FuseConnect-MPO Cordage Type Assembly Manual

1. Connector components and tools
Fuseconnect-MPO is assembled with the parts as shown below.

1.1. Connector unit

1.2. Assembly tools

Note: During fiber preparation, broken fiber may get injure the eyes or other parts of the body. Always wear eye protection when handling optical fibers and dispose of any cut or cleaved ends properly.

2. Fiber preparation tools

2.1. Fiber Cleaver (CT-30)
2.2. Ribbonizing glue
2.3. Fiber Stripper (HJS-02)

3. Operation Procedure
3.1. Preparation
3.1.1. Clamp the cord

Using the cord clamp, clamp it to the cord at about 40 cm from the end.

3.1.2. Insert boot

Insert the Boot Assembly through the cordage

3.2. Cord Processing
3.2.1. Cord splitting

Make 2 markings at 13 cm and 11 cm from the cable end
3.2.2. Ribbonizing the fibers

Secure the cord to the ribbonize tool, with the 13 cm mark at the point indicated with arrows on the tool.

Put aside the aramid yarn using the hook on the side of the ribbonize tool, then make cord jacket U-turn and set in ribbonize tool.

Insert the fibers through the slit in the desired order. The typical straight-through arrangement can be referred to on the tool.

Push the cord forward until adjusting the 13cm marking other arrow indicated point on the tool.

Clean the ribbonized fiber with alcohol and lint-free wipe.

Grip well at these points while cleaning/applying glue

Place a large drop of ribbonizing glue on a piece of lint-free wipe as shown left.

Apply the glue by wiping the fibers in the same way as alcohol cleaning.

Ensure the fibers do not cross each other and pull as straight as possible.

Repeat once, or more if the glue was not evenly applied.

Allow the glue to dry for at least 1 minute.

Slide the transparent cover off and remove the ribbonized fiber.

Insert the spring unit through the tape. Do not force it past the split point.

Make a marking at 9 cm from the cord split point.

Remove the excess cord jacket from the 11 cm mark.

Slice the cable from the 13 cm mark to the end with the Cord splitter. Split the cord open.
3.3. Fiber treatment

3.3.1. Strip fiber

Place the tape on the holder with the marking on the end of the holder.

3.3.2. Cleaning; screening

Clean the fiber surface after the coating is removed with cotton dipped in alcohol. Bend the fiber up and down, left and right 3 times slowly with the finger (about 60°) to verify that it does not break.

3.3.3. Cleave fiber

Cleave the fiber leaving 10 mm of bare fiber.

3.4. Fiber Termination

3.4.1. Preparation

Set fiber holder and connector holder on fusion splicer.

3.4.2. Fusion splice

Splice cable to connector.

3.5. Reinforce splice point by mechanical clamp

3.5.1 Set mechanical clamp body on assembly tool

Peel off the protection film of mechanical clamp body. Note the raised sides of the body compared to the cover.

3.5.2. Remove spliced fiber

Set mechanical clamp body on the assembly tool.

Grip ribbon fiber and connector holder, then remove spliced fiber.

3.5.3. Set spliced fiber on assembly tool

Set spliced fiber on assembly tool, connector holder side first.

Note: Shut the hinge while the tape is under tension.
3.5.4. Assemble mechanical clamp

Peel off the protection film of mechanical clamp cover.

Slot the cover into the hinge segment of the tool.

Secure the mechanical sleeve shut by pushing down on the press. Some clicking sound is normal. Remove the press.

3.6. Housing assembly

3.6.1 Removing the connector from assembly tool

Release the hinge, open the connector holder latch and then remove the ribbon fiber and connector holder from the assembly tool.

3.6.2 Assemble boot unit and housing assembly

Slide the stopring forward. Match the white markers on the mechanical clamp cover and the housing assembly. Insert the ferrule and stopring into the housing assembly. There will be a relatively loud click when the entire assembly is secure.

Split the aramid yarn and grip the housing in between. Leave a slight bend not more than 1 cm above the yarn.

Holding the yarn in place, slide the Cord tube and boot towards the housing assembly and screw it on tightly.

Cut the excess aramid yarn using the Kevlar scissors.

The MPO Connector Cordage is complete!