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SYSTIMAX 360™ iPATCH® G2 Fiber Ultra High Density (UHD) Shelf, MPO Distribution Panel Instructions

General

The **SYSTIMAX 360**™ fiber optic shelves, UHD-1U and UHD-2U, are 19-inch (483mm) wide rack mounted, ultra high density (UHD) shelves that accommodate **360 InstaPATCH®** distribution modules (DM) and 360 MPO distribution panels (DP). The 1U shelf includes one sliding tray that accommodates four distribution panels. The 2U shelf includes three sliding trays that accommodate four distribution panels each for a total of twelve distribution panels. This product is intended for indoor use or can be used outdoors in a suitable protective enclosure.

Ordering information is listed below:

Material ID	Part No.	Description
760169177	360G2-iP-1U-32-MPO-DP-UHD	**360G2-iPATCH®** 1U 32- MPO distribution panel UHD shelf
760169193	360G2-iP-2U-32-MPO-DP-UHD	**360G2-iPATCH®** 2U 96- MPO distribution panel UHD shelf

SYSTIMAX360 iPATCH® G2 Fiber UHD Shelves

How to Contact Us

· To find out more about **CommScope®** products, visit us on the web at http://www.commscope.com/

· For technical assistance:

  - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.

  - Within the United States, report any missing/damaged parts or any other issues to CommScope Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

This product is covered by one or This product is covered by one or more of the following U.S. patents or their foreign equivalents: 5,923,807, 6,245,998. The **iPatch** System is covered by U.S. patents 6,285,293, 6,522,737 and 8,344,900

POWERED BY SYSTIMAX®

Tools Required

– Phillips-head screwdriver
– Flat blade screwdriver
– Isopropyl alcohol
– Lint-free wipes or tissues.

Separately Orderable Parts

Verify parts against the parts list below:

Material ID	Part Number	Description
760161463	UHD-CBL-BRKT-3/8-NPT	Shelf mounted bracket for 3/8" cables
760161471	UHD-CBL-BRKT-1/2-NPT	Shelf mounted bracket for 1/2" cables
760058685	RMB-6-3/8 BRACKET	Rack mounted bracket (RMB) for 3/8" cables
760058677	RMB-6-1/2 BRACKET	Rack mounted bracket for 1/2" cables
760058701	RMB-5-3/4 BRACKET	Rack mounted bracket for 3/4" cables
760159822	N/A	12-pair designation label

Note: Contact your local account representative for ordering numbers for modules or panels.

⚠️ **Important: Limits for iPatch panel connections to panel bus**

· **iPatch** MPO fiber shelves are limited to a maximum number of rack units (RUs) and will not support a fully populated rack or cabinet. **iPatch** MPO fiber shelves support 26 rows per rack/cabinet, such as configured for (26) 1U shelves, (13) 2U shelves, (10) 2U UHD shelves, or any combination thereof.

· Limit the chain of **iPatch** panels connected to each cable bus port to a maximum of five (5) panel bus connectors (including controller). Start a new chain with every 6th connector in the rack system.
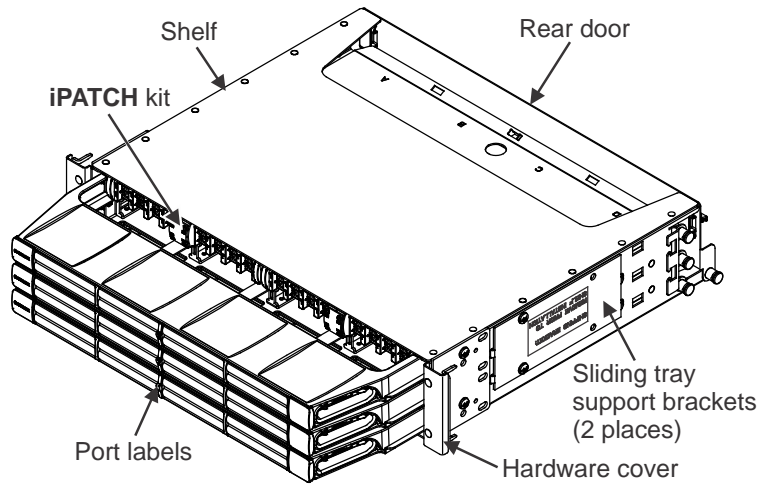
CAUTIONS

· Isopropyl alcohol is flammable, and can cause eye irritation on contact. If eye contact occurs, flush with water for at least 15 minutes. In case of ingestion, consult a physician. Use only in well ventilated areas.

· Disconnected optical components may emit invisible optical radiation that can damage your eyes. Never look directly into an optical component that may have a laser coupled to it. Serious and permanent retinal damage is possible. If accidental exposure to laser radiation is suspected, consult a physician for an eye examination.

· Wearing safety glasses during installation of this shelf is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents.

Step 1 – Verify Parts

Loose Parts Furnished with Shelf	
Quantity	**Description**
1	Rear door
2	Hardware covers
4	12-24 x 3/8 screws
4	M6 x 12 screws
1	Hook-and-loop kit
2	Port designation labels
2	Adapter designation labels

iPATCH® Assembly	
Quantity	**Description**
1	Shelf assembly with panel bus jumper
1	Corrugated tubing
8	Flat retainer clips
1	Shelf installation instruction
1	Fiber cleaning instruction sheet

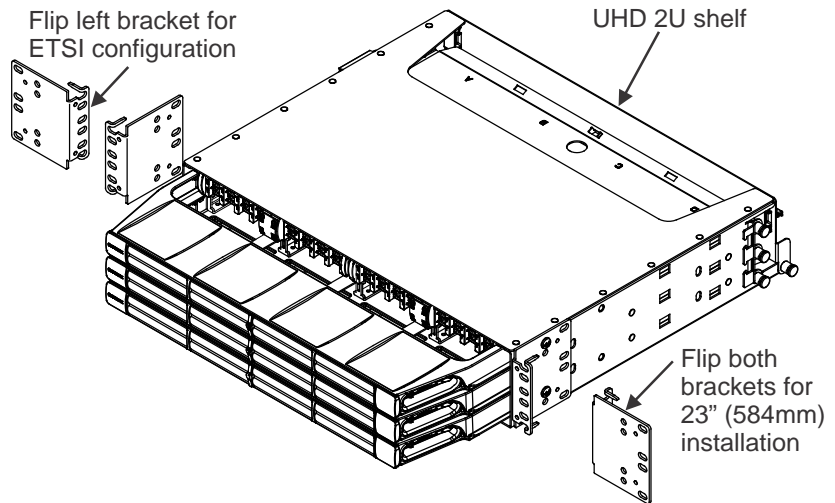1. Verify parts shipped with this unit against the parts listed in the table and shown in figure.

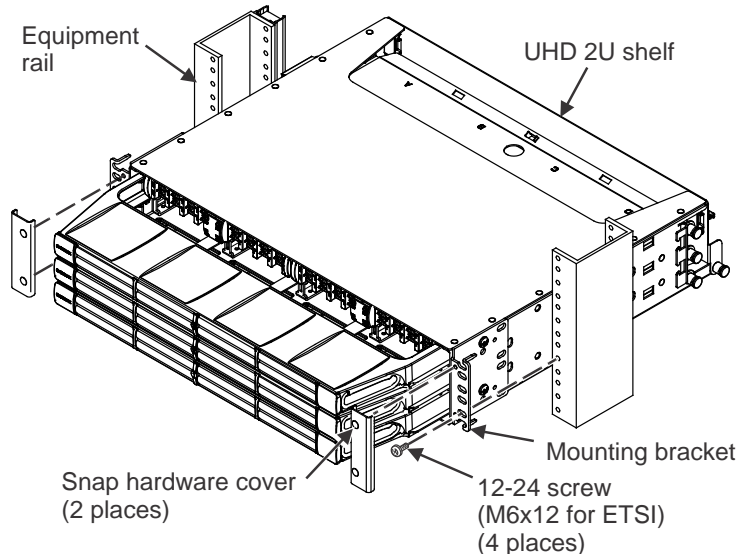   **Note: Remove tray support brackets on both sides of shelf prior to installation for 2U shelves.**

Step 2 – Configure Mounting Brackets and Mount Shelf to Equipment Rack

1. Remove tray support brackets, as shown in Step 1, on both sides of shelf prior to installing 2U shelves.

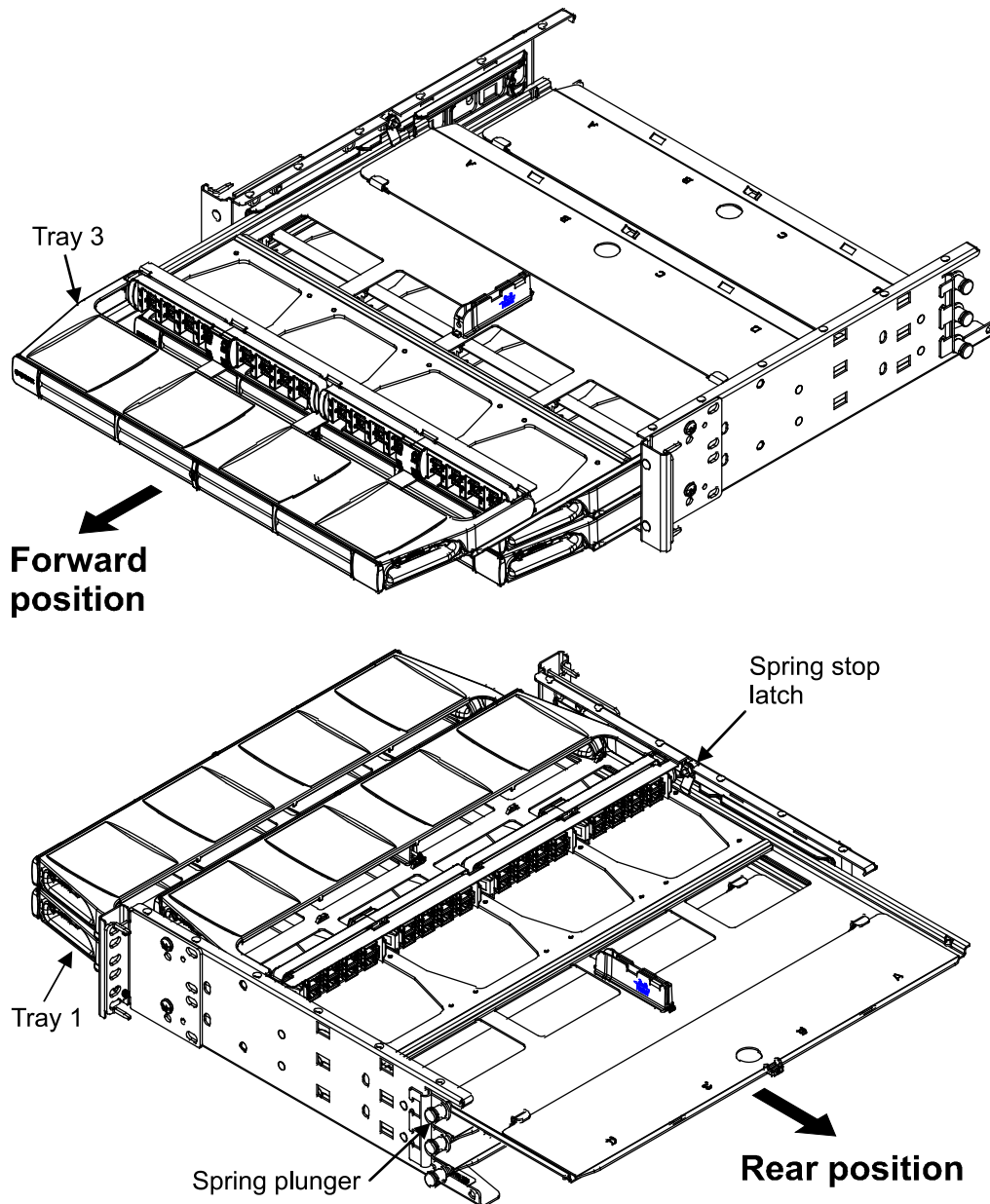2. Configure mounting brackets on shelf to match type of equipment rack shelf is being installed on.

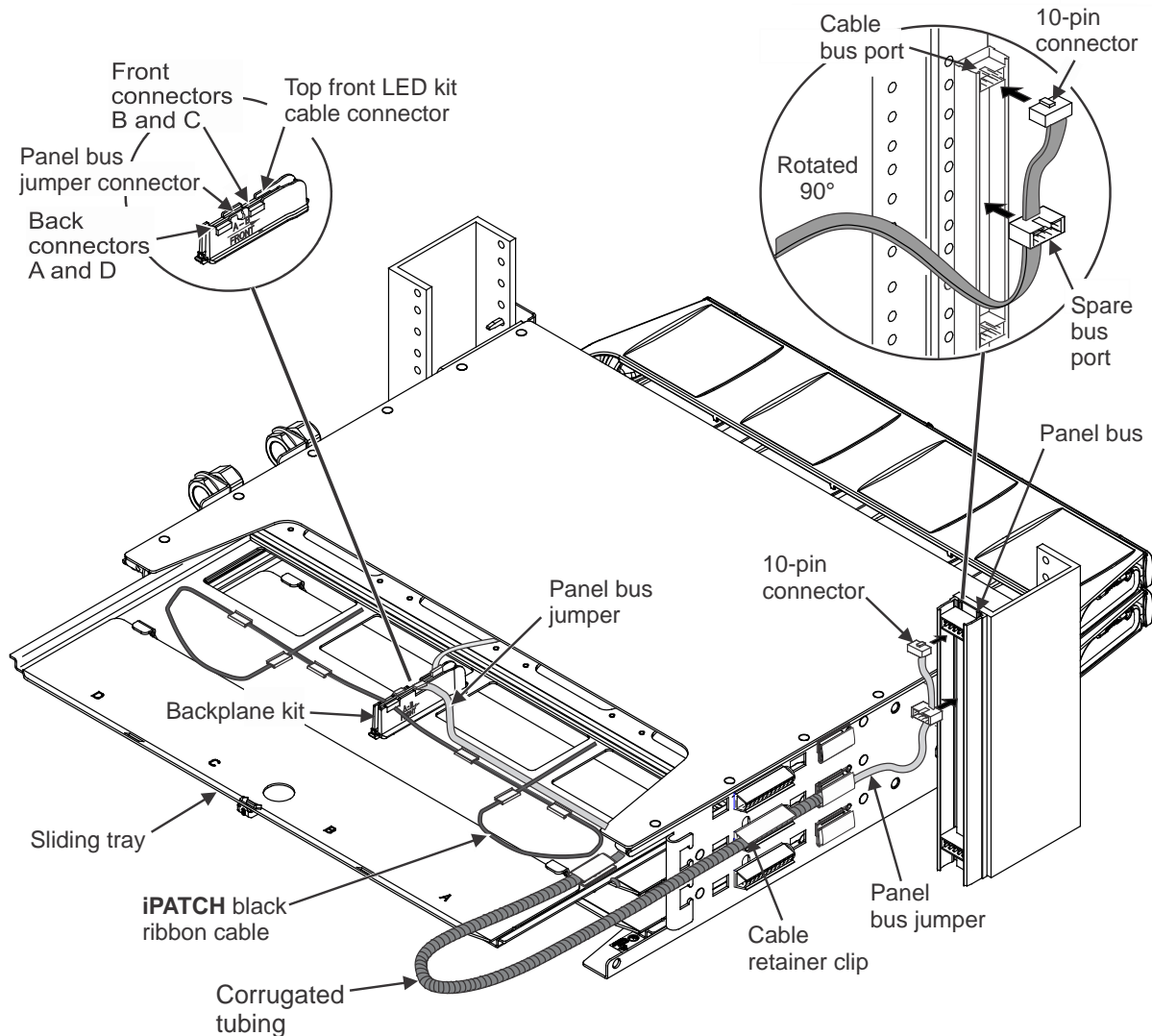   **Note**: Shelf brackets are factory configured for 19-inch (483mm) rack mounting.

3. Align tabs on mounting brackets (two per bracket) with holes on front of equipment rails as shown.

4. Install shelf to front of equipment rails and secure with supplied hardware; four 12-24 x 1/2" screws for 19-inch (483mm) rack and 23-inch (584mm) racks and four M6 x 12 screws for ETSI racks.

5. Snap hardware covers over front of mounting brackets using push-in rivets as shown.

Step 3 – Tray Features and Functions

Tray 3

**Forward
position**

Spring stop
latch

Tray 1

Spring plunger

Rear position

1. Each tray can slide to the front and to the rear. The three tray positions are home, forward, and rearward and have a built-in mechanism to prevent them from being pulled too far either way.

2. The recommended sequence for populating the trays is 1-3 for the 2U. Tray 1 is at the bottom and tray 3 is at the top.

3. Pull spring plunger to slide a tray to the rear position until the tray stops.

4. Tray can be removed from the front by lifting the spring stop latch located at the right center of the shelf (when viewed from rear) as shown.
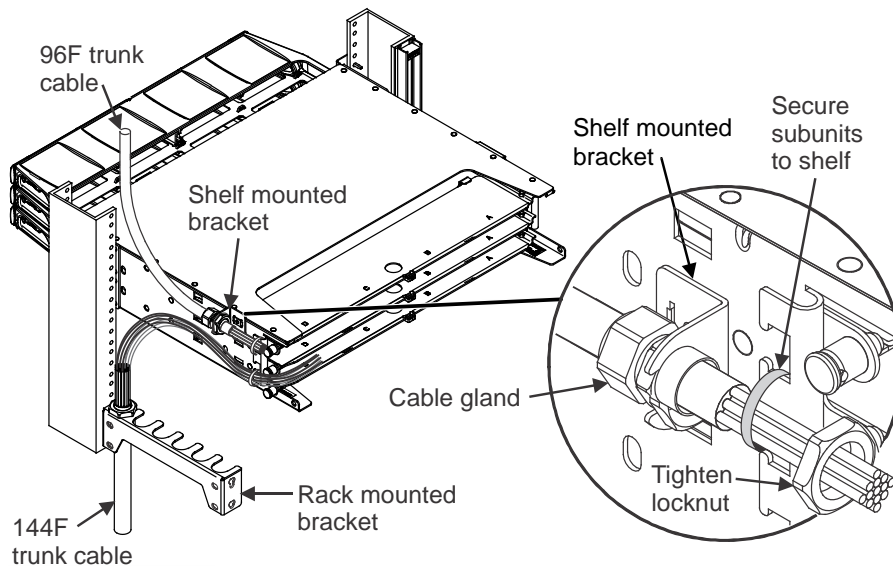
Step 4 – Connect Panel Bus Jumper

1. Pull and turn the left spring plunger to the open position, as shown in Step 3.

2. Pull a sliding tray rearward until it stops.

3. Connect the keyed female 10-pin connector on the panel bus jumper into the nearest cable bus port on panel bus as shown.

4. Install spare port built into jumper cordage into panel bus frame by turning it at an angle, inserting into frame, and turning it back perpendicular to frame.

5. Plug each panel bus jumper onto backplane kit and other end to panel bus located on rack. Use provided flat retainer clips to position panel bus jumper routing. **iPatch** kit black ribbon cables are already positioned.

   Note: The connector is keyed. The polarized tab on the jumper connector fits into the opening in the header connector on the panel bus.
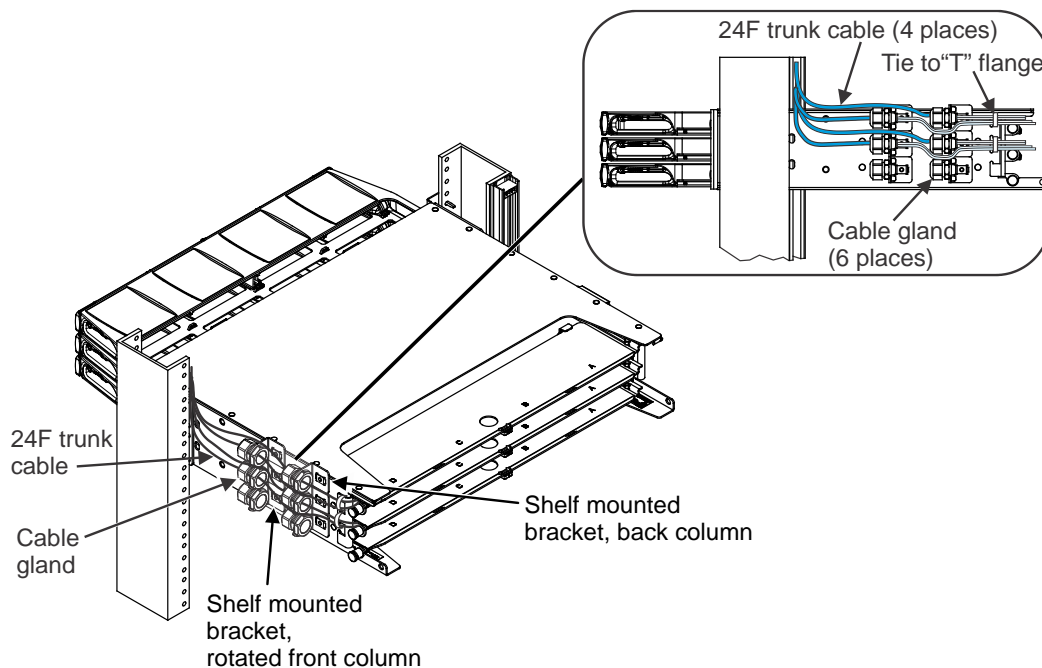
   Important: Make sure that the jumper connector is fully seated in the header connector on the panel bus.

Step 5 – Terminate Trunk Cables

High Density Trunks

1. Secure incoming cables to 2U shelf using either the separately orderable shelf mounted brackets or the rack mounted brackets (RMB). For rack mounted brackets, follow instructions included with the brackets.

2. Mount trunk cables to rack mounted brackets or shelf mounted brackets as shown above. Secure cable subunits to shelf as shown.

3. Pull sliding tray to the rear to terminate trunk cable fanouts.
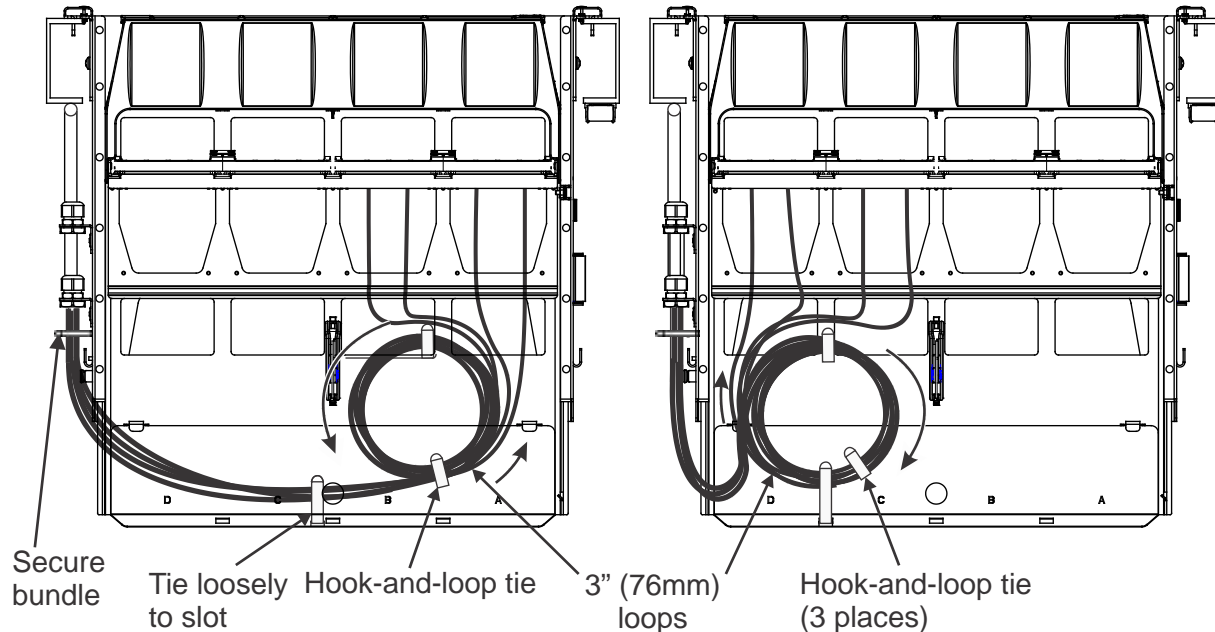

Low Density Trunks

1. When using 24F trunks, one trunk per module, secure 4 trunk cables (2 each side) aligned to each tray. Alternate adjacent cables between front column of shelf mount brackets and rear column of shelf mount brackets as shown.

2. Rotate shelf mounted brackets as shown to provide more room to route trunks.

3. Pull sliding tray to rear to terminate 24F trunk cable fanouts.

Step 6 – Route Trunk Cable Fanouts

Secure bundle — Tie loosely to slot — Hook-and-loop tie — 3" (76mm) loops — Hook-and-loop tie (3 places)

1. Mate MPO connector(s) on DP with those on trunk cable or ruggedized fan out.

2. Create 3-inch (76mm) loops with cable to manage excess slack. Create 3-inch (76mm) counter clockwise loops with cables feeding distribution panels A and B, and clockwise loops with cables feeding distribution panels C and D.

    Note: Secure cables with hook-and-loop ties and bundle with cable tie to "T" shape bend limiters on sides.

Step 7 – Program the Order of Panels

1. After you have upgraded the shelves in the rack, you should restore power to the **imVision®** controller for the rack and program the order of the panels.

2. For instructions, see the **SYSTIMAX® imVision® Controller User Guide** (860547876).
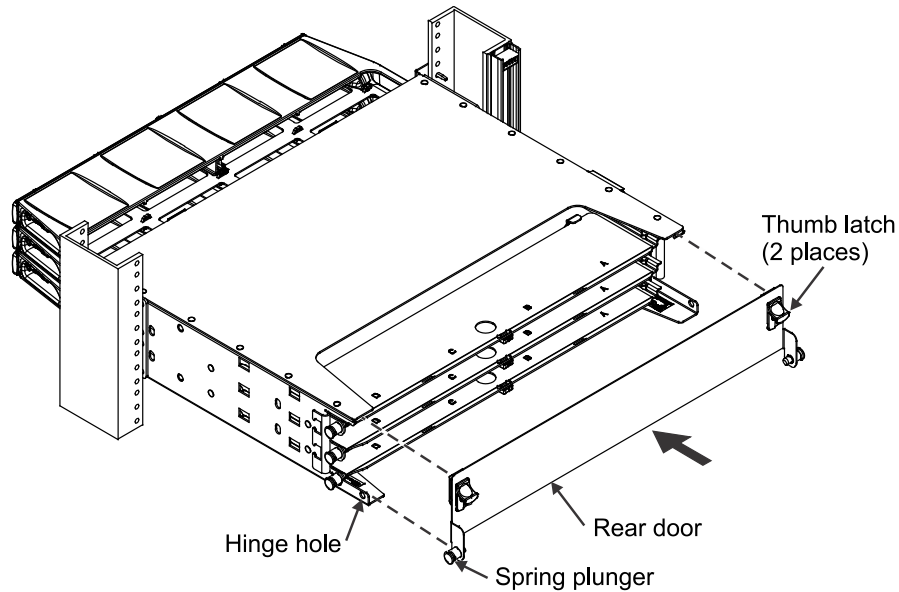
Step 8 – MPO Upgrade Kit Removal

Removing upgrade kit

1. Slide tray forward.

2. Use spudger to pry one side of the MPO upgrade kit, swing away carefully to disengage center and opposite side.

3. Pull MPO upgrade kit forward 2 inches and remove the ribbon cable.

Removal of patchcords

1. Release the MPO connector by pulling on the connector body.

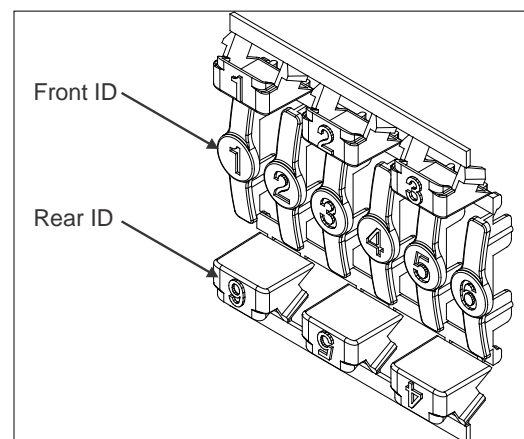2. A spudger may be used for removal of patchcords.

Step 9 – Install Rear Door

Thumb latch
(2 places)
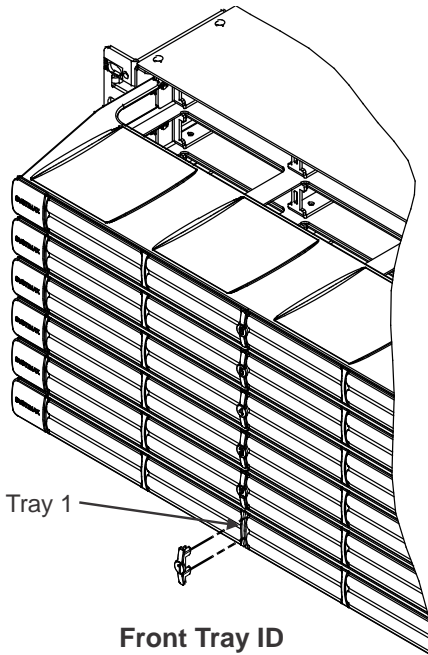
Rear door

Hinge hole

Spring plunger

1. To mount rear door to shelf, position one spring plunger on side of door line up with hinge hole on shelf as shown. Snap in place and repeat for the opposite side.

2. Pivot door to secure with thumb latches.
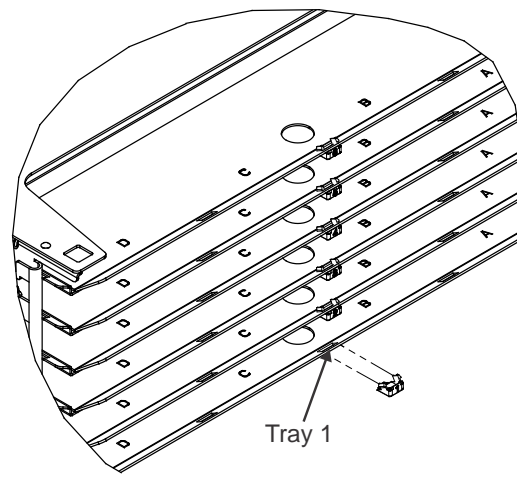
Step 10 – Tray Identification

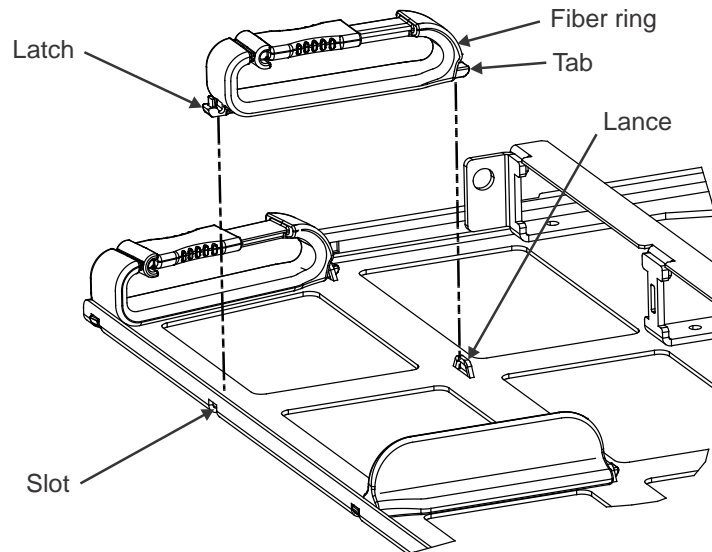1. Break-off the tray identification numbers as shown.

Front ID

Rear ID

Front Tray ID

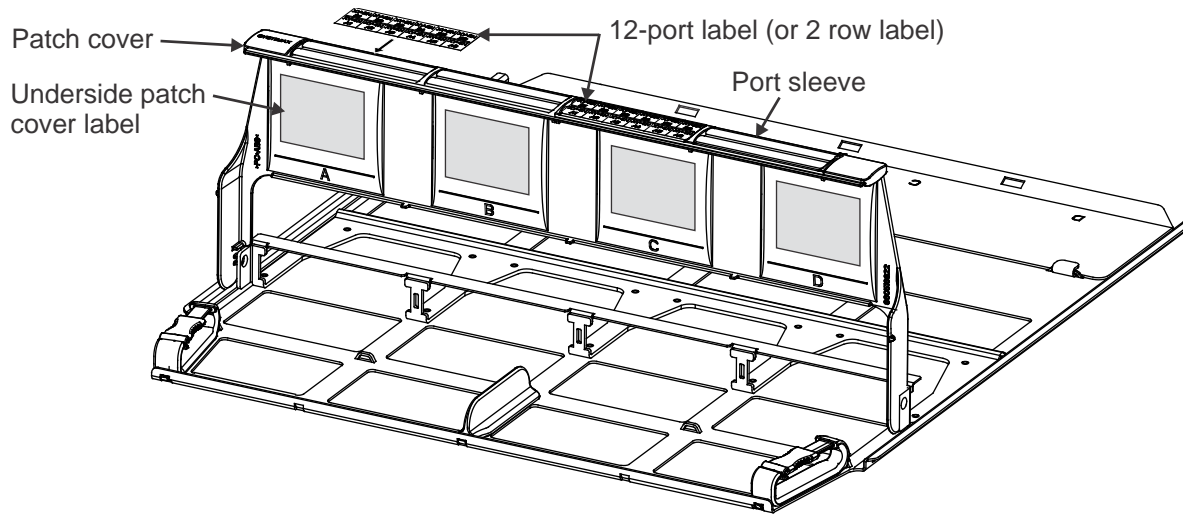**Rear Tray ID**

Tray 1

Tray 1

2. Insert front tray ID between lenses, starting with tray 1 at the bottom.

3. Insert rear tray ID at center slot of each tray starting with tray 1 at the bottom.

Latch

Fiber ring

Tab

Lance

Slot

4. Install fiber ring by inserting tab under lance and engaging the front of the fiber ring to the front stiffener slot.

    Note: To remove the fiber ring, use a flat blade screwdriver to push on the latch to unlatch the fiber ring at the front.

Step 11 – Install Port Designation Label

Patch cover

Underside patch cover label

12-port label (or 2 row label)

Port sleeve

1. To print a designation label, go to:
   http://www.commscope.com/Resources/Labeling-Templates
   and scroll down to the *360 UHD Shelves* and select the proper label template.

   Note: Labeling website has three options for printing labels: 2-row label, 12-port label, or underside patch cover label.

2. Use **Excel**® to record fiber routing information on designation label.

3. Print label on 8.5" x 11" (letter) paper provided.

4. Slide port label into lens port sleeve located at the front of the patch cover as shown.

5. For additional labeling, apply patch cover label to underside of patch cover.