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 OptiSPEED®, 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:

<table>
<thead>
<tr>
<th>Material ID</th>
<th>Part No.</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>760221713</td>
<td>PNL-CS-12LCM-PT</td>
<td>Splicing cassette 12LC OptiSPEED, 900μm</td>
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<tr>
<td>760221739</td>
<td>PNL-CS-12LCX-PT</td>
<td>Splicing cassette 12LC LazrSPEED, 900μm</td>
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<td>760221747</td>
<td>PNL-CS-12LCW-PT</td>
<td>Splicing cassette 12LC TeraSPEED, 900μm</td>
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<td>760222596</td>
<td>PNL-CS-12LAW-PT</td>
<td>Splicing cassette 12LC APC TeraSPEED, 900μm</td>
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<td>760221671</td>
<td>PNL-CS-24LCM-PT</td>
<td>Splicing cassette 24LC OptiSPEED, 900μm</td>
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<td>760221697</td>
<td>PNL-CS-24LCX-PT</td>
<td>Splicing cassette 24LC LazrSPEED, 900μm</td>
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<td>760221705</td>
<td>PNL-CS-24LCW-PT</td>
<td>Splicing cassette 24LC TeraSPEED, 900μm</td>
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<td>76022588</td>
<td>PNL-CS-24LAW-PT</td>
<td>Splicing cassette 24LC APC TeraSPEED, 900μm</td>
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<td>760221754</td>
<td>PNL-CS-12SCM-PT</td>
<td>Splicing cassette 12SC OptiSPEED, 900μm</td>
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<td>760221770</td>
<td>PNL-CS-12SCX-PT</td>
<td>Splicing cassette 12SC LazrSPEED, 900μm</td>
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<td>PNL-CS-12SCW-PT</td>
<td>Splicing cassette 12SC TeraSPEED, 900μm</td>
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<td>760222604</td>
<td>PNL-CS-12SAW-PT</td>
<td>Splicing cassette 12SC APC TeraSPEED, 900μm</td>
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<td>760236500</td>
<td>PNL-CS-12LCX</td>
<td>Splicing cassette 12LC LazrSPEED, no PT</td>
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<td>PNL-CS-12LCW</td>
<td>Splicing cassette 12LC TeraSPEED, no PT</td>
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<td>PNL-CS-12SCX</td>
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<td>760236508</td>
<td>PNL-CS-12SAW</td>
<td>Splicing cassette 12SC APC TeraSPEED, no PT</td>
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<td>760237458</td>
<td>PNL-CS-00000</td>
<td>Splicing cassette blank panel</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cable tie</td>
</tr>
<tr>
<td>12</td>
<td>Fusion sleeve</td>
</tr>
<tr>
<td>1</td>
<td>Silicone tube</td>
</tr>
</tbody>
</table>

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 Pigtail

Step 1 – Install Trunk 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)

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 1. Install Incoming Fiber Cable

Figure 2. Prepare Fiber in Cassette

Figure 3. Cut Fiber for Splicing
Step 3 – Prepare Incoming Cable for Splicing

Figure 4. Prepare 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 – 900μm Fibers without an Outside Jacket
1. Be sure sufficient slack exists for 900μm 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)

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

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 900μm 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

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

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

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

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)

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.

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)

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.

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 900μm fibers (without jacket) outside the cassette should be protected using spiral tubing or a similar product.