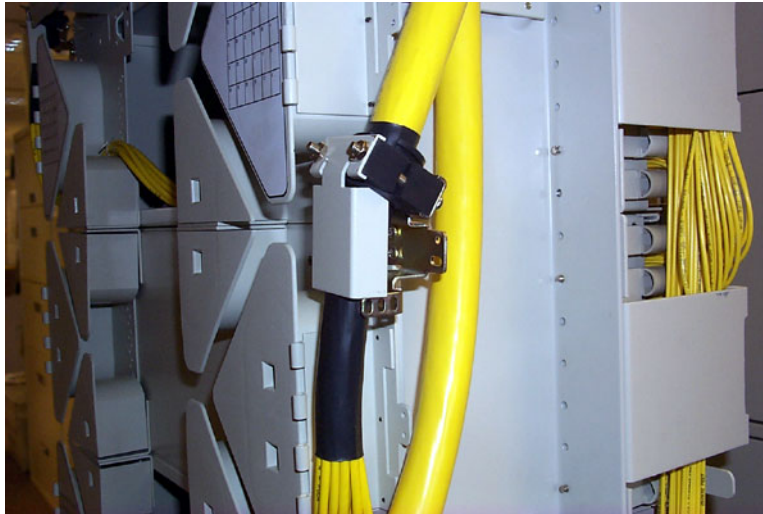


FIBER DISTRIBUTION FRAME CABLE CLAMP KIT



E-501-L40 Cable Clamp

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INTRODUCTION

These instructions provide installation procedures for the Fiber Distribution Frame Cable Clamp Kit (E-501-L40). Follow these instructions when installing buffer tube cable, LIGHTPACK® cable, or intra facility cable (IFC) assemblies on Fiber Distribution Frame products.

RELATED PUBLICATIONS

For copies of these publications, contact the CommScope Technical Assistance Center at <http://www.commscope.com/SupportCenter>

Title/Description	ADCP Number
Fiber Distribution Frame User Manual	90-113
Fiber Splice Frame Application Guide and Installation Manual	90-321

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LIGHTPACK® is a registered trademark of NS-MPG, Inc.

ScotchLok® is a registered trademark of 3M.

1 KIT CONTENTS

The E-501-L40 cable clamp kit provides the necessary hardware for securing the cable end to the frame and for connecting metallic strength members or metallic cable sheaths to the frame ground conductor. Each kit contains the components listed in [Table 1](#).

Table 1. E-501-L40 Component List

QUANTITY	DESCRIPTION
1	Clamp bracket
1	Clamp cover
2	Cable yoke
1	Inner grommet, .40 diameter
1	Inner grommet, .50 diameter
1	Inner grommet, .60 diameter
1	Inner grommet, .70 diameter
1	Outer grommet, .80 diameter
1	Outer grommet, .90 diameter
1	Outer grommet, 1.00 diameter
1	Outer grommet, 1.10 diameter
8	Cable ties
2	6-32 × .25 inch screw
2	10-32 × 2.0 inch screw
2	10-32 nut
1	Shield connector
1	Split bolt
1	Ground wire assembly
1	Instruction sheet
3	Large cable ties
1	Plastic edge protector
1	Installation drawing

2 INSTALLATION

This section describes how to secure outside plant or IFC assemblies to the Fiber Distribution Frame using the cable clamp kit. The E-501-L40 clamp kit will accommodate cable that has an external diameter of 0.40 inch to 1.20 inches (10.2 - 30.5 mm). Cable may be routed to each clamping location from either the top or the bottom of the frame and may be clamped to either the left or right side of the frame. Use the following procedure to route and clamp each cable.

1. Route the cable to the selected cable clamping position at the rear of the frame.
 2. Determine the length of the service loop required for routing the fibers from the clamp point on the frame to the actual cable termination point. If installing OSP cables, refer to the Fiber Distribution Frame User Manual (ADCP-90-113) or Fiber Splice Frame Application Guide and User Manual (ADCP-90-191) for the routing procedure and the stripping recommendations. If installing IFC assemblies, refer to the Intra facility Fiber Cable Kit Instruction Sheet (ADCP-90-165) for the routing procedure and the fiber breakout lengths
- ▶ **Note:** Outside plant cables are generally routed to a splice module for splicing to pigtails. Connectorized IFC assemblies are generally routed to a connector module.
3. Strip back the cable sheath and prepare the cable fibers as required for installation.
- ▶ **Note:** If LIGHTPACK cable is installed, a buffer tube kit (accessory item) is required to protect the exposed fibers. Install kit according to instructions provided with the kit.
- ▶ **Note:** If the cable is filled with water blocking compound, the cable end must be sealed to prevent leakage. A blocking kit (accessory item) is required for sealing the cable end. Install kit according to instructions provided with the kit.
- ▶ **Note:** If the cable has a metallic sheath, a special connector is provided for grounding the sheath. Refer to Appendix A for the installation procedures for ScotchLok® 4460 Shield Connectors manufactured by 3M.

- Secure the clamp bracket to the Fiber Distribution Frame cable plate as shown in [Figure 1](#). The bottom of the bracket (end with slots) should be angled toward the fanning triangles.

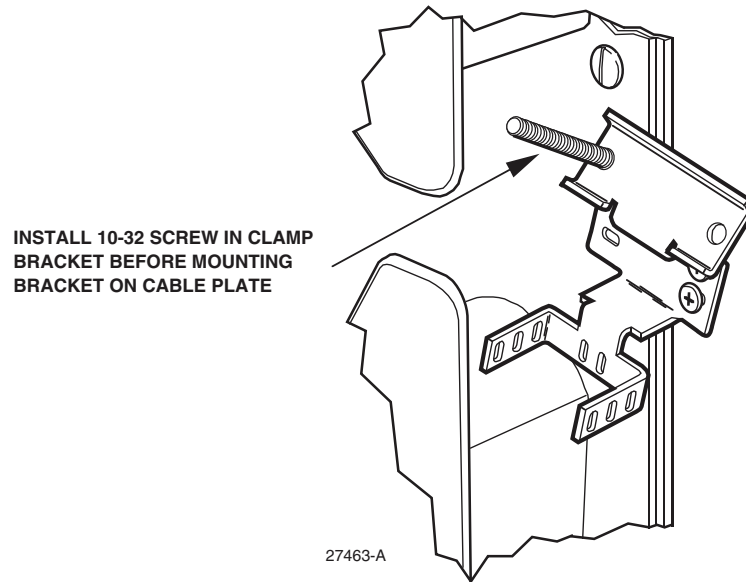
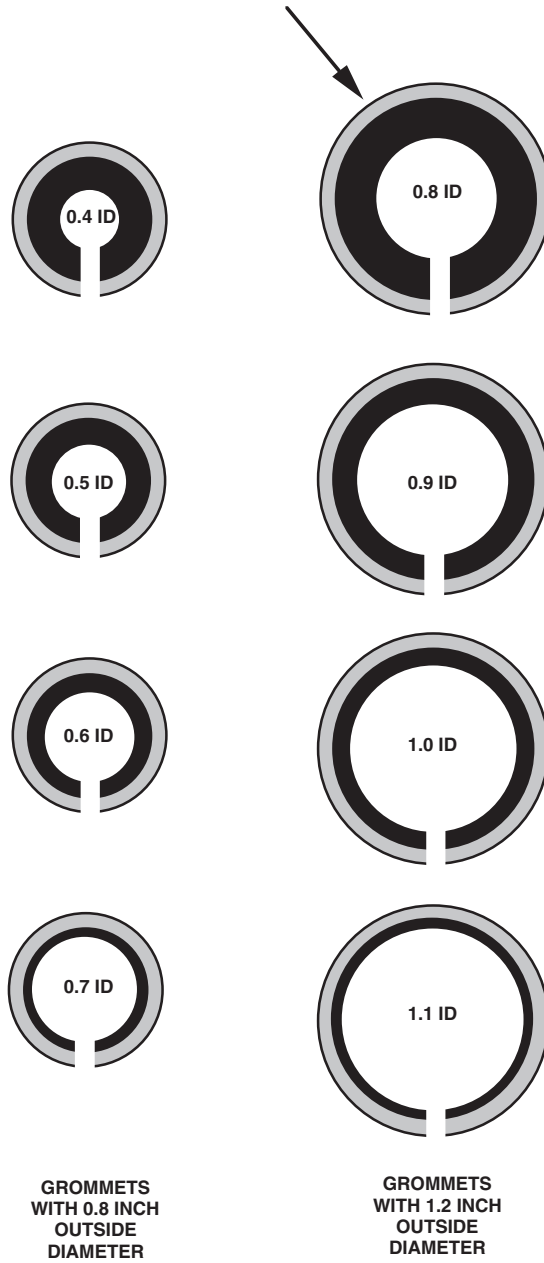


Figure 1. Installing Clamp Bracket

- Two rubber yokes and eight grommets of various sizes are provided for securing the cable. Determine the correct grommet(s) to use by separating the grommets into two groups as shown in [Figure 2](#). Place the four small grommets in the first group. Place the four large grommets in the second group.
- Determine the outside diameter of the cable. If the cable diameter is 0.4 inch or greater, but less than 0.8 inch, proceed to step 7. If the cable diameter is 0.8 inch or larger, proceed to step 8.
- If the cable diameter is 0.4 inch or greater, but less than 0.8-inch, place all four of the 0.8 inch OD grommets around the cable. Look at each grommet, then select the one with a gap that is approximately zero to 0.030-inch (7.6 mm) wide. Also, select the 1.2 inch OD grommet with the thickest side walls.
- If the cable diameter is greater than 0.8 inch but less than 1.1 inches, place all four of the 1.2-inch OD grommets around the cable. Look at each grommet, then select the one with a gap that is approximately zero to 0.030-inch (7.6 mm) wide.

► **Note:** If the cable diameter is larger than 1.1 inch, no grommet is required.

WHENEVER A SMALL GROMMET (FROM THE LEFT COLUMN OF GROMMETS) IS USED, THIS GROMMET MUST BE PLACED AROUND IT BEFORE CLAMPING THE CABLE.



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Figure 2. Rubber Grommets

9. Place the rubber yokes and grommets (as required) around the cable and secure cable to clamp bracket as shown in [Figure 3](#).

► **Note:** If the cable diameter is larger than 1.1 inch, no grommet is required.

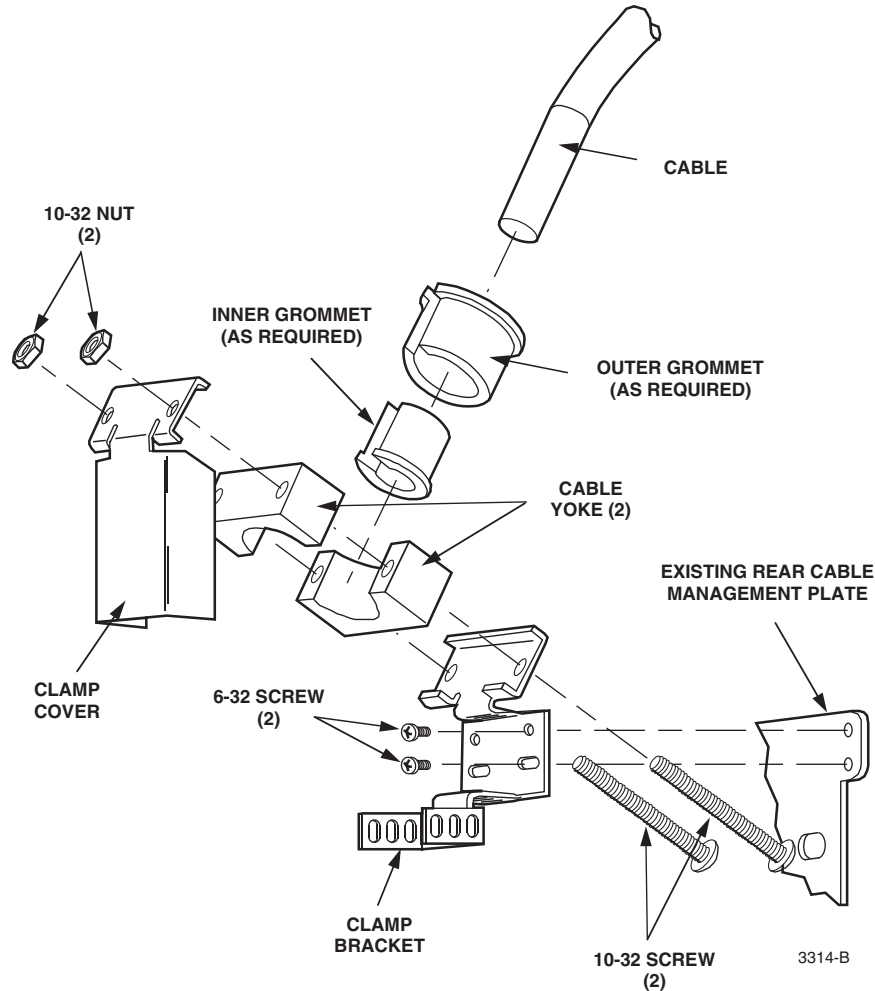


Figure 3. Installed Cable

10. Use the small cable ties to secure the cable fibers to the end of the clamp bracket.
11. Use the large cable ties to secure the cable to the side of the frame. Use the tie bars that are mounted on the sides of the rack as attachment points.

12. If cable must be grounded, use the split-bolt connector to secure the metallic strength member or ground wire assembly to the frame ground conductor as shown in [Figure 4](#).

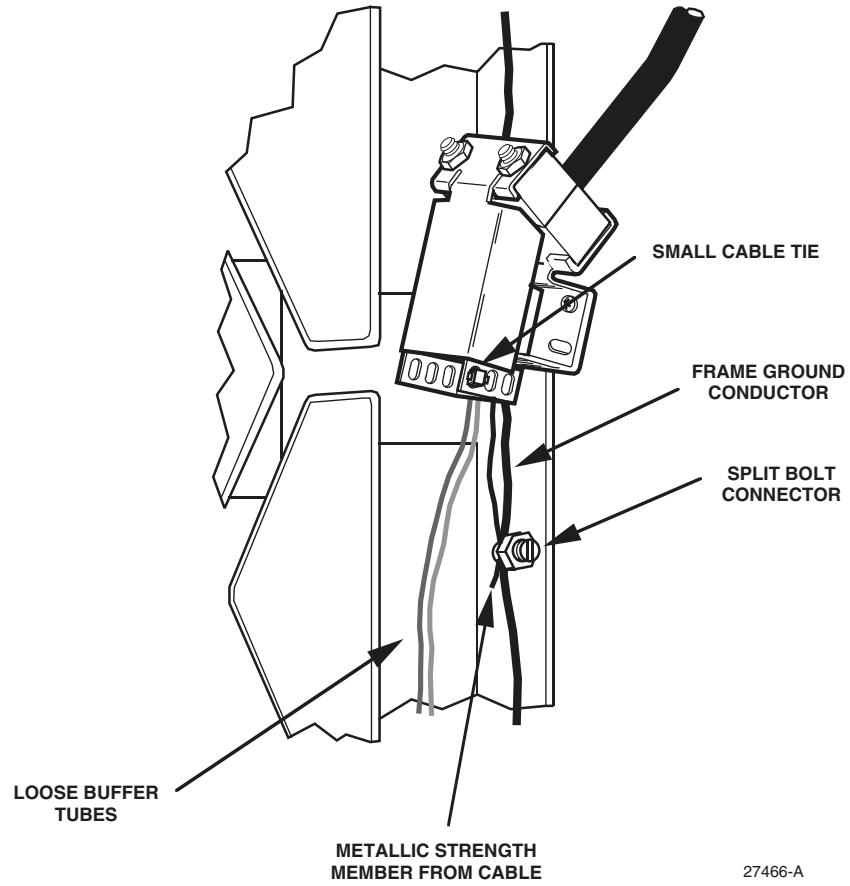


Figure 4. Installed Cable

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3 CUSTOMER INFORMATION AND ASSISTANCE

For product support, use the following URL:

<http://www.commscope.com/SupportCenter>

For information on patents, refer to:

<http://www.cs-pat.com>

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APPENDIX: SHIELD CONNECTOR INSTALLATION

This Appendix provides the procedures for installing Scotchlok 4460 Shield Connectors which are manufactured by the 3M Company and utilized in the Fiber Management Panel. The shield connector kit provides a means for grounding cables that have a metallic shield. Use the following procedure to install each kit:

1. The shield connector kit is comprised of the components shown in Figure A-1.

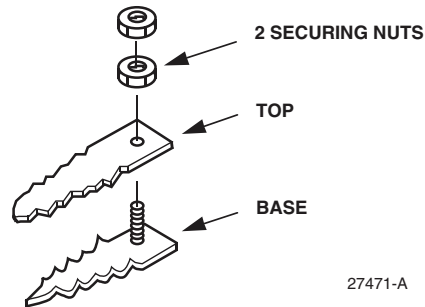


Figure A-1. Kit Components

2. Prepare the cable by cutting the shield flush with the outer cable sheath as shown in Figure A-2. If the cable has a double sheath, cut only the outer sheath and shield leaving the inner sheath intact as shown.

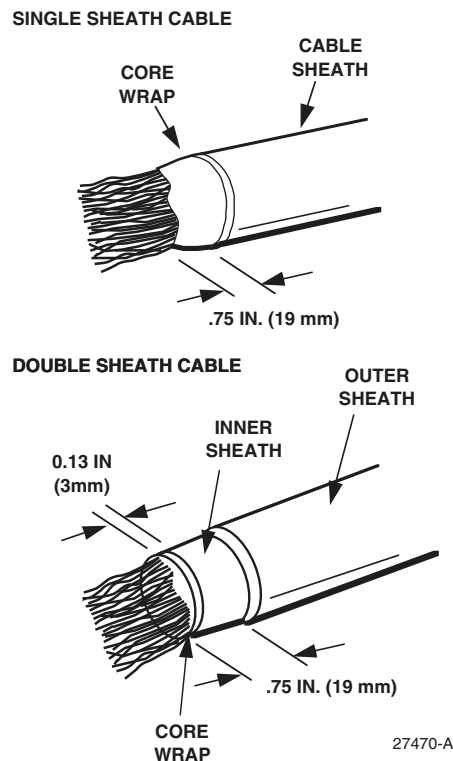


Figure A-2. Cable Preparation

3. Make a one-inch cut in the cable sheath opposite the point at which the connector will be attached as shown in Figure A-3.

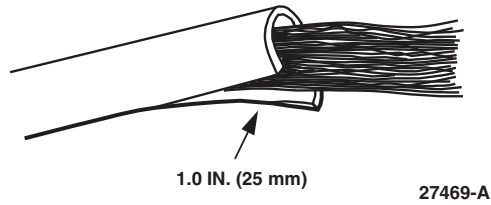


Figure A-3. Cutting Cable Sheath

4. If installing single shield cable, insert connector base between shield and core wrap. If installing double shield cable, insert connector base between shield and inner sheath.
5. Slide connector into cable until stops contact outer sheath. Tap on shield above connector to set teeth.

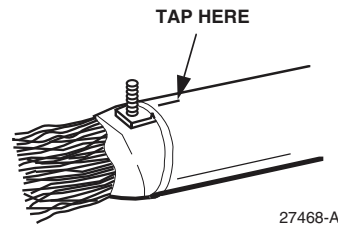


Figure A-4. Setting Connector Teeth

6. Install bonding wire on stud and place connector top over bonding wire. Do not tap on connector top.
7. Install both nuts on connector as shown in Figure A-5 and tighten.

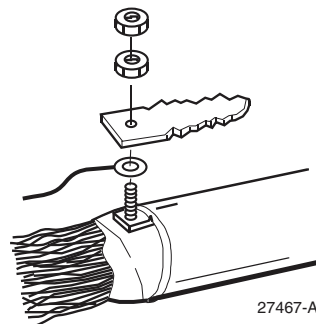


Figure A-5. Bonding Wire Installation