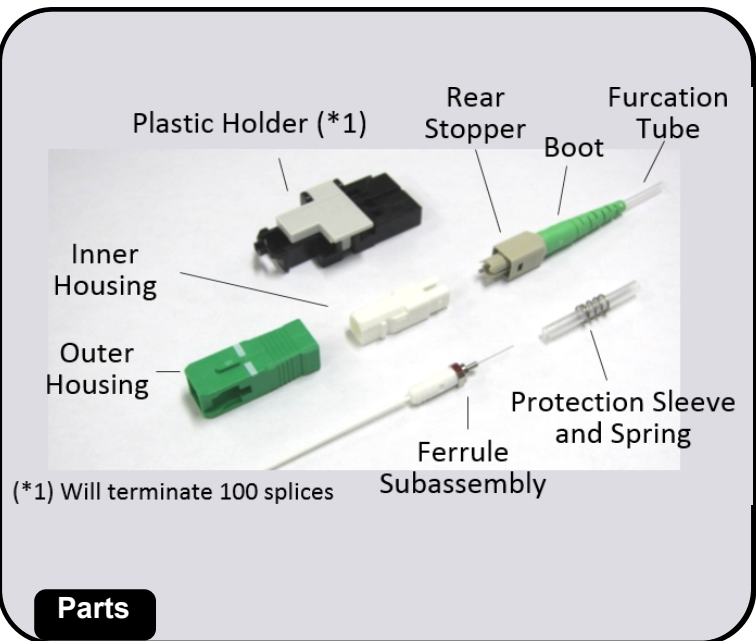





Siemon OptiFuse SC Instructions



Parts

-  **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.

Safety 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.

Handling Precautions

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.

Fusion Splicer	Fiber Cleaver	Buffer Stripper
	 Cleave length: 10mm	

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

Tools and Equipment



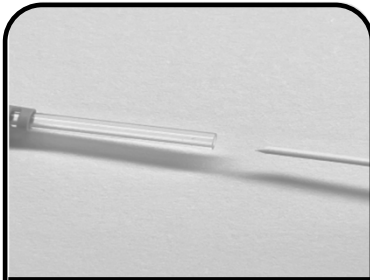
Following the specific instructions provided by the fusion splice manufacture, set fiber type to be spliced and the splice sleeve heater setting.

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.

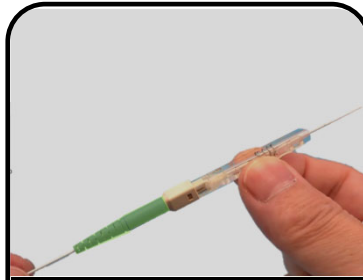
Fusion Splicer Setup

Siemon OptiFuse SC Instructions



Feed fiber into the Furcation Tube.

1



Slide housing assembly down fiber.

2



250 micron and 900 micron tight buffer

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

3a



900 micron loose tube fan out kit

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.

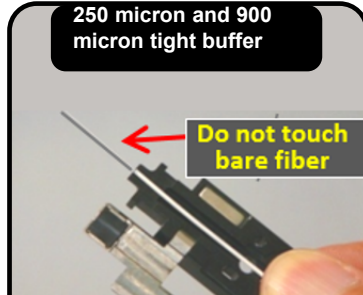
3b



Moistened with alcohol

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

4

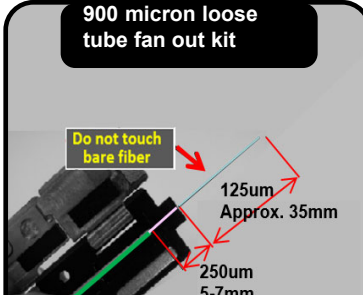


250 micron and 900 micron tight buffer

Do not touch bare fiber

Set the fiber in the holder with the tight buffer or plastic coating flush with the end of the holder

5a Note: Compatible Fusion splice fiber holders are listed on page 6.

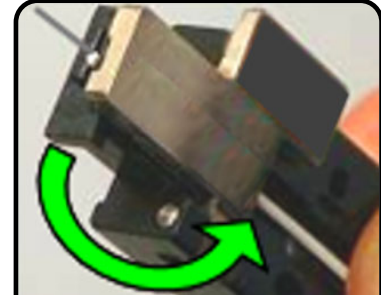


900 micron loose tube fan out kit

Do not touch bare fiber

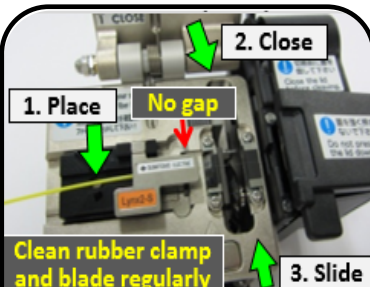
Set the fiber in the holder with buffer tube 5-7mm from the holder end and the plastic coating flush with the end of the holder.

5b Note: Compatible Fusion splice fiber holders are listed on page 6.



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

6



1. Place

No gap

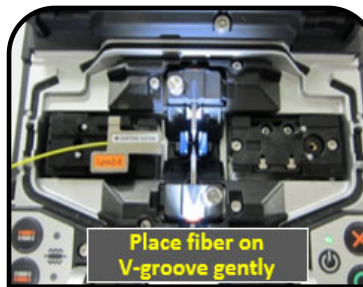
2. Close

Clean rubber clamp and blade regularly

3. Slide

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.

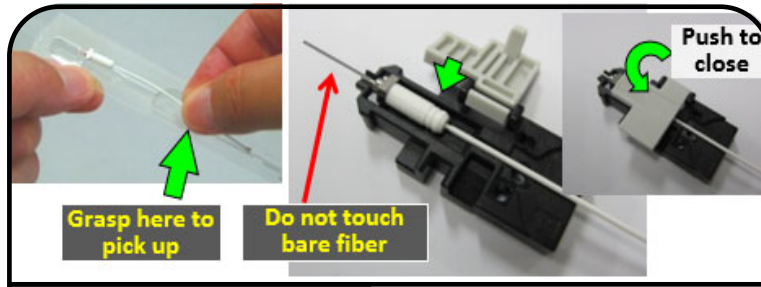
7



Place fiber on V-groove gently

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

8



Grasp here to pick up

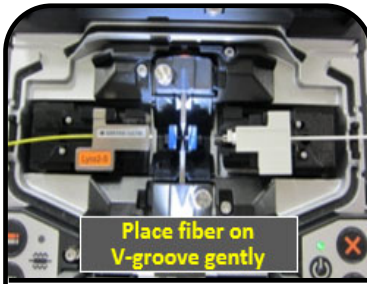
Do not touch bare fiber

Push to close

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

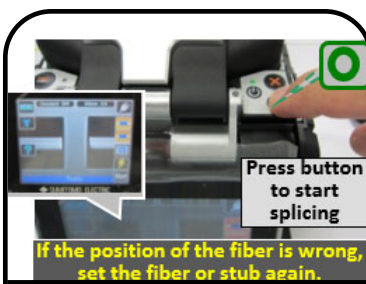
9

Siemon OptiFuse SC Instructions



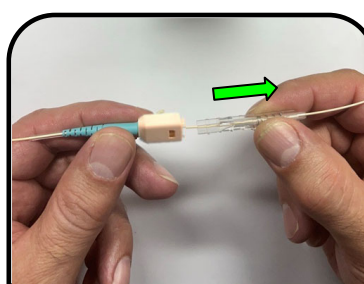
Place connector holder into the right side of the fusion splicer.

10



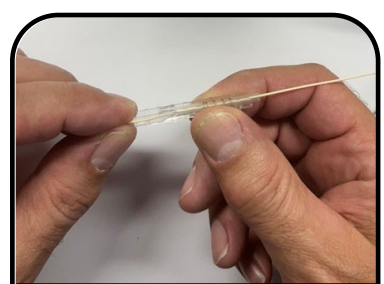
Activate fusion splicer.

11



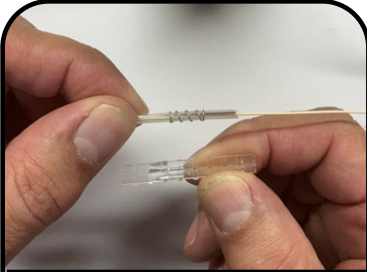
Separate Protection Sleeve and Spring Holder and slide down fiber

12



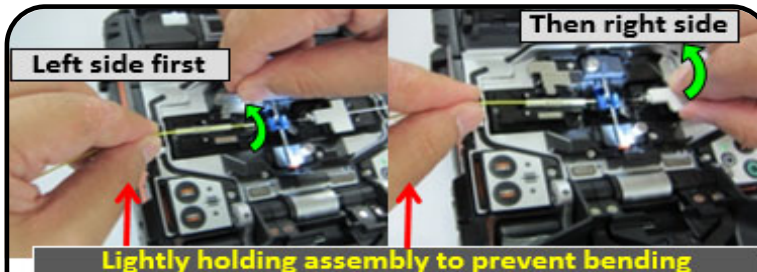
While holding the fiber separate Protection Sleeve and Spring Holder from the splice sleeve and spring.

13



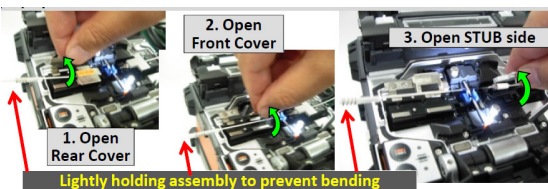
Once removed, discard the Protection Sleeve and Spring Holder.

14

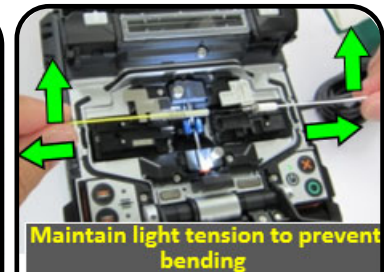


Carefully open the left side of the fiber holder and then repeat on the connector holder on the right side.

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



15



Carefully pick up the spliced fiber and connector.

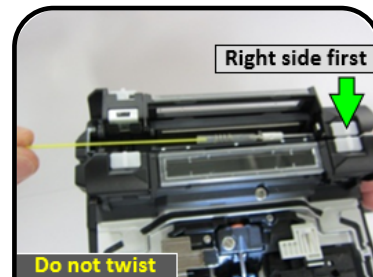
16



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.

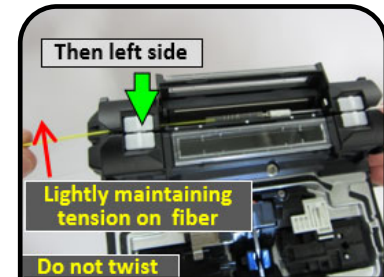
Note: Buffer (900 um tight buffer 900 fan out kit) or plastic coating(250um) should be under heat shrink sleeve

17



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

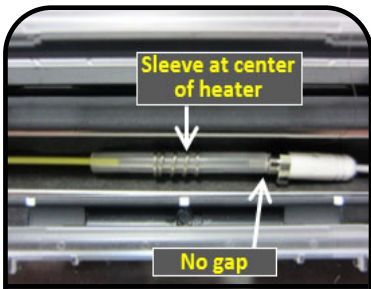
18



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

19

Siemon OptiFuse SC Instructions



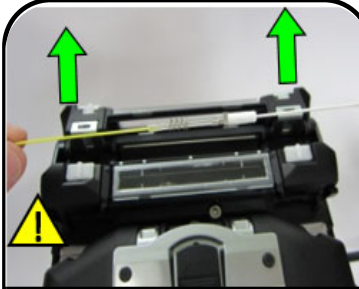
Confirm the position of the fiber in the heater before activating heater.

20



Activate the fusion splice sleeve heater.

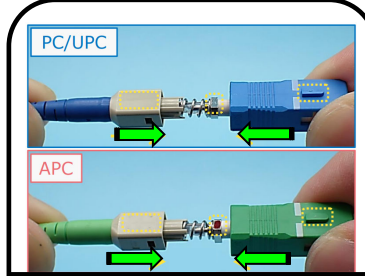
21



Carefully remove the fiber from the heater.

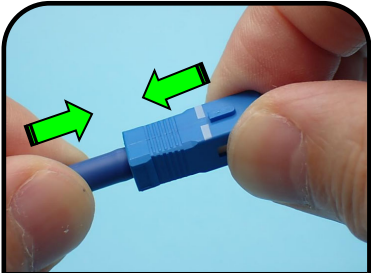
Note: connector assembly may be hot even after the cooling by fan has completed its cycle.

22



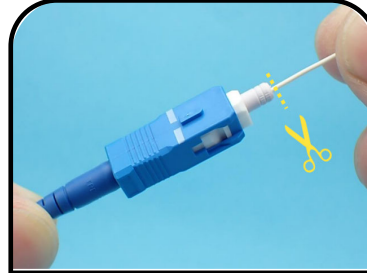
Align flat surface with the red dot with housing key as shown for APC. Carefully push the fiber splice assembly through the inner housing ensuring the cap with tether protrudes from the other side of the SC housing.

23



Carefully push the housing into the rear stopper until fully seated.

24



Cut the tether off of the dust cap.

25



With the outer housing installed the connector is complete.

23

Trouble shooting guide

Below are some common causes of termination problems.

Legend

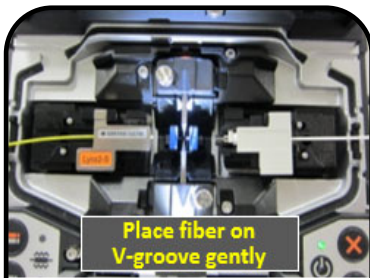


Caution Use extra care when performing this action.



Prohibited Refrain from performing, can result in damage.

Siemon OptiFuse SC Instructions



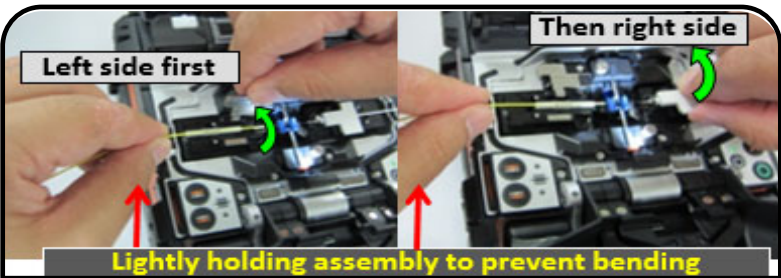
Place connector holder into the right side of the fusion splicer.

10



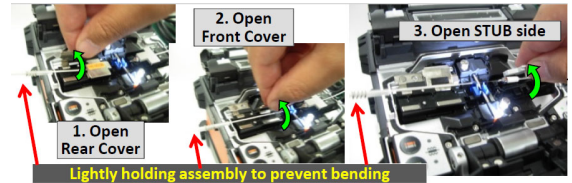
Activate fusion splicer.

11

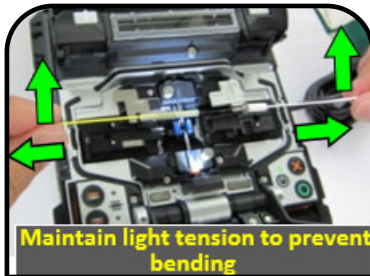


Carefully open the left side of the fiber holder and then repeat on the connector holder on the right side.

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

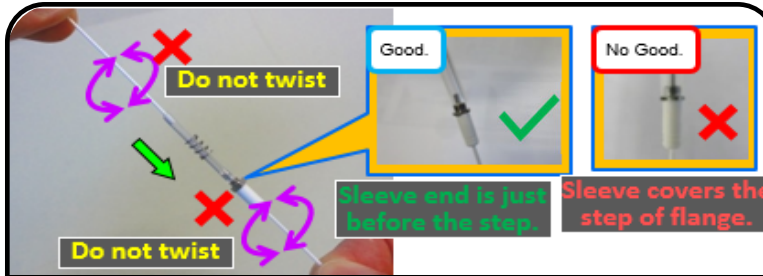


12



Carefully pick up the spliced fiber and connector.

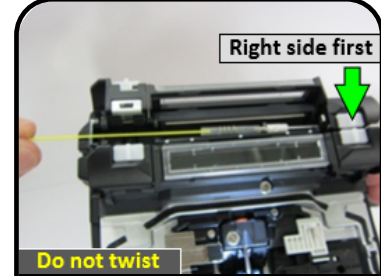
13



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.

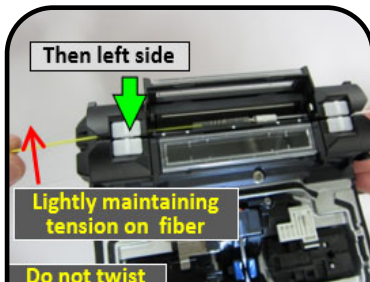
Note: Buffer (900 um tight buffer 900 fan out kit) or plastic coating(250um) should be under heat shrink sleeve

14



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

15

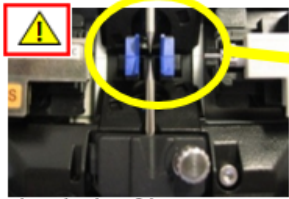


Continue placing the fiber into the left side while lightly maintaining tension on the fiber.

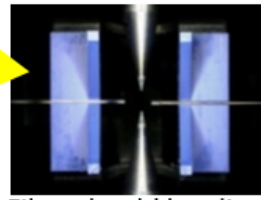
16

Siemon OptiFuse SC Instructions

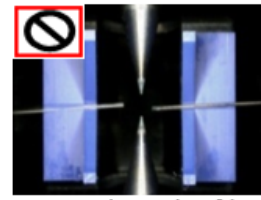
Place the fiber



Check the fiber position on V-groove.

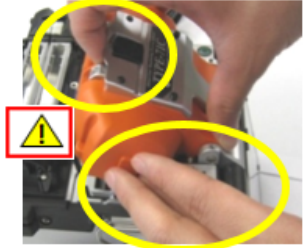


Fiber should be aligned along the V-groove



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

Close the cover



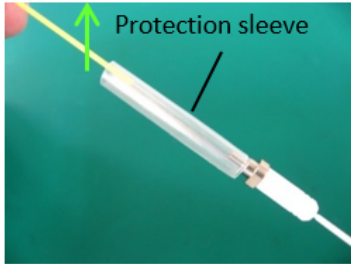
Hold the cover with both hands and close gently.



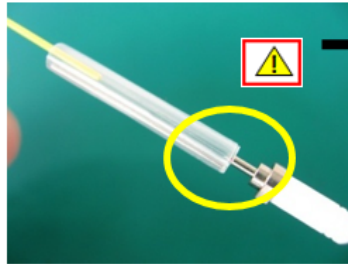
Do not slam the cover or the fiber may break



Protection sleeve position



Raise the fiber end up so that the protection sleeve slides toward the ferrule.



Do not shake!



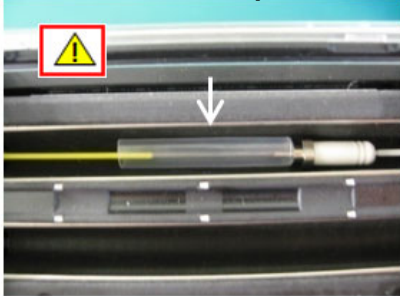
Do not twist!

Ensure the splice sleeve is over the step and up against the flange, if necessary carefully guide the sleeve into position.



The fiber will **break** from stress.

Protection sleeve position in heater



Set the heat shrink protection sleeve **at center of heater**.



After heating

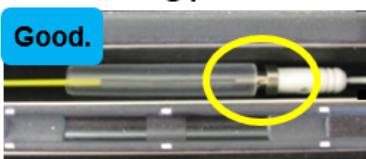


Bad.

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




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.



Bad.

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

Siemon OptiFuse SC Instructions

Siemon Holders

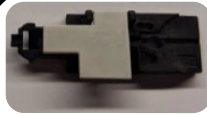


FT-F-LHLDL-29M
Cable holder, 900 micron tight buffered, metal



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

**Fiber Holder
(left side)**



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



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



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

**Ferrule Holder
(right side)**

Fusion Splicer Compatibility Chart

Manufacturer Fusion Splicer	Manufacturer Fusion Splicer Model #	Fiber Cable Holder	Siemon Ferrule Holder	Slice Sleeve Heater Setting
AFL	70S	Splicer manufacturer holder	FT-F-FHLDU-LSM	FUSE900
AFL	62C+	Splicer manufacturer holder	FT-F-FHLDU-LSP or FT-F-FHLDU-LSM	FUSE900
AFL	21S	Splicer manufacturer holder	FT-F-FHLDU-LSP	FUSE900
Fitel S153	S153	Splicer manufactures holder	FT-F-FHLDLF-LSM	60mm
OFS	NJ001 M4	Splicer manufacturer holder	FT-F-FHLDLF-LSM	40mm other
INNO	View 3	Splicer manufacturer holder	FT-F-FHLDU-LSP	40mm
Fiber Fox	Mini 6S	Splicer manufacturer holder	FT-F-FHLDU-LSP	40mm
Sumitomo	TYPE-Q102-CA and T56	Splicer manufacturer holder or Siemon FT-F-CHLDU-29M, FT-F-LHLDL-29M	FT-F-FHLDU-LSP or FT-F-FHLDU-LSM	LYNX
Sumitomo	T-400S, Lynx Connectorizer	Splicer manufacturer holder or Siemon FT-F-CHLDU-29M, FT-F-LHLDL-29M	FT-F-FHLDU-LSP or FT-F-FHLDU-LSM	LYNX
Sumitomo	TYPE-Q102-M12	Splicer manufacturer holder or Siemon FT-F-CHLDU-29M, FT-F-LHLDL-29M	FT-F-FHLDU-LSP or FT-F-FHLDU-LSM	LYNX

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 splice manufacturer and may not be reflected in this chart

Comply with the following for safe installations:

- Use caution when installing or modifying telecommunications circuits.
- Never touch uninsulated wire terminals unless the circuit has been disconnected.
- Never install this device in a wet location.
- Never install wiring during a lightning storm.



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