

# Field Installable LC Instruction Manual For 250 or 900 Micron Fiber



## Safety Reminders

This product has been designed and manufactured to assure personal safety. Improper operation can result in bodily injury and serious damage to this product. Please read and observe all warning instructions given in this operation manual.

- ★ **Wear safety glasses** before handling optical fiber to protect the eyes. Small pieces of glass fibers are very sharp and might get into the eyes and injure them.
- ★ **Never look into** the end of a connector or an optical fiber which may have a laser coupled to it. Laser light might damage your eyes. Please note that some laser light is not visible.
- ★ In the case of working at heights, be careful not to drop any tools.  
(Please use a wrist strap etc.)

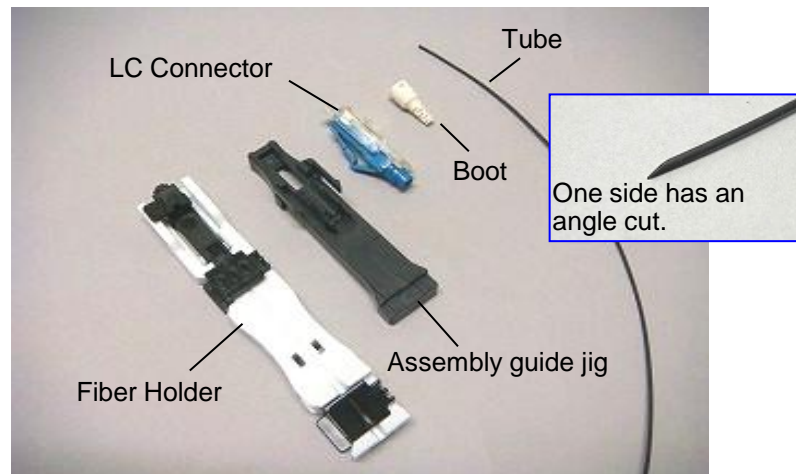


## Precautions

1. Improper assembly will result in a loss of performance. **Please read instructions** given in this operation manual.
2. The product is sensitive to dirt or dust. Do not take out the connector from the package **until it is to be used**.
3. The connector loss will be influenced by the quality of the cleave. Use a cleaver with a clean, sharp blade.
4. Please **insert the fiber into the connector slowly**. If the fiber is roughly inserted, it might be damaged or broken, leading to failure of connector installation. Or broken fiber could be scattered in all directions.
5. Do not remove the dust cap **until the connector has been completely assembled**.
6. A proper amount of index matching gel is applied in the connector. **Inserting the fiber more than once** into the same connector will reduce the amount of gel available and affect the loss value.

## Provided Components / Tools

- LC Connector (with wedge)
- Boot
- Fiber holder for 900 micron fiber
- Assembly guide jig
- 900 micron tube, with angle cut on one end  
(to use with 250 micron fiber)



The following tools / supplies are not provided.

1. Fiber cleaver
2. Jacket / fiber stripper (which can remove 900 micron buffer and 250 micron coating)
3. Alcohol and lint free wipes
4. Visual Fault Locator (VFL)

## Assembling Tools Examples

1. Fiber Cleaver



2-1. Thermal Stripper



2-2. Jacket Remover

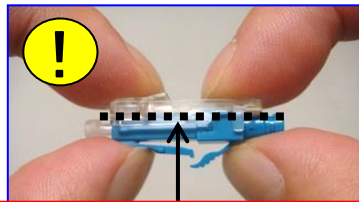


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# LC for 250 or 900 Micron Fiber Assembly Procedure



## 【1】 Preparing Connector



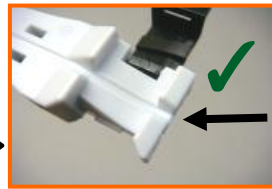
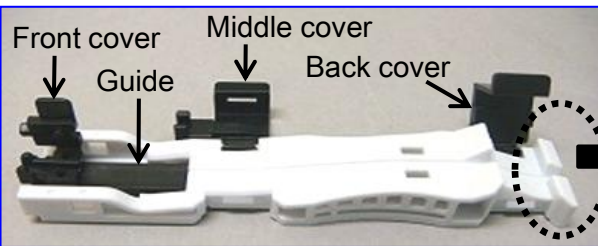
Make sure there is no space between the wedge and the connector, if there is, realign the products with pushing before proceeding.

## 【2】 Setting Connector

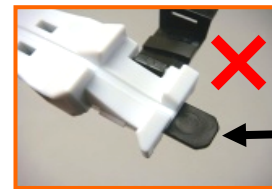
Confirm there is not dust in U-groove before using the jig.



## 【3】 Preparing the Fiber Holder



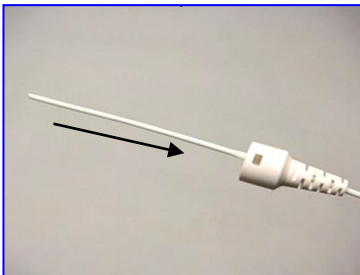
Not Visible



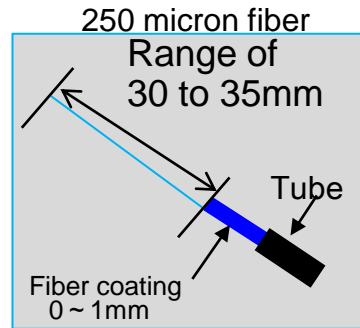
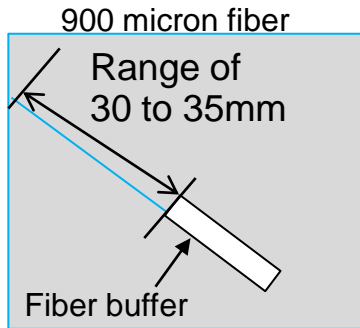
Visible

Open the front, middle and back covers before using the holder and confirm whether the back-end of guide is visible or not. If it is visible, push it towards the back cover.

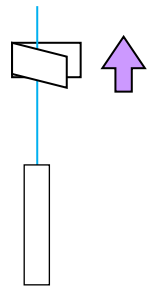
【4】 Slide boot onto fiber. If 250 micron fiber, also install 900 micron tubing onto fiber using angle cut end to start.



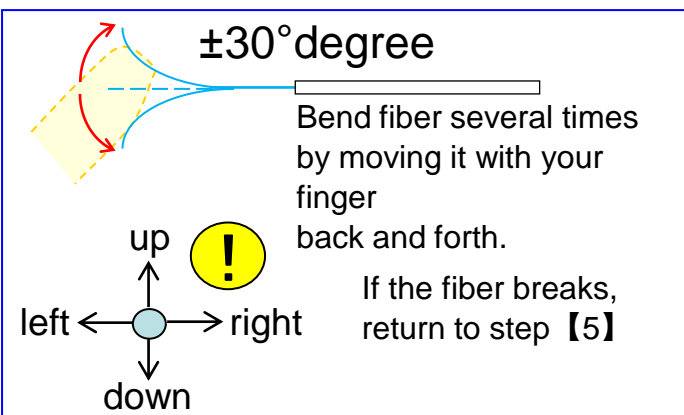
【5】 Remove fiber buffer and coating, using appropriate hole on tool.



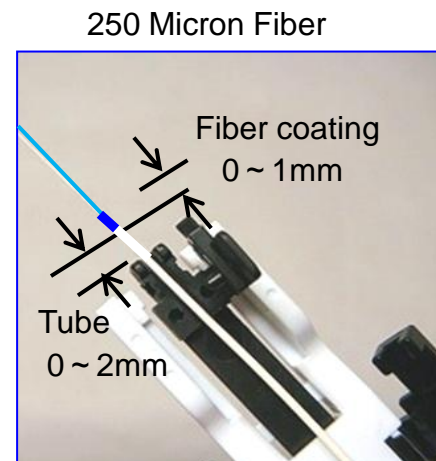
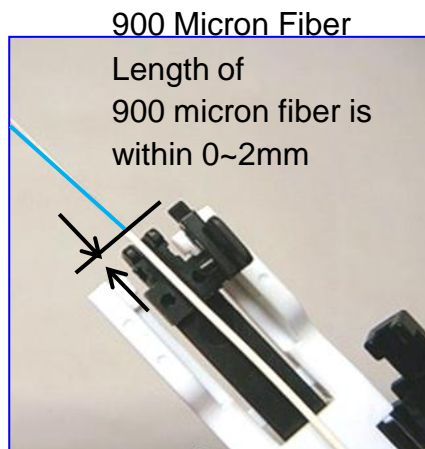
【6】 Clean Fiber with a lint free wipe and alcohol.

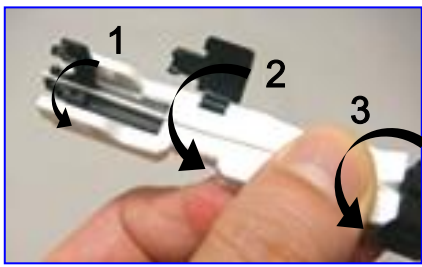


## 【7】 Screening Fiber



## 【8】 Set Fiber into Slot on Fiber Holder





Fiber has to be fixed with finger and closed in order of front, middle and back cover.

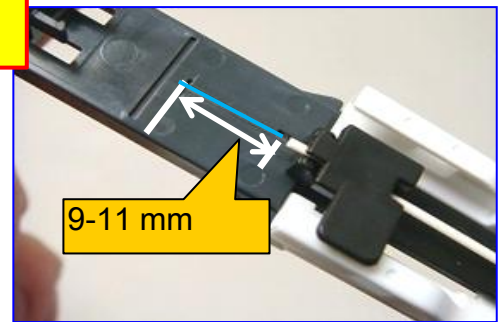
**【9】 Cleave the Fiber**



Set holder in cleaver

(In case of Sumitomo FC-7)

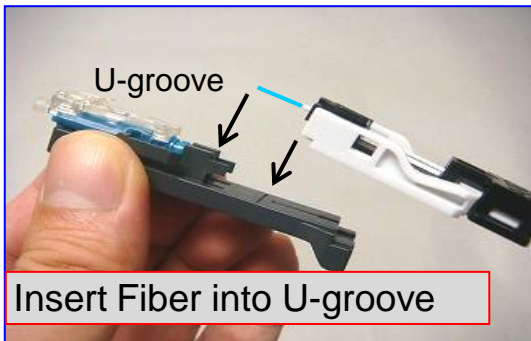
**【10】 Check bare fiber length using assembly jig**



9-11 mm

If out of tolerance, rework from step 5

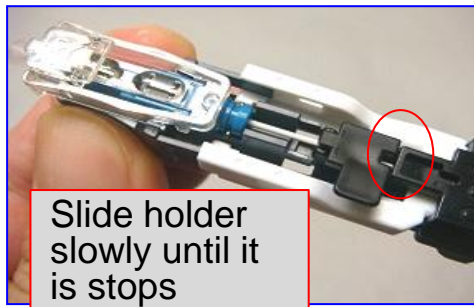
**【11】 Inserting Fiber -1**



U-groove

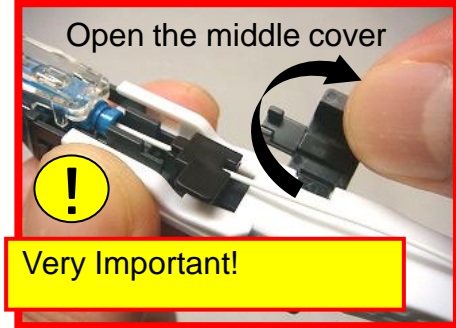
Insert Fiber into U-groove

**Inserting Fiber -2**



Slide holder slowly until it is stops

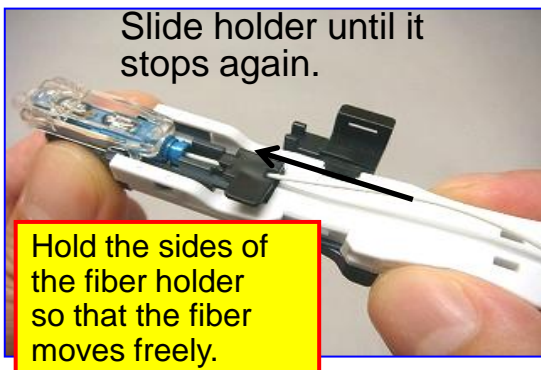
**Inserting Fiber -3**



Open the middle cover

Very Important!

**Inserting Fiber -4**



Slide holder until it stops again.

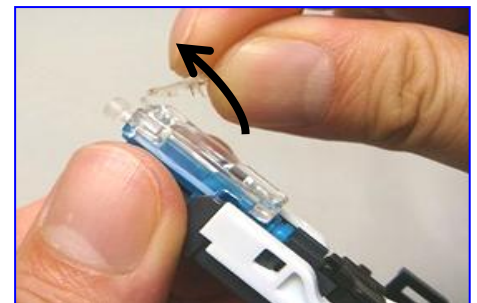
Hold the sides of the fiber holder so that the fiber moves freely.

**【12】 Check for Bending**

Small amount of bending is normal.

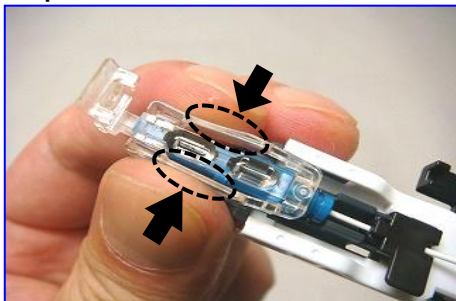


**【13】 Remove the Wedge**

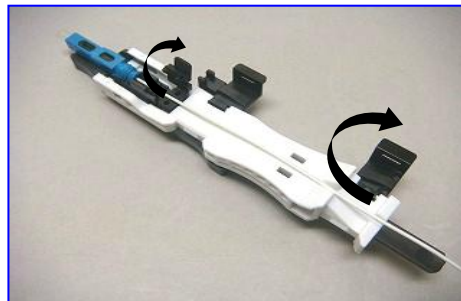


Unlock the lever.

**Squeeze the arms**



**【14】 Open the front & back covers**



**【15】 Take out connector**



**Use laser light to check connection**



Good



Bad

**【16】 Slide Boot up**



**Completion**

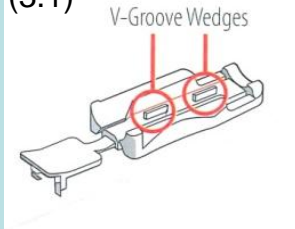


**Rework** - If the connector optical properties are insufficient to use, try re-inserting the fiber.

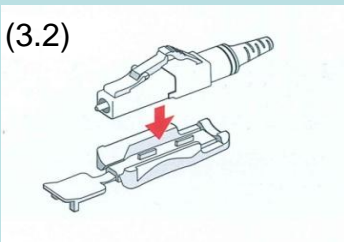


- (1) Slide boot off of back of connector.
- (2) Install connector back on wedge, using 2 v-grooves for alignment.
- (3) Snap connector down on V-grooves. At this point, fiber will be released.

(3.1)



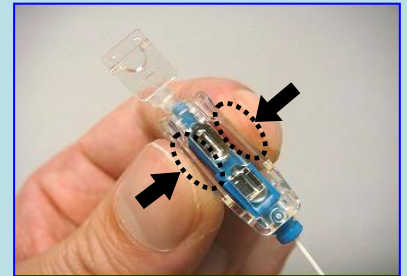
(3.2)



(4) Push the inserted fiber back in by hand, and make bend 80 +/- 10mm from the end of connector.



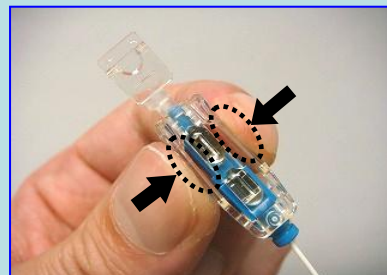
(5) Squeeze arms while keeping bend in fiber.



- (6) Check connection with laser.
- (7) If connection is still bad, then may need to re-cleave fiber. Otherwise, slide boot up to back of connector.

**Shortcut procedure (only for 900 micron tight buffer fiber)**  
This procedure will not work for 250 micron fiber.

- (1) Install boot onto tight buffered fiber.
- (2) Strip 30-35 mm of buffer and coating to expose bare fiber.
- (3) Clean fiber with a lint free wipe and alcohol.
- (4) Cleave fiber, leaving 9-11mm of bare fiber.
- (5) Insert cleaved fiber end into back of connector attached to wedge. Push forward until meet resistance.
- (6) Create bend in buffer 80 +/- 10mm from back of connector.
- (7) Unlock lever on wedge and squeeze arms. Remove wedge from connector.



- (8) Check connection with laser light.
- (9) Slide boot up to back of connector.