

Quad EL Fusion Splice Kit Operating Guide

FITEL

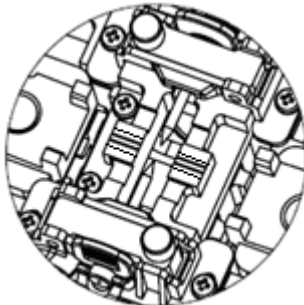
Furukawa Electric Co., Ltd



This guide explains the basic operation of the major components of the KITCO Fiber Optics #0831-1119 Quad EL Fusion Splice Kit.

★ General description

This Quad EL has a specialized Fiber guide with four grooves to splice one, two, or even four 900 μ m fibers, *single mode and/or multimode* simultaneously.



Four grooves

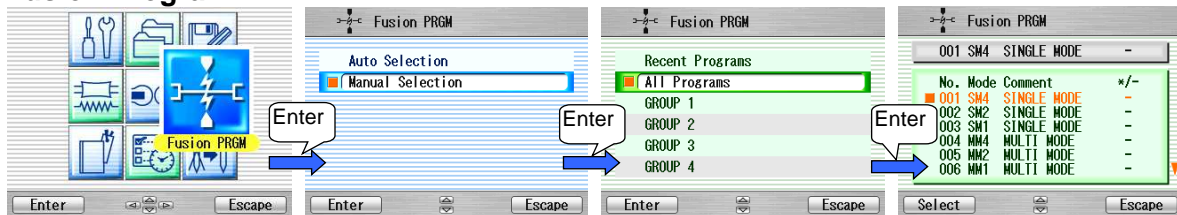


Specialized Fiber Holder

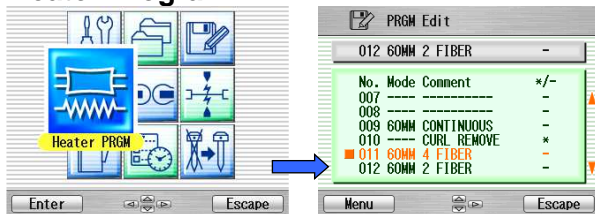
★ Load Program

Select the program that is appropriate for the fiber and the sleeve used.

Fusion Program

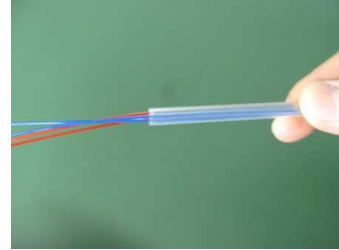


Heater Program



★ Preparation

1. Slide fibers into protection sleeve.

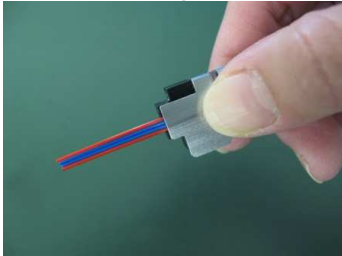


2. Set four fibers in the Fiber Holder.

When splicing single fiber, set the fiber into the V-groove near the hinge.

When splicing two fibers, set the two fibers into the v-grooves in the middle.

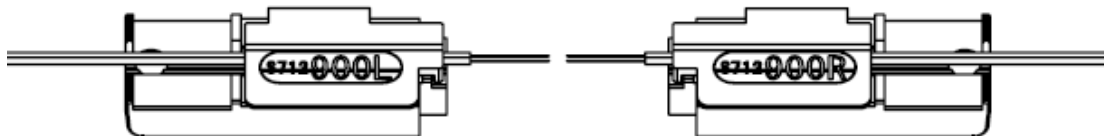
3. Strip the coating material from the fibers by using S218R-900μm fiber thermal stripper.



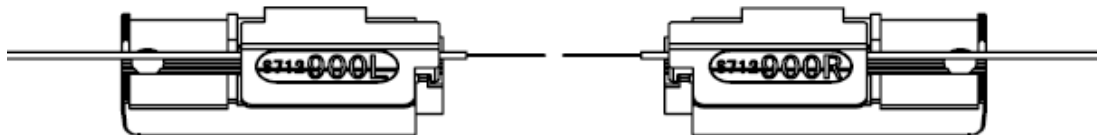
4. Clean the bare fibers.
5. Cleave the bare fibers by using the S326 fiber cleavers.



Setting four fibers in the Fiber Holder



Setting two fibers in the Fiber Holder



Setting Single fiber in the Fiber Holder



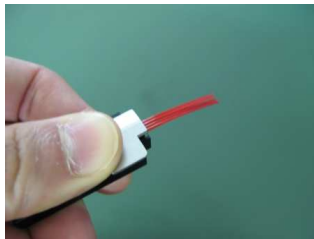
When dealing with multiple SM and MM fibers, we need to specify the fiber order in the machine, such as SM-MM-MM-SM or MM-SM-SM-MM or whatever is the best for arc condition in four fibers case. For the 2 fibers case, SM-MM or MM-SM since they are not in the center position, order might matter.



If the fiber has curls or bending, it may cause fiber alignment error during splicing process. In such case, please refer to the preparation tip below before carrying out splicing process.



In preparing, put four or two fibers in the same direction when you cut the fibers.



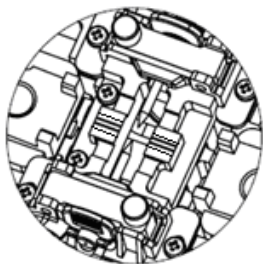
Or remove the curls and bending by the curl Remove function (Heater Program No.10) etc, before preparing the fibers. (See pages 13 & 14 of this Quick Start Guide)

★ **ARC Check**

1. Before splicing, please perform an arc check to make sure arc condition is set correctly for the environment. By activating the arc check, the Quad EL will self-adjust.
2. Place the Fiber holder with prepared fiber onto the fiber holder base. Make sure the guide post of the base inserts in the hole on the holder and that the fiber lays correctly in the V-groove block.
3. After confirming fibers on both sides are correctly sitting in the V-grooves, close the windshield.
4. As both fiber ends are displayed on the screen, confirm that they are seated correctly. When splicing a single fiber, confirm that the fiber is displayed towards the downside of the screen.
5. Press the arc check key to start arc check.
6. If it passes the arc check, go ahead and re-prepare the fiber and move to the next step; if it does not pass, re-do the arc check process until it passes.

★ Splicing

1. Place the Fiber holder with prepared fiber onto the fiber holder base. Make sure the guide post of the base inserts in the hole on the holder and that the fiber lays correctly on the V-groove block.
2. ***After confirming fibers on both sides are correctly sitting in the V-grooves***, close the windshield. (Use eye loupe contained in kit, if needed)
3. As both fiber edges are displayed on the screen, confirm that both fibers are set correctly. When splicing single fiber, confirm that the fiber is displayed at the lower level of the screen.
4. Press ► key to start the splicing process.



Setting four fibers in the V-grooves



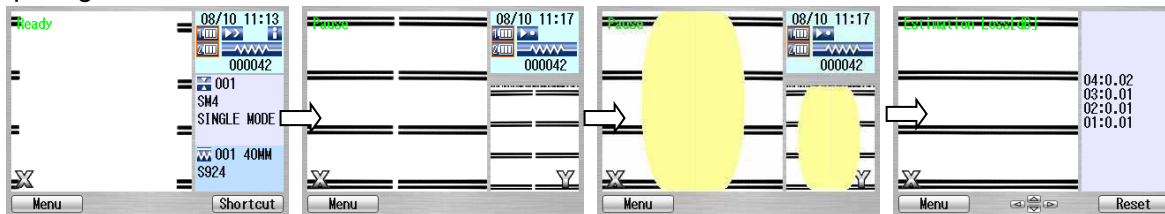
Confirm fibers on both sides are correctly sitting in the V-grooves.



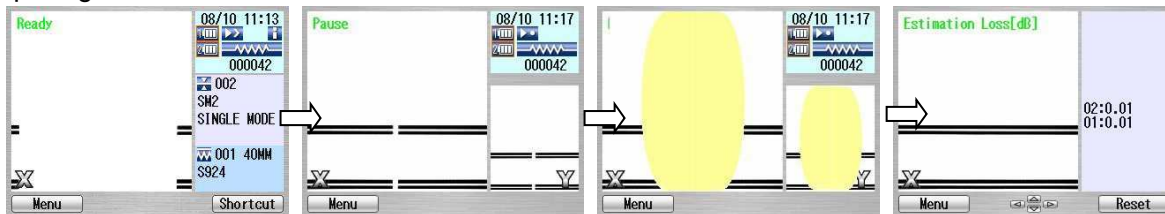
If, the fiber has curls it may not have been placed in the V-groove correctly. In such case, put the fiber edge so that the bend or curl faces downward.

★ Splicing Flow of Display

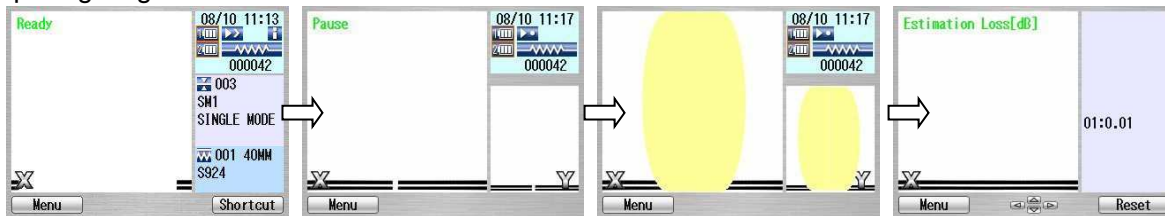
<Splicing four fibers>



<Splicing two fibers>



<Splicing single fiber>



When taking the spliced fibers out from splicer, handle it carefully, don't twist or touch the bare fibers.

Please use the specified reinforced glasss protection sleeve to protect the bare fibers.

★ Protecting spliced points

1. Slide the glass protection sleeve into spliced points area.



2. Place the sleeve into the center of heater.



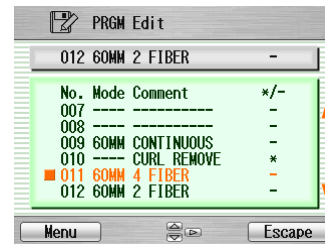
Make sure each of spliced point is positioning in the sleeve's center area

3. After fully heated an alarm will sound and you may pull the sleeve out from heater.

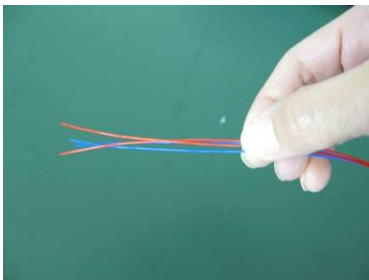


★ Protecting spliced points

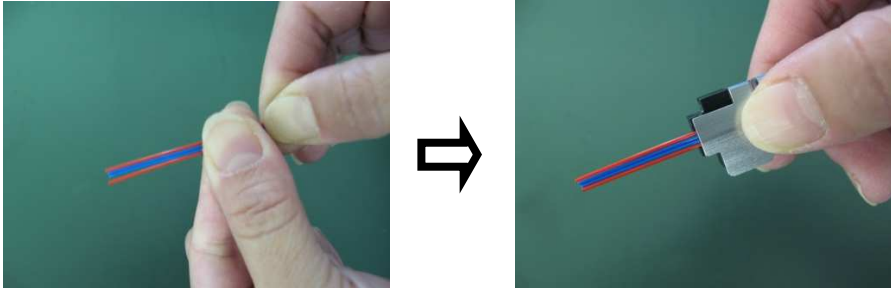
1. Select curl remove program from heater program list
Hit shortcut key, then the Heater PRGM selection will pop up. Please select CURL REMOVE program.



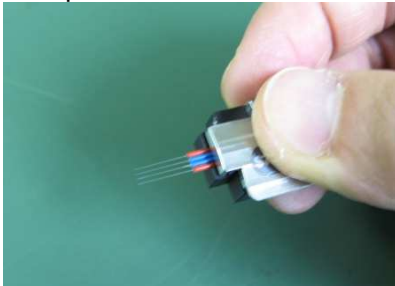
2. Put curled fiber into Heater.



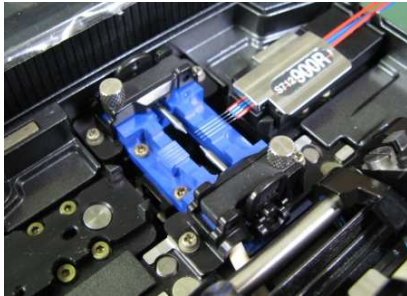
3. Use finger to straight out the curled fibers several times then place them into fiber holder.



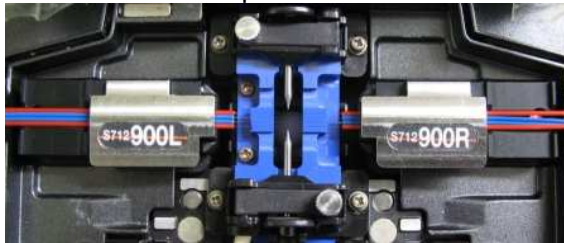
4. Strip the fibers then cleave them.



5. Place the fiber holder into the splicer.



6. Perform routine operation.



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