

VAXserver 3100/MicroVAX 3100 System Conversion Guide

Order Number EK-V3100-CG-001

Digital Equipment Corporation

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Contents

- About This Manual** v

- 1 Converting the VAXserver 3100, Model 10 System**
- 1.1 Preparing the System for Conversion..... 1-1
- 1.2 Converting the System..... 1-1

- 2 Converting the VAXserver 3100, Model 20 System**
- 2.1 Preparing the System for Conversion..... 2-1
- 2.2 Converting the System..... 2-1

- A Module Return Procedure and Forms**
- A.1 Return Procedure..... A-1
- A.2 Digital Forms..... A-2
- A.3 CAS District Offices..... A-11

- Figures**
- 1-1 System Cover Removal..... 1-2
- 1-2 SCSI Port Connector Removal..... 1-3
- 1-3 DC Power Harness Plug..... 1-3
- 1-4 System Module Cable..... 1-4
- 1-5 Drive Mounting Shelf Removal..... 1-5
- 1-6 DSH32-B Module Removal..... 1-6
- 1-7 Memory Expansion Module Removal..... 1-7
- 1-8 System Module Removal..... 1-8
- 1-9 Ethernet ID ROM Location..... 1-9
- 1-10 PTT and PCL Label Location..... 1-10

iv Contents

2-1	System Cover Removal	2-2
2-2	SCSI Bus Cable and DC Power Harness Plug	2-3
2-3	Upper Drive Mounting Shelf Removal	2-4
2-4	SCSI Port Connector Removal	2-5
2-5	System and DSH32-B Module Cable	2-5
2-6	Lower Drive Mounting Shelf Removal	2-6
2-7	DSH32-B Module Removal	2-7
2-8	Memory Expansion Module Removal	2-8
2-9	System Module Removal	2-9
2-10	Location of Ethernet ID ROM	2-10
2-11	PTT and PCL Label Location	2-11

About This Manual

This conversion guide describes how to install the conversion kit on either the VAXserver 3100 model 10 or model 20 system.

Conversion Kit Contents

The following table lists the contents and part numbers of the conversion kit 310XR-AC, and 310XR-AE.

Part Number	310XR Contents	AC	AE
QL-001AP-BM	VMS 1-5 User's License	1	-
QL-D04AP-AA	DECnet-VAX End Node License	1	-
QL-VEYAP-BC	ULTRIX-32 2 User Upgrade	-	1
QL-VEYAP-BE	ULTRIX-32 8 User Upgrade	-	1
QL-716AP-AA	DECnet-ULTRIX-32 License	-	1
54-18856-01	Time Share CPU Module	1	1
EK-V3100-CG-001	System Conversion Guide	1	1
36-31684-01	Label, PTT, Model 10	1	1
36-31381-01	Label, PTT, Model 20	1	1
36-15946-01	Product Conversion Label	1	1
36-26123-xx*	Return Labels	1	1
74-37642-07	Medallion, MicroVAX 3100	1	1
9907976-09	CPU Box	1	1
9907952-01	External Box	1	1
9907092-04	Anti-static bag	1	1

*The Return Labels are for conversion kits being installed in the U.S. only

Customer Responsibilities

The customer should not install this conversion kit unless they are a qualified self-maintenance customer. Only qualified maintenance personnel should perform the installation procedure. Call the Digital Customer Services office to schedule a system conversion.

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

When a conversion is complete, return the old system module to Digital for credit. Appendix A contains forms that need to be completed by the Customer Services representative and signed by the representative as well as by the customer.

Digital Customer Services Responsibilities

To save time, the Digital Customer Services representative should contact the customer and make arrangements to have the customer's software backed up before arrival on site.

Software installation, conversion and testing are not described in the hardware conversion procedure, but such tasks are part of the overall system conversion.

The customer should contact a Digital sales representative to transfer an existing software product services contract to the MicroVAX/VAXserver Systems group.

After the representative installs the conversion kit, they are to complete the following forms and then remove them from this document by tearing them along the perforated line. The following forms are in Appendix A.

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

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

A self-adhesive mailing label is contained within this kit. Peel off the label and attach it to the package containing the system module to be returned.

Convention

The following convention was used in this document.

Convention	Meaning
NOTE	Provides general information.
CAUTION	Provides information to prevent damage to equipment or software. Read carefully.

Related Document

MicroVAX 3100 and VAXserver 3100 Maintenance Guide, part number EK-A0372-MG.

1

Converting the VAXserver 3100, Model 10 System

This chapter describes how to convert the VAXserver 3100, model 10 system to a MicroVAX 3100, model 10 timesharing system.

1.1 Preparing the System for Conversion

To prepare the system for conversion:

Unpacking the Contents

When unpacking the contents from the conversion kit, keep the packing material so that you may use it when packaging and returning the old module to Digital for proper credit (if applicable).

1.2 Converting the System

To convert the system, perform the procedures in the following sections:

Shut Down the System

1. Shut down the operating system software and halt the system.
2. Turn off the power to the system box and any expansion boxes.

Open the System Box

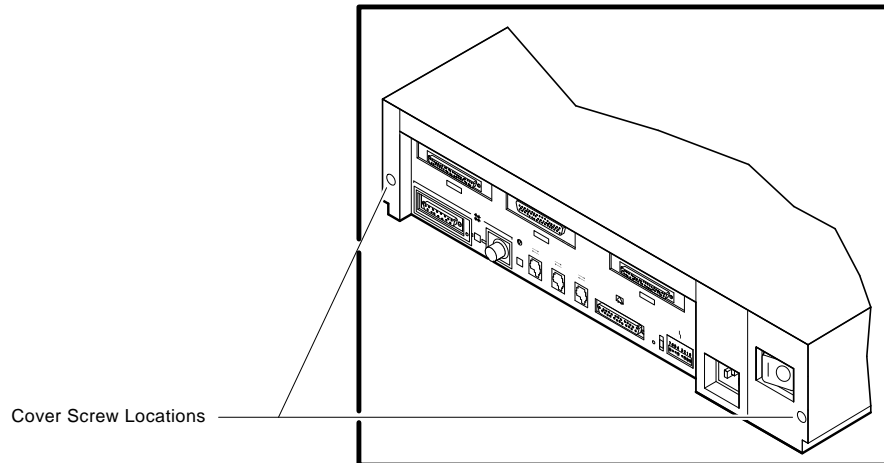
CAUTION

Make sure you are wearing an antistatic wrist strap connected to a grounded antistatic workstation or an antistatic mat before you handle the system field replaceable units (FRUs).

1. Disconnect all cables and loopbacks that are connected to the system unit and place any expansion boxes off to the side and away from the system unit.

1-2 Converting the VAXserver 3100, Model 10 System

2. Loosen the two screws on the rear bezel of the system box (Figure 1-1).



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Figure 1-1 System Cover Removal

3. Slide the top cover forward and up off the system box.

Remove the Drive Mounting Shelf

1. Remove the SCSI "B" external port connector from the rear panel by removing the two mounting screws on the rear of the system unit (Figure 1-2).

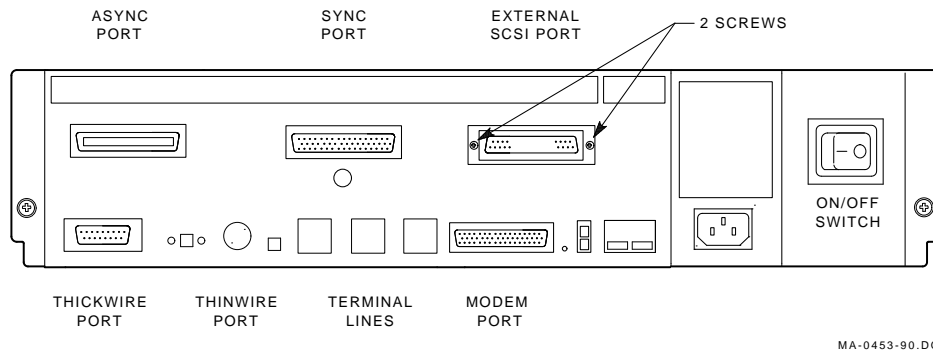


Figure 1-2 SCSI Port Connector Removal

2. Disconnect the dc power harness plug from J1 on the H7821 power supply (Figure 1-3).

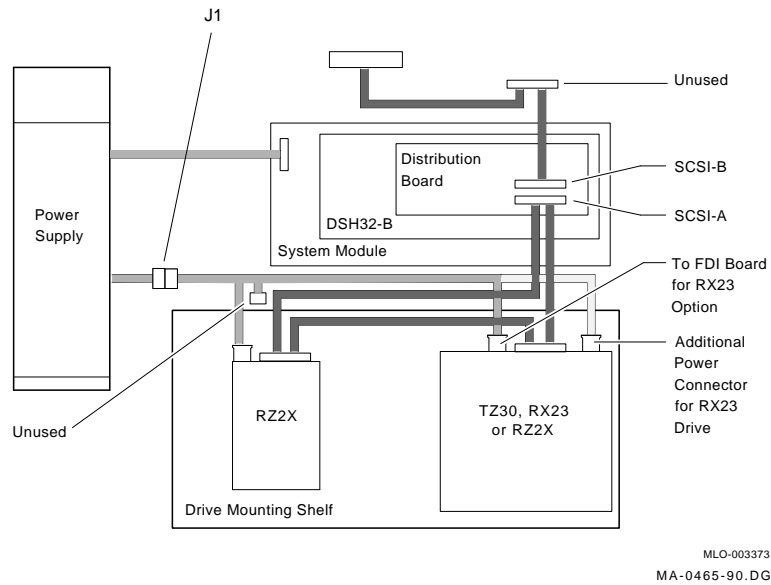


Figure 1-3 DC Power Harness Plug

1-4 Converting the VAXserver 3100, Model 10 System

3. Disconnect the system module cable from the distribution module (Figure 1-4).
4. Disconnect the DSH32-B module cable (if applicable) from the distribution module (Figure 1-4).

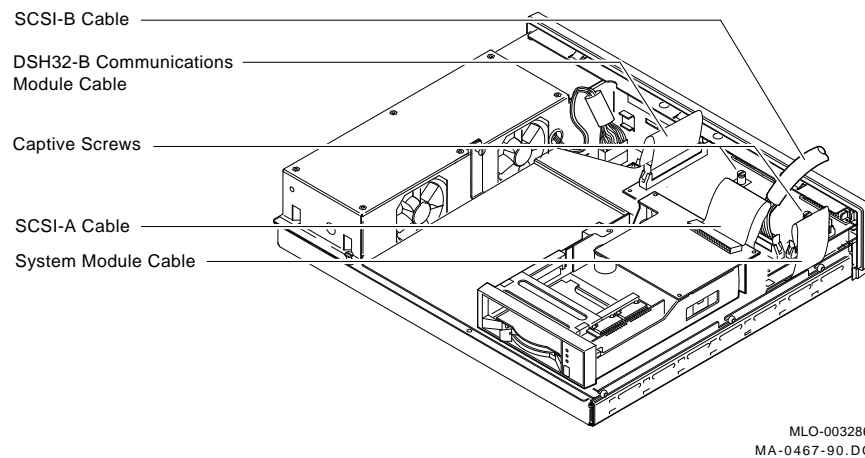


Figure 1-4 System Module Cable

5. On the drive mounting shelf, loosen the four captive screws on the top, and the three panhead screws located on the right-hand side of the shelf (Figure 1-5).

Converting the VAXserver 3100, Model 10 System 1-5

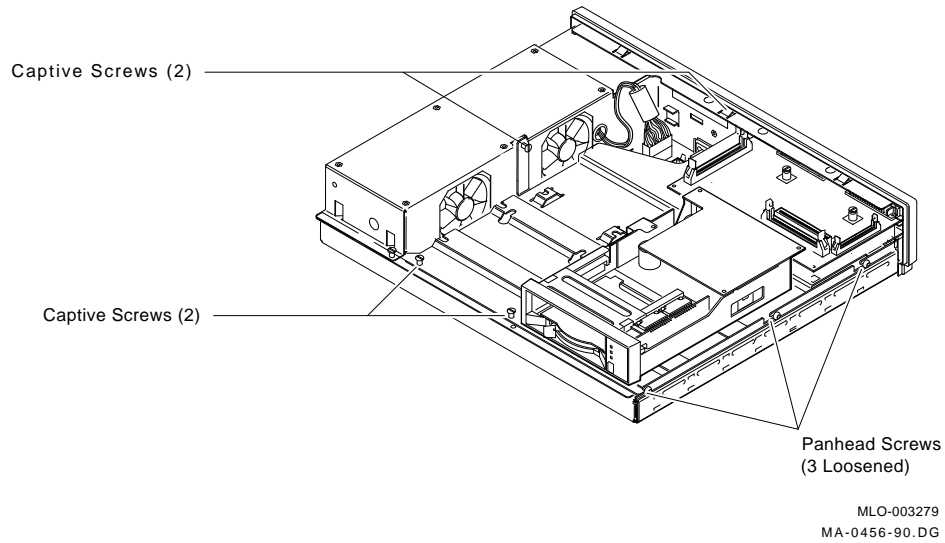


Figure 1-5 Drive Mounting Shelf Removal

6. Slide the drive mounting shelf forward, then lift the shelf from the system unit and gently set it aside.

Remove the DSH32-B Module (if applicable)

NOTE

The DSH32-B module is an optional module and may not be installed in all systems.

Release the DSH32-B module (if applicable) from the four standoffs and carefully separate this module from the system unit module (Figure 1-6).

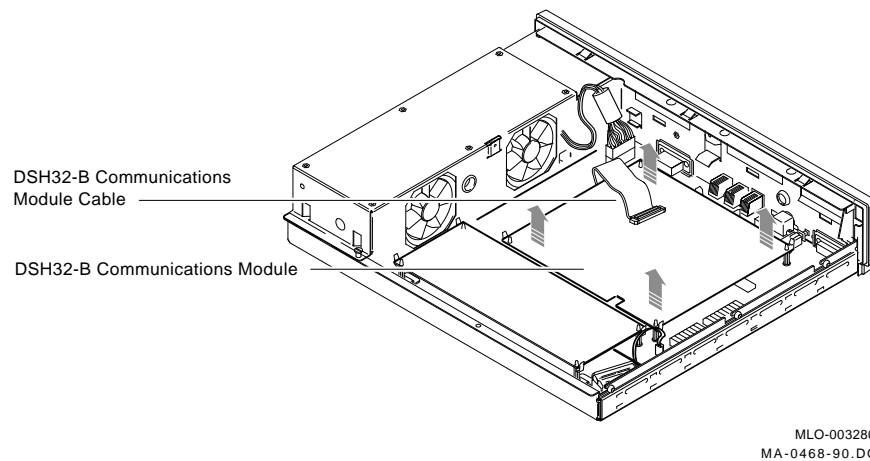


Figure 1-6 DSH32-B Module Removal

Remove the Memory Expansion Module (if applicable)

NOTE

The memory expansion module is an optional module and may not be installed in all systems.

Release the memory expansion module (if applicable) from the standoffs and separate this module from the system unit module (Figure 1-7).

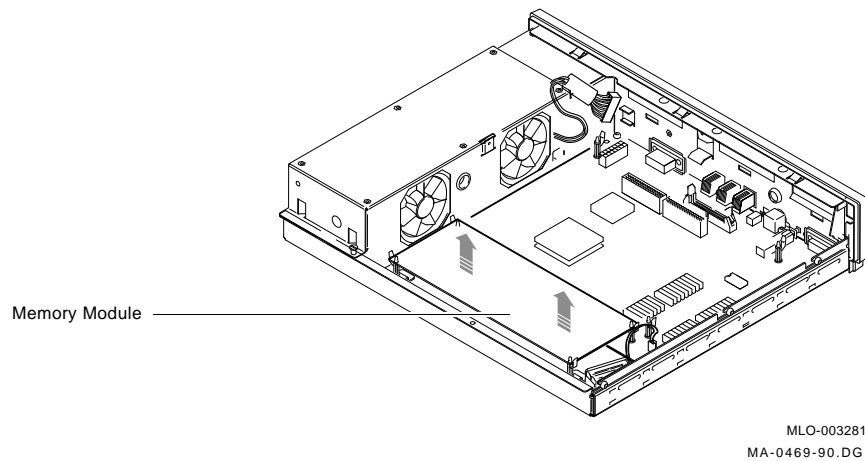


Figure 1-7 Memory Expansion Module Removal

Remove the System Module

1. Disconnect the power cable and battery cable from the system module (Figure 1-8).

NOTE

Press the release tab on the power cable connector to disconnect it from the system module.

2. Remove the eight panhead screws from the system module (Figure 1-8).

1-8 Converting the VAXserver 3100, Model 10 System

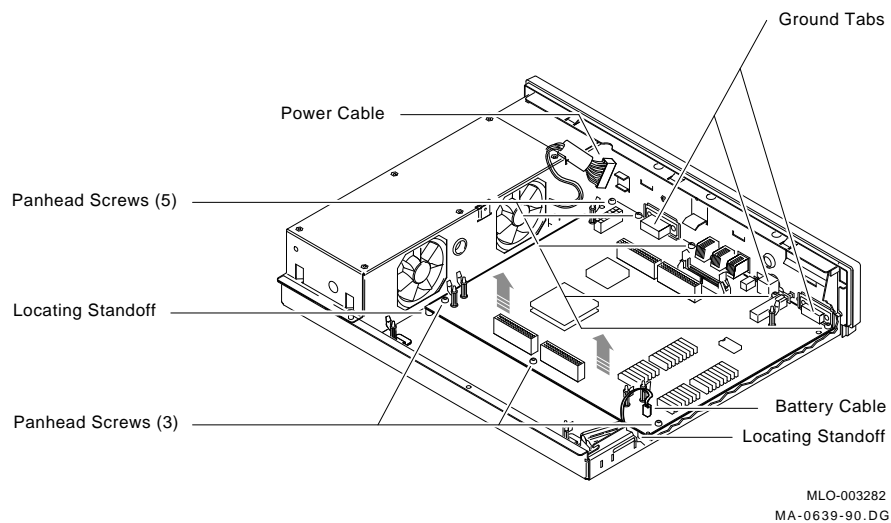


Figure 1-8 System Module Removal

3. Remove the system module by carefully popping the two front corners off of the two locating standoffs. Place the system module on the antistatic mat.
4. Exchange the Ethernet ID ROM from the system module that you removed with the Ethernet ID ROM on the new system module. Verify the correct position of pin 1 (notched position) on the ROM (Figure 1-9).

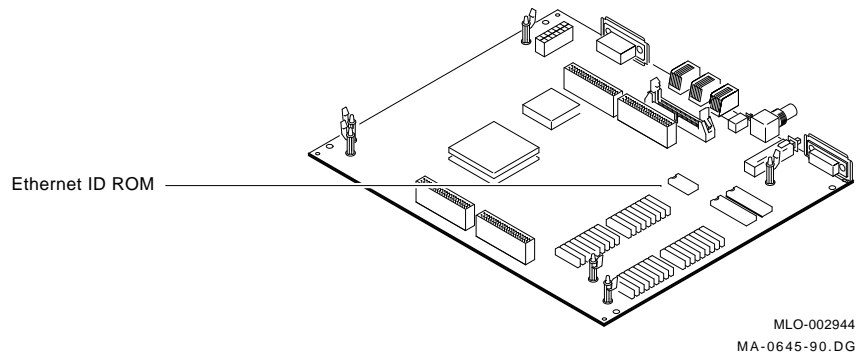


Figure 1-9 Ethernet ID ROM Location

Installing the New System Module

1. Remove the system module cable and install it on the new system module.
2. Verify that the jumper configuration of the new system module matches the jumper configuration of the system module just removed.
3. Replace the new system module (54-18856-01) by installing the connector end first through the openings in the rear of the system box. Push the module back to load the connector ground tabs and then snap the module onto both locating standoffs. All screw holes will then be aligned.
4. Reinstall the eight panhead system module screws.
5. Reverse the steps in the previous sections to reassemble the system unit but do not reinstall the system unit cover at this time.

Changing the Medallion

1. Place the top cover assembly upside down on a smooth, clean surface.
2. Use a small flathead screwdriver to carefully pop off the medallion.
3. Using the new MicroVAX 3100 medallion, peel back the label from the back and adhere the medallion to the model 10 bezel.

Reinstalling the Cover

Reinstall the top cover assembly onto the system unit.

Installing the PTT Label

Locate the PTT label (36-31684-02) on the rear bezel of the system unit. Place the PTT label (36-31684-01) over the old label (Figure 1-10).

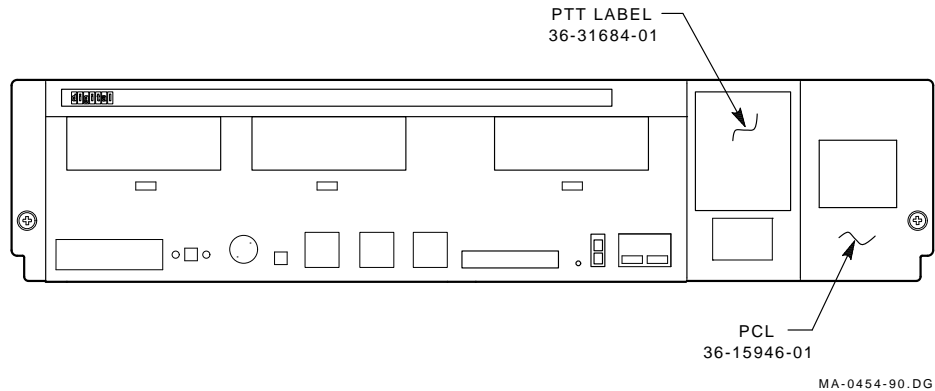


Figure 1-10 PTT and PCL Label Location

Installing the PCL Label

Place the product conversion label (PCL) (36-15946-01) on the bottom right-hand corner of the rear bezel below the On/Off power switch (Figure 1-10).

Completing the Conversion

1. Use the following table to cross reference the server system model number to the appropriate multiuser number and record this multiuser model number on the product conversion label.

Server	Multiuser
DU-31ASB-xx	310XR-AE (ULTRIX)
DV-31ASB-xx	310XR-AC (VMS)

NOTE

The 310XR-AC or 310XR-AE part number is to be written on the product conversion label. Use this number along with all installed option numbers to calculate Service pricing.

2. Fill out the forms in Appendix A and return the module.

2

Converting the VAXserver 3100, Model 20 System

This chapter describes how to convert the VAXserver 3100, model 20 system to a MicroVAX 3100, model 20 timesharing system.

2.1 Preparing the System for Conversion

To prepare the system for conversion:

Unpacking the Contents

When unpacking the contents of the conversion kit, keep the packing material so that you may use it when packaging and returning the old module to Digital for proper credit (if applicable).

2.2 Converting the System

To convert the system, perform the procedures in the following sections:

Shut Down the System

1. Shut down the operating system software and halt the system.
2. Turn the power off to the system box and any expansion boxes.

Open the System Box

CAUTION

Make sure you are wearing an antistatic wrist strap connected to a grounded antistatic workstation or an antistatic mat before you handle the system field replaceable units (FRUs).

1. Disconnect all cables and loopbacks that are connected to the system unit and place any expansion boxes off to the side and away from the system unit.

2-2 Converting the VAXserver 3100, Model 20 System

2. Loosen the two screws on the rear bezel of the system box (Figure 2-1).

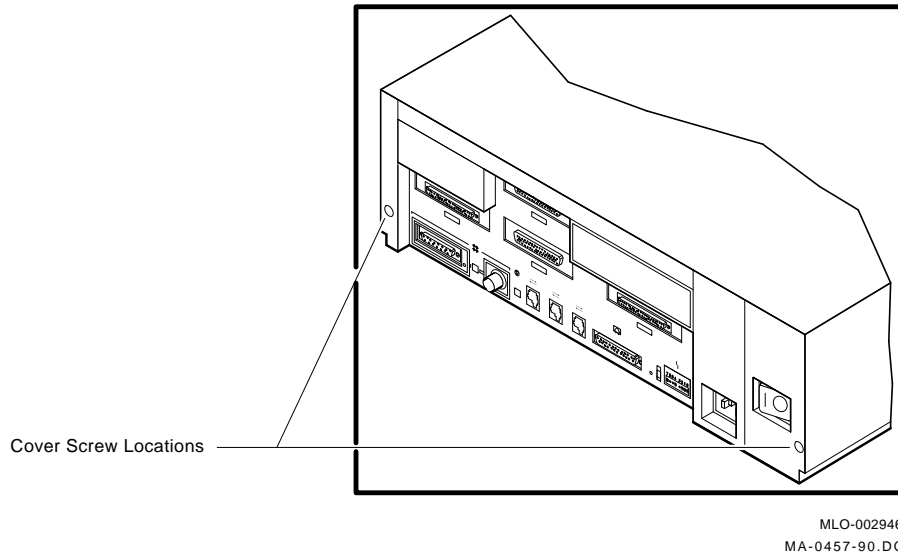


Figure 2-1 System Cover Removal

3. Slide the top cover forward and up off the system box.

Remove the Upper Drive Mounting Shelf

1. Disconnect the SCSI bus cables from the drives on the upper drive mounting shelf.

NOTE

Make note of which cables are connected to which drives when disconnecting them. Write down the type of drive and its position on a piece of tape and wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

2. Disconnect the power harness plugs from connectors J1 and J2 of the H7822 power supply (Figure 2-2).

Converting the VAXserver 3100, Model 20 System 2-3

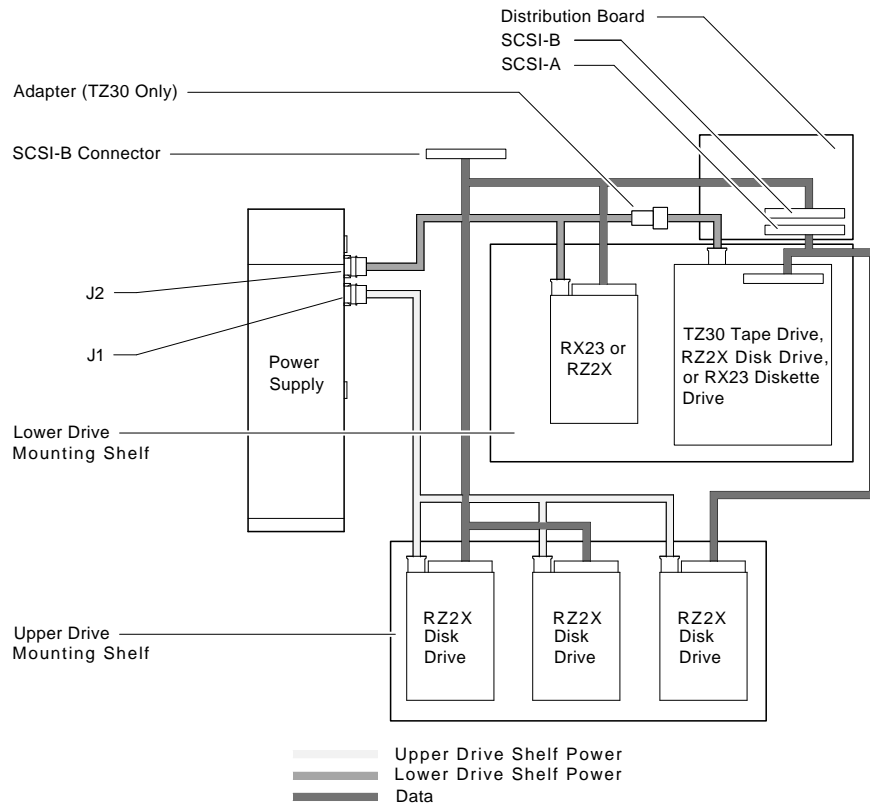


Figure 2-2 SCSI Bus Cable and DC Power Harness Plug

2-4 Converting the VAXserver 3100, Model 20 System

3. Unscrew the four captive screws on the upper drive mounting shelf (Figure 2-3).

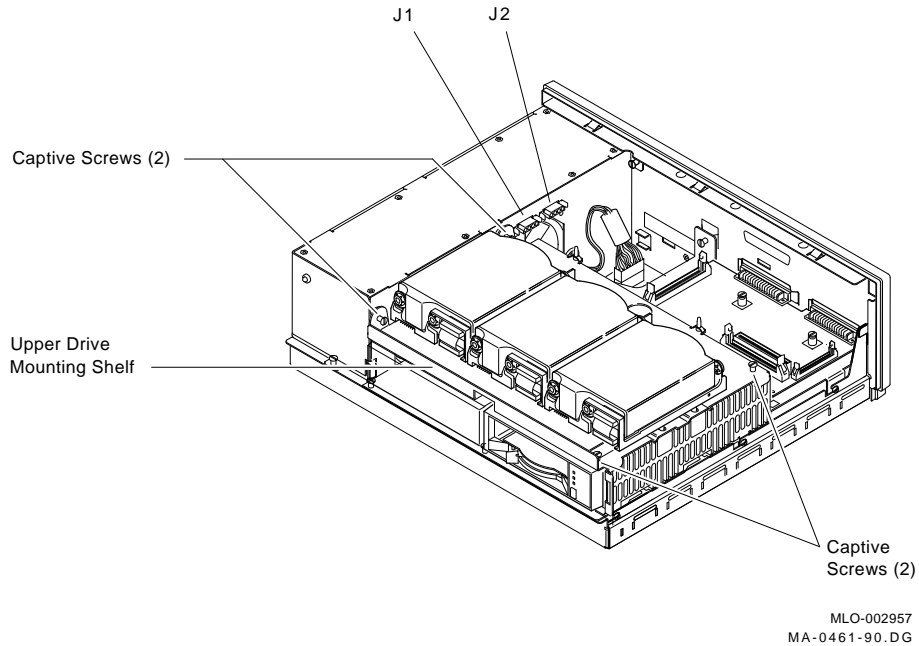


Figure 2-3 Upper Drive Mounting Shelf Removal

4. Lift the upper drive mounting shelf from the system unit and gently set it aside.

Remove the Lower Drive Mounting Shelf

1. Remove the SCSI "B" external port connector from the rear panel by removing the two mounting screws on the rear of the system unit (Figure 2-4).

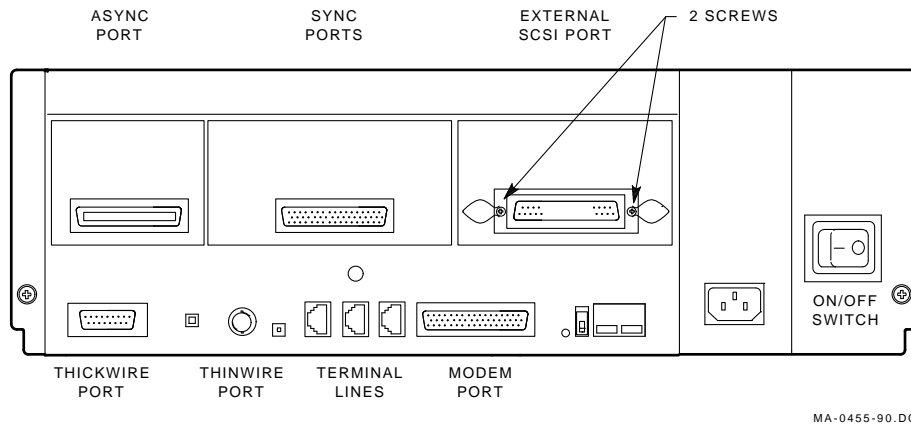


Figure 2-4 SCSI Port Connector Removal

2. Disconnect the system module cable from the distribution module (Figure 2-5).
3. Disconnect the DSH32-B module cable (if applicable) from the distribution module (Figure 2-5).

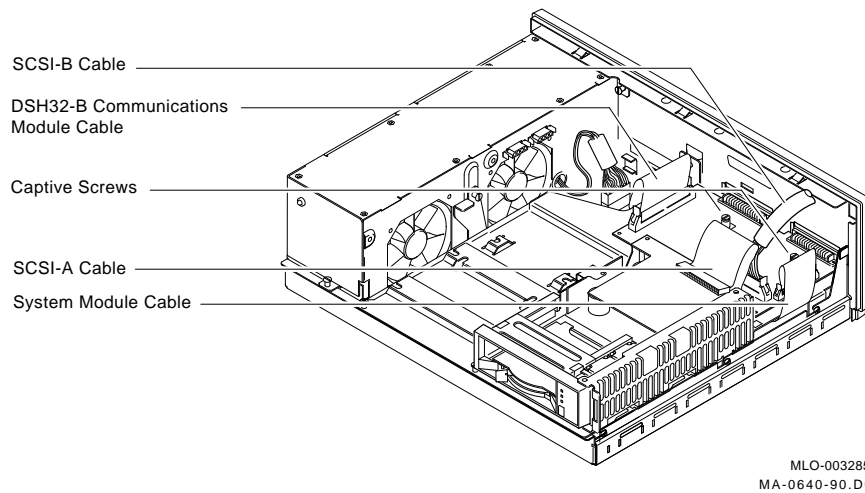


Figure 2-5 System and DSH32-B Module Cable

2-6 Converting the VAXserver 3100, Model 20 System

4. On the lower drive mounting shelf, loosen the four captive screws on the top, and the three panhead screws located on the right-hand side of the shelf (Figure 2-6).

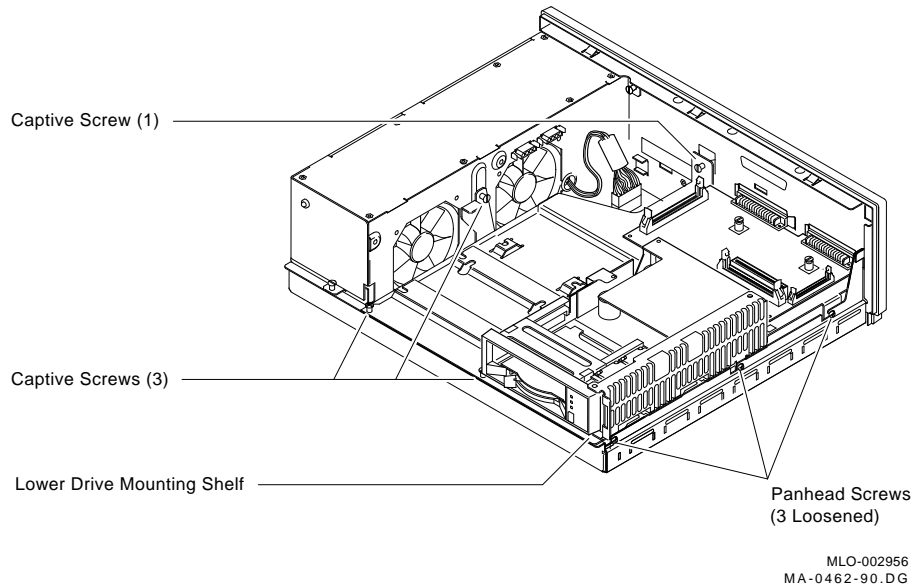


Figure 2-6 Lower Drive Mounting Shelf Removal

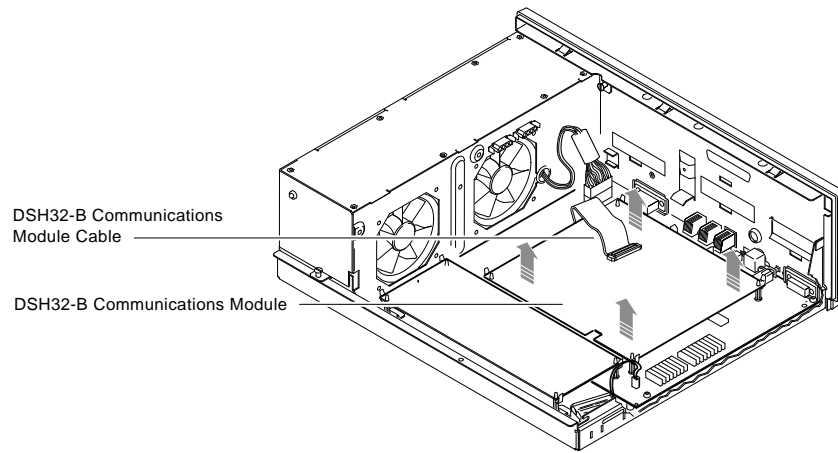
5. Slide the lower drive mounting shelf forward, then lift the shelf from the system unit and gently set it aside.

Remove the DSH32-B Module (if applicable)

NOTE

The DSH32-B module is an optional module and may not be installed in all systems.

Release the DSH32-B module (if applicable) from the standoffs and carefully separate this module from the system unit module (Figure 2-7).



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Figure 2-7 DSH32-B Module Removal

Remove the Memory Expansion Module (if applicable)

NOTE

The memory expansion module is an optional module and may not be installed in all systems.

Release the memory expansion module (if applicable) from the standoffs and separate this module from the system unit module (Figure 2-8).

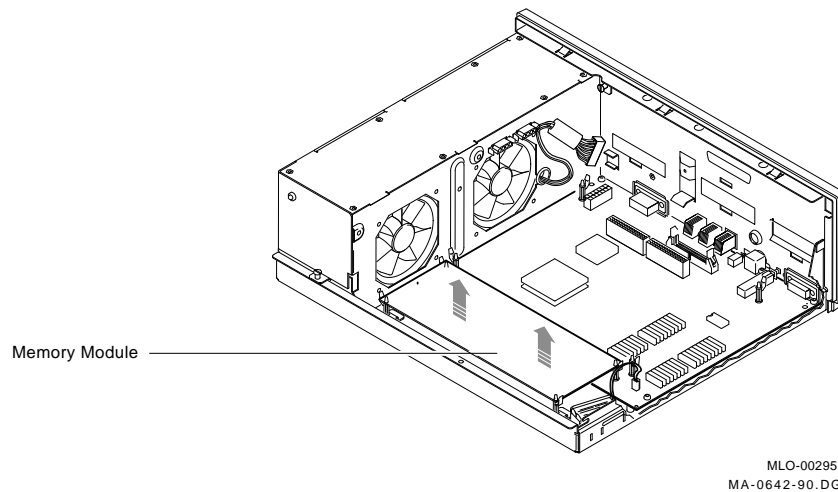


Figure 2-8 Memory Expansion Module Removal

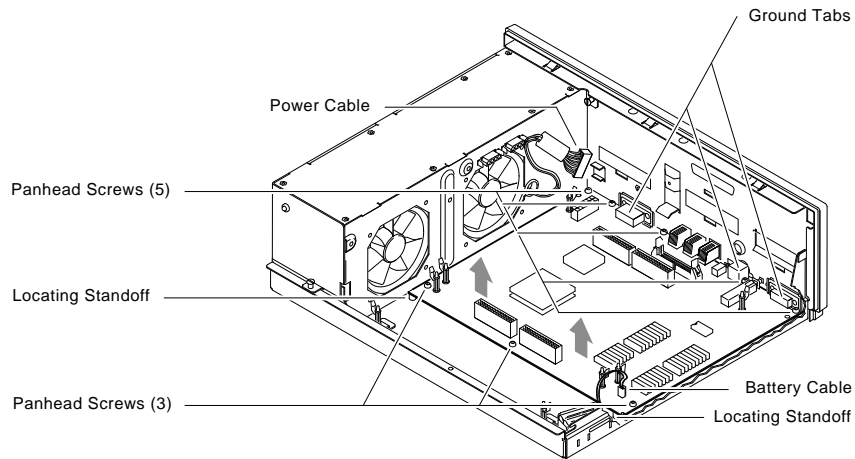
Remove the System Module

1. Disconnect the power cable and battery cable from the system module (Figure 2-9).

NOTE

Press the release tab on the power cable connector to disconnect it from the system module.

2. Remove the eight panhead screws from the system module (Figure 2-9).



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Figure 2-9 System Module Removal

3. Remove the system module by carefully popping off the two front corners of the two locating standoffs. Place the system module on the antistatic mat.

2-10 Converting the VAXserver 3100, Model 20 System

4. Exchange the Ethernet I.D. ROM from the system module you removed with the Ethernet I.D. ROM on the new system module. Verify the correct position of pin 1 (notched) on the ROM (Figure 2-10).

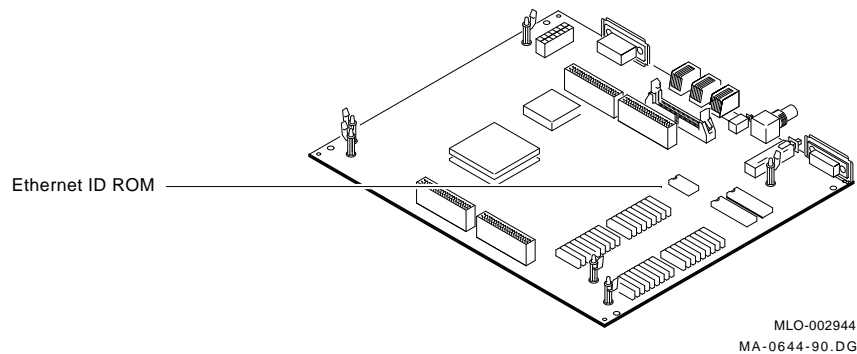


Figure 2-10 Location of Ethernet ID ROM

Installing the New System Module

1. Remove the system module cable and install it on the new system module.
2. Verify that the jumper configuration of the new system module matches the jumper configuration of the system module just removed.
3. Replace the new system module (54-18856-01) by installing the connector end first through the openings in the rear of the system box. Push the module back to load the connector ground tabs and then snap the module onto both locating standoffs. All screw holes will then be aligned.
4. Reinstall the eight panhead system module screws.
5. Reverse the steps in the previous sections to reassemble the system unit but do not reinstall the system box cover at this time.

Changing the Medallion

1. Place the top cover assembly upside down on a smooth, clean surface.
2. Use a small flathead screwdriver to carefully pop off the medallion.
3. Using the new MicroVAX 3100 medallion, peel back the label from the back and adhere the medallion to the model 20 bezel.

Reinstalling the Cover

Reinstall the top cover assembly onto the system unit.

Installing the PTT Label

Locate the PTT label (36-31381-02) on the rear bezel of the system unit. Place the PTT label (36-31381-01) over the old label (Figure 2-11).

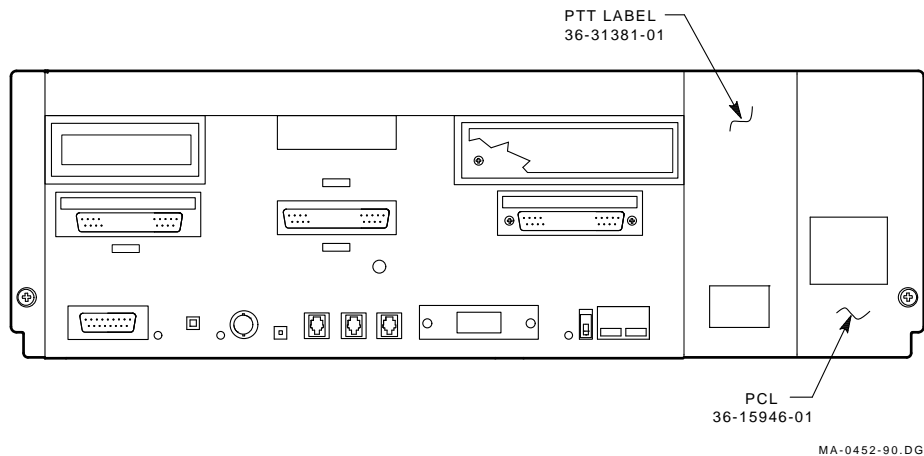


Figure 2-11 PTT and PCL Label Location

Installing the PCL Label

Place the product conversion label (PCL) (36-15946-01) on the bottom right-hand corner of the rear bezel below the On/Off power switch (Figure 2-11).

Completing the Conversion

1. Use the following table to cross reference the server system model number to the appropriate multiuser number and record this multiuser model number on the product conversion label.

Server	Multiuser
DU-31BSB-xx	310XR-AE (ULTRIX)
DV-31BSB-xx	310XR-AC (VMS)
DJ-31BP1-xx	310XR-AC (VMS)
DJ-31BP2-xx	310XR-AC (VMS)
DJ-31BR1-xx	310XR-AC (VMS)
DJ-31BR2-xx	310XR-AC (VMS)
DJ-31BR3-xx	310XR-AC (VMS)
DJ-31BR4-xx	310XR-AC (VMS)

NOTE

The 310XR-AC or 310XR-AE part number is to be written on the product conversion label. Use this number along with all installed option numbers to calculate Service pricing.

2. Fill out the forms in Appendix A and return the module.

A

Module Return Procedure and Forms

NOTE

This procedure is for Digital Customer Services Personnel Only.

Use the following instructions to repackage and return the old CPU module to Digital. 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. Do not use the mailing labels included in this kit.

A.1 Return Procedure

The conversion agreement with Digital is not complete until you take the following steps.

1. Use the packaging material set aside from the conversion kit to pack the old module in the carton that contained the new module.
2. Complete the Customer Services Worksheet in Section A.2. It documents the work you performed.

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

3. 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 modules to Digital.

4. Complete both copies of the Installation Receipt.

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

A-2 Module Return Procedure and Forms

Return the second copy to Customer Services along with the old modules to ensure that the customer receives credit for the old modules.

5. Complete the Return Material Checklist.

Return the checklist with the old modules.

6. Place the self-adhesive mailing label contained in this kit on the module box you are returning.

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

7. Seal the box for shipment.

Contact your local account representative if you have further questions on this return procedure.

A.2 Digital Forms

This section contains the:

- Customer Services Worksheet
- Installation Receipt, Customer Services Copy
- Installation Receipt, Customer Copy
- Return Material Checklist

Customer Services Worksheet

VAXserver/MicroVAX 3100 Conversion

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 Name: VAXserver _____ MicroVAX _____

Old System Model Number: _____

Old CPU Module Serial Number: _____

New System Name: VAXserver _____ MicroVAX _____

New System Model Number: _____

New CPU Module Serial Number: _____

Installation Receipt—Customer Copy

VAXserver/MicroVAX 3100 Conversion

This form acts as a customer receipt and as verification for Customer Services that conversion kit 310XR-AC or 310XR-AE was installed.

Customer 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 Return Authorization (RA) number. See Section A.3 for the closest CAS office. You should have the Digital order number available when phoning the CAS office. Be sure to note with whom you spoke.

Name of CAS representative: _____ Branch Office that will arrange for package pickup and return _____

Return Authorization Number: _____

Digital Order Number: _____

Converted from: VAXserver _____ MicroVAX _____

Old CPU Module Serial Number: _____

Converted to: VAXserver _____ MicroVAX _____

New CPU Module Serial Number: _____

Installation was performed on this day: _____

Module Packed for Return: (54-18856-02 (KA41-B))

Customer Name: _____ Phone Number: _____

Signatures:

Customer: _____

Customer Services Representative: _____

Installation Receipt—Customer Services Copy

VAXserver/MicroVAX 3100 Conversion

This form acts as a customer receipt and as a verification for Customer Services that conversion kit 310XR-AC or 310XR-AE was installed.

Customer 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 Return Authorization (RA) number. See Section A.3 for the closest CAS office. You should have the Digital order number available when phoning the CAS office. Be sure to note with whom you spoke.

Name of CAS representative: _____ Branch Office that will arrange for package pickup and return _____

Return Authorization Number: _____

Digital Order Number: _____

Converted from: VAXserver _____ MicroVAX _____

Old CPU Module Serial Number: _____

Converted to: VAXserver _____ MicroVAX _____

New CPU Module Serial Number: _____

Installation was performed on this day: _____

Module Packed for Return: (54-18856-02 (KA41-B))

Customer Name: _____ Phone Number: _____

Signatures:

Customer: _____

Customer Services Representative: _____

Return Material Checklist

For VAXserver/MicroVAX 3100 Conversion

This form must be filled out and returned with the old modules to clear the customer's account.

Type of CPU module being returned: (54-18856-02)

Return Authorization Number: _____

Digital Order Number: _____

Customer Name: _____

Customer Address: _____

Customer Contact: _____

Include this Form with your Module you are Returning

A.3 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

A-12 Module Return Procedure and Forms

Name, Location	Phone Number
Upstate New York District, Rochester	716/385-7152
U.S. Distribution/Sales District, Marlboro	508/480-4259
Virginia District, Landover	301/306-2566
Washington DC District, Landover	301/459-2890
Washington DC District, FDA Landover	301/459-2292