



Ultra High Density PEACOC™ Fiber Patch Panel

Patch panel with **E**nhanced **A**ccessibility for **C**ompact **O**ptical **C**onnectors



**Installation, Operation
and Maintenance Manual**

Copyright

©2014, Go!Foton Corporation
All Rights Reserved

Trademark Information

Go!Foton (Logo), PEACOC are registered trademarks of Go!Foton Corporation

Disclaimer of Liability

The contents of this document are current as of the date of publication. Go!Foton reserves the right to change the contents at any time and without prior notice. In no event shall Go!Foton be held liable for any damages resulting from loss of data, loss of use, or loss of profits and Go!Foton further disclaims any and all liability for indirect, incidental, consequential, or other similar damages resulting from the use or misuse of the contents herein. This disclaimer of liability extends to all products, publications, and services during and after the warranty period.

Issue History

<i>Issue #</i>	<i>Issue Date</i>	<i>Issue Details</i>
1	October 2016	Original Release



Go!Foton Corporation
28 Worlds Fair Drive
Somerset, NJ 08873
Office: +1 (732) 469-9650 ext. 301
Fax: +1 (908) 842-0232
www.GoFoton.com
"Bring Light to Life"

Table of Contents

1. Purpose	3
2. Safety Information	3
3. General Safety Precautions	3
3.1 General Principles for PEACOC™ operation	4
3.1.1 Specification	4
3.1.2 Key Parts.....	5
4. Installation.....	6
4.1 Unpacking and Inspection	6
4.2 Rack Installation	6
4.3 Bonding and Grounding	7
4.4 Cable Installation	7
4.4.1 Identify the Cassette Tray and Port.....	7
4.4.2 Access the Adapters from the front	8
4.4.3 Access the Adapters from the front (pulling the whole Cassette Tray)	9
4.4.4 Access the Adapters from the Back (pulling the whole Cassette Tray).....	10
4.4.5 Install connector on the Front and Rear Plane	11
4.4.6 Organize and Secure the Cassette Tray	13
4.4.6.1 Organize Front Cables	13
4.4.6.2 Organize Rear Cables	14
4.4.7 Close and Secure the Cassette Tray.....	15
4.4.7.1 Closing the Cassette Tray for 4.4.2 Procedure	15
4.4.7.2 Closing the Cassette Tray for 4.4.3 Procedure	16
4.4.7.3 Closing the Cassette Tray for 4.4.4 Procedure	17
5. Operation and Maintenance	19
5.1 Identify the Ports.....	20
5.2 Access the Adapters	20
5.3 Release the Cables	20
5.4 Routine Operation	21
5.4.1 Clean Front Plane Connector	21
5.4.2 Clean Rear Plane Connector	22
5.4.3 Replace a Front Panel Jumper	24
5.4.4 Replace a Rear Plane Jumper.....	25
5.5 Organize and Secure the Cassette Tray	27

1. Purpose

This document describes the Installation, Operation & Maintenance Manual procedures associated with the Go!Foton PEACOC Fiber Patch Panel. The purpose of the document is to ensure the safe and correct installation of the PEACOC™ shelf, ensure the safe and accurate management of the optical connection. Operations that are included this manual describe the procedures that should be followed when mounting the PEACOC™ chassis onto the rack and when installing jumper cables for the first time, and also describe the procedures that should be followed when cleaning or replacing connectors.

2. Safety Information

Throughout this document important safety admonishments are used alert the operator of possible hazards to persons or equipment. This safety information is conveyed through the use of Dangers, Warnings, and Cautions – it is important that they be followed at all times. The various warnings are defined below and are highlighted throughout this document with use of the triangular alert icon (see below). The warnings shown below are listed in order of decreasing severity of personal injury or potential for damage to equipment.

△ Danger: Danger is used to indicate a possible hazard which **will** cause severe personal injury, death, or substantial property damage if the hazard is ignored.

△ Warning: Warning is used to indicate a possible hazard which **can** cause severe personal injury, death, or substantial property damage if the hazard is ignored.

△ Caution: Caution is used to indicate a possible hazard which **will** or **may** cause minor personal injury, or property damage if the hazard is ignored.

3. General Safety Precautions

△ Danger: *Infrared radiation is invisible and can seriously damage the retina of the eye. Do not look into the ends of any optical fiber or connector. Do not look directly into the optical adapters when a connector is removed during cleaning or when they are being replaced. The use of an optical power meter should be used to verify active fibers. A protective cap or cover MUST be immediately placed over any live adapter or optical fiber connector to avoid the potential of dangerous amounts of radiation exposure. This practice will also help to prevent dirt particles from entering the optical pathway which may affect transmission performance.*

△ Caution: *When working with the PEACOC™ fiber distribution shelf at height that is above easy reach, the use of an A-frame type of step ladder should be used to provide a safe and secure footing at the necessary working height.*

3.1 General Principles for PEACOC™ Operation

The Go!Foton PEACOC™ Fiber Patch Panel is an ultra-high density optical fiber patch panel used to safely and accurately manage small form factor optical fiber connectors in a high density configuration. The PEACOC™ shelf is suitable for use in a central office, data center, CATV head end, CEV, customer premise, or other indoor environment and it does not require any special engineering, installation, or handling procedures.

The PEACOC™ shelf is a 1RU high patch panel which is shipped with 144 pre-installed LC optical adapters. To further reduce installation time for the customer, the PEACOC™ shelf may be optionally ordered with 144 LC jumpers or pigtails pre-installed on the backplane of the patch panel. The PEACOC™ optical fiber shelf is compatible with standard 19-inch frames or relay racks, and it will integrate with existing vertical and horizontal cable management trays. It is designed to be used with 1.2mm simplex LC jumper cables which occupy only ½ the space of a typical 1.6mm jumper and only 1/3 the space of a conventional 2.0mm jumper. The result is substantial savings in both weight and space in both horizontal and vertical cable trays.

Combined with the incredibly high port density, the PEACOC™ Fiber Patch Panel is an excellent choice whenever aggressive subscribe growth is anticipated or for existing environments which are limited in available space for continued growth.

3.1.1 Specifications

The PEACOC™ patch panel has been tested by Telcordia for NEBS Level 3 compliance with GR-449-CORE, Issue 3.

3.1.1.1 Mechanical

Number of Connections	144*
Accessibility	Front and Rear Access on Each Cassette
Dimensions	8.5”L x 21”W x 1.7”H (1RU) – Short 12.0”L x 21”W x 1.7”H (1RU) - Long
Width	19” Rack Standard
Total Weight	3.2 kg (7.0 lbs) maximum - Short 4.4kg (9.7lbs) maximum - Long
Cable Type	PEACOC™ cable (default): standard 1.2mm only
Fiber Type	None
Connector Type (Front)	LC/UPC Duplex (default); other types available on request
Cable Sleeve	500mm (Standard)
Mounting Options	Mounting Brackets with Cable Hangers equipped

3.1.1.2 Environmental

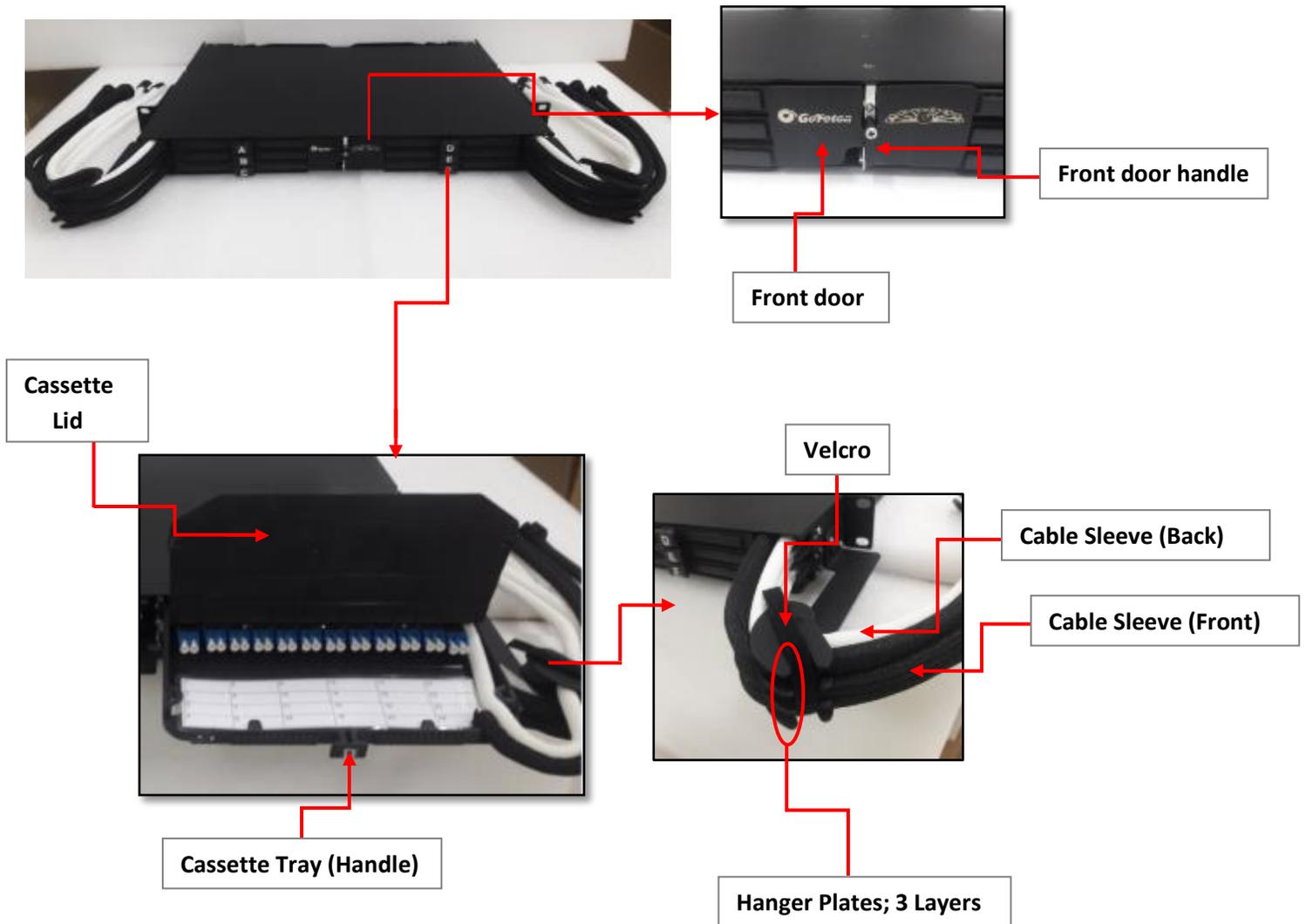
Parameter	Specification	Remarks
Operating Conditions	-40C to +75C (-40°F to 167°F)	Up to 85% humidity
Storage Conditions	-40C to +75C (-40°F to 167°F)	Up to 93% humidity

* based on LC connector, per 1RU 19” rack mount space.

3.1.2 Key Parts

The following key parts of the PEACOC™ fiber patch panel shelf are referenced throughout this document. Please refer back to the images below as needed to ensure the proper procedures are strictly followed.

⚠ Warning: Failure to follow the procedures in this operations manual can result in damage to optical fiber cable or the optical connectors which may further result in a loss of service for active subscribers.



4.3 Bonding and Grounding

The PEACOC™ fiber patch panel is installed into standard steel frame racks using thread forming mounting screws to provide an electrical path between the PEACOC™ shelf and the metalwork to which it is mounted. The PEACOC™ shelf is therefore suitable for use in any integrated bonding network or in a common bonding network.

In order to provide a suitable bond, at the time of attachment to the metal frame rails, all non-conductive coatings from the frame rails should be removed where the two metal surfaces are mated. Be sure that all mated surfaces are properly cleaned and coated with an antioxidant prior to installation.

4.4 Cable Installation

4.4.1 Identify the Cassette Tray and Port

Viewing from the front of PEACOC™, trays are labeled A, B, and C from top to bottom for the left side. Trays on the right side are labeled D, E, and F from top to bottom. (See image below).



Within each tray, there are 12LC/UPC duplex adapters. For both left and right side trays, they are numbered from 1 through 24 sequentially from left to right.



4.4.2 Access the Adapters from the front

4.4.2.1 Rotate the door handle; it can be turned clockwise or counterclockwise; 180°.



4.4.2.2 Drop the front door down.

When the door is open, you may now identify the tray that you will work on,



4.4.2.3 Hold the Cassette Handle and pull straight the tray until it is fully extended.



4.4.2.4 Lift up the Lid, loose the snap up to the first living hinge, and then the adapters will be exposed.



4.4.3 Access the Adapters from the front (pulling the whole Cassette Tray)

4.4.3.1 Rotate the door handle, can be turned clockwise or counterclockwise; 180°.



4.4.3.2 Drop the front door down.
When the door is open, you may now identify the tray that you will work on.



4.4.3.3 Release first the Velcro, and then gently pull the cable sleeve out of the cable hanger.



4.4.3.4 Pull up the Cassette Stopper until it touches the Lid. Keep holding the stopper and pull the Cassette Tray until completely pulled out.



4.4.3.5 And now you can work on the Cassette Tray separately, away from the Chassis.



Note: If you already have rear cables installed, you should disconnect them first before you pull out the Cassette Tray.

4.4.4 Access the Adapters from the Back (pulling the whole Cassette Tray)

4.4.4.1 Release first the Velcro, and then gently pull the cable sleeve out of the cable hanger.



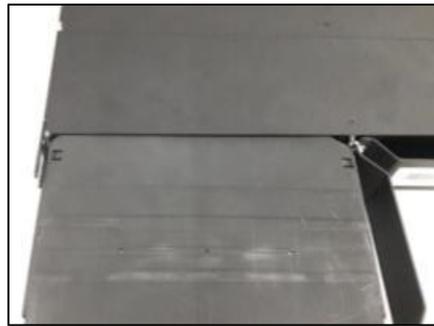
4.4.4.2 Go to the back side of the PEACOC. You must identify the cassette tray you'd like to work on. Locate the Back door Lock. Pull the handle until the door is release, and then open the door.



4.4.4.3 Push the handle to the back until part of the Cassette can be hold for pulling out.



4.4.4.4 Gently Pull the Cassette Tray until completely pulled out of the Chassis. Then you can work on the Cassette Tray Separately away from Chassis.



Note: If you already installed cable or cable sleeve on the front or rear, you should disconnect them first before you pull out the Cassette Tray.

4.4.5 Install Connectors on the Front and Rear Plane

4.4.5.1 Identify the tray and port using procedure in Section 4.4.1 and 4.4.2.

4.4.5.2 Isolate the port to be worked on by gently moving away all of the connectors to the left and right side of the desired connector.



4.4.5.3 Remove the dust caps to insert the connectors to the LC/UPC Simplex Adapters. Carefully hold the cassette adapter holder then simply pull out the dust cap.

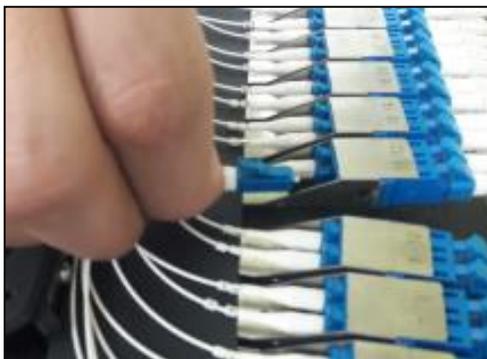


4.4.5.4 To insert front connector into the adapter, simply push horizontally on the housing of the connector until it is fully seated in the adapter. An audible click will be heard when it is properly inserted.



4.4.5.5 Lift the flap which covers the rear plane of the connector shelf.

4.4.5.6 To insert rear connectors into adapter, simply push horizontally on the housing of the connector from rear until it is fully seated in the adapter. An audible click will be heard when it is properly inserted.



4.4.6.2 Organize Rear Cables

4.4.6.2.1 Realign the 24 rear connectors after inserting rear connectors by gently pushing in from both the left and right side.

4.4.6.2.1 Gather all of the loose jumpers with your hands in line with the connectors. Gradually shift the collection point for the bundle towards the **Bend limiter**.



4.4.6.2.2 Gather all of the loose jumpers with your hands in line with the connectors. Gradually shift the collection point for the bundle towards the White Cable Sleeve and insert it to the **Cable Insert Part/Tool for Split Sleeve**.

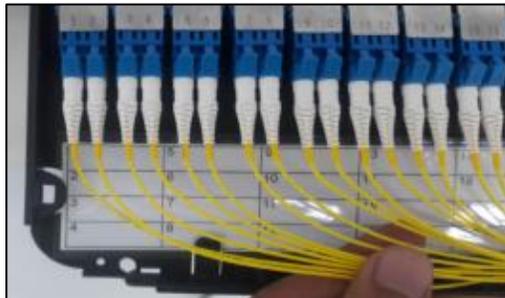
4.4.6.2.3 Pull the Cable Insert Part/Tool for Split Sleeve to easily complete the cable insertion.



4.4.7 Close and Secure the Cassette Tray

4.4.7.1 Closing the Tray for 4.4.2 Procedure.

4.4.7.1.1 Make sure that the front cables are properly managed.



4.4.7.1.2 Close the Lid and secure the snaps, avoid cables from pinching.



4.4.7.1.3 Once the Cassette is closed, gently push the cassette inside the chassis.

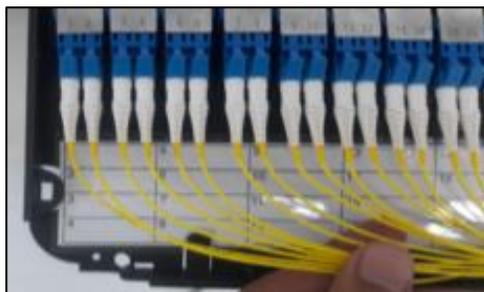


4.4.7.1.4 Close the front door and turn the front door handle; 180°.



4.4.7.2 Closing the Cassette Tray for 4.4.3 Procedure

4.4.7.2.1 Make sure that the front cables are properly managed.



4.4.7.2.2 Close the Lid and secure the snaps, avoid cables from pinching.



4.4.7.2.3 Insert the cassette tray while holding up the front stopper until the cassette is fully inserted.



4.4.7.2.4 Close the front door and turn the front door handle; 180°.

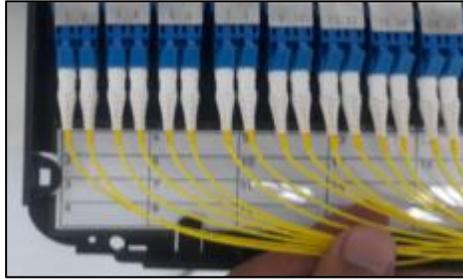


4.4.7.2.5 Put back the cable sleeve to the cable hanger.



4.4.7.3 Closing the Tray 4.4.4 Procedure

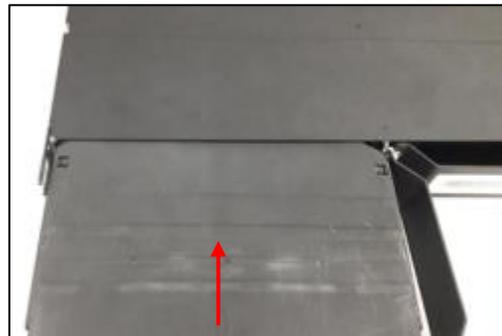
4.4.7.3.1 Make sure that the front cables are properly managed.



4.4.7.3.2 Close the Lid and secure the snaps, avoid cables from pinching.



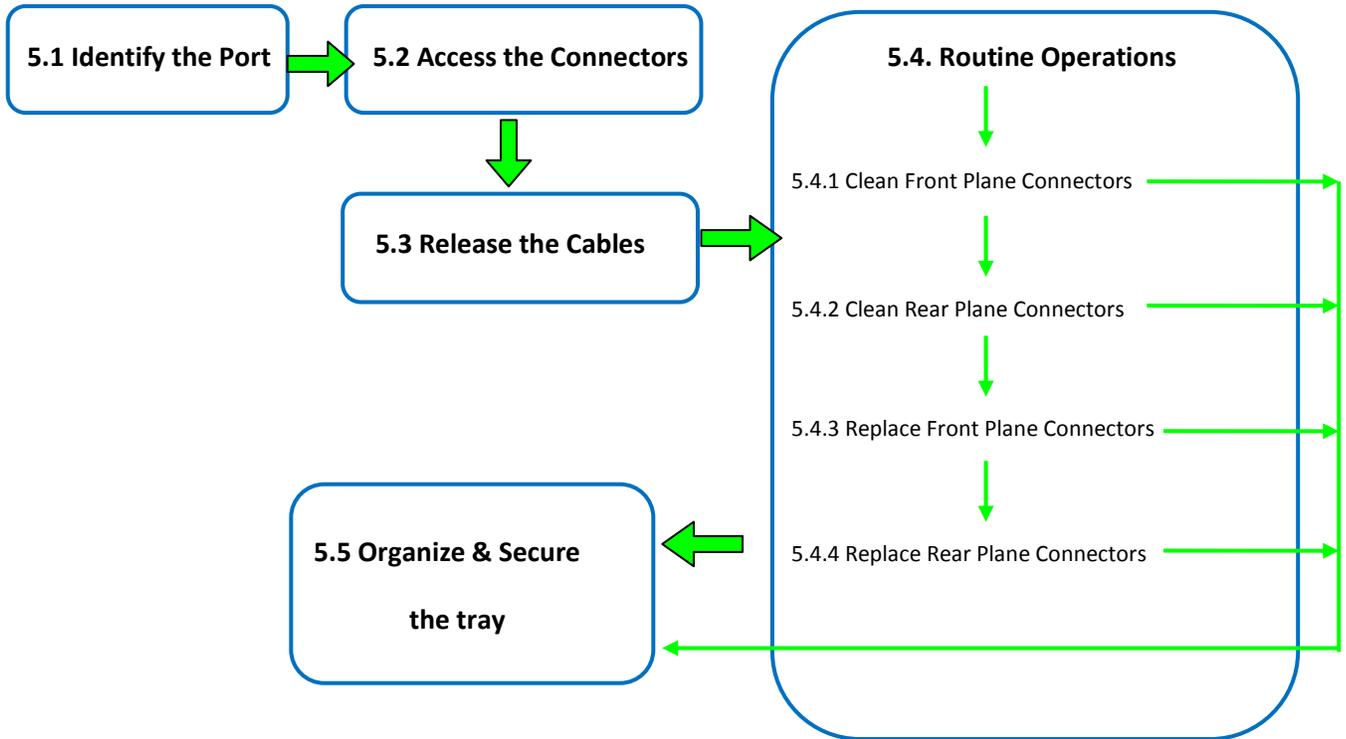
4.4.7.3.3 Insert the cassette Tray from the back side carefully, until fully inserted.



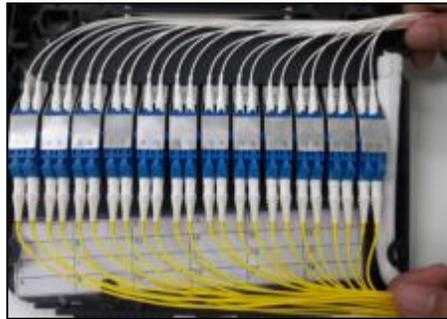
4.4.7.3.4 Close the back door and secure the back door lock.



5. Operation and Maintenance.



- 5.3.4** Identify and separate the front cables from the rear cables. The rear cables may then be removed rotated around the Bend Limiter.



- 5.3.5** Allow all of the front cables to fall freely.



5.4 Routine operation

5.4.1 Clean front plane connector

5.4.1.1 Identify the tray and port using the procedure in Section 4.4.1

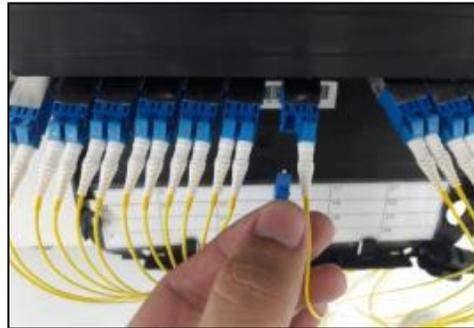
5.4.1.2 Isolate the port to be worked on by gently moving away all of the connectors to the left and right side of the desired connector.



5.4.1.3 While gently depressing the connector latching tab, pull on the connector housing to un-mate the connector plug from the adapter.

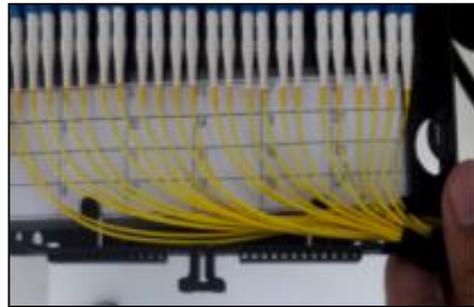
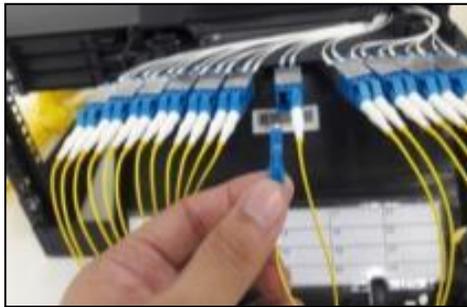


5.4.3.3 While gently depressing the connector latching tab, pull on the connector housing to un-mate the connector plug from the adapter.



5.4.3.4 Install a protective cap on the connector plug and a dust cover on the adapter.

5.4.3.5 Carefully separate the jumper from the remaining bundle of cables. Trace it all the way back to the interface with the storage tray or trough on the side of the rack (if used). Follow your company procedures for removing cable from the remainder of the cable management system.



5.4.3.6 Repeat for any additional connectors that need to be replaced.

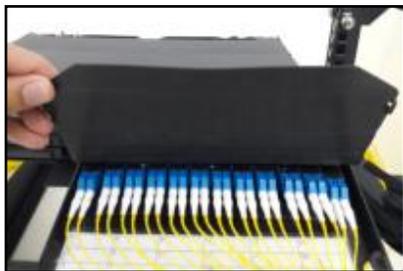
5.4.4 Replace a Rear Panel Jumper

5.5.4.1 Identify the tray and port using the procedure in Section 4.4.1

5.4.4.2 Isolate the port to be worked on by gently moving away all of the connectors to the left and right side of the desired connector.

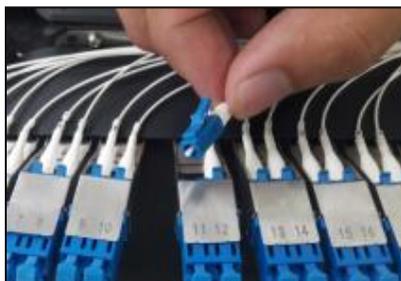


5.4.4.3 Lift the flap which covers the rear plane of the connector shelf; using one hand to support the bottom of the adapter, gently depress the connector latching tab to unlock and remove the connector from the adaptor. Pull horizontally on the connector housing.

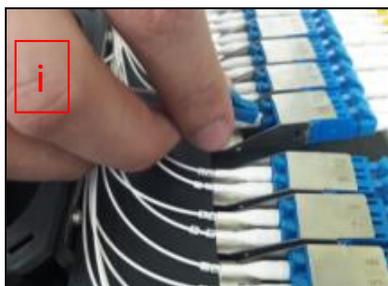


5.4.4.4 Install a protective cap on the connector plug and a dust cover on the adapter.

5.4.4.5 Carefully separate the jumper from the remaining bundle of cables. Trace it all the way back to the interface with the storage tray or trough on the side of the rack (if used). Follow your company procedures for removing cable from the remainder of the cable management system.



5.4.4.6 To insert the connector for the new jumper cable(i) insert the boot end of the connector first by angling it under the other cables, (ii) align the connector with the adapter, (iii) push horizontally in the connector until it is fully seated in the adapter, (iv) an audible click will be heard when it is properly seated.



Customer Information and Assistance

PHONE: 732-469-9650

WRITE:

Go!Foton Corporation
28 Worlds Fair Drive
Somerset, NJ 08873