SDX Splice Module
Cat. Nos. SPLCS, SPSCS, and SPMPS

LEVITON®

WARNINGS:
• **READ AND UNDERSTAND ALL INSTRUCTIONS.** Follow all warnings and instructions marked on the product.
• **DISCONNECTED OPTICAL COMPONENTS MAY EMIT INVISIBLE OPTICAL RADIATION THAT CAN DAMAGE YOUR EYES. TO AVOID SERIOUS INJURY,** never look directly into an optical component that may have a laser coupled to it. If accidental exposure to laser radiation is suspected, consult a physician immediately.
• **TO AVOID INJURY,** wear safety glasses during installation.

CAUTIONS:
• 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.
• Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Do not bend in excess of the recommended bend radius or pull with a force greater than specified. Do not kink or crush the cable.
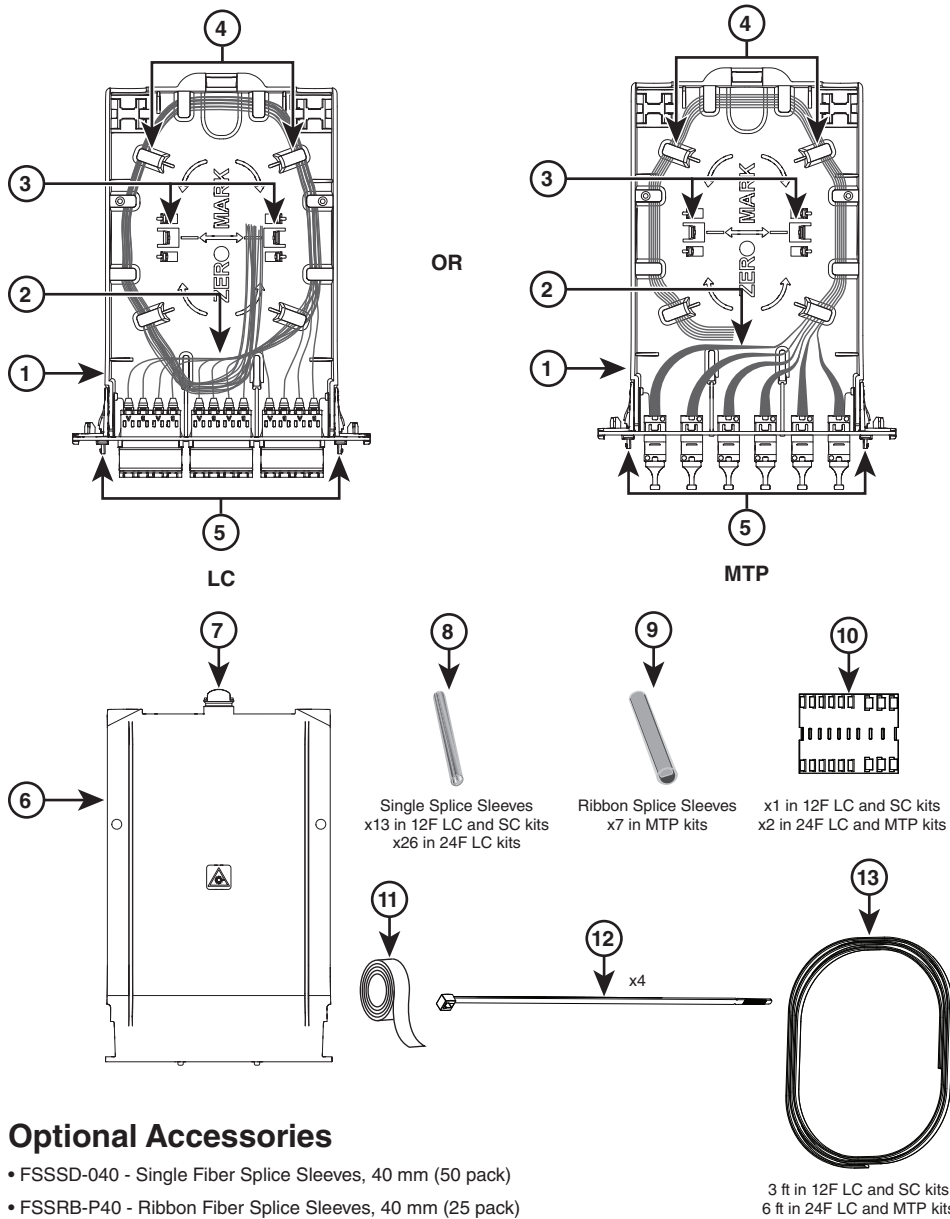
PK-A3505-10-00-0A

Product Description

The SDX Splice Module comes preloaded with LC, SC or MTP® adapters, pigtails and splice sleeves as required for each product.

The module integrates a fiber adapter bulkhead and splice holders to eliminate the need for splice trays. Individual compartments provide slack storage and bend radius guides for respective backbone cables, 900 µm tight buffer pigtails, and fusion-spliced fibers, 12-fiber, color-coded 900 µm tight buffer pigtails are 1 meter and pre-loaded in the module per specific configuration.

In addition, the product is offered in single-mode (OS2) UPC and APC and laser-optimized multimode (OM3 and OM4) fiber types. Other fiber types are available as special orders.

Includes

1. Splice Module Base (LC, SC, or MTP)
2. Fiber Optic Pigtail
3. Splice Sleeve Holder Retention Tabs
4. Cable Management Tabs
5. Module Release Tabs
6. Splice Module Cover
7. Cover Tab
8. Single Splice Sleeve
9. Ribbon Splice Sleeve
10. Convertible Splice Sleeve Holder
11. Build-Up Tape
12. Nylon Tie Wraps
13. Mesh Tubing

OR

LC   **MTP**

Single Splice Sleeves
x13 in 12F LC and SC kits
x26 in 24F LC kits

Ribbon Splice Sleeves
x7 in MTP kits

x1 in 12F LC and SC kits
x2 in 24F LC and MTP kits

3 ft in 12F LC and SC kits
6 ft in 24F LC and MTP kits

Optional Accessories

• FSSSD-040 - Single Fiber Splice Sleeves, 40 mm (50 pack)
• FSSRB-P40 - Ribbon Fiber Splice Sleeves, 40 mm (25 pack)

You Will Need

• Single- or Mass-Fusion Splicer with Compatible Fiber Holders
• Precision Cleaver
• When working with outside plant or armored cables:
  - Safety Blade or Utility Knife
  - Armor Jacket Removing Tool
  - Gel Remover
• Fiber Termination Kit:
  - Aramid Yarn Scissors
  - Lint-Free Wipes
  - Fiber Cleaning Solution or 95% or better Isopropyl Alcohol
  - Jacket Removing Tool
  - Fiber Stripping Tool
  - Fiber Waste Container

Mounts in These Devices

• SDX Rack Mount Enclosures
• SDX Rack Mount Panels
• SDX Wall Mount Enclosures

Installation

1. Remove splice module cover.

Push in and lift up tab.
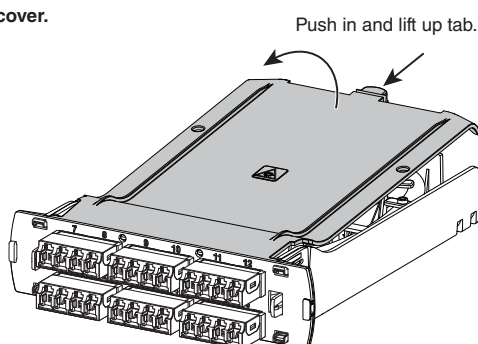
2. Prepare the fiber.

Determine the termination location. Depending on cable construction, breakout or furcation may be required.

NOTE: The incoming cable opening is 0.55 in. (14 mm). Check the incoming fiber to verify it is the correct size.

High-count cable: Overall fiber cabling greater than what is shown below, requires breakout prior to installation.

>72 fibers for MTP splice modules

>24 fibers for LC

>12 fibers for SC splice modules

Tight-buffered cable: Up to a 24-strand fiber cable can be routed directly to the splice module. Overall fiber cabling greater than 0.55 in. (14 mm), secure the cable to the enclosure cable management tie down points according to device instructions, remove the outer jacket after the tie down point, and use the mesh sleeve provided in the accessory kit to protect and route the individual fibers to the module.

Loose-tube cable: If overall fiber cabling is greater than 0.55 in. (14 mm) and correctly sub-unitized under the cable jacket, secure cable to tie down points, remove jacket after the tie down points, and route sub-unit tubes to each module.

3. Route fiber.

a. Remove at least 48 in. (1,219 mm) of the outer cable jacket.
NOTE: Do not store excessive fiber slack within the module housing. One to two slack loops of each pigtail and bulk fiber can be safely stored in the module. Route fibers in the widest path available, and under the cable management tabs, as shown in the routing diagrams. Store all the other required slack in the fiber enclosure or available pathway outside the enclosure.

b. Feed incoming cables through the rear opening, and secure them through the tie wrap slots and over the cable jacket with a nylon tie.
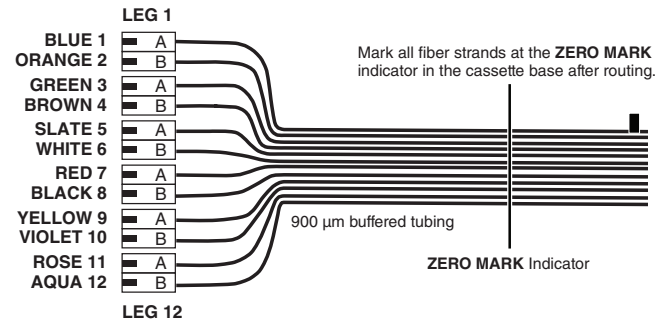

NOTE: Tie wrap removed prior to termination.
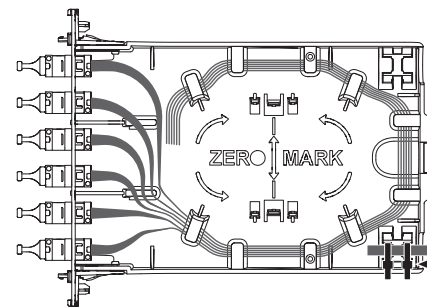
4. Prepare pigtail assembly (single-fiber **(Method A/A)** or mass-fusion **(Method A)**).
a. Mark all fiber strands at the **ZERO MARK** indicator in the module base after routing.
b. Cut pigtail **after** making the **ZERO MARK**.

Method A/A

		LEG 1
BLUE 1	A	
ORANGE 2	B	
GREEN 3	A	
BROWN 4	B	
SLATE 5	A	
WHITE 6	B	
RED 7	A	
BLACK 8	B	
YELLOW 9	A	
VIOLET 10	B	
ROSE 11	A	
AQUA 12	B	
		LEG 12

Mark all fiber strands at the **ZERO MARK** indicator in the cassette base after routing.

900 µm buffered tubing

ZERO MARK Indicator

Method A

Tape to protect while handling.

250 µm ribbonized fiber

250 µm loose tube fiber
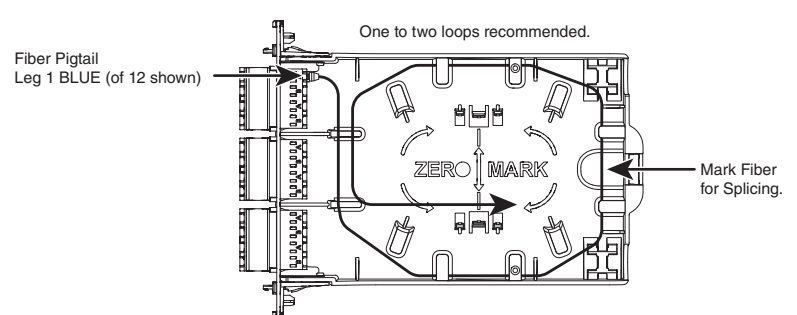
ZERO MARK
When terminating ribbon fiber

5. Route pigtail fibers.

a. Route pigtail fibers counter-clockwise.
  • When splicing single fiber, route the fibers through the desired number of slack loops and through the splice area. Mark at the **ZERO MARK** point.
  • When performing mass-fusion splices, route the fiber until the ribbonized portion of the pigtail enters the splice area.

b. Remove pigtail fibers from the module and leave the connectors connected to their adapters. Do not disconnect the fiber from the adapters.
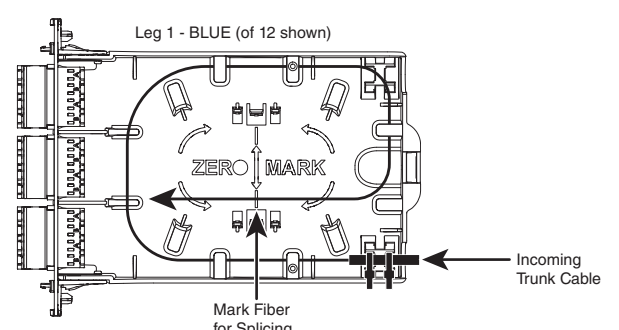
Pigtail Fiber

One to two loops recommended.

Fiber Pigtail
Leg 1 BLUE (of 12 shown)

Mark Fiber for Splicing.

6. Route trunk fibers.

a. Route trunk fibers clockwise to the desired slack loop storage and through the splice area.

b. Mark all fibers at the **ZERO MARK**.
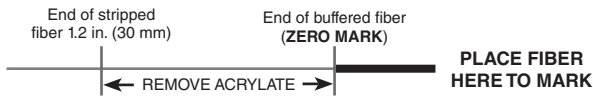
c. Remove all fibers from module.

Trunk Fiber

Leg 1 - BLUE (of 12 shown)

Incoming Trunk Cable

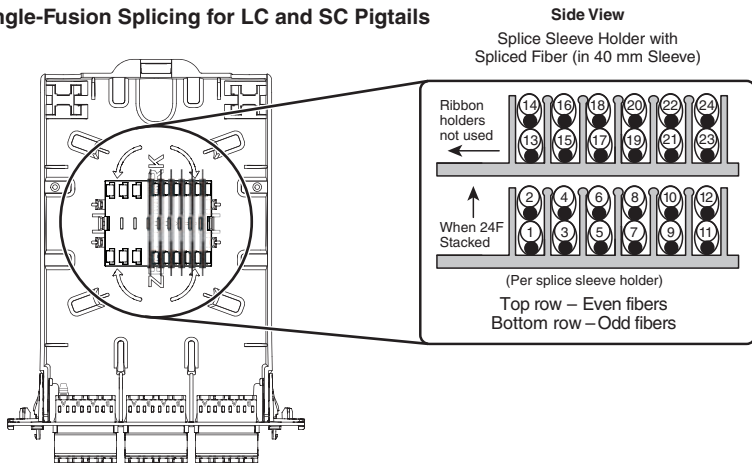Mark Fiber for Splicing.

7. Terminate.

NOTE: Cleave lengths and termination steps may vary. Consult your manufacturer's splicer instructions.

a. Install splice sleeves.

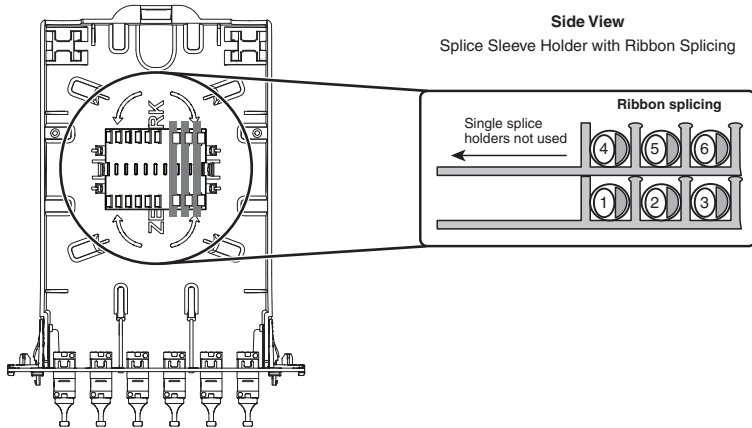b. Trim each fiber to 1.2 in. (30 mm) past **ZERO MARK** using the guide below.

End of stripped fiber 1.2 in. (30 mm) End of buffered fiber (**ZERO MARK**) **PLACE FIBER HERE TO MARK**
← REMOVE ACRYLATE →

c. Strip the fiber.

d. Perform fusion splicing per manufacturer's instructions.

e. Place fibers in splice sleeve holder after termination, as shown by termination type.
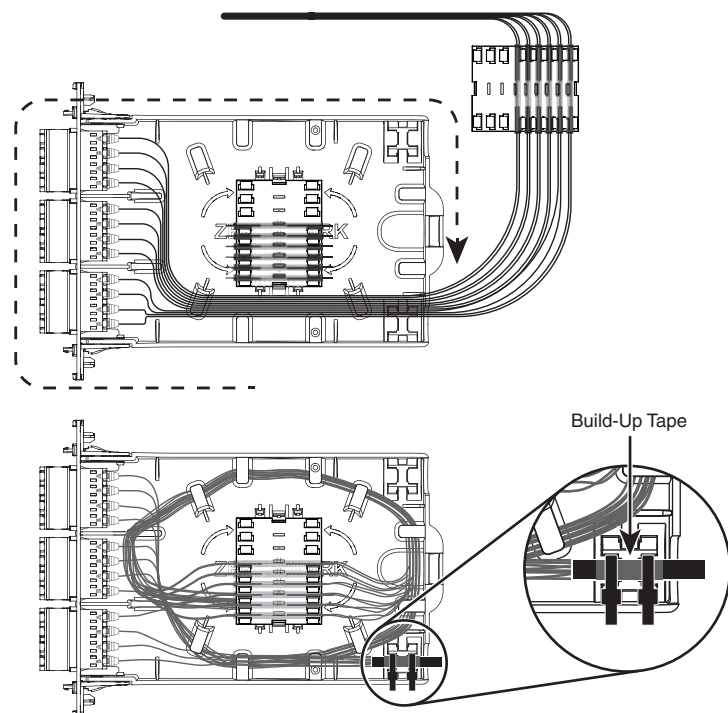
Single-Fusion Splicing for LC and SC Pigtails

Side View
Splice Sleeve Holder with Spliced Fiber (in 40 mm Sleeve)

Ribbon holders not used
| 14 | 16 | 18 | 20 | 22 | 24 |
| 13 | 15 | 17 | 19 | 21 | 23 |

When 24F Stacked
| 2 | 4 | 6 | 8 | 10 | 12 |
| 1 | 3 | 5 | 7 | 9 | 11 |

(Per splice sleeve holder)
Top row – Even fibers
Bottom row – Odd fibers

Mass-Fusion Ribbon Splicing for MTP Pigtails

Side View
Splice Sleeve Holder with Ribbon Splicing

Single splice holders not used
Ribbon splicing
| 4 | 5 | 6 |
| 1 | 2 | 3 |

8. Route assembly into module (single-fiber or mass-fusion).

a. Feed fibers through channel shown.

b. Rotate module base clockwise as you place fibers under tabs.

c. Position sleeve holders and snap them into place. Position the last of the pigtail fiber under the connectors.

d. Continue to rotate the module clockwise, route trunk fibers under tabs, and place slack fiber in between rows for 24 fiber LC, SC or above rows for 12F or MTP terminations.

e. Loosely install two tie wraps around the incoming cable.

f. Cut the build-up tape to the appropriate length for the incoming cable diameter, and wrap around cable at the tie down point. (See the image below.)

g. Pinch each tie wrap to feed through tie wrap mounting slot and secure in the channel.

h. Cinch each tie wrap over the jacket and build-up tape.

Build-Up Tape

9. Replace the splice module cover.

NOTE: To avoid damaging fibers, verify all fiber optic cabling is correctly routed within the module base under the cable management tabs prior to installing and securing the splice module cover.

1. Align the two tabs on the bottom of the lid with the two notches in the module.

2. Push the tab down to lock the slice module cover into place.
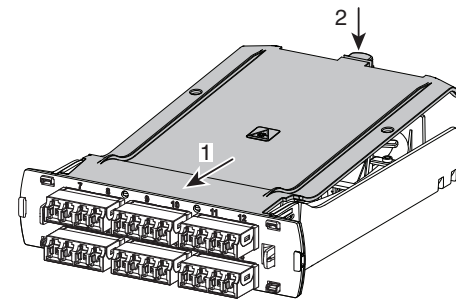
10. Label enclosure or panel, if necessary, according to the numbering schemes in the tables below, and affix them as per your device instructions.

NOTE: Make sure the label surface area is free of dirt, oil and debris. To wipe down the surface area, use isopropyl alcohol or a simple soap and water solution.

Label Printing Organization by SDX Splice Module Type (Horizontal Orientation)						
Adapter	**No. of Ports**	**Number Scheme**				
Duplex SC (6 Pack)	12	7-8		9-10		11-12
		1-2		3-4		5-6
Duplex LC (6 Pack)	12	1-2	3-4	5-6	7-8	9-10	11-12
Quad LC (6 Pack)	24	13-14	15-16	17-18	19-20	21-22	23-24
		1-2	3-4	5-6	7-8	9-10	11-12
MTP (6 Pack)	6	1	2	3	4	5	6

Label Printing Organization by SDX Splice Module Type (Vertical Orientation)					
Adapter	Duplex SC (6 Pack)		Duplex LC (6 Pack)	Quad LC (6 Pack)		MTP (6 Pack)
No. of Ports	12		12	24		6
Row of Module	Bottom	Top	N/A	Bottom	Top	N/A
Number Scheme	1-2	7-8	1-2	1-2	13-14	1
			3-4	3-4	15-16	2
	3-4	9-10	5-6	5-6	17-18	3
			7-8	7-8	19-20	4
	5-6	11-12	9-10	9-10	21-22	5
			11-12	11-12	23-24	6

11. Mount module inside the enclosure.

All modules install through the front of the enclosure. If using an SDX enclosure with sliding trays, individual trays can be removed from the back or the front.

a. Place module into the receiving holes of the target bulkhead location.

b. Slide module toward the back of the enclosure until the latches engage.

Removing the Module

Gently press in the two release tabs on both sides of the module concurrently, and pull out the module.

Patents covering this product, if any, can be found on leviton.com/patents.

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