

Preface

This instruction sheet covers the installation of the Fiber Optic 100A3 Interconnection Unit, which includes LaserWave Applications.

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General Notes

- For a cross-connection module arrangement, follow Steps 1 through 6.
- For an interconnection module arrangement, follow Steps 1, 5, 7, and 8.
- A Designation Label (Comcode 847 060 845) and a Notice Label are provided with the 100A3 Lightguide Interconnection Unit (LIU).

Step 1 – Label Installation

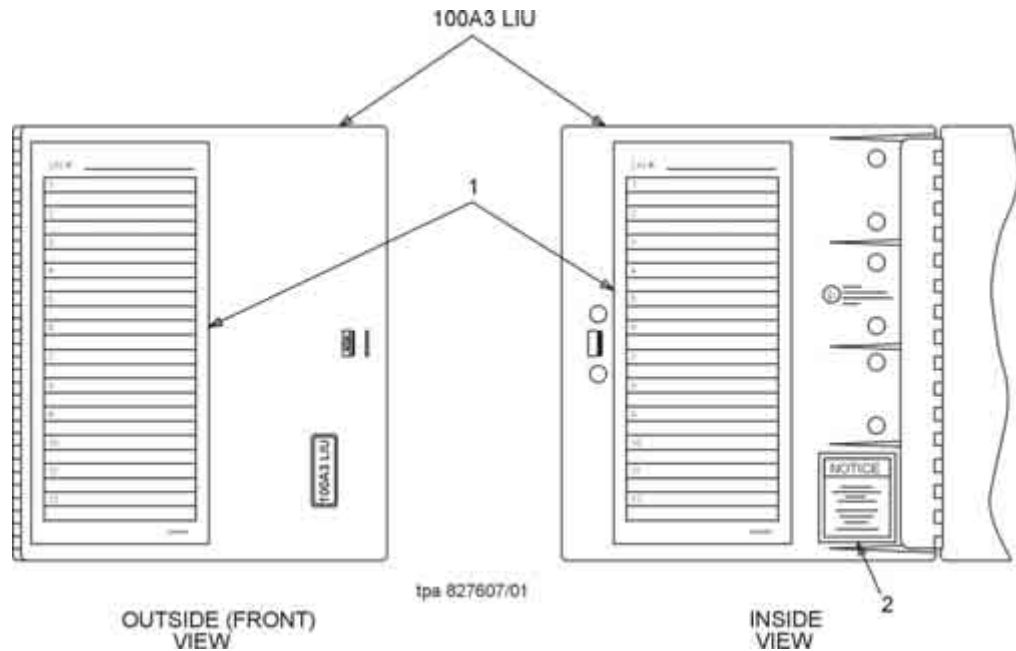


Figure 1. Label Installation

1. The Designation Label decal may be installed on the outside or inside of the cover, as shown in the above figure.
2. If a laser based transmission system is in use, open the 100A3 LIU and install the Notice Label decal as shown.

Step 2 – Installation of Cable Entry Details and Fiber Rings

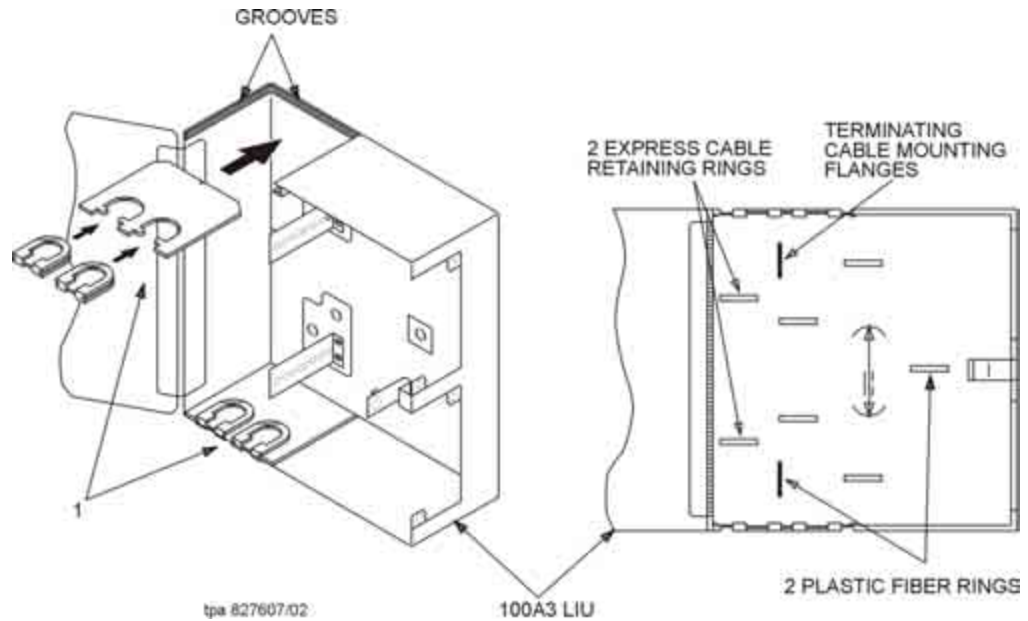


Figure 2. Installation of Cable Entry Details and Fiber Rings

1. Open the cover of the 100A3 LIU and install the Cable Entry Details (consisting of the plastic panels and grommets) by sliding the panels into the grooves at the top and bottom of the LIU.
2. Snap the plastic fiber rings into the positions shown, making sure the ring openings are to the outside.

Step 3 – Install 100A3 LIU, 1A4 Trough, and 1A6 Trough

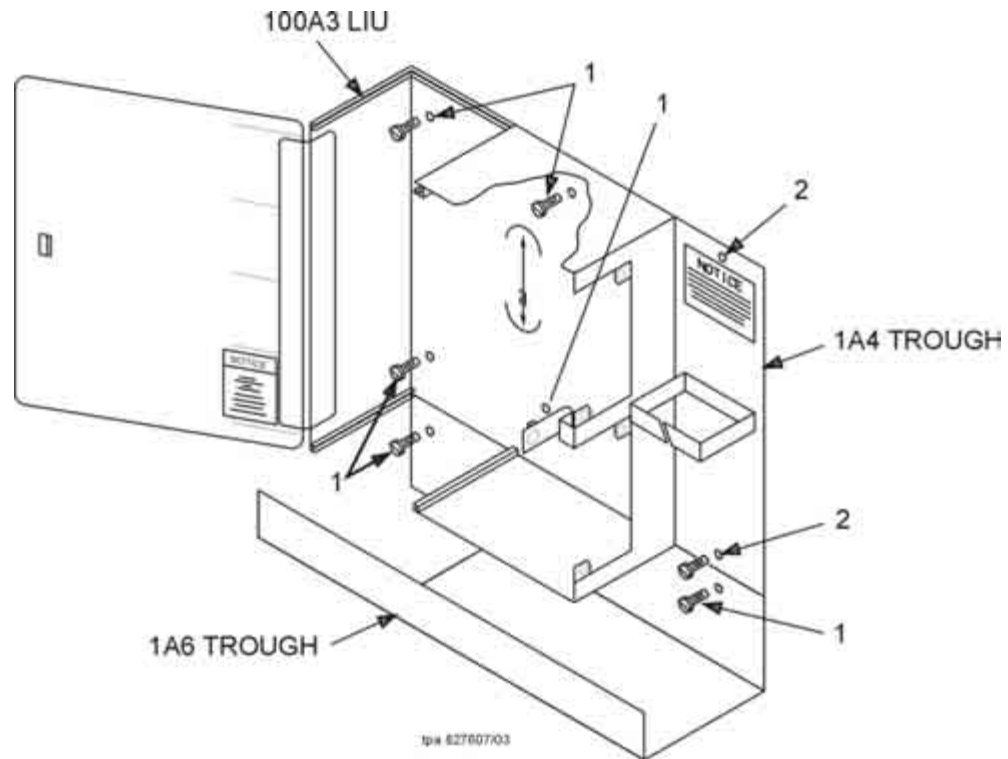


Figure 3. Install 100A3 LIU, 1A4 Trough, and 1A6 Trough

1. Using the four sheet-metal/wood screws included with each 100A3 LIU, mount the module to the backboard, as shown, with a 1A6 trough below the bottommost module. (Two sheet-metal/wood screws are included with the 1A6 trough.)
2. Install the 1A4 trough next to the 100A3 LIU, as shown, using the two sheet-metal/wood screws provided with the trough.

Step 4 – Reserve Space Allocation

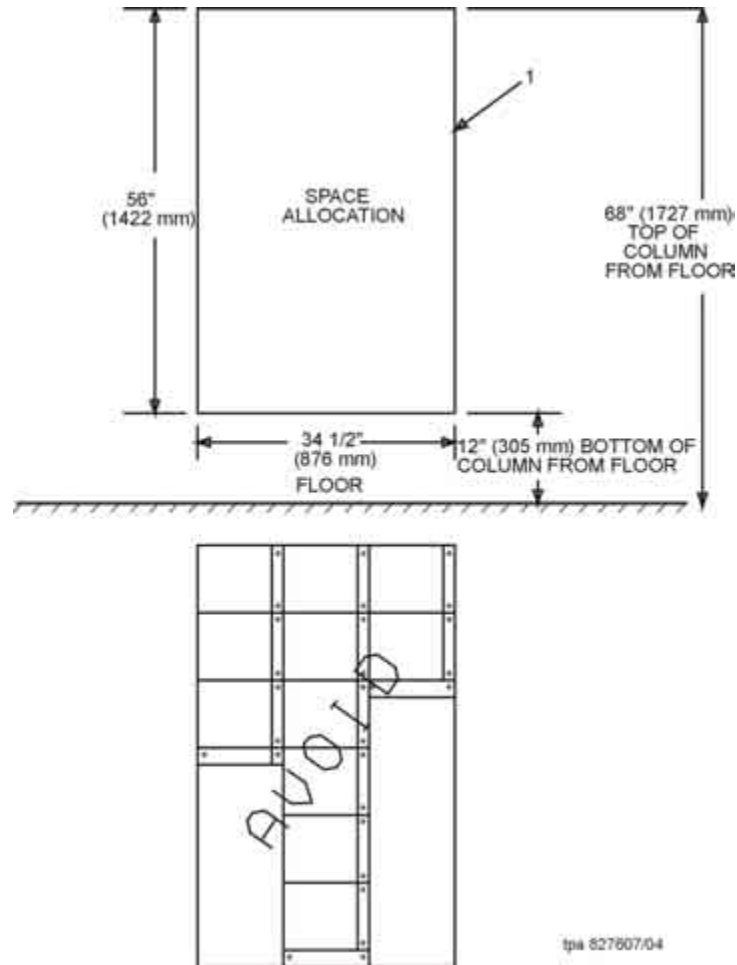


Figure 4. Reserve Space Allocation

⇒ NOTE:

The type of growth sequence shown above is not recommended and must be avoided. The 1A6 trough must be aligned with other 1A6 troughs at the bottom of each column.

1. Reserve space allocation in the mounting area to allow for future growth. For example, with the space allocation shown above, fiber optic cross-connection modules may be stacked to a column of 6 modules high and 3 columns wide with the top of the uppermost module placed not more than 68 inches (1727 mm) from the floor. The ultimate space allocation for a cross-connection field of 12 columns wide and 6 modules per column is 56 inches (1422 mm) high by 11 feet 6 inches (3.5 m) wide.

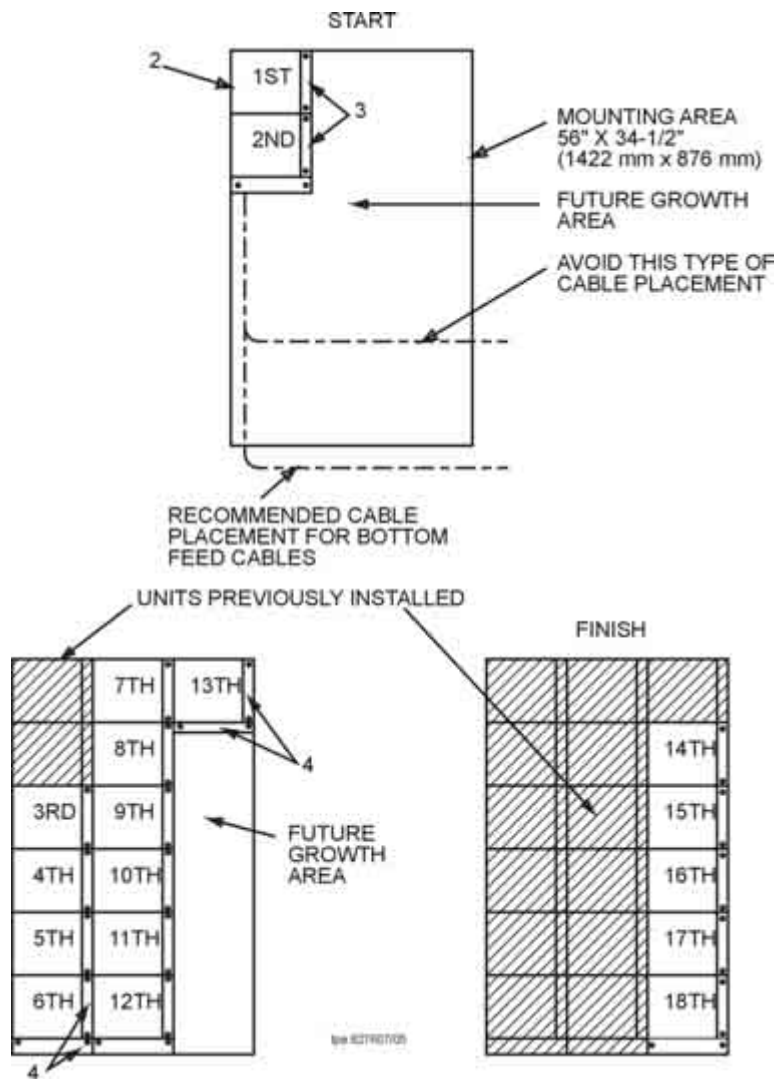


Figure 5. Reserve Space Allocation – (continued)

2. Mount the first 100A3 LIU in the upper-left portion of the reserved space.
3. Mount a 1A4 trough next to the 100A3 LIUs, aligning them so that no space is wasted.
4. Finish up each column with 1A4 troughs and 1A6 troughs as shown in the figure above, regardless of having less than 6 modules per column.

Step 5 – Prepare Fiber Optic Cable

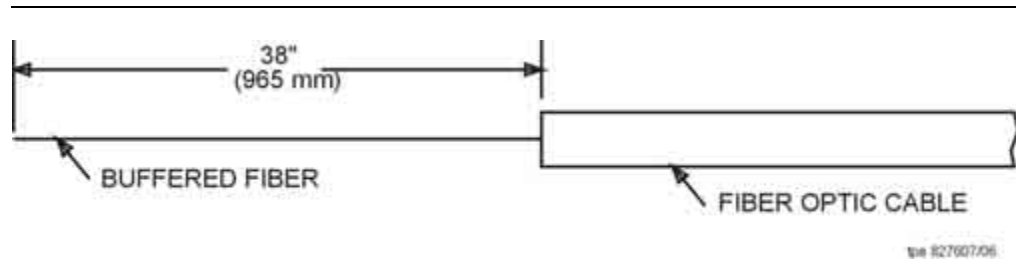


Figure 6. Preparing Fiber Optic Cables

1. Prepare the fiber optic cable as shown.
2. Install the appropriate connectors on the buffered fibers for the type of coupling panel and couplings to be used.

Coupling Panels, Couplings, and Connectors

Table 1. Coupling Panels, Couplings, and Cable Connectors

Coupling Panels	Couplings	Cable Connectors
10A	C-2000A & C <i>ST</i> ® Series Coupling	P-2000A & C <i>ST</i> Series
10A	C-3000A <i>ST</i> Series Coupling	P-3000A <i>ST</i> Series
10A	SM & MM <i>ST</i> Coupling/Buildout Attenuators	P-2000A & C <i>ST</i> Series & P-3000A <i>ST</i> Series
11A	1007A Data Link Coupling	1005B Biconic
12A	401-,501-, 601-, and 701-Series Buildout	1006A Biconic
10SC1	C6000A-4 SC Coupling	P2424 MM SC Simplex & P3424 SM SC Simplex
F86AK8612	Blank Panel - No Coupling	None
F86AK8557	SMA Coupling	SMA Connector
F87AK8657	IBM ESCON Coupling	IBM ESCON Connector
F87AK8574	FC/D4 Coupling	FC/D4 Connector
F89AK8554	FDDI Coupling	FDDI Connector

Table 2. Coupling Panels and Couplings for LaserWave Applications

Coupling Panels	Couplings (included with Panels)	COMCODE
PNL 100/200 EW MM/C12LC AQUA	MM LC 12-PACK-GANGED	109 171 900
PNL 100/200 EW MM/C6SC AQUA	MM SC 6-PACK-GANGED	109 171 918
PNL 100/200 EW MM/C6ST AQUA	MM ST 6-PACK-GANGED	109 171 926
PNL 100/200 EW MM/C12LC BEIGE	MM LC 12-PACK-GANGED	109 171 843
PNL 100/200 EW MM/C6SC BEIGE	MM SC 6-PACK-GANGED	109 171 850
PNL 100/200 EW MM/C6ST BEIGE	MM ST 6-PACK-GANGED	109 171 868
PNL 100/200 EW SM/C12LC BLUE	SM LC 12-PACK-GANGED	109 171 876
PNL 100/200 EW SM/C6SC BLUE	SM SC 6-PACK-GANGED	109 171 884
PNL 100/200 EW SM/C6ST BLUE	SM ST 6-PACK-GANGED	109 171 892

Step 6 – Choose Bottom Feed or Top Feed Cross-Connection Module Cable Feed Arrangement

Recommended for Bottom-Feed Cable Application

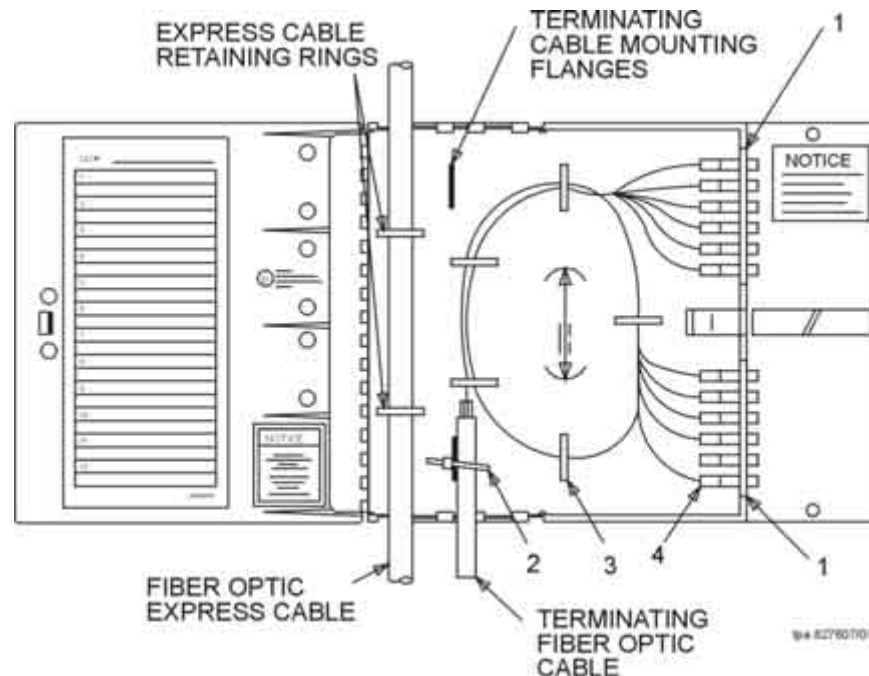


Figure 7. Arrangement for Bottom-feed Cable Applications

1. Install the fiber optic buildouts or couplings in the coupling panel; then, install the coupling panel in the cross-connection module.

⇒ **NOTE:**

Determine which type of coupling panels, couplings and connectors will be used. For more information, see Table 1 or Table 2.

2. Using a cable tie, secure the terminating fiber optic cable to the side of the mounting flange closest to the coupling panels.

⇒ **NOTE:**

Only express cables feeding upper modules are secured in the express cable retaining rings.

3. Carefully insert the fibers into the plastic ring holders, starting with the bottom ring, making not less than a 1-1/2 inch (38 mm) radius bend in the fibers.
4. Install the fiber connectors into the couplings on the coupling panel.

Recommended for Top-Feed Cable Application

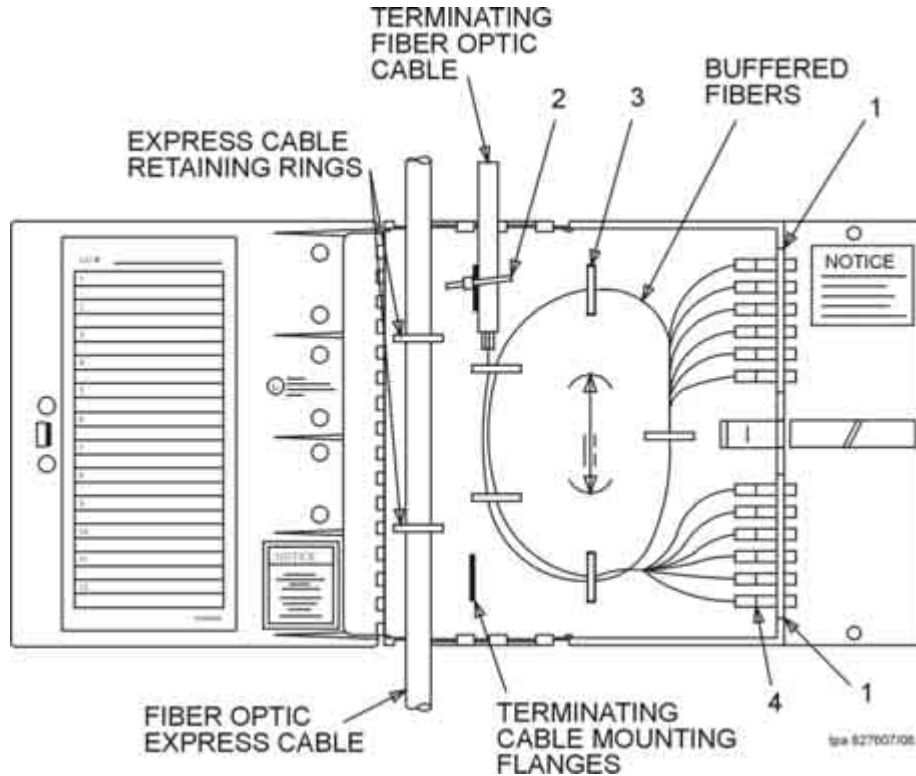


Figure 8. Arrangement for Top-feed Cable Applications

1. Install the fiber optic buildouts or couplings in the coupling panel; then, install the coupling panel in the cross-connection module.

⇒ NOTE:

Determine which type of coupling panels, couplings and connectors will be used. For more information, see Table 1 or Table 2.

2. Using a cable tie, secure the terminating fiber optic cable to the side of the mounting flange closest to the coupling panels.

⇒ NOTE:

Only express cables feeding lower modules are secured in the express cable retaining rings.

3. Carefully insert the fibers into the plastic ring holders, starting with the top ring, making not less than a 1-1/2 inch (38 mm) radius bend in the fibers.
4. Install the fiber connectors into the couplings on the coupling panel.

Step 7 – Assemble Fiber Optic Interconnection Module Arrangement

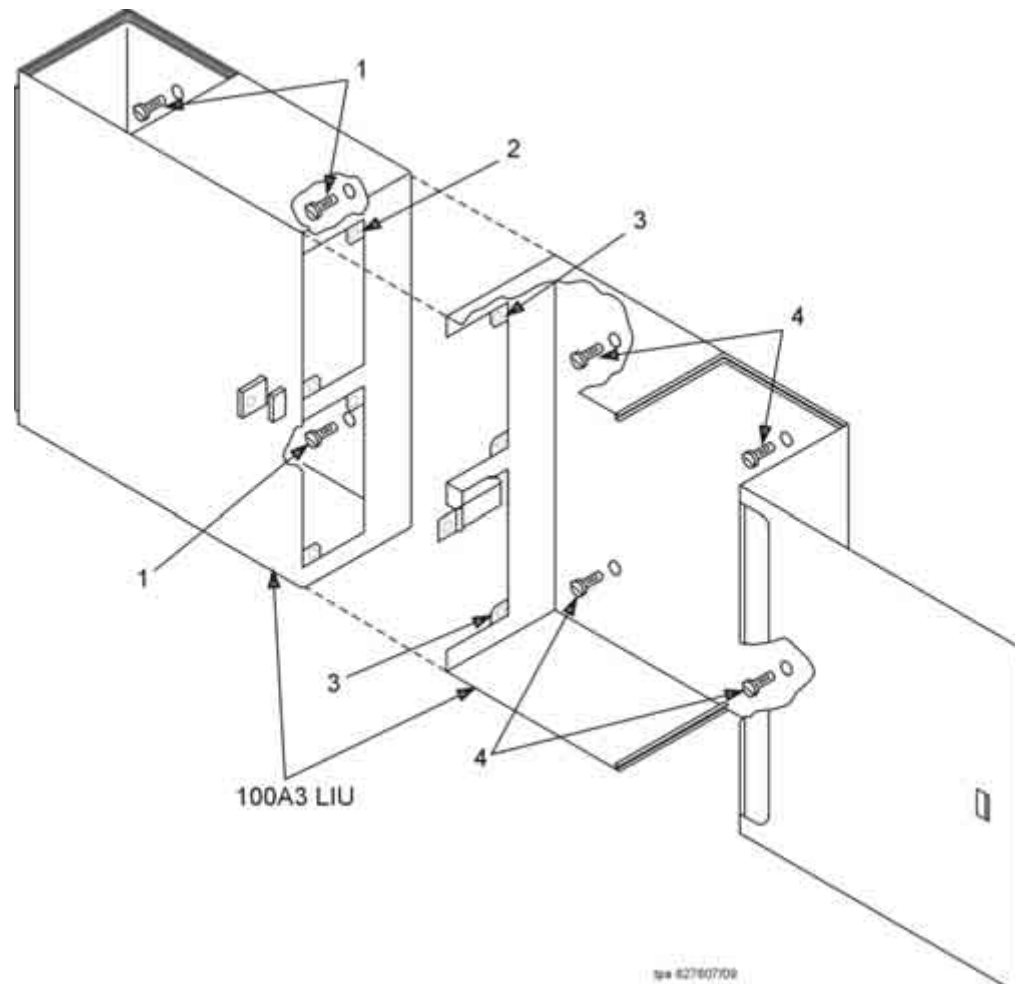


Figure 9. Fiber Optic Interconnection Module Arrangement

1. Two 100A3 LIUs are required to create a 12-fiber interconnection module arrangement. Using the four sheet-metal/wood screws included with the unit, mount the first module on a plywood backboard with the top not higher than 68 inches (1727 mm) above the floor.
2. Install the coupling panels in this module.
3. With a pair of pliers, break off the eight coupling panel mounting tabs on the second 100A3 LIU. Use a file to remove any burrs.

- Using the four sheet-metal/wood screws included with the unit, mount the second 100A3 LIU on the plywood backboard next to the first, aligning the windows of the two modules.
- Place decals on the 100A3 LIU covers.

⇒NOTE:

For a larger capacity interconnection arrangement, additional modules can be placed under these.

Step 8 – Terminate Interconnection Module Cable Feed Arrangement

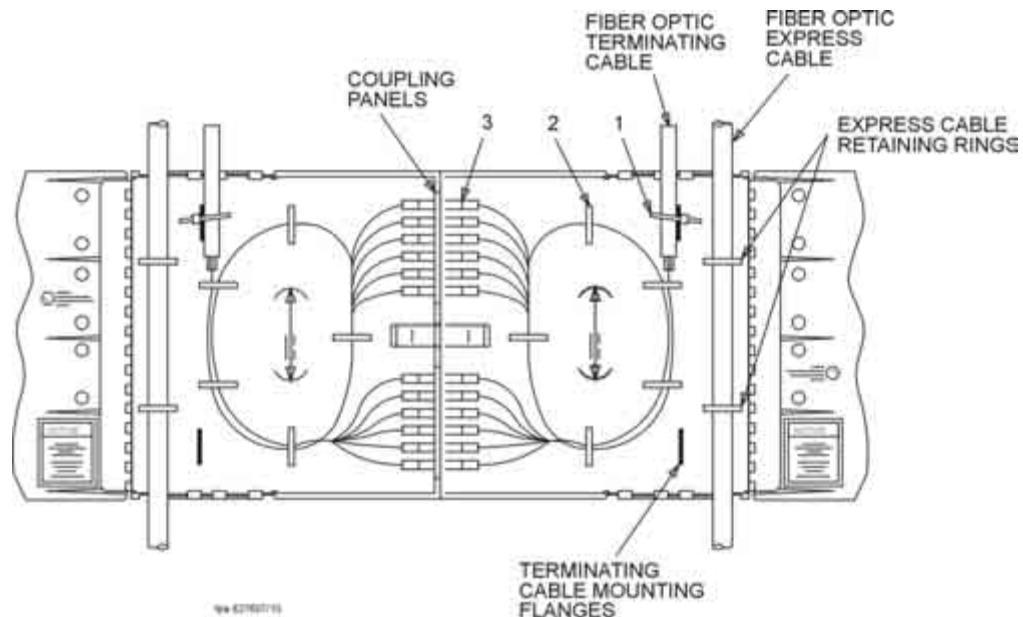


Figure 10. Interconnection Module Cable Feed Arrangement

- Using a cable tie, secure the termination fiber optic cable to the coupling panel side of the terminating cable mounting flange.

⇒NOTE:

- Only fiber optic express cables to upper or lower modules are secured in the express cable retaining rings.
- Carefully insert the fibers into the plastic ring holders (one fiber at a time), with as much slack as possible, making not less than a 1-1/2 inch (38 mm) radius bend in the fibers.
- Connect the fiber connectors to the couplings on the coupling panels.