

## **USER GUIDE**

### **Manta 2RU Fiber Patch Panel**

#### **Rack Mount, 2RU, Splicing and Patching up to 96 Fibers**

The Manta 2RU Fiber Patch Panel is designed to offer an easy to use easy to access solution for fiber patching and fiber optic splicing.

This rack mount fiber patch panel will hold 4 LGX style adapter plates, includes multiple anchor points for securing internal cable routing, and features a slide out tray for easy access. The front features built-in connector protection keeping connectors safe from accidental bumps and swipes.

Adapter plates and splice trays may be ordered separately or ordered preinstalled. Pigtails may be ordered separately or may be ordered bundled together with the patch panel for convenience.

### **Key Features**

- Holds 4 LGX® adapter plates
- Built-in cable management hooks
- Built-in lip for bump protection
- Multiple built-in anchor points to secure fiber cable routing
- Includes 2 strength member clamps for securing entry cable
- Includes Velcro® straps for cable management

### **Compatibility**

- RLH-FST-01 – 12 Position Fiber Splice Tray
- RLH-FST-01-FSPS – 12 Position Fiber Splice Tray w/ Splice Sleeves



Manta 2RU Fiber Patch Panel (closed)



Manta 2RU Fiber Patch Panel (open)

## Installation

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### Rack Mounting

Choose a suitable 19" equipment or telco rack location with room for the fiber tray to extend out and allow for easy access to the interior. The rack ears are designed for 19" racks and the fiber patch panel will occupy 2RU once installed. Pre-position the unit in the rack to plan out fiber cable routings and check for any potential problems with the location, then fasten the unit to the equipment rack rails with the hardware provided.

### Main Tray

The main tray can slide out the front of the housing for access to the front part of the housing. The main tray may also be completely removed for complete access to the interior.

The tray comes with 2 built-in strain relief clamps, one on each side. It includes fiber cable management spools for cable slack storage. Optional Splice trays are available for placement in the center of the tray.

### Adapter Plates

The Manta 2RU patch panel accommodates 4 adapter plates. The LGX style adapter plates are easily installed and removed by pushing in or pulling out the two finger plunger latches on each side of the plate. When the plunger latches are in the OUT position, the fiber adapter plate can be inserted or removed. Pushing the latch into the IN position locks the adapter plate into position and prepares the plate for use.

### Splice Trays

The optional fiber splice trays mount into the center of the tray between the fiber cable management spools. They're held in place by hook and loop straps that are routed through the built-in lances. When the splice trays are used be sure to route slack cable around the fiber management spools.

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### Ordering Information

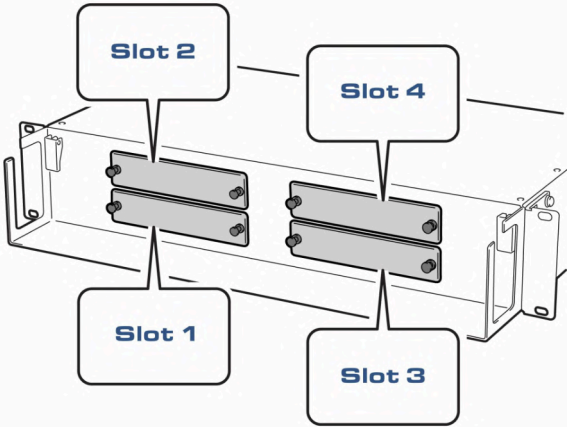
Use the following part number when ordering the patch panel without fiber adapter plates or pigtails.

Description	Capacity	Dimensions	Part Number
Manta 2RU Fiber Patch Panel	4 Fiber Adapter Plates	16.93" (W) x 3.4" (D) x 11.58" (H)	MANTA4-1

- Fiber adapter plates and/or pigtails can be ordered separately; plates can be preinstalled, while pigtails will be bundled

### Ordering with Fiber Adapter Plates, Pigtails, and Splice Trays

Use the ordering code below to order the patch panel with fiber adapter plates and/or splice trays preinstalled, and/or pigtails included. Refer to the Fiber Adapter Plate Chart and the Fiber Pigtail Chart on the following pages.



Example #1: **M4 - 32 - 32 - 32 - 32 - 41 - 41 - 41 - 41 - 4 - 1**

Slot 1 (32):	AP-SC6-LDSM-B
Slot 2 (32):	AP-SC6-LDSM-B
Slot 3 (32):	AP-SC6-LDSM-B
Slot 4 (32):	AP-SC6-LDSM-B
Slot 1 (41):	RLH-12SMSC-03M
Slot 2 (41):	RLH-12SMSC-03M
Slot 3 (41):	RLH-12SMSC-03M
Slot 4 (41):	RLH-12SMSC-03M
Splice Trays (4):	RLH-FST-01

M4 - XX - XX - XX - XX - XX - XX - XX - XX - XX - X - 1

**Fiber Adapter Plates**  
Use the code from the Adapter Plate Chart\* to populate slots with adapter plates

**Fiber Pigtails**  
Use the code from the Fiber Pigtail Chart\* to have them bundled together with the patch panel

**Splice Trays**  
Enter the quantity of 12-fiber splice trays required (0 to 4) – PN: RLH-FST-01

\*Please refer to the **Fiber Adapter Plate Chart** and the **Fiber Pigtail Chart** on the following pages.

**Ordering Information (cont'd)**

**Adapter Plate Chart**

Use the Adapter Code to specify the desired plate style to be preinstalled.

Adapter	Mode	Adapter Plate Style				Supported Fiber Types	Black Plate Part Number	Adapter Code
		Type	Fibers	Positions	Color			
Blank	-	-	-	-	-	-	AP-BLANK-B	00
ST	SM	Simplex	6	6	Yellow Caps	OS1/OS2	AP-ST6-LSSM-B	01
			12	12	Yellow Caps	OS1/OS2	AP-ST12-LSSM-B	03
	MM	Simplex	6	6	Black Caps	OM1~OM4	AP-ST6-LSMM-B	06
			12	12	Black Caps	OM1~OM4	AP-ST12-LSMM-B	08
FC	SM	Simplex	6	6	Yellow Caps	OS1/OS2	AP-FC6-LSSM-B	20
	MM	Simplex	6	6	Black Caps	OM1/OM2	AP-FC6-LSMM-B	23
FC/APC	SM	Simplex	6	6	Green Caps	OS1/OS2	AP-FA6-LSSM-B	26
SC	SM	Simplex	6	6	■ blue	OS1/OS2	AP-SC6-LSSM-B	30
		Duplex	12	6	■ blue	OS1/OS2	AP-SC6-LDSM-B	32
	MM	Simplex	6	6	■ beige	OM1/OM2	AP-SC6-LSMM-B	33
		Duplex	12	6	■ beige	OM1/OM2	AP-SC6-LDMM-B	35
SC/APC	SM	Simplex	6	6	■ green	OS1/OS2	AP-SA6-LSSM-B	36
		Duplex	12	6	■ green	OS1/OS2	AP-SA6-LDSM-B	38
SC 10G	MM	Simplex	6	6	■ aqua	OM3/OM4	AP-SC6-LSMX-B	39
		Duplex	12	6	■ aqua	OM3/OM4	AP-SC6-LDMX-B	41
LC	SM	Duplex	6	3	■ blue	OS1/OS2	AP-LC3-LDSM-B	51
			12	6	■ blue	OS1/OS2	AP-LC6-LDSM-B	52
			24	6	■ blue	OS1/OS2	AP-LC6-LQSM-B	54
	MM	Duplex	6	3	■ beige	OM1/OM2	AP-LC3-LDMM-B	56
			12	6	■ beige	OM1/OM2	AP-LC6-LDMM-B	57
			24	6	■ beige	OM1/OM2	AP-LC6-LQMM-B	59
LC/APC	SM	Duplex	6	3	■ green	OS1/OS2	AP-LA3-LDSM-B	61
			12	6	■ green	OS1/OS2	AP-LA6-LDSM-B	62
			24	6	■ green	OS1/OS2	AP-LA6-LQSM-B	64
LC 10 GIG	MM	Duplex	6	3	■ aqua	OM3/OM4	AP-LC3-LDMX-B	66
			12	6	■ aqua	OM3/OM4	AP-LC6-LDMX-B	67
			24	6	■ aqua	OM3/OM4	AP-LC6-LQMX-B	69
CAT6 RJ-45	-	Coupler	-	4	-	-	AP-RJCAT6-CP4-B	90
		Punchdown	-	4	-	-	AP-RJCAT6-PD4-B	91

**Ordering Information (cont'd)**

**Fiber Pigtail Chart**

Use the Pigtail Code to specify the desired 900µm Spiral Wrap Splice-on Fiber Pigtail to be included.

900µm Spiral Wrap Splice-on Pigtail				Part Number	Pigtail Code			
Adapter	Mode	Fibers	Fiber Type					
N/A	N/A	N/A	N/A	NONE	00			
ST	SM	6	OS1/OS2	RLH-06SMST-03M	01			
		12	OS1/OS2	RLH-12SMST-03M	02			
	MM	6		OM1	RLH-06MMST-03M	06		
				OM2	RLH-06M5ST-03M	07		
				OM3	RLH-06MXST-03M	08		
				OM4	RLH-06MCST-03M	09		
		12		OM1	RLH-12MMST-03M	12		
				OM2	RLH-12M5ST-03M	13		
				OM3	RLH-12MXST-03M	14		
				OM4	RLH-12MCST-03M	15		
			FC	SM	6	OS1/OS2	RLH-06SMFC-03M	20
					12	OS1/OS2	RLH-12SMFC-03M	21
	MM	6			OM1	RLH-06MMFC-03M	23	
					OM2	RLH-06M5FC-03M	24	
					OM3	RLH-06MXFC-03M	25	
					OM4	RLH-06MCFC-03M	26	
12				OM1	RLH-12MMFC-03M	28		
				OM2	RLH-12M5FC-03M	29		
FC/APC	SM	6	OS1/OS2	RLH-06SMFA-03M	33			
		12	OS1/OS2	RLH-12SMFA-03M	34			
SC	SM	6	OS1/OS2	RLH-06SMSC-03M	40			
		12	OS1/OS2	RLH-12SMSC-03M	41			
	MM	6		OM1	RLH-06MMSC-03M	43		
				OM2	RLH-06M5SC-03M	44		
				OM3	RLH-06MXSC-03M	45		
				OM4	RLH-06MCSC-03M	46		
		12		OM1	RLH-12MMSC-03M	48		
				OM2	RLH-12M5SC-03M	49		
				OM3	RLH-12MXSC-03M	50		
				OM4	RLH-12MCSC-03M	51		
	SC/APC	SM	6	OS1/OS2	RLH-06SMSA-03M	53		
			12	OS1/OS2	RLH-12SMSA-03M	54		
	LC	SM	6	OS1/OS2	RLH-06SMLC-03M	60		
			12	OS1/OS2	RLH-12SMLC-03M	61		
24			OS1/OS2	RLH-12SMLC-03M (2)	62			
6			OM1	RLH-06MMLC-03M	63			
			OM2	RLH-06M5LC-03M	64			
			OM3	RLH-06MXLC-03M	65			
			OM4	RLH-06MCLC-03M	66			
		12		OM1	RLH-12MMLC-03M	68		
				OM2	RLH-12M5LC-03M	69		
				OM3	RLH-12MXLC-03M	70		
				OM4	RLH-12MCLC-03M	71		
24			OM1	RLH-12MMLC-03M (2)	73			
			OM2	RLH-12M5LC-03M (2)	74			
			OM3	RLH-12MXLC-03M (2)	75			
			OM4	RLH-12MCLC-03M (2)	76			
		LC/APC	SM	6	OS1/OS2	RLH-06SMLA-03M	78	
12				OS1/OS2	RLH-12SMLA-03M	79		
24				OS1/OS2	RLH-12SMLA-03M (2)	80		

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[www.fiberopticlink.com](http://www.fiberopticlink.com)

### Key Specifications

<b>Adapter Plates:</b> (sold separately)	Holds 4 LGX® plates Up to 24 Fibers each plate * Includes 4 Blank Adapter Plates when not ordered with accompanying adapter plates
<b>Mounting:</b>	19" Rack Mount, 1RU
<b>Environmental:</b>	Indoor or inside weatherproof enclosure
<b>Construction:</b>	Powder coated steel
<b>Accessory Kit:</b>	Qty. 8 - 4" x 1/4" Velcro® straps for securing fiber cable Qty. 2 - 18" x 1/4" Velcro® straps for securing optional fiber splice tray Qty. 6 - 8" Cable ties for securing entry cable Qty. 4 - Cage nuts and bolts for rack mounting
<b>Dimensions:</b>	16.93" (W) x 11.58" (D) x 3.4" (H), (430mm x 294mm x 87mm) * Not including ears

### Contact

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