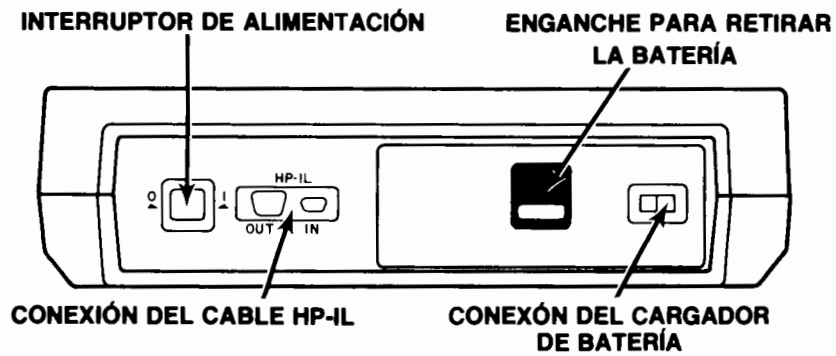


Figura 2-1. Controles e indicadores

# Conexión de la unidad de disco al sistema

La unidad de disco se conecta al computador o al sistema de computación mediante el cable HP 82167 HP-IL. Todo dispositivo lleva conectados dos cables, uno de "entrada" y el otro de "salida". Esto se ilustra a continuación.

## LA UNIDAD DE DISCO Y EL COMPUTADOR SOLAMENTE

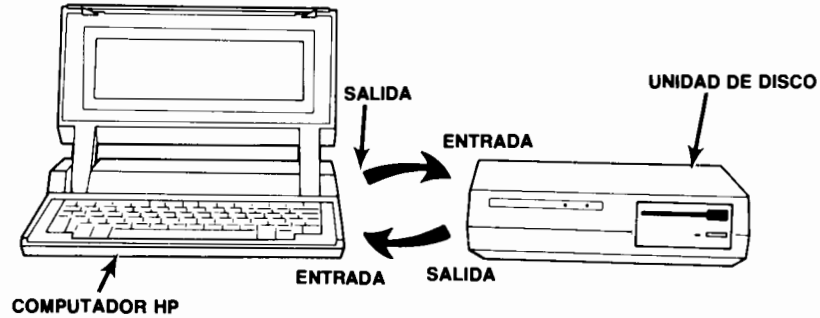


Figura 2-2. Conexión de la unidad de disco

## LA UNIDAD DE DISCO Y EL COMPUTADOR

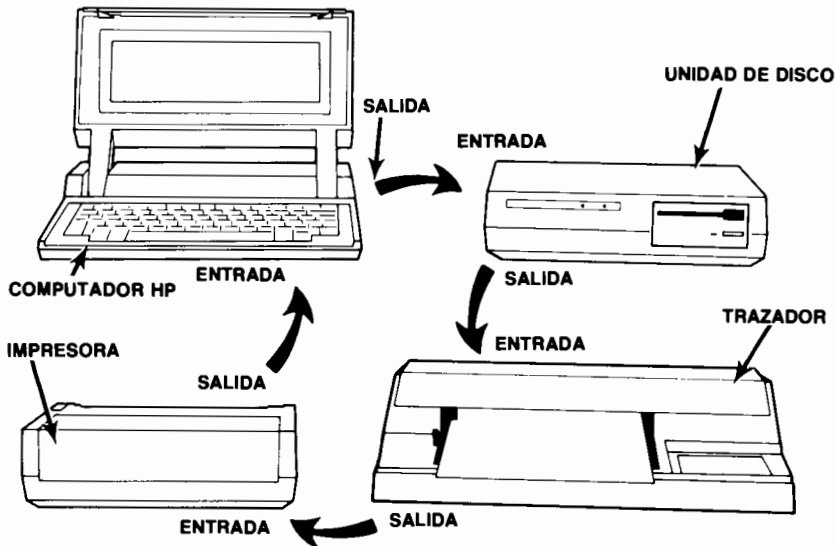


Figura 2-3. Interconexiones del sistema

Estos dispositivos pueden conectarse en cualquier orden, y pueden ubicarse donde convenga.

## Qué es un disco flexible?

Un disco flexible es parecido a un disco fonográfico que registrará programas y datos en lugar de música. El computador puede registrar datos y programas en el disco y luego extraerlos del mismo. Puede pedirse una caja de 10 discos flexibles, de registro bilateral, identificándola como pieza HP número 92192A.

### Vista general del disco flexible

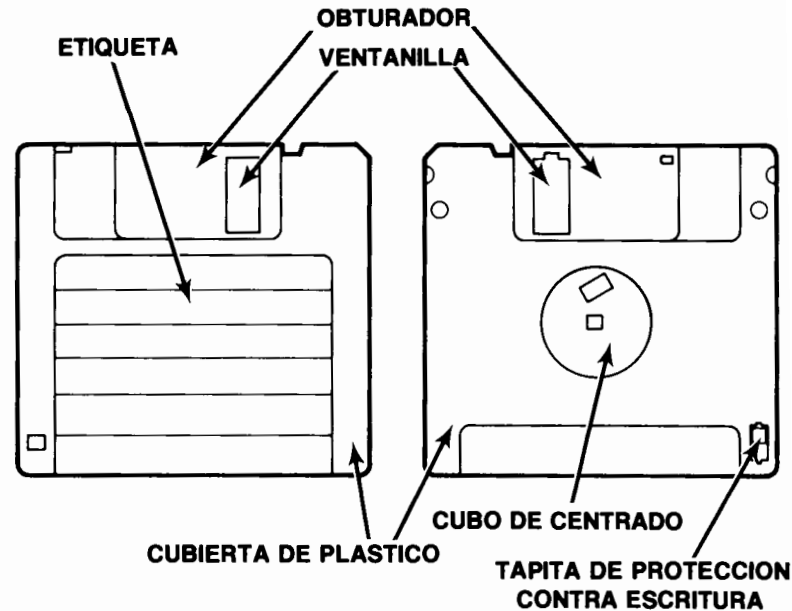


Figura 2-4. Partes de un disco flexible

### Ventanilla y obturador automático

La unidad de disco lee y escribe datos en el disco mediante la ventanilla que descubre el disco. Esta ventanilla es cerrada por un obturador metálico que ayuda a proteger la superficie del disco contra partículas extrañas y contacto con los dedos.

La unidad de disco está dotada de un abridor de obturador. Esto significa que cuando se coloca el disco en la unidad, el obturador se abre automáticamente, dejando descubierta la superficie del disco. No es necesario que el operador abra manualmente el

obturador antes de insertar el disco en la unidad ni hace falta que lo cierre después de retirar el disco de la unidad.

### Cubo de centrado

En el lado posterior de la cubierta de plástico hay una pieza central redonda, llamada cubo de centrado, que tiene la función de asegurar el posicionamiento exacto y rápido del disco cuando se lo inserta en la unidad.

### Uso de la tapita de protección contra escritura

La protección contra escritura asegura que la unidad de disco no podrá escribir sobre información ya registrada en el disco o borrar esa información.

Protéjanse contra escritura los discos que contengan programas o datos valiosos.

Véase la Figura 2-5.

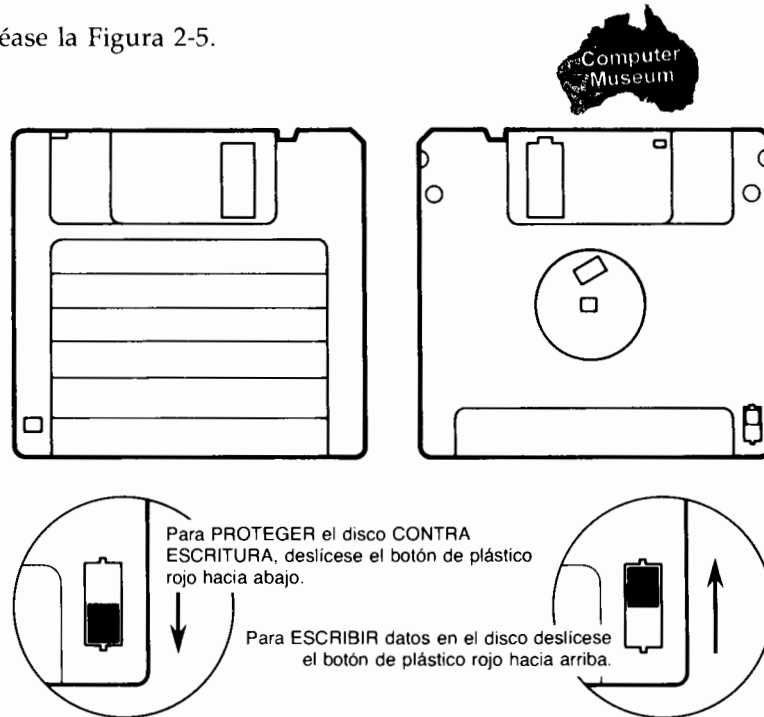


Figura 2-5. Tapita de protección contra escritura

## Carga del disco flexible

Para insertar y retirar los discos flexibles, dénese estos pasos.

---

### ADVERTENCIA

No se apague nunca la unidad de disco, ni se retire el disco de ella, mientras esté encendida la luz de acceso al disco; si no se observa esta regla, pueden perderse datos registrados en el disco.

---

1. Retírese de la unidad de disco, el disco amarillo de plástico o cartón, oprimiendo el botón de expulsión de disco. (Guarde este disco protector e insértelo en la unidad cuando quiera que transporte la 9114B.)
2. Sosténgase el disco con la etiqueta hacia arriba (el cubo de centrado hacia abajo).
3. Insértese el disco en la unidad (el lado del obturador primero) hasta que se sienta que el disco cae en la unidad. El disco cae físicamente 1/8 pulgada (3 mm), aproximadamente. El disco no debe entrar forzado.

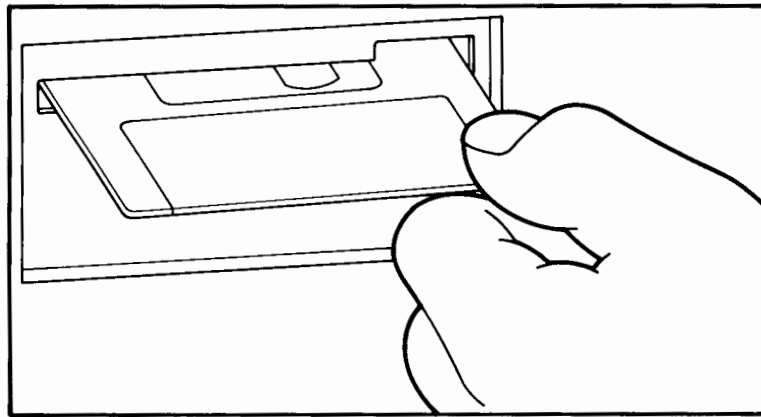


Figura 2-6. Carga correcta del disco flexible

4. Para retirar el disco se oprime el botón de expulsión y se saca el disco en dirección recta hacia afuera.

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## ADVERTENCIA

El desempeño y la confiabilidad de la unidad de disco dependen del tipo de discos usados. El cumplimiento de las especificaciones de la unidad sólo puede asegurarse cuando se usan discos HP. El empleo de discos inapropiados puede tener por consecuencia la falla o desgaste prematuro de la unidad de disco.

En ciertos casos, HP puede aprobar discos de otra marca, cuando se ha comprobado mediante ensayos que los mismos cumplen con las especificaciones de HP. Sin embargo, HP no garantiza ni da apoyo técnico a tales discos, cuyos cambios de especificaciones y variaciones de calidad están fuera de su control. La selección y uso de tales productos es de la responsabilidad del cliente. HP se reserva el derecho de excluir de la cobertura del contrato de garantía y mantenimiento cualesquiera reparaciones que HP determine o juzgue con buenas razones son necesarias como resultado del uso de discos no suministrados por HP. A solicitud HP efectuará tales reparaciones y cobrará por ellas sobre la base del tiempo y los materiales empleados.

La cobertura del contrato de garantía y mantenimiento no se afecta respecto a reparaciones cuya necesidad no sea atribuible al uso de discos de marca distinta a la HP.

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## ENSAYO

Una vez interconectados los dispositivos que integran el sistema, puede encenderse la unidad de disco. Localícese el botón de alimentación ("on/off") que se encuentra en el panel posterior. Este es un interruptor tipo "balancín", rotulado "0" en un lado y "1" en el otro. Oprimiendo el lado "0" se apaga la unidad; y oprimiendo el lado "1" se enciende la misma. Procédase ahora a encender la unidad.

### Autoprueba de encendido

La autoprueba de encendido (power-on selftest) se efectúa automáticamente cuando se enciende la unidad. La luz de prueba (a la derecha del panel frontal) queda encendida mientras está en curso la autoprueba. La autoprueba toma aproximadamente 6 segundos, transcurridos los cuales la luz de prueba se apaga. Si se tiene un disco insertado en la unidad, la prueba de lectura y

escritura (en la que interviene el disco) toma otros 5 segundos, o sea que, en ese caso, el procedimiento completo lleva aproximadamente 11 segundos. Si la luz de prueba permanece encendida una vez transcurrido el tiempo de prueba normal, ello significa que se ha detectado un error en la unidad de disco. Si alguna vez sucediera esto, consúltese el capítulo 4. Constátese que el disco utilizado en la autopruueba no está protegido contra escritura; si lo está sólo se efectuará la prueba de 6 segundos.

## Empleo

A modo de suplemento, este manual incluye información sobre la operación del sistema. Este suplemento (P/N 09114-90013) se actualizará según se disponga de información sobre la operación del sistema. Para mayor información sobre la operación del controlador y el disco, véanse los manuales siguientes.

P/N 00090-90004 - Manual de Instrucciones Computador HP Portable HP 110

P/N 00090-90006 - Guía del Usuario MS-DOS HP 110

P/N 45711-90009 - Manual "Para Empezar" Computador HP Portable Plus

P/N 82401-90001 - Manual de Instrucciones Interfaz HP-IL HP-82401A

P/N 00075-90001 - Manual de Instrucciones HP-75

P/N 82160-90001 - Manual de Instrucciones HP-IL HP 82160A

## Instalación del recargador

En el panel frontal hay tres luces indicadoras del estado de la batería (ver Figura 2-1). La batería se carga hasta 2/3 de su capacidad cuando las tres luces están encendidas. Si solamente están encendidas las dos luces de la izquierda, queda de 1/3 a 2/3 de la capacidad de la batería. Si solamente está encendida la luz de la extrema izquierda, queda de 0 a 1/3 de la capacidad de la batería. Cuando solamente quedan 10 minutos de tiempo de acceso al disco en la batería, la luz de la extrema izquierda parpadea. Si usted continúa usando esta batería, la unidad de disco protegerá sus

datos al no completar las operaciones de lectura/escritura. En este caso, vuelva a cargar su batería en este momento. PARA CONSERVAR SU BATERIA, USE EL RECARGADOR CUANDOQUIERA QUE SEA POSIBLE.

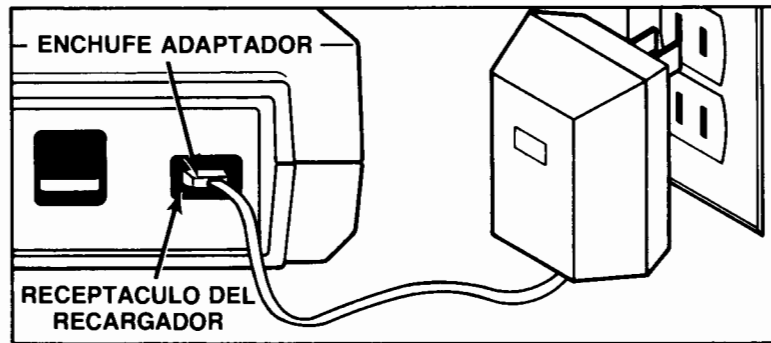


Figura 2-7. Conexión del recargador

El recargador puede conectarse a la unidad de disco en cualquier momento. Si se conecta el recargador mientras están en marcha operaciones de lectura/escritura (la luz de acceso al disco estará encendida en ese caso), evítese sacudir la unidad.

Insértese el enchufe recargador en el receptáculo del recargador que se encuentra en la parte posterior de la unidad de disco.

Insértese el enchufe de alimentación del recargador en un tomacorriente de CA, después de cerciorarse de que el tomacorriente tiene corriente.

Puede utilizarse la unidad de disco mientras el bloque de batería está cargando. Se recomienda utilizar el recargador siempre que sea posible, aunque la batería esté plenamente cargada.

El bloque de batería se carga al 80% en un período de carga de 5 horas, y se carga a pleno en un período de aproximadamente 16 horas.

La batería, de plomo-ácido y del tipo sellado, tiene mejor desempeño cuando sus ciclos de carga/descarga son tales que las descargas son "poco profundas", de menos del 30% , o cuando la



carga es por "goteo" (régimen de carga lenta constante), con el recargador habitualmente conectado.

Pueden pedirse baterías de reemplazo, con la designación "HP 88014B Rechargeable Battery Pack".

Para conservar la máxima capacidad del bloque de batería, cárguela plenamente y utilícese el equipo con el cargador conectado la mayor parte del tiempo posible.

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#### ADVERTENCIAS

Evítese cortocircuitar la batería. De hacerlo, se quemará el fusible interno del bloque de batería, y el bloque quedará inservible.

No se incinere la batería. Si se la arroja al fuego, la batería puede estallar.

No se deje la batería al alcance de los niños.

No se abra la batería. El electrólito ácido fuerte contenido en la batería puede quemar la piel y la ropa.

Si la batería se rompe accidentalmente y se escapa el electrólito (ácido sulfúrico gelificado), neutralícese el ácido con alguna substancia alcalina que se encuentre a mano, tal como una disolución de amoníaco o polvo de hornear (carbonato de hidrógeno y sodio), y recójase con un paño o trapo el electrólito derramado.

Si el electrólito entra en contacto con la piel, lávese inmediatamente con agua abundante la parte afectada y consúltese al médico.

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## Recargadores

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#### PRECAUCION

El bloque de batería se ha ideado específicamente para funcionar con un recargador HP. Por tanto, HP no admite responsabilidad por daños causados por el empleo de un recargador que no sea HP.

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Los recargadores relacionados a continuación se recomiendan para su empleo con el bloque de batería recargable HP 88014B.

Modelo	Voltaje de CA	Identificación
HP 82059B	90 a 120	Estados Unidos
HP 82066B	210 a 250	Europa
HP 82067B	210 a 250	Reino Unido
HP 82067B Opt 001	210 a 250	República de África del Sur
HP 82068B	210 a 250	Australia
HP 82069B	90 a 120	Europa



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# Capitolo 1

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## VOI, QUESTO MANUALE E L'HP 9114B

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### Scopo di questo manuale

Questo manuale è diviso in tre capitoli principali: "Informazioni essenziali", Capitolo 2, "Cose che vi possono interessare", Capitolo 3 e "Da leggere se avete problemi", Capitolo 4. Questi capitoli sono organizzati in modo da permettervi di trovare rapidamente la sezione corretta del manuale con le informazioni di cui avete bisogno.

I capitoli di questo manuale contengono:

Informazioni essenziali - dal disimballaggio fino alla connessione dell'unità disco al vostro sistema; sono incluse la messa in funzione del sistema, la verifica della correttezza del funzionamento; l'inserimento di un disco nell'unità disco ed altre informazioni sull'uso dell'unità.

Cose che vi possono interessare - come aver cura dei dischi, come maneggiarli, come usare l'unità disco.

Da leggere se avete problemi - il test diagnostico e la protezione contro la sovrascrittura, oltre ad una spiegazione del controllo del disco (Media Monitor) e degli errori in cui potete incorrere col vostro computer. Sono incluse anche informazioni sulle ordinazioni di rifornimenti, sulla manutenzione e sulla garanzia.

Questo manuale contiene inoltre un indice ed un glossario per vostro uso.

## **Per coloro che usano attrezzature HP per la prima volta**

Se avete appena ricevuto la vostra unità disco HP 9114B e non avete alcuna esperienza nel connettere attrezzature Hewlett-Packard, vi preghiamo di fare riferimento al capitolo intitolato "Informazioni essenziali". Leggete poi i capitoli 3 e 4.

## **Per coloro che hanno esperienza nell'uso di attrezzature HP**

Se avete esperienza nell'uso di HP-IL, le connessioni HP-IL sono le stesse di qualsiasi altro dispositivo HP-IL, quindi potete saltare il capitolo Informazioni essenziali (Capitolo 2). Prima o poi potreste voler dare una scorsa a tutto il manuale.

## **L'unità disco 9114B**

L'unità disco HP 9114B è un dispositivo di memoria elettronico che funziona a batteria. Dati e programmi dal vostro computer sono memorizzati su un disco flessibile amovibile usato con l'unità disco. L'HP 9114B usa un disco da 3 1/2 pollici con una capacità di memoria fino a 788 mila caratteri. Altre caratteristiche includono le seguenti:

- Controllo del supporto - Controllo continuo della durata utile del supporto (disco flessibile)
- Indicazione carica batterie - Indicatore a tre segnali luminosi
- Indicazione di batteria scarica - Segnale luminoso intermittente (sul pannello frontale, a sinistra)
- Test diagnostico di inserimento - Indicazione OK TO USE
- Portabilità - Può essere usata fuori casa o ufficio

L'unità disco HP 9114B usa un disco flessibile da 3 1/2 pollici. Il disco è simile a un disco fonografico che memorizza programmi e dati anziché musica. Il disco è chiamato un disco flessibile, o microflessibile, o supporto. I dati sono memorizzati su ambedue le facce del disco, da cui il nome disco a doppia faccia.

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## Capitolo 2

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### INFORMAZIONI ESSENZIALI

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## Disimballaggio e controllo delle attrezzature fornite

Le seguenti attrezzature sono fornite con ogni HP 9114B

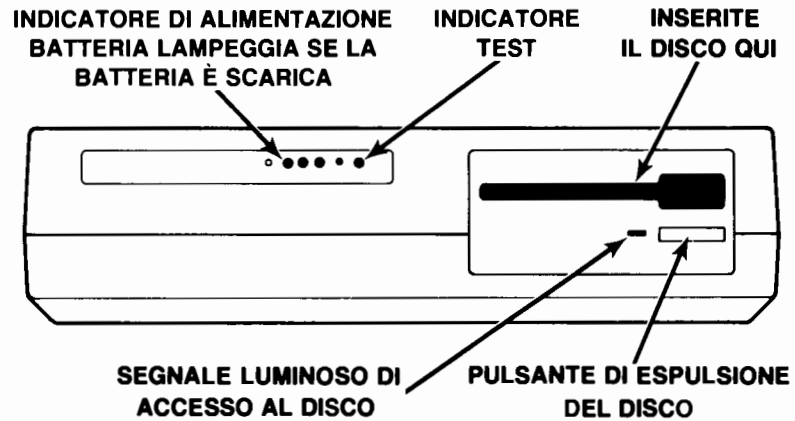
Voce	Numero di parte
Un cavo HP-IL (1 metro)	82167B
Ricaricatore per batteria	dipende dalla località
Un disco flessibile	--
Manuale d'uso	09114-90005
Il gruppo di batterie ricaricabili	88014B

Le batterie dell'HP 9114B sono ricaricabili. Ricaricate la batteria prima dell'uso iniziale e mantenete la carica per massimizzare il tempo di funzionamento.

Se trovate danni informate immediatamente il vostro fornitore o il più vicino ufficio vendite Hewlett-Packard. Richiedete inoltre un indennizzo allo spedizioniere.

# Uno sguardo alla vostra unità disco

## PANNELLO FRONTALE



## PANNELLO POSTERIORE

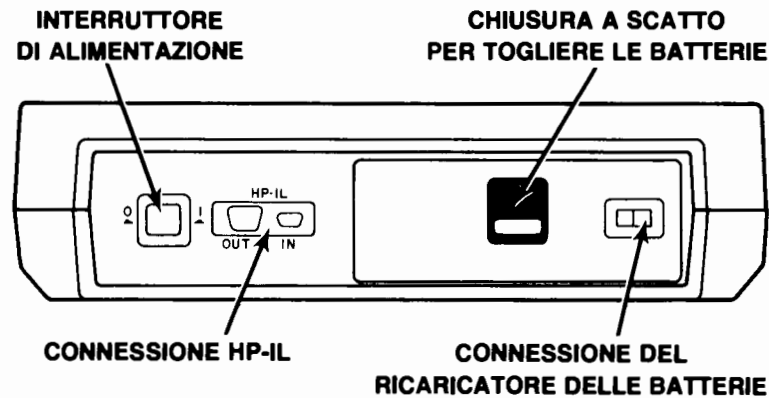


Figura 2-1. Controlli e indicatori

# Connessione dell'unità disco al vostro sistema

L'unità disco è connessa al vostro computer o sistema di computer per mezzo del cavo HP 82167 HP-IL. Ogni dispositivo deve avere due cavi connessi ad esso, un "ingresso" ed un "uscita", come è fatto vedere di seguito.

## Soltanto Unità Disco E Computer

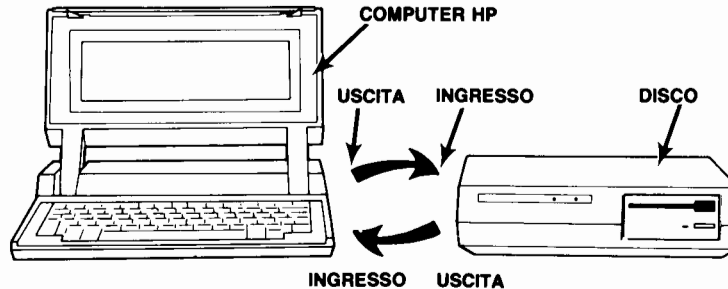


Figura 2-2. Connessioni dell'unità disco

## Unità Disco E Sistema DI Computer

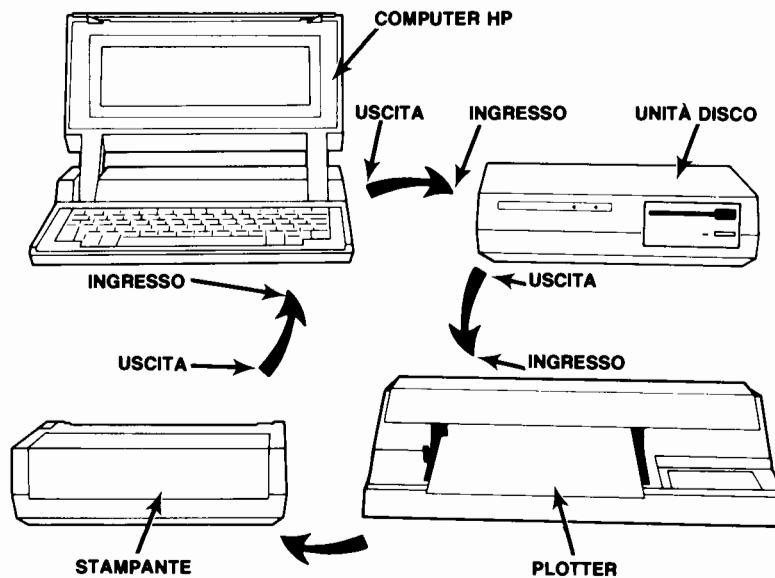


Figura 2-3. Connessioni del sistema

Questi dispositivi possono essere connessi in qualsiasi ordine e possono essere in qualsiasi luogo.



## Che cos'è un disco flessibile?

Un disco flessibile è simile a un disco fonografico che memorizza programmi e dati anziché musica. Il computer può richiamare i programmi e dati dal disco. Si può ordinare una scatola di dieci dischi flessibili a doppia faccia usando il numero di parte HP 92191A.

### Uno sguardo al disco flessibile

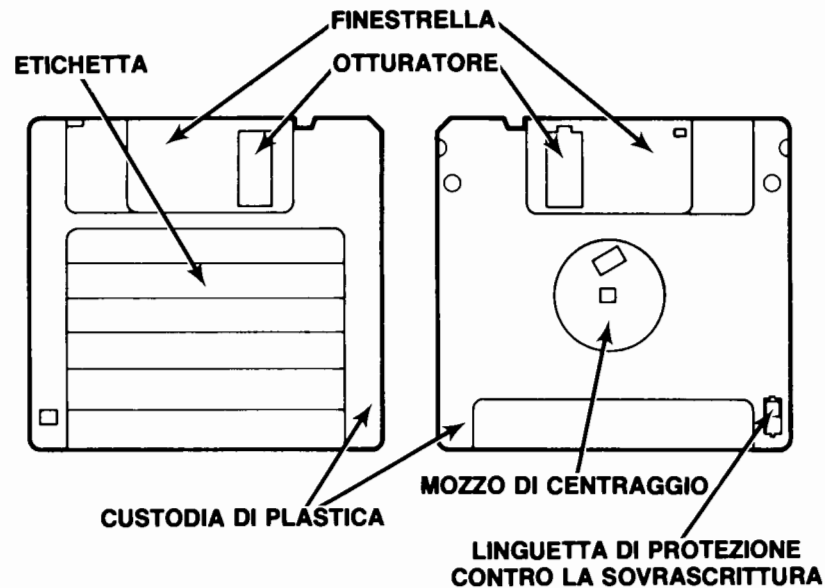


Figura 2-4. Parti del disco flessibile

### Finestrella ed otturatore automatico

L'unità disco legge e scrive dati sul disco e dal disco usando una finestrella che espone il disco. Questa finestrella è coperta da un otturatore di metallo. L'otturatore aiuta a proteggere la superficie del disco da particelle e da impronte digitali.

L'unità disco è provvista di un apri-otturatore. Ciò significa che quando il disco è messo nell'unità disco, l'otturatore viene aperto automaticamente e le superfici del disco sono esposte. Non occorre

aprire manualmente l'otturatore prima di inserire il disco nel drive, o chiudere l'otturatore quando si estrae il disco dall'unità.

### **Mozzo di centraggio**

Sul retro della copertura di plastica c'è una parte centrale rotonda, chiamata il mozzo di centraggio. Il mozzo di centraggio assicura un rapido e preciso posizionamento quando il disco è inserito nel drive.

### **Uso della linguetta di protezione contro la sovrascrittura**

La protezione contro la sovrascrittura assicura che l'unità disco non scriva sopra alle informazioni sul disco, o le cancelli. Proteggete contro la sovrascrittura i dischi che contengono dati e programmi di valore.

Vedere la Figura 2-5.

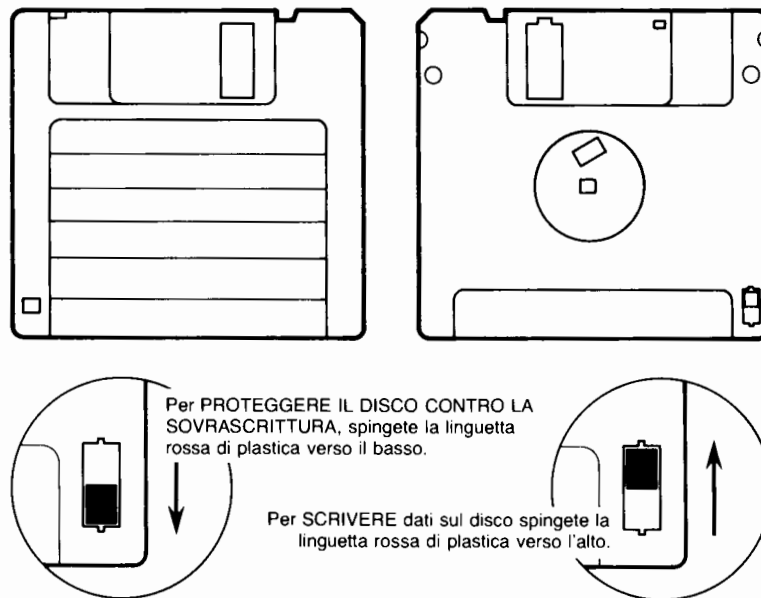


Figura 2-5. Linguetta di protezione contro la sovrascrittura

## Uso del disco flessibile

Per inserire ed estrarre i dischi flessibili procedete come segue:

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### AVVERTENZA

Non disinserite mai l'unità disco e non togliete mai il disco dal drive quando il segnale luminoso di accesso è acceso; ciò potrebbe portare alla perdita di dati.

---

1. Togliete il disco di plastica gialla o di cartone dall'unità disco premendo il pulsante di espulsione. (Conservate questo disco protettivo e inseritelo nel drive ogni qualvolta trasportate il 9114B.)
2. Tenete il disco con l'etichetta verso l'alto (mozzo di centraggio verso il basso).
3. Inserite il disco nell'unità disco (dalla parte dell'otturatore) fino a quando non lo sentite cadere nel drive. Il disco cade fisicamente per circa 1/8 di pollice. Non forzate il disco.

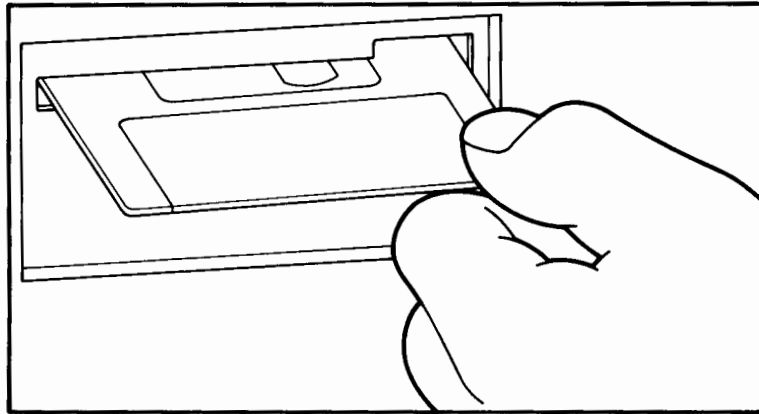


Figura 2-6. Inserimento corretto del disco flessibile.

4. Togliete il disco premendo il pulsante di espulsione. Estraete il disco tirando in direzione orizzontale.

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## AVVERTENZA

Le prestazioni e l'affidabilità di un'unità disco dipendono dal tipo di disco usato. Le specifiche dell'unità disco possono essere assicurate solo quando è usato supporto HP. L'uso di dischi inadatti può portare ad un malfunzionamento prematuro del disco o può causare danni all'unità disco.

Su alcuni prodotti a disco LçHP può qualificare altri supporti non-HP. Al momento del collaudo, questi supporti soddisfaceranno le specifiche HP. LçHP comunque non garantisce o sostiene questi supporti e non può controllare cambiamenti nelle loro specifiche o qualità. La scelta e l'uso di questi prodotti sono responsabilità del cliente. LçHP si riserva il diritto di escludere dalla garanzia e dal contratto di manutenzione la copertura di qualsiasi riparazione che LçHP ragionevolmente determini o ritenga sia stata causata dall'uso di supporti non forniti dallçHP. LçHP provvederà, su richiesta, ad eseguire tali riparazioni su una base di tempo e materiali impiegati.

La copertura della garanzia e del contratto di manutenzione per riparazioni non causate dall'uso di supporti non-HP rimane inalterata.

---

## Fate la prova!

Dopo aver connesso il vostro sistema, siete ora pronti a far funzionare la vostra unità disco. Troverete l'interruttore di alimentazione sul pannello posteriore. È un interruttore a bilanciere con indicazioni ad ogni estremità: "0" e "1"; premendo il pulsante dalla parte "0" si disinserisce l'unità, premendolo dalla parte contrassegnata "1", l'unità viene attivata. Iniziamo ora il funzionamento.

### Test diagnostico

Un test diagnostico viene eseguito automaticamente quando mettete in funzione la vostra unità disco. Il segnale luminoso Test (sul pannello frontale, a destra) si accende quando il test diagnostico è in corso. Questa prova richiede circa sei secondi, dopo di che il segnale luminoso di test si spegne. Se c'è un disco inserito nel drive, la prova di lettura e scrittura (che coinvolge il disco) richiede altri 5 secondi, per un totale di 11 secondi circa. Se il segnale luminoso di test rimane acceso anche dopo il normale periodo di prova, vuol dire che è stato rilevato un errore nell'unità

disco. Se ciò dovesse accadere, fate riferimento al Capitolo 4. Assicuratevi che il disco usato nel test diagnostico non è protetto contro la sovrascrittura. Se questo disco è protetto contro la sovrascrittura, viene eseguito soltanto il test da 6 secondi.

## Usate questo manuale

Informazioni sul funzionamento di un sistema sono incluse come supplemento a questo manuale. Questo supplemento (P/N 09114/90013) deve essere aggiornato mano a mano che ricevete informazioni sul funzionamento del sistema. Per ulteriori informazioni sul funzionamento dell'unità di controllo/unità disco fate riferimento ai seguenti manuali:

HP 110 Manuale d'uso del Portable Computer P/N 00090-90004

HP 110 Manuale d'uso MS-DOS P/N 00090-90006

HP Manuale "Come iniziare" per Portable Plus P/N 45711-90009

HP 82401A HP-IL Manuale d'uso P/N 82401-90001

HP-75 Manuale d'uso P/N 00075-90001

HP 82160A HP-IL Manuale d'uso P/N 82160-90001

## Come si installa il ricaricatore

Sul pannello frontale ci sono tre indicatori luminosi per la batteria (Vedasi Fig. 2-1). La batteria è carica per 2/3 o completamente carica quando tutte e tre le luci sono accese. Se, invece, sono accesi solo i due indicatori luminosi di sinistra significa che resta solo circa 1/3-2/3 della capacità della batteria. Se resta acceso solo il segnale luminoso più a sinistra, significa che resta circa 0-1/3 della capacità della batteria. Quando, nella batteria, restano solo 10 minuti di tempo di accesso al disco, l'indicatore luminoso più a sinistra lampeggia. Se continuate ad usare quella batteria, il drive proteggerà i vostri dati ma non completerà le operazioni di lettura e scrittura. A questo punto dovete ricaricare la batteria. **PER PROTEGGERE LA VOSTRA BATTERIA, USATE IL RICARICATORE OGNI QUALVOLTA SIA POSSIBILE.**

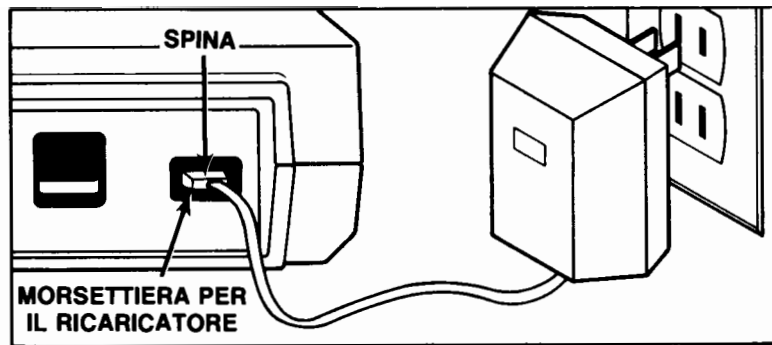


Figura 2-7. Connessione del ricaricatore

Il ricaricatore può essere connesso all'unità disco in qualsiasi momento. Se connettete il ricaricatore durante le operazioni di lettura/scrittura (con il segnale luminoso di accesso al disco acceso), evitate scosse all'unità disco.

Inserite la spina del ricaricatore nella morsettiera del ricaricatore sul retro dell'unità disco.

Inserite la spina del ricaricatore in una presa AC, dopo esservi accertati che c'è corrente.

Potete usare l'unità disco mentre il gruppo di batterie si sta ricaricando. Si raccomanda che usiate il ricaricatore quando possibile, anche quando le batterie sono cariche.

Dopo 5 ore di ricarica il gruppo di batterie sarà carico all'80% e dopo circa 16 ore di ricarica sarà completamente carico.

Le batterie al piombo a tenuta funzionano meglio su cariche meno profonde, meno di 30% di cicli di scarica, o carica di compensazione con il ricaricatore di solito connesso.

Sono disponibili batterie di sostituzione. Ordinate il gruppo di batterie ricaricabili HP88014B.

Per conservare la capacità massima del vostro gruppo di batterie, caricatele completamente e fatele funzionare quanto possibile col ricaricatore connesso.

---

### AVVERTENZA

Non provocate un corto circuito nella batteria. Ciò farebbe saltare un fusibile all'interno del gruppo di batterie, che non funzionerebbe più.

Non gettate le batterie nel forno per il rifiuti. Se gettate sul fuoco, le batterie possono esplodere.

Tenete le batterie lontano dai bambini.

Non smontate le batterie. L'acido che contengono può bruciarvi la pelle e gli abiti.

Se la batteria si rompe accidentalmente e l'elettrolito (acido solforico gelatinoso) fuoriesce, neutralizzate l'acido con qualche sostanza alcalina disponibile, come una soluzione di ammonio o bicarbonato di sodio e asciugate lo spandimento con uno strofinaccio.

Nel caso l'elettrolito fosse entrato a contatto con la pelle, lavate subito con acqua abbondante e consultate un medico.

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## Ricaricatori

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### AVVERTENZA

Questo gruppo di batterie è progettato specificamente per funzionare con un caricatore HP; di conseguenza, l'HP non è responsabile dei danni causati dall'uso di un caricatore che non sia HP.

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I ricaricatori qui elencati sono raccomandati per l'uso con il Gruppo di batterie ricaricabili HP 88014B.

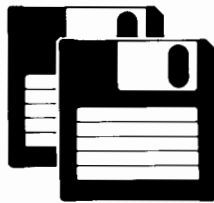
Modello	Tensione	Identificazione
HP 82059B	90 a 120	Stati Uniti
HP 82066B	210 a 250	Europa
HP 82067B	210 a 250	Regno Unito
HP 82067B Opt 001	210 a 250	Repubblica del Sud Africa
HP 82068B	210 a 250	Australia
HP 82069B	90 a 120	Europa

## Flexible Disc Usage and Handling

Congratulations on your selection of the HP 9114B 3 1/2-inch disc drive. The 3 1/2-inch microflexible disc is safer and more reliable than the larger flexible discs on the market because of its hard case and automatic shutter. The 3 1/2-inch disc is maintenance free. Here are some specific DOs and DON'Ts for the handling of your discs.

### Do

#### Back Up Discs Frequently



There is always a chance of losing data when data storage devices are accessed. Causes of loss of data include programming bugs, operator errors, power failures, and hardware failures. Data may also be lost due to flexible disc contamination or wear. **One protection against data loss is frequent backup of your files onto other discs.** Store discs upright in a dust free container. The box in which the discs are shipped, or a similar container, is a good choice.

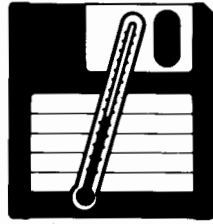


### Operate your system in a relatively clean environment



Airborne contaminants and particles accidentally dropped onto the disc will cause your disc to wear prematurely and may cause unreliable data storage and retrieval operations. Some of the most common contaminants are dust, smoke, ashes, eraser crumbs, and breadcrumbs. NEVER ATTEMPT TO BLOW SMALL PARTICLES FROM THE DISC. Chemical vapors may also cause premature disc wear.

### Maintain proper temperature and humidity



The proper operating range is 10°C (50°F) to 40°C (104°F) and 20% to 80% relative humidity. While temperature can be controlled, it may be necessary to make special provisions to keep the humidity in the proper range. Although the disc will continue to operate outside the normal humidity range, it will wear more quickly and will have a higher error rate.

### Avoid magnetic fields



The data is stored on the disc magnetically, and can be erased by an external magnetic field. Avoid placing a disc near power transformers, magnets, large disc memories, motors or CRTs (Cathode Ray Tubes).

### Don't

#### Touch the surface of the disc



The thickness of a fingerprint is enough to lift the head off the disc and cause errors. The oils in a fingerprint also collect dust which can cause the disc to wear faster.

### Try to clean a disc



The inside surface of the disc jacket is covered with a special material that cleans the disc as it rotates. Any other method of cleaning can cause solvent damage to the media or scratch the disc, causing loss of data. If a disc becomes dirty or scratched, immediately transfer the data to a new disc and dispose of the old disc.

### Labeling the Flexible Disc

When you order boxes of flexible discs (HP part number 92192A for a box of 10), 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. See Figure 3-1.

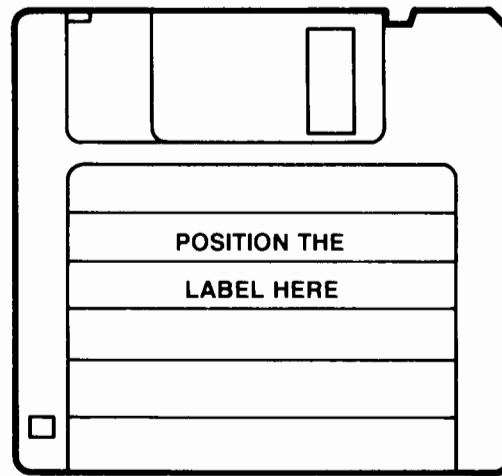


Figure 3-1. Usual positioning of the label on the disc

You can establish a color-coded system for cataloging your discs. For example, discs containing memos may be labeled in red while discs containing personnel files can have blue labels. Store your discs upright in a container so that the colored edge of the labels are visible. You may use the colors to select the category of discs you desire, and then read the labels to select the specific disc needed.

## **What is the Life Expectancy of a Flexible Disc?**

The read/write heads of the disc drive touch the disc. As a result, the flexible disc media does wear. The Media Monitor indication helps assure reliable operation.

### **Media Monitor**

Through a feature called Media Monitor, your disc drive automatically monitors the cumulative use of each individual disc.

When the usage of a disc is approaching a level at which there is a risk of loss of data through normal disc wear, the disc access light on the front panel blinks and a clicking sound is heard. Once this point has been reached in the life span of a disc, read and write commands are still performed by the computer. However, after a command has been performed, the disc drive immediately resumes the warning indication.

When the Media Monitor warning occurs, immediately copy your disc. If you continue to use this 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.

### **Write Protect Error on Initialization**

A motor speed check is performed when a disc is inserted into the drive. If the motor speed is on either side of the tolerance allowed, a Write Protect Error is generated and the disc cannot be initialized or used. If your drive is operating properly, this indicates a defective disc. Discard the disc.

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## Chapter 4

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# READ THIS WHEN YOU HAVE PROBLEMS

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## Caring for Your Disc Drive

### Guidelings for Transporting the Disc Drive

The 9114B Disc Drive is a portable device, but transportation requires some care. A drop of more than 5 inches can damage the read/write heads. Also, do not move the disc drive when the disc access light is on (when reading or writing to the disc). The preferred method is to transport the drive in the following manner:

1. **Insert the plastic yellow or cardboard disc used in shipping the drive to you.** (If unavailable, order HP P/N 1535-4881.) A discarded or uninitialized disc, while not as effective as a plastic or cardboard disc, can also be used to help protect the read/write heads. **DO NOT** use a disc containing valuable data.
2. A system carrying case is available for the HP 110, HP Portable Plus, and HP 9114B. Order this case using HP part number 13269V. You should use this case when transporting your system.

### Caring for the Case

The disc drive case is made from a white plastic material and is not painted. The rear panel has a durable, non-toxic label. In the event of damage to the case finish, consult your HP Sales Office for touchup paints.

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### CAUTION

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

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Before cleaning the case, disconnect the charger and HP-IL cables. Make sure that any disc is removed from the 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, use a solution of 80% clean water and 20% isopropyl alcohol. Dry the areas that had cleaning solution applied with another clean, soft, lint-free cloth. Use a non-abrasive eraser to remove pen and pencil marks.

## Warranty

The complete warranty statement for the U.S. and Canada is included inside the front cover of this manual. If you have questions concerning the warranty, please contact your dealer or the nearest HP Sales Office. In countries other than the U.S. and Canada, contact your dealer or the nearest HP Sales Office for the warranty statement.

## 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 the Specifications Table in Appendix I.

## What If Something Goes Wrong?

1. *What if the disc access light (next to the disc eject button) begins blinking and the disc drive makes a clicking noise?*

The blinking of the disc access light and the clicking noise are a feature of your disc drive called the Media Monitor. This warning indicates that the disc currently in use in the blinking and clicking drive 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?(Selftest information is on page 2-7.)*

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; this repeats the selftest.
- B) If the test light is still on, contact your dealer or the nearest HP Sales Office.

3. *When I try to initialize my disc, I get an error stating that the disc is write protected. What should I do?*

First, check to make sure that you are not using a disc that you have write protected or that has been automatically write protected by the Media Monitor.

When a disc is inserted to be initialized, the disc drive performs a motor speed check. If the motor speed is out of specification, a Write Protect Error is generated and the disc is not initialized. This indicates a defective disc. Discard the disc.

Please note that 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 the nearest HP Sales Office.

4. *When I try to store information on a disc, I get an error stating that the disc is write protected. What should I do?*

You are trying to store information on a disc that you have write protected. If you wish to write information on this disc, reverse the write protect tab on the disc (see Chapter 2). If you wish to keep this disc write protected, insert another disc.

Also, the disc may have been automatically write protected by the Media Monitor. If the Media Monitor warning is on, the disc should be copied and discarded.

5. *What should I do if I get a message that says, “Disc Not Present”, “No Discs Were Found”, “Not Ready Error, Reading Drive --”, or “Bad Unit Error, Reading Drive --”?*
- A) Be sure the disc drive is turned on and your battery is charged.
  - B) Check your cables to make sure they are secure.
  - C) Be sure that you have a disc in the correct disc drive.
  - D) Be sure that the disc has been initialized.
  - E) If all this fails, you may have a bad disc. Try another disc.
6. *What if I get an error message saying, “Disc or Data Error, Reading Drive ?”*
- Your disc is probably worn or damaged. Try using other discs to see if you get the same message. If you receive the message on only one 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 discs, contact your dealer or HP Sales Office.
7. *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 and your battery is charged.
  - B) Be sure that you have a disc in your disc drive.
  - C) If all this fails, you may have a bad disc. Try another disc.
8. *What if the battery doesn't last long enough for me to do what I want to do?*
- A) Always start with a fully charged battery in your HP 9114B. Fully charging the battery requires connecting the recharger for approximately 16 hours (80% charge in 5 hours).

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**NOTE**

You can operate the HP 9114B with the recharger plugged in. We recommend plugging in the recharger whenever possible to extend your battery's life.

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- B) Place the HP 9114B as the device as the last device on the interface loop. The **Out** cable from the HP 9114B should

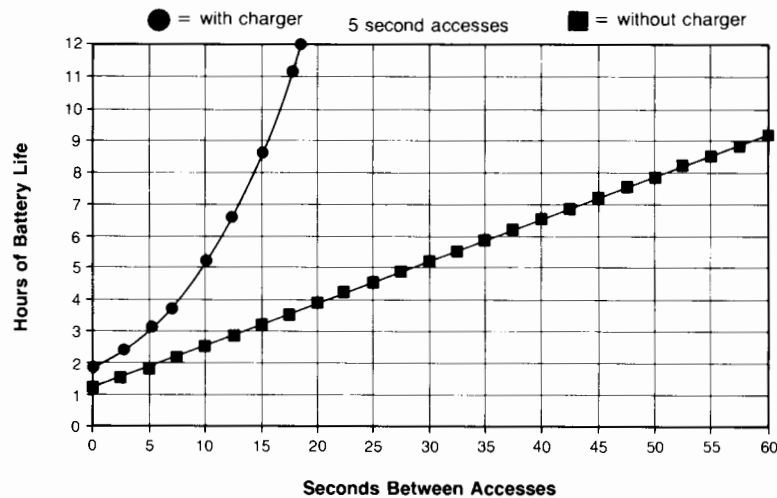
be the **In** cable to your computer. And don't forget to connect the other cable from your disc drive to the previous device in the loop. This positioning may keep the disc drive from turning on during printer or plotter commands.

- C) If you don't have adequate battery life for your particular application after taking the above precautions, consider purchasing a spare battery pack (P/N 88014B). Remember, these batteries can be charged from a wall outlet while outside the HP 9114B.
- D) Also, if you are running your own programs, see the following technical information. You may be able to change your programs to improve the battery life of your disc drive.

The following chart tells you how long the battery will last. The chart is based on the amount of time in minutes between disc accesses (the amount of time the disc access light is off). The following assumptions have been made.

- 1) You always start with a fully charged battery.
- 2) Typical access time (disc access light is on) is approximately 5 seconds. If your access times are longer, the hours to discharge will be shorter.

9114B Battery Life vs. Time Between Access





## Technical Description of the HP 9114B Battery Life

In order to understand how the battery life of the HP 9114B is affected by the application, you need to understand the way the drive's hardware works. Basically, the HP 9114B's hardware can be in three different states. Each of these states uses different amounts of power. The events that cause the drive to switch from one state to another and the amount of power that is consumed in each state is explained below.

The three different states are sleep, active, and access. The first state, called the sleep state, is a very low power state in which all hardware is shut down except for the CMOS HP-IL integrated circuit and a small wake-up circuit. The second state is the active state in which all of the controller circuitry and all other drive electronics are powered. The third state, the access state, is when the flexible disc is being accessed. This state requires extra power to spin the motor and step the head. The approximate amount of current drawn from the battery in each state is shown next.

Sleep state	55 milliamps (disc access light off)
Active state	350 milliamps (disc access light off)
Access state	1000 milliamps (disc access light on)

The state the HP 9114B is in depends upon the activity on the HP-IL. The HP-IL integrated circuit used in the HP 9114B determines which HP-IL commands cause the disc drive to go from the sleep state to the active state. Certain commands are handled automatically by the chip and some required that the command be processed by the CPU on the controller board. This means that power must be applied to the controller board. A detailed list of the HP-IL messages that cause the disc drive to go from the sleep state to the active state follow.

Basically, two operations cause the transition from sleep to active state. The first one configures the loop with the auto addressing command. This requires the CPU to accept a loop address and pass on the next highest address to the next device on the loop. The second operation is addressing the HP 9114B to be a talker or a listener on the loop.

The commands sent over HP-IL depend on your computer and on the type of operations being performed by your computer.

HP-IL Commands Catagorized As To When They  
Make the HP 9114B Go From The Sleep State  
To The Active State

Always	If Listener or Talker	If Listener or Talker or If Address Equals Device's Address	Never
NOP	Data	LAD (0-31)	IDY
LLO	End	TAD (0-31)	RFC
DCL	GTL		
PPU	SDC		
EAR	PPD		
IFC	GET		
REN	ELN		
NRE	PPE0 (0-7)		
AAU	PPE1 (0-7)		
LPD	DDL (0-31)		
SAD (0-30)	DDT (0-31)		
AAD (0-31)	ETO		
AEP (0-31)	ETE		
AES (0-31)	NRD		
AMP	SDA		
	SST		
	SDI		
	SAI		
	TCT		



**HP 110 and HP Portable Plus**

The HP 100 Series Portables can be reconfigured quickly. Therefore, every time the Portable begins talking to any device on the loop, the Portables send out an auto addressing command. This always happens if it has been over five seconds since the Portable last accessed a device on the loop. Auto addressing always wakes up any HP 9114B on the loop.

**HP 71B**

The HP 71B can be controlled to a great extent as to when it will send out auto address commands. It will assign addresses automatically only when it is turned on, and this can be disabled by setting an internal flag. The other area of concern with the HP 71B is how it determines which device is on the loop. If absolute loop addresses or assign codes are not used to specify the device on the loop, the HP 71B may have to search the loop sequentially for the proper device to use. This would require each device on the loop that has a lower address than the device that the HP 71B is searching for to send its device ID. This requires the HP 9114B to go to the active mode. For more information on HP-IL operation of the HP 71B, please refer to the HP-IL Interface Owner's Manual for the HP 71. The key is to use assign codes or absolute loop addressing.

## HP 75

The HP 75 assigns addresses only with the ASSIGNIO command and the RESTOREIO command. The assignments made with the ASSIGNIO command are always used when addressing the devices. The HP 75 typically will not wake up the HP 9114B when talking to another device such as a printer.

## HP Series 40

The HP Series 40 auto addresses the loop on every operation. This causes the HP 9114B to wake up on every operation to the printer or other devices.

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 the nearest HP Sales Office.

# How to Order Supplies

DESCRIPTION	HP PART NUMBER
Gray Double-Sided Micro Flexible Discs . . . . . (10 discs/box)	92192A for 9114B
Recharger <sup>1</sup> . . . . .	See footnote
HP-IL Cable . . . . .	82167A 0.5 metre 82167B 1.0 metre 82167D 5.0 metre
HP 9114B Operator's Manual . . . . .	09114-90005
Rechargeable Battery Pack . . . . .	88014B

<sup>1</sup> Power connectors are dependent on delivered location. Please consult your dealer or nearest HP Sales Office if you need to order an Recharger.

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

Direct Marketing Division  
1320 Kifer Road  
Sunnyvale, California 94086

Telephone: (800) 538-8787 toll free in the United States  
(406) 738-4133 (in Canada)

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# Appendix A

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## DATA LOGGING

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If your application involves data logging:

1. The HP 9114B continues to operate for 7 seconds after it responds to a command on the loop (auto addressing, a disc read or write operation, etc.). The motor stops spinning after 2 seconds of not receiving a command and after 7 seconds the HP 9114B will shut down. This shut down indicates a very low power condition.
2. Continuous motor-spinning operation will run the battery down in about 80 minutes if the recharger is not connected.
3. The HP 9114B responds to the LPD (Loop Power Down) command by placing itself in a very low power consumption state (shut down).
4. Addressing a data source device (voltmeter) directly by its position number or two letter device code will not cause the disc drive to power up.
5. Store as much data into your host (controller) as possible and write only large amounts of data to the disc drive.
6. Operate the disc drive as much as possible with the recharger connected.
7. Operate the disc drive within its environmental specifications.



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# Appendix B

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## TECHNICAL REFERENCE

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### Technical Specifications

Listed next are the electrical and physical specifications for the HP 9114B disc drive.

Number of drives	1	
Net Weight	2.68 kg (5.9 lbs)	
Height	75 mm (3.0 in.)	
Depth	200 mm (8.0 in.)	
Width	287.5 mm (11.5 in.)	
Interface	HP-IL	
HP Double Density Format		
Encoding:	MFM	
Rotational Speed:	600 RPM	
Bit Density @ 600 RPM:	Track 79 (Inside track) 8717 BPI	
Track Density:	135 tracks per inch	
Tracks per Surface:	80	
Surfaces used per disc:	2	
Capacity	HP'110, Portable Plus, IBM PC	Series 40 and 70
Bytes Sector:	512	256
Sectors/Track:	9	16
Bytes/Drive (Formatted):	710 Kbytes	630 Kbytes
	See note below.	

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#### NOTE

All of HP's computers spare tracks for data reliability. The spared tracks are used as replacements for bad sections of the disc to assure reliable data storage. As a result, the actual usable space on the HP 9114B is 710 Kbytes/drive.

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Access Time  
Track-to-Track Seek: 15 ms/track  
plus 42 ms settling  
Maximum Track-to-Track Seek: 1242 ms  
(80 tracks)  
Average Track-to-Track: 447 ms  
Maximum Rotational Latency: 100 ms  
Average Rotational Latency: 50 ms  
Spindle Motor on time: 400 ms  
Maximum Data Access Time  
(Seek plus Latency  
plus Motor on time): 1742 ms  
Average Data Access Time: 497 ms (motor on)  
Maximum Sustained Transfer  
Rate: 6 Kbytes/second

#### Environmental Specs

##### Operating Limits

Temperature: 10°C to 40°C  
(50°F to 104°F)  
Humidity: 20 to 80% with maximum wet bulb  
temperature (non-condensing) not  
to exceed 29°C (85°F)  
Altitude: 0 to 4572 m (0 to 15,000 ft)

##### Non-operating Limits (Storage and Transit)

Temperature: -40°C to 60°C  
(-40°F to 140°F)  
Altitude: -304 to 15240 m (-1000 to 50,000 ft)

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#### NOTE

Your disc drive is designed for operation in a typical office environment. Use of the equipment in an environment containing dirt, dust, or corrosive substances will drastically reduce the life of the disc drive and of the flexible discs.

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# Appendix C

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## GLOSSARY

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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 computer, 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 it's bootstraps" and gets ready to go. (Booting loads the operating system and utilities.)
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-IL.
CONFIGURATION	Configuration is the way you let your computer know which disc drive it is talking to, where the disc drive is on the bus, and which drive you want the computer to access.
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	<p>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. HP's 3 1/2-inch flexible disc is enclosed in a plastic jacket.</p> <p>A disc may be flexible or hard. The flexible disc may also be single-sided or double-sided.</p>
DISC DRIVE	A device that allows a computer to read data that is stored on a disc or write data on a disc.
FORMATTING	<p>The process by which a disc is prepared to receive and store data. Also known as "initializing."</p> <p>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.</p>
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-IL	The HP-IL is a connector 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."
INTERFACE	The interface makes communication possible between the computer and its peripherals.
INTERLEAVE	Interleaving a disc is a method of alternately numbering sectors on the disc to improve data acquisition efficiency. See the interleave section of your computer programming manual for additional information.

KBYTES	A unit of measurement for memory storage. One Kbyte is equal to 1,024 bytes (or 1,024 characters). Also called "K" or "kilobyte."
LOAD	To read programs into a computer.
MEMORY	The size of the computer's brain. Memory is the combination of hardware and/or discs on which data is stored.
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).
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.
WRITE PROTECT	A method of protecting disc information from being erased or overwritten.



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