SWXTL–BM 50/100 GB, 5-Cartridge DLT Tape Drive Mini-Library Installation

Product Notes
EK–SM1TC–PN. C01

What To Do:

Purpose

CAUTION
Don't try to install the Mini-Library in a non-metric cabinet, the slide-mount bracket won't fit. Install the unit in a metric cabinet like the C- and D-series cabinets documented in these Product Notes.

These product notes explain how to slide mount an SWXTL–BM Tape Mini-Library (Mini-Library) into either a C- or D-series cabinet (Figure 1).

Reference Documentation

Table 1 lists the documents referred to in this installation guide. Prior to installing the Mini-Library, read the manuals that apply to your installation.
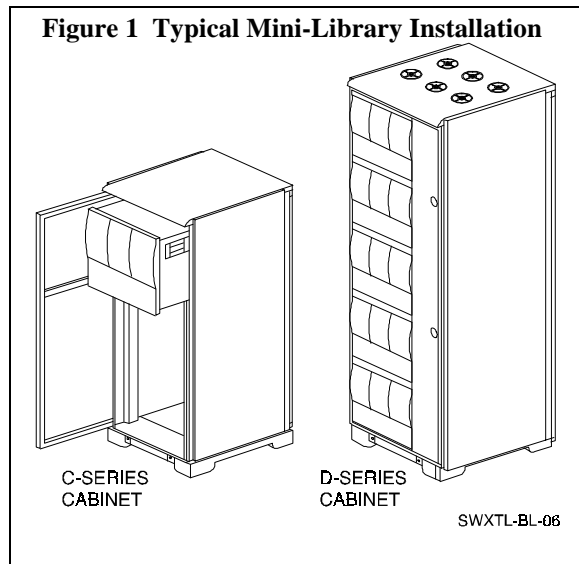
Table 1 Reference Documentation

Title	Order/Part No.
SWXTL–BL 50/100 GB, 5-Cartridge DLT Tape Drive Mini Library User's Guide	EK–SM1TC–UG.
StorageWorks™ Solutions, SWXSC–C Series Cabinet, Installation and User's Guide	EK–SMCPE–IG.
StorageWorks™ Solutions, SWXSC–D Series Cabinet, Installation and User's Guide	EK–SMCPF–IG.

Installation Sequence

Perform the installation procedures in the order listed. Performing the procedures in a different order, or skipping a procedure, may cause the Mini-Library to malfunction or disable the small computer system interface (SCSI) bus.

1. Read reference documentation to familiarize yourself with devices and their manuals.

2. Review this installation guide to become familiar with responsibilities, requirements, and procedures.

3. Complete procedures described in "Inventorying Installation Kit."

4. Complete procedures described in "Installing SWXTL–BM Mini Library"

Figure 1 Typical Mini-Library Installation

C-SERIES CABINET   D-SERIES CABINET

SWXTL-BL-06

What You Need:

You need the following items to install a Mini-Library into a cabinet.

1. Phillips (cross-head) screwdriver
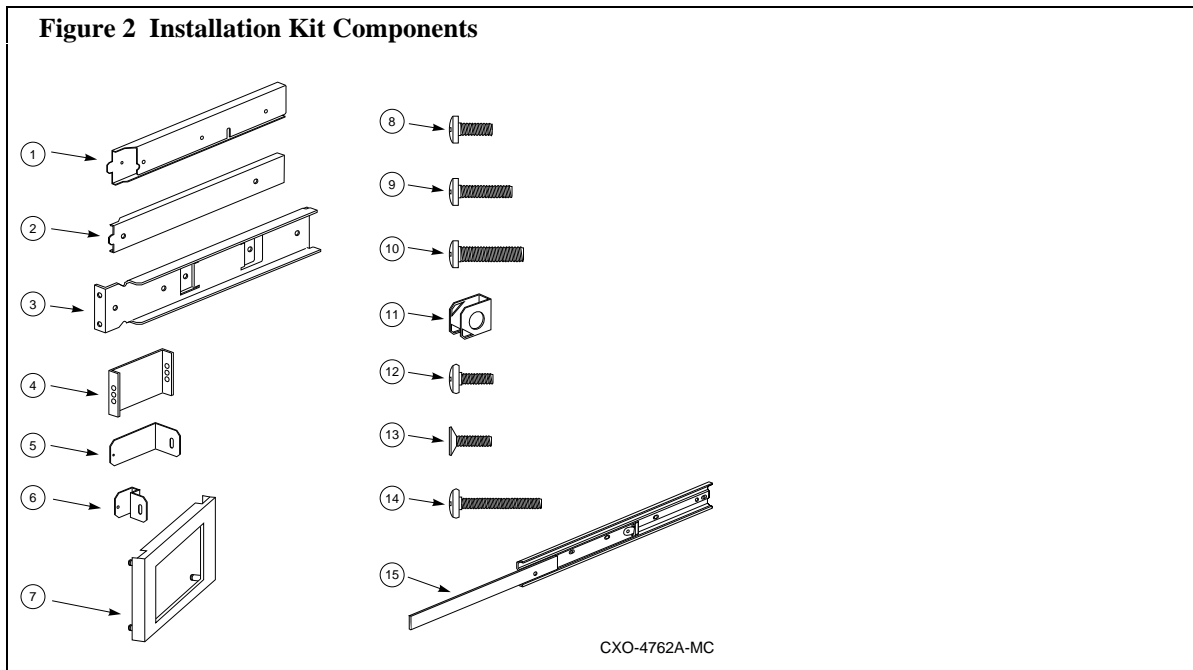
2. Installation kit

Inventorying Installation Kit:

Carefully inventory the contents of the installation kit. Refer to Table 2 to be sure you have all the parts. See Figure 2 to identify the parts.

Table 2 Installation Kit Contents

Index No.	Part	Qty
1	Right-hand Mounting Bracket	1
2	Left-hand Mounting Bracket	1
3	Slide Mounting Bracket	2
4	Slide Mounting Bracket Extension	2
5	Retainer Clip, Rear	2
6	Retainer Clip, Front	2
7	Trim Panel	1
8	Screw, SEMS, Pan Head, M3 x 6 mm	4
9	Screw, SEMS, Pan Head, M4 x 10 mm	2
10	Screw, SEMS, Pan Head, 10-32 x .625 in.	12
11	U-nut, 10-32	4
12	Screw, Pan Head, 8-32 x .375 in.	6
13	Screw, Flat Head, 8-32 x .375 in.	4
14	Screw, Pan Head, 10-32 x 2 in.	4
15	Chassis Slide	2

Figure 2 Installation Kit Components

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Unpacking SWXTL–BM Mini Library:

Mini-Libraries are packed in a corrugated carton that may be attached to a wooden shipping pallet as shown in Figure 3. Unpack the Mini-Library as follows:

CAUTION

Failure to thermally stabilize the equipment may damage drive media or associated electronics when the unit is turned on. Environmental stabilization begins when the equipment is placed in the room in which it is to be installed.

NOTE

Before unpacking the equipment, inspect the shipping carton for signs of external damage. Report any damage to the local carrier and to Digital Multivendor Customer Services or your local Digital Sales office.
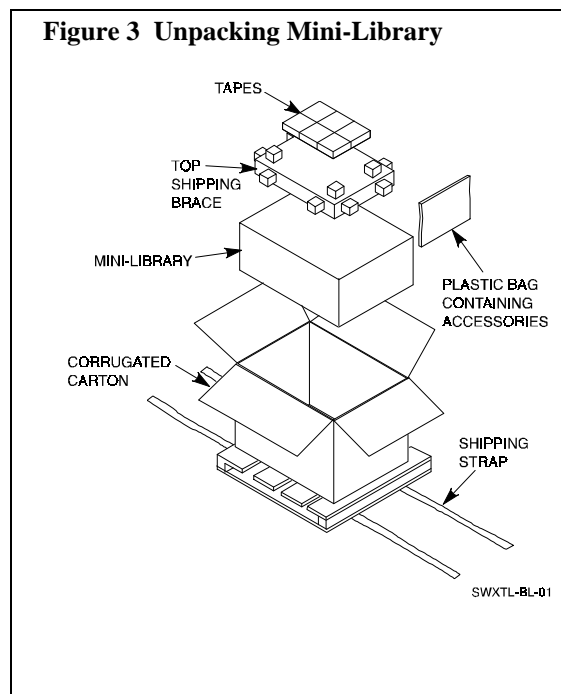
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1. Cut shipping straps and remove corrugated carton from shipping pallet, if necessary.

2. Open corrugated carton and remove tapes, top shipping brace, and plastic bag containing accessories.

3. Remove Mini-Library from corrugated carton.

4. Some units are packaged in plastic bag. If unit arrives in plastic bag, leave bag in place until unit has adjusted to local temperature and humidity.

5. Refer to Cabinet Installation and User's guide for temperature and humidity stabilization procedures.

6. Once Mini-Library is unpacked, examine its exterior for damage. Report such problems immediately.

7. Inventory accessories against Table 3.

8. Retain shipping container and all packing materials.

Figure 3 Unpacking Mini-Library

Table 3 Mini-Library Accessories

Accessory – Part/Order Number	Qty
SWXTL–BL 50/100 GB, 5-Cartridge DLT Tape Mini-Library, User's Guide – EK–SM1TC–UG.	1
5-Cartridge Mini-Library – SWXTL–BM	1
Single Tape Cartridge Unit – TK85K–01	5
Head Cleaning Cartridge – TK85–HC	1
SCSI Terminator Connector – 12-30552-01	1

Installing SWXTL–BM Mini-Library:

Installing a Mini-Library in either a C or D-series cabinet requires that you complete the procedures in the following sequence:

1. Access cabinet interior.

2. Determine location.

3. Turn off power.

4. Disconnect host.

5. Remove any existing equipment.

6. Install trim panel.

7. Install slides.

8. Modify Mini-Library.

9. Mount slide drawer sections.

10. Mount Mini-Library on slides.

11. Connect data cables.

12. Connect power cables.

13. Secure Mini-Library in cabinet.

14. Reconnect host.

15. Turn on power.

16. Secure cabinet.

This installation guide *does not* address the following subjects:

- Integrating the installed Mini-Library into a system
- The SCSI controller
- The host computer system

For detailed information on these subjects, please read the manufacturer's and system documentation.

Accessing Cabinet Interior
Use the following procedure to gain access to the interior of the cabinet:

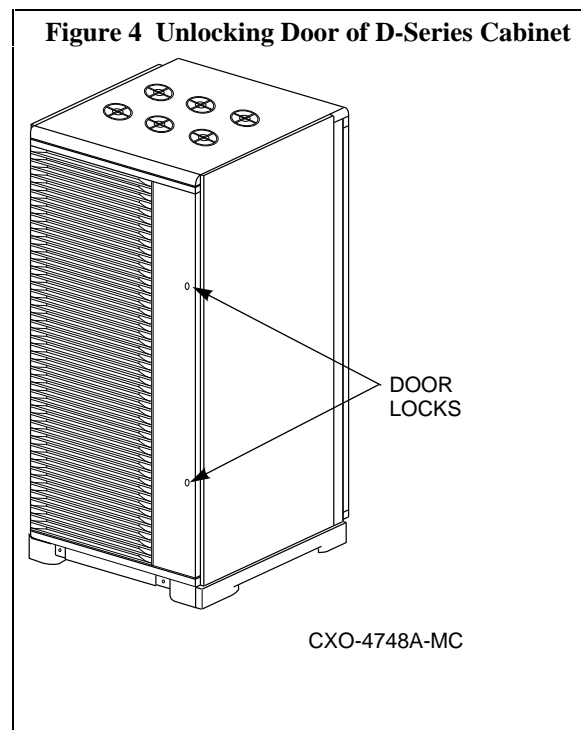**1.** If necessary, separate cabinet from adjacent cabinets.

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2. Unlock and open cabinet door. If it is necessary to access both CDUs, open both cabinet doors.

- C-Series Cabinet – Both cabinet doors are held closed by a door lock and a latch. The door lock and latch are located in the middle of the door on the right-hand side. The lock is released by turning it counterclockwise with a key. Pull out on the latch to open the door.

- D-Series Cabinet – Both cabinet doors are held closed by door locks (Figure 4). The locks are released by turning them counterclockwise with a 5/32-inch hex wrench.

WARNING

Cabinet rail edges may be sharp and can slice or abrade skin and cable insulation.

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3. Remove top and side panels. Refer to C- or D-Series Cabinet Installation and User's Guide listed in Table 1.

Figure 4 Unlocking Door of D-Series Cabinet

DOOR LOCKS

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Determining Location

C-Series Cabinet

The C-series cabinets hold up to two Mini-Libraries: one in the front and one in the rear, both at the top. The first Mini-Library is mounted in front; the second one is mounted in the rear. The mounting holes in the cabinet rails are numbered from top to bottom. Mounting holes and positions for the Mini-Libraries are shown in Figure 5. A fan tray assembly mounts ventilating fans between a rear mounted Mini-Library and the next lower unit.

D-Series Cabinet

The D-series cabinets hold up to nine Mini-Libraries: the first five in the front and the last four in the rear. The Mini-Libraries are mounted in the cabinet from top to bottom except for a fan tray assembly, which mounts ventilating fans at the rear of the cabinet . The mounting holes in the cabinet rails are numbered from top to bottom. Mounting holes and positions for the Mini-Libraries are shown in Figure 6.

Turning Off Power

Use the following procedure to turn off power in the cabinet:

1. If cabinet is operating, spin down all disk drives and halt all tape drives in cabinet.
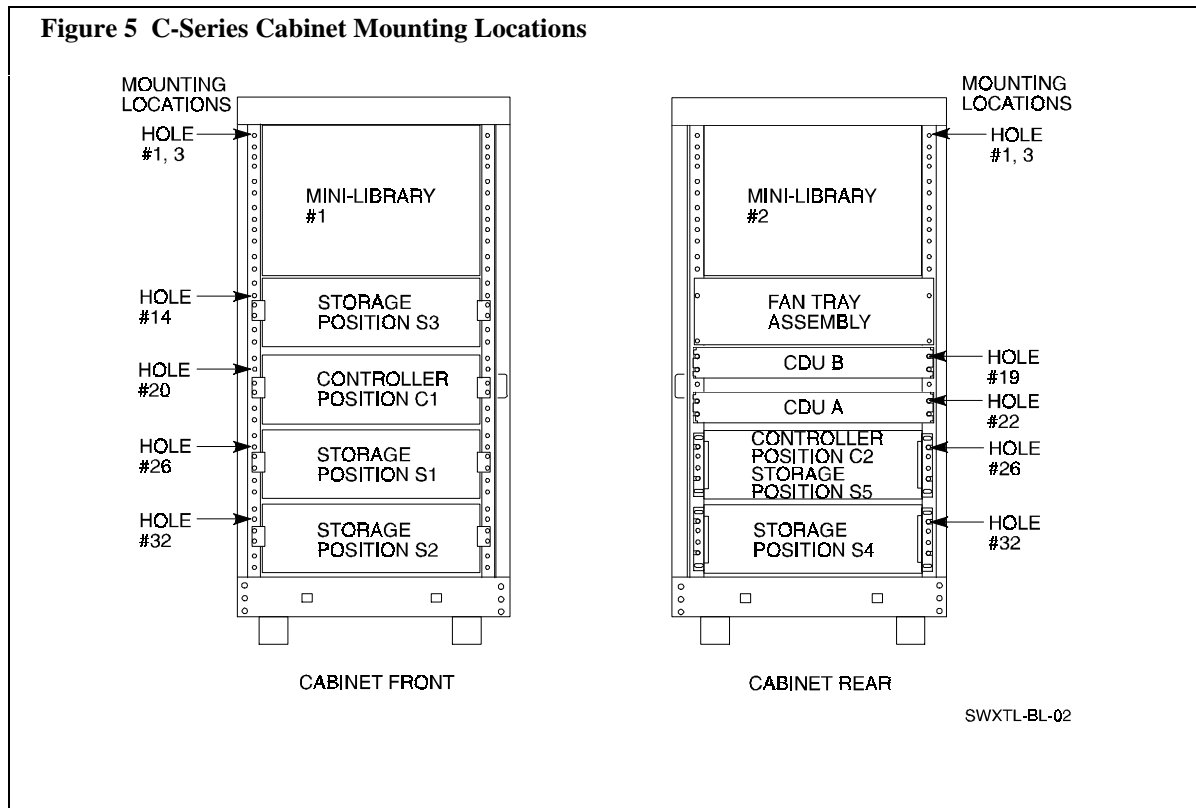
> **WARNING**
> To avoid shock hazard, turn off ac power while working inside the cabinet.

2. Prior to installing Mini-Library, turn off ac power to cabinet components.

3. Switch circuit breaker on front panel of cabinet's cable distribution unit(s) CDU/CDUs to O (OFF) position.

4. Disconnect cabinet from facility power.

Disconnecting Host

Disconnect the host from the cabinet. Refer to the documentation for the system and the host.

Figure 5 C-Series Cabinet Mounting Locations

Removing Existing Equipment

Remove and/or reposition any equipment that may be occupying the cabinet position where you want to install the Mini-Library. Refer to the equipment and cabinet documentation.

Removing Grille Panel

Removing C-Series Grille Panel

Use the following procedure to remove the grille panel from a C-series cabinet:

1. Remove C-series grille panel by pressing it out of door from rear. Support grille panel so it does not fall.

2. After removing grille panel, install trim panel as described below.

Removing D-Series Grille Panel

Use the following procedure to remove the grille panel from a D-series cabinet:

1. Insert four removal screws into threaded inserts located in cabinet door (Figure 7).

2. Remove grille panel from cabinet door by partially tightening each removal screw in sequence until grille panel pops loose. Support grille panel so it does not fall.

3. Take out removal screws.

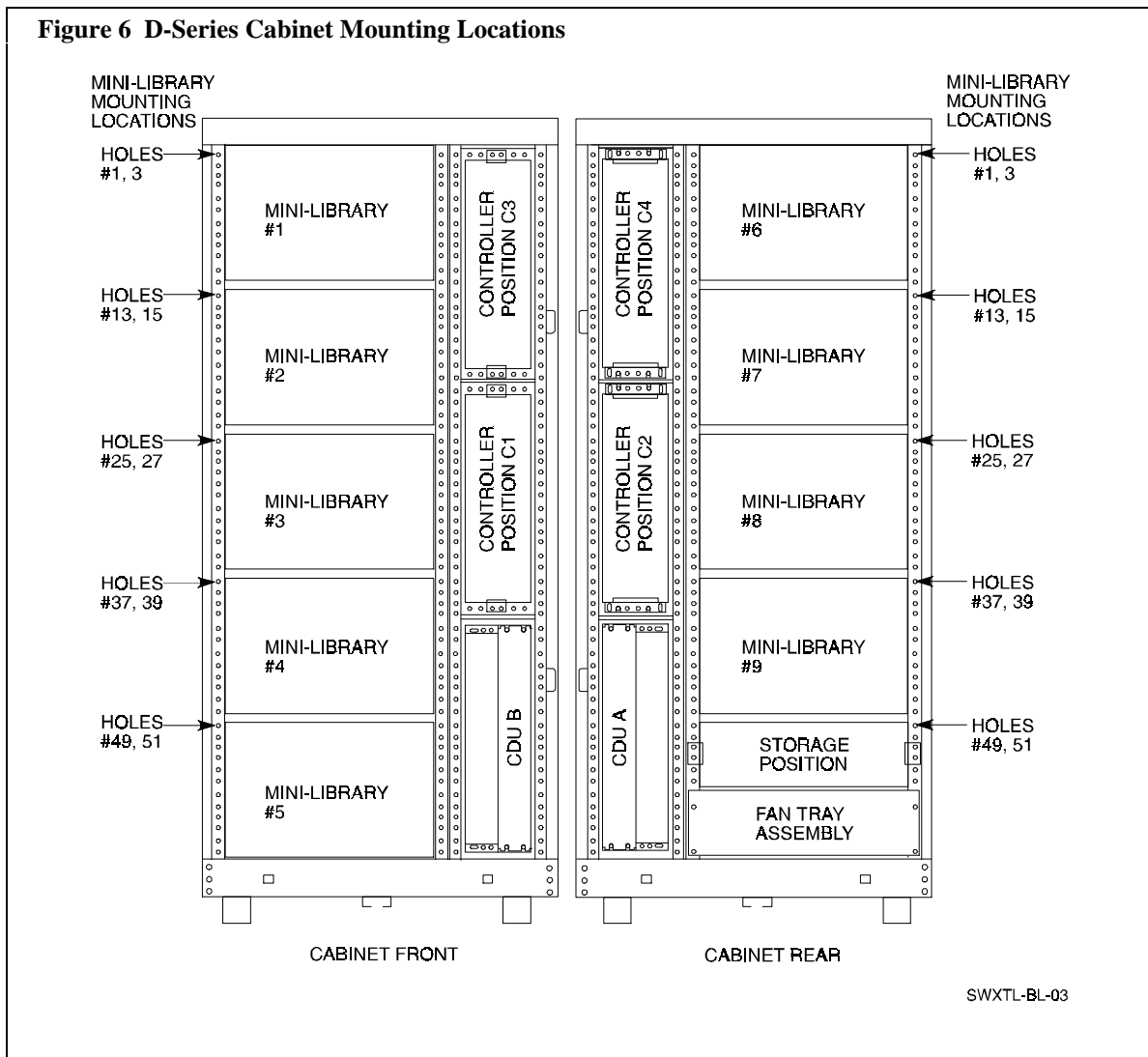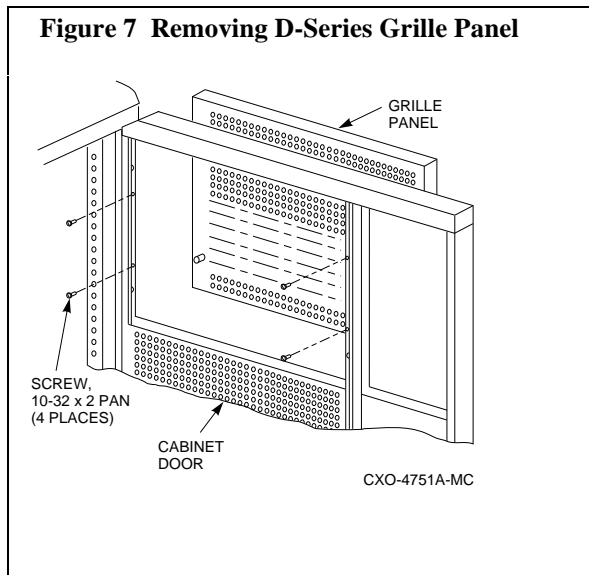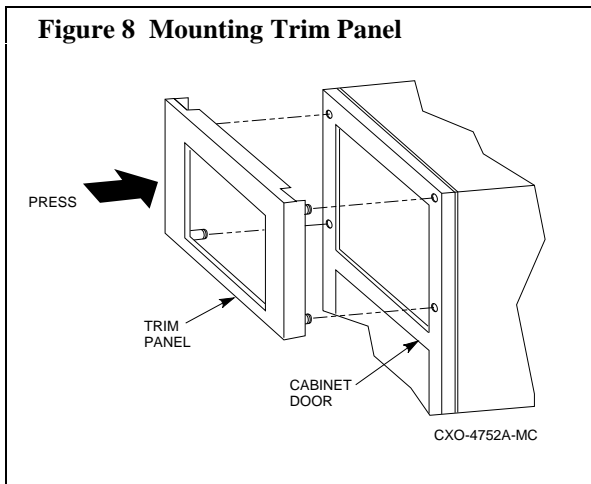**4.** After removing grille panel, install trim panel as described below.

Figure 6 D-Series Cabinet Mounting Locations

Figure 7 Removing D-Series Grille Panel

GRILLE PANEL

SCREW,
10-32 x 2 PAN
(4 PLACES)

CABINET
DOOR

CXO-4751A-MC

Installing Trim Panel

Mount the trim panel on the cabinet door (Figure 8) by pressing the mounting studs on the trim panel into the mounting holes in the cabinet door. The thin, horizontal member of the trim panel goes at the bottom.

Figure 8 Mounting Trim Panel

PRESS

TRIM PANEL

CABINET DOOR

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Installing Slides

Install Slide-Mounting Brackets for Front Mounting

Use the following procedure to install the slide-mounting brackets for front mounting a Mini-Library (Figure 9):

1. Locate first mounting hole of desired mounting position. See Figure 5 (C-series cabinet) or Figure 6 (D-series cabinet).

2. At inner flange, install U-nut at center mounting hole of mounting position. For example, hole 2 for position 1.
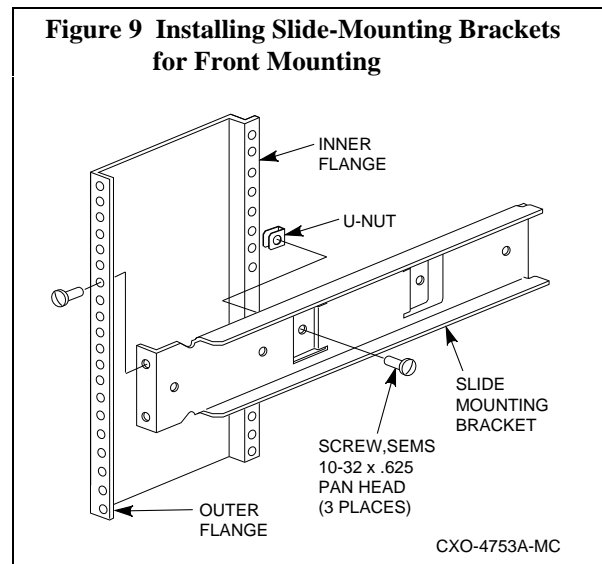
3. Secure front of mounting bracket to outer flange at first and third mounting holes of mounting position. Do not tighten screws.

4. Secure mounting bracket to U-nut on inner flange.

5. Make sure mounting brackets are aligned vertically and tighten all mounting screws.

6. Repeat steps 1 through 5 for opposite side.

Figure 9 Installing Slide-Mounting Brackets for Front Mounting

INNER FLANGE

U-NUT

SLIDE MOUNTING BRACKET

SCREW,SEMS
10-32 x .625
PAN HEAD
(3 PLACES)

OUTER FLANGE

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Install Slide-Mounting Brackets for Rear Mounting

Use the following procedure to install the slide-mounting brackets for rear mounting a Mini-Library (Figure 10):

1. Locate first mounting hole for desired mounting position. See Figure 5 (C-series cabinet) or Figure 6 (D-series cabinet).

2. At inner flange, install U-nut at center mounting hole of mounting position. For example, hole 2 for position 1.
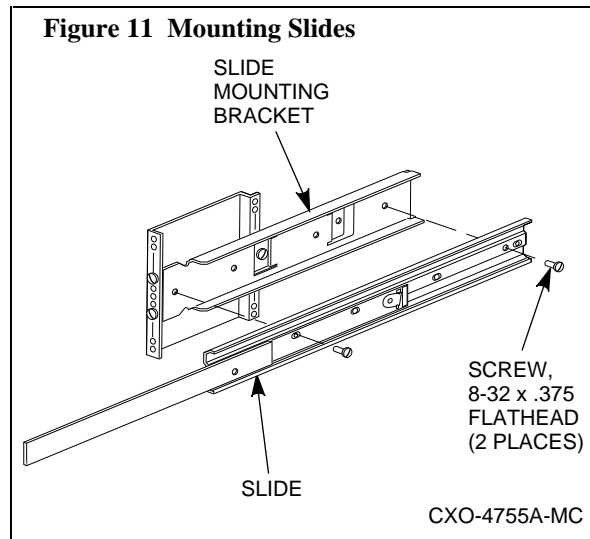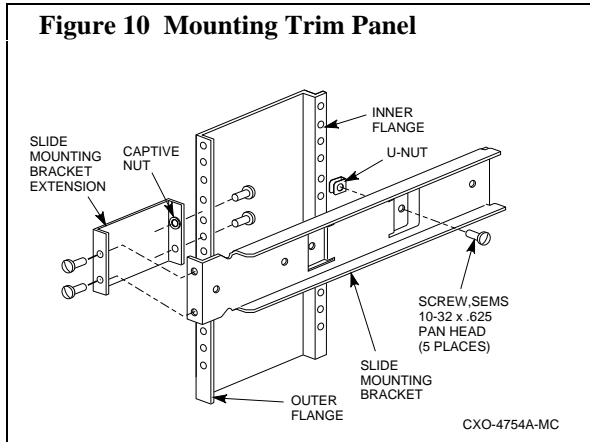
3. Secure mounting-bracket extension to outer flange at first and third mounting holes of mounting position.

4. Secure front of mounting bracket to front of mounting-bracket extension. Do not tighten screws.

5. Secure mounting bracket to U-nut on inner flange

6. Make sure mounting brackets are aligned vertically and tighten all mounting screws.

7. Repeat steps 1 through 6 for opposite side.

Figure 10 Mounting Trim Panel

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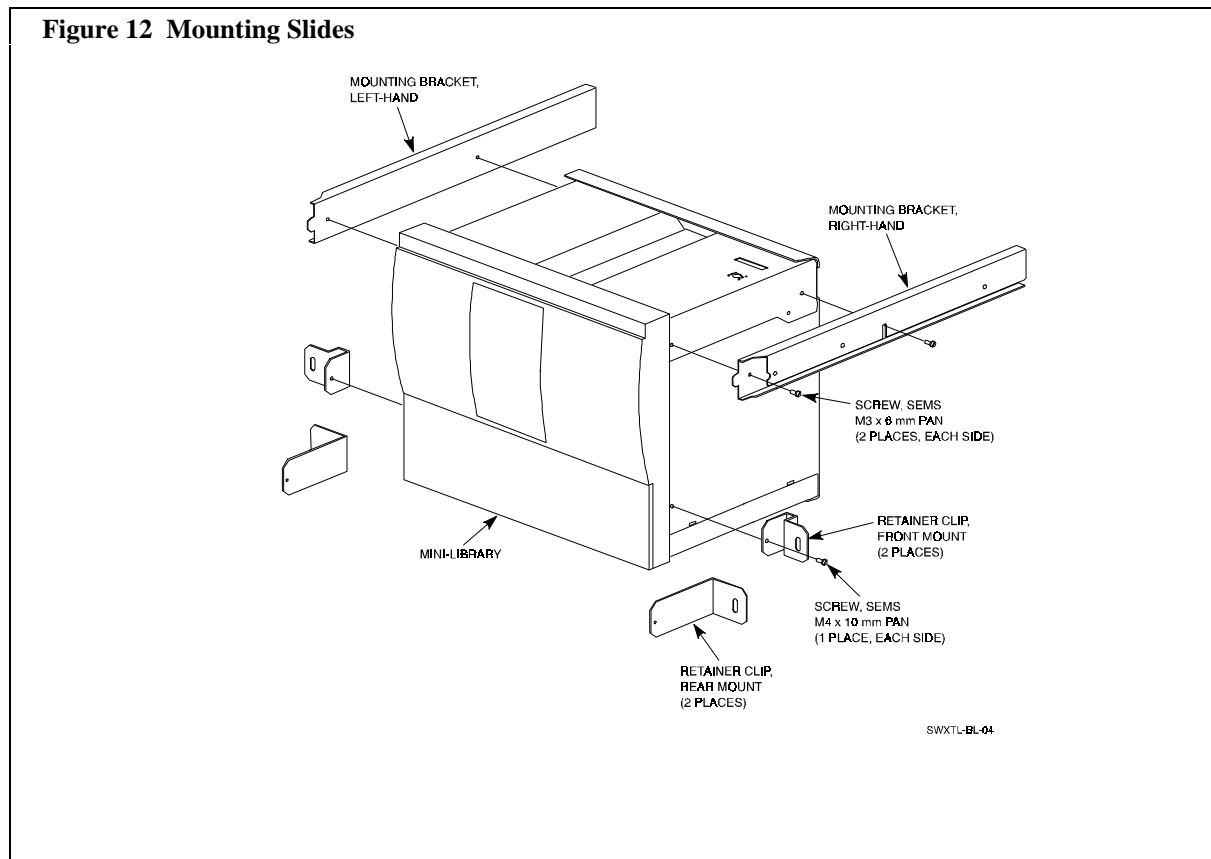**Figure 11 Mounting Slides**

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Mounting Slides

Use the following procedure to mount the slides to the slide-mounting brackets (Figure 11):

1. Extend the slide until both mounting holes are exposed.

2. Align the mounting holes on the slide with the mounting holes on the mounting bracket and attach one to the other with two flathead screws.
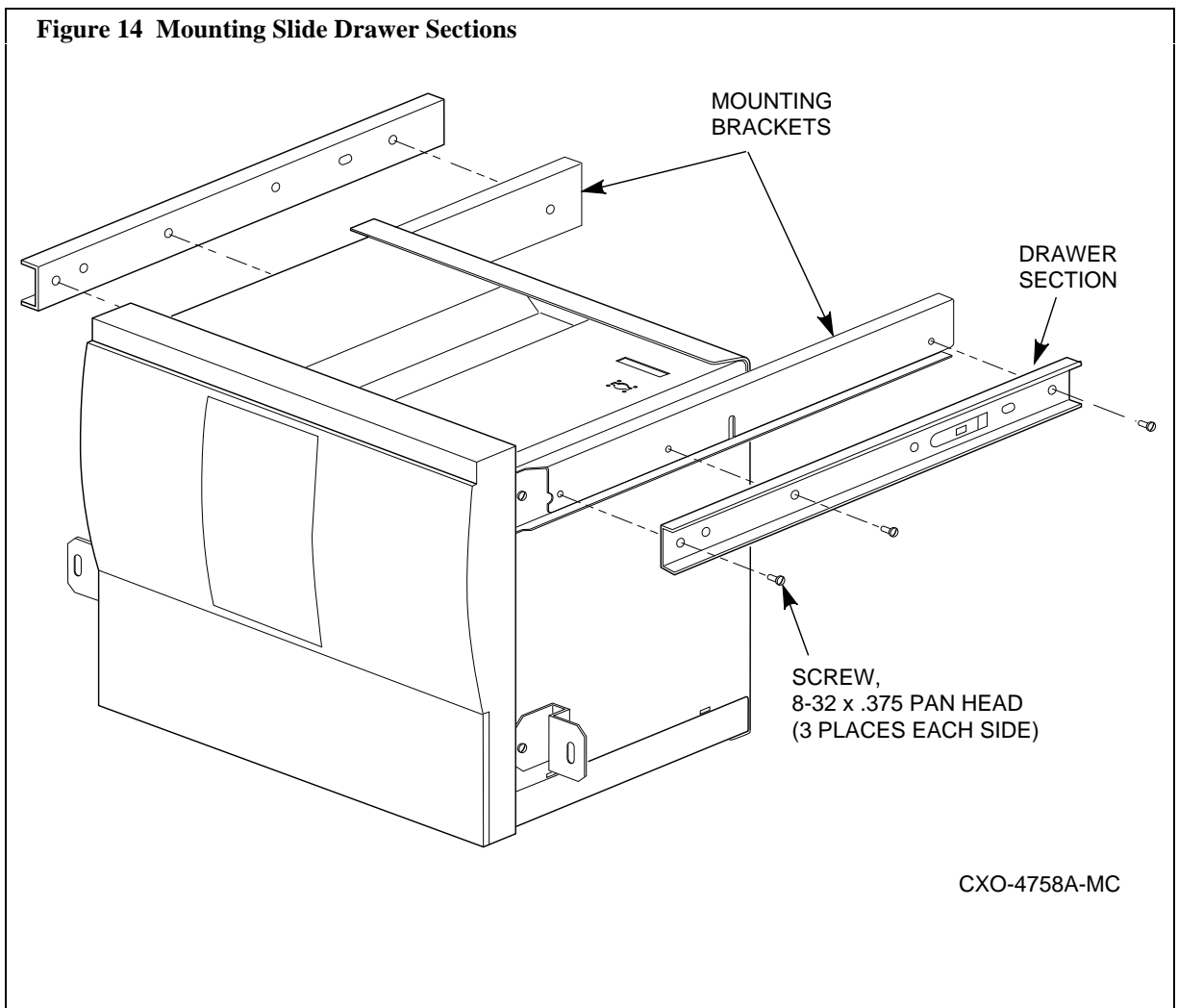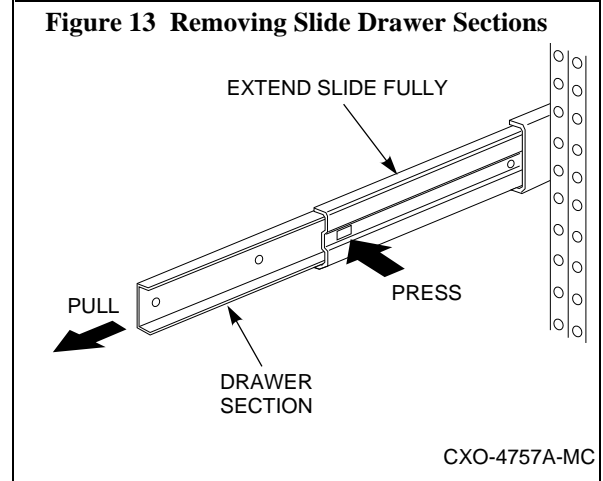
Modifying SWXTL–BM Tape Mini-Library

1. Install mounting brackets on Mini-Library as shown in Figure 12.

2. If front mounting unit in cabinet, install front mount retainer clips on Mini-Library as shown in Figure 12. If rear mounting unit, proceed to step 3.

3. For rear mounting, attach rear mount retainer clips instead of front mount retainer clips.

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Figure 12 Mounting Slides

SWXTL-BL-04

Mounting Slide Drawer Sections

1. Fully extend slides.

2. Remove slide drawer sections from slides by pressing slide locks and pulling slide drawer sections from slides as shown in Figure 13.

3. Mount slide drawer sections to mounting brackets on Mini-Library as shown in Figure 14.
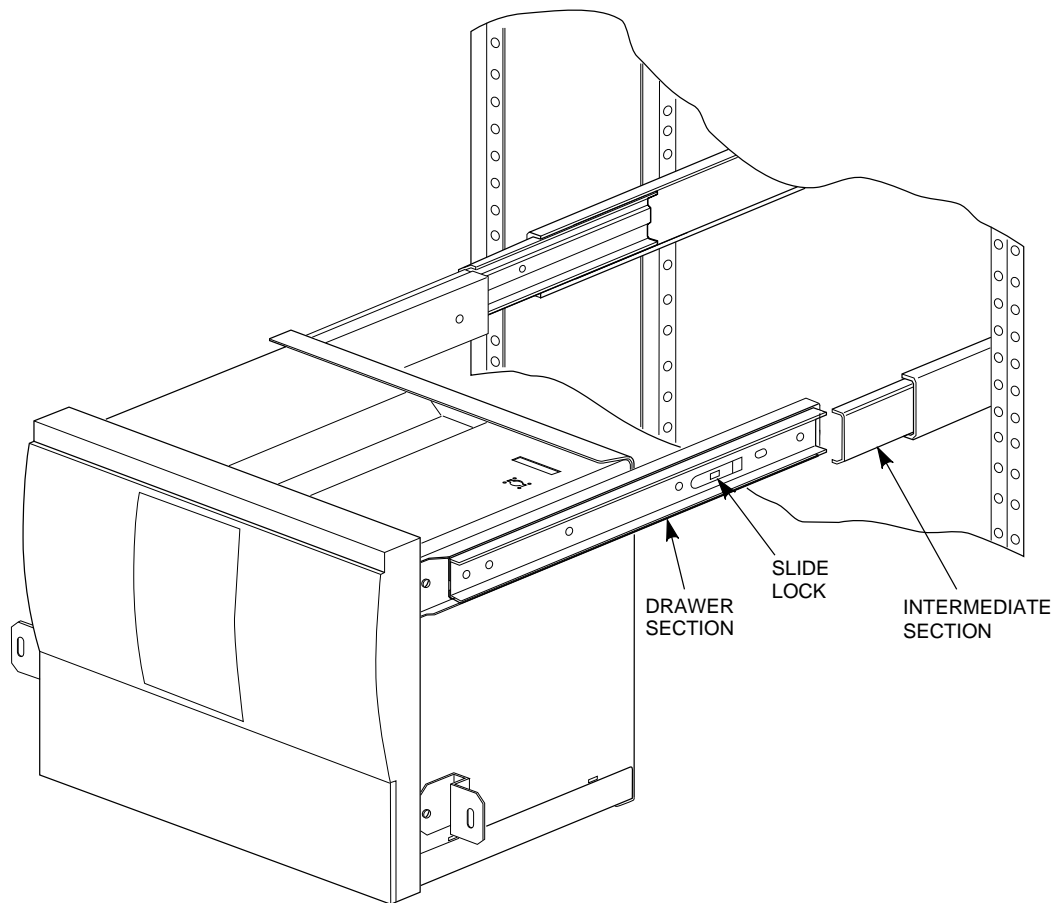
Figure 13 Removing Slide Drawer Sections

EXTEND SLIDE FULLY

PULL

PRESS

DRAWER
SECTION

CXO-4757A-MC

Figure 14 Mounting Slide Drawer Sections

MOUNTING
BRACKETS

DRAWER
SECTION

SCREW,
8-32 x .375 PAN HEAD
(3 PLACES EACH SIDE)

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Mounting SWXTL–BM Tape Mini-Library

Mount the Mini-Library on the slides in the cabinet as described below and shown in Figure 15:

1. Fully extend slides until they lock.

2. Insert slide drawer sections on Mini-Library into intermediate sections of slides and push in until slide locks are engaged.

3. Press in on slide locks to disengage them and push Mini-Library fully into cabinet.

Figure 15 Mounting Mini-Library

SLIDE
LOCK

DRAWER
SECTION
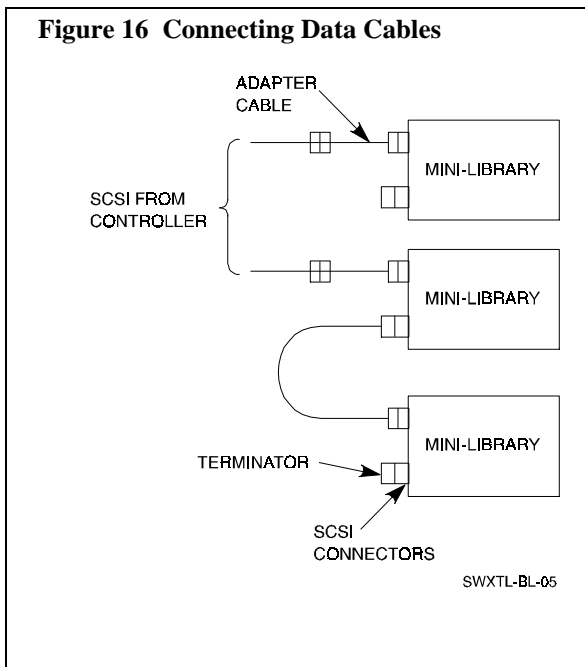
INTERMEDIATE
SECTION

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Connecting Data Cables

Use the following procedure to connect the data cables to the Mini-Library:

NOTE

Refer to the Cabinet Installation and User's Guide for SCSI–2 cable routing information and general signal cable routing rules.

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1. Use adapter cable to connect controller data cable to each Mini-Library that connects directly to a controller (Figure 16).

2. Chain Mini-Libraries by cabling connector on one Mini-Library to connector on another Mini-Library. Not more than two Mini-Libraries may be chained together.

3. Install terminator on empty connector of last Mini-Library in chain. If there is only one Mini-Library, install terminator on it.

Figure 16 Connecting Data Cables
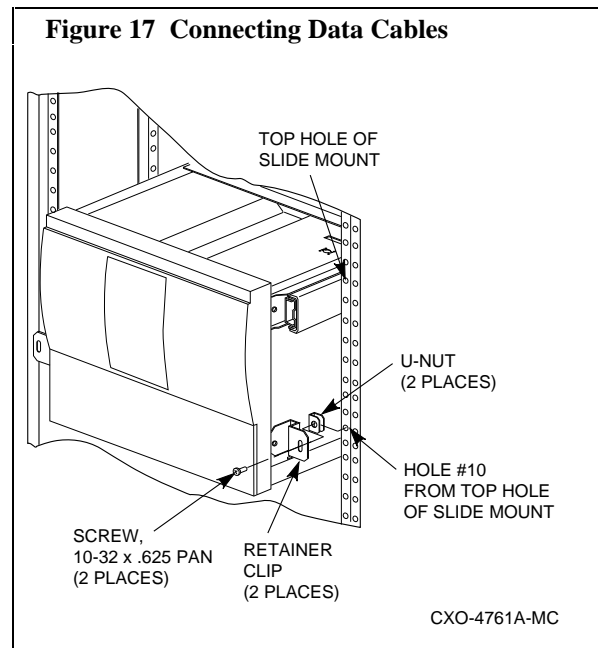
Connecting Power Cord

Use the following procedure to connect the power cord to the Mini-Library:

1. Determine which preinstalled power cord is not being used and unplug it from CDU, or use empty CDU power receptacle.

2. Plug power cord supplied with Mini-Library into CDU.

3. Route power cord to Mini-Library. Refer to Cabinet Installation and Mini-Library User's Guides for routing information.

4. Connect power cord to Mini-Library.

5. Set Mini-Library power switch to 1 (ON).

Securing SWXTL–BM Tape Mini-Library

Use the following procedure to secure the Mini-Library in the cabinet:

1. Loosen shipping screw under Mini-Library (right side from front). Refer to Mini-Library User's Guide.

2. Install U-nuts in appropriate holes of cabinet flanges (Figure 17).

3. Slide Mini-Library completely into cabinet.

4. Secure Mini-Library to cabinet by fastening retainer clips to cabinet rails with screws.

Figure 17 Connecting Data Cables

Reconnecting Host

Reconnect the host to the cabinet. Refer to the documentation for the host and the system.

Turning On Power

Use the following procedure to turn on power to the cabinet:

1. Verify that shipping screw under Mini-Library (right side from front) was loosened before you turn on power. (Refer to Mini-Library User's Guide listed in Table 1.)

2. Turn on ac power to cabinet components.

3. Turn on system power.

4. Switch circuit breaker on front panel of cabinet's CDU/CDUs to 1 (ON) position.

Securing Cabinet

1. Install side and top panels on cabinet. Refer to C-Series and D-Series Cabinet Installation and User's Guides listed in Table 1.

2. Close and lock cabinet door.

Setting SCSI Address:

A SCSI address must be assigned to each Mini-Library installed in a cabinet and connected to the SCSI bus. Refer to the Mini-Library User's Guide listed in Table 1 for the procedure to set a Mini-Library SCSI address.