# 2T-RMSMC System Management Station Kit

# Installation Guide

Order Number: EK-RMSMC-IN. A01

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# **Preface**

#### Overview

This guide provides the information necessary to install the 2T-RMSMC-AA/BA /CA system management station kit in a 48.26-cm (19-in.) metric RETMA or English RETMA cabinet. This guide *does not* provide information concerning other systems that can be installed in the cabinet. For information concerning other systems that can be installed in the cabinet, refer to the respective documentation shipped with the system.

#### **Intended Audience**

The instructions in this guide are for Digital Customer Services representatives and customer maintenance personnel who are familiar with computer hardware and operating systems. Personnel should be experienced and trained in installing computer and related equipment.

#### **How to Use This Guide**

Read all of this guide  $\it before$  installing the 2T-RMSMC-AA/BA/CA system management station kit.

Before installation review the warranty. The terms of the warranty agreement with Digital may require that a qualified Digital Customer Services representative install the system. Contact your local Digital representative if you have any questions.

# Organization

This guide is organized as follows:

**Chapter 1, Introduction** – Provides an overview of the 2T-RMSMC-AA/BA/CA system management station kit.

**Chapter 2, Installation** – Provides site preparation, unpacking, and installation information.

**Appendix A, MasterConsole Switch Cable Options** – Provides a list of the available MasterConsole switch cable options.

### **Conventions**

This guide uses the following conventions:

Convention	Meaning
Note	A note calls the reader's attention to any item of information that may be of special importance.
Caution	A caution contains information essential to avoid damage to the equipment.
Warning	A warning contains information essential to the safety of personnel.

# Introduction

# 1.1 Description

The rackmounted 2T-RMSMC-AA/BA/CA system management station kit (shown in Figure 1–1) is designed for installation in 48.26-cm (19-in.) metric RETMA or English RETMA cabinets. The system management station kit is available in three option variations. The 2T-RMSMC-AA option is for 48.26-cm (19-in.) metric RETMA cabinets and the 2T-RMSMC-BA/CA options are for 48.26-cm (19-in.) English RETMA cabinets.

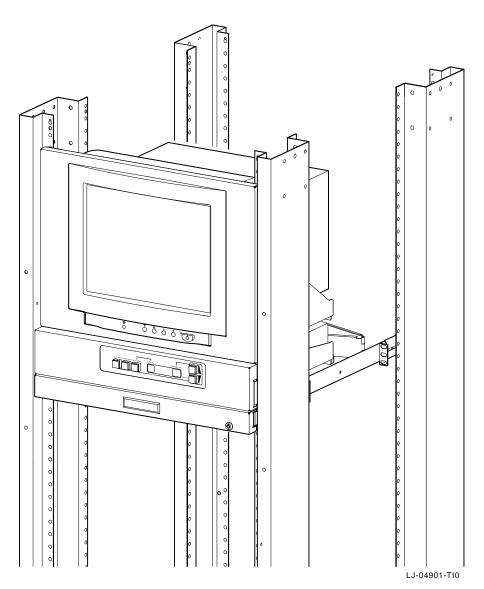
The system management station kit replaces the need for individual or external workstations, PCs, or other console devices. It allows an operator to monitor a network, load and update software, and provide general system maintenance functions for up to eight (8) servers located in adjacent cabinets.

The system management station kit contains the following major components:

- A 15-inch, 1024 x 768 color VGA monitor with mounting bracket.
- An 8-port intelligent/programmable MasterConsole switch with mounting bracket.
- A slide-mounted keyboard tray assembly that can be extended for access, or pushed in and locked with a key to prevent unauthorized access. The keyboard tray assembly contains a compact 101-key keyboard, a standard PS/2 type 2-button (2T-RMSMC-BA/CA) or 3-button (2T-RMSMC-AA) mouse, and a mouse pad.
- A 10-foot VGA cable pair to provide connection between the MasterConsole switch and two servers or hosts. Additional cable pairs can be ordered to support up to eight servers or hosts. See Table 2–1 for the cable pair part number.

# Introduction

Figure 1–1 2T-RMSMC-AA/BA/CA System Management Station Kit



# 2

# Installation

#### 2.1 Introduction

This chapter discusses the installation of the 2T-RMSMC-AA/BA/CA system management station kit. The major topics covered in this chapter include:

- Site Preparation
- · Unpacking the Shipment
- Installing the Keyboard Tray Assembly
- Installing the Switch Bracket, Plate, and MasterConsole Switch
- Installing the Monitor Bracket, Plate, and Monitor
- Installing the Left and Right Latch Brackets
- Installing the Monitor and MasterConsole Switch Front Panels
- Cabling

# 2.2 Site Preparation

The cabinet that the 2T-RMSMC-AA/BA/CA system management station kit is to be installed in should be located in an area that provides sufficient clearance for ventilation and servicing. A clearance of 91.44 cm (36.0 in.) at both the front and rear of the cabinet is required for service.

Caution
Do not impede airflow by obstructing the front and rear of the cabinet. Exceeding internal thermal limits can affect equipment reliability.

# 2.3 Unpacking the Shipment

The 2T-RMSMC-AA/BA/CA system management station kit shipment may include several cartons. Check the packing list to ensure that all items listed have been received.

If the equipment is damaged or if any items are missing, notify the delivery agent and contact the Digital sales representative.

Save all shipping cartons in case the equipment needs to be moved to a new location, or needs to be returned for repair.

Table 2-1 lists the mounting hardware and components included with the system management station kit for installation in either metric RETMA or English RETMA cabinets.

Table 2-1 System Management Station Kit Contents

Part Number	Quantity
PCXBV-Yx	1
2T-H7085-BA	1
30-45229-01	1
12-46327-01	1
PC7XS-AA	1
PBXWS-WA	1
2T-H7085-10	1
	PCXBV-Yx 2T-H7085-BA 30-45229-01 12-46327-01 PC7XS-AA PBXWS-WA

(continued on next page)

Table 2–1 (Cont.) System Management Station Kit Contents

Description	Part Number	Quantity
Cable management bracket	74-51322-01	1
Slide assembly	12-45276-01	1 pair
Slide mounting brackets	74-50917-01	2
Slide mounting brackets	74-50917-02	2
Bar nut	74-50918-01	4
M3.5 x 10 mm screw	90-09984-24	7
M4 x 10 mm screw	90-40004-01	14
M5 x 16 mm screw	90-40004-06	24
#8 washer	90-06660-00	8
#8 lock washer	90-06690-00	8
M4 nut	90-40003-02	8
#4-40 pan-head screw	90-09546-00	4
M5 U-nut	90-07786-04	14
Tie wraps	90-07031-00	12
Left latch bracket	74-50900-01	1
Right latch bracket	74-50900-02	1
Keyboard tray assembly	70-32697-01	1
Monitor bracket	74-50899-01	1
Monitor plate	74-50902-01	1
Monitor front panel (2T-RMSMC-AA metric only)	74-50904-01	1
Monitor front panel (2T-RMSMC-BA English only)	74-50904-02	1
Monitor front panel (2T-RMSMC-CA English only)	74-51352-01	1
Switch bracket	74-50903-01	1
Switch plate	74-50906-01	1
Switch front panel	74-50905-01	1
2T-RMSMC System Management Station Kit Installation Guide	EK-RMSMC-IN	1
MasterConsole User's Manual		1

### 2.4 Installing the Keyboard Tray Assembly

The following sections contain the procedure for installing the keyboard tray assembly portion of the system management station kit in a 48.26-cm (19-in.) metric RETMA or English RETMA cabinet.

Note
Unless noted otherwise, the following instructions apply to both metric RETMA and English RETMA cabinet installations.

#### **Tools Required**

- · Phillips-head screwdriver
- · Adjustable wrench

#### 2.4.1 Assembling the Slide Assemblies

The following sections contain the procedure for assembling the right and left slide assembly.

Caution
Using the specified slide bracket part number for all metric slide assembly is critical. $ \\$

#### 2.4.1.1 Assembling the Right Slide Assembly

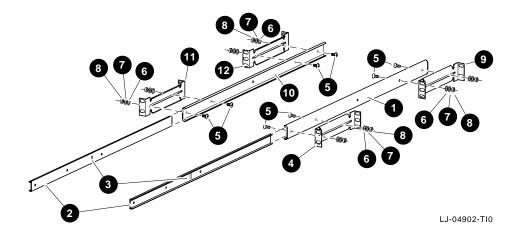
Refer to Figure 2-1 and assemble the right slide assembly as follows:

- 1. Find the right slide assembly **1** that is shipped with the system management station kit.
- 2. Pull out the inner race **2** until it locks.
- 3. Press in on the locking lever **3** and pull the inner race out of the right slide assembly. Set the inner race aside.
- 4. For metric RETMA cabinets, slide the right front slide bracket (P/N 74-50917-02) onto the front end of the right slide assembly (1) with the 2-hole end facing away from the slide. Notice that the top hole of the slide bracket is positioned closer to the edge than the bottom hole.

For English RETMA cabinets, use the same procedure as above, except slide the right front slide bracket onto the front end of the right slide assembly with the 3-hole end facing away from the slide.

- 5. Attach the right front slide bracket 4 to the right slide assembly 1 using the mounting holes shown in Figure 2–1 and two M4 x 10 mm screws 5, #8 washers 6, #8 lock washers 7, and M4 nuts 8. The first hole on the front end of the right slide assembly aligns with the first hole on the right front slide bracket as shown in Figure 2–1. Tighten these two screws and nuts.
- 6. For metric RETMA cabinets, slide the right rear slide bracket (P/N 74-50917-01) onto the rear end of the right slide assembly (1) with the 2-hole end facing away from the slide. Notice that the top hole of the slide bracket is positioned closer to the edge than the bottom hole.
  For English RETMA cabinets, use the same procedure as above, except slide
  - For English RETMA cabinets, use the same procedure as above, except slide the right rear slide bracket onto the rear end of the right slide assembly with the 3-hole end facing away from the slide.
- 7. Attach the right rear slide bracket ② to the right slide assembly ① using the mounting holes shown in Figure 2–1 and two M4 x 10 mm screws ⑤, #8 washers ⑥, #8 lock washers ⑦, and M4 nuts ③, but *do not* tighten. The right rear slide bracket must be loose enough to adjust later.
- 8. Set this assembly aside.

Figure 2–1 Attaching the Slide Brackets to the Slide Assemblies (Metric RETMA)



#### 2.4.1.2 Assembling the Left Slide Assembly

Refer to Figure 2-1 and assemble the left slide assembly as follows:

- 1. Find the left slide assembly  $\mathbf{0}$  that is shipped with the system management station kit.
- 2. Pull out the inner race **2** until it locks.
- 3. Press in on the locking lever 3 and pull the inner race out of the left slide assembly. Set the inner race aside.
- 4. For metric RETMA cabinets, slide the left front slide bracket (P/N 74-50917-01) onto the front end of the left slide assembly (D) with the 2-hole end facing away from the slide. Notice that the top hole of the slide bracket is positioned closer to the edge than the bottom hole.
  - For English RETMA cabinets, use the same procedure as above, except slide the left front slide bracket onto the front end of the left slide assembly with the 3-hole end facing away from the slide.
- 5. Attach the left front slide bracket ① to the left slide assembly ② using the mounting holes shown in Figure 2–1 and two M4 x 10 mm screws ⑤, #8 washers ⑥, #8 lock washers ⑦, and M4 nuts ③. The first hole on the front end of the left slide assembly aligns with the first hole on the left front slide bracket as shown in Figure 2–1. Tighten these two screws and nuts.
- 6. For metric RETMA cabinets, slide the left rear slide bracket **1** (P/N 74-50917-02) onto the rear end of the left slide assembly **1** with the 2-hole end facing away from the slide. Notice that the top hole of the slide bracket is positioned closer to the edge than the bottom hole.
  - For English RETMA cabinets, use the same procedure as above, except slide the left rear slide bracket onto the rear end of the left slide assembly with the 3-hole end facing away from the slide.
- 7. Attach the left rear slide bracket **②** to the left slide assembly **③** using the mounting holes shown in Figure 2–1 and two M4 x 10 mm screws **⑤**, #8 washers **⑥**, #8 lock washers **⑦**, and M4 nuts **⑥**, but *do not* tighten. The left rear slide bracket must be loose enough to adjust later.
- 8. Set this assembly aside.

#### 2.4.2 Determining the Installation Area

The system management station kit requires 50.0 cm (19.6 in.) of vertical space or 20 contiguous holes in a 48.26-cm (19-in.) metric RETMA cabinet or 48.95 cm (19.25 in.) of vertical space or 33 contiguous holes in a 48.26-cm (19-in.) English RETMA cabinet.

The following sections discuss how to determine the installation area and the rail-hole pattern for both metric RETMA and English RETMA cabinets.

#### 2.4.2.1 Installation Area and Rail-Hole Pattern (Metric RETMA)

The holes in metric RETMA cabinet rails are 2.5 cm (0.98 in.) on center throughout the length of the cabinet rails.

To determine the installation area, perform the following steps at the front of the front rails, the side of the front rails, and the rear of the rear rails (refer to Figure 2-2).

- 1. Count up 40 holes from the bottom of the cabinet and make a mark between the 40th and 41st holes from the bottom. This is the *starting point* of the installation area. The first hole above this mark (41st hole) is identified as hole 1 of the installation area.
- 2. Count up 20 holes from the starting point and make a mark between the 20th and 21st holes. The area between these two marks is the *installation area*.
- 3. Repeat steps 1 and 2 on the front of both front rails, the sides of both front rails, and the rear of both rear rails.

The total installation area for the system management station kit is 50.0 cm (19.6 in.) of vertical space. The equation for calculating the total installation area is:

 $2.5 \text{ cm} (0.98 \text{ in.}) \times 20 \text{ holes} = 50.0 \text{ cm} (19.6 \text{ in.})$ 

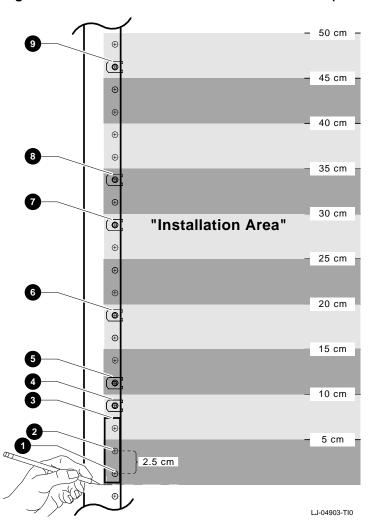


Figure 2–2 Installation Area and Rail-Hole Pattern (Metric RETMA)

• Hole 1 for attaching slide bracket and securing latch bracket to front rails.

**2** Hole 2 for attaching slide bracket.

3 Bar nut (placed behind front and rear rails).

**4** Hole 4 for U-nut used to secure switch bracket to front and side rails.

**6** Hole 5 for U-nut used to secure switch bracket and latch bracket to front rails.

**6** Hole 8 for U-nut used to secure monitor bracket to front rails.

**7** Hole 12 for U-nut used to secure monitor bracket and latch bracket to front rails.

**3** Hole 14 for U-nut used to secure monitor bracket to front rails.

**9** Hole 19 for U-nut used to secure latch bracket to front rails.

#### 2.4.2.2 Installation Area and Rail-Hole Pattern (English RETMA)

The holes in English RETMA cabinet rails follow a pattern of  $1.27~\rm cm$  ( $0.50~\rm in.$ ),  $1.59~\rm cm$  ( $0.625~\rm in.$ ), and  $1.59~\rm cm$  ( $0.625~\rm in.$ ). This pattern is called a *set* and is repeated for the length of the cabinet rails.

To determine the installation area, perform the following steps at the front of the front rails, the side of the front rails, and the rear of the rear rails (refer to Figure 2–3).

- 1. Count up 66 holes from the bottom of the cabinet and make a mark between the 66th and 67th holes from the bottom. This is the *starting point* of the installation area. The first hole above this mark (67th hole) is identified as hole 1 of the installation area.
- 2. Count up 33 holes from the starting point and make a mark between the 33rd and 34th holes. The area between these two marks is the *installation area*.
- 3. Repeat steps 1 and 2 on the front of both front rails, the sides of both front rails, and the rear of both rear rails.

The total installation area for the system management station kit is 48.95 cm (19.25 in.) of vertical space. The equation for calculating the total installation area is:

 $4.45 \text{ cm} (1.75 \text{ in.}) \times 11 \text{ sets} = 48.95 \text{ cm} (19.25 \text{ in.})$ 

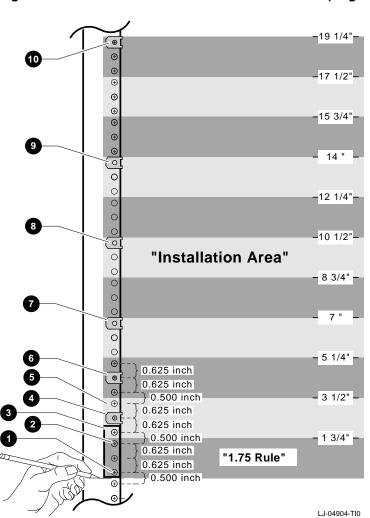


Figure 2-3 Installation Area and Rail-Hole Pattern (English RETMA)

• Hole 1 for attaching slide bracket and securing latch bracket to front rails.

- Hole 3 for attaching slide bracket.
- Bar nut (placed behind front and rear rails).
- Hole 5 for U-nut used to secure switch bracket to front rails.
- Hole 6 for U-nut used to secure switch bracket to side rails.
- Hole 8 for U-nut used to secure switch bracket and latch bracket to front rails.
- Hole 12 for U-nut used to secure monitor bracket to front rails.
- **3** Hole 18 for U-nut used to secure monitor bracket and latch bracket to front rails.
- Hole 24 for U-nut used to secure monitor bracket to front rails.
- Hole 33 for U-nut used to secure latch bracket to front rails.

# 2.4.3 Attaching the Slide Assemblies and Cable Management Bracket to the Cabinet Rails

To attach the slide assemblies and the cable management bracket to the cabinet rails, refer to Figure 2–4 and proceed as follows:

- 1. Determine the proper mounting holes for the slide brackets.
  - For a metric RETMA cabinet, the proper mounting holes are the 1st and 2nd holes of the installation area (see Figure 2–2).
  - For an English RETMA cabinet, the proper mounting holes are the 1st and 3rd holes of the installation area (see Figure 2–3).
- 2. Locate the right slide assembly.
- 3. For metric RETMA cabinets, place the front slide bracket on the inside of the right front rail and align the 1st and 3rd holes from the bottom of a bar nut ① with the two slide bracket holes and with the 1st and 2nd holes of the installation area on the right front rail.

For English RETMA cabinets, place the front slide bracket on the inside of the right front rail and align the 1st and 3rd holes from the bottom of a bar nut with the bottom and top slide bracket holes and with the 1st and 3rd holes of the installation area on the right front rail.

Note
If the 1st and 3rd holes from the bottom of a bar nut do not properly align with the slide bracket holes and the right front rail holes, turn the bar nut upside down and check the alignment.

- 4. For metric RETMA cabinets, install two M5 x 16 mm screws ② in the 1st and 2nd holes of the installation area to secure the front slide bracket to the right front rail, but *do not* tighten.
  - For English RETMA cabinets, install two M5 x 16 mm screws in the 1st and 3rd holes of the installation area to secure the front slide bracket to the right front rail, but *do not* tighten.
- 5. For metric RETMA cabinets, place the rear slide bracket on the inside of the right rear rail and align the 1st and 3rd holes from the bottom of a bar nut with the two slide bracket holes and with the 1st and 2nd holes of the installation area on the right rear rail.

For English RETMA cabinets, place the rear slide bracket on the inside of the
right rear rail and align the 1st and 3rd holes from the bottom of a bar nut
with the bottom and top slide bracket holes and with the 1st and 3rd holes of
the installation area on the right rear rail.

Note
If the 1st and 3rd holes from the bottom of a bar nut do not properly align with the slide bracket holes and the right rear rail holes, turn the bar nut upside down and check the alignment.

- 6. For metric RETMA cabinets, install two M5 x 16 mm screws **3** in the 1st and 2nd holes of the installation area to secure the rear slide bracket to the right rear rail, but *do not* tighten.
  - For English RETMA cabinets, install two M5 x 16 mm screws in the 1st and 3rd holes of the installation area to secure the rear slide bracket to the right rear rail, but *do not* tighten.
- 7. Tighten the two M4 x 10 mm screws and M4 nuts that secure the right rear slide bracket to the right slide assembly (shown in Figure 2–1).
- 8. Locate the left slide assembly.
- 9. For metric RETMA cabinets, place the front slide bracket on the inside of the left front rail and align the 1st and 3rd holes from the bottom of a bar nut ① with the two slide bracket holes and with the 1st and 2nd holes of the installation area on the left front rail.

For English RETMA cabinets, place the front slide bracket on the inside of the left front rail and align the 1st and 3rd holes from the bottom of a bar nut with the bottom and top slide bracket holes and with the 1st and 3rd holes of the installation area on the left front rail.

Note
If the 1st and 3rd holes from the bottom of a bar nut do not properly align with the slide bracket holes and the left front rail holes, turn the bar nut upside down and check the alignment.

10. For metric RETMA cabinets, install two M5 x 16 mm screws **2** in the 1st and 2nd holes of the installation area to secure the front slide bracket to the left front rail, but *do not* tighten.

	Note
rear rail w manageme	of the cable management bracket <b>4</b> is attached to the left when the rear slide bracket is attached. The end of the cable cent bracket is installed between the rear slide bracket and the ail with the elongated hole toward the bottom.
left rear ra the rear sl the bottom manageme	RETMA cabinets, place the rear slide bracket on the inside of the ail and slide the end of the cable management bracket <b>4</b> between lide bracket and the left rear rail. Align the 1st and 3rd holes from of a bar nut <b>1</b> with the two slide bracket holes and the two cabent bracket holes, and with the 1st and 2nd holes of the installative left rear rail.
the left reat the rear sl the bottom two cable in	sh RETMA cabinets, place the rear slide bracket on the inside of ar rail and slide the end of the cable management bracket between lide bracket and the left rear rail. Align the 1st and 3rd holes from of a bar nut with the bottom and top slide bracket holes and the management bracket holes, and with the 1st and 3rd holes of the n area on the left rear rail.
	Note
with the sl	and 3rd holes from the bottom of a bar nut do not properly align lide bracket holes and the left rear rail holes, turn the bar nut wn and check the alignment.

11

slide bracket to the left slide assembly (shown in Figure 2–1).

13. Tighten the two M4 x 10 mm screws and M4 nuts that secure the left rear

12. For metric RETMA cabinets, install two M5 x 16 mm screws 3 in the 1st

cable management bracket to the left rear rail, but do not tighten.

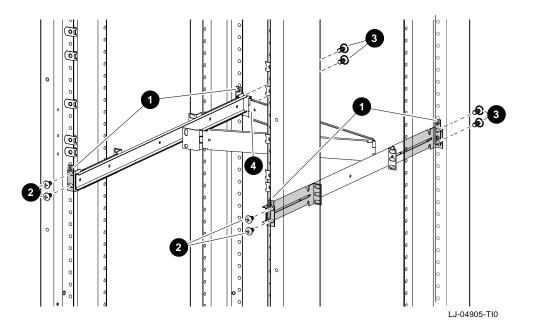
cable management bracket to the left rear rail, but do not tighten.

and 2nd holes of the installation area to secure the rear slide bracket and the

For English RETMA cabinets, install two M5  $\times$  16 mm screws in the 1st and 3rd holes of the installation area to secure the rear slide bracket and the

14. Tighten the M5 x 16 mm screws on the front and rear cabinet rails only enough to allow play for the slides to self-align when the keyboard tray assembly is installed in the cabinet.

Figure 2–4 Attaching the Slide Assemblies and Cable Management Bracket to the Cabinet Rails



#### 2.4.4 Attaching the Inner Races and Installing Components

To attach the inner races to the keyboard tray assembly and to install the keyboard, mouse, and mouse pad in the keyboard tray assembly, refer to Figure 2–5 and Figure 2–6 and proceed as follows:

- 1. Locate the right inner race from the right slide assembly.
- 2. Attach the right inner race  $\mathbf{0}$  to the right side of the keyboard tray assembly (as viewed from the front) using three M4 x 10 mm screws  $\mathbf{2}$ .
- 3. Locate the left inner race from the left slide assembly.
- 4. Attach the left inner race **3** to the left side of the keyboard tray assembly (as viewed from the front) using three M4 x 10 mm screws **2**.
- 5. Guide the keyboard cable through the bottom of the keyboard compartment in the keyboard tray assembly, and place the keyboard of in the keyboard compartment.
- 6. Guide the mouse cable through the bottom rear of the mouse compartment in the keyboard tray assembly, and place the mouse **9** in the mouse compartment.
- 7. Place the mouse pad **6** in the mouse pad compartment of the keyboard tray assembly.
- 8. Route the keyboard cable ① along the metal fingers ② and through the slot ③ at the rear of the keyboard compartment and to the right (as viewed from the front) cable slot ④ on the rear of the keyboard tray assembly (see Figure 2–6).
- 9. Remove the rubber grommet from the right cable slot **②** on the rear of the keyboard tray assembly and cut the rubber grommet **⑤** so that it can be placed around the keyboard cable (see Figure 2–6).
- 10. Place the rubber grommet around the keyboard cable and slide it up the keyboard cable to remove the slack between the keyboard and the cable slot, and then slide the rubber grommet into the cable slot (see Figure 2–6).
- 11. Route the mouse cable **6** through the slot at the rear of the mouse compartment and to the left (as viewed from the front) cable slot **6** on the rear of the keyboard tray assembly (see Figure 2–6).
- 12. Remove the rubber grommet from the left cable slot **②** on the rear of the keyboard tray assembly and cut the rubber grommet **⑤** so that it can be placed around the mouse cable (see Figure 2–6).

13. Place the rubber grommet around the mouse cable and slide it up the mouse cable until there is enough slack between the mouse and the cable slot to allow the mouse to reach the mouse pad, and then slide the rubber grommet into the cable slot (see Figure 2–6).

Figure 2-5 Attaching the Inner Races and Installing Components

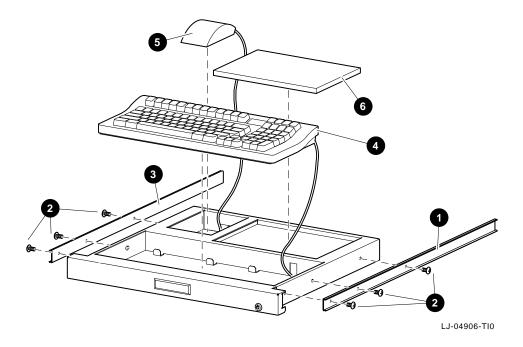
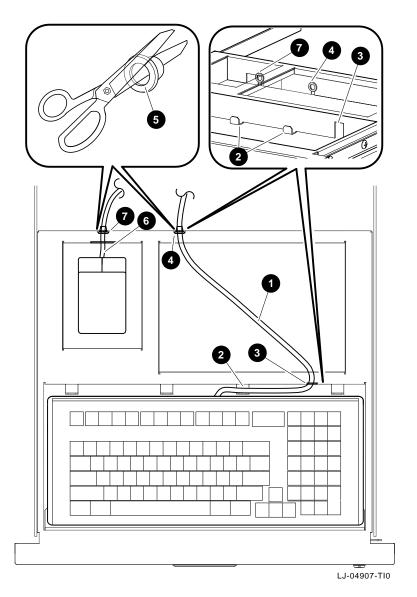


Figure 2–6 Routing the Keyboard and Mouse Cables



### 2.4.5 Mounting the Keyboard Tray Assembly on the Slides

To mount the keyboard tray assembly on the slides and to attach the other end of the cable management bracket to the keyboard tray assembly, refer to Figure 2–7 and Figure 2–8 and proceed as follows:

- 1. Lift the keyboard tray assembly and position it so that the inner races fit into the front end of the slides (see Figure 2–7).
- 2. Push the keyboard tray assembly into the slides until it stops. Push in on the two locking levers if necessary and then push the keyboard tray assembly into the cabinet (see Figure 2–7).
- 3. Secure the other end of the cable management bracket **1** to the left rear of the keyboard tray assembly (as viewed from the front) with two M5 x 16 mm screws **2** (see Figure 2–8). Tighten these two screws.
- 4. Attach the keyboard and mouse cables at each end and the center of the front arm **3** of the cable management bracket with three tie wraps **4** (see Figure 2–8).
- 5. Attach the keyboard and mouse cables at each end and the center of the rear arm **5** of the cable management bracket with three tie wraps **4** (see Figure 2–8).
- 6. Ensure that the keyboard tray assembly slides smoothly in and out of the cabinet and that the cable management bracket unfolds and folds easily.
- 7. Tighten the two M5 x 16 mm screws that secure each of the rear slide brackets to the rear rails.
- 8. For metric RETMA cabinets, tighten the M5 x 16 mm screw in the 2nd hole of the installation area to secure the front slide brackets to the front rails. For English RETMA cabinets, tighten the M5 x 16 mm screw in the 3rd hole of the installation area to secure the front slide brackets to the front rails.
- 9. Remove the M5 x 16 mm screw from the 1st hole of the installation area on both front rails.

Figure 2–7 Mounting the Keyboard Tray Assembly on the Slides

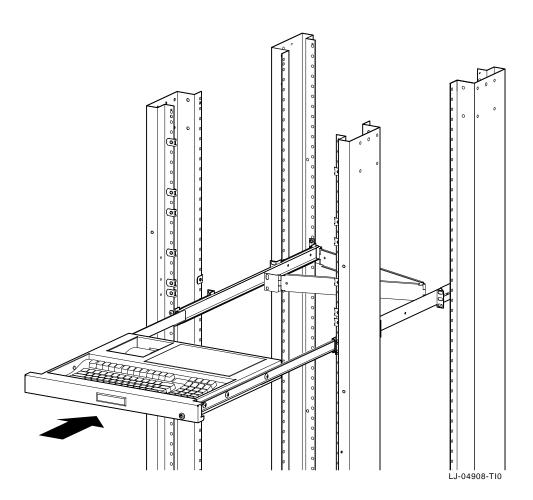
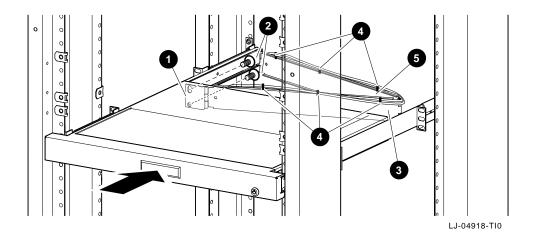


Figure 2–8 Attaching Cable Management Bracket to the Keyboard Tray Assembly and Attaching Keyboard and Mouse Cables



# 2.5 Installing the Switch Bracket, Plate, and MasterConsole Switch

The following sections contain the procedure for installing the switch bracket, switch plate, and the MasterConsole switch portion of the system management station kit in a 48.26-cm (19-in.) metric RETMA or English RETMA cabinet.

Note
Unless noted otherwise, the following instructions apply to both metric RETMA and English RETMA cabinet installations.

#### **Tools Required**

· Phillips-head screwdriver

#### 2.5.1 Installing the Switch Bracket

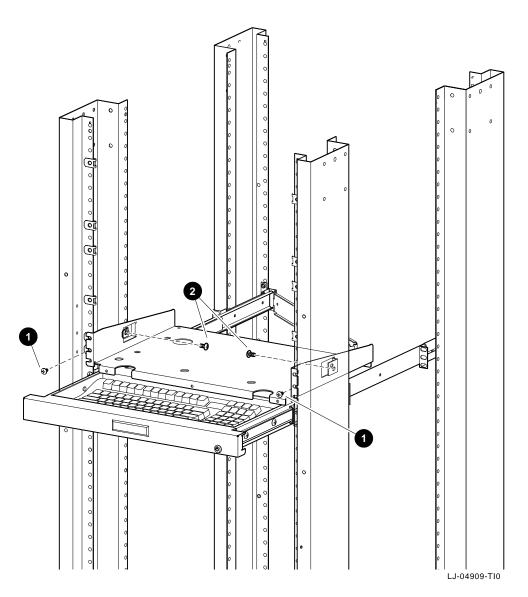
To attach the switch bracket to the cabinet rails, refer to Figure 2–9 and proceed as follows:

- 1. Determine the proper mounting holes for the switch bracket.
  - For a metric RETMA cabinet, the proper mounting holes are the 4th and 5th holes of the installation area on the front of the front rails, and the 4th hole on the side of the front rails (see Figure 2–2).
  - For an English RETMA cabinet, the proper mounting holes are the 5th and 8th holes of the installation area on the front of the front rails, and the 6th hole on the side of the front rails (see Figure 2–3).
- 2. For a metric RETMA cabinet, install a U-nut over the 4th and 5th holes of the installation area on the front of the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–2). Ensure that the threaded half of the U-nuts are toward the inside of the cabinet.
  - For an English RETMA cabinet, install a U-nut over the 5th and 8th holes of the installation area on the front of the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–3). Ensure that the threaded half of the U-nuts are toward the inside of the cabinet.
- 3. For a metric RETMA cabinet, install a U-nut over the 4th hole on the side of the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole. Ensure that the threaded half of the U-nut is toward the outside of the cabinet.

For an English RETMA cabinet, install a U-nut over the 6th hole on the side of the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole. Ensure that the threaded half of the U-nut is toward the outside of the cabinet.

- 4. For a metric RETMA cabinet, align the switch bracket with the 4th and 5th holes of the installation area on the front of the front rails, and secure the switch bracket to the front of the front rails by installing an M5 x 16 mm screw 1 in the 4th hole on each front rail.
  - For an English RETMA cabinet, align the switch bracket with the 5th and 8th holes of the installation area on the front of the front rails, and secure the switch bracket to the front of the front rails by installing an M5  $\times$  16 mm screw in the 5th hole on each front rail.
- 5. For a metric RETMA cabinet, secure the switch bracket to the side of the front rails by installing an M5 x 16 mm screw ② in the 4th hole on the side of each front rail.
  - For an English RETMA cabinet, secure the switch bracket to the side of the front rails by installing an  $M5 \times 16$  mm screw in the 6th hole on the side of each front rail.

Figure 2–9 Installing the Switch Bracket

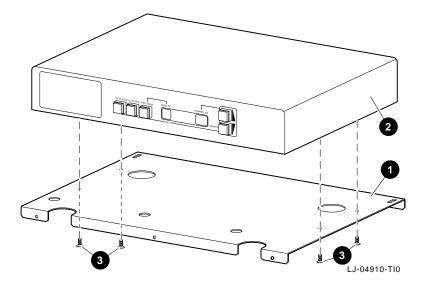


### 2.5.2 Installing the Switch Plate

To attach the switch plate to the bottom of the MasterConsole switch, refer to Figure 2-10 and proceed as follows:

- 1. Align the four holes in the switch plate ① with the four holes in the bottom of the MasterConsole switch ②. Ensure that the front lip of the switch plate (the lip with three holes) is toward the front of the MasterConsole switch.
- 2. Secure the switch plate to the bottom of the MasterConsole switch with four 4-40 pan-head screws **3**.

Figure 2-10 Installing the Switch Plate

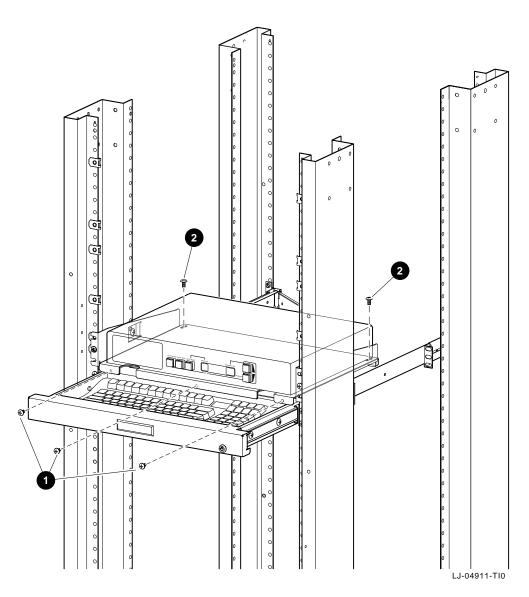


#### 2.5.3 Installing the MasterConsole Switch on the Switch Bracket

To attach the MasterConsole switch and switch plate to the switch bracket, refer to Figure 2–11 and proceed as follows:

- 1. Slide the MasterConsole switch and switch plate onto the switch bracket with the front of the MasterConsole switch facing the front of the cabinet.
- 2. Align the three holes in the front lip of the switch plate with the three holes on the front of the switch bracket.
- 3. Secure the MasterConsole switch and switch plate to the front of the switch bracket with three M3.5  $\times$  10 mm screws **0**.
- 4. Secure the top rear corners of the switch plate to the top rear corners of the switch bracket with two M3.5 x 10 mm screws ②.

Figure 2–11 Installing the MasterConsole Switch on the Switch Bracket



## 2.6 Installing the Monitor Bracket, Plate, and Monitor

The following sections contain the procedure for installing the monitor bracket, monitor plate, and the monitor portion of the system management station kit in a 48.26-cm (19-in.) metric RETMA or English RETMA cabinet.

Note
Unless noted otherwise, the following instructions apply to both metric RETMA and English RETMA cabinet installations.

#### **Tools Required**

· Phillips-head screwdriver

## 2.6.1 Installing the Monitor Bracket

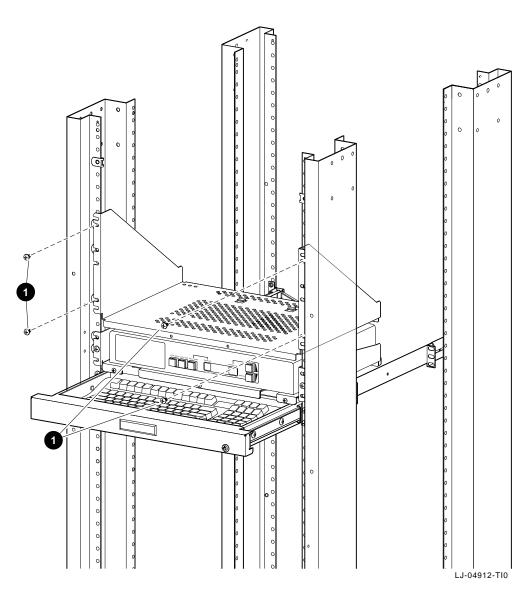
To attach the monitor bracket to the cabinet rails, refer to Figure 2-12 and proceed as follows:

- 1. Determine the proper mounting holes for the monitor bracket.

  For a metric RETMA cabinet, the proper mounting holes are the 8th, 12th, and 14th holes of the installation area on the front rails (see Figure 2–2).

  For an English RETMA cabinet, the proper mounting holes are the 12th, 18th, and 24th holes of the installation area on the front rails (see Figure 2–3).
- 2. For a metric RETMA cabinet, install a U-nut over the 8th, 12th, and 14th holes of the installation area on the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–2). Ensure that the threaded half of the U-nuts are toward the inside of the cabinet. For an English RETMA cabinet, install a U-nut over the 12th, 18th, and 24th holes of the installation area on the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–3). Ensure that the threaded half of the U-nuts are toward the inside of the cabinet.
- 3. For a metric RETMA cabinet, align the monitor bracket with the 8th, 12th, and 14th holes of the installation area on the front rails, and secure the monitor bracket to the front rails by installing two M5 x 16 mm screws  $\bullet$  in the 8th and 14th holes on each front rail.
  - For an English RETMA cabinet, align the monitor bracket with the 12th, 18th, and 24th holes of the installation area on the front rails, and secure the monitor bracket to the front rails by installing two M5  $\times$  16 mm screws in the 12th and 24th holes on each front rail.

Figure 2–12 Installing the Monitor Bracket

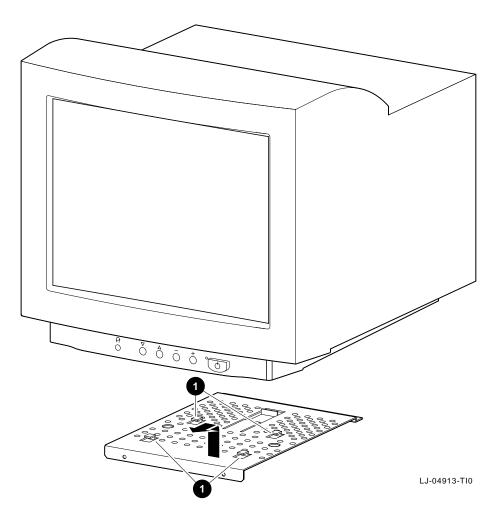


## 2.6.2 Installing the Monitor Plate

To attach the monitor plate to the bottom of the monitor, refer to Figure 2-13 and proceed as follows:

- 1. Remove the swivel base from the monitor.
- 2. Insert the four 90° fingers **①** on the monitor plate into the four recessed areas on the bottom of the monitor. Ensure that the front lip of the monitor plate (the lip with two holes) is toward the front of the monitor.
- 3. Slide the monitor plate forward to secure the monitor plate to the bottom of the monitor.

Figure 2–13 Installing the Monitor Plate

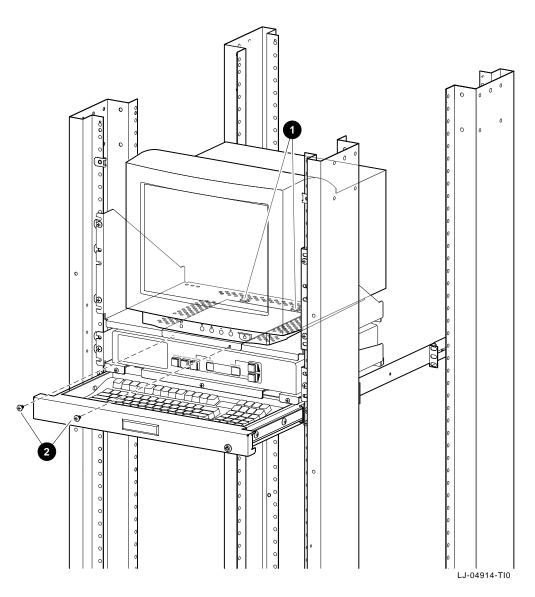


## 2.6.3 Installing the Monitor on the Monitor Bracket

To attach the monitor and monitor plate to the monitor bracket, refer to Figure 2-14 and proceed as follows:

- 1. Slide the monitor and monitor plate onto the monitor bracket with the front of the monitor facing the front of the cabinet. Ensure that the two tabs on the rear of the monitor plate slide into the two raised slots ① on the rear of the monitor bracket.
- 2. Align the two holes in the front lip of the monitor plate with the two holes on the front of the monitor bracket.
- 3. Secure the monitor and monitor plate to the front of the monitor bracket with two M3.5  $\times$  10 mm screws **2**.

Figure 2–14 Installing the Monitor on the Monitor Bracket



## 2.7 Installing the Left and Right Latch Brackets

This section contains the procedure for installing the left and right latch bracket portion of the system management station kit in a 48.26-cm (19-in.) metric RETMA or English RETMA cabinet.

Note
Unless noted otherwise, the following instructions apply to both metric RETMA and English RETMA cabinet installations.

#### **Tools Required**

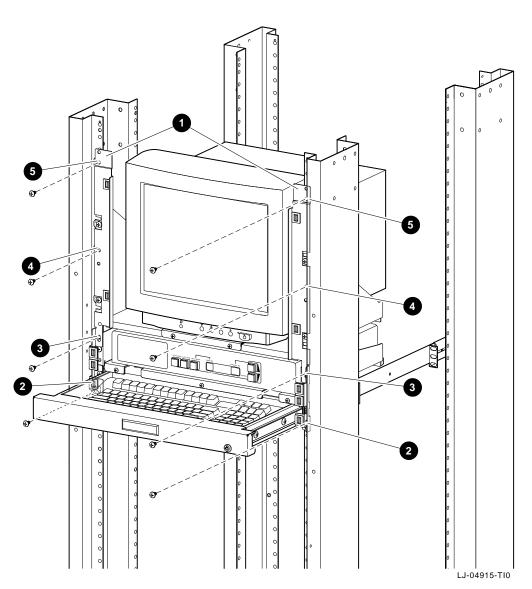
· Phillips-head screwdriver

To attach the left and right latch brackets to the cabinet rails, refer to Figure 2–15 and proceed as follows:

- 1. Determine the proper mounting holes for the latch brackets **①**.
  - For a metric RETMA cabinet, the proper mounting holes are the 1st, 5th, 12th, and 19th holes of the installation area on the front rails (see Figure 2–2).
  - For an English RETMA cabinet, the proper mounting holes are the 1st, 8th, 18th, and 33rd holes of the installation area on the front rails (see Figure 2–3).
- 2. For a metric RETMA cabinet, install a U-nut over the 19th hole of the installation area on the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–2). Ensure that the threaded half of the U-nut is toward the inside of the cabinet.
  - For an English RETMA cabinet, install a U-nut over the 33rd hole of the installation area on the front rails by sliding the U-nut over the edge of the cabinet rail and aligning it with the hole (see Figure 2–3). Ensure that the threaded half of the U-nut is toward the inside of the cabinet.
- 3. For a metric RETMA cabinet, align the left latch bracket with the 1st 2, 5th 3, 12th 4, and 19th 5 holes of the installation area on the left front rail, and secure the latch bracket to the left front rail by installing four M5 x 16 mm screws in the 1st, 5th, 12th, and 19th holes on the left front rail.
  - For an English RETMA cabinet, align the left latch bracket with the 1st, 8th, 18th, and 33rd holes of the installation area on the left front rail, and secure the latch bracket to the left front rail by installing four M5  $\times$  16 mm screws in the 1st, 8th, 18th, and 33rd holes on the left front rail.

4. For a metric RETMA cabinet, align the right latch bracket with the 1st ②, 5th ③, 12th ④, and 19th ⑤ holes of the installation area on the right front rail, and secure the latch bracket to the right front rail by installing four M5 x 16 mm screws in the 1st, 5th, 12th, and 19th holes on the right front rail. For an English RETMA cabinet, align the right latch bracket with the 1st, 8th, 18th, and 33rd holes of the installation area on the right front rail, and secure the latch bracket to the right front rail by installing four M5 x 16 mm screws in the 1st, 8th, 18th, and 33rd holes on the right front rail.

Figure 2-15 Installing the Left and Right Latch Brackets



# 2.8 Installing the Monitor and MasterConsole Switch Front Panels

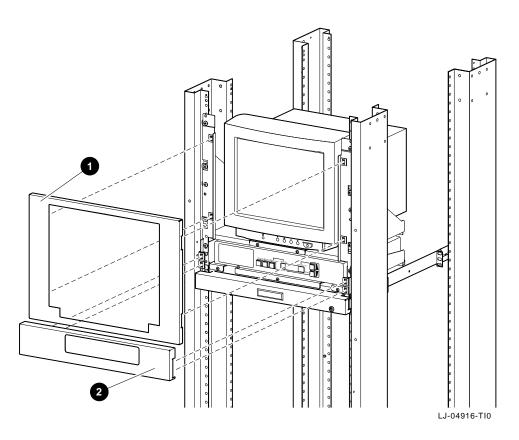
This section contains the procedure for installing the monitor and MasterConsole switch front panels.

Note
Unless noted otherwise, the following instructions apply to both metric RETMA and English RETMA cabinet installations.

To attach the monitor and MasterConsole switch front panels, refer to Figure 2–16 and proceed as follows:

- 1. Grasp the monitor front panel **1** by the sides.
- 2. Align the four strikes on the monitor front panel with the four latches on the latch brackets.
- 3. Press the monitor front panel onto the latch brackets until the four strikes snap into the four latches.
- 4. Grasp the MasterConsole switch front panel **2** by the sides.
- 5. Align the four strikes on the MasterConsole switch front panel with the four latches on the latch brackets.
- 6. Press the MasterConsole switch front panel onto the latch brackets until the four strikes snap into the four latches.

Figure 2–16 Installing the Monitor and MasterConsole Switch Front Panels

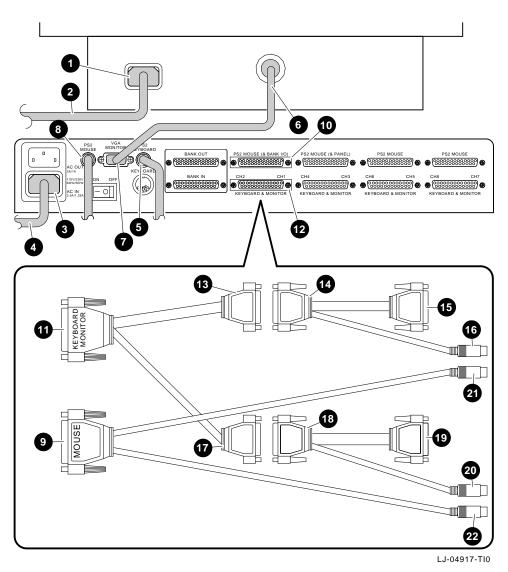


## 2.9 Cabling

This section contains the procedure for connecting the power cords to the monitor and MasterConsole switch; connecting the keyboard, monitor, and mouse cables; and the 10-foot cable pair to the MasterConsole switch. Refer to the *MasterConsole User's Manual* for more information on cabling. To attach the power cords and cables, refer to Figure 2–17 and proceed as follows:

- 1. Connect one end of the monitor power cord to the ac input receptacle ① on the rear of the monitor, and the other end of the monitor power cord ② to a receptacle on one of the power distribution units.
- 2. Connect one end of the MasterConsole switch power cord to the ac input receptacle ③ on the rear of the MasterConsole switch, and the other end of the MasterConsole switch power cord ④ to a receptacle on one of the power distribution units.
- 3. Connect the keyboard cable from the keyboard tray assembly to the PS2 KEYBOARD connector **9** on the rear of the MasterConsole switch.
- 4. Connect the monitor cable **6** from the monitor to the VGA MONITOR connector **7** on the rear of the MasterConsole switch. Secure with two screws.
- 5. Connect the mouse cable from the keyboard tray assembly to the PS2 MOUSE connector 3 on the rear of the MasterConsole switch.
- 6. Connect the 10-foot cable pair connector labeled MOUSE **9** to the PS2 MOUSE connector **0** on the rear of the MasterConsole switch.
- 7. Connect the other 10-foot cable pair connector **1** to the KEYBOARD & MONITOR connector **2** on the rear of the MasterConsole switch.
- 8. Connect the right connector **3** on the other end of the keyboard/monitor cable pair to the short extension cable connector **3**. Connect the other ends of the short extension cable to the monitor connector **3** and keyboard connector **4** on the first server or host that this kit is being used with.
- 9. Connect the left connector **1** on the other end of the keyboard/monitor cable pair to the short extension cable connector **1**. Connect the other ends of the short extension cable to the monitor connector **1** and keyboard connector **2** on the second server or host that this kit is being used with.
- 10. Connect the right connector ② on the other end of the mouse cable pair to the mouse connector on first server or host, and connect the left connector ② on the other end of the mouse cable pair to the mouse connector on the second server or host that the system management station kit is being used with.

Figure 2–17 Cabling



Installation 2-39



## **MasterConsole Switch Cable Options**

Table A-1 provides a list of optional MasterConsole switch cables. This table contains the available option numbers along with a description of each switch cable option. Refer to the MasterConsole User's Manual for more information on cabling.

Table A-1 Optional MasterConsole Switch Cables

Option Number	Description		
2T-H7085-10	A 10-foot cable pair that is used to connect two servers to a MasterConsole switch (one cable pair is always required for two servers).		
2T-H7085-20	A 20-foot cable pair that is used to connect two servers to a MasterConsole switch (one cable pair is always required for two servers).		
2T-H7085-03	A 3-foot daisy-chain cable is used to connect two MasterConsole switches together.		
	Note: A total of four 8-port MasterConsole switches can be daisy chained together.		
2T-H7085-GD	A 1-foot virtual keyboard/mouse cable that connects the MasterConsole switch keyboard and mouse cables to the keyboard and mouse ports on the server. One of these options is required for each server in an installation.		
	Note: This cable ensures that the keyboard and mouse are recognized by the server even if the MasterConsole switch is removed or nonfunctional.		

(continued on next page)

Table A-1 (Cont.) Optional MasterConsole Switch Cables

Option Number	Description  A 50-foot remote access MasterConsole switch cable.		
2T-H7085-EA			
2T-H7085-EC	A 100-foot remote access MasterConsole switch cable.		
2T-H7085-EF	A 150-foot remote access MasterConsole switch cable.		
	Note: These last three cable options allow remote MasterConsole switch connections to a MasterConsole switch in a server cabinet located 15.24, 30.48, or 45.72 meters (50, 100, or 150 feet) away. These cable options provide single monitor/keyboard/mouse functionality at these distances.		

#### **Reader's Comments**

2T-RMSMC System Management Station Kit Installation Guide EK-RMSMC-IN. A01

Your comments and suggestions help us improve the quality of our publications. Thank you for your assistance. I rate this manual's: **Excellent** Fair Poor Good Accuracy (product works as manual says) П Completeness (enough information) Clarity (easy to understand) П П П П Organization (structure of subject matter) Figures (useful) Examples (useful) Index (ability to find topic) Page layout (easy to find information) I would like to see more/less \_\_\_\_ What I like best about this manual is \_\_\_\_\_ What I like least about this manual is \_\_\_\_\_ I found the following errors in this manual: Page Description Additional comments or suggestions to improve this manual: For software manuals, please indicate which version of the software you are using: Name/Title \_\_\_\_\_ Dept. \_ \_\_\_\_\_ Date \_\_\_\_ Company Mailing Address \_\_\_\_\_

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