

HP A1896A and HP A1897A Cabinet

Installation Guide

for

HP 9000 D-Class Enterprise Servers



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1 Introduction

The HP 9000/D2xx and D3xx Class of servers can be mounted into a cabinet to consolidate the pieces of the core system. The cabinet is available in a 1.1 meter (44.3 inches) size (A1896A) and a 1.6 meter (63.8 inches) size (A1897A). Both cabinets have a usable depth of .905 meter (35.6 inches). The cabinets have mounting columns to receive equipment with EIA standard 19 inch mounting flanges.

Inspecting the Shipment

When the shipment arrives, make sure the cabinet has been received as specified by the carrier's bill of lading. Inspect the shipping container for evidence of mishandling during transit. If the container is damaged or water-stained, ask that the carrier's agent be present when the cabinet is unpacked. Refer to the instructions described in the *Claims Procedure* section. If everything appears to be in satisfactory condition, proceed with the unpacking instructions.

NOTE Do not discard or destroy the shipping container or the packaging material. If it becomes necessary to repackage the cabinet, these items will be needed. HP also suggests that you keep this manual, in case you later have to repackage the cabinet for shipment.

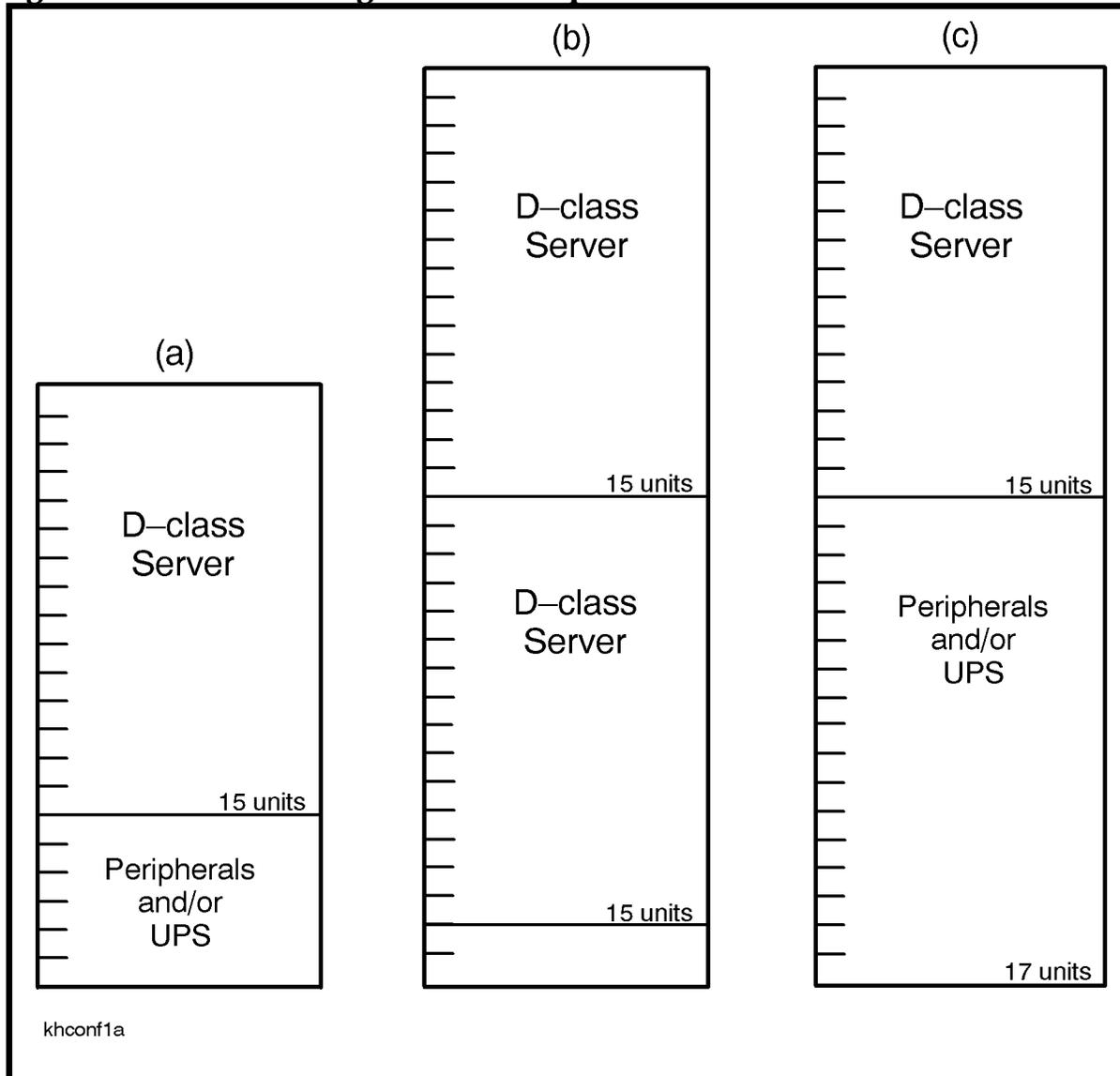
Claims Procedure

If the shipment is incomplete or if the equipment is damaged or fails to meet specifications, notify the nearest Hewlett-Packard Sales and Support Office. If damage occurred in transit, notify the carrier as well. Hewlett-Packard will arrange for replacement or repair without waiting for settlement of claims against the carrier. If the shipment was damaged in transit, keep the shipping containers and packaging material for inspection.

Cabinet Configurations

Although the cabinets are designed to accommodate a variety of components mounted in just about any configuration, there are some basic rules that apply to mounting a computer system. These rules allow for weight distribution, accessibility of the components, and cable management inside the rack-mount cabinet. Figure 1-1 shows some example configurations.

Figure 1-1 Cabinet Configuration Examples



Required Tools

Before beginning the installation process, make sure you have the necessary tools.

1. Standard hand tools (including Torx-drive set and voltmeter).
2. Flat-blade screwdriver, 3/16-inch by 9 inches long.
3. Open-ended 9/16-inch wrench.

2 Site Requirements

This chapter describes the site requirements for the installation of an HP A1896A or HP A1897A cabinet. There is no HP site preparation required for the rack-mount cabinets.

There are some customer site preparation requirements. The customer is responsible for having the proper type and amount of electrical outlets at the cabinet site. The customer must also be aware of any system site requirements that the computer in the cabinet may have. Be sure to check all site requirements before installing any equipment. Refer to Table 2-1 for the cabinet physical specifications, and Table 2-2 for the cabinet electrical requirements. Table 2-1 shows the types of receptacles that are needed to match the power cords for specific cabinet power configurations.

NOTE There are no special environmental site requirements for the HP A1896A or HP A1897A cabinets, or the computer systems contained in them.

Table 2-1 Physical Specifications

Cabinet	specifications
All Models	Width: 600 mm (23.6 in) Depth: 905 mm (35.6 in) Cooling and access space: 610 mm (24 in), front and rear
A1897A	Height: 1.6 meter (63.8 inches)
A1896A	Height: 1.1 meter (44.3 inches)

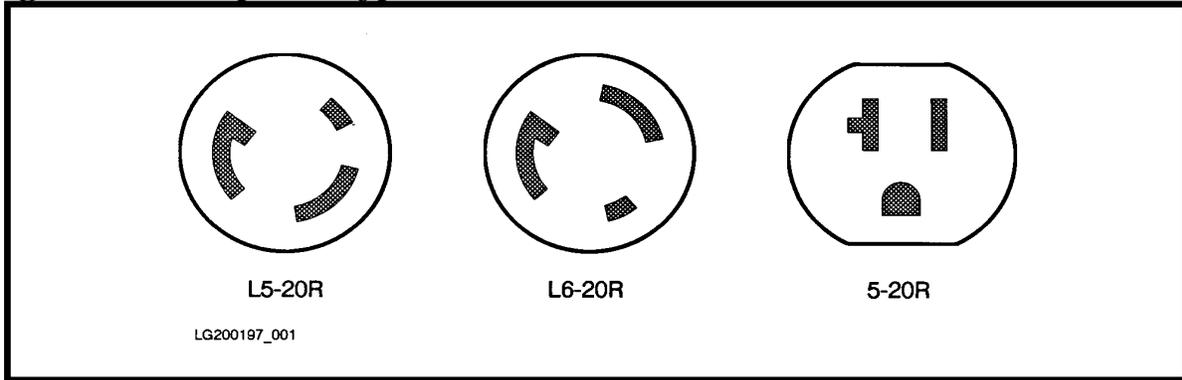
Table 2-2 Power Requirements

Cabinet	PDU V/A	Plug Type	Receptacle Type	# IEC 320 Outlets
A1896A (1.1 meter)	US 100-129V/50/60HZ, 16A max	NEMA 5-20P	NEMA 5-15	6
	US 208-240V/50/60Hz, 16A max	NEMA L6-20P	NEMA L6-20R	10
	Europe 230V/50/60Hz, 16A max	Cable no plug	Country dependent	10
A1897A (1.6 meter)	US 208-240V/50/60Hz, 16A max	NEMA L6-20P	NEMA L6-20R	10
	Europe 230V/50/60Hz, 16A max	Cable no plug	Country dependent	10

Refer to Figure 2-1 for the type of receptacle required to accommodate the cabinet power cords.

NOTE The cabinets that are sold in Europe are shipped without a power plug on the end of the PDU cable. It is the responsibility of the customer to supply the correct plug and receptacle for the particular country and electrical code, or have the power cord wired to the power outlet.

Figure 2-1 Receptacle Types



CAUTION Ensure external power connection matches voltage settings of all products in this cabinet.

3 Unpacking and Installation

This chapter describes how to unpack the A1896A or A1897A cabinet assembly. Both cabinets are shipped on a pallet. The instructions for unpacking are the same for both the A1896A and A1897A cabinet.

It is the customer's responsibility to inspect the shipping package for shipping damage.

It is the Hewlett-Packard Customer Engineer's responsibility to remove the cabinet assembly from the shipping pallet.

NOTE	Do not discard or destroy the shipping container or the packaging material. If it becomes necessary to repackage the cabinet, these items will be needed. HP also suggests that you keep this manual, in case you later have to repackage the cabinet for shipment.
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Unpacking the Cabinet Assembly

All cabinet types are packaged the same way. Be sure to read the unpacking instructions before proceeding.

WARNING A fully configured 1.6 meter cabinet (A1897A) can weigh up to approximately 362.8 kg (800 lbs). Be very careful when unpacking the cabinet.

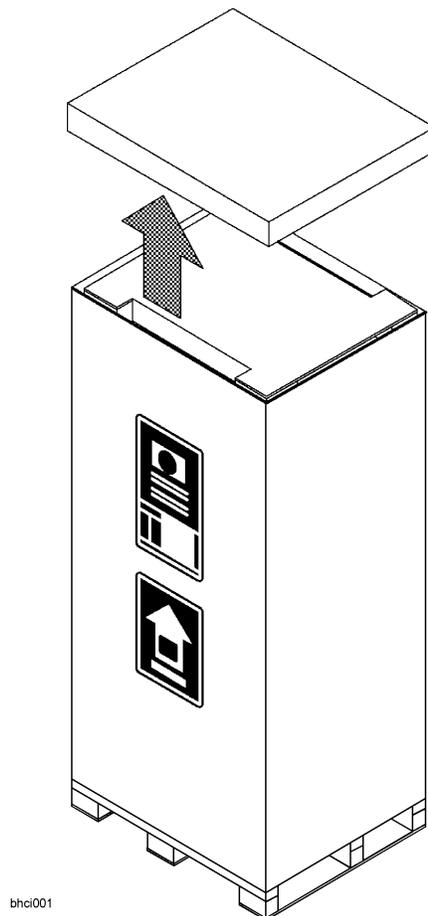
To unpack an A series cabinet, perform the following steps:

1. Cut the plastic polystrap bands around the shipping container.

WARNING Wear protective glasses while cutting the plastic bands around the shipping container. These bands are under tension. When cut, they can spring back and cause serious eye injury.

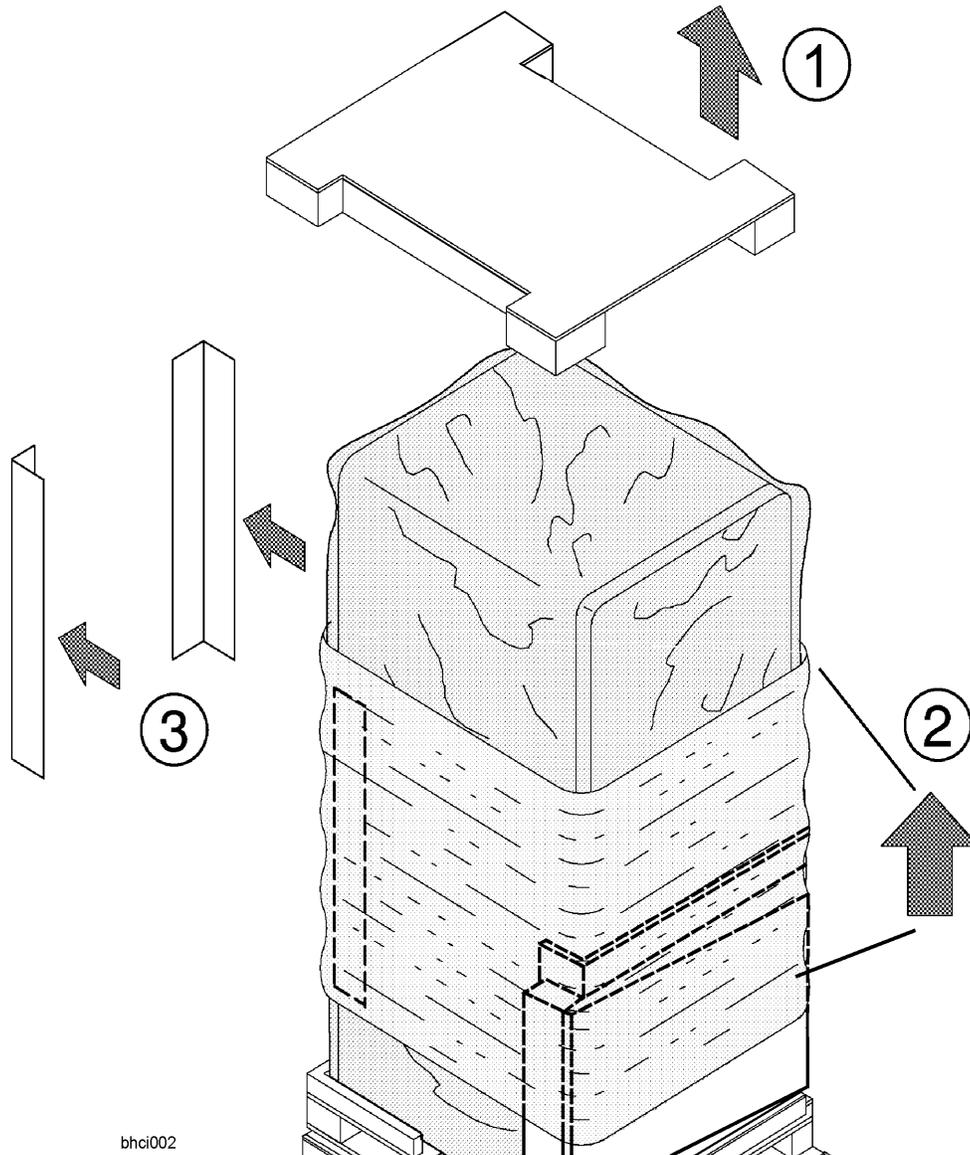
2. Lift the cardboard top cap off of the shipping box. See Figure 3-1.

Figure 3-1 Removing the Cardboard Container



3. Remove the clam shell box from the pallet.
4. Remove the ramp and packing material (1) from the top of the cabinet. See Figure 3-2.

Figure 3-2 Removing the Ramp and Packing Material

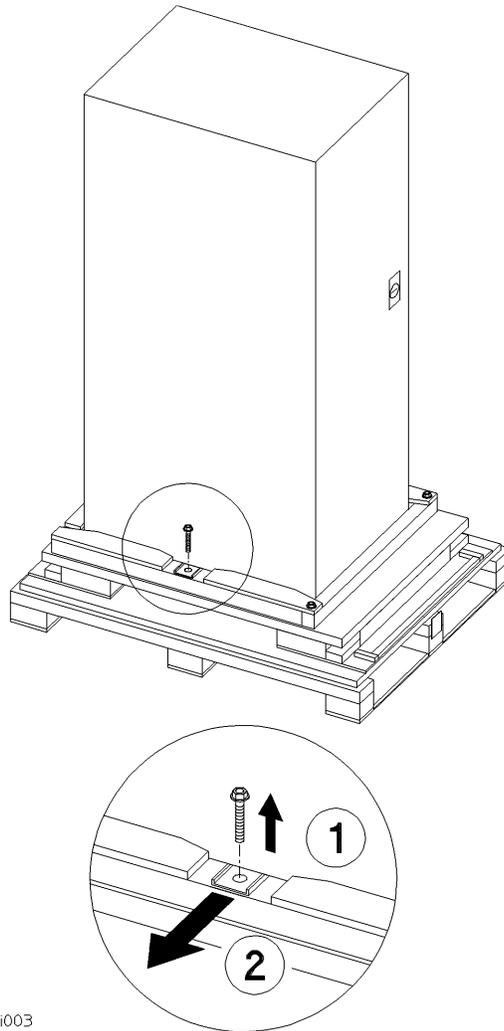


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5. Remove the shrink wrap (2) from around the cabinet. This also holds the bezel protective packing (3) on the front corners of the cabinet. Remove the bezel corner packing (3). See Figure 3-2.

6. Carefully open the rear door (1). Remove the screw holding the rear door support (2) in place and pull the block out. See Figure 3-3. Then close the rear door.
7. Remove the two (one on each side) shipping clamps from the bottom of the frame. They are bolted to the pallet, remove the bolt (1) and then remove the clamp (2). See Figure 3-3.

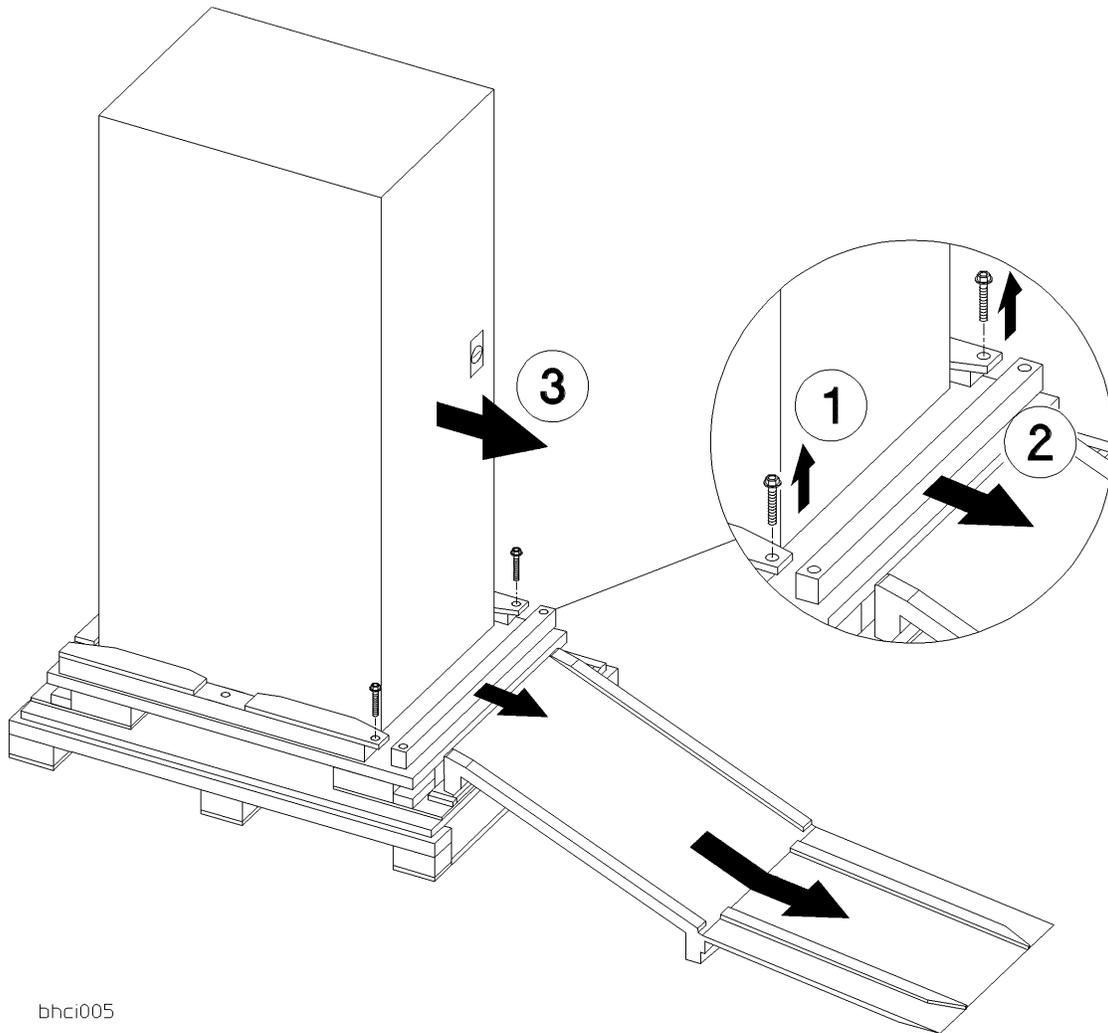
Figure 3-3 Removing Shipping Clamp



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8. Remove the pallet shipping block (2) from the rear of the pallet. Remove the two bolts (1), one on each corner, and pull the block (2) out from under the cabinet. See Figure 3-4.

Figure 3-4 Removing the Shipping Block



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9. Position the ramp so that the block of wood under the ramp locks into the edge of the pallet with the strip of wood forming a lip. This holds the ramp in place while the cabinet is moved across the pallet and down the ramp. See Figure 3-4.
10. Raise the cabinet leveling feet to their highest position.

WARNING Make sure that the leveling feet on the cabinet are raised before you roll the cabinet down the ramp. If the leveling feet are not raised, they can catch on the ramp and cause the cabinet to tip over.

11. Carefully roll the cabinet (3) down the ramp, as shown in Figure 3-4.

Cabinet Inspection

Once the cabinet is off the shipping pallet, and before it is placed in the installation site, inspect the internal and external condition of the cabinet.

Exterior:

Check the cabinet exterior for signs of shipping damage:

1. Look at the top and sides for dents, warpage, or scratches.
2. Check the front bezels for alignment, scratches, and that they open and close normally.
3. Check any filler panels on the front of the cabinet, for proper fit.
4. Check the forehead assembly for any signs of damage.
5. Check the rear door for dents, scratches, proper fit, and operation. Also visually inspect the fit of the door when it is closed.

Interior: Open the rear door and inspect the inside of the cabinet.

1. Inspect all cables, make sure they are secure.
2. Inspect all rails for signs of damage.
3. Check all mounting screws for tightness.
4. Check all components for signs of shifting during shipment or any signs of damage.

If any damage is found, follow the claims procedures described in Chapter 1. Some damage may be repaired by replacing a damaged part, if that part is replaceable. Refer to Chapter 5 for a list of field replaceable parts for the cabinet. For internal component damage, refer to the *Service Manual* for replaceable parts and procedures.

If extensive damage is found, it may be necessary to return the entire cabinet to HP. Refer to the Repacking instructions listed in this chapter.

Cabinet Installation

The installation of the pre-loaded cabinets consist of the following steps:

1. Move the cabinet to installation site.
2. Lower the leveling feet. (This will prevent excessive wear on the casters.)

CAUTION It is strongly urged that the cabinet stabilizers also be extended as an additional safeguard against overturning the cabinet during installation. The stabilizer is an extendable slide located at the bottom front of the cabinet.

3. Connect the system console to the server.

4. Connect all user terminals to the server.
5. Connect all system peripherals to the server.

NOTE Attaching cables while the rails are extended fully forward will ensure sufficient slack for later maintenance.

6. Connect the cabinet power cord to the appropriate wall outlet.

NOTE If the cabinet being installed contains a PowerTrust UPS option, perform the steps under *PowerTrust UPS Option*.

7. Be sure all peripherals outside the cabinet are connected to wall outlets.

The cabinet/server system assembly is now ready for the power up process. Refer to Chapter 4 for operating instructions.

PowerTrust UPS Option

Unpack the PowerTrust UPS and read all the installation information in the *PowerTrust System Guide* part number 5961-8383. Once all the procedures listed in the UPS guide are complete, perform the following steps to complete the UPS installation with the cabinet.

1. Position the UPS next to the cabinet on the floor.
2. Remove the jumper cord from the SPU to the PDU inside the cabinet.
3. Install one of the convenience cords (output cord) that came with the UPS into the AC receptacle in the back of the SPU.
4. Place the other end of that cord into one of the *Output* outlets in the back of the UPS.
5. The other convenience cord is connected between the UPS and the system console.
6. Locate the appropriate input line cord for the UPS in the supplemental package shipped with the UPS.
7. Plug the UPS into the appropriate wall outlet.
8. The system should now be ready for power up.

Repackaging the Cabinet for Shipment

Use the original packing material to repackage the cabinet for shipment. If the packing material is not available, contact your local Hewlett-Packard Sales and Support Office regarding shipment.

Before shipment, place a tag on the container (or equipment) to identify the owner and the service to be performed. Include the equipment model number and the full serial number, if applicable. The label showing the model number and the full serial number is located on the outside of the rear door.

Due to the weight of a fully loaded cabinet, it may require two people to push the cabinet up the ramp onto the pallet.

WARNING **Repackaging a loaded cabinet can be hazardous. This is due to the weight of the loaded cabinet. Use caution when moving the cabinet and positioning the cabinet on the pallet. Check the condition of the loading/unloading ramp before use. If the ramp appears damaged, DO NOT attempt to push the loaded cabinet up the ramp onto the pallet. Contact your local Hewlett-Packard Sales and Support Office regarding shipment.**

To repack the cabinet, follow the repacking checklist and refer to the unpacking instructions for detail.

Repacking Checklist:

1. Assemble the HP packing materials that came with the cabinet.
2. Connect the loading ramp to the pallet.
3. Raise the cabinet levelers before moving the cabinet.
4. Push the cabinet up the ramp onto the pallet. Be sure to position the cabinet so the front goes up the ramp first.
5. Secure the cabinet to the pallet with the shipping clamps, shipping block, and rear door support.
6. Place the anti-static bag over the cabinet.
7. Place bezel support packing on the front corners of the cabinet. Secure it with some sort of wrap.
8. Place the top cap packing material and loading/unloading ramp on top of the cabinet.
9. Wrap the clam shell box around the cabinet.
10. Put the box top on the box and secure the assembly to the pallet.

Be sure to follow the labeling instructions mentioned earlier. The cabinet is now ready for shipment.

4 Cabinet Operation

Once you have the computer system installed in the rack-mount cabinet and all the peripherals connected, you are ready to turn on the system. The power up sequence for the computer in the cabinet is controlled by the ON/OFF switch on the cabinet, unless you have installed a PowerTrust UPS.

Turning On the Computer System (Without UPS)

When turning on the computer in the cabinet, remember that includes all the components mounted in the cabinet turn on at the same time. The basic steps for the power up sequence are listed below, refer to the documentation that comes with the computer for specific details concerning the operating system software for your computer.

CAUTION Ensure external power connection matches voltage setting of all products in this cabinet.

1. Turn on all the external equipment connected to the computer first.
2. Check all **READY** or **ONLINE** indicators on the external equipment to be sure that they are powered up and ready.

NOTE If any of the external equipment has been **OFF** due to environmental problems such as heating or air conditioning failure, or outside storage conditions (such as a loading dock), allow approximately 30 minutes for the temperature of the equipment to stabilize before turning on the computer.

3. Be sure that all the cabinet-mounted component **ON/OFF** switches are in the **ON** position.
4. When all external equipment indicate **READY** or **ONLINE**, put the cabinet **ON/OFF** switch in the **ON** position. All components mounted in the cabinet are going to power up at the same time.

Turning On the Computer System (with UPS)

When turning on the cabinet power, remember that all the components mounted in the cabinet turn on at the same time, except the SPU. The basic steps for the power up sequence are listed below.

1. Turn on all the external equipment connected to the computer.
2. Check all READY or ONLINE indicators on the external equipment to be sure that they are powered up and ready.

NOTE If any of the external equipment has been OFF due to any environmental problem, such as heating or air conditioning failure, or outside storage conditions (such as a loading dock) allow approximately 30 minutes for the temperature of the equipment to stabilize before turning on the computer.

3. Except for the SPU, put all the ON/OFF switches, of the components mounted in the cabinet, in the ON position. Leave the SPU ON/OFF switch in the OFF position.
4. When all external equipment indicates READY or ONLINE, put the cabinet ON/OFF switch in the ON position. All components mounted in the cabinet are going to power up at the same time (except for the SPU).
5. Put the UPS *Output* switch in the ON (|) position. This applies power to the SPU and console line cords.
6. Put the SPU and console switches in the ON position.
7. The computer system should now be powered up and executing the power-on selftests in preparation for a normal bootup procedure.

Turning Off the Computer System (Without UPS)

The computer has no remote turn off sensor for AC power. If the cabinet switch is put in the OFF position before turning off the computer switch, the computer senses that as an AC power fail condition.

1. Put the computer power switch in the OFF position.
2. Put the cabinet power switch in the OFF position. This removes AC from all the components mounted in the cabinet, including the computer.
3. At this point, other components in the cabinet can be turned off, if necessary.

Turning Off the Computer System (With UPS)

If the cabinet ON/OFF switch is put in the OFF position, all components connected to the cabinet PDU will be turned off. This does not turn off the computer.

1. Put the computer power switch in the OFF position.
2. Put the console power switch in the OFF position.
3. Put the UPS *Output* switch in the OFF (O) position.
4. Put the cabinet power switch in the OFF position. This removes AC from all the components mounted in the cabinet, except the computer.
5. At this point, other components in the cabinet can be turned off if necessary.

Cabinet Operation
Turning Off the Computer System (With UPS)

5 Removal and Replacement Procedures

This chapter lists all the parts of the HP A1896A, and HP A1897A rack-mount cabinet that can be replaced if damaged. It also provides the procedures for accomplishing the replacement of a damaged part. Refer to Figure 5-1 for an exploded view of the cabinet and Table 5-1 for a list of the cabinet parts that can be replaced if damaged.

The A1896A cabinet does not come with a fan assembly. Otherwise, the procedures for parts removal and replacement are the same.

Refer to Figure 5-1 and Figure 5-2 while performing the procedures outlined in this chapter.

Figure 5-1 Cabinet Exploded View Front

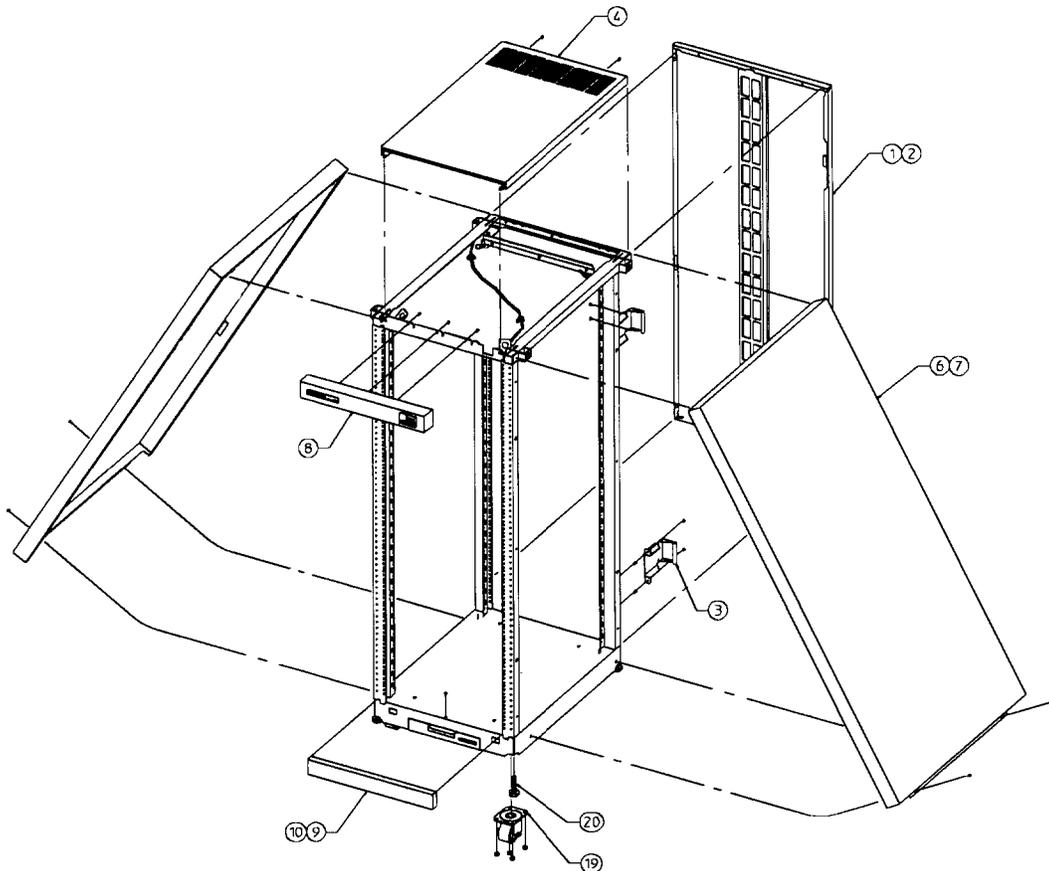


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Figure 5-2 Cabinet Exploded View Rear

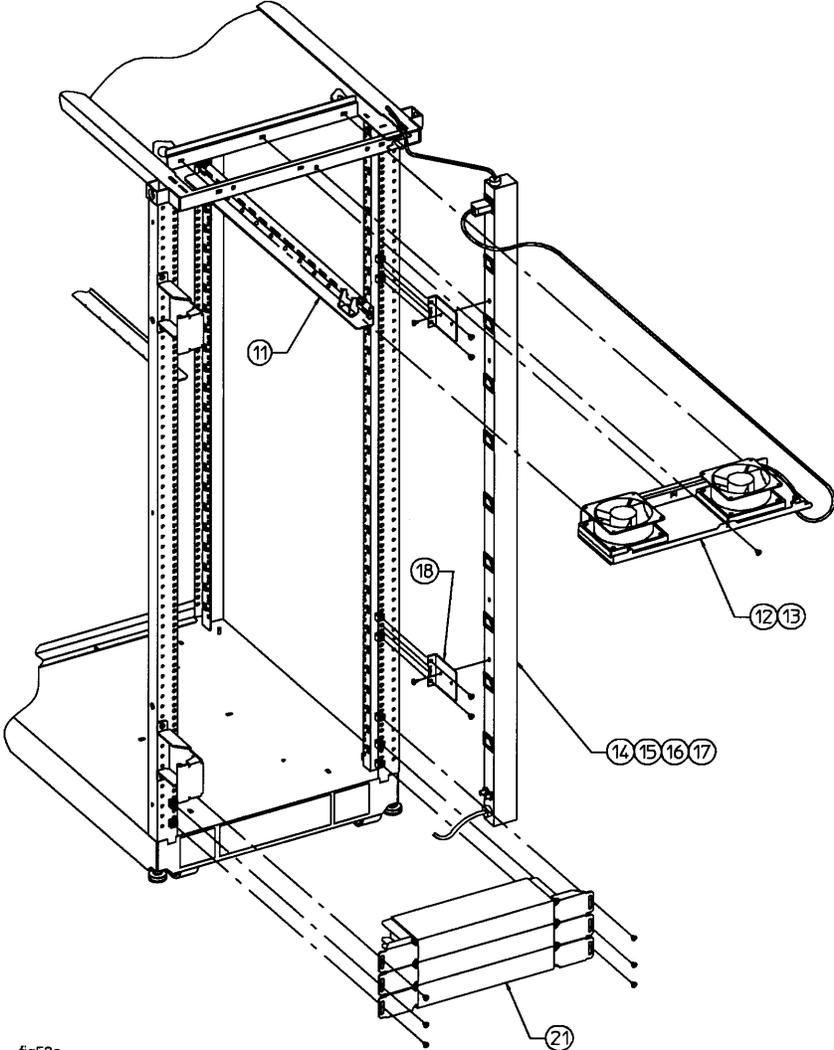


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Table 5-1 Rack-mount Cabinet Replaceable Parts

No.	Part No.	Description
1	C2786-60016	Rear door assembly, 1.6 meter
	3110-0197	Lock
	E3661-00010	Latch Catch
	0403-0780	Door Bumper
3	C2786-00012	Rear hinge
4	C2786-60015	Vented top cap
5	C2785-60007	Non-vented top cap
6/7	C2786-60014	Side cover, 1.6 meter
8	C2786-60004	Forehead assembly (with On/Off Switch)
	5181-8713	On/Off Switch 120V
	5181-8714	On/Off Switch 220V
9	C2786-00014	Base cover, 1.6 meter
11	C2786-60018	Rail assembly
	C2786-00019	Rear Stop Bracket
12	C2786-60024	230V Fan assembly
	3160-0378	230V Fan
13	C2786-60005	115V Fan assembly
	3160-0228	115V Fan
14	E4456-63001	US 208-240V PDU, 1.6 meter
15	E4457-63001	INT'L 230V PDU, 1.6 meter
18	C2786-00021	PDU Support Bracket
19	1492-0159	Caster
	0535-0096	Nut-Wiz, M8 x 1.25 (caster)
20	0403-0778	Leveler
21	C2786-60017	Ballast assembly ¹
	0590-0804	Nut- Tinnerman 10/32
	2680-0278	Screw, T15 10/32 w/washer
	2680-0281	Screw, T25 10/32
	C2786-60001	1U Filler assembly

No.	Part No.	Description
	8120-5470	Rack device Power cord, 20 inches
	8120-1396	Rack device power cord, 30 inches
	C2786-00036	

1. Ballast assembly is not provided on all configurations

Removal and Replacement Procedures

The following procedures are for the HP Field Replaceable Units (FRUs) contained in the HP A1896A or HP A1897A rack-mount cabinets.

Rear Door

Refer to Figure 5-1 while performing these procedures.

Rear Door Removal:

1. Remove the rear door of the cabinet by opening the door.
2. Disconnect the bonding wire from the door.
3. Grasp the rear door support and lift the door straight up and away from the cabinet.

Rear Door Replacement:

1. Hold the rear door by the support column, in an open position.
2. Align the door hinge pins over the cabinet hinge holes.
3. Lower the door onto the cabinet hinge.
4. Reconnect the bonding wire to the door.

Top Cap

Refer to Figure 5-1 while performing these procedures.

Top Cap Removal:

1. Turn the cabinet power switch off and unplug the cabinet power cord.
2. Open the rear door all the way.
3. Remove the two outside mounting screws at the top rear of the cabinet.
4. From the rear of the cabinet, pull the top cap toward the back a few inches.
5. Lift the top cap off the cabinet.

Top Cap Replacement:

1. From the rear of the cabinet, place the top cap between the side covers and slide it forward until it stops.
2. Insert the two mounting screws at the top rear. Tighten the screws.
3. Close the rear door. Plug the cabinet power cord into the wall outlet and power up the computer system.

Side Cover

Refer to Figure 5-1 while performing these procedures.

Side Cover Removal:

1. Remove the two mounting screws at the bottom of the cabinet.
2. On the right side cover, open the rear door and remove the two mounting screws on the upper door hinge (that secure the hinge to the side panel).
3. Grasp the sides of the side cover (pulling the bottom of the panel away from the cabinet offers a better grip), then lift up and away.

Side Cover Replacement:

1. Grasp the side cover by the left and right edges and align it with the cabinet at an angle with the bottom out and the top toward the top of the cabinet.
2. Lower the side onto the top edge of the cabinet side so the top of the side cover hooks onto the top of the cabinet.
3. With the side cover flush with the cabinet frame, insert the two mounting screws in the bottom. Tighten the screws.
4. On the right side cover, insert the mounting screws through the upper door hinge into the side panel and tighten screws.

Forehead Assembly

To remove the forehead assembly, the power has to be turned off and the top cap has to be removed first. Refer to Figure 5-1 while performing these procedures.

Forehead Assembly Removal:

1. Turn the power off (refer to Chapter 4 for power off procedures).
2. Unplug the cabinet power cord.
3. Remove the top cap (refer to top cap removal).
4. Unplug the PDU harness from the back of the ON/OFF switch.
5. Remove the three mounting screws behind the forehead assembly.
6. Pull the forehead assembly away from the cabinet frame.

Forehead Assembly Replacement:

1. Align the forehead assembly at the top of the cabinet frame, so the three mounting holes match the frame holes, and the mounting hooks on each side engage the mounting slots.
2. Insert the three mounting screws through the frame into the forehead assembly. Tighten the screws.
3. Attach the PDU harness to the ON/OFF switch lugs as indicated:

Red: switch terminal 1

Black: switch terminal 2

White: switch terminal 6

4. Replace the top cap (refer to top cap replacement).
5. Plug the cabinet power cord into the wall outlet.

Base Cover

Refer to Figure 5-1 while performing these procedures.

Base Cover Removal:

1. Remove the mounting screw located on the top edge, center, of the base cover.
2. Pull the base cover away from the bottom of the cabinet.

Base Cover Replacement:

1. Align the base cover hooks on the bottom of the cabinet frame and roll the base cover until the mounting holes in the cabinet and base cover align.
2. Insert the mounting screw. Tighten the screw.

Rear Door Hinge

Refer to Figure 5-1 while performing these procedures.

Rear Door Hinge Removal:

1. Remove the rear door (refer to rear door removal).
2. Remove the two mounting screws from the cabinet column (on the upper hinge, also remove the two mounting screws in the side panel), and lift the door hinge away.

Rear Door Hinge Replacement:

1. Align door hinge with the pressed nuts in the rear cabinet column.
2. Insert the two mounting screws through the hinge into the column (on the upper hinge insert the two mounting screws into the side panel). Tighten the screws.

Fan Assembly

Refer to Figure 5-3 and Figure 5-2 while performing these procedures.

NOTE The fan assembly is not present in the 1.1 meter cabinet.

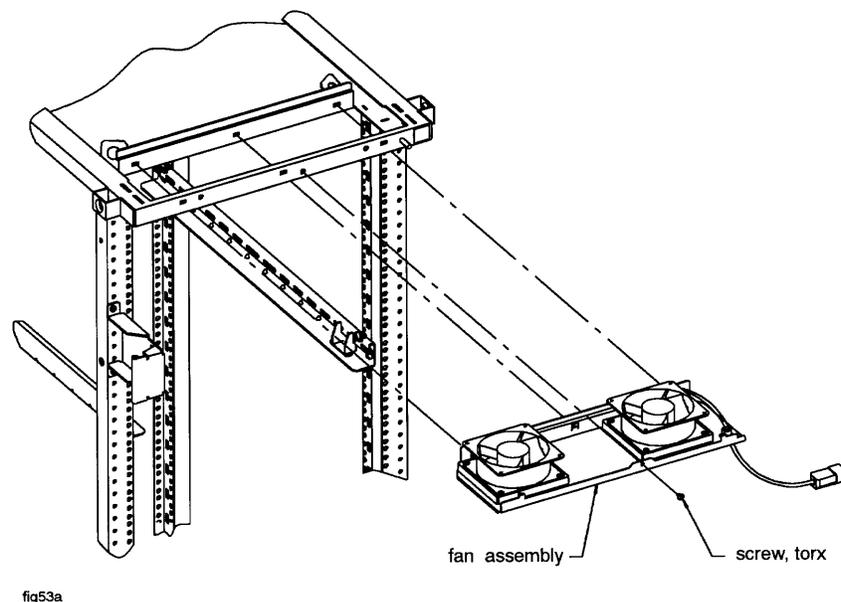
Fan Assembly Removal:

1. Turn off the cabinet power. Refer to the power off procedures in Chapter 5.
2. Open the rear door.
3. disconnect the fan power cord from the PDU.
4. Remove the one mounting screw at the top rear cabinet frame bar.
5. Grasp the fan assembly from the bottom and pull toward the rear of the cabinet.
6. The fan assembly should release from the cabinet, and can be lowered out of the cabinet.

Fan Assembly Replacement:

1. Raise the fan assembly into the rear cabinet frame opening.
2. Slide the fan assembly forward engaging the tabs on the fan assembly into the slots in the cabinet frame.
3. Insert the mounting screw. Tighten the screw.
4. Connect the fan power cord from the fan assembly to the PDU.
5. The rear door can now be closed and the system powered up.

Figure 5-3 Fan Assembly



Fan

Refer to Figure 5-4 while performing these procedures.

Fan Removal:

1. Remove the fan assembly (refer to fan assembly removal).
2. Remove the power cable connectors from the fan.
3. Remove the two mounting screws and nuts holding the fan to the fan tray.
4. The fan bracket stays with the fan tray.

Fan Replacement:

1. Position the fan over the fan bracket/tray mounting holes so that the power lugs are at the rear of the fan tray, and on the right side of the fan (as viewed from the back of the assembly). Also verify the air flow arrow points up.
2. Insert the mounting screws up through the bottom of the fan tray/bracket and fan.
3. Attach mounting nuts/washers on the mounting screw. Tighten screws and nuts.
4. Attach power cord lugs to spades on the fan (polarity does not matter).
5. Replace fan assembly (refer to fan assembly replacement).

Figure 5-4 Fan Diagram

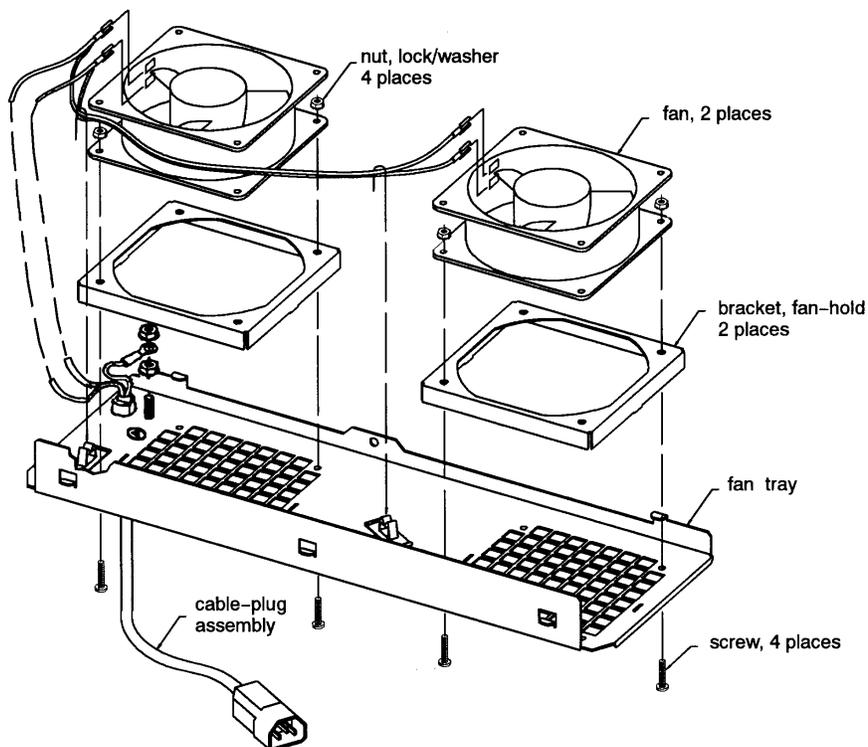


fig54x

PDU

Refer to Figure 5-2 while performing these procedures.

PDU Removal:

1. Turn OFF the power switch on the front of the cabinet.
2. Unplug the cabinet power cord from the wall outlet.
3. Remove the top cap (refer to top cap removal).
4. Unplug the PDU harness from the back of the ON/OFF switch.
5. Unclip the PDU harness from the cable clamps on the cabinet frame top and pull the PDU harness down through the top frame.
6. Remove all component power cords from the PDU.
7. Remove the four (two on each bracket) mounting screws from the PDU mounting brackets that attach to the frame columns.
8. Lift the PDU up to disengage the PDU mounting bracket hooks from the frame column.
9. Pull the PDU out of the cabinet.

NOTE The PDU mounting brackets could be removed at this point if necessary.

PDU Replacement:

1. Align the PDU (with the brackets attached) on the right rear column of the cabinet frame.
2. Insert the PDU bracket hooks into the column holes and lower the PDU until it rests on the column.
3. Insert the PDU mounting screws through the brackets into the column with slip nuts attached.
4. Route the PDU harness up through the top of the cabinet and through the cable clamps.
5. Plug the PDU harness onto the ON/OFF switch.
6. Replace the top cap (refer to top cap replacement).
7. Reconnect all the cabinet components to the PDU.
8. Plug the power cord into the wall outlet.
9. The cabinet and computer are ready to be powered up.

Cabinet Leveler or Caster

Refer to Figure 5-1 while performing these procedures.

Leveler or Caster Removal:

1. Turn Off the cabinet power switch.

2. Unplug the cabinet power cord from the wall outlet.
3. Carefully move the cabinet to an area with enough room to allow the cabinet to be laid on its side.
4. Remove all computer components mounted in the cabinet.
5. Carefully lay the cabinet over on one of its sides.
6. Unscrew the desired leveler. Or, remove the desired caster by removing four mounting nuts and pulling the caster off.

Leveler or Caster Replacement:

1. With the cabinet still on its side, screw in the leveler. Or, place the caster over the four mounting studs, and attach the four mounting nuts. Tighten the nuts.
2. Carefully lift the cabinet back up to an upright position.
3. Install all computer components that were removed previously.
4. Carefully move the cabinet to its install site.
5. Plug the cabinet power cord into the wall outlet.
6. The cabinet is now ready for operation.

Lock and Latch

The lock and latch are located in the rear door.

Lock and Latch Removal:

1. Open the rear door.
2. Grasp the bracket supporting the lock and latch mechanism.
3. Remove the screw and star washer in the center of the bracket. The bracket will slide off, and the lock and latch mechanism will slide out from the rear door.
4. Carefully note the position of the two screws attaching the latch catch to the cabinet frame (the middle holes in segment 7 and 8 along the right rear cabinet frame). You will need to mount the latch catch in the same position when replacing the mechanism.
5. Remove the two screws securing the latch catch to the cabinet frame.

Lock and Latch Replacement:

1. Align the two screw holes in the rear of the latch catch with the hole positions noted in the removal process.
2. Attach the latch catch to the frame with two screws.
3. Slide the lock and latch mechanism through the hole in the outside of the rear door, with the lock facing out.
4. Open the rear door and place the bracket over the latch mechanism, centering the hole in the bracket over the hole in the lock mechanism.

5. Attach the bracket to the lock mechanism by inserting and tightening the screw and star washer.

Door Bumper

The rear door bumpers (one top and one bottom) are self-adhesive rubber bumpers stuck to the rear door. To remove, pry it off with a flat blade screwdriver. To put a bumper on, peel off the adhesive cover, and press the bumper on the appropriate corner of the rear door.

Removal and Replacement Procedures
Removal and Replacement Procedures

6 System Servicing

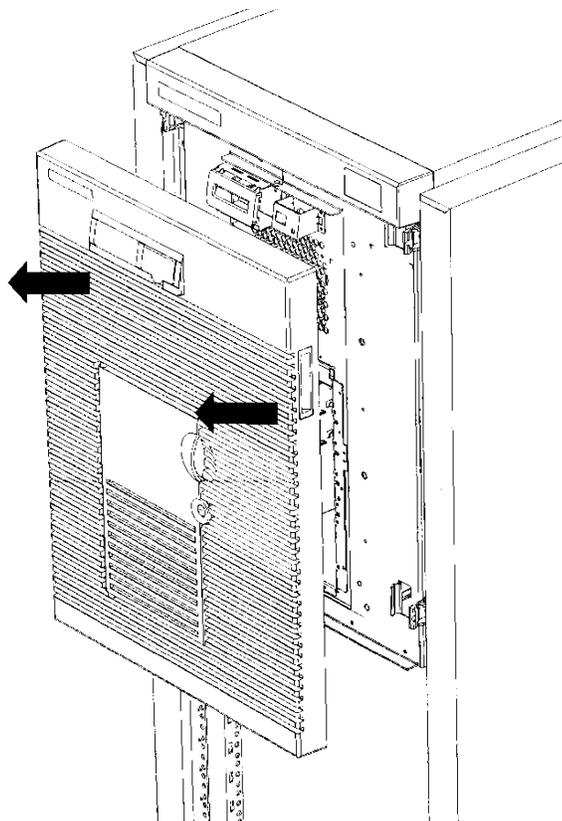
This section provides servicing information for the rack-mounted Class D system.

Preparing the System for Servicing

WARNING It is strongly recommended that you fully extend the cabinet stabilizer to reduce cabinet instability while servicing the system. The cabinet may otherwise overturn and cause damage to the equipment or possible injury.

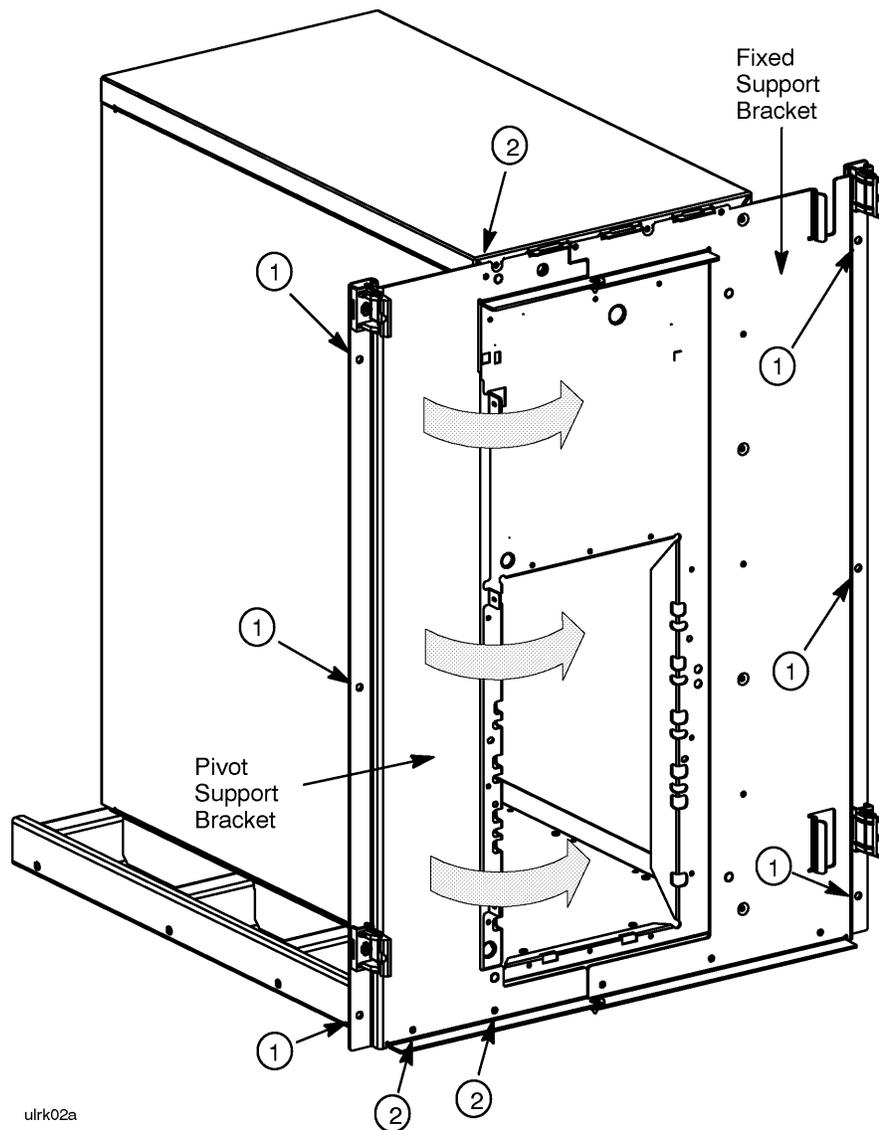
1. Ensure that all power is disconnected from the system.
2. Remove the front bezel by grasping the detents on either side and pulling the bezel toward you. Refer to Figure 6-1.

Figure 6-1 Removing the front bezel.



3. Remove the three screws on each side of the support brackets which attach the bracket to the cabinet frame (refer to callout (1) in Figure 6-2).
4. Grasp the system just below the front center of the support brackets and pull toward you, extending the system fully forward on its rails.
5. Using a T15 TORX screwdriver, remove the three screws in the pivot support bracket (refer to callout (2) in Figure 6-2).
6. Swing the pivot support bracket around to the right and secure it by pressing it against the fixed support bracket. The pivot support bracket will click into place.

Figure 6-2 Opening the pivot support bracket.



7. To access the interior of the system for service, refer to the System Service Manual, part number A3262-90011.

Removing the System for Servicing

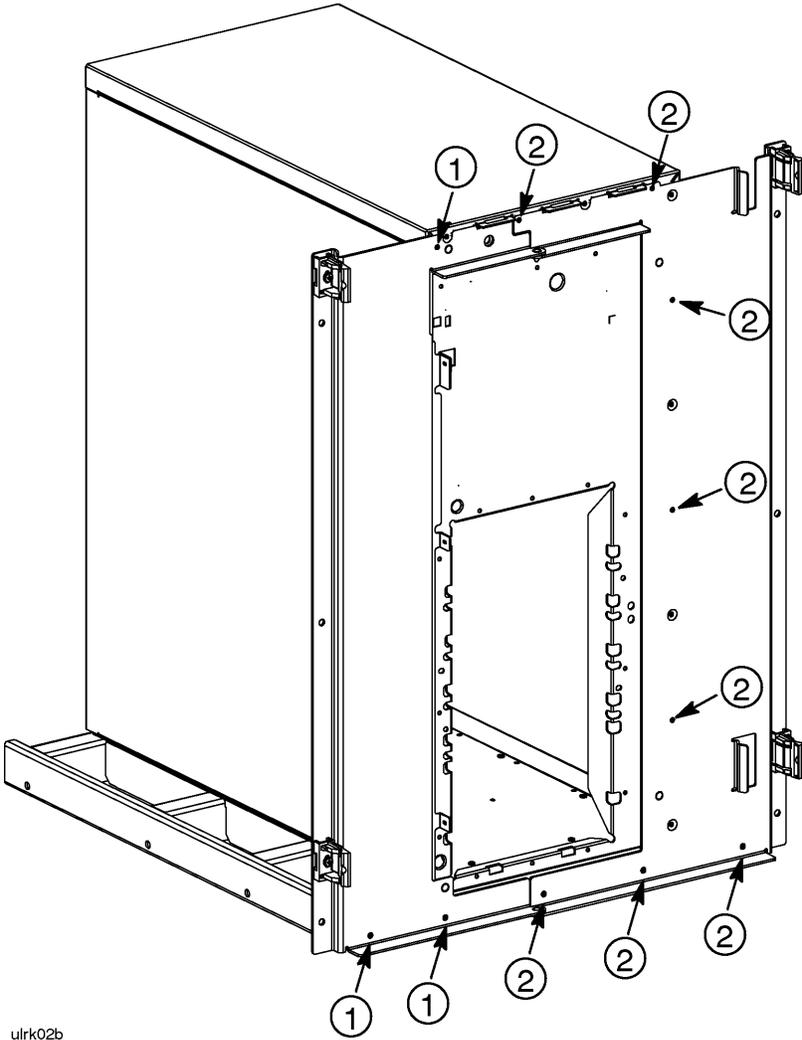
If it is necessary to remove the system from the cabinet for further servicing, follow these steps:

1. Remove any cables attached to the rear of the system.

NOTE Tag the cables, if necessary.

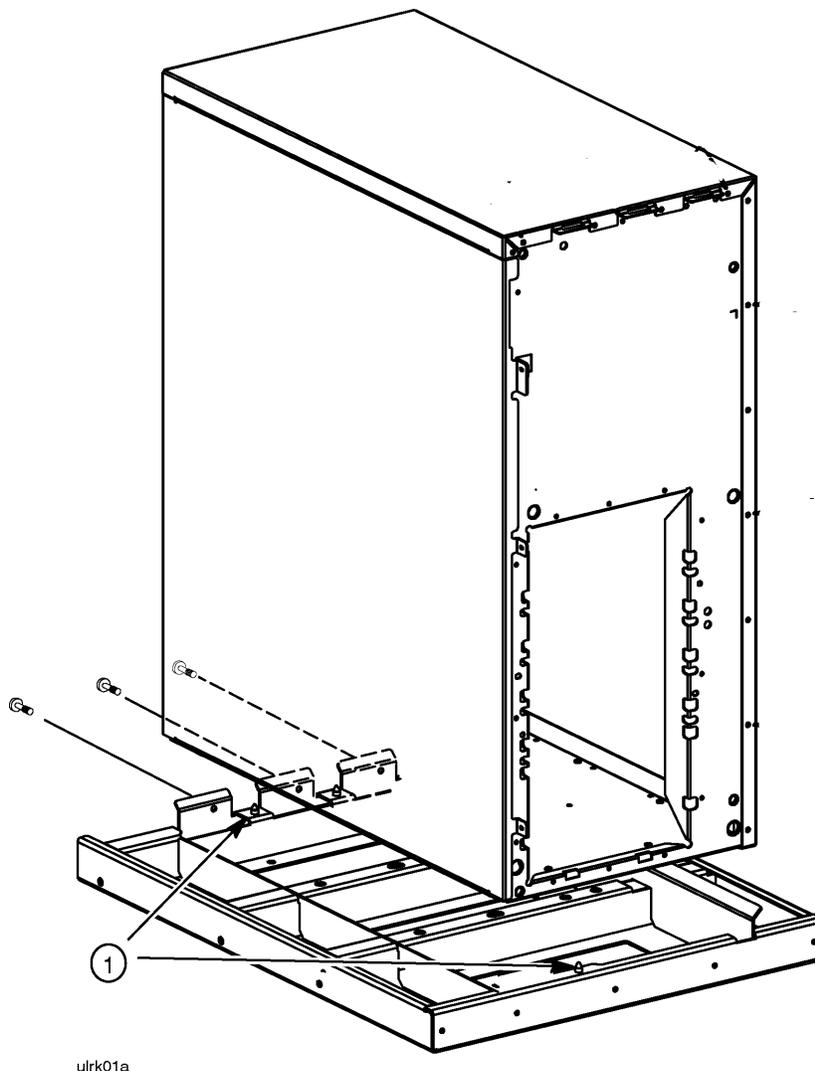
2. Remove the three screws shown by callout (1) in Figure 6-3. Remove the pivot support bracket.
3. Remove the eight screws shown by callout (2) in Figure 6-3. Remove the fixed support bracket.

Figure 6-3 Support Brackets



4. Remove the three screws connecting the rear of the base plate assembly to the rear of the component chassis (see Figure 6-4).

Figure 6-4 Positioning the System



5. Lift and remove the system from the base assembly.

CAUTION The system weighs as much as 100 lbs and may cause strain if lifted by one person. Use two people to lift and remove the system.

6. Perform additional servicing as required.
7. Replace the system in the cabinet (see “System Replacement”).

System Replacement

1. Extend the cabinet base assembly fully forward.
2. Position the system onto the base assembly as shown in Figure 6-4, aligning and setting the system onto the guide pins (callout (1)) in the base plate assembly.

CAUTION The system weighs as much as 100 lbs and may cause strain if lifted by one person. Use two people to lift and align the system.

3. Secure the fixed support bracket with the eight screws as shown in callout (2) of Figure 6-3.
4. Secure the pivot support bracket with the three screws as shown in callout (1) of Figure 6-3.
5. Replace the three screws along the rear of the assembly (refer to Figure 6-4).
6. Attach any new (or previously detached) cables to the system.

NOTE Attaching the cables while the rails are extended fully forward will ensure sufficient slack for later maintenance.

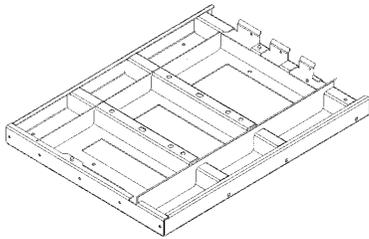
CAUTION If the power supply was changed, ensure that the voltage setting of the switch on the power supply matches the voltage of the cabinet PDU or UPS, if present.

Rack Mount Assemblies

The following list shows the assemblies included in the rack mount assembly kit. Figure 6-5 displays the assembly pieces.

Part Number	Description
A2362-60024	Base Assembly
A3262-60025	Fixed Support Assembly
A3262-60026	Pivot Support Assembly
A3262-60028	Slide Rail Assembly, Right
A3262-60029	Slide Rail Assembly, Left
A3262-60032	Bottom Bracket Assembly
A3262-00060	Top Bracket
A3262-00062	Short Ballast
A3262-60036	Rack Bezel Assembly (Depicted in Figure 6-1)
Hardware and Miscellaneous	
3020-0042	3/8-16 X 4 Bolt (2)
2190-0762	Flat Washer (2)
2190-0929	Lock Washer (2)
0590-0804	Tinnerman Nut (16)
2680-0278	10-32 Screw (14)
2680-0323	10-32 Screw (2)
0624-0719	6-32 Screw (14)
A3262-60043	Rack Door Kit
A3262-82008	Nameplate
A3262-81028	Label
A3262-90012	Cabinet Installation Guide

Figure 6-5 Rack Mount Kit Assemblies



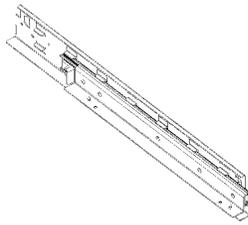
A3262-60024



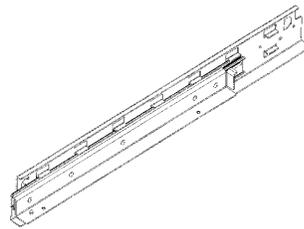
A3262-60025



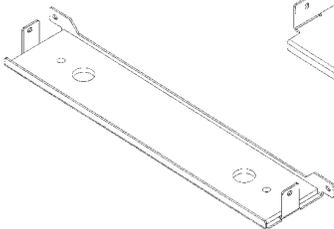
A3262-60026



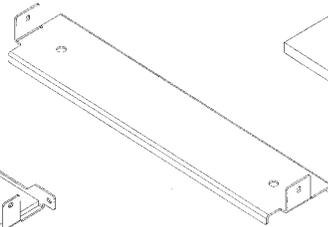
A3262-60028



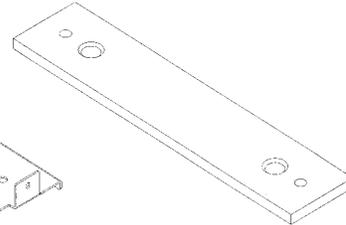
A3262-60029



A2362-60032



A3262-00060



A3262-00062

