



## SYSTIMAX 360™ iPatch® G2 High Density Fiber Module Installation Instructions

### General

The **SYSTIMAX 360™ iPatch®** high density fiber module is a **SYSTIMAX®** approved product designed for use in a **SYSTIMAX 360 iPatch** 360G2 intelligent modular fiber shelf. The high density distribution shelf accommodates up to three modules that allow connection of multi-fiber trunk cables terminated with push-on (MPO) connectors. Each module provides 24 **iPatch** LC duplex fiber ports.

Ordering information is listed below:

Material ID	Part No.	Description
760093344	360-iP-HD-MOD-LC-LS	360-iPatch® G2 <b>LazrSPEED®</b> high density module
760093351	360-iP-HD-MOD-LC-LS-3	360-iPatch G2 <b>LazrSPEED</b> high density module, 3-pack
760093369	360-iP-HD-MOD-LC-TS	360-iPatch G2 <b>TeraSPEED®</b> high density module
760093377	360-iP-HD-MOD-LC-TS-3	360-iPatch G2 <b>TeraSPEED</b> high density module, 3-pack
760093385	360-iP-HD-MOD-LC-OS	360-iPatch G2 <b>OptiSPEED®</b> high density module
760093393	360-iP-HD-MOD-LC-OS-3	360-iPatch G2 <b>OptiSPEED</b> high density module, 3-pack

### 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 **PartnerPRO™** Network Partner.
- Within the United States, report any missing/damaged parts or any other issues to **CommScope** Customer Claims at 1-866-539-2795 or email to [claims@commscope.com](mailto:claims@commscope.com). Outside the United States, contact your local account representative or **PartnerPRO** Network Partner.

This product is covered by one or more of the following U.S. patents or their foreign equivalents: 6,285,293 and 6,522,737.



## Specifications

### Fiber Optic Interface

Industry-standard LC

### Compatible Fiber Size

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

Multimode with 62.5 µm core diameter, such as **OptiSPEED**

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

### Environmental Data

Temperature	-40° F to 158° F (-40° C to 70° C) (storage)
Range	23° F to 122° F (-5° C to 50° C) (operational)
Humidity	95% non-condensing

## Tools Required

Flat blade screwdriver

## Parts List

Verify parts against the parts list below:

Quantity	Description
1	High-density module
2	Door retainers
1	Instruction sheet

## Separately Orderable Parts

Material ID	Part No.	Description
760093336	360-iP-HD-2U-IP-SD	SYSTIMAX 360™ iPatch® G2 2U high density sliding fiber shelf
Various MIDs*		360 <b>LazrSPEED</b> 150 & 300 & <b>TeraSPEED</b> IPD 12-, 24-, 48-, 72-, 96-, and 144-fiber trunk cable, Plenum, MPO

\*Contact your **Systimax** sales representative for more information on trunk cables that are compatible with this module.



## 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

- **iPatch** high density fiber modules contain fiber optic cable and passive optical components. When removed from protective packing, they should be handled carefully and installed in appropriate racks for mechanical support and protection.
- **iPatch** high density 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.
- **iPatch** high density fiber modules are preterminated, with protective dust caps installed on all adapters.
- Prior to installation, clean the trunk cable and jumper connectors per the manufacturer's recommendations.
- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.
- **iPatch** high density fiber modules are for use in restricted access areas only.
- **iPatch** high density fiber modules use infrared sensing technology and should be installed where they are not exposed to direct sunlight or other infrared sources.

**Save these instructions.**

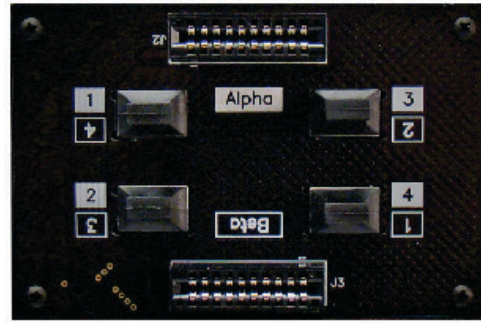
### Step 1 – Configure Module

High density fiber modules **must** be configured as shown for proper polarity. Identical modules are used at both ends of trunk cable, but module orientation is inverted from end to end. Module at one end of trunk cable **must** be oriented in ALPHA configuration, while module at opposite end of trunk cable **must** be oriented in BETA configuration.

Orient module in the ALPHA or BETA configuration as shown in the following figure before installation in panel.



Front

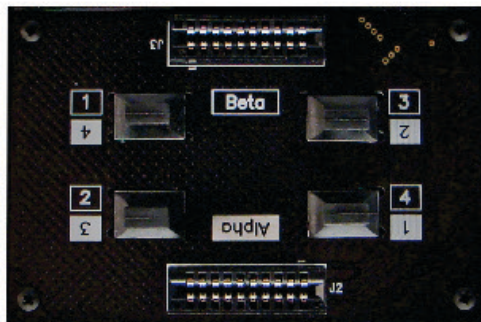


Rear

High Density Fiber Module in ALPHA Orientation



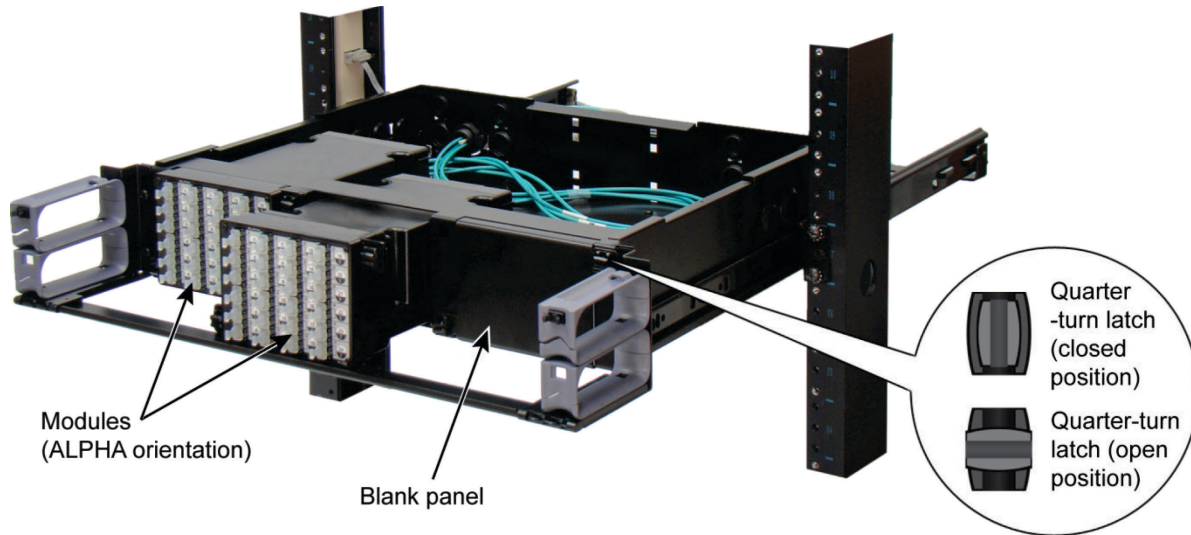
Front



Rear

High Density Fiber Module in BETA Orientation

## Step 2 – Install Modules



1. Fully extend the shelf and remove plastic cover, if installed.
2. Remove the blank panel from the left position in the shelf. Using a flat blade screw driver, turn the two quarter-turn latches to the open (horizontal) position. Then pull out the blank panel.
3. With the module's quarter-turn latches in the open (horizontal) position, align module with the opening in the shelf. Slide module into the shelf so the connector on the back of the module mates with the edge connector on the back plane board.

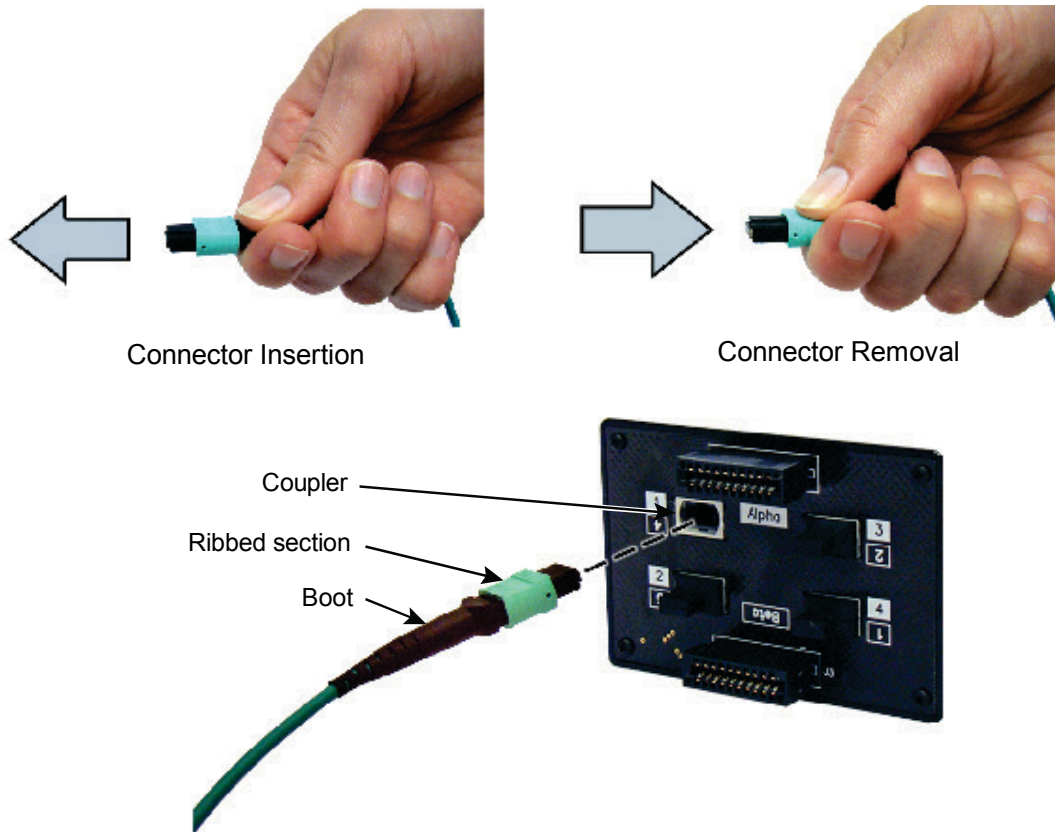
**Note:** Make sure no fiber cables are pinched beneath the module.

4. Use a flat blade screwdriver to turn both latches to the closed (vertical) position.
5. Repeat items 2 through 4 to install additional modules in the center and right positions.

**Note:** When installing only two modules in the shelf, use of the left and center positions is recommended.

**IMPORTANT:** Dust covers are installed in ports to protect the fibers connected to the back of the ports. Do not remove the dust cover from a port until you connect a patch cord to that port. If you remove a patch cord later, replace the dust cover in the port.

### Step 3 – Connect Cables



1. Remove the protective dust covers from the MPO connectors on the cable and the MPO couplers on the back of the shelf.
2. Grasp the connector by its boot, near the base of the connector (seen above). Insert the MPO connector into the coupler until it clicks into place.

**Note:** The MPO connection is keyed. The polarized tab on the connector fits into the opening on the coupler on the module.

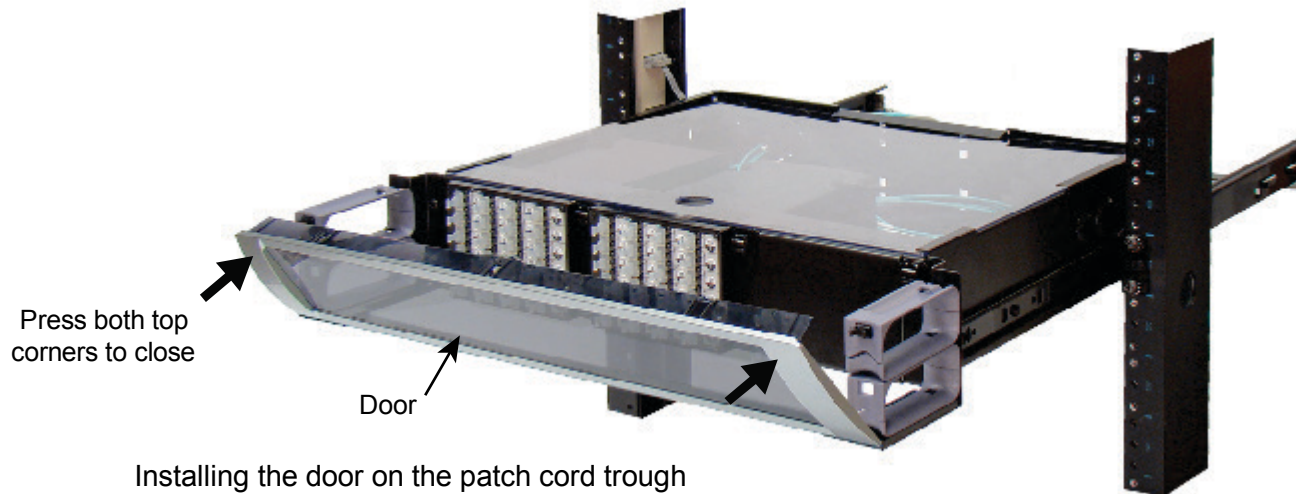
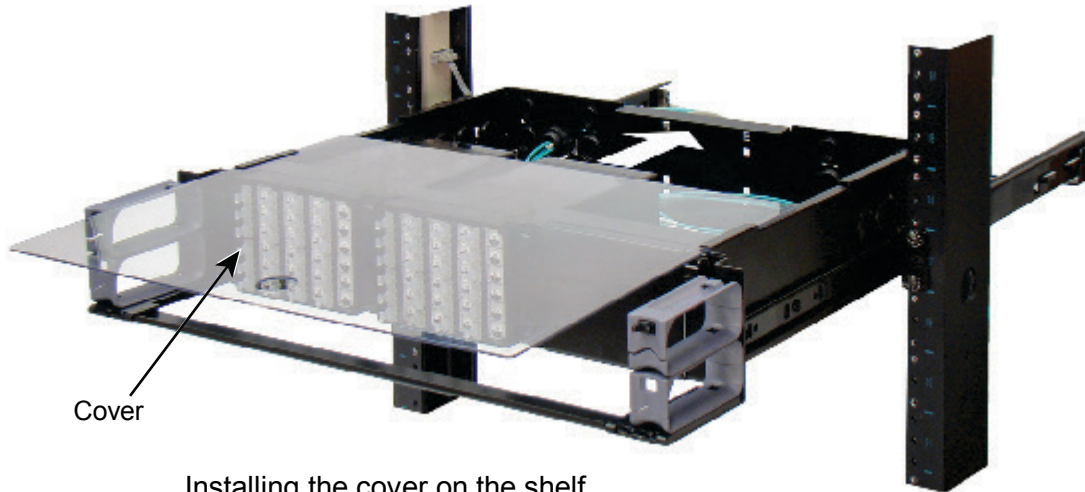
3. Repeat item 2 to insert each of the trunk cable's MPO connectors into MPO couplers.
4. To unplug an MPO connector, grasp the ribbed sleeve section and pull the connector out of the coupler. Do not pull on the boot to unplug an MPO connector.

## Step 4 – Installing the Cover and Door

Install the plastic cover and trough door (both provided) to shield the shelf from foreign particles. The cover, which is made of clear, flame-retardant plastic, slides on and off the shelf. The door for the patch cord trough is hinged and has touch-latches for closing and opening.

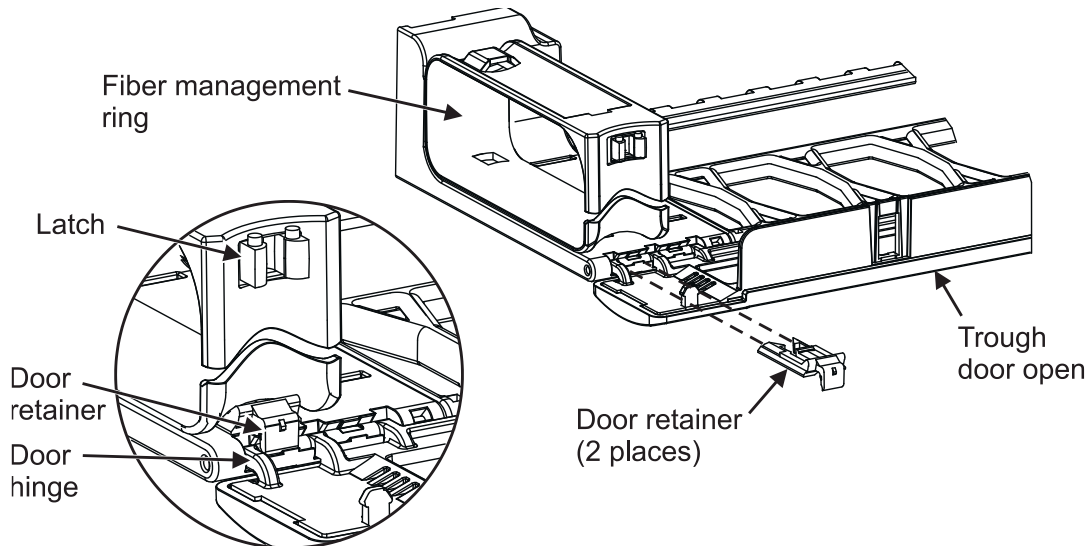
### To install the cover:

1. Slide the cover through the flanges on the shelf until the cover reaches the back wall of the shelf.



### To install the door:

The door retainer is available to update existing 360G2 shelves up to the current functionality of the fiber management trough.



Note: Trough shown is representative, actual part may vary.

**Note:** Door retainer can be installed without removing fiber cables.

1. Orient the door retainer pins as shown and insert them into the space between the trough floor and hinge pin of trough door on each end of the trough. Don't seat retainers now. There will be space between retainer and trough to fit the door's hinge pin into space.

**Note:** If retainer is pushed in before hinge placement, use a small flat blade screwdriver to pry it out from top, opening space to insert hinge.

2. With the door at a 45° angle to the patch cord trough, position the door's hinge tabs in the corresponding door retainer as shown. When door is positioned, slide door and retainer back to seated position as shown above.
3. Swing the door to the closed position, gently pressing the upper corners to latch the door until an audible click is heard.
4. To open the door, pull on both upper corners of door (opposite strikes) until the latches release (verified by an audible click).
5. When opened to a 45° position, the door may be removed from trough by pulling door upward on each end until hinge pins release from hinge sockets. Support the trough under the hinge when removing the door.
6. To re-install door, carefully place the door hinge pin between hinge socket and door retainer. Close door to secure door retainer in place as shown above.
7. Fully retract the shelf in the rack.