

Figure 1

#### 1. INTRODUCTION

2U MPO Secure Rack-Mounted Enclosure Assembly 1553761-1 is used to house and manage MPO Secure fiber optic connections. The enclosure fits into a standard 483-mm [19.0-in.] Electronic Industries Alliance (EIA) rack or cabinet.



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

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### 2. DESCRIPTION

The enclosure consists of a chassis with a lid, 12 blank adapter plates (with attaching hardware), 2 front mounting brackets, 2 (right and left) rear mounting brackets, and mounting hardware. The mounting holes in the enclosure chassis provide a choice of two positions when mounting the enclosure onto the rack or cabinet. See Figure 1.

The chassis features 12 channels for routing cable and a rear brush. The rear brush is used to conceal the inside of the chassis. Each channel is marked on the front and back of the chassis to identify the adapter plate it supports.

The enclosure accepts OM3 Hydra Kits 2193057-[], SM Hydra Kits 2193758-[], and Cable Management Adapter Plate Assembly 2111481-1. MPO adapter plates are included with the hydra kits.

### 3. SAFETY PRECAUTIONS



To avoid personal injury, ALWAYS wear eye protection when working with optical fibers. NEVER look into the end of terminated or unterminated optical fibers. Laser radiation is invisible, but can still damage eye tissue.



To avoid personal injury, NEVER use defective or damaged product. Punctured or stray laser radiation may degrade system performance. ALWAYS replace defective or damaged product immediately.

— DO NOT remove the dust cap plug from a port when the port is not in use.



— INSPECT BEFORE YOU CONNECT!
Before inspecting a fiber endface, DISCONNECT the optical fiber from the power signal source. Always clean and inspect a fiber endface before installing and connecting the cable assembly.

 NEVER inspect the fiber endface when power is applied to the optical fiber.

### 4. INSTALLATION PROCEDURE

### 4.1. Tools

The followings tools are needed for installation:

- MTP/MPO In Bulkhead Adapter Cleaner 1918809-1
- LC/SC In Bulkhead Adapter Cleaner 2064500-1
- One Slot Reel Cleaner 1918803-1 (for MPO connectors and LC connectors)
- 200× Microscope Kit 1754767-1 fitted with:
  - Universal Microscope Adapter 1754765-1 (for LC connectors)
  - MPO Microscope Adapter 1828836-1 (for MPO multimode connectors)
  - MPOA Microscope Adapter 1828837-1 (for MPO singlemode connectors)



To avoid personal injury, NEVER view an active optical fiber using a microscope.



Professional Fiber Optic Connector Inspection Kit 2064651-1 contains all of the above tools.

cross-recessed screwdriver

#### 4.2. Preparation

Before beginning installation:

- The enclosure must be installed directly below the switch (no gap).
- If desired, remove the rear brush from the chassis; the rear brush cannot be removed after the enclosure is mounted onto the rack or cabinet.

## 4.3. Mount the Enclosure

- 1. Determine the vertical and horizontal (flush or protruding) mounting position of the enclosure in the rack or cabinet.
- 2. Using 4 of the 12-24 UNC-2A screws, install the 2 rear brackets onto the rack or cabinet (2 screws per bracket, 1 bracket per side of rack or cabinet). Observe the arrow and "TOP" marking on each bracket (shown in Figure 1) for correct orientation for installation (the long cutout of the bracket should be facing up). See Figure 2. DO NOT tighten the screws at this time.

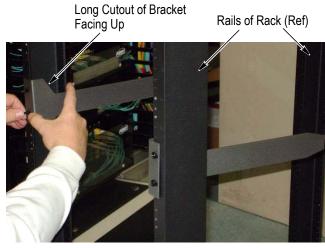


Figure 2

Openings for Adapter Plates (Front of Chassis)

Front Bracket Not Installed on Chassis (Ref)



Short Leg of Bracket Facing Forward

Front Bracket Installed on Chassis (In Flush Mounting Position, Ref)

Figure 3

- 3. Using the 6-32 UNC-2A screws, install the 2 front brackets onto the chassis (8 screws per bracket, 1 bracket per side of chassis). Make sure that the short leg of each bracket is facing forward. Tighten the screws. See Figure 3.
- 4. Align the back of the chassis with the back of the legs of the rear brackets. Slide the chassis through the rails of the rack or cabinet and onto the legs. Make sure that the legs enter the guide channels on each side of the inside of the chassis. See Figure 4.
- 5. Insert 4 of the 12-24 UNC-2A screws through the holes in the front brackets (2 screws per bracket), and secure the front brackets to the rack or cabinet. See Figure 5, Detail A.
- 6. Tighten the screws of the rear brackets to secure the rear brackets to the rack or cabinet. See Figure 5, Detail B.

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### Sliding Chassis onto Rear Brackets

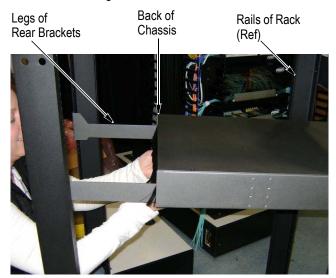


Figure 4

### Detail A — Front Brackets Secured to Rack (Ref)



Detail B — Back Brackets Secured to Rack (Ref)



Figure 5

### 4.4. Connect MPO Truck Cable Assemblies

Understand and follow the safety precautions given in Section 3, then proceed with the following.

- 1. Label the end of each truck cable assembly.
- 2. Insert each truck cable assembly into the back of the chassis so that it enters the applicable channel, then slide the truck cable assembly through the channel until the MPO connector exits the front of the chassis. Allow a small amount of slack in the truck cable assembly at the back of the chassis. See Figure 6.

### Routing MPO Trunk Cable Assemblies

Trunk Cable Assembly Entering Applicable Channel

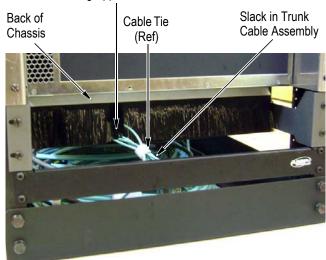


Figure 6

- 3. If desired, loosely wrap Hook and Loop Cable Tie 1375253-2, or similar cable tie, around the trunk cable assemblies to provide strain relief at the back of the rack or cabinet. Refer to Figure 6.
- 4. Connect the MPO connectors of each trunk cable assembly to the back of an adapter of an MPO adapter plate. Make sure to observe the port designations marked on the front of the MPO adapter plates. See Figure 7.

### 4.5. Install Adapter Plate(s)

Understand and follow the safety precautions given in Section 3, then proceed with the following.

- 1. Using the captive screw attached to the MPO adapter plate, install an MPO adapter plate onto the front of the chassis for each opening to be used. DO NOT remove the dust cap plugs. See Figure 7.
- 2. Using the captive screw attached to the blank adapter plate, install a blank adapter plate or cable management adapter plate assembly (includes 2 cable management saddles) onto the front of the chassis for each opening without an MPO adapter plate.

### 4.6. Connect Hydra Cable Assemblies

Understand and follow the safety precautions given in Section 3, then proceed with the following.

- 1. Install Parking Cap 1553641-1 to any empty switch blades that do not have a transceiver to support the LC connector leg of the hydra cable assembly.
- 2. Connect the LC connectors of the hydra cable assemblies to the applicable ports of the switch blade (each LC connector is labeled to match the port markings). See Figure 8.

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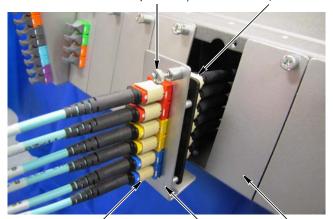
### Installing MPO Adapter Plate(s)

# Captive Screw (1 Per Adapter Plate)

Front of

Chassis

MPO Connectors of Trunk Cable Assemblies Connected to Adapters of MPO Adapter Plates



MPO Connectors of Hydra Cable Assemblies Connected to Ports of MPO Adapter Plates (Also See Figure 8)

Front of MPO Blank Adapter Adapter Plate Plate

#### Figure 7

- 3. Remove the dust cap plugs from the ports of the MPO adapter plates to be used. DO NOT remove the dust cap plugs from the ports not to be used.
- 4. Connect the MPO connectors of the hydra cable assemblies to the applicable port of the MPO adapter plate. See Figure 8. The port designations and color codes are marked on the front of the MPO adapter plate, and the MPO adapters are keyed to match the MPO connectors of the hydra cable assemblies.

### 5. REPLACEMENT AND REPAIR

DO NOT use defective or damaged product.

The enclosure is not repairable if damaged. Order additional enclosures through your Representative, or contact CommScope.

Technical Assistance Center (TAC) Tel: 800.830.5056

Email: TAC.Americas@commscope.com

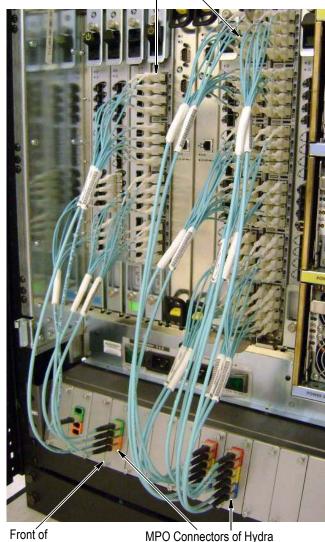
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### 6. REVISION SUMMARY

Initial release of instruction sheet Rebranded to CommScope®

### Connecting Hydra Cable Assemblies

LC Connectors Connected to Ports of Switch Blade



Chassis

Cable Assemblies Connected to Ports of MPO Adapter Plates

Figure 8

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