

Centrix™ System Enclosed Housing

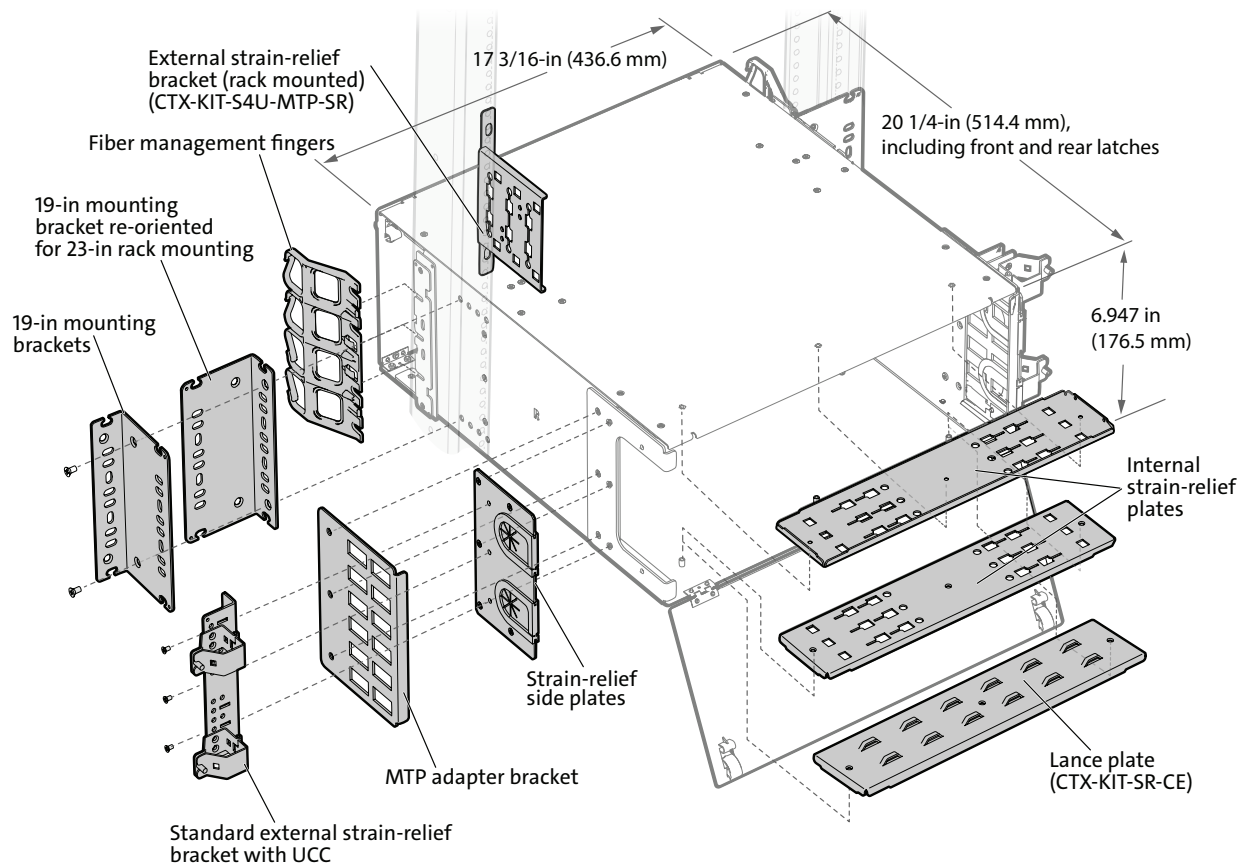
P/N 003-1040-AEN
Issue 1

related literature | Search www.corning.com/opcomm. Click on "Resources/Standard Recommended Procedures."

003-949	Instruction, Centrix System Pigtailed Housing with Pigtailed Cassette Installation
003-951	Instruction, Centrix System Stubbed Housing Installation
003-959	Instruction, Centrix System Pigtailed Cassette Installation with WDMs and PON Devices
003-1006	Instruction, Centrix System Pigtailed MTP® Cassette Installation
003-1011	Instruction, Centrix System Housing and MTP® Module Installation
003-1017	Instruction, Centrix System Patch Panel Cassette

1. Carton Contents

- Centrix™ System Enclosed Housing (CTX-E4U)(Figure 1)
- Mounting hardware
- Enclosed housing standard strain-relief bracket (one provided), additional brackets may be ordered if needed (CTX-KIT-E4U-SR)



TPA-6107

Figure 1

2. Tools and Materials Required

- Phillips screwdriver
- Optional Kits (sold separately):
 - Universal cable clamp (UCC-001)
 - External strain-relief bracket, rack-mounted (CTX-KIT-S4U-MTP-SR)
 - Internal strain-relief lance plate (CTX-KIT-SR-CE)

3. Installation

3.1 Rack or Frame Mounting

3.1.1 19-in Rack or Frame

Step 1: Identify the position on the rack where the housing will be installed and partially install screws to rest the mounting brackets on Figure 2.

Step 2: Move brackets forwards or backwards on the housing for desired frontal projection and rest the mounting brackets behind the screw heads just installed in the rack.

Step 3: Install screws into the rack through the mounting brackets. Tighten all screws.

Step 4: Slide the fiber management fingers onto the housing.

NOTE: *Installation of fiber management fingers is essential to ensure proper jumper management.*

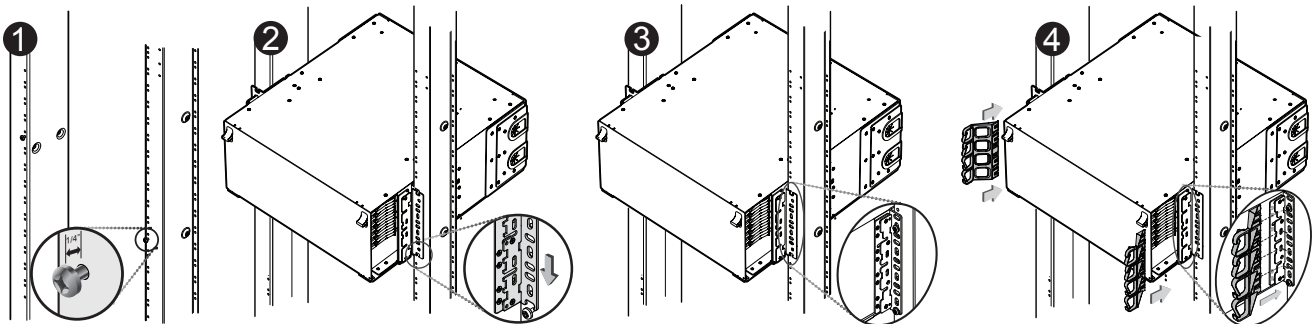


Figure 2

3.1.2 23-in Rack or Frame

Step 1: Remove the screws securing the mounting brackets to the sides of the housing.

Step 2: Identify the desired frontal projection of the housing and attach the brackets to the sides of the housing with the longer side of the bracket facing outward (Figure 3).

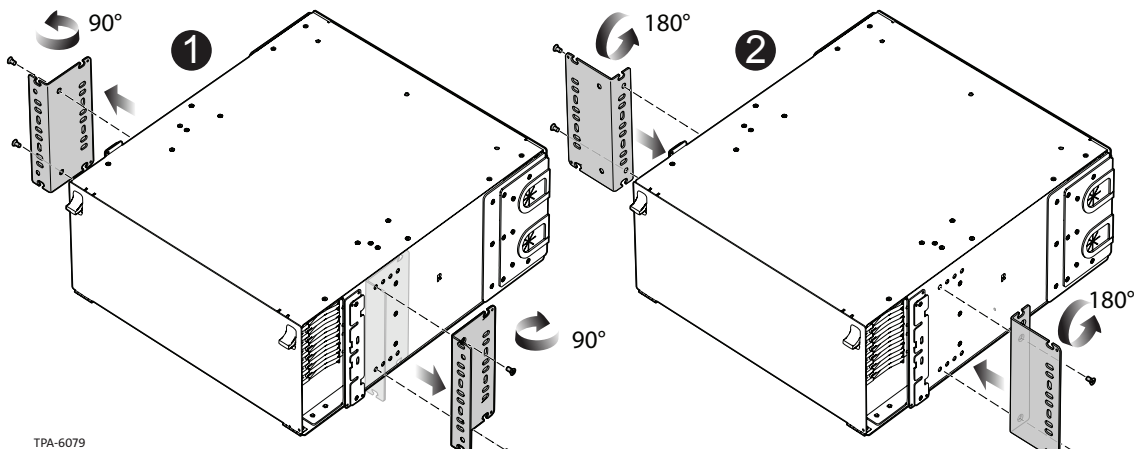


Figure 3

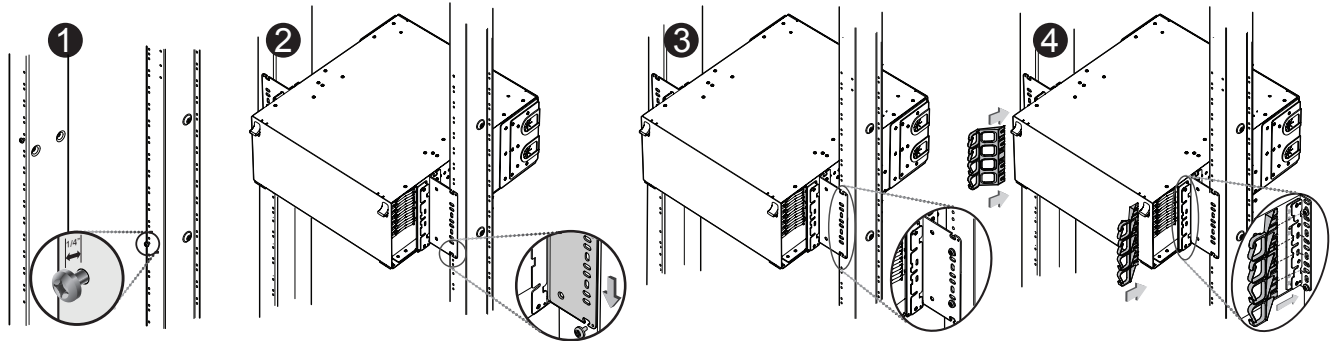
Step 3: Identify the position on the rack where the housing will be installed and partially install screws to rest the mounting brackets on (Figure 4).

Step 4: Rest the mounting brackets behind the screw heads just installed in the rack.

Step 5: Install screws into the rack through the mounting brackets. Tighten all screws

Step 6: Slide the fiber management fingers onto the housing.

NOTE: *Installation of fiber management fingers is essential to ensure proper jumper management.*

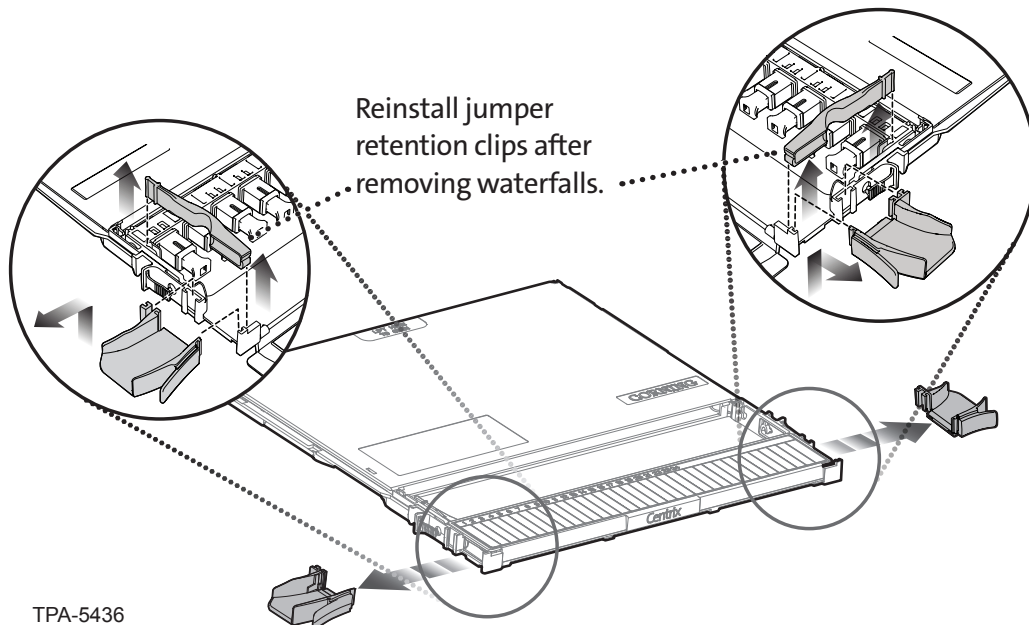


TPA-6080

Figure 4

4. Centrix™ Cassette/Module Installation

NOTE: *Before installing cassettes or modules into the Centrix enclosed housing, remove all waterfalls, and re-install jumper retention clips on both sides of the cassette (Figure 4).*



TPA-5436

Figure 5

4.1 Centrix Splice Cassette Installation

- Step 1:** Identify the direction and location from which the incoming cable will enter the housing.
- Step 2:** Remove the interior of the appropriate cable entry rubber grommet.
- Step 3:** Attach a universal cable clamp (UCC-001) to the standard external strain-relief bracket and secure the bracket to the appropriate side of the housing using the screws provided (Figure 6).
- Step 4:** Use Standard Recommended Procedure (SRP) 003-949 for instructions on cable access, furcation, and splicing.

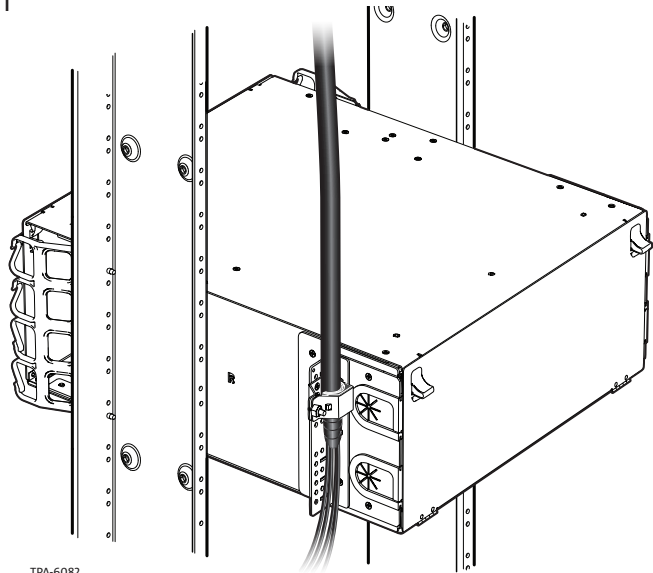


Figure 6

- Step 5:** Strain-relieve the cable to the standard external strain-relief bracket once cable furcation is complete in preparation for splicing.
- Step 6:** Once splicing is complete, store furcation leg slack in the bottom of the splice cassettes and slide the cassette into the housing from the front (Figure 7).

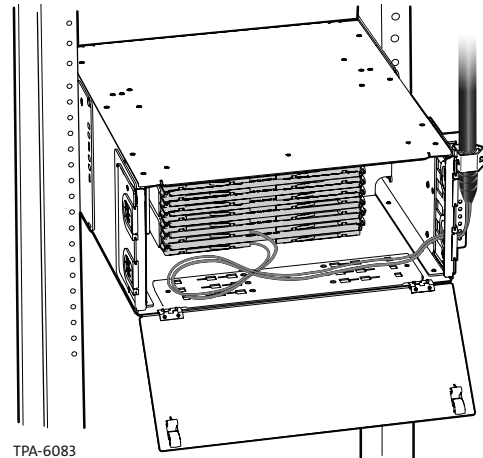


Figure 7

4.2 Centrix™ MTP® Module

4.2.1 Install Trunk Cables

The EDGE™ trunk cable is supplied with factory-installed protection/pulling grips (Figure 8) to protect the connectors and their fibers by coupling the pulling load back to the cable. The cradle is used to install the furcation plug into the housing.

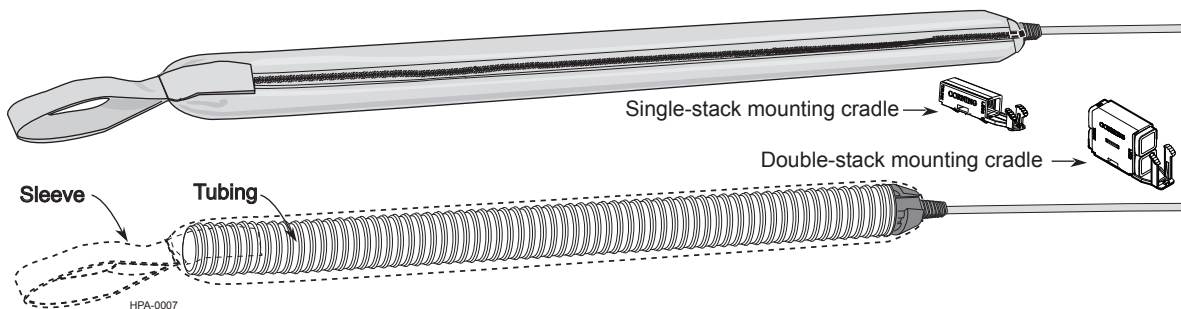


Figure 8



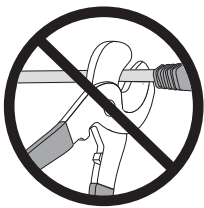
Weather Precautions

- Always follow the recommended storage temperature guidelines for the cable when storing a trunk/pigtail. Each cable type will have a storage temperature rating that can be found on the product specification sheets. Storage outside of these ranges can cause damage to the cables.
- Cable type, pulling grip and reel material dictate indoor or outdoor storage. Plywood reels should never be stored outdoors. Doing so may cause damage to the reel. Cables designed specifically for indoor use should never be stored outdoors. Indoor cables are also not UV rated, and jacket damage can occur from storing indoor cables in sunlight. Not all pulling grips are watertight and suitable for exposure to weather. Trunks/pigtails with non-watertight grips will need to be stored inside, even though the cable may be suitable for outdoor storage. Trunks greater than 144 fibers do not have watertight pulling grips. These trunks should be stored in a dry location to ensure proper performance of the connectors.



Reel Handling

- Always lift a plywood or wooden reel by both flanges. Do not pick up a reel by one flange. Picking up a reel by one flange can cause the reel bolts to loosen leading to cable damage.
- Never drop a reel. When a reel is dropped, damage to the cable can occur and flange bolts can loosen. Any dropped reel should be thoroughly evaluated for cable/reel damage.
- Do not allow reels to bump into one another. Allowing the flanges to rub or bump the cable can cause cable or fiber damage.
- Pay attention to reel labels. Reels should always be stored in the orientation outlined on the reel. Observe “This End Up” arrows on reels or boxes.
- Ensure that all flange bolts are tight prior to loading a reel for pulling. Changes in temperature and humidity can cause the wooden/cardboard components of the reel to expand and contract allowing the flange bolts to loosen over time. Loose flange bolts may cause the cable to become entangled and possibly damage the cable during installation.



IMPORTANT: The pulling grips installed on preconnectorized cables contain the connectors and their sub-units. Unlike conventional pulling grips, do not cut off the grip and cable inside it upon the completion of cable installation. Remove the pulling grip from over the connectors and sub-units only as described in this procedure. Failure to do so may result in damage or loss of the connector assemblies. Do not attempt to disassemble the pulling grip before the cable is pulled into place. Doing so may cause the pulling grip to fail.

For detailed information on cable placement, and a comprehensive list of applicable safety precautions, refer to SRP-005-014, Fiber Optic Cable Placing - Intrabuilding. It is necessary to have radio or other two way communications between pull points. Should a kink or other pulling problem occur, instant communication is vital to stop the pulling operation to prevent cable and/or connector damage.



CAUTION: Do not use any type of lubricant when installing this series of pulling grip.



CAUTION: These grips are intended to be placed and pulled by hand. Do not use any mechanical pulling devices on this series of grip.



CAUTION: This preconnectorized pulling grip has a maximum tensile rating of 100 pounds (44.5 kg). NEVER EXCEED THIS TENSION DURING INSTALLATION. The pulling grip has a minimum bend radius of 18 inches (45.72 cm). Refer to the EDGE specification sheet for cable/grip dimensions and appropriate duct sizes.



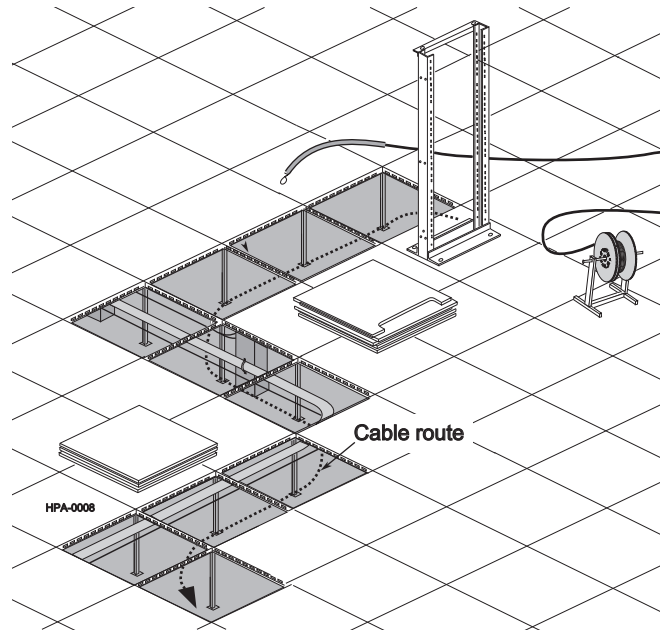
CAUTION: Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

4.2.1.1 Trunk Cable Placement with the Pulling Grip

NOTE: This procedure assumes that a pull line has been placed in the duct route and that the equipment necessary to maintain the bend-radius of the pulling grip is in position.

Step 1: If necessary, remove the corrugated reel from its protective shipping box or pallet.

Step 2: Place the cable reel on a reel stand so that the pulling grip/cable will pay-off the top of the reel (Figure 9).



NOTE: Cables greater than or equal to 22.9 m (75 ft) ship in a bag in a box.

Figure 9

Step 3: Attach a pull line to the pulling loop at the end of the sleeve (Figure 10).

Step 4: Place the cable using your company's standard practice, taking care not to exceed either the minimum bend radius or tensile rating of the grip.

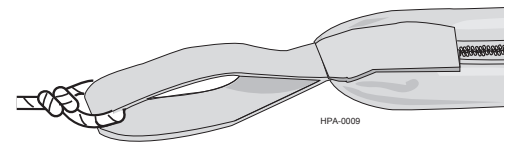


Figure 10

4.2.1.2 Pulling Grip Removal

Step 1: Remove the pull line and clean any dirt or debris from the outer surfaces of the sleeve.

IMPORTANT: Disassemble the pulling sleeve on a work surface free from dirt, excessive heat, or any solvents.

Step 2: Lift the hook-and-loop flaps to expose the zipper pull. While holding the sleeve's pulling loop with one hand, unzip the sleeve (Figure 11).

Step 3: Remove the cloth sleeve from around the grip.

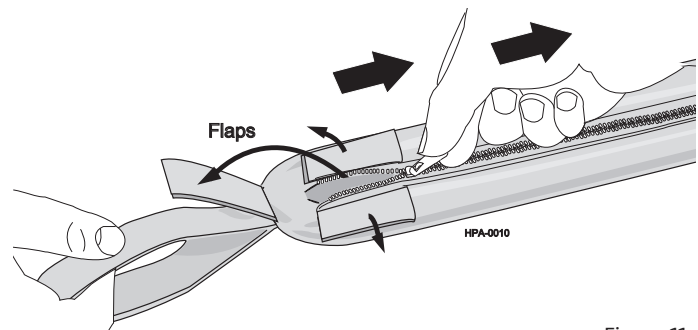


Figure 11

Step 4: With the grip lying on a work surface, grasp the coupler at the cable-end of the trunk cable. With a slight twisting motion, pull the corrugated tube away from the coupler with your other hand (Figure 12).

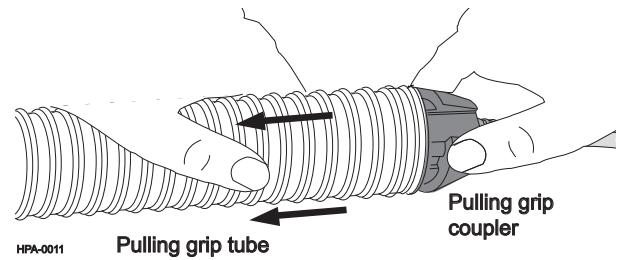


Figure 12

Step 5: Slowly slide the tubing away from the coupler and its connector legs (Figure 13).

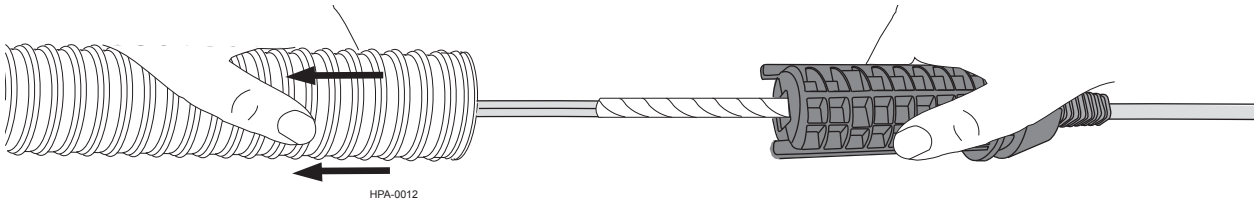


Figure 13

Step 6: Use the tabs on the furcation end of the coupler to separate the coupler's two halves.

Step 7: Remove the coupler halves from the trunk furcation body and dispose of the coupler assembly (Figure 14).

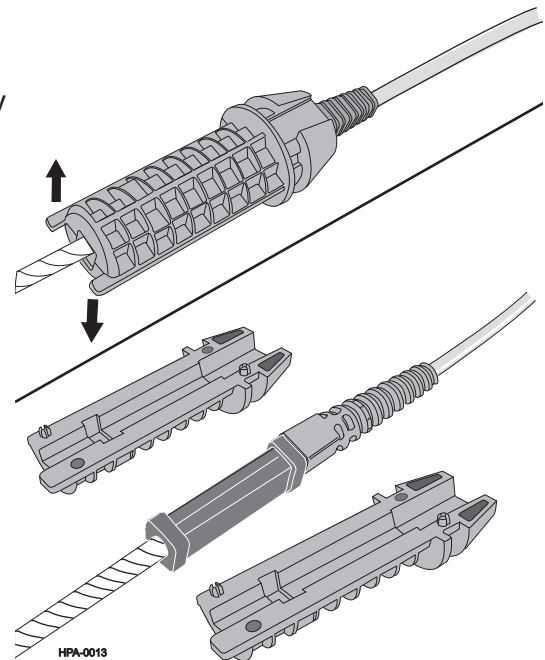


Figure 14

96- and 144-fiber Trunks:

Step 8: Starting with the mesh bag closest to the furcation body, remove the tape and mesh to expose the first set of three folded legs (Figure 15). Unfold the legs from around the bend control device.

Repeat this step on the middle mesh bag, and then conclude by removing the end mesh bag.

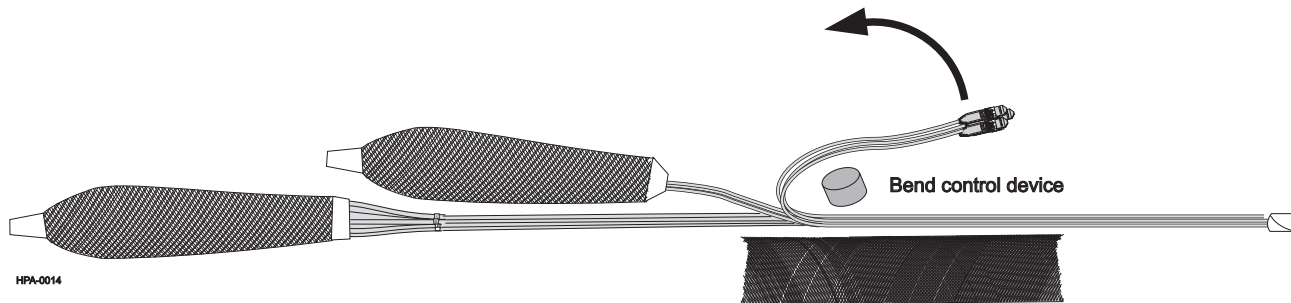


Figure 15

4.2.1.3 MTP® Module Installation using External Strain-Relief

Step 1: Mount the frame-mounted external strain-relief bracket (CTX-KIT-S4U-MTP-SR) to the rear of the frame above or below the housing (Figure 16).

NOTE: *If greater bend radius control of cable is required, position the bracket slightly above or below the roof of the housing, depending upon the direction the cable is entering the housing.*

Step 2: Install bracket using two 12-24 screws.

Step 3: Slide Centrix™ MTP modules into the front of the housing.

Step 4: Using scissors open the rubber grommet leaving behind the interior.

Step 5: Leave the dust caps on the connectors as you slide the furcation legs through the rubber grommet. Terminate the connectors to the Centrix MTP module.

NOTE: *In some cases, variations in the length of the trunk leg make it necessary to mount the trunk cradle further out on the external strain-relief bracket closer to the cable entry slot to avoid pulling on the leg when accessing the cassette from the front side of the housing.*

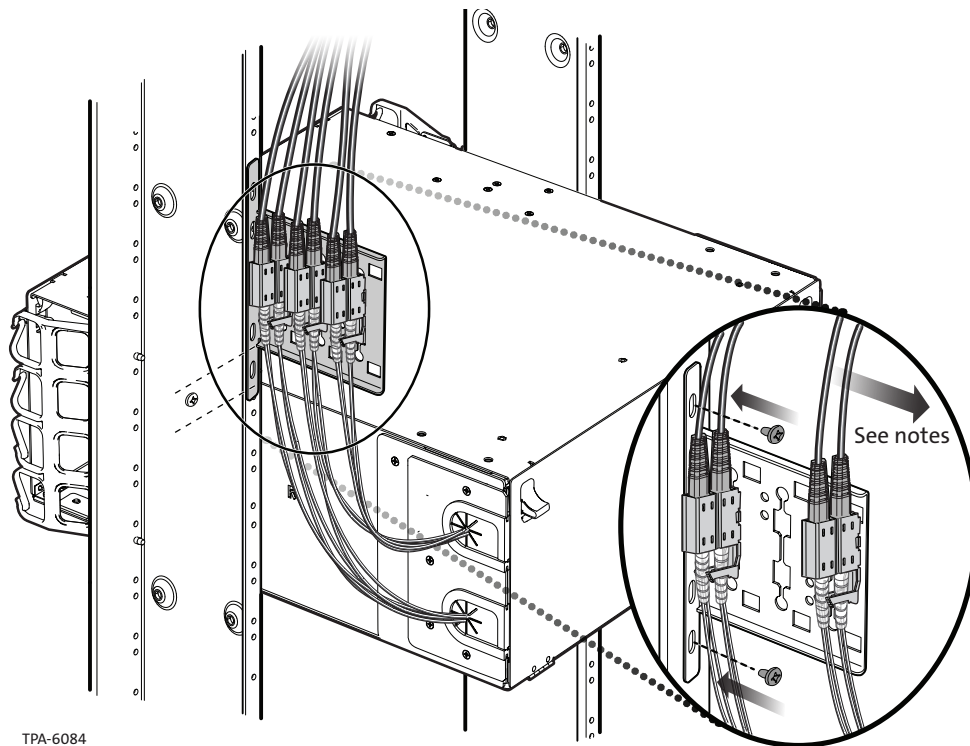


Figure 16

4.2.1.4 MTP Module Installation Using Internal Strain-Relief

Step 1: The Centrix enclosed housing can accommodate six EDGE™ keyhole cradles per side in both the top and bottom plates of the housing. Plan to have cables enter the housing from both sides if using more than six cradles.

Step 2: Slide Centrix MTP modules into the front of the housing.

Step 3: Remove the small entry plate that holds the grommets from the side of the housing where the cables will enter.

Step 4: Open cradle provided inside the reel and press each trunk cable furcation plug into cradle (Figure 17 - double-stack cradle or Figure 18 - single-stack cradle).

NOTE: One double-stack cradle (shown in Figure 17) is provided with the trunk cable.

Step 5: Open rear housing door. Route cables into housing through side openings.

Step 6: Secure the cables to the strain-relief plate by sliding the cradle into the keyhole adapter.

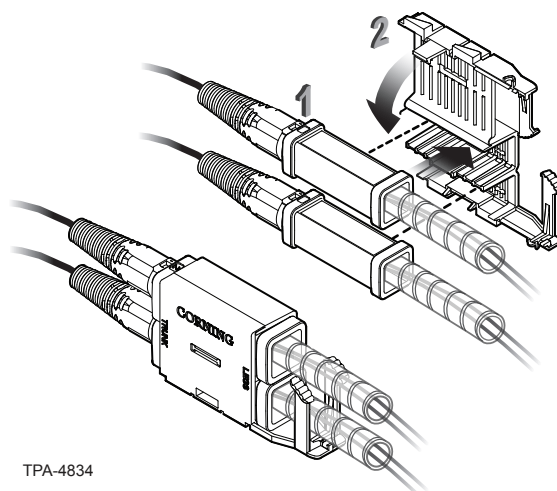


Figure 17

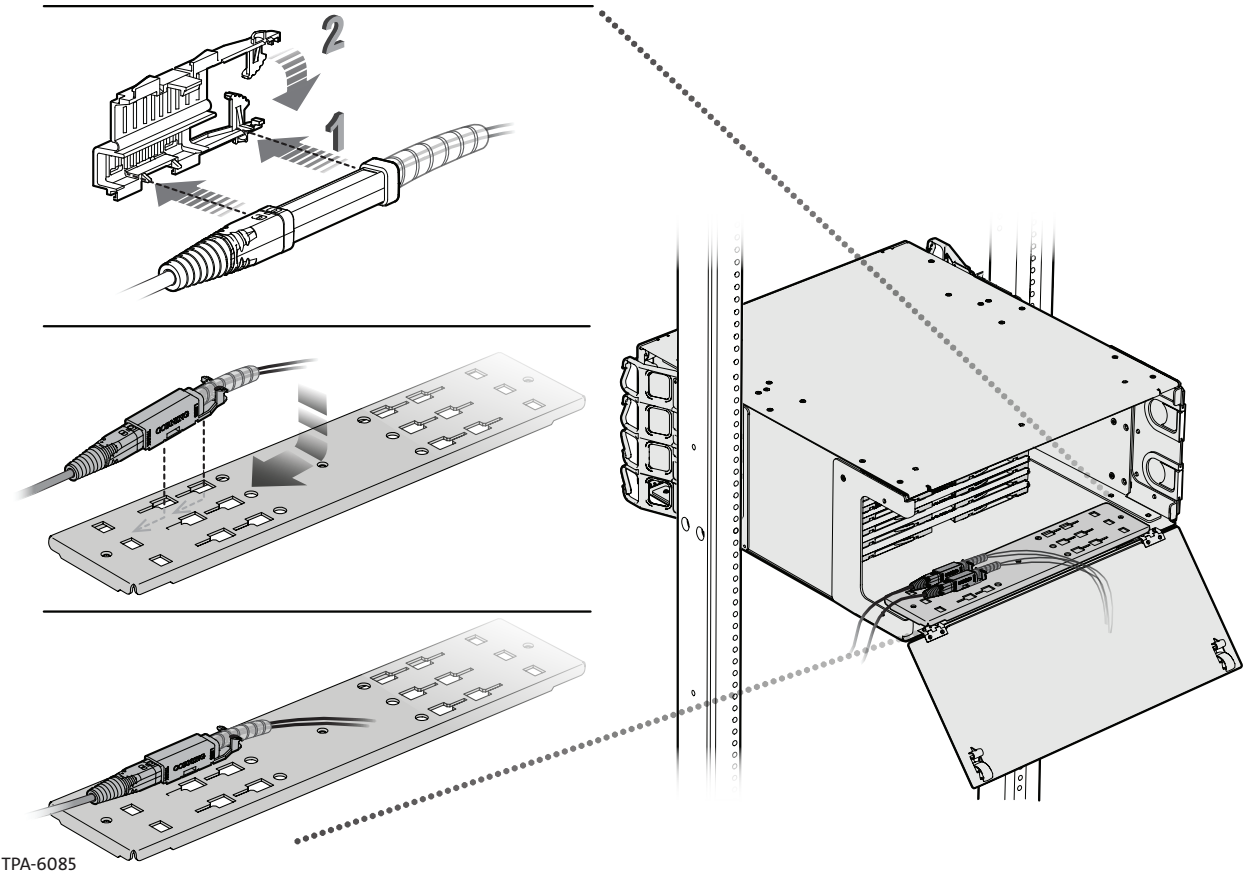


Figure 18

4.2.2 Centrix™ MTP® Stubbed Cassette

Step 1: Mount the external strain-relief bracket (CTX-KIT-S4U-MTP-SR) to the rear of the frame at the same elevation as the enclosed housing as seen in [Figure 16](#).

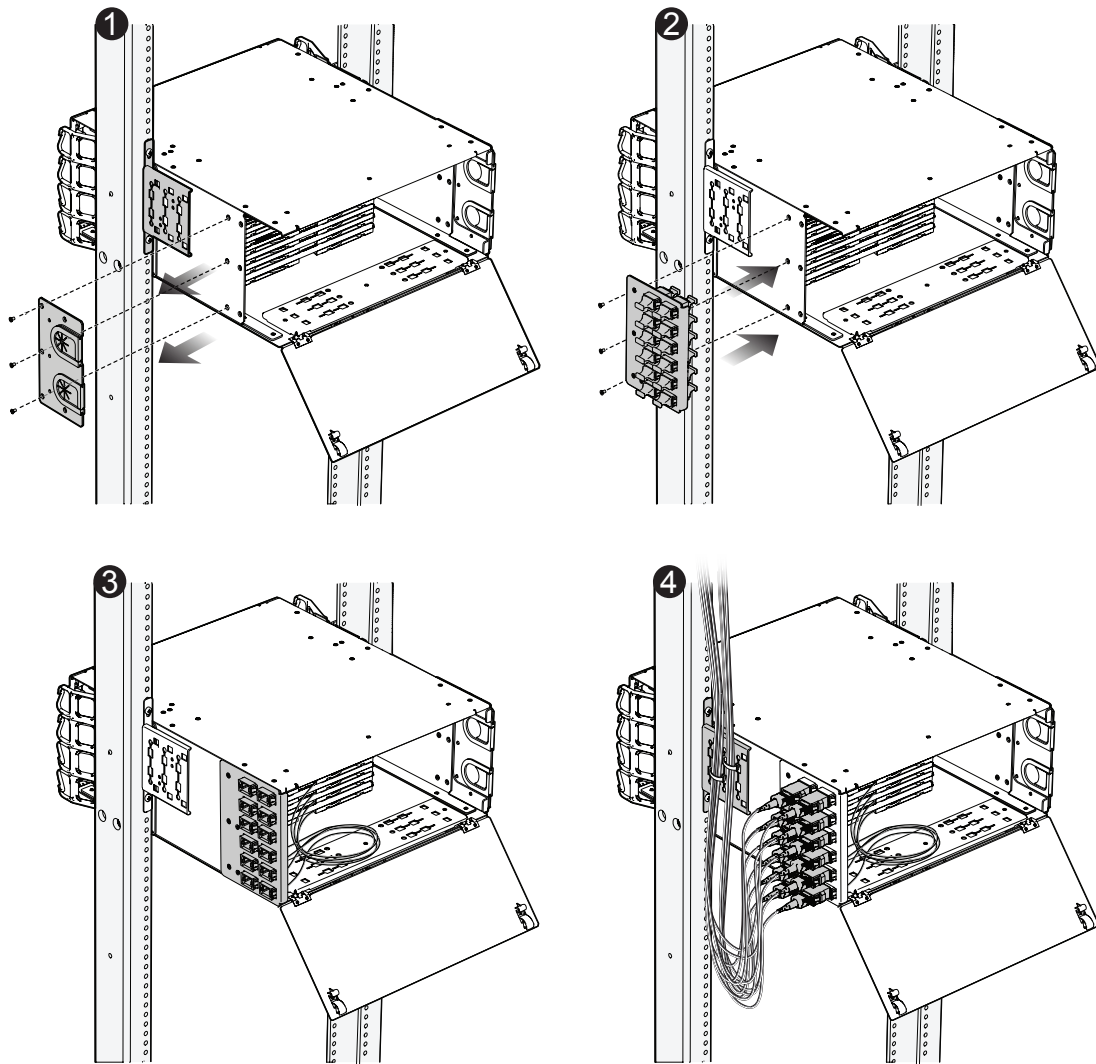
Step 2: Install bracket using two 12-24 screws.

Step 3: Replace the large side plate in the rear of the housing ([Figure 19](#)) with the appropriate MTP adapter panel part number from Table 1.

Part Number	Description
CTX-KIT-E4U-SR	Enclosed housing standard strain-relief bracket
CTX-KIT-SR-CE	Enclosed housing internal strain-relief lance plate
CTX-KIT-E4U-L-U889	Left-side MTP enclosed housing adapter panel with 24 MTP adapters per panel (288-fiber)*
CTX-KIT-E4U-L-WW89	Left-side MTP enclosed housing adapter panel with 36 MTP adapters per panel (432-fiber)*
CTX-KIT-E4U-R-U889	Right-side MTP enclosed housing adapter panel with 24 MTP adapters per panel (288-fiber)*
CTX-KIT-E4U-R-WW89	Right-side MTP enclosed housing adapter panel with 36 MTP adapters per panel (432-fiber)*

*Referenced when viewed from the front

Table 1: MTP® Adapter Panel Part Number



TPA-6086

Figure 19

- Step 4:** Install MTP® pigtail cassettes from the front of the housing and plug the furcation legs into the adapter panel as the cassettes are installed from bottom to top.
- Step 5:** Install trunk cables onto an external strain-relief bracket (CTX-KIT-S4U-MTP-SR) using the instructions in [Section 4.2.1](#).
- Step 6:** Terminate the MTP trunk cable connectors into the connector panel.

5. Jumper Routing and Connector Care



WARNING: Isopropyl alcohol is flammable with a flashpoint at 54°F. It can cause irritation to eyes on contact. In case of contact, flush eyes with water for at least 15 minutes. Inhalation of vapors irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness, and possibly death.

- Always keep dust caps on connectors and adapters when not in use.
- Ensure dust caps are clean before reuse.
- Use optical cleaning materials as standardized by your company.
- Clean the connector before every mating, especially for test equipment patch cords (jumpers).
- A minimum level of cleaning is listed below. Local procedures may require more rigorous cleaning methods.

- Step 1:** Open housing front door.
- Step 2:** Press latch on right side of cassette and pull cassette out to detent position (Figure 20).
- Step 3:** Press buttons on each side of the cassette and lower the handle.
- Step 4:** Open the handle cover (Figure 20 right).

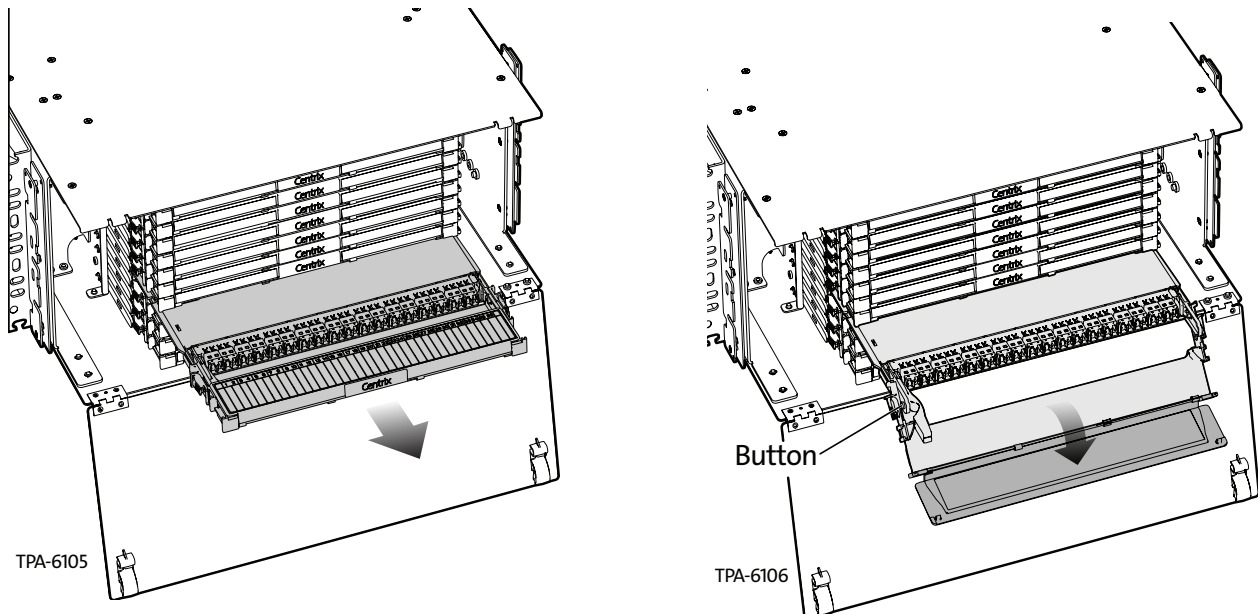


Figure 20

- Step 5:** Remove the dust caps from the Centrix™ cassette adapters.
- Step 6:** Remove dust caps from LC or MTP® connectors on the jumper cables. Clean the connector end faces using the CLEANER-PORT-LC tool or the MTP cleaning tool (P/N 2104466-01), respectively.
- Step 7:** Mate the connectors in the adapter (Figure 21).
- Step 8:** Raise the handle. Route jumper legs, right and/or left out either side of the housing.
- Step 9:** Close cover and push cassette back into the housing. Store legs in clips on either side of the housing.
- Step 10:** Route the jumper legs per your installation plan to their final destination.
- Step 11:** Repeat for remaining jumpers.

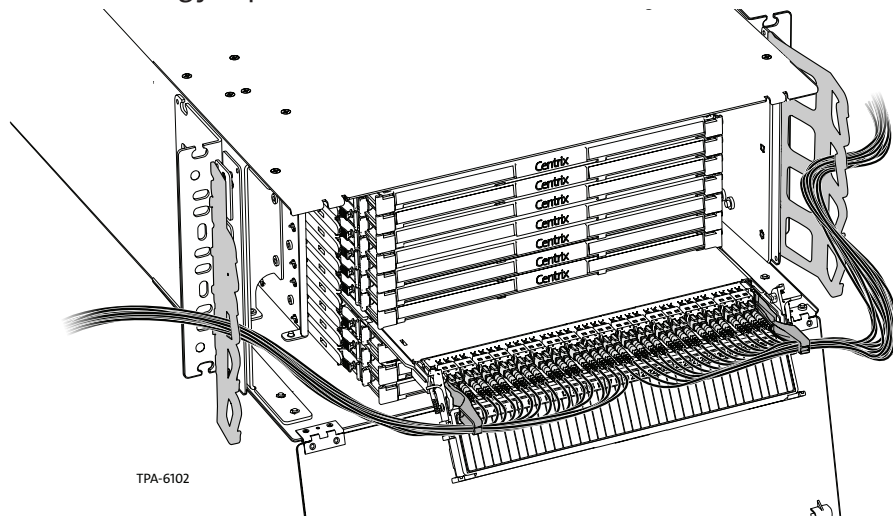


Figure 21