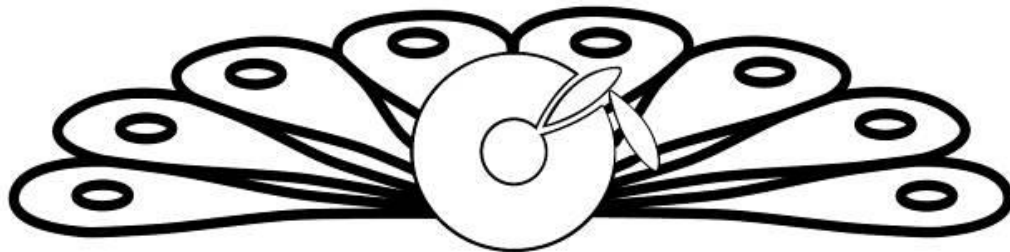




# **High Density PEACOC<sup>®</sup> v3 Fiber Patch Panel & FleT**

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

**F**lexible **T**rays to Integrate Optical Components such as NGPON2, xWDM, Splitter, etc.



## **Installation, Operation and Maintenance Manual**

March 2021

# Copyright

©2018, 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.

# Document Revision History

<i>Revision #</i>	<i>Date</i>
<i>02</i>	<i>January 2017</i>
<i>03</i>	<i>May 2018</i>
<i>04</i>	<i>November 2018</i>
<i>05</i>	<i>March 2021</i>



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](http://www.GoFoton.com)  
"Bring Light to Life"

# Table of Contents

- 1. Purpose ..... 1**
- 2. Safety Information..... 1**
- 3. General Safety Precautions ..... 1**
  - 3.1 General Principles for PEACOC operation ..... 2
    - 3.1.1 Specification ..... 2
    - 3.1.2 Key Parts..... 3
- 4. Installation of the PEACOC Platform ..... 4**
  - 4.1 Unpacking and Inspection ..... 4
  - 4.2 Installation of PEACOC Shelf with Pre-Terminated Cables/Pigtails ..... 4
  - 4.3 Installation of PEACOC Shelf with No Pre-Installed Cables..... 7
  - 4.4 Rear Entry of Feeder/Input Cables, Pigtails, and Jumpers..... 8
    - A. MPO Installation ..... 8
    - B. LC/SC Installation ..... 10
    - C. Splice Feeder Cables Installation ..... 13
  - 4.5 Front Entry of Feeder/ Cables, Pigtails, and Jumpers..... 17
- 5. Operation of the PEACOC Platform..... 21**
  - 5.1. Optical Tap Cassettes ..... 21
  - 5.2. Front Access and Installation to Adapters..... 23
  - 5.3. Organize and Secure the Cassette Tray ..... 26
- 6. Operation of the PEACOC Platform ..... 29**
  - 6.1. Identify the Port ..... 29
  - 6.2. Access the Adapters ..... 29
  - 6.3. Release the Cables ..... 29
  - 6.4. Routine Operation ..... 31
  - 6.5. Organize and Secure the Cassette Tray ..... 37

# 1. Purpose

This document describes the Installation, Operation & Maintenance Manual procedures associated with the Go!Foton PEACOC<sup>®</sup> Fiber Patch Panel. The purpose of the document is to ensure the safe and correct installation of the PEACOC<sup>®</sup> shelf, as well as the safe and accurate management of the optical connection. Operations included this manual describe the procedures that should be followed when mounting the PEACOC<sup>™</sup> chassis onto the rack, 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 to 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 for these to 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, either of personal injury or potential 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<sup>®</sup> fiber distribution shelf at a height that is above easy reach, an A-frame type of step ladder should be used to provide a safe and secure footing.*

### 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, all while not requiring any special engineering, installation, or handling procedure.

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. This results to 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 have limited 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	8.4"L x 19"W x 1.7"H (1RU) – Short 11.9"L x 19"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	G657. A2/B2 (Recommended)
Connector Type (Front)	LC/UPC Duplex (default); other types available on request
Cable Sleeve	500mm (Standard)
Mounting Options	Repositionable Mounting Brackets

##### 3.1.1.2 Environmental

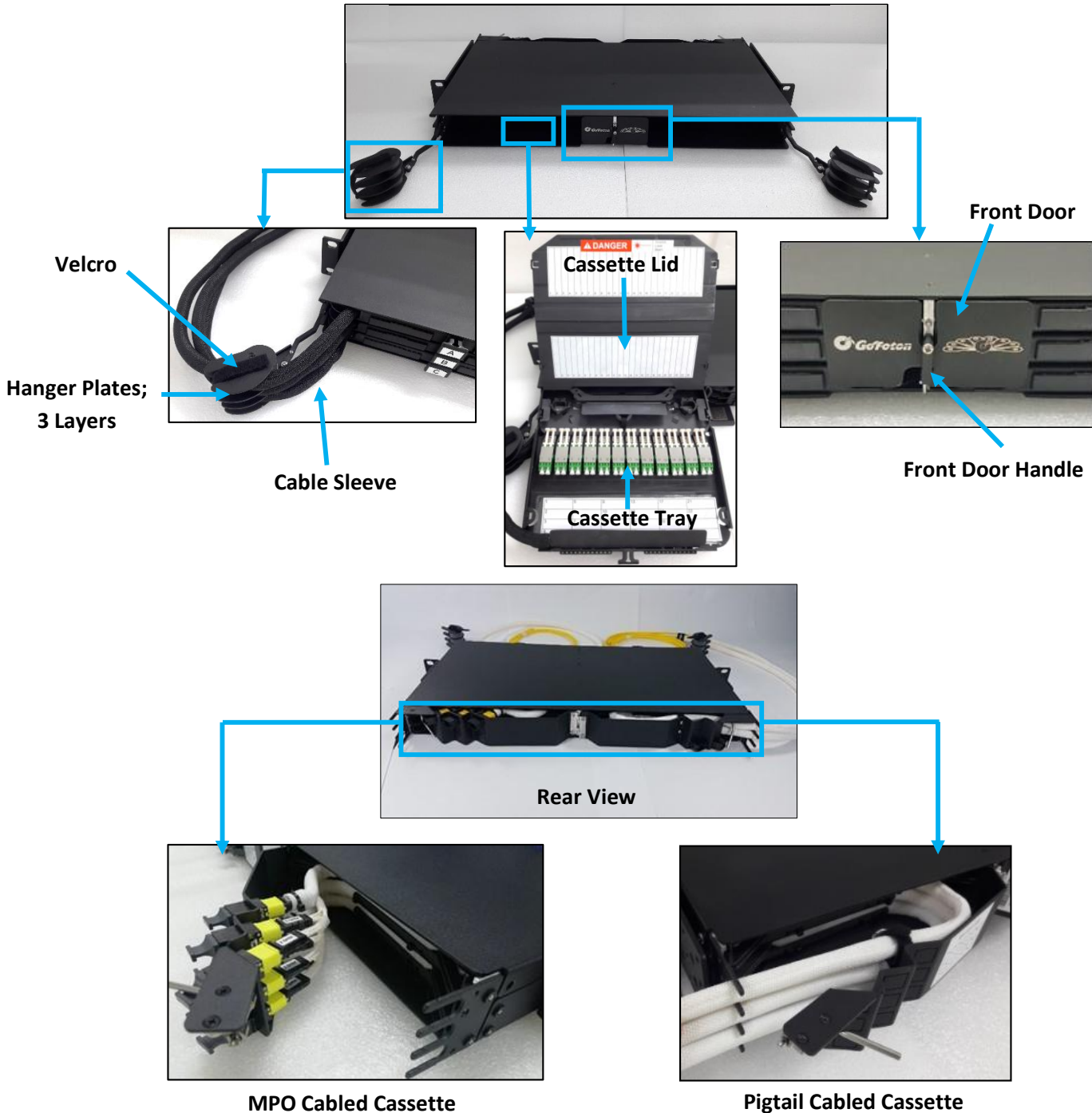
Parameter	Specification	Remarks
Operating Conditions	-40C to +75C (-40°F to 167°F)	Up to 85% humidity
Storage Conditions	-40C to +75C (-40°F to 167°F)	Up to 93% humidity

### 3.1.2 Key Parts

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

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

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

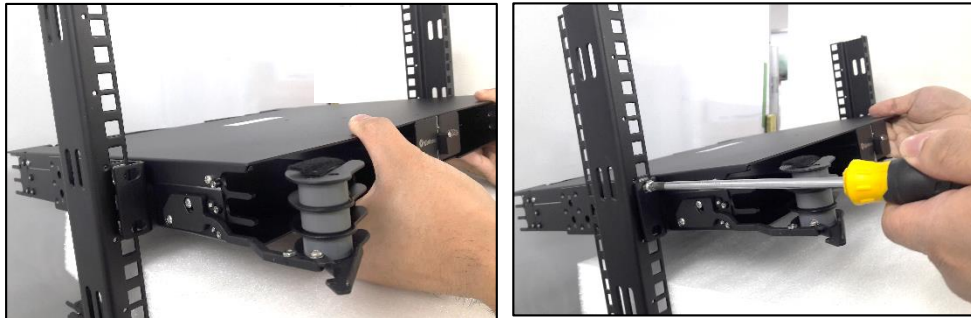




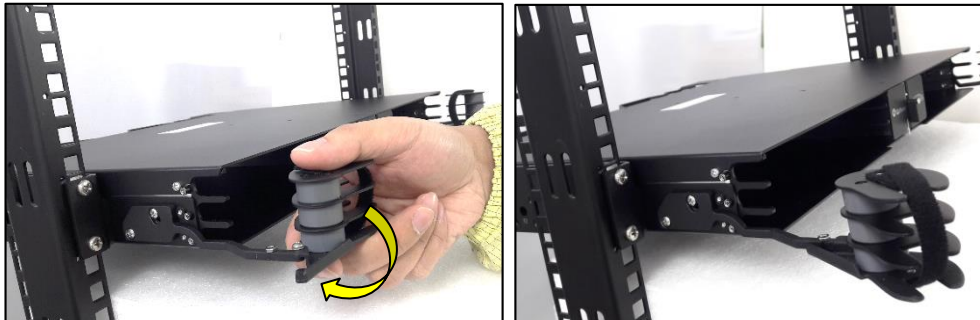
#### 4.2.1 Shelf pre-loaded with cassettes and pre-terminated cables/pigtails

For the pre-loaded PEACOC<sup>®</sup> shelf, unwind enough of the cable/pigtails from the shelf so that they will lay on the floor while the shelf is being screwed into the frame. Following this procedure will ensure that there is less weight for the installer to manage during the installation of the shelf.

1. Hold either the empty or pre-loaded PEACOC<sup>®</sup> shelf in place and align the bracket holes with the holes on the equipment rack. Using compatible rack screws (not provided), mount the unit onto the rack, and then tighten the screws.



2. To straighten the cable hanger, move the head of the cable hanger by swinging it outwards the chassis until it locks into place.

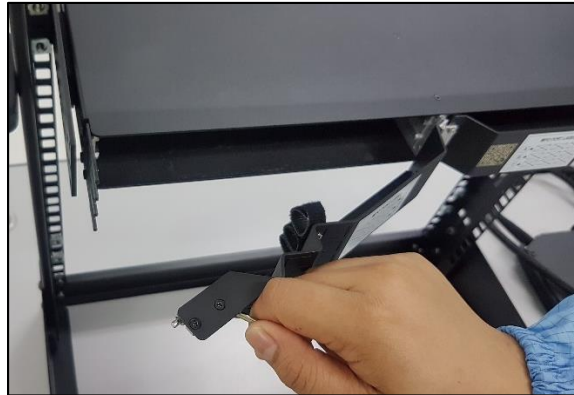


#### 4.2.2 Empty shelf and individual cassettes equipped with pre-terminated cables/pigtails

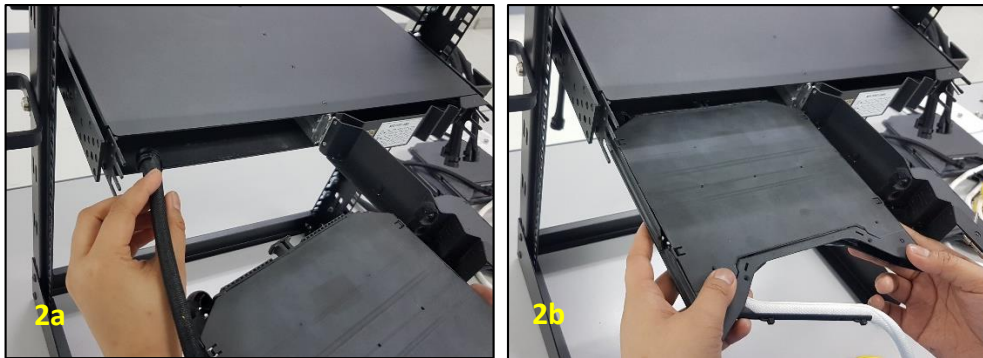
For the empty shelf, install each cassette with the pre-terminated cable/pigtails in their correct locations.



1. Open the rear door of the chassis by pulling the door lock handle.



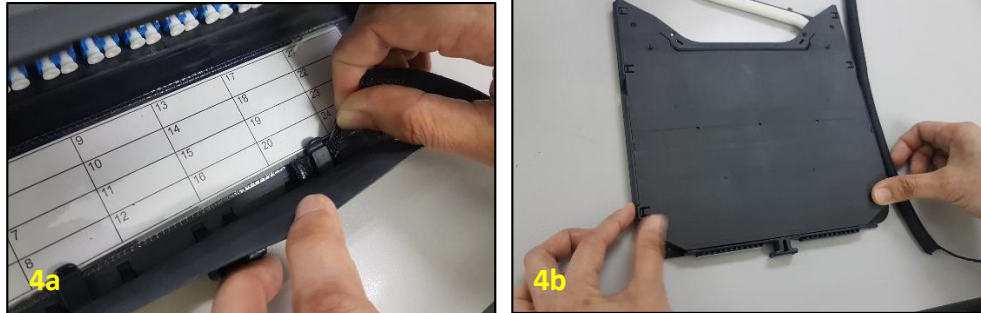
2. Get a patch cassette and insert the front cable sleeve (black) into the chassis (2a). Position the patch cassette on the lowest slot and push it forward to insert it into the chassis (2b).



3. Get another patch cassette and insert the front cable sleeve (black) into the chassis (a). Position the patch cassette on the middle slot (b) and push it forward to insert it into the chassis (c).



- For the top slot cassette, remove first the front cable sleeve (black) from the cassette by opening the lid and unhooking the black cable sleeve (4a.) Return back the lid cover afterwards (4b).

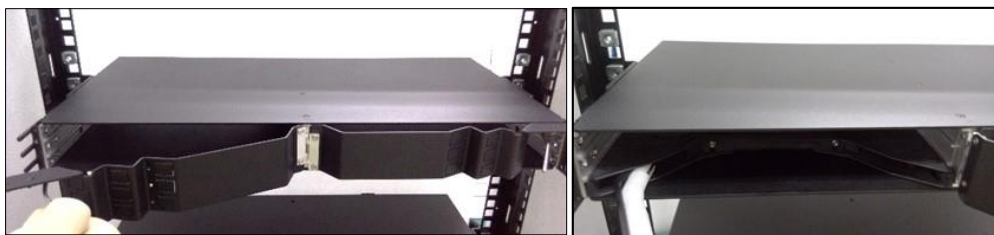


- Insert the patch cassette from the rear of the chassis by positioning it on the top portion and pushing it forward (5a). Open the front door to access the front of the cassette (5b). Pull the top slot cassette from the front until after the bottom hinge is out, open the lid and re-hook back the front black cable sleeve (5c). Repeat steps 1 ~ 5 for other cassettes on the other side of the chassis.



**A. For cassettes with rear loaded cables/pigtails, move to the rear of the shelf.**

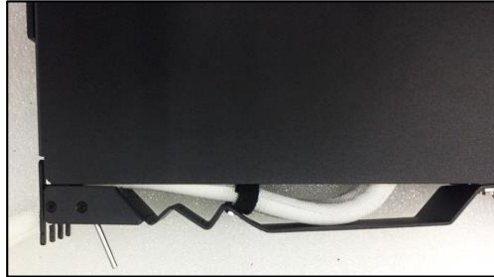
- Open the rear door and slide the cassettes into their corresponding slots.



2. Secure each Rear Swing Arm to the rear door using the Velcro straps attached to the rear door.



3. Close the rear door.



**B. For cassettes with front loaded cables/pigtails, move to the front of the shelf.**

1. Open the front door.

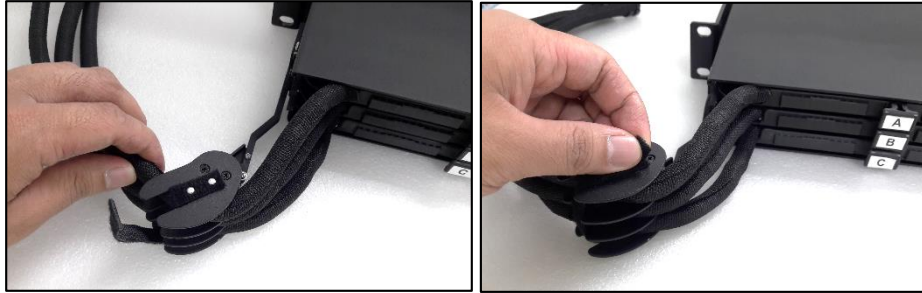


2. Pull up the Cassette Stopper until it touches the Lid. Keep holding the stopper and insert each cassette in their corresponding slot.

- (a) For left side cassette loading, pull up the Cassette Stopper from the right side
- (b) For right side cassette loading, pull up the cassette Stopper from the left side



- Secure each cable/pigtail in their corresponding front Slack Storage Arm position and close the Velcro strap.



Completely unwind the cables/pigtails and run them to their designated locations following company standards. Dress the cables using Velcro/cable ties, etc. while maintaining minimum bend radius.

- Open the front door of the chassis by turning the front door handle clockwise or counter clockwise to the open position, partially withdraw each cassette installed, open the front portion of each unit and remove and discard the protective foam.



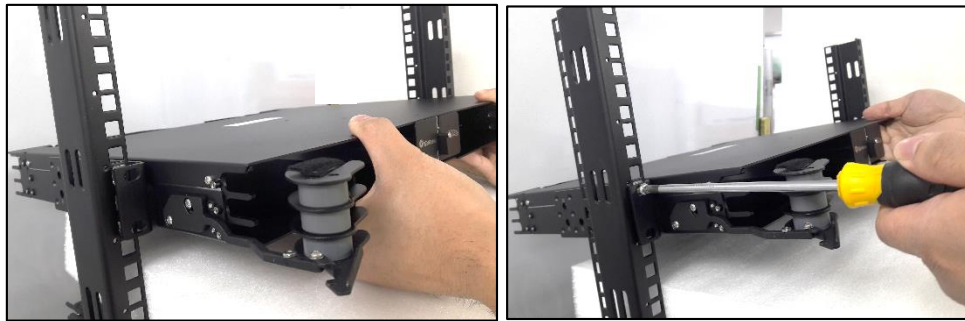
- Close each cassette lid, push each cassette back in and close the front door.



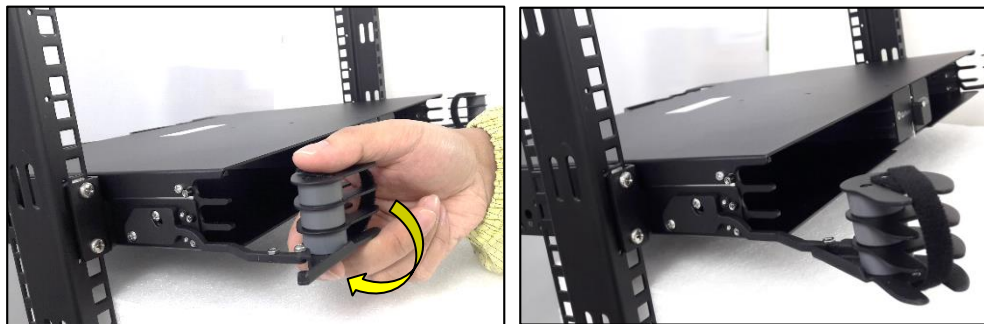
- Installation of the PEACOC shelf with pre-terminated cables/pigtails complete.**

### 3.4 Installation of PEACOC Shelf with No Pre-Installed Cables

**4.3.1** Hold either the empty or pre-loaded PEACOC<sup>®</sup> shelf in place and align the bracket holes with the holes on the equipment rack. Using compatible rack screws (not provided), mount the unit onto the rack, and then tighten the screws.



**4.3.2** To straighten the cable hanger, move the head of the cable hanger by swinging it outwards the chassis until it locks into place.



**4.3.3** Open the front door of the chassis by turning the front door handle clockwise or counter clockwise to the open position, partially withdraw each cassette installed, open the front portion of each unit and remove and discard the protective foam.



**4.3.4** Close each cassette lid, push each cassette back in and close the front door.



### 4.3.5 Installation of the PEACOC shelf with no pre-terminated cables/pigtails complete.

## 4.4 Rear Entry of feeder/input cables, pigtails & jumpers

Once a PEACOC<sup>®</sup> shelf with no pre-terminated cables/pigtails is installed, the feeder/input cables will be installed at a later time. These cables will enter the PEACOC<sup>®</sup> shelf through the rear or the front, and will terminate on the rear side of the LC/SC adapters.

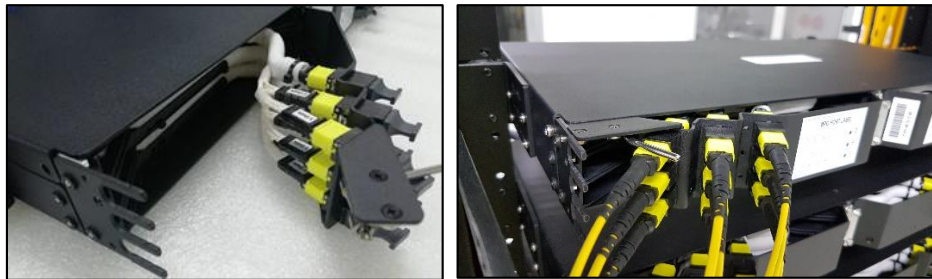
**4.4.1** Move to the rear of the frame.

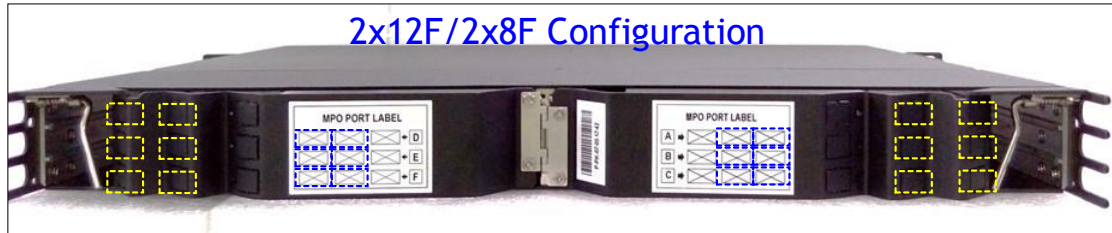
**4.4.2** Identify the type of cable connection: MPO, LC/SC or Splicing.

### A. For MPO Installation, refer to the following steps:

For Chassis equipped with pre-terminated MPO Cassettes

1. Plug in the MPO connectors on the cable into the MPO adapters on the Chassis. Each Cassette has three MPO slots on the rear door. One slot will be used for a 24F MPO, two slots for 12F MPOs and three slots for 8F MPOs. (Reminder: Inspect, clean, Inspect, connect both sides of the connector (ICIC)).

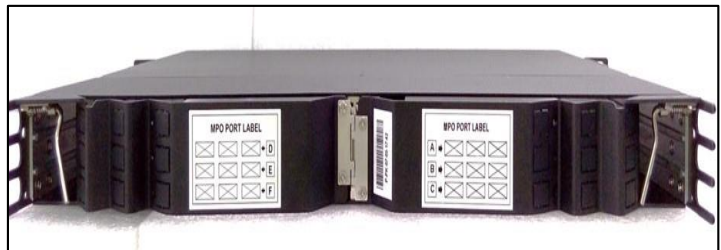
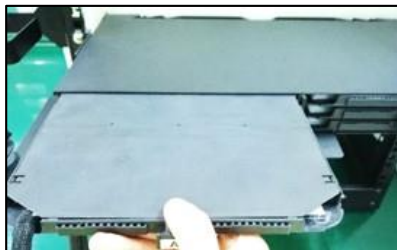




2. Open the front door of the chassis, partially withdraw each cassette installed, open the front portion of each unit and remove and discard the protective foam.



3. Close each cassette lid, push each cassette back in and close the front door.



4. For MPO jumper cable connections on the rear door, please provide at least ten inches (10") cable slack as provision for rear door opening clearance.

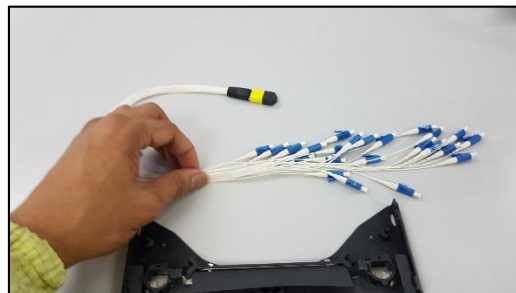


**Configure an empty cassette with 1, 2 or 3 MPO-LC Breakouts and install in an empty Chassis.**

1. Install the empty Chassis as directed in 4.3.1 and 4.3.2
2. Open the empty cassette and remove the lid. Remove the existing SOC Sleeve with Swing Arm.



3. Retrieve your 1, 2 or three MPO -LC fan-out cables for the inside of the cassette.





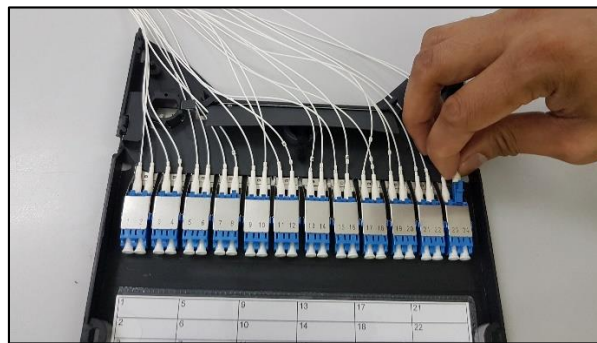
4. Remove each dust cap from the LC adapter and insert the LC connector from the MPO-LC fan-out into correct LC port by matching the number on the connector to the laser mark on the adapter.



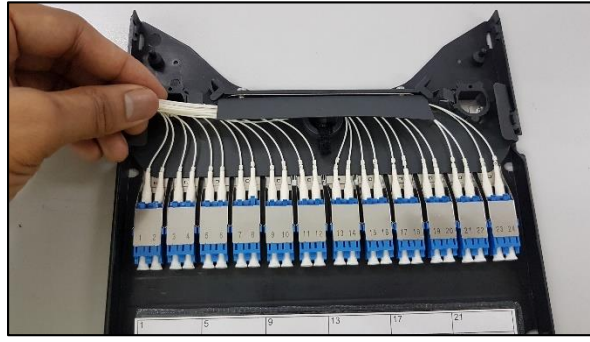
5. Make sure to hold the connectors on the connector boots to avoid damaging or bending the fibers.



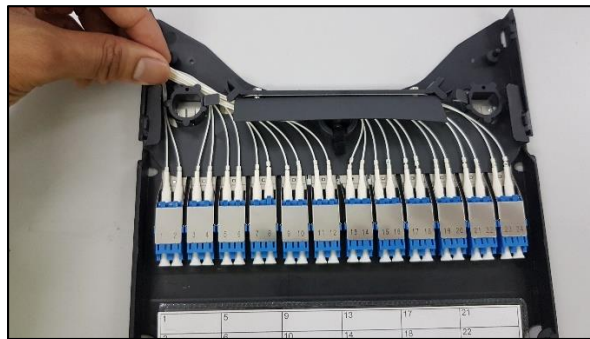
6. Repeat steps 5 & 6 until all connectors from the MPO-LC fanout is installed.



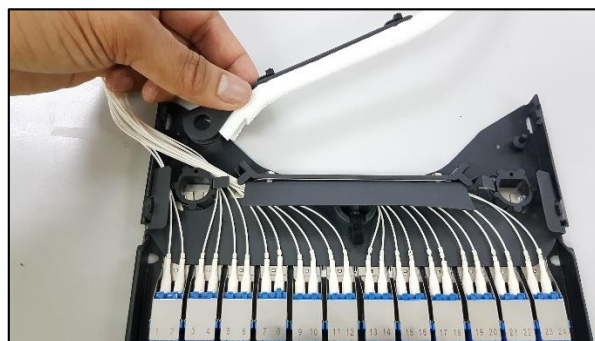
7. Gather all of the loose jumpers with your hands in line with the connectors. Gradually shift the collection point for the bundle towards the Bend limiter.



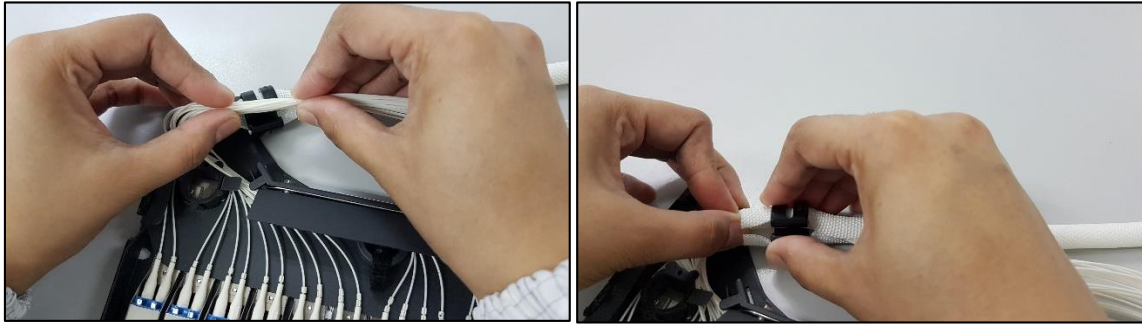
8. Route the bundle first 10 (SCs) or 20 (LCs) on the inside of the rear bend limiter and the last 2 (SCs) or 4 (LCs) around the outer portion of the bend limiter towards the right or left cable entry point.



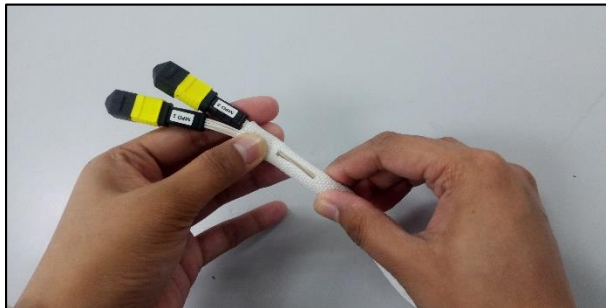
9. Re-install the SOC Sleeve with Swing Arm on the Pivot Post



10. Insert the cable bundle into the Cable Insert Part Tool. While holding the Cable sleeve behind the Cable Insert Part with one hand, slide the Cable Insert Part Tool along the Cable sleeve with the other hand to easily insert all the cables.



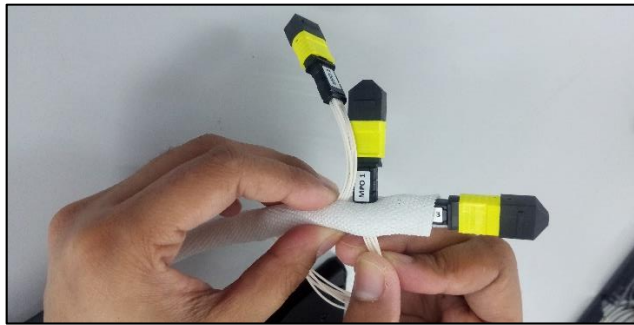
11. Once the cable is fully inserted into the SOC Sleeve, locate the additional opening near the end of the sleeve and insert MPO1 and MPO2 into it. MPO3 should remain in the interior of the SOC Sleeve.



**1x24F MPO Configuration:** MPO1 exits at the end of the sleeve.

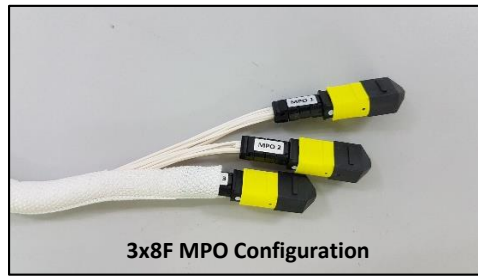
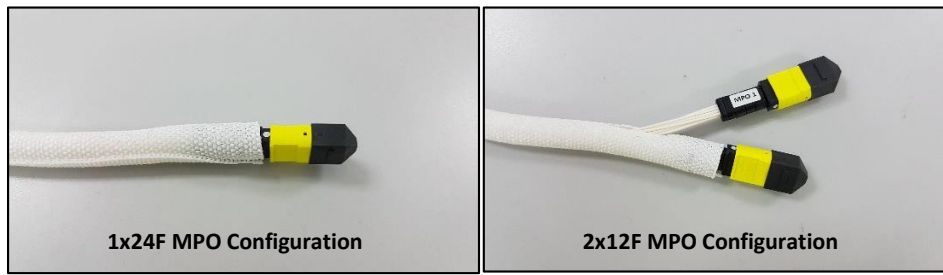


**2x12F MPO Configuration:** MPO1 insert into the slit.  
MPO2 exits at the end of the sleeve.



**3x8F MPO Configuration:** MPO1 & MPO2 insert into the slit. MPO3 exits at the end of the sleeve.

12. Ensure MPOs have these orientations in the SOC sleeve.

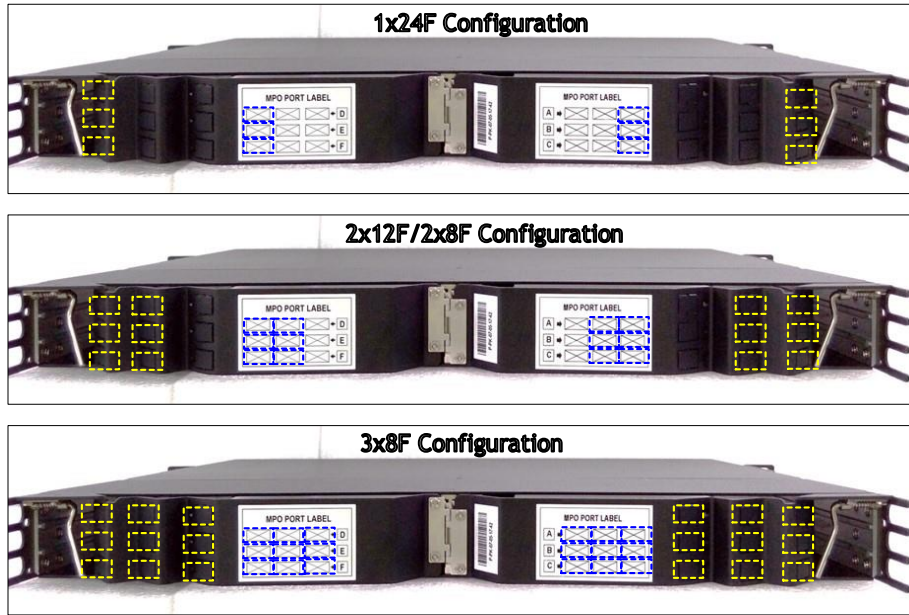


13. Install the Cassette Lid and close it.

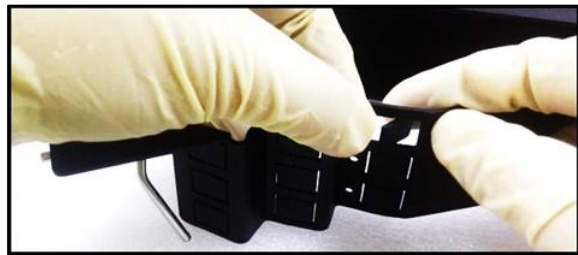
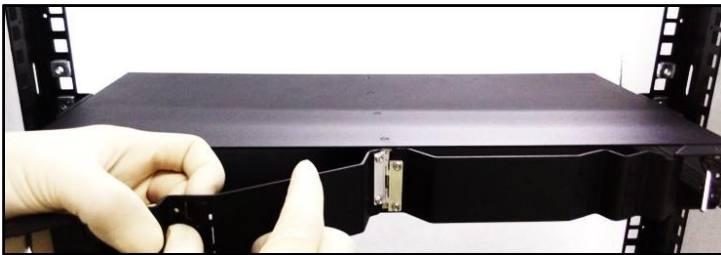


14. Move to the rear of the Chassis

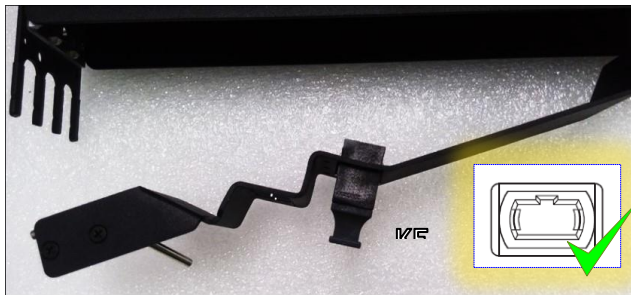
15. Identify the MPO knockouts in the rear door.



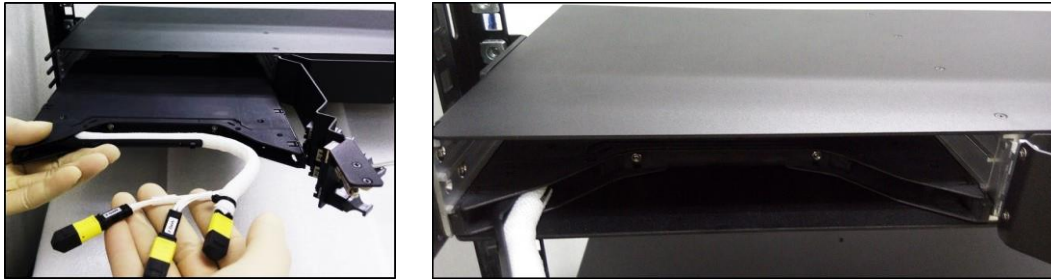
16. Remove 1, 2, or all 3 knockouts associated with each cassette to be installed in the chassis. The number of knockouts should match the number of MPOs to be installed.



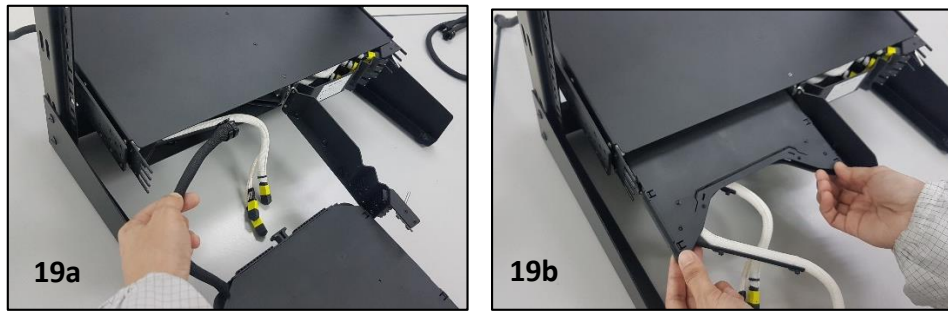
17. Install MPO adapters in each knockout of chassis. Ensure the correct orientation of the adapter is maintained.



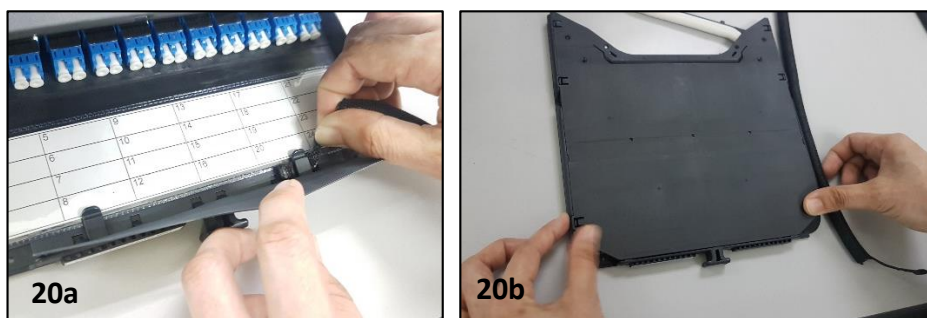
18. While Chassis Back Door is open, insert cassettes from rear to the desired tray location. Insert the front cable sleeve (black) inside and position the cassette on the bottom layer of the chassis.



19. Get another cassette and insert the front cable sleeves (black) into the chassis (19a). position and push to insert the cassettes on the middle slot of the chassis (19b).



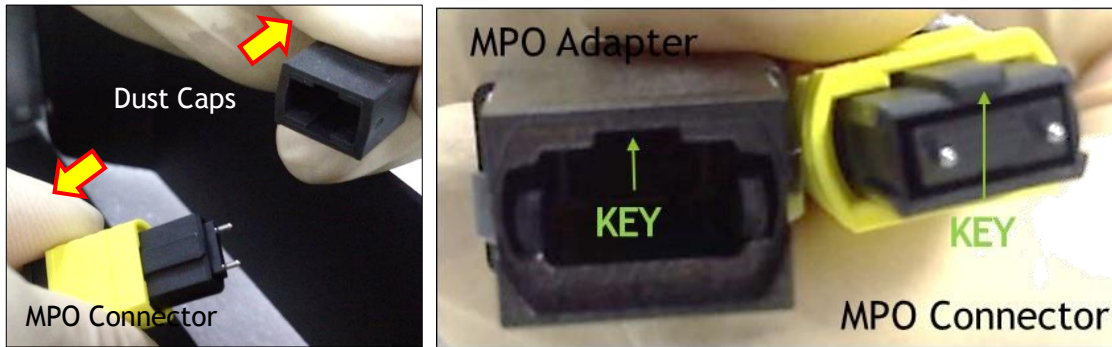
20. For the top slot cassette, remove first the front cable sleeve (black) from the cassette by opening the lid and unhooking the black cable sleeve (20a.) Return back the lid cover afterwards (20b).



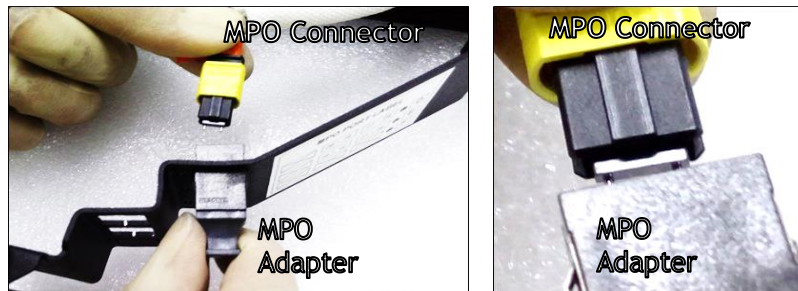
21. Insert the cassette from the rear of the chassis by positioning it on the top portion and pushing it forward (21a). Open the front door to access the front of the cassette (21b). Pull the top slot cassette from the front until after the bottom hinge is out, open the lid and return back the front black cable sleeve (21c). Repeat steps 18 ~ 21 for other cassettes on the other side of the chassis.



22. After cassette is inserted into the Chassis, remove dust caps both from the MPO Connector(s) and MPO adapter.



23. Insert MPO Connector(s) from the cassette into the MPO adapters on the back door. Push MPO connector in until a “click” sound is heard upon attachment. Ensure the right orientation of MPO Connector and MPO Adapter (e.g. KEY-UP)



24. Once all connectors are connected, close the back door.



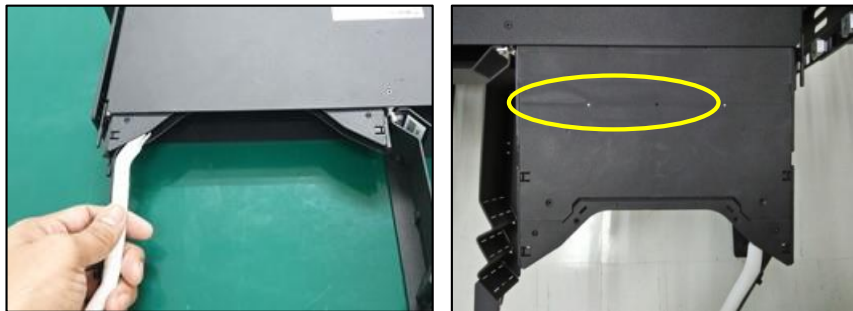
## 5. Rear MPO Cable Installation complete.

### B. For LC/SC Installation, refer to the following steps:

1. Open the Chassis rear door and identify the Cassette in which the fan-out cable will be installed.
2. Remove the rear cable sleeve from the rear door.

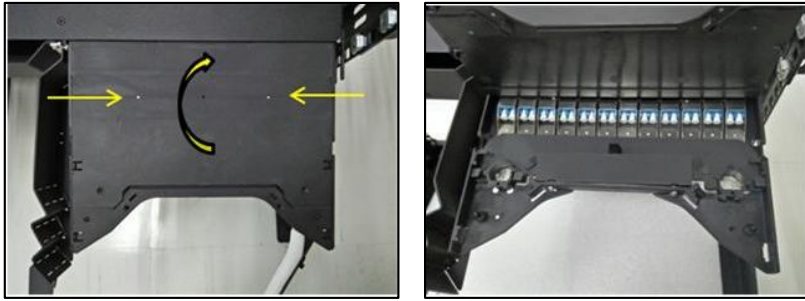


3. Use the cassette swing arm to pull out the cassette to the rear hinge position identified by the three holes on the top of the lid.





4. Open the cassette lid, exposing the rear LC/SC adapters.



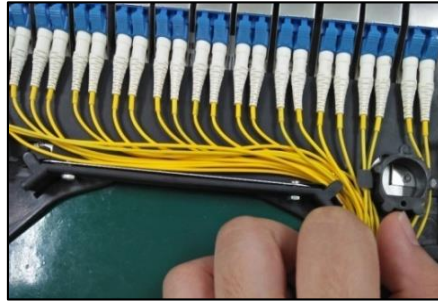
5. Insert the fan out portion of the cable through the rear of the cassette and plug each LC/SC connector into each rear adapter. Adapters are numbered 1-24(LC) or 1-12(SC) right to left looking from the rear of the chassis.



- (a) To insert connectors into adapters, simply push horizontally on the housing of the connector from the rear until it is fully seated in the adapter. An audible click will be heard when it is properly inserted. (Reminder: Inspect, clean, Inspect, connect both sides of the connector (ICIC)).(b) For right cassette, cable will enter from the right cable entry slot.  
(c) For left cassette, cable will enter from the left cable entry slot.



6. 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.

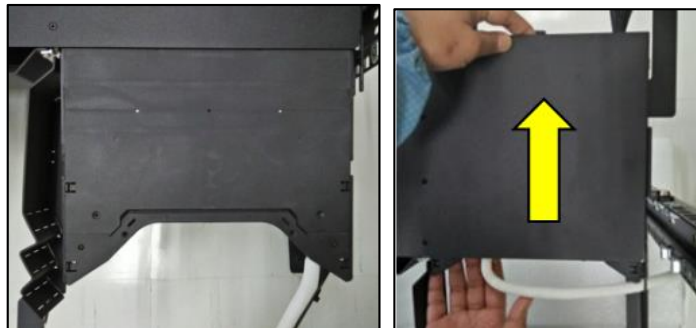


Route the bundle first 10 (SCs) or 20 (LCs) on the inside of the rear bend limiter and the last 2 (SCs) or 4 (LCs) around the outer portion of the bend limiter towards the White Cable Sleeve and insert them into the Cable Insert Part/Tool for the Split Sleeve.

7. Re-install the rear Swing Cable sleeve.



8. Re-install the lid and secure the snaps, avoid cables from pinching. Afterwards, gently push the cassette back into the chassis.



- Repeat the process for each cassette being installed and secure the Swing Cable Sleeve to the rear door with the Velcro straps.



- Close the rear door.



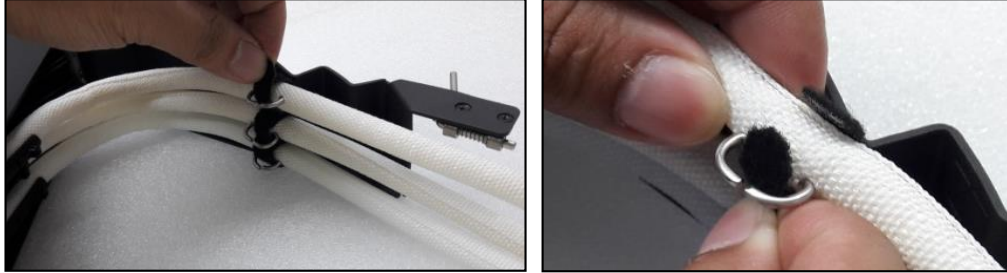
### **11. Rear LC/SC cable connection installation complete.**

### **C. For Splicing Feeder Cables Installation, refer to the following steps:**

- Open the Chassis rear door and identify the Cassette in which the cable will be spliced.



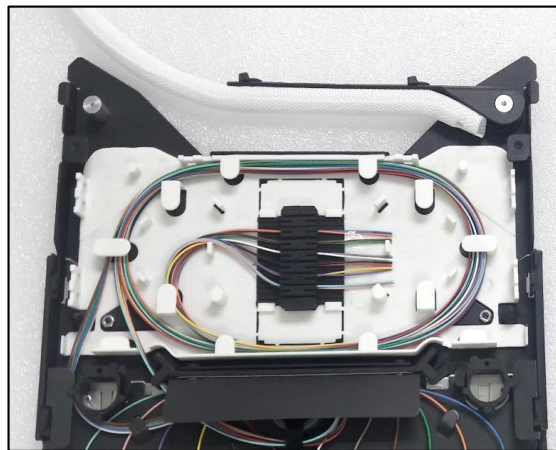
2. Remove the rear cable sleeve from the rear door.



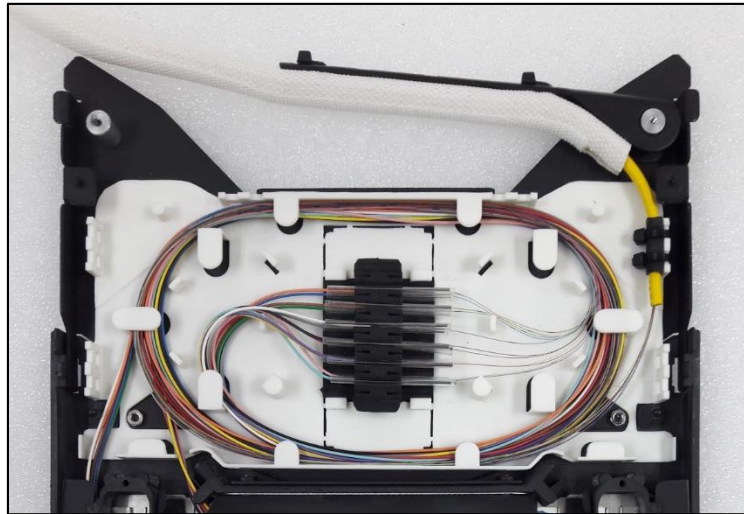
3. Use the cassette swing arm to completely pull out the cassette from the chassis before splicing.



4. Open the cassette lid, exposing the rear LC/SC adapters, fan-out and splicing tray.



5. Insert the cable into the cassette and splice the feeder cables and the cables from the connectors in the rear of the adapter following company splicing standards.

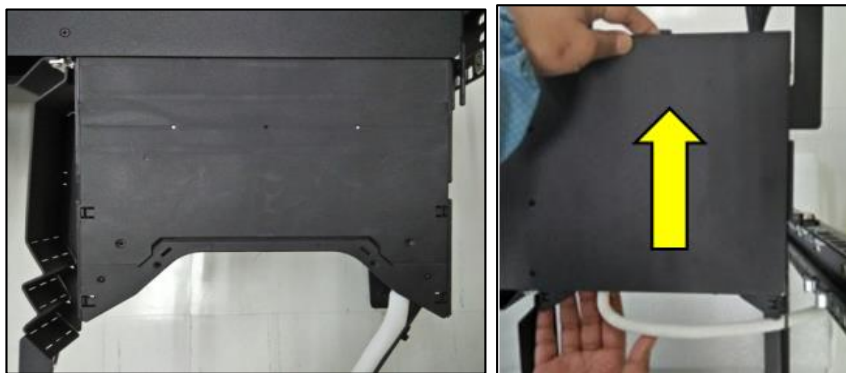


(a) Determine the length of the cable that will be fanned out for splicing, ensuring it can be looped at least 1.5 times in the rear of the cassette.

(b) Fan out the cable, loop it 1.5 times around the rear of the cassette and splice cable to the ends of the cables from the connectors in the rear of the adapters.

(c) Secure the cable, fanned out pigtailed inside the cassette with the appropriated cable clips.

6. Re-install the lid and secure the snaps, avoid cables from pinching. Afterwards, gently push the cassette back into the chassis.



7. Repeat the process for each cassette being installed and secure the Swing Cable Sleeve to the rear door with the Velcro straps.



8. Close the rear door.



9. Splicing of feeder cable installation complete.

## 4.5 Front Entry of feeder cables, pigtails & jumpers

- 4.5.1 Move to the front of the Chassis.
- 4.5.2 Open the Chassis door by turning the Chassis Door Handle clockwise or counter clockwise to the open position.
- 4.5.3 Identify the first Cassette in which the LC/SC cables will be installed.



- 4.5.4 Pull-up Cassette Stopper while the cassette is sliding out of the chassis.



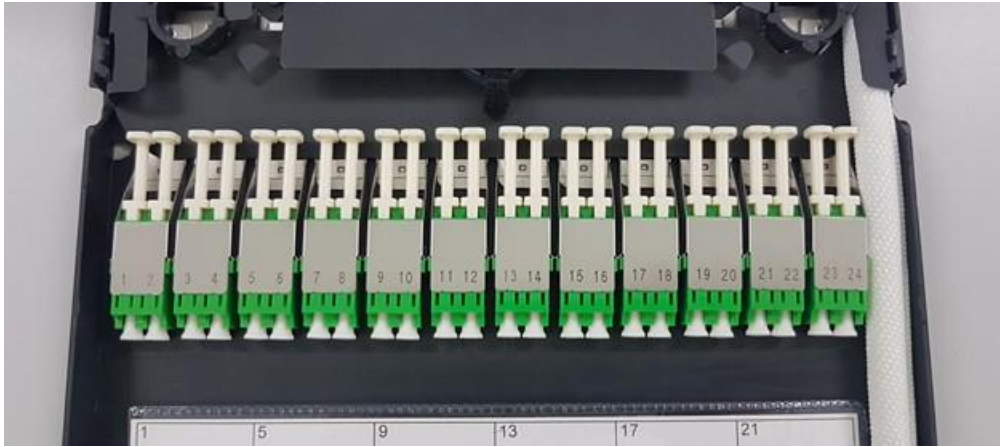
- 4.5.5 Open the lid of each cassette.



**4.5.6** Install the white Cable Sleeve that runs from the rear of the cassette through the front.

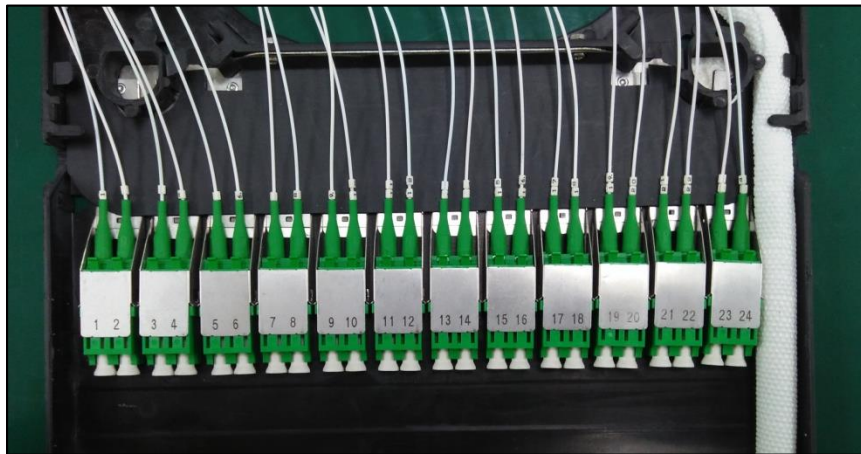


**4.5.7** Identify the ports based on the laser mark in the spreadable arms and the cable marker on each cable.



**4.5.8** Route your cable/fan-out through the right or left front cable entry port of the cassette, continue to the rear of the cassette and route around the rear bend limiter.

*Note: To insert connectors into adapters, simply push horizontally on the housing of the connector from the rear until it is fully seated in the adapter. An audible click will be heard when it is properly inserted. (Reminder: Inspect, clean, Inspect, connect both sides of the connector (ICIC)).*



(a) For right cassette, cable will enter from the right cable entry slot



(b) For left cassette, cable will enter from the left cable entry slot

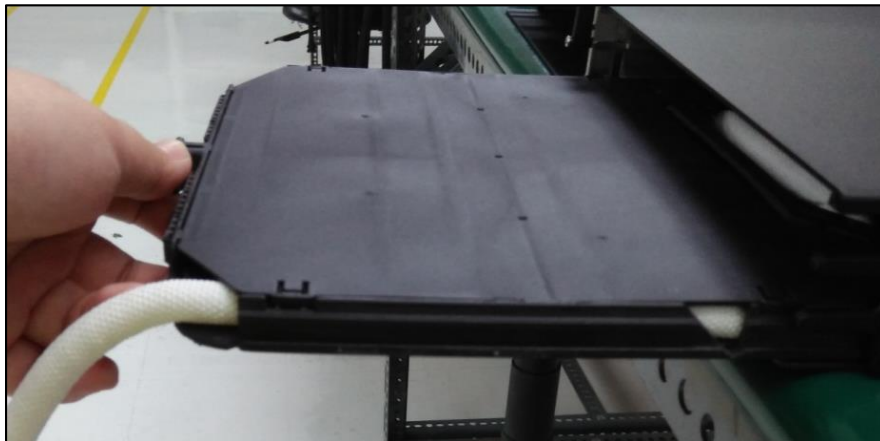
**4.5.9** Gather all cables to one side of the cassette based on its configuration.



**4.5.10** Insert the cable in the White Cable Sleeve using the Cable Insert Part/Tool (SOC). Route the white cable sleeve along the front left or right corner of the cassette and underneath the retention clip close to the front of the cassette.



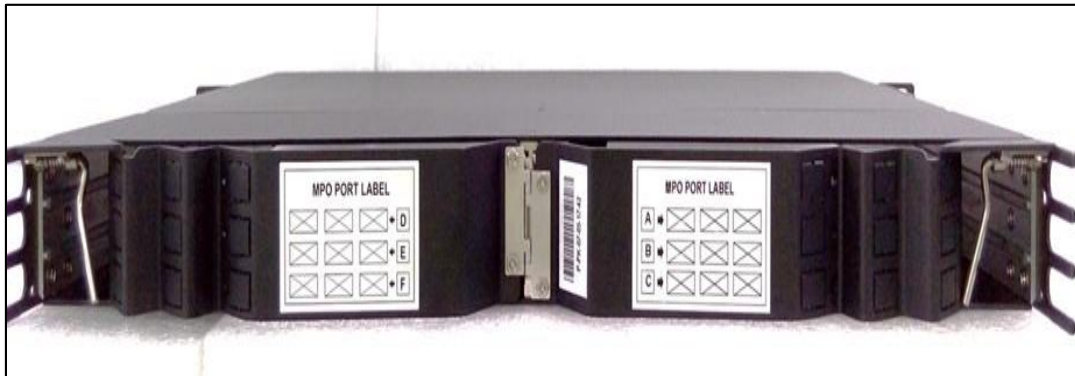
**4.5.11** Re-install the lid of the cassette and secure the snaps, avoid cables from pinching. Afterwards, gently push the cassette back into the chassis.



**4.5.12** Repeat the process for each cassette being installed and load each cable into the front Cable Hanger Arm and secure with Velcro strap.



**4.5.13** Close PEACOC shelf front door.



**4.5.14** Front LC/SC Cable Installation complete.

# 11. Operation of the PEACOC Platform

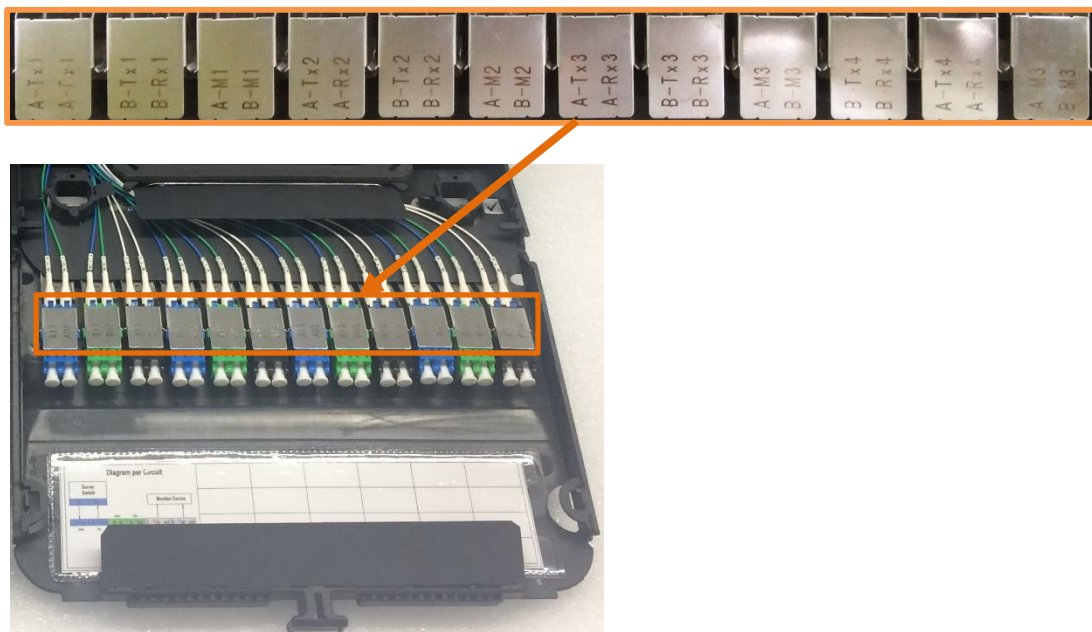
Once the PEACOC shelf has been installed all further connections/patching is done through the front of the chassis through various cassettes and connector types.

Viewing from the front of PEACOC<sup>®</sup>, cassette 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).



## 5.1 Optical Tap Cassettes

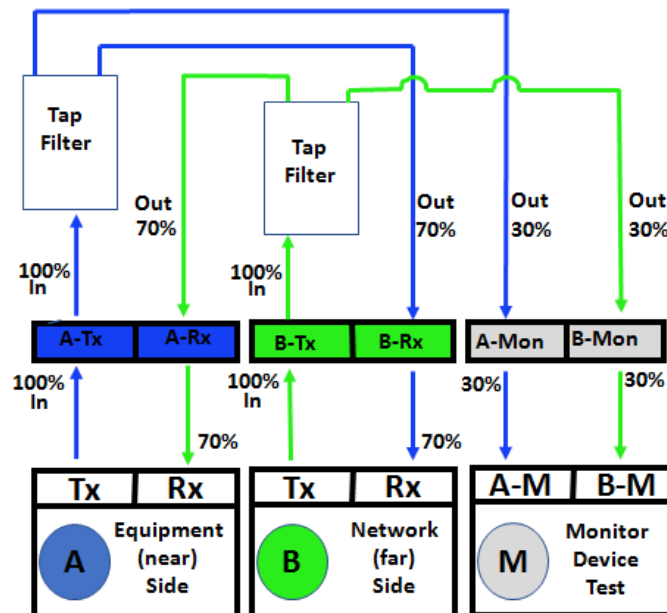
Within each tray, there are 12LC/UPC duplex adapters. These cassettes could also be equipped with SC or MPO connectors.



### 5.1.1 Low Density (24 Ckts) Optical Tap Cassette (4 Ckts in each FleT)

Equivalent to two cassettes—each having 24 LC/UPC adapters for both left and right side trays and labeled as A-Tx1....A-Tx4 and A-Rx1....A-Rx4 (Blue Adapters), B-Tx1....B-Tx4 and B-Rx1....B-Rx4 (Green Adapters), and A-M1....A-M4 and B-M1....B-M4 (Black Adapters) sequentially from left to right.

*Note : All adapters in this configuration are for LC/UPC. The different colors (blue, green, and black) are used to identify the port type.*



Sample diagram for Tap 70/30 Splitter

## 5.2 Access the Adapters from the front and install/patch jumpers on the front plane of the adapters

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



5.2.2 Drop the front door down. When the door is open, identify the cassette that you will work on.



5.2.3 Hold the Cassette Handle and pull the cassette until after the bottom hinge is out.



5.2.4 Lift up the Lid, loosen all the cassette snaps, and then the adapters will be exposed.



*Note: Each cassette is equipped with the patented spreadable adapters for easy fiber access*

**5.2.5** Identify the port based on the laser mark in the spreadable arms and the cable marker on each cable.

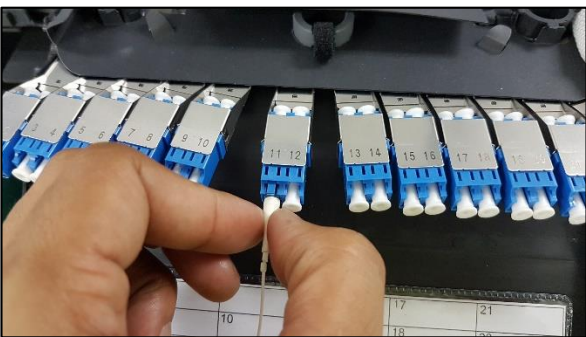
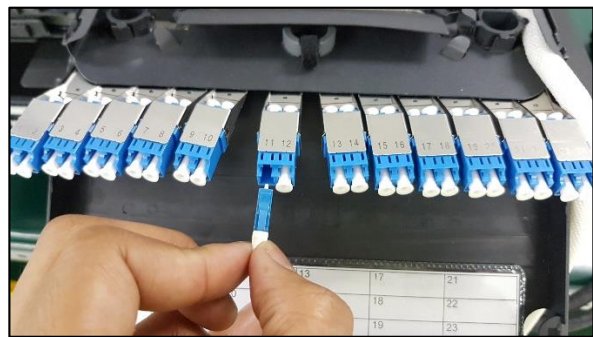
**5.2.6** Isolate the port to be worked on by gently moving away all of the connectors to the left and right side of the desired connector. (spreadable function)



**5.2.7** 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.



**5.2.8** To insert the 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. (Reminder: Inspect, clean, Inspect, connect both sides of the connector (ICIC)).





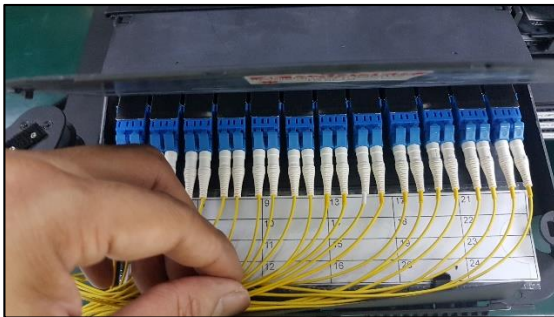
### 5.3 Organize and Secure the Cassette Tray

Once all of the jumper cables are properly connected on the front plane of the tray, the cables must be properly organized and secured in the tray before the tray may be closed.

#### 5.3.1 Organize Front Cables

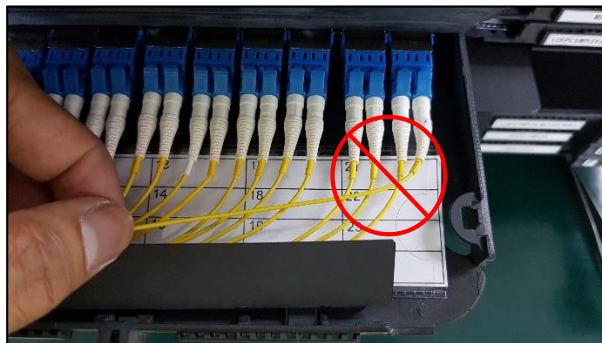
**5.3.1.1** Realign the 24 front connectors after the insertion of cables by gently pushing in from both the left and right side.

**5.3.1.2** Gather all of the loose jumpers with your hands in line with the connectors. Gradually shift the collection point for the bundle and place beneath the cable protection flap towards the Black Cable Sleeve and insert to the **Cable Insert Part/Tool for Split Sleeve**



»»»»»»»»»»»»»»»»»»»»»»»»»»»» **NOTICE!** »»»»»»»»»»»»»»»»»»»»»»»»»»»»

**△ Warning:** Do not pinch or create any sharp bends in any of the cables as you shift the collection point.



»»»»»»»»»»»»»»»»»»»»»»»»»»»» **NOTICE!** »»»»»»»»»»»»»»»»»»»»»»»»»»»»



- 5.3.1.3** Guide the cable bundle towards the Cable Insert Part/Tool for Split Sleeve. Be sure the bundle is beneath the cable protection sleeve so as not to pinch any of the cables when doing so. Insert the cable.



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



- 5.3.1.5** Make sure that the front cables are properly managed.



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



**5.3.1.7** Once the Cassette lid is closed, gently push the cassette inside the chassis.



**5.3.1.8** Close the front door and turn the front door handle; 180°.

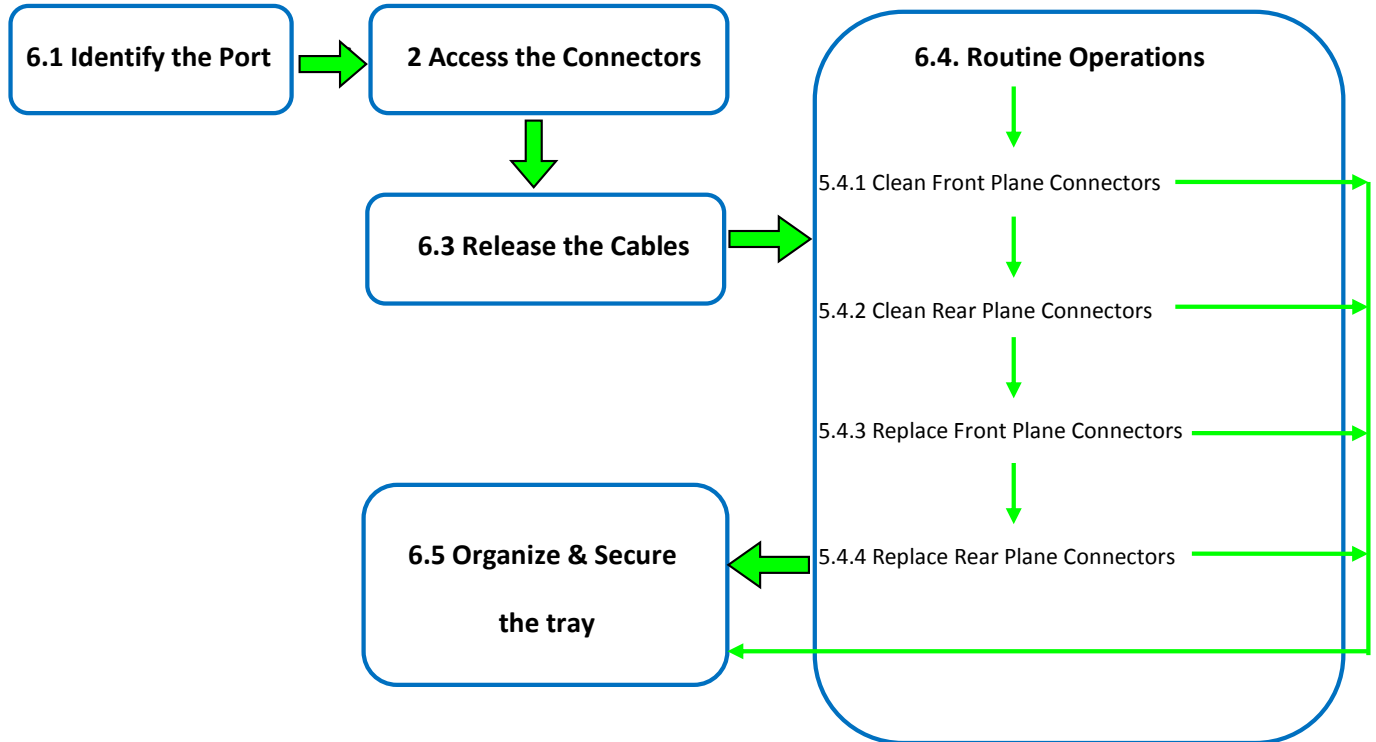


**5.3.1.9** Put back the cable sleeve to the cable hanger.

This is the identical procedure use for patching all of the Cassettes identified in this section.



## 6. Maintenance.



**6.1 Identify the Port.....Go to 5.0**

**6.2 Access the Adapters.....Go to 5.2**

**6.3 Release the cables**

**6.3.1 Unwrap the Cable sleeves from the Cable Hanger**





6.3.5 Allow all of the front cables to fall freely.



## 6.4 Routine Operation

### 6.4.1 Clean front plane connector

6.4.1.1 Identify the tray and port using the procedure in Section 5.0

6.4.1.2 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.



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



## NOTICE!

**Warning:** Do not pull directly on the jumper cord or the connector boot to avoid damage to the fiber which may require splicing or replacing the jumper.

**Danger:** Follow all safety procedures related to laser radiation. An optical power meter should be used to verify the presence of radiation and protective caps and covers should be used at all times. Never look directly in the connector or the adapter or serious injury may result.



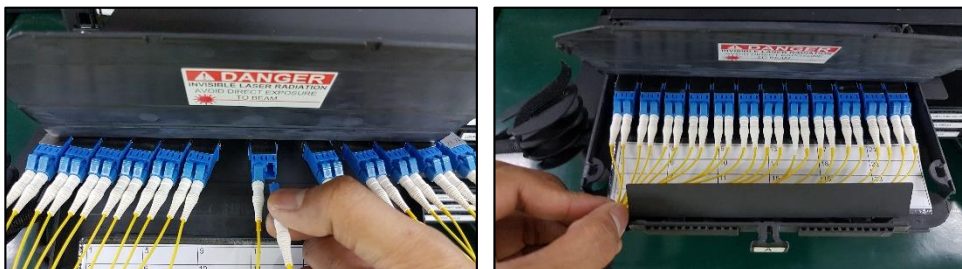






**6.4.3.4** Install a protective cap on the connector plug and a dust cover on the adapter.

**6.4.3.5** 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.



**6.4.3.6** Repeat for any additional connectors that need to be replaced.

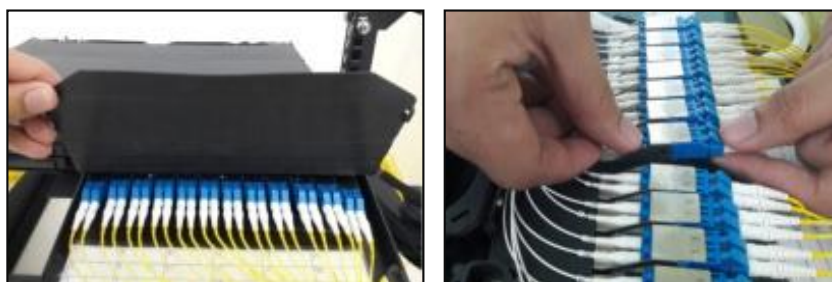
#### **6.4.4 Replace a Rear Panel Jumper**

**6.4.4.1** Identify the tray and port using the procedure in Section 5.0

**6.4.4.2** 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.



**6.4.4.3** 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.



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

**6.4.4.5** 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.



**6.4.4.6** 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. (Reminder: Inspect, clean, Inspect, connect both sides of the connector (ICIC)).

