

CORNING

LTS Connector Housing

P/N 003-300
Issue 4

1. General

This document describes the recommended procedure for the installation of the LTS-CMH connector housing shown in Figure 1.

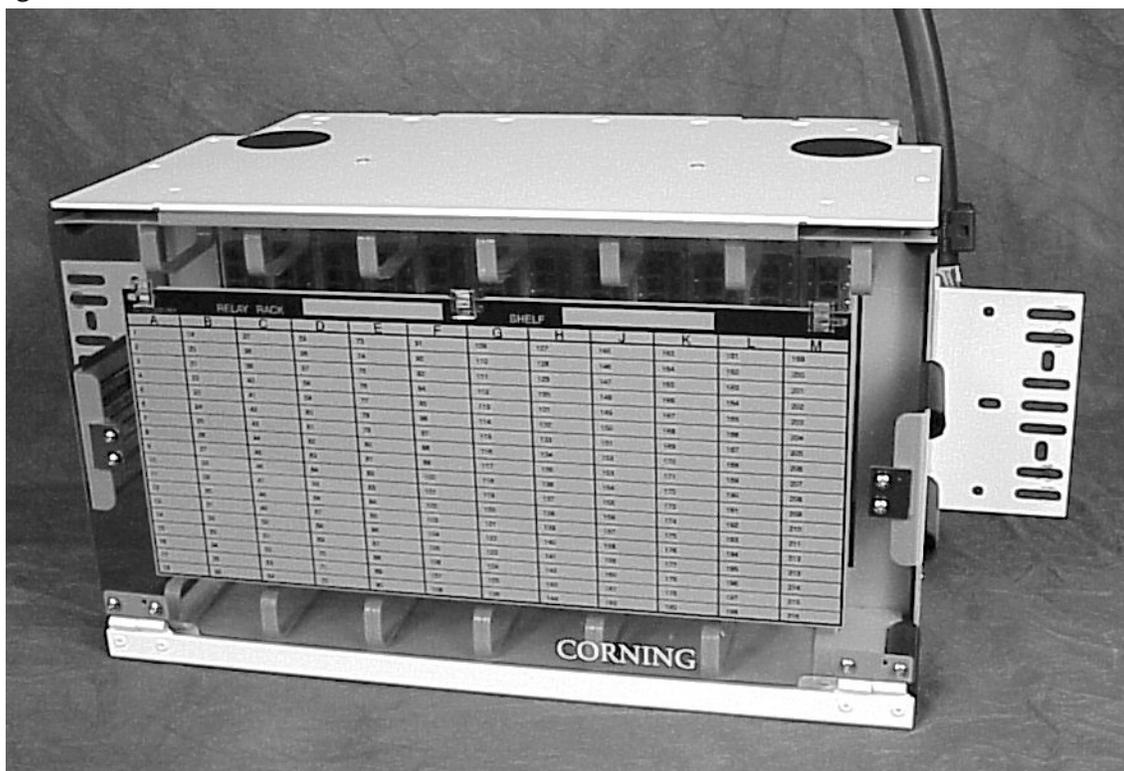


Figure 1

NOTE: Read and understand this procedure (as well as the instructions provided with related assemblies) before beginning an installation. Familiarize yourself to understand the unit's placement in your network. Make sure you know where the cable will enter the unit, where it will be placed in the utility rack, how jumpers will be routed and other details of the installation plan.

2. Tools and Materials

In addition to the usual complement of installation tools, you will need a 5/32-in hex wrench, vinyl tape, and 3/8-in nut driver.

Wall-mounting hardware is not provided. The type of hardware used is dependant on the mounting locations; wall anchors may be required for adequate support on sheetrock walls. Mount directly into the wall studs when possible.

3. Components

Components and dimensions are illustrated in Figure 2.

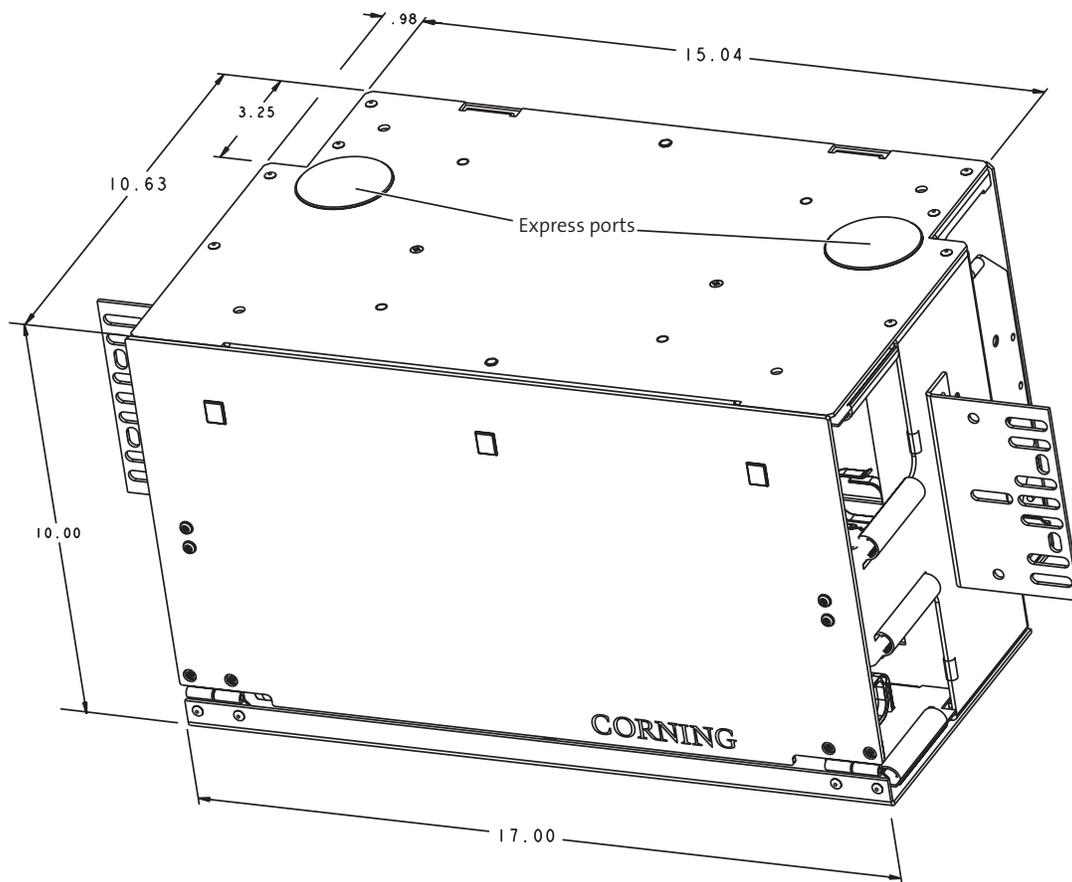


Figure 2

4. Unpacking Stubbed Units

Factory-stubbed units are shipped inside cable transport system (CTS) reels.

- When removing stubbed units from the CTS reel (Figure 3), remove the cable from the reel before lifting the stubbed unit from inside the reel.
- Refer to SRP 003-310 (provided with the CTS reel) for more detailed instructions, if necessary.

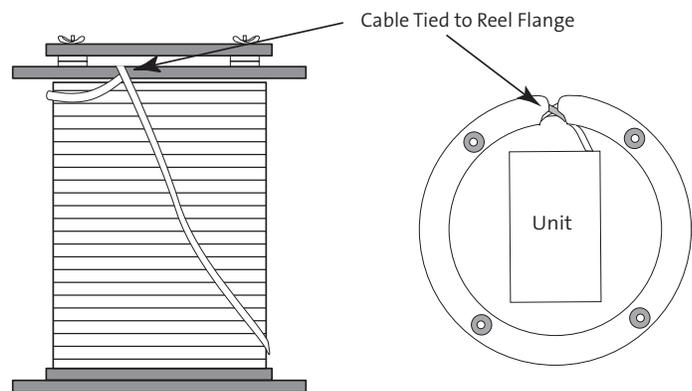


Figure 3



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.

IMPORTANT: Clip the cable tie securing the cable to the flange on the reel before attempting to lift the unit out. Failure to do so could violate the cable bend radius. Stress on the cable can damage it and affect the transmission characteristics of the cable.

5. Mounting the Housing

5.1 Rack-mounting

Step 1: Remove the express port plugs from the top and bottom of the housing before mounting the unit into a rack.

Step 2: When the unit is to be rack-mounted, attach the brackets to the housing as shown in Figure 4 using the supplied 10-32 x 1/2-in screws.

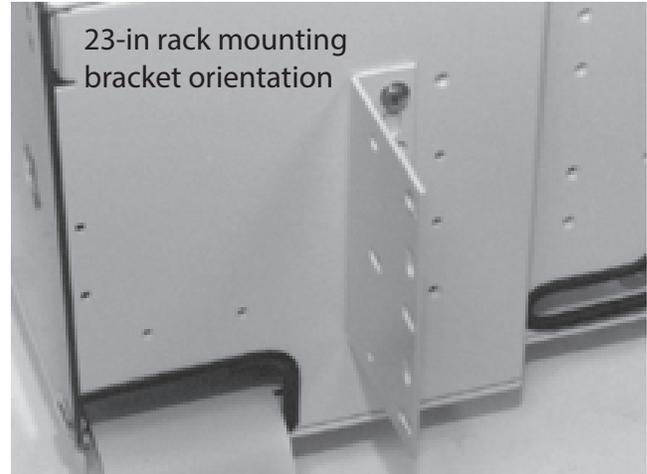
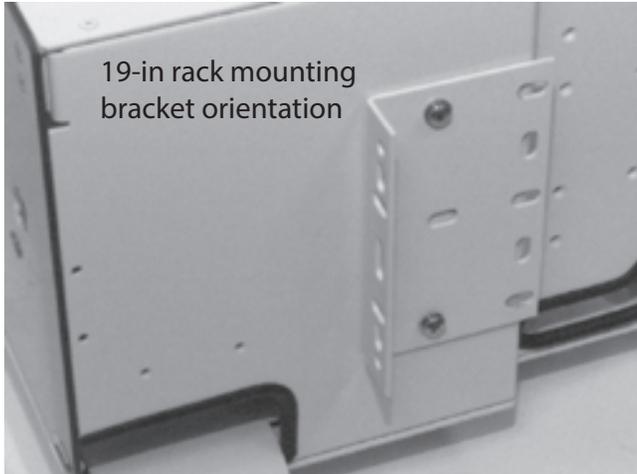


Figure 4

Step 3: Attach the LTS-CMH unit to the rack as shown in Figure 5 using the supplied 12-24 x 1/2-in screws.



Figure 5

5.2 Wall-mounting

When wall-mounting, select a flat vertical surface to prevent warping. Make sure the wall sill support the weight of the unit. Make sure the rear door is attached before securing the unit to the wall. Attach the mounting brackets as shown in Figure 6. Mounting hardware is not provided.



Figure 6

6. Grounding and Strain-Relieving Cable



CAUTION: If you are installing outside plant cable or temperature fluctuates widely along any part of the cable, the central member must be strain-relieved. Failure to do so may result in damage to the cable as temperature varies.

If the entire length of cable is located in a controlled environment where temperature fluctuation is minimal, it is not necessary to secure the central members. The cable can be strain-relieved by sheath retention alone.

For cable sheath retention only, use cable ties or the universal cable clamp (UCC).

Step 1: Fiber optic cable with a metallic central member can be grounded directly to the strain-relief bracket. Strip approximately 2 cm (0.5 in) of coating from the central member. Place the eye of a ground wire (#6 AWG, purchased separately from any electrical supply store) under the washer. Attach the other end of the ground wire to the building ground.

NOTE: *The ground wire must have metal-to-metal contact providing an electrical path to the central member in order to properly ground the cable.*

Step 2: When using the UCC, the clamshell must be attached to the strain-relief bracket before the bracket is attached to the unit and the shims are added (Figure 7). Refer to the instructions provided with the UCC kit for detailed instructions.

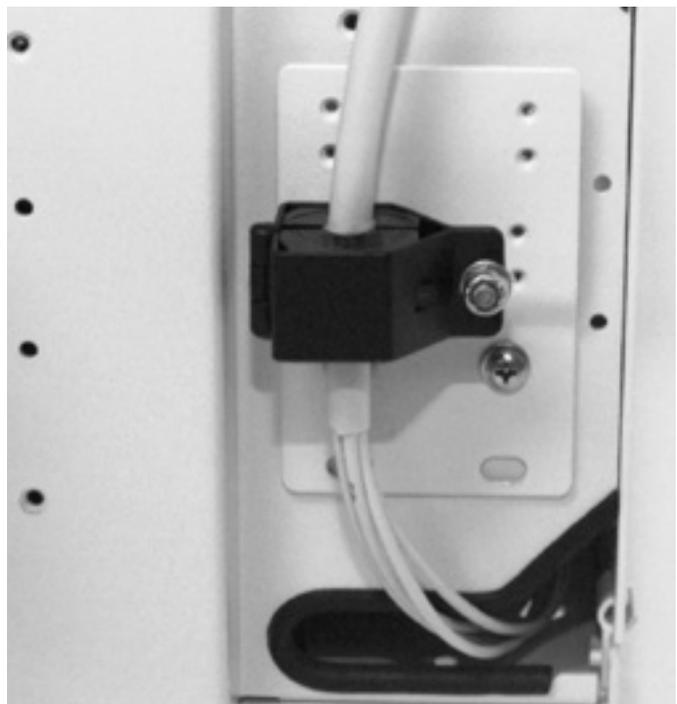


Figure 7

Step 3: To secure the central member:

- a. Remove the bracket from the housing
- b. Install the U-shaped washer as shown in Figure 8.
- c. Loosely install the hex nut.
- d. Insert the central member of the cable between the bracket and the U-shaped washer.
- e. Arrange the buffer tubes to ensure clearance around the central member clamp assembly and hardware.
- f. Tighten the hex nut.
- g. Install the two flat washers.
- h. Loosely install the other hex nut.
- i. Wrap the strength member yarn, if present, in a clockwise direction around the bolt and between the flat washers.
- j. Tighten the second hex nut.
- k. Trim off the excess yarn and central member.

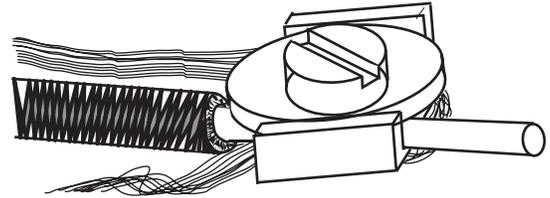


Figure 8

NOTE: The exposed length of the central member (after strain-relief) is to be less than or equal to 6.5 cm (2.5 in) between the U-shaped washer and the end of the cable sheath.

Step 4: When cable grounding is necessary, use HDWR-GRND-KIT (purchased separately).

7. Installing Cable

	WARNING: Never look directly into the end of a fiber that may be carrying laser light. Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.
	WARNING: DO NOT use magnifiers in the presence of laser radiation. Diffused laser light can cause eye damage if focused with optical instruments. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.
	CAUTION: Cleaved or broken glass fibers are very sharp and can pierce the skin easily. Do not let these pieces of fiber stick to your clothing or drop in the work area where they can cause injury later. Use tweezers to pick up cleaved or broken pieces of glass fibers and place them on a loop of tape kept for that purpose alone. Good housekeeping is very important.
	CAUTION: The wearing of cut-resistant safety gloves to protect your hands from accidental injury when using sharp-bladed tools and armored cable is strongly recommended. Use extreme care when working with severed armor. There will be a sharp edge where armor is cut. To minimize the chance of injury from the cut armor, cover the exposed edge with a wrap of electrical tape. To minimize the chance of injury from sharp-bladed tools, always cut away from yourself and others. Dispose of used blades and armor scrap properly.
	CAUTION: Recommend the use of safety glasses (spectacles) conforming to ANSI Z87, for eye protection from accidental injury when handling chemicals, cables or fiber. Pieces of glass fiber are very sharp and have the potential to damage the eye.
	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.

- Step 1:** If desired, remove the front and rear doors (secured with magnets) to make panel installation and fiber routing easier.
- Step 2:** Insert the metal tab at the top of the LTS adapter panel into the housing as shown in Figure 9.
- Step 3:** Use the nylon plunger to secure the bottom of the panel to the housing.

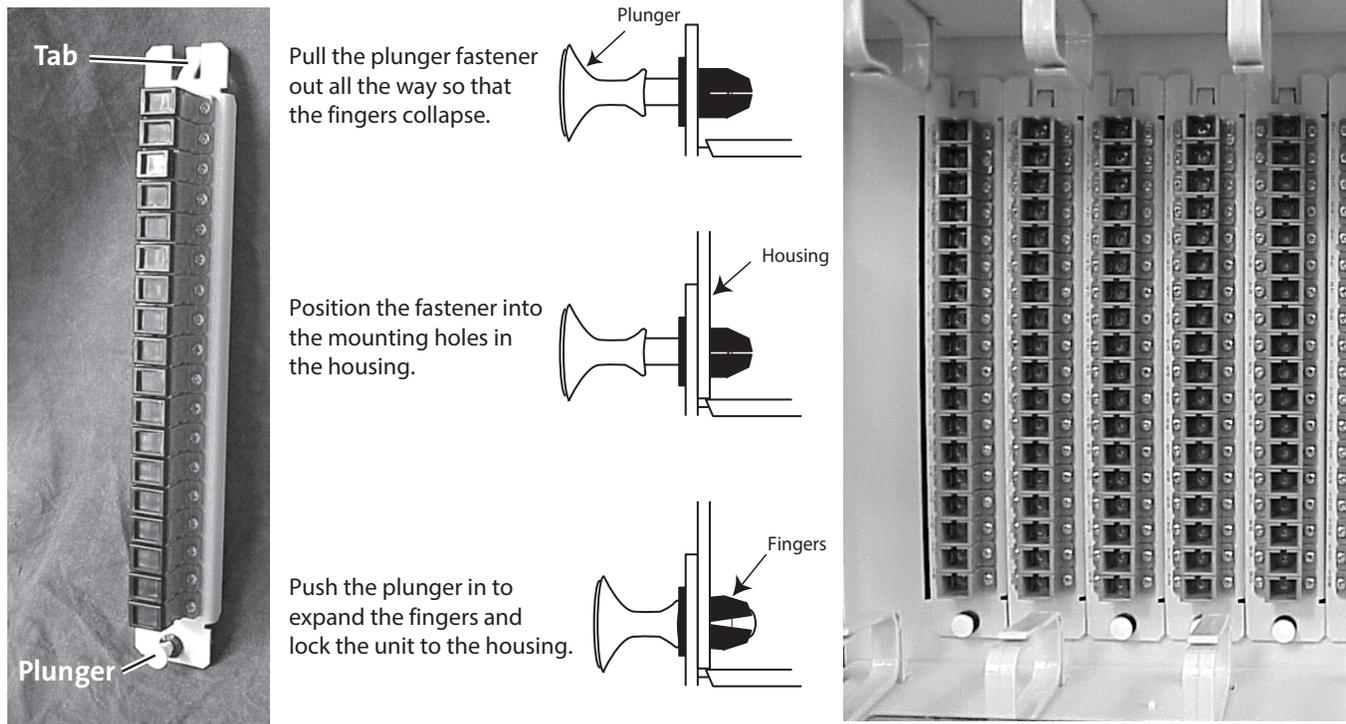


Figure 9

- Step 4:** Route pigtails to the appropriate routing guide in the top or bottom of the housing (Figure 10) to create an organized installation. Label the end of the pigtail with an identification tag that corresponds to the panel's position in the housing.

NOTE: *If any excess length of the pigtail is removed, make sure to place new identification tags on the new working length prior to removing the excess.*

- Step 5:** When using the LTX-MCH-M63C-FOT version of the unit, route the 3 mm jumpers through the top and bottom routing guides in the rear of the unit in the same manner shown in Figure 10 for pigtail routing in the front of the housing.

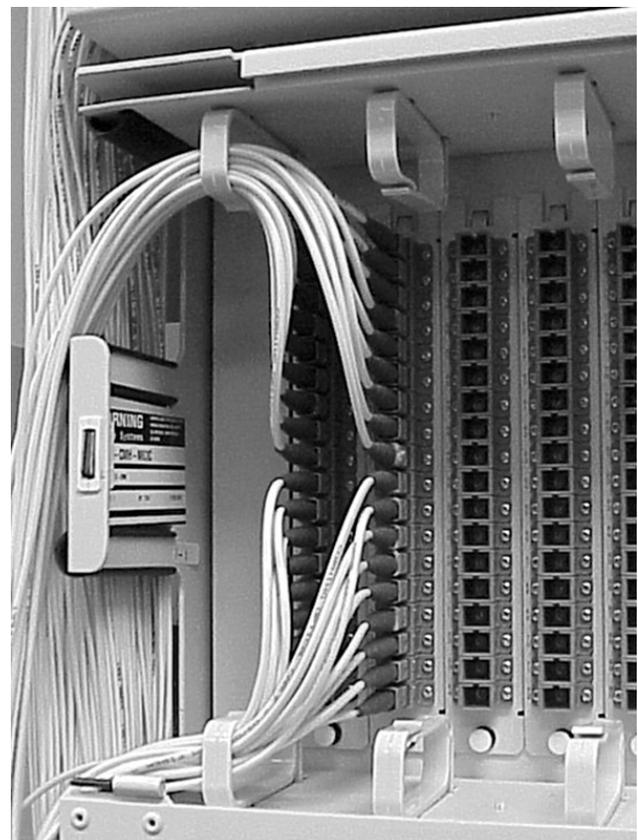


Figure 10

Step 6: Route pigtail fibers through express ports in the top and bottom of the standard connector housings to splice housings. If installing fiber into the NEBS-compliant connector housing (Figure 11), slit the grommet from the outer edge to the center and feed fiber through the grommet. Ensure that the grommet maintains a tight seal around the fiber to maintain the fire-retardant capability.

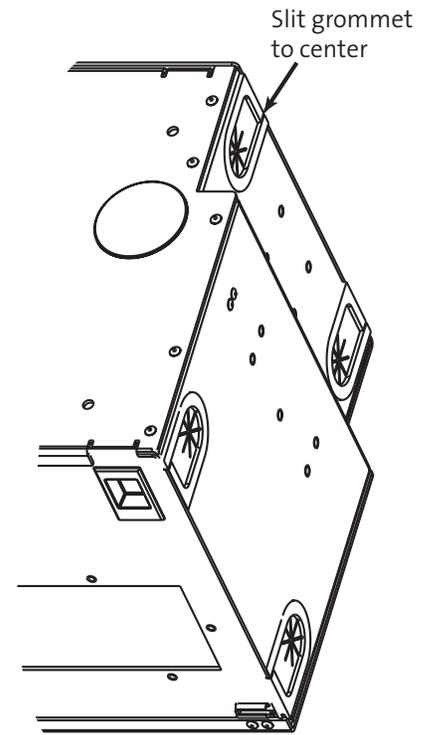


Figure 11

Step 7: If cable has fan-out bodies, place the bodies into the cut-out in the rear shelf of the unit. Secure the bodies with a cable tie (Figure 12).

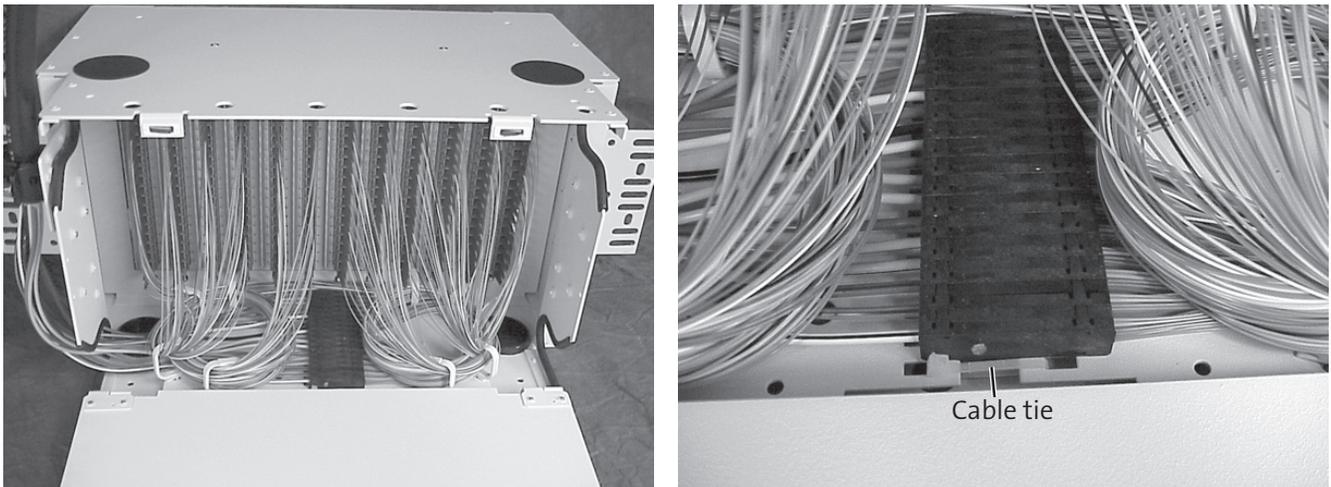


Figure 12

Step 8: Record information appropriately on the record card on the inside of the front door.

Step 9: Replace the front and rear doors, if previously removed.

8. Maintenance

The unit requires very little maintenance to ensure fibers and parts remain in good condition.

- External components may be cleaned occasionally with a damp, nonabrasive cloth.
- Check nuts, bolts, and screws; tighten as needed.
- Check fiber optic cable to make sure bends do not exceed the minimum bend radius.
- Check cables for unnecessary strain, for crimping or crushing at entries and exits, and for damage.
- Check unit record labels to make sure all are clear and accurate.