XLR8™ Mechanical Splice Fiber Connector Instructions

1. Prepare the activation tool by releasing and opening the crimp handle. Move the handle release latch (1) away from the handle to unlock. The handle (2) can also unlock and release automatically if fully depressed and released. Also, open the connector securing lever (3) as shown here.

2. Prepare the connector for loading into the activation tool by removing the rubber grommet covering the lead-in tube on the back of the connector. NOTE: DO NOT REMOVE THE FRONT PROTECTIVE CAP OR REPLACE WITH AN ALTERNATE STYLE CAP AS THIS CAP IS SIZED SPECIFICALLY FOR PROPER OPERATION OF THE XLR8 CRIMP TOOL. PROTECTIVE CAPS SHOULD NOT BE REUSED AFTER ONE TERMINATION CYCLE SINCE THE CAPS CAN DEFORM SLIGHTLY WITH EACH CYCLE OF THE XLR8 TOOL AND WILL RESULT IN INCREASINGLY HIGHER ATTENUATION.

3. Insert the connector into the slot provided in the tool such that the knurled section of the metal shaft rests on the slot opening in-line with the connector securing lever. Also, ensure that the shoulder on the metal shaft is in contact with the connector holding block. This will make fiber insertion easier.

4. Rotate the securing lever to hold the connector in place. If aligned properly, the lever will contact the knurled section of the metal shaft. The securing lever provides sufficient strength to hold the connector in place during termination.

NOTE: DO NOT PUSH THE CRIMP HANDLE PARTIALLY DOWN IN ORDER TO TRAP THE CONNECTOR DURING INSERTION. THIS CAN INITIATE THE ACTIVATION BEFORE THE FIBER IS INSERTED CAUSING HIGH INSERTION LOSS.
XLR8™ Mechanical Splice Fiber Connector Instructions

Locate the template card provided and follow the guide for the specific connector being terminated. The card depicts proper strip lengths for both SC and LC connectors. With the end of the fiber placed even with the end point shown on the template card, mark the strip length as shown. Also place the additional reference line mark indicated to be used as a visual aid during the insertion step.

Install the boot by sliding the narrow end first down the fiber until it is out of the way.

Remove the section of buffer coating up to the first mark using a buffer stripper. To avoid breaking the fiber, remove the buffer in several small sections. Carefully inspect each fiber after stripping to verify the buffer coating is also removed. Sometimes mistaken to be the fiber cladding, this coating must be completely removed or the fiber will not fit into the connector.

Clean the bare fiber with two passes of a 99% reagent grade isopropyl alcohol wipe, being careful not to touch the fiber after it is cleaned. Also be careful not to remove the reference mark.

NOTE: ALWAYS USE 99% REAGENT GRADE ISOPROPYL ALCOHOL FOR CLEANING. DO NOT WIPE EXCESS PROTECTIVE COATING REMAINS FROM THE FIBER WITH YOUR FINGERS AFTER STRIPPING. OILS FROM YOUR FINGERS CAN TRANSFER TO THE RUBBER PADS OF THE CLEAVER REDUCING THE EFFECTIVENESS OF THE CLAMP ARM RESULTING IN A POOR CLEAVE.

Refer to Cleaver Instructions
Remove the freshly cleaved fiber without contaminating the end face. The fiber is now ready for insertion into the connector.

NOTE: IT IS NOT NECESSARY OR RECOMMENDED TO RE-WIPE THE FIBER AFTER CLEAVING AS THIS PRACTICE COULD LEAVE DEBRIS ON THE END-FACE WHERE IT IS DIFFICULT TO CLEAN PRECISELY. IF A MIS-CLEAVE OCCURS, STRIP THE BUFFER BACK FURTHER AND CLEAVE IN A DIFFERENT LOCATION. DO NOT TRY TO RE-CLEAVE IN THE SAME LOCATION ON THE FIBER.

Carefully lay the fiber onto the fiber guide channel with the fiber end close to the lead-in tube of the connector. Avoid dragging the tip of fiber along the guide slot to prevent contaminating the fiber end-face. Gently slide the fiber into the connector as straight as possible to avoid bumping the edge of the lead-in tube. Once inside the lead-in tube the fiber should slide in smoothly, if you feel resistance prior to full insertion do not force the fiber in. Adjust the position by rotating the fiber slightly and try again. Remember to periodically clean out the guide slot to help prevent inadvertent contamination.

The guide slot on the activation tool should be kept as clean as possible to prevent debris from transferring onto the fiber endface.

**XLR8™ Mechanical Splice Fiber Connector Instructions**

1. Use the reference line mark on the buffer to verify the fiber is fully inserted. Once you feel the fiber firmly stop against the internal fiber stub, check the location of the reference line mark. If fully inserted and measured correctly, the mark should be visible just before the entrance of the lead-in tube.

2. Hold the fiber securely into the connector by placing gentle but consistent inward pressure – enough to form a slight bow – approximately 25.4mm (1.0 in.) – in the fiber.

3. While maintaining inward pressure, depress the tool handle as far as it will go to crimp the fiber into place and complete the termination.

**NOTE:** DO NOT CONTACT THE Bowed FIBER WHILE DEPRESSING THE CRIMP HANDLE AS IT CAN CAUSE THE FIBER TO MOVE INSIDE THE CONNECTOR BEFORE THE TERMINATION IS COMPLETE RESULTING IN HIGH INSERTION LOSS.

4. Opening the connector securing lever.

5. Remove the connector by lifting the connector straight up and out of the tool.

6. Slide the boot up to the back of the connector and gently press onto place while holding the connector housing.

**NOTE:** NEVER PULL ON THE FIBER TO ENGAGE THE BOOT OR WHILE HANDLING THE TERMINATED CONNECTOR AS THIS CAN CAUSE A GAP AT THE SPLICE JOINT RESULTING IN EXCESSIVE INSERTION LOSS.
XLR8™ Mechanical Splice Fiber Connector Instructions

**Remove the front protective cap. The fiber is now ready for insertion.**

Although not required with the Siemon XLR8 connector, it is always good practice to clean the end face thoroughly just prior to connection. This is especially true if the factory installed protective cap was removed at any point during the termination. An alcohol wipe followed by a clean dry lint-free wipe will ensure reliable results. A properly cleaned end face can make a significant difference in the performance of your system.

**ACTIVATION TOOL MAINTENANCE:**
1. The guide slot on the activation tool should be kept as clean as possible to prevent debris from transferring onto the fiber endface.
   
   *Always use 99% regent grade isopropyl alcohol for cleaning.*

**CLEAVER MAINTENANCE:**
1. The cleaver should be periodically cleaned for proper operation and consistent cleave quality.
   
   *Always use 99% regent grade isopropyl alcohol for cleaning.*

2. It is important to keep the rubber clamping pads clean since the ability of these pads to hold the fiber security helps to ensure consistent cleave results. Some blade assemblies can be lifted then rotated 90 degrees to gain easier access when cleaning. While paying careful attention to the sharp blade, clean on and around both clamping pads including the pads on the top of the clamp lever. The blade can also be cleaned carefully as necessary. Be extremely careful if using the cleave tool that allows rotation of the blade carrier as this will expose the sharp blade. This allows easier cleaning access but over-rotation of the assembly will permanently damage the blade if allowed to contact the tool base. Over-rotation can cause the lubricant on the bottom of the blade assembly to transfer to the clamping pad.

3. Avoid getting debris inside the blade carrier channel and regularly inspect to ensure the blade carrier is free of debris. The cleave blade height is precisely adjusted for proper cleaving. Debris in the channel can cause the blade carrier to change the height of the blade during the cleaving process resulting in a “mis-cleave”. When cleaning, do not remove the grease contained in the blade carrier channel as it is necessary for smooth operation.

**WARNING:**
Optical transmitters and fiber optic test equipment used in the telecommunications industry uses invisible infrared energy. At sufficient power, this may cause eye or skin damage.

If you work with fiber optic products, including test equipment, consider the following:
1. Do not look into fibers or connectors. They may be ‘live’.
2. Know what is happening with the fiber under test at the far end!
3. When connecting a light source, try to make it the last element you connect!
4. Whenever possible, switch off and disconnect your light source(s) before breaking any fiber connections.
5. Always consider the hazard to other people:
   a. Use warning signs, etc.
   b. Keep caps on unconnected fibers whenever possible.
   c. If using “live” optical beams, keep them low and facing away from personnel.
6. Don’t view optical outputs with a microscope, use a TV camera/monitor.
7. Elect a safety officer to:
   a. Train staff
   b. Maintain records of equipment classification, calibrations and safety checks.
8. Be careful of cut fibers. Remember they are sharp and difficult to see!
9. Always wear safety glasses when terminating fiber connections.