CORNING

Discovering Beyond Imagination

12-Fiber Connector Modules for LGX® Compatible Cabinets

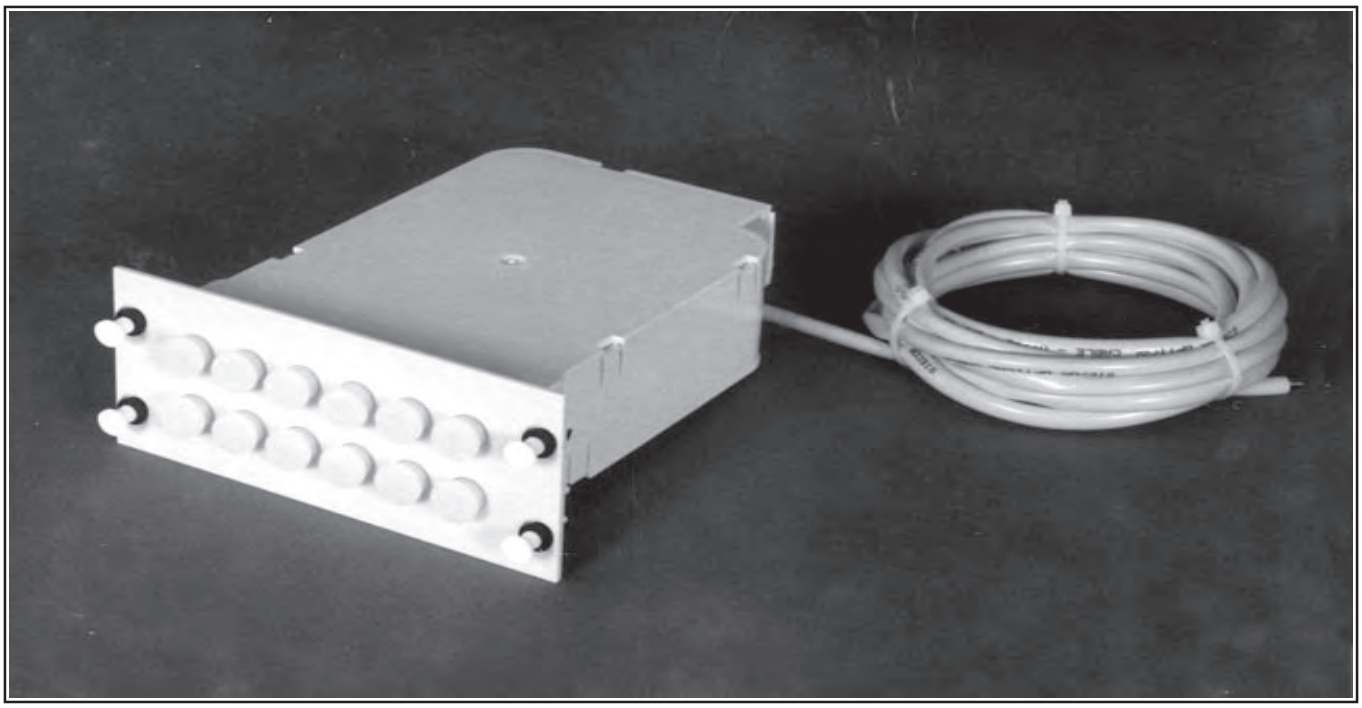


Figure 1

Table of Contents

1. General

1.1 This document describes the installation of a 12-fiber Corning Cable Systems connector module for LGX compatible cabinets.

1.2 If you are installing a loaded module (all connectors and pigtails installed at the factory), see section 9 and 10 for information on installing the module into an LGX compatible cabinet.

1.3 If you are installing connectorized pigtails into an unassembled module, read and understand this entire procedure before you begin.

1.4 This document is being reissued to include updated corporate information.

2. Description

2.1 The Corning Cable Systems connector module is a fan-out assembly within a modular housing. Up to twelve pigtails with connectors on one end are installed in connector sleeves inside the connector module. The pigtails are protected and grouped into one unit that extends from the exit point of the module to the point where the fibers are attached to a splice tray (Figure 1). The 12-fiber connector module will also accomodate the Corning Cable Systems ribbon fan-out assembly.

2.2 The connector modules are installed in LGX compatible cable cabinets. Modular construction simplifies the addition, replacement, and rearrangement of fibers.

NOTE: *Read and understand this procedure as well as the instructions provided with LGX compatible cabinets before beginning an installation. To ease installation, calculate the fiber routing requirements and remove the necessary hole plugs before installing the LGX compatible cabinets into a utility rack.*

3. Precautions

⚠ CAUTION: *NEVER LOOK DIRECTLY INTO THE END OF A FIBER THAT MAY BE CARRYING LASER LIGHT. Laser light may be invisible. Laser light 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.*

⚠ CAUTION: *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.*

NOTE: *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 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. Connector Module Components

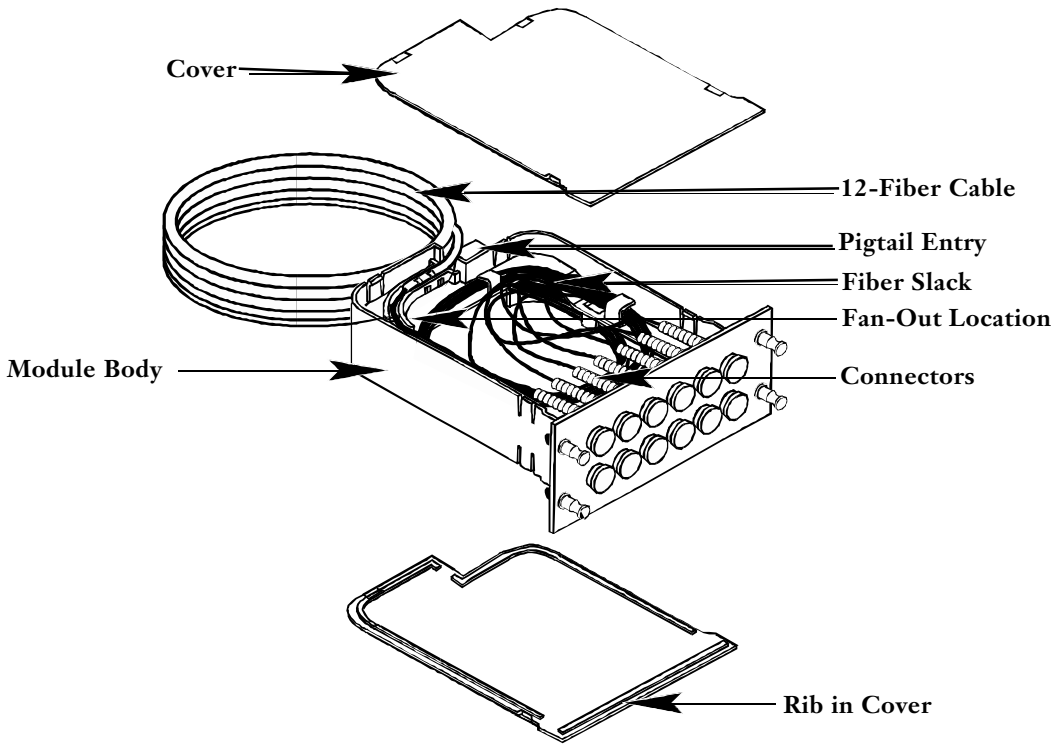
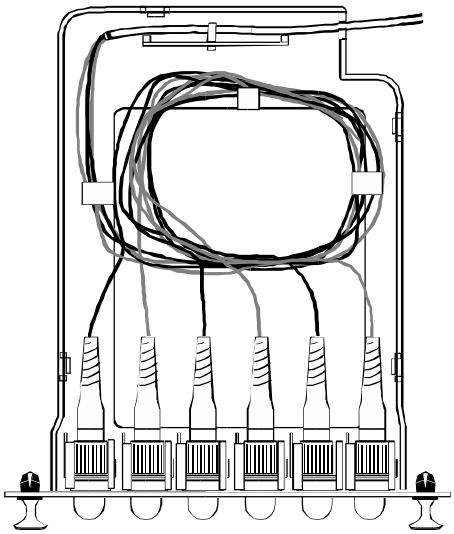
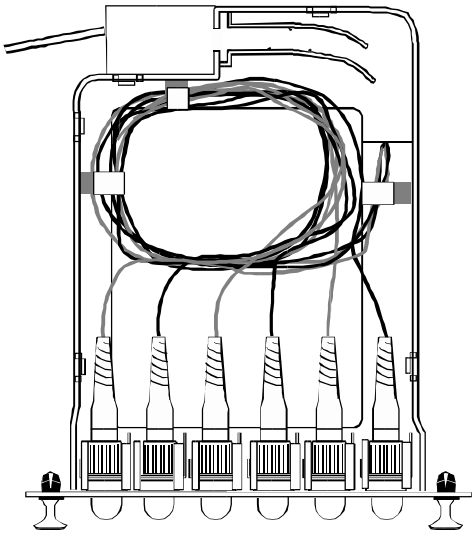


Figure 2

5. Strain-Relieving and Routing Fiber Inside the Module

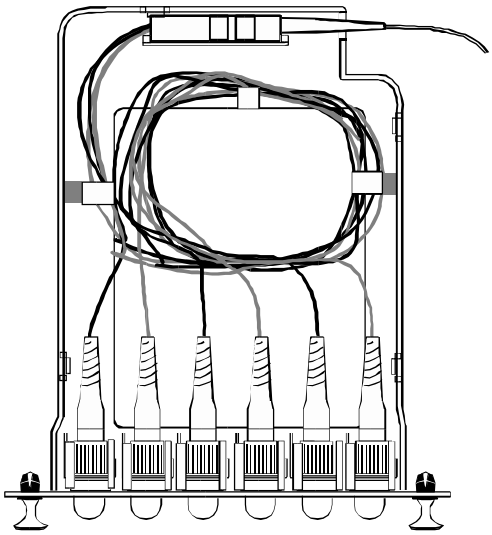


Pigtail Fiber -- Front of Unit

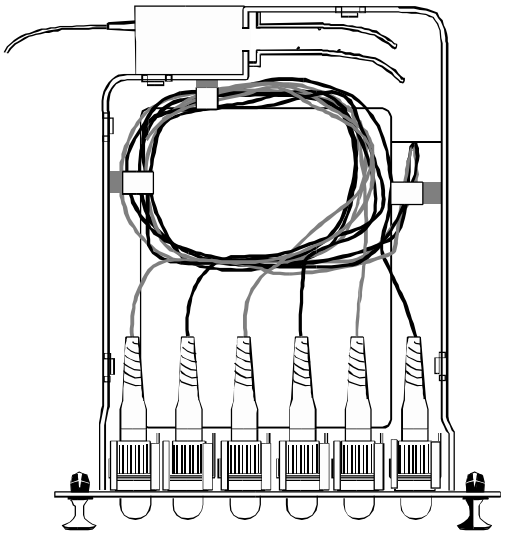


Pigtail Fiber -- Rear of Unit

Ribbon Fan Out



Ribbon Fiber -- Front of Unit



Ribbon Fiber -- Rear of Unit

Figure 3

5.1 Strain-relieve and route fiber inside the module as illustrated in Figure 3. Note that half of the fibers are routed to the other side of the module before the connectors are installed into the connector sleeves.

6. Ribbon Fan-Out Installation

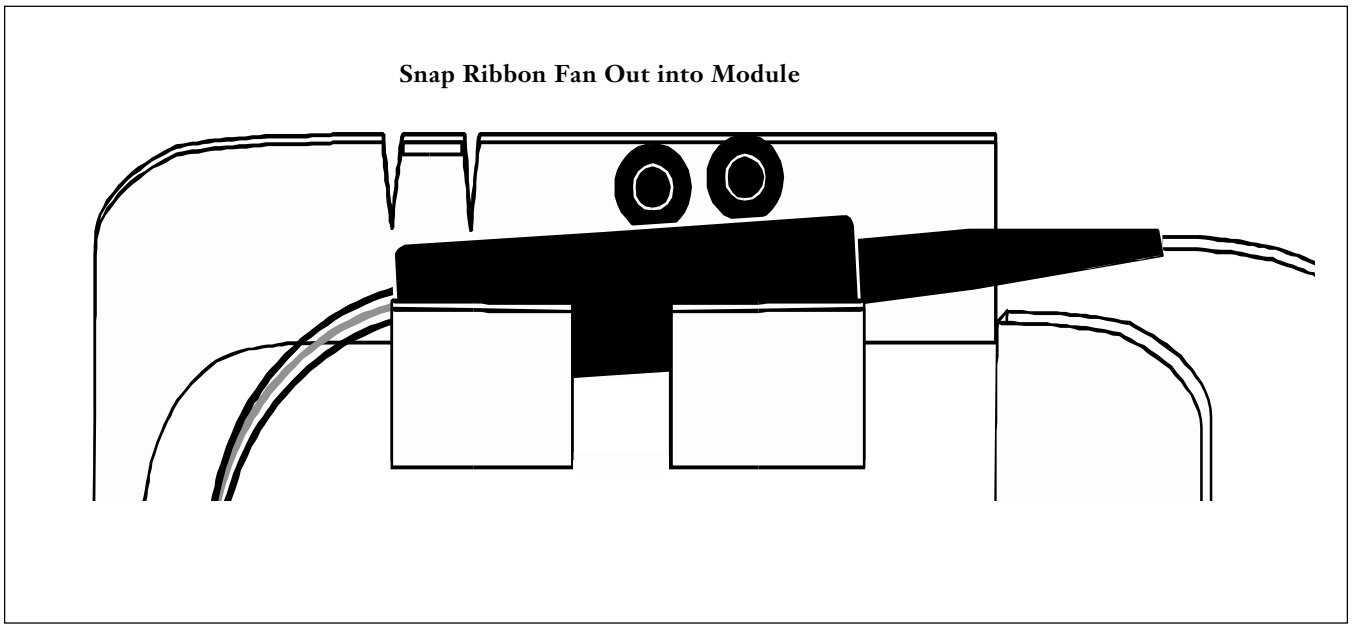


Figure 4

6.1 The 12-Fiber Ribbon Fan-Out Assembly is installed in the module as illustrated in Figure 4.

7. Identifying Connector Sleeve Retainers

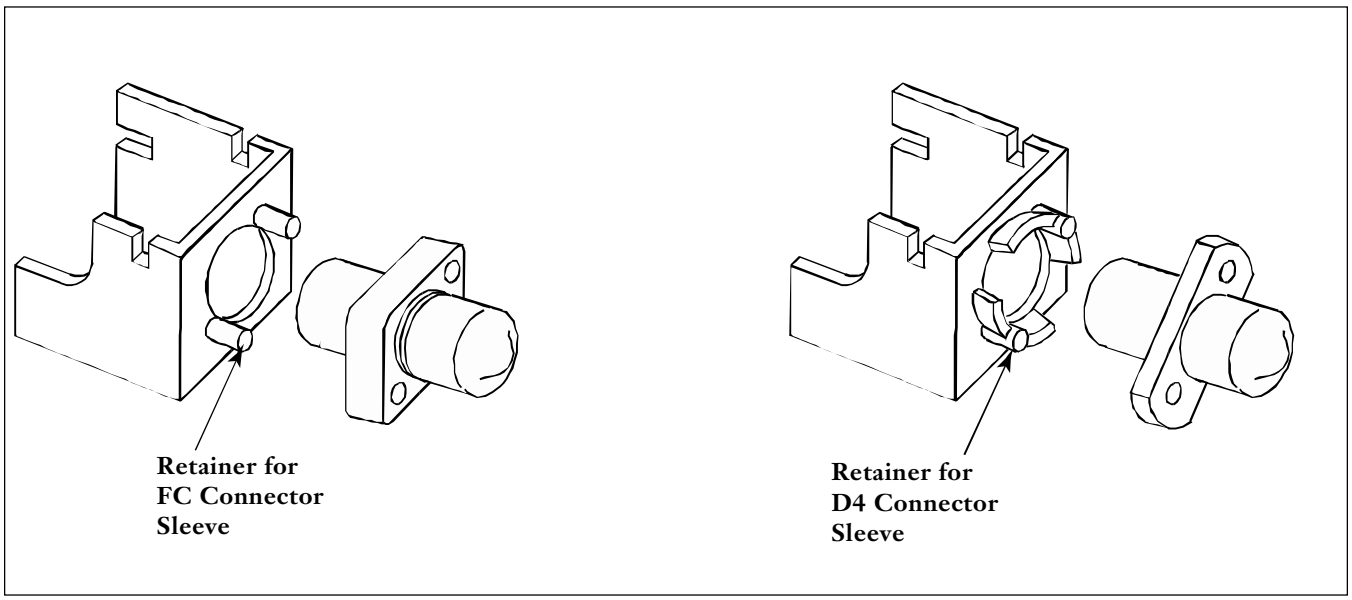


Figure 5

7.1 Identify the connector sleeve retainers you will use (Figure 5). Discard the retainers you don't need.

8. Mating Connectors & Installing Sleeves Into the Module

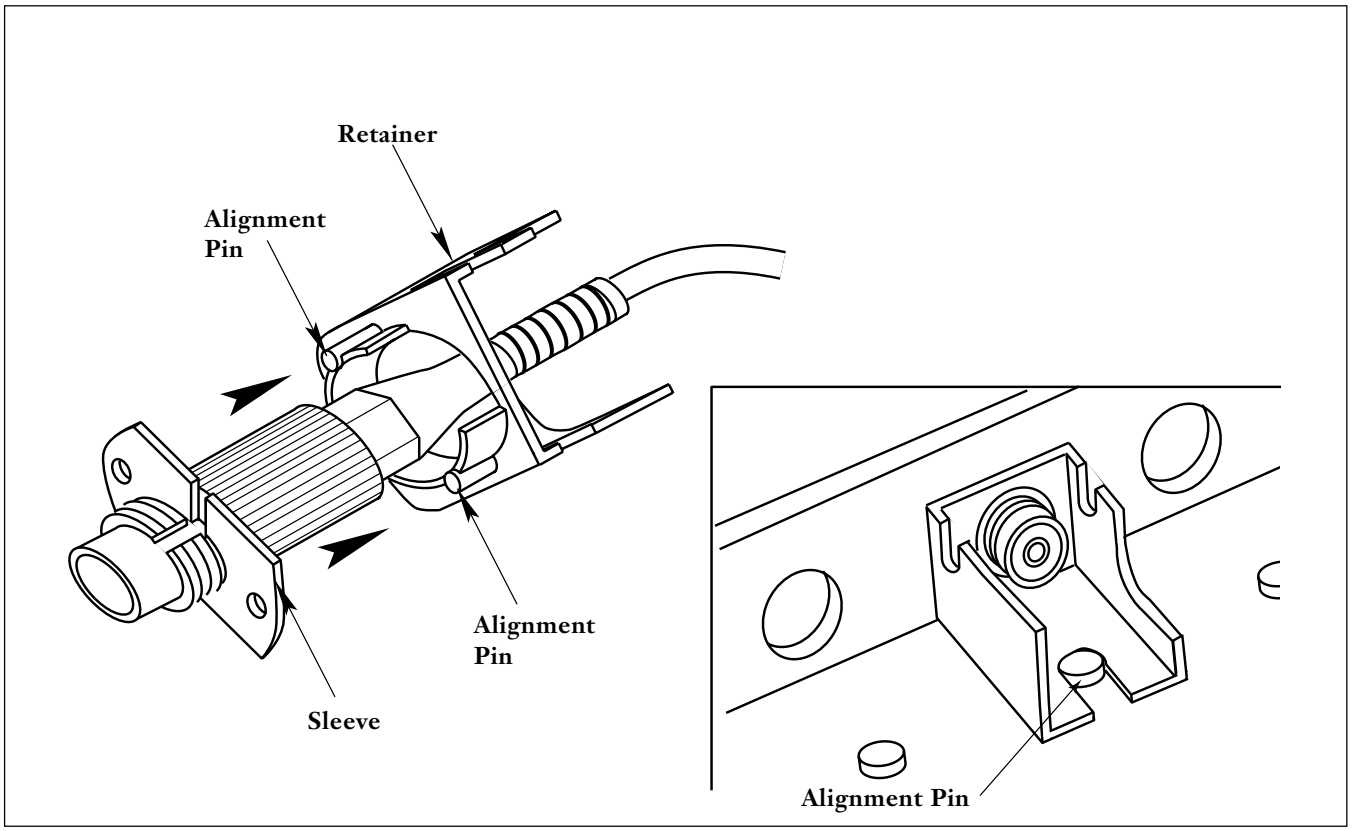


Figure 6

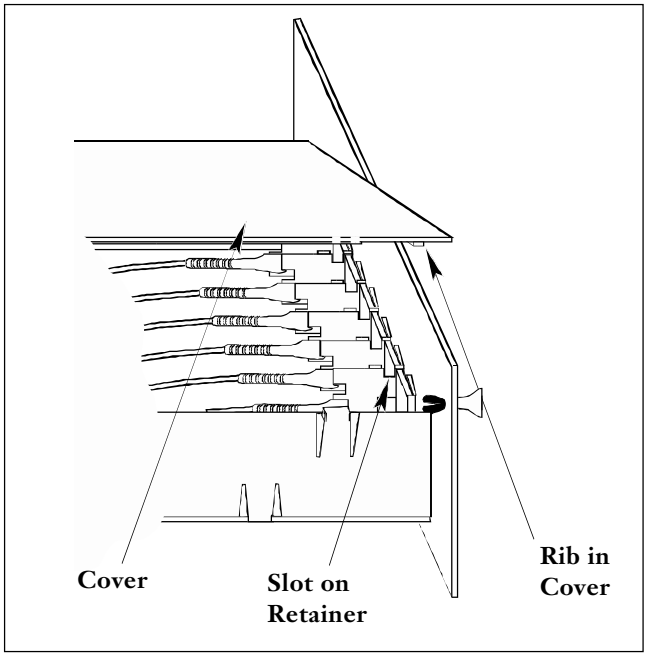


Figure 7

8.1 To install a connector, attach it to the connector sleeve and position the assembly (sleeve and connector) against the retainer so that the pins in the retainer hold the assembly in place (Figure 6). Slide the resulting assembly (sleeve, connector and retainer) into the module and push down on the retainer to snap it into place.

8.2 Once all the retainers are in place, place the covers (top and bottom) on the module by snapping them into place. Notice that the rib on the inside-front of the cover fits into slots in the connector retainers (Figure 7). When the cover snaps into place, this rib secures the retainers. If one of the covers does not snap into place with ease, check to make sure all the retainers are seated and the slots line up.

9. Installing the Module Into the Cabinet

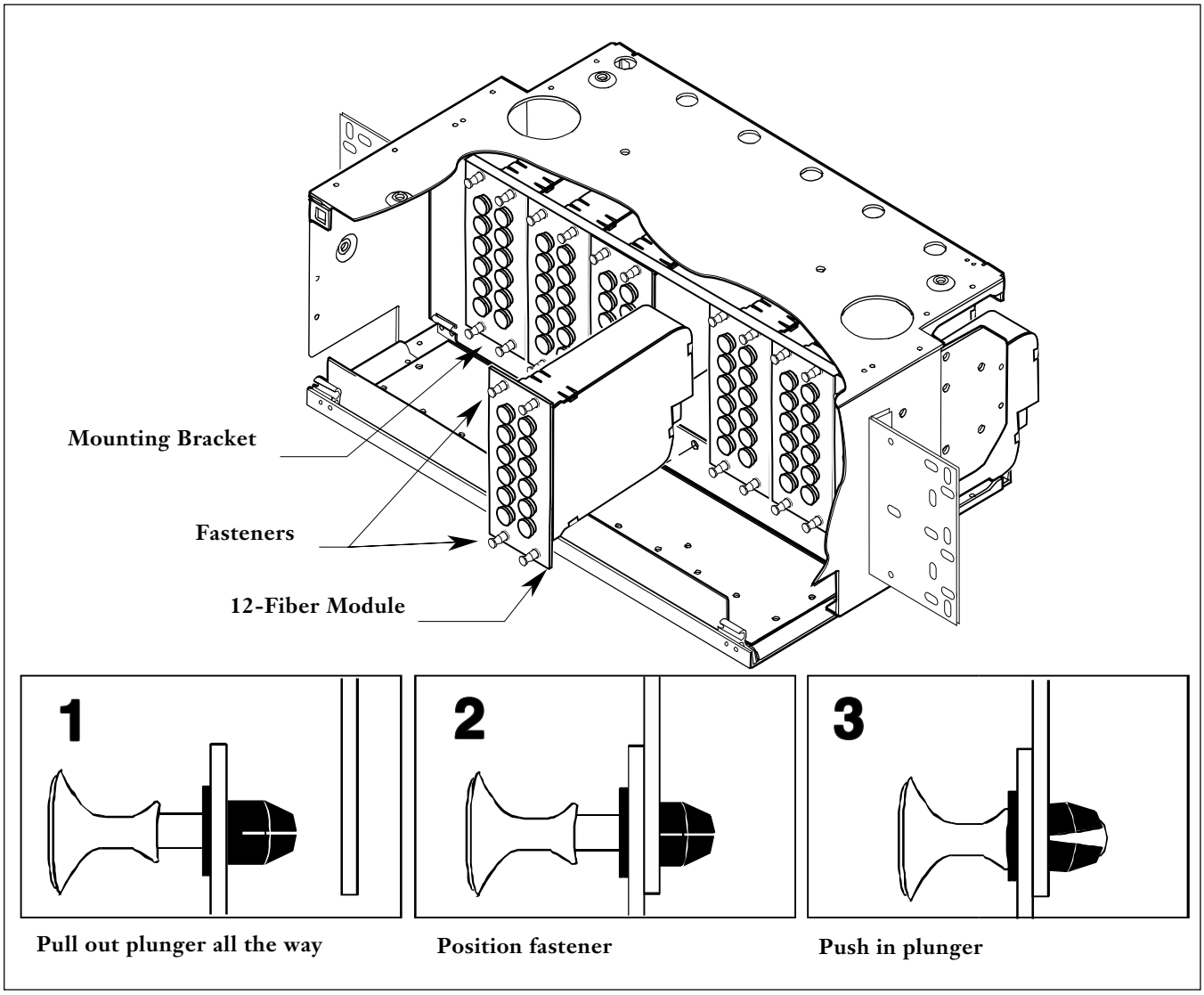


Figure 8

9.1 Installation of a 12-fiber module includes snapping the module onto the cabinet's connector module bracket (each module requires two positions), strain-relieving the pigtail cable to the side of the cabinet, and routing the pigtail to the splice point (Figure 8).

9.2 Connector modules should always be added from left to right for ease of identification and consistency.

9.3 If there are blank panels in the positions that will hold the connector module, remove them by pulling on the push-pull fasteners.

9.4 Route the pigtail cable through the opening in the connector module mounting bracket.

9.5 To secure the connector module on the mounting bracket, locate the nylon push-pull fasteners in the holes in the bracket. Push in the top and bottom knobs until you feel them lock into place.

9.6 Since connector modules extend almost 6 in. into the shelf, the connector module bracket inside the shelf cannot be tilted forward to access the back of the connectors. To get to the back of the connectors, remove the entire module from the bracket by pulling out the nylon push-pull fasteners. Pull the module straight out of the unit and open it. Take care to avoid kinking or pinching the fiber optic pigtails as you remove and replace the module.

10. Routing Fiber from the Module

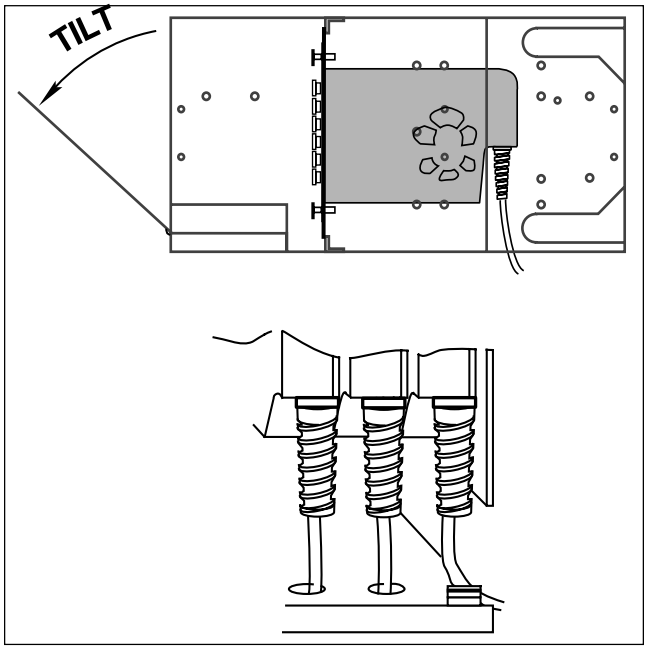


Figure 9

10.1 The pigtail fibers can be routed from the patch panel area to the splice area through holes on the floor or ceiling of the cabinet or through cable entrance ports on the side (Figure 9).

FIBER COLOR CODE	
COLOR	FIBER
BLUE	1
ORANGE	2
GREEN	3
BROWN	4
SLATE	5
WHITE	6
RED	7
BLACK	8
YELLOW	9
VIOLET	10
ROSE	11
AQUA	12

Figure 10

10.2 Make sure that the end of each pigtail has a module identification tag. Each fiber is color coded. This identifies the connector location on the module (Figure 10).

NOTE: *If it is necessary to remove excess length of fiber, make sure a new identification tag is attached to the new working length prior to removing the excess fiber.*

10.3 Secure the fibers to the splice shelf as described in the manufacturer's instructions for the splice organizer.

11. Connector Servicing

11.1 To service a connector inside the connector module, remove the module from the cabinet and remove the protective cap (or jumper) from the outside of the module.

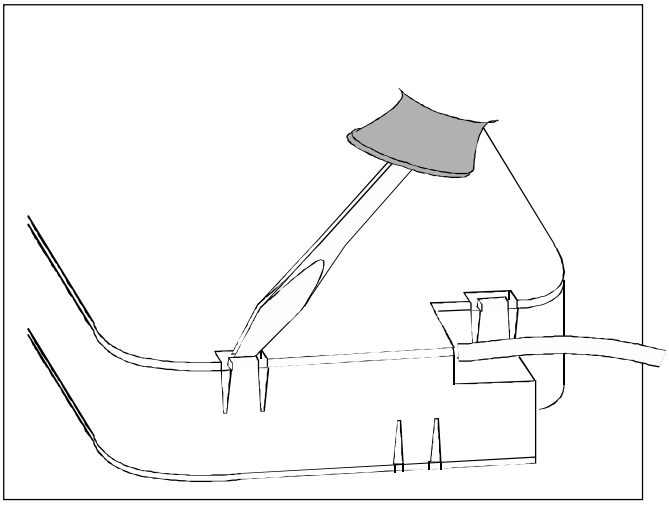


Figure 11

11.2 Use a flat-blade screwdriver to twist out the tabs that hold the cover in place and remove the cover from the module (Figure 11).

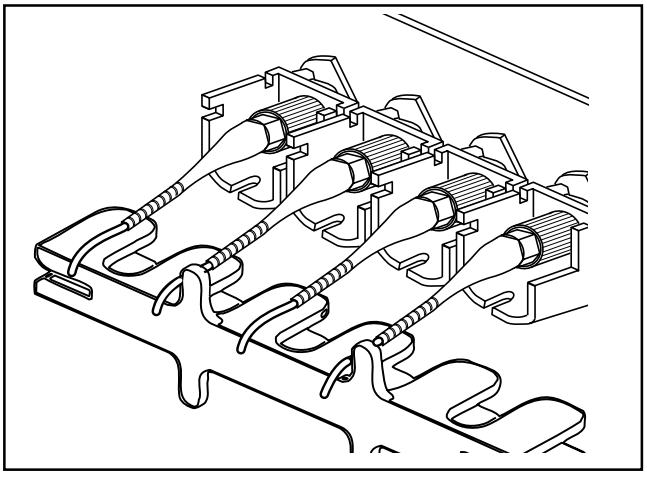


Figure 12

11.3 Slide the connector retainer yoke away from the connector sleeve to access connector sleeve assembly (Figure 12).

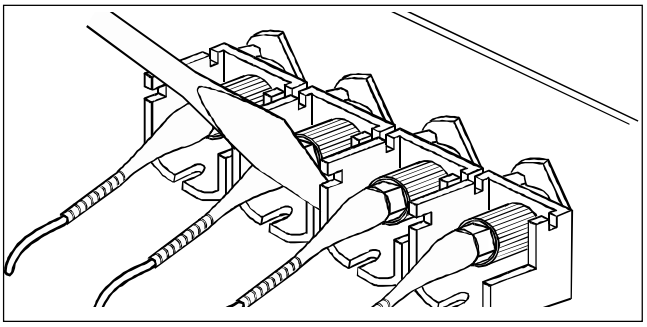


Figure 13

11.4 You can remove the connector sleeve retainer by pressing on its sides and pulling out. If that will not release it easily, use a flat-blade screwdriver to release the connector sleeve retainer. To do this, slide the blade of the screwdriver under the retainer and twist it until the retainer snaps up (Figure 13).

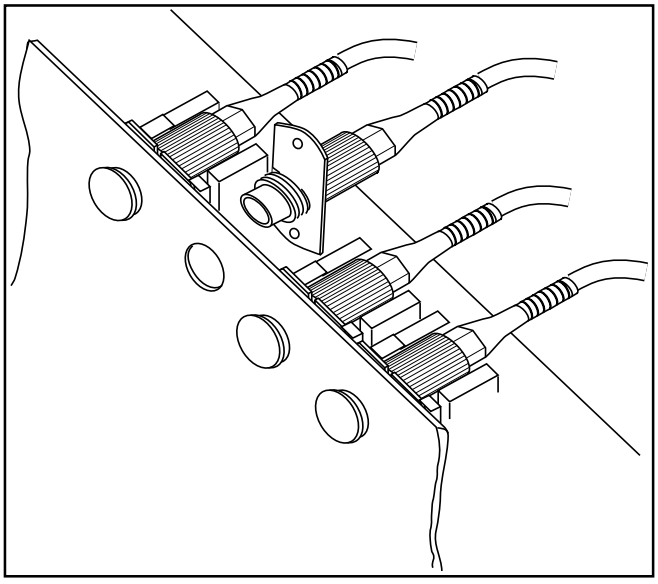


Figure 14

11.5 Slide the retainer out of the way along the pigtail and pull the connector assembly back (Figure 14).

11.6 The connector can now be removed from the connector sleeve and serviced.

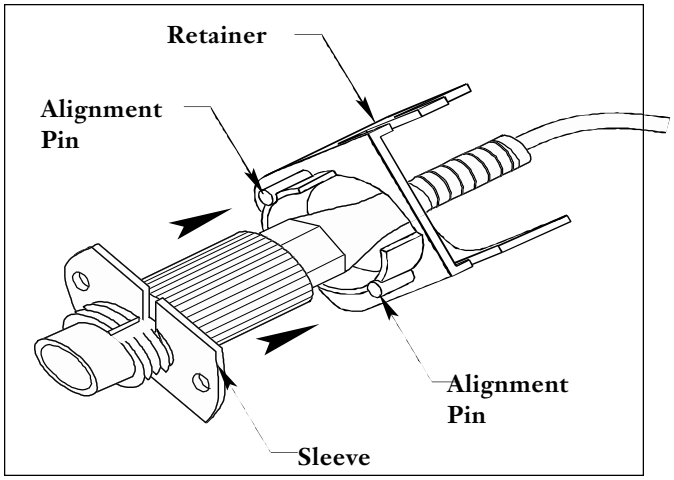


Figure 15

11.7 To reinstall a connector, re-attach it to the connector sleeve and position the assembly against the retainer so that the pins in the retainer hold the assembly in place (Figure 15). Slide the connector assembly into the module and push down on the retainer to snap it into place. Slide the connector retainer yoke back into position.

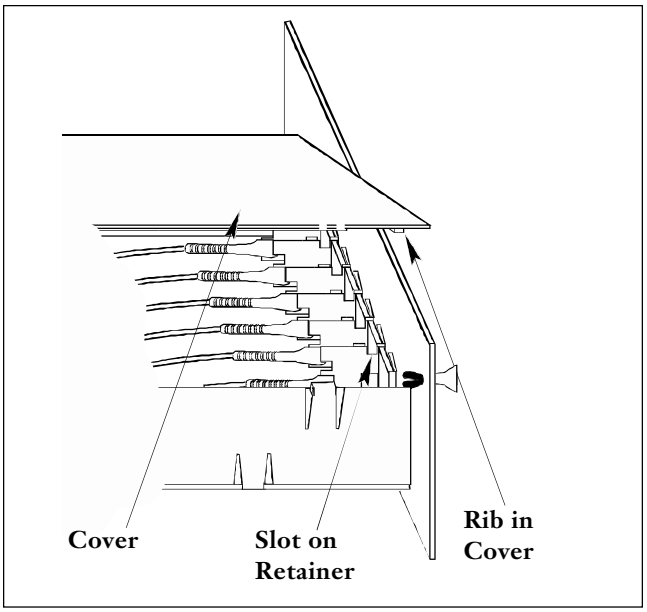


Figure 16

11.8 Replace the cover by snapping it into place. Notice that the rib on the bottom-front of the cover fits into slots in the connector retainers (Figure 16). When the cover snaps into place, this rib secures the retainers. If the cover does not snap into place with ease, check to make sure all the retainers are seated and the slots line up.

12. Connector Care

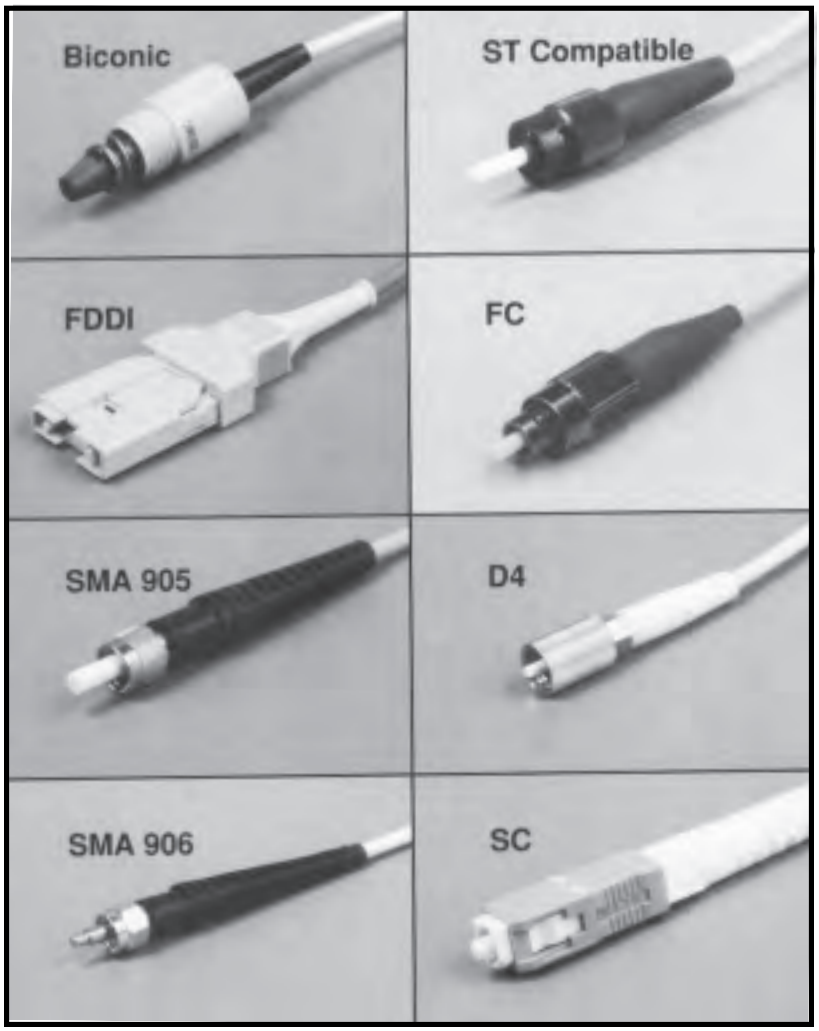


Figure 17

12.1 Proper care of fiber optic connectors requires Kimwipes® wipers, isopropyl alcohol, and compressed air.

12.2 Keep all connectors clean. Replace protective dust caps on connectors when not in use.

12.3 Clean the connector end with a Kimwipes tissue soaked in isopropyl alcohol. Wipe with a dry tissue. Blow dry with compressed air before mating.

12.4 Single Fiber Connectors: Insert the connector into a clean interconnect sleeve. If the connector has a threaded coupling, screw or rotate it until finger tight. Do not overtighten - damage to the connector may result.

12.5 FDDI Connectors: Apply proper keys and labels. Push the assembly into its receptacle until it clicks into place. Do not force the connector — if it binds, check the connector keys and receptacle for compatibility.

12.6 SMA 906: Make sure that a sleeve is on the connector before mating (white to mate with equipment or a 905 connector; red to mate with another 906).

12.7 Biconic : DO NOT let the connector's plug rotate, or the cable to twist after contact with the sleeve or adjacent connector plug. Grip the rubber connector boot while rotating the backshell to prevent such twisting.

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