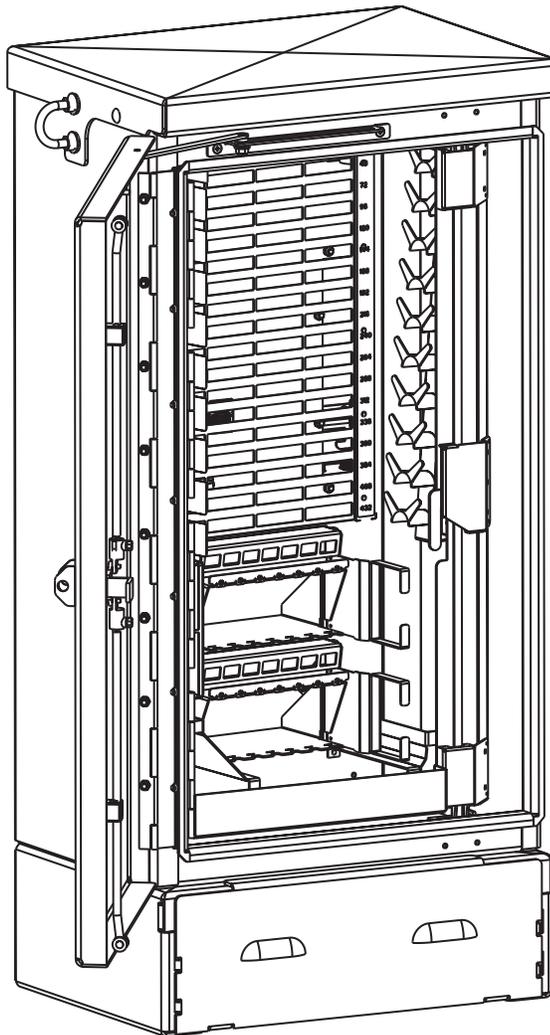


OptiTect™ Premier Local Convergence Cabinet



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Revision History

Issue	Date	Reason for Change
2	02/2006	Added more details regarding installation of splitter modules
1	12/2005	Initial Release

Related Literature

000-245	Instruction, OptiText Premier Splitter Module
000-247	Instruction, OptiText Premier Local Convergence Cabinet Skirt Kit

Admonishments

The precautionary terms used by Corning Cable Systems in its standard recommended procedures conform to the guidelines expressed in the American National Standards Institute document (ANSI Z235) for hazard alert messages. Alerts are included in this instruction based on the following:



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

1. GENERAL

The OptiTect Premier Local Convergence Cabinet functions as an interface between the telecommunication provider's network and individual customer connections. The cabinet provides mechanical and environmental protection for the splices and connector interfaces while providing easy access for the service provider. The cabinet provides a management system for optical fiber, connectors, and splitter modules and a test access point to verify the integrity of the network.

Table 1. Cabinet Capacity	Cabinets		
	432-fiber FDH	288-fiber FDH	144-fiber FDH
Distribution	432-fibers	288-fibers	144-fibers
Feeder	up to 48-fibers (28 are connectorized)	up to 48-fibers (18 are connectorized)	up to 24-fibers (10 are connectorized)
Splitter Modules (1x32 / 1x16)	14 / 28	9 / 18	5 / 10
Parking Permanent / with Vanishing Parking	48 / 152	48 / 112	32 / 64

1.1 Use and Application

The OptiTect Premier Cabinet may be used in an outdoor environment, either mounted on a pad or a pole. The cabinet design allows front access to the fibers, connectors, and splitter modules for management, testing, and maintenance by the craft persons. Safety loops are installed at the top of the pole-mountable cabinets to enable installers to attach safety harnesses during work operations.

The interior is accessible through a hinged front door that is secured with a three-point latch. The cabinet door can be locked with a 216B tool and padlock. One connectorized distribution and one connectorized feeder cable are preinstalled and attached to the internal housings.

- Preconnectorized distribution and feeder cables are routed into the cabinet and terminated on the back side of the connector adapter fields. The front side of each adapter is ready to receive the connectorized fibers from the splitter modules.
- Splitter modules (purchased separately) are installed into the splitter storage area. Refer to Table 1 for the maximum number of splitter modules for each size of cabinet. Preconnectorized output fibers from the splitter modules can be connected at the time of installation in the adapter field or routed to and stored in a connector storage field for connection later.

1.2 Planning

Contact a Corning Cable Systems customer service representative to place an order for this product in the configuration required by your network installation plan.

- The dimensions for each of the cabinet sizes are listed in Table 2. Ensure that sufficient space is available at the installation site to accommodate the cabinet. Allow 19 inches in front and 10 inches on each side of the cabinet to enable the door to open fully.

Table 2. Cabinet Dimensions	DIMENSIONS (in inches)		
	Wide	Deep	High
144-fiber cabinet - pad-mounted	18.5	13.6	24
144-fiber cabinet - pole-mounted	18.5	13.6	18
288-fiber cabinet - pad-mounted	18.5	13.6	33
288-fiber cabinet - pole-mounted	18.5	13.6	27
432-fiber cabinet - pad-mounted	18.5	13.6	39.3
432-fiber cabinet - pole-mounted	18.5	13.6	33.3

- The installing company should obtain rights-of-way from property owners and permits or other approvals from public authorities prior to installation of the cabinet.
- Select an appropriate site per your design plan and follow standard local practices to construct or purchase a concrete pad suitable for installation of the cabinet. The pad should be able to withstand the weight of a fully loaded cabinet (approximately 50 pounds for the 144-fiber cabinet, 60 pounds for the 288-fiber cabinet, and 75 pounds for the 432-fiber cabinet). A template (p/n 02-029848-001) provides cabinet dimensions and recommended location of conduit, mounting hardware, and grounding rod to assist with on-site or precast pad construction.

2. MATERIALS AND TOOLS REQUIRED

2.1 Materials

The following materials are required to install the OptiTect Premier Cabinet cabinet onto a pad (purchased separately):

- Paper mounting template (provided)
- Grounding kit (provided)

NOTE: *Pad-mounting hardware for pads without threaded inserts may be purchased separately:*

For mounting on a pad with threaded studs, order mounting hardware kit (p/n FDH-MTNG-KIT-TDST)

For mounting on a pad by inserting wedge anchor threaded studs, order mounting kit (p/n FDH-MTNG-KIT-DRLAN)

In case of misplaced or damaged pole-mounting components, Corning Cable Systems offers replacement pole-mount kits (p/n FDH-G3-POLE-KIT , purchased separately), which support mounting to poles ranging in diameter from 10 to 14 inches.

If not using the Corning Cable Systems' pole-mount kit, the hardware below is suggested for attaching pole-mount brackets to wooden poles; however, follow standard local practices where they exist.

- (2) $\frac{3}{4}$ -10 x 16-inch carriage bolts
- (2) $\frac{3}{4}$ -inch split lock washers
- (2) $\frac{3}{4}$ -10 square nuts
- (2) $\frac{3}{4}$ -10 x 2-inch square washers
- (2) $\frac{1}{2}$ x 4-inch lag screws

The following materials are required for all installations of OptiTect Premier Cabinets:

- Ground kit for cabinet (provided)

2.2 Tools

To install the cabinet, the following tools may be required:

- Hoist or lifting device capable of lifting at least 150 pounds (largest cabinet's weight, including packaging)
- Forklift or handtruck
- 216B tool or a $\frac{7}{16}$ -inch nutdriver (for entry into the interior of the cabinet)
- Crescent wrench
- Drill with $\frac{7}{8}$ - to 1-inch auger bit
- $\frac{9}{16}$ -inch nut driver or socket
- $\frac{3}{4}$ -inch nut driver or socket
- Phillips-head screwdriver
- Dry-process connector cleaning supplies

2.3 Auxiliary Equipment

There is no auxiliary equipment required to install the cabinet. If the cabinet is not full to capacity, additional products may be installed to expand the customer connections. Refer to the section, *Growth*, for details on expanding the capacity. Contact a Corning Cable Systems customer service representative to order additional products in the configuration required by your network installation plan.

3. COMPONENTS AND SHIPPING CONTAINER CONTENTS

Figure 1 provides a pictorial description of the cabinet and its components.

Packing List of Shipping Container Contents

- (1) OptiTect Premier Cabinet cabinet, prestubbed with distribution and feeder cables in lengths specified by the customer
- (1) Grounding kit (p/n FDH-GRND-KIT)
- (1) Paper mounting template (p/n 02-029848-001)
- (1) Bag with extra adapter and connector dust caps
- (1) Installation instruction (SRP 003-716)

Additional Container Contents for Pad-mounted Cabinets

- (1) Rubber mounting cushion

Additional Container Contents for Pole-mounted Cabinets

- (1) Pole-mount Bracket Assembly
- (2) Angled mounting brackets
- (2) Lock washers
- (2) Flat washers
- (2) Carriage bolts
- (2) Hex-head nuts

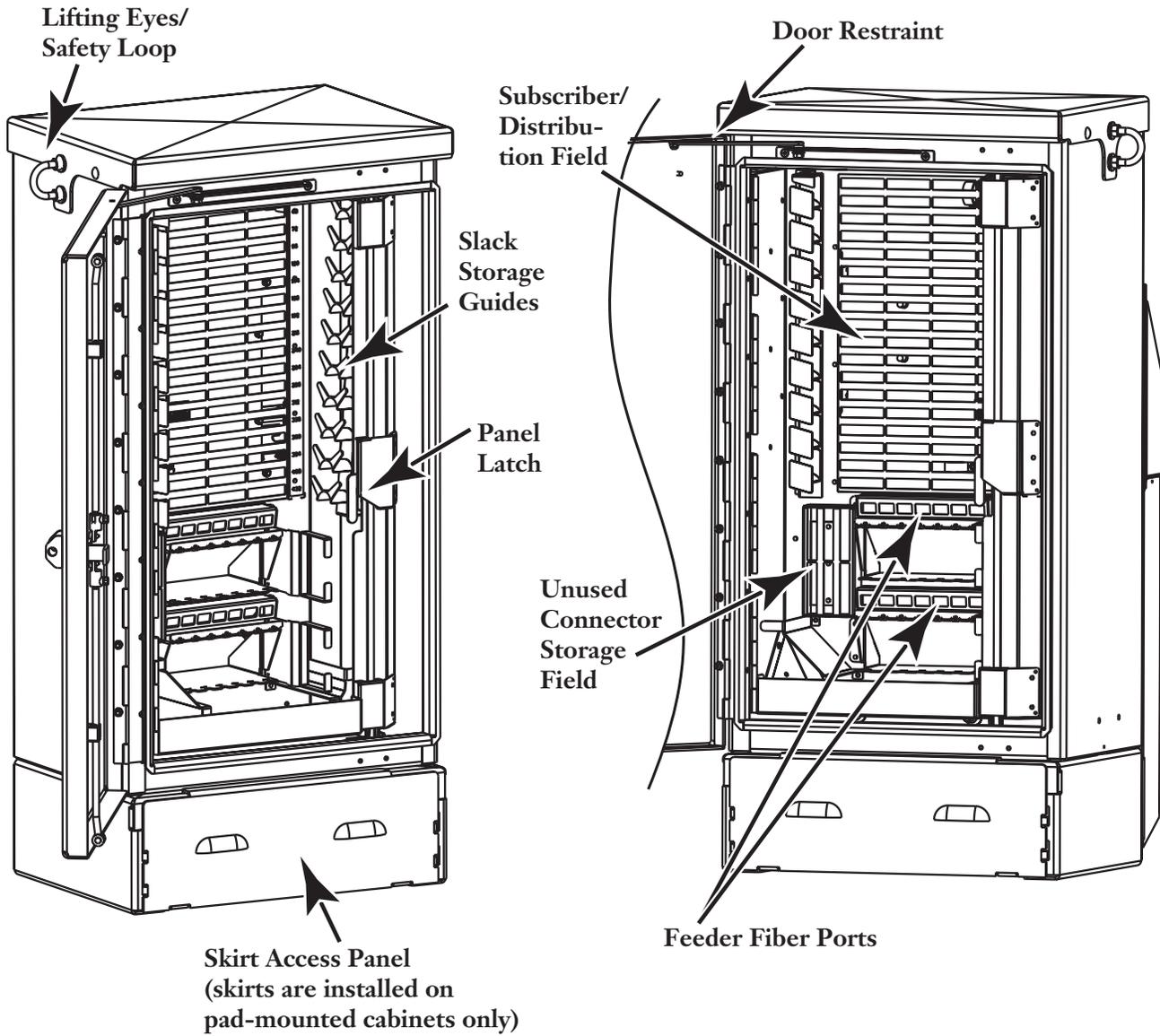


Figure 1 — Cabinet Components

4. STORAGE AND TRANSPORTATION

The shipping container and its contents must be stored indoors in a vertical position in the original packaging. A forklift or handtruck capable of lifting approximately 150 pounds is required to unload or transport the product in its shipping container prior to unpacking. Observe all local safety precautions when moving the container. Do not double-stack shipping containers.

5. UNPACKAGING THE CABINET AND COMPONENTS

- Step 1** Place the container near the site prepared for installation of the cabinet. Remove the installation instruction and paper mounting template.
- Step 2** Cut the bands holding the cabinet to the pallet.
- Step 3** Remove the shrinkwrapping from around the cabinet.

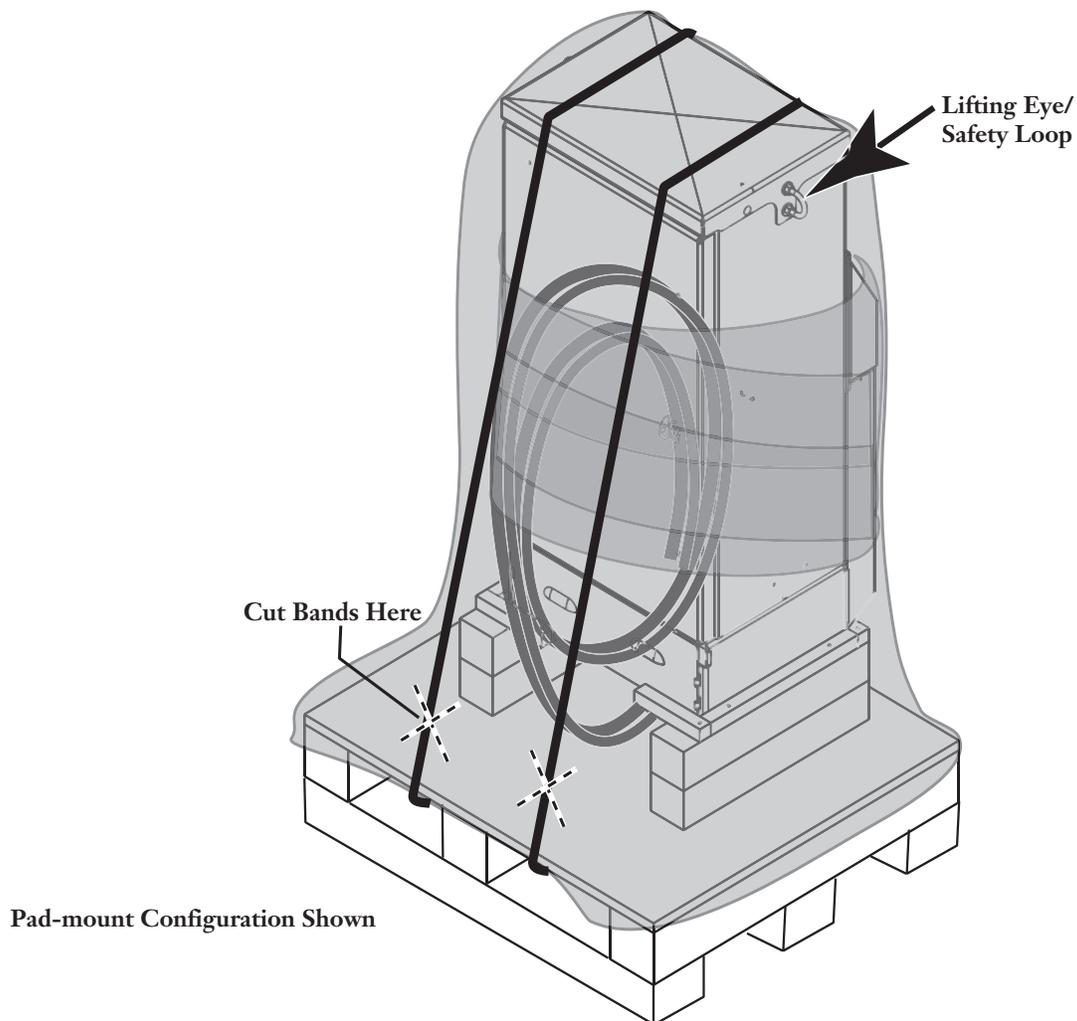


Figure 2 — Remove Exterior Packaging

6. INSTALLING THE CABINET

6.1 Installation on a Pad

Step 1 If not using a precast pad with mounting hardware installed, use the template provided in the packing envelope on the outside of the shipping container to mark the location for the mounting bolts (Figure 3). Drill holes for 0.5-inch bolt anchors in the poured pad and insert the mounting bolts (0.5-inch diameter).

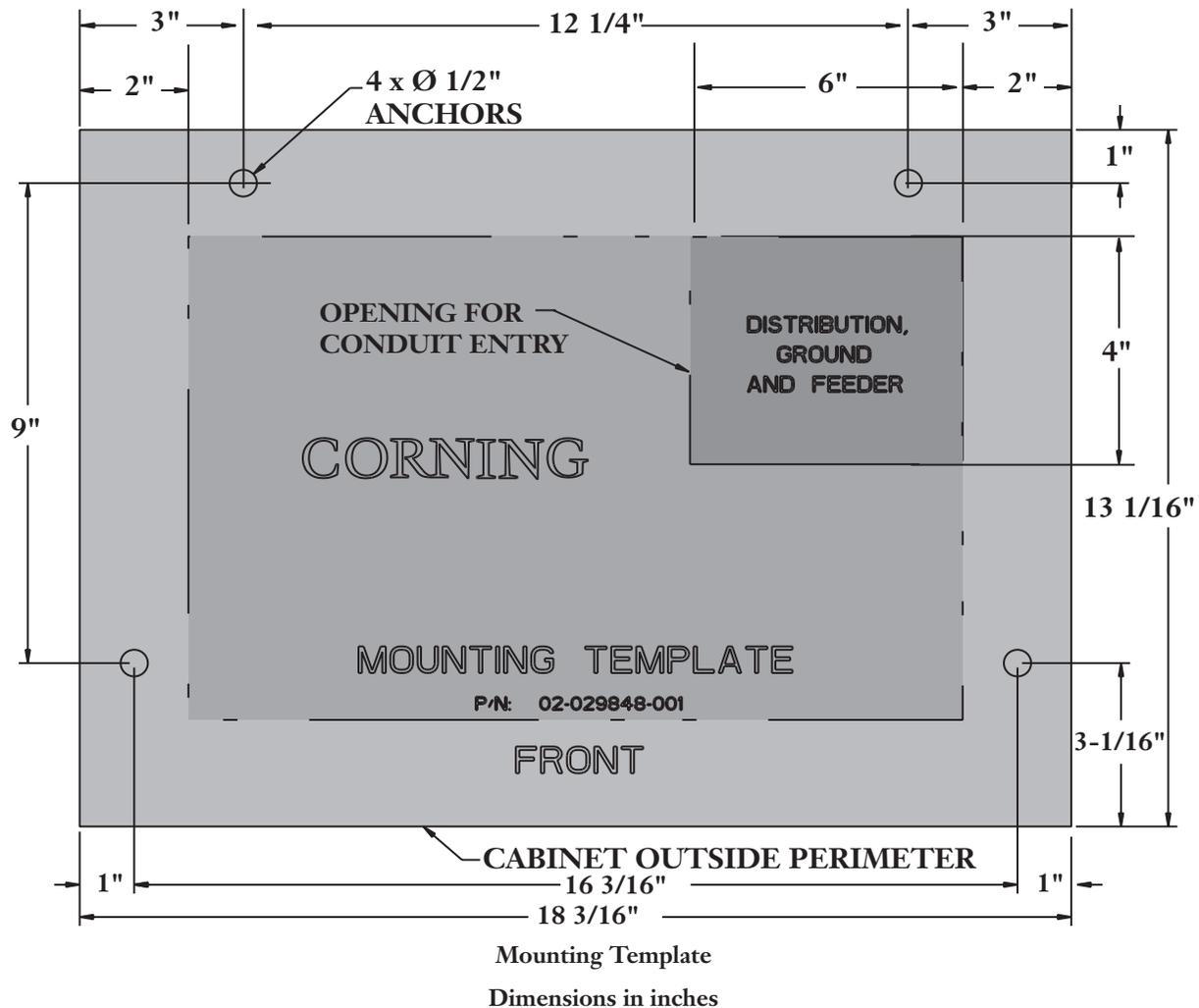


Figure 3 — Template for Pad-mounting Hardware Location

Step 2 Ensure that a lifting device, such as a hoist or crane, capable of lifting at least 75 pounds (largest cabinet's weight) is available to lift the cabinet into position.



DANGER: Only certified operators should operate the crane. Ensure that stabilizers are extended and firmly positioned before lifting the cabinet. Avoid overhead obstructions or power lines when lifting the cabinet.

Step 3 Clip the ties from the cables. Roll out the cables when removing them from the packaging to avoid putting twists into the cable. Then loop the cables in a "Figure-8" pattern next to the pad or pole before placing the unit.

Step 4 Attach lifting cables to the lifting eyes on each side of the cabinet.

- Step 5** Open the cabinet using a 216B tool. Lift the skirt access panel off the front of the skirt. Close and secure the cabinet door prior to lifting the cabinet.
- Step 6** Carefully lift the cabinet and move it into position over the cabinet location on the pad. Be sure that cable slack is not pinched or kinked during the lifting operation (Figure 4).



CAUTION: *The cabinet is heavy and requires two people to maneuver it. Observe all safety precautions while using the cable hoist. Make sure the door is locked in the closed position. Failure to do so may result in personal injury or damage to the cabinet or cables.*

NOTICE: *Fiber optic cable is sensitive to excessive pulling, bending and crushing forces. Do not exceed 200 pounds of pulling force on the cable. Do not bend the cable more sharply than the minimum recommended bend radius (typically 9 inches). 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.*

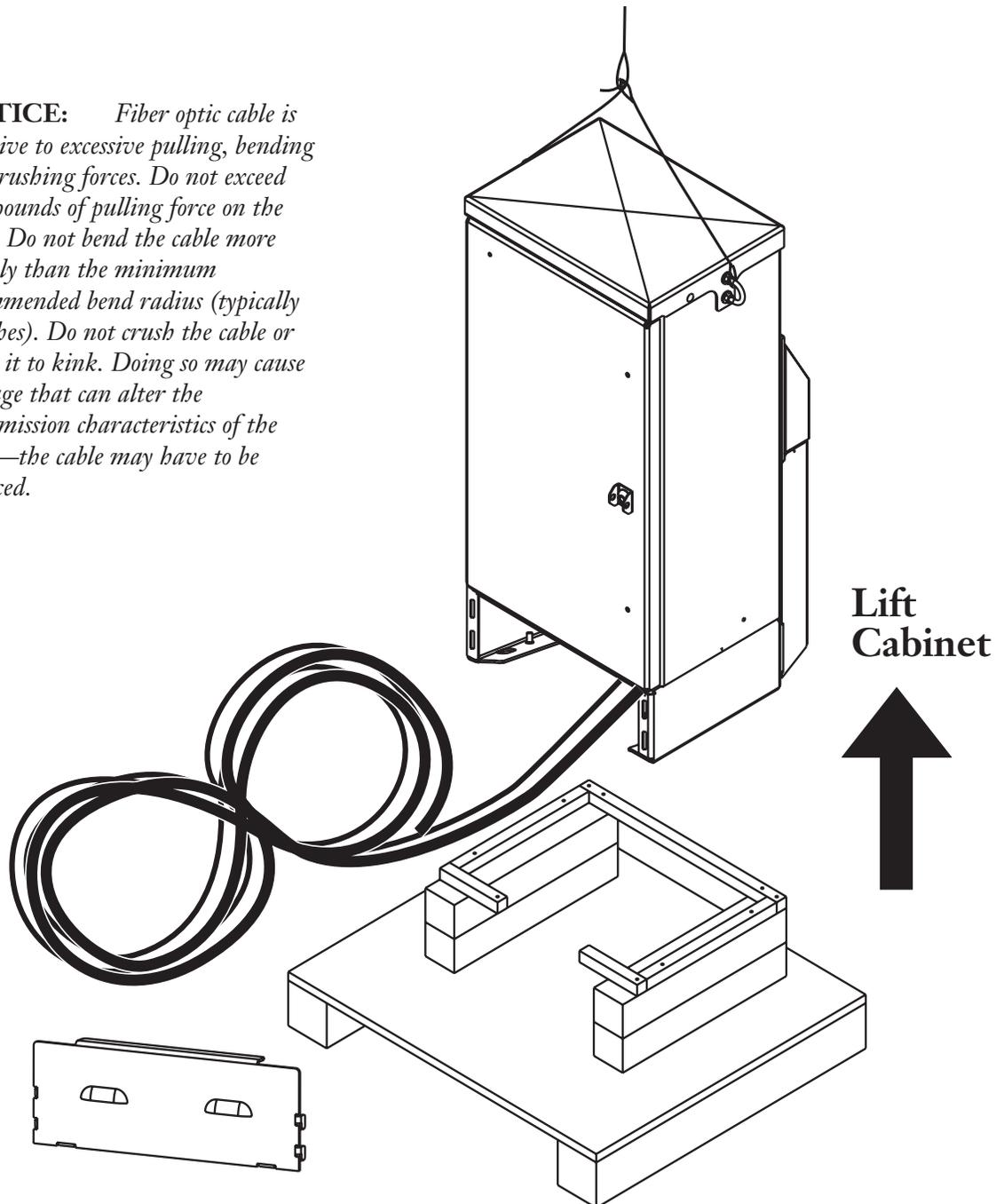


Figure 4 — Lift Cabinet

- Step 7** Insert cable into the appropriate ducts. Slowly lower the cabinet onto the pad while simultaneously pulling cable slack through the ducts. Do not exceed 200 pounds of pulling force on the cable or violate the minimum recommended bend radius.
- Step 8** Lower the unit onto the pad so that the mounting bolts in the pad are aligned with the holes in the cabinet's skirt. Place the rubber mounting cushion in the location where the cabinet will be mounted (Figure 5). Lower the cable hoist until the full weight of the cabinet rests on the pad.
- Step 9** Attach the cabinet to the pad.
- Step 10** Remove the cable hoist.

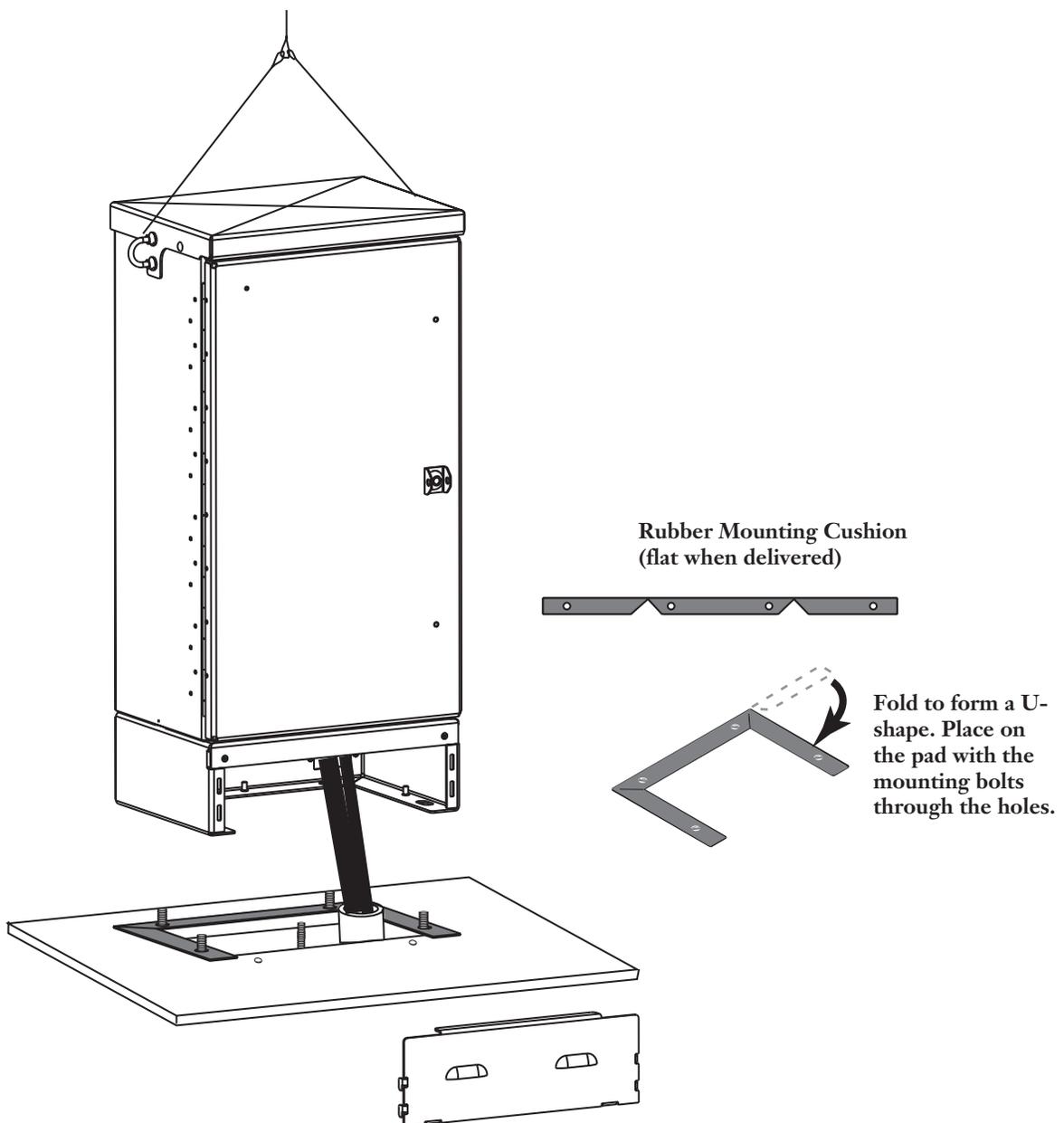


Figure 5 — Install Cabinet on Pad

6.2 Grounding the Cabinet

The cabinet should be grounded to establish electrical continuity of all metallic elements to an effective electrical ground using at least a No. 6 AWG copper grounding conductor. Once established, the continuity is not affected by further reentries into the cabinet.

- Step 1** Locate the ground wire inside the cabinet's skirt and attach it to the ground rod (Figure 6) per standard local codes and practices.
- Step 2** Reattach the skirt access panel.

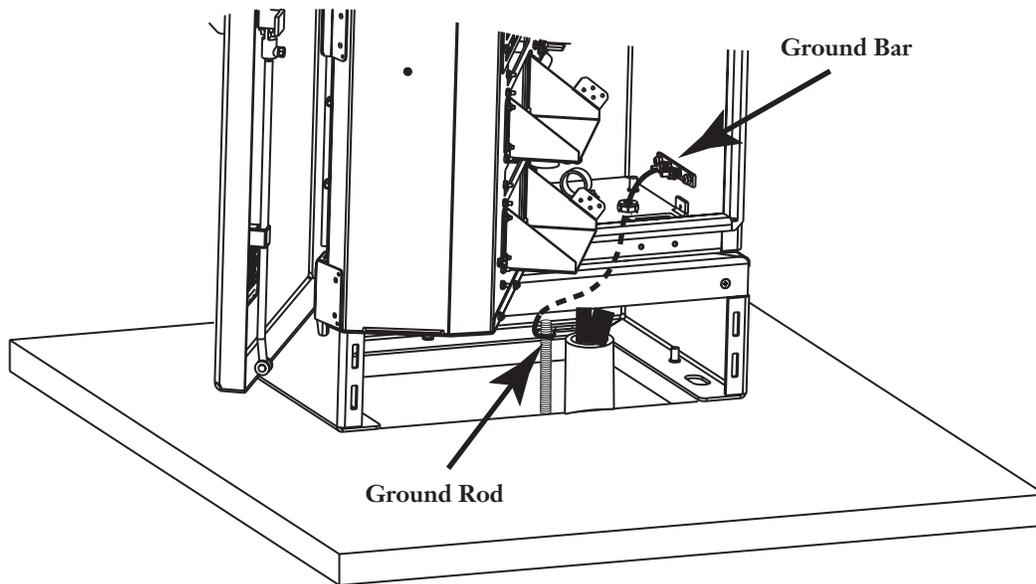
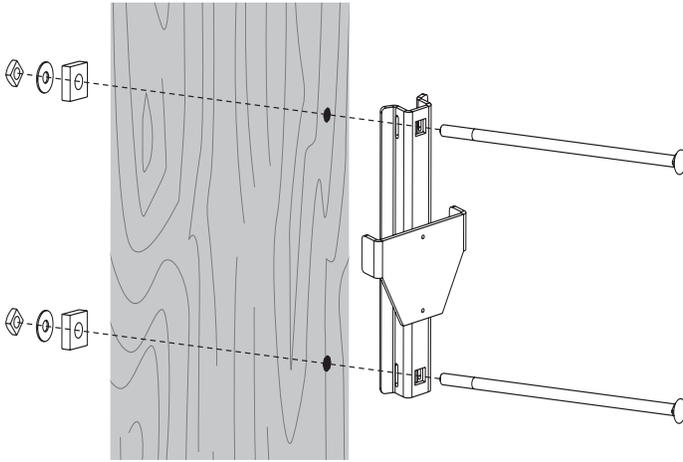


Figure 6 — Ground the Cabinet

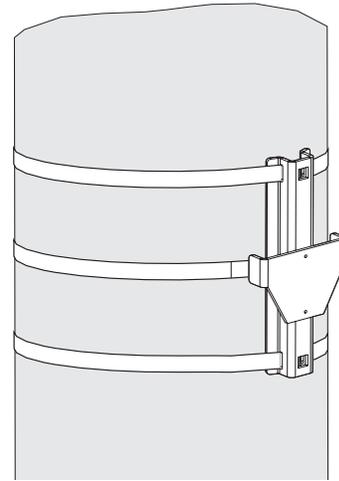
6.3 Installation on a Pole

The cabinet is mounted onto a pole using mounting brackets (provided). Mounting hardware, such as through-bolts, lag bolts, bands, screws, nuts, and washers, for attaching the brackets to the pole are not provided.

Step 1 Attach the mounting hardware to the pole (Figure 7), ensuring that the horizontal surface of the bracket is level with the ground.



Mounting Hardware using Carriage Bolts



Mounting Hardware using Banding Straps

Figure 7 — Attach Pole-mounting Hardware to Pole

Step 2 Use a crane or lifting device to lift the cabinet into position next to the pole. Hang the cabinet on the bracket (Figure 8).

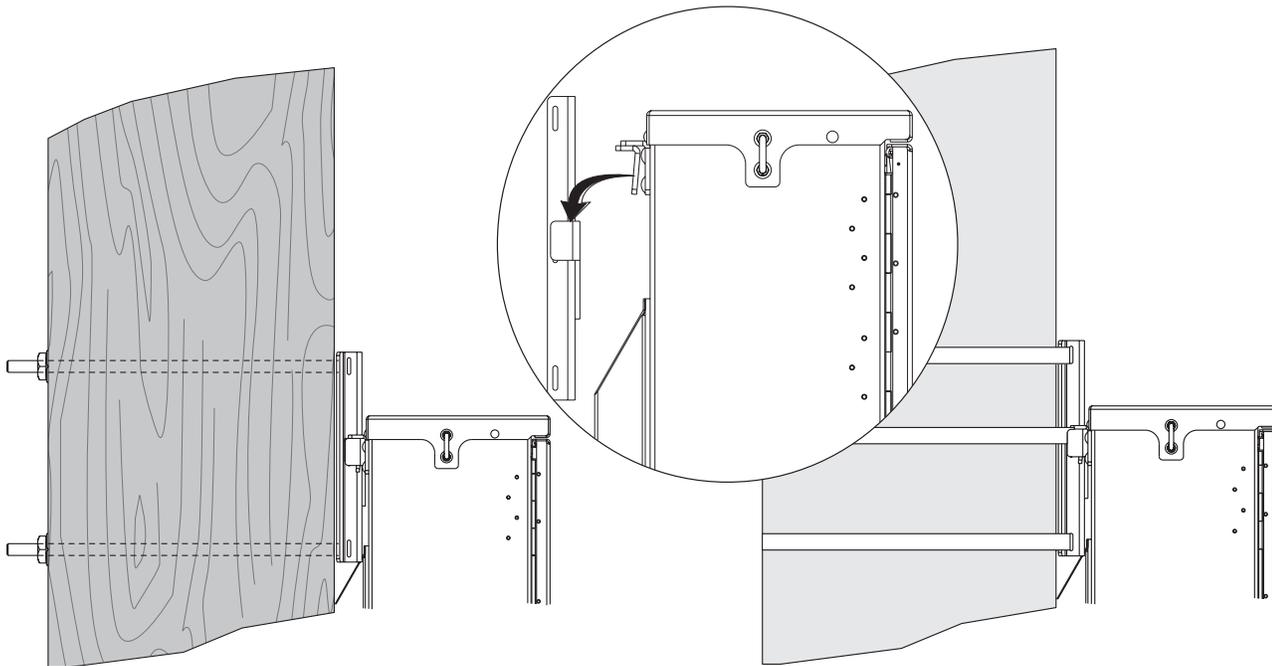


Figure 8 — Hang Cabinet on the Pole

- Step 3** Attach the angled brackets to the mounting bracket at the bottom of the cabinet as shown (Figure 9). (You may need to attach the brackets in the alternate holes provided to compensate for poles that are not straight.)

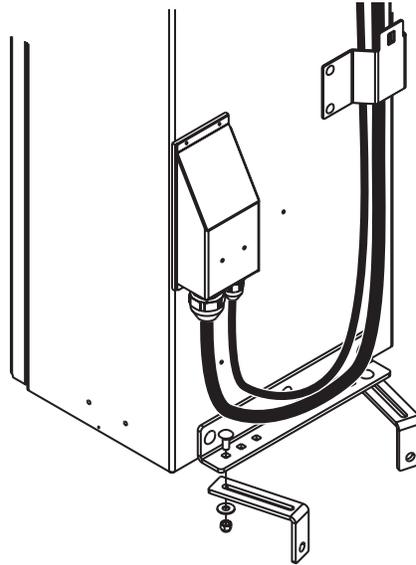


Figure 9 — Attach Angled Brackets to Cabinet

- Step 4** Secure the bottom of the cabinet to the pole using the angled brackets at the bottom of the cabinet (Figure 10). Secure a safety harness to the safety loop and observe all standard practices to avoid personal injury or damage to the cabinet.



CAUTION: *To protect the installer from injury (fall from a pole) if the cabinet is pole-mounted, attach the free end of the safety harness to one of the cabinet's safety loops found on each side at the top of the cabinet (Figure 10). Only after completing this step should the installer move from the pole to a pole seat or balcony. The safety harness should remain attached to the safety loop on the cabinet during all work operations. Reverse the procedure before descending the pole.*

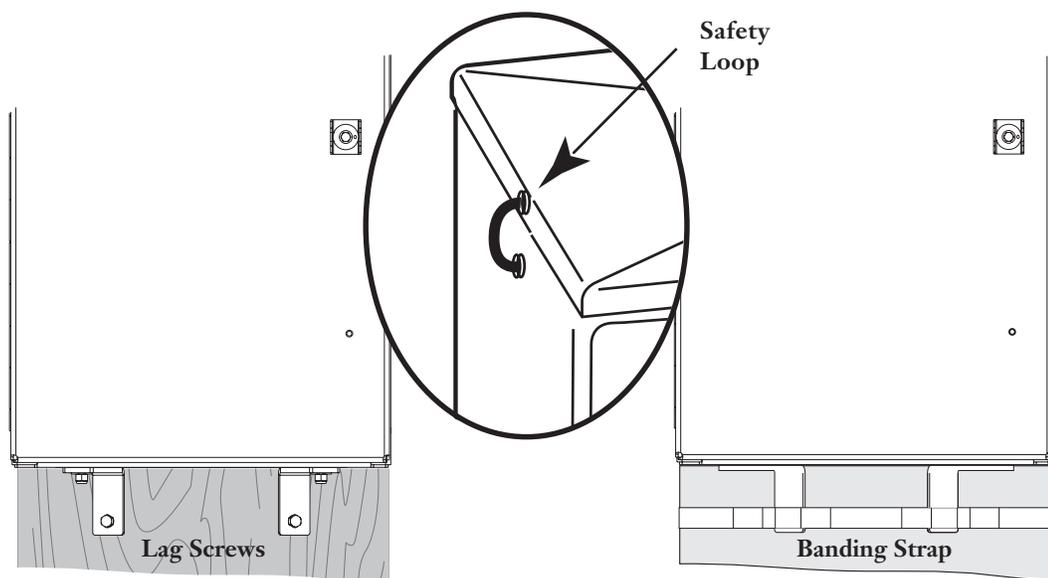


Figure 10 — Secure Angled Brackets to the Pole

- Step 5** Route cable as prescribed in your installation plan. Feeder and distribution cables are prerouted up the back of the cabinet for pole-mounted applications (Figure 11).

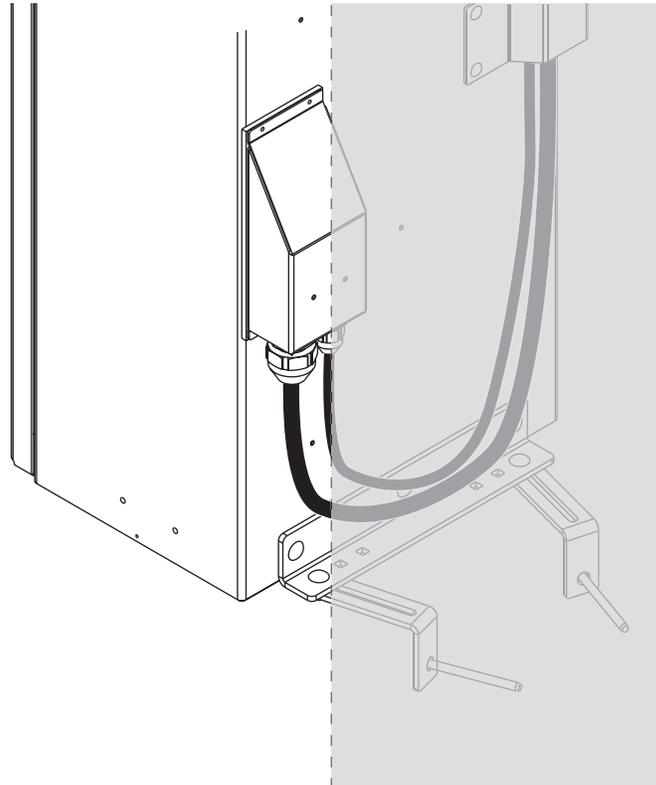


Figure 11— Route Cable from Pole-mounted Cabinet

7. WORK OPERATIONS

Once the cabinet has been securely mounted and grounded, splice the unterminated ends of the distribution and feeder cable stubs to the system feeder and distribution cables per standard local practice and begin work operations inside the cabinet. If the door is closed, use a 216B tool or a $7/16$ -inch nutdriver on the latch to open them as shown in Figure 12.

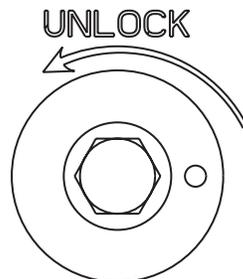


Figure 12 — Unlock and Open Cabinet Door

8. INSTALLING SPLITTER MODULES

Refer to the routing label on the inside of the cabinet door for a description of the cabinet layout and installation sequence for the cabinet size into which you are installing modules. Splitter modules are installed into the splitter storage area. Preconnectorized output fibers from the splitter modules can be mated in the distribution field or routed to and stored in the connector parking field or the vanishing parking panels for mating later.

- Step 1** Remove splitter modules from their packaging.
- Step 2** If the first slot is vacant, install the module in the open slot. Otherwise, remove the vanishing parking panel from the next position where the splitter module will be installed by loosening the retention screw. Install the modules in the cabinet in the order shown by the schematic label on the inside of the cabinet door.
- Step 3** Secure the splitter module in the splitter storage area with the retention screw at the top of the module.

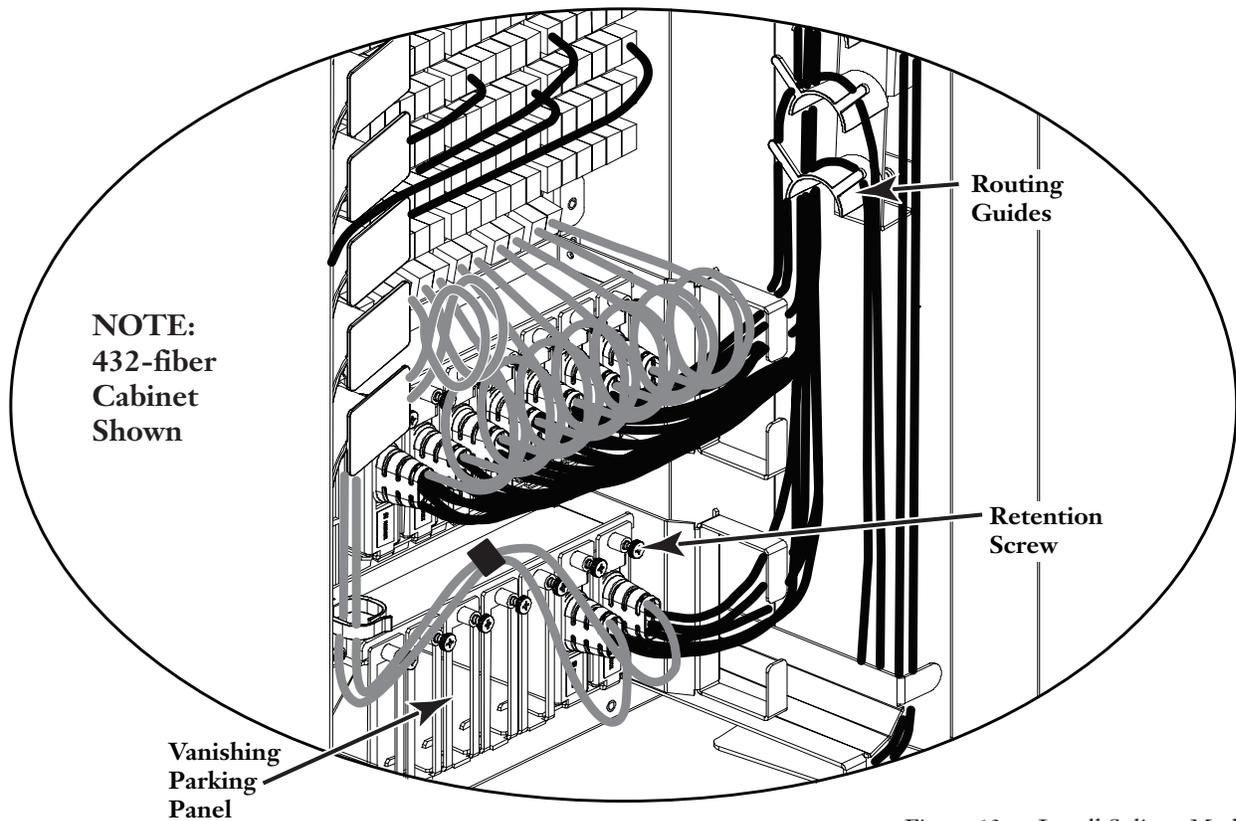


Figure 13 — Install Splitter Module

9. CONNECTING SPLITTER INPUT FIBERS TO FEEDER CABLE

9.1 Locate Feeder Fiber Port to be Connected

The feeder cable is connectorized and installed directly above the splitter module storage area. The splitter module is designed with bend optimized fiber. Do not uncoil the slack of the input fiber, except when necessary to reach the appropriate feeder port.



WARNING: *Never look directly into the end of a fiber that may be carrying laser light. Laser light is invisible and can damage your eyes. The iris of the eye will not close involuntarily as when viewing a bright light. Viewing laser light directly does not cause pain. 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: *This product is designed to meet specifications for Class 3 lasers only and should not be used with optical fiber transmission systems containing lasers of classes for which they have not been certified. 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 be suspected, arrange for an eye examination immediately.*

Step 1 Verify with a power meter that the power is off to the feeder fiber port to be connected. If power to that port is on, turn it off at the central office before proceeding.



CAUTION: *In this application, making connections with the feeder power on may destroy the connector.*

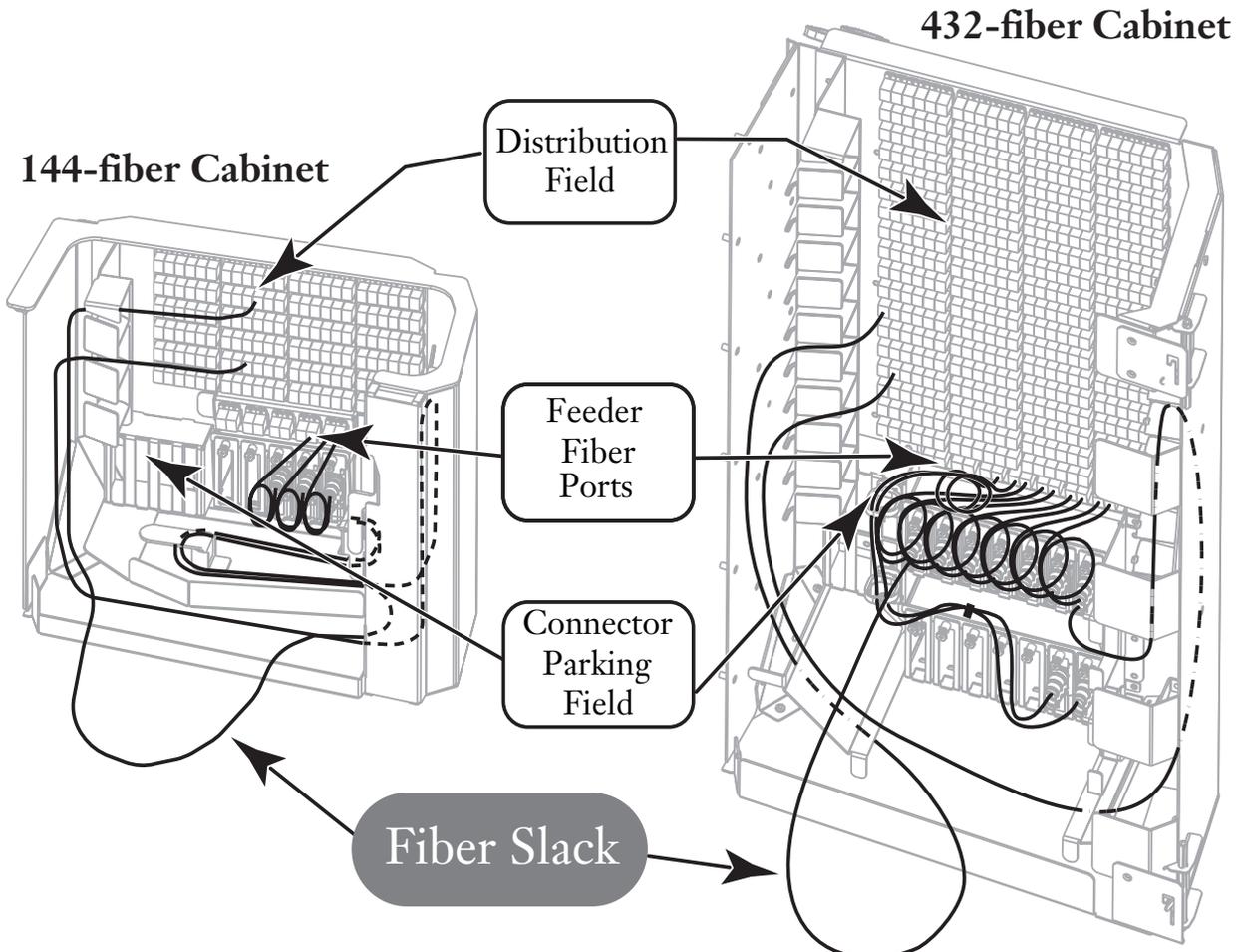


Figure 14 — Route and Mate Connectorized Splitter Input Fiber

Step 2 Locate the next available adapter port in the feeder field above the splitter module field (Figure 14).

Step 3 Lower the laser safety shutter and **clean the adapter using a dry process** (Figure 15).

9.2 Routing Feeder Fibers in 144- and 288-fiber Cabinets

Step 1 Route the connectorized splitter input fiber to the appropriate feeder port (Figure 14).

Step 2 Remove the connector dust cap. **Clean the connector end-face using a dry process**, such as with a cleaning cassette per your company cleaning procedures. Mate the connector into the next available port.

Step 3 Record the connection information on the label provided on the front door in the feeder section of the label.

Step 4 Power may now be turned on to the newly connected feeder port.

9.3 Routing Feeder Fibers in 432-fiber Cabinets

Step 1 When routing the connectorized splitter input fiber from the upper row of modules, route to the appropriate feeder port without uncoiling the fiber (Figure 14).

When routing input fibers from the lower row of modules:

- a) Unwrap spiral wrap from the input fiber and uncoil the fiber.
- b) Make a new coil of fiber at least a 1 1/4-inch in diameter near the connector. Replace the spiral wrap to secure the coil.

Step 2 Remove the connector dust cap. **Clean the connector end-face using a dry process**, such as with a cleaning cassette, per your company cleaning procedures. Mate the connector into the next available port.

Step 3 Route the feeder fiber down through the routing guide clips to the left of the splitter module field. Ensure that the coil of feeder fiber maintains a minimum bend radius of 1 1/4 inch.

Step 4 Route all feeder input fibers from the lower modules through the routing guide clips. Secure the bundle of feeder fibers in the middle of the lower module field with a hook-and-loop strap.

Step 5 Record the connection information on the label provided on the front door in the feeder section of the label.

Step 6 Power may now be turned on to the newly connected feeder port.

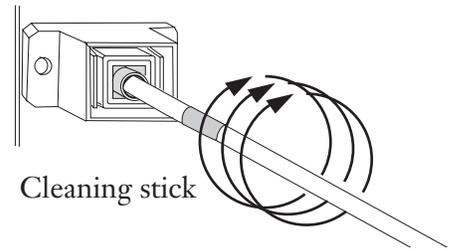


Figure 15 — Clean Adapter

10. CONNECTING SPLITTER OUTPUT FIBERS

10.1 Route Splitter Output Fibers to be Connected Now

Mate splitter output fibers in connector adapters to provide service to each customer. The fibers can be mated at the time of the cabinet's installation or stored and mated later as new service is required. Ensure dust caps remain on the output connectors until they need to be connected. It is **not** necessary to turn off feeder power from the central office for this procedure.

- Step 1** Select the splitter output fiber to be connected.
- Step 2** Locate the specific connector adapter in the distribution field where the connector will be inserted.
- Step 3** **Clean the adapter and connector end-face** using a dry process. Mate the splitter output fiber connector to the distribution connector.
- Step 4** Route the splitter output fiber slack as shown on the fiber routing label on the inside of the cabinet door.
- Step 5** Repeat Steps 1 through 4 for each splitter output fiber that is to be connected at this time, or store the output fiber with the dust cap on the connector in the connector parking field shown on the label on the inside of the cabinet door.

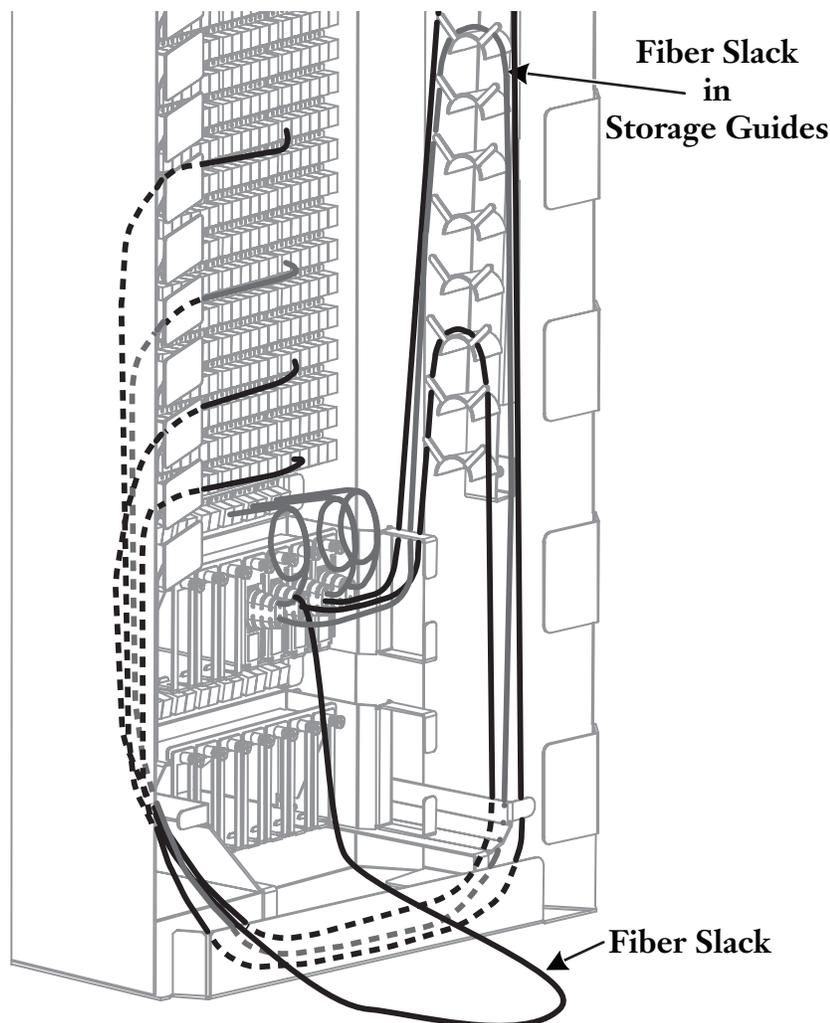


Figure 16 — Route and Mate Splitter Output Fibers in Adapter Panel Compartment

Step 6 Update the splitter output fiber/distribution fiber mapping label on the inside of the cabinet door. Good recordkeeping is imperative for an orderly installation.

Cable ID												P/N 02-029855-001 ISS: 01														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48			
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72			
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96			
97	98	99	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408
409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435
Feeder Cable ID																										
14	13	12	11	10	9	8	7	6	5	4	3	2	1													
28	27	26	25	24	23	22	21	20	19	18	17	16	15													

Figure 17 — Example of Connector Mapping Label (refer to the door label for your specific application)

10.2 Route and Store Splitter Output Fibers to be Connected Later

- Step 1** If a splitter output fiber is not to be connected at this time, route the fiber through the retaining guides and around the routing guides and the slack storage hubs in the slack storage area as shown in Figure 16.
- Step 2** Store the connector in the connector storage field. Ensure the dust cap is in place over the connector end-face to protect the connector ferrule from damage. Extra dust caps are provided in case the originals are misplaced.
- Step 3** When you need to mate these connectors, refer to the section, *Route Splitter Output Fibers to be Connected Now*.

11. OPTICAL CONNECTOR CLEANING AND CARE

Cleanliness is the key to a high performance fiber optic network. Contaminated connectors are the single biggest cause of poor attenuation performance. For this reason, proper handling and cleaning is especially important during installation and optical acceptance testing.

Each time a contaminated connector ferrule is inserted into the connector adapter, some of the debris will inevitably remain inside the adapter. When a mating connector plug is inserted, the contaminants are pushed into the mating surface. At the very least, this will have adverse affects on return loss and attenuation. In the worst case, the contaminants may cause permanent damage to the connectors.

Corning Cable Systems recommends following the cleaning process recommended by the connector manufacturer, or at a minimum, observing the following process steps to ensure connector performance.

- Always keep dust caps on connectors 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.
- A minimum level of cleaning is listed below. Local procedures may require more rigorous cleaning methods.

Step 1 Remove plugs from the connector adapter.

Step 2 Wipe the connector ferrule twice with a lint-free wiping material moistened with isopropyl alcohol. Then wipe across the end of the ferrule.



WARNING: *Never look directly into the end of a fiber that may be carrying laser light. Laser light is invisible and can damage your eyes. The iris of the eye will not close involuntarily as when viewing a bright light. Viewing laser light directly does not cause pain. 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.*



CAUTION: *Isopropyl alcohol is flammable with a flashpoint of 54°F. It can cause irritation to eyes on contact. In case of eye contact, flush eyes with water for at least 15 minutes. Inhaling fumes can cause dizziness. In case of ingestion, consult a physician.*

Step 3 Repeat Step 2 with a dry wipe.

Step 4 Insert the connector into the adapter.

Step 5 Repeat Steps 1 through 4 for each connector.

If necessary, it is also possible to access the rear of the connector adapter compartment to clean the connectors mated to the rear of the adapters. Lift the handle on the swing-out panel to disengage the latching mechanism (Figure 18). Pull the panel open to a maximum of 125 degrees. The handle will snap back to the closed position. To close the panel, lift the handle again and swing the panel back to its original position inside the cabinet. Move the handle to the closed position.

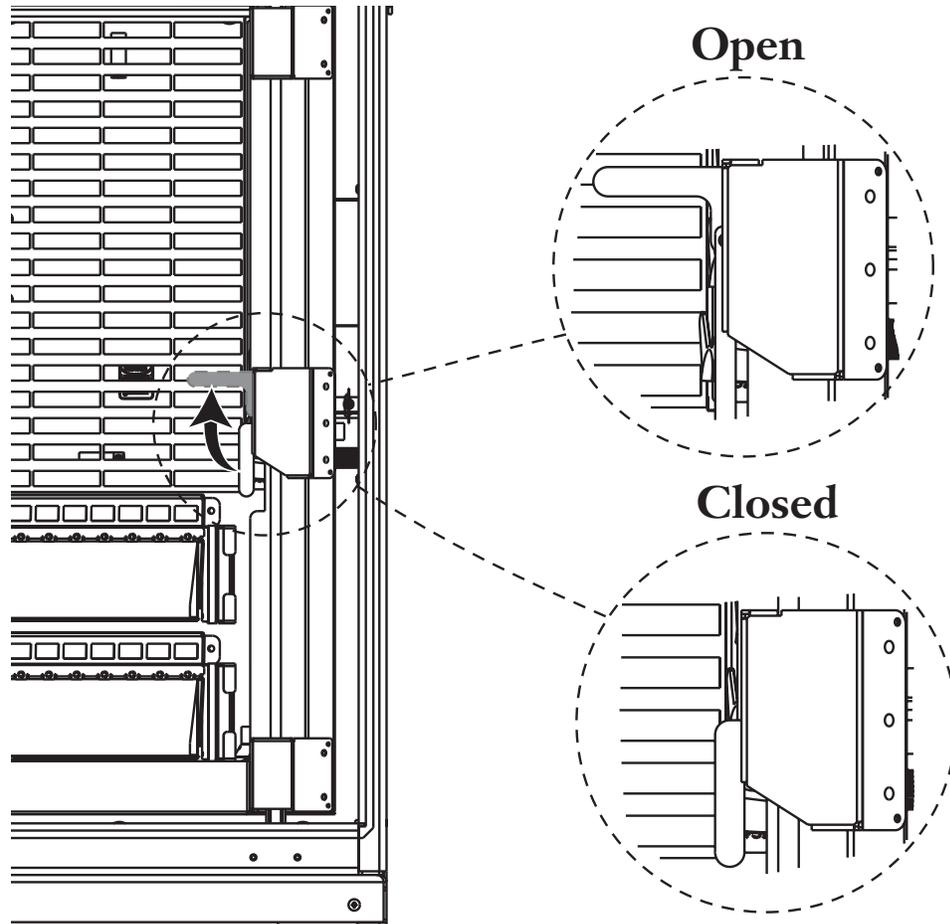


Figure 18 — Open Panel to Access Connectors

12. SECURING CABINET

When all work operations inside the cabinet are complete, secure the cabinet door.

- Step 1** Disengage the door restraint by gently lifting it to release the door (Figure 1).
- Step 2** Close the door and, using a 216B tool, rotate the tool to the right to lock the door latch (Figure 19). For additional security, insert a padlock through the holes in the hasp around the 216B latch.

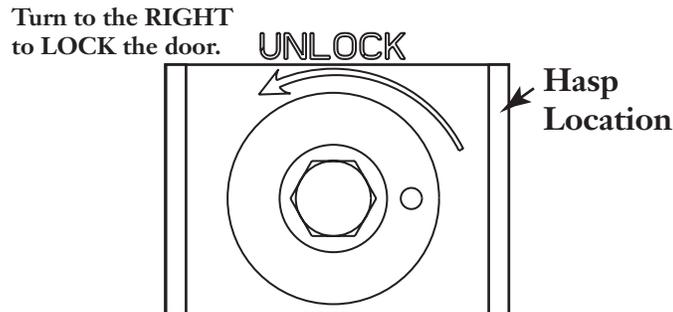


Figure 19 — Close and Lock Door Latch

13. TESTING

13.1 Provisioning Tests

Equipment should be tested from the source (or central office) to receiver at the time of provisioning to verify signal continuity and acceptable loss limits. Use an optical power meter to verify signal continuity and determine loss measurements are within specified local standards.

13.2 Troubleshooting Tests

An optical power meter can be used to perform the first step in troubleshooting. A power meter designed for measuring only dBm power levels is suitable for maintenance purposes.

Once a fault is isolated to the installed cable link, an OTDR (Optical Time Domain Reflectometer) is needed. An OTDR can locate fiber events and measure the losses attributable to cable, connectors, splices, and/or other components. The graphical display of loss over a cable's entire length provides the most revealing analysis and documentation available on a cable link, commonly referred to as its signature trace. Corning Cable Systems recommends performing an OTDR analysis to document the integrity of the cable system, locate and measure each event or component, and uncover faults throughout the cable.

Follow the instructions provided with the OTDR tester you are using.

14. MAINTENANCE

The unit requires very little maintenance to make sure fibers and parts remain in good condition. Components should be checked periodically for the following:

- Metal components may be cleaned occasionally with a damp, nonabrasive cloth. Repaint any bare metal with touch-up paint, which can be ordered separately (p/n FDH-PNT-KIT-A = almond; FDH-PNT-KIT-B = brown; FDH-PNT-KIT-G = green).
- Check fiber optic cable to make sure bends do not exceed the minimum bend radius. Check cable for unnecessary strain. Check cable entries and exits for crimping or crushing and for damage to grommets.
- For pole-mounted units, check, inspect, and tighten, if necessary, all external hardware components to maintain mounting integrity and promote safety against weathering.
- Check unit record labels to make sure all are clear and accurate.
- If disruption to service is reported, refer to the section, *Testing*, for methods to isolate the problem.
- **Check Filters:** Filters are located beneath the roof. They are held in place by a metal frame secured onto studs. Verify that filters are unobstructed and free of debris that may be preventing moisture from dissipating from inside the cabinet.

NOTE: *Condition and life of filters are dependent on environment and handling. The following information contains general guidelines for filter cleaning and replacement.*

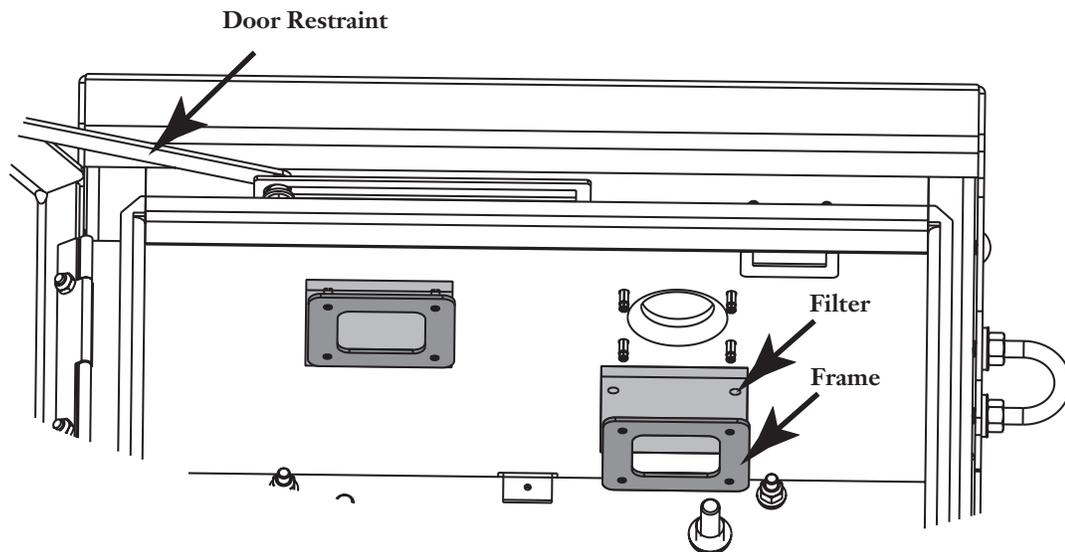


Figure 20 — Filters in Cabinet Roof

- Step 1** Using a 216B tool, open the cabinet door until the door restraint automatically engages to hold the door in the open position as shown in Figure 20.
- Step 2** Open the swing-out panel (Figure 18).
- Step 3** Reach into the top of the cabinet and locate the metal filter frames. Pull straight down on each frame to remove it from the studs.

Step 4 If the filter material did not come out with the frame, release it from the studs and remove it also. Ensure that all filter material is removed to allow proper installation of the new filter.

IMPORTANT: *If cleaning the filter instead of replacing it, take care not to tear the filter material when removing it.*

Step 5 Locating the holes in the new filter material, push the studs through the holes in the new filter, then press the frame onto the studs to secure the filter in place.

Step 6 Close the swing-out panel.

Step 7 Disengage the door restraint by lifting it to release the door.

Step 8 Close and lock the door with a 216B tool by twisting the locking mechanism to the right. (Figure 19)

15. GROWTH

An OptiTect Premier Cabinet that is not full to capacity can be expanded to its maximum by installing additional splitter modules. Refer to the section, *Installing Splitter Modules*, for instructions on expanding capacity by adding splitter modules.

GLOSSARY

Acronyms

AWG American Wire Gauge

TERMINOLOGY

Adapter

A mechanical media termination device designed to align and join fiber optic connectors; often referred to as a coupling, bulkhead, or interconnect sleeve.

Cable

An assembly of optical fibers and other material providing mechanical and environmental protection.

Connector

A mechanical device used to align and join two fibers together to provide a means for attaching to and decoupling from a transmitter, receiver, or another fiber (patch panel).

Splitter Module

A passive fiber optic device that combines or splits optical signal power.