

SD Splicing Cassette

General

The **CommScope®** SD splicing cassette is designed for use in the SD fiber shelf, which has a LGX/1000 style footprint. Fusion splices are utilized and managed inside the cassette after splicing. The cassettes are available with 12/24 fiber LC duplex and 12 fiber SC duplex connections in **LazrSPEED®** and **TeraSPEED®** versions.

This product is intended for indoor use or can be used outdoors in a suitable protective enclosure.

Ordering information is listed below:

Material ID	Part No.	Description
760221739	PNL-CS-12LCX-PT	Splicing cassette 12LC LazrSPEED, 900µm
760221747	PNL-CS-12LCW-PT	Splicing cassette 12LC TeraSPEED, 900µm
760222596	PNL-CS-12LAW-PT	Splicing cassette 12LC APC TeraSPEED, 900µm
760221697	PNL-CS-24LCX-PT	Splicing cassette 24LC LazrSPEED, 900µm
760221705	PNL-CS-24LCW-PT	Splicing cassette 24LC TeraSPEED, 900µm
760222588	PNL-CS-24LAW-PT	Splicing cassette 24LC APC TeraSPEED, 900µm
760221770	PNL-CS-12SCX-PT	Splicing cassette 12SC LazrSPEED, 900µm
760221788	PNL-CS-12SCW-PT	Splicing cassette 12SC TeraSPEED, 900µm
760222604	PNL-CS-12SAW-PT	Splicing cassette 12SC APC TeraSPEED, 900µm
760236500	PNL-CS-12LCX	Splicing cassette 12LC LazrSPEED, no PT
760236501	PNL-CS-12LCW	Splicing cassette 12LC TeraSPEED, no PT
760236502	PNL-CS-12LAW	Splicing cassette 12LC APC TeraSPEED, no PT
760236503	PNL-CS-24LCX	Splicing cassette 24LC LazrSPEED, no PT
760236504	PNL-CS-24LCW	Splicing cassette 24LC TeraSPEED, no PT
760236505	PNL-CS-24LAW	Splicing cassette 24LC APC TeraSPEED, no PT
760236506	PNL-CS-12SCX	Splicing cassette 12SC LazrSPEED, no PT
760236507	PNL-CS-12SCW	Splicing cassette 12SC TeraSPEED, no PT
760236508	PNL-CS-12SAW	Splicing cassette 12SC APC TeraSPEED, no PT
760237458	PNL-CS-00000	Splicing cassette blank panel
760242108	PNL-CS-12LCV-PT	SD Splicing cassette 12LC OM5, 900µm
760242109	PNL-CS-24LCV-PT	SD Splicing cassette 24LC OM5, 900µm
760242110	PNL-CS-12LCV	SD Splicing cassette 12LC OM5, no pigtail
760242111	PNL-CS-24LCV	SD Splicing cassette 24LC OM5, no pigtail



Material ID	Part No.	Description
760242687	PNL-CS-12LCX-RPT	SPLICING CASSETTE 12LC LazrSPEED®,Ribbon
760242688	PNL-CS-12LCW-RPT	SPLICING CASSETTE 12LC TeraSPEED®,Ribbon
760242689	PNL-CS-12LAW-RPT	SPLICING CASSETTE 12LC APC TeraSPEED®,Ribbon
760242690	PNL-CS-24LCX-RPT	SPLICING CASSETTE 24LC LazrSPEED®,Ribbon
760242691	PNL-CS-24LCW-RPT	SPLICING CASSETTE 24LC TeraSPEED®,Ribbon
760242692	PNL-CS-24LAW-RPT	SPLICING CASSETTE 24LC APC TeraSPEED®,Ribbon
760243432	PNL-CS-12SCX-RPT	SPLICING CASSETTE 12SC LazrSPEED®,Ribbon
760243433	PNL-CS-12SCW-RPT	SPLICING CASSETTE 12SC TeraSPEED®,Ribbon
760243434	PNL-CS-12SAW-RPT	SPLICING CASSETTE 12SC APC TeraSPEED®,Ribbon

For example, cassette PNL-CS-24LCX -PT includes the fiber pigtail and cassette PNL-CS-24LCX does not include the fiber pigtail.



PNL-CS-24LCX-PT



PNL-CS-12LCX-PT



PNL-CS-12SCX-PT

SD Splicing Cassettes

How to Contact Us

- To find out more about **CommScope®** products, visit us on the web at www.commscope.com/
- For technical assistance, customer service, or to report any missing/damaged parts, visit us at <http://www.commscope.com/SupportCenter>

Tools Required

- Fusion splice machine and relevant tools

Parts List

Verify parts against the parts list below:

For single cassette:

Quantity		Description
12LC/12SC	24LC/ Blank Panel	
2	2	Cable tie
12	24	Fusion sleeve
1	2	Silicone tube

For ribbon cassette

Quantity		Description
12LC/12SC	24LC/ Blank Panel	
2	2	Cable tie
1	2	Fusion sleeve

Important Safety Cautions

- 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.
- Wearing safety glasses during installation of the cassette is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents.

Installation for Cassette with Single Pigtail (900µm)

Step 1 – Install Trunk Cable

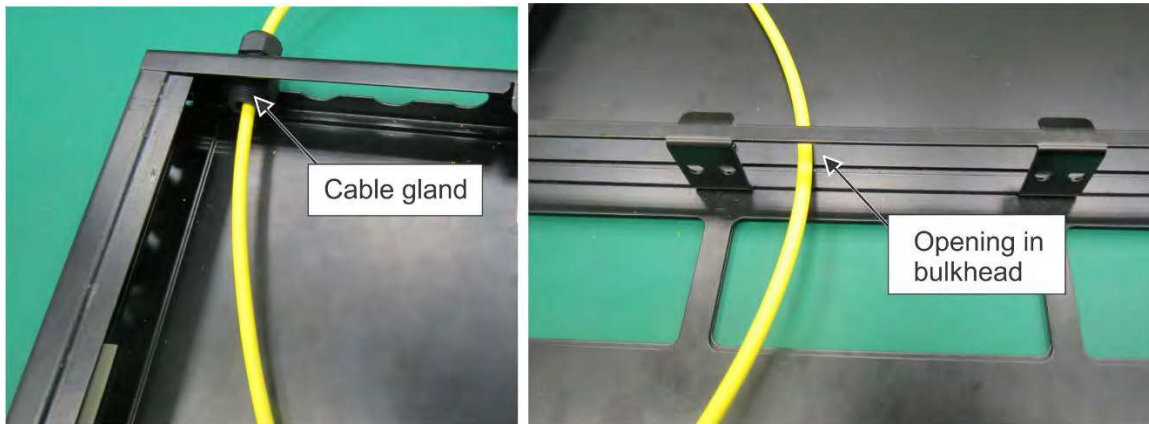


Figure 1. Install Incoming Fiber Cable

1. Dress incoming cable into the shelf and pull through both the cable gland and bulkhead opening into which the splicing cassette will be installed. (Figure 1).

Step 2 – Prepare Cassette for Splicing (Cable Pre-Routing)

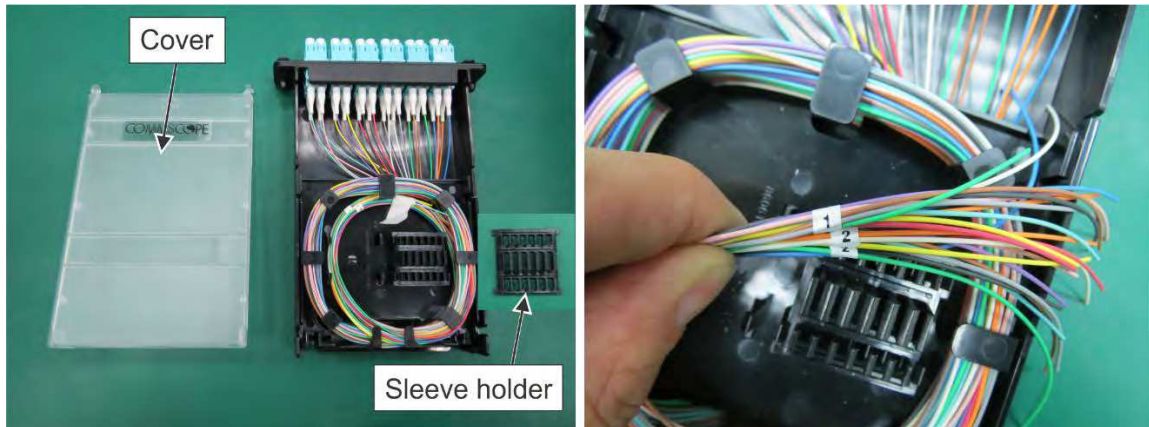


Figure 2. Prepare Fiber in Cassette

1. Remove cover from cassette and if it is a 24LC type, also remove the sleeve holder as shown (Figure 2).
2. Bundle no.1 serves ports 1-12 and bundle no. 2 serves ports 13-24.
3. Uncoil fibers first and then spool them clockwise in cassette to determine required length for splicing, then cut at location marked for 2nd loop (Figure 3).
4. Remove cut fibers and uncoil the remaining fibers.

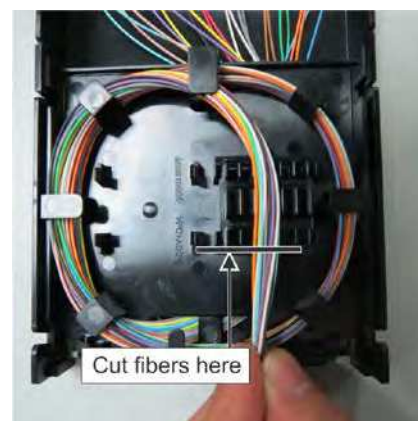


Figure 3. Cut Fiber for Splicing

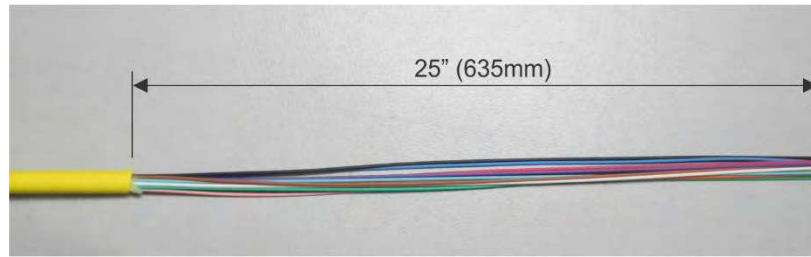
Step 3 – Prepare Incoming Cable for Splicing

Figure 4. Prepare Incoming Cable

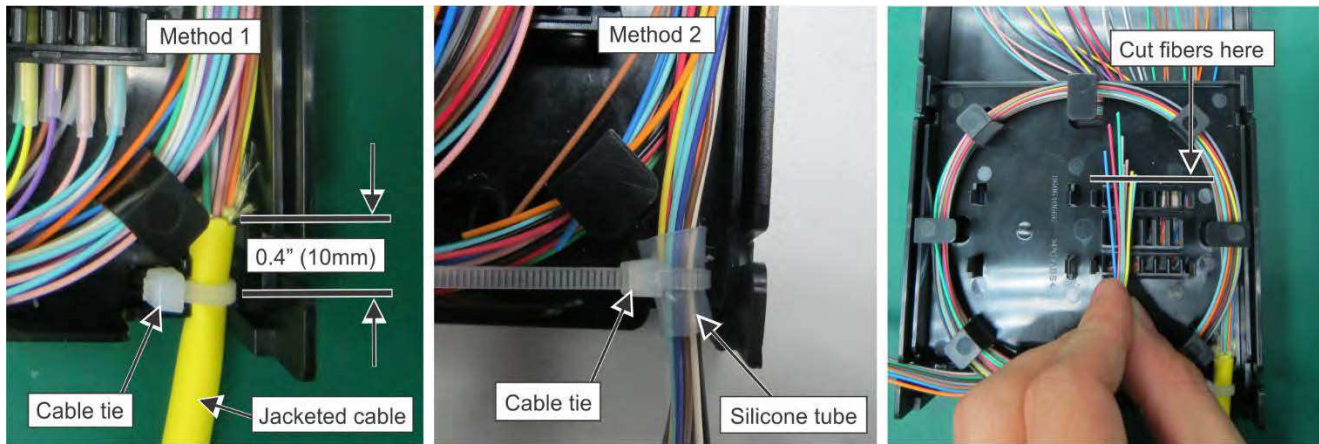


Figure 5. Secure Incoming Cable

Method 1 – Fiber Cable with an Outside Jacket

1. Remove approximately 25 inches (635mm) of jacket from incoming cable (Figure 4).
2. Position cable so that edge of jacket is just inside the right rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around jacketed cable approximately 0.4 inches (10mm) from the end of jacket. Tighten cable tie snug around jacket to secure (Figure 5, left picture). Make sure the head of the cable tie is on left side of cable.
3. Loop fibers counter-clockwise in the cassette to determine required length for splicing, then cut at location marked above for 1st or 2nd loop (Figure 5, right picture).
4. Remove the same spooled fibers from cassette.

Method 2 – 900 μ m Fibers without an Outside Jacket

1. Be sure sufficient slack exists for 900 μ m fibers inside the shelf when the cassette is installed.
2. Slide the provided silicone tube over the bundle of fibers until approximately 25 inches (635mm) of fibers remain.
3. Position silicone tube with fibers so that center of tube is just inside the right rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around silicone tube. Tighten cable tie snug around tube to secure (Figure 5, middle picture). Make sure the head of the cable tie is on the left side of the tube.
4. Loop fibers counter-clockwise in the cassette to determine required length for splicing, then cut at location marked above for 1st or 2nd loop (Figure 5, right picture).
5. Remove the same spooled fibers from cassette.

Step 4 – Splice and Route Cable

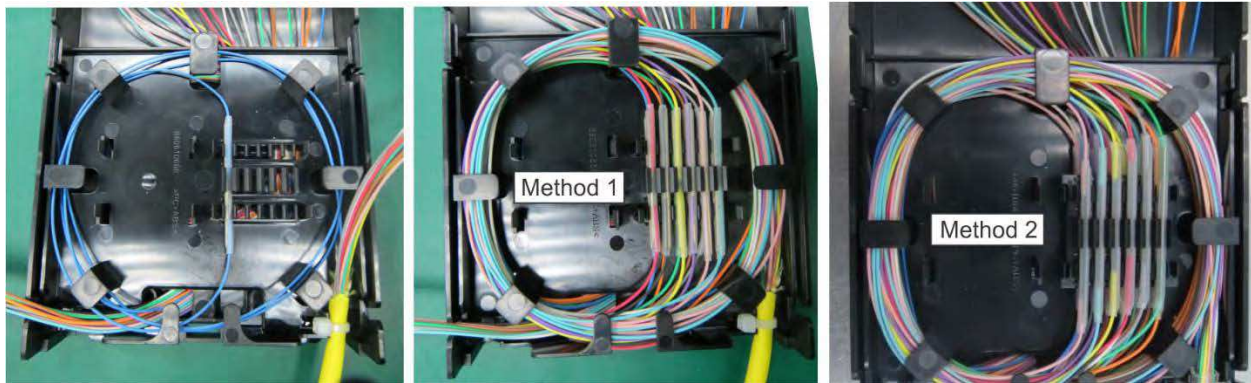


Figure 6. Splice and Route Cable

1. Splice like-color fibers for ports 1-12 per the instructions provided with the splices being used. It is recommended to splice no more than four fibers, then loop spliced fibers into cassette and secure sleeves in holder before continuing with splicing.
2. Secure sleeves in lower positions first and upper positions last, then complete dressing spliced fibers.
3. Repeat operation for remaining fibers in bundle no. 1 (Figure 6). Go to step 7 if 12f cassette is being used.
4. If using Method 1, install the sleeve holder and proceed to step 5 (Figure 6, Method 1).
5. If using Method 2, install the sleeve holder and repeat step 4.1 for fiber no. 13-24. Then go to step 7 (Figure 6, Method 2).

Step 5 – Prepare 2nd Incoming Cable for Splicing (If Used)

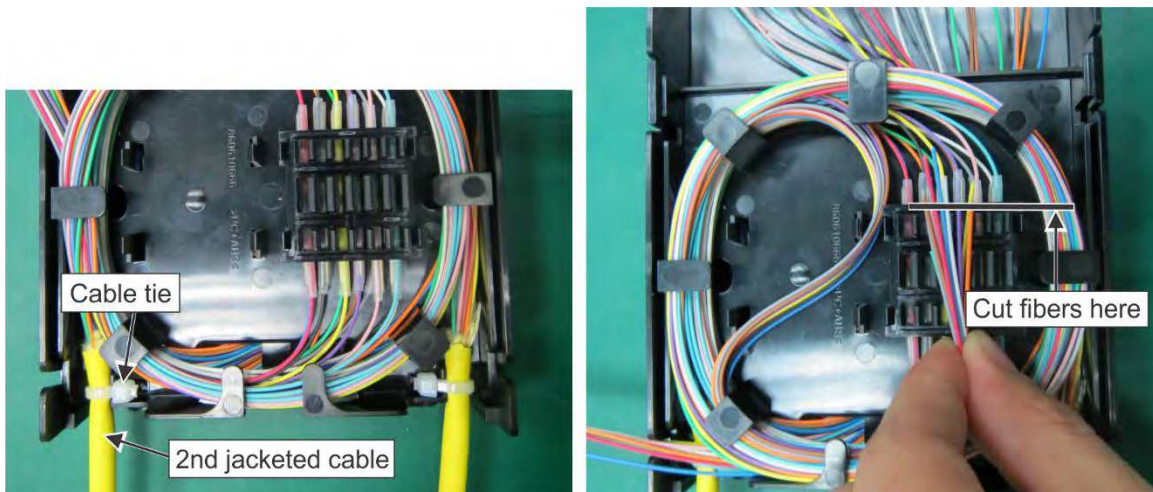


Figure 7. Prepare 2nd Incoming Cable

1. Remove approximately 25 inches (635mm) of jacket from incoming cable (Figure 4).
2. Position cable so that edge of jacket is just inside the left rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around jacketed cable approximately 0.4 inches (10mm) from the end of jacket. Tighten cable tie snug around jacket to secure. Make sure the head of the cable tie is on right side of cable.
3. Loop fibers in an “S” configuration in the cassette as shown above to determine required length for splicing, then cut at location marked for 1st or 2nd loop (Figure 7, right picture).
4. Remove the same spooled fibers from cassette.

Step 6 – Splice and Route 2nd Incoming Cable (If Used)

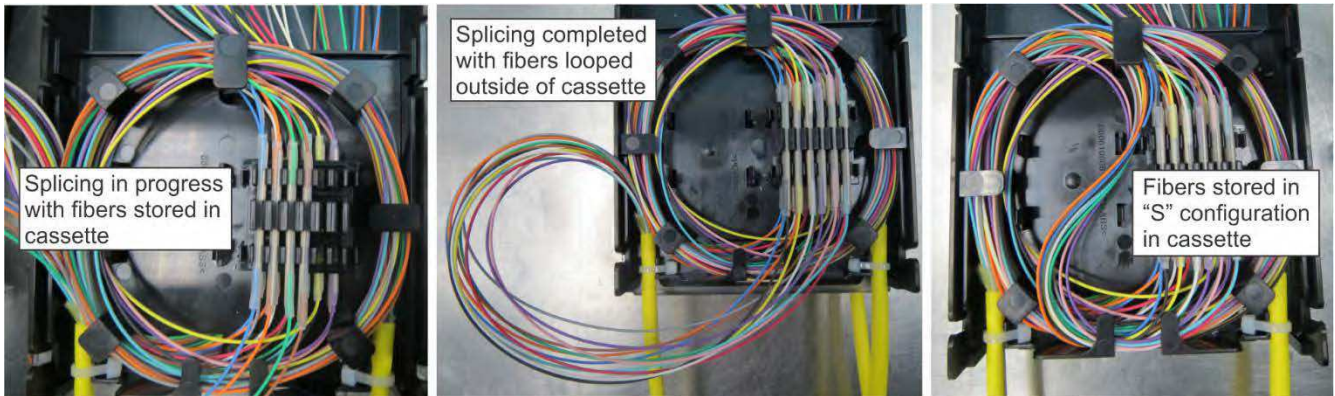


Figure 8. Splice and Route 2nd Cable

1. Splice like-color fibers for ports 13-24 per the instructions provided with the splices being used. It is recommended to splice no more than four fibers, then loop spliced fibers into cassette and secure sleeves in holder before continuing with splicing.
2. Secure sleeves in lower positions first and upper positions last, then complete dressing spliced fibers.
3. Repeat operation for remaining fibers in bundle no. 2 (Figure 8).
4. When ports 13-24 have been done, route spliced fibers from incoming cable into cassette in an “S” configuration as shown above (Figure 8).

Step 7 – Install and Close Cover

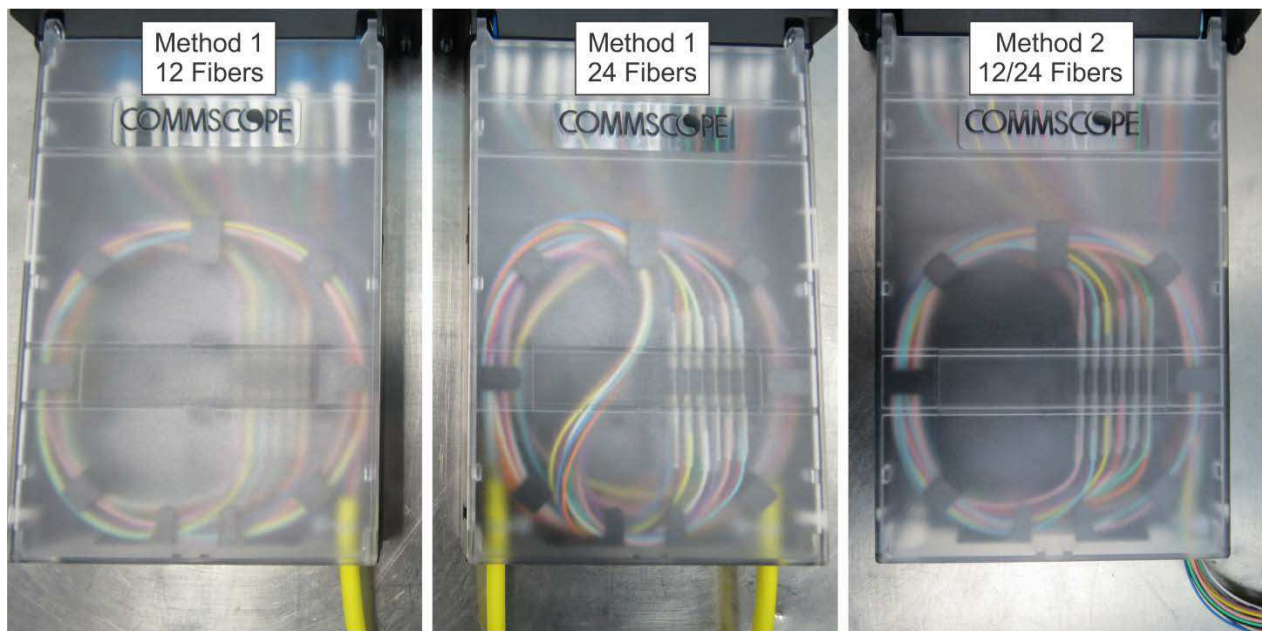


Figure 9. Install and Close Cover

1. Ensure no fibers are snagged, pinched, or too tight in the cassette, then install and close the cover (Figure 9).

Step 8 – Install Cassette in Shelf and Route Cable

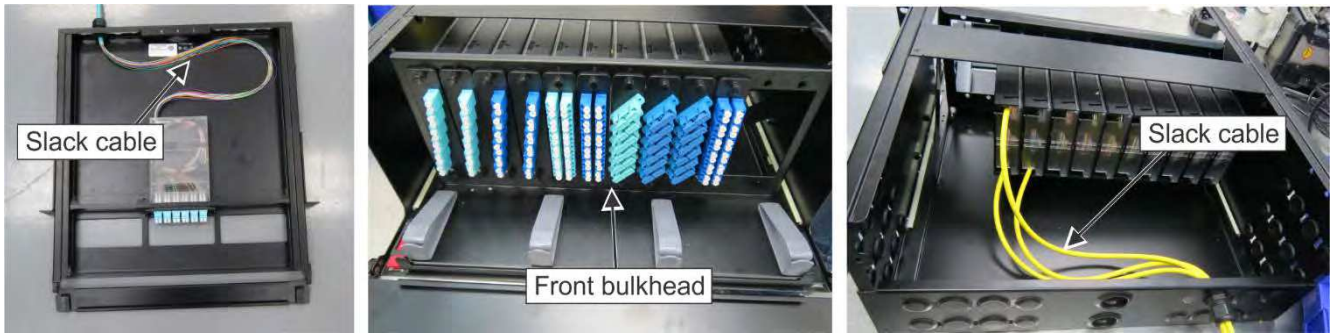


Figure 10. Install Cassette in Shelf

1. Insert cassette in the shelf bulkhead opening while pulling slack incoming cable back through same opening in bulkhead (Figure 10). Push in on captive rivets on cassette to secure it in opening once inserted.
2. Pull slack incoming cable inside shelf back through the compression gland while leaving sufficient slack inside shelf to accommodate the tray sliding out for patching access.
3. If fiber cable without a jacket was used for splicing (Method 2), the bundle of 900 μ m fibers outside the cassette should be protected using corrugated tubing, spiral tubing, or a similar product.

Installation for Cassette without Pigtail

Step 1 – Prepare Work

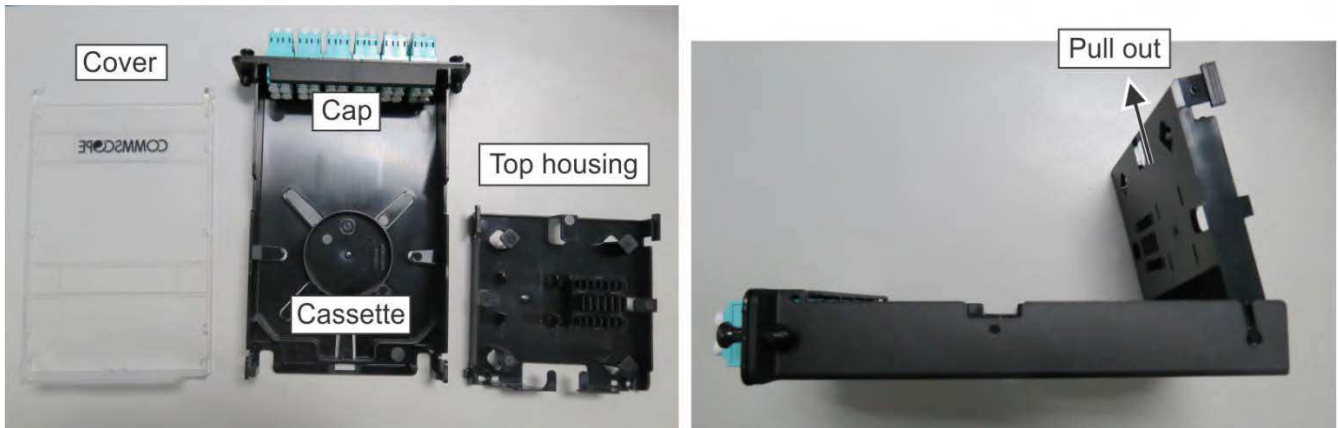


Figure 11. Prepare Work

1. Remove the cover from cassette.
2. Open the top housing to an angle of 80° and pull upward to remove it from the cassette (Figure 11, right picture).
3. Remove the internal cap from fiber adapter.

Step 2 – Install Pigtail in Cassette

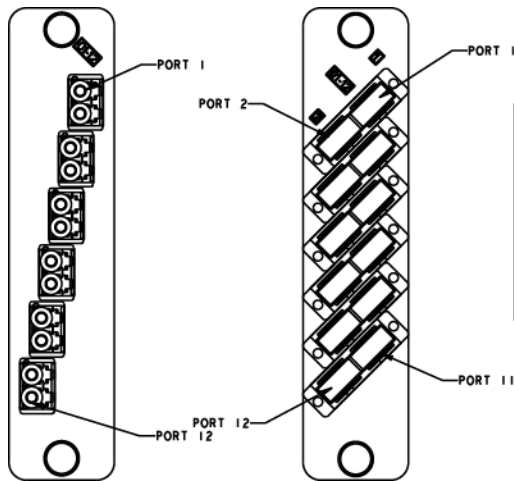


Figure 12. 12LC and 12SC Cassette

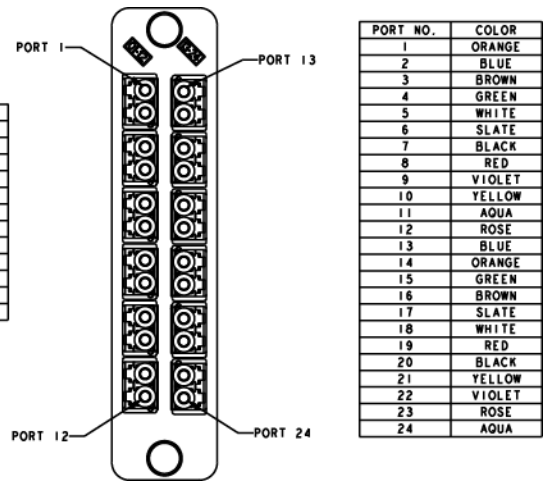


Figure 13. 24LC Cassette

1. The recommended length for the pigtail is approximately 60 inches (1.5m).
2. Install the pigtail based on the color sequence (Figure 12 for 12LC and 12SC cassette, Figure 13 for 24LC cassette).
3. If a 24LC cassette is being used, the two bundles of 12f fiber will be marked as bundle no. 1 for ports 1-12 and bundle no. 2 for ports 13-24.

Step 3 – Route Pigtail on Bottom Layer of Cassette

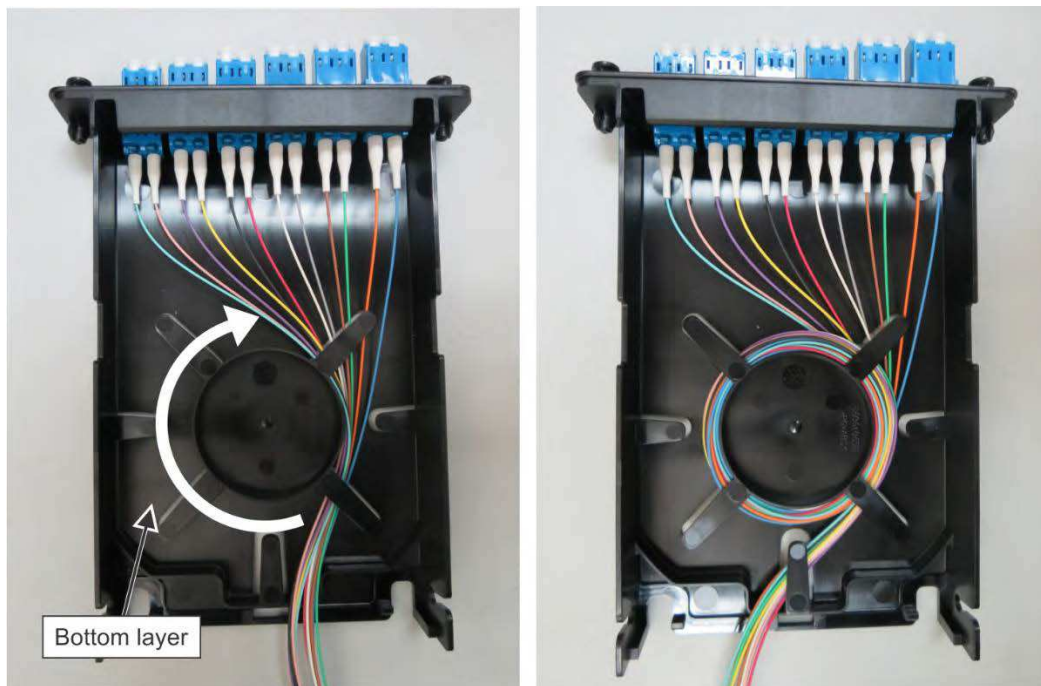


Figure 14. Route Pigtail

1. Loosely spool fibers clockwise around fiber drum on the bottom layer for two loops (Figure 14).

Step 4 – Route Pigtail on Top Layer of Cassette

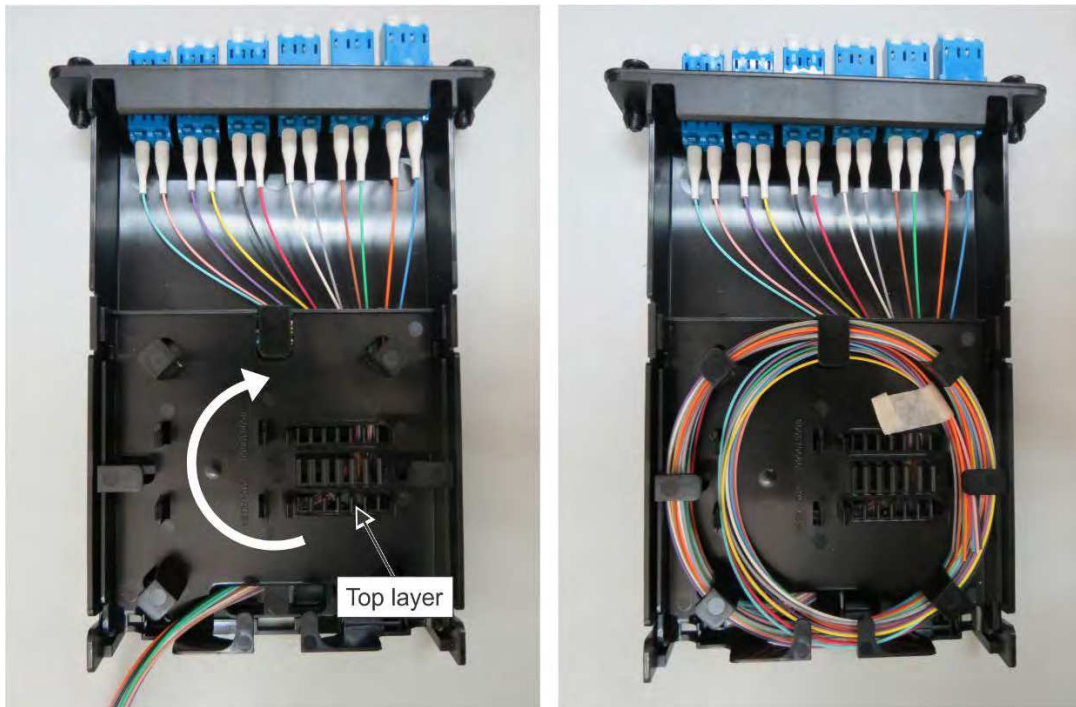


Figure 15. Route Pigtail

1. Install the top housing first and loosely spool fibers clockwise around fiber drum on the top layer until all fibers are coiled inside the cassette (Figure 15).

Step 5 – Install and Close Cover



Figure 16. Install and Close Cover

1. Ensure no fibers are snagged, pinched, or too tight in the cassette, then install and close the cover (Figure 16).

Installation for Cassette with Blank Panel

Step 1 – Prepare Cassette for Splicing (Cable Pre-Routing)

1. Remove cover and sleeve holder from cassette.

Step 2 – Prepare Incoming Cable for Splicing (Right Side)

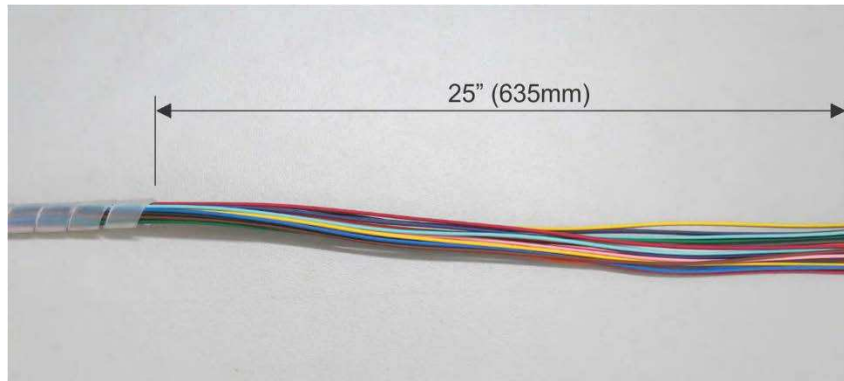


Figure 17. Prepare Incoming Cable

1. Be sure sufficient slack exists for 900 um fibers inside the shelf when cassette is installed.
2. Install spiral tube over the bundle of fibers until approximately 25 inches (635mm) of fibers remain.

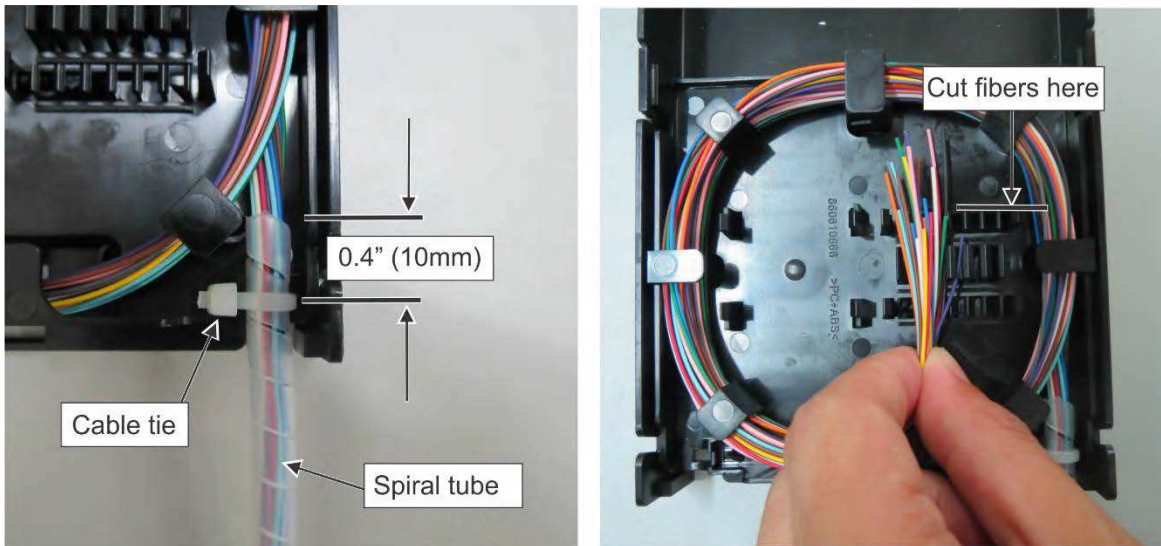


Figure 18. Secure Incoming Cable (Right Side)

3. Position cable so that edge of spiral tube is just inside the right rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around spiral tube approximately 0.4 inches (10mm) from the end of tube. Tighten cable tie snug around tube to secure (Figure 18, left picture). Make sure the head of the cable tie is on left side of cable.
4. Loop fibers counter-clockwise in the cassette to determine required length for splicing, then cut at location marked above for 1st or 2nd loop (Figure 18, right picture).
5. Remove the same spooled fibers from cassette.

Step 3 – Prepare Incoming Cable for Splicing (Left Side)

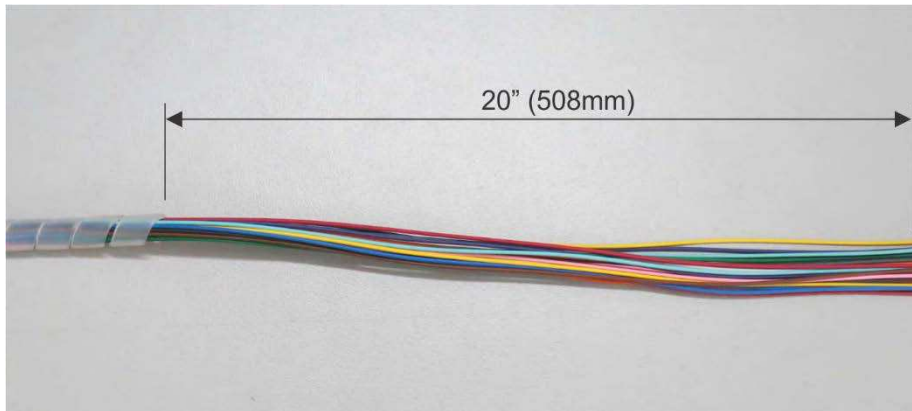


Figure 19. Prepare Incoming Cable

1. Be sure sufficient slack exists for 900 um fibers inside the shelf when cassette is installed.
2. Install spiral tube over the bundle of fibers until approximately 20 inches (508mm) of fibers remain.

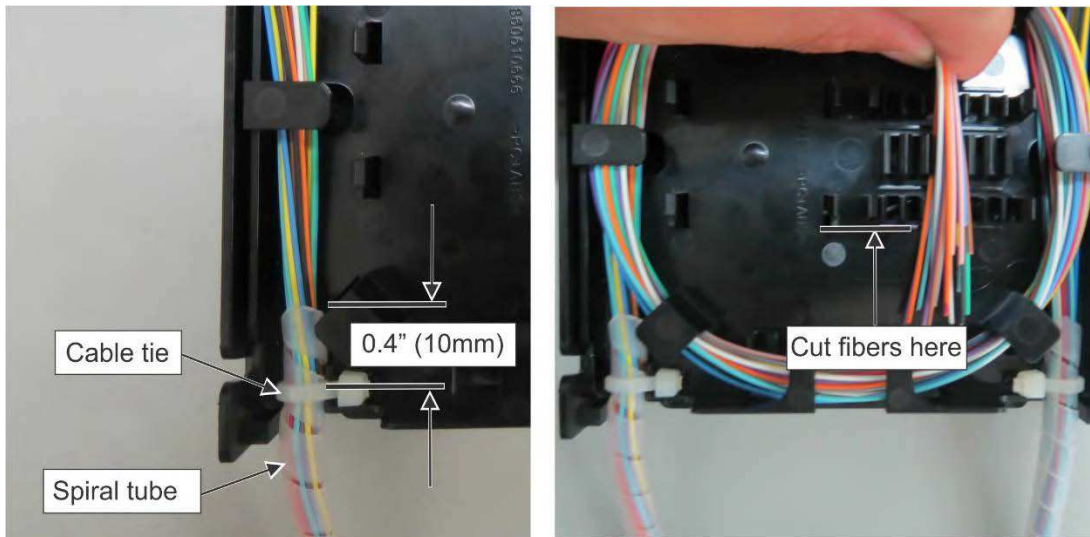


Figure 20. Secure Incoming Cable (Left Side)

3. Position cable so that edge of spiral tube is just inside the left rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around spiral tube approximately 0.4 inches (10mm) from the end of tube. Tighten cable tie snug around tube to secure (Figure 20, left picture). Make sure the head of the cable tie is on right side of cable.
4. Loop fibers clockwise in the cassette to determine required length for splicing, then cut at location marked above for 1st or 2nd loop (Figure 20, right picture).
5. Remove the same spooled fibers from cassette.

Step 4 – Splice and Route Cable

1. Splice like-color fibers for ports 1-12 per the instructions provided with the splices being used. It is recommended to splice no more than four fibers, then loop spliced fibers into cassette and secure sleeves in holder before continuing with splicing.
2. Secure sleeves in lower positions first and upper positions last, then complete dressing spliced fibers.
3. Repeat operation for remaining fibers.
4. Install the sleeve holder and repeat steps 1 to 3 for fiber no. 13-24.

Step 5 – Install and Close Cover

1. Ensure no fibers are snagged, pinched, or too tight in the cassette, then install and close the cover.

Step 6 – Install Cassette in Shelf and Route Cable

1. Insert cassette in the shelf bulkhead opening while pulling slack incoming cable back through same opening in bulkhead. Push in on captive rivets on cassette to secure it in opening once inserted.
2. Pull slack incoming cable inside shelf back through the compression gland while leaving sufficient slack inside shelf to accommodate the tray sliding out for patching access.
3. The bundle of 900 μ m fibers (without jacket) outside the cassette should be protected using spiral tubing or a similar product.

Installation for Cassette with Ribbon Pigtail

Step 1 – Install the blocking kit before installing the splice cassette

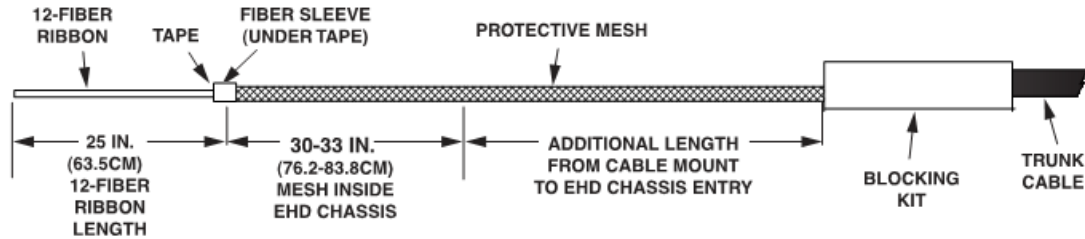


Figure 1. Install the blocking kit

1. Mesh sleeving and fiber sleeve are provided in the blocking kit. Follow the blocking kit installation instructions to prepare the ribbon fiber for the splice cassette installation.
2. When cutting the mesh sleeving, plan for a minimum length inside the chassis of 31 to 33 inches (76.2 to 83.8 cm). Install the 12 fiber ribbon in the protective mesh sleeving with about 25 inches (63.5 cm) of ribbon exposed beyond the end of the mesh. Install one 12-fiber ribbon per mesh sleeve for 12LC/SC cassette and two 12-fiber ribbons per mesh sleeve for 24LC (one mesh sleeve per splice cassette).

Step 2 – Prepare Cassette for Splicing (Cable Pre-Routing)



Figure 2. Prepare Fiber in Cassette

1. Remove cover from cassette as shown (Figure 2, left picture).
2. Ribbon no.1 serves ports 1-12 and ribbon no. 2 serves ports 13-24 (Figure 2, right picture).
3. Uncoil fibers first and then spool them clockwise in cassette to determine required length for splicing, then cut at location marked for 2nd loop (Figure 3).
4. Remove cut fibers and uncoil the remaining fibers.

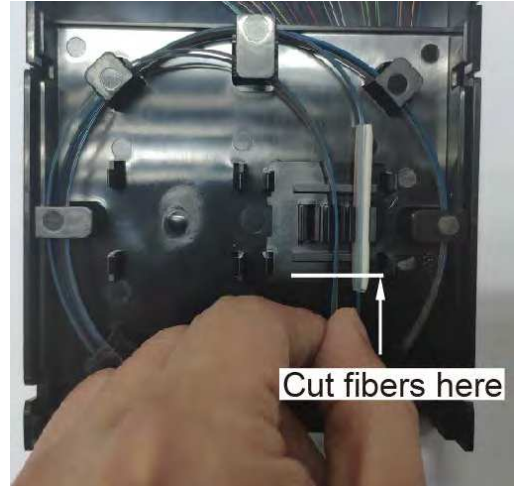


Figure 3. Cut Fiber for Splicing

Step 3 – Prepare Incoming Cable for Splicing

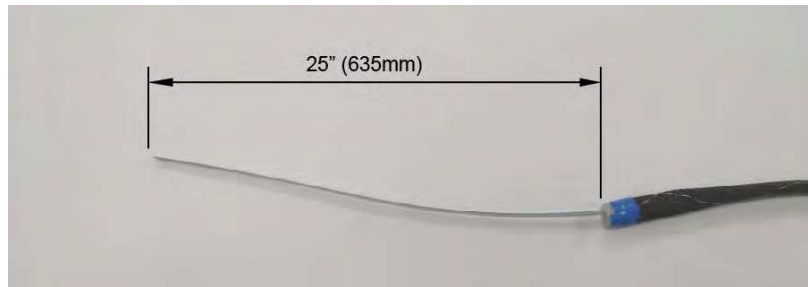


Figure 4. Prepare Incoming Cable



Figure 5. Secure Incoming Cable

1. Be sure sufficient slack exists for fibers inside the shelf when the cassette is installed.
2. Position fiber sleeve with fibers so that the fiber sleeve is just inside the right rear of the cassette with fibers in direction of the front. Using the provided cable tie, loop it through the slot in bottom of cassette and around fiber sleeve. Tighten cable tie snug around tube to secure (Figure 5, left picture). Make sure the head of the cable tie is on the left side of the tube.
3. Loop fibers counter-clockwise in the cassette to determine required length for splicing, then cut at location marked above for 2nd loop (Figure 5, right picture).
4. Remove the same spooled fibers from cassette.

Step 4 – Splice and Route Cable

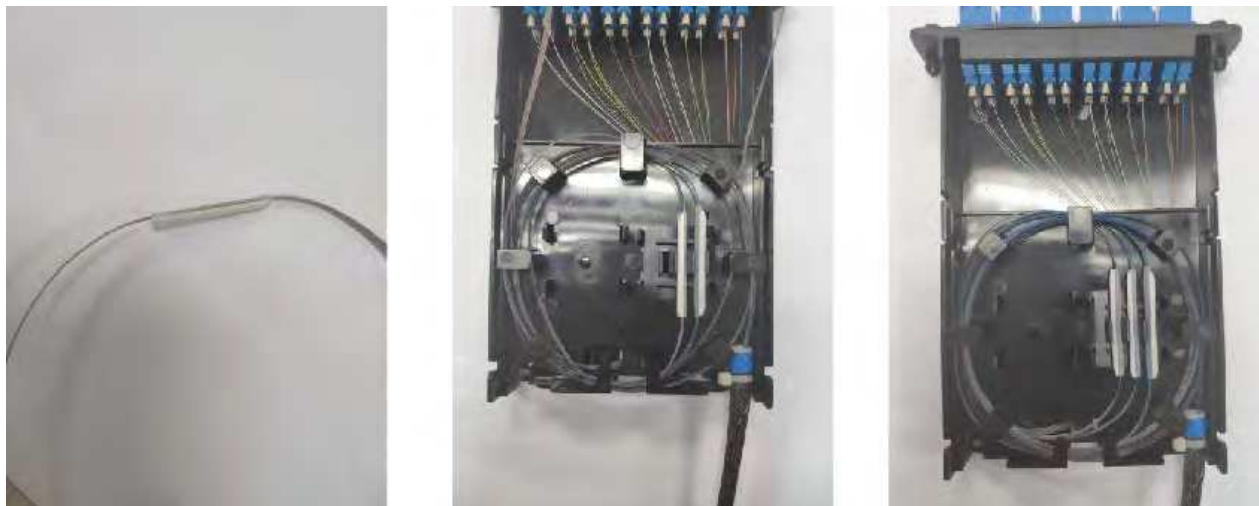


Figure 6. Splice and Route Cable

1. Splice ribbon no.1 per the instructions provided with the splices being used, then loop spliced fibers into cassette and secure fusion sleeves in holder before continuing with splicing (Figure 6, middle picture).
2. Repeat operation for ribbon no.2 (Figure 6, right picture).

Step 5 – Install and Close Cover



Figure 7. Install and Close Cover

1. Ensure no fibers are snagged, pinched, or too tight in the cassette, then install and close the cover (Figure 7).

Step 6 – Install Cassette in Shelf and Route Cable

1. Insert cassette in the shelf bulkhead opening while pulling slack incoming cable back through same opening in bulkhead. Push in on captive rivets on cassette to secure it in opening once inserted.
2. Pull slack incoming cable inside shelf back through the rear entry of shelf while leaving sufficient slack inside shelf to accommodate the tray sliding out for patching access.
3. If fiber cable without a jacket was used for splicing, the bundle of fibers outside the cassette should be protected using corrugated tubing, spiral tubing, or a similar product.