



## Installation Note

### **HP 98568A and HP 98570A Direct Connect Expanders**

The HP 98568A and HP 98570A direct connect backplane expanders allows you to add accessories such as interfaces, Random Access Memory (RAM) cards and performance enhancement cards into a Series 300 computer, in addition to those allowed by the internal backplane.

The HP 98568A expander adds eight narrow I/O slots. The HP 98570A expander adds two wide System slots and four narrow I/O slots (except option 004 which adds four wide System slots and no I/O slots).



**HP Computer Museum**  
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## Unpacking and Handling

Carefully inspect the expander for damage during transit. If damage is discovered, report it immediately to the carrier. When possible, have a representative from the carrier present while unpacking the unit. If damage is found, file a claim with the delivering carrier, then contact your HP Sales and Service Office for assistance in obtaining a replacement while the claim is being processed by the carrier.

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## Contents

The direct connect backplane expander consists of these items:

- the backplane chassis with a slotted base
- a slotted cover (shipped installed on the base)
- two Pozidriv pan-head screws
- one Pozidriv flat-head screw
- power cord and spare fuses

In addition, the HP 98568A Expander (except option 132) includes two flat cables.

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## Installing the Expander

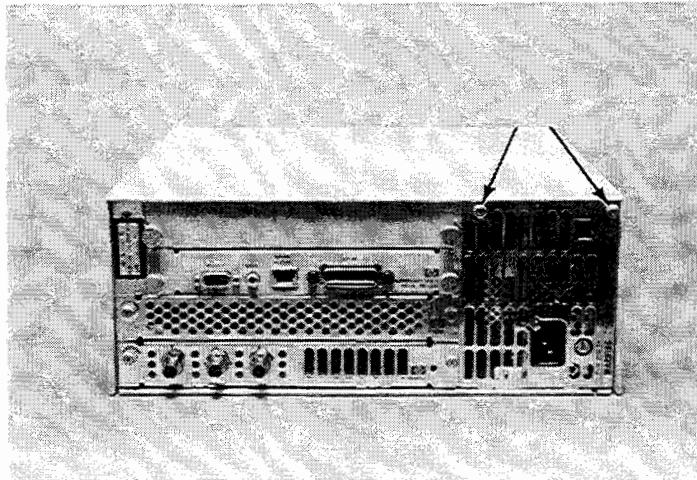
Due to the complexity of this task, it is broken down into three short procedures:

- Preparing the computer
- Attaching the expander to the computer, and
- Finishing up

### Preparing the Computer

Follow the instructions below to prepare the computer for installing the expander:

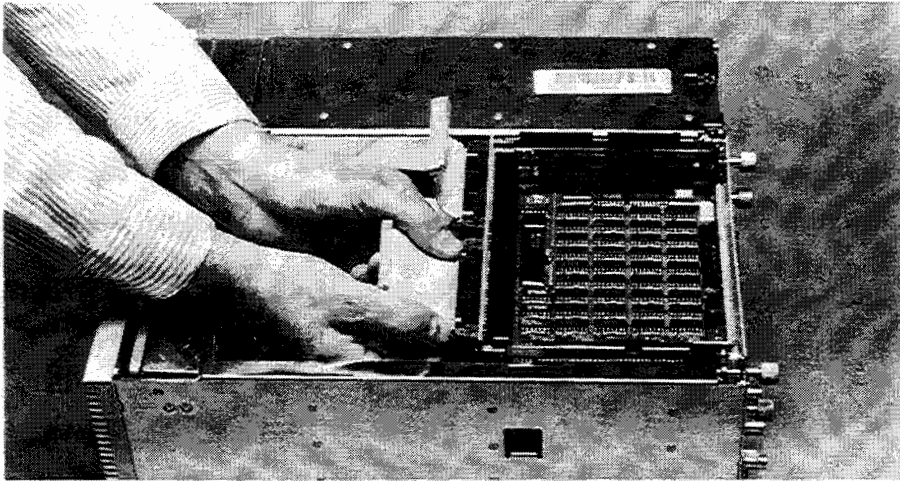
1. Turn the computer power off and unplug the power cord from the rear panel.
2. Loosen the two captive screws securing the power supply access door on the computer and remove the access door. You may need a #1 Pozidriv screwdriver to loosen the captive screws.



**Access Door Screws**

3. Slide the computer top cover toward the rear of the computer. Then spring the sides out and up, and lift it off.
4. If you are installing an HP 98568A option 132 or an HP 98570A, skip to step 7.

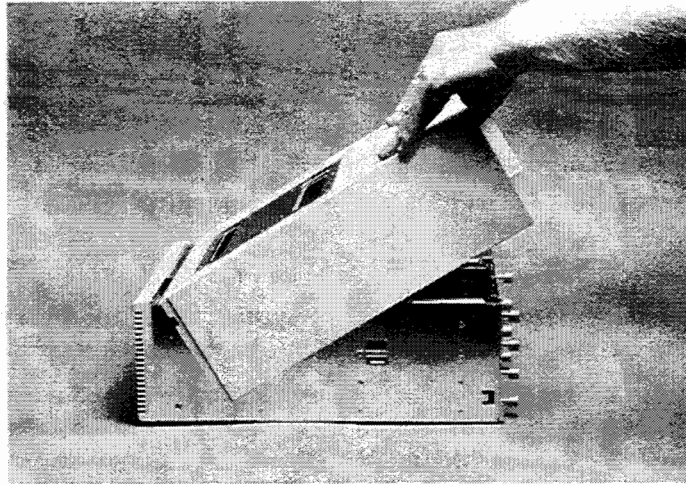
5. Install the two flat cables received with the expander into the two connectors on the top edge of the computer's four-slot backplane. Be careful not to bend any of the pins in the connector. Press in until the locking tabs lock across the back of the cable connector.



#### **Installing the Two Cables**

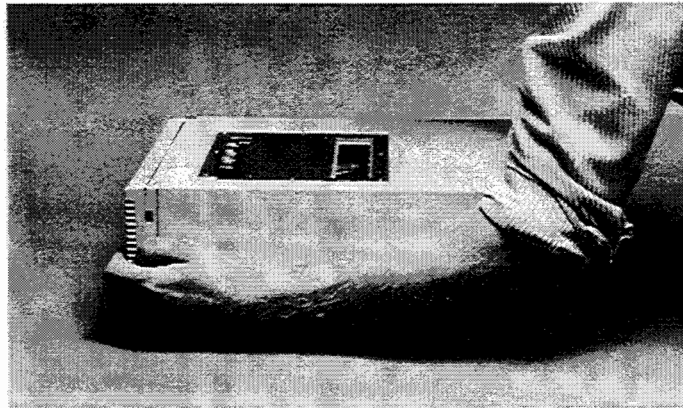
6. Bend the cables so that the free ends point upward.
7. Loosen the two captive screws securing the expander power supply access door and remove the access door.
8. Slide the top cover toward the rear of the expander. Then spring the sides out and up, and lift it off.

9. Install the expander top cover on the computer. Start the front edge first, at a 45° angle.



**Installing the Cover**

10. Press the slotted cover down, then slide it forward. Make sure that the bottom, rear corners of the top are seated in their retaining clips.



**Seating the Cover**

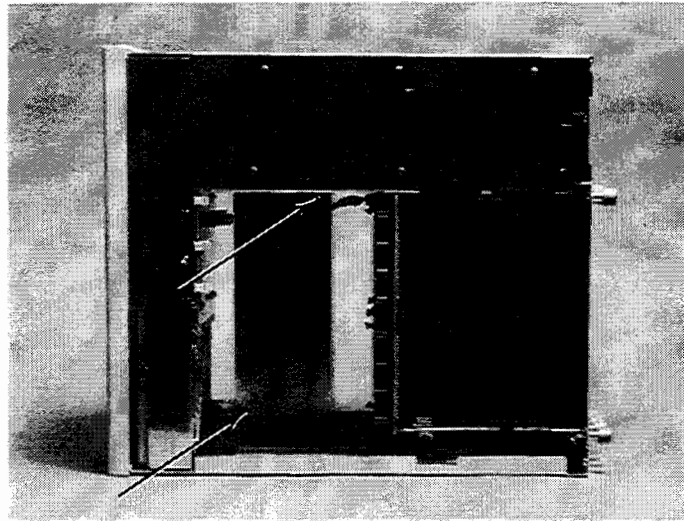
## Attaching the Expander

The procedure for attaching the expander differs, depending on whether you are installing an expander with a 16-bit bus or one with a 32-bit bus. Therefore, two procedures are presented. Use this table to determine which one to use:

Expander	Use
HP 98568A expander (except option 132)	16-bit Bus Procedure
HP 98568A expander (option 132)	32-bit Bus Procedure
HP 98570A expander	32-bit Bus Procedure

### 16-bit Bus

1. Place the expander chassis on top of the computer. Align the front corners of the expander so that they are directly above the computer front corners.
2. Now locate the holes for the two screws which fasten the expander to the computer. They go through the expander bottom and into the slotted top cover.



**Connecting Screw Holes**

3. Carefully align the screw holes so that the screws will go in easily.

4. Locate the two pan-head screws in the power cord bag and use them to fasten the expander to the computer. Make sure that the screws are tight, but don't overtighten them.

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#### Note

If you drop a screw through the slot, it will land on the top, wide board installed at the bottom of the computer. Retrieve the screw by loosening the top, wide board and carefully sliding it out of the backplane.

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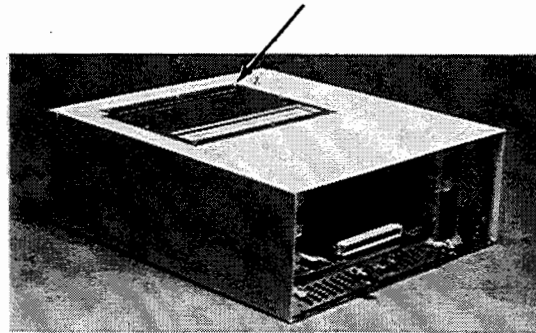


5. Install the two cables onto the bottom of the expander backplane. Be careful not to bend any of the pins in the connector. Press in until the locking tabs lock across the back of the cable connector.

Now that you have installed the expander chassis, proceed to the section on "Finishing Up".

#### 32-bit Bus

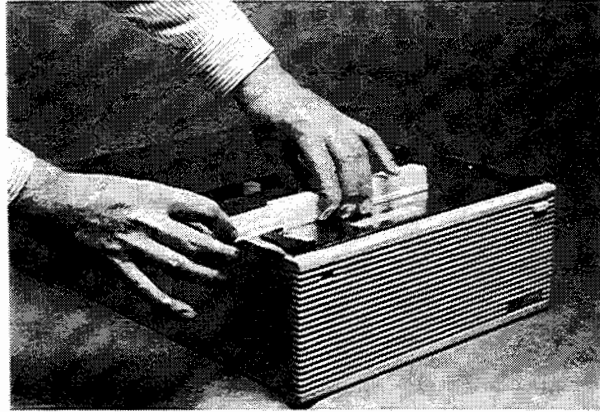
1. Install the flat-head screw into the front of the computer. The screw is located in the bag with the power cord.



**Installing the Flat-head Screw**

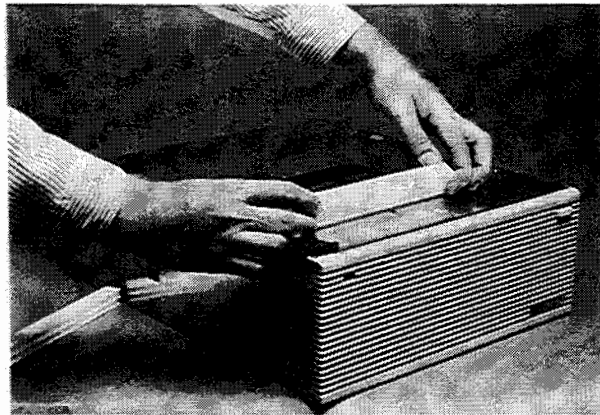
2. Turn the expander upside-down and locate the protective plastic sleeves on the backplane.

3. Remove the **inner** protective sleeve by sliding it out sideways.



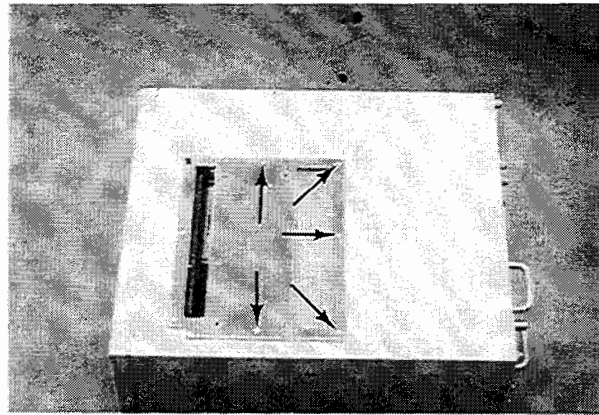
**Removing the Inner Sleeve**

4. Remove the outer protective sleeve by pinching it and rolling it forward.



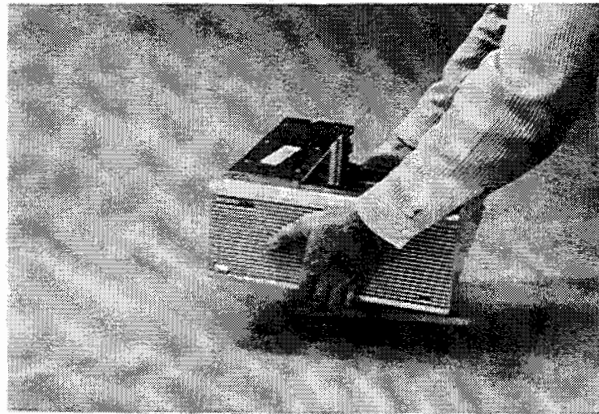
**Removing the Outer Sleeve**

5. Locate the five rivets in the computer top.



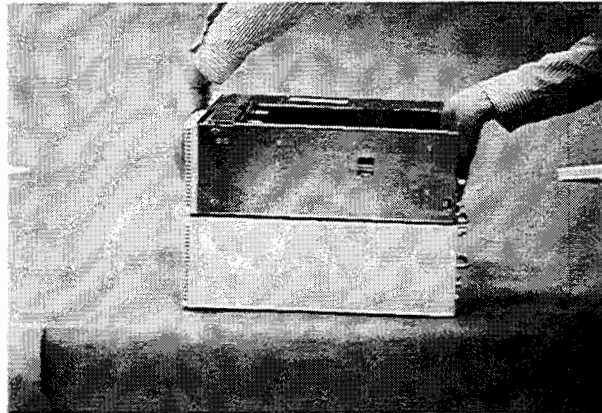
**Rivet Locations**

6. Pick the expander up and turn it right-side-up, holding it by the front and rear panels.



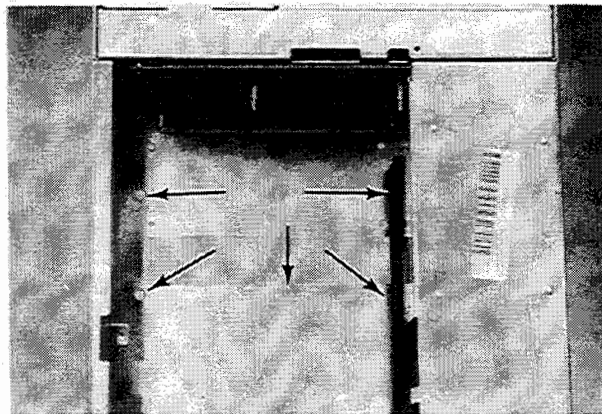
**Lifting the Expander**

7. Lower the expander onto the computer, making sure that it is lined up front-to-back with your fingers, and side-to-side visually.



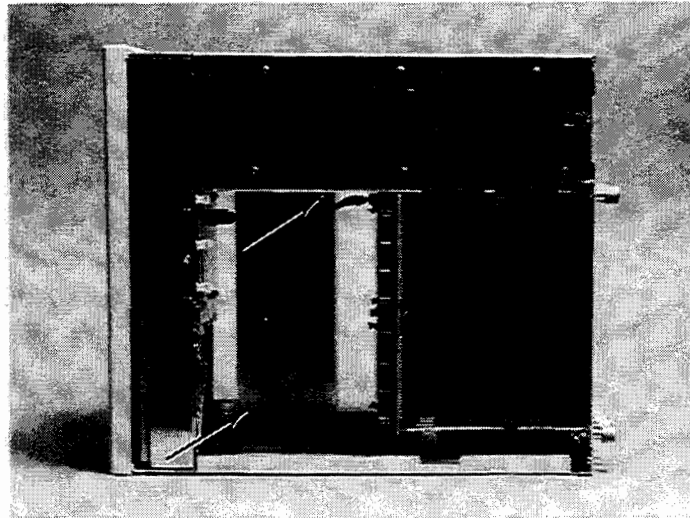
**Aligning the Expander**

8. Look through the expander bottom to see the five rivets. There is a hole for each in the expander bottom.



**Rivet Hole Locations**

9. When you can see all five rivets, gently lower the expander onto the computer. Do not push it down yet.
10. Now visually check that the expander is lined up exactly.
11. With the expander properly lined up, push down to bottom it onto the computer. If excessive force is needed, the alignment is not correct.
12. Now locate the holes for the two screws which fasten the expander to the computer. They go through the expander bottom and into the slotted top cover.



#### **Connecting Screw Holes**

13. Fasten the expander to the computer with the two pan-head screws. Make sure that the screws are tight, but don't overtighten them.

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#### **Note**

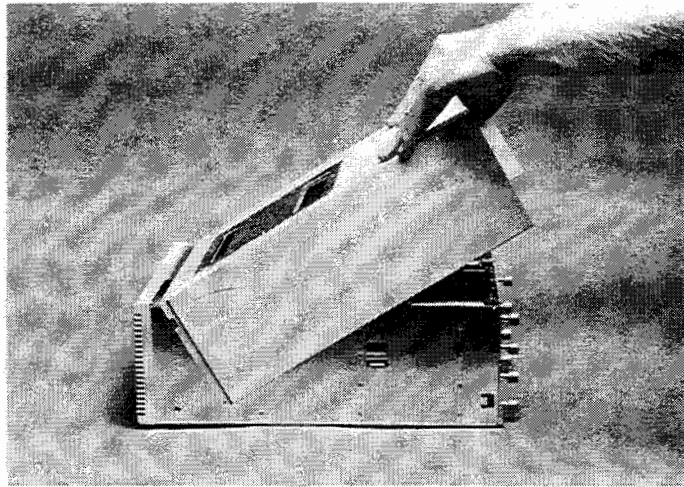
If you drop a screw through the slot, it will land on the top, wide system board installed in the computer. Retrieve the screw by loosening the top system board and carefully sliding it out of the backplane.

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Now that you have installed the expander chassis, continue with the section on "Finishing Up".

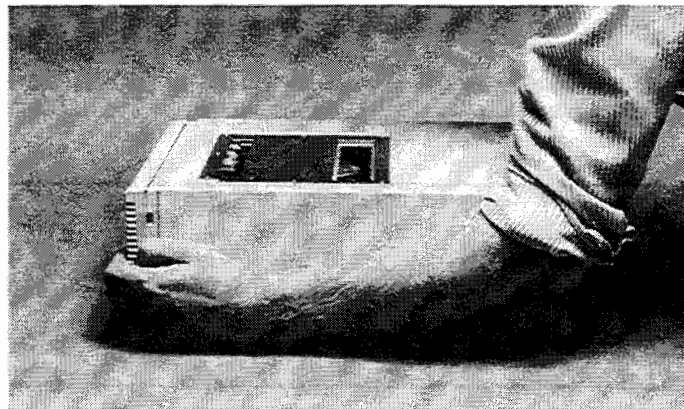
## Finishing Up

1. Install the computer top cover on the expander. Start the front edge first, at a 45° angle.



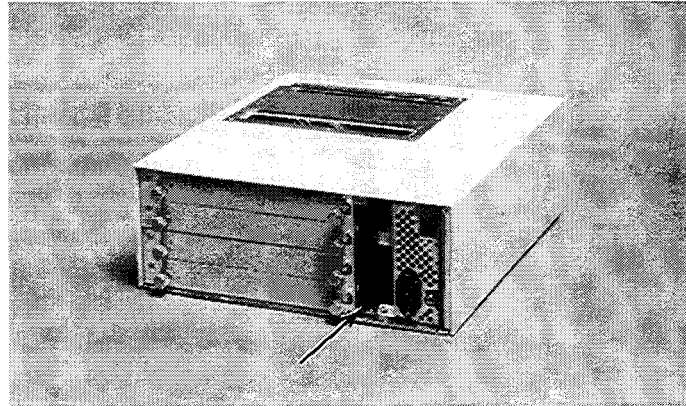
**Installing the Cover**

2. Press the slotted cover down, then slide it forward. Make sure that the bottom, rear corners of the top are seated in their retaining clips.



**Seating the Cover**

3. Now take a moment to record the serial numbers of the computer and expander. Serial numbers are located on the sheet metal base just inside the power supply access door.



#### Serial Number Location

Computer Serial Number \_\_\_\_\_

Expander Serial Number \_\_\_\_\_

4. Re-install the power supply access doors on the computer and expander and tighten the captive screws. Make sure that the “feet” on the bottom of the door are installed in their retaining slots.
5. Install any desired cards into the backplane. Refer to the installation instructions which accompanied them, or to the *Peripheral Installation Guide*.
6. When finished installing cards, connect the power cords to the computer and expander. The combined units are now ready for operation.

When finished with the installation, place this Note behind the **Add-on Accessories** tab of your *Installation Reference*.

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## In Case of Difficulty

If you experience any problems with the operation of the expander, contact your HP Sales and Service Office for assistance.

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Hewlett-Packard Company • 3404 East Harmony Road • Fort Collins, Colorado 80525

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