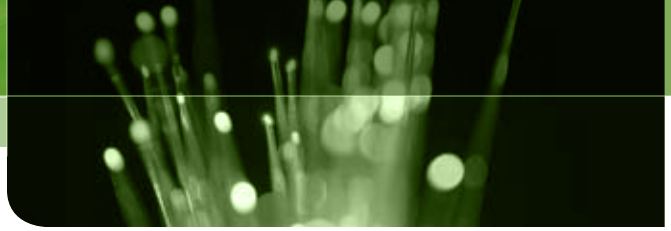


3M™ No Polish Connector 8800-APC/AS
SM SC/APC, Angle Splice, 250/900 µm
Instructions

February 2008
78-8140-1581-0

Contents

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

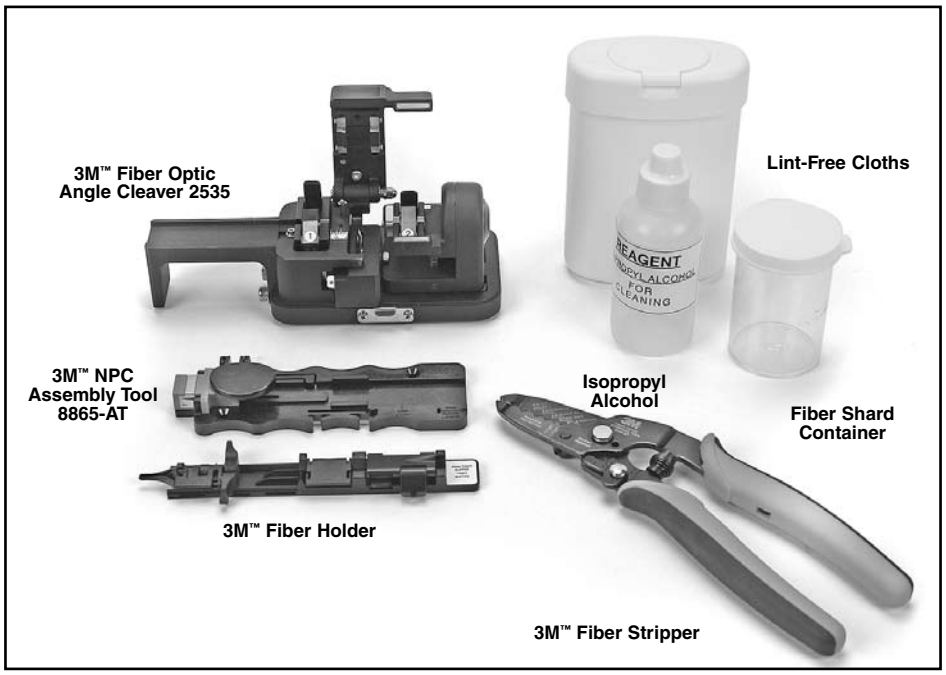
⚠ CAUTION

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 Summary

1.1 3M™ No Polish Connector 8800-APC/AS terminates 250 µm or 900 µm single fibers with SC/APC interface and angle splice for superior optical return loss performance.

1.2 Required tools, which are available in the 3M™ Fiber Optic Angle Cleave Kit 2565.



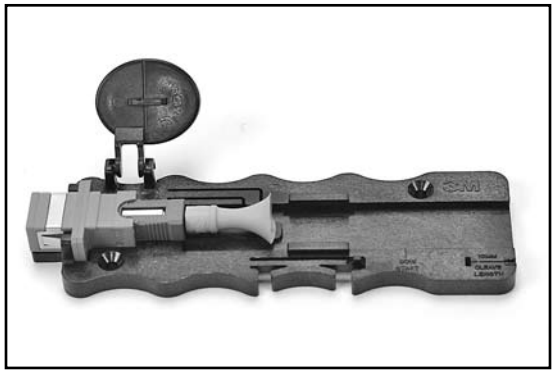
1.3 For situations where a suitable work area is not available, the case and plastic plate, which are included in the 2565 kit, can create a work surface. The case can be set on level ground, on a vehicle, or hung by the hook and shoulder strap.

1.4 Add one full bottle (1.8 fl. oz./53 ml.) of 98% pure isopropyl alcohol into lint-free cloth container to pre-moisten wipes.

2.0 Connector Preparation

2.1 Carefully remove connector body from the bag. Remove the dust caps from the front and rear of the connector body.

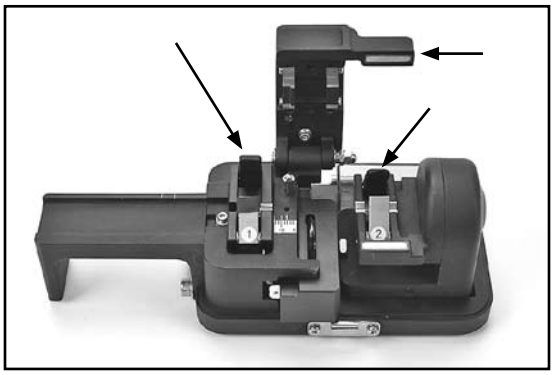
2.2 Open the actuator button on the assembly tool base. Insert connector into coupling in the tool with white actuation cap facing upwards, pushing forward until it clicks.



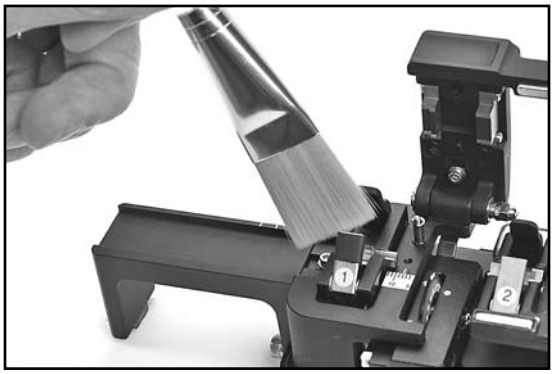
2.3 Carefully clean the fiber holder with a lint-free cloth soaked with alcohol.

3.0 Fiber Preparation

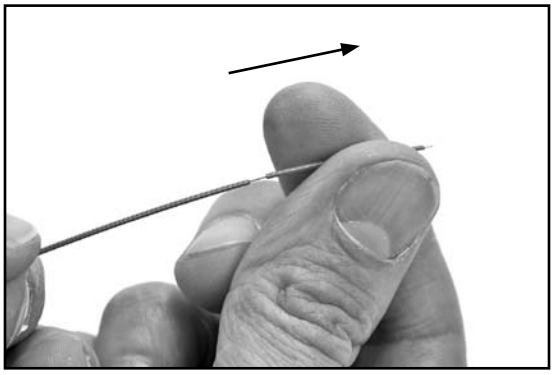
3.1 Open all three angle cleaver clamps and levers.



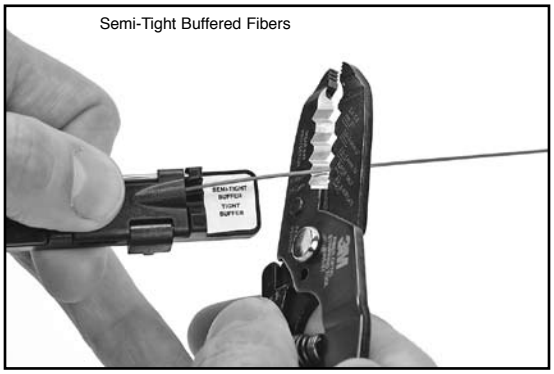
3.2 Carefully clean the cleaver clamps using a small brush.



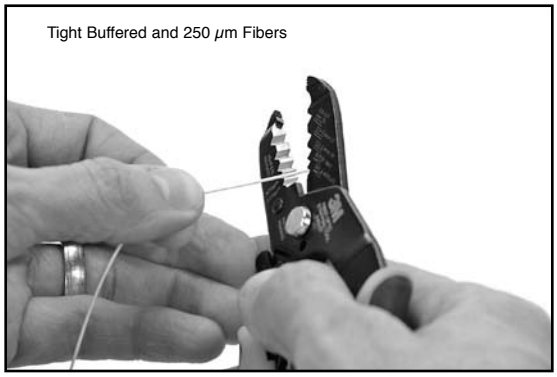
3.3 For 900 µm buffer fiber, cut the buffer. If the 900 µm slides easily from the fiber it is loose tube or semi-tight buffered fiber.



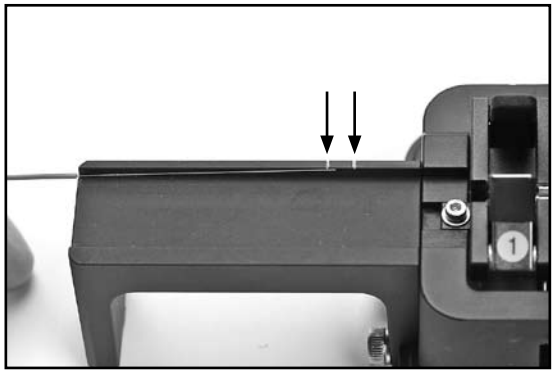
In this instance, use the fiber holders' clamp to prohibit the buffer from moving or stretching during the stripping process. Place the fiber into the fiber holder groove, labeled "semi-tight", with the fiber to be stripped protruding from the back of the holder. Close the clamp and proceed to strip and clean the fiber. Once complete, remove the fiber from the holder. If the 250 µm fiber still moves inside the 900 um buffer after it is clamped in the "semi-tight" groove, then the connector must be installed on the 250 µm fiber. Strip at least 8 inches (203 mm) of the 900 µm buffer and complete the installation.



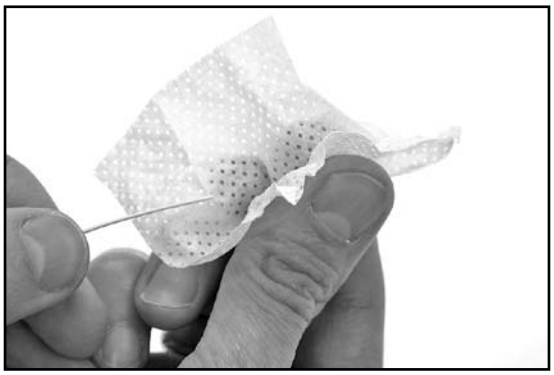
3.4 For all fibers, strip the 900 µm and 250 µm coatings exposing glass for 1.67" to 1.77" (42.5 mm to 45 mm).



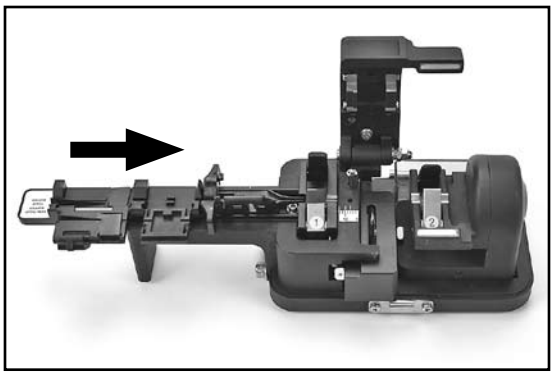
3.5 To verify the correct strip length, use the white marks on the left side of the cleaver. Align the coating edge to the left edge of the cleaver and the fiber tip should be between the two white lines.



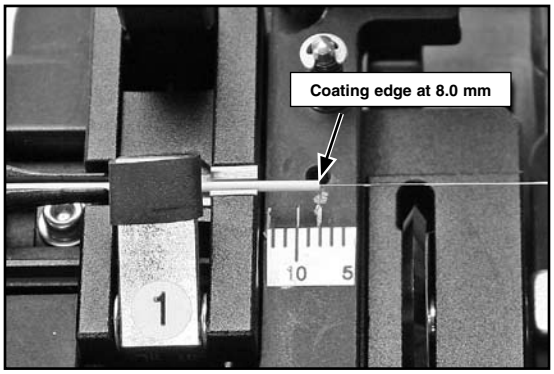
3.6 Clean fiber with alcohol and lint-free cloth.



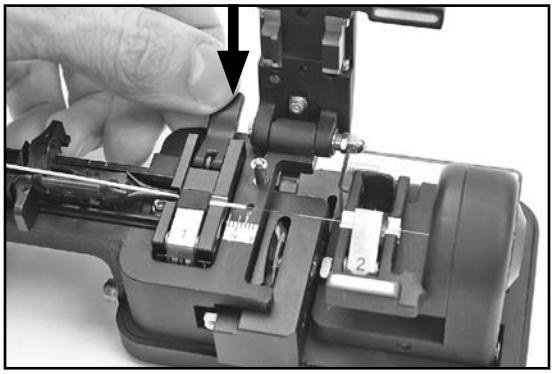
3.7 With the two covers and clamp open, place the assembly tool fiber holder onto the cleaver. Push the holder toward the cleaver blade until it stops.



3.8 Place fiber in angle cleaver so the coating edge is at 8.0 ±0.5 mm and rotate the fiber so it rests in the bottom of V-groove in both cleaver clamps.

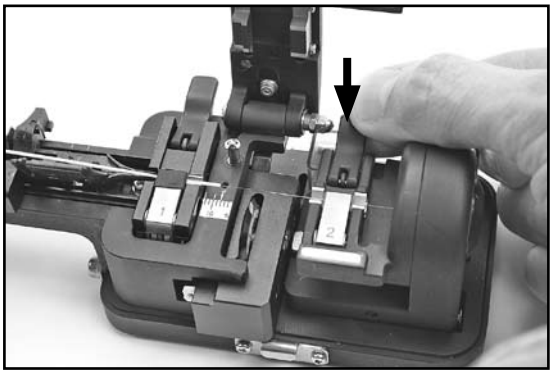


3.9 Close the cleaver clamp #1 first. This process sets the appropriate cleave length.

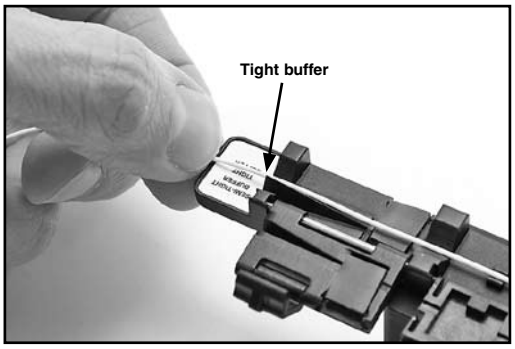


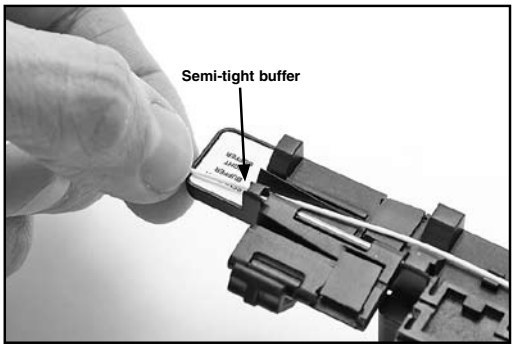
3.10 Close the cleaver clamp #2.

Note: ***Ensure there is no fiber bow between the two clamps. If there is a bow, open both clamps and repeat steps 3.9 and 3.10.***

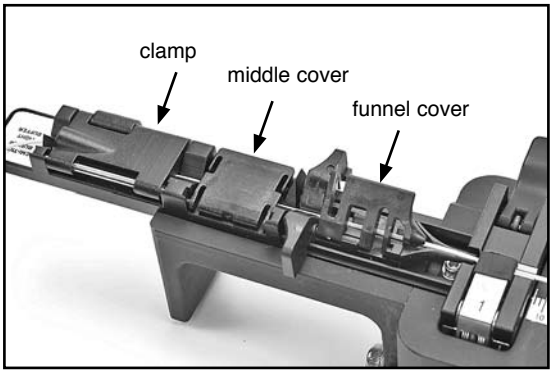


3.11 For 250 µm fiber and tight buffer 900 µm fiber, the fiber should be placed in the fiber holder tool groove which is labeled “Tight buffer”. For semi-tight buffer fiber, it should be placed in the groove labeled “Semi-tight buffer”. This provides the proper clamping force on the 900 µm buffer.

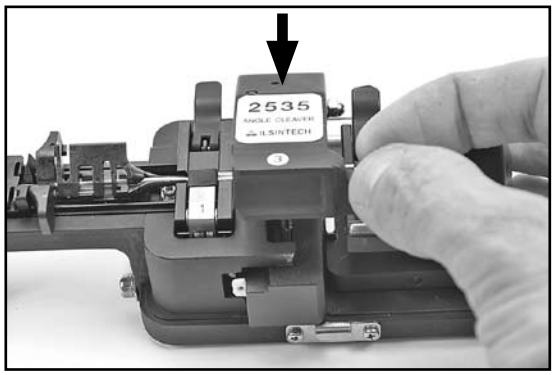




3.12 Close the 2 covers and the clamp on the fiber holder. The funnel cover will not close completely while in the cleaver. Do not force or cover can break.



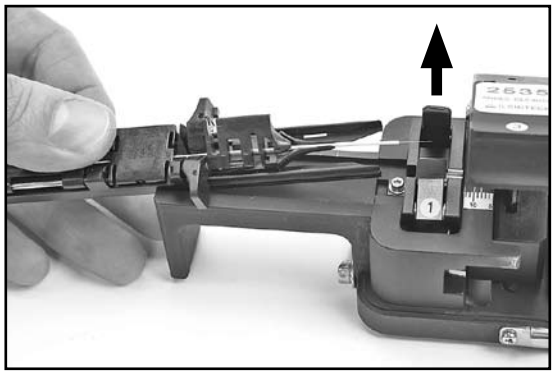
3.13 Depress activation cleaver lever (#3) to angle cleave the fiber.



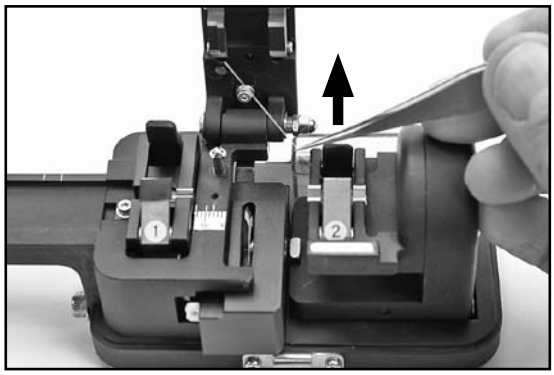
Note: If fiber does not break immediately upon activation, then open clamps, cut exposed fiber and strip, clan and cleave again.

3.14 Open cleaver clamp #1 and remove fiber holder and fiber from cleaver.

Note: ***Do not open activation lever after cleaving until fiber holder and fiber have been removed.***

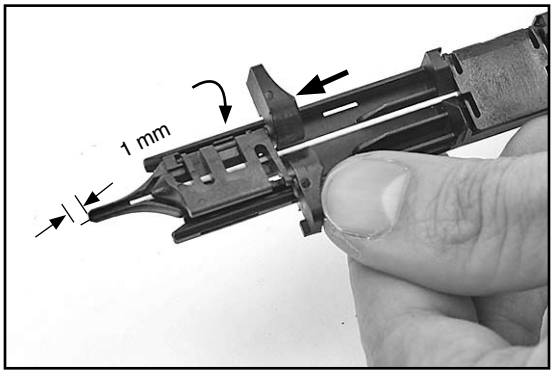


3.15 Open activation lever #3 and clamp #2 of angle cleaver. Dispose of fiber shard per company practice.

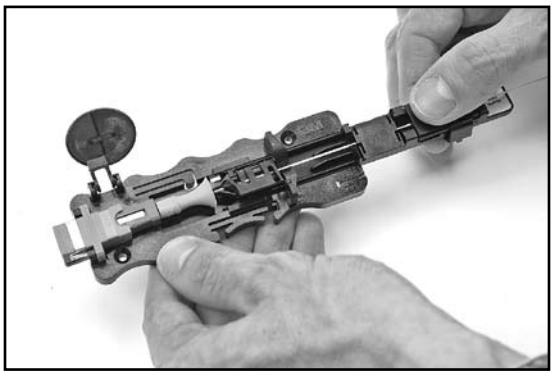


4.0 Fiber Insertion

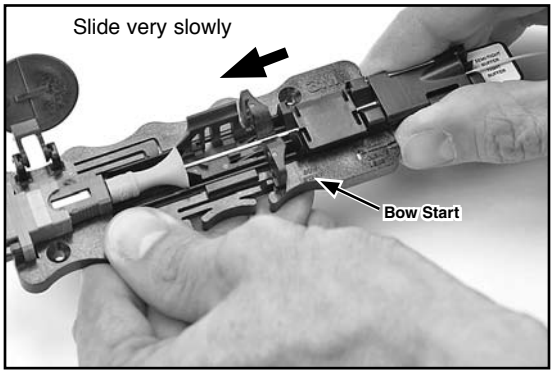
4.1 Slide the fiber holder's guide funnel fully forward and close the funnel cover. An audible click can be heard. Check for proper cleave length by inspecting the amount of fiber protruding beyond the funnel end of the holder. The amount of exposed fiber should be from 0 to 1 mm (0.04")



4.2 Place fiber holder in the assembly tool base.

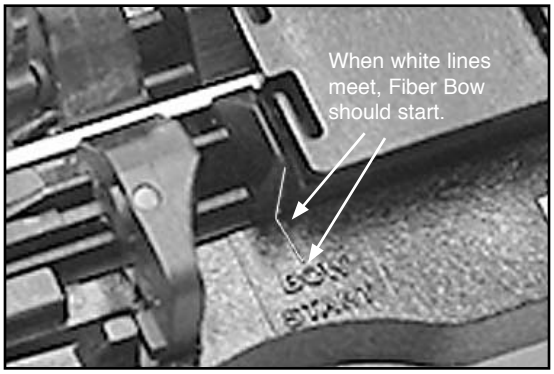


4.3 VERY SLOWLY slide the fiber holder towards the connector. A bow in the fiber is started once the white line on the fiber holder is even with the white line (BOW START) on the base. If a bow is not seen, strip, clean and cleave the fiber as shown in section 3 and try installation again.

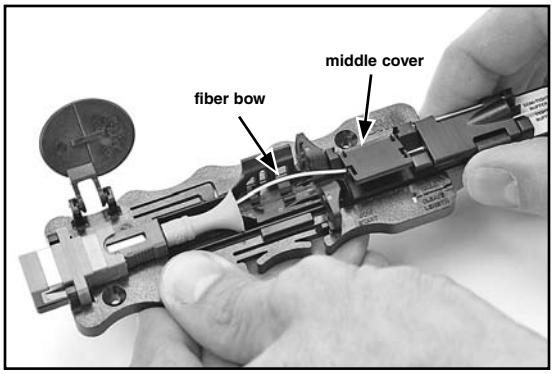


Note: See photo in 4.4 for more detail.

4.4 If a bow is seen before the white line on the holder meets the white line on the base, then slowly move the holder back until there is no bow, without pulling the fiber completely from the connector. To assist insertion, place finger on the middle cover to keep it from opening, then slowly re-insert the fiber into the connector. If a bow is still started before the white lines meet, then strip, clean, and cleave the fiber as shown in Section 3 and try again.

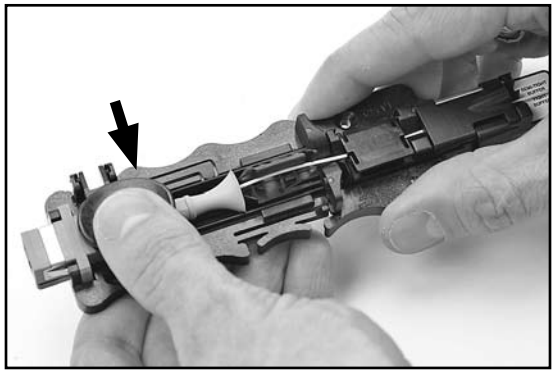


4.5 When the fiber holder is pushed toward the connector and stops, the fiber bow should be seen as below. The fiber will bow and lift the middle cover for rigid fibers and remain closed for flexible fibers.

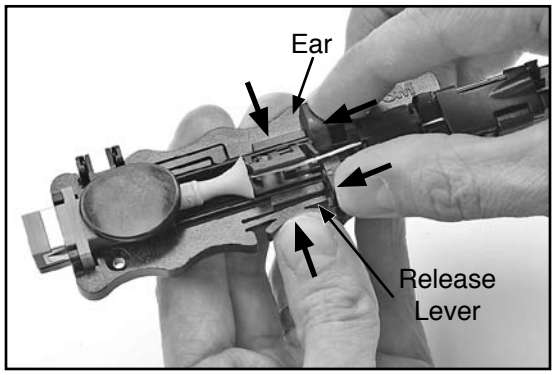


5.0 Splice Actuation

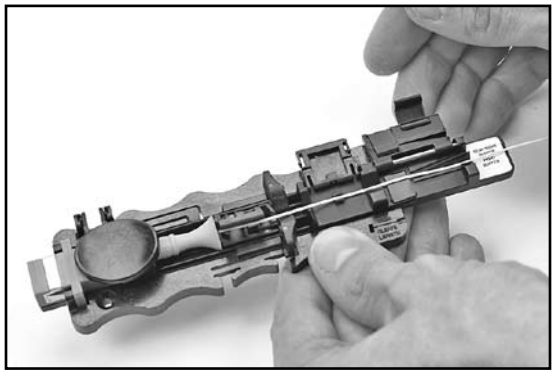
5.1 While there is a fiber bow, press actuator button firmly to actuate the splice. An audible click will be heard when properly completed.



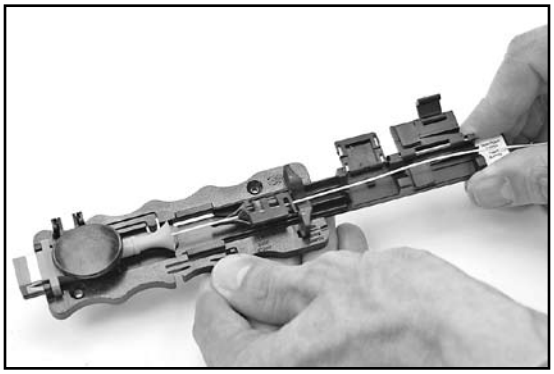
5.2 Press release lever to allow forward motion of funnel. Push ears to move funnel forward and actuate buffer clamp.



5.3 Open the clamp and lift the covers to release fiber.

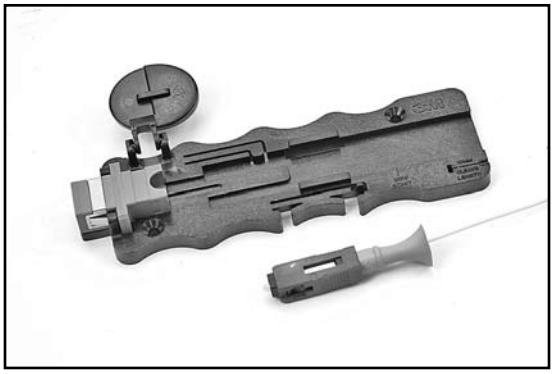


5.4 Slide fiber holder from actuation tool.



Optional: 3M™ No Polish Connector can be tested in the tool using SC coupling.

5.5 Pull connector from coupling and clean connector end face with isopropyl alcohol and a lint-free cloth.



3M™ No Polish Connector, Kit and Tool Descriptions		Packaging
8800-APC/AS*	No Polish Connector SM SC/APC Angle Splice, 250 / 900 µm (green housing, green boot)	60/package
2565	Fiber Optic Angle Cleave Kit	1/package
2535	Fiber Optic Angle Cleaver	1/package
8865-AT	No Polish Connector Assembly Tool	1/package

*Every box of 60 contains an 8865-AT Tool.

3M™ Fiber Optic Angle Cleave Kit 2565 Contents	
2535	Fiber Optic Angle Cleaver with brush and tweezers
2501-AS	Fibrlok™ Angle Splice Assembly Tool
8865-AT	No Polish Connector Assembly Tool
6365-ST	Fiber Stripping Tool
6365-KS	Kevlar Snips
	Lint-Free Cloths, Cleaning Alcohol Bottle, Work Plate, Fiber Shard Container
8800-APC/AS	No Polish Connector SM SC/APC Angle Splice, 250/900 µm (2 ea.)
2529	Fibrlok™ II Universal Optical Fiber Splice (6 ea.)
2540G	Fibrlok™ 250 µm Fiber Splice (5 ea.)

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