

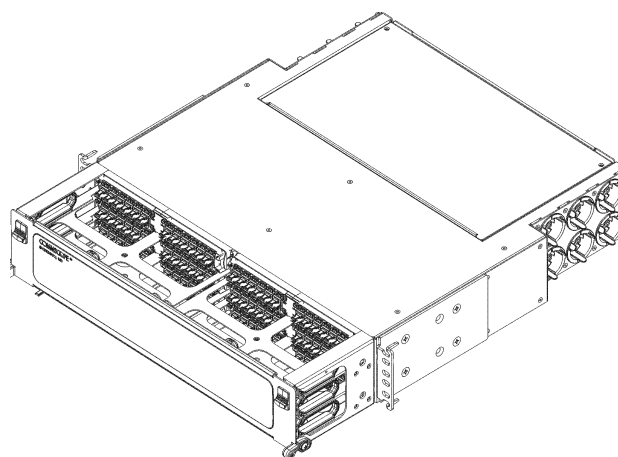
SYSTIMAX® Ultra-Density iPatch® 24LC and MPO Sliding Fiber Shelves

General

The **SYSTIMAX® iPatch® 24LC** and **MPO** ultra-density sliding fiber shelves come equipped with **iPatch** components used in an **iPatch** system. Shelf will accommodate MPO distribution panels and 24LC distribution modules that allow connection of multi-fiber trunk cables terminated with MPO connectors. These sliding shelves include sliding modular pair trays, fiber management troughs and a steel top cover. Shelves mount in a standard 19-inch (483mm) rack with universal hole spacing.

Note: To use the **iPatch** shelf in an existing **iPatch** System, the **imVision®** Controller must be running firmware version 10.3d or later. The System Manager software, used to manage the system, must be version 7.3.1 or later. We recommend upgrading the System Manager software before installing the shelf.

Ordering information is listed below:



UD iPatch 2U MPO Sliding Fiber Shelf

| Material ID | Part No. | Description |
|-------------|---------------------------------|----------------------------------------------------------------------------------------------------------------|
| 760236362 | UD-iP-2U-96-MPO-DP-SD | UD iPatch 2U 96-MPO DP sliding shelf |
| 760236363 | UD-iP-2U-288F-LC-DM-WB-SD | UD iPatch 2U 288F-LC DM sliding fiber shelf with LazrSPEED® wideband modules |
| 760236364 | UD-iP-2U-288F-LC-DM-LS-SD | UD iPatch 2U 288F-LC DM sliding fiber shelf with LazrSPEED modules |
| 760236365 | UD-iP-2U-288F-LC-DM-TS-SD | UD iPatch 2U 288F-LC DM sliding fiber shelf with TeraSPEED® modules |
| 760236366 | UD-iP-2U-288F-LC-DM08-ULL-WB-SD | UD iPatch 2U 288F-LC MPO08 DM sliding fiber shelf with LazrSPEED wideband ultra-low loss modules |
| 760236367 | UD-iP-2U-288F-LC-DM08-ULL-LS-SD | UD iPatch 2U 288F-LC MPO08 DM sliding fiber shelf with LazrSPEED ultra-low loss modules |
| 760236368 | UD-iP-2U-288F-LC-DM12-ULL-WB-SD | UD iPatch 2U 288F-LC MPO12 DM sliding fiber shelf with LazrSPEED wideband ultra-low loss modules |
| 760236369 | UD-iP-2U-288F-LC-DM12-ULL-LS-SD | UD iPatch 2U 288F-LC MPO12 DM sliding fiber shelf with LazrSPEED ultra-low loss modules |
| 760236370 | UD-iP-2U-288F-LC-DM24-ULL-WB-SD | UD iPatch 2U 288F-LC MPO24 DM sliding fiber shelf with LazrSPEED wideband ultra-low loss modules |
| 760236371 | UD-iP-2U-288F-LC-DM24-ULL-LS-SD | UD iPatch 2U 288F-LC MPO24 DM sliding fiber shelf with LazrSPEED ultra-low loss modules |

How to Contact Us

- 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>

Specifications

Fiber Optic Interface

Industry-standard LC and MPO

Compatible Fiber Size

Multimode with 50 µm core diameter, such as **LazrSPEED**

Singlemode with 8.3 µm core diameter, such as **TeraSPEED**

Environmental Data

Temperature Range: -40° F to 158° F (-40° C to 70° C) (storage)
 23° F to 122° F (-5° C to 50° C) (operational)

Humidity: 95% non-condensing

Tools Required

- Phillips-head screwdriver

Parts List

Verify parts against the parts list below:

| Quantity | | Description |
|------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------|
| Shelf with InstaPATCH modules (DM) | Shelf without InstaPATCH modules (DP) | |
| 2U | 2U | |
| 1 | 1 | Shelf assembly with iPatch |
| 4 | 4 | #12-24 x 1/2-inch screws for 19-inch (483mm) and 23-inch (584mm) rack mounting |
| 4 | 4 | M6 x 12mm screws for ETSI rack mounting |
| 1 | 1 | Product label |
| 3 | 3 | Flat retainer clips |
| 1 | 1 | Hook-and-loop strips |
| | | Instruction sheets: |
| 1 | 1 | 860621077 – SYSTIMAX® Ultra-Density Sliding Fiber Shelf |
| 1 | 1 | 860635147 – SYSTIMAX® iPatch Ultra-Density 24LC and MPO Sliding Fiber Shelves |
| 1 | 1 | 860557313 – LC/SC and MPO Module Port Cleaning Instructions |

Separately Orderable Components

| Material ID | Part No. | Description |
|-------------|-----------|-----------------------------------------------------------------------|
| 760039883 | G2-23BRKT | Mounting bracket accessory kit for 23-inch (584mm) rack and ETSI rack |

Important – Limits for iPatch UD shelf and panel connections:

- **iPatch** fiber shelves are limited to a maximum number of rack units (RUs) and will not support a fully populated rack or cabinet. **iPatch** fiber shelves support a total of 52 **iPatch** units (26 rows) per rack/cabinet, as configured for (26) 1U shelves, (13) 2U shelves, (8) 2U UHD shelves, (6) 4U shelves, (4) 4U UHD shelves, or any combination thereof. **ImVision**® Controller with the **imPower**™ power extender supports a total of 104 **iPatch** units.
- **iPatch** fiber shelves are limited to a maximum number of five (5) panels per panel bus male connector. Start a new panel bus chain with every sixth panel in the rack system.
- Do not mix MPO and LC **iPatch** kits in the same row of a rack.
- When mixing **iPatch** copper and fiber kits in a single rack, observe the following power worksheet formulas:

imVision only

| Number of iPatch kits | factor by |
|-----------------------------|-----------|
| # of HD fiber modules | x 158 |
| # of CU kits | x 222 |
| # of 1U G2 LC kits | x 222 |
| # of 96F LC or MPO kits | x 188 |
| Maximum no. of kits in rack | ≤ 10,000 |

ImVision with imPower

| Number of iPatch kits | factor by |
|-----------------------------|-----------|
| # of HD fiber modules | x 138 |
| # of CU kits | x 222 |
| # of 1U G2 LC kits | x 222 |
| # of 96F LC or MPO kits | x 94 |
| Maximum no. of kits in rack | ≤ 10,000 |

Adding all kit types multiplied by factor should total ≤ 10,000.



Important Safety Cautions

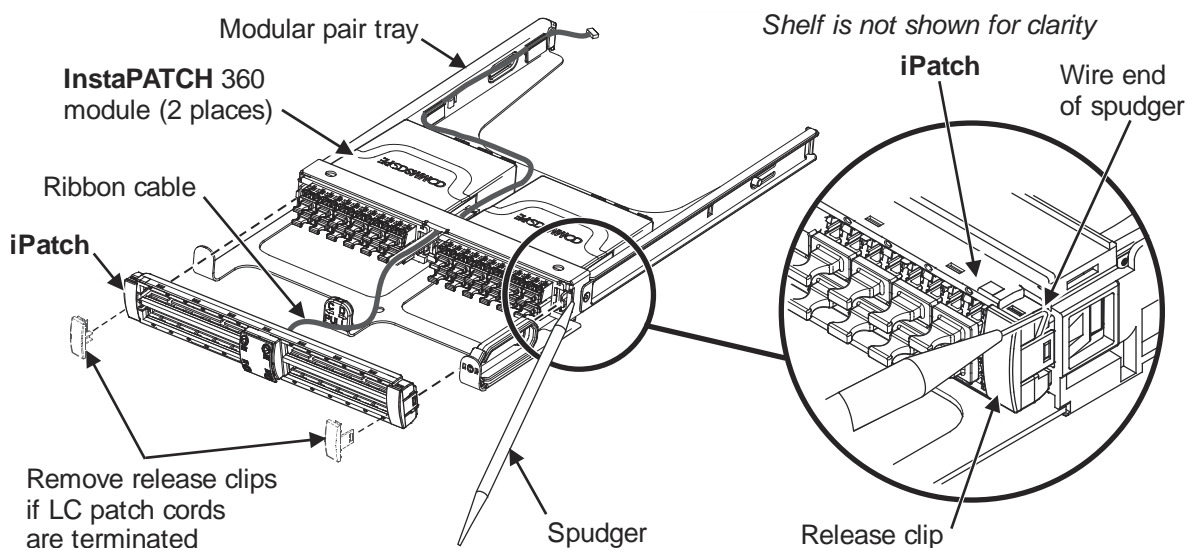
- To reduce the risk of fire, electric shock, and injury to persons, read, understand, and adhere to the following instructions as well as any warnings marked on the product.
- Remote risk of electric shock. Never install the product in wet locations or during lightning storms. Never touch uninsulated communication wires or terminals.
- 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.
- Wear safety glasses to install the shelf. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents.

Precautions

- High-density **iPatch** fiber modules require virtually no maintenance to maintain their performance. They contain no user-serviceable components, and any damage to the anti-tamper label or removal of top cover or front adapter mounting panel will void the warranty.
- Fiber optic trunk cable and jumper performance is sensitive to bending, pulling, and crushing. Minimum bend radius must be maintained during installation per the manufacturer's specification. Appropriate pulling socks must be used during installation, and pulling forces shall not exceed manufacturer's recommendations. MPO terminated trunk cables may use ribbonized fiber optic cable, which has a preferential bend axis. Use caution to avoid kinking trunk cables.

- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- **iPatch** ultra-density fiber MPO adapters are equipped with protective dust caps installed on all adapters.
- Prior to installation, clean the trunk cable and jumper connectors per the manufacturer's recommendations.
- 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.
- **IMPORTANT:** Dust covers are installed in the ports to protect the fibers connected to the back of the ports. Do not remove a dust cover from a port until you connect a patch cord to that port. If you remove a patch cord later, replace dust cover in the port.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.
- **iPatch** ultra-density fiber shelves are for use in restricted access areas only.
- **SYSTIMAX iPatch** shelves use infrared sensing technology and should be installed where they are not exposed to direct sunlight or other infrared sources.

Step 1 – Remove iPatch Components from Shelf to Orient InstaPATCH Modules



If the **iPatch** ultra-density fiber shelf is shipped with four **InstaPATCH 360** modules installed in the ALPHA orientation, the **InstaPATCH 360** modules must be oriented for the proper polarity. Identical modules are used at each end of a trunk cable, but one module must be in the ALPHA orientation and the other module must be in the BETA orientation.

Note: Refer to the **SYSTIMAX® High-Density Sliding Fiber Shelf Instructions (860601012)** for details regarding **InstaPATCH 360** module orientation.

1. Slide one modular pair tray forward for access. Trays slide to the front of the shelf separately until reaching stops that prevent them from sliding out.
2. Use a spudger to depress the release clip on one end of an **iPatch** unit and pull forward to release it. Repeat on other end and pull the entire unit forward to remove it from the tray as shown.

Note: If LC patch cords are terminated, then **iPatch** release clips should be removed to allow unit to clear latch on LC connectors. Patch cord will not need to be disconnected.

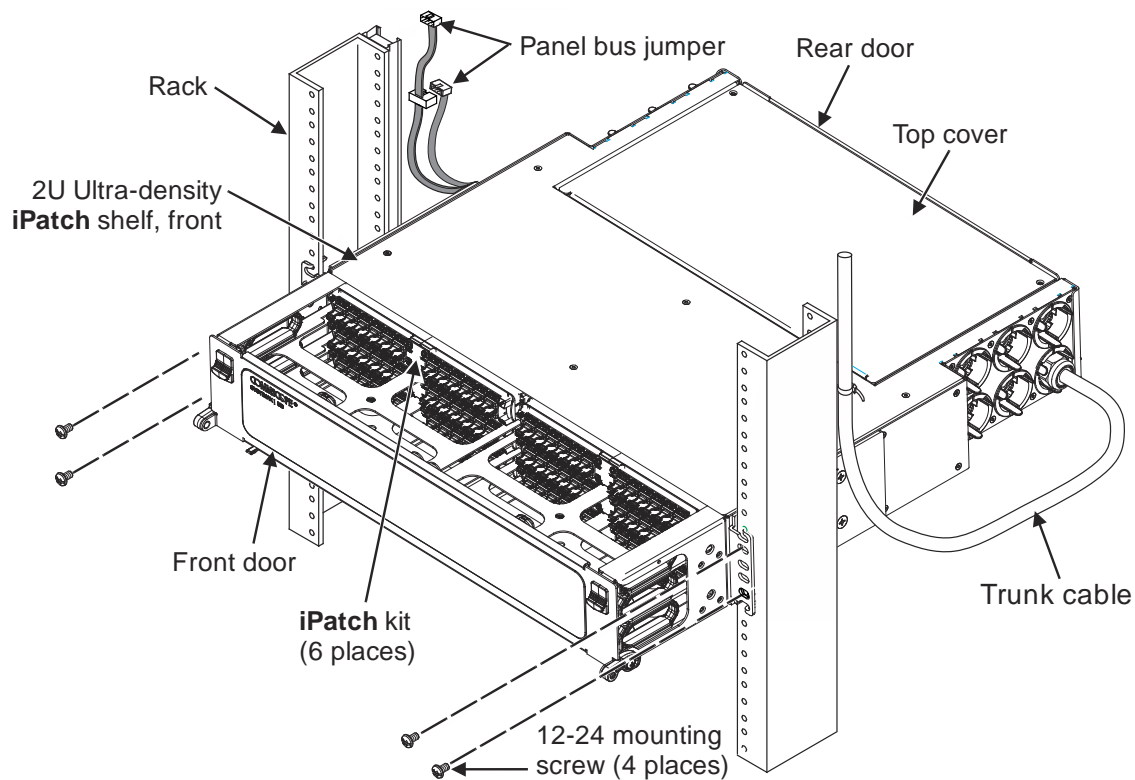
To remove release clips, gently twist one side of the top horizontal section of the **iPatch** unit in a downward motion to release the top tab on the release clip. Remove release clip from **iPatch** and repeat on other end of unit. Flex the horizontal pieces to clear connector latches when removing **iPatch** unit.

Caution: Pull **iPatch** unit away from tray slowly to avoid damaging internal components.

3. Carefully set **iPatch** unit aside without disconnecting the ribbon cable from it.
4. After removing **iPatch**, remove the **InstaPATCH** 360 modules. Use a small flat blade screwdriver to depress inner-most latch to release module from modular pair tray.
5. Shelf ships with modules in ALPHA orientation. If necessary to reinstall a module in BETA position, slide it into an opening in the shelf until the tabs engage and an audible click is heard. This indicates the module is fully seated in the shelf.
6. Ensure that the ribbon cable is still firmly connected to the back of the **iPatch** unit.

Note: If the connector does need re-inserting, orient it so the red dot is facing the top edge of the unit for correct alignment with the connection on the back of the unit.
7. Place the **iPatch** unit back on the front of the shelf, being careful to pull the ribbon cable through its opening in the shelf at the same time. Do not allow cable to be kinked or damaged.
8. Once the **iPatch** unit is seated over the **InstaPATCH** 360 modules, push in on each release clip at ends of unit to engage the latches to secure it.

Step 2 – Install Shelf and Connect Panel Bus Jumper



1. Determine the rack size and desired mounting location.
 - For 19-inch (483mm) rack – Mount shelf to rack using the pre-installed mounting brackets and four #12-24 x 1/2-inch screws (provided) as shown.
 - For a 23-inch (584mm) rack, use the G2-23BRKT accessory kit (ordered separately) and install conversion brackets on each side of shelf using four 10-32 screws included in the kit. Mount shelf to rack using four 12-24 screws provided.

Note: 2 accessory kits to be used for a 2U shelf.

- For an ETSI rack, use the G2-23BRKT accessory kit (ordered separately) and install one conversion bracket on one side of shelf using two of the four 10-32 screws included in the kit. Mount shelf to rack using four M6 x 12mm screws (provided). The shelf will not be centered in the rack.

Note: 1 accessory kit to be used for a 2U shelf.

2. The fiber shelves use two panel bus jumpers to connect to the **iPatch** panel bus. Route the 2nd panel bus jumper to the panel bus 10-pin panel bus connector inserted into the spare bus port on the 1st panel bus jumper, as shown in View **A**.

Insert both connectors and 2nd spare bus port into panel bus channel as shown in View **B**.

