

**VAXstation 3100 Maintenance
Guide Addendum:
Options Installation**

Order Number EK-331AA-AD-001

**digital equipment corporation
maynard, massachusetts**

First Edition, June 1989

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.


The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

Copyright © by Digital Equipment Corporation 1989

All Rights Reserved.
Printed in U.S.A.

FCC NOTICE: The equipment described in this manual generates, uses, and may emit radio frequency energy. The equipment has been type tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such radio frequency interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference, in which case the user at his own expense may be required to take measures to correct the interference.

BASEWAY	MASSBUS	RT
BI Bus	Micro/RSTS	UNIBUS
CompacTape	MicroPDP-11	ThinWire
DEC	Micro/R SX	TK50
DEC/MAP	MicroVAX II	TK50-D
DECmate	PDP	VAX
DECnet	P/OS	VAXcluster
DECUS	Professional	VAXstation II
DECwriter	Q-bus	VAXstation II/GPX
DIBOL	Rainbow	VMS
EDCS	RRD50	VT
FMS	RSTS	
	RSX	

About This Manual

This addendum describes how to install the available options for the VAXstation 3100 systems. It covers all options presently available for model 30 (VS42A-xx) and model 40 (VS42S-xx) versions of the VS 3100 system. The label on the rear of the system box indicates the system you are working on (VS42A-xx or VS42S-xx).

Organization

This addendum has seven chapters.

- Chapter 1 contains installation procedures for the mass storage drive plate and all of the drives available in model 30.
- Chapter 2 contains installation procedures for the RX23 diskette drive in model 30.
- Chapter 3 contains installation procedures for the RZ22 and RZ23 disk drive in both the model 30 and model 40 systems.
- Chapter 4 contains installation procedures for the TZ30 tape drive in both the model 30 and model 40 systems.
- Chapter 5 contains installation procedures for the RRD40 compact disc drive in the model 40 system.
- Chapter 6 contains installation procedures for the 8-plane graphics coprocessor module in both the model 30 and model 40 systems.
- Chapter 7 contains installation procedures for the memory modules in both the model 30 and model 40 systems.

Intended Audience

This document is only for Digital Field Service personnel and self-maintenance customers.

Tools and Equipment

You need the following tools to service the VAXstation 3100 systems:

Tools and Equipment	Part Number
Wrist strap and antistatic mat (included in Field Service antistatic kit)	29-26246-00

Conventions

This document uses the following conventions:

Convention	Meaning
Note	Provides general information you should be aware of.
Caution	Provides information to prevent damage to the equipment.

Related Documents

You can order the following documents from Digital. This guide refers to many of these documents.

Table 1 Related Documents

Documents	Order Number
VAXstation 3100 Maintenance Guide	EK-285AA-MG
VAXstation 3100 Model 40 Customer Information Kit	EK-VS310-IL
Managing your VAXstation 3100 Model 30 Standalone	EK-260AA-OM
VAXstation 3100 Hardware Information Model 30	EK-265AA-OM
VAXstation 3100 Hardware Information Model 40	EK-266AA-OM
Using Your VAXstation 3100 Model 30 Satellite	EK-259AA-UG

Table 1 (Cont.) Related Documents

Documents	Order Number
VR290 Service Guide	EK-VR290-SV
VR150 Pocket Service Guide	EK-VR150-PS
VR160 Pocket Service Guide	EK-VR160-PS
VAXstation 2000, MicroVAX 2000, VAXmate Network Guide	EK-NETAB-UG
TZK50/SCSI Controller Technical Manual	EK-TZK50-TM

Digital personnel may order these documents from:

Digital Equipment Corporation
44 Whitney Street
Northboro, MA 01532

Attn: Publishing and Circulation Services (NRO3/W3)
Order Processing Section

1

Drive Plate Installation (Model 30)

There are two drive plate options available for the VAXstation 3100 model 30 system.

Option Contents

Option Number	Contents
VS42D-HF	Drive plate with ST506/SCSI MSC module Cables SCSI terminator
VS42D-JF	Drive plate with SCSI/SCSI MSC module Cables SCSI terminator

Figure 1-1 shows the ST506/SCSI MSC module and Figure 1-2 shows the SCSI/SCSI MSC module.

1-2 Drive Plate Installation (Model 30)

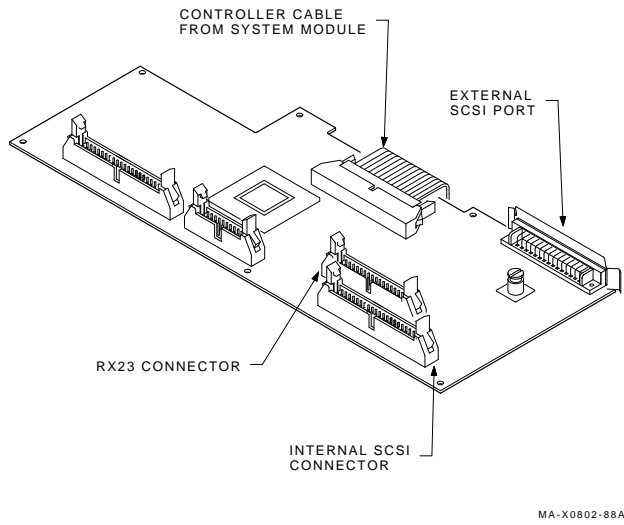


Figure 1-1 ST506/SCSI MSC Module

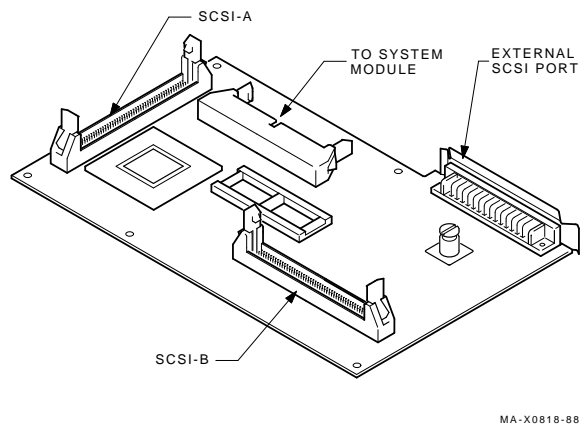


Figure 1-2 SCSI/SCSI MSC Module

Drive Plate Installation Procedure

Shutting Down the System

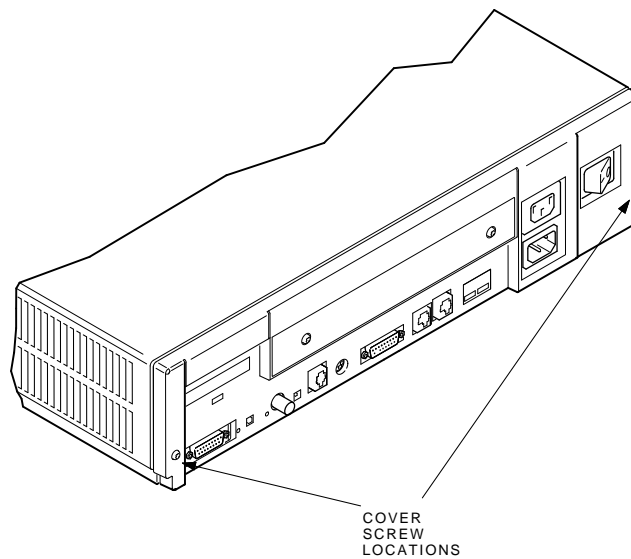
1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 1-3).



MA-X0796-88

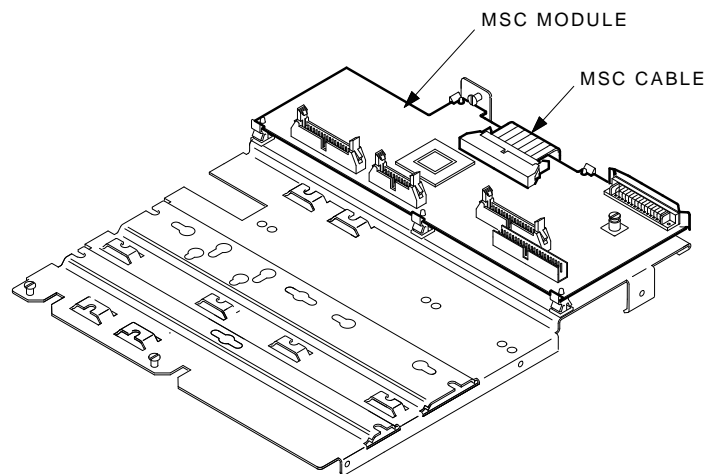
Figure 1-3 Cover Screw Locations

2. Slide the cover forward and up off the system box.

1-4 Drive Plate Installation (Model 30)

Preparing the Drive Plate for Installation

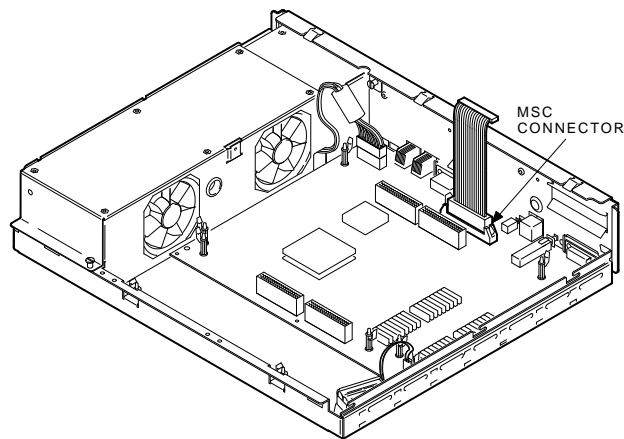
1. Disconnect the MSC cable from the ST506/SCSI MSC module on the drive plate Figure 1-4. (Figure 1-4 shows the ST506/SCSI MSC module, and the SCSI/SCSI MSC module's cable disconnects the same way).



MA-X0513-89

Figure 1-4 Removing the MSC Cable

2. Connect the MSC cable to the system module (Figure 1-5). Hang the MSC cable over the back of the system box.



MA-X0514-89

Figure 1-5 Connecting MSC Cable to the System Module

3. Mount the drives onto the drive plate. To mount the RX23 diskette drive, RZ23 disk drive, and the TZ30 tape drive, perform the procedures in the following sections.

After you have mounted all of the drives onto the drive plate, perform the steps in Installing the Drive Plate with the Drives to install the assembled drive plate into the system box.

Mounting the RX23 onto the Drive Plate

1. Set the RX23's drive select switch to the zero position, which is all the way towards the back of the drive (Figure 1-6).

1-6 Drive Plate Installation (Model 30)

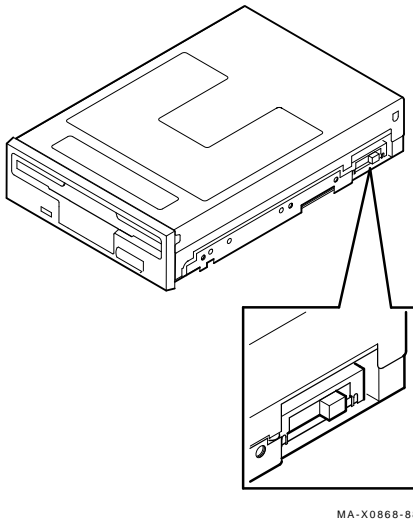


Figure 1-6 Setting the RX23 Drive Select Switch

2. Position the RX23 on the drive plate (Figure 1-7) and tighten the four mounting screws.

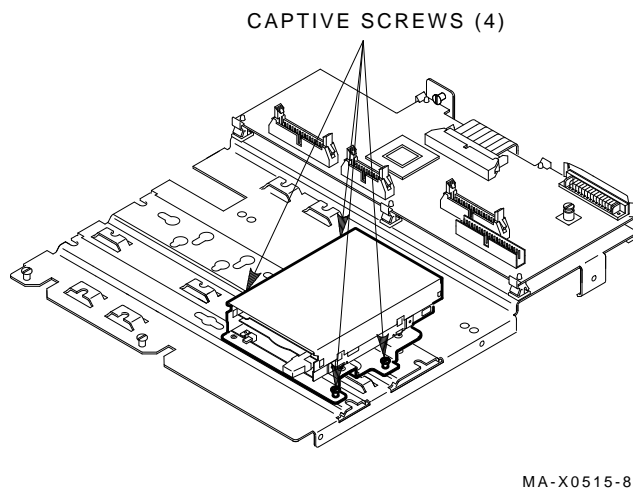


Figure 1-7 Mounting the RX23 Diskette Drive

3. Connect the data and power cables to the RX23 and to the ST506/SCSI MSC module (Figure 1-8).

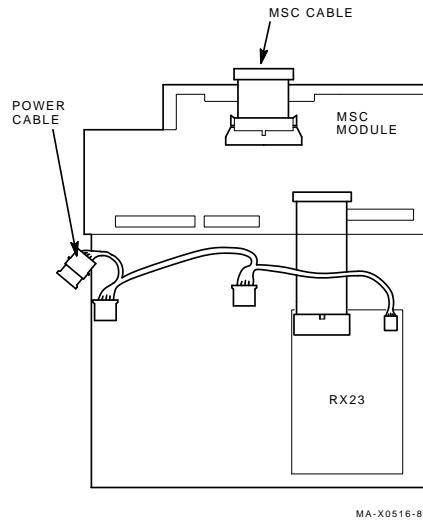


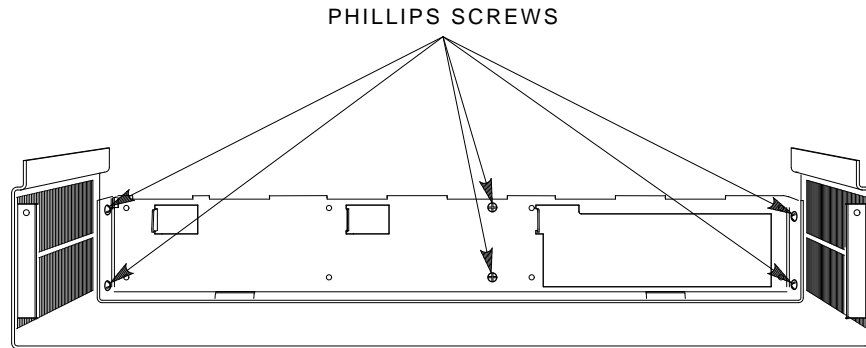
Figure 1-8 Connecting the RX23 Data and Power Cables

4. Install the eject button onto the RX23 drive.

Installing the RX23 Bezel

1. On the cover of the system box, remove the six screws (Figure 1-9) and remove the front bezel from the cover.

1-8 Drive Plate Installation (Model 30)



MA-X0517-89

Figure 1-9 Removing Front Bezel screws

2. Separate the blank bezel insert from the front bezel (Figure 1-10).

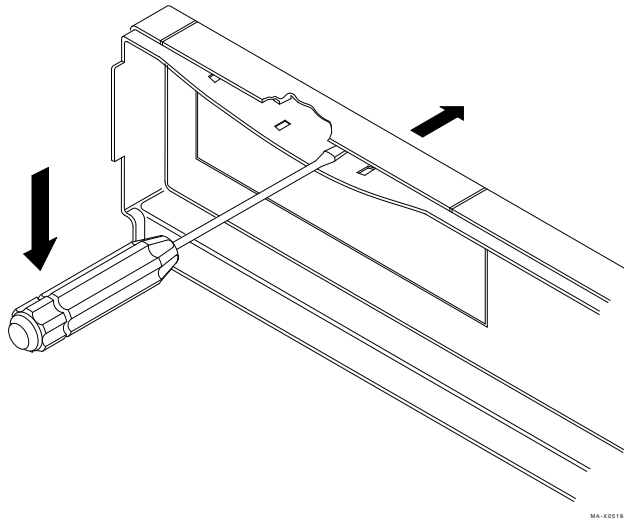


Figure 1-10 Separating the Bezel Insert from the Front Bezel

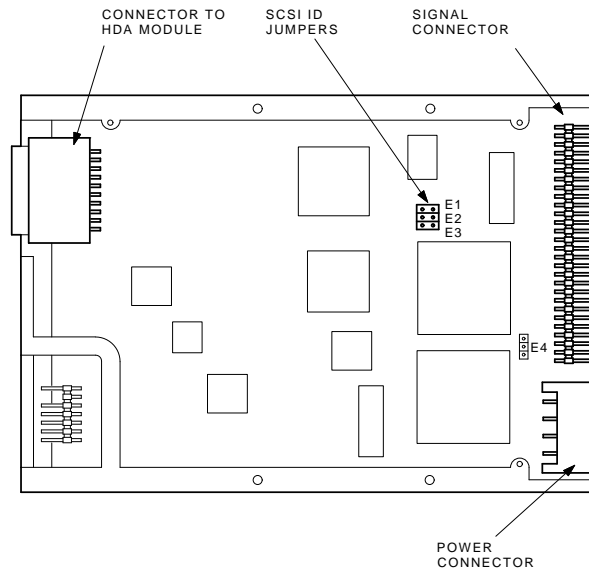
3. Install the RX23 bezel insert onto the front bezel by reversing the previous step.

4. Install the front bezel onto the cover and install the six screws (Figure 1-9).
5. Installation of the RX23 is now complete.
 - If you have to install an RZ23 disk drive on the drive plate, proceed to RZ22 and RZ23 Installation
 - If there are no other drives to be installed on the drive plate, proceed to Installing the Drive Plate with the Drives

RZ22 and RZ23 Installation

The text refers to the RZ23 only, but procedures for the RZ22 are identical.

1. Set the RZ23's SCSI ID jumpers to address ID 3, using Figure 1-11 and Table 1-1. If you need to install a second RZ23 disk drive, set the second RZ23 to address ID 2.



MA-X0519-89

Figure 1-11 RZ22 and RZ23 SCSI Address ID Jumper Settings

1-10 Drive Plate Installation (Model 30)

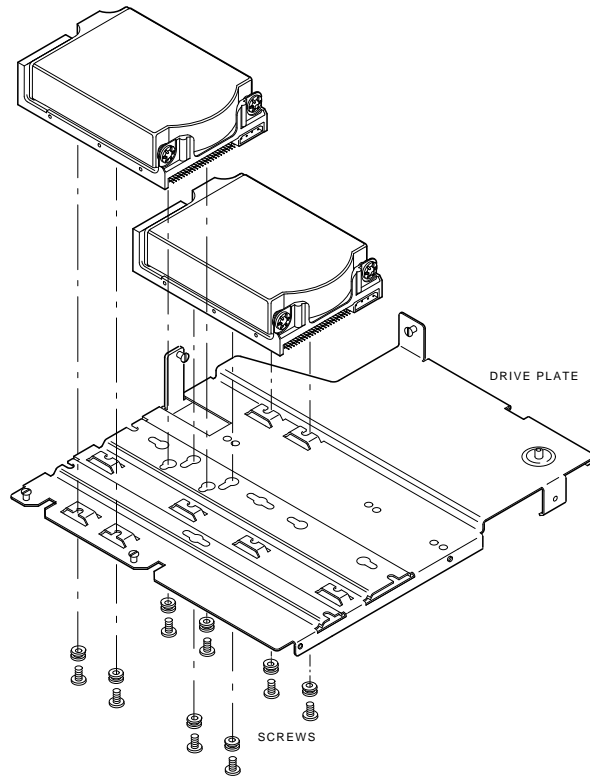
Table 1-1 RZ22 and RZ23 SCSI Address ID Jumper Settings

Address ID on SCSI Bus	RZ22 and RZ23 Jumper Settings			
	E1	E2	E3	E4
0	Out	Out	Out	Out
1	In	Out	Out	Out
2 ²	Out	In	Out	Out
3 ²	In	In	Out	Out
4	Out	Out	In	Out
5	In	Out	In	Out
6 ¹	Out	In	In	Out
7	In	In	In	Out

¹Reserved address ID for SCSI bus controller

²Recommended address IDs for the RZ22 or RZ23 drives

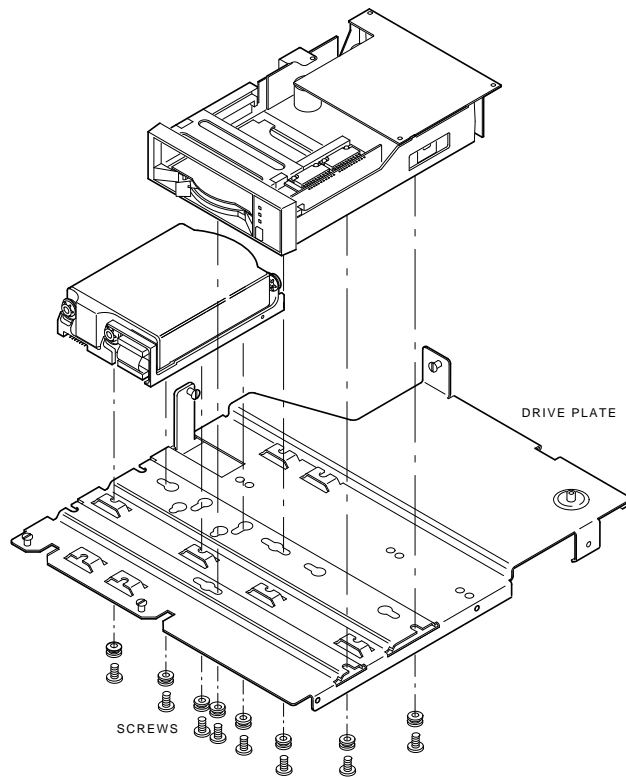
2. If the RX23 diskette drive is also mounted on the plate, mount the RZ23 (Figure 1-12). Otherwise, proceed to the next step.
3. If the TZ30 tape drive is mounted on the plate, or is going to be mounted on the drive plate, mount the RZ23 as shown in Figure 1-13.



MA-X0521-89

Figure 1-12 Mounting the RZ23 Disk with an RX23 Diskette Drive

1-12 Drive Plate Installation (Model 30)



MA-X0520-89

Figure 1-13 Mounting the RZ23 Disk with a TZ30 Tape Drive

4. Connect the data and power cables to the RZ23 and to the MSC module as shown in Figure 1-14 (with an RX23) or Figure 1-15 (with a TZ30).

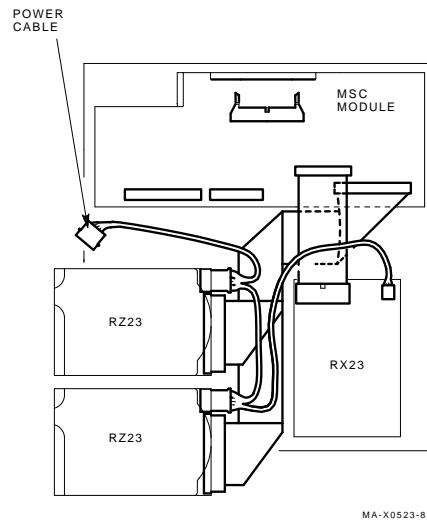


Figure 1-14 Connecting the RZ23 Data and Power Cables with an RX23 Diskette Drive

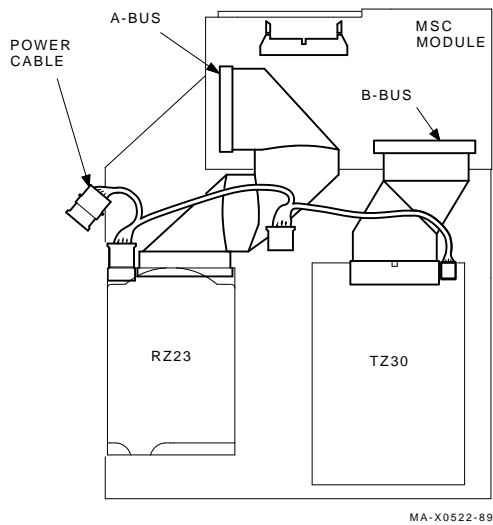


Figure 1-15 Connecting the RZ23 Data and Power Cables with a TZ30 Tape Drive

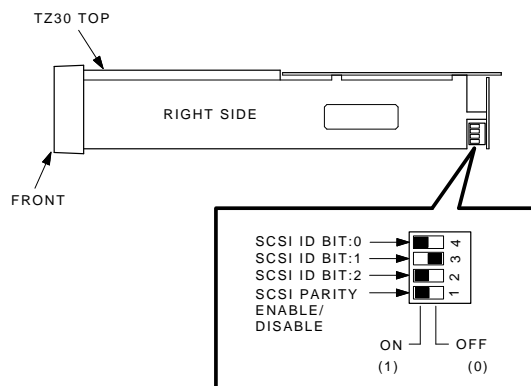
1-14 Drive Plate Installation (Model 30)

5. Installation of the RZ23 is now complete.

- If you have to install a TZ30 tape drive on the drive plate, proceed to TZ30 Tape Drive Installation .
- If there are no other drives to be installed on the drive plate, proceed to Installing the Drive Plate with the Drives.

TZ30 Tape Drive Installation

1. Set the TZ30's SCSI ID switches to address ID 5 using Figure 1-16 and the switch setting chart.



IN THIS EXAMPLE, THE SCSI ID IS SET FOR 5
AND PARITY IS SET TO ON.

MA-X1084-88

Figure 1-16 TZ30 Tape Drive SCSI Address ID Switch Settings

SCSI ID	SCSI ID Switch Positions			
	4	3	2	1 ¹
0	Off	Off	Off	On
1	On	Off	Off	On
2	Off	On	Off	On
3	On	On	Off	On
4	Off	Off	On	On
5 ³	On	Off	On	On
6 ²	Off	On	On	On
7	On	On	On	On

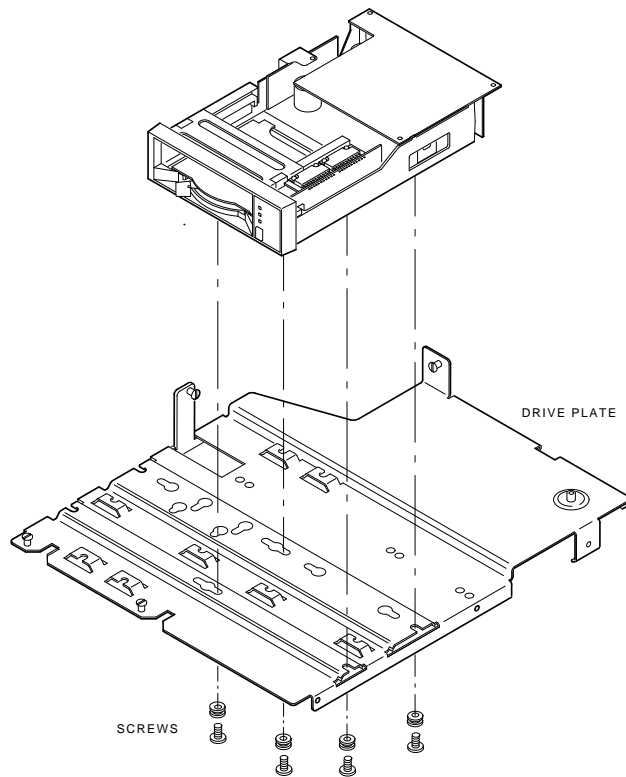
¹Parity Bit - This bit is always on (parity enabled).

²Reserved address ID for SCSI bus controller

³Recommended address ID for the TZ30 tape drive

2. Mount the TZ30 (Figure 1-17).

1-16 Drive Plate Installation (Model 30)



MA-X0524-89

Figure 1-17 Mounting the TZ30 Tape Drive

3. Connect the data and power cables to the TZ30 and to the MSC module (Figure 1-18.)

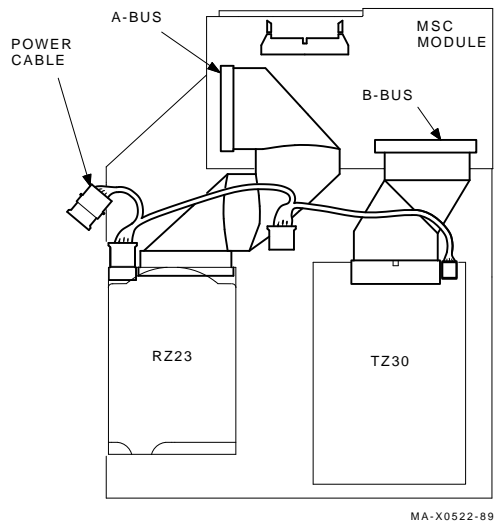


Figure 1-18 Connecting the TZ30 Data and Power Cables

Installing the TZ30 Bezel

1. On the cover of the system box, remove the six screws (Figure 1-19) and remove the front bezel from the cover.

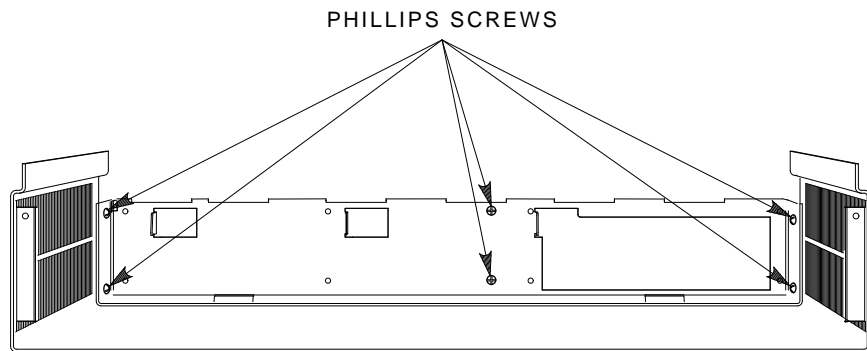


Figure 1-19 Removing Front Bezel screws

1-18 Drive Plate Installation (Model 30)

2. Separate the blank bezel insert from the front bezel (Figure 1-20).

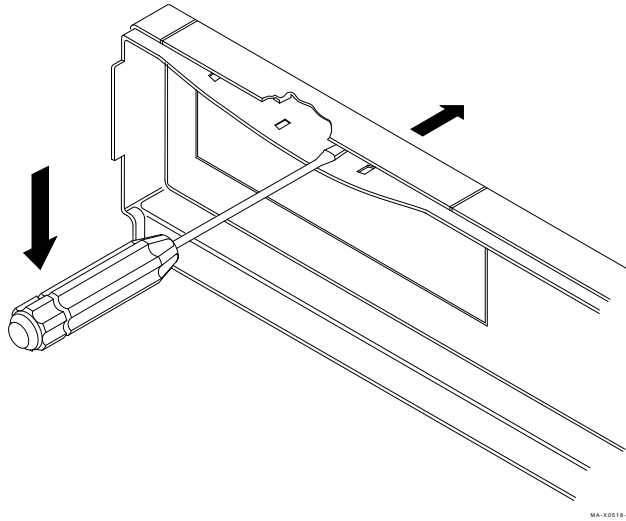
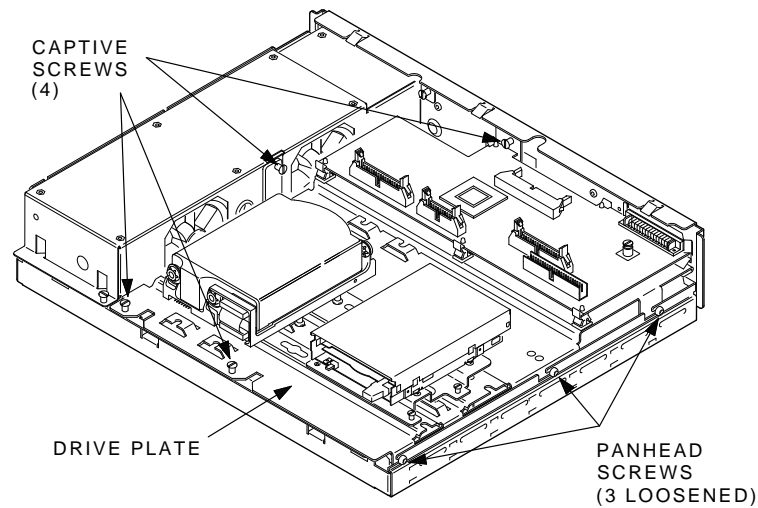


Figure 1-20 Separating the Bezel Insert from the Front Bezel

3. Install the TZ30 bezel insert onto the front bezel by reversing the previous step.
4. Install the front bezel onto the cover and install the six screws (Figure 1-19).
5. Installation of the TZ30 is now complete. Proceed to Installing the Drive Plate with the Drives to install the drive plate and close the system box.

Installing the Drive Plate with the Drives

1. Loosen the three panhead (Phillips) screws on the side of the drive plate.
2. Position the drive plate on the system box (Figure 1-21) making sure that the MSC cable is not trapped under the drive plate.

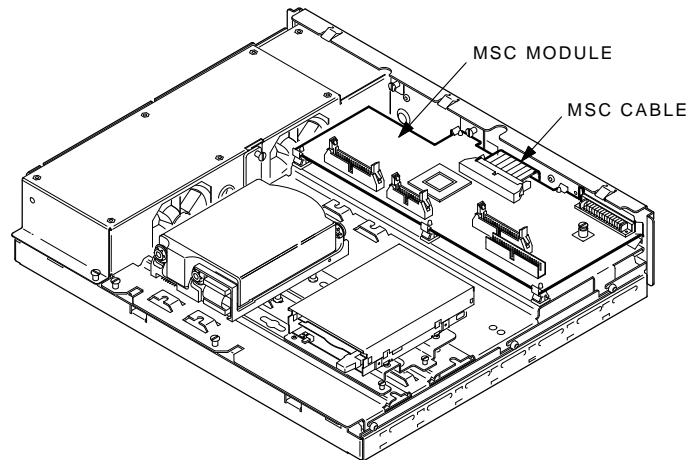


MA-X0858-88

Figure 1-21 Drive Plate Screw Locations

3. Tighten the four captive screws, then tighten the three panhead (Phillips) screws.
4. Connect the MSC cable to the MSC module. (Figure 1-22 shows the ST506/SCSI MSC module, and the SCSI/SCSI MSC module's MSC cable connects the same way.
5. Connect the power cable to the power supply

1-20 Drive Plate Installation (Model 30)



MA-X0525-89

Figure 1-22 MSC Cable Connection

Reinstalling the System Box cover

CAUTION

When installing the system box cover, make sure that the LED on the RX23 diskette drive fits into the plastic light bezel on the cover. Sometimes the LED is bent upwards and does not slip into the light bezel properly causing damage to the LED.

1. Install the system box cover and tighten the two cover screws.
2. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new drives to verify their status.

2

RX23 Diskette Drive Installation

This option installs in model 30 only.

Option Contents

Option Number	Contents
RX23-EF	RX23 diskette drive with mounting plate Data cable Eject button RX23 bezel Diskette

Installation Procedure

Shutting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

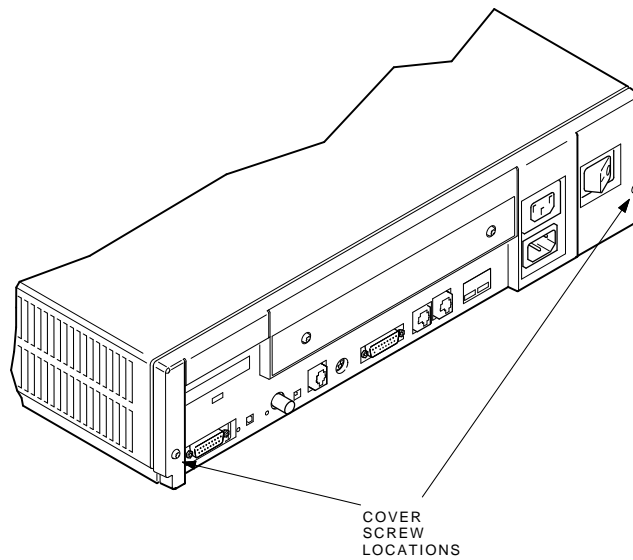
2-2 RX23 Diskette Drive Installation

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 2-1).



MA-X0796-88

Figure 2-1 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Installing the RX23 Diskette Drive

1. Set the drive select switch to the zero position which is all the way towards the back of the drive (Figure 2-2).

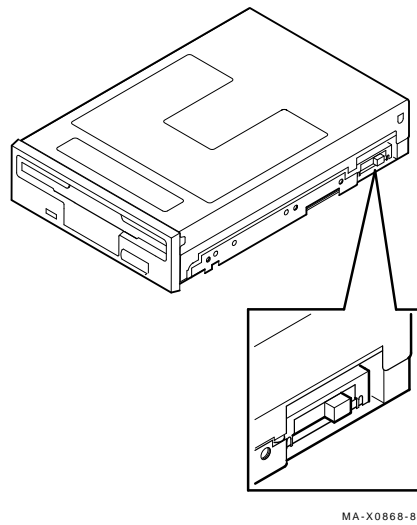


Figure 2-2 Setting the RX23 Drive Select Switch

2. Position the RX23 on the drive plate (Figure 2-3) and tighten the four mounting screws.

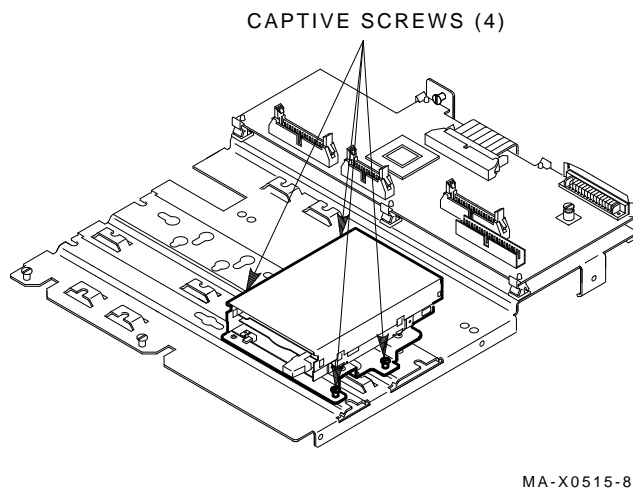


Figure 2-3 Mounting the RX23 Diskette Drive

2-4 RX23 Diskette Drive Installation

3. Connect the data and power cables to the RX23 and to the MSC module (Figure 2-4.)

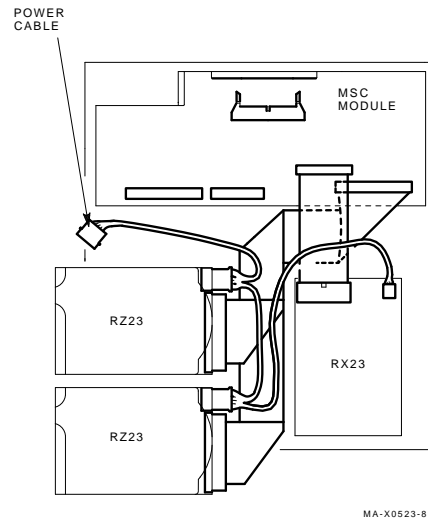
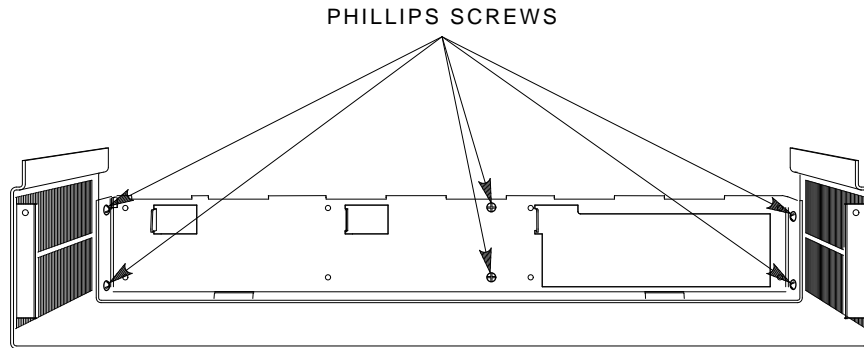


Figure 2-4 Connecting the RX23 Data and Power Cables

4. Install the eject button onto the RX23 drive.

Installing the RX23 Bezel

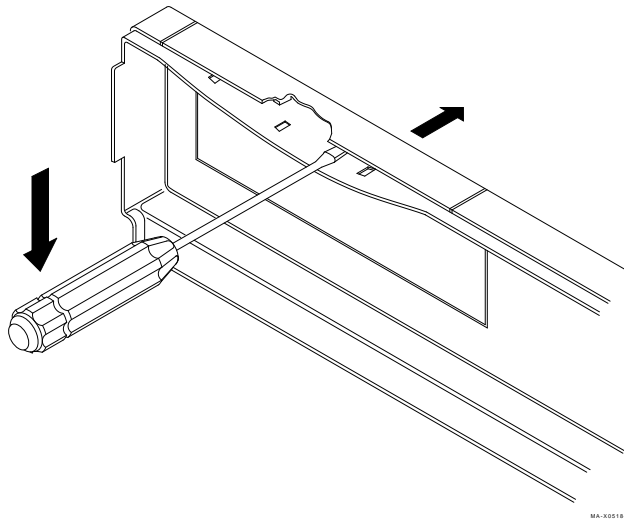
1. On the cover of the system box, remove the six screws (Figure 2-5) and remove the front bezel from the cover.



MA-X0517-89

Figure 2-5 Removing the Front Bezel Screws

2. Separate the blank bezel insert from the front bezel (Figure 2-6).



MA-X0518-89

Figure 2-6 Separating the Bezel Insert from the Front Bezel

3. Install the RX23 bezel insert onto the front bezel by reversing the previous step.

2-6 RX23 Diskette Drive Installation

4. Install the front bezel onto the cover and install the six screws (Figure 2-5).

Reinstalling the System Box Cover

CAUTION

When installing the system box cover, make sure that the LED on the RX23 diskette drive fits into the plastic light bezel on the cover. Sometimes the LED is bent upwards and does not slip into the light bezel properly causing damage to the LED.

1. Install the system box cover and tighten the two cover screws.
2. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new drive to verify its status.

3

RZ22 and RZ23 Drive Installation

The RZ22 and RZ23 disk drives are physically mounted the same. The text refers to the RZ23 only, but procedures for the RZ22 are identical.

Option Contents

Option Number	Contents
RZ22-EF	RZ22 drive Screws Grommets
RZ23-EF	RZ23 drive Screws Grommets

There are two separate procedures defined in this chapter. The first procedure describes how to install the RZ23 disk drive in the model 30 system. The second procedure describes how to install the RZ23 disk drive in the model 40 system.

Model 30 Installation Procedure

Shutting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

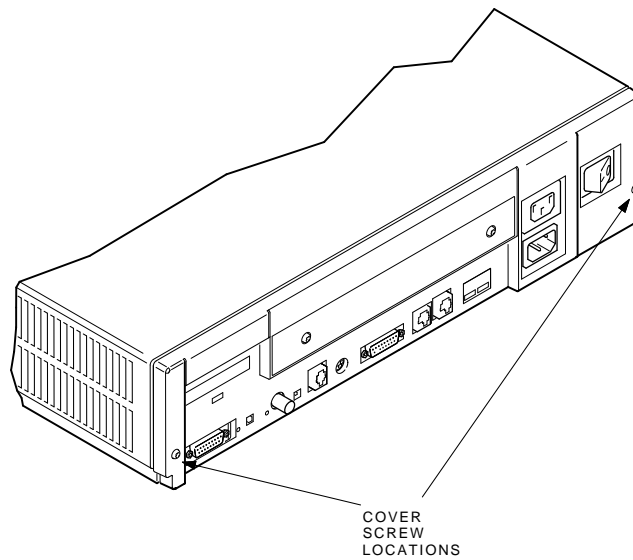
3-2 RZ22 and RZ23 Drive Installation

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 3-1).



MA-X0796-88

Figure 3-1 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Drive Mounting Plate

1. Disconnect the power cable and the MSC cable from the MSC module (Figure 3-2).

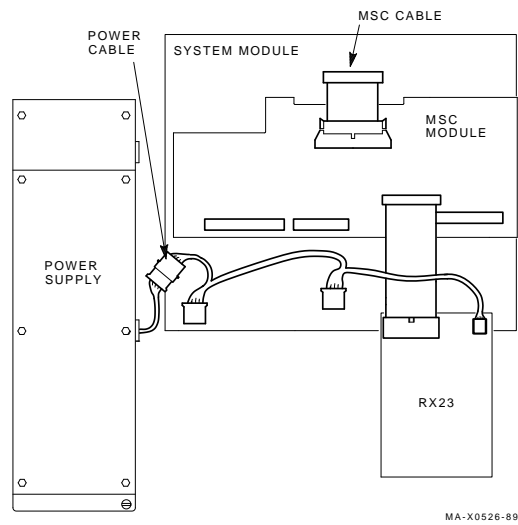


Figure 3-2 Disconnecting Power and MSC Cables

2. Unscrew the four captive screws, loosen the three panhead screws (Figure 3-3), and remove the drive mounting plate.

3-4 RZ22 and RZ23 Drive Installation

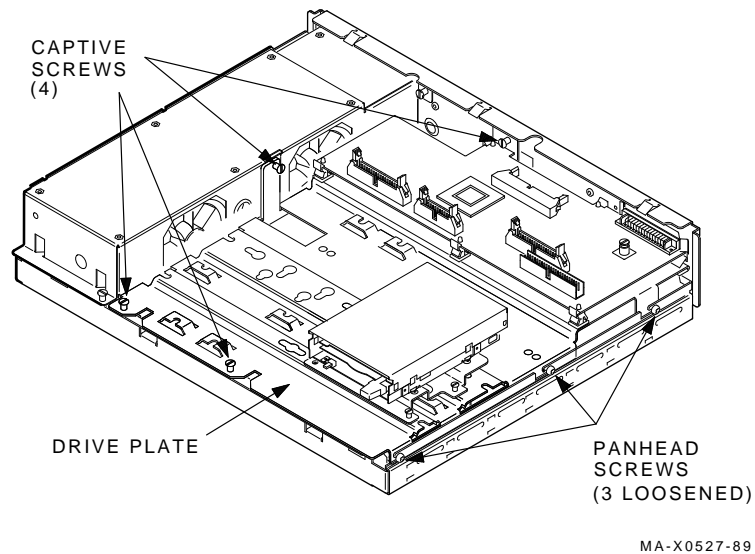


Figure 3-3 Removing the Drive Mounting Plate

Installing the RZ23 Disk Drive

1. Set the RZ23's SCSI ID jumpers to address ID 3. Refer to Figure 3-4 and the following jumper setting chart. If you need to install a second RZ23 disk drive, set the second RZ23 to address ID 2.

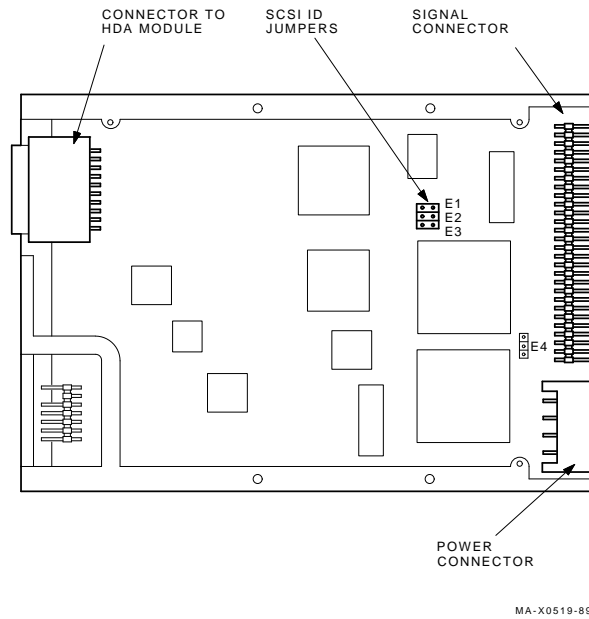


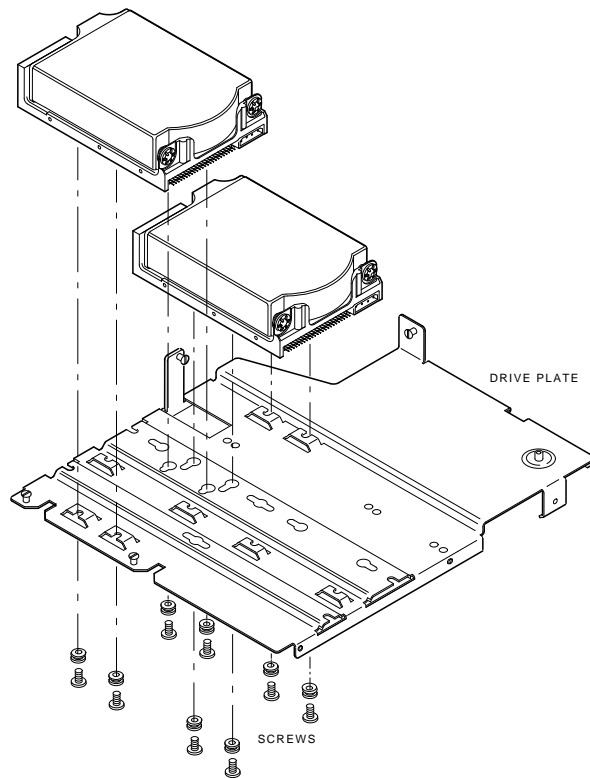
Figure 3-4 RZ23 SCSI Address ID Jumper Settings

Address ID on SCSI Bus	RZ22 and RZ23 Jumper Settings			
	E1	E2	E3	E4
0	Out	Out	Out	Out
1	In	Out	Out	Out
2 ²	Out	In	Out	Out
3 ²	In	In	Out	Out
4	Out	Out	In	Out
5	In	Out	In	Out
6 ¹	Out	In	In	Out
7	In	In	In	Out

¹Reserved address ID for SCSI bus controller
²Recommended address IDs for the RZ22 or RZ23 drives

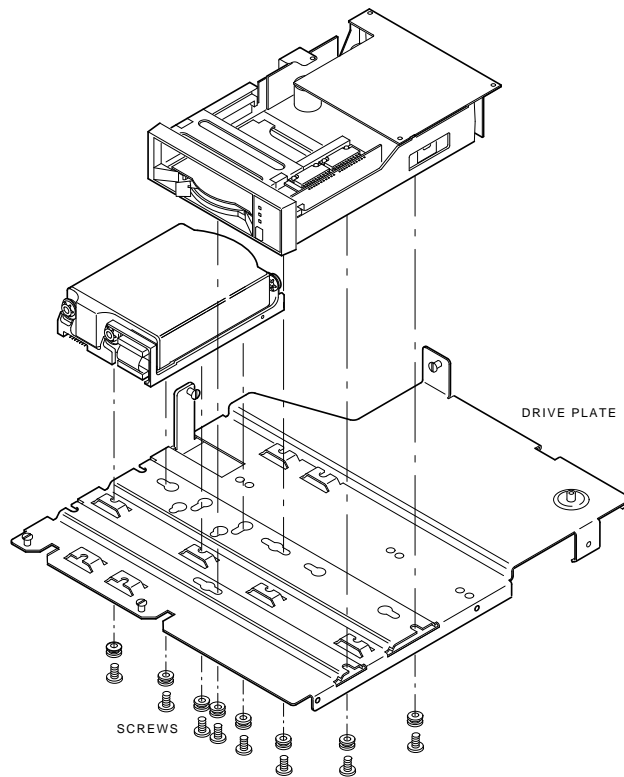
3-6 RZ22 and RZ23 Drive Installation

2. If the RX23 diskette drive is also mounted on the plate, mount the RZ23 (Figure 3-5), or if the TZ30 tape drive is mounted on the plate, mount the RZ23 (Figure 3-6).



MA-X0521-89

Figure 3-5 Mounting the RZ23 Disk with an RX23 Diskette Drive



MA-X0520-89

Figure 3-6 Mounting the RZ23 Disk with a TZ30 Tape Drive

3. Connect the data and power cables to the RZ23 and to the MSC module as shown in Figure 3-7 (with an RX23) or Figure 3-8 (with a TZ30).

3-8 RZ22 and RZ23 Drive Installation

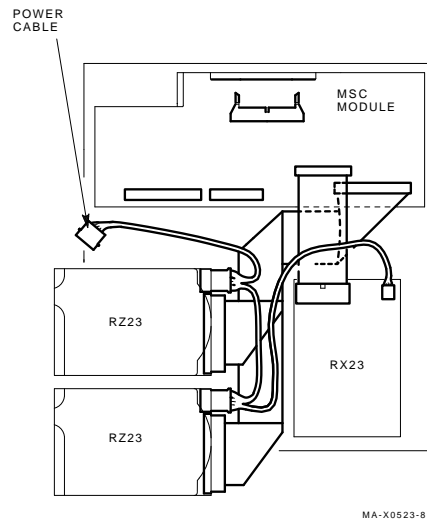


Figure 3-7 Connecting the RZ23 Data and Power Cables with an RX23 Diskette Drive

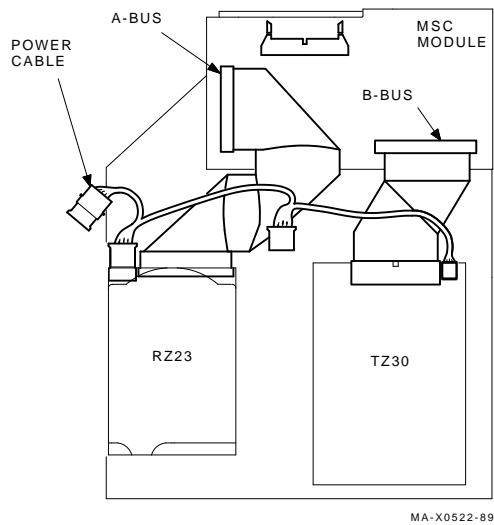


Figure 3-8 Connecting the RZ23 Data and Power Cables with a TZ30 Tape Drive

Reinstalling the Drive Mounting Plate and Closing the Box

1. Position the drive plate on the system box (Figure 3-9) making sure that the MSC cable is not trapped under the drive plate.

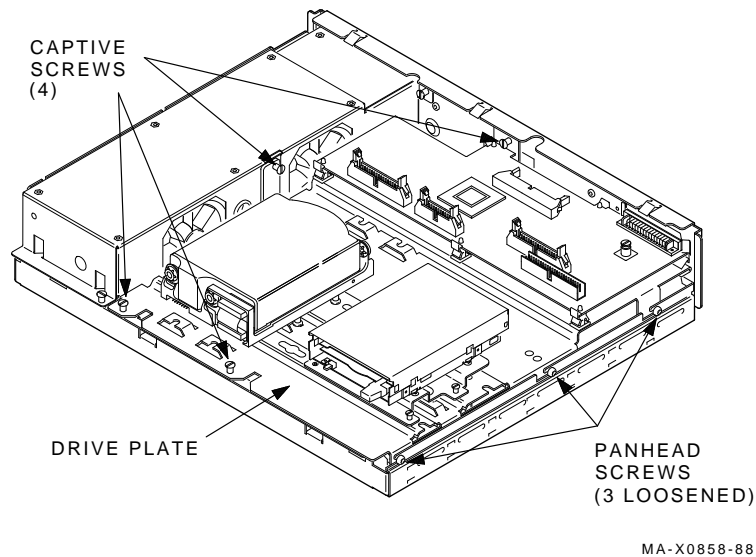
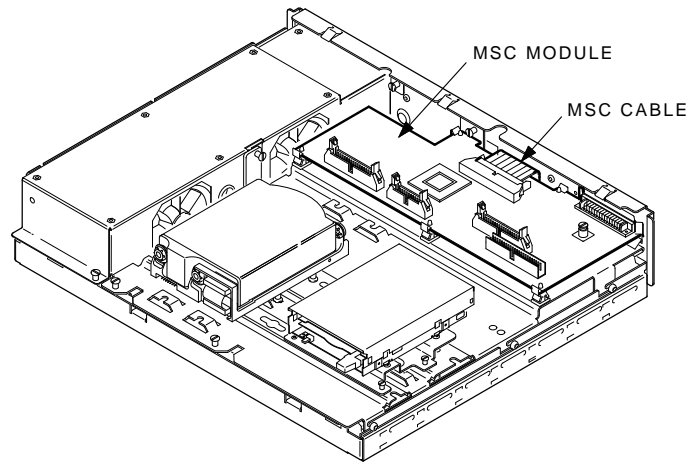


Figure 3-9 Drive Plate Screw Locations

2. Tighten the four captive screws, then tighten the three panhead (Phillips) screws.
3. Connect the MSC cable to the MSC module. Figure 3-10 shows the ST506/SCSI MSC module. The SCSI/SCSI MSC module's MSC cable connects the same way.

3-10 RZ22 and RZ23 Drive Installation



MA-X0525-89

Figure 3-10 MSC Cable Connection

4. Connect the power cable to the power supply

CAUTION

When installing the system box cover with an RX23 diskette drive installed, make sure that the LED on the RX23 diskette drive fits into the plastic light bezel on the cover. Sometimes the LED is bent upwards and does not slip into the light bezel properly causing damage to the LED.

5. Install the system box cover and tighten the two cover screws.
6. Run self-test on the new drives to verify their status.

Model 40 Installation Procedure

Shutting Down the System

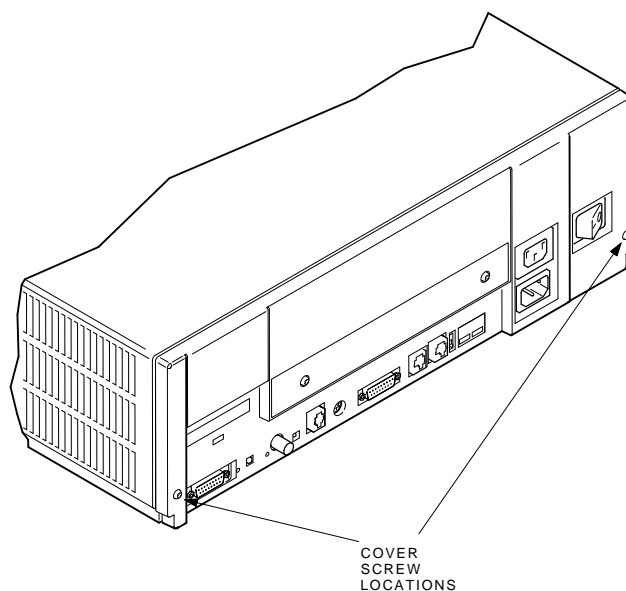
1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat when replacing FRUs.

1. Unscrew the two cover screws (Figure 3-11).



MA-X0813-88

Figure 3-11 Cover Screw Locations

2. Slide the cover forward and up off the system box.

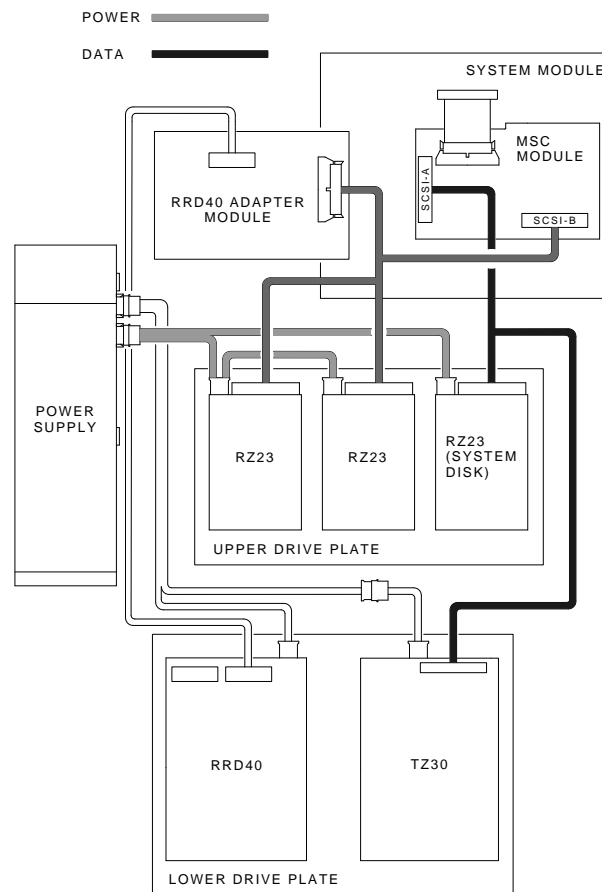
Removing the Upper Drive Plate

CAUTION

You must note which cables connect to which drive when disconnecting them from the system. Write the type of drive and its position on a piece of tape. Wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

1. Disconnect the power cable and the SCSI data cable from any installed RZ23 drive (Figure 3-12.)

3-12 RZ22 and RZ23 Drive Installation



MA-X0814-88

Figure 3-12 Disconnecting the Power and MSC Cables

2. Remove the RRD40 adapter module (if installed) from the four standoffs and let it hang over the back of the system box.
3. Unscrew the five screws on the upper drive mounting panel (Figure 3-13) and lift the top panel from the lower panel.

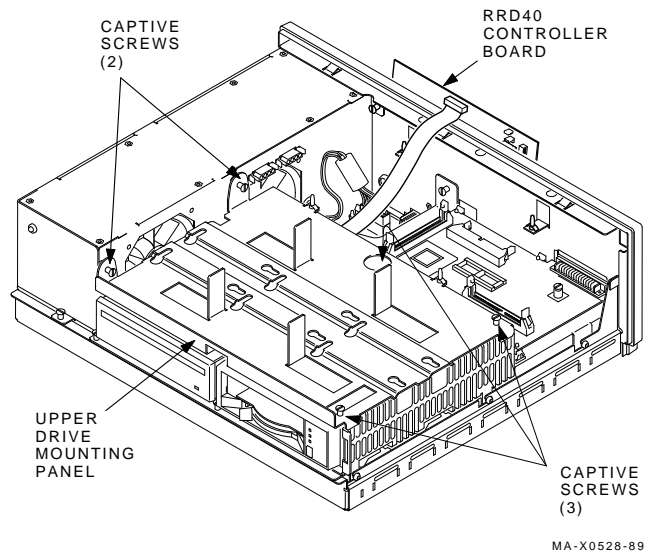


Figure 3-13 Unscrewing the Upper Drive Mounting Panel

Installing the RZ23 Disk Drive

1. The SCSI ID is set according to the RZ23's mounting position on the upper drive panel. Set the SCSI ID on the RZ23 drive according to the address ID for the drive locations (Figure 3-15). Refer to Figure 3-14 and Table 3-1 to set the jumpers on the RZ23 to the correct SCSI ID address.

3-14 RZ22 and RZ23 Drive Installation

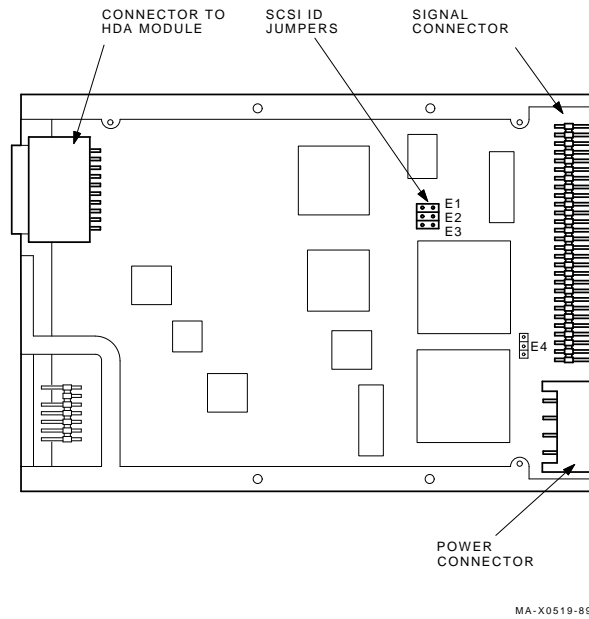


Figure 3-14 RZ23 SCSI Address ID Jumper Locations

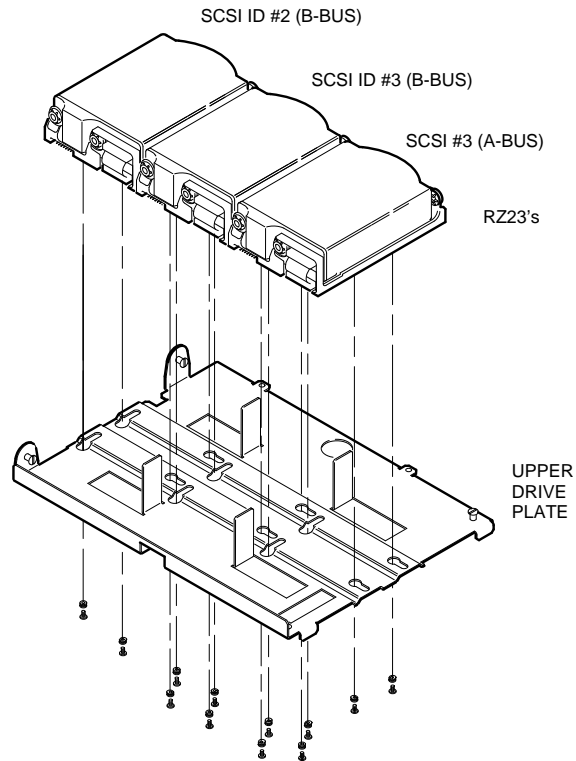
Table 3-1 RZ23 SCSI Address ID Jumper Settings

SCSI Bus	RZ22 and RZ23 Jumper Settings			
	E1	E2	E3	E4
0	Out	Out	Out	Out
1	In	Out	Out	Out
2 ²	Out	In	Out	Out
3 ²	In	In	Out	Out
4	Out	Out	In	Out
5	In	Out	In	Out
6 ¹	Out	In	In	Out
7	In	In	In	Out

¹Reserved address ID for SCSI bus controller

²Recommended address IDs for the RZ22 or RZ23 drives

2. Mount the RZ23 (Figure 3-15).



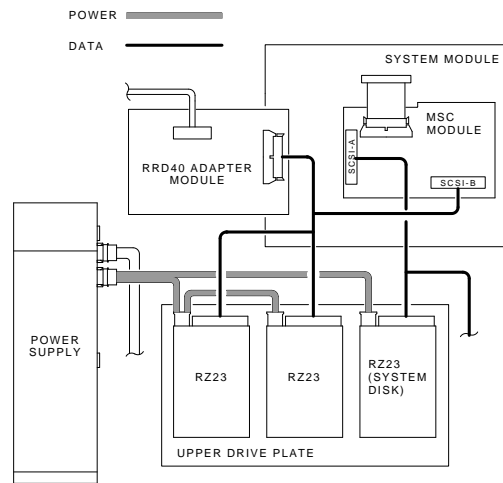
MA-X0529-89

Figure 3-15 Mounting the RZ23 Disk Drive

Reinstalling the Upper Drive Plate and Closing the Box

1. Install the upper drive plate and tighten the five screws (Figure 3-13).
2. Mount the RRD40 adapter module (if installed) on the four standoffs.
3. Connect the SCSI data and power cables to the RZ23 (Figure 3-16).

3-16 RZ22 and RZ23 Drive Installation



MA-X0530-89

Figure 3-16 Connecting the RZ23 Data and Power Cables

4. Install the system box cover and tighten the two cover screws.
5. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new drives to verify their status.

4

TZ30 Tape Drive Installation

The TZ30 installs in either the model 30 or model 40 system.

Option Contents

Option Number	Contents
TZ30-EF	TZ30 tape drive Screws Grommets Blank tape

There are two separate procedures defined in this chapter. The first procedure describes how to install the TZ30 tape drive in the model 30 system. The second procedure describes how to install the TZ30 tape drive in the Model 40 system.

Model 30 Installation Procedure

Shutting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

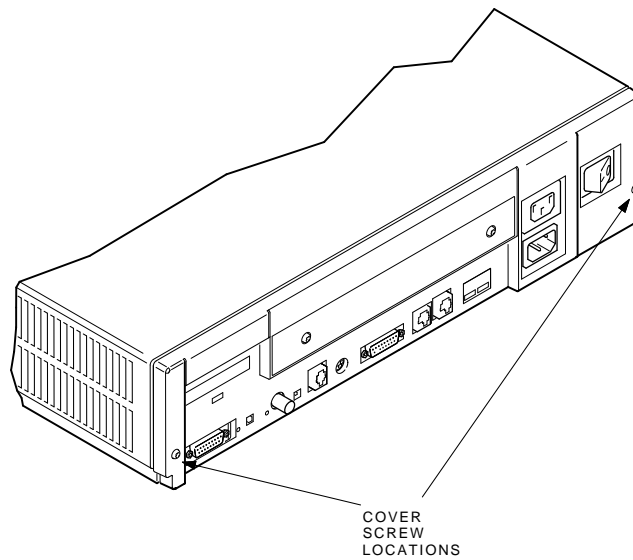
4-2 TZ30 Tape Drive Installation

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 4-1).



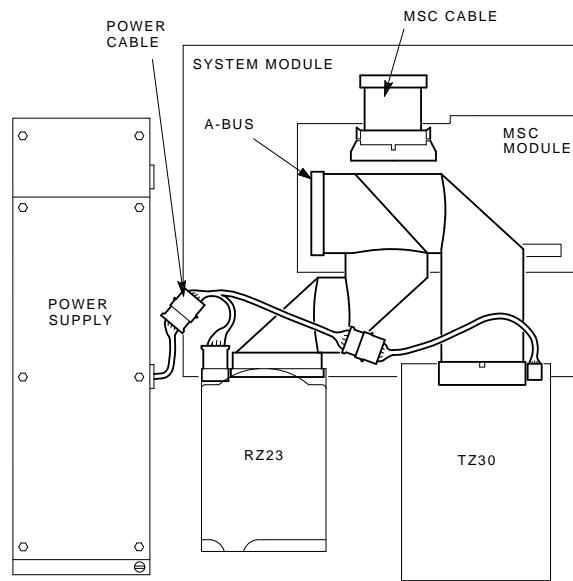
MA-X0796-88

Figure 4-1 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Drive Mounting Plate

1. Disconnect the power cable from the power supply and disconnect the MSC cable (Figure 4-2).



MA-X1172-88

Figure 4-2 Disconnecting the Drive Mounting Plate

2. Disconnect the external SCSI cable or the terminator from the SCSI port.
3. Unscrew the four captive screws, loosen the three panhead screws (Figure 4-3), and slide the plate forward and up off the system box.

4-4 TZ30 Tape Drive Installation

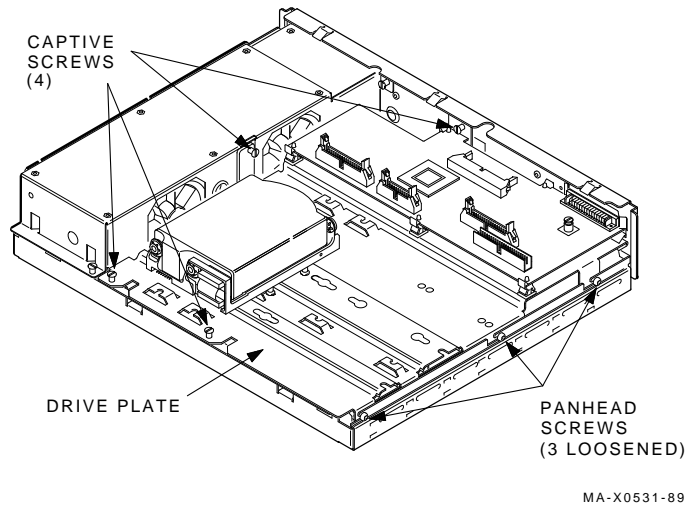
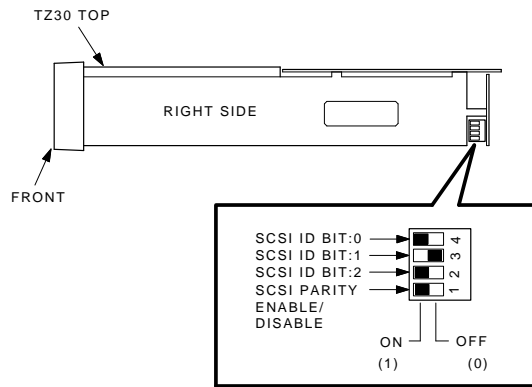


Figure 4-3 Removing the Drive Mounting Plate

Installing the TZ30 Tape Drive

1. Set the TZ30 drive's SCSI ID switches to address ID 5, using Figure 4-4 and the following switch setting chart.



IN THIS EXAMPLE, THE SCSI ID IS SET FOR 5 AND PARITY IS SET TO ON.

MA-X1084-88

Figure 4-4 TZ30 Tape Drive SCSI Address ID Switch Settings

SCSI ID	SCSI ID Switch Positions			
	4	3	2	1 ¹
0	Off	Off	Off	On
1	On	Off	Off	On
2	Off	On	Off	On
3	On	On	Off	On
4	Off	Off	On	On
5 ³	On	Off	On	On
6 ²	Off	On	On	On
7	On	On	On	On

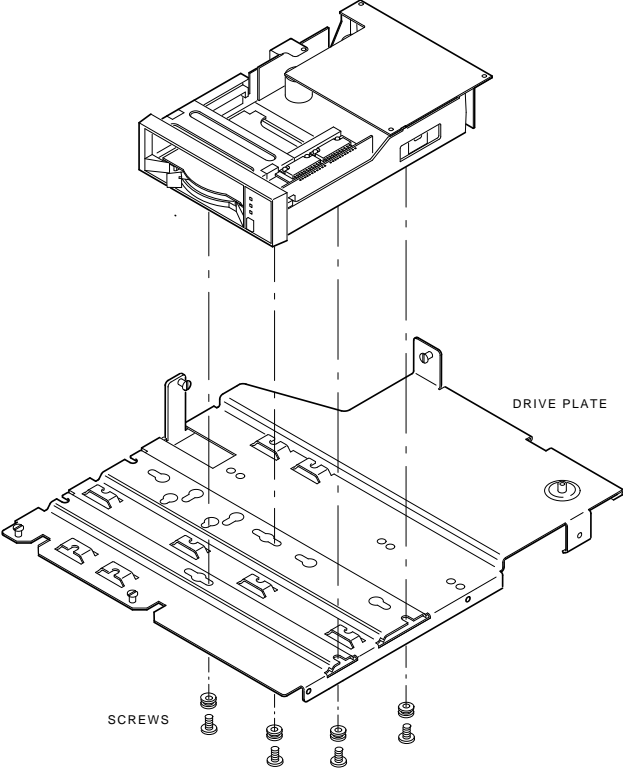
¹Parity Bit - This bit is always off (parity enabled).

²Reserved address ID for SCSI bus controller

³Recommended address ID for the TZ30 tape drive

2. Mount the TZ30 (Figure 4-5 shows how to mount the TZ30 with the RZ23).

4-6 TZ30 Tape Drive Installation



MA-X0524-89

Figure 4-5 Mounting the TZ30 Tape Drive

- 3. Connect the data and power cables to the TZ30 and to the MSC module (Figure 4-6).

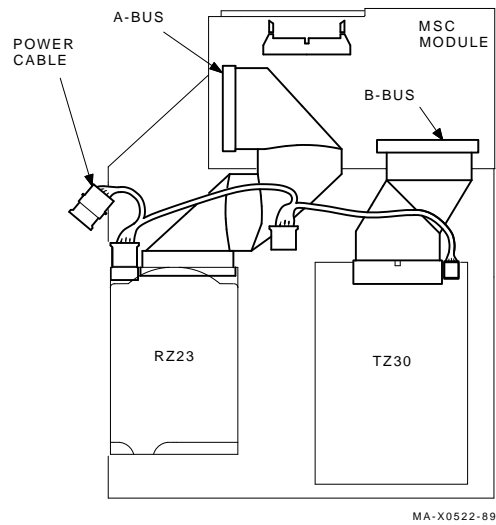
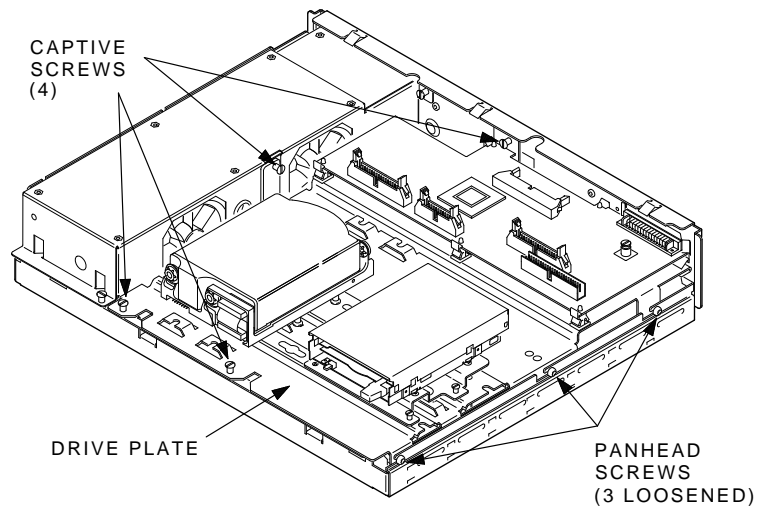


Figure 4-6 Connecting the TZ30 Data and Power Cables

Reinstalling the Drive Mounting Plate

1. Position the drive plate on the system box (Figure 4-7), making sure that the MSC cable is not trapped under the drive plate.

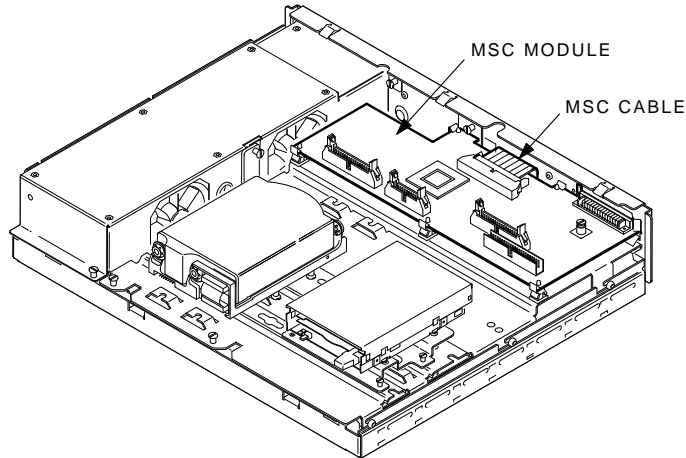
4-8 TZ30 Tape Drive Installation



MA-X0858-88

Figure 4-7 Drive Plate Screw Locations

2. Tighten the four captive screws, then tighten the three panhead (Phillips) screws.
3. Connect the MSC cable to the MSC module (Figure 4-8).



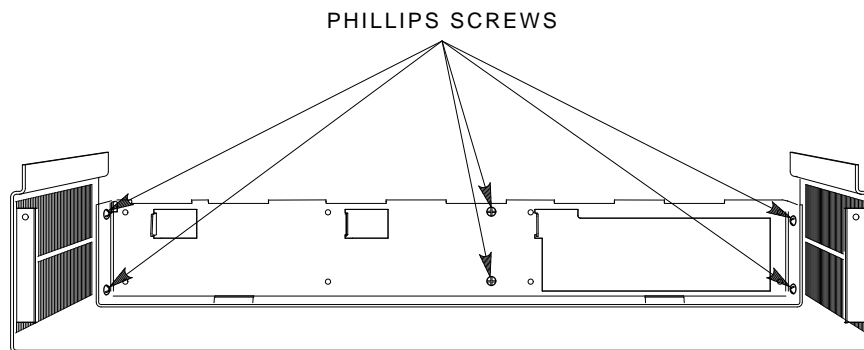
MA-X0525-89

Figure 4-8 MSC Cable Connection

4. Connect the power cable to the power supply

Installing the TZ30 Bezel

1. On the cover of the system box, remove the six screws (Figure 4-9) and remove the front bezel from the cover.



MA-X0517-89

Figure 4-9 Removing the Front Bezel Screws

2. Separate the blank bezel insert from the front bezel (Figure 4-10).

4-10 TZ30 Tape Drive Installation

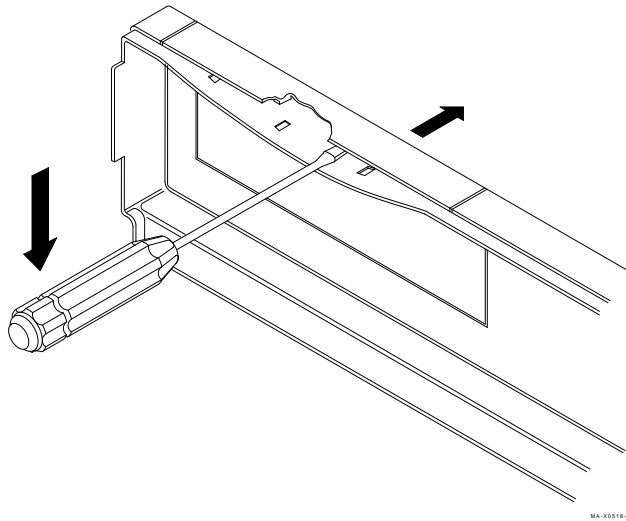


Figure 4-10 Separating the Bezel Insert from the Front Bezel

3. Install the TZ30 bezel insert onto the front bezel by reversing the previous step.
4. Install the front bezel onto the cover and install the six screws (Figure 4-9).

Reinstalling the System Box Cover

1. Install the system box cover and tighten the two cover screws.
2. Run self-test on the new drive to verify its status.

Model 40 Installation Procedure

Shutting Down the System

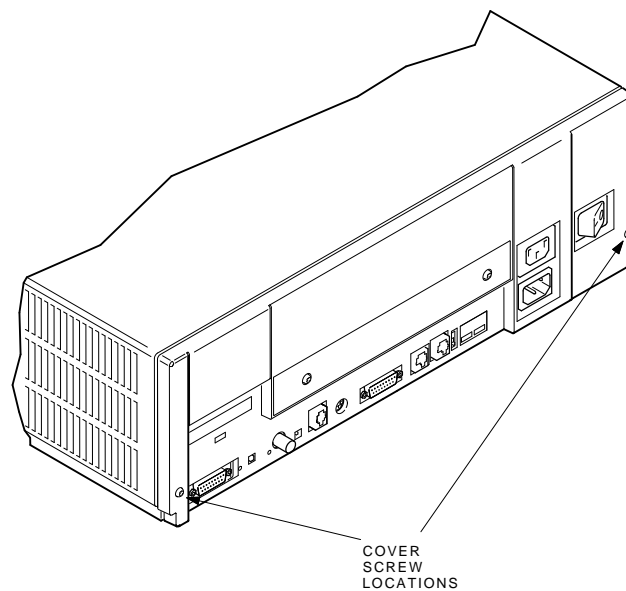
1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 4-11).



MA-X0813-88

Figure 4-11 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Drive Mounting Plate

CAUTION

You must note which cables connect to which drive when disconnecting them from the system. Write the type of drive and its position on a piece of tape. Wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

1. Disconnect the power cables and the SCSI bus cables from the drives on the upper drive plate (Figure 4-12). Disconnect the SCSI bus cable from the RRD40 adapter module (if installed).

4-12 TZ30 Tape Drive Installation

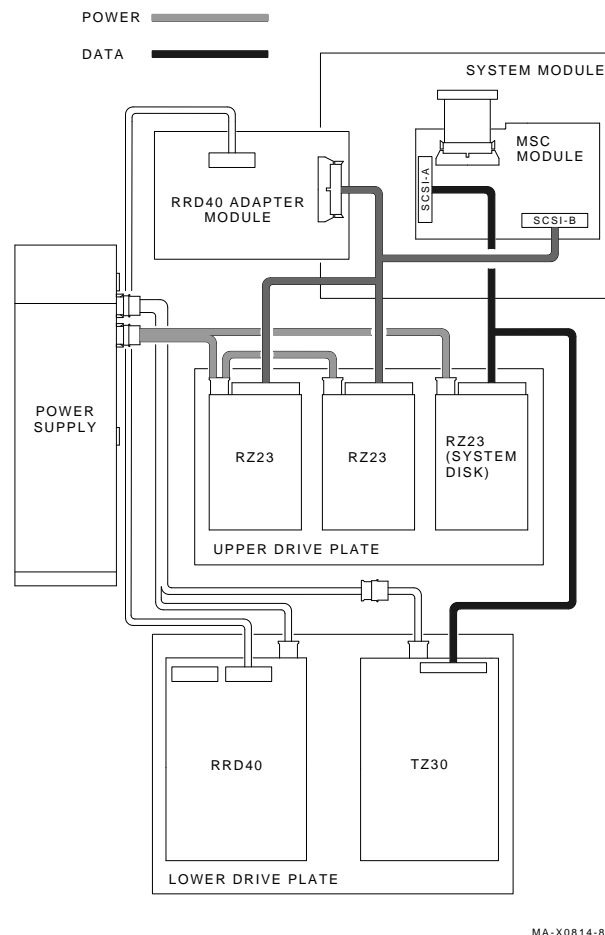


Figure 4-12 Disconnecting the Power and MSC Cables

2. Remove the RRD40 adapter module from the four standoffs and let it hang over the back of the system box.
3. Unscrew the five screws on the upper drive mounting panel (Figure 4-13) and lift the top panel from the lower panel.

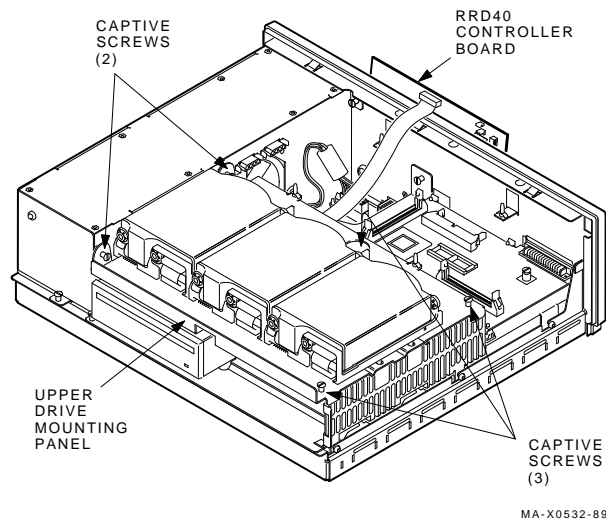
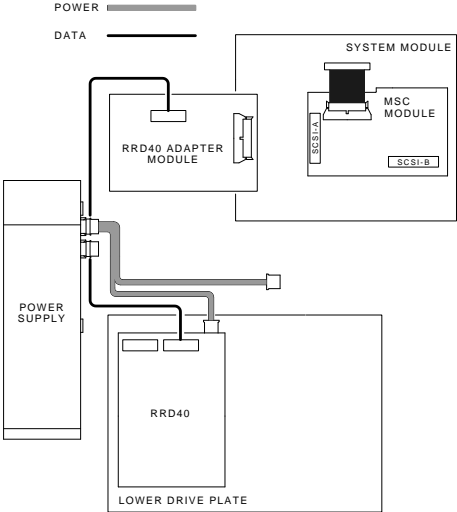


Figure 4-13 Unscrewing the Upper Drive Mounting Panel

Removing the Lower Drive Plate

1. Disconnect the data cable from the rear of the RRD40 compact disc drive (if installed) and set the RRD40 adapter module aside.
2. Disconnect the power cable from the RRD40 drive (if installed) and disconnect the MSC cable (Figure 4-14).

4-14 TZ30 Tape Drive Installation



MA-X0533-89

Figure 4-14 Lower Drive Mounting Plate Cabling

- 3. Unscrew the seven screws (Figure 4-15).

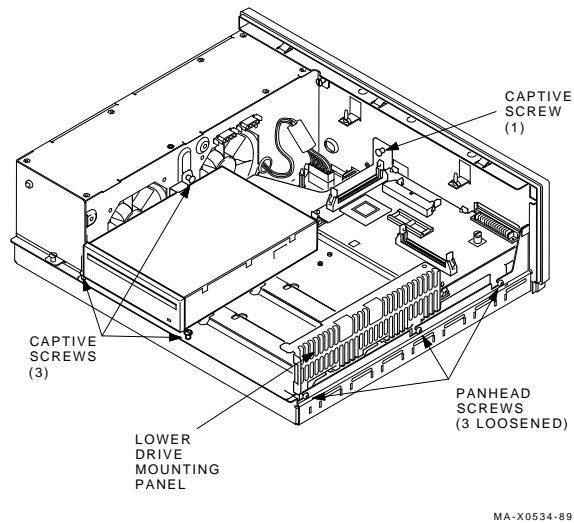


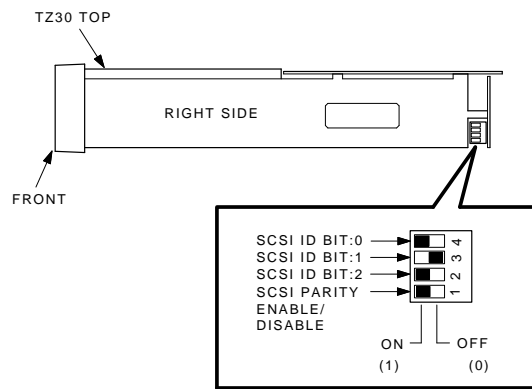
Figure 4-15 Unscrewing the Lower Drive Mounting Plate

4. Slide the plate forward then lift the plate from the system box.

Installing the TZ30 Tape Drive

1. Set the TZ30 drive's SCSI ID switches to address ID 5, using Figure 4-16 and the following switch setting chart.

4-16 TZ30 Tape Drive Installation



IN THIS EXAMPLE, THE SCSI ID IS SET FOR 5 AND PARITY IS SET TO ON.

MA-X1084-88

Figure 4-16 TZ30 Tape Drive SCSI Address ID Switch Settings

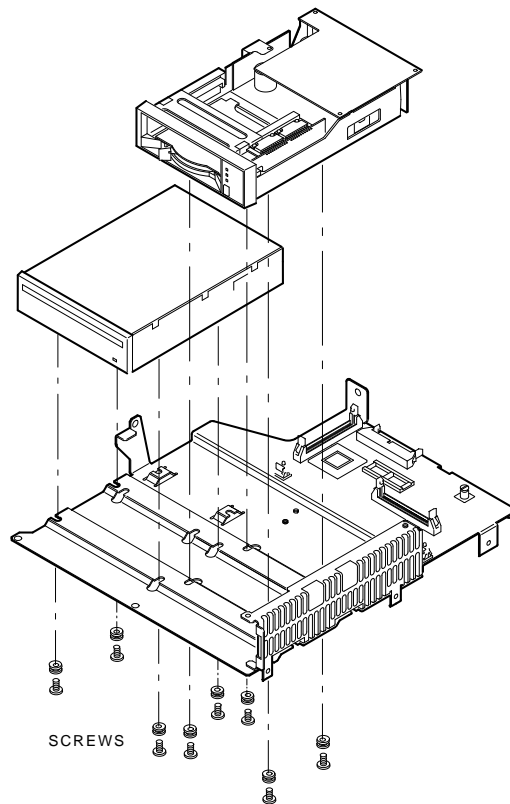
SCSI ID	SCSI ID Switch Positions			
	4	3	2	1 ¹
0	Off	Off	Off	On
1	On	Off	Off	On
2	Off	On	Off	On
3	On	On	Off	On
4	Off	Off	On	On
5 ³	On	Off	On	On
6 ²	Off	On	On	On
7	On	On	On	On

¹Parity Bit - This bit is always off (parity enabled).

²Reserved address ID for SCSI bus controller

³Recommended address ID for the TZ30 tape drive

2. Mount the TZ30 (Figure 4-17).



MA-X0535-89

Figure 4-17 Mounting the TZ30 Tape Drive

Reinstalling the Lower Drive Plate

1. Position the lower drive mounting plate (Figure 4-15) and tighten the seven screws.
2. Connect the SCSI bus cables and the power cables to the TZ30 and the RRD40 compact disc drive (if installed). Connect the MSC cable to the MSC module (Figure 4-18).

4-18 TZ30 Tape Drive Installation

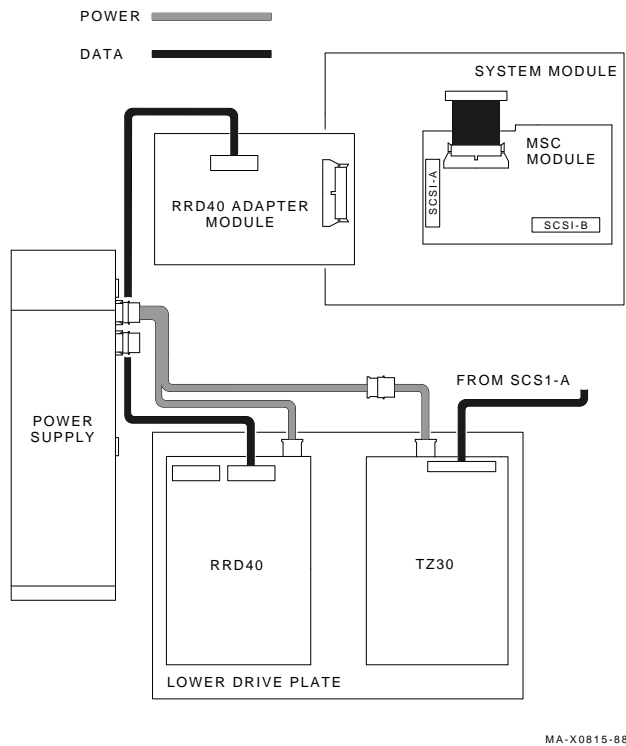


Figure 4-18 Lower Drive Mounting Plate Cabling

3. Connect the data cable from the RRD40 adapter module to the RRD40 compact disc drive (if installed).

Reinstalling the Upper Drive Plate and Closing the Box

1. Position the upper mounting drive plate on the system box (Figure 4-19) and tighten the five screws.

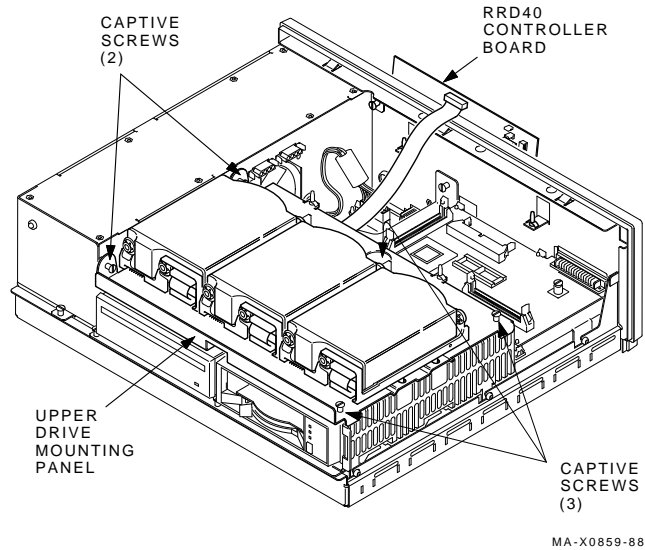
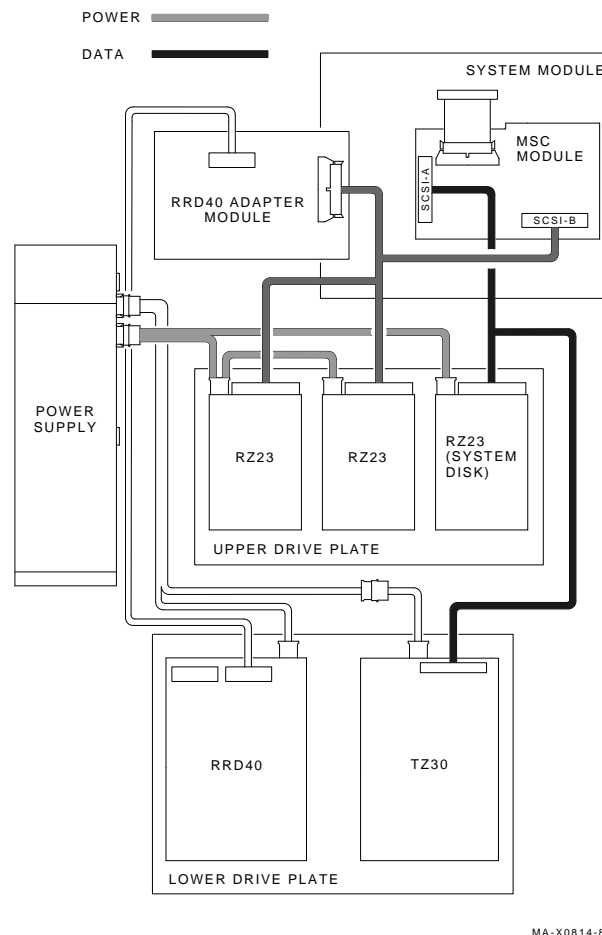


Figure 4-19 Mounting the Upper Drive Mounting Plate

2. Mount the RRD40 adapter module on the four standoffs.
3. Connect the SCSI bus cables and the power cables to any and all RZ23s and connect the SCSI bus to the RRD40 adapter module (if installed) as shown in Figure 4-20.

4-20 TZ30 Tape Drive Installation



MA-X0814-88

Figure 4-20 Top Drive Mounting Plate Cabling

4. Remove the blank bezel inside the system box cover to allow access to the TZ30 tape drive.
5. Install the system box cover and tighten the two cover screws.
6. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new drive to verify its status.

5

RRD40 Compact Disc Drive Installation

The RRD40 installs in the model 40 system only.

Option Contents

Option Number	Contents
RRD40-EF	RRD40 compact disc drive RRD40 adapter module with cable Compact "test" disc with caddy Screws Grommets

Installation Procedures

Shutting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

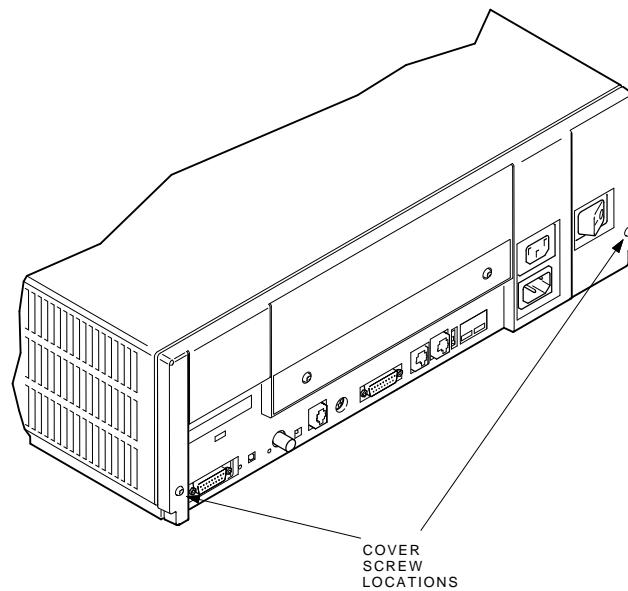
Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 5-1).

5-2 RRD40 Compact Disc Drive Installation



MA-X0813-88

Figure 5-1 Cover Screw Locations

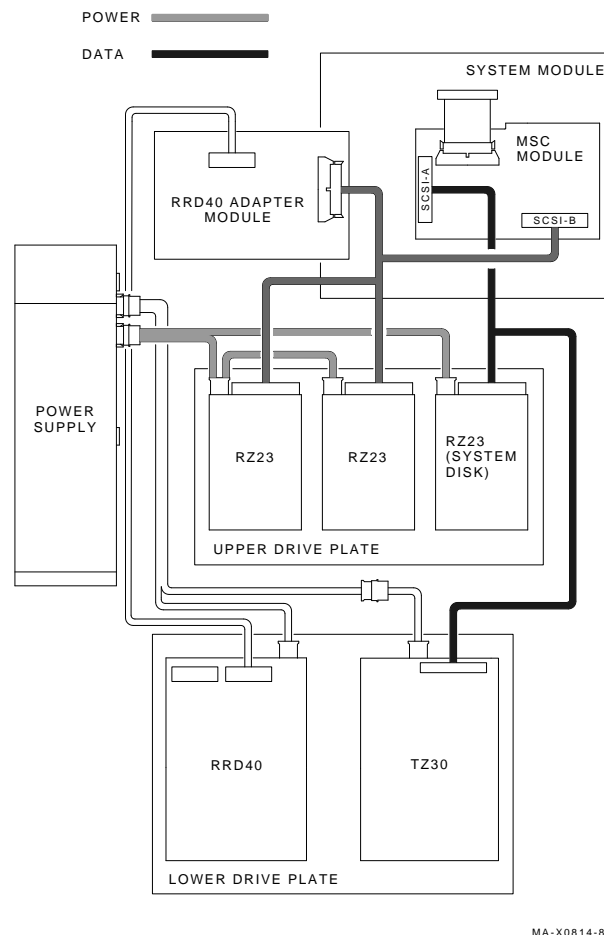
2. Slide the cover forward and up off the system box.

Removing the Upper Drive Plate

CAUTION

You must note which cables connect to which drive when disconnecting them from the system. Write the type of drive and its position on a piece of tape. Wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

1. Disconnect the power cables and the SCSI bus cables from the drives on the upper drive plate (Figure 5-2).



MA-X0814-88

Figure 5-2 Disconnecting the Power and MSC Cables

2. Unscrew the five screws on the upper drive mounting panel (Figure 5-3) and lift the top panel from the lower panel.

5-4 RRD40 Compact Disc Drive Installation

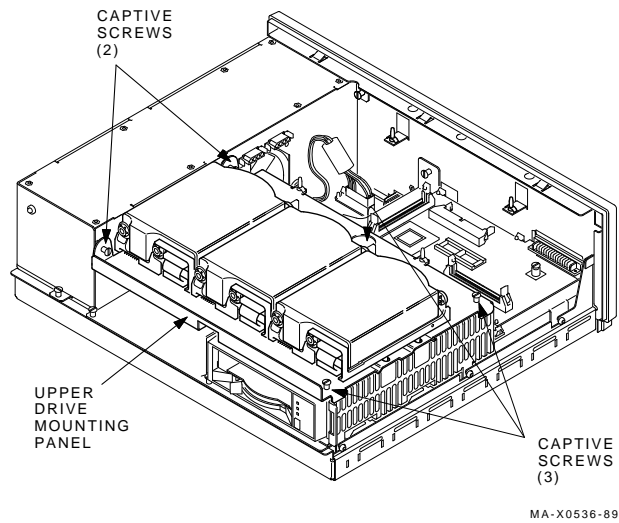
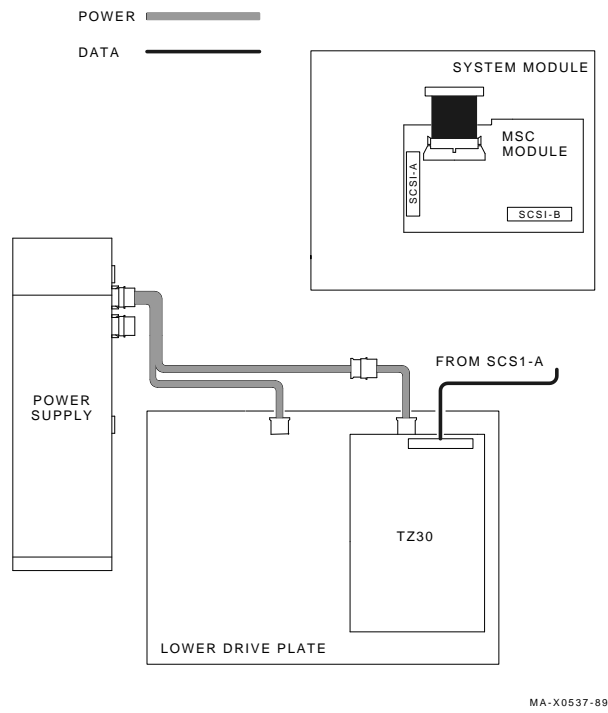


Figure 5-3 Unscrewing the Upper Drive Mounting Panel

Removing the Lower Drive Plate

1. Disconnect the power cable from the TZ30 tape drive (if installed) and disconnect the MSC cable Figure 5-4.

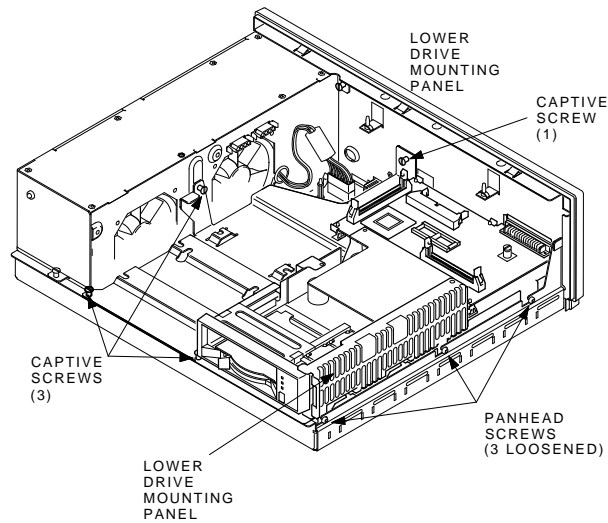


MA-X0537-89

Figure 5-4 Lower Drive Mounting Plate Cabling

2. Unscrew the seven screws (Figure 5-5).

5-6 RRD40 Compact Disc Drive Installation



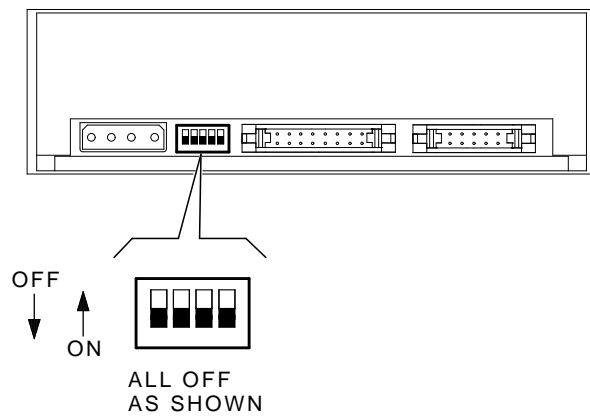
MA-X0538-89

Figure 5-5 Unscrewing the Lower Drive Mounting Plate

3. Slide the plate forward, then lift the plate from the system box.

Installing the RRD40 Compact Disc Drive

1. Set all of the RRD40 disc drive's select switches to off. (Figure 5-6).

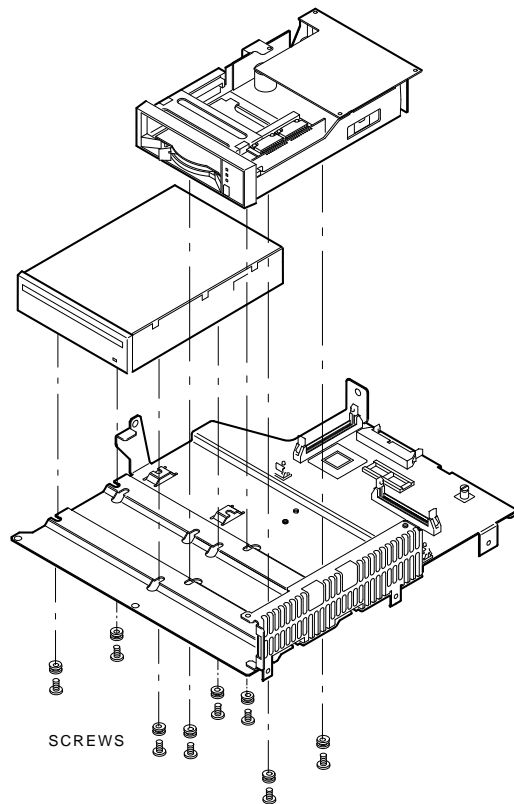


MA-X0539-89

Figure 5-6 RRD40 Compact Disc Drive Switch Settings

2. Mount the RRD40 disc drive (Figure 5-7 shows how to mount the RRD40 with the TZ30).

5-8 RRD40 Compact Disc Drive Installation

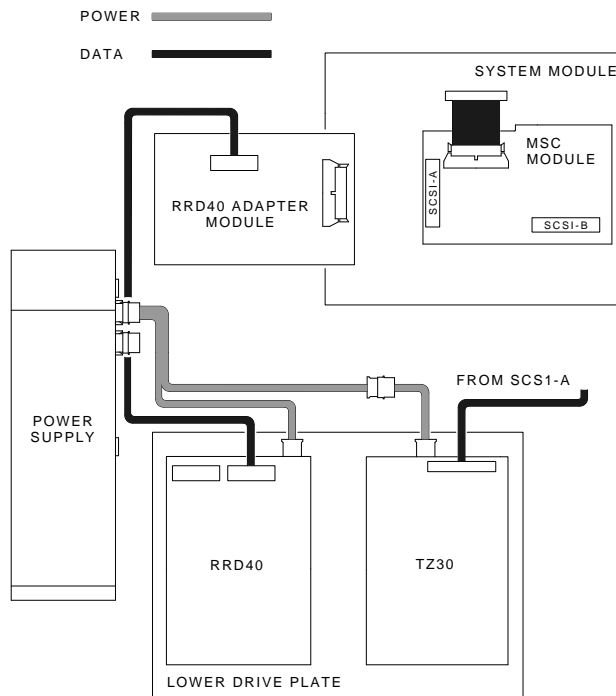


MA-X0535-89

Figure 5-7 Mounting the RRD40 Compact Disc Drive

Reinstalling the Lower Drive Plate

1. Position the lower drive mounting plate (Figure 5-5) and tighten the seven screws.
2. Connect the data cable from the RRD40 adapter module to the RRD40 compact disc drive.
3. Connect the SCSI bus cables and the power cables to the TZ30 (if installed) and connect the power cable to the RRD40 compact disc drive (Figure 5-8). Connect the MSC cable to the MSC module.



MA-X0815-88

Figure 5-8 Lower Drive Mounting Plate Cabling

Reinstalling the Upper Drive Plate

1. Position the upper mounting drive plate on the system box (Figure 5-9) and tighten the five screws.

5-10 RRD40 Compact Disc Drive Installation

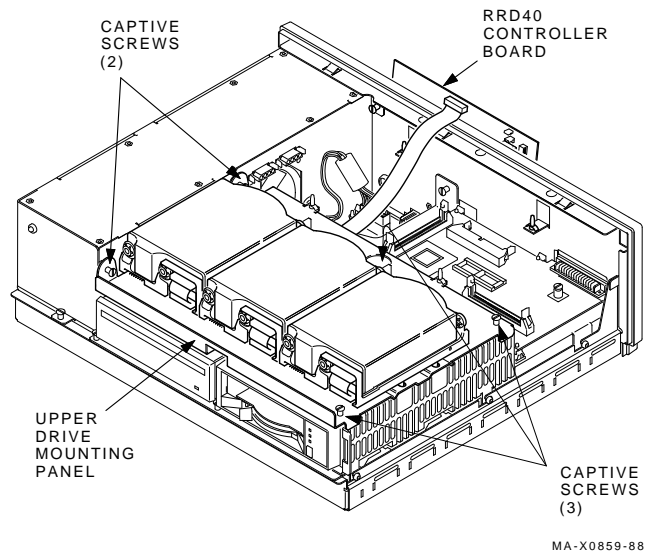
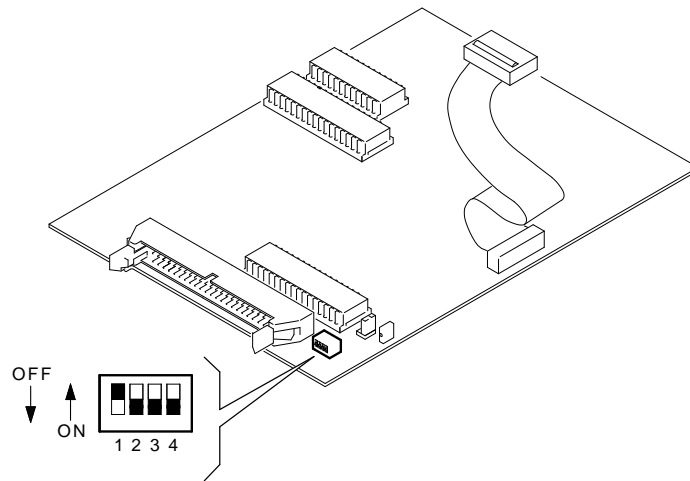


Figure 5-9 Mounting the Upper Drive Mounting Plate

Installing the RRD40 Adapter Module

1. Mount the RRD40 adapter module on the four standoffs.
2. Set the RRD40 adapter module's SCSI ID switches to address ID 4, using Figure 5-10 and the following switch setting chart.



MA-X0540-89

Figure 5-10 RRD40 Adapter Module SCSI ID Switch Settings

Address ID on SCSI Bus	RRD40 Expansion Box Switch Settings			
	1	2	3	4
0	Off	Off	Off	Off
1	Off	Off	On	Off
2	Off	On	Off	Off
3	Off	On	On	Off
4 ²	On	Off	Off	Off
5	On	Off	On	Off
6 ¹	On	On	Off	Off
7	On	On	On	Off

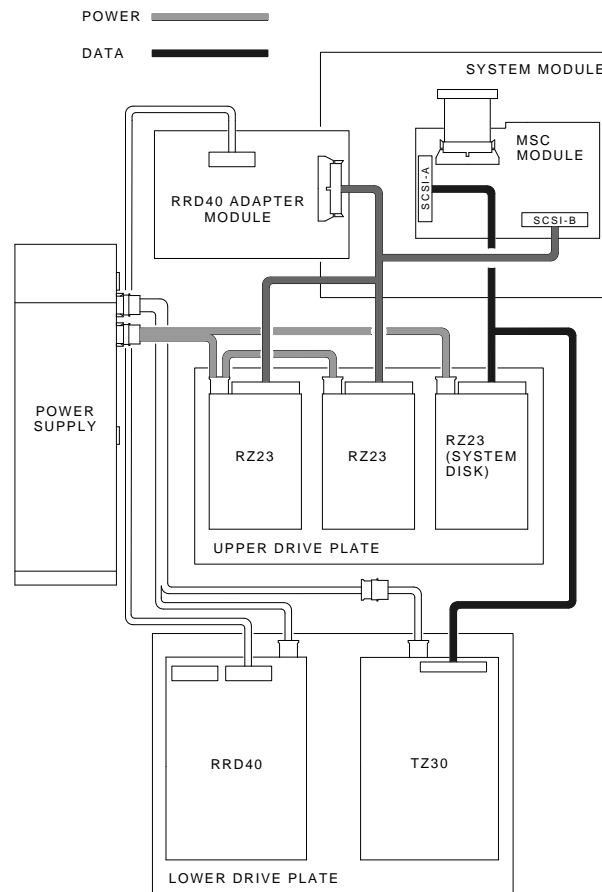
¹Reserved address ID for SCSI bus controller

²Recommended address ID for the RRD40 compact disc drive

5-12 RRD40 Compact Disc Drive Installation

Reconnecting the Upper Drive Plate Cables and Closing the Box

1. Connect the SCSI bus cables and the power cables to any and all RZ23s and connect the SCSI bus to the RRD40 adapter module (Figure 5-11).



MA-X0814-88

Figure 5-11 Top Drive Mounting Plate Cabling

2. Remove the blank bezel inside the system box cover to allow access to the RRD40 disc drive.

3. Install the system box cover and tighten the two cover screws.
4. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new drive to verify its status.

6

8-Plane Graphics Module Installation

Option Contents

The 8-plane graphics module installs in either the model 30 or model 40 system.

Option Number	Contents
VS40X-PA	Graphics module

There are two separate procedures defined in this chapter. The first procedure describes how to install a graphic module in the model 30 system. The second procedure describes how to install a graphic module in the model 40 system.

Model 30 Installation Procedure

Shuting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

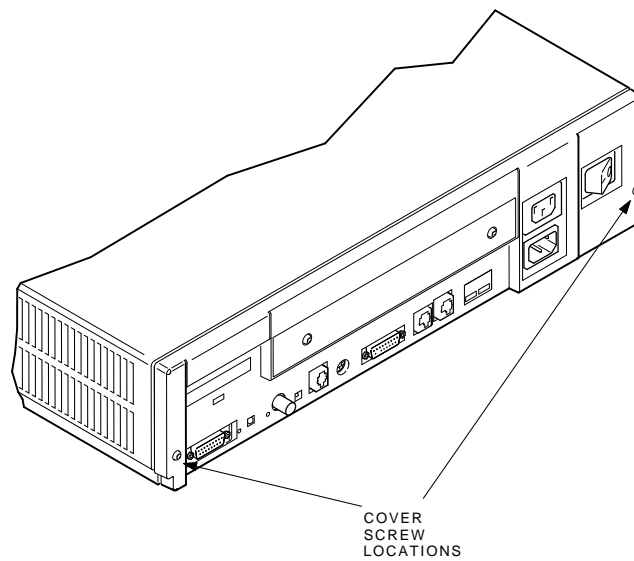
6-2 8-Plane Graphics Module Installation

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 6-1).



MA-X0796-88

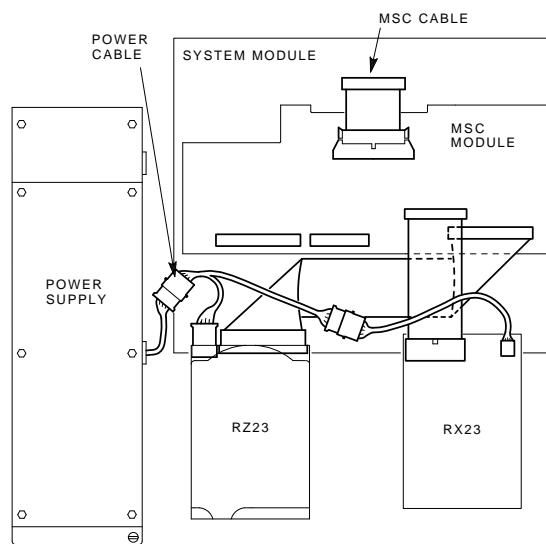
Figure 6-1 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Drive Plate

Skip this procedure if the system does not have a drive plate installed.

1. Disconnect the power cable from the power supply and disconnect the MSC cable (Figure 6-2 for a ST506/SCSI MSC module or Figure 6-3 for a SCSI/SCSI MSC module).



MA-X0797-88

Figure 6-2 Disconnecting the Drive Mounting Plate (ST506/SCSI)

6-4 8-Plane Graphics Module Installation

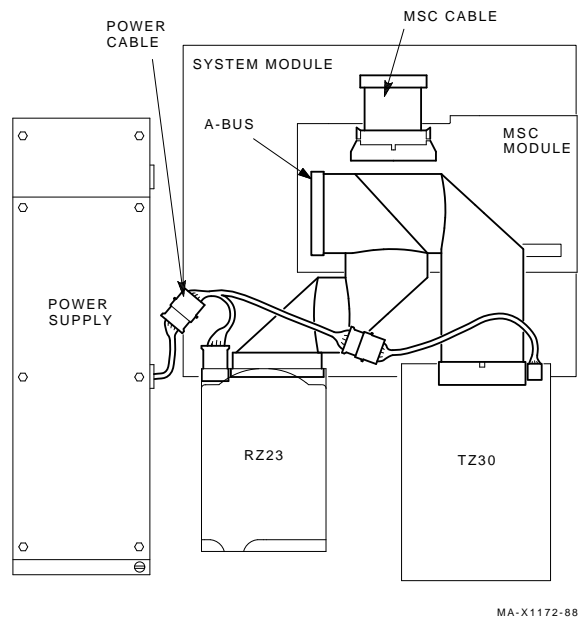
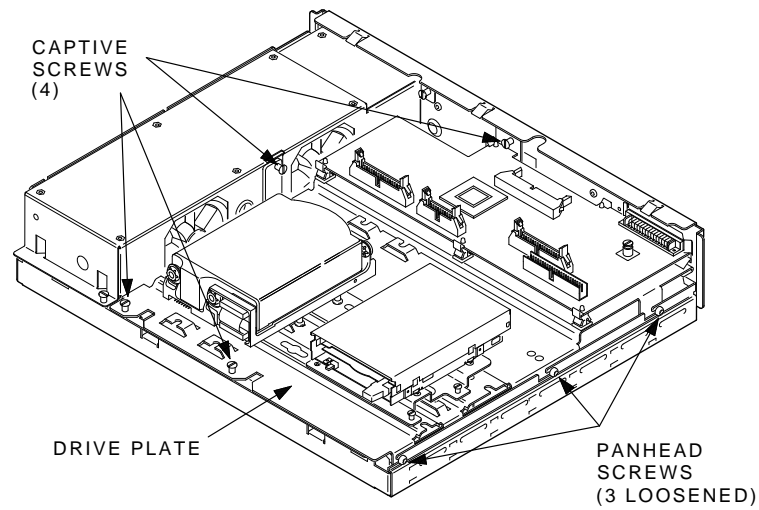


Figure 6-3 Disconnecting the Drive Mounting Plate (SCSI/SCSI)

2. Disconnect the external SCSI cable or the terminator from the SCSI port.
3. Unscrew the four captive screws, loosen the three panhead screws (Figure 6-4), and slide the plate forward and up off the system box. Set the plate aside.



MA-X0858-88

Figure 6-4 Removing the Drive Mounting Plate

Installing the Graphics Module

1. Install the graphics module (Figure 6-5).

6-6 8-Plane Graphics Module Installation

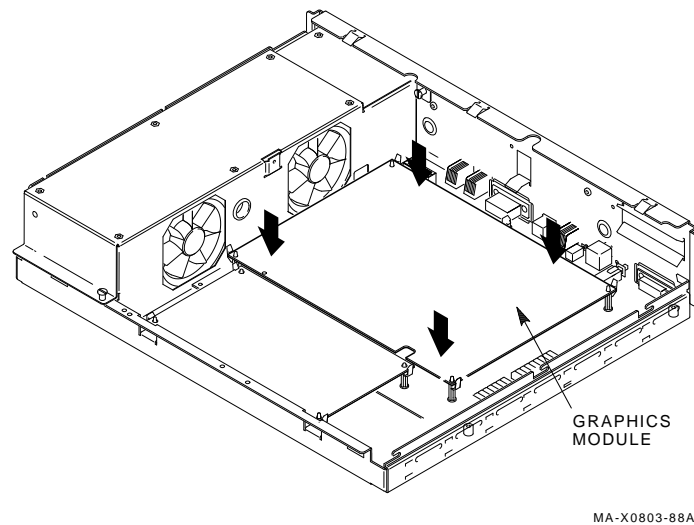
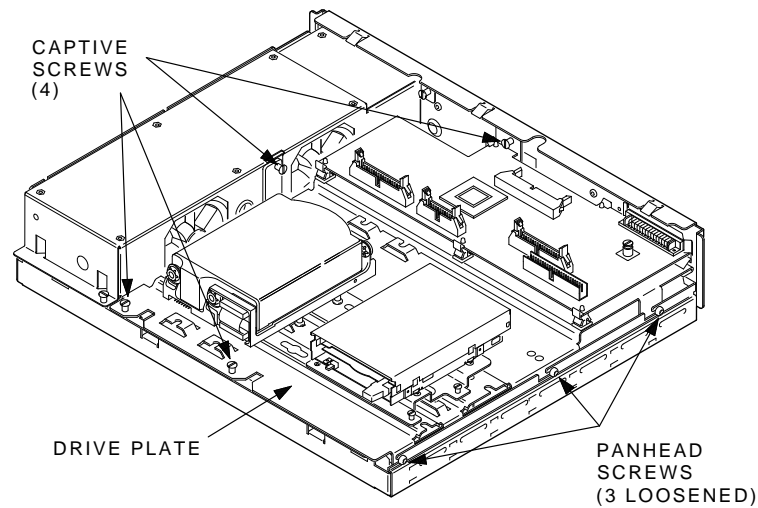


Figure 6-5 Graphics Module Installation

Reinstalling the Drive Plate and Closing the Box

1. Position the drive plate on the system box (Figure 6-6), making sure that the MSC cable is not trapped under the drive plate.



MA-X0858-88

Figure 6-6 Drive Plate Screw Locations

2. Tighten the four captive screws, then tighten the three panhead (Phillips) screws.
3. Connect the MSC cable to the MSC module and connect the power cable to the power supply.
4. Install the system box cover and tighten the two cover screws.
5. Run self-test on the new graphics module to verify its status.

Model 40 Installation Procedure

Shutting Down the System

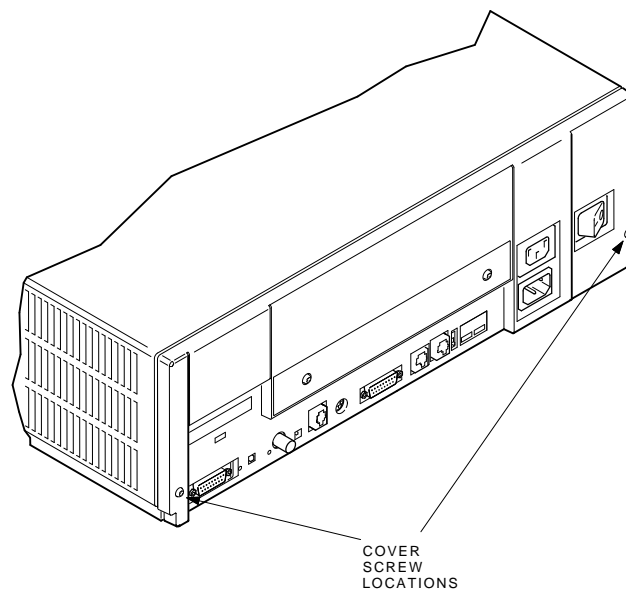
1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 6-7).



MA-X0813-88

Figure 6-7 Cover Screw Locations

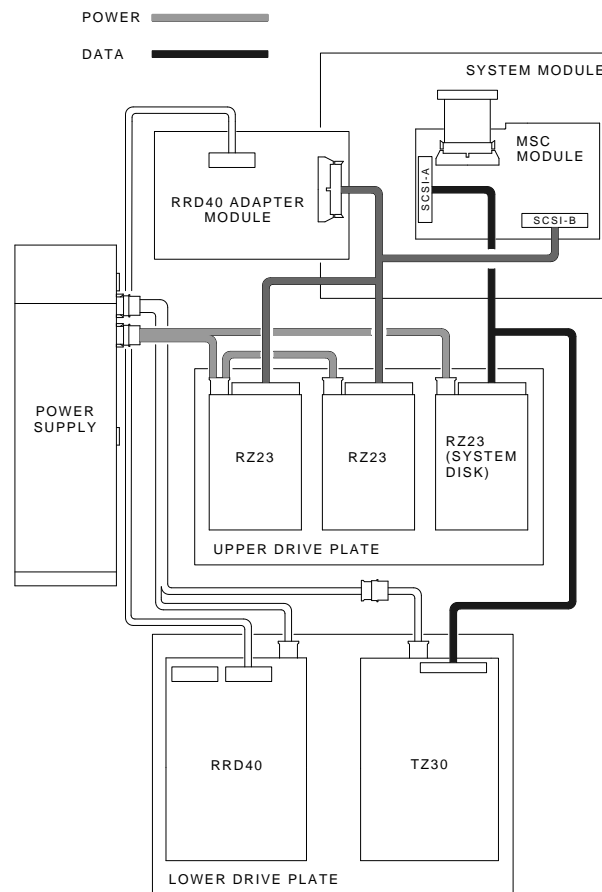
2. Slide the cover forward and up off the system box.

Removing the Upper Drive Plate

CAUTION

You must note which cables connect to which drive when disconnecting them from the system. Write the type of drive and its position on a piece of tape. Wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

1. Disconnect the power cables and the SCSI bus cables from the drives on the upper drive plate (Figure 6-8). Disconnect the SCSI bus cable from the RRD40 adapter module (if installed).



MA-X0814-88

Figure 6-8 Disconnecting the Power and MSC Cables

2. Remove the RRD40 adapter module from the four standoffs and let it hang over the back of the system box.
3. Unscrew the five screws on the upper drive mounting panel (Figure 6-9) and lift the upper panel from the lower panel.

6-10 8-Plane Graphics Module Installation

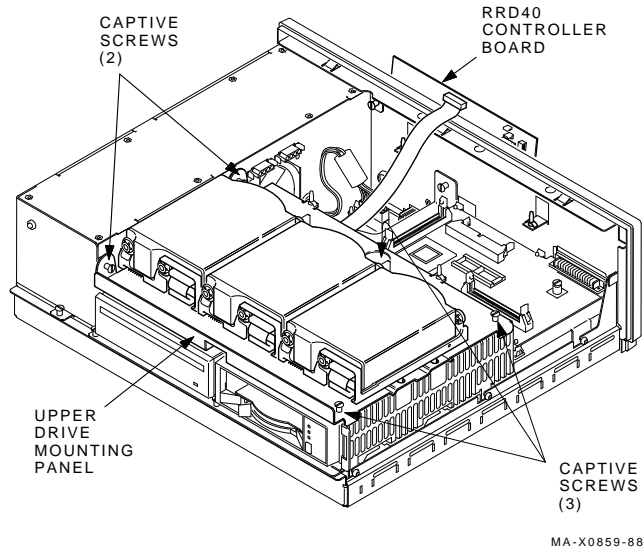
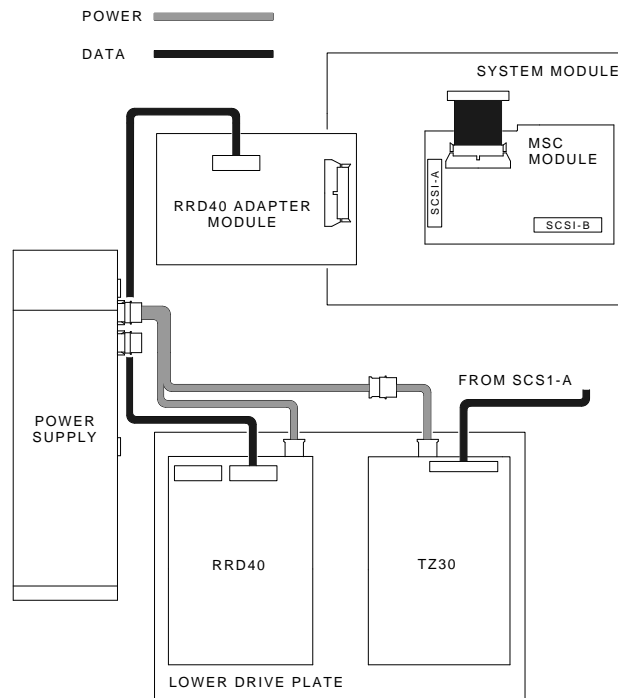


Figure 6-9 Unscrewing the Upper Drive Mounting Panel

Removing the Lower Drive Plate

1. Disconnect the data cable from the rear of the RRD40 compact disc drive (if installed) and set the RRD40 adapter module aside.
2. Disconnect the power cable from the RRD40 drive (if installed) and disconnect the MSC cable (Figure 6-10).



MA-X0815-88

Figure 6-10 Lower Drive Mounting Plate Cabling

3. Unscrew the seven screws (Figure 6-11).

6-12 8-Plane Graphics Module Installation

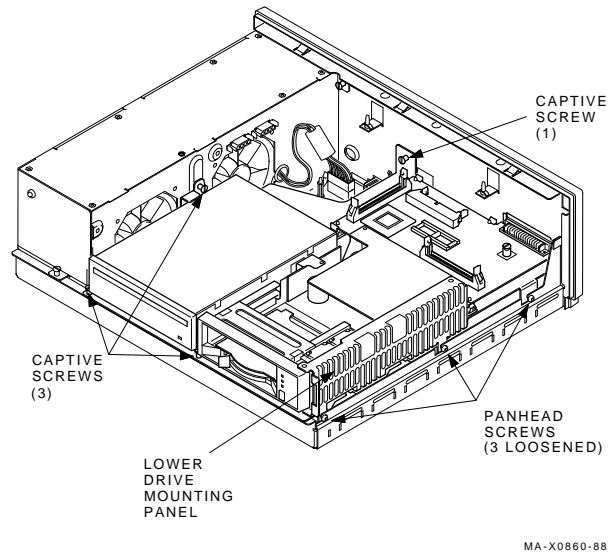


Figure 6-11 Unscrewing the Lower Drive Mounting Plate

4. Slide the plate forward, then lift the plate from the system box.

Installing the Graphics Module

1. Install the graphics module (Figure 6-12).

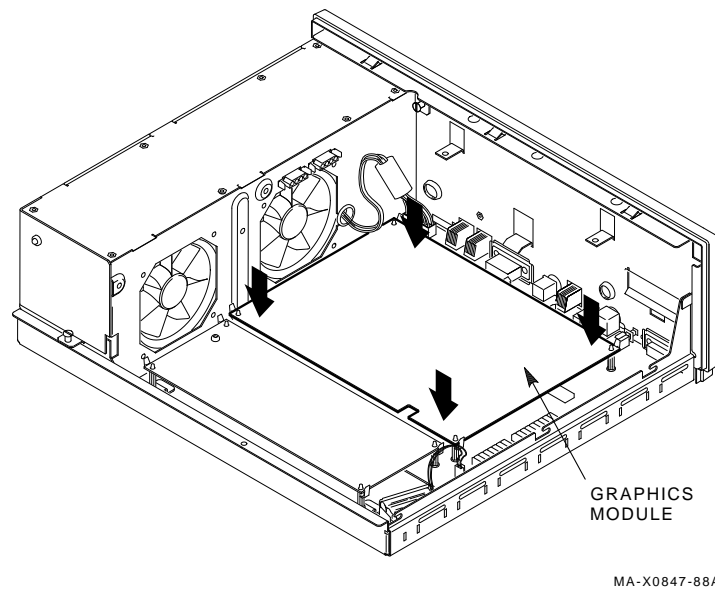
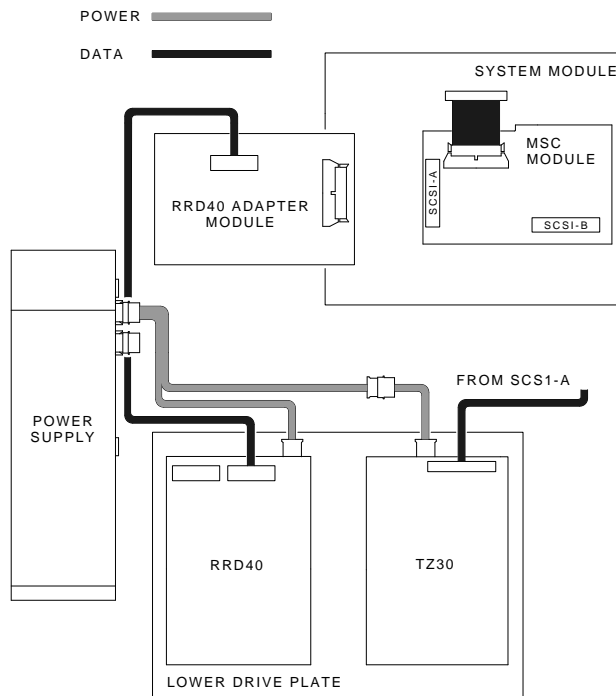


Figure 6-12 Graphics Module Installation

Reinstalling the Lower Drive Plate

1. Position the lower drive mounting plate (Figure 6-11) and tighten the seven screws.
2. Connect the SCSI bus cables and the power cables to the TZ30 tape drive and the RRD40 compact disc drive (if installed). Connect the MSC cable to the MSC module (Figure 6-13).

6-14 8-Plane Graphics Module Installation



MA-X0815-88

Figure 6-13 Lower Drive Mounting Plate Cabling

3. Connect the data cable from the RRD40 adapter module to the RRD40 compact disc drive (if installed).

Reinstalling the Upper Drive Plate and Closing the Box

1. Position the upper mounting drive plate on the system box (Figure 6-14) and tighten the five screws.

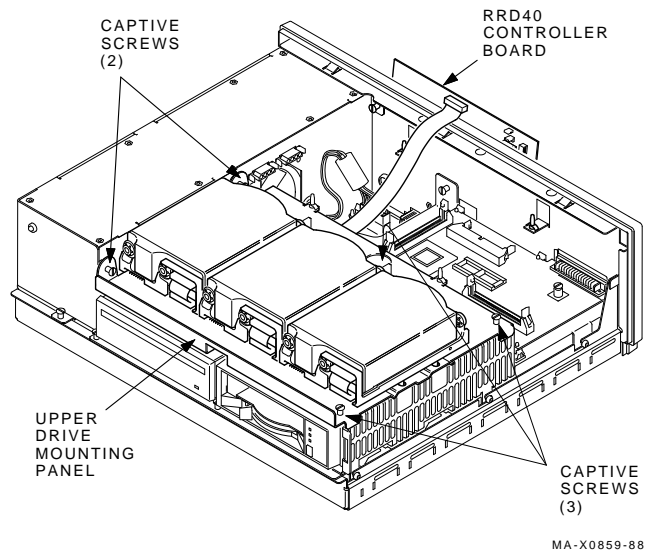


Figure 6-14 Mounting the Upper Drive Mounting Plate

2. Mount the RRD40 adapter module on the four standoffs.
3. Connect the SCSI bus cables and the power cables to the RZ23's and connect the SCSI bus to the RRD40 adapter module (if installed) as shown in (Figure 6-15).

6-16 8-Plane Graphics Module Installation

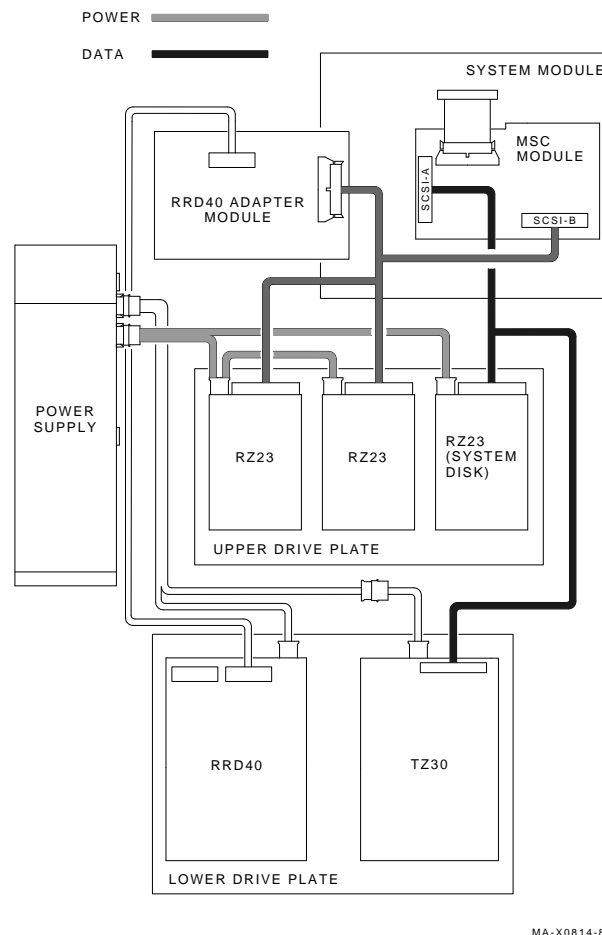


Figure 6-15 Top Drive Mounting Plate Cabling

4. Install the system box cover and tighten the two cover screws.
5. Run self-test on the new graphics module to verify its status.

7

Memory Module Installation

The memory module installs in either the model 30 or model 40 system.

Option Contents

Option Number	Contents
MS42-AB	4 Mbyte memory module
MS42-BA	12 Mbyte memory module
MS42-CA	16 Mbyte memory module
	Two E clips

There are two separate procedures defined in this chapter. The first procedure describes how to install memory modules in the model 30 system. The second procedure describes how to install memory modules in the model 40 system.

When calculating the total memory installed in a system:

- Add up the total Mbytes installed on the memory modules
- Add 4 Mbytes on the system module to the total Mbytes on the memory modules

Model 30 Installation Procedure

Shutting Down the System

1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.

7-2 Memory Module Installation

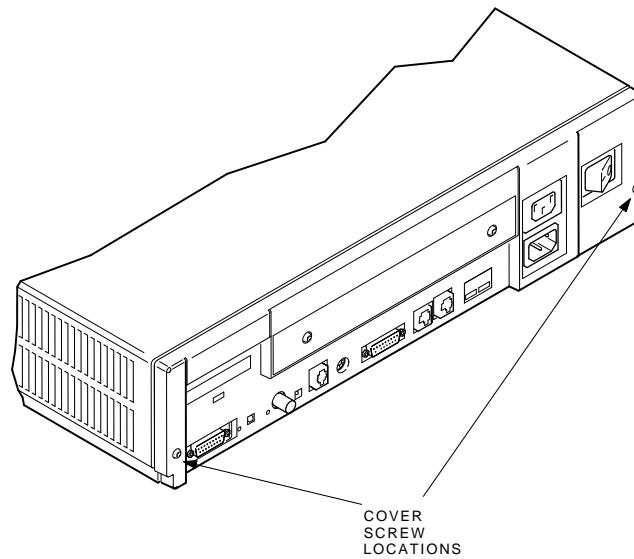
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 7-1).



MA-X0796-88

Figure 7-1 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Drive Plate

Skip this procedure if the system does not contain a drive plate.

1. Disconnect the power cable from the power supply and disconnect the MSC cable (Figure 7-2 for a ST506/SCSI MSC module or Figure 7-3 for a SCSI/SCSI MSC module).

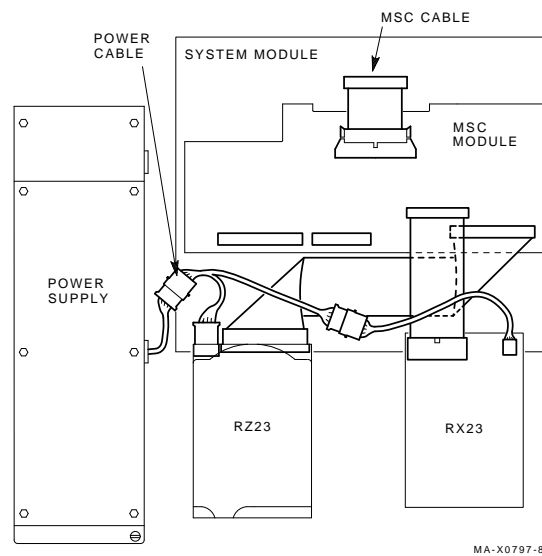


Figure 7-2 Disconnecting the Drive Mounting Plate (ST506/SCSI)

7-4 Memory Module Installation

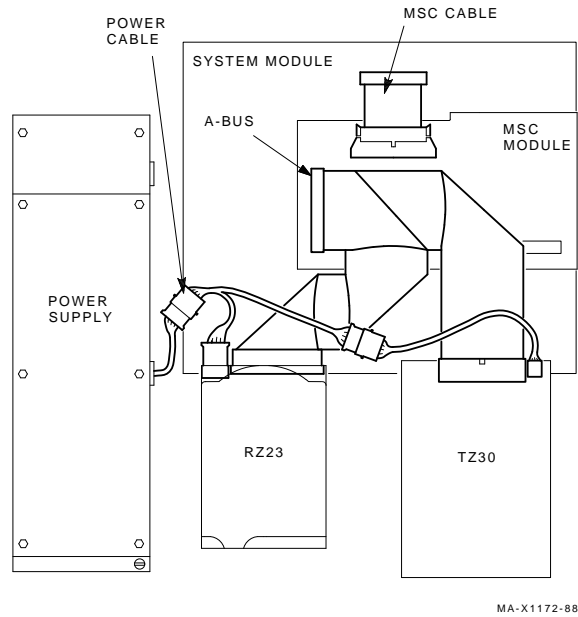
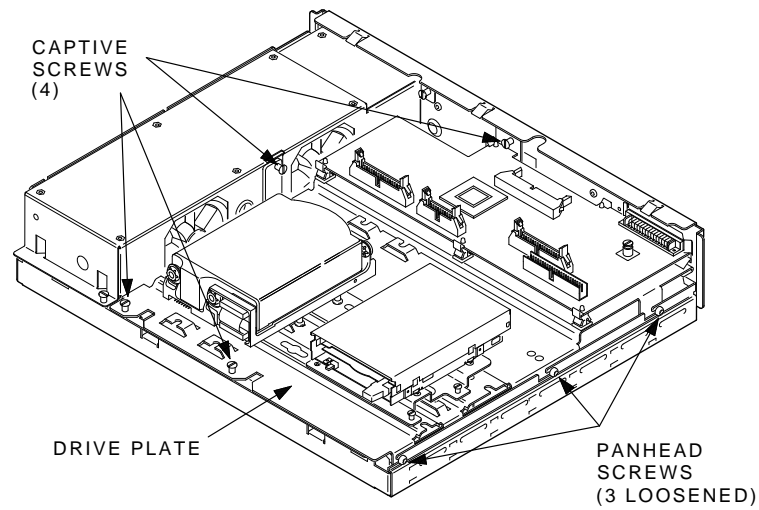


Figure 7-3 Disconnecting the Drive Mounting Plate (SCSI/SCSI)

2. Disconnect the external SCSI cable or the terminator from the SCSI port.
3. Unscrew the four captive screws, loosen the three panhead screws (Figure 7-4), and slide the plate forward and up off the system box. Set the plate aside.



MA-X0858-88

Figure 7-4 Removing the Drive Mounting Plate

Removing Existing Memory Module

1. Remove the memory module from the four standoffs, then lift the memory module off the system module (Figure 7-5). Two connectors disconnect as you lift the module.

7-6 Memory Module Installation

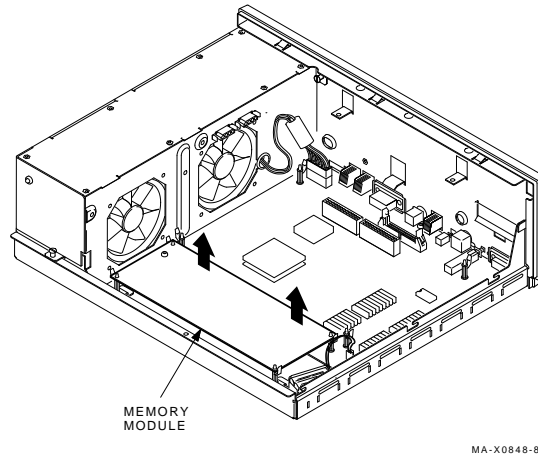


Figure 7-5 Memory Module Removal

Installing a 12 Mbyte Memory Module

This section describes how to install a 12 Mbyte memory module without the 16 Mbyte memory module. If you need to install the 16 Mbyte memory module along with the 12 Mbyte memory module, go to the next section.

1. Install the new 12 Mbyte memory module (Figure 7-6).

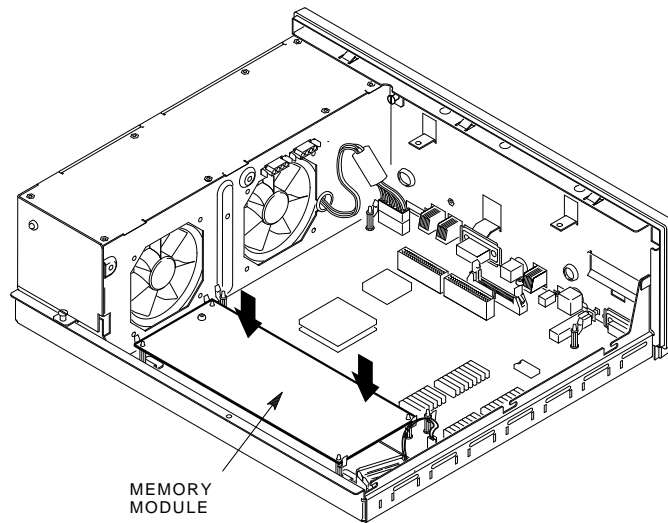


Figure 7-6 12 Mbyte Memory Module Installation

Installing a 16 Mbyte Memory Module

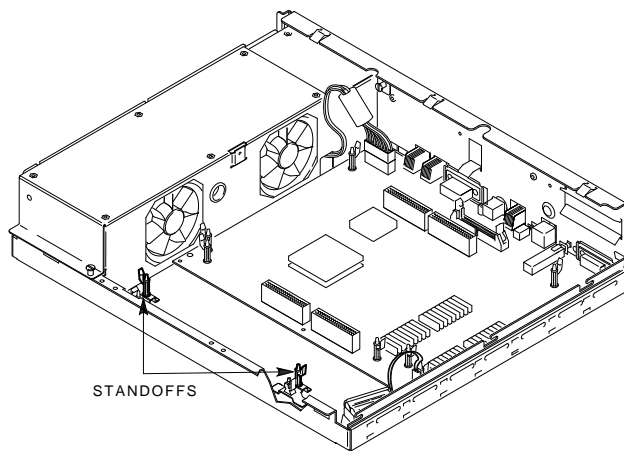
This section describes the installation of the 16 Mbyte memory module. The 16 Mbyte memory module allows an additional memory module to be attached to it. The 4 Mbyte and 12 Mbyte memory modules connects to the 16 Mbyte module to increase the total amount of memory in the system.

7-8 Memory Module Installation

1. Remove the two taller single module standoffs (Figure 7-7) by bending them over until they snap off. Discard the two standoffs.

NOTE

Removing the two standoffs allows space for the 4 or 12 Mbyte memory module when these modules are attached to the 16 Mbyte memory module. The 4 or 12 Mbyte memory module uses the two shorter standoffs for support.

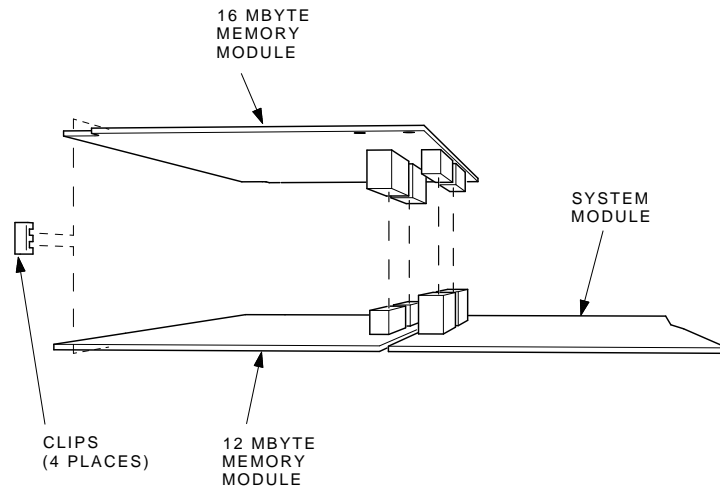


MA-X0541-89

Figure 7-7 Removing Single Memory Module Standoffs

2. Plug in the 4 Mbyte or 12 Mbyte memory module into the 16 Mbyte memory module.

3. Install the two E clips between the modules and mount the modules onto the system module (Figure 7-8).



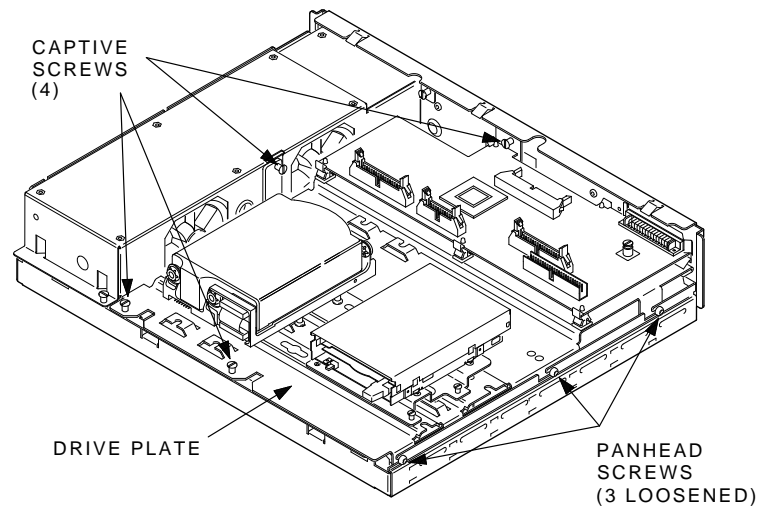
MA-X1174-88

Figure 7-8 16 Mbyte Memory Module Installation

Reinstalling the Drive Plate and Closing the Box

1. Position the drive plate on the system box (Figure 7-9), making sure that the MSC cable is not trapped under the drive plate.

7-10 Memory Module Installation



MA-X0858-88

Figure 7-9 Drive Plate Screw Locations

2. Tighten the four captive screws, then tighten the three panhead (Phillips) screws.
3. Connect the MSC cable to the MSC module and connect the power cable to the power supply.
4. Install the system box cover and tighten the two cover screws.
5. Run self-test on the new memory module to verify its status.

Model 40 Installation Procedures

Shutting Down the System

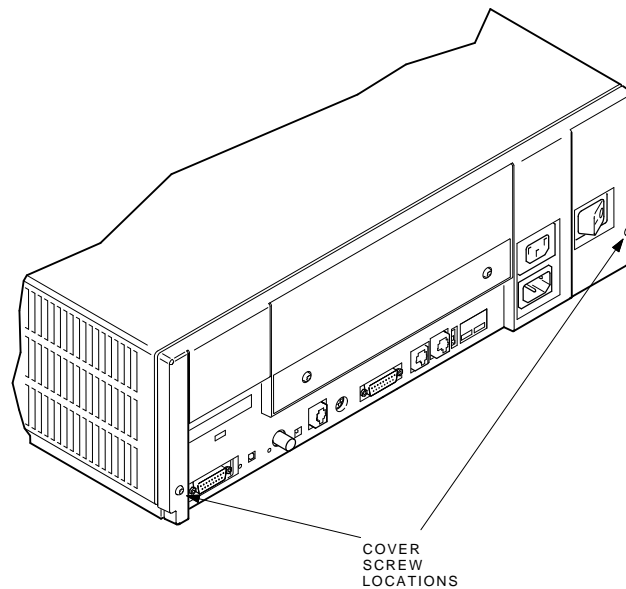
1. Shut down the system software.
2. Run self-test (>>> TEST F 1) to verify operation of the present configuration.
3. Turn the system power switch off.

Opening the System Box

CAUTION

Wear a static wrist strap and use a static mat (PN 29-26246-00) when replacing FRUs.

1. Unscrew the two cover screws (Figure 7-10).



MA-X0813-88

Figure 7-10 Cover Screw Locations

2. Slide the cover forward and up off the system box.

Removing the Upper Drive Plate

CAUTION

You must note which cables connect to which drive when disconnecting them from the system. Write the type of drive and its position on a piece of tape. Wrap the tape around the connector before disconnecting it. This will help you when reinstalling the drives.

1. Disconnect the power cables and the SCSI bus cables from the drives on the upper drive plate (Figure 7-11). Disconnect the SCSI bus cable from the RRD40 adapter module (if installed).

7-12 Memory Module Installation

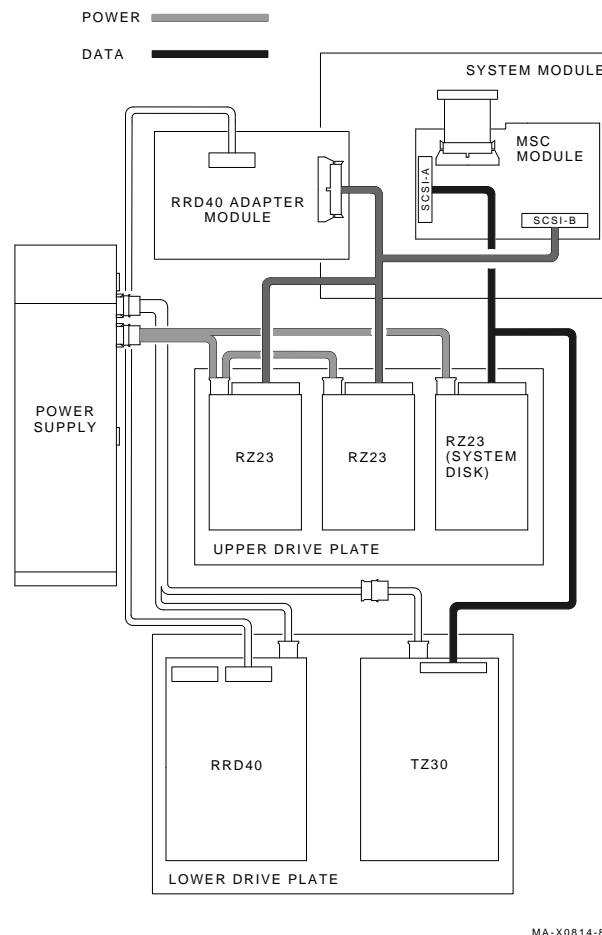


Figure 7-11 Disconnecting Power and MSC Cables

2. Remove the RRD40 adapter module from the four standoffs and let it hang over the back of the system box.
3. Unscrew the five screws on the upper drive mounting panel (Figure 7-12) and lift the upper panel from the lower panel.

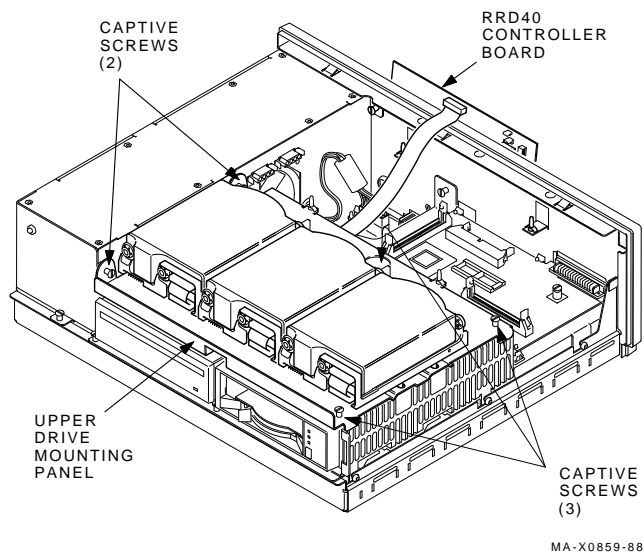


Figure 7-12 Unscrewing the Upper Drive Mounting Panel

Removing the Lower Drive Plate

1. Disconnect the data cable from the rear of the RRD40 compact disc drive (if installed) and set the RRD40 adapter module aside.
2. Disconnect the power cable from the power supply and disconnect the MSC cable from the MSC module (Figure 7-13).

7-14 Memory Module Installation

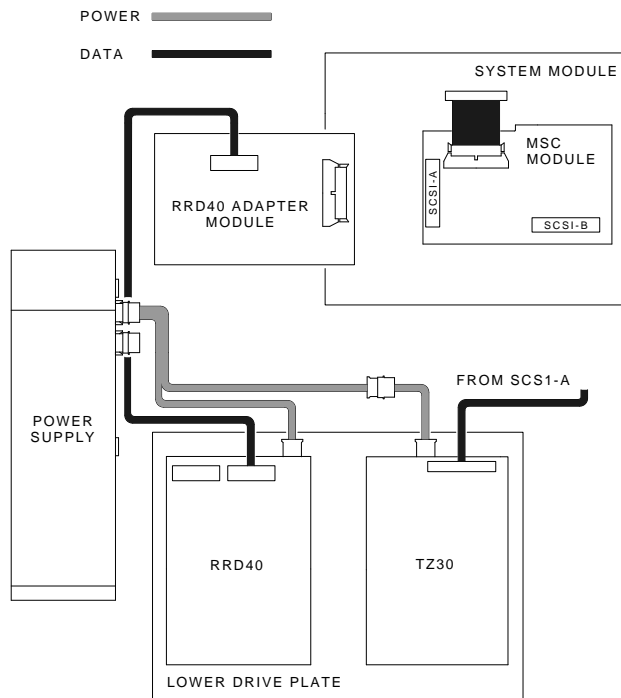
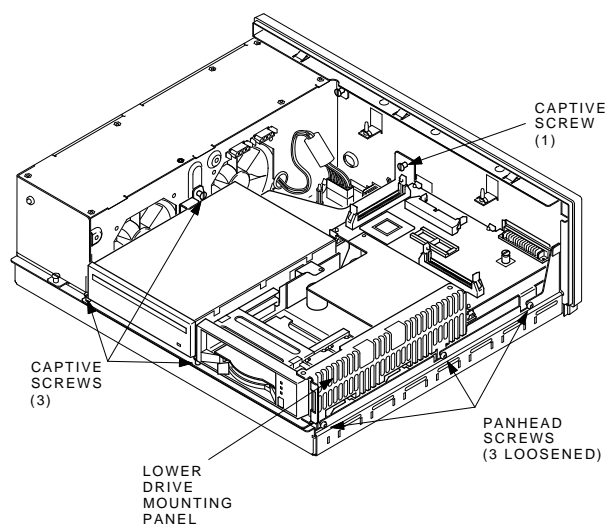


Figure 7-13 Lower Drive Mounting Plate Cabling

3. Unscrew the seven screws (Figure 7-14).



MA-X0860-88

Figure 7-14 Unscrewing the Lower Drive Mounting Plate

4. Slide the plate forward, then lift the plate from the system box.

Removing an Existing Memory Module

1. Remove the memory module from the four standoffs, then lift the memory module off the system module (Figure 7-15). Two connectors disconnect as you lift the module.

7-16 Memory Module Installation

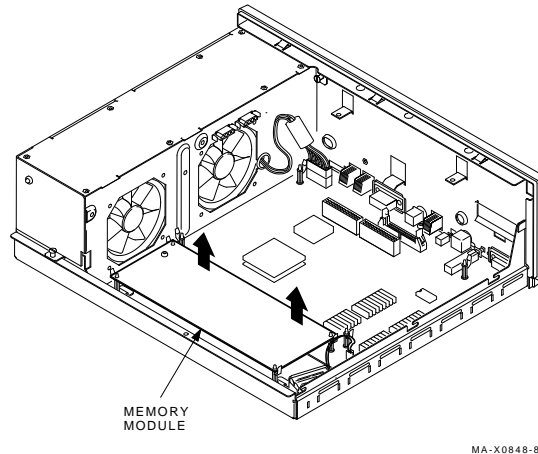


Figure 7-15 Memory Module Removal

Installing a 12 Mbyte Memory Module

This section describes how to install a 12 Mbyte memory module without the 16 Mbyte memory module. If you need to install the 16 Mbyte memory module along with the 12 Mbyte memory module, go to the next section.

1. Install the new 12 Mbyte memory module (Figure 7-16).

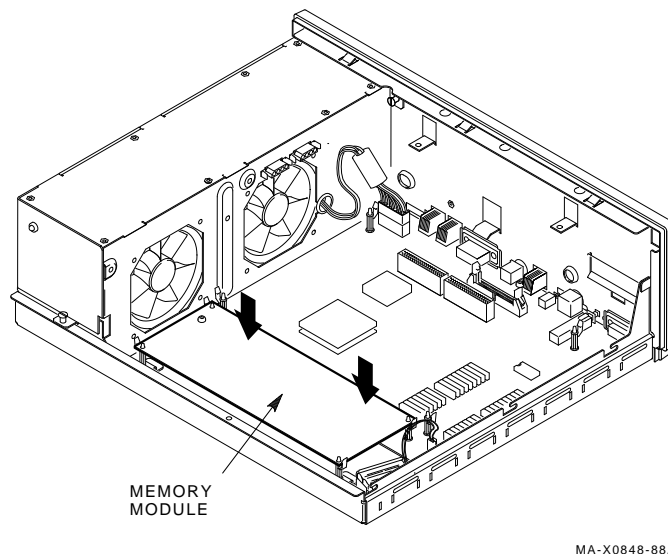


Figure 7-16 12 Mbyte Memory Module Installation

Installing a 16 Mbyte Memory Module

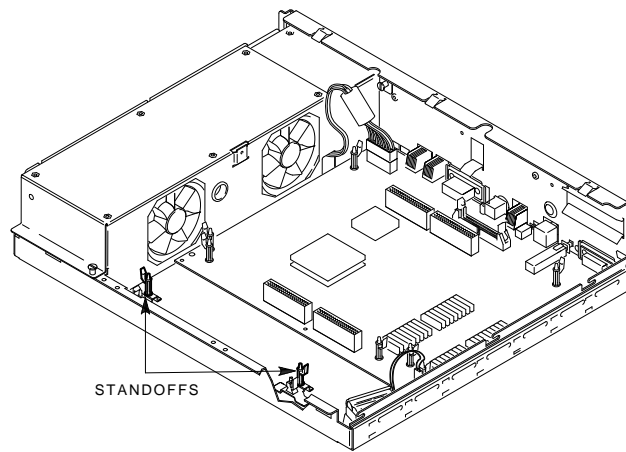
This section describes the installation of the 16 Mbyte memory module. The 16 Mbyte memory module allows an additional memory module to be attached to it. The 4 Mbyte and 12 Mbyte memory modules connect to the 16 Mbyte module to increase the total amount of memory in the system.

1. Remove the two taller single module standoffs (Figure 7-17) by bending them over until they snap off. Discard the two standoffs.

NOTE

Removing the two standoffs allows space for the 4 or 12 Mbyte memory module when these modules are attached to the 16 Mbyte memory module. The 4 or 12 Mbyte memory module uses the two shorter standoffs for support.

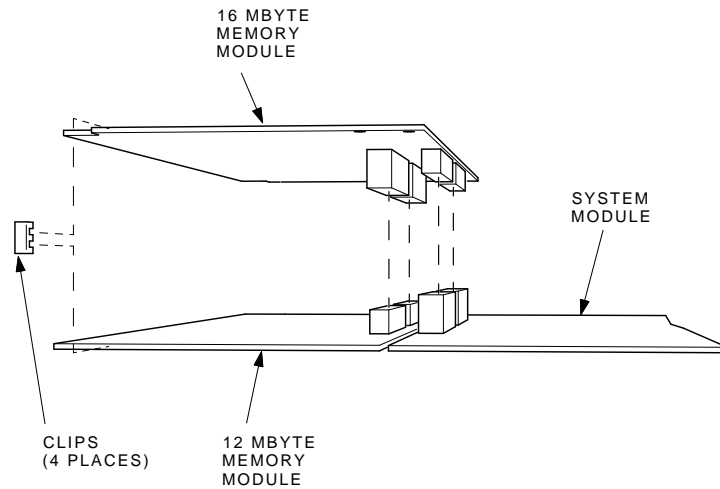
7-18 Memory Module Installation



MA-X0541-89

Figure 7-17 Removing Single Memory Module Standoffs

2. Plug in the 4 Mbyte or 12 Mbyte memory module into the 16 Mbyte memory module.
3. Install the two E clips between the modules and mount the modules onto the system module (Figure 7-18).



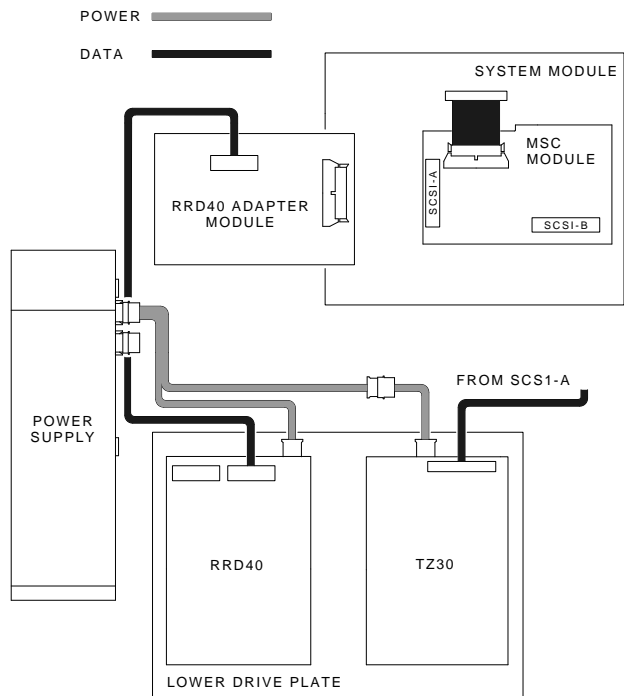
MA-X1174-88

Figure 7-18 16 Mbyte Memory Module Installation

Reinstalling the Lower Drive Plate

1. Position the lower drive mounting plate (Figure 7-14) and tighten the seven screws.
2. Connect the power cable to the power supply and connect the MSC cable to the MSC module (Figure 7-19).

7-20 Memory Module Installation



MA-X0815-88

Figure 7-19 Lower Drive Mounting Plate Cabling

Reinstalling the Upper Drive Plate and Closing the Box

1. Connect the data cable from the RRD40 adapter module to the RRD40 compact disc drive (if installed).
2. Position the upper mounting drive plate on the system box (Figure 7-20) and tighten the five screws.

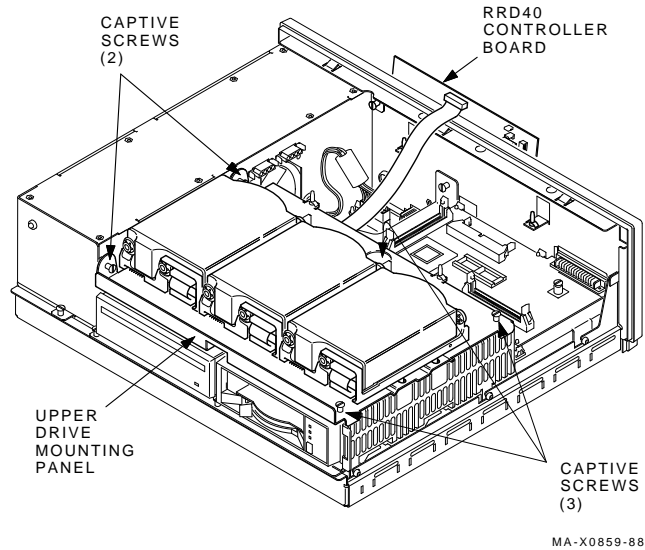
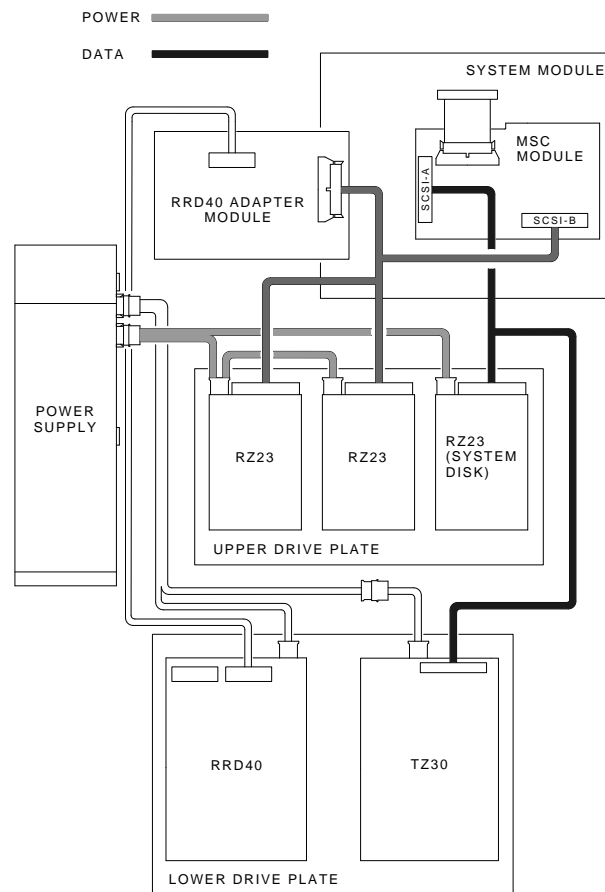


Figure 7-20 Mounting the Upper Drive Mounting Plate

3. Mount the RRD40 adapter module on the four standoffs.
4. Connect the SCSI bus cables and the power cables to any and all RZ23s and connect the SCSI bus to the RRD40 adapter module (if installed) as shown in Figure 7-21.

7-22 Memory Module Installation



MA-X0814-88

Figure 7-21 Top Drive Mounting Plate Cabling

5. Install the system box cover and tighten the two cover screws.
6. Refer to Chapter 1 of the maintenance guide. Run self-test and the system exerciser on the new memory module to verify its status.

Index

D

Drive Plate Installation Procedure,
1-3

I

Installation Procedure, 2-1
Installation Procedures, 5-1
Installing a 12 Mbyte Memory
Module, 7-6, 7-16
Installing a 16 Mbyte Memory
Module, 7-7, 7-17
Installing the Drive Plate with the
Drives, 1-18
Installing the Graphics Module,
6-5, 6-12
Installing the RRD40 Adapter
Module, 5-10
Installing the RRD40 Compact Disc
Drive, 5-6
Installing the RX23 Bezel, 1-7, 2-4
Installing the RX23 Diskette Drive,
2-2
Installing the RZ23 Disk Drive,
3-4, 3-13
Installing the TZ30 Bezel, 1-17,
4-9
Installing the TZ30 Tape Drive,
4-4, 4-15

M

Model 30

Model 30 (cont'd.)

Drive Plate Installation, 1-1
Memory Module Installation,
7-1

8-Plane Graphics Module
Installation, 6-1

RX23 Drive Installation, 2-1

RZ23 drive Installation, 3-1

TZ30 Tape Drive Installation,
4-1

Model 30 Installation Procedure,
3-1, 4-1, 6-1, 7-1

Model 40

RRD40 Compact Disc Drive
Installation, 5-1

RZ23 drive Installation, 3-1

Model 40 Installation Procedure,
3-10, 4-10, 6-7

Model 40 Installation Procedures,
7-10

Mounting the RX23 onto the Drive
Plate, 1-5

O

Opening the System Box, 1-3, 2-2,
3-2, 3-11, 4-2, 4-11, 5-1, 6-2,
6-8, 7-2, 7-11

Option Contents, 1-1, 2-1, 3-1,
4-1, 5-1, 6-1, 7-1

P

2 Index

Preparing the Drive Plate for
Installation, 1–4

R

Reconnecting the Upper Drive Plate
Cables and Closing the Box,
5–12

Reinstalling the Drive Mounting
Plate, 4–7

Reinstalling the Drive Mounting
Plate and Closing the Box,
3–9

Reinstalling the Drive Plate and
Closing the Box, 6–6, 7–9

Reinstalling the Lower Drive Plate,
4–17, 5–8, 6–13, 7–19

Reinstalling the System Box cover,
1–20

Reinstalling the System Box Cover,
2–6, 4–10

Reinstalling the Upper Drive Plate,
5–9

Reinstalling the Upper Drive Plate
and Closing the Box, 3–15,
4–18, 6–14, 7–20

Related Documents, x

Removing an Existing Memory
Module, 7–15

Removing Existing Memory Module,
7–5

Removing the Drive Mounting Plate,
3–2, 4–2, 4–11

Removing the Drive Plate, 6–3, 7–3

Removing the Lower Drive Plate,
4–13, 5–4, 6–10

Removing the Upper Drive Plate,
3–11, 5–2, 6–8, 7–11, 7–13

RZ22 and RZ23 Installation, 1–9

S

SCSI ID

TZ30 default, 1–15, 4–5, 4–16

Shutting Down the System, 6–1

Shutting Down the System, 1–3,
2–1, 3–1, 3–10, 4–1, 4–10, 5–1,
6–7, 7–1, 7–10

T

Tools Required, x

TZ30 Tape Drive Installation, 1–14