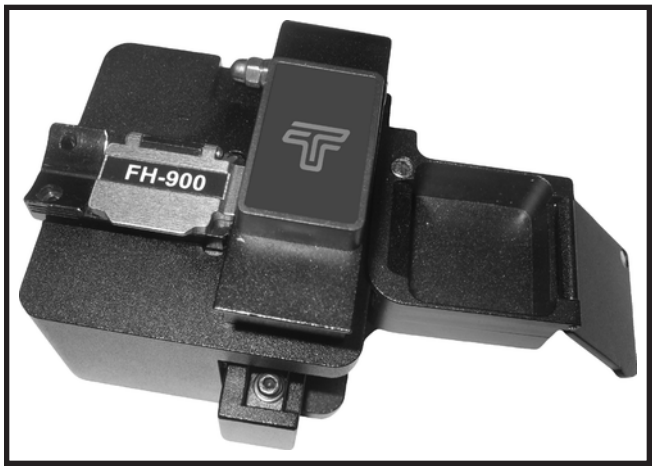
INSTRUCTION MANUAL

TEMPO COMMUNICATIONS

915CL
Optical Fiber Cleaver



Preface

Description

The Tempo Communications 915CL Optical Fiber Cleaver is intended to precisely cleave the fiber optic cable for subsequent use in the 915FS Fusion Splicer.

Safety

Safety is essential in the use and maintenance of Tempo tools and equipment. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of This Manual

This instruction manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the Tempo Communications 915CL Optical Fiber Cleaver.

Keep this manual available to all personnel.

All specifications are nominal and may change as design improvements occur. Tempo Communications shall not be liable for damages resulting from misapplication or misuse of its products.

Important Safety Information



⚠WARNING

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.



⚠WARNING

Electric shock hazard:

Contact with live circuits could result in severe injury or death.



⚠WARNING

Wear eye protection when using this tool.

Fiber fragments can be extremely dangerous if they come into contact with eyes or skin or are ingested.

⚠CAUTION

- Collect all fiber scraps in the dust bin and dispose of them in an approved fiber disposal unit.
- Do not touch the cleaving wheel blade cutting area.
- Do not disassemble or lubricate. Contact Tempo for maintenance and repairs.
- Store in a dry, clean location in the protective pouch.

Failure to observe these precautions may result in injury and may damage the unit.

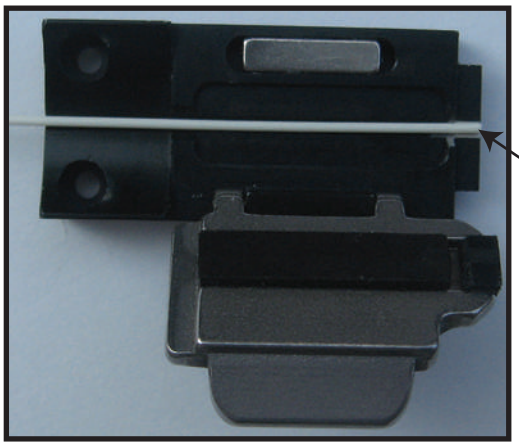
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Operation

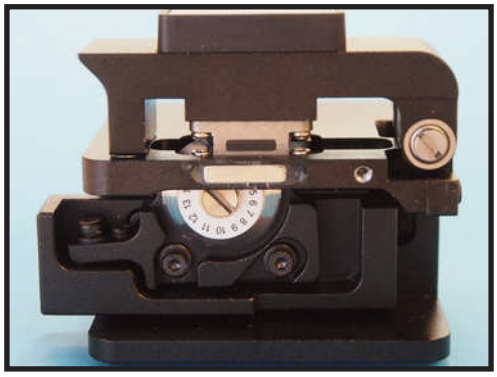
1. Open the fiber clamp mechanism and pull the fiber cleaving wheel mechanism back toward yourself.
2. Place the fiber to be cleaved in the desired fiber adapter.



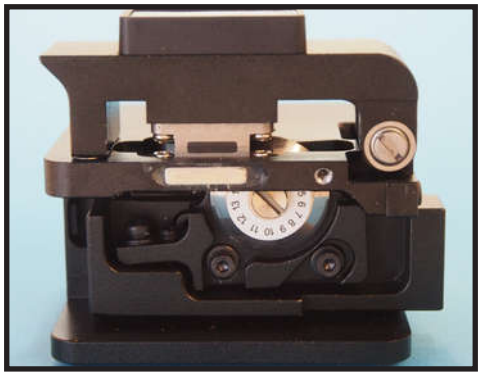
Hint: It is easier to load the fiber into the adapter if the fiber is curled in a downward direction from the fiber clamp.

3. Close the fiber clamp mechanism.
4. Push the cleaving wheel mechanism away from yourself to cleave the fiber.

Note: Dust bin is removed for these photos.



Cleaving Start Position



Cleaving Finished Position

5. Open the fiber clamp mechanism.
6. Make sure that the cut fiber end is safely in the dust bin.
7. Remove the adapter with the cleaved fiber from the cleaver.
8. Place the adapter with the cleaved fiber into the 915FS for splicing.

Note: There is no need to remove the cleaved fiber from the fiber adapter after the cleaving operation.

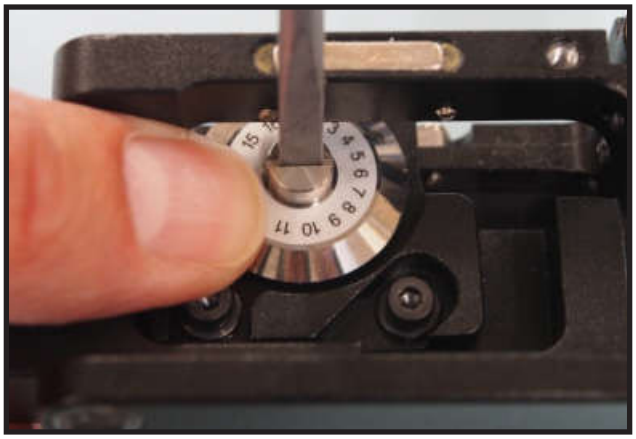
Normal Use and Maintenance

Make sure that the rubber presser feet and the fiber guide groove are clean (no dust and fiber debris). Keep the fiber contact surfaces clean by using isopropyl alcohol with a lint free cleaning wand.

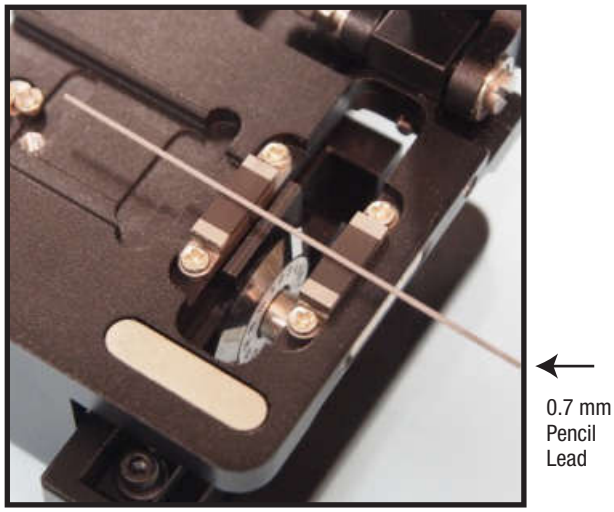
Change the position of the cleaving wheel if the cleaving quality degrades due to the blade being worn (usually 1000 cleaves per blade position). After the cleaving wheel has been rotated through all 16 positions, the height can be increased and the wheel can be reused through all of the 16 positions once again. The cleaving wheel can be rotated two times for a total of 48,000 cleaves.

Blade Position Change

1. Loosen blade locking screw.
2. Rotate blade to next scale position.
3. Hold side face of blade and lock screw at new position.



4. Lay 0.7 mm pencil lead across both pressure pads.



5. Move slider back and forth and check if blade touches pencil lead.
   - If blade touches pencil lead: Perform a cleave and check cleave angle on 915FS.

     If cleave is not good: Check if blade is damaged or dirty at new position.
   - If blade drags pencil lead all the way across: Go to “Blade Height Adjustment”.
   - If blade does not touch pencil lead: Rotate pencil lead ≈180° and try again.

     If not sure: Perform a cleave and check cleave angle on 915FS.

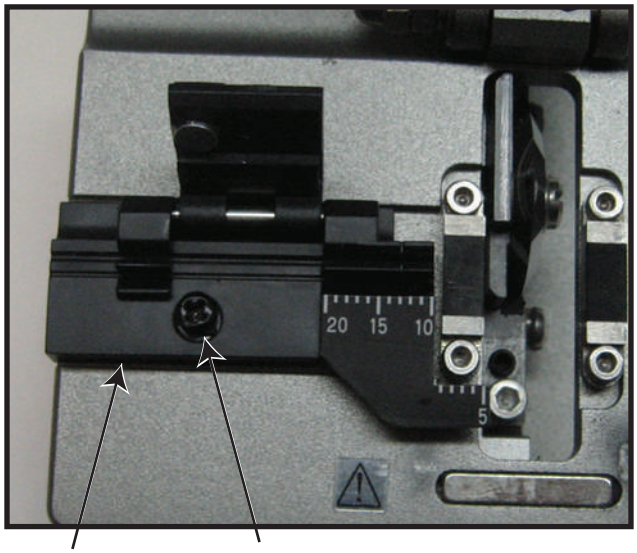
     If cleave is not good: Go to “Blade Height Adjustment”.

Normal Use and Maintenance (con't)

Converting the 915CL to a Fixed Clamp Cleaver

Place the fixed clamp mechanism into the 915CL and secure with the screw provided.

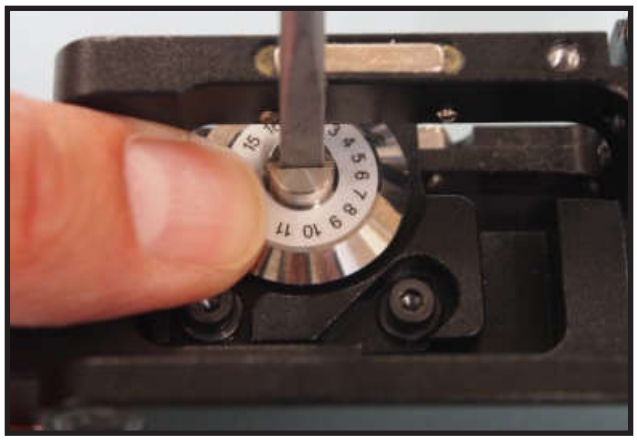
The 900 micron and 250 micron fiber adapters can be permanently left in the 915FS fusion splicer. If desired one M2X5 screws can be used to secure each fiber adapter into the fiber adapter mounting area of the 915FS.



Fixed Clamp Mounting Screw

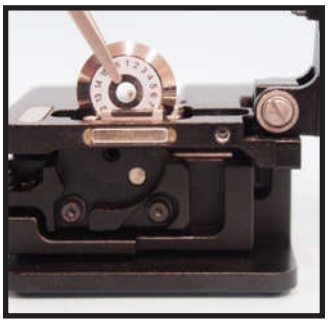
Blade Replacement

1. Lay down cleaver with scale numbers on blade facing up.
2. Remove blade locking screw.

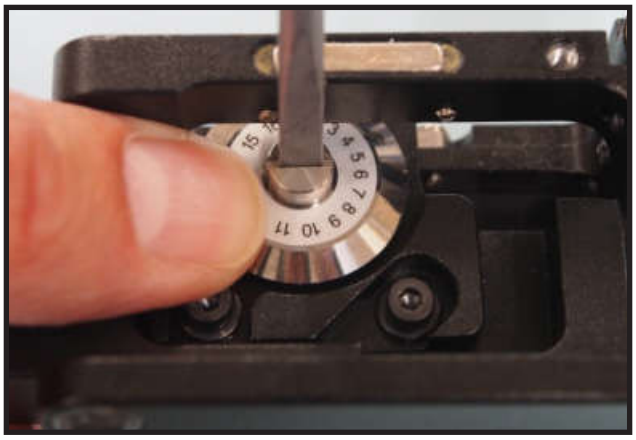


3. Remove old blade and replace with new blade. Do not touch blade (very sharp!) Use tweezers to remove old blade and insert new blade.

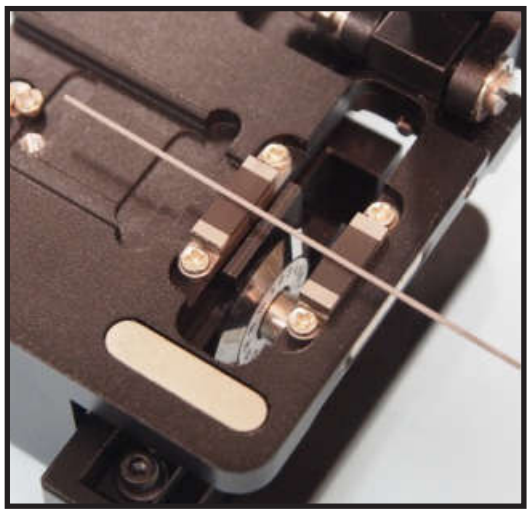




4. Lock new blade at position "1".



5. Lay 0.7 mm pencil lead across both pressure pads.



0.7 mm Pencil Lead

6. Move slider back and forth and check if blade touches pencil lead.
   - If blade touches pencil lead: Perform a cleave and check cleave angle on 915FS.

     If cleave is not good: Check if blade is damaged or dirty at position "1".
   - If blade drags pencil lead all the way across: Go to "Blade Height Adjustment".
   - If blade does not touch pencil lead: Rotate pencil lead ≈180° and try again.

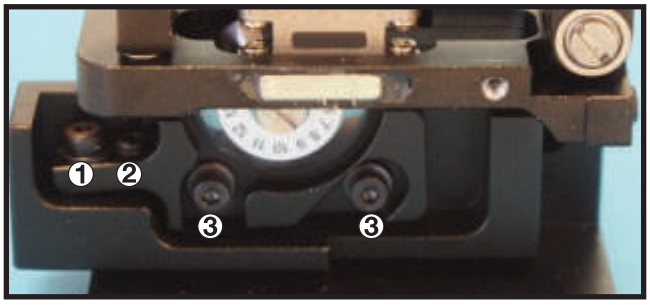
     If not sure: Perform a cleave and check cleave angle on 915FS.

     If cleave is not good: Go to "Blade Height Adjustment".

Normal Use and Maintenance (con't)

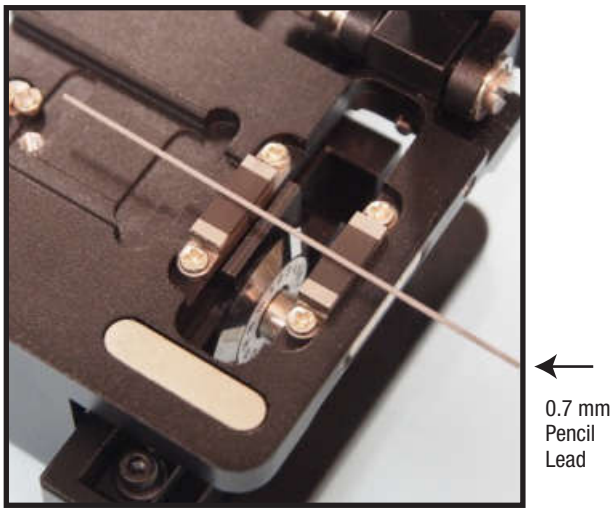
Blade Height Adjustment

1. Loosen both compression screws and height locking screw.



1 – Height adjustment screw
2 – Height locking screw
3 – Compression screws for blade height adjustment arm

2. Turn height adjustment screw:
   - **CW** if blade did not touch pencil lead (moves blade up).
   - **CCW** if blade dragged pencil lead across (moves blade down).
3. Tighten height locking screw and both compression screws.
4. Lay 0.7 mm pencil lead across both pressure pads.



5. Move slider back and forth and check if blade touches pencil lead.
   - If blade touches pencil lead: Perform a cleave and check cleave angle on 915FS.

     If cleave is not good: Check if blade is damaged at current position.
   - If blade drags pencil lead all the way across: Go back to step 1 and adjust **CCW** until good.
   - If blade does not touch pencil lead: Rotate pencil lead ≈180° and try again.

     If not sure: Perform a cleave and check cleave angle on 915FS.

     If cleave is not good: Go back to step 1 and adjust **CW** until good.

Specifications

Fiber Type	Single and multimode fiber
Fiber Size	0.25/0.9/3 mm (fiber holder replaceable)
Coating Diameter	125 µm
Cleaved Length	5~25/10 mm
Cleaved Angle	Typically 0.5°
Blade Life	48,000 cleaves
Mode	Semi-automatic
Dimensions (H×W×D)	54 mm × 58 mm × 58 mm
Weight	310 g

Troubleshooting

Failure Mode	Cause and Solution
Fiber does not cleave.	1. Acrylic coating not removed from fiber. 2. Fiber surface not clean. 3. Clean rubber presser feet. 4. Increase height of cleaving wheel.
End face has lip.	1. Increase height of cleaving wheel. 2. Clean rubber feet. 3. Check rubber feet for wear or abrasion.
End face has shadow or incline angle.	Increase height of cleaving wheel.
Core missing.	Lower height of cleaving wheel.



Note: Contact Greenlee if the above chart does not provide a solution to attaining a reliable cleave.

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