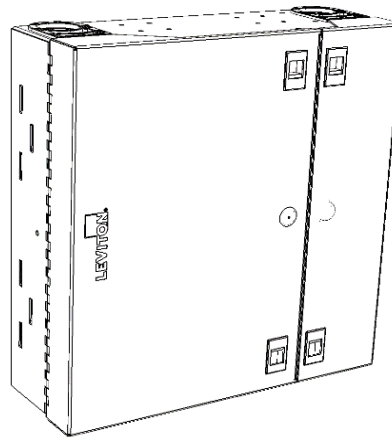


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## Instructions for Use - Opt-X<sup>®</sup> SDX Wallmount Enclosures



5WLRG-12C

## FIBER CONNECTOR SAFETY WARNINGS

### SAFETY INFORMATION

- Always wear safety glasses.
- Isopropyl alcohol is flammable and may cause eye irritation. In case of contact with eyes, flush with water for at least 15 minutes. When using isopropyl alcohol, always assure proper levels of ventilation. In case of ingestion, consult a physician immediately.
- Never look directly into a laser light source, point source at a person's eyes, or point source at reflective surfaces.
- When working on a fiber link, always turn laser source off, or disconnect completely.
- Always dispose of fiber debris properly, preferably using sticky tabs.
- Do not place food or beverages in the vicinity of the work area.
- Thoroughly wash face and hands after terminating fiber.
- Carefully remove any fiber debris that may have been stuck to clothing, or left in work area, and dispose of properly.

### TIPS AND RECOMMENDATIONS

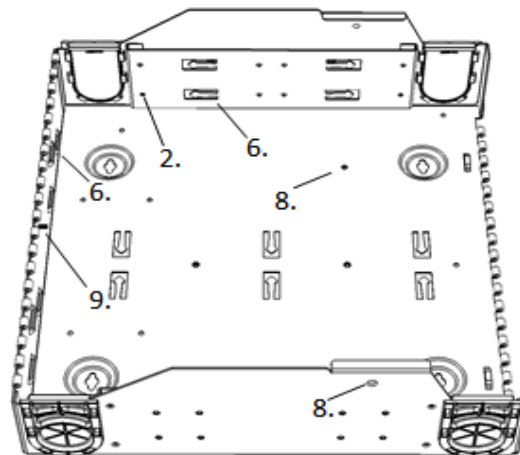
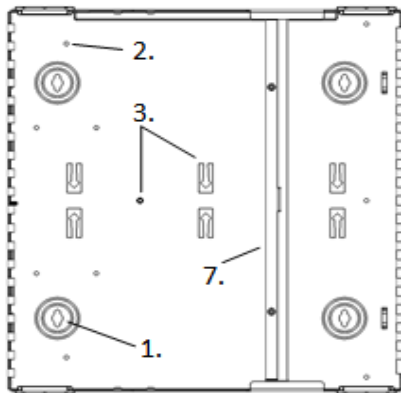
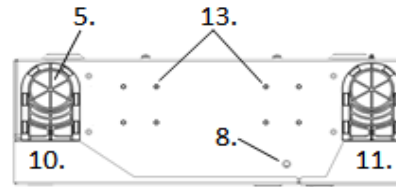
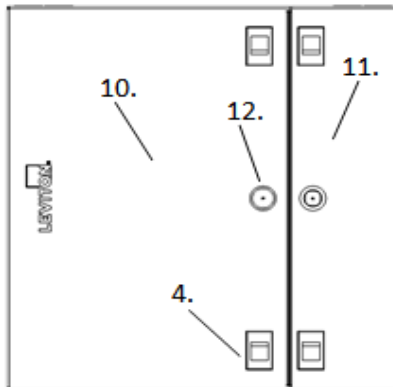
- Using isopropyl alcohol, thoroughly clean exposed fiber and buffer ensuring both are free from dust, oil, and debris.
- Do not lay ferrule dust covers on a dirty or dusty surface.
- Always use proper tools and/or accessories to terminate fibers and clean connector tips.

## QUICK START GUIDE

The following instructions will help you quickly install your Leviton Opt-X® Wallmount Enclosure for use in your equipment cabinet or rack. For detailed information on each step, go to the page number listed below.

Safety Instructions	Pg. 2
Quick Start Guide	Pg. 2
Equipment Guide	Pg. 3
Standard Accessories	Pg. 4
Optional Accessories	Pg. 4
Required Hardware and Tools	Pg. 4
Configurations	Pg. 5
• Adapter Plates	
• Splicing	
• SDX Cassette	
Mounting	Pg. 5
Grommet Preparation and Use	Pg. 5
Cable Installation Applications	Pg. 7
• Adapter Plates	
• SDX Cassette	
• Splicing	
Grounding armored cabling	
Installing the optional lock kit	Pg. 12
Labeling	Pg. 13

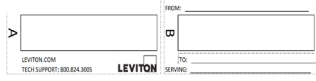





## EQUIPMENT OVERVIEW - LARGE



1. Mounting Eyelets
2. Wire management saddle mounting holes
3. Splice tray mounting point
4. Door latch
5. Cable entrance grommet
6. Cable lacing point
7. SDX bulkhead (Removable)
8. SDX bulkhead Mounting point
9. Grounding Stud
10. Service Door
11. Patch Door
12. Optional lock knockout blank
13. Optional Cable Clamp mounting point

Pour les traductions en français, allez à:  
 Para las traducciones en español, visite:  
[www.leviton.com](http://www.leviton.com)

## STANDARD ACCESSORIES

Description	Image	Quantity in Lg Kit
Port Identification Label		1
Wire Management Saddles		8 Medium 3 Large
Velcro 5"		8
Grommets		4
#10 Wood Screw		4
Grounding Lug		1
Blank Adapter Plate		8
Lock CAM		1

## OPTIONAL ACCESORIES

Lock and Key  
 Universal Clamp Kit (single)  
 Universal Clamp Kit (multi)  
 SDX to HDX adapter bracket  
 Splice Trays  
 Splice Tray Mounting Hardware Kit

5L000-LOK  
 5RCMP-KIT  
 5RCMP-KT2  
 HDXAD-ACC  
 (See splice tray configurator)  
 SPLMT-HKT

## REQUIRED HARDWARE AND TOOLS

Mounting screws/lag bolts, wall anchors, washers as appropriate  
 Small Magnetic Torpedo level  
 Powered drill or screw driver  
 Scissors or safety blade utility knife

## CONFIGURATIONS

There are five possible configurations using the large enclosures.

1. Field or pre-terminated cabling used with SDX adapter plates
2. Pigtail splicing used with SDX adapter plates
3. Pigtail splicing used with Splice modules
4. Use with pre-terminated MTP cabling and SDX cassettes or SDX to HDX adapter brackets
5. Additionally, the large enclosure is convertible to a splice only enclosure

See the Installation section for diagrams of each configuration.

## MOUNTING INSTRUCTIONS

1. Determine the location to mount the enclosure. Use the following considerations in selecting a mounting location:
  - a. Appropriate mounting base per applicable codes and Authority Having Jurisdiction (AHJ)
  - b. Space around the enclosure to open the door and route patch cables.
  - c. Adequate space above or below the enclosure to maintain industry standard bend radius compliance of all cables entering the enclosure.
2. If using the large enclosure in the splice only configuration, install the splice tray hardware before mounting the enclosure.
3. Using a level, place the enclosure at the target mounting location and mark the four mounting hole positions.
4. Install the top two screws and verify the enclosure is level during final tightening of screws.
5. Install the bottom two screws.

## GROMMET PREPARATION AND USE

Cable Grommets are provided and designed for use at both trunk and patch cord entrance points to the enclosure.

For Large

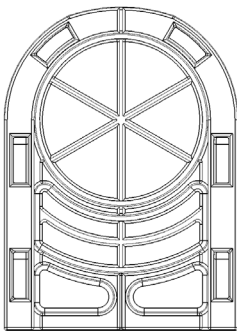


Figure 1

There are several options in configuring the grommets. When patching, it is recommended to cut a channel at the front of the grommet to easily install patch cords. When routing trunks it may be desired to cut a channel at the rear of the grommet to allow for grommet removal for adding additional trunk cables. Grommet pass through material can either be slit to limit dust and water egress or removed entirely. To configure a grommet, use the following cutting methods:

1. Determine required opening in cable entrance grommet
2. Determine whether slitting or removing material will be performed
3. Using a sharp-edged tool, cut the appropriate opening in using the scored marking lines as shown in figure 2:
4. Optional – cut a channel through the outer wall of the grommet for either trunk or patch cord routing.

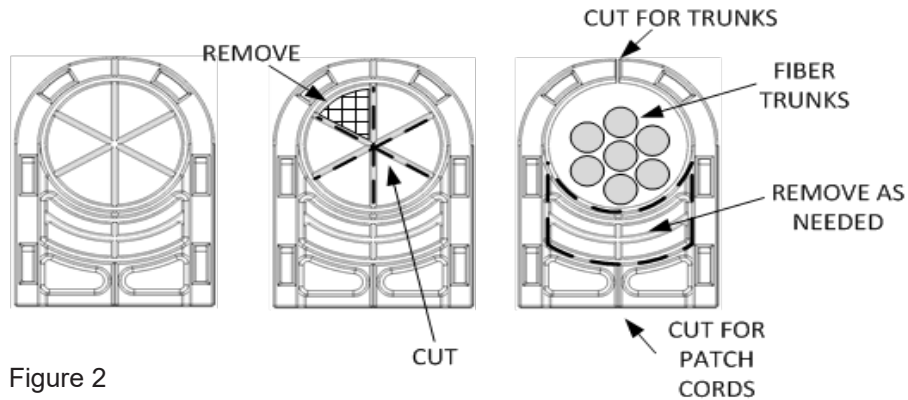


Figure 2

## Estimated Fill Ratios

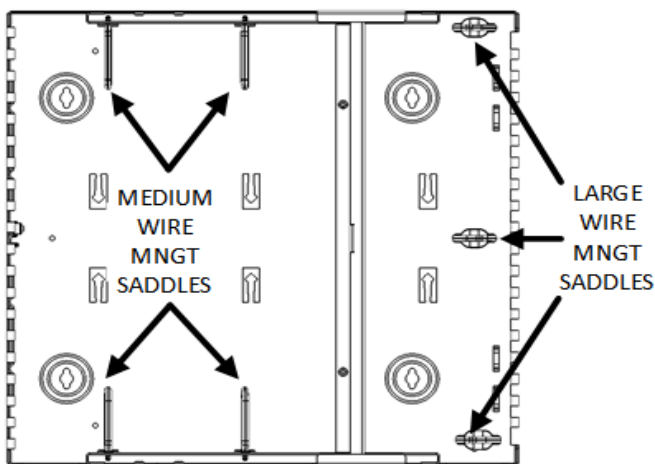
Cable Description (based on 50% fill)	Diameter in inches	Diameter in MM	Qty per Large Grommet
Micro Data Center 12s Plenum	0.16	4.06	26
Micro Data Center 24s Plenum	0.18	4.57	20
Micro Data Center 48s Plenum	0.231	5.87	12
Micro Data Center 72s Plenum	0.275	6.99	9
Micro Data Center 144s Plenum	0.36	9.14	5
Trunk 12s Distribution/Loose Tube	0.18	4.57	20
Trunk 24s Distribution/Loose Tube	0.38	9.65	5
Trunk 48s Distribution/Loose Tube	0.38	9.65	5
Trunk 72s Distribution/Loose Tube	0.44	11.18	3
Trunk 144s Distribution/Loose Tube	0.69	17.53	1
Trunk 12s Armored - MDP	0.495	12.57	3
Trunk 24s Armored - MDP	0.495	12.57	3
Trunk 48s Armored - MDP	0.584	14.83	2
Trunk 72s Armored - MDP	0.594	15.09	2
Trunk 144s Armored - MDP	0.708	17.98	1
Trunk 12s Armored - All types	0.55	13.97	2
Trunk 24s Armored - All types	0.95	24.13	1
Trunk 48s Armored - All types	1.05	26.67	1
Trunk 72s Armored - All types	1.23	31.24	0
Trunk 144s Armored - All types	1.73	43.94	0
Generic UTP Copper Cat5e	0.185	4.70	19
Generic UTP Copper Cat6	0.23	5.84	12
Generic UTP Copper Cat6A	0.33	8.38	6

## CABLE INSTALLATION

1. Feed incoming cable(s) through the grommet opening.
2. Optional – Install Universal Trunk Clamp kit and secure cable to clamp.
3. Remove required outer cable jacket leaving jacket at the closest lance point.
4. Secure the cable to the lance point with Velcro or nylon tie wraps as appropriate.
5. If applicable, secure aramid yarn to lance point.
6. When using Armored cable, secure the ground wire from the armored cable to the provided grounding lug or ground by other code compliant methods to the provided grounding stud.
7. Using the cable management saddles, route the breakout fiber legs to the patching or termination point as shown in the configuration drawings below: (Figures 2 to 8)

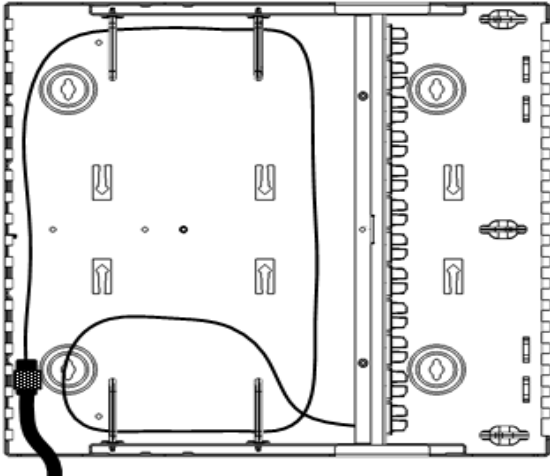
## ROUTING – LARGE ENCLOSURE

The following set up correctly positions Wire Management Saddles for Field/Pre-terminated cabling, Pigtail Splicing and use of Fan Out kits to SDX Adapter Plates

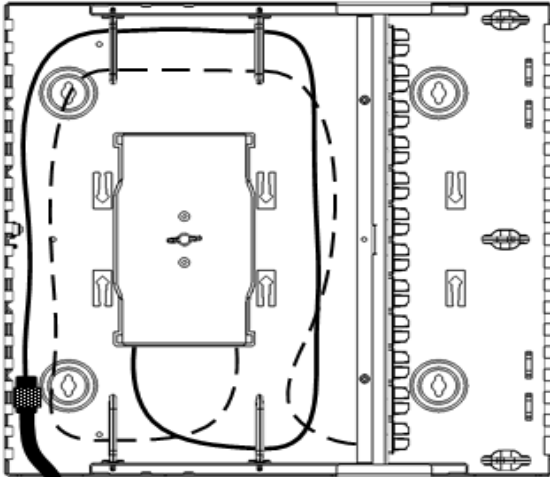


Routing of cables for each termination method is as shown in the following figures.

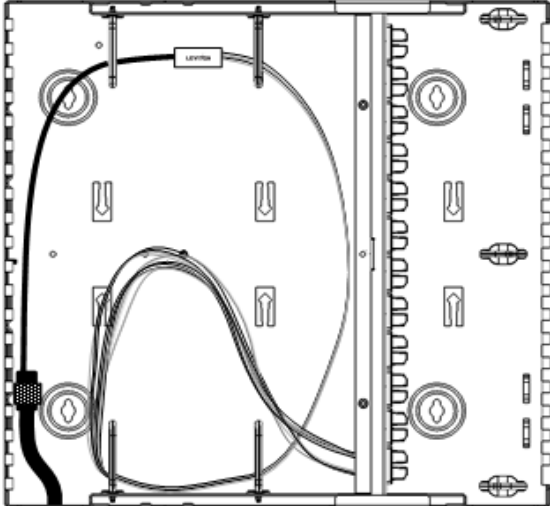
**ROUTING FOR FIELD AND PRE-TERMINATED TERMINATION**



**ROUTING FOR FIELD TERMINATED CABLING – PIGTAIL SPLICING**



**ROUTING FOR FIELD TERMINATED CABLING – FAN OUT**





## ROUTING FOR PRE-TERMINATED CABLING – CASSETTES

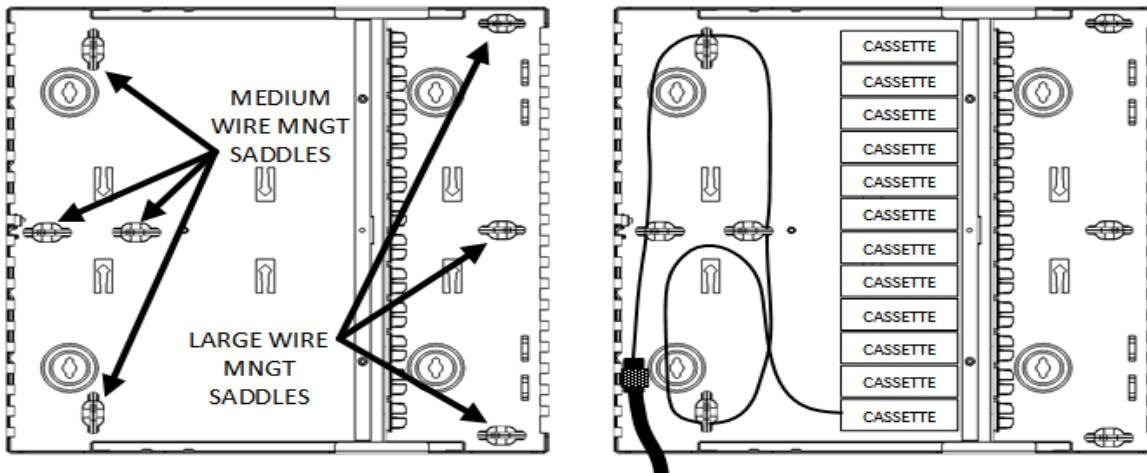


Figure 2

## ROUTING FOR FIELD TERMINATED CABLING – SPLICE MODULES

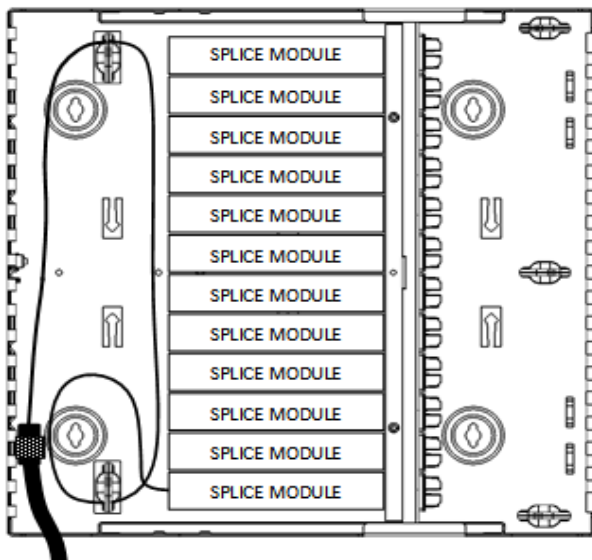


Figure 3

## SPLICE ONLY CONFIGURATION (LARGE ENCLOSURE ONLY)

The large enclosure (#5WLRG-12C) can be modified to perform splicing only for increased splicing capacity. To convert the large enclosure, remove the bulkhead from the Enclosure base.

1. Remove the four screws located on the sides and bottom of the enclosure and remove the bulkhead
2. Position FOCA saddles as shown in (Figure 4)
3. Install threaded studs into one or both mounting holes.

NOTE: if fully populating the enclosure an additional Splice Hardware Mounting Kit (SPLMT-HKT) will be required.

4. Install inbound trunks and outbound trunks or assemblies and secure via Optional Cable Clamp kit and/or to tiedown points at the entrance to the enclosure as necessary.

When using Cassettes, configure the Wire Management saddles and route cabling as shown in figure 2:

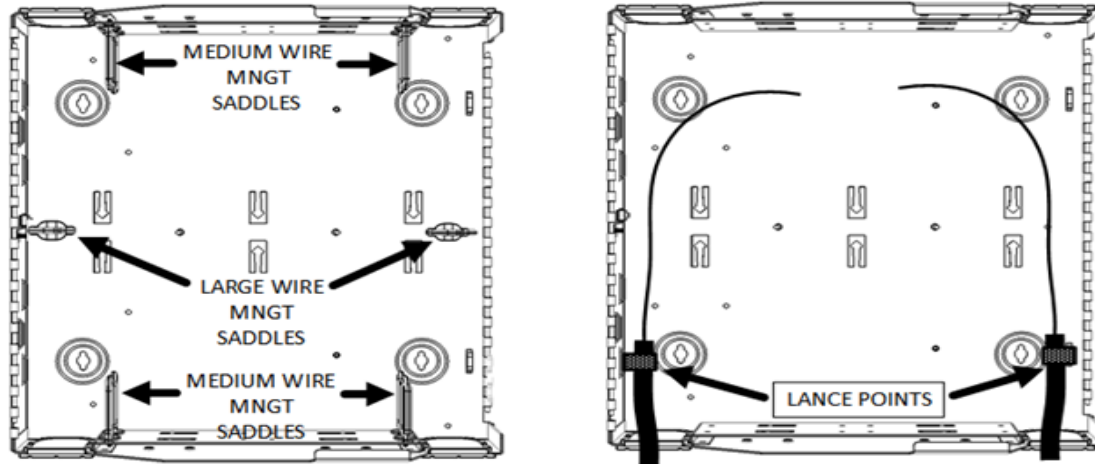


Figure 4

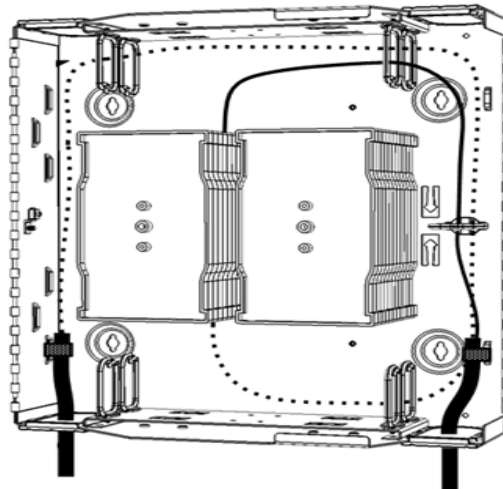


Figure 5

When performing splice terminations, it is recommended to pre-route and mark trunk and pigtail cabling prior to performing any routing, trimming and termination. Splice work can then be performed outside of the enclosure at the termination equipment. When routing terminated assemblies, route in the primary trunk cabling (dotted line in Figure 5) first, followed by the secondary trunk cabling or pigtail assemblies (solid line in Figure 5). To maintain future accessibility, keep each set of cabling (trunk and pigtail respectively) routed separately through the Wire Management saddles.

Securing Splice trays is achieved with Splice Tray Mounting Hardware Kit (SPLMT-HKT) as identified previously in the Installation section of this document.

## SECURING THE SPLICE TRAYS (LARGE – SPLICE ONLY CONFIGURATION)

Securing the splice trays requires two components:

- Splice Tray Mounting Kit including appropriate #10-32 threaded bolt and wing nut
- Velcro strip (bulk Velcro or Velcro supplied in the Splice Tray Mounting Kit)

1. Prior to mounting the enclosure, install appropriate #10-32 threaded bolt from the rear of the enclosure base an secure trays with wing nut.
2. Insert Velcro strip under the first arrow lance point with the hook side facing up (Figure 6).

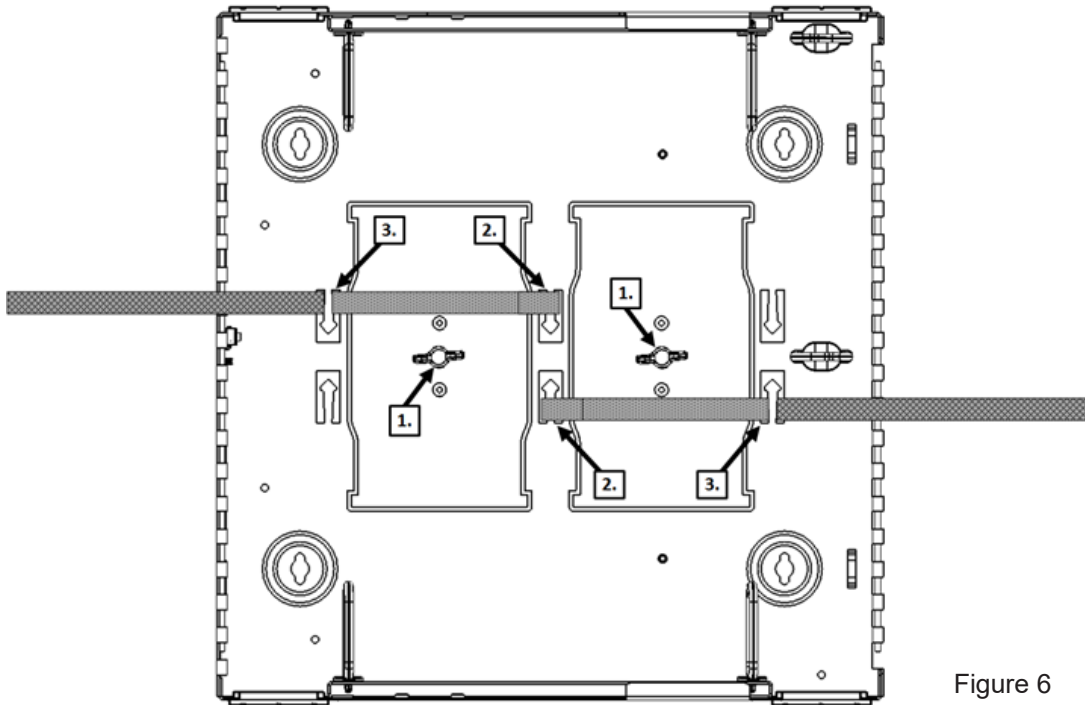


Figure 6

3. Place the Velcro under and around the second lance point
4. Fold the end over the splice tray(s). (Figure 7).

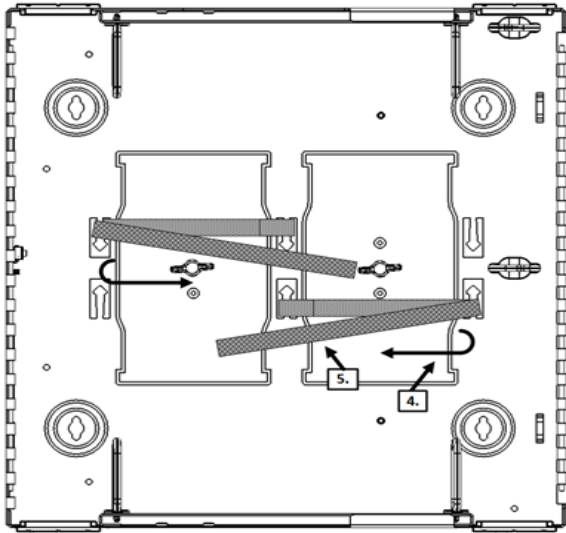


Figure 7

5. Create a snug mating of the Velcro to the trays. (Figure 8).
6. Trim excess Velcro as necessary.

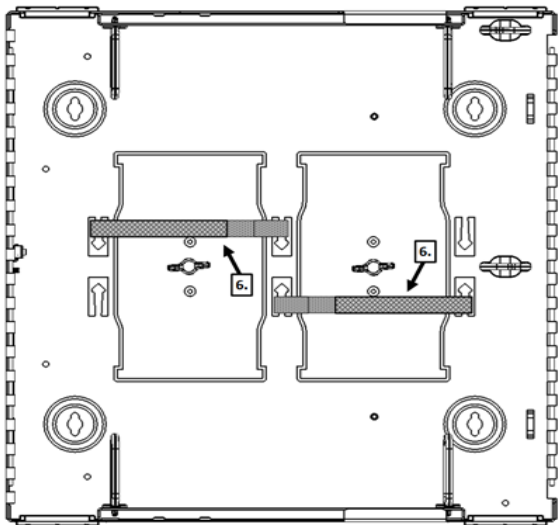


Figure 8

## OPTIONAL LOCK KIT

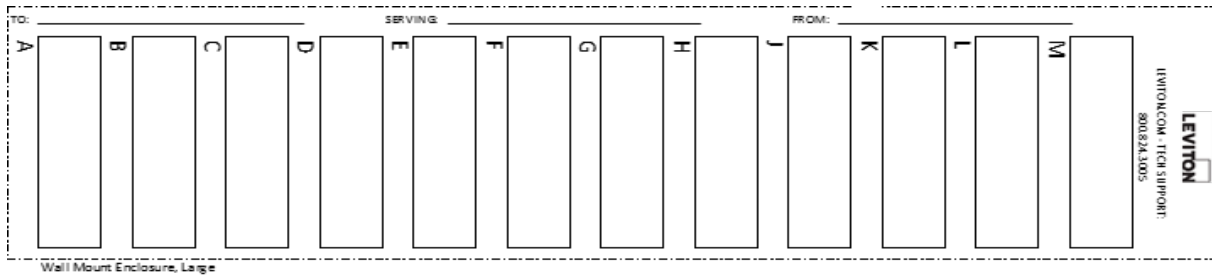
A lock can be installed on the service door, patch door or both doors of each enclosure as required. If using the optional Lock kit #5L000-LOK

### Large

1. Remove the plastic lock blank
2. Remove the CAM from the lock set, set the lock CAM aside
3. Insert the lock set into the Enclosure door
4. Install the lock CAM provided in the Accessory Kit

## LABELING

A Port Identification Label is provided with each Wall Mount Enclosure. The label should be affixed to the inside of the patch bay door. Labeling within the slot position cells can be achieved with printed labels or via excel based spreadsheets available via download at [www.leviton.com](http://www.leviton.com).



Affix labels as shown in the following Labeling Configuration matrix

Label Printing Organization by Fiber Adapter Type							
Vertical Orientation							
Adapter	Duplex SC (3 pack)	Duplex SC (6 pack)	Duplex LC (6 pack)	Quad LC (6 pack)	ST/FC (6 pack)	ST/FC (8 pack)	
No. of Ports	6	12	12	24	6	8	
Number Scheme							
1			1-2	1-2	5-6	1	1
2	1-2	3-4	3-4	3-4	7-8	2	2
3			5-6	9-10	13-14	3	3
4	5-6	7-8	7-8	11-12	15-16	4	4
5			9-10	17-18	21-22	5	5
6	9-10	11-12	11-12	19-20	23-24	6	6
							8

**NOTE:** Ensure that the label surface area is clean of dirt, oil, and debris. Recommend use of isopropyl alcohol or a simple soap and water solution when wiping down surface area.

## UNIVERSAL LABELING DEVICES

### Vertical orientation

- Use 3/8" or 3/4" label tape, depending on adapter plate
- Total label length = 2 3/4"
- Panel section is 3/4" W x 2 3/4" H

### Horizontal orientation

- Use 3/8" or 3/4" label tape, depending on adapter plate
- Total label length = 4"
- Panel section is 3/4" H x 4" L