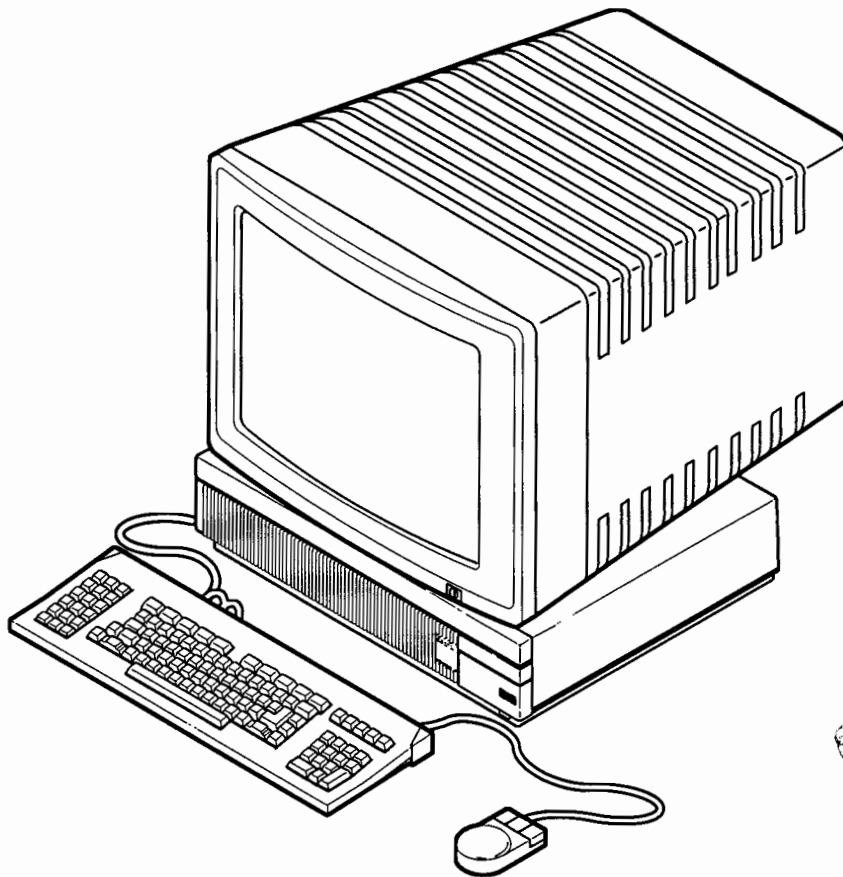


Installation Guide for

HP Apollo 9000 Model 720/730 Workstations and Servers



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Edition 2

HP Computer Museum
www.hpmuseum.net

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Emissions Regulations

Federal Communications Commission (FCC)

The Federal Communications Commission of the U.S. government regulates the radio frequency energy emanated by computing devices through published regulations. These regulations specify the limits of radio frequency emission to protect radio and television reception. All HP Apollo nodes and peripherals have been tested and comply with these limits. The FCC regulations also require that computing devices used in the U.S. display the agency's label and that the related documentation include the following statement.

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

Verband Deutscher Elektrotechniker (VDE)

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der HP Apollo rechner A1630 in Übereinstimmung mit den Bestimmungen der VDE 1046/84 funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Hewlett-Packard GmbH

VCCI Class 2 ITE Equipment

この装置は、第二種情報装置（住宅地域又はその隣接した地域において使用されるべき情報装置）で住宅地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

しかし、本装置をラジオ、テレビジョン受信機に近接してご使用になると、受信障害の原因となることがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Emissions Regulation Compliance

Any third-party I/O device installed in an HP Apollo Workstation must be in accordance with the requirements set forth in the preceding Emissions Regulations statements. In the event that a third-party noncompliant I/O device is installed, the customer assumes all responsibility and liability arising therefrom.

Considerations when choosing a site for your workstation/server:

- All of the workstation/server's components operate on either 115 Volts (60 Hertz) or 230 Volts (50 Hertz) input power. Both the U.S. and Canada provide 115 Volts (60 Hertz) input power.
- None of the workstation/server's components require special air conditioning for cooling. However, avoid operating your workstation/server in direct sunlight or in a confined area where heat build-up, chemicals, or dirt can shorten the working life of the components.
- Avoid operating the workstation/server in close proximity to radio, TV, or radar antennae to minimize erratic operation from strong electro-magnetic radiation.

Installation Tasks

Some workstation models have their graphics components in a separate cabinet other models have them in on a card in the System Unit cabinet. Servers do not have any graphics components.

1. Desktop installation or Deskside installation (see note below)
2. System Unit connections for workstations/servers
3. Graphics Unit connections for workstations
4. Graphics Monitor connections for workstations; System console connections for servers
5. Power on and booting the HP-UX operating system

Note: The components of the workstation/server are ready for desktop installations; some minor assembly of the floor stand to the System Unit is required for deskside installations.

Tools Required

- razor or small knife to open shipping cartons
- small flatblade screwdriver
- small (#1) Pozidrive or Phillips-head screwdriver

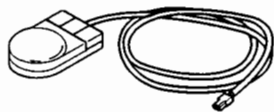
Where to Start

The tasks for *installing workstations* begins on the following page and continues to the middle of this document.

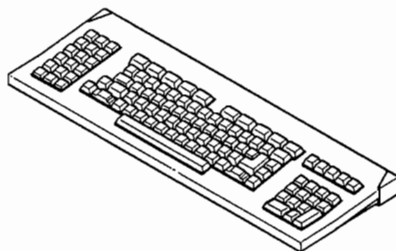
The tasks for *installing servers* begins after the workstation installation tasks on the page titled **Server Installation Tasks** and continues to the end of this document.

Use the checklist below to identify the **workstation's** components.

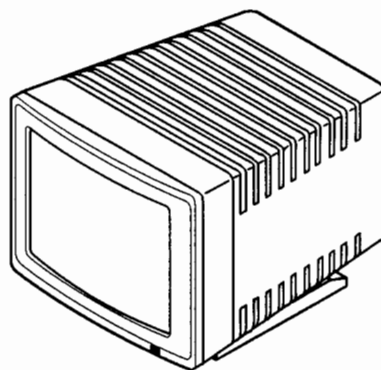
Unpack and inspect each item for visible damage. Contact the shipping company if any items on the packing list are missing or damaged.



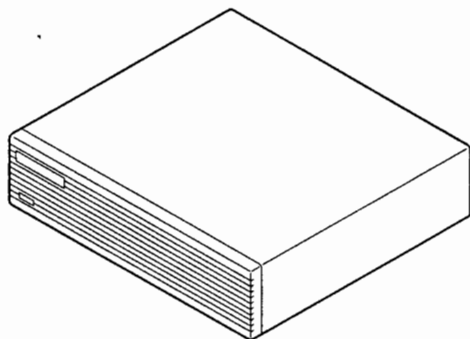
☐ Mouse



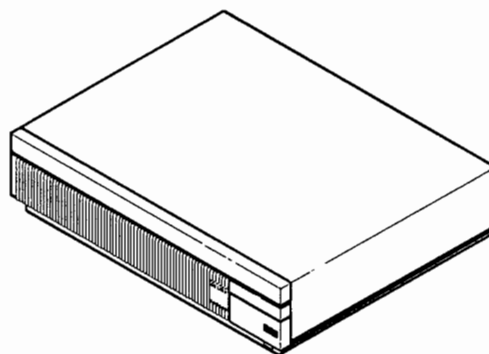
☐ Keyboard



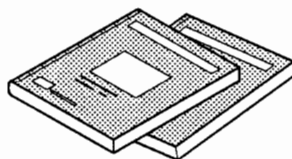
☐ Graphics Monitor
(color optional)



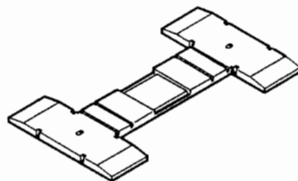
☐ External Graphics Unit
(optional)



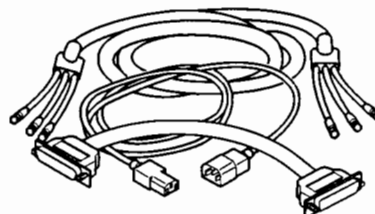
☐ System Unit



☐ Documentation



☐ System Unit Stand
(optional)

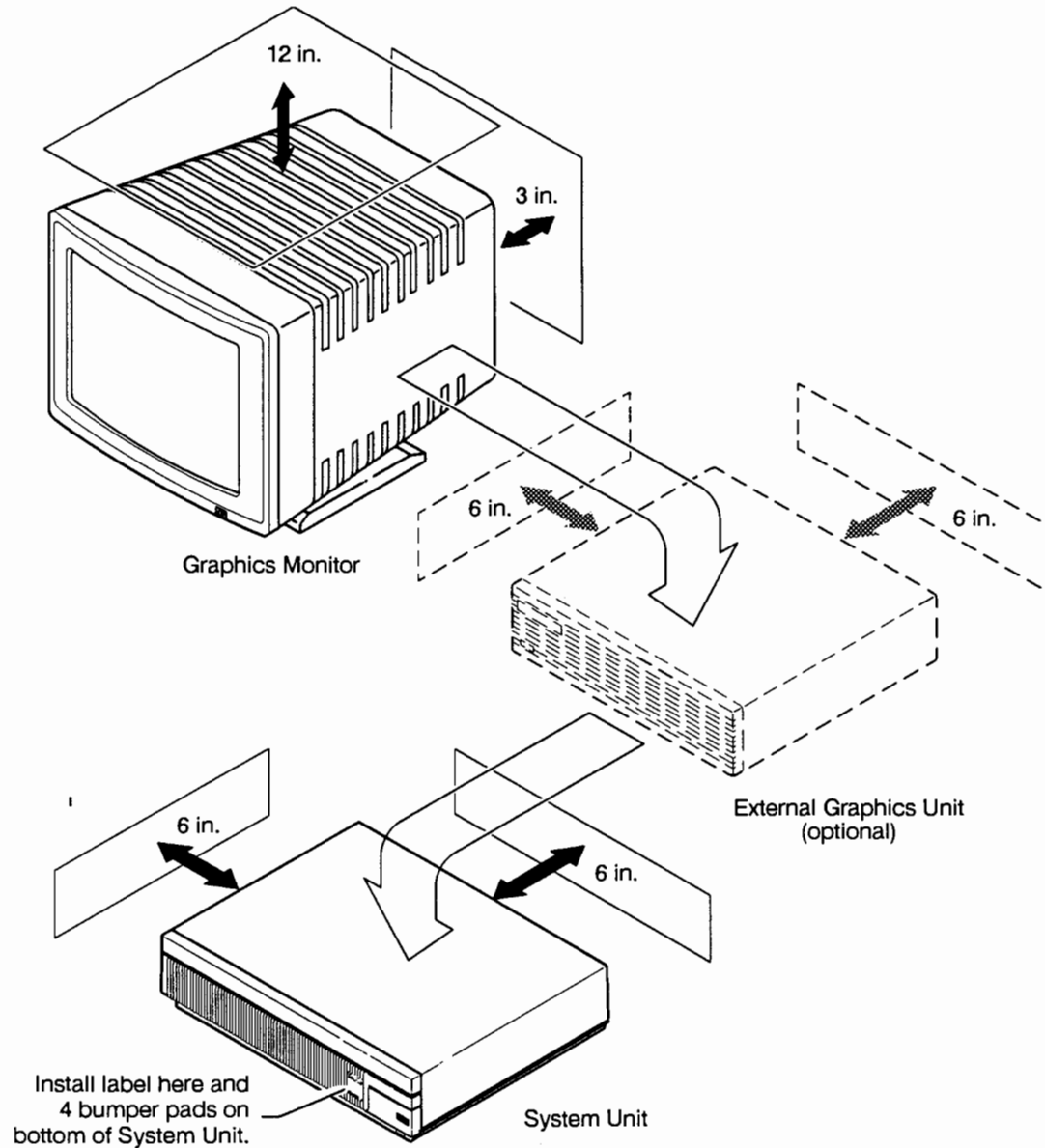


☐ Cables

1 – Desktop Installation

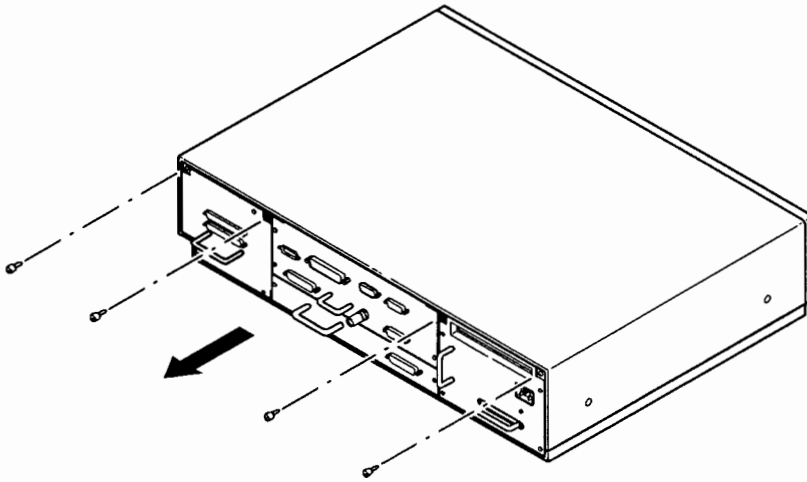
Skip this task if you are intending to do a Deskside installation. Place the components as shown for Desktop installation to allow for proper air flow. The (optional) External Graphics Unit should be placed on top of the System Unit.

Skip Deskside installation.

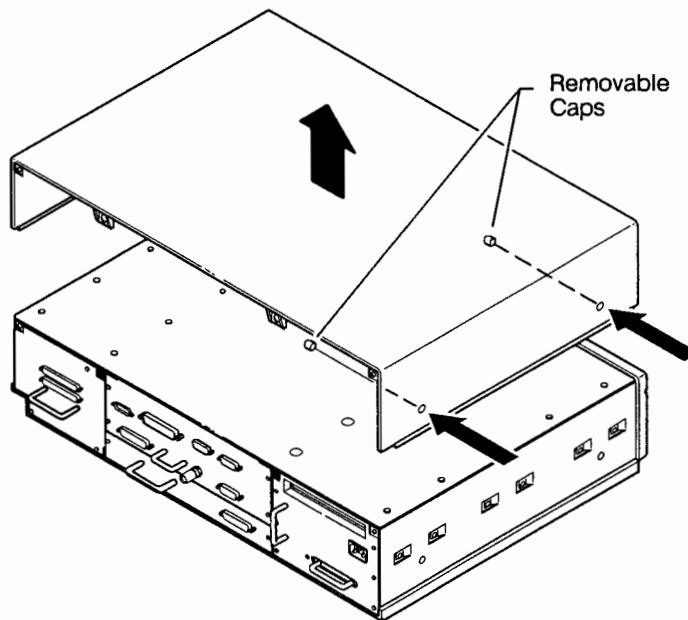


1 - Deskside Installation

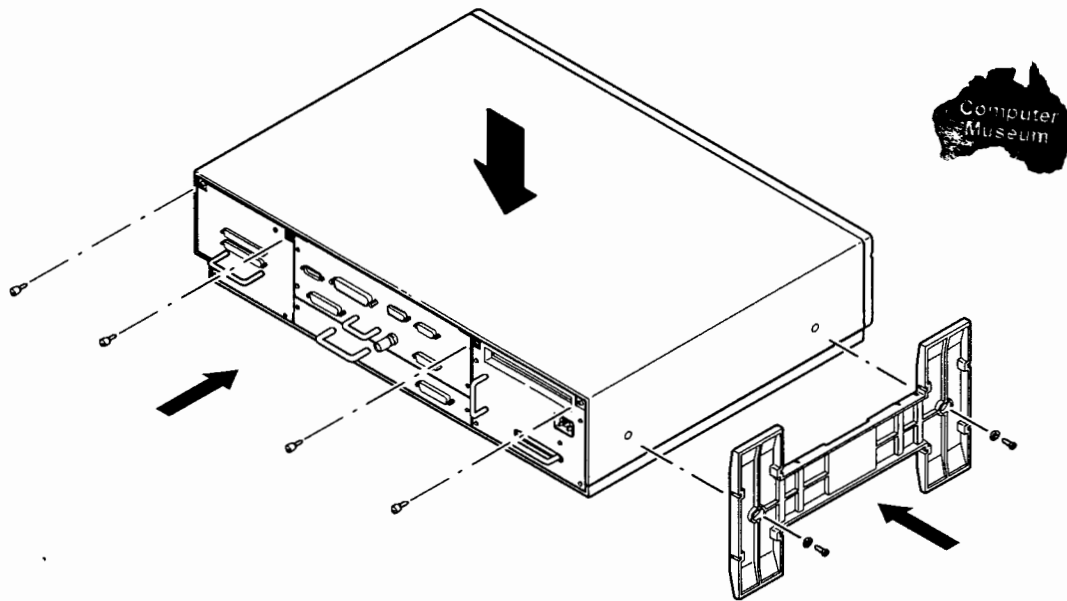
Use a Pozidrive or Phillips-head screwdriver to remove the 4 screws holding the plastic top panel to the System Unit.



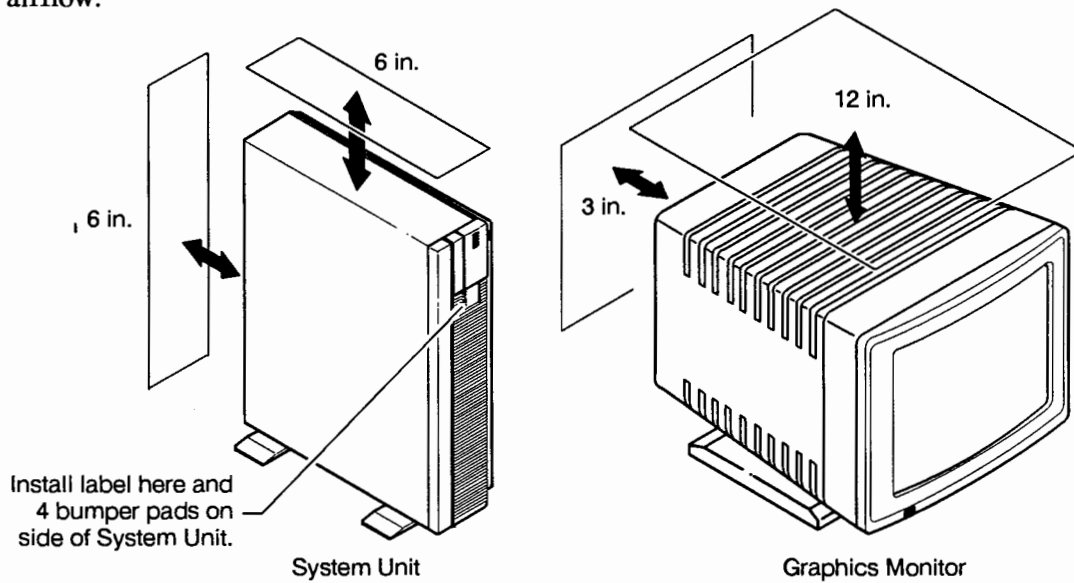
Lift and remove the top cover to gain access to the 2 plastic caps. Remove and discard both plastic caps.



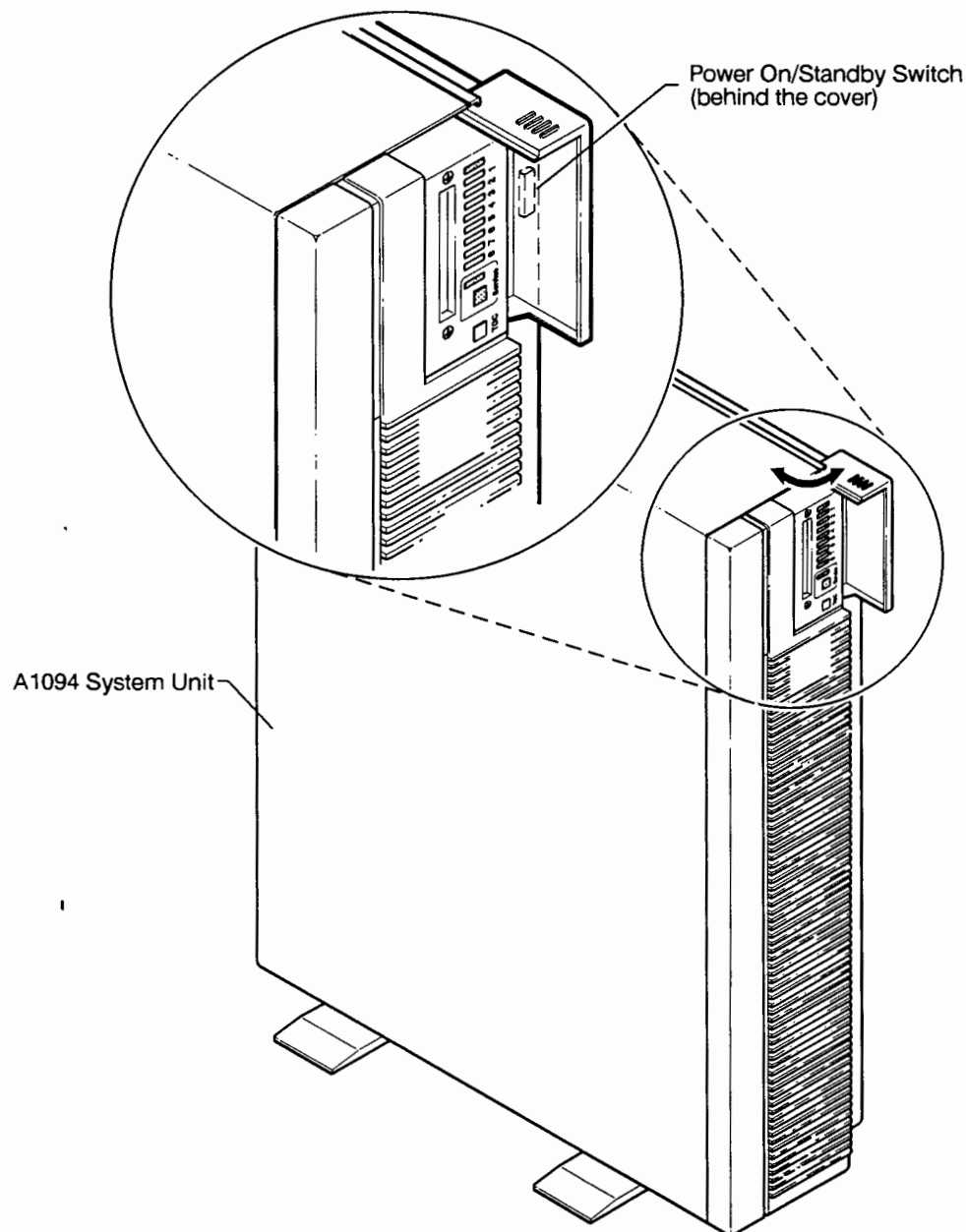
Reattach the plastic top cover to the System Unit. Use a Pozidrive or Phillips-head screwdriver to attach the floor stand to the top cover and System Unit.



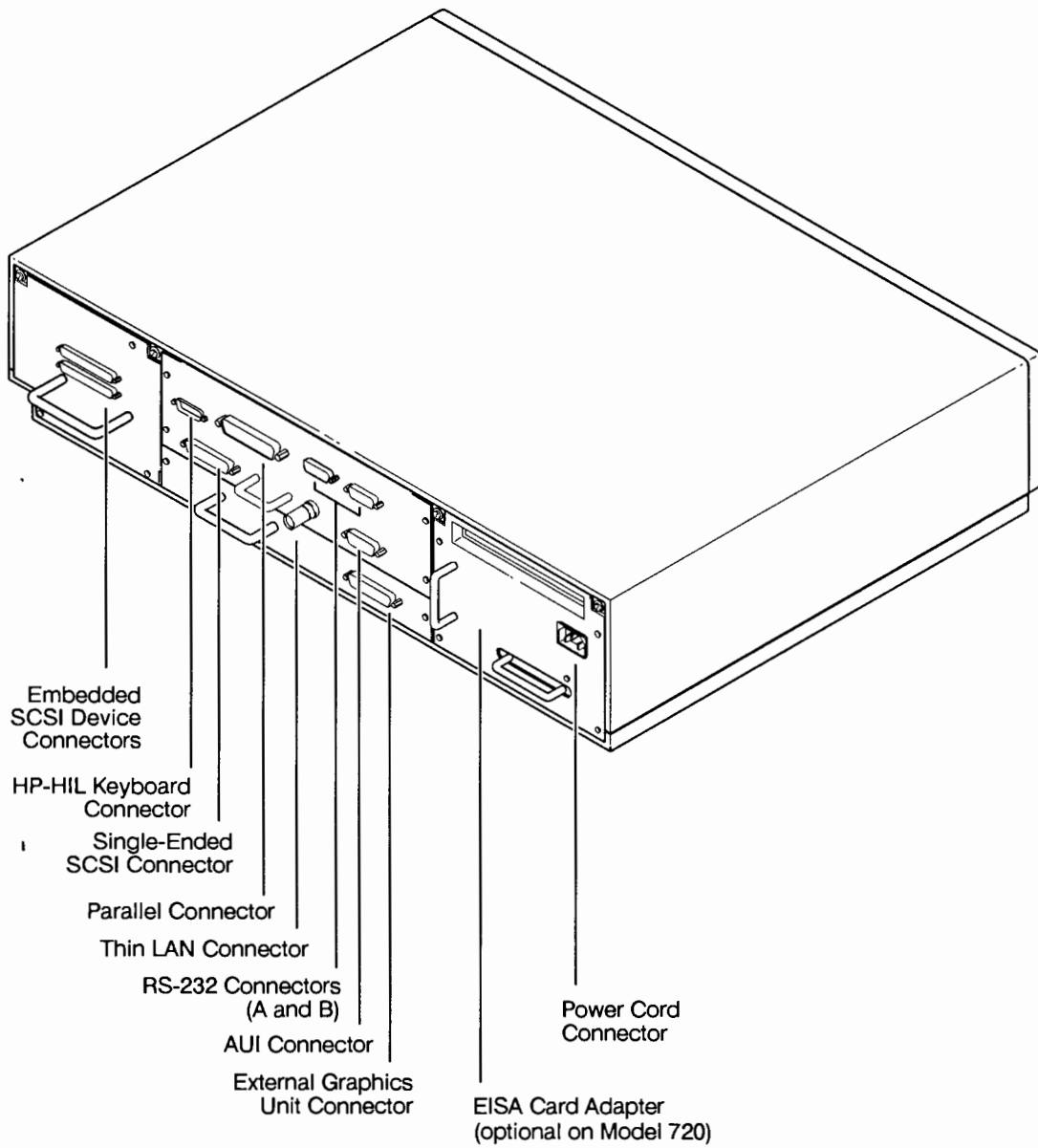
Position the components as shown below for Deskside installation to allow for proper airflow.



Familiarize yourself with the location of the front panel switches and LED indicators on the A1094 System Unit (front view, vertical position).



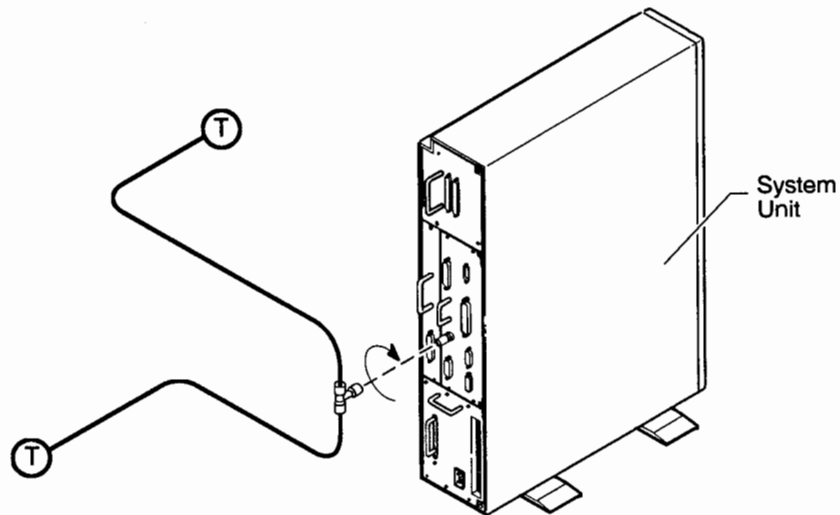
Familiarize yourself with the labels and locations of the connectors on the A1094 System Unit (rear view, horizontal position).



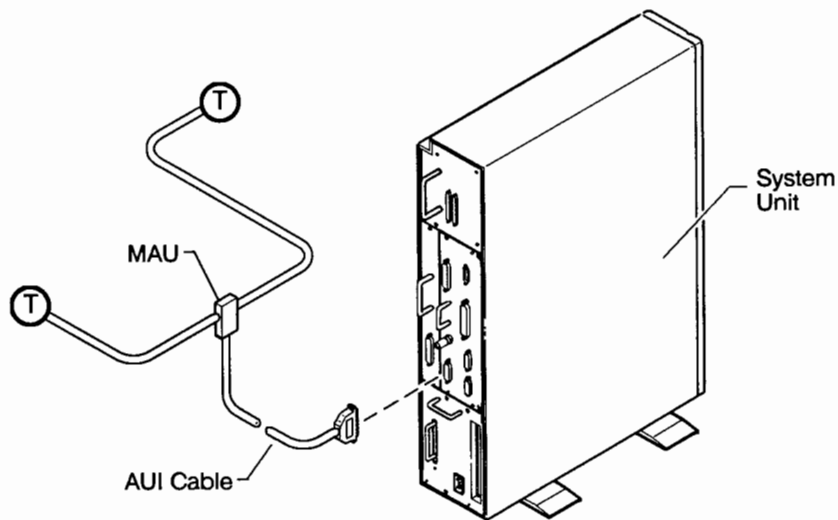
2a - System Unit Connections: Network

ThinLAN networks connect to the ThinLAN connector on the System Unit.

Note: LAN cables are not supplied with the workstation but must be provided.



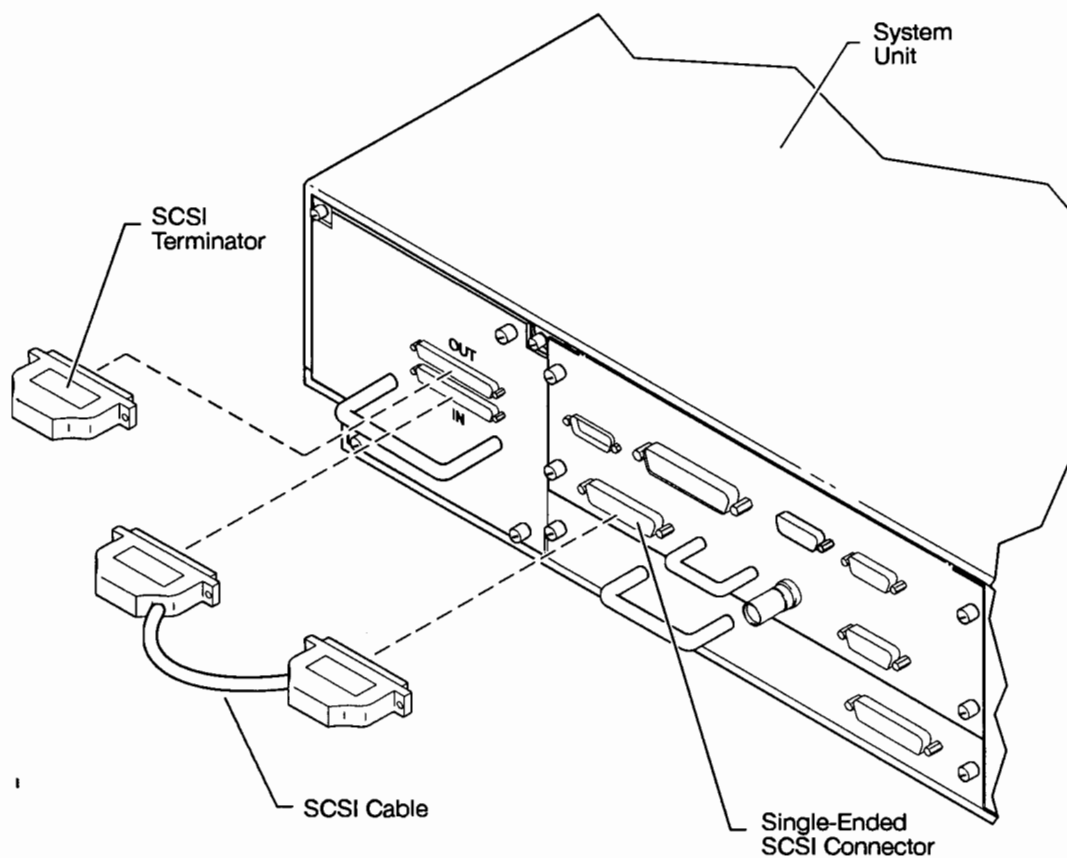
Thick LAN networks connect to the AUI connector on the System Unit.



2b – System Unit Connections: SCSI Devices

Skip this task if the SCSI cable and terminator are installed.

Connect the small SCSI cable and terminator as shown below for the embedded devices.

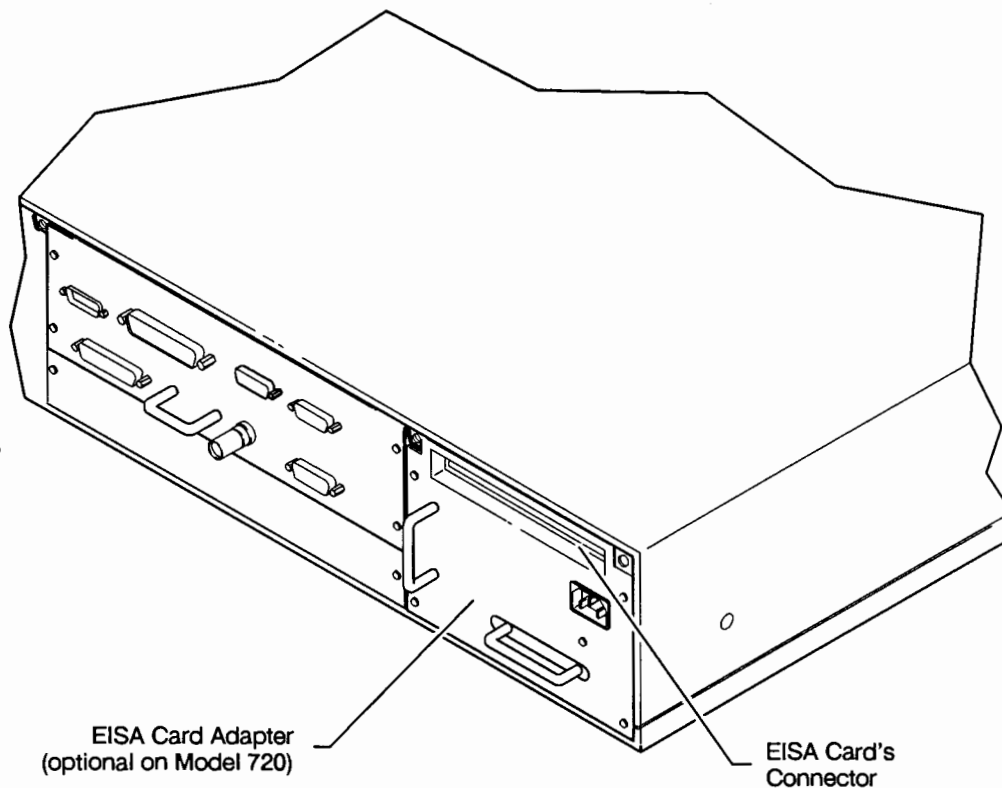


Additional external SCSI devices are connected to the SCSI "OUT" connector — however, the last SCSI device must be terminated.

Refer to accompanying device installation manuals.

2c – System Unit Connections: EISA Cards

Skip this task if there is no EISA card adapter in the A1094 System Unit Cabinet.



Refer to accompanying EISA card installation manual.

ESD Precautions:

- ☐ Wear a grounded static strap to discharge any accumulated electrostatic charge from your body when installing or removing the EISA card adapter.
- ☐ Handle EISA cards by their edges, once you have removed them from their protective anti-static bags.

2d - System Unit Connections: Keyboard and Mouse

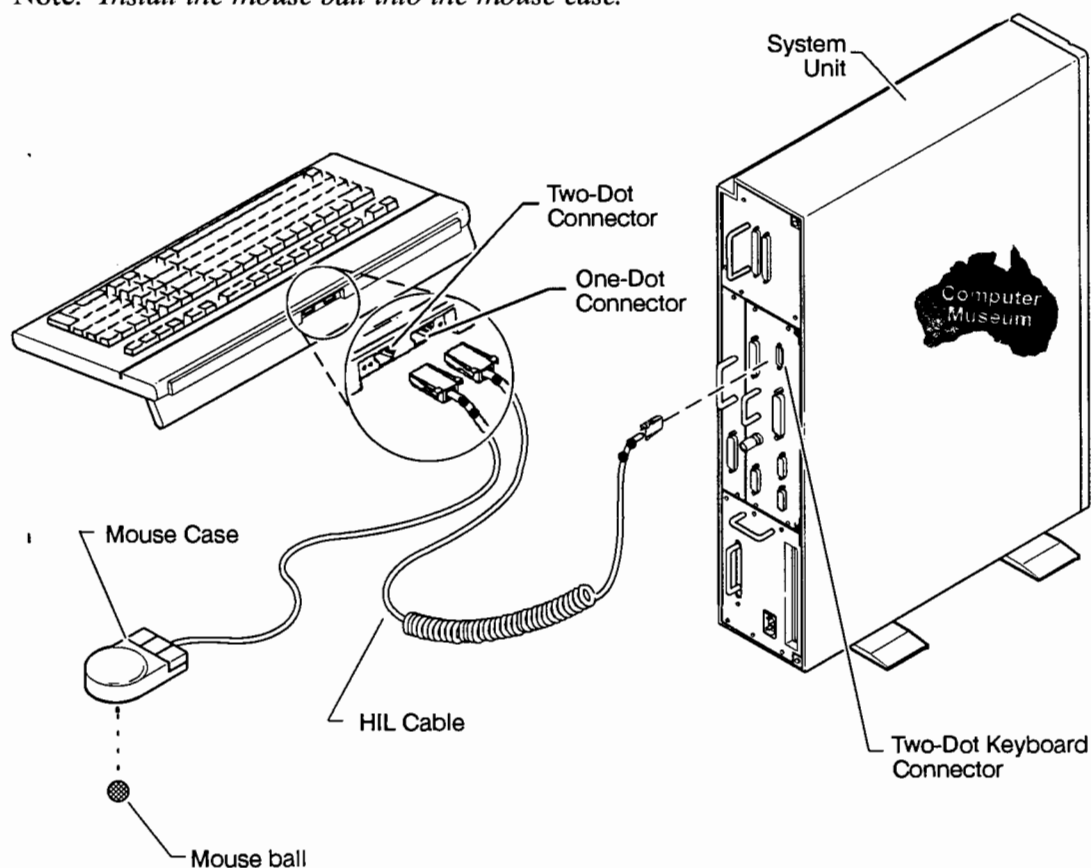
Connect the end of the HP-HIL cable that is marked with one dot (•) to the connector on the back of the keyboard that is also marked with one dot (•).

Connect the other end of that same HP-HIL cable that is marked with two dots (••) to the HP-HIL connector on the System Unit that is also marked with two dots (••) (or to the two-dot connector of the last HP-HIL device you plan to install).

Connect the end of the mouse cable to the two-dot (••) connector on the keyboard (or to the last HP-HIL device you plan to install).

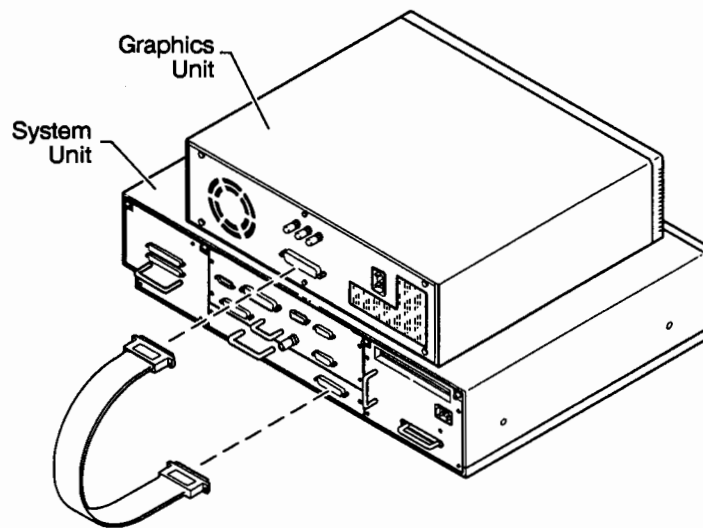
If you have any other HP-HIL Devices, install them at this time. Refer to the instructions supplied with the optional device for installation instructions.

Note: Install the mouse ball into the mouse case.



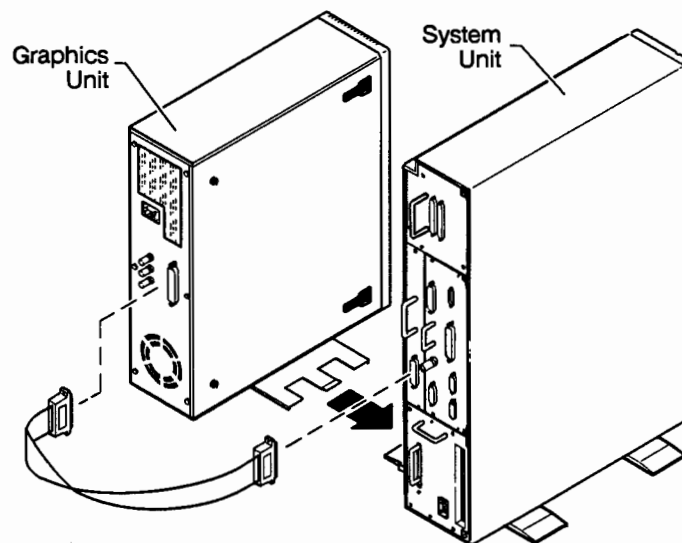
3 - External Graphics Unit Connections

Connect as shown below for Desktop installation.



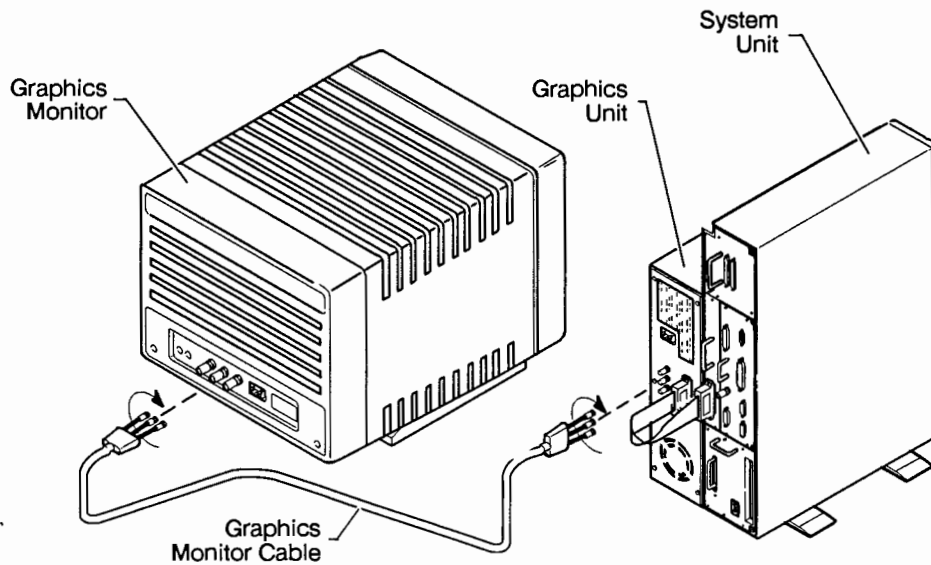
Connect as shown below for Deskside installation.

NOTE: Refer to the HP 98705A attachment kit (PN 98705-87904) for Deskside instructions for the Graphics Unit.

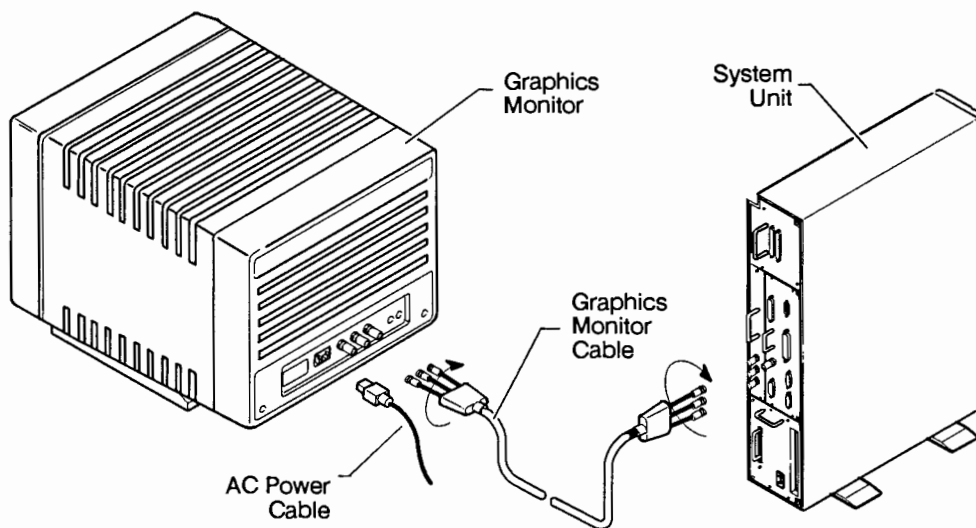


4 - Graphics Monitor Connections

Connect as shown below for Graphics Monitor connection with a Graphics Unit.



Connect as shown below for Graphics Monitor connection to an internal Graphics Card.



5 - WORKSTATION POWER-ON and BOOTING HP-UX

1). Connect the power cords from the System Unit, Graphics Unit, Monitor, and any external devices to the nearest AC power outlet. **DO NOT CONNECT POWER CORDS TO A POWER STRIP ...** as this may cause electrical shock.

Note: The correct power-on sequence is to power on any external devices, Graphics Unit, and the System Monitor first, and the System Unit last. **If any of the components appear dead:**

- Check all of the power cord connections and AC voltage settings.
- Check the operation of the "Power" switches on the System Unit, System Monitor, external devices, and external Graphics Unit.

If any of the workstation's components do NOT power up contact your HP Service Representative to inform him/her of the problem and to establish a plan of action.

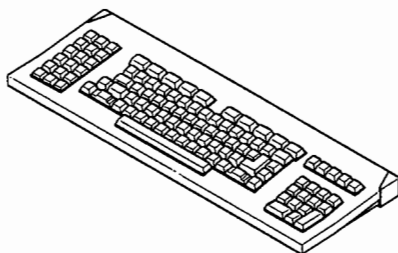
2). This is the end of the "Workstation Installation Tasks." Refer to "Starting Up Your Workstation" in chapter 2 of the document titled *HP Apollo 9000 Model 720/730 Owner's Guide for HP-UX Users*. (PN A1926-90001)

The remaining pages contain the tasks for SERVER installations.

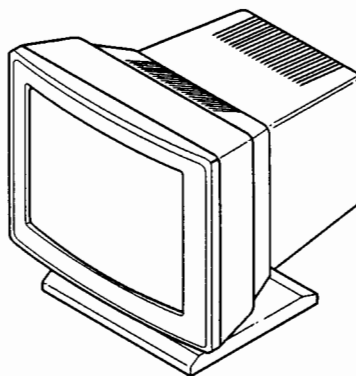
Server Installation Tasks

Use the checklist below to identify the server's components.

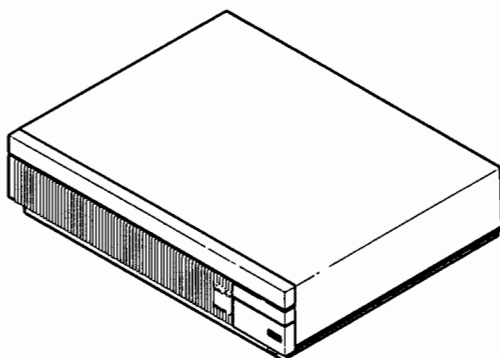
Unpack and inspect each item for visible damage. Contact the shipping company if any items on the packing list are missing or damaged.



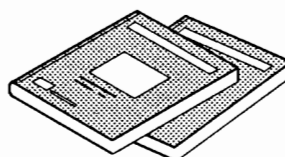
☐ Keyboard



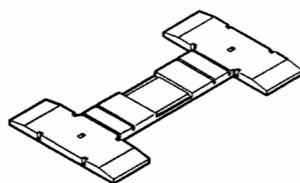
☐ System Console
(color optional)



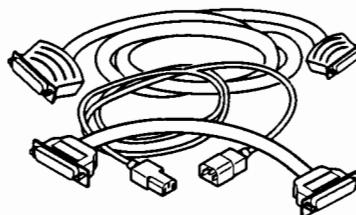
☐ System Unit



☐ Documentation



☐ System Unit Stand
(optional)

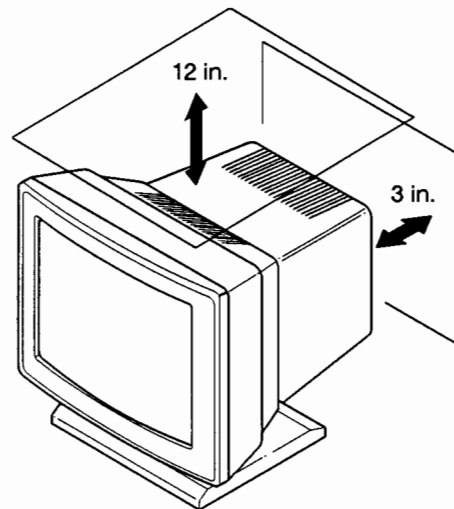


☐ Cables

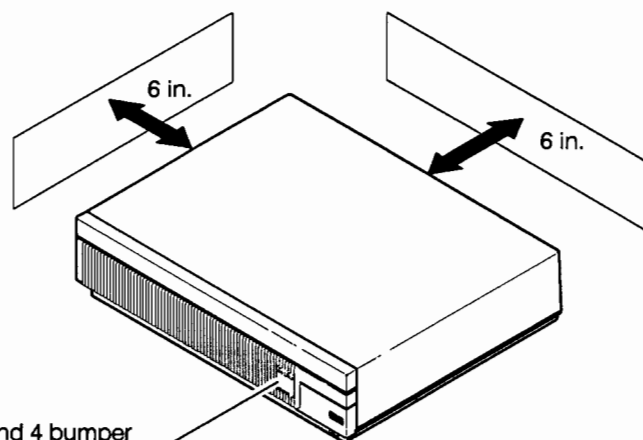
1 - Desktop Installation

Skip this task if you are intending to do a Deskside installation. Place the components as shown for Desktop installation to allow for proper air flow. The System Console should be placed on top of the System Unit.

Skip Deskside installation.



System Console

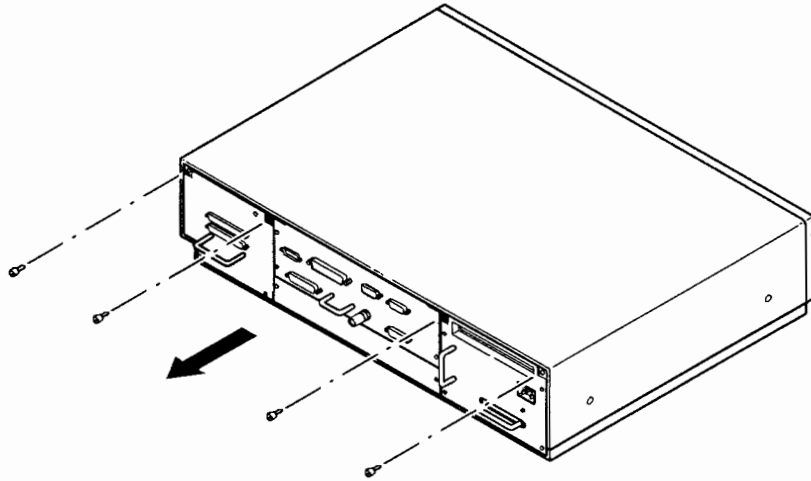


Install label here and 4 bumper pads on bottom of System Unit.

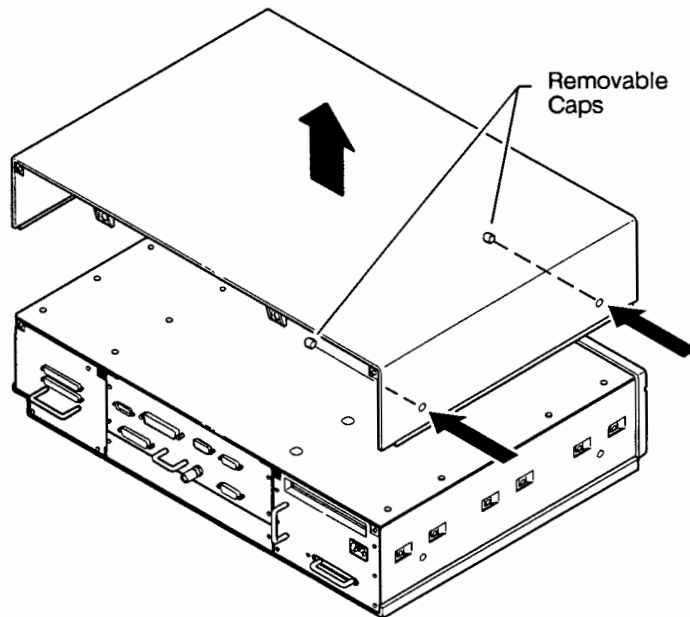
System Unit

1 - Deskside Installation

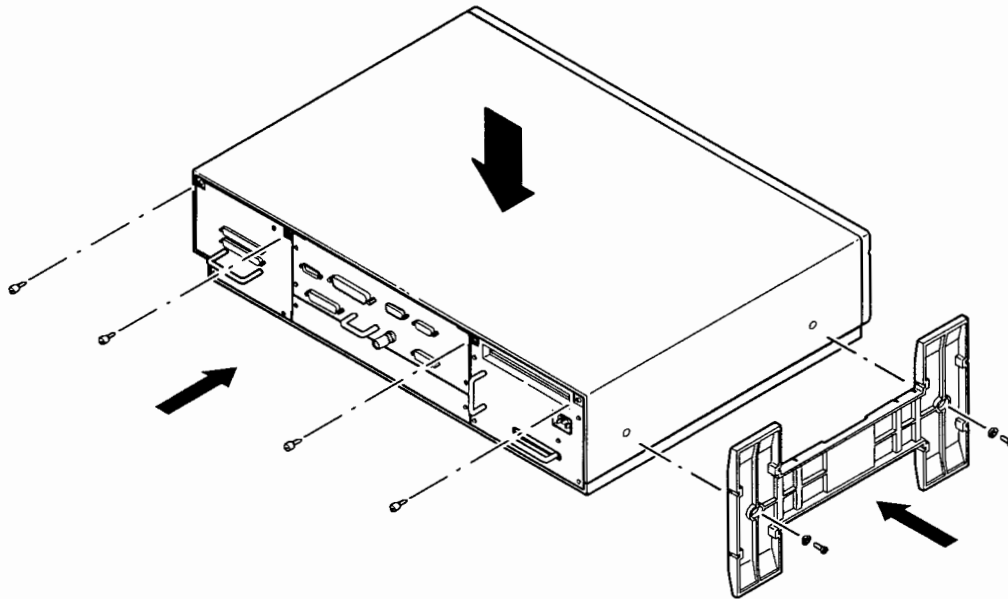
Use a Pozidrive or Phillips-head screwdriver to remove the 4 screws holding the plastic top panel to the System Unit.



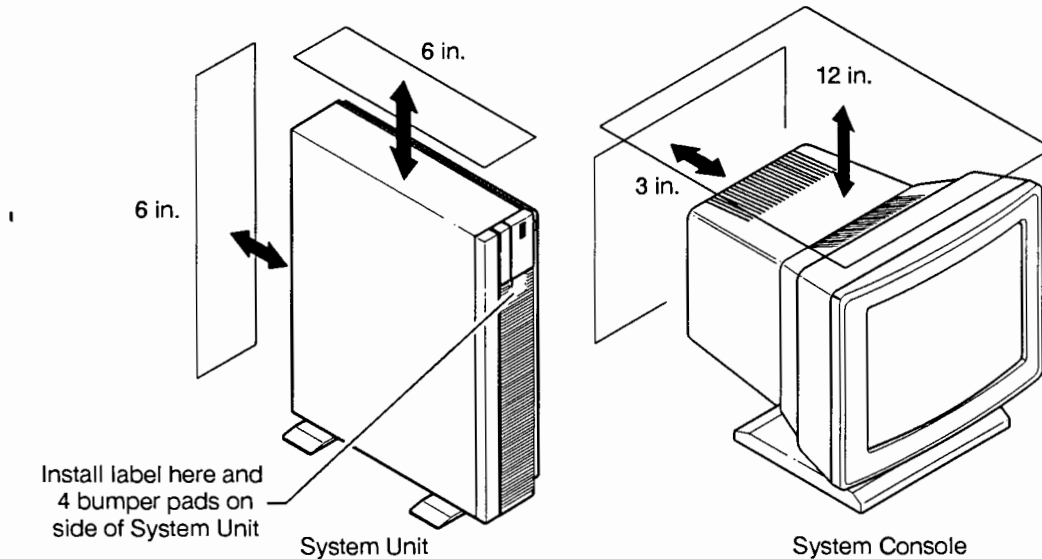
Lift and remove the top cover to gain access to the 2 plastic caps. Remove and discard both plastic caps.



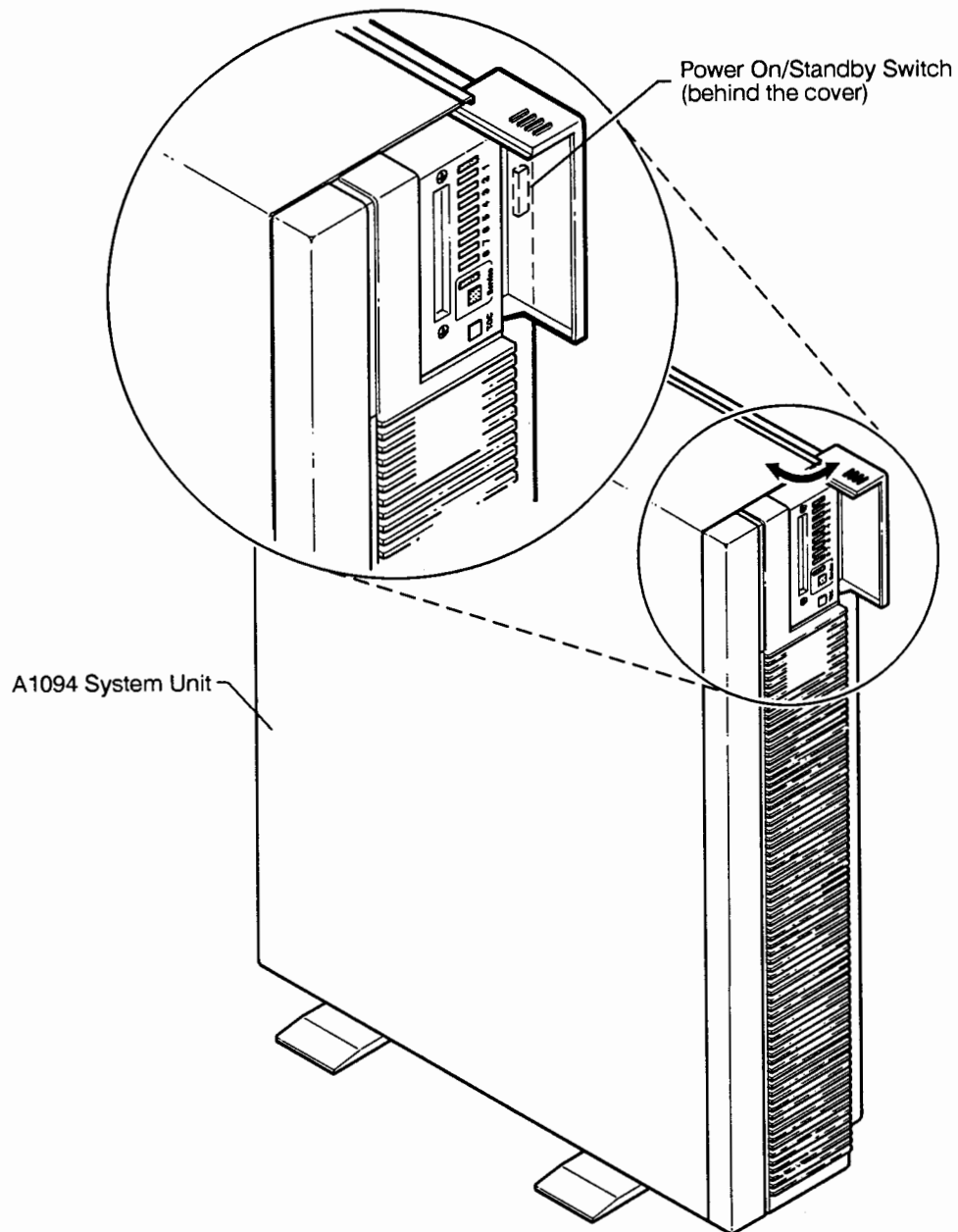
Reattach the plastic top cover to the System Unit. Use a Pozidrive or Phillips-head screwdriver to attach the floor stand to the top cover and System Unit.



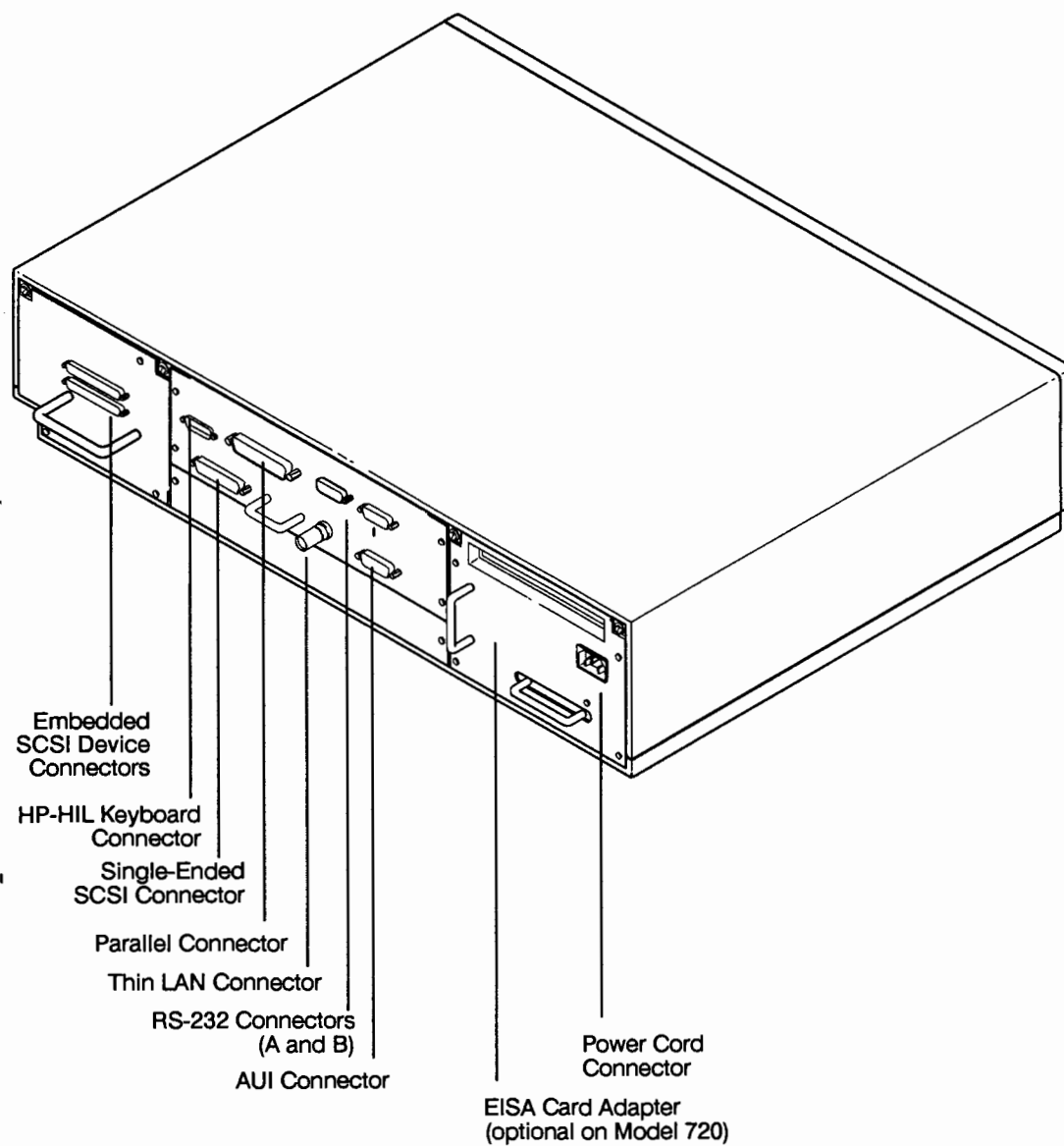
Position the components as shown below for Deskside installation to allow for proper airflow.



Familiarize yourself with the location of the front panel switches and LED indicators on the A1094 System Unit (front view, vertical position).



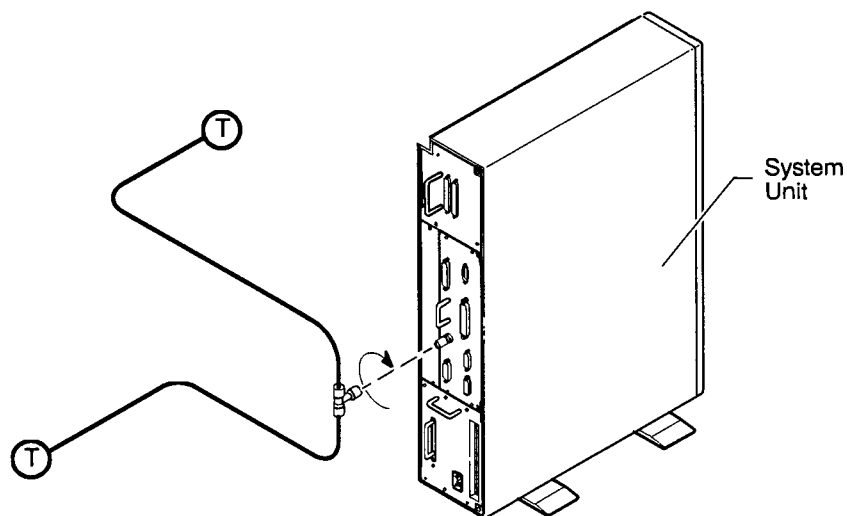
Familiarize yourself with the labels and locations of the connectors on the A1094 System Unit (rear view, horizontal position).



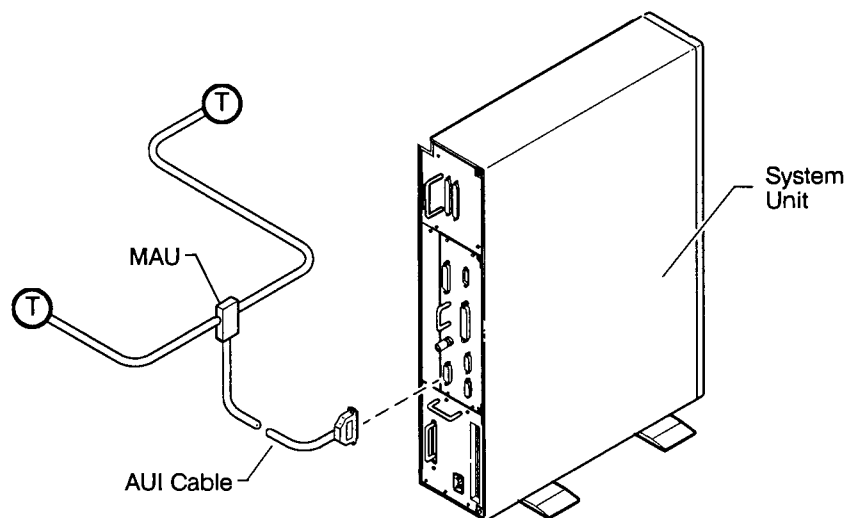
2a – System Unit Connections: Network

ThinLAN networks connect to the ThinLAN connector on the System Unit.

Note: LAN cables are not supplied with the workstation but must be provided.



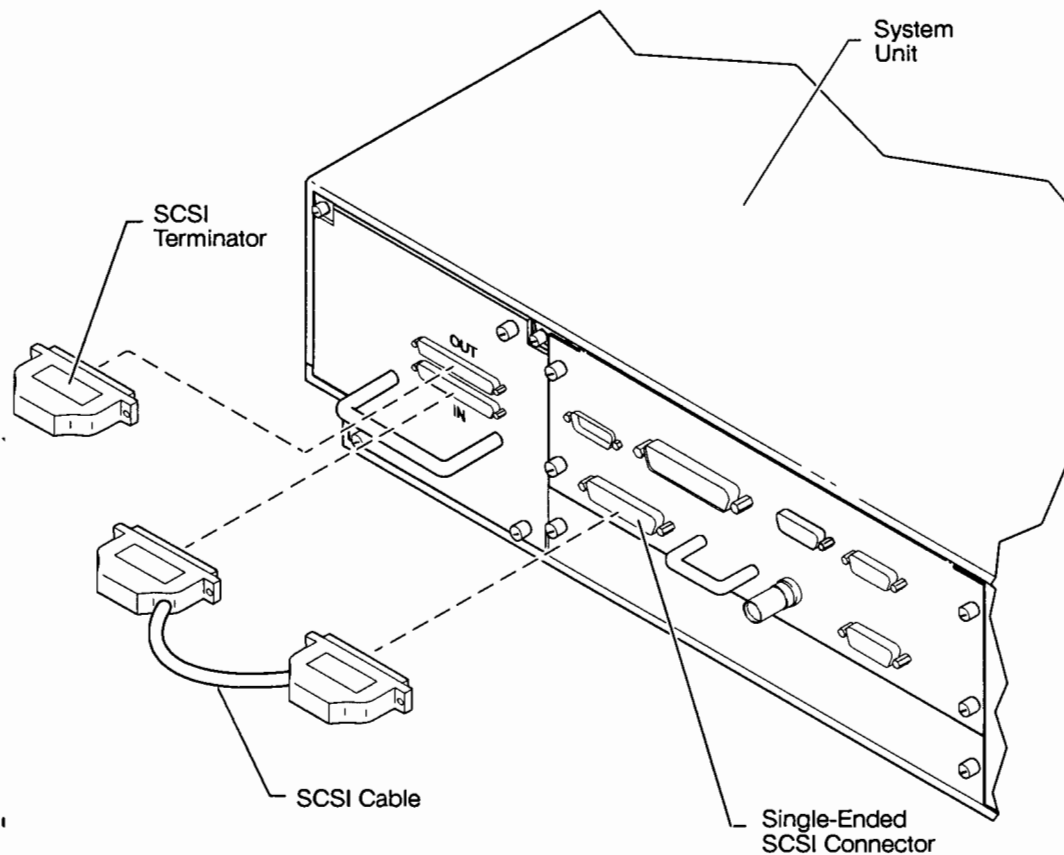
Thick LAN networks connect to the AUI connector on the System Unit.



2b – System Unit Connections: SCSI Devices

Skip this task if the SCSI cable and terminator are installed.

Connect the small SCSI cable and terminator as shown below for the embedded devices.

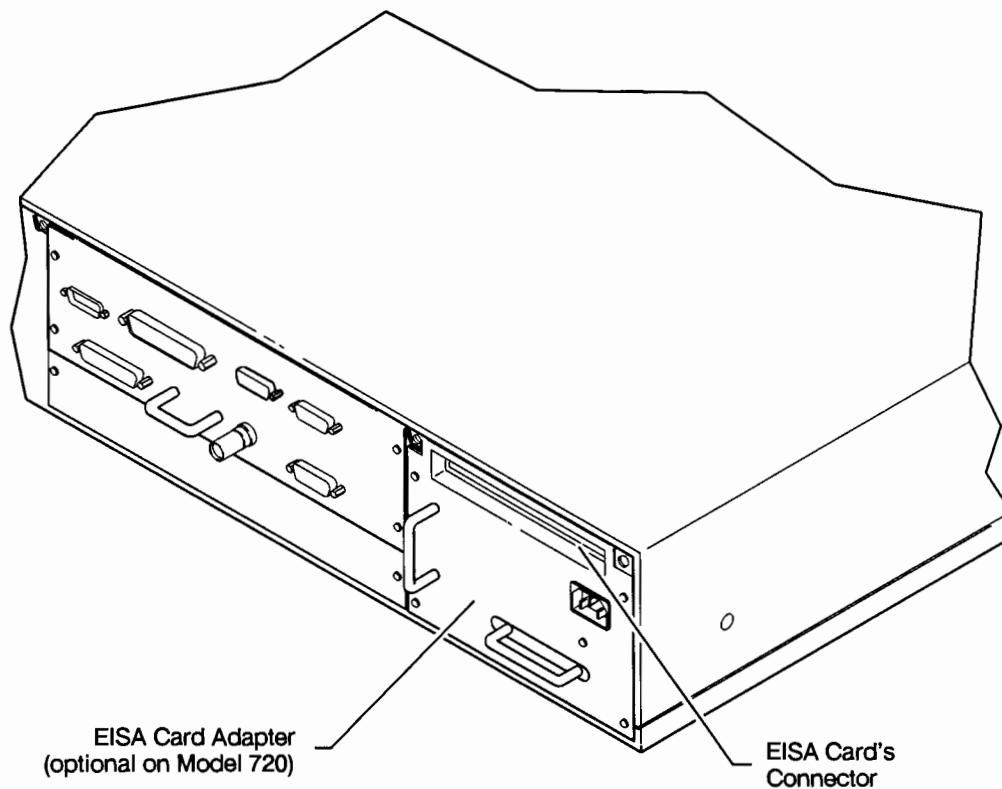


Additional external SCSI devices are connected to the SCSI "OUT" connector — however, the last SCSI device must be terminated.

Refer to accompanying device installation manuals.

2c – System Unit Connections: EISA Cards

Skip this task if there is no EISA card adapter in the A1094 System Unit Cabinet.



Refer to accompanying EISA card installation manual.

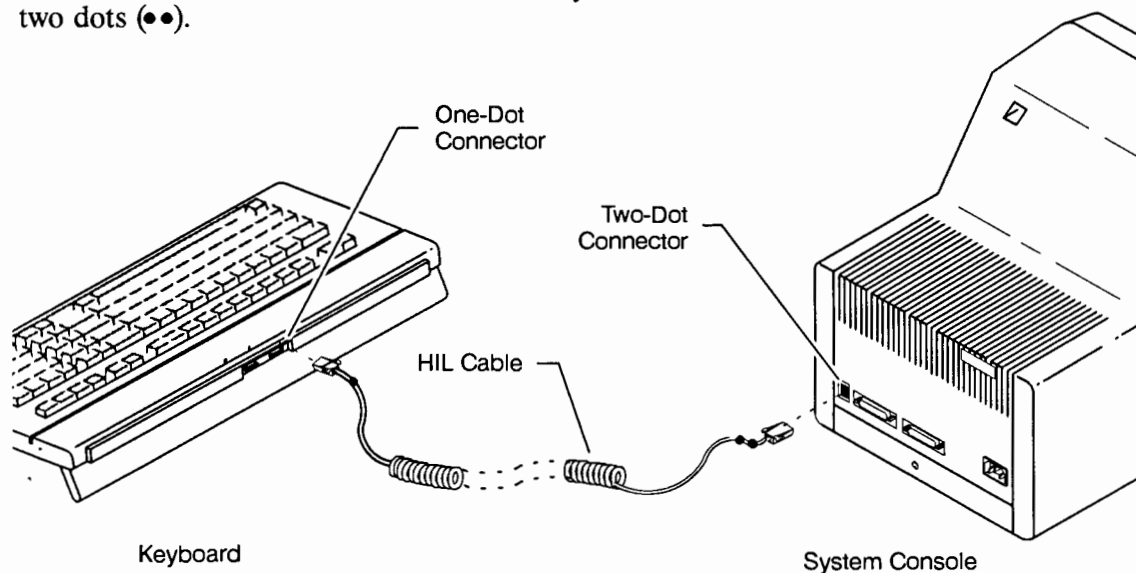
ESD Precautions:

- ☐ Wear a grounded static strap to discharge any accumulated electrostatic charge from your body when installing or removing the EISA card adapter.
- ☐ Handle EISA cards by their edges, once you have removed them from their protective anti-static bags.

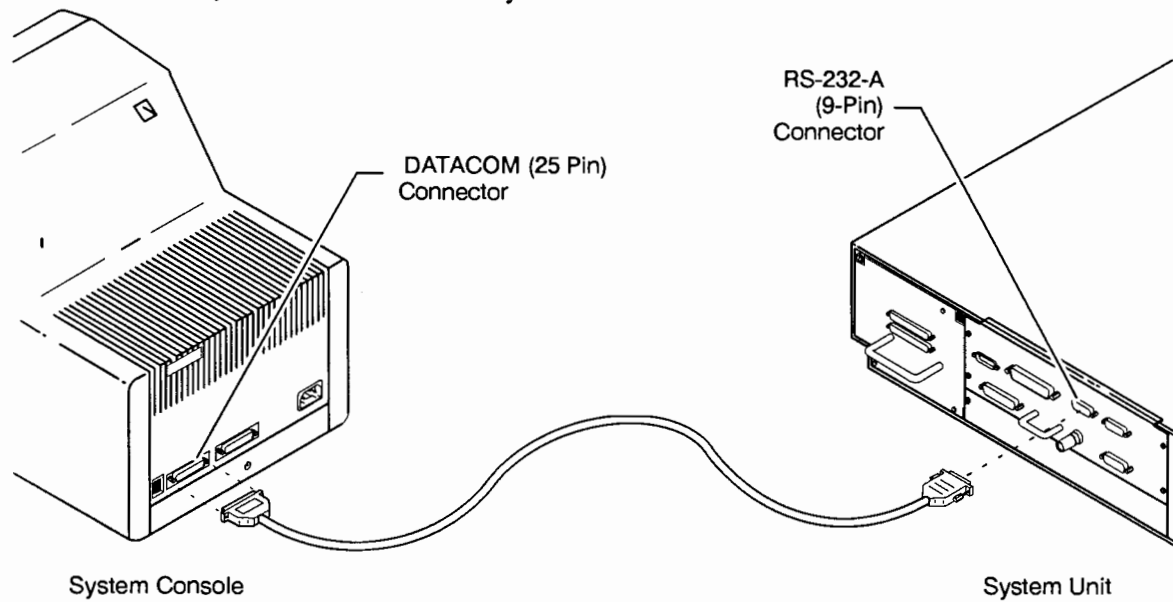
3 - System Console Connections

Connect the end of the HP-HIL cable that is marked with one dot (●) to the connector on the back of the keyboard that is also marked with one dot (●).

Connect the other end of the same HP-HIL cable that is marked with two dots (●●) to the HP-HIL connector on the back of the System Console that is also marked with two dots (●●).



Connect the System Console to the System Unit as shown.



4 - SERVER POWER-ON and BOOTING HP-UX

1). Connect the power cords from the System Unit, System Console, and any external devices to the nearest AC power outlet. **DO NOT CONNECT POWER CORDS TO A POWER STRIP ...** as this may cause electrical shock.

Note: The correct power-on sequence is to power on any external devices and the System Console first, and the System Unit last. **If any of the components appear dead:**

- Check all of the power cord connections and AC voltage settings.
- Check the operation of the "Power" switches on the System Unit, System Console, and external devices.

If any of the server's components do NOT power up contact your HP Service Representative to inform him/her of the problem and to establish a plan of action.

2). This is the end of the "Server Installation Tasks." Refer to "Starting Up Your Workstation" in chapter 2 of the document titled *HP Apollo 9000 Model 720/730 Owner's Guide for HP-UX Users*. (PN A1926-90001)



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A1926-90604

