Fiber Distribution Frame Interbay Fiber Management Panel and End Guard Panel Installation Instructions

Content	Page

INTRODUCTION 1
Revision History 2
Related Publications 2
Admonishments 2
1 GENERAL INFORMATION 3
1.1 Main Kit Components 3
1.2 Panel Section Combinations 4
1.3 Kit Hardware 5
2 INSTALLATION 5
2.1 Filler Guard Box 5
2.2 Panel Sections 7
2.3 End Guard Panel 9
2.4 Filler Trough 10
3 PATCH CORD ROUTING GUIDELINES 11
4 CUSTOMER INFORMATION AND ASSISTANCE 13

INTRODUCTION

This manual contains installation instructions for the ADC Fiber Distribution Frame Interbay Fiber Management Panel (IMP) Kit and End Guard Panel Kit.

The IMP Kit to be installed may be for any of the following heights (for use with frames of the same height): 5 feet 8 inches (172.72 cm), 6 feet (182.88 cm), 6 feet 4 inches (193.04 cm), 7 feet (213.36 cm), 8 feet (243.84 cm), 2.6 meters (8 feet 6.36 inches), 9 feet (274.32 cm), 11 feet 6 inches (350.52 cm), or 11 feet 8 inches (355.6 cm). The IMP should be installed after the adjacent frame has been mounted in its assigned location.

The End Guard Panel Kit to be installed may be for any of the following heights: 7 feet (213.36 cm), 9 feet (274.32 cm), or 11 feet 6 inches (350.52 cm). The end guard may be either 5 inches or 12 inches in depth.

Revision History

ISSUE	DATE	REASON FOR CHANGE
Issue 1	07/1989	
Issue 2	01/1990	
Issue 3	09/1990	
Issue 4	05/1995	
Issue 5	11/1996	
Issue 6	09/1997	
Issue 7	05/1998	
Issue 8	05/1999	Updated to include end guard panel.
Issue 9	01/2001	Non-technical update.

Related Publications

Listed below are related manuals and their publication numbers. Copies of these publications can be ordered by contacting the ADC Technical Assistance Center at 1-800-366-3891 (in U.S.A. or Canada) or 952-946-3000, extension 63475 (outside U.S.A. and Canada).

Title/Description	ADCP Number
Fiber Distribution Frame User Manual Documents the two most commonly used styles of ADC Fiber Distribution Frames (FDF) – the standard frame and the Intrafacility Fiber Cable (IFC) frame.	**90-113**
Unequal Flange Rack User Manual Documents the two common types of equipment racks, network and non-network, and tells how to install them.	**80-345**

Admonishments

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment. An admonishment identifies a possible hazard and then explains what may happen if the hazard is not avoided. The admonishments — in the form of Dangers, Warnings, and Cautions — must be followed at all times. These warnings are flagged by use of the triangular alert icon (seen below), and are listed in descending order of severity of injury or damage and likelihood of occurrence.

⚠ **Danger**: *Danger is used to indicate the presence of a hazard that **will** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*

⚠ **Warning**: *Warning is used to indicate the presence of a hazard that **can** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*

⚠ **Caution**: *Caution is used to indicate the presence of a hazard that **will** or **can** cause minor personal injury or property damage if the hazard is not avoided.*

1 GENERAL INFORMATION

The Interbay Fiber Management Panel is designed to mount between fiber distribution frames or alongside the last frame in a multi-frame installation. Frames must be spaced 5 inches (12.7 cm) apart for kit installation. When a panel is placed at the end of a lineup, it is usually placed between the last frame and an end guard panel.

1.1 Main Kit Components

Table 1 below lists the main kit components. Figure 1 shows the main kit components in a completed assembly.

Table 1. Main IMP Kit Components

COMPONENT	QUANTITY PER KIT (IDENTIFIED BY FRAME HEIGHT)								
	5-8	6	6-4	7	8	2.6 M	9	11-6	11-8
Top Panel Section	1	1	1	1	1	1	1	1	1
Mid Panel Section	–	–	–	–	1	1	1	2	2
Bottom Panel Section	1	1	1	1	1	1	1	1	1
Filler Guard Box Assembly	1	1	1	1	1	1	1	1	1
Filler Trough (Optional)	1	1	1	1	1	1	1	1	1

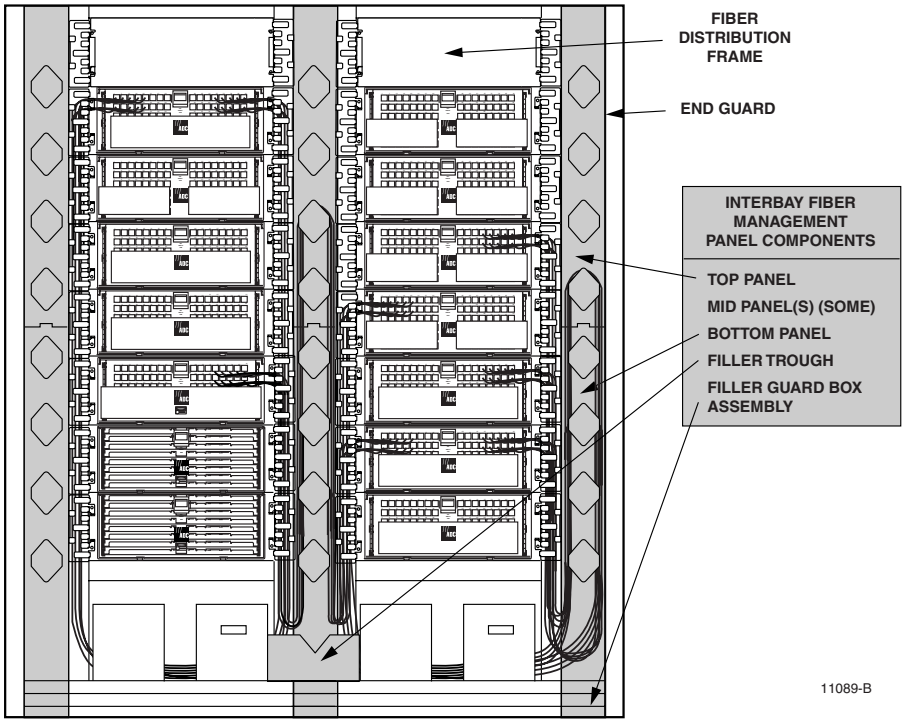

Figure 1. Main Kit Components in a Typical Installation

1.2 Panel Section Combinations

Figure 2 shows the various combinations of panel sections for the eight different frame heights. Note that either a 4-inch or 6-inch guard box may be used. The bottom panel section contained in the kit will be the correct length for the guard box chosen.

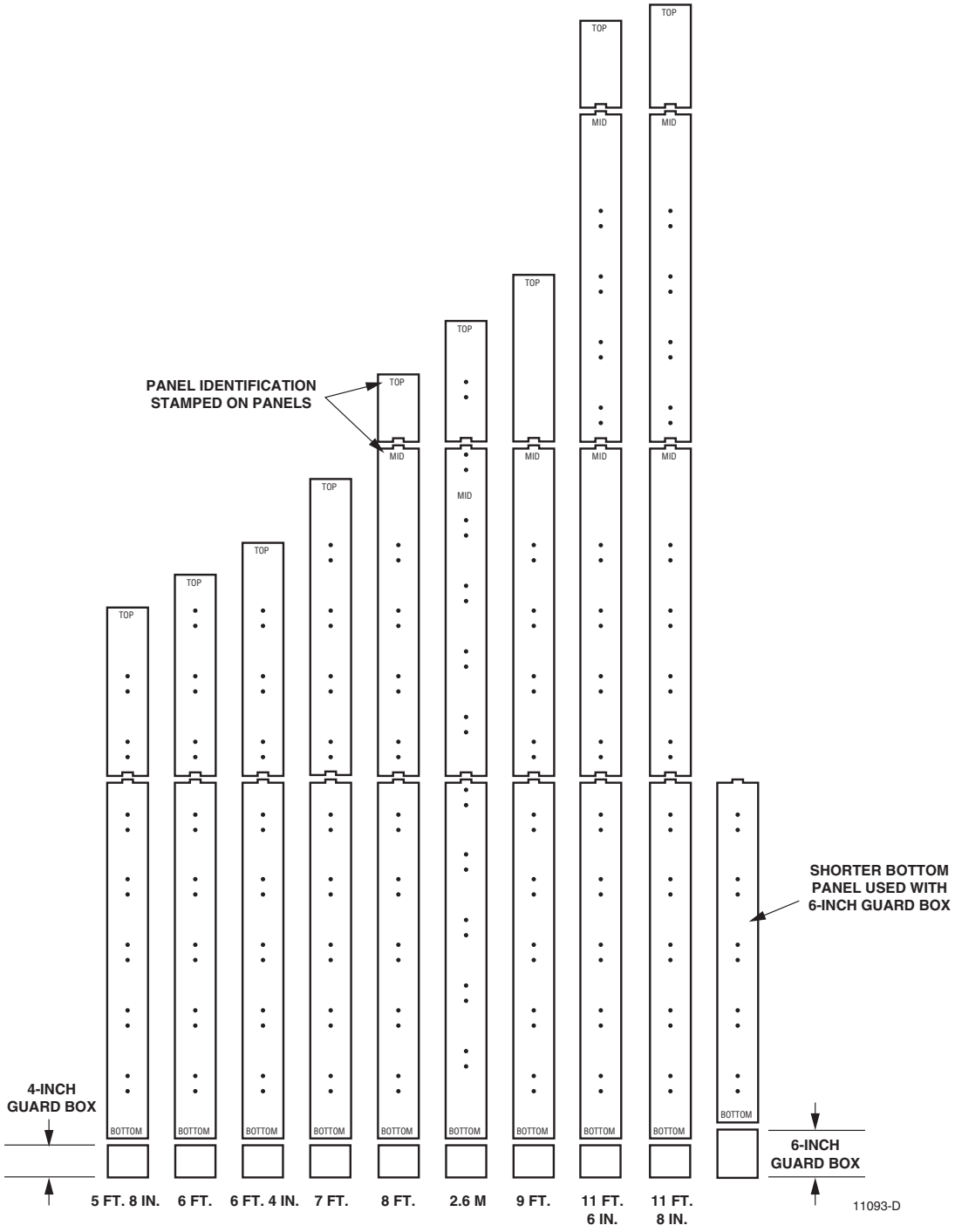

Figure 2. Panel Section Combinations for Different Frame Heights

1.3 Kit Hardware

Table 2 lists the hardware included in the kit.

Table 2. Kit Hardware

COMPONENT	QUANTITY PER KIT (IDENTIFIED BY FRAME HEIGHT)								
	5-8	6	6-4	7	8	2.6 M	9	11-6	11-8
3/8-16 × 1-Inch Bolt	1	1	1	1	1	1	1	1	1
3/8-Inch Lock Washer	1	1	1	1	1	1	1	1	1
3/8 -16 Hex Nut	1	1	1	1	1	1	1	1	1
#6-32 × 5/16-Inch Bolt	1	1	1	1	1	1	1	1	1
3/8-16 × 3/4-Inch Bolt	–	–	–	–	–	–	4	4	4
#12-24 × 1/4-Inch Screw	24	24	24	24	32	32	32	40	40

2 INSTALLATION

There are three main steps in installing the kit: installing the filler guard box at the base of the adjacent frame; installing the panel sections above the filler guard box; and installing the filler trough (if any). The three procedures below (labeled A, B, and C) provide details and illustrations for these three main steps.

2.1 Filler Guard Box

The filler guard box mounts at the base of an adjacent frame on either side. Either a 4-inch or 6-inch guard box may be the used. The guard box is connected to the adjacent frame with a single 3/8-16 × 1-inch bolt. The guard box cover on the adjacent frame must be removed to secure the bolt with a lock washer and hex nut. The filler guard box cover must also be removed before the filler guard box can be installed. Install the filler guard box using the following procedure.

1. Install the adjacent fiber distribution frame in its assigned mounting location. (For instructions, refer to ADCP-80-345, Unequal Flange Rack Installation Guide.)

Note: When installing fiber distribution frames in a multi-frame lineup, allow 5 inches (12.7 cm) of space between frames for installation of the interbay fiber management panel.

2. Unpack the filler guard box assembly and remove the cover by removing the two or four machine screws that secure the cover to the box. Remove the package of hardware from inside the guard box.

3. Remove the guard box cover from the base of the adjacent frame, as shown in Figure 3. Set aside the cover screws for re-use when reinstalling the cover.

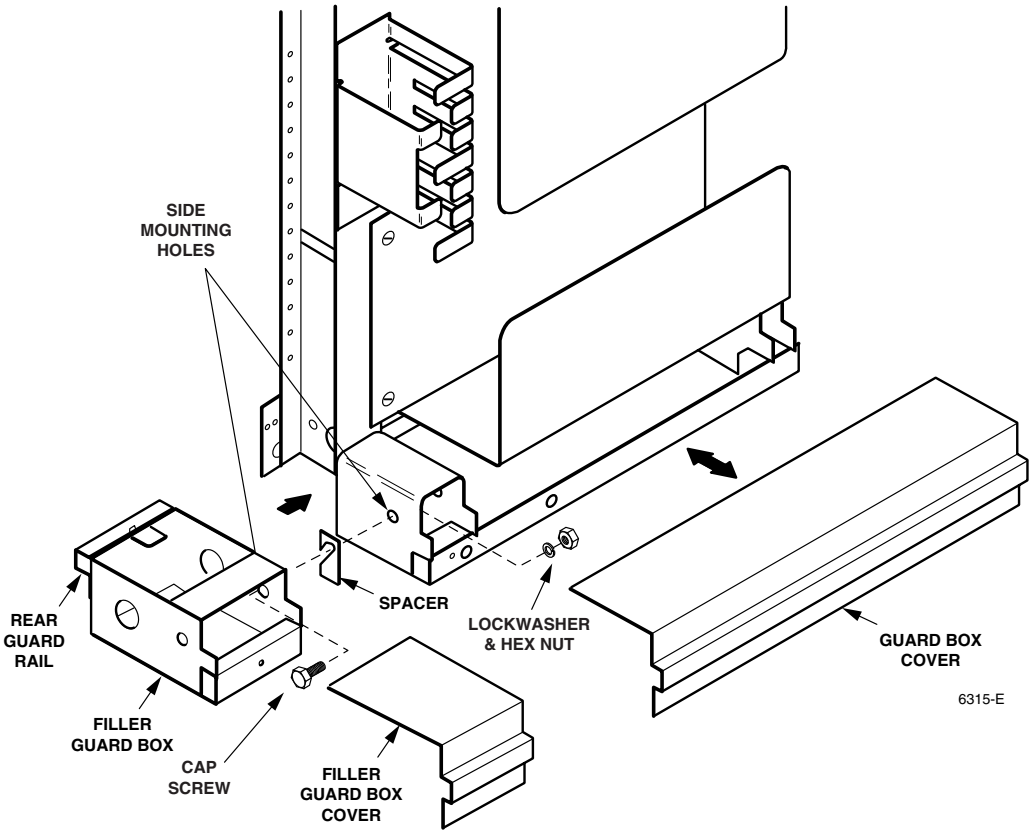

Figure 3. Filler Guard Box Installation (4-Inch Guard Box Shown)

4. Loosely secure the filler guard box and spacer to the base of the adjacent frame using the 3/8-16 × 1-inch cap screw, 3/8-inch lock washer, and 3/8-16 hex nut provided.

Note: Figure 1 shows the 4-inch guard box. The 6-inch guard box looks different but mounts in the same way using the same mounting location and hardware.

5. Insert the 1/8-inch spacer provided between the frame base filler and the frame base. When the spacer is in place, tighten the 3/8-16 cap screw and nut.
6. Replace the guard box cover that was removed in step 2; secure it to bottom of frame using the original mounting screws.
7. Secure the filler guard box cover to the top and front of the frame base filler.

2.2 Panel Sections

Within the kit are two or more panel sections that are clearly stamped “bottom,” “mid,” or “top.” Use the following procedure to install the panel sections.

1. Set the bottom panel section on the filler guard box with the spools facing toward the front of the frame, as shown in Figure 4.

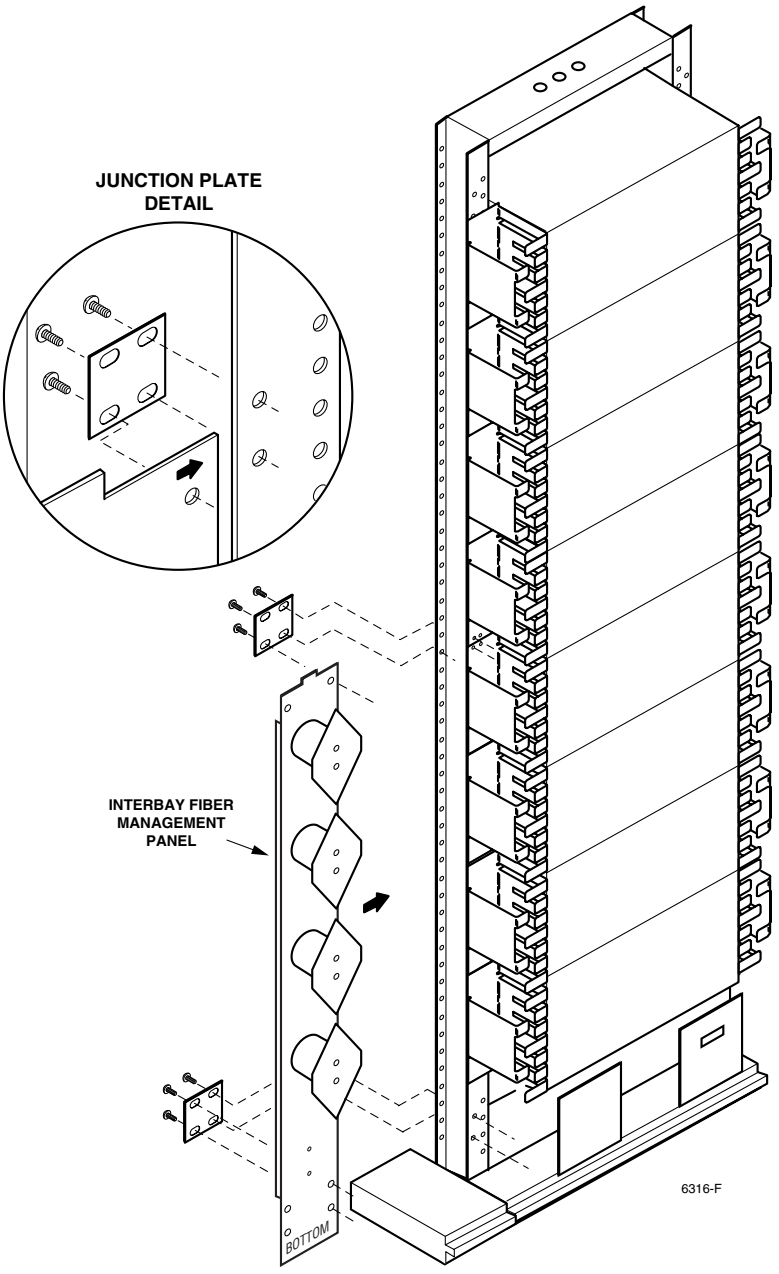

Figure 4. Bottom Panel Installation

2. Align the mounting holes in the panel section with the corresponding mounting holes in the front flange of the adjacent frame. Figure 5 shows a top view of panel position.

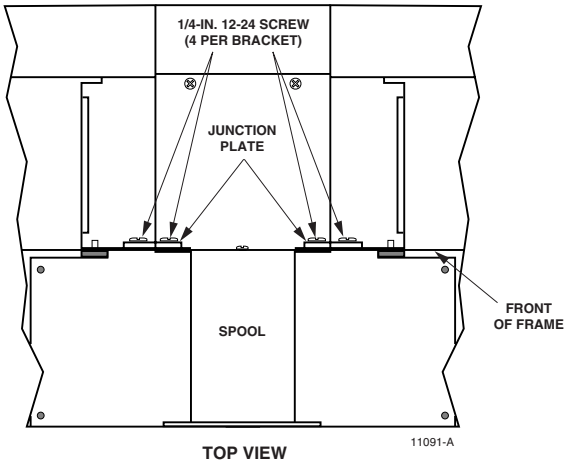

Figure 5. Top View of Panel Position

3. Secure the bottom panel section to the front flange of the adjacent frame using two junction plates and six #12-24 × 1/4-inch machine screws. Use four screws in the lower junction plate and just two screws in the upper junction plate, as shown in Figure 4.

Note: If required by office cabling practices, the bottom spool may be removed by removing two screws from the rear of the bottom panel section.

4. Select the next higher panel section ("mid" or "top") and mount two junction plates on the side (left or right) that is going to be connected to the adjacent frame. Remember to mount the junction plates from the rear. Use only two machine screws in the upper junction plate if there is going to be another section above this one.

5. Position the panel section above the section that has already been installed, as shown in Figure 6. Secure it to the front flange of the rack using machine screws.

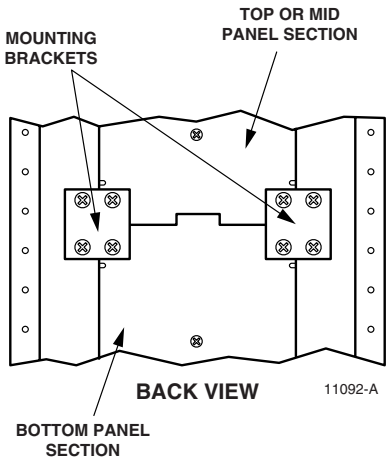

Figure 6. Mid or Top Panel Installation

6. If there will be an additional panel section (“top”), repeat steps 4 and 5, above. Continue until all panel sections have been mounted to the adjacent rack.
7. If installing another frame on the other side of the panel just installed, proceed to install that frame now. For instructions, refer to ADCP-80-345, Unequal Flange Rack Installation Guide. Connect to the frame to the panel using junction plates and machine screws, as in the above steps.
8. If installing an end guard on the other side of the panel just installed, proceed to install the end guard now. For instructions, refer to ADCP-80-345, Unequal Flange Rack Installation Guide. Note that different hardware (angle irons instead of junction plates) is used to connect the interbay fiber management panel to an guard.

2.3 End Guard Panel

An end guard panel can be used with any ADC unequal flange rack of either type, network or non-network. It can be attached directly to a rack or to a filler panel or interbay fiber management panel. Three heights are available corresponding to the three heights of racks. Use the following procedure to install an end guard panel (Figure 7).

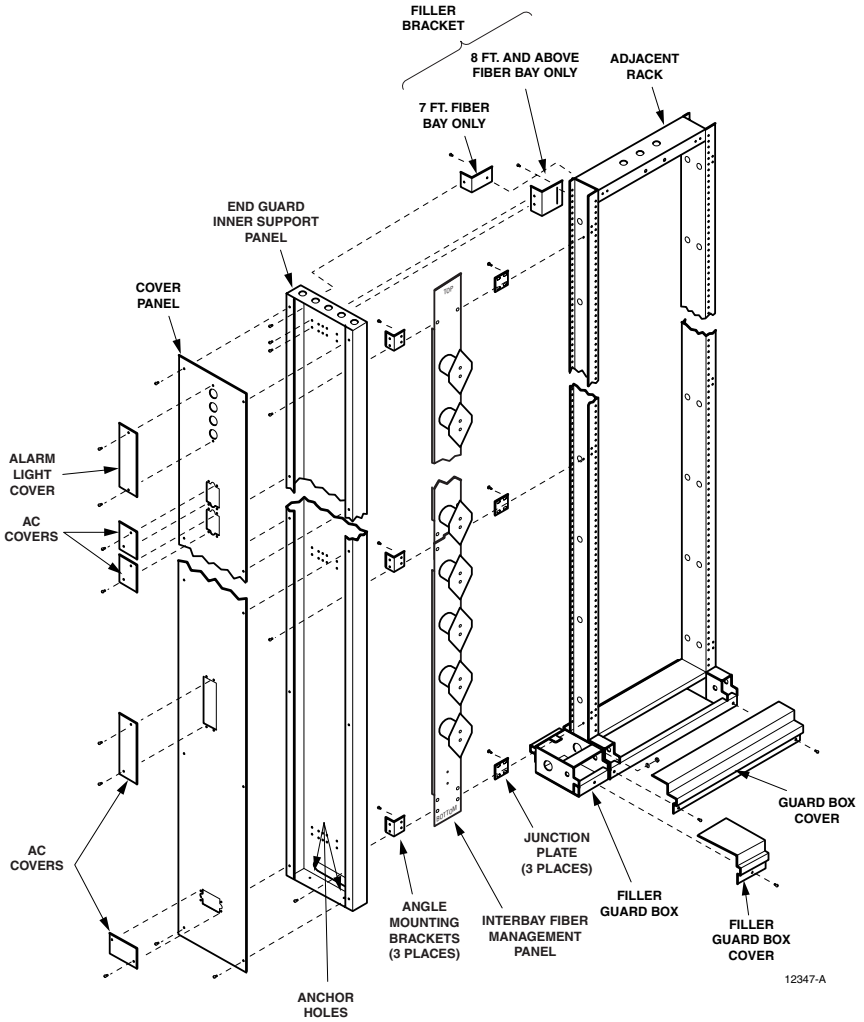

Figure 7. Installing an End Guard Panel Directly to Network Rack

1. If the rack or filler panel to which the end guard panel will be joined does not have angle mounting brackets already installed in the positions shown in Figure 7, fasten the angle mounting brackets to the rear side of the rack or filler panel using the four 12-24 × 0.25 inch Phillips-head mounting screws provided in the kit.
2. Place the end guard inner support panel in its approximate position, and temporarily support it by loosely securing it to the angle mounting brackets using the 12-24 × 0.25 inch Phillips-head screws provided in the kit.
3. For additional temporary support, temporarily install the filler bracket shown in Figure 7. Loosely attach the filler bracket using two 12-24 × 0.50 inch Phillips-head screws.
4. Align the end guard inner support panel and mark the anchors holes on the floor.
5. Unfasten the end guard inner support panel from the brackets and set it aside.
6. Drill anchor holes and install the floor anchors.
7. Set the end guard inner support panel in position again, and loosely attach it to the floor anchors.
8. Re-attach the inner support panel to the angle mounting brackets and filler brackets using the same screws as used above. Note that the longer screws are used for the filler bracket.
8. Tighten the floor anchors, then tighten the screws in the brackets.
9. Mount the cover panel to the end guard inner support panel using 12-24 × 0.5 inch self-tapping screws.
10. Mount the blank alarm light cover using 8-32 × 0.31 inch Phillips-head screws.
11. Mount the four blank AC covers to the cover panels using 8-32 × 0.31 inch screws.

2.4 Filler Trough

If a filler trough is included in the kit, install it as described in the following procedure.

Note: (1.) If required by office cabling practices, the bottom spool may be removed by removing two screws from the rear of the bottom panel section. (2.) Filler trough may not be used with an end guard panel kit.

1. With the filler trough in a vertical position, slide it down between the frame trough and bottom spool, then rotate it into a horizontal position and drop it into place (as indicated by arrow in Figure 8).
2. Secure the filler trough using one Phillips screw installed in the lower center of the bottom panel section (located below the word “BOTTOM” in Figure 8).

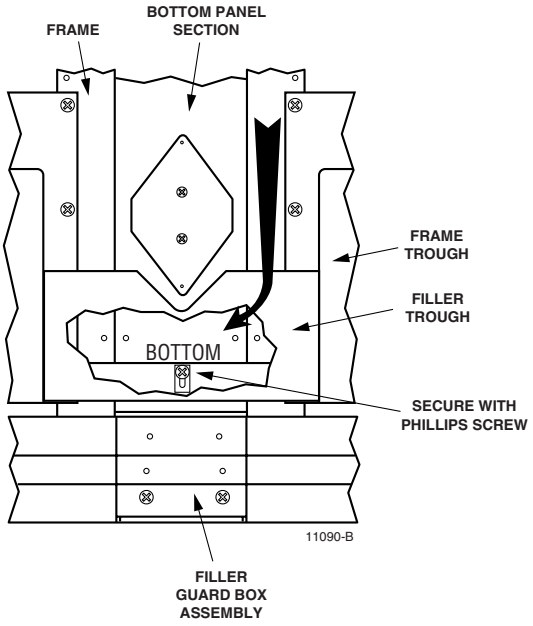

Figure 8. Filler Trough Installation

3 PATCH CORD ROUTING GUIDELINES

When routing a patch cord, connect it on one end and allow it to droop down into the trough at the base of the frame. Connect the other end and loop it up over the appropriate spool to take up any slack. DO NOT wrap a patch cord multiple times around the same spool or weave it several spools. Figure 9 shows examples of correct and incorrect patch cord routing.

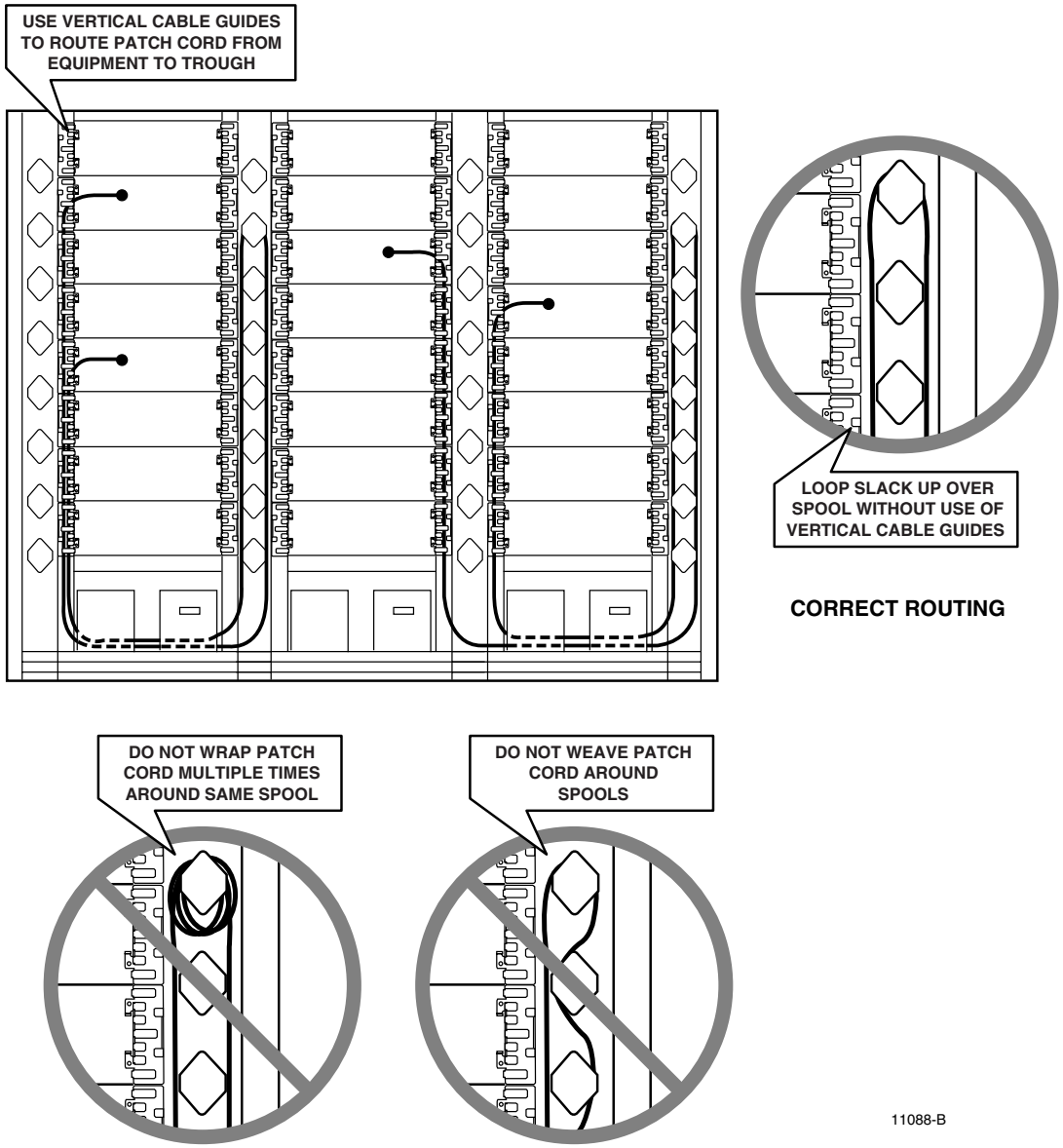

Figure 9. Examples of Correct and Incorrect Patch Cord Routing

4 CUSTOMER INFORMATION AND ASSISTANCE

For customers wanting information on ADC products or help in using them, ADC offers the services listed below. To obtain any of these services by telephone, first dial the central ADC telephone number, then dial the extension provided below.

The central number for calls originating in the U.S.A. or Canada is **1-800-366-3891**. For calls originating outside the U.S.A. or Canada, dial country code "1" then dial **952-946-3000**.

Sales Assistance **Extension 63000**	• Quotation Proposals • Ordering and Delivery • General Product Information
Systems Integration **Extension 63000**	• Complete Solutions (from Concept to Installation) • Network Design and Integration Testing • System Turn-Up and Testing • Network Monitoring (Upstream or Downstream) • Power Monitoring and Remote Surveillance • Service/Maintenance Agreements • Systems Operation
BCG Technical Assistance Center **Extension 63475** **E-Mail: bcg_tac@adc.com**	• Technical Information • System/Network Configuration • Product Specification and Application • Training (Product-Specific) • Installation and Operation Assistance • Troubleshooting and Repair
Product Return Department **Extension 63748** **E-Mail: repair&return@adc.com**	• ADC Return Authorization number and instructions must be obtained before returning products.

Product information may also be obtained using the ADC web site at **www.adc.com** or by writing ADC Telecommunications, Inc., P.O. Box 1101, Minneapolis, MN 55440-1101, U.S.A.