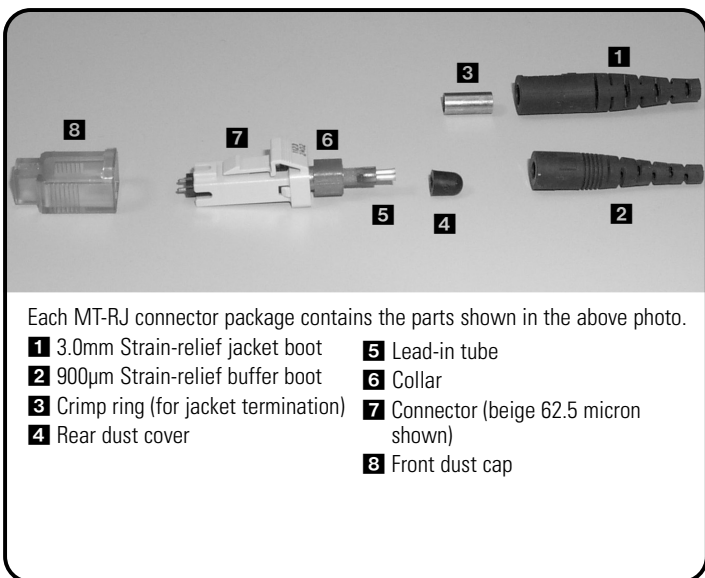
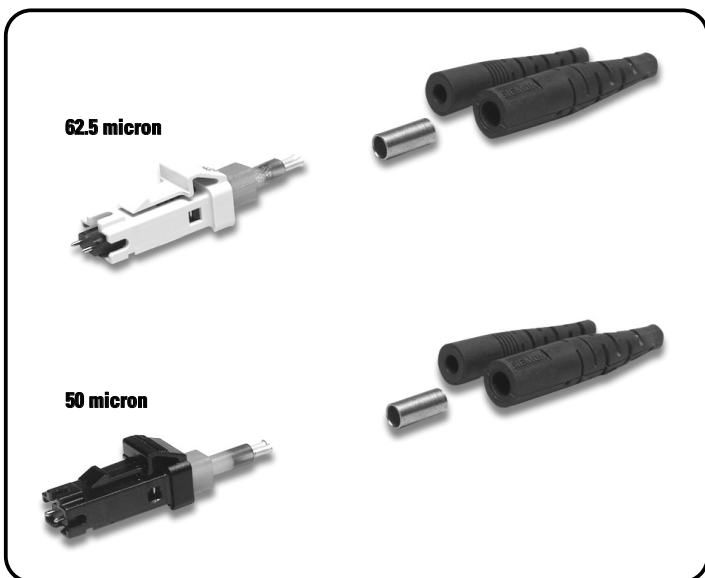


# Siemon MT-RJ Field-Installable Connector

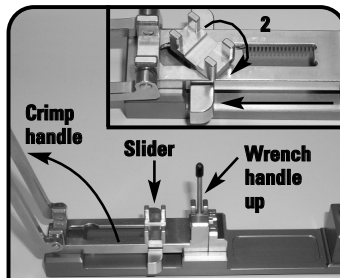


Each MT-RJ connector package contains the parts shown in the above photo.

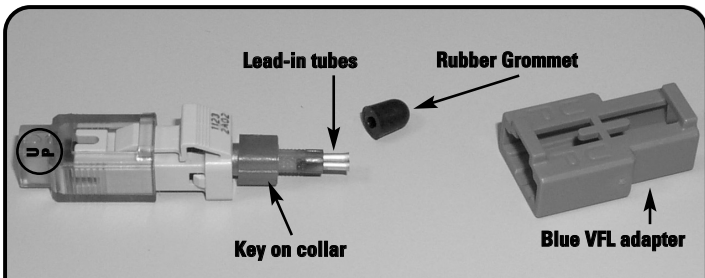
- 1 3.0mm Strain-relief jacket boot
- 2 900µm Strain-relief buffer boot
- 3 Crimp ring (for jacket termination)
- 4 Rear dust cover
- 5 Lead-in tube
- 6 Collar
- 7 Connector (beige 62.5 micron shown)
- 8 Front dust cap

## Connector Preparation

The blue MT-RJ activation tool is designed to position the interface to the visual fault locator and secure the connector for insertion of the fibers. The wrench handle rotates the collar that aligns the fibers and the crimp handle crimps the lead-in tube securing the buffered fibers in place. The tool makes connector assembly easy and accurate. A separate crimp tool (provided in the FTERM-MT kit) is required to secure the aramid yarn when present in the cable for jacketed style terminations.



- 1 Prepare the activation tool by flipping the crimp handle open and rotating the wrench handle straight up. For proper fit of the VFL adapter, the slider must be rotated into the wide position. While holding the spring-loaded slider over the rounded opening, rotate 90 degrees.

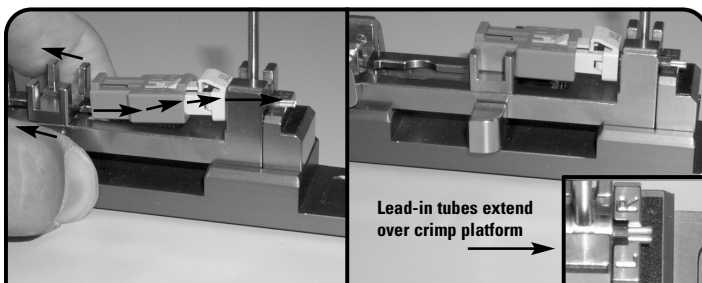


- 2
  - 2a. Remove the connector components from the bag and discard the rubber grommet from the rear of the connector.
  - 2b. Remove the front cap and replace with the blue adapter provided with FTERM-MT kit (use large opening of blue adapter)

*NOTE: Replace the front dust cap after the connector is completely assembled and remove only when you are ready to install it into an adapter.*

- 2c. Examine the connector to make sure it is in the open position. The MT-RJ connector is in the open position when the key on the collar is positioned 90° from the "UP" lettering on top of the front cap.

*NOTE: The connector will not fit into the installation tool with the wrench handle up unless the collar is in the open position.*

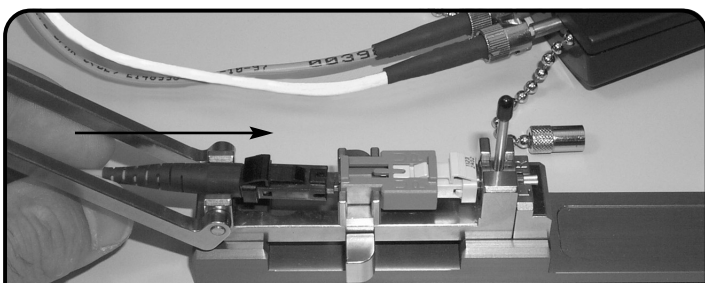


Lead-in tubes extend over crimp platform

- 3 With the wrench handle facing up and the blue VFL adapter installed on the front of the connector, pull back the slider and angle the connector into the tool as far as it will go. The end of the lead-in tube should extend over the crimp platform when installed properly. The blue adapter should rest in the slider. See right side photos above.

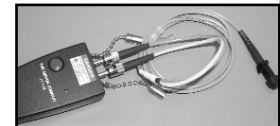
**IMPORTANT:** Do not attempt to force the connector into the tool. Doing so could damage the connector.

*NOTE: If the connector does not slide into the tool or the lead-in tube is not resting over the crimp platform, verify the wrench handle is up, the collar is in the open position (described in step 2c) and the connector is inserted at a slight angle.*



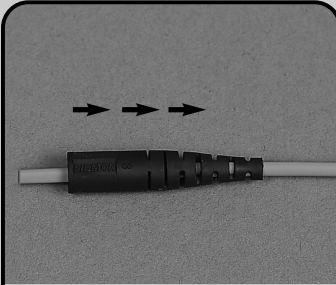
- 4 Prepare Visual Fault Locator (VFL) by lacing the MT-RJ side of patch cord through opening in crimp handle and plug into blue adapter as shown. **IMPORTANT:** Ensure that your AAA batteries are fresh by safely checking that both ports of the VFL are shining brightly.

*The VFL is a required tool for identification of a proper termination prior to crimping and will significantly reduce your connector scrap rate.*



# Siemon MT-RJ Field-Installable Connector

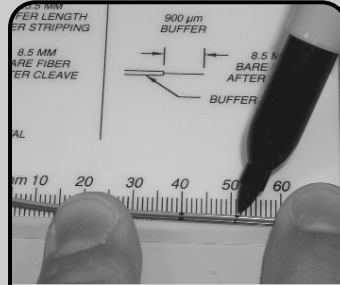
## Duplex 3.0mm Jacket Steps Only



### 5a Fiber Preparation 3.0mm Duplex Cable

Slide the 3.0mm boot (small end first) down both fibers until it is out of the way.

*NOTE: The next four steps require accuracy. Yarn trimmed too short may result in weak strain relief of the connector. Excessive yarn length can be trimmed later.*



### 5b

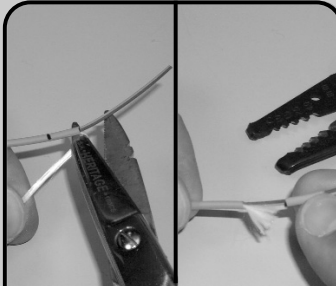
Place two marks on the outer jacket using the template card and marker pen provided:

With the end of the jacketed fiber placed at zero, measure and mark 40mm (1.5 in.) and 51mm (2.0 in.) from the end of the jacket.



### 5c

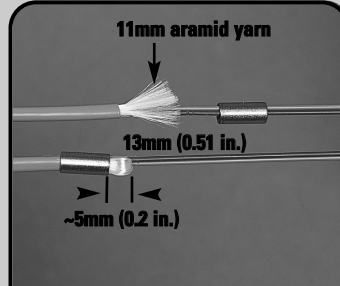
Strip off the 40mm (1.5 in.) section of outer jacket with the 16 AWG opening of the jacket stripping tool.



### 5d

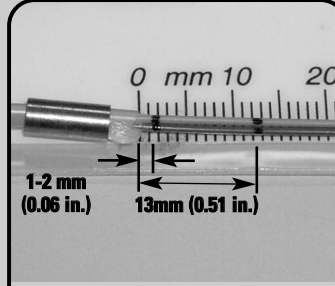
Use scissors provided to trim the aramid yarn (kevlar) flush to the end of the jacket.

Strip off the 11mm section of outer jacket with the jacket stripping tool to expose 11mm of aramid yarn.



### 5e

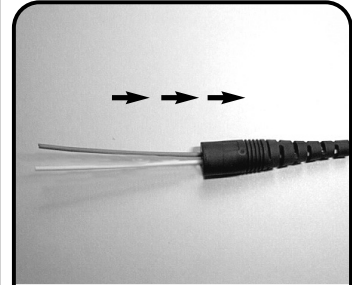
Fold the aramid yarn back over the cable jacket and slide the crimp ring about 5mm (0.2 in.) down the yarn to hold it out of the way.



### 5f

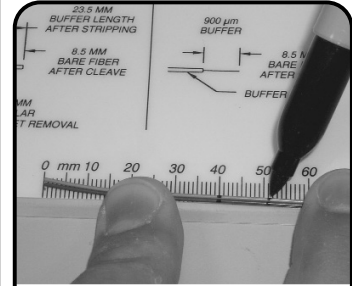
Measure and mark each 900µm buffer 13mm (0.51 in.) from the end of the outer jacket (now shown under the aramid yarn). Also mark both buffers 1-to-2mm (0.04-to-0.08 in.) in from the end of the jacket. This mark is a visual aid to indicate when the field fiber contacts the internal MT-RJ fiber stub.

## 900µm Buffer Steps



### 5A

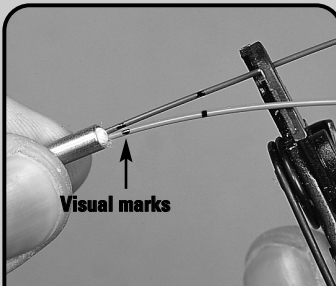
Slide the 900µm boot (small end first) down both fibers until it is out of the way.



### 5B

Measure and mark each 900µm buffer at 40mm (1.5 in.) and 51mm (2.0 in.) from the end of the fiber.

*Note: Ensure the 40mm marks are even while placing the 51mm marks.*

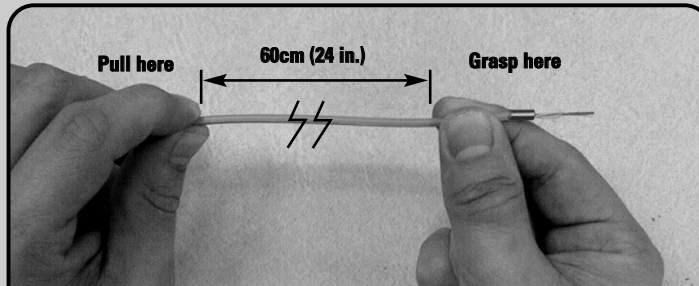


### 5g

Stripping Buffer from the Fibers:

Wrap the fiber cable around your hand for support and use the buffer stripper to remove the buffer up to the 13mm mark. Ensure that all the coating is removed.

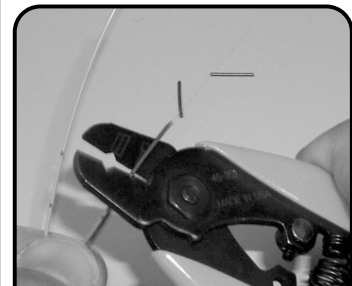
*NOTE: To avoid breaking the fiber, remove the buffer in 3-4 equal sections.*



### 15 Important:

Check the locations of the second marks after stripping to be sure the buffer did not pull out of the jacket – the marks must be near the edge of the jacket. If necessary, work the buffers back into their original position in the jacket as follows:

1. Grasp the cable about 60cm (2 ft.) behind the strip point.
2. Pull the cable until both second marks are again near the jacket.



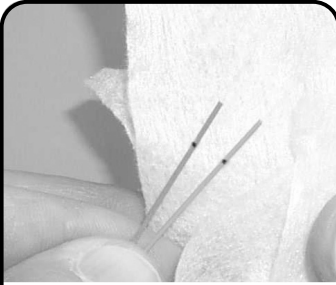
### 5C

Remove the 40mm section of each buffer as evenly as possible with a buffer stripper. Ensure that both the buffer coating as well as the protective coating is removed.

*NOTE: To avoid breaking the fiber, remove the buffer in 3-4 equal sections.*

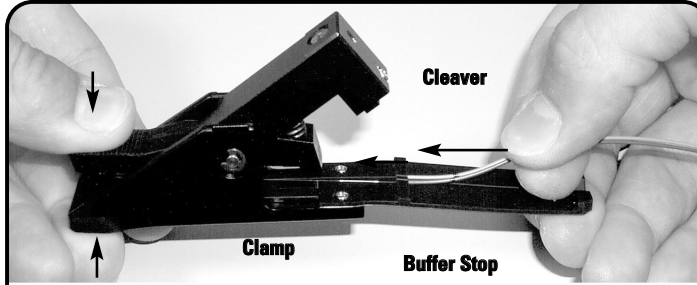
# Siemon MT-RJ Field-Installable Connector

Remaining Steps Apply to Both Jacketed & Buffered Terminations (buffered shown unless otherwise indicated)



- 6** Clean both bare fibers with two passes of an alcohol wipe being careful not to remove the visual marks.  
Do not touch the bare fibers after cleaning

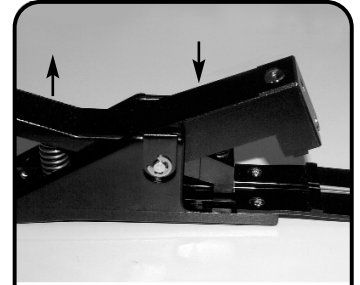
*NOTE: Alcohol wipe should be 99% reagent grade isopropyl. Replacements can be ordered with P/N: FT-ALPAD.*



- 7** *This section describes use of the cleaver supplied with the FTERM-MT Kit.*

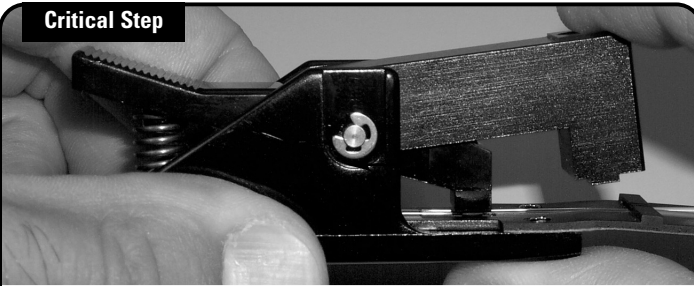
The MT-RJ connector accepts cleave lengths of 8.5mm + 0.0mm/- 0.5mm  
a. Press down on the handle to open the cleaver's fiber clamp.  
b. Use tweezers to remove any end pieces of fiber present from a previous cleave. Place pieces on a loop of tape for proper disposal.  
c. While holding the clamp open, place the fibers in the cleaver's fiber guide so that the ends of the fibers are under the fiber clamp and slide both buffers up against the stop.

**DO NOT FLEX THE FIBER GUIDE AT THIS TIME.**



- 8** Release the handle to lower the clamp onto the bare fibers.

*NOTE: Before cleaving be sure the fibers are flat against the cleaver arm and the cleaver blade is clean.*



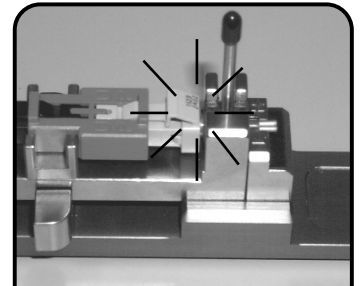
- 9** Gently press down the cleaver arm until it just touches the fibers and guide then release. This will apply enough pressure to properly score the fibers. It is important that both fibers are scored equally. Excessive pressure on the cleaver arm during this process will improperly score the fiber and result in a poor cleave and high insertion loss during link testing. Do not put pressure on the clamp arm during the cleave.

**IMPORTANT:** It is critical that the cleaver blade lightly touch the fibers and then be released before the bending motion of the guide is used (next step) to break the fibers. Bending the guide while the blade is in contact with the fibers will result in poor cleaves.

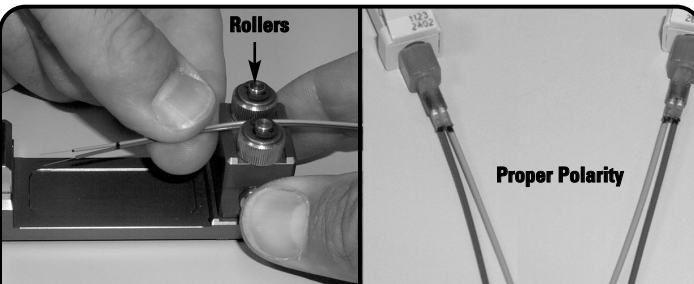


- 10** With thumb and fore finger close to the fiber stop, flex the fiber guide with a quick crisp motion to break the fibers. To avoid deformation of guide do not over flex. Do not re-wipe fibers after cleave.

**IMPORTANT:** If fibers do not break, trim the fibers and start over. Do not re-cleave the fibers.



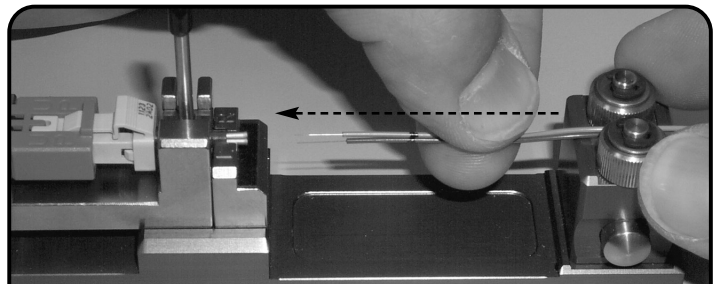
- 11** Turn on the VFL and verify the collar of the MT-RJ is glowing brightly from the red laser of the VFL. The red glow of the collar will extinguish after insertion of the fibers and rotation of the collar only if the fibers have been properly stripped and cleaved and fully seated against the fiber stubs.



- 12** Prepare the fibers for insertion into the lead-in tube:  
Push the button on the activation tool to open the indexing rollers and place both buffers (or jacket for 3.0mm jacketed terminations) into the indexing rollers and release button. The rollers can be used to help guide the fibers into the lead-in tube as well as to maintain inward pressure for the subsequent steps.

Also arrange the buffers into the proper polarity.

**IMPORTANT:** Maintaining optical system polarity it is essential for a fiber system to work properly. For each fiber link the buffered strands should be swapped from one end to the other, see photo depicting both ends of an MT-RJ link.

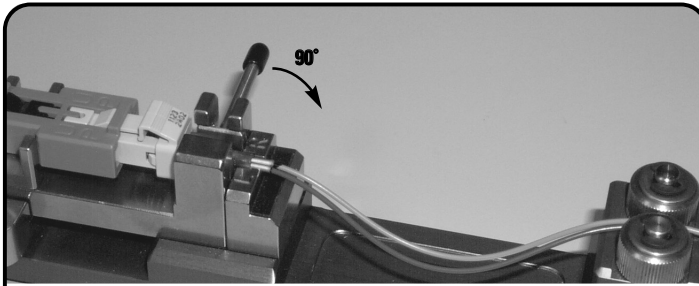


- 13** Gently guide fibers straight in using the indexing rollers until you feel them firmly stop against the fiber stub in the connector. Use the visual marks and VFL to ensure both fibers are fully inserted. If measured correctly, the visual marks should be adjacent to each other and even with the end of the lead in tube. The light from the VFL will dim and/or extinguish once both fibers contact the stub.

If you feel resistance at the entrance tube, back the fibers out a short distance and re-insert.

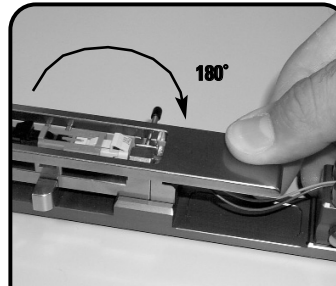
*NOTE: For Jacketed fiber, the jacket should stop within 2mm (0.08 in.) of the lead-in tube. This gap assures that the fibers butt together. If there's no gap, pull the fiber back out and with tweezers, gently pull on the buffer to achieve the required 13mm (0.51 in.) length. If this does not provide a gap, start over again.*

# Siemon MT-RJ Field-Installable Connector

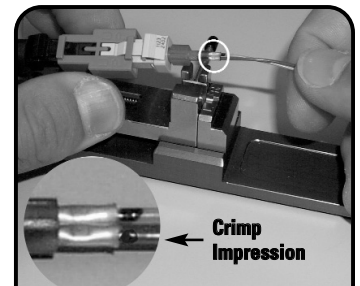


**14** While maintaining light inward pressure on the fibers, rotate the lever past 90° to cam the connector (an audible click from the tool is normal). The wrench must stay down – **do not rotate it back upright**. Rotation of the collar will fully align the fibers and the VFL light should fully extinguish (see note). The fiber is now held inside the connector by the splice. You no longer need to hold it in place, but be careful not to pull on the fiber.

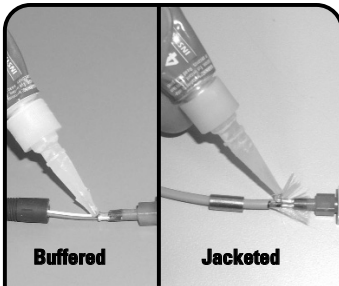
*NOTE: Ensure light remains extinguished. A very slight glow after collar rotation may still pass but before testing, try unlocking collar (rotate wrench handle back upright), readjust both fibers slightly then rotate back again to see if any improvement has occurred.*



**15** Carefully rotate the crimp handle 180° until it contacts the crimp tube. Push down firmly to crimp. The tool cannot over-crimp the connector.



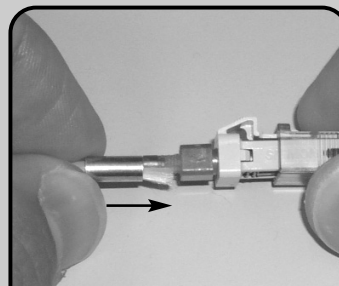
**16** Flip the crimp handle back. You should see a flat impression in the lead-in tubes indicating a proper crimp. Leave the wrench handle down, remove the connector, and replace the front protective cap. *Be careful not to pull on the fibers at the lead-in tube.*



**17** Optional strain relief: Apply 3 to 4 drops of adhesive (Loctite 411) around the buffer at the entrance of the lead-in tube as shown.

*Note: The adhesive will dry in approximately 15 seconds.*

**Skip To Step 20 for Buffered terminations**

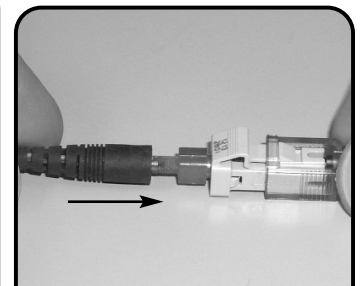


**18 JACKETED ONLY:** Slide the crimp ring over the aramid yarn and against the back of the connector's collar.

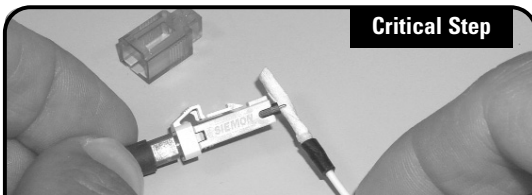


**19 JACKETED ONLY:** Using the crimp tool provided place the connector with the crimp ring centered into the opening of the crimp tool jaws. Squeeze the handle shut until they automatically release

**CAUTION:** Use only the crimp tool supplied with the FTERM-MT termination kit.



**20** Slide the boot up the back of the connector until it reaches the collar. Leave the front dust cap on until you are ready to insert the connector into an adapter.



**21** Prior to testing or plugging into optical equipment, thoroughly clean the end face of the connector between and around the alignment pins with cleaning stick (FT-CS) dipped in 99% reagent grade isopropyl alcohol. Finish with a dry lint free stick.

**Note: Instructional video for this product is also available at [www.siemon.com](http://www.siemon.com)**

## TO ASSIST SAFE INSTALLATIONS, COMPLY WITH THE FOLLOWING:

- Never look into the end of a terminated connector in order to determine if the fiber is live.
- Wear safety glasses with side shields to protect the eyes from errant pieces of fiber.
- Do not touch your eyes at any time while handling bare fiber.
- Dispose of all cleaved pieces of fiber by depositing into a debris container or onto a piece of masking or electrical tape.
- Do not eat or drink in the termination area. Ingested fibers can cause internal bleeding.

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[www.siemon.com](http://www.siemon.com)