



3M™ No Polish LC Connector SM and MM, Flat Splice, 250/900 μm

Instructions

Contents

1.0	Kit Contents.....	3
2.0	3M™ No Polish LC Connector SM & MM 250/900 μm.....	4

Safety Precautions

Protective Eyewear

CAUTION

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

Chemical Precautions

WARNING

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

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. Product Information: Material Safety Data Sheet or 3M Company, St. Paul MN, 55144-1000, (651) 733-1110 Operator 55

Bare Fiber Handling

CAUTION

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

CAUTION

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

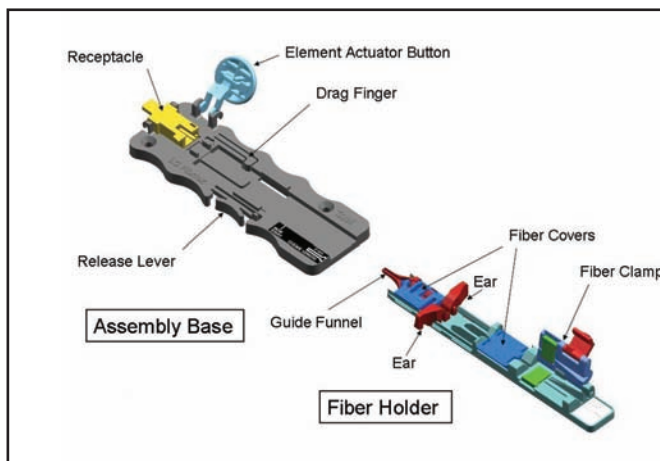
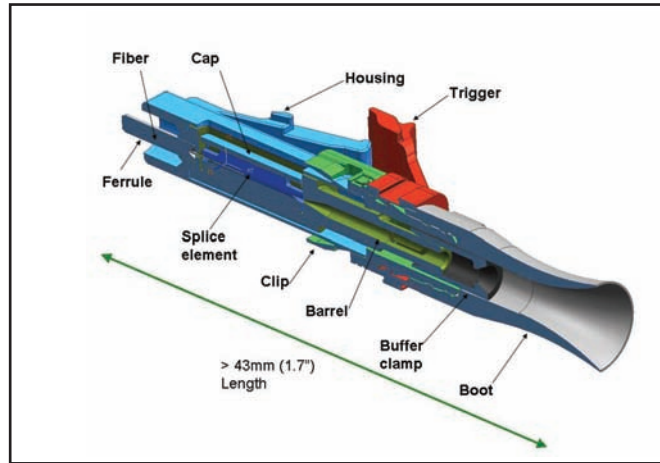
Laser Safety

CAUTION

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 eye or a microscope.

1.0 Kit Contents

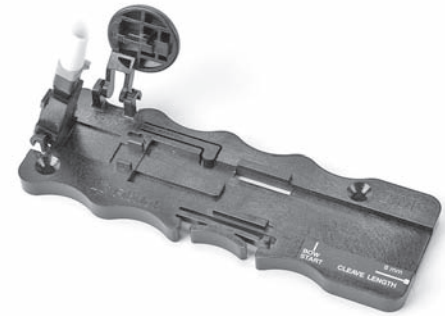
1.1 The diagrams below show the parts of the 3M™ No Polish LC Connector (singlemode pictured) and the 3M™ No Polish LC Connector Assembly Tool 8835-AT. Please review these drawings to understand the instructions in the following pages.



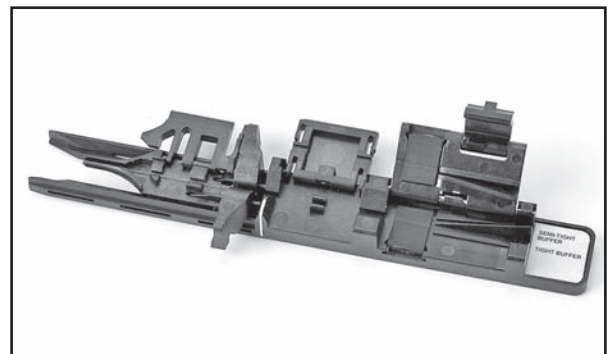
Carefully follow safety, health and environmental information given on the product label or the MSDS sheet for the no polish connector. Emergency phone: 1-800-364-3577 or (651) 737-6501 (24 hours).

2.0 3M™ No Polish LC Connector SM and MM 250/900 μm

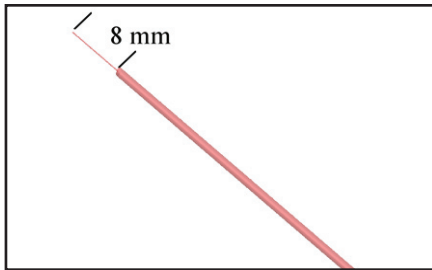
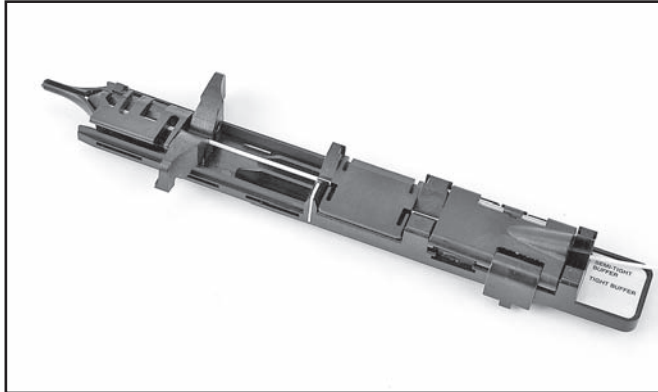
2.1 Remove the dust caps from the front and rear of the connector. Open the actuator button on the assembly tool. Pivot the receptacle upward. Then insert the connector into the receptacle, pushing down until it clicks.



2.2 Prior to each termination, clean all tools, including fiber holder, with a lint-free cloth and reagent-grade isopropyl alcohol. Move guide funnel forward on fiber holder until it stops; open fiber covers and fiber clamp.



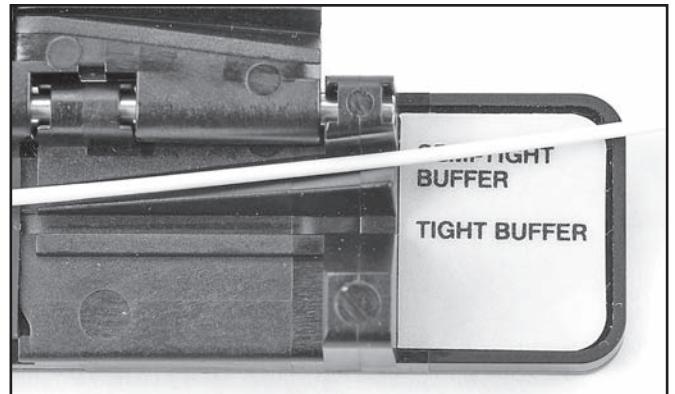
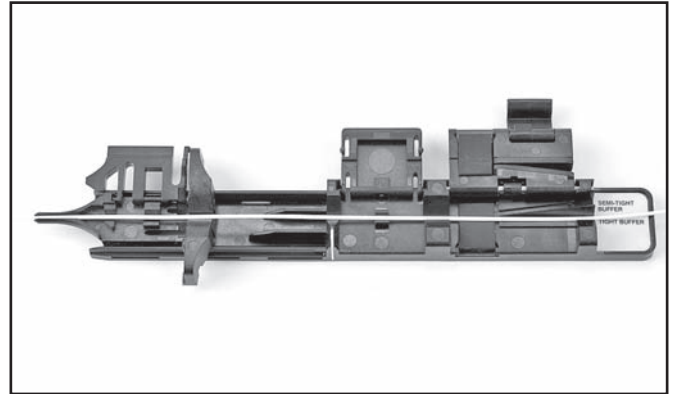
2.3 Strip, clean and cleave fiber to 8 mm +/- 0.5 mm (0.4 inches). Use the cleave length marker on the assembly base to verify the length. For semi-tight fiber, utilize the fiber holder in the stripping process by placing the fiber into the holder with the fiber to be stripped protruding from the rear of the holder, opposite the guide funnel. Close the rear clamp and proceed to strip the fiber. This will prohibit the buffer from moving or stretching during the stripping process. Once the fiber has been stripped remove the fiber from the holder.



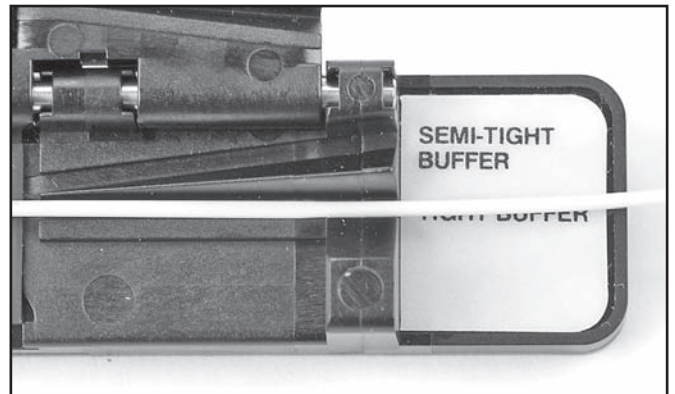
Note: For 900 μm buffer fiber, cut the buffer. If the 900 μm slides easily from the fiber, it is loose tube or semi-tight buffered fiber. When using semi-tight buffer fiber, verify that the 250 μm acrylate coating does not protrude beyond the end of the 900 μm buffer after stripping is completed and after cleaving is completed.

If the 250 μm fiber moves inside the 900 μm buffer after cleaving or stripping, an additional fiber holder is required. Place the second fiber holder 8 inches (20 cm) away from the end to be stripped, with the fiber protruding from the back of the holder. Using the “semi-tight” groove, clamp the fiber and proceed to strip, clean, and cleave the fiber as if it was tight buffered. Leave the holder on the fiber until the entire termination process is complete.

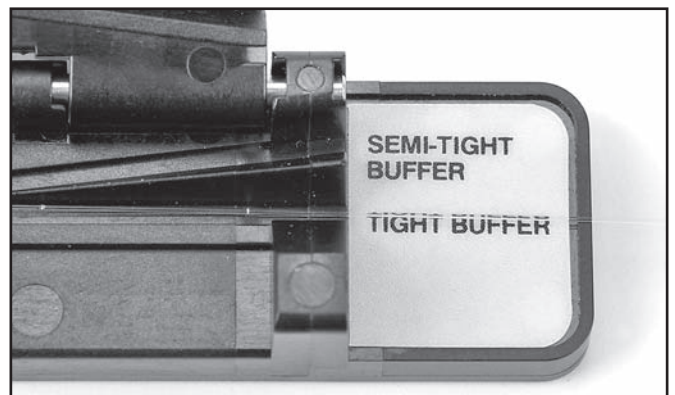
2.4 Lay the fiber in the proper groove of the fiber holder as you see below.



900 μm semi-tight buffer fiber



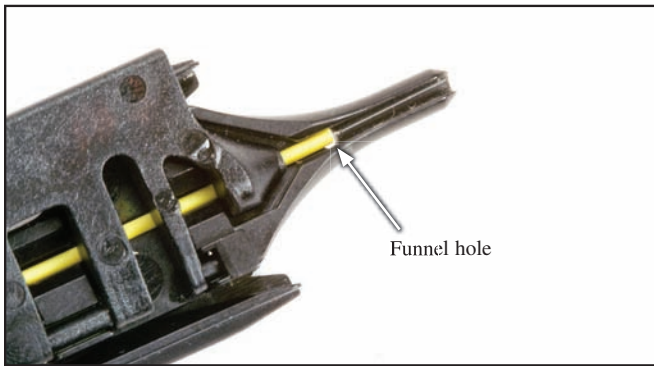
900 μm tight buffer fiber



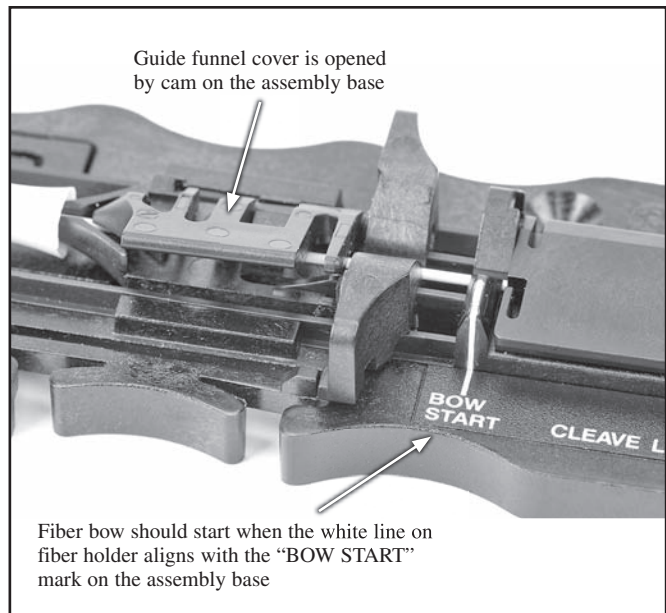
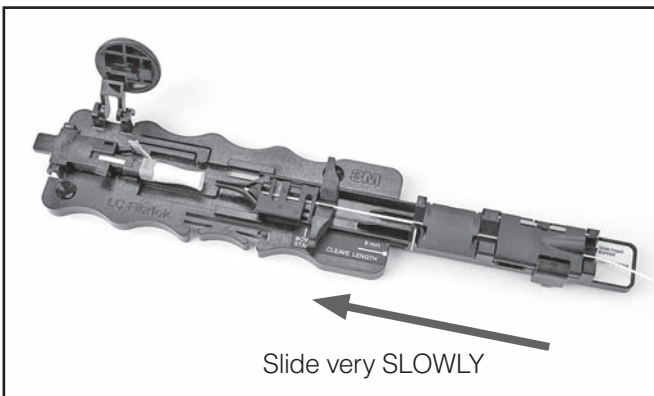
250 μm fiber

Note: For semi-tight buffer fiber, the fiber should be placed in the groove labeled “Semi-tight Buffer”. For 250 micron fiber and 900 micron tight buffer fiber, place in the fiber holder groove which is labeled “Tight Buffer”. This will provide the correct amount of clamping force for each type of fiber. In each case, make sure that the natural bow in the fiber is facing down, extending beyond the guide funnel end.

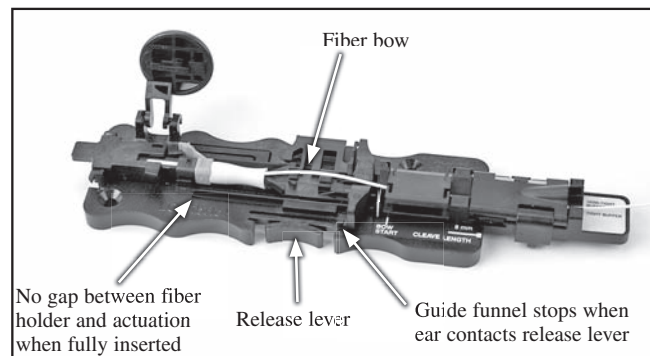
2.5 Verify the 8 mm cleave length again by using the length gauge on the assembly base. The 8 mm cleave length is measured from the end of the 900 μ m buffer to the end of the cleaved fiber. Close the guide funnel and middle covers on the fiber holder. Ensure that the funnel is pushed completely forward to the end of the fiber holder. Pull fiber back until fiber end is flush with funnel end. To verify the cleave length is still correct, all coatings should align with the hole located in the funnel tip. Close the back clamp. On semi-tight buffer fiber, the 250 μ m coating may protrude 1 mm past the 900 μ m semi-tight buffer. Re-strip, clean and cleave the fiber if necessary to meet length requirements.



2.6 Place fiber holder in assembly base and slowly slide fiber holder forward.



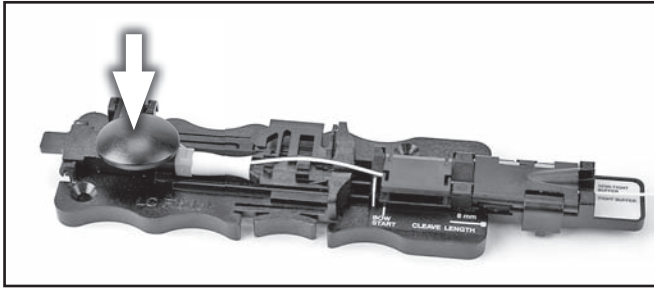
2.7 Continue to slowly slide fiber holder toward the connector. A bow in the fiber should start when the white line on the fiber holder aligns with the white line (BOW START) on the assembly base. If a bow is not seen, slide the fiber holder back and re-strip, clean and cleave the fiber and begin the termination process again. If a bow is seen before the two white lines meet, re-strip, clean and cleave the fiber and start the termination process again.



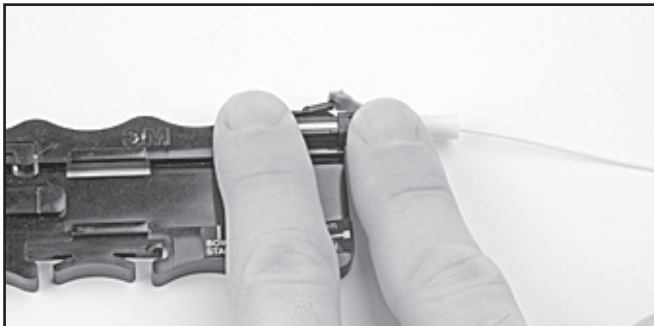
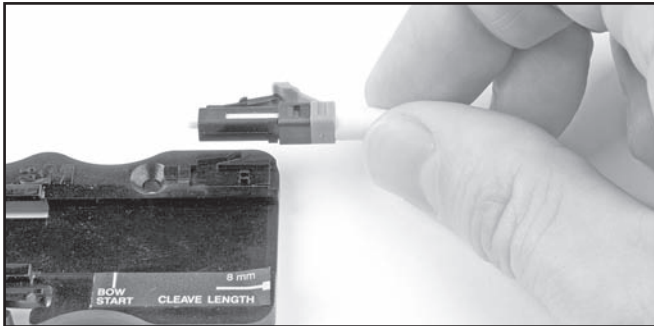
2.8 Continue to slowly slide fiber holder towards connector until it stops. Verify fiber bow again.

Note: The fiber will bow and lift the middle cover for rigid fibers and remain closed for 250 μ m and flexible 900 μ m fibers. This ensures proper fiber insertion force.

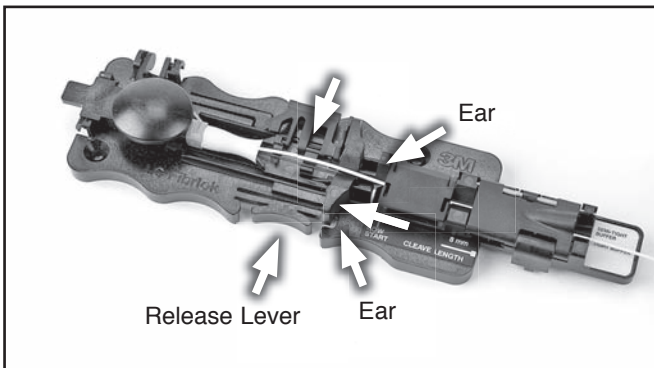
2.9 Firmly press button to actuate splice element while maintaining fiber bow.



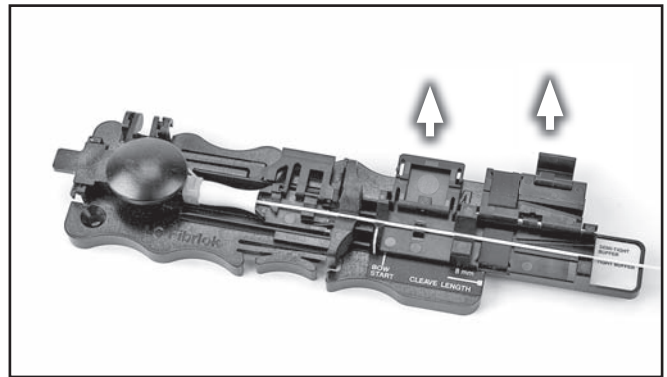
2.10 OPTIONAL STEP: If the connector needs to be tested, and potentially re-used, this is the best time in the assembly sequence to do so. Remove the connector from the tool. Test. Then either (A) place the connector in the cap popper cavity of the base. Press down firmly to pop the cap upward, which opens the splice element. Then remove the fiber, and restart with fiber preparation on step 2.3. or (B) re-insert the connector and fiber back in the tool and continue with step 2.11.



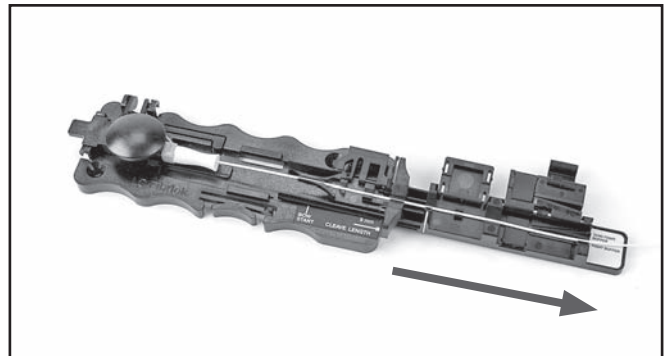
2.11 Press release lever to allow forward motion of funnel. Push on ears to move funnel forward and actuate buffer clamp.



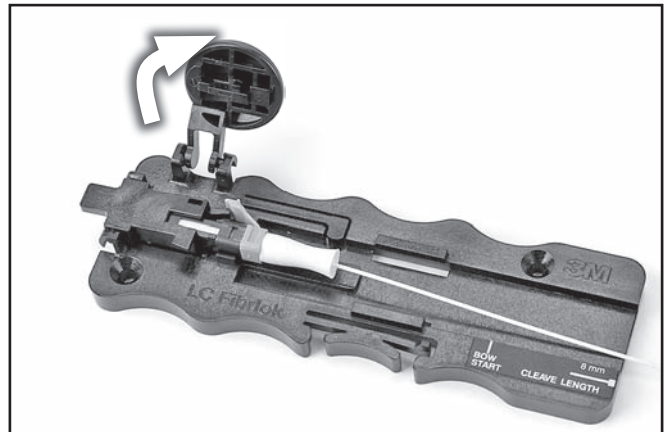
2.12 Lift fiber clamp and fiber covers to release fiber.



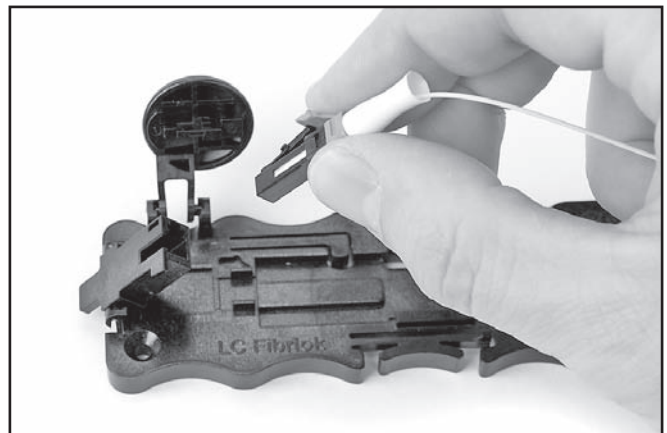
2.13 Slide fiber holder from actuation tool.



2.14 Lift element actuation button.



2.15 Pull connector from receptacle.



3M™ No Polish LC Connectors, Kit and Tool Descriptions	Packaging
8830 No Polish Connector LC SM Plug 250/900 μm with tool (blue trigger)	60/package*
8830-APC/FS No Polish Connector SM LC/APC Plug 250/900 μm with tool (green trigger, white boot)	60/package*
6830-50 No Polish Connector LC MM 50 μm 250/900 μm with tool (black trigger)	60/package*
6830-50/LOMMF No Polish Connector LC MM 50 μm 250/900 μm LOMMF with tool (aqua trigger)	60/package*
6830-62.5 No Polish Connector LC MM 62.5 μm 250/900 μm with tool (beige trigger)	60/package*
8865 No Polish Connector Kit	1/package
8865-C No Polish Connector Kit with Cleaver	1/package
8835-AT No Polish LC Connector Assembly Tool	1/package

*“RoHS Compliant 2002/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. This information represents 3M’s knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

3M™ No Polish Connector Kit 8865-C with Cleaver

Kit Contents:

- 8865-AT NPC SC Assembly Tool 250/900 μm
- 8835-AT NPC LC Assembly Tool 250/900 μm
- 2534 Fiber Cleaver (not included in 8865 kit)
- 6365-ST Stripping Tool
- 6365-KS Kevlar Snips
- Lint-Free Cloths (100/pkg)
- Cleaning Alcohol Bottle



3M is a trademark of 3M Company.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



**Communication Markets Division
3M Telecommunications**

6801 River Place Blvd.
Austin, TX 78726-9000
1-800-426-8688
www.3MTelecommunications.com

Please Recycle. Printed in USA.
© 3M 2009. All Rights Reserved.
78-8140-3696-4-A