# 3M™ No Polish LC JG1 Connector for 1.6-2 mm cable

8832-JG1 UPC SM

6832-50/OM2-JG1 MM

6832-50/OM4-JG1 MM

Instructions

January 2016 OPT01-IN-178B(E)



## Safety Precautions

#### **Protective Eyewear**

#### **△** CAUTION

To reduce the risk associated with eye injury:

- Safety glasses should be worn when handling chemicals and cleaving the optical fiber.

#### Chemical Precautions

#### **⚠WARNING**

To reduce the risk associated with fire:

- Storage, use and disposal of isopropyl alcohol should be per your company health, safety and environmental instructions. Refer to material safety data sheet for health hazards, safe handling, proper use and control measures.

#### **△** CAUTION

To reduce the risk associated with eye or skin irritation from fiber gel in connector:

- Product contains phenylmethyl silicone (63148-58-3), hydrophobic silica (68611-44-9) and may cause minimal eye irritation. Avoid contact with eyes and wash hands before eating or smoking. Upon eye contact, immediately flush eyes with water while holding eyelids open and continue flushing for ten minutes. Contact a physician. Upon skin contact, wash with soap and water. Refer to Safety Data Sheet for product information

#### Bare Fiber Handling

#### **△** CAUTION

To reduce the risk associated with handling sharp glass fibers:

- Cleaved glass fibers are sharp and can pierce the skin. Use tweezers when handling shards and dispose of them properly per your company health and safety instructions.

#### Fiber/Cable Handling

#### **NOTICE**

To reduce the risk associated with fiber damage:

- Optical fiber can be damaged by excessive tensile, compressive and bending forces. Consult the manufactures' specifications for proper handling instructions.

#### LASER Safety

#### **⚠** CAUTION

To reduce the risk associated with eye damage from exposure to laser light:

- Take the proper precautions when working with optical fiber because invisible laser light may be present. The principal laser hazard when working with fiber optics is injury to the eye. Never look directly into the fiber or connector using the naked eyeor a microscope.

#### 1.0 Overview

1.1 3M<sup>TM</sup> No Polish Connectors 8832-JG1 & 6832-JG1 terminate 1.6mm and 2.0mm jacket cable.

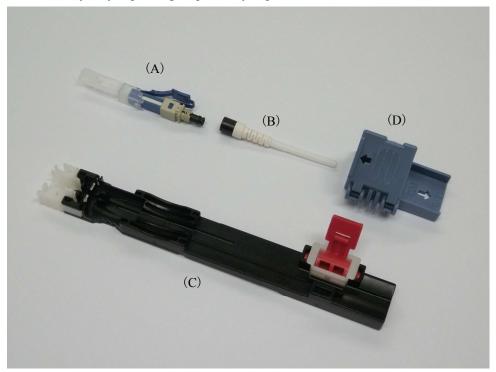


#### 1.2 Materials required for connector termination

You will find following components in a box of connectors.

- A. 3M<sup>TM</sup> No Polish Connector 8832-JG1/6832-JG1
- B. Boot
- C. Cable holder
- D. Disposable stripper (for 250um coating removal only, up to 20 stripping)

Note: content may vary depending on product you purchased



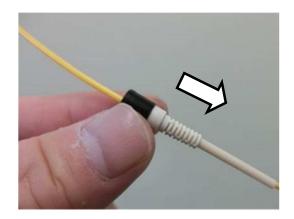
#### Other tools

- F. Fiber cleaver
- G. Fiber Stripper
- H. Alcohol
- I. Lint-free wipe
- J. Snips

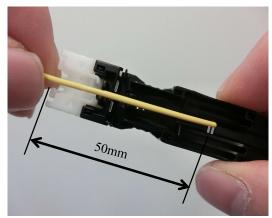
Note: Carefully follow safety, health and environmental information given on product labels or the Safety Data Sheets for isopropyl alcohol, fiber optic cleaning solution.

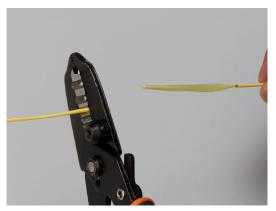
# 2.0 Termination process

2.1 Put connector boot on cable

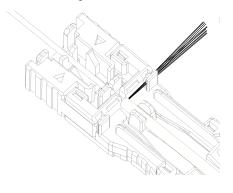


2.2 Remove cable jacket 50mm from the cable end. Cable holder can be used to measure the length. Align the end of cable to the double line on the cable holder to measure 50mm.



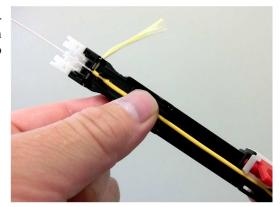


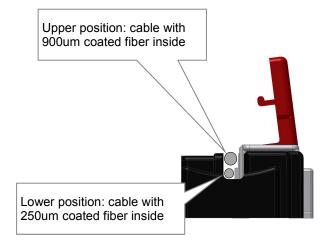
2.3 Butt up jacket end against the stop on the cable holder as shown. Group aramid yarn and insert into one of the slot next to the stop.





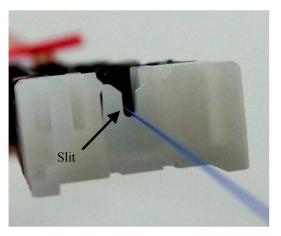
2.4 Lay the cable straight on the cable holder. Place the cable in appropriate position in the clamp depending on fiber type inside cable jacket. And close the cover to clamp cable





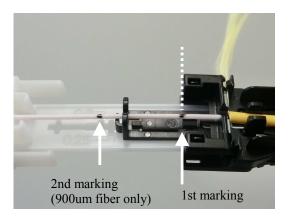


Make sure fiber sit in fiber guide slit in sliding connector nest.

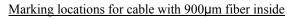


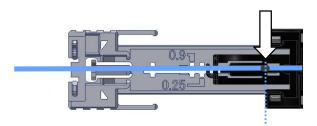
Fully pull out sliding connector nest from the cable holder. Put marking(s) on the fiber with a marking pen

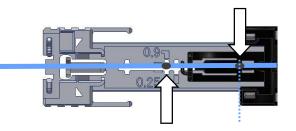
1st marking: at the edge of holder body 2nd marking: at the indicator "0.9" (900um fiber only)



Marking locations for cable with 250µm fiber inside



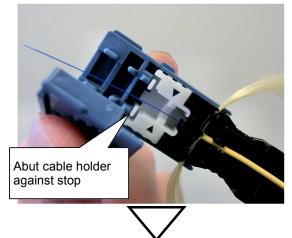




2.6 Bring the sliding nest back to original position. Strip buffer coating using appropriate stripping tool Stripping 250µm fiber using disposable stripper

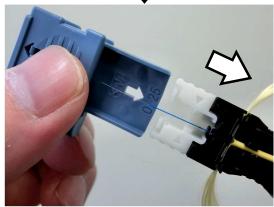
Place cable holder on the stripper such that cable holder butt up against the stop. Close the stripper and pull

out the cable holder



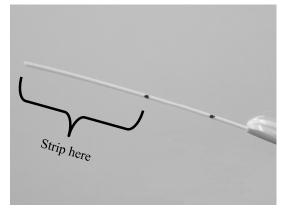
Caution: Do NOT OVERUSE the stripper (up to 20 stripping) or may damage stripped fiber

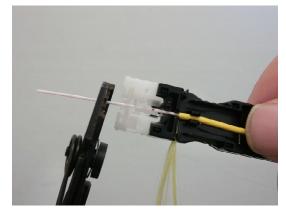
Caution: Do NOT STRIP the same fiber twice or may damage the stripped fiber.



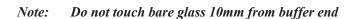
#### Stripping 900µm fiber

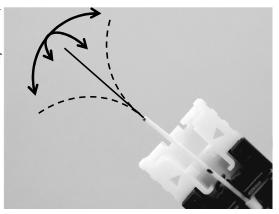
Remove coating at the 2nd marking and outward with appropriate stripping tool.



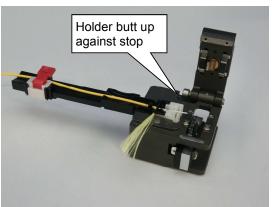


- 2.7 Thoroughly clean the stripped fiber with a lint-free wipe and alcohol or cleaning fluid.
- 2.8 Test the stripped fiber for weak points by using your finger to slowly flick the fiber in multiple directions. Watch for the fiber to spring back to the straight position. If the fiber breaks, properly dispose of broken-off piece and repeat at Step 2.2.

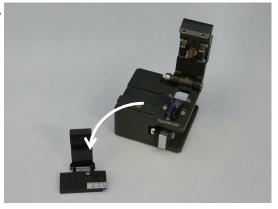




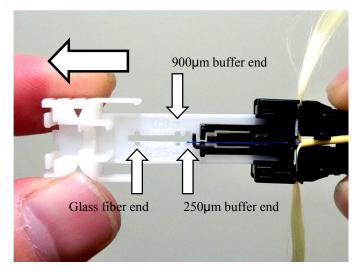
2.9 Place the cable holder on a cleaver and push it to the stop. Cleave the fiber per cleaver manufacture's instruction.



Note: If cleave length gauge is installed on your cleaver, remove the gauge prior to connector installation. Save the cleave length gauge for later use.

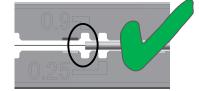


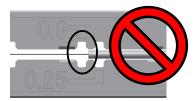
2.10 Check for cleave length and strip length by pulling out sliding connector nest of cable holder.



Fiber end/buffer end must be within respective gauge window (900µm buffer shown as example)





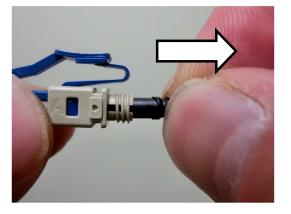


Too short

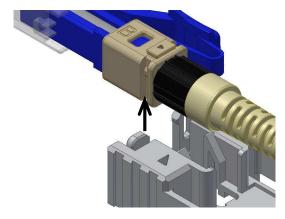
Right length

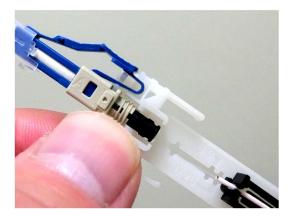
Too long

2.11 Pull out buffer clamp to release buffer



2.12 Remove connector from the plastic bag. Attach the connector to sliding connector nest with splice cap facing up. Pinch side of sliding connector nest to allow fiber guide protrude downward. (see Section 2.13)



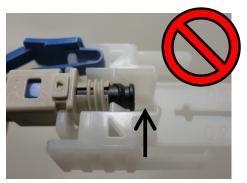


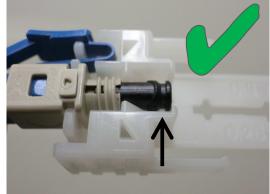
2.13 Be aware of fiber guide protruding downward until splice is acutated

Caution: Do NOT PUSH UP fiber guide or connector may pop out from cable holder



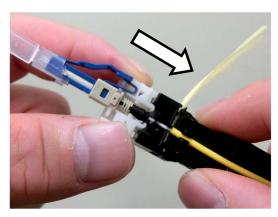
2.14 Check for buffer clamp. If the clamp is partially actuated, remove the connector and repeat at Section 2.12





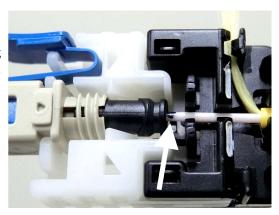
2.15 Hold the cable holder by both sides. SLOWLY slide back the connector to insert fiber into the connector.

Caution: Do NOT TOUCH CABLE until splice is actuated at Section 2.17.

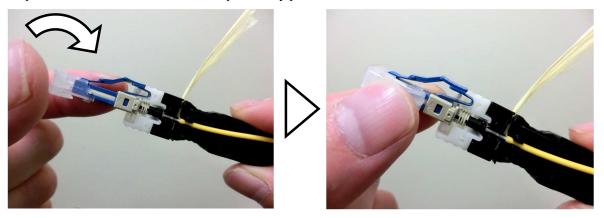


2.16 Check for marking on buffer at the end of buffer clamp.

If marking is not at this position, pull out the sliding head and check for fiber length again per Section 2.10. And insert fiber again per Section 2.15

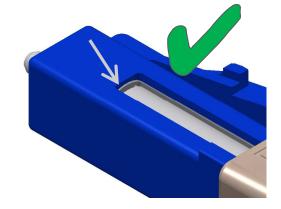


### 2.17 Flip back actuation lever on the dust cap and fully press down the lever

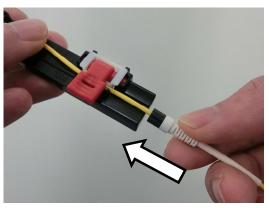


2.18 Check if cap is fully actuated. If not, press down lever again

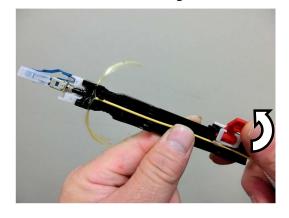


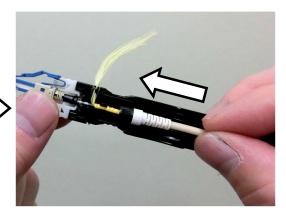


2.19 Slide boot next to the holder

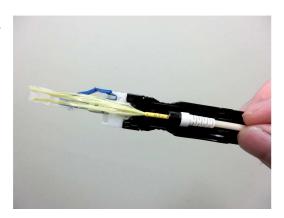


### 2.20 Release holder cover and bring boot closer to connector



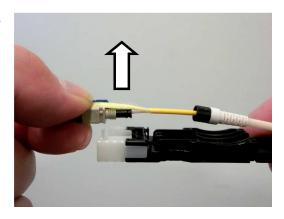


2.21 Remove aramid yarn from the slot and lay it on connector

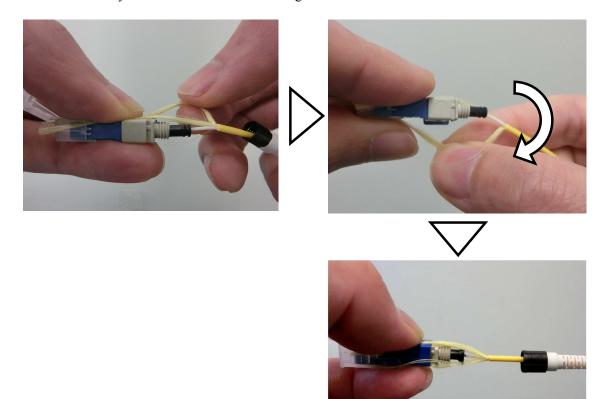


2.22 Hold aramid yarn and connector TOGETHER and remove from the cable holder.

Caution: Keep holding aramid yarn and connector together until boot is secured to the connector. Failure to do so may induce twist in fiber resulting in fiber break later

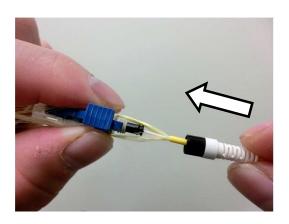


2.23 WHILE HOLDING ARAMID YARN AND CONNECTOR TOGETHER WITH ONE HAND, take about half of aramid yarn with another hand and bring it to the bottom side of connector.

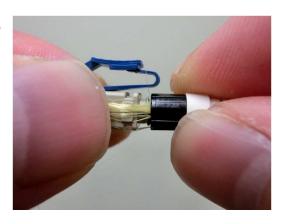


### 2.24 Bring boot up to connector

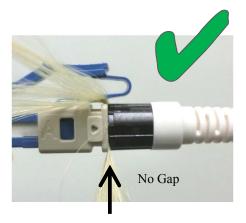
Caution: Keep holding aramid yarn and connector together until boot is secured to connector. Failure to do so may induce twist in fiber resulting in fiber break later



2.25 Fully tighten boot WHILE HOLDING ARAMID YARN AND CONNECTOR TOGETHER.





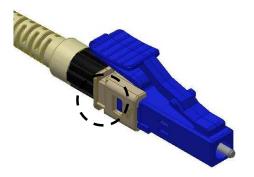


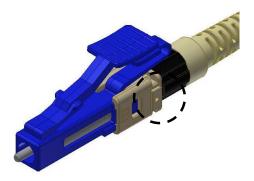
2.26 Trim off excess aramid yarn with snips. Termination completed.



# 3.0 Duplexing No Polish LC-JG1 Connectors

- 3.1 No Polish LC-JG1 can be duplexed without using extra parts. Two connectors can dovetail together to form duplex connector
- 3.2 Identify dovetailing features on both sides of connector body

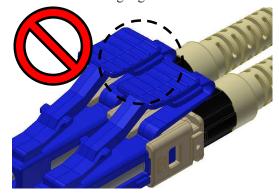


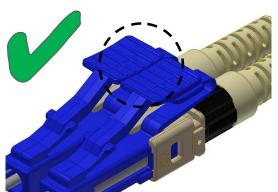


3.3 Dovetail two connectors to assemble them together



3.4 Make sure latches are fitting together





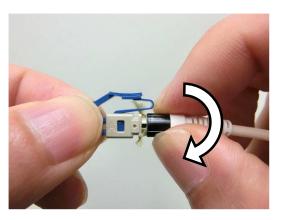
# 4.0 Connector re-open

4.1 Insert two folks on the dust cap into slots on back side of connector

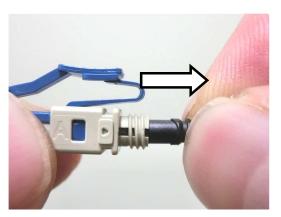




4.2 Unscrew and remove boot from connector.



4.3 Pull out buffer clamp with fingers then remove fiber from the connector



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