

STRATA™
IDX 20RU Splice and Interconnect Enclosure
Cat. No. IDX20-LOK
Installation Manual

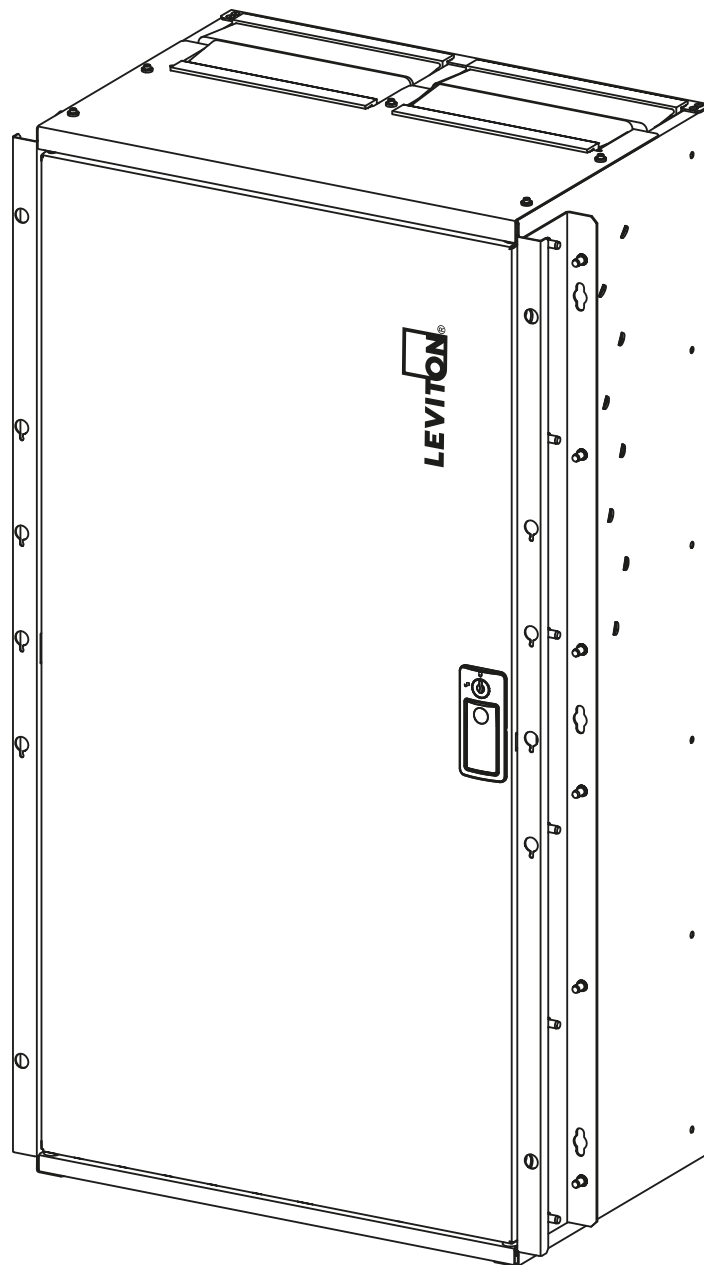


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1 WARNINGS AND CAUTIONS

WARNINGS:

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING, REPLACING OR SERVICING THE PRODUCT!**
- **THIS UNIT IS INTENDED TO BE INSTALLED BY AN ELECTRICIAN OR OTHER QUALIFIED INSTALLER IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS.**
- Read and understand all instructions. Follow all warning and instructions marked on the product.
- To reduce the risk of death, personal injury or damage to property, and equipment, the IDX 20RU Splice & Interconnect Enclosure must be installed into a properly secured industry standard 19 in. or 23 in. rack or cabinet or anchored to a wall as detailed in these instructions.
- **TO AVOID FIRE, SHOCK, OR DEATH;** never push objects of any kind into this product through openings, as they may touch dangerous voltages.
- Disconnected optical components may emit invisible optical radiation that can damage your eyes. **TO AVOID PERSONAL INJURY, 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.
- Wearing safety glasses during installation of this device is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne fiber shards, hardware, and cleaning solvents.
- Do not use this product near water — e.g., near a tub, wash basin, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
- Removal from packaging, placement, and installation of the Enclosure may be accomplished by two people. If installing alone, remove door and internal components prior to mounting. The weight of the Enclosure with Door, Workbench, and Trunk Mounting Plates removed is 39 lbs.

CAUTIONS:

- Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Do not bend the cable smaller than the recommended minimum bend radius. Do not use more pulling force on the cable than specified. Do not kink or crush cable.
- Never install communications wiring or components during a lightning storm.
- Never touch uninsulated wires or terminals unless the wiring has been disconnected at the network interface.
- Use caution when installing or modifying communications wiring or components
- **SAVE THESE INSTRUCTIONS.**

2 SYSTEM DEFINITION

The Leviton IDX splice and interconnect enclosure is an optical distribution enclosure designed for high-density applications in the entrance facility and main distribution areas of data centers. It reduces installation time and footprint, while maximizing fiber density. The enclosure supports mass-fusion splicing and high fiber count interconnects utilizing MMC connectivity.

The IDX utilizes a 19-inch wide by 20RU tall footprint and is fully modular and scalable. Two IDX enclosures can be stacked adjacent to each other to create an expandable system.

The chart below identifies the maximum density per enclosure utilizing the following connectivity solutions.

Maximum density per enclosure		
Connector type	Number of decks	Maximum strands per deck
12F Ribbon Splice	4	1,728 (288 per tray)
16F Ribbon Splice	4	2,304 (384 per tray)
MMC16 Interconnect	4	1,728 w/16 Fiber MMC

2.1 Product application information

Ambient Temperature

A manufacturer's maximum specified operating ambient of 50 degrees Celsius; so that the installer is able to determine acceptability of use of accessories and components in the operating state.

Spacings

Minimum spacings between the accessories/components and the housing for information technology communication equipment shall be maintained for safe operation of the equipment when installed in accordance with the National Electric Code, ANSI/NFPA 70. When mounting multiple IDX Enclosures into a rack or cabinet a minimum of 8.75 in. (222 mm, or 5 rack unit spaces) should be maintained above the lower IDX. When mounting IDX Enclosures back-to-back in a 4-post rack a minimum of 5 in. (127 mm) should be maintained between the enclosures.

Installation and Servicing

The equipment shall be installed and serviced by trained service personnel in accordance with the applicable requirements of the National Electrical Code, ANSI/NFPA 70 or Canadian Electrical Code. The installation shall not result in the risk of fire, electric shock, or injury to persons.

These units shall be repaired by personnel trained by the manufacturer or returned to the manufacturer for repair or replacement.

If provided, proper installation of an equipment grounding terminal must be made and the rack must be grounded in accordance with NFPA 70, "National Electrical Code," and the applicable sections of ANSI C2, "National Electrical Safety Code."

Assembly instructions shall be provided. The instructions shall not result in the installer committing an act that in itself results in the risk of fire, electric shock, or injury to persons.

NOTE: Leviton is not responsible for defects or damages resulting from non-compliant or improper design, installation, use, repair or alterations, misuse, neglect, accident or abuse of this product. In no event shall Leviton be liable for special, indirect, incidental or consequential damages (regardless of the form of action, whether in contract or in tort, including negligence), including without limitation, lost profits, lost data, system downtime, outages, or economic damage arising out of the failure of the product. All Leviton Warranty Terms & Conditions apply.

2 SYSTEM DEFINITION

2.2 Included with this product

Included with the IDX 20RU splice & interconnect enclosure (#IDX20-LOK).

Product name	Quantity
20 RU enclosure	1
IDX locking enclosure door	1
Workbench	1
Enclosure label cards	2
Accessory kit:	1
12-24 1/2 inch rack screws	6
M6 Metric rack screws	6
Enclosure keys	2

Optional Leviton products for the STRATA IDX enclosure system

- IDX MMC interconnect deck #IDXCN-MMC
- IDX mass fusion splice deck #IDXSP-RMF
- 1/2 inch split mesh sleeve, 35 inch length, 12 total pieces for use with (1) IDX splice deck #IDXSP-SS1
- 1/2 inch split mesh sleeve, 35 inch length, 48 total pieces for use with (Up to 4) IDX splice decks #IDXSP-SS4
- 2RU blank plate #F3168-BLK
- Pre-terminated trunks
- Array cords and harnesses
- High-count ribbon cables

NOTE: These options are further defined within this document.

2.3 Product terminology

Term	Description
IDX splice and interconnect enclosure	Leviton's combination of mounting, termination and interconnect hardware that enables modular, scalable, high-density splicing and interconnection.
Enclosure	Physical structure to which network equipment is attached. The term enclosure refers to the Leviton specific product.
Interconnect deck	A Leviton specific product that mounts in the enclosure. Each interconnect deck hold 6 interconnect trays and up to 54 duplex MMC fiber adapters.
Interconnect tray	A Leviton specific product that mounts in a deck. Each tray includes 9 MMC duplex adapters accepting 16F or 24F MMC connectors
Adapter	Modular coupler for fiber optic connectors.
Splice deck	A Leviton specific product that mounts in the enclosure. Each splice deck can house up to 6 splice trays.

2 SYSTEM DEFINITION

Term	Description
Splice deck tray, mass fusion	A Leviton specific product that mounts in a deck. Each mass fusion splice deck tray can house up to (24) ribbon splices.
Splice deck tray lid	A flexible sheet that inserts onto each splice deck tray to protect spliced fibers.
Mesh sock cap	A cap that secures incoming cable sub-units placed in split mesh sleeving to a splice deck tray entrance point.
Cable dressing plate	A tie-down bracket that accepts various cable sizes and quantities for ease of mounting cables to the IDX Enclosure.
Rear cable mounting wall	Interior rear enclosure cable management features for securing incoming cables and slack storage.
Exterior mounting wall	Exterior rear enclosure cable management features for trunk cables and slack storage.
Breakout housing	A transition point in a cable assembly where all fibers transition from one outer jacket to smaller groupings of fibers in a series of smaller furcation tubes.
First stage breakout	These kits typically break out fiber from very high fiber count cables into 144 or 288-fiber groupings.
Second stage breakout	These kits breakout 144 or 288-fiber subunit groupings into 12 or 16 fiber units allowing for field termination of connectors or pigtails.
Plumb	Measuring and marking term indicating a line is perfectly vertical.
RU	Rack Unit: a unit of measure used to describe the height of equipment intended for mounting in a rack. Convention: One rack unit is referred to as "1RU", 2 rack units as "2RU", etc.
VSFF	Very small form factor.
MMC	Very small form factor MT-style ferrule-based connector.

2.4 Product safety

WARNING: Fiber Optic devices transmit laser light which can damage vision. One or both of the following warning labels are affixed on all applicable Leviton components throughout all STRATA™ solutions.



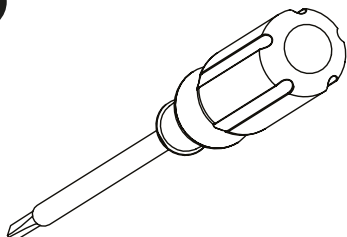
2 SYSTEM DEFINITION

2.5 Recommended tools and consumables

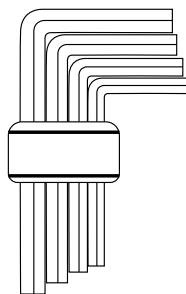
Enclosure and components

1. #2 Philips screwdriver with 8 inch shaft and magnetic tip
2. Metric HEX /ALLEN key wrench or bit set
3. Socket set
4. Telecommunications/Electrician's scissors
5. 7.5 in. (191 mm) or 5.5 in. (140 mm) nylon tie wraps
6. Vinyl electrical tape

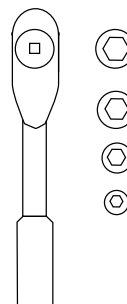
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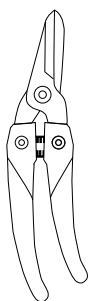
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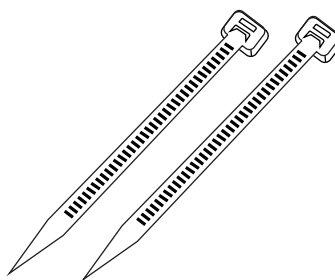
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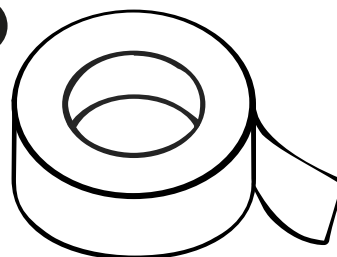
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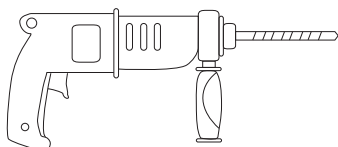
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Wall mounted installations on concrete

1. Hammer drill
2. 3/8 inch masonry drill bit
3. Torpedo level

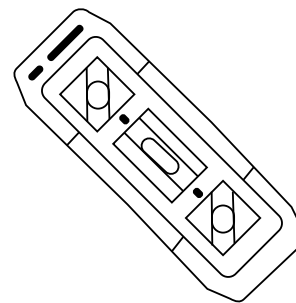
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2 SYSTEM DEFINITION

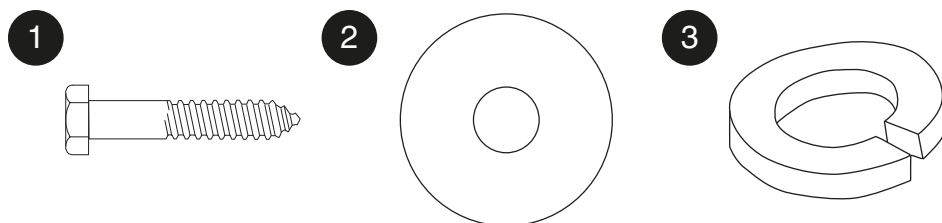
2.6 Required material per enclosure for wall mounted applications

Wall mounting should be performed either on a solid concrete/masonry wall and/or to a code-compliant plywood backboard. Leviton recommends the use of industry-compliant service loops for slack storage. (example Leviton re-closeable Storage Rings #48900-OFR or #48900-IFR)

Listed materials are not included in Leviton provided IDX products. Quantities below are the minimum required and may vary depending on the actual mounting environment.

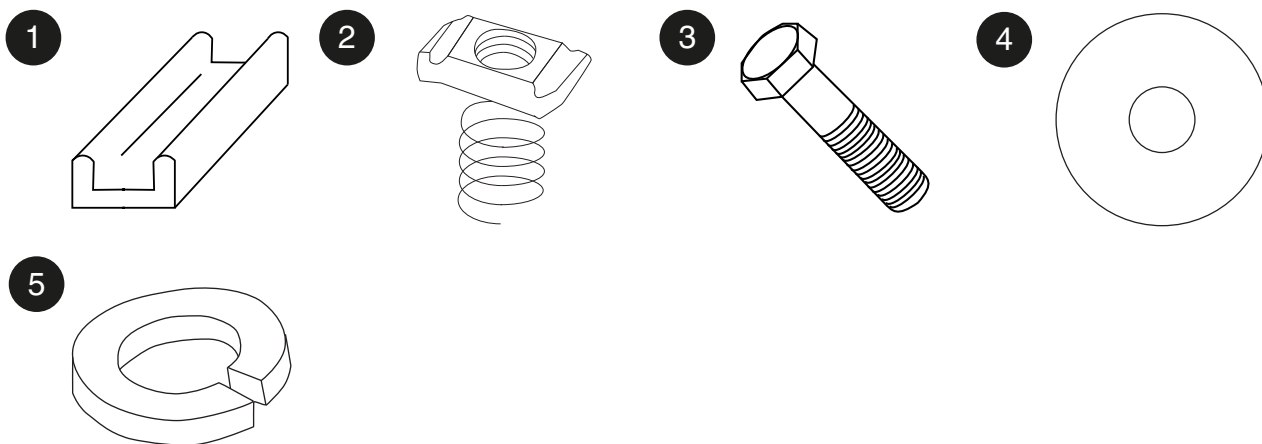
For plywood backboard installation

1. (6) 1/4 in. x 1 in. (or M6 x 25 mm) lag screws (when directly mounted to a plywood backboard)
2. (6) 1/4 in. x 3/4 in. (or M6 x 20 mm) Fender Washers
3. (6) 1/4 in. (or M6) Split Lock Washers



Optional steel channel mounting solution component, add the following

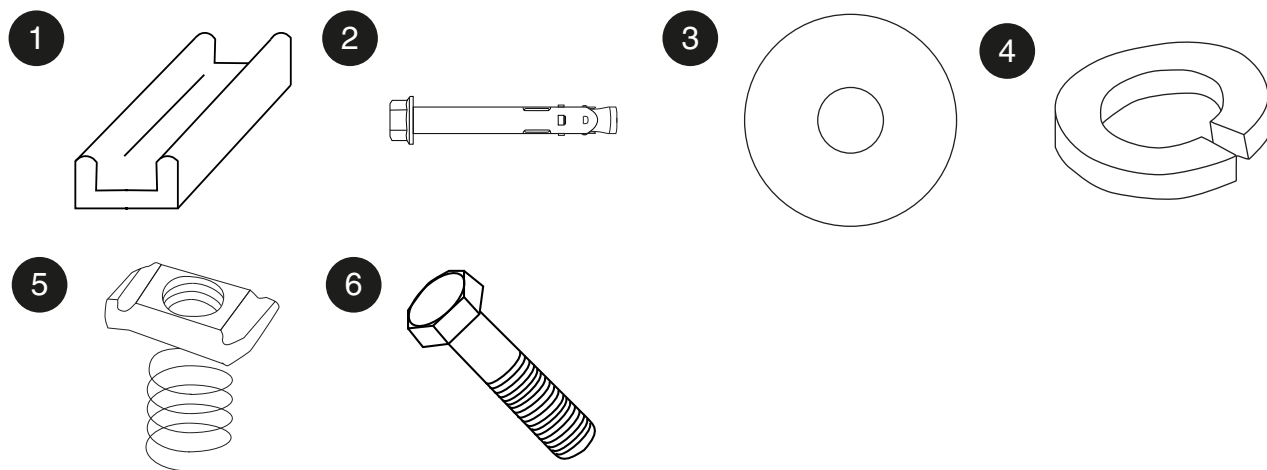
1. Steel Channel (cut to fit)
2. (6) 1/4 in. (or M6) Steel Channel Speed or Spring nuts
3. (6) 1/4 in. x 3/4 in. (or M6 x 20 mm) 13 Thread Bolts
4. Add (6) 1/4 in. x 3/4 in. (or M6 x 20 mm) Fender Washers
5. Add (6) 1/4 in. (or M6) Split Lock Washers



2 SYSTEM DEFINITION

For direct to concrete or masonry wall installation

1. Steel Channel (cut to fit)
2. (6) 1/4 in. x 2-1/4 in. (or M6 x 57 mm) Hex Head Sleeve Anchors
3. (12) 1/4 in. x 3/4 in. (or M6 x 20 mm) Fender Washers
4. (12) 1/4 in. (or M6) Split Lock Washers
5. (6) 1/4 in. (or M6) Steel Channel Speed or Spring nuts
6. (6) 1/4 in. x 3/4 in. (or M6 x 20 mm) 13 Thread Bolts



2.7 Required material for high fiber count raw cable

The following materials (supplied by the cable manufacturer or others) are required when working with raw fiber optic cable with strand counts above 288 fibers. These materials should include breakout devices or heat shrink and tubing that protects each sub-unit grouping of fibers either directly to the target deck tray or to the cable dressing plate within the enclosure.

- High fiber count breakout or furcation kits – sized correctly for the target fiber cable. These kits typically break out fiber into 144 or 288-fiber groupings. (Referred to as “First Stage” in this document.)
- Sub-uniting breakout or furcation kits – These kits breakout 144 or 288-fiber subunit groupings into 12 or 16 fiber units allow for field termination of connectors or pigtails. (Referred to as “Second Stage” in this document.)
- Leviton offers a mesh sock kit that is ideal for providing the first and second stage breakouts. Available in 35” sections use one section for the first stage breakout and a second for the second stage breakout carrying 288 ribbon fibers (QTY 24, 12 fiber ribbons) to the splice deck tray. Available in a 48 pack #IDXSP-SS4

2.8 References

ANSI/TIA 568.0 Generic Telecommunications Cabling for Customer Premises

BICSI TDMM/ITSIMM – Reference for design, product requirements and installation practices

ANSI/TIA 568.1 Commercial Building Telecommunications Cabling Standard

ANSI/TIA 568.3 Optical Fiber Cabling Components Standard

ANSI/TIA 569 Telecommunications Pathways and Spaces

ANSI/TIA 606 Administration Standard for Telecommunications

ANSI/TIA 607 Telecommunications Grounding (Earthing) and Bonding for Customer Premises

ANSI/TIA 942 Telecommunications Infrastructure Standard for Data Centers

IEEE 802.3 family of standards

3 INTRODUCTION TO SYSTEM HARDWARE

The Leviton IDX enclosure system hardware is divided into two major classifications. These are:

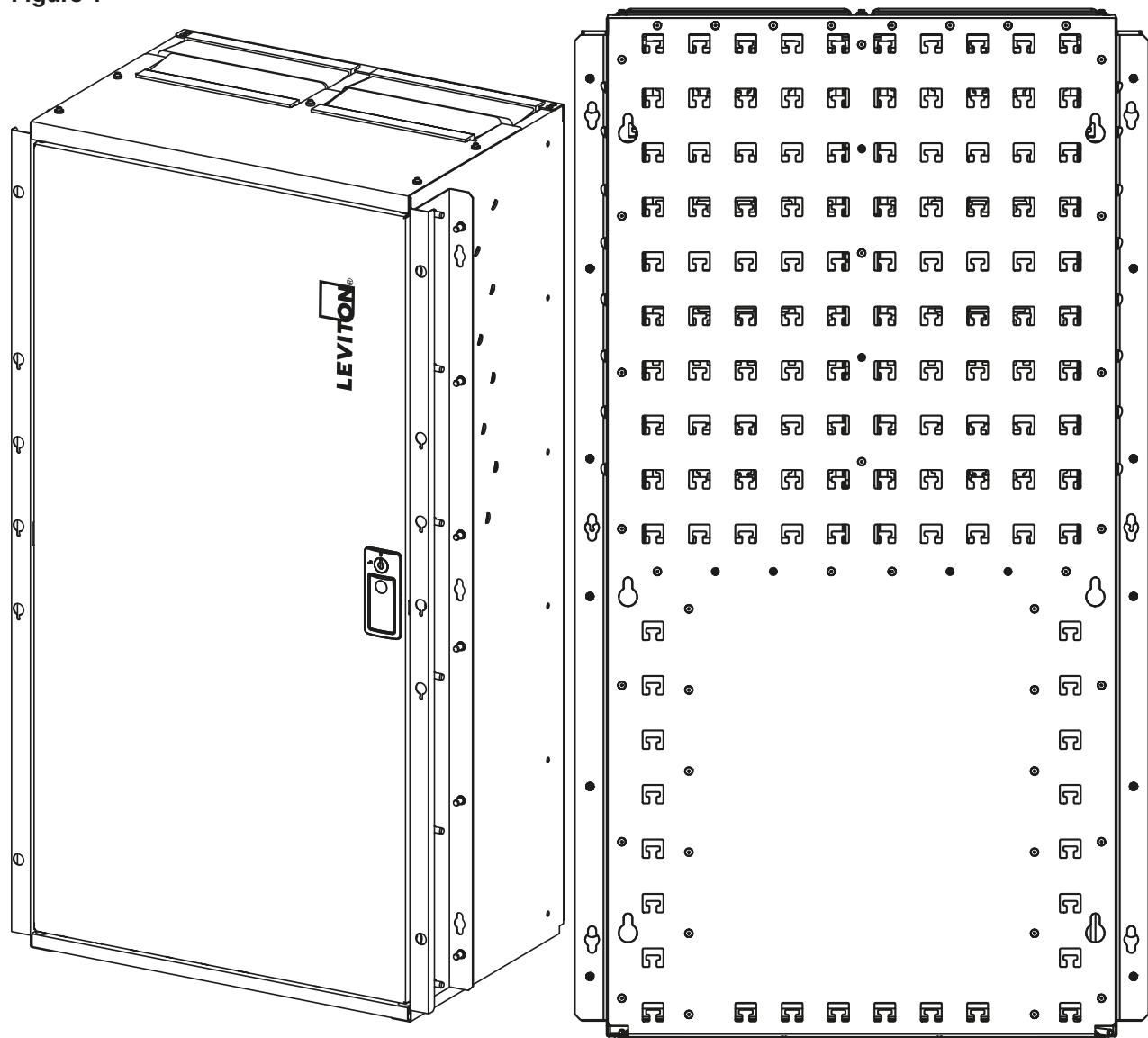
- IDX splice and interconnect enclosure system components
- IDX splice and interconnect enclosure connectivity components

3.1 IDX splice and interconnect enclosure system components

3.1.1 IDX enclosure

The enclosure is a 20 RU (35 in. / 889 mm) x 19 in. (483 mm) wide x 12.2 in. (310 mm) deep equipment enclosure designed to fit within an industry standard rack or cabinet or to be mounted on a wall. The enclosure allows for the placement of any combination of up to 4 interconnect decks, splice decks, or blank plates. The enclosure can either be mounted directly to a cabinet or rack rail or directly to a wall with proper anchoring devices. (**Figure 1**)

Figure 1



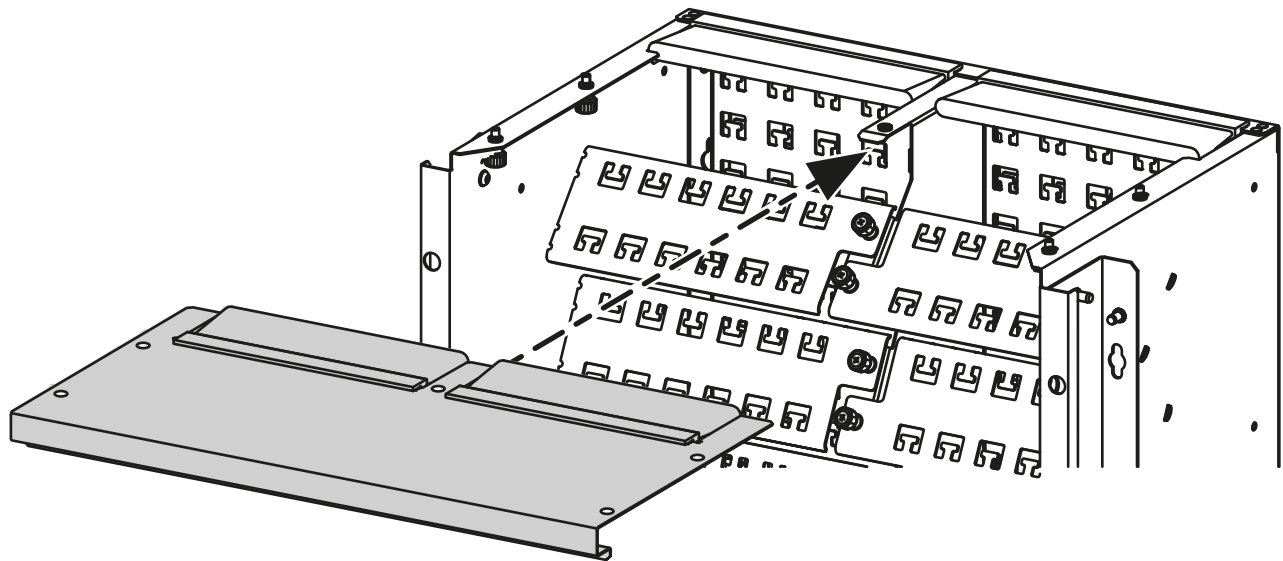
3 INTRODUCTION TO SYSTEM HARDWARE

3.1.2 IDX lid (included with all IDX enclosures)

The removable lid provides top access and protection for the enclosure. It has large removable brush guard entrances that eliminate the need to feed cabling through a constrained opening. To remove the lid:

1. Remove the enclosure door.
2. Unscrew the five thumb screws from the underside of the lid.
3. Remove the lid by sliding the lid towards the front of the enclosure.
4. Replace the lid by following the steps in reverse order. (**Figure 2**)

Figure 2



3.1.3 IDX enclosure door (included with all IDX enclosures)

The door provides front access and protection for the enclosure. The door is fully reversible (left or right hinged).

NOTE: From the factory the door is installed to open from the right (left hinged). When the door is reversed to open from the left (right hinged) the workbench must be removed from the door and re-installed as shown in **Figure 3**. The workbench must be oriented with the marking guide sticker at the top when installed to prevent interference with internal components. Failure to ensure proper workbench orientation will interfere when closing the door.

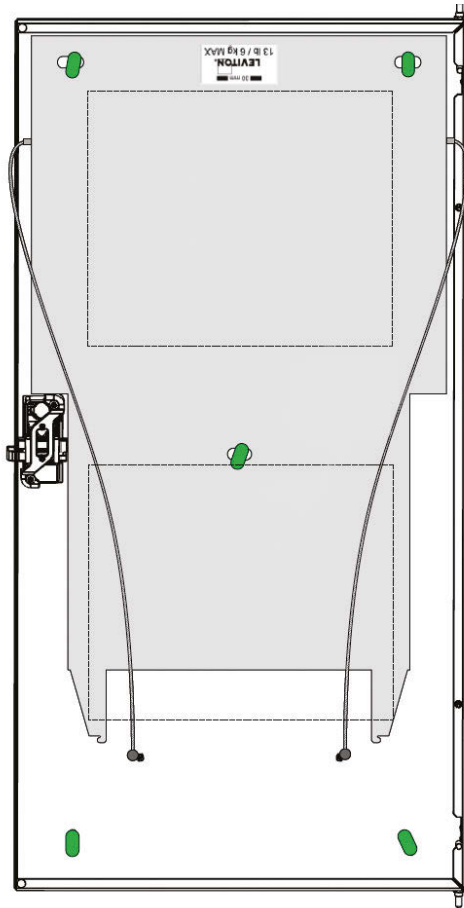
To remove and re-install the front door:

1. Open the front door.
2. Remove ground strap, if attached to door. (See **Section 6 - Grounding the IDX enclosure**)
3. Pull each spring latch towards the center of the door.
4. Remove the door. (**Figure 4**)
5. Replace following the steps in reverse order.

3 INTRODUCTION TO SYSTEM HARDWARE

Figure 3 - Inside of door

Left hinged



Right hinged

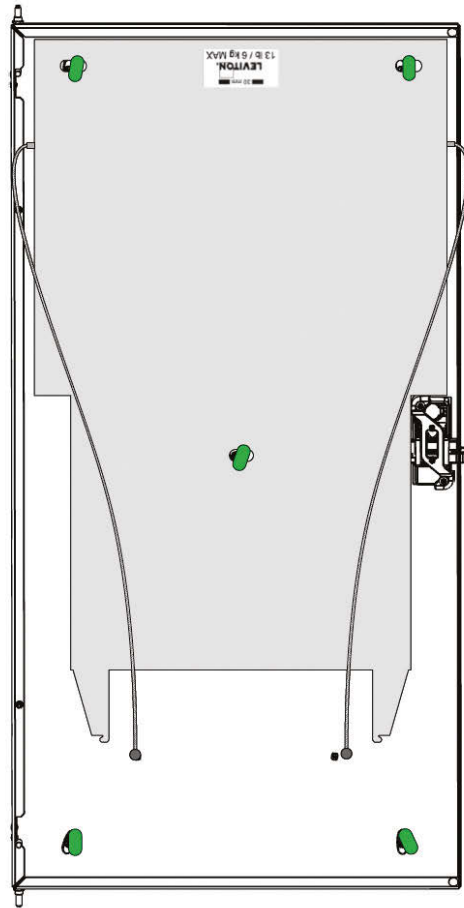
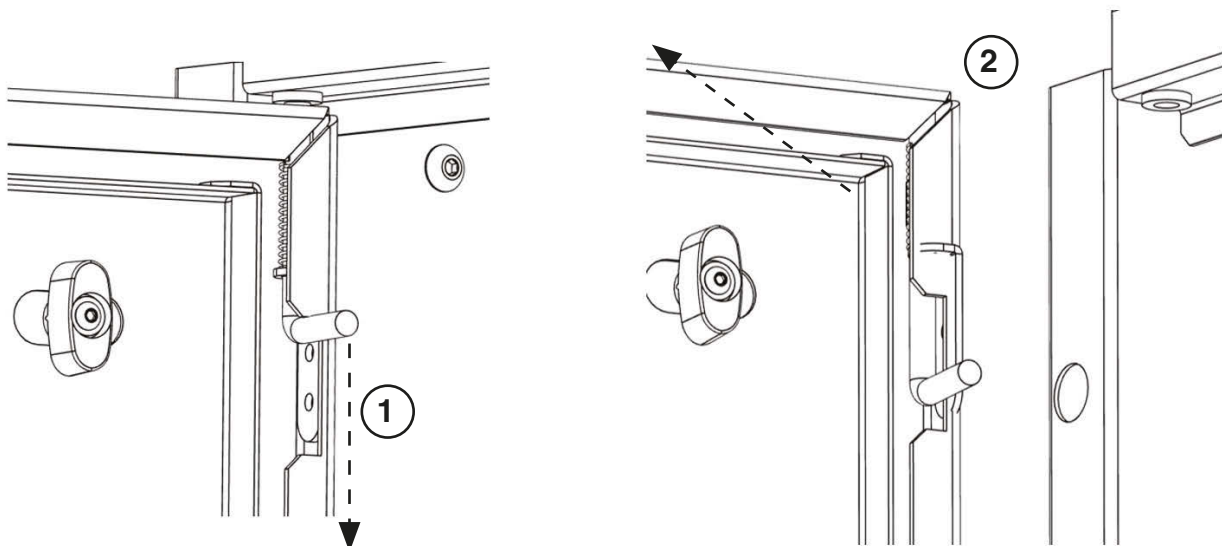


Figure 4



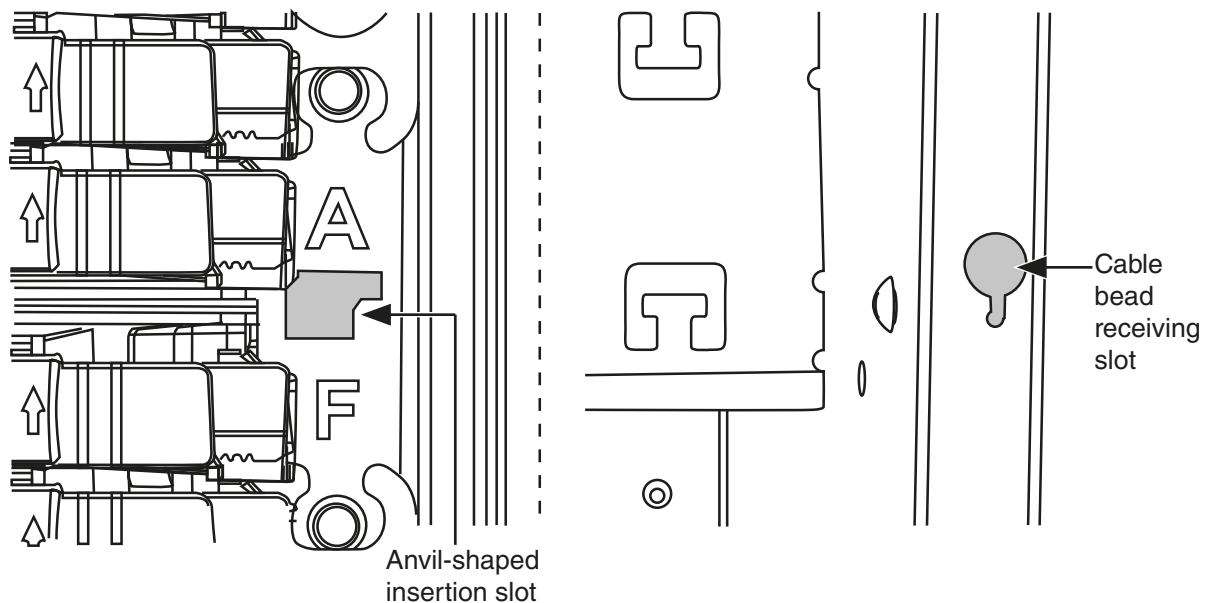
3 INTRODUCTION TO SYSTEM HARDWARE

3.1.4 Workbench (included with the IDX enclosure)

The workbench allows for splicing to be performed at each splice deck location. The workbench has four mounting locations allowing for mounting directly in front of the target Interconnect or Splice Deck. To install the workbench:

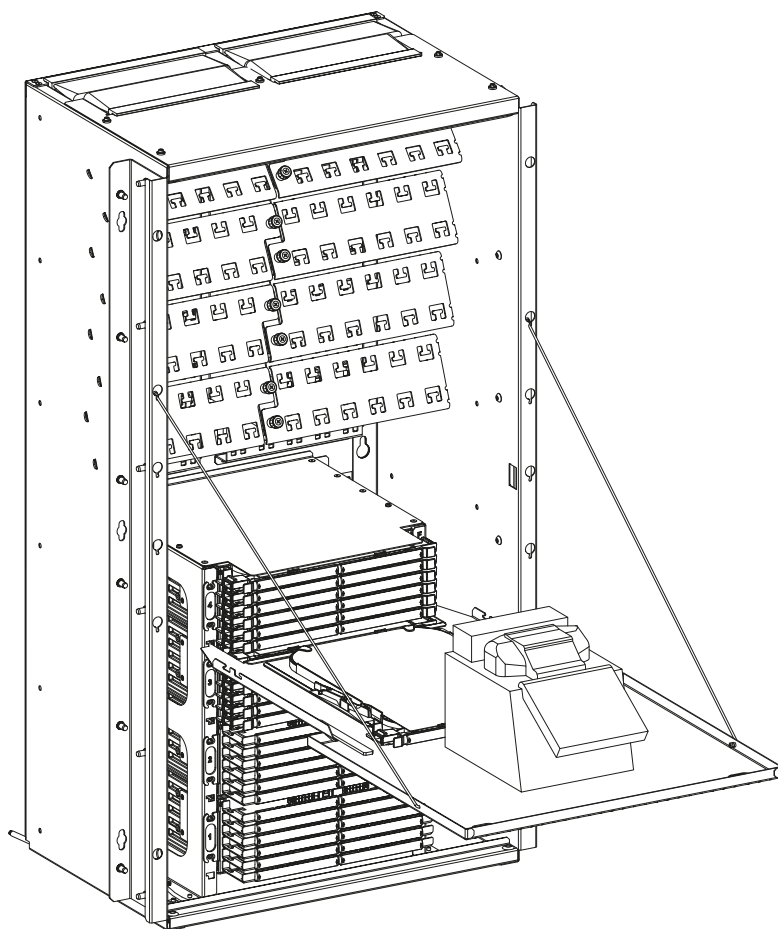
1. Remove the workbench from the front door by rotating the three thumb-screws to align with the pass-through holes.
2. Insert the workbench tabs at the anvil shaped insertion slots located at the bottom of the target deck location.
3. Locate the cable beads in the appropriate tear-drop shaped receiving slots to make the workbench level. (**Figure 5** and **Figure 6**)

Figure 5



3 INTRODUCTION TO SYSTEM HARDWARE

Figure 6



WARNING: The workbench is rated for a maximum load of 13 lbs (6 kg). Do not lean on the tray, attempt to stand on the tray or place items in excess of the 13 lbs (6 kg) on the tray.

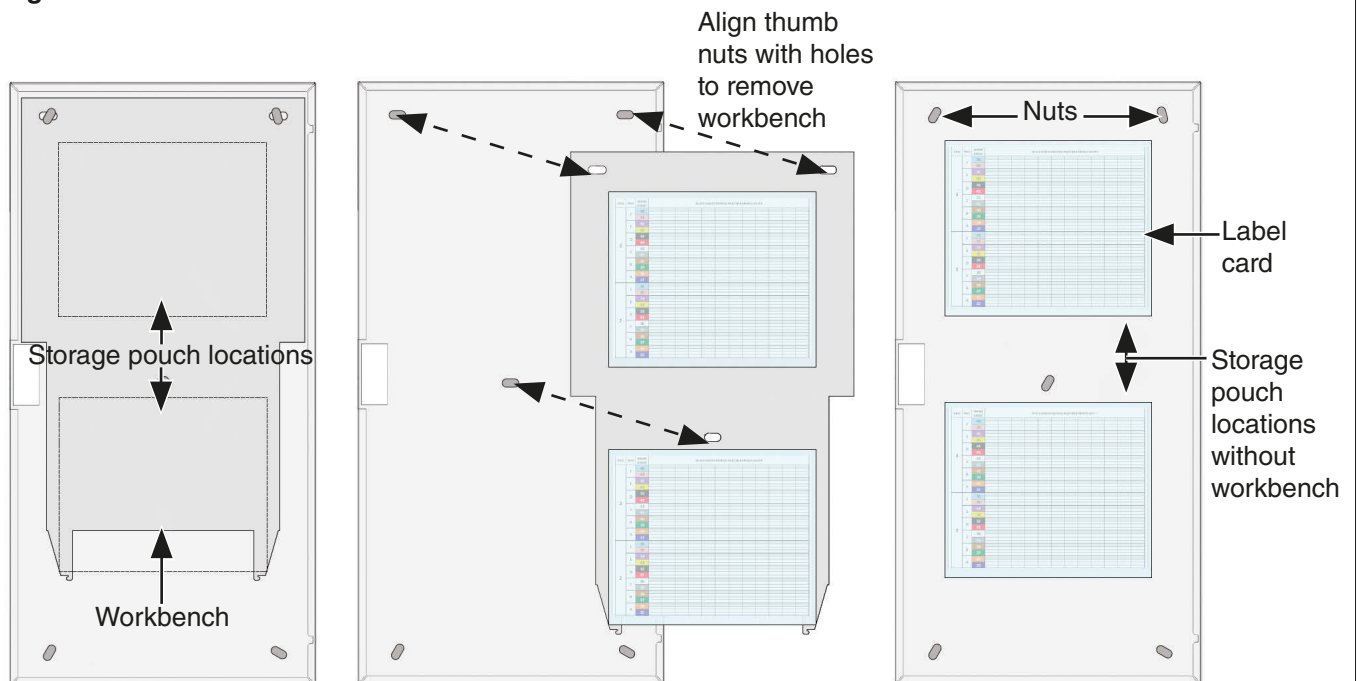
3 INTRODUCTION TO SYSTEM HARDWARE

3.1.5 Enclosure label card

The door provides storage for the IDX label card in a magnetic backed, reusable pouch. These pouches are included within the IDX and should be repositioned to the workbench or door after installation. To access the label card:

1. Open the front door.
2. Access the label cards located in the magnetic pouch. (**Figure 7**)

Figure 7



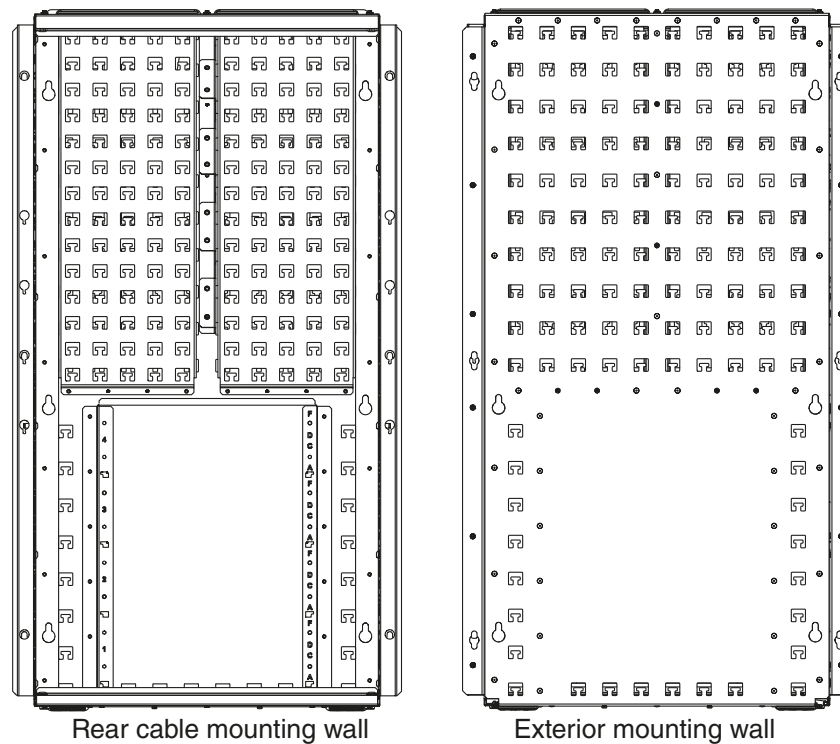
3.1.6 Rear cable mounting wall (part of the enclosure)

The rear cable mounting wall is a grid based mounting system for trunk cabling at the rear of the enclosure. The wall provides multiple lance points to allow for trunk entry mounting and storage of minimal slack on larger strand count cables behind the cable dressing plates. Lance points are also present on the outside rear of the enclosure to secure trunks and slack storage when necessary.

(**Figure 8**)

3 INTRODUCTION TO SYSTEM HARDWARE

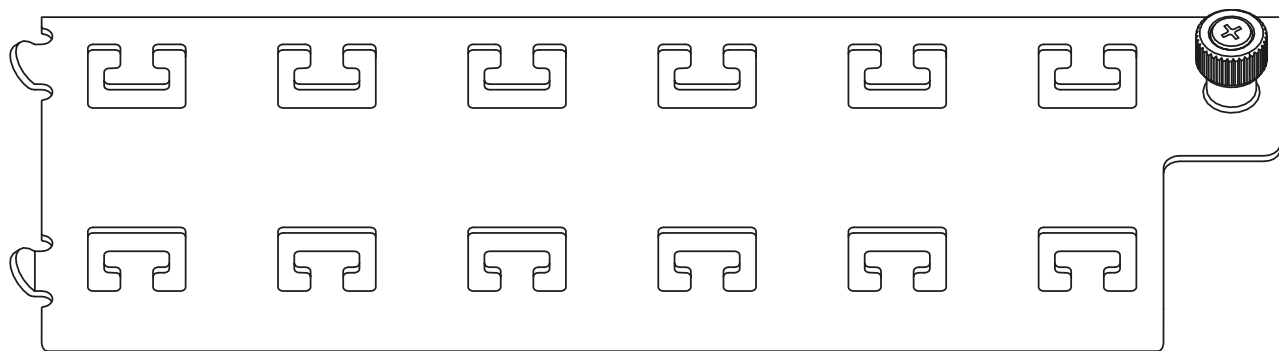
Figure 8



3.1.7 Cable dressing plate

Cable dressing plates (**Figure 9**) provide protection and ease of mounting trunk cabling to the enclosure. Each plate is designed to accept breakout sub-units from multiple smaller or single high-strand count cable assemblies.

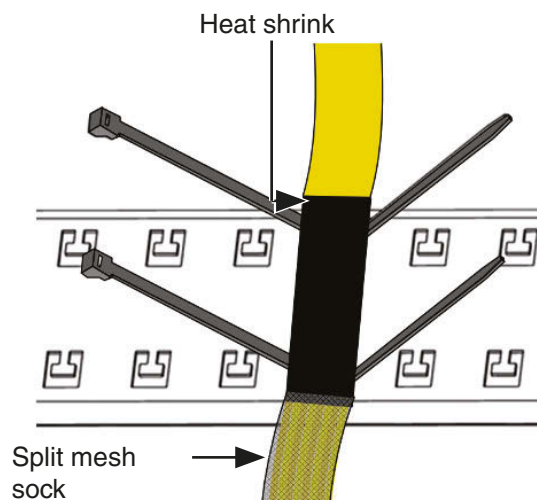
Figure 9



3 INTRODUCTION TO SYSTEM HARDWARE

Securing trunks and cable assemblies to the cable dressing plate is done with nylon tie wraps. Tie wraps should not be over cinched. Tie wraps should be installed over heat-shrink tubing, split mesh sock supplied in the optional accessory kits, or both. Tie wraps must not be installed directly over bare or exposed fiber. (**Figure 10**)

Figure 10



3.2 IDX Connectivity Components

The enclosure connectivity components are designed for high density interconnect and scalability supporting current and next generation data center fabrics. The IDX enclosure components are:

3.2.1 IDX interconnect deck #IDXCN-MMC

The interconnect deck is a housing capable of supporting 6 Interconnect Deck trays.

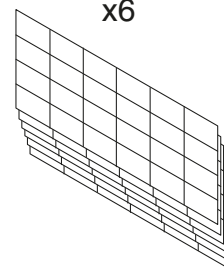
A. MMC interconnect deck – IDXCN-MMC

Interconnect deck components	
Quantity	Description
1	Interconnect deck
6	Interconnect deck trays (each loaded with 9 duplex MMC adapters)
1	Accessory kit (includes the following) (4) M5 x 6 mm Allen head rack screws (1) Designation label kit (12 perforated label strips)

x4



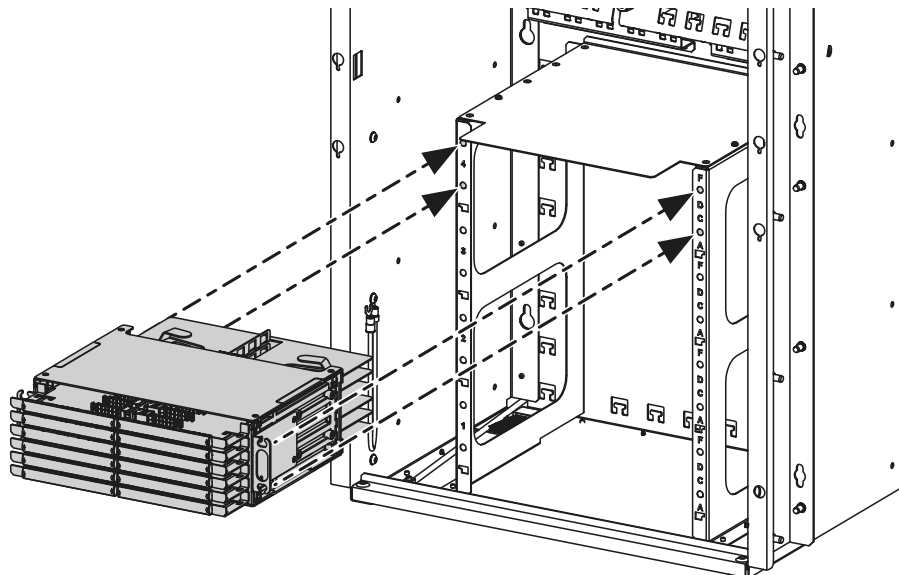
x6



3 INTRODUCTION TO SYSTEM HARDWARE

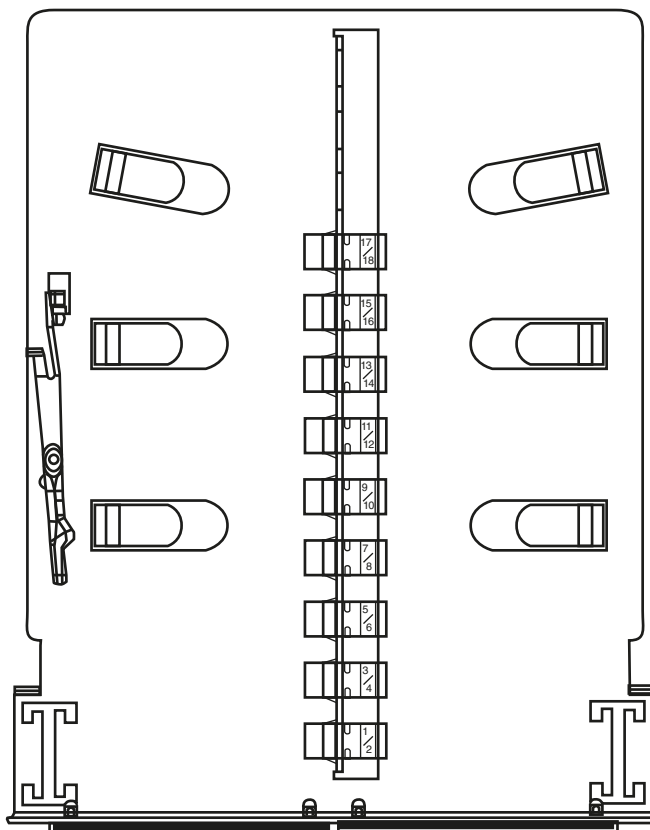
- B. Decks are mounted using provided M5 screws. The interconnect deck mounts to the enclosure. (**Figure 11**)

Figure 11



- C. The interconnect tray has (9) Duplex MMC adapters pre-installed, with 3 unused adapter openings for potential expansion. (**Figure 12**)

Figure 12

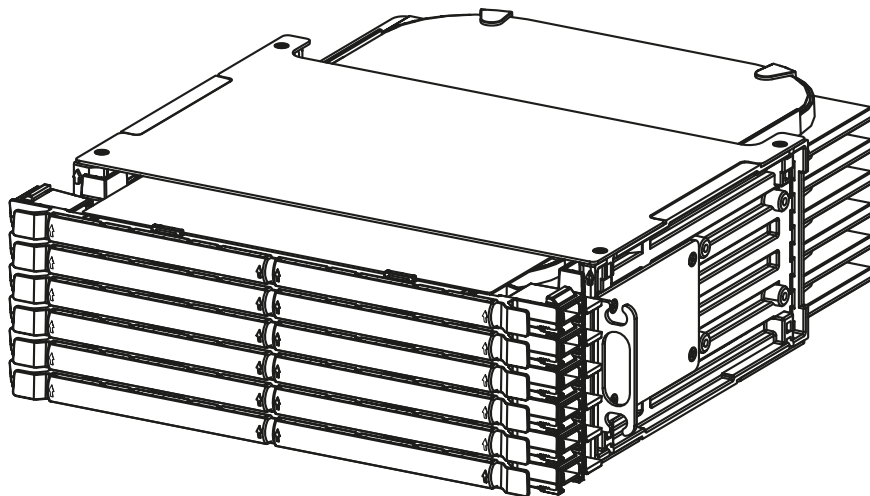


3 INTRODUCTION TO SYSTEM HARDWARE

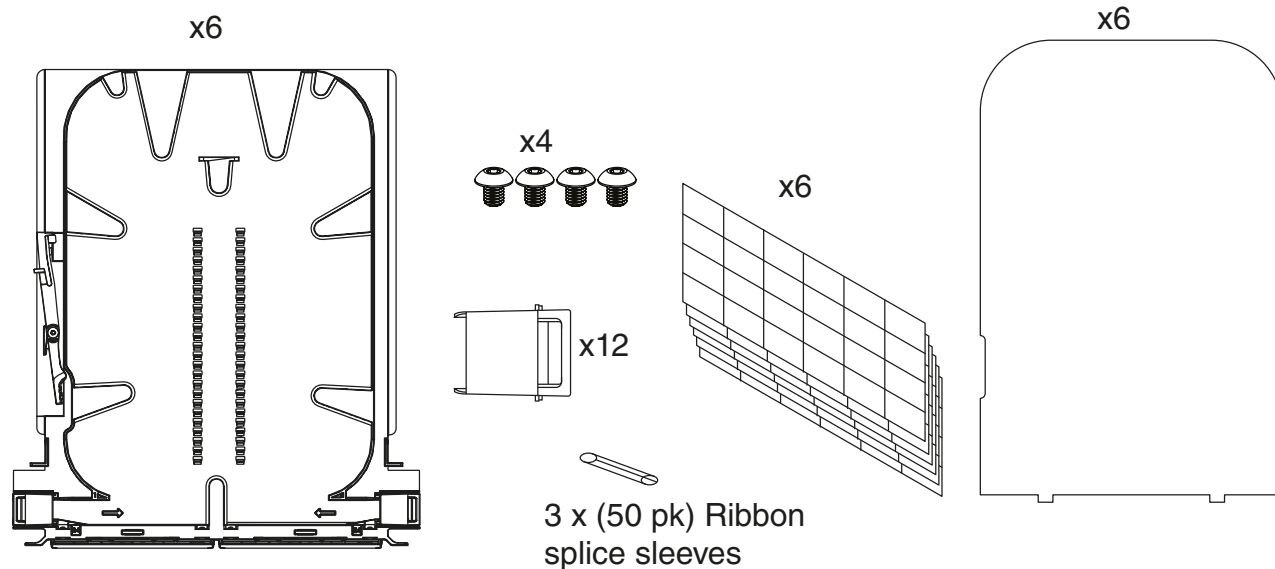
3.2.2 IDX splice deck #IDXSP-RMF

The IDX splice deck is a housing capable of supporting 6 splice deck trays for a total of 1,728 strands of mass-fusion splicing per deck. Splice decks are mounted using provided M5 x 6 mm screws.

Figure 13



Splice deck components	
Quantity	Description
1	Splice Deck
6	Splice Deck Trays
6	Clear Covers
1	Accessory Kit (includes the following) (12) Mesh sock caps (150) Ribbon splice sleeves (4) M5 x 6 mm Allen head rack screws (1) Designation label kit (12 perforated label strips)

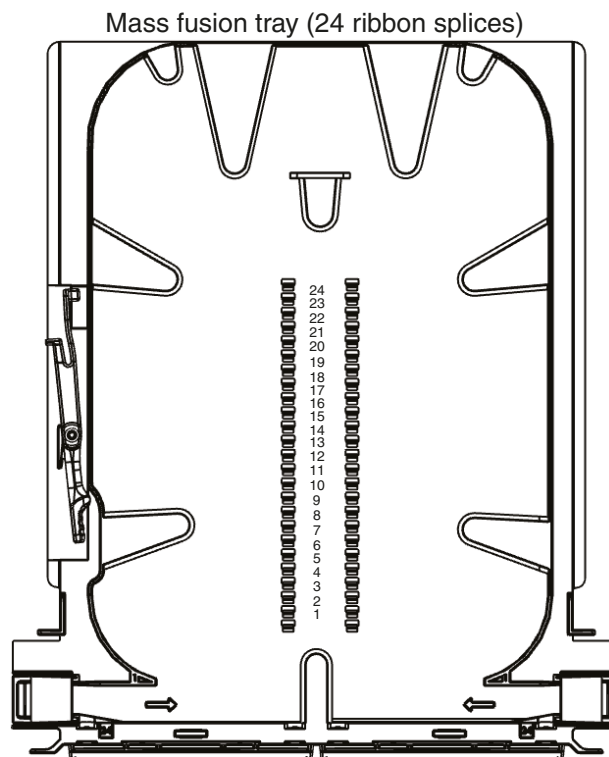


3 INTRODUCTION TO SYSTEM HARDWARE

Required accessories (sold separately)
1/2 in. Split mesh sock, 35 inch length, 12 total pieces for use with (1) IDX Splice Deck #IDXSP-SS1
1/2 in. Split mesh sock, 35 inch length, 48 total pieces for use with (Up to 4) IDX Splice Decks #IDXSP-SS4

- A. Each splice deck tray allows for the splicing of up to 288 strands of 12F or 384 strands of sub-unitized ribbon fiber. Each splice deck includes 6 splice deck trays. **(Figure 14)**

Figure 14



- B. 2RU blank plate #F3168-BLK – The deck unit blank plate allows for the concealment of unused deck positions within the enclosure. **(Figure 15)**

Figure 15



4 HARDWARE INSTALLATION

Installing the IDX Enclosure is achieved via securing the enclosure either directly to a rack or cabinet or to a permanent, structural wall.

4.1 Installing the enclosure in a rack or cabinet

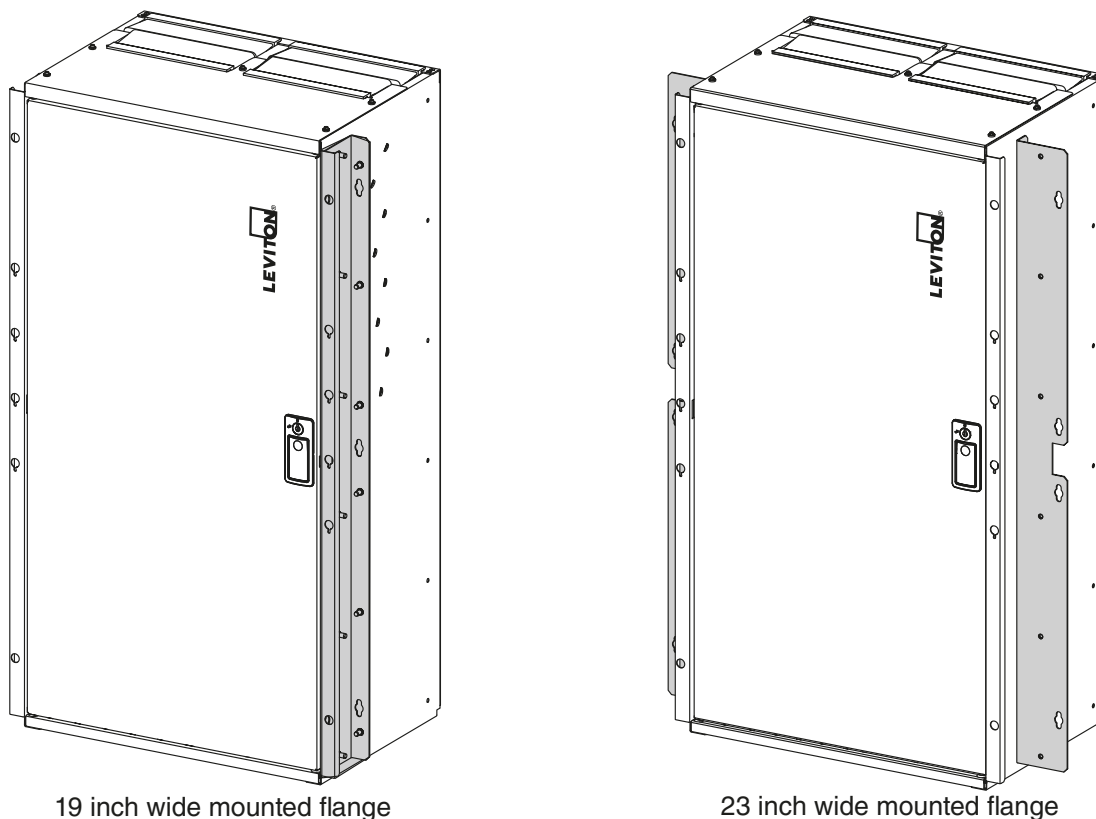
WARNING: To avoid injury or material damage, it is recommended for two people to perform the un-packaging, relocation and placement of the enclosure. Allow only qualified personnel to install this product.

1. Carefully remove the enclosure from the outer cardboard packaging.

NOTE: Save all packaging until completion of the installation process in the event re-packaging is required due to internal or hidden damage.

2. Determine the mounting width.
The mounting brackets allow for installation to 19 in. or 23 in. wide rack rails. From the factory the mounting ears are installed for 19 in. wide rails. To mount to 23 in rails:
 - a. Remove each mounting ear bracket by unscrewing the bracket from inside the enclosure.
 - b. Move the ground strap at this time per the instructions detailed in **Section 6 - Grounding the IDX enclosure.**
 - c. Rotate the bracket 90 degrees towards the rear of the enclosure, this will position the ear so that the mounting flange extends towards the rear of the enclosure.
 - d. Align the bracket over the 23 in. mounting holes. These are spaced behind the 19 in. mounting holes.
 - e. Re-install the previously removed screws from the inside of the enclosure. (**Figure 16**)

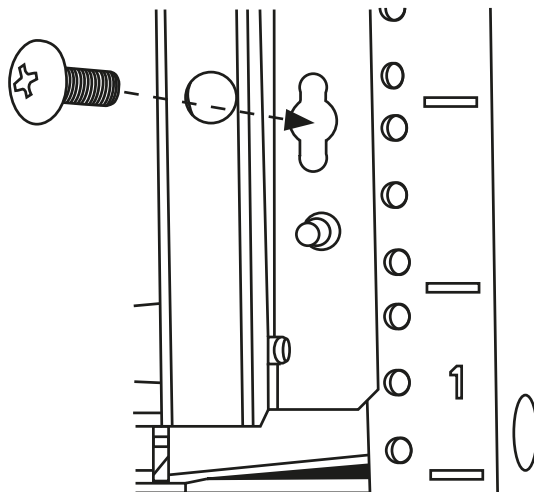
Figure 16



4 HARDWARE INSTALLATION

3. Determine the 20RU target location. Note the TOP and bottom RU identifiers on each mounting rail.
4. (8) #12-24 and (8) M6 rack screws are provided in the accessory kit. Select the correct hardware for the chosen rack or cabinet. Pre-install 4 screws using 4-5 turns in the following locations:
 - “6” screw hole positions down from the top-most RU in use.
 - “7” screw hole positions up from the bottom-most RU in use. (**Figure 17**)

Figure 17



5. Lift the enclosure into place and hang over the 4 rack screws.
6. Fully secure all 4 rack screws (approximately 30 in-lb or 3.5 N-m).
7. Install 2 additional screws in the remaining mounting positions.

4.2 Installing the enclosure on a wall

WARNING: To avoid injury or material damage, it is recommended for two people to perform the un-packaging, relocation and placement of the enclosure. Allow only qualified personnel to install this product.

Install a Leviton IDX Enclosure by following these steps:

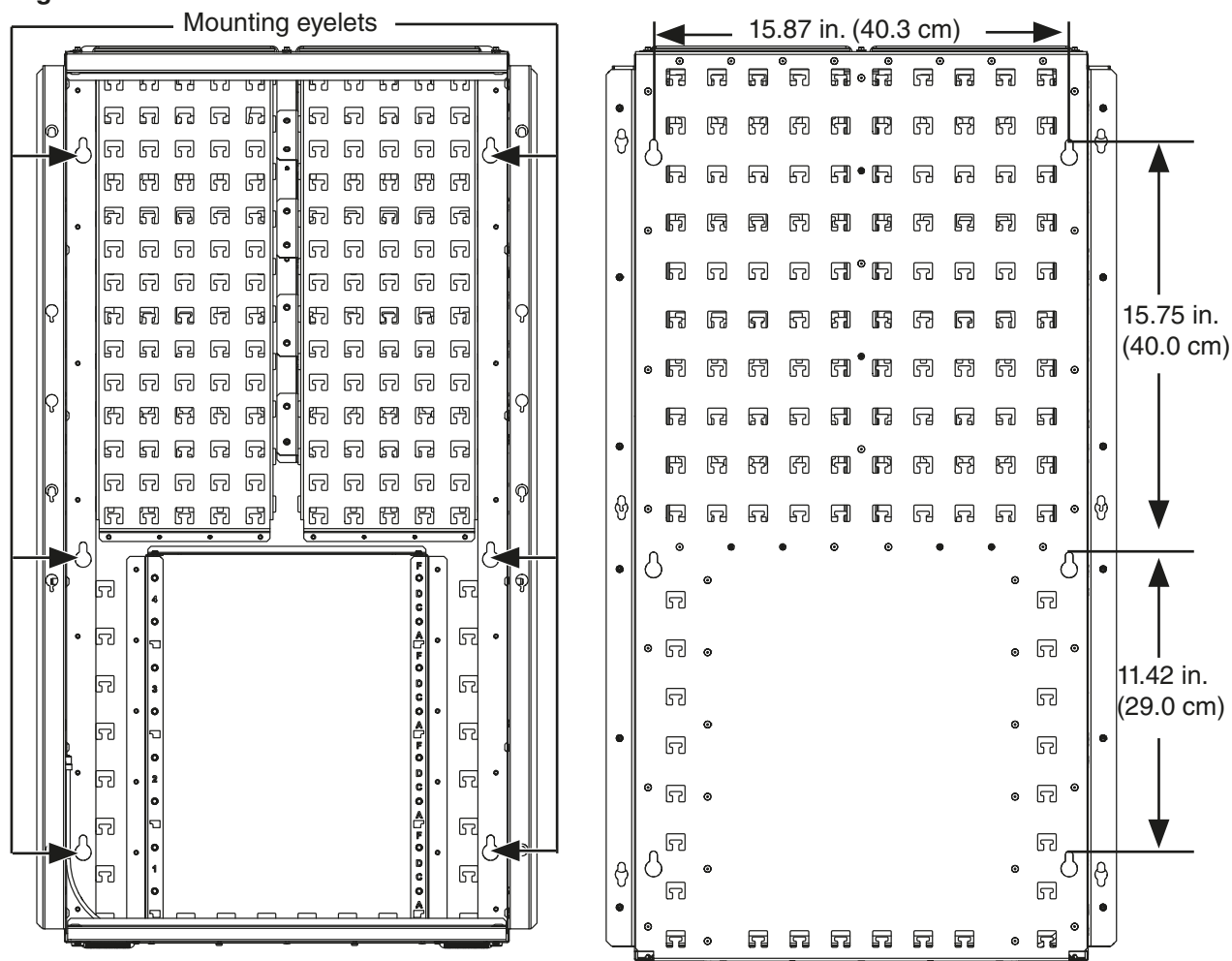
1. Carefully remove the enclosure from the outer cardboard packaging.

NOTE: Save all packaging until completion of the installation process in the event re-packaging is required due to internal or hidden damage.

2. Utilize the 6 interior mounting eyelets located on the rear wall of the enclosure for wall mounting. (**Figure 18**)

4 HARDWARE INSTALLATION

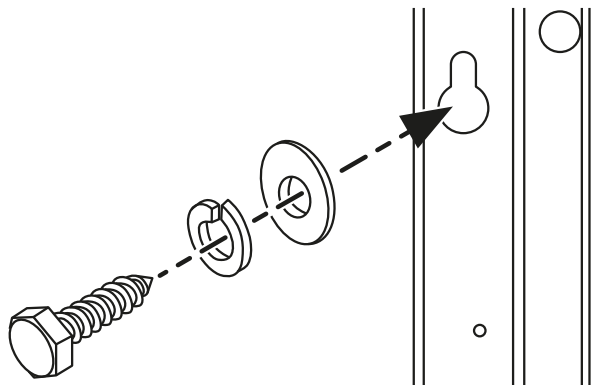
Figure 18



4.2.1 Installing into a plywood backboard

1. Position and level the enclosure at the target location on the wall.
2. Mark the wall in the small opening of each eyelet keyhole.
3. Lift into place and hold the enclosure in place while installing one of each – 1/4 in. x 1 in. (M6 x 25 mm) lag screw, 1/4 in. (M6) split lock washer and 1/4 in. x 3/4 in. (6 X 20 mm) fender washer in the top two mounting holes. The holes are 15.87 in. (15-7/8 in. if using a tape measure, or 40.3 cm) apart. (**Figure 19**)

Figure 19



4 HARDWARE INSTALLATION

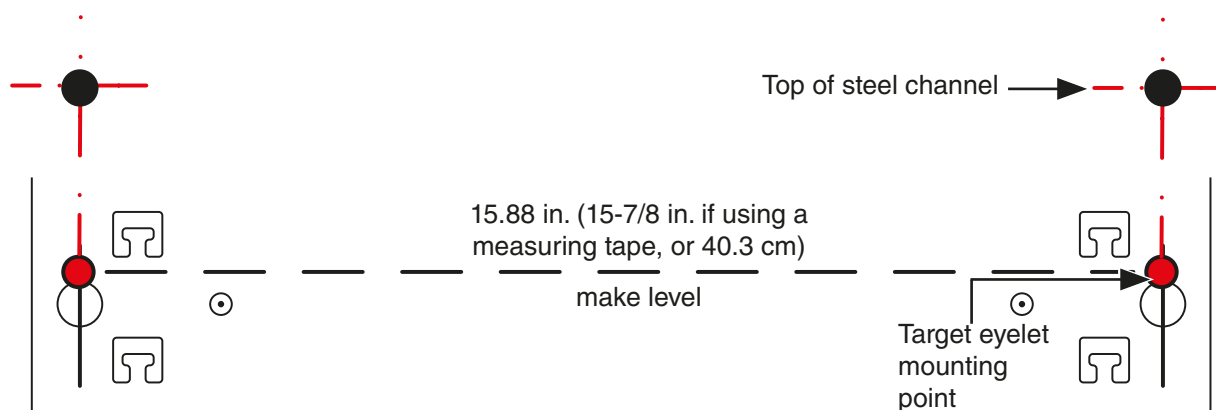
4. Install the remaining 4 sets of screws, locking washers and fender washers in the remaining 4 mounting holes.
5. Verify level and fully secure all 6 bolt assemblies (tighten until split washer sits flush and bolt is snug).

NOTE: See **Section 2.6** for optional steel channel mounting solution components.

4.2.2 Installing into concrete or masonry wall

1. Cut steel channel (quantity 2 - cut to 31 in. (78.74 cm) each).
2. Place two sets of marks as a center line from top eyelet to top eyelet 15.88 in. (40.3 cm) apart.
3. Plumb and place a second mark 2.5 in. (6.35 cm) directly above each first mark. (**Figure 20**)

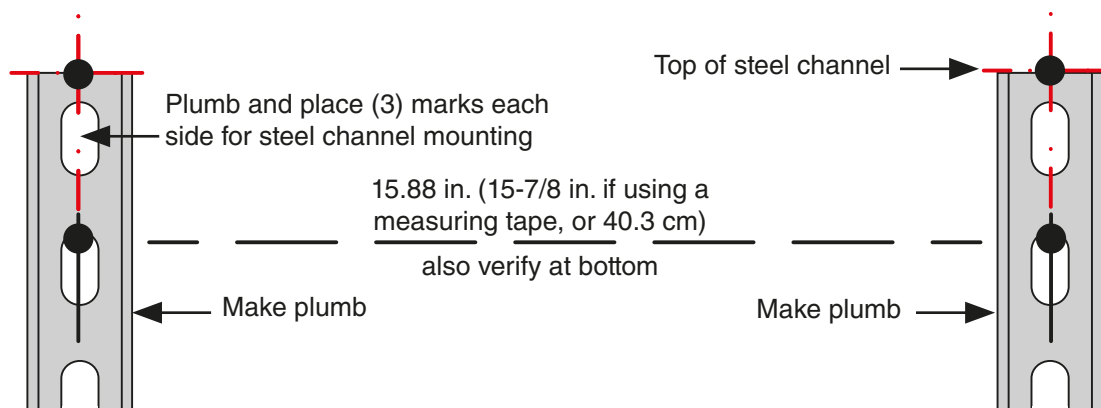
Figure 20



NOTE: Not to scale.

4. Center the steel channel with the top mark 2.5 in. mark. (**Figure 21**)

Figure 21

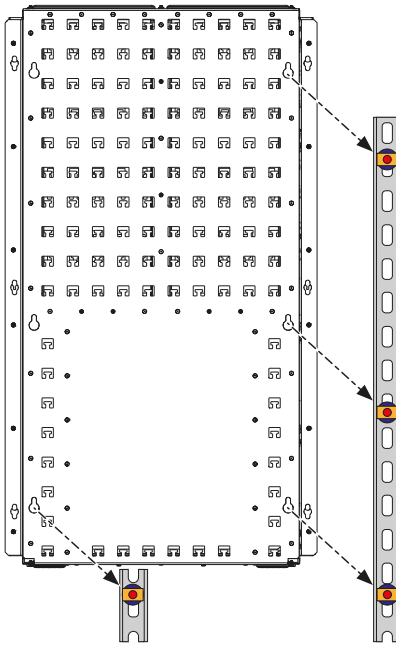


NOTE: Not to scale.

4 HARDWARE INSTALLATION

5. Verify plumb and make three marks at available elongated through-hole positions along length of each steel channel.
6. Install 1/4 in. x 2-1/4 in. (or M6 x 57.15 mm) hex head sleeve anchors.
7. Install 1/4 in. x 3/4 in. (or M6 x 20 mm) fender washers, 1/4 in. (or M6) split lock washers and sleeve anchor nuts to secure steel channel over sleeve anchor bolts.
8. Verify level and plumb, then fully tighten.
9. On each steel channel, place a 1/4 in. (or M6) steel channel speed or spring nut at the top target keyhole position.
10. Place two additional channel nuts at 15.75 in. (40 cm) and 27.19 in. (69 cm) below the first.
11. Mount the enclosure using 1/4 in. x 3/4 in. (M6 x 20 mm) 13-thread bolts, 1/4 in. x 3/4 in. (or M6 x 20 mm) fender washers and 1/4 in. (or M6) split lock washers at each eyelet location. (**Figure 22**)

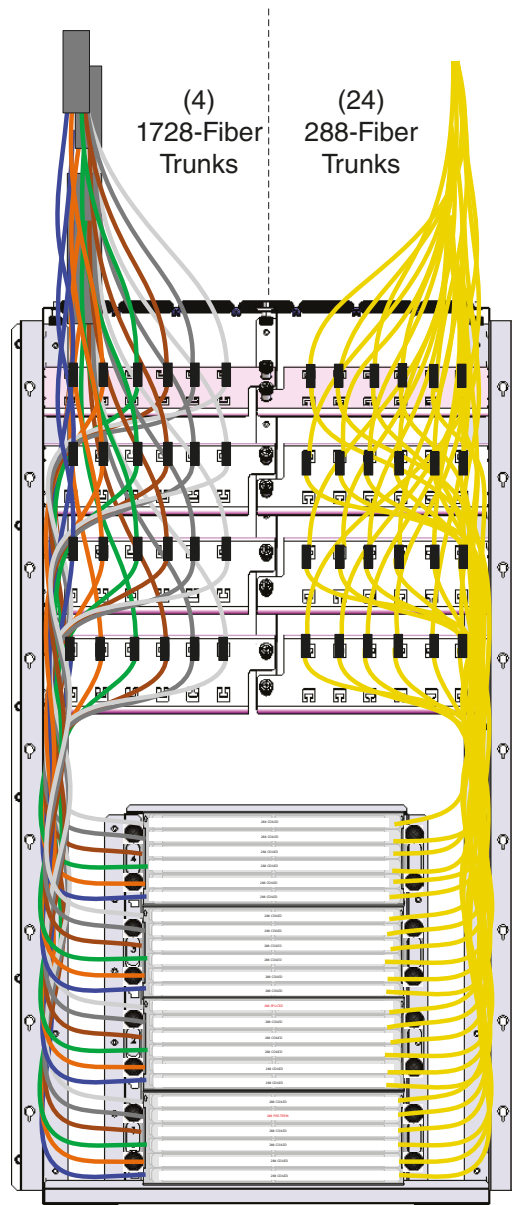
Figure 22



12. Position and level the enclosure at the target location on the wall.
13. Fully secure all 6 bolt assemblies (tighten until split washer sits flush and bolt is snug).

WEB VERSION

Figure 23



- 3.0mm or smaller diameter furcated legs for MMC pre-terminated assemblies.
- Leviton recommends the use of SJP or SJZ trunks.
- Trunks with breakout features designed specifically for the IDX system.
Please contact Application Engineering for trunk configurations.
- For ribbon splicing, use the Leviton 1/2 in mesh sock accessory kit to protect the bare ribbons.
- Following installation, if a deck tray must be re-worked, carefully free the desired tray mesh sock by adjusting the mesh socks above the target tray. Pulling the directly above trays forward to the stop position will also assist in freeing the target tray mesh sock allowing the tray to be placed in the work position on the workbench.

5 PLANNING THE SYSTEM INSTALLATION

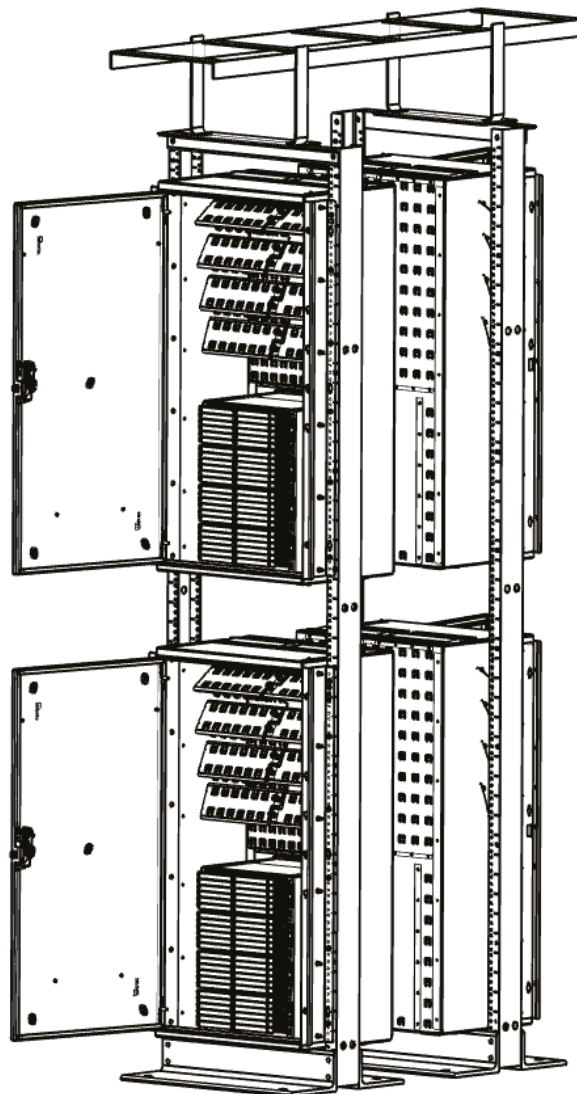
IDX enclosures require a 20RU mounting space in racks and cabinets. The IDX enclosure can be mounted in 19 in. (48.3 cm) or 23 in. (58.4 cm) rack rails.

Side Access – no minimum space requirements.

Top Access – a minimum of 8.75 in. (222 mm) or 5 RU of accessible space is recommended to allow for access and routing through the top or bottom openings.

The following is an example of 4 total IDX enclosures mounted back-to-back in a 4-post rack. (**Figure 24**)

Figure 24



NOTE: Deploying multiple IDX Enclosures in a rack or cabinet requires careful planning and implementation. Utilizing the lower enclosure requires incoming high-count fibers (left side) to pass-through the upper enclosure into the lower. Exiting fibers (right side) must be able to make the required bends in the space between the two enclosures. Cable type and construction may require taller or deeper racks to be specified to support cable bend requirements as well as adjacent empty space to one or both sides of the rack to gain access. Contact Applications Engineering for guidance at appeng@leviton.com.

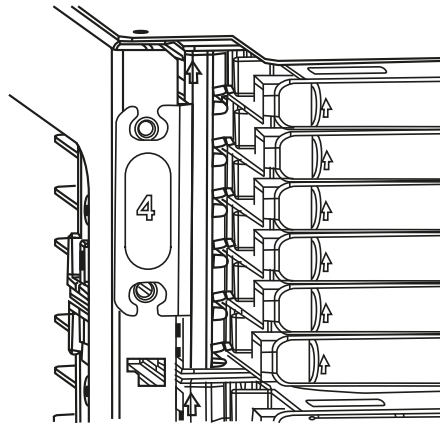
5 PLANNING THE SYSTEM INSTALLATION

5.1 Installing a Leviton interconnect or splicing deck

1. Select the target deck location (**Figure 11**) and thread the provided M5 screws 3-4 turns in the correct bottom hole locations.
2. Place the deck over the screws and while supporting with one hand tighten each screw.
3. Verify unobstructed movement of each tray.
4. Attach all screws with a hand tool only. **DO NOT OVER TIGHTEN.** (**Figure 25**)

NOTE: Remove the deck trays first to reduce weight and ease installation.

Figure 25

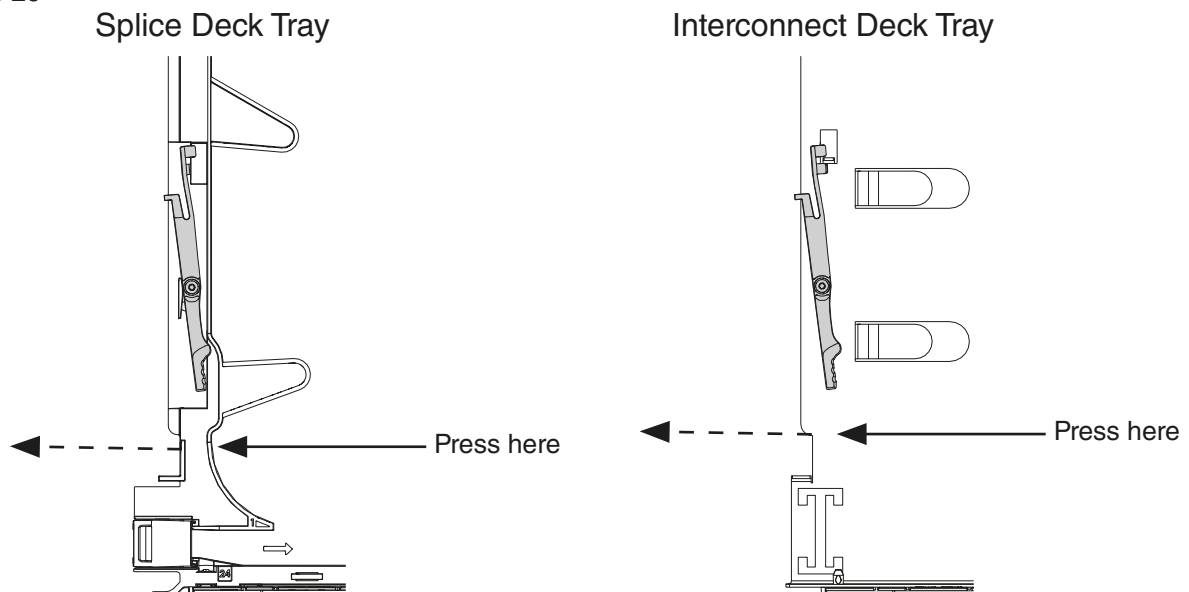


5.2 Installing and removing a Leviton interconnect or splicing tray

5.2.1 Installation

1. Slide the tray into the target deck position slide rails. The tray release lever will engage at the front stop point.
2. Press the tray release lever as shown and slide the tray rearward until the lever stop tab engages in the closed position. (**Figure 26**)

Figure 26



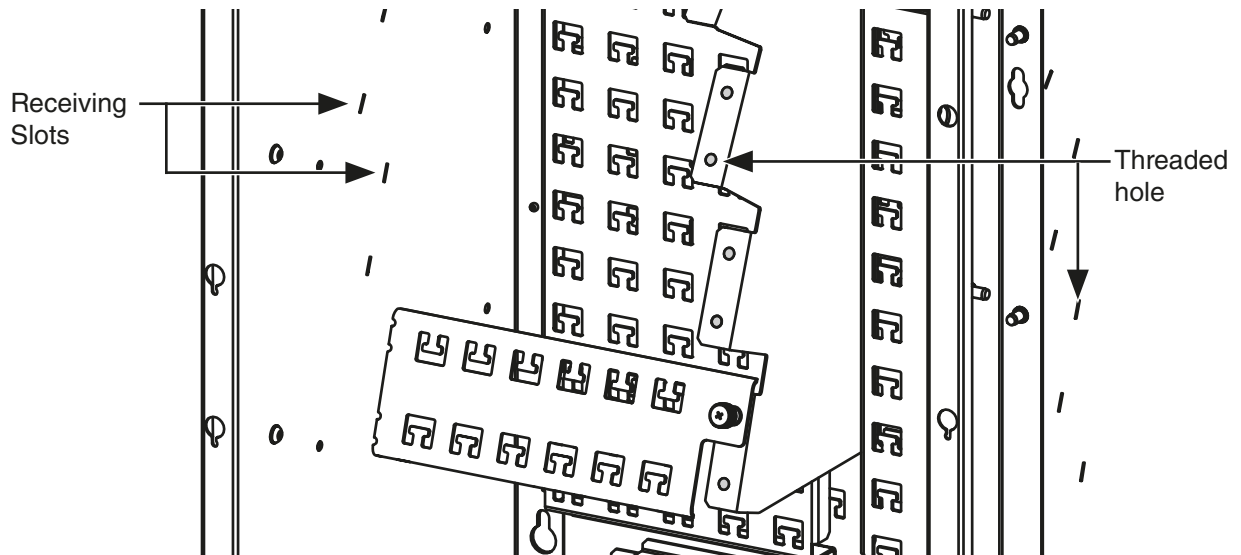
WARNING: Each deck tray has a stop point at the fully opened and closed positions. Forcing a tray past these points may damage the deck and locking tabs.

5 PLANNING THE SYSTEM INSTALLATION

5.2.2 Installing cable dressing plates

1. Mount the cable dressing plate to the Enclosure by inserting the alignment tabs into the target location's slots in the side wall and secure the plate with the thumb screw. (**Figure 27**)

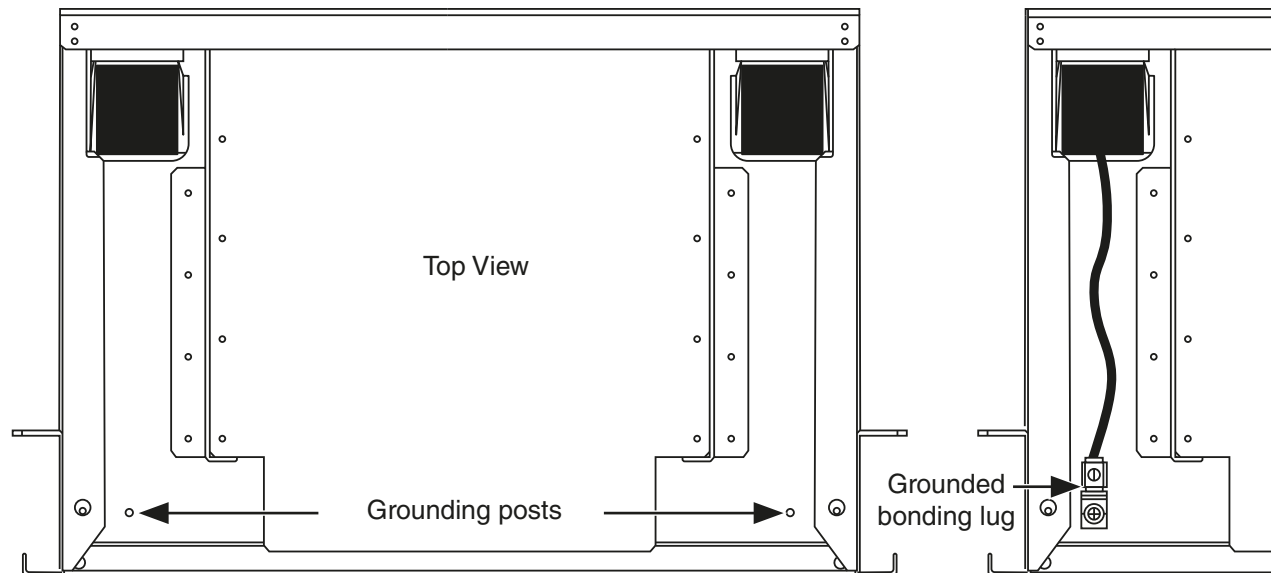
Figure 27



6 GROUNDING THE STRATA IDX ENCLOSURE

Grounding points are provided in the Enclosure. Each is located in the lower right and left corners of the Enclosure base. The mounting location accepts a standard bonding lug connector to allow for ANSI/TIA 607 compliant grounding methods. **(Figure 28)**

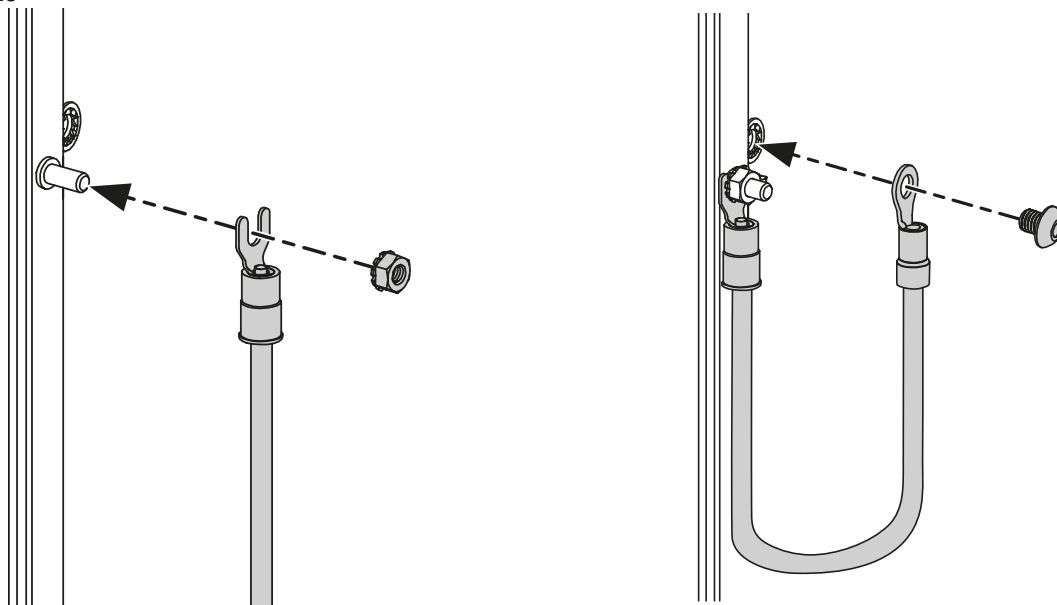
Figure 28



The enclosure door is also grounded to the enclosure base via a ground strap assembly. This grounding strap is pre-installed in the enclosure and must be secured to the door following IDX installation.

The open-ended ground connector attaches to the door using the locking nut. The close-ended grounding connector connects to the chassis utilizing one of the mounting ear attachment screws and a star washer **(Figure 29)**. When removing the enclosure mounting brackets, relocate the close-end connector to the ground lug stud on the enclosure floor and secure with the star washer and a user provided M5 locking nut.

Figure 29



7 TRUNK INSTALLATION

As the IDX enclosure supports very high densities, trunk routing and management are vital to allow for future access, secure cable support and bend radius control. The following guidelines and best practices will ensure a successful installation.

NOTE: The enclosure is intended for use with Leviton trunks designed with a specific 35 in. (889 mm) breakout distance from the center of the cable dressing plate to tray entrance point. Leviton pre-terminated trunk assemblies with multiple 288-fiber breakouts shall be installed with the second stage breakout head located on the cable dressing plate. When using an interconnect tray and pre-terminated, multi-leg assemblies, (3/4 in. / 20 mm) per port staggering is also required to correctly route each assembly leg to the correct port. Using trunks with alternate breakout lengths or staggers may result in dressing, storage or damage related issues.

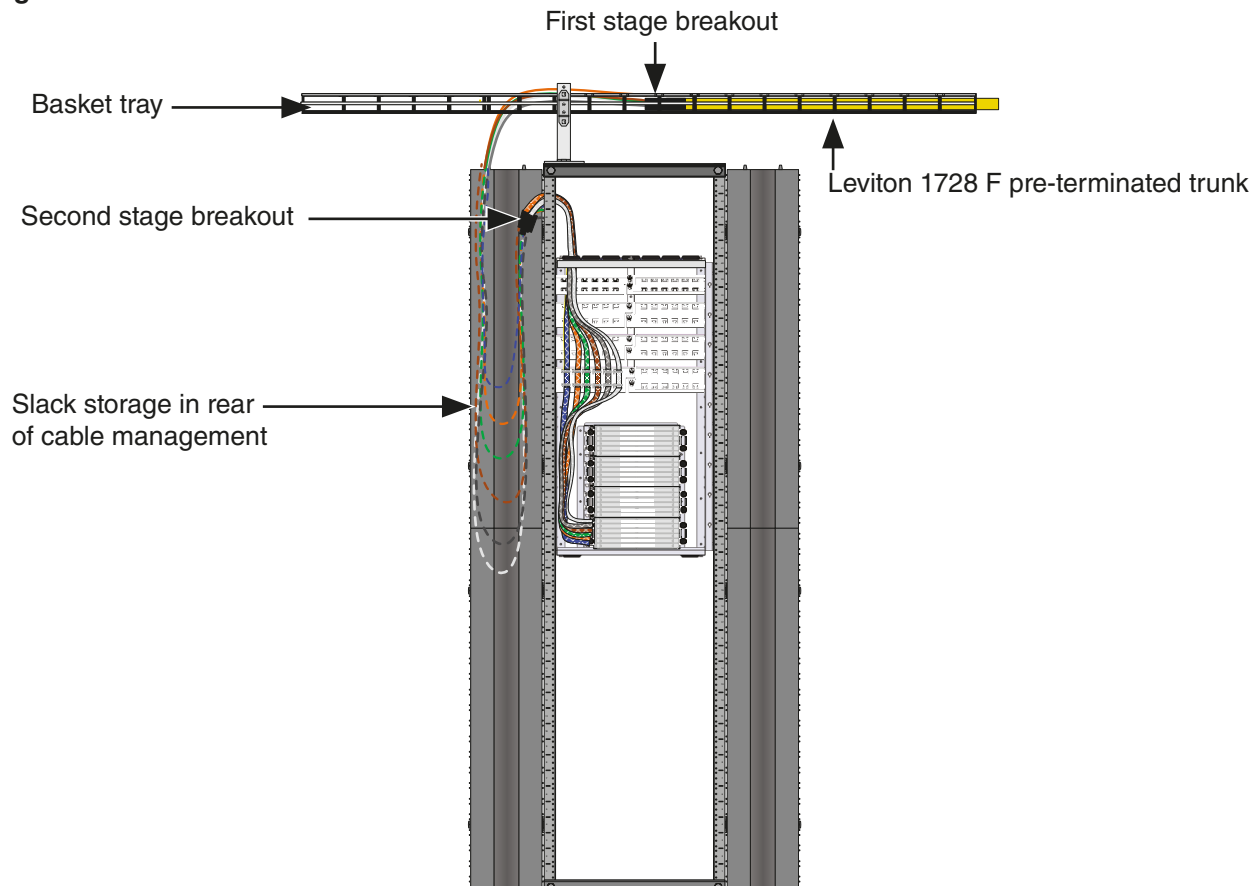
7.1 Storing cable slack

High strand count, pre-terminated assemblies and high strand count bulk cables that require breakout and furcation may require storage of cable slack in between breakout housings. In most cases, this cable slack will need to be stored outside the IDX enclosure. In each pathway or wall and ceiling-mount storage option detailed below, locate the second stage breakout (pre-terminated assemblies) or transition point at the target cable dressing plate or just outside the entrance point to the enclosure as needed by breakout length.

Recommended storage location options:

1. In vertical cable management products. For larger fiber counts or cables with rigid outer jacket, position the first stage breakout in the overhead pathway.
 - Store the remainder outside of the IDX enclosure, in the vertical cable management. (**Figure 30**)

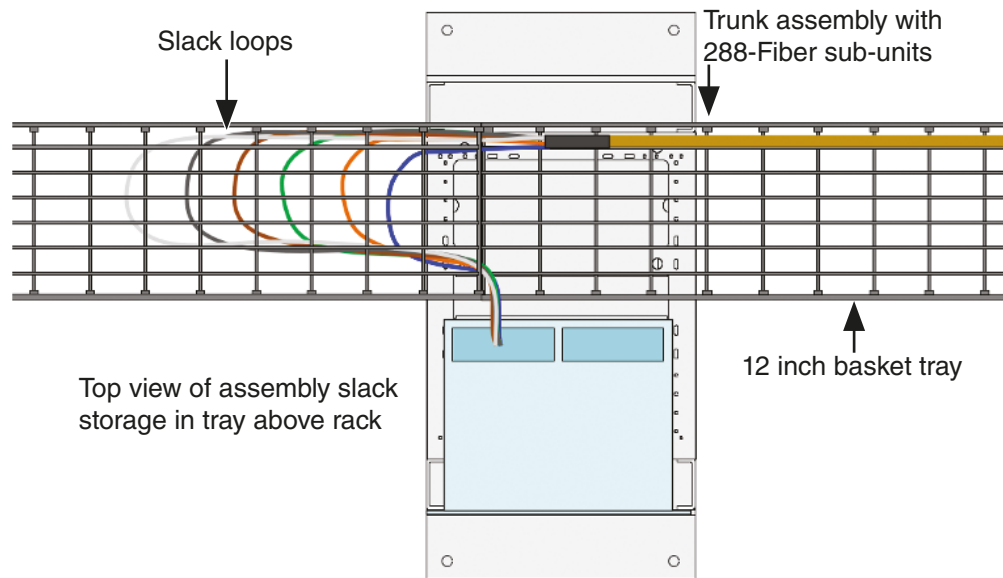
Figure 30



7 TRUNK INSTALLATION

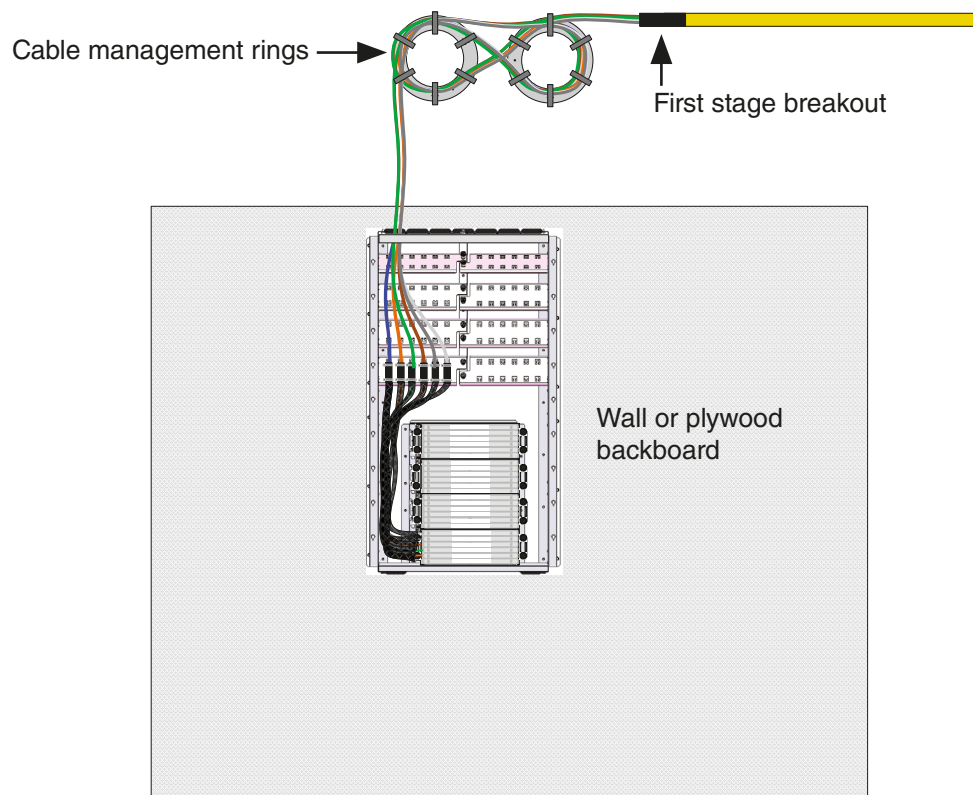
2. In the horizontal overhead tray, store the remainder outside of the enclosure, in the overhead pathway. (Figure 31)

Figure 31



3. In a wall mounted or ceiling supported service loop, store the remainder outside of the IDX enclosure, in a standards-compliant service loop. (Figure 32)

Figure 32

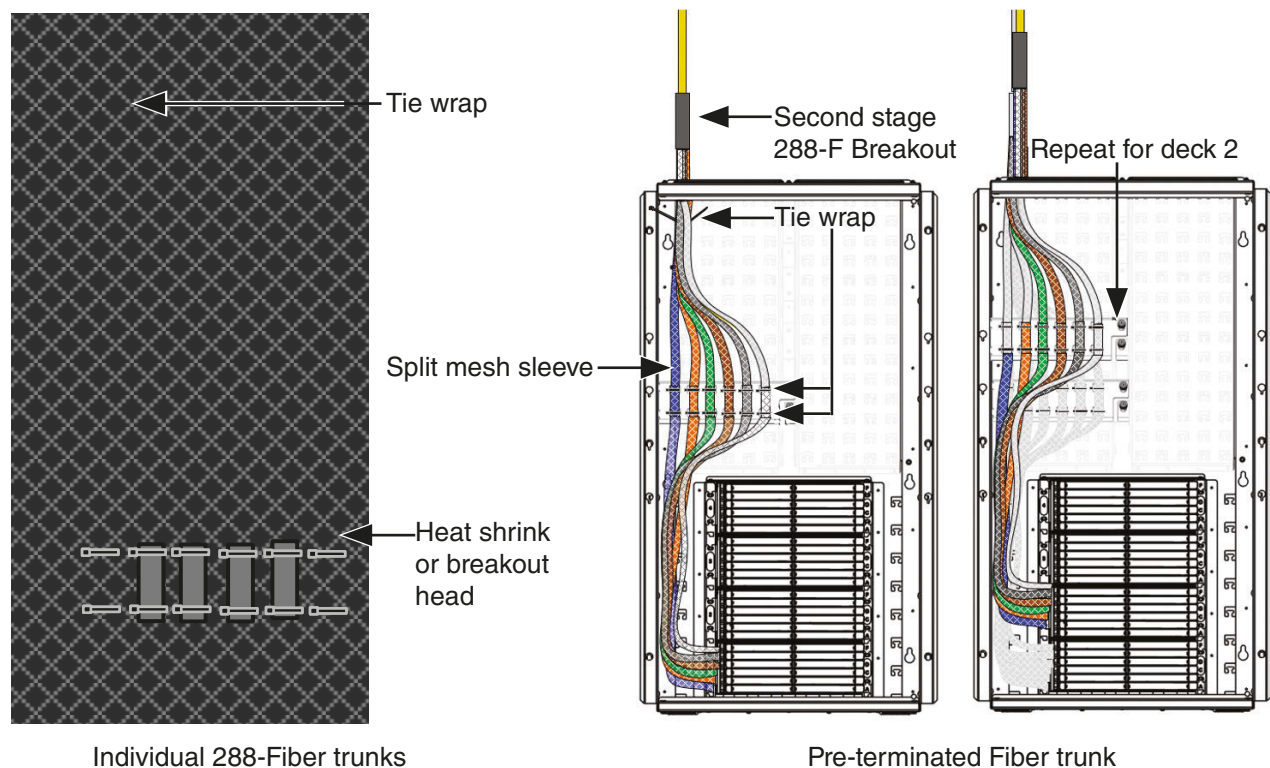


7 TRUNK INSTALLATION

7.2 Installing Trunk cabling

1. Route cables from overhead pathways into the IDX enclosure as required.
 - a. Trunks and assemblies are attached to the enclosure immediately upon entering the enclosure. Smaller fiber count cables can be bundled together. High fiber strand count assemblies are designed to have the 288-fiber breakout located just outside the enclosure, as shown on the right, or directly to the cable dressing plate (Leviton MMC Pre-term assemblies), as shown on the left. (**Figure 33**)

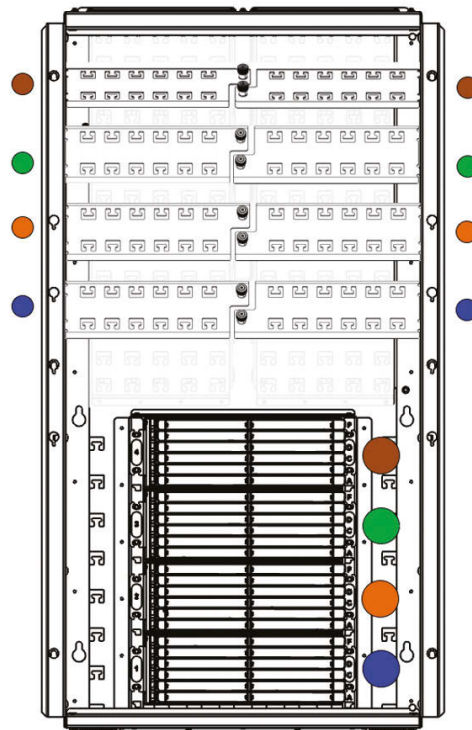
Figure 33



7 TRUNK INSTALLATION

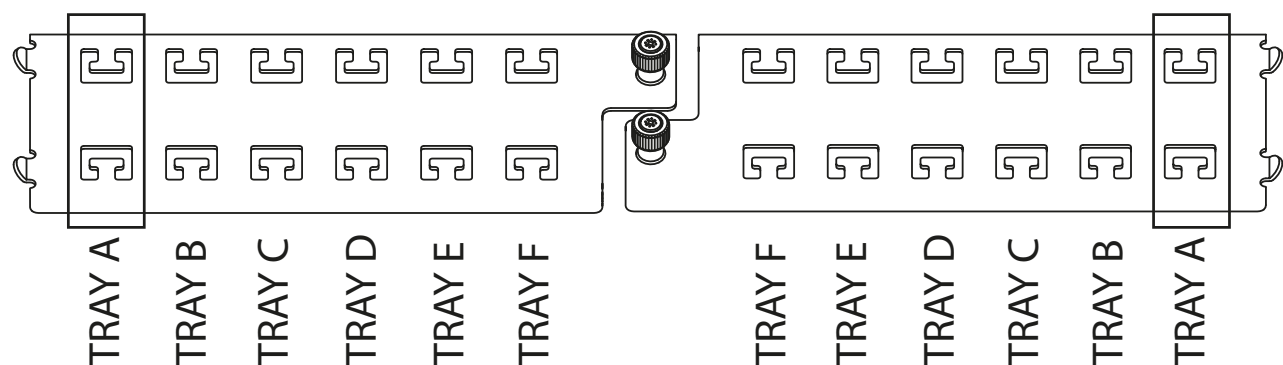
- b. Cable dressing plates are paired with each deck working from the bottom up. (**Figure 34**)

Figure 34



- c. Each cable dressing plate is designed to accept breakout sub-units from multiple smaller or single high-strand count cable assemblies. Each plate is associated with one deck. One pair of tie-downs on the plate is matched to each tray in the deck in the order they will be routed to interconnect or splicing decks. (**Figure 35**)

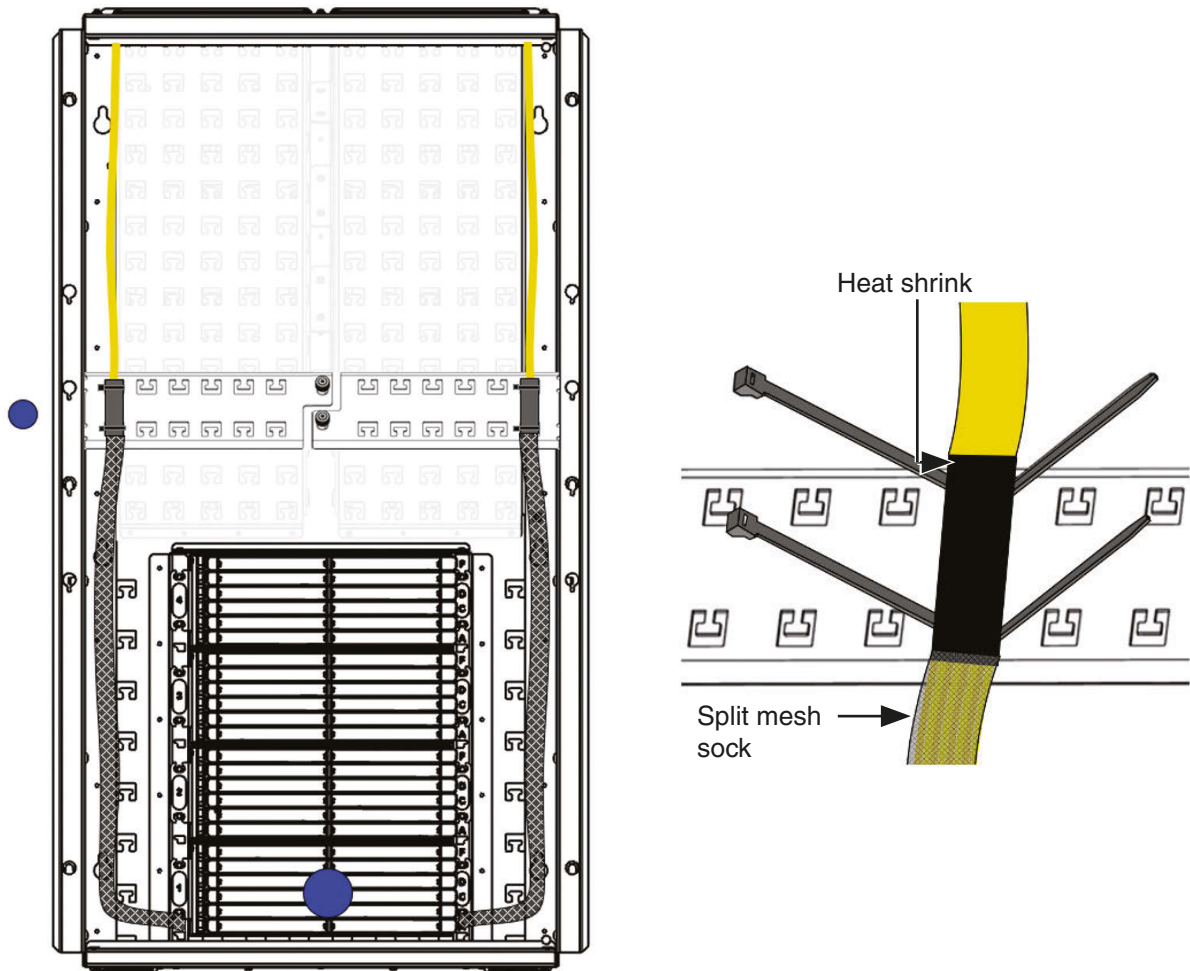
Figure 35



7 TRUNK INSTALLATION

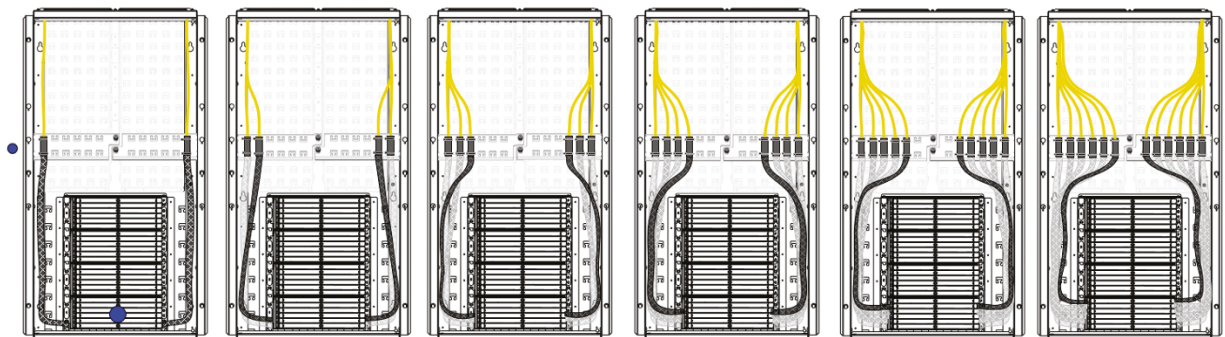
2. Begin installing from the bottom deck. The closest lacing point on the bottom cable dressing plate is reserved for the bottom tray in a deck.
3. Install the first trunk cable or breakout subunit leg to the first lacing point on the cable dressing plate.
4. Route the leg to the target tray. (**Figure 36**)

Figure 36



5. Repeat for all remaining legs assigned to the target deck. (**Figure 37**)
6. Repeat for inbound cable(s).

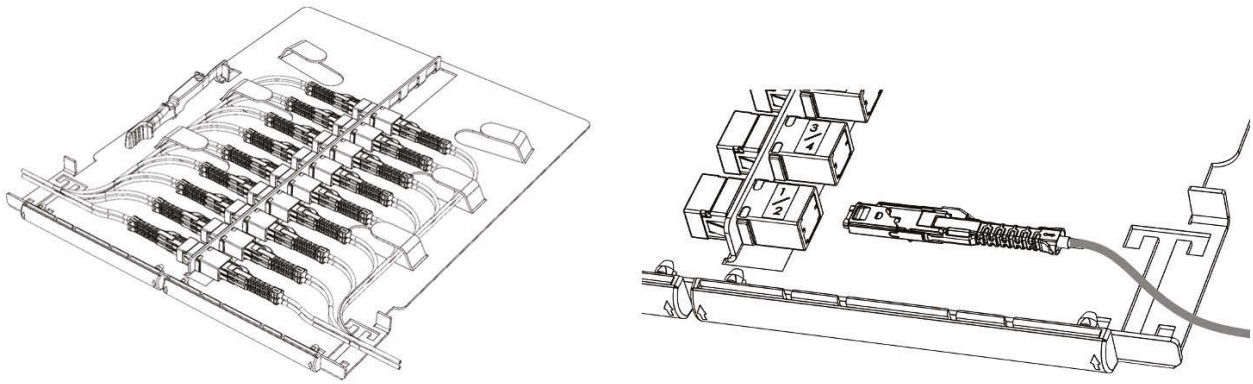
Figure 37



7 TRUNK INSTALLATION

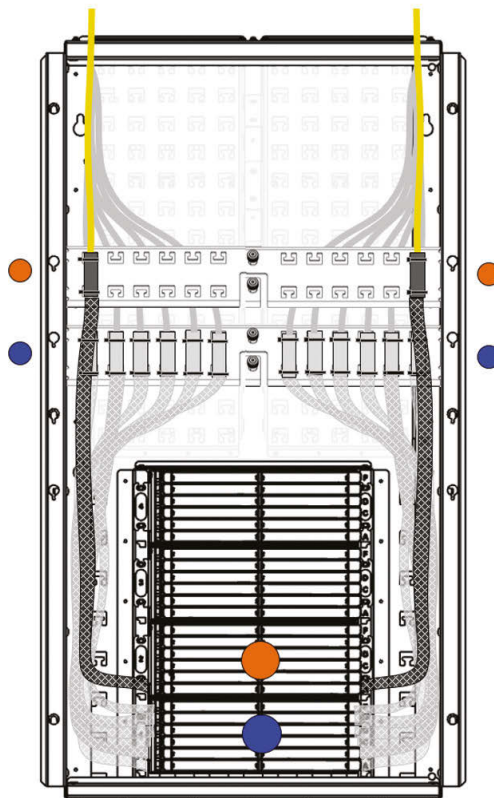
7. If splicing, perform routing and splicing as detailed in **Section 8 - Splicing**.
8. If interconnecting, route all legs to the appropriate port on the tray and mate to the adapter. (**Figure 38**)

Figure 38



9. Complete all installation work on the first deck and then repeat all previous steps on Deck 2. (**Figure 39**)

Figure 39

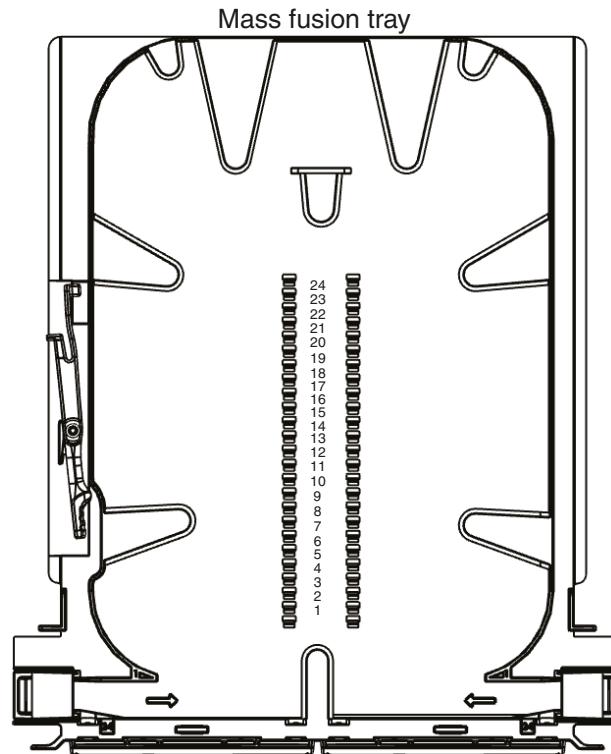


8 SPLICING

The IDX enclosure supports very high densities, trunk routing and management are vital to allow for future access, proper support and bend radius control. The following guidelines and best practices will ensure successful installation. When splicing, a minimum of 72 in. of bare fiber is required from the target cable dressing plate position through the target splice deck tray. This allows for routing, measuring, and termination of all strands within each tray.

The first splice position in each tray is in the front-most position. There are 24 positions fusion tray. (Figure 40).

Figure 40

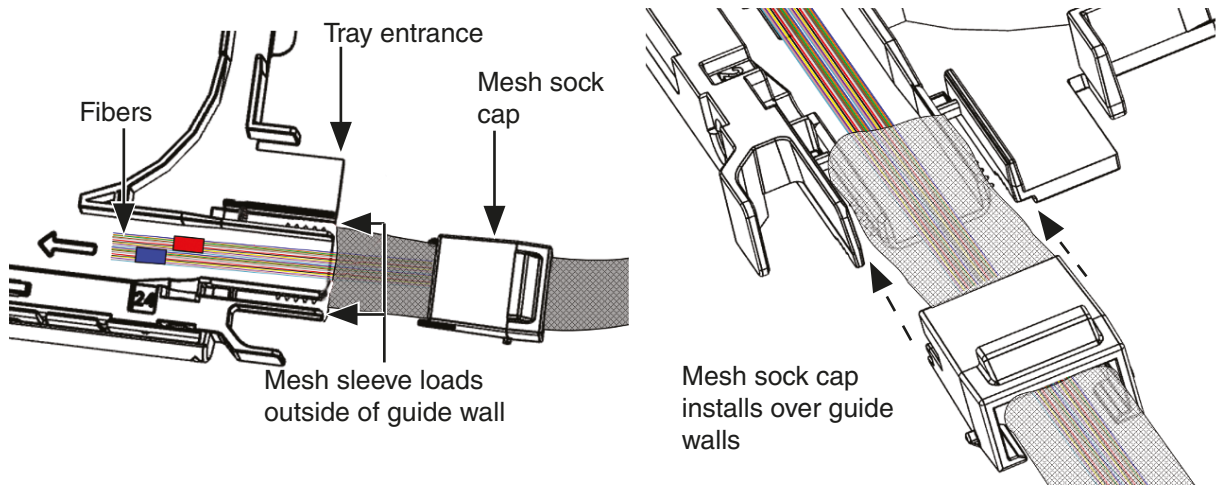


8.1 Performing splicing on a splice deck tray

1. After installing the trunks or bulk fiber to the enclosure and securing on the appropriate cable dressing plate, route sub-unit groupings of fibers to the target deck tray position.
2. If not already installed, install the split mesh sleeve over each fiber grouping to the first tray. Do not trim or cut the mesh sleeve. The pre-cut sleeve length correctly manages the distance between the center of the dressing plate and tray.
3. Attach the sub-unit grouping in the split mesh to the entrance point of the tray.
4. Install the mesh sock cap over the mesh sock and secure to the tray. (Figure 41)

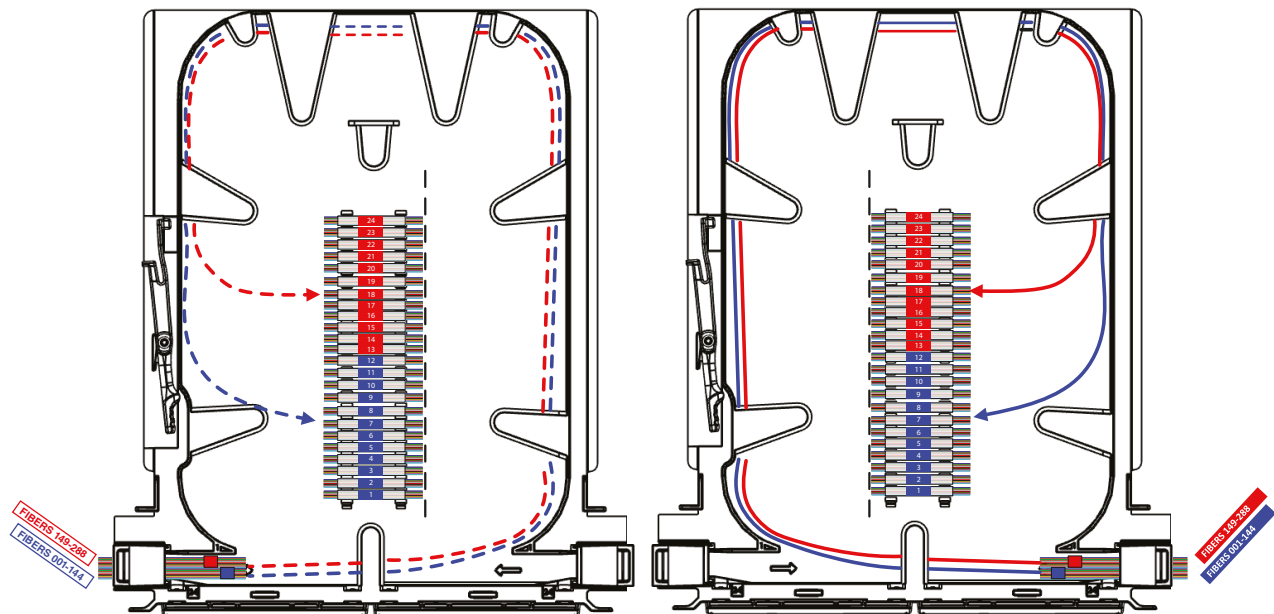
8 SPLICING

Figure 41



5. Fibers entering from the left of the tray will route counter-clockwise. Fibers entering from the right of the tray will route clockwise. (**Figure 42**)

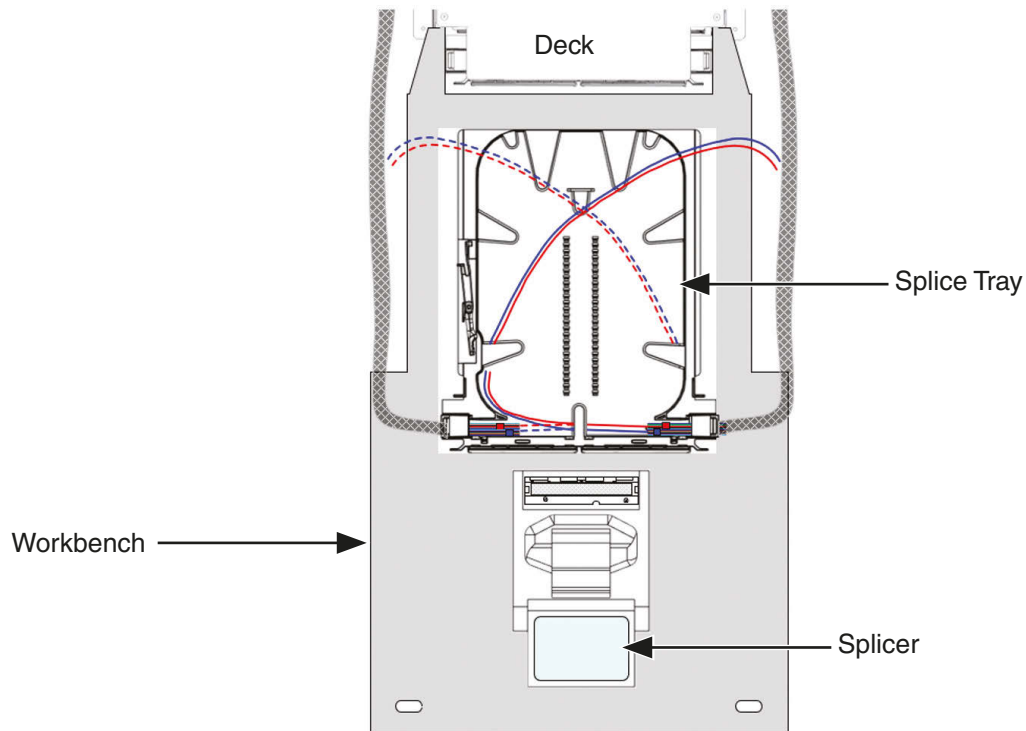
Figure 42



6. Prepare the splicer for operation following the manufacturer's instructions.
7. Place the splice deck tray onto the workbench adjacent to the target deck. Example in **Figure 43** uses the Leviton workbench.

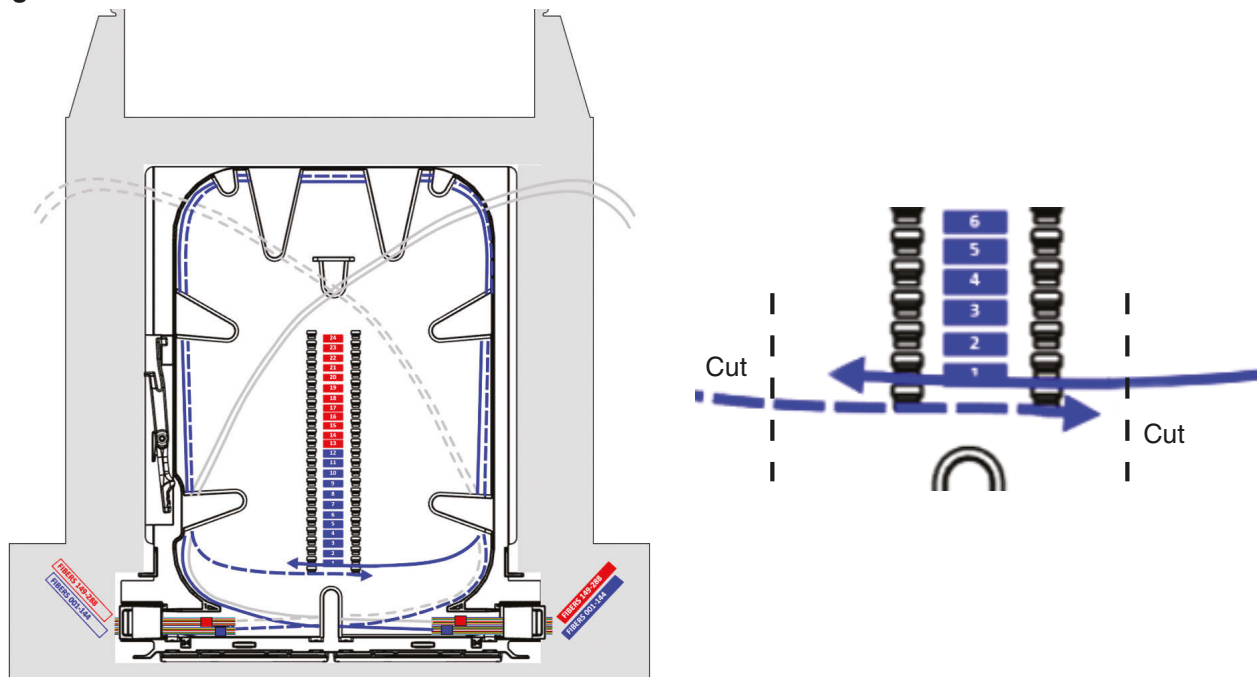
8 SPLICING

Figure 43



8. Route the incoming bundles from both directions through the first two cable management tabs on the deck tray.
9. Locate and route the first ribbon from each side and route through the deck tray and through the target splice sleeve holder location.
10. Cut each approximately 0.5 in. (1.3 cm) past its exit point of the splice sleeve holder. (**Figure 44**)

Figure 44

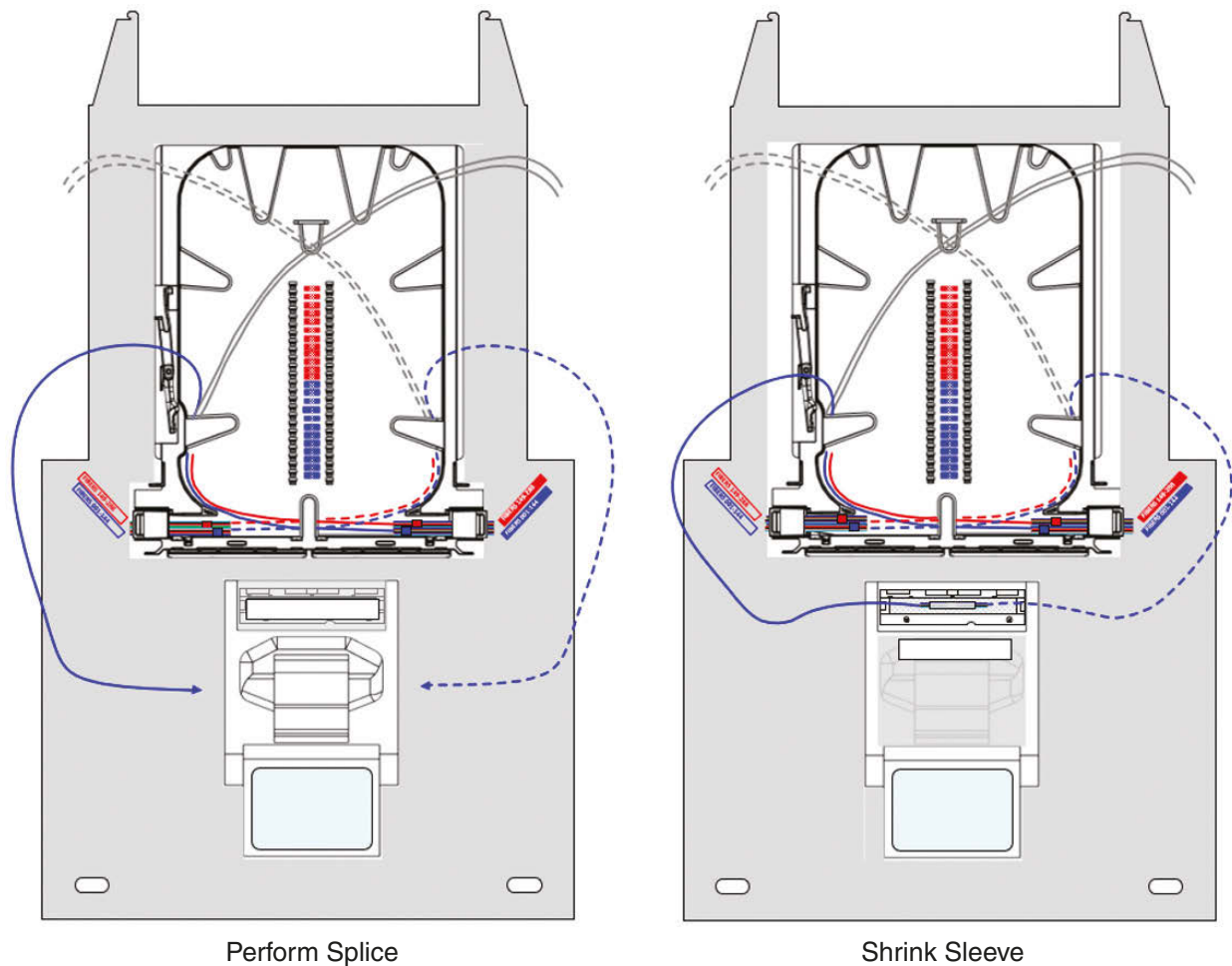


8 SPLICING

11. Remove each fiber back to the second cable management tab.
12. Perform the fusion splice (**Figure 45**)

NOTE: The workbench includes a 30 mm strip guide. This is the amount of fiber to leave exposed outside for the fiber holder prior to thermal stripping.

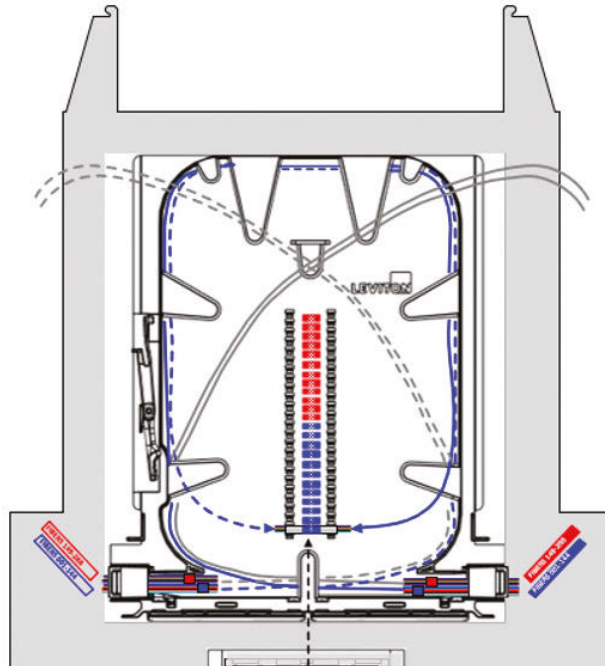
Figure 45



8 SPLICING

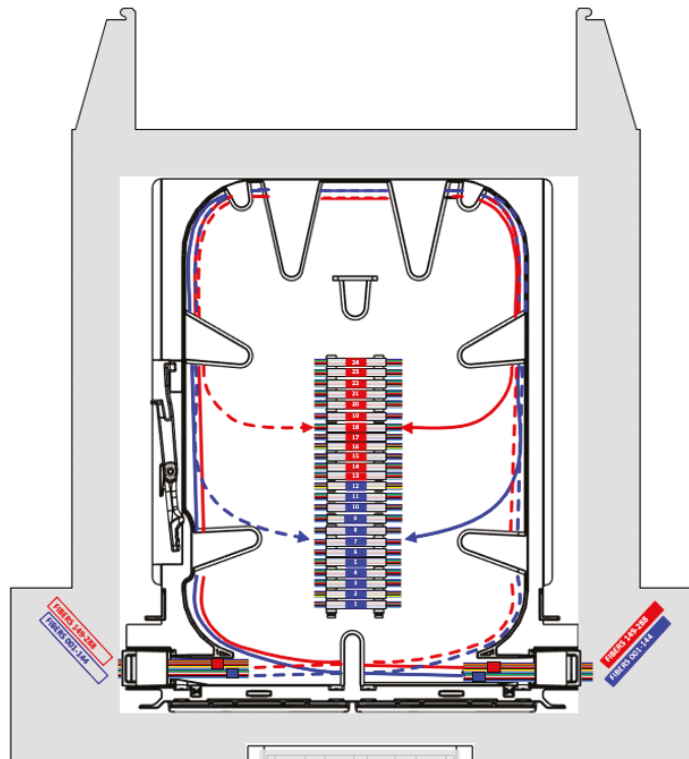
13. Re-install the completed splice by performing an 180-degree rotation of the assembly and dress into all cable management tabs. (**Figure 46**)

Figure 46



14. Repeat for all fibers until the deck tray is complete. (**Figure 47**)

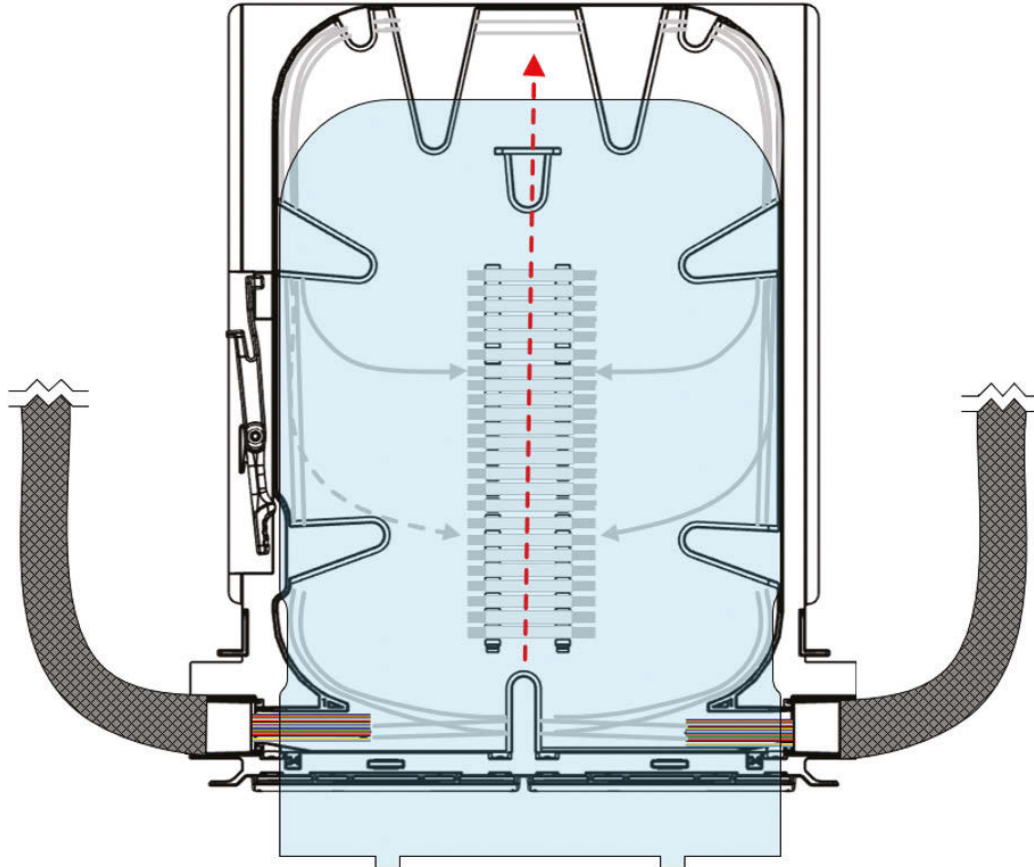
Figure 47



8 SPLICING

15. Perform any necessary final routing and dressing ensuring all fibers are located under the cable management tabs. (**Figure 48**)
16. Install the clear lid and re-install the deck tray to the target deck location.

Figure 48



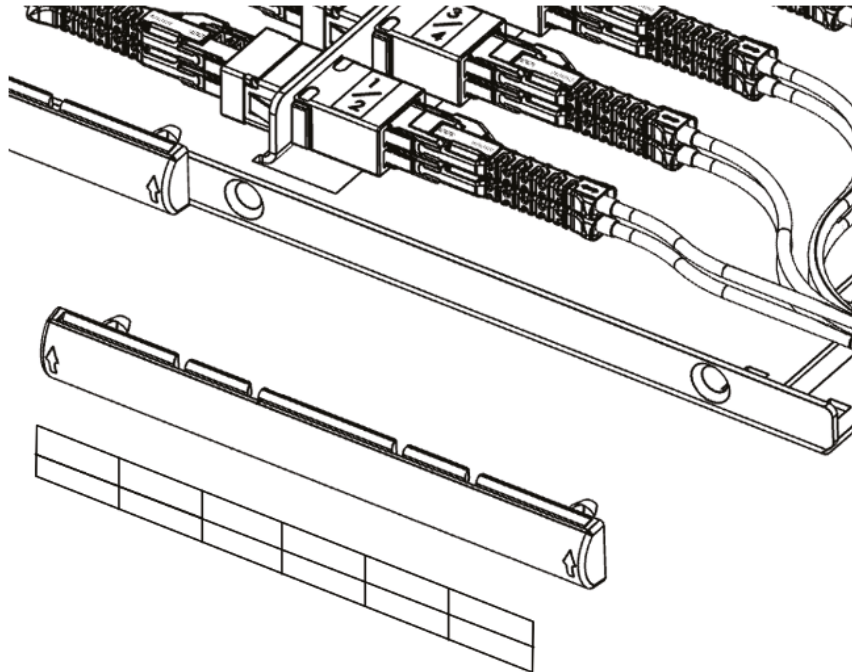
17. Verify the split mesh socks are secured under the mesh sock caps and the tie-wraps at the cable dressing plate.
18. Repeat splicing steps until all splice deck trays in deck are complete.
19. Repeat all splicing steps for remaining decks.

9 INSTALLING LABEL CARDS AND CREATING CUSTOM LABELS

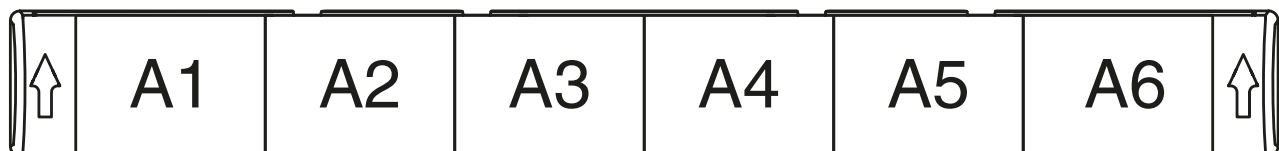
Each IDX enclosure is provided with two blank label cards for documentation of all connections located within the enclosure. The blank card can be populated via handwritten or label maker generated labels. Excel based templates are also available to custom-create label sheets that can be placed in the magnetic pouches.

Each interconnect deck and splice deck is provided with label strips for installation in each tray. Label strips are inserted into the magnifying holder from the top. (**Figure 49**)

Figure 49



Printed labels can be created with Rhino™ 6000 and 6500 series or other professional labeling tools. Recommended label tape size is 3/8 in.



All trays include 3/8 in. clear magnifying lens label holders.

Printable excel based label templates are available on the Leviton website on the applicable product page or may be requested from applications engineering at appeng@leviton.com.

10 STANDARD STATEMENTS AND WARRANTY

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For Technical Assistance Call: 1-800-824-3005 www.leviton.com

