

FDH 3000 Cabinet Plug-and-Play Splitter

Content	Page
INTRODUCTION	1
Revision History	1
Trademark Information	1
Related Publications	2
Admonishments	2
General Safety Precautions	2
1 INSTALLATION	3
2 ROUTING AND CONNECTING THE SPLITTER OUTPUT FIBERS	6
2.1 Storing The Splitter Output Fibers	6
2.2 Enabling Service To a Subscriber	8
3 CONTACT INFORMATION	8

INTRODUCTION

Plug-and-Play splitter modules are available in a couple of variations; n x 32 or 1 x 16 with one or two inputs depending upon the number of outputs. Both versions are the same physical size and come with 54-inch bend optimized fiber output pigtailed. Input and output connectors are the SC type.

Revision History

ISSUE	DATE	REASON FOR CHANGE
1	06/2006	Original
2	12/2007	Update Figure 2
3	04/2008	Added instruction to also remove the red tape when removing dust caps from splitters.
Rev D	March 2020	Added instruction to also remove the red tape when removing dust caps from splitters; added exploded view.

Trademark Information

CommScope (logo) and CommScope are trademarks.

Related Publications

Listed below are related manuals and their publication numbers. Copies of these publications can be ordered from the CommScope Support Center at <http://www.commscope.com/SupportCenter>

Title	ADCP Number
Optical Fiber Connector Wet and Dry Cleaning Instructions	90-159
FDH 3000 288 Termination Cabinet User Manual	96-085

Admonishments

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment. An admonishment identifies a possible hazard and then explains what may happen if the hazard is not avoided. The admonishments — in the form of Dangers, Warnings, and Cautions — must be followed at all times. These warnings are flagged by use of the triangular alert icon (seen below), and are listed in descending order of severity of injury or damage and likelihood of occurrence.



Danger: *Danger is used to indicate the presence of a hazard that **will** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



Warning: *Warning is used to indicate the presence of a hazard that **can** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



Caution: *Caution is used to indicate the presence of a hazard that **will** or **can** cause minor personal injury or property damage if the hazard is not avoided.*

General Safety Precautions



Warning: *To prevent electrical shock, never install chassis in a wet location or during a lightning storm. When installing or modifying telephone lines, disconnect lines at the network interface before working with uninsulated lines or terminals.*



Danger: *Infrared radiation is invisible and can seriously damage the retina of the eye. Do not look into the optical connector of an operational transmitter, or into the end of an active fiber. A clean, protective cap or hood **MUST** be immediately placed over any radiating connector or optical fiber to avoid exposure to potentially dangerous amounts of radiation. This practice also helps prevent contamination of connectors and adapters. Do not assume laser power is turned off or the fiber is disconnected at the other end.*



Caution: *Always allow sufficient fiber length to permit routing without severe bends. Feeder cable fibers may be permanently damaged if bent/curved to a radius of less than 1.5 in. (3.81 cm). Splitter fiber cables and internal fiber pigtailed (bend optimized fiber) may be permanently damaged if bent/curved to a radius of less than 0.6 in. (1.54 cm).*

1 INSTALLATION

Plug and play splitter modules are equipped with either one or two input connectors. Inserting the splitter into the splitter compartment connects the splitter input connector(s) to the feeder cable connector(s). Each plug and play splitter module is also equipped with up to 32 connectorized output fibers. The splitter output fibers may be either stored for later use or routed to the connector panels for connection to the distribution ports. A typical cabinet is shown in [Figure 1](#).

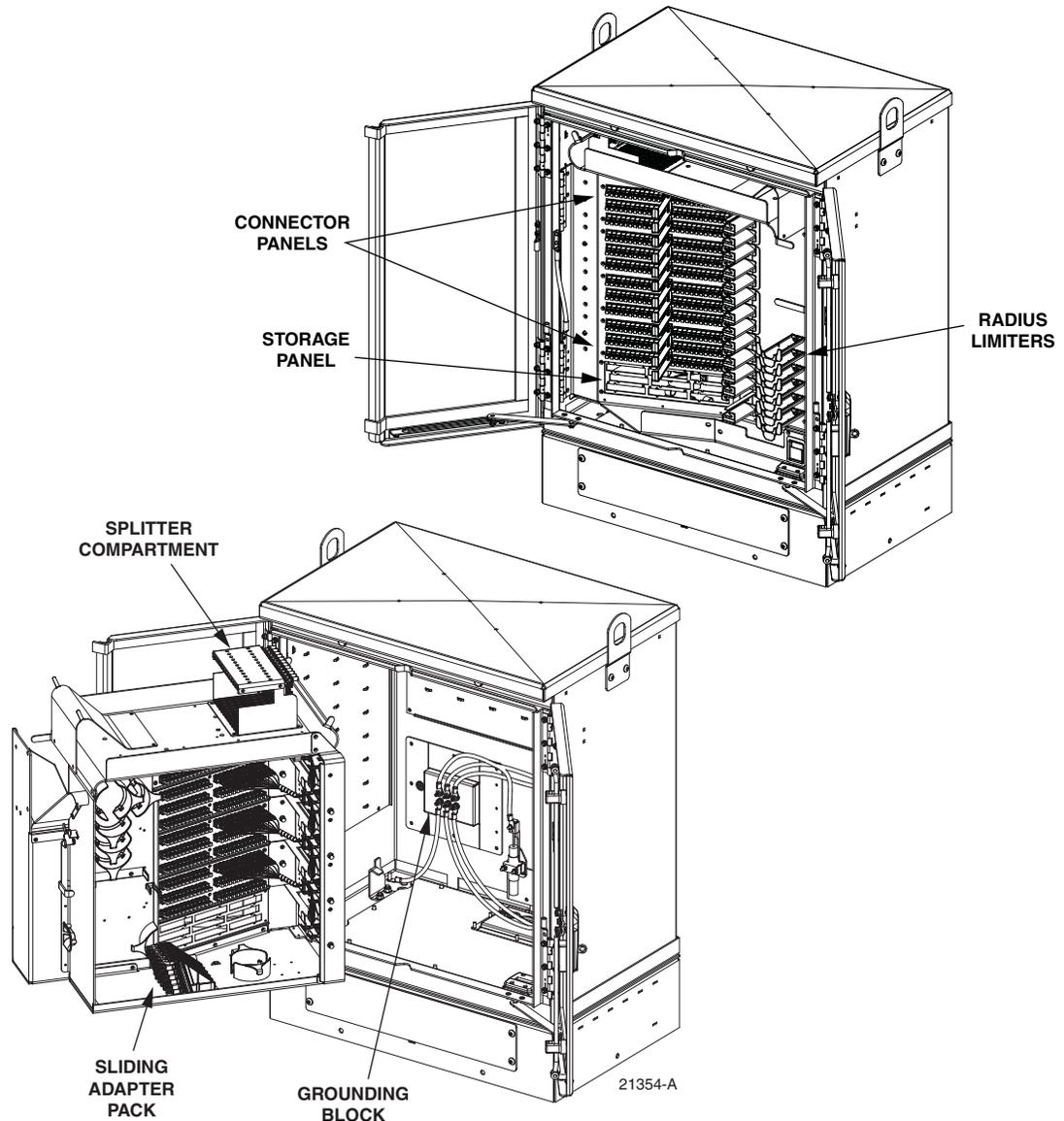


Figure 1. Typical Cabinet

Installing a plug-and-play splitter involves a couple of steps: removing the protective tape and dust cap as shown in [Figure 2](#) and installing the splitter. Use the following procedure.

1. Locate the splitter (Figure 2) and identify the mounting slot within the splitter compartment where the plug-and-play splitter will be installed.
- **Note:** Install splitters in the order shown, beginning on the left side of the splitter compartment and then working toward the right.

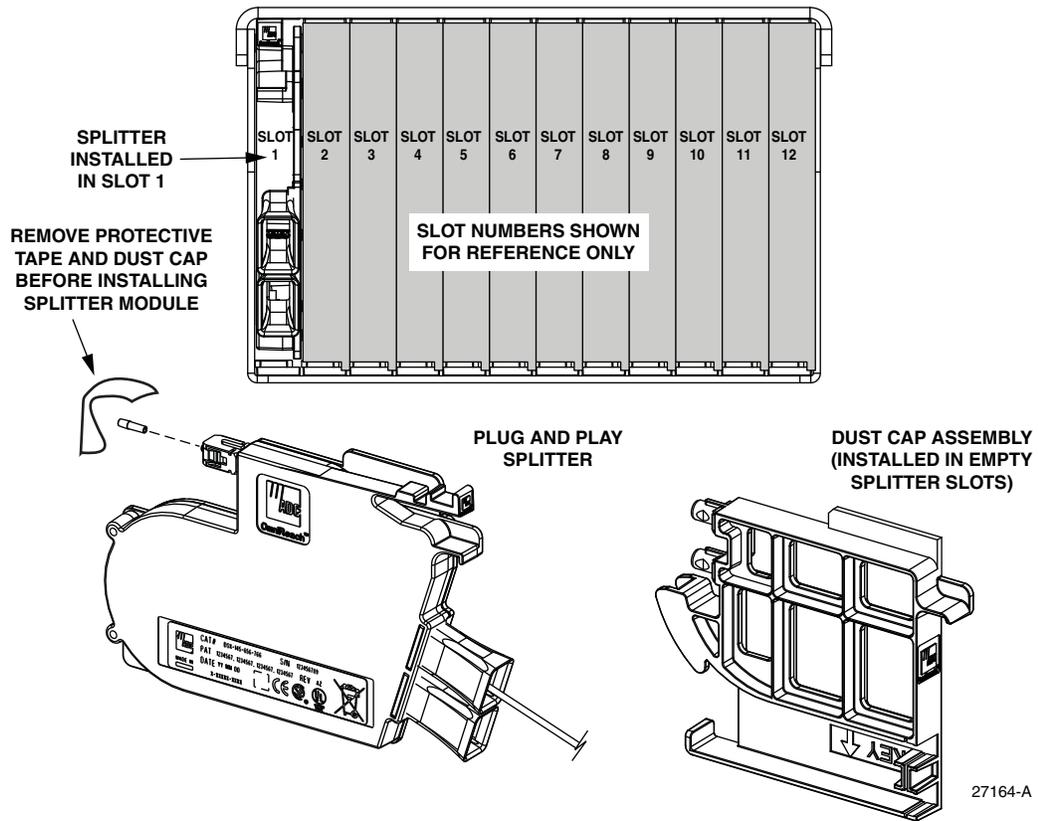


Figure 2. Installing Splitter

2. In splitter compartment remove the protective tape and dust cap assembly from the selected splitter slot identified in Step 1. To remove the dust cap, pull it straight out.
 3. Remove the corresponding feeder cable connector(s) from the rear of the splitter compartment as shown in Figure 3.
- **Note:** In the area vacated by removing the dust cap assembly, there is a green splitter adapter assembly. CommScope advises cleaning the adapters and rear side (feeder) connector(s) on the splitter adapter assembly before installing the splitter. To do this, turn the thumb screw counterclockwise on top of the adapter assembly to detach it from the splitter compartment. See Figure 4. Slide out the adapter assembly several inches, then disconnect and clean the feeder connector(s) and clean the adapters on front and rear. For cleaning instructions, see ADCP-90-159. When done, re-connect the connector(s) and adapters and re-install the assembly.
4. After cleaning, reinstall the feeder cable connector(s) at the rear of the splitter compartment.



Warning: Infrared radiation is invisible and can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not look directly into the optical adapters or connectors. Exposure to invisible laser radiation may result. An optical power meter should be used to verify active fibers. A protective cap or hood **MUST** be immediately placed over any radiating adapter or optical connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the adapter or connector.

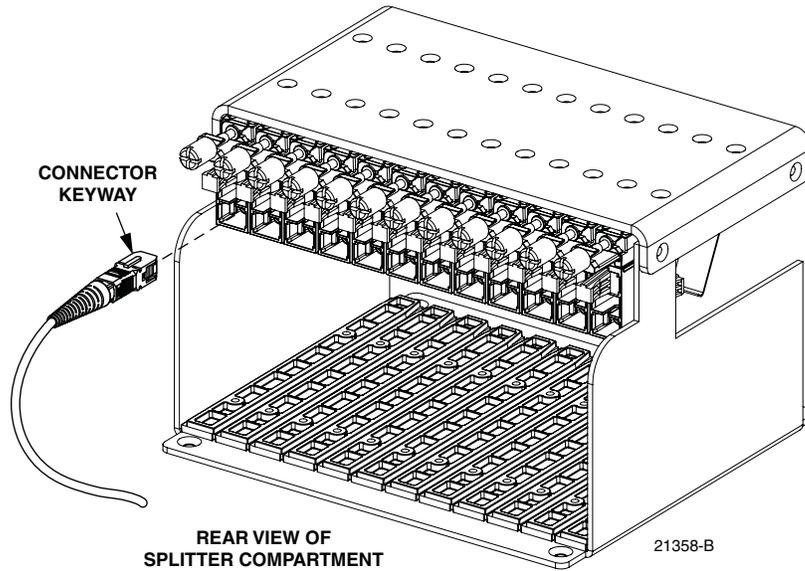


Figure 3. Feeder Cable Connector

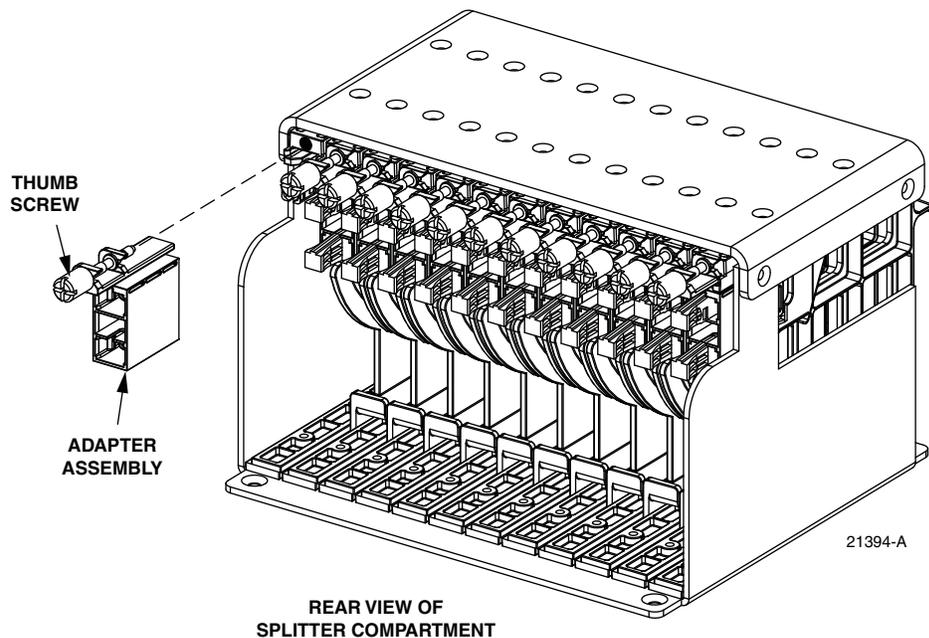


Figure 4. Adapter Assembly removal

5. Unpack the plug-and-play splitter.
6. Remove the red tape and dust cap(s) from the splitter input connector(s) on the back of the plug-and-play splitter. Clean the input connectors.
7. Align the plug-and-play splitter with the mounting slot guides and slide the splitter all of the way into the guides until you hear a click and see the latch on the top of the mounting slot snap onto the top of the splitter compartment.

2 ROUTING AND CONNECTING THE SPLITTER OUTPUT FIBERS

When a splitter module is initially installed, the output fibers are routed to the storage panel located at the bottom of the cabinet. At the storage panel, the output fibers are temporarily “parked” until they are needed. Service to a subscriber is enabled by removing an unused output fiber from the storage panel, routing it to the appropriate connector panel, and then connecting it to the subscriber port.

2.1 Storing The Splitter Output Fibers

Use the following procedure to store the splitter output fibers:

1. Following installation of a splitter module, locate an open connector pack slot in the storage panel at the bottom of the cabinet.
2. Observe an already installed splitter to see how the splitter output fibers are routed from the splitter to the connector storage panel. Use the radius limiters on the right side of the cabinet to store any excess fiber slack. Refer to [Figure 5](#) for the additional routing guidelines.



Caution: *Always allow sufficient fiber length to permit routing without severe bends. Feeder cable fibers may be permanently damaged if bent/curved to a radius of less than 1.5 in. (3.81 cm). Splitter fiber cables and internal fiber pigtails (bend optimized fiber) may be permanently damaged if bent/curved to a radius of less than 0.6 in. (1.54 cm).*

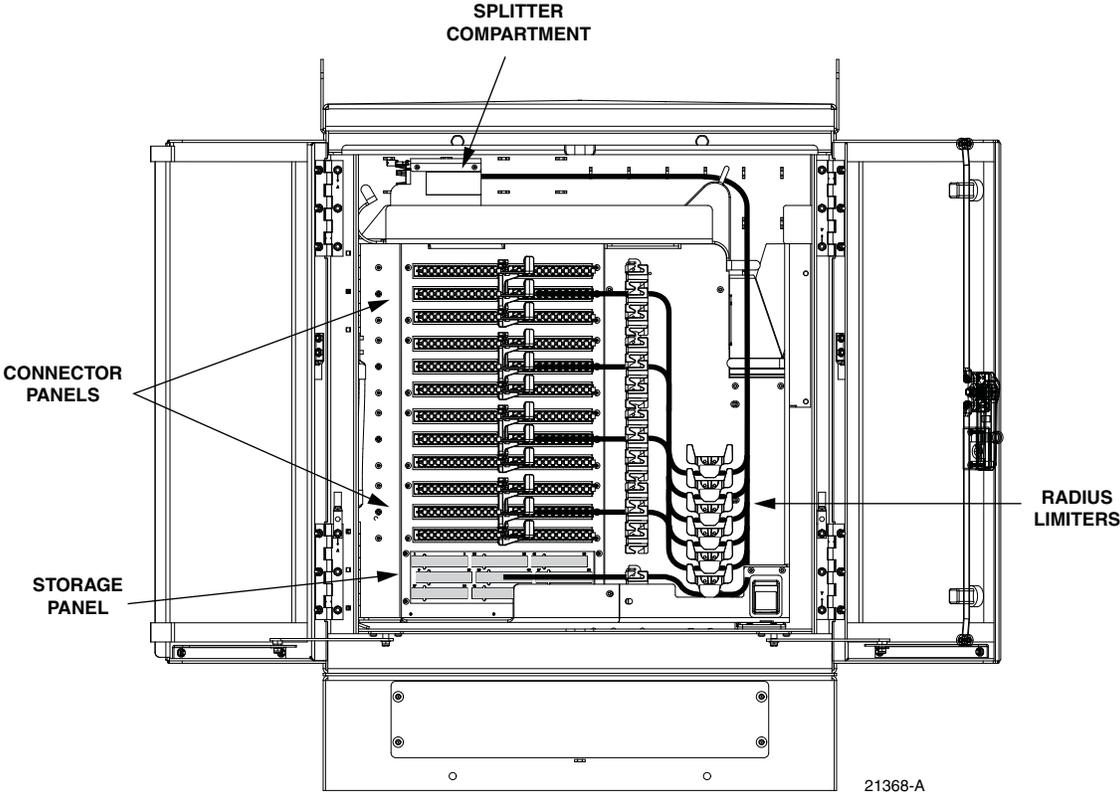


Figure 5. Routing Splitter Output Fibers

- 3. To install the connector pack, first anchor the right end then swing the long tabs into the corresponding slots in the storage panel. See [Figure 6](#).

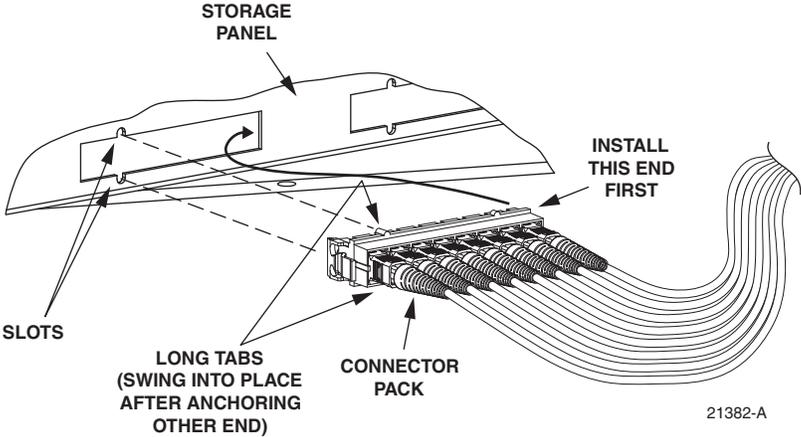


Figure 6. Installing Connector Pack

2.2 Enabling Service To a Subscriber

Use the following procedure to enable service to a subscriber:

1. Check the designation labels on the cabinet doors to determine the connector panel and port number that corresponds to the address of the subscriber.
2. Locate the subscriber port on the specified connector panel and remove both the adapter dust cap and the connector ferrule dust cap.
3. Select and remove an unused splitter output fiber from the storage panel and carefully work it free of any other fibers.
4. Remove the ferrule dust cap from the connector and then clean the connector as specified in the Optical Fiber Systems Cleaning and Mating Instructions (ADCP-90-159).
5. Connect the splitter output fiber connector to the subscriber port.
6. Use the radius limiters on the right side of the cabinet to store any excess fiber slack. Refer to [Figure 5](#) for the routing guidelines.



Warning: *Infrared radiation is invisible and can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not look directly into the optical adapters or connectors. Exposure to invisible laser radiation may result. An optical power meter should be used to verify active fibers. A protective cap or hood MUST be immediately placed over any radiating adapter or optical connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the adapter or connector.*

Designation labels are provided on top of the splitter compartment for recording feeder cable and splitter module information. Designation labels are provided on the cabinet doors for recording subscriber information for each connector panel port. Record termination information on the designation labels.

3 CONTACT INFORMATION

Visit our website or contact your local CommScope representative for more information.

- To find out more about CommScope® products, visit us on the web at www.commscope.com
- For technical assistance, customer service, or to report any missing/damaged parts, visit us at <http://www.commscope.com/SupportCenter>
- For information on CommScope patents, refer to <http://www.cs-pat.com>