Siemon OptiFuse SC Instructions

**Parts**
- Plastic Holder (*1)
- Rear Stopper
- Boot
- Ferrule Subassembly
- Protection Sleeve
- Inner Housing
- Outer Housing

(*1) Will terminate 100 splices

**Safety Precautions**
- **Wear safety glasses** to protect your eyes when handling optical fiber.
- **Never look into** the end of a microscope or optical cable connected to an optical output device that is operating. Laser radiation is invisible, and direct exposure can severely injure the human eye.
- **Alcohol is flammable**, causes irritation and is harmful if swallowed or inhaled. Keep alcohol away from heat, sparks, skin, and avoid contact with eyes.

**Handling Precautions**
1. Improper assembly will result in a loss of performance. Please read instructions given in this operation manual and the operation manual of the fusion splicer.
2. **Never touch the fiber stub.** It has been inspected at the factory.
3. The product is sensitive to dirt or dust. Do not take out any parts from the package until it is to be used.
4. The quality of the splice will be effected by the fiber cleaved surface condition. Use of a high quality cleaver is critical to a quality fiber splice.
5. Do not remove the dust cap until the connector has been completely assembled in order to avoid end face contamination and high insertion loss.

Below are examples of the tools used to terminate the connectors, typically the cleaver, buffer remover and other support items are included in Fusion Splicer kit.

<table>
<thead>
<tr>
<th>Fusion Splicer</th>
<th>Fiber Cleaver</th>
<th>Buffer Stripper</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Fusion Splicer" /></td>
<td><img src="image2" alt="Fiber Cleaver" /></td>
<td><img src="image3" alt="Buffer Stripper" /></td>
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</table>

**Tools and Equipment**

Cleave length: 10mm

Note: Compatible Fusion splice models are listed on page 6.

**Setup**

Following the specific instructions provided by the fusion splice manufacturer, set fiber type to be spliced and the splice sleeve heater setting.

Next, utilizing the specific instructions provided by the fusion splice manufacturer perform an arc test.

*Fiber for arc testing is not provided with the connector and should match the fiber setting on the splicer.*

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1. Slide Rear Stopper, Boot and Furcation Tube onto the fiber.

2. Slide Protection Sleeve and Spring onto the fiber.

3a. Remove approx. 35mm of buffer coating from the 900 micron 1B, or plastic coated 250 micron fiber with buffer strippers. Ensure that the plastic coating (acrolite) is removed from the fiber.

3b. Remove approx. 40mm of the 900 loose tube buffer. Next remove approx. 35mm of the plastic coated 250 micron fiber. Ensure that the plastic coating (acrolite) is removed from the fiber.

4. Moisten with alcohol
   Clean the fiber with a lint free cleaning wipe. Note: Fiber should only be cleaned before cleaving operation.

5a. Note: Compatible Fusion splice fiber holders are listed on page 6.
   Set the fiber in the holder with the tight buffer or plastic coating flush with the end of the holder.

5b. Note: Compatible Fusion splice fiber holders are listed on page 6.
   Set the fiber in the holder with buffer tube 5-7mm from the holder end and the plastic coating flush with the end of the holder.

6. Carefully close the cover to the holder to secure the fiber in place.

7. Utilizing a fusion splicing quality precision cleaver (typically included with fusion splicer kit), place fiber holder into cleaver and cleave fiber. Cleave length must be 10mm.

8. Place fiber holder into the left side of the fusion splicer.

9. Carefully pick up Ferrule Subassembly by the plastic stub and place into connector holder and close the cover to secure connector in place.

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Place fiber on V-groove gently
Place connector holder into the right side of the fusion splicer.

Activate fusion splicer.

Press button to start splicing
If the position of the fiber is wrong, set the fiber or stub again.

Left side first
Lightly holding assembly to prevent bending
Carefully open the left side of the fiber holder and then repeat on the connector holder on the right side.

Note: If using left side holder with two covers, open rear cover 1st and front cover 2nd

Then right side

2. Open Front Cover
3. Open STUB side

Lightly holding assembly to prevent bending

Maintain light tension to prevent bending
Carefully pick up the spliced fiber and connector.

Carefully slide the heat shrink protection sleeve up to the step of the metal flange as shown above. Ensure it does not cover the step.

Note: Buffer (900 um tight buffer 900 fan out kit) or plastic coating(250um) should be under heat shrink sleeve

Right side first

Do not twist
Sleeve end is just before the step.
Sleeve covers the step of flange.

Carefully set the fiber in the heater with the right side first.

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Then left side
Lightly maintaining tension on fiber
Do not twist

Continue placing the fiber into the left side while lightly maintaining tension on the fiber.

Confirm the position of the fiber in the heater before activating heater.

Button to start heating
Activate the fusion splice sleeve heater.

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Carefully remove the fiber from the heater.

Note: Connector assembly may be hot even after the cooling by fan has completed its cycle.
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20
Align flat surface with the housing slit for UPC and align red dot with red triangle for APC.

21
Carefully push the fiber slice assembly through the inner housing insuring the cap with tether protrudes as shown above.

22
Carefully push the inner housing into the rear stopper.

23
Cut the tether off of the dust cap.

24
Insert the inner housing into the outer housing aligning the key with the red triangle as shown above.

25
With the outer housing installed the connector is complete.

Trouble shooting guide
Below are some common causes of termination problems.

Legend

Caution Use extra care when performing this action.

Prohibited Refrain from performing, can result in damage.

Place the fiber

Check the fiber position on V-groove.

Fiber should be aligned along the V-groove.

Do not place the fiber outside of V-groove or the fiber may break.

Close the cover

Hold the cover with both hands and close gently.

Do not slam the cover or the fiber may break.
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Protection sleeve position
- Raise the fiber end up so that the protection sleeve slides toward the ferrule.
- Do not shake!
- Do not twist!
- The fiber will break from stress.

Protection sleeve position in heater
- Set the heat shrink protection sleeve at center of heater.
- Good. No bubble after heating.
- Bad. Bubble (did not shrink).
- If protection sleeve is not centered in the heater uneven shrinking of sleeve can result in a bubble. This in turn will cause stress on the fiber resulting in a fracture.

Post heating protection sleeve problems
- Gap at flange step before heating process.
- Gap at flange step after heating process.
- Good.
- Bad.
- If no gap is present at flange step, glue can become stuck to the flange. This in turn will cause stress on the fiber resulting in a fracture.

If Protection Sleeve exhibits any of the above mentioned conditions, please retry using another new connector.

Siemon Holders

FT-F-LHLDL-29M
- Cable holder, 900 micron tight buffered, metal

FT-F-CHLDU-29M
- Cable holder, 900 micron breakout kit, 250 micron coated fiber, metal

FT-F-FHLDU-LSP
- Ferrule holder, SC, LC plastic (performs 100 splices)

FT-F-FHLDU-LSM
- Ferrule holder, LC, SC, metal

FT-F-FHLDF-LSM
- Fitel, ferrule holder, LC, SC, metal

Ferrule Holder (right side)

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Instructions for using Siemon FT-LB-CLV cleaver with Siemon Fiber Cable holders

1. Open the cleaver cover all the way to lock position.
2. Next using the Allen wrench located on the bottom of the cleaver, remove the fiber holder screw.
3. The fiber holder can now be removed.
4. The fusion splicer holder can then be slid into the cleaver all the way until it stops. The fiber can then be cleaved.

Fusion Splicer Compatibility Chart

<table>
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<tr>
<th>Manufacturer Fusion Splicer</th>
<th>Manufacturer Fusion Splicer Model #</th>
<th>Fiber Cable Holder</th>
<th>Siemon Ferrule Holder</th>
<th>Slice Sleeve Heater Setting</th>
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</thead>
<tbody>
<tr>
<td>AFL</td>
<td>70S</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDU-LSM</td>
<td>FUSE900</td>
</tr>
<tr>
<td>AFL</td>
<td>62C</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>FUSE900</td>
</tr>
<tr>
<td>AFL</td>
<td>215</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>FUSE900</td>
</tr>
<tr>
<td>Fitel 5159</td>
<td>S159</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>60mm</td>
</tr>
<tr>
<td>OFS</td>
<td>N001 M4</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>40mm other</td>
</tr>
<tr>
<td>INNO</td>
<td>View 3</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>40mm</td>
</tr>
<tr>
<td>Fiber Fox</td>
<td>Mini E5</td>
<td>Splicer manufacturer holder</td>
<td>FT-F-HLDF-LSM</td>
<td>40mm</td>
</tr>
<tr>
<td>Sumitomo</td>
<td>TYPE-Q102-CA and TS6</td>
<td>Splicer manufacturer holder or Siemon FT-F-HLDF-LSM</td>
<td>FT-F-HLDF-LSM</td>
<td>LYNX</td>
</tr>
<tr>
<td>Sumitomo</td>
<td>T-400S, Lynx Connectorizer</td>
<td>Splicer manufacturer holder or Siemon FT-F-HLDF-LSM</td>
<td>FT-F-HLDF-LSM</td>
<td>LYNX</td>
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<tr>
<td>Sumitomo</td>
<td>TYPE-Q102-M12</td>
<td>Splicer manufacturer holder or Siemon FT-F-HLDF-LSM</td>
<td>FT-F-HLDF-LSM</td>
<td>LYNX</td>
</tr>
</tbody>
</table>

Splice Sleeve Heater settings shown were validated with splicers shown in initial testing, any manufacturer changes to splice settings are at the discretion of the fusion splicer manufacturer and may not be reflected in this chart.

To assist safe installations, comply with the following:
A. Use caution when installing or modifying telecommunications circuits.
B. Never touch uninsulated wire terminals unless the circuit has been disconnected.
C. Never install this device in a wet location.
D. Never install wiring during a lightning storm.

Lors de l’installation, respectez les consignes de sécuritésuivantes:
A. Utiliser avec prudence lors de l’installation ou de la modification circuits de télécommunications.
B. Ne jamais toucher les bornes de fil métallique non isolés sauf si le circuit a été débranché.
C. Ne jamais installer cet appareil dans un endroit humide.
D. Ne jamais installer pendant un orage.