INSTALLATION INSTRUCTIONS

IDEAA® Exterior Distribution Enclosure

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GENERAL

The IDEAA® Exterior Distribution Enclosure (EDE) provides the same convenient modular approach to centralized fiber distribution as the EDC, but in a compact wall or pedestal mountable form factor. The enclosure is designed to contain up to three (3) 1x32 IDEAA splitter modules, and is available in two configurations. The stubbed version includes the distribution and feeder pigtails terminated inside the unit and stubbed with 50 ft. of distribution and feeder cable stubs. The splice version is equipped with factory-terminated pigtails and splice trays that allow field access to enter the cabinet with the distribution and feeder cables to splice inside the enclosure.

SPECIFICATIONS

Parameter	Value
Splitter Capacity	Up to (3) 1x32 Modules
Maximum Outputs	96
Input/Pass Through Ports	12
Dimensions – (H x W x D) in. (cm)	20.5 x 11.25 x 8.75 (52.07 x 28.58 x 22.23)

ORDERING INFORMATION

Description	AFL No.
Splice Version – Includes 96 distribution pigtails, 12 feeder pigtails and 5 LL-4808 splice trays	EA000378
Stub Version – Includes 50 ft. 96-fiber loose tube distribution cable stub and 50 ft. 12-fiber loose tube feeder cable stub	EA000379

PACKAGE CONTENTS

IDEAA Exterior Distribution Enclosure

Fiber Input Pigtails and Adapters

Fiber Distribution Jumpers

Wall Mounting Hardware Kit

IDEAA LGX-118 Mounting Brackets (3)

Input and Output Splice Trays *Splice Version Only*

Cable Strain Relief Kits *Splice Version Only*

ADD-ON COMPONENTS

SC/APC IDEAA Module, 1 x 32

One-Click® SC/APC Cleaner

Channell OP1212 Pedestal Mounting Kit

REQUIRED TOOLS

216-style Socket Tool (3/8" size)

Phillips-Head Screwdriver (Wall Mounting)

1/4" Hex-Head Socket Tool *Splice Version Only*

Cable Prep and Splicing Tools *Splice Version Only*

CABINET MOUNTING – WALL MOUNT

1. Locate the three bracket mounting positions on the back of the enclosure **(Figure 1)**.

2. Using a standard 216 style tool or similar, attach the three wall mount brackets included in the Wall Mounting Hardware Kit **(Figure 2)**.

3. Using local engineering practices, determine the mounting position of the cabinet on the wall.

4. Mark the three mounting points to be pre-drilled for cabinet placement.

5. Using local accepted practices and approved hardware, insert a lag screw into each of the three pre-drilled mounting holes. Screw the lag screws half-way into the wall.

✳ *Note: For best practice, it is recommended that the lag screw's hex head is wider than the key slots of the cabinet mounts. Also, ensure that the shaft of the screw is smaller than the actual mounting slots for ease of installation.*

6. Mount the cabinet over the pre-installed lag screws.

7. Secure the cabinet to the wall by tightening the three lag screws. Before the lag screws are completely tightened a level may be used to ensure that the cabinet is in the desired position.
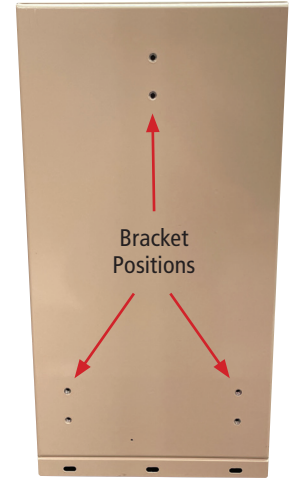
CABINET MOUNTING – PEDESTAL MOUNT

The IDEAA EDE is designed to be mounted in the Channell OP1212 Pedestal (Channell P/N: OP12126C1B1LH1A08), using the Channell Pedestal Mounting Kit **EA000384**. For instructions on mounting the EDE in the Channell OP1212 Pedestal, contact AFL.

LOCK AND UNLOCK EXTERIOR DOOR

1. Using a standard 216 style tool (3/8"), unscrew the two locking bolts at each side of EDE door to unlock and open the enclosure **(Figure 3)**.

✳ *Note: A pad lock (not provided) may be utilized if additional security is desired.*

Bracket Positions

Figure 1

Figure 2

Figure 3

CABLE INSTALLATION – *SPLICE VERSION ONLY*

If installing the Stub Version EDE, jump to 'IDEAA SPLITTER MODULE INSTALLATION' on page 7.

1. Using a standard 216 style tool or similar, remove the two 3/8" shipping screws on the swing-down tray (**Figure 4**). These are only used for shipping purposes and are no longer needed.

2. Unlatch and pull down the swing-down tray by pressing in the black latch button and pulling the handle (**Figure 4**).

3. Slit the grommet and route the cable up through the grommet into the enclosure prior to prepping the cable (**Figure 5**).

✴ *Note: The bottom plate can be removed to allow the strain relief to be done outside the enclosure. This is done by removing the 5 - 3/8" hex nuts inside the enclosure that hold the bottom plate (Figure 6).*

Figure 4

Figure 5

Figure 6

CABLE PREPARATION – *SPLICE VERSION ONLY*

⚠ *Caution: Fiber optic cables are susceptible to damage from excessive bending, pulling or crushing forces. At every stage of the installation process ensure that loose buffer tubes, ribbon or Wrapping Tube Cable (WTC) with Spider Web® Ribbon (SWR) fibers are free from unintentional cuts, nick, or bends to avoid potential fiber damage.*

Cable Sheath

⊢——— 62" (157.5 cm) ———⊣

Figure 7

1. Mark the cable to have a minimum 62" (157.5 cm) opening (**Figure 7**). This allows for one loop in the enclosure and one service loop in the splice tray, with the fiber landing at the farthest splice point. To add an additional service loop in the splice tray, add 18" (45.7 cm) to the prep length.

2. Use local accepted practice to remove the cable sheath.

✴ *Note: For best practice, when working with WTC it is recommended that accepted local practices be used to protect the SWR fiber before continuing to the cable installation.*
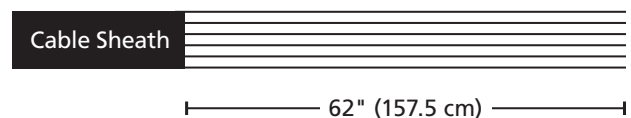
STRAIN RELIEF KIT – *SPLICE VERSION ONLY*

The strain relief kit for both entry ports is included, and consists of a spur bracket with a central strength member (CSM) stop, two hose clamps for each cable, and adhesive foam **(Figure 8)**.

The strain relief kit is used in conjunction with the enclosure's bottom plate to secure the incoming cables coming through the grommet entry ports **(Figure 10)**. The steps for securing different cable types are detailed below.

✳ *Note: The strength member retention clamp on the bottom plate in Figure 10 will only be used for thin-walled microcables with central strength members.*

✳ *Note: Cables must be clean and free of all tape, dirt, or contamination for proper sheath retention.*
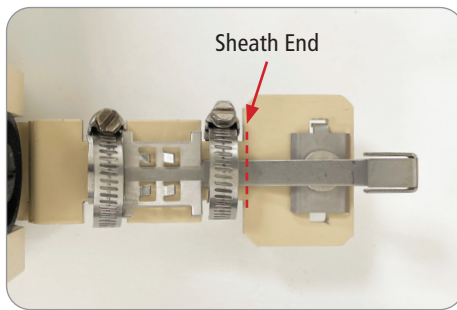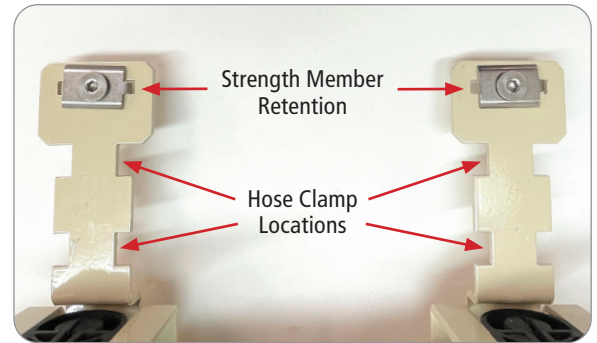

Figure 8

Figure 9

Figure 10

For Cables with a Central Strength Member (Figure 11)

1. Apply a layer of adhesive foam to the cable sheath at the lower hose clamp location **(#1 in Figure 11)**.

2. Trim central strength member to 1.5–1.75" so it extends to the strength member stop on the spur bracket **(#2 in Figure 11)**.

3. Position spur bracket under the cable, in between hose clamp locations **(#3 in Figure 11)**.

4. Secure cable to the bottom plate bracket and spur bracket with the hose clamps. Hand-tighten hose clamps with a 1/4" hex-head tool **(#4 in Figure 11)**.
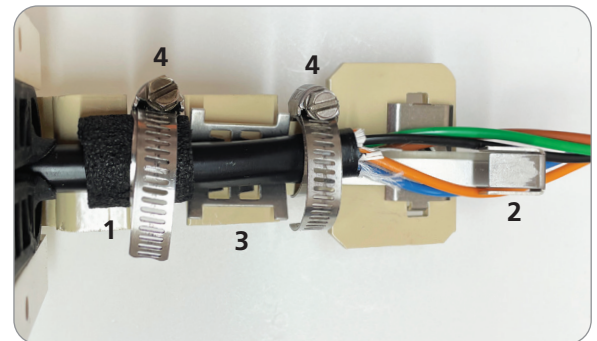

Figure 11

For Cables with NO Central Strength Member (Figure 12)

1. Apply a layer of adhesive foam to the cable sheath at the lower hose clamp location (**#1 in Figure 12**).

2. Position spur bracket under the cable, in between hose clamp locations (**#2 in Figure 12**).

3. Secure cable to the bottom plate bracket and spur bracket with the hose clamps. Hand-tighten hose clamps with a 1/4" hex-head tool (**#3 in Figure 12**).
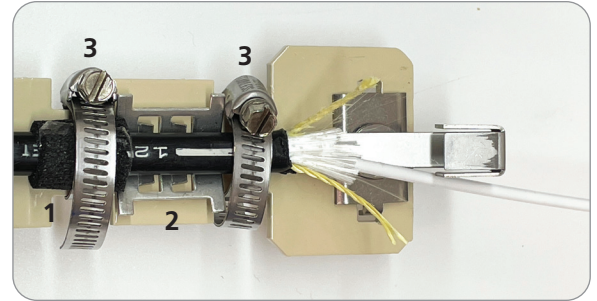

Figure 12

For Thin-Walled Jettable Micro Cables (Figure 13)

✳ *Note: The spur bracket will not be used here.*

1. Apply a layer of adhesive foam around the cable at both hose clamp locations (**#1 in Figure 13**).

2. Trim central strength member to 1–1.25" so it extends under the strength member bolt clamp. Hand-tighten the retention bolt using a 1/4" hex-head tool (**#2 in Figure 13**).

3. Secure cable to the bottom plate bracket with the hose clamps. Hand-tighten hose clamps with 3/8" tool (**#3 in Figure 13**).
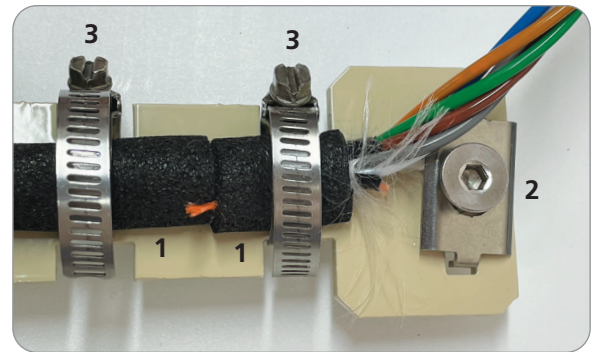

Figure 13

SPLICING – *SPLICE VERSION ONLY*

1. Prior to splicing, ensure that adequate slack for both the incoming fiber and the pigtail fiber is stored within the splice tray. Mark fibers for splicing.

2. Ensure the tubes are brought to the correct trays. The trays are labeled on their sides (**Figure 14**).

3. Secure the tubes to the trays using foam and tie wraps (**Figure 15**).

4. Clean the individual fiber per accepted local practice using an approved fiber cleaner.

5. Follow accepted local practice for preparing and splicing feeder fibers and input pigtail fibers.

6. Once all splicing is complete, route the exposed fibers inside the splice tray.
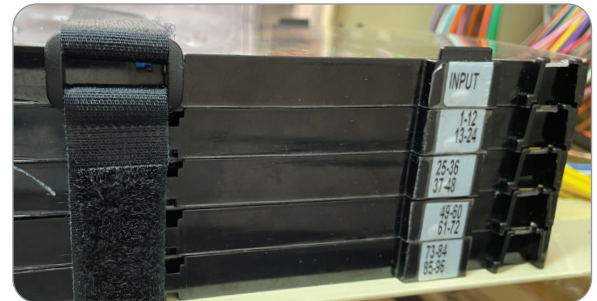
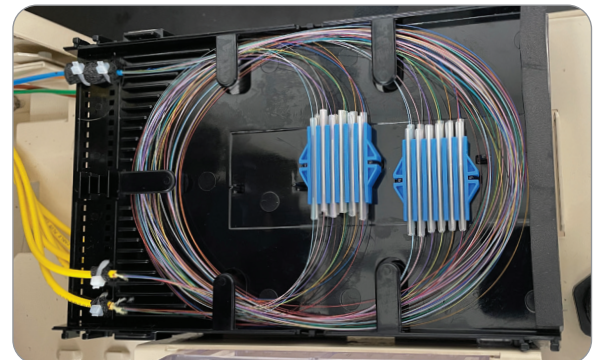7. Replace the splice tray cover.

Figure 14

Figure 15

CABLE ROUTING – *SPLICE VERSION ONLY*

1. Use the fiber management rings on the back wall of the EDE to route the slack buffer tubes **(Figure 16)**. The cable entering through the right entry port (shown in white) should route counterclockwise before sweeping into the tray. The cable entering through the left entry port (shown in red) should route clockwise before sweeping into the tray **(Figure 17)**.

✳ *Note: Ensure that the minimum bend radius of the buffer tubes is not violated when routing through the enclosure.*

2. Secure the splice trays to the swing down splice tray holder with the hook and loop band.

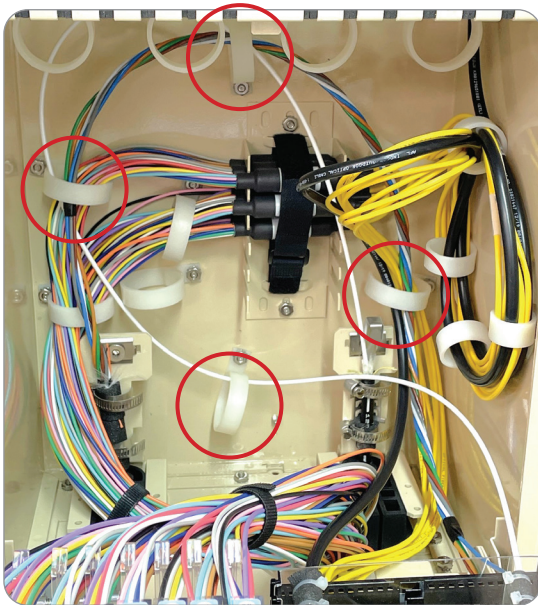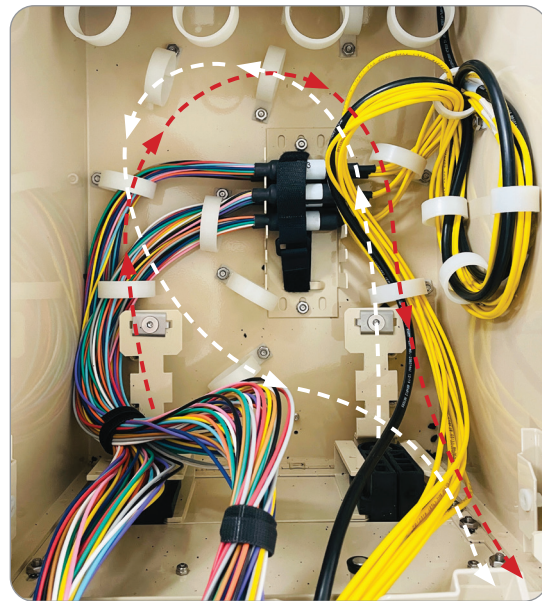3. Return the swing down splice tray holder to the upright position.

Figure 16

Figure 17

IDEAA SPLITTER MODULE INSTALLATION

Mount IDEAA Splitter Module

1. Using local engineering practices, determine the location of the IDEAA Splitter Module to be installed within the EDE.

2. Using the provided hex-head screws, attach the LGX-118 mounting bracket to the bottom side of the IDEAA Splitter Module **(Figure 18)**.
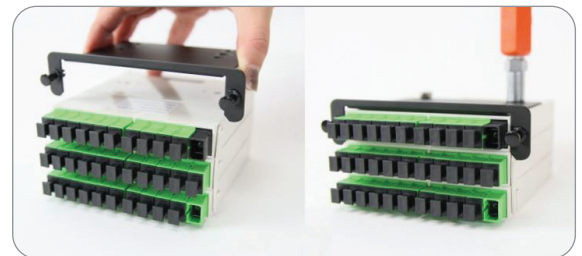

Figure 18

3. Install the IDEAA LGX-118 Rack Mount Bracket into the LGX-118 mounting fixture by pressing in the two nylatch plungers. The IDEAA Splitter Module should be oriented with the bracket on the left side **(Figure 19)**.

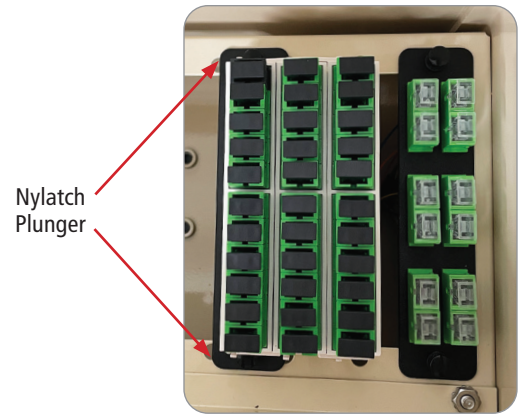4. Repeat Steps 1–3 for each IDEAA Splitter Module to be mounted.

Nylatch Plunger

Figure 19

Activate IDEAA Splitter Module

An IDEAA Splitter Module that has been mounted into the EDE is not active until it has been connected to the Input Field.

✳ *Note: AFL recommends visually inspecting each connector and adapter port with a fiber optic inspection scope prior to making a connection to ensure the endface is clean, and to prevent potential cross-contamination.*

⚠ *Caution: When working with fiber optics, do not look directly into the end of the fiber cable or adapter port. A power meter may be used to determine if the cable or port is dark, or use locally accepted fiber optic safety practices.*

1. Use local accepted practices to inspect and clean the connector end face at both ends of the jumper provided with the IDEAA Splitter Module.

2. Plug the jumper cable into the black input port on the IDEAA Splitter Module. Use the foam fiber relief to route the jumper cable to the fiber routing section of the EDE.

✳ *Note: When mounted on the LGX-118 mounting fixture, the black input port will be located in the top left corner of the module adapter field.*

3. Using local engineering practices, determine the port to be used on the input panel for activating the IDEAA Splitter Module. Plug the opposite end of the jumper into the desired port on the input panel. Use the foam fiber relief to route the jumper cable to the fiber routing section of the EDE **(Figure 20)**.

Figure 20

4. Route the remaining jumper slack through the fiber routing section of the EDE (**Figures 21 and 22**).

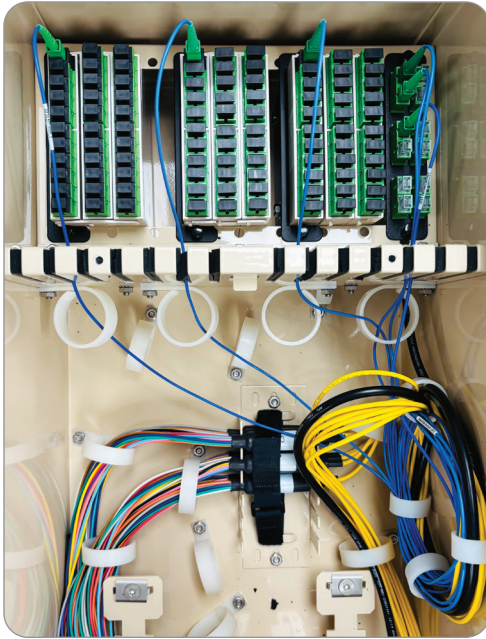5. Repeat Steps 1–4 for each IDEAA Splitter Module that needs to be activated.
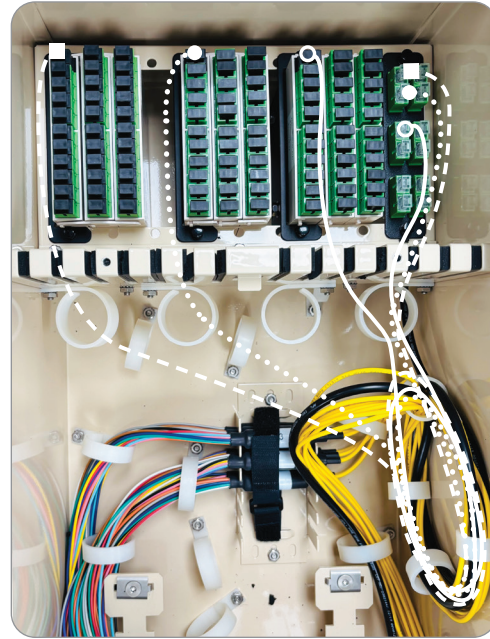

Figure 21

Figure 22

CONNECT DISTRIBUTION FIBER

✱ *Note: AFL recommends visually inspecting each connector and adapter port with a fiber optic inspection scope prior to making a connection to ensure the endface is clean, and to prevent potential cross-contamination.*

1. If not already removed, remove the two shipping screws from each side of the swing down tray. These are only for shipping purposes and are no longer needed (**Figure 4 on Page 4**).

2. Using local engineering practices, determine the appropriate distribution fiber to be connected. Remove the corresponding fiber storage cartridge from the swing down tray by pushing in and pulling up on the cartridge arms (**Figure 23**).
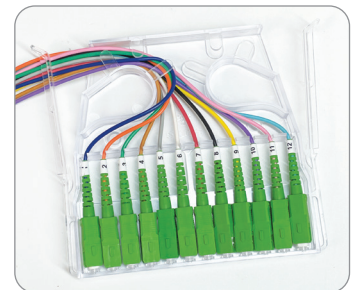
✱ *Note: The cartridges and distribution fibers are numbered to assist in fiber identification. Additionally, distribution fibers may be identified by placing a red light on the customer side of the fiber and locating the fiber on the swing down tray* (**Figure 24**)*.*

3. Remove the desired distribution fiber from the cartridge by sliding the connector out of the housing location and continue to route the cable out of the cartridge.

Figure 23

Figure 24

4. For best practice, it is recommended that the distribution fiber be removed from all Velcro and routed back to the cable transition. Ensuring the distribution fiber has a clear path to the fiber routing section of the EDE.

5. Use local accepted practices to inspect and clean the distribution fiber connector end face and adapter port.

6. Connect the distribution fiber to the appropriate port on the IDEAA Splitter Module. Use the foam fiber relief to route the distribution fiber to the fiber routing section of the EDE, employing a similar technique to that used with the input jumper cable **(Figure 25)**.

7. Route the remaining distribution fiber slack through the fiber routing section of the EDE **(Figure 26)**. The ideal routing paths for each splitter row is shown below in **Figure 27**.

8. Use local accepted practices to label the distribution fiber connection.

9. Repeat Steps 2–8 for each addition distribution fiber needing to be connected.

✻ *Note: Unused fibers should remain in the fiber storage cartridge until needed.*

10. After connecting all distribution fibers, the enclosure should look similar to **Figure 28**.
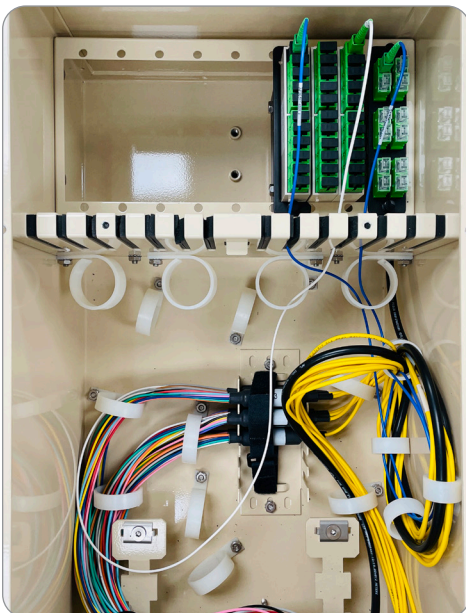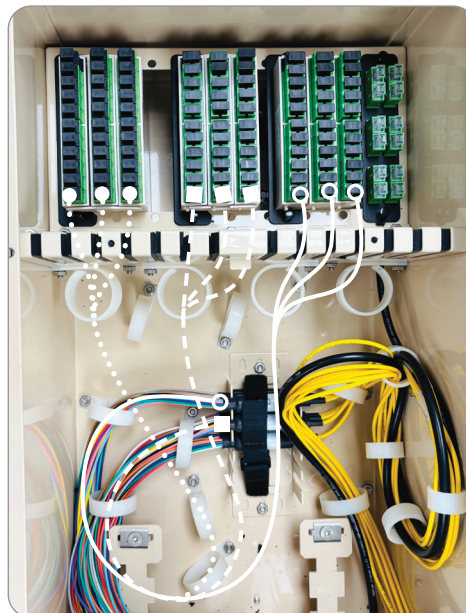

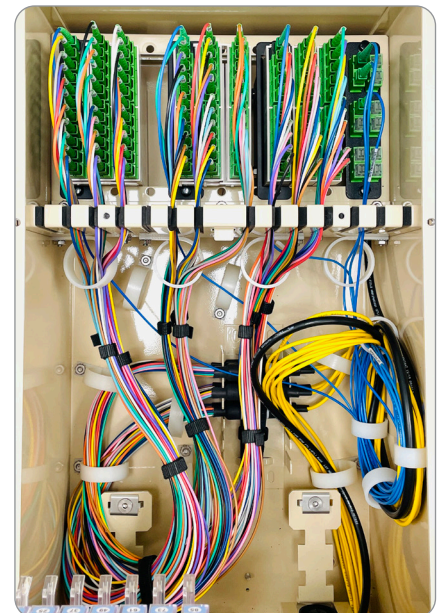**Figure 25**

Figure 26

Figure 27

Figure 28

PASS-THROUGH CONNECTION

✳ *Note: AFL recommends visually inspecting each connector and adapter port with a fiber optic inspection scope prior to making a connection to ensure the endface is clean, and to prevent potential cross-contamination.*

1. Using local engineering practices, determine the appropriate distribution fiber to be used for a pass-through connection. Remove the corresponding fiber storage cartridge from the swing down tray by pushing in and pulling up on the cartridge arms.

2. Remove the desired distribution fiber from the cartridge by sliding the connector out of the housing location and continue to route the cable out of the cartridge.

3. For best practice, it is recommended that the distribution fiber be routed back to the cable transition. Ensuring the distribution fiber has a clear path to the fiber routing section of the EDE.

4. Use local accepted practices to inspect and clean the distribution fiber connector end face and adapter port.

5. Connect the distribution fiber to the appropriate port on the input field.

6. Use the foam fiber relief to route the distribution fiber to the fiber routing section of the EDE, employing a similar technique to that is used in the previous section.

7. Route the remaining distribution fiber slack through the fiber routing section of the EDE.

8. Repeat Steps 1–7 for each addition pass through connection.

✳ *Note: Unused fibers should remain in the fiber storage cartridge until needed.*