

NOVUX™ Fiber Optic System CC 100 Patch Application

About this manual

This installation instructions document describes the installation steps of the **patch application** of the Compact Closure 100 series. Installation steps in this document are limited to: splicing input of the connectors to the feeder fibers, patching SC cables and patching LC cables.

Installation steps of the feeder and branch cables are explained in manual TC-1425-IP: CC 100 Basic Instructions.

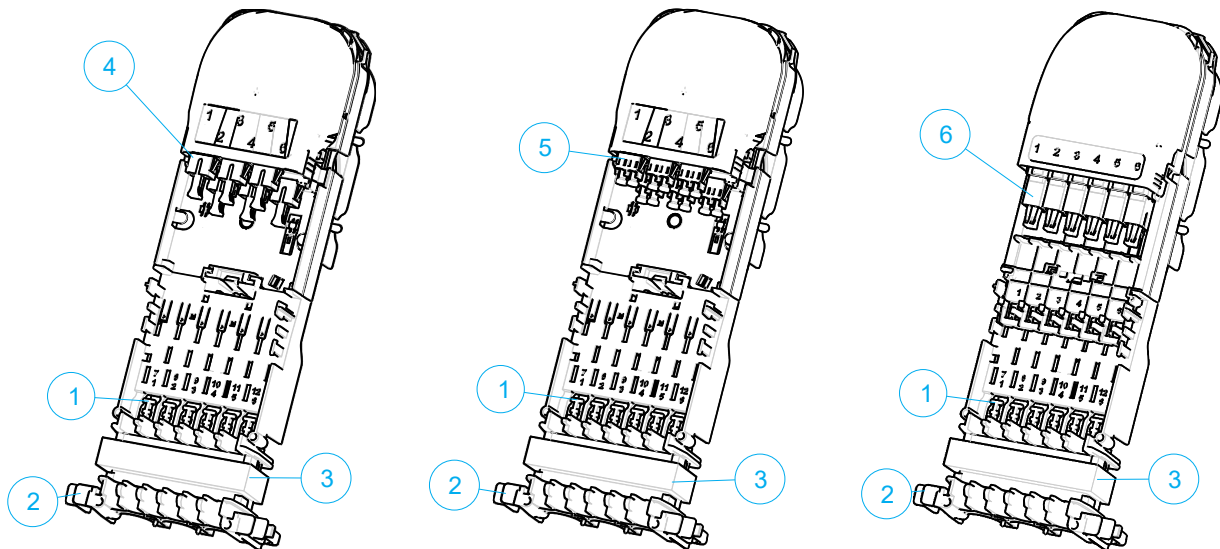
The document starts with providing an overview of the tools required to perform the installation. Also warnings and cautions are indicated, which should be observed before starting the product installation.

Images in this manual are for reference only and are subject to change.

General product information

	Quantity drops	installation method drops
SC/APC or SC/UPC	up to 6	Pre-connectorized with and without transition, FIC, Xpress drop
LC/APC or LC/UPC	up to 12	Pre-connectorized with and without transition, FIC

Overview organizer



- 1 Drop cable strain relief T-shapes
- 2 Locking features
- 3 Octopus™ gel seal
- 4 SC adapters
- 5 LC adapters
- 6 SC Xpress drop

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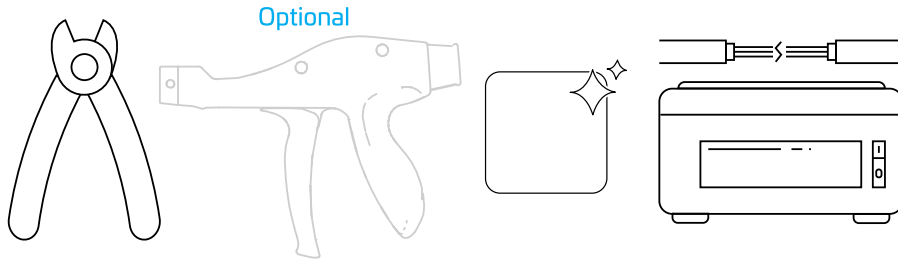
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1 Abbreviations

CC: Compact Closure

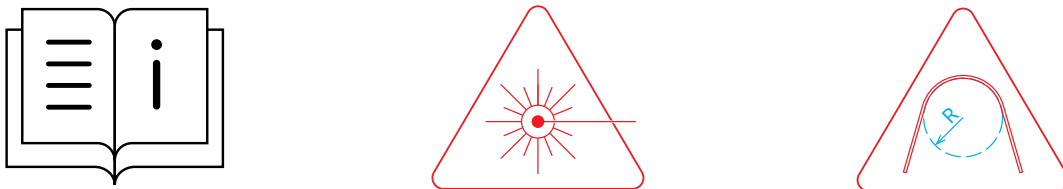
FIC: Field Installable Connector

2 Tools



- Small side cutter or Cable Tie Gun (to cut excess cable tie)
- Fiber splice equipment and fiber cleaning tools

3 Warnings and Cautions

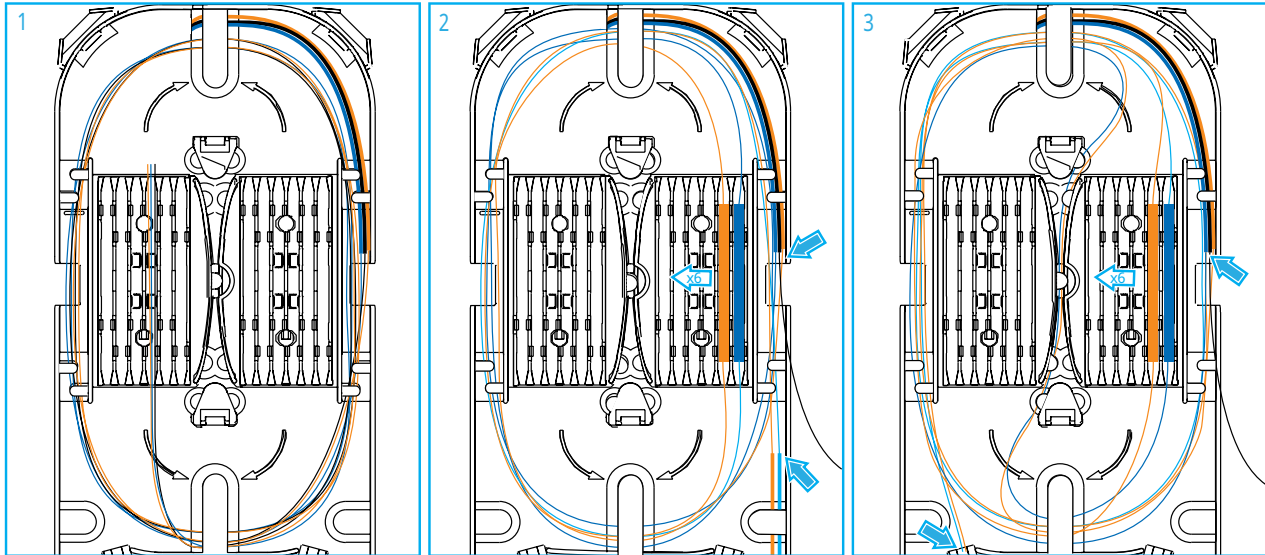


- Follow the installation instruction steps to ensure the performance of the closure. It is necessary to take precautions and keep the working space clean to protect the closure sealing materials and splices.
- Exposure to laser radiation can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not assume the laser power is turned off or that the fiber is disconnected at the other end. Looking into the ends of any optical fiber is entirely at your own risk. A protective cap or hood **MUST** be immediately placed over any radiating adapter or optical fiber connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the connector and adapter.
- Fiber optic cables may be damaged if bent or curved to a radius that is less than the recommended minimum bend radius. Always observe the recommended bend radius limit when installing fiber optic cables, subunits and patch cords.


4 Splice feeder to input connector

Prepare and install the feeder cable as explained in the CC 100 base instructions TC-1425-IP. Route the feeder fibers to the rear tray. Note that the fibers can be routed directly to the rear splice tray or via the uncut fiber storage.

4.1 Splice feeder direct to input connector





1 The inputs of the connectors patched at the front are routed to the splice tray at the rear as shown in image above. The 250 μ m fiber is already prepared.

 **Note:** The pigtails and 250 μ m fibers have a color code to distinguish between the different ports. Advise prevailing color code to select correct fiber.

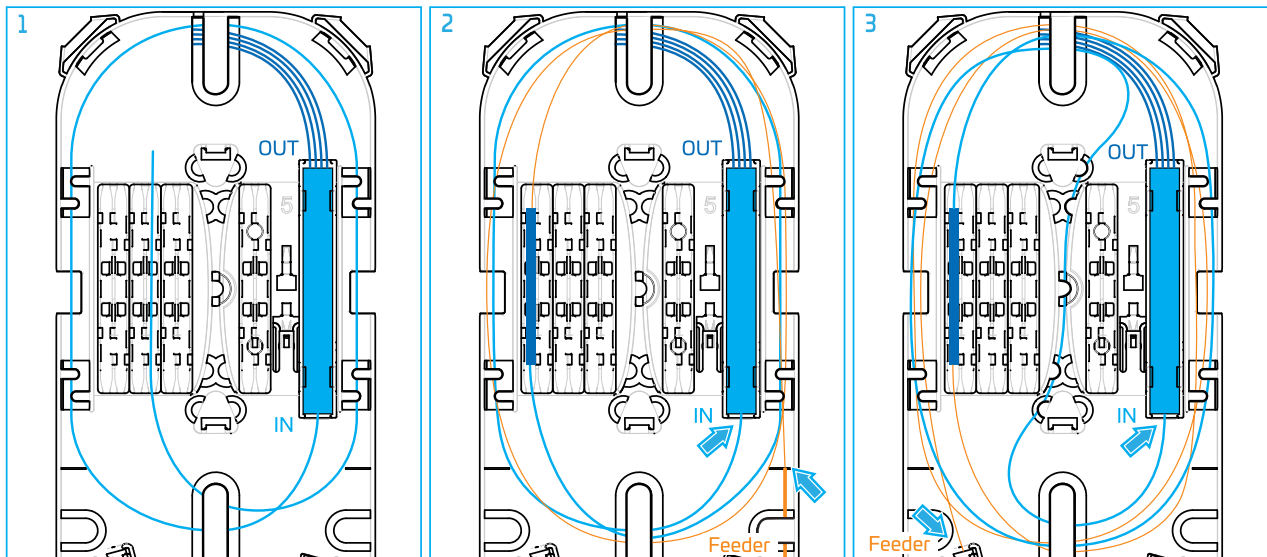
2 Splice the input of the connectors to the feeder fibers (entering directly on the rear tray) by making a fusion splice: make fusion splice per standard practice, store the splice protector in the splice protector holder and store over length in loops on the tray.

3 If the feeder fibers come from the uncut storage zone, one of the fibers should be routed through the channel in the middle of the tray before storing over length in loops on the tray.

 **Important:** Make sure all fibers are properly positioned under the lips and avoid bulging of the fiber.

 **Note:** The fiber guidance pen (situated on top of the loop storage basket) can be used to position all the fibers under the lips.

4.2 Splice feeder to factory installed splitter

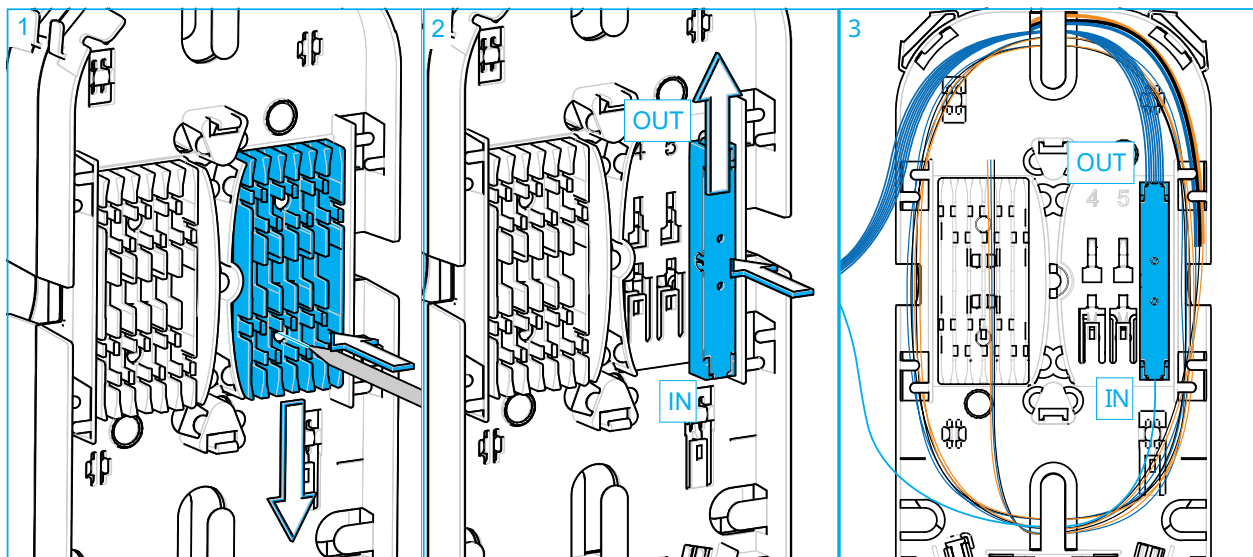


- 1 A splitter is installed on the rear tray. The splitter outputs are already connected to the patch panel at the front side. The input of the splitter is a 900µm fiber that should be stripped and spliced to a feeder fiber.
- 2 Splice the input of the splitter to the feeder fiber (entering directly on the rear tray) by making a fusion splice: make fusion splice per standard practice, store the splice protector in the splice protector holder and store over length in loops on the tray.
- 3 If the feeder fiber comes from the uncut storage zone, one of the feeder fibers should be routed through the channel in the middle of the tray before storing over length in loops on the tray.

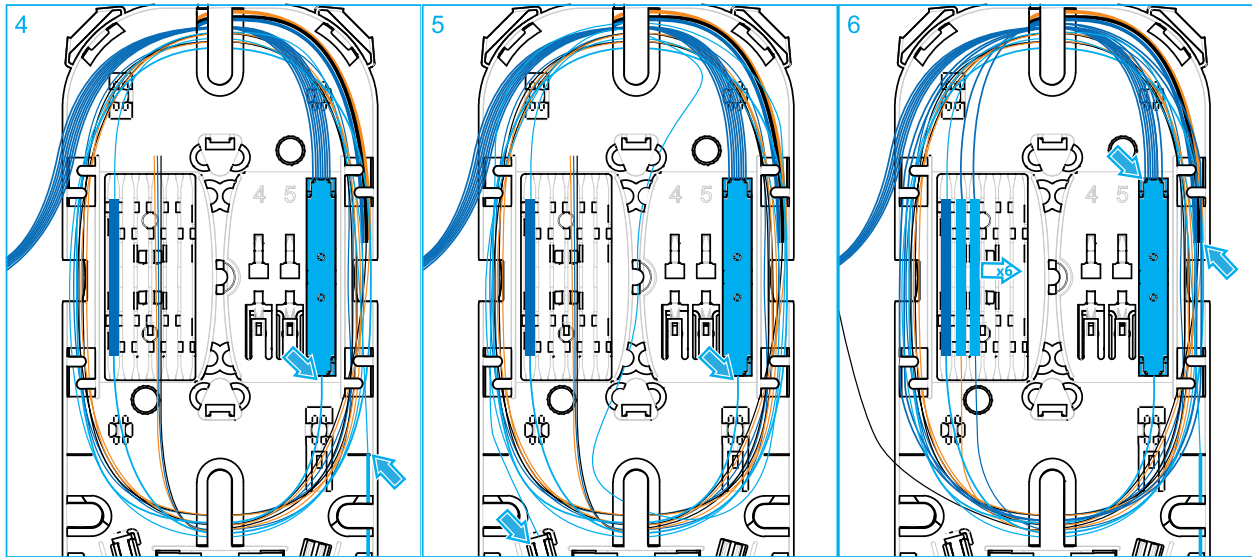
! **Important:** Make sure all fibers are properly positioned under the lips and avoid bulging of the fiber.

📄 **Note:** The fiber guidance pen (situated on top of the loop storage basket) can be used to position all the fibers under the lips.

4.3 Splice feeder and input connectors to field installable splitter



- 1 To install a field installable splitter, one splice protector holder should be removed first. Use the tip of the fiber guidance pen to unlock the splice protector holder, then slide the splice protector downwards.
- 2 Slide the field installable splitter in one of the dove tails. Make sure the output of the splitter is oriented to the top.
- 3 Splitter installed in position 6.



4 Splice the input of the splitter to the feeder fiber (entering directly on the rear tray) by making a fusion splice: make fusion splice per standard practice, store the splice protector in the splice protector holder and store over length in loops on the tray.

5 If the feeder fibers come from the uncut storage zone, one of the fibers should be routed through the channel in the middle of the tray before to store over length in loops on the tray.

! **Important:** Make sure all fibers are properly positioned under the lips and avoid bulging of the fiber

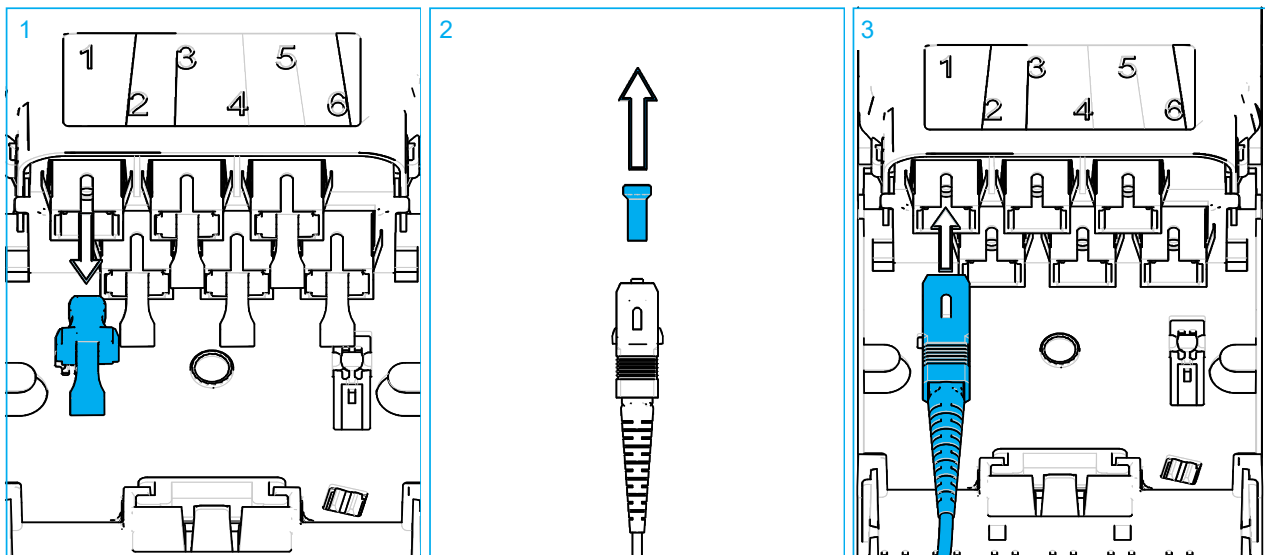
📄 **Note:** The fiber guidance pen (situated on top of the loop storage basket) can be used to position all the fibers under the lips.

6 Splice the output of the splitter to the connector input. For the SC application, store all 6 splice protectors in the splice protector holder and store over length.

📄 **Note:** Note that for the LC application, to connect all 12 drops, an extra splice protector holder should be installed in position 4.

5 Pre-connectorized cable

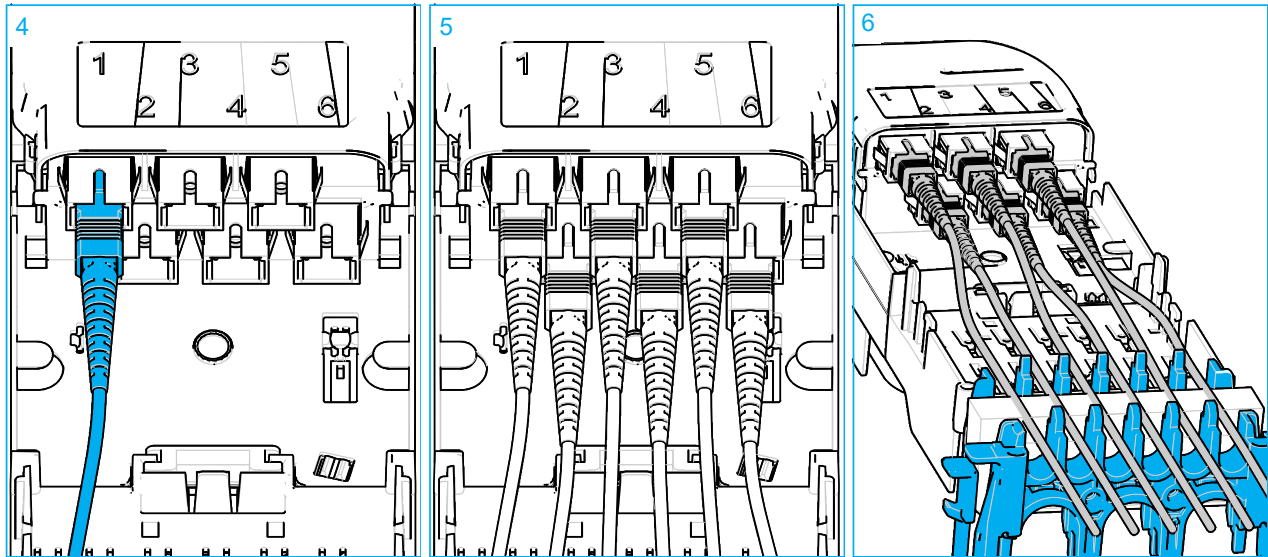
5.1 Install SC-connectorized cable




1 Remove dust caps of the adapter port. Clean per standard practice.

2 Remove dust caps of the connector. Clean the connector per standard practice.

3 Position the connector in the correct orientation (rib facing forward as shown in figure above).

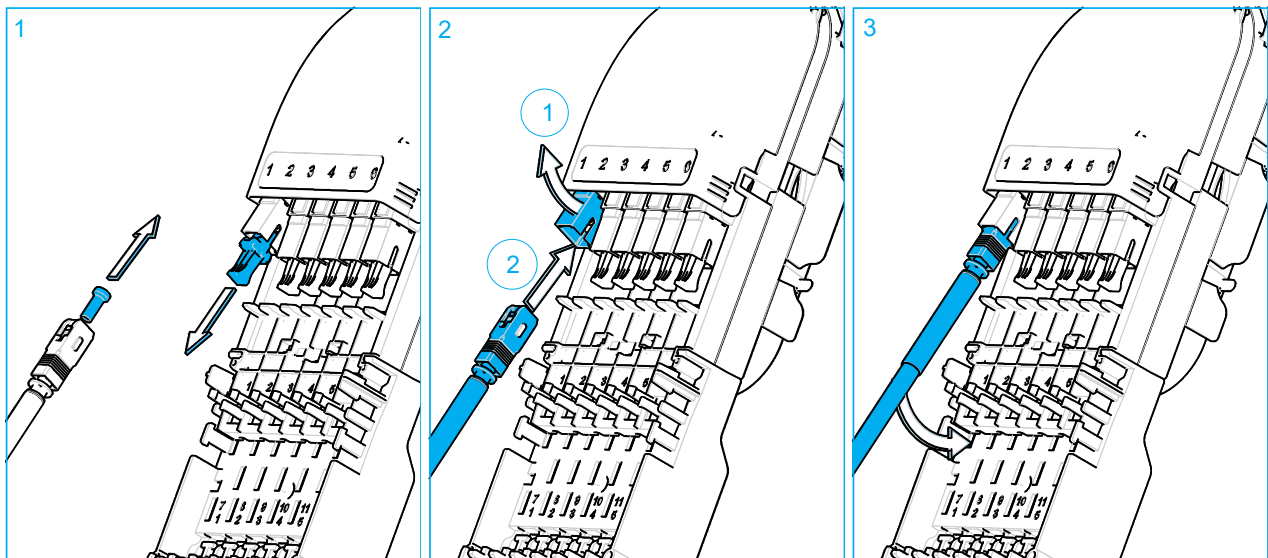


- 4 Connect the SC-connectorized cable to its assigned port. Adapter ports are designated with the numbers 1-6. A clicking sound is observed when the connector is properly seated.
- 5 All connectors installed.
- 6 Each cable should be routed to a separate entrance port. Dress each cable between the two ribs of the entrance port below the adapter port.

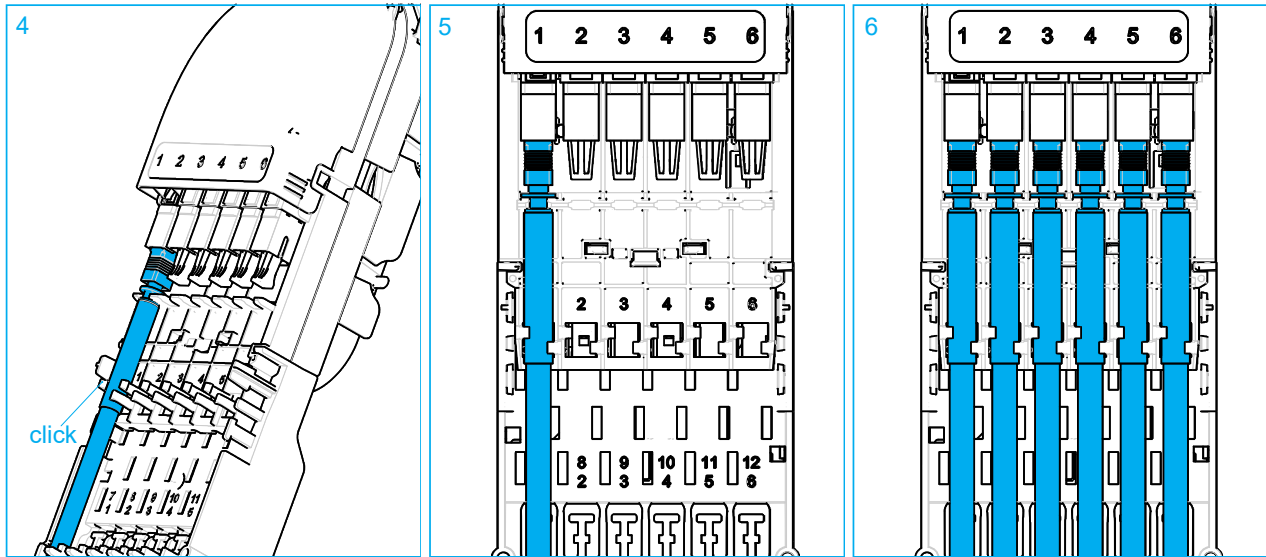
 **Note:** External cable fixation bracket is recommended to retain the cable outside the closure.

5.2 Install SC Xpres drop

The Xpres drops are a range of factory terminated drop cables with integrated strain relief features.



- 1 Remove dust caps of both the connector and the adapter port. Clean per standard practice. Swing the adapter port upwards.
- 2 Position the connector in the correct orientation (rib facing to the right side as shown in figure above). Connect the connectorized drop to its assigned port. Adapter ports are designated with the numbers 1-6. A clicking sound is observed when the connector is properly seated.
- 3 Swing the adapter port with cable back in its original position.

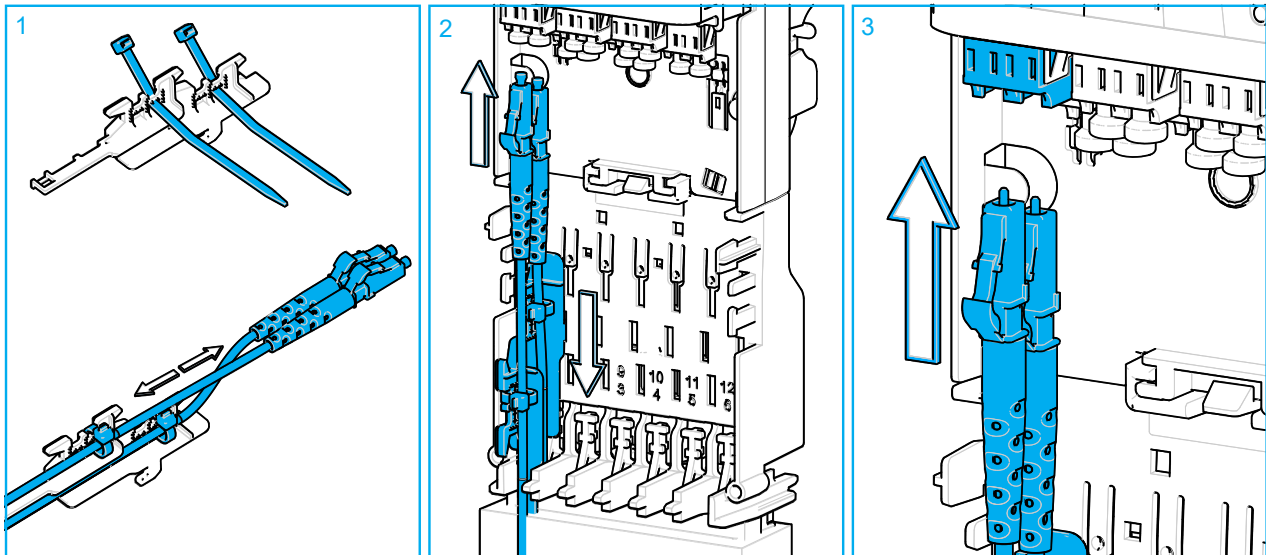


- 4 The metal ring just under the connector will click into the two snap hooks. The cable is hold between the two snap hooks positioned lower on the organizer.
- 5 First Xpres drop cable installed.
- 6 All Xpres drop cables installed.

5.3 Install LC-connectorized cable

The separate cable retention kit TC-1467-IP (Cable retention: Dual cable) must be used to install the LC-connectorized cable in the CC 100 patch application.

Note: In case of a duplex LC-connectorized cable, refer to SC-connectorized cable installation.

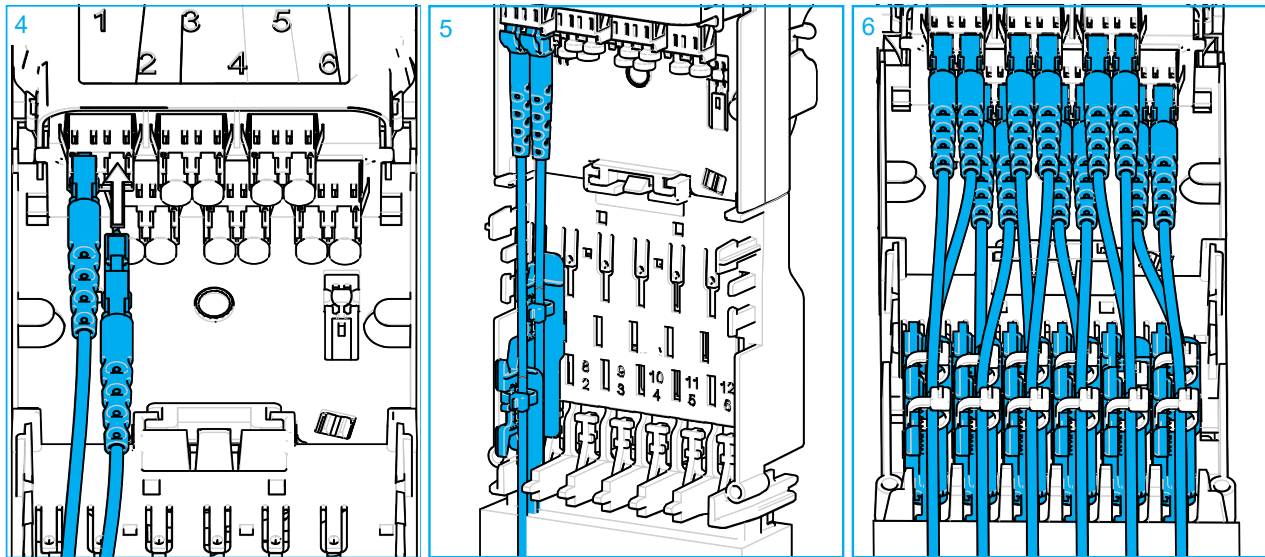


- 1 Install a cable tie in one slot in the carrier at the bottom position and in one slot at the top position. Make sure the heads are oriented correctly. Install the pre-connectorized cable on each level and fasten the cable ties but don't tighten. The cable should move fluently up and then down.

Note: If only one cable to be installed, select the bottom position.

- 2 Slide the carrier into the slots of the organizer. Push the locking lip in the first slot backwards then slide the carrier downwards. The locking lip returns into original position and the carrier is correctly seated. A clicking sound is observed
- 3 Remove dust caps of both connector and adapter of the selected port. Clean the connector and adapter per

standard practice. Position the connector in the correct orientation (clip facing forward as shown in figure above).



- 4 Slide the pre-connectorized cable forward and connect the connector to its assigned port. Adapter ports are designated with the numbers 1-6 (two adapter ports per number, allowing to make 12 LC connections in total). A clicking sound is observed when the connector is properly seated.
- 5 First two connectors installed.
- 6 All connectors installed.

Note: External cable fixation bracket is recommended to retain the cable outside the closure.

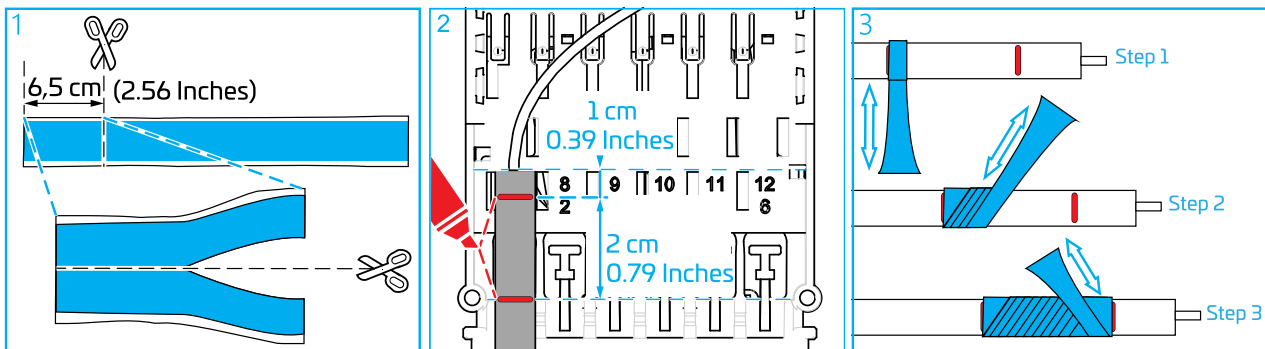
6 Pre-connectorized cable with transition and FIC

Important: Shown images in this section are routing suggestions provided for information purposes only. The shape and fiber routing may differ depending on the cable and connector type. In case of a Field Installable Connector (FIC) CommScope does not warrant the performance or compatibility of any third party or non-CommScope products or components. Please verify all compatibility and performance requirements with the FIC supplier prior to use a third party FIC.

6.1 SC-connectorized cable with transition and FIC

6.1.1 Using T-shapes integrated in organizer

6.1.1.1 Prepare drop cable



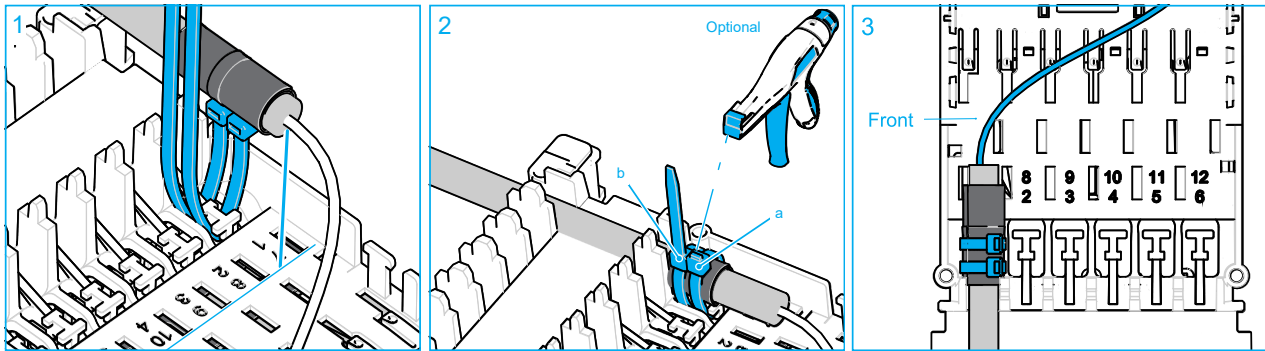
- 1 Cut the self-amalgamating silicone tape in half lengthwise. Cut 6,5 cm (2.56 Inches) of self-amalgamating silicone.

Attention: Make sure your hands are clean and degreased before preparing and installing the cables.


- 2 Position the cable on the organizer: The end of the sheath must be aligned with the rectangular rib (Figure 2). Make a mark where the two ribs hold the cable and a second mark 2 cm (0.79 Inches) from the first.
- 3 Apply one of the strips of self-amalgamating silicone previously prepared between the two marks. Remove the

protective paper from the self-amalgamating strip. Stretch the strip between 50% and 300% while wrapping the strip around the cable. First apply a full turn around the cable, then continue to cover up to the second mark. Make one turn at the end point and come back with the remaining tape.

6.1.1.2 Install drop cable

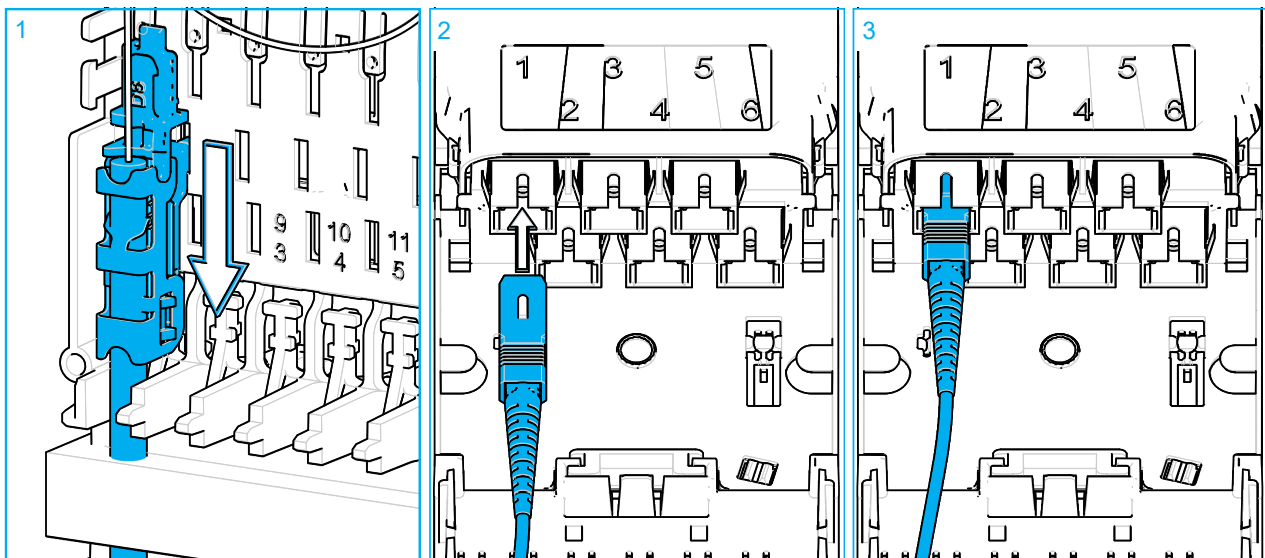


- 1 Install 2 cable ties around the T-shape on the front of the organizer. Position the cable with the taped area on top of the T-shape and secure the cable ties.

 **Note:** Make sure to install the cable ties with the correct orientation (see figure above).

6.1.2 Install SC-connectorized cable with transition and FIC

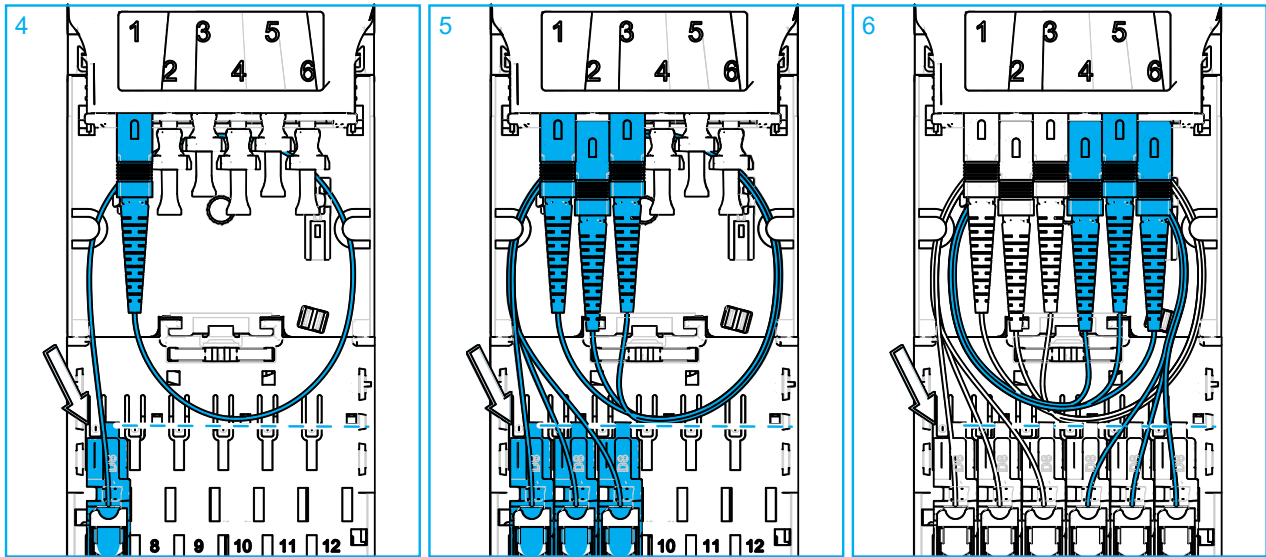
Also the separate cable retention kits: TC-1466-IP (Cable retention: Aramid) and TC-1468-IP (Cable retention: Jacket (Mclip)) are suitable to be used to install the SC-connectorized cable with transition in the CC 100 patch application. Pictures below shows an example with the M-clip.



- 1 If applicable install FIC per local practice. Follow the installation steps as described in TC-1468-IP to mount the cable on the carrier. Slide the carrier into the slots of the organizer. Push the locking lip in the first slot backwards then slide the carrier downwards. The locking lip returns into original position and the carrier is correctly seated. A clicking sound is observed.

 **Note:** Cable can also be installed with cable ties to the organizer as explained in previous section.

- 2 Remove dust caps of both the adapter port and the connector. Clean per standard practice. Position the connector in the correct orientation (rib facing forward as shown in figure above).
- 3 Connect the SC-connectorized cable to its assigned port. Adapter ports are designated with the numbers 1-6. A clicking sound is observed when the connector is properly seated.



4 Coil the transition length and store it in loops in the organizer, under the lips and under the connectors. Make sure not to store transition length in the area where the remaining carriers will be installed.

! **Important:** Make sure the transition lengths are properly positioned under the lips and avoid bulging.

! **Important:** Make sure to respect the minimum bend radius when storing the transition lengths.

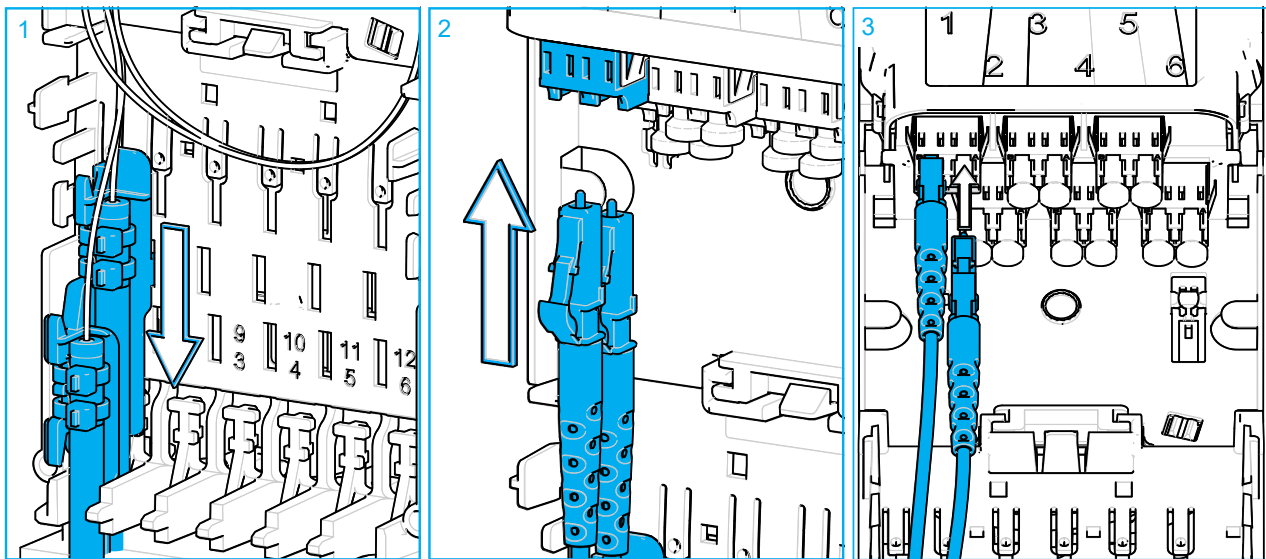
📄 **Note:** The fiber guidance pen (situated on top of the loop storage basket) can be used to position all the transition lengths under the lips.

5 Transition length stored of cables installed in position 1-3.

6 Transition length stored of cables installed in position 1-6.

6.2 Install LC-connectorized cable with transition and FIC

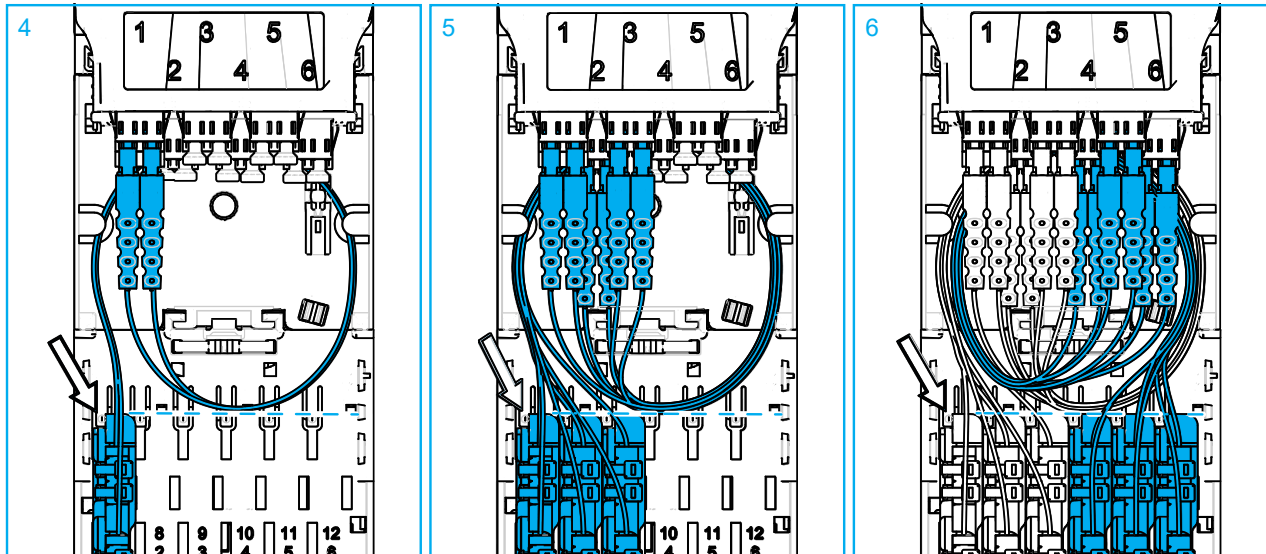
The separate cable retention kit TC-1467-IP (Cable retention: Dual cable) must be used to install the LC-connectorized cable with transition in the CC 100 patch application.



1 If applicable, install the FIC per local practice. Follow the installation steps as described in TC-1467-IP to mount the cables on the carrier. Slide the carrier into the slots of the organizer. Push the locking lip in the first slot backwards then slide the carrier downwards. The locking lip returns into original position and the carrier is correctly seated. A clicking sound is observed.

2 Remove dust caps of both connector and adapter of the selected port. Clean the connector and adapter per standard practice. Position the connector in the correct orientation (clip facing forward as shown in figure above).

- 3 Connect the connector to its assigned port. Adapter ports are designated with the numbers 1-6 (two adapter ports per number, allowing to make 12 LC connections in total). A clicking sound is observed when the connector is properly seated.



- 4 Coil the transition length and store it in loops in the organizer, under the lips and under the connectors. Make sure not to store transition length in the area where the remaining carriers will be installed.

! **Important:** Make sure the transition lengths are properly positioned under the lips and avoid bulging.

! **Important:** Make sure to respect the minimum bend radius when storing the transition lengths.

📄 **Note:** The fiber guidance pen (situated on top of the loop storage basket) can be used to position all the transition lengths under the lips.

- 5 Transition length stored of cables installed in position 1-3.

- 6 Transition length stored of cables installed in position 1-6.

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8 Contact information

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