



Fusion-Splice Connectors Installation Instructions

⚠️ WARNING

Read and understand the instructions and safety information in the manual for your splicing machine, as well as precautions in this document, before proceeding. Failure to observe those warnings can result in bodily injury.

⚠️ CAUTION

- **Caution:** Never look into the end of a microscope or optical cable connected to an optical output device. Laser light can be invisible, and direct exposure can severely injure the eyes.
- **Caution:** Wear safety glasses when handling optical fiber. Properly dispose of any pieces of bare fiber.
- **Caution:** Alcohol is flammable. Be sure to allow for proper ventilation and avoid contact with eyes and skin, keep away from heat or flame, and do not ingest. Follow proper protocols in the occurrence of any of these events.

TECHNICAL INFORMATION

Recommended Use:

- With **Sumitomo** or **Fiber Fox** brand splice machines using the included plastic, disposable holders
- With **UCL Swift** (formerly *Ilseintech*) splice machines using the Panduit plastic, disposable holder or the UCL Swift holder KF4-SC/LC-S (available from UCL Swift) and the following custom heat program:
 - Sleeve length: 29mm, Heat Temperature: 190° C, Heat Time: 34 Seconds, Cool Time: 30 Seconds
- With **AFL/Fujikura** splice machines using the plastic, disposable holders and the following heat settings:
 - Sleeve length: 29mm, Heat Temperature: 374° F, Dwell Time: 34 Seconds, Cool Time: 30 Seconds
- With **OFS/Fitel/Furukawa** splice machines using the Fitel holder S712-SOC-SF (available from OFS Fitel)
 - Panduit plastic, disposable holders will not work on OFS/Fitel/Furukawa machines
- With some **Greenlee** splice machines using the Greenlee connector holder
 - Panduit plastic, disposable holders will not work on Greenlee machines
- Panduit fusion splice connectors will **NOT** work on **Inno**-style splice machines.

It is vital to read and follow the instructions for the individual splice machines, including splicer maintenance, arc tests, etc. Failure to do so can result in costly bad or underperforming terminations, which may need to be scrapped. Panduit is not responsible for the results or performance of the individual splice machines used to terminate these connectors, only the connectors themselves. This list of compatible splice machines is not complete and can change at any time depending on developments by the splice machine manufacturers. Panduit recommends sampling some connectors to try on your machine to ensure best results.

Connectors:

- For 900µm tight buffered or 250µm loose tube fiber
 - Singlemode LC-UPC (blue), Multimode LC-PC (aqua), Singlemode LC-APC (green)
 - Singlemode SC-UPC (blue), Multimode SC-PC (aqua), Singlemode SC-APC (green)

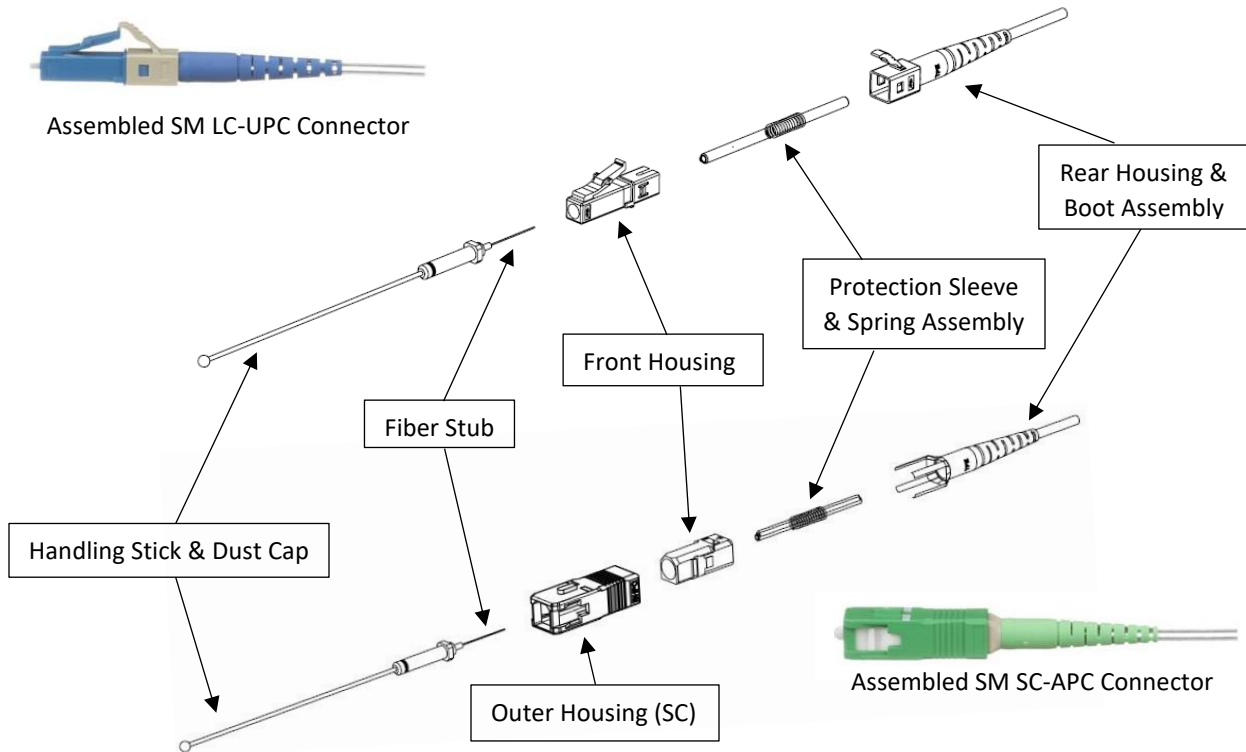
Standards Requirements: TIA/EIA-604 FOCIS-3 (for SC) and TIA/EIA-604 FOCIS-10 (for LC); TIA/EIA-568-D.3; GR-326-CORE; GR-1081-CORE

Insertion Loss: Singlemode fiber is 0.15dB IL average, 0.30dB IL maximum; multimode fiber is 0.10dB IL average, 0.25dB IL maximum

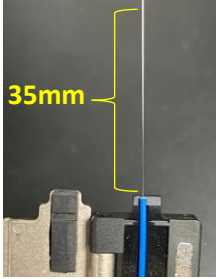
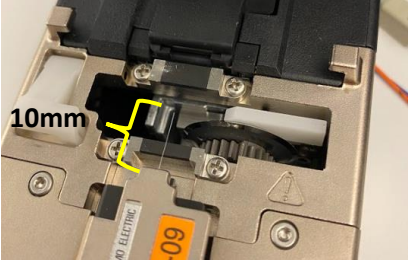
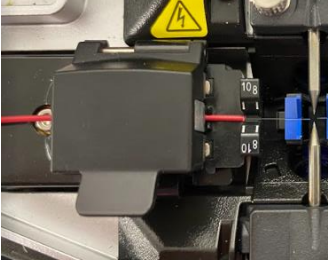

Return Loss: Singlemode fiber is > 55dB (UPC) or > 65dB (APC); multimode fiber is > 30dB (PC)


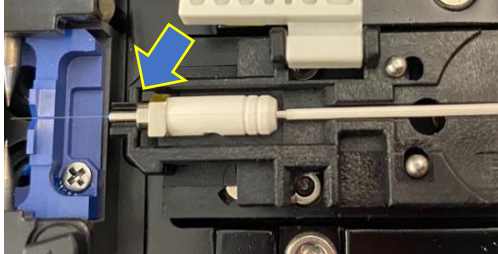

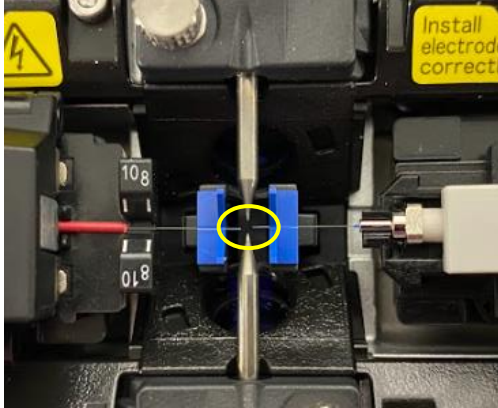
Operating Temperature: -40° F to +167° F (-40° C to +75° C)





Product Overview


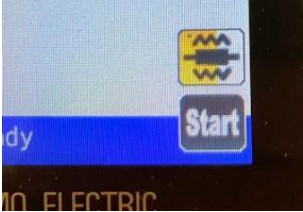
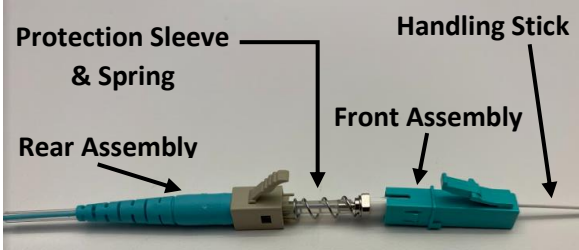
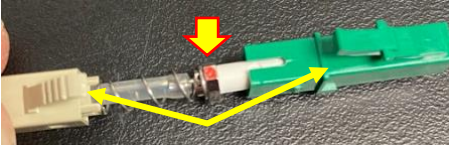


<p>Step 1: Follow the initiation steps specific to your splice machine, such as powering up, arc tests, cleaning and maintenance, etc.</p>	
<p>Step 2: Place the connector rear housing & boot assembly onto the field fiber, narrow end first. Next, place the splice protection sleeve onto the field fiber.</p>	

<p>Step 3: Strip approximately 35mm of buffer and acrylate off of the fiber.</p>	
<p>Step 4: Clean the bare fiber with lint-free wipes and fiber cleaning solution, following proper safety precautions necessary when dealing with bare optical fiber.</p> <p>Note: Do not use pre-moistened wipes.</p>	
<p>Step 5: Cleave the bare fiber to a length of 10mm.</p> <p>Note: If the fiber does not cleave, make sure all of the acrylate coating has been removed.</p>	
<p>Step 6: Place the cleaved fiber into the left-side fiber holder, as per the instructions specific to your splicer machine.</p> <p>Note: Example shows a Sumitomo 900µm fiber holder. Set up will vary by specific splicer brand & fiber type.</p>	
<p>Step 7: Place the plastic holder on the right side of the splice stage.</p> <p>Note: Some machines may require removal of the embedded right-side holder.</p>	

<p>Step 8: Grasp the connector assembly blister pack and open it from right to left. Be sure to grab the handling stick rather than the fiber stub end.</p> <p>Note: Follow safety protocols when dealing with bare fiber.</p>	
<p>Step 9: Place the connector assembly into the disposable plastic holder with the fiber stub protruding to the left, and the handling stick protruding to the right.</p> <p>Note: Make sure the metal portion of the connector assembly is completely pushed up against the holder for best results.</p>	
<p>Step 10: Close the holder on the right side of the splice area.</p>	
<p>Tip: For most splice machines, the field fiber and stub fiber should both be about 1mm apart, with the electrodes centered between them. Be sure to review the instructions for the specific machine being used.</p>	

<p>Step 11: Close the wind cover of the splice stage. Depending on the machine's individual settings the splice process may begin automatically, though some machines may require pressing a start button. The machine will typically analyze the cleaved field fiber and stub fiber on the X and Y axis. Any error messages on the machine should be remediated as per the manufacturer's instructions.</p>	
<p>Step 12: After the splice is completed, the machine will provide an estimated insertion loss value. Typically, when opening the wind cover, most machines will do a brief tension test. Do not touch the fiber or connector assembly until this is complete.</p>	
<p>Step 13: Gently slide the splice protection sleeve up to the rear of the fiber holder. Once this is in place, open both holders.</p>	
<p>Step 14: Grasp the fiber with the left hand then, while holding the splice straight and taut, raise the left hand slightly, so that the splice protection sleeve slides flush up against the metal part of the connector subassembly. DO NOT twist or bend the splice.</p>	

<p>Step 15: Place the splice point in the heater of the splice machine, trying to keep the splice protection sleeve centered in the heating area as much as possible.</p>	
<p>Step 16: Close the heater cover. Depending on the settings of the machine, the heating process may start immediately or may require pressing a start button.</p>	
<p>Step 17: Follow the on-screen instructions for the heating and cooling process specific to the splice machine. These may vary by individual splicer manufacturer.</p>	
<p>Step 18: Carefully remove the assembly from the heating area once the heating/cooling cycle is done. Slide the rear connector assembly up to the spring surrounding the splice protection sleeve. Snap the front housing together with the rear housing.</p> <p>For SC connectors, install the outer housing.</p>	
<p>IMPORTANT: When assembling APC-style connectors, it is important to make sure that the red alignment dot on the top of the connector assembly faces up when assembling the connectors.</p>	
<p>Step 19: Grasp the dust cap to hold it in place and either cut off the handling stick or gently twist to remove it.</p>	