
VAXserver/VAX 4000-series System Conversion Guide

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October 1992

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Preface

The following table lists the conversion kits needed to upgrade the various VAXserver- and MicroVAX-series systems described in this guide.

Kit	Upgrade from...	To...
660XR-XX	VAXserver 3300/3400	VAXserver 4000-200
	MicroVAX 3300/3400	VAX 4000-200
	VAXserver 3500/3800	VAXserver 4000-200
	MicroVAX 3500/3800	VAX 4000-200
	VAXserver 3600/3900	VAXserver 4000-200
	MicroVAX 3600/3900	VAX 4000-200
	VAXserver 4000-200	VAX 4000-200
670XR-AA	VAXserver 4000-300	VAX 4000-300
675XR-XX	VAX 4000-300	VAX 4000-400
	VAXserver 4000-300	VAXserver 4000-400
680XR-XX	VAX 4000-300	VAX 4000-500
	VAXserver 4000-300	VAXserver 4000-500
	VAX 4000-400	VAX 4000-500
690XR-XX	VAX 4000-300	VAX 4000-600
	VAXserver 4000-300	VAXserver 4000-600
	VAX 4000-400	VAX 4000-600
	VAX 4000-500	VAX 4000-600
	VAXserver 4000-500	VAXserver 4000-600

Note

The kit variant code, -XX, indicates any variation.

Intended Audience

This document is intended for Digital Services personnel and licensed self-maintenance customers.

Customer Responsibilities

Customers should not install the conversion kit unless they are qualified self-maintenance customers. Only qualified maintenance personnel should perform the installation procedure. If you are not a qualified self-maintenance customer, call Digital Services to schedule a system conversion.

It is the customer's responsibility to perform a software backup before a Digital Services representative arrives at your site.

When the conversion is complete, return the old CPU module to Digital. Appendix A contains forms that need to be completed by the Digital Services representative and signed by both the customer and the Digital Services representative.

Digital Services Responsibilities

The Digital Services representative should contact the customer to ensure that the customer's software is backed up before arriving at the site.

After installation of the conversion kit, the Digital Services representative must complete the following forms (found in Appendix A) and remove them from this document by tearing them along the perforated line. The forms must be signed by both the customer and the Digital Services representative.

- Digital Services Worksheet
- Installation Receipt–Customer Copy
- Installation Receipt–Digital Services Copy
- Return Material Checklist

The Digital Services representative should give the customer the signed Installation Receipt–Customer Copy. The representative should include the signed Installation Receipt–Digital Services Copy with the CPU module that is being returned to Digital to ensure the customer receives credit.

Organization

This document contains five chapters and one appendix:

Chapter	Description
1	Describes how to install the conversion kit 660XR-XX on a VAXserver 3300/3400 system or a MicroVAX 3300/3400 system.
2	Describes how to install the conversion kit 660XR-XX on a VAXserver 3500/3800 system or a MicroVAX 3500/3800 system.
3	Describes how to install the conversion kit 660XR-XX on a VAXserver 3600/3900 system or a MicroVAX 3600/3900 system.
4	Describes how to install the conversion kit 660XR-XX on a VAXserver 4000-200 system.
5	Describes how to install the conversion kits 670XR-AA, 675XR-XX, 680XR-XX, and 690XR-XX on a VAX/VAXserver 4000-300, -400, and -500 system.
Appendix A	Contains forms to be returned to Digital with the old module and a list of the Customer Administrative Services (CAS) district offices.

Conventions

The following conventions are used in this guide:

Convention	Meaning
NOTE	Provides general information about the current topic.
CAUTION	Provides information to prevent damage to equipment or software.
P/N	Part Number

Related Documents

The following is a list of related documents:

Documentation	Order Number
BA440/BA430 Enclosure Maintenance	EK-348AB-MG
KA660 CPU System Maintenance	EK-498AA-MG
KA670 CPU System Maintenance	EK-347AB-MG
KA675/680/690 CPU System Maintenance	EK-454AA-MG
VMS License Management Utility Manual	AA-LA33A-TE

1

VAXserver/MicroVAX 3300/3400 Conversion

This chapter describes how to convert from a VAXserver 3300/3400 system to a VAXserver 4000-200 system and from a MicroVAX 3300/3400 system to a VAX 4000-200 system using a 660XR-XX conversion kit.

Caution

The MS650-AA memory module will not function with a KA660-XX CPU module. When a KA640 CPU module is removed and the system is converted to a KA660-XX system, install an MS650-BA (16-Mbyte) memory or MS650-BB (8-Mbyte) memory.

1.1 Summary of Conversion

The tasks required to convert from a VAXserver 3300/3400 system to a VAXserver 4000-200 system and from a MicroVAX 3300/3400 system to a VAX 4000-200 system are summarized as follows. To begin the actual conversion, go to Section 1.2.

1. Have the customer back up the system software.
2. Run diagnostics to verify system operation.
3. Unpack and inventory the conversion kit.
4. Remove the front panel.
5. Remove the CPU I/O cover cables.
6. Remove the CPU I/O cover.
7. Remove module covers from the memory slots, if memory needs to be upgraded.
8. Disconnect the CPU module cables.

VAXserver/MicroVAX 3300/3400 Conversion

1.1 Summary of Conversion

9. Remove the old CPU module.
10. Install the new KA660-AA/BA (M7626) CPU module.
11. Upgrade the old memory modules to MS650-BA/BB, if necessary.
12. Reconnect all CPU cables.
13. Reinstall the CPU I/O panel.
14. Reinstall the CPU I/O cover cables.
15. Replace the front panel.
16. Install the new medallion and labels.
17. Run diagnostics to verify system operation.
18. Have the customer verify that the system boots and operates correctly.
19. Complete the forms in Appendix A.

1.2 Unpacking the Kit

To unpack the kit:

1. Make sure there is no external damage to the shipping container, such as dents, holes, or crushed corners.
2. Unpack the conversion kit and check its contents against the shipping invoice.

Caution

Wear an antistatic wrist strap and use an antistatic mat during module handling to prevent static discharge and damage to modules. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Unpack the CPU module and place it on a grounded antistatic mat.
4. Save the packing material to use when you return the old module to Digital.
5. If any item is missing or damaged:
 - a. Contact the customer's sales representative.
 - b. Contact the customer's delivery agent.

VAXserver/MicroVAX 3300/3400 Conversion
1.3 Before Installing the Kit

1.3 Before Installing the Kit

Before installing the kit:

1. Have the customer back up the system software before the Digital Services representative arrives. It is the customer's responsibility to back up the system software.
2. Turn on the system power and run diagnostics to verify system operation.
3. Turn off the system power before installing the kit.

1.4 Installing the Kit

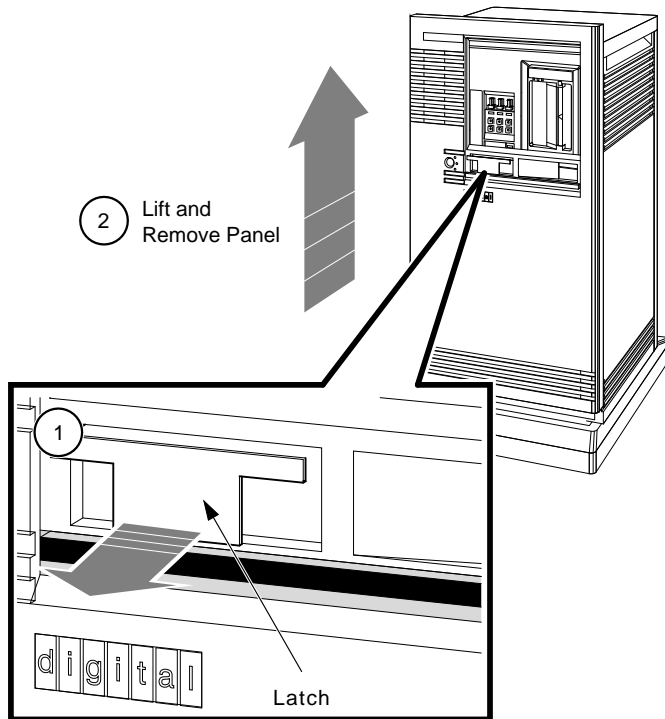
To install the conversion kit:

1. Turn the front panel key switch to the bottom position, lower the access door, and turn the power switch on the CPU box to off (0).
2. Turn off the system power to any expander boxes connected to the system.
3. Remove the front panel as shown in Figure 1-1.

VAXserver/MicroVAX 3300/3400 Conversion

1.4 Installing the Kit

Figure 1-1 Removing Front Panel



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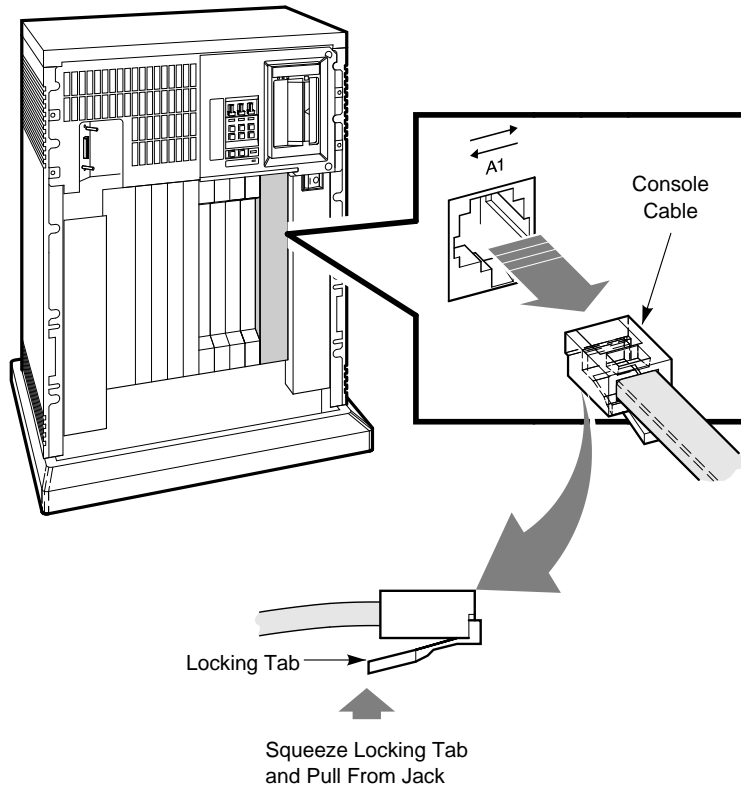
VAXserver/MicroVAX 3300/3400 Conversion 1.4 Installing the Kit

4. Remove the console cable as shown in Figure 1-2.
5. If the Ethernet cable is present, remove the Ethernet cable from the I/O panel.

Caution

Use the antistatic wrist strap and the antistatic mat when working with the modules.

Figure 1-2 Removing Console Cable



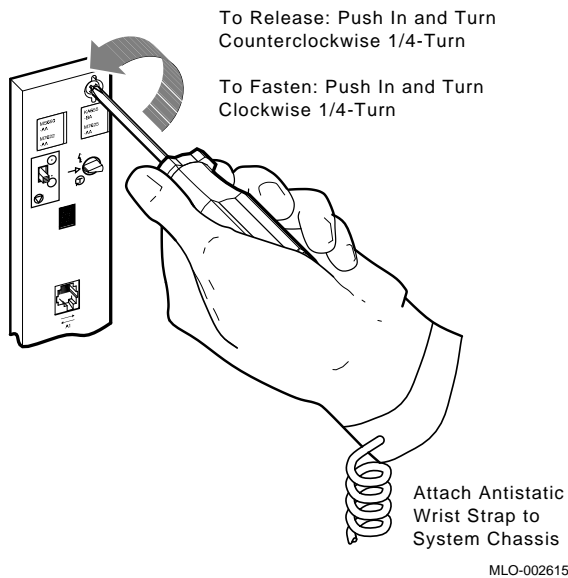
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VAXserver/MicroVAX 3300/3400 Conversion

1.4 Installing the Kit

6. Release the CPU I/O panel as shown in Figure 1-3. Disconnect the cable that connects the CPU module to the I/O panel, and set the panel aside.

Figure 1-3 Removing CPU I/O Panel



7. Disconnect the CPU module cables.
8. Remove the old CPU module from slot 1.
9. Install the new KA660-AA/BA CPU module in slot 1.

Note

If there are any MS650-AA memory modules installed in the system, then remove the modules from the system and install either MS650-BA or MS650-BB memory modules.

A 3-connector memory cable is included in the memory kit for a 2-memory module connection.

VAXserver/MicroVAX 3300/3400 Conversion

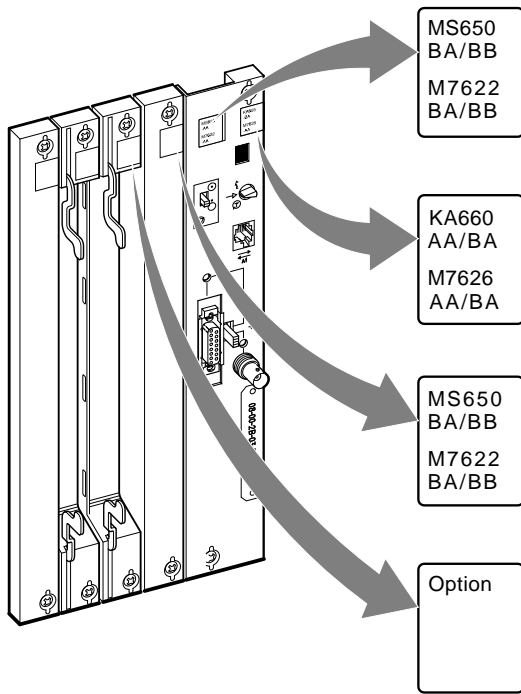
1.4 Installing the Kit

10. If memory needs to be upgraded, remove the module covers from the remaining memory module slots.
11. Remove the 50-pin daisychain memory cable that connects the memory modules to the CPU module, if applicable.
12. Install the new memory modules, if applicable, and reconnect the 50-pin daisychain memory cable.
13. Reconnect the memory modules and DSSI cables to the CPU module.
14. Reconnect the CPU I/O panel and install over slots 1 and 2.
15. Reinstall the module covers over memory module slots.
16. Attach the new CPU and memory labels to the CPU I/O panel as shown in Figure 1-4.
17. Attach the new CPU and memory labels, if applicable, to the memory module covers as shown in Figure 1-4.

VAXserver/MicroVAX 3300/3400 Conversion

1.4 Installing the Kit

Figure 1-4 CPU and Memory Label Locations



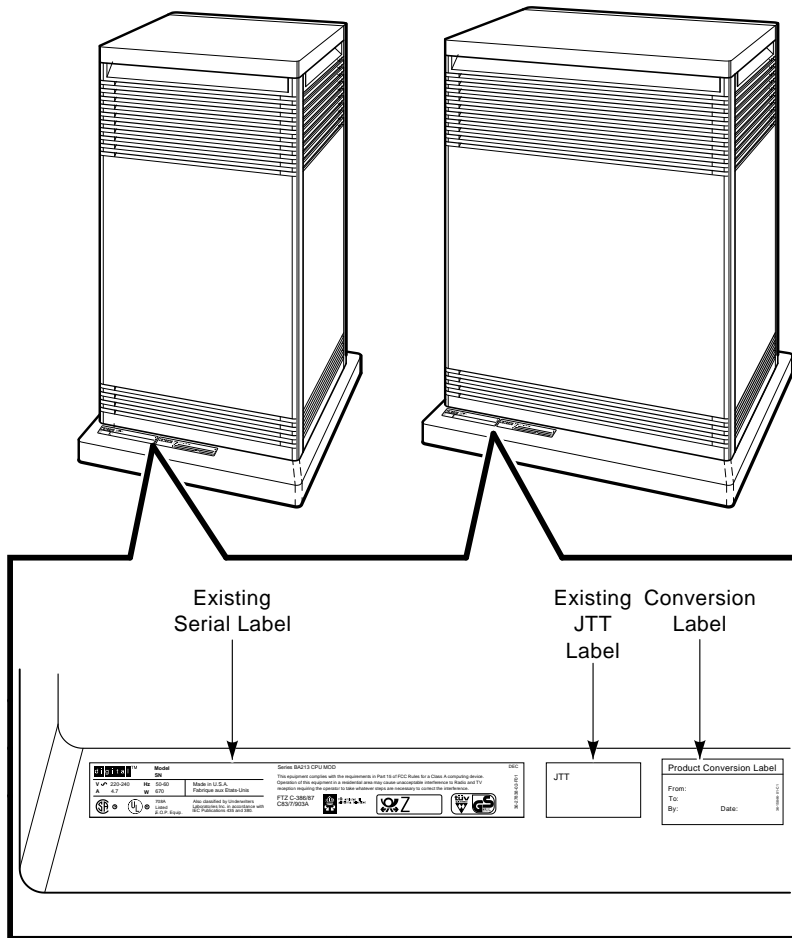
LJ-00487-T10

18. Replace the front panel.
19. Turn on the system power and run system diagnostics to verify system operation.

VAXserver/MicroVAX 3300/3400 Conversion 1.4 Installing the Kit

20. Place the new serial label over the existing serial label, as shown in Figure 1–5 for a pedestal system.

Figure 1–5 Conversion and Serial Label Location



LJ-02438-T10

21. Place the new JTT label (P/N 36-33180-XX) on the system or place over existing label, if it is present, as shown in Figure 1–5 for a pedestal system, and Figure 1–6 for a rack-mountable system.

VAXserver/MicroVAX 3300/3400 Conversion

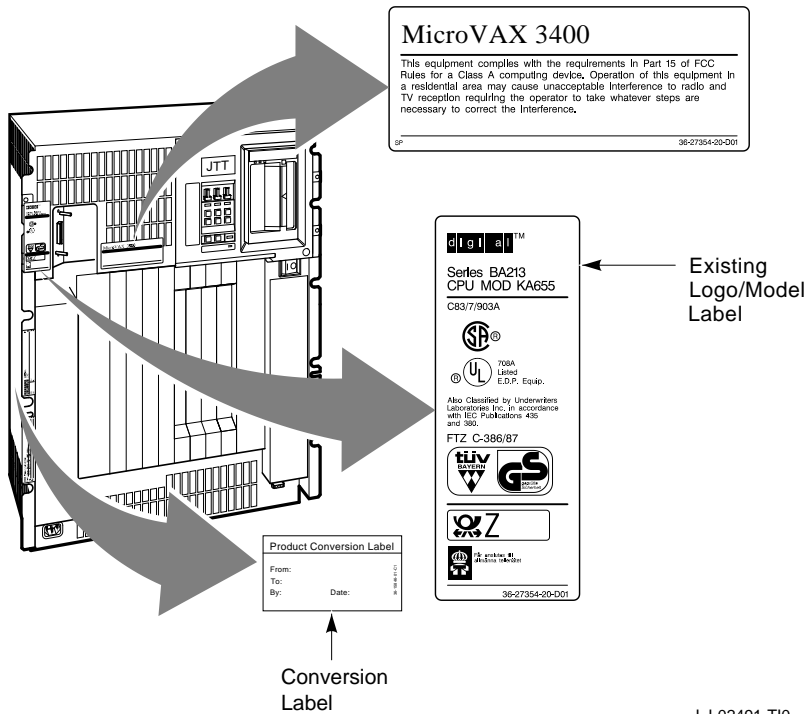
1.4 Installing the Kit

Note

Two labels are shipped with the conversion kit. Install the JTT label, P/N 36-33180-18, for a BA213 enclosure; install the JTT label, P/N 36-33180-19, for a BA215 enclosure.

22. Attach the new logo model label over the existing logo model label as shown in Figure 1–6 for rack-mountable systems.
23. Attach the conversion label, as shown in Figure 1–5 for a pedestal system, and Figure 1–6 for a rack-mountable system.

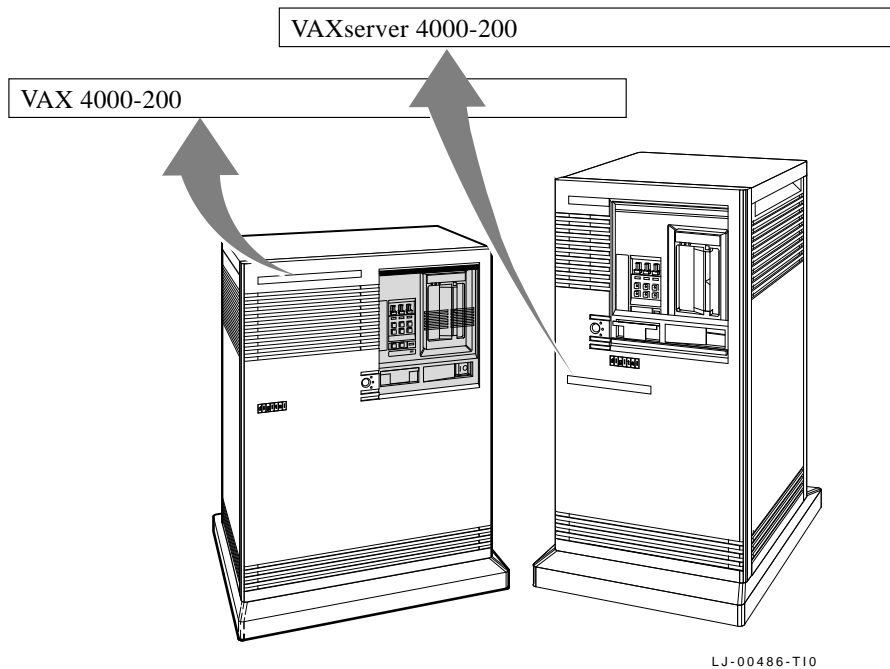
Figure 1–6 Label Locations on System Without Panels



VAXserver/MicroVAX 3300/3400 Conversion 1.4 Installing the Kit

24. Remove the old medallion by using a flat-blade screwdriver to lift the medallion off the front panel.
25. Attach the new medallion to the front panel as shown in Figure 1-7.

Figure 1-7 Medallion Location



26. Have the customer reinstall the system backup data.
27. Fill out the forms in Appendix A.

2

VAXserver/MicroVAX 3500/3800 Conversion

This chapter describes how to convert from a VAXserver 3500/3800 system to a VAXserver 4000-200 system and from a MicroVAX 3500/3800 system to a VAX 4000-200 system using a 660XR-XX conversion kit.

Caution

The MS650-AA memory module will not function with a KA660-XX CPU module. When a KA650 or KA655 CPU module is removed and the system is converted to a KA660-XX system, do the following:

1. Install an MS650-BA (16-Mbyte) memory or MS650-BB (8-Mbyte) memory module.
 2. Remove the H3600 CPU I/O panel and install the H3602 I/O panel. The H3602 panel is included in the conversion kit.
-

2.1 Summary of Conversion

The tasks required to convert from a VAXserver 3500/3800 system to a VAXserver 4000-200 system and from a MicroVAX 3500/3800 system to a VAX 4000-200 system are summarized as follows. To begin the actual conversion, go to Section 2.2.

1. Have the customer back up the system software.
2. Run diagnostics to verify system operation.
3. Unpack and verify the contents of the conversion kit.
4. Remove the front panel and media faceplate.
5. Remove the operator control panel (OCP).

VAXserver/MicroVAX 3500/3800 Conversion

2.1 Summary of Conversion

6. Remove the CPU I/O cover cables.
7. Remove the CPU I/O panel.
8. Remove the module cover from the KFQSA module. Remove the module covers from the memory slots, if memory needs to be upgraded.
9. Disconnect the CPU memory cable.
10. Remove the old CPU module.
11. Install the new KA660 (M7626) CPU module.
12. Upgrade the old memory modules to MS650-BA/BB, if necessary.
13. Reroute the internal DSSI cable, if applicable.
14. Install the DSSI handle.
15. Reconnect the cables to CPU and memory modules.
16. Install the new H3602 CPU I/O panel and reconnect the panel cables.
17. Reinstall the memory module covers.
18. Install the module cover labels.
19. Install the OCP and media faceplate.
20. Install the front panel.
21. Run diagnostics to verify system operation.
22. Install the new medallion and labels.
23. Have the customer verify that the system software boots and operates correctly.
24. Complete the forms in Appendix A.

2.2 Unpacking the Kit

To unpack the kit:

1. Make sure there is no external damage to the shipping container, such as dents, holes, or crushed corners.
2. Unpack the conversion kit and check its contents against the shipping invoice.

Caution

Wear an antistatic wrist strap and use an antistatic mat during module handling to prevent static discharge and damage to modules. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Unpack the CPU module and place it on the grounded antistatic mat.
4. Save the packing material to use when you return the old module to Digital.
5. If any item is missing or damaged:
 - a. Contact the customer's sales representative.
 - b. Contact the customer's delivery agent.

2.3 Before Installing the Kit

Before installing the kit:

1. Have the customer back up the system software before the Digital Services representative arrives. It is the customer's responsibility to back up the system software.
2. Turn on the system power and run diagnostics to verify system operation.
3. Turn off the system power before installing the kit.

VAXserver/MicroVAX 3500/3800 Conversion

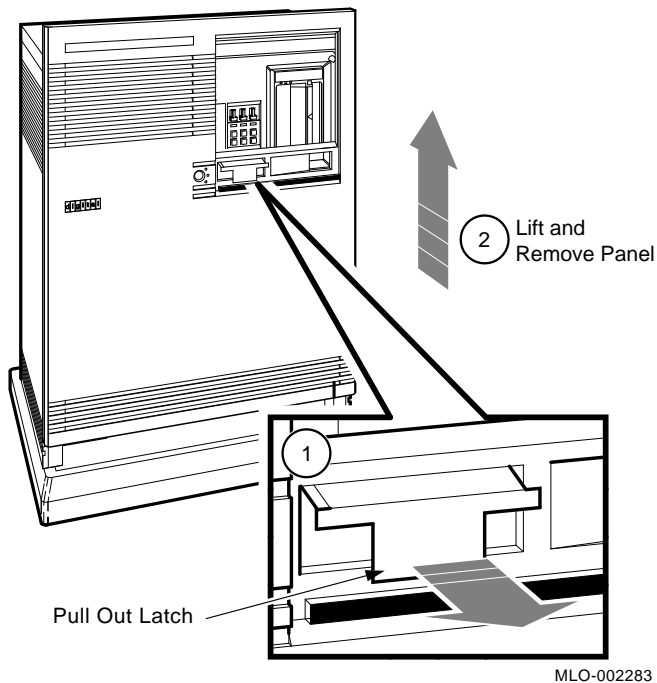
2.4 Installing the Kit

2.4 Installing the Kit

To install the conversion kit:

1. Turn the front panel key switch to the bottom position, lower the access door, and turn the power switch on the CPU box to off (O).
2. Turn off the system power to any expander boxes connected to the system.
3. Remove the front panel as shown in Figure 2-1.

Figure 2-1 Removing Front Panel



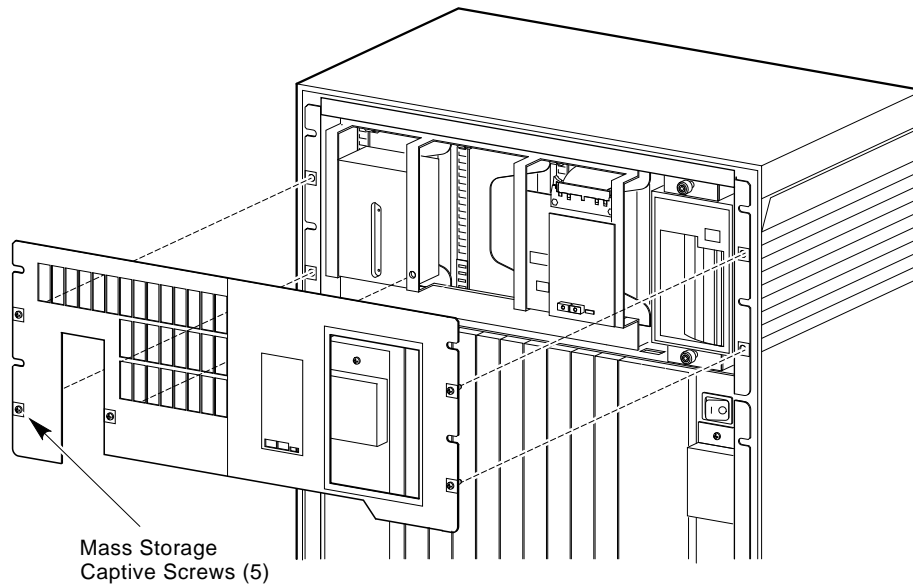
Note

To connect the internal DSSI-based ISE drives (if present) to the KA660 CPU module, you must reroute the DSSI cable. If the ISE drives are not DSSI-based, then ignore steps 4 through 6 and begin with step 7.

VAXserver/MicroVAX 3500/3800 Conversion 2.4 Installing the Kit

4. If the external DSSI cable is used in the system, then disconnect it from the external connector on the media faceplate.
5. Remove the media faceplate as shown in Figure 2-2.

Figure 2-2 Removing Media Faceplate



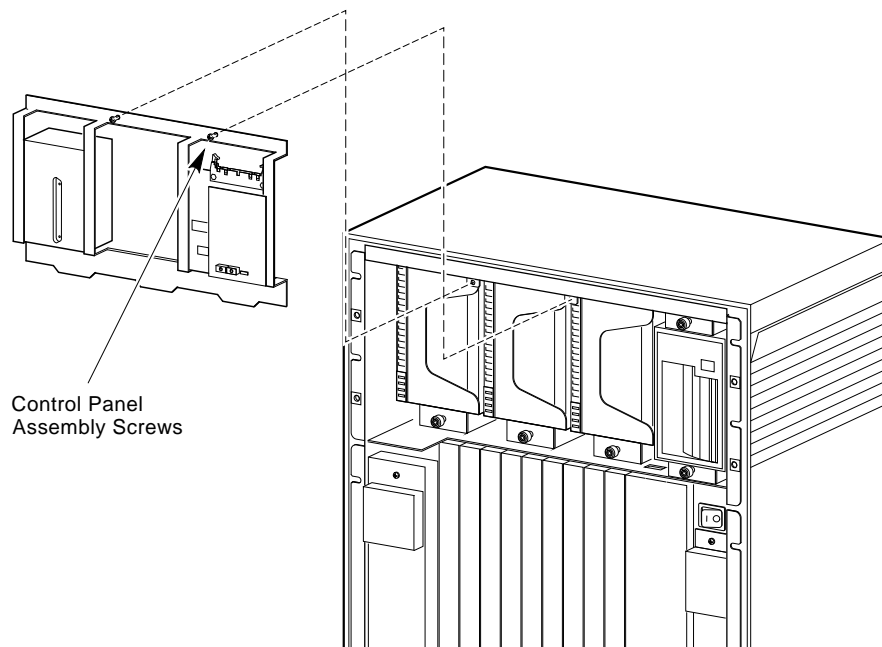
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VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

6. Remove the operator control panel (OCP) as shown in Figure 2-3.

Figure 2-3 Removing OCP



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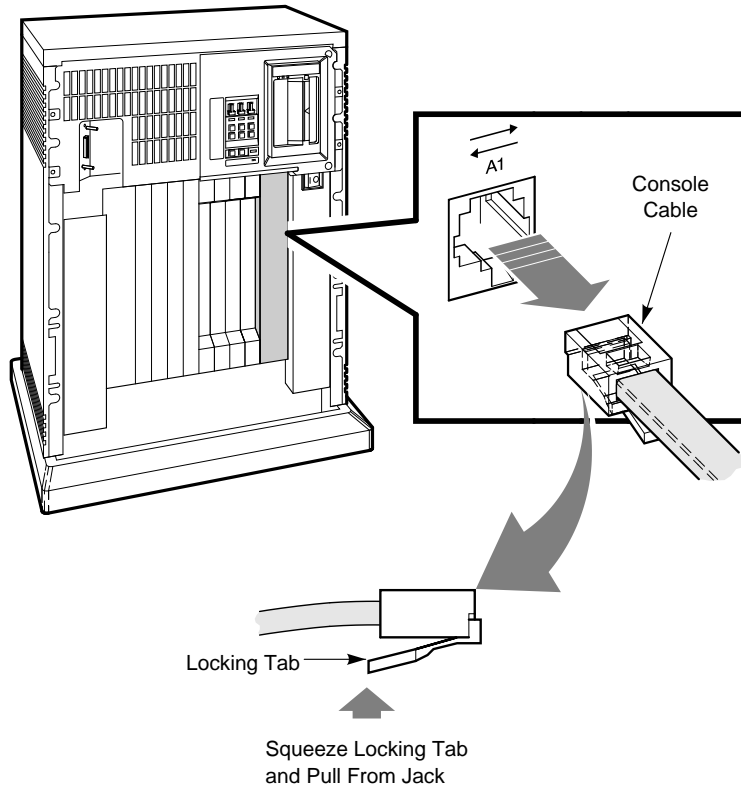
VAXserver/MicroVAX 3500/3800 Conversion 2.4 Installing the Kit

7. Remove the console cable as shown in Figure 2-4.

Caution

Wear the antistatic wrist strap and use the antistatic mat when working with modules.

Figure 2-4 Removing Console



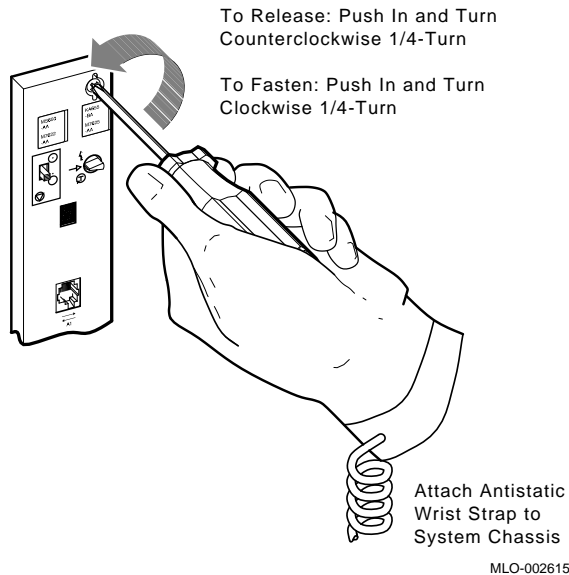
MLO-002610

VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

8. Release the CPU I/O panel as shown in Figure 2-5. Disconnect the cable that connects the CPU to the I/O panel, and set the panel aside.

Figure 2-5 Removing CPU I/O Panel



9. Disconnect the CPU module cables.
10. Remove the old CPU module from slot 1.
11. Install the new KA660-AA/BA CPU module in slot 1.

Note

If the VAXserver/MicroVAX 3500/3800 system does not have an internal DSSI (KFQSA-SA), then go to Section 3.4, steps 12 through 15, for installing the DSSI handle and terminator, and return to step 18.

VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

12. Remove the module cover from the KFQSA module. Remove the module covers from the memory slots.
13. Disconnect the socket end of the internal DSSI cable that is connected to the KFQSA module.
14. Reroute the cable up through the notch at the left-front of the mass storage shelf.
15. Run the cable down through the space to the left of the tape drive as shown in Figure 2-6.

Caution

Make sure the excess cable does not touch the ISE when it is installed. Otherwise, the shock-absorbing function of the mounting bracket will be impeded.

16. Connect the DSSI internal cable into the outer connector (J2) on the new CPU module.
17. Install the DSSI handle (P/N 70-26020-01) above the KFQSA module by connecting the internal cable on the handle to the KFQSA module. The DSSI handle is included in the conversion kit.

If you are not connecting the DSSI handle to external drives, then connect a DSSI external terminator (P/N 12-29258-01) to the handle's outer connector.
18. If memory needs to be upgraded, then remove the 50-pin daisychain memory cable that connects the memory modules and the CPU module.
19. Remove old memory modules and install the new memory modules.

A 3-connector memory cable is provided in the memory kit for a 2-memory module connection.
20. Connect the appropriate memory cable from the CPU inner connector to all the memory modules.

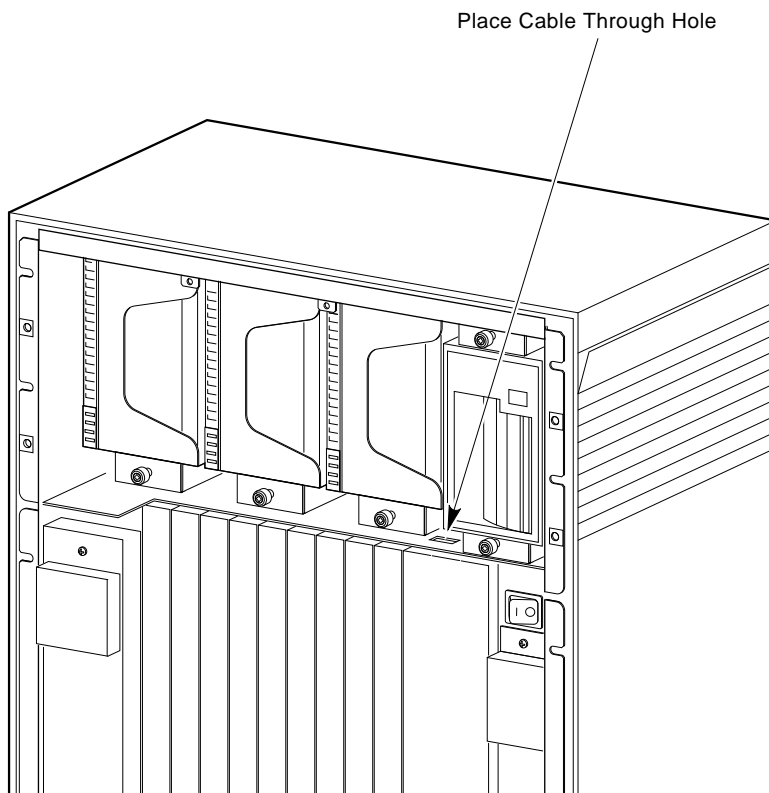
The new CPU module has two internal flat cables and one round cable that must be connected.
21. Connect the CPU I/O panel cable to the H3602 CPU I/O panel.

VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

22. Install the new H3602 CPU I/O panel.

Figure 2-6 Routing Internal DSSI Cable



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VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

23. Attach the new CPU module label to the CPU I/O panel as shown in Figure 1-4.
24. Install the memory module covers.
25. Attach the new memory module labels to the memory module covers as shown in Figure 1-4.
26. Reconnect the cables to the CPU I/O panel.
27. Reinstall the OCP.
28. Reinstall the media faceplate.
29. If the external DSSI cable is used in the system, then reconnect it to the external connector on the media faceplate.
30. Reinstall the front panel.
31. Run diagnostics to verify system operation.
32. Place the new serial label over the existing serial label as shown in Figure 2-7 for pedestal systems.
33. Place the new JTT label, P/N 36-33180-18, on the system or place over existing label, if it is present. The JTT label placement is shown in Figure 1-5 for a pedestal system, and Figure 1-6 for a rack-mountable system.

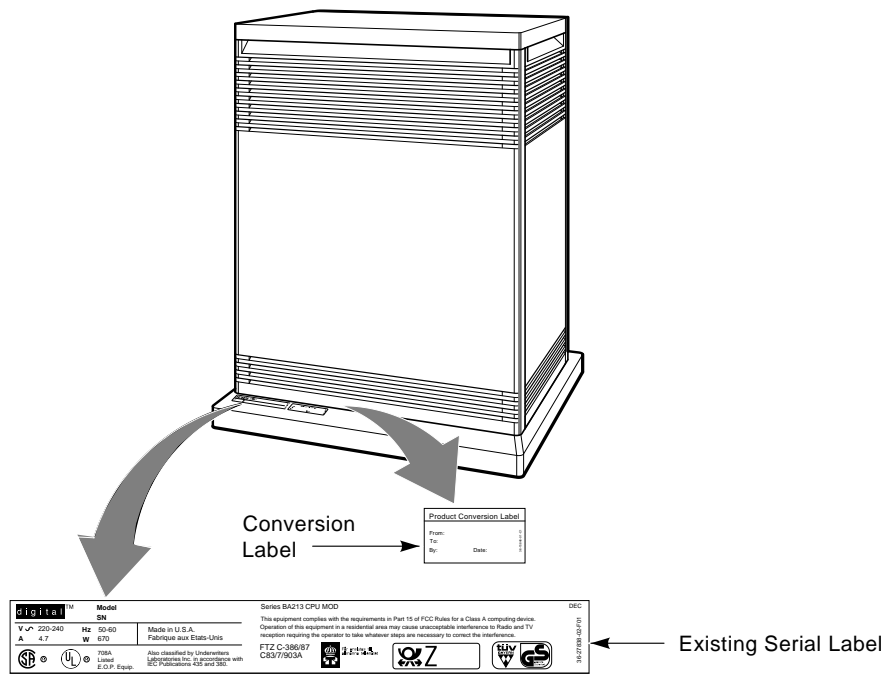
Note

Two labels are shipped with the conversion kit. Install the JTT label, P/N 36-33180-18, for a BA213 enclosure.

VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

Figure 2-7 Conversion and Serial Label Locations

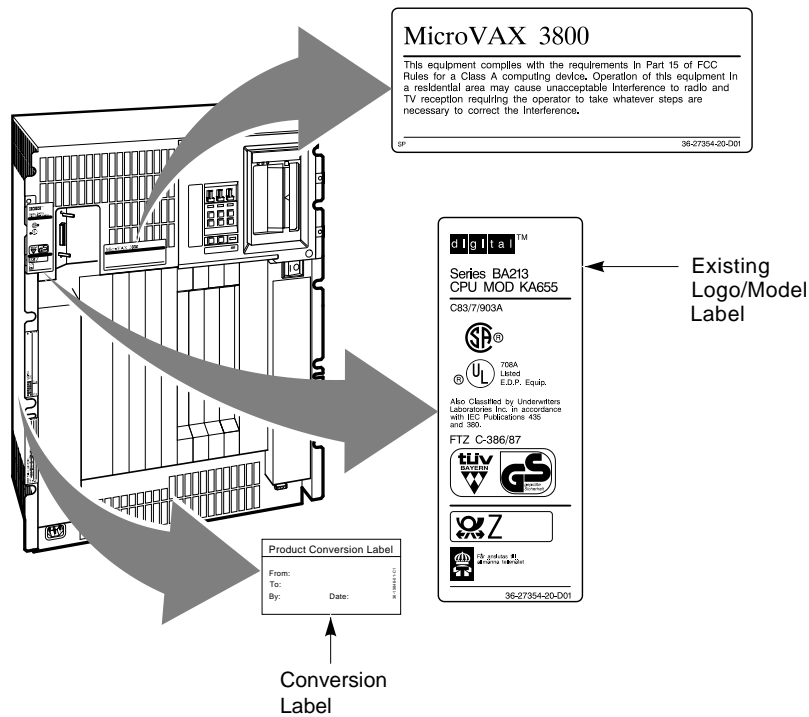


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VAXserver/MicroVAX 3500/3800 Conversion 2.4 Installing the Kit

34. Attach the new logo model label over the existing logo model label as shown in Figure 2–8 for rack-mountable systems.
35. Attach the new conversion label as shown in Figure 2–7 for pedestal systems, and Figure 2–8 for rack-mountable systems.

Figure 2–8 Label Locations on System Without Panels



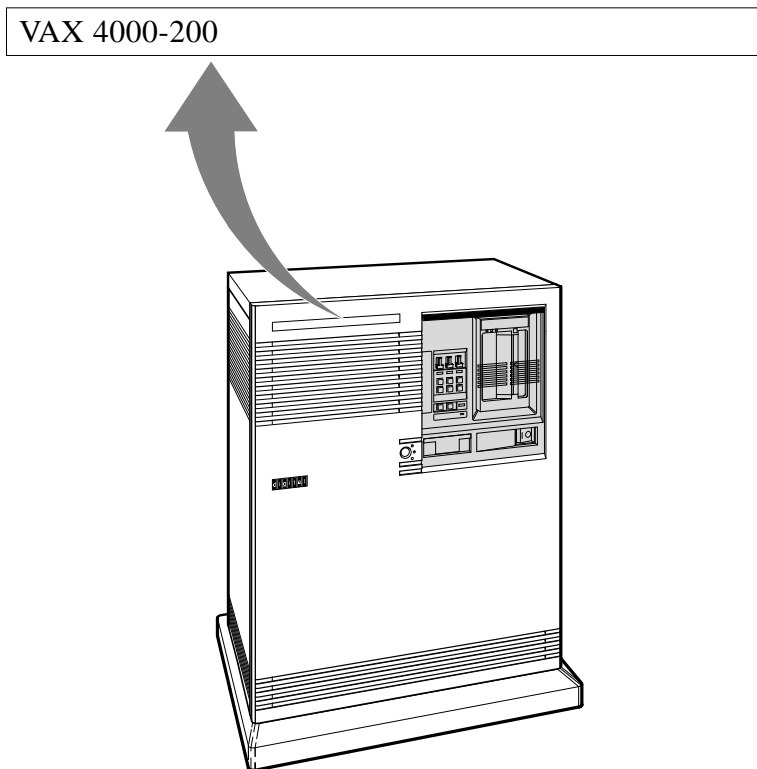
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VAXserver/MicroVAX 3500/3800 Conversion

2.4 Installing the Kit

36. Remove the old medallion using a flat-blade screwdriver to lift it off the front panel. Attach the new medallion as shown in Figure 2-9.

Figure 2-9 Medallion Location



LJ-00489-T10

37. Have the customer reinstall the system backup data.
38. Fill out the forms in Appendix A.

3

VAXserver/MicroVAX 3600/3900 Conversion

This chapter describes how to convert from a VAXserver 3600/3900 system to a VAXserver 4000-200 system and from a MicroVAX 3600/3900 system to a VAX 4000-200 system using a 660XR-XX conversion kit.

Note

VAXserver/MicroVAX 3600 and VAXserver/MicroVAX 3900 systems are cabinet systems.

Caution

The MS650-AA memory module will not function with a KA660-XX CPU module. When a KA650 or KA655 CPU module is removed and the system is converted to a KA660-XX system, do the following:

1. Install an MS650-BA (16-Mbyte) memory or MS650-BB (8-Mbyte) memory module.
 2. Remove the H3600 CPU I/O panel and install the H3602 I/O panel. The H3602 panel is included in the conversion kit.
-

VAXserver/MicroVAX 3600/3900 Conversion

3.1 Summary of Conversion

3.1 Summary of Conversion

The tasks required to convert from a VAXserver 3600/3900 system to a VAXserver 4000-200 system and from a MicroVAX 3600/3900 system to a VAX 4000-200 system, are summarized as follows. To begin the actual conversion, go to Section 3.2.

1. Have the customer back up the system software.
2. Run diagnostics to verify system operation.
3. Unpack and verify the contents of the conversion kit.
4. Open the system cabinet door.
5. Disconnect the CPU I/O panel cables.
6. Remove the CPU I/O panel.
7. Remove the module covers from the remaining memory slots, if memory needs to be upgraded.
8. Disconnect the CPU memory cable, and remove the old CPU module.
9. Install the new KA660 CPU module.
10. Upgrade the old memory modules to MS650-BA/BB, if necessary.
11. Reconnect the CPU memory cable.
12. Install the grant card kit, if applicable, and the DSSI handle.
13. Install the DSSI external terminator.
14. Install the new H3602 CPU I/O panel, and reconnect the CPU I/O panel cables.
15. Reinstall the memory module covers.
16. Install the module cover labels.
17. Close the cabinet door.
18. Run diagnostics to verify system operation.
19. Install the new labels and medallion.
20. Have the customer verify that the system boots and operates correctly.
21. Fill out the forms in Appendix A.

3.2 Unpacking the Kit

To unpack the kit:

1. Make sure there is no external damage to the shipping container, such as dents, holes, or crushed corners.
2. Unpack the conversion kit and check its contents against the shipping invoice.

Caution

Wear an antistatic wrist strap and use an antistatic mat during module handling to prevent static discharge and damage to modules. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Unpack the CPU module and place it on the grounded antistatic mat.
4. Save the packing material to use when you return the old module to Digital.
5. If any item is missing or damaged:
 - a. Contact the customer's sales representative.
 - b. Contact the customer's delivery agent.

3.3 Before Installing the Kit

Before installing the kit:

1. Have the customer back up the system software before the Digital Services representative arrives. It is the customer's responsibility to back up the system software.
2. Turn on the system power and run diagnostics to verify system operation.
3. Turn off the system power before installing the kit.

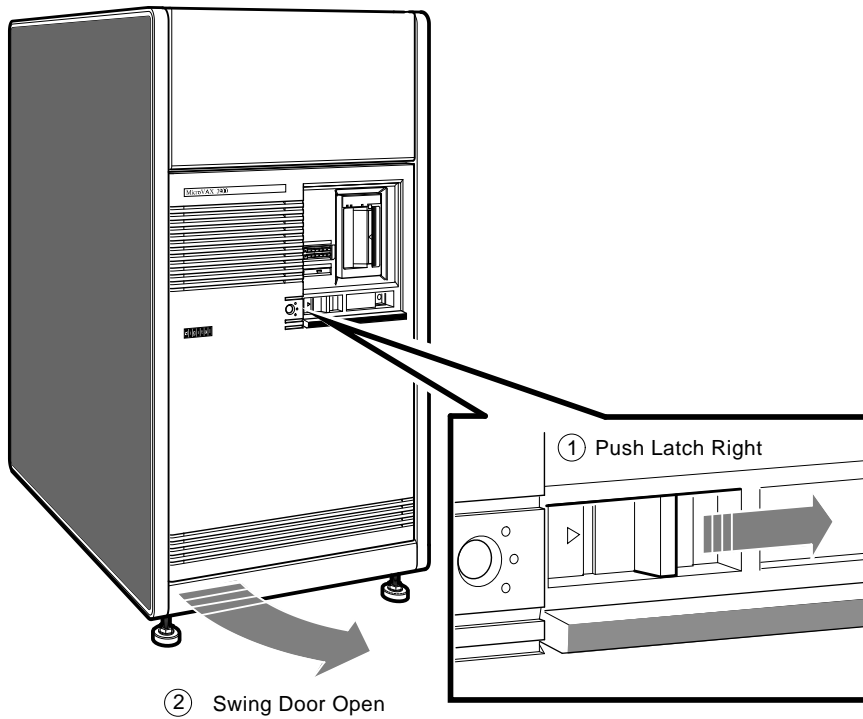
VAXserver/MicroVAX 3600/3900 Conversion
3.4 Installing the Kit

3.4 Installing the Kit

To install the conversion kit:

1. Turn the cabinet door key switch to the bottom position, lower the access door, and turn the power switch on the CPU box to off (0).
2. Turn off the system power to any expander boxes connected to the system.
3. Open the system cabinet door as shown in Figure 3-1.

Figure 3-1 Opening Cabinet Door



MLO-003746

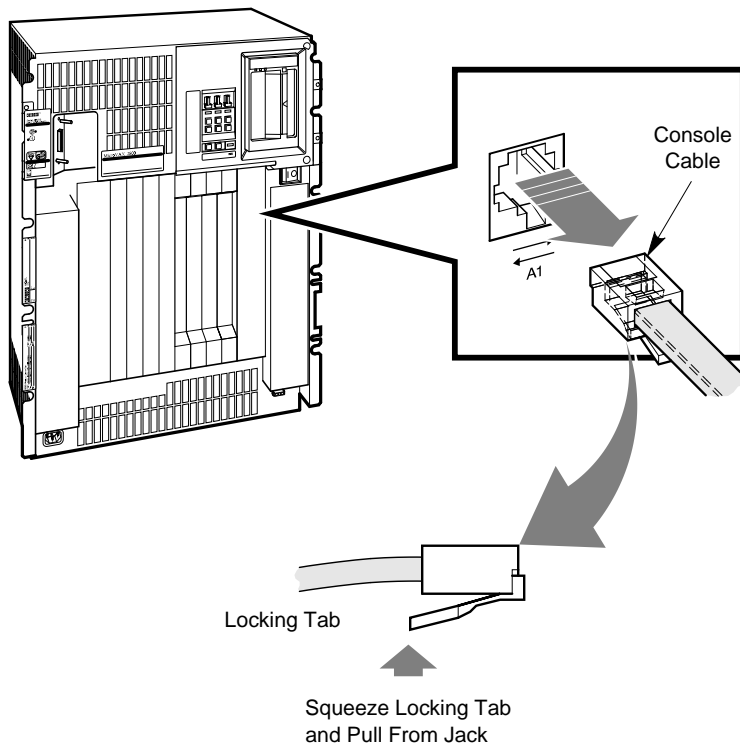
VAXserver/MicroVAX 3600/3900 Conversion 3.4 Installing the Kit

4. Remove the console cable as shown in Figure 3-2.

Caution

Wear the antistatic wrist strap and use the antistatic mat when working with modules.

Figure 3-2 Removing CPU I/O Panel Console Cable



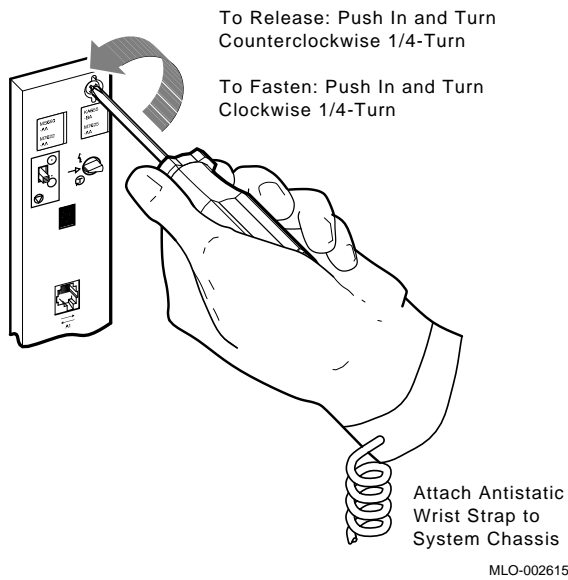
LJ-00579-T10

VAXserver/MicroVAX 3600/3900 Conversion

3.4 Installing the Kit

5. Release the CPU I/O panel as shown in Figure 3-3. Disconnect the cable that connects the CPU module to the I/O panel, and set the panel aside.

Figure 3-3 Removing CPU I/O Panel



6. Remove the module covers from the remaining memory slots, if the memory needs to be upgraded.

A 3-connector memory cable is provided in the memory kit for a 2-memory module connection.

VAXserver/MicroVAX 3600/3900 Conversion

3.4 Installing the Kit

7. Remove the 50-pin daisychain memory cable that connects the memory modules to the CPU module.
8. Remove the old CPU module from slot 1.
9. Install the new KA660-AA/BA CPU module.
10. Remove the old memory modules. Install the new memory modules (if required).
11. Install the appropriate memory cable from the CPU inner connector (J1) to all the memory modules.
12. Install a grant card kit (M9047-SA) in the slot after the last memory module.

Note

If the system is fully populated with modules, then install the DSSI handle over the slot that contains the last memory module.

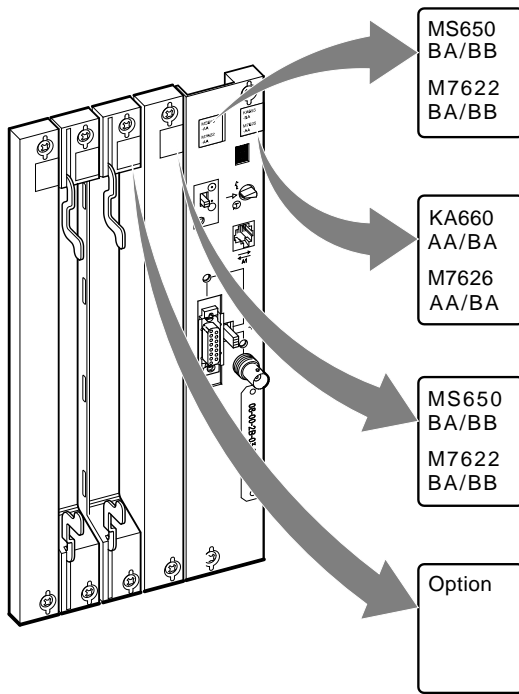
13. Install the DSSI handle internal cable (from the handle inner connector) to the new CPU module outer connector (J2).
The new CPU module has two internal flat cables and one round cable that must be connected.
14. Install the DSSI handle (P/N 70-26020-01) over the grant card or memory slot.
15. Install the external DSSI cable, if present, to the DSSI handle (outer connector).
If you are not connecting the DSSI handle to external drives, then connect a DSSI external terminator (P/N 12-29258-01) to the handle outer connector.
16. Connect the CPU I/O panel cable to the H3602 CPU I/O panel.
17. Install the new H3602 CPU I/O panel.
18. Install the memory module covers.

VAXserver/MicroVAX 3600/3900 Conversion

3.4 Installing the Kit

19. Reconnect the cables to the CPU I/O panel.
20. Attach the new CPU module and memory module labels to the CPU I/O panel as shown in Figure 3-4.
21. Attach the new memory module labels to the memory module covers.

Figure 3-4 CPU and Memory Label Locations



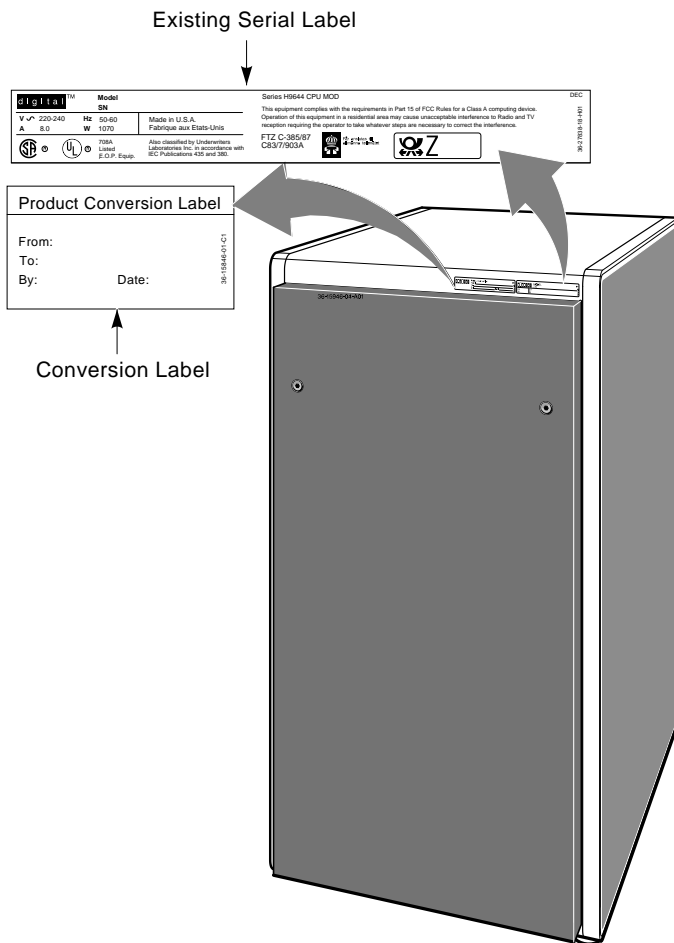
LJ-00487-T10

22. Close the system cabinet door.
23. Turn on the system and run system diagnostics to verify system operation.

VAXserver/MicroVAX 3600/3900 Conversion 3.4 Installing the Kit

24. Place the new serial label over the existing serial label as shown in Figure 3-5.

Figure 3-5 Conversion Label Location



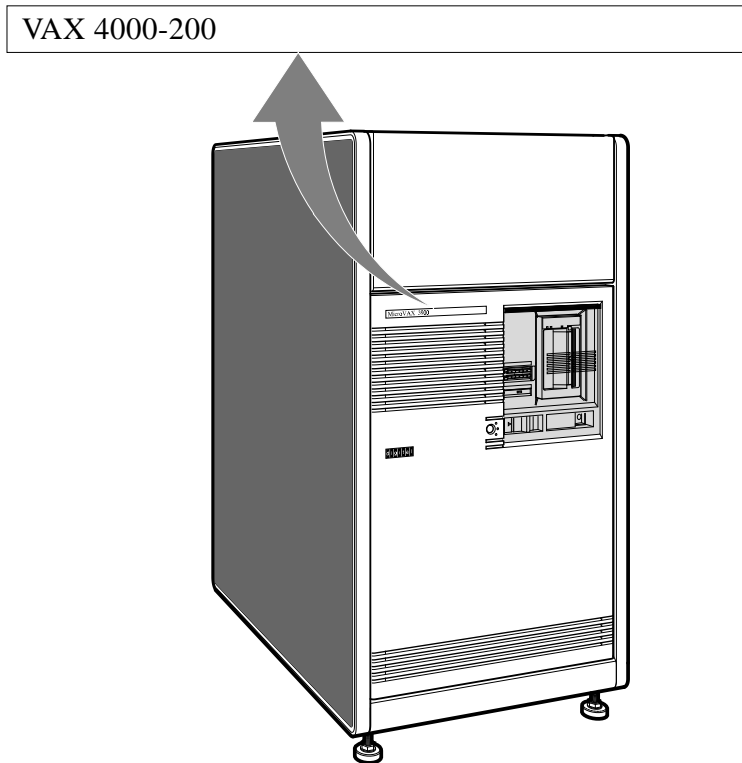
LJ-00534-T10

VAXserver/MicroVAX 3600/3900 Conversion

3.4 Installing the Kit

25. Add the JTT label, P/N 36-33180-18, to the BA213 front panel as shown in Figure 1-6 for a rack-mountable system.
26. Attach the conversion label as shown in Figure 3-5.
27. Remove the old medallion using a flat-blade screwdriver to lift it off the cabinet door.
28. Attach the new medallion as shown in Figure 3-6.

Figure 3-6 Medallion Location



LJ-00536-T10

VAXserver/MicroVAX 3600/3900 Conversion
3.4 Installing the Kit

29. Have the customer reinstall the system backup data.
30. Fill out the forms in Appendix A.

4

VAXserver 4000-200 Conversion

This chapter describes how to convert from a VAXserver 4000-200 system to a VAX 4000-200 system using a 660XR-XX conversion kit.

4.1 Summary of Conversion

The tasks required to convert from a VAXserver 4000-200 system to a VAX 4000-200 system, are summarized as follows. To begin the actual conversion, go to Section 4.2.

1. Have the customer back up the system software.
2. Run diagnostics to verify system operation.
3. Unpack and inventory the conversion kit.
4. Remove CPU I/O panel cables.
5. Remove CPU I/O panel.
6. Disconnect the CPU module cables.
7. Remove the old CPU module.
8. Install the new KA660-AA (M7626) CPU module.
9. Reconnect the CPU module cables.
10. Reinstall the CPU I/O panel.
11. Reconnect the CPU I/O panel cables.
12. Install the CPU label to the I/O panel.
13. Install the conversion label.

VAXserver 4000-200 Conversion

4.1 Summary of Conversion

14. Install the new medallion.
15. Run diagnostics to verify system operation.
16. Have the customer verify that the system boots and operates correctly.
17. Complete the forms in Appendix A.

4.2 Unpacking the Kit

To unpack the kit:

1. Make sure there is no external damage to the shipping container, such as dents, holes, or crushed corners.
2. Unpack the conversion kit and check its contents against the shipping invoice.

Caution

Wear an antistatic wrist strap and use an antistatic mat during module handling to prevent static discharge and damage to modules. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Unpack the CPU module and place it on a grounded antistatic mat.
4. Save the packing material to use when you return the old module to Digital.
5. If any item is missing or damaged, then:
 - a. Contact the customer's sales representative.
 - b. Contact the customer's delivery agent.

VAXserver 4000-200 Conversion

4.3 Before Installing the Kit

4.3 Before Installing the Kit

Before installing the kit:

1. Have the customer back up the system software before the Digital Services representative arrives. It is the customer's responsibility to back up the system software.
2. Turn on the system power and run diagnostics to verify system operation.
3. Turn off the system power before installing the kit.

4.4 Installing the Kit

To install the conversion kit:

1. On a BA215 system, turn the front panel key switch to the bottom position and remove the front panel as described in Chapter 1. Turn off the system power switch to the BA215 system.
2. On a BA430 system, unlock the front door by turning the front door key switch to the bottom position. Swing open both access doors, and turn off the power switch to the BA430 system.
3. Turn off the system power to any expander boxes connected to the system.

VAXserver 4000-200 Conversion

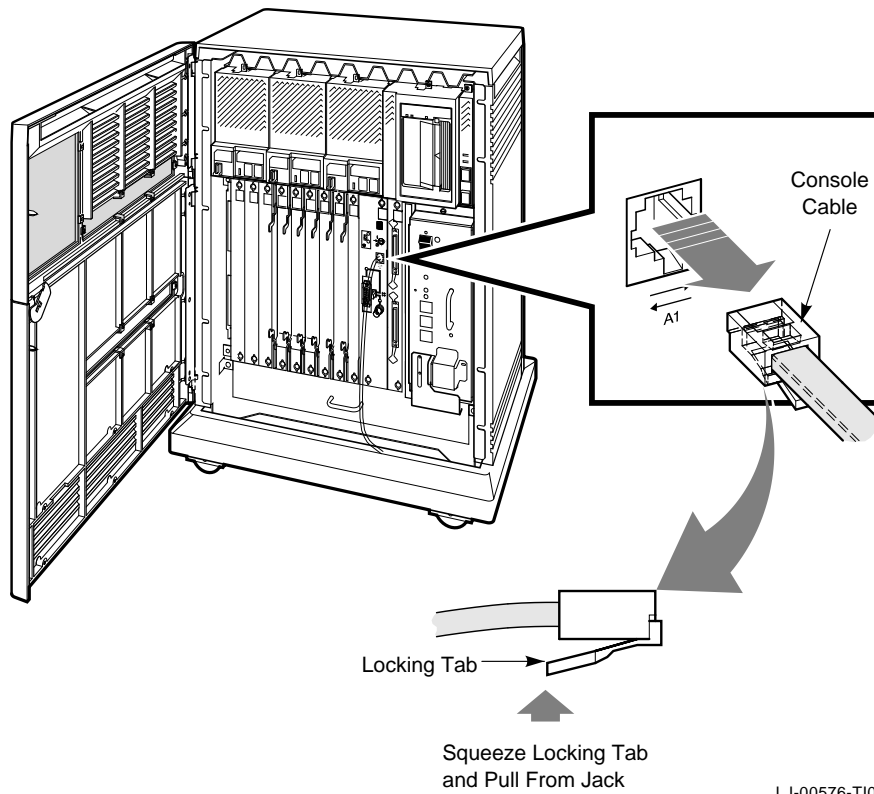
4.4 Installing the Kit

4. Disconnect the console cable from the I/O panel as shown in Figure 4-1.
5. If the Ethernet cable is present, then disconnect the Ethernet cable from the I/O panel.

Caution

Wear the antistatic wrist strap and use the antistatic mat when working with modules.

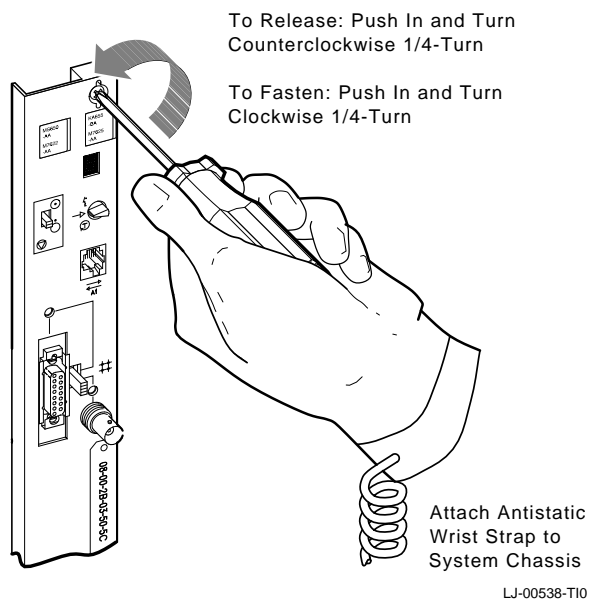
Figure 4-1 Removing Console Cable



VAXserver 4000-200 Conversion 4.4 Installing the Kit

6. Release the CPU I/O panel as shown in Figure 4–2. Disconnect the cable that connects the CPU to the I/O panel, and set the panel aside.

Figure 4–2 Removing CPU I/O Panel



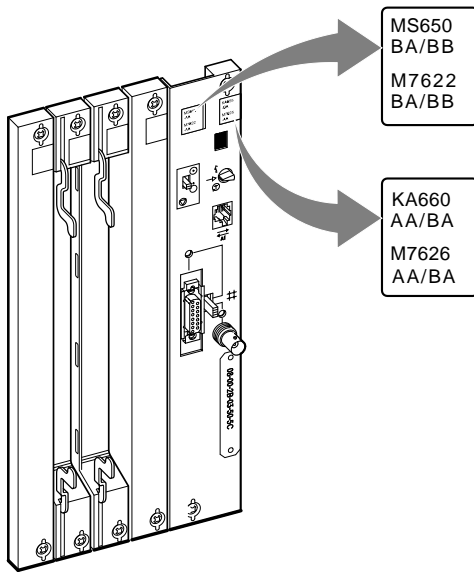
7. Disconnect the CPU module cables.
8. Remove the old CPU module from slot 1.
9. Install the new KA660-AA CPU module in slot 1.

VAXserver 4000-200 Conversion

4.4 Installing the Kit

10. Reconnect the CPU module cables.
11. Reinstall the CPU I/O panel over slot 1.
12. Reconnect the CPU I/O panel cables.
13. Install the new CPU label to the CPU I/O panel as shown in Figure 4-3.

Figure 4-3 Attaching CPU Labels



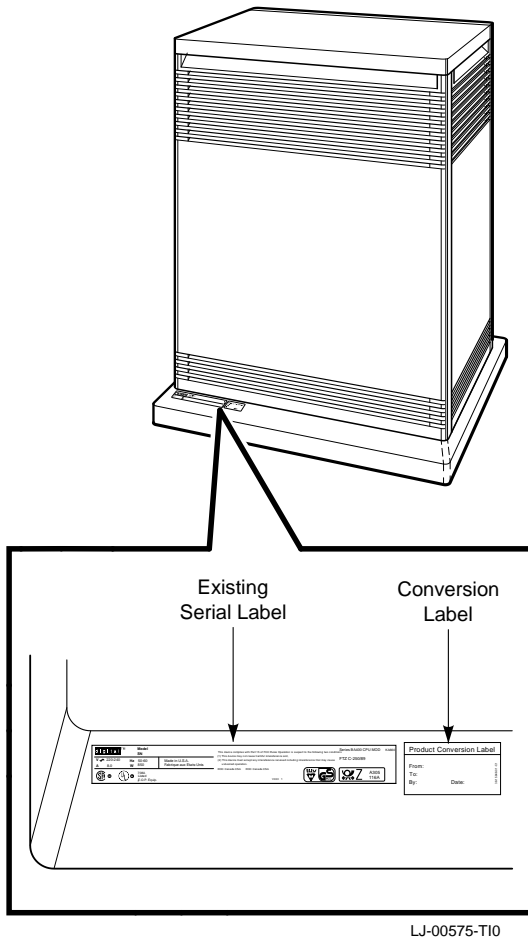
LJ-00539-T10

14. Turn on the system power and run system diagnostics to verify system operation.
15. Close the system door (BA430) or reinstall the front panel (BA215).

VAXserver 4000-200 Conversion 4.4 Installing the Kit

16. Place the new serial label over the existing serial label as shown in Figure 4-4.
17. Attach the conversion label as shown in Figure 4-4.

Figure 4-4 Conversion and Serial Label Locations



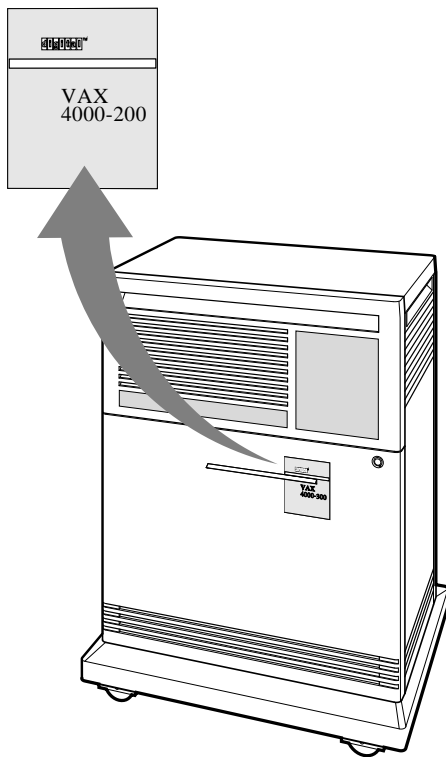
18. Remove the old medallion and color strip (BA430 only) by using a flat-blade screwdriver to lift it off the front panel.

VAXserver 4000-200 Conversion

4.4 Installing the Kit

19. Install the new medallion for the BA430 as shown in Figure 4-5. Refer to Figure 1-7 to install the new medallion for the BA215.

Figure 4-5 Medallion Location



LJ-00530-T10

20. Have the customer reinstall the system backup information.
21. Fill out the forms in Appendix A.

5

VAX/VAXserver 4000-300, -400, and -500 Conversion

This chapter describes how to convert from a VAX 4000-300, -400, and -500 system to a VAX 4000-400, -500, and -600 system; from a VAXserver 4000-300, -400, and -500 system to a VAXserver 4000-400, -500, and -600 system; or from a VAXserver 4000-300 system to a VAX 4000-300 system. To upgrade these systems, use one of the conversion kits: 670XR-AA, 675XR-XX, 680XR-XX, or 690XR-XX. The VAXserver 4000-300 system uses the 670XR-AA conversion kit.

Caution

Wear the antistatic wrist strap and use the antistatic mat when removing or installing the KA670, KA675, KA680, and KA690 modules.

Note

The L4001-type memory modules will not function with the KA675-XX, KA680-XX, or KA690-XX CPU modules. When a KA670 CPU is removed and the system is converted to a KA675, KA680, or KA690 system, memory must be upgraded to L4004-type memory.

5.1 Summary of Conversion

The tasks required to convert from a VAX/VAXserver-300, -400, and -500 system to a VAX/VAXserver 4000-300, -400, -500, and -600 system, are summarized as follows. To begin the actual conversion, go to Section 5.3.

1. Have the customer back up the system software.
2. Run diagnostics to verify system operation.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.1 Summary of Conversion

3. Unpack and verify the contents of the conversion kit.
4. Open the front door, shut down the operating system, and turn the power switch on the CPU box to off (0).
5. Open the H3604 console cover and disconnect the internal H3604 cables.
6. Remove the old CPU module. Remove the memory modules (L4001-XX), if applicable.
7. Install the new CPU module. Install the memory modules (L4004-XX), if applicable.
8. Reconnect the internal H3604 cables.
9. Close the H3604 console module.
10. Reconnect the H3604 external cables, if any were removed.
11. Install the new medallion and labels.
12. Run diagnostics to verify system operation.
13. Have the customer verify that the system software boots and operates correctly.
14. Complete the forms in Appendix A.

5.2 System Requirements

The system must have VMS software, Version 5.5 or higher, to support the KA670, KA680, and KA690 CPUs, and Version 5.5-2 or higher to support the KA675 CPU. Also, the system must have a Rev. K01 or higher BA440 backplane (P/N 54-19354-01) to support the KA675, KA680, and KA690 CPUs.

5.3 Unpacking the Kit

To unpack the kit:

1. Make sure there is no external damage to the shipping container, such as dents, holes, or crushed corners.
2. Unpack the conversion kit and check its contents against the shipping invoice.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.3 Unpacking the Kit

Caution

Modules can be damaged by static discharge if an antistatic wrist strap is not worn or an antistatic mat is not used during handling. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Unpack the CPU module and memory modules and place them on the grounded antistatic mat.
4. Save the packing material to use when you return the old modules to Digital.
5. If any item is missing or damaged:
 - a. Contact the customer's sales representative.
 - b. Contact the customer's delivery agent.

5.4 Before Installing the Kit

Before installing the kit:

1. Have the customer back up the system disk before the Digital Services representative arrives. It is the customer's responsibility to back up the system disk.
2. Run diagnostics to verify system operation.
3. Turn off the system power before installing the kit.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.5 Installing the Kit

5.5 Installing the Kit

If the conversion kit contains a backplane, then go to Section 5.6 and proceed with the system upgrade; otherwise, start with step 1.

To install the conversion kit:

1. Unlock the front door by turning the front door key switch to the bottom position. Open both access doors simultaneously. Turn off the power switch on the power supply.
2. Turn off the system power to any expander boxes connected to the system.

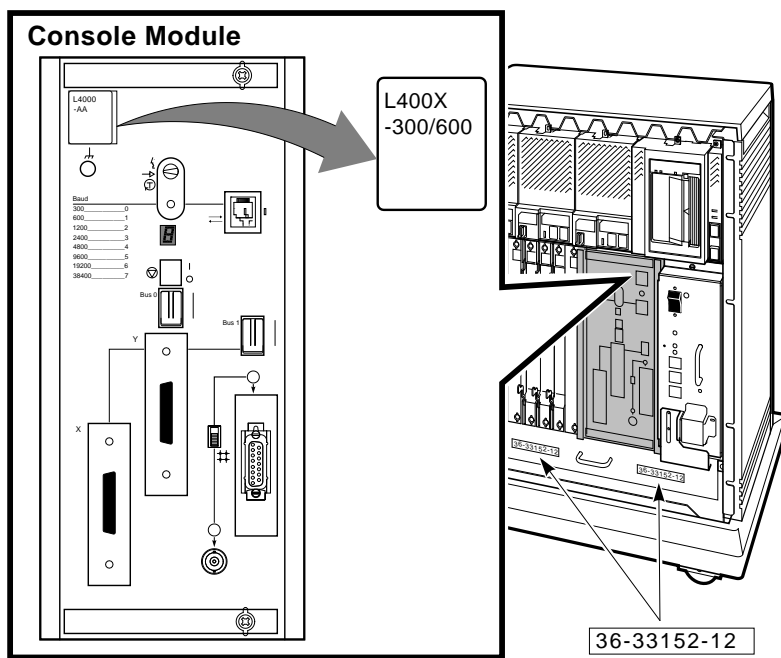
Caution

Wear an antistatic wrist strap and use an antistatic mat during module handling to prevent static discharge and damage to modules. The wrist strap and mat are in the antistatic kit in the Digital Services toolkit.

3. Open the H3604 console module by turning the ¼-turn screws.
4. Swing the hinged panel to the left. Note the position of the internal cables connected to the H3604 module. Carefully disconnect the internal cables.
5. Remove the old CPU module. Remove the L4001 memory modules, if applicable. Install the new CPU module. Install the new L4001 memory modules, if applicable.
6. Reconnect the internal cables to the H3604 console module. Close and lock the H3604 console modules.
7. Attach the new CPU label and memory labels to the H3604 console module panel as shown in Figure 5-1. The CPU label goes on the left-most side of the H3604. The memory labels go to the right side.

VAX/VAXserver 4000-300, -400, and -500 Conversion 5.5 Installing the Kit

Figure 5-1 CPU Label Location



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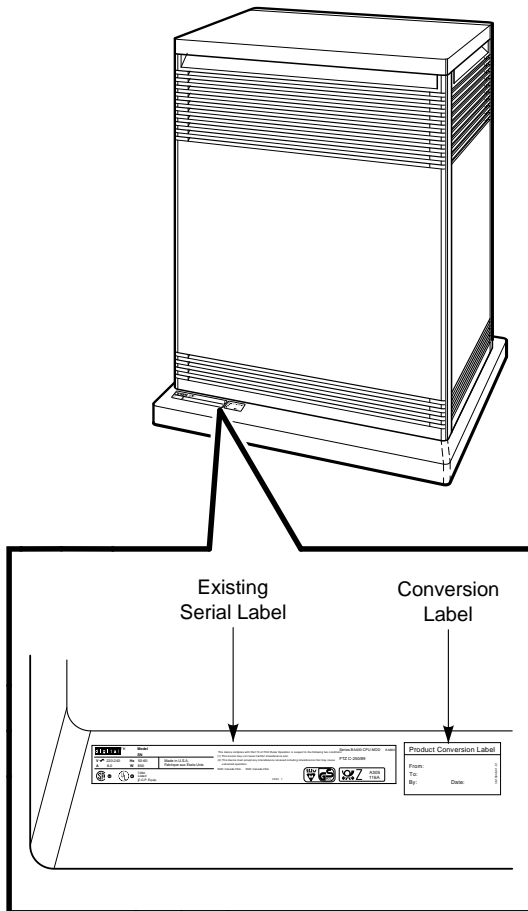
8. Turn on the power to the system and expander boxes if any, and run diagnostics to verify system operation.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.5 Installing the Kit

9. Place the new logo model label (P/N 36-33152-XX) over the existing label on the fan tray on the front of the chassis as shown in Figure 5-1.
10. Attach the new serial and conversion labels as shown in Figure 5-2.

Figure 5-2 Conversion Label Location

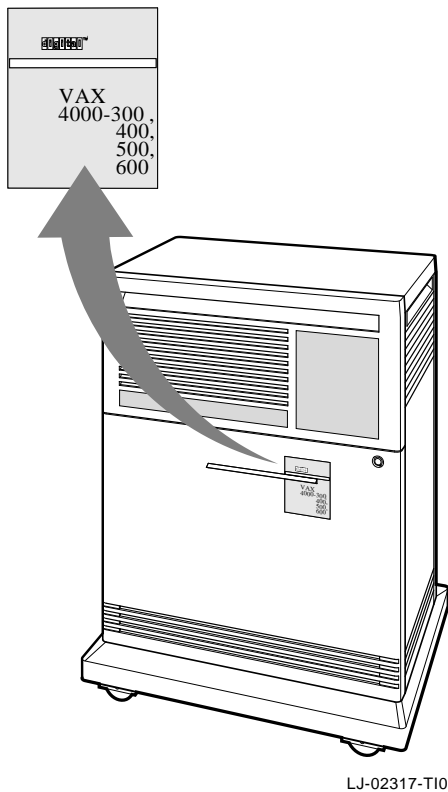


LJ-00575-T10

VAX/VAXserver 4000-300, -400, and -500 Conversion 5.5 Installing the Kit

11. Remove the old medallion and color strip by using a flat-blade screwdriver to lift it off the front panel as shown in Figure 5-3.

Figure 5-3 Medallion Location



12. Install the new medallion and color strip.
13. Have the customer reinstall the system backup information.
14. Complete the forms in Appendix A.

VAX/VAXserver 4000-300, -400, and -500 Conversion
5.6 Removing and Replacing the BA440 Backplane

5.6 Removing and Replacing the BA440 Backplane

This section describes how to remove the BA440 backplane (P/N 54-19354-01).

The backplane is the only part of the BA440 enclosure that must be removed from the rear of the enclosure.

It is not necessary to totally remove all option units, subassemblies, and connector cables from the enclosure, as long as each has been removed from the backplane. Leave cables connected to the ISE front panels to keep the appropriate ID plug with the correct ISE. This helps keep the replacement time to a minimum.

To remove the backplane, follow the steps in this section:

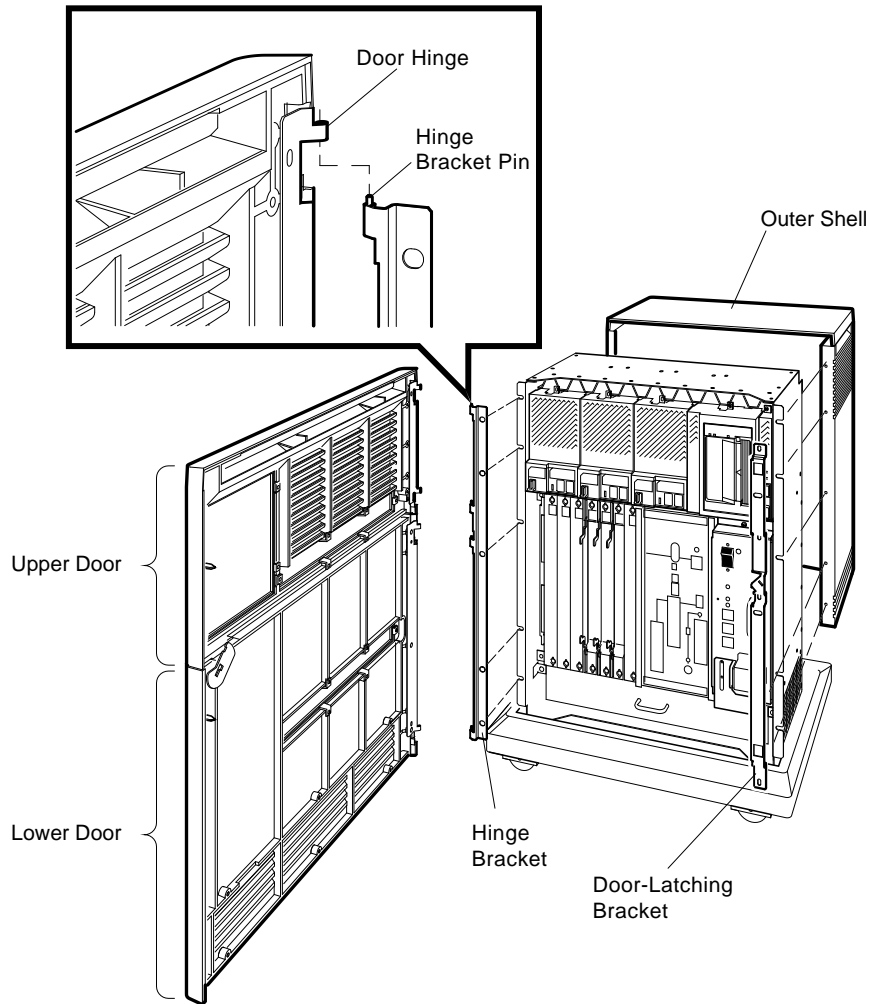
5.6.1 Open the Front Door of the Enclosure

To open the front door of the enclosure:

1. Unlock and open both doors. Turn off the power to the power supply. Turn the power off on any expander boxes attached to the system enclosure.
2. Remove the power cable from the power supply.
3. Remove the upper door by swinging it out more than 90 degrees and lifting it off its bracket hinge pins as shown in Figure 5-4.
4. Remove the lower door by swinging it out more than 90 degrees and lifting it off its bracket hinge pins.
5. Remove the door-latching bracket on the right by removing the three self-tapping screws and one 6-32 screw. Remove the bracket and the two remaining self-tapping screws that secure the right side plastic panel to the sheet metal chassis frame.
6. Remove the hinge bracket on the left by removing the five self-tapping screws.
7. Slide the outer shell back and lift it off the enclosure.

VAX/VAXserver 4000-300, -400, and -500 Conversion
5.6 Removing and Replacing the BA440 Backplane

Figure 5-4 Door and Outer Shell Removal



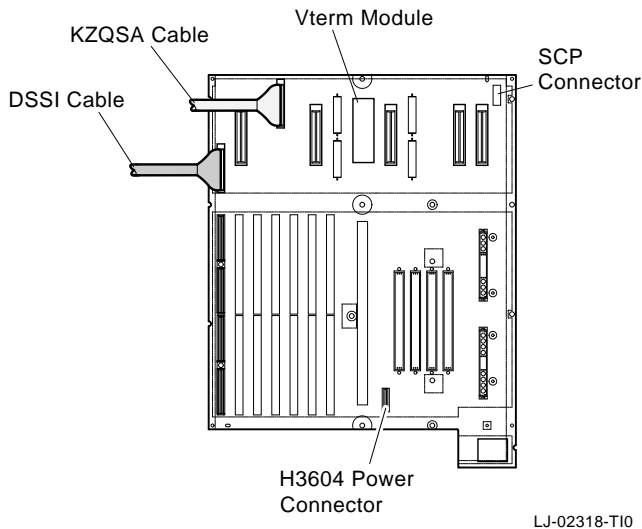
MLO-004222

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.6 Removing and Replacing the BA440 Backplane

8. Remove the ISE bezels by loosening the single top screw.
9. Loosen the two screws securing the ISE units.
10. Pull the ISEs away from the backplane. If removing ISEs from the enclosure, lay the ISEs on the antistatic mat.
Leave the front panel cables and bezels connected to their designated drives. (Bus node plugs in the front panel must stay with their respective ISE.)
11. Disconnect the internal DSSI and KZQSA bus cables (upper left of backplane) behind the ISEs as shown in Figure 5-5.

Figure 5-5 Bus Cable Locations



12. Loosen the screw holding the tape drive front panel.

Note

For the TLZ-series and TF-series tape drives, leave the front panel cables attached.

13. Loosen the two screws holding the tape drive and pull the tape drive away from the bus.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.6 Removing and Replacing the BA440 Backplane

If completely removing a TK-series tape drive from the enclosure, disconnect the controller cable, and lay the drive aside on the antistatic mat.

14. Remove the System Control Panel (SCP) cable from its connector on the backplane.
15. Loosen the top screw on the power supply.
16. Lift up on the plate that covers the bottom screw on the power supply.

Caution

The plate must be held up for at least 45 seconds to discharge the power supply and make it safe to handle.

17. Loosen the bottom screw on the power supply.
18. Pull the power supply away from the backplane. If you pull the power supply out completely, put it aside and lay it flat.

Warning

The power supply is heavy; therefore, handle the power supply carefully to prevent personal injury.

19. Swing open the H3604 console panel. It is not necessary to disconnect the external cables connected to the H3604.
20. Disconnect the H3604 wide cable from the CPU module and small power cable from the console panel.
21. Disconnect the thin H3604 power board from its backplane slot.
22. Loosen the two screws securing the fan drawer. Pull the fan drawer out.
23. Unseat or remove all system and option modules from the backplane.

Note

If removing modules completely from the backplane, write down the locations of the system and option modules and their external and internal cable connections.

VAX/VAXserver 4000-300, -400, and -500 Conversion

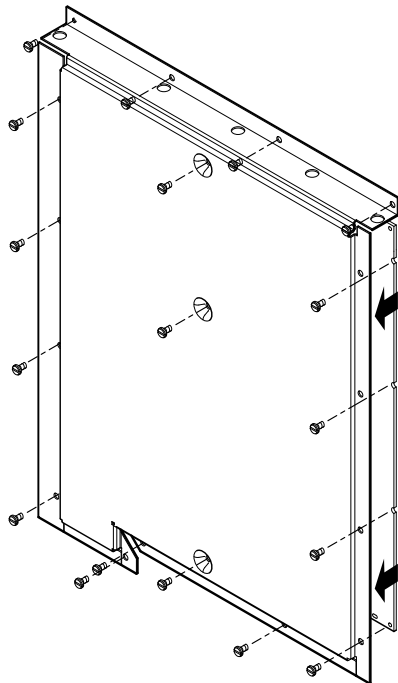
5.6 Removing and Replacing the BA440 Backplane

5.6.2 Open the Back Side of the Enclosure

To open the back side of the enclosure:

1. Remove all of the screws on the rear panel as shown in Figure 5-6.

Figure 5-6 Rear Panel Removal



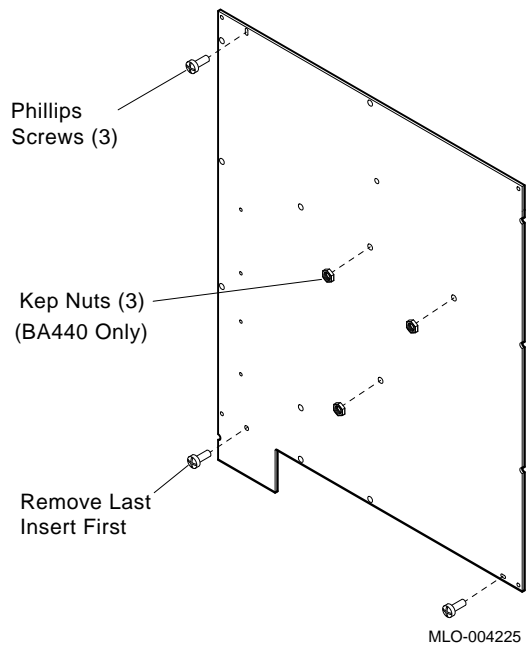
MLO-004224

2. Set the panel aside.
3. Remove the three nuts from the middle of the backplane as shown in Figure 5-7.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.6 Removing and Replacing the BA440 Backplane

Figure 5-7 Removing the BA440



4. Remove the three Phillips head screws from the outside edge of the backplane as shown in Figure 5-7.
5. Remove the backplane.

Warning

The backplane is heavy; therefore, handle the backplane carefully to prevent personal injury.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.6 Removing and Replacing the BA440 Backplane

5.6.3 Install a New Backplane into the BA440 Enclosure

To install a new backplane in the BA440 enclosure:

1. Open the new backplane bag (make sure the static wrist strap is connected to the system chassis).
2. Make sure all connector locking brackets are closed before installing the new backplane in the chassis.
3. Align the new backplane assembly with the rear holes of the enclosure. Insert the two bottom screws (left side first) and then the top screw (left) to align the backplane against the card cage. See Figure 5-7.
4. Install the three nuts to the middle studs. Tighten the nuts down (3-inch pounds torque).
5. Install the rear panel with the screws that were previously removed.
6. Remove the static clip from the rear frame and clip it to the front of the enclosure.

VAX/VAXserver 4000-300, -400, and -500 Conversion
5.6 Removing and Replacing the BA440 Backplane

5.6.4 Replace the Outer Shell

To replace the outer shell:

1. Pull the shell over the enclosure and up to the front edge bracket as shown in Figure 5-4.

2. Install the hinge bracket with the five screws that were previously removed.

Install all screws loosely. Tighten the screws during door alignment.

3. Install the screws in the second and fourth hole from the top and into the edge of the plastic side panel (before installing the latch bracket). These screws must be tightened down now.
4. Install the latch bracket to the right front edge by installing the remaining three self-tapping screws and the 6-32 screw. The 6-32 screw is the aligning screw, therefore, install this screw first.
5. Install the internal DSSI and SCSI bus cables (upper left of backplane).
6. Slide the fan draw in and feel the drawer lock into the backplane connector. Tighten screws at 9 in. lbs.
7. Install the connector end of the SCP cable into the backplane.
8. Reseat all ISEs into the original storage slots, and tighten both screws at 9 in. lbs.
9. Install each front panel (one screw at the top) with the cable attached. Be sure the front panel is attached to the proper ISE. The bus node ID plug could be affected.
10. Insert the tape drive into its designated right side bus slot.

Caution

If the tape is a TK-series, be careful not to damage the controller cable while seating the drive.

11. Tighten both screws at 9 in. lbs.

VAX/VAXserver 4000-300, -400, and -500 Conversion

5.6 Removing and Replacing the BA440 Backplane

12. Attach the tape drive front panel (one screw at the top).
13. Insert the power supply and tighten the two thumb screws at 9 in. lbs.
14. Insert the thin H3604 power board into its designated slot between the memory and the CPU slots. Leave the connector-end loose for now.
15. Install the new CPU module. Install the new memory modules, if applicable.
16. Install the option modules into their original slots. Check the diagram of the option module layout, which was made when the options were removed.
17. Install the H3604 console panel on its hinges. Connect the loose end of the thin power board connector to the H3604.
18. Connect the data cable of the H3604 to the CPU module.
19. Connect all external cables to their original locations. Check the diagram of the option module layout, which was made when the options were removed.
20. Align the door/bracket by tightening at least one screw on each bracket just enough to prevent the bracket from moving freely.
21. Install the upper and lower doors. Position the doors at approximately 90 degrees (half open position) and hook the door over the hinge bracket pin. The doors should drop into position.

Check and adjust the door latching bracket alignment to ensure the door latch is square with the enclosure and the latch clears the door latching bracket.
22. Tighten all bracket screws.
23. Reinstall the power cord and turn the power supply switch to on (|).
24. Check for successful completion of the power-up self-tests.
25. Place the logo model label (36-33152-XX) over the existing label on the fan tray on the front of the chassis (Figure 5-1).

VAX/VAXserver 4000-300, -400, and -500 Conversion
5.6 Removing and Replacing the BA440 Backplane

26. Run system diagnostics to verify system operation.
27. Install the new medallion and new labels as shown in Figure 5-1, Figure 5-2, and Figure 5-3.
28. Close and lock both doors.
29. Fill out the forms in Appendix A.

A

Mandatory Module Return Procedure and Forms

The old CPU modules **must** be returned to Digital. Digital Services personnel must ensure that the instructions to repackage and return the old CPU module to Digital are followed. The instructions apply only to U.S. area installations.

For installations outside the U.S. area, contact the local Digital office for return destination instructions.

A.1 Return Procedure

1. Obtain the serial number of the system being upgraded. (Customer Administrative Services (CAS) cannot process the order without this serial number.)
2. Ensure that the serial number is on the Purchase Order.
3. Issue a hardcopy quotation to the customer, referencing the serial number, and state the following:

"Return of the replaced modules to Digital is a condition of sale for this upgrade. Failure to return the modules will result in a penalty charge. Installation of hardware by Digital Services personnel is required."

4. Pack the old modules using the packaging material set aside from the carton of the conversion kit (quad-height module box).
Pack the modules first in the nickel-plated bag, then in the pink plastic wrapping, and finally in the box.
5. Complete the Digital Services Worksheet in Section A.2, which documents the work you performed.

Return the worksheet to your contract administrator at the branch office.

Mandatory Module Return Procedure and Forms

A.1 Return Procedure

6. Contact your local Digital Customer Administrative Services (CAS) office to obtain information for the Installation Receipt and the Return Material Checklist in Section A.2. Section A.3 lists the CAS district offices and their phone numbers.

Ask the CAS representative for a return authorization (RA) number. CAS will contact the customer to arrange for carrier pickup and return of the module to Digital.

7. Complete both copies of the Installation Receipt.

The first copy is the customer's receipt. It shows that the installation was completed and that Digital Services contacted CAS.

Return the second copy to Digital Services along with the old modules to ensure that the customer does not incur a penalty charge.

8. Complete the Return Material Checklist.

Return the checklist with the old modules.

9. Place the self-adhesive mailing label on the module box you are returning.

Write the return authorization (RA) number in the space provided on the label.

10. Seal the box for shipment.

Refer questions regarding the return procedure to the local account representative.

Note

Customers who do not return their old CPU modules will be charged a fee.

A.2 Digital Forms

This section contains the:

- Digital Services Worksheet
- Installation Receipt–Customer Copy
- Installation Receipt–Digital Services Copy
- Return Material Checklist

**Mandatory Module Return Procedure and Forms
A.2 Digital Forms**

Digital Services Worksheet

This form acts as a verification of the work performed on the system and as a check on the procedures used. Please fill out this form and return it to your Contract Administrator for updating the customer's contract.

Customer: _____

System Serial Number: _____

Old System Model Number: _____

Old CPU Module Serial Number: _____

New System Name: _____

New System Model Number: _____

New CPU Module Serial Number: _____

Old Memory Modules Serial Numbers: _____

New Memory Modules Serial Numbers: _____

**Mandatory Module Return Procedure and Forms
A.2 Digital Forms**

Installation Receipt–Customer Copy

For the conversion of VAXserver/MicroVAX 3300/3400, VAXserver/MicroVAX 3500/3800, VAXserver/MicroVAX 3600/3900, VAXserver 4000-200, VAX/VAXserver 4000-300, -400, and -500 systems.

This form acts as a customer receipt and as verification for Digital Services that one of the following conversion kits were installed: 660XR-XX, 670XR-AA, 675XR-XX, 680XR-XX, and 690XR-XX.

Digital Services: Complete both copies of this form. Then, give a copy to the customer and a copy to the local CAS office for filing with customer documents.

Customer: Digital will contact you within the next several days to arrange for package pickup and return. Keep this copy as your record of installation by Digital.

Note

Contact the local CAS office to obtain the RA (return authorization) number. See Section A.3 for the closest CAS office. You should have the Digital order number available. Be sure to note the name of the person you speak with.

Name of CAS representative: _____

Branch Office: _____, will arrange for package pickup and return.

Return Authorization (RA) Number: _____

Digital Order Number: _____

Old CPU Module Serial Number: _____

Converted to: _____

New CPU Module Serial Number: _____

Installation was performed on this date: _____

Mandatory Module Return Procedure and Forms
A.2 Digital Forms

Module Packed for Return:

Customer Name: _____ Phone Number: _____

Customer Signature: _____

Digital Services Representative Signature: _____

**Mandatory Module Return Procedure and Forms
A.2 Digital Forms**

Installation Receipt—Digital Services Copy

For the conversion of VAXserver/MicroVAX 3300/3400, VAXserver/MicroVAX 3500/3800, VAXserver/MicroVAX 3600/3900, VAXserver 4000-200, VAX/VAXserver 4000-300, -400, and -500 systems.

This form acts as a customer receipt and as verification for Digital Services that the 660XR-XX, 670XR-AA, 675XR-XX, 680XR-XX, or 690XR-XX conversion kit was installed.

Digital Services: Complete both copies of this form. Then, give a copy to the customer and a copy to the local CAS office for filing with customer documents.

Customer: Digital will contact you within the next several days to arrange for package pickup and return. Keep this copy as your record of installation by Digital.

Note

Contact the local CAS office to obtain the RA (return authorization) number. See Section A.3 for the closest CAS office. You should have the Digital order number available. Be sure to note the name of the person you speak with.

Name of CAS representative: _____

Branch Office: _____, will arrange for package pickup and return.

Return Authorization (RA) Number: _____

Digital Order Number: _____

Old CPU Module Serial Number: _____

Converted to: _____

New CPU Module Serial Number: _____

Installation was performed on this date: _____

Mandatory Module Return Procedure and Forms
A.2 Digital Forms

Module Packed for Return:

Customer Name: _____ Phone Number: _____

Customer Signature: _____

Digital Services Representative Signature: _____

**Mandatory Module Return Procedure and Forms
A.2 Digital Forms**

Return Material Checklist

For the conversion of VAXserver/MicroVAX 3300/3400, VAXserver/MicroVAX 3500/3800, VAXserver/MicroVAX 3600/3900, VAXserver 4000-200, VAX/VAXserver 4000-300, -400, and -500 systems.

This form must be filled out and returned with the old modules to ensure that the customer does not incur a penalty charge.

Return Authorization (RA) Number: _____

Digital Order Number: _____

Customer Name: _____

Customer Address: _____

Customer Contact: _____

******* Include This Form With Your Module Return*******

Mandatory Module Return Procedure and Forms
A.3 Customer Administrative Services (CAS) District Offices

A.3 Customer Administrative Services (CAS) District Offices

Name, Location	Phone Number
Allegheny District, Pittsburgh	(412) 244-7410
Carolinas District, Columbia	(803) 798-6477
Chicago District, Chicago	(312) 806-2478
Connecticut District, Meriden	(203) 634-5325
CSS District, Nashua	(603) 884-6549
DECdirect District, Nashua	(603) 884-9115
Florida District, Tampa	(813) 882-6822
Greater Boston District, Waltham	(617) 895-5455
Great Lakes District, Detroit	(313) 344-2285
Los Angeles District, Culver City	(213) 417-4232
Midsouth District, Memphis	(901) 761-6712
New England District, Bedford	(603) 472-6061
New Jersey Commercial District, Piscataway	(201) 562-4728
New Jersey Financial District, New York	(212) 714-2648
New York Financial District, New York	(212) 714-2648
New York Suburban District, Tarrytown	(914) 524-5284
North Central District, Minneapolis	(612) 851-2225
North Texas/Oklahoma District, Dallas	(214) 404-6135
Northwest District, Bellevue	(206) 462-2540
Ohio Valley District, Cincinnati	(513) 984-7739
Philadelphia District, Blue Bell	(215) 834-4115
Rocky Mountain District, Englewood	(303) 649-3073
Santa Clara District, Santa Clara	(408) 496-4274
Southeast District, Atlanta	(404) 257-2282
Southern California District, Costa Mesa	(714) 850-7606
South Texas District, Houston	(713) 953-3918
Southwest District, Tempe	(602) 894-4747
Upstate New York District, Rochester	(716) 385-7152
U.S. Distribution/Sales District, Marlboro	(508) 480-4259
Virginia District, Landover	(301) 306-2566

Mandatory Module Return Procedure and Forms
A.3 Customer Administrative Services (CAS) District Offices

Name, Location	Phone Number
Washington DC District, Landover	(301) 459-2890
Washington DC District, FDA Landover	(301) 459-2292

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