

STOP!

Don't Connect Unless You Inspect!

Verify that Instruction Sheet (408-Series) Pertains to Connector Kit Being Terminated

To Verify, Refer to Product Drawing for Applicable Instruction Sheet at: www.te.com

(Search by Connector Kit Part Number, Click on the Part Number, Click on Product Drawing)

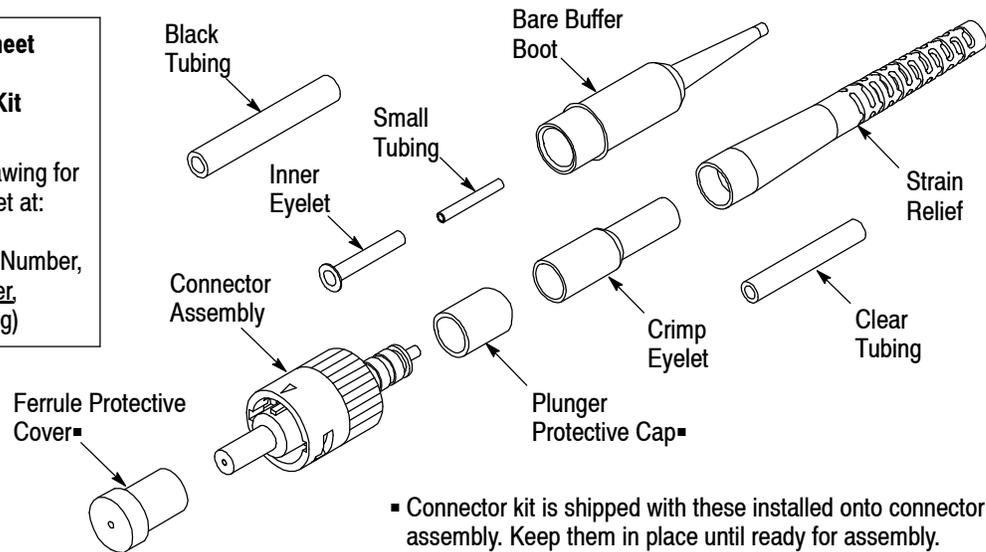


Figure 1

1. INTRODUCTION

LightCrimp Plus ST fiber optic connector kits are designed for use with 125- μm singlemode or multimode glass fiber optic cable. These kits can be used with any of the following media (paragraph of assembly procedure is indicated next to media).

- 5.1. 900- μm Bare Buffered Fiber**
- 5.2. 250- μm Coated Fiber**
- 5.3. 2.0- to 3.0- mm Loose Jacketed Cable**
- 5.4. 900- μm Easy Strip or Semi-Tight Buffered Fiber**

Read these instructions thoroughly before assembling the connector kits.

NOTE All numerical values in this instruction sheet are in metric units. Dimensions are in millimeters. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION (See Figure 1)

Each connector kit consists of a connector assembly, strain relief, inner eyelet, crimp eyelet, black tubing, and clear tubing. Each kit is also supplied with a bare buffer boot and small tubing to compensate for small diameter cable. Also included, assembled onto the connector, is a ferrule protective cover for the ferrule (front of connector) and a plunger protective cap for the plunger (rear of connector).

3. SAFETY PRECAUTIONS

DANGER NEVER look into the end of terminated or unterminated fibers. Laser radiation is invisible but can damage eye tissue. NEVER eat, drink, or smoke when working with fibers. This could lead to ingestion of glass particles.

DANGER Be very careful to dispose of fiber ends properly. The fibers create slivers that can easily puncture the skin and cause irritation.

CAUTION DO NOT use defective or damaged components. Replace them with new components.

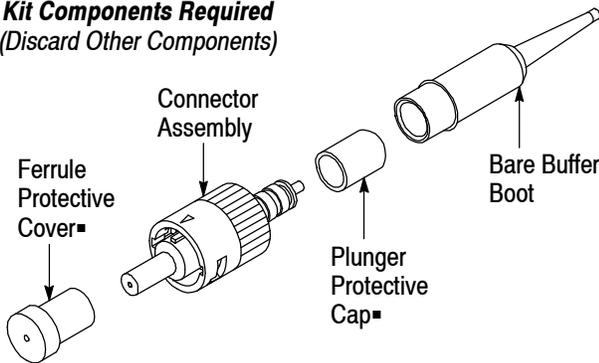
4. REQUIRED TOOLS AND MATERIALS

- Cable Holder Assembly 492703-1
- Miller Strip Tool 1754708-1
- Scissors 501014-1 (for jacketed cable only)
- Alcohol Fiber Wipe Packet 501857-2
- isopropyl alcohol
- Fiber Optic Cleaver 1871696-1 (408-10086)
- LightCrimp Plus ST Die Set with Crimping Tool 492623-1 (consists of Die Set 492622-1 and PRO-CRIMPER* III Hand Tool 2064431-1)

5. ASSEMBLY PROCEDURE

5.1. 900- μ m Bare Buffered Fiber

Kit Components Required (Discard Other Components)



- Connector kit is shipped with these installed onto connector assembly. Keep them in place until ready for assembly.

A. Preparing 900- μ m Bare Buffered Fiber (Figure 2)

1. Slide the bare buffer boot (small diameter end first) over the buffer. See Figure 2, Detail A.
2. Remove the ferrule protective cover and the plunger protective cap from the connector assembly. Keep the cover; discard the cap.
3. Push the connector into the holder of the cable holder assembly with the ferrule protective cover facing outward. See Figure 2, Detail B. Make sure that the connector butts against the lip of the arm of the cable holder. Slide the fiber into the channel marked "BUFFER" on the cable holder. Make sure that the tip of the buffer butts against the end of the channel.
4. Mark the buffer at each cross-slot of the channel. See Figure 2, Detail B. Remove the buffer from the cable holder.

5. Using the strip tool, strip the fiber to the first mark. It is recommended holding the strip tool at an angle to the fiber and stripping the fiber in three sections. See Figure 2, Detail C. Clean the fiber with an alcohol fiber wipe to remove the fiber coating residue.



CAUTION Before using the strip tool, make sure that the "V" opening is clean; otherwise the fiber could break. Only use isopropyl alcohol on the tool.

B. Cleaving (Figure 3)

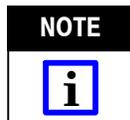
1. Open the fiber clamp of the fiber optic cleaver. Press the button, and slide the carriage back (toward the fiber clamp). Then move the fiber slide back until it stops.
2. Place the stripped fiber into the slot so that the end of the buffer is at the 8-mm marking. See Figure 3, Detail A.
3. While applying pressure on the buffer, carefully slide the fiber slide forward (toward the carriage) until it stops. See Figure 3, Detail B.
4. Gently close the fiber clamp, and slide the carriage forward. DO NOT touch the button while sliding the carriage. See Figure 3, Detail C.
5. Open the fiber clamp, and move the fiber slide back until it stops.
6. Remove the cleaved fiber, and properly dispose of the scrap fiber.



CAUTION DO NOT attempt to clean the fiber after it has been cleaved.

C. Crimping (Figures 4 and 5)

1. Open the cable clamp of the cable holder, and hold the buffer (with the cleaved end of fiber facing the connector) inside the clamp. Pull the end of the fiber even with the front of the arm of the cable holder, and holding the buffer in place, close the clamp. See Figure 4, Detail A.
2. Carefully insert the fiber into the plunger of the connector assembly until the fiber bottoms against the internal fiber. Make sure that the remaining mark on the buffer enters the plunger. The resultant bend in the buffer should hold the fiber against the internal fiber. See Figure 4, Detail B.



NOTE It is important that the fiber bottoms against, and remains against, the internal fiber. If the mark does not enter the plunger or if the fiber does not seem to bottom against the internal fiber, the fiber may be caught on internal guides. Rotating the connector and backing the fiber out a small amount and re-entering may help. However, if the mark will not enter the plunger, the fiber must be re-stripped.

NOTE


Make sure that the fiber does not pull rearward from the contact (with the internal fiber) during the crimping operation.

3. Squeeze the handles of the hand tool until the ratchet releases. Allow the handles to open fully. Slowly close the handles until you hear three clicks from the ratchet.

4. With the connector assembly in the cable holder, position the ferrule protective cover in the upper cavity of the front die and the plunger in the upper cavity of the rear die. It is important to make sure that the tip of the plunger sits in the channel of the rear die with the protruding disk of the plunger *flat against* the wall of the cavity. If the plunger is not positioned correctly, it will be crushed when the tool is actuated. See Figure 5, Detail A.

CAUTION


The arrows marked on the front die indicate the direction that the ferrule protective cover must be pointing when the connector is positioned in that cavity. For proper placement, and to avoid damage to the fiber, the direction of the arrows must be observed. Refer to Figure 5, Details A and B.

5. Gently push the buffer toward the connector to make sure that the fiber is still bottomed, then slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove connector assembly from the dies.

6. Position the plunger of the connector assembly in the first (smallest) cavity of the front die with the shoulder of the plunger against the edge of the groove in the die and the ferrule protective cover pointing in the direction of the arrow. See Figure 5, Detail B.

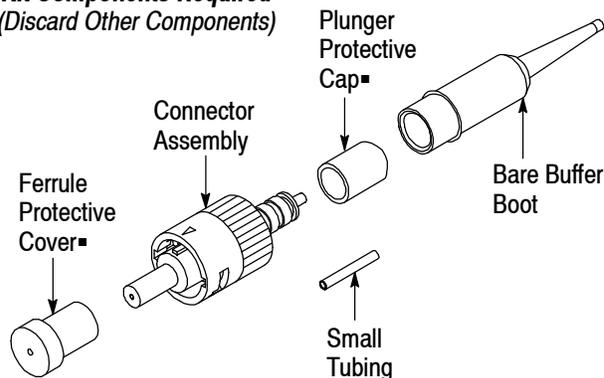
7. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

8. Open the cable clamp of the cable holder, and remove the buffer from the clamp. Slide the bare buffer boot over the plunger until the boot butts against the connector. See Figure 5, Detail C.

9. Remove the connector assembly from the cable holder.

The assembly procedure for 900- μm bare buffered fiber is now complete.

► If connecting connectors, inspect the ferrule end face for cleanliness using 200 \times Microscope Kit 1754767-1 (includes 2.5-mm adapter cap).

5.2. 250- μm Coated Fiber
Kit Components Required
 (Discard Other Components)


▪ Connector kit is shipped with these installed onto connector assembly. Keep them in place until ready for assembly.

A. Preparing 250- μm Coated Fiber (Figure 2)

1. Slide the bare buffer boot (small diameter end first) over the fiber. See Figure 2, Detail A.
2. Remove the ferrule protective cover and the plunger protective cap from the connector assembly. Keep the cover; discard the cap.
3. Insert the small (white) tubing into the plunger of the connector assembly until the tubing bottoms. See Figure 2, Detail A.
4. Push the connector into the holder of the cable holder with the ferrule protective cover facing outward. See Figure 2, Detail B. Make sure that the connector butts against the lip of the arm of the cable holder. Slide the fiber into channel marked "BUFFER" on the cable holder. Make sure that the tip of the fiber butts against the end of the channel.
5. Mark the fiber at each cross-slot of the channel. See Figure 2, Detail B. Remove the fiber from the cable holder.
6. Using the strip tool, strip the fiber to the first mark. It is recommended holding the strip tool at an angle to the fiber and stripping the fiber in three sections. See Figure 2, Detail C. Clean the fiber with an alcohol fiber wipe to remove the fiber coating residue.

CAUTION


Before using the fiber strip tool, make sure that the "V" opening is clean; otherwise the fiber could break. Only use isopropyl alcohol on the tool.

B. Cleaving (Figure 3)

1. Open the fiber clamp of the fiber optic cleaver. Press the button, and slide the carriage back

(toward the fiber clamp). Then move the fiber slide back until it stops.

2. Place the stripped fiber into the slot so that the end of the buffer is at the 8-mm marking. See Figure 3, Detail A.

3. While applying pressure on the buffer, carefully slide the fiber slide forward (toward the carriage) until it stops. See Figure 3, Detail B.

4. Gently close the fiber clamp, and slide the carriage forward. DO NOT touch the button while sliding the carriage. See Figure 3, Detail C.

5. Open the fiber clamp, and move the fiber slide back until it stops.

6. Remove the cleaved fiber, and properly dispose of the scrap fiber.



CAUTION DO NOT attempt to clean the fiber after it has been cleaved.



CAUTION The arrows marked on the front die indicate the direction that the ferrule protective cover must be pointing when the connector is positioned in that cavity. For proper placement, and to avoid damage to the fiber, the direction of the arrows must be observed. Refer to Figure 5, Details A and B.

C. Crimping (Figures 4 and 5)

1. Open the cable clamp of the cable holder, and hold the fiber (with the cleaved end facing the connector) inside the clamp. Pull the end of the fiber even with the front of the arm of the cable holder, and holding the fiber in place, close the clamp. See Figure 4, Detail A.

2. Carefully insert the fiber into the plunger of the connector assembly until the fiber bottoms against the internal fiber. Make sure that the remaining mark on the fiber enters the plunger. The resultant bend in the fiber should hold the fiber against the internal fiber. See Figure 4, Detail B.

Also, the fiber coating must enter the small tubing that was installed in Step 3 of Paragraph 5.2.A. Make sure that the start of the fiber coating is not caught on the entry of the small tubing.



NOTE It is important that the fiber bottoms against, and remains against, the internal fiber. If the mark does not enter the plunger or if the fiber does not seem to bottom against the internal fiber, the fiber may be caught on internal guides. Rotating the connector and backing the fiber out a small amount and re-entering may help. However, if the mark will not enter the plunger, the fiber must be re-stripped.

Make sure that the fiber does not pull rearward from the contact (with the internal fiber) during the crimping operation.

3. Squeeze the tool handles of the hand tool until the ratchet releases. Allow the handles to open fully. Slowly close the handles until you hear three clicks from the ratchet.

4. With the connector assembly in the cable holder, position the ferrule protective cover in the upper cavity of the front die and the plunger in the upper cavity of the rear die. It is important to make sure that the tip of the plunger sits in the channel of the rear die with the protruding disk of the plunger *flat against* the wall of the cavity. If the plunger is not positioned correctly, it will be crushed when the tool is actuated. See Figure 5, Detail A.

5. Gently push the fiber toward the connector to make sure that the fiber is still bottomed, then slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the dies.

6. Position the plunger of the connector assembly in the first (smallest) cavity of the front die with the shoulder of the plunger against the edge of the groove in the die and the ferrule protective cover pointing in the direction of the arrow. See Figure 5, Detail B.

7. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

8. Open the cable clamp of the cable holder, and remove the buffer from the clamp. Slide the bare buffer boot over the plunger until the boot butts against the connector. See Figure 5, Detail C.

9. Remove the connector assembly from the cable holder.

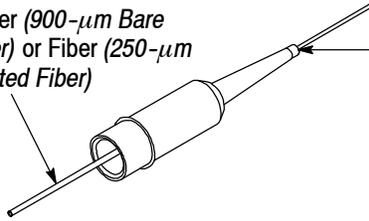
The assembly procedure for 250- μ m coated fiber is now complete.

► If connecting connectors, inspect the ferrule end face for cleanliness using 200 \times Microscope Kit 1754767-1 (includes 2.5-mm adapter cap).

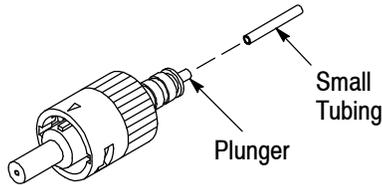
Figure 2: Preparing the Fiber

Detail A

Buffer (900- μ m Bare Fiber) or Fiber (250- μ m Coated Fiber) Small Diameter End of Bare Buffer Boot



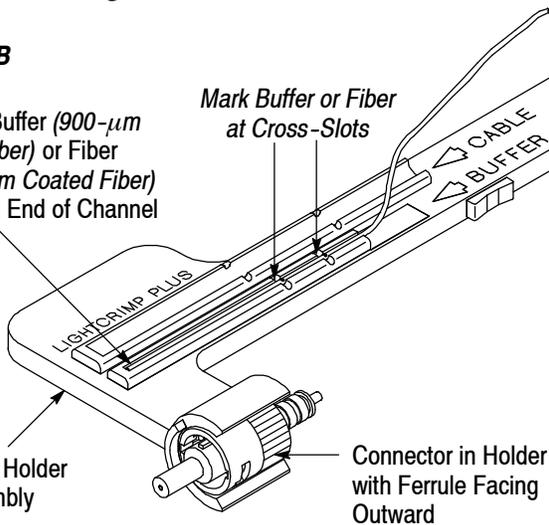
For 250- μ m Coated Fiber



Detail B

Tip of Buffer (900- μ m Bare Fiber) or Fiber (250- μ m Coated Fiber) Against End of Channel

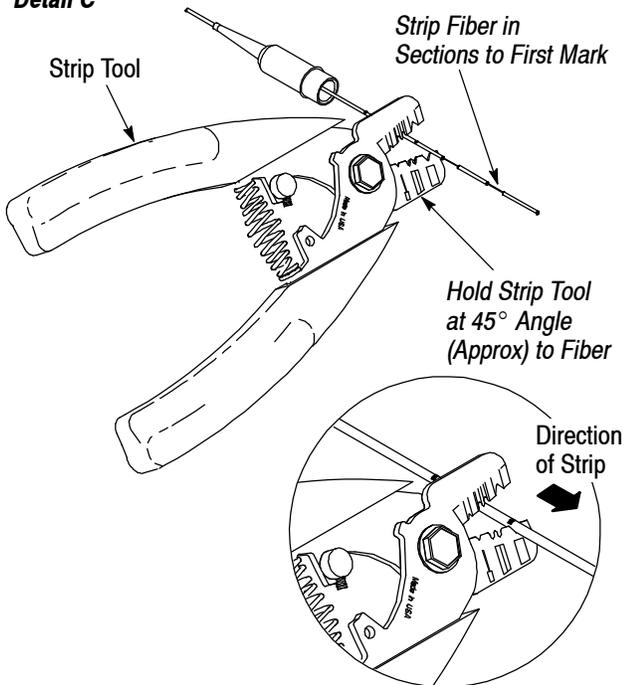
Mark Buffer or Fiber at Cross-Slots



Detail C

Strip Tool

Strip Fiber in Sections to First Mark



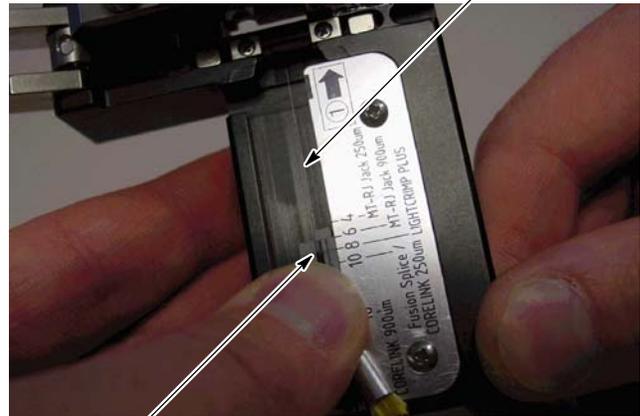
Hold Strip Tool at 45° Angle (Approx) to Fiber

Direction of Strip

Figure 3: Cleaving

Detail A

Stripped Fiber in Slot



End of Buffer at 8-mm Marking

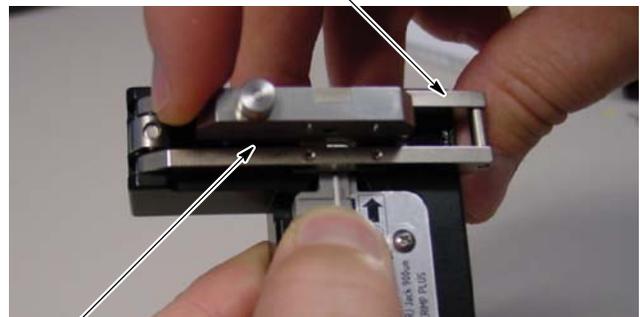
Detail B



Slide Fiber Slide Forward

Detail C

Fiber Clamp Closed

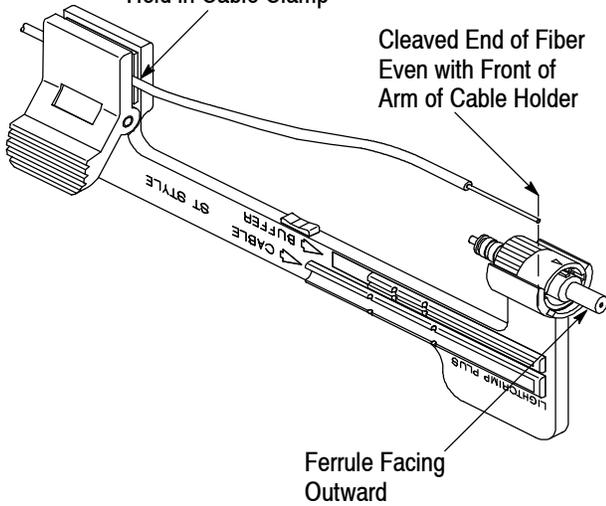


Slide Carriage Forward

Figure 4: Crimping

Detail A

Buffer (900- μ m Bare Fiber) or
Fiber (250- μ m Coated Fiber)
Held in Cable Clamp



Detail B

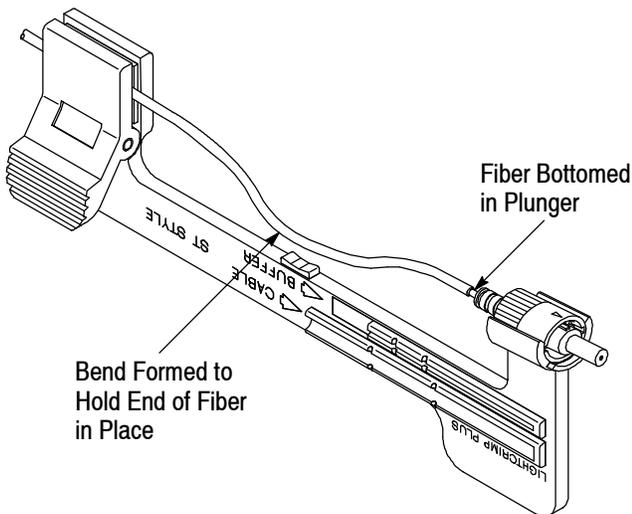
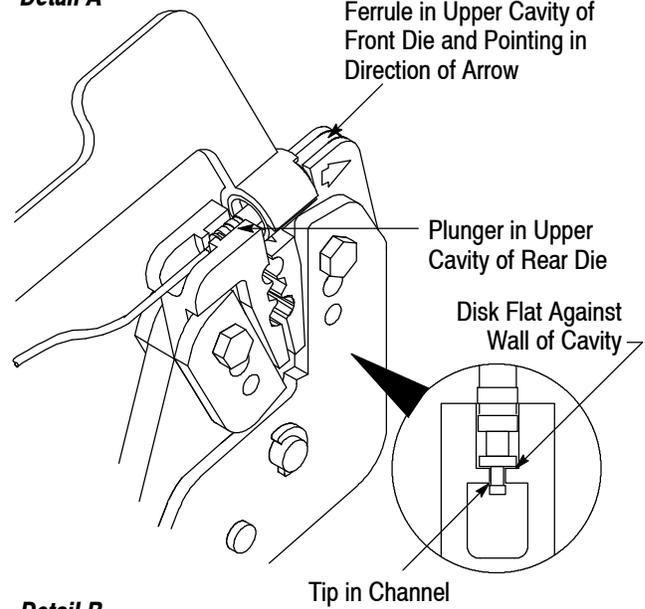
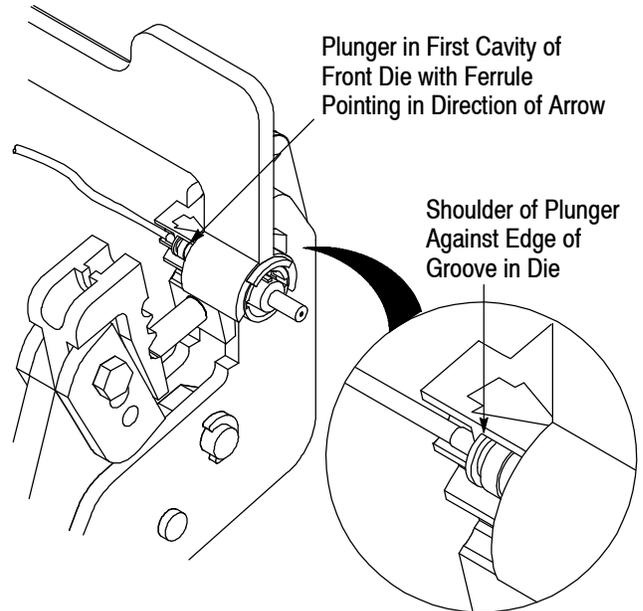


Figure 5: Crimping

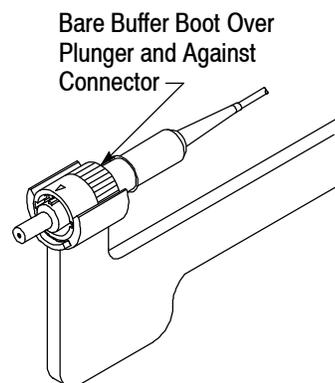
Detail A



Detail B



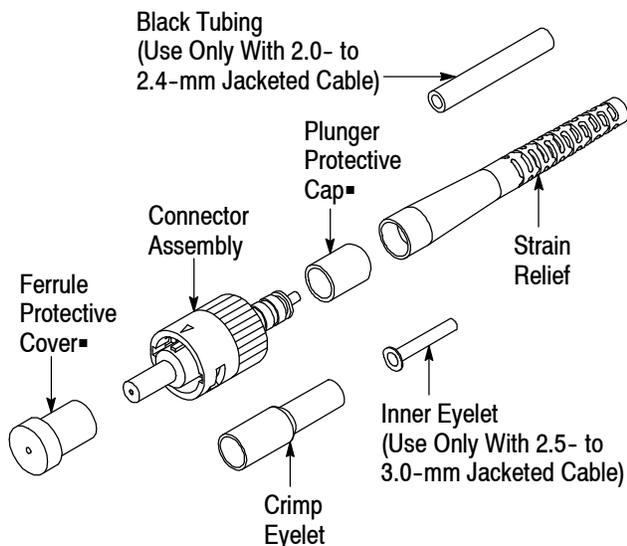
Detail C



5.3. 2.0- to 3.0- mm Jacketed Cable

Kit Components Required

(Discard Other Components)



- Connector kit is shipped with these installed onto connector assembly. Keep them in place until ready for assembly.

A. Preparing 2.0- to 3.0- mm Jacketed Cable

(Figures 6 and 7)

1. Slide the strain relief (small diameter end first) over the cable. For cable with an outside diameter from 2.0 to 2.4 mm, slide the black tubing over the cable. See Figure 6, Detail A.
2. Remove the ferrule protective cover and the plunger protective cap from the connector assembly. Keep the cover; discard the cap.
3. Push the connector into the holder of the cable holder with the ferrule protective cover facing outward. See Figure 6, Detail B. Make sure that the connector butts against the lip of the arm of the cable holder. Slide the cable into the channel marked "CABLE" on the cable holder. Make sure that the tip of the jacket butts against the end of the channel.
4. Mark the cable at each cross-slot of the channel. See Figure 6, Detail B. Remove the cable from the cable holder.
5. Using the strip tool, cut through the jacket at each mark. See Figure 6, Detail C.
6. Remove the first jacket segment, and flare the strength members away from the buffer. Using the

scissors, cut the strength members even with the jacket. Then, remove the remaining jacket segment. See Figure 6, Detail D.

7. If the cable outside diameter is 2.5 mm or larger, slide the crimp eyelet onto the buffer and, using the crimp eyelet, fold the strength members back over the jacket. Continue sliding the crimp eyelet over the jacket until the strength members appear at the front of the crimp eyelet. See Figure 7, Detail A.

8. Slide the inner eyelet, non-flanged end first, onto the buffer. Push the inner eyelet under the strength members until the inner eyelet is flush with the front of the crimp eyelet. See Figure 7, Detail B.

9. Slide the buffer into the channel marked "BUFFER" on the cable holder. Make sure that the tip of the buffer butts against the end of the channel. See Figure 7, Detail C.

10. Mark the buffer at each cross-slot of the channel. See Figure 7, Detail C. Remove the buffer from the cable holder.

11. Using the strip tool, strip the buffer to the first mark. It is recommended holding the tool at an angle to the buffer and stripping the fiber in three sections. See Figure 7, Detail D. Clean the fiber with an alcohol fiber wipe to remove fiber coating residue.

CAUTION



Before using the fiber strip tool, make sure that the "V" opening is clean; otherwise the fiber could break. Only use isopropyl alcohol on the tool.

B. Cleaving (Figure 8)

1. Open the fiber clamp of the fiber optic cleaver. Press the button, and slide the carriage back (toward the fiber clamp). Then move the fiber slide back until it stops.
2. Place the stripped fiber into the slot so that the end of the buffer is at the 8-mm marking. See Figure 8, Detail A.
3. While applying pressure on the buffer, carefully slide the fiber slide forward (toward the carriage) until it stops. See Figure 8, Detail B.
4. Gently close the fiber clamp, and slide the carriage forward. DO NOT touch the button while sliding the carriage. See Figure 8, Detail C.
5. Open the fiber clamp, and move the fiber slide back until it stops.
6. Remove the cleaved fiber, and properly dispose of the scrap fiber.



CAUTION *DO NOT attempt to clean the fiber after it has been cleaved.*

C. Crimping (Figures 9, 10, and 11)

1. Open the cable clamp of the cable holder, and hold the buffer (with the cleaved end of the fiber facing the connector) inside the clamp. Pull the end of the fiber even with the front of the arm of the cable holder, and holding the buffer in place, close the clamp. See Figure 9, Detail A.

2. Carefully insert the fiber into the plunger of the connector assembly until the fiber bottoms against the internal fiber. Make sure that the remaining mark on the buffer enters the plunger. The resultant bend in the buffer should hold the fiber against the internal fiber. See Figure 9, Detail B.



NOTE *It is important that the fiber bottoms against, and remains against, the internal fiber. If the mark does not enter the plunger or if the fiber does not seem to bottom against the internal fiber, the fiber may be caught on internal guides. Rotating the connector and backing the fiber out a small amount and re-entering may help. However, if the mark will not enter the plunger, the fiber must be re-stripped.*

Make sure that the fiber does not pull rearward from the contact (with the internal fiber) during the crimping operation.

3. Squeeze the handles of the hand tool until the ratchet releases. Allow the handles to open fully. Gently close the handles until you hear three clicks from the ratchet.

4. With the connector assembly in the cable holder, position the ferrule protective cover in the upper cavity of the front die and the plunger in the upper cavity of the rear die. It is important to make sure that the tip of the plunger sits in the channel of the rear die with the protruding disk of the plunger *flat against* the wall of the cavity. If the plunger is not positioned correctly, it will be crushed when the tool is actuated. See Figure 9, Detail C.



CAUTION *The arrows marked on the front die indicate the direction that the ferrule protective cover must be pointing when the connector is positioned in that cavity. For proper placement, and to avoid damage to the fiber, the direction of the arrows must be observed. Refer to Figure 9, Detail C and Figure 10, Detail A.*

5. Gently push the buffer toward the connector to make sure that the fiber is still bottomed, then slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the dies.

6. Position the plunger of the connector assembly in the first (smallest) cavity of the front die with the shoulder of the plunger against the edge of the groove in the die and the ferrule protective cover pointing in the direction of the arrow. See Figure 10, Detail A.

7. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

8. Slide the crimp eyelet away from the connector until the strength members are free, then slide the crimp eyelet toward the connector until the strength members and crimp eyelet butt against the connector. See Figure 10, Detail B.

For 2.0- to 2.4-mm jacketed cable, slide the black tube forward into the small diameter end of the crimp eyelet until it butts against the rear of the connector.

9. Position the large diameter end of the crimp eyelet in the last (largest) cavity of the front die with the ferrule protective cover pointing in the direction of the arrow. See Figure 11, Detail A. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully.

10. Position the small diameter end of the crimp eyelet in the middle cavity of the front die with the ferrule protective cover pointing in the direction of the arrow. See Figure 11, Detail B.

11. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

12. Open the cable clamp of the cable holder, and remove the cable from the clamp. Slide the strain relief over the plunger until the strain relief butts against the connector. See Figure 11, Detail C.

13. Remove the connector assembly from the cable holder.

The assembly procedure for 2.0- to 3.0-mm jacketed cable is now complete.

► If connecting connectors, inspect the ferrule end face for cleanliness using 200× Microscope Kit 1754767-1 (includes 2.5-mm adapter cap).

Figure 6: Preparing the Cable

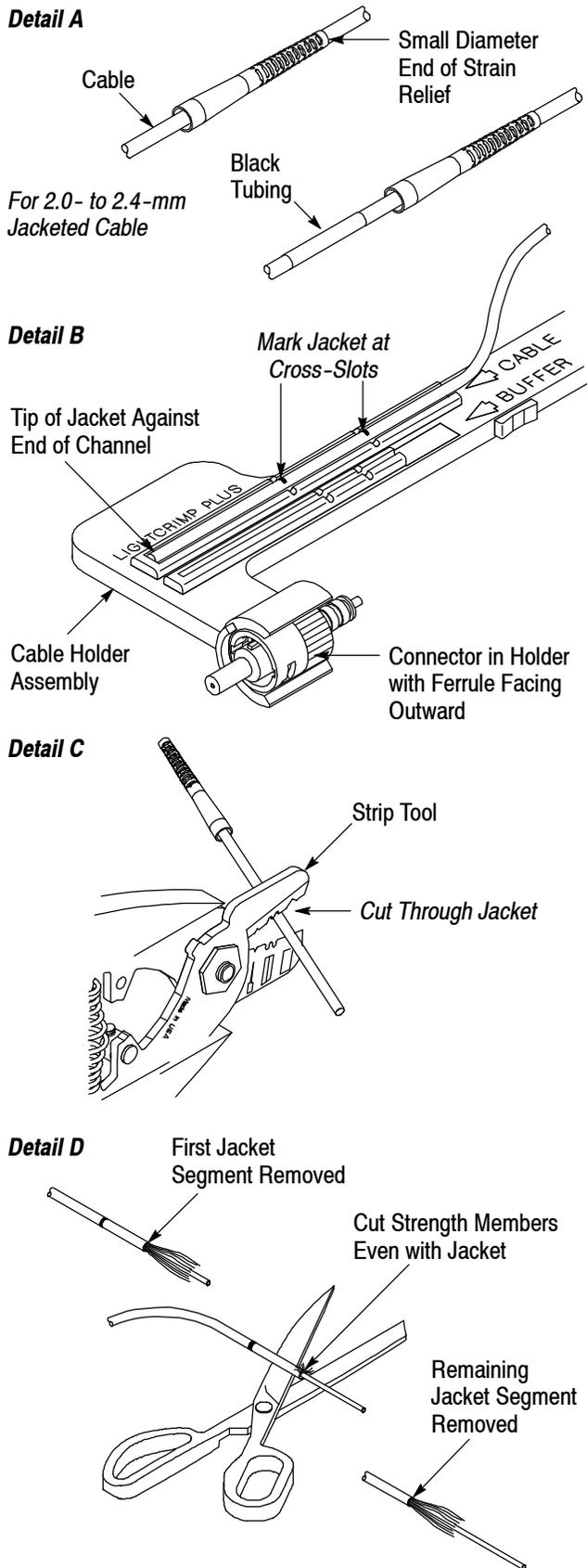


Figure 7: Preparing the Cable

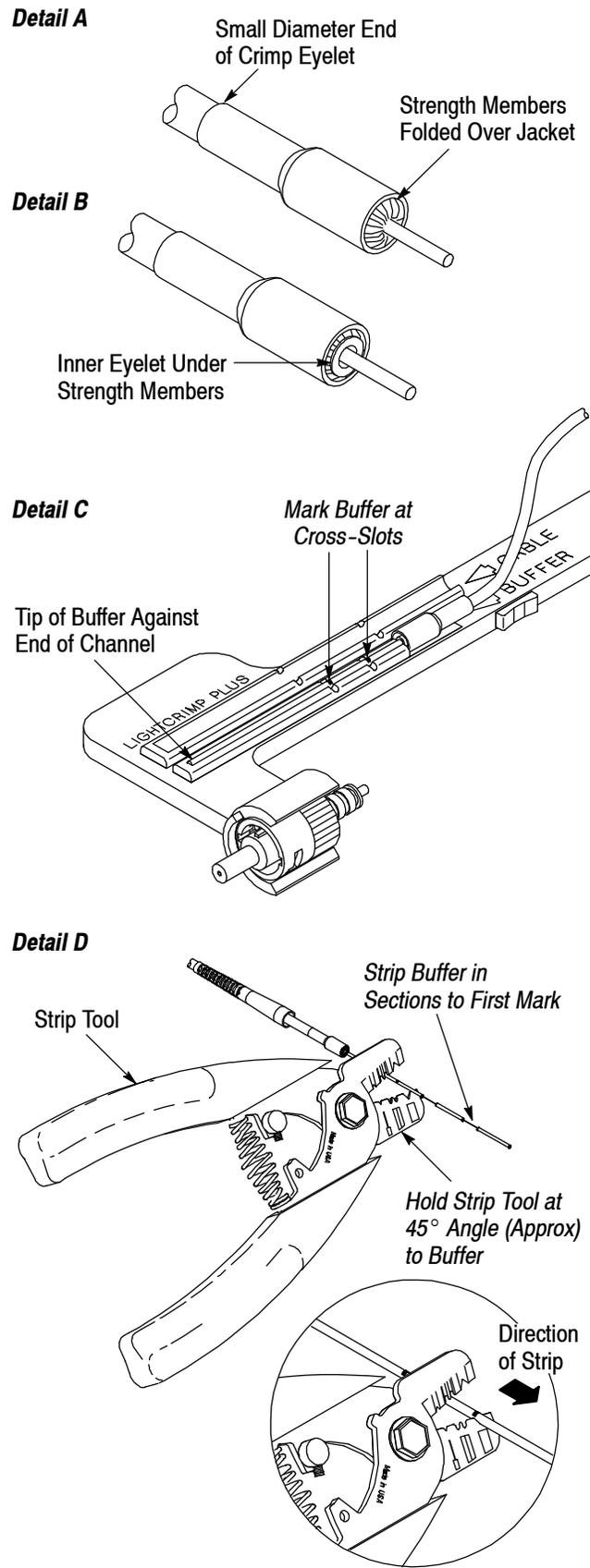
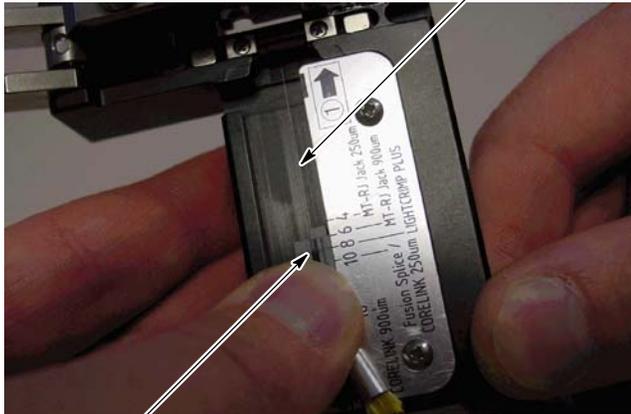


Figure 8: Cleaving

Detail A



Stripped Fiber in Slot

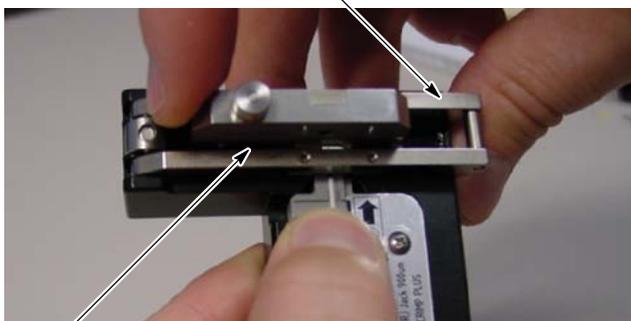
End of Buffer at 8-mm Marking

Detail B



Slide Fiber Slide Forward

Detail C

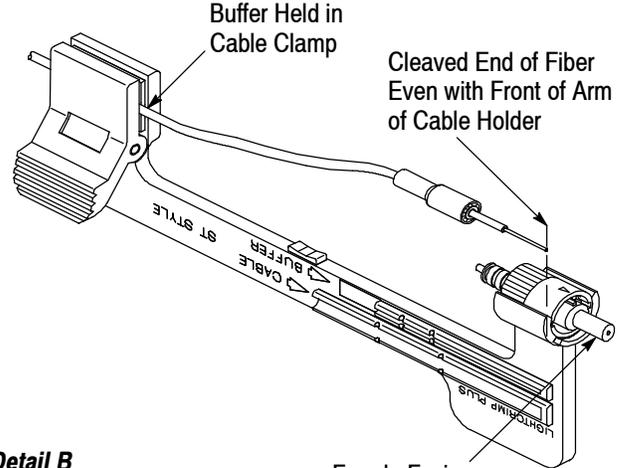


Fiber Clamp Closed

Slide Carriage Forward

Figure 9: Crimping

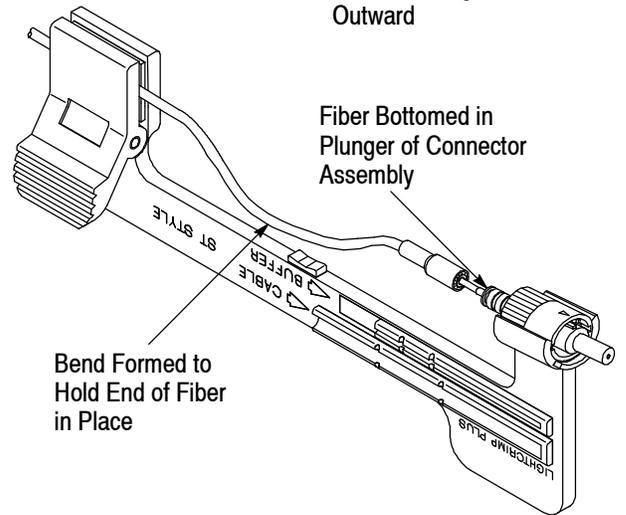
Detail A



Buffer Held in Cable Clamp

Cleaved End of Fiber Even with Front of Arm of Cable Holder

Detail B

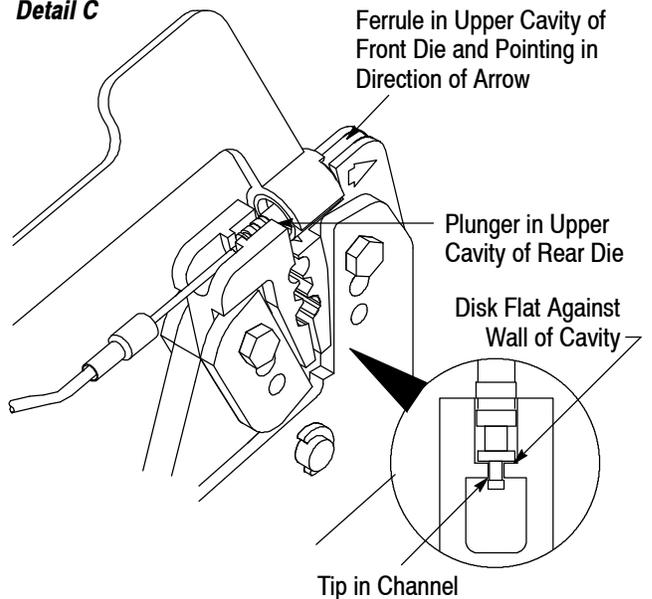


Ferrule Facing Outward

Fiber Bottomed in Plunger of Connector Assembly

Bend Formed to Hold End of Fiber in Place

Detail C



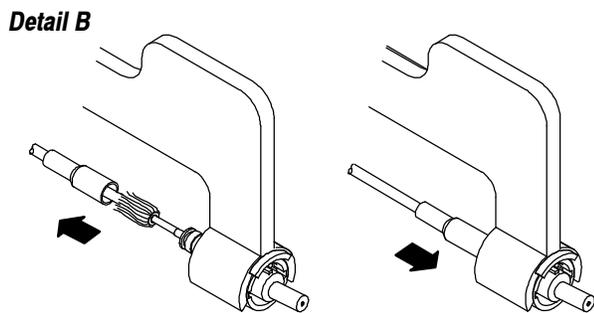
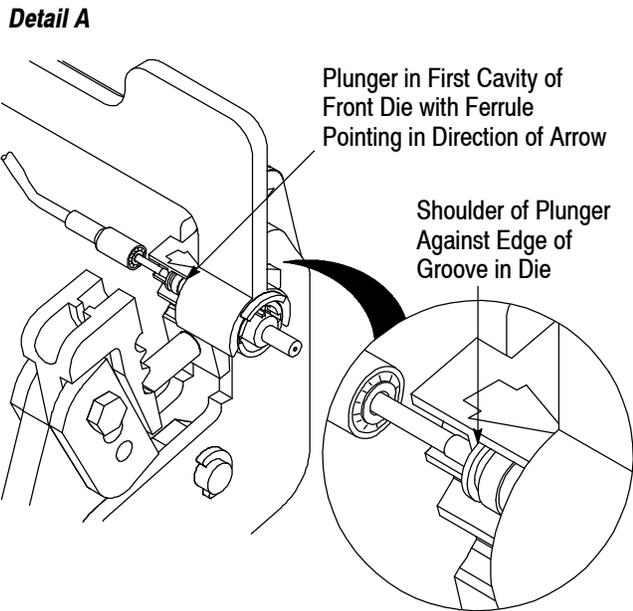
Ferrule in Upper Cavity of Front Die and Pointing in Direction of Arrow

Plunger in Upper Cavity of Rear Die

Disk Flat Against Wall of Cavity

Tip in Channel

Figure 10: Crimping



For 2.0- to 2.4-mm Jacketed Cable

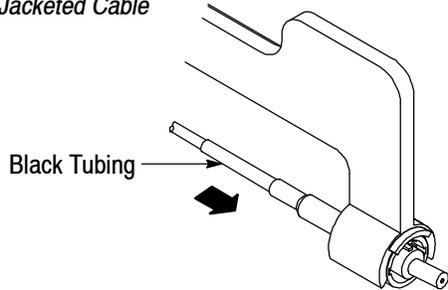
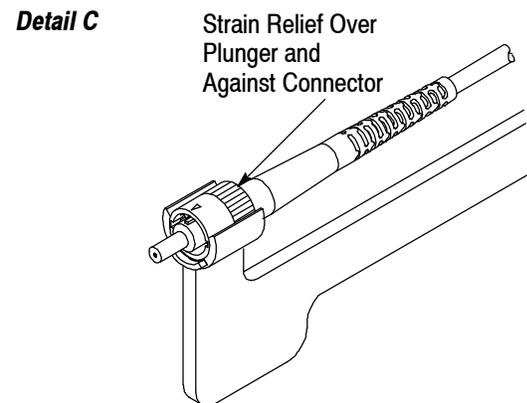
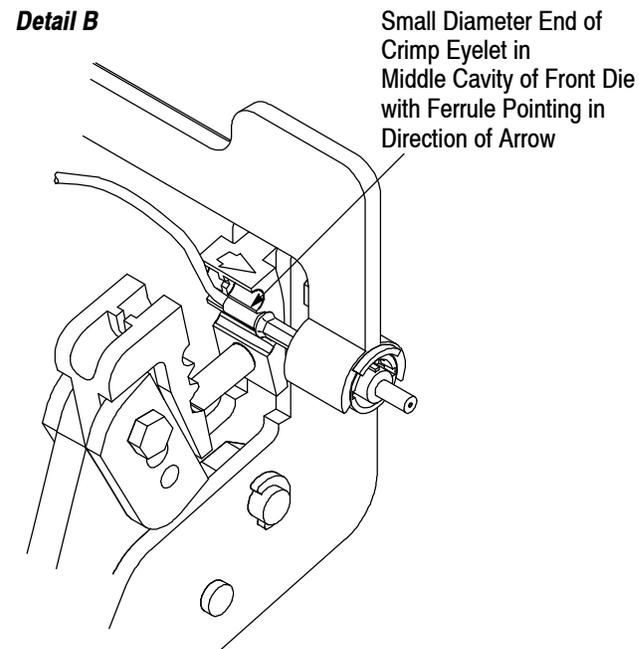
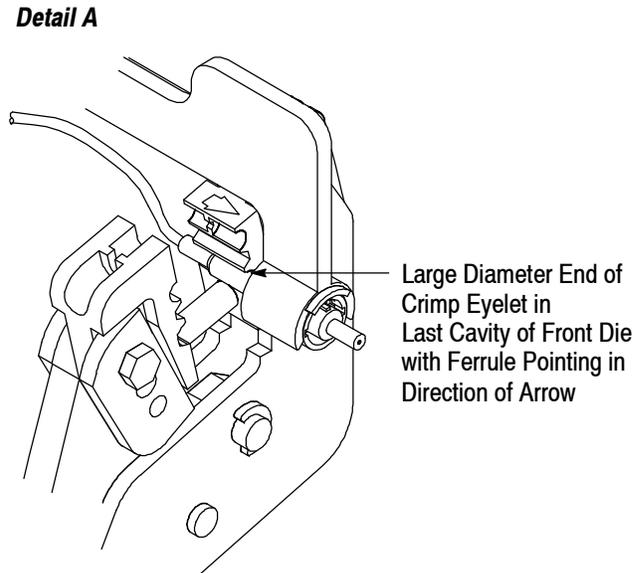
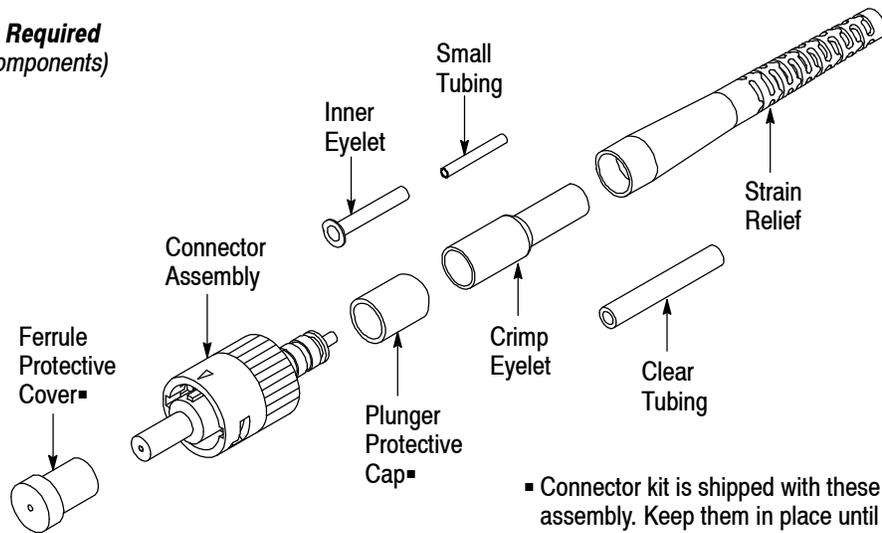


Figure 11: Crimping



5.4. 900- μm Easy Strip or Semi-Tight Buffered Fiber

Kit Components Required (Discard Other Components)



▪ Connector kit is shipped with these installed onto connector assembly. Keep them in place until ready for assembly.

A. Preparing 900- μm Easy Strip or Semi-Tight Buffered Fiber (Figure 12)

1. Place the inner eyelet, small end first, inside the clear tubing so that the flange of inner eyelet is against the end of the tube. See Figure 12, Detail A.
2. Slide the strain relief (long), clear tubing (with inner eyelet inside), and crimp eyelet onto the cable. See Figure 12, Detail B.
3. Remove the ferrule protective cover and the plunger protective cap from the connector assembly. Keep the cover; discard the cap.
4. Insert the small (white) tubing into the connector plunger until the tubing bottoms. See Figure 12, Detail C.
5. Push the connector into the holder of the cable holder with the ferrule protective cover facing outward. Make sure that the connector butts against the lip of the arm of the cable holder. See Figure 12, Detail D.
6. Slide the fiber into the channel marked "BUFFER" on the cable holder. Make sure that the tip of the fiber butts against the end of the channel. See Figure 12, Detail D.
7. Mark the fiber at each cross-slot of the channel. See Figure 12, Detail D. Also, place a mark on the buffer at the end of the channel. Remove the fiber from the channel.
8. Using the strip tool, strip the 250- μm fiber coating and buffer back to the first mark. It is recommended holding the tool at an angle to the fiber and stripping the coating in three sections.

See Figure 12, Detail E. Clean the fiber with an alcohol fiber wipe to remove the fiber coating residue.



CAUTION Before using the strip tool, make sure that the "V" opening is clean. If it is not clean, the fiber could break. Only use isopropyl alcohol to clean the tool.

9. Using the strip tool, apply slightly less pressure than when stripping 125- μm fiber, and strip the buffer only (leave the 250- μm fiber coating in place) to the second mark. Practice this first.
10. Mark the 250- μm fiber coating at the shoulder of the 900- μm buffer. Strip the buffer to the third mark.

B. Cleaving (Figure 13)

1. Open the fiber clamp of the fiber optic cleaver. Press the button, and slide the carriage back (toward the fiber clamp). Then move the fiber slide back until it stops.
2. Place the stripped fiber into the slot so that the end of the buffer is at the 8-mm marking. See Figure 13, Detail A.
3. While applying pressure on the buffer, carefully slide the fiber slide forward (toward the carriage) until it stops. See Figure 13, Detail B.
4. Gently close the fiber clamp, and slide the carriage forward. DO NOT touch the button while sliding the carriage. See Figure 13, Detail C.
5. Open the fiber clamp, and move the fiber slide back until it stops.
6. Remove the cleaved fiber, and properly dispose of the scrap fiber.



DO NOT attempt to clean the fiber after it has been cleaved.

C. Crimping (Figures 14, 15, and 16)

1. Open the cable clamp of the cable holder, and hold the fiber (with the cleaved end facing the connector) inside the clamp. Pull the end of the fiber even with the front of the arm of the cable holder, and holding the fiber in place, close the clamp. See Figure 14, Detail A.

2. Holding the 250- μ m fiber coating, carefully insert the fiber into the plunger of the connector assembly until the fiber bottoms against the internal fiber. Make sure that the second mark on the coating enters the plunger. The resultant bend in the fiber should hold the fiber against the internal fiber. See Figure 14, Detail B.

Also, the fiber coating must enter the small tubing that was installed in Step 4 of Paragraph 5.4.A. Make sure that the start of the fiber coating is not caught on the entry of the small tubing.



It is important that the fiber bottoms against, and remains against, the internal fiber. If the mark does not enter the plunger or if the fiber does not seem to bottom against the internal fiber, the fiber may be caught on internal guides. Rotating the connector and backing the fiber out a small amount and re-entering may help. However, if the mark will not enter the plunger, the fiber must be re-stripped.

Make sure that the fiber does not pull rearward from the contact (with the internal fiber) during the crimping operation.



*When feeding the fiber into the connector, hold the fiber of the fiber coating to ensure that the fiber feeds into the connector. If the fiber is gripped by the buffer tube, the fiber will slide rearwards into the buffer tube and will **NOT** contact the internal fiber.*

3. Squeeze the handles of the hand tool until the ratchet releases. Allow the handles to open fully. Slowly close the handles until you hear three clicks from the ratchet.

4. With the connector assembly in the cable holder, position the ferrule protective cover in the upper cavity of the front die and the plunger in the upper cavity of the rear die. It is important to make sure that the tip of the plunger sits in the channel of the rear die with the protruding disk of the plunger *flat against* the wall of the cavity. If the plunger is not positioned correctly, it will be

crushed when the tool is actuated. See Figure 15, Detail A.



The arrows marked on the front die indicate the direction that the ferrule protective cover must be pointing when the connector is positioned in that cavity. For proper placement, and to avoid damage to the fiber, the direction of the arrows must be observed. Refer to Figure 15, Details A and B.

5. Gently push the fiber toward the connector to make sure that the fiber is still bottomed, then slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the dies.

6. Position the plunger of the connector assembly in the first (smallest) cavity of the front die with the shoulder of the plunger against the edge of the groove in the die and the ferrule protective cover pointing in the direction of the arrow. See Figure 15, Detail B.

7. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

8. Slide the clear tubing with the inner eyelet against the end of the plunger. Slide the crimp eyelet over the clear tubing and against the rear of the connector. See Figure 15, Detail C.

9. Position the large diameter end of the crimp eyelet in the last (largest) cavity of the front die with the ferrule protective cover pointing in the direction of the arrow. See Figure 16, Detail A. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to fully open.

10. Position the small diameter end of the crimp eyelet in the middle cavity of the front die with ferrule protective cover pointing in the direction of the arrow. See Figure 16, Detail B.

11. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die.

12. Open the cable clamp of the cable holder, and remove the buffer (cable) from the clamp. Slide the strain relief over the plunger until it butts against the connector. See Figure 16, Detail C.

13. Remove the connector assembly from the cable holder.

The assembly procedure for 900- μ m easy strip or semi-tight buffered fiber is now complete.

► If connecting connectors, inspect the ferrule end face for cleanliness using 200 \times Microscope Kit 1754767-1 (includes 2.5-mm adapter cap).

Figure 12: Preparing the Fiber

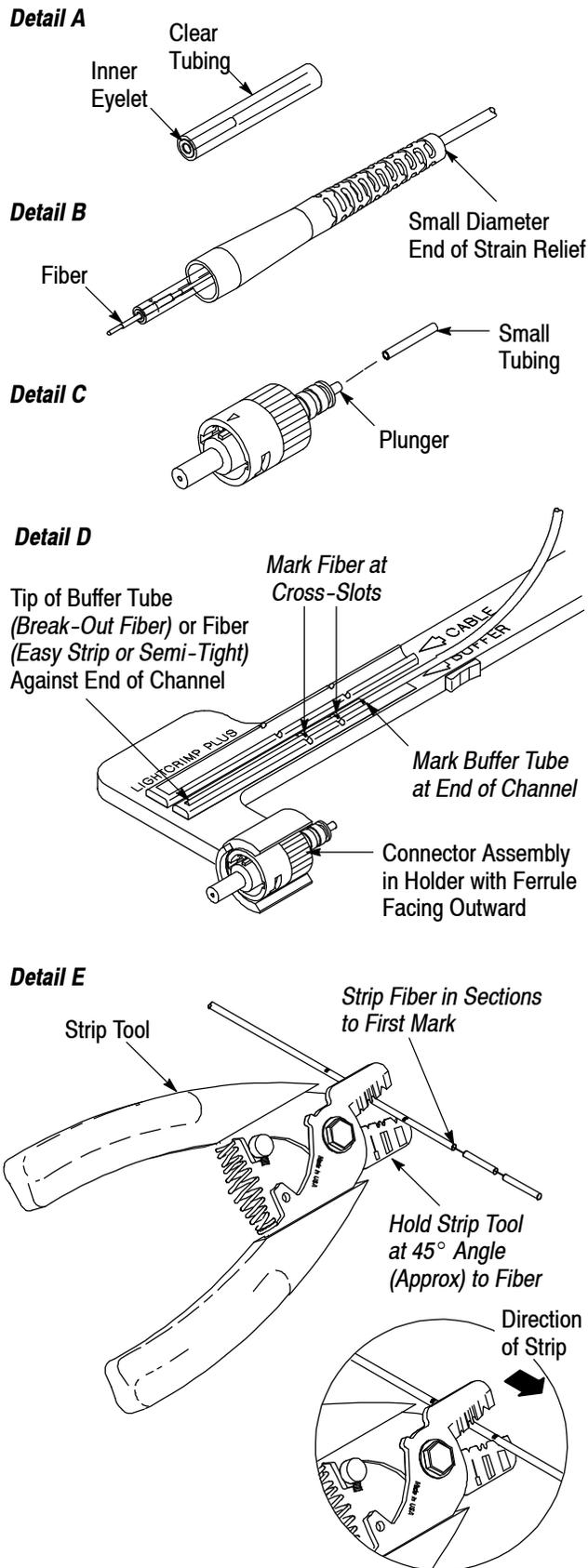


Figure 13: Cleaving

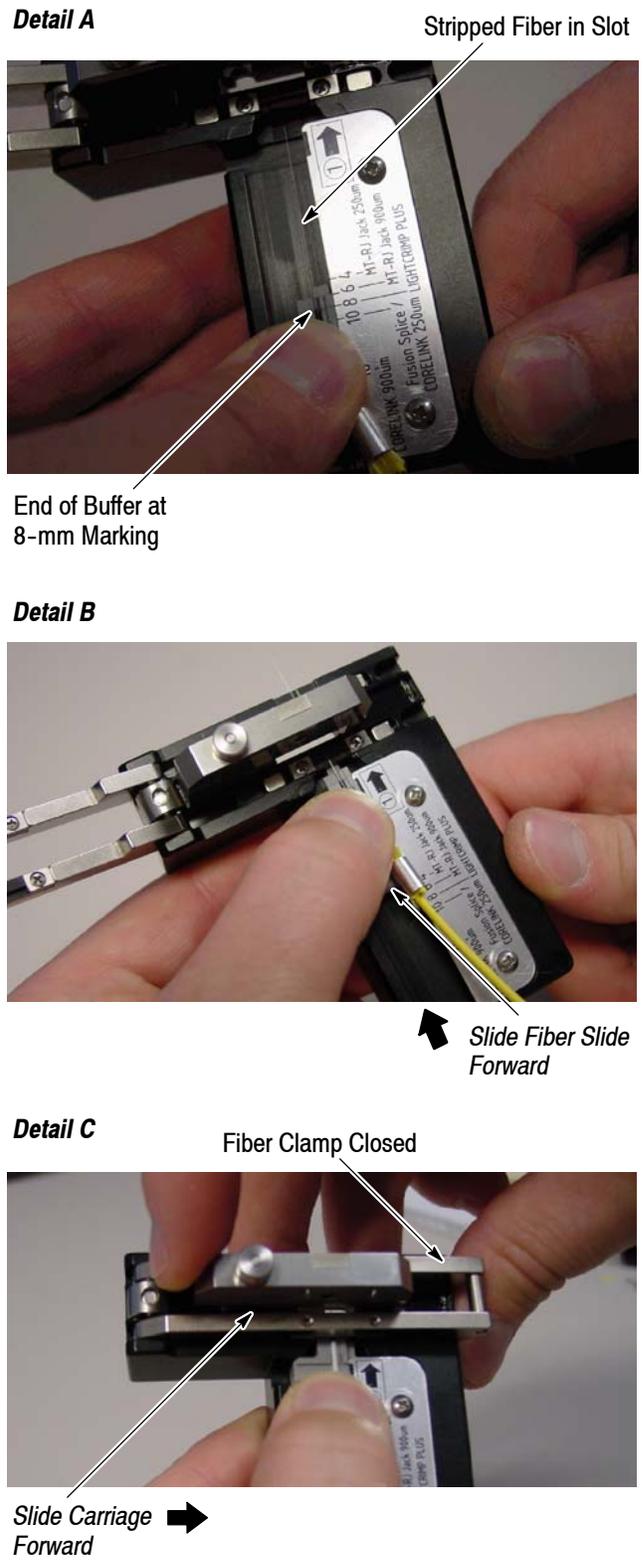


Figure 14: Crimping

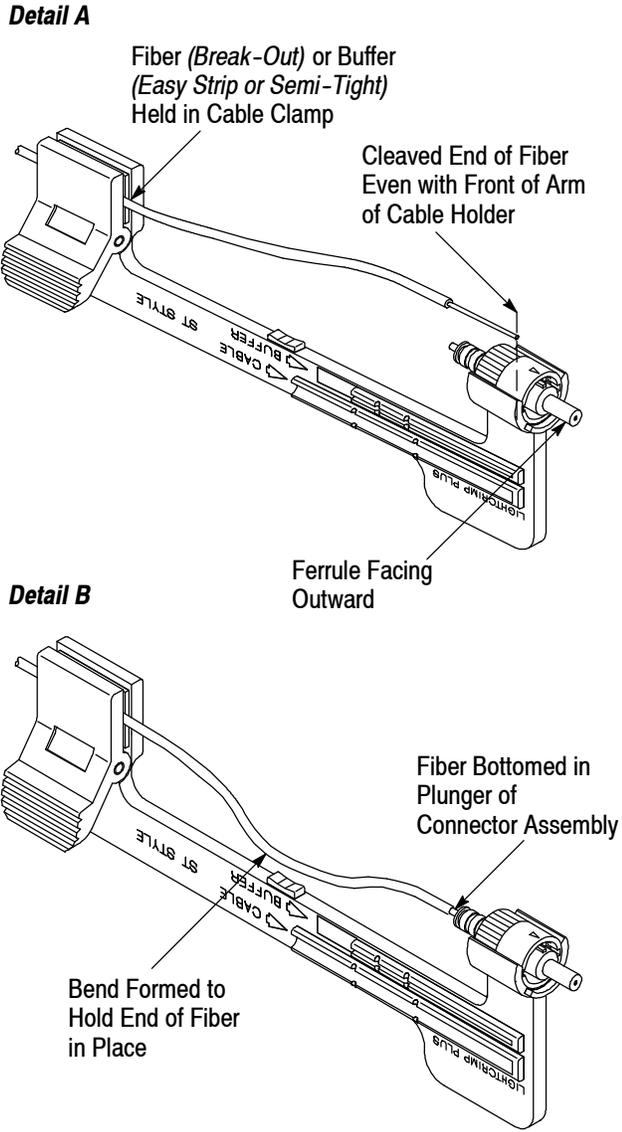


Figure 15: Crimping

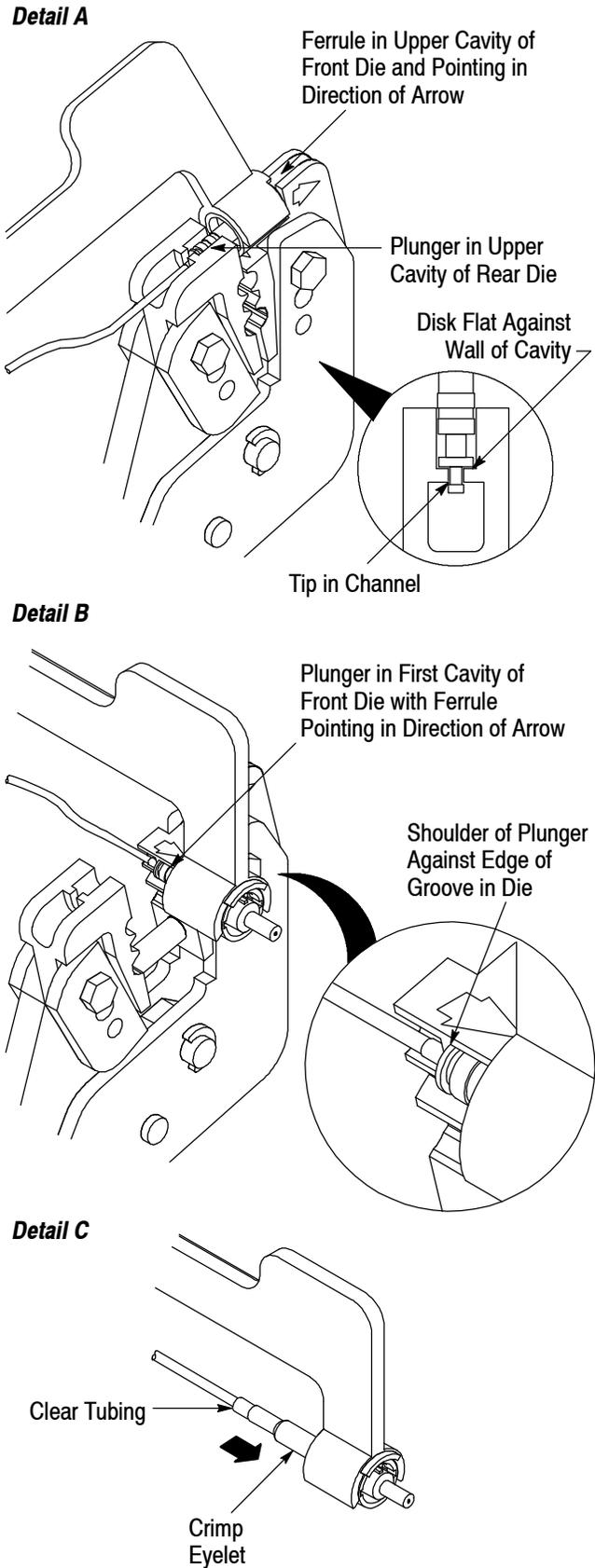
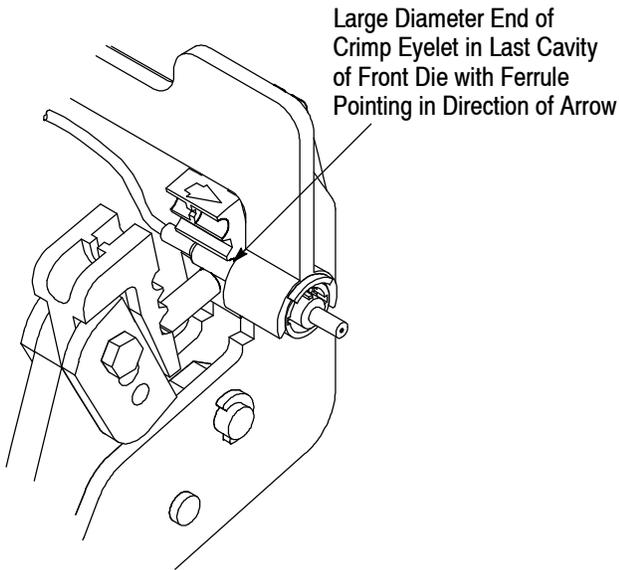
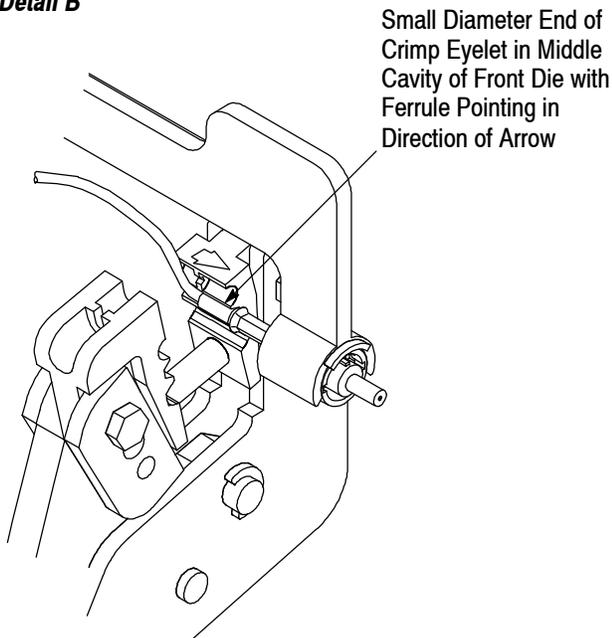


Figure 16: Crimping

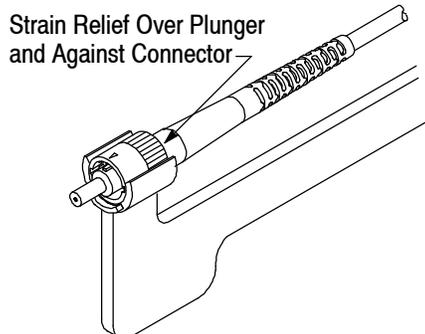
Detail A



Detail B



Detail C

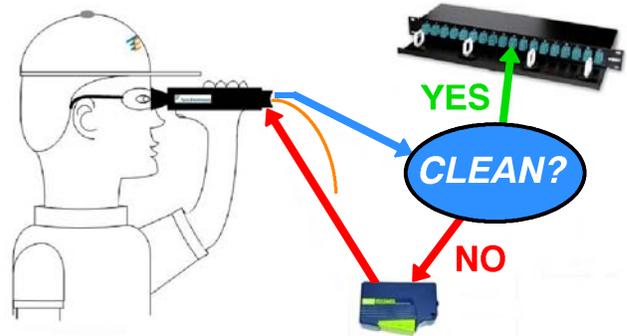


6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated document to corporate requirements.

STOP!
Don't Connect Unless You Inspect!



DANGER: Never View Active Fiber Signals